GRAHAM HANCOCK

AMERICA BEFORE

THE KEY TO EARTH'S LOST CIVILISATION

ALSO BY GRAHAM HANCOCK

Magicians of the Gods: The Forgotten Wisdom of Earth's Lost Civilization
War God: Nights of the Witch
Entangled: The Eater of Souls
Supernatural: Meeting with the Ancient Teachers of Mankind
Talisman: Sacred Cities, Secret Faith
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Fingerprints of the Gods: The Evidence of Earth's Lost Civilization
The Sign and the Seal: The Quest for the Lost Ark of the Covenant

America Before

The Key to Earth's Lost Civilization

Graham Hancock

CORONET

www.hodder.co.uk

First published in Great Britain in 2019 by Coronet
An Imprint of Hodder & Stoughton
An Hachette UK Company

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A CIP catalogue record for this title is available from the British Library

eBook ISBN 9781473660564

Hodder & Stoughton Ltd
Carmelite House
50 Victoria Embankment
London EC4Y 0DZ

www.hodder.co.uk

For Santha,
through many lives, past, present, and future, my soul mate always.
Looking forward to more amazing adventures!

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ACKNOWLEDGMENTS

I MAY, THROUGH OVERSIGHT, FAIL TO acknowledge properly here some of the many wonderful people who have helped me in the efforts that led to this book. If so, I hope I can be forgiven. The years grow long and memory short!

It is my wife, soul mate, and fellow adventurer, photographer Santha Faiia, to whom I owe the greatest debt. During the making of this book I suffered two terrifying episodes of seizures and loss of consciousness, as a result of which it is no longer responsible, or legal, for me to drive. So for all our thousands of miles of road trips through some of the most spectacular landscapes in California,

Arizona, New Mexico, Colorado, South Dakota, Wyoming, New Hampshire, Massachusetts, upstate New York, North and South Carolina, Louisiana, Mississippi, Arkansas, Alabama, Tennessee, Missouri, Illinois, and Ohio I was in the passenger seat and Santha was behind the wheel. I therefore want to thank my extraordinary wife for her grit in the face of adversity, for her inspiring presence, for her creative talent in always taking the right photograph at the right moment, and for her immense capacity for love. I would have stalled and come to a grinding halt long ago if not for you, Santha. Thank you. Thank you for EVERYTHING.

Aside from its photographic content, this book contains large numbers of designed images illustrating some of the more complex aspects of the argument. An art director was needed, and my son Luke took on this responsibility, working around the clock to prepare the graphics and illustrations that accompany the text. Gratitude and respect for an excellent job well done.

My research assistant, Holly Lasko Skinner, worked with me on gathering documentation and tracking down hard-to-find facts from the early days of this project. She brilliantly sought out, churned through, and made sense of bewildering masses of data, carefully checked all sources, and constantly alerted me to new scientific developments. Thank you, Holly.

Ross Hamilton, an inspiring teacher of the ancient mysteries, opened my eyes to the enigma of Ohio's Serpent Mound and helped me grasp the implications of its numinous connection to the summer solstice sunset.

William Romain, in my opinion the most important archaeologist presently studying the earthwork-building cultures of the Mississippi Valley, kindly took time to exchange views with me and granted me permission to reproduce a number of his excellent photographs and diagrams illustrating the archaeoastronomical implications of his research.

Gary David, whose work on the archaeoastronomy of the Southwest is of the first importance, generously shared his extensive knowledge and insights with me on a journey through Arizona and New Mexico.

I'm grateful to Randall Carlson, a true comrade in arms, and to Bradley Young and Camron Wiltshire, who all contributed to this project in different and important ways.

Special thanks to the scientists of the Comet Research Group whose groundbreaking Younger Dryas Impact Hypothesis provides the most complete explanation for the mysterious end of the last Ice Age and casts world prehistory in an entirely new light. Allen West, Al Goodyear, Chris Moore, and George Howard were particularly generous with their time.

I'm grateful to Tom Deméré, chief paleontologist at the San Diego Natural History Museum, for meeting with me and taking me behind the scenes to the archives to share the full implications of the discoveries at the Cerutti Mastodon Site. Indicative of a human

presence in North America at least 130,000 years ago, this is a find that rewrites prehistory.

Eske Willerslev of the University of Copenhagen, a world expert in the study of ancient DNA, patiently answered my questions and shared his thoughts on the anomalous Australasian genetic signal found among certain isolated peoples of the Amazon rainforest.

Meanwhile archaeological research of immense importance is under way across the Amazon, revealing the existence of stone circles and of hundreds of immense geometrical earthworks. In this context I'd like to thank Mariana Petry Cabral of the Universidade Federal de Minas Gerais, Sanna Saunaluoma, and Martti Pärssinen of the University of Helsinki, and Christopher Sean Davis of the University of Illinois, for the positive spirit with which they greeted my request to reproduce photographs and maps illustrating their findings.

For their thoroughly professional and friendly support with every aspect of our research visit to Denisova Cave in Siberia, huge

thanks to Sergey Kurgin, who organized the trip and did all the driving, and to Olga Votrina, our excellent interpreter. Thanks and appreciation also to the Siberian Branch of the Institute of Archaeology and Ethnography, Russian Academy of Sciences for their kind cooperation and for their permission to reproduce photographs of artifacts from Denisova Cave.

My editors, Peter Wolverton of St. Martin's Press in the United States and Mark Booth of Coronet in the United Kingdom, and my literary agent, Sonia Land, of Sheil Land Associates, have been superb allies and friends, giving me the benefit of their excellent advice and top-class professional expertise at every turn.

Any merits in *America Before* owe much to those named here, and to the many scientists and vocational researchers around the world whose discoveries are reviewed in the pages that follow. I have been diligent in my attempts to represent their work correctly, but if there are any errors or misinterpretations, then the responsibility is entirely my own.

Last but by no means least, I am blessed to be surrounded by a beautiful rainbow family without frontiers. Santha and Luke are mentioned here already, and now is the moment to put on record my love and appreciation for our other five grown-up children—Sean, Shanti, Leila, Ravi, and Gabrielle. I'm British, born in Scotland to an English father and a Scottish mother. I spent 4 years of my childhood in the Indian state of Tamil Nadu. Santha is of Tamil origin but was born and brought up in Malaysia. Sean and Leila are both half Somali and half British by birth. Shanti and Ravi are both half Tamil Malaysian and half Italian American by birth. Luke and Gabrielle are both British by birth. Leila's husband, Jason, is Greek; Ravi's wife, Lydia, is American; Luke's wife, Ayako, is Japanese; and they have gifted us with three magical grandchildren, Nyla, Leo, and Henry, who brighten our lives with their innocence, infant wisdom, and laughter.

INTRODUCTION

I HAVE IN MY SHELVES A renowned and much respected book titled *History Begins at Sumer*.[1] The reference, of course, is to the famous high civilization of the Sumerians that began to take shape in Mesopotamia—roughly modern Iraq between the Tigris and Euphrates rivers—around 6,000 years ago. Several centuries later, ancient Egypt, the very epitome of an elegant and sophisticated civilization of antiquity, became a unified state. Before bursting into full bloom, however, both Egypt and Sumer had long and mysterious prehistoric backgrounds in which many of the formative ideas of their historic periods were already present.

After the Sumerians and Egyptians followed an unbroken succession of Akkadians, Babylonians, Persians, Greeks, and Romans, and there were, moreover, the incredible achievements of ancient India and ancient China. It therefore became second nature for us to think of civilization as an "Old World" invention and not to associate it with the "New World" at all.

Besides, it was standard teaching in the nineteenth and twentieth centuries that the Americas—North, Central, and South—were among the last great landmasses on earth to be inhabited by humans, that these humans were nomadic hunter-gatherers, that most of them subsequently remained hunter-gatherers, and that nothing much of great cultural significance began to happen there until relatively recently.

This teaching is deeply in error and as we near the end of the second decade of the twenty-first century, scholars are unanimous not only that it must be thrown out but also that an entirely new paradigm of the prehistory of the Americas is called for. Such

momentous shifts in science don't occur without good reason and the reason in this case, very simply, is that a mass of compelling new evidence has come to light that completely contradicts and refutes the previous paradigm.

Everyone has and does their own "thing," and my own thing, over more than quarter of a century of travels and research, has been a quest for a lost civilization of remote prehistory—an advanced civilization utterly destroyed at the end of the Ice Age and somewhat akin to fabled Atlantis.

Plato, in the oldest-surviving written source of the Atlantis tradition, describes it as an island "larger than Libya and Asia put together"[2] situated far to the west of Europe across the Atlantic Ocean.[3] Hitherto I'd resisted that obvious clue which I knew had already been pursued with unconvincing results by a number of researchers during the past century.[4] As the solid evidence that archaeologists had gotten America's Ice Age prehistory badly

wrong began to accumulate in folders on my desktop, however, and with new research reports continuing to pour in, I couldn't help but reflect on the significance of the location favored by Plato. I had considered other possibilities, as readers of my previous books know, but I had to admit that an immense island lying far to the west of Europe across the Atlantic Ocean does sound a lot like America.

I therefore decided to reopen this cold case. I would begin by gathering together the most important strands of the new evidence from the Americas. I would set these strands in order. And then I would investigate them thoroughly to see if there might be a big picture hidden among the details scattered across thousands of scientific papers in fields varying from archaeology to genetics, astronomy to climatology, agronomy to ethnology, and geology to paleontology.

It was already clear that the prehistory of the Americas was going to have to be rewritten; even the mainstream scientists were in

general agreement on that. But could there be more?

This book tells the story of what I found.

PART I

MANITOU

The Mystery of Serpent Mound

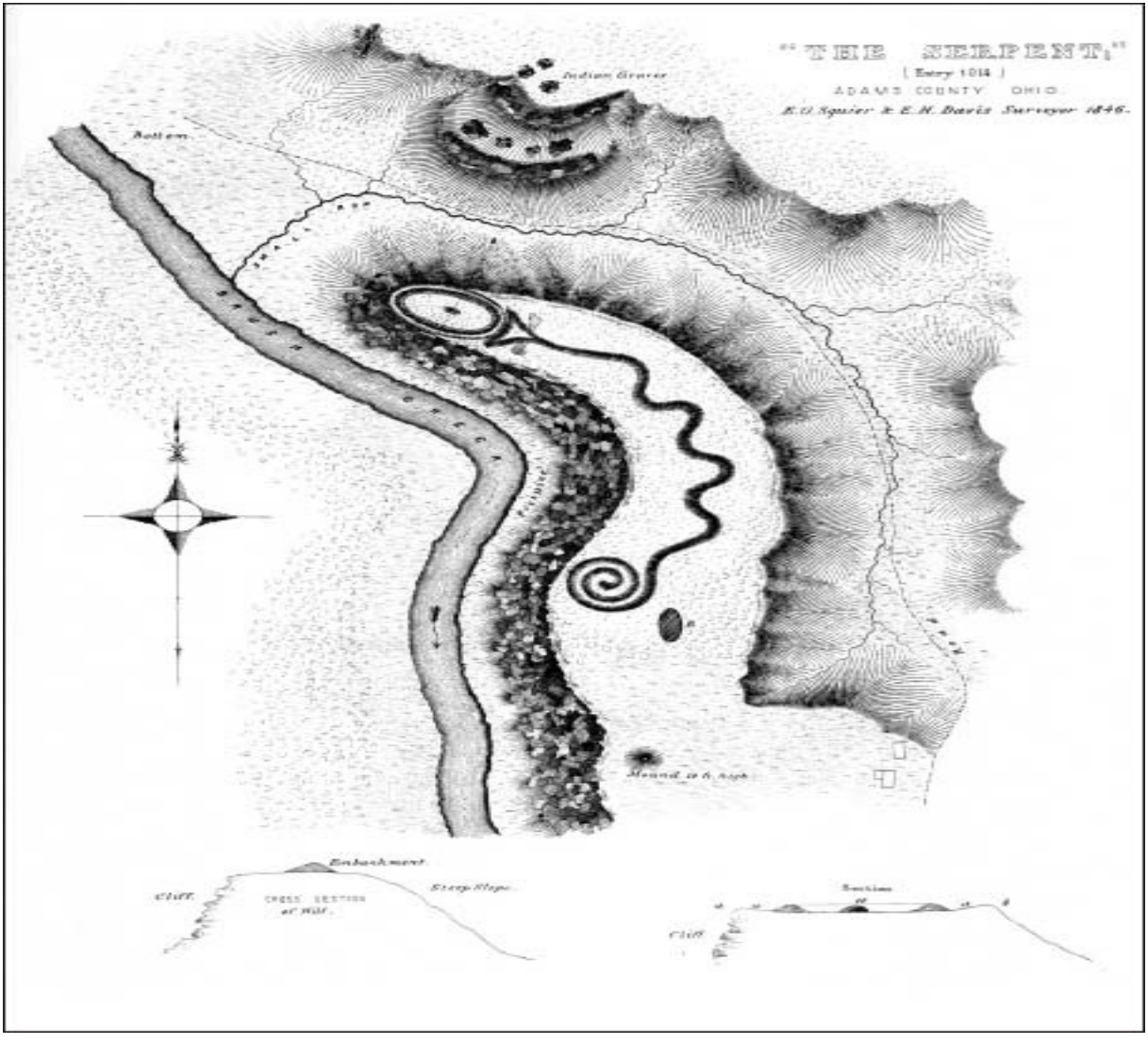
"THE SERPENT."
(Entry 1014)
ADAMS COUNTY OHIO.
E.G. Squier & E.H. Davis Surveyor 1846.
Indian Graves
Bottom
Mound 20 ft. high
Embankment
Cliff
CROSS SECTION
Steep Slope
Section
Cliff

The first survey map of Serpent Mound, made by Ephraim Squier and Edwin H. Davis in 1846 and published by the Smithsonian Institution in 1848, described the mound as “the most extraordinary earthwork thus far discovered in the West.”

1

AN ENCHANTED REALM

ARCHAEOLOGY TEACHES US THAT THE vast, inviting, resource-rich continents of North and South America were among the very last places on earth to have been inhabited by human beings. Only a handful of remote islands were settled later.

This is the orthodoxy, but it is crumbling under an onslaught of compelling new evidence revealed by new technologies, notably the

effective sequencing of ancient DNA. The result is that many of the most fundamental “facts” of American archaeology, many of the “ground truths” upon which the theories and the careers of its great men and women were built in the nineteenth and twentieth centuries, now stand exposed as fallacies.

Far from being very recent, it is beginning to look as though the human presence in the Americas may be very old—perhaps more than 100,000 years older than has hitherto been believed.

This greatly extended time frame, taking us back deep into the Ice Age, has profound implications for how we view, interpret, and date all the monuments of the Americas built before the time of Columbus. The possibility that they might have an unrecognized prehistoric backstory can no longer be discounted. Moreover, the New World was physically, genetically, and culturally separated from the Old around 12,000 years ago when rising sea levels submerged the land bridge that formerly connected Siberia to

Alaska.[1] This separation remained total until just 500 years ago when genetic and cultural exchanges restarted during the European conquest. It follows, therefore, that any deep connections between the Americas and the Old World that are not the result of recent European influence and that cannot be attributed to coincidence must be more than 12,000 years old.

It was with all this in mind, on June 17, 2017, that I made my first visit to Serpent Mound, a national historic landmark in southern Ohio described as "the finest surviving example of a prehistoric animal effigy mound in North America, and perhaps the world."[2]

It's in Adams County, about 75 miles east of Cincinnati and 7 miles north of the town of Peebles by way of SR-41N and OH-73W. With its rolling hills and green meadows, this is a predominantly rural, substantially forested part of the state, running northward from the Ohio River. On that vibrant summer day every tree was in

full, luxuriant leaf, every flower was in bloom, the fields glowed, and the winding lanes seemed part of a bucolic dream.

In some remote epoch, however, this entire idyllic area suffered a devastating cataclysm, the most striking remnant of which has all the features of a classic impact crater 14 kilometers in diameter with a pronounced central uplift, sunken inner ring-graben, transition zone, and outer rim.[3] Millions of years of erosion have softened its contours but Google Earth or an overflight reveal its obvious crater-like appearance. Most geologists agree that it is the result of some kind of explosive event but the nature of the explosion for a long while remained unsettled and there were heated arguments between those who favored volcanism and those who favored an impact by an asteroid or comet.[4] Because Serpent Mound is the best-known feature within it, and because of the uncertainty caused by the dispute, the crater was therefore officially known for many years as the "Serpent Mound Cryptoexplosion Structure."[5] Only since the

late 1990s has mounting evidence led to today's widespread consensus that it was, as many had long suspected, formed by a hypervelocity cosmic impact.[6]

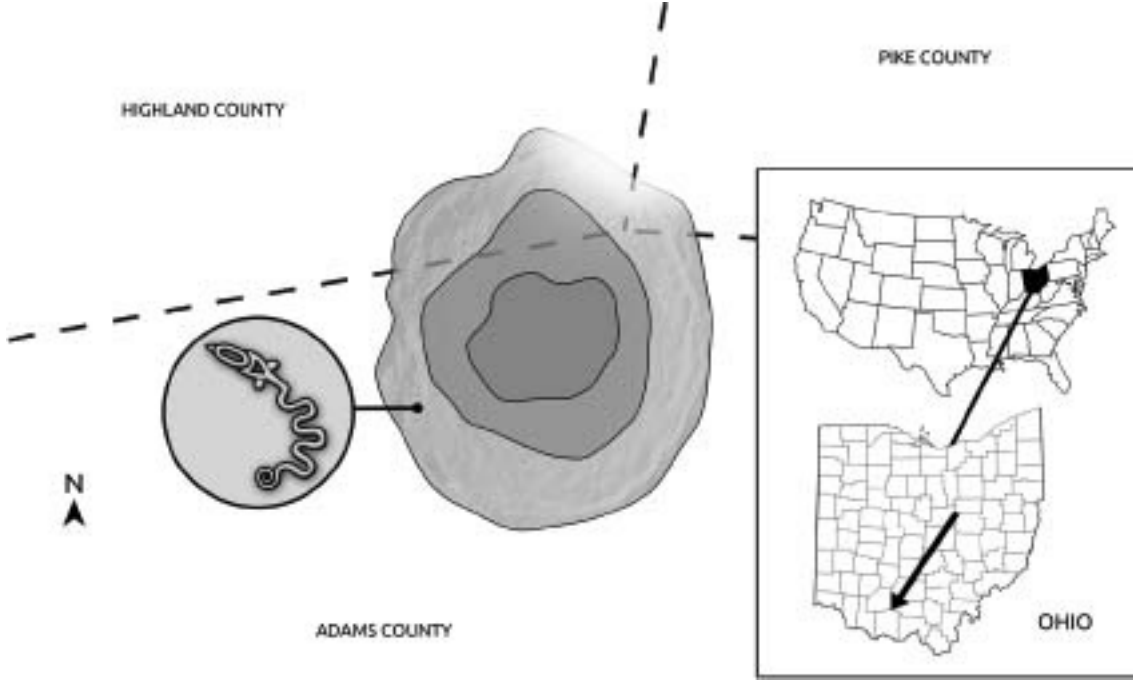

Variously referred to as the "Serpent Mound Crypto-Explosive Structure" and as the "Serpent Mound Disturbance," most scientists now agree that the bizarre geological

feature within which the mound was built is an ancient impact crater with a diameter of around 14 kilometers.

As to timing, the impact was "later than Early Mississippian, because rocks of this age [about 345 million years old] were involved in the disturbance, and earlier than the Illinoian glaciation (125,000 years ago), because these sediments are undisturbed in the northern part of the structure."[7]

That's a pretty wide window! Nonetheless, most of the experts seem confident that the crater's age must be in the hundreds of millions, not just hundreds of thousands, of years.[8] And while it's thought unlikely that the Native Americans who built Serpent Mound could have known anything about cosmic impacts, many scholars speculate that as keen observers of nature they would certainly have noticed the curious, jumbled, cataclysmic, ringlike structure of the area and been impressed by it.[9]

“They had to know there was a significance to that spot,” says Ohio geologist Mark Baranoski. “They placed a deep reverence in old Mother Earth. It’s almost mystical that they built a spiritual site.”[10] Similarly, geoscientist Raymond Anderson of the University of Iowa describes Serpent Mound crater as “one of the most mysterious places in North America. The Native Americans found something mystical there. And they were right.”[11]

Dating back to the time of the impact, an intense magnetic anomaly[12] centered on the site causes compasses to give wildly inaccurate readings. There are also gravity anomalies caused by the impact and there are multiple underground caverns, streams, and sinkholes that, in the view of Ohio archaeologist William Romain, would have been seen by the ancients as entrances to the underworld: “Among many peoples, unusual or transitional areas such as this are often considered sacred. Indeed such places are often considered supernatural gateways, or portals, between the

celestial Upperworld and the Underworld. … One can only conclude that the Serpent Mound builders were aware of at least some of the more unusual characteristics of the area and that they located the effigy in this anomalous area for a very specific reason."[13]

As we drove the last few miles along OH-73W, I could reflect that we were entering the lair of the Serpent—a sacred domain where the forces of earth and sky had once collided with sufficient energy, according to the calculations of state geologist Michael Hansen, "To disturb more than 7 cubic miles of rock and uplift the central portion of the circular feature at least 1,000 feet above its normal position."[14]

One might expect the great effigy mound to be located on the high point of that central uplift, but instead it uncoils and undulates along a sinuous ridge in the southwestern quadrant of the crater near

the edge of the ring-graben. At the northern end of the ridge, where it takes a turn to the northwest, lies the serpent's head.

I'd seen it all in plan and maps many times before, but now, for the first time, I was about to see the real thing. I was traveling with my wife, photographer Santha Faiia, and with local geometrician and archaeoastronomer Ross Hamilton, who has devoted much of his life to the study of Serpent Mound and whose book on the monument is a thought-provoking reference on the subject.[15]

Not only here but elsewhere in the world I have noticed that very special ancient places such as Serpent Mound seem able to invoke mechanisms to protect themselves from human folly. Among these mechanisms, from time to time, a passionate and devoted individual will be prompted by a particular site to go forth as its advocate—Maria Reiche at the Nazca Lines, for example, or Klaus Schmidt at Göbekli Tepe—and ensure not only its preservation but also the dissemination of key knowledge about it.

For the past decades, with absolute commitment, lean and gray-bearded and ascetic as a Buddhist monk, Ross Hamilton has been that individual for Serpent Mound.

GROUND AND SKY

WE TURN OFF 73W JUST before Brush Creek and enter a manicured park, maintained by the Ohio History Connection. Leaving our vehicle, we follow the footpath through scattered stands of trees, pass the visitor center, and come after a few moments to a grass-covered embankment about three feet high.

"The tail of the Serpent," Ross says.

I frown. It's a bit of an anticlimax! I don't immediately see the mystic spiral I've been expecting from the plans I've studied. But

modern steps surmount the outer curve and from this vantage point the inner coils of the earthwork become visible.[16]

The effect remains underwhelming, largely because the present management of the site has allowed a thick clump of trees to block the view that would otherwise open up to the north across the full length of the Serpent's body from its tail to its head.

To see the immense effigy as a whole, therefore, rather than in isolated parts, we need to observe it from the sky. Fortunately, Santha has come prepared for this with a recently acquired MavicPro drone equipped with a high-resolution camera. She fires up the little quadcopter right away and suddenly we're looking down through the monitor from an altitude of 400 feet with the Serpent beneath us, unfolding outward from that coiled tail.

The site is almost deserted but there are a few people in the shot and they give me a sense of its scale. I know it already from my background research, but to see it with my own eyes is quite another

matter. This undulating Serpent, with its gaping jaws, is 1,348 feet long.[17] The earthwork mound that forms its body averages around 4 feet in height and tapers from a width of about 24 feet to about 22 feet through its seven principal meanders before narrowing farther into the spiral of the tail.[18] People beside it appear as midgets or elves in the shadow of a dragon and for the first time, with a shiver down my spine, I become aware—not in my intellect, but in my heart, in my spirit—that a mighty and uncanny power slumbers here.

From an altitude of 400 feet, the full form of the great Manitou of Serpent Mound becomes visible. PHOTO: SANTHA FAIIA.

Ross seems to read my mind. "Some call it a Manitou," he says. "But I'd go further. I'd say our Serpent is *Gitché Manitou*—the Great Spirit and ancestral guardian of the ancient people."

For those reared in the materialist-reductionist mind-set of Western science, the Native American notion of Manitou seems slippery and elusive. Though it may be materialized it cannot be reduced to matter. Nor can it be weighed, measured, or counted. It is an unquantifiable, formless but *sentient* force, "supernatural, omnipresent and omniscient,"[19] in one sense a spiritual entity in its own right, in another the mysterious, unseen power that animates all life and that can manifest both in natural phenomena and in man-made objects and structures that have been created with correct intent. "The profoundness of a spiritual presence of Manitou, and through it recognition of the supernatural," comments one authority,

“was and is a tangible entity seen and felt by hundreds of generations of the Indian people of North America. … In essence, Native people perceived a spiritual landscape imprinted on the physical landscape as both one and the same. This ‘duality’ of the natural world still inspires the Native population to revere as sacred certain places and rocks deemed to possess ‘Manitou.’”[20]

THE SERPENT AND THE EGG

WE BRING THE DRONE DOWN to earth for a battery change then send it back into the sky.

From an altitude of 400 feet it’s notable how the sinuous natural ridge on which Serpent Mound was built has distinct “head” and “tail” ends and how the head of the Serpent is placed at the “head”

end of the ridge, while the undulating body, all the way back to the tail, follows the contours of the ridge exactly.

Encouraged by the modern management of the site,[21] however, the luxuriant tree cover that prohibits observation along the main north–south axis also crowds the east and west sides of the body, seeming to hem in the great Manitou. A tangled mass of greenery chokes the steep western slope of the bluff down to Brush Creek, and I note how the tree growth is particularly tall and dense to the northwest, around the Serpent's head, as though intentionally allowed to flourish there to blind it.

I ask Santha to point the camera at the head—which is not a work of artistic realism but is instead a triangular geometric construct extending forward from the Serpent's neck and formed of the two gaping "jaws" with a curved earthwork running between them.

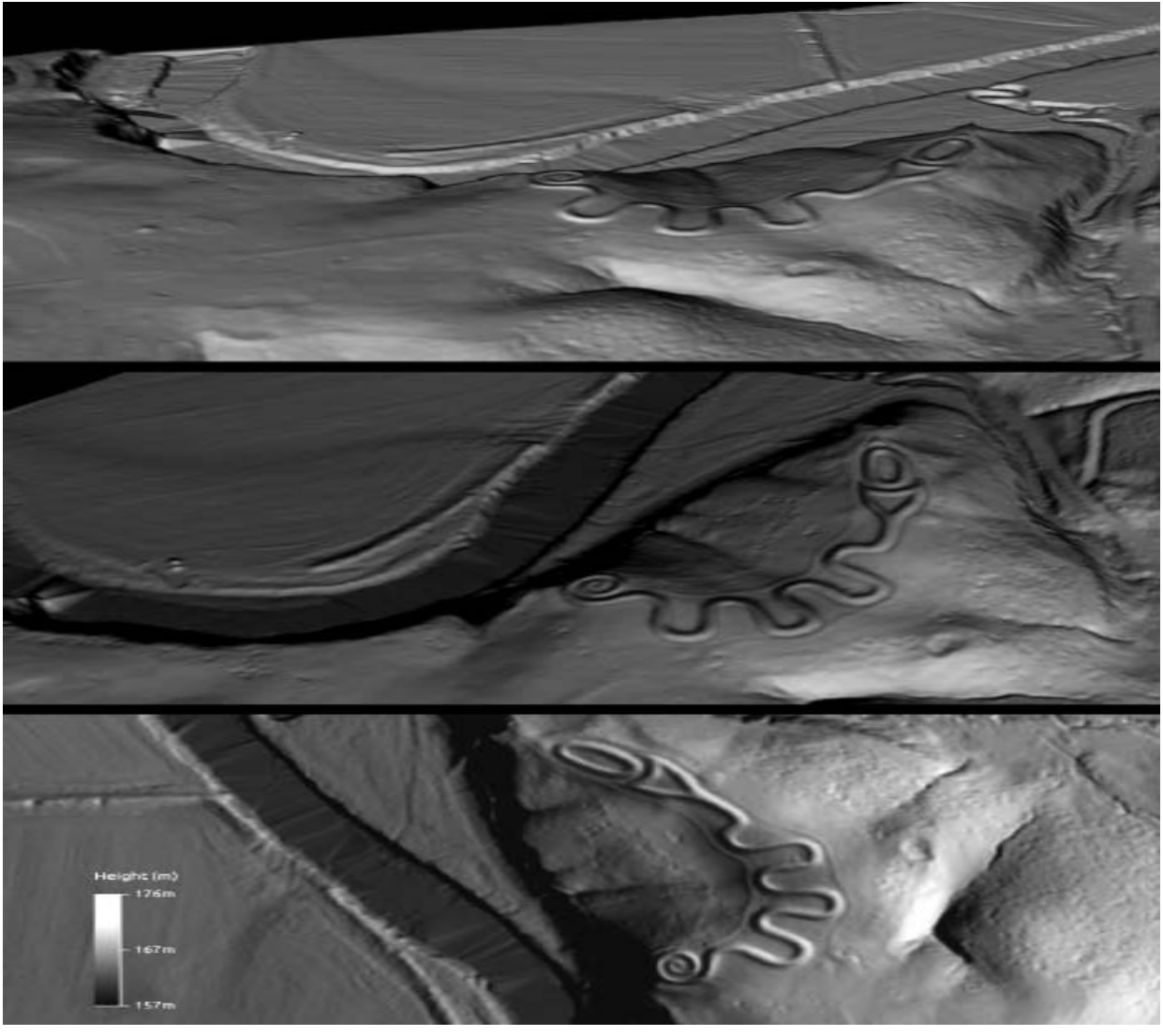
Height (m)
176m
167m
157m

By stripping out all trees, vegetation, and other surface features, Lidar offers views of the Serpent Mound Manitou and the sinuous natural ridge on which it stands that cannot otherwise be seen today. LIDAR GRAPHICS BY JEFFREY WILSON.

Partly within those gaping jaws sits a substantial and clearly defined ellipse. It's a feature that Ephraim Squier and Edwin Davis, the earliest scientific surveyors of the mound, were intrigued by. Writing in 1848, in the very first official publication released by the then newly established Smithsonian Institution, they observed that this curious structure was

> formed by an embankment of earth, without any perceptible opening, four feet in height, and … perfectly regular in outline, its transverse and conjugate diameters being one hundred and sixty and eighty feet respectively. The ground within the oval is slightly elevated: a small circular elevation of large stones, much burned, once existed at its centre; but they have been thrown down and scattered by some ignorant visitor, under the prevailing impression probably that gold was hidden beneath them. The point of the hill within which this egg-shaped figure rests, seems to have been artificially cut to conform to its outline, leaving a smooth platform.[22]

Squier and Davis go on to remind us that "the serpent, separate or in combination with the circle, egg, or globe, has been a predominant symbol among many primitive nations."[23] They draw our attention in particular to the southwest of England, where Stonehenge stands, and to the nearby great henge, stone circles, and serpentine causeways of Avebury, but nonetheless decline the twin challenges of tracing "the analogies which the Ohio structure exhibits to the serpent temples of England" and of pointing out "the extent to which the symbol was applied in America."[24] Almost wistfully, however, they describe such an investigation as "fraught with the greatest interest both in respect of the light which it reflects upon the primitive superstitions of remotely separated people, and especially upon the origin of the American race."[25]

Scholars in the nineteenth century, and indeed well into the early twentieth century, routinely applied words like "primitive" and "savage" to the works of our ancestors. At Serpent Mound,

however, as Ross Hamilton points out, these so-called superstitious primitives were demonstrably the masters of some very exacting scientific techniques. He gives me a penetrating look. “Just consider the precision with which they found true north and balanced the whole effigy around that north–south line. It was a long while before modern surveyors could match it. In fact everyone got it wrong until 1987, when William Romain carried out the first proper survey of the mound and gave us a map with correct cardinal directions.”

Connecting the hinge of the effigy’s jaws to the tip of the inner spiral of its tail, Serpent Mound’s meridian axis combines aesthetic refinement with astronomical and geodetic precision of a high order. Moreover, although they themselves took the matter no further, Squier and Davis were right to draw comparisons with Stonehenge and Avebury, for these great English earthworks, as we shall see in the next chapter, both bear the imprint of the same “artistic science.”

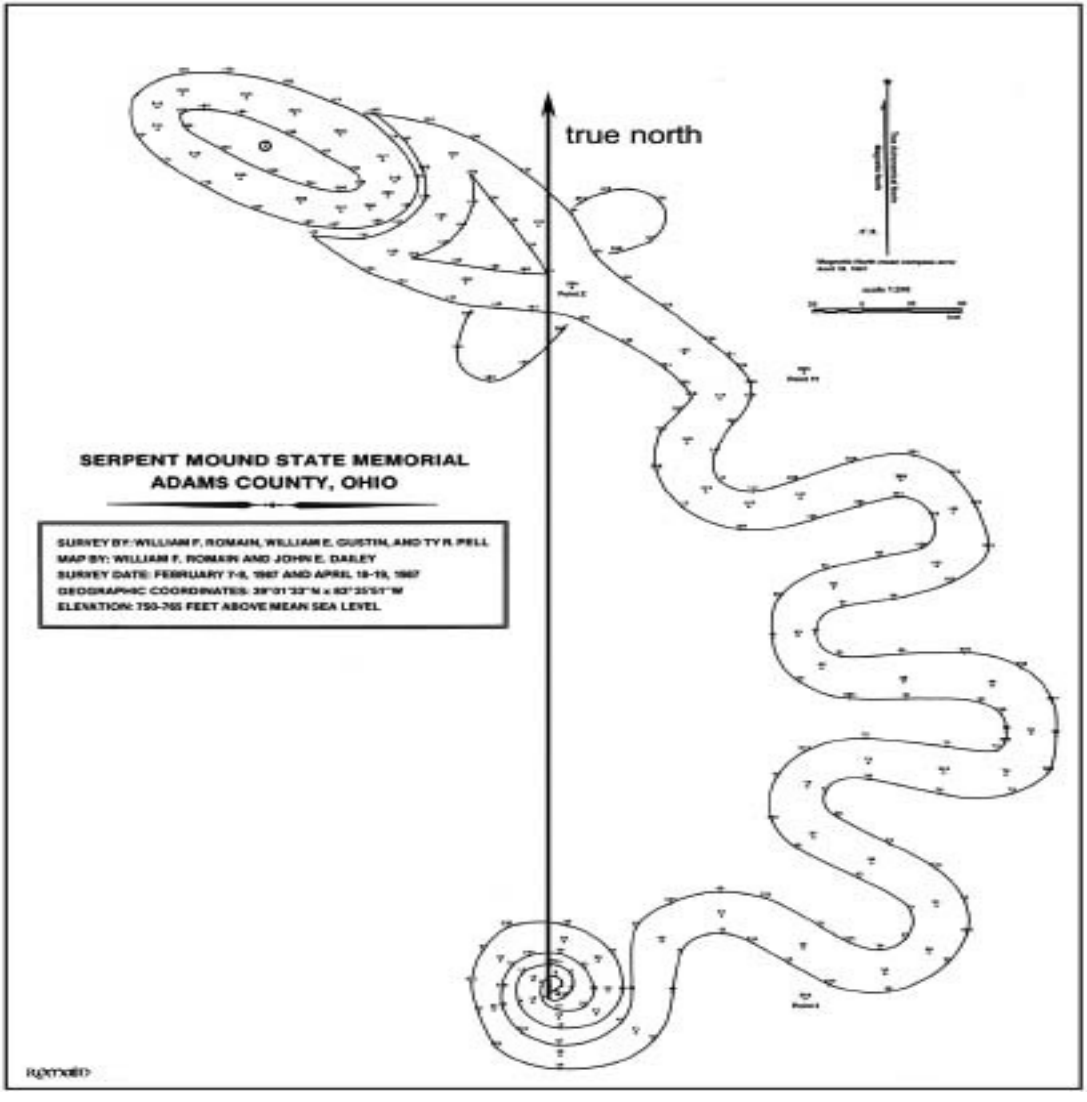
true north
SERPENT MOUND STATE MEMORIAL
ADAMS COUNTY, OHIO
SURVEY BY: WILLIAM F. ROMAIN, WILLIAM E. GUSTIN, AND TY R. PELL
MAP BY: WILLIAM F. ROMAIN AND JOHN E. DAILEY
SURVEY DATE: FEBRUARY 7-9, 1987 AND APRIL 18-19, 1987
GEOGRAPHIC COORDINATES: 39°01'33"N x 83°25'51"W
ELEVATION: 750-765 FEET ABOVE MEAN SEA LEVEL

William Romain's 1987 map revealed the precision of Serpent Mound's north–south axis.

2

A JOURNEY IN TIME

JOIN ME IN A TIME machine. I've set it to take us back to the peak of the last Ice Age 21,000 years ago and to bring us, on a midsummer's day, to the amazing, mysterious, and atmospheric location where the Great Serpent Mound National Historic Landmark can now be found.

Of course there was no “National Historic Landmark,” no such entity as the United States of America, and no Adams County in the very different world of 21,000 years ago. At that time, from roughly the Ohio and the Missouri Rivers northward, a wide horizontal strip of the United States, and all of Canada as far as the Arctic Ocean, lay beneath a giant shroud of ice.

At no point, however, even at the last glacial maximum 21,000 years ago, did the ice ever advance quite far enough to the south to bury the sinuous natural ridge on which Serpent Mound stands today.

We’ll get to the question of *when* the great effigy itself was first heaped up in the form of a serpent. But for now let’s step out of our time machine onto that serpentine ridge and breathe the crisp fresh air under the blue midsummer skies of an unpolluted world.

We might see some of the great beasts of the North American Ice Age—the famed “megafauna,” such as mammoths, mastodons, giant sloths, short-faced bears, and saber-toothed tigers. They

thrived at the last glacial maximum and would continue to do so for several more millennia until they were all swept from the earth between roughly 12,800 and 11,600 years ago in what is known as the "Late Pleistocene Extinction Event."[1] The creatures I've named were by no means its only casualties. All together thirty-five genera of North American megafauna (with each genus consisting of several species) were wiped out during this enigmatic cataclysm that brought the Ice Age to an end.[2] But all that was still far in the future 21,000 years ago, and we're not at Serpent Mound for the megafauna. Instead I want you to shade your eyes and look to the horizon, approximately a dozen miles to your north. There, armored in brilliant, scintillating, dazzling reflections, a spectacle awaits you the like of which exists nowhere in the world today outside of Antarctica. That sight, a sheer, looming, continuous cliff of ice rising more than a mile high and extending across almost the entire width of North America from the east coast to the west coast, marks

the southernmost extent of the ice cap in these parts. Elsewhere it stretched out its lobes and tongues a few tens of miles farther south, but here, just short of the outer rim of Serpent Mound crater, the advance was decisively stopped.

If humans had been present in Adams County 21,000 years ago to witness the phenomenon, what would they have made of it? Would they have thought this sudden halt of the march of the ice cliffs was random? Just one of those things that happen?

Or might it have seemed that some great Manitou protected this land?

Let's get back in our time machine.

I'm going to set it to stay in the same location but to jump 8,000 years forward to a midsummer's day 13,000 years ago, just a couple of hundred years before the onset of the Late Pleistocene Extinction Event.

The first thing you'll notice as we step out onto the ridge is that the world is warmer—indeed it has been warming steadily since

about 18,000 years ago and particularly dramatically since 14,500 years ago. In consequence, although it is still a giant force of nature, the ice cap has receded about 600 miles to the latitude of Lake Superior, and those looming ice cliffs that formed a massive artificial horizon just 12 miles north of Serpent Mound are completely gone. Minus the roads and telecommunications cables, therefore, the view that confronts us at midsummer 13,000 years ago is pretty much the same as the view at midsummer today where the natural horizon encircling the effigy is formed by broken and eroded ranges of low hills—themselves the remnants of the ancient hypervelocity cosmic impact that created this unique landscape.

So, a timeline for time travelers:

- 300 million years ago, or thereabouts, a giant cataclysm forms the Serpent Mound crater.
- 21,000 years ago, the North American ice cap reaches the

southernmost point of its advance, stopping just a few miles north of the eroded crater rim.

- By 13,000 years ago the ice cliffs are gone and Serpent Mound's natural horizon has been restored.

On June 17, 2017, I made my first research visit to Serpent Mound, reported in chapter 1, and on June 20, midsummer's eve, Santha, Ross Hamilton, and I returned to the site to fly the drone again and to observe sunset over the effigy from the viewpoint of the gods.

A MATTER OF PERSPECTIVE

MIDSUMMER—THE SUMMER SOLSTICE—IS the longest day of the year (presently June 20/21 in the Northern Hemisphere), when the sun rises at the farthest point north of east and sets at the farthest point north of west on its annual journey. It is also a particularly significant day at Serpent Mound—for it is on the summer solstice that the open jaws of the Serpent most directly confront the setting point of the sun, as though about to engulf it.

This is because the northern end of the ridge, which Squier and Davis believed had been terraformed ("artificially cut" as we saw in the last chapter), terminates in a pronounced turn to the west that defines the orientation of the Serpent's head. It seems implausible, whoever they may have been and whenever they first conceived of the mound (open questions, as we shall see), that the ancient builders were unaware that this natural westward curve aligned the leading edge of the ridge with the point of sunset on the summer solstice.

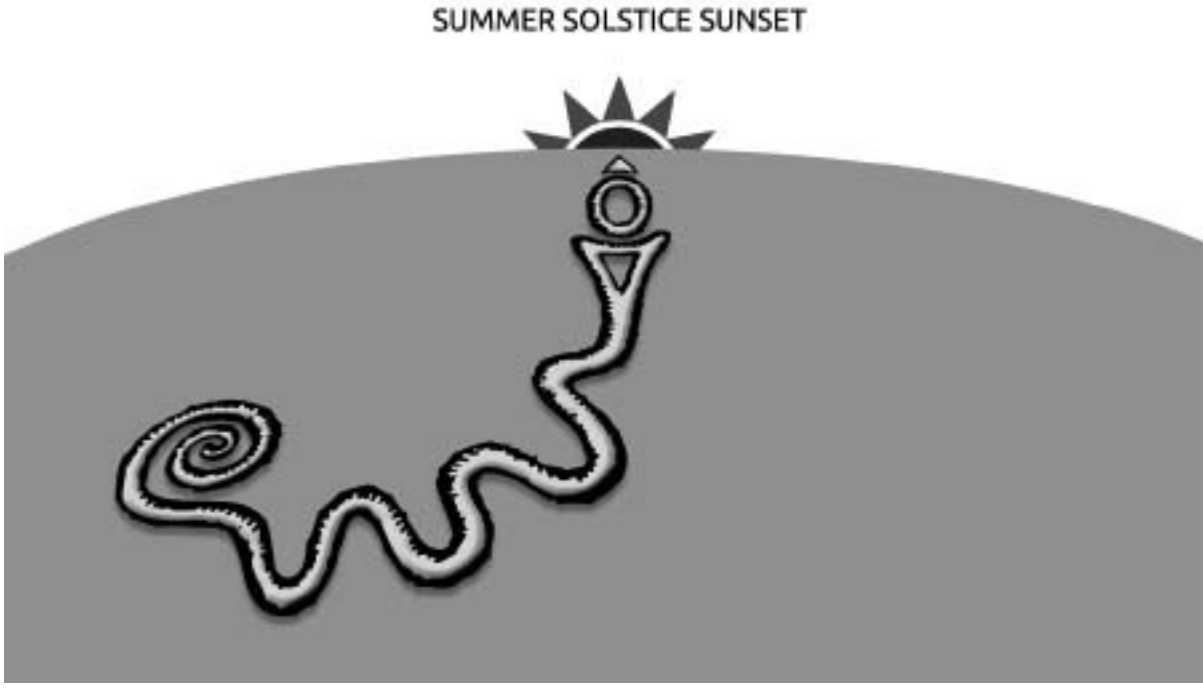

Serpent Mound alignment to the summer solstice sunset.

I believe they were acutely aware of it.

Indeed, the presence of the Serpent here, and the orientation of its head, bear all the hallmarks of great minds at work, manifesting a

carefully thought-out design not meant to stand alone but rather to enhance and elucidate the solstice alignment—the sacred communion of earth and sky—that nature had already put in place.

From the perspective of twenty-first-century science, the fact that the end of a natural ridge is oriented toward the summer solstice sunset is a matter of chance. It would be foolish to invest it with any significance—let alone with so much significance that it could motivate a huge construction project and bring it to triumphant completion.

We should keep in mind, however, that matters seemed very different to the ancients, who perceived the earth and sky as living spirits in communion with one another.

In our century, when technology is king and the majority of the human race live and die in cities, we cut down rainforests, pollute and defile the earth, and shun and scrape the sky. Serried blades of immense buildings dice our view of the horizon into jagged, glittering, meaningless origami, while light pollution is so intense

that we cannot see the stars. Ironically, however, any number of astronomy programs will bring those stars flickering into virtual reality on our computer screens. Ironically, too, ours is a culture that has advanced the scientific study of the cosmos to an exceptionally high degree.

It seems we want to see everything, but only at a distance, through a technological filter.

Little wonder, therefore, that, for so many of us, the sky has entirely lost the numinous aura that once clung about it, and has been reduced to a vague, out-of-focus, largely irrelevant, not even beautiful background to the much more important material business of our daily lives. Reared in a culture that focuses all its energies on the production and consumption of commercial goods and services, it just looks to us like bad business to commit huge resources, intelligence, and energy to building great monuments aligned—for example—to the rising or setting points of the sun on the equinoxes or on the summer or winter solstices.

Yet for thousands upon thousands of years this is exactly what happened all around the world.

WHERE HEAVEN AND EARTH MEET

GO TO THE CITY OF Luxor in Upper Egypt, place yourself at the western entrance of the great Temple of Karnak in the predawn on December 20/21 (the winter solstice and shortest day of the year in the Northern Hemisphere), and wait patiently until the sun appears. When it does you will see that its first rays shine directly down the kilometer-long axis of the temple that is oriented south of east at precisely the correct angle to target the rising point of the sun on that special day.

Or go to Stonehenge in the predawn on June 20/21, the summer solstice, enter the great stone circle, and face north of east along its

axis toward a rough, unquarried megalith—the Heel Stone—standing prominently outside the circle. As light floods the sky you will see how carefully and purposefully the Heel Stone seems to have been placed, almost like the front sight on the barrel of a rifle, to target the rising sun on that special day.

Or go to Angkor Wat in Cambodia and position yourself dead center at the western end of the entrance causeway of the great temple complex in the predawn on March 20/21, the spring equinox, or on September 20/21, the autumn equinox, when night and day are of equal length and the sun rises perfectly due east. On either of these two special occasions you will discover that the causeway and temple are so precisely oriented that the sun, as it rises, perches for a moment atop Angkor's central tower and lights up the entire majestic complex like a fairy-tale kingdom.

All these places are man-made sanctuaries that speak to the union of heaven and earth at key moments of the year. They might rightly be described as hierophanies because their fundamental purpose is

to reveal and manifest the sacred connection between macrocosm and microcosm, sky and ground, “above” and “below.”

Scattered around this majestic garden planet we call Earth, however, are other, even more powerful hierophanies, put in place not by human beings but by nature, where ground and sky whisper to one another with exceptional intimacy. Wise ancients, who knew the garden long before us, sought out such spots, which they held to be sacred, and when they found them they would sometimes modify them to honor and enhance the communion witnessed there.

Research published in 2018, though subject to further confirmation, suggests that Stonehenge may be one of them. Archaeologists have long believed that its taller, heftier pillars—the big limestone “sarsens”—did not occur locally on Salisbury Plain where Stonehenge stands but had to be dragged 18 miles from the Marlborough Downs.[3] The enduring mystery, therefore, was, why anyone would go through all that trouble and effort moving

megaliths weighing up to 50 tons to Salisbury Plain when Stonehenge could simply have been erected on the Marlborough Downs instead?

The new research offers a rather surprising answer. It seems that two of the sarsens—Stone 16 in the southwestern quadrant of the great circle, and the Heel Stone outside the circle to its northeast—were NOT after all brought here from the Marlborough Downs but have stood naturally on Salisbury Plain for millions of years.[4] What's magical about them, however, is their alignment. An observer behind Stone 16 looking **northeast** toward the Heel Stone at dawn on the summer solstice will see the sun **rise** behind it. Then 6 months later, at the winter solstice, an observer behind the Heel Stone looking **southwest** at Stone 16 will see the sun **set** behind it.

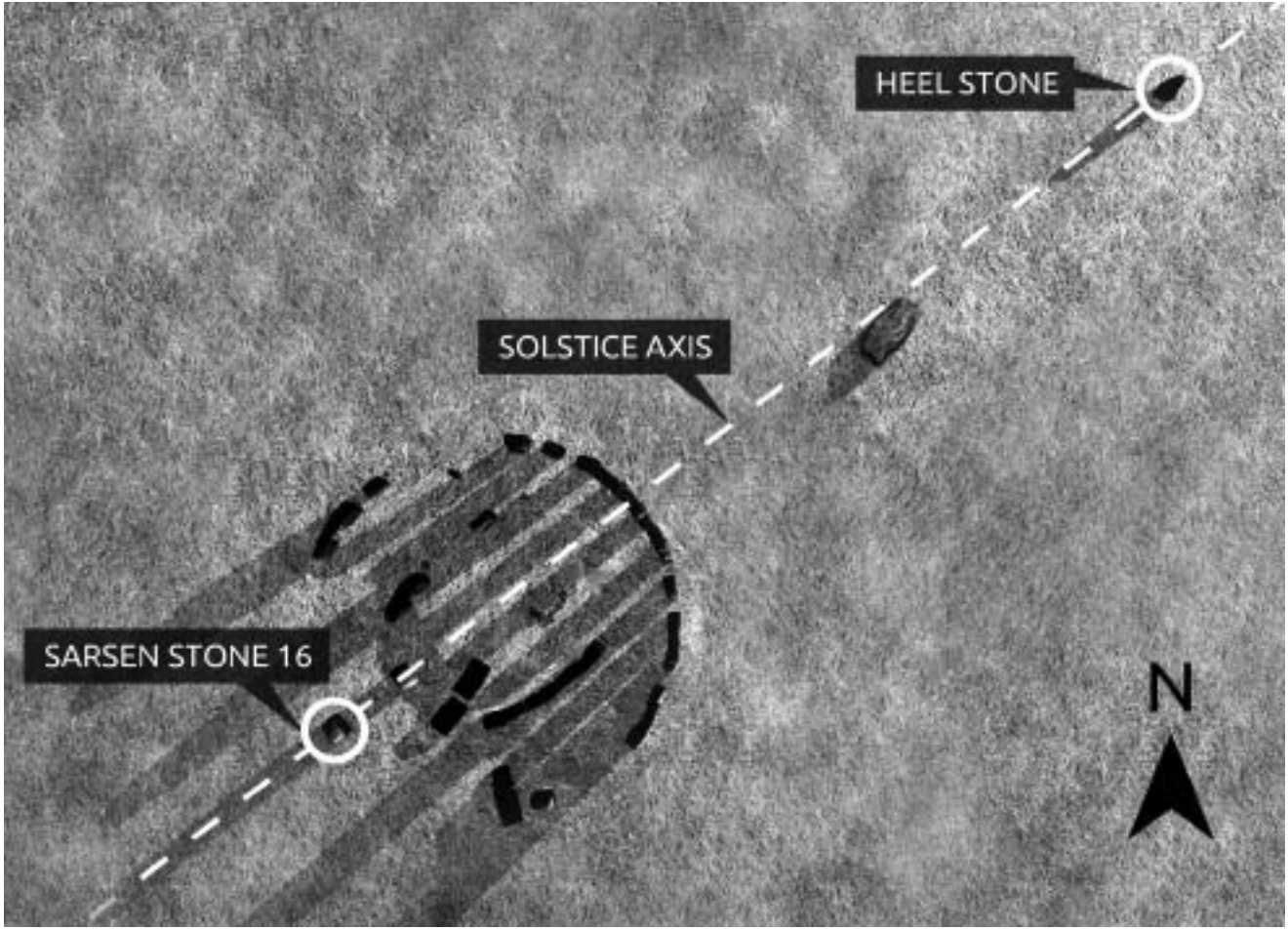
HEEL STONE
SOLSTICE AXIS
SARSEN STONE 16
N

New research indicates that Stone 16 and the Heel Stone were present on Salisbury Plain, aligned by nature to the solstices, before Stonehenge was built. IMAGE: DERIVATIVE OF "STONEHENGE" BY RUSLANS3D, CC BY 4.0.

Archaeologist Mike Pitts, who led the research, suggests that the way the alignment of these two sarsens signaled midwinter and midsummer would not have gone unnoticed by the ancient Britons, who would have accorded special significance to the site long before they planned the geometry of Stonehenge and raised up the whole spectacular complex of megaliths around the preexisting axis. Indeed, if Pitts is right, it is **because** of this natural solstice axis that Stonehenge was built here in the first place.[5]

Another example of humans sacralizing a place where earth speaks to sky is the Great Sphinx of Giza in Egypt, which is thought to have begun life as a "yardang"—a ridge of bedrock shaped by millennia of desert winds into a completely natural form somewhat resembling a lion.[6] Many such outcrops, described by European explorers of the eighteenth and nineteenth centuries as "sphinxlike"

and as resembling “lions,” exist in Egypt’s Western Desert.[7] But what was special about this one was its situation overlooking the Nile Valley and the curious fact that nature had oriented it, with considerable precision, to due east and thus to the rising point of the sun on the equinoxes. As suggested at Stonehenge, it looks like this celestial alignment is what attracted human beings to it in the first place, motivating them to transform it into a giant monolithic work of sculpture, first enhancing its naturally leonine form and much later, in the time of the pharaohs, recarving its (by then heavily eroded) leonine head into a human likeness.

Go to Giza at dawn on the winter solstice and you will see the sun rising far to the south of east, and thus far to the right of the gaze of the Sphinx. Go there at dawn on the summer solstice and you will see the sun rising far to the north of east, and thus far to the left of the gaze of the Sphinx. But go there at dawn on either the spring or the autumn equinox and you will witness the sacred communion of

heaven and earth, with the gaze of the Sphinx perfectly aligned to the disk of the sun as it rises.

Such enchanted but fleeting conjunctions of earth and sky are not confined to the Old World.

In the New World, Native Americans likewise built immense structures to honor and channel precisely the same moments and energies and sought out certain striking topographical features—regarded as sacred—through which the celestial and terrestrial spirits were already bound in intimacy. Thus, just as Egypt has its Great Sphinx, natural but modified and enhanced by humans to bind sky and ground at sunrise on the equinoxes, and just as the natural solstitial axis of Stonehenge has been modified and enhanced by humans with numinous and beautiful effect, so North America has its Great Serpent Mound, a natural ridge, modified and enhanced by humans to join heaven and earth at sunset on the summer solstice.

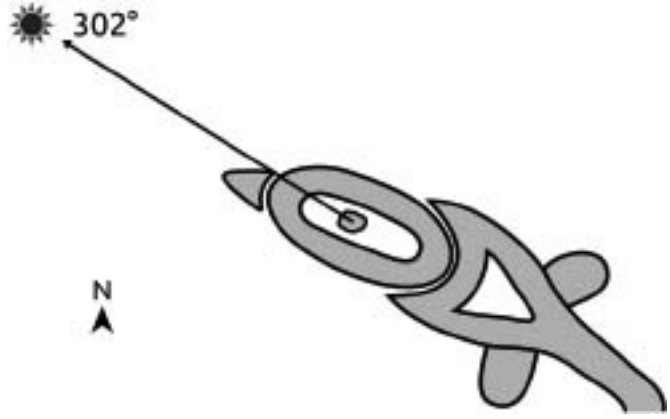

In their 1987 paper the Hardmans proposed a viewpoint near the center of the oval formation in front of the Serpent's head where an altar of large stones was reported to have remained in place until it was destroyed in the nineteenth century. From this viewpoint they settled on an alignment at azimuth 302 degrees targeting sunset on the summer solstice.

HERE COMES THE SUN

SERPENT MOUND'S STRIKING CONNECTION TO the summer solstice went unnoticed, unobserved, and unstudied by anyone in our era until 1987. That was the year in which the fall issue of the *Ohio Archaeologist* published a landmark paper by Clarke and Marjorie Hardman titled "The Great Serpent and the Sun."

In this paper, the ridge behind which the sun sets on June 20/21 as viewed from Serpent Mound was daringly renamed "Solstice Ridge" by the authors, and the orientation of the open jaws of the Serpent to the setting point of the sun on the summer solstice was recognized and made explicit for the first time.[8]

What has been seen cannot be unseen, even in an age so radically disconnected from the cosmos as our own. Thanks to the Hardmans, therefore, no one who takes a serious look at Serpent Mound can now fail to observe the way the Serpent's jaws line up to the setting summer solstice sun. Because those jaws gape wide, however, it's an alignment that would have been as general and obvious 13,000

years ago as it is today. The Hardmans therefore sought to refine it. As shown in the diagram above, they selected as their viewpoint the reported location, near the center of the oval formation in front of the Serpent's head, of the former "elevation of large stones" described by Squier and Davis as destroyed when they visited the site in the mid-nineteenth century.[9] The Hardmans argued that an observer who positioned himself in this location on the evening of the summer solstice would see the sun set at an azimuth of 302 degrees behind a specific feature on "Solstice Ridge"—a feature something like the front sight on a rifle that they nominated "Solstice Knob."[10]

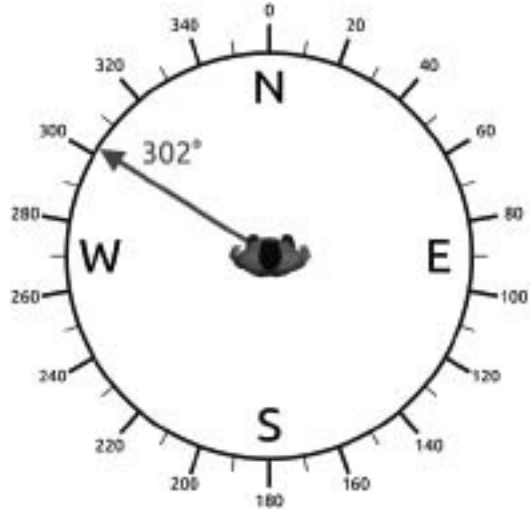

The "azimuth" of an object is its distance from true north in degrees counting clockwise. North is nominated as 0 degrees, so azimuth 90 degrees is due east, azimuth 180 degrees is due south, and azimuth 270 degrees is due west. An azimuth of 302 degrees will therefore be 32 degrees north of west.

ROASTING THE HARDMANS

IT'S OFTEN THE CASE IN archaeological scholarship, and actually good science, that whenever an adventurous and unusual new thesis is published attempts will be made to falsify it. It was therefore only to be expected, as I turned to the winter 1987 issue of *Ohio Archaeologist,* that I would find a refutation of the Hardmans' work. Titled "Serpent Mound Revisited," the paper was written by William F. Romain, a very interesting and important researcher in this field.

On the assumption that Serpent Mound had been built around 2,000 years ago (the consensus archaeological opinion in the 1980s) Romain pointed out that the Hardmans proposed alignment had failed to take into account a well-established archaeoastronomical phenomenon, namely that the sun's rising and setting points along the horizon do not remain fixed but slowly change down the ages.[11]

This happens because sunrise and sunset positions are constrained not only by the latitude from which they are observed, but also by

the tilt of the earth's axis in relation to the plane of its orbit. Presently the angle of the tilt stands at around 23° 44'.[12] This angle, however, is not fixed but slowly increases and decreases in a 41,000-year "obliquity cycle" between a minimum of 22.1° and a maximum of 24.5°.[13] The resulting changes to sunrise and sunset positions along the horizon over long periods are "sizable," according to leading archaeoastronomer Anthony F. Aveni,[14] whose calculations Romain used in his 1987 paper to highlight what he believed was the fatal flaw in the Hardmans' case. They had accepted the epoch of 2,000 years ago for the construction of Serpent Mound, but their proposed sunset azimuth of 302° made no sense. Viewed from Serpent Mound 2,000 years ago, as Romain correctly pointed out, "the summer solstice sun would have set at an azimuth of about 300.4 degrees. … In other words, the summer solstice sun would have set roughly 1.6 degrees, the equivalent of 3 sun diameters, south of Solstice Knob."[15] If Serpent Mound really

was that far out of alignment 2,000 years ago when it was supposed to have been built, then only four logical conclusions presented themselves: (1) its builders were very poor astronomers; (2) they hadn't intended to orient the monument to the summer solstice sunset at all; (3) the Hardmans were right in their general thesis but had gotten the proposed observation point and sight line wrong; or (4) The alignment had not been made 2,000 years ago but at a completely different time.

In another paper, published in *Ohio Archaeologist* a year later, Robert Fletcher and Terry Cameron picked up where Romain had left off in a renewed roasting of the Hardmans. Noting that the summer solstice sun as viewed from Serpent Mound currently sets at azimuth 300° 05', and noting the effects of the obliquity cycle, they treat with sarcasm the Hardmans' claim that the Serpent's primary orientation was to azimuth 302°: "If a horizon marker at 302 degrees was used at one time to mark the summer solstice sunset position, the Serpent, by implication, must have been

constructed around 11,000 BC. There may be some who would have problems with that date."[16]

It's the last line that reveals the scorn.

You bet there would have been "some" in 1988 who would have had problems with that date! Indeed, not just some but all archaeologists would have regarded it as the province of the lunatic fringe to suggest that Serpent Mound might in any way go back as far as 11,000 BC, that is, to around 13,000 years ago.

In the 1980s, as we'll see in part 2, there was a general acceptance that humans might have first arrived in the Americas by 12,000 or even 13,000 years ago. But those earliest migrants were deemed by archaeologists to have been scattered hunter-gatherer groups, living from hand to mouth and lacking the vision, sophistication, and level of organization required to create a monument on the scale of Serpent Mound.

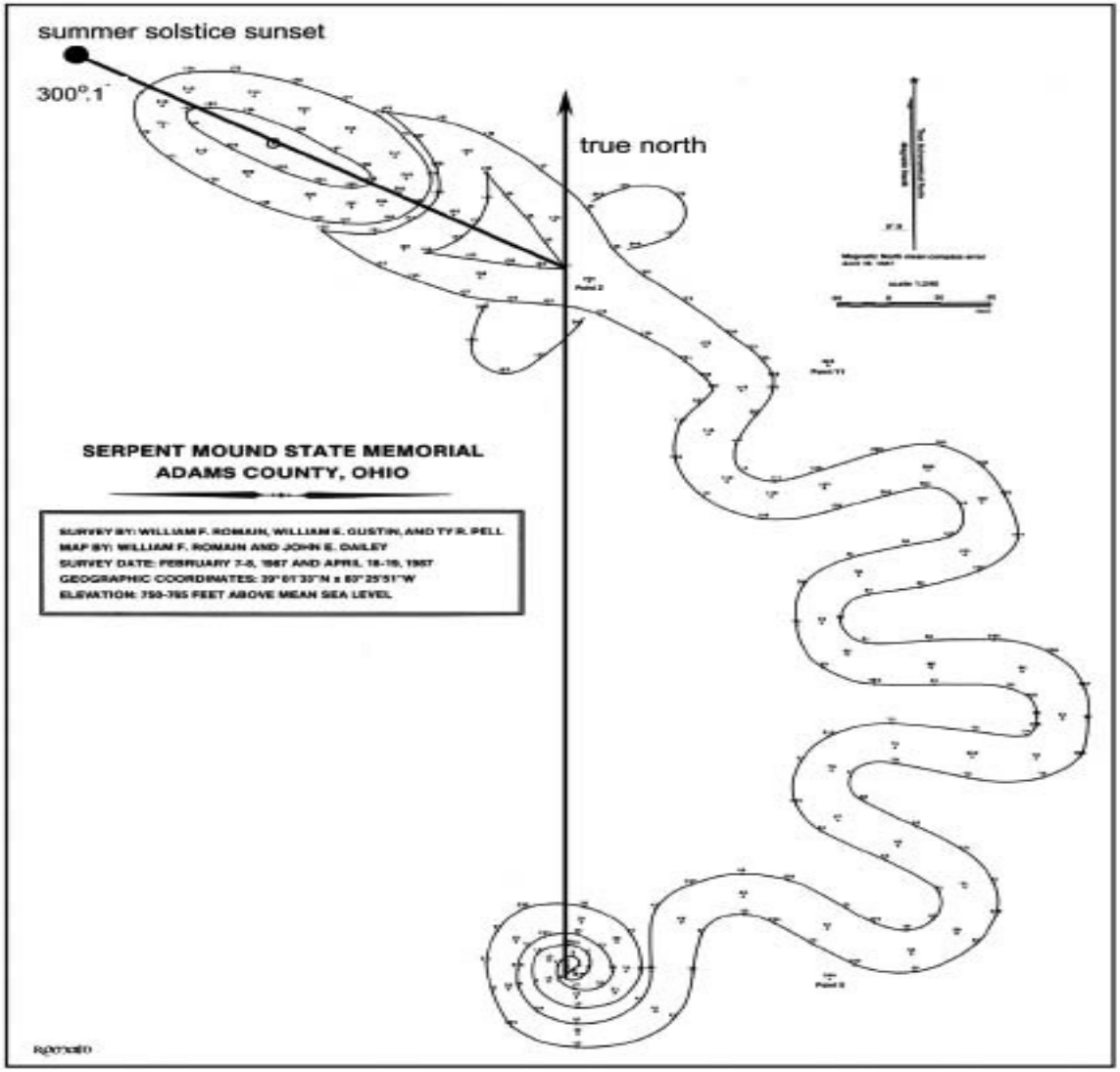
summer solstice sunset
300°.1'
true north
SERPENT MOUND STATE MEMORIAL
ADAMS COUNTY, OHIO
SURVEY BY: WILLIAM F. ROMAIN, WILLIAM E. GUSTIN, AND TY R. PELL
MAP BY: WILLIAM F. ROMAIN AND JOHN E. DAILEY
SURVEY DATE: FEBRUARY 7-8, 1967 AND APRIL 18-19, 1967
GEOGRAPHIC COORDINATES: 39° 01' 33" N x 83° 25' 51" W
ELEVATION: 750-785 FEET ABOVE MEAN SEA LEVEL

William Romain's summer solstice sunset alignment for Serpent Mound along azimuth 300.1 degrees. This alignment would have targeted the summer solstice sunset 2,000 years ago and differs by 1.9 degrees from the alignment proposed by the Hardmans.

The real implication of the Hardmans' "error"—the clue they'd inadvertently stumbled upon, of possibly much more ancient origins for the site—was therefore never followed up because the prevailing theory of the peopling of the Americas would not admit it as evidence.

Meanwhile, as the years passed, William Romain changed his mind. In 1987 he had written in his critique of the Hardmans that the orientation of Serpent Mound could be "better explained by a set of facts having nothing to do with the summer solstice."[17] By the year 2000, however, he was ready to accept as "unequivocal" an alignment from the head of the Serpent "through the oval embankment to the summer solstice sunset,"[18] and showed in a map

how this could be done to target azimuth 300.4 degrees, later revised to azimuth 300.1 degrees (personal communication October 31, 2018), where the summer solstice sun would have set 2,000 years ago.[19] He also reiterated the definitive north–south line he'd identified in 1987 running through the monument from the inner spiral of its tail to the hinge of its jaws.[20]

BUT IS THE SERPENT REALLY 2,000 YEARS OLD?

BACK IN THE 1980S, WHEN Romain first laid into the Hardmans, the one thing both sides agreed on was that Serpent Mound was about 2,000 years old and was one of the later works of "the Adena," a Native American culture thought to have flourished between

approximately 800 BC and AD 100.[21] Though no carbon dating had been done, this was the consensus view of almost all experts at the time, and Romain and the Hardmans not only accepted it without question but also used it as the basis for their own calculations of alignments.

Imagine their surprise, therefore, when Robert Fletcher of the University of Pittsburgh (one of the early critics of the Hardmans), William Pickard of Ohio State University, and Bradley T. Lepper of the Ohio Historical Society carried out the first carbon-dating of Serpent Mound and found it to be much **younger** than everyone had supposed—not 2,000 years old or more, but 1,000 years old or less.[22] To be precise, they concluded that the most likely date for its construction was 920 years (plus or minus 70 years) before the present,[23] and that it must therefore be the work of the so-called Fort Ancient culture thought to have flourished at around that time.[24]

Published in spring 1996 in a respected peer-reviewed journal, this notion of a much younger Serpent Mound went on to enjoy a level of widespread acceptance among American archaeologists that would certainly not have been accorded to it if the redating had gone in the other direction. Moreover, after being quickly and uncritically adopted into doctrine,[25] it was then disseminated to the public for most of the next 20 years as unquestioned historical fact.[26]

As part of this process, an Orwellian scene took place at Serpent Mound in 2003 when the official Ohio historical marker that had previously attributed the monument to the Adena culture was "unhappened" and replaced by another in which visitors were informed that the earthwork had been built "around 1000 A.D. by the Fort Ancient culture."[27]

Let's take a look at the evidence on which Fletcher, Pickard, and Lepper based the 1996 claim that so effectively redefined Serpent

Mound.

Part of it has to do with an *absence* of evidence of typical Adena cultural artifacts—indeed an absence of any artifacts—in those parts of the Serpent excavated prior to the 1990s.[28] As Fletcher & Co. rightly point out, it was only because a number of "definite Adena burial mounds" had been found nearby that Serpent Mound had been attributed to the Adena in the first place—an attribution that was therefore "somewhat tenuous."[29]

As to the positive evidence for their claim, Fletcher & Co. give special prominence to stone flakes and tools uncovered by their excavations at Serpent Mound, including "a classic Fort Ancient Madison point."[30] They also recovered twenty-nine pottery shards "assignable to some period between A.D. 350 and 950."[31] Finally—and clearly the clincher as far as they're concerned—they list the radiocarbon dates for three samples of charcoal retrieved during their excavations.

One, with a date of 2920 plus or minus 65 years before the present, they immediately dismiss because it came from a level "far below the estimated original surface upon which Serpent Mound was built."[32]

But the other two they like. Both were recovered from the "intact sediment used to create the effigy," and both returned the same calibrated radiocarbon date of AD 1070.[33]

These two identical dates, Fletcher, Pickard, and Lepper conclude, "Represent valid chronological evidence for the construction of Serpent Mound sometime during the Late Prehistoric or Early Fort Ancient periods."[34]

Lepper even speculates (he does admit it's speculation)[35] that the Serpent was made in response to the passage of Halley's Comet in 1066—recorded elsewhere as far afield as Europe and China: "It was a spectacular, fiery display. And it seems to me it's more than possible that the Native Americans may have viewed Halley's

comet as a serpent snaking across the sky. It's possible they looked up at it and recorded it as an omen and built the serpent."[36]

And that's it! With a wave of the archaeologist's magic wand, a fairy-tale castle of speculation is conjured into being on the foundations of just two tiny fragments of charcoal. In the process, while being rendered less old, less venerable, and less mysterious, the sublime artistry, astronomy, geometry, and imagination expressed in Serpent Mound are snatched from one culture and handed to another by the so-called experts of a third!

SKIN CHANGER

NORTH AMERICAN ARCHAEOLOGY HAS A long track record of wanting Native American sites to be young, as we'll see in part 2. In the case

of Serpent Mound, however, there were some archaeologists, notable among them William Romain, who were never happy with the "somewhat tenuous" nature of the evidence on which Fletcher, Pickard, and Lepper had built their castle in the sky. As Romain tactfully put it in 2011, "Since the charcoal that was dated did not come from a foundation feature or event, the A.D. 1070 date may not reflect when the effigy was actually constructed."[37]

Soon afterward Romain followed up his hunch by joining forces with a multidisciplinary team of fellow researchers "to re-evaluate when and how Serpent Mound was built."[38] It was a thorough, professional, long-term project deploying the latest technologies and involving fresh excavations, core sampling, and multiple radiocarbon dates. The results, published in the *Journal of Archaeological Science* in October 2014, thoroughly ripped the rug out from under the comfortable consensus of the previous 18 years

that the Serpent was around 900 or 1,000 years old and was the work of the Fort Ancient culture.

"We believe that taken as a whole," Romain and his colleagues reported, "our data strongly support that Serpent Mound was first constructed ~2300 years ago, rather than ~1400 years later. Our results indicate the presence of a pre-construction paleosol beneath Serpent Mound, and that charcoal from different locales along its surface dates consistently to ~300 BC. The youngest calibrated age within the 95% probability range is 116 BC and we obtained no dates associated with the later Fort Ancient occupation of the site."[39]

Charitably, however, there was no crowing in triumph, no pouring of scorn on Fletcher, Lepper, and Pickard. Instead Romain's team saw the real answer in a compromise:

> The evidence compiled by Fletcher et al. concerning the reliability of their C-14 ages is generally convincing and supports the charcoal as authentically related to a Fort Ancient (re)construction episode 900 years ago, which leaves the

> contradiction between the two initial construction chronologies unresolved. To settle this contradiction, we propose that Serpent Mound was constructed and then later modified during two distinct episodes: an Adena construction ~2300 years ago during which the mound was first built, followed ~1400 years later by an episode of Fort Ancient renovation or repair.[40]

Because their work was well done, their evidence solid, and their arguments compelling, but also because their "redating" was more of a return to the pre-1996 consensus than anything dangerously new or radical, the model proposed by Romain and his colleagues has subsequently displaced Fletcher et al. Serpent Mound has been returned to the Adena and, despite some unpersuasive protests from Bradley Lepper[41] and incomplete information foisted on the public at the site itself, few today would seriously attempt to argue that it is less than 2,300 years old.

The lingering question, though, is, could it be older?

Perhaps very much older?

After all, is it not the defining quality of the serpent that from time to time it sheds its skin? And is it not precisely on account of this that it served for many ancient cultures as a symbol of reincarnation?[42] It is therefore reasonable to ask how often Serpent Mound has shed its skin and renewed itself.

This noticeboard, which remained in place at the site in 2018, underinforms the public by making Serpent Mound more than 1,000 years younger than the most accurate carbon dates suggest. PHOTO: ROSS HAMILTON.

The 1996 and the 2014 studies, taken together, provide solid evidence of a change of skin around 900 years ago—a "renovation" project. However, largely because of the "pre-construction paleosol" (soil stratum laid down in an earlier age) forming the foundation of the mound,[43] it is taken for granted that the earlier episode at 2,300 years ago was the **birth** of the project. Setting aside the one anomalous charcoal fragment, dated to 2,920 years ago in the 1996 study, and the two fragments testifying to the Fort Ancient renovation, all the datable materials from the 2014 study, which clustered around 300 BC as we've seen, were found **above** this bed of ancient soil. "The sub-mound paleosol was buried," the archaeologists therefore conclude, "and Serpent Mound construction began … 2300 years ago during the Early Woodland (Adena) Period."[44]

It seems like a reasonable argument but it leaves another possibility unconsidered—namely that 2,300 years ago Serpent

Mound was **already** an enormously ancient structure, perhaps very much eroded and damaged, and that it was cleared down to the level of the paleosol and remade by the Adena culture at this time.

In that case the archaeologists behind the 2014 study would not have documented the birth of the Serpent but its **rebirth**—or reincarnation.

Why not?

The 2014 study did not gather the necessary data to confirm whether the mound was in continuous use from the Adena period 2,300 years ago until the Fort Ancient renovations 1,400 years later: "However, a possible erased coil near the head of the serpent indicates that other alterations, potentially several hundred years earlier than the Fort Ancient repairs, may also have occurred. This suggests a deeper, richer, and far more complex history for Serpent Mound than previously known."[45]

Again—why should this deeper, richer, far more complex history be limited to the relatively recent past? Since Romain and his coauthors are prepared to consider the possibility that Serpent Mound "was regularly used, repaired, and possibly reconfigured by local groups for more than 2000 years,"[46] then why not for longer?

Even Fletcher & Co. admit that their anomalous 2,920-year-old piece of charcoal, and nearby Adena burial mounds, are evidence of "the use of the area during the Early Woodland Period."[47] But why should such use have been "ephemeral," as they assert?[48] Why shouldn't those Early Woodland peoples also, like later cultures, have been present to tend to, maintain, restore, and sometimes reorient and reconstruct the great Manitou?

If so, and if others who came before them had done the same work in their time, inheriting that sacred responsibility from even earlier cultures and participating down the millennia in an irregular process of restoration and refurbishment, then the possibility cannot

be ruled out that the first incarnation of the effigy might indeed have been in the Ice Age 13,000 years ago. Were that to be confirmed, everything we've been taught about the state of early Native American civilizations and the global timeline of prehistory would have to be rethought.

3

THE DRAGON AND THE SUN

IN 2017 THE CLOSEST SUNSET to the precise astronomical moment of the summer solstice occurs on the evening of June 20—which is why Santha, Ross Hamilton, and I are back at Serpent Mound on that day rather than on the 21st, when the solstice is more often celebrated. Angles, calculations, and astronomical software are all very well, but nothing beats direct, on-the-spot observation. Our

project on the 20th, therefore, having familiarized ourselves with the site and its surroundings on our first visit on the 17th, is for Santha to fly the drone 400 feet above the great effigy, and photograph it at sunset from a point overlooking both its head and the horizon, commanding its field of view, so that we can see for ourselves what its alignment is really all about.

It's around 3 pm and the sky is cloudless, giving us hope of a clear horizon this evening. With more than enough time to spare on what, after all, is the longest day of the year, Ross beckons for us to follow him on a steep, winding path that leads down from behind the coiled tail of the Serpent through dense woods to the base of the ridge on which the great effigy stands. It's such a calm, clear, peaceful afternoon, filled with the sweet notes of birdsong and so poignant a dance of light and shadow between the leaves and the sun that the three of us fall silent, descending slowly and steadily, just breathing it all in. The path levels out along the bank of Brush Creek and we follow it toward the northwest. The creek is on our

left and the ridge looms 100 feet above us on our right. Its slope is not entirely overgrown. In places it is sheer, almost a cliff, on which the trees and bushes can get no purchase and the bare limestone bedrock is exposed.

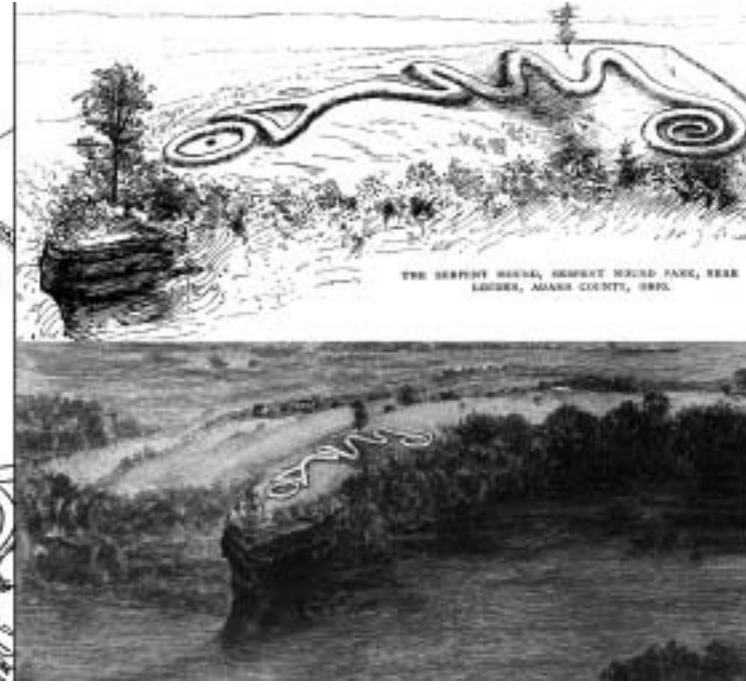

As we walk Ross goes over the implications of his own investigations into the true age of Serpent Mound. I refer the reader to his masterwork, *The Mystery of the Serpent Mound,* for full details.[1] In brief, though, his view as to when exactly the effigy was first constructed is not derived from any of the radiocarbon assays, or from calculations to do with the azimuth of the summer solstice sunset. Instead he focuses on the *form* of the serpent, which he perceives as a terrestrial image of the constellation Draco.

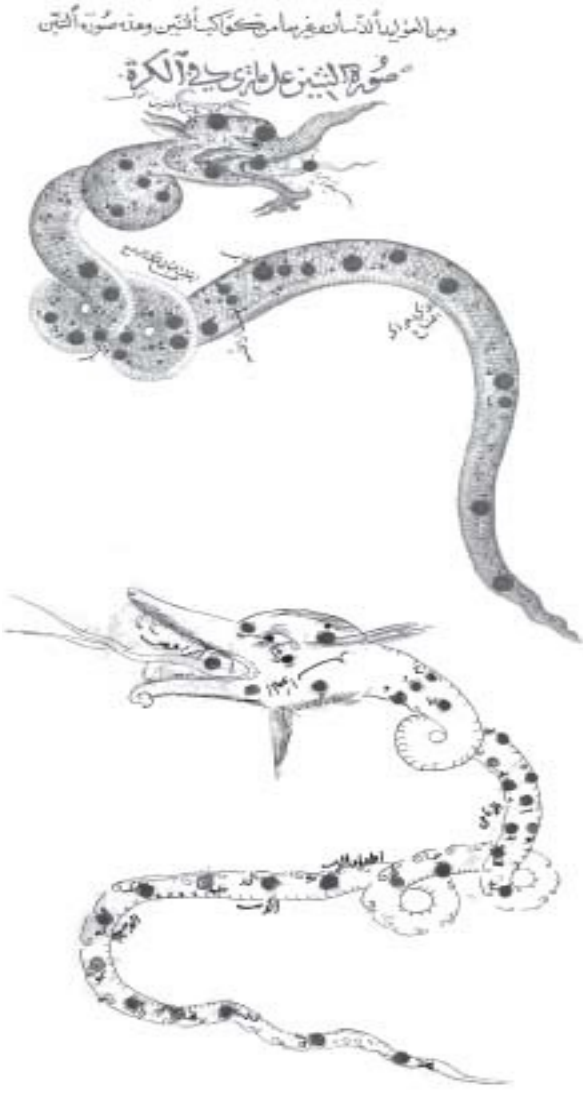
صورة التنين على ما رى في الكرة

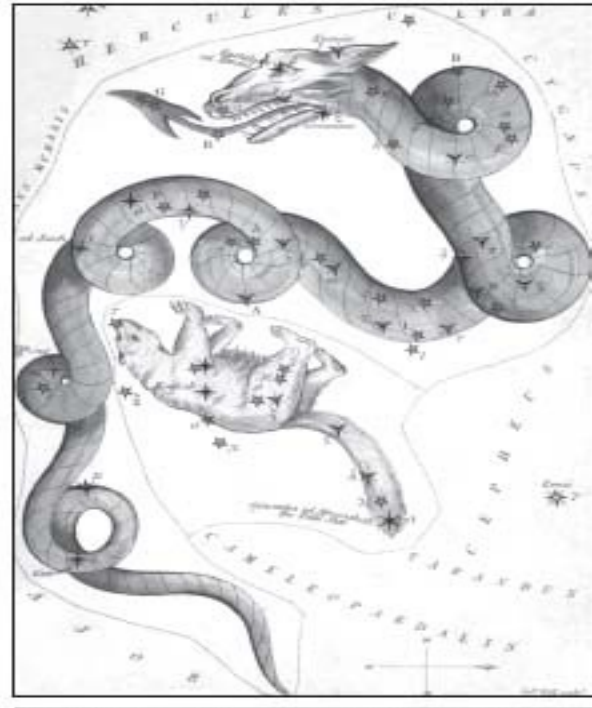
CAMELOPARDALIS

DRACO

In images from many cultures, Draco is depicted as a serpent.

I have my own history with Draco, as those who have followed my work over the years will know. In my 1998 book *Heaven's Mirror,* for example, I present evidence that this enormous constellation, widely depicted as a serpent by many ancient cultures,[2] served as the celestial blueprint according to which the temples of Angkor in Cambodia were laid out on the ground—with each temple "below" matching a star "above." The essence of my case is that the notion of "as above so below" expressed in the architecture of Angkor is part of an ancient globally distributed doctrine—or "system"—that set out quite deliberately to create monuments on the ground, all around the world, to mimic the patterns of certain significant constellations in the sky. Moreover, since the positions of all stars as viewed from earth change slowly but continuously due to the phenomenon called "precession," it is

possible to use particular configurations of astronomically aligned monuments to deduce the dates that they represent—that is, the dates when the stars were last in the celestial locations depicted by the monuments on the ground.

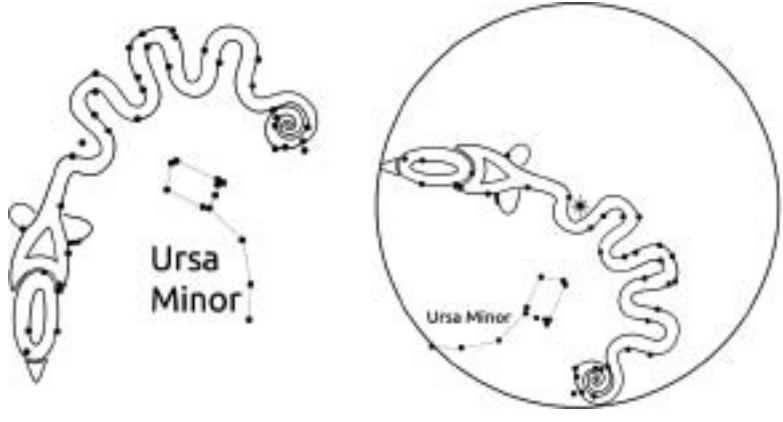

The constellation of Draco overlaid on Serpent Mound. The neighboring constellation is Ursa Minor, the Little Bear, which houses our present pole star, Polaris. LEFT: The accuracy of Romain's 1987 survey is demonstrated by the many-starred asterism of Draconis. Each point of light is given equal size in order to demonstrate the accuracy of the original designer's vision (Hamilton 1997, after Cambridge and Romain). RIGHT: The ancient north star Thuban, which preceded the present pole star Polaris (the dot touching the outside of the circle), is used as the center of this geometry. Both

ends of the Serpent are equal in distance from the center point, Thuban (Hamilton 1997, after Romain).

This process of constant change unfolds, of course, over a great cycle of 25,920 years and has nothing to do with the motions of the stars, or with the obliquity cycle. Its cause is another quite different motion of the earth driven by the contradictory pull of the gravity of the sun and the moon. The result is a slow circular wobble of the planet's axis of rotation, at the rate of one degree every 72 years, much resembling the wobble of a spinning top that is no longer upright. The earth is the viewing platform from which we observe the stars, so these changes in orientation cause changes in the positions of all stars as viewed from earth.

To envisage the process, picture the earth's axis passing through the geographical south and north poles and thence extended into the heavens. The south and north pole stars in any epoch are the stars at which the two "tips" of this extended axis point most directly.

Serpent Mound is in the Northern Hemisphere and the north

celestial pole is presently occupied by our "pole star" Polaris (*Alpha Ursae Minoris,* in the constellation of the Little Bear). The effect of precession, however, is to cause the tip of the axis to inscribe an immense circle in the heavens over the cycle of 25,920 years. Thus around 3000 BC, just before the start of the Pyramid Age in Egypt, the pole star was Thuban (*Alpha Draconis*) in the constellation Draco.[3] At the time of the Greeks it was *Beta Ursae Minoris*. In AD 14000 it will be Vega.[4] Sometimes in this long cyclical journey the extended north pole of the earth will point at empty space and then there will be no useful "pole star."

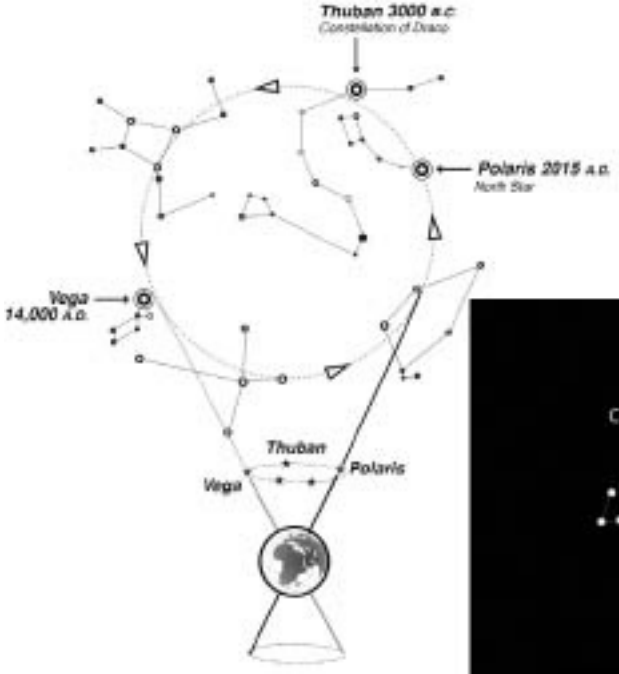

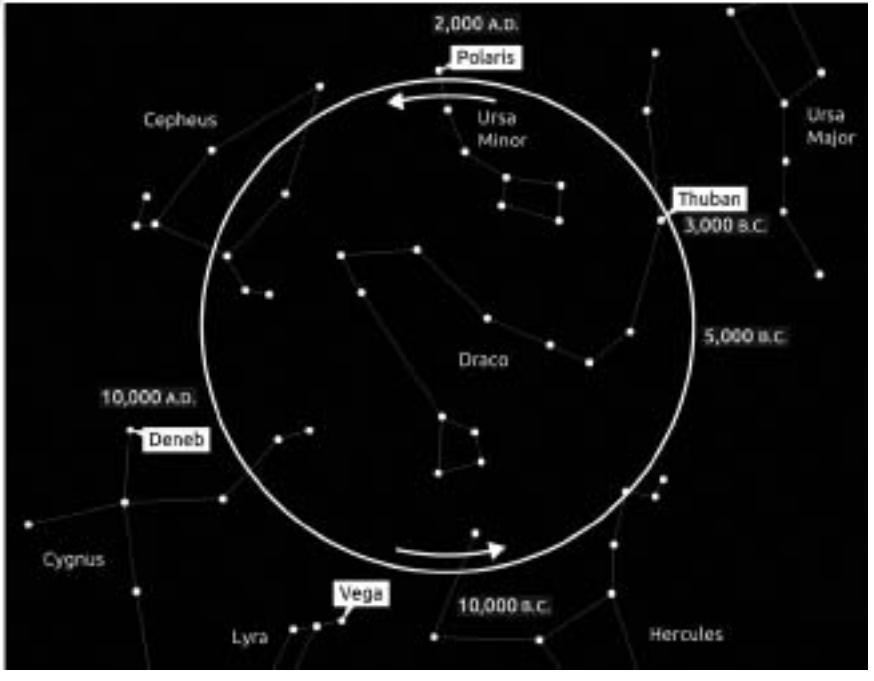

The constellation of Draco coils eternally around the pole of the ecliptic. Thuban, in

the tail of Draco, was the pole star in 3000 BC.

As one of the notable circumpolar constellations, and also one of the most widely recognized, and one of the oldest for which written records have survived,[5] what makes Draco particularly significant and remarkable was summed up in 1791 in two lines from a poem by Charles Darwin's grandfather, the physician and natural philosopher Erasmus Darwin:

> *With vast convolutions Draco holds*
> *Th' ecliptic axis in his scaly folds.*[6]

This "ecliptic axis"—astronomers today call it the "pole of the ecliptic"—is the still, fixed point in the celestial vault around which the vast circle of the north celestial pole makes its endlessly repeated 25,920-year journey. It is the one place in the sky that **never** moves or changes while everything else about it dances and

shifts, and once you recognize it for what it is—nothing less than the very heart of heaven—it's striking how the serpentine constellation of Draco seems to coil protectively around it.

If at Angkor that constellation was honored in the form of temples laid out in its image on the ground, then I could see no reason in principle why a similar project should not have been mounted in North America. In one case the medium was stone, with temples targeting the equinox sunrise. In the other it was a great earthwork targeting the summer solstice sunset.

In both cases the result was a symbolically powerful union of ground and sky—a union, according to Ross Hamilton, that was made manifest not 1,000 years ago, nor even 2,300 years ago, but around 4,800 to 5,000 years ago. That was the time when Thuban in Draco was the pole star. And at that same remote date, almost 1,000 miles to the south in Louisiana, a site now known as Watson Brake was built. I will have a great deal more to say about Watson Brake in part 5. As we shall see, it is indisputably 5,000 years old in its

present form, and it is Ross's argument that the same mysterious and as yet unidentified group of Native American geometers and astronomers who made Watson Brake also made the great Manitou at Serpent Mound.

As usual in these matters, however, there's complexity and nuance behind the headlines. So, yes, Ross **is** of the view that a major project was undertaken at Serpent Mound around 5,000 years ago. But as we talk now he clarifies what, for him, is obviously an extremely important point: "I always make an effort NOT to give people the impression that 5,000 years ago is when the first mound structure was built on this spot," he says emphatically:

> I believe it was a sacred place, with a structure upon it, its connection to the solstice recognised long before, but that it was remade, renovated, and renewed around 5,000 years ago, reinforcing the worn-down traces of older foundations unrealised by conventional dating methods.
>
> So there was something here already, a legacy from much earlier times, but 5,000 years ago or thereabouts a very well-developed version of the current serpentine effigy was created as an active, fully functioning Manitou. In accord

with Native American legend and mythology it would have been outfitted with the necessary accoutrements to facilitate earth–sky interaction phenomena, quite similar to the way some feel the Great Pyramid and its two sibling pyramids once operated.

The Cherokee say there was once a powerful crystal mounted at the head of the serpent—a crystal mentioned in Mooney's nineteenth-century collection of Cherokee "myths. …" That crystal put out a brilliant light that "sullied the meridian beams of the sun." As the story goes, the crystal was stolen and afterward the people fell into darkness. They revisited the former residences of their godly forebears whom they held in highest regard, and gradually took away relics of the remaining parts of the Serpent as well, leaving only dirt. Then they started taking the dirt also until the culture that archaeologists call the Adena decided to stop the practice and refurbish all the old sites with fresh earth and stone to ensure they would survive and that the people would have a living testament to the former glories of their ancestors. This reclaiming of the old holy sites began roughly around 2,500 to 2,300 years ago (in other words 2,500 years after the creation of the Manitou), and continued until about AD 500 when everyone mysteriously vanished or went their separate ways to look for other places in the Mississippi Valley to refurbish. The ancient country of Manitouba was vast, and so there were plenty of other sites to fix up and rededicate. Hence an explosion of remarkably adept architectural masterpieces all throughout much of the Great South and of the Mississippi as we approach the historic period—returning full circle to Ohio. In this model, the same wave of inspiration

refurbished the Manitou twice, the refurbishments 1,400 years apart, making it the oldest and youngest, the alpha and omega, of the Ohio Valley antiquities.

I'm doing the mental arithmetic. "So the 'Fort Ancient' work at Serpent Mound 1,000 years ago was the second of these restoration projects?"

"That's right," Ross replies, "as hopefully everyone, even the archaeologists involved in wrongly attributing the Mound solely to the Fort Ancient culture back in 1996, are now beginning to realize."

THE MANITOU AND THE MEGALITH

DEEP IN CONVERSATION, WE'VE WALKED along the bank of Brush Creek at the base of Serpent Mound ridge to its northwestern end where it comes to a point naturally targeting the summer solstice sunset.

Trees and bushes cover everything here except the snout of the ridge itself, which thrusts a gnarled and weathered limestone cliff forward through the green veil, revealing an overhang and hints of caves.

Ross stops and holds up a hand. “Do you see it?” he says.

I look around. I’m bad at tests! Then my eyes fall on a chunky, moss-covered limestone megalith leaning into the bank among the undergrowth. It’s not finely quarried but its relatively straight sides and corners, and the curved section cut out at one end, make it likely that humans have worked on it. It’s over 9 feet in length, about 2 feet wide and something more than a foot thick, almost big enough to stand in at Avebury or Stonehenge as a replacement for one of the smaller megaliths there.

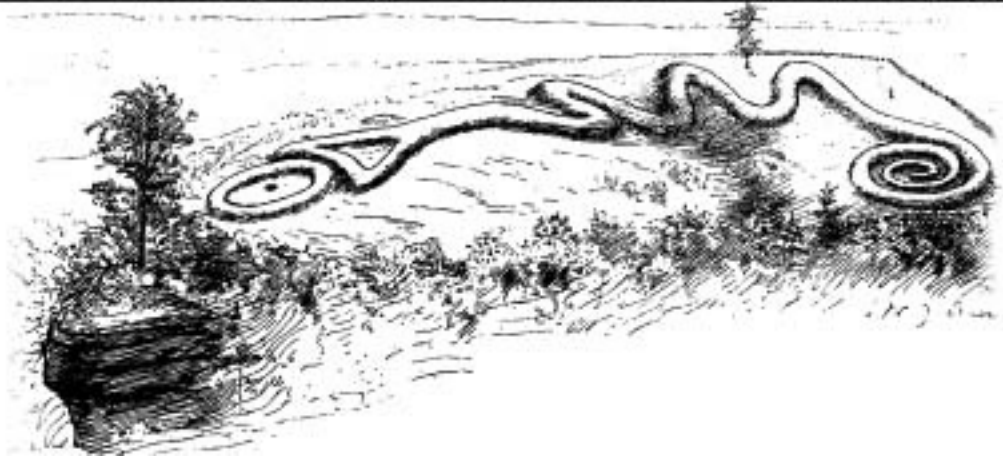

ABOVE RIGHT: Unenhanced image (PHOTO: SANTHA FAIIA) of the Serpent's head simulacrum in the cliff directly beneath the head of Serpent Mound. ABOVE LEFT: An enhanced image helps to explain why many travelers, and the ancients before them, could imagine this natural rocky outcrop as the head of a serpent. BELOW: Juxtaposition of Serpent Mound and the ridge on which it stands with its natural "serpent-like head."

"Do you mean this megalith?" I ask.

"We'll come to that," says Ross, "but look past the megalith. Look above it."

"I see a cliff."

"But do you see the **face** in the cliff?"

The moment Ross says the word "face" everything swings into focus for me. It's not a human face but a serpent's face. That overhang is an upper jaw, there's the line of a mouth below it. Above the corner of the mouth to the right, much darker than the rest of the face, a distinct eye seems to gaze down at us.

In later research I'll find that many visitors have noticed the resemblance of this completely natural outcrop to the head of a

serpent. In 1919, for example, Charles Willoughby of Harvard University's Peabody Museum visited Serpent Mound and concluded:

> The site chosen for this great effigy was probably determined largely by superstitions which may have been connected with the headland upon which it was built. This headland, rising to a height of about 100 feet, gradually narrows and terminates in a cliff, bearing a certain resemblance to the head of a reptile. … The contour of the head, the muzzle, the eye and mouth are clearly indicated. The Indians may also have seen in the promontory extending backward from the head along the shore of Bush creek, the body of the serpent deity. Natural formations, peculiarly shaped stones, concretions, and other objects resembling human or animal forms or any of their parts were generally supposed to possess supernatural powers, and in this instance, with a little imagination, one can easily approach the Indian's point of view.[7]

Earlier, in 1886, archaeologist W. H. Holmes came away from Serpent Mound with a similar impression. "Having the idea of a great serpent in the mind," he wrote in *Science,*

> one is at once struck with the remarkable contour of the bluff, and especially of the exposure of rock, which readily assumes the appearance of a colossal reptile lifting its front from the bed of the stream. The head is the point of rock, the dark lip-like edge is the muzzle, the light coloured underside is the white neck, the caves are the eyes, and the projecting masses to the right are the protruding coils of the body. The varying effects of light must greatly increase the vividness of the impressions, and nothing would be more natural than that the Sylvan prophet … should recognize this likeness and should at once regard the promontory as a great Manitou. His people would be led to regard it as such and the celebration of feasts upon the point would readily follow.
>
> With a mound-building people, this would result in the erection of suitable enclosures and in the elaboration of the form of the reptile, that it might be the more real. The natural and the artificial features must all have related to one and the same conception. The point of naked rock was probably at first and always recognised as the head of both the natural and the modified body. It was to the Indian the real head of the great serpent Manitou.[8]

We're still standing by the megalith that first caught my attention. "What about this?" I ask. "Is this part of the Serpent Mound story or just a random chunk of rock?"

Ross shrugs. “Nobody knows for sure.” He pauses before adding, “I’ve got my own theory though.”

“Which is?”

“I think it’s one of the large stones that Squier and Davis reported had stood in the oval earthwork in front of the Serpent’s head in the nineteenth century.”

“The ones they said had been scattered by some treasure hunter?”

“That’s right,” Ross replies. “And if I recall correctly, they also said those stones had been arranged in a circle before they were thrown down.”

I know what Ross is reminding me of here is a connection he’s written about between the geometry of Stonehenge and the geometry of Serpent Mound, which he regards as “two elements comprising a larger picture pointing to a highly evolved school of astro-architecture, the origin of which is not known.”[9]

Graham Hancock (left) with Ross Hamilton (right) at Serpent Mound megalith.
PHOTO: SANTHA FAIIA.

Therefore, while he does not dispute that Serpent Mound was the work of Native American geometers and astronomers, he believes that they were members of a much older school and implementing a much older design which likewise—at many different times and in many different media—was brought into commission in many other parts of the world as well.

This fundamental, endlessly reiterated, endlessly reincarnated design, he says, "seems to have no home base—no specific country or culture responsible for its phenomenon."[10]

This, however, is precisely what we would expect if it's "home base" were a lost civilization destroyed so completely, and so deeply buried in time, that it has been reduced to the stuff of myths and legends.

WHAT THE SERPENT SEES

IN THE HOUR BEFORE SUNSET, as a refreshing chill enters the air, we're back at the upper level of Serpent Mound with all batteries charged and the drone ready to fly.

The sun, which rose north of east this morning, seems already drawn down low on its arc toward its setting point on the northwestern horizon, and again we notice the effective "blinding" of the serpent by the dense trees allowed to flourish along its line of sight as a matter of deliberate policy by the Ohio History Connection. It's obvious, if we did not have the drone, that we would get at best only faint impressions and hints of the alignment if a few scattered sunbeams somehow found their way through the thicket.

"This isn't how it's supposed to be!" I say to Ross. "It feels almost like sacrilege."

“But the good news is people are waking up again, here and everywhere else. Regardless of what the Ohio History Connection wants or does, or what the archaeologists tell us we should believe, we’re at one of those junctures in the cycle where the Manitou is reactivated as a source of knowledge and wisdom.”

With a soft buzz of its rotors, Santha’s little drone climbs into the sky and we cluster around the monitor to share the aerial view. It’s 7:55 pm and from an altitude of 400 feet uncluttered by trees, we can see that the sun still has some distance to travel before it conjuncts the range of hills forming the local horizon to the northwest. The warm, mellow light of the end of a summer’s day interspersed with patterns of cool, deep shade dapples the immense earthwork along its entire length and despite the trees closing in around its head it seems truly master of its enchanted kingdom.

Santha has the drone hovering in place near the back of the Serpent’s neck overlooking its open jaws, the great oval, the trees, and the horizon far beyond. It’s the perfect shot but by 8:12 pm, the

glare is so intense that it's difficult to be certain exactly where the sun now sits in relation to the horizon. There's a great scooped out hollow of silver light there and the sun's disk is somewhere in the middle of it. A shift in position of the drone, however, confirms that sunset is still some time off.

At 8:13 pm, we bring the device down for a battery change and relaunch it, but just 11 minutes later, at 8:24, the control panel lights up with a low-battery warning. The ponderous roll of the earth toward the east, the majestic descent of the sun toward the west, seem to have synced into a kind of slow-motion dream sequence and, with no alternative, hoping we have not miscalculated the timing of the universe, we bring the drone back to earth.

There's something seriously wrong with it. Not the battery problem—that was easily solved—but something in the communications between the control unit and the little quadcopter. In the 28 minutes it takes to fix it we can feel the light leaching out of the sky. The evening air grows cool and the shadows cast by the

trees lengthen. The sun's still in the heavens—somewhere!—but whether it has dropped behind the hills yet or whether we'll still have a chance to witness that moment is completely unclear when the drone finally starts to obey orders again and we're able to relaunch it at 8:52 pm.

Santha rockets it straight up to 400 feet, to the vantage point she'd found before, and we all give a cheer as we see in the monitor, as though by some miracle, that the sun is indeed still with us and poised exactly on the rim of the hills that the Hardmans dubbed "Solstice Ridge."

The next 3 minutes are magical as the great luminary, source of all life on earth, begins its final descent into night. It's a transformation and a transition rather than an abrupt change of state.

The glare that dazzled the camera earlier is much reduced now, and little by little the sky fills with the most seductive soft glow and the sun's disk seems to excavate a niche in the horizon, where, as

readers can confirm from the photographs, its setting is indeed in very fine alignment with the open jaws of the Serpent.

There it reclines, seemingly still, shedding its brilliance and beneficence across this golden land of bounteous fields and forests, as though in deep communion with the earth. I'm reminded of a passage from the *Ancient Egyptian Book of the Dead,* a hymn addressed to Ra the Sun God:

> Men praise thee in thy name "Ra" and they swear by thee, for thou art lord over them. Thou hearest with thine ears and thou seest with thine eyes. Millions of years have gone over the world; I cannot tell the number of those through which thou hast passed. … Thou dost pass over and dost travel through untold spaces requiring millions and hundreds of thousands of years to pass over; thou passest through them in peace and thou steerest thy way across the watery abyss to the place which thou lovest; this thou doest in one little moment of time, and then thou dost sink down and dost make an end of the hours.[11]

Over Serpent Mound the drama continues to unfold, this love affair of planet and star, ground and sky, above and below, this

beautiful and moving alignment sustained for a long, lingering interval as the sun continues its descent.

Half its disk has disappeared from view now, then three quarters, then just a glimmering, radiant shimmering sliver somehow enduring on the horizon, and then at last it's gone entirely but for a warm, all-embracing afterblush that blossoms in the gloaming.

OLD CERTAINTIES

IF SERPENT MOUND HAD BEEN kept clear of trees by the successive cultures that venerated and repeatedly restored the great effigy, then the alignment within the wide spread of the Serpent's jaws would always have been a striking feature here from the time of the retreat of the ice sheets more than 13,000 years ago. Because of the shifting tilt of the earth's axis, however, the exact point on the horizon

where the summer solstice sun would set would shift several degrees north and south of its present position over the 41,000-year obliquity cycle.

We've already seen how the Hardmans were taken to task in the 1980s for mistakenly proposing a summer solstice sunset alignment at an azimuth as viewed from Serpent Mound that—according to the calculations of their critics Fletcher and Cameron—coincided with a date of 11,000 BC. Archaeologists at the time considered that date far too early for any civilization capable of creating a structure of the scale and complexity of Serpent Mound to have evolved in North America and accordingly no further investigation of this rather intriguing anomaly was ever undertaken.

The 1980s are long gone, however, and in the twenty-first century, as we'll see in part 2, new evidence has emerged that calls all the old certainties into question.

PART II

NEW WORLD?

The Mystery of the First Americans

A PAST NOT SO MUCH HIDDEN AS DENIED

ALTHOUGH HE HIMSELF IS NOT an archaeologist, Tom Deméré, curator of paleontology at the San Diego Natural History Museum in California, does have occasion to work with archaeologists. I was therefore not surprised when his response to my request to interview

him and have him show me certain stones and bones in the museum's archives was declined. My initial approach was on September 18, 2017, and the polite refusal came on September 20, not from Dr. Deméré himself but from Rebecca Handelsman, the museum's communications director. "While we're unable to accommodate your request for a meeting," she wrote, "I'd like to share with you our online press kit which has a wealth of information about the project and the discovery."[1]

Though they have their place, press kits are low on my list of priorities when I'm researching books, and because of the very special nature of what Rebecca called "the project and the discovery," I was not going to be so easily fobbed off. Deméré had been closely involved from the outset with the excavation of a controversial site near San Diego and had published a paper in 2017 claiming that humans had been present there as early as 130,000 years ago.[2] The paper was a prominent one, since it appeared in the

prestigious scientific journal *Nature,* and almost immediately aroused the fury of archaeologists committed to a much later date for the peopling of the Americas.

Among them was Professor Donald Grayson of the University of Washington.[3] "I have read that paper," he sniped, "and I was astonished by it. I was astonished not because it is so good, but because it is so bad."[4]

In a response that was typical of many, David J. Meltzer, professor of prehistory at Southern Methodist University in Dallas, Texas, also dismissed the paper. "If you are going to push human antiquity in the New World back more than 100,000 years in one fell swoop," he said, "you'll have to do so with a far better archaeological case than this one. I'm not buying what's being sold."[5]

Gary Haynes, professor emeritus of anthropology at the University of Nevada, went so far as to accuse *Nature* of "an

editorial lapse in judgment" for publishing the paper at all.[6]

Jon M. Erlandson, director of the University of Oregon's Museum of Natural and Cultural History, said "the site is not credible."[7]

Earlier, foreseeing such reactions, George Jefferson, former associate curator of the Page Museum in Los Angeles, had warned Deméré that the archaeological community, invested in long-established notions of the recent peopling of the Americas, wasn't even close to being ready for a claim of antiquity as remote as 130,000 years. "Keep it under wraps," he advised. "No one will believe you."[8]

But Deméré was sure of the evidence and decided to go ahead. The *Nature* paper, published in April 2017, was the result and quickly caught my attention.

DON'T SAY A WORD ABOUT LOST CIVILIZATIONS

COULD DEMÉRÉ'S CLAIM BE TRUE? Rather than having been in America for 30,000 years or less, as archaeologists have recently been dragged kicking and screaming to accept, could our ancestors have populated the continent 130,000 years ago or more?

If the facts checked out (and, I had to keep reminding myself, despite the hostile reactions of some academics, that *Nature* would not have published the paper without having it thoroughly peer-reviewed first), then they raised serious question marks over how complete our understanding of prehistory really is.

In particular, and to get right to the point, what could those very early Americans and their descendants have been *doing* during all the tens of thousands of years that archaeologists insisted they weren't present at all? My whole focus, since long before the

publication of *Fingerprints of the Gods* in 1995, has been a quest for a high civilization of remote antiquity, a civilization that can rightly be described as "lost" because the very fact that it existed at all has been overlooked by archaeologists. I couldn't help but wonder, therefore, whether some traces of it might be found in those 100,000 lost years of the Americas.

So I persisted with Deméré, writing to him several times through the formidable Rebecca Handelsman, setting out the reasons why I wanted to interview him and providing more background on my own work. "Is it possible," I asked, "that missing pages in the story of the origins of civilization might await discovery in North America—the very last place, until now, that archaeologists have thought to look?"[9]

Pointing out that other, now-extinct human species had been present in the world 130,000 years ago and had interbred with anatomically modern humans, I also asked which *species* of human

he thought might have been involved at his site. “Were they anatomically modern? Were they Neanderthals? Were they Denisovans? Or were they one of the several other species of *Homo* that will likely be identified by further research in the coming years?”[10]

For days I heard no more and then, on October 2, 2017, Rebecca wrote again to report that Dr. Deméré had agreed to a “brief meeting” with me, that he was willing to discuss his site and the evidence for an early human presence that it yielded, but that he would not “speculate on what species it may have been or on broader topics/hypotheses re ancient civilizations.”[11]

I accepted these constraints and the interview was arranged for the next day, Tuesday, October 3. Whatever I got out of him it would surely add something to the museum’s press kit and, besides, Deméré’s reticence made perfect sense to me. The last thing he wanted while his own work was under attack was to be associated

with what archaeologists call “crackpot theories” about a lost civilization promulgated by a “pseudoscientist” like myself. If I were in his shoes, frankly, I would have been cautious, too. Indeed, I was quite surprised that he’d agreed to talk to me at all.

FORGOTTEN AMERICA

AT THE OUTSET OF THE twentieth century many scholars took the view that the Americas had been devoid of any human presence *until less than 4,000 years ago*.[12]

To put that in perspective, by 4,000 years ago the civilization of Egypt was already ancient, Minoan Crete flourished, and Stonehenge and other great megalithic sites had been built across Europe. Likewise, by 4,000 years ago, our ancestors had been in

Australia for about 65,000 years and had found their way to the farthest reaches of Asia at almost equally remote dates.[13]

So why should the Americas have escaped this global migration, and this seemingly unstoppable march toward high civilization, until so late?

The answer, perhaps, is that the most influential figure in disseminating and enforcing the view that the New World had only recently been populated by humans was a frowning and fearsome anthropologist named Aleš Hrdlička who, in 1903, was selected to head the newly created Division of Physical Anthropology at the Smithsonian Institution's National Museum of Natural History in Washington, DC. There he would remain until his death in 1943, deploying his intimidating authority as "the most eminent physical anthropologist of his time," "the gatekeeper of humankind's recent origins in the New World" to quash any and every attempt to suggest great human antiquity in the Americas.[14] Frank H. H.

Roberts, a colleague of Hrdlička's at the Smithsonian, would later admit of this period, "Questions of early man in America became virtually taboo, and no anthropologist desirous of a successful career would tempt the fate of ostracism by intimating that he had discovered indications of respectable antiquity for the Indian."[15]

But eminence can only suppress facts for so long, and throughout the 1920s and 1930s compelling evidence began to emerge that people had reached the Americas thousands of years earlier than Hrdlička supposed. Of particular importance in this gradual undermining of the great man's authority was a site called Blackwater Draw near the town of Clovis, New Mexico, where bones of extinct Ice Age mammals were found in 1929 and assumed, rightly, to be very old. The Smithsonian sent a representative, Charles Gilmore, to take a look at the site but—perhaps unsurprisingly under Hrdlička's malign shadow—he concluded that no further investigation was justified.[16]

Anthropologist Edgar B. Howard of the University of Pennsylvania disagreed.[17] He began excavations at Blackwater Draw in 1933, quickly finding quantities of beautifully crafted stone projectiles with distinctive “fluted” points—so-called on account of a characteristic vertical “flute” or channel cut into the base. The points were found in direct association with (and in a few cases even buried between the ribs of) extinct Ice Age fauna such as Columbian mammoth, camel, horse, bison, saber-toothed cat, and dire wolf.[18] In 1935, on the basis of these finds, Howard published a book in which he concluded that it was possible that humans had been in North America for tens of thousands of years.[19] Further seasons of meticulous fieldwork followed before he presented his findings, to widespread approbation and acceptance, at a prestigious international forum on Early Man and the Origins of the Human Race held in Philadelphia on March 18–20, 1937.[20]

Hrdlička was there. He gloweringly ignored the implications of the discoveries at Blackwater Draw and instead used his time onstage to reaffirm his long-held position that, for American Indians, “So far as skeletal remains are concerned, there is at this moment no evidence that would justify the assumption of great, i.e. geological, antiquity.”[21]

But the clock was ticking. Before and after 1943, the year in which both Howard and Hrdlička died, further discoveries of fluted points of the Blackwater Draw type—increasingly referred to as “Clovis points” after the nearby town of that name—continued to be made. This ever-accumulating mass of new evidence left no room for doubt and even the most stubborn conservatives (Hrdlička excepted) were eventually forced to agree that the Clovis culture had hunted animals that became extinct at the end of the last Ice Age and that humans must therefore have been in the Americas for at least 12,000 years.

This gave a huge boost to research, leading in the decades ahead to the discovery of around 1,500 further Clovis sites, and more than 10,000 Clovis points, at locations scattered all across North America.[22] As the net widened, however, a number of anomalies of the culture began to be identified. A confusing outcome of this is that there are now two schools of thought around its proposed antiquity and duration. The so-called long interval school dates the first appearance of Clovis in North America to 13,400 years ago and its mysterious extinction and disappearance from the archaeological record to around 12,800 years ago—a period of 600 years.[23] The "short interval" school also accepts 12,800 years ago for the end date of Clovis but sets the start date at 13,000 years ago—therefore allowing it an existence of just 200 years.[24] Both schools agree that this unique and distinctive culture must have originated *somewhere else* because, from the first evidence for its presence, it is already sophisticated and fully formed, deploying advanced weapons and

hunting tactics.[25] Particularly puzzling, since it is the archaeological consensus that the human migration into the Americas was launched from northeast Asia, is the fact that no traces of the *early* days of Clovis, of the previous evolution and development of its characteristic tools, weapons, and lifeways, have been found anywhere in Asia.[26] All we can say for sure is that once it had made its presence felt in North America the Clovis culture spread very widely across a huge swath of the continent,[27] with sites as far apart as Alaska, northern Mexico, New Mexico, South Carolina, Florida, Montana, Pennsylvania, and Washington state.[28] Such an expansion would have been extremely rapid were it to have occurred in 600 years and seems almost miraculously fast if it was in fact accomplished in 200 years.[29]

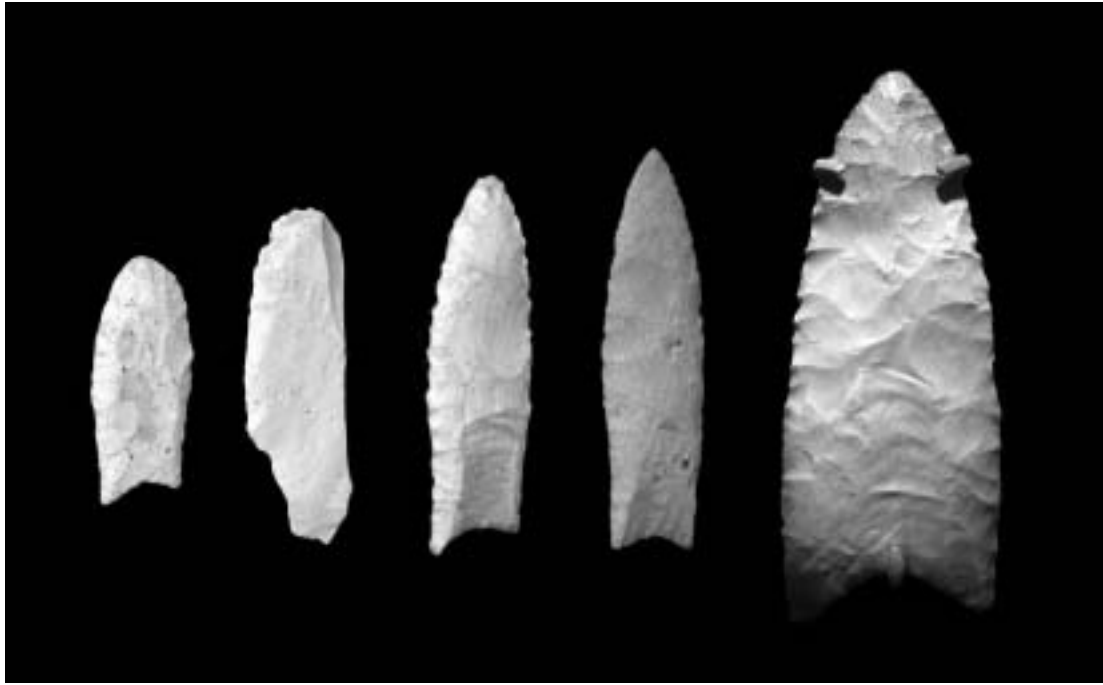

An array of Clovis points with a Clovis blade second from left. PHOTOS: SANTHA FAIIA AND, FAR RIGHT, NATURAL HISTORY MUSEUM OF UTAH.

THE LAND BRIDGE AND THE ICE-FREE

CORRIDOR

DURING THE 1940S AND 1950S, as the fame of Clovis continued to grow, no evidence was forthcoming—or, to state the matter more exactly, none that was generally accepted, approved, and confirmed by the archaeological community—of any kind of human presence in the Americas older than the earliest Clovis dates of around 13,400 years ago.

As regards the matter of general acceptance, despite a few dissenting voices[30] a consensus soon began to emerge that no older cultures would *ever* be found—and what is now known as the "Clovis First" paradigm was conceived. We might say, however, that it was not officially "born" until September 1964. That was when archaeologist C. Vance Haynes, today Regents Professor Emeritus of Anthropology at the University of Arizona and a senior member of the National Academy of Sciences, published a

landmark paper in the journal *Science*. Snappily titled "Fluted Projectile Points: Their Age and Dispersion,"[31] the paper presented, and persuasively supported, a number of key assertions.

First, Haynes pointed out that, because of lowered sea level during the Ice Age, much of the area occupied today by the Bering Sea was above water, and where the Bering Strait now is, a tundra-covered landscape connected eastern Siberia and western Alaska. Although not a particularly easy environment, it would, Haynes argued, "have presented no obstacle" to nomadic hunters who were already masters of the Siberian tundra and who would certainly have followed the herds of bison, deer, and mammoth that roamed across it.[32]

Once over the land bridge, however, it was Haynes's case that the migrant hunters could not have ventured very far before confronting the daunting barrier of the Cordilleran and Laurentide Ice Sheets, which were at the time merged into a single impassable

mountainous mass covering most of the northern half of North America.

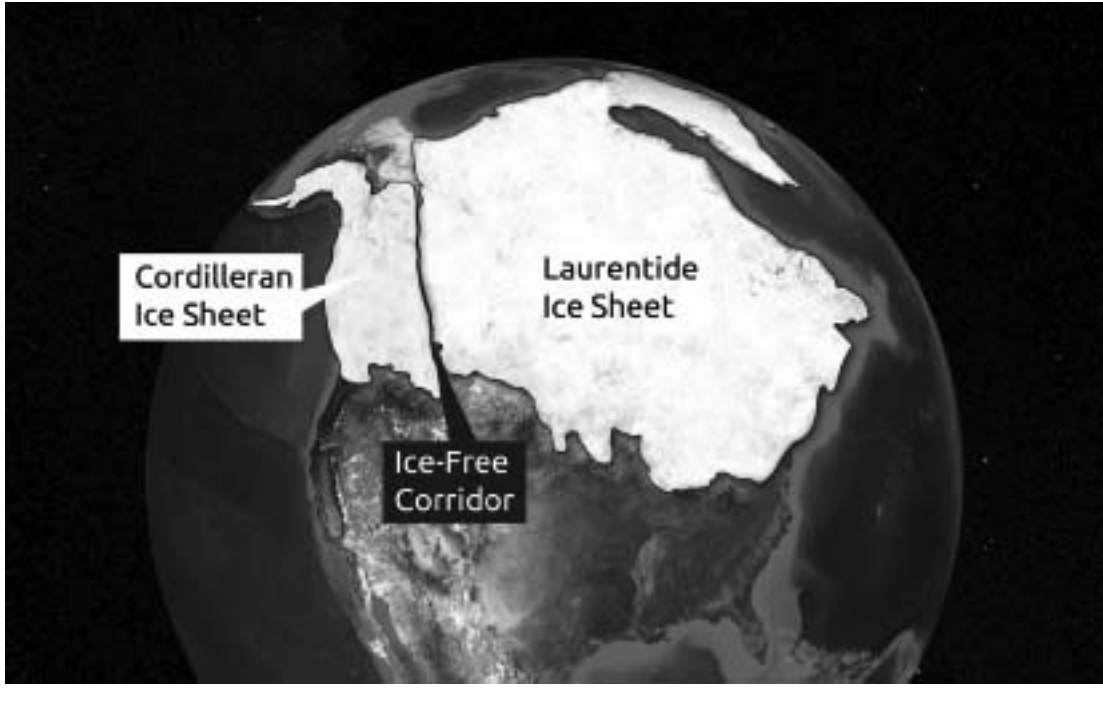

They therefore had no access to the lands that lay beyond. As a result, prevailing in the ice-free southern half of North America

during this phase of the last Ice Age were "conditions as favorable to the existence of herbivorous megafauna, which man could hunt, as conditions during the time of the Clovis occupation, yet there is not the slightest evidence of man's presence."[33]

Things changed around 14,100 years ago, Haynes claimed, when a generalized warming of global climate caused an ice-free corridor to open up between the Laurentide and the Cordilleran ice caps, allowing entry for the first time in many millennia to the rich, unglaciated plains, teeming with game, that lay to the south.[34]

Some 700 years later, around 13,400 years ago, the stratigraphic record of those plains starts to include Clovis artifacts. Their "abrupt appearance," Haynes argued, supports the view "that Clovis progenitors passed through Canada" and that "from the seemingly rapid and wide dispersal of Clovis points … it appears these people may have brought the technique of fluting with them."[35]

As noted earlier, no Clovis points have ever been found in Asia,[36] but when Haynes published his landmark paper in *Science* in 1964 he reported correctly that four had been found "on the surface" in Alaska and another in the Canadian Yukon, all undated,[37] with the oldest dated points south of the former ice margin going back no further than 13,400 years. To Haynes this looked like the last link "in a logical sequence of events, and the pieces begin to fall into place. If Clovis progenitors traversed a corridor through Canada … and dispersed through the United States south of the … ice border in the ensuing 700 years, then they were probably in Alaska some 500 years earlier. … The Alaskan fluted points … *could* represent this occupation and *could,* therefore, be ancestral to Clovis points and blades."[38]

The paper was welcomed by archaeologists,[39] most of whom were already convinced that Clovis was "First," and virtually overnight what had been at best a persuasive and seemingly well-

constructed theory morphed into the new ruling orthodoxy. Worse, it soon became every bit as rigid and intolerant as the orthodoxy of Hrdlička's time and it would retain ultimate authority over archaeological careers and research priorities for decades to come with a grip every bit as firm as Hrdlička's iron fist.

In a familiar refrain, those who disagreed with "Clovis First," or were foolhardy enough to report possible pre-Clovis sites, did so "at significant risk to their careers."[40] Indeed by 2012 the bullying behavior of the Clovis First lobby had grown so unpleasant that it attracted the attention of the editor of *Nature,* who opined: "The debate over the first Americans has been one of the most acrimonious—and unfruitful—in all of science. … One researcher, new to the field after years of working on other contentious topics, told *Nature* that he had never before witnessed the level of aggression that swirled around the issue of who reached America first."[41]

CHALLENGING CLOVIS FIRST

TOM DILLEHAY, PROFESSOR OF ANTHROPOLOGY at Vanderbilt University in Tennessee, began excavations at Monte Verde in southern Chile in 1977 and found evidence that humans had been present there as far back as 18,500 years ago.[42] The progress of science eventually vindicated him, as we shall see, but before it did so Dillehay had to endure sustained and often deeply unpleasant personal attacks from Clovis Firsters for more than 20 years.

He was attacked because there are no Clovis artifacts at Monte Verde, it is 5,000 years older than the oldest securely dated Clovis sites, and it is located more than 8,000 miles south of the Bering Strait.

The reader will not have forgotten that the strait was dry during the lowered sea level of the last Ice Age—a tundra-covered land bridge across which the Clovis people were believed to have

migrated on foot from northeast Siberia and thence into the Americas through the ice-free corridor between the Cordilleran and Laurentide Ice Sheets. The credibility of Clovis First depends crucially on the supposed close chronological link between the opening up of that ice-free corridor around 14,100 years ago and the first appearance of Clovis artifacts south of the ice margin around 13,400 years ago. By putting humans in the Americas more than 4,000 years *before* the opening of the ice-free corridor, Monte Verde showed that "link" to be illusory. Moreover, by putting them not in North America but in South America, with no means of transport available to them other than boats of some sort, it questioned fundamental assumptions about the technical and organizational capacities of our ancestors, hitherto judged to be too low to allow such adventures at such a remote period.

Tom Dillehay's most dogged and determined critic, perhaps predictably, has been C. Vance Haynes, whose 1964 paper launched the Clovis First theory and who by 1988 had used his influence, and

his outreach in the scientific journals, to dismiss every case thus far made for supposedly pre-Clovis sites in the Americas.[43]

Except Monte Verde. Even for Haynes, this Chilean site was proving to be an exceptionally tough nut to crack. Realizing that the implications for American archaeology of Tom Dillehay being right were immense, Haynes wrote to David Meltzer at SMU to suggest that "a panel of objective conservatives should be formed and funded by NSF [National Science Foundation] to visit the site, examine it, take samples, etc. If a positive consensus results we can then accept the interpretation and formulate new hypotheses for the peopling of the New World. If not, Monte Verde will have to be relegated to the bin of possible pre-Clovis sites awaiting further data."[44]

James M. Adovasio, a world expert in perishable artifacts and former director of the Mercyhurst Archaeological Institute at Mercyhurst University in Erie, Pennsylvania, was closely involved

in the events that followed. He tells us that he would be remiss if he "did not point out that by the oxymoron 'objective conservatives,' Haynes meant himself and the Clovis First disciples."[45]

In the end, however, after 7 years of haggling, a balanced group was put together, "not configured as a panel of pre-Clovis skeptics or, conversely, pre-Clovis enthusiasts," says Adovasio: "rather, it was, as designed, a mixed bag reflecting a range of views."[46]

The site visit took place over 3 days in January 1997, and far from relegating Monte Verde to the "bin," all members of the group eventually signed on to an official report confirming that it was indeed an archaeological site and that Dillehay's dates were correct. The report was published in October 1997 in *American Antiquity* and left no room for any conclusion other than that Monte Verde predated Clovis; it even considered the "extremely intriguing" possibility that the human presence there might go back as far 33,000 years.[47]

In his important book *The First Americans,* Adovasio, who was present at the proceedings throughout, provides a blow-by-blow account of how the panel arrived at its conclusions, and of the follow-up.[48] It seems that Haynes was not happy, despite being a signatory to the report, and even as it appeared in print he began to voice doubts over it to colleagues, questioning again the antiquity of Monte Verde and "suggesting a wondrous new array of hypothetical events that could have contaminated the site in some previously unperceived way."[49]

Haynes and Adovasio had crossed swords before—over Meadowcroft, a site in Pennsylvania that Adovasio had excavated in the 1970s that revealed eleven well-defined stratigraphic units with evidence of human occupation "spanning at least 16,000 years and perhaps 19,000 years."[50] Inevitably, because it threatened Clovis First, this attracted the hostility of Haynes, who, in the years that followed, sought to quibble away almost every aspect of Adovasio's

evidence: “In scientific paper after scientific paper, Haynes … asked for yet another date, yet another study, raising yet other picayune and fanciful questions about Meadowcroft, most of which had been answered long before he asked them—not just in the original excavation procedures but in report after report.”[51]

Again, as was the case with Monte Verde, the constant quibbling and demands for ever more evidence, when the evidence in place was already more than adequate, was demoralizing and had the effect of slowing down the research effort but ultimately did not prevent formal recognition of Meadowcroft Rockshelter as a National Historic Landmark with an age of more than 16,000 years.[52]

Likewise, in the 1990s, Canadian archaeologist Jacques Cinq-Mars excavated Bluefish Caves in the Yukon and found evidence of human activity there dating back more than 24,000 years—older than Meadowcroft and much older than Clovis. The price he paid

was high. His competence and his sanity were questioned and when he attempted to present his findings at conferences he was ignored or insulted.[53] One colleague stated matters bluntly: "When Jacques proposed [that Bluefish Caves were] 24,000 [years old], it was not accepted."[54]

As a result of such attitudes, funding drained away and Cinq-Mars had to stop his work, only to be proved correct, many years later, by a new scientific study of the evidence from the caves published in January 2017.[55]

That study, one of several that confirmed the existence of pre-Clovis sites of increasingly ancient dates,[56] was titled *Earliest Human Presence in North America*.

Only 4 months later, on April 27, 2017, Tom Deméré's paper announcing the discovery of "a 130,000-year-old archaeological site in southern California, USA," appeared in *Nature*.[57]

That’s about ten times older than Clovis, eight times older than Meadowcroft, and more than five times as old as Bluefish Caves.

The resulting furor was, in retrospect, inevitable.

5

MESSAGE FROM A MASTODON

THE SAN DIEGO NATURAL HISTORY Museum, affectionately known to locals as “The Nat,” is situated in the lush gardens of Balboa Park, which served as the venue for the 1915 Panama-California Exposition. Originally called “City Park,” it was renamed for the exposition in honor of Spanish-born Vasco Nuñez de Balboa (1475–

1519), who conducted a murderous exploratory raid across Panama and became the first European to see the Pacific Ocean.[1]

Balboa Park was repurposed after the closure of the exposition and now hosts seventeen museums and cultural institutions, among which The Nat stands out for its excellent collections and for its research expertise. As Santha and I strolled toward it on a bright Southern California morning, we couldn't help but reflect on the irony. In a museum in a park named after an arriviste European adventurer, we were about to be shown evidence that might speak to the truly vast antiquity of Native Americans in the lands that Europeans had stolen from them with fire and sword.

Rebecca Handelsman had asked us to meet her at The Nat's south entrance but we were early so we spent some time in the north atrium first, which is dominated by a looming skeleton cast of an Allosaur, a predatory dinosaur a bit like its more famous younger cousin Tyrannosaurus rex.

Scientists now agree that *T. rex* and the entire nonavian Dinosauria clade became extinct virtually overnight after a large asteroid or comet—more likely the latter[2]—hit the Gulf of Mexico around 65 million years ago. There is also no doubt that it was this sudden and cataclysmic eradication of dinosaurs from the planet that opened the way for the rapid, uncontested expansion into new niches of the hitherto-insignificant mammalian line. We humans today are among the descendants of those early mammals.

It's thought-provoking, isn't it, that cosmic impacts, whether by asteroids or by comets, can sometimes be of such magnitude that they drastically redirect the evolutionary path of life on earth. It has happened more than once, as we shall see. However, a cataclysm was **not** to blame 130,000 years ago when a lone mastodon, perhaps old or sick, died on a floodplain in Southern California and was subsequently scavenged, with the carcass then quite rapidly covered by, and entombed in, a deposit of silty, sandy, fine-grained

sediment.[3] There it remained undisturbed until November 1992, when the California Department of Transportation undertook highway construction on State Route 54 where San Diego borders National City.[4] It was routine practice for paleontologists from The Nat to monitor road-grading in Southern California in case any important fossil material was exposed, and Richard Cerutti, the monitor on duty at SR 54, spotted the fossilized bones and the tusk of what he at first thought was a mammoth.[5] He halted construction in the immediate vicinity until a proper excavation could be undertaken, and called in his boss, Dr. Tom Deméré, to lead it.[6]

Working together with a team of other researchers from The Nat, Cerutti and Deméré very quickly established that the fossilized remains, including many bones, both tusks, and several of the animal's teeth, belonged to a mastodon.[7] Like the mammoths, to which they were closely related, mastodons were swept from the face of the earth in the sudden and mysterious extinction of

America's Ice Age megafauna that took place around 12,800 years ago[8]—the same epoch exactly that saw the equally abrupt and equally mysterious disappearance of the Clovis culture.

From quite early on both Cerutti—after whom the site is now named—and Deméré were intrigued by what the excavation revealed: "Many of the bones were strangely fractured—or missing entirely. And there were several large stones, found in the same sediment layer as the bones and teeth, that appeared out of place. It looked like an archaeological site—like the preserved evidence of human activity."[9]

As well as the hefty rocks, unusual in fine-grained sediment, smaller pieces of sharply broken stone were found peppered throughout the Cerutti Mastodon Site: "This is not typically something you would see as a result of normal geological processes. The combination of stones … together with broken bones was

interesting and instigated speculation regarding the possibility of human activity at the site."[10]

At first intriguing, the implications of the data grew worrying when it began to become obvious that the site was *extremely* ancient, lying embedded in sediments "that had been deposited much earlier, during a period long before humans were thought to have arrived on the continent."[11] In the early 1990s, radiometric techniques capable of peering much further back into the past than the standard 50,000-year limit for carbon dating[12] were already available. Unfortunately, however, they had not yet attained sufficient accuracy to give scientists a high level of confidence in the age range suspected for the Cerutti Mastodon Site.[13]

The end result, after key finds were moved to The Nat where they were housed in the archives, was that the site was reburied and abandoned. Despite its anomalous character and suspected importance, it was just too explosive to put before the scrutiny of

hostile archaeologists while the dates remained uncertain. “If you claim something is that old you get blasted,” Cerutti said, referring to the Clovis First lobby, “which is why some archaeologists stopped working on sites like this. They didn’t want to get blasted.”[14]

It wasn’t that the Cerutti Mastodon Site was completely forgotten in the 25 years after the excavation stopped. It’s on record that Tom Deméré invited several other researchers to study the collection of key finds kept at The Nat, but none did so.[15]

Robson Bonnichsen, founder of the Center for the Study of the First Americans, warned him that “research that contributes to First American Studies is a game of hardball.”[16]

Months ran into years with no journal article on the site even drafted, let alone published, nor any further investigation undertaken. Cerutti, reportedly, was so disappointed that he stopped

going anywhere near State Route 54.[17] The whole exciting matter seemed to have fallen into stagnation.

It was not until 2014, more than two decades after the mastodon's discovery, that the tide decisively turned.[18] Built on improved understanding of processes that incorporate natural uranium and its decay products in fossil bone, a newly enhanced technique, known as 230 Th/U radiometric dating, was now available that could settle the age of the Cerutti deposit once and for all. Deméré therefore sent several of the mastodon bones to the US Geological Survey in Colorado, where geologist Jim Paces, using the updated and refined technique, established beyond reasonable doubt that the bones were buried 130,000 years ago.[19]

Now things began to move much more swiftly and it was time to reexamine the strange fractures on some of the bones that had been noticed back in 1992 and also to take a much closer look at the "out of place" stones and rocks found in the same sediment layer. To this

end the large and eclectic team of investigators who would eventually coauthor the landmark 2017 paper in *Nature* had already begun to form. Tom Deméré and Richard Cerutti were at the heart of it but other members included Dr. Steve Holen, curator of archaeology at the Denver Museum of Nature and Science, a specialist in the ancient uses of bone, Professor Daniel Fisher of the Department of Earth and Environmental Sciences, University of Michigan, Dr. Richard Fullagar of the Centre for Archaeological Science, University of Wollongong, and Dr. James Paces, Research Geologist at the US Geological Survey.[20]

It was a formidable team, their work was meticulous, and publication of the paper in *Nature* meant that archaeologists, just then cautiously emerging from the shadow of the Clovis First paradigm and adjusting themselves with difficulty to ages in the few tens of thousands of years for sites like Monte Verde, Meadowcroft, and Bluefish Caves, were now obliged to contemplate a site dating

back to the Eemian, the last interglacial period that extended from roughly 140,000 years ago down to about 120,000 years ago when the Pleistocene ice sheets began to expand again.[21]

At that point in 2017 it was still believed—though new evidence would soon substantially change the picture[22]—that anatomically modern humans had not even left their African homeland 140,000 years ago.

So how could they possibly have gotten to America before they'd even set out on the epic migrations by which they populated the world?

Having researched the Clovis First wars, and indeed the whole story of prehistoric archaeology in the United States from the late nineteenth century onward, I was just beginning to realize how staggering the implications of all this really were.

TOM DEMÉRÉ'S BONES AND STONES

THE NAT'S MAIN ATRIUM, WHERE the allosaur lurks, is accessed through the museum's north entrance, so just before 11 am Santha and I walked around the west side of the four-story building and presented ourselves at the south entrance. Beyond it was a second atrium, where we were encouraged to see that much of the space was devoted to a well-attended exhibition honoring the Cerutti Mastodon Site.

Out of the crowd, Rebecca Handelsman appeared. Tom Deméré would join us in a moment, she said. While we waited, she walked us over to a display case containing a mock-up of the sediment matrix from the site into which, point down and visible through the glass side of the case, was set a mastodon tusk. It was a little shorter than my arm, but it was obviously not complete as the upper part had been crudely broken off.

“This is the tusk that first attracted Richard Cerutti’s attention,” Rebecca explained, and before I could ask she added, “Its upper part was clipped off by the backhoe before he could stop the construction work.”

“Is the way it’s displayed here the way it was found?” I asked.

“Exactly that way.” She paused and waved. “Look, here’s Tom. He can tell you all about it.”

Weaving through the crowd was a man of pleasant aspect, spare and lean after a lifetime of fieldwork, wearing blue jeans and a brick-red shirt. From my background reading I knew he was 69 years old, though he appeared younger, and as we shook hands I saw he had penetrating gray eyes and an easy smile. Despite the risk to his reputation of even talking to a “pseudoscientist” like me, he seemed relaxed and friendly.

I launched straight in on the subject of the tusk. “What’s so special about it?” I asked Tom.

“The way it was set into the ground so it would have stood upright. The other one lay in a natural horizontal position beside it but this one was found like you see it in the display. Vertical. And that, to us, immediately looked like an anomaly.”

“Why?”

“One suggestion is that it was perhaps left there as a marker to come back to the site on a floodplain where everything is low relief. … I mean, who knows? I don’t know what sort of noncultural process would put a tusk vertical. I just don’t understand it.”

“So what you’re saying is that this looks like the result of human behavior? That it’s evidence of a deliberate, intelligent act?”

“It seems like that to me, and to many others—though I have to say our critics aren’t persuaded!”

I take this as my cue to ask Tom if he and his team had been surprised by the level of skeptical response to the *Nature* paper.

“I expected we’d have pushback,” he replied. “I just hoped it would have been more objective.”

“I suppose that in any profession and any career people get very emotionally involved …”

“Apparently! I’m not used to it from a paleontological standpoint. I mean, there’s passion in paleontology, too, but I’m not used to this sort of thing.”

I restrain myself from stating my view that “this sort of thing”—namely sniping, quibbling, misrepresentation, straw-man arguments, and vituperative ad hominem attacks leveled against anyone suggesting deep antiquity for the First Americans—is perfectly normal among archaeologists, and Santha and I gratefully accept Tom’s offer to talk us through the exhibits.

The anomalous tusk is just a small part of the story, he says. The stronger evidence comes from the mastodon’s fossilized bones, and from the rocks and stones of various sizes found distributed around the site.[23]

In humans the femur is the long bone of the thigh. At its upper end it has a ball-like protrusion, the femur head, that articulates with a socket in the pelvis and thus—wondrous nature!—enables us to walk. Though they stood on four legs it was no different for mastodons. Their femora were their upper hind limbs and, just like our femora, were surmounted by ball-like heads set into their pelvic sockets.

Tom draws our attention to the hefty, almost hemispherical detached heads of the mastodon's two femora, one with the rounded end down, the other with the rounded end up, sitting side by side in a display case. "This is how they were found when we excavated them," he says. And he points out a rock next to them that he calls an "anvil stone," adding that there wasn't much left of the femora themselves.

The significance of this is not immediately obvious to me so I ask Tom to elaborate.

“We suggest that this was a work station,[24] that both femora were hammered and broken here on the anvil stone and that the heads were detached and just set off to the side. It feels purposeful, like the tusk. It feels like humans were breaking these bones and it’s not only what’s *here* that’s important but also what’s not here. I mean, originally the femora from which these heads came were three feet in length and massively thick, yet we have just a few pieces of them …”

“So that would suggest, what, that the other pieces were taken away?”

“Yes. I mean, if it was equipment damage, you’d think you’d have the whole femur, right? So the fact that we have missing bits suggests to us that they were taken away, which fits this idea of human processing and transportation.”

In the next display case are the few large fragments of femur that were found at the site and multiple smaller flakes of bone that were

found lying around them.

“We interpret these as cone flakes,” Tom explains. “So when a bone is struck by a stone hammer you have damage on the impact side but also you have these flakes come out on the other side. At the point of impact you have a small hole and the exit point of that impact is a larger hole, and so these are flakes that are created by impacts.”

“I suppose one question would be—they took away bits of the femora, so why didn’t they take the tusks? Because the tusks, presumably, would have offered them useful materials, too?”

“But they’re also heavy,” Tom points out. “Whereas bones are relatively transportable. We have a pattern and the pattern begs for an explanation and what we feel fits that pattern is human transportation.”

“Did you find anything that was obviously a tool?”

“No.” Tom appears untroubled by what some critics regard as a fatal argument against his case.

I seek clarification. “So if we’re saying that humans did this, then we’re saying that they just took advantage of natural rocks and they used those as hammers and anvils basically?”[25]

“That’s one of the problems the skeptics have,” Tom admits cheerfully, “that there are no fashioned tools, no flaked stone tools, that there are no knives, no scrapers, no choppers.”

“But if I’m correct, you’re arguing that can be explained—because what these ancient humans were doing was extracting the marrow from the bones.[26] They were smashing up the bones. They didn’t particularly need fine tools for this.”

“That’s what we’re saying. We’re saying that this was a carcass. It wasn’t killed by these humans. It wasn’t even butchered by these humans. Most likely it was a carcass at an advanced stage of decomposition but it still had potential for the extraction of marrow from the bones.”

“Some critics have claimed it was the backhoe or the grader or other equipment used in the roadworks that broke the bones,” I point out.[27] “Others have argued that they were broken by being rolled against rocks carried along in river water when the surrounding sediment was laid down.”[28]

Tom raises an eyebrow. “Flow velocities that are strong enough to transport rocks like the big anvil stones are going to carry all the finer material much farther away. And yet we still have all that fine material at the site—small stones, small bone fragments, and obviously the associated silt and sand, too. So there really is a disjunct in terms of the hydrology.”

Addressing the suggestion of Cerutti skeptic Gary Haynes that the bones were broken by the roadmaking equipment in 1992,[29] Tom launches into a long and detailed exposition. It’s too technical to try the reader’s patience with here, but the takeaway is that a recently broken, fossilized bone has a very different appearance to a

bone broken when it was still fresh, within a short time of the animal's death. Experiments carried out by Deméré's colleague Steve Holen on the bones of a recently deceased African elephant showed that the characteristic spiral fractures that occur when you deliberately and systematically break fresh bone between a stone hammer and a stone anvil in no way resemble the fractures caused by the teeth of scavengers or predators and simply cannot occur in fossilized bones.[30] The presence of spiral fractures among the bones of the Cerutti mastodon therefore leads to the inevitable conclusion that they must have been broken 130,000 years ago, when they were fresh.[31]

Meanwhile, the presence of the hammer and anvil stones, and the evidence of how they were used to break the bones, makes it equally certain that humans were involved.[32]

"Because," I muse, "nothing else is going to smash up those bones and take out the marrow in that way."[33]

“That’s how we see it,” Tom confirms, “but I’m a scientist so I’m open to alternative explanations if they fit the data better than ours. And so it’s possible that we are wrong. But the evidence suggests to us that the only explanation for the taphonomic data at this site is that humans were responsible.”

Taphonomy is the study of the circumstances and processes of fossilization, a field that is generally better understood by paleontologists like Tom than by archaeologists.

IF YOU DON’T LOOK, YOU WON’T FIND

AFTER WE’VE COMPLETED OUR TOUR of the exhibits Tom takes us behind the scenes at the museum into areas off-limits to the public. As we ride the elevator up to the fourth floor I ask him if it was a struggle to get the *Nature* paper accepted.

“Well, it was a yearlong review process,” he replies, “rigorous, which you’d expect. I’ve tried publishing in *Nature* before. It’s not an easy journal to get into. So we were excited when they sent it out for review. That’s really the first hurdle—if it gets off the editor’s desk. Then we went through several rounds of revisions and re-review and re-revision but eventually it was accepted. So that was really exciting. It’s a terrific journal. And that’s the other thing, of course, it’s *Nature,* it’s not some third- or fourth-tier publication.”

“Absolutely top tier,” I agree as we step out of the elevator, “which is why it’s had such a huge impact. … I’ve been following the story of the peopling of the Americas and for a very long while there was extreme resistance around the so-called Clovis First model. I mean, that was it. It was almost dangerous career-wise to propose anything else.”

“Apparently,” Tom says.

“And then the evidence starts to come in and starts to just overwhelm that paradigm. We begin to open up to the possibility of

14,000, 15,000, 18,000, 25,000 years. And you can see the archaeological community kind of reluctantly embracing that, but then you come along with 130,000 years and that is a time bomb. Literally. It's a huge explosion."

Tom's expression is rueful. "It wasn't our intention. It was just where the evidence led us."

We enter The Nat's archives where the larger part of the Cerutti mastodon collection is permanently stored in a secure room in three huge cabinets. An Indiana Jones moment follows as Tom grabs a four-spoked steel wheel and spins it. Soundlessly the cabinets slide apart, avenues appear between them and then Tom is opening drawers and showing us mastodon bones and mastodon teeth and more pieces of rock and stone while Santha takes photographs and we continue talking.

The more I see, the more persuaded I am and the better I understand why *Nature* published Tom's paper. Despite the whines and quibbles of the skeptics, the evidence, once it's laid out in front

of you, once you actually look at the bones and stones, and once the technical details are properly considered, is absolutely solid and convincing.

"What's next?" I ask. "How do you take this further?"

"Well, of course one of the things we've said all along to our critics is that if you don't look in deposits of this age with the idea in mind that evidence of humans could be there, then you're not going to find anything. So we're suggesting, as a challenge, that people should start considering, should start to look in these deposits, as a way of testing this hypothesis. I know that's a lot of work, but there are unexamined deposits of this age throughout the US."

"It's also good science," I comment. "I mean, not just to rest on a paradigm but to try to look for other possibilities. Again I'm struck by the emotional nature of the reaction your paper has provoked. Some people are quite reasonable but others almost insultingly reject the whole thing."

“Dismissive! So … I guess the reaction I was looking for was healthy skepticism but with the idea of—well, let’s look at this now, let’s consider this and what the implications are and what sort of predictions can we make about testing this. … But that’s been a minority of the reactions. We’ve seen the extremes of both. Some people say this is pure garbage and others say this is the find of the century, but what we’re saying to everyone, really, is open your mind to the possibility that instead of the peopling of the Americas being associated with the last deglaciation event [the so-called Bølling-Allerød interstadial, dated from around 14,700 years ago to around 12,800 years ago[34]] what we should actually be looking at is the deglaciation event *before that*—between 140,000 and 120,000 years ago. You get the same sort of scenario with a land bridge and ice sheets retreating and you get that same sweet spot between really low sea levels and a blockage by ice sheets, and ice sheets gone and the flooding of the land bridge.”

“And yet,” I reflect, “so much else changes if you’re right. The peopling of the Americas becomes a whole different story—much more complicated.”

“Well,” Tom suggests, “it becomes richer. …”

“A much richer and longer story. So much so, in fact, that it’s really hard for a lot of archaeologists to swallow when they’re committed to a shorter time frame.” I hesitate before raising my next point: “Look … I know we’re not supposed to talk about this but your date of 130,000 years ago raises the possibility that it might have been Neanderthals who were at your site, or Denisovans, or anatomically modern humans—because they were all in the world at that time.”

With this comment I’ve taken us into territory I’d specifically agreed would be off-limits when my request for an interview was accepted, but Tom seems happy to express his point of view. “As a paleontologist,” he muses, “I ask the question—why *weren’t* there humans here earlier? I mean, we have dispersal of Eurasian animal

species into North America and dispersal of North American species into Eurasia at earlier times. So why *shouldn't* humans have been here as well?"

"And now it looks like they were."

"I'm certain of that from our evidence."

"Which raises the question of why in 150 years of professional study archaeologists have failed to find similar evidence."

"There's always the possibility," Tom offers, "that our site witnesses a failed colonization attempt. So you had this dispersal event. It didn't take, maybe because population size wasn't great enough, and they quite quickly died out—in which case they would have left almost no trace of their presence for archaeologists to find. Then thousands of years later there was a successful colonization by other migrants and naturally they dominate the archaeological record."

"It could be like that," I concede. "But on the other hand, it could be there were people here all along and they've just been invisible

to archaeology because of the particular way archaeology works and the particular things archaeology looks for.”

“You’d have to ask the archaeologists.” Tom shrugs. “But like I say, if you go to a place and you absolutely rule out in advance that humans were there 130,000 years ago, then you’re clearly not going to find evidence that they were. But if you go with an open mind”—an impish smile—“and dig deep enough in the right places, then who knows what you might turn up?”

6

MILLENNIA UNACCOUNTED FOR

WHEN TOM DEMÉRÉ DUG DEEP enough he turned up evidence of humans in North America 130,000 years ago that was sufficiently robust to make it through *Nature*'s rigorous peer-review process and into print in April 2017.

By then it was no longer news that the New World had been peopled long before Clovis. In chapter 4 we saw that Monte Verde,

Meadowcroft, and Bluefish Caves had already pushed back the date of the "First" Americans from around 13,000 years ago to at least 24,000 years ago. These, however, are only three sites among a growing number that suggest a vast, complex, textured antiquity for the human presence in the Americas across ages when hitherto we've been asked to picture an uninhabited wilderness awaiting the arrival of Man. No matter how long it exists, an uninhabited wilderness will not produce a civilization, and it would make no sense to look for one there. But with new evidence continuing to pour forth, it's increasingly obvious that humans were in the Americas not just for thousands of years before Clovis, but for tens of thousands of years—all the way back to the Cerutti Mastodon Site or earlier—and thus had vast expanses of time at their disposal to develop in any direction they chose.

Wanting to get a better feeling for the time-depth of this mystery leads me, through various contacts and connections, to a walk in the South Carolina woods. It's early November, a sunny yet cold

morning. There's a mulch of fallen leaves underfoot but the trees around us are still in foliage, mostly green with muted hints of autumnal reds and yellows beginning to mottle the canopy. I'm with Albert "Al" Goodyear, professor of archaeology at the University of South Carolina. Around 70 years of age, cheerful and in rubicund good health, he's wearing a South Carolina Gamecocks baseball cap, a navy check shirt, a tweed jacket, and tough outdoor pants tucked into his hiking boots to keep ticks carrying Lyme disease at bay. Our ramble takes us close to the Savannah River, which here forms the border between the states of South Carolina and Georgia.

Al is a world expert on the Clovis culture and back in 1998, having excavated an extensive Clovis layer in these woods, he dug deeper. In the end, what he found was evidence that humans had been here 50,000 years ago, not as old as the Cerutti mastodon by any means, but still a good 37,000 years before Clovis.

Unsurprisingly, Clovis Firsters were adamantly opposed and launched a campaign to discredit the find.[1]

The site is now called Topper, after David Topper, a local forester. In 1981 he spotted stone tools on the ground here.[2] He notified Al, who a couple of years later launched a comprehensive archaeological survey of the Savannah River watershed. As part of this larger project, excavations began at Topper in 1986 and it was immediately obvious that Native Americans had been coming here for many thousands of years. Obvious, too, was the reason why—a huge outcrop of easily accessible chert, the raw material of a form of flint ideal for making stone tools.[3]

Al suddenly stoops and picks up a small, almost translucent piece of reddish flint from the ground at our feet. It is recognizably a fragment of an arrowhead, with a notch near the base. Al confirms my guess that it's not Clovis. "It's a nice piece," he says. "It's been heat treated. It's probably about 8,000 years old."

He draws my attention to an area off the path relatively free of fallen leaves where there's quite a scatter of stones, mostly small broken pieces like this one. Al refers to them as "debitage" (the technical term for lithic debris and discards found at sites where stone tools and weapons were made). "Every flake on the ground was struck off by a human," he says, "and you can roughly tell the age. With strong coloration they're more recent, but if they're white and creamy, they're weathered and older."

Our next stop is the chert quarry, the reason so much was going on around Topper for so long. "For them this was like aluminum bauxite or iron ore for our culture," Al explains. "They didn't have jackhammers. They didn't have crowbars. They just had to work what they could get off the surface; maybe set a fire or something to push it out. So we call this 'Topper Chert'—the chert source for the Topper site."

"I find it amazing," I say, "that there are still broken points 8,000 years old just lying around on the surface whereas you have to

excavate to reach other materials from that horizon."

The earth is a dynamic place, Al explains, with multiple different processes of deposition and erosion under way at all times. You can make guesses based on style and weathering, but fragments of worked stone that have been in the open for an unknown period can't be dated by their archaeological context, because there is none. Carbon-dating organic materials in the sediment in which they were found won't work, either, because they were never entombed and preserved in sediment. And in fact no other objective and widely accepted method of dating can tell us how old they are. For these reasons archaeologists have to discount artifacts found on the surface when coming to any conclusions about the age of a site, even though the artifacts themselves may obviously be ancient. Their presence, however, does serve as a clue that much more might be awaiting discovery underground—which was precisely why Al followed up on David Topper's 1981 suggestion to take a look.

THERE'S A FIRST TIME FOR EVERYTHING

AFTER THEIR FIRST SEASON OF excavation at Topper in 1986, Al and his team methodically worked their way down during the next dozen years through the levels of what was turning out to be a *very* extensive, detailed, and time-consuming excavation. There were a number of archaeological "horizons" here, stacked one above the other in nice, easily datable layers of sediment, containing the leavings of different cultures at different, and increasingly more ancient, periods of the past. "We found pottery down to about 2,000 years ago," Al says. "Below that there was no pottery but there were plentiful artifacts from the period we call the Archaic. So we kept on going down and we got into the Early Archaic [around 8,000 to

10,000 years ago[4]]. They made these beautiful little notched points. And then below that, in 1998—bingo!—we found Clovis."

Topper is the only Clovis site to be excavated on the coastal plains of Georgia and the Carolinas.[5] As though by way of compensation, however, the Clovis level at Topper turned out to be so massive that the excavations there would not be complete until 2013. As he tells me about the treasure trove of more than 40,000 Clovis artifacts that he and his team uncovered, Al radiates excitement. And rightly so! It was a tremendous achievement that continues to enjoy renown among archaeologists.[6]

The same, however, cannot be said for what happened next. "So we got down to the bottom of the Clovis level," Al continues, "and then we all voted to go deeper." For the next half meter or so there was just sand and small gravels, devoid of any evidence of human presence, and then suddenly the excavators found themselves among artifacts again.

I ask if there was a particular aha moment.

Al laughs. “My aha was more of an uh-oh! Everybody else was going aha but they weren’t going to have to stand up at national conferences and defend what we’d found.”

“Which was evidence of the presence of humans in America tens of thousands of years before Clovis?”

“Exactly. After we’d done a thorough lab analysis we were certain we were dealing with artifacts.”

I ask when he began to feel the inevitable wrath of the Clovis First lobby.

“Immediately!” he replies. “It began with ‘we don’t believe in pre-Clovis. There’s no such thing as a pre-Clovis culture.’ Then I think when it was realized we’d made a strong case that many of our flake-tool artifacts had been produced by the ‘bend-break’ technique, and that the media were already onto the potential significance of what we’d found, the critics moved the goalposts

and said things like ‘Okay, we understand bend-breaks but we don’t know of an assemblage anywhere that has so many bend-breaks.’”[7]

But the key issue remained the antiquity of the site:

> The *New York Times* was here, CNN, they were all holding their stories until the dates came back. And I was thinking maybe they’ll come back at 20,000 years ago maybe even 25,000 years ago, and I’ll be out of here clean. This is going to be easy. But the date that came back was 50,000[8]—ancient beyond all imagining and right at the limits of radiocarbon.[9] Since then we have OSL-dated the deposit and those dates also came back in the range of 50,000.[10] So we’ve got it dated two ways, but still the skeptics keep saying that what we’ve found can’t be a human site and that our artifacts must be works of nature because they’re so different from the artifacts found at other sites. To which my response is: “Well … you’ve never dug a 50,000-year-old site in America, right? There’s a first time for everything.”

THEY UNDERSTOOD THE PROPERTIES OF

STONE

AFTER OUR PLEASANT HIKE WE'VE reached the main excavation area, a large rectangular pit about 12 feet deep, 40 feet wide, and around 60 feet long, where the majority of the archaeology trenches have been left open, in their original condition, and the entire area covered over with a roofed shelter. It's tastefully done, allowing in plenty of light but keeping out rain, and it's an education to see the stratigraphy through which Goodyear and his team dug to reach the controversial pre-Clovis levels.

Although Topper is located on land owned by a specialty chemicals company and not open for public access, Al does occasionally bring interested groups here to explain the site to them, and to this end signs have been set up identifying the different levels. My eyes are drawn immediately to one that says "Clovis Level: 13,000 years." Farther down another reads "Pleistocene

Alluvial Sands, 16,000–20,000 years." We step down again to the excavation floor and I see the thick band of clay where the pre-Clovis artifacts were found, labeled "Pleistocene Terrace: 20,000–50,000 years."

Off to the side, laid out as a display, is a row of three or four chunky fist-size rocks. Al picks one up. "The more abundant pre-Clovis artifacts are fashioned from chert cobbles like this," he tells me, "but they're no good to anybody as they are. They have to be cracked open first. You have to get rid of all this"—he indicates the rough, heavily patinated surface of the cobble—"to get at the stuff inside that can be turned into tools. In experiments we've thrown cobbles like that, slammed cobbles like that against each other, and nothing breaks."

"So what does break them?"

"When we put an 8-pound sledgehammer on them, that did the trick."

“But presumably the pre-Clovis people didn’t have 8-pound sledgehammers?”

Al shrugs. “Maybe they did it the way the Australian aborigines used to deal with big slabs of quartzite. They didn’t have sledgehammers, either. They would light a small fire underneath a face of the quartzite and they would wait for it to get hot enough till they heard a *tink,* and then they would pull a slab off. So I think you could use fire to prepare the cobble and then maybe break it apart. The point is once you break open a piece of flint like that then you can do anything you want with it. All of the interior surfaces are susceptible to flaking but the cobble in its raw form is not. So when our critics say that cobbles like these maybe got broken by rolling down the slope of the escarpment our answer is no.[11] What you need is heat or something like an eight-pound sledgehammer—and even then we had to hit them several times before they broke.”

“In other words, only humans could have done this.”

“Right. Human beings who understood the properties of the stone and how to work it. If nature can’t break it, it can’t make it.”

None of the pre-Clovis tools have been left at the excavation, of course, but before we set out for the site this morning Al showed me examples kept at the South Carolina Institute of Archaeology and Anthropology exhibit at its nearby regional campus in Allendale. What quickly became clear, which Al willingly concedes, was that they were, without exception, extremely simple and generally quite small, with unifacial flake tools such as burins and small blades predominating.[12] The vast majority of the burins, more than 1,000 of them,[13] were created by the distinctive flint-knapping technique known as “bend-break,”[14] whereby two edges are “broken off at a 90 degree angle to form a sharp sturdy tip that may have been used in the engraving of bone, antler or wood.”[15] Flint cores left over after large flakes had been struck off were also found in close

proximity to a large anvil stone.[16] It appears there were several, separate rock-chipping stations like this, resembling workstations.[17]

A VERY LONG TIME

THE EXTENSIVE EVIDENCE FROM THE pre-Clovis levels at Topper clearly does *not* document the handiwork of any kind of lost advanced civilization. What it speaks to me of instead, like the Cerutti Mastodon Site, is a far more complex and nuanced past for the peopling of the Americas than has hitherto been properly contemplated.

I don't propose here to give a blow-by-blow account of the fifty or so sites in the Americas, with more found every year, presently claimed to be of pre-Clovis antiquity.[18] Not all are of the same

quality. Some may not be archaeological sites at all, their supposed "artifacts" perhaps being "geofacts." Others are very strong.

A measure of discernment is therefore needed along this continuum, and what I observe is that archaeologists who are open to the notion of greater antiquity (these days the majority apart from a few die-hards) consider the most important pre-Clovis sites in North America in addition to Cerutti and Topper to include: Hueyatlaco, Mexico;[19] Old Crow and Bluefish Caves, Canada; Calico Mountain, California; Pendejo Cave, New Mexico; Tula Springs, Nevada; Meadowcroft Rockshelter, Pennsylvania; Cactus Hill, Virginia; Paisley Five Mile Point Caves, Oregon; Schaefer and Hebior Mammoth site, Wisconsin; Buttermilk Creek, Texas; and Saltville, Virginia.[20] In South America, Pedra Furada in Brazil, Monte Verde in Chile, Taima-taima in Venezuela, and Tibito in Colombia are likewise singled out as convincing pre-Clovis sites of special interest.[21] However, other than some anomalies, indeed

some deep mysteries, connected to a select few of these sites—which we'll come to in later chapters—most feature only rudimentary stone-working technologies similar to those of pre-Clovis Topper, although with definite evidence of increasing refinement and improved techniques between early pre-Clovis and late pre-Clovis.[22] Early or late, however, the importance of all these sites, as I view them, has nothing to do with the level of technology they manifest, whether judged to be "low" or "increasingly refined"—or whatever. They really matter in that they offer compelling proof of the enduring presence of humans *of some kind* in the Americas from perhaps as far back as 130,000 years ago until today.

That's a very long time. It might even be long enough—speaking entirely hypothetically, of course—for something that we would recognize as an advanced civilization to have emerged in the Americas alongside the hunter-gatherers, foragers, and scavengers

whose simple tools dominate the pre-Clovis horizons so far excavated.

But if such a civilization was indeed present somewhere on the American landmass, how has it escaped the notice of archaeologists up to now while the hunter-gatherers have not? And isn't it grasping at straws in the first place even to suggest that an advanced civilization could have coexisted with hunter-gatherers during the Ice Age?

PRECONCEPTIONS ARE BLINKERS

LET'S CALL TO MIND HOW things are in our own globally connected twenty-first century. Rio de Janeiro, Bogotá, and Lima are, by any standards, advanced technological cities; yet on the same continent, in the depths of the Amazon rainforest, uncontacted tribes of hunter-

gatherers remain at a "Stone Age" level of technology.[23] Likewise, in Africa, Johannesburg, Cape Town, and Windhoek are advanced technological cities, yet you can walk from them to the Kalahari desert where San bushmen, though well aware of the technological world, choose to continue a hunter-gatherer and still largely "Stone Age" way of life.

There are no purely logical grounds, therefore, that can rule out the possible coexistence of an advanced civilization with hunter-gatherers during the Ice Age.

Nor can this—at first sight absurd—possibility be ruled out on archaeological grounds. For more than half a century, as we've seen, American archaeology was so riddled with pre-formed opinions about how the past *should* look, and about the orderly, linear way in which civilizations *should* evolve, that it repeatedly missed, sidelined, and downright ignored evidence for *any* human presence at all prior to Clovis—until, at any rate, the mass of that

evidence became so overwhelming that it took the existing paradigm by storm.

We thus find ourselves in a place now where “Clovis First” can quite definitely be ruled out, despite the fading protests of a very few zealots still clinging on to that discredited fantasy.[24]

At the same time no new ruling paradigm, let alone consensus, has yet taken its place. Several are vying for the crown, though all remain rooted in the preconception that what they must explain is limited to the presence of relatively “simple” and “unsophisticated” hunter-gatherers in the Americas much earlier than had previously been supposed. None have factored in the possibility—they would be puzzled at the very thought—that a lost civilization might be part of the missing picture as well.

I’m reminded of Tom Deméré’s point: “If you go to a place and you absolutely rule out in advance that humans were there 130,000

years ago, then you're clearly not going to find evidence that they were."[25]

By the same reasoning, if we don't ever *look* for a lost civilization—because of a preconception that none could have existed—then we won't find one.

Fortunately, as we'll see in part 3, geneticists have developed sophisticated techniques for studying ancient DNA that have overturned entrenched thinking and opened completely new and unexpected avenues of inquiry.

PART III

GENES

The Mystery in DNA

7

SIBERIA

ACROSS BOTH SOUTH AND NORTH America DNA studies have revealed that at some point in the remote past, in some unknown location or locations, the ancestors of Native Americans interbred with an archaic—and now extinct—human species. Only recently discovered, and closely related to the more famous Neanderthals who also produced offspring with our ancestors, geneticists have

named this species “the Denisovans.” Insufficient sampling has been done to establish exact levels but the current estimate is that 0.13 to 0.17 percent of Native American DNA is of Denisovan origin[1]—with indications in the data that some indigenous groups, for example, the Piapoco of Colombia and Venezuela in South America and the Ojibwa of northeastern North America, can be expected to have higher levels of Denisovan DNA than others.[2]

We know about the Denisovans because of paradigm-busting discoveries at the eponymous Denisova Cave in a region of rugged highlands known as the Altai at the extreme south of the Russian Federal District of Siberia. Bordered by Mongolia, China, and Kazakhstan, and extending from the Ural Mountains in the west to the Kamchatka Peninsula and the federal district of Chukotka more that 5,000 kilometers to the east,[3] Siberia covers 13.1 million square kilometers—around 77 percent of the total geographical area of Russia. The Urals form a prominent part of the dividing line

between Europe and Asia. Kamchatka and Chukotka stand at the junction of the Pacific and Arctic Oceans, with Kamchatka's coast washed by the waters of the Bering Sea while Chukotka commands the Bering Strait.

Presently 82 kilometers wide between Cape Dezhnev in Chukotka and Alaska's Cape Prince of Wales, during the last Ice Age the Strait was drained by lowered sea levels and a tundra-covered land bridge—"Beringia"—connected Chukotka with Alaska. In other words, at that time, Europe, Asia, and the Americas were one continuous landmass. Should you have had the inclination and the stamina, there were certain periods when it would have been technically possible to walk from the Atlantic coast of what is now Spain, across western and eastern Europe to the Urals, through the Urals, through Siberia, across "Beringia," into Alaska and Canada, down through the "ice-free corridor" dividing the two primary sheets of the North American ice cap, into the United States and thence through Central America into South America as far as Tierra del Fuego before again encountering another ocean—a narrow one during the Ice Age when Antarctica was much larger.[4]

No investigation of the human story in the Americas, therefore, can ignore the role of Siberia as a crossroads in the migrations of our ancestors. Moreover, despite the fact that only a tiny fraction of its vast area has yet been sampled by archaeologists, we already know that anatomically modern humans were present in both western and Arctic Siberia at least as far back as 45,000 years ago.[5] We know, too, that DNA studies have revealed close genetic relationships between Native Americans and Siberians that speak to a deep and ancient connection.[6]

ANOMALIES IN THE DATA

WITH A FEW NOTABLE EXCEPTIONS,[7] it was the consensus view of archaeologists and anthropologists during the period of "Clovis

First" dominance that the Americas were settled exclusively by the overland route from Siberia via "Beringia" and southward through the ice-free corridor. Despite the collapse of "Clovis First," this remains the consensus view today; however, it has been finessed to accommodate the discovery of ever more sites in North and South America predating the opening of the ice-free corridor that therefore could not possibly have been settled by migration through it.[8] In addition, several subsequent studies have pointed out that for much of its duration long stretches of the supposed ice-free corridor would have been completely uninhabitable and thus most unpromising territory for a lengthy migration.[9]

To explain how migration might have taken place *at all,* therefore, and to account for the growing mass of archaeological and genetic evidence suggesting that humans had been in the Americas, isolated from Asia, for thousands of years before Clovis, two theories have recently found favor:

1. A “Beringian standstill” model (within which scholars continue to debate) whereby, in the simplest terms, having crossed the land bridge into Alaska perhaps as much as 30,000 years ago, the migrants found their southward progress blocked by the conjoined Cordilleran and Laurentide Ice Sheets. More or less simultaneously their return to Siberia was interdicted by the expansion of glaciers in Siberia’s Verkhoyansk Range and in Alaska’s Mackenzie River Valley.[10] Their descendants were therefore obliged to spend between 10,000 and 20,000 years stranded in Beringia before further climate shifts allowed them to spread south into the Americas. During this “incubation period” the now isolated population experienced certain genetic changes that would distinguish them from their northeast Asian ancestors at the level of DNA while at the same time confirming their close ancestral relatedness.[11]

2. A “coastal migration” theory whereby the first migrants

were boat people who crossed the narrow island-strewn neck of the North Pacific from northeast Asia into the Americas.[12] This coastal theory relies heavily on the so-called Kelp Highway migration model, which notes that the deglaciation of North America's Pacific Coast presented migrants with a region rich in kelp and other aquatic resources that could support their journeys. The coastal model also relies on the unarguable presence, though scarce, of early Paleolithic northwest American archaeological sites. Such coasting could have been undertaken at any time during lowered Ice Age sea levels, particularly when Beringia was exposed, could have been achieved with extremely simple technology such as rafts and coracles, and often would not have required the migrants to lose sight of land. Since we know that other ancient peoples migrated by sea as much as 65,000 years ago—for example, the crossing of the Timor Straits by the first migrants to Australia[13]—

there can be no objection in principle to the Americas being inhabited in the same way.

All this seems thoroughly reasonable and I have no doubt that both things happened. Island-hopping migrants in simple vessels suitable for short open-water crossings did indeed contribute significantly to the peopling of Americas. Similarly, one need look no further than Jacques Cinq-Mars's excavations demonstrating a human presence 24,000 years ago at Bluefish Caves in the Yukon to confirm that there is truth to the Beringian Standstill model, too.[14]

But are these revised and finessed models, currently very much in vogue with archaeologists, sufficient to explain all the complexities and anomalies in the data that science offers on the peopling of the Americas?

SERGEY AND OLGA

IN EARLY SEPTEMBER 2017, A couple of months before visiting Topper with Al Goodyear and a month before meeting Tom Deméré at The Nat in San Diego, Santha and I applied for Russian visas and declared our destination as Denisova Cave in the Altai.

The visas were expensive, the dauntingly opaque application forms took a great while to fill out, and in the general fog of bureaucratic time-wasting we began to wonder if we might have to postpone the trip until the spring of 2018 when the Siberian winter would have come and gone. Russia is more efficient than it looks, however, and we had our visas within a week.

Still, it was going to have to be a very quick visit with a big American journey planned from the end of September through until close to the end of November. There was no time for sightseeing, therefore, when we flew to Moscow on September 12, overnighted

at Sheremetyevo, and caught a connecting flight the next morning to Novosibirsk, the Siberian capital, a four-hour flight and four time zones east of Moscow.

After landing and collecting our bags Santha and I were met groundside by our local connection, Sergey Kurgin. I say “connection” because you have to have one if you’re going to travel in Russia. You can’t just get up and go. Some solid citizen, or business, or tour operator must take responsibility for you and officially invite you, and you must have a prearranged and preplanned itinerary to preapproved destinations or your visa won’t be issued—nor, if you somehow manage to slip through the net, will any hotel accommodate you on your route.

Sergey owns a small private travel business called Sibalp, and I'd contacted him on the internet to help set up the trip. Negotiations were complicated by the fact that he spoke no English—he was perplexed that I spoke no Russian—but various translators got involved and a deal was done. Sergey would drive us the 600

kilometers or so from Novosibirsk to Topolnoye, a township in the Altai, where we would stay with a local family while we visited the cave about 20 kilometers farther on. When we were done he would drive us back to Novosibirsk. He would arrange all accommodation en route and find us an interpreter, without whom we would be unable to speak to anyone. Joining Sergey at the airport to meet us, therefore, was Olga Votrina, the bilingual student from Novosibirsk State University who'd be interpreting for us.

Novosibirsk is a city of monotone drabness with an oppressive, regimented, Soviet-era feel to it. Olga was cheerful and nervous, wanting very much to be a good interpreter and guide. Thickset and grizzled, Sergey was an older man perhaps in his seventies, but solid, gruff, and strong. He owned a four-wheel-drive Mitsubishi minivan that had at some point been imported, used, from Japan and thus had its steering wheel on the wrong side. It was battered and creaky with a pronounced and disconcerting tug to the right, but as

he drove us through the geometric grid of Novosibirsk's streets, Sergey assured us it was up to the journey ahead.

Our hotel was in the academic quarter, a stone's throw from the Museum of the Peoples of Siberia. We spent the following morning viewing artifacts from Denisova Cave, and in the afternoon we set off on the long road south beneath leaden, wide-open skies across a remarkably flat landscape relieved by patches of muted color—black earth here, green field there, rank upon rank of hay bales set upon yellowing stubble marching toward the remote horizon. There was something lulling and dreamlike about the whole scene; I drifted off to sleep and when I awoke, darkness had fallen.

Sergey was downing a can of Red Bull and gripping the juddering wheel tightly as he weaved in and out of the surprisingly heavy Siberian traffic. Despite his disadvantageous position on the wrong side of the road he was doing well and by midnight we had two-thirds of the journey behind us and stopped to sleep in the town of Biysk.

We were back on the road again early the next morning—a much brighter and more cheerful day—and drove 65 kilometers farther south to Belokurikha, near which there were rumored to be some intriguing megaliths that Sergey believed he would be able to locate.[15] Quite different from the flatlands of the day before, we were now on the borders of the Altai Mountains, and spent the next several hours in the region of Mt. Mokhnataya[16] driving off-road through fields, circling likely looking hills covered in outcrops of granitic rocks, and asking farmers for directions. Eventually we met a man who knew a man who knew the couple, Vladimir Illych and Raisa Stepenov, both in their late sixties, who were said to have discovered the alleged megaliths. An hour later we were sharing bread and honey with them in their home in the village of Nizhnekamenka. This was followed, quaintly, by a tour of their vegetable garden and an invitation—how could we refuse?—to pick

raspberries and blackberries from the briars growing in abundance there.

It was early afternoon by the time Vladimir and Raisa, their daughter Svetlana, and their strapping young grandson Maxim all crammed into Sergey's groaning minivan with us. It seemed we had been in *roughly* the right place all morning, missing the site only by about half a mile. I was excited that we were finally going to see it, but as we set out again on the bumpy off-road drive Vladimir advised me to lower my expectations. In his opinion the media coverage had been much ado about nothing and the so-called megaliths he was about to show us were natural rock formations.

BEHIND THE HEADLINES

THE INFORMATION THAT THERE MIGHT be ancient megaliths here in the Altai, quite close to Denisova Cave, had come to me by way of a news item in the English-language edition of *The Siberian Times* published on May 8, 2017. The rather compelling headline reported the discovery of "Dragon and Griffin Megaliths" dating back to the end of the Ice Age.[17] "Archaeological researchers" named Aleksandr and Ruslan Peresyolkov were cited suggesting the enigmatic monuments were likely to be at least 12,000 years old but that precise dating would be impossible until "the culture that created them is identified."[18]

This is always a problem with monuments carved out of stone. The cutting and shaping of the stone itself cannot be directly dated. What is needed is an archaeological context in which the monument is set—preferably with carbon-datable organic materials in situ—and from these the age of the monument may then usually be inferred. Since there was no excavation at Mt. Mokhnataya,

however, no context had yet been established and the archaeological researchers were surely right that precise dating was presently impossible.

But what sort of "archaeological researchers" had even these provisional assessments reported in *The Siberian Times* come from? The news item gave no information about their credentials, nor could I find any online. The only clue, and not necessarily a reliable one, was in the comments section where Ruslan Peresyolkov was described as "a little-known web-designer and not an archaeologist (not even an amateur*)*."[19]

We humans are hardwired for pattern recognition, so it's not surprising that people all over the world frequently detect patterns in nature that they believe are the work of men but later, on closer examination by cooler and more experienced heads, prove to be entirely natural. This happens particularly often with eroded outcrops of rock, notably with certain types of granite that can crack

and weather in ways that seem obviously designed but in fact are not.

Archaeologists are trained to be skeptical of such simulacra and their default position will be that a rock is just a rock until there is really hard and compelling evidence that humans shaped it. Needless to say, if the rock in question ended up as a granite statue of Ramesses II, the context and the style, plus any hieroglyphs engraved upon it, would tell you all you need to know. Granite boulders that have been sitting on an unexcavated hillside in the Altai for unknown thousands of years, however, are an entirely different proposition, and I wasn't inclined to take any opinion of them on trust whether expressed by a fully qualified archaeologist or by a web designer or, for that matter, by Vladimir.

I was just curious, and literally "in the area"—so why not take a look for myself?

MESSAGES OF EARTH AND SKY

WE DROVE AS CLOSE AS possible to a rugged hill that I recognized from our earlier search, and trudged across a field to get to it. Raisa, who'd recently had hip replacement surgery, remained behind in the Mitsubishi, but Vladimir, Svetlana, and Maxim joined us—the young man kindly offering to carry Santha's weighty bag of cameras.

We reached the base of the hill and began a long clamber up a steep slope thickly carpeted with wild grasses, heather, and clinging brambles. Svetlana warned us that the area was infested with snakes. "Always look before you step," she said.

The afternoon was sunny and surprisingly warm and the sky an eggshell blue with a few soft white clouds up high. At one point, pausing for breath, I turned and looked back. Behind us, dotted with lower mounds and hills, was a patchwork quilt of greens and

yellows spread out for 20 miles across the floor of a glorious valley. It was through this valley and around these hills that we had spent the morning fruitlessly driving. Now, from this new vantage point, I saw it was bounded to the east by the humped, tawny backs of a distant range of mountains. I watched for a moment the shadows of the clouds painting their own patterns across the landscape, struck by the poignant, fleeting beauty of it all.

We resumed the climb, close now to our first objective—an outcrop of rough, deeply fissured and fractured natural granitic bedrock, visible because the otherwise omnipresent undergrowth could find no purchase on it. It was red-gray in color, about 50 meters in length and 20 wide, obviously an integral part of the hillside itself, sloping at the same steep angle and surmounted at its upper end by a dense cluster of large boulders. “The tail of the dragon,” said Vladimir skeptically, pointing to the downslope sector of the outcrop, “and the head”—he indicated the boulders.

At first I didn't get it, but once we'd climbed above the outcrop and could look back and down on it, a figure began to emerge. I could just about make sense of the tail and I could see the head clearly—but not as the head of a dragon. Viewed very slightly turned in profile from where I stood it seemed to me much more to resemble the head and the left eye of some great serpent.

I was, of course, already sensitized and preconditioned to recognize the form of a serpent in the outcrop, perhaps a little by Svetlana's warning of snakes in the grass in these parts but also, in an even more visceral way, by what I had learned at Serpent Mound in Ohio.

The "language" that Serpent Mound speaks is hard to understand from the technological-materialist point of view. That view, so dominant and widespread today, is one in which there is no such thing as "spirit" and the earth is simply dead "matter" to be mined, exploited, and consumed. By contrast the ancient people to whom Serpent Mound addressed itself in clear and ringing tones not only

knew that all things, both animate and inanimate, were imbued with spirit but also lived close to the earth and were in touch with Her rhythms and awake to the manifold messages and signals and ciphers by which She spoke to them.

Among these were perfectly "natural" features of the landscape through which, whether on account of their special appearance, or location, or alignment, or some other remarkable quality, the spirit of the earth could manifest wisdom, beauty, and teachings. Serpent Mound is one of these "Manitou," and we saw how the presence there of a natural serpentine ridge, with a natural serpentlike "head" oriented toward the setting point of the sun on the summer solstice, offered an epiphany to the ancients of the union of earth and Sky and was their cue to create the great effigy mound that now commands the site and still "swallows the sun" on the longest day of the year.

Nearly 3 months had passed since that summer solstice at Serpent Mound. Now the autumn equinox was just a few days away and I

was very far from America, yet in a part of the world directly linked to the migrations of the ancestors of the First Americans. I was therefore not averse in principle to considering the possibility that this peculiar formation in the Siberian Altai might be another "Earth Serpent," enhanced and embellished by human beings attentive to the ciphers of nature.

But it equally might be how Vladimir saw it—simply one of those accidents of nature that give the illusion of a human hand at work.

From the rough bearings I was able to take, though I offer no guarantees, it seemed to me that the serpent's head (I could not see it as a "dragon!") was oriented more or less due west and thus aligned to the setting point of the sun on both the spring and the autumn equinoxes. About 2 meters high and 4 meters long to the base of the neck, the head was massive and possessed a distinct brow ridge overlying the firmly defined left eye. Moving forward, I

saw the mouth was present, the jaws clearly demarcated and slightly ajar. There was a peculiar cleft in the front of the lower jaw.

The Altai "dragon/serpent." Graham Hancock at the left side of the "head" with his

hand on its lower left eyelid. PHOTO: SANTHA FAIIA. INSET: An enhanced image helps to explain why recent visitors, and the ancients before them, could imagine this natural rocky outcrop as the head of a dragon or serpent.

View of the right side of the same structure. PHOTO: SANTHA FAIIA.

Much of this, apart from that odd gap, was moderately serpentlike—but only on the left side of the serpent's head. When I scrambled around to view the right side it was as though I were suddenly looking at a completely different structure—not a serpent at all but a megalithic wall built from ten hefty eroded but precisely interlinked granite blocks. Somehow, whether by nature or by human beings, a structure had been created that appeared to be a wall on one side and the head of a serpent on the other.

If this was done by humans, I reasoned, then surely they would have wanted to make both sides look the same?

On the other hand, if it was done by nature, how were we to account for the blocks—and, even more difficult—the combination of blocks and serpent simulacrum?

Either on its own might be explained by weathering, but for both to occur together in such a limited area seemed much less likely.

A few hundred meters farther up the hill the so-called griffin shed no greater light on the problem. Another rocky outcrop was involved, this time oriented south, and into its granite face, 3 meters tall from the base of its neck and 5 meters wide from the tip of its beak to the crest on the back of its head, was carved the likeness of some immense, mythical, hook-beaked bird—hence its designation as a “griffin.”

The Altai "Griffin." Natural? Or modified by human hands? PHOTO: SANTHA FAIIA.

Natural? Or modified by human hands?

An argument against it being man-made is the way that the lower part of the beak is unfinished and unseparated from the surrounding bedrock. An argument in favor of human enhancements of the natural bedrock is that directly beneath the crest are three small alcoves set side by side step fashion. It is difficult to envisage how nature alone could have achieved this effect. And, besides, there are similar rock-hewn structures in the high Andes of South America that are indisputably man-made.

As we climbed back down the hill Vladimir remained unpersuaded but I wasn't so sure and a few days later, after returning to Novosibirsk where we had access to fast internet again, I searched for information about the region's snakes.

What I learned was that there are six species of serpent in the Altai and that the largest, most venomous and most respected of these by far is *Gloydius halys,* the Siberian pit viper.

In my opinion its clearly defined eyes, its brow ridges, the general shape of its head, and the way that its forked tongue is

sometimes thrust out, allowing it to hang down over the middle of its lower jaw creating the illusion of a cleft in that jaw are all rather closely mimicked by the granite features of the “Earth Serpent” we trudged up and down that hill in the Altai to inspect.

But does that make it a remnant of a megalithic Ice Age civilization? Or even a megalith at all? Certainly not! And the same goes for the “griffin.” Yet they are set in the heart of a region of mystery where previously held certitudes about humanity’s past have been shattered by the discoveries at Denisova Cave.

After saying our good-byes to Vladimir, Raisa, Svetlana, and Maxim, as evening fell over that sunny Siberian day, we drove the remaining 80 kilometers south to Topolnoye, only 20 kilometers from the cave. There another friendly, down-to-earth couple waited to welcome us into their home and feed us not only bread and honey but milk fresh from the cow and other delicious, nourishing things.

ENTERING THE DENISOVANS' SECRET VALLEY

OUR NEW HOSTS WERE PAPIN Asatryan, dark-haired and bearded, a migrant to the Altai from Armenia when it was still part of the former Soviet Union, and his blond Siberian wife, Elena Darenskikh. They were both in their fifties, their children long ago grown up and fled the nest. Like most of the other 1,100 inhabitants of Topolnoye they had regular jobs (Papin was a builder, Elena an accountant), but also owned a few cows and goats and a fair-sized vegetable garden, growing enough food, it seemed, to make them self-sufficient in most essentials.

That night over a fantastic dinner I joked that if twenty-first-century civilization were to collapse it would be people like Elena and Papin who would survive—not people like me who've never hunted a deer or grown a cabbage or milked a cow in their lives.

“Don’t worry,” Elena said, “we will save you!”

Some eye-watering local vodka was served, followed by a surprisingly comfortable night’s sleep on bunk beds and a sunlit morning greeted with an ample breakfast of eggs, bread, jams, fruit, coffee, and a jug of clotted cream. Then Sergey fired up the Mitsubishi and we were off along a reasonably good road, graded but not paved, running beside the Anui River, fast-flowing with patches of white water, reminding me of the trout streams my grandfather used to fish in the Scottish Highlands where I would sometimes accompany him when I was a child.

For Santha the landscape had more of a “Tolkienesque” quality. Guarded by distant, soaring peaks, we were in a deep, hidden valley, sometimes darkly shadowed and enclosed, sometimes opening out suddenly and unexpectedly into undulating hills and hummocks where coppices of mixed autumnal woodland overlooked bright meadows at the river’s edge.

For geologists the landform here is known as “karst,” a special type of topography created by the random dissolution over millions of years of soluble, usually sedimentary rocks—in this case limestone. Like all such landscapes it is characterized by extensive underground drainage systems, sinkholes, and caves, of which Denisova Cave is just one among many. Some are already known to contain ancient human remains and artifacts, but far more have not yet been properly studied, or studied at all, by archaeologists.[20]

Sergey pulled the Mitsubishi over and parked beneath a freshly minted National Monument sign, painted brown and helpfully labeled “Denisova Cave” in both Russian and English. Narrow here between low banks, the river was behind us, forested to its edge on the far side and with a saw-toothed range of mountains rising in the distance beyond. On our bank the trees had been cleared and in front of us, across the road, rising steeply for about 200 meters, was a grassy slope with a wooden stairway constructed on its upper part

leading to a rugged silver-gray karst cliff at the base of which gaped the black, almost square mouth of the cave.

It is, arguably, the most important archaeological site in the world, and yet not a soul was here, not a scientist, not a tourist, not even a guard. The whole place was eerily deserted, silent but for birdsong and the gentle rustle of wind through the grass, marking time under the sun as it had done for millennia, the guardian of many mysteries still.

Not that I minded the solitude and the peace.

What a privilege, I thought, what a gift, to be here on this bright morning and to have this ancient place to ourselves.

8

HALL OF RECORDS

DENISOVA CAVE HAS HAD ITS modern name only since the early nineteenth century when a monk, *Dionisij*—Dennis—lived, meditated, and left his graffiti here.[1] Before that the peoples of the Altai used to call it *Aju-Tasch,* which means "Bear Rock."[2] We have no idea how far that nomenclature may go back. It is certain, however, that Denisova Cave has been used and occupied by

various species of human for at least 280,000 years, making it an unrivaled archive—a sort of "hall of records"—of our largely unremembered ancestral story.[3] Since excavations began in 1977 it has proved to be a gift that just keeps on giving as archaeologists have systematically combed out the secrets buried in its successive occupation levels.[4]

At the risk of stating the obvious, in an archaeological excavation through orderly and undisturbed stratigraphy of the kind that Denisova Cave generally exhibits, the upper levels are the youngest and the lower levels get progressively older the deeper down you dig. This, for example, is why archaeologists divide the period they call the Paleolithic (the "Old Stone Age," dating from roughly 3 million years ago until 12,000 years ago) into the Lower, Middle, and Upper Paleolithic, with the latter conventionally dated between 50,000 and 12,000 years ago.[5]

The first two trenches at Denisova Cave, both 4 meters deep, sliced down through the more recent levels and exposed artifacts beneath them dating back to the Upper Paleolithic. In the decades that followed these deposits proved to be rich, various, and well preserved and the cave became recognized as a prehistoric locality of great importance.[6] At certain times during the past 280,000 years, not continuously but at intervals, it had been occupied by Neanderthals[7]—our extinct cousins with whom, as is now widely known, our ancestors interbred and from whom some extant modern human populations have inherited as much as 1–4 percent of their DNA.[8] Neanderthals were probably still using the cave 50,000 years ago. It wasn't until 2010, however, when proof emerged that a human species hitherto unrecognized by science had been present at Denisova—a species now also known to have interbred with our ancestors[9]—that the true global significance of this very obscure and remote place could begin to be fully realized.

The sensational news was broken first in the pages of *Nature* in December 2010 in a benchmark paper, "Genetic History of an Archaic Hominin Group from Denisova Cave in Siberia."[10] Coauthored by a stellar team of biomolecular engineers, geneticists, and biologists, with a couple of anthropologists and archaeologists thrown in for good measure, the paper announced the discovery of "the distal manual phalanx [i.e., the fingertip] of a juvenile hominin. … The phalanx was found in layer 11, which has been dated to 50,000 to 30,000 years ago. This layer contains microblades and body ornaments of polished stone typical of the 'Upper Palaeolithic industry' generally thought to be associated with modern humans."[11]

The big surprise, however, following a thorough analysis of DNA from the fingertip, was that it didn't belong to an anatomically modern human, nor a Neanderthal, but to a species that had diverged from the common lineage leading to anatomically modern

humans and Neanderthals about 1 million years ago. This previously unknown species was judged to be “a sister group to Neanderthals.”[12]

PALEO-CSI

DNA WAS ON MY MIND as we scrambled up to the cave because a good way to get to grips with the challenge of Denisova is to think of it as a crime scene—a very old, neglected, contaminated, and long-unrecognized crime scene from which the physical evidence is mostly gone apart from a few bones and teeth but where just enough genetic material might remain to help us figure out what happened there.

Nonetheless, from the moment I entered the cave it impressed itself upon me first, foremost, and forcefully, as a sacred and mystical space. It faced roughly west, overlooking the steep slope leading down to the Anui River, and that morning, as no doubt on many mornings over many thousands of years, the brightness of the day outside was reflected back through the entrance to illuminate the spacious "Main Gallery" within. Looking up I saw that a narrow natural window opened in the ceiling 10 meters above the gallery's west side close to the entrance, admitting more light but also no doubt in ancient times serving as a chimney.

I paused to breathe in the cave air, cool and moist, and to look around, struck by the way the bone-white walls, stained by lichen and covered in the ugly scrawl of recent graffiti that defaced almost every exposed surface, nonetheless gathered about themselves a kind of somber, ancient magnificence. The effect was enhanced by soaring archways leading into the smaller, more intimate East and South Galleries, the side chapels to this prehistoric basilica. I deploy

the analogy deliberately because the Denisova Cave system does have a “cathedral-like” feel about it, but I do not claim that it was ever used for religious or spiritual purposes. It may have been, but what the mass of archaeological evidence suggests is that for extraordinarily long periods of time it functioned as a “factory” or “workshop,” and that raw materials were brought here from far-off places to be worked and fashioned.

This became clear during the brief visit we made to the Museum of the Peoples of Siberia in Novosibirsk before setting out for Denisova Cave. Director Irina Salnikova apologized that there was so little for us to see in the Denisova room of her museum, explaining that much of the collection was away at exhibitions or in laboratories for further investigation. What she was able to show us, however, as well as many stone tools at various stages of refinement, from extremely primitive to sophisticated, were some unusual and beautiful pieces of jewelry including pendants featuring biconical drilled-out holes, cylindrical beads, a ring carved from

marble, a ring carved from mammoth ivory, and bone tubes perhaps designed to hold bone needles so they could be carried safely.[13]

Many of the materials employed had been brought considerable distances to the cave,[14] and now that I had reached the cave itself I could see all three of the galleries in which they had been found and inspect the open excavation trenches with little tacks and tags left in place to mark the various occupation levels. It was the gaping rectangular trench in the center of the Main Gallery, however—I would guess it was 5 meters deep, 4 meters long, and 3 meters wide—that most clearly displayed Denisova's amazing time machine of stratification, with distinct Ice Age occupation levels numbered from 9,[15] the youngest, all the way down to 20, the oldest, right at the bottom.

The excavation had descended farther here, down to Level 22, but the tacks and tags for these last two lower and older levels, visible on early reports of the progress of archaeology in the cave,[16] were

no longer present. According to studies undertaken by the excavators, man-made tools and artifacts were found in these two exceedingly ancient layers, dated by radiothermoluminescence to between 155,000 and 282,000 years ago.[17] "The lithic [stone] industries recovered from strata 22 and 21 are characterized by Levallois and parallel strategies of stone reduction; the tool kit is dominated by sidescrapers and notch-denticulate tools."[18]

I knew that artifacts together with Neanderthal and Denisovan remains had been recovered in the excavations in all three galleries across multiple Paleolithic occupation levels. That morning, however, my focus was particularly on Level 11 in the East Gallery, where certain unusual and distinctive tools and pieces of jewelery had been found.

Some of these had the archaeologists scratching their heads.

USUAL THINGS AND UNUSUAL THINGS

ANNOYINGLY, I HAD BEEN UNABLE to view these special items during my visit to the Museum of the Peoples of Siberia. But I knew from my research that they'd been retrieved, together with other more "normal" and "usual" objects, from an almost exclusively Denisovan occupation level of the East Gallery, nominated Level 11 by the archaeologists and dated to the Upper Paleolithic between 29,200 and 48,650 years ago.[19]

After the first Neanderthal skeletal remains were identified in Europe in the nineteenth century it was, for a very long while, one of the fundamental unquestioned assumptions of archaeology, a matter taken to be self-evidently true, that other "older," "less-evolved" human species never attained, or even in their wildest dreams could hope to aspire, to the same levels of cultural development as *Homo sapiens*. During more than a century of

subsequent analysis, and despite multiple additional discoveries, the Neanderthals continued to be depicted as nothing more than brutal, shambling, stupid subhumans—literally morons by comparison with ourselves.[20] Since the beginning of the second decade of the twenty-first century, however, and with increasing certainty as the evidence has become overwhelming, a new "image" of the Neanderthals as sensitive, intelligent, symbolic, and creative beings capable of advanced thought processes and technological innovations has taken root among archaeologists and is set to become the ruling paradigm.[21]

There should be no objection in principle, therefore, to the notion that the anatomically archaic Denisovans, a close genetic "sister species" to the Neanderthals, might have been capable of creating the sorts of tools and symbolic artifacts that, a few decades ago, would automatically have been assumed to be the work of anatomically modern humans.

Yet a difficulty arises.

Among the more "unusual" and "unique" items excavated from the Paleolithic deposits within the entrance zone of the East Gallery, specifically from Level 11.1,[22] were two broken pieces of a dark green chloritolite bracelet. It would have measured 27-millimeter wide and 9-millimeter thick when intact, with an original complete diameter of about 70 millimeters.[23] A detailed use-wear analysis of the bracelet was undertaken and revealed something odd: "This artifact was manufactured with the help of various technical methods of stone working **including those that are considered non-typical for the Paleolithic period. …** The bracelet demonstrates a high level of technological skills."[24]

In their detailed scientific analysis published in the journal *Archaeology, Ethnology and Anthropology of Eurasia,* A. P. Derevianko, M. V. Shunkov, and P. V. Volkov draw our attention, in particular, to "a hole drilled close to one of the edges" of the

bracelet and report that "drilling was carried out with a stable drill over the course of at least three stages. Judging by traces on the surface, the speed of drill running was considerable. Vibrations of the rotation axis of the drill are minor, and the drill made multiple rotations around its axis."[25]

They therefore conclude that the bracelet "constitutes unique evidence of an unexpectedly early employment of two-sided fast stationary drilling during the Early Upper Paleolithic."[26]

This is a big deal!

What the investigators are getting at is how peculiar and misplaced in time the bracelet seems to be. It is not simply that it shows the application of skills and technologies that are "unique for the Paleolithic"[27] (i.e., to state the matter plainly, skills and technologies that had never before been seen in a Paleolithic context in any excavation) but also that at least some of these skills and technologies, like "stationary drilling" with the use of a bow drill

that does not leave signs of drill vibration,[28] would not be seen again until the Neolithic many thousands of years later. The bracelet thus refutes what the authors describe as "a common assumption" held by archaeologists that "stone drilling originated during the Upper Paleolithic, but gained the features of a well-developed technology only during the Neolithic."[29]

So not only was this curious bracelet unequivocally the work of anatomically *archaic* human beings—the Denisovans—but also it testified to their mastery of advanced manufacturing techniques in the Upper Paleolithic, many millennia ahead of the earliest use of these techniques in the Neolithic by our own supposedly "advanced" species, *Homo sapiens*. Also made crystal clear was the realization that the Denisovans must have possessed the same kinds of artistic sensibility and self-awareness that we habitually associate only with our own kind—for there can be no doubt that very real, conscious, aware, and unmistakably *human* beings had interacted

with this bracelet at every stage of its conception, design, and manufacture, all the way through to its end use.[30]

Though the outward structure of Denisovan skulls might have been rather different from ours (predictable for a “sister species” to the Neanderthals), the sense of style, design, and personal adornment manifested in the bracelet seems completely modern, and archaeological reconstructions show it to have been a beautiful thing.

Reconstruction: The bracelet formed a torque, slipped sideways onto the wrist.

Its calculated diameter of just 70 millimeters when intact would have made it "practically impossible to put even the thinnest hand into it."[31] The most likely solution, however, since it undoubtedly *was* worn, is that this stone bracelet originally took the form of a *torque*—not fully circling the wrist, but with a section removed: "The tips of the bracelet were likely cone-shaped. Such a shape of the ends of the bracelet makes it easy to put on a hand tangentially. … Judging by the size of the artifact and the signs of extensive use-wear on the interior surface close to the end, the bracelet sat tightly on the wrist."[32]

These signs included evidence of "long contact of the interior surface with human skin"[33] and, more intimately, "remains of … fat from human skin"[34]—details that reach across the ages and forge a poignant sense of connection. Indeed it dilates the imagination to

contemplate the identity of the person this bracelet was originally made for, who certainly—given the estimated diameter—must have had slim and graceful wrists to wear it well. It is unlikely to have been the property of a child because of its rarity, artistry, and high value. As the investigators report: “It brightly shimmers in broad daylight and reveals a rich play of hunter green shades in the light of a campfire. The bracelet was hardly an everyday item. Fragile and elegant, it was apparently worn on very special occasions. Given the utmost rarity of the material and the thorough finish, the bracelet was a prestigious ornament attesting to its owner’s high status.”[35]

All in all, it seems a fair speculation that the slim-wristed person who owned this bracelet so many millennia ago was a woman. If so, whoever she was, whatever position of status she may have occupied, we can also guess that she had quite an eye for beauty and a whimsical sense of style. A nice additional detail of the bracelet is

that for a long while the drilled hole held a leather strap from which was suspended a pendant.[36] Though neither the pendant nor the strap has survived, their presence left unmistakable polish marks around the hole: “The polished area is limited suggesting that the pendant was rather heavy and caused a strictly set amplitude of oscillation of the strap. The outlines of the polished area suggest the ‘up’ and ‘down’ sides of the bracelet and allow us to assume that the bracelet was worn on the right arm.”[37]

Again, there is that sense of contact, of intimacy, as though we’re separated by no more than a hair’s breadth from this ancient human. It must be admitted, however, that even here we’re speculating. We might not be dealing with a single individual at all. The bracelet might instead have been a treasured heirloom, passed down from mother to daughter across many generations.

Whatever the truth is, it was eventually broken—not once but twice. On the first occasion the break was evidently accidental and

it must still have been cherished because it was carefully repaired, literally put back together again, with some effective but as yet unidentified form of glue.[38]

The second occasion was very different. It appears that the bracelet was deliberately smashed—we can only guess at the motive—"by a blow against a hard surface."[39]

THE EYE OF THE NEEDLE

THE LOWER PART OF LEVEL 11 dates back, as we've seen, to around 50,000 years ago, but the bracelet was found in the upper part, officially designated Level 11.1 and provisionally dated to the Upper Paleolithic about 30,000 years ago[40]—making it, because of

its “Neolithic” characteristics, roughly 20,000 years ahead of its time.[41]

The reader will understand, therefore, why it was one of the frustrations of our trip to Siberia in September 2017 that I was not able to see, nor Santha to photograph, this enigmatic, intriguing, and profoundly out-of-place bracelet. Under normal circumstances it is kept at the Museum of the Peoples of Siberia in Novosibirsk, but as luck would have it, during our short visit there, it was out of town—indeed not only out of town but out of Siberia, out of Russia, and in fact in Paris, where it had been on show in an exhibition. When I said we’d travel there to see it, Irina Salnikova told us that it was no longer on public view and was under investigation by “an international team of archaeologists.”[42]

Gone with it was a second anomalous object, an exquisite bone needle 7.6 centimeters in length, with a near-microscopic eye less than 1 millimeter in diameter drilled out at the head.[43] Slightly

curved like a modern surgical suture needle, it was excavated from the lower part of Level 11 (Level 11.2) of the central chamber in the summer season of 2016.[44] No detailed analysis had been published before my visit to Novosibirsk in September 2017, but there was some coverage in the Russian media when the discovery was announced. “It is the most unique find of this season, which can even be called sensational,” commented Professor Michael Shunkov, coauthor of the report on the bracelet and director of the Institute of Archaeology and Ethnography at the Russian Academy of Sciences.[45] His colleague Dr. Maxim Kozlikin added, “It’s the longest needle found in Denisova Cave. We have found needles before, but in younger archaeological layers.”[46]

He was referring specifically to the upper part of Level 11 where the bracelet was found and where, indeed, other smaller bone needles had also been excavated some years before.[47] They, too, have fine drilled-out eyes of the type more usually seen in Neolithic

than in Paleolithic deposits and provided grounds for skeptics to suggest that the Denisovan dates might have to be revised.[48] The idea was floated that both the bracelet and the small needles must in fact be of Neolithic provenance but had somehow migrated downward through the deposits to end up in Level 11.1—a stratum, from the skeptical point of view, in which they were "obviously" too advanced and "untypical" to belong.

What put an end to such speculation was the discovery of the longer, even finer and more technically perfect needle in 2016 and its location not in the upper—younger—part of Level 11 near its contact with Level 10, but instead in the much older lower part near its contact with Level 12. As we've seen, this lower part of Level 11 has been dated by accelerated mass spectrometry to around 50,000 years before the present[49] (although it may be more ancient, given that 50,000 years is the limit of radiocarbon dating).

By the second half of 2016, therefore, far from proving *younger* as some had expected, the mysterious artifacts of Denisova Cave were beginning to look like they were much, much older. This impression was confirmed in 2017 with a shocking announcement. Level 11 had been reassessed and its various internal strata reexamined and re-dated. The result of these new investigations was that the bracelet was no longer thought to be 30,000 years old as had originally been supposed, but 50,000 years old![50]

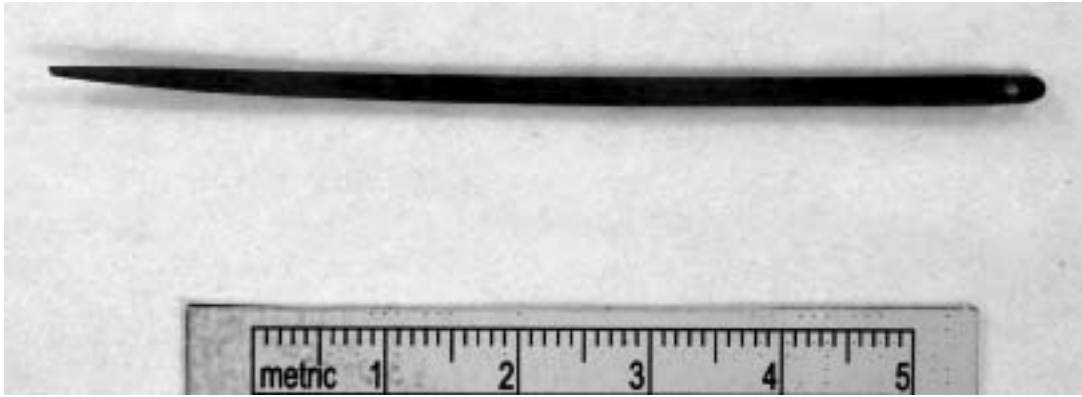

This exquisite bone needle 7.6 centimeters in length, with a near-microscopic eye less than 1 millimeter in diameter drilled out at the head, was found at Denisova Cave in 2016. PHOTO: INSTITUTE OF ARCHAEOLOGY AND ETHNOGRAPHY, SIBERIAN BRANCH, RUSSIAN ACADEMY OF SCIENCES.

A year later the *Siberian Times* published speculation that it might be even older—perhaps as much as "65,000 to 70,000 years old."[51]

Professor Shunkov did not welcome the speculation and pointed out that the great antiquity of the bracelet was already a matter of global significance, with immense implications for the way archaeologists look at the past.[52] He wasn't about to commit to an older date before all the relevant experts had reached consensus. "Until then, I will refrain from saying anything," he explained, adding that some data was "ambiguous" and required clarification. "If or when we agree, we will have to prepare a publication first."[53]

I could understand his caution. It was the same sort of caution, for pretty much the same reasons, as Tom Deméré had felt for so long

before presenting his controversial evidence and conclusions about the Cerutti Mastodon Site in the pages of *Nature*. With discoveries like these that have the potential to disrupt years of comfortable scientific consensus it pays to take care, and to prepare the ground, before you go public.

Persistent rumors filter out of paradigm-busting new discoveries concerning the Denisovans and "multiple big headlines coming up."[54] Meanwhile that beautiful and haunting cave in the Siberian Altai was still, as I write these words in 2018, the only place on earth where physical remains of Denisovans have been confirmed.[55] Those so far recovered are few in number, but such are the wonders of genetic science that the fingertip we spoke of earlier, some teeth, some additional bone fragments, and even some dust from the cave floor allow us to be quite sure that Denisovans were in occupation here at least as early as 170,000 years ago and that they came back 110,000 years ago and again around 50,000 years ago.[56]

Just like the Neanderthals who overlapped with our ancestors and interbred with them, so, too, the Denisovans overlapped the Neanderthals and interbred with them while also, again like the Neanderthals, interbreeding with anatomically modern humans. Viable offspring capable of reproduction resulted from all these liaisons and in August 2018, Denisova Cave obliged yet again by yielding up a bone fragment, more than 50,000 years old and in sufficiently good condition for genome sequencing. It turned out to have belonged to a female, about 13 years of age, who had a Neanderthal mother and a Denisovan father.[57]

In consequence of such liaisons it's a tricky business, tens of thousands of years later, to unravel the tangle of inheritance—with gene flow going in both directions between Neanderthals and Denisovans, Neanderthals and anatomically modern humans, and Denisovans and anatomically modern humans. Thus, where Denisovan DNA is found in human populations today (to give just a

single example of the sorts of difficulties faced), researchers must be alert to the possibility that it may not have come directly from a Denisovan but via a Neanderthal who had inherited DNA from an earlier tryst, perhaps dozens of generations back, between a Neanderthal and a Denisovan. Multiple other bewildering combinations are also possible, but using powerful computers geneticists are able to disentangle this cat's-cradle of intertwining genes and lives.

What now appears to be certain is that Neanderthals, *Homo sapiens* (as modern humans are classified taxonomically), and Denisovans all shared and descended from a common ancestor a million years or so ago.[58] The divergence of the Neanderthal line from the modern human line began at least 430,000 years ago, and perhaps as early as 765,000 years ago.[59] The divergence of the Neanderthal line from the Denisovan line occurred between 381,000 and 473,000 years ago.[60] Humans today are therefore, to a greater

or lesser degree, hybrids who have inherited genes from Neanderthals, Denisovans, and archaic *Homo sapiens*.

CROSSING THE LINE

THE MODERN INHABITANTS OF THE Altai are notable in that they have inherited virtually no Denisovan DNA at all—just a tiny fraction of a single percent.[61] By contrast, the human populations with the highest percentage of Denisovan DNA today are found among "geographically isolated New Guinean and Australian aborigines (in the range of 3–4%)."[62]

The first detailed investigation went a little higher than this in some cases, concluding, for example, that the archaic Denisovan population "contributed 4–6% of its genetic material to the genomes

of present-day Melanesians."[63] Subsequently, varying levels of Denisovan admixture have also been identified in populations from eastern Indonesia, the Philippines, Near and Remote Oceania, and the Americas.[64]

At first this widespread heritage seems strange in view of the location of Denisova Cave itself, deep in the Altai Mountains of southern Siberia, thousands of miles from New Guinea and Australia and even farther from the Americas. But tens of millennia have passed since the Denisovans occupied the cave, occasionally interbreeding with Neanderthals and anatomically modern humans and passing on their genes through all kinds of convoluted liaisons and migrations. We don't even know—on the most recent evidence it seems unlikely—that the cave was in any way central to the Denisovan range. It could equally well have been some peripheral outpost and indeed a number of scientists, notable among them Alan Cooper of the University of Adelaide and Christopher Stringer of

London's Natural History Museum, have made a case that the ancient Denisovan homeland was not in Siberia, or indeed in Asia at all, but instead lay "east of Wallace's Line."[65]

A deep oceanic trough, notorious for its fast-flowing currents, Wallace's Line divides Asia to its west from Australia to its east. It is rightly recognized as "one of the world's biggest biogeographic disjunctions"[66] and even during the lowered sea levels of the last Ice Age it would always have confronted migrants seeking to travel in either direction with a challenging maritime crossing. Any who undertook it must not only have been intrepid explorers of unknown realms and lands, but must also have possessed sufficient sailing and navigational skills to cross 30 kilometers of deep and sometimes turbulent open water between Bali and Lombok and, in the case of those who reached Papua New Guinea and Australia, to cross again the wider gulf of the Timor Straits—a formidable barrier of 90 kilometers of open water even at times of lowest sea level.

Coupled with the presence very far to the west in Siberia of Denisovan artifacts as well as Denisovan physical remains yielding a fully sequenced genome, the prominent Denisovan genetic signal among Australian aborigines and Melanesians cannot be explained without invoking these open-water crossings. In remote antiquity **somebody** was certainly undertaking them, and in the process spreading Denisovan genes. What we don't know yet is whether this gene flow was the result of direct interbreeding with the Denisovans themselves, or with some perhaps as yet unidentified people whose own heritage included a significant admixture of Denisovan genes.

We also don't know, and can only guess, at the location of the lost homeland of the Denisovans. Was it east of Wallace's Line, as Cooper and Stringer have argued? Or might it not just as well have been west of the Line on the plains and savannas of the exposed Sunda Shelf during the lowered sea levels of the last Ice Age when

the Malaysian peninsula and the islands of Sumatra, Java, and Borneo all formed one continuous landmass?[67]

Wherever it was, we know that 90 kilometers of open water was no barrier to these people—so why not farther? Why should they not even have crossed to the other side of the Pacific Ocean, making landfall in the Americas?

9

THE STRANGE AND MYSTERIOUS GENETIC HERITAGE OF NATIVE AMERICANS

BY NO MEANS FULLY UNDERSTOOD yet despite the best efforts of Darwin and his successors, the process we call "evolution" combines continuous change with continuous conservation in an

endless, swirling, bewildering dance of almost unbelievable intricacy. Zoom in at sufficiently high resolution to the DNA that choreographs this dance, however, and certain distinct and identifiable patterns begin to emerge. Because we are all members of a single human family, these patterns can then be used to establish the degree of relatedness—and thus to track the prehistoric migrations and liaisons—of seemingly disparate populations, even if they now reside on opposite sides of the globe. It's an endeavor of great technical complexity, deploying the latest advances in twenty-first-century genomic science, but it reveals previously hidden clues to the lost story of our past and—potentially—offers us a way out of the cultural amnesia that has erased tens of thousands of years of ancestral experiences from our collective memory.

This is not a genetics textbook and I don't want us to get bogged down in superfluous details, but here are some essentials we'll need going forward:

1. DNA is the genetic mechanism of inheritance, and the various types of DNA present in our cells have, as a result of scientific advances in the late twentieth and early twenty-first centuries, been subject to close investigation by a range of highly sophisticated techniques.[1] The results of these investigations have shed light on the degree of genetic relatedness that exists between individuals and, on a larger scale, between entire populations.[2]

2. Located in the fluid surrounding the nucleus of every cell in our bodies, mtDNA (mitochondrial DNA) is inherited by both males and females but is passed on to offspring only by females.[3] MtDNA can identify lines of descent from shared maternal, but not paternal, ancestors.[4] What geneticists like about mtDNA is its abundance, being present in multiple copies per cell, giving plenty of material to work with.[5]

3. The same cannot be said of nuclear DNA, inherited equally

from both parents, which has only two copies per cell but which encodes far more genetic information than mtDNA, allowing for far more robust and precise analyses of genetic relatedness.[6]

4. Within the cell nucleus are also located the chromosomes—segments of DNA that determine sex. If you have two X chromosomes you're a female; if you have an X and a Y you're male. Y-DNA is passed on only by males, thus facilitating the determination only of shared paternal ancestry, whereas X-DNA is inherited both through the maternal and paternal lines (since males and females both have X chromosomes) and can therefore be useful in isolating shared common ancestors along particular branches of inheritance.[7]

Is it important to understand the technicalities of DNA and DNA analysis as a means of establishing degrees of relatedness?

By all means dig deeper if you wish to, for this whole area of science is a fascinating one. But don't feel you have to—any more, for example, than you might feel you must master plumbing in order to run water from a tap, or the intricacies of mechanical engineering in order to drive a car, or medical studies before undergoing surgery.

In other words, genetics, unlike archaeology, is a hard science where the pronouncements of experts are based on facts, measurements, and replicable experimentation rather than inferences or preconceived opinions. Mistakes *are* made by geneticists, of course, and profound disagreements are routinely thrashed out between colleagues in the professional journals. By and large, however, just as we trust the engineer, or the plumber, or the surgeon for their specialized knowledge (even though they sometimes get things wrong), it will streamline matters greatly here if we trust the conclusions of specialists working with the latest high-tech tools at the cutting edge of analysis of ancient DNA.

TWO SITES, TWO FAMILIES, ONE HUMAN RACE

MIND YOU, "SHOTGUN SEQUENCING" OF long strands of DNA and other similarly esoteric technologies are not required for us to connect—at a basic human level—with the story of our ancestors. Particularly poignant examples of what I mean here are provided at two ancient sites, one in Siberia and one in Montana.

The Siberian site lies to the west of Lake Baikal near the village of Mal'ta on the banks of the Bolshaya Belaya River. As the crow flies (and a great deal farther on foot through winding valleys and over high passes) this is a location more than 1,000 kilometers east of Denisova Cave. Its reach back into the human past does not extend as far as Denisova's. Still it has been recognized for many years as the home of an Upper Paleolithic culture—archaeologists call it the Mal'ta-Buret culture—that left behind many beautiful and

mysterious works of art thought to be more than 20,000 years old.[8] Among them, done in bone and mammoth ivory, are carvings of elegant, long-necked water fowl and a collection of thirty human Venus figures that are "rare for Siberia but found at a number of Upper Paleolithic sites across western Eurasia."[9]

The primary excavations at Mal'ta, which took place between 1928 and 1958,[10] also uncovered two burials, both of young children interred with curious and beautiful grave goods including pendants, badges, and ornamental beads.[11] One of these children, a boy aged 3–4 years and now known to archaeologists as MA-I, had been buried beneath a stone slab, there was a Venus figurine beside him,[12] and he was "wearing an ivory diadem, a bead necklace and a bird-shaped pendant."[13] Traces of pigmentation were found on his bones,[14] which presently reside in the Hermitage State Museum in St. Petersburg, where a high-level international team of investigators, prominently featuring geneticists and evolutionary

biologists, paid them a visit in 2009. The scientists drilled out a number of small samples from the bones and subjected them to accelerator mass spectrometry C-14 dating that showed them, give or take a few hundred years, to be 24,000 years old.[15] Detailed tests were then carried out on the samples and in due course the investigators announced that they had successfully sequenced MA-1's entire genome—making it, when a full account of the investigation was published in *Nature* in 2014, "the oldest anatomically modern human genome reported to date."[16]

We'll consider the implications of what was found in context also of the second site I mentioned above—located in Montana. Known to archaeologists as the Anzick-1 burial site and dated to 12,600 years ago (which makes it 11,400 years younger than MA-1), it is also a child's grave—in this case a boy aged 1–2 years who was interred with more than 100 tools of stone and antler, all sprinkled with red ochre.[17]

One thing we see for sure in both these ancient burials, separated by thousands of miles and thousands of years, is that the human capacity to love and cherish family members, and to regret and mourn those who pass prematurely, is not diminished by time; indeed, we instantly recognize and identify with it today because we share it. For convenience we'll continue to use the rather dehumanizing archaeological labels "MA-1" and "Anzick-1" here. But let's not forget the bereaved parents and family members as they gathered around those gravesides 24,000 years ago in Siberia and 12,600 years ago in Montana, and the care and thought, the symbolism and emotions, the love and the aching sense of loss that went into the careful preparation of the graves and the choice and placing of the grave goods in both cases.

Across the ages and regardless of geography, in everything that really matters, it bears repeating that we are all members of a SINGLE human family—a family of intrepid adventurers who have been exploring the world in one form or another for the best part of

a million years.[18] In the course of this long odyssey we've moved so far apart, across oceans, over mountains, and to the opposite ends of jungles, deserts, and ice caps that we've forgotten how closely related we in fact are. In this sense, like the simple human message of the burials, the message of genetics also speaks to a hidden unity within our apparent diversity—and sometimes in ways that defy our expectations.

ANCIENT EUROPEAN GENES

FEW HAVE COMMENTED ON THE obvious cultural similarities in burial practices, but as to genetics, all authorities agree that MA-1 and Anzick-1 are closely related, sharing large sequences of DNA.[19] Anzick-1, however, "belonged to a population directly ancestral to

many contemporary Native Americans" and thus, unsurprisingly—despite his proximity to MA-1—is "more closely related to all indigenous American populations than to any other group."[20]

Just as it was for so long an article of faith that the Americas were peopled exclusively by migrations from Siberia across the Bering land bridge, so, too, it was held to be self-evident that those Siberian migrants must have been most closely related to *east* Asians.[21] What did the Bering land bridge *do,* after all, if not connect the far north*east* of Asia with the far north*west* of North America?

But a surprise awaited the investigative team led by Maanasa Raghavan of the Centre for GeoGenetics at Denmark's Natural History Museum and Pontus Skoglund of Harvard Medical School's Department of Genetics. Instead of confirming the anticipated connection to east Asia, MA-1's Y chromosome (the male sex chromosome) turned out to be "basal to modern-day **western** Eurasians."[22] We have mentioned the limitations of Y-chromosome

analysis already, so it is good—and raises the confidence level all around—that this unanticipated and potentially boat-rocking finding was subsequently confirmed with autosomal evidence[23] (the best kind of DNA evidence, derived from the nucleus of the cell). "MA-1," the investigators repeat and reemphasize, "is basal to modern-day western Eurasians … with no close affinity to east Asians."[24]

Moreover—and most intriguingly—the investigators discovered that MA-1 also stands "near the root of most Native American lineages,"[25] and "14 to 38% of Native American ancestry may originate through gene flow from this ancient population [the population from which MA-1 stemmed]. This is likely to have occurred after the divergence of Native American ancestors from east Asian ancestors, but before the diversification of Native American populations in the New World."[26]

The final link in the chain of evidence emerged when MA-1's mitochondrial genome was sequenced, revealing the Siberian infant

to be a member of "haplogroup U, which has also been found at high frequency among Upper Paleolithic and Mesolithic European hunter-gatherers."[27]

"Our result," the investigators conclude, "therefore suggests a connection between pre-agricultural Europe and Upper Paleolithic Siberia."[28]

A genetic consequence of this previously unsuspected European/Siberian nexus, since as much as 38 percent of Native American ancestry is attributable to gene flow from MA-1's people, is that Native American DNA carries a strong and very ancient "European" signal.[29]

HIDDEN SOUTH AMERICAN ORIGINS OF CLOVIS REVEALED

SOMETHING I HAVEN'T MENTIONED YET—the ochre-dusted stone and antler tools found buried with Anzick-1 were unmistakably Clovis artifacts.[30]

There are two reasons why this "Clovis connection" is particularly noteworthy and relevant to our quest.

First, the Anzick-1 burial was originally dated to around 12,600 years ago—or, more exactly, within the limits of resolution of C-14, to between 12,707 and 12,556 years ago.[31] This suggested that the grave was dug and the grave goods placed with the remains of the deceased infant a century or two **after** the abrupt and mysterious disappearance of the Clovis culture from the archaeological record around 12,800 years ago.

That disappearance testifies to a sudden cessation of previously widespread cultural activities, suggestive of interruption by some far-reaching cataclysmic event. What it does **not** mean, however, is that every member of the Clovis population died out overnight.

Even if most did there would, undoubtedly, have been survivors—small groups coalescing into scattered, wandering tribes, whose members might have looked back on the achievements of their ancestors with awe.

One possibility that has been considered is that Anzick-1 himself may have belonged to just such a remnant group. This possibility was raised after a small but significant discrepancy was found between the dates of Anzick-1's bones and the dates of certain artifacts buried with him.

The artifacts, known as "foreshafts," are specially cut, shaped, and hollowed sections of red deer antler, each designed to hold a projectile point at one end and to clamp onto the tip of a wooden spear shaft at the other. As we've seen, Anzick-1's bones were initially dated between 12,707 and 12,556 years ago. The antler foreshafts among his grave goods are a century or two **older** than that—in the range of 12,800 to 13,000 years ago[32]—"a much more

typical and acceptable age for Clovis," as archaeologist Stuart J. Fiedel observes, than the "age attributed to the infant's bones."[33]

To resolve the discrepancy, Fiedel offers a simple but insightful reading of the evidence. The discordant data, he speculates in a paper published in *Quaternary International* in June 2017, would be reconciled if "the foreshafts were 100 to 200-year-old antique heirlooms interred with the infant by the very last Clovis folks in the region."[34]

Alternatively he suggests that due to contamination of the sample, "the infant bone dates may be slightly too young."[35]

A number of other researchers seized on the apparent temporal discrepancy to discount Anzick-1 as a Clovis individual,[36] but Fiedel's comment on contamination proved prescient. In June 2018, a year after his *Quaternary International* paper, a new study by scientists at the Oxford Radiocarbon Accelerator Unit was published in *Proceedings of the National Academy of Sciences*

(*PNAS*) under the headline "Reassessing the Chronology of the Archaeological Site of Anzick."[37] The study reminds us that "in radiocarbon dating, contamination can be a major source of error" but adds that "methodological improvements" since the original dating work at Anzick was done "have seen a significant effect in dating accuracy and reliability."[38] After applying these new methods the study concludes, contrary to previous findings, that "Anzick-1 is temporally coeval with the dated antler rods. This implies that the individual is indeed temporally associated with the Clovis assemblage."[39]

We'll return to the mysterious end of the Clovis culture in later chapters. Meanwhile there's a second reason why Anzick-1's "Clovis connection" is of immediate relevance to our quest here—which is that although Clovis did, at the limits of its range, extend into some northern areas of South America, its heartland was in North America.[40] Intuitively, therefore, we would expect the

Montana infant, a Clovis individual, to be much more closely related to Native North Americans than to Native South Americans. Further investigations, however, while reconfirming that Anzick-1's genome had a greater affinity to **all** Native Americans than to any extant Eurasian population,[41] revealed it to be much more closely related to native **South** Americans than to Native North Americans![42]

Morten Rasmussen of Denmark's Centre for GeoGenetics and Pontus Skoglund of the Department of Genetics at Harvard Medical School seek to explain the anomaly by arguing that the ancestors of the First Americans must have split into two separate groups—they label them "the NA and SA lineages"—before entering the Americas, "with the Anzick-1 individual belonging to the SA lineage."[43]

That seems reasonable enough on the face of things until we stop to consider the spectacle of these two groups, sharing common ancestry but already genetically distinct, racing into the Americas

on parallel and nonconverging tracks, one heading straight for South America, the other staying in North America—yet never, throughout this process, making sufficiently enduring contact with one another to compromise their separateness or leave a trace in the genetic record. This seems to deny human nature and simply doesn't make sense in lots of ways even before we get to the fact that Anzick-1, the most ancient representative of the "SA lineage" so far studied by science,[44] wasn't found anywhere near South America but in North America and, indeed, in Montana, which, 12,600 years ago, was about as far north as you could get before you hit the great Cordilleran ice sheet.

A PECULIAR SIGNAL FROM DOWN UNDER

IN SUMMARY, ANZICK-1 IS A paradox clothed in a conundrum, wrapped up in a mystery—an individual in a North American Clovis culture grave who is closely related to Native South Americans, to the Siberian Mal'ta population, and to ancient western Europeans. Because the South American lineage to which he belonged shared a common ancestor with the North American lineage, the geneticists found nothing in the data to challenge their long-held view that the settlement of the Americas, both North and South, had been accomplished from northeast Asia by a single founding population—albeit one that divided itself into two streams.

A year later, however, in September 2015, Pontus Skoglund, his senior colleague Professor David Reich of the Department of Genetics at Harvard Medical School, and other leading experts in the field announced in the pages of *Nature* that they had found new evidence in South America, and specifically in the Amazon rainforest, that called for a rethink:

> Here we analyse genome-wide data to show that **some Amazonian Native Americans descend partly from a Native American founding population that carried ancestry more closely related to indigenous Australians, New Guineans and Andaman Islanders than to any present-day Eurasians or Native Americans.** This signature is not present to the same extent, or at all, in present-day Northern and Central Americans or in a 12,600-year-old Clovis-associated genome, suggesting a more diverse set of founding populations of the Americas than previously accepted.[45]

We've already done the groundwork on the "12,600-year-old Clovis-associated genome" the researchers speak of here. The reference, of course, is to Anzick-1, that paradoxical infant, swaddled in mystery, who we know was more closely related to Native South Americans than to Native North Americans. What the new study adds to this is that there was a previously unsuspected structure within the SA lineage, including at least one sub-lineage—to which Anzick-1 did **not** belong—that was more closely related to Melanesian Papuans and Australian Aborigines than to **any** extant Native American population.

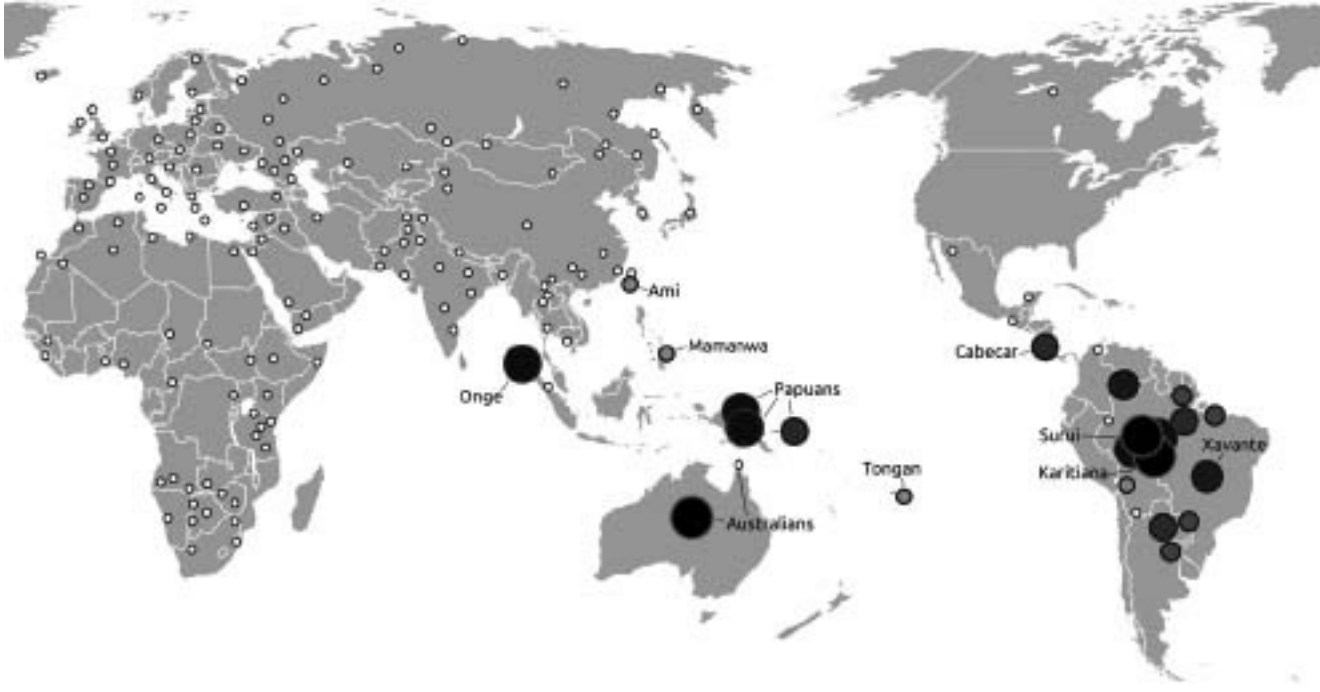

South Americans, notably in the Amazon rainforest, share ancestry with Australasian and Melanesian populations not seen in Mesoamericans or North Americans. (After *Nature,* "Genetic Evidence for Two Founding Populations of the Americas," September 3, 2015).

There is no trace of this lineage in most modern Native Americans, and—it's worth driving this point home—no trace either in the ancestral population represented by Anzick-1. Nevertheless, the investigators continued to be confronted by a peculiar and distinctive "Australasian signal," showing genetic relatedness to "indigenous groups in Australia, Melanesia, and island Southeast Asia,"[46] calling attention to itself in the genomes of Native Americans from the heart of the Amazon jungle. The Surui and Karitiana tribes, speaking languages belonging to the Tupi family, proved to have a peculiarly close connection to Australasians, as did the Ge-speaking Xavante of the central Brazilian plateau.[47]

Such a signal was completely unexpected given the vast distance between Australasia and the Amazon and the absence of any overland DNA trail. Skoglund and Reich therefore subjected it to particularly rigorous testing, applying four different methods of

statistical analysis to compare the genomes of 30 Central and South American peoples with the genomes of 197 other populations from around the world.[48] "We spent a really long time trying to make this result go away," Skoglund explained, "but it just got stronger."[49]

In the end "a statistically clear signal linking Native Americans in the Amazonian region of Brazil to present-day Australo-Melanesians and Andaman Islanders" was confirmed.[50]

"It's incredibly surprising," commented David Reich. "There's a strong working model in archaeology and genetics, of which I have been a proponent, that most Native Americans today extend from a single pulse of expansion south of the ice sheets—and that's wrong. We missed something very important in the original data."[51]

What was missed, Reich and Skoglund argue, was nothing less than the fingerprints of a lost lineage—a **second** founding population of the Americas. It is very old,[52] in their view, and almost all traces of it have been overwritten almost everywhere by

later genetic "noise." That we can still detect it at all among isolated peoples in the Amazon is probably because their genomes have been subject to less admixture and introgression than most.

The investigators have given their "putative ancient Native American lineage" a name: "Population Y" after *Ypykuéra,* which means "ancestor" in the Tupi language family."[53]

And they come to a very clear, if tantalizing, conclusion: "A Population Y that had ancestry from a lineage more closely related to present-day Australasians than to present-day East Asians and Siberians likely contributed to the DNA of Native Americans from Amazonia and the Central Brazilian Plateau."[54]

But how, when, and where did this contribution occur?

One possibility that Skoglund and Reich consider is that the patterns of genomic variation of present-day Amazonians could be explained if a large proportion—up to 85 percent—of their ancestry derived "from a population that existed in a substructured northeast

Asia, and was similar to the main lineage that gave rise to other Native Americans while retaining more Australasian affinity."[55]

In other words, congregating in that original northeast Asian—that is, Siberian—melting pot we are now being asked to envisage not only people with European genes and people with east Asian genes, but also people with Australasian genes. Neanderthals were part of the mix, too, interbreeding vigorously with *Homo sapiens,* and there were people carrying Denisovan genes and of course the Denisovans themselves. We're asked to see these groups as essentially divided and separate from one another—despite the obvious evidence of their liaisons—and we're asked to accept that they remained divided and separate, already conveniently prearranging themselves into what would become the "NA" and "SA" lineages, as they trekked across the Bering land bridge.

The endlessly flexible boundaries of such an improbable model seem perfectly adapted to explain away any potentially boat-rocking

data. It's not surprising, therefore, to find a hermetically sealed and hitherto invisible "Australasian lineage" being tacked on to the mongrel pedigree of the First Americans as soon as the inconvenient presence of Australasian genes in the midst of the Amazon jungle needed to be explained and normalized. Nor is it surprising to see the hypothetical "Population Y," identified as the bearer of those genes, depicted as heading straight to South America to oblige without leaving any of its DNA along the way among the North American populations with which it would surely have had to mingle.

Perhaps because of the impracticality of some of these ideas, Skoglund and Reich conclude with an offbeat alternative. "The patterns of genomic variation of present-day Amazonians," they point out, seemingly off the cuff, could also be explained "by as little as 2% admixture from an Australasian-related population, that would thus have penetrated deep inside the Americas without

mixing with the main ancestral lineage of present-day Native Americans."[56]

In other words, on this view, what has been preserved in those isolated, unadulterated Amazonian genomes that speaks to an ancient connection with Australasia might not be the traces of a full-scale *migration* but something more like a one-off settlement by a relatively small group.

In the next chapter we'll consider the profound implications of this scenario for our understanding of American prehistory.

10

A SIGNAL FROM THE DREAMTIME?

SKOGLUND AND REICH'S PAPER IN *Nature* reporting the presence of Australasian genes in certain populations in the Amazon is titled "Genetic Evidence for Two Founding Populations of the

Americas."[1] It was first published online on July 21, 2015 (ahead of the print edition, which appeared on September 3, 2015).

On precisely the same day (before appearing in print in the journal *Science* on August 21, 2015), another team of researchers, led by Maanasa Raghavan and Eske Willerslev, both of the Centre for GeoGenetics at the University of Copenhagen, published the online version of a paper titled "Genomic Evidence for the Pleistocene and Recent Population History of Native Americans."[2] Unlike Skoglund and Reich, who see two founder populations in the data, Raghavan and Willerslev see only one, arriving in "a single migration wave from Siberia no earlier than 23 thousand years ago and after no more than an 8000-year isolation period in Beringia."[3]

Raghavan and Willerslev several times drive home the point that the data they present "are consistent with a single initial migration of all Native Americans"[4] along a route from Siberia via Beringia and that "from that single migration, there was a diversification of

ancestral Native Americans leading to the formation of northern and southern branches."[5]

This is all very neat, tidy, and in certain ways reassuring for those American archaeologists—a majority—still reeling from posttraumatic shock following the collapse of the Clovis First dogma. Of course they would have to be in a state of rigid and unyielding denial to continue to shrug off the perfect storm of evidence from genetics and from sites like Topper, Cactus Hill, and Monte Verde that relegated Clovis to the trash can of history. But at least their favored route—from Siberia, across the Bering land bridge—remains intact and not only that, but Raghavan and Willerslev's paper also endorses the currently fashionable "Beringian standstill" model.

If only the geneticists had ended their paper there, archaeological contentment with it would have been complete. However, because they are good scientists, Raghavan and Willerslev—just like

Skoglund and Reich—could not ignore the persistent "Australasian signal" that kept cropping up in the data:

> We found that some American populations—including the Aleutian Islanders, Surui, and Athabascans—are closer to Australo-Melanesians as compared with other Native Americans, such as North American Ojibwa, Cree, and Algonquin and the South American Purepecha, Arhuaco, and Wayuu. The Surui are, in fact, one of the closest Native American populations to East Asians and Australo-Melanesians, the latter including Papuans, non-Papuan Melanesians, Solomon Islanders, and South East Asian hunter-gatherers such as Aeta.[6]

As we've seen in previous chapters, the archaeological mainstream is an intensely conservative and territorial scholarly community, resistant to change, whose deeply embedded prejudices deny that our "Stone Age" ancestors could have possessed anything other than the most primitive and rudimentary technological abilities. For orthodox thinkers, it is literally **inconceivable** that prehistoric settlers from the general vicinity of Papua New Guinea could have crossed the entire width of the Pacific Ocean to South

America, and thence made their way to the Amazon to leave evidence of their presence in the DNA of people still living there today.

What's paradoxical about this position is that—admittedly after a hard-fought struggle—no one in the mainstream now would seriously dispute that our ancient hominid ancestors were capable of undertaking successful open-water voyages to colonize new lands.[7] We've seen how the presence of Denisovan DNA on both sides of the Timor Straits and both east and west of the Wallace Line confirms that migrations across stretches of open water up to 90 kilometers wide were indeed taking place at least 60,000 years ago—a position already supported by a mass of other evidence.[8]

Likewise, and significantly earlier, bones and artifacts of *Homo erectus* dated to 800,000 years before the present have been found on the Indonesian islands of Flores and Timor, again making open-

water crossings by these supposed "subhumans" a certainty even during periods of lowered sea level.[9]

All of this has long ago been conceded. Despite the passage of close to a million years since *Homo erectus* first sailed to Flores, however, what archaeology does **not** concede is that the human species could have developed and refined those early nautical skills to the extent of being able to cross a vast ocean like the Pacific or the Atlantic from one side to the other. In the case of the former, extensive transoceanic journeys are not believed to have been undertaken until about 3,500 years ago, during the so-called Polynesian expansion.[10] And the mainstream historical view is that the Atlantic was not successfully navigated until 1492—the year in which, as the schoolyard mnemonic has it, "Columbus sailed the ocean blue."

Indeed, the notion that long transoceanic voyages were a technological **impossibility** during the Stone Age remains one of

the central structural elements of the dominant reference frame of archaeology[11]—a reference frame that geneticists see no reason not to respect and deploy when interpreting their own data. Since that reference frame rules out, a priori, the option of a direct ocean crossing between Australasia and South America during the Paleolithic and instead is adamant that all settlement came via northeast Asia, geneticists tend to approach the data from that perspective.

This is the case with Raghavan and Willerslev. First, as we've seen, they concede the presence within the data of "a distant Old-World signal related to Australo-Melanesians and East Asians in some Native Americans."[12] But, second, they go on to downplay the implications of this with the following interpretation:

> The widely scattered and differential affinity of Native Americans to the Australo-Melanesians, ranging from a strong signal in the Surui to a much weaker signal in northern Amerindians such as Ojibwa, points to this gene flow occurring **after** the initial peopling by Native American ancestors.[13]

Here's how they arrive at this interpretation of the data:

1. They trace the source of the strong Australasian signal in the Amazon to "gene flow"—the transfer of genetic variation from one population to another.[14]
2. They propose that this gene flow reached Amazonian peoples such as the Surui from northern Amerindian populations such as the Aleutian Islanders and the Athabascans, and they appear to favor particularly a "route via the Aleutian Islanders," since the latter "were previously found to be closely related to the Inuit who have a relatively greater affinity to East Asians, Oceanians, and Denisovans than Native Americans."[15] They hypothesize that the "complex genetic history" of the Aleutian Islanders perhaps "included input from a population related to Australo-Melanesians through an East Asian continental route [i.e., from Siberia across the Bering land bridge], and this

> genomic signal might have been subsequently transferred to parts of the Americas, including South America, through past gene flow events."[16]

The problem I have with all this is that these hypothetical "past gene flow events" somehow left a strong DNA signal in the Amazon, one of the remotest and most inaccessible parts of South America, while leaving next to no signal at all in North America, which—whether the genes were carried by people who traveled on foot or by people who island-hopped and coasted from the Aleutians in simple watercraft—would surely have involved interactions with North American populations before any interactions with South American populations took place—and therefore presumably should have left a DNA signal in North America at least as strong as the signal found in the Amazon.

Seeking clarification, I contacted Professor Willerslev directly at the University of Copenhagen on March 2, 2018, and asked what in

his data had led him and his coauthors to conclude that the gene flow bringing the Australasian signal to the Amazon had occurred **after** the initial peopling of the Americas. I also asked why they favored Aleutian islanders as the likely vector and whether it was not counterintuitive to propose such an extreme northern source for this gene flow. If a northern source had indeed been involved, I argued, then:

> wouldn't we expect to see a cline in the signal from strongest in the north, nearest the putative source, to weakest in the faraway south and particularly in remote South American regions like the Amazon? But my understanding of the data is that if there is a cline at all it is in the opposite direction—i.e., from strongest in the south to weakest in the north. Am I understanding correctly and if so how do you explain this counterintuitive cline? Are we to imagine Aleutians or Athabascans island-hopping and coasting down the entire Pacific coast of North America, absolutely not intermingling with anyone else or leaving any DNA traces along the way, until they arrive (presumably) at some point on the Pacific coast of South America whence they strike inland for the Amazon?[17]

Professor Willerslev replied:

> When you talk about a cline in contemporary data you assume peoples have stayed in the same place since the Pleistocene. We do not know that. Therefore I don't think it's a particularly good argument. A lot of stuff can happen over tens of thousands of years in regard to distribution of peoples. In principle the signature in the north could have been lost by replacement. We simply don't know.[18]

"Dear Eske," I responded (happily we had agreed to switch to first-name terms):

> I take your point, absolutely, on all of this. And I certainly don't imagine that peoples have stayed in the same places since the Ice Age. It's part of the essence of being human, I think, to move around, migrate, and explore. Still, will I be misrepresenting the facts if I were to state in my book, **with reference specifically to present-day populations,** that a cline of the Australasian signal is evident with a stronger signal in South America, particularly the Amazon, than anywhere in North America? And further, again with reference specifically to present-day populations, would I be misrepresenting the facts to say that the Australasian signal is stronger amongst the Surui than it is amongst the Aleutians and Athabascans and that the Surui's affinity to East Asians, Oceanians, and Denisovans is stronger than that of the Inuit?[19]

"No!" Eske replied, "I would not call it a cline.[20]… It's strongest in the Surui but stronger in Aleutians than in Athabascans … but these groups also contain more East Asian so it may simply reflect just that. The Denisovan signal is not stronger in the Surui than in the others (to my knowledge)."[21]

In summary, therefore, taking into account all of the above, the situation seems to be that the Denisovan signal remains at a constant and fairly low level throughout present-day indigenous populations so far sequenced in both North and South America.[22] The Australasian signal, by contrast, is definitely and notably much stronger among populations in the Amazon, such as the Surui, and much weaker among other Native Americans such as the Arhuaco (of non-Amazonian northern Colombia), the Wayuu (of non-Amazonian northern Venezuela), the Purepecha (of Mexico), and the Ojibwa, Cree, and Algonquin of north and northeast North America. While never reaching the high levels found among

Amazonian populations, the signal among Aleutian Islanders and Athabascans is relatively stronger than in other Native North American groups and relatively stronger in Aleutian Islanders than it is in Athabascans—though Raghavan and Willerslev warn in their *Science* paper that the Aleutian Islander data must be interpreted with some caution since it "is heavily masked owing to recent admixture with Europeans."[23]

"THE MOST PARSIMONIOUS SOLUTION . . ."

I NEXT REMINDED ESKE OF Skoglund and Reich's papers. In these, as the reader will recall, the authors contemplate the "formal possibility"[24] that the Australasian signal might reflect direct

settlement in the Amazon by an Australasian-related population "that would thus have penetrated deep inside the Americas without mixing with the main ancestral lineage of present-day Native Americans."[25] My question to Professor Willerslev, therefore, was whether there was anything in the genetic data that he was aware of that would effectively refute the notion of direct settlement.

His reply got straight to the point:

> Currently no one has a good explanation of the Australo-Melanesian signal. All that is put forward as possible explanations are purely speculative. So whether it's an old or a later event is unknown. What we do know is that it's present in some Native American groups particularly from Brazil. We also know it has to be pre-Columbian. We also know that it's not present in any of the ancient skeletons genome sequenced so far. Possible explanations can be: 1) It comes in after the initial peopling of the Americas e.g. by costal migrations that do not leave much trace behind in contemporary populations (e.g. they move quickly), or that we just haven't sequenced the populations in North America that hold the signal; 2) it's an old migration through Beringia before Native Americans but then it's strange they leave no signals in the ancient skeletons sequenced so far; 3) it's a structured initial Native American population moving south into the Americas of which

> some carry the signal but again then it's strange that there is no evidence of admixture between the two groups; 4) someone holding this signal comes into the Americas not through Beringia but crossing into South America across the Ocean. Based purely on the genetic data this is the most parsimonious explanation but it does not make practical sense; 5) Finally it's a possibility that the signal is a methodical artefact. That the methods are not behaving as we think they should do.[26]

Apart from point 5, which is above my pay grade to assess, it was refreshing to encounter such a straightforward admission that no good explanation has yet been offered for the Australo-Melanesian signal, and such willingness to consider a wide range of possibilities. Since I was already leaning toward the view that the signal is mysterious and might bear witness to a crossing of the Pacific Ocean followed by the settlement in the Amazon of a relatively small group, my eyes were naturally drawn to Eske's point 4. "Based purely on the genetic data," and invoking the parsimony principle (whereby the simplest scientific explanation that fits the evidence is preferred), it looked very much as if this

leading figure in the study of ancient genetics agreed with me! Where he and I parted company, however, was over the possibility that anybody could have made an oceanic crossing of thousands of kilometers during the Stone Age. For Eske such a proposition simply didn't make practical sense.

I sent him a follow-up mail to ask if he based this conclusion "on the archaeological consensus that our Upper Palaeolithic and early Holocene ancestors were incapable of undertaking long trans-oceanic voyages?"[27]

He replied, "In regard to crossing the Pacific. I'm not saying it did not happen but there is no evidence suggesting that humans were capable of such a journey until quite late in history (Polynesian expansion). It's a possibility and I'm open to the idea but there's not much evidence supporting it except going for the most parsimonious solution of the genetic data."[28]

So here again is a refreshing openness of mind so rarely seen among archaeologists. The best fit for the genetic data does indeed appear to be a transpacific voyage (or voyages) to South America by a group (or groups) of settlers carrying Australo-Melanesian genes. However, on the matter of the *practicality* of anyone undertaking transpacific voyages in the Stone Age, which has to do primarily with the level of technology attributed to our ancestors at that time, Professor Willerslev accepts, and builds into his own reasoning, the mainstream archaeological consensus that "there is no evidence suggesting that humans were capable of such a journey until quite late in history."

He is not to be blamed for doing so, since it is normal in the sciences for an expert in one field to trust and rely upon the conclusions of experts in other fields. Quite possibly Professor Willerslev is not aware—why should he be?—of how little like a science archaeology really is and how often the mainstream archaeological consensus has proved, after suppressing dissenting

opinions for decades, to have been fundamentally wrong all along. Recent examples include the hasty and forced addition of more than 5,000 years to the previously accepted chronology for the earliest megalithic sites after the discovery of 11,600-year-old Gobekli Tepe in Turkey,[29] the collapse of "Clovis First," and the comprehensive debunking of the long-held belief that the Neanderthals were incapable of art.[30] Clearly, the mainstream archaeological consensus is **not** always right in what it agrees upon and it may well turn out that it is not right on the matter of grand oceanic voyages during the Ice Age. Indeed, rather than being ruled out on the basis of a priori assumptions, perhaps that strange Australo-Melanesian genetic signal in the Amazon is part of the **proof** that such voyages must indeed have occurred.

Then there's the matter of the role of the Denisovans in all this. We know from the evidence of Denisova Cave itself that their technology—while undoubtedly "Stone Age"—was far ahead of its

time and in some ways much more akin to the Neolithic than to the Upper Paleolithic. We know that they could make sea crossings and that they ranged over a vast area, at least from the Altai Mountains in the west to Australo-Melanesia in the east. Last but not least, we know that their DNA survives most strongly today in people of Australo-Melanesian descent, and there's informed speculation that Australo-Melanesia may have been their original homeland.

It's strange, and evocative, that the mystery of the Denisovans and the mystery of the Australo-Melanesian genetic signal in the Amazon should collide in this way, and all the more so because, as Eske Willerslev makes clear, there's no especially strong Denisovan element in the signal. Perhaps further research will provide us with a higher-resolution picture, but from the data presently in hand it looks like the gene flow to the Amazon involved a population of Australo-Melanesians who had undergone little or no mixing with Denisovans. For such a people to have existed in the very area where the genetic evidence suggests the Denisovans were most

strongly congregated is itself somewhat mysterious and suggests some kind of selective process at work.

In previous books, in particular *Fingerprints of the Gods* and *Underworld,* I have given extensive consideration to the intriguing phenomenon of ancient maps that show the world as it looked during the last Ice Age and do so, moreover, with stunning longitudinal and latitudinal accuracy and with the use of complex spherical trigonometry. Though it would be superfluous to reproduce here evidence that I have already presented in such detail elsewhere, I include an appendix—appendix 2—that gives some indication of the richness and the significance of this overlooked material.

However many times by however many hands they have been copied and recopied down the ages, it is my contention that these anomalous maps can be traced back to lost source documents that could only have originated with a civilization at least advanced enough to have explored the world, and to have mapped and

measured it, when it was still in the grip of the Ice Age. A civilization capable of such feats must, at the very least, have had its own adepts in the techniques of boat-building, sailing, navigating, cartography, and geometry—none of these being among the skills that archaeologists are normally willing to attribute to Ice Age hunter-gatherers.

It is not inconceivable, however, if such a hypothetical civilization had existed, that it might have sponsored "outreach programs" to the hunter-gatherers who also lived in the world at that time, just as our own twenty-first-century technological civilization has "outreach programs" to hunter-gatherer tribes in the Amazon rainforest, the jungles of New Guinea, and the Namibian desert today—anthropologists, aid workers, resettlement experts, and so on and so forth. It's even conceivable that a hypothetical lost civilization of the Ice Age could have had "resettlement experts" of its own who were interested in the outcomes that might follow from physically removing people from one area—such as Melanesia, for

example—and resettling them in far-off places like South America. If a global cataclysm were to loom, threatening the annihilation of the civilization, such "outreach" initiatives might even have been accelerated to prepare hunter-gatherer populations to serve as refuges for the survivors.

This is all pure speculation, of course, but at least it's in good company. As Eske concedes, **all** of the explanations—including his own—that have so far been offered to account for the presence of Australasian DNA in the Amazon are "purely speculative."

And the mystery continues to deepen. In November 2018, two major new studies were published, one in the journal *Cell,* coauthored by Cosimo Posth, David Reich, and others, and the second in *Science,* coauthored by Eske Willerslev, J. Victor Moreno-Mayar, David Meltzer, and others.[31] These new studies found Australasian DNA already present in skeletal remains from Lagoa Santa, Brazil, dated to 10,400 years ago, and confirmed the

suspicion of the researchers that the anomalous genetic signal must have reached South America in the "Late Pleistocene"[32]—that is, near the end of the last Ice Age.

"How did it get there?" wonders geneticist J. Victor Moreno-Mayar, immediately answering his own question as follows: "We have no idea." Similarly, David J. Meltzer expressed amazement at the most peculiar character of the signal, so clearly present in South America yet "somehow leaping over all North America in a single bound."[33]

For the purposes of my own quest, however, that anomalous, unexplained signal had the effect of opening up a new and fruitful avenue of inquiry. With the archetypally North American Clovis culture now known to have South American genetic roots, it was becoming increasingly obvious that to explore the mysteries of one half of the megacontinent I could not be oblivious to what had happened in the other half.

My focus would remain on North America, to which we'll return in part 5, but I had a strong intuition that I might miss an important piece of the puzzle if I failed to investigate the Amazon first.

I resented the intuition, which felt like a diversion, but it was so insistent that ultimately I could not ignore it.

PART IV

MEMES

The Amazon Mystery

11

GHOST CITIES OF THE AMAZON

IN MY QUEST FOR THE traces of a lost civilization of prehistoric antiquity, the Amazon rainforest at first seemed to have little to offer. Without that teasing, tantalizing Australasian DNA signal I probably wouldn't have given it a second thought. But the signal was there, it was real, it was hugely anomalous, and it cried out for a deeper inquiry.

Along with much of the rest of the Americas, the Amazon entered European consciousness in the sixteenth century—the century of conquest. It was not a primary target. Mexico and Peru were hit first, their armies conquered, their wealth pillaged. Then rumors began to circulate of exotic civilizations rich in gold hidden in the jungles beyond the Andes Mountains. The greed of the Spaniards was aroused and in February 1541 Francisco de Orellana and Gonzalo Pizarro (the latter the brother of Francisco Pizarro, the conqueror of Peru) struck east from the city of Quito in Ecuador on a journey into the unknown.

Their mission was nothing less than to find the fabled El Dorado in the remote interior of South America and to loot the vast wealth they expected to find piled up there. In this they failed but in the grander scheme of things they succeeded mightily, for their expedition left us with the earliest surviving eyewitness account of the Amazon—unfortunately not of the *pre-Columbian* Amazon, which would have been ideal, but of the Amazon so soon after

contact that it remained, effectively, in its pre-Columbian state. As such, it has much to tell us about the lost prehistory of the Americas.

At the head of a force of more than 200 Spanish soldiers, Orellana and Pizarro descended from the Andes. Hacking their way through increasingly dense and difficult jungle and fighting multiple engagements with hostile tribes, they eventually reached the banks of the Coca River, a tributary of the Napo River that is, in turn, an important tributary of the great and majestic Amazon itself. The terrain made further overland travel almost impossible and, far from finding and reveling in the supposedly limitless riches of El Dorado, the conquistadors were by now depleted by illness and weak with hunger. Their solution was to build a fair-sized boat, which they named the *San Pedro*. In it, on Pizarro's orders, Orellana then embarked with a force of 50 men to seek out and raid local villages for food.

The agreement was that Orellana would return within 12 days with whatever supplies he could gather. Unfortunately, however, the Amazon River system hadn't been consulted when the plan was made, and the *San Pedro* was swept downstream at such a rate that very soon it was hundreds of miles away and the prospect of a return against the powerful currents was most uninviting. Besides, even if Orellana's force had been able to row the rough-and-ready craft upstream again there was no guarantee that they would ever find their way back to Pizarro through the maze of braided river channels in which one opening looked very much like the next.

They decided, therefore, to press on and, in the process, became the first Europeans ever to navigate the entire length of the Amazon River and to cross the full width of South America from west to east. This was barely 20 years after the Spanish brought smallpox to the "New World"—another first!—and the great pandemics that were to depopulate the Americas had not yet penetrated deeply (if at all) into the remote fastness of the Amazon jungle. The pale horse

of death would very soon follow, but Orellana's adventure took place at just about the last time that the cultures and civilizations that had thrived and prospered in the rainforest for thousands of years could ever be seen in something approaching their original form and context.

For that reason we are fortunate that Orellana and his murderous gang of mercenaries—often starving, often having to fight for their lives—were accompanied on this desperate voyage by Brother Gaspar de Carvajal, a literate and sensitive Dominican friar who kept a journal throughout. In it he describes himself as "a man to whom God chose to give a part in such a strange and hitherto never experienced voyage of discovery, such as this one which I shall relate from here on."[1]

The expeditionaries frequently faced extreme privations. On one occasion, for example, Carvajal reports that after many days without food,

> we were eating nothing but leather, belts and soles of shoes, cooked with certain herbs, with the result that so great was our weakness that we could not remain standing, for some on all fours and others with staffs went into the woods to search for a few roots to eat and some there were who ate certain herbs with which they were not familiar, and they were at the point of death, because they were like mad men and did not possess sense; but as Our Lord was pleased that we should continue our journey, no-one died.[2]

Whether by divine intervention or by good luck, or because of Orellana's effective leadership, none of his tough and resourceful men died of starvation on the voyage, and only a handful lost their lives due to infections, disease, and battle wounds. It was, all in all, a 7,000-kilometer journey, the whole of which, from departure from Quito in February 1541 to arrival at Marajo Island in the Amazon estuary on the Atlantic coast of Brazil in August 1542, took 18 months.

More important by far than his descriptions of the risks and dangers of the adventure, the great historical significance of Carvajal's journal is the shockingly counterintuitive picture it paints

of a vast and complex Amazon. Certainly there were regions of complete wilderness where the expeditionaries suffered badly—hundreds of kilometers of deserted riverbanks with no people, no crops, and apparently no wildlife. But we discover as we read on that these empty quarters were interspersed with regions of astonishing, heavily populated abundance, where "great cities" more than 20 kilometers from end-to-end, roughly the length of Manhattan, lined the riverbanks.[3] Here Carvajal reports that enormous expanses were given over to productive agriculture[4] and there were signs everywhere of large and well-organized political and economic systems linked to centralized states that were capable of fielding disciplined armies thousands strong.[5]

These last glimpses of the Amazon before the ruination of European contact hint at a glorious, sophisticated, and technologically advanced indigenous prehistory. Carvajal tells of one stretch of the mighty river, 80 leagues—possibly more than 500

kilometers[6]—in length, ruled by a "great overlord named Machiparo." Throughout his territories a single language was spoken and the towns and villages stood so close together that there was usually not more than "a crossbow shot" between them.[7]

A week later the Spaniards came to a "fortified village" and, finding themselves short of food they took it by storm, killing some of the inhabitants and forcing the remainder to flee into the jungle. They then "remained resting, regaling ourselves with good lodgings, eating all we wanted, for three days in this village. There were many roads here that entered into the interior of the land, very fine highways."[8]

Orellana took these latter as an ominous sign—the locals they had driven out of their homes might easily return with reinforcements—and the expedition sailed on, enjoying the abundant and varied foods that they now found everywhere on their route downriver.[9]

The next major halt was at "a village that was on a high bank, and as it appeared small to us the Captain ordered us to capture it, and also because it looked so nice that it seemed as if it might be the recreation spot of some overlord of the inland."[10]

The residents put up a tough fight but were eventually expelled:

> And we were masters of the village, where we found very great quantities of food of which we laid in a supply. In this village there was a villa in which there was a great deal of porcelain-ware of various makes, both jars and pitchers, very large, with a capacity of more than twenty-five arrobas [one hundred gallons], and other small pieces such as plates and bowls and candelabra of this porcelain of the best that has ever been seen in the world, for that of Malaga is not its equal, because this porcelain which we found, is all glazed and embellished with all colors, and so bright are these colors that they astonish, and, more than this, the drawings and paintings which they make on them are so accurately worked out that one wonders how with only natural skill they manufacture and decorate all these things making them look just like Roman articles; and here the Indians told us that as much as there was made out of clay in this house, so much there was back in the country in gold and silver.[11]

From this village, as from others through which they had passed, "there went out many roads and fine highways to the inland country."[12] Orellena had previously resisted the impulse to explore these enticing jungle thoroughfares but now, wishing to find out where they led to—perhaps even to El Dorado itself!—he took several companions with him and set out. Once again, however, discretion got the better of valor:

> He had not gone half a league when the roads became more like royal highways and wider and when the Captain had perceived this, he decided to turn back, because he saw that it was not prudent to go on any further.[13]

No doubt Orellana's prudence was among the reasons that so many of his men survived the perilous 7,000-kilometer voyage from the Andes to the Atlantic, but it is a matter of profound regret that he did not explore those "royal highways" through the jungle. In consequence, today we may only imagine where—and what—they led to.

UNPALATABLE TRUTHS

ALTHOUGH WIDELY DISCUSSED AT THE time, Carvajal's journal, the first eyewitness account of the full length of the Amazon in a near-pristine state, subsequently disappeared from public view for more than 300 years.[14] It only resurfaced in the nineteenth century following an exhaustive archival search by the Chilean scholar José Toribio Medina, who published it in 1895.[15]

Still it seemed that forces were at work to sideline Carvajal's uniquely important contribution to our understanding of the ancient Amazon. No sooner was the journal in print, at any rate, than it began to be "debunked" by scholars.[16]

For example, there were strident objections to a claim made at one point in Carvajal's account that statuesque female archers, whom the friar unhesitatingly calls "Amazons" after the warrior

women of classical Greek myth,[17] had participated in an attack on Orellana's expeditionaries.[18] Carvajal also states that many of the other peoples they met on the journey were "subjects of the Amazons" whose dominions were extensive and whose sumptuous capital city had five enormous temples at its heart:[19]

> In these buildings they had many gold and silver idols in the form of women, and many vessels of gold and silver for the service of the Sun.[20]

Such descriptions enjoyed wide currency and inflamed the public imagination in the years following the voyage.[21] As a result, the great river system Orellana explored is not today named after him, or some other Spanish adventurer, but called the "Amazon" instead.[22] To the skeptics of a later age, however, the link to the classical world that Carvajal suggested, and the notion of a lavish city in the depths of the jungle, seemed ridiculous.

Nor was this all.

What really stuck in the skeptical craw were the accounts Carvajal gave of the inhabitants of the rainforest, of the general level of their civilization, of the refinement of their arts and crafts, and particularly of the extent of their settlements—not only the fabulous capital of the Amazons but also other "very large cities," including some that "glistened in white."[23] By the 1890s the view had already set in among anthropologists and archaeologists that the Americas as a whole had only been peopled relatively recently—and it was strongly believed that one of the very last places to be settled, in this generally very late migration scenario, would have been the Amazon. As this view tightened its grip in subsequent decades, it began to seem obvious to all serious-minded researchers—so obvious as to be beyond question—that the Amazon could only been have been inhabited for about 1,000 years, and then only by very small groups of hunter-gatherers since the jungle was "resource-poor."[24] Indeed in this same vein, even as late as the

1990s, the rainforest was still being depicted by environmentalists as "a counterfeit paradise whose lush vegetation hid nutrient-poor soils incapable of supporting large populations and complex societies."[25]

The reason Carvajal's account was disbelieved for most of the twentieth century by almost everyone who reviewed it is therefore plain to see. The picture he painted of the pre-contact state of the peoples and cultures of the Amazon flew in the face of a dominant (and domineering) scholarly theory. Predictably, therefore, the first reaction of most archaeologists was not to question the theory in the light of the rediscovery, after long neglect, of an on-the-spot, eyewitness account. Instead they chose to defend the theory and undermine Carvajal by accusing him of lying in order to glorify the achievements of the expedition.

The friar gives us his word—no small matter for such a man—that he wrote only "the truth throughout."[26] But his accounts of

cities, huge populations, advanced ceramics ("surpassing those of Malaga"), and enormous, fertile agricultural lands along the course of the Amazon were too subversive to be accepted. Quite simply, if he was right about all this, then the modern "experts" were wrong—and that could not be tolerated.

Indeed the judgment that Carvajal was a fantasist and a liar, and that nothing he had said about the Amazon could be taken seriously, seemed about to be set in stone when the first shreds of the evidence that would ultimately exonerate him, proving that he had indeed told the truth throughout, began to emerge.

DID AMAZONIAN CITIES EXIST?

PROFESSOR DAVID WILKINSON OF UCLA, an authority on long-term and large-scale phenomena in world politics, including empires and

systems of independent states, has made a special study of the level of civilization in the Amazon prior to European contact.

> The key question for civilizationists is: were there Amazonian cities before European contact? "Civilizations" require "cities," and "cities" are the defining feature of "civilizations." And by "cities," we mean 4th magnitude settlements, i.e. settlements with a population of not less than the order of 10^4 (~10,000) … Did Amazonian cities exist?[27]

Judging from the earliest reports of Spanish and Portuguese expeditions, says Wilkinson, "the answer would certainly have to be in the affirmative."[28] He draws particular attention to one of the cities, mentioned earlier, that extended for more than 20 kilometers from end to end,[29] and to another settlement that Carvajal describes as "more than two leagues long."[30] The exact length of a league, Wilkinson notes, was "not a fully agreed-upon or stabilized physical distance, but was probably not less than 2.5 English statute miles nor more than 4."[31] A settlement of close-packed housing covering

2 leagues would therefore have been between 5 miles (8 kilometers) and 8 miles (13 kilometers) in extent. Here Wilkinson refers us to a study by an international team of anthropologists and geologists who focused on what is known about this settlement and calculated that it would have housed "perhaps 10,000 inhabitants."[32] As Wilkinson notes, this therefore makes it, by definition, a fourth-magnitude settlement—that is, a city, and "hence part of a civilization."[33] It follows that the larger settlement, with an extent of more than 20 kilometers, would likely have had at least twice as many inhabitants, that is, 20,000 or more.

It is instructive to compare these figures with those of "civilized" Europe in a similar time frame.[34] Certainly London, with a population estimated at 60,000 in the sixteenth century,[35] was larger than either of the two Amazonian cities we are considering here, but the difference was one of degree, not of kind. The British city of York, an established urban center since Roman times, had a

population estimated at between 10,000 to 12,000 in the sixteenth century[36]—very much on the same scale as the Amazonian cities—while in Spain, Toledo did not achieve a population of 13,000 until the mid-nineteenth century.[37]

On Carvajal's account, therefore, not only did the Amazon have cities but its cities were comparable in size to those of Europe at the same time. He also reports that the chieftain Machiparo ruled over "many settlements and very large ones which together contribute for fighting purposes fifty thousand men of the age of from thirty years up to seventy, because the young men do not go to war." Aside from the interesting anthropological observation about the age at which men in sixteenth-century Amazonian society went to war, this statement has important implications for our understanding of the population of the region. Machiparo's domain was just one among many through which the Orellana expedition passed, yet if Carvajal reported correctly it could muster an army 50,000 strong.

This is a greater number than Denmark and Norway combined, or Sweden and Finland combined, or Brandenburg-Prussia, or even the Tsardom of Russia, could field in the same period.[38]

A view of the Amazon as an "uncivilized" and "savage" place—indeed as the very epitome of savagery—has been deeply ingrained in the European psyche for centuries. It is therefore not surprising the Carvajal was disbelieved when his journal finally surfaced in 1895. Also disbelieved were the reports of the two similar adventures that followed—the Ursua expedition, which took place 20 years after Orellana's voyage, and the Teixeira expedition of 1637–38.

There was no official recorder for the Ursua expedition, but one of its officers, a certain Captain Altamirano, provides independent confirmation of Carvajal's observations when he speaks of settlements with populations of around 10,000 in the heart of the

Amazon jungle—at the lower end of the urban scale, but again, as Professor David Wilkinson notes, "city-sized."[39]

By the time of the Teixeira expedition the region had been riven by smallpox epidemics that caused depopulation across wide areas, and had also begun to suffer other negative effects of European penetration and exploitation. Nonetheless the expedition's Jesuit priest, Father Cristóbal de Acuña, who, like Carvajal, kept a journal, could report that "the river of Amazons waters more extensive regions, fertilizes more plains, supports more people, and augments by its floods a mightier ocean" than the Ganges, Euphrates, or Nile. Like Carvajal and Altamirano before him, Acuña, too, was still able to speak of an "infinity of Indians" and of inhabited areas hundreds of kilometers in extent where the settlements were packed "so close together, that one is scarcely lost sight of when another comes in view."[40]

“These testimonials,” Wilkinson writes, “would seem sufficient. With eyewitnesses reporting the size of settlements and the wealth of surplus food available to support dense populations (and social complexity), there could be, and apparently there was indeed, pre-Columbian civilization in the Amazon basin.”[41]

The problem, however, as Wilkinson immediately concedes, is that “serious doubts later arose.”[42]

The first element of doubt had to do with the accounts of subsequent penetrations of Amazonia—after the Orellana, Ursua, and Teixeira expeditions. In this regard the observations of Padre Samuel Fritz, a Jesuit preacher, are of particular significance.[43] He lived among the Omaguas, through whose domains along the banks of the Rio Napo, between the Coca and Aguarico, the Orellana expedition passed and which Carvajal (although he does not refer to the Omagua by name) describes as densely populated.[44]

Not so according to Padre Fritz! Between 1686 and 1715 he established thirty-eight Jesuit missions among the Omagua and noted on a map that the important settlements among which he had planted these missions had a combined total population of just 26,000 people[45]—quite a different matter from the hundreds of thousands reported by Carvajal. Let us note in passing—for there is a hint here of what was really going on—that Fritz's main preoccupation, other than preaching, was to advise "these small weak village communities on how to retreat and regroup upriver to evade continual Portuguese slave-raiding."[46]

Likewise, a little later—between 1743 and 1744—the French geographer Charles-Marie de la Condamine traveled through the region and reported no cities or armies in Amazonia, again in stark contrast to Orellana. For Condamine, the Omaguas were "a people formerly powerful" while along the entire river system he found "no

warlike tribes inimical to Europeans, all such having either submitted or withdrawn themselves to the interior."[47]

These reports, and many others like them as the eighteenth century merged into the nineteenth and the nineteenth into the twentieth, did serious damage to the credibility of the earlier explorers—to such an extent that Smithsonian Institution archaeologist Betty Meggers was still insisting, before she passed away in 2012, that Carvajal had either misunderstood everything he saw or, more likely, that his entire account was riddled with fantasy and invention.[48]

THE LONG SHADOW OF BETTY MEGGERS

THROUGHOUT HER WORKING LIFE MEGGERS was a passionate advocate of the view that no pre-Columbian Amazonian settlement could ever have supported even 1,000 people, let alone several thousands or even tens of thousands as Carvajal had reported. It was likewise her opinion that the level of sophistication Carvajal had described—the armies, the food storage, the porcelain specialists, and so on—was in fact completely **impossible** given the limitations of the Amazonian environment.[49]

Meggers's *Amazonia: Man and Culture in a Counterfeit Paradise,* published in 1971 (but expanding on work she had done and conclusions she had reached in the 1950s), has been described as possibly "the most influential book ever written about the Amazon."[50] And indeed, it was this book, and the "environmental limitation" movement that it spawned—because many other archaeologists, anthropologists, and ecologists simply followed Meggers without question—that for a long while served as the sole

acceptable reference frame through which the prehistory of the Amazon would be understood. As Professor Wilkinson puts it, “the meticulously careful and systematic researches of 20th century cultural-ecologist archaeologists” like Meggers created a consensus that “large-scale settlements and societies” could **never** have existed in what the environmental limitationists saw as the “wet-desert” of Amazonia.[51]

But as was the case with Vance Haynes and the mistaken Clovis First doctrine that kept so many locked in illusion for so long, so it was with the ideas of Meggers and her followers. A dominant individual, with a prestigious position, can delay the progress of knowledge for decades but ultimately cannot stop the buildup of contrary evidence and opinions that will lead to a new paradigm.

Predictably, therefore, as Wilkinson goes on to note in his study of Amazonian civilization:

> Towards the end of the 20th century, the archaeological pendulum began to swing back toward crediting the early explorers' accounts. Even Meggers [in *Amazonia: Man and Culture in a Counterfeit Paradise*] had passed on without comment a report [dated approximately 1662] by Mauricio de Heriarte that the capital of the Tapajós (at today's Santarem) could field 60,000 warriors. Any such number of militia would by … comparative-civilizational standards have implied an urban population of 300,000 to 360,000![52]

It is troubling, in retrospect, that Meggers knew of, yet did not consider, the implications of Heriarte's report—but, of course, had she done so, she would have been obliged to rethink her whole thesis. Within twenty years after the publication of *Counterfeit Paradise,* however, other scholars were actively doing the rethinking for her. Notable among them was Anna Curtenius Roosevelt, now professor of anthropology at the University of Illinois at Chicago. In 1993 she presented evidence that some pre-Columbian Amazonian settlements "held many thousands of people … from several thousands, to tens of thousands of individuals or more." And in 1999 she wrote, "In Amazonia, non-state societies

appear to have organized large, dense populations, intensive subsistence adaptations, large systems of earthworks, production of elaborate artworks and architecture for considerable periods of time."[53]

Likewise, in 1994, anthropologist Neil Whitehead concluded of the prehistoric Amazon, "We are dealing with civilizations of considerable complexity, perhaps even protostates."[54] And in 2001, Michael Heckenberger, James Petersen, and Eduardo Neves, facing criticism from Meggers, strongly defended their own by then well-established position that "there were past Amazonian societies significantly larger than anything reported in the past 100–200 years,"[55] that these societies included "chiefdoms" or "kingdoms,"[56] and that "lost civilizations" were indeed present in some parts of the Amazon before European contact.[57]

What are we to make of all this to-ing and fro-ing?

In summary, “to address the contradictions in the sources and among the authorities,” Wilkinson asks, “If there were Amazonian cities, where did they go? And, if there were Amazonian cities, how could they have subsisted?”[58]

He gives two two-word answers to these questions—“recurrent catastrophes” to the first and “exemplary agronomy” to the second.

EXTINCTION AND AMNESIA

WE’LL COME TO THE EXEMPLARY agronomy in a later chapter, but let’s deal with the recurrent catastrophes now.

Prior to the Orellana expedition, smallpox may already have found its way to the Amazon overland from Mexico where it had been introduced during the Spanish conquest a few decades

earlier.[59] If not, then the direct transmission of the disease to Peru in 1532–33 by Pizarro's conquistadors certainly brought it into the Andes Mountains in force, making it only a matter of time before it descended to the east side of the range and thoroughly infiltrated the rainforest.[60] Quite possibly, although there is no proof, the Orellana expedition may itself have been the first principal vector that carried the scourge into the heart of the Amazon but if so it was certainly not the last—nor was smallpox the only Old World disease to which Europeans possessed significant immunity while Native Americans did not. Measles, influenza, and other viruses also took a ghastly toll.

Wilkinson cites an important study by anthropologist Thomas P. Myers that documents "more than 30 epidemics—smallpox, measles, and other outbreaks—some 'on a massive scale'—in 16th–18th century South America."[61] Myers finds evidence of "very substantial depopulation between the Orellana and Teixeira

expeditions" and estimates that in many areas it ran as high 99 percent.[62] This, he further suggests, "may have been the reason why the missionaries later transmitted the idea of a relatively uninhabited Amazon region. The people they found were the survivors of the diseases and epidemics."[63]

The implications of the virtual extinction of the Amazon's pre-Columbian population are immense. If so many died, then we can be sure that much else died with them. As Wilkinson succinctly phrases it, "A small city of 10,000 that loses 99% of its inhabitants becomes a village of 100, that can do far less."[64]

Likewise, by extension, we can imagine what would have happened if that city were just a small part of a great and complex civilization of the Amazon and if that entire civilization were deprived of 99 percent of its warriors, 99 percent of its farmers, 99 percent of its hunters and gatherers, 99 percent of its astronomers, 99 percent of its healers and shamans, 99 percent of its architects,

99 percent of its boat builders, and 99 percent of its wisdom keepers. Of course, across the scale of the whole Amazon basin, this would not have happened overnight; likely it would have extended over a century or two—a creeping cataclysm rather than a single big hit. But the end result, whether it came slow or fast, would have been the same. Once left deserted, the great cities and monuments and other public works of any hypothetical Amazonian civilization would quickly have been encroached upon and soon completely hidden by the jungle while, at the same time, cultural memory banks would have been wiped almost clean and vast resources of skills, knowledge, and potential would have been lost forever.

Little wonder, then, that to this day amnesia, confusion, contradictions, and mystery confound the search for the truth of the Amazon's deep past.

12

THE ANCIENTS BEHIND THE VEIL

THE DNA EVIDENCE PRESENTED IN part 3 reveals an astonishing anomaly. At some point during the Ice Age, perhaps as early as 13,000 years ago, a group of people carrying Australo-Melanesian genes settled in what is now the Amazon jungle.

The Amazon basin today is a vast and diverse region encompassing almost 7 million square kilometers, of which

approximately 5.5 million square kilometers are still covered by rainforest.[1] The figures only become meaningful by comparison. The whole of India, with a total area of 3.29 million square kilometers, is less than half the size of the Amazon basin,[2] but Australia, at 7.7 million square kilometers, is bigger,[3] as are China (9.59 million square kilometers),[4] Canada (9.98 million square kilometers),[5] the United States (9.63 million square kilometers),[6] and Europe (10.18 million square kilometers).[7] All in all, then, it's fair to say that what the Amazon confronts us with is a truly gigantic landmass, on a similar scale to many of the world's largest countries and regions, extending for thousands of kilometers from north to south and thousands of kilometers from east to west.

There has been no lasting scholarly consensus on the climate, environment, vegetation, and tree cover of the Ice Age Amazon (see appendix 3 for details) but the situation is possibly even worse around the issue of the peopling of this immense region—and

indeed around the entire vexed question of how and when humans began to settle in South America as a whole.

The reader will recall from part 2 that it was Tom Dillehay, professor of anthropology at Vanderbilt University in Tennessee, who first put the cat among the Clovis pigeons with his excavations at Monte Verde in southern Chile. The excavations began in 1977 and continue to this day, with multiple reports and papers published in scientific journals. The story is therefore a long one, but to make it short let's just say that Dillehay's extensive and meticulous excavations initially revealed, in his own words:

> one valid human site (MV-II) dated ~14,500 cal BP. … Although bifacial projectile points, flaked debitage, and grinding stones were recovered, most lithic tools were edge-trimmed pebble flakes and sling and grooved bola stones.[8]

Seen through the distorting lens of the "Clovis First" belief system, Dillehay's date looked very threatening—in part because the artifacts, tools, and points found at Monte Verde had nothing to

do with Clovis whatsoever but more so because to have reached the far south of South America by 14,500 years ago meant that the ancestors of these settlers must have crossed the Bering land bridge (the full length of two continents away) long before that and therefore, by definition, that Clovis was very far indeed from being "first."

All Dillehay's battles with Vance Haynes and his supporters were over this relatively conservative date of 14,500 years ago—and as we've seen, Monte Verde was vindicated in that fight after a site visit in 1997 when the Clovis Firsters (begrudgingly) conceded defeat.

But the story was far from over and as the excavations at Monte Verde continued, deeper and older occupation levels began to be exposed, yielding increasingly more ancient dates. The results of these new studies were published by Dillehay in November 2015, confirming a revised age for Monte Verde of around 18,500 years[9]

and revealing that the site had been reoccupied several times thereafter over a period of more than 4,000 years.[10] Again in Dillehay's own words:

> The new evidence is multiple, spatially discontinuous, low-density occurrences of stratigraphic *in situ* stone artifacts, faunal remains, and burned areas that suggests discrete horizons of ephemeral human activity radiocarbon dated between ~14,500 and possibly as early as 19,000 cal BP.[11]

Nor, it seems, is Monte Verde quite done with surprising us. Even as he was reporting his first paradigm-busting date of 14,500 years ago for MV-II, Dillehay was already drawing attention, in a rather careful, noncommittal way, to the possibility that MV-I, another area of the site, might be older—and not just 18,500 or 19,000 years old but perhaps significantly more than 30,000 years old:

> MV-I dated ~33,000 BP … initially defined by scattered occurrences of three clay-lined, possible culturally produced burned areas and twenty-six stones, at least six of which suggest modification by humans. This … evidence from MV-I

> was too meager and too laterally discontinuous to falsify or verify its archaeological validity.[12]

This whole issue, which even the most adamant Clovis Firsters on the 1997 site visit had admitted was "extremely intriguing,"[13] was reexamined by Dillehay and his team in the 2015 study, across several areas of Monte Verde. Dates as tantalizingly ancient as 43,500 years ago were associated with the remains and artifacts unearthed, but Dillehay again carefully judged the finds to be "still too meagre and inconclusive to determine whether they represent human activity or indeterminate natural features. At present the latter case is perhaps more feasible given there is presently no convincing archaeological or other data to substantiate a human presence in South America prior to 20,000 years ago."[14]

ONE MORE LINE IN THE SAND CROSSED

DESPITE HAVING FOR SO LONG been a rebel on the subject of First Americans, despite having been vindicated in the end on his first date for Monte Verde, despite having then published new dates pushing the age of the site back further, and despite those "meagre" hints of even greater antiquity, it does sound very much as if Dillehay was imitating his former critics here. Just as they used to argue that there was no convincing archaeological evidence to substantiate a human presence in South America 14,500 years ago, now he was saying there was none prior to 20,000 years ago.

When, I wonder, will archaeologists take to heart the old dictum that absence of evidence is not the same thing as evidence of absence, and learn the lessons that their own profession has repeatedly taught—namely that the next turn of the excavator's spade can change everything? So little of the surface area of our

planet has been subjected to any kind of archaeological investigation at all that it would be more logical to regard **every** major conclusion reached by this discipline as provisional—particularly so when we are dealing with a period as remote, as tumultuous, and as little understood as the Ice Age.

I was therefore not at all surprised, after Dillehay had drawn his line in the sand at 20,000 years ago, that later research, published in August 2017, confirmed a human presence in South America even earlier in the Ice Age!

This followed decades of study by a team under the leadership of Denis Vialou of the Muséum National d'Histoire Naturelle in Paris at the Santa Elina rock shelter in the Brazilian state of Mato Grosso.[15] Located at the convergence of two major river basins, and roughly at the geographic center of South America as a whole, the shelter is known for its huge display of around 1,000 prehistoric paintings and drawings.[16] In the long rectangular habitation area

nearby, Vialou found and excavated a series of beautifully stratified deposits testifying to different periods of human occupation from 27,600 years ago down to 23,000 years ago.[17] Some very finely worked and drilled bone ornaments were among the objects discovered.[18]

PEDRA FURADA

MORE THAN 2,000 KILOMETERS NORTHEAST of Santa Elina, the eminent archaeologist Niède Guidon has spent 40 years excavating hundreds—literally hundreds!—of richly painted prehistoric rock shelters in Serra da Capivara National Park in the Brazilian state of Piauí. While everyone else is playing catch-up, she has long been confident that humans arrived in South America much earlier than 20,000 years ago. In 1986–3 years before Dillehay first began to offer his own cautious dissent from the Clovis First paradigm—she published a paper in *Nature* boldly titled "Carbon-14 Dates Point to Man in the Americas 32,000 Years Ago."[19] It was a report on her work at a particularly large and richly decorated rock shelter called Pedra Furada where she had excavated "a sequence containing abundant lithic industry and well-structured hearths at all levels" documenting continuous human occupation over the entire period

from 6,160 years ago to 32,160 years ago.[20] In addition, she found conclusive evidence that at least one of the spectacular rock paintings was 17,000 years old:

> This pictograph indicates the practice of rupestral art [i.e., rock art] at that time and makes the site of Pedra Furada the most ancient rupestral art site known in America and one of the most ancient in the world.[21]

But this was just the beginning, and in 2003 Guidon and other researchers completed a further study. The results pushed back the date of the human presence at Pedra Furada to 48,500 years ago,[22] and of the paintings themselves, to at least 36,000 years ago.[23]

Most archaeologists—particularly North American archaeologists still partially under the spell of Clovis First—have not embraced Guidon's interpretation of the evidence at Pedra Furada. This, however, does not mean that she is wrong, only that she is willing to think—and thoroughly investigate—outside the box. She is an acerbic critic of what she calls the "climate of scepticism attending

old dates"[24] that has haunted American archaeology for so long, and of the unquestioning acceptance of Beringia as "the only realistic route for human entry to the New World."[25]

Guidon does not see any reason why Beringia should have been the only route of entry:

> Everybody is willing to give humans the abilities necessary for voyaging across to Australia about 60,000 years ago. Why then would it have been impossible for them to pass from island to island along the Aleutians, just as one example? We have no justification for converting the humans who peopled the Americas to a single state of being, where they could do nothing but follow herds by a land route.[26]

In another paper anticipating the speculations of geneticists like Skoglund, Reich, and Willerslev by more than a decade, she goes even further, reminding us of the puzzling cranial morphology of certain ancient Brazilian skulls (reviewed in appendix 1) and concluding that, "although little probable":

> the possibility of migration from Australia and surrounding islands across the Pacific Ocean … more than 50 k years ago cannot be discarded.[27]

HIDDEN REALMS

IT IS IN THE AMAZON basin that the oddly misplaced Australasian genetic signal beats out its enigmatic pulse. As well as being very far indeed from Australia and Papua New Guinea, however, neither Monte Verde, nor Santa Elina nor Pedra Furada are in the Amazon Basin—though the latter two are closer than the former, being respectively about 515 kilometers and 625 kilometers as the crow flies from the Xingu River, a major southeastern tributary of the Amazon.[28]

The long-standing but now thoroughly discredited archaeological model whereby the Amazon was supposedly uninhabited by humans

during the Ice Age and remained so until less than 1,000 years ago inevitably had a chronic impact on research priorities and research funding. The result, relative to its importance in global ecology and its enormous land area, is that very little archaeology has been done in the Amazon basin at all and very little of what has been done—truly a tiny fraction—focuses on Ice Age occupation levels.

A refreshing exception, however, is the work of the ever open-minded Anna Curtenius Roosevelt, currently professor of anthropology at the University of Illinois, whom we encountered in chapter 11. On April 19, 1996, she and a group of coresearchers took to the pages of *Science* to publish the results of their study of Pedra Pintada, another beautifully painted rock shelter in Brazil but this time located right in the heart of the Amazon basin at the confluence of the Tapajos and Amazon Rivers.[29]

Here Roosevelt and her team excavated multiple occupation layers spanning the Holocene (our current era) and the late Pleistocene (the Ice Age), with the oldest and deepest turning out possibly to be as old as 16,000 years (according to thermoluminescence dating) and 14,200 years (according to radiocarbon dating).[30]

Conclusion?

> The human presence in Caverna de Pedra Pintada during the late Pleistocene is established by numerous artifacts. … The dated materials are associated in stratigraphic context at the beginning of a long cultural sequence. There is no pre-

> human biological material that could have mixed with the cultural remains, which are stratigraphically separated from later Holocene assemblages by a culturally sterile layer. … The discovery of Palaeoindians along the Amazon confirms earlier evidence that the Palaeoindian radiation was more complex than current theories provide for.[31]

Indeed so! And even in these days of man-made ecological disaster let us remind ourselves that 5.5 million square kilometers of the Amazon basin is still covered by rainforest. To put that in perspective, picture Mexico, Guatemala, Belize, Honduras, and El Salvador. Taken together they encompass 2.22 million square kilometers[32]—not nearly enough—so we will need to add on India with its 2.97 million square kilometers to get an imaginary realm almost equivalent in size to the Amazon rainforest.[33] My point here is that when we consider the Amazon as an archaeological project, its *scale* is comparable to Mexico, Guatemala, Belize, Honduras, El Salvador, AND India all added together, **and all, in addition, entirely covered by dense rainforest** and therefore difficult and

expensive to access. Moreover, unlike Mexico, Guatemala, Belize, Honduras, and El Salvador, where the famous Maya civilization flourished, and unlike India with its ancient cities and temples, there was, as we've seen, no inducement for archaeologists to invest scarce time and money on excavations in the Amazon while it was believed that nothing of great interest would be found there. At the close of the second decade of the twenty-first century no serious archaeologists are still thinking that way! The state of affairs they've inherited, however, means that huge swaths of the Amazon, encompassing millions of square kilometers, have never been subject to any kind of archaeological investigation at all.

This is a wider problem than the Amazon. For example, sea level rose 120 meters when the Ice Age came to an end with the result that 27 million square kilometers of land that was above water at the last glacial maximum 21,000 years ago is under water today.[34] These submerged continental shelves were prime seafront real estate

during the Ice Age, yet only a few tiny slivers of them have ever been subject to any kind of marine archaeological investigation. Again, this is because, like the Amazon, access requires special preparations, equipment, and transportation and also because of a similar belief that whatever would be found as a result of these costly investigations would not add greatly to what is already known.

I'll say nothing about Antarctica, with its 14 million square kilometers entirely virgin to the archaeologist's spade.[35] The almost universal agreement that humans could never have lived there in the past might or might not be correct, but we'll never know for sure unless we look.

We do know that the Sahara desert, presently occupying an area of about 9 million square kilometers,[36] had a very different climate during the Ice Age, and in the early millennia of the Holocene, than it experiences today and that there were long periods when it was

well watered and fertile, with extensive lakes and grasslands and abundant wildlife.[37] It is near enough to Egypt and the other great centers of early civilization in North Africa and the Middle East to have attracted the attention of archaeologists, but like the Amazon and like the submerged continental shelves, access is difficult and expensive, placing serious practical limits on what can be achieved.

Part of our predicament, therefore, as a species with amnesia, is that huge areas of the planet that we know for sure were used by and lived upon by our ancestors—the submerged continental shelves, the Sahara desert, the Amazon rainforest—have, for a variety of practical and ideological reasons, been badly served by archaeology. The truth is, we know VERY little about the real prehistory of any of these places, and the tiny patches that have thus far been surveyed and excavated within them are no legitimate basis upon which to draw conclusions and express certainties about the vast areas that remain unsurveyed and unexcavated.

Guatemala, in central America, was one of the six countries I suggested we put together to envisage the scale of the Amazon rainforest. Guatemala itself encompasses just under 109,000 square kilometers.[38] It's an indication of how pointless it is to take any so-called facts about the past for granted, however, that even in this tiny country, fifty times smaller than the Amazon, a huge archaeological surprise was unveiled in 2018.

"Everything is turned on its head," commented Ithaca College archaeologist Thomas Garrison on the results of a survey of 2,100 square kilometers of Guatemala's densely forested northern Peten region.[39] Deploying Lidar (Light Detection and Ranging) pulsed laser technology, what the survey revealed, in areas quite close to known and even famous and well-visited Mayan sites such as Tikal, were more than 60,000 previously unsuspected ancient houses, palaces, defensive walls, fortresses, and other structures as well as quarries, elevated highways connecting urban centers, and complex

irrigation and terracing systems that would have been capable of supporting intensive agriculture.[40] Previously scholars had believed that only scattered city-states had existed in an otherwise sparsely populated region, but the Lidar images make it clear, as Garrison puts it, that "scale and population density had been grossly underestimated."[41]

Katheryn Reese-Taylor, a University of Calgary archaeologist, adds:

> After decades of combing through the forests, no archaeologists had stumbled across these sites. More importantly, we never had the big picture that this data gives us. It really pulls back the veil and helps us see the civilization as the ancient Maya saw it.[42]

When pulling back the veil on the relatively recent Maya civilization in a small part of the tiny country of Guatemala can produce so many surprises, we may begin to imagine what "big picture" might come to light if the vastly larger and more opaque

veil that has covered the Amazon rainforest for so long were to be drawn back.

Hopefully the interest will be there and the funds made available for it to be drawn back thoroughly using the latest scanning technologies followed up by site surveys and excavations. Until that happens, however, no archaeologist is in any position to dismiss the possibility that the very old and very troublesome Australo-Melanesian genetic signal that has been detected among Amazonian populations might have gotten there by the “most parsimonious” route—namely, by a direct crossing of the Pacific from Australasia to South America.

That, in turn, would imply a civilization capable of great oceanic voyages and therefore by definition at a much more advanced stage of development than archaeologists are prepared to accept for any branch of humanity during the Ice Age.

13

BLACK EARTH

IT SEEMS TO ME TO be no longer in doubt that civilizations with true cities and mature polities did flourish in the Amazon before the European conquest. Less clear is how far back the story of these civilizations can be traced in this immense region where so little archaeology has been done.

Thanks to Anna Roosevelt's work we know, at the very least, that humans were present at Pedra Pintada at the Tapajoz/Amazon confluence by about 14,000 years ago and possibly significantly earlier.[1] With other more accessible painted rock shelters in Brazil dating back as much as 50,000 years, it is, I suspect, only a matter of time before evidence of at least equally great if not greater antiquity emerges from the Amazon itself.

But greater antiquity of what? Was it foragers and hunter-gatherers all the way back? Or was some advanced but unseen presence capable of spanning the globe at work behind the scenes of prehistory that might help to explain how Australasian genes reached the Amazon during the Ice Age? Again, the problem is complicated by the fact that few archaeologists other than Roosevelt have looked for evidence of humans in the Amazon at all at such a remote period, so we have very little to go on across thousands of years during which the data are sketchy and inconclusive.

But then out of that opaque interlude in the life of the prehistoric Amazon, quite suddenly and unexpectedly, the lineaments of a great mystery begin to materialize. It concerns the "exemplary agronomy" that UCLA's Professor David Wilkinson cites as his two-word explanation for how the cities of the rainforest were able to feed their large populations—because rainforests in general do **not** have good base soils but sustain their fertility in the mulch of plants and leaves above ground.[2] This is why, when areas of the Amazon are cleared for agriculture today—for example, to make way for soybean plantations—they become exhausted, infertile, and useless after only a few years.[3] But Wilkinson is not speaking of the base soils. His "exemplary agronomy," as we shall see, refers to an artificial, **man-made** soil that first suddenly and inexplicably appeared in the Amazon many thousands of years ago but that has such miraculous properties of self-regeneration that it is still in use for agriculture and still incredibly productive today.

It is called *Terra preta*. More than any other single factor, it is now understood by scholars to have been responsible for the astonishing and utterly anomalous agricultural productivity that allowed a population estimated at between 8 and 20 million people[4] to thrive for untold epochs in the Amazon before being overtaken by the cataclysm of the European conquest.

Terra preta feels like the work of scientists, but if there was a civilization in the Amazon, then why should we be surprised to find scientific achievements to its credit?

THE MYSTERY

THE EXISTENCE OF TERRA PRETA was first reported by Europeans in colonial-period Brazil who called it *terra preta de Índio* (Indian

Black Earth), "the reference to 'Indians' reflecting the presence of abundant pottery shards of evident pre-Columbian age on the surface of most known exemplars."[5] Today these special soils, described by one nineteenth-century explorer as consisting of "a fine, dark loam, a foot, and often two feet thick,"[6] are more often spoken of as "Black Earth," "Amazonian Anthropogenic Dark Earths,"[7] or simply as "Amazonian Dark Earths"—ADEs for short.[8]

Whatever we call them though, what are they, and why do they matter?

We've seen how, across immense areas, the natural *terra firme* (non-floodplain) soils of the Amazon are too poor to sustain intensive agriculture and thus to feed the large-scale populations that we now know inhabited the region in pre-Columbian times:

> With few available nutrients and having extremely high aluminum concentrations, one could not imagine a worse regime for productive agriculture.[9]

Indeed, the consensus of scholars is that even the floodplains with their better soils are high-risk areas for crop production "because of the unpredictability of the flood regime."[10]

But, and it's a big but, what are we to make of those early explorers' reports of dense settlements extending for kilometers along river bluff edges whence roadways branched out into the interior?

The remnants of some of these settlements are now being investigated by twenty-first-century researchers, no longer blinded by the prejudices of the past, who often refer to them as "garden cities" of the Amazon.[11] Invariably it turns out that they are associated, as one authoritative study puts it, with large acreages of "'Indian black earth' or *terra preta*. The heightened fertility status of these soils, generically termed 'dark earths …' has long been recognized by the indigenous inhabitants of the region, as well as by current colonists."[12]

Across the rainforest there are many **thousands** of expanses of terra preta on a similar range of scales, covering a total area that is in all honesty unknown but that various authorities have guesstimated at 6,000 km^2, 18,000 km^2, 154,063 km^2, and "an area the size of France" (i.e., around 640,000 km^2).[13] Whatever the true figure, these widely scattered plots of ADE—the rediscovered remnants of a once much more extensive system—are indeed actively sought out and productively cultivated by indigenous people to this day.

In the southeastern Amazon along the Xingu River, to give just one example, a recent study found that existing settlements, though on a much smaller scale than in the past, are still able to survive largely because of the accomplishments of their ancestors who had "continuously occupied, managed and modified" the soils over thousands of years. Almost without exception the riverine people of the Xingu today "inhabit and plant in dark earths," and make use of

resources, such as “Brazil nuts, babassu palm, dark earths and vine forests” that are “indicators or products of this earlier occupation.” Indeed, as Stephen Schwartzman, the research team leader, maintains, “Contemporary land use and resource management in the Xingu corridor is … significantly conditioned or made possible by mostly little-studied prehistoric land-use practices.”[14]

Particularly little studied and poorly understood are the practices that resulted in the so far unexplained inception in the Amazon, a very long time ago, of the incredibly fertile ADEs themselves. Nobody doubts that they are “anthropogenic”—man-made in some way[15]—and everyone agrees that they’re an amazing success story. So fecund is terra preta, even after thousands of years of use, that it can still regenerate barren soils it is added to, and has been described as “miracle earth.”[16]

The important questions therefore, are *how* was terra preta made, *why* was it made, *when* was it made, and *who* made it?

Part of the answer to the first question is often dug up by villagers along the Xingu River. In (and characteristic of) the patches of ancient terra preta where they plant their crops they "regularly encounter potsherds, stone axes, ceramics and figurines."[17]

Such "refuse" left behind by people of the remote past, seems to play an important role in the amazing fertility of the ADEs—but then so do all the other strangely jumbled and juxtaposed ingredients that typically also include compost, the feces and urine of humans and animals, and all sorts of organic "kitchen" waste, including bones, notably fish bones.

Most researchers believe that terra preta soils formed as composted material accumulated via **incidental** human activity (often in debris piles referred to as middens).[18]

University of São Paulo archaeologist Eduardo Neves reportedly favors a scenario in which successive generations could have swept

food refuse—especially fish and animal bones—from their dwellings and then added human and animal excrement.[19]

Elsewhere, in a paper published in the *Journal of Archaeological Science* in February 2014, Neves, Michael Heckenberger, and others develop this idea further. Their argument depicts the ancient Amazonians as living amid a shitscape (euphemistically referred to as a "middenscape"),[20] dumping their excretions, rubbish, broken crockery, and fish bones into the middens and—most importantly—burning wet vegetation on top of the middens, and always conscientiously making sure, without any long-term planning or purpose in mind, to keep the fires damped down under a blanket of dirt and straw.[21]

This method of cool-burning, explains Tom Miles, an expert in the combustion and gasification of biomass,[22] is known as "slash-and-char"—to distinguish it from the widely condemned "slash-and-burn":

> In slash-and-burn, dry brush and grass are burned in open fires, spewing vast quantities of carbon dioxide into the atmosphere and leaving only small amounts of nutrients in the ash that's then dug into the ground.
>
> By contrast, slash-and-char involves burning wet vegetation, so it smoulders underneath a layer of dirt and straw. Robbed of oxygen, the fire only partly burns any wood or stalks, leaving most as tiny chunks of charcoal. This bio-char is turned into the soil.[23]

In due course—entirely incidentally and accidentally according to most proponents of such views—these stinking, smouldering middens spread and alchemically transformed themselves into ADE, "the world's most fertile soil,"[24] without any deliberate human intervention at all.

I'd say it's an unlikely story!

I can't prove it but my bet is that terra preta is not an *accidental* by-product of shit, fish bones, broken pots, figurines, stone ax heads, and low-temperature fires. Just because it contains all those things doesn't inevitably make it fortuitous. I think the evidence supports another possibility—that this remarkable soil was *invented,*

making excellent use of freely available local resources, as an ingenious, low-tech, and environmentally friendly way to increase agricultural yield in areas that would otherwise not have been able to sustain agriculture, and thus large populations, even for a few decades, let alone for several thousands of years—as the Amazonian Dark Earths have consistently demonstrated a "miraculous" ability to do.

"What has been mysterious about these soils," Professor Antoinette WinklerPrins, director for environmental studies at Johns Hopkins University, admits, "is their ability to persist in a landscape that common ecological knowledge would dictate they could not.[25]… Why then have ADE's dated to have formed up to 2500 years ago, continued to exist?"[26]

It is not just a matter of 2,500 years ago—as we shall see, the origin of the Amazonian Dark Earths goes back much farther than that—but here's how Dr. WinklerPrins answers her own question:

> The unique nature of the carbon in these soils is the key to the stability of the organic matter in ADE's and the key to the mystery of the persistence of ADE's in this landscape.[27]

There appears—exceptionally—to be universal agreement among scientists on one point. This is that the explanation for all the useful qualities of terra preta "lies in large part with the char (or biochar) that gives the soil its darkness" and that is produced, as Tom Miles explained, by the smouldering (rather than hot burning) of organic matter in an oxygen-poor environment. The results are not properly understood, but, according to *Nature,* "The particles of char produced this way are somehow able to gather up nutrients and water that might otherwise be washed down below the reach of roots."[28]

William Balée, professor of anthropology at Tulane University, confirms these observations, adding that "microbial activity leads to increased carbon sequestration," and that "ADE is richer and more diverse in microbes than surrounding soils, even though millions of

these species remain to be identified precisely, and literally *a million separate taxa can be contained in only 10 grams of soil*. A significant proportion of the microbes in ADE are different from microbes in the surrounding primeval soils."[29]

Another authoritative study also focused on the surprising microbial vigor and utility for agricultural purposes of ADEs, noting a further connection with the managed use of fire. "Fire contributes charcoal and ash, which increase soil pH, thereby suppressing aluminum activity toxic to plant roots and soil microbiota."[30]

What is more, fire increases the capacity of the soils to retain nutrients, thus maintaining a "synergistic cycle of continued fertility."[31]

In summary, concedes Professor WinklerPrins, the microbial complexes associated with ADEs are "poorly understood" and "quite mysterious actually."[32] Likewise, even the authors of the shitscape/middenscape theory of ADE formation admit that "despite

the importance of research on *terra preta,* we still lack a firm understanding of the specific formation processes that led to the diversity inherent in these anthrosols."[33]

Yet all this mystery, all this effectiveness, all this efficiency, and all these remarkable contributions to welfare, we are asked to believe, came about as incidental by-products of human activity? They just *happened*—without any planning, or deliberation, or design at all?

I could see immediately why such ideas would give comfort to archaeologists whose roller-coaster ride thus far has taken them from a position where they had convinced themselves and their students that there could never have been any cities in the Amazon, to a position where they must now accept that the prehistoric rainforest once teemed with cities. This in itself has been a traumatic enough paradigm shift. I'm therefore not surprised that most archaeologists remain unwilling to go the extra mile needed to

view terra preta—that "miraculous" agent of fertility—as the product of deliberate, ingenious, organized, focused, *scientific* activity. It causes far less cognitive dissonance, for so naturally conservative and cautious a discipline, to conclude instead that it was the waste and refuse of those previously contested Amazonian cities with their very large populations that had accidentally fertilized the land and made possible the otherwise anomalous boost to agricultural productivity that had kept the stomachs of the otherwise anomalous urban populations full.

But isn't it much more likely that all this happened the other way around?

Surely it makes no sense that the large populations came first. If they did, how did they feed themselves while enough shit and fish bones were being accumulated to create the first patches of terra preta? Isn't it more logical that the settlement and expansion of human populations in the Amazon was a planned affair in which the

spread of terra preta was a *precondition* for the development of large settlements rather than a consequence of it?

Professor Balée, not an archaeologist, seems to be thinking somewhat along these lines when he cites the bizarre microbial differences between ADEs and the original, unenhanced soils that surround them as evidence for a deliberate human "contribution to microbial diversity in the Amazon, a remarkably intriguing and still living, even evolving legacy of the pre-Columbian Dark Earth people."[34]

REMARKABLE AND PRECOCIOUS SCIENCE

AS WITH SO MUCH ELSE that concerns the Amazon, the issue of **when**, exactly, terra preta first began to be created continues to be fogged by confusion and uncertainty.

A casual glance through the scientific literature might leave the reader with the impression that these exceptionally fertile anthropogenic soils are a phenomenon of the past 3,000 years only—with the great bulk of terra preta creation taking place between about 1,000 years ago and the time of the European conquest.[35]

Look closer, however, and you will discover that many of the same authorities are tiptoeing around the edges of another mystery here.

For example, while reemphasizing their satisfaction with the idea that Amazonian Dark Earths are "produced by human habitation but unintentionally,"[36] and noting that ADE formation "ceased in most, if not all, parts of Amazonia during the early Contact period,"

Eduardo Neves and his colleagues concede that "the initiation of ADE formation has been more difficult to explain so far."[37]

They choose to focus on the period from around 2,500 to 2,000 years ago but caution that earlier sites may have disappeared due to the dynamic landscape processes of the Amazon, or perhaps because "the soil organic matter in most older ADE sites has been mineralized, leaving only inorganic artifacts behind, without coloration of the substrate by organic matter, and thus, early sites are under-represented."[38]

But by no means all of the earlier sites have disappeared. Enough of the older plots remain for several of the leading authorities to agree that 2,500 years ago is nowhere *near* the beginning of the story. Neves himself accepts the existence of much older ADE sites, notably "the sites of the so-called Massangana phase … dated ca. 4,800 BP."[39]

These sites, which are about 300 years older than the orthodox date for the construction of the Great Pyramid of Giza, are located in southeast Amazonia in the Jamari River area. Unfortunately, they are no longer accessible, having been flooded by the construction of the Samuel hydroelectric dam.[40] It seems, however, that there are even older ADEs. In the *Proceedings of the Royal Society,* for example, Neves and others report Black Earths that are between 5,000 and 6,000 years old.[41] Elsewhere—in no less august a journal than *Nature*—we read of ADEs that "are thought to be 7000 years old."[42]

Nor does the trail leading back to humanity's time of amnesia quite fade from view even there. Specialists from Cornell University's Department of Crop and Soil Sciences, joined by Eduardo Neves and citing his "unpublished data," conclude in the *Journal of the Soil Science Society of America* that the man-made

Dark Earths of the Amazon in fact date back as far as 8,700 years ago.[43]

And again, Neves's own caution must surely apply—that even older sites than this may very well once have existed but have disappeared with the passage of time.

Given the incredible longevity of this soil and its extraordinary ability to regenerate its own fertility through microbial action, it is by no means beyond the bounds of reason to suppose that plots of terra preta dating back to the last Ice Age might *still* exist somewhere in the millions of square kilometers of the rainforest that have never been investigated by archaeologists at all.[44]

What is certain, however, is that a remarkable and precocious skill and competence in soil science—"exemplary agronomy" in Professor David Wilkinson's phrase—leaves its fingerprints in the Amazon at least 8,700 years ago. After that (and for how long *before* that we do not know) its use becomes integrated into the

harmonious and successful lifeways of ancient Amazonian civilization. This civilization thrives for millennia, long outlasting ancient Egypt and ancient Mesopotamia, doing very well for itself and for its people in just about every possible way, until the catastrophe of European contact that not only subjects it to genocide by sword and by epidemic, but also conspires to deny its very existence for centuries thereafter.

Reader, please note—when I speak of an "ancient Amazonian civilization" I am not under any circumstances claiming that this was **the** lost civilization I have spent much of my working life trying to track down! My suggestion, rather, is that, in weighing what happened in the Amazon from the Ice Age until the European conquest, we may find that certain striking anomalies such as the mysterious Australasian genetic signal, and indeed the Amazonian Dark Earths themselves, bear the fingerprints of that world-exploring, world-encompassing, world-measuring lost civilization of prehistoric antiquity. More specifically, the proposition we are

presently considering in this context is that the settlement and expansion of human populations in the Amazon was a planned affair in which the spread of terra preta was a *precondition* for the development of large population centers rather than a consequence of it.

It was, in other words, not something random at all but an integral part of a carefully thought-out project.

14

GARDENING EDEN

FURTHER INTRIGUING HINTS THAT SOME sort of intelligent, guided *project* was mounted in the Amazon thousands of years ago are to be found in recent studies of the species of trees that populate the rainforest. These studies demonstrate that far from being a "pristine" natural environment, the Amazon is largely a *human creation*.

Anna Roosevelt, whose sometimes radical views we've already encountered, criticizes other scientists for assuming—all too often—that the Amazon's forests are entirely works of nature "without conducting research to exclude a human influence."[1]

When that research is done, it turns out that while "Amazonian forests in different regions differ significantly from one another in topography, climate, geology, hydrology, structure, seasonality, and history," they nonetheless "often resemble each other" in showing a "pattern of unexpected dominance and density of a small group of plant species. This pattern has been found wherever Amazon forests have been inventoried and has yet to be explained by natural factors."[2]

The best current estimate is that the Amazon is presently home to about 16,000 woody tree species. Out of this total, however, "only 227 hyperdominant species dominate Amazonian forests."[3] These so-called oligarchs (from the Greek for "rule by a few") "make up

only 1.4% of all the Amazon forest species but almost half of the trees in any given forest."[4]

In 2017 a large international team of ecologists and archaeologists, led by environmental science researcher Carolina Levis of Wageningen University in the Netherlands, completed a study looking into this peculiar pattern of distribution. What immediately stood out in their data was that, among the oligarchs, "domesticated species are five times more likely than nondomesticated species to be hyperdominant."[5]

Moreover, in almost every case where clusters of hyperdominants were inventoried, ancient archaeological sites were found among them[6]—a correlation so frequent and reliable that the presence and concentration of oligarchs could, in theory, be used to "predict the occurrence of archaeological sites in Amazonian forests."[7]

The team's detailed analysis, published in *Science,* therefore concludes that "modern tree communities in Amazonia are

structured to an important extent by a long history of plant domestication by Amazonian peoples. … Detecting the widespread effect of ancient societies in modern forests … strongly refutes ideas of Amazonian forests being untouched by man. Domestication shapes Amazonian forests."[8]

We've seen that the question of exactly when human beings first arrived in the Amazon remains to be settled. So, too, does the question of exactly when they began to domesticate trees. The team's results suggest that "past human interventions had an important and lasting role in the distribution of domesticated species found in modern forests, despite the fact that the location of many archaeological sites is unknown."[9] On present evidence, however, adds Levis, all that can be said with certainty is that at some point "more than 8,000 years ago," Amazonian people were already focusing attention on certain trees that were particularly useful to them.

> They really cultivated and planted these species in their home gardens, in the forests they were managing.[10]

Among the favored species mentioned in the *Science* paper, now all hyperdominant, are *Bertholletia excelsa* (the Brazil nut tree), *Inga edulis* ("Ice-Cream Bean," a fruit tree), *Pourouma cecropiifolia* ("Amazon Grape," a fruit tree), *Pouteria caimito* (the abiu, a fruit tree), and *Theobroma cacao* (the cocoa tree—chocolate).[11]

Other prized Amazonian species domesticated in ancient times include the açai palm and tucuma palm, the peach palm, the Cupuaçu tree, the cashew tree, and the rubber tree.[12]

A MAJOR CENTER OF CROP DOMESTICATION

AS I RESEARCHED THIS MATERIAL I was initially surprised to learn that cocoa trees and rubber trees, both of which I'd wrongly believed were indigenous to and had been domesticated in Mexico, were in fact originally South American species and had been domesticated in the Amazon. I was equally surprised to learn that capsicum—chili peppers, red and green bell peppers, et cetera—which I had again wrongly thought were Mexican in origin, had likewise first been domesticated in the Amazon.[13]

Indeed, though often overlooked, Amazonia has rightly been described as "a major center of crop domestication" on a global scale.[14] Prior to the European conquest, according to Charles R. Clement of Brazil's National Institute of Amazonian Research, "at least 83 native species were domesticated to some degree, including manioc, sweet potato, cacao, tobacco, pineapple and hot peppers, as well as numerous fruit trees and palms, and at least another 55 imported neotropical species were cultivated."[15]

Pineapples! There was another surprise for me, as I had (again wrongly) always assumed that these tropical fruits grow on trees and had their origins in some Pacific archipelago, perhaps Hawaii. In fact, the pineapple plant with its long, spiky leaves, is not a tree. It grows close to the ground (with each plant producing a single pineapple), belongs to the Bromeliad family, and is indigenous to, and was first domesticated in, the Amazon rainforest.[16]

There is no firm information on *when* domestication was undertaken, but in Charles Clements's view, "The widespread distribution of the pineapple in the Americas at the time of the European conquest, the diversity and quality of the cultivars, not surpassed after one century of modern, intensive breeding, the diversity of uses, the economic and cultural importance of the crop, all point to a very ancient domestication."[17]

Out of the 83 crops native to Amazonia and the 55 "exotic" ones, a total of 138 crops in all, Clements and his colleagues classify 52,

including the pineapple, as fully domesticated. Of these, 14 (27 percent) are fruit or nut trees or woody vines. Among the 41 crops classified as semi-domesticated, 35 (or 87 percent) are fruit or nut trees or woody vines. Among the 45 crops classified as incipiently domesticated, all but 1 are fruit or nut trees:[18]

> Overall, 68% of these Amazonian crops are trees or woody perennials. In landscapes largely characterized by forest, a predominance of tree crops is perhaps not surprising. Nonetheless, the most important subsistence crop domesticated in Amazonia is an herbaceous shrub, manioc, and several other domesticates are also root or tuber crops, most of which are adapted to savanna-forest transitional ecotones with pronounced dry seasons.[19]

Think of it. The rainforest was coaxed, shaped, and transformed by what can only be described as scientific practices into a vast garden of useful and productive trees. But trees alone cannot feed large populations, so the prehistoric domestication program was extended on a massive scale to include agricultural species that were

then successfully incorporated, through the use of terra preta, into the Amazonian ecology.

THE MANIOC CONUNDRUM

MANIOC, THE KEY STAPLE, "THE most important food crop that originated in Amazonia,"[20] and on which the majority of the population of the Amazon still depend today,[21] is of particular interest for a number of reasons. Molecular analysis has confirmed that this woody shrub, cultivated for its edible roots, was domesticated in the Amazon basin, "most likely in the savannas, the Brazilian *Cerrado,* to the south of the Amazon rainforest,"[22] and more specifically "in northern Mato Grosso, Rondônia and Acre states, in Brazil, and adjacent areas of northern Bolivia.

Domestication must have started before 8,000 BP, as that is the earliest date reported from the Zana and Ñanchoc valleys of coastal Peru."[23]

Unlike the Amazon itself, large parts of which remain inaccessible to archaeologists, these two coastal Peruvian valleys have been well studied, yielding, as well as manioc, "evidence for radiocarbon-dated human cultivation of squash (9240 and 7660 yr B.P.), peanut (7840 yr B.P.), quinoa (8000 and 7500 yr B.P.), and cotton (5490 yr B.P.)."[24]

What is notable, however, is that all of these crops had **already** been domesticated elsewhere before being grown in coastal Peru.[25]

As with cocoa and chilies, I'd long been under the impression that the squash plant (*cucurbita*) was first domesticated in Mexico around 10,000 years ago, and indeed there is archaeological evidence to support this.[26] But now here it was turning up in Peruvian coastal valleys 9,240 years ago, and not only there but at

similar dates in the nearby sites of Paiján and Las Pircas.[27] An authoritative study published in *Science* suggests that these cultivated Peruvian squash plants may have been from a line that had originally been domesticated not in Mexico but in "southwestern Ecuador and the Colombian Amazon" as early as 10,000 to 9,300 years ago.[28]

What about the peanuts cultivated in the Zana and Ñanchoc valleys 7,840 years ago? They, too, it turns out, were domesticated east of the Andes in a region extending south from the southern edge of the Amazon basin.[29] This is broadly the same region in which manioc was also domesticated,[30] and in both cases we can only go on the dates of the earliest surviving materials—currently put at around 8000 years BP[31]—to guess when domestication in fact took place. Certainly it was before 8,000 years ago, but how long before is a matter largely of conjecture and some authorities are

already seeking to push the horizon back to at least 9,000 and perhaps 10,000 years ago.[32]

Manioc, also known as cassava, is a starchy crop, a good staple providing almost twice as many calories as potatoes weight for weight.[33] But it is also so low in protein content that, as one specialist warns, "in manioc-dominated diets, protein-deficiency can lead to malnutrition and also aggravate symptoms related to manioc cyanogenic toxicity."[34]

We'll return to that issue of toxicity in a moment but let's note, meanwhile, that peanuts have a very high protein content that makes them a perfect nutritional "complement to starchy manioc-based diets."[35] Several authorities have noticed the pairing of the two in ancient cultures and British botanist Barbara Pickersgill speculates that the wide prehistoric distribution of peanut cultivation may have accompanied the spread and uptake of manioc.[36]

Again I can't help but wonder if there might not have been something more active and intentional at work behind the scenes of this process than mere "accompanying." What I have in mind is the possibility that a deep knowledge of plants and of their nutritional and other properties might have *preceeded* the first domestication activities that we have evidence for. Surely it is only on the basis of such foreknowledge that crops like groundnuts and manioc could be selected, domesticated, planned, and planted to complement each other's nutritional contribution to human welfare?

This is pure speculation, of course. But it's strengthened somewhat by the curious nature of the manioc roots themselves, which (although there are many varieties) are classified into two main categories—"bitter" and "sweet." All contain compounds known as cyanogenic glucosides, found in low concentrations in the less popular sweet varieties and in very high concentrations in the greatly prized and more widely used bitter varieties.[37] The need-to-

know element here is that if you eat any of the "bitter" varieties, without first processing them in the correct way (extracting the glucosides), you will at least suffer from "cyanic intoxication, with symptoms like vomiting, dizziness, and paralysis," if not die of cyanide poisoning.[38]

Ignorant of this, several of the soldiers on Francisco de Orellana's sixteenth-century voyage down the Amazon ate unprocessed manioc roots. They survived but became mightily sick, near to death, as a result.[39] To avoid poisoning they would have had to peel the roots, then grate them, then strain and press the resulting mash to remove the hydrocyanic acid, and at last toast it to produce a fine faintly yellowish flour[40]—simple but absolutely essential procedures that the indigenous peoples of the Amazon have followed for thousands of years to make "bitter" manioc safe.

The fundamental question, however, is exactly how and when this processing system was first devised? Obviously since we have

evidence of the cultivation of domesticated manioc by 8,000, or perhaps even as much as 10,000 years ago, it follows that the ability to process it must already have been developed by then. It would make no sense to anybody to go to all the trouble of domesticating a species and then growing crops from that species that nobody could eat without getting horribly, and perhaps lethally, sick. That's why I keep coming back to the haunting possibility that some person or group of people with an interest in the Amazon *already* understood the potentials of manioc—and the exact steps that would have to be taken to avoid its dangers—long before they ever chose to domesticate it and put it under cultivation.[41]

Otherwise, frankly … why bother?

PLANT GNOSIS

THE MANIOC ISSUE LOOKS SIMPLE. You just need to peel it, grate it, soak it, strain it, and meticulously cook it to remove the poison, and it is transformed into a useful staple.[42] All steps of the processing seem rather obvious and basic in retrospect, but consider the amount of trial and error—the number of volunteers you would have had to make sick or kill—before you arrived at the right method.

And what would motivate you to start such a project in the first place, unless you already knew the potential of the wild progenitor that would eventually become domesticated manioc?

The same problem looms on an even larger and more complex scale with other plants of the Amazon, the uses to which they are put, and the processing they require. Anthropologist Jeremy Narby, author of *The Cosmic Serpent: DNA and the Origins of Knowledge,* draws attention to curare, the blow-gun and arrow poison, invented —we do not know when—in the ancient Amazon. It produces paralysis and death by asphyxiation as the muscles required for

breathing cease to function. It is used, Narby explains, because "it kills tree-borne animals without poisoning their meat while causing them to relax their grip and fall to the ground. Monkeys, when hit with an untreated arrow, tend to wrap their tails around branches and die out of the archer's reach."[43]

A very useful hunting aid, therefore, and one, moreover, that has been adopted into modern medical anesthesiology. But the real mystery, as Narby goes on to show us, is how it was ever invented in the first place. The consensus among scholars is that curare, of which there are forty types in the Amazon made from seventy plant species, was stumbled upon by chance experimentation.[44] Narby doubts this scenario:

> To produce it, it is necessary to combine several plants and boil them for seventy-two hours, while avoiding the fragrant but mortal vapors emitted by the broth. The final product is a paste that is inactive unless injected under the skin. If swallowed, it has no effect. It is difficult to see how anybody could have stumbled on this recipe by chance experimentation.[45]

The whole mystery of the Amazonian plant medicines, notably the vision-inducing brew ayahuasca (which itself is a mixture of several plants that are most unlikely to have been fortuitously brought together) is explored in depth in my 2005 book *Supernatural: Meetings with the Ancient Teachers of Mankind*. In these medicines, as in curare, as in terra preta, and as in the incredible burst of domestication of plants and trees in the Amazon that followed the end of the Ice Age, could we be looking at the cultural DNA not only of a civilization but of a sophisticated civilization that had developed sciences of its own that it began to share with other people—very much including the peoples of the Amazon basin—around the time that the last Ice Age came cataclysmically to its end?

Judging from the clues that lie scattered like tantalizing jewels across the Amazon, this hypothetical lost science of a hypothetical lost civilization would have looked very different from any of our own sciences, employing not only empirical methods but also

shamanistic techniques, vision quests, and out of body encounters in the "spirit world" that most modern Western intellectuals would regard as absurd. Again, however, if we go by the evidence of the Amazon, the plain fact is that the remnants and borrowings of this supposedly laughable form of science have again and again produced practical and down-to-earth results—domesticating and processing huge numbers of plants and trees, for example, or creating "miracle" soils that are still fertile after thousands of years of use, or inventing muscle relaxants like curare that inhibit acetylcholine receptors at the neuromuscular junction. Moreover, unlike Western technology, to which the earth is a dead thing, this ancient technology addresses all the needs, spiritual as well as physical, of the human creature. Again, though the skeptics will scoff, none of the many thousands of people who've had their lives transformed by ayahuasca in the past 20 years would deny that something very powerful and very hard to explain is at work here.[46]

15

SACRED GEOMETRY

FROM THE TIME OF ITS earliest appearance in the archaeological record (which is absolutely not the same thing as the time that it first took shape) Amazonian civilization is a continuum that does not break from the wisdom and insights of its founders. The same basic principles, defining the relationship between humanity and the cosmos continue to manifest and to be re-expressed over thousands

upon thousands of years, in some cases evolving and developing into strange new growths, in others devolving and decaying. But just like that enigmatic Australasian genetic signal still found among Amazonian peoples today, other traces of ancient and mysterious connections, though faint, have also survived.

For example, despite rejecting the old stereotypes of the "savage" and "primitive" Amazon, and despite knowing that prehistoric civilizations of some complexity had once flourished there, scientists at the beginning of the twenty-first century were nonetheless taken aback to be presented with overwhelming evidence of an ancient practice of *geometry* in the rainforest—and on a very ambitious scale.

Let's get one thing straight before we take a closer look at this mystery. Just because people live in a dense jungle, and haven't attended math classes in high school, does **not** mean they have no grasp of geometry—"one of the deepest and oldest products of

human reason."[1] On the contrary, though often wrongly attributed to Euclid, there is compelling evidence—mysterious in itself—that "the conceptual principles of geometry are inherent in the human mind."[2] This evidence comes from an isolated region at the heart of the Amazon where scientists from the Cognitive Neuroimaging Unit of the Collège de France led a study in which the indigenous Mundurukú people were tested on basic geometry skills. The study found that:

> Mundurukú children and adults spontaneously made use of … the core concepts of topology (e.g., connectedness), Euclidean geometry (e.g., line, point, parallelism, and right angle), and basic geometrical figures (e.g., square, triangle, and circle) … and they used distance, angle, and sense relationships in geometrical maps to locate hidden objects.[3]

In summary, therefore, isolated peoples in remote parts of the Amazon today, whose contact with technological civilization is extremely limited,[4] possess innate geometrical knowledge and are

able to deploy it "independently of instruction, experience with maps, or measurement devices."[5] No doubt their ancestors, and probably most humans always, have been blessed with the same neurological gift. Indeed, we see it made manifest down the ages in all kinds of man-made structures. Even the simplest wattle-and-daub hovels tend to be rectangular or square rather than randomly shaped. Likewise, from England's Stonehenge, to the Great Pyramid of Egypt, to India's Madurai Meenakshi Temple, to Borobudur in Indonesia, to Angkor Wat in Cambodia, to Tikal in Guatemala, to Tiahuanaco in Bolivia—and to countless other sites too numerous to mention—the design of the sacred architecture of the world is entirely governed by geometry.

The very universality of this geometry, as an innate faculty of the human mind, is not in doubt, but how it has been **expressed** by different civilizations in different epochs is culturally driven. Thus, Angkor Wat is not the Great Pyramid and the Great Pyramid is not

Stonehenge. All three, however, share the same fundamental geometries and connections to the cosmos that—I have long argued—were incorporated into a *system* of architecture central to the beliefs and lifeways of a lost civilization of remotest prehistory. When that civilization was destroyed in the series of cataclysms that brought the last Ice Age to an end, there were survivors who took the system with them, seeking to replant it in the many different parts of the world where they found refuge. In some it took root and flowered early, and over thousands of years it manifested in multiple different ways; in others it lay dormant for millennia before bursting into exuberant life.

Mainstream archaeology recognizes no such universal system, nor even the vestiges of one, and insists that there was no "diffusion" of ideas between these ancient cultures (*How could there be when Angkor is 3,500 years younger than the Great Pyramid?*). The point is fair but irrelevant to my proposition which does not require diffusion within the past 5,000 or even the past

10,000 years. Instead I suggest that the similarities and differences between certain ancient monumental structures, created around the world at different times by different cultures, are best explained by a remote common ancestor civilization that left a legacy of ideas and *knowledge* in which they all shared, which their priests, shamans, and sages sought to preserve, and which they in due course deployed in their own different ways.

One of the hallmarks of this worldwide "system," whether its widespread presence is coincidental or not, is geometry. And, in turn, whenever the geometry manifests on a monumental scale that could only be achieved by skilled specialists and a large, well-organized workforce, the obvious implication is that a fairly advanced civilization must have been involved.

That was why, when giant geometrical earthworks were discovered in the Rio Branco area of the Brazilian state of Acre in the southwestern Amazon in 1977 nobody at first paid much attention. This was the era when the Smithsonian's Betty Meggers

still reigned supreme over all things Amazonian. Her *Man and Culture in a Counterfeit Paradise* had been published just 6 years before and her view that the jungle could never have supported large populations or any form of civilization capable of monumental architecture was the full-blown dogma of the day. Little wonder then, although the Smithsonian had sponsored the National Program of Archaeological Research in the Amazon that found the first "geoglyphs," that it did not announce the discovery until 11 years later.[6]

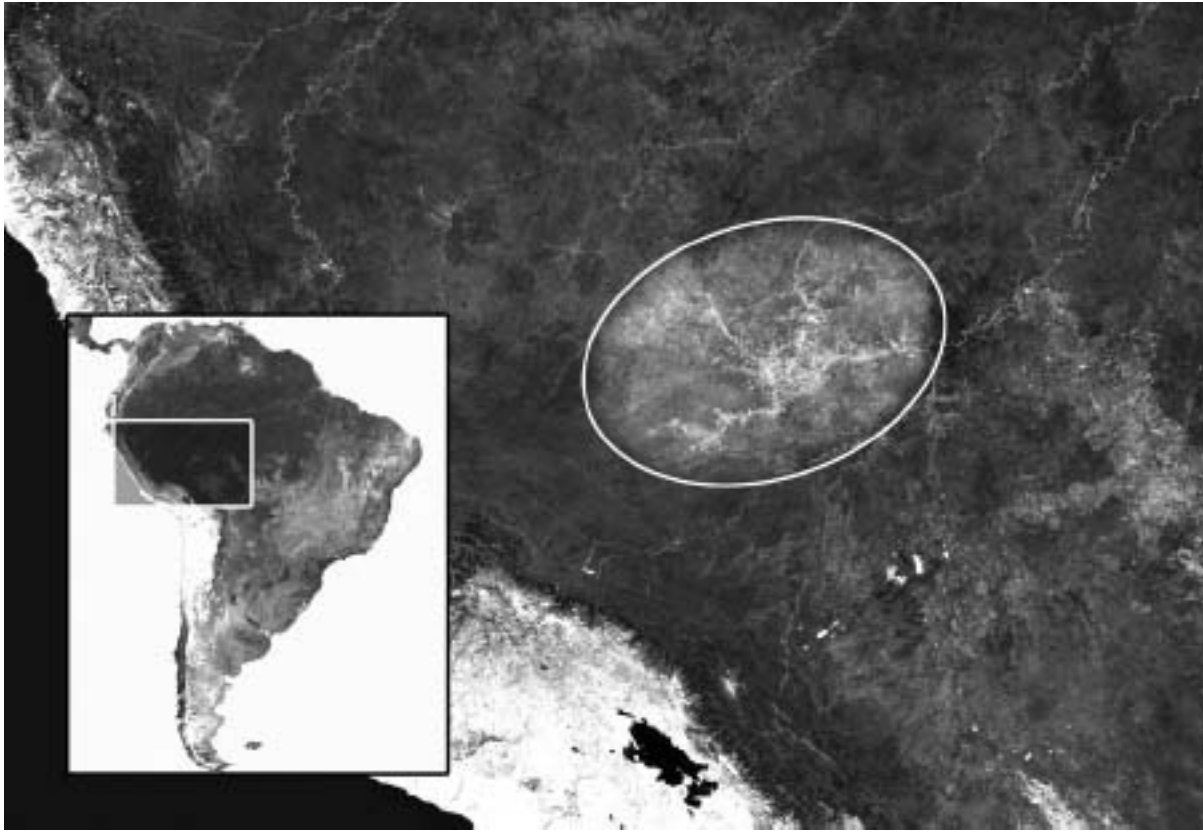

Locations of principal earthwork sites in the southwestern Amazon discovered by 2018.

The young man who actually spotted the earthworks from a Smithsonian survey aircraft was Alceu Ranzi, and it was he who named them "geoglyphs."[7] His career took him elsewhere for the next two decades but his interest was sparked again after another overflight in 1999 and, now at the Federal University of Acre, he resumed his research together with colleagues Denise Schaan of the Federal University of Pará and Martti Pärssinen of the University of Helsinki.

Their first detailed results were published in the December 2009 issue of *Antiquity,*[8] which trailed the findings as evidence of the existence in ancient times of "a sophisticated pre-Columbian monument-building society in the upper Amazon Basin on the east side of the Andes. This hitherto unknown people constructed earthworks of precise geometric plan connected by straight orthogonal roads."[9]

At the outset of the paper, Ranzi, Schaan, and Pärssinen described “clusters of these monumental earthworks” mostly located on a 200-meter-high plateau:

> Formed by excavated ditches and adjacent earthen walls … the earthworks are shaped as perfect circles, rectangles and composite figures.[10]

But why had these stunning Amazonian geoglyphs first been noticed only a few decades previously?

Ranzi and his colleagues observe that while the geoglyphs were abandoned about 500 years ago, and then heavily overgrown, they have since been revealed by mass clearing of the forest for the cattle industry, thus becoming visible, especially from the sky, over the past 30 years. Indeed, the enormous size of the geoglyphs makes it easier to distinguish their shape and configuration from an aerial perspective than at ground level, and satellite imagery has been made freely available to researchers by Google Earth.[11]

NAZCA–AMAZON CONNECTIONS

TO THE EXTENT THAT THEY are best seen and understood for what they are from the air rather than from ground level, comparisons with the famous "Nazca Lines" of southern Peru were inevitable, and quickly began to be made—particularly so since, in addition to its giant images of animals and birds, the Nazca plateau also features many precise geometrical figures.[12]

Ranzi himself has invited the comparison by asserting that the Amazon geoglyphs are "as important as the Nazca Lines"[13] and, indeed, his own use of the term "geoglyphs" was, according to his colleague and coauthor Denise Schaan, inspired by the figures on the Nazca plateau. This, Schaan argues, is "unfortunate" because the Nazca Lines "are a different phenomenon. In the Nazca desert, geometric and zoomorphic figures were shaped by the displacement of dark, weathered rocks on the surface to expose a lighter

subsurface. In Brazil and Bolivia, however, the ‘figures’ were produced by the excavation of large, continuous ditches forming circles, rectangles, hexagons, octagons and other, nongeometric, shapes.”[14]

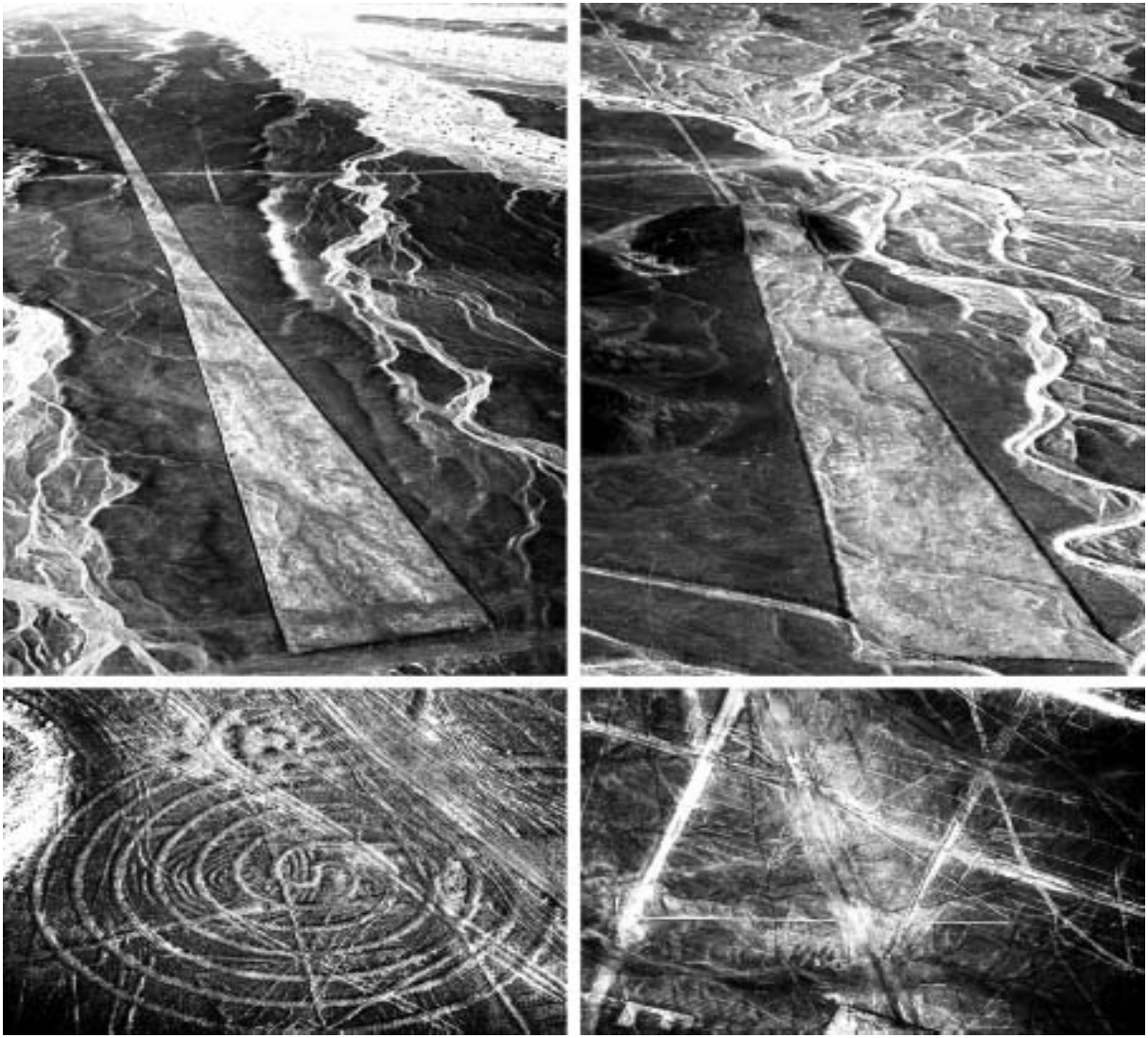

Nazca geometry. PHOTOS: SANTHA FAIIA.

I'm not persuaded by this distinction. Whether a painter uses oils or watercolors, the end result is still a painting. Likewise, although different techniques and materials were used—unavoidable given the very different environmental conditions of the Amazon and at Nazca—the end result in both cases is still a "canvas" decorated with immense geometric, as well as "nongeometric," shapes.

Though it is now more than quarter of a century in the past, I recall vividly my encounter with Maria Reiche, the venerable "lady of the lines," at her home in the town of Nazca where she had lived since 1945 surrounded by the ancient geoglyphs that it was her fate to study, protect, and introduce to the world. She had recently celebrated her ninetieth birthday when Santha and I met her in June 1993. Although bedridden with advanced Parkinsonism, her mind

was sharp and her voice clear when she shared with us her own view of the significance of the lines:

> They teach us that our whole idea of the peoples of antiquity is wrong—that here in Peru was a civilization that was advanced, that had an advanced understanding of mathematics and astronomy, and that was a civilization of artists expressing something unique about the human spirit for future generations to comprehend.[15]

I have already explored the mystery of Nazca in previous books so I won't go over old ground here except to note that among the most iconic of the Nazca geoglyphs, etched into the desert with a single unbroken line extending for more than a mile[16] and occupying an area of approximately 90 meters by 60 meters[17] is an image of a monkey. Its prehensile tail, stylized into a spiral, is a diagnostic feature of New World monkeys that distinguishes them from Old World monkeys.[18] However, no monkeys have ever lived in the Nazca desert. The nearest specimens, for example, capuchin

monkeys, spider monkeys, and woolly monkeys, are all native to the Amazon rainforest.[19]

TOP RIGHT: Nazca monkey. PHOTO: SANTHA FAIIA. TOP LEFT: Spiral Woolly Monkey tail. PHOTO: STEFFEN FOERSTER, DREAMSTIME.COM [26291981]. BOTTOM: Nineteenth-century illustration of Amazonian spider monkeys.

Another of the better-known Nazca geoglyphs looks like and is usually referred to as a spider. It has been suggested, however, that the huge 46-meter-long[20] image arguably does not depict a spider but a member of a closely related order of millimeter-sized arachnids, the "tickspiders" called Ricinulei.[21] More than seventy species have thus far been identified worldwide, not one of them in the Nazca desert. Nor should we expect any there. Ricinulei favor "tropical forests and caves"[22] and the nearest populations of this very peculiar creature to Nazca are in the Brazilian Amazon, specifically in central, eastern, and southern Amazonia.[23]

There are many strange things about the Ricinulei order, but strangest of all is a single feature that is regarded as its distinguishing anatomical characteristic.[24] As described by

Brazilian arachnologist Alexandre B. Bonaldo, this is its "system of sperm transfer, which is achieved by an elaborate copulatory apparatus in the male third leg."[25] Although barely a millimeter long, and difficult to discern without magnification, it was first pointed out by the late professor Gerald S. Hawkins of Boston University that this unusual reproductive extension, common to all Ricinulei species, is depicted in the correct place on the third leg of the Nazca "spider."[26]

Hawkins, however, was an astronomer, while Bonaldo, a real expert on South American spiders, disagrees, remarking in emails we exchanged in October 2018:

> The idea that the Nazca spider is a *Ricinulei* is kind of odd to me, since I always thought it was a myrmecomorphic spider such as the species of *Myrmecium* ... *Myrmecium* is an exclusive South American genus, being recorded from the Venezuelan Caribbean to southern Brazil, but the majority of the species (28 out of 38) are endemic to the Amazon Basin, including lower parts of the oriental Andean slopes in Peru, Ecuador and Colombia.

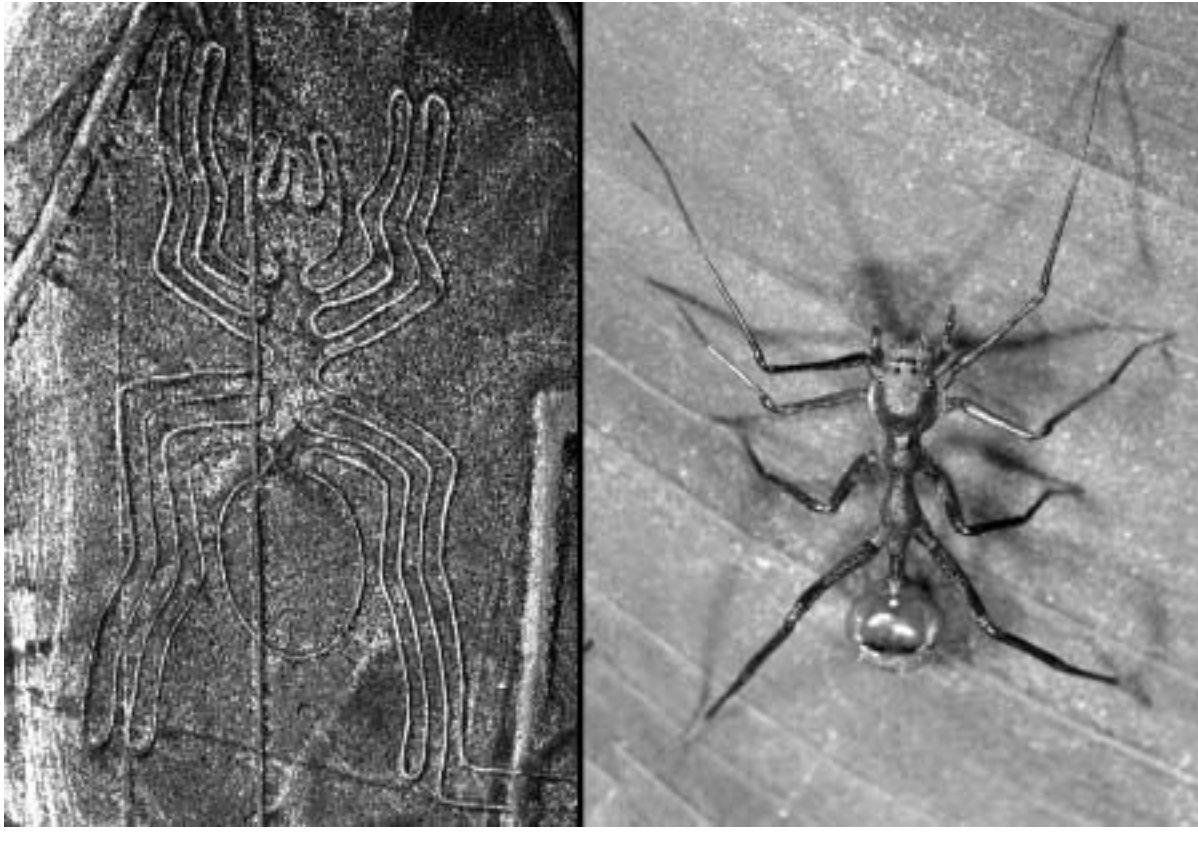

LEFT: Nazca "spider." PHOTO: SANTHA FAIIA. RIGHT: Greatly magnified, Myrmecium from the Amazon. PHOTO: ARTHUR ANKER.

I asked if I could quote him on this and he replied:

> Sure, you can quote it, if you want. I would add that that third leg "modification" shows no structures and is not bilateral. It appears to be just an extension of the drawing, as is common in other Nazca drawings.

Bonaldo then kindly referred me to Arthur Anker, a colleague of his who specializes in macrophotography, and Anker in turn provided me with the image of *Myrmecium* from the Amazon (specifically from the Tambopata Reserve, near Puerto Maldonado) that is reproduced here. It is, in my view, a far better candidate for the Nazca spider than Ricinulei—and once again what it suggests to me is that scientists, who observed nature closely, were at work in ancient South America. But let's lower our sights and simply say that the monkey and "spider" figures, with their Amazonian provenance, call, at the very least, for a rethink of Schaan's view that the Nazca Lines and the Amazon geoglyphs are unconnected phenomena.

SOME FACTS AND FIGURES ON THE AMAZONIAN GEOGLYPHS

WHAT IS THE GENERAL STRUCTURE and appearance of the geoglyphs uncovered in the southwestern Amazon in recent decades? In their 2009 paper in *Antiquity,* Schaan, Ranzi, and Pärssinen give us this broad overview:

> In general, the geometric figures are formed by a ditch approximately 11m wide, currently 1–3m deep, with adjacent 0.5–1m high earthen banks, formed by deposition of the excavated soil. Ring ditches have diameters that vary from 90 to 300m. … When there are two or more structures, they are usually connected by embanked roads. Some of the single rectangular structures may have short roads coming out of their mid-sides or corners. Composite figures include a rectangle inside a circle or *vice versa*.[27]

Some of the figures are quite roughly executed, others are extremely exact, and in some cases an exact figure is combined with

an inexact one in the same geoglyph, as at Santa Isabel, for example, where a large well-made octagon is juxtaposed with an imprecise circle.

By contrast, the geometrically austere Fazenda Parana site is "comprised of two perfect squares (200m and 100m wide) connected … by a 20m wide, 100m long causeway. The two squares are further connected to straight roads leading east and west, north and south."[28]

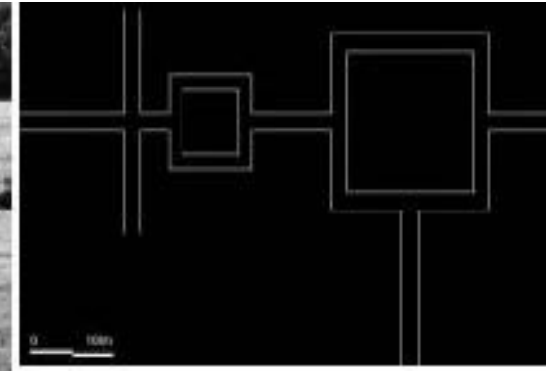

Fazenda Parana. **MAP AND PHOTO: MARTTI PÄRSSINEN.**

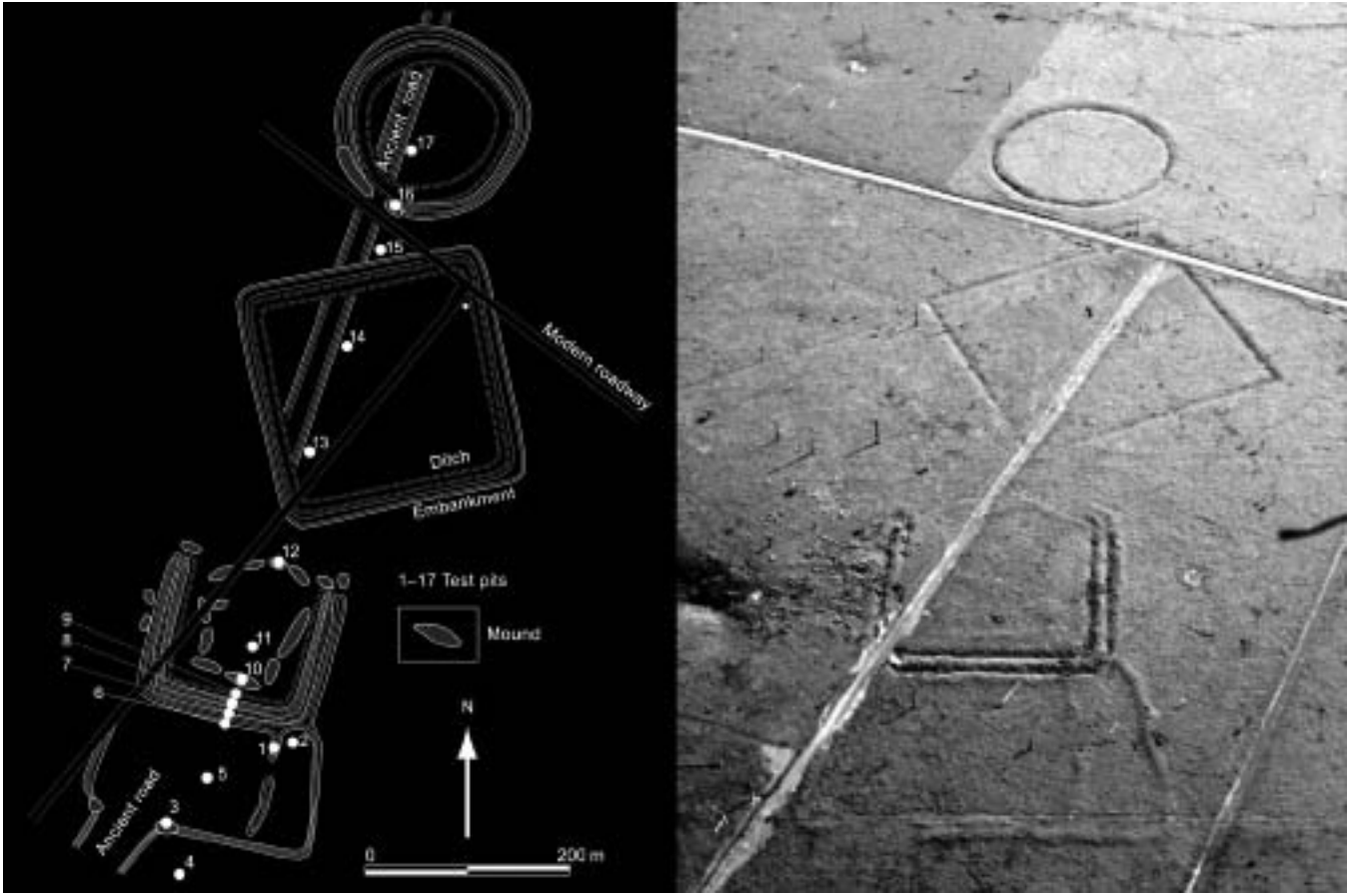

Fazenda Colorada. **MAP AND PHOTO: MARTTI PÄRSSINEN.**

More complex by far is the Fazenda Colorada site. Its geoglyphs consist of:

> one circle, a quadrangle and a double ditch structure which forms a three-sided square. The three-sided square double ditch is connected to a trapezoidal structure comprised by linear walls without ditches. Its south-western corner is open and connects to a *c*. 55m broad, avenue-like, road; on both sides of the entrance one can still see two high mounds, standing like towers. The road has embankments which border both sides, and, as it extends away from the entrance, it narrows, vanishing 600m further.[29]

Then consider the site known as Fazenda Atlantica. Here the principal geoglyph forms a square measuring 250 meters along each side. Quadrants are inscribed into the east and west corners and a circle 125 meters in diameter, connected to the square by a causeway 10 meters wide, lies 150 meters to the northwest.[30]

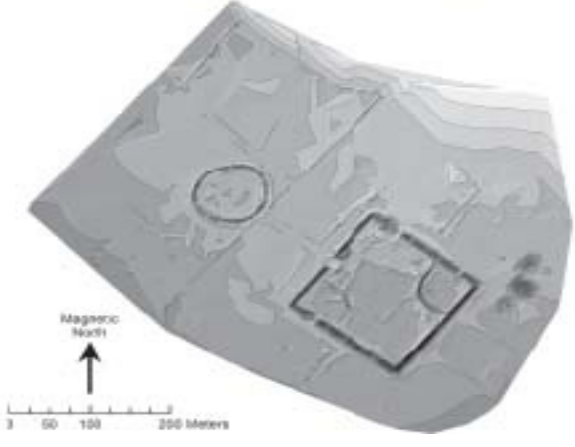
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Fazenda Atlantica. MAP AND PHOTO: SANNA SAUNALUOMA.

Defined by the avenue connecting the square and the circle, it is clear that the primary axis of Fazenda Atlantica runs northwest to southeast—an orientation that makes it a candidate for alignment to the setting sun on the June solstice and the rising sun on the December solstice. The reader will recall that Serpent Mound in Ohio is also aligned northwest to southeast to both these events. Its principal focus, signaled by its open jaws, is on the June solstice–midsummer in the Northern Hemisphere, where the Serpent is located, and midwinter in the Southern Hemisphere, where the Amazonian geoglyphs are located. Without an archaeoastronomical survey, however, it is impossible to say whether or not the general northwest to southeast alignment of Fazenda Atlantica is solstitial, and—if it is—whether any aspect of the site indicates priority given to one solstice over the other.

A similar northwest to southeast orientation is seen at Tequinho, another of the great Amazonian geoglyphs. When all its ancillary works were intact it extended over an area of 15 hectares (37 acres). What remains today are its two principal squares, the larger measuring 210-by-210 meters (with two further squares inscribed within it) and the smaller, which has suffered extensive damage, measuring 130-by-130 meters and enclosing one further square. Defining the ruling northwest axis of the site, the main entrance to the larger square is 40 meters wide and opens onto a causeway 1.5 kilometers long.[31] A proper survey will be required to establish whether or not there is any archaeoastronomical significance to the northwest orientation of Tequinho's main entrance and causeway.

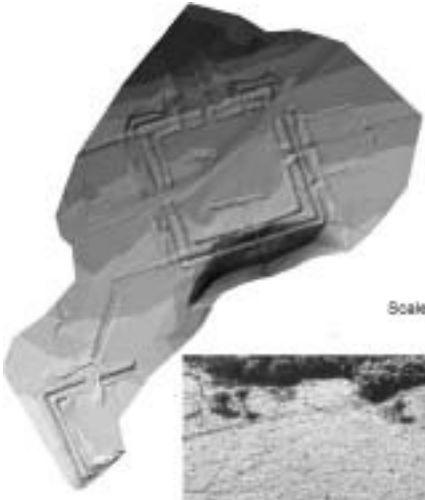

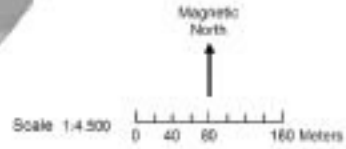
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Tequinho. MAP: SANNA SAUNALUOMA. PHOTO: MARTTI PÄRSSINEN.

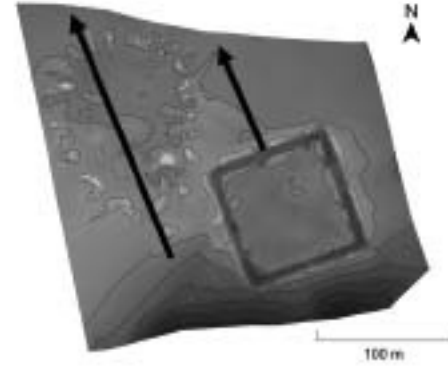

Fazenda Iquiri II—The mounds form an oval with its long axis oriented to the northwest. MAP AND PHOTO: SANNA SAUNALUOMA. ORIENTATION ARROWS ADDED.

Coquerial: The surviving ten mounds form the remains of an oval with its long axis oriented to the northwest. MAP AND PHOTO: SANNA SAUNALUOMA. ORIENTATION ARROWS ADDED.

What is already certain, however, is that a number of other Amazonian geoglyphs share the same general alignment. An example is Fazenda Iquiri II, which combines a square earthwork measuring 140 meters along each side with an oval earthwork formed by 25 adjoining mounds. The long axis of this oval, paralleling the axis of the square, extends for 180 meters and is oriented to the northwest,[32] making this site, too, a candidate for possible solstitial alignment if and when an archaeoastronomical survey is carried out.

Another candidate is the partially destroyed site of Coqueiral, which also consists of a series of adjoining mounds, of which ten survive out of an original total of eighteen. The remaining mounds form a partial oval with its long axis extending to approximately 100 meters oriented to the northwest.[33] As with Tequinho, as with Fazenda Iquiri II, and as with Fazenda Atlantica, a proper survey

will be required before any possible archaeoastronomical significance of the Coqueiral oval can be investigated.

Indeed, as I review the otherwise excellent science so far dedicated to the Amazonian earthworks, it is evident that the most serious and consequential lapse—which must be remedied if further progress is to be made—concerns this consistent blindness to possible archaeoastronomical connections. Not a single one of the many papers on the geoglyphs reviewed in this chapter has a word to say about astronomical alignments and, so far as I am aware at the time of writing, not one of the leading scholars has shown any interest in investigating the possibility that such alignments might exist. Ironically, however, the same scholars all agree:

> The geometric earthworks were constructed on carefully selected, elevated yet level surfaces. Their location on intefluvial plateaux provided good visible control over the surrounding terrain. … The carefully planned position of the earthworks in the landscape and the recurring geometric forms represented in earthwork architecture suggest functions that were part of a tradition of shared collective

> ideology related to the cosmology and/or socio-political concerns of the ancient peoples.

The irony is that there's an important clue here, hidden in plain sight. It's true that the choice of "elevated locations" giving "good visible control over the surrounding terrain" could have something to do with "the socio-political concerns of the ancient peoples." But because they offer an unobstructed view of the horizon, such locations are also very often what ancient astronomers looked for when they set out monuments on the ground—aligned, say, to the June solstice sunset or to the March equinox sunrise.

Perhaps it's partly in recognition of this that the passage cited above includes a token reference to "cosmology."

But token references are not enough.

Without a full-scale archaeoastronomical survey of the Amazonian geoglyphs we are, in my opinion, unlikely ever to get to grips with the full range of challenges—and opportunities—that they represent.

AN EVER-RECEDING HORIZON

HOW OLD ARE THE GEOGLYPHS?

In 2009 only a single carbon date had been established for the entire area surveyed, then "250 km across" and constituting "200 known sites with over 210 geometric structures."[34] The date was from Fazenda Colorada and proved to be quite recent—around 750 years before the present but with a margin of error that the investigators chose to average at AD 1283,[35] a date they believed to be "representative of a number of sites" since Fazenda Colorada "exhibits much of the variability seen for the region."[36] This date, they declare, "implies a late occupation … only around 300 years before the Europeans' arrival, but is consistent with the

development of complex societies in other areas of the Amazon between A.D. 900 and 1400."[37]

As we've seen so often with archaeology, new discoveries can change everything, and after just three more seasons of excavation, Ranzi, Schaan, and Pärssinen were singing a very different song. In a follow-up paper to their 2009 study, published in the *Journal of Field Archaeology* in 2012, they reported a greatly expanded survey area, now encompassing roughly 25,000 square kilometers.[38] Within it, 281 enclosures "formed by continuous ditches, in most cases surrounding a perfectly geometric inner plaza with an area of 1 to 3 ha" had been found "in various shapes," chiefly "circles, ellipses, rectangles and squares."[39]

Then came the first dynamite revelation. Fazenda Colorada had been thoroughly re-excavated and five additional radiocarbon samples, collected from different stratigraphic levels, were analyzed. Again, there are margins of error with C-14 dating, but

the bottom line is that the previous date of AD 1283, while fitting with preconceptions about when and where complex societies developed in the Amazon, was found to have been taken from organic materials deposited **very late** in the life of the site. What the new samples indicated was that Fazenda Colorada had been "consistently occupied" from as early as AD 25 until around the end of the fourteenth century.[40]

Organic materials from a number of other geoglyph sites were also excavated and dated, showing a similar profile, and the overall conclusion of the investigators across all the sites was that these "new radiocarbon dates place the initial stage of earthwork construction as early as 2000 BP."[41]

In summary, therefore, just 3 years of research between 2009 and 2012 witnessed a profound change in archaeological understanding of the geoglyphs of the southwestern Amazon. Previously they'd been thought to be just 750 years old; now, without any real

attention being drawn to the implications, they'd become 2,000 years old. To put this in context, an error and subsequent correction on a similar scale would certainly attract a great deal of attention if it concerned Western architecture—indeed it would be like discovering that the great Gothic cathedrals of Europe such as Chartres and York Minster were not, in fact, works of the late medieval period but had actually been built by the Romans.

What are we to conclude concerning mistakes of such magnitude, and the tendency of archaeologists to reach and propagate premature conclusions based on limited samples? For instance, the single AD 1283 date from Fazenda Colorada being allowed to stand for 3 years without corroboration as "representative of a number of sites"? And similarly at Serpent Mound in Ohio, where in 2018 a date of around AD 1000 was still being touted in official notices despite firm C-14 evidence, on the public record since 2014, that the structure is more than 1,000 years older than that?[42] Readers will

make up their own minds, but the uncertainty and the constant failure of old models (such as Clovis First in North America and Meggers's "counterfeit paradise" dogma about the Amazon) do not fill me with confidence about much else that this discipline has to say.

In particular, I am not persuaded by the new consensus that the geoglyphs of the southwestern Amazon are 2,000 years old. Other C-14 dates mentioned in the 2012 report already hint at a more complicated picture.

Take the site known as Severino Calazans, for example. Curiously, the square geoglyph the archaeologists excavated here has the same massive "footprint"—measuring 230 meters along each side[43]—as the Great Pyramid of Egypt.[44] Both monuments are also cardinally oriented—that is, their sides face the cardinal directions, north, south, east, and west.[45]

Two C-14 dates for Severino Calazans were cited by Ranzi, Schaan, and Pärssinen as further confirmation that the Amazonian geoglyph project began "about 2000 years ago."[46] Margins of error apply, but these dates were 159 BC (from excavation Unit 3) and 171 BC (from Unit 6B).[47] Fitting much less comfortably into the new hypothesis, however, were the two other dates from Severino Calazans. Again, there are margins of error, but these dates were, respectively, 1211 BC (from Unit 5) and **2577 BC** (from Unit 3)[48]—the latter suggesting that this geoglyph might not only have the same footprint as the Great Pyramid of Egypt but might also be about the same age.

We've seen how the existence of true civilizations in the Amazon before European contact has been cautiously embraced by archaeologists in recent years. Even so, few would yet be willing to accept that any Amazonian "civilization" worthy of the name might have existed as early as 2577 BC and certainly not one well-

organized and motivated enough to create a cardinally oriented geoglyph on the grand scale of Severino Calazans, where the full perimeter, defined by an enclosure ditch 12 meters wide, measures 920 meters—more than 3,000 feet.[49]

Unsurprisingly, therefore, Ranzi, Schaan, and Pärssinen conclude that the date of 2577 BC "is probably unrelated to the time of initial construction of the earthworks."[50]

All they're prepared to concede is that "this date suggests early human activity at the site."[51] They perhaps stick their necks out further than most of their peers would when they allow the possibility that the second anomalous date from Severino Calazans —1211 BC—"may be related to earthwork construction."[52]

But what is the logic of this? If we have dispensed with our former assertion that a date of AD 1283 was "somehow representative" of the geoglyphs in general, and if we are going to allow a possible start on this great regional project as early as 1211

BC, then why should we be unable to contemplate an even earlier start as far back as 2577 BC? Since so little of the Amazon has been surveyed by archaeologists, and since no theory about the character and constraints of its past cultures and civilizations has been able to explain all the data, it would surely be wiser to keep an open mind.

Besides, as Ranzi, Pärssinen, and Schaan themselves point out, they are working with **a very limited sample** of the potential data. Pärssinen at one point estimated that as many as 1,500 geoglyphs might ultimately be found,[53] and the authorities are in general agreement that "these earthworks, uncovered by modern deforestation … represent only a fraction of the total, which lie undiscovered beneath the intact seasonal southern Amazonian rainforests."[54]

It is therefore perfectly possible that multiple other sites, as yet unknown to archaeologists, will be discovered in the years to come. They might confirm the existing archaeological model that the

geoglyphs are about 2,000 years old, or they might turn out to reinforce that anomalous date of 2577 BC—or, who knows, they might even provide much older dates and reveal more sophisticated constructions.

Once again, whatever the facts are on the ground, we won't know for sure unless we look.

CURIOSITIES

IT'S A CURIOSITY—I CLAIM nothing more at this point—that the **square** enclosure ditch at Severino Calazans shares the ground plan, base dimensions, and cardinality of the Great Pyramid of Egypt, as well as a carbon date from the epoch of the Great Pyramid.[55] That epoch, moreover, around 2500 BC, coincides and overlaps with the

megalithic epoch in Europe, so another curiosity is the way that the **circular** geoglyphs of Amazonia resemble "henges"—the circular embankments with deep internal ditches that surround the great stone circles of the British Isles. The scale is very similar and the resemblance is so obvious that even the most sober archaeologists, usually wary of cross-cultural comparisons, are willing to remark upon it. For example, Dr. Jennifer Watling of the Museum of Archaeology and Ethnography at the University of São Paulo, author of an important study of the Amazonian earthworks published in the *Proceedings of the National Academy of Sciences* in February 2017, states frankly that the characteristics of the circular geoglyphs with their embankments and ditches "are what classically describe henge sites. The earliest phases at Stonehenge consisted of a similarly laid out enclosure. … It is likely that the geoglyphs were used for similar functions to the Neolithic causewayed enclosures, i.e. public gathering, ritual sites."[56]

A point of order here. A “henge” is a prehistoric earthwork formed by a circular embankment surrounding a ditch. Usually the embankment is heaped up from the soil removed to create the ditch. This is the case, for example, at the causewayed enclosure of Avebury, Europe’s largest henge, which has a diameter of approximately 420 meters.[57] Walking briskly it takes about half an hour to make a complete circuit of the lip of the Avebury embankment from which you look down, across the ditch, at the immense circular inner plaza that the ditch defines. Disposed at intervals around the outer perimeter of this plaza, set back a couple of meters from its edge, a complete ring of giant megaliths once stood in antiquity, encompassing two other stone circles placed side by side. Very few of the original megaliths now remain—the site having been used as a quarry in later times—but, although Avebury’s causeways are almost entirely gone, the henge is still there and it is still possible to make out the form of the great stone

circle that it encloses and the remnants of the paired inner circles. What cannot now be seen, but was discovered in 2017 by archaeologists using ground-penetrating radar, is the **square formation**, measuring 30 meters along each side, again defined by a perimeter of standing stones, that once occupied the center of the southernmost of the two inner circles.[58]

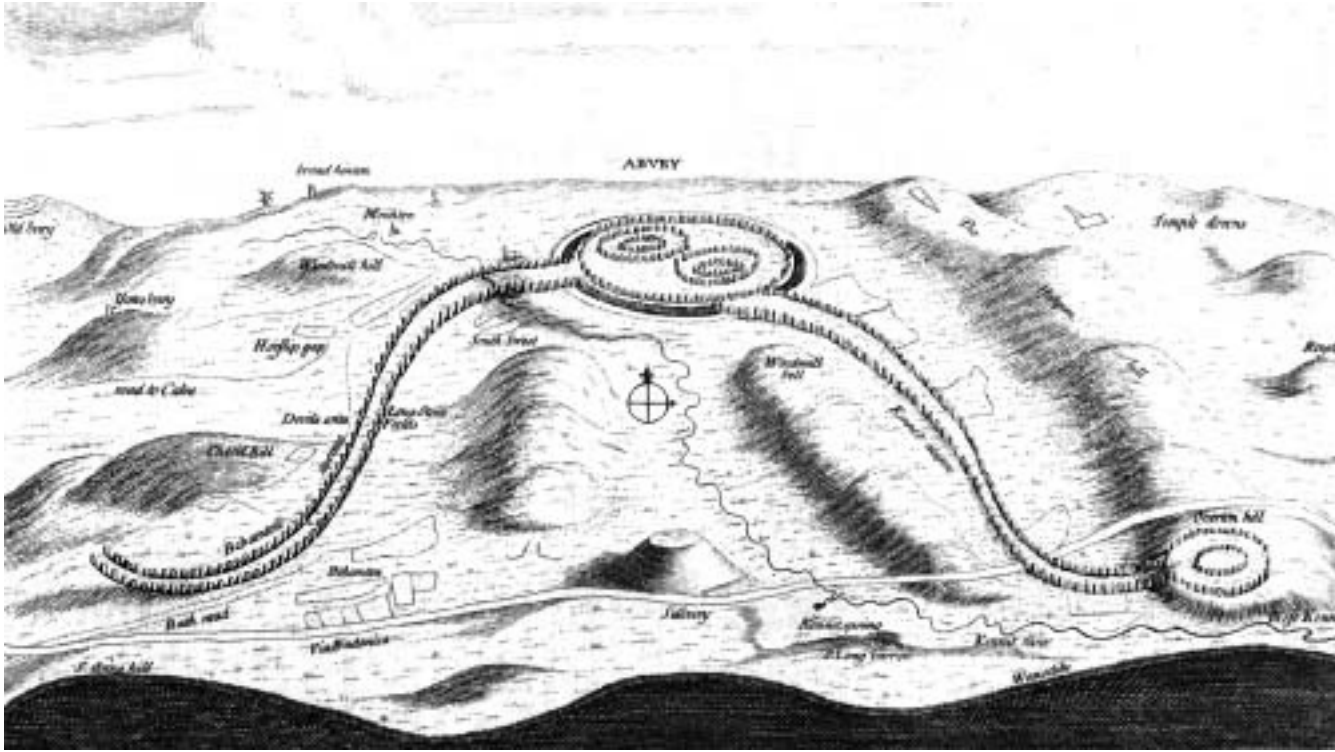

An impression by the antiquarian William Stukeley (early eighteenth century) of the complete Avebury complex as it would originally have appeared in its landscape. Approached by two monumental serpentine causeways, the great henge is top center, with its pair of inner circles clearly shown.

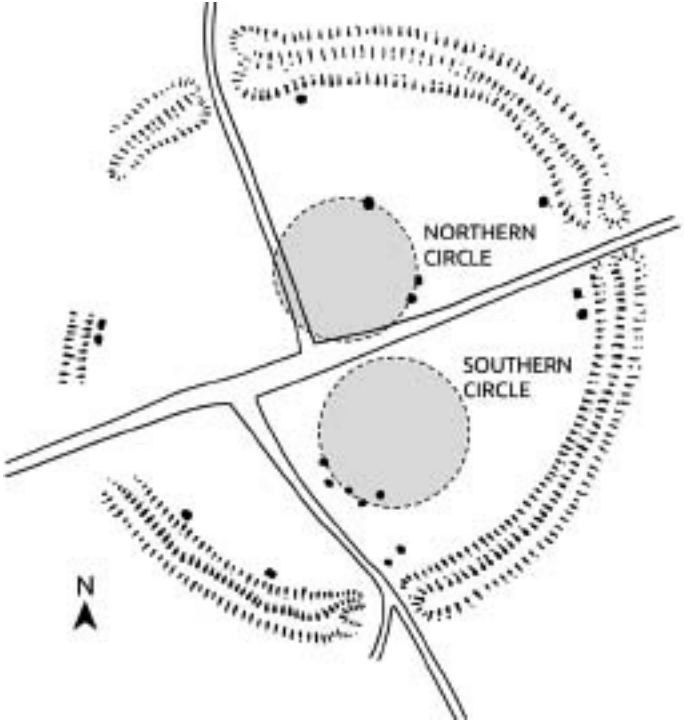

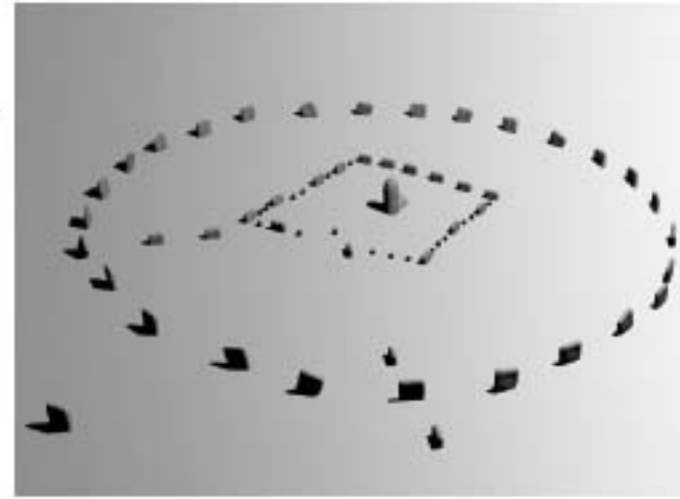

LEFT: Detail of the main henge at Avebury with its two inner circles. RIGHT: Reconstruction of Avebury's southern inner circle showing a composite of multiple phases of activity spanning up to 2,000 years. Based on M. Gillings et al. "The Origins of Avebury," in *Antiquity* (Cambridge University Press) [in press]. IMAGE COURTESY OF PROFESSOR MARK GILLINGS, SCHOOL OF ARCHAEOLOGY AND ANCIENT HISTORY, UNIVERSITY OF UEICESTER.

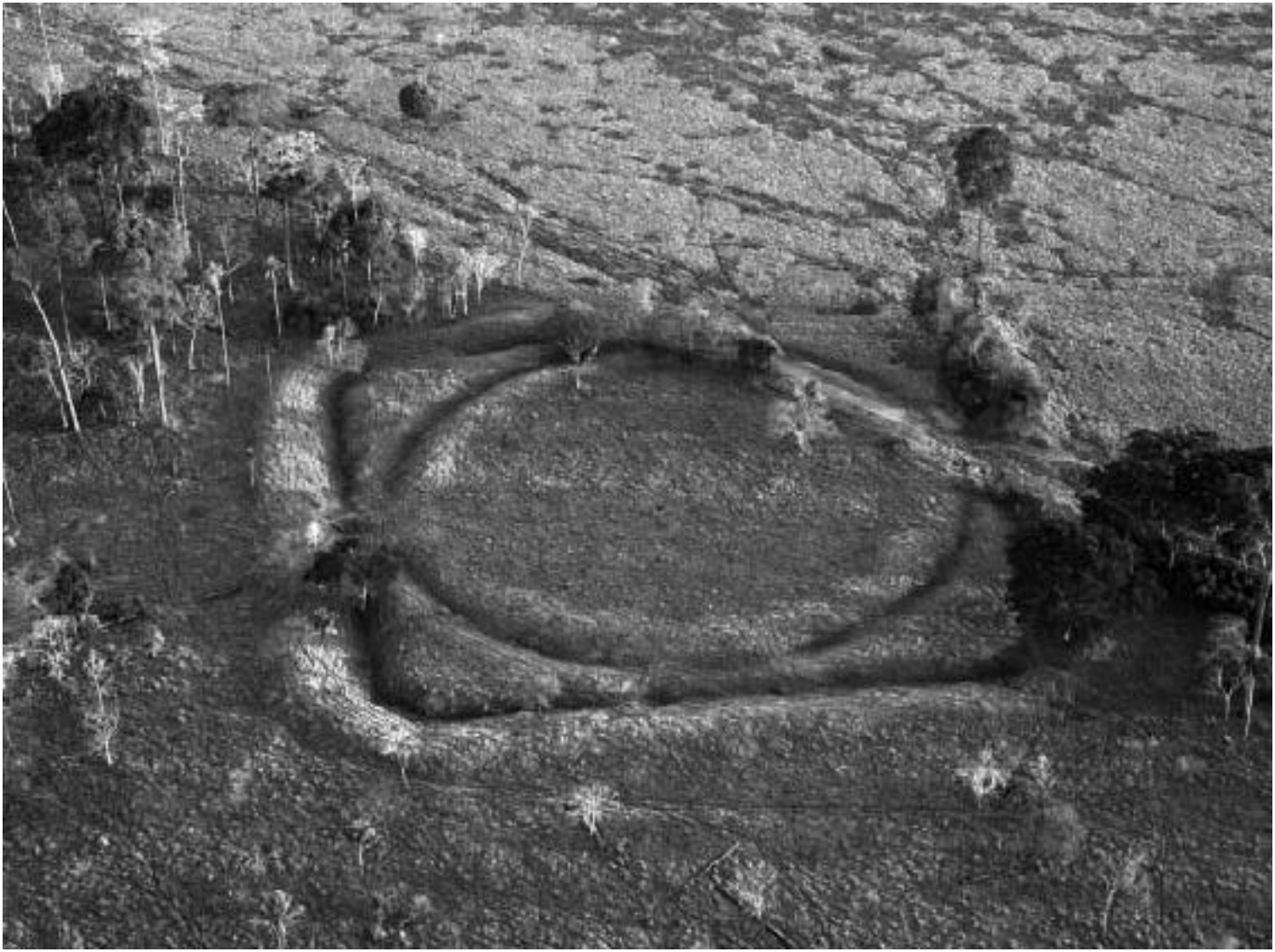

The Amazon: Squaring the circle at Jacó Sá. PHOTO: RICARDO AZOURY/PULSAR IMAGENS.

Strangely enough, at a site called Jacó Sá in the Amazon we also find a geoglyph in which circle and square are combined, but here it is the square that encloses the circle: "The square sides," report Ranzi, Schaan, and their colleagues, "are 140 m long, while the external embankment is 12 m wide and 1.6 m high. The circle contains an internal embankment, and is 100 m in diameter."[59]

This mention of embankments raises a more general point. Though Avebury is a true henge, Stonehenge—despite its name—technically is not. This is because its original great circular ditch was cut *outside,* not inside, its embankment.[60] As Jennifer Watling remarks, it's interesting to note that some of the Amazonian geoglyphs have this same format "with an outer ditch."[61] Some, like Jacó Sá, have both. As with the British henges, however, so with the

Amazon. Ranzi, Schaan, and Pärssinen confirm that "the ditches" of the Amazonian geoglyphs "are usually situated *inside* the embankments."[62]

A GLOBAL LEGACY?

JENNIFER WATLING'S PAPER, COAUTHORED WITH Denise Schaan, Alceu Ranzi, and others, describes circular geoglyphs of the Amazon "with ditches up to 11 m wide, 4 m deep, and 100–300 m in diameter."[63] The authors argue that these sites, "some of which have up to six enclosures … rival the most impressive examples of pre-Columbian monumental architecture anywhere in the Americas." Their excavations found "an almost complete absence of cultural material … within the enclosed areas." They conclude

that the earthworks "were built and used sporadically as ceremonial and public gathering sites between 2000 and 650 calibrated years before present, **but that some may have been constructed as early as 3500–3000 BP**."[64]

I've put the early dates in bold for two reasons.

First, because they are given in the paper at all. What we have here is a group of mainstream archaeologists sticking their necks out a little bit further in the pages of a prestigious journal on what, until now, would have been thought of as an impossible achievement for Amazonian societies 3,500 years ago.

Second, these same archaeologists are still being cautious. The period of 3500–3000 BP that they're prepared to entertain for the construction of at least "some" of the geoglyphs corresponds with Unit 5 at Severino Calazans, where a sample yielded a date, within the usual margins of error, of 1211 BC.[65]

The paper makes no mention, however, of the other much earlier date of 2577 BC that was retrieved from Unit 3[66]—the date that coincides with the epoch of Stonehenge, Avebury, and the Great Pyramid of Egypt.

Before I go further let me reiterate a key point about which it is important to be absolutely clear. It is NOT my purpose here to insinuate that the Amazonian geoglyphs were in any way inspired by Britain's stone circles, or by the Great Pyramid of Egypt or by other known Old World monuments—or, for that matter, vice versa. Where there are similarities, my suggestion is that it might be more fruitful to look for their origins in a remote ancestral civilization that passed down a common inheritance all around the globe—an inheritance of knowledge, an inheritance of science, an inheritance of "earth-measuring" that was then put into practice in many different environments by the many different cultures receiving it.

In some, the inheritance may have been rejected at the outset, or subsequently frittered away and lost. In others, as millennia passed, locally originated differences in expression multiplied to such an extent that they often almost completely obscured the underlying genetic connections to a remote common ancestor.

Nonetheless, dig deep enough and those connections—like recessive genes—sooner or later make themselves felt.

Not all the henges of the British Isles contain stone circles; many are simply gigantic earthworks like the geoglyphs of the southwestern Amazon. No megalithic monuments have yet been found in the Brazilian state of Acre where the geoglyphs proliferate—perhaps because of a lack of good natural materials, or perhaps because so much of the area has yet to be properly surveyed.

There **are** stone circles in the Amazon, however, as we shall see in the next chapter.

16

THE AMAZON'S OWN STONEHENGE

THE FIRST FOREIGN VISITOR TO mention the existence of megalithic circles in the Amazon was the Swiss zoologist Emílio Goeldi, who traveled up the Cunani River into what is now the northern part of the Brazilian state of Amapá, near its border with French Guiana, in

the late nineteenth century.[1] He makes no mention, however, of formations of huge granite blocks, obviously worked upon and moved into place by human beings, overlooking a stream called the Rego Grande.

In the 1920s Curt Nimuendajú, a German-Brazilian ethnologist, also visited megaliths in the region, but he likewise appears to have been unaware of the spectacular formations of Rego Grande. They were seen, however, and noted by Betty Meggers and her colleague Clifford Evans of the Smithsonian Institution in the 1950s[2] and now, at last, with the Smithsonian's resources, came the opportunity for a thorough investigation of the mysterious site. Predictably, what we might call "the curse of Meggers" descended upon the Rego Grande stone circles. These great formations of megaliths shouldn't have existed at all, according to her prejudices about the ancient Amazon, and were thus deemed unworthy of further excavation.[3]

Thereafter, lacking the Smithsonian's seal of approval, the interesting problem of Rego Grande was quietly set aside and ignored by archaeology **for the next 40 years** while the site itself fell back into its former state of absolute obscurity and was in due course forgotten.

But climates of opinion in scholarship from time to time undergo radical shifts, and forgotten things sometimes cry out to be remembered. Thus, just as the geoglyphs of Acre were first identified back in the 1970s in an area where swaths of formerly dense rainforest were being cleared for use by the cattle industry, so it was with the Rego Grande stone circles. They were rediscovered in the 1990s by ranch foreman Lailson Camelo da Silva, who was clearing land for pasture. "I had no idea that I was discovering the Amazon's own Stonehenge," he later told a reporter. "It makes me wonder. What other secrets about our past are still hidden in Brazil's jungles?"[4]

The publicity around Silva's "discovery," coupled with new insights into the complexity of ancient Amazonian civilization, led to a gradual reawakening of interest in Rego Grande. More research was done and out of roughly 200 prehistoric sites identified across the state of Amapá it was found that 30 had megalithic monuments of one kind or another.[5]

In 2005 archaeologists Mariana Petry Cabral and João Darcy de Moura Saldanha of Amapá's Institute of Scientific and Technological Research set about the task of surveying them all, with a particular focus on Rego Grande. There, the principal stone circle, which has a diameter of 30 meters, consists of 127 upright megaliths. Brought from a quarry 3 kilometers away, the megaliths weigh up to 4 tons each and stand between 2.5 meters (just over 8 feet) and 4 meters (just over 13 feet) tall.[6] Areas within the circle were used for elaborate human burials involving funerary urns and vases in a known pottery style of the region.

By 2011 a preliminary age of about 1,000 years was being suggested for the site. This was based, according to Mariana Cabral, on "three date checks on fragments of charcoal" found among pottery in the burial area.[7] Ten other prehistoric sites in the state of Amapá, three of them with megaliths, were also dated in the same way and "all seem to have been occupied between seven hundred and a thousand years ago."[8]

Much more work will have to be done before we can be sure that these dates will not be revised—like the ages of the geoglyphs—in the light of new evidence. Most important, meticulous care will have to be taken to be certain that the stone circle, on the one hand, and the burials from which the C-14 dates were derived, on the other, are works of the same period. The phenomenon of "intrusive burials" is one that archaeologists commonly encounter; particularly where an ancient, sacred site is involved there is a tendency for later people to want to bury and sanctify their dead there (such

anachronistic burials have been found, for example, at the Sphinx and at the Third Pyramid at Giza). The danger, therefore, is that an older site will be given a falsely young date based on materials from the intrusive burial.

Indeed, Cabral and Saldanha note that pottery of the same style and type as the pieces at Rego Grande from which the samples of charcoal were taken is common along "all of the northern coast of Amapá and in French Guiana" and has also been "regularly found in prehistoric sites that have no stone monuments."[9]

I'm therefore not convinced by the association of this pottery and carbon-datable charcoal with the original construction date of the stone circle at Rego Grande. That being said, however, it makes no difference to me if it **does** turn out to be of the same age as the burials. My argument is not that every mysterious monument now emerging from the depths of the Amazon must date back to the Pleistocene. I'm concerned here, rather, with the manifestation of a

legacy of **ideas** that may be of Ice Age antiquity—ideas involving geometry and ideas also very much involving **astronomy**. It's the ideas that matter, whether we encounter them in the Amazon, or at Serpent Mound in Ohio, or at Angkor in Cambodia, or at Stonehenge in the British Isles, or among the monuments of Egypt's Giza plateau. If mechanisms to carry, preserve, and transmit them down the generations have been introgressed into the local cultural DNA, then I see no reason why they should not manifest, and reveal their fundamental similarities, wherever and whenever conducive circumstances arise.

It therefore has to be of interest, whatever the age of the great stone circle at Rego Grande ultimately proves to be, that it appears to share a key "meme" with Stonehenge and with Serpent Mound.

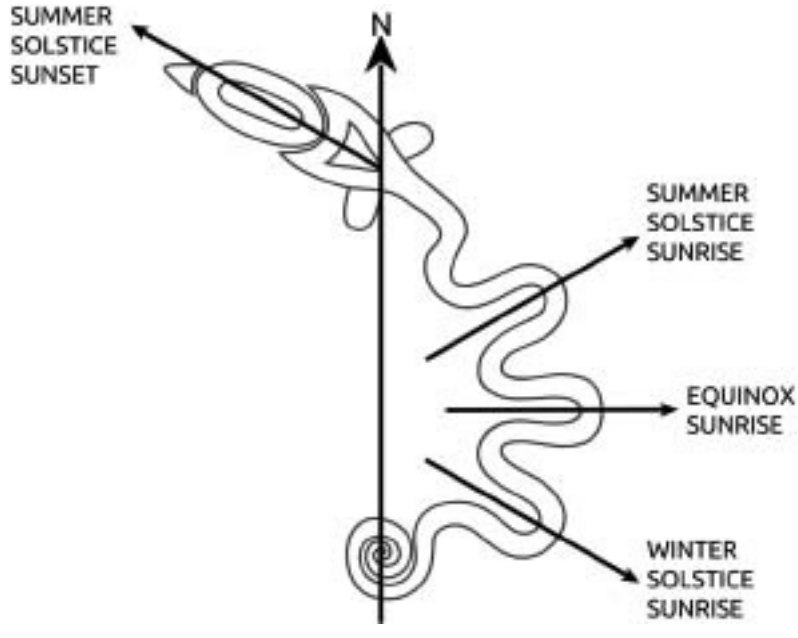

The primary alignment of Serpent Mound is to the summer solstice sunset. But in the reverse direction the same alignment targets—and in a convolution of the Serpent's body recognizes—the winter solstice sunrise. Two other convolutions target, respectively, the equinox sunrise and the summer solstice sunrise.

Coined by Richard Dawkins in his 1976 book *The Selfish Gene,*[10] the word "meme" refers to "An element of a culture or system of

behavior passed from one individual to another by imitation or other non-genetic means."[11]

In the case of Stonehenge, Serpent Mound, and Rego Grande, the meme concerns the orientation of the sites—which in all three cases honors the sun on the June and December solstices. We reviewed these alignments for Stonehenge and Serpent Mound in part 1, and the reader will recall that they are reversible—that is, an alignment to the summer solstice sunrise is also, in the reverse direction, an alignment to the winter solstice sunset, while an alignment to the winter solstice sunrise is also, in the reverse direction, an alignment to the summer solstice sunset.

In the case of Rego Grande, it is the winter solstice that is the primary focus. Cabral and Saldanha point to a megalith that uses shadow effects to track "the sun's path throughout this day."[12] Two other granite megaliths close by, one with an artificial hole cut

through it, also line up to track the rising point of the winter solstice sun.[13]

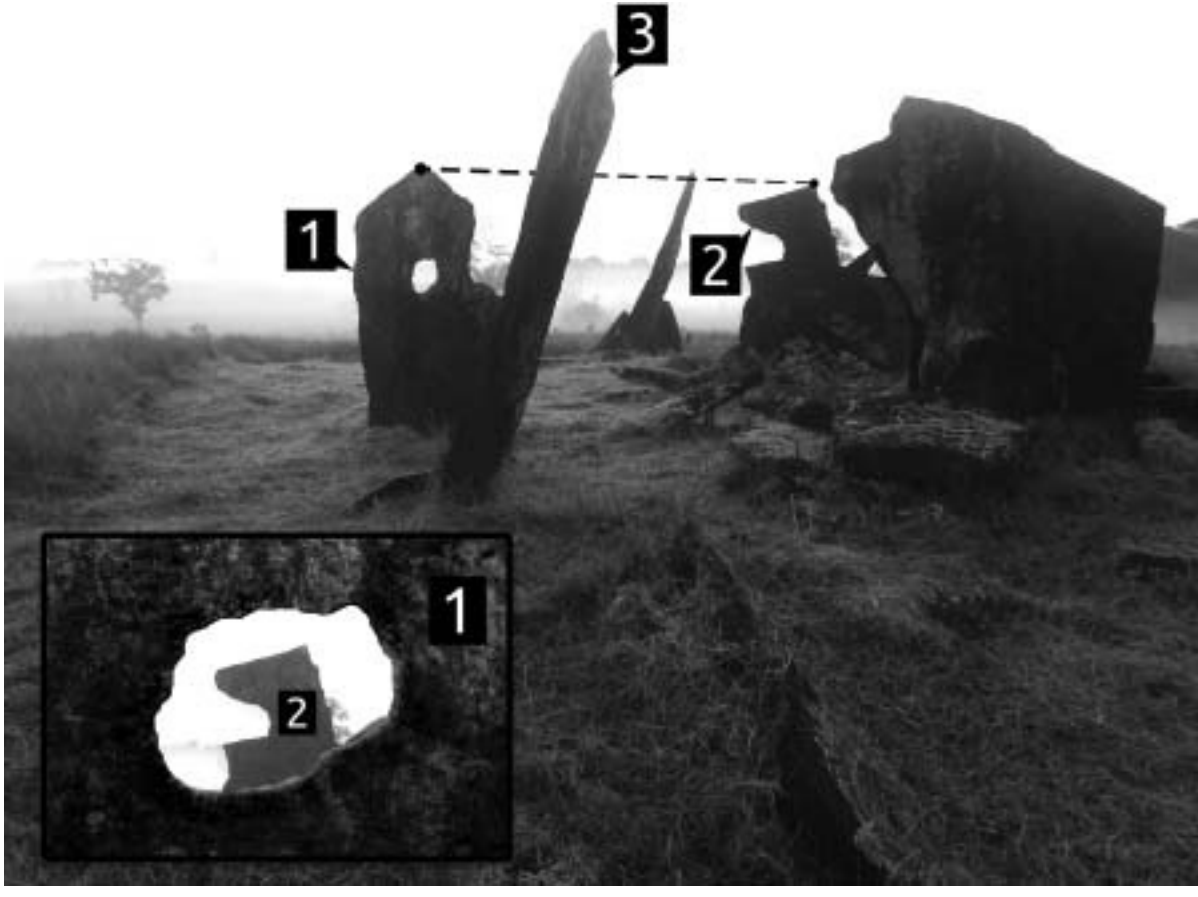

The Rego Grande Stone Circle. PHOTO: MARIANA CABRAL. Stone 3 tracks the path of the sun throughout the day on the winter solstice. Stones 1 and 2 (the former with a sighting hole cut through it—see inset) line up to target the winter solstice sunrise.

The strong foundations of the site make it unlikely that the megaliths would have shifted position. Even blocks lying horizontally, it turns out, have not fallen but were purposefully placed:

> Those lying on the ground never stood upright. Instead, the layer of laterite [beneath them] was carefully dug so that they fit snugly with the ground. Excavations carried out … around the bottom of the standing stones also revealed small blocks of granite and laterite which were used to wedge the monoliths at this unusual angle.[14]

Cabral and Saldanha's conclusion is that all the angles were "carefully considered by those who conceived them."[15]

Archaeologist Manoel Calado of the University of Lisbon, an expert on Portuguese megaliths, agrees. "I'm sure," he said after a

visit to Rego Grande. “This is one of the aspects that makes the Amazon megaliths very similar to those in Europe.”[16]

Richard Callahan, professor of archaeology at the University of Calgary, is also on Cabral and Saldanha’s side:

> Given that astronomical objects, stars, constellations, etc., have a major importance in much of Amazonian mythology and cosmology, it does not in any way surprise me that such an observatory exists.[17]

For Eduardo Neves, too, “the idea of the place being a sort of observatory is a good one,” although he adds, quite rightly, that “we still need to test it.”[18]

PAINEL DO PILÃO

ONLY THE MOST RUDIMENTARY SURVEY has been undertaken at Rego Grande, enough to reveal the major solstitial focus of the great stone circle, but nothing more. Other, much richer information may or may not be concealed within the multiple alignments of the megaliths, as is the case at Stonehenge and Serpent Mound, but a major archaeoastronomical study will be required to settle the matter. As Jarita Holbrook, associate professor of physics at South Africa's University of the Western Cape, comments: "It takes more than a circle of standing stones to get a Stonehenge."[19]

I would add, however, that a circle of standing stones with a solstitial alignment is a pretty good start!

Moreover, and I suggest of great relevance given the uncertainty over the dates of Rego Grande, a major archaeoastronomical study **has** already been undertaken at another Amazonian site approximately 550 kilometers to the southwest. Named Painel do Pilão, it is located just 400 meters from Pedra Pintada, the painted

rock shelter investigated in 1996 by Anna Roosevelt. We saw in chapter 12 how she and her team excavated multiple occupation layers within the shelter, the oldest and deepest of which turned out to be perhaps as old as 16,000 years (according to thermoluminescence dating) and 14,200 years (according to radiocarbon dating).[20]

There has been no serious challenge to these dates but, following further work by Roosevelt, Pedra Pintada's rock art is now usually reported, reflecting the current cautious consensus of the archaeological community, to date between 13,630 and 11,705 years ago.[21]

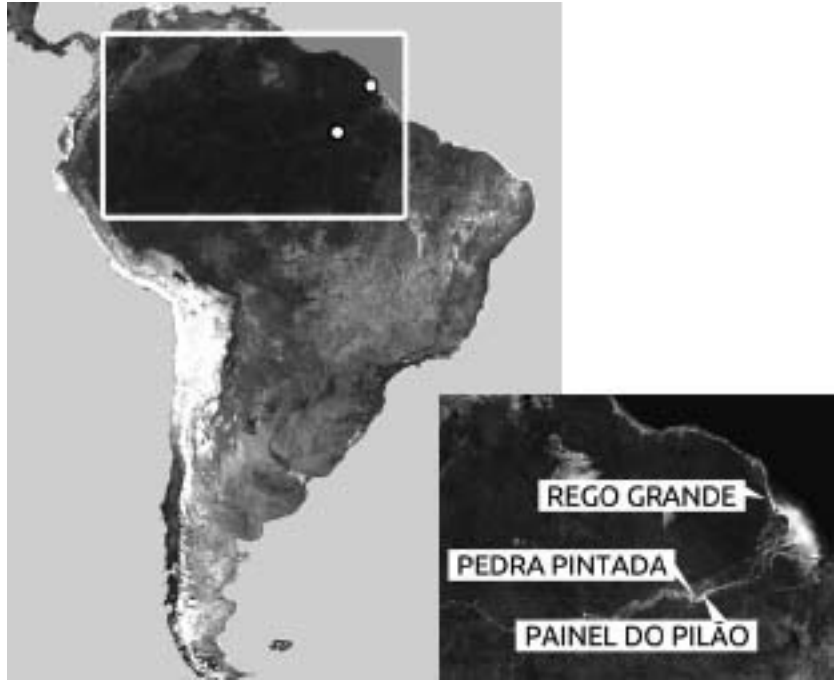

Dates for the art at the nearby Painel do Pilão rock shelter, excavated by Christopher Sean Davis of Northern Illinois University, are closely similar, being variously given in his 2016 report at between 13,014 and 12,725 years ago, and between 13,135 and 12,810 years ago.[22] All together a total of four samples from

two adjacent excavation levels were subjected to C-14 testing. All were found, says Davis, “to be consistent and contemporary to Roosevelt’s paleoindian dates from Caverna da Pedra Pintada.”[23] His conclusion, therefore, is that the initial artworks of Painel do Pilão were created at “around the time that the area was first inhabited 13,000 years ago, and that those earliest images, which were probably retouched or traced more recently, were positioned in the most prominent wall locations and height.”[24]

Davis suggests that the rock wall itself, as well as the floor at its base, were deliberately leveled by the ancients to form a 90-degree angle to one another. The whole ensemble, he says, was “made straight and flat throughout” to configure a “platform stage from which an observer can view the rock art from a specific location.”[25]

Once standing in that location, Davis further notes, “the painting most central to the observer’s field of view is a grid image that has

individual boxes marked with mostly repetitive (but some varying) tallies.”[26]

Painel do Pilão "calendar." PHOTO: CHRISTOPHER SEAN DAVIS.

It looks like a calendar—and indeed, some years before Davis, Roosevelt was the first scholar to consider that possibility.[27] While recognizing that "alternative theories not related to astronomy cannot be ruled out," Davis reinvestigated the matter over the course of a solar year and noticed a possible pattern to do with

> [t]he intersection of the setting sun to a rocky perch in the near distance above and to the right of the painted outcrop.
>
> The annual movement of the sun relative to the rocky perch allows for the intersection of the setting sun through the center of the perch **approximately 18–20 days before and after the winter solstice** (which currently occurs on December 21). … If each box of the painted grid image represents one day of observing the setting of the sun relative to the rocky perch, 49 days after the day of the winter solstice, the sun sets too far to the north of the rocky perch, entirely missing the structure. The grid painting has 49 total boxes and the center boxes have tally marks that are simply vertical lines. Most other tally marks are crisscrosses. The rocky perch and the grid image might, therefore, have been **a**

way for paleoindians to foretell the winter solstice and the passage of a new year.[28]

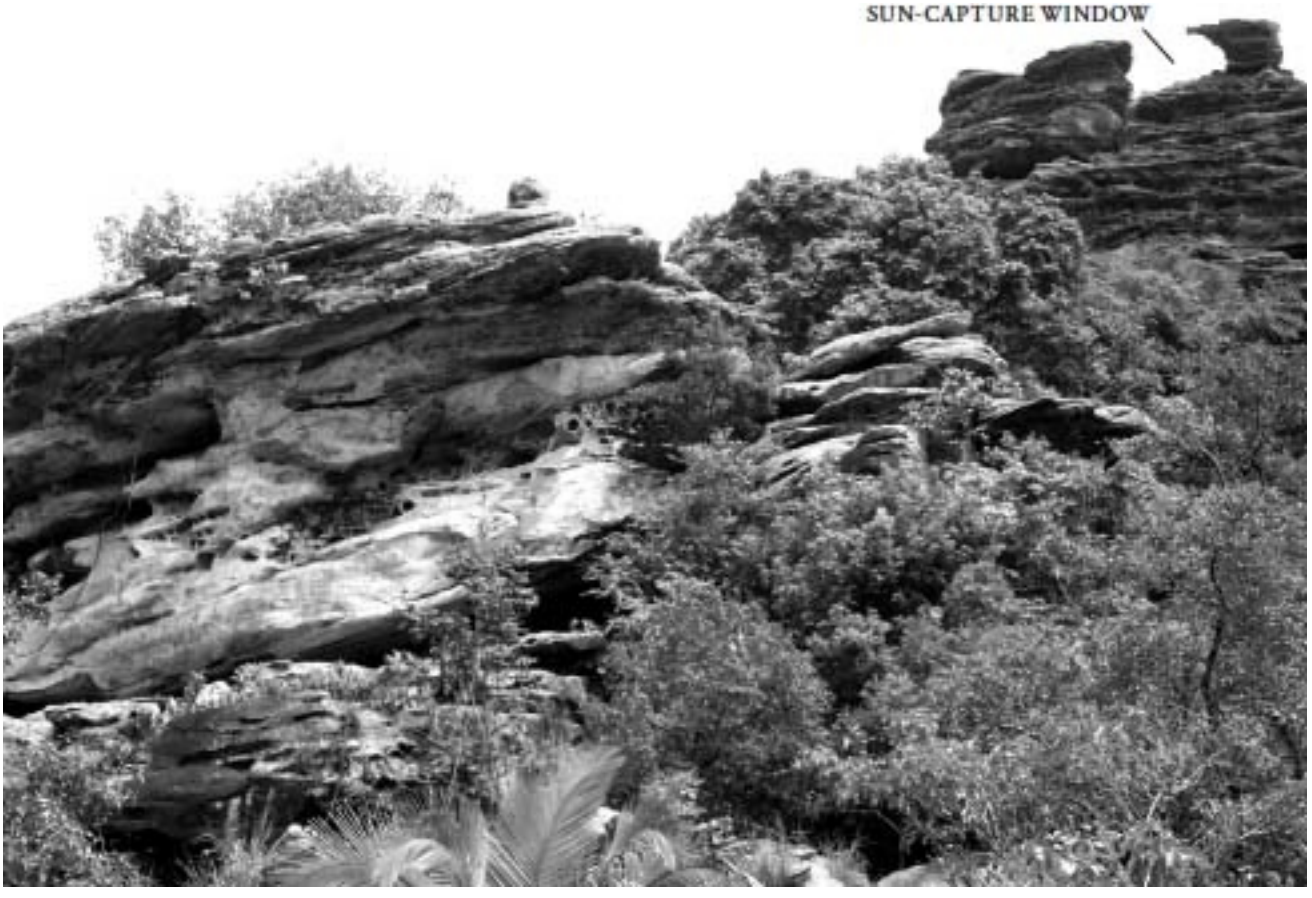

Painel do Pilão painted outcrop with its rock art surface in the center-to-left foreground, and a rocky outcrop with a window-like feature at a distance in the top right background of the photo. The sun intersects this "window" in the early afternoon 18 to 20 days before and after the winter solstice. PHOTO: CHRISTOPHER SEAN DAVIS. ANNOTATION ADDED.

What adds to the likelihood that Davis is correct is that he and his team found other alignments at Painel do Pilão. For example, just as the orientation of what they call the "platform stage" suggests an ancient focus on the December solstice sunset, so, too, another prominent cluster of images aligns to the rising point of the sun on the June solstice.[29]

Meanwhile:

> A third astronomy alignment occurs with a single red pictograph discovered above the excavation unit on a vertical ledge on the underside of the painted outcrop. The ledge may have been intentionally altered, but further investigation is needed for certainty. The painted circle itself faces 270° [the azimuth of sunset on the equinox], but the shelter walls block all views of the western horizon or sky from

> this location. However, just beneath the circle and ledge is an opening that allows one to see through to the other side of the outcrop and the horizon beyond. This vantage point beneath the painted circle aligns to ~90°, the position of the rising sun on the equinox, which occurs on March 20 and September 23 currently.[30]

At the very least, says Davis, the rock art and alignments at Painel do Pilão tell us that cultures in the heart of the Amazon 13,000 years ago "engaged and utilized sophisticated knowledge of astronomy maintained through rock art and possibly shared or reimagined by more recent cultures who either inherited or rediscovered the ancient paintings."[31]

He's right to draw attention to the legacy aspect of all this—the possibility, long after the original painters and horizon astronomers of Painel do Pilão were gone, that later cultures might have inherited and reimagined the ancient ideas and obsessions manifested there. This is how we would expect carefully crafted and cleverly designed memes to propagate themselves down the ages, and it appears to echo *exactly* the process at Serpent Mound, which

was likewise maintained, renovated, and reimagined by successive cultures down the ages and which likewise signals the solstices and the equinoxes.

Painel do Pilão is important because it tells us that the “meme” of sacred structures aligned to the solstices and equinoxes, found in monumental art and architecture all around the world, has been present in the Amazon for at least 13,000-years and perhaps—we must await future discoveries in the unexplored reaches of the jungle—for far longer than that.

It also has wider implications. If people were capable of carefully marking, recording, and honoring these celestial events in South America 13,000 years ago, then there is no good reason to suppose they should not have done so in North America as well—and therefore no good reason to dismiss the possibility that Serpent Mound’s original alignments also go back to that distant epoch.

Archaeology says a firm NO to this, accompanied by guffaws of derision.

As we've seen, however, the archaeology of Serpent Mound is riddled with contradictions and uncertainties and appears to have produced dates marking various episodes of restoration and renovation rather than convincing evidence of when the monument was originally designed and founded.

HYPOTHESIS

IN HIS REPORT CHRISTOPHER DAVIS mentions Rego Grande, "presumed to be more recent" than Painel do Pilão, as another Amazonian site at which archaeoastronomical alignments have been investigated.[32] He draws no specific connection beyond that, but in my view the confirmation of a solstitial focus at both, as also at Serpent Mound

in Ohio, and Stonehenge and other megalithic sites worldwide, is noteworthy.

Moreover, although there is no henge at Rego Grande, we've seen that the solstitially aligned stone circle there shares the Amazon basin with huge numbers of hengelike earthworks. We've noted how these, too, have never been subject to any kind of rigorous archaeoastronomical investigation. Meanwhile, the total number of geometric ditched enclosures discovered in the southwestern Amazon survey area had increased from "over 210," the figure on record in 2009, to "over 450" by 2017.[33]

Then in 2018 a further study by Denise Schaan and colleagues reported an extension of the survey area across much of the southern rim of the Amazon basin:

> The results show that an 1800 km stretch of southern Amazonia was occupied by earth-building cultures.[34]

In one area alone, the Upper Tapajos Basin, 81 previously unknown pre-Columbian sites were discovered, with a total of 104 earthworks.[35] Among them were many complex enclosures including one, 390 meters in diameter, featuring 11 mounds circularly arranged at the center of the enclosure.[36]

The researchers suggest that at least 1,300 further sites remain hidden within the jungles of the Amazon's southern rim—a number, they add, that is "likely to be an underestimation"[37] while "huge swaths of the rainforest are still unexplored."[38] They remind us that the *terre firme* forests "that account for ~95% of the Amazon are particularly uncharted" because "these areas have been archaeologically neglected following traditional views that pre-Columbian people concentrated on resource-rich floodplains. However, the discovery of large pre-Columbian earthworks in *terra firme* along the Southern Rim of the Amazon undermines the

assumption that these areas were marginal in terms of past human impact and the development of complex societies."[39]

It is undoubtedly the case that many more structures remain to be found than have already presented themselves to science. Our entire understanding of this vast region is being transformed by new discoveries and, indeed, as we've seen, the notion of complex societies in the pre-Columbian Amazon is no longer anathema to archaeologists, some of whom now even dare to describe those societies as "civilizations."

Given that such civilizations existed in ancient Amazonia, and clearly had the capacity to manifest their ideas in great public projects, it is intriguing that the end result was the vigorous, flamboyant, and extensive expression of **the very same** architectural, astronomical, and geometrical "memes" that characterize sacred architecture in many other parts of the world, and at many different periods.

An analogy between genetics and culture—genes and memes—can serve us well here.

Let's say, purely hypothetically of course, that a system of ideas is transferred, by direct teachings, from one culture to another. The recipient society as a whole, however, may not yet be ready to put the teachings into practice. What is required, then, is that some sort of institution be set up that can recruit the brightest and the best from the local population. They, in turn, will draft new talent with each new generation, initiating them and training them in the essential details of the system—which will assume the character of a religion and will in due course integrate itself deeply into every level, even into the habits of thought, of the recipient culture. Eventually, when the right time for the next stage of the project is judged to have arrived—perhaps very soon, perhaps after thousands of years, depending on local circumstances—the religious leaders will mobilize the population to enact the great projects of sacred

geometry that had for so long remained encoded, but unexpressed, within their cultural DNA.[40]

It is, I emphasize, only a hypothesis. In this context, though, it's thought-provoking to consider an ethnographic report from 1887 written by a certain Colonel Antonio R. P. Labre after he had ascended the Madeira, the Beni, and the Madre de Dios Rivers and then crossed overland to the Acre River. His journey took him right through the heart of the geoglyph territory of Acre and involved numerous encounters with its inhabitants, the Araona people—who had, by that time, been reduced to a tiny remnant after hundreds of years of devastating epidemics, slave raids, and murderous attacks by commercial rubber tappers seeking to drive them off their land. "It was not uncommon," writes Denise Schaan, "for rubber tappers to capture native women for wives. The encroaching whites would frequently promote raids to enslave the native population for the

rubber industry, a situation that 40 years later would result in the near-extinction of tens of thousands of natives."[41]

Since all work on the geoglyphs had ceased hundreds of years previously, we can only guess how much of the past of their once great culture these harried, encroached-upon, and deeply endangered Aroanas remembered by the time of Labre's visit. We cannot even be sure that they were the direct descendants of the geoglyph builders (rather than of more recent migrants to the area).

Nonetheless, what Labre tells us feels significant. He didn't see the geoglyphs, which were then entirely overgrown by jungle, but he was in the midst of them on August 17, 1887, when he stayed overnight at an Aroana village called Mamuceyada. He describes there being, as well as plantations, "about 200 inhabitants … a form of government, temples and a form of worship"—from which, together with "knowing the name of the idols," women were

excluded. Of particular importance and relevance here is Labre's report:

> The idols are not of human form, but are geometrical figures made of wood and polished. The father of the gods is called Epymara, his image has an elliptical form, and is about 16 inches high. … Although they have "medicine-men" charged with religious duties and remaining celibates, the chief is nevertheless pontifex of the church.[42]

Consider the improbability of this if it does not arise from some real though forgotten connection. Here in a landscape mysteriously inscribed in antiquity with vast geometrical earthworks, at a time when the earthworks themselves had long since been swallowed by jungle, we find a Native American tribe whose gods take the form of polished wooden "geometrical figures." The tribal chief is the religious leader but there are also "medicine-men" who likewise have religious duties.

It already sounds exactly like the sort of institution for the replication and transmission of geometric memes that I proposed as a hypothesis earlier, but it gets even more interesting when the shamans involved, and often the population, are drinking ayahuasca.

17

THE VINE OF THE DEAD

WHAT ARE THE AMAZONIAN GEOGLYPHS? Why did the ancients go to such trouble to make these colossal earthworks? Why is geometry their most obvious theme? And to what extent, if any, since stone circles are frequently associated with similar earthworks elsewhere, does the presence of stone circles in the Amazon help us to understand the geoglyphs?

So far we have considered only geometry and certain cosmic alignments, but my hypothesis in both cases, and in the case of the extraordinarily similar earthworks of the Mississippi Valley that we'll explore in parts 5 and 6, is that we are dealing with "memes" here. Moreover, it is a phenomenon in itself that the same memes appear again and again among seemingly unrelated cultures of both the Old World and the New World, separated sometimes not only by thousands of miles but by thousands of years.

Much more work will be required to establish **when** the memes of geometry and cosmic alignment first took root in the Amazon. Archaeology on its own is of limited use to us here, since so little has been done even at the sites already discovered and since so much of the region has never been investigated at all. What would help would be a much more thorough and detailed archaeoastronomical survey of Rego Grande, and of other stone circles in its vicinity, than has already been undertaken. In parallel, as I argued earlier, an equally thorough archaeoastronomical survey

of the Amazonian geoglyphs is a must if we are to refine not only our understanding of their geometry but also to tease out any cosmic alignments they may contain. Since no such study has yet been undertaken all we can say for sure is that **some** of the geoglyphs reviewed in chapter 15 are, definitely, cosmically aligned.

We've seen, for example, that both Fazenda Parana and Severino Calazans consist of square geoglyphs. The first features two squares, one 200 meters along each side and the second exactly half that size, with an interconnecting causeway. Meanwhile, the second site has side lengths of 230 meters, giving it the same footprint as the Great Pyramid of Egypt. All four of these squares—the two at Fazenda Parana, the one at Severino Calazans, and of course the Great Pyramid itself, are cardinally oriented, that is, their sides face true north, south, east, and west. The most basic and obvious of the cosmic alignments shared across these sites are therefore to the celestial north and south poles (the points on the celestial sphere directly above the earth's geographic north and south poles, around

which the stars and planets appear to rotate during the course of the night[1]), and to the points of sunrise and sunset on the spring and autumn equinoxes (when the sun rises perfectly due east and sets perfectly due west).

We've also seen that other great earthworks of the Amazon feature strong northwest-to-southeast orientations. This would put the investigation of possible solstitial alignments and also of "lunar standstill alignments" (of which more in part 5) at the top of the list of priorities if any proper archao-astronomical survey should ever be undertaken.

I think it likely that such a survey of the Amazonian geoglyphs, as of the stone circles, would reveal many more (and far more intricate) cosmic alignments, perhaps even as subtle and complex as the multiple alignments found at the Great Pyramid, Stonehenge, and Serpent Mound. There's little point in speculating further on such matters when we don't yet have the necessary data from the

Amazon. For the sake of argument, however, let's assume that the memes of geometry and cosmic alignment **are** part of a connected system there, as they are in so many other parts of the world where the required research has already been done. In that case we can say, on the basis of the equinoctial and solstitial alignments at Painel do Pilão, the single Amazonian site where something approaching a thorough archaeoastronomical study has been undertaken, that the system must have reached Amazonia at least 13,000 years ago. That it should then have later iterations in different media, such as the stone circle at Rego Grande and the great cosmically aligned geoglyphs at Severino Calazans and Fazenda Parana, should not surprise us.

We are dealing, I believe, with **deliberately** created memes here —memes that have a deeply mysterious purpose and that function in ineffable ways. They are transmitted by repetition and replication, which explains their similarities. But cultures, once separated, tend to evolve and develop in their own distinctive and quirky fashion.

We can therefore expect that not only the media and materials through which the memes are made manifest, but also their local **interpretation**, will vary greatly through time and between one part of the world and another while nonetheless retaining a constant core of unvarying central ideas.

WESTERN SCIENCE WADES IN

THE FIRST EFFORTS OF WESTERN scientists to interpret the geoglyphs of Amazonia were predictably utilitarian and reductionist, with attempts being made to persuade us that the great geometrical earthworks must have been built for defensive purposes. But with no evidence of warfare around them, with the ditches clearly not "moats" (since so many of them are placed within the earthen embankments rather than outside them), and with no evidence of

palisade walls (for example, in the form of postholes or wooden remains), this theory soon lost favor.[2] Not only was there no evidence of warfare, but actually very little at all in the way of archaeological materials—pottery, figurines, refuse, et cetera—that would help to decipher the use, meaning, and purpose of the geoglyphs. The consensus now, therefore, is that they were created for "ritual," "spiritual," "religious," and "ceremonial" purposes.[3]

William Balée, professor of anthropology at Tulane University, is a supporter of this new consensus, but is doing no more than stating the obvious when he suggests that the spiritual/religious role of the Amazonian glyphs must in some way have involved "geometry and gigantism."[4]

Well, yes, professor. Obviously! But in what way? And to what purposes?

If we seek useful answers to such questions, rather than easy inferences or mere descriptions of these gigantic geometric patterns,

then we are going to have to do what a very few Western scientists, to their credit, are now doing—and that is to consult indigenous peoples still living in the Amazon today.

Finnish scholars Sanna Saunaluoma and Pirjo Kristiina Virtanen have led the way in this fresh approach. The cultural destruction of the past five centuries has wiped many of the tribal memory banks clean—the ongoing process of imposed amnesia that has left us so bereft of knowledge about the ancient Amazon. It is clear, however, that all is not yet lost.

In 2013, for example, Saunaluoma and Virtanen brought a group of five Manchineri—an indigenous tribe living today in the region of the earthworks—to visit Jacó Sá. This immense geoglyph, depicting a circle within a square, as the reader will recall, is located about 250 kilometers from their territory. The investigators report that the Manchineri "immediately reported feeling sensations of being in an ancient ritual atmosphere." Moreover, "They said that their ancestors had talked about these types of places, although they

could not offer any explanation as to why the earthwork ditches were so deep or even why they had been constructed."[5]

A second local tribal group, the Apurinã, "narrated that their parents had advised them to pass by the earthworks quickly and avoid their vicinity when possible because they signify difference, promote avoidance, and are regarded as 'enchanted,' or 'miraculous' places."[6]

Certainly, then, at least the traces of a memory of how significant the earthworks must have been in their prime, and of the awe that they formerly inspired, lingers on in local superstitions and folklore.

But a reservoir of much more detailed information has been stored away in the Amazon and here, too, Saunaluoma and Virtanen are pioneers in finding links to the earthworks.

THE SHAMANISTIC COSMOS

SOME OF THE CLUES THEY have drawn on have been available for more than 130 years.

They're found in the account, given in the last chapter, of the worship of "geometrical" gods by the Aroana people in the vicinity of the geoglyphs when Colonel Antonio R. P. Labre stayed among them in 1887. From Labre we also learn that the Aroanas had "temples and a form of worship" and that their religious officiants were "medicine men."

During the twentieth century the term "medicine men" went out of fashion and, where indigenous systems of spirituality are still practiced in the Amazon today, the majority of ethnographic and anthropological studies define the officiants as "shamans." This word is NOT derived from, or used, in any Amazonian language. It comes, instead, from the Tungus-Mongol noun *saman,* meaning, broadly, "one who knows."[7]

Its widespread use by anthropologists today—not only with reference to religious ritual functionaries in the Amazon but also to similar figures who are found in tribal and hunter-gatherer societies all over the world—has not come about because the Tungus mysteriously contacted and influenced other cultures but because Tungus shamanism was the first example of the phenomenon to be studied by European ethnologists. The Tungus word entered Western languages through their enthusiastic written reports and has subsequently continued to be applied in all parts of the world where systems very similar to Tungus shamanism have been found.

It is the shaman—usually a man but sometimes a woman—who stands at the heart of these systems. And what all shamans have in common, regardless of which culture they come from or what they call themselves, is an ability to enter and control altered states of consciousness. Often, but not always, psychedelic plants or fungi are consumed to attain the necessary trance state. Shamanism, therefore, is not primarily a set of beliefs, nor the result of purposive

study. It is, first and foremost, mastery of the techniques needed to attain trance and thus to occasion particular kinds of experiences—shamans call them "visions," Western psychiatrists call them "hallucinations"—that are then in turn used to interpret events and guide behavior:

> The true shaman must attain his knowledge and position through trance, vision and soul-journey to the Otherworld. All these states of enlightenment are reached … during a shamanic state of consciousness, and not by purposive study and application of a corpus of systematic knowledge.[8]

Such a method of knowledge acquisition seems absurd and fantastical to the "rational" Western mind. And indeed, underlying the whole notion of soul-journeys to the otherworld is a model of reality that is diametrically opposed in every way to the model presently favored by Western science. This remotely ancient shamanistic model holds our material world to be much more complicated than it seems to be. Behind it, beneath it, above it,

interpenetrating it, all around it—sometimes symbolized as being "underground" or sometimes "in the sky"—is an otherworld, perhaps multiple otherworlds (spirit worlds, underworlds, netherworlds, etc.) inhabited by supernatural beings. Whether we like it or not, we must interact with these nonphysical beings, which, though generally invisible and intangible, have the power both to harm us and to help us.

THE GEOMETRICAL PULSE

THE BIG PICTURE OF SHAMANISM, altered states of consciousness, and their immensely important place in the human story—was the focus of my 2005 book *Supernatural: Meetings with the Ancient Teachers of Mankind*.[9] I refer the reader to that book for a comprehensive

body of data that reinforces and underlines what I have to say in this chapter.

Meanwhile, the key point, standing right at the heart of the matter and nonsensical to "rational" Western minds, is the notion that the human condition requires interaction with powerful nonphysical beings. Across much of the Amazon the nexus that facilitates such interaction is the extraordinary visionary brew ayahuasca, a plant medicine that has been in use among the indigenous peoples of this vast region for unknown thousands of years. Its active ingredient, derived from the leaves of the chacruna shrub (botanical name *Psychotria viridis*) is dimethyltryptamine—DMT—an immensely potent hallucinogen. It is from the other ingredient, however, derived from the *Banisteriopsis caapi* vine, that the brew gets its name. The function of the ayahuasca vine in the brew is to transmit a monoamine oxidase inhibitor into the bloodstream of the recipient so that he or she may gain sustained access to the extraordinary effects of DMT—a substance that is normally neutralized in the gut

by the enzyme monoamine oxidase. There are other ways of accessing the visionary power of Amazonian plants rich in DMT—notably by snorting them as snuff—but the effects are short-lasting. Taken orally, in the form of the ayahuasca brew, however, the experience can last up to 6 hours, permitting a much more sustained and immersive trance "journey."

It is, in my view, a remarkable scientific feat that such a highly effective combination of just 2 out of the estimated 150,000 different species of plants, trees, and vines in the Amazon was discovered by mere trial and error. Nor if you ask Amazonian shamans, as I have done, how their ancestors made this discovery, will they admit to trial and error at all—or indeed to any other method that Western science would recognize as rational. What they claim, very simply—but unanimously—is that a variety of "plant spirits," among which ayahuasca is paramount, have taught them everything important they need to know about the properties of

other plants in the jungle, thus allowing them to make powerful medicines, to heal the sick, and, in general, to be good "doctors."[10]

Ayahuasca itself is said to be a "doctor," possessing a strong spirit, and is considered to be "an intelligent being with which it is possible to establish rapport, and from which it is possible to acquire knowledge and power."[11] The anthropologist Angelica Gebhart-Sayer, who studied the Shipibo-Conibo people of the Amazon, notes that under the influence of ayahuasca "the shaman perceives, from the spirit world, incomprehensible, often chaotic information in the form of luminous designs."[12] As Gebhart-Sayer sees it, it is the shaman's function to decode and "domesticate" this raw, unprocessed data beamed at him by the plant spirits by "converting it" into therapy for the tribe as a whole.

Very often these luminous designs, rich in data, take the form of **geometry**. I speak from experience, having participated in more than seventy ayahuasca sessions since 2003, continuing to work

with the brew for the valuable lessons it teaches me long after *Supernatural* was researched, written, and published. Here's part of my account of the first time I drank ayahuasca in the Amazon:

> I raise the cup to my lips again. About two thirds of the measure that the shaman poured for me still remains, and now I drain it in one draught. The concentrated bittersweet foretaste, followed instantly by the aftertaste of rot and medicine, hits me like a punch in the stomach. … Feeling slightly apprehensive, I thank the shaman and wander back to my place on the floor. …
>
> Time passes but I don't keep track of it. I've improvized a pillow from a rolled-up sleeping bag and I now find I'm swamped by a powerful feeling of weariness. My muscles involuntarily relax, I close my eyes, and without fanfare a parade of visions suddenly begins, visions that are at once **geometrical** and alive, visions of lights unlike any light I've ever seen—dark lights, a pulsing, swirling field of the deepest luminescent violets, of reds emerging out of night, of unearthly textures and colors, of solar systems revolving, of spiral galaxies on the move. Visions of nets and strange ladder-like structures. Visions in which I seem to see **multiple square screens** stacked side by side and on top of each other to form **immense patterns of windows arranged in great banks**. Though they manifest without sound in what seems to be a pristine and limitless vacuum, the images possess a most peculiar and particular quality. They feel like a drum-roll—as though their real function is to announce the arrival of something else.[13]

Other notes I made following my ayahuasca sessions in the Amazon refer to a "geometrical pulse,"[14] to "a recurrence of the geometrical patterns,"[15] to "a background of shifting geometrical patterns,"[16] and to "complex interlaced patterns of geometry. … I zoom in for a closer view. … They're rectangular, outlined in black, like windows. There's a circle in the centre of each rectangle."[17]

PATHS

THOSE SESSIONS TOOK PLACE IN January and February 2004 some years before I first learned of the existence of the great geometrical geoglyphs of the Amazon. The reader will understand, therefore, that when I began to research the glyphs in 2017 and to wonder about their meaning to whichever unknown peoples created them, it

was natural for me to consider ayahuasca as an inspiration. I can't confirm whether any circles within rectangles are among the more than 550 glyphs discovered by 2018, but Jacó Sá (where the Manchineri group brought by Saunaluoma and Virtanen reported sensations of being in an ancient ritual atmosphere) certainly gives us a circle within a square. And, while the geometrical patterns that I likened to "multiple square screens" and "banks of windows" might be described and manifested using very different materials in very different ways by people from different cultural backgrounds, what seems to stay constant throughout is the geometry.

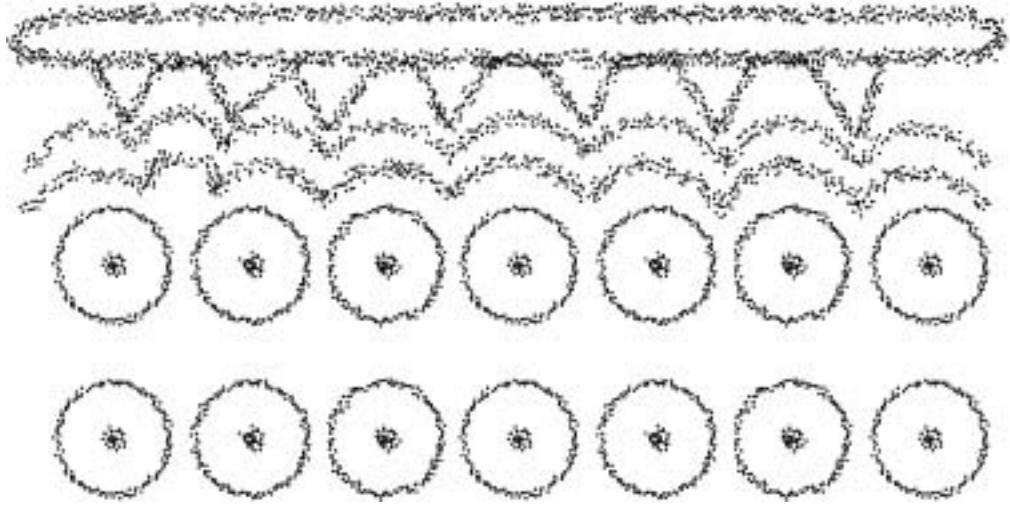

Tukano sand painting of patterns seen in an ayahuasca vision. (After G. Reichel-Dolmatoff, *The Shaman and the Jaguar*, 1975, p. 46.)

It is the fundamental motif of the earthworks but it turns up in much else besides—for example in the ayahuasca-inspired art of the Tukano of the Colombian Amazon (where the brew goes by the name of *yajé*).[18]

The Tukano create geometrical patterns and abstract designs in sand, on fabrics and musical instruments, on their houses and on the communal *malocas* where they consume *yajé*.[19] Colombian anthropologist Gerardo Reichel-Dolmatoff reported the results of an intriguing experiment he carried out in which he asked members of a Tukano community to make crayon drawings of what they saw when they were drinking *yajé*. (The drawings were of course made from memory, after the drinkers had returned to everyday consciousness.)

The results, broadly identical to the designs on the houses and fabrics, included a triangle flanked by vertical lines ending in spirals, a rhomboid, a rectangular design filled with parallel lines, patterns of parallel undulating lines drawn horizontally, a number of different oval- and U-shaped elements, rows of dots or small circles, a vertical pattern of little dots, grid patterns, zigzag lines, nested rectangles, nested parallel arcs (catenary curves), and so on.[20]

Significantly, the Tukano also paint identical shapes and patterns on rock faces in the hills of the northwest Amazon.[21]

More than seventy different indigenous Amazonian cultures use ayahuasca—many giving different names to the brew (*yajé, natema, caapi, cipo, shori,* etc.).[22] Since almost all report seeing geometrical visions, I wasn't surprised to discover that Saunaluoma and Virtanen were already far ahead of me in contemplating a connection between ayahuasca visions as expressed in indigenous art and the immense geoglyphs now emerging from jungle clearances along the southern rim of the Amazon.

Of the contemporary Manchineri, for example (who live much closer to the ancient earthworks than the Tukano), they note in a 2015 paper that "certain geometric motifs," often expressed in ceramics and body paintings, "have meaning as signs of specific ancestors. Some ancestors possess their own geometric designs that

may appear in shamanic *ayahuasca* visions, transmitting ancestral knowledge and power."[23]

They therefore conclude that "not only using but also constructing geometric earthworks may have been important social intra-group or inter-group events."[24]

In a follow-up paper, published in *American Anthropologist* in August 2017, Saunaluoma and Virtanen take their analysis much further, proposing that the geoglyphs "were systematically constructed as spaces especially laden with visible and invisible entities."[25] Their argument is that, regardless of scale or medium, the whole process of materializing visionary iconography, in particular geometric patterns, is "related to the fluid forms inhabiting the Amazonian relational world. Different designs 'bring' the presence of nonhumans to the visible world of humans for a number of Amazonian Indigenous peoples, while perceiving geometric designs in Amerindian art as paths from one dimension to

another allows a viewer to shift between different worlds, from the visible to the invisible."[26]

Citing the work of their colleague Luisa Belaunde, Saunaluoma and Virtanen note that for the Shipibo-Conibo of the Peruvian Amazon, "the lines embody a package of ways in which beings move, travel, communicate between themselves, and transmit knowledge, objects, and powers. These paths exist everywhere, from macro to micro scales. Geometric designs are thus about certain ways of thinking, perceiving, and indicating invisible aspects so they can be seen."[27]

Saunaluoma and Virtanen further establish that, to the Shipibo-Conibo, the geometric lines open "a window to the macrocosmos" and allow "macrocosmic order" to be "iconically sketched in the microcosmos here, in landscape designs."[28]

As above, so below.

PORTAL

BY TAKING THE WORLDVIEW, INSIGHTS, and philosophies of indigenous peoples seriously in efforts to understand their past, Saunaluoma and Virtanen's research marks a refreshing change of note for Western science and offers rewarding insights into the realm of ideas underlying the geoglyphs. It is by no means a realm of "primitive" ideas. On the contrary: with its notions of pathways between dimensions, and of making visible the presence of usually invisible entities, there are aspects of thought surrounding the traditional use of ayahuasca that would not be out of place in a quantum physics laboratory.

Once again I suggest we are looking at the remnants of an advanced system that propagates itself through time and across cultures with powerful memes among which geometry and cosmic alignments take a large share. We do not know where or when this

system originated. In the ancient Amazon, however, to a greater degree than anywhere else, its dissemination became integrated with the use of vision-inducing plants—and there, up to the present day, the secrets of how to use these plants have been preserved and passed down within indigenous shamanic traditions.

The origin myth of the Tukano speaks of the time, eons ago, when humans first settled the great rivers of the Amazon basin. It seems that "supernatural beings" accompanied them on this journey and gifted them the fundamentals upon which to build a civilized life. From the "Daughter of the Sun" they received the gift of fire and the knowledge of horticulture, pottery-making, and many other crafts. "The serpent-shaped canoe of the first settlers" was steered by a superhuman "Helmsman."[29] Meanwhile other supernaturals "travelled by canoe over all the rivers and … explored the remote hill ranges; they pointed out propitious sites for houses or fields, or for hunting and fishing, and they left their lasting imprint on many

spots so that future generations would have ineffaceable proof of their earthly days and would forever remember them and their teachings."[30]

The slow, methodical progress of the serpent canoe, setting down its cargo of migrants here and there, explains anthropologist Gerardo Reichel-Dolmatoff:

> Was marked not only by the successive spots of debarkation but also by an advancing scale of human achievement. …
>
> The rules for the initiation into shamanism were laid down, accompanied by a large body of prescriptions, regulations and prohibitions that, from now on, were to guide and govern the life of the people.
>
> But above all … if mankind was to prevail and survive as part of nature, and was to pass on a true legacy to new generations, people had to assume responsibilities and find ways to control the organization of society so as to procure a balance between human needs and the resources available in nature.[31]

In this period "the spirit-beings prepared the land so that mortal human creatures might live on it."[32] Once that task had been

completed, however,

> the supernatural beings returned to their otherworldly abodes. Before leaving … they took care to provide mankind with the means of communication, of establishing contact with them whenever there should be need. Mortal men could not be left alone without the possibility of communing with the spirit-world. … It was essential, then, for the welfare of mankind to have at its disposal a simple and effective means by which, at any given moment, an individual or a group of people could establish contact with the supernatural sphere.[33]

It is rather brutally to compress many colorful and thought-provoking details to say that at the end of the lengthy myth, the "effective means" of contacting the spirit-world turns out to be … ayahuasca:

> A plant that opened the door into another dimension, a drug that produced visions in which the spirit-beings revealed themselves to men—talking, teaching, admonishing and protecting.[34]

There are multiple different elements intertwined in the Tukano story but three of them stand out for me.

First, what's being described is dressed up in the language and imagery of myth and may of course be "just a myth." What it sounds like, however, is a mythologized account of a settlement mission in the Amazon in which a group of migrants were accompanied by a number of more sophisticated people considered to be "supernatural" or "superhuman."

Though I don't want to put undue weight on it, I would be negligent if I failed to mention in passing that the Tukano, and the closely related Barasana, are among a number of Amazonian tribes whose distinctive "men's cults" are paralleled by virtually identical institutions in Melanesia, on the opposite side of the Pacific Ocean. As the reader will discover in appendix 1, the same secrecy surrounding male initiation rituals is found in both areas, the same exclusive possession of sacred flutes and trumpets that women are

forbidden to see,[35] the same belief that there was a time when women dominated men, and the same belief that men, either by trickery or force, had subsequently wrested power from women.

Second, the Tukano origin myth makes it completely clear that the "supernaturals" departed after they had completed their work of preparing the Amazon for settlement by the migrants in the serpent canoe.

Third, we are led to understand that direct contact between humanity and the spirit world would thereafter be broken. However a portal—ayahuasca—through which humans could still travel to the spirit world, and benefit from its teachings, would be left open.

THE LEAP TO THE MILKY WAY

ALTHOUGH ANY MEMBER OF THE Tukano community may drink ayahuasca, the deeper mysteries of the brew are primarily the work of the shaman—the *payé*—whose responsibility it is to travel through the portal whenever required to negotiate with powerful supernaturals on behalf of his community. Where matters of the greatest importance must be resolved, a group of *payé* will work together, consuming massive quantities of ayahuasca until they reach a point, lying in their hammocks, where they

> feel they are ascending to the Milky Way. … The ascent to the Milky Way is not easily accomplished. An apprentice will hardly ever be able to rise immediately to this … region but rather will learn to do so after many trials. At first he will barely rise over the horizon, the next time perhaps he will reach a point corresponding to the position of the sun at 9 a.m., then at 10 a.m., and so on until at last, in a single, soaring flight, he will reach the zenith.[36]

In summary, therefore, the shaman's visionary journey through the ayahuasca portal involves a leap or, after sufficient practice, a "soaring flight," to the Milky Way. It is not the final goal, however,

but a way station. “Beyond the Milky Way” lies the entrance to the Otherworld. As Reichel-Dolmatoff explains:

> It is said that the individual “dies” when he drinks the potion and that now his spirit returns to the uterine regions of the Beyond, only to be reborn there and to return to his ordinary existence when the trance is over. This then is conceived as an acceleration of time, an anticipation of death and rebirth.[37]

HIDDEN HAND

THE TUKANO OTHERWORLD IS DIVIDED into regions or districts and one of these, of particular interest to shamans, is the domain of *Vai-mahase,* the supernatural “Master of Animals.” It is a strangely geometrical “hill” in the form of a square with its four sides oriented to the cardinal directions.[38]

Is it an accident that geometry arises spontaneously in ayahuasca visions? And is it an accident that it does so not only among Amazonian peoples in the Amazon itself, but—as my own experiences and multiple scientific studies have proved—among peoples from industrialized cultures as well?[39] Whether you drink the brew in the rainforest, or in New York, London, Frankfurt, or Tokyo, it is a plain fact that sooner or later you are going to see geometry.[40]

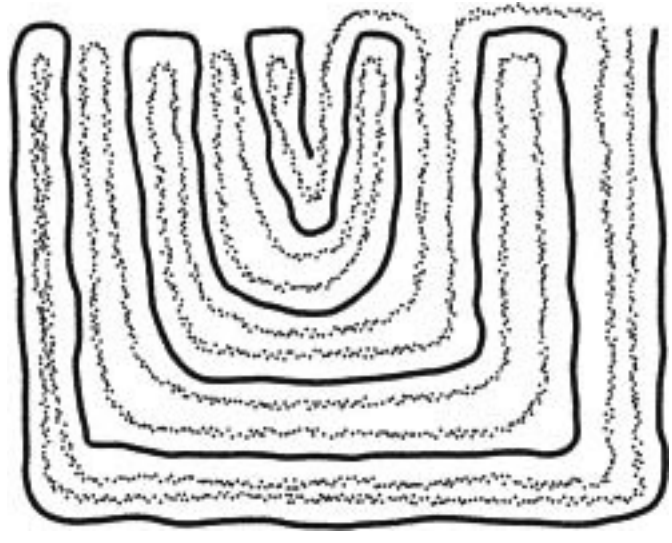

Entrance to the "Otherworld" as depicted in Tukano visionary art. (After G. Reichel-Dolmatoff, *The Shaman and the Jaguar,* 1975, p. 174.)

Is the presence of some deeper enigma hinted at here—an enigma that the ancients had plumbed when they devised their memes and sent them ringing down the ages? Just because our high-tech civilization has demonized psychedelics for the last 50 years doesn't mean that other societies in the past did so. Indeed it's likely that

these powerful agents of transformation were used by ancient civilizations for profound and far-reaching inquiries into aspects of reality about which our own high-tech civilization remains willfully ignorant.[41]

We've seen that ayahuasca has many different names among the many different peoples who use it across the Amazon, but the word *ayahuasca* itself is from the Quechua language of the high Andes overlooking the western edge of the Amazon basin. This is the language that was spoken by the remarkable Inca civilization of Peru in the few short centuries before its destruction by the Spaniards. In that language what *ayahuasca* means is the "Vine of the Dead" or the "Vine of Souls."

The memes of geometry and cosmic alignments are not the only ones to have propagated from a so far unidentified common source. Intimately connected to them are other ideas that went "viral" in

both the Old World and the New, and that therefore somehow transcended the Ice Age separation of peoples.

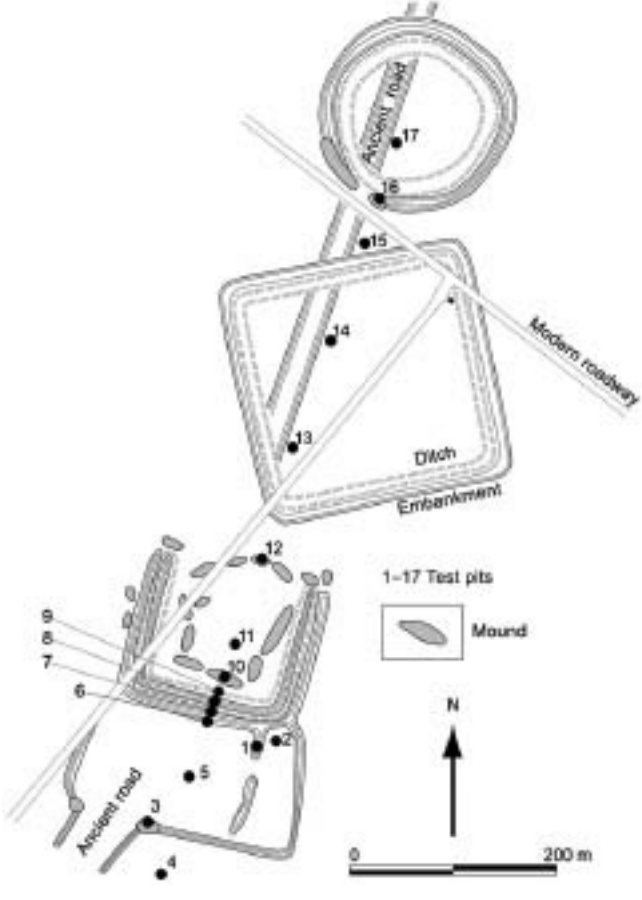

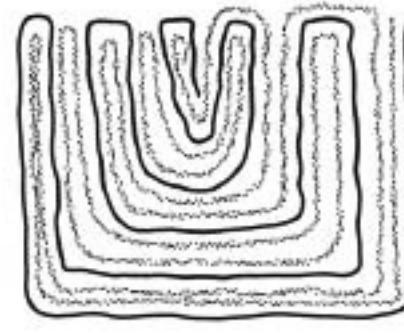

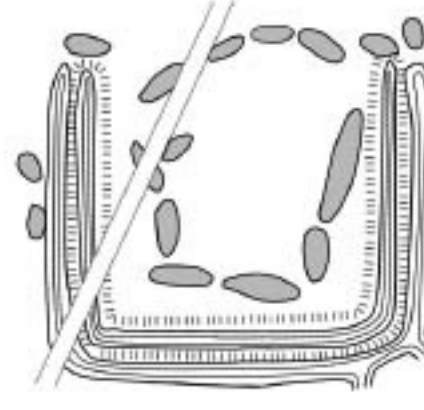

LEFT: Plan (by Martti Pärssinen) of Fazenda Colorada, Upper Amazon Basin geoglyph site (see chapter 16). TOP RIGHT: Tukano visionary art depicting the entrance to the "Otherworld," said to lie "beyond the Milky Way." BOTTOM RIGHT: Detail (rotated) from Fazenda Colorada.

The central focus of all these ideas concerns the mystery of death, and anthropologists have long been aware that the Quechua name ayahuasca is entirely appropriate since "in the indigenous context Ayahuasca is intimately related to death."[42]

In parts 5 and 6 our investigation returns to North America, where eerie doppelgängers of the great earthworks of the Amazon haunt the Mississippi Valley. As we'll see, it's almost as though what we're dealing with are the faint surviving traces of an immensely ancient and deeply thought-through system of knowledge and initiation, perhaps arising from direct investigations using vision-inducing plants, in which profound notions of the afterlife destiny of the soul were stitched together with the geometry and cosmic alignments into a single "blueprint" that was then

hastily replicated and urgently distributed to the remotest corners of the earth.

PART V

STUFF JUST KEEPS ON GETTING OLDER

The Mystery of the Primeval Mounds

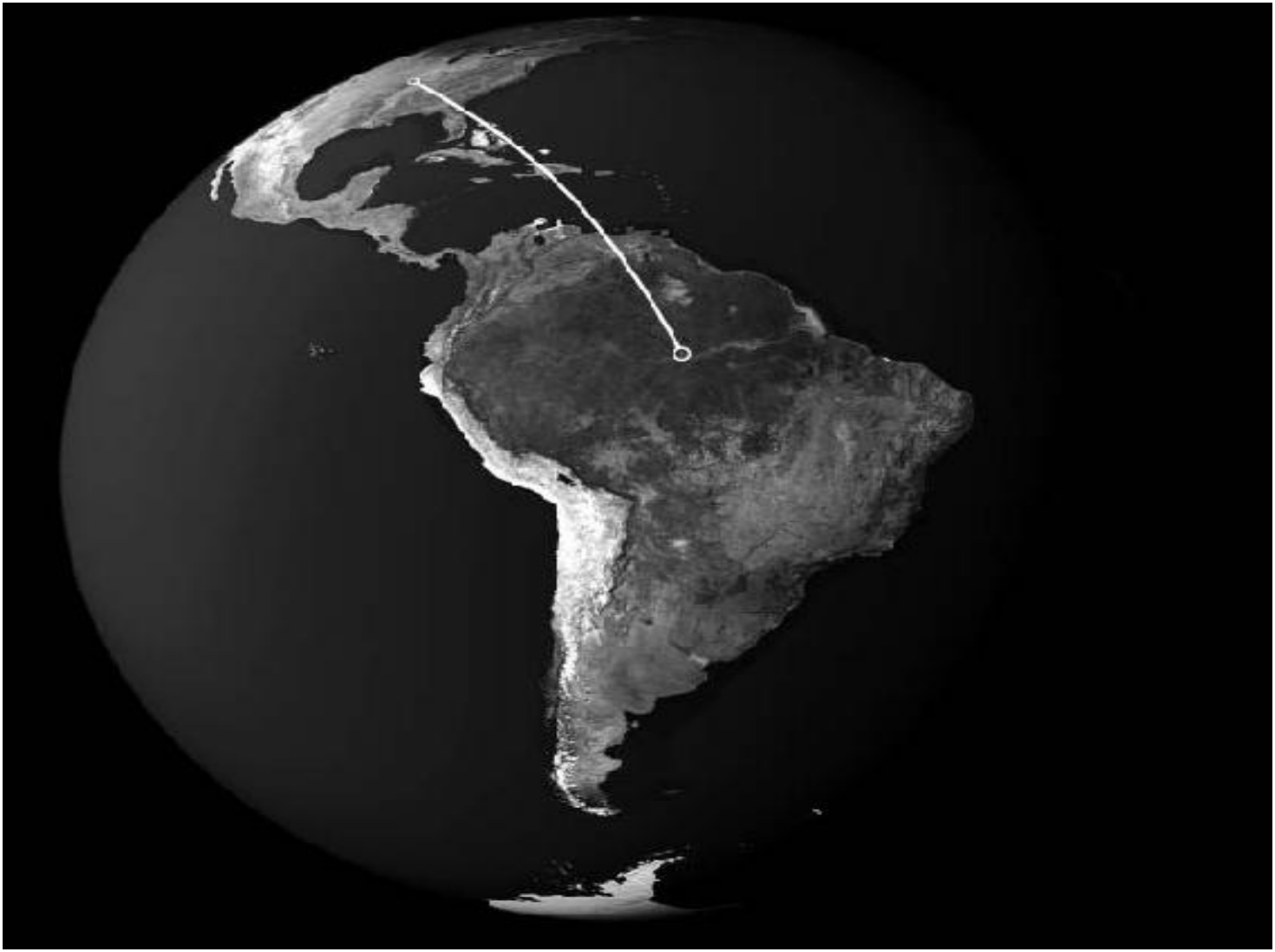

Six thousand kilometers as an aircraft flies from the heart of the Amazon to the heart of the Mississippi.

18

SUN

FROM THE CITY OF MANAUS, at the heart of the Amazon River basin in South America, it's a journey of about 6,000 kilometers by air to reach the city of St. Louis in the heart of the Mississippi River basin in North America. On the way you'll cross the Equator and the Tropic of Cancer. Google informs me that the flight time will be about 11 hours, including a stopover in the Dominican Republic.

It wasn’t so simple in the ancient world. Although sections of the journey could have been made by sea most of the route would have been overland through some geographically very challenging parts of Central America and involving, ultimately, much more than 6,000 kilometers.

This is not to say that such a great distance must necessarily have ruled out any communication and interchange between the two regions. On the contrary, it is not in dispute that the peoples of South and North America are more closely related genetically to each other than they are to anyone else, that there are some linguistic connections, and that crops such as maize or manioc that had been domesticated in one region were also grown in the other—though sometimes with a significant time lag. In summary, the evidence confirms that there were contacts but it also suggests that they were random and infrequent rather than regular and sustained.

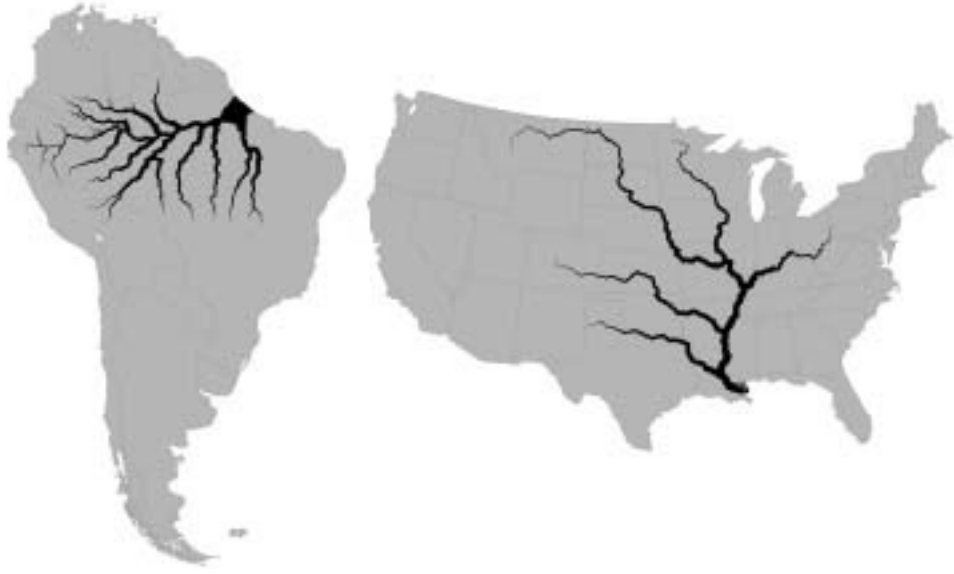

The two giant river basins of the Americas (note, maps not to scale). The Amazon River basin (left) has a total area of 7.5 million square kilometers. The Mississippi River basin (right) has a total area of 2.9 million square kilometers.

What, then, are we to make of the fact that stunningly similar earthworks repeating stunningly similar geometric themes on a

stunningly similar scale to those of the Amazon River basin are also found in the Mississippi River basin?

Are the resemblances coincidental?

Or did they arise during one of the random and infrequent episodes of contact?

Or is there some other explanation?

It's June 14, 2017, a week before the summer solstice, and I'm chewing over these questions with Santha while we stand on top of an earthwork called "Monks Mound" at the sacred heart of the ancient Mississippian city of Cahokia.

Looking southwest from this vantage point what stands out, about 8 miles away, are the twin A-shaped support towers and cable ties of the Stan Musial Veterans Memorial Bridge, joining Illinois to Missouri across the Mississippi River, and a couple of miles farther south along the Mississippi waterside the glittering, stainless-steel Gateway Arch of the city of St. Louis. Conceived as "a public memorial to the men who made possible the western territorial

expansion of the United States,”[1] the arch reaches a height of 630 feet and is claimed to be the tallest man-made monument in the Western Hemisphere and the tallest arch in the world.

The contrast between old and new is abrupt—for the ancient mounds and earthworks of the Mississippi Valley, even gigantic sites like Cahokia, have an understated quality. They don’t radiate the brash and boastful self-importance of so many of our modern structures—such as the skyscraper One Metropolitan Square, which at 593 feet high seems to do battle with the Gateway Arch to dominate the St. Louis skyline. Neither do they overwhelm you with their grandeur and their majesty, like the pyramids of ancient Egypt and Mexico. Nor do they wear their mysteries in full view like the great moai of Easter Island. Instead an elegant synthesis between heaven and earth seems to have been sought out. In consequence even Monks Mound, on the 100-foot-tall summit of which we’re

now standing, is so seamlessly integrated with its setting that it seems almost as much a work of nature as of man.

Indeed this was precisely the view of Dr. A. R. Crook, director of the Illinois State Museum and a geologist by training, who undertook the first "scientific" investigations of Monks Mound in 1914. His theory, shared by many of his colleagues at the time and perhaps colored by an underlying prejudice that prehistoric Native Americans would not have been capable of building on such a scale, was that the mounds of Cahokia were entirely natural "erosional remnants." In 1914 Crook drilled twenty-five shallow augur holes into the north face of Monks Mound, found nothing to change his view and—as late as 1921—was continuing to declare, as though it were an established and objective fact, that the mounds were merely glacial and alluvial deposits and thus of no archaeological interest.[2]

This mattered because other, wiser, scholars were already absolutely certain that the Cahokia complex was man-made and of

outstanding archaeological interest and had mounted a campaign to save the mounds from further destruction at the hands of farmers and industrialists. Crook's claims that they were natural formations were therefore most unhelpful and had to be refuted before further progress could be made.

This challenge was duly taken up by archaeologist Warren T. Moorehead, who joined forces with geologist Morris Leighton to undertake a much more thorough investigation of the mounds in 1922 than Crook had mounted in 1914. After several test pits had been dug on the Fourth Terrace and on the east side of Monks Mound, including auguring to a depth of 20 feet, the results, in the form of artifacts and exposed construction levels, were too conclusive and compelling to be dismissed.[3] Even Crook was convinced and thereafter abandoned his position that the mounds were natural features[4]—a position that today, in the light of

subsequent extensive excavations around Cahokia and at Monks Mound, seems absurd.

Nonetheless, there remain many who would seek by one means or another to take Cahokia away from the Native Americans who built it. Since it can no longer be credibly claimed as a natural erosional feature, the fallback position, popular in the late nineteenth and early twentieth centuries but repeatedly returned to even now, is that the great city, and others like it up and down the Mississippi Valley, must have been the work of some superior "master-race" of white-skinned foreigners who reached America in antiquity and built the mounds with their advanced skills and techniques but were then driven off or wiped out by native "savages."[5]

Frequently compounded by rumors of "giants" or "aliens," such reasoning has already been comprehensively refuted by excavations proving to the satisfaction of anyone capable of logical thought that

the mounds, including Monks Mound—that "stupendous pile of earth" as one early explorer described it[6]—are indeed the work of Native Americans.[7]

The very name of the great mound, however, demonstrates the effects of the ongoing casual misappropriation of indigenous achievements. It bears that name simply because a group of Trappist monks—immigrants from France—grew vegetables on its terraces for a few years either side of AD 1810,[8] but it was built around AD 1050 by the Native American civilization archaeologists call the Mississippians.[9]

We don't know what the people of that civilization called themselves and we don't know what they called Monks Mound. We do know, however, that they thought and worked on a grand scale, as I shall show, and that they made use of the same kinds of geometry and astronomy deployed at Serpent Mound, 420 miles to

the east, and in the great earthworks and mounds of the Amazon thousands of miles to the south.

TWO VALLEYS

DESPITE THE PROMISING CLUES OFFERED by ethnographic research into the likely role played by vision-inducing plants and shamanic experiences, the fact remains that we are confronted across huge expanses of the Amazon by such severely limited archaeological data that it's impossible to give responsible, informed answers to three fundamental questions:

- What motivated the creation of the mounds and geoglyphs?
- When were the very first structures of this kind made?

- Where and how were the requisite design, planning, engineering, and architectural skills developed?

In the Amazon, on all three counts, we simply don't know. Moreover, our ignorance is compounded by the absence of any detailed geometrical or archaeoastronomical surveys of the earthworks and mounds thus far discovered and by the fact that millions of square kilometers of the rainforest have never been studied by archaeologists at all.

It's quite a different story in the Mississippi Valley, which is not veiled by vast areas of near-impenetrable jungle and where mounds and earthworks remarkably similar to those now coming to light in the Amazon have been the subject of more than 170 years of intensive archaeological investigation.[10] Because they were always in plain view, however, and because they often occupied land that was desirable for agricultural or industrial purposes, the vast majority of the immense prehistoric structures of the Mississippi

Valley no longer exist. An estimated 90 percent are gone—either partially or completely demolished and cleared away in the obliteration of North America's past that began with the European conquest.

So just as archaeologists in the Amazon have only a limited database from which to construct their theories, because the jungle covers so much, it's also the case that archaeologists in the Mississippi Valley have only a limited database because so much has been destroyed. Still, they've achieved a great deal with the roughly 10 percent of the original total of sites that have survived and it may not be too much to hope that their discoveries could shed light on the mysterious counterpart mounds and earthworks of the Amazon.

EARTH ISLAND, SKY WORLD

FROM CHAPTER 16, THE READER may recall Severino Calazans, an Amazonian earthwork with the same 13-acre footprint and the same orientation to the cardinal directions as the Great Pyramid of Giza. Though rectangular rather than square (910 feet from north to south and 720 feet from east to west), Monks Mound has a 14-acre footprint.[11]

Considered as a pyramid—and it is indeed a form of step pyramid—it comes third in the Americas after the Pyramid of Quetzalcoatl at Cholula and the Pyramid of the Sun at Teotihuacan,[12] both of which are stone-reinforced monuments and significantly taller.

Considered an earthwork, and echoing that early explorer's report, Monks Mound has been described as "stupendous in many ways. It is the tallest mound, covers the most area and contains the most volume of any prehistoric earthen monument in the Americas."[13] It is, moreover, part of a giant complex with multiple different elements including more than 100 subsidiary earthen

mounds, the archaeological traces of what was once a spectacular circle of huge wooden posts (known as Cahokia's "Woodhenge"), a spacious central plaza, and an 18-meter-wide, 800-meter-long earthwork causeway running arrow-straight between raised embankments.

Enigmatically, but quite deliberately set to an azimuth of 005 degrees—that is, 5 degrees east of true north—it is this causeway, referred to by archaeologists as the "Rattlesnake Causeway," that defines Cahokia's principal axis,[14] giving the site a certain ambiguity and adding to its air of mystery. Every mound and earthwork is set out upon the ground in strict relation to it, with clusters of structures, dominated by Monks Mound itself, running south to north and other clusters running west to east.

It's easy to understand, then, why the first and most powerful impression I get overlooking this massive ancient site from the top of Monks Mound is of its distinct "cardinality." Exactly as is the

case at Giza and Angkor—both of which are aligned within fractions of a single degree to true north—so, too, here at Cahokia. Despite its puzzling 5-degree offset there's no mistaking where to look for the cardinal directions. Something about the place—something intended and carefully thought through by its original designers—immediately connects you to both earth and sky.

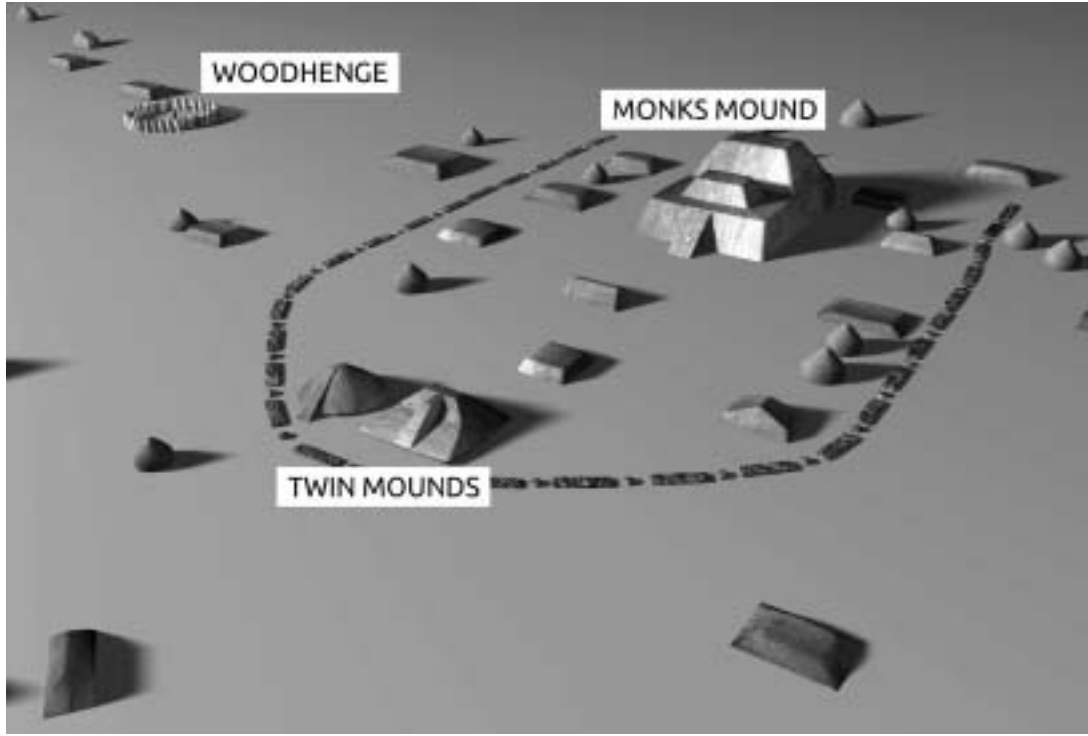

Detail of Monks Mound and some of its immediately adjoining structures.

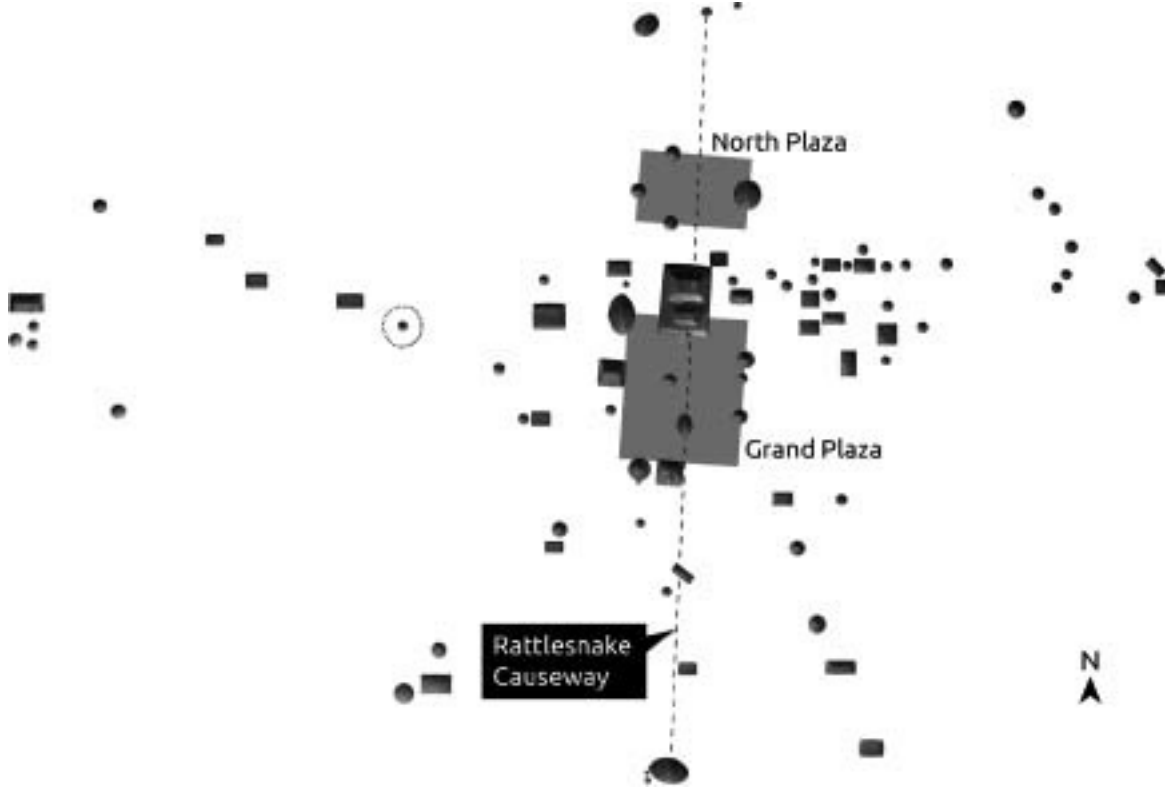

Running through the Grand Plaza and Monks Mound, and extending northward beyond Monks Mound, the Rattlesnake Causeway defines Cahokia's 5 degrees east of north axis.

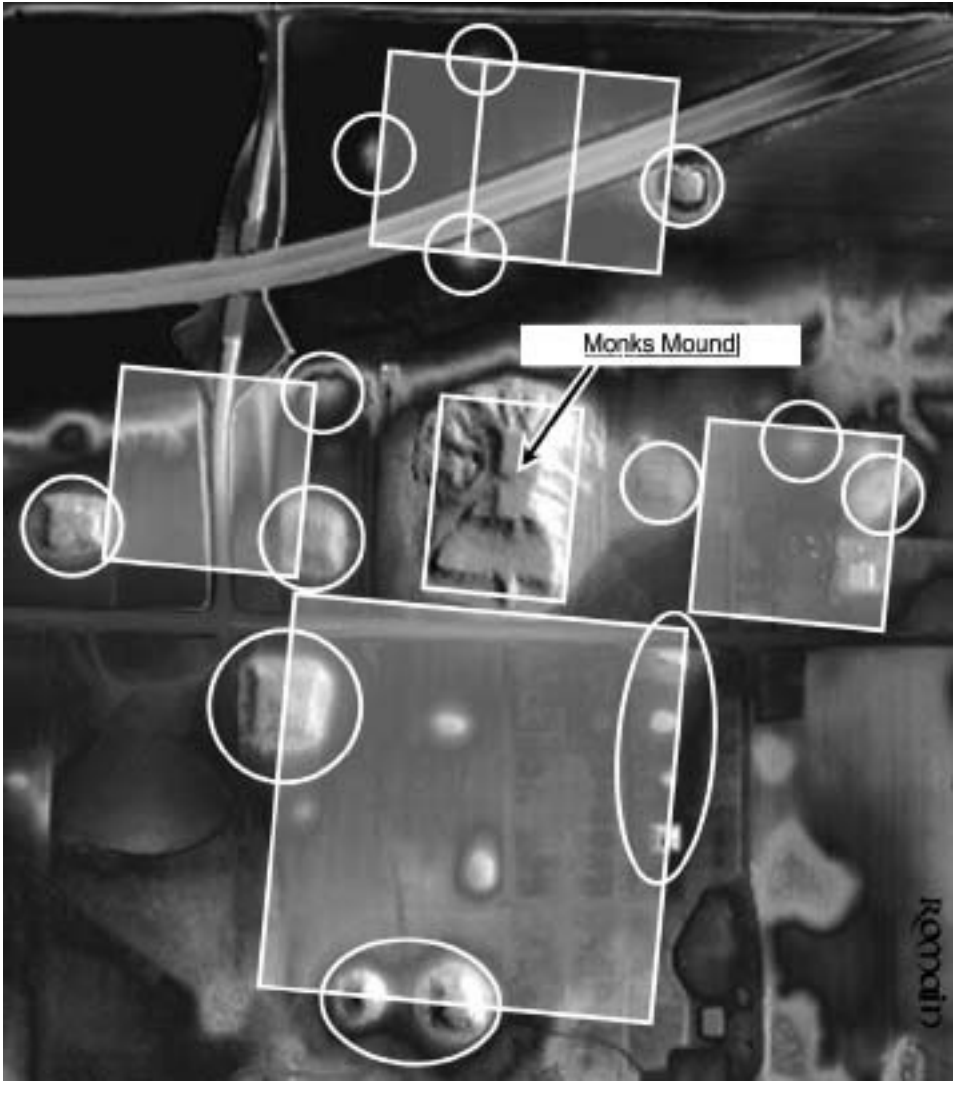
Monks Mound
Romain

Lidar image reveals how Monks Mound is bounded by plazas and other significant structures on its north, south, east, and west sides. IMAGE BY WILLIAM ROMAIN.

This sense of terrestrial and cosmic connectedness is among several cogently argued reasons why archaeologist William Romain, whose work at Serpent Mound we encountered in part 1, considers Monks Mound to have been conceived by its designers as a true "axis mundi"—intended to serve as a junction point between heaven and earth. He reminds us of the traditional shamanistic spiritual system of the Native American peoples of the Eastern Woodlands—the region of Cahokia. According to this system, the universe is comprised "of an Above World, This World, and Below World. … Connecting these realms is a vertical vector … the axis mundi that enables shamans to move between cosmic realms. … The axis mundi can be symbolically represented by any number of vertical elements such as a pole, tree, column of smoke, mountain, pyramid, or mound."[15]

Monks Mound has the look of a small mountain, Romain observes. It dwarfs everything in the surrounding landscape and utterly dominates Cahokia. This character of "verticality" is enhanced by the local topography of the Mississippi floodplain, which would have ensured that the Grand Plaza was regularly, if shallowly, inundated. Out of the watery, marshy realm thus created, Monks Mound would have seemed to rear up in numinous and mythic power and was perhaps, Romain writes:

> imagined as an earth island. … If the Below World as represented by the wetlands, swamps, lakes, and man-made water features surrounding central Cahokia is a watery world, then it is appropriate that in its verticality, Monks Mound would be the structural axis mundi linking the watery Below World to the Above Sky World.[16]

Interestingly, and again despite the 5-degree offset from true north so firmly declared by Cahokia's principal axis, the largest known building of the Mississippian civilization was erected on the

apex of Monks Mound and in this case was precisely aligned to the cardinal directions.[17] Its long axis, measuring 30.85 meters, was set perfectly east–west; its short axis, measuring 13.85 meters, was set perfectly north–south.[18]

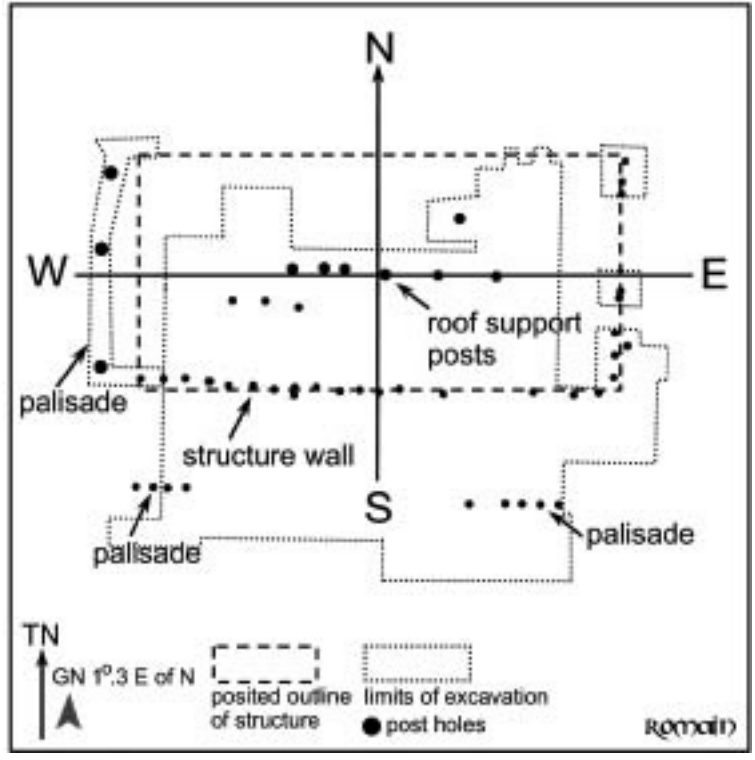

Archaeologists have established that a large structure, perfectly aligned to the cardinal directions, once stood on the summit of Monks Mound. IMAGE BY WILLIAM ROMAIN.

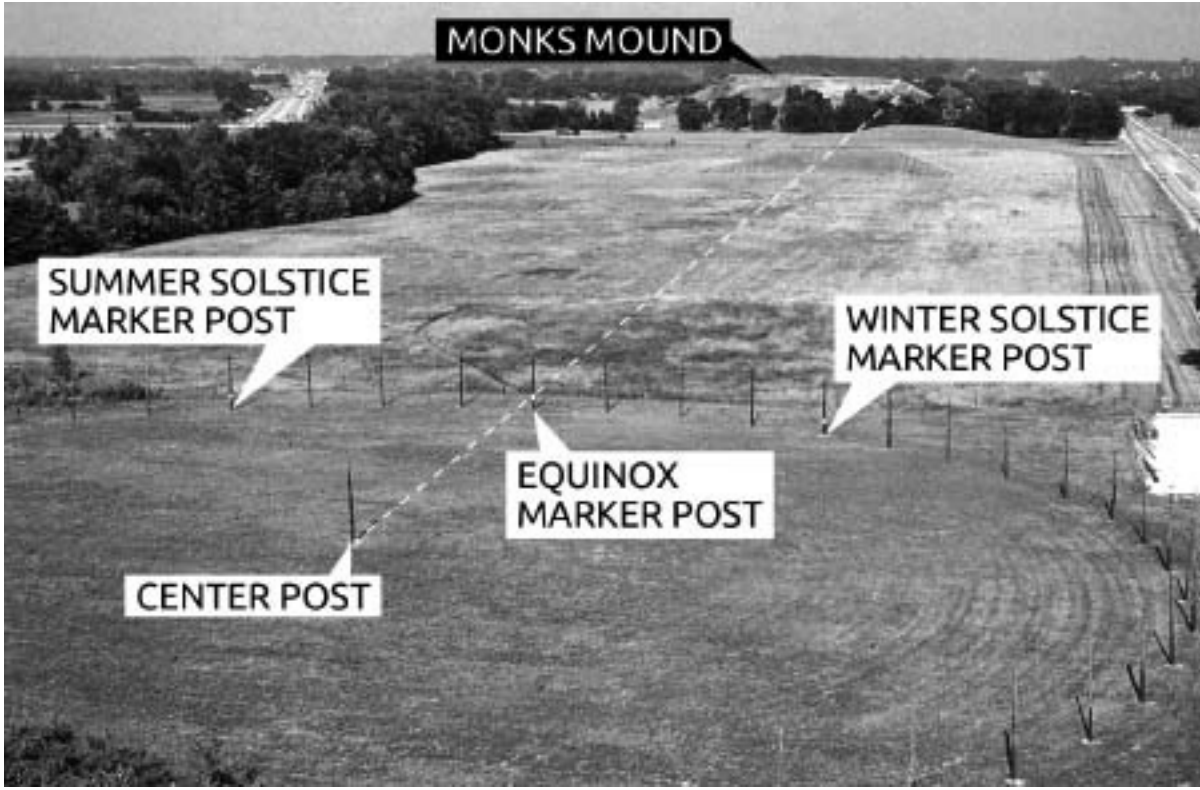

The workings of Cahokia's Woodhenge. PHOTO BY WILLIAM ISEMINGER; ANNOTATIONS BY WILLIAM ROMAIN.

Romain also draws our attention to "the powerful visual hierophany" that would have been witnessed at the spring and fall equinoxes when Cahokia was in its prime, locking the site in to key conjunctions of heaven and earth. It was in the staging of this hierophany that the site's "Woodhenge" played its most crucial role. Re-created with a modern simulacrum for the benefit of the 300,000 tourists who now visit Cahokia each year, and named after the similar prehistoric circle of huge wooden posts that stood on England's Salisbury Plain close to the world-famous site of Stonehenge before the stone circle itself was completed, Cahokia's Woodhenge lies some 850 meters west of Monks Mound. Its existence remained unsuspected until the 1960s when archaeologist Warren Wittry found traces of immense postholes. Subsequent excavations revealed that no fewer than five woodhenges had been built on the same site over a period of a couple of centuries in order

to accommodate increases in the size and shape of the Mound itself, which affected crucial solar sight lines.

Rotraud

Equinox sunrise above the slope of the southern terrace of Monks Mound.
PHOTOGRAPHED FROM WOODHENGE BY WILLIAM ROMAIN.

The objective of every realignment and rededication was that an observer at the center of the post circle, looking due east across the "front sight" of a specially placed equinox marker post, should see the sun's disk appear above the slope of the southern terrace of Monks Mound—an arrangement, says Romain, that establishes an east–west solar-oriented line across the entire Cahokia complex:

> The result is that Monks Mound is visually connected to the Above World vis á vis the rising sun and its location on the east–west sightline that intersects the major site axis. In this way, Monks Mound is positioned at a center place.[19]

That assertion and manifestation of centrality is reconfirmed by two other posts at Woodhenge that serve as front sights targeting the horizon azimuths of the summer and winter solstice sunrises.[20]

ENTER THE MOON

THE CIRCLES, RECTANGLES, AND SQUARES of Cahokia, the solstitial and equinoctial alignments, and the perfect cardinality of the large structure that once stood atop Monks Mound are among the hallmarks of the same distinct pattern of geometry and astronomy that we find in the Amazon earthworks.

Unexplained so far, however, is why Cahokia's designers made a deliberate choice **not** to align the main axis of their premier site to the cardinal directions of earth and sky but instead chose to offset it by 5 degrees east of true north?

It's a question to which William Romain offers an intriguing answer. The builders of Cahokia, he argues, were geometricians who made use of a special rectangle, known as a "root-2 rectangle," in planning the layout of the city.

He gives much supporting evidence for this claim, which need not detain us here.[21] Nor do we want to get bogged down in unnecessary technical detail. In brief, however, a root-2 rectangle is constructed by extending the opposite sides of a square to the length of the square's diagonal. If you take such a rectangle, orient it to true north (0 degrees azimuth), and then rotate it eastward by 5 degrees to match the azimuth of Cahokia's principal axis, its diagonals turn out to align closely with important solar and lunar events as viewed from Monks Mound—specifically, **the summer solstice sunrise** at azimuth 59.7 degrees, **the winter solstice sunset** at azimuth 239.3 degrees, **the moon's maximum southern rising position** at azimuth 130.1 degrees, and **the moon's maximum northern setting position** at azimuth 307.1 degrees.

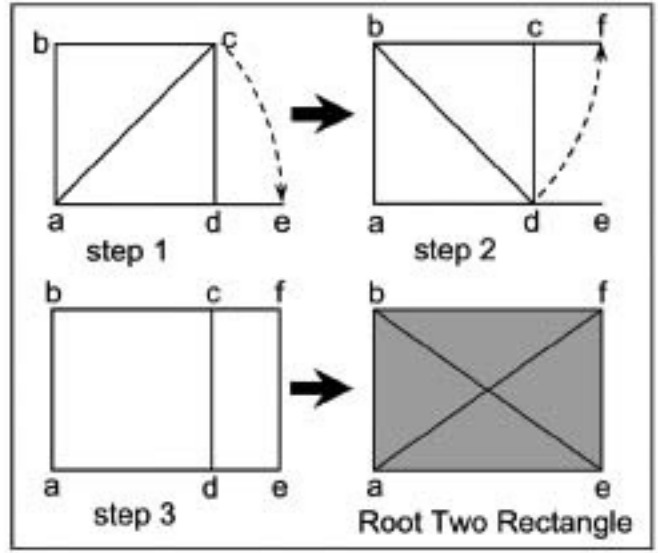
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Root Two Rectangle

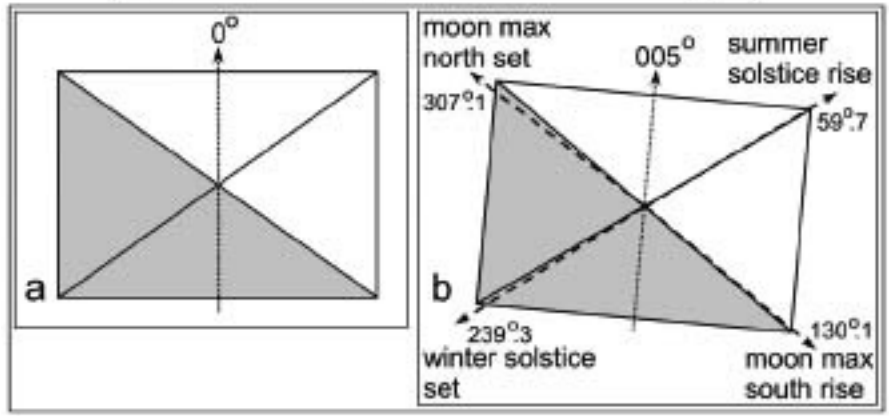
0°
a
moon max
north set
307°.1
005°
summer
solstice rise
59°.7
b
239°.3
winter solstice
set
130°.1
moon max
south rise

The match, Romain admits, “is not perfect. A couple of the celestial azimuths differ from the diagonals of the root two rectangle by 2 to 3 degrees. But since the rectangle is not intended for observational purposes it is perhaps close enough to symbolically represent the complementary opposite relationships of the sun and moon.”[22]

If Romain is right, then it appears that sophisticated astronomical and mathematical ideas, combined with complex and cleverly thought through symbolism, were already present, fully worked out, and in the hands of competent professionals when Cahokia underwent what archaeologists call its “big bang”—an explosive period of expansion and development—around AD 1050.[23]

Is there evidence that such ideas were deployed elsewhere in North America before Cahokia?

19

MOON

WILLIAM ROMAIN'S CASE THAT NOT only solar but also lunar connections were mediated through geometry in the alignments of Cahokia is strengthened by the fact that other significantly older earthwork sites, most of which were destroyed by "development" in the nineteenth and twentieth centuries, were built in the Mississippi River basin incorporating complex geometries based almost

exclusively on lunar alignments. Two of the most significant such sites to have survived, at least in part, into the twenty-first century are the High Bank Works and Newark Earthworks, both in Ohio. High Bank Works is located near the town of Chillicothe, about 40 miles northeast of Serpent Mound, and Newark Earthworks stands about 60 miles farther to the northeast near the town of Newark.

Both are true geoglyphs in the Amazonian sense, being formed by embankments and ditches set out on such a gigantic scale that their shape is not evident at ground level and can only be discerned clearly from the air.

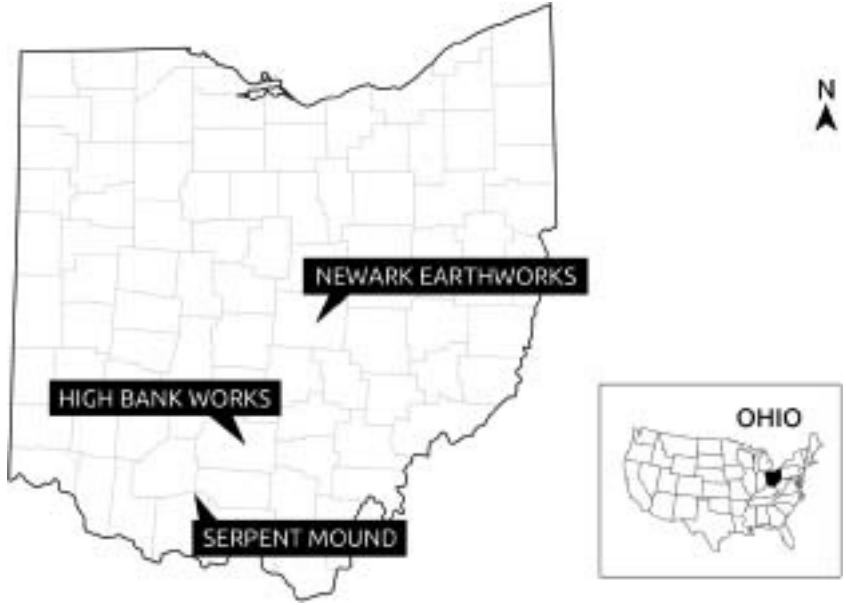
N
NEWARK EARTHWORKS
HIGH BANK WORKS
SERPENT MOUND
OHIO

This 1934 aerial photograph shows the Circle-Octagon combination of the Newark Earthworks. Those parts that still survive are now largely contained within a private country club that includes an eighteen-hole golf course and promotes itself as "unlike any other in the world. It is designed around famous prehistoric Native American Earthworks that come into play on eleven of the holes."

Both are dominated by immense octagon-circle combinations linked by short causeways amid assemblies of other geometrical figures. Both are currently thought to date to between AD 250 and 400.[1] Both are attributed to a culture that archaeologists have named the "Hopewell"—after a certain Captain M. C. Hopewell, who happened to own a farm in the right place when excavations began.[2]

Newark and High Bank were first professionally surveyed in the mid-nineteenth century when numerous mounds—most subsequently leveled for plowing or industrial purposes—were reported to be situated within the geometrical earthworks.[3] It may therefore be relevant to recall at this point that many of the

Amazonian geoglyphs described in chapter 15 also contain mounds—for example, eleven arranged in a circle within an immense enclosure in the Upper Tapajos Basin,[4] the "two high mounds, standing like towers" at the southwestern entrance of the trapezoidal earthwork at Fazenda Colorada,[5] the twenty-five adjoining mounds of Fazenda Iquiri II,[6] and the ten surviving mounds of Coqueiral.[7]

Whereas no archaeoastronomical survey of the Amazonian earthworks has yet been attempted, Cahokia and Serpent Mound have both been subject to intense scrutiny. Meanwhile, at Newark and High Bank a series of studies since the 1980s have revealed a complex symphony of geometry and astronomy encoding not only familiar solar alignments but also, as we are about to see, much more subtle and esoteric conjunctions of heaven and earth concerned with the complex dance along the horizon of the rising and setting moon.

PCBS

NEWARK AND HIGH BANK HAVE an almost technological feel to them, resembling gigantic printed circuit boards or wiring diagrams from the innards of some immense and ineffable instrument. It's interesting, therefore, that Bradley Lepper, currently curator of archaeology with the Ohio History Connection, believes they may originally have been conceived by their designers as the components in "a monumental engine for world renewal … a vast machine, or device, designed and built to unleash primordial forces."[8]

At both sites the principal geoglyph combines a circle with an octagon and in both cases these figures are formed by large earthen embankments as much as 12 meters wide at the base and typically about 1.7 meters high.[9]

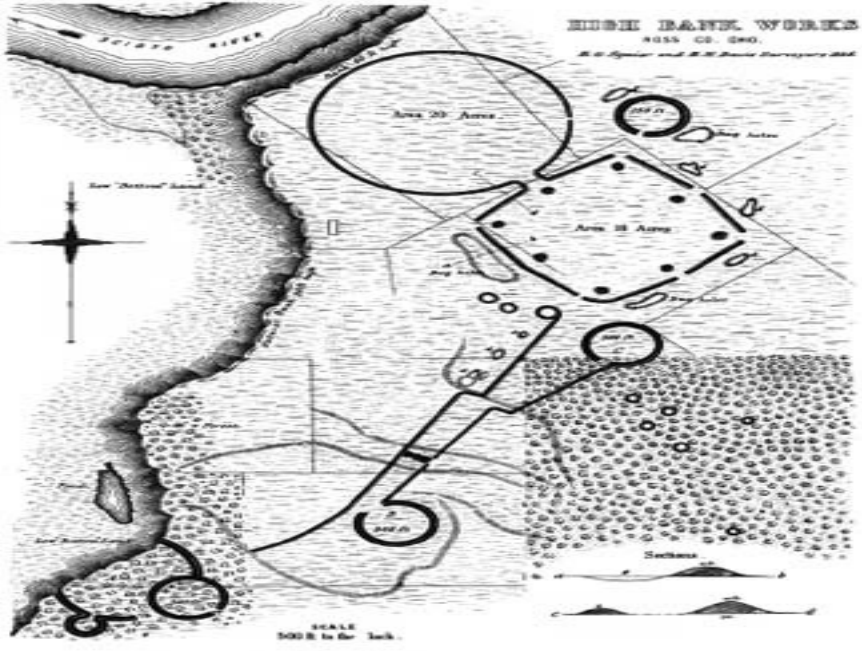
HIGH BANK WORKS,
SCIOTO RIVER
Area 20 Acres
Area 18 Acres
Sections
SCALE

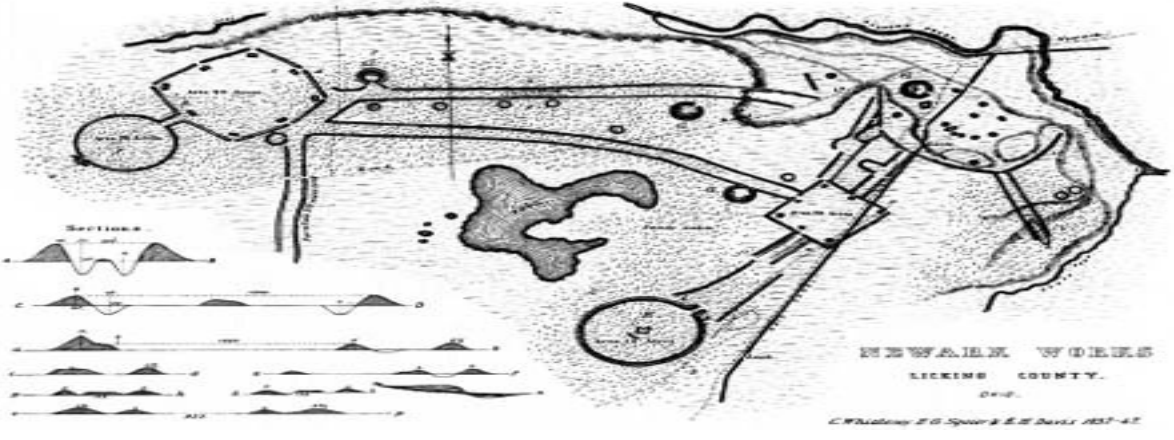
Sections
NEWARK WORKS
LICKING COUNTY.

Newark Great Circle, also known as the Fairground Circle, with its interior ditch and central three-lobed "Eagle Mound." The diameter of the circle is 365.9 meters (just over 1,200 feet).

A striking similarity of general design connects the octagon/circle theme of Newark and High Bank with the Amazonian geoglyph (see chapter 15) of Santa Isabel. Although the latter is less geometrically exact than the Ohio examples, this is by no means always the rule since both regions exhibit numbers of extremely precise and numbers of more mediocre earthworks.

The strict lines of Ohio's Newark Octagon enclose an area of 50 acres and its eight walls have an average length of 167.7 meters.[10] The adjoining circle, known since the nineteenth century as the "Observatory Circle," encloses an area of 20 acres and has a diameter of 321.3 meters.[11] A resurvey of the site, carried out with modern instruments in 1982, revealed that "the midline of the embankment walls deviates by no more than 1.2 m at any place from a perfect circle of diameter 321.3 m. A perfect circle of this diameter would have a circumference of 1009.4 m, whereas the actual circle has a circumference of 1008.6 m. Thus it is evident that the Observatory Circle very closely approximates a true circle."[12]

Located 2 kilometers southeast of the Observatory Circle is a second, larger but less geometrically perfect circle known as the Great Circle and formerly as the Fairground Circle, since it was used as the site of the Licking County Fairgrounds from 1854 to 1933.[13] It encloses an area of 30 acres[14] and, though much depleted

by misuse and the passage of time, its earthwork walls today, varying between 1.5 meters and 4.3 meters in height and between 11 meters and 17 meters in width,[15] still give a sense of the enormity of the original enterprise. At its center are the remnants of a three-lobed mound, usually referred to as "Eagle Mound" because many visitors have seen in it a resemblance to a bird with outstretched wings.[16] Archaeologists, however, regard it as "a series of conjoined mounds rather than a specific effigy form."[17]

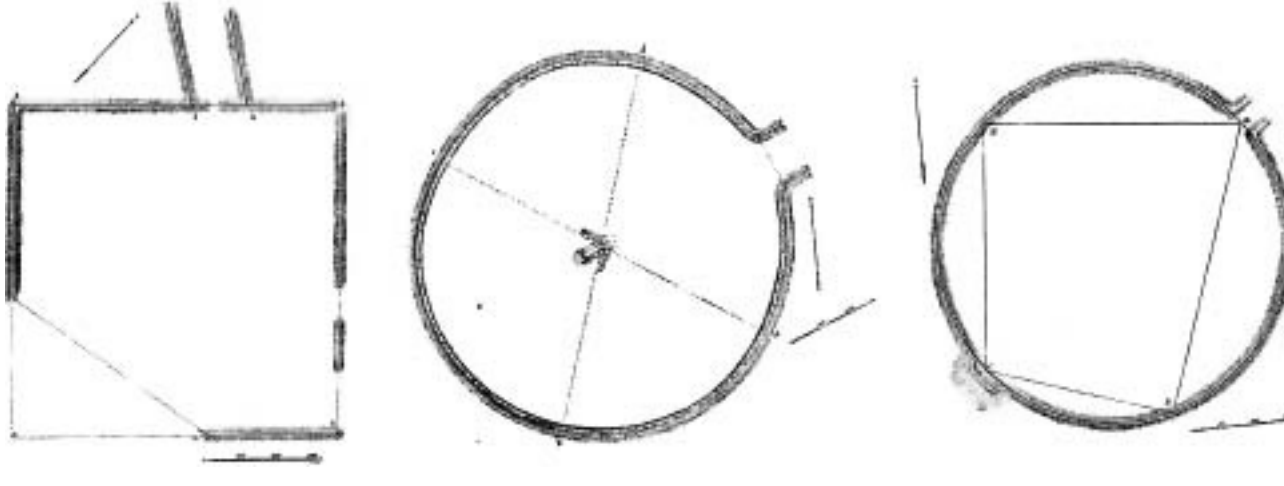

Images from the 1894 Bureau of Ethnology Survey. Badly damaged even then, Newark's Great Square (left), also known as "Wright Square" or "the Wright Earthworks," is almost completely destroyed today, with only a short segment of one of the four walls remaining. The perimeter of the Great Square is equal to the circumference of the Great Circle (center), while its area is equal to the area of the Observatory Circle (right).

The diameter of the Great Circle, at 365.9 meters,[18] is of the same order of magnitude as the Neolithic henges in the British Isles. Stonehenge at 110 meters is smaller[19] but Avebury at approximately 420 meters is larger.[20] Moreover, just like Avebury and many of the Amazonian earthworks reviewed in chapter 16, a striking feature of Newark's Great Circle is the massive ditch—as much as 12.5 meters wide and 4 meters deep[21]—that runs *inside* its embankment walls. Indeed, such a ditch, within rather than outside a circular embankment, is the very definition of a henge.

Alongside its circles, and an integral part of the same enormous complex (to the other major elements of which it was joined by

causeways), Newark in its prime possessed a square enclosure, "nearly geometrically perfect,"[22] with sides averaging 931 feet in length.[23] Almost nothing of it remains today but fortunately enough was intact when it was surveyed in the nineteenth century, first by Squier and Davis and later by Cyrus Thomas of the Bureau of Ethnology, to establish its measures exactly. These and subsequent surveys have revealed not only that "the perimeter of the square earthwork is precisely equal to the circumference of the Great Circle," but also, as Bradley Lepper notes, that "its area is equal to the area of the Observatory Circle." In these clearly deliberate and carefully thought through harmonies, Lepper rightly finds "indications of the remarkable sophistication of the geometry incorporated into the architecture of the Newark Earthworks."[24]

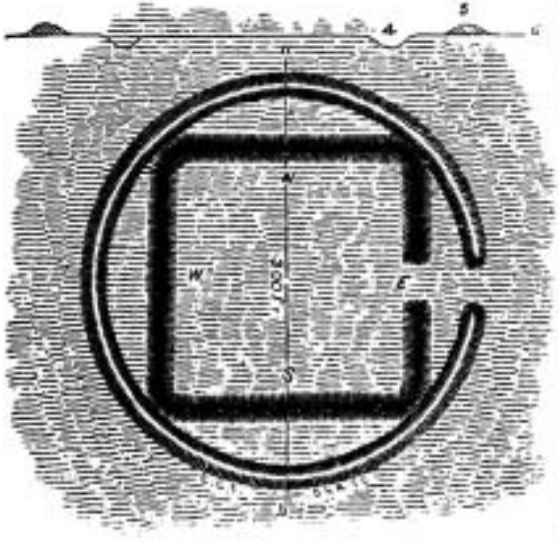

Variations on a theme. LEFT: Ancient Works, Pike County, Ohio, as mapped by Squier and Davis in 1848. RIGHT: Jacó Sá earthwork, the Amazon. PHOTO: RICARDO AZOURY/PULSAR IMAGENS.

William Romain is more specific. In his view the creators of this extraordinary and in some ways rather otherworldly site "were intrigued by the variety of possible relationships between a circle

and a square. … The idea that seems to be expressed is that, for every circular enclosure, a corresponding square … can be related to the circle by geometric means."[25]

"Squaring the circle"—constructing a square with the same area as a given circle—was of course a geometrical exercise of great interest to the master mathematicians of ancient Babylon, Egypt, and Greece.[26]

The dominant reference frame of modern archaeology does **not** encourage us to believe that any Native North Americans 2,000 years ago would have possessed the necessary knowledge and skills to perform such an exercise. Yet clearly they did, for the proof is there at Newark—not scratched on some handy-sized clay tablet or papyrus but set out with high precision on the ground in an assembly of truly gigantic and mysterious earthworks.

Many different variations on the same theme, which there is not space to review here, are to be found at other Hopewell sites in Ohio

—for example, a square/circle combination that formerly existed in Pike County. Fortunately, it was surveyed by Squier and Davis in 1848 and their rendering, in figure 11 of *Ancient Monuments of the Mississippi Valley,* shows it to have been very similar in concept and plan—and indeed in size—to the earthwork at Jacó Sá in the Amazon described in chapter 15. The two figures are not identical, but they appear to demonstrate the identical geometrical principle.

From chapter 15 the reader will also recall the recent discovery of a squared circle complex within the great henge at Avebury in the British Isles.

Are we to resort once again to the archaeological cover-all of "coincidence" to explain the constant repetition and replication of the same astronomical and geometrical constructs in earthworks as far apart in space and time as Avebury, Newark, and Jacó Sá? Or could it be that some guided and intentional process, as yet undetected by archaeology, was under way behind the scenes of prehistory?

THE CONNECTION TO HIGH BANK

WE'VE SEEN HOW THE DIAMETER of the nearly geometrically perfect Observatory Circle at Newark is 321.3 meters (1,054 feet). Astronomer Ray Hively and philosopher Robert Horn of Indiana's Earlham College, whose comprehensive work at Newark and High Bank in the 1980s provided the foundation for all subsequent studies, realized that the same length of 321.3 meters had also been used by the builders to lay out the Octagon:[27]

> The conclusion suggested by the geometry of the Observatory Circle–Octagon combination is that both figures have been carefully and skilfully constructed from the same fundamental length.[28]

This unit of measure, now known by the unfortunate yet strangely appropriate acronym OCD (for Observatory Circle Diameter), was also deployed at High Bank, which, as Hively and Horn remind us,

is “the only other circle-octagon combination known to have been constructed by the Hopewell.”[29] It cannot be a coincidence, then, that High Bank turns out to conform to a geometric pattern based on a fundamental length of 0.998 OCD.[30]

Nor is the connection between these two sites limited to their shared unit of measure.

Perhaps most striking of all is the fact, noted by archaeologist Bradley Lepper, that “the main axis of High Bank Works—that is, a line projected through the center of the Circle and the Octagon—bears a direct relationship to the axis of Newark’s Observatory Circle and Octagon. **Although built more than 60 miles apart**, the axis of High Bank Works is oriented at precisely 90 degrees to that of Newark earthworks. This suggests a deliberate attempt to link these sites through geometry and astronomy.”[31]

In my view it more than merely “suggests!” Given that these are the only two sites in North America with circle-octagon

combination earthworks, given that the circles are 99.8 percent identical in size, and given their precise 90-degree orientation to one another, a quite remarkable feat of surveying across a great span of country, I think we can safely say that the designers **did** intend a deliberate connection here. Lepper himself makes a strong case that this connection might have been more than symbolic when he presents evidence for the former existence of a causewayed road with some stretches of its parallel walls still in place as late as the mid-nineteenth century. He calls it "the Great Hopewell Road" and speculates that it was perhaps a pilgrim route that once ran between Newark and High Bank.[32]

As at Newark, a circle-octagon combination forms the dominant glyph at High Bank, and there are adjacent figures and causewayed avenues. When Squier and Davis surveyed the site in the nineteenth century (there has been massive destruction since) they reported that the walls of the High Bank Octagon were "very bold; and where

they have been least subjected to cultivation are between eleven and twelve feet in height, by about fifty feet base. The wall of the circle is much less, nowhere measuring over four or five feet in altitude."[33] Despite its once "bold" walls, the High Bank Octagon, enclosing 18 acres,[34] is a much smaller figure than the Newark Octagon, which, as we've seen, encloses 50 acres.[35]

Why, since otherwise the circle-octagon motifs of the two sites are so similar, since their circles are of identical size, and since it seems the earthwork-makers did nothing by chance, should there be this marked reduction in scale of the High Bank Octagon?

The answer, as we shall see, has to do with eerily precise, indeed scientific, observations of the moon.

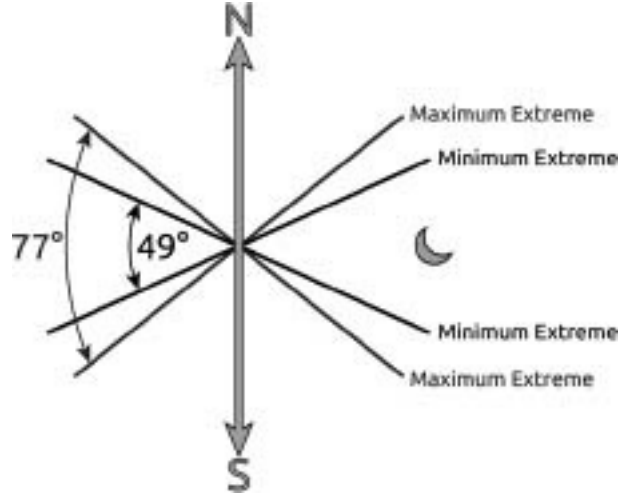

Extreme rise and set points of the moon over its 18.6-year cycle as viewed from Newark, Ohio. When the moon is at a position for maximum extremes, the extreme north and south moonrises and moonsets in a given month are separated by 77 degrees; at the position for minimum extremes, the extreme moonrises and moonsets are separated by 49 degrees.

SKY KNOWLEDGE

LIKE OTHER SACRED SITES SCATTERED around the world, the geometrical mounds and earthworks of North America don't give up their secrets easily. They have ways of grabbing your attention but they're going to force you to do some work before they allow you to understand them. Thus, for example, getting to grips properly with Serpent Mound requires knowledge of what a solstice is and of how the rising and setting points of the sun change according to a predictable cycle throughout the year.

Such knowledge, archaeologists argue, would have had immediate utility in the pre-industrial world, reminding farmers, in the words of Ecclesiastes, that for "every thing there is a season … a time to plant and a time to pluck that which is planted."

As a motive for the memorialization of solstitial and equinoctial alignments, however, the arguments in favor of a practical immediate agricultural payoff don't adequately account for the enormous effort involved in the construction of many of the sites.

After all, the same calendrical functions could have been realized almost as effectively and much less expensively with pairs of aligned poles.

The notion that a reliable agricultural calendar was the primary motive for skywatching also fails to explain why we find the same focus on the rising and setting sun on the solstices and the equinoxes in distinctly **pre**-agricultural sites such as Painel do Pilão in the Amazon, dating back more than 13,000 years.[36]

Likewise, though they can only have been the product of detailed observations of the heavens and would have required meticulous record-keeping over many generations, the lunar alignments manifested in the great earthworks at Newark and High Bank have no obvious practical function in terms of harvests—or, indeed, of any other utilitarian pursuit. Once again, though, what they do require of those who seek deeper knowledge of them is a study of the heavens.

Nothing beats direct observation of the sky over the course of the year—except observing it over the course of many years—but these days excellent free astronomical software can speed up and simplify the learning task by showing us the exact rising points of the sun and the moon at any location and over any interval we choose.

If we make use of such software to observe the behavior of the moon over, say, a period of a century, we will quickly notice that its rising and setting points along the eastern and western horizons are locked to a cycle shifting from farthest north to farthest south and back to farthest north again **every month**. As more time passes, however, we will also observe that these monthly "boundaries" on the moon's rising and setting points aren't fixed from year to year but instead widen and narrow over an 18.6-year cycle. If they are at their widest ("Maximum Extreme") today, then they will be at their narrowest ("Minimum Extreme) in 9.3 years and at their widest again 9.3 years after that.

Eight prominent directions are therefore implicated in these celestial events. Four target the maximum and minimum monthly boundaries north of east and the maximum and minimum monthly boundaries south of east between which the moon can rise during its 18.6-year cycle. The other four do the same for moonset on the western horizon. On each occasion as it reaches one of its extremes the moon's constant motion stops—literally comes to a standstill—before it reverses the direction of its oscillation for the next 9.3 years.

The geometry of the Newark Earthworks—and of High Bank, too—turns out to be very closely fitted to these obscure celestial events, known to astronomers as "lunar standstills," knowledge of which would appear to have no practical contribution to make to the necessities of everyday life.

NEWARK'S LUNAR CODE

IT'S LARGELY THANKS TO RAY Hively and Robert Horn that we know of these lunar connections at all.

When they began work at Newark in 1975 their purpose was to conduct "a field exercise in data collection and analysis for an undergraduate interdisciplinary course."[37] Although cosmology and the astronomical knowledge of prehistoric and ancient cultures were within the scope of the course, they make clear that they "did not expect to find any particular geometrical or astronomical pattern" at Newark.[38] "Indeed, given the difficulty of showing that any such pattern was intentional rather than fortuitous, we doubted any persuasive hypothesis regarding design of the earthworks could be formed."[39]

To their surprise, however, as they admitted in 2016:

> Our continued analysis … has revealed repetitive patterns of earthwork and topographical features oriented or aligned to the extreme rise and set points of both the sun and the moon on the horizon. These alignments, combined with the massive scale, geometrical symmetry and regularity of the earthen enclosures suggest that the Newark Earthworks were built to record, celebrate, and connect with celestial actors or large-scale forces that appear to govern relations among earth, sky and the human mind.[40]

In their initial study, published in the journal *Archaeoastronomy* in 1982,[41] Hively and Horn did not recognize any solar alignments at Newark.[42] What grabbed their attention instead was the intricate cat's cradle of lunar alignments uncovered by their detective work.[43]

Some were obvious, indeed unmissable once the lunar concerns of the site were admitted—for example, the fact that "the avenue axis of the Octagon points to the maximum northern extreme rising point of the moon with an error of 0.2°."[44]

Such an “error,” amounting to less than two-tenths of a single degree, represents remarkable precision for any epoch and far exceeds the level of science generally assumed by archaeologists to have existed in the pre-Columbian Americas. Moreover, “the avenue axis and four sides of the Octagon mark five of the eight extreme lunar rise-set points with a mean accuracy of 0.5º.”[45]

The three remaining alignments, accurate to within 0.4 degrees, 0.7 degrees, and 0.8 degrees, respectively, are also shown in the diagram following.

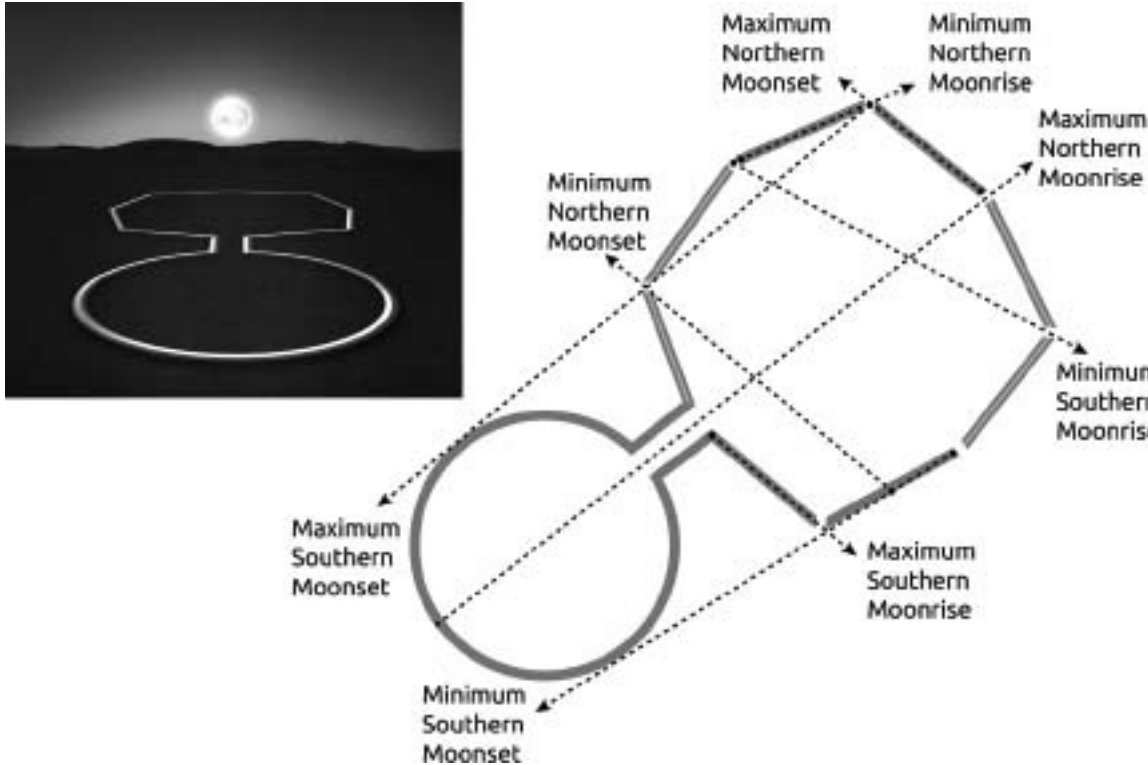

RIGHT: The eight key stations of the 18.6-year lunar-standstill cycle at Newark. The central axis and four walls target, respectively: (1) maximum northern moonrise; (2) maximum northern moonset; (3) minimum northern moonrise; (4) minimum southern moonset; and (5) maximum southern moonrise. The three remaining alignments identified by Hively and Horn are (6) maximum southern moonset; (7)

minimum northern moonset; and (8) minimum southern moonrise. TOP LEFT: Simulation of maximum northern moonrise at Newark, as viewed along the Observatory Circle–Octagon axis.

Hively and Horn reinforce their case with another observation. The four sides of the Newark Octagon that are **not** aligned to significant lunar events form closely parallel pairs and are highly symmetrical. By contrast the four sides that **do** align to lunar standstills are neither parallel nor symmetrical. The obvious deduction to be made from this is that the geometrical symmetry of the Octagon was deliberately distorted to achieve more accurate lunar alignments.[46] Moreover,

> the requirements of (1) octagonal symmetry and of (2) alignment with lunar extrema uniquely define the Newark Octagon. Of the infinity of possible octagons which could have been constructed at this site, the one we find is precisely the one which matches the lunar extrema most closely. In fact we have been unable to design an equilateral polygon with eight or fewer sides which incorporates the same lunar points more efficiently and accurately than does the Newark Octagon.[47]

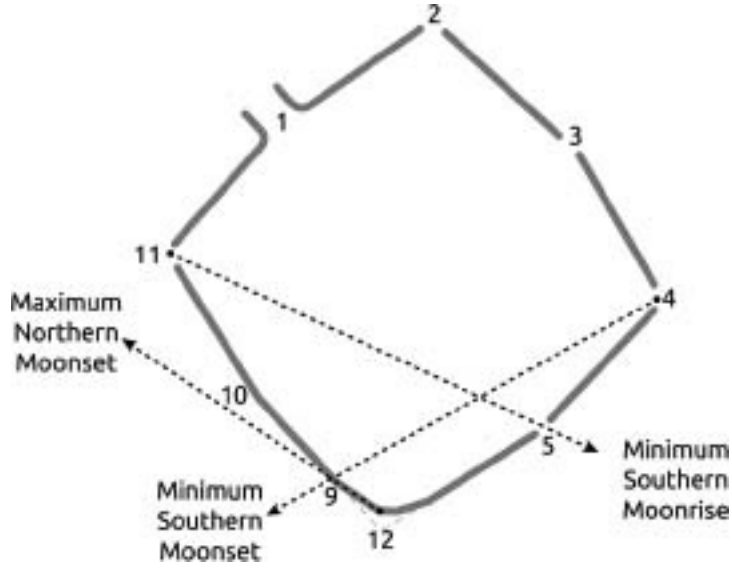

In the High Bank Octagon wall 11 → 1 is 16 percent longer than wall 10 → 11, displacing vertex 11 from its ideal position in such a way as to produce a lunar alignment, targeting the minimum southern moonrise between vertices 11 and 5. Likewise, there is no gap at the position of the ideal vertex at position 12. Instead the gap has been moved northward to position 9. A line between points 4 and 9 aligns with the minimum southern moonset. A further alignment, made possible by deviations in linearity, targets the maximum northern moonset at maximum standstill.

SUN AND MOON AT HIGH BANK

THE GREAT CONTRIBUTION OF HIVELY and Horn's 1982 paper in *Archaeoastronomy* was that it demonstrated how precisely, and how cleverly, Newark celebrates and embraces the lunar standstills. In a follow-up paper published in the same journal in 1984, the same investigators go on to prove that the High Bank structures embody equally unequivocal alignments to the extreme north and south rise points of the moon.[48] And just as at Newark, where deliberate asymmetries were introduced into the side lengths and angles of the Octagon to achieve more perfect lunar alignments, so, too, we find that one of the eight walls of High Bank's octagon is 16 percent longer than it "should" be to preserve perfect geometrical symmetry. This "error," however, alters the angle to the neighboring vertex, thus opening up an alignment to the **southern extreme moonrise** at minimum standstill within a margin of just 0.6 degrees.

If the wall had been the "correct" symmetrical length no lunar alignment would have been possible.[49] A second such "error" facilitates an alignment with the **southern extreme moonset**, again at minimum standstill.[50]

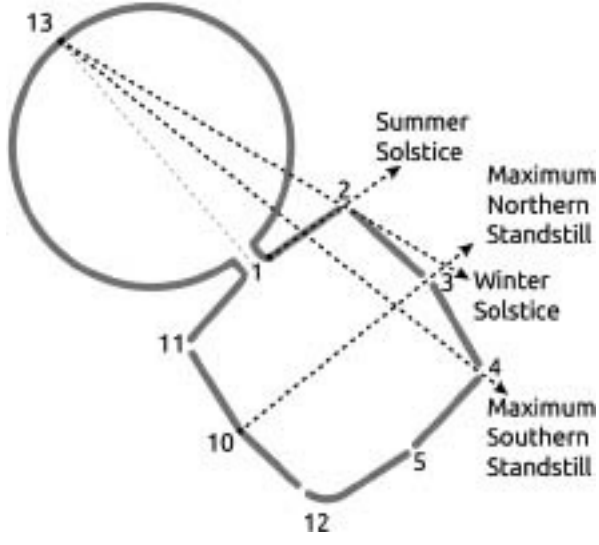

Targeting of the northern extreme moonrise and the southern extreme moonset at High Bank—both at maximum standstill. In addition, the summer solstice sunrise is targeted within 0.5 degrees by wall 1 → 2 while the alignment 13 → 2 targets the winter solstice sunrise.

A further alignment, in this case made possible by deviations in linearity, targets the **northern extreme moonset** at maximum standstill.

Clearly, therefore, High Bank and Newark have much in common and in some ways seem almost like twins. Why then, as we asked earlier, does the octagon of one of these "twins" enclose 50 acres while the octagon of the other encloses just 18 acres?

The answer offered by Hively and Horn is that not only does the 50-acre Newark octagon match the lunar extrema more closely than any other possible octagon, but also that it was designed to do so within the specific latitude band—measuring 44.5 kilometers from north to south—in which Newark is located.[51] In other words, the purpose of accurately aligning the earthwork to the lunar standstills would **not** have been served if the Newark octagon, like the circle, had been reproduced with an exact duplicate at High Bank more than 90 kilometers to the south.[52] The 18-acre figure with different

vertex angles that we find at High Bank is perfectly suited to the task at High Bank's latitude.

Among other differences between the two sites, perhaps the most notable is that no alignment to any significant solar event, whether to the equinoxes, or to the solstices, or to the so-called cross-quarter days in between, has yet been satisfactorily identified at Newark in the earthworks themselves.[53]

But there's a context to this.

Recent research by Hively and Horn has raised the intriguing possibility that the very reason Newark's earthworks are where they are is that four prominent "high-elevation overlooks" in the surrounding landscape serve as natural front and back sights targeting sunrise and sunset on the winter and summer solstices.[54] It's unlikely to be an accident that the point of intersection of these natural alignments "lies in the central region of the earthworks and

is equidistant (within 2 percent) from the centers of the Observatory Circle and the Great Circle."[55]

Just as with its latitude, therefore, though the matter cannot be proved, the choice of Newark's natural setting feels designed and deliberate.

Meanwhile, at High Bank, Hively and Horn's 1984 study not only confirmed key lunar alignments to southern extreme moonrise, southern extreme moonset, and northern extreme moonset, as we've seen, but also to the **northern extreme moonrise** and to the **southern extreme moonset**—both at maximum standstill. In addition, the **summer solstice sunrise** is targeted within 0.5 degrees by wall 1 → 2 while the alignment 13 → 2 targets the **winter solstice sunrise**[56]—the same familiar memes of cosmic mystery and geometric magic that manifest in earlier sites such as Serpent Mound and later sites such as Cahokia.

We've seen that these memes can be traced in the Amazon at least as far back as Painel do Pilão some 13,000 years ago.

Before Cahokia, before Newark and High Bank, before Serpent Mound, how far back can we follow their trail in North America?

20

THE POVERTY POINT TIME MACHINE

DEAR READER, I DO NOT propose to take you on a tour of every mound and earthwork site in the United States, nor even of every mound or earthwork site I've visited personally. But if you were to rent a car in New Orleans and drive the 800 or so miles north

through the Mississippi Valley as far as Cincinnati or a little farther, with time on your hands for some significant side trips east and west, you could plan an interesting journey. Despite the wanton destruction during the past 200 years, some outstanding sites have been saved in Louisiana,[1] Mississippi,[2] Alabama,[3] Tennessee,[4] Illinois,[5] and Ohio,[6] and there are also significant sites in Florida,[7] Georgia,[8] Texas,[9] Arkansas,[10] Kentucky,[11] and Indiana.[12] Other states have mounds and earthworks, too. But in antiquity the North American mound-building phenomenon was centered on the Mississippi River, and on its great Ohio and Missouri tributaries, and this is reflected in the distribution of the surviving sites today.

A number of different "mound-building cultures" have been identified by archaeologists, who have assembled them into categories based on period, location, types of pottery, types of tools, arts and crafts, and other criteria. We've already met some of the leading lights in this typology, such as the "Adena" (roughly 1000

BC to 200 BC), presently thought to have been the builders of Serpent Mound, the "Hopewell" (roughly 200 BC to AD 500), who were responsible for Newark and High Bank, and the "Mississippians" (roughly AD 800 to 1600), who built Cahokia.

Archaeologists make routine use of all these labels but also interpolate them with others that filter out of the classroom and into general consciousness, causing confusion all around. Thus, for example, you will not go far in learning about the mound-builders without encountering references to the Woodland Period, which is in turn divided into Early Woodland (1000 BC to 200 BC), Middle Woodland (200 BC to AD 600–800) and Late Woodland (AD 400 to AD 900–1000).[13] Allowing for some oversimplification of a complicated picture, the Adena culture built its mounds and earthworks during the Early Woodland period. The Hopewell culture built its mounds and earthworks during the Middle Woodland period. The Coles Creek culture was prominent during

the Late Woodland period. The Late Woodland period in turn overlaps with the Early Mississippian period.

But these are no more than artificial constructs that help tidy-minded archaeologists preserve a sense of order and control over otherwise dangerously unruly data—and, besides, we must question how much the types of utensils and tools used by a culture actually tell us anything of value. We wouldn't expect to gather crucial information about modern cultures from their knives, forks, hammers, and screwdrivers, so why should we suddenly set different standards when we try to understand the ancient world?

Undoubtedly many different Native American cultures, speaking many different languages, were involved in the construction of the mounds. Undoubtedly their arts and crafts and tools and pottery differed. Undoubtedly they expressed themselves in many different ways. Yet when it came to their earthworks, for some mysterious reason, they all did the **same** things, in the **same** ways, repeatedly

reiterating the **same** memes linking great geometrical complexes on the ground to events in the sky.

It represents a catastrophic loss of memory for our species, something akin to a madman smashing his own brains out, that there was such wholesale destruction of the Native American earthworks during the rapid growth of the United States in the nineteenth and twentieth centuries. To give credit where credit is due, it is entirely because of the excellent, dedicated, meticulous surgery of archaeologists that anything has been salvaged from the wreck at all —and as it turns out, quite a lot has been salvaged.

In consequence, whether we are viewing the handiwork of the Adena, such as Serpent Mound, or of the Hopewell, such as Newark and High Bank, or of the Mississippians, such as Cahokia, no sentient person can doubt the prodigious scale of this Native American achievement. There can be no doubt either that geometers and astronomers were in every case central to the enterprise. Nor is there doubt about when the enterprise came to an end—around AD

1600 in yet another catastrophic consequence of the European conquest of North America.

But when did it begin?

DEFYING EXPECTATIONS

I'M OUT NEAR THE WESTERN edge of Poverty Point, a very mysterious archaeological site in northeast Louisiana, climbing the second biggest earthwork mound in North America. Built around 1430 BC,[14] a century before the pharaoh Tutankhamun took the throne in ancient Egypt, it's often referred to as "Bird Mound," because of a supposed resemblance to a bird with outstretched wings flying east. Slumped and ruined in places, it does have something of that appearance today, particularly when viewed from the air, but an

archaeological reconstruction of how the entire mound would have looked in antiquity does not support the bird interpretation. More prosaically and more usually, therefore, it's known simply as Mound A.

It reaches 72 feet in height.[15] Monks Mound at Cahokia, 500 miles to the north, is taller by 28 feet, and also more massive, but 2,500 years younger and the work of a settled agricultural civilization. Mound A, on the other hand, was made by hunter-gatherers,[16] as was the entire Poverty Point complex, where the oldest element of the site, Mound B, has been dated as early as 1740 BC.[17]

The sides of Mound A at its base measure 710 feet east to west and 660 feet north to south (as compared to 720 feet east to west and 910 feet north to south for Monks Mound). Mound A's volume is estimated at 8.4 million cubic feet, a number hard to visualize, but Diana Greenlee, station archaeologist at Poverty Point, offers a

good analogy. “Take a standard American football field,” she suggests, “and make it 146 feet tall. It’s that much dirt.”[18]

Some archaeologists still give credence to the notion that Mound A is an enormous bird effigy since “birds are important within the iconography of Native Americans past and present of the southeastern United States.”[19] But not so long ago, just as was the case with Monks Mound, the experts felt they didn’t need to invoke Native Americans, or indeed any human agency, to explain Mound A. It and Motley Mound (2 kilometers north of the Poverty Point complex) were judged to be:

> Of natural origin, solitary outliers, the only ones for many miles in any direction, of the geological formations found in the bluffs to the east and the west of the Mississippi river; islands left by the drainage which cut the present river valley. Their appearance would easily deceive someone who was not somewhat familiar with such deposits.[20]

This confident piece of misinformation, put out in 1928 by respected archaeologist Gerard Fowke, was among a number of factors that delayed proper investigation and recognition of Poverty Point. And again, as happened at Monks Mound, when the amazing structure could no longer be shrugged off as natural there were still many who sought to deny Native Americans the credit for it, attributing it instead to some imaginary group of prehistoric Caucasian settlers who in the course of time were overrun by "savage" Native Americans.[21]

All archaeologists now agree that the half dozen mounds and other earthworks at Poverty Point are man-made. All agree likewise that Caucasian settlers (no matter how appealing the idea continues to prove with the general public) were NOT in any way involved, and that Native Americans made them. Such disputes and debates as did occur on the road to reaching these conclusions were more around the level of sophistication of the site, the amount of

manpower thought necessary to build it, and the degree of socioeconomic complexity that would have been required to see it through.

We'll not go into detail here, since we've seen already that the mainstream view for much of the nineteenth and twentieth centuries was that large-scale monumental constructions like Mound A at Poverty Point could only have been made by equally "large-scale, centralised and hierarchical societies" that had "the administrative means to carry out such achievements and to organise the large, settled populations whose labour is required."[22] Hunter-gatherers, the prevailing theory proclaimed, could never have generated sufficient surpluses, nor put the necessary hierarchical organization in place, to make such projects viable. Living from hand to mouth, their concerns were entirely focused on survival. Productive agricultural societies, by contrast, were wealthy enough to lift the burden of the daily struggle to survive from the shoulders of

talented individuals, thus allowing a class of specialists—architects, surveyors, engineers, astronomers, and others—to emerge and to master their skills.

It was realized from the first archaeological surveys in the 1950s that Poverty Point was ancient, but it was not initially assumed to be **very** ancient. Hitherto the oldest mounds in America north of Mexico were thought to be Early Woodland (e.g., Adena) in origin, dating between 1000 BC and 200 BC—although clustered toward the latter end of that period. Two initial C-14 dates, explains Professor Jon L. Gibson of the University of Louisiana, "seemed to indicate that the Poverty Point mounds were not only contemporary with Early Woodland but overlapped the earliest part of the Middle Woodland Hopewellian mound-building period."[23] In consequence, "pushing the mounds back to the time of Poverty Point was not that drastic a conceptual jump."[24]

Indeed, despite being older than any other mounds previously encountered by archaeologists in North America, the evidence from Poverty Point was accepted with relative ease. That it was not the subject of the usual catfights and rival claims, Gibson suggests, was in part because of the general assumption of the profession in the 1950s and 1960s that "mound building, pottery, agriculture, sedentism, and large populations were … an integrated complex. … This all or nothing association … promoted the assumption of an agricultural base for Poverty Point despite the lack of direct evidence."[25]

Nor would direct evidence of agriculture ever be forthcoming, for, as subsequent excavations have proved, Poverty Point was not the work of agriculturalists, but of hunter-gatherers.[26] This was paradigm-busting in its way, but archaeologists do hate a busted paradigm, so some wriggle room was found. "Planned large-scale earthworks," commented *Science* magazine in 1997, "were

previously considered to be beyond the leadership and organisational skills of seasonally mobile hunter-gatherers. Poverty Point was considered the exception, and its extensive trade was cited as evidence for sophisticated socioeconomic organisation."[27]

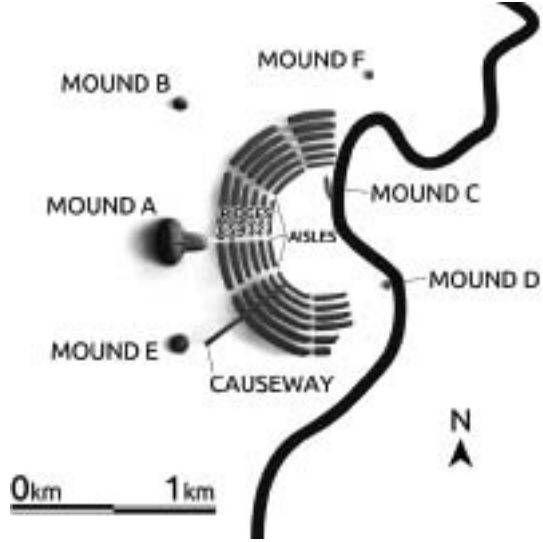

Schematic of Poverty Point indicating principal mounds and geometric ridges.

The notion that trade rather than agriculture fostered a sufficiently complex and prosperous society to get the mounds built proved satisfactory to most archaeologists. The two younger ("Hopewellian") dates turned up in the initial excavations subsequently proved to be out of context. No one now disputes that the oldest structures at Poverty Point go back to around 1700 BC—fully 1,500 years earlier than the first Hopewell earthworks—that the site flourished for 600 years, and that it was abandoned and left deserted at around 1100 BC.[28]

THE WORLD'S LARGEST PREHISTORIC SOLSTICE MARKER?

THERE ARE SIX MOUNDS AT Poverty Point, labeled A, B, C, D, E, and F. Of these Mound B is the oldest, perhaps as old as 1740 BC, as we've seen. Mound F, where construction began sometime after 1280 BC,[29] is the youngest. And Mound D (also known as "Sarah's Mound") was not the work of the Poverty Point culture at all, but was a much later addition by the Coles Creek culture some time after AD 700.[30]

Thus it is the four mounds, A, B, C, and E, that form the key elevations of old Poverty Point. Mound A looms massively over all of them. Despite its huge presence, however, it is not the definitive feature of the site, and neither are any of the other mounds. That role is reserved for a complex earthwork consisting of a series of six concentric ridges, originally up to 9 feet high, forming together a gigantic geometrical figure resembling a half octagon or the letter C, with a diameter of ¾ of a mile. When the lengths of all the ridges are added together they total almost 7 miles.[31] The ridge crests are

up to 100 feet wide, as are the ditches between the ridges, but they were much damaged by plowing in the nineteenth and twentieth centuries and today vary from a few inches to at the most about 6 feet in height.[32]

When archaeology began at Poverty Point in 1952, the ridges were so insignificant that they went unnoticed for about a year. The late William G. Haag, one of the original excavators, gave a candid account[33] of his reaction when he saw them for the first time in aerial photographs shown to him in 1953 by his colleague James Ford—who didn't initially reveal where the photographs had been taken:

"You know where that site is?" Ford asked.

"Well, it's got to be in the Ohio River Valley," Haag replied. "No place, except that area in the East where you get complex earthworks like that."

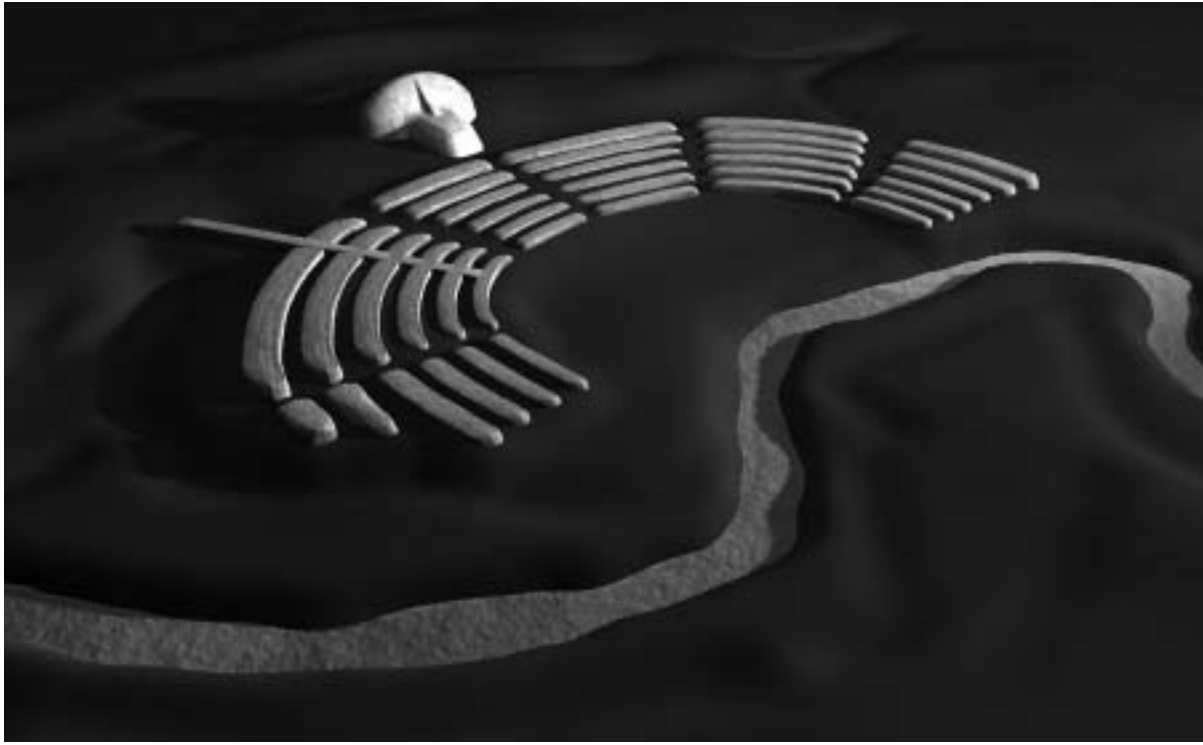

Simulation of Poverty Point's geometric ridge system in its prime.

Haag clearly had in mind the geometrical earthworks of Ohio, such as High Bank and Newark, reviewed in the last chapter, but he

was in for a surprise.

"You've walked all over that site," said Ford.

"Not I," insisted Haag. "I've never been to that site."

But then doubt set in, he looked closer and finally exclaimed: "That's Poverty Point!"

Haag may have been a little slow in recognizing the ridges, but he was decades ahead of everyone else when he joined forces with astronomer Kenneth Brecher[34] in 1980 to coauthor a paper in the *Bulletin of the American Astronomical Society* titled "The Poverty Point Octagon: World's Largest Prehistoric Solstice Marker."[35]

Haag and Brecher supposed the ridges had once formed a complete octagon but that the eastern half had been "washed away." However:

> The western half is intact and well-defined. It is intersected in four places by broad avenues, radiating out from a common center. … The west-northwest and west-southwest avenues have astronomical azimuths of approximately 299° and

241° respectively, accurately pointing to the summer and winter solstice sunset directions at the latitude of the site (32°37' N).[36]

Subsequent research proved Haag and Brecher wrong in their assumption that the Poverty Point ridges had originally formed an octagonal shape,[37] a matter that anyway has no bearing on their solstice thesis, which depends exclusively on the angles of the avenues in what survives of the figure today.

If they're right about this, then it would confirm a much deeper lineage for the astronomical and geometrical memes that we've followed back in time through the Mississippian and Hopewell and Adena earthworks.

MASTER PLAN

IN THE JANUARY 1983 ISSUE of *American Antiquity* the alignments along the avenues that Haag and Brecher had proposed were questioned by Robert Purrington, an astronomer at Tulane University. He agreed that in the epoch of Poverty Point, "the sun would have set, at the solstices, at azimuths of 241° and 299°."[38] He disagreed, however, that these were the azimuths of the west-southwest and west-northwest avenues, which he put at 239 degrees and 290 degrees, respectively. He concluded that these avenues "very poorly mark the solstices. … There are no obvious solar alignments."[39]

Haag and Brecher responded in the same issue that the discrepancy between their azimuths and those of Purrington appeared "to arise mainly from the difference in the location of the center of the earthwork. "Purrington," they complained, "has located the viewing center at least 100 m to the east-northeast of the center we have found."[40] They repeated their assertion that "for the

latitude of Poverty Point, the summer and winter solstice sunset azimuths are 241° and 299°, respectively, in good agreement with the orientatons of the southwest and northwest avenues. Such a solstitial alignment, while not surprising, seems hard to doubt in the Poverty Point earthwork."[41]

Purrington continued to *sound* like he doubted it, yet in a confusing and self-contradictory manner. In 1989 he published a paper in *Archaeoastronomy* titled "Poverty Point Revisited: Further Consideration of Astronomical Alignments."[42] In it he recalculated the azimuth of the west-southwest avenue from his previous figure of 239 degrees to a revised figure of 240 degrees that, he now stated, gave "an excellent match to the setting of the sun at the winter solstice (241°)."[43] His azimuth for the west-northwest avenue, however, remained the same as before at 290 degrees, thus missing "the summer solstice setting azimuth by as much as 9°" and therefore "almost certainly not intended to mark this solar standstill.

The symmetry of the site then suggests that *neither* is a solar solstice alignment."[44] As a final equivocation, however, Purrington conceded that "a counter-argument would take into account the special importance attached to the winter solstice standstill by the native American Indians."[45]

There the matter rested until 2006, when archaeologists launched a magnetic gradiometer survey at Poverty Point. Completed in 2011, the survey revealed the traces of no fewer than thirty great circles of wooden posts that had once stood in the plaza east of the geometric ridges, "some built only inches away from the previous ones, as if the posts were erected, removed sometime later, moved a slight distance, then rebuilt."[46]

According to archaeologist Diana Greenlee, who was closely involved in all aspects of the investigation, the postholes located were straight-sided and flat-bottomed, nearly 1 meter wide and 2 meters deep, while the circles they formed varied in diameter from 6

meters to 60 meters.[47] Unfortunately, though, as Greenlee concedes, the project was confined almost exclusively to remote sensing:

> We didn't excavate a complete circle, or even a significant arc of one. So there is a lot we don't know about the circles. We don't know how many different kinds of post circles are represented. We don't know how high the posts were. We don't know if there were walls between the posts. We don't know if they had roofs. We don't know what, if anything, they did inside the circles. We don't know how many post circles were visible in the plaza at any one time. Someday I hope to excavate a larger area of the plaza circles so that we can find answers to these questions.[48]

One possibility, surely worthy of further investigation, is that what the survey found were the archaeological fingerprints of a series of "woodhenges" at Poverty Point. Very much like the Woodhenge at Cahokia—also constantly moved and adjusted, as we saw in chapter 18—they were perhaps used in conjunction with other features to create sight lines that would manifest sky-ground hierophanies at the solstices and equinoxes.

At any rate, even without the circles, the case for significant solar alignments at Poverty Point was greatly strengthened when Ohio archaeologist and archaeoastronomer William Romain, one of the sharpest thinkers in this field, rolled up his sleeves and got involved. His paper on the subject, coauthored with Norman L. Davis and published in *Louisiana Archaeology* in 2011, used newly acquired Lidar data, and refined archaeoastronomical calculations, to conclude that "Brecher and Haag were right in their assessment more than thirty years ago—i.e. Poverty Point does incorporate solstice alignments … [and] may indeed be the world's largest solstice marker."[49]

The alignments, however, turn out not to be those that Brecher and Haag originally proposed. Instead, with the advantage of the new data, Romain and Davis were able to identify two locations "of special importance in the design of Poverty Point." Referring to

these locations as Design Point 1 (DP1) and Design Point 2 (DP2) they note:

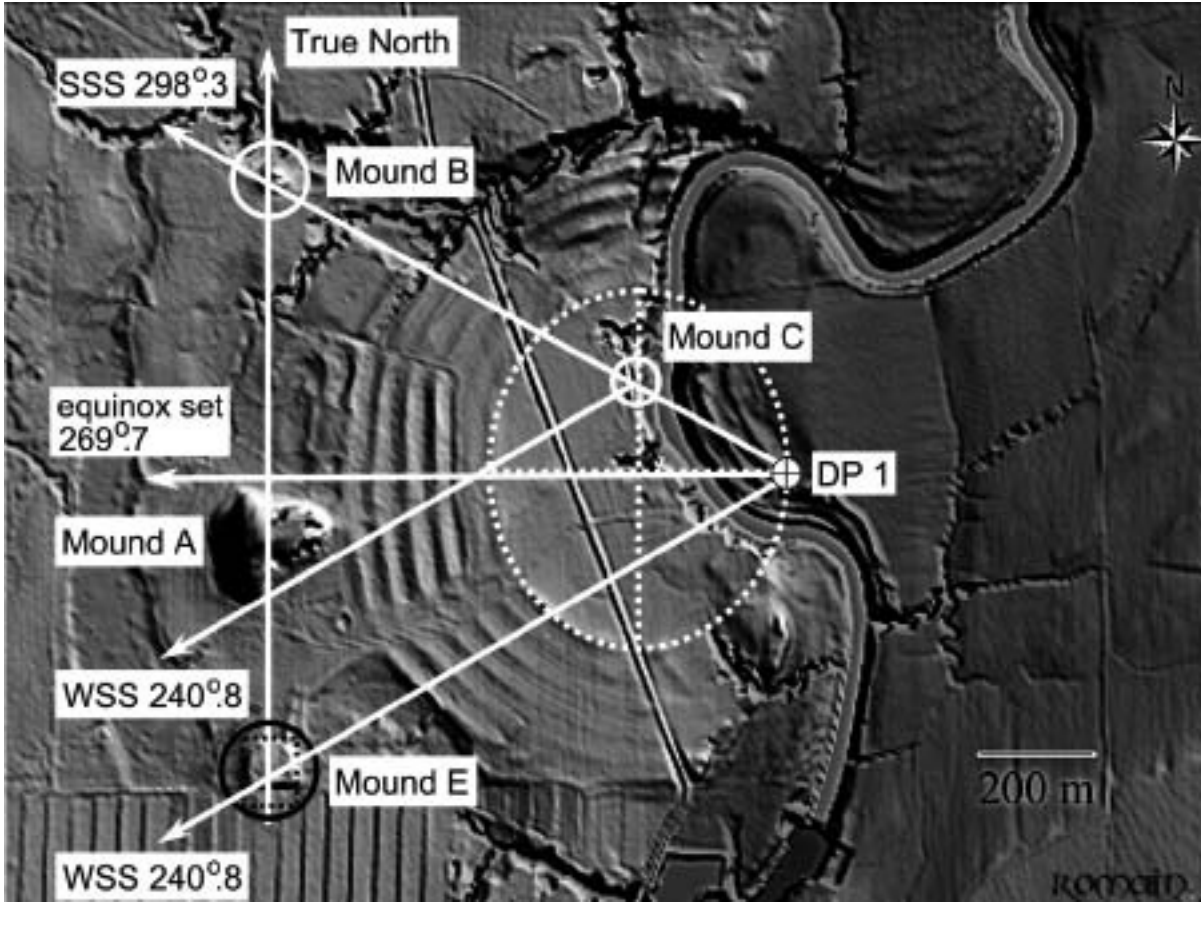

- Line DP1 to Mound B is aligned to the summer solstice sunset.
- Line DP1 to Mound E is aligned to the winter solstice sunset.
- Viewed from Mound C, the summer solstice sun will set over Mound B.
- Viewed from Mound C, the winter solstice sun will appear to set not over but rather into the side of Mound A. The placement of Mound C … allowed for a long sight line to Mound A, but also resulted in the location for Mound A in a place that seems not-symmetrical with the overall site plan.
- A line from DP1 through the central plaza of the site marks the azimuth of the equinox sunset along the northern edge of Mound A.[50]

According to Davis, an eyewitness to the latter phenomenon, the sun appears to “roll down the northern edge of Mound A before sinking into the western horizon.”[51]

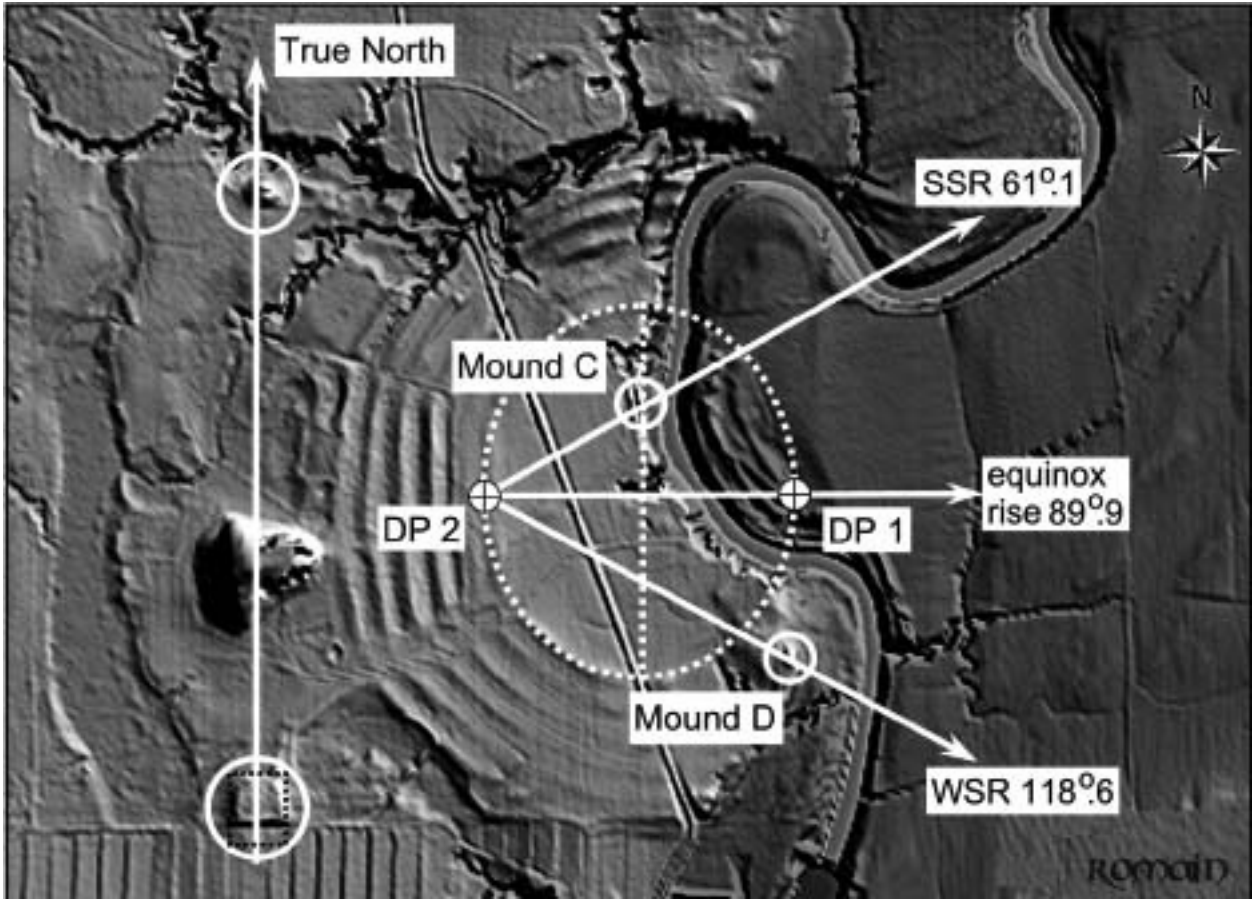
True North
N
SSR 61°.1
Mound C
equinox
rise 89°.9
DP 2
DP 1
Mound D
WSR 118°.6
Romain

Poverty Point is "a center place," Romain and Davis assert, "and also a place of balance in the sense that, in addition to the sunset alignments … conceptually opposite sunrise alignments are also found."[52] These they detail as follows:

- Viewed from DP2, the summer solstice sun will rise over Mound C.
- Viewed from DP2, the winter solstice sun will rise over Mound D. If in fact Mound D was constructed more than 2,000 years after the Poverty Point florescence, then the implication is that the people of the Coles Creek culture understood, incorporated, and further expanded upon the Poverty Point design for their own purposes.
- Viewed from DP2, the equinox sun will rise in alignment with DP1.[53]

The overall achievement—the "seamless integration of site orientation, celestial alignments, bilateral symmetry of design points, internal geometry [and] regularities in mensuration"[54]—leads Romain and Davis to conclude that "Poverty Point was built according to a preconceived master plan … or design template … that integrated astronomical alignments, geometric shapes and local topography."[55]

In their view, the question that begs to be answered is, "Why? Why was Poverty Point designed in such a way that it connects geometric earthen forms to celestial bodies and events at such a massive scale?"[56]

It's an excellent question, but another should be asked first.

If there was a "preconceived master plan," where did it come from?

CONTINUITY

THE SOUTHERNMOST OF THE POVERTY Point mounds is Mound E, also known as "Ballcourt Mound." Just 2.6 kilometers farther south, however, is another mound, once thought to have been part of the Poverty Point complex. Known as Lower Jackson Mound, excavations by archaeologists Joe Saunders and Thurman Allen have established that it is in fact extremely ancient—not from the Poverty Point era around 1700 BC at all, but from fully 3,000 years earlier, specifically between 3955 and 3655 BC.[57]

"That Poverty Point builders were aware of ancient mounds is beyond doubt," comments John Clark, professor of anthropology at Brigham Young University:

> The entire layout of Greater Poverty Point is calibrated to the position of Lower Jackson, a Middle Archaic mound. All principal measuring grids pass through Lower Jackson, and calculated space appears to have commenced from there.[58]

What Jon L. Gibson of the University of Louisiana makes of the same evidence is that there must have been “an enduring traditional, if not direct ancestral, connection between the Old People and later groups.”[59] This connection, he argues, is “demonstrated by the incorporation of the Middle Archaic Lower Jackson Mound into the principal earthwork axis at Poverty Point. Actually, Lower Jackson Mound was not merely incorporated—it furnished the alpha datum, the anchor, a vivid case of material or implicit memory.”[60]

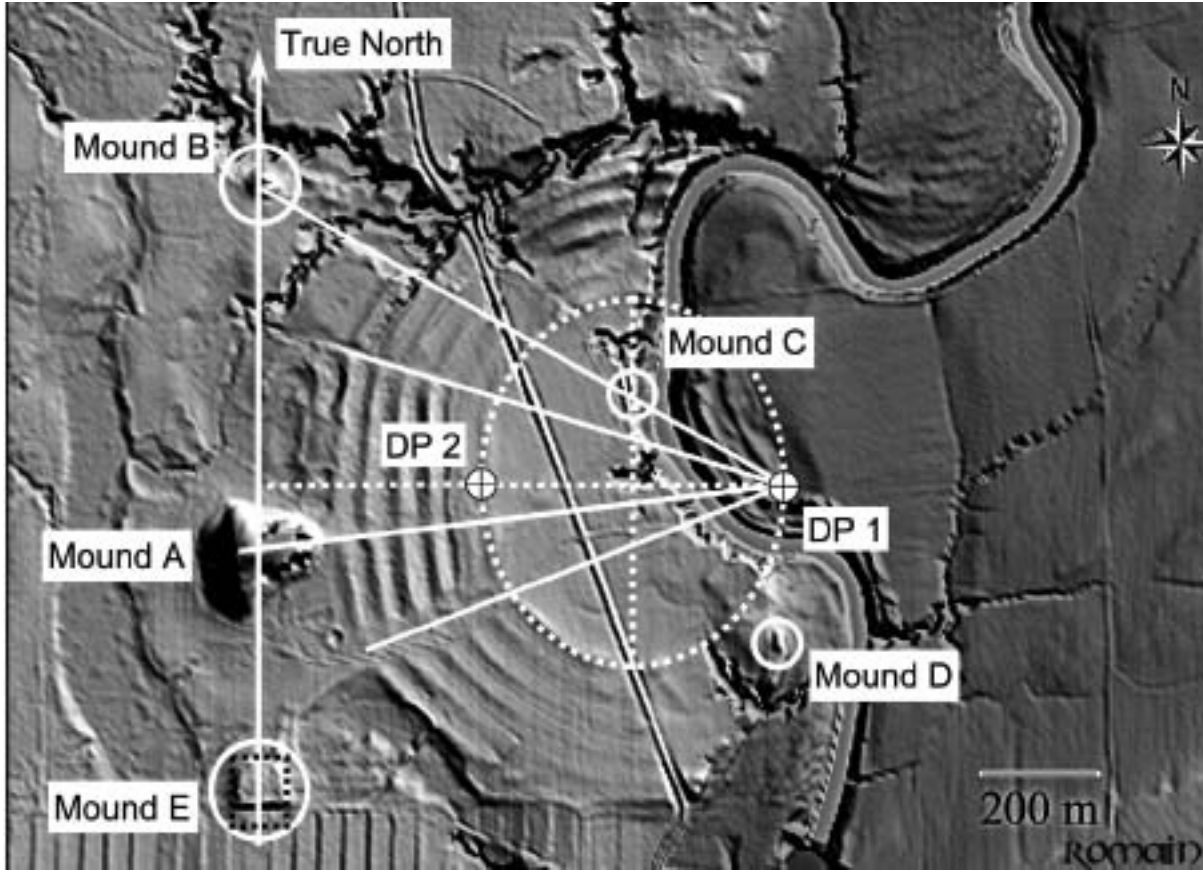

William Romain's Lidar work confirms that Mound E ("Ballcourt Mound"), Mound A, and Mound B are all aligned to true north.

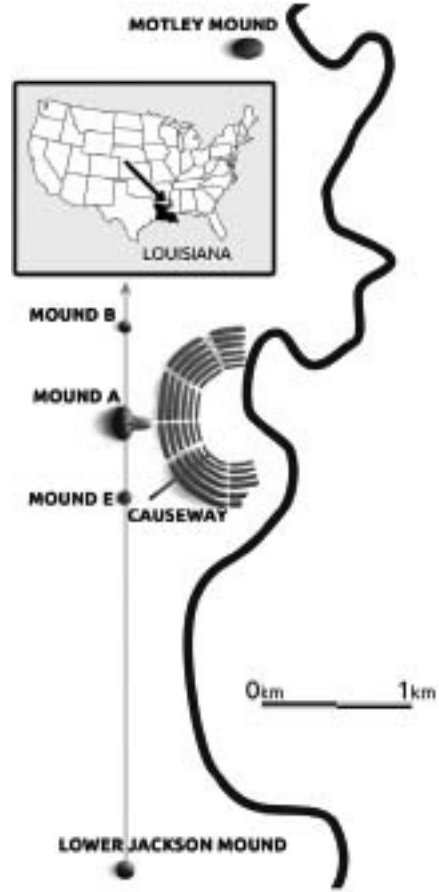

Lower Jackson Mound, 3,000 years older, is on the same azimuth.

The suggestions, made by Clark in 2004 and Gibson in 2006, were followed up in 2011 by William Romain. The results of his Lidar survey greatly strengthen the case that "Poverty Point was intentionally oriented to true north" along "the sightline between Mounds E-A-B and the Lower Jackson Mound."[61]

The implications of a connection between the Lower Jackson mound-builders and their successors at Poverty Point are intriguing for many reasons.

The "intrusive" Mound D, built by the Coles Creek culture at least 1,800 years after Poverty Point was abandoned, and more than 2,000 years after works peaked there, appears to have been deliberately located to create an alignment to the winter solstice sunrise. In William Romain's view, as we've seen, this suggests that the people of the Coles Creek culture "understood, incorporated, and further expanded upon the Poverty Point design."

The suggestion, therefore, is that below the radar of archaeology more than 2 millennia of continuously transmitted knowledge connected the Coles Creek culture to the Poverty Point culture.

Now, going much further back in time, Gibson proposes continuity across the earlier 2,000-year gap between the builders of Lower Jackson Mound and Poverty Point.

These are long periods of time to maintain any kind of connection, but such a feat is by no means impossible. The Judaic faith, for example, carries down a body of traditions and beliefs that are at least 3,000 years old.[62] Hinduism has roots going back to the Indus Valley civilization more than 5,000 years ago.[63] Both religions also create architecture, the design of which is directly influenced by their beliefs and traditions.

There's no reason in principle why the same sort of thing should not have happened in North America. The notion that Lower Jackson Mound and Poverty Point are each manifestations in

different eras of a single system of ideas is the only way, other than coincidence, to account for the obviously deliberate axial relationship between the two sites. If the earlier mound had **not** been significant for the later builders, then they surely would not have used it to "anchor" the great enterprise on which they were about to embark.

But there's a problem. In the cases of Hinduism and Judaism we have unimpeachable evidence of continuity. Through sacred texts, through teachings passed from one generation to the next, and through cherished and vibrant traditions, there are no broken links in the chain of transmission. Neither Hinduism nor Judaism have ever abruptly vanished from the face of the earth, left zero traces of their presence for millennia, and then equally abruptly reappeared in full flower.

As we'll see, however, this appears to be exactly what happened in North America.

21

GLIMPSES BEHIND THE VEIL

THE REMOTE EPOCH BETWEEN 6,000 AND 5,000 years ago out of which Lower Jackson Mound emerges is an important one in the story of civilization. It was toward the end of this same millennium that the civilizations of ancient Mesopotamia and ancient Egypt took their first confident steps on the stage of history. They, too, built mounds —for example, Egypt's predynastic *mastabas* or the *tells* of Uruk-

period Mesopotamia. They, too, deployed geometry and astronomical alignments in the project of sacralizing architectural spaces. And they, too, participated in an extraordinary and seemingly coordinated burst of early construction—for just like the mounds of ancient Egypt and ancient Mesopotamia, Lower Jackson Mound is not an isolated case but part of what may once have been a very numerous and widespread group of monuments.

Just how numerous and widespread we may never hope to know because of the wholesale destruction of thousands of mounds and earthworks across North America in recent centuries. No doubt most of those ancient monuments, sacrificed to the modern gods of agriculture and industry, were from the more recent periods—Mississippian, Hopewell, and so on—but chances are that some, and perhaps many, were from the much earlier episode of mound-building dating back to 5,000 years ago and more.

From what remains we can begin to gauge the extent of the loss and by 2012, despite the destruction of ancient sites, archaeologists

had identified as many as 97 surviving mounds and earthworks in the Lower Mississippi Valley, with several others found as far afield as Florida, thought to be in the range of 5,000 years old.[1] Very few of these sites have yet been subject to radiometric dating, but of the 16 that have, with a combined total of 53 mounds and 13 causeways, all are more than 4,700 years old[2]—and many are much older than that.

As a result, says Joe Saunders, a leading specialist in this field, "the existence of Middle Archaic mound-building is no longer questioned."[3]

Why there should be such a concentration of these archaic sites in the Lower Mississippi Valley is unclear. It could be an accident of history—that is, purely by chance more old sites survived destruction in this area than elsewhere. Or it could be that many more sites were built here in antiquity than elsewhere and this is why more have survived. Who knows? Perhaps future research will

reveal very ancient mounds much farther afield in North America. For the present, however, the Lower Mississippi Valley is where the action is.

It's unnecessary to describe every site. Indeed only one, Watson Brake, need concern us in any detail. For the rest, the map and the minimal listing below, substantiated by references for readers who wish to dig deeper, will serve the purpose.

The **Banana Bayou Mounds** and the so-called **LSU Mounds** (because they are on the grounds of Louisiana State University) date to around 2700 BC,[4] which, in a global context, makes them about 200 years older than the Great Pyramid of Giza.

After that, the mounds of the Lower Mississippi Valley just keep on getting older. We've already spoken of **Lower Jackson Mound** (3955 to 3655 BC). Here are some of the others:

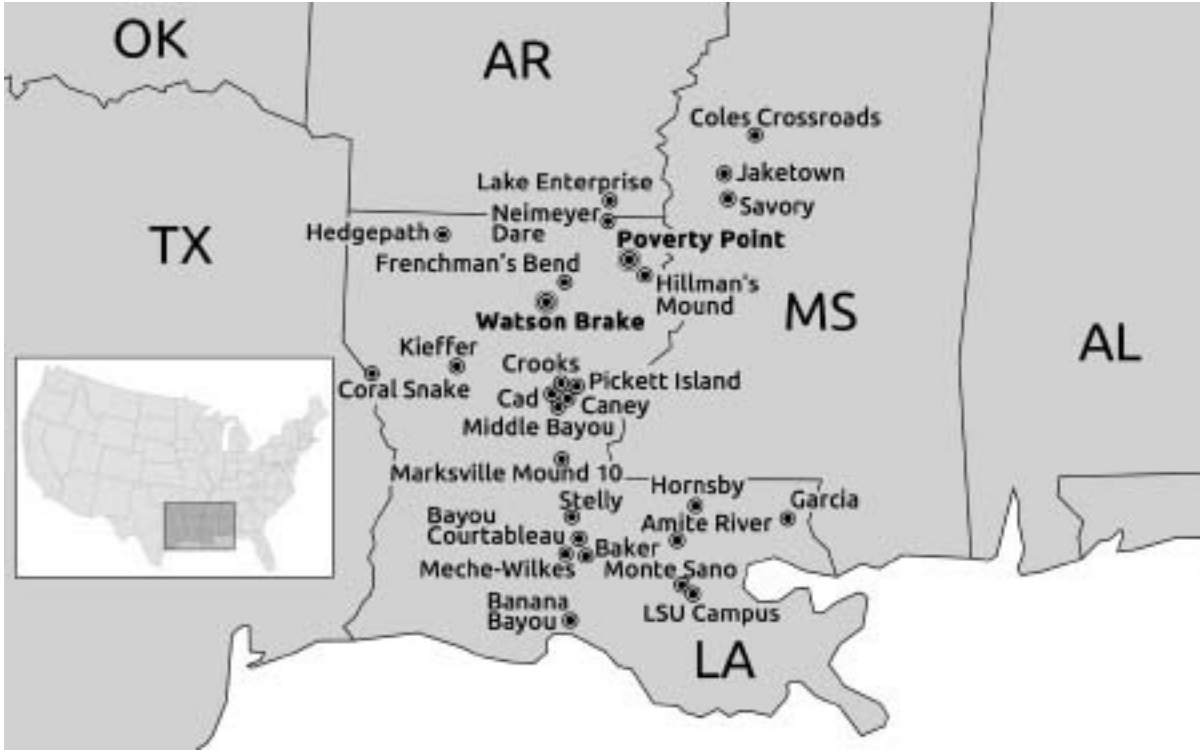

Ancient Mound Sites of the Lower Mississippi Valley.

WATSON BRAKE

One C-14 date suggests that mound-building may have begun as early as 3590 BC; others suggest a range of 3400 to 3300 BC.[5]

CANEY MOUNDS

C-14 dates range from 3600 to 3000 BC.[6]

FRENCHMAN'S BEND

C-14 supports a date of 3570 BC.[7] A significantly older date of 4610 BC—almost 7,000 years ago—was derived from an excavated hearth.[8]

HEDGEPETH MOUNDS

The earliest mound date is 4930 BC—again, very close to 7,000 years ago.[9]

MONTE SANO

A charcoal sample from a cremation platform within one of the mounds yielded a date of 4240 BC.[10] Two other charcoal samples from a small platform mound produced dates of 5030 to 5500 BC[11]—moving past 7,000 years ago and toward 7,500 years ago.

CONLY

Eight radiocarbon dates securely locate the site between 7,500 and 8,000 years ago.[12]

THE SITE THAT CHANGED THE GAME

BOTH IN TERMS OF QUANTITY and of quality, Watson Brake has been the subject of more thorough, sustained, and wide-ranging scientific scrutiny than any of the other sites that are 5,000 years old or older. Moreover, it is only at Watson Brake that the excavations and archaeological research have been accompanied by detailed archaeoastronomical assessments, allowing comparison with the later Adena, Hopewellian, and Missippian sites reviewed in previous chapters.

So it is Watson Brake we'll focus on here.

First, and it is good the reader should harbor no illusions in this regard, not a single item has been excavated at Watson Brake that in any way suggests the presence of an advanced material culture. The people who built the mounds and lived at the site intermittently—or perhaps more permanently—over a period of many hundreds of

years used stone tools and points that are typical of the Middle Archaic period. They were hunter-gatherers, not agriculturalists, and although they did gather plants that would later be domesticated, they did not domesticate these plants themselves. In other words, they lived simply, close to the earth, and were in every way a normal and representative population for this part of North America 5,000 or 6,000 years ago.[13]

In every way, that is, except one.

They built mounds.

Referring to the sites listed above (and a handful of others I didn't list), Joe Saunders writes:

> The earliest … earthworks in the Lower Mississippi Valley appear to have been made by autonomous societies. Practically speaking, it is difficult for 16 Middle Archaic mound sites spanning 1,000 years of prehistory in three subregions of Louisiana … not to look autonomous.
>
> But there must have been some communion among the autonomous societies because there are too many shared traits that cross the vast expanses of the Lower Mississippi Valley, and there is no evidence of other monuments being made

elsewhere. If all Middle Archaic mound sites were spontaneous creations, would they not occur spontaneously elsewhere as well?[14]

Sadly, Saunders passed away on September 4, 2017. Formerly regional archaeologist and professor of geosciences at the University of Louisiana, he was the acknowledged expert on Watson Brake and its lead excavator. It was his paper, "A Mound Complex in Louisiana at 5400–5000 Years Before the Present," published in *Science* on September 19, 1997,[15] that effectively put Watson Brake on the map, preempting arguments that might otherwise have arisen around the dates of the site with a meticulous, comprehensive, and wide-ranging body of evidence.

"There's just no question about it," said Jon Gibson at the time. "Saunders has come at it from too many different angles."[16]

And Vincas Steponaitis of the University of North Carolina commented: "It's rare that archaeologists ever find something that

so totally changes our picture of what happened in the past, as is true for this case."[17]

Certainly Watson Brake did change the picture archaeologists had of the past, delivering the death blow to the tired old prejudice, already mortally wounded by Poverty Point, that hunter-gatherer societies were somehow constitutionally incapable of complex large-scale constructions.

And as it turns out, despite its low-maintenance material culture, the site itself is sophisticated and precociously clever.

SACRED OVAL

LIKE SERPENT MOUND, WATSON BRAKE was built on a natural elevation, in this case a terrace dating back to the depths of the Ice Age

overlooking the 12,000-year-old floodplain of the Ouachita River with its tributary stream the Watson Bayou.[18] And in just the way that Serpent Mound stands above Brush Creek, Watson Brake stands above Watson Bayou,[19] creating the illusion that the mounds are 5 or 10 meters higher than they actually are.[20]

In the case of Serpent Mound, in front of the effigy's gaping jaws, the reader will recall the presence of an earthwork enclosure in the form of a great oval. Although complicated by the integration of mounds into the figure, and on a much larger scale, Watson Brake is also an earthwork enclosure forming a distinct and unmistakable oval, with a long axis of 370 meters and a short axis of 280 meters.[21]

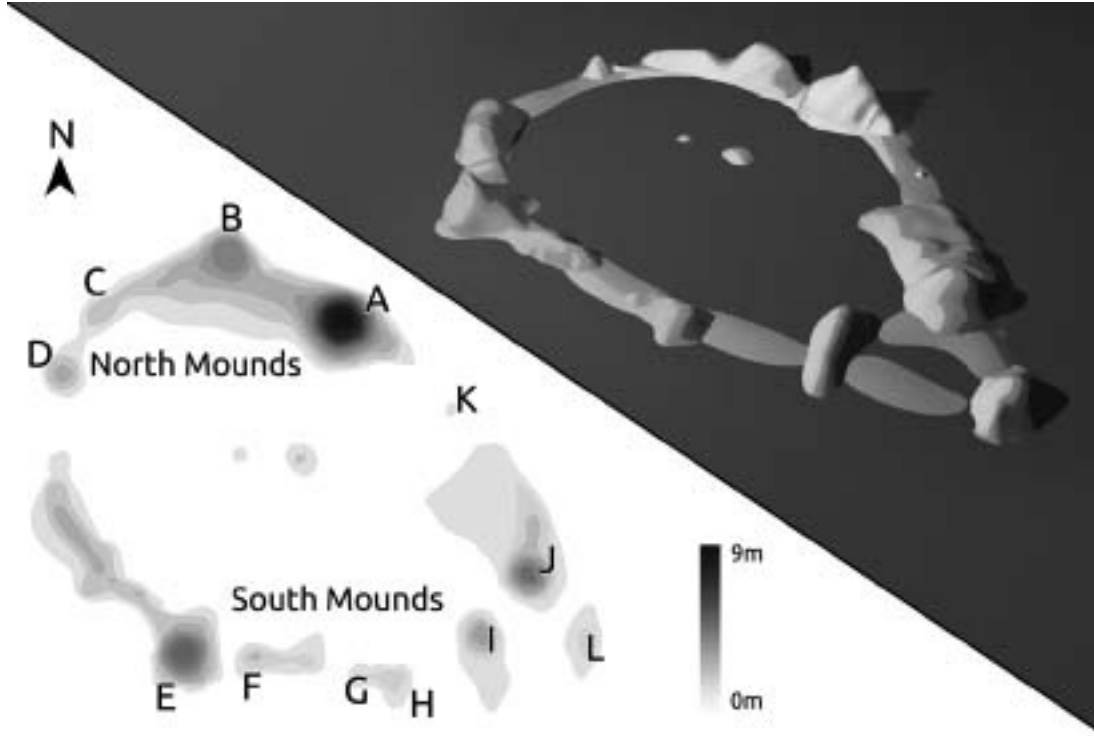

LEFT: Watson Brake site plan. RIGHT: 3D model of Watson Brake.

There is some disagreement as to whether the total number of mounds at Watson Brake should be counted as eleven or twelve because one, designated Mound L, requires further archaeological

verification. It also lies outside the border of the oval formation so firmly demarcated by the other eleven mounds and their interconnecting embankments—these latter being in the range of 20 meters wide and about 1 meter high.[22] The plaza contained within the embankments covers an area of 9 hectares (about 22 acres)[23] and appears to have been artificially leveled.[24] The excavators found it to be almost completely sterile of artifacts or debris, "suggesting its use as ritual space."[25]

"Apparently daily activities did not occur in the enclosure," comments Saunders.[26] By contrast, however, "daily activities," suggestive of resident populations, certainly did occur on the wide embankments surrounding the enclosure, particularly on the northeastern side.[27]

In a major study published in *American Antiquity* in 2005 Saunders reports that the initial occupation of the site took place as early as 4000 BC[28] and that:

> The first occupants came to Watson Brake to fish, hunt deer and gather plants in every season of the year. Prolonged visits probably occurred. … The construction of the first minor earthworks began around 3500 BC, with Mounds K and B (and possibly A) followed by midden accumulations where Mounds D and C, and to the south I and J, and E were subsequently built. This suggests that the shape of the complex was deliberately laid out by 3500 BC. Major building projects then commenced ca. 3350 BC and existing earthworks may have been heightened and extended along the north mound row. Mound J was erected on the south side at around 3000 BC. Site occupation was concentrated along the terrace escarpment before construction began and continued after the earthworks were completed.[29]

The relative "residential stability and autonomy" evidenced at Watson Brake, Saunders concludes, were made possible by "the diversity and abundance of resources" in the local area.[30]

It seems almost superfluous to state, however, that those resources and the stability they promoted could have been exploited efficiently **without** the mounds. Indeed they **were** exploited for the 500 years when humans were present at the site who built no mounds at all between 4000 BC and 3500 BC.

And then, suddenly … mounds.

Why? What could have prompted this colossal architectural enterprise? What was its purpose?

"I know it sounds pretty Zenlike," Saunders speculated when he was asked this question in 1997, "but maybe the answer is that building them was the purpose."[31]

TRIANGULATION

MAYBE. BUT I'M TRYING TO envisage how the community leaders or influencers would have sold that to the population. Somehow, "We want you to build these mounds because building them will be a good thing for you to do" doesn't sound like a winning line to me. And when we remember that in the same period mounds and earthworks were also being built at other scattered sites belonging to

separate, autonomous communities across the Lower Mississipi Valley, it becomes increasingly obvious that a powerful and far-reaching social phenomenon must have been at work.

After years of field research, excavations, and on-site measurements, Kenneth Sassman of the Laboratory of Southeastern Archaeology, and Michael Heckenberger of the University of Florida are convinced that at least three of these sites—Watson Brake, Caney Mounds, and Frenchman's Bend—share the same basic design:[32]

> The plan we infer from the spatial arrangement of Archaic mounds consists of a series of proportional and geometric regularities, including (1) a "terrace" line of three or more earthen mounds oriented along an alluvial terrace escarpment; (2) placement of the largest mound of each complex in the terrace-edge group, typically in a central position; (3) placement of the second-largest mound at a distance roughly 1.4 times that between members of the terrace-edge group; (4) a line connecting the largest and second-largest … mound (herein referred to as the "baseline") set at an angle that deviates roughly 10 degrees from a line orthogonal to [i.e., at right angles to] the terrace line; and (5) an equilateral triangle oriented

> to the baseline that intercepts other mounds of the complex and appears to have formed a basic unit of proportionality.[33]

I won't attempt to describe Frenchman's Bend or the several other sites that Sassman and Heckenberger believe may also fit this pattern.[34] Watson Brake and Caney can stand for them all. Again a long story must be cut short since these two sites tick all the boxes listed above, but perhaps the most striking outcome of Sassman and Heckenberger's study is the clear evidence they've produced for a shared geometrical plan involving the mounds designated A, E, I, and J at Watson Brake and mounds B, F, E, and D at Caney.

In both cases the line that Sassman and Heckenberger call the "baseline" between the largest and second-largest mounds (A and E at Watson Brake; B and F at Caney) forms one side of an equilateral triangle. In both cases the lines that form the other two sides of the triangle extend through a second pair of mounds (I and J at Watson Brake; E and D at Caney) before intersecting. And in both cases a

line emanating from the “baseline” evenly bisects the gap between a second pair of mounds (B and K at Watson Brake; A and C at Caney).[35]

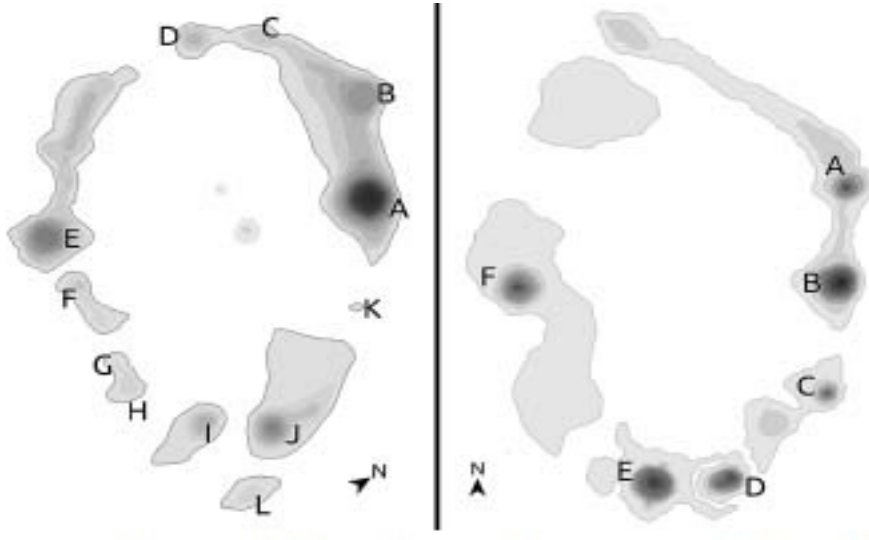

A comparison of the overall layout, design, and orientation of Watson Brake (left) and Caney Mounds (right).

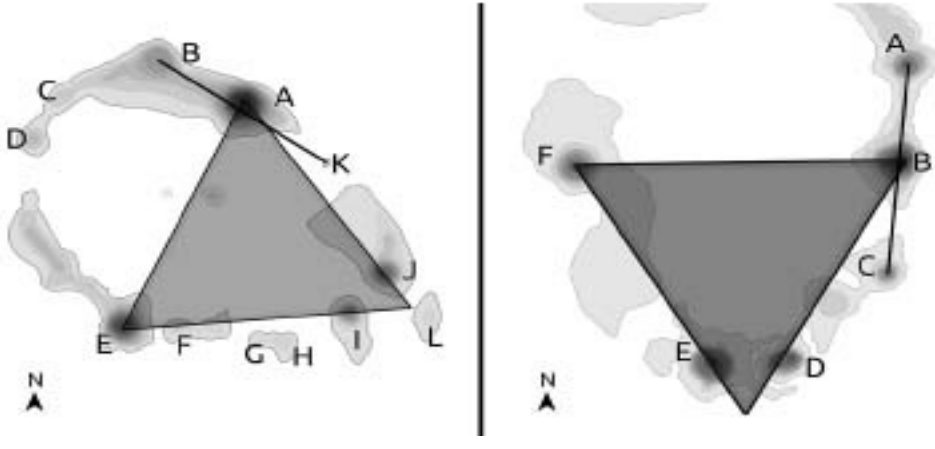

Evidence for a shared geometrical system at Watson Brake (left) and Caney Mounds (right).

All equilateral triangles have internal angles of 60 degrees, but why, asks Norman Davis in a review of Sassman and Heckenberger's findings, "did Middle Archaic Builders use a 60° triangle? Why not a 45°, or a 65 or a 75° triangle?"[36]

The answer to this question, he suggests, has everything to do with the sun:

> It is probably not a coincidence that at Watson Brake the distance along the horizon from where the sun rises (or sets) on the winter solstice to where it rises (or sets) on the summer solstice defines an arc of 59 degrees. … Their triangle was probably derived from [this].[37]

THE DIRECTORS

AS AT SERPENT MOUND, AS at Cahokia, as at Newark, as at High Bank, and as at Poverty Point, the primary concern of the designers of Watson Brake seems to have been to manifest, memorialize, and consummate the marriage of heaven and earth at key moments of the year. This notion of sky/ground communion—summarized in the Old World in the Hermetic dictum "as above so below" but part of a universally distributed package of astronomical and geometrical memes—can involve the moon and the earth, specific stars or constellations and the earth, other planets and the earth, the Milky Way and the earth, and the sun and the earth.

At Watson Brake, it's the sun and the earth that take center stage, as Norman Davis ably demonstrated in 2012 across 18 pages of the journal *Louisiana Archaeology*.[38] The principal assertions concerning solstitial and equinoctial alignments that he makes there have stood the test of time and won the support of leading archaeoastronomers.[39]

In brief, Davis includes the twelve recognized mounds, A through L, in his survey but he also takes note of two natural mounds "possibly modified"[40] that in his view were intentionally left near the center of the oval in antiquity when the rest of the plaza was artificially leveled. These he designates Mounds 1 and 2.

Among his key findings the most immediately striking is that no fewer than five separate alignments running through the site each independently and redundantly target the summer solstice sunset. "Even if the alignments were not to the sun," Davis writes, "the ability to establish five perfectly parallel, nearly equidistant sightlines across several hundred meters would be remarkable. The sightlines had to have preceded construction. Their pattern suggests a master site plan, with construction to the plan taking years, or perhaps centuries, to complete."[41]

Impressively, the alignments target the sun not exactly where it rises and sets today but rather precisely where it would have risen

and where it would have set in the epoch of 3400 BC—which, at the latitude of Watson Brake, was at azimuth 119 degrees for the winter solstice sunrise and at azimuth 299 degrees for the summer solstice sunset.[42] As the reader will recall, solstice alignments are reciprocal. If you are facing the setting sun on the summer solstice, then 6 months later on the winter solstice the sun will rise in the exact opposite direction, 180 degrees around the "dial" of the "azimuth clock."

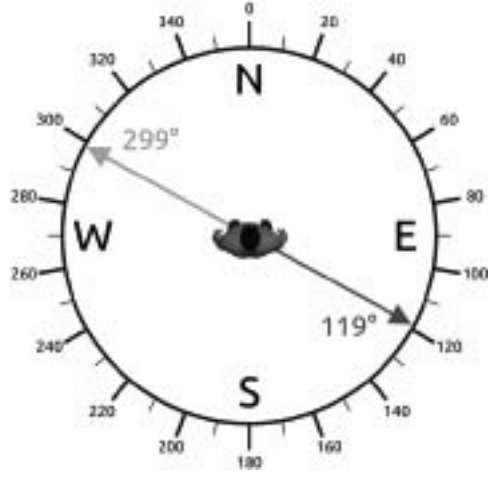

The "azimuth" of an object is its distance from true north in degrees counting clockwise. North is nominated as 0 degrees, so azimuth 90 degrees is due east, azimuth 180 degrees is due south, and azimuth 270 degrees is due west. An azimuth of 299 degrees will therefore be 29 degrees north of west. An azimuth of 119 degrees is 29 degrees south of east.

There are no alignments to the **summer solstice sunrise** or to the **winter solstice sunset** at Watson Brake. But the clear alignments to the **summer solstice sunset** (azimuth 299 degrees) and the **winter solstice sunrise** (azimuth 119 degrees) identified by Davis are as follows:

- From Mound A to Mound B.
- From Mound J to Mound 2.
- From Mound D to Mound L.
- From Mound I to the southern edge of Mound D.
- From Mound E to the outside edge of the double bulge on

the Mound E platform.[43]

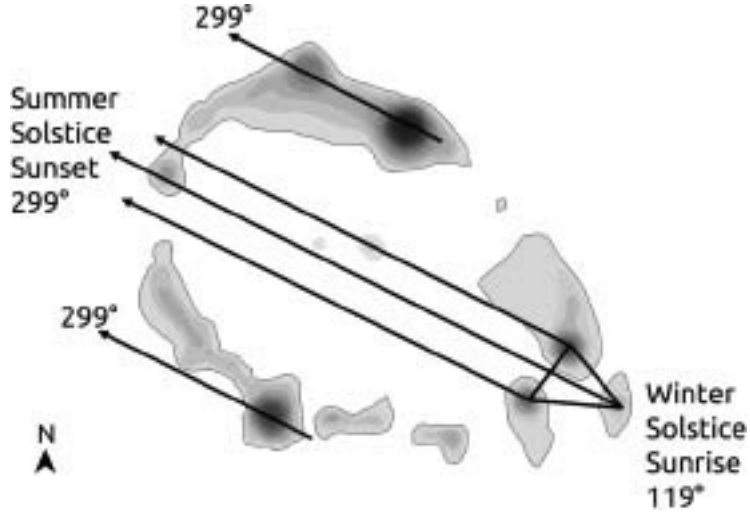

"The Mound J to Mound 2 sightline," Davis adds, "continues on and passes through the center of the gap between Mounds C and D. The Mound D to Mound L sightline passes through the center of the gap between Mounds I and J. The sightlines have azimuths of 119 degrees and 299 degrees."[44]

Could Watson Brake's multiple alignments to the summer solstice sunset and the winter solstice sunrise have come about by chance? It already seems vanishingly unlikely, but what settles the matter is that the site's concerns turn out to be not only with the solstices but also with the spring and autumn equinoxes—those special times of balance around March 21 and September 21 when night and day are of equal length and the sun rises perfectly due east and sets perfectly due west. Davis has identified four equinoctial alignments at Watson Brake, as follows:

- From Mound A to Mound C.
- From Mound 1 to Mound 2.
- From Mound E to Mound F.
- From Mound G to Mound H.[45]

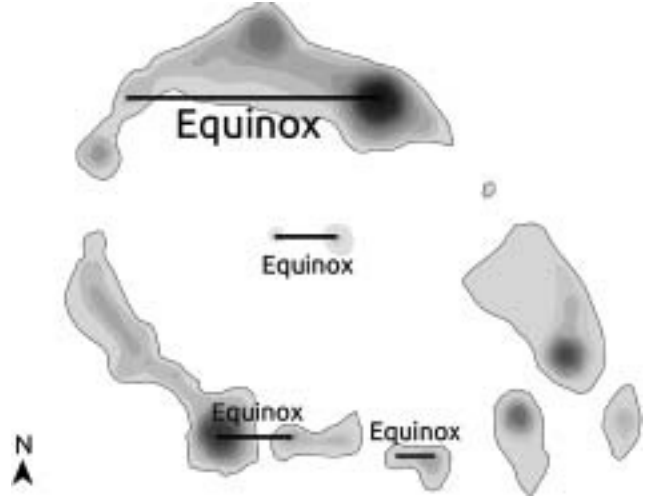

In addition, several of these equinox sight lines, notably Mounds E–F and mounds G–H, extend to other mounds and features of the earthwork in such a way, Davis notes, that their east to west alignment "had to have preceded construction. This suggests that equinox alignments were … used to engineer this site."[46]

And not only the equinox alignments.

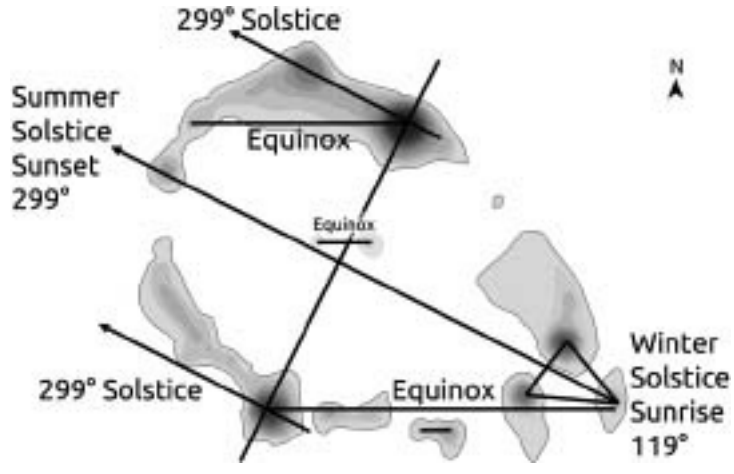

The length of the Watson Brake earthworks is defined by the alignment to the summer solstice sunset of the two ends of its principal axis, Mound L in the southeast and Mound D in the northwest. Its breadth is defined on one side by the Mound E to Mound E-platform alignment, and on the other by the Mound A to Mound B alignment, both also solstitial.[47]

All in all, Davis makes a strong case that the entire design of the site is an artifact of its solstitial and equinoctial alignments. They

came first; everything else followed. The question that remains unanswered, however, is … why? Davis sidesteps it, stating that his purpose is only "to demonstrate that solstice and equinox alignments are present at Watson Brake."[48] There's no doubt he has succeeded in this enterprise, as his findings regarding the site's solstice alignments have subsequently been confirmed at a higher level of technical precision in a Lidar survey by archaeoastronomer William Romain.

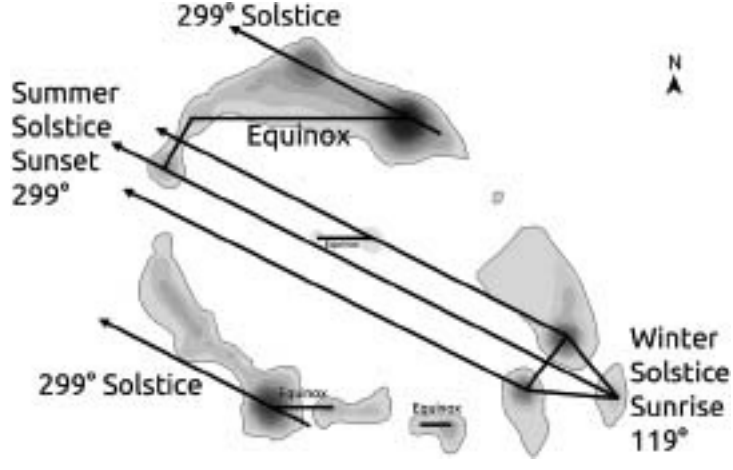

Joining earth to sky. All equinox and solstice sight lines at Watson Brake.

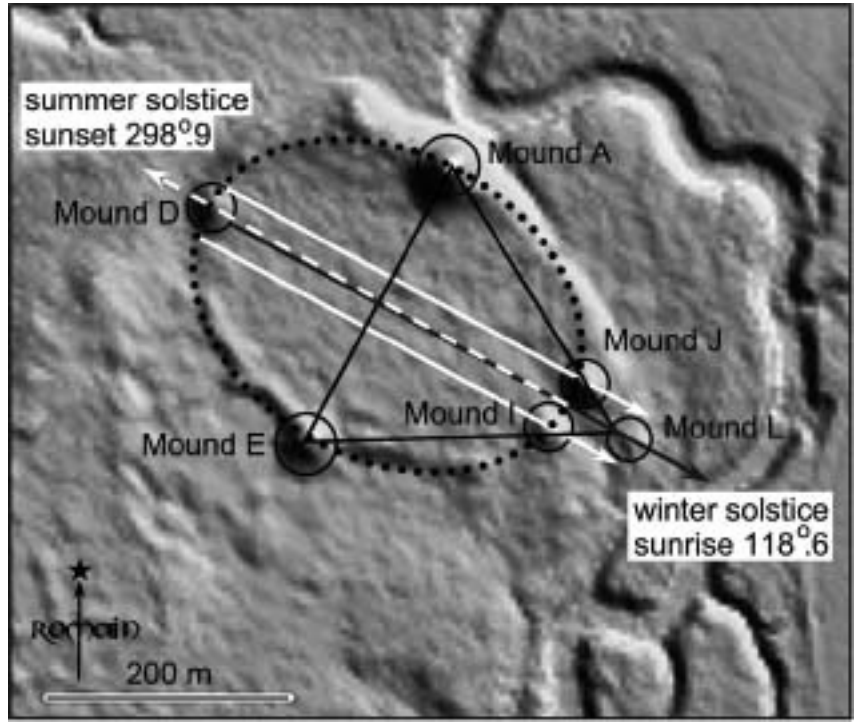

Lidar confirmation and refinement of the solstitial alignments in the Davis survey by William Romain.

Building on the discoveries made by Davis, Romain's conclusions are striking:

> Watson Brake incorporates sophisticated geometric designs tied to astronomical sightlines in multiple ways. As someone who has worked mostly in the field of Hopewell archaeology, I am still trying to wrap my head around the fact that all this anticipates Adena and Hopewell by thousands of years. Indeed, the significance of these findings is that Watson Brake appears to be the earliest-known celestially-aligned mound complex in North America. That's a big deal.[49]

The fact that it's a big deal only makes the unanswered "why" question more urgent, but Davis admits he's unable to think of any "practical reason why the site should have been designed and engineered around solar sightlines. In fact it must have added to the difficulty of construction."[50]

The logical conclusion, he suggests, is that "using solar azimuths to design and build Watson Brake may have had more to do with cosmology [beliefs about the origin and nature of the universe] than astronomy [the scientific study of the heavens]."[51]

None of the other Middle Archaic sites have yet had the benefit of the sort of thorough archaeoastronomical survey that Davis, and subsequently Romain, have been able to carry out at Watson Break. However, Davis estimates from map analysis, within a margin of error of plus or minus 2 percent, that the Caney Mounds site has "one equinox alignment and two summer and winter solstice alignments. Frenchman's Bend has one equinox alignment and one winter solstice alignment."[52]

The mystery, although the sites so far investigated "show no evidence for the development of astronomical knowledge over time,"[53] is that "the people who directed the construction of Watson Brake … had an advanced knowledge of the solar and probably lunar cycles, and they used this knowledge to design and engineer their sites. Who were these directors, and how did they get others to build the sites one container of earth at a time?"[54]

REINCARNATIONS

OTHER QUESTIONS SHOULD BE ASKED.

How were these “directors” able to manifest geometrical and astronomical knowledge, and advanced combinations of the two, more than 5,000 years ago when no prior evidence of the existence of such abilities has been found in North America at such an early date? Set aside for a moment the issue of the organizational competence necessary to motivate and manage the workforce. The bigger problem is that the scientific skills and the knowledge required to create the earthworks just seem to appear out of nowhere, with no evolution and no buildup.

One minute they’re not there. The next, almost magically, they are. And then, at once, the Middle Archaic mound-building phenomenon bursts into full bloom.

We know it starts earlier, but for convenience let's take the florescence of Watson Brake around 3400 BC as a benchmark.

What follows, there and at the other sites, is roughly 700 years of stability, continuity, and—we must assume given the similarities—communications and connections. As noted earlier, these were all different cultures, but they all shared the same mound-building obsession and continued to express it in the same ways.

Until sometime around 2700 BC.

That was when, for some unexplained reason, the ancient sites were all abandoned and the whole mound-building enterprise came to an abrupt and complete halt. I'll let Joe Saunders, the acknowledged expert on the subject, take up the story of the mysterious end of Middle Archaic mound-building:

> New radiometric data indicate a sudden and widespread cessation of mound building in northeast Louisiana. The clustering of the ten youngest dates from seven mounds at four sites is remarkable. The median probability for seven of the ten samples falls between 2884 BC and 2739 BC. Equally remarkable is that the

> cessation of mound construction may have lasted up to 1,000 years, or until the emergence of the Poverty Point culture. … To date, not one mound site dating to the Late Archaic (2700 BC to 1700 BC) has been identified in the Lower Mississippi Valley.[55]

Saunders declines to speculate in any depth about the reasons for this precipitous end to the precocious early mound-building phenomenon in North America. He's open to the possibility, suggested by some, that climate change might have been involved, but states his own view that "the 'synchronous' event may be better understood as a social phenomenon. The abandonment of an ideology or change in ethos can occur simultaneously within a diverse range of environments. Also the absence of environmental change would be consistent with the documented continuity in economy from Early to Late Archaic periods—before, during, and after mound building."[56]

Whatever the reason, the facts are not in doubt. Mound-building, with all its sophisticated geometry and astronomy, stopped dead in

its tracks around 2700 BC. For the next thousand years not a single mound was built and not a single earthwork was raised. There's not a hint of geometry or of monumental architecture. The only reasonable conclusion is that those skills had been utterly lost.

But then, as suddenly and mysteriously as the "mound-building movement" had vanished, it appeared again, at around 1700 BC, in the spectacular and sophisticated form of Poverty Point.[57] All the old geometrical and astronomical skills were redeployed there—and by practiced hands—as though they'd been in regular use all along.

Poverty Point thrived for the next 600 or so years, only to be abandoned in its turn at around 1100 BC. Then it seems that mound-building was interrupted again until relatively late in the development of the culture archaeologists call the Adena. The label "Adena" is in fact the name of the country estate in Ohio on which the "typesite" was found.[58] We have no idea what that culture called itself. Its origins can be traced back to around 1000 BC.[59] However,

no early Adena mounds exist and those that have been dated, such as the Adena Mound typesite,[60] cluster around 200 BC or, in the case of Serpent Mound, 300 BC,[61] but not significantly earlier.[62]

It looks very much as if there was another hiatus, perhaps not of 1,000 years—let's say 800 years—between the end of Poverty Point and the rebirth of the mound-builder movement late in the Adena period. Thereafter it grew again to full force in its Hopewell and later Mississippian manifestations until finally being brought to an end by the European conquest.

Despite the fact that different cultures were involved at different periods, every resurgence of mound-building was linked to the reiteration and reimagination of the same geometrical and astronomical memes.

This was not "chance" or "coincidence."

Witness, for example, the way that Lower Jackson Mound was used as the base datum from which the entire geometry of Poverty

Point was calculated.

Or, at a more human level, consider the case of the highly polished hematite plummet—a valuable item—that was made at Poverty Point at around 1500 BC but that some pilgrim carefully carried to the by then long-abandoned and deserted site of Watson Brake and deliberately buried half a meter deep near the top of Mound E.[63]

This kind of behavior—the incorporation of ancient sites into younger ones, pilgrimage, an offering—has the feel of a religion about it. Religious institutions have proved themselves throughout history to be extremely efficient vehicles for the preservation and transmission of memes across periods of thousands of years.

It's not unreasonable, therefore, to suppose that some kind of cosmic "sky-ground" religion lay behind the alignments to the solstices and the equinoxes at Watson Brake and at the other early sites—a religion sufficiently robust to ensure the continuous

successful transmission of a system of geometry, astronomy, and architecture over thousands of years.

John Clark is in no doubt. “The evidence,” he says, “suggests very old and widely disseminated knowledge about how to build large sites. The building lore persisted remarkably intact for so long that I think we can, and must, assume that it was part of special knowledge tied to ritual practice.”[64]

Where did this special knowledge come from before it appeared at Watson Brake?

How old is it really?

And why, like the serpent that changes its skin or the phoenix reborn from the ashes, does it possess the extraordinary ability to vanish for millennia and then to reappear, as Clark puts it, “with no apparent distortions, loss of measurement accuracy, or shifts in numeration?”[65]

If it was carried in religious ritual among the ancient civilizations of the Mississippi Valley, then perhaps there will be clues to its origins, and its purpose, in what survives of the spiritual ideas of those long-lost people.

PART VI

EQUIPPED FOR JOURNEYING

The Mystery of Death

22

QUIETUS?

IN MAY 2017, ON A research trip for this book across the American Southwest, I awoke in my hotel room in the small town of Bloomfield, New Mexico. It was deep in the night and very dark. I felt nauseous and assumed I'd picked up a stomach bug somewhere along the way. I didn't imagine it was anything serious. I remember getting out of bed without disturbing Santha, who was sleeping

deeply after a long day of photography in the sun. I found my way to the bathroom, switched on the light, and stood hunched over the toilet, waiting to throw up.

The next thing I knew I was returning to consciousness, deeply confused, wired to a drip and lying in a hospital bed. It was full daylight and Santha was standing over me, looking scared.

"Where am I?" I asked. My voice sounded slurred, my tongue thick in my mouth. I had difficulty forming words. "What the fuck happened?"

"You had a seizure, my love," Santha replied, "but they say you're going to be okay."

The hospital was the San Juan Regional Medical Center in Farmington, New Mexico, about 15 miles west of Bloomfield. I recall nothing of the paramedics coming, or the ambulance journey, or what happened in the emergency room. What I do know, because Santha subsequently told me, is that at around 3:30 am she had awakened, sensed my absence, seen that the light was on in the

bathroom, and called my name. I didn't answer so she called again, and when there was still no reply she hurried from the bed to find me lying on the floor, half in the bathroom and half out of it, writhing uncontrollably with powerful muscular convulsions and blood pouring from my mouth where I'd bitten my tongue.

After turning me on my side to stop me from choking, Santha called 911 and woke our traveling companions, Randall Carlson and Bradley Young, who were staying in neighboring rooms.

I remember none of this. It seems, however, that I'd been stabilized in the ER and then transferred to the bed where I regained consciousness and quite rapidly began to get my wits back. That evening I was discharged and was able to return to our hotel in Bloomfield, where I read my medical notes. It turned out I was suffering from a previously undetected heart condition known as atrial fibrillation and was now to take anticoagulant medication daily to prevent a possible recurrence of what was diagnosed as a transient ischemic attack—in other words, a "mini stroke." I

suffered some loss of memory of events that had taken place in the weeks before the attack but there was no obvious neurological damage visible on the scans. The medical staff at Farmington were absolutely brilliant. I'm deeply grateful for their rapid and effective intervention.

I do indeed have atrial fibrillation, which can and does cause strokes (the blood pools and clots in the heart). I'm still taking anticoagulants. However, the diagnosis I'd been given was very far from complete, as became clear around noon on Monday, August 14, 2017, when I suffered further, far more severe, seizures at my home in Bath, England.

Again I was rushed to the emergency room and then to the ICU. Again the medical staff, now at the Royal United Hospital in Bath, were completely brilliant, caring, and engaged with my case far above and beyond the call of duty. This time the convulsions racking my body were exceptionally violent and continuous and Santha was taken aside by the neurologist who advised her she must

prepare herself for the worst. The medical team was having no success in stopping the seizures and it was possible I would die or end up so badly brain damaged that I would effectively be a vegetable.

As a last resort I was put into an induced coma, intubated on a ventilator. My condition settled over the next 48 hours and eventually the doctors were able to withdraw the tube and start me breathing for myself again. It was the evening of Wednesday, August 16, when I began to return to some form of consciousness, baffled to see that Sean and Shanti, two of my grown-up children, had flown from Los Angeles and New York to be with Santha at my bedside, together with Leila and Gabrielle, two more of our grown-up children, who live in London. For quite some time I couldn't understand what had happened, why I'd been fitted with a catheter, why my brain was so foggy.

Little by little consciousness increased. I was moved to the neurology ward and on Thursday night, August 17, much to my

relief, the catheter was removed. All day Friday the 18th I remained in the neurology ward, very wobbly but able to totter to the toilet with the aid of a stick. By Friday night I was feeling much better. Finally, on Saturday, I was discharged and came home.

Tests carried out established pretty clearly (although there is still some mystery over what exactly is going on) that the epileptic seizures were not caused by blood clots deriving from my atrial fibrillation, but rather by long-term overuse of a migraine medication called sumatriptan, delivered by injection; I was taking up to a dozen of these shots a month and had been doing so for more than 20 years. Turns out having migraines is itself a risk factor for epilepsy, and research has established a link between triptans (especially when overused) and seizures. It's almost certain it was the sumatriptan that had brought me to death's door, and it is now obvious that I must simply suffer the hideous and mind-numbing pain of my migraines or end up comatose or dead. As I write this in 2018 I'm still on massive daily doses of the anticonvulsant

medication levetiracetam. As long as I keep on taking it there's a good chance the condition won't recur.

OUT OF BODY

THE 48 HOURS OF INDUCED coma, though utterly harrowing for Santha, for our children, and for myself, raised interesting questions. Where was "I" during these missing 48 hours? I do remember the ventilator tube being stuffed down my throat and the powerful sense that I was being invaded and asphyxiated. But what happened after that?

A few confused recollections return from time to time to haunt me, but they're so muddled and fragmentary I can't put them into place. I don't think they're memories of near-death experiences because—after all—I wasn't dead. It was simply that my consciousness had been switched by medication to standby mode

and the more I look back on it the more I realize that I was just absent, just gone, during those 48 hours. If I try to visualize that strange interlude what I see and what I feel is … darkness.

Claustrophobic, enclosed, thick darkness.

It wasn't like that the last time I "died," which was in May 1968, pretty much exactly 49 years earlier, following a massive electric shock.

I was seventeen then and still living at home with my parents. I'm an only child. One of my siblings, a boy, was carried to term but born dead a couple of years before I was conceived. My two other siblings, first a girl—Susan—and then a boy—Jimmy—each lived for nearly a year before they died. When my parents went away to their holiday cottage that weekend in May 1968 I was home alone. Naturally, I seized the opportunity to throw a party on Saturday night.

The house was semidetached with a small garden off a quiet, close-packed street, not an ideal location for 300 rowdy teenagers,

loud music, and public drunkenness. It turned into an all-night event. The last stragglers didn't leave until the early afternoon on Sunday and visits from irate neighbors left me in no doubt how fortunate I was that the police had not been called. Certainly my parents would be informed about what had happened when they returned that evening.

In a state of some anxiety I spent the afternoon cleaning up. The house had been trashed so it took me hours to make it presentable, but by nightfall I was left only with the kitchen. I didn't expect my parents back until late. There was still time. So I rolled up my sleeves and started in on the huge pile of dishes, cups, glasses, and empty bottles littered around the sink. A lot of water had been spilled on the floor. I would find a mop and deal with that as soon as the dishes were done.

I was barefoot, hands and arms wet, and standing in the water around the base of the sink, when it occurred to me to check whether the refrigerator was properly plugged in. I'm quite

obsessive and often push the back of a plug to make sure it is securely in its socket. The plug was close, I knew exactly where it was—having done this many times before—and without looking I reached for it.

What I didn't realize was that the back of the plug had been smashed off during the night and the live terminals were exposed. When I touched them with my wet hand while standing in a pool of water there was a tremendous *BANG,* a huge searing jolt lashed through my body, and I was thrown across the kitchen, hitting the wall behind me and slumping down to the floor.

I knew I was slumped on the floor because I saw my body clearly but from a completely new perspective. I was no longer "in" that body! I was up around the light, hovering like a bird, looking down on myself.

"Hmm," I remember thinking, "how interesting." My body lying there below me seemed a heavy, cumbersome thing now. Quite

unnecessary, really. It was no great loss to be rid of it, and I liked the feeling of lightness and freedom.

"What happens next?" I wondered.

But then just as suddenly as I'd left my flesh, with just as little choice in the matter, I was within it again, stirring, groaning, coming back to consciousness on the floor.

I was okay. Just fine, in fact! I'd had a nasty electric shock, that was all.

I was young and strong then, and quite soon I was back on my feet. I finished the dishes, mopped the kitchen floor, and did a final check of the whole house. Finally, around 10 pm, with my parents still not returned, I took Rusty, my Irish terrier, for a walk. The moon was full and huge in the sky, dimming the stars with its cold, clear light and casting eerie shadows on the ground. Although I don't remember the exact date in May 1968 on which I was electrocuted, a quick internet search confirms it could only have been the night of Sunday, May 12, when the moon was indeed full.

My migraines began quite soon after that and have continued ever since. I think there's a pattern where they occur more frequently around the time of the full moon than at other times of the month, but I've never bothered to keep a detailed record that would confirm or refute that theory. I could just as easily be imagining the connection.

One thing my near-death experience in 1968 and my experiences of seizure and induced coma in 2017 have taught me, however—one thing I'm sure of—is that the borderline between life and death is filmy, fragile, and as permeable as a breath of air.

We feel firmly fixed in our lives but any of us may cross over at any time.

Sometimes, very rarely, we come back.

But when we don't? What happens then? Is that the end of us, or is it possible—as every religion in the world asserts—that some part of us, some immaterial essence, survives the grave?

A faction of scientists (Richard Dawkins and Daniel Dennett are notable members), scoff at the very suggestion that there might be anything more to us than our material, mortal parts—and they could be right. It may really be the case that there is no transcendent meaning in the universe, no purpose to the human experience, no such thing as the soul, and therefore no possibility of any kind of "life after death." It's important to be clear, though, that such ideas are **not** proven, evidence-based, scientific "facts" arising from experiments and empirical research. On the contrary, they are unproven assumptions and as such, even if voiced by eminent figures like Dawkins and Dennett, they're of no greater or lesser value than the unproven assumptions that underlie all religions.

Regardless of one's own opinions on such matters, moreover, there is one undeniable fact on which I think everyone can agree, and this is that ancient civilizations, just like our own, had religions and that these religions, just like our own, concerned themselves very deeply with the problem of death.

REALM OF THE DEAD

I WAS RAISED IN A Christian family, and being by nature rebellious I committed myself to atheism at around age fifteen.

After that, I think can safely say that I took no interest in spiritual matters whatsoever until I encountered the *Ancient Egyptian Book of the Dead* in my early forties. I was ready for it then, in a way I wouldn't have been in my twenties or thirties, and I was so intrigued by its contents that over a period of years I also delved extensively, with growing fascination, into the more ancient Pyramid Texts and the less well known Coffin Texts, *Book of Gates, Book of What Is in the Netherworld,* and *Book of the Breaths of Life*.

I'll refer to these texts in what follows sometimes by their specific titles and sometimes, collectively, as the "books of the dead" or as the "funerary texts." They are the surviving treasures of

an ancient and profound inquiry into the mysterious nature of reality. I first began to describe what I drew from them in *Fingerprints of the Gods,* published in 1995, and then had the opportunity to go into greater detail in two subsequent books, *Message of the Sphinx* (titled *Keeper of Genesis* in the United Kingdom), published in 1996, and *Heaven's Mirror,* published in 1998.

An enigma that I explore in all those books, but in the greatest detail in *Heaven's Mirror,* is that traces of the same spiritual concepts and symbolism that enlighten the Egyptian texts are found all around the world among cultures that we can be certain were never in direct contact. Straightforward diffusion from one to the other is therefore not the answer, and "coincidence" doesn't even begin to account for the level of detail in the similarities. The best explanation, in my view, is that we're looking at a legacy, shared worldwide, passed down from a single, remotely ancient source.

There are many aspects to this legacy, but I believe its hallmark, as the reader knows by now, is a system of ideas in which geometry, astronomy, and the fate of the soul are all strangely entangled. The geometrical and astronomical memes by which the system replicates itself across cultures and epochs are plentifully represented in the circles, squares, rectangles, and triangles, and in the solstitial, equinoctial, and lunar alignments, of the great mounds and geoglyphs of the Amazon and the Mississippi River basins.

But what about the fate of the soul?

For the entire span of more than 3,000 years that it endured, this question was the preeminent focus of the astonishing high civilization of ancient Egypt and of the remarkable religion that seems to have been born fully formed with it in the Nile Valley in the late fourth millennium BC. Within that religion, expressed in the books of the dead, certain key symbols and ideas stand out, involving most prominently the constellation of Orion, the Milky Way, and the notion, intimately connected to beliefs about both, that

the soul must make a perilous postmortem journey on which it will face challenges and ordeals and be judged on the choices that it made during life.

The constellation Orion, on the west bank of the Milky Way, was seen in ancient Egypt as the celestial image of the god Osiris, Lord of the Realm of the Dead. A narrow shaft cut though the body of the Great Pyramid targets Zeta Orionis, the lowest of the three stars of Orion's belt. IMAGE: ROBERT BAUVAL.

Seemingly with the intention of preparing its initiates for this afterlife journey, as Robert Bauval and I showed in our coauthored book *Message of the Sphinx,* the funerary texts also called for the construction of large-scale geometrical and astronomically aligned structures that were to "copy" or imitate on the ground a region of the sky known as the *Duat*—the ancient Egyptian name, often translated as "Netherworld," for the realm of the dead.[1]

The ruler of this Duat realm was the god Osiris, Lord of the Dead, whose figure in the sky was the majestic constellation that the ancient Egyptians called *Sahu,* and that we know as Orion.[2] It is therefore not surprising, as a manifestation of this "as above so below" cosmology, that the three great pyramids of Egypt's Giza necropolis are laid out on the ground in the form of the three stars of

the belt of Orion. This correlation was first discovered and put on the public record by my dear friend Robert Bauval in his ground-breaking 1994 book *The Orion Mystery*.[3] As early as the mid-1960s, however, Egyptologist Alexander Badawy and astronomer Virginia Trimble had recognized that a mysterious narrow shaft constructed at an angle of about 45 degrees through the body of the Great Pyramid would have pointed at the belt of Orion at meridian transit some 4,500 years ago.[4] With the use of accurate inclinometer data provided by a robotic exploration in 1992, Robert Bauval was able to refine Badawy and Trimble's work and to confirm that in the Pyramid Age, circa 2450 BC, the shaft had been precisely targeted on Zeta Orionis, the first of the three stars of Orion's belt, counterpart in the sky of the Great Pyramid on the ground.[5]

This, too, makes perfect sense from the perspective of ancient Egyptian beliefs. An invocation often repeated in the Pyramid Texts states of the deceased pharaoh:

> O King, you are this great star, the companion of Orion, who traverses the sky with Orion, who navigates the Netherworld with Osiris. … O King, navigate and arrive.[6]

Since the shaft emanates from the so-called King's Chamber of the Great Pyramid, within meters of an empty granite sarcophagus, it's therefore difficult to disagree with what is now the prevailing scholarly opinion concerning its purpose—namely that it must have been designed to serve as a portal, a "star-shaft," through which the soul of the deceased could ascend to Orion and thence begin its navigation of the Duat.[7]

ANCIENT EGYPT IN ALABAMA?

FOLLOWING MY FIRST BOUT OF seizures in New Mexico in May 2017, Santha and I flew to New Orleans and enjoyed a few days of rest,

recreation, and good Cajun food in one of the most laid-back cities in the world while I recovered my strength. Then we were on the road again, driving north to explore the mound-builder sites of the Lower Mississippi Valley, heading ultimately for Serpent Mound in Ohio on the summer solstice.

We stopped first about 4 hours north of New Orleans at the incredible geometrical and astronomical earthworks of Poverty Point, described in chapter 20.

We then went on to visit Emerald Mound, also in Louisiana, and the Winterville Mounds in Mississippi, and on the fourth day of our journey reached Moundville in Alabama.

Here, in addition to the geometry and astronomy I'd come to expect, I found myself plunged most unexpectedly into an ancient Egyptian déjà vu moment after we'd climbed to the top of Mound B. A good vantage point for Santha's photography, this mound is pyramidal in form, 18 meters high, and dominates the whole rather spectacular site that extends southward from the Black Warrior

River. The expansive grand plaza lay at our feet, edged by more than twenty mounds laid out, somewhat like Watson Brake, in the pattern of a great ellipse. At the center of the plaza, presently the focus of Santha's camera, stood a large rectangular platform mound —Mound A—and while she photographed it I stepped aside to read the official archaeological marker.

Much of what it had to say was standard stuff about the building of the site, most of which apparently had been completed over a period of about 100 years in the twelfth and thirteenth centuries. There was some predictable speculation that religion must have been used to coerce, cajole, or convince the population to do all that work. But then suddenly things got interesting. "At Moundville," I read,

> an excellent example of a powerful religious image was the hand and eye motif. Moundville's "Rattlesnake Disk," pictured on this noticeboard, offers us the best-known version, although numerous variations occur in pottery, copper, stone and shell artifacts.

> Stories passed down among various tribes tell of the dead entering the afterlife through an opening marked by a great warrior's hand in the sky. One account describes that hand as the constellation we know as Orion with Orion's belt as the wrist, its fingers pointing downwards. A faint cluster of stars in the center of the palm is a portal to the path of souls or path to the land of the dead. Researchers speculate that the hand and eye represent this constellation.[8]

I was nonplussed. I try to prepare thoroughly, but it looked like I'd missed something important in my background reading before starting out on this trip. The connection of the constellation of Orion to the land of the dead was a fundamental aspect of the ancient Egyptian religion and it felt weirdly like coming home—that comfortable intimacy of familiar territory—to find it here in a Native North American religion.

Moundville: Rattlesnake Disk with "Hand-and-Eye" symbol. **PHOTO: COURTESY OF THE UNIVERSITY OF ALABAMA MUSEUMS, TUSCALOOSA, ALABAMA.**

But I should have known about this!

The Rattlesnake Disk was in the museum we'd passed through briefly on our way into the site, intending to see the exhibits

properly at the end of our visit.

Now suddenly it was top priority, so 10 minutes later we were standing in front of its display case.

It's a mysterious, complex image on a disk of dark gray sandstone, 32 centimeters (just over 12 inches) in diameter. Seventeen notches, creating a coglike effect, are chiseled at equal distances around the perimeter of the disk. Next, intaglio, come two intertwined rattlesnakes, their long tongues flicking forward, their bodies knotted together. Curiously, these serpents have horns. An oval enclosure formed by their coils frames a human hand with what indeed appears to be an eye engraved at its center.

"The hand and eye," I read in the accompanying description:

> is a prominent Moundville motif and is thought to represent a part of the constellation that we identify as Orion. As a group the knotted serpents and the hand and eye are believed to be a representation of the night sky. The serpents are the ropes that join the earth and sky. In the palm of the hand is the portal or doorway through which the spirits of the dead can ascend the path of souls … a

> road or ribbon of light, the Milky Way, stretching out before the traveling souls. This river of light … deposits the souls, after a series of trials, into the realm of the dead. Families from all over the Moundville chiefdom brought and buried their dead here because they believed that Moundville was the appropriate place for the spirit to start its journey along the path of souls. Thus over time Moundville became, in the minds of its people, not only the symbolic gateway to the realm of the dead but also the materialized image of that sacred domain on earth.[9]

So not only was the constellation of Orion part of the Moundville story, not only was a journey to the realm of the dead part of it, too, but now I knew also that a series of trials would have to be faced on that journey, that the Milky Way was involved and, last but by no means least, that Moundville itself had been thought of as an image, or copy, of the realm of the dead on earth. Every one of these were important symbols, concepts, and narratives in the ancient Egyptian funerary texts that I'd been fascinated by for more than 20 years. It would be striking to find even two of them together in a remote and unconnected culture, but for them all to be present in ancient North

America in the same way that they were present in ancient Egypt, and serving the same ends, was a significant anomaly.

In the museum there were other superb examples of the art and iconography of Moundville. It is all indisputably Native American art, the work of the same Mississippian culture responsible for Cahokia. Every piece on show in the display cases had been produced between about AD 1150 and 1500 when Moundville was abandoned, and the archaeologists had done their work so well that there could be no doubt whatsoever about the dates. This ruled out any possibility of direct influence since ancient Egypt breathed its last under Roman occupation in the fifth century AD, at least 500 years before the Mississippian culture came into existence.

How, then, to explain the fact that some of the fundamental symbols and ideas of the religions practiced at Moundville and in ancient Egypt—ideas and symbols specifically concerning the afterlife journey of the soul—appear to be the same?

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THE PORTAL AND THE PATH

THE BOARD AT THE TOP of Mound B said there was "one account" linking the constellation that we know as Orion to traditions of "a great warrior's hand in the sky." This turned out not to be the case. There are in fact dozens of such accounts specifically referencing an ancient Native American constellation in which the stars of Orion's belt form the wrist of this hand—sometimes said to belong to a

great warrior chieftain and sometimes to a malevolent celestial being called “Long Arm,” who used it in an attempt to block a portal between earth and sky but lost the hand when it was chopped off by a human hero.[1]

Other than their underestimation of the sheer numbers of such accounts, it took me no more than an hour on Google to confirm that the information about the Mississippian afterlife beliefs displayed at Moundville, though scant, was based on solid research and accurately reflected the views of leading scholars in the field.

The Milky Way, the connection with Orion, the perilous afterlife journey of the soul, and the notion of creating an image or copy of the realm of the dead on the ground were all genuinely present in the Mississippian religion, just as they were in the ancient Egyptian religion. No one familiar with the Pyramid Texts and the Book of the Dead could fail to notice these obvious resemblances. I’m not the first to do so. Andrew Collins and Gregory Little made passing

mention of them in 2014 and there was earlier brief recognition of the same issue by others in 2012.[2] To my knowledge at the time of this writing, however, no in-depth comparative study has ever been undertaken to determine whether there's a real connection between these two otherwise very different cultures, separated not only by geography but also by time.

Is it all just coincidence?

Or can coincidence be ruled out?

The issue, it seemed to me, was important enough to justify a thorough investigation, and I already had a head start since the ancient Egyptian funerary texts, though never "easy," were home turf for me. I'd been through them so often while researching previous books that I had no difficulty in reengaging with them. As a bonus I still had hundreds of pages of detailed notes I'd made on all the key recensions over the years and most of those notes, with

page references to the heavily underlined and tagged print editions in my shelves, were in searchable electronic form.

The ancient Egyptians left us immense numbers of documents in their beautiful hieroglyphic script and we've been able to read them since Champollion deciphered the Rosetta Stone in the nineteenth century. We also have historical accounts of the ancient Egyptians and their religious beliefs written in antiquity by eyewitnesses to their civilization such as Herodotus. So we have a lot to go on.

In the case of North America, on the other hand, there are no eyewitness reports to provide a pre-Columbian historical record, and since Native North Americans possessed no written languages, they left no documents. Even had they done so, if the example of the organized burning of the Mayan codices during the Spanish conquest of Mexico is anything to go by,[3] precious few of them would remain for us to study today. Such wholesale destruction was visited upon the indigenous cultures of North America that it is a

miracle any of their painted and engraved images on pottery, stone, copper, shell, and bone have survived at all.

We can only guess at what has been lost and work with what remains. In this respect, as anthropologist Mark Seeman explains, while sites like Watson Brake, Serpent Mound, and even the Hopewell earthworks are so old that "historical connections are extremely difficult to make," it's quite a different matter with the Mississippian culture, which is "close enough in time to connect it to the religious practises and oral traditions of historical groups such as the Chickasaw, Creek, Caddo and Osage."[4]

Similar connections with the Lakota, Mandan, Hidatsa, Crow, Arapaho, Oglala, and other Siouan speakers, as well as with the Ojibwa and other speakers of Algonquian languages, have added further vital information to the inquiry.[5]

With these resources at hand, and through a sustained exercise of interdisciplinary detective work involving archaeologists,

anthropologists, and ethnologists, the code of Mississippian ideas and iconography has been comprehensively broken. The crucial realization, as anthropologists Kent Reilly and James Garber inform us, is that much of the imagery "has a linkage to ethnographic material that describes the location of the realm of the dead and the journey of dead souls to the underworld."[6]

There is "variation in ethnographic details from one tribal group to another, as might be expected," adds Professor George Lankford, an internationally recognized authority on Native American folklore, anthropology, religious studies, and ethnohistory.[7] Nonetheless:

> There is a unifying metaphor which argues for a common core of belief across the Eastern Woodlands and Plains, and probably far beyond that area. That unifying notion is an understanding of the Milky Way as the path on which the souls of the deceased must walk.[8]

Elsewhere Lankford reiterates that this belief system was by no means confined to the Plains, the Eastern Woodlands, and the Mississippi Valley. It is better understood, he argues, as part of "a widespread religious pattern" found right across North America and "more powerful than the tendency towards cultural diversity."[9] Indeed, what the evidence suggests is the former existence of "an ancient North American international religion[10] … a common ethnoastronomy … and a common mythology. Such a multicultural reality hints provocatively at more common knowledge which lay behind the façade of cultural diversity united by international trade networks. One likely possibility of a conceptual realm in which that common knowledge became focused is mortuary belief [and] … the symbolism surrounding death."[11]

SOULS OF ANCIENT EGYPT

IN BOTH ANCIENT NATIVE NORTH America and ancient Egypt the universe was believed to be "layered"—with This World, the everyday material realm, inhabited by humans, sandwiched between an Underworld below (often with powerful Underwater aspects) and an Upper World, or Sky World, above. In both ancient Native North America and ancient Egypt the afterlife journey was envisaged as unfolding in the Sky World, among the stars. But in both this apparently celestial setting had contradictory Below World characteristics, including bodies of water and other obstacles to cross, architectural spaces to navigate, and monstrous adversaries to face.

Ancient Egyptian notions of the soul can seem extremely complex at first glance. Indeed, according to the great authority on the subject, Sir E. A. Wallis Budge, formerly Keeper of Egyptian Antiquities at the British Museum, it's not just a matter of one soul but of multiple souls—all of them separate from but in some way

connected to the *khat,* or physical body—"that which is liable to decay."[12]

In Budge's summary, these separate, nonphysical "souls"—perhaps "aspects of the soul" would be a better description—include notably:

- The *Ka,* or "double," that stays earthbound after death in the immediate vicinity of the corpse and the tomb.
- The *Ba,* depicted as a bird or human-headed bird that can fly freely "between tomb and underworld."
- The *Khaibit,* or shadow.
- The *Khu,* or "spiritual soul."
- The *Sekhem,* or "power."
- The *Ren,* or "name."
- The *Sahu,* or "spiritual body," which formed the habitation

of the soul.

- The *Ab,* or heart, "regarded as the center of the spiritual and thinking life. … It typifies everything which the word 'conscience' signifies to us." The heart, and what its owner has imprinted upon it by his or her choices during life, is the specific object of judgment in the Netherworld.[13]

The *Ba* soul flying free of the physical remains of the deceased.

It would be possible to write an entire book, perhaps several, on the complexities of ancient Egyptian soul beliefs. In my opinion, however, once the baroque flourishes, dramatic elements, and multiple iterations are dispensed with, the eight “souls” or “soul

aspects" listed above can be boiled down to two, reflecting the ancient Egyptian view of the fundamentally dualistic nature of the human creature as both a spiritual and as a material being.

On the one hand, there is that nonphysical, spiritual aspect of ourselves that is potentially eternal and immortal, aspiring to the "life of millions of years," as the funerary texts put it. Having worn the body like a suit of clothes, it is this "soul" that is liberated from it at death and can ascend to the stars, specifically to the constellation of Orion, to begin the next stage of its journey.

On the other hand, there is the physical body and the animating force believed to have attended to the vital functions of that body during life. Also seen as a kind of "soul," a supernatural entity in its own right, it is the lot of this ghostly, nonphysical presence—combining most notably the characteristics of the *Ka* ("double") and of the *Khaibit* ("shadow")—to remain on earth with the corpse.

Inevitably in such a system of ideas, earth and sky become opposed dualities symbolizing the material realm that is to be left

behind and the spiritual realm to which the potentially immortal, nonphysical aspect of the deceased ascends. Thus we read in the Pyramid Texts:

> Earth is this King's detestation. … This King is bound for the sky.[14]
> The spirit is bound for the sky, the corpse is bound for the earth.[15]
> The King is one of those … beings … who will never fall to the earth from the sky.[16]

In a similar vein, with some complexity regarding the activities of the "shadow," the *Book of What Is in the Duat* has this to say:

> Let thy soul be in heaven … let thy shadow penetrate the hidden place, and let thy body be to the earth.[17]

Many other examples could be cited but the summary is that the ancient Egyptians believed in two souls, or two fundamental aspects of the soul. One of these (let us not quibble about its several different avatars) remained bound to the physical remains and the

tomb. The other, again in its several forms, was free to ascend to the sky and begin the journey to the realm of the dead.

SOULS OF ANCIENT AMERICA

WHAT NOW OF NATIVE NORTH AMERICAN conceptions of the soul?

Here, too, we find at first a bewildering multiplicity.

The Quileute people of the US northwest coast believe that within every living human body there reside several souls that "look exactly like the living being and may be taken off or put on in exactly the manner as a snake sheds its skin."[18]

These souls are an inner soul, called the "main, strong soul," an outer soul, called the "outside shadow," a life-soul, referred to as

“the being whereby one lives,” and the “ghost” of the living person, “the thing whereby one grows.”[19]

Let’s note in passing that the *Ancient Egyptian Book of the Dead* declares in chapter 164:

> I have made for thee a skin, namely a divine soul.[20]

Returning to North America, it was believed among the Yuchi of Oklahoma that the individual “possesses four spirits … one of which, at death, remains on the spot where the disembodiment took place, while two others hover in the vicinity of tribesfolk and relatives. … The fourth starts upon a four-days” journey … to the haven of souls.[21]

In other accounts gathered from among the widely spread Ojibwa people of northeastern North America, the ethnographer Vernon Kinietz was told that humans have seven souls—only one of which, “the real soul,” goes to the realm of the dead.[22] Another Ojibwa

group reported that, according to their traditions, the human being consists of three parts:

> The body (*wiyo*), which decays after death, the soul (*udjitchog*), which at death departs for the realm of the dead in the West, and the shadow (*udjibbom*), which after death becomes a grave-ghost.[23]

Expressing the same idea in a slightly different way, the Menominee of Wisconsin say there are two souls in every human being:

> One, which is called "a shade across," resides in the head and is the intellect; after death it becomes a grave ghost. The other is the real soul, *tcebai,* which has its seat in the heart and at death betakes itself to the realm of the dead.[24]

For the Choctaw, also, humans have two souls—the *shilombish,* "the outside shadow," and the *shilup,* "the inside shadow," or ghost, which at death goes to the land of ghosts. The *shilombish* remains on earth.[25]

And indeed, when the unnecessary details and confusingly ambiguous terminology are stripped away, it becomes clear that the fundamental Native North American belief across a vast geographical area, like the fundamental belief of the ancient Egyptians, was in the existence of two souls, one bound to the body and the earth, the other free to ascend to the sky. "Soul dualism," concludes renowned Swedish anthropologist Ake Hultkrantz in his immense and still widely cited 1953 study, *Conceptions of the Soul Among North American Indians,* "constituted the predominant type of soul belief in North America."[26]

At the heart of this widespread belief system stand twin concepts defined by Hultkrantz as the "free-soul" and the "body-soul." The latter, also sometimes referred to as the "life soul," represents "the forces that keep the body vital and active." The "free-soul," on the other hand, represents "the person himself in his extracorporeal form" but with the added power of limitless movement.[27]

To what end was this freedom of movement used?

Among ancient Native North Americans, as George Lankford explains, it was believed that

> at a crucial point in the dying process the "free-soul," the one that is self-aware and has an identifiable personality in relation to the deceased, separates from the body, leaving behind the life-soul, a mindless force which can be dangerous to the living, trapped in or near the physical remains. The free-soul remains present in the vicinity for a brief time, then … sets off towards the west on its final journey. … If at any time along the route the free-soul gains the power or will to return to earthly life, then it may retrace its steps and re-enter its body. … Mortuary rituals must therefore include at least two different tasks, taking care of two different souls."[28]

Exactly the same care and attention paid to two different "souls," and for the same reasons, also characterized ancient Egyptian mortuary rituals.[29] It seems clear that these separate ancient Egyptian "souls" are essentially identical to, and interchangeable

with, Native American notions of the “body-soul” and the “free-soul.”

THE ROAD TO THE WEST

IN THE ANCIENT EGYPTIAN PYRAMID Texts, line 1109, a soul reaches the realm of the dead only to hear a voice telling him:

> Turn about, O you who have not yet come to the number of your days.[30]

A legend of the Ottawa, a Native American people who lived in Michigan and Ohio before migrating to Oklahoma where most members of the tribe are now found, tells of a person who enters the realm of the dead although he himself still lives. A voice, “as if it were a soft breeze,” whispers in his ear:

Go back to the land from whence you came. Your time has not yet come.[31]

The free-soul can become detached from the body not only in death, but also in dreams, visions, and comatose states. From the Native American perspective, "death" has therefore not definitively occurred until there is certainty that the absent free-soul will not return. It is for this reason, explains Lankford, that "the 'dead' are almost never buried immediately, and most people have a ritually specified time of waiting."[32] The Ojibwa were particularly known for their "habit of keeping the dead four days, in the hope that the soul in the spirit world would return and the person come back to life."[33]

But when the soul does not return, where has it gone and how did it get there?

A legend of the Native American Tachi Yokut people tells of a husband whose deeply cherished wife had died. Grieving, he went to her grave and dug a hole near it:

> There he stayed watching, not eating. … After two nights he saw that she came up, brushed the earth off herself, and started to go to the [land] of the dead.[34]

Similarly, in the ancient Egyptian Pyramid Texts, lines 747–48, we read the following invocation to the deceased:

> Arise, remove your earth, shake off your dust, raise yourself that you may travel in company with the spirits.[35]

In ancient Egypt the first stage of the journey to the realm of the dead was to ensure that the mortuary rites were properly observed. The purpose of these rites, Wallis Budge explains, was to enable the "disembodied spirit … to pass through the tomb out into the region which lies immediately to the west of the mountain chain on the west bank of the Nile, which we may consider as one mountain and call Manu, or the mountain of the sunset."[36]

In the case of the Native American afterlife journey, likewise, as Lankford summarizes:

> The path leads towards the west, the place of the setting sun, the end of the east-west cosmic passage, the point of transition from day to night.[37]

Returning to ancient Egypt, it is clear that the first stage of the afterlife journey unfolds on the earth plane and brings the soul to a special location in the west, described as beyond "the mountain of sunset." At this place, Budge continues,

> are gathered together numbers of spirits, all bent on making their way to the abode of the blessed; these are they who have departed from their bodies during the day.[38]

In Native America, too, a place is reached at the western edge of the "earth-disk" where the dead gather and where they, too, must await the right moment, after nightfall, to make the transition from the earth plane to the Sky World. "There may be a camping-place for the free-soul," Lankford tells us:

> For there may be a wait until conditions are right to continue the journey.[39]

ORION, THE "LEAP," AND THE PORTAL IN ANCIENT AMERICA

IN ANCIENT EGYPT, THE CONSTELLATION of Orion, located prominently on the west bank of the Milky Way, was seen as the celestial figure of the God Osiris, Lord of the Realm of the Dead, and the funerary texts explicitly and repeatedly urge the soul to ascend to the sky and unite itself with Orion. A few examples:

> You shall reach the sky as Orion.[40]
>
> May a stairway to the Netherworld be set up for you in the place where Orion is.[41]
>
> I have gone upon the ladder with my foot on Orion.[42]
>
> The Netherworld has grasped your hand at the place where Orion is.[43]
>
> May Orion give me his hand.[44]

The intention, confirmed in architecture by the star-shaft of the Great Pyramid (see previous chapter) is unmistakable. After completing its westward journey on the earth plane, and gathering with other souls at a staging point, the spiritual form of the deceased must find a way to gain access to the "place where Orion is" from whence the remainder of its journey to the realm of the dead will unfold.

But how to get to Orion?

The means suggested in the utterances quoted above include a stairway, a ladder, and the "hand" of the constellation itself. Another utterance tells us more vaguely, "There is brought to him a way of ascent to the sky"[45] and fifty lines later we read:

> Here comes the ascender, here comes the ascender! Here comes the climber, here comes the climber! Here comes he who flew up, here comes he who flew up.[46]

How was the transition to the Sky World achieved in the Native American afterlife journey when the soul had reached the staging point at the edge of the earth-disk? Lankford draws on his vast store of knowledge of the ethnography surrounding this subject when he tells us that in order to continue its journey to the realm of the dead:

> What the free-soul must do … is to make a terrifying leap. The realm of the dead … can only be reached by walking the Path of Souls, the Milky Way, across the night sky. To get to the path, however, one must leave the earth-disk and enter the celestial realm. The portal that is appointed for the free-soul at death is to be seen on the edge of the Path of Souls. It is a constellation in the shape of a hand, and the portal is in its palm.[47]

As I learned at Moundville, this Native American "Hand" constellation is none other than the constellation we know as Orion, with the three prominent belt stars forming the wrist. Beneath these stars, identified as part of Orion's sword by the Greeks, is a bright sky object known as Messier 42, or the Orion Nebula. In the "hand-and-eye" motif it is this nebula, regarded by modern astronomers as

a “stellar nursery” where new stars are constantly born,[48] that represents the “eye.” Its description as such is, however, a misleading and long outdated label that only remains in use out of habit. The truth, as scholars are now agreed, is that in Mississippian iconography it does not represent an eye at all but “a hole in the sky, a portal,”[49] through which the free-soul must pass in order to reach the realm of the dead.

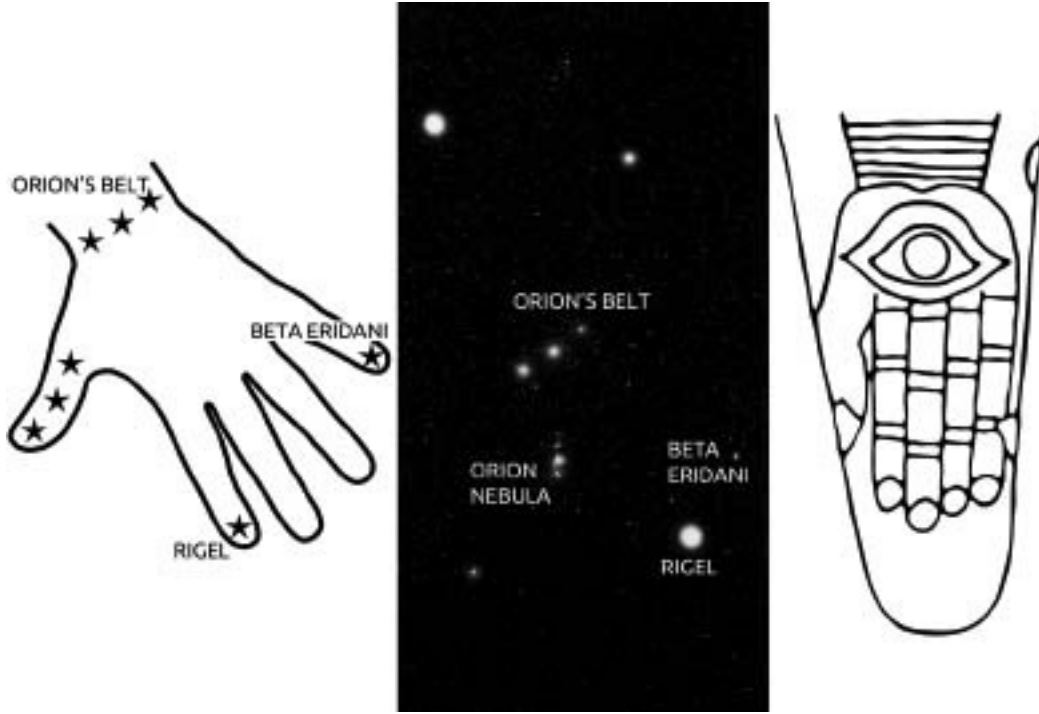

LEFT: Native American "Hand" constellation in which the three stars of Orion's belt form the wrist. CENTER: Orion's belt and the Orion Nebula. RIGHT: An example of the Moundville "hand-and-eye" motif. The Orion Nebula is represented by the "eye," and was conceived of as a portal through which the soul must leap on its afterlife journey.

George Lankford clarifies the muddle:

> The hole in the sky is indicated as a slit being pulled apart, and the fact that it is celestial is frequently elaborated by the inclusion of a star circle or dot. The resulting double sign thus gives the appearance of being an eye, but … it is a coincidental similarity. The "eye" is but a portal with a star at its center. The hand-and-eye combination thus indicates the beginning of the spirit journey, the entry of the soul into the Milky Way at Orion.[50]

In ancient Egypt the hieroglyphic representation of the Duat Netherworld (likewise accessed via Orion and the Milky Way) made use of exactly the same concepts expressed in locally appropriate symbolism. Whereas in Mississippian art it was customary to depict a star in the form of a circle or dot, the star symbol in ancient Egypt was very much like the five-pointed version we still use today. Likewise, in Mississippian art the sky portal was depicted as an aperture in the form of an open slit while in ancient Egypt it was represented by a circle.

LEFT: ANCIENT EGYPT: The hieroglyph for the Duat Netherworld depicts a hole in the sky with a star at its center. RIGHT: ANCIENT NATIVE AMERICA: "The hole in the sky is indicated as a slit being pulled apart, and the fact that it is celestial is frequently elaborated by the inclusion of a star circle or dot."

ORION, THE "LEAP," AND THE PORTAL IN ANCIENT EGYPT

THE TOP HALF OF "ORION" above the belt stars is important in the ancient Egyptian *Sahu* constellation but isn't part of the "Hand" at all. The stories behind the imagery that were told in the Nile Valley and the Mississippi Valley are also very different. Nonetheless, it's bizarre that the same constellation plays such a key role in both Native American and ancient Egyptian beliefs concerning the afterlife journey.

Moreover, although ladders and stairs are among the "means of ascent" suggested to the soul in the ancient Egyptian funerary texts, they are by no means the only ones. Particularly close to the Native American notion of a "leap" for the portal is Utterance 478 of the Pyramid Texts, line 980, in which the deceased states:

> I leap up to the sky into the presence of the god.[51]

Likewise in Utterance 467, lines 890–91, we read:

> Someone flies up. I fly up from you, O men; I am not for the earth, I am for the sky.[52]

And again, almost technologically, in Utterance 261:

> The King is a flame moving before the wind to the end of the sky.[53]

Such references, and numerous other examples that could be cited, leave little room for misinterpretation. As with the Native Americans, so, too, with the ancient Egyptians—a "leap" by one means or another from the earth-plane to Orion was an essential stage in the afterlife journey.

It might be objected that the constellation *Sahu*/Orion for the ancient Egyptians was the celestial figure of Osiris, Lord of the Realm of the Dead, and therefore in no way a "portal" in the Native American sense. That, however, does no justice to the possibility, in so subtle a system as the ancient Egyptian funerary texts, that symbols might be encoded with multiple levels of meaning. A close study of the texts reveals that the passage of the soul through a

portal in the sky was indeed a fundamental stage of the ancient Egyptian afterlife journey.

The Pyramid Texts again:

> Portal of the Abyss, I have come to you; let this be opened to me.[54]
>
> The doors of the sky are opened for you, the doors of the starry sky are thrown open for you.[55]
>
> The doors of iron which are in the starry sky are thrown open for me, and I go through them.[56]
>
> Open the gates which are in the Abyss.[57]
>
> The aperture of the sky-window is open to you.[58]
>
> The celestial portal to the horizon is open to you.[59]
>
> I am he who opened a door in the sky.[60]
>
> The door of the sky at the horizon opens to you.[61]

"The Orion Nebula," clarifies Susan Brind Morrow in a new study of the Pyramid Texts, "is in the door of the sky."[62]

And in case there is any remaining doubt, the celestial address of this portal through which the deceased must pass in order to enter

the Duat Netherworld is also repeated on multiple occasions in the Pyramid Texts, for example:

> The *Duat* has grasped your hand at the place where Orion is.[63]

And, as we've seen:

> May a stairway to the Netherworld be set up for you in the place where Orion is.[64]

THE TIMING OF THE "LEAP"

FOR THE ANCIENT EGYPTIANS, ARRIVAL at the top of the metaphorical "stairway," the accomplishment of the "leap" to the sky "in the presence of the god," was to be timed to coincide with the moment when:

Orion is swallowed up by the *Duat*.[65]

According to R. O. Faulkner, translator of the Pyramid Texts, this occurs when "the stars vanish at dawn."[66] More broadly the "swallowing" of Orion by the Duat can be linked to the setting of the constellation in the west at whichever time of day or night this happens.

Let's now return to George Lankford's authoritative account of the Mississippian afterlife journey and the soul's leap to the portal in the Orion Nebula in the constellation that Native North Americans called the "Hand." The leap can only be attempted when that constellation makes its closest approach to the edge of the earth-disk, setting low in the west under the Milky Way just before it vanishes beneath the horizon—the precise moment, for both ancient Egyptians and ancient Native Americans, when the door of the sky, "the celestial portal to the horizon," was believed to stand open. As Lankford makes clear:

The portal in the Hand must be entered by a leap at the optimum time, which is a ten-minute window which occurs once each night from November 29, when the Hand vanishes … in the West just at dawn, to April 25, when the Hand sinks at dusk, not to be seen again for six months. During that winter period the portal is on the horizon for a breathless few minutes each night, and the free-souls must enter at that time or be lost. Free-souls who do not make the transition remain in the West and can eventually become unhappy threats to the realm of the living.[67]

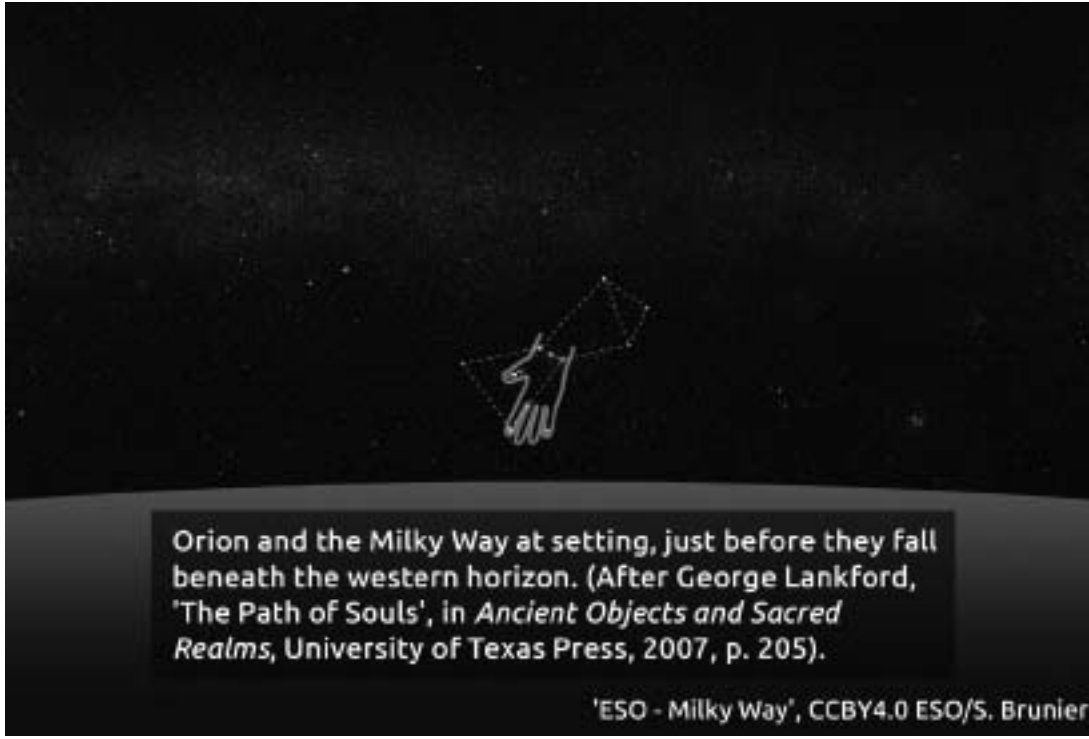

Likewise in ancient Egypt, Budge informs us, it is the fate of those who have not prepared adequately for the afterlife journey to remain trapped on the earth plane—where their lot, "having failed

to present themselves in the Judgment Hall of Osiris," is an unhappy one.[68]

And in both ancient Egypt and ancient North America it was also believed that those souls that had successfully ascended to Orion must then continue their long and arduous journey, now transposed from the earth plane to the Sky World. On that journey they would meet monsters and terrors for which it appears that the ancient Egyptian books of the dead and the parallel oral and iconographic traditions of the Mississippian civilization were designed to prepare them.[69]

Before we explore these further similarities between the supposedly entirely unconnected religions of the Mississippi and the Nile, let's reflect in passing on the spiritual system that has evolved in the Amazon rainforest around the use of ayahuasca, the "Vine of the Dead." The reader will recall that it has that name because in the "indigenous context" ayahuasca is "intimately related to death."[70]

The visions received in the ayahuasca trance are considered to resemble death and to give foreknowledge of the death process and thus, at the level of experience rather than of study, the "Vine of the Dead" appears to be performing the same function as a "Book of the Dead."

Ayahuasca shamans in the Amazon speak of "dying" when they drink the brew. It's again suggestive of hidden connections that thereafter, as we saw in chapter 17, they experience "ascent to the Milky Way" in a "single soaring flight" (which sounds very much like a "leap") in order to reach the "Otherworld" that lies "beyond the Milky Way."

Sometimes, as they make these journeys, the shamans encounter trials and adversaries that will test them:

> Terrifying monsters … jaguars and serpents that approach and threaten to devour the person who, terror stricken, will call out in anguish.[71]

TERRORS AND OBSTACLES OF THE ANCIENT EGYPTIAN NETHERWORLD

NO ONE IN THE NORTHERN Hemisphere who pays any attention to the sky can fail to notice the presence of the majestic constellation of Orion during the winter months or the fact that it stands at the western side—indeed one could say on the west bank—of the glowing band of supernal light that is our own disk-shaped galaxy viewed from within. We call that band of light the Milky Way. To the ancient Egyptians it was the "Winding Waterway,"[72] the great celestial river that, as Wallis Budge informs us,

> flowed through the Duat much as the Nile flowed through Egypt. There were inhabitants on each of its banks, just as there were human beings on each side of the Nile.[73]

Moreover, the soul's leap to Orion was not an end in itself, but simply its means of entry to the Sky World. Once there, it was the Winding Waterway that would provide the setting for the next stage of the afterlife journey. "May you take me and raise me to the Winding Waterway," as the Pyramid Texts put it.[74]

It is therefore intriguing that in ancient North America the Milky Way was most widely known as the "Path of Souls,"[75] and it was on this path, after passing through the Orion portal, that the spirits of the deceased found themselves. Lankford takes up the story again:

> When the free-soul has entered the celestial realm, the Path of Souls stretches out before it. By most accounts it is a realm much like the earthly one left behind, but some describe it as a river of light with free-souls camped alongside. The free-soul must journey down the Path to the realm of the dead.[76]

Inevitably, with a great river flowing through it, the Duat "had the shape of a valley."[77] However, unlike the Nile Valley, which it otherwise resembled, this ancient Egyptian realm of the dead was

“shrouded in the gloom and darkness of night … a place of fear and horror.”[78]

It was, moreover, a place filled with obstacles and fearsome challenges including:

> abysses of darkness, murderous knives, streams of boiling water, foul stenches, fiery serpents, hideous animal-headed monsters and creatures, and cruel, death-dealing beings of various shapes.[79]

A few hours with the vignettes and tomb paintings and you begin to get the idea.

The Duat is an utterly eerie parallel universe that is at once a starry “otherworld” and a strange physical domain with narrow passageways and darkened galleries and chambers populated by fiends and terrors. There are entities whose work is “to hack souls in pieces.” There are serpents of enormous size, serpents with legs and feet, serpents with multiple heads, serpents with wings. There are serpents that breathe fire and that are depicted as flooding corridors

with fire. There is in particular the monstrous serpent Apep and a specially dedicated company of nine gods whose work is to slay Apep. There are firepits where souls are roasted, in some cases head down. There are bodies of water to cross and “abysmal depths of darkness.” There are torture blocks. There are gods armed with knives who will kill inadequately prepared souls.[80] And one particularly curious vignette shows “a goddess standing upright with her hands stretched out to the top of the head of a man who is kneeling before her, and is cutting open his head with a hatchet.”[81]

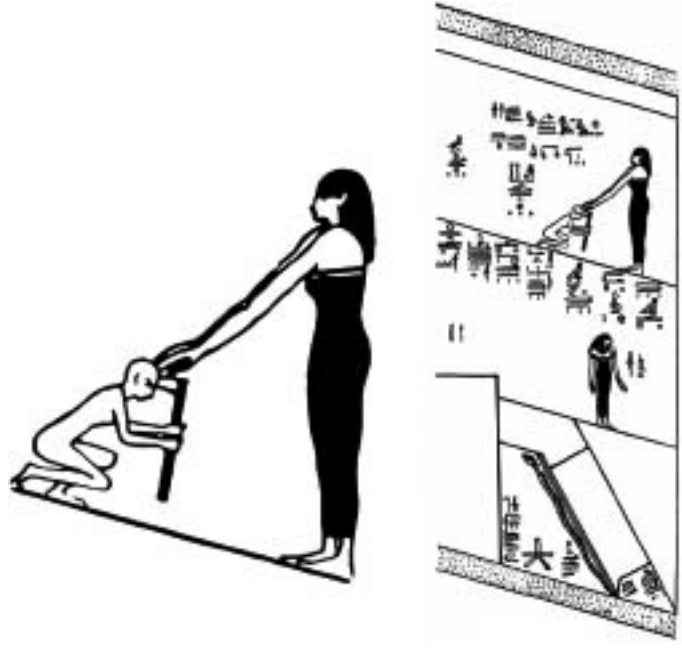

Vignette from the *Book of What Is in the Duat*. E. A. Wallis Budge offers no direct translation of the relevant hieroglyphs, merely describing the scene thus: "[A] goddess standing upright with her hands stretched out to the top of the head of a man who is kneeling before her, and is cutting open his head with a hatchet." LEFT: Detail of the vignette. RIGHT: The vignette in context.

The vignette[82] captured my attention for reasons that I will explain below. Budge expresses no opinion in his description and since I don't read hieroglyphs I couldn't be sure exactly what was going on. One interpretation that occurred to me was that the goddess was trying to **stop** the kneeling man from bashing his own brains out. But the scene had an uncanny, rather ominous, quality that suggested a very different possibility. From the way the outstretched arms and hands of the goddess were portrayed it looked more to me as though she was **encouraging** him to take that hatchet to his own head—or even perhaps exerting some kind of divine will to **force** him to do it.

Since there are repeated references to a menacing female figure, usually called the "brain-smasher" or the "brain-taker" in accounts of the Native American afterlife journey, it occurred to me there was an opportunity here to test the mettle of my evolving theory of a deep structural connection between the spiritual systems of

ancient Egypt and the ancient Mississippi Valley. All I had to do was find an Egyptologist to translate the hieroglyphs in the vignette for me. If the translation showed no relationship whatsoever between the goddess in this vignette and the Native American "brain-smasher," then my theory would be weakened. If, on the other hand, a clear relationship emerged, then my theory would be strengthened.

Egyptologists in general avoid me, but I was fortunate that Louise Ellis-Barrett at the British Museum was prepared to accept the commission. She was curious as to why I wanted a translation at all but I was determined that this should be a proper blind test, in which no preconceptions were inserted into the translator's mind before she began work, so I declined to tell her.

A few weeks later, after investigating the matter thoroughly, Louise came back to me with her translation of the group of hieroglyphs describing the role of the goddess in the scene:

She lives from the blood of the damned
And from what these gods provide her
That Ba-soul who belongs to the damned
The demolishing one, who cuts the damned to pieces.

She lives from the blood of the damned

And from what these gods provide her

That Ba-soul who belongs to the damned

The demolishing one, who cuts the damned to pieces

For clarification Louise added that the *Book of What Is in the Duat* is "divided into Hours—each of which is a unit of text and illustration." The vignette occurs in the Fifth Hour of the journey

through the Duat (often also referred to as the "Fifth Division of the Duat") where, as we shall see, the ancient Egyptian judgment scene was also set. Moreover, although the vignette itself is not a formal part of the judgment, the entire burden of the Fifth Hour, as Louise expressed it in the document she prepared for me, is:

> its indication of the turning point in life. Here, life will either be renewed or annihilated. The last scene of the upper register [where the vignette is located] demonstrates the task of the deities whose responsibility is annihilation, the goddess demonstrating how the damned will be dealt with.

They will be dealt with, in other words, just as in the ancient Native American belief system, by having their brains smashed out.

TERRORS AND OBSTACLES OF THE ANCIENT AMERICAN NETHERWORLD

ANTHROPOLOGIST AKE HULTKRANTZ NOTES TRADITIONS among the Ojibwa and the Huron of northeastern North America concerning:

> the so-called brain-smasher [who] … deprives travellers to the land of the dead of their brains. … There is in general something demoniac about the brain-catching guardian. … In the eschatological conceptions of the Sauk and Fox Indians … the deceased perishes altogether if he is unable to save himself from the "brain-smasher."[83]

George Lankford gives an overview of such myths across North America and confirms the very widespread nature of the "fearsome image of a 'brain-smasher,' usually a woman, whose task is to destroy memory (and humanity?) by removing or smashing the brain."[84]

An interesting variant, documented by the ethnologist Alanson Skinner in the early 1920s, comes from the Sauk people, who speak of an obstacle on the Path of Souls where the celestial river must be crossed:

> A log serves for a bridge, and this is guarded by a being called *Po'kitapawa,* "Knocks-a-hole-in-the-head," or "Brain Taker." Brain taker has a watch-dog who barks the alarm whenever a new soul approaches and the fleeting spirit must be swift indeed to avoid having his brains dashed out. If this happens, he is destroyed or lost forever.[85]

It seems, therefore, that the Native American "brain smasher" and the ancient Egyptian goddess in the vignette from the Fifth Hour of the Duat both serve exactly the same function, namely, the annihilation and permanent destruction of unworthy souls on the afterlife journey. There are differences in the traditions, to be sure, as one would expect if they descended from a remote common ancestor many millennia ago and then evolved separately, but the fundamental similarities of the role are unmissable.

A further point arising from this material has to do with the more general issue of the trials and tribulations faced by the soul on its postmortem journey. That the precise character of these obstacles should vary between ancient Egypt and ancient Native America is

only to be expected. Even so, the striking similarities in the core structure of the "story"—physical death, a journey of the soul on land, a leap to the sky involving Orion followed by a further journey with perils and challenges to be faced, through the valley of the Milky Way—all argue for some as yet unexplained connection.

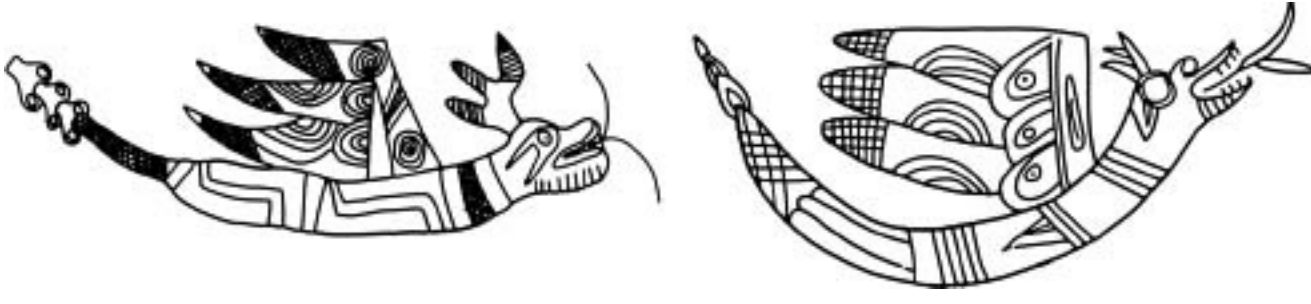

Monstrous winged serpents of the ancient American Netherworld.

In the case of Native America a bridge, sometimes shaky, sometimes thin as a blade, from which the soul can easily fall and be lost forever in the raging torrent below, is one among several ordeals consistently documented in the ethnographic accounts.[86]

Another regular character (who, along with the bridge, appears in one of the recensions of the brain smasher tradition cited above) is a dog, often monstrous and ferocious, described by the Algonquin as "the dog with the bloody mouth that devours the souls."[87]

In some accounts the bridge has the power to transform into a serpent,[88] thus further challenging spirits on the Path. Indeed the Native American afterlife journey is almost as filled with monster serpents as the ancient Egyptian Duat. Most notable in this respect is the presence of the Great Horned Water Serpent, sometimes described as "Master of the Beneath World" and sometimes as "the Great Serpent with the Red Jewel in its Forehead:"[89]

> If the free soul knows how to deal with the Serpent and is permitted to pass, then it enters the realm of the dead.[90]

In the ancient Egyptian tradition, too, the guardians of various gates and passageways in the Duat, often in serpent form, would

permit the soul to pass so long as it had "knowledge of certain formulae, or words of power, and magical names."[91]

THE UNDERWATER PANTHER AND THE GREAT SPHINX

OTHER NOTABLE CURIOSITIES INCLUDE THE fact, noted earlier, that the serpents of the Duat are very often winged[92] and, in addition, are sometimes depicted with legs and feet.[93] The same goes for the Great Horned Water Serpent, almost always winged,[94] and in addition, in a Sioux account, described as a "water monster which … resembled a rattlesnake, but he had short legs."[95]

Because we have the benefit of copious documentation and painted and engraved images, the descriptions of the Duat that have

come down to us from ancient Egypt are more vivid and detailed than the descriptions of the Path of Souls that have survived from the Native American oral tradition. Nonetheless, enough remains to confirm that as well as serpents, many of the other monsters and fiends of the Duat also have their counterparts in the Native American afterlife journey.[96]

Of particular interest in this respect is the Underwater Panther, a bizarre hybrid figure, described by the Ojibwa as "a curious combination of cougar, rattlesnake, deer and hawk"[97] and understood to be an avatar, or alter ego, of the Great Horned Water Serpent.[98]

Different Native American peoples gave different names and aspects to the Underwater Panther—*Mishebeshu* and *Michibichi* are the most common—but it was also known among the Algonquian-speaking tribes as *Pizha,* meaning "panther."[99] On account of this latter name, and of an ancient image of it that was once visible

painted on a bluff above the Mississippi at Alton, Illinois, the Underwater Panther became known to interested European travelers as the “Piasa” and was described confusingly both as a “tiger” and as an “animal of the dragon species.”[100] In 1839 Arenz and Company of DÜsseldorf published a line drawing of it “taken on the spot by artists from Germany,” which is reproduced above. The original petroglyph no longer exists, as the whole face of the bluff on which it was depicted was quarried away in 1846–47.[101]

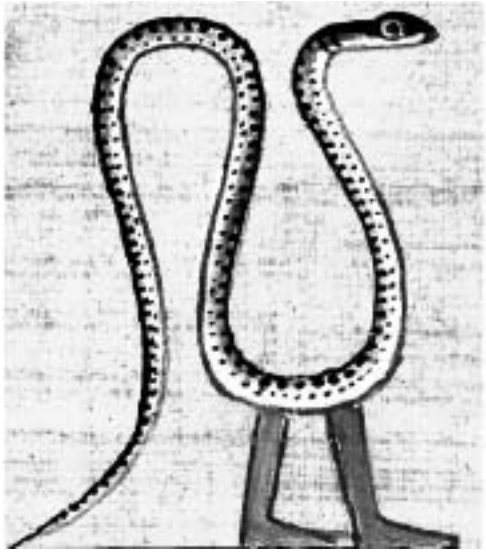

Monstrous serpents of the ancient Egyptian Netherworld—winged (right), and with legs (left).

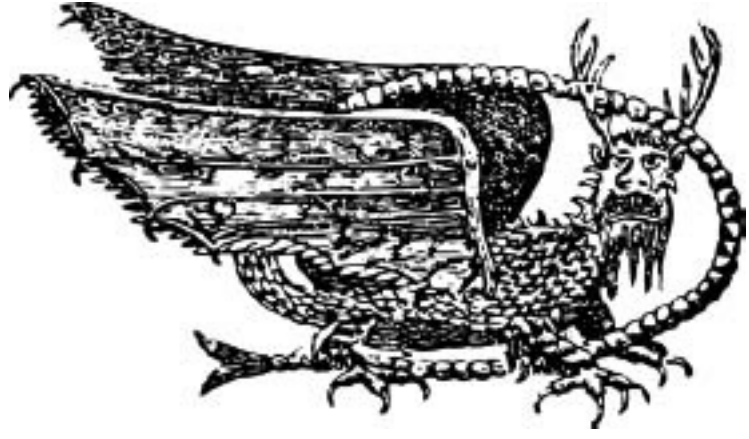

Other imagery of the Underwater Panther, long since lost, was seen by Nicolas Perrot in 1664, who called it the "Great Panther," while the Ojibwa today describe it as a "sea tiger," preserving its watery associations, and as a "huge brown cat."[102] In some accounts it is said that the Piasa has "a human head."[103]

If the variety of descriptions is bewildering we should not be surprised, for we are dealing with the Netherworld and its shape-shifting denizens here. That the Underwater Panther was seen as

having feline characteristics, however, is certain from a number of surviving images of the creature.

Among them is a pottery figure, reproduced in the collage below, that I was able to see for myself in the museum at Moundville. Although the scale is completely different, I suggest that it bears more than a passing resemblance to the Great Sphinx of Giza. The Sphinx, of course, has a human head, not the head of a feline, but let's keep in mind those traditions in which human-headed Piasas are described. Also possibly of relevance here is the evidence that the original prehistoric Sphinx, perhaps more than 12,000 years old, had the head, as well as the body, of a lion. After suffering severe erosion over several millennia the leonine head was recut into human form during the early Dynastic period.[104] Last but not least, Native American traditions of the Underwater Panther speak of a time when "four Piasas existed, each associated with its own cardinal direction."[105] Is it a coincidence that the Great Sphinx of

Giza, with its strong family resemblance to the Underwater Panther, is an equinoctial marker, oriented precisely to one of the four cardinal directions to face the sun as it rises due east on the equinox?

TOP: Underwater Panther, Moundville. Note tail position and paws. PHOTO: SANTHA FAIIA. BOTTOM RIGHT: The Great Sphinx of Giza. PHOTO: ALBI, DREAMSTIME.COM [21951]. Note tail position and paws. BOTTOM LEFT: Detail of the tail of the Great Sphinx. Compare with tail of Underwater Panther.

DOGS AND OTHER "COINCIDENCES"

FEROCIOUS DOGS THAT APPEAR AS obstacles and challenges on the Native American afterlife journey have their counterparts among the monsters of the Duat described in the ancient Egyptian books of the dead. "That god who lives by slaughter," for example, in Spell 335 of the Coffin Texts, "whose face is that of a hound."[106]

Nor is that the only curious nexus involving dogs.

As an exception to the general rule among Native American peoples, the Cherokee do not describe the Milky Way as the "Path of Souls" but refer to it, rather, as "Where the Dog Ran."[107] This is

on account of a myth of a giant mill standing on one side of the earth-disk where corn was ground into meal. The store of flour was kept in a great bowl and on several mornings the people who attended the mill found that some of the flour was missing. When the thefts continued they investigated and found the tracks of a dog. The next night:

> They watched, and when the dog came … and began to eat the meal out of the bowl they sprang out and whipped him.[108]

At this, the dog, who lived on the opposite side of the earth-disk, leapt to the sky and fled "howling" across it to his home,

> with the meal dropping from his mouth as he ran, and leaving behind a white trail where now we see the Milky Way, which the Cherokee call to this day *Gi'li-utsun' stanun' yi,* "Where the dog ran."[109]

What's strange is that in ancient Egypt, too, where the Milky Way was the Winding Waterway, there is an exception. It's found

in a curious "spell" from the Coffin Texts in which no dogs are mentioned but where the deceased declares:

> I am made a spirit. … I am he who is in charge of secret matters. … I have come equipped with magic, I have quenched my thirst with it. I live on white emmer, filling the Winding Waterway.[110]

White emmer is, of course, one of the domesticated varieties of wheat, and one, moreover, that was particularly favored in ancient Egypt.[111] As with maize in the Americas, it must be milled to produce usable flour. In this variant ancient Egyptian tradition, as in the variant Cherokee tradition, the path in the sky on which the afterlife journey unfolds is likened to a white trail of milled flour.

There are other curiosities.

Take the case of the hero-deity known as the "Birdman," of whom multiple depictions have survived in the Mississippi Valley. He is unmistakably part falcon, part man, just like the god Horus of the Nile Valley. Just like Horus, the Birdman's celestial associations

include both the Morning Star and the Sun.[112] And just like Horus, the fundamental role of the Birdman is to symbolize the triumph of life over death. "Although everyone must die eventually," explains Professor James Brown of Northwestern University,

> life is the victor through the survival of one's descendants. The avatar of this struggle of life to reassert itself in the face of inevitable death is the falcon, and one of his guises is the Morning Star. In the pre-dawn light the Morning Star beats back the darkness to make way for the life-sustaining sun. The fact that the [Native American myth of the] Birdman has embedded within it the diurnal progress of night and day, the passage of the heavenly bodies and the cardinal directions tells us that they are properties of a particular cosmology. These elements are not loosely connected.[113]

This is not the place to elaborate further on the Birdman myth, or on the extensive traditions surrounding the god Horus, one of the most famous and complex figures in the ancient Egyptian pantheon. Entire books could be, and have been, written about each and there are great differences between the two as well as some rather striking

similarities. What remains to be resolved is whether these similarities are purely coincidental or whether there is some deep, hidden, and previously undetected connection.

Then there's the question of pygmies and dwarfs. They enjoyed special favor in ancient Egypt, where their mummified remains have survived in a number of tombs. They were regarded as possessing more than human powers—there is even a pygmy god named Bes—and they were given positions of importance in the funerary texts.[114] For example, in a vignette to chapter 164 of the Book of the Dead we see a goddess flanked by two dwarfs, each of whom is depicted with two heads, one of a man and one of a falcon.[115] And in the Pyramid Texts, the deceased on his afterlife journey declares:

LEFT: Engraved whelk shell depicting the ancient Mississippian hero-deity referred to by archaeologists as the "Birdman." PHOTO: THE NATIONAL MUSEUM OF THE AMERICAN INDIAN (NMAI), SMITHSONIAN INSTITUTION [18/9121]. RIGHT: Statue of the ancient Egyptian hero-deity Horus. The fundamental role of both was to symbolize the triumph of life over death. PHOTO: RAOUL KIEFFER.

> I am deemed righteous in the sky and on earth. … I am that pygmy of "the dances of god" who diverts the god in front of his great throne.[116]

Likewise, dwarfs and pygmies enjoyed special favor and respect among ancient Native Americans. Hultkrantz reports "a widespread belief in dwarves on the land, at times associated with the concept of a more or less extinct 'prehistoric' race, at times linked to the concept of spirit beings."[117]

As in ancient Egypt, the skeletons of dwarfs have been found in ancient Native American tombs, and as in ancient Egypt, dwarfs were believed to possess superhuman and magical powers. There is even evidence of the existence of dwarf shamans in the Mississippi Valley.[118]

Also worthy of note is the appearance and manifestation of souls, and we have seen already how, in ancient Egypt, the free-flying *Ba* soul was depicted as a bird or as a human-headed bird. "He opens for you the doors of the sky," the Pyramid Texts declare:

> he throws open for you the doors of the firmament, he makes a road for you that you may ascend by means of it into the company of the gods, you being alive in your bird shape.[119]

In the case of ancient Native America, the free-soul was likewise very often pictured and spoken of as a bird. Among the Modoc tribe, for example, a boy training to become a shaman fell into a deathlike trance. In this condition he met a female spirit who took out his heart. The boy then heard the spirit talking to his heart, which she held in her hand:

> After a while she opened her hand and let go of the heart. Then the little boy thought he saw a bird coming from the west. It came to him and lighted on his breast. That moment he jumped up.[120]

Hultkrantz reports that among the White Knife Shoshoni the soul has the appearance of a bird while "the Huichol identify it as a little white bird and the Luiseno know that it is a dove. The Kootenay believe that the free-soul can show itself as a tomtit or a jay."[121] …

The free-soul of the Bella Coola is like a bird enclosed in an egg [the physical body]; if the shell of the egg breaks and the soul flies away its owner must die."[122]

Once again, then, it seems that some of the fundamental ideas and imagery of the death process were held in common in ancient Native America and in ancient Egypt and once again the only question we must decide is whether this is a coincidence or not.

JUDGMENT

BOTH THE ANCIENT EGYPTIAN AND the ancient Native American afterlife journeys involve a strong element of judgment. Indeed, in a sense, the entire ordeal in both cases concerns the judgment of the soul for its choices—for what it has done and not done, for the use

that it made of the gift of life—during its physical incarnation. In both cases the unworthy soul can face annihilation by gods, demons, and monsters at any point on the journey (for example, at the hands of the "brain-smasher" figure) but in both cases also, for those who have progressed thus far through the Netherworld, a specific judgment awaits.

In the ancient Egyptian system the judgment scene occurs in the Fifth Division (or "Hour") of the Duat, in the Judgment Hall of Osiris, also known as the Hall of Maat—a location that can be reached only by those who are sufficiently provided with spiritual protection to make it through the first four divisions.

I have described the scene at length in previous books, and will not repeat all the details here. In summary, however, the deceased is ushered into a great hall or chamber at the head of which, in partially mummified form, sits Osiris, the high god of death and resurrection, identified in the ancient Egyptian sky religion with the constellation Orion. Also present, wearing a feather headdress, is

Maat, the goddess of truth and cosmic justice, and forty-two dispassionate figures, crouched in the manner of scribes poring over papyrus, each wearing the feather of Maat, which symbolizes truth. These are the forty-two Assessors of the Dead, before each of whom the deceased must be able to declare himself innocent of certain acts of moral wrongdoing—notably the act of murder.

Having completed this stage of its examination the soul now finds itself confronted by an immense pair of scales beneath the arms of which are to be seen representations of Anubis, the jackal-headed guide of souls, and Horus, the falcon-headed son of Osiris. One pan of the scales contains an object, shaped like a small urn, symbolizing the heart of the deceased, "considered to be the seat of intelligence and thus the instigator of man's actions and conscience."[123] In the other pan is placed the feather of Maat, symbolizing, once again, Truth.

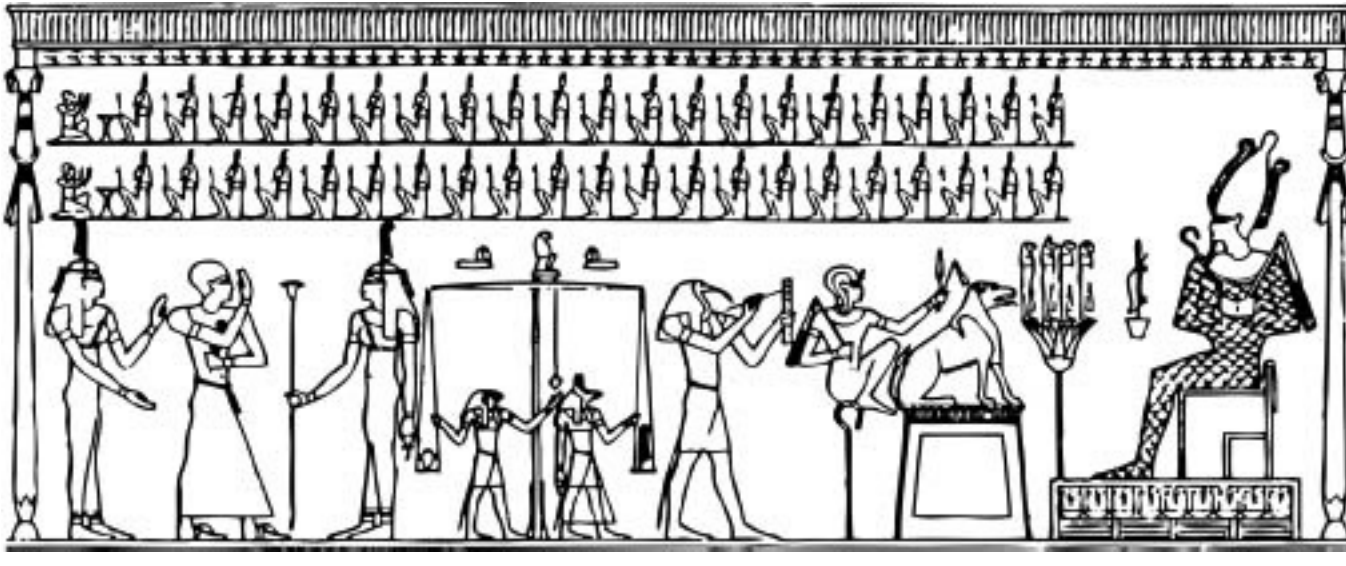

If the soul is to triumph in the judgment, heart and feather must stand poised in equilibrium and the prize of eternal life in the Osirian kingdom of the dead beckons. But if the heart is heavy with wickedness and willful waste of the gift of life, if it does not balance with the feather of Truth, then eternal annihilation awaits. To remind us of this, beyond the scales in every depiction of the judgment scene we see the agency of the soul's extinction—a

monstrous hybrid, part crocodile, part lion, part hippopotamus, who is known as Amit, the "Devourer," the "Eater of the Dead," in whose slavering jaws the "unjustified" soul is utterly destroyed.[124]

In the ancient Native North American afterlife journey the judgment scene is nowhere so formalized and elaborate as it is the ancient Egyptian version but there is nonetheless—and unmistakably so—a judgment. In the early 1900s, for example, Francis La Flesche, a member of the Omaha tribe of Nebraska and Western Iowa, cooperated with Alice C. Fletcher of Harvard's Peabody Museum to record the traditions of his people. The result, published by the Bureau of American Ethnology in 1911, includes the following account of a crucial moment in the afterlife journey:

> It was said that at the forks of the path of the dead (the Milky Way) there "sat an old man wrapped in a buffalo robe, and when the spirits of the dead passed along he turned the steps of the good and peaceable people toward the short path which led directly to the abode of their relatives, but allowed the contumacious to take the long path, over which they wearily wandered. …" The simple and ancient

> belief seems to have been that the Milky Way is the Path of the Dead. It was said also that the spirit of a murderer "never found his way to his relatives but kept on endlessly searching but never finding rest."[125]

Likewise the late Joseph Epes Brown, founder of the Native American Studies Program at Indiana University, gives this account of the afterlife journey of the Sioux:

> It is held … that the released soul travels southward along the "Spirit Path" (the Milky Way) until it comes to a place where this way divides. Here an old woman, called *Maya owichapaha,* sits; "She who pushes them over the bank," who judges the souls; the worthy ones she allows to travel on the path which goes to the right, but the unworthy she "pushes over the bank," to the left.[126]

In 1967 Ake Hultkrantz joined Fletcher and Brown in linking such traditions to the fact that:

> the path of souls is not always one and undivided. In the northern hemisphere the Milky Way splits into two streaks. Not unexpectedly, the Indians have associated this phenomenon with concepts of different passageways to the other world and of

> dissimilar fates after death. Tradition has it that one road … leads to the blessed land of the dead and the other brings downfall and annihilation.[127]

To this George Lankford adds a crucial insight that Hultkrantz missed, namely that there is "a bright star—Deneb—that is placed right at the fork in the path and thus could serve as a marker for the decision point or a figure who does the deciding."[128]

Again a long story must be cut short here, but what Lankford goes on to demonstrate is that a ferocious bird, a raptor with a hooked beak, is a very distinctive "opponent" or "adversary" on the afterlife journey, as portrayed in Moundville pottery. In his view this "Moundville Raptor" is the Mississippian equivalent of the old woman who pushes souls over the bank or the old man who condemns the souls of murderers to endless wandering without rest. And to reinforce his argument, he draws our attention to the Alabamas and the Seminoles, "two groups who are major candidates for descendants of the prehistoric inhabitants of

Moundville," who indeed place an eagle in the role of an adversary on the Milky Way path of souls.[129]

Deneb is of course Alpha Cygni, the first-magnitude master star of the Cygnus constellation, which the Greeks identified as a bird, and specifically as a swan. "It is a satisfying coincidental possibility," writes Lankford, "that the people of Moundville saw it the same way, but with the identity of an eagle rather than a swan."[130]

Since his specialty is Native American religions, there is no reason why Lankford should have studied the ancient Egyptian Pyramid Texts. Had he done so, however, he would surely have been struck by Utterance 304, in which the soul on its journey through the Duat is confronted by a bird adversary that apparently has the power to block its path. It's difficult to give any other interpretation to this encounter since the soul is made to declare:

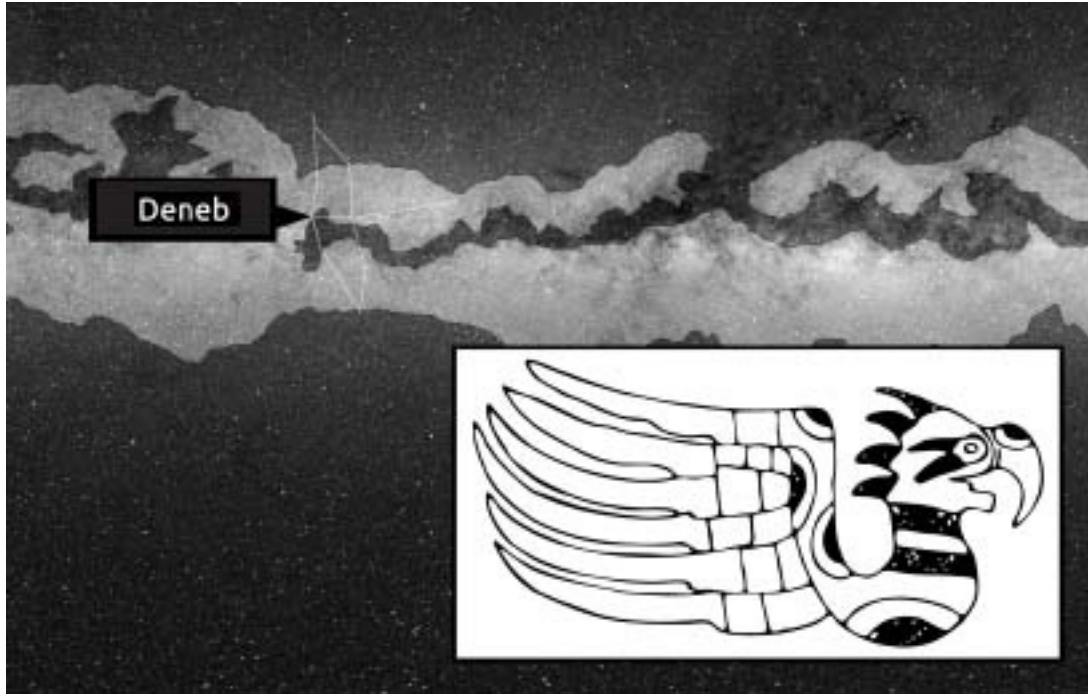

The star Deneb in the constellation we know as Cygnus, the Swan, is positioned on the bank of the Milky Way exactly at the fork where a second "path," a dead end, branches off. George Lankford identifies Deneb—and Cygnus as a whole—with the Moundville Raptor figure (inset), an adversary on the journey of the soul.

> Hail to you, Ostrich which is on the bank of the Winding Waterway! Open my way that I may pass.[131]

An ostrich is not a swan and a swan is not an eagle. Nonetheless, it is surely noteworthy that in both the ancient Egyptian and the ancient Mississippian religions we encounter a bird, with the power to block the further progress of the soul, poised on a bank of the Milky Way.

What else but recognition of the same fork in the Milky Way that was regarded as so ominous in Native American myth can be expressed in Utterance 697 of the Pyramid Texts, where we read:

> Do not travel on those western waterways, for those who travel thereon do not return, but travel on the eastern waterways.[132]

ASTRONOMER CHIEFS

IN THE COFFIN TEXTS, IN a passage that addresses the deceased, we read:

> May you recognise your soul in the upper sky while your flesh, your corpse, is in *On*."[133]

The latter location, now a suburb of Cairo 12 miles to the northeast of the immense Old Kingdom burial fields and world-famous pyramids of Giza, was the center of the religious cult that served the Giza necropolis in antiquity. It was the Biblical Hebrews who called this cult center *On*—there are references to it in Genesis, Jeremiah, and Ezekiel.[134] Its original name in the ancient Egyptian language, however, was *Innu*—"the pillar"—and the Greeks would later know it as *Heliopolis,* "the City of the Sun."[135]

The Pyramid Texts, from which the Coffin Texts and all the later funerary texts descended, are often referred to as the "Heliopolitan Recension of the Book of the Dead"[136] because they are thought to

have originated in the archives of the cult center of Heliopolis. The archives have not survived the millennia, but the texts themselves are convincing evidence that something such must have existed since they "contain formulae and paragraphs which, judging from the grammatical forms that occur in them, must have been composed, if not actually written down, in the earliest times of Egyptian civilization."[137]

Let's note in passing that the High Priest of Heliopolis bore the title "Chief of the Astronomers" and is represented in tomb paintings and statuary wearing a mantle adorned with stars.[138] It is therefore of interest, when ethnographers recorded the customs and beliefs of the Skidi Pawnee of Oklahoma in the nineteenth century, that they were reported to have shamans, raised to the rank of chiefs, who specialized in astronomy. In the archives of the Smithsonian Institution there is a photograph of one of these individuals, named His Chiefly Sun, and notably he is shown

wearing a mantle adorned with stars.[139] It was also the custom of the Skidi Pawnee to wrap a newborn baby in a speckled wildcat skin. This, ethnographers were told,

> was equivalent to saying, "I wrap the child with the heavens," for the hide represented the sky and stars.[140]

LEFT: In ancient Egypt priests wearing a leopard-skin mantle, on which the spots represented stars, played a key role in mortuary ceremonies to prepare the deceased for the afterlife journey. IMAGE FROM TUTANKHAMUN'S TOMB. CENTER: The High Priest of Heliopolis, the cult center of the Giza pyramids, was titled the "Chief of the Astronomers" and wore a mantle like this one adorned with stars. PHOTO: FEDERICO TAVERNI AND NICOLA DELL'AQUILA/MUSEO EGIZIO. RIGHT: Skidi, Pawnee Astronomer Chief. PHOTO: THE NATIONAL ANTHROPOLOGICAL ARCHIVES (NAA), SMITHSONIAN INSTITUTION [BAE GN 01285].

In the case of the Heliopolitan "Chief of the Astronomers" we can see clearly from surviving depictions that the mantle he wore, upon which stars were embossed, was in fact a leopard skin. When the leopard skin was left undecorated the spots of the leopard itself were believed to have symbolized stars.[141] A specialized class of priests, the Sem Priests, also wearing leopard-skin mantles, played a key role in mortuary ceremonies for the deceased.[142]

There is no dispute that the great Mississippian religious centers like Cahokia and Moundville were primarily focused on a cult of

the dead, and while not every mound in these sites contains a burial, or multiple burials, the vast majority do. This is also the case at many other mound and earthwork sites in North America. Even some of the very earliest, such as Monte Sano, contain evidence of the postmortem processing of bodies.[143] The Adena mounds are largely burial mounds.[144] And as to the Hopewell earthworks, William Romain writes:

> By far the vast majority of known … remains are interred in mounds located within the geometric enclosures. Necessarily, then, the physical relationship between the remains of the dead and the enclosures tells us that the Hopewell did, indeed, associate the geometric enclosures with the passage of the individual from life to death.[145]

It may even be, Romain adds,

> that the Hopewell considered the geometric enclosures to be actual gateways, or doorways, to the otherworld. Certainly the idea of architectural structures being used to create entrances to the otherworld was known throughout North America. The circular hole in the top of the Ojibway shaking tent, for example, was

specifically meant to allow for "soul-flight travel to the Hole in the Sky and across the barrier to the spirit realm."[146]

Though different in degree in terms of the engineering required, there is no difference in kind between the hole in the Ojibwa tent and the star-shaft in the Great Pyramid—which likewise appears to have been intended to facilitate soul-travel to the sky across the barrier to the spirit realm.

Similarly, although there is again a marked difference of degree, there is no difference in kind between the geometric, astronomically aligned structures of the Giza plateau and the geometric, astronomically aligned structures of the Mississippi Valley. All of them seem bound together by the single purpose of the triumph of the soul over death and by the means deployed to achieve that purpose.

But why were structures required at all? And why these specific kinds of structures?

24

ASTRONOMY AND GEOMETRY IN THE AFTERLIFE

I'M NOT SUGGESTING THAT THE religion of ancient Egypt was brought from there to ancient North America and I'm **not** suggesting that the religion of ancient North America was brought to ancient Egypt. I accept the scientific consensus that the Old World and the New

World have been isolated from one another, with no significant genetic or cultural contacts, for more than 12,000 years. Also, the similarities between the religious systems practiced in ancient Egypt and ancient North America are not such as could be explained by direct "missionary" or "conversion" activities at any time, whether relatively early or relatively late. There are too many stark and obvious differences, too deeply adapted to local conditions and local cultural circumstances, for this to be the case.

What, then, are we to make of the striking package of shared beliefs and symbols reviewed in the previous chapter? In both cases we have a journey of the soul to a staging ground in the west, a "leap" to a portal in the constellation Orion, transition through that portal to the Milky Way, a journey along the Milky Way during which challenges and ordeals are faced, and a judgment at which the soul's destiny is decided.

Just as the differences rule out direct influence so, too, in my view, the similarities are too many and too obvious to be dismissed

as mere “coincidences.” A better explanation needs to be sought and in this respect it’s helpful to remember that analogous situations arise in genetics. Sometimes, for example, two seemingly completely different groups of people, separated by huge distances and formidable geographic barriers and with zero opportunity to trade DNA, nevertheless turn out to share certain distinct clusters of genes. In these cases the answer very often lies in an earlier population, perhaps with no living members today—a “ghost” population—that was the remote common ancestor of both otherwise unrelated populations in which the surprising genetic resemblances have been found.

In the realm of archaeology, E. A. Wallis Budge faced a comparable problem with similarities he had identified between the Mesopotamian deity Sin, a moon god, and the ancient Egyptian deity Thoth, also associated with the moon. The resemblances, in Budge’s view, are “too close to be accidental. It would be wrong to say that the Egyptians borrowed from the Sumerians or the

Sumerians from the Egyptians, but it may be submitted that the literati of both peoples borrowed their theological systems from some common but exceedingly ancient source."[1]

Walter Emery, late Edwards Professor of Egyptology at the University of London, also looked into similarities between ancient Egypt and ancient Mesopotamia. He found it impossible to explain them as the result of the direct influence of one culture upon the other and concluded:

> The impression we get is of an indirect connection, and perhaps the existence of a third party, whose influence spread to both the Euphrates and the Nile. … Modern scholars have tended to ignore the possibility of immigration to both regions from some hypothetical and as yet undiscovered area. [However] a third party whose cultural achievements were passed on independently to Egypt and Mesopotamia would best explain the common features and fundamental differences between the two civilizations.[2]

What I'm suggesting is essentially the same. The hypothesis that best explains the puzzling common features and fundamental

differences between the religions of ancient Egypt and ancient North America is that an even more ancient religion, of as yet unidentified provenance, was ancestral to both. The presence of its "DNA" in Egypt and North America also has chronological implications. In view of the evidence that the Old and New Worlds were isolated for more than 12,000 years, from the end of the Ice Age until the time of Columbus, the remote common ancestor of the religions that would later blossom in the Nile and Mississippi River valleys must therefore be more than 12,000 years old. I suggest that this ancestral religion—perhaps *system* would be a better word—used astronomical and geometrical memes expressed in architectural projects as carriers through which it reproduced itself across cultures and down through the ages, and that it was a characteristic of the system that it could lie dormant for millennia and then mysteriously reappear in full flower.

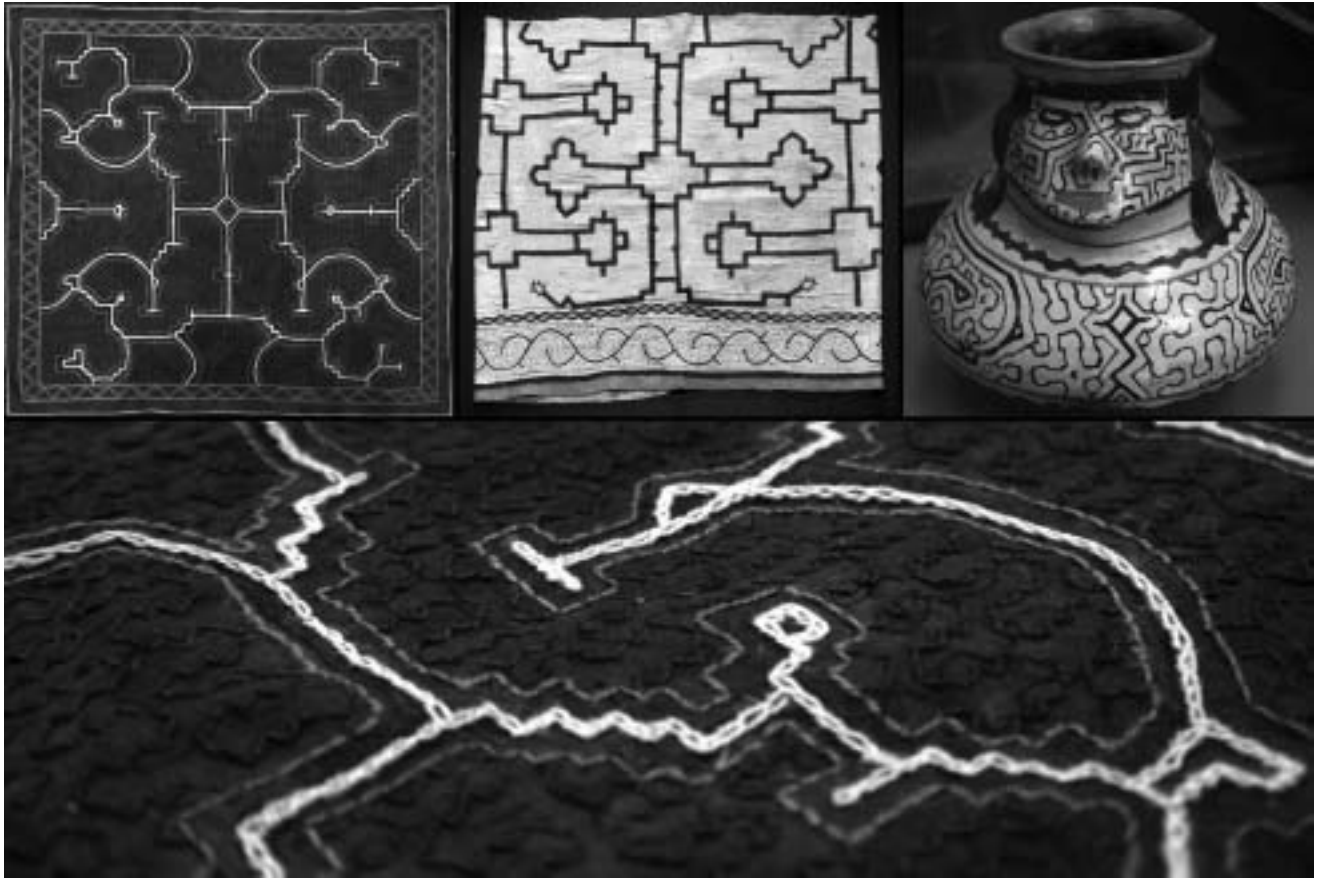

The ayahuasca-inspired art of the Shipibo, in the Peruvian Amazon, is noted for its complex geometrical imagery. PHOTOS: TOP LEFT AND BOTTOM: LUKE HANCOCK. TOP CENTER: NMAI. SMITHSONIAN INSTITUTION [19/5940]. TOP RIGHT: "DADEROT."

Though it is not my purpose to argue this case here, the possibility that the system still hibernates in some form or another in the twenty-first century cannot be ruled out, nor the possibility that it might at some point be awakened again in a garb suited to its time.

Indeed, might we not already be seeing the first intimations of this with the explosion of interest all around the world in ayahuasca as a teacher plant, and in the parallel growth in public exposure to the initiating geometries of ayahuasca-inspired art?

The notion that human agents were behind the spread of the system is not contradicted by this suggestion. On the contrary, the system may itself have had its origins in visionary experiences, in which case those responsible for its spread would surely have made use of “plant allies” wherever they could find them.

ANSWERS IN UNEXPECTED PLACES?

BECAUSE OF THE BURNING OF the library of Alexandria and the frenzied despoiling of the temples by fanatical Christian mobs in the fifth and sixth centuries, much of the legacy of wisdom that made ancient Egypt the "light of the world" has been lost. Nevertheless, because they carved so much in stone, and wrote so much down on papyrus and other media, and because they were enormously prolific artists and builders for more than 3,000 years, the ancient Egyptians have left us a vast legacy of knowledge about their spiritual ideas.

The immense destruction, genocide, and near-total obliteration of indigenous cultures unleashed in North America during the European conquest was a matter of an entirely different order—a full-blown, fast-moving cultural cataclysm, as a result of which we're left often with no record at all or with huge gaps in the record.

Thus, although we can be sure the great earthworks and mounds of the Mississippi Valley were connected to beliefs about death and the afterlife, no myths or traditions have survived to explain **why** it was essential to these beliefs that geoglyphs and mounds should be built or why these structures should incorporate complex geometry and astronomical alignments.

After all a vast expenditure of energy, effort, ingenuity, manpower, and organizational skills was required to create a Cahokia or a Moundville or a Newark Earthworks or, for that matter, a Watson Brake, so it makes no sense that such projects would have been undertaken without some enormously important motive that inspired all the participants. In the absence of surviving evidence of what that motive was in North America, could it be possible that the ancient Egyptian funerary texts might provide an answer?

SQUARES, RECTANGLES, ELLIPSES, AND CIRCLES

I REMEMBERED FROM MY EARLIER encounters with the texts that they included references to geometry and sought out those references now.

A few examples.

In chapter 108 of the Book of the Dead we read of the "Mountain of Sunrise … in the eastern heaven. It hath dimensions of 30,000 cubits in length and 15,000 cubits in breadth."[3]

That's a perfect 2-by-1 rectangle, no matter what system of measure you convert it into, equivalent roughly to 15,000 meters by 7,500 meters.

Strange "mountain!"

In chapter 81 there's an obscure geometrical reference to "four sides of the domain of Ra and the width of the earth four times."[4]

Ra is the Sun God and it is the business of "geometry"—literally "earth-measuring"—to know the "width of the earth."

Turning to chapter 110 of the Book of the Dead, we read:

> The god Horus maketh himself to be strong like unto the Hawk which is one thousand cubits in length and two thousand cubits in width.[5]

It seems a scribe copying from an older source document mixed up the concepts of length and width but what is defined here is nonetheless a 2-by-1 rectangle with dimensions of approximately 1,000 meters by 500 meters.

In the *Book of What Is in the Duat* another rectangular district is mentioned. Named Sekhet-Hetepet, its long and short dimensions are so close that it is almost, and in the vignettes appears visually to

be, a square. Its shape is defined by an unbroken water-filled moat. The land within it is intersected by canals.[6]

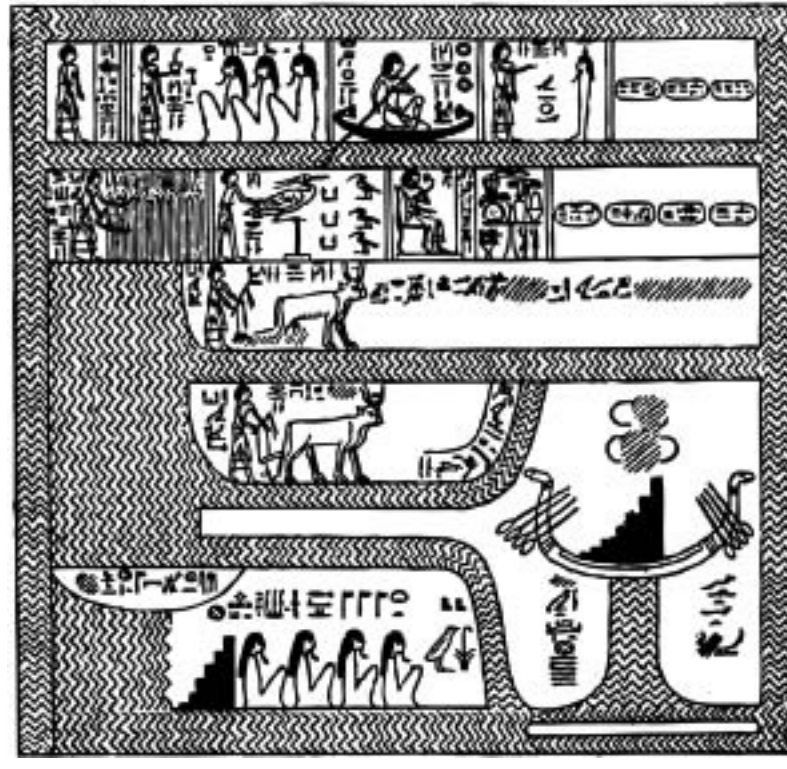

Sekhet-Hetepet (Papyrus of Nebseni, BRITISH MUSEUM).

A second district of the Duat, named “Tchau,” is “440 cubits in length and 440 cubits in width.”[7]

That’s a perfect square, no matter what system of measure you convert it into, equivalent to roughly 220 meters by 220 meters.

Later, in the Seventh Division of the Duat, another square enclosure of identical dimensions is encountered.[8]

In the Land of Sokar, part of the Fifth Division, and the location of the Judgment scene, we meet a “goddess of the apex.”[9] In that same division we also encounter “the god of his angle” whose hieroglyph incorporates a right triangle,[10] fundamental for surveying and trigonometry. The heart of the Land of Sokar, which rests on the backs of two man-headed lion sphinxes set tail to tail, is formed by an elongated ellipse over the top of which looms a pyramid with its apex in the form of the head of a goddess.[11]

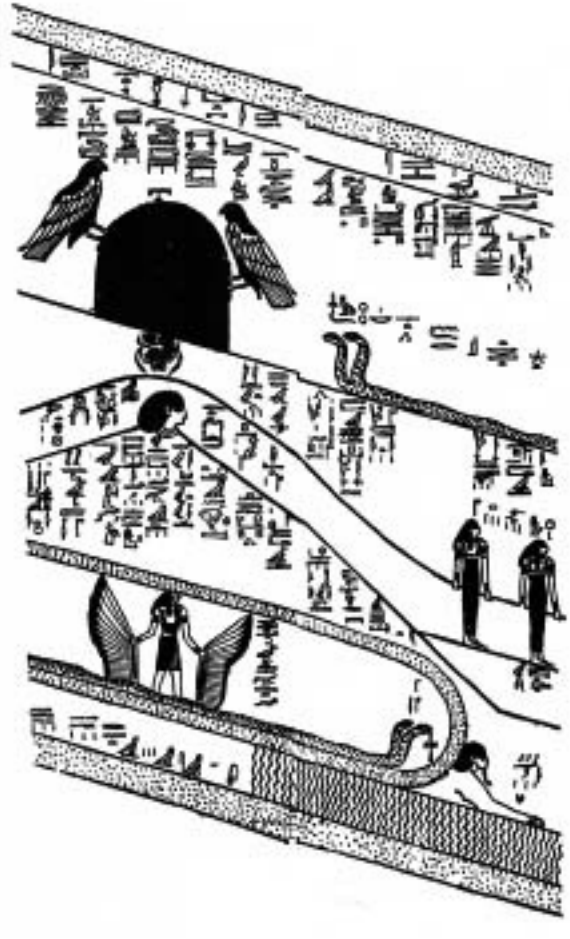

Pyramid over elliptical enclosure in the Land of Sokar.

Turning to the Coffin Texts, we find a gigantic ship or "bark" described with the following dimensions:

> A million cubits are half the length of the bark; starboard, bow, stern and larboard are four million cubits.[12]

That's around 500 kilometers for "half the length of the bark" and a combined total of 2,000 kilometers for its other listed parts, a geometrical progression with a ratio of 4.

Among the squares, rectangles, and ellipses of ancient Egypt's starry Netherworld there are also perfect circles everywhere.

Staying with the Coffin Texts, we read of "the circle of the Pillar of Horus which is north of the opening of darkness."[13]

In the Book of the Dead we meet "the gods of the *Querti*"—literally the "Circles"—to whom the soul on its afterlife journey was obliged to sing hymns of praise.[14]

In the *Book of What Is in the Duat,* in the Fifth Division and associated with Ra, the Sun God, we are told of a "Circle" that "unites itself with the roads of the Duat."[15] In the Seventh Division a journey is made "in the path of the Circle of Osiris,"[16] while in the Eighth Division we learn of "the Circles of the hidden gods who are on their sand."[17] In addition, five "Circles of the Duat," each entered through a "door," are described.[18]

And throughout the texts we hear repeatedly of "the hidden Circle of the Duat,"[19] a location of great significance, as we shall see. There are indications that the Duat itself was considered to be circular in form. As Wallis Budge points out, there is a scene in the *Book of Gates* that depicts "the body of Osiris bent round in a circle and the hieroglyphics enclosed within it declare that it is the Duat."[20]

SUN AND MOON

AS WELL AS MULTIPLE REFERENCES to stars and constellations, too numerous and all-pervasive in the funerary texts to require special mention here,[21] the moon is frequently encountered on the journey through the Duat. In the Second Division, for example, a vignette

shows a boat, the purpose of which, as Budge describes it, is "to support the disk of the full moon. … By the disk kneels a god who is 'supporting Maat,' which is symbolized by a feather, and is described by the word MAAT."[22]

Central to the ancient Egyptian judgment scene described in the previous chapter, the concept of Maat enshrines notions of cosmic justice, harmony, and balance. Its association with the moon is appropriate since the moon indeed plays a key "balancing" or "stabilising" role for the earth.[23]

The sun is also often figured as being carried aboard a boat and also features prominently in the Duat, blazing an indomitable path through its terrors each night, a symbol of hope and resurrection in whose company, if they are fortunate, the souls of some of the deceased might be permitted to ride. That much might be expected, but what is interesting are passages in the texts that help us to understand the special attention paid by the ancient Egyptians to the

solstices, with several of the greatest temples of the Nile Valley, notably the Temple of Karnak at Luxor, incorporating spectacular solstitial alignments.

A defining characteristic of the solstices, around June 21 and December 21 when the sun reaches its northernmost and southernmost rising and setting points, is that the pendulum swing of the solar disk along the horizon appears to pause or "stand still," without further northward or southward movement, for an interval of 3 days. In this connection let's recall the peculiarly geometrical "Mountain of Sunrise." The passage concerning it in chapter 108 of the Book of the Dead that I cited earlier continues as follows:

> There is a serpent on the brow of that Mountain, and he measureth 30 cubits in length; the first 8 cubits of its length are covered with flints and with shining metal plates. … Now after Ra hath stood still he inclineth his eyes towards him and a stoppage of the boat of Ra taketh place, and a mighty sleep cometh upon him that is in the boat.[24]

It's difficult to interpret this passage in any other way than a colorful, lyrical, poetic description of a solstice.

Similarly, in the Coffin Texts we read:

> I am here from the lifting up of the horizon that I may show Ra at the gates of the sky. … A path is prepared for Ra when he comes to a halt.[25]

Again, what else but a solstice could possibly bring Ra, the almighty Sun God, to a halt?

EARTHWORKS

THERE ARE CAUSEWAYS IN THE ancient Egyptian Netherworld.

"I will travel on that great causeway," proclaims the deceased in Spell 629 of the Coffin Texts, "on which those whose shapes are

great travel."[26]

In Utterance 676 of the Pyramid Texts, in a passage that calls to mind a pilgrimage with relics, we read:

> Do for him what you did for his brother Osiris on that day of putting the bones in order, of making good the soles, and of traveling the causeway.[27]

And in Utterance 718:

> The Mourning Woman summons you as Isis, the Mooring-post calls to you as Nepthys, you having appeared upon your causeway.[28]

Very frequently when causeways are mentioned it's in specific association with mounds. The above passage continues:

> May you travel around your Horite Mounds [i.e., mounds consecrated to the god Horus], may you travel around your Sethite Mounds [i.e., mounds consecrated to the god Seth]. You have your spirit, O my father the King … make yourself into a spirit.[29]

In Utterance 470 the deceased informs the soul of his mother, the "Lady of the Secret Land:"

> "I am going to the sky that I may see my father."
> "To the High Mounds?" she asks, "or to the Mounds of Seth?"
> "The High Mounds," the deceased replies, "will pass me on to the Mounds of Seth."[30]

It's a very curious, obviously coded language, beyond the reach of straightforward translation, that continues throughout the funerary texts.

As well as Horite Mounds and Sethite Mounds there are the Mounds of Osiris,[31] and also the Southern Mounds and the Northern Mounds that the soul must travel to and traverse on its journey through the Duat.[32] And the structure in the Fifth Division of the Duat that Budge refers to as a pyramid is also sometimes described as a "hollow mound,"[33] and as a "mound of earth."[34]

In the Coffin Texts we hear of "the gods on their mounds,"[35] and later that "mounds will be towns and towns will be mounds."[36]

There are also frequent references to "cities of the gods," as in:

> A divine city hath been built for me; I know it and I know the name thereof. Sekhet-Aaru is its name.[37]

Or:

> I come from the city of the god, the primeval region.[38]

I mention these "city" references because if towns can be mounds and mounds can be towns, then "cities" presumably can also be towns and therefore mounds as well? Moreover, the whole picture immediately becomes much more complicated when we read of a god who "setteth the stars in their places"[39] only for the translator to immediately qualify that the word he's chosen to render as "places" actually means "towns." What this god is doing, therefore—though

it seemed an impossible concept to the translator—is literally setting stars down to earth in “towns.”

And we already know that towns can be mounds and mounds can be towns. That both should also be stars is not at all a contradiction if you just … think like an Egyptian!

HOW TO EQUIP A SPIRIT FOR JOURNEYING

THE ANCIENT EGYPTIANS SAW THEIR lives as their opportunity to prepare for the trials of the journey through the Duat that they would have to confront as souls after death. The stakes were high, with both eternal annihilation and immortality being possible outcomes of that journey. There was undoubtedly an ethical aspect

to the Judgment, as we've seen, but something else was also required, some gnosis, some deep understanding, and very strangely it turns out to be the case that those who truly sought the prize of immortality—"the life of millions of years"—were called upon first to build on the ground perfect copies "of the hidden circle of the Duat in the body of Nut [the sky]."[40]

> Whoever shall make an exact copy of these forms, and shall know it, shall be a spirit well-equipped both in heaven and earth, unfailingly, and regularly and eternally.[41]
>
> Whosoever shall make a copy thereof, and shall know it upon earth, it shall act as a magical protector for him both in heaven and upon earth.[42]
>
> If copies of these things be made according to the ordinances of the hidden house, and after the manner of that which is ordered in the hidden house, they shall act as magical protectors to the man who maketh them.[43]
>
> He who hath no knowledge of the whole or part of the secret representations of the Duat shall be condemned to destruction.[44]
>
> Whosoever shall know these secret images shall be in the condition of a spirit who is equipped for journeying.[45]

Wrapped up in the colorful archaic language is a belief—or perhaps the inculcation of a belief—that the immortal destiny of the soul can be influenced by an architectural project to copy on the ground a "hidden" or "secret" part of the Duat sky region, the coordinates of which are set down in archives in the "hidden house."

Egyptologists already accept that the Milky Way and the constellation Orion on its west bank are key markers in the celestial geography of the Duat, and in 1996 Robert Bauval and I made the case in our book *The Message of the Sphinx* that the constellation Leo was very much part of the Duat as well. To cut a long story short, our argument, which we stand by today, is that the ideas expressed in the funerary texts were indeed manifested in architecture in Egypt in the form of the Great Pyramid, the leonine Sphinx, and the underground corridors and chambers beneath these monuments.

The complex was constructed, we believe, as a three-dimensional replica, model, or simulation of the intensely geometrical Fifth Division of the Duat, also known as the "Kingdom of Sokar" and always regarded as an especially hidden and secret place.[46] Moreover, we suggest that what motivated the population to support this gigantic project was precisely the promise of thus obtaining that "magical protection," that power to become "a spirit equipped for journeying," that would ensure a successful afterlife passage through the Duat.

It is not necessary, for the sake of my argument, to enter into any debate about the merits or demerits of such beliefs. It is enough to say that they were clearly held in ancient Egypt over an immensely long span of time and that the proof of this is in the books of the dead and in the Giza architectural complex. Nor is it controversial to add that it was around the belief system expressed in those texts and monuments that the entire extraordinary civilization of the ancient

Nile Valley was organized and mobilized from the very beginning—and since that civilization endured and fed its people and nourished their spirituality for more than 3,000 years, it's also obvious that at some fundamental level something about the system *worked*.

QUESTIONS AND ANSWERS

SO WE RETURN TO THE question of why, over a period of many thousands of years, sometimes punctuated by long, culturally barren intervals, huge numbers of architectural projects were undertaken up and down North America's Mississippi Valley linked to a very distinctive set of beliefs about the afterlife journey of the soul that shared many core elements with the spiritual cosmology of ancient Egypt.

If the resemblances are coincidental, we would not expect the ancient Egyptian funerary texts to provide immediate, sensible answers to some outstanding questions about the monuments of the Mississippi Valley. The fact that they do, in my view, increases the likelihood that we're looking at a real connection.

Why are the Mississippi Valley sites built on such a gigantic scale and why are celestial alignments of such importance within them?

For the same reasons given in the ancient Egyptian funerary texts for the construction of the sky-ground architecture of the Nile Valley—that the sky is gigantic and the purpose of the architecture is to honor, connect with, and above all "resemble the sky."

Why are the Orion constellation and the Milky Way so important in the funerary symbolism of the Mississippian culture? And why is the Milky Way the "Path of Souls"?

For the same reason given in the ancient Egyptian funerary texts—that within the general frame of the starry sky it is specifically Orion that hosts the portal through which the soul must pass to reach the "Winding Waterway" that in turn leads the soul onward on its journey through the Land of the Dead.

Why is geometry, and its particular manifestation in the form of rectangular, square, circular, and elliptical enclosures, such a significant element of the Mississippi Valley sites?

For the same reasons given in the ancient Egyptian funerary texts for the distinct geometrical character of the sky-ground architecture of the Nile Valley—geometry is a foundational characteristic of the Land of the Dead and the rectangular, square, circular, and elliptical enclosures are the typical forms of celestial "districts" through which the soul must pass on its afterlife journey.

Why do the Mississippi Valley sites feature causeways and mounds?

For the same reasons given in the ancient Egyptian funerary texts for the incorporation of causeways and mounds in the sky-ground architecture of the Nile Valley—namely, that causeways and mounds are prominent features of the celestial Land of the Dead that it is the purpose of the architecture to replicate on earth.

Why were the peoples of the Mississippi Valley willing to expend such great quantities of treasure and energy on the creation of spectacular sites such as Moundville, Cahokia, and the Newark Earthworks, and why did they take such care to imbue every one of them with intense geometrical characteristics and to ensure that each in its own way "resembled" and formed intimate connections with the sky?

For the same reason given in the ancient Egyptian funerary texts—the belief that if the sky, or some "hidden" or "secret" aspect of it, were NOT copied on the ground (and in some way explored, navigated, and *known* prior to death), then those souls who had failed to do this necessary work, and thus were not equipped with the knowledge of "the secret representations," would be "condemned to destruction."

SKY AND GROUND

WHEN IT COMES TO MOTIVATIONAL techniques, as the Roman Catholic Church demonstrated throughout the Middle Ages, the prospect of eternal damnation can be very effective. I suggest that in ancient Egypt it was the equivalent prospect of "destruction" or "annihilation" of the soul, and the possibility of avoiding such a fate —as spelled out in the funerary texts—that motivated the construction of the sky-ground temples and pyramids of the Nile

Valley. They were all, in a sense, gigantic books of the dead in stone and some–the Giza complex in particular—were undoubtedly seen as "actual gateways, or doorways, to the otherworld."

That phrase, "actual gateways, or doorways, to the otherworld," is William Romain's, cited at the end of the previous chapter with reference to the Hopewell earthworks. I quote it again here to emphasize the peculiar interchangeability of spiritual beliefs in the Nile Valley and the Mississippi Valley. Although widely separated in time and space, the ancient inhabitants of these two regions seem to have shared a core set of ideas about the afterlife destiny of the soul and seem, moreover, to have been largely in agreement not only that those ideas should be manifested in architecture, but also on many of the specific characteristics of that architecture, and on the purpose that the architecture was intended to serve.

Thus, while one reproduced Orion's belt and the constellation of Leo and the other orchestrated complex architectural dances aligned to lunar and solar standstills, the fundamental objective of both was

to open portals between sky and ground through which the souls of the dead could pass.

I'm not ruling out the possibility that some of the monuments of the Mississippi Valley are "constellation diagrams"—or constituent parts of "constellation diagrams"—much like the Giza monuments. Indeed Ross Hamilton, as we saw in part 1, has long been of the opinion that Serpent Mound is a terrestrial figure of the constellation Draco. George Lankford, on the other hand, makes a strong case that it represents the constellation Scorpius.[47] The point is not whether one is right or wrong, but that both see the possibility that the mounds and earthworks could have been used to represent constellations.

Perhaps we'll never know for sure, since so much of North America's pre-Columbian heritage has been destroyed. Nevertheless, efforts are already being made.

Stepping back in time from the Mississippian civilization, for example, William Romain's detailed studies of the Hopewell lead him to conclude that, in the minds of those who made them:

> the Newark Earthworks were a portal to the Otherworld that allowed for interdimensional movement of the soul during certain solar, lunar and stellar configurations.[48]

He also argues that the "Great Hopewell Road," an ancient causeway that once ran straight for more than 60 miles between Newark and High Bank (see chapter 20), "was the terrestrial equivalent of, or metaphor for the Milky Way Path of Souls providing a directional component for soul travel to the Realm of the Dead."[49]

Further, Romain joins George Lankford in linking Serpent Mound to Scorpius and in concluding that "Serpent Mound was a cognate for the Great Lowerworld Serpent which guarded the Realm of the Dead."[50]

What confronts us with the Hopewell, then, as with ancient Egypt and as with the Mississippian civilization, is a Realm of the Dead in the sky and its representation by architectural structures on the ground. It is part of the brilliance of such structures that they can play multiple roles in the cosmic drama. Thus, while the Great Sphinx may be the terrestrial counterpart of the constellation Leo, its gaze also sacralizes the union of heaven and earth at sunrise on the equinoxes. And while Serpent Mound may indeed be the earthly twin of the constellation Scorpius, its open jaws and the oval earthwork between them also serve to unite ground and sky at sunset on the summer solstice.

In this connection, let's reconsider the reference cited earlier from the Book of the Dead concerning a great serpent on the brow of a mountain that brings the boat of the Sun God Ra to a halt, plunging that deity into a "mighty sleep" with nothing more than a glance.[51] It may, of course, be a coincidence, but this description resonates

curiously with the situation of Serpent Mound. For what do we encounter there on the bluff above Brush Creek if not a massive serpent effigy with its gaze targeted on the sun at its midsummer standstill? That's indeed a time, as we've seen, when the setting point of the solar disk appears to remain fixed at the same place on the horizon for 3 days, an event that might appropriately be expressed, in mythical language, as a "mighty sleep" brought on by the precisely aimed gaze of the Serpent.

Then, too, the great serpent in the Book of the Dead is described as having "the first 8 cubits of its length"—its head and neck, in other words—"covered with flints and with shining metal plates."[52] The resonance here is with George Lankford's study of Native American traditions of the Great Horned Water Serpent (see chapter 23), sometimes described as the "Master of the Beneath World" and sometimes as "the Great Serpent with the Red Jewel in its Forehead"—a notion not so very far away from the ancient

Egyptian representation in which the creature's head and neck glitter "with flints and with shining metal." It is this Great Jeweled Serpent, Lankford concludes, represented as an adversary on the Path of Souls, that is depicted very frequently in Moundville designs where it is directly linked to other imagery associated with the afterlife journey. He also makes a strong case that Serpent Mound is a three-dimensional representation of the same supernatural entity[53] and draws an interesting comparison with myths of the Cherokees describing the Uktena, "a great snake, as large around as a tree-trunk," with:

> a bright blazing crest like a diamond on its forehead, and scales glittering like sparks of fire.[54]

The same myths also tell us that the gaze of this serpent had the power to "daze" people so that they were stopped in their tracks and could not escape from it,[55] and again there is a notable parallel here

with the great serpent of the Book of the Dead whose gaze plunges even the Sun into a "mighty sleep."[56]

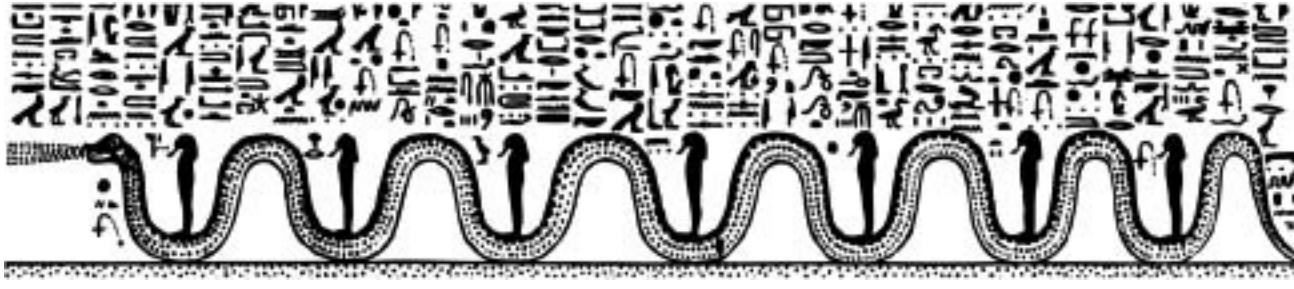

Kheti, a serpent of the Duat.

RENEWAL AND REBIRTH

SCHOLARS ARE IN NO DOUBT that the ideas about the afterlife journey of the soul expressed in the ancient Egyptian funerary texts are much older than the surviving inscriptions and extend far back into

the oral traditions of the pre-dynastic, pre-literate period before 5,500 years ago.[57]

Likewise, although we have no hieroglyphs or inscriptions from North America, it's noteworthy that the same geometrical concerns and the very same alignment to the summer solstice sunset that we see at Serpent Mound, supposedly from the "Adena" period around 2,300 years ago, are also present at Watson Brake 5,500 years ago. And indeed we may say that the sudden burst of mound-building and earthwork construction across the Lower Mississippi Valley between 6,000 and 5,000 years ago is mysterious and unexplained. Like the sudden and fully formed appearance of the high civilization of Egypt, it seems just to have come out of nowhere, with no apparent antecedents, yet already in possession of advanced knowledge.

The earliest mound sites we know of in North America may possibly date back as far as 8,000 years.[58] After that the trail goes

cold.

But then why should we be surprised? The trail goes cold for a full 1,000 years between the end of the Watson Brake epoch and the beginning of Poverty Point, and it goes cold again several times thereafter, only to reappear reborn and renewed on the far side of each lacuna. The same stop-start process, however, also means that we can't date the inception of the tradition to its oldest manifestations so far found.

First, the archaeology is very far from complete, and given the destruction of so much of the evidence from prehistory, will never be complete—so our ability to figure out what really happened in the North American past is deeply compromised. It may be that there was no mound-building at all before 8,000 years ago, but it could equally well be that the evidence of an earlier mound-building episode has simply been lost.

Second, because we are dealing with a system of ideas that has a proven ability to appear and disappear and reappear again fully

formed, we must consider the possibility that it is such a "reappearance" that the archaeological record has identified at the supposed "earliest" mound sites—in other words, that the skills manifest in those already very ancient sites were, as my friend the late John Anthony West used to put it about the civilization of ancient Egypt, "a legacy not a development."

But a legacy of what? And when? And how is it that it keeps on turning up all around the world, in different places at different times, but always expressing and manifesting the same core ideas?

Once again, the ancient Egyptian texts offer some suggestive answers.

REBIRTH OF A LOST WORLD

THIS TIME IT'S NOT THE funerary texts I'm referring to, but the Edfu Building Texts, so called because they are inscribed on the walls of the Temple of Horus at Edfu in Upper Egypt.

These texts take us back to a very remote period called the "Early Primeval Age of the Gods"[59]—and these gods, it transpires, were not originally Egyptian,[60] but lived on a sacred island, the "Homeland of the Primeval Ones," in the midst of a great ocean.[61] Then, at some unspecified time in the past, an immense cataclysm shook the earth and a flood poured over this island, where "the earliest mansions of the gods" had been founded,[62] destroying it utterly, submerging all its holy places, and killing most of its divine inhabitants.[63] Some survived, however, and we are told that this remnant set sail in their ships (for the texts leave us in no doubt that these "gods" of the early primeval age were navigators[64]) to "wander" the world.[65] Their purpose in doing so was nothing less

than to re-create and revive the essence of their lost homeland,[66] to bring about, in short:

> The resurrection of the former world of the gods …[67]
> The re-creation of a destroyed world.[68]

For those readers not already familiar with the enigma of the Edfu Building Texts, and who would like to know more, I give a detailed analysis in my book *Magicians of the Gods*. I won't repeat here the case I made there, nor support it with the evidence presented there. The takeaway is that the texts invite us to consider the possibility that the survivors of a lost civilization, thought of as "gods" but manifestly human, set about "wandering" the world in the aftermath of an extinction-level global cataclysm. By happenstance it was primarily hunter-gatherer populations, the peoples of the mountains, jungles, and deserts—"the unlettered and the uncultured," as Plato so eloquently put it in his account of the

end of Atlantis—who had been "spared the scourge of the deluge."[69] Settling among them, the wanderers entertained the desperate hope that their high civilization could be restarted, or that at least something of its knowledge, wisdom, and spiritual ideas could be passed on so that mankind in the post-cataclysmic world would not be compelled to "begin again like children, in complete ignorance of what happened in early times."[70]

In this Edfu account of the wandering civilizers am I wrong to be very strongly reminded of the Tukano origin myth, given in chapter 18? It tells of how "Helmsman" and "Daughter of the Sun" brought the gifts of fire, horticulture, pottery-making, and other skills to the first humans to enter the Amazon while other "supernaturals" traveled over all the rivers, explored the remote hill ranges, identified the best places for settlement, and "prepared the land so that mortal human creatures might live on it."

Before returning whence they had come these so-called supernaturals:

> Left their lasting imprint on many spots so that future generations would have ineffaceable proof of their earthly days and would forever remember them and their teachings.[71]

These same spots, very frequently marked with petroglyphs, are still held sacred by the Tukano today, anthropologist Gerardo Reichel-Dolmatoff confirms, as "proof of the divine origin of the cultural heritage, the foundations of which had been laid down by the spirit beings who, at that time, still dwelled upon earth."[72]

Returning to ancient Egypt and to the Edfu texts, we're told that the survivors of the Island of the Primeval Ones:

> journeyed through the … lands of the primeval age. …[73] In any place in which they settled they founded new sacred domains.[74]

We may deduce, therefore, that part of their mission was to

repromulgate the lost religion of the days before the flood.

Next we learn that architecture, initially in the form of earthen mounds, was also central to their mission. Indeed it was so central that they carried with them a book, *The Specifications of the Mounds of the Early Primeval Age,* that literally "specified" the locations in the Nile Valley upon which every mound was to be situated, the character and appearance of each mound, and the understanding that those first, foundational mounds were to serve as the sites for all the temples and pyramids that would be built in Egypt in the future.[75]

Little wonder then that included among the company of the "gods" of Edfu were the *Shebtiw,* a group of deities charged with a specific responsibility for "creation,"[76] the "Builder Gods" who accomplished "the actual work of building,"[77] and the "Seven Sages" who, in addition to dispensing wisdom, as their name

suggests, were much involved in the setting out of structures and in laying foundations.[78]

My argument has long been that the Edfu Building Texts reflect real events surrounding a real cataclysm that unfolded between 12,800 and 11,600 years ago, a period known to paleoclimatologists as the Younger Dryas and that the Texts call the "Early Primeval Age." I have proposed that the seeds of what was eventually to become dynastic Egypt were planted in the Nile Valley in that remote epoch more than 12,000 years ago by the survivors of a lost civilization and that it was at this time that structures such as the Great Sphinx and its associated megalithic temples and the subterranean chamber beneath the Great Pyramid were created. I have further proposed that something resembling a religious cult or monastery, recruiting new initiates down the generations, deploying the memes of geometry and astronomy, disseminating an "as-above-so-below" system of thought, and teaching that eternal annihilation

awaited those who did not serve and honor the system, would have been the most likely vehicle to carry the ideas of the original founders across the millennia until they could be brought to full flower in the Pyramid Age.

TURTLE ISLAND

IF WE TAKE THE EDFU Building Texts seriously, with their depiction of seafaring missions sent all around the world to attempt to restart a civilization after a global cataclysm, and if ancient Egypt is the distant descendant of one of those missions, then we would expect to find other distant descendants elsewhere in the world.

It is my case in this book that we do indeed find such a descendant civilization in the Mississippi Valley and that, like ancient Egypt, it carries the DNA of a "ghost" civilization of remote

prehistory. At sites such as Cahokia and Moundville, and 1,000 years earlier at Newark and High Bank, and 1,000 years before that at Poverty Point, and again 2,000 years before that at Watson Brake, we see the same sky-ground geometrical and astronomical system at work, with origins that keep on receding deeper and deeper into the past until the trail fades from view around 8,000 years ago. In the case of the older sites in this continuum—despite early evidence of a special place granted to the constellation Orion across North America[79]—there is insufficient information for us to be sure of the afterlife beliefs of the people who made them and whether they were linked to the "Path of Souls" complex that we find so amply demonstrated in the later sites. But the fact that such beliefs are confirmed at Cahokia and Moundville, and other relatively recent Mississippian sites where the archaeological evidence can be enriched with ethnographic data, and the fact that they are also strongly implicated in Hopewell and Adena sites such as Newark,

High Bank, and Serpent Mound, suggest strongly that the same "cultural package" of sky-ground geometry and astronomy, linked to the same set of beliefs about the afterlife journey of the soul, is likely to have been at work from the beginning to the end of the mound-building enterprise in North America.

Then there's the matter of the Amazon, where earthworks incorporating geometrical and astronomical memes identical to those manifested in the ancient Nile and Mississippi River Valleys are now emerging from the jungle hand in hand with traditions of "geometrical gods" and evidence of an ancient quest using vision-inducing plants to gain knowledge of the realm of the dead.

At the same time, the whole story of the peopling of the Americas is up for grabs. We know that the New World has been separated from the Old—a gigantic island—since the epoch of sea-level rise at the end of the Ice Age between 12,800 and 11,600 years ago. We know that there were subsequently no significant transfers of culture or genes between the two regions until about 500 years ago, when

the European conquest of the Americas began. We may safely conclude, therefore, that anything held in common culturally or genetically between the Old World and the New that is not the result of mixing in the past 500 years is either a coincidence or has to date back at least 11,600 years—and could, of course, be far older than that.

The extraordinary similarities we've considered between ancient Egypt and ancient North America are far beyond the power of coincidence to explain and yet the differences, and the physical and temporal separation of the Nile and Mississippi Valley civilizations, mean direct influence also must be ruled out.

What's left is a remote third party—a lost civilization, perhaps even the "island" that the Edfu texts call the Homeland of the Primeval Ones destroyed in the global cataclysm of 12,800 years ago.

North America—"Turtle Island" in Native American tradition—is always, almost automatically, assumed to be a place to which

culture was brought from elsewhere, but let's shift the reference frame. What if North America itself was the Homeland of the Primeval Ones? What if the distinctive system of ideas involving the afterlife journey of the soul and the building of very specific types of structures thought to facilitate that journey weren't **brought** to North America but originated there?

Now that the "Clovis First" nonsense has finally been laid to rest we know for sure that humans have been in the Americas for at least 25,000 years, with compelling evidence for an even earlier presence 50,000 years ago or more. Indeed if, Tom Deméré and his team have correctly read the clues at the Cerutti Mastodon Site, the real First Americans may have inhabited the New World—as far south as San Diego—as much as 130,000 years ago.

Even if the continent wasn't inhabited until 25,000 years ago, however, we're still left with an immense span of time before the earliest evidence of mound-building in North America around 8,000 years ago. That's an interval quite long enough for great innovations

in human culture to have occurred, yet if they did occur, why do we find no trace of them?

We've already seen, and I think there's no dispute about it, that a vast heritage of truth about Native American cultures, and what they really knew and believed, was utterly obliterated by the European conquest in the past 500 years. That's one reason why the record is so patchy, with great chunks simply missing.

The second reason, as Tom Deméré explained (see part 2), is that archaeologists have, until recently, been unwilling to investigate older deposits because of a preexisting conviction that nothing would be found in them.

But there's a third factor that may prove to be of far greater significance than the other two, and this has to do with the extinction-level cataclysm that the earth experienced 12,800 years ago. Although the entire globe was affected, all the evidence indicates that the epicenter was in North America. It's giant ice cap, 2 kilometers deep and extending in that epoch as far south as

Minnesota, was massively destabilized, and the destruction that followed was near total across an immense area where the archaeological record was effectively swept clean.

What happened in North America?

PART VII

APOCALYPSE THEN

The Mystery of the Cataclysm

25

ELOISE

IT'S EARLY OCTOBER 2017, A roasting-hot midmorning, and we've just left Tucson, Arizona, for the 80-mile drive to Murray Springs, a very rich and complex Clovis site about 14 miles southwest of the town of Tombstone and 20 miles north of the Mexican border. Our route takes us via I-10 and AZ-90 through increasingly sere scrub and semidesert under a merciless sky, but when we arrive at Murray

Springs itself, park, say hello to the rangers at the gate, and walk the couple of miles of the trail around the archaeological site we find ourselves in a sort of oasis with abundant mesquite growing tall enough along the edges of a sinuous arroyo—a flood channel—to offer some welcome shade. Although flash floods still rip through here from time to time it's rumored that the present lush environment owes more to treated sewage being dumped in the area.

Santha and I are accompanied by geophysicist Allen West and his wife, Nancy. Working with Jim Kennett, an earth scientist and oceanographer at the University of California, and Richard Firestone, a nuclear analytical chemist at Lawrence Berkeley National Laboratory, West is one of the principal investigators in a loose alliance of more than sixty scientists from many different fields who have joined forces since 2007 to try to solve a profound mystery. It concerns the Younger Dryas, the interlude of cataclysmic global climate change coinciding with the Late

Pleistocene Extinction Event in which thirty-five genera of North American megafauna (with each genus consisting of several species) were wiped out around 12,800 years ago. Sharing their fate were the Clovis people and their distinctive culture with its characteristic “fluted-point” weaponry.

We climb down to the floor of the arroyo, which is about 2 meters deep and 12 meters wide at this point, and begin to walk along it. After a few moments Allen stops. “It’s around here that they excavated Eloise,” he says. He’s referring to one of the mammoths ambushed and butchered at Murray Springs by the Clovis people some 12,800 years ago. He describes how Eloise’s skeleton was found intact except for the hind legs, which had been chopped off right after she was killed. One was moved up and placed alongside her head. Archaeologists found the other a few hundred meters away, close to the residue of an ancient campfire. Part of a broken Clovis point was also found by the campfire, while the rest of it was “in Eloise.”

The archaeologist who excavated the mammoth in the 1960s, and who would bring Allen West and Richard Firestone to the site many years later, was Vance Haynes, Regents Professor Emeritus at the University of Arizona and a senior member of the National Academy of Sciences. The reader will recall that his adamant defense of "Clovis First" was a significant factor in extending the life of that now thoroughly discredited theory and in inhibiting other research indicating a much earlier peopling of the Americas.

As the discoverer and principal excavator of Murray Springs, however, Haynes deserves credit for drawing attention to a very curious aspect of the site—a distinct dark layer of soil draped "like shrink-wrap," as Allen West puts it, over the top of the Clovis remains and of the extinct megafauna—including Eloise.

Haynes has identified this "black mat" (his term) not only at Murray Springs but at dozens of other sites across North America,[1] and was the first to acknowledge its clear and obvious association

with the Late Pleistocene Extinction Event. He speaks of the "remarkable circumstances" surrounding the event, the abrupt die-off on a continental scale of all large mammals "immediately before deposition of the … black mat," and the total absence thereafter of "mammoth, mastodon, horse, camel, dire wolf, American lion, tapir and other [megafauna], as well as Clovis people."[2]

Haynes notes also that "The basal black mat contact marks a major climate change from the warm dry climate of the terminal Allerød to the glacially cold Younger Dryas."[3]

From roughly 18,000 years ago, and for several thousand years thereafter, global temperatures had been slowly but steadily rising and the ice sheets melting. Our ancestors would have had reason to hope that earth's long winter was at last coming to an end and that a new era of congenial climate beckoned. This process of warming became particularly pronounced after about 14,500 years ago. Then suddenly, around 12,800 years ago, the direction of climate change

reversed and the world turned dramatically, instantly cold—as cold as it had been at the peak of the Ice Age many thousands of years earlier. This deep freeze—the mysterious epoch now known as the Younger Dryas—lasted for approximately 1,200 years until 11,600 years ago, at which point the climate flipped again, global temperatures shot up rapidly, the remnant ice sheets melted and collapsed into the oceans, and the world became as warm as it is today.[4]

In addition to Murray Springs, Vance Haynes reports finding:

> At least 40 other localities in the United States with Younger Dryas age black mat deposits. … [5] This layer or mat covers the Clovis-age landscape or surface on which the last remnants of the terminal Pleistocene megafauna are recorded. Stratigraphically and chronologically the extinction appears to have been catastrophic, seemingly too sudden and extensive for either human predation or climate change to have been the primary cause. This sudden … termination … appears to have coincided with the sudden climatic switch from Allerød warming to Younger Dryas cooling. Recent evidence for extraterrestrial impact, although

> not yet compelling, needs further testing because a remarkable perturbation occurred … that needs to be explained.[6]

Haynes published these thoughts in the *Proceedings of the National Academy of Sciences* in May 2008. The "extraterrestrial" impact that he mentions (and finds "not yet compelling") has nothing to do with "aliens" but refers to a serious scientific theory, the "Younger Dryas Impact Hypothesis," that had received its first formal airing—also in *PNAS*—in October 2007.[7] The paper was coauthored by Allen West, Richard Firestone, James Kennett, and more than twenty other scientists and presents evidence that multiple fragments of a giant comet—a swarm of fragments—struck the earth with disastrous consequences around 12,800 years ago. The effects were global but the epicenter of the cataclysm was over the North American ice cap, which the impacts destabilized, triggering the Younger Dryas deep freeze and the megafaunal extinctions.[8]

Haynes was right to say, in 2008, that this radical hypothesis needed further testing. It would receive it in the years ahead and become the focus of a furious debate that has divided scientists and continues to this day. On one side, many highly qualified and experienced specialists from many different fields are convinced that a comet swarm was indeed encountered around 12,800 years ago and that the result was a global catastrophe, with its most extreme effects felt in North America. On the other side is a smaller but more vocal and highly influential group of skeptics who reject the theory. I reported the debate between the two factions in some detail in my book *Magicians of the Gods* so won't repeat myself here. As I write these words in 2018, and despite a decade of unrelenting criticism and focused attempts at refutation, the upshot is that the Younger Dryas Impact Hypothesis [YDIH] has stood the test of time, gained increasingly wide acceptance among scientists, and remains by far the best single, coherent explanation for the

cataclysmic events and extinctions—the "remarkable perturbation"—that did indeed occur around 12,800 ago.

Allen West is at the cutting edge of the research into this colossal mystery and the coauthor of more than forty scientific papers looking into it in depth.

I'm privileged to have him join me at Murray Springs.

BLACK MAT

ALLEN LEADS US OVER TO the side wall of the arroyo, explaining, as we walk, that the area would have had a very different appearance 12,800 years ago. In particular it would have been "much wetter," with "a string of lakes" serving as watering holes for the megafauna that the Clovis hunters came here to kill. The arroyo itself is a relatively recent feature but a useful one because it slices vertically

through a couple of meters of sediment laid down before and after the onset of the Younger Dryas and thus functions something like an archaeological trench, revealing the layers—and what's in them—stacked one on top of the other.

A distinct black stratum, running horizontally like a layer in a cake, is visible on both walls of the arroyo about a meter below present ground level. It obviously lies across the whole landscape and has been exposed here by the flash floods that cut the arroyo—as though, to extend the analogy, a "slice" of the cake has been removed, allowing us a glimpse of its interior.

The stratum is about a hand's-breadth thick.

"That's the black mat," Allen confirms.

It doesn't look like a cataclysm, but appearances can be deceptive.

The first and most obvious sign of an impact by an asteroid or comet is a crater—or multiple craters in the case of a swarm. However, the earth's surface is dynamic and craters can be

obliterated by erosion or other geological processes, or covered over by later sediments or submerged by rising sea levels. In the case of impacts on the 2-kilometer-deep North American ice cap, as envisaged in the YDIH, the craters would have been excavated in ice that would have subsequently melted away, leaving little or no evidence on the ground beneath.

Scientists have therefore developed other measures, more subtle than looking for craters, to detect cosmic impacts in the geological record. Nanodiamonds, for example, are microscopic diamonds that form under rare conditions of great shock, pressure, and heat, and are recognized as being among the characteristic fingerprints —"proxies" in scientific language—of powerful impacts by comets or asteroids.[9] Other proxies include meltglass (resembling trinitite), tiny carbon spherules that form when molten droplets cool rapidly in air, magnetic microspherules, charcoal, soot, platinum, carbon

molecules containing the rare isotope helium-3, and magnetic grains with iridium.[10]

Certain of the glassy and metallic proxies require temperatures in excess of 2,200 degrees C to form and there is nothing in nature other than the heat and shock of a cosmic impact that can instantly generate such temperatures.[11] Alternative explanations might be offered for some of the other proxies but when they occur together, and in abundance, a cosmic impact again fits the evidence better than anything else.[12]

Moreover, to this day, scientists know of only two layers of sediment "broadly distributed across several continents that exhibit coeval abundance peaks in a comprehensive assemblage of cosmic impact markers, including nanodiamonds, high-temperature quenched spherules, high-temperature melt-glass, carbon spherules, iridium and aciniform carbon."[13]

These layers are found at the Cretaceous-Paleogene Boundary 65 million years ago, when it has long been agreed that a gigantic cosmic impact in the Gulf of Mexico caused the mass extinction of the dinosaurs, and at the Younger Dryas Boundary 12,800 years ago.[14]

I have a question for Allen. “Since the black mat was found draped directly on top of Eloise—like ‘shrink-wrap,’ you said—then presumably it must have begun to form very shortly after she was killed and butchered with most of her remains left lying on the spot?”

“What we see is that at the bottom of that black-mat layer, literally the first thing touching those bones, are spherules, iridium, platinum, and small pieces of melt-glass from the event. So it doesn’t mean the animal was alive when the event happened, but she had to have been alive very, very shortly, at most a few weeks, before it.”

I ask Allen to explain the black mat to me. “I understand that the lowest part of it is full of impact proxies laid down at the time the mat began to form but clearly they’re not the mat itself …”

“The black mat formed on top of the layer of proxies,” Allen replies. “Down here it has a lot of charcoal in it. But it also has algal remains so it’s not just fire. The Younger Dryas changed the climate and made the area much wetter. Algae began to grow along the edges of the lakes.” He puts a hand on the black stripe along the arroyo wall: “So the remains of about 1,000 years of dead algae, charcoal, and a lot of other stuff are all embedded in here, and at the bottom of it, where the impact happened, we find iridium, platinum, and a layer of melted spherules where the temperatures must have been so high that they would have melted a modern car into a pool of metal.”

“So are you saying that there was an impact right here? At Murray Springs?”

Allen replies that it's not as simple as that. "The bigger impacts were farther north. Down here it's more likely to have been an airburst—a fragment of the comet that literally blew up in the sky before hitting the ground …"

"And the effect of that would have been … what?"

"If you'd been standing here it would have seemed like the whole sky caught on fire with the center of it brighter than the sun. And the thing is it would have been totally silent. They would have heard nothing at first. Because the speed of sound is a lot slower than the speed of light."

My imagination has gone into overdrive. "Could it have happened," I ask, "while the Clovis hunters were actually butchering Eloise?"

Allen shakes his head. "We know it didn't happen instantaneously," he reminds me, "because they chopped her legs off and hauled one of them away and cooked it. But it could have happened later the same day and like I say it certainly happened

within a couple of weeks. That's based on modern data from elephant kills in Africa. The scavengers come in quickly and disarticulate the skeleton, and that didn't happen with Eloise."

This kill site sounds like unfinished business to me.

"That other haunch left up by Eloise's head," I reflect, "and the rest of her intact. Doesn't that suggest that the hunters were still in the vicinity and meant to come back to finish butchering her, but for some reason never did?"

Allen joins in with the spirit of the thought. "Okay," he says. "It's pure speculation, obviously, because we'll never know for sure the exact sequence of events here 12,800 years ago, but based on the evidence it's not unreasonable to envisage the hunters sitting around, cooking mammoth haunch over their campfire when all of a sudden the sky explodes …"

"And that's why they never go back for the rest of Eloise? Because they're all dead?"

“Could be,” Alan agrees. He jabs a finger into the base of the black mat and continues.

“But what we can be certain of was that this moment marked the end of their story, and the end of an epoch, really. There’s not a single Clovis point found anywhere in North America that’s above that black mat. They’re all in it or below it. And there’s not a single mammoth skeleton anywhere in North America that’s above it. A huge part of the die-off could have been as a direct result of the impacts themselves, but impacts and airbursts south of the ice cap, particularly as far south as New Mexico, would also have set off wildfires. There’s overwhelming evidence that gigantic wildfires raged at the onset of the Younger Dryas—in fact, more soot has been found at the Younger Dryas Boundary than at the Cretaceous-Paleogene Boundary. We did the calculations and it looks like as much as 25 percent of the edible biomass and around 9 percent of the total biomass of the planet was on fire and destroyed within days or weeks of the YDB. So in many areas if the animals weren’t killed

outright they wouldn't have been able to forage enough food afterwards to survive. The grass would have burned up, leaves on trees were gone. … And you know, the other thing is that when comet fragments come in they're traveling incredibly fast and they literally punch a hole in the atmosphere. They actually push the air aside and they bring in that super cold from space, and when they explode in the air that cold plume continues to the ground and you literally have things frozen in place if they were close enough to where the plume came down. It's possible they were fried and then frozen all within a matter of seconds."

MULTIPLE INJECTIONS OF PLATINUM

I ASK ALLEN HOW LONG, in his opinion, the multiple impacts that kicked off the Younger Dryas were sustained for. Was it an

overnight affair? Was it a matter of days? Was it weeks?

He replies that there are levels of uncertainty, variables that will probably never be properly resolved, but that within those limits what the evidence points to is not days or weeks but a **21-year** period of utter devastation, horror, and cataclysm unfolding between 12,836 years ago and 12,815 years ago, with a peak around 12,822 years ago.

This ability to zoom in at very high resolution on a time window just 21 years wide and almost 13,000 years in the past comes to us courtesy of an amazing scientific resource consisting of ice cores from Greenland. Extracted with tubular drills that can reach depths of more than 3 kilometers, these cores preserve an unbroken 100,000-year record of any environmental and climatic events anywhere around the globe that affected the Greenland ice cap. What they show, and what Allen is referring to, is a mysterious spike in the metallic element platinum—"a 21-year interval with elevated platinum," as he puts it now—"so we know that was the

length of the impact event because there's very little way, once platinum falls on the ice sheet, that it can move around. It's pretty well locked in place."

The backup to what Allen's saying is in a paper I'm already familiar with by Michail Petaev of Harvard University's Department of Earth and Planetary Sciences and his colleagues Shichun Huang, Stein Jacobsen, and Alan Zindler. Published in the *Proceedings of the National Academy of Sciences* in August 2013, the self-explanatory title of the paper is "Large Pt Anomaly in the Greenland Ice Core Points to a Cataclysm at the Onset of Younger Dryas."

Platinum is, of course, an element found on earth, but analysis of the platinum in the ice core by Petaev and his colleagues reveals a composition quite unlike terrestrial platinum and leads the scientists to conclude that "an extraterrestrial source," perhaps "a metal impactor with an unusual composition," is the most likely

explanation.[15] They note also that during the 21-year interval—between 12,836 and 12,815 years ago, as indicated by Allen:

> The Pt concentrations gradually rise by at least 100-fold over ~14 y and drop back during the subsequent ~7 y. … The observed gradual ingrowth of the Pt concentration in ice over ~14 y may suggest multiple injections of Pt-rich dust into the stratosphere.[16]

Allen's reading of what Petaev's findings point to, shared widely by his colleagues, is that the "impactor" was in fact multiple impactors, all of them fragments of a comet that had wandered in from the outer solar system and taken up a potentially deadly earth-crossing orbit.

Though bound together by ice, comets have rocky cores that are often volatile, and it is in the nature of these cores to undergo fragmentation. Take Comet Shoemaker-Levy 9, for example. It broke apart into twenty-one fragments, all of which smashed into the planet Jupiter over a period of 6 days in July 1994 with

spectacular effect, creating huge, fiery explosions and dark scars, in some cases larger than the earth, that persisted on the surface of the gas giant for many months.

Something of the same sort is involved in Allen's vision, again widely shared by his colleagues, of what happened to the earth at the Younger Dryas Boundary. Drawing also on the work of William Napier, professor of astrobiology at the University of Cardiff, what the Younger Dryas Impact Hypothesis proposes, in brief, is a large parent comet in the range of 100 kilometers in diameter. Plunging in from the outer solar system, it enters an earth-crossing orbit around 30,000 years ago and remains intact for the next 10,000 years. About 20,000 years ago, due to gravitational forces in the inner solar system it undergoes a massive "fragmentation event" that transforms it from a single deadly and potentially world-killing object into multiple objects varying in diameter from the extremely dangerous kilometer-plus range down to a few tens of meters, down to chunks the size of cars, down to boulder-sized pieces, down to

fist-sized rubble, and down beyond that to countless billions of smaller fragments and an immense penumbra of dust. As thousands of years pass, the whole turbulent mass of big and little pieces of the comet orbiting at tens of thousands of kilometers per hour begins to separate into multiple filaments each filled with debris, eventually expanding to form a giant tubular "meteor stream" some 30 million kilometers in diameter and extending more than 300 million kilometers across the entire orbit of the earth—which it cuts in two places so that we must pass through the stream twice a year. Traveling 2.5 million kilometers along its orbital path every day, the earth takes 12 days to complete each passage through the stream.[17]

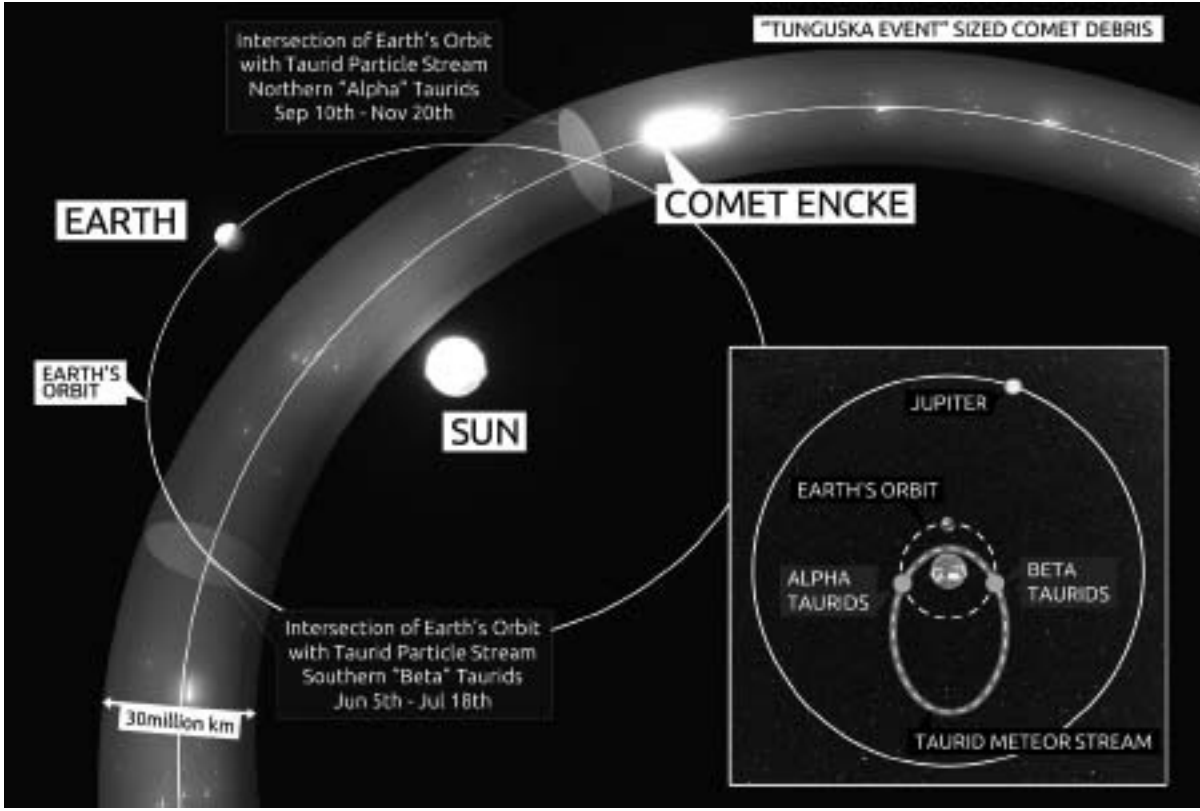

The Taurid Meteor Stream. Remnant of a giant comet 100+ kilometers in diameter, before undergoing fragmentation. The stream includes three known comets or comet-like objects, namely: Enke, Oljiato, and Rudnicki, and nineteen of the brightest near-earth objects.

Because the meteor stream produces showers of “shooting stars” that look to observers on the ground as though they originate in the region of the sky occupied by the constellation Taurus, it’s called the Taurid meteor stream. Our planet still passes through it twice a year, negotiating its dangerous inner filaments in late June and early July (when shooting stars are not visible because they are encountered in daylight) and again from late October into November, when a spectacular “Halloween fireworks” display is put on.[18]

On most of these biannual encounters with the Taurids we just get the pretty fireworks, but occasionally we get more. On June 30, 1908, for example, an object thought to have fallen out of the Taurid meteor stream,[19] and estimated to be somewhere between 60 and 190 meters in diameter, penetrated earth’s atmosphere. It exploded in the air—fortunately above an uninhabited region of Siberia—flattening 80 million trees across an area of 2,000 square kilometers.

To put this in context, Greater London has an area of 1,582 square kilometers and a population of more than 7 million people. “If transferred to London,” Professor Napier calculates, the Tunguska airburst:

> would have been heard throughout the UK, north to Denmark and across Europe as far as Switzerland. Topsoil would have been stripped from fields in the north of England, people in Oxford would have been thrown through the air and severely burned, an incandescent column of matter would have been thrown 20 km in the air over London, and the city itself would have been destroyed about as far out as the present-day ring road. Impact energy estimates range from 3 to 12.5 Mt (megatons TNT equivalent).[20]

The consequences if an object of similar size were to explode over a major city today would, in other words, be utterly catastrophic, but because the Tunguska event took place in a remote region before the era of modern mass communications, very few people are aware of how deadly even relatively small chunks of space rock can be.

Professor Napier and his colleague Victor Clube, formerly dean of the Astrophysics Department at Oxford University, go so far as to describe the "unique complex of debris" within the Taurid stream as "the greatest collision hazard facing the earth at the present time."[21] Coordination of their findings with those of Allen West, Jim Kennett, and Richard Firestone, has led both teams—the geophysicists and the astronomers—to conclude that it was very likely objects from the then much younger Taurid meteor stream that hit the earth around 12,800 years ago and caused the onset of the Younger Dryas. These objects, orders of magnitude larger than the one that exploded over Tunguska, contained extraterrestrial platinum, and what the evidence from the Greenland ice cores seems to indicate is an epoch of 21 years in which the earth was hit *every year,* with the bombardments increasing annually in intensity until the fourteenth year, when they peaked and then began to decline before ceasing in the twenty-first year.

Tunguska—an airburst at an altitude of 5–6 kilometers. The object was estimated to have had a diameter of between 60 and 190 meters. It flattened 80 million trees across an area of more than 2,000 square kilometers. This is an area larger than London.

Had the event occurred over a major city, rather than over an uninhabited area, the loss of life would have been horrendous. PHOTOS: LEONID KULIK.

"It's as though after dodging the bullet for thousands of years," I say to Allen as we walk back along the baking floor of the arroyo, "the earth finally intersects a particularly lumpy and rocky filament of debris and we get hit really hard, over and over again, year after year, until we've passed through it."

"Petaev himself says 'multiple injections of platinum,'" Allen reminds me. "I think those were pretty much his exact words in the paper, so that's an independent assessment of the idea. There's something else, too, from new research we've been working on. In the ice core, at the exact same moment we see this big onset of platinum at the beginning of the 21 years, we also see a sudden rise in dust."

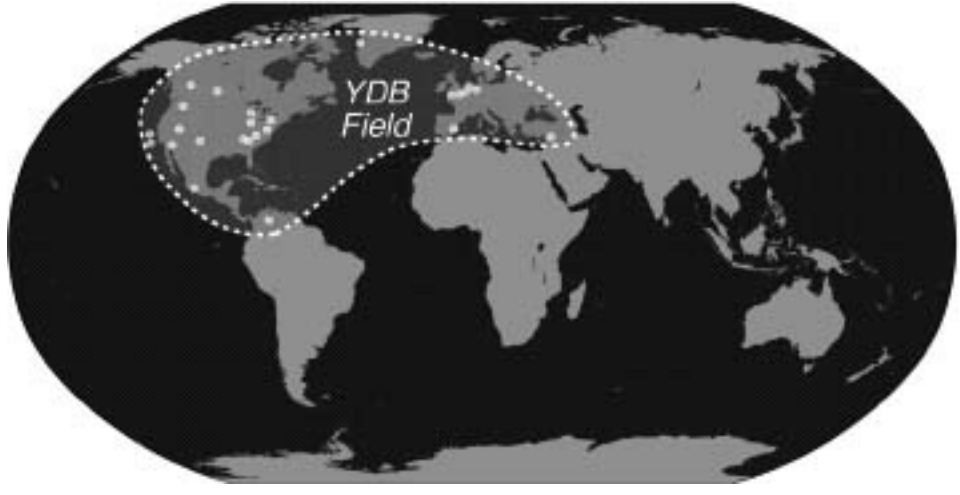

The Younger Dryas Boundary strewn field. The area enclosed by the dotted line defines the current known limits of the YDB field of cosmic impact proxies spanning more than 50 million square kilometers.

"Which tells you what?"

"Which tells us that along with everything else that was going on at the time there were also **very** high winds blowing. There are certain proxies of that windiness that end up in the ice sheet. When it's windier the winds will pick up continental dust, and, number

one, it's colder so there's less plant cover, so when it gets windier and there are less plants to hold the sediment down, you get huge dust storms. We can see that buildup in the Greenland ice sheet. We see magnesium and calcium, a huge increase in them, and those are indicative of terrigenous dust, continental dust, and we see an increase in sodium and chlorine which are from sea salt—so the winds are so strong they pick up more sea salt and deposit it in Greenland. The levels of these windiness proxies continue to climb for nearly 100 years. At the same time we see one of the biggest peaks in the entire ice core in all the biomass-burning proxies, and those occur within less than a 10-year window of the start of that 21-year interval—so you look at that and the best explanation is the impact occurred, that it triggered immense biomass burning, and that it changed the climate radically, resulting in high winds and immense dust storms."

"So it was a combination of really horrible things?"

“A cascade of bad things. It must have felt like the end of the world for those who lived through it.”

“And particularly bad here in North America—the epicenter of the disaster?”

“Much worse here than anywhere else! A true calamity. But it wasn’t only North America. We’ve traced evidence of further impacts from the same swarm in the exact same period in Europe and as far east as Syria and even into South America. The strewn field extends across more than 50 million square kilometers of the earth’s surface.”

NEW EVIDENCE

I HAVE WRITTEN EXTENSIVELY ABOUT the Younger Dryas Impact Hypothesis in *Magicians of the Gods*. There I present evidence that

the impacts changed the world completely and wiped from the record almost all traces not only of the Clovis people but also of an advanced civilization of the Ice Age.

The fact that North America was the epicenter of the cataclysm, though acknowledged, has profound implications for our understanding of the human past that archaeologists have never thought through—in part because the **scale** of the cataclysm is only now beginning to be fully mapped out.

After completing *Magicians,* therefore, I made sure I stayed up to date with the steady stream of new evidence released by Allen and his group in the scientific journals. There was a visible quickening in the pace of the research, and in 2017 and 2018 two major studies revealed how truly devastating the cataclysm at the onset of the Younger Dryas really was.

If there was ever a time when a significant chapter in the story of human civilization could have been lost, this, surely, was it.

26

FIRE AND ICE

ALLEN WEST AND THE TEAM of scientists working on the Younger Dryas Impact Hypothesis established themselves as a formal research organization, the Comet Research Group, in 2015.[1] The group (hereafter CRG) presently numbers sixty-three leading scientists from fifty-five universities in sixteen countries.[2] Many

other scientists are also directly and indirectly associated as coauthors of papers written by CRG members.

This is the case with a paper, published in *Nature*'s sister journal *Scientific Reports* on March 9, 2017, titled "Widespread Platinum Anomaly Documented at the Younger Dryas Onset in North American Sedimentary Sequences."[3]

The lead author is geoarchaeologist and CRG member Dr. Christopher Moore of the University of South Carolina. His coauthors and fellow CRG members are geophysicist Allen West, whom we met in the last chapter, anthropologist Randolph Daniel of East Carolina University, archaeologist Albert Goodyear, whom we met in chapter 6, earth scientist James P. Kennett of the University of California, geologist Kenneth B. Tankersley of the University of Cincinnati, and geologist Ted Bunch of Northern Arizona University. The non-CRG coauthors are planetary and atmospheric scientist Malcolm LeCompte of the University of South Carolina,

geomorphologist Mark J. Brooks, also of the University of South Carolina, environmental scientist Terry A. Ferguson of Wofford College, South Carolina, geoscientist Andrew H. Ivester of the University of West Georgia, luminescence-dating expert James K. Feathers of the University of Washington, and physicist Victor Adedji of Elizabeth City State University.[4]

All in all, therefore, a very distinguished assembly of scientists—and the task that they set themselves was also in the finest tradition of good science, namely, to test an important prediction made by other scientists. From the previous chapter, the reader will recall the research by Michail Petaev and his colleagues showing elevated levels of platinum in the Greenland ice cores over a 21-year period between 12,836 and 12,815 years ago. Petaev reports what appear to have been "multiple injections" of platinum-rich dust into the stratosphere over this period and predicts that if the source of the dust was cometary, asteroidal, or meteoroidal, then the fallout

should have extended far beyond Greenland and would be "expected to result in a global Pt anomaly."[5]

The coauthors of the 2017 platinum paper chose North America, the suspected epicenter of the Younger Dryas cataclysm—and also their home turf—to test this prediction by establishing "whether or not a Pt anomaly exists in terrestrial sediments of YD age that is similar to that reported from the GISP2 ice core."[6]

It sounds low-key, but much was at stake. If soil samples showed platinum to be at normal background levels in the YDB layer across North America, then Petaev's prediction would be false and the Younger Dryas Impact Hypothesis would suffer serious collateral damage. On the other hand, if elevated levels of platinum were found, it would vindicate Petaev and give further strong support to the hypothesis that cosmic impacts caused the Younger Dryas cataclysm.

Eleven archaeological sites—see map below—all with good stratification and well-established YD-age sediments were selected as the focus of the study: 1. Arlington Canyon, Santa Rosa Island, California; 2. Murray Springs, Arizona; 3. Blackwater Draw, New Mexico; 4. Sheriden Cave, Ohio; 5. Squires Ridge, North Carolina; 6. Barber Creek, North Carolina; 7. Kolb, South Carolina; 8. Flamingo Bay, South Carolina; 9. Pen Point, South Carolina; 10 Topper, South Carolina; and 11. Johns Bay, South Carolina.

The project began by testing soil samples from Arlington Canyon, Murray Springs, Blackwater Draw, and Sheriden Cave, four sites with particularly "well-defined and well-dated YDB age

sediments containing peaks in YDB impact-related proxies."[7] What the tests revealed was:

> a large above-background Pt anomaly at each site in the identical sample previously identified as the YD boundary layer containing abundance peaks in YDB proxies, including micro-spherules, meltglass, and nanodiamonds.[8]

The team then extended the Pt analysis to soil samples from the seven other sites. In summary, across all eleven sites, they conclude that their results

> provide strong evidence for above-background enrichment in Pt within sediments that date to the onset of YD climate change at ~12,800 Cal B.P. Pt abundances from our study sites averaged 6.0 parts per billion (ppb) … compared to background abundances above and below the YDB layer averaging 0.3 ppb. Average background Pt concentrations are all lower than crustal abundance of 0.5 ppb, whereas average YDB concentrations are 12× higher. These concentrations are also higher than the peak Pt concentration (~80 parts per trillion [ppt] or 0.1 ppb) reported at high chronological resolution from the GISP2 ice-core in Greenland by Petaev et al. All study sites contain significant Pt peaks that are ~3 to 66× higher than in Greenland.[9]

The technical language and abbreviations make it difficult to stay focused on the grave implications of all this. In a layer in the earth that already contains abundant evidence of a cataclysmic cosmic impact around 12,800 years ago, a mass of new corroborative evidence has now been discovered. In parallel, the much greater strength of the Pt signal in the United States than in Greenland joins multiple other indicators pointing to North America as the most severely affected locus of the cataclysm. If this were a homicide investigation in which the prosecution were hesitating to charge the suspect, new evidence of this quality would be decisive, and a winnable case could be brought to court. Moore and his colleagues are cautious and modest, however, claiming only that:

> the consistent presence of anomalous Pt concentrations within sediments from multiple archaeological sites across North America that date to the onset of the YD Chronozone is compelling. … This study finds no evidence to contradict the conclusions of Petaev *et al.* that the Greenland Pt enrichment most likely resulted

> from an extraterrestrial source. … In addition, our findings show no contradiction with the Younger Dryas impact hypothesis.[10]

After completing their own investigation, Moore et al. combed the scientific literature for indications of how far beyond North America and Greenland the YDB platinum anomaly extends. Though not central to any investigation prior to Petaev's, they found that platinum group elements had been discovered and mentioned in passing in other earlier studies of the Younger Dryas Boundary at locations as far afield as Belgium, the central Pacific, Venezuela, the southwest of England, and the Netherlands—"important information," hinting at a truly global picture, that they hope "may encourage further research."[11]

In the Supplementary Information to their main paper, Moore and his colleagues also provide detailed evidence ruling out either volcanic activity or processes in the mantle of the earth as the sources for the enriched platinum at the YDB.[12] By contrast, after

compiling geochemical data for 167 meteorites, including chondrites, achondrites, irons, and ureilites, they found very high average Pt abundances, "making all four classes of meteorites possible sources of YDB Pt enrichment."[13]

They also note, "If a Pt-rich meteorite or comet impacted Earth, the target rocks would have become a melted mix of meteoritic and terrestrial material, and so should be Pt-enriched."[14]

The coauthors therefore compiled geochemical data from eighty-six examples of such "impactites" from three major impact layers spread out over a period of more than two billion years. In every one of them they found elevated Pt abundances in a range including all the values in the Pt-rich YDB layers from around 12,800 years ago.[15]

FOLLOWING THE TRAIL OF CLUES

THE CORROBORATING EVIDENCE KEEPS COMING in.

When we met at Murray Springs in October 2017, Allen West told me about new CRG research that had identified an extended episode of extreme windiness, dustiness, and large-scale "biomass burning" at the onset of the Younger Dryas. He mentioned that "around 9 percent of the total biomass of the planet was on fire and destroyed within days or weeks of the YDB"—an astonishing statement—but I'd been so focused on other aspects of what he was saying that I hadn't really considered the implications.

In February 2018 the *Journal of Geology* published the massive two-part study on which Allen's off-the-cuff remarks were based. The title speaks for itself: "Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~12,800 Years Ago."[16] CRG member Wendy Wolbach, professor of inorganic chemistry, geochemistry, and analytical chemistry at

Chicago's De Paul University, led the study, in which she was joined by Allen West and twenty-five other top researchers.[17]

Confirmation of the figure of 9 percent of terrestrial biomass comes on the first page, with the calculation that this would have meant that plant matter covering an area of no less than 10 million square kilometers would have been consumed by the inferno.[18]

To imagine a world in which 10 million square kilometers of vegetation is in flames is to imagine a world in which an area roughly twice the size of the Amazon rainforest is burning. That would be about the same as the entire area of China or the entire area of Europe or the entire area of North America in flames.

No matter how many separate wildfires there were, or how spread around the planet, a conflagration on this scale, hand in hand with the cascade of other disasters that marked the onset of the Younger Dryas, can only be described as hell on earth.

Once again, although records from lake sediments also provide vital clues, it is the Greenland ice cores, together with ice cores from other Arctic regions, that contain decisive evidence of the large-scale wildfires that raged across the world 12,800 years ago. This is not least because the upper (i.e., most recent) levels of these extremely long cores contain the traces of biomass wildfires that occurred and were recorded in the historic period, thus allowing identification and calibration of specific combustion aerosols, notably oxalate, ammonium, nitrate, acetate, formate, and levoglucosan, that serve as distinct signals—or proxies—of biomass-burning.[19] Wherever an abundance of these combustion aerosols shows up in the ice cores we can be certain that they mark the atmospheric fallout from extensive wildfires, we can date those wildfires, and it is often possible to identify where on the planet they occurred.

Here are some important pieces of the Younger Dryas puzzle winnowed from the dense pages of the 2018 paper:

- GISP2 Ice Core: Ammonium (NH_4), a biomass-burning proxy, displays one of the highest peaks in the 120,000-year record in an interval dating to 12,830–12,828 years ago. This overlaps the platinum-rich interval dating to 12,836–12,815 years ago and coincides with the onset of the Younger Dryas.[20]
- NGRIP Ice Core: A single high NH_4 peak, traced to biomass burning across North America, begins at the YD onset. It is the largest biomass-burning episode from North American sources in the entire record.[21]
- The GRIP concentrations of combustion aerosols began to increase sharply around 12,816 years ago, correlating with the GISP2 Pt anomaly (12,836–12,815 years ago). At the

onset of the Younger Dryas, concentrations of oxalate and formate reached their highest known concentrations in the ~386,000-year core, with acetate abundances ranking among the highest in the entire core.[22]

- These GRIP data reveal that massive wildfires occurred at the onset of the Younger Dryas, representing the most anomalous episode of biomass burning in at least 120,000 years and possibly in the past ~386,000 years.[23]
- The Taylor Dome (Antarctica) ice-core record exhibits a small but distinct peak in NO_3 that closely correlates with the Younger Dryas onset. The base of the Belukha, Siberia, ice core exhibits a major peak in NO_3 [nitrate], indicating that a major episode of biomass burning occurred at the Younger Dryas onset.[24]
- Several ice-core sequences (GISP2, NGRIP, GRIP, Taylor Dome and Belukha) confirm that the onset of the Younger

Dryas was intimately associated with one of the highest and most pervasive late Quaternary peaks in each of NH_4, NO_3, formate, oxalate, and acetate. These peaks occurred synchronously with the abrupt cooling and other climatic effects marking the onset of the Younger Dryas episode.[25]

- Investigation of "black mats" at nineteen sites in North America, Central America, Europe, and the Middle East: Peak abundances of black carbon (BC)/soot and other biomass-burning proxies were found in the Younger Dryas Boundary layers. … Concentrations of levoglucosan from within the black-mat layer in Ohio were around 125 times higher than those in the layer below it, signalling a significant peak in biomass burning.[26]

- Analysis of charcoal in lake sediments from nine countries in South and Central America: One of the highest peaks in the record occurs at the Younger Dryas onset around 12,850

years ago.[27]

- Analysis of charcoal in lake sediments from seven countries across Asia: There is a conspicuous peak in mean charcoal abundances at around 12,950 years ago (plus or minus 225 years) … followed by a sharp decline in biomass burning and then a peak at 12,400 years ago.[28]

- A 24,000-year sequence recorded in a marine core from the Santa Barbara Basin, off the coast of California, exhibits the highest peak in biomass burning precisely at the onset of the Younger Dryas. … This anomalously high peak correlates with intense biomass burning documented from the nearby Channel Islands. … The peak also coincides with the extinction of pygmy mammoths on the islands and with the beginning of an apparent 600–800-year gap in the archaeological record, suggesting a sudden collapse in island human populations.[29]

- A marine core from the western Pacific, 1,500 kilometers north of Papua New Guinea, provides a biomass-burning record spanning a period of 368,000 years. This core is unusual in providing a record not only of charcoal but also of black carbon, which includes AC/soot. The core exhibits a high black-carbon peak spanning the period between 13,291 and 12,515 years ago and overlapping the Younger Dryas onset at around 12,800 years ago. In addition, the YDB peak in black carbon coincides with an above-average charcoal peak at around 12,750 years ago.[30]

- Evidence from widely separated ice records and sediment records demonstrates that a major, widespread peak in biomass burning occurred on at least four continents at the warm-to-cold transition marking the YD onset. This peak is synchronous with the cosmic-impact layer at the Younger Dryas Boundary as recorded by multiple impact-related proxies, including peak abundances of platinum, high-

temperature microspherules, and meltglass.[31]

In summary, the earth and all life upon it endured and was devastated by what can only be described as a globally distributed firestorm at the onset of the Younger Dryas around 12,800 years ago. In this planetary debacle, 10 million square kilometers of trees and other plant matter burned.

To put that in perspective, the United Kingdom was in a state of traumatic shock in late June and early July 2018 after 4,942 acres of Lancashire moorland were consumed by wildfires. That's an area of just 20 square kilometers, but firefighters and emergency services from seven counties were utterly overwhelmed by the blaze and the military had to be brought in to assist.[32]

Meanwhile, a report in the *Sacramento Bee* dated July 2, 2018, opined that California's wildfire season had started early, with two "major fires" already fought at huge expense and requiring evacuation of local residents. These two fires were estimated to

have consumed 85,000 acres,[33] which sounds an awful lot but in fact converts to just 344 square kilometers.

The previous year, 2017, was California's most destructive wildfire season then on record, with a total of 1.25 million acres burned.[34] The cost of dealing with the disaster, including fire suppression, insurance, and recovery expenditures, was estimated at US$180 billion.[35] Yet 1.38 million acres converts to just 5,585 square kilometers—an insignificant fraction (around 0.05 percent—that is, a twentieth of 1 percent) of the 10 million square kilometers destroyed in the Younger Dryas wildfires.

It seems, therefore, that the United States and Britain, two of the world's wealthiest, most technologically advanced, and most powerful countries, face great difficulties in confronting what are, in the grand scheme of things, relatively minor wildfires. Imagine, then, the consequences for all living things of the great inferno that consumed 9 percent of the earth's biomass around 12,800 years ago

and that left an indelible record of its climatic and atmospheric impact in lake sediments and Arctic ice.

IMPACT WINTER

NEWS FOOTAGE OF THE US AND UK summer wildfires shows smoke everywhere. Close up it seems foggy or misty. In the longer view there's an obvious gloom, a darkening of the skies, where the pall obscures incoming sunlight. It's a local effect, of course. Fifty miles away the air is clear and the skies are blue.

The 2018 *Journal of Geology* study reports that matters would have been very different at the onset of the Younger Dryas, when the smoke from 10 million square kilometers of burning biomass

would have enshrouded the entire earth, creating what Wendy Wolbach and her coauthors describe as an "impact winter."[36]

This is a concept derived directly from research in the early 1980s revealing previously unexpected consequences of a nuclear war in the form of a "nuclear winter." The findings of that research were first put before the public in October 1983 in an article by esteemed astrophysicist Carl Sagan under the headline "**In a Nuclear Exchange, More Than a Billion People Would Instantly Be Killed, But the Long-Term Consequences Could Be Much Worse.**"

Appearing in a mass-circulation magazine, Sagan's article showed that the immense quantities of dust and smoke arising from multiple nuclear explosions, and from the wildfires they sparked off, would significantly reduce the amount of sunlight reaching the surface of the earth, causing a steep and sustained fall in global temperatures, widespread failure of crops, and devastating famines.

Nor would a full-scale war between superpowers be required to bring on the terrible, and potentially terminal, consequences of a nuclear winter. Even a regional nuclear conflict could do it.[37] "We have placed our civilization and our species in jeopardy," Sagan concluded.[38]

In the case of the Younger Dryas, the jeopardy that humanity faced was not from nuclear missiles but from the incoming fragments of a disintegrating giant comet, traveling at tens of kilometers per second, with the larger fragments as deadly as hundreds of nuclear warheads. Indeed, it is estimated that the total explosive power of the comet fragments that struck the earth in repeated episodes over a period of 21 years some 12,800 years ago would have been of the order of 10 million megatons[39]—1,000 times greater than all the nuclear devices stockpiled in the world today.[40]

The Younger Dryas is already recognized as an epoch of extreme, anomalous cold that lasted for approximately 1,200 years, setting in fast and suddenly around 12,800 years ago and ending, equally suddenly, around 11,600 years ago. The *Journal of Geology* study greatly enriches this picture with compelling new evidence that the onset of this 1,200-year "deep-freeze" was marked by a brief period of extremely intense and large-scale wildfires triggered by "the radiant and thermal energy from multiple explosions" as fragments from the comet swarm pelted the earth:

> This widespread biomass-burning generated large amounts of long-lived, persistent AC/soot that blocked nearly all sunlight, rapidly triggering an impact winter that transitioned into the YD cool episode.[41] …
>
> The negative effects of AC/soot might have persisted for 6 wk or more at the YD onset, blocking all sunlight and causing rapid cooling. Reduced insolation is also expected from the injection of comet dust to the upper atmosphere. If so, the lack of sunlight would have had widespread and catastrophic biotic effects, including insufficient light for plant photosynthesis and growth. At the same time,

> North Atlantic deep-water formation ceased, thus throttling the so-called ocean conveyor and triggering a sustained decrease in near-global temperatures.[42]

THE MAMMOTH IN THE ROOM

IT HAS LONG BEEN UNDERSTOOD that an interruption of the warm Atlantic current known as the Gulf Stream correlates with YD cooling, and it is generally agreed that

> a great gush of cold freshwater derived from the melting Laurentide ice sheet … swept across the surface of the North Atlantic. It prevented warm, salty water from the southern ocean flowing deep below the surface (the Gulf Stream) from rising to the surface. The normal overturning of the ocean water stopped. As a consequence the atmosphere over the ocean, which would normally have been warmed, remained cold and so, in consequence, did the air over Europe and North America.[43]

It's revealing, looking back through the scientific literature, to see how long explanations of this sort were simply taken for granted. That there had been a cold-water flood was not in doubt, so the detective work that at first interested scientists most was **WHERE** all the water had come from.

The reader will recall that the North American ice cap had two distinct segments consisting of two separate ice sheets, the Cordilleran in the west and the Laurentide in the east, which were often joined, but which in the later stages of the Ice Age were separated by the famous "ice-free corridor" that for a long while was erroneously believed to have been the sole route for human migration into the Americas. Along the southern margins of these ice sheets, enormous glacial lakes formed and were prone to flooding—most famously glacial lake Missoula in the west and glacial lake Agassiz in the east. Floodwaters out of Lake Missoula would have had no access to the Atlantic Ocean (they would have been routed into the Pacific). Lake Agassiz was therefore thought to

be the most likely source, and a study published in *Geology* in January 2018 confirms that its floodwaters "could have been routed eastward to the North Atlantic at the Younger Dryas onset and caused the canonical abrupt climate shift."[44]

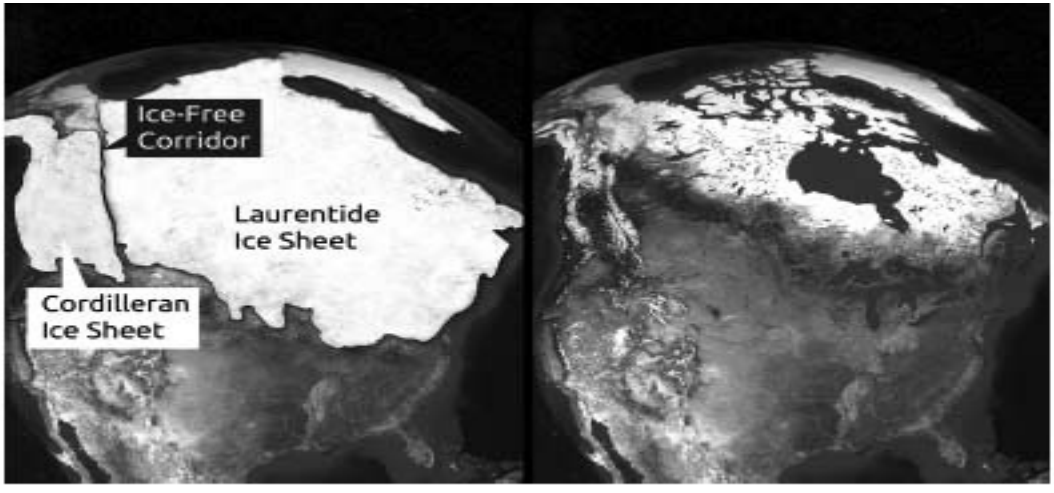
Ice-Free
Corridor
Laurentide
Ice Sheet
Cordilleran
Ice Sheet

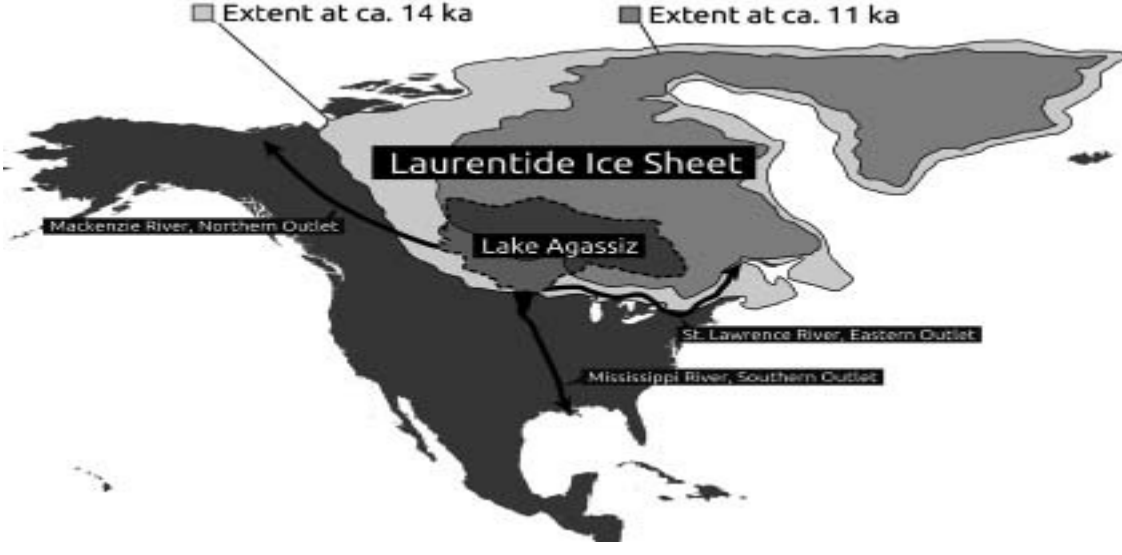
Extent at ca. 14 ka
Extent at ca. 11 ka
Laurentide Ice Sheet
Mackenzie River, Northern Outlet
Lake Agassiz
St. Lawrence River, Eastern Outlet
Mississippi River, Southern Outlet

After *Geology*, "Opening of Glacial Lake Agassiz's Eastern Outlets by the Start of the Younger Dryas Cold Period," January 4, 2018.

So we know that a cold-water flood poured into the Atlantic ocean around 12,800 years ago on a scale sufficient to stop the Gulf Stream in its tracks; we know that glacial lake Agassiz has been implicated in it; and we know that this "great gush of cold freshwater" has been connected to the plunge in global temperature—the "deep freeze"—that defines the Younger Dryas cold event.

The issue that most of the scientists are skirting, however—the mammoth in the room—is **why** such a flood would have occurred at the onset of the Younger Dryas "deep freeze" around 12,800 years ago rather than, say, 800 or 1,000 years earlier at the height of the warm phase—known as the Bølling—Allerød interstadial—that immediately preceded the Younger Dryas.[45] Intuitively one feels the meltwater floods should have been at their peak during the warming phase. Why, therefore, **in this case only**, do we see them at the

onset of an extremely cold phase? I raised this problem in *Magicians of the Gods* in 2015,[46] and it is raised again by Wolbach et al. in their 2018 paper, where they present evidence that deepens the mystery. "Unlike for typical warm-to-cold climate transitions," they report, "global sea levels **rose** up to 2–4 m within a few decades or less at the YD onset, as recorded in coral reefs in the Atlantic and Pacific Oceans."[47]

The point is understated, but this is a very big deal. Two to 4 meters of global sea-level rise within "a few decades or less" of the onset of the Younger Dryas is an IMMENSE amount of water, a cataclysmic world flood by any standard.

What makes it all the more remarkable, however—and all the more puzzling—is the evidence from Wolbach's study that in the exact same period the planet suffered a spectacular episode of biomass burning and an associated "impact winter" that "caused

warm interglacial temperatures to abruptly fall to cold, near-glacial levels within less than a year, possibly in as little as 3 months."[48]

Meanwhile, in the process of absorbing that sudden massive flood of icy water into the North Atlantic, the world ocean had reacted by shutting off the Gulf Stream, thus sustaining freezing temperatures in Europe and North America and setting in process the entire Younger Dryas cold episode.

Ice Sheet Meltwater Discharge Routes

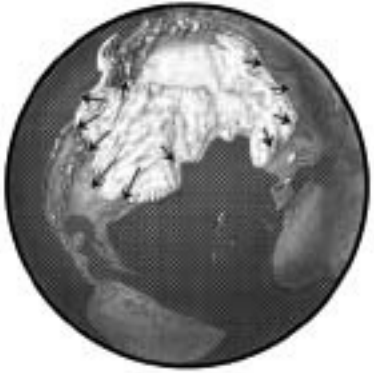

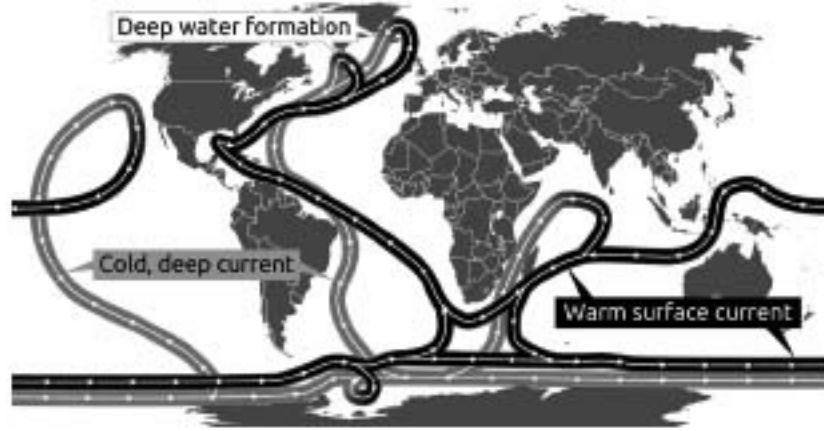

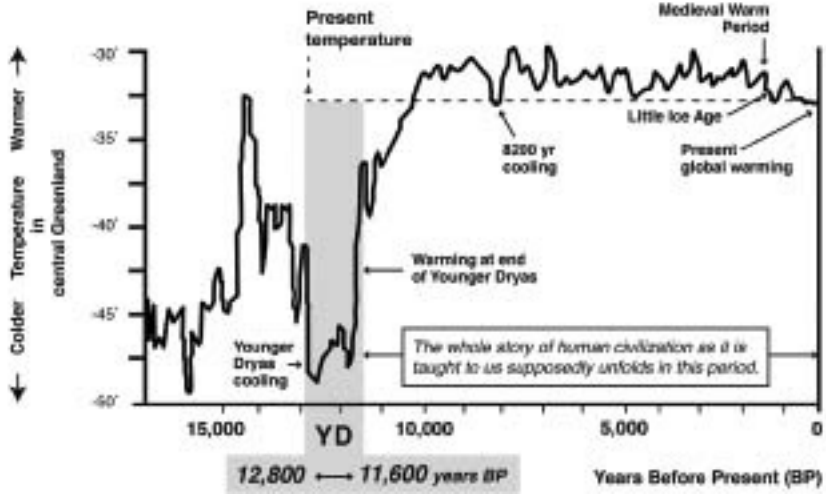

What we are looking for, therefore, is an agent capable—simultaneously and almost instantaneously—of bringing about all of the following:

- a global flood
- wildfires across an area of 10 million km^2
- 6 months of icy darkness followed by more than 1,000 years of glacially cold weather
- a stratum of soil across more than 50 million km^2 dated to the Younger Dryas Boundary (YDB) and infused with a cocktail of nanodiamonds, high-temperature iron-rich spherules, glassy silica-rich spherules, meltglass, platinum, iridium, osmium, and other exotic materials
- a mass extinction of megafauna

Wolbach and her coauthors are forthright in their conclusion:

> Multiple lines of ice-core evidence appear synchronous, and this synchroneity of multiple events makes the YD interval one of the most unusual climate episodes in the entire Quaternary record. … A cosmic impact is the only known event capable of simultaneously producing the collective evidence.[49]

A VIOLENT HURRICANE OF BOLIDES

WHAT KIND OF COSMIC IMPACT?

From quite early in the research, since the first strong impact-proxy evidence was analyzed, it's been the consensus view of CRG members that the agent responsible for the Younger Dryas cataclysm was a comet. Wolbach's study strengthens that position, noting:

> Comets are a compositionally variable mix of volatile ices, meteoritic material, and presolar dust. … Wide ranges of elemental ratios confirm that cometary material is heterogeneous, similar to the YDB samples. Although the type of YDB impactor remains unclear, the current evidence does not support any specific meteoritic type as source. Instead, the broad extent of biomass burning at the YD onset is more consistent with Earth's collision with a fragmented comet[50] … [resulting in a] violent hurricane of bolides[51] … [that] detonated above and/or collided with land, ice sheets, and oceans across at least four continents in the Northern and Southern Hemispheres.[52]

This scenario, the study argues, explains all the anomalous and synchronous evidence:

> Vaporization of cometary materials, and platinum-group-element–rich target rocks, injected Pt, Ir, Os, and other heavy metals into the stratosphere, accompanied by impact-related nanodiamonds, meltglass, and microspherules.[53]
>
> Airburst fireballs and the ejection of molten rocks … triggered many individual wildfires over wide areas, producing one of the largest concentrations of combustion aerosols deposited in the Greenland ice sheet during the past 120,000–368,000 years. In the higher midlatitudes, atmospheric and oceanic temperatures abruptly decreased from warm interglacial to near-glacial conditions within a few months to a year. Atmospheric and cometary dust, along with AC/soot, triggered

> the rapid onset of an impact winter. This blocking of sunlight led to a die-off of vegetation. Damage to the ozone layer likely led to an increase in ultraviolet-B radiation reaching Earth's surface, damaging flora and fauna. Increases in nitrogen compounds, sulfates, dust, soot, and other toxic chemicals from the impact and widespread wildfires likely led to an increase in acid rain. Increased production of organic matter and burn products from environmental degradation and biomass burning contributed to algal blooms and the subsequent formation of widespread black mats.[54]

In my view, however, by far the most significant finding of the study, fitting perfectly with the scenario of a disintegrating comet, is:

> The impact event destabilized the ice-sheet margins, causing extensive iceberg calving into the Arctic and North Atlantic Oceans. The airburst/impacts collapsed multiple ice dams of proglacial lakes along the ice-sheet margins, producing extensive meltwater flooding into the Arctic and North Atlantic Oceans. Destabilization of the ice sheet also may have triggered extensive subglacial ice-sheet flooding, leaving widespread, flood-related landforms across large parts of Canada. The massive outflow of proglacial lake waters, ice-sheet meltwater, and icebergs into the Arctic and North Atlantic Oceans caused rerouting of oceanic

> thermohaline circulation. Through climatic feedbacks, this, in turn, led to the YD cool episode.[55]

In other words, the long-established and widely accepted evidence linking the onset of the Younger Dryas cold interval to a freshwater flood off the North American ice cap and consequent changes in oceanic circulation is fully accepted by Wolbach. What she and her coauthors add, however, is:

> an additional key element … suggesting that **these climate-changing mechanisms did not occur randomly but rather were triggered by the YDB impact event**. After shutdown of the ocean conveyor, the YD episode persisted … not because of continued airburst/impacts but because, once circulation stopped, feedback loops and inertia within the ocean system maintained the changed state of circulation until it reverted to its previous state.[56]

Indeed so. No one is suggesting that impacts and airbursts continued throughout the entire 1,200 years of the Younger Dryas cold interval. Wolbach and her colleagues leave us in no doubt that

their study is focused on the **beginning** of that interval and specifically on the sudden and mysterious climatic reversal from warm to cold around 12,800 years ago that they attribute to an "impact event." They remind us at several points in their *Journal of Geology* paper, however, that when they speak of an "event" they do not mean to imply a one-off "hurricane of bolides" striking the earth over a single day or two in a single year. What the evidence points to, instead, is a series of such brief but deadly encounters recurring biannually over the full period of 21 years of platinum enrichment identified in the Greenland ice cores.[57]

Many of the individual impactors would have been Tunguska-meteor-size or smaller, but they would have come in vast swarms capable of doing enormous damage, and there is evidence that at least once during these 21 years the biannual "hurricane of bolides" may have contained comet fragments with diameters of a kilometer or more.

This is what was specifically proposed in the very first scientific paper to outline the Younger Dryas Impact Hypothesis. Coauthored by Wendy Wolbach, Richard Firestone, Allen West, and more than twenty others, and published in *Proceedings of the National Academy of Sciences* in October 2007, it raised the possibility that "multiple 2km objects struck the 2km thick Laurentide Ice Sheet."[58]

Subsequently, in September 2013, Yingzhe Wu, Mukul Sharma et al. drew attention to the Gulf of St. Lawrence, Canada, where a submerged impact crater with a diameter of 4 kilometers—the Corossol Crater—has been dated to the Younger Dryas Boundary. Looking at a range of other evidence they concluded there had been multiple impacts in this region "that were closely associated in time."[59]

Separately, Richard Firestone and Allen West reported evidence of an airburst at the Younger Dryas Boundary "near the Great Lakes of an object unusually enriched in titanium and other incompatible

elements. Terrestrial-like ejecta fell close to an impact site near Gainey while projectile-rich ejecta fell farther away. High water content in the ejecta favors an airburst over the Laurentide Ice Sheet north of Gainey."[60]

Now perhaps we are getting closer to an explanation of how a single cause could account both for plunging the earth into a 1,000-year "deep freeze" and for melting sufficient quantities of glacial ice to raise global sea level by up to 4 meters. The immense meltwater pulse that entered the North Atlantic and Arctic Oceans was of course **not** the result of anomalous global warming in an epoch of global cooling but a direct consequence of the "destabilization" of the ice sheet by impacts and airbursts of multiple comet fragments —indeed of a swarm of comets. The thermal energy and blast wave radiated out southward beyond the ice margin all across North America, accompanied by additional local airbursts and impacts that set immense areas of the continent's primeval conifer forests

ablaze,[61] followed by "aerial detonations or ground impacts by numerous relatively small cometary fragments, widely dispersed across several continents."[62]

Wolbach et al. looked into a series of seven episodes of meltwater release that occurred during the Ice Age, of which the Younger Dryas was the last. Named "Heinrich Events" (after Hartmut Heinrich, the marine geologist who first identified them), such episodes are distinguished by massive armadas of icebergs calving off the continental glaciers. These icebergs carry rocks, rubble, and other debris that as the bergs melt are deposited on the ocean floor where geologists can identify them, measure them, and derive estimates of scale and chronology.

It's therefore notable that,

> even though the YD is considered a Heinrich event (designated H0), the anomalously high peak in wildfire activity at the YD onset is completely opposite to that of six previous Heinrich events, which showed low levels of biomass burning. … This is a crucial observation: the presence of high peaks in biomass

> burning at the YD onset is completely contrary to very low levels of biomass burning observed at previous similar climatic transitions, making the YD climate episode highly anomalous and unexplainable by the natural processes that created previous warm-to-cold transitions.[63]

Again, the hypothesis of repeated encounters with the fragments of a disintegrating comet over the 21 years from 12,836 to 12,815 years ago provides a straightforward explanation for this apparently anomalous state of affairs. The Younger Dryas Heinrich Event was not triggered by normal climatic changes but by the impacts of comet fragments on the North American ice cap.

We cannot say exactly when within that 21-year period the impact-related destabilization of the ice cap occurred. It might have been right at the beginning, or right at the end, or somewhere in the middle, and it might have happened more than once. What the data from the Greenland ice cores definitely do indicate, however, as we saw in the previous chapter, is that the ferocity and intensity of the bombardment, with its accompanying rain of platinum, increased

year-on-year for the first 14 years, reached a peak around 12,822 years ago, and then declined over the next 7 years until ceasing as abruptly as it had begun.

It's a good guess, therefore—nothing more scientific than that—that the peak of the comet's interaction with the North American ice cap, and most likely the time when the really big fragments came in, would be around 12,822 years ago.

Allen West and fellow CRG scientist Richard Firestone think as many as eight such kilometer-scale fragments[64] may have struck the ice cap, excavating their craters in the 2-kilometer-deep ice that subsequently melted away, leaving little or no permanent trace on the ground beneath, or leaving craters that are hard to find, for example, four suspiciously deep holes in lakes Superior, Michigan, Huron, and Ontario.[65]

Encounters with *any* fragments of this size, let alone multiple fragments, would already constitute a planetary disaster on an

almost unimaginable scale, wherever they occurred. What we must keep in mind, however, although North America was the epicenter, is that the terrible impacts experienced there were only part of a much wider event that left a trail of devastation across at least three other continents.

WHAT WAS LOST

EXTINCTIONS OF ANIMAL SPECIES TOOK place all around the world at the onset of the Younger Dryas but were particularly fast, savage, and severe in North America, where thirty-five genera of large mammals were wiped out.[66]

Offering evidence from seventy-three sites across twenty-three US states, Wolbach et al. document the synchroneity of these

megafaunal extinctions with the Younger Dryas impact.[67] Three examples—one of which, Murray Springs, was the subject of the last chapter—can stand for the rest:

- BLACKWATER DRAW, NEW MEXICO: At this site, a distinctive black-mat layer, dating to the onset of YD climate change, is in direct contact with peaks in magnetic spherules, Pt, Ir, and biomass-burning proxies, including charcoal, glass-like carbon, fullerenes, and PAHs [polycyclic aromatic hydrocarbons]. These proxies are draped conformably over the last known bones of mammoths killed by Clovis hunters, who then abandoned the site for hundreds of years. The evidence from Blackwater Draw suggests that the YDB impact event is coeval with the megafaunal extinctions and a human population decline, along with a peak in biomass burning and with YD climate change.
- MURRAY SPRINGS, ARIZONA: Peaks in magnetic spherules,

meltglass, nanodiamonds, Pt, and Ir [are located] immediately beneath a distinctive black mat that dates to the YD onset. Peaks in YDB biomass-burning proxies include charcoal, carbon spherules, glass-like carbon, AC/soot, fullerenes, and PAHs. At this site, several mammoths were killed by Clovis hunters, after which the black mat formed atop the bones and humans abandoned the site for ~1000 y. Thus, the evidence supports the synchroneity of the YDB impact event, increased biomass burning, YD climate change, megafaunal extinctions, and a major human population decline.

- SHERIDEN CAVE, OHIO: There are YDB peaks in magnetic spherules, meltglass, nanodiamonds, Pt, and Ir. A charcoal-rich black mat dates to the YD onset and contains peak abundances of charcoal, AC/soot, carbon spherules, and nanodiamonds that are closely associated with the last known Clovis artifacts in the cave. The black-mat layer is in

> direct contact with the wildfire-charred bones of two mega-mammals, the flat-headed peccary (*Platygonus compressus*) and the giant beaver (*Castoroidies ohioensis*), that are the last known examples anywhere in the world of those extinct species.[68]

Horses, camels, mammoths, mastodons, giant ground sloths, saber-tooth tigers, short-faced bears, and dire wolves are among the other iconic creatures of the Ice Age that disappear from the record at this time. "This represents a major extinction," James Kennett and Allen West remind us in a paper published in 2018 by the Florida Museum of Natural History:

> Not only because so many large and well-known animals were lost, but also because many of the extinct taxa had resided for millions of years in North America. Horse evolution had continued without a break in North America since the Eocene (~55 million years ago) with the only known absence beginning at around ~12,800 years ago until their return from Europe ~500 years ago. Clearly such extinctions are highly anomalous.[69]

All in all, Kennett and West conclude:

> Sufficient geologic and chronologic data now exists to support the hypothesis that megafaunal extinctions were caused by continental-scale ecosystem disruption, resulting from the cosmic impact at the onset of the YD. … The megafaunal extinction would not have occurred at or close to the YD onset without the YDB cosmic impact at ~12,800 years ago. Instead many of the now extinct animals would have survived much longer, even to modern times.[70]

The archaeological evidence is scarce, perhaps precisely because so much was swept away and covered over by the Younger Dryas earth changes. Nonetheless, it's clear that along with the disruption of animal life in North America, the cataclysm also had severe consequences for human beings.

Top of the list, of course, is the abrupt, mysterious disappearance of the entire successful, technically accomplished, and geographically widespread Clovis culture right around 12,800 years ago.[71] Then, in the centuries following, if we take the case of the southeast as an example, we see a sudden anomalous 50 percent

drop in the numbers of projectile points being made.[72] A similar trend is seen in many other parts of North America at the same time,[73] and in California there is evidence of a cessation of human activity between roughly 12,800 years ago and 12,200 years ago.[74]

A study of almost 700 cultural carbon-14 dates from across North America by David Anderson, Albert Goodyear, and others shows "a rapid decline" in human activities "at the beginning of the YD that reached its lowest level early in the YD … a 200-year-long 80 percent decline in the number of cultural carbon-14 dates, implying a major decrease in population … followed by a gradual rebound for ~900 years."[75]

We do not possess a time machine. We cannot place ourselves physically in North America 12,800 years ago. But all the evidence suggests the continent passed through a tremendous, earthshaking cataclysm, and we know that at least one ancestral North American

culture—Clovis—became every bit as extinct 12,800 years ago as the mammoths and the dire wolves.

What else went the way of Clovis in that time of burning darkness and icy floods?

27

CAPE FEAR

IMAGINE A WORLD WHERE GOOD, honest, hardworking, inquisitive scientists live in fear of ruining their careers, perhaps even of losing their jobs and incomes, if they investigate certain subjects that have been judged by a dominant elite to be "taboo."

Is such a climate of fear-based conformity likely to result in *good* science that breaks new ground? Or is it likely to keep science stuck

in a rut, endlessly refining and reconfirming established models while rejecting any evidence that suggests those models might be wrong or in need of fundamental revision?

These are not rhetorical questions, because it turns out that this "imaginary" world is the very world we live in today. Science in the twenty-first century does NOT encourage scientists to take risks in their pursuit of "the facts"—particularly when those facts call into question long-established notions about the human past.

The controversy surrounding the Younger Dryas Impact Hypothesis is an example. Since it was first proposed formally in 2007 the scientists behind it have endured an unrelenting barrage of deeply unpleasant and self-serving attacks from a small but influential group of other scientists whose work and opinions are challenged by the notion of a comet-induced global cataclysm 12,800 years ago.

In my 2015 book, *Magicians of the Gods,* I give a detailed account of the major studies supporting the YDIH coupled with an

equally detailed evaluation of the attacks made on the hypothesis up to that point.[1] I will not repeat the same information here since it is on record and can easily be consulted. My conclusion at the time was that the attacks were generally unjustified, misleading, and propagandistic, and that the YDIH constitutes the best possible explanation for the earthshaking events of 12,800 years ago. Now, as I write these words in 2018, my desk is covered with papers published during the past 3 years presenting a great mass of new evidence that very strongly reinforces, extends, and develops the original Younger Dryas Impact Hypothesis. The biomass-burning and platinum studies mentioned in chapter 26 are the jewels in the crown, which is why I focused on them in the limited space available here. The other studies are referenced in the notes.[2]

I'm more confident than ever that the Comet Research Group scientists are on the right track, and I hold them in the highest regard for speaking truth to power and being willing to stick their

necks out. I was therefore excited when George Howard, not a scientist but an environmental restoration specialist and a supporter of CRG who edits the online magazine *Cosmic Tusk,* contacted me to suggest a meet-up with some of the leading members of the group during my fall 2017 research trip across the United States. On the same trip I met Al Goodyear and Allen West, and now here was an opportunity to exchange views with some of their other colleagues.

The meet-up was scheduled for Wilmington, North Carolina, on November 13 and 14, 2017. Chris Moore and Malcolm LeCompte, coauthors of both the platinum and the biomass-burning papers, would join us from the University of South Carolina, together with their colleague Mark Demitroff of Stockton University in New Jersey, coauthor of several earlier papers providing solid support for the YDIH.[3]

I invited my friend and colleague Randall Carlson to drive in from Atlanta to be part of the discussions. His work connecting

impacts on the North American ice cap 12,800 years ago to the immense flood damage in the Channeled Scablands of eastern Washington State is discussed extensively in *Magicians of the Gods*.[4]

PHOTO: FAIRCHILD AERIAL SURVEYS, 1930.

And I was pleased to learn that George Howard had also asked Antonio Zamora to be there. An independent researcher, a chemist, and a computer scientist,[5] Zamora is not a member of CRG and has nothing whatsoever to do with the group, but I had recently read an intriguing paper he had published earlier in 2017 in the peer-reviewed journal *Geomorphology* tracing the origins of the Carolina Bays to the Younger Dryas impacts.[6]

Around 500,000 peculiar elliptical ponds, depressions, and lakes with raised rims pock much of the US Atlantic seaboard from Delaware to Florida. Since it was in the Carolinas that scientists first noticed them in the late nineteenth century, they became known as Carolina Bays and from quite early on there were theories that they had been created by an immense swarm of meteorites striking the earth.[7] Several CRG members have explored the possibility that the Younger Dryas impacts might be connected to the mystery,[8] but the

majority of the group have since distanced themselves from such notions. Dating studies indicate that the Bays were not all created simultaneously, as the YDIH would require, but are of widely varying ages separated by tens of thousands of years.[9]

Antonio Zamora's 2017 paper in *Geomorphology* put the cat among the pigeons by raising an interesting scenario whereby the bays could, after all, have resulted from YD impacts. I had naively assumed that Malcolm LeCompte and Mark Demitroff (who were then both CRG members but have since resigned) would welcome this new research.

I couldn't have been more wrong.

GLACIER ICE IMPACT HYPOTHESIS

LET'S START BY TAKING A proper look at the controversial proposals behind the "Glacier Ice Impact Hypothesis" that Antonio Zamora puts on the table in his *Geomorphology* paper.[10]

He begins by recognizing earlier evidence that discounts the Carolina Bays as impact features but then draws our attention to an intriguing mystery—the so-called Nebraska Rainwater Basins. Other than being oriented from northeast to southwest instead of from northwest to southeast (an important piece of evidence in itself), these curious elliptical geological formations more than 2,000 kilometers west of the Carolinas greatly resemble the bays:

> The Nebraska Rainwater Basins are not as well known as the Carolina Bays but their elliptical shape is so similar that it is necessary to consider that they formed contemporaneously with the Carolina Bays by the same mechanisms. … The objective of the Glacier Ice Impact Hypothesis is to examine the characteristics of the Carolina Bays and Nebraska Rainwater Basins to determine whether these geomorphological features could have been created by secondary impacts from terrestrial material, such as glacier ice, ejected by an extraterrestrial impact.[11]

Zamora is the first to acknowledge that his "Glacier Ice Impact Hypothesis" depends heavily on prior work done by two other investigators, Michael E. Davias[12] and Thomas H. S. Harris,[13] the former a specialist in "geospatial big data, data mining, computer graphics and algorithms" and the latter a dynamics and flight science expert at Lockheed Martin Corporation.

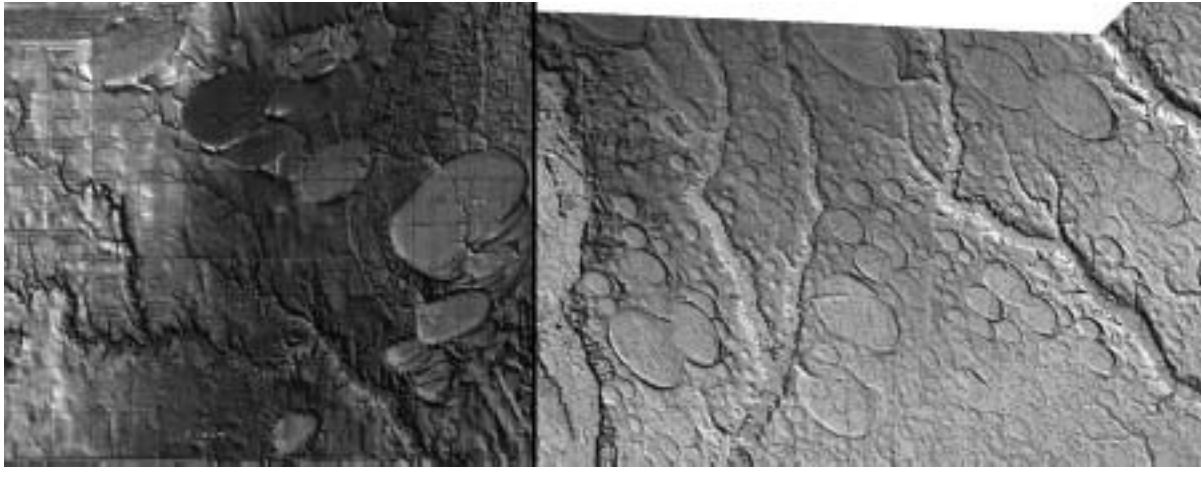

LEFT: Nebraska Rainwater Basins. RIGHT: Carolina Bays. IMAGE: ANTONIO ZAMORA; LIDAR FROM CINTOS.ORG.

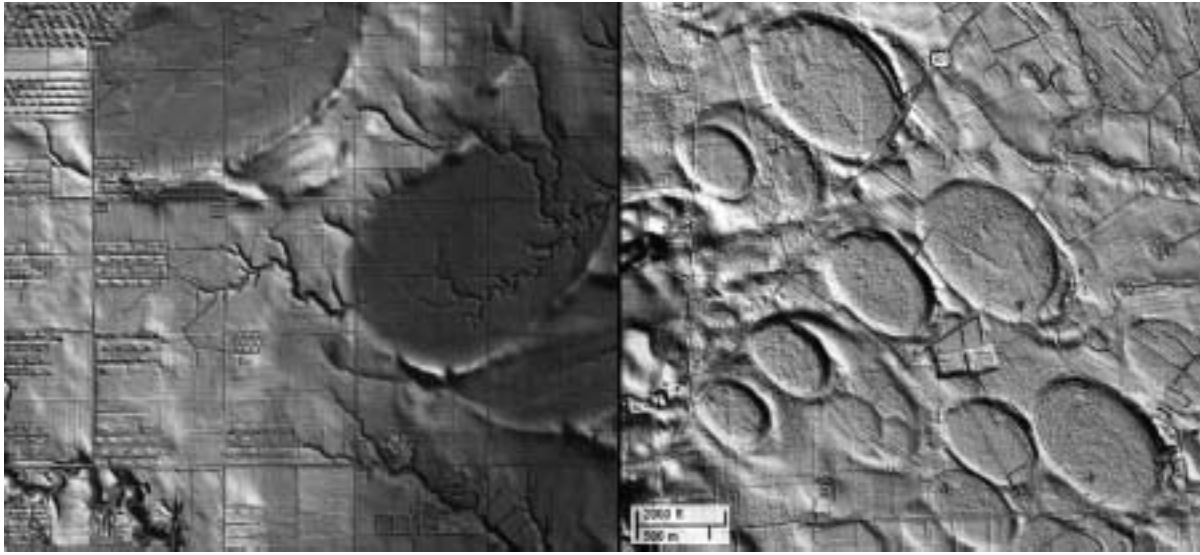

LEFT: Nebraska Rainwater Basins. RIGHT: Carolina Bays. Note orientation from northwest to southeast in the case of the Carolina Bays and from northeast to southwest in the case of the Nebraska Rainwater Basins. IMAGE: ANTONIO ZAMORA; LIDAR FROM CINTOS.ORG.

Michael Davias accompanied Zamora to Wilmington and shared with us there the evidence that he and Harris had first presented in

May 2015 at the 49th Annual Meeting of the Geological Society of America.[14]

Published as a conference paper, their proposal is that a cosmic impact during the Ice Age in Michigan's Saginaw Bay (which was then solid land covered by deep glacial ice) would have produced ejecta and secondary impacts in a "butterfly-wing" pattern precisely over the Nebraska Rainwater Basins, where they would be oriented northeast to southwest, and the Carolina Bays, where they would be oriented northwest to southeast.[15]

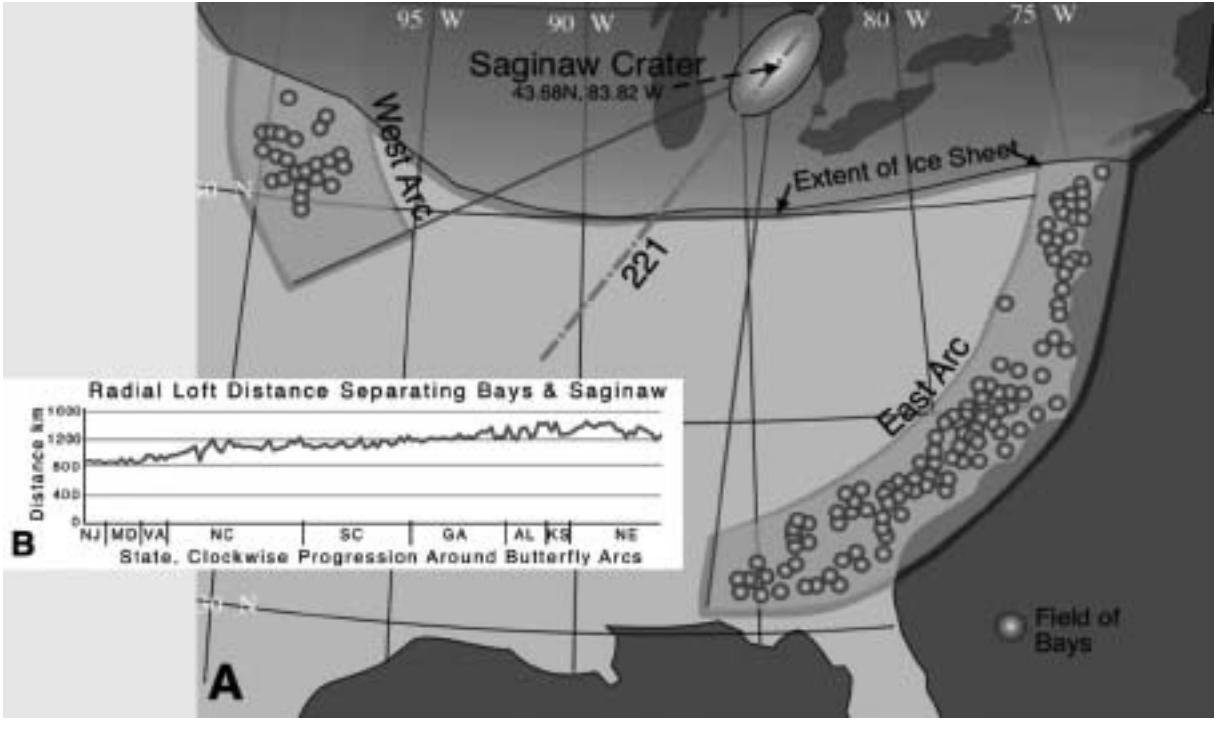

IMAGE: MICHAEL DAVIAS, CINTOS.ORG.

While he has no quarrel with Allen West, Richard Firestone, and other CRG scientists who suspect that there may have been a total of eight impacts on the North American ice cap,[16] Zamora focuses

his investigation on the Michigan event proposed by Davias and Harris to have been specifically responsible for the simultaneous creation both of the Carolina Bays and of the Nebraska Rainwater Basins.

Saginaw Bay, the suggested impact site, is "commonly attributed to erosion by the Saginaw glacial lobe penetrating through the Mississippian and Pennsylvanian Cuestas," Davias and Harris concede, but propose instead that it is "the footprint of an oblique impact arriving at an azimuth of 222°. … Given 1 kilometer of ice over this footprint, 45,000 cubic kilometres of water would have been instantly ionized or vaporized."[17]

Meanwhile, the shock effects of the impact, although somewhat mitigated by the ice cover, would have bulldozed into the ancient promontory of bedrock then beneath the ice at the center of the Michigan Basin, plowed out the gap in the "mitten" that we now call Saginaw Bay, and sent up a mass of ejecta consisting of

pulverized Michigan sandstone (from the bedrock) and water (from the vaporized ice).[18] Blasted into suborbital space, this ejecta would then have reentered the atmosphere and fallen back to earth—with the end result being a sort of slurry that splattered down across much of the continental United States south of the ice sheet but that only left impressions, such as the Carolina Bays and the Nebraska Rainwater Basins, on suitably soft and "unconsolidated" ground.[19]

LEFT: Saginaw Bay is an enigmatic, now water-filled, depression in Michigan's distinctive "Mitten," separating the "hand" of the mitten, to the left, from its "thumb," to the right. RIGHT: Instead of erosion by glacial ice, Davias and Harris

propose that Saginaw Bay is the footprint of a massive impact of a cosmic object that struck ancient Michigan at an oblique angle. IMAGE: MICHAEL DAVIAS, CINTOS.ORG.

When Davias and Harris gave their paper at the Geological Society of America in 2015 they tentatively suggested an age of 786,000 years for the formation of Saginaw Bay.[20] While drawing on their excellent ballistics and triangulation work, Zamora's presentation of his own Glacial Ice Impact Hypothesis in his 2017 paper in *Geomorphology* rejects so great an age and offers a compelling case that Saginaw Bay was scooped out just 12,800 years ago by one of the fragments of the Younger Dryas comet.[21] On technical grounds to do with "the thermodynamics of water in a liquid state" he also rejects Davias and Harris's notion that the ejecta would have consisted of a "foam of sand and water."[22] According to Zamora's calculations, massive quantities of solid glacial ice would instead have been blasted aloft:

> Experiments of high-speed impacts on ice sheets using NASA's Ames Vertical Gun demonstrate that ice shatters when a projectile hits it. Pieces of ice are ejected, radiating from the impact site in ballistic trajectories.[23]

"The Laurentide Ice Sheet," writes Zamora,

> covered the convergence point determined by Davias and Harris in Saginaw Bay with a thickness of approximately 1500 to 2000 m of ice during the Pleistocene. … Ballistic equations, scaling laws relating crater size to impact energy, geometrical analysis and statistical analysis provide a mathematical foundation for explaining the shape of the bays and their origin from secondary impacts of glacier ice ejected from the Laurentide Ice Sheet that covered Michigan.[24]

It's important to be clear on this.

Just as Zamora does not support Davias and Harris's idea that the ejecta consisted of pulverized sandstone and water, so, too, he adamantly does NOT suggest that hundreds of thousands of fragments of the original Younger Dryas comet bombarded North America's Atlantic seaboard, creating the phenomenon of the Carolina Bays. Neither is he suggesting that the Nebraska Rainwater

Basins were the result of direct hits by comet fragments. Instead he accepts the CRG's long-established position that the epicenter of the impacts was the North American ice cap.

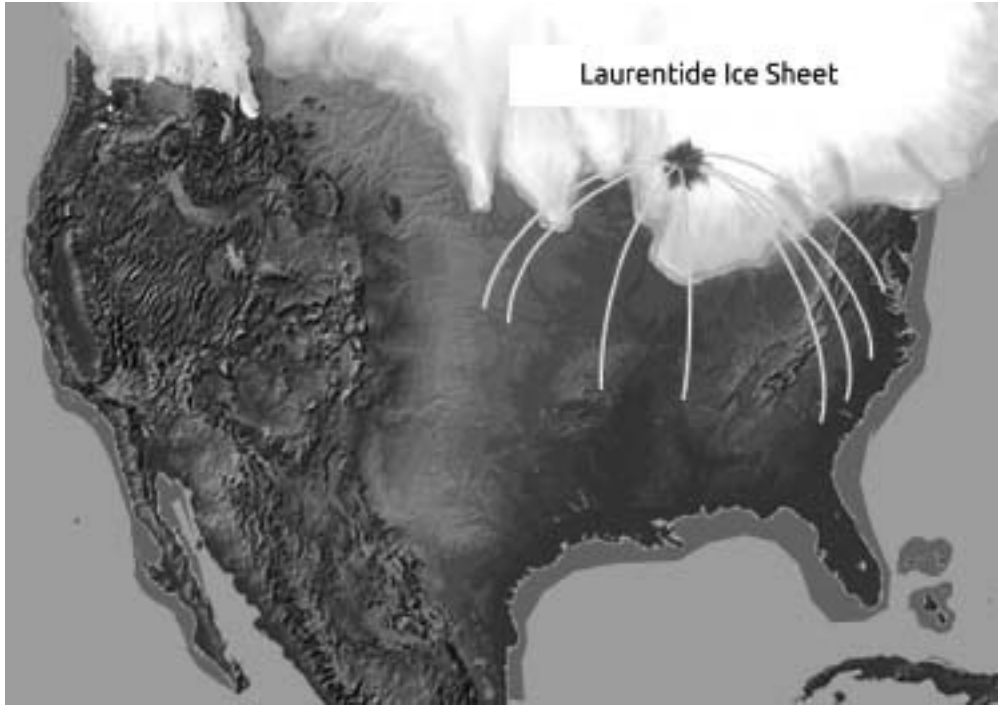

Ballistic trajectories of glacier ice ejecta after a cosmic impact on the North American ice cap. IMAGE: ANTONIO ZAMORA.

In his view all the damage in the Carolinas and Nebraska was done by the stupendous mass of icy ejecta, varying in size from basketballs to “ice boulders” tens or even hundreds of meters across, that fell back to earth following the Saginaw Bay impact.

AN APOCALYPTIC VISION

I REFER THE READER TO Zamora’s paper itself for the detailed evidence behind his findings. In summary, however, having first reviewed and rejected all other explanations for the formation of the bays and basins, and having given special consideration to the longer-term evolution of impact craters on viscous surfaces, Zamora concludes as follows:

> The radial orientation of the Carolina Bays and Nebraska Rainwater Basins toward a convergence point in Michigan, and the elliptical shapes of the bays with specific width-to-length ratios can be better explained by impact mechanisms than by terrestrial wind and water processes.
>
> The Glacier Ice Impact Hypothesis … has been supplemented with an experimental model demonstrating that oblique impacts on viscous surfaces can reproducibly create inclined conical cavities that are remodeled into shallow elliptical depressions by viscous relaxation. This makes it possible to model the Carolina Bays and Nebraska Rainwater Basins as conic sections whose width-to-length ratio can be explained by the angle of impact.[25]

Zamora addresses the issue of the great diversity of dates for the Carolina Bays obtained by Optically Stimulated Luminescence (OSL), noting that this has hitherto been the most significant barrier to acceptance of any form of impact hypothesis with reference to the bays. As he rightly points out, however, the fundamental assumption behind the use of OSL has been that the subsurface of the Carolina Bays was exposed to light at the time of bay formation. His experimental model refutes this by demonstrating that impacts

on viscous surfaces are plastic deformations that do not expose the subsurface to light:

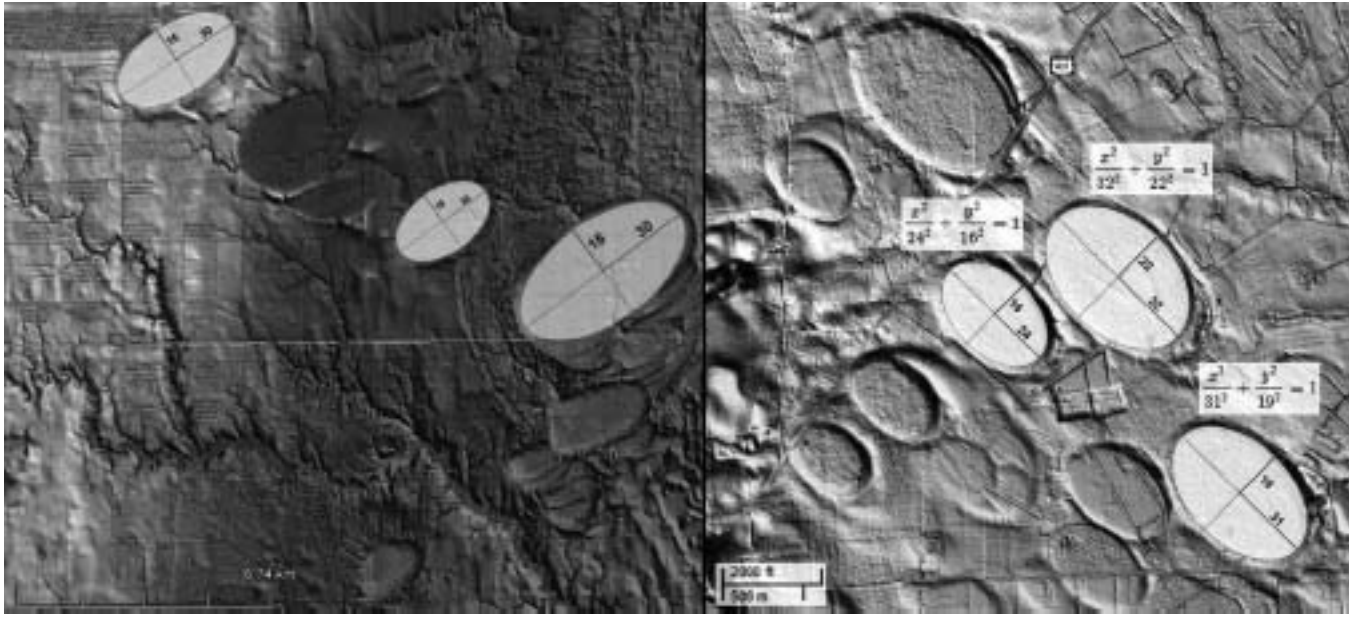

The width-to-length ratios of the Carolina Bays (right) average 0.58 and are very consistent for bays of different sizes. The bays in Nebraska (left) are indistinguishable from the bays on the East Coast based on their width-to-length ratios. IMAGE: ANTONIO ZAMORA; LIDAR FROM CINTOS.ORG.

Therefore, OSL can only determine the date of the terrain, but not the date of formation of the bays. If all the Carolina Bays and Nebraska Rainwater Basins formed contemporaneously, it will be necessary to find a different way of dating them.

The Glacier Ice Impact Hypothesis explains all the features of the Carolina Bays and Nebraska Rainwater Basins, including their elliptical shape, radial orientation, raised rims, undisturbed stratigraphy, absence of shock metamorphism, overlapping bays, and the occurrence of bays only in unconsolidated ground.[26]

Finally, and chillingly, Zamora's paper in *Geomorphology* notes:

The great surface density of the bays indicates that they were created by a catastrophic saturation bombing with impacts of 13 KT to 3 MT that would have caused a mass extinction in an area with a radius of 1500 km from the extraterrestrial impact in Michigan. This paper has considered mainly the ice boulders ejected by an extraterrestrial impact on the Laurentide Ice Sheet during the Pleistocene, but the impact would also have ejected water and produced steam. Taking into consideration the thermodynamic properties of water, any liquid water ejected above the atmosphere would have transformed into a fog of ice crystals that would have blocked the light of the sun. Thus, the time of formation of the Carolina Bays and Nebraska Rainwater Basins must coincide with an extinction event in the eastern half of the United States and the onset of a period of global

cooling. This combination of conditions is best met by the disappearance of the North American megafauna, the end of the Clovis culture and the onset of the Younger Dryas cooling event at 12,800 cal. BP. The report of a platinum anomaly typical of extraterrestrial impacts at the Younger Dryas Boundary supports this scenario.[27]

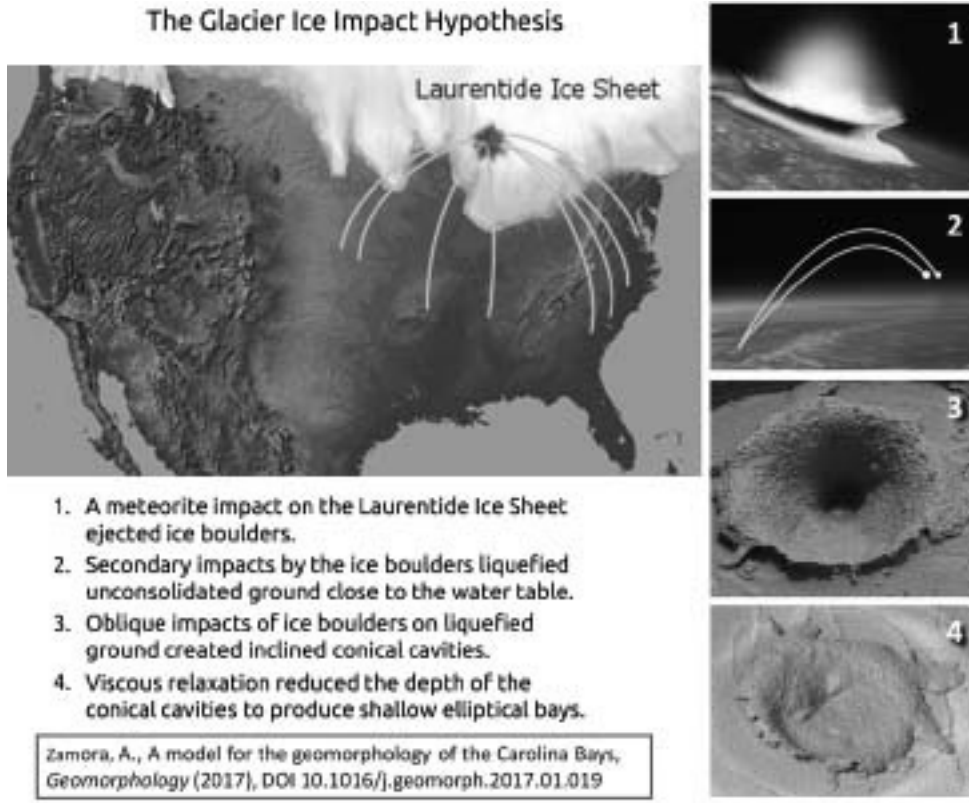

IMAGE: ANTONIO ZAMORA.

In his book *Killer Comet,* Zamora elaborates on the extent and true horror of the Younger Dryas cataclysm. He considers how the effects of the primary impact over Michigan would have been massively compounded across North America by the secondary impacts of glacier ice boulders. It's instructive to spend a few moments with the disturbing picture he paints:

> All living things within 100 kilometers of the [Michigan] impact died instantly. They were either burned by the heat blast or killed by the shock wave. On the East Coast, 1000 kilometers from the impact zone, the blinding flash on the horizon was followed by a sky that darkened ominously as it filled with the giant ice boulders ejected by the impact. Three minutes after the flash, the dark sky advanced relentlessly, and the ground shook as the first seismic waves from the extraterrestrial impact site arrived traveling at 5 km/sec.
>
> By this time, all animals and humans were aware that something terrible was happening. The sky continued to darken, and then filled with bright streaks as the ice boulders in suborbital flights re-entered the atmosphere at speeds of 3 to 4 km/sec. … [As] the giant ice boulders started falling … the thumping of the impacts sent shock waves through the ground that traveled at 5 to 8 km/sec. … The shaking ground started to liquefy, trapping everyone. The ground had turned to quicksand, making it impossible to walk or run …

At the peak of intensity, a hail of glacier ice chunks, many as big as a baseball stadium, left steam trails in the sky as they re-entered the atmosphere at supersonic speeds and crashed into the liquefied ground accompanied by the thunder of sonic booms.

The impacts created oblique, muddy, conical craters … with diameters of one to two kilometres … that swallowed whole villages and buried all the vegetation. The vibration of the ground quickly reduced the depth of the conical craters and turned them into [the] shallow depressions [that we know today as the Carolina Bays]. … The comet itself had not killed the megafauna. The saturation bombardment by the ice boulders that were ejected when the comet struck the Laurentide ice sheet caused the extinction event. … The landscape of the Eastern Seaboard had been transformed into a barren wasteland full of huge, shallow mud holes. …

The Carolina Bays have remained as evidence of the glacier ice impacts on the soft, sandy soil of the East Coast.

No such evidence remains of the ice chunks that must have fallen on harder ground, but the ice impacts in the central and Midwestern states were equally merciless. When the colossal chunks of glacier ice hit the hard terrain, they shattered and sent out ice fragments at high speed. Any creature or vegetation in the path of the fast-moving ice shards was destroyed.

When the ice finally came to rest, the ejecta blanket had covered one-half of the contiguous United States with a thick layer of crushed ice … that increased the albedo of the Earth and reflected a significant portion of the dimmer light from the

> Sun back into space. The combined effect of the increased ice cover and the orbiting ice crystals would make the land cold and inhospitable for many years. …
>
> The buried vegetation would freeze or remain dormant under the ice. Grazing animals that had survived the glacier ice bombardment had no access to their normal food sources and would soon starve. Predators that were still alive would also soon die without their herbivorous prey. …
>
> Eventually, North America would be repopulated by new land animals and new humans, but the megafauna, and the ingenious Clovis people that had crafted such fine stone projectiles were gone forever.[28]

It's an apocalyptic vision to be sure, and we must remind ourselves that it deals with the widespread consequences of just **one** of the major impacts on the North American ice cap.

ATTACK AND DESTROY

AS WE'VE SEEN, ALLEN WEST and Richard Firestone propose that there may have been as many as **eight** significant impacts on the North American ice cap during the 21 years of the peak Younger Dryas bombardments.[29] Together with the other scientists from the Comet Research Group, they have focused, with great success, on gathering the evidence for these bombardments in the form of impact proxies scattered across 50 million square kilometers of the earth's surface.

What none of the group has yet done, however, is investigate the full implications **for North America itself** of the hypothesized impacts on the ice cap.

Why Antonio Zamora matters, and why his work deserves serious evaluation, is that he is the first to undertake such an exercise—albeit focused on only one out of the possible eight impacts. In addition, he offers testable hypotheses and opens up new vistas for inquiry and discussion. I was therefore expecting to spend 2

constructive and thought-provoking days at Wilmington, sharing ideas with big thinkers and giving proper consideration for the first time to the implications of the icy fallout across North America that Zamora rightly calculates would have been the outcome of impacts on the ice cap.

The opposite happened. It was clear from the outset that the only reason Malcolm LeCompte and Mark Demitroff were with us at Wilmington at all was to attack and destroy the Glacier Ice Impact Hypothesis at birth. There was no interest whatsoever in a discussion of the wider implications of Zamora's thinking. Their entire focus was to demonstrate that he was completely wrong to link the Carolina Bays to any kind of cosmic impacts, and to the Younger Dryas impacts in particular.

At one level this was all good. For science to progress it is important that all ideas be tested in the fire of peer review. And while Zamora's hypothesis had already been through that fire once

in order to have appeared in *Geomorphology* at all, here were other scientists who disagreed.

Excellent! Bring it on, guys!

I was at Wilmington to learn, and such constructive disagreements would surely only help me gain a better understanding of what no scientist today can yet claim to understand fully—namely, the cause and true extent of the cataclysmic events that shook the earth at the onset of the Younger Dryas 12,800 years ago.

Because I'd gone into the meeting with the mind-set that we were all colleagues here trying to figure out a solution to one of the greatest mysteries of the past, I didn't initially expect the level of antagonism, hostility, scorn, and downright unpleasantness with which Zamora's impact hypothesis was received by LeCompte and Demitroff—who are themselves proponents of an impact hypothesis at the receiving end of a great deal of antagonism, hostility, scorn, and unpleasantness.

But that was naivete on my part. Over the following months I was to get a much clearer understanding of what was really going on.

“EXTREMELY REGRETTABLE …”

AFTER THE WILMINGTON MEETING, SANTHA and I flew to Little Rock, Arkansas, where I had a presentation to give at a conference before we returned to the United Kingdom. During my talk, which was filmed, I showed a photograph of myself with Chris Moore on a field trip to a Carolina Bay—Johns Bay—where platinum had been found. I outlined the platinum research and other YDIH research in my presentation and then moved on to a discussion of Antonio Zamora’s Glacier Ice Hypothesis. I did not connect his work to the work of the Comet Research Group and I did not suggest he was a member of the Comet Research Group or had anything to do with it.

The video was released on YouTube on January 26, 2018.[30] A little over a month later I found myself embroiled in heated email correspondence with Malcolm LeCompte and Mark Demitroff.

The first salvo was fired on March 9, 2018, with an email from LeCompte to Zamora, cc'd to me, titled "Paper by Antonio Zamora: *Geomorphology* 282 (2017) 209–216."

That email accused me of providing "extraordinary coverage" of Zamora's "speculative theory" in my Little Rock presentation and of giving it exposure "in juxtaposition" with my "discussion of the YDB Impact Hypothesis." Describing my alleged "association" of Zamora's work with the work of the Comet Research Group as "extremely regrettable," LeCompte added a postscript specifically addressed to me:

> Graham, I find Antonio's work to be unsupportable, not because impact proxies aren't found in the bay rims, as you apparently have been told and are now saying, but for the variety of reasons listed in the attached letter, first and foremost of

which: because there was no ice in Saginaw Bay or anywhere within 200 km of where Antonio believes his impact occurred.

My bad about the impact proxies!

I had indeed incorrectly stated in that hastily-put-together segment of my presentation that none were found in the Carolina Bay rims and that this was part of the long-established dismissal of any impact connection to the bays. I got that wrong. Platinum is an impact proxy, as I knew very well, and Chris Moore had found it in the Carolina Bays. Multiple other proxies, including "magnetic grains and microspherules, carbon spherules and glass-like carbon," have also been found, as a 2010 study reports, "throughout the rims of 16 Carolina Bays."[31]

What I don't see, however, is how this helps LeCompte's claim that impacts did not make the bays. On the contrary, it seems to me that the presence of the proxies there only strengthens the case that

the bays are impact-related. I shall certainly speak of this in future presentations.

Much more significant is the second statement in the postscript, to the effect that 12,800 years ago there was no ice in Saginaw Bay or anywhere within 200 kilometers of the proposed impact site. LeCompte elaborates on this point in the longer letter attached to his mail, formally addressed to the Editor of *Geomorphology,* where he refers to "a large body of literature" providing evidence that Zamora's proposed point of impact had been deglaciated for more than 1,000 years before the onset of the Younger Dryas and that not only Saginaw Bay but all of Lake Huron had been ice-free when the Younger Dryas began.

This seemed to be a fatal criticism of the Glacier Ice Impact Theory—but Zamora gave an immediate response to LeCompte:

> In your note to the editor of *Geomorphology* you say "Dyke (2004), and Larson and Schaetzl (2001), provide graphical depictions of the retreat of the Laurentide Ice Sheet with sufficiently high spatial and temporal resolution to make clear that

not only Saginaw Bay, but all of Lake Huron was ice-free at the time of the Younger Dryas onset."

Let us say that no evidence can be found for glaciers at the point where the axial projections of the bays converge. Geologists usually determine the extent of glacier coverage by examining glacial striations on the terrain and by identifying deposits of erratic boulders. Would you expect the site of an extraterrestrial impact to retain these markers? Wouldn't the impact of a 3 km asteroid obliterate striations and erratic boulders? The subsequent melting of the glaciers would then flood the impact point and wash away the last traces of the crater. The Carolina Bays do exist, and because they are conic sections, it is very likely that they originated as conical impact cavities. … The Nebraska Rainwater Basins are now intimately related to the Carolina Bays through their geometry. Any modern publication about the Carolina Bays that ignores the Nebraska basins is incomplete and inadequate. … In my paper, I mentioned that an ET impact on hard ground would have sent rocky ejecta only one third as far as an impact on ice. Moreover, an impact on land, rather than on ice, would have left a typical ET crater. My bet is that there was an ice sheet wherever the meteorite hit, otherwise someone would already have found the crater.

Frankly, I thought that Zamora had returned Malcolm's hardball quite well, and soon afterward he followed through by sending me a paper I hadn't come across before, published in *Quaternary Science*

Reviews in 1986, titled "Correlation of Glacial Deposits of the Huron, Lake Michigan and Green Bay Lobes in Michigan and Wisconsin."[32] The paper, by Donald Eschman and David Mickelson, concludes that following an earlier retreat there was a re-advance of the ice sheet during the so-called Port Huron stade around 13,000 years ago and that at this time both Saginaw Bay and Lake Huron were indeed covered with ice.[33]

Once again, therefore, as so often in science, statements touted as facts turn out to be opinions contradicted by other opinions that are also touted as facts. The truth of the matter is that there remains great uncertainty and confusion around exactly what happened in North America—and across the whole world—at the onset of the Younger Dryas. While that uncertainty persists, alleged "certainties" of almost any kind are inappropriate and it is wise to keep an open mind to all possibilities.

Beyond the issue of the absence (or presence?) of an ice sheet at the proposed point of impact, LeCompte's dismissal of the Glacier Ice Impact Theory is of course supported by other evidence and reasoning, but my purpose here is not to get into these minutiae. I concede the possibility that LeCompte may be right while remaining open to the possibility that he may be wrong. Either way, the real importance of Zamora's contribution has been to raise new questions around the matter of the Younger Dryas impacts. Only time and further research will tell whether his theory really solves the mystery of the Carolina Bays and the Nebraska Rainwater Basins, but he has undoubtedly done scholarship a service by exploring the ballistics and dynamics of explosive cosmic impacts on the North American ice cap, and by looking into the potentially disastrous consequences in terms of the subsequent storm of icy ejecta.

“YOU WERE REPEATEDLY WARNED …”

THE STORM OF EJECTA FROM the Wilmington meeting was far from over. My exchange of emails with Malcolm LeCompte continued, Mark Demitroff joined the conversation as well, and both of them were clearly very annoyed with me! Chris Moore was cc’d but did not comment. What became clear from all this was that LeCompte’s objection to the video was not that I had misrepresented the Comet Research Group in any way, or that I had misrepresented Chris Moore’s recent research, but simply that right after what I had to say about the Comet Research Group, ending up with the visit I’d just made with Chris Moore to Johns Bay, I had gone on to talk about Zamora’s Glacier Ice Impact Theory.

On March 21, 2018, therefore, because I sensed there was something going on here that was worthy of reporting, and wanted no one involved to be in any doubt that I intended to report it, I

began a new thread of emails under the subject line FOR THE RECORD:

> I speak about the work of many scientists [in the video]. The fact that what I have to say about the work of one scientist follows what I have to say about the work of another scientist does not mean I am connecting the two—unless I specifically do so, which I don't do here. I am therefore really perplexed as to why this video has caused offence.

I have no hesitation in sharing the bulk of LeCompte's reply because of the light it sheds on a growing problem within science in general—the problem of enforced conformity.

The passages that I have placed in bold type were not in bold in the original but I choose to emphasize them in the extracts below because of the insights they provide into the ways this problem can manifest and the states of mind it engenders.

> MALCOLM LECOMPTE TO GRAHAM HANCOCK, MARCH 23, 2018:
>
> You were … repeatedly warned that any association of Carolina Bay genesis linked to a discussion of the YDB impact event would likely be harmful to the

progress of the YDIH research and to the reputations of its investigators.

You may not be aware of the time and energy spent to largely neutralize the distracting effects and hostility created by the early Carolina Bay related assertions made in the non-peer reviewed book: *Cycle of Cosmic Catastrophes.* [This is a book coauthored by Richard Firestone and Allen West, the original formulators of the YDIH, and published in 2006, a year before the first formal paper appeared in *PNAS.*] The association of bay impact genesis with the YDIH created an early perception in some scientific communities that the YDB impact research was both unprofessional and bordering on pseudoscientific. Those original, naive Bay genesis claims still haunt the research and contribute to hobbling its acceptance as a legitimate research activity for a new generation of scientists. **We have few, relatively younger and seasoned tigers like Chris Moore willing to disregard the real and perceived risks to their careers and reputations, and even fewer younger, newly-trained scientists following in his footsteps to adopt what is still considered a somewhat controversial line of research. His participation in this research is noticed and monitored by his many colleagues.**

Nevertheless, only a week after our meeting, where Mark [Demitroff], with Chris' endorsement, had presented an evidence-based alternative to Zamora's proposed Bay impact genesis, you gave a video presentation that juxtaposed YDIH research with Zamora's very controversial claim of Bay impact genesis. …

Less than a month [later] … Chris Moore, probably the most important current and hopefully future investigator of the YDB event, received a call from a colleague who had seen your You Tube video and posted it on his anti-

> **pseudoscience website that is apparently visited by some of Chris' peers.** Your presentation juxtaposing YDIH research with Zamora's claims certainly endowed them with some unwarranted credibility but also contaminated the YDIH by the association. **Chris achieved some unwanted negative-celebrity among his colleagues. He was challenged about the wisdom of hosting you and suffered the indignity of wondering about the effect the … video might have on his career and reputation.**
>
> **It is obvious to me that distribution of your video presentation has put Chris's reputation, career and participation in the YDIH research in potential jeopardy …** the resulting harm … has yet to be completely comprehended. Fortunately Chris made the brave decision to continue the YDIH research, despite that video's presence on you tube for the foreseeable future.

Wow! All this stress, drama, and defensiveness over a video of a presentation I gave at a conference! I have to confess, I was taken aback by the vehemence of LeCompte's reply and the suggestion that I might have harmed the career of that very likable and diligent scientist Chris Moore.

But at a deeper level what this whole exchange revealed to me was something disturbing about the way science works. I hadn't

quite grasped the role of **fear** before. But I could see it in action everywhere here: fear of being "noticed and monitored by colleagues," fear of unwanted negative celebrity, fear of indignity, fear of loss of reputation, fear of loss of career—and not for committing some terrible crime but simply for exploring unorthodox possibilities and undertaking "somewhat controversial research" into what everyone agrees were extraordinary events 12,800 years ago.

Worse still, this pervasive state of fear has somehow ingrained itself so deeply into the fabric of science that those who have embraced unorthodox possibilities themselves are often among the least willing to consider unorthodox possibilities embraced by others—lest by doing so they "contaminate" their own preferred unorthdoxy.

How will it ever be possible to discover the truth about the past when so much fear gets in the way?

PART VIII

SURVIVE!

The Mystery of the Invisible Man

28

HUNTER-GATHERERS AND THE LOST CIVILIZATION

UTTERLY HORRIFIC, TROUBLING, AND CONFUSING events took place at the onset of the Younger Dryas, and more than a decade under the scientific spotlight has repeatedly confirmed that the best explanation of all the evidence is that the earth underwent a series of

interactions with the remnants of the disintegrating giant comet that spawned the Taurid meteor stream. These encounters are thought to have reached a peak 12,822 years ago but were sustained over a span of 21 years beginning 12,836 years ago and ending 12,815 years ago. There were other episodes of bombardment around the time of the Younger Dryas onset, but this was the worst.

Perhaps it was not a comet after all. Perhaps in the next decade some other even more compelling theory with even more evidence to back it up will be advanced—or perhaps some decisive new discovery will be made that vindicates one of the existing nonimpact theories. Until that time, however, the Younger Dryas Impact Hypothesis continues to make complete sense to me and to a great many scientists, and its 21-year window of maximum devastation, peaking around 12,822 years ago, deserves special attention.

Archaeological evidence from this period is scarce in North America, but what there is suggests that widely scattered

populations of Native American hunter-gatherers were badly mauled at the Younger Dryas onset. Amid indications of sudden population collapses, many previously inhabited areas were abandoned entirely, as we saw in chapter 26, with no return for hundreds of years. Clovis ceased to exist—an entire vibrant, widely distributed culture obliterated—but other humans survived and bounced back, something our species has a talent for. I'd stayed in touch with Al Goodyear since Topper and he confirmed that in his view, while there was evidence for a "possible demographic crash/depression," there had been no "extermination post Clovis."[1]

We shouldn't be surprised.

Hunter-gatherers are hard to exterminate!

They roll with the punches and they bounce back.

In the technology-dominated twenty-first century, the majority of humans live in cities fed by intensive agriculture, but in the world today there still exists a tiny minority of hunter-gatherers. Many of

the urbanites enjoy great wealth and abundance while the hunter-gatherers possess very little. If a cataclysm on the scale of the Younger Dryas impacts were to strike in our lifetimes, however, I predict it would be these few remaining groups of hunter-gatherers —in the Kalahari desert, for example, or in the Amazon rainforest— who would have the best chance of surviving the devastating consequences, and it would be their descendants, not ours, who would carry the human story forward. Unlike most city dwellers who have no idea how to live off the land, hunter-gatherers are masters of survival, they know how to deal with environmental setbacks, and no matter how tough things get they can usually improvise a workaround. By contrast the masses in the cities, suddenly discovering that technology can't fix everything, would be psychologically traumatized and largely helpless.

Almost the opposite of our twenty-first-century world, the world as I imagine it 12,800 years ago is one in which the vast majority of humans are hunter-gatherers while a minority have taken another,

more complex, path. The hunter-gatherers form populations recognized by modern archaeologists, and their stone tools, weapons, and ornaments speak of an effective but fairly rudimentary technology. The minority who have taken a different path are not recognized and I contend that this is primarily because the destruction of their civilization was near-total, and because the few, faint, tantalizing clues to their technology that have reached us across the ages hint at a level of science far in advance of anything believed by scholars to have been possible at such a remote period of prehistory.

It is for this reason that ancient maps incorporating scientifically accurate latitudes and longitudes and depicting the world as it looked during the lowered sea levels of the last Ice Age have been dismissed by the mainstream as mere curiosities with no bearing on our understanding of the origins of civilization.

I looked into the mystery of these maps in *Fingerprints of the Gods* (1995) and again in *Underworld* in 2002, and refer the reader

to appendix 2 for details. Contrary to the mainstream, my broad conclusion is that an advanced global seafaring civilization existed during the Ice Age, that it mapped the earth as it looked then with stunning accuracy, and that it had solved the problem of longitude, which our own civilization failed to do until the invention of Harrison's marine chronometer in the late eighteenth century. As masters of celestial navigation, as explorers, as geographers, and as cartographers, therefore, this lost civilization of 12,800 years ago was not outstripped by Western science until less than 300 years ago at the peak of the Age of Discovery.

Suppose there was an earlier "Age of Discovery" in the centuries before the onset of the Younger Dryas, when the fleets of the lost civilization set out to open interaction with tribes of hunter-gatherers all around the world and either passed themselves off as, or were mistaken for, "gods." I'm just offering food for thought here, a pure speculation, but I submit this might have followed a period of severely restricted involvement with other peoples—such

as the Ming dynasty imposed on China in the late fourteenth century—and I suggest that the renewed outreach may have been motivated by foreknowledge of the impending Younger Dryas cataclysm. This lost civilization, after all, appears to have evolved a sophisticated religion deploying powerful symbolism that emphasized the connection between heaven and earth and that envisaged an afterlife journey through specific well-charted regions of the celestial vault. Its astronomer-priests are therefore most unlikely to have missed the signs in the sky as our planet began its long journey toward intersection with a particularly lumpy and debris-filled filament of the Taurid meteor stream where the menacing serpentlike tails of the outgassing larger fragments might have served as visible omens of the terrors to come.

The astronomers and mathematicians of our hypothetical lost civilization would surely have set to work calculating trajectories and orbits and would have learned in due course that collisions with fragments of the disintegrating comet, though not an immediate

threat, were unfortunately inevitable during the centuries ahead. It was not yet certain how large and how sustained the bombardments would be, or where and when the first fragments would strike. Multiple outcomes were possible, from escaping relatively unscathed, at one end of the scale, to a worst-case scenario in which civilization itself would be snuffed out. And although the worst would probably never happen, a contingency plan would certainly have been prepared on the off chance that it did.

My bet is the planners would have seen from the outset that the superior survival skills of hunter-gatherer populations might potentially make them the inheritors of the earth in the event of a true planetary cataclysm. An important strand of any contingency plan, therefore, would have been to establish connections with hunter-gatherers, to teach them, to learn from them, and in so doing to ensure that these populations were willing and able—if called upon—to offer refuge to the "gods" of the lost civilization.

It would not be until weeks or even days before the bombardments began that the areas likely to be worst hit could be pinpointed with any certainty. There must have been hope that by some miracle the impacts might be avoided altogether, but until the centuries of danger passed it was best to regard the whole world as a target and therefore to prepare safe havens on many different continents so that if some were destroyed others would survive. I speculated in chapter 10 that this process of preparation might even have involved the experimental resettlement of groups of hunter-gatherers far from their home regions with the intention that they should create places of refuge for the "gods" in their new surroundings. Such a project might account for that strange Australasian DNA signal stranded in the genes of certain Amazonian tribes.

In this scenario, therefore, hunter-gatherer populations all around the world were deliberately recruited by people from a different, more scientifically advanced culture to prepare for a coming

cataclysm, to offer refuge to the "gods" should they require it, and perhaps even to serve as duplicate archives—either in oral tradition or in the safekeeping of physical records—for some of the scientific knowledge of the "gods."

In North America the evidence is that hunter-gatherers bounced back quite successfully within less than a millennium of the onset of the Younger Dryas, and thereafter there is a thin but fairly continuous archaeological record. What is mysterious is not so much the early appearance of mound-building in this new age—perhaps as early as 8,000 years ago, as we've seen—or the sophistication of sites such as Watson Brake 5,500 years ago, nor even their obvious astronomical and geometrical connections to later vast earthworks such as Moundville and Cahokia, but that in this early monumental architecture of the New World memes of geometry, astronomy, and solar alignments consistently appear that are also found in the early monumental architecture of the Old World at iconic sites such as Stonehenge and the Great Pyramid of

Giza. A tremendous leap forward in agricultural know-how, coupled with the sudden uptake of eerily distinctive spiritual ideas concerning the afterlife journey of the soul, also often accompanies the architectural memes. It's therefore hard to avoid the impression that some kind of "package" is involved here.

Something designed.

Something deliberately and carefully contrived to engage future generations in specific courses of action, regarded as religious duties, that would also educate them deeply in the cycles of the heavens and in the measurement and nurturing of the earth.

It's almost as though a guiding hand has been at work behind the scenes of prehistory. If so, whether through secret groups of insider initiates or by some other means of cultural transmission, this hidden influence appears to have been active in the Americas since before the onset of the Younger Dryas, to have undergone long periods of inactivity, and to have reemerged again and again at crucial junctures to shape the direction of civilization.

CLOVIS GIVEN A HELPING HAND?

KNOWLEDGE OF THE TRUE GLOBAL extent of the Younger Dryas impacts continues to grow. We've focused on the evidence from North America, but recent research published in *Studia Quaternaria* in 2018 presents evidence of a cometary airburst over Mount Viso in Europe's Western Alps around 12,800 years ago that raised temperatures instantly, in a brief pulse, to above 2,200 degrees C—almost 1,000 degrees hotter than the melting point of steel.[2] Another 2018 study, published in the *Journal of Geology,* reports evidence from Antarctica's New Mountain, near the Taylor Glacier, that an "impact/airburst of the same time line as the Younger Dryas Boundary may have reached across South America and the Pacific Ocean to the Dry Valley Mountains of Antarctica."[3]

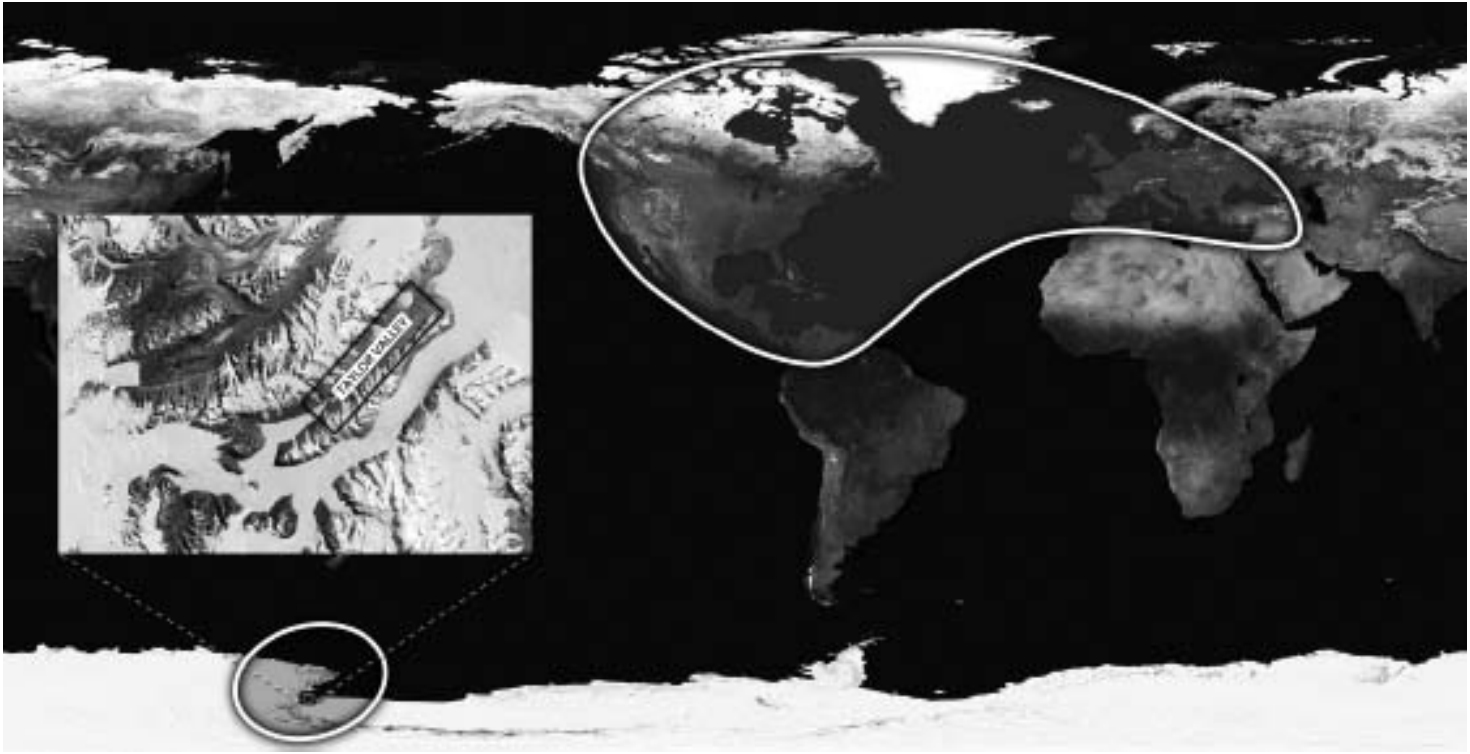

As of late 2014, the Younger Dryas Boundary strewn field of impact proxies had been traced across 50 million square kilometers of the earth's surface (above). Since then YDB impact proxies have been found much more widely distributed than previously reported in South America, and a 2018 study reports their discovery in Antarctica's

Taylor Valley (inset) linked to evidence of an impact or airburst around 12,800 years ago.

As more evidence of this quality continues to pour in, two significant observations thrust themselves to the fore.

First, this cataclysm, which we know to have been drawn out over 21 years between 12,836 and 12,815 years ago, was truly global, affecting regions as far apart as Greenland, the Pacific, the Americas, Europe, and Antarctica.

And second, it was just the luck of the draw that North America, rather than some other region, found itself at the epicenter of the peak bombardment. However, this had profound implications for the world because so much of the continent was then still covered by ice that was radically destabilized, releasing the meltwater flood that shut down the Gulf Stream and ushered in the Younger Dryas. The fact that Greenland and Europe were also severely hit and also ice covered compounded the problem by adding to the deluge of icy meltwater pouring into the Atlantic Ocean. There is no doubt,

however, that it was the continental landmass of North America that suffered the worst effects of the impacts, airbursts, shock waves, and wildfires and finally, perhaps early in that 21-year episode of bombardment, of Antonio Zamora's proposed storm of icy ejecta. The latter, we might speculate, could even have played a role in extinguishing the wildfires, thus accounting for the fact that a single massive episode of biomass burning, the largest in the entire NGRIP Ice Core, is documented for North America right at the onset of the Younger Dryas, and then rapidly dies down, never to recur on such a scale.[4]

Once all this is taken into account, the severity of the extinctions in North America seems less surprising and we can begin to understand how it was that the Clovis people passed from abundance to nonexistence virtually overnight.

Moreover, the Clovis phenomenon is, itself, an intriguing mystery. We've already seen that no archaeological background has

ever been found to the beautiful and sophisticated fluted points used by these remarkably successful hunter-gatherers to spear mammoths like Eloise at Murray Springs. From the moment we meet them around 13,400 years ago to the moment of their disappearance from the record about 12,800 years ago, they're equipped with their extremely effective signature "toolkit" of which the points are part. These Clovis tools and weapons appear suddenly and fully formed in archaeological deposits across huge expanses of North America with no evidence, **anywhere**, of experiments, developments, prototypes, or, indeed, of any intermediate stages in their evolution.[5]

My guess is there's a connection between Clovis and the lost civilization, not least because studies of ancient DNA show the Clovis genome to be much more closely related to Native South Americans than to Native North Americans (see part 3). Indeed, there's a parallel between the rather sudden and inexplicable way that Australasian genes turn up in the Amazon basin and the equally

sudden and inexplicable way that Clovis fluted-point technology turns up in North America.

Could both have the same cause?

Could the same hidden hand that transported a population of Australasian setters across the Pacific Ocean from New Guinea to the Amazon also have given technical assistance to one group among the many that we now know inhabited North America before the onset of the Younger Dryas? And since the whole Clovis First nonsense has finally been relegated to the dustbin of history, perhaps it's time to consider another possibility—let's call it "Clovis Most Favored" or "Clovis Given a Helping Hand."

Though in no way "high-tech" in twenty-first-century terms, the Clovis toolkit is far superior to anything else Native Americans are thought to have been capable of 13,400 years ago when the first fluted points begin to appear south of the ice cap. I'm not proposing that these stone tools were part of the technology of the lost civilization itself—any more than jet aircraft were part of it. I've

argued already that a more realistic parallel for the level of science and technology attained would be with Europe and the newly formed United States in the late eighteenth and early nineteenth centuries.

Other than that, the civilization I envisage was very different from our own, founded upon entirely different principles. Much of its science may remain opaque to us not because it is absent but because we are unable to recognize it for what it is. Nor is there any reason to suppose it would have shared its own “high-tech” with other peoples; quite possibly there were even specific stipulations against doing so. But there might have been less hesitation around the idea of devising better, more efficient stone tools to put into the hands of favored groups of hunter-gatherers, thus conferring a competitive advantage upon them.

Suppose Clovis was such a group, already present alongside many other groups that we now know to have inhabited the Americas before the Younger Dryas onset. The connection to the

southern lineage of Native Americans is interesting. Perhaps it might even have been in those 5 million square kilometers of Amazon rainforest where archaeologists have not yet ventured that fluted-point technology was initially taught to Clovis ancestors who then migrated north, bringing "their" expertise with them.

In so doing they burst in upon—and in a brief few centuries radically changed—a cultural landscape that archaeologists are now beginning to realize had previously been stable and continuous for thousands of years. Just as Al Goodyear discovered at Topper when he took the decision to dig down below the lowest Clovis occupation level (see chapter 6), recent excavations at the extremely prolific Clovis site of Gault, Texas, have likewise revealed deeper, pre-Clovis levels. Reported in the journal *Science Advances* in July 2018, these levels contain an assortment of stone tools—"the Gault Assemblage"—so far confirmed to be at least 2,000 years older than Clovis. Significantly, what archaeologists have identified in the

assembly is "a previously unknown, early projectile point technology unrelated to Clovis."[6]

Of note also is that:

> There is a ~10-cm-thick zone of decreased cultural material between the Clovis and Gault components. This suggests a reduction in site activity or possible occupational breaks between … cultural depositions.[7] … The distinct technological differences between Clovis and Gault Assemblage, together with the stratigraphic separation between the cultural depositions, indicate a lack of continuity between the two complexes.[8]

In other words, Clovis just rather inexplicably appears and replaces preexisting native North American cultures, and pretty soon its occupation levels are imposed over other, earlier occupation levels all across the continental United States until suddenly, and mysteriously, in the big bang of the Younger Dryas onset, Clovis itself is gone—dead and buried beneath the black mat.

Yet in the brief few hundred years of its florescence, Clovis sparkled and shone as the most successful and widespread hunter-gatherer culture thus far seen in the Americas. Archaeologists and flint knappers who have studied the matter are in no doubt that the distinctive points, and the way that fluting was deployed in their manufacture, would have given the Clovis people a significant technological edge over other hunter-gatherers.[9] The question, therefore, has to be why they were wiped out while other less prominent and capable cultures were able to emerge from the shadows of archaeological invisibility and survive.

Perhaps they grew too close to the "gods" of the lost civilization and shared their fate?

This is a serious proposition, not a frivolous question, and we may anticipate the skeptical response. If Clovis benefited from contact with a more advanced civilization, then we should find the skeletal remains of those more advanced people intermingled with

the Clovis remains, and we do not—therefore, there was no advanced civilization. Similarly, if Clovis benefited from contact with the people of a more advanced civilization, then we should find at least some traces of their higher tech among the Clovis assemblages, and we do not—therefore, there was no advanced civilization.

I've already responded to the second argument. There might have been very good reasons why people from a more technologically advanced civilization would have decided **not** to share their high-tech with hunter-gatherers, while at the same time choosing to favor a particular group with the know-how to work existing raw materials like stone, antler, and bone into more efficient hunting weapons and tools than they'd ever made before.

As to the first argument, although Clovis were not the "first Americans," their culture has been the subject of intensive archaeological study for more than 80 years and we've seen that

Clovis artifacts have been discovered in great quantities at sites scattered far and wide across North America.

But how many Clovis bones have been found alongside the artifacts? How many skeletons, crania, tibia, phalanges, or teeth? I had imagined there must be quite a collection for such a famous and well-understood culture. I was therefore surprised to learn during the research for this book that **apart from the incomplete skeleton of a single individual**—the Anzick-1 child excavated in Montana and discussed in chapter 9—**there are no human remains at all from the Clovis period**.[10] Even in the case of Anzick-1, as we've seen, the Clovis provenance was questioned by some until sophisticated dating techniques in 2018 resolved an apparent discrepancy between the age of the infant's bones and the age of the Clovis tools found with him, placing both firmly at the onset of the Younger Dryas around 12,800 years ago and confirming the Clovis identity of the buried child.[11]

Here then is the conundrum. At locations scattered all across North America from Alaska to New Mexico and from Florida to the state of Washington, more than 1,500 Clovis sites have been found. These sites have yielded more than 10,000 Clovis points[12] and tens of thousands of other artifacts from the Clovis toolkit (40,000 at Topper alone, as we saw in chapter 6). Yet among all these archaeological riches, it bears repeating that the sum total of Clovis human remains found in 85 years of excavations is limited to the Anzick-1 partial skeleton.[13]

In short, if the homeland of our hypothetical advanced civilization were in America, and if it became a lost civilization during the tumultuous earth changes of 12,800 years ago, then the Clovis case suggests that a dearth of skeletal remains is a normal state of affairs by which we should not be surprised. Certainly it does not constitute disproof of the lost civilization hypothesis.

By contrast, the sudden appearance of Clovis fluted-point technology with no evidence of prior trial and error, buildup of skills, experimentation, or prototypes[14] cries out for an explanation. So, too, does the Australasian DNA signal in the heart of the Amazon rainforest. So, too, the shared geometry and astronomy, and the shared earthwork designs across the Old World and the New. So, too, the incredible overlaps of symbolism, spiritual inquiry, and beliefs.

The only viable explanation is a remote common source behind them all—a lost civilization, in my view. And although that civilization had established self-perpetuating memes that would keep the flame of its influence burning for thousands of years, it is clear that it did not survive the Younger Dryas cataclysm itself.

Let's look at North America, therefore, with the possibility in mind that it might be the "crime scene" from which a great

civilization of prehistoric antiquity—the stuff of myth and legend all around the world—vanished without a trace.

29

UNKNOWN UNKNOWNS

A LOST ADVANCED CIVILIZATION OF the Ice Age with global navigational and mapmaking skills equivalent to our own in the late eighteenth and early nineteenth centuries would have had the capacity to establish outposts on every continent but must also have had a homeland.

Since that homeland has not been found after 200 years of diligent archaeology, most diligent archaeologists conclude—quite reasonably on the face of things—that it did not exist.

But there are other options.

It might be underwater now—the immense Sunda Shelf around Indonesia, for example, submerged by sea-level rise at the end of the Ice Age.

It might be under ice, perhaps in Antarctica, if we're willing to accept that some rather extraordinary geophysical events occurred in the past 100,000 years.

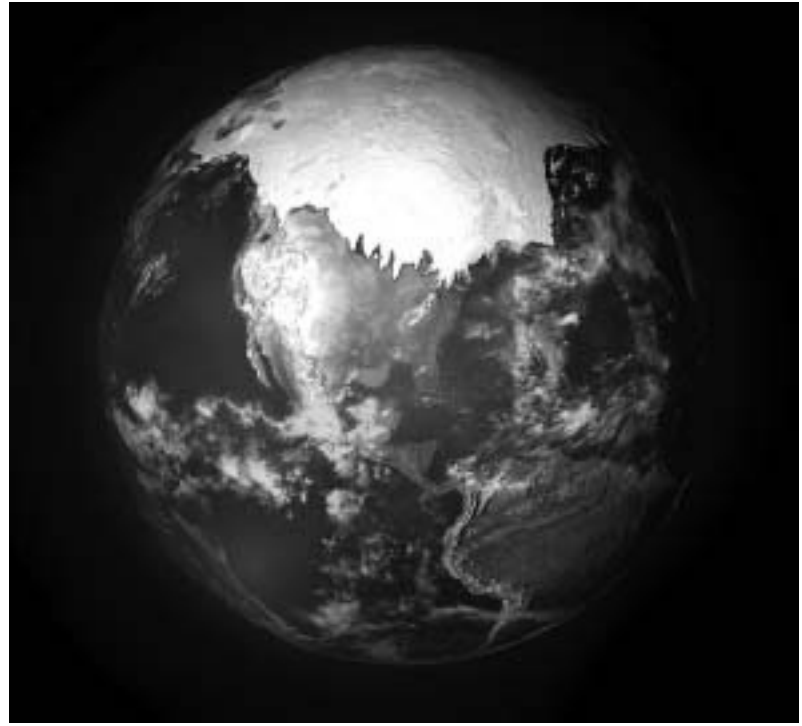

IMAGE: EARTH 18K BCE BY DONALD L. EDWARDS.

It might await rediscovery in the unexplored heart of the Amazon rainforest.

It might lie beneath the sands of the Sahara desert.

Or perhaps its homeland has all along remained hidden in plain view in the very last place that anyone has thought to look—North America?

There are surprisingly few "known knowns" in American prehistoric archaeology and good reasons why there are so many "known unknowns"—reasons that in turn suggest that the third Rumsfeldian category,[1] of "unknown unknowns," the "things we don't know we don't know," may ultimately prove to be far larger and more significant than either of the other two.

First and foremost, the Younger Dryas impacts, and subsequent sustained cataclysm, changed the face of the earth completely and wrought particularly significant havoc across North America. We have considered the question of huge volumes of meltwater released into the Arctic and Atlantic Oceans from the destabilized ice sheet and looked at the effects on global climate. But keep in mind that those enormous floods also devastated the rich North American

mainland to the **south**, perhaps the best and most bounteous real estate then available anywhere.

This immense and extraordinary deluge, "possibly the largest flood in the history of the world,"[2] swept away and utterly demolished everything that lay in its path. Jostling with icebergs, choked by whole forests ripped up by their roots, turbulent with mud and boulders swirling in the depths of the current, what the deluge left behind can still be seen in something of its raw form in the Channeled Scablands of the state of Washington today—a devastated blank slate (described at length in *Magicians of the Gods*) littered with 10,000-ton "glacial erratics," immense fossilized waterfalls, and "current ripples" hundreds of feet long and dozens of feet high.[3]

If there were cities there, before the deluge, they would be gone.

If there was any evidence of anything that we would recognize as technology there, before the deluge, it would be gone.

And if an advanced antediluvian civilization had flourished anywhere within 500 kilometers of the southern edge of the ice cap, not only in the Channeled Scablands but all the way along the ice margin, the flood alone might have been sufficient to ensure that not a trace of it would be left for archaeologists to misrepresent 12,800 years later.

Washington displays flood-ravaged scablands, but so, too, does New Jersey much farther to the east. Washington is notable for its fields and hillsides strewn with huge ice-rafted erratics, but so, too, is the state of New York. Interestingly also, just as Washington has its coulees, New York State has its Finger Lakes. These latter were long thought to have been carved by glaciers, but their geomorphology closely parallels that of the coulees of the channeled scablands, and some researchers now believe they were cut by glacial meltwater at extreme pressures—a process linked by sediment evidence to "the collapse of continental ice sheets."[4]

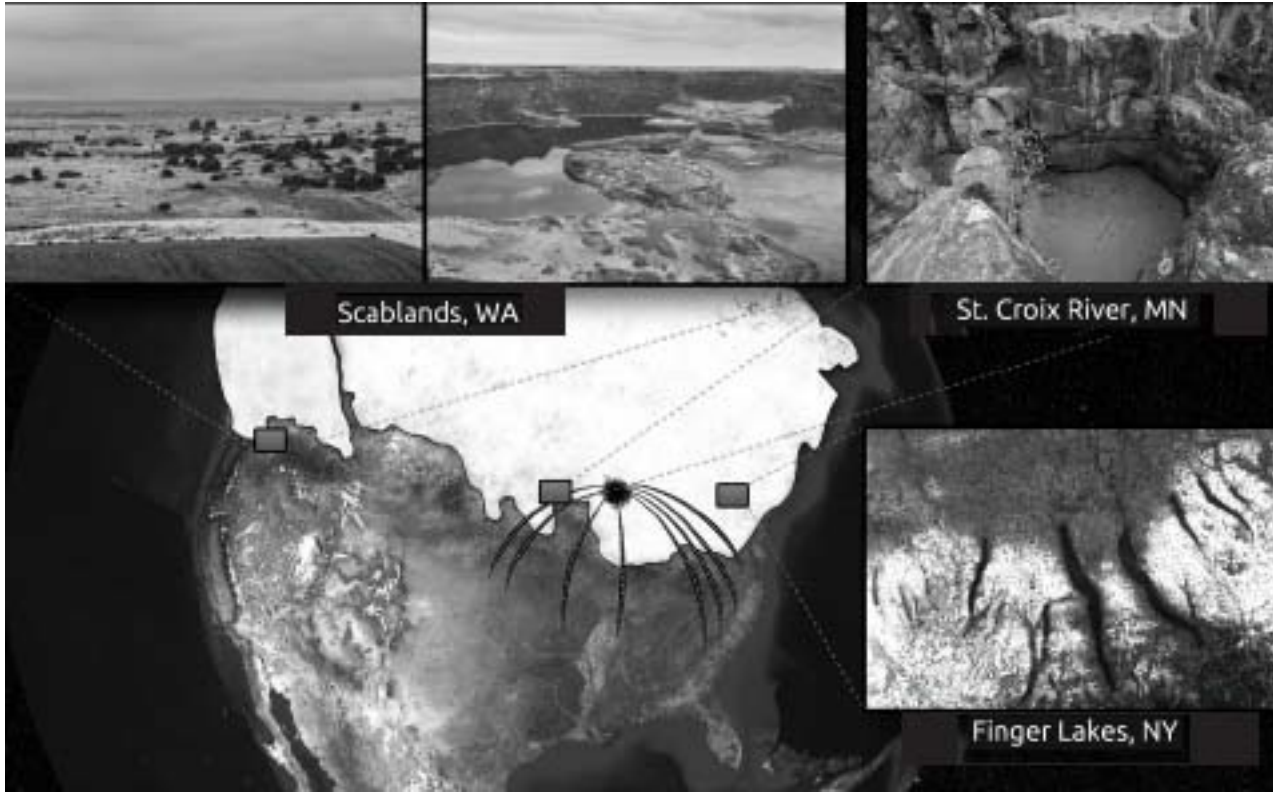

Likewise in Minnesota, on the Saint Croix River, there is a spectacular array of more than eighty giant glacial potholes. One is 10 feet wide and 60 feet deep, making it the deepest explored

pothole in the world. Others, as yet unexcavated, are even wider, and probably deeper as well. And all of them, without exception, were formed by turbulent floods at the end of the Ice Age.

We are looking then at vast expanses of North America that were literally *scoured*.

And this is before we get to the other effects of the Younger Dryas impacts explored in previous chapters—including direct hits on populated areas, searing heat and shock waves from airbursts, continent-wide wildfires, an impact winter, icy ejecta, and so on and so forth.

All in all, if North America is where a lost civilization of prehistoric antiquity vanished, then by far the most significant problem we face in investigating it is the way that the "crime scene" was systematically "wiped down" by the cataclysmic events at the onset of the Younger Dryas.

WIPING DOWN THE CRIME SCENE: CONQUEST

THE EUROPEAN INVASION OF THE American mainland began 500 years ago with the Spanish conquest of Mexico. In 1519, when Hernán Cortés first set foot on the shores of the Yucatán, more than 30 million people lived in Mexico. A century later, after the brutal genocide of the conquest itself and immense loss of life to smallpox epidemics, the population had fallen to just 3 million.[5]

The entire pre-Columbian literature of Mexico, a vast library of tens of thousands of codices, was carefully and systematically destroyed by the priests and friars who followed in the wake of the conquistadors. In November 1530, for example, Bishop Juan de Zumarraga, who had shortly before been appointed "Protector of the Indians" by the Spanish crown, proceeded to "protect" his flock by

burning at the stake a Mexican aristocrat, the lord of the city of Texcoco, whom he accused of having worshipped the rain god. In the city's marketplace Zumarraga "had a pyramid formed of the documents of Aztec history, knowledge and literature, their paintings, manuscripts, and hieroglyphic writings, all of which he committed to the flames while the natives cried and prayed."[6]

More than 30 years later, the holocaust of documents was still under way. In July 1562, in the main square of Mani (just south of modern Merida in the Yucatan), Bishop Diego de Landa burned thousands of Maya codices, story paintings, and hieroglyphs inscribed on rolled-up deer skins. He boasted of destroying countless "idols" and "altars," all of which he described as "works of the devil, designed by the evil one to delude the Indians and to prevent them from accepting Christianity."[7] Noting that the Maya "used certain characters or letters, which they wrote in their books about the antiquities and their sciences" he informs us:

> We found a great number of books in these letters, and since they contained nothing but superstitions and falsehoods of the devil we burned them all, which they took most grievously and which gave them great pain.[8]

Any of us today interested in the truth about the past share the pain of those horrified Native Americans—for what, we cannot help but wonder, was written in their lost books concerning "the antiquities and sciences" of the ancients? What exactly went up in smoke there?

I have explored the mysteries of the Maya, and of their predecessors the Olmec, in my earlier work, so I have not retold their extraordinary story here. I will mention in passing, however, that in 1998, long before I knew of the Mississippi Valley civilization and its afterlife beliefs concerning the constellation Orion and the Milky Way, I drew attention in *Heaven's Mirror* to a discovery by archaeologists Jose Fernandez and Robert Cormack establishing that the settlement core of the Maya city of Utatlan was

designed "according to a celestial scheme reflected by the shape of the constellation of Orion."[9]

Fernandez was also able to prove that all of Utatlan's major temples "were oriented to the heliacal setting points of stars in Orion,"[10] and noted that the Milky Way, alongside which Orion stands, "was thought of as a celestial path connecting the firmament's navel with the centre of the underworld."[11]

This should be familiar territory to the reader by now and hopefully you can guess what comes next. "Very much like the ancient Egyptians," I reported in *Heaven's Mirror,* the Maya regarded the Milky Way as a particularly important feature of the heavens:

> They conceived of it as the road that led to their netherworld, *Xibalba* which, in common with other Central American peoples, they located in the sky.[12]

I also commented on Mexican traditions of the postmortem journey of the soul in which the deceased, just as in the ancient Egyptian Duat, would face a series of ordeals and "a final judgment in the terrifying presence of the death god."[13] Noting numerous other striking similarities in beliefs and symbolism around the mysteries of death and the afterlife, I concluded:

> In Egypt, as amongst the Maya, the stellar context involves Orion and the Milky Way. In Egypt as in Mexico a journey through the netherworld must be undertaken by the deceased. In Egypt as in Mexico religious teachings assert that life is our opportunity to prepare for this journey—an opportunity that should under no circumstances be wasted.[14]

Such correspondences led me to speculate that both ancient Egypt and ancient Mexico had shared in the legacy of an even more ancient cosmological religion, "wrapped up in sophisticated astronomical observations" and specifically focused on the afterlife journey of the soul. Neither Egypt nor Mexico had originated this

religion, nor had they transmitted it directly to one another. Rather each of them had inherited it from a third, as yet unidentified, civilization.[15]

It was a hypothesis. What would help to strengthen it, and perhaps even confirm it, would be evidence of other civilizations with no direct relationship in which the same legacy could be identified.

This evidence, I submit, now exists in the astonishing proximity of the religious beliefs, iconography, and symbolism of the Mississippi Valley to the religious beliefs, iconography, and symbolism of ancient Egypt outlined in part 6. These deep structural connections are, in my view, unexplainable by any means other than a shared legacy from a very ancient source—a source predating the separation of peoples when the Americas became isolated from the "Old World" by the rising oceans at the end of the Ice Age.

Let's take a brief look at the most ancient Native American book still in existence—the Dresden Codex, so called because it's kept in a museum in the German city of Dresden.[16]

It is a thought-provoking document for many reasons, not least the scientific character of the mathematics and astronomy incorporated in it. For example, the eminent Mayanist Sylvanus Griswold Morley noticed that on pages 51–58 of the codex, "405 revolutions of the moon are set down; and so accurate are the calculations involved that although they cover a period of nearly 33 years, the total number of days recorded (11,959) is only 89/100th of a day less than the true time computed by the best modern method."[17]

Also of great interest is the way that numbers set out in the Dresden Codex keep on getting longer and longer in the final pages:

> Until, in the so-called "serpent numbers," a grand total of nearly twelve and a half million days (thirty-four thousand years) is recorded again and again …

Finally, on the last page of the manuscript, is depicted the Destruction of the World, for which these highest numbers have paved the way.

Here we see the rain serpent, stretching across the sky, belching forth torrents of water. Great streams of water gush from the sun and the moon. The old goddess, she of the tiger claws and forbidding aspect, the malevolent patroness of floods and cloudbursts, overturns the bowl of the heavenly waters. The crossbones, dread emblem of death, decorate her skirt, and a writhing snake crowns her head.

Below, with downward-pointing spears symbolic of the universal destruction, the black god stalks abroad, a screeching bird raging on his fearsome head. Here, indeed, is portrayed with graphic touch the final all-engulfing cataclysm.[18]

Dresden Codex—the final page of the manuscript depicting the Destruction of the World. PHOTO OF PUBLIC DOMAIN ARTWORK: THE SAXON STATE LIBRARY [MSCR.DRESD.R.310].

It's curious—this mixture of science, cataclysm, and time. "Calculations far into the past or lesser probings of the future occur in many a Maya hieroglyphic text," notes archaeologist J. Eric S. Thompson:

> On [a] stela at Quiriga a date … over 90 million years ago is computed; on another a date over 300 million years before that is given. … These are actual computations, stating correctly day and month positions, and are comparable to calculations in our calendar giving the month positions on which Easter would have fallen at equivalent distances in the past. The brain reels at such astronomical figures, yet these reckonings were of sufficient frequency and importance to require special hieroglyphs for their transcription.[19]

All that can be said for sure is that embedded in the Mayan material, together with core religious beliefs very similar to those of

the ancient Egyptians—and now we know very similar to those of the ancient Mississippians also—is evidence of an interest in complex scientific calculations and immense expanses of time. I'm reminded of the passage from the *Ancient Egyptian Book of the Dead,* quoted in chapter 3, in which the Sun God Ra is praised for his travels through the "untold spaces" of the cosmic void "requiring millions and hundreds of thousands of years to pass over"—a chronology on a similar order to the Mayan scheme of things but, one would have thought, irrelevant to the concerns of agricultural societies. And the same goes for the immense geometrical mounds and enclosures of the ancient Egyptian Duat that are matched by the immense geometrical mounds and enclosures of the Hopewell of Ohio and the immense geometrical mounds and enclosures now emerging from the Amazon rainforest.

What the evidence suggests to me is that something extraordinary, something that the theories of mainstream archaeology cannot account for, was going on behind the scenes of

prehistory. All the indications are that Mexico, with its ancient tradition of literacy, was once a vast archive of the "antiquities and sciences" of former times and that the records the Spaniards destroyed in their zealous stupidity may have been as integral to the memory of humanity as the library of Alexandria. I think it is very possible, had the Mayan documents survived in sufficient quantities, that they would have shed light on the mystery of the lost common source of inspiration that appears to have kick-started civilizations in both the Old World and the New.

In the event, however, out of the tens of thousands of Mayan codices in existence in 1519 just **four** are still with us in the twenty-first century.[20]

After the Spanish conquest of Mexico, the conquest of Peru soon followed, again accompanied by the destruction of a high civilization—in this case the Inca—in the lineage of the First Americans. Though they had their *quipus* (a means of

communication and calculation using knotted string), the Inca were not a literate people like the Maya and thus possessed no documents for the Spaniards to destroy. As in Mexico, however, a sustained and determined effort was made to stamp out local religions and traditions and replace them with Roman Catholicism. Once again, this effort, officially sanctioned as "the extirpation of idolatry," called for cultural destruction on a grand scale, calculated to erase the memory banks of the population within a generation or two and replace their deep connection to their own past with the new dispensation.[21]

The Spaniards did venture into North America, of course—most eccentrically and unproductively in the form of an expedition led by Hernando de Soto, who landed in Florida in 1539 with more than 600 men.[22] After losing half his force along the way, de Soto spent the next 3 years until his own death in Louisiana in 1542 wandering all over the southeast and deep south of what is now the United

States, passing many of the great mound sites, and engaging in ruinous pitched battles with the locals. The most disastrous by-product of his visit, however, may have been smallpox, which his expeditionaries appear to have brought with them and which afterward devastated the indigenous population of the region.[23]

We may say, therefore, that from its earliest days the European conquest of the Americas was an agent of chaos, genocide, and cultural extinction for Native Americans and that this, too, was very much part of the process that wiped down the "crime scene," leaving us scratching our heads trying to make sense of the few clues left behind.

WIPING DOWN THE CRIME SCENE: WITNESS AMNESIA

THE EXTIRPATION OF VITAL EVIDENCE concerning the past of our species across huge swaths of the Americas was by no means limited to the effects of the Younger Dryas cataclysm, or to the subsequent much later cataclysms of militant Christianity and smallpox. Once the calamitous century of the initial encounters was over, a more insidious but equally deadly process of erosion began to grind down the little of the past that the previous millennia had spared. During the sixteenth century, apart from a few failed raids like de Soto's, North America was not much affected, but from the early seventeenth century onward, following the first European settlements in Virginia and Massachusetts, everything changed.

Thereafter, with monotonous, depressing regularity, either for their agricultural potential or for the prospect of gold, lands held sacred in the possession of Native American tribes for eons were snatched from them and their inhabitants driven off or slaughtered. These murderous land grabs only accelerated and became crueler as

the seventeenth century was followed by the eighteenth and as the eighteenth century rolled on into the nineteenth:

> From the time Europeans arrived on American shores, the frontier—the edge territory between white man's civilization and the untamed natural world—became a shared space of vast, clashing differences that led the U.S. government to authorize over 1,500 wars, attacks and raids on Indians, the most of any country in the world against its indigenous people. By the close of the Indian Wars in the late 19th century, fewer than 238,000 indigenous people remained, a sharp decline from the estimated 5 million to 15 million living in North America when Columbus arrived in 1492.[24]

In his important book *American Holocaust,* which documents the genocide, David Stannard, professor of American studies at the University of Hawaii, reminds us that scholarly estimates of the size of the pre-Columbian population of the Americas have changed radically in recent decades:

> In the 1940s and 1950s conventional wisdom held that the population of the entire hemisphere in 1492 was little more than 8 million—with fewer than 1 million

people living in the region north of present-day Mexico. Today few serious students of the subject would put the hemispheric figure at less than 75 million to 100 million (with approximately 8 million to 12 million north of Mexico), while one of the most well-regarded specialists in the field recently has suggested that a more accurate estimate would be around 145 million for the hemisphere as a whole and about 18 million for the area north of Mexico.[25]

Gone forever—and good riddance—is the long-held myth of North America as a pristine wilderness inhabited by a handful of "savages" when the first settlers from Europe arrived.

Nothing could be further from the truth.

The new picture, derived from a combination of archaeology, ethnography, genetics, and the reports of early travelers, is of a busy and boisterous continent with a growing population, widespread trade networks, and abundant resources.

Like the Inca, though lacking their centralized, structured state, the Native North Americans were people of the spoken word who carried their wisdom and their records not in documents but in oral traditions carefully nurtured, memorized, and passed on from

generation to generation. Today we grope in the dark when we try to discover what they knew, what they taught, and what they had preserved from primeval times because the genocide inflicted upon them radically disrupted and in many cases completely destroyed the normal intergenerational processes of transmission.

The accounts of the genocide are repulsive; reading the details today leaves one stunned, nauseated, and horrified. Professor Stannard holds nothing back in *American Holocaust,* a comprehensive record of European wickedness in the Americas, but it's not my purpose here to zoom in on the many massacres and betrayals he describes, or to dwell on the horrific symptoms of the imported infectious diseases that killed indigenous people by the millions.

The point I wish to make is simply that **this happened**, that it was both physical and cultural genocide, and that its long-term effect on the descendants of those who survived was to sever their

connections to the traditions, wisdom, memories, and even the languages of their ancestors.

Lest there be any doubt that cultural annihilation was always the purpose, hand in hand with the continent-wide theft of land, we need only consider the shameful history of the so-called Indian boarding schools. The National Native American Boarding School Healing Coalition sets out the bare facts:

> Between 1869 and the 1960s, hundreds of thousands of Native American children were removed from their homes and families and placed in boarding schools operated by the federal government and the churches. Though we don't know how many children were taken in total, by 1926, the Indian Office estimated that nearly 83% of Indian children were attending boarding schools. The U.S. Native children that were voluntarily or forcibly removed from their homes, families, and communities during this time were taken to schools far away where they were punished for speaking their native language, banned from acting in any way that might be seen to represent traditional or cultural practices, stripped of traditional clothing, hair and personal belongings and behaviors reflective of their native culture.[26]

A founder and advocate of the boarding schools movement, US army captain Richard Henry Pratt, summarized the spirit of the whole enterprise in a speech in 1892:

> A great general has said that the only good Indian is a dead one. In a sense, I agree with the sentiment, but only in this: that all the Indian there is in the race should be dead. Kill the Indian in him and save the man.[27]

This, then, was an ethnically targeted brainwashing exercise on a gigantic scale—an exercise deliberately designed to make Native Americans forget their ancient heritage. For the purposes of our inquiry here, if it were indeed from North America that a lost civilization vanished, then not only has the crime scene been thoroughly wiped down but also—to extend the analogy—the principal witnesses have been badly beaten about the head and are suffering from amnesia.

WIPING DOWN THE CRIME SCENE: LAND GRABS

EVEN AS THE GENOCIDE AND imposed "unremembering" gathered pace during the nineteenth and twentieth centuries, a parallel force was also active removing many prominent physical traces—notably the great mounds and earthworks—that Native Americans of former ages had left. This parallel force was primarily greed for land, where the fate of the monuments was either to be plowed down for agriculture or demolished to make way for industry, housing, or commerce. Among the unknown unknowns of North American prehistory, therefore, is how many of the mounds and earthworks were *already* gone—plowed under, demolished, ransacked—before responsible and thorough surveyors began to investigate them from about the mid-nineteenth century onward.

Renowned among these early surveyors were Ephraim Squier and Edwin Davis, whose classic *Ancient Monuments of the Mississippi Valley,* the first-ever publication of the Smithsonian Institution, appeared in print in 1848. In their preface they note of the mounds and earthworks that:

> The importance of a complete and speedy examination of the whole field cannot be over-estimated. The operations of the elements, the shifting channels of the streams, the levelling hand of public improvement, and most efficient of all the slow but constant encroachments of agriculture, are fast destroying these monuments of ancient labor, breaking in upon their symmetry and obliterating their outlines. Thousands have already disappeared, or retain but slight and doubtful traces of their former proportions."[28]

One of the reasons that *Ancient Monuments* is still useful today is that it provides the locations of many important mounds and earthworks that no longer exist. In 2011, in a paper published in *American Antiquity,* Jarrod Burks and Robert Cooke looked into the specific case of Ohio, where Squier and Davis had reported

“approximately 88 earthwork sites” in 1848. Perhaps because of the fame brought to them by *Ancient Monuments,* 16 of these sites—18 percent of the total—are “now preserved whole or in part within parks.” Another 18 sites (20 percent) “are mostly or completely destroyed, with urban development and gravel mining being the primary destructive processes.” The remaining 54 sites (62 percent) are “now invisible at the surface.”[29]

So, to summarize, out of 88 Ohio sites put on record in 1848 by Squier and Davis, 54 are now “invisible,” 18 more are “destroyed,” and only 16 (just 18 percent of the total) are still in place–implying an effective loss of 82 percent or, in plain English, 82 out of every 100 sites.

What, then, are we to make of David J. Meltzer’s presumably authoritative introduction to the 150th anniversary reissue of *Ancient Monuments,* which informs us that Ohio’s Ross County

alone was estimated by Squier and Davis in 1848 to contain "one hundred enclosures and five hundred mounds"?[30]

If that's the correct figure, then all the other numbers change. Sixteen sites remaining out of 600 is quite a different matter from 16 out of 88 and amounts to a 97 percent loss.

On July 23, 2018, wanting to get to the bottom of this, I emailed Jarrod Burks, coauthor of the 2011 *Antiquity* paper.

His first point was to remind me that the focus in his paper was not on earthworks in Ohio in general but only on those "depicted in Squier and Davis—88 sites. There are many hundreds of earthwork sites (those with enclosures) in Ohio … and we keep finding more."

As to the specific issue of the discrepancy between Meltzer's figures and his own, Burks explained:

> I was counting actually sites with enclosures depicted in maps in Squier and Davis. This comes from individual maps of sites, like the map of High Bank Works, and from unique sites depicted on their composite maps of select areas—

like the area around Chillicothe. For example, they show the Steel Group site on that map but they do not have a separate, more detailed map of Steel.

So, when I say "enclosure site" I am referring to places with one through X enclosures. Hopewell Mound Group is one site though it has several enclosures. Cedar Bank is one site that has only one enclosure. Following this approach, Squier and Davis depict 88 sites with enclosures in their maps. There is no way there are 100 enclosure sites in Ross County, but there may be 100 enclosures. So far I have only found solid evidence for 37–38 enclosure sites in Ross County, and this includes some previously undocumented ones we have found in aerial photos and subsequently surveyed with geophysics. In fact, most of the 37–38 have been surveyed. … Still working on getting access to a few of them.

The Archaeological Atlas of Ohio (William C. Mills 1914) reports 586 enclosure sites in Ohio. Many of these are unconfirmed and/or lost since 1914, but we are working to find many of them. We have also found more not recorded in 1914. So, the total number of enclosure sites once in Ohio conservatively is 500–1000. It could be double or more.

I had also asked Burks if he knew where I might find estimates of the sort that he had made in Ohio for the Mississippi Valley as a whole—that is, how many mounds and earthworks remain and how many have been destroyed since the mid-nineteenth century.

“Getting numbers for all of the Mississippi Valley is a daunting task,” he replied, “especially if you include mounds. There are/were many tens of thousands of mounds in the eastern US. You might start by contacting the state historic preservation office in each state.”

I was surprised that no archaeologist had yet done this basic legwork and that there was no authoritative volume or paper I could immediately be referred to—since presumably at least some measure of what has been lost must be fundamental to the correct assessment of what remains. I therefore asked for confirmation that I would be representing the facts correctly if I were to “tell my readers that reliable figures simply don’t exist for the whole Mississippi Valley and that no archaeologist or other researcher has ever attempted to estimate what has been lost across the whole region as a result of agricultural, industrial and other encroachments since the mid-19th century.”

Burks replied immediately:

> That's a pretty broad statement. I don't know that "no archaeologist or other researcher" has done that. George Milner produced a book on mounds 10–15 years ago. Perhaps he makes a statement like that? But I doubt it given how nearly impossible it is to track that. For example, in Ohio we say there once were 10,000+ mounds (a 19th century estimate). The state has only about 2000 that have been recorded in the modern list. Many have been destroyed but we are constantly recording new ones, many of which likely were known in the 19th century. So, hard to put numbers to it, but it's true that many, many mounds have been destroyed.[31]

George R. Milner's book *The Moundbuilders* arrived on my desk the following morning, but contains no information that adds significantly to what we already know about the loss of mound sites since the nineteenth century. Nor was David Meltzer able to come up with a figure, observing in reply to my query that "200+ years ago there was no systematic count of these earthworks, so we have no idea what the denominator should be for the equation of sites still extant / sites once present."[32]

The good news is that sites are still being discovered (or probably more often rediscovered). The bad news is that it may be "nearly impossible" to track the "many, many" that have been destroyed.

All estimates are guesswork, but I suspect that Gregory Little's diligent and thoroughly researched *Illustrated Encyclopedia of Native American Mounds and Earthworks,* though not a mainstream source, is close to the truth when it calculates that 90 percent of all the Mississippi Valley sites have been destroyed and that only 10 percent remain.[33]

And lest such a ballpark figure sound too extreme let us remember, despite the conservationist rhetoric of our supposedly more enlightened age, that mounds and earthworks are **still** being destroyed in the twenty-first century.

Walmart seems to have a penchant for this. In 2001, for example, the Fenton Mounds, a pair of Native American burial mounds in Fenton, Missouri, dated between AD 600 and 1400, were leveled to

make way for a Walmart Supercenter.[34] A few years later, in August 2009, city leaders in Oxford, Alabama, approved the destruction of a 1,500-year-old Native American ceremonial mound because, once again, Walmart wanted the location.[35] The developers began work, removing a substantial section of the mound, but a month later, following a public outcry, the media reported a change of heart:

> A re-consecration ceremony was held this past weekend at a damaged Indian mound in Oxford, Alabama. … The 1,500-year-old sacred and archaeologically significant site was partially demolished during a taxpayer-funded economic development project, with the excavated dirt to be used as fill for construction of a Sam's Club, a retail warehouse store owned by Walmart.[36]

What's indicated here is a state of mind across a segment of the American population that sees no inherent cultural value in antiquities and believes firmly that the past has nothing to teach us that outweighs our need for yet another large store. I don't mean to

pick on Americans. Exactly the same state of mind exists in Britain, France, China, and virtually every other country in the world.

By encouraging disdain for the past, however, the cost of such an outlook in fast-growing America since the nineteenth century has been the mass destruction of ancient sites, notably including the loss of many thousands of the mounds and earthworks of the Mississippi Valley. Exactly how **many** thousands will probably remain a "known unknown" forever. But whatever the true number, it represents yet another level at which the "crime scene" of ancient America has been wiped down.

WIPING DOWN THE CRIME SCENE: BAD ARCHAEOLOGY

THOSE OF US WHO EXPLORE alternative approaches to prehistory are frequently accused by archaeologists and their friends in the media of being "pseudoscientists." What, however, could provide a better example of truly damaging and misleading pseudoscience than the "Clovis First" paradigm that ruled American archaeology for more than 40 years with a wholly false doctrine taught to generations of students as fact? We saw in part 2 how this pseudoscientific theory of the peopling of the Americas, based on wildly irresponsible extrapolations from tiny data sets yet promoted by a powerful lobby of leading archaeologists, was, for a very long while, held to be so **right**, so **correct,** and so self-evidently **true** that any researchers who questioned it faced ridicule, ostracism by their colleagues, withdrawal of research grants, and ruined careers.

This kind of behavior in scholarship not only fails to serve the truth but actively undermines the search for it and, as such, has also played a significant part in wiping down the ancient American

"crime scene." How much was missed, and has since been built over or plowed under during those 40-plus years when it was considered heresy to investigate deposits older than Clovis for signs of a human presence? And how much wide-ranging and open-minded investigation into the true age and origins of the First Americans was postponed or entirely nipped in the bud at the same time? How many unexplored avenues do we owe to the absurd Clovis First dogma? How many doors did it close on how many promising initiatives? And how much public interest and curiosity in other possibilities did the pat answer "Clovis First" snuff out?

It's been the same problem with another archaeological theory—the so-called Pleistocene Overkill theory whereby all the megafauna were supposedly slaughtered by those same ruthlessly efficient Clovis hunters (who nevertheless proved insufficiently ruthless and efficient to survive the Younger Dryas onset). I've not gone into the details here—just too much academic bickering to impose upon the reader—but this theory, also, though not yet quite as dead as

"Clovis First" (since it still has some advocates), has been "conclusively rejected" by increasing numbers of scholars in recent years.[37]

Although he lists archaeology and North American prehistory among his fields of study, Terry Jones, professor and department chair of social sciences at California Polytechnic State University, brings the benefit of an outsider's perspective when he observes:

> The Paleoindian Period (often defined as anything pre-dating 10,000 cal BP [i.e., 10,000 years ago]) is basically the domain of a small number of specialists who interpret it for everyone else. For the last 40 years these researchers have focused their interpretations on two closely related and intricately inter-connected theories: Clovis First and Pleistocene Overkill. During this time, Paleoindian research has also deteriorated into an intense if not hostile debate over these two competing but not mutually exclusive ideas. Much of the energy in this protracted dialog has been devoted to debunking or nullifying alternative hypotheses associated with these two theories. While this is standard practice in science, **the degree to which the Paleoindian debate has been focused on deconstruction of opposing ideas rather than development of empirically solid, new ones has been extreme.**[38]

This, too, is part of the wiping down of the North American "crime-scene." Some limited but perhaps case-breaking clues to what really happened here around 12,800 years ago may remain. To the extent that the "detectives" involved in this paleo-CSI are more interested in ego contests than the truth, however, the truth may take a very long time to emerge.

Besides, there's another aspect to the problem in the visceral resistance shown by a number of influential scholars to **any** suggestion that a cataclysm of **any** kind ushered in the onset of the Younger Dryas. These scholars themselves apparently believe, and so far as possible would like us to believe, that nothing really bad happened at the Younger Dryas Boundary—that, yes, there were extinctions, and yes, Clovis abruptly disappeared, but there is no mystery here, just a fairly routine and predictable combination of overkill and climate change. Terry Jones, a member of the Comet Research Group, refutes such reasoning at length in a paper in the

Journal of Cosmology[39] and strongly advocates the Younger Dryas Impact Hypothesis, which, he points out:

> has been introduced into North American archaeology at a time when the failings of the overkill model have been acknowledged by the majority of researchers. … Alternatives to overkill have long been focused on climate change associated with the Pleistocene-Holocene transition, but this idea has always been problematic because large animal populations had lived through previous interglacials without massive die offs. Something different seems to have happened in North America at the end of the Pleistocene, and that something was not a blitzkrieg by human hunters.
>
> An extraterrestrial impact event seems to provide an exceptionally parsimonious explanation for a variety of patterns in the archaeological and paleontological records that are not accommodated by overkill.[40]

IN THE CROSSHAIRS

ANOTHER "PATTERN" FOR WHICH THE YDIH provides a parsimonious explanation is formed by the deep structural connections demonstrated in part 6 between the spiritual beliefs and "astro-geometry" of the ancient Egyptians and the spiritual beliefs and "astro-geometry" of the ancient Mississippians. The case I've sought to make throughout this book is that these two river valley civilizations were among several in the ancient world that inherited a shared legacy of knowledge and ideas from an earlier, "lost" civilization. Regardless of when that legacy was activated, or how its integrity was preserved over the many generations before it first manifests in the archaeological record, I've argued that its origins go back to the last Ice Age and predate the physical separation of the Old World from the New. The additional element of parsimony that the YDIH brings to this case, therefore, comes in the form of the impact-related earth changes documented at the Younger Dryas Boundary. These involved not only radical climate change and sea-

level rise, not only global wildfires and a subsequent "impact winter," not only mass extinctions of large animal species and the abrupt disappearance of Clovis but also, in the combination of all these ills, a **realistic mechanism** deadly, substantial, drastic, and sustained enough to devastate and destroy even a technologically advanced civilization.

If a disaster on such a scale were to recur today, our civilization would not survive it and all our works would crumble into ruin within a few millennia. I therefore see no reason in principle why the global cataclysm indicated in the Greenland ice cores that we know unfolded at the onset of the Younger Dryas between 12,836 and 12,815 years ago should not have brought an end to that previous high civilization of the "Early Primeval Age of the Gods"—the civilization of the "Ancient Ones," the civilization of the "First Time"—that is recalled with awe in myths and traditions from all around the world.

Although there were significant impacts in Greenland, the Pacific, South America, Antarctica, Europe, and the Near East, the evidence points conclusively toward North America as the epicenter of the Younger Dryas cataclysm and to the North American ice cap specifically as the target for the largest swarm of comet fragments.

Almost by default, therefore, although the crime scene has been brutally compromised, and although the lead investigators have a priori ruled the possibility out, North America is the most likely location on earth where a civilization could have thrived during the Ice Age and been destroyed at the onset of the Younger Dryas.

Not only that. If the Edfu Texts contain a record of these events, as I have proposed, then we should take seriously the message they transmit, that there were survivors of the cataclysm who made it their mission to bring about:

> The resurrection of the former world of the gods. … The re-creation of a destroyed world. [41]

These survivors are said to have wandered the earth, setting out and building sacred mounds wherever they went, and teaching the fundamentals of civilization, including religion, agriculture, and architecture. In *Heaven's Mirror* (1998) I speculate that it is perhaps as a result of their efforts that we find the basic doctrines of the same sky-ground religion, essentially the same beliefs about the afterlife journey of the soul, and the same architectural and geometrical principles as far afield as South America, Easter Island, Micronesia, Japan, Cambodia, India, Mesopotamia, Egypt, Malta, Spain, and Britain.

Turtle Island.

Because the earth is a sphere it is technically true that any point could be selected as central to the radiation of these ideas. As I've been researching this book, however, my perspective has changed and what I see now when I look at the globe are two great oceans, the Atlantic on one side and the Pacific on the other, with the longitudinal sprawl of the Americas running between them and forming, literally, the center of the world.

North America, we now know, was scoured, burned, frozen, and flooded by the Younger Dryas cataclysm and has since been systematically ransacked by Western greed and poorly served by Western scholars. Although less severely affected by the impacts of the Younger Dryas, South America also suffered all these assaults. And just as in North America, where millions of square kilometers have been rendered opaque to archaeologists because the "crime scene" has been so successfully wiped down, so, too, in South America we have 5 million square kilometers of the Amazon

rainforest that remain almost as unfamiliar to archaeology as the dark side of the moon.

The two great continents of the Americas are not separate and have never been separate, either before or after the Ice Age. North America is in itself a **huge** landmass, with vast regions where little or no archaeology has ever been done. If a lost civilization was here in the Ice Age we cannot rule out the possibility that its physical artifacts and remains might yet be found. Given that many Native American cultures share myths of the destruction of a former world, a subterranean interval in the womb of the earth, and then an emergence into our present world,[42] the most fruitful direction in which to look might be for places of shelter and refuge deep underground.

The other region with immense scope for further inquiry is the Amazon. When North America passed through that cataclysmic episode between 12,836 and 12,815 years ago, South America

would have seemed like the obvious place for survivors of the lost civilization to take refuge. This would have been all the more likely if, as I speculate, South American hunter-gatherers had already been "adopted" and gifted with useful know-how in much the same way that Clovis appears to have been.

Even if the human story is badly broken in North America, with big pieces obviously missing, it's possible that a more complete account awaits us in the Amazon.

I can hear the mainstream protests already: "The whole idea of a lost civilization is nonsense!" "Pseudoscience!" "A waste of research funds!"

But the mainstream, which has wasted research funds for decades fruitlessly pursuing nonsensical fantasies like "Clovis First," should have learned by now to keep an open mind.

30

THE KEY TO EARTH'S LOST CIVILIZATION

SINCE I BEGAN WORK ON *Fingerprints of the Gods* in the early 1990s I've been an advocate for the unorthodox notion that an advanced civilization flourished during the Ice Age and was destroyed in the cataclysms that brought the Ice Age to an end. I've written my

books to make the case and provide supporting evidence for this possibility. I've suggested a number of locations that I feel would be worth looking into—including, most controversially, Antarctica—and I invested nearly 10 years of my life in arduous and sometimes highly risky scuba-diving adventures searching for man-made structures submerged by rising sea levels at the end of the Ice Age.

So I've walked the walk, but it's been a bit like tracking the Invisible Man. There are signs of his presence everywhere—he has touched this, he has reshaped that, this was how he did mathematics, these were his beliefs—but the Man himself remains concealed. There's not even the option to guess the appearance and character of the lost civilization by wrapping its face in bandages like the hero of the H. G. Wells novel. It's much more elusive. Physical traces that might point to its homeland have either been so completely demolished or so thoroughly hidden from view that they are extremely difficult to find, especially so by an archaeological

community already preconvinced of their nonexistence and therefore unwilling to look for them.

What's tantalizing, however, is that the influence of the lost civilization declares itself repeatedly in the commonalities shared by supposedly unconnected cultures all around the ancient world. The deeper you dig, the more obvious it becomes that they did not get these shared features from one another but from a remote common ancestor of them all. We see only the effects and modes of expression of that inheritance, not its source, and all searches for the key to the mystery have thus far been in vain.

My proposal, simply, is that America offers us that key, and that it does so because of the unique circumstances of its prehistory. Unlike the interconnected landmasses of Africa and Eurasia, and unlike Australia, which was relatively accessible by sea from the extreme southeast of Asia, we've seen that the Americas were isolated during much of the Ice Age—a geological epoch that lasted, let us not forget, from around 2.6 million years ago until

around 12,000 years ago.[1] In this long geological epoch, however, there were several periods of temporary climate warming when the macro-continent of North, Central, and South America would have become accessible. Two of these periods of enhanced accessibility occurred within the known time frame of past human migrations and it is the most recent (the so-called Bølling-Allerød interstadial, dated from around 14,700 years ago to around 12,800 years ago[2]) that archaeologists focused their attention on for far too long in their attempts to reconstruct the true story of the peopling of the Americas. I think paleontologist Tom Deméré is on to something HUGE with this plea that he makes to the scientific community, discussed in chapter 5:

> what we're saying to everyone, really, is open your mind to the possibility that instead of the peopling of the Americas being associated with the last deglaciation event [the Bølling-Allerød interstadial] … what we should actually be looking at is the deglaciation event *before that*—between 140,000 and 120,000 years ago.[3] You get the same sort of scenario with a landbridge and ice sheets retreating and

you get that same sweet spot between really low sea levels and a blockage by ice sheets, and ice sheets gone and the flooding of the landbridge.

Deméré's suggestion still remains unpalatable to some archaeologists, yet it satisfactorily explains the growing mass of evidence that the Americas were peopled many tens of millennia **before** the Bølling-Allerød interstadial (see chapters 4, 5, and 6). More than that, this hitherto unimagined possibility of a very old (rather than very young) human presence in the New World helps make sense of the complex genetic heritage of Native Americans—explored in chapters 7, 8, 9, and 10. Embedded in this evidence is the mind-dilating mystery of the strong Australasian DNA signal present among certain isolated tribes of the Amazon rainforest. It's a recent discovery and highly significant because it raises the possibility, as discussed in chapter 10, that transoceanic voyages were being undertaken more than 12,000 years ago—a notion hitherto considered impossible by archaeologists. If the technology and geodetic know-how to make such voyages were indeed present

in the world during the Ice Age (see appendix 2), then we are, by definition, dealing with a lost civilization.

And this of course brings us to the mystery of the Amazon itself. Was it in some way "touched" by a civilization advanced enough to have explored all the world's oceans during the Ice Age? And if so, has any evidence of that influence remained? In chapters 11 through 17 I address these questions and present evidence that human settlement in the Amazon is extremely ancient, that great cities and large populations once flourished there, that ancient scientific knowledge of the properties of plants persists among Amazonian peoples to this day, that there was very early domestication of useful agricultural species, that the rainforest itself is an anthropocentric, cultivated, ordered "garden," and that a "miraculous" man-made soil—*terra preta*—was developed in the Amazon in deep antiquity, bringing fertility to otherwise agriculturally unproductive lands and imbued with astonishing powers of self-renewal that modern scientists marvel at and do not yet fully understand.

In parallel, and again a recent discovery, is the presence of gigantic geometrical earthworks and astronomically aligned stone circles in the Amazon. I show in chapters 15 and 16 that these remarkable structures share significant scientific “memes” with the henges and stone circles of the British Isles and with other works of ancient, sacred architecture all around the world. I suggest this is not coincidental, nor due to the direct influence of one region upon the other, but that it bears witness instead to a shared legacy, a shared package of sacred geometrical and astronomical blueprints, inherited in both these widely separated regions from an earlier civilization lost to history.

Chapter 17 returns to the theme of plant gnosis in the Amazon, looks into the mysteries of the vision-inducing brew ayahuasca, and hears the words of ayahuasca shamans, who see geometric patterns as portals to other realms of existence—specifically to the afterlife realm or land of the dead.

Indeed, the very name ayahuasca means “Vine of the Dead” or “Vine of Souls.”

In chapters 18 through 21 I explore the deep structural similarities between the Amazonian geoglyphs and the great mounds and geometric earthworks of the Mississippi Valley. It’s not simply a matter of appearances. Mississippian religious ideas, like those of the ancient Amazon, were focused on the mystery of death and on certain very specific notions concerning the afterlife journey—and destination—of the soul.

I show that these notions are extremely ancient in North America and trace them back into remote prehistory through a succession of sites such as Poverty Point, Lower Jackson Mound, Watson Brake, and Conly, where the same astronomical and geometric “memes” consistently reappear.

Chapter 22 recounts my own close encounter, as a teenager, with the mystery of death and how my interest in this mystery was reawakened when I first studied the *Ancient Egyptian Book of the*

Dead many years later. I describe the Duat, the afterlife realm as depicted by the ancient Egyptians, and the soul's ascent to the constellation Orion and thence through a portal, or "doorway in the sky," to a journey along the Milky Way. And I describe my astonishment, on a visit to Moundville in Alabama, to learn that what appeared to be exactly the same system of ideas involving Orion, the Milky Way, and a journey to the realm of the dead was also a predominant motif of the Mississippian civilization.

In chapters 23 and 24 I offer a detailed investigation of Mississippian and ancient Egyptian ideas concerning the afterlife journey—and destiny—of the soul. The parallels, in my view, are too remarkable, too many, and too detailed to be explained by coincidence. Nor do they point to a direct influence of ancient Egypt on the Mississippian civilization or vice versa—chronologically impossible because they existed at completely different times. As with the geoglyphs, what is indicated here is a legacy of ideas

inherited in both these widely separated areas from a remote common source as yet unidentified by archaeologists.

Could that common source, that lost civilization, have had its Ice Age homeland in North America?

I set out to answer that question in chapters 25 through 27, where I present detailed evidence of the immense cataclysm that shook the earth around 12,800 years ago—a cataclysm that was global in its consequences but that had its epicenter in North America.

For more than two decades, while eliciting patronizing sneers and sometimes extreme hostility from the scholarly establishment, I've consistently maintained that "my" proposed lost civilization was erased from history in a global cataclysm somewhere around 12,500 years ago. At first, the very suggestion that there had been a cataclysm at all, and that it might be of immense relevance to the past of our species, was singled out for particular ridicule, but then came a mass of new evidence that shifted the balance of the argument decisively. Within the resolution limits of radiocarbon

calibration (where at such a remove margins of error of two or three centuries are the norm), the date for the cataclysm of around 12,500 years ago that I first put into print in 1995 is extremely close to the date of around 12,800 years ago that scientists have much more recently established for the impacts of multiple fragments of the giant disintegrating comet that precipitated the catastrophic onset of the Younger Dryas.

It seems, then, that there **was** a global cataclysm—and at more or less the very time I had proposed.

But so what? Just because I got lucky on the timing of the cataclysm doesn't mean I was right that it wiped out an advanced prehistoric civilization. Show us its homeland, the skeptics therefore quite reasonably demanded.

This book is, in part, my response to that challenge.

MORE THAN ENOUGH TIME FOR A CIVILIZATION TO DEVELOP

HITHERTO ICE AGE NORTH AMERICA has been seen as an uninhabited archaeological vacuum, awaiting the arrival of culture with the first human migrations across the Bering land bridge. Because of the entrenched belief that these migrations came relatively late, at a time when our ancestors had been "out of Africa" and already established in Europe, Asia, and Australia for tens of millennia, there was no reason to seek the origins of civilization in such an unlikely place. In the light of the new evidence on the very ancient peopling of the Americas that we have explored, however, and of the Younger Dryas Impact Hypothesis, I suggest that the balance of the argument has once again shifted decisively. Whereas before it was reasonable to ask why the homeland of the lost civilization **should** have been in North America, the more pertinent question

today is why should it **not** have been in North America—the continent that suffered more severe disruption than any other and that had so much of its rich prehistory pounded, pulverized, and swept away by the devastating events of 12,800 years ago.

Not for the first time in this investigation I'm reminded of what Tom Deméré told me when he showed me the finds from the Cerutti Mastodon Site at The Nat in San Diego:

> If you go to a place and you absolutely rule out in advance that humans were there 130,000 years ago, then you're clearly not going to find evidence that they were. But if you go with an open mind and dig deep enough in the right places, then who knows what you might turn up.

Tom was talking about the conclusion that he and his team had reached concerning the mastodon remains now on show in his museum, namely, as we saw in chapter 5, that they had been scavenged by human beings 130,000 years ago. His point was that an ingrained perception that no humans could have reached the

Americas by such an early date had for too long inhibited investigation of alternative scenarios—and that perhaps much more evidence of a very early presence would be found if a more targeted and determined search were made.

Using rocks intelligently to smash mastodon femurs so that the marrow can be extracted is certainly not the work of a lost civilization of any kind. It is the work of ancestral humans, perhaps anatomically modern, perhaps not. But the real importance of the Cerutti Mastodon Site is that it provides the first solid evidence—solid enough to make it into the pages of *Nature*—of a truly **ancient** human occupation of the New World. If humans were in North America 130,000 years ago (more than twice as long as the span of the known human presence in Europe), that gives them **117,000 years** to have evolved a high civilization before the Younger Dryas cataclysm struck.

And why should they **not** have done so? What is particularly special or inviolable about the so-called march toward civilization

that **seems** to begin with the onset of the Neolithic at the end of the Younger Dryas? Why did it happen then and not before? Why shouldn't there have been an earlier "march towards civilization" that began with an earlier peopling of the Americas—not with the last deglaciation event but, as Tom Deméré suggested, with "the deglaciation event *before that,* between 140,000 and 120,000 years ago?"

Thereafter, until the next episode of deglaciation (the Bølling-Allerød interstadial) in the 2,000 years immediately preceding the Younger Dryas, all scholars agree that the vast landmass of the Americas, straddling half the globe, was cut off from the rest of the world by the Atlantic and Pacific Oceans and by mountains of ice. Migrants from Asia, even when Beringia was accessible, could not get in. But for those humans who were already south of the ice cap 120,000 years ago, the Americas must have been a paradise, safe from incursions by any other peoples and blessed with an astonishing abundance and variety of natural resources. The New

World offered conditions utterly different from those available on any other continent, so I see no reason why the very first of the First Americans should not also have followed a radically different path from other humans—a path that more rapidly veered away from hunting and gathering and that led ultimately to the emergence of a precociously early civilization.

MYSTERIOUS POWERS

IF THE YOUNGER DRYAS EARTH changes wiped a prehistoric civilization from the record, then can anything useful ever be said about the character of that civilization?

Thus far (extrapolating from the belief systems of its descendants) I've suggested that its spirituality must have involved profound explorations of the mystery of death. I've suggested that

accurate ancient maps depicting the earth as it looked during the Ice Age imply that it had developed a level of maritime technology at least as advanced as that possessed by European seafarers in the late eighteenth century. I've suggested that it had mastered sophisticated geometry and astronomy. I've also suggested that such a "lost" civilization, maturing in isolation for tens of thousands of years in North America, might have taken a very different path from our own and might have developed technologies that archaeologists would be unable to recognize because they operated on principles or manipulated forces unknown to modern science.

In his 1920 study *The Interpretation of Radium,* Nobel Prize winner Frederick Soddy, one of the pioneers of nuclear physics, speculated as to the former existence of "a wholly unknown and unsuspected ancient civilization of which all other relic has disappeared."[4] He drew attention to the seemingly limitless stores of nuclear energy that were in his time understood to be possessed by

certain elements such as radium and compared these to the fabulous "philosopher's stone" credited in ancient traditions with mysterious powers of transmutation and regeneration. The similarity, he felt, was no coincidence but "an echo from one of many previous epochs in the unrecorded history of the world"[5]:

> Can we not read into [such traditions] … justification for the belief that some former forgotten race of men attained not only to the knowledge we have so recently won, but also to the power that is not yet ours? Science has reconstructed the story of the past as one of a continuous Ascent of Man to the present-day level of his powers. In face of the circumstantial evidence existing of this steady upward progress of the race, the traditional view of the Fall of Man from a higher former state has come to be more and more difficult to understand. From our new standpoint the two points of view are by no means so irreconcilable as they appeared. A race which could transmute matter would have little need to earn its bread by the sweat of its brow. If we can judge from what our engineers accomplish with their comparatively restricted supplies of energy, such a race could transform a desert continent, thaw the frozen poles and make the whole world one smiling Garden of Eden. Possibly they could even explore the outer realms of space. … The legend of the Fall of Man … may be all that has survived of such a time before, for some unknown reason, the whole world was plunged

> back again under the undisputed sway of Nature, to begin once more its upward toilsome journey through the ages.[6]

In the 2020s (as would not have been the case in the 1920s) there's a good chance archaeologists would recognize an ancient technology designed to exploit nuclear power—and if they didn't, they would certainly be able to call in someone who did. This is because our own science has now advanced to a level where nuclear power is familiar to us. By contrast, Soddy's imagining of a lost high civilization of prehistoric antiquity that had fully penetrated the mysteries of the atom was written in the infancy of our risky dance with nukes—25 years before Hiroshima and Nagasaki and 35 years before the first nuclear power stations came online. A man of his time, therefore, when the almost magical potential of the new technology was becoming apparent but when its downsides were largely unknown, Soddy was all idealism. He could not have anticipated that the immense power of the atom, once fully

harnessed, would **never** be used to transform deserts, thaw the poles, or "make the whole world one smiling Garden of Eden," but would instead be deployed primarily for destructive purposes in the form of bombs and missiles, or for generating electricity at the long-term cost of poisoning the earth.

It is not necessarily the case that an earlier advanced civilization would have chosen the nuclear path so enthusiastically envisaged for it by Soddy. Nor must it inevitably have taken the path of leverage and mechanical advantage that historical civilizations have so doggedly trudged down for the past few thousand years on their way to the "machine age." I return again to my point. Since we are considering the possibility of "a wholly unknown and unsuspected civilization," we must also consider the possibility that it might have developed wholly unknown and unsuspected ways of manipulating matter and energy—which we might therefore be unable to recognize even if the evidence was right before our eyes.

Perhaps this is why modern archaeologists, trained to analyze ancient construction techniques through the reference frame of leverage and mechanical advantage, are unable to provide convincing explanations for a number of significant architectural problems of the ancient world.

Take the case of the massive beams, quarried from solid granite and weighing in the range of 70 tons each, incorporated into the core of Egypt's Great Pyramid in the series of "relieving chambers" stacked on top of the "King's Chamber" more than 50 meters (164 feet) above ground level. None of the wishful scholarly claims of megaliths somehow being slid "easily" into place on wooden rollers or on lubricated sand will work at this elevation. The fact of the matter is that the hulking beams forming the floors and ceilings of the relieving chambers are where they are—and that in order to get there they had to be lifted more than 50 meters into the air.

Or consider the Trilithon at Baalbek in Lebanon. Here, 20 feet above the ground, three immense ashlars weighing more than 800

tons each have been placed end to end within a wall of smaller blocks and so tightly fitted that the joints can barely be seen. It wouldn't be an easy feat even with twenty-first-century technology, so how could it possibly have been accomplished thousands of years ago?

Let us also not forget the marvel of Sacsayhuamán, perched on a ridge above the city of Cuzco in the Peruvian Andes at an altitude of 3,700 meters (12,140 feet). I have made the case in previous books that this supposed Inca site was already enormously ancient at the time of the Incas and has been wrongly attributed to them. Of particular relevance here are its colossal megalithic walls arranged in a series of zigzags and consisting of intricately formed polygonal blocks. No two blocks among the thousands at Sacsayhuamán are the same shape, some weigh more than 300 tons, and all are so tightly interlocked in all dimensions that the edge of a piece of paper cannot be slipped between the joints. Efforts by archaeologists to reconstruct how the work at Sacsayhuamán was

done have proved as ludicrous as a failed attempt in 1978 to build a midget-size scale model of the Great Pyramid—and once again this is because the only reference frame deemed acceptable, involving leverage and mechanical advantage, is unable to account for many of the more complex anomalies.

There is an answer, but it involves looking outside the box.

At the Great Pyramid, at Baalbek, and at Sacsayhuamán, as well as at numerous other mysterious sites (such as the almost unbelievable Kailasa Temple, hewn out of solid basalt at Ellora in the Indian state of Maharashtra), intriguing ancient traditions persist. These traditions speak of meditating sages, the use of certain plants, the focused attention of initiates, miraculously speedy workmanship, and special kinds of chanting or tones played on musical instruments in connection with the lifting, placing, softening, and moulding of megaliths. My guess, confronted by the global distribution of such narratives and by the stark reality of the sites themselves, is that we're dealing with the reverberations of an

ancient technology we don't understand, operating on principles that are utterly unknown to us.

Soddy, imagining a lost civilization that had developed machines powered by nuclear energy, speaks of exploring the outer realms of space and manipulating the global climate, but I beg to differ. I don't think nuclear power was involved and I don't think *machines* were involved, either. As I near the end of my life's work, and of this book, I suppose the time has come to say in print what I have already said many times in public Q&A sessions at my lectures, that in my view the science of the lost civilization was primarily focused upon what we now call *psi* capacities that deployed the enhanced and focused power of human consciousness to channel energies and to manipulate matter.

Although *psi* research is still undertaken at a small number of universities and institutes in Britain, the United States, and Russia, it is generally ridiculed and sidelined by modern mainstream scientists. This categorically does not mean that "there's nothing to

psi" but instead speaks volumes about the nature of science today, which is heavily dominated by materialist thinkers whose reference frame has little room for "spooky action at a distance." The phrase (which was Einstein's) refers specifically to the paradoxes of quantum entanglement but applies equally well to other alleged "non-local" phenomena such as:

1. telepathy ("communication from one person to another of thoughts, feelings, desires, etc, involving mechanisms that cannot be understood in terms of known scientific laws");
2. remote viewing ("the practice of seeking impressions about a distant or unseen target, purportedly using extrasensory perception");
3. telekinesis ("the movement of a body caused by thought or willpower without the application of physical force");
4. healing powers (whereby patients are successfully cured of

their ailments by nonphysical and nonmedical means)

My speculation, which I will not attempt to prove here or to support with evidence but merely present for consideration, is that the advanced civilization I see evolving in North America during the Ice Age had transcended leverage and mechanical advantage and learned to manipulate matter and energy by deploying powers of consciousness that we have not yet begun to tap. In action such powers would look something like magic even today and must have seemed supernatural and godlike to the hunter-gatherers who shared the Ice Age world with these mysterious adepts.

Keep in mind that we are talking about a Native American civilization growing to maturity at some point during the long interval between the scavenging of the Cerutti mastodon 130,000 years ago and the cataclysmic onset of the Younger Dryas 12,800 years ago. Though we may never know what set it on its own brilliant, idiosyncratic path, there is every reason to suppose that its

people would have been closely related genetically, linguistically—and at first culturally—to other early Native American populations who remained at the hunter-gatherer stage. It follows, therefore, if this hypothetical civilization had sciences, that they should be rooted and grounded in a recognizably Native American reference frame, and therefore would likely have developed under the guidance of shamans and using the methods of shamanism.

Telepathy, telekinesis, remote viewing, and healing powers are, of course, all capacities believed to be within the repertoire of master shamans. Indeed ayahuasca, which lies at the heart of Amazonian shamanism, first entered mainstream Western consciousness under the name *Telepathine*. In 1952, for example, on a quest in Ecuador for the visionary brew, William Burroughs wrote [his spellings; emphasis mine] that he had failed to "score for Yage, Bannisteria caapi, **Telepathine**, ayahuasca—all names for the same drug."[7]

He was determined to find it, however, because of its "tremendous implications" and the "mystery" surrounding it, adding, "I'm the man who can dig it."[8]

The reason behind the choice of the name *Telepathine,* which began to be applied to ayahuasca as early as 1905,[9] was that Amazonian tribes making regular use of the brew repeatedly stated that it facilitated telepathic communication. The mechanistic Western mind of the twenty-first century scoffs at such claims, but leading ayahuasca researcher Benny Shanon, professor of psychology at the Hebrew University in Jerusalem, concedes that "reports of paranormal experiences with Ayahuasca abound:"

> Practically everyone who has had more than a rudimentary exposure to the brew reports having had telepathic experiences. Many such reports also appear in the anthropological literature. … Similarly many of my informants said that without overt verbal articulation they could pass messages to other people present in the Ayahuasca session. … Likewise, many indicated that they received such messages from other persons or beings. Usually, in visions in which drinkers feel that they are receiving messages or instructions from beings and creatures, the

communication in question is said to be achieved without words—directly from thought to thought.[10]

In the modern world we are so fixated on our machines and devices that it's almost impossible to imagine life without them. But if telepathy is real—a debate we won't be able to get into here—and if its use and projection could be refined and made reliable, then who would need cell phones or Facebook or any of the other means of communication that are so ubiquitous today? Once again we would own our own conversations rather than having to depend on some intermediary or "platform" to relay them!

Might it not be the case that *psi* powers have always been part of the human heritage? Part of our "Golden Age"? Perhaps these powers atrophied after the Younger Dryas cataclysm broke our connection to our roots? And perhaps, in the aftermath of the cataclysm, the resourcefulness of our species was refocused on techniques of leverage and mechanical advantage and a negative

feedback loop developed that ushered in the march of the machines and saw *psi* banished to the margins of human experience?

REVERSE ENGINEERING THE SYSTEM

I'LL NOT SPECULATE FURTHER HERE about the lost technology of a destroyed civilization. There are tantalizing hints and clues but unfortunately even the first archaeological steps that might make solid progress possible have never been taken. There's more to work with, however, when we come to religious and spiritual beliefs that, according to the Edfu Building Texts, it was the duty of the survivors of the lost civilization to preserve and to replicate wherever in the world they could find receptive ground.

In the twenty-first century, Christianity and Islam—upstart religions of the past 2,000 years—exercise effective monopolies

over the spiritual lives of more than half the world's population. Their simple formula of one creator god (male, of course), and of a heavenly paradise for His faithful paired with a hellish place of punishment for disbelievers and evildoers, brilliantly removes the need for serious thought. All that's required to join the elect is to tick the right boxes and maintain a state of rigid, abiding, unquestioning BELIEF in the authority of the sacred texts and the utterances of the priests and the mullahs self-appointed to interpret them.

Perhaps it's the easiest option, requiring the smallest quantum of uncomfortable reflection, but it's certainly not the only one, and neither is atheism—which also rests on unproven beliefs—in any way its opposite. The full range of human spiritual potential cannot be brutally reduced to believing that a god exists or to believing that a god does not exist. Agnosticism is often proposed as the only alternative, but there are far more subtle and even "scientific" ways forward, explored confidently by our ancestors many millennia ago,

that deserve serious attention. Important elements survive in some of the more esoteric aspects of Hinduism and Tibetan Buddhism—notably in *The Tibetan Book of the Dead,* which bears striking similarities to the *Ancient Egyptian Book of the Dead* and descends, I suggest, from the same common source. There is much among the Maya (reported in *Fingerprints of the Gods* and in *Heaven's Mirror*) that adds to the picture. Meanwhile, Amazonian shamanism and the strangely interlinked religions of the Nile and Mississippi Valleys open further vistas of understanding.

In particular, whether we speak of the visionary "leap" to the Milky Way and to the Underworld that lies beyond it made by Tukano shamans under the influence of ayahuasca, or of Mississippian ideas concerning the "Path of Souls," or of the ancient Egyptian afterlife journey through the Duat, I think the only reasonable conclusion to be drawn from the material presented in previous chapters is that we are dealing with a complex and sophisticated system of shared ideas inherited from a remote

common ancestor. And just as our DNA can be "reverse engineered" by geneticists to reveal much about our forebears, so, too, the shared segments of cultural DNA in the religions of the Mississippi Valley and ancient Egypt give us insights into the character of the vastly more ancient predecessor religion that spawned them both. That ancient religion—the religion of the lost civilization—was itself, I would contend, a highly specialized offshoot of Native American shamanism and its primary focus, as is the focus of all shamanism, was the mystery of death.

WHAT HAPPENS TO US WHEN WE DIE?

OUR SOCIETY PREFERS TO IGNORE and marginalize the problem of death. It is an ever-present reality for all of us—much less when we are young, much more as we grow old—and yet we do all we can to

avoid it. We know in an abstract sense that it awaits us, but meanwhile we prefer to dwell as little as possible on its implications and to live our lives as though they will never end.

The reference frame out of which such thinking emerges cannot be pinned on any of the Abrahamic religions but belongs to the scientism of the modern age, which holds that we are entirely material creatures, random accidents of chemistry and biology, that there is no transcendent meaning or purpose to our existence, that there is no such thing as the soul, that death is final, and that there is no "afterlife." If those are your beliefs, which are only a subset of wider beliefs that strip the universe of spirit and conceive of it as some sort of gigantic, unconscious automaton, then of course it makes sense to abjure all thoughts of death and to postpone death for as long as possible, even though many ancient traditions, despised by the scientific mind-set, warn that unwillingness to die produces unfavorable results. "As here in America," comments W. Y. Evans-Wentz, the translator of *The Tibetan Book of the Dead,*

> every effort is apt to be made by a materialistically inclined medical science to postpone, and thereby to interfere with, the death-process. Very often the dying is not permitted to die in his or her own home or in a normal, unperturbed mental condition when the hospital has been reached. To die in hospital, probably while under the mind-benumbing influence of some opiate, or else under the stimulation of some drug injected into the body to enable the dying to cling to life as long as possible, cannot but be productive of a very undesirable death, as undesirable as that of a shell-shocked soldier on a battlefield. Even as the normal result of the birth-process may be aborted by malpractices, so, similarly, may the normal result of the death-process be aborted.[11]

Matters would have been handled very differently, I propose, in an advanced Native American civilization that had **not** severed its roots with shamanism—as we have done—but had instead evolved forms of science and technology that emerged directly from shamanistic preoccupations and shamanistic experiences. Rather than turning its back on death, I expect that such a civilization would have confronted and investigated every aspect of the mystery, and would certainly have deployed trance techniques with scientific objectivity and discipline to explore and test the reality

status of the “Otherworlds” and “Underworlds” encountered in vision.

It is further evidence of a remote common source behind some widespread religious motifs that one of the most famous myths of the ancient Greeks—the tale of Orpheus and Eurydice—was also present, long before European contact, in the ancient pre-Columbian cultures of North America.[12] Some details vary, as of course do the names of the central characters and the general setting, but the underlying structure remains the same[13]—(1) a wife or sweetheart (Eurydice) dies prematurely; (2) her husband or lover (Orpheus) follows her soul to the Underworld and persuades its ruler to let her return with him to the land of the living; (3) Eurydice’s release is agreed on condition that she walk behind Orpheus as they make the return journey from the Underworld and that under no circumstances should he set eyes on her until they reach the land of the living; (4) at the last moment, overcome with love, Orpheus

cannot resist glancing over his shoulder at his wife and in that instant she is cast back into the Underworld that she can henceforth never leave.

So compellingly similar are the Native American and Greek versions that leading scholar of religions Ake Hultkrantz dedicated an immense monograph to the mystery, published in Stockholm in 1957, titled *The North American Indian Orpheus Tradition.*[14] Meanwhile his contemporary, Canadian ethnographer Charles Marius Barbeau, proposed that the Greek and Native American stories must both be offshoots of some much older core narrative and concluded, "The worldwide diffusion from an unknown source of a tale so typically classical as Orpheus and Eurydice must have required millenniums."[15]

Of course I agree that the wide distribution of localized versions of the Orpheus and Eurydice myth suggests the great antiquity of the common source from which they all descend. But what I find

equally interesting is that the foundations of the narrative clearly lie in the concepts of the afterlife journey of the soul and the duality of spirit and matter so central to the religious beliefs of ancient Egypt and the ancient Mississippi Valley. Could it be that what we have in these superficially separate but deeply interconnected systems are the surviving threads from a once immense tapestry of thought about the human condition, our place in the cosmos, and the meaning of life and death?

And just as our own sciences today are capable of highly sophisticated interventions and manipulations in the realm of matter, might it not be that the sciences of the lost civilization were capable of equally effective interventions and manipulations in the realm of spirit—and possibly, therefore, had accumulated veridical information concerning dimensions of reality about which we ourselves are presently entirely ignorant?

For those who believe that all notions of "spirit" are fantasy, that consciousness expires with the physical body, and that any form of

life after death is therefore impossible, the notion of investing time, resources, and ingenuity in developing a "science of death"—perhaps better termed a "science of the afterlife" or even a "science of immortality"—sounds like the worst kind of wishful thinking. The consequence, described so eloquently by W. Y. Evans-Wentz, is that from the materialistic perspective the only valid application of science to the problem of death is in the outfitting of hospitals and the preparation of medicines to "ease" the passing and—if the deceased is otherwise in good physical condition—to recycle his or her organs.

But what if our materialist science, which has a pedigree of only a few hundred years since the dawn of the so-called Age of Reason in the late seventeenth century, is fundamentally **incomplete** in its analysis of the nature of reality and of the phenomenon of death? And what if the far older tradition of the afterlife journey of the soul manifested in ancient Egypt and in the ancient Mississippi Valley, and by Amazonian shamans to this day, conceals deep truths?

If that were the case, then Western scientific materialism might have led us down a very dark and dangerous path indeed—one with repercussions across eternity.

In Tibetan Buddhism the afterlife realm is known as the Bardo—literally "the Between." Just like the *Ancient Egyptian Book of the Dead* and the Mississippian oral and iconographic traditions, the purpose of the Tibetan Book of the Dead is to serve as a guidebook and instruction manual for the soul on its postmortem journey through this strange parallel dimension.

"The Between," explains prominent American Buddhist scholar Robert A. F. Thurman, is "a time of crisis after death when the soul (the very subtle mind-body) is in its most highly fluid state."[16] It is a time of extraordinary danger but also of extraordinary opportunity:

> If the good person, who has a strong momentum of good evolutionary action, is unprepared for the Between, he or she can lose an enormous amount of evolutionary progress in the twinkling of an eye by becoming frightened and

> hiding in darkness. Similarly, a bad person, who has a great weight of negative evolution, if well prepared for the Between, can overcome immense eons of wretched lives by bravely shooting for the light. After all, a tiny achievement on the subtle plane can have a powerful impact on the gross. The soul in the Between can directly modify, just with creative imagination, what the Buddhists call "the spiritual genes" it carries with it. The Between voyager has temporarily an immensely heightened intelligence, extraordinary powers of concentration, special abilities of clairvoyance and teleportation, flexibility to become whatever can be imagined and the openness to be radically transformed by a thought or a vision or an instruction. This is indeed why the Between traveler can become instantly liberated just by understanding where he or she is in the Between, what the reality is, where the allies are, and where the dangers.[17]

Western science possesses unprecedented knowledge of the material realm over which it has achieved extensive mastery. We should not assume, however, that this means it is also automatically in possession of superior knowledge that refutes the Tibetan "Science of Death" (the phrase that Robert Thurman uses to describe the teachings in *The Tibetan Book of the Dead*[18]). On the contrary, since Western science has shunned investigation of the

afterlife because of the unevidenced preconception that there is no such thing, we should rather accept that Tibetan Buddhism, which has devoted long centuries of intelligent study to the matter, may be far ahead of us. Moreover, as I've argued, *The Tibetan Book of the Dead* descends from the same vastly older progenitor that also gave rise to the ancient Egyptian and Mississippian systems and therefore might potentially be harnessed, like them, to the task of reconstructing that progenitor.

My sense is that the lost civilization, as might be expected with its proposed shamanic origins, was not much interested in material things. Like many other Native American cultures, its primary goals were not to do with the acquisition of status or wealth but instead were focused, through vision quests and right living, on the perfection of the soul. From the complexity and deep wisdom that still shines through in its offspring religions, I suggest that it took these inquiries very far into regions of mystery that in our culture even quantum physicists and scientists engaged with virtual reality

have barely begun to contemplate. In order to prepare its initiates thoroughly so that they might be "well equipped" for the ultimate journey of death—surely a matter of far greater significance than any material concerns—the direct exploration of parallel dimensions would, as noted earlier, almost certainly have been undertaken. Had this investigation been allowed to proceed uninterrupted it might by now have transcended space, time, and matter entirely, but 12,800 years ago a deadly mass of matter in the form of the Younger Dryas comet was flung at it and brought a pause to the great prehistoric quest.

A pause but not a halt—for if I'm right there were survivors who attempted, with varying degrees of success, to repromulgate the lost teachings, planting "sleeper cells" far and wide in hunter-gatherer cultures in the form of institutions and memes that could store and transmit knowledge and, when the time was right, activate a program of public works, rapid agricultural development, and enhanced spiritual inquiry.

As to the fate of the lost civilization itself, I can only guess that its North American homeland, in which it may have evolved in comparative isolation for more than 100,000 years, was located in one or several of the immense areas south of the ice cap, from the Channeled Scablands of Washington State in the west, through Nebraska, Wyoming, and the Dakotas, through the Great Lakes where one of most devastating impacts may have occurred, and east to the Finger Lakes of upstate New York. I've suggested that this was a seafaring civilization, able to map the Ice Age world and spread its influence to remote shores, but if it had harbors on the Atlantic and Pacific coasts of North America 13,000 years ago, they would have been submerged by the rapid rise in sea levels at the onset of the Younger Dryas 12,800 years ago and by the even more massive rise that marked the end of the Younger Dryas 11,600 years ago when the remnant ice caps of North America and Europe simultaneously collapsed into the oceans.

PAST IMPERFECT, FUTURE UNCERTAIN

THERE ARE LITERALLY THOUSANDS OF myths from every inhabited continent that speak of the existence of an advanced civilization in remote prehistory, of the lost golden age in which it flourished, and of the cataclysm that brought it to an end. A feature shared by many of them—the story of Atlantis, for example, or of Noah's flood—is the notion that human beings, by their own arrogance, cruelty, and disrespect for the earth, had somehow brought the disaster down upon their own heads and accordingly were obliged by the gods to go back to basics and learn humility again.

Where does this sense of ancestral guilt come from with its peculiar intimations of a mistaken direction taken by humanity in some remote period and purged by a global catastrophe? These are not the kinds of thoughts one would expect hunter-gatherers to devote much time to. A technologically advanced people, on the

other hand, particularly if they had mastered the transmutation of matter, would have had vastly more potential for hubris and overreach. In the event of the cataclysmic downfall of their civilization, those who survived might well have reflected on their history and blamed themselves for what happened.

Who knows? Perhaps some hubristic excesses had occurred that would have justified such speculations?

A drift toward self-indulgent materialism?

The introduction of human sacrifice?

The appearance of a new and vigorously proselytizing cult denying the existence of the soul?

The enslavement and exploitation of hunter-gatherer tribes?

The arming of one group of hunter-gatherers—such as Clovis—to give it a competitive advantage over others?

There could be 1,000 reasons why the humbled survivors of a once powerful but now utterly destroyed civilization seeking refuge among hunter-gatherers might have arrived with a sense of guilt.

An Ojibwa tradition seems relevant. It speaks of a comet that "burned up the earth" in the remote past and that is destined to return:

> The star with the long, wide tail is going to destroy the world some day when it comes low again. That's the comet called Long-Tailed Heavenly Climbing Star. It came down here once, thousands of years ago. Just like the sun. It had radiation and burning heat in its tail …
>
> Indian people were here before that happened, living on the earth. But things were wrong with nature on the earth, a lot of people had abandoned the spiritual path. The Holy Spirit warned them a long time before the comet came. Medicine men told everyone to prepare. … The comet burnt everything to the ground. There wasn't a thing left …
>
> There is a prophecy that the comet will destroy the earth again. But it's a restoration. The greatest blessing this island [Turtle Island] will ever have. People don't listen to their spiritual guidance today. There will be signs in the sun, moon and stars when that comet comes down again.[19]

Our science and technology in the twenty-first century are close to the point where, should we choose to do so and be willing to divert the necessary resources from—say—military expenditures, it

would be within our capacity to sweep our cosmic environment clean of asteroids and cometary debris and thus spare future generations the existential threat of further impacts. What is **not** within our scientific and technological competence, however, is to restore the earth and its environment **after** a major impact has occurred. Astronomer William Napier, professor of astrobiology at the University of Cardiff and a world expert on comets and asteroids, reminds us that the consequences of a global celestial catastrophe would far outstrip our capacity to respond:

> A modest impact has the potential to end civilisation, a giant one might put our species into an irreversible decline, like other primate species past and present. It took over three billion years of evolution to produce the sole terrestrial species capable of understanding the universe, and we do not know whether, if we are removed, intelligence is likely to evolve again. Nor do we know whether there are other intelligent species in our Galaxy. In the event that we are alone, and are removed by some catastrophe, then our Galaxy will return to its former dumb state and may never again leave it. In that sense, the survival of this particular species of ape is a cosmic imperative.[20]

We have already received fair warning from the universe in the form of the cataclysmic earth changes at the onset of the Younger Dryas. No serious researcher disputes that those earth changes occurred and, since 2007, the Younger Dryas Impact Hypothesis has established itself as the most widely accepted explanation for everything that happened. But at first the earth scientists behind the hypothesis could only say that the evidence pointed to a cosmic impactor of some kind, most likely a swarm of fragments from a disintegrating comet.

In 2010, however, in a paper published in the *Monthly Notices of the Royal Astronomical Society,* William Napier added his weight and specific details to the conclusion that a comet had indeed been involved—a giant comet, perhaps 100 kilometers in diameter, according to his calculations, that entered the inner solar system on an earth-crossing orbit somewhere between 30,000 and 20,000 years ago and thereafter underwent the series of fragmentations that

spawned the Taurid meteor stream.[21] This is a normal process for comets[22] and it's Professor Napier's case that intersection with the fragmenting debris of this exceptionally large comet around 12,800 years ago "provides a satisfactory explanation" for the postulated celestial origin of the Younger Dryas cataclysm.[23]

It's my case that the hit humanity took then erased a remarkable civilization from the record and that we have remained mired in amnesia ever since. In the process what is being neglected, despite the increasingly urgent warnings of a handful of astronomers, is that **most of the rubble from the ongoing fragmentation of the original comet remains in orbit in the Taurid meteor stream**, including some pieces of enormous size capable of ending civilization again. Indeed, as we saw in chapter 25, it's Napier's conclusion that this "unique complex of debris" represents "the greatest collision hazard facing the earth at the present time."[24]

In September 2017, drawing on imagery captured by the European Fireball Network, important new research on the Taurids, published in the journal *Astronomy and Astrophysics,* gave strong support to Napier's warning. The title of the paper speaks for itself: "Discovery of a New Branch of the Taurid Meteoroid Stream as a Real Source of Potentially Hazardous Bodies."[25]

The newly discovered branch is part of the Southern Taurids, encountered by the earth in late October and the first half of November, and it is just one of many indications that humanity's relationship with the Younger Dryas comet is not over. On the contrary, all the evidence from the close observation and investigation of the Taurids now being undertaken by astronomers is that we may be about to enter—or indeed may already have entered—an episode of enhanced danger. Ahead of us, perhaps still some decades away, lie particularly dense and turbulent filaments of the stream believed to contain "dark" fragments of the original

comet, in one case with a possible world-killing diameter of 30 kilometers.[26]

A TIME FOR CHANGE?

THIS BOOK HAS ROOTS IN much of my earlier work, particularly on ancient Mexico, the ancient Andean civilizations of South America, and ancient Egypt. However, it was not until early December 2016, during a visit I made to North Dakota and to the protest camp named Oceti Sakowin situated just beyond the present northern boundary of the Standing Rock Sioux Reservation, that *America Before* crystallized in my mind as a definite concept, coupled with firm intent.

Readers may recall how, from July 2016 onward, a rainbow coalition of Sioux, other Native American tribes, and non–Native American people gathered at Oceti Sakowin in an attempt to stop the laying of an oil pipeline under Lake Oahe on the Missouri River half a mile north of Standing Rock in a location where it not only transgressed traditionally sacred lands, but also threatened the reservation's water supply in the event of a spill.

Although extremely active and impassioned in the face of a clampdown by militarized security police, the protests of those who had become known as the "water protectors" failed to achieve their immediate objective, which was to have construction of the Dakota Access Pipeline (DAPL) halted completely. Quite to the contrary, on February 7, 2017, the official easement was granted,[27] work to complete the DAPL went ahead, and the first oil began to flow on June 1, 2017.[28] There were legal challenges from the Sioux and further protests and controversy following oil spills.[29] In December

2017 some interim restrictions were imposed on the pipeline operator to prevent further spills,[30] but as I write these words in July 2018, oil is still flowing through the pipeline and it seems that commercial interests have once again effectively trumped the interests and concerns of Native Americans.[31]

Central to the entire protest at Standing Rock was the notion that we live at a time when there is an urgent need to change our ways, to adopt a more humble and no longer rapacious approach to the earth, and to receive a spiritual message passed down from the ancients and held in safekeeping by the First Americans.

It's a message that resonates profoundly for me with so much that I've learned while researching this book.

"This is about everyone," Cody Two Bears of the Standing Rock Sioux told me as he explained the larger purpose of the Oceti Sakowin protests:

It's such an important time today—why people need to know this history. Because, for one, the history books would never tell you the correct story … the reason why. I talk to a lot of elders and a lot of spiritual leaders. We had to keep our ceremonies secret. We had to keep our stories a secret for so many years to preserve that. Because the government was fearful of what we had and who we are as a people. The laws will tell you that. There's even a current standing law today in Montana, I don't think they've taken it out of their law book, that if you see three Native Americans all together then you are able to shoot and kill them. Still legal in Montana! Those are the types of laws they created because they don't want to see Native Americans gather because for some reason they were fearful of us.

But little do they know, our ceremonies and our ways of life protected us and *Unci Maka* [Mother Earth]. We prayed even for those people who were afraid of us, to help them … to pray for them to make sure they were okay.

That's what our ceremonies are based around. It's not witchcraft … it's not casting spells on anybody, but that's what they thought for many, many years. … For example, the Ghost Dances we used to have in Lakota and Dakota country. When we did that, the *Washi'chu* [white people—literally "those who always take the largest portion"] were so fearful. They thought we were casting spells, when all in all we were trying to keep the balance with the Earth and the Stars. We need to keep that in balance, because if we don't start doing that today, we're not going to have anywhere to live in the next hundred years."

Some 12,800 years ago the balance between the Earth and the Stars was lost and a key chapter of the human story was lost with it. If it happens again, if our brief chapter, too, is lost, will all that remains of us at some vast remove in the future be an unhappy myth that tells of how, through our own greed and conceit, through our own recklessness and disregard for the planet in our care, and through our own excess of hate and dearth of love, we conspired in our own downfall?

APPENDIX 1

MELAZONIA, AKA AMANESIA

Although they are "a world apart and separated by forty thousand years or more of human history," certain "striking resemblances" and "remarkable similarities between societies in Amazonia and Melanesia" have kept scholars puzzled for more than a century.[1]

One of these puzzles concerns the skull shapes of indigenous Amazonians and Melanesians and an always unorthodox theory known as the "Paleoamerican hypothesis"[2] that proposes, "on the basis of cranial morphology" (just a fancy name for skull shapes):

> that two temporally and source-distinct populations colonized the Americas. The earlier population reportedly originated in Asia in the Late Pleistocene and gave rise to both Paleoamericans and present-day Australo-Melanesians, whose shared cranial morphological attributes are presumed to indicate their common ancestry. The Paleoamericans were, in turn, thought to have been largely replaced by ancestors of present-day Amerindians, whose crania resemble modern East Asians and who are argued to be descendants of later arriving Mongoloid populations. The presence of Paleoamericans is inferred primarily from ancient archaeological specimens in North and South America and a few relict populations of more recent age, which include the extinct Pericúes and Fuego-Patagonians.
>
> The Paleoamerican hypothesis predicts that these groups should be genetically closer to Australo-Melanesians than other Amerindians.[3]

Maanasa Raghavan and Eske Willerslev, both of the Centre for Geo-Genetics at the University of Copenhagen, put the hypothesis to the test at the genetic level as part of their study (discussed in part 3) and found that the ancient and more recent Native American skulls previously identified as having Australo-Melanesian morphology in fact cluster at the genetic level "with other Native American groups" and show no affinity to Australo-Melanesians.[4]

Their data joined a mass of preexisting genetic evidence pointing to the same conclusion.

For example, another study found that even the most ancient skulls displaying "traits attributable to Paleoamerican crania" turned out, after genetic sequencing, to "present the same mtDNA haplogroups as later populations with Amerindian morphology."[5]

A third comparative study of morphometric and molecular mtDNA haplogroup data from ancient and more recent Native American skeletal remains likewise concluded that "human populations inhabiting the Americas during archaic times cannot be considered as belonging to two different groups on the basis of analyzed data."[6]

In other words, although their skulls indeed might *appear* different, and much more like Australo-Melanesian skulls than more recent Amerindian skulls, "Paleoamericans" turn out to be genetically indistinct from more recent Amerindian populations.

Since genotype trumps phenotype every time as evidence for relatedness, the "Paleoamerican hypothesis" has therefore been regarded for some years as disproved.

Following their own study, however, discussed in chapter 9, Pontus Skoglund and David Reich (both of the Department of Genetics, Harvard Medical School) seem open to reconsidering the whole question when they describe their hypothetical "Population Y" that "likely contributed to the DNA of Native Americans from Amazonia and the Central Brazilian Plateau" as "a lineage more closely related to present-day Australasians than to present-day East Asians and Siberians."[7] They go on to add:

> This discovery is striking in light of interpretations of the morphology of some early Native American skeletons, which some authors have suggested have affinities to Australasian groups. The largest number of skeletons that have been described as having this craniofacial morphology and that date to younger than 10,000 years old have been found in Brazil, the home of the Surui, Karitiana and Xavante groups who show the strongest affinity to Australasians in genetic data.[8]

What has never been substantially in dispute is that the craniometric similarities between ancient populations from the Brazilian Amazon and Australo-Melanesian populations are real and quantifiable.[9] Moreover, while equally real and quantifiable, the genetic data suggesting that these similarities are not evidence of relatedness but must be coincidental, or perhaps the result of some sort of bizarre parallel evolutionary process, seems to me—and clearly to Skoglund and Reich as well—to be directly contradicted by that Australo-Melanesian signal sending out its rather compelling message of relatedness from Brazil.

In view of this I'd say, at the very least, that the earlier craniometric data needs to be revisited, particularly a study by Walter A. Neves and Mark Hubbe published in December 2005 in the *Proceedings of the National Academy of Sciences* in which "the largest sample of early American skulls ever studied"—eighty-one skulls from Brazil's Lagoa Santa region—is compared "with

worldwide datasets representing global morphological variation in humans, through three different multivariate analyses."[10]

In their paper Neves and Hubbe point out:

> Whereas late prehistoric, recent, and present Native Americans tend to exhibit a cranial morphology similar to late and modern Northern Asians … the earliest South Americans tend to be more similar to present Australians, Melanesians, and Sub-Saharan Africans.[11]

After conducting detailed measurements and analyses of their collection of eighty-one ancient Brazilian skulls and running their global comparisons, Neves and Hubbe are confident that "the results obtained from all multivariate analyses confirm a close morphological affinity between South-American Paleoindians and extant Australo-Melanesian groups."[12]

They then go on to offer two different hypotheses to explain "the morphological differences observed between early and late Native South Americans:"

> One is a local microevolutionary process that transformed, *in situ,* the Paleoamerican morphology into that prevailing today among Native Americans. The other is that the Americas were successively occupied by two morphologically differentiated human stocks, with the Paleoamerican morphology entering first.
>
> We believe the second hypothesis is more plausible for three reasons: first, it would be very unlikely that the same evolutionary event … happened in the Americas and in East Asia in parallel at approximately the same time; second, because in South America, at least, the transition between the two morphological patterns was, as far as we know, abrupt; and third, cranial morphology has recently been shown to respond adaptively only to extreme environmental conditions, being therefore much less plastic than originally thought.[13]

In short, as Neves and Hubbe summarize elsewhere in their paper, their results support the hypothesis "that two distinct biological populations could have colonized the New World in the Pleistocene-Holocene transition."[14]

This, of course, is a conclusion arrived at from the craniometric data, but it is also precisely the conclusion arrived at by Skoglund and Reich from their reading of the genetic data; namely, as the title

of their 2015 *Nature* paper indicates, that there is "genetic evidence for two founding populations of the Americas."[15]

On the other hand, as we've seen, Raghavan and Willerslev disagree. In their *Science* paper they favor, instead, a single founding population.[16]

Clearly in a state of affairs like this where the experts come to radically different conclusions based on nuances within essentially the same data, it would be unwise to go with one side or the other. Whether in the form of skulls or genes, though, it seems to me that the clues so far point in the direction of—to say the least!—some sort of forgotten connection.

There's more.

TWO TOWERS OF BABEL

Several researchers have noted that Australo-Melanesia and the Americas both manifest extraordinary "linguistic diversity" featuring much greater numbers of languages than in all other parts of the world. An implication of this, argues anthropologist German Dziebel, is that:

> measured by the number of independent linguistic stocks, linguistic divergence in the Americas must have taken at least 35,000 years. Of course, this figure cannot be taken literally but there's a marked contrast between language diversity in the Americas (and in places like Papua New Guinea, with human archaeological record of some 40,000 years) and language diversity in Africa.[17]

Austin Whittall, an author and regular blogger on ancient South American genetics and anthropological issues, also comments on the surprising phenomenon of high levels of linguistic diversity in Australo-Melanesia and the Americas:

> Why do Native American people speak so many languages? They supposedly reached the New World recently … yet evolved over 40% of the global

> languages! A figure higher than that found in Africa, the "Cradle of Mankind."
>
> Africans have had the time … and the advantage of not going through bottlenecks. … so they should have evolved more languages than any other group of humans. But they have not.[18]

New Guinea, Whittall points out next, has "the highest language diversity in the whole world."[19] Indeed, authority on world languages *Ethnologue* confirms that there are 841 living languages in Papua New Guinea, which make up 11.85 percent of living languages in the world.[20]

Whittal finds this quite reasonable:

> the island is a jungle, with many mountain ranges that isolate populations and keep them from mixing. New Guinea has been considered as one of the first places reached by mankind during our epic trek out of Africa.
>
> But America is different. … The Papuans had 50 ky to develop their languages, the Amerindians had less than 15 ky. So how do we explain this?[21]

The linguistic diversity of the Americas **is** an anomaly—Whittall is absolutely right about this—and its parallels with the linguistic

diversity of New Guinea and Australasia in general are intriguing. The following table,[22] reproduced in Whittall's blog, makes the anomaly clear:

Total numbers of separate language families by macrocontinent

AFRICA & EURASIA	87	(25%)
AUSTRALASIA	110	(32%)
AMERICAS	144	(42%)

Source: The Autotyp database (Bickel and Nichols 2002ff; Nichols et al. 2013)

"I do believe," Whittall concludes, "that we should look into language diversity as an indicator of an older origin for mankind as a whole and for an earlier date for the peopling of America."[23]

It's an excellent point but, for me, the more immediate takeaway is the two clusters of **especially abundant** linguistic diversity that the table highlights, one in Australasia and the other in the

Americas. Moreover, we've already seen that within Australasia it's Melanesian New Guinea that has by far the highest level of linguistic diversity—indeed higher than anywhere else in the world. Likewise, within the Americas, South America has more than double the linguistic diversity of North America,[24] with the greatest abundance of all found in lowland Amazonia where no fewer than 350 of South America's total of 448 languages are spoken.[25]

	Number of language families	**Number of languages**	**Average number of languages per family**
NORTH AMERICA	13	220	16.9
CENTRAL AMERICA	6	273	45.4
SOUTH AMERICA	37	448	12.1

Once again, therefore, Melanesian New Guinea and Amazonia seem to parallel one another. Each has the highest level of linguistic diversity within its own macrocontinent and together they occupy first and second place among the world's most linguistically diverse regions.[26]

NOW SOME WEIRD STUFF …

Melanesia and Amazonia are divided by the full width of the Pacific Ocean, so ethnographers of the late nineteenth and early twentieth centuries were perplexed when they found that certain distinctive customs and patterns of behavior occurred in almost exactly the same forms in both places.

For example, the practice of organizing society around so-called men's houses, where:

> the men conducted secret rituals of initiation and procreation, excluded the women, and punished those who would violate the cult with gang rape or death. In both regions, the men told similar myths that explained the origin of the cults and gender separation. The resemblances were such as to convince anthropologists of the day, including Robert Lowie, Heinrich Shurtz, and Hutton Webster, that they could only have come about through diffusion. Lowie flatly declared that men's cults are "an ethnographic feature originating in a single center, and thence transmitted to other regions."
>
> The parallels included not only men's cults but also similar systems of ecological adjustment; egalitarian social organization; flexibility in local- and descent-group composition and recruitment; endemic warfare; similar religious, mythological and cosmological systems; and similar beliefs relating to the body, procreation and the self. [27]

The scholarly puzzlement at these sorts of similarities has continued into the twenty-first century, for example, in a detailed study, "Gender in Amazonia and Melanesia," published by the University of California Press in 2001,[28] which followed an international symposium organized by the Wenner-Gren Foundation. The symposium was "inspired by the suggestion often

made by anthropologists that the cultures of Amazonia and Melanesia seem to display startling resemblances even though they are historically, linguistically, and geographically unrelated."[29]

I do not wish to overload the reader with detail from this important in-depth study, but a few examples will give the general flavor of the results.

The Mundurukú of the Brazilian Amazon and the Avatik of the Sepik River in northern Papua New Guinea both, traditionally, visited "random, indiscriminate violence" on outsiders "as an internal requirement of the village's male cult." In both cases raids were seen as a special kind of hunting. In both cases cult members sought prestige in the eyes of fellow villagers by taking trophy heads during their raids. In both cases the heads were not brought back to the village until the men had undergone a ritual period of seclusion and sexual abstinence. And in both cases the heads were believed to enhance and renew fertility.[30]

Among the Sambia of eastern Papua New Guinea, as among the Arawete, Jivaro, and Mehinaku of the Amazon, a war leader would traditionally exhibit his erect penis as a sign of his aggression.[31]

Among the Alambak, the Sawos, and the Sepik Wape of Papua New Guinea, as among the Cashinahua of the Amazon, domestic conflict prior to a hunt or raid was believed to bring "bad luck" to the endeavor.[32]

In both Melanesia and Amazonia blood is seen as the main agent of growth and vitality. In both regions it is blood—especially menstrual blood—that is seen as the mother's contribution to conception or gestation. In both regions semen is considered closely related to blood or interactive with blood, and many believe, more specifically, that a fetus "is formed from the combination of female blood and male semen."[33]

In both Melanesia and Amazonia "the central symbols of the men's cults" are bullroarers, flutes, and trumpets, and in both

regions the myths recall a time when "women discovered, invented, or possessed" these powerful cult objects. In both regions the myths say that the former control of these objects by women allowed them to dominate men. In both regions the myths also say that the men joined forces and compelled or deceived the women into handing the cult objects over to them, resulting in a reordering of society and the dominance of men. Moreover, in both regions "the men share a strategic secret: the sounds of the trumpets, flutes and other instruments associated with the cult are not the voices of spirits but are produced by the men themselves."[34]

Anthropologist Pascale Bonnemère draws attention to certain "striking similarities" in initiation rituals as performed among the Angans of New Guinea and by tribes in the Vaupés region of the Colombian Amazon. These "involve the playing of musical instruments that are hidden from women and that were owned by them in mythic times; they imply the consumption of substances

that are symbolically associated with reproduction; they are interpreted in a similar way, as a rebirth of the young boys into the world of men; and myths offer keys for understanding the ritual."[35]

In both Amazonia and Melanesia there are dire consequences for women, including subjection to gang rape and murder, if they see the cult instruments.[36] There is also disruption to society as a whole. Among the Gimi of Papua New Guinea, for example, as among the Barasana of the Amazon, there is a belief that chaos and social disintegration will follow if the men's sacred bamboo flutes are seen by women.[37] Nonetheless, in both Amazonia and Melanesia, the men do not hesitate to "parade and play" the instruments "in public areas such as gardens and plazas that are normally open to women. As such, the men must be extraordinarily vigilant in sequestering the women during rituals"—which in practice, in both regions, means forcing them to remain indoors.[38]

In summary, as Thomas A. Gregor and Donald Tuzin, editors of *Gender in Amazonia and Melanesia,* conclude, "The similarities of men's institutions in Amazonia and Melanesia is one of the great riddles of culture that has not received the attention that it deserves."[39] In their view it is quite noteworthy enough that the "men's house complex"[40] obtains in both regions, but "what is even more striking is that the details of the cult also bear close comparison."[41]

They're right about the magnitude of the riddle but, in my view, the solution they offer is singularly disappointing. Just like the quacks who each year conjure a new mental illness from thin air to add to the already morbidly obese *Diagnostic and Statistical Manual of Mental Disorders,* so, too, Gregor and Tuzin are convinced that the whole weird complex of behavior around men's cults in Melanesia and Amazonia is best understood using the tools of psychoanalysis:

> We need the insights of psychology and especially that of personality dynamics to explain the emotional content and the remarkable regularities in men's conduct in such different cultures.[42]

Though writing in 2001, they particularly recommend the approach taken in a 1959 paper by Robert Murphy on the Mundurukú men's cult:

> Murphy pointed out that the psychological roots of the cult draw on the universal emotional conflicts associated with the Oedipus complex. The simultaneous fear of women and antagonism toward them and the associated myths of matriarchy are reflections of the dark side of the family romance. Since the Oedipus complex is universal, Murphy wondered, "why are we not all swinging bullroarers?" His answer is that men's cults appear to flourish in social environments where the unity of groups of men and groups of women is not blurred by competing modes of role allocation such as derive from political hierarchy or kinship. The small horticultural societies of Amazonia and Melanesia fit this description.[43]

Do you see what's being sold to us here? Wrapped up in the same package of ideas that portrays the cults as the outcome of deep-rooted psychological complexes, we're also being asked to accept

that these complexes manifest in the same distinctive ways in Melanesia and Amazonia **because** of the state of economic development of these societies.

Both propositions are profoundly reductionist. The first seeks to reduce the remarkably similar details of male behavior in both regions to underlying psychiatric issues. The second seeks to reduce the cultural expression of such issues to the specific socioeconomic circumstances of small horticultural societies—as though flutes, trumpets, bullroarers, initiation ceremonies, ritual prohibitions, and gang rape and murder for those who break them can be expected to appear, almost automatically, in such societies.

There are other options, and the most obvious that immediately springs to mind is diffusion. Throughout human history, ideas, religions, cults, and rituals have always traveled far. Why, therefore, should they not have done so in prehistory as well? As we've seen, Gregor and Tuzin do admit that at one time leading anthropologists were convinced that diffusion of ideas "from a single center" was

the best explanation for the strange cultural similarities between Melanesia and Amazonia. Other than adding that subsequently "the diffusionist school of anthropology waned,"[44] however, Gregor and Tuzin barely give the notion a second thought. Their whole focus remains throughout on psychological and sociological explanations.

Who knows? They could be right. They have certainly done a wonderful job of assembling the comparative cultural data, and if I were assessing that data in isolation, if it were just the bizarre and idiosyncratic similarities that keep on cropping up, *if that were all there were to it,* then I might be impressed by their proposed sociological psychodrama.

But that's by no means all there is to it.

First and foremost, there's that totally unexpected Australo-Melanesian genetic signal among Amazonian peoples, discovered in 2015, which Gregor and Tuzin could not have been aware of in

2001. The very fact that it's there at all means that diffusion of some kind can no longer be ruled out.

Second, there's more than a hint of a connection from cranial morphology.

Third, Australo-Melanesia and Amazonia constitute the world's largest surviving reservoirs of linguistic diversity, suggesting that their languages have extremely ancient roots.

And now, fourth, we find complex and multilayered similarities in cultural institutions and beliefs in both these widely separated regions.

It stretches credulity to put the simultaneous occurrence of all these factors down to coincidence.

A more "parsimonious explanation," I believe, is that something else must have been going on, some other process must have been under way behind the scenes, *some other hand must have been at work,* that hasn't yet been accounted for.

APPENDIX 2

ANCIENT MAPS OF THE ICE AGE

The Waldseemüller World Map of 1507 (**next page**) is notable for the apparent extreme inaccuracy with which sixteenth-century Southeast Asia and Australia are represented.

By contrast the map offers a much closer match to the region as it appeared in the depths of the Ice Age around 21,300 years ago, when Sahul and Sunda (modern Southeast Asia and Australia) formed an almost continuous landmass.

Waldseemüller's and other similar maps of the sixteenth century were produced by copying from older source maps while attempting to incorporate into them information from the voyages of discovery of Columbus and other later mariners.

Deriving from the discarded and lost older source maps, the portrayal of geographical features last present during the Ice Age hints at the existence of a lost civilization that was capable of exploring and mapping the earth in remotest prehistory.

Waldseemüller World Map of 1507
Ptolemaic cartographic tradition

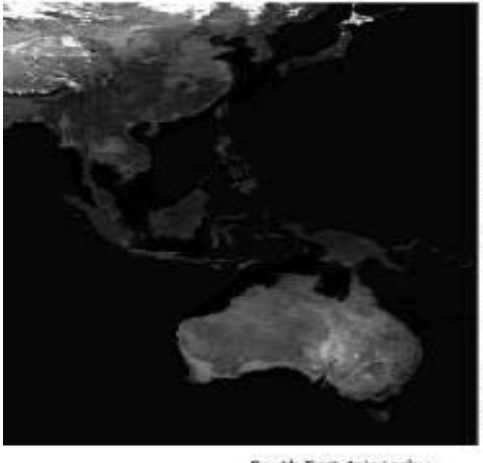

South-East Asia today

South-East Asia,
Waldseemüller 1507

South-East Asia,
21,300 years ago

ANTEDILUVIAN CARTOGRAPHY?

It is the—at first surprising—hypothesis of Professor Robert Fuson of the University of South Florida that the island named "Satanaze" on the 1424 Pizzagano Chart, though incorrectly located in the Atlantic Ocean, is, arguably, the earliest-surviving representation of Japan in European cartography. Professor Fuson's 1995 book *Legendary Islands of the Ocean Sea,*[1] in which he makes this case with a mass of corroborative evidence, came to my attention while I was researching my own book *Underworld,* published in 2002.

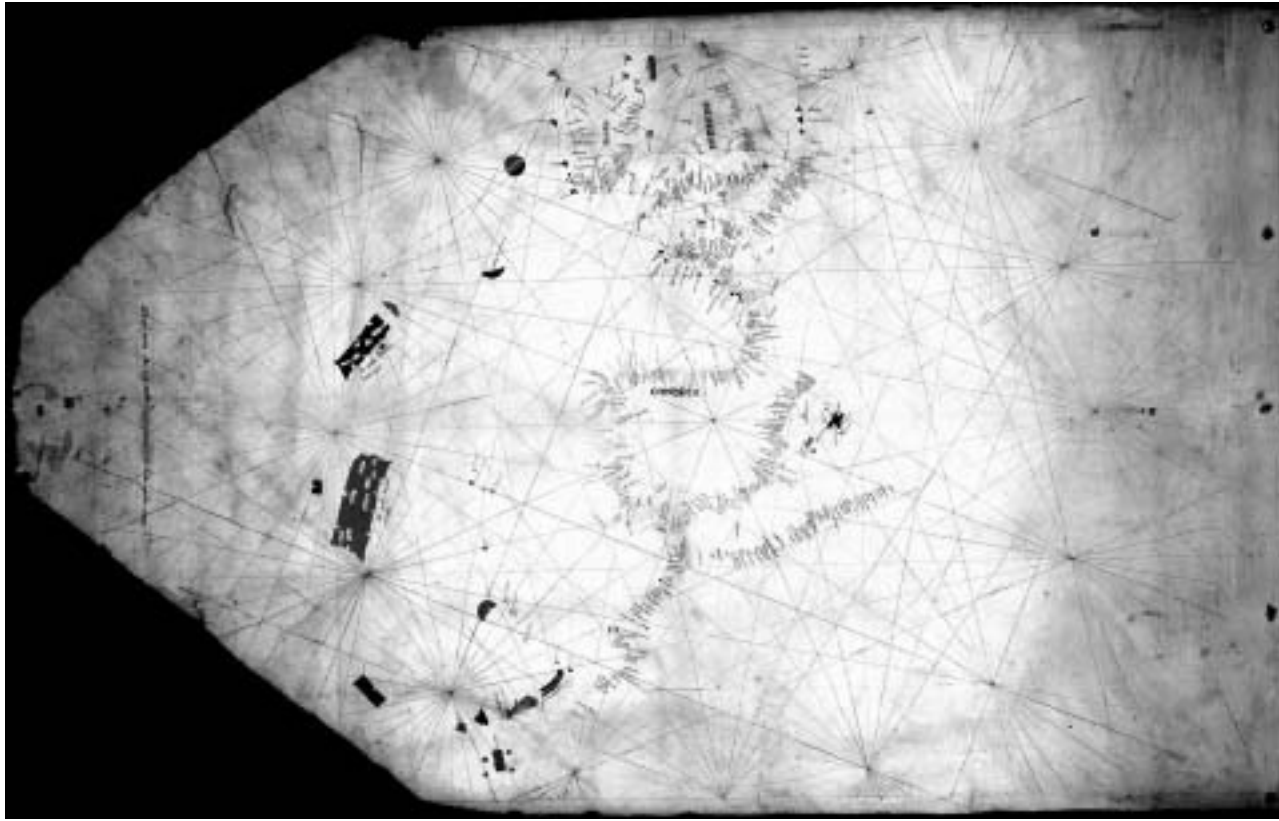

The 1424 Pizzagano Chart incorrectly locates the islands of Japan and Taiwan (respectively nominated as Satanaze and Antilia) in the Atlantic Ocean. Santanaze is the northernmost of the two dark landmasses shown at mid-left on the Chart.

I'm convinced by Professor Fuson's argument, but what I suggest is equally significant about it is a matter that Fuson himself does not comment on, leaving open the opportunity for me to explore it at some length in *Underworld*—namely that "Satanaze"/Japan is **not** depicted as the principal Japanese islands would have looked in 1424, when details from older source maps were copied onto the Pizzagano Chart, but rather as Japan would have appeared during the lowered sea levels of the last Ice Age, in a very specific interlude, between 13,500 and 12,400 years ago, spanning the cataclysmic onset of the Younger Dryas.[2]

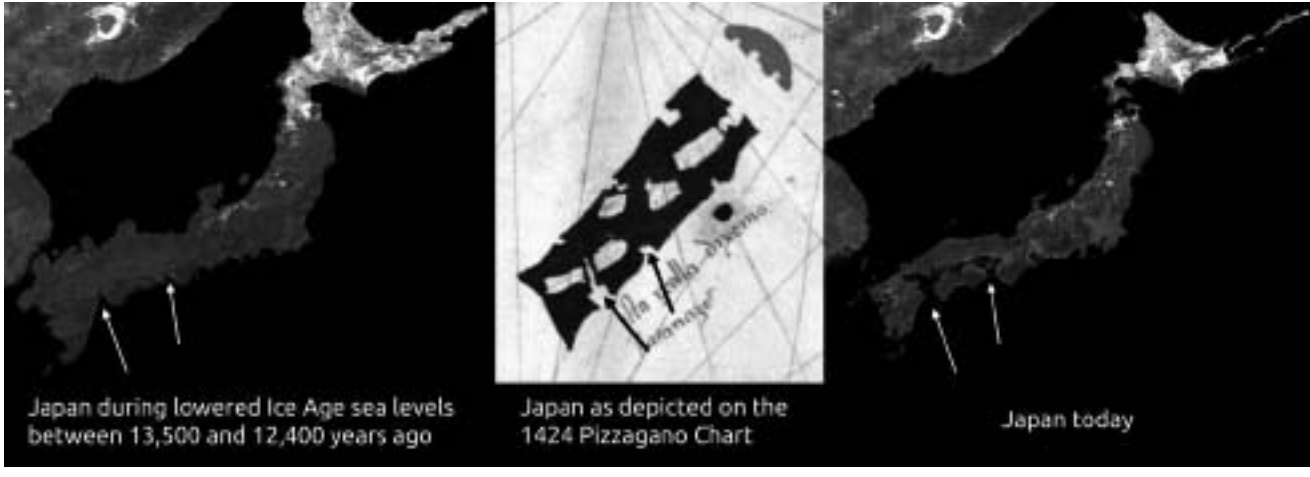

During that interlude the three principal Japanese islands, Honshu, Kyushu, and Shikoku, (**above right**) were all conjoined to form a single large island, as depicted in the sea-level-rise map (**above left**), based on modern geological studies.[3] The depiction of "Satanaze" on the Pizzagano Chart (**above center**), also shows Honshu, Kyushu, and Shikoku as one island and accurately depicts the inlets that existed between 13,500 and 12,400 years ago

southwest and northeast of what would later become the island of Shikoku.

A similar state of affairs presents itself on the other side of the world in a representation of Ireland and its surrounding waters in the *Ptolemaeus Argentinae* map of 1513 (**below left**). **Below right** is a bathymetric map of Ireland and the surrounding seas with a resolution of 2 minutes. Depth can be gauged through the shading as well as by the contour line, which is placed at 55 meters beneath today's sea level. The bathymetry reveals that around 13,000 years ago, during the lowered sea levels of the Ice Age, a significant island, with an area of perhaps 100 square kilometers, occupied the exact location where the supposedly "legendary" island named "Brazil" appears on the *Ptolemaeus Argentinae* map of 1513.[4]

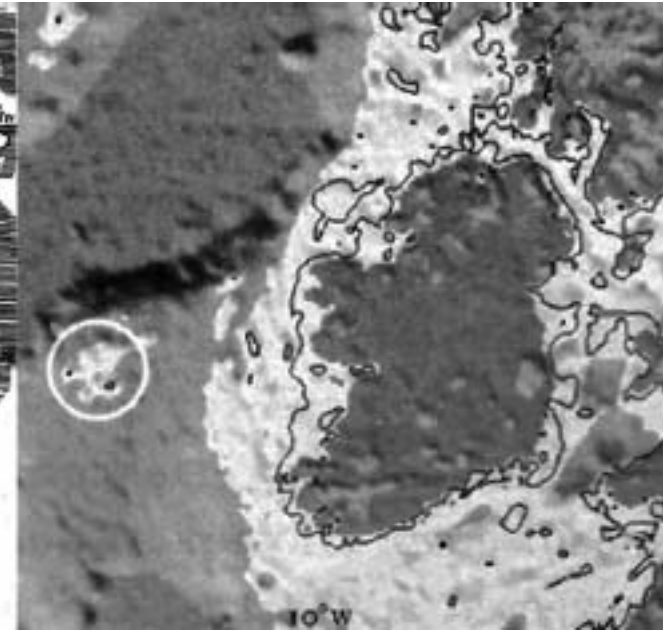

The implication, again, is that some unknown civilization explored the earth during the Ice Age and that copies of copies of scraps of the maps made by its seafarers and navigators survived to be used as sources of reference by cartographers in the late Middle Ages.

A clear line of transmission through the library of Alexandria via

Constantinople and thence into Europe during the era of the Crusades is traced in *Fingerprints of the Gods* for those who wish to follow the matter further.[5]

THE HOLE AT THE BOTTOM OF THE WORLD

Antarctica remained undiscovered by the seafarers and navigators of our civilization until the year 1819, and accordingly does not feature on early-nineteenth-century maps, such as the Pinkerton map of 1818 (**below left**). **To the right of it**, for comparison, is a modern map of Antarctica.

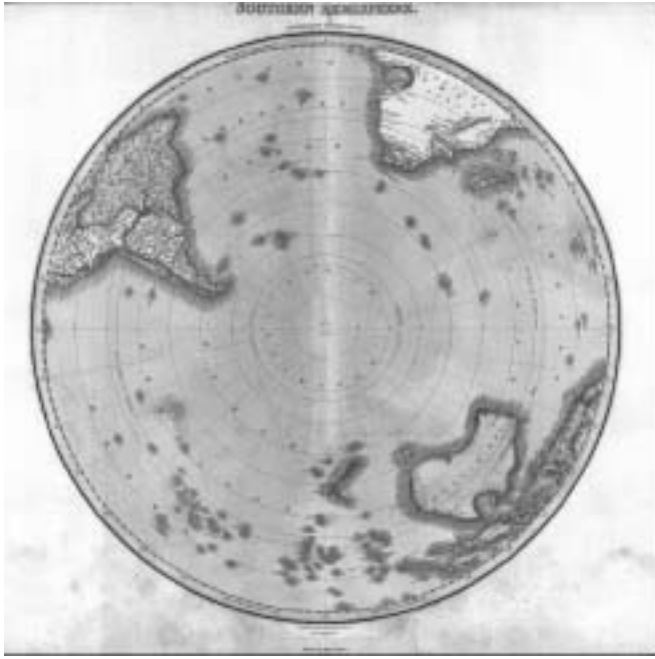
SOUTHERN HEMISPHERE.

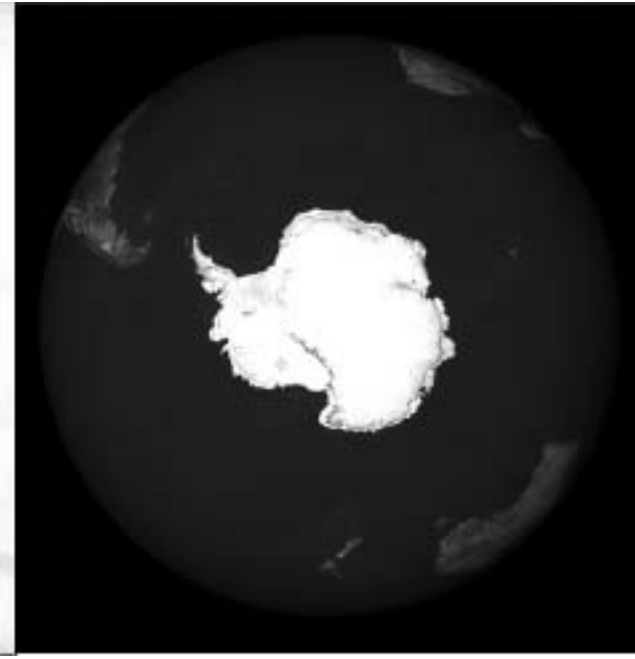

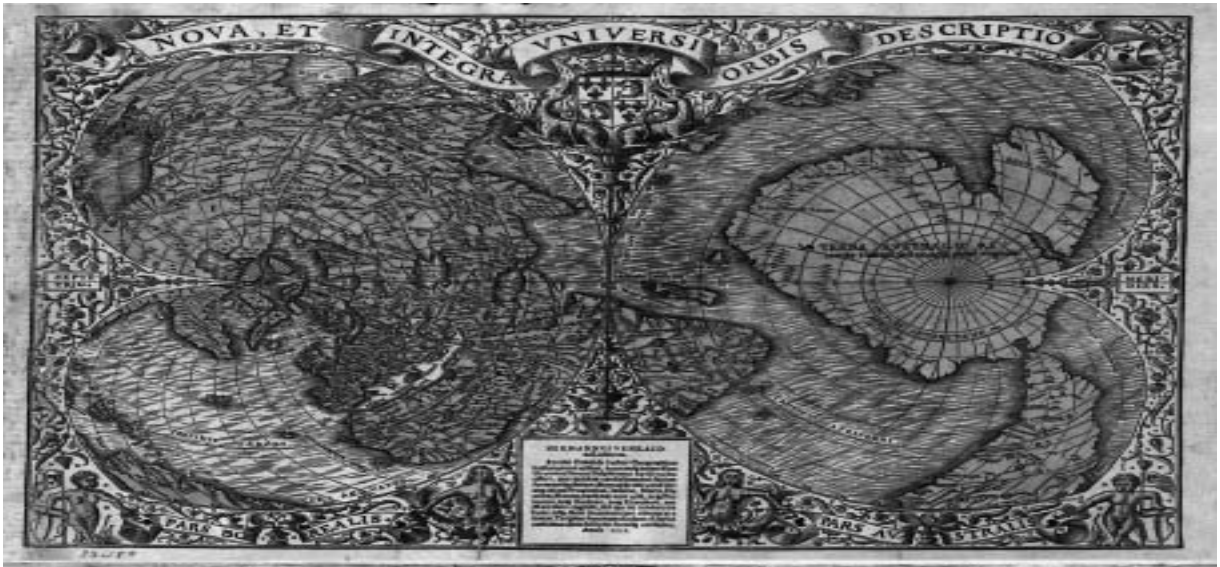
NOVA, ET INTEGRA VNIVERSI ORBIS DESCRIPTIO

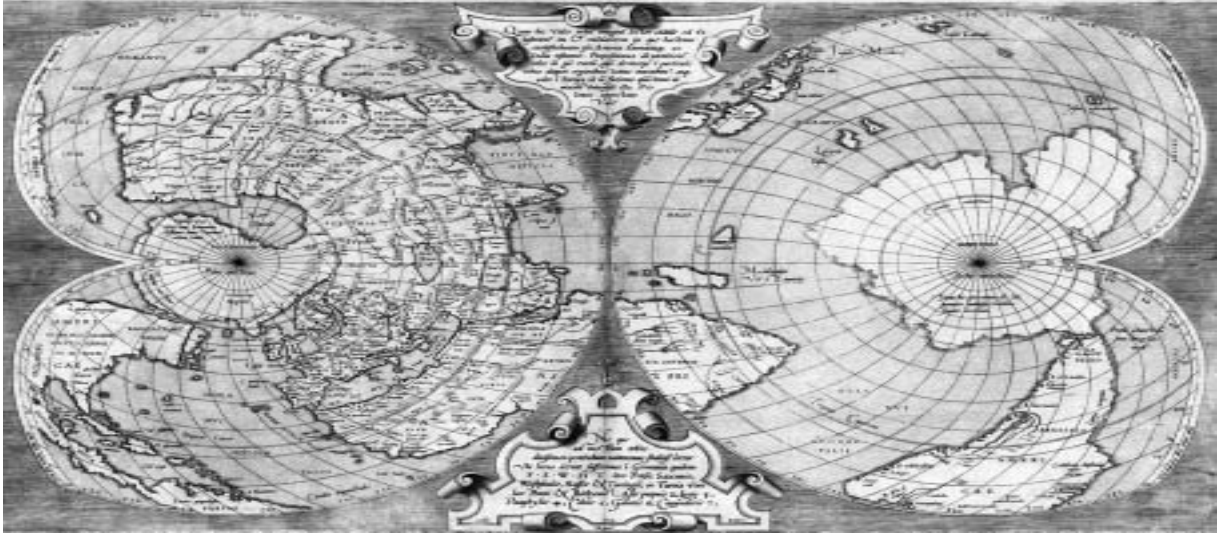

Curiously, although supposedly undiscovered at that time, Antarctica does appear on several maps from the sixteenth century, such as the Oronteus Finnaeus world map (**top**), and **below it** the Mercator world map, which in turn were copied from older source maps now lost.[6]

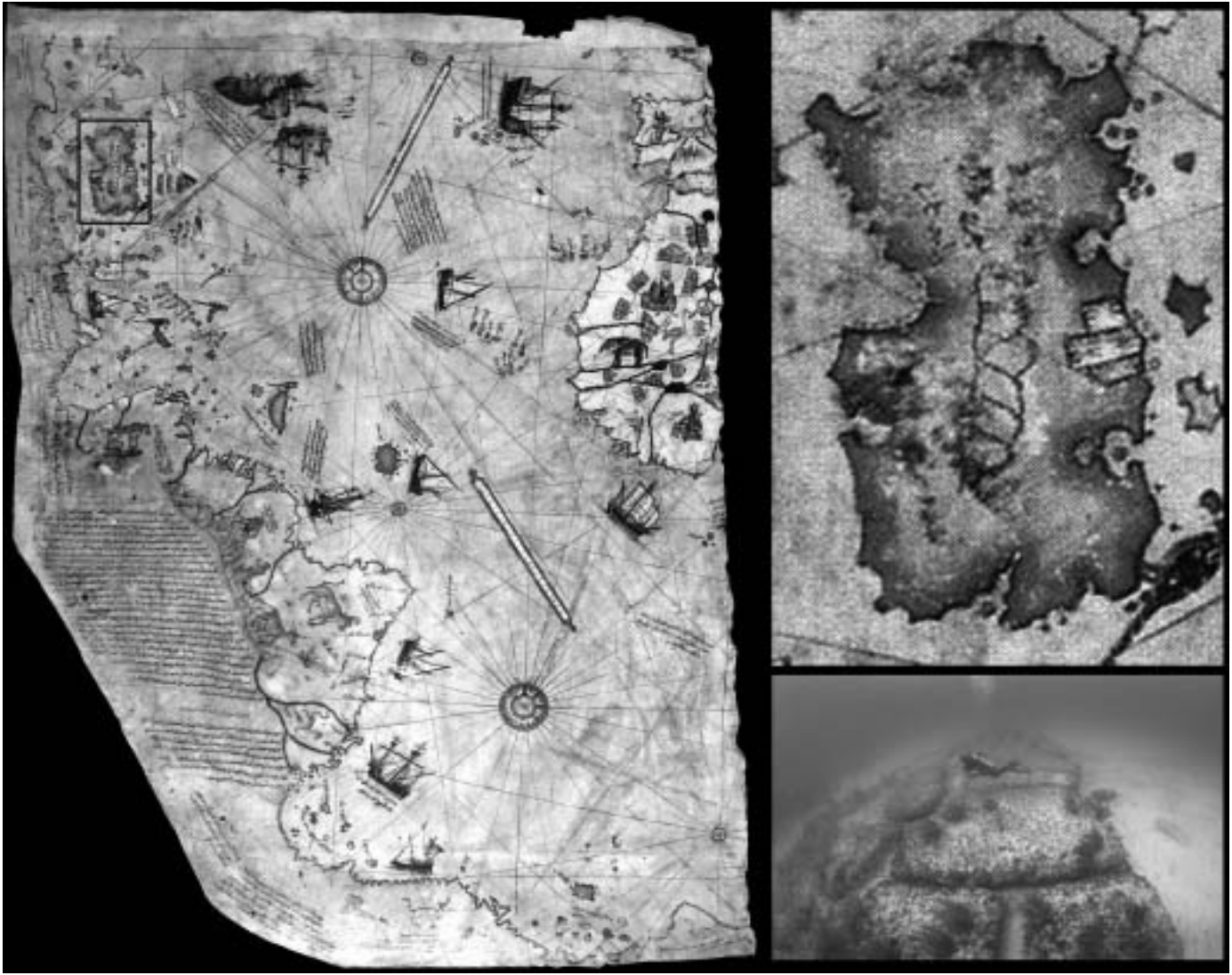

ISLAND OF MEGALITHS

The Piri Reis map of 1513 features the western shores of Africa and the eastern shores of North and South America and is also controversially claimed to depict Ice Age Antarctica—as an extension of the southern tip of South America. I report this claim in *Fingerprints of the Gods*.[7]

The same map (**above left and top right**) depicts a large island lying east of the southeast coast of what is now the United States. Also clearly depicted running along the spine of this island is a "road" of huge megaliths. In this exact spot during the lowered sea levels of the Ice Age a large island was indeed located until approximately 12,400 years ago. A remnant survives today in the

form of the islands of Andros and Bimini. Underwater off Bimini (**above, lower right and below**) I have scuba-dived on a road of great megaliths exactly like those depicted **above water** on the Piri Reis map.

Again, the implication, regardless of the separate controversy of whether the so-called Bimini Road is a man-made or natural feature, is that the region must have been explored and mapped before the great floods at the end of the Ice Age caused the sea level to rise and submerged the megaliths.

APPENDIX 3

FIRST THERE WAS A FOREST, THEN THERE WAS NO FOREST, THEN THERE WAS …

What sort of place was the Amazon during the Ice Age? What was its climate? And what about the environment, vegetation, and trees?

Given the enormous importance of the world's largest surviving rainforest in global ecology today, I had assumed the subject would have been well studied and that the experts would long ago have

reached a consensus. In the case of the former I was correct but in the case of the latter I was not—for there is an ever-shifting consensus that, when you get right down to it, is pretty much the same thing as no consensus at all.

Here's a brief timeline of the debate as I see it:

1. Prior to and into the 1990s, the scientific consensus supported the view that the Amazon had been largely arid during the Ice Age, with isolated rainforest "refugia" broken up by extensive areas of savanna and open vegetation.
2. From the mid-1990s onward, into the early years of the twenty-first century, this entire view came under attack and, out of the dispute, a new consensus emerged in which the Amazon had "always" (anyway for millions of years) been a rainforest, much as it is now.
3. Finally, in the past decade or so the consensus appears to

> have shifted again and we are told that actually, yes, much of the Amazon was savanna during the Ice Age, and that the tropical rainforest we see today has been present for at most 7,000 or 8,000 years—and barely 2,000 years in some areas.

It's instructive to spend a few moments sampling the flavor and character of this shifting consensus. Let's start with a paper by P. A. Colinvaux, P. E. De Oliveira, and M. B. Bush, published in January 2000 in *Quaternary Science Reviews,* that confirms the overthrow of the earlier, pre-1990s paradigm of an arid savanna interspersed with rainforest refugia:

> Our conclusion that the Amazon lowlands were forested in glacial times specifically refutes the hypothesis of Amazonian glacial aridity.[1]

A few months later, Katherine Willis and Robert Whittaker of Oxford University published similar conclusions in *Science*:

> The evidence clearly indicates that the lowland tropical forests were not extensively replaced by savanna vegetation during the glacial periods, but rather that the forests dominated throughout.[2]

In the following year, 2001, a study published in *Palaeogeography, Palaeoclimatology, Palaeoecology* concluded:

> In the later Pleistocene the whole of the Amazon lowlands were under closed-canopy forest throughout all stages of a glacial cycle, contrary to the biogeographical consensus of the last thirty years.[3]

A 2003 study published in the journal *Geology* reinforced this view:

> The current tropical rainforest vegetation has been a permanent and dominant feature of the Amazon River watershed over the past 70 k.y. Specifically, we found no evidence for the development of large savannas that had been previously postulated as indicators of increased glacial aridity in Amazonia.[4]

A further study, published in November 2004 in *Palaeogeography, Palaeoclimatology, Palaeoecology,* investigated the Hill of Six Lakes in the Northwest Brazilian Amazon and concluded:

> The data indicate the continuous presence of mesic forest throughout the last ice age. … Even during lowstand episodes, pollen is well preserved and provides a clear signal of uninterrupted forest cover.[5]

But now let's jump forward to 2013, when a follow-up study of the Hill of Six Lakes, published in *Quaternary Sciences Reviews,* lamented the great length of time that "Six Lakes was erroneously used as an emblematic locality to illustrate the permanence of the rainforest in the Amazon basin"[6] because:

> all of the proxies seem to indicate that the present-day vegetation dates back to the middle-late Holocene, around 6 cal ka BP.[7]

And a year later, in July 2014, a study in the *Proceedings of the National Academy of Sciences* reduced the inception of the present-day forest cover of some parts of the Amazon to just 2,000 years ago or less. Focusing on southern Amazonia, the study concluded that:

> the inhabitants exploited a naturally open savanna landscape that they maintained around their settlement despite the climatically driven rainforest expansion that began ~2,000 years ago across the region.[8]

Last, in *Quaternary Science Reviews* of October 1, 2017, Professor Diana Fontes and Professor Renato Cordeiro published a study titled "Paleoenvironmental Dynamics in South Amazonia, Brazil, during the Last 35,000 Years Inferred from Pollen and Geochemical Records of Lago do Saci." Their conclusion, although they state that "the rainforest always existed in this region," is that it underwent "expansion and regression" over time.[9]

There are many other papers I could cite reflecting the shifting consensus, but I'm sure the reader has got my point by now. When leading scientific authorities are in such a state of disagreement that prevailing paradigms abruptly change every decade or two, we cannot be at all sure of the solidity and merits of the current paradigm—according to which the Amazon rainforest in its present form is less than 8,000 years old, and in some areas less than 2,000 years old.

Reviewing the literature, I felt that the conclusion of Fontes and Cordeiro, that there was always rainforest in the area they studied but that it was subject to periodic expansions and contractions, might help to explain why consensus on this subject has been so elusive. The Amazon basin is, after all, a vast and diverse region encompassing more than 7 million square kilometers, of which approximately 5.5 million square kilometers are presently covered by rainforest.[10] The figures only become meaningful by

comparison. The whole of India, with a total area of 2.97 million km^2, is less than half the size of the Amazon basin, but Australia, at 7.68 million km^2 is bigger, as are China (9.38 million km^2), Canada (9.09 million km^2), the United States (9.15 million km^2), and Europe (10.18 million km^2).[11] All in all, then, it's fair to say that what the Amazon confronts us with is a truly gigantic landmass, on a scale similar to many of the world's largest countries and regions, extending for thousands of kilometers from north to south and thousands of kilometers from east to west. It's unrealistic to suppose that, across such enormous distances over great expanses of time, the climate and environment in all areas would always remain the same. Of course there would be significant variations among the different regions and from epoch to epoch, and thus a danger of overenthusiastic extrapolation from particular instances to general conclusions.

On March 12, 2018, therefore, I contacted Renato Cordeiro about the whole issue of the shifting consensus and what conclusions I might legitimately draw from it. “I must confess,” I told him, “that expert opinion on the Ice Age Amazon is very confusing and contradictory! I want to try to sort out the facts for my readers, as those facts are understood now, if they are indeed subject to any kind of consensus today.”[12]

Professor Cordeiro teaches geoeconomics at Brazil’s Universidad Federal Fluminense. His rather technical reply, set out in full in the note, essentially restated the conclusions of his 2017 paper, that the Amazon basin has always contained rainforests, that the gallery forests along the rivers remained “relatively well preserved” even in drier periods, but that in other areas tree cover has undergone considerable fluctuation over time.[13]

It was as close as I was able to get to some kind of answer to what I had thought would be a simple question, namely, what sort of

climate, environment, vegetation, and trees characterized the Amazon during the Ice Age? The scholars did not agree among themselves and many different pictures had been painted, but perhaps this was largely because of the immensity of the region and the complex, constantly changing, and often contradictory nature of the data.

Indeed, there is only one thing I have been able to find that all the involved scientists appear to be in complete agreement on, and this is that the region was significantly cooler during the Ice Age—5 or 6 degrees C cooler—than it is now.[14] The year-round average temperature of the Amazon rainforest today is 80 degrees F (26.6 degrees C) so, if anything, a reduction of 5 degrees to 21.6 degrees C/75 degrees F would have been a bonus for prospective settlers.

So … forests? Savanna? A mixture of both? Like so much else about the ancient Amazon, it seems there is no certain answer.

NOTES

INTRODUCTION

1. Samuel Noah Kramer, *History Begins at Sumer: Thirty-Nine Firsts in Man's Recorded History* (University of Pennsylvania Press, 1991).
2. Plato, *Timaeus and Critias* (Penguin Books, 1977), 131.
3. Ibid., 37.
4. See, for example, Lewis Spence, *Atlantis in America* (Ernest Benn, 1925); Frank Joseph, *Atlantis in Wisconsin: New Revelations about the Sunken City* (Galde Press, 1995); Ivor Zapp and George Erikson, *Atlantis in America: Navigators of the Ancient World* (Adventures Unlimited Press, 1998).

PART I

1: AN ENCHANTED REALM

1. "Around 12,000 years ago" is, of course, an approximation, a ballpark figure that I will use throughout to allow for margins of error in the data that are constantly being adjusted in the light of ongoing research. From the point of view of my argument, 1,000 years in either direction makes no difference—that is, the point is that the Americas have been isolated from the rest of the world for a VERY long time and my position does not alter whether that time is 13,000 years, 12,000 years, or 11,000 years. Recent work suggests that the Bering land bridge may not have been fully inundated until around 11,000 years ago. See M. Jakobsson et al., "Post-Glacial Flooding of the Bering Land Bridge Dated to 11 cal ka BP Based on New Geophysical and Sediment Records," *Climate of the Past* 13, no. 8 (2017), 991. Also see p. 105 of B. M. Pelto et al, "Oceanographic and Climatic Change in the Bering Sea, Last Glacial Maximum to Holocene," *Paleoceanography and Paleoclimatology* 33, no. 1 (2018), 93–111.
2. Robert V. Fletcher et al, "Serpent Mound: A Fort Ancient Icon?" *Midcontinental Journal of Archaeology* 21 (Spring 1996), 105.
3. Keith A. Milam, "A Revised Diameter for Serpent Mound Impact Crater in Southern Ohio," *Ohio Journal of Science* (Ohio Academy of Science) 110, no. 3 (June 2010), 34–43; see also William F. Romain, "LiDAR Views of the Serpent Mound Impact Crater," *Current Research in Ohio Archaeology* (2011), www.ohioarchaeology.org.
4. See, for example, C. Bull, C. E. Corbato, and J. C. Zahn, "Gravity Survey of the Serpent Mound Area, Southern Ohio," *Ohio Journal of Science* 67, no. 6 (1967), 359.

5. Mark C. Hansen, "Return to Sunken Mountain: The Serpent Mound Cryptoexplosion Structure," *Ohio Geology* (Winter 1994), 1–7.
6. Richard W. Carlton et al., "Discovery of Microscopic Evidence for Shock Metamorphism at the Serpent Mound Structure, South-central Ohio: Confirmation of an Origin by Impact," *Earth and Planetary Sciences Letters* 162, issues 1–4 (October 1998), 184. Also see, for example, Andrew Schedl, "Applications of Twin Analysis to Studying Meteorite Impact Structures," *Earth and Planetary Science Letters* 244 (2006), 530–540, and geologist Mark Baranoski cited in Bill Meyer, "Unearthing Clues at Serpent Mound: Geologists Find Evidence of a Meteor Crash Near Prehistoric Monument in Adams County," *Plain Dealer,* April 12, 2009, online here: http://blog.cleveland.com/pdextra/2009/04/unearthing_clues_at_serpent_mo.html.
7. Hansen, "Return to Sunken Mountain," 4. See also p. 1.
8. See, for example, Schedl, "Applications of Twin Analysis to Studying Meteorite Impact Structures," 530.
9. See, for example, Romain, "LiDAR Views of the Serpent Mound Impact Crater," 4.
10. Mark Baranoski cited in Bill Meyer, "Unearthing Clues at Serpent Mound: Geologists Find Evidence of a Meteor Crash Near Prehistoric Monument in Adams County," *Plain Dealer,* April 12, 2009, http://blog.cleveland.com/pdextra/2009/04/unearthing_clues_at_serpent_mo.html.
11. Raymond Anderson, cited in ibid.
12. See, for example, D. R. Watts et al., "The Serpent Mound Magnetic Anomaly: Fingerprint of a Meteorite Impact?" *Online Journal for E&P Geoscientists* 90930

(1998), http://www.searchanddiscovery.com/abstracts/html/1998/eastern/abstracts/1776a.htm.

13. William Romain, "Terrestrial Observations of the Serpent Mound," *Ohio Archaeologist* 38, no. 2 (Spring 1988), 15–16.

14. Hansen, "Return to Sunken Mountain," 2.

15. Ross Hamilton, *The Mystery of the Serpent Mound* (North Atlantic Books, 2001).

16. The steps have since been removed. Personal communication from Ross Hamilton, August 24, 2018.

17. Robert C. Glotzhober and Bradley T. Lepper, *Serpent Mound: Ohio's Enigmatic Effigy Mound* (Ohio Historical Society, Columbus, Ohio, 1994), 3.

18. Charles C. Willoughby, "The Serpent Mound of Adams County, Ohio," *American Anthropologist,* New Series 21, no. 2 (April–June 1919), 157–158.

19. Herman Bender, "The Spirit of Manitou Across America," *Archaeology Experiences Spirituality?* ed. Dragos Gheorghiu (Cambridge Scholars Publishing, 2011), 143.

20. Ibid., 143–144.

21. In 1900 Harvard's Peabody Museum, which had formerly managed the Serpent Mound site, deeded it to the Ohio Archaeological and Historical Society (more recently the Ohio Historical Society, now the Ohio History Connection), http://worldheritageohio.org/serpent-mound/. In its 2015 *Historic Site Management Plan for Serpent Mound,* the following statement is made by the Ohio History Connection on pp. 41–42: "There is debate as to the number of solar, lunar, and planetary alignments that were intended by the original architects of Serpent Mound. Until there is additional

study and agreement regarding these other possible alignments, trees will not be moved or trimmed to accommodate viewing them. Tree shade is critical for visitors' enjoyment of the site."

22. Ephraim G. Squier and Edwin H. Davis, *Ancient Monuments of the Mississippi Valley* (Smithsonian Institution, Washington, DC, 1848, reprinted and republished by the Smithsonian, with an introduction by David J. Meltzer, in 1998), 97.
23. Ibid., 97.
24. Ibid., 97–98.
25. Ibid., 98.

2: A JOURNEY IN TIME

1. J. T. Faith and T. A. Surovell, "Synchronous Extinction of North America's Pleistocene Mammals," *Proceedings of the National Academy of Sciences* 106, no. 49 (2009), 20641–20645. See p. 20641: "Results favor an extinction mechanism that is capable of wiping out up to 35 genera across a continent in a geologic instant." Faith and Surovell give dates in **uncalibrated radiocarbon years** (rather than in calendar years) as occupying a broader range between roughly 12,000 and 10,000 radiocarbon years before the present. Please note that "radiocarbon years" and actual calendar years drift further apart the farther back in time we go, hence the introduction of techniques of calibration.
2. Ibid. See also R. B. Firestone et al., "Evidence for an Extraterrestrial Impact 12,900 Years Ago That Contributed to the Megafaunal Extinctions and the Younger Dryas

Cooling," *Proceedings of the National Academy of Sciences* 104, no. 41 (October 9, 2007), 16016.

3. M. P. Pearson, "The Sarsen Stones of Stonehenge," *Proceedings of the Geologists' Association* 127, no. 3 (2016), 363–369, esp. 364.

4. M. Pitts, "Stonehenge Special," in *British Archaeology* (Council for British Archaeology) (2018), 10–12, https://reader.exacteditions.com/issues/62211/spread/1.

5. Ibid.

6. The Sphinx/yardang theory was first proposed by Farouk El-Baz, research professor and director of the Center for Remote Sensing at Boston University, in "Gifts of the Nile," *Archaeology* 54, no. 2 (March/April 2001), 42–45. See also Ted A. Maxwell of the Smithsonian Institution, "Inspired by Nature," *Archaeology* (November/December 2001), 6.

7. El-Baz, "Gifts of the Nile," 45.

8. Clarke Hardman Jr. and Marjorie H. Hardman, "The Great Serpent and the Sun," *Ohio Archaeologist* 37, no. 3 (Fall 1987), 34–39.

9. Ephraim G. Squier and Edwin H. Davis, *Ancient Monuments of the Mississippi Valley* (Smithsonian Institution, Washington, DC, 1848, reprinted and republished by the Smithsonian, with an introduction by David J. Meltzer, in 1998), 97.

10. Hardman and Hardman, "The Great Serpent and the Sun," 35.

11. William F. Romain, "Serpent Mound Revisited," *Ohio Archaeologist* 37, no. 4 (Winter 1987), 5.

12. *The Astronomical Almanac* (2018), "Glossary: Obliquity": http://asa.usno.navy.mil/SecM/Glossary.html#_O.
13. J. D. Hays, John Imbrie, and N. J. Shackleton, "Variations in the Earth's Orbit: Pacemaker of the Ice Ages," *Science* 194, no. 4270 (December 10, 1976), 1125.
14. Anthony F. Aveni, *Skywatchers of Ancient Mexico* (University of Texas Press, 1980), 103.
15. Romain, "Serpent Mound Revisited," 5. Based on Anthony F. Aveni, "Astronomical Tables Intended for Use in Astro-archaeological Studies," *American Antiquity* 37 (4), (1972), 531–540, and assuming 1-degree horizon elevation and observation of the center of the sun.
16. Robert Fletcher and Terry Cameron, "Serpent Mound: A New Look at an Old Snake-in-the-Grass," *Ohio Archaeologist* 38, no. 1 (Winter 1988).
17. Romain, "Serpent Mound Revisited," 5.
18. William F. Romain, *Mysteries of the Hopewell: Astronomers, Geometers and Magicians of the Eastern Woodlands* (University of Akron Press, 2000), 247.
19. Ibid., 248.
20. Ibid.
21. Robert V. Fletcher et al., "Serpent Mound: A Fort Ancient Icon?" *Midcontinental Journal of Archaeology* 21(Spring 1996), 105.
22. Ibid., 105–143.
23. Ibid.
24. Ibid.

25. The process is reflected in uncritical coverage given to the new dates in the archaeological press. See, for example, Jessica E. Saraceni, "Redating Serpent Mound," *Archaeology* 49, no. 5 (November/December 1996), https://archive.archaeology.org/9611/newsbriefs/serpentmound.html.

26. See, for example, Bill Meyer, "Unearthing Clues at Serpent Mound: Geologists Find Evidence of a Meteor Crash Near Prehistoric Monument in Adams County," *Plain Dealer,* April 12, 2009: "Lepper has new evidence of the mound's age. Originally it was thought to have been built sometime between 800 BC and AD 100. That estimate was moved up after two pieces of charcoal recently collected at the mound were subjected to radiocarbon dating. 'It came out to around 1070 A.D,' Lepper said." http://blog.cleveland.com/pdextra/2009/04/unearthing_clues_at_serpent_mo.html.

27. See image of Serpent Mound visitors' information plaque, by "Stetshep," filed on Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Serpent_Mound_Plaque.jpg.

28. Fletcher et al., "Serpent Mound: A Fort Ancient Icon?" 105.

29. Ibid., 115.

30. Ibid., 122.

31. Ibid., 124–125.

32. Ibid., 132.

33. Ibid., 133.

34. Ibid.

35. Cited in Saraceni, "Redating Serpent Mound."

36. Cited in Meyer, "Unearthing Clues at Serpent Mound."

37. William F. Romain, "LiDAR Views of the Serpent Mound Impact Crater," *Current Research in Ohio Archaeology* 2011(www.ohioarchaeology.org), 1.

38. Edward W. Herrmann et al., "A New Multistage Construction Chronology for the Great Serpent Mound, USA," *Journal of Archaeological Science* 50 (October 2014), 119.

39. Ibid., 121.

40. Ibid., 122.

41. Bradley T. Lepper, "On the Age of Serpent Mound: A Reply to Romain and Colleagues," *Midcontinental Journal of Archaeology* 43, no. 1 (February 2018), 62–75. And in the same issue, pp. 76–88, see William F. Romain and Edward W. Herrmann, "Rejoinder to Lepper Concerning Serpent Mound."

42. See, for example, ancient American snake symbolism documented in R. H. Hall, *An Archaeology of the Soul: North American Indian Belief and Ritual* (University of Illinois Press, 1997), 92: "In the ritual language of the Winnebago Medicine Rite we know that reincarnation was referred to as 'skin shedding.' This is easy to understand from the example of serpents that shed their skin periodically and emerge symbolically reborn. It is but one short step to actually shedding the skin of a sacrificial victim to represent rebirth in the manner of Xipe Totec." See also S. Linda and D. Freidel, *A Forest of Kings: The Untold Story of the Ancient Maya* (William Morrow, 1990), 359. The Mayan serpent similarly served as a symbol of birth and renewal.

43. Herrmann et al., "A New Multistage Construction Chronology for the Great Serpent Mound, USA," 121, 124.
44. Ibid., 124.
45. Ibid.
46. Ibid.
47. Fletcher et al., "Serpent Mound: A Fort Ancient Icon?" 132–133.
48. Ibid., p. 133.

3: THE DRAGON AND THE SUN

1. Ross Hamilton, *The Mystery of the Serpent Mound* (North Atlantic Books, 2001).
2. D. W. Mathisen, "How to Find the Four Important Heavenly Serpents," on The Mathisen Corollary (blog) (05/18/17), "The fourth of the important heavenly serpents … is the Dragon of Draco:"https://mathisencorollary.blogspot.com/2017/05/. For ancient cultures that depicted Draco as a serpent or dragon, see the interpretation of ancient Greek and Roman cosmic symbolism in D. Ogden, *Drakon: Dragon Myth and Serpent Cult in the Greek and Roman Worlds* (Oxford University Press, 2013); see, for example, p. 164: "The constellation of Draco was taken to recall various *drakōn* fights. The sixth-century BC Epimenides told that when Zeus was attacked by Cronus, he hid by transforming himself into a *drakōn,* and his nurses into bears, and subsequently celebrated this by installing the adjacent constellations of Draco and the Bears in the heavens."

3. Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill: An Essay Investigating the Origins of Human Knowledge and Its Transmission Through Myth* (Nonpareil Books, 1977, reprinted 1999), 59.
4. Ibid.
5. See, for example, E. N. Kaurov, "The Draco Constellation: The Ancient Chinese Astronomical Practice of Observations," *Astronomical and Astrophysical Transactions* 15, nos. 1–4, (1998), 325–341, esp. 325: "The Draco constellation is one of the oldest ancient constellations. It is apparently connected with the very archaic practice of observations and with an ancient Chinese astronomical observational practice during the most ancient times."
6. The quotation is from Erasmus Darwin's *The Botanic Garden,* 1791:
With vast convolutions Draco holds
Th' ecliptic axis in his scaly folds.
O'er half the skies his neck enormous rears,
And with immense meanders parts the Bears.
7. Charles C. Willoughby, "The Serpent Mound of Adams County, Ohio," *American Anthropologist,* New Series 21, no. 2 (April–June 1919), 153.
8. W. H. Holmes, *Science* 8, no. 204 (December 31, 1886), 627–628. I have taken the liberty of altering Holmes's original spelling of *manito* to the more usual *manitou*.
9. Hamilton, *The Mystery of the Serpent Mound,* 22.
10. Ibid.

11. *The Ancient Egyptian Book of the Dead,* trans. E. A. Wallis Budge (first published in Great Britain in 1889, reprinted by Arkana, London and New York, 1985), 14.

PART II

4: A PAST NOT SO MUCH HIDDEN AS DENIED

1. Email from Rebecca Handelsman dated September 20, 2017.
2. Steven R. Holen, Thomas A. Deméré, et al., "A 130,000-Year-Old Archaeological Site in Southern California, USA," *Nature* 544 (April 27, 2017), 479ff.
3. More on Professor Grayson can be found here: https://anthropology.washington.edu/people/donald-k-grayson.
4. Interviewed by *BuzzFeed News* for its April 26, 2017, article "Don't Believe the Big Story About Humans Roaming America 130,000 Years Ago," https://www.buzzfeed.com/danvergano/mastodon-mash.
5. Cited in the *Guardian,* London, April 28, 2017, "Could History of Humans in North America Be Rewritten by Broken Bones?" https://www.theguardian.com/science/2017/apr/26/could-history-of-humans-in-north-america-be-rewritten-by-broken-mastodon-bones.
6. Cited in Thomas Curwen, "Archaeology as Blood Sport: How the Discovery of an Ancient Mastodon Ignited Debate over Humans' Arrival in North America," *Los*

Angeles Times, December 22, 2017, http://www.latimes.com/local/california/la-me-cerutti-mastodon-20171222-htmlstory.html.

7. Cited in Gary Haynes, "The Cerutti Mastodon," *PalaeoAmerica* 3, no. 3 (June 21, 2017), 196ff. See also Lizzie Wade, "Claim of Very Early Human Presence in Americas Shocks Researchers," *Science* (April 28, 2017).
8. Cited in Curwen, "Archaeology as Blood Sport."
9. Email exchange of September 26, 2017.
10. Ibid.
11. Email exchange of October 10, 2017.
12. Cited in Christopher Hardaker, *The First American* (New Page Books, 2007), 183. See also David E. Stannard, *American Holocaust* (Oxford University Press, 1992), 261, who states a figure of 6,000 years: "Until the 1930's it generally was believed that the earliest human inhabitants of the Americas had moved from the Alaskan portion of Beringia to what is now known as North America no more than 6,000 years ago."
13. For evidence pertaining to anatomically modern human presence in Asia at c. 65,000 years ago see, for example: Chris Clarkson et al., "Human Occupation of Northern Australia by 65,000 Years Ago," *Nature* (July 20, 2017); Kira. E. Westaway et al., "An Early Modern Human Presence in Sumatra by 73,000–63,000 Years Ago," *Nature* (August 17, 2017); Sue O'Connor et al., "New Evidence from East Timor Contributes to Our Understanding of Earliest Modern Human Colonisation East of the Sunda Shelf," *Antiquity* (September 1, 2007); Qiaomei Fu et al., "Genome Sequence of a 45,000-Year-Old Modern Human from Western Siberia," *Nature* (October 23, 2014); Israel

Hershgovitz et al., "The Earliest Modern Humans Outside Africa," *Nature* (January 26, 2018); Wu Liu et al., "The Earliest Unequivocally Modern Humans in Southern China," *Nature* 526 (October 29, 2015); Fabrice Demeter et al., "Anatomically Modern Human in Southeast Asia (Laos) by 46 ka," *Proceedings of the National Academy of Sciences* 109, no. 36 (September 4, 2012).

14. See discussion in Charles C. Mann, *1491: New Revelations of the Americas Before Columbus,* 2nd ed. (Vintage Books, 2011), 167–174. See also Anthony T. Boldurian and John L. Cotter, *Clovis Revisited: New Perspectives on Paleoindian Adaptions from Blackwater Draw, New Mexico* (University Museum, University of Pennsylvania, 1999), 2.

15. Frank H. H. Roberts Jr., "Developments in the Problem of the North American Paleo-Indian," *Essays in Historical Anthropology of North America Published in Honor of John R. Swanton, Smithsonian Miscellaneous Collections* 100 (May 25, 1940), 52. See also Gordon G. Wiley and Jeremy A. Sablof, *A History of American Archaeology* (W. H. Freeman, 1993), 50.

16. Boldurian and Cotter, *Clovis Revisited,* xviii. See also A. T. Boldurian, "James Ridgley Whiteman Memorial," *Plains Anthropologist* 49, no. 189 (2004), 85–90, esp. 87.

17. In 1934, on the strength of his work at Blackwater Draw, he became a research associate of the Carnegie Institution in Washington, DC. See J. Alden Mason, "Edgar Billings Howard, 1887–1943," *American Antiquity* 9, no. 2 (October 1943), 230–234.

18. Eastern Mexico University, "Blackwater Draw," https://web.archive.org/web/20080523174557/http://www.enmu.edu/services/museums/b

draw/index.shtml.

19. Edgar B. Howard, *Evidence of Early Man in North America* (University Museum, Philadelphia, 1935), and review by Florence M. Hawley in *American Anthropologist,* New Series 39 (1937), 139–140.

20. Academy of Natural Sciences Philadelphia, *Nature*, January 16, 1937, 103–104.

21. Cited in Mann, *1491,* 173.

22. Charles C. Mann, "The Clovis Point and the Discovery of America's First Culture," *Smithsonian,* November 2013, https://www.smithsonianmag.com/history/the-clovis-point-and-the-discovery-of-americas-first-culture-3825828/.

23. David B. Madsen, "A Framework for the Initial Occupation of the Americas," *PalaeoAmerica* 1, no. 3 (2015), 218–219.

24. Ibid.

25. Gary Haynes, *The Early Settlement of North America* (Cambridge University Press, 2002), 2–3 and 265. See also Kaitlyn A. Thomas et al., "Explaining the Origin of Fluting in North American Pleistocene Weaponry," *Journal of Archaeological Science* 81 (May 2017), 23ff.

26. Thomas et al., "Explaining the Origin of Fluting in North American Pleistocene Weaponry," 24. See also Michael R. Waters, Steven L. Forman, et al., "The Buttermilk Creek Complex and the Origins of Clovis at the Debra L. Friedkin Site, Texas," *Science* 331 (March 25, 2011), 1599.

27. Madsen, "A Framework for the Initial Occupation of the Americas," 219. See also Daniel S. Amick, "Evolving Views on the Pleistocene Colonization of North America,"

Quaternary International 431, Part B (February 28, 2017), 125ff.

28. Mann, "The Clovis Point and the Discovery of America's First Culture." See also: Ohio History Connection, "Clovis Culture 9000 B.C. to 8000 B.C.," http://www.ohiohistorycentral.org/w/Clovis_Culture?rec=2044.

29. Mann, "The Clovis Point and the Discovery of America's First Culture:" "Most researchers believe that the rapid dissemination of Clovis points is evidence that a single way of life—the Clovis culture—swept across the continent in a flash. No other culture has dominated so much of the Americas."

30. See, for example, Kirk Bryan, *Geological Antiquity of the Lindenmeier Site in Colorado,* Smithsonian Miscellaneous Collections 99, no. 2 (Washington, DC, 1940), "It is believed by the writers that the age be much nearer 25,000 years than 10,000." The reference is to the Folsom culture, already established by that time to be younger than the Clovis culture.

31. C. Vance Haynes Jr., "Fluted Projectile Points: Their Age and Dispersion," *Science* 145 (September 25, 1964), 1408–1413. **Important note:** Haynes published his paper in 1964, before improvements in radiocarbon dating, notably "calibration," which takes account of different amounts of C-14 formed in the earth's atmosphere at different periods of the past and derives calendar years from radiocarbon years according to a sliding scale. Going back as far as the last Ice Age, dates in calendar years turn out to be increasingly older than dates given in radiocarbon years so that, for example, a radiocarbon age reading of 12,000 years ago corresponds, after calibration, with a calendar date of 13,800 years ago (see J. Tyler Faith and Todd A. Surovell,

"Synchronous Extinction of North America's Pleistocene Mammals," *Proceedings of the National Academy of Sciences* 106, no. 49 (December 8, 2009), 20641). I have therefore taken the liberty in my text of replacing the dates given by Haynes in his 1964 paper with the dates most recently agreed and accepted by archaeologists.

32. Haynes, "Fluted Projectile Points," 1412.
33. Ibid., 1410–1411.
34. Ibid., 1412.
35. Ibid., 1411–1412.
36. Waters et al., "The Buttermilk Creek Complex and the Origins of Clovis at the Debra L. Friedkin Site, Texas," 1599.
37. Haynes, "Fluted Projectile Points," 1411–1412.
38. Ibid., 1412.
39. Mann, *1491,* 178: "The fractious archaeological community embraced his [Haynes's] ideas with rare unanimity; they rapidly became the standard model for the peopling of the Americas."
40. Hardaker, *The First American,* 9.
41. "Young Americans," *Nature* 485 (May 3, 2012), 6.
42. Tom Dillehay et al., "New Archaeological Evidence for an Early Human Presence at Monte Verde, Chile," *PLoS One* (November 18, 2015).
43. Mann, *1491,* 186, reports that fifty studies were dismissed. It is important to add, however, that Haynes's dismissals were often entirely justified. For example, in 1951 a crucial piece of evidence that Hrdlička had suppressed during his tenure at the

Smithsonian was—commendably—brought to light by his successor T. Dale Stewart. The disclosure was low-profile, appearing only in the "Comments and Communications" section of the journal *Science* (April 6, 1951, 391), and it did not outright accuse Hrdlička of any malfeasance. The fact remained, nonetheless, that in Hrdlička's own files Stewart had found a paper published in the *American Naturalist* in 1895, that Hrdlička had "failed to mention" when he published his *Skeletal Remains Suggesting or Attributed to Early Man in North America* (Bureau of American Ethnology, Bulletin 33, 1907). "This might be expected, Stewart wrote: "Because Wilson's conclusions are contrary to those of Hrdlička. The latter concluded on morphological grounds that the Natchez pelvic bone was that of a recent Indian, whereas Wilson concluded from the fluorine content that this bone was as ancient as an associated Mylodon bone."

Fossil bones absorb fluorine from soil and water, so fossils that have been in the same soil for the same length of time should have roughly the same amount of fluorine. The reason the paper caught Stewart's eye in 1951 was that two years previously, a fluorine test carried out on the remains of so-called Piltdown Man had proved them to be hundreds of thousands of years younger than they were supposed to be and set in motion the investigation that would lead in 1953 to the exposure of this embarrassing archaeological fraud. For the latest research on the Piltdown Man hoax see Isabelle De Groote et al., "New Genetic and Morphological Evidence Suggests a Single Hoaxer Created Piltdown Man," *Royal Society Open Science* 3, no. 8 (August 1, 2016).

For Hrdlička to have ignored the compelling implications of the fluorine test results on the Natchez human pelvic bone, cutting-edge science in his day, was, to say the least,

distinctly odd. He was vindicated, however, in April 1990 when C. Vance Haynes was sent a sample of the Natchez bone for radiocarbon dating and reported a relatively recent age of around just 5,000 years (see John L. Cotter, "Update on Natchez Man," *American Antiquity* 56, no. 1 (1991), 38). This turned out to be about 12,000 years younger than the associated mylodon fossil (now redesignated as *Glossotherium harlani,* a giant extinct ground sloth), which was radiocarbon dated to more than 17,000 years before the present (pp. 38–39).

How had the two deposits of entirely different age become so muddled up that the younger one actually lay beneath the older one?

The answer, and perhaps Hrdlička had noticed it, giving him what he would probably have regarded as sufficient justification to ignore the 1895 fluorine paper, was that the Natchez bone, together with the associated fossils of extinct megafauna, had been excavated in a ravine from a deposit of clay, "the talus of a neighboring cliff on of which were some old Indian graves." When the famed British geologist Sir Charles Lyell visited the site, he expressed the opinion that "although the human bone may have been contemporaneous with those of the extinct animals with which it had been found, he thought it more probable it had fallen from one of the Indian graves and had become mingled with the older fossils which were dislodged from the deeper part of the cliff. … In the wear of the cliff the upper portion, with the Indian graves and human bones, would be likely to fall first and the deeper portion with the older fossils subsequently on the latter" (Leidy cited in Cotter, "Update on Natchez Man," 37).

44. Cited by James Adovasio, *The First Americans: In Pursuit of Archaeology's Greatest Mystery* (Modern Library, paperback edition, 2003), 217.

45. Ibid.
46. Ibid., 219.
47. David J. Meltzer et al., "On the Pleistocene Antiquity of Monte Verde, Southern Chile," *American Antiquity* 62, no. 4 (October 1997), 659–663. The reference to the 33,000 years BP date is on p. 662.
48. Adovasio, *The First Americans,* 217–230.
49. Ibid., 225.
50. J. M. Adovasio et al., "Meadowcroft Rockshelter, 1977: An Overview," *American Antiquity* 43, no. 4 (October 1978), 632–651.
51. Adovasio, *The First Americans,* 223.
52. National Historic Landmark Nomination, Meadowcroft Rockshelter, https://www.nps.gov/nhl/find/statelists/pa/Meadowcroft.pdf; Lauren Selker, "Meadowcroft: Peering into America's Ancient Past," Spring 2010, http://pabook2.libraries.psu.edu/palitmap/Meadowcroft.html.
53. Heather Pringle, "From Vilified to Vindicated: The Story of Jacques Cinq-Mars," *Hakai Mag-azine,* March 7, 2017, https://www.hakaimagazine.com/features/vilified-vindicated-story-jacques-cinq-mars/?xid=PS_smithsonian and at http://www.smithsonianmag.com/science-nature/jacques-cinq-mars-bluefish-caves-scientific-progress-180962410/#A1zGtDKtgySyduU6.99.
54. William Josie, director of natural resources at the Vuntut Gwitchin First Nation in Old Crow, cited in Pringle, "From Vilified to Vindicated."

55. Lauriane Bourgeon, Ariane Burke, and Thomas Higham, ‘Earliest Human Presence in North America Dated to the Last Glacial Maximum: New Radiocarbon Dates from Bluefish Caves, Canada,” *PLoS One* (January 6, 2017).

56. Examples of papers that convincingly document pre-Clovis sites in the Americas are: A. C. Goodyear, “Evidence of Pre-Clovis Sites in the Eastern United States,” *Paleoamerican Origins Beyond Clovis* (2005), 103–112; M. R. Waters et al., “The Buttermilk Creek Complex and the Origins of Clovis at the Debra L. Friedkin Site, Texas,” *Science* 331, no. 6024 (March 25, 2011), 1599–1603; M. R. Waters et al., “Pre-Clovis Mastodon Hunting 13,800 Years Ago at the Manis Site, Washington.” *Science* 334, no. 6054 (2011), 351–353; D. L. Jenkins et al., “Clovis-Age Western Stemmed Projectile Points and Human Coprolites at the Paisley Caves,” *Science* 337, no. 6091 (2012), 223–228; T. D. Dillehay et al., “New Archaeological Evidence for an Early Human Presence at Monte Verde, Chile,” *PLoS One* 10, no. 11 (2015), e0141923; J. J. Halligan et al., “Pre-Clovis Occupation 14,550 Years Ago at the Page-Ladson Site, Florida, and the Peopling of the Americas,” *Science Advances* 2, no. 5 (2016), e1600375; and A. C. Goodyear and D. A. Slain, “The Pre-Clovis Occupation of the Topper Site, Allendale County, South Carolina” in A. C. Goodyear and C. R. Moore, *Early Human Life on the Southeastern Coastal Plain* (University Press of Florida, 2018).

57. Holen et al., “A 130,000-Year-Old Archaeological Site in Southern California, USA,” 479ff.

5: MESSAGE FROM A MASTODON

1. Balboa Park History, https://www.balboapark.org/about/history.
2. Bob Yirka, "Researchers Suggest Comet Most Likely Cause of Chicxulub Crater." *PhysOrg* (March 25, 2013), https://phys.org/news/2013-03-comet-chicxulub-crater.html.
3. "Story of the Discovery," San Diego Natural History Museum, http://www.sdnhm.org/search-results/?search_paths%5B%5D=&query=Cerutti+mastodon.
4. Ibid.
5. Ibid.
6. Ibid.
7. Ibid.
8. J. Tyler Faith and Todd Surovell, "Synchronous Extinction of North America's Pleistocene Mammals," *Proceedings of the National Academy of Sciences* 106, no. 49 (December 8, 2009), 20631–20645.
9. "Story of the Discovery."
10. San Diego Natural History Museum, "FAQs," "What Were the Early Signs That Indicated the Cerutti Mastodon Site Was Different from a Typical Paleontological Site?" http://www.sdnhm.org/consulting-services/paleo-services/projects/cerutti-mastodon/cerutti-mastodon-faqs/.
11. Ibid.

12. Fifty thousand years is the "worldwide" limit of C-14 radiocarbon dating. See, for example, CalPal at the University of Cologne: http://monrepos-rgzm.de/research-103/amenities.html.
13. "Story of the Discovery."
14. Cited in Thomas Curwen, "Archaeology as Blood Sport," *Los Angeles Times,* December 22, 2017, http://www.latimes.com/local/california/la-me-cerutti-mastodon-20171222-htmlstory.html.
15. Ibid.
16. Ibid.
17. Ibid.
18. Although the decisive shift came in 2014, Tom Deméré states that the tide really began to turn in 2008 when archaeologists Steve Holen and Kathleen Holen made their initial research visit to The Nat to examine the Cerutti Mastodon materials. A full timeline is available here: https://www.sdnhm.org/consulting-services/paleo-services/projects/cerutti-mastodon/cerutti-mastodon-discovery-timeline/.
19. "Story of the Discovery." Complete details are given in Steven R. Holen et al., "A 130,000-Year-Old Archaeological Site in Southern California," *Nature* (April 27, 2017).
20. Other members of the team were George Jefferson, Paleontologist Emeritus with the Colorado Desert District Stout Research Center; Kathleen Maule Holen, M.S., M.A., Administrative Director at the Center for American Paleolithic Research; Jared Beeton, Professor of Earth Science at Adams State University; Adam Rountree of the University of Michigan's Museum of Paleontology, and Lawrence Vescera, Paleontologist at

California State Parks Colorado Desert District Stout Research Center in Borrego Springs. For further details, see https://www.sdnhm.org/consulting-services/paleo-services/projects/cerutti-mastodon/cerutti-mastodon-discovery-timeline/.

21. The range of 140,000 to 120,000 years ago is approximate, and Deméré himself (personal correspondence) prefers 130,000 years ago down to about 115,000 years ago. There are nuances, as usual. For full details of recent discussions around the dating of the Eemian, see "Eemian Interglacial Reconstructed from a Greenland Folded Ice Core," *Nature* 493 (January 24, 2013), 489–494.

22. Like our understanding of the origins of civilization, our understanding of human origins is undergoing somewhat of a paradigm shift. Around the time of the publication of Holen et al.'s Cerutti Mastodon paper in April 2017, multiple studies have pushed the timing of the initial migration of *Homo sapiens* out of Africa back so far that the "Out of Africa" paradigm—which has been firmly in place since 1924 when the first *Australopithecus* fossils were found in South Africa—has been questioned and alternative theories explored. In the same month as the Cerutti paper was published, the Dali skull from China was dated to 260,000 years ago, thus reviving the question of whether *Homo sapiens* originated in isolation in Africa. [Xuefeng Sun et al., "TT-OSL and Post-IR IRSL Dating of the Dali Man Site in Central China," *Quaternary International* 434 A (April 1, 2017), 99–106.] June 2017 saw the results of Hublin et al.'s study on the 315,000–360,000-year-old modern human skeleton in Jebel Ihroud, Morocco, thus making East Africa's status as the "cradle of mankind" redundant. [Jean-Jaques Hublin et al., "New Fossils from Jebel Ihroud, Morocco and the pan-African

origin of *Homo sapiens,*" *Nature* 546 (08 June 2017), 289–292.] July 2017 saw Clarkson et al.'s publication on the occupation of northern Australia by 65,000 years ago, which altered the minimum date of 60,000–50,000 years ago for the dispersal of anatomically modern humans out of Africa [Chris Stringer and Peter Andrews, "Genetic and Fossil Evidence for the Origin of Modern Humans," *Science* vol. 239, no. 4845 (March 11, 1988), 1263–1268.] or made more likely the possibility that humans migrated from Australia to Africa at that time. [Bruce R. Fenton, *The Forgotten Exodus: The Into Africa Theory of Human Evolution* (Independently Published, April 7, 2017).] In August 2017, the Dali skull was confirmed as being a hybrid *Homo sapiens* and *Homo erectus* hominin that has contributed significantly to the evolution of Chinese *Homo sapiens*, thus further complicating the story and entrenching East Asia as a focal point of human origins. [Sheela Athreya and Xinzhi Wu, "A Multivariate Assessment of the Dali Hominin Cranium from China: Morphological Affinities and Implications for Pleistocene Evolution in East Asia" *American Journal of Physical Anthropology* vol. 164 no. 4 (December 2017), 679–701.] In September 2017, Schlebusch et al.'s study of ancient southern African genomes deepened the divergence of modern humans from archaic humans to 350,000–260,000 years ago, thus supporting a much earlier initial migration event through Asia to southern China. [Carina M. Schlebusch and Helena Malmström et al., "Southern African Ancient Genomes Estimate Modern Human Divergence to 350,000 to 260,000 years ago," *Science* 10.1126/science.aao6266 (September 28, 2017).] In light of all this, on December 8, 2017, Bae, Douka, and

Petraglia wrote a review in *Science* calling for the official revision of anatomically modern human migrations to account for the Eurasian findings:

> The identification of Neanderthals and Denisovans in Siberia … along with growing fossil and archaeological evidence for the presence of early modern humans in East and Southeast Asia, much earlier than originally thought, places the spotlight on the evolutionary history of our species in Asia over the last 125,000 years. Exciting and unanticipated new discoveries call for a need to critically reexamine the Asian record.

[Christopher J. Bae, Katerina Douka, Michael D. Petraglia, "On the Origin of Modern Humans: Asian Perspectives," *Science* vol. 358 no. 6368 (December 8, 2017).] Shortly after, on January 18, 2018, a team led by evolutionary geneticist Deigan Yuang published a landmark paper suggesting that the Y chromosome and mitochondrial DNA originated in East Asia, thus calling for a serious reconsideration of the multiregional model of human origins. [Dejian Yuang et al., "Modern Human Origins: Multiregional Evolution of Autosomes and East Asia Origin of Y and mtDNA," *bioRxiv* (May 1, 2018).] Since then, archaeological findings revealing characteristics of early middle Paleolithic culture in India around 385–172 ka has made certain that the traditional "Out of Africa" model must at least be reframed. [Kumar Akhilesh et al., "Early Middle Palaeolithic Culture in India Around 385–172ka reframes Out of Africa Models," *Nature* 554 (February 1, 2018), 97–101.] The current consensus among those interpreting human origins from within the "Out of Africa" framework is marked by the publication of a paper written by twenty-five scholars from institutions around the world entitled, "Did Our Species Evolve in Subdivided Populations Across Africa, and Why Does It Matter?" The abstract reads:

> We challenge the view that our species, *Homo sapiens,* evolved within a single population and/or region of Africa. The chronology and physical diversity of Pleistocene human fossils suggest that morphologically varied populations pertaining to the *H. sapiens* clade lived throughout Africa. Similarly, the African archaeological record demonstrates the polycentric origin and persistence of regionally distinct Pleistocene material culture in a variety of paleoecological settings. Genetic studies also indicate that present-day population structure within Africa extends to deep times, paralleling a paleoenvironmental record of shifting and fractured habitable zones. We argue that these fields support an emerging view of a highly structured African prehistory that should be considered in human evolutionary inferences, prompting new interpretations, questions, and interdisciplinary research directions.

[Eleanor Scerri et al., "Did Our Species Evolve in Subdivided Populations Across Africa, and Why Does it Matter?" *Trends In Ecology & Evolution* vol. 33, no. 8 (August 2018), 582–594.] Also see the somewhat convincing, albeit controversial, interpretation of anthropologist German Dziebel, "The End of Out-of-Africa: A Copernican Reassessment of the Patterns of Genetic Variation in the Old World" (November 13, 2013), http://anthropogenesis.kinshipstudies.org/blog/2013/11/11/the-end-of-out-of-africa-a-copernican-reassessment-of-the-patterns-of-genetic-variation-in-the-old-world/.

23. Tom Deméré adds (personal communication): "The site was excavated over a 5 month period and eventually unearthed 50m**2** of the bone-and-stone-bearing bed. The resulting bone and stone distribution map presented a pattern of 2 work stations with concentrations of objects."

24. Tom Deméré adds (personal communication): “The ‘work station’ hypothesis is based on the pattern of bone and stone distribution revealed after 5 months of hard excavation of the bone bed.”

25. Tom Deméré adds (personal communication): “Actually, we suggest that there are ‘tools’ at the CMS—the hammerstones and anvils are expedient tools not manufactured tools. Such ‘tools’ were probably the ‘first’ tools used by hominins.”

26. Tom Deméré adds (personal communication): “We also suggest that the bones were broken to provide raw materials for the making of bone tools.”

27. See Gary Haynes, “The Cerutti Mastodon,” *PaleoAmerica* 3.3 (2017), 196–199 and Donald Grayson quoted in D. Vergano, “Don’t Believe the Big Story About Humans Roaming America 130,000 Years Ago” (Buzzfeed, April 26, 2017). Also see Joseph V. Ferraro and Katie M. Binetti., “Contesting Early Archaeology in California,” *Nature* 554 (February 8, 2018).

28. See David Meltzer quoted in “Don’t Believe the Big Story About Humans Roaming America 130,000 Years Ago” (Buzzfeed, April 26, 2017).

29. G. Haynes, “The Cerutti Mastodon.”

30. S. R. Holen et al., “Supplementary Information” for “A 150-Year-Old Archaeological Site in Southern California,” *Nature* (April 27, 2017), 13–25.

31. Ibid., 4. Also see pp. 14–15, “Weathering”: “Evidence indicating weathering of bone at the CM site is variable. The majority of limb bones do not exhibit extensive weathering cracks (i.e., weathering stage 0 or 110), while ribs and vertebrae exhibit some cracks that represent wetting and drying processes and/or diagenetic processes related to formation

of pedogenic carbonate (caliche). All weathering-like features appear to post-date the disarticulation and burial of CM bones. In addition, some limb element fragments (e.g., CM-288) with unweathered surfaces are spirally-fractured, with smooth curvilinear fracture planes indicating that the bone was broken while it was still fresh."

For visual 3D evidence of the limb element fragments on CM-288 go to the University of Michigan, "Online Repository of Fossils," Museum of Paleontology, "The Cerutti Mastodon Site," "Bone Fragments," "Specimen: SDSNH 49926, Taxon: *Mammut americanum,* Element: CM 288; bone fragment: https://umorf.ummp.lsa.umich.edu/wp/wp-content/3d/viewer.html?name=1244&extension=ctm.

See also "Supplementary Information," pp. 15–16, "Geologic Processes of Proboscidean Limb Bone Modification:" "Post-depositional dry-bone fracturing, as evidenced by longitudinal and perpendicular fracture planes with rough surfaces is distinguished from the spiral fracture patterns produced by dynamic fracturing of fresh bone noted on the majority of CM limb bone fragments. There is no evidence at the CM site that geological processes caused breakage of fresh mastodon limb bones" and, "Two biologic processes, carnivoran gnawing and trampling by large mammals, are known to fracture bone. However, fresh cortical proboscidean limb bone is rarely broken by either agent."

See also p. 18: "Fracturing of proboscidean limb bones while still fresh is rare in modern single-elephant death sites, and no sites have been documented like the CM site, where fresh elephant limb bone is broken into numerous small spirally fractured fragments with evidence of multiple impacts. … The femoral diaphyses found at the CM

site are broken into small spirally-fractured pieces, whereas more fragile bones like ribs and vertebrae are complete, or more complete than the heavier and denser limb bones. This pattern of differential breakage is exactly the opposite of what is found where proboscidean bones have been extensively trampled. Under trampling, the lightest bones (e.g., ribs and vertebrae) are broken first and into much smaller pieces than the limb bones that have thicker cortical walls resistant to breakage."

Also see "Extended Data," Figure 4a–e: Diagnostic anvil wear on CM bone, https://www.nature.com/articles/nature22065/figures/8, as well as Supplementary Video 3 and Extended Data Figure 8: Experimental hammerstone percussion of elephant bone: https://www.nature.com/articles/nature22065/figures/12.

32. Ibid., 13–25.

33. Tom Deméré adds (personal communication): "Again, marrow extraction is only one possible reason for breaking up the long bones—another possible/probably reason is to produce bone 'blanks' from which to fashion bone tools."

34. Thomas M. Cronin, *Principles of Climatology* (New York: Columbia University Press, 1999), 204.

6: MILLENNIA UNACCOUNTED FOR

1. See, for example, Michael Collins quoted in E. A. Powell, "Early Dates, Real Tools?" Archaeological Institute of America (November 17, 2004),

https://archive.archaeology.org/online/news/topper.html: "I don't believe those are artifacts. … They're geofacts—not manmade."

2. M. Rose, "The Topper Site: Pre-Clovis Surprise," Archaeological Institute of America (July/August 1999), https://archive.archaeology.org/9907/newsbriefs/clovis.html.
3. See discussion in J. M. Adovasio and David Pedler, *Strangers in a New Land* (Firefly Books, 2016), 276.
4. The Southeast-American Early Archaic period is conventionally dated to 10,000 to 8,000 BP. The beginning of the period, at 10,000 BP, was marked in accordance with conventional geological dating of the Pleistocene/Holocene boundary, while the end of the period, 8,000 BP, is usually equated with the Hypsithermsal warming episode. See M. F. Johnson et al., *The Paleoindian and Early Archaic Southeast* (University of Alabama Press, 1999), 15.
5. Adovasio and Pedler, *Strangers in a New Land,* 275. Also see the Paleoindian Database of the Americas (PIDBA), "Total Number of Reported Clovis Projectile Points." The lack of Clovis points found at coastal regions of the southeast (North Carolina, South Carolina, Georgia, and Florida) is clearly illustrated in these two maps: http://web.utk.edu/~dander19/clovis_continent_647kb.jpg and http://web.utk.edu/~dander19/clovis_southeast_569kb.jpg.
6. Adovasio and Pedler, *Strangers in a New Land,* 275: "The renown of its massive Clovis deposit is very well deserved."
7. Some skeptics resorted to arguing that bend-breaks can be made by natural forces or accidental breakage. See for example Stuart. J. Stewart, "Is That All There Is? The

Weak Case for Pre-Clovis Occupation of Eastern North America," *In the Eastern Fluted Point Tradition*, (eds.) J. A. M. Gingerich (University of Utah Press, 2013), 333–354. Skip to note 11 of this chapter for a list of studies that have since rendered this argument in association with the Topper Palaeolithic terrace untenable.

8. It was in November 2004 that the radiocarbon results of carbonized plant remains where artifacts excavated in May from along the Savannah River in Allendale County first came back. See "New Evidence Puts Man in North America 50,000 Years Ago," *Science Daily* (November 18, 2004), https://www.sciencedaily.com/releases/2004/11/041118104010.htm.

   The Pleistocene antiquity of the site and artifacts found within it were then reaffirmed in 2009 by a team led by Michael R. Waters, in a paper titled "Geoarchaeological Investigations at the Topper and Big Pine Tree Sites, Allendale County, South Carolina," in the *Journal of Archaeological Science*. See, for example, p. 1305: "Six samples of wood, nutshell, and humic acids were dated from unit 1a (Figs. 4 and 5). These dates represent minimum ages for unit 1a and indicate that this unit dates in excess of 50,000 14C yr B.P. A date of >54,700 14C yr B.P. (CAMS-79022) was obtained on a Hickory (Carya) nutshell and a date of >55,500 14C yr B.P. (CAMS-19023) on a piece of fir wood (Abies) from an organic horizon within unit 1a underlying the reported oldest cultural horizon at the Topper site." It was from unit 1a of the Pleistocene terrace that distinctive bend-break tools were recovered.

9. Albert C. Goodyear, "Evidence of Pre-Clovis Sites in the Eastern United States," *Paleoamerican Origins Beyond Clovis* (2005), 103–112.

10. A. C. Goodyear and D. A. Slain, "The Pre-Clovis Occupation of the Topper Site, Allendale County, South Carolina," in A. C. Goodyear and C. R. Moore, *Early Human Life on the Southeastern Coastal Plain* (University Press of Florida, 2018), S30.

11. The natural vs. human creation of the materials excavated from a Pleistocene terrace at Topper was evaluated by Douglas Slain and presented at the 81st Annual Meeting of the Society for American Archaeology (SAA) in Orlando, Florida, on April 8, 2016. The content of this presentation is documented in D. Slain, "Pre-Clovis at Topper (38AL23): Evaluating the Role of Human Versus Natural Agency in the Formation of Lithic Deposits from a Pleistocene Terrace in the American Southeast," *The Selected Works of Douglas Slain* (April 8, 2016). In this paper, Slain concludes, "The weathering simulations produced lithic detachments that fit the morphological description of bend breaks. However, as these detachments did not have technological attributes consisting of either compression rings, bulbs of force, or impact markers, these items should not be mistaken for the byproducts of intentional biface, or bipolar technologies. In other words, detachments resulting from natural weathering processes often exhibit morphological similarity to cultural debitage, but lack the technological attributes of a chipped stone reductive technology" (p. 7). Consequently, "Evidence from this study supports King's (2012) findings and demonstrates a human origin for the pre-Clovis flake assemblage at the site" (p. 8). The M. King study, "MA Thesis Title: The Distribution of Paleoindian Debitage from the Pleistocene Terrace at the Topper Site: An Evaluation of a Possible Pre-Clovis Occupation (38Al23)" (University of Tennessee,

2012) is indeed consistent with Slain in concluding that "the data supports the notion that the pre-Clovis debitage was manmade" (p. 137).

12. Adovasio and Pedler, *Strangers in a New Land,* 284; see also J. M. Adovasio and Jake Page, *The First Americans: In Pursuit of Archaeology's Greatest Mystery* (Modern Library, 2003), 272.

13. Adovasio and Pedler, *Strangers in a New Land,* 284.

14. A. C. Goodyear, "Evidence of Pre-Clovis Sites in the Eastern United States," 110.

15. Wm Jack Hranicky, *Bipoints Before Clovis: Trans-Oceanic Migrations and Settlement of Prehistoric Americas* (Universal Publishers, 2012), 50.

16. Ibid, 283. And see also Adovasio and Page, *The First Americans,* 272.

17. Adovasio and Page, *The First Americans,* 272.

18. This list, from Wikipedia, gives some idea of the number of claimed sites, but, as its failure to include the Cerutti Mastodon Site indicates, it is by no means complete: https://en.wikipedia.org/wiki/Category:Pre-Clovis_archaeological_sites_in_the_Americas. Probably the most useful source is Adovasio and Pedler, *Strangers in a New Land,* which devotes many chapters to the more credible pre-Clovis sites. But see also http://scienceviews.com/indian/pre_clovis_sites.html and https://www.thoughtco.com/pre-clovis-sites-americas-173079.

19. For a fascinating and extensive discussion of Hueyatlaco, a site that we will consider further, see Christopher Hardaker, *The First American: The Suppressed Story of the People Who Discovered the New World* (New Page Books, 2007).

20. Adovasio and Pedler, *Strangers in a New Land*.

21. Ibid. For Pedra Furada, see also N. Guidon and G. Delibrias, "Carbon-14 Dates Point to Man in the Americas 32,000 Years Ago," *Nature* 321 (June 19, 1986), 769, and Marvin W. Rowe and Karen L. Steelman, "Comment on 'Some Evidence of a Date of First Humans to Arrive in Brazil,' *Journal of Archaeological Science* 30 (2003), 1349.

22. Adovasio and Pedler, *Strangers in a New Land*. Compare, for example, the Topper Assemblage going back 50,000 years or more (p. 279ff.), with the relative sophistication of the Miller Lanceolate projectile point and bone tools found at Meadowcroft (dated between about 17,000 years ago and 13,000 years ago) (pp. 211–212), or with the chert "El Jobo" projectile points from Monte Verde (dated to around 14,500 years ago) (p. 225), or with the Cactus Hill points, dated roughly 18,000 years ago (p. 235).

23. In 2011, there were over 100 uncontacted tribes worldwide. See, for example, Joanna Eede, "Uncontacted Tribes: The Last Free People on Earth," National Geographic Blog: Changing Planet (April 1, 2011), https://blog.nationalgeographic.org/2011/04/01/uncontacted-tribes-the-last-free-people-on-earth/.

24. For example, Stuart J. Fiedel, "The Anzick Genome Proves Clovis Is First, After All," *Quaternary International* 44 (2017), 4–9.

25. As King reminds us with regard to Topper, "Prior to 1998, no units were taken deeper than the Clovis age level since the project director thought it was the oldest possible occupation. However, the 1997 reporting on the discoveries at Monte Verde in South America and discoveries at Cactus Hill, Virginia, in 1998 prompted Goodyear and his

research team to excavate below what was known to be Clovis-age sediments." ("MA Thesis Title: The Distribution of Paleoindian Debitage from the Pleistocene Terrace at the Topper Site: An Evaluation of a Possible Pre-Clovis Occupation (38Al23)," 15.) If you don't look, you won't find!

PART III

7: SIBERIA

1. Pengfei Qin and Mark Stoneking, "Denisovan Ancestry in East Eurasian and Native American Populations," *Molecular Biology and Evolution* 32, no. 10 (2015), 2671.
2. Ibid., 2669, Figure 4.
3. A. Briney, "Geography of Siberia," ThoughtCo. (last updated March 17, 2017), https://www.thoughtco.com/geography-of-siberia-1435483.
4. Reconstructions of global sea level over the past 470 ka suggest it was possible to walk from Asia to Alaska via the Bering land bridge from **approximately** 370 to 337 ka, 283 to 240 ka, 189 to 130 ka, and 75 to 11 ka. See for example Mark Siddall et al., "Sea Level Fluctuations During the Last Glacial Cycle," *Nature* 423 (June 19, 2003), 855, Figure 2.
5. Qiaomei Fu et al., "Genome Sequence of a 45,000-Year-Old Modern Human from Western Siberia," *Nature* 514 (October 23, 2014), 445ff; and Vladimir V. Pitulko et al.,

"Early Human Presence in the Arctic: Evidence from 45,000-Year-Old Mammoth Remains," *Science* 351, no. 6270 (January 15, 2016), 260ff.

6. M. Raghavan et al., "Upper Paleolithic Siberian Genome Reveals Dual Ancestry of Native Americans," *Nature* 505 (January 2, 2014), "The Y chromosome of MA-1 [an ancient 24kya Siberian individual] is … near the root of most Native American lineages. Similarly, we find autosomal evidence that MA-1 is … genetically closely related to modern-day Native Americans" (p. 87). See also M. Rasmussen et al., "The Genome of a Late Pleistocene Human from a Clovis Burial Site in Western Montana," *Nature* 506 (February 13, 2014), "Gene flow from the Siberian Upper Paleolithic Mal'ta population into Native American ancestors is also shared by the Anzick-1 [ancient American/Montanan] individual and thus happened before 12,600 years BP. … Our data are compatible with the hypothesis that Anzick-1 belonged to a population directly ancestral to many contemporary Native Americans" (p. 225).

7. There have been a few theories, generally regarded by the academic establishment as "zany," "lunatic," or worse, that have attempted to argue that prehistoric settlement also occurred from Europe by boat across the Atlantic Ocean. Among these, the most credible is the so-called Solutrean theory of Clovis origins put forward by Dennis J. Stanford, curator of archaeology and director of the Paleoindian Program at the Smithsonian's National Museum of Natural History, and his fellow researcher and coauthor Bruce A. Bradley, associate professor in archaeology and director of the Experimental Archaeology program at the University of Exeter. See Dennis J. Stanford

and Bruce A. Bradley, *Across Atlantic Ice: The Origin of America's Clovis Culture* (University of California Press, 2012).

To cut a very long story very short indeed, Stanford and Bradley strongly resist what they call "the preconceived notion of geneticists and archaeologists that the Americas must have been settled by Asians" (p. 246). Their argument, instead, is that "Clovis predecessors were immigrants from southwestern Europe" and that this wave of immigration took place during the last glacial maximum (p. 247), in other words, somewhere around 22,000 years ago. Their claim is based on the—admittedly stunningly close—morphological resemblances between bifacial projectile points made by the "Solutrean" culture of Upper Paleolithic western Europe between roughly 22,000 and 17,000 years ago, and almost identical bifacial projectile points made with an almost identical technique by North America's "Clovis" culture over a period of less than 1,000 years beginning roughly 13,400 years ago.

The gap of several thousand years between the end of the Solutreans and the beginning of Clovis is one among many reasons why the majority of archaeologists reject Stanford and Bradley's unusually daring theory, while more recent genetic research claims to have refuted it completely. See Morten Rasmussen et al., "The Genome of a Late Pleistocene Human from a Clovis Burial Site in Western Montana," 228. See also Jennifer A. Raff and Deborah Bolnick, "Genetic Roots of the First Americans," *Nature* 506 (February 13, 2014), 162. Indeed Raff and Bolnick of the University of Texas have such confidence in this new research that they conclude: "Unless proponents offer evidence of direct European ancestry in other securely dated ancient American genomes, the Solutrean hypothesis can no longer be treated as a

credible alternative for Clovis (or Native American) origins. It is time to move on to more interesting questions."

8. See part 2 of *America Before.*

9. A major multidisciplinary study published in 2016 in *Nature* pointed out that the supposed "ice-free" corridor would have been completely uninhabitable until 12,600 years ago (Mikkel W. Pedersen et al., "Postglacial Viability and Colonization in North America's Ice-Free Corridor," *Nature* 537 no. 7618 (2016), 45). The authors demonstrate this by means of ancient DNA from the bottom of glacial lakes. This suggests that the "first" Americans did not arrive by land, but by sea. This is supported by a study undertaken by a team from the University of California, who reconstructed family trees for bison that lived in the "ice free" corridor and demonstrated that it wasn't habitable until 13,000 years ago (Peter. D. Heintzman et al., "Bison Phylogeography Constrains Dispersal and Viability of the Ice Free Corridor in Western Canada," *Proceedings of the National Academy of Sciences* 113, no. 29 (2016), 8057–8063). Though these studies do not rule out the possibility that the "first" Americans reached the Americas via the Bering land bridge and ice-free corridor as Clovis proponents contend, they do enhance the likelihood that early Americans favored sea over land crossings.

10. Kris Hirst, "The Beringian Standstill Hypothesis: An Overview," August 14, 2017, https://www.thoughtco.com/beringian-standstill-hypothesis-first-americans-172859.

11. S. L. Bonatto and F. M. Salzano, "A Single and Early Migration for the Peopling of the Americas Supported by Mitochondrial DNA Sequence Data," *Proceedings of the*

National Academy of Sciences 94, no. 5 (1997), 1866–1871. The authors suggest, on the basis of mitochondrial DNA results, that the collapse of the ice-free corridor between ~14,000 and ~20,000 years ago isolated the people south of the ice sheets, who gave rise to the Amerind, from those still in Beringia; the latter originated the Na-Dene, Eskimo, and probably the Siberian Chukchi.

12. L. Wade, "On the Trail of Ancient Mariners," *Science* 357, no. 6351 (2017), 542–545.
13. C. Clarkson et al., "Human Occupation of Northern Australia by 65,000 Years Ago," *Nature* 547, no. 7663 (2017), 306.
14. Heather Pringle, "From Vilified to Vindicated: The Story of Jacques Cinq-Mars," *Hakai Magazine,* March 7, 2017, https://www.hakaimagazine.com/features/vilified-vindicated-story-jacques-cinq-mars/?xid=PS_smithsonian and at http://www.smithsonianmag.com/science-nature/jacques-cinq-mars-bluefish-caves-scientific-progress-180962410/#A1zGtDKtgySyduU6.99.
15. "Found: Dragon and Griffin Megaliths 'Dating Back 12,000 Years to End of Ice Age, or Earlier,'" *Siberian Times,* May 8, 2017, http://siberiantimes.com/other/others/features/found-dragon-and-griffin-megaliths-dating-back-12000-years-to-end-of-ice-age-or-earlier/.
16. Location here: https://mapcarta.com/25567370/Map.
17. "Found: Dragon and Griffin Megaliths 'Dating Back 12,000 Years to End of Ice Age, or Earlier.'"
18. Ibid.
19. Ibid.

20. Confirmed by emails between my research assistant Holly Lasko and Maxim Kozlikin, May 4–7, 2018. **Excerpt from email of May 4—HL to MK:**

To what extent can we say that we've gained a good archaeological understanding of the Altai during the Palaeolithic? Or, in other words, approximately how much of the Altai region remains to be excavated? From what I can see, our understanding is limited to approximately 15 **main** sites out of a possible very many more.

Thank you so much for your time.

May 5: Dear Holly, To be brief, then indeed, the key multi-layered well-studied sites are about 20. In total, more than 100 objects are known.

Yours sincerely, Maxim.

May 7: Thanks so much Maxim! By "objects" do you mean Palaeolithic artifacts?

May 7: Dear Holly, I meant the number of Paleolithic sites.

8: HALL OF RECORDS

1. Christy G. Turner et al., *Animal Teeth and Human Tools: A Taphonomic Odyssey in Ice Age Siberia* (Cambridge University Press, 2013), 79.
2. Denisova Cave, Useful Information, http://www.showcaves.com/english/ru/caves/Denisova.html.
3. David Reich et al., "Genetic History of an Archaic Hominin Group from Denisova Cave in Siberia," *Nature* 468 (December 23–30, 2010), 1053.
4. Turner et al., *Animal Teeth and Human Tools,* 79.

5. N. Zwyns, “Altai: Paleolithic” in *Encyclopedia of Global Archaeology*: “Based on the Eurasian system of division, three main periods can be recognized during the Paleolithic of the Altai: the Lower, Middle, and Upper Paleolithic. The Lower Paleolithic corresponds to the first human occupation of the Altai that would start c. 800 ka. The Middle Paleolithic would start sometime at the end of the Middle Pleistocene and last until c. 50 ka. The Upper Paleolithic covers a time range from c. 50 ka to the end of the Pleistocene” (p. 150). Note that while this is the commonly discerned time frame among Altai archaeologists, the time frame for the Paleolithic era varies by region and academic discipline.
6. Turner et al., *Animal Teeth and Human Tools,* 79.
7. A. Gibbons, “Who Were the Denisovans?” *Science* 333 (August 26, 2011). Svante Pääbo comments, “The one place where we are sure all three human forms have lived at one time or another is here in Denisova Cave.” In 2010, a Neanderthal toe bone was discovered in Denisova Cave. The results of its morphological analysis are documented in M. B. Mednikova, “A Proximal Pedal Phalanx of a Paleolithic Hominin from Denisova Cave, Altai,” *Archaeology, Ethnology and Anthropology of Eurasia* 39, no. 1 (2011). Radiocarbon dating of the organic material found above the toe revealed that the Neanderthal roamed the cave at least 50,000 years ago. In S. Brown et al., “Identification of a New Hominin Bone from Denisova Cave, Siberia, Using Collagen Fingerprinting and Mitochondrial DNA Analysis,” *Scientific Reports* 6, no. 25339 (March 29, 2016), a sample taken from layer 12 from the East Gallery of the cave was found through mtDNA analysis to be from a >50,000-year-old Neanderthal. Then, in

2017, researchers successfully sequenced soil samples from the Cave for DNA; Neanderthal DNA was detected in layer 15 from the Main Gallery, and layer 14 from the East Gallery at a depth deeper than any fossilized remains or artifacts have been found (V. Slon et al., "Neanderthal and Denisovan DNA from Pleistocene Sediments," *Science* 356, no. 6338 [May 12, 2017]: 605–608). Frequent occupations of Denisova Cave by Neanderthals are supported by the Mousterian artifacts, generally associated with Neanderthals, that have been excavated there. The editors of *Encyclopaedia Britannica,* in "Denisova Cave," https://www.britannica.com/place/Denisova-Cave (last updated February 8, 2018), state that there is "evidence of 13 separate occupations occurring between 125,000 and 30,000 years ago … supported by the presence of artifacts from the Acheulean, Mousterian, and Levalloisian stone-flaking industries," all of which are associated with Neanderthals.

8. The first conclusive evidence that anatomically modern humans interbred with Neanderthals was established in 2010 by R. E. Green et al., "A Draft Sequence of the Neanderthal Genome," *Science* 328, no. 5979 (May 7, 2010), 710–722. The investigators conclude, on the basis of remains from Croatia, that "between 1 and 4% of the genomes of people in Eurasia are derived from Neandertals" (p. 721). Then, an investigation by K. Prüfer et al., "The Complete Genome Sequence of a Neanderthal from the Altai Mountains," *Nature* 505 (January 2, 2014), concluded that "the proportion of Neanderthal-derived DNA in people outside Africa is 1.5–2.1%" (p. 45). All these results are consistent with Q. Fu et al.'s findings in "An Early Modern Human from Romania with a Recent Neanderthal Ancestor," *Nature* 524 (August 13, 2015),

216–219, in which the 37,000–42,000-year-old was confirmed as having 6–9 percent of its genome derived from Neanderthals (p. 216). The most recent and accurate investigation on modern human and Neanderthal interbreeding was, however, led by K. Prüfer, "A High-Coverage Neanderthal Genome from Vindija Cave in Croatia," *Science* 358 (November 3, 2017), 655–658. In this study, non-African populations outside Oceania are found to carry between 1.8 and 2.6 percent Neanderthal DNA, East Asians are found to carry 2.3–2.6 percent Neanderthal DNA, and Western Eurasians carry 1.8–2.4 percent. The amount of Neanderthal DNA carried by current modern humans can therefore be estimated as being in the realm of 0–4 percent.

9. Reich et al., "Genetic History of an Archaic Hominin Group from Denisova Cave in Siberia," 1053.
10. Ibid., 1054–1060.
11. Ibid., 1053.
12. Ibid., 1053–1054, 1059.
13. Information provided by Irina Salnikova. For further details on what the excavators call "the art collection," see A. P. Derevianko, M. V. Shunkov, and P. V. Volkov, "A Palaeolithic Bracelet from Denisova Cave," *Archaeology, Ethnology and Anthropology of Eurasia* 43, no. 2 (June 2008), 15.
14. Some of the raw materials came from as much as 200 kilometers away. Ibid., 17.
15. Ibid., 14. Holocene levels are designated 0–8.
16. "First Glimpse Inside the Siberian Cave That Holds the Key to Man's Origins," *Siberian Times,* July 28, 2015,

http://siberiantimes.com/science/casestudy/features/f0135-first-glimpse-inside-the-siberian-cave-that-holds-the-key-to-mans-origins/. See photo captioned "The wall, showing all the 22 layers of Denisova cave," and compare with Santha Faiia's photo taken in September 2017.

17. Derevianko, Shunkov, and Volkov, "A Palaeolithic Bracelet from Denisova Cave," 14.

18. Ibid., 16.

19. Ibid.

20. The historical explanation for this is unsurprisingly rooted in early-twentieth-century interpretations of human origins. See, for example, Smithsonian National Museum of Natural History, "La Chapelle-aux-Saints," http://humanorigins.si.edu/evidence/human-fossils/fossils/la-chapelle-aux-saints (accessed March 12, 2018), "The original reconstruction of the 'Old Man of La Chapelle' by scientist Pierre Marcellin Boule led to the reason why popular culture stereotyped Neanderthals as dim-witted brutes for so many years. In 1911, Boule reconstructed this skeleton with a severely curved spine indicative of a stooped, slouching stance with bent knees, forward flexed hips, and the head jutted forward. He thought the low vaulted cranium and the large brow ridge, somewhat reminiscent of that seen in large apes such as gorillas, indicated a generally primitive early human and a lack of intelligence."

The Neanderthal discovery took place within the Victorian epoch in which the Western white man sought to excuse his domination and colonization of the world by means of cultural and racial hegemony, namely "scientific racism" (also termed "eugenics"). It is unsurprising that Neanderthals, a species considered more primitive than the most "primitive" early-twentieth-century humans, were instantly assumed to be

intellectually and creatively incapable and totally unable to enjoy abilities reserved for "civilised" white modern humans.

21. Archaeologist Ralph Solecki's 1971 book, *Shanidar: The First Flower People,* was seminal in the consensus change on Neanderthal intelligence. Solecki's article based on the book is available in *Science* 190 as "Shanidar IV, a Neanderthal Flower Burial in Northern Iraq" (880–881). The abstract reads: "The discovery of pollen clusters of different kinds of flowers in the grave of one of the Neanderthals, No. IV, at Shanidar Cave, Iraq, furthers our acceptance of the Neanderthals in our line of evolution. It suggests that, although the body was archaic, the spirit was modern."

Since then, a stream of studies supporting this hypothesis have been published, establishing Neanderthals as not only socially intelligent, compassionate, and sensitive humans, but also as culturally and technologically advanced and artistic. For evidence of Neanderthal social intelligence, compassion, and sensitivity, see Penny A. Spikins, Holly E. Rutherford, and Andy P. Needham, "From Homininity to Humanity: Compassion From the Earliest Archaics to Modern Humans," *Time and Mind* 3.3 (2010), 303–325; William Rendu et al., "Evidence supporting an intentional Neandertal burial at La Chapelle-aux-Saints," *Proceedings of the National Academy of Sciences* 111.1 (2014), 81–86; Penny Spikins et al., "The cradle of thought: growth, learning, play and attachment in Neanderthal children," *Oxford Journal of Archaeology* 33.2 (2014), 111–134; Erik Trinkaus and Sébastien Villotte, "External auditory exostoses and hearing loss in the Shanidar 1 Neandertal," *PloS one* 12.10 (2017), e0186684; Penny Spikins et al., "Calculated or caring? Neanderthal healthcare in social context," *World Archaeology*

(2018), 1–20; A. Gómez-Olivencia et al, "La Ferrassie 1: New Perspectives on a 'classic' Neandertal," *Journal of Human Evolution* 117 (2018), 13–32.

For Neanderthal cultural and technological advancement, art, and symbolism see Karen Hardy et al. "Neanderthal medics? Evidence for food, cooking, and medicinal plants entrapped in dental calculus," *Naturwissenschaften* 99.8 (2012), 617–626; Ruggero D'Anastasio et al., "Micro-biomechanics of the Kebara 2 hyoid and its implications for speech in Neanderthals," *PLoS One* 8.12 (2013), e82261; Jacques Jaubert et al., "Early Neanderthal constructions deep in Bruniquel Cave in southwestern France," *Nature* 534.7605 (2016), 111; A. C. Sorensen et al., "Neandertal fire-making technology inferred from microwear analysis," *Scientific reports* 8.1 (2018), 10065; Ana Majkić et al., "A decorated raven bone from the Zaskalnaya VI (Kolosovskaya) Neanderthal site, Crimea," *PloS one* 12.3 (2017), e0173435; Biancamaria Aranguren et al., "Wooden tools and fire technology in the early Neanderthal site of Poggetti Vecchi (Italy)," *Proceedings of the National Academy of Sciences* (2018), 201716068; Dirk L. Hoffmann et al., "U-Th dating of carbonate crusts reveals Neandertal origin of Iberian cave art," *Science* 359.6378 (2018), 912–915; Dirk L. Hoffmann et al., "Symbolic use of marine shells and mineral pigments by Iberian Neandertals 115,000 years ago," *Science advances* 4.2 (2018), eaar5255.

The recent and pivotal turning point in our understanding of Neanderthals as intelligent beings is marked by A. Lawler, "Neanderthals, Stone Age People May Have Voyaged the Mediterranean," *Science* (April 24, 2018), "The recent evidence from the Mediterranean suggests purposeful navigation," the article reads. "The orthodoxy until pretty recently was that you don't have seafarers until the early Bronze Age," adds

archaeologist John Cherry of Brown University, an initial skeptic. “Now we are talking about seafaring Neandertals. It’s a pretty stunning change.”

22. Derevianko, Shunkov, and Volkov, “A Palaeolithic Bracelet from Denisova Cave,” 3.
23. Ibid., 15.
24. Ibid., 24. Emphasis added.
25. Ibid., 18.
26. Ibid., 24.
27. Ibid.
28. Ibid.
29. Ibid.
30. See also Alexandra Buzhilova, Anatoly Derevianko, and Michael Shunkov, “The Northern Dispersal Route: Bioarchaeological Data from the Late Pleistocene of Altai, Siberia,” *Current Anthropology* 58, Suppl. 17 (December 2017), S500: “Archaeological data suggest that the first Denisovans arrived in the Altai around 300 ka, with continuous cultural development for a long time. The genetic data confirm that Denisovans were present in the area at least twice and possibly over a long period of time. Thus, we have adequate data to evaluate the hypothesis of continuous cultural and physical development of Denisovans over time. The similar morphology of two upper hominin molars from Denisova Cave, separated by a thick deposit and tens of thousands of years, also supports this idea.”
31. Derenanko, Shunkov, and Volkov, “A Paleolithic Bracelet from Denisova Cave,” 22.
32. Ibid., 22–23.

33. Ibid., 17.
34. Ibid., 20.
35. Ibid., 24.
36. Ibid., 21.
37. Ibid.
38. Ibid., 21–22.
39. Ibid., 33–34.
40. Ibid., 13 and 15. See also 16: "a date of 29,200 ± ± 360 BP (AA-35321) on charcoal from the border zone between strata 11 and 10."
41. Ibid., 24.
42. This conversation took place at the institute on September 14, 2017.
43. M. Kozlikin quoted in "World's Oldest Needle Found in Siberian Cave That Stitches Together Human History," *Siberian Times,* August 23, 2016, http://siberiantimes.com/science/casestudy/news/n0711-worlds-oldest-needle-found-in-siberian-cave-that-stitches-together-human-history/.
44. Email correspondence with Maxim Kozlikin on February 21, 2018: "The needle you're talking about was found in the Central Chamber of the cave in 2016. So far, these materials have been published only in Russian."
45. "World's Oldest Needle Found in Siberian Cave That Stitches Together Human History."
46. Ibid.
47. Derevianko, Shunkov, and Volkov, "A Palaeolithic Bracelet from Denisova Cave," 15.

48. A. P. Derevianko and E. P. Rybin, "The Oldest Evidence for Symbolic Behavior of the Palaeolithic Men in Gorny Altai," *Archaeology, Ethnology, and Anthropology of Eurasia* 3, no. 15 (2003), 27–50.

49. Or, to be more precise, to 48,650 years old plus or minus somewhere between 2,380 and 1,840 years ago. Derevianko, Shunkov, and Volkov, "A Palaeolithic Bracelet from Denisova Cave," 15.

50. "World's Oldest Needle Found in Siberian Cave": "The bracelet was exhibited in Paris this year, carrying a label showing it to be 50,000 years old with the approval of scientists."

51. "Is This Stunning Bracelet Made by Paleolithic Man for His Favourite Woman Really 70,000 Years Old?" *Siberian Times,* August 2, 2017, http://siberiantimes.com/science/casestudy/features/could-this-stunning-bracelet-be-65000-to-70000-years-old/.

52. Ibid.

53. Ibid.

54. Ibid.

55. Which Middle Pleistocene species of human the Sima de los Huesos (SH) hominins of Spain belonged to—either the Denisovans of southern Siberia or the Neanderthals of western Eurasia—adds an interesting nuance to the archaeological evasiveness of the Denisovans, however. While the SH hominins share morphological features and nuclear DNA with Neanderthals, the mtDNA of one SH individual is more closely related to the mtDNA of Denisovans than to that of Neanderthals. Whether or not the Denisovans can

be termed a separate species to the Neanderthals and SH hominins has therefore been put to doubt.

For studies concluding upon the morphological affinity of the SH hominins to Neanderthals, see I. Martínez and J. L. Arsuaga, "The Temporal Bones from Sima de los Huesos Middle Pleistocene Site (Sierra de Atapuerca, Spain): A Phylogenetic Approach," *Journal of Human Evolution* 33 (1993), 283–318; M. Martinón-Torres et al., "Morphological Description and Comparison of the Dental Remains from Atapuerca-Sima de los Huesos Site (Spain)," *Journal of Human Evolution* 62 (2012), 7–58; J. L. Arsuaga et al., "Neanderthal Roots: Cranial and Chronological Evidence from Sima de los Huesos," in *Science* 44, no. 6190 (2014); R. Quam et al., "The Bony Labyrinth of the Middle Pleistocene Sima de los Huesos Hominins (Sierra de Atapuerca, Spain)," *Journal of Human Evolution* 90 (2016), 1–15.

For sequencing results that link the nDNA of the SH hominins to Neanderthals, see M. Meyer et al., "Nuclear DNA Sequences from the Middle Pleistocene Sima de los Huesos Hominins," *Nature* 531 (March 24, 2016).

For results that link the mtDNA of SH hominins with Denisovans, see M. Meyer et al., "A Mitochondrial Genome Sequence of a Hominin from Sima de los Huesos," *Nature* 505 (January 16, 2014). There has also been speculation surrounding the mysterious 105–125 ky skulls excavated in Xuchang, China, which from the perspective of Martinón-Torres "definitely" fit what one expects from Denisovans: "something with an Asian flavor but closely related to Neandertals." But because the investigators have not extracted DNA from the skulls, "the possibility remains a speculation" (Martinón-

Torres quoted in A. Gibbons, "Ancient Skulls May Belong to Elusive Humans Called Denisovans," *Science* News [March 2, 2017]).

56. See Anne Gibbons, "Siberian Cave Was Home to Generations of Ancient Humans," *Science* (September 15, 2015), http://www.sciencemag.org/news/2015/09/siberian-cave-was-home-generations-mysterious-ancient-humans.

57. Viviane Slon et al., "The Genome of the Offspring of a Neanderthal Mother and a Denisovan Father," *Nature* (August 22, 2018).

58. Reich et al., "Genetic History of an Archaic Hominin Group from Denisova Cave in Siberia," 1053. And see J. Krause et al., "The Complete Mitochondrial DNA Genome of an Unknown Hominin from Southern Siberia," *Nature* 464 (2010), 894–897.

59. The earlier date of 430,000 years ago is based on the fossil record (Arsuaga et al., "Neanderthal Roots"), whereas genomic results have indicated a divergence window of between 550,000 and 765,000 years ago (Prüfer et al., "The Complete Genome Sequence of a Neanderthal from the Altai Mountains").

60. Martin Kuhlwilm et al., "Ancient Gene Flow from Early Modern Humans into Eastern Neanderthals," *Nature* 530 (February 25, 2016), 429.

61. Qin and Stoneking, "Denisovan Ancestry in East Eurasian and Native American Populations," 2665, Figure 4.

62. A. Cooper and C. B. Stringer, "Did the Denisovans Cross Wallace's Line?" *Science* 342 (October 18, 2013), 321.

63. Reich et al., "Genetic History of an Archaic Hominin Group from Denisova Cave in Siberia," 1053.

64. Qin and Stoneking, “Denisovan Ancestry in East Eurasian and Native American Populations,” 2665. See also Sharon Browning et al., “Analysis of Human Sequence Data Reveals Two Pulses of Archaic Denisova Admixture,” *Cell* 173 (March 22, 2018), 1–9. Apart from Papuans, highest levels of introgressed Denisovan DNA have been found in Southern Han Chinese, Chinese Hai, Han Chinese, Bengali, Gujarati Indian, Japanese, Kinh individuals (all East, Southeast, and Central Asia). See p. 7, Figure. 5. Also see p. 7: “We found evidence for two waves of Denisovan admixture, one from a population closely related to the Altai Denisovan individual, and one from a population more distantly related to the Altai Denisovan. The component closely related to the Altai Denisovan is primarily present in East Asians, whereas the component more distantly related to the Altai Denisovan forms the major part of the Denisovan ancestry in Papuans and South Asians.”
65. Cooper and Stringer, “Did the Denisovans Cross Wallace’s Line?” 322.
66. Ibid.
67. See G. Hancock, *Underworld: The Mysterious Origins of Civilization* (Three Rivers Press, 2002) and S. Oppenheimer and I. Syahrir, *Eden in the East* (Ufuk Press, 2010).

9: THE STRANGE AND MYSTERIOUS GENETIC HERITAGE OF NATIVE AMERICANS

1. Particularly by the Human Genome Project from 1990 to 2003. For accessible information on DNA sequencing technologies, see J. U. Adams et al., "DNA Sequencing Technologies," Scitable (Nature Education, 2008), https://www.nature.com/scitable/topicpage/dna-sequencing-technologies-690.
2. For a good overview of the influence of DNA studies on ancient population history, see S. Subramanian, "Ancient Population Genomics," in *Encyclopaedia of Life Sciences* (Wiley, 2001).
3. M. M. Houck and J. A. Siegel, "Chapter 11—DNA Analysis," in *Fundamentals of Forensic Science,* 3rd ed. (Academic Press, 2015), 261–290, esp. 282.
4. Ibid.
5. Ibid., 283.
6. Ibid.
7. For further discussion, see National Human Genome Research Institute, "Chromosomes" (last updated June 16, 2015), https://www.genome.gov/26524120/chromosomes-fact-sheet/. Also see Genetics Home Reference, "What Is Genetic Ancestry Referencing?" (May 15, 2018), https://ghr.nlm.nih.gov/primer/dtcgenetictesting/ancestrytesting.
8. Christy G. Turner et al., *Animal Teeth and Human Tools: A Taphonomic Odyssey in Ice Age Siberia* (Cambridge University Press, 2013), 177G; I. Medvedev, "Upper Paleolithic Sites in South-Central Siberia" in *The Paleolithic of Siberia: New Discoveries and Interpretations*, ed. A. P. Derev'ianko, D. B. Shimkin, and W. R. Powers (University of Illinois Press, 1998), 122–132.

9. Maanasa Raghavan et al., "Upper Palaeolithic Siberian Genome Reveals Dual Ancestry of Native Americans," *Nature* 505 (January 2, 2014), 87.

10. Ibid.

11. Turner et al., *Animal Teeth and Human Tools,* 173; Peter N. Peregrine and Melvin Ember (eds.), *Encyclopedia of Prehistory: Volume 2: Arctic and Subarctic,* Volume 6, p. 194.

12. BBC News, "Ancient DNA from Siberian Boy Links Europe and America," http://www.bbc.co.uk/news/science-environment-25020958.

13. "24,000-Year-Old Body Shows Kinship to Europeans and American Indians," *New York Times,* November 21, 2013, http://www.nytimes.com/2013/11/21/science/two-surprises-in-dna-of-boy-found-buried-in-siberia.html.

14. Peregrine and Ember, *Encyclopedia of Prehistory: Volume 2: Arctic and Subarctic,* 194.

15. Specifically between "24,423–23,891 calendar years before present;" see Raghavan et al., "Upper Palaeolithic Siberian Genome," 87.

16. Ibid.

17. Morten Rasmussen et al., "The Genome of a Late Pleistocene Human from a Clovis Burial Site in Western Montana," *Nature* 506 (February 13, 2014), 225ff; Stuart J. Fiedel, "The Anzick Genome Proves Clovis Is First After All," *Quaternary International* (June 20, 2017), 4ff.

18. As of July 2018, it has been known that a species of *Homo* reached central China by 2.12 million years ago (Z. Zhu et al., "Hominin Occupation of the Chinese Loess Plateau

Since About 2.1 Million Years Ago," *Nature* [July 11, 2018]). Whether this species of *Homo* migrated there from Africa or originated somewhere in East Asia, perhaps even China, is up for debate. What is for certain, is that evidence for the advanced exploratory abilities of the most ancient hominins like *Homo erectus* is mounting and becoming harder to deny. For the most comprehensive documentation of *Homo erectus* and other early hominin technological—most notably maritime—abilities, see R. Bednarik, "The Maritime Dispersal of Pleistocene Humans," *Migration and Diffusion* 3, no. 10 (2002), 6–33; R. G. Bednarik, "The Beginnings of Maritime Travel," *Advances in Anthropology* 4, no. 4) (2014), 209; and R. G. Bednarik, "An Experiment in Pleistocene Seafaring," *International Journal of Nautical Archaeology* 27, no. 2 (1998), 139–149.

For the viability of early hominin maritime dispersal, consult work by Sue O'Connor, for example, S. O'Connor et al., "Hominin Dispersal and Settlement East of Huxley's Line: The Role of Sea Level Changes, Island Size, and Subsistence Behavior," *Current Anthropology* 58, no. S17 (2017), S567–S582; S. Kealy, J. Louys, and S. O'Connor, Reconstructing Palaeogeography and Inter‐Island Visibility in the Wallacean Archipelago During the Likely Period of Sahul Colonization, 65–45,000 Years Ago," *Archaeological Prospection* 24, no. 3 (2017), 259–272.

Finally, for conclusive evidence of ancient hominin marine capability, see T. F. Strasser et al., "Dating Palaeolithic Sites in Southwestern Crete, Greece," *Journal of Quaternary Science* 26, no. 5 (2011), 553–560. Crete has been separated from mainland Greece since the Miocene 6 million to 5 million years ago, so the presence of Pleistocene-age arteiacts there proves conclusively that early hominins were able to—

and indeed did—make substantial sea crossings and explore more of the world than we hitherto gave them credit for.

Also see T. Ingicco et al., "Earliest Known Hominin Activity in the Philippines by 709 Thousand Years Ago," *Nature* 557, no. 7704 (2018), 233. This paper "pushes back the proven period of colonisation of the Philippines by hundreds of thousands of years, and furthermore suggests that early overseas dispersal in Island South East Asia by premodern hominins took place several times during the Early and Middle Pleistocene stages."

19. "About 1/3 of the genome of all native Americans comes from Mal'ta or a population closely related to it. Importantly however Anzick is just like other Native Americans in this regard, not anything special." Personal communication (by email) from Professor Eske Willerslev, Prince Philip Professor of Ecology and Evolution, Department of Zoology, University of Cambridge, February 23, 2018. See also Rasmussen et al., "The Genome of a Late Pleistocene Human," 225–226; Raghavan et al., "Upper Palaeolithic Siberian Genome Reveals Dual Ancestry," 87–88.
20. Rasmussen et al., "The Genome of a Late Pleistocene Human," 225.
21. Ibid.
22. Ibid. Emphasis added.
23. Raghavan et al., "Upper Palaeolithic Siberian Genome Reveals Dual Ancestry," 87.
24. Ibid.
25. Ibid.
26. Ibid.
27. Ibid.

28. Ibid.
29. Ibid.
30. Fiedel, “The Anzick Genome Proves Clovis Is First After All,” 4.
31. Rasmussen et al., “The Genome of a Late Pleistocene Human,” 225.
32. Fiedel, “The Anzick Genome Proves Clovis Is First After All,” 5.
33. Ibid.
34. Ibid.
35. Ibid.
36. Lorena Becerra-Valdivia et al., “Reassessing the Chronology of the Archaeological Site of Anzick,” *Proceedings of the National Academy of Sciences* (June 18, 2018), 1. And see D. J. Stanford and B. A. Bradley in *Across Atlantic Ice: The Origin of America’s Clovis Culture* (University of California Press, 2012), 180.
37. Becerra-Valdivia et al., “Reassessing the Chronology of the Archaeological Site of Anzick.”
38. Ibid., 2.
39. Ibid., 1.
40. D. S. Miller, V. D. Holliday, and J. Bright, “Clovis Across the Continent,” in *Paleoamerican Odyssey,* ed. Kelly E. Graf, Caroline V. Ketron, and Michael R. Waters (Texas A&M University, 2014), 207–220.
41. Rasmussen et al., “The Genome of a Late Pleistocene Human,” 226.
42. Ibid.
43. Ibid.

44. Ibid., 225; Raff and Bolnick, "Genetic Roots of the First Americans," 162.
45. Pontus Skoglund et al., "Genetic Evidence for Two Founding Populations of the Americas," *Nature* 525 (September 3, 2015), 104. Emphasis added.
46. Ibid.
47. Ibid., 104–105.
48. "A DNA Search for the First Americans Links Amazon Groups to Indigenous Australians," *Smithsonian Magazine,* July 21, 2015, http://www.smithsonianmag.com/science-nature/dna-search-first-americans-links-amazon-indigenous-australians-180955976/.
49. Ibid.
50. Pontus Skoglund and David Reich, "A Genomic View of the Peopling of the Americas," *Current Opinion in Genetics and Development* 41 (December 2016), 31.
51. Cited in Stephanie Dutchen, "Genetic Studies Link Indigenous Peoples in the Amazon and Australasia," July 21, 2015, https://phys.org/news/2015-07-genetic-link-indigenous-peoples-amazon.html.
52. Skoglund et al., "Genetic Evidence for Two Founding Populations of the Americas," 107. See also David Reich, *Who We Are and How We Got Here* (Oxford University Press, 2018), 154, where a tentative "Date uncertain" age for the arrival of "Population Y" in the Americas is put at "20,000 years ago."
53. Skoglund and Reich, "A Genomic View of the Peopling of the Americas," 31.
54. Skoglund et al., "Genetic Evidence for Two Founding Populations of the Americas," 107.

55. Ibid.
56. Skoglund and Reich, “A Genomic View of the Peopling of the Americas,” 31.

10: A SIGNAL FROM THE DREAMTIME?

1. Pontus Skoglund et al., “Genetic Evidence for Two Founding Populations of the Americas,” *Nature* 525 (September 3, 2015).
2. Maanasa Raghavan et al., “Genomic Evidence for the Pleistocene and Recent Population History of Native Americans,” *Science* 349 (August 21, 2015).
3. Ibid., aab3884-1.
4. Ibid, aab3884-8; see also “Genomic Evidence for the Pleistocene and Recent Population History of Native Americans,” Research Article Summary, *Science* 349 (August 21, 2015), 841.
5. Raghavan et al., “Genomic Evidence for the Pleistocene and Recent Population History of Native Americans,” aab3884-8.
6. Ibid., aab3884-7.
7. The challenge posed to scholars of the “deliberate voyaging” school is the unconvincing argument that ancient hominins were “accidentally” transported across the sea by natural events like storms and tsunamis. See, for instance, comment from archaeologist Matthew Sprigs in R. Bednarik, “The Maritime Dispersals of Pleistocene Humans,” p. 55: “Given Bednarik’s ongoing search to find out how sea barriers cannot be crossed,

one wonders on what basis he can be so certain that colonization cannot have been accidental, by being caught up in strong currents."

Among a mass of evidence is a paper by T. F. Strasser et al., "Dating Palaeolithic Sites in Southwestern Crete, Greece," *Journal of Quaternary Science* 26, no. 5 (2011), 553–560. Crete has been separated from mainland Greece since the Miocene 6–5 million years ago, so the presence of Pleistocene-age artifacts there proves conclusively that early hominins made sea crossings (unless one is willing to argue that ancient hominins were "accidentally" transported the approximate 500 miles there from mainland Greece or 600 miles there from mainland Turkey via islands).

The recent analysis of rock art in Asphendou Cave, Crete, fashioning a species of deer, *Candiacervus,* that has been extinct on the island for at least 11,000 years, indicates that hominins conclusively reached Crete at least 11,000 years ago: if they could create art then why could they not create boats? See T. F. Strasser et al., (2018). "Palaeolithic Cave Art from Crete, Greece," *Journal of Archaeological Science: Reports* 18 (2018), 100–108, esp. p. 103, "if *Candiacervus,* then they date earlier than the end of the Palaeolithic at least 11 thousand years ago," and p. 107, "The last occurrence of the Cretan dwarf deer Candiacervus sometime after 21,500 years ago provides a terminus ante quem for the earliest layer of the Asphendou Cave rock carvings and confirms them as the oldest figural art found in Greece."

Also see T. Ingicco et al., "Earliest Known Hominin Activity in the Philippines by 709 Thousand Years Ago," *Nature* 557, no. 7704 (2018), 233. This paper "pushes back the proven period of colonisation of the Philippines by hundreds of thousands of years, and furthermore suggests that early overseas dispersal in Island South East Asia by

premodern hominins took place several times during the Early and Middle Pleistocene stages."

8. For evidence of Denisovan contribution to the genes of present-day Oceanians, see D. Reich et al., "Genetic History of an Archaic Hominin Group from Denisova Cave in Siberia," *Nature* 468 (2010), 1053–1060, and D. Reich et al., "Denisova Admixture and the First Modern Human Dispersals into Southeast Asia and Oceania," *American Journal of Human Genetics* 89 (2011), 516–528.

For a reasonable explanation of this genetic signal see Alan Cooper and Chris Stringer, "Did the Denisovans Cross Wallace's Line?" *Science* 342 (2013), 321, esp. p. 332: "The source of the Denisovan gene flow appears to have been east of Wallace's Line, with a lack of Denisovan DNA in mainland populations explained by Wallace's Line limiting the reverse dispersal of introgressed populations."

For evidence of lesser Denisovan contribution to the genes of present-day East Asians, see K. Prüfer et al., "The Complete Genome Sequence of a Neanderthal from the Altai Mountains," *Nature* 505 (2014), 43–49; P. Skoglund and M. Jakobsson, "Archaic Human Ancestry in East Asia," *Proceedings of the National Academy of Sciences* 108 (2011), 18301–18306; S. R. Browning et al., "Analysis of Human Sequence Data Reveals Two Pulses of Archaic Denisovan Admixture," *Cell* 173, no. 1 (2018), 53–61.

Also see Robert G. Bednarik, "The Beginnings of Maritime Travel," *Advances in Anthropology* (January 2014), 209: "The maritime history of humanity commenced not a few thousand years ago, as traditional nautical archaeology has tended to assume, but more than a hundred times as long ago … Archaeological data from Wallacea (Indonesia) have shown that the history of seafaring began in the late part of the Early

Pleistocene, at least 900 ka (900,000 years) ago. To understand better the technological magnitude of these very early maritime accomplishments, expeditions are currently engaged in a series of replicative experiments."

9. Bednarik, "The Beginnings of Maritime Travel," 210–211. Also see results of the experiment made in R. G. Bednarik, "An Experiment in Pleistocene Seafaring," *International Journal of Nautical Archaeology* 27, no. 2 (1998), 148: "The [800km] voyage from Timor or Roti to Australia was made by a marine people whose accumulated knowledge derived from a history of seafaring spanning at least 700,000, and quite probably a million, years."

For *Homo erectus*' colonization of Flores, also see Paul Y. Sondaar, "Middle Pleistocene Faunal Turnover and Colonization of Flores (Indonesia) by Homo erectus," *Comptes Rendus de l'Academie des Sciences* 319 (1994), 1255: "Several stone artefacts have been found in a uvial sandstone layer belonging to the Ola Bula Formation, near Mata Menge in the Ngada District, West Central Flores, Indonesia … indicating an age of slightly less than 0.73 Ma BP. is relatively old age suggests that the artefacts are the work of *Homo erectus*." Also see Ingicco et al., "Earliest Known Hominin Activity in the Philippines by 709 thousand Years Ago," 233.

10. The two papers that established the consensus of 3,500 years ago for the Polynesian expansion are I. D. Goodwin, S. A. Browning, and A. J. Anderson, "Climate Windows for Polynesian Voyaging to New Zealand and Easter Island," *Proceedings of the National Academy of Sciences* 111, no. 41 (2014), 14716–14721, and D. A. Johns, G. J. Irwin, and Y. K. Sung, "An Early Sophisticated East Polynesian Voyaging Canoe

Discovered on New Zealand's Coast," *Proceedings of the National Academy of Sciences* 111, no. 41 (2014), 14728–4733.

11. Having said that, mainstream academia has begun to change its tune. Quoted in a *Science* news article from April 24, 2018, is "initial skeptic" of prehistoric human seafaring abilities John Cherry of Brown University: "The orthodoxy until pretty recently was that you don't have seafarers until the early Bronze Age. … Now we are talking about seafaring Neandertals. It's a pretty stunning change." Quoted in the same article is Curtis Runnels of Boston University, co-leader of the 2008 and 2009 Crete excavations: "We severely miscalculated. … The seas were more permeable than we thought" (A. Lawler, "Neanderthals, Stone Age People May Have Voyaged the Mediterranean," *Science* [April 24, 2018], doi:10.1126/science.aat9795).
12. Raghavan et al., "Genomic Evidence for the Pleistocene and Recent Population History of Native Americans," aab3884–7.
13. Ibid. Emphasis added.
14. Ibid., 841.
15. Ibid., 841, aab3884–7.
16. Ibid.
17. Email exchange with Professor Eske Willerslev, March 2, 2018.
18. Ibid.
19. Ibid.
20. But for an opposing interpretation, see Skoglund et al., "Genetic Evidence for Two Founding Populations of the Americas," 104: "The coefficients for which non-American

populations contribute the most to the signals **separate Native Americans into a cline with two Amazonian groups (Surui and Karitiana) on one extreme and Mesoamericans on the other**. … Among the outgroups, the most similar coefficients to Amazonian groups are found in Australasian populations: the Onge from the Andaman Islands in the Bay of Bengal (a so-called 'Negrito' group), New Guineans, Papuans and indigenous Australians." (Emphasis added.)

21. Ibid.

22. The Denisovan signal across Native American populations is presently estimated to be between 0.13 and 0.17 percent, not so much on the basis of genomic surveys but of more estimations: "As it was previously estimated that the Denisovan-related ancestry in … [Native American] populations is 3.8 percent to 4.8 percent of that in Oceania … combining this information with our new estimate of approximately 3.5 percent Denisovan ancestry in New Guinea and Australia leads to estimates of Denisovan ancestry in … [Native American] populations of 0.13 percent–0.17 percent." See Pengfei Qin and Mark Stoneking, "Denisovan Ancestry in East Eurasian and Native American Populations," *Molecular Biology and Evolution* 32, no. 10 (2015), 2671.

23. Raghavan et al., "Genomic Evidence for the Pleistocene and Recent Population History of Native Americans," aab3884–7.

24. Skoglund et al., "Genetic Evidence for Two Founding Populations of the Americas," 106.

25. See Skoglund and Reich, "A Genomic View of the Peopling of the Americas," 31, as well as P. Skoglund et al., "Genetic Evidence for Two Founding Populations of the

Americas," *Nature* 525 (2015), 106.

26. Email exchange with Professor Eske Willerslev, March 2, 2018.

27. Ibid.

28. Ibid.

29. The dating of Gobekli Tepe, and its implications, is discussed in Graham Hancock, *Magicians of the Gods: The Forgotten Wisdom of Earth's Lost Civilization* (2015), chapter 1.

30. Ian Sample, "Neanderthals—not modern humans—were first artists on Earth, experts claim," *Guardian,* February 22, 2018, https://www.theguardian.com/science/2018/feb/22/neanderthals-not-humans-were-first-artists-on-earth-experts-claim. The two studies that conclusively posit Neanderthals as artists are D. L. Hoffmann et al., "Symbolic Use of Marine Shells and Mineral Pigments by Iberian Neandertals 115,000 Years Ago," *Science Advances* 4, no. 2 (2018), eaar5255, and D. L. Hoffmann et al., "U-Th Dating of Carbonate Crusts Reveals Neandertal Origin of Iberian Cave Art," *Science* 359, no. 6378 (2018), 912–915.

31. See J. Victor Moreno-Mayar et al., "Early Human Dispersals Within the Americas, *Science* (First Release, without page numbers), November 8, 2018. See also Cosimo Poth et al., "Reconstructing the Deep Population History of Central and South America," *Cell* 175 (November 15, 2018), 1–13. And see summary in Lizzie Wade, "Ancient DNA Confirms Native Americans' Deep Roots in North and South America," *Science* (November 8, 2018).

32. Moreno-Mayar et al., "Early Human Dispersals Within the Americas."

33. Cited in Wade, "Ancient DNA Confirms Native Americans' Deep Roots in North and South America."

PART IV

11: GHOST CITIES OF THE AMAZON

1. H. C. Heaton (ed.), *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents* (American Geographical Society, 1934), 169.
2. Ibid., 172.
3. Ibid., 198: "There was one settlement that stretched for five leagues without any intervening space from house to house, which was a marvellous thing to behold." Commenting on this observation, Professor David Wilkinson of UCLA notes that the exact length of a "league" was "not a fully agreed-upon or stabilized physical distance, but was probably not less than 2.5 English statute miles nor more than 4." See David Wilkinson, "Amazonian Civilization?" *Comparative Civilizations Review* 74, no. 74 (Spring 2016), 96. At the minimum measure, therefore, 5 leagues equals 12.5 miles (20.1 kilometers), while at the maximum measure, 5 leagues equals 20 miles (32.2 kilometers). It seems safe, therefore, to summarize the extent of this settlement as "more than 20 kilometers."

4. Ibid, 198, where the "territory of the great overlord Machiparo," all inhabited, with "a wealth of natural resources," is said to extend for 80 leagues. See also p. 188 for a second cultivated area of similar extent. And see p. 217: "This land is as good, as fertile, and as normal in appearance as our Spain. … Already the Indians were beginning to burn over their fields. It is a temperate land, where much wheat may be harvested and all kinds of fruit trees may be grown; besides this, it is suitable for the breeding of all sorts of livestock." See note above on the length of a league.
5. For example, see ibid., 190: "This Machiparo has his headquarters near the river upon a small hill and holds sway over many settlements and very large ones which together contribute for fighting purposes fifty thousand men of the age of from thirty years up to seventy." See also pp. 194–195, 197–199, 204, 213, and 218–219.
6. See note 3 above on the length of a "league."
7. Heaton, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* 198.
8. Ibid., 200.
9. Including: "meats, partridges, turkeys, and fish of many sorts;" "turtles and parrots in abundance;" "turtles … manatees and other fish, and roasted partridges and cats and monkeys;" "turtles in pens and pools of water, and a great deal of meat and fish and biscuit … in such great abundance that there was enough to feed an expeditionary force of one thousand men for one year;" "pineapples and [avocados] and plums and custard apples and many other kinds of fruit;" "a very great quantity of very good biscuit which the Indians make out of maize and yucca, and much fruit of all kinds," and fish drying

"to be transported into the interior to be sold;" "turtles … turkeys and parrots … bread and … very good wine resembling beer;" a tapir; "snails and crabs; yams and maize." Ibid., 175, 180, 182, 192, 200, 203, 207, 210, 211, 230, 231, 232.

10. Ibid., 201.

11. Ibid.

12. Ibid., 202.

13. Ibid.

14. J. T. Medina, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* vol. 17 (American Geographical Society, 1934), 8.

15. Ibid., 9.

16. See, for example, Spanish historian Francisco Lòpez de Gomara, quoted in Medina, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* 25–26, who in 1552 described Carvajal's journal as being "full of lies." However, Carvajal actually visited the Amazon, whereas Gomara did not. Furthermore, Gomara was evidently more criticized by his sixteenth-century contemporaries for distorting historical truth than Carvajal was; on November 17, 1553, Prince Phillip of Spain imposed a penalty of 200,000 maravedis on anyone who would reprint Gomara's historically inaccurate work.

17. Heaton, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* 214: "Our Lord was pleased to give strength and courage to our companions, who killed seven or eight (for these we actually saw) of the

Amazons, whereupon the Indians lost heart." Carvajal clearly distinguishes between the "women warriors" or "the Amazons" and "the Indians" here.

18. Ibid., 214.

19. Ibid., 212–214, 220–221.

20. Ibid., 221.

21. By 1541 the fierce Amazonian women warriors had made an especially significant appearance in literary culture and were becoming embedded in the European imagination. For example, they featured heavily in "Las sergas de Esplandan," a sequel to the Amadis of Gaul cycle, which was first published in 1510 and widely circulated. For a good documentation of European imagination of the Amazons, see E. Pink, "The Amazons of the Americas: Between Myth and Reality," available here via Newcastle University: https://www.societies.ncl.ac.uk/pgfnewcastle/files/2015/03/Pink-The-Amazons-of-the-Americans.pdf.

22. Heaton, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents*. Most agree that the Amazon got its name from the women of the Tupya tribe against whom Orellana battled, as they reminded him of the female Amazon warriors of Greek legend. This is evident in Carvajal's account, for he explains, "In the years which followed Orellana's expedition the name Marañón … was abandoned, and the river began to more generally be known as the River of the Amazons." At times, also, it was referred to under the name of its discoverer. An instance of this may be seen in the articles of agreement drawn up by order of the king, under the date of August 11, 1552, empowering Gerónimo de Aguayo "to go to the

provinces of the Aruacas **and of the Amazons,**" who are located, as this document reads, "[in a region stretching away] from the mouth of the Orellana River, called by another name The Amazons" (162–163). (Emphasis added.) Supporting this are words of the fiercest critic of Carvajal, López de Gómara, who is quoted by Medina in his introduction to Carvajal's account as saying, "Among the extravagant statements which he made was his claim that there were Amazons along this river with whom he and his companions had fought. … Because of this imposture, already many write and say 'River of the Amazons,' and there have gathered together so many parties to go there" (26).

23. Heaton, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* 217.

24. See, for example, A. C. Roosevelt et al., "Paleoindian Cave Dwellers in the Amazon: The Peopling of the Americas," *Science* 272, no. 5260 (1996), 373–384, esp. 373: "The tropical rainforest was thought to have been an ecological barrier to Paleoindians because it provided only scarce resources for human subsistence, and anthropologists have theorised that people could not survive there before the development of slash and burn cultivation."

25. M. W. Palace et al., "Ancient Amazonian Populations Left Lasting Impacts on Forest Structure," *Ecosphere* 8, no. 12 (December 2017), 2.

26. Heaton, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* 235.

27. Wilkinson, "Amazonian Civilization?" 81.

28. Ibid., 81–82.
29. Heaton, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* 198.
30. Ibid., 202.
31. See Wilkinson, "Amazonian Civilization?" 96.
32. Thomas P. Myers et al., "Historical Perspectives on Amazonian Dark Earths," in Johannes Lehmann et al. (eds.), *Amazonian Dark Earths* (Kluwer Academic Publishers, 2010), 15.
33. Wilkinson, "Amazonian Civilization?" 83.
34. See for example the population estimates of Jan De Vries in *European Urbanisation, 1500–1800* (Methuen, 1984), 28: "Of the perhaps 3000–4000 settlements in Europe that were vested with city rights of one form or another, or were otherwise acknowledged to be urban places around 1500, only 154 were inhabited by 10,000 or more people, and only 4 contained as many as 100,000. …" Also of note is that the whole of Scandinavia is estimated as having had a total urban population of 13,000 in 1500, which is just over half the size of Wilkinson's largest estimated Amazonian settlement (30).
35. Admittedly, the population of London is estimated as having fallen by a third following the bubonic plague. Even so, its estimated population of 60,000 in 1500 is revealing in the context of contemporaneous Amazonian urbanity. Figure taken from Bruce Robinson, "London: Brighter Lights, Bigger City" (BBC, 02/07/2011), http://www.bbc.co.uk/history/british/civil_war_revolution/brighter_lights_01.shtml.

36. Figure taken from Tim Lambert, "A Short History of York, Yorkshire, England," http://www.localhistories.org/york.html.
37. Figure taken from "Alterations to the Municipalities in the Population Censuses since 1842: Toledo," Instituto Nacional de Estadística (Spain), http://www.ine.es/intercensal/.
38. Figures taken from aggregate sources on Wikipiedia: https://en.wikipedia.org/wiki/Military_Revolution.
39. Wilkinson, "Amazonian Civilization?" 83–84.
40. Ibid., 83.
41. Ibid., 85.
42. Ibid.
43. Samuel Fritz and George Edmundson, *Journal of the Travels and Labours of Father Samuel Fritz in the River of the Amazons between 1686 and 1723* (printed for the Hakluyt Society, London, 1922).
44. See the discussion in Heaton, *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents,* 62–63.
45. Wilkinson, "Amazonian Civilization?" 85.
46. Ibid.
47. Ibid.
48. In conversation with Charles Mann. See Charles C. Mann, *1491* (Vintage Books, 2011), 330.
49. See, for example, Betty J. Meggers and Clifford Evans, "Archaeological Investigations at the Mouth of the Amazon," *Bureau of American Ethnology Bulletin* 167 (1957), 1–

664.

50. Mann, *1491,* 328.

51. Wilkinson, “Amazonian Civilization?” 85.

52. Ibid., 88.

53. Anna Curtenius Roosevelt, “The Rise and Fall of the Amazon Chiefdoms,” *L’Homme* 33, no. 126 (1993), 255–283, and Anna C. Roosevelt, “The Development of Prehistoric Complex Societies: Amazonia, a Tropical Forest,” *Archeological Papers of the American Anthropological Association* 9, no. 1 (1999), 13–33, cited in Wilkinson, “Amazonian Civilization?” 88.

54. Neil Lancelot Whitehead, *The Ancient Amerindian Polities of the Lower Orinoco, Amazon and Guayana Coast: A Preliminary Analysis of Their Passage from Antiquity to Extinction* (Wenner Gren Foundation for Anthropological Research, 1989), cited in Wilkinson, “Amazonian Civilisation?” 89.

55. Michael J. Heckenberger et al., “Lost Civilizations and Primitive Tribes, Amazonia: Reply to Meggers,” *Latin American Antiquity* 12, no. 3 (September 2001), 331.

56. Ibid., 329.

57. Ibid., 332.

58. Wilkinson, “Amazonian Civilization?” 89.

59. The smallpox epidemic, to which the Aztecs had no immunity, was probably the single key factor that ensured Spanish victory in the conquest. By the time Cortes and his conquistadors finally captured Tenochtitlan, the Aztec capital, most of its inhabitants were already dead—from smallpox. It is thought likely that the Inca emperor Huayna

Capac died of smallpox in 1528, four years before the arrival of Pizarro's forces in Peru, indicating strongly that the virus had traveled on trade networks from Mexico. If those networks were exclusively coastal, then smallpox might not have reached the Amazon until 1542. If they had been inland, then it is possible it could have done so a decade or so earlier. See, for example, D. R. Hopkins, *The Greatest Killer: Smallpox in History* (University of Chicago Press, 2002), 208–211: "The rumours of the Inca Empire that lured Balboa south were also evidence of communication, by land and by sea, between the Indians of Peru and those living in Central America." The author goes on to say that when smallpox struck the land of the Incas sometime around 1524–1527, it was almost certainly smallpox imported from Central America.

60. Ibid.
61. Wilkinson, "Amazonian Civilization?" 89.
62. Thomas P. Myers, "El efecto de las pestes sobre las poblaciones de la Amazonía Alta," *Amazonía Peruana* 8, no. 15 (1988), cited in Wilkinson, "Amazonian Civilization?" 89.
63. Ibid.
64. Ibid.

12: THE ANCIENTS BEHIND THE VEIL

1. M. Goulding, R. B. Barthem, and R. Duenas, *The Smithsonian Atlas of the Amazon* (Smithsonian Books, 2003), 19: "Approximately 85 per cent of the South American rainforest … is found in the Amazon Basin."

2. S. Adams, A. Ganeri, and A. Kay, *Geography of the World: The Essential Family guide to Geography and Culture* (DK, 2006), 170.
3. Ibid., 260.
4. Ibid., 176.
5. Ibid., 24.
6. Ibid., 30.
7. Ibid., 78.
8. Tom D. Dillehay et al., "New Archaeological Evidence for an Early Human Presence at Monte Verde, Chile," *PLoS One* (November 18, 2015), 3. The finds were "associated with the remains of a long tent-like dwelling, the foundation of another structure, hearths, human footprints, economic plants, and wood, reed, bone, and stone artifacts."
9. Ibid.
10. Ibid., 1.
11. Ibid., 2.
12. Ibid., 4.
13. David J. Meltzer et al., "On the Pleistocene Antiquity of Monte Verde, Southern Chile," *American Antiquity* 62, no. 4 (October 1997), 662.
14. Dillehay et al., "New Archaeological Evidence for an Early Human Presence at Monte Verde, Chile," 12.
15. Denis Vialou et al., "Peopling South America's Centre: The Late Pleistocene Site of Santa Elina," *Antiquity* 91 (August 2017), 865–884.
16. Ibid., 867.

17. Ibid., 870. In later millennia, during the Pleistocene/Holocene transition and into relatively recent times, Santa Elina rock shelter was reoccupied by humans on multiple occasions.
18. Technically they are osteoderms—literally "bony skin," from the extinct megafaunal ground sloth *Glossotherium*. Ibid., see esp. p. 875.
19. N. Guidon and G. Delibrias, "Carbon-14 Dates Point to Man in the Americas 32,000 Years Ago," *Nature* 321 (June 19, 1986), 769–771.
20. Ibid., 769.
21. Ibid., 771.
22. Shigueo Watanabe et al., "Some Evidence of a Date of First Humans to Arrive in Brazil," *Journal of Archaeological Science* 30 (March 2003), 351.
23. Ibid., 353–354.
24. N. Guidon and B. Arnaud, "The Chronology of the New World: Two Faces of One Reality," *World Archaeology* 23, no. 2 (October 1991), 167.
25. Ibid., 168.
26. Ibid., 168–169.
27. Watanabe et al., "Some Evidence of a Date of First Humans to Arrive in Brazil," 354. The authors, who see the skulls as having "Negroid charactaristics," are also open to the possibility that the migration might have come "from Africa across the South Atlantic Ocean."
28. Distances calculated using Google Maps "distance from" tool. a) Nearest point of Xingu River to Santa Elina:

https://www.google.co.uk/maps/place/15%C2%B019'58.8%22S+56%C2%B057'00.0%2 15.333!4d-56.95. b) Nearest point of Xingu River to Pedra Furada: https://www.google.co.uk/maps/place/Pedra+Furada/@-11.5025045,-53.4068848,7z/data 10.8772297!4d-47.3858913.

29. A. C. Roosevelt et al., "Palaeoindian Cave Dwellers in the Amazon: The Peopling of the Americas," *Science* 272 (April 19, 1996), 373–384.

30. Ibid., 380.

31. Ibid., 381.

32. Data taken from the World Bank: "Land area (sq.km):" Mexico 1,943,950.0; Guatemala 107,160.0; Belize 22,810.0; Honduras 111,890.0; El Salvador 20,720.0; Total = 2,206,530. https://data.worldbank.org/indicator/AG.LND.TOTL.K2

33. Ibid., + India 2,973,190.0 = 5,179,720.

34. See G. Hancock, *Underworld: The Mysterious Origins of Civilization,* (Michael Joseph, 2002), 629–630.

35. "Antarctica's Location and Geography" on Polar Discovery: Woods Hole Oceanographic Institution, http://polardiscovery.whoi.edu/antarctica/geography.html.

36. Kerry H. Cook and Edward K. Vizy, "Detection and Analysis of an Amplified Warming of the Sahara Desert," *Journal of Climate* 28 (2015), 6560, esp. 6561.

37. See, for example, Nick A. Drake and Roger M. Blench, "Ancient Watercourses and Biogeography of the Sahara Explain the Peopling of the Desert," *Proceedings of the National Academy of Sciences* 108 (January 11, 2011), 458–462.

38. Adams, Ganeri, and Kay, *Geography of the World,* 46.

39. "Sprawling Maya Network Discovered Under Guatemala Jungle," BBC, February 2, 2018, https://www.bbc.com/news/amp/world-latin-america-42916261.
40. Ibid. See also "Exclusive: Laser Scans Reveal Maya 'Megalopolis' Below Guatemalan Jungle," *National Geographic,* February 1, 2018, https://news.nationalgeographic.com/2018/02/maya-laser-lidar-guatemala-pacunam/.
41. Ibid.
42. Ibid.

13: BLACK EARTH

1. A. C. Roosevelt et. al., "Palaeoindian Cave Dwellers in the Amazon: The Peopling of the Americas," *Science* 272 (April 19, 1996), 380: "The luminescence dates ~ 16,000 to 9500 B.P. overlap the possible range of calendar dates estimated for the radiocarbon dates, ~ 14,200 to 10,500 yr B.P." See also M. Michab et al., "Luminescence Dates for the Paleoindian Site of Pedra Pintada, Brazil," *Quaternary Science Reviews* 17, no. 11 (1988), 1041–1046, esp. p. 1045: "While the luminescence dates lack the precision of the radiocarbon dates they confirm the fact that the cave was occupied between about 13,500 and 10,000 calendar years ago."
2. M. C. Castro and B. H. Singer, "Agricultural Settlement and Soil Quality in the Brazilian Amazon," *Population and Environment* 34, no. 1 (2012), 22–43, esp. p. 23. Most Amazon base soils are weathered and lack good fertility. As a result, 75 percent of

the agriculture practiced across the Amazon basin today requires the help of chemicals and machine technology to yield sustainable annual crops.

3. Ibid., 40.
4. Crystal N. H. McMichael et al., "Ancient Human Disturbances May Be Skewing Our Understanding of Amazonian Forests," *Proceedings of the National Academy of Sciences* 114 (January 17, 2017), 522.
5. Manuel Arroyo-Kalin, *Steps Towards an Ecology of Landscape: A Geoarchaeological Approach to the Study of Anthropogenic Dark Earths in the Central Amazon Region, Brazil* (University of Cambridge Department of Archaeology, 2008), 11.
6. Herbert Smith (1879) cited in Emma Morris, "Putting the Carbon Back: Black Is the New Green," *Nature* 442 (August 10, 2006), 624.
7. Arroyo-Kalin, *Steps Towards an Ecology of Landscape,* 11.
8. See, for example, Morris, "Putting the Carbon Back," 624, and Cornell University's Department of Crop and Soil Sciences information page on terra preta, http://www.css.cornell.edu/faculty/lehmann/research/terra%20preta/terrapretamain.html, which states: "'Terra Preta de Indio' (Amazonian Dark Earths; earlier also called 'Terra Preta do Indio' or Indian Black Earth) is the local name for certain dark earths in the Brazilian Amazon region."
9. B. Glaser and W. I. Woods (eds.), *Amazonian Dark Earths: Explorations in Space and Time* (Springer Verlag, 2004), 1.
10. Ibid.

11. Michael J. Heckenberger et al., "Pre-Columbian Urbanism, Anthropogenic Landscapes, and the Future of the Amazon," *Science* (August 29, 2008), 1214–1217. The phrase "garden city" is applied to residence patterns adopted by the prehistoric urban settlements of the Upper Xingu—see p. 1217. See also the *Daily Telegraph* (London), August 28, 2008, which reports the contents of the *Science* paper under the headline "Amazon Rainforest Was Giant Garden City," https://www.telegraph.co.uk/news/science/science-news/3350474/Amazon-rainforest-was-giant-garden-city.html.

12. Glaser and Woods, *Amazonian Dark Earths,* 3.

13. Figures from Beata Golińska, "Amazonian Dark Earths in the Context of Pre-Columbian Settlements," *Geophysics, Geology and Environment* 40, no. 2 (2014), 220, and Antoinette M. G. A. WinklerPrins, "Terra Preta: The Mysterious Soils of the Amazon," in G. Jock Churchman and Edward R. Landa (eds.), *The Soil Underfoot: Infinite Possibilities for a Finite Resource* (CRC Press, 2014), 238.

14. Stephen Schwartzman et al., "The Natural and Social History of the Indigenous Lands and Protected Areas Corridor of the Xingu River Basin," *Philosophical Transactions of the Royal Society B* (April 22, 2013), 3.

15. See, for example, M. W. Palace et al., "Ancient Amazonian Populations Left Lasting Impacts on Forest Structure," *Ecosphere* 8, no. 12 (December 2017), 3; Eduardo G. Neves et al., "Dark Earths and the Human Built Landscape in Amazonia: A Widespread Pattern of Anthrosol Formation," *Journal of Archaeological Science* 42 (February 2014), 153; Charles R. Clement et al., "The Domestication of Amazonia Before

European Conquest," *Proceedings of the Royal Society B* (July 22, 2015), 1, 3; and Arroyo-Kalin, *Steps Towards an Ecology of Landscape*, 11, 13.

16. Ute Scheub et al., *Terra Preta: How the World's Most Fertile Soil Can Help Reverse Climate Change and Reduce World Hunger* (Greystone Books, 2016), xv. See also Bruno Glaser and Jago Jonathan Birk, "Stage of Scientific Knowledge on Properties and Genesis of Anthropogenic Dark Earths in Central Amazonia (*terra preta de Índio*)," *Geochimica et Cosmochimica Acta* 82 (2012), 49: "The existence of terra preta even several thousand years after their creation unambiguously shows that improvement of highly weathered tropical soils by human actions is possible." For a quick overview, see also "Terra Preta: The Secret of the Rainforest's Fertile Soil," *Facts Are Facts Magazine,* https://www.facts-are-facts.com/article/terra-preta-the-secret-of-the-rainforests-fertile-soil.

17. Schwartzman et al., "The Natural and Social History of the Indigenous Lands and Protected Areas Corridor of the Xingu River Basin," 3.

18. WinklerPrins, "Terra Preta: The Mysterious Soils of the Amazon," 236. Emphasis added. See also Glaser and Woods, *Amazonian Dark Earths,* 4: "Most researchers believe that these soils formed in cultural deposits created through the accretion of waste and occupation debris around habitation areas."

19. Eduardo G. Neves et al., "Historical and Socio-cultural Origins of Amazonian Dark Earth" in Johannes Lehmann eds., *Amazonian Dark Earths: Origin Properties Management* (Springer, 2003), 29–50. See p. 40: "Possible sources of ADE in the context of habitation may be associated with burial activities (human remains, urns,

cloth, etc.), food preparation (fire remains such as soot, ash, charcoal; food processing remains such as fish waste or waste from game, blood from hunted animals, inedible parts of fruit, vegetables and nuts, etc.; cooking and storage vessels, etc.), eaten food waste (human excrement, processed food waste such as bones of fish and game), housing (debris of housing materials such as straw or palm leaves, wood, skin), and various other activities (dyes, oils, fiber from palms and bark, etc.)."

20. Neves et al., "Dark Earths and the Human Built Landscape in Amazonia," 161.

21. Ibid.

22. "Thomas R. Miles has designed, developed, installed and tested agricultural and industrial systems for fuel handling, air quality, and biomass energy since 1975. An expert in combustion and gasification of biomass, he has designed and developed many systems to make biochar. He has sponsored and hosted internet discussions on biomass energy since 1994 including biochar@yahoogroups.com listservs and www.biochar.bioenergylists.org since 2006." See http://2012.biochar.us.com/profile/116/thomas-r-miles.

23. Tom Miles, "Amazon's Mysterious Black Earth: Soil Found Along Region Riverbanks; Rich in Nutrients, Stores More Carbon," BioEnergy Lists: Biochar Mailing Lists, January 20, 2007, http://terrapreta.bioenergylists.org/forestsorg.

24. The fertility of terra preta is discussed at length in Scheub et al., *Terra Preta,* 6.

25. WinklerPrins, "Terra Preta: The Mysterious Soils of the Amazon," 236. The quoted passage continues: "In the generally high humidity and high rainfall environments such as found in the Amazon basin, most nutrients in the soil mineralize and are leached out

of the system quickly, and because of this, the vegetation of the region typically absorbs nutrients quickly from the soil once these have been released in the soil through decomposition or other processes."

26. Ibid.

27. Ibid. "The carbon found in ADE's is aromatic carbon (also known as black or pyrogenic carbon) that is likely a consequence of the incorporation of charcoal into the soil. … Soils with this type of carbon are able to retain, even attract nutrients, resulting in more plant-available phosphorus, calcium, and nitrogen, as the aromatic carbon acts as a carrying agent for nutrients. Aromatic carbon is also known to be highly resistant to degradation."

28. Morris, "Putting the Carbon Back," 625. The cited passage continues: "They become homes for populations of microorganisms that turn the soil into that spongy, fragrant, dark material that gardeners everywhere love to plunge their hands into. The char is not the only good stuff in *terra preta*—additions such as excrement and bone probably play a role too—but it is the most important factor. Leaving aside the subtleties of how char particles improve fertility, the sheer amount of carbon they can stash away is phenomenal."

29. William Balée, "Amazonian Dark Earths," *Tipiti: Journal of the Society for the Anthropology of Lowland South America* 8, no. 1 (2010), 5. Emphasis in the original. The cited passage goes on to state: "Biochar is believed to be the principal source of the color of the Amazon Dark Earths as well as the reason for retention of nutrients. Microbial activity leads to increased carbon sequestration. That is what makes ADEs of

interest in research on climate change. The higher and more diverse the microbial activity, the better the soil, and ADE is richer and more diverse in microbes than surrounding soils, even though millions of these species remain to be identified precisely and literally *a million separate taxa can be contained in only 10 grams of soil*. A significant proportion of the microbes in ADE are different from the microbes in the surrounding primeval soils."

30. Glaser and Woods, *Amazonian Dark Earths,* 4. The cited passage continues: "The consequent increase in microbiological activity adds colloidally sized organic decomposition products to the soil matrix."
31. Ibid., 4.
32. WinklerPrins, "Terra Preta: The Mysterious Soils of the Amazon," 236.
33. Neves et al., "Dark Earths and the Human Built Landscape in Amazonia," 153.
34. Balée, "Amazonian Dark Earths," 5.
35. See, for example, A. C. Roosevelt, "The Amazon and the Anthropocene: 13,000 Years of Human Influence in a Tropical Rainforest," *Anthropocene* 4 (December 2013), 79, 80; Clement et al., "The Domestication of Amazonia Before European Conquest," 3; Lizzie Wade, "Searching for the Amazon's Hidden Civilizations," *Science* (January 7, 2014), http://www.sciencemag.org/news/2014/01/searching-amazons-hidden-civilizations.
36. Neves et al., "Historical and Socio-Cultural Origins of Amazonian Dark Earths," 38.
37. Ibid.
38. Ibid.

39. Ibid.
40. Ibid., 37–38.
41. Clement et al., “The Domestication of Amazonia Before European Conquest,” 3.
42. Morris, “Putting the Carbon Back,” 624.
43. B. Liang et al., “Black Carbon Increases Cation Exchange Capacity in Soils,” *Soil Science Society of America Journal* (September 1, 2006), 1719 and 1720. See also Jennifer Watling et al., “Direct Archaeological Evidence for Southwestern Amazonia as an Early Plant Domestication and Food Production Centre,” *PLoS One* (July 25, 2018), 2: “New radiocarbon dates associated with Massangana phase deposits of lithic artefacts in what appear to be Anthropogenic Dark Earths, or terra preta, matrices at Garbin and Teotonio sites have also pushed regional ADE formation as far back as ca 7,000–6,790 to 8,600–8,420 cal BP … which makes the dark earths of the Upper Madeira some 3,500 years older than the rest of Amazonia.”
44. See, for example, Palace et al., “Ancient Amazonian Populations Left Lasting Impacts on Forest Structure,” 3: “The quest to map ADE locations has been stymied by the immense size of Amazonia, remoteness in many areas, dense forest, and lack of archaeological field surveys.”

14: GARDENING EDEN

1. A. C. Roosevelt, “The Amazon and the Anthropocene: 13,000 Years of Human Influence in a Tropical Rainforest,” *Anthropocene* (May 27, 2014), 82.

2. Ibid.
3. C. Levis et al., “Persistent Effects of Pre-Columbian Plant Domestication on Amazonian Forest Composition,” *Science* 355 (March 3, 2017), 926.
4. Roosevelt, “The Amazon and the Anthropocene,” 82.
5. Levis et al., “Persistent Effects of Pre-Columbian Plant Domestication on Amazonian Forest Composition,” 925.
6. Ibid., 927.
7. Ibid., 927–928.
8. Ibid., 925, 931.
9. Ibid.
10. Carolina Levis interviewed in *The Atlantic,* March 2, 2017, https://www.theatlantic.com/science/archive/2017/03/its-now-clear-that-ancient-humans-helped-enrich-the-amazon/518439/. See also Levis et al., “Persistent Effects of Pre-Columbian Plant Domestication on Amazonian Forest Composition,” 925: “In Amazonia, plant domestication started earlier than 8000 BP.”
11. See also Levis et al., “Persistent Effects of Pre-Columbian Plant Domestication on Amazonian Forest Composition,” 926.
12. See, for example, Clement et al., “The Domestication of Amazonia Before European Conquest,” *Proceedings of the Royal Society B* (July 22, 2015), 2, and Annalee Newitz, “The Amazon Rainforest Is the Result of an 8,000-Year Experiment,” *ArsTechnica* (March 6, 2017), https://arstechnica.com/science/2017/03/the-amazon-forest-is-the-

result-of-a-8000-year-experiment/. See also Charles R. Clement et al., "Origin and Domestication of Native Amazonian Crops," *Diversity* (March 2010), 72–186.

13. Clement et al., "Origin and Domestication of Native Amazonian Crops," 84–85 and 92, and Barbara Pickersgill, "Domestication of Plants in the Americas: Insights from Mendelian and Molecular Genetics," *Annals of Botany* 100, no. 5 (October 2007), 929.

14. Clement et al., "The Domestication of Amazonia Before European Conquest," 1. See also Jennifer Watling et al., "Direct Archaeological Evidence for Southwestern Amazonia as an Early Plant Domestication and Food Production Centre," *PLoS One* 13, no. 7 (2018), e0199868.

15. Clement et al., "The Domestication of Amazonia Before European Conquest," 2.

16. Pickersgill, "Domestication of Plants in the Americas," 930, and Clement et al., "Origin and Domestication of Native Amazonian Crops," 72–73, 85–87. See also Chanie Kirschner, "Do Pineapples Grow on Trees?" April 8, 2012, https://www.mnn.com/your-home/organic-farming-gardening/questions/do-pineapples-grow-on-trees. Potted pineapple plants are now sold in supermarkets as houseplants: https://www.housebeautiful.com/uk/lifestyle/shopping/news/a2807/asda-selling-pineapple-plants.

17. Clement et al., "Origin and Domestication of Native Amazonian Crops," 86.

18. Ibid., 73.

19. Ibid.

20. Ibid., 76.

21. Ibid., 73 and 75.

22. Christian Isendahl, "The Domestication and Early Spread of Manioc: A Brief Synthesis," *Latin American Antiquity* 22, no. 4 (December 2011), 452.
23. Clement et al., "Origin and Domestication of Native Amazonian Crops," 77.
24. Tom D. Dillehay et al., "Preceramic Adoption of Peanut, Squash, and Cotton in Northern Peru," *Science* 316, no. 5833 (June 29, 2007), 1890.
25. Ibid., 1891.
26. Spencer P. M. Harrington, "Earliest Agriculture in the New World," *Archaeology* 50, no. 4 (July/August 1997), https://archive.archaeology.org/9707/newsbriefs/squash.html.
27. Dillehay et al., "Preceramic Adoption of Peanut, Squash, and Cotton in Northern Peru," 1890–1891.
28. Ibid.
29. Ibid.; see also Pickersgill, "Domestication of Plants in the Americas," 930.
30. Pickersgill, "Domestication of Plants in the Americas," 930: "One important legume, the peanut or groundnut (*Arachis hypogaea*), a tetraploid annual, was domesticated east of the Andes, probably close to the area in which cassava was domesticated. It became widespread prehistorically, possibly spreading in association with cassava." See also Clement et al., "Origin and Domestication of Native Amazonian Crops," 93, Figure 3, which includes peanuts among "native Amazonian crops."
31. For manioc, see Clement et al., "Origin and Domestication of Native Amazonian Crops," 77 and 92. For peanuts, see Dillehay et al., "Preceramic Adoption of Peanut, Squash, and Cotton in Northern Peru," 1891.

32. Isendahl, “The Domestication and Early Spread of Manioc,” 452. See also Watling et al., “Direct Archaeological Evidence for Southwestern Amazonia as an Early Plant Domestication and Food Production Centre,” 19: For manioc, “genetic evidence points to a domestication event sometime between 8,000 and 10,000 BP.”
33. Isendahl, “The Domestication and Early Spread of Manioc,” 454.
34. Ibid.
35. Dillehay et al., “Preceramic Adoption of Peanut, Squash, and Cotton in Northern Peru,” 1890.
36. Pickersgill, “Domestication of Plants in the Americas,” 930.
37. Isendahl, “The Domestication and Early Spread of Manioc,” 455.
38. Ibid.
39. See, for example, H. C. Heaton (ed.), *The Discovery of the Amazon According to the Account of Friar Gaspar de Carvajal and Other Documents* (American Geographical Society, 1934), 172.
40. “Manioc Processing Amongst Brazil’s Canela Indians,” https://anthropology.si.edu/canela/manioc.htm.
41. And see Watling et al., “Direct Archaeological Evidence for Southwestern Amazonia as an Early Plant Domestication and Food Production Centre,” 21–22: “The pervading view is that the early Holocene inhabitants of the upper Madeira were simple hunter-gatherers from a ‘pre’-landscape domestication age. However, this scenario seems unlikely if we think about the following: we know manioc was domesticated—and therefore cultivated—by societies in the same region during the Girau phase, and

probably, we have argued, by the Girau-period inhabitants themselves. **In domesticating manioc, people not only improved various aspects such as the size and production of its tubers, photosynthetic rates and seed functionality, but they did this by repeated cycles of recombination and selection which involved clonal propagation as a viable reproductive mechanism (wild manioc cannot reproduce from stem cuttings). This process, which was completed by 8,000 years ago, required highly sophisticated knowledge of the natural world.**"

42. F. F. F. Teles, "Chronic Poisoning by Hydrogen Cyanide in Cassava and Its Prevention in Africa and Latin America," *Food and Nutrition Bulletin* 23, no. 4 (2002), 407–412, esp. p. 410.

43. Jeremy Narby, *The Cosmic Serpent: DNA and the Origins of Knowledge* (Victor Gollancz, 1995), 39.

44. Ibid., 40.

45. Ibid.

46. Examples of studies revealing the transformative power of ayahuasca and its contribution to the Western Consciousness Revolution are psychologist Rachel Harris's *Listening to Ayahuasca* (New World Library, 2017); medical doctor Joe Tafur's *The Fellowship of the River: A Medical Doctor's Exploration into Traditional Plant Medicine* (Joseph Tafur, 2017); and ex-veteran Alex Seymour's *Psychedelic Marine: A Transformational Journey from Afghanistan to the Amazon* (Park Street Press, 2016), among very many more.

15: SACRED GEOMETRY

1. Stanislas Dehaene et al., "Core Knowledge of Geometry in an Amazonian Indigene Group," *Science* 311 (January 20, 2006), 381.
2. Ibid.
3. Ibid., 381, 384.
4. Ibid., 381.
5. Ibid.
6. Charles Mann, "Ancient Earthmovers of the Amazon," *Science* 321 (August 29, 2008), 148.
7. Martti Pärssinen, Denise Schaan, and Alceu Ranzi, "Pre-Columbian Geometric Earthworks in the Upper Purús," *Antiquity* 83, no. 322 (December 1, 2009), 1087.
8. Ibid., 1084–1095.
9. Ibid., 1084.
10. Ibid., 1085.
11. Ibid., 1087.
12. See discussion and photographs in Graham Hancock and Santha Faiia, *Heaven's Mirror: Quest for the Lost Civilization* (Penguin, 1998), 257–269.
13. Cited in Mann, "Ancient Earthmovers of the Amazon," 1148.
14. Denise P. Schaan, *Sacred Geographies of Ancient Amazonia* (Routledge, 2012), 142–143.

15. Maria Reiche interviewed by Graham Hancock and Santha Faiia, June 12, 1993, reported in *Heaven's Mirror,* 261.

16. Anthony F. Aveni, *Between the Lines: The Mystery of the Giant Ground Drawings of Ancient Nasca, Peru* (University of Texas Press, 2000), 34.

17. New World Encyclopedia, "Nazca Lines" (accessed July 23, 2018), http://www.newworldencyclopedia.org/entry/Nazca_Lines.

18. J. G. Fleagle, *Primate Adaptation and Evolution*, 2nd ed. (Academic Press, 1998), 172.

19. Aveni, *Between the Lines,* 34.

20. Dimensions from Maria Reiche, *Mystery on the Desert* (Editorial E Emprenta Entoria, 1949, reprinted 1996), 24.

21. Firm identification of the Nazca spider with Ricinulei was first made by Professor Gerald S. Hawkins. See Gerald S. Hawkins, *Beyond Stonehenge* (Arrow Books, 1977), 143–144. For their categorization as "tickspiders," see British Arachnological Society, "Hooded Tickspiders (*Ricinulei*)," http://britishspiders.org.uk/wiki2015/index.php?title=Category:Ricinulei.

22. Ricardo Pinto-da Rocha and Renata Andrade, "A New Species of *Cryptocellus* (Arachnida: Ricinulei) from Eastern Amazonia," *Zoologica* 29, no. 5 (October 2012), 474–478. See also Joachim U. Adis et al., "On the Abundance and Ecology of Ricinulei (Arachnida) from Central Amazonia, Brazil," *Journal of the New York Entomological Society* 97, no. 2 (1989), 133–140.

23. See, for example, Alexandre B. Ronaldo and Ricardo Pinto-da Rocha, "On a New Species of *Cryptocellus* from the Brazilian Amazon (Arachnida, Ricinulei)," *Revista*

Ibérica de Aracnología 7 (June 30, 2003), 103–108; and Pinto-da Rocha and Andrade, "A New Species of *Cryptocellus* (Arachnida: Ricinulei) from Eastern Amazonia," 474–478.

24. Ronaldo and Pinto-da Rocha, "On a New Species of *Cryptocellus* from the Brazilian Amazon (Arachnida, Ricinulei)," 103: "Like the spider pedipalp, the ricinuleid third leg offers numerous species-specific features that are very important in the recognition of individual species."

25. Ibid.

26. Hawkins, *Beyond Stonehenge,* 144.

27. Pärssinen, Schaan, and Ranzi, "Pre-Columbian Geometric Earthworks in the Upper Purús," 1087. See pp. 1090–1091 for some specific examples cited in the paper, for example, "a 250m wide quadrangular structure, crossed by a 12m wide NE-SW oriented road, leading after 1300m to [a] geoglyph site … which is comprised of a rectangular structure with rounded corners, measuring 200 × 260m. … Another rectangular structure … is a 100m wide square, with a road leaving it in the south direction, vanishing after 120m. The fourth example … is a double ditched square, with roads leaving from the centre of its north, east and south sides."

28. Ibid., 1091.

29. Ibid., 1087–1088.

30. Sanna Saunaluoma, Martti Pärssinen, and Denise Schaan, "Diversity of Pre-colonial Earthworks in the Brazilian State of Acre, Southwestern Amazonia," *Journal of Field Archaeology* (July 9, 2018), 5–6.

31. Ibid., 5.
32. Ibid., 7–8.
33. Ibid., 10–11.
34. Pärssinen, Schaan, and Ranzi, “Pre-Columbian Geometric Earthworks in the Upper Purús,” 1094.
35. Ibid., 1089.
36. Ibid., 1090.
37. Ibid., 1089.
38. Denise Schaan et al., “New Radiometric Dates for Pre-Columbian (2000–700 BP) Earthworks in Western Amazonia, Brazil,” *Journal of Field Archaeology* 37 (2012), 132–142.
39. Ibid., 133.
40. Ibid., 137–138.
41. Ibid., 132.
42. E. W. Herrmann et al., “A New Multistage Construction Chronology for the Great Serpent Mound, USA,” *Journal of Archaeological Science* 50 (2014), 117–125.
43. Schaan et al., “New Radiometric Dates for Precolumbian (2000–700 BP) Earthworks in Western Amazonia, Brazil,” 135.
44. J. H. Cole, Survey of Egypt Paper No. 39, *Determination of the Exact Size and Orientation of the Great Pyramid of Giza* (Government Press, Cairo, 1925), 6.
45. For the accuracy of the Great Pyramid’s cardinal alignments, see I. E. S. Edwards, *The Pyramids of Egypt* (Penguin Books, 1993), 99–100. For the cardinal orientation of the

Severino Calazans geoglyph, see Schaan et al., "New Radiometric Dates for Precolumbian (2000–700 BP) Earthworks in Western Amazonia, Brazil," 135, Figure 3. These authors do not provide precise survey details and note (on p. 136) that the site has been damaged by modern intrusions. Nonetheless, from the information they do provide, its general cardinal orientation is not in doubt.

46. Schaan et al., "New Radiometric Dates for Precolumbian (2000–700 BP) Earthworks in Western Amazonia, Brazil," 136.
47. Ibid., 136, Table I.
48. Ibid.
49. Ibid., 135.
50. Ibid., 136.
51. Ibid.
52. Ibid.
53. According to Mann, "Ancient Earthmovers of the Amazon," p. 1148, at a time when more than 150 geoglyphs had been found Pärssinen estimated this number to represent "less than 10%" of the total.
54. John Francis Carson et al., "Environmental Impact of Geometric Earthwork Construction in the Pre-Columbian Amazon," *Proceedings of the National Academy of Sciences* 111, no. 29 (July 22, 2014), 10497.
55. Schaan et al., "New Radiometric Dates for Precolumbian (2000–700 BP) Earthworks in Western Amazonia, Brazil": A date of 2577 BC was retrieved from excavation unit 3 (p. 136, Table I); it measures 230 meters along each side; and its full perimeter, defined

by an enclosure ditch 12 meters wide, measures 920 meters—more than 3,000 feet (p. 135). The Great Pyramid has almost the same footprint; see Cole, *Determination of the Exact Size and Orientation of the Great Pyramid of Giza,* 6. For the accuracy of the Great Pyramid's cardinal alignments, which are the same as those given by Severino Calazans, see Edwards, *The Pyramids of Egypt,* 99–100.

56. Interviewed in Sarah Knapton, "Hundreds of Ancient Earthworks Resembling Stonehenge Found in Amazon Rainforest," *Daily Telegraph,* February 6, 2017, http://www.telegraph.co.uk/science/2017/02/06/hundreds-ancient-earthworks-resembling-stonehenge-found-amazon/.

57. L. Falconer, "Interactive Virtual Archaeology: Constructing the Prehistoric Past at Avebury Henge," International Conference on Ubiquitous Computing and Communications and 2016 International Symposium on Cyberspace and Security (IUCC-CSS), December 2016, 153–158, esp. p. 155.

58. "'Secret Square' Discovered Beneath World-Famous Avebury Stone Circle," University of Southampton, June 29, 2017, https://www.southampton.ac.uk/news/2017/06/avebury-square.page. See also: "Avebury Neolithic Stone Circle Is Actually Square" (BBC, June 28, 2017), http://www.bbc.co.uk/news/uk-england-wiltshire-40431673 and "Avebury Square Discovered Beneath Neolithic Stone Monument" (Live Science, June 30, 2017), https://www.livescience.com/59668-avebury-circle-once-a-square.html.

59. Schaan et al., "New Radiometric Dates for Precolumbian (2000–700 BP) Earthworks in Western Amazonia, Brazil," 138.

60. T. Darvill et al., "Stonehenge Remodelled," *Antiquity* 86, no. 334 (2012), 1021–1040, esp. p. 1028: "Stonehenge first consisted of a circular bank and external ditch with an overall diameter of about 110m. This earthwork was entered by a main access from the north-east and a smaller entrance to the south. It is not technically a henge, because henges have a bank outside the ditch, but it conforms to the emergent class of 'formative henges' constructed in the late fourth and early third millennia cal BC."
61. Interviewed in Knapton, "Hundreds of Ancient Earthworks Resembling Stonehenge Found in Amazon Rainforest."
62. Pärssinen, Schaan, and Ranzi, "Pre-Columbian Geometric Earthworks in the Upper Purús," 1089.
63. Jennifer Watling et al., "Impact of Pre-Columbian "Geoglyph" Builders on Amazonian Forests, *Proceedings of the National Academy of Sciences* 114, no. 8 (February 21, 2017), 1868.
64. Ibid. (Emphasis added.)
65. Schaan et al., "New Radiometric Dates for Precolumbian (2000–700 BP) Earthworks in Western Amazonia, Brazil," 136, Table I.
66. Ibid.

16: THE AMAZON'S OWN STONEHENGE

1. Marcos Pivetta, "The Sun Stones," *Revista Pesquisa* (August 1, 2011), http://revistapesquisa.fapesp.br/en/2011/08/01/the-sun-stones/.

2. Ibid. However, the article appears to be inaccurate in that it has both Goeldi and Nimuendajú visiting Rego Grande. According to Mariana Cabral—the leading modern scientific expert on the site—neither of them did so, and I therefore report accordingly.
3. Simon Romero, "A 'Stonehenge,' and a Mystery, in the Amazon," *New York Times,* December 14, 2016, https://www.nytimes.com/2016/12/14/world/americas/brazil-amazon-megaliths-stonehenge.html.
4. Ibid.
5. Pivetta, "The Sun Stones."
6. Ibid. Other estimates, giving the total number of megaliths at 127, giving a range of heights including 3 meters and 4 meters, and giving the 3 km distance to the quarry can be found, variously, in Romero, "A 'Stonehenge,' and a Mystery, in the Amazon"; http://www.blueplanetheart.it/2017/04/rego-grande-chi-ha-eretto-la-stonehenge-dellamazzonia-era-molto-piu-avanzato-di-quanto-immaginiamo/;https://stanflouride.com/2016/12/21/amzonian-stonehenge-the-rego-grande-sun-stones/; and https://en.wikipedia.org/wiki/Parque_Arqueol%C3%B3gico_do_Solst%C3%ADcio. Several of these sources also put the diameter of the circle at 30 meters.
7. Pivetta, "The Sun Stones."
8. Ibid.
9. Ibid.
10. Richard Dawkins, *The Selfish Gene,* 2nd ed. (Oxford University Press, 1989), 192: "We need a name for the new replicator, a noun that conveys the idea of a unit of

cultural transmission, or a unit of imitation. 'Mimeme' comes from a suitable Greek root, but I want a monosyllable that sounds a bit like 'gene.' I hope my classicist friends will forgive me if I abbreviate mimeme to meme. If it is any consolation, it could alternatively be thought of as being related to 'memory,' or to the French word même. It should be pronounced to rhyme with 'cream.'"

11. Oxford Dictionary definition: https://en.oxforddictionaries.com/definition/meme.
12. Pivetta, "The Sun Stones."
13. Ibid., and see "Amapá: Cradle of the Brazilian 'Stonehenge,'" *Ceticismo,* March 16, 2010, https://ceticismo.net/2010/03/16/amapa-berco-do-stonehenge-brasileiro/.
14. Guianas Geographic, "Solstice Megaliths: Calçoene, Amapá, The Amerindian Stonehenge," http://www.guianas-geographic.com/article-en/solstice-megaliths-calcoene-amapa-the-amerindian-stonehenge/.
15. Pivetta, "The Sun Stones."
16. Ibid.
17. "Another 'Stonehenge' Discovered in Amazon," NBC News, June 26, 2006, http://www.nbcnews.com/id/13582228/ns/technology_and_science-science/t/another-stonehenge-discovered-amazon/#.WrUQRdPFLUI.
18. Gibby Zobel, "Will Amazon's Stonehenge Rewrite History?" June 27, 2006, http://www.meta-religion.com/Archaeology/Southamerica/will_amazon_stonehenge.htm.
19. Romero, "A 'Stonehenge,' and a Mystery, in the Amazon."

20. A. C. Roosevelt et al., “Palaeoindian Cave Dwellers in the Amazon: The Peopling of the Americas,” *Science* 272 (April 19, 1996), 380: “The luminescence dates ~ 16,000 to 9500 B.P. overlap the possible range of calendar dates estimated for the radiocarbon dates, ~ 14,200 to 10,500 yr B.P.”

21. See, for example, Christopher Sean Davis, “Solar-Aligned Pictographs at the Paleoindian Site of Painel do Pilão Along the Lower Amazon River at Monte Alegre, Brazil,” *PLoS One* (December 20, 2016), 2: “Anna Roosevelt and her team (1996) excavated at Caverna da Pedra Pintada, the largest and closest painted cave to the Amazon River, on a hill called Serra da Paituna. There they unearthed evidence of a Late Pleistocene paleoindian occupation period associated with numerous paint drops and lumps of pigment, artifacts, black soil, and other food remains radiocarbon dated to 11,280 to 10,170 uncalibrated years before present (13,630–11,705 cal yr BP—OxCal 4.2).”

22. Davis, “Solar-Aligned Pictographs at the Paleoindian Site of Painel do Pilão Along the Lower Amazon River at Monte Alegre, Brazil,” 7.

23. Ibid.

24. Ibid., 14.

25. Ibid., 7–8.

26. Ibid., 8.

27. Ibid.

28. Ibid. It should be noted that since the latitude of Painel do Pilão is some 2 degrees south of the equator, Davis is technically in error to refer to the December solstice as the

"winter solstice"—it is the summer solstice in the Southern Hemisphere.

29. Ibid., 10.

30. Ibid., 11.

31. Ibid., 16.

32. Ibid., 11.

33. For 2009, see Martti Pärssinen, Denise Schaan, and Alceu Ranzi, "Pre-Columbian Geometric Earthworks in the Upper Purús," *Antiquity* 83, no. 322 (December 1, 2009), 1094. For 2017, see Jennifer Watling et al., "Impact of Pre-Columbian 'Geoglyph' Builders on Amazonian Forests," *Proceedings of the National Academy of Sciences* 114, no. 8 (February 21, 2017), 1868. See also Pirjo Kristiina and Sanna Saunaluoma, "Visualization and Movement as Configurations of Human–Nonhuman Engagements: Precolonial Geometric Earthwork Landscapes of the Upper Purús, Brazil," *American Anthropologist* 119, no. 4 (August 23, 2017), 615.

34. Jonaas Gregorio de Souza and Denise Pahl Schaan, "Pre-Columbian Earth-Builders Settled Along the Entire Southern Rim of the Amazon," *Nature Communications,* March 27, 2018, 1.

35. Ibid., 3.

36. Ibid., 3–4.

37. Ibid., 6.

38. Ibid., 2.

39. Ibid.

40. The feats of cultural memory preservation and effective knowledge transmission over immense time periods that are manifested in the Amazonian geoglyphs—and that provide compelling evidence of the successful replication of geometrical and cosmographic "memes" on a millennial scale—were recognized in 2018 by Jennifer Watling, Francis Mayle, and Denise Schaan, who admit that they are "impressed at the timescale over which the knowledge, behaviours and ideology behind the geoglyphs were transmitted and propagated." See their paper "Historical Ecology, Human Niche Construction and Landscape in Pre-Columbian Amazonia: A Case Study of the Geoglyph Builders of Acre, Brazil," *Journal of Anthropology,* April 26, 2018, 134.

41. Denise P. Schaan, *Sacred Geographies of Ancient Amazonia* (Routledge, 2012), 170.

42. "Colonel Labre's Explorations in the Region Between the Beni and Madre de Dios Rivers and the Purus," *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 11, no. 8 (August 1889), 498.

17: THE VINE OF THE DEAD

1. Oxford dictionaries: https://en.oxforddictionaries.com/definition/celestial_pole.
2. John Francis Carson et al., "Environmental Impact of Geometric Earthwork Construction in the Pre-Columbian Amazon," *Proceedings of the National Academy of Sciences* 111, no. 29 (July 22, 2014), 1048. See also Martti Pärssinen, Denise Schaan, and Alceu Ranzi, "Pre-Columbian Geometric Earthworks in the Upper Purús," *Antiquity* 83, no. 322 (December 1, 2009), 1089. Also see Simon Romero, "Once Hidden by Forest, Carvings in Land Attest to Amazon's Lost World," *New York Times,* January 14, 2012, http://www.nytimes.com/2012/01/15/world/americas/land-carvings-attest-to-amazons-lost-world.html.
3. Denise Schaan et al., "New Radiometric Dates for Precolumbian (2000–700 BP) Earthworks in Western Amazonia, Brazil," *Journal of Field Archaeology* 37 (2012), 132–133. See also Jennifer Watling et al., "Impact of Pre-Columbian 'Geoglyph' Builders on Amazonian Forests," *Proceedings of the National Academy of Sciences* 114, no. 8 (February 21, 2017), 1868.
4. Cited in Romero, "Once Hidden by Forest, Carvings in Land Attest to Amazon's Lost World."
5. Pirjo Kristiina Virtanen and Sanna Saunaluoma, "Visualization and Movement as Configurations of Human–Nonhuman Engagements: Precolonial Geometric Earthwork Landscapes of the Upper Purus, Brazil," *American Anthropologist* 119, no. 4 (August 23, 2017), 622–623.

6. Ibid., 624.
7. Michael Ripinsky-Naxon, *The Nature of Shamanism: Substance and Function of a Religious Metaphor* (State University of New York Press, 1993), 69. See also Weston La Barre, *The Ghost Dance: The Origins of Religion* (George Allen and Unwin, 1970), 178.
8. Ibid., 74.
9. Graham Hancock, *Supernatural: Meetings with the Ancient Teachers of Mankind* (Century, 2005), from which several paragraphs in this chapter are extracted. The US edition was published by the Disinformation Company, New York, 2006.
10. Luis Eduardo Luna, "The Concept of Plants as Teachers," *Journal of Ethnopharmacology* 11 (1984), 135.
11. Luis Eduardo Luna, "Vegetalismo: Shamanism Among the Mestizo Population of the Peruvian Amazon," *Acta Universitatis Stockholmensis,* Stockholm Studies in Comparative Religion (Almqvist and Wiksell Publishers, 1986), 62. See also Glen H. Shepard Jr., "Psychoactive Plants and Ethnopsychiatric Medicines of the Matsigenka," *Journal of Psychoactive Drugs* 30, no. 4 (October–December 1998), 323ff: "Matsigenka consider hallucinogenic plants to be sentient beings with superhuman souls, described as 'owner,' 'master' or 'mother' of the plant."
12. Cited in Luna, "Vegetalismo," 62.
13. Graham Hancock, *Supernatural,* 44–45. Emphases added. The page numbers are those in the hardcover edition; the page numbers will be different in the paperback editions.
14. Ibid., 46.

15. Ibid., 50.
16. Ibid., 57.
17. Ibid., 45.
18. Though the names *ayahuasca* and *yagé* both refer to essentially the same potion made from similar plants, the approach varies greatly between ayahuasca and *yagé*. For example, *yagé* bark is usually pounded off, leaving only the woody core of the vine to be boiled; these brews contain less tannins and cause less vomiting than ayahuasca brews, which are usually prepared with the bark left on the vine. Ayahuasca bark is usually only slightly rasped and pounded before being boiled, leaving more tannins in the brew, causing a more powerful purgative effect in the recipient. The DMT element of *yagé* is not derived from *Psychotria viridis* (chacruna) but is derived from another vine, *Diplopterys cabrerana,* which contains both N,N-DMT and 5-MeO-DMT. Further information available in J. M. Weisberger, *Rainforest Medicine: Preserving Indigenous Science and Biodiversity in the Upper Amazon* (North Atlantic Books, 2013). And for more differences in the preparation and ceremonial practicing of *yagé* and ayahuasca, see this easily accessible article, "The Difference Between Ayahuasca and Yagé," Rainforest Medicine Gatherings: Preserving Indigenous Science and Biodiversity in the Upper Amazon, accessed July 30, 2018, https://rainforestmedicine.net/the-difference-between-ayahuasca-and-yage/.
19. G. Reichel-Dolmatoff, *The Shaman and the Jaguar: A Study of Narcotic Drugs Amongst the Tukano Indians of Colombia* (Temple University Press, 1975), photographic plates between pp. 174 and 175, and 178 and 179.

20. Ibid., 167–173.
21. In this context the different patterns are accorded particular meaning by the Tukano. See Robert Layton in David S. Whitley, (ed.), *Handbook of Rock Art Research* (Altamira Press, 2001), 314.
22. See Benny Shanon, *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience* (Oxford University Press, 2002), 13; Jeremy Narby and Francis Huxley, *Shamans Through Time* (Thames and Hudson, 2001), 196, 267. See also A. Dawson, "Ayahuasca: The Shamanic Brew That Produces Out-of-Body Experiences," The Conversation (January 22, 2016), accessed July 23, 2018, https://theconversation.com/ayahuasca-the-shamanic-brew-that-produces-out-of-body-experiences-52836: "Ayahuasca literally translates from the Quechua language of the North Andes as 'soul vine' or 'vine of the dead' and has traditionally been consumed by indigenous communities such as the Aruák, Chocó, Jívaro, Pano, and Tukano across the upper reaches of the Amazon River system in Bolivia, Brazil, Colombia, Ecuador, and Peru."
23. Sanna Saunaluoma and Pirjo Kristiina Virtanen, "Variable Models for the Organization of Earthworking Communities in Upper Purus, Southwestern Amazonia: Archaeological and Ethnographic Perspectives," *Tipiti* 13 (2015), https://digitalcommons.trinity.edu/tipiti/vol13/iss1/2/.
24. Ibid.
25. Virtanen and Saunaluoma, "Visualization and Movement as Configurations of Human–Nonhuman Engagements," 617.

26. Ibid.
27. Ibid.
28. Ibid., 622.
29. G. Reichel-Dolmatoff, *Beyond the Milky Way: Hallucinatory Imagery of the Tukano Indians* (UCLA Latin America Center Publications, 1978), 1.
30. Ibid., 2.
31. Ibid., 1.
32. Ibid., 2.
33. Ibid.
34. Ibid., 3.
35. Ibid. See p. 5 for Reichel-Dolmatoff on the Tukano sacred trumpets. For detailed comparisons between Melanesia and the Amazon, see Appendix 1 herewith.
36. Reichel-Dolmatoff, *The Shaman and the Jaguar,* 98.
37. Reichel-Dolmatoff, *Beyond the Milky Way,* 13.
38. Reichel-Dolmatoff, *The Shaman and the Jaguar,* 85.
39. See the work of cognitive psychologist Benny Shanon, most notably, "Ayahuasca Visualization: A Structural Typology," in *Journal of Consciousness Studies* 9, no. 2 (February 2002), 24. Shanon creates a typology of the structural types or forms in which ayahuasca visions occur. He reports eighteen typological structures, in the order in which they arise during a session, the seventh of which is experience of "patterned geometric designs."

40. See Shanon, *The Antipodes of the Mind,* 386: "As I have made abundantly clear, this is a psychological book, not a philosophical one. … As described at the outset of this book, what impressed me greatly when I first partook of the brew were the similarities between the experiences I had with it and ones described in the anthropological literature. Some of the images that appeared in my visions were similar, at times identical, to ones reported by indigenous persons and by the first European explorers who encountered Ayahuasca. The extensive empirical research I have subsequently conducted corroborated these first impressions and led me to conclude that there are striking cross-personal commonalities in the contents of Ayahuasca visions, in their themes, and in the ideations that are associated with them."
41. This is the central theme of my 2005 book *Supernatural*.
42. Shanon, *The Antipodes of the Mind,* 132.

PART V

18: SUN

1. Sharon A. Brown, *Administrative History: Jefferson National Expansion Memorial National Historic Site,* chapter I: 1933-1935 "The Idea" (National Park Service, 1984). Available here: https://www.webcitation.org/5wUnhhjCR?url=http://www.nps.gov/history/history/online_books/jeff/adhi1-1.htm.

2. William Iseminger, *Cahokia Mounds: America's First City* (History Press, 2010), 45–46, and Sally A. Kitt Chappell, *Cahokia: Mirror of the Cosmos* (University of Chicago Press, 2002), 113.
3. Iseminger, *Cahokia Mounds,* 46.
4. Ibid.
5. See for example Martin Byers, *The Real Mound Builders of North America: A Critical Realist Prehistory of the Eastern Woodlands, 200 BC–1450 AD* (Lexington Books, 2018), 21–29. Also see Sarah A. Baires, "White Settlers Buried the Truth About the Midwest's Mysterious Mound Cities" (Smithsonian, February 28, 2018), https://www.smithsonianmag.com/history/white-settlers-buried-truth-about-midwests-mysterious-mound-cities-180968246/.
6. Henry Brackenridge in 1811, cited in Timothy R. Pauketat, *Cahokia: Ancient America's Great City on the Mississippi* (Penguin Library of American History, 2010), 28.
7. The contrasting alternative to the "Moundbuilder Myth" arose among a set of scholars in the 1890s onward, most of whom were sponsored by the Bureau of American Ethnology and the Smithsonian Institution, who devoted their attention to surveying, mapping, and excavating earthwork sites. Squier and Davis's 1848 survey of Serpent Mound was in many ways the precursor to this movement. See Byers, *The Real Mound Builders of North America,* 22.
8. Pauketat, *Cahokia,* 28–29. See also Chappell, *Cahokia: Mirror of the Cosmos,* 89–91.
9. Pauketat, *Cahokia,* 15, 23.

10. Sparked by the publication of Ephraim G. Squier and Edwin H. Davis, *Ancient Monuments of the Mississippi Valley* (Smithsonian Institution, 1848). Reprinted and republished by the Smithsonian, with an introduction by David J. Meltzer, in 1998.
11. Iseminger, *Cahokia Mounds,* 42.
12. Ibid., 3.
13. Ibid., 40.
14. Sarah E. Bairres, "Cahokia's Rattlesnake Causeway," *Midcontinental Journal of Archaeology* 39, no. 2 (May 2014), 145.
15. William F. Romain, "Monks Mound as an Axis Mundi for the Cahokian World," *Illinois Archaeology* 29 (2017), 27.
16. Ibid., 30.
17. Ibid., 32.
18. Ibid.
19. Ibid., 34–36.
20. Ibid., 34.
21. The reader who wishes to pursue the matter further is directed to Romain, "Monks Mound as an Axis Mundi for the Cahokian World," 27–52.
22. Ibid., 40.
23. Pauketat, *Cahokia,* 2–4, 15.

19: MOON

1. Ray Hively and Robert Horne, “Hopewellian Geometry and Astronomy at High Bank,” *Archaeoastronomy,* no. 7 (1984), S88.
2. Ohio Hopewell, http://anthropology.iresearchnet.com/ohio-hopewell/.
3. See, for example, Ephraim G. Squier and Edwin H. Davis, *Ancient Monuments of the Mississippi Valley* (Smithsonian Institution, 1848, reprinted and republished by the Smithsonian, with an introduction by David J. Meltzer, in 1998), 67–72.
4. Jonaas Gregorio de Souza and Denise Pahl Schaan, “Pre-Columbian Earth-Builders Settled Along the Entire Southern Rim of the Amazon,” *Nature Communications* (March 27, 2018), 3–4.
5. Martti Pärssinen, Denise Schaan, and Alceu Ranzi, “Pre-Columbian Geometric Earthworks in the Upper Purús,” *Antiquity* 83, no. 322 (December 1, 2009), 1087–1088.
6. Sanna Saunaluoma, Martti Pärssinen, and Denise Schaan, “Diversity of Pre-colonial Earthworks in the Brazilian State of Acre, Southwestern Amazonia,” *Journal of Field Archaeology* (July 9, 2018), 7–8.
7. Ibid., 10–11.
8. Bradley T. Lepper, “The Newark Earthworks: A Monumental Engine for World Renewal,” in Lindsay Jones and Richard G. Sheils (eds.), *The Newark Earthworks: Enduring Monuments, Contested Meanings* (University of Virginia Press, 2016), 41.
9. Ray Hively and Robert Horn, “Geometry and Astronomy in Prehistoric Ohio,” *Archaeoastronomy,* no. 4 (1982), S4.
10. Bradley Lepper, “The Newark Earthworks,” in Richard F. Townsend and Robert V. Sharp (eds.), *Hero, Hawk and Open Hand* (Art Institute of Chicago/Yale University

Press, 2004), 75; Mark J. Lynott, *Hopewell Ceremonial Landscapes of Ohio* (Oxbow Books, 2014), 148.

11. Hively and Horn, "Geometry and Astronomy in Prehistoric Ohio," S4.
12. Ibid., S7–S8.
13. Lepper, "The Newark Earthworks: A Monumental Engine for World Renewal," 47.
14. Ibid., 75.
15. Ibid., 47.
16. Ohio History Connection, "Great Circle Earthworks," http://www.ohiohistorycentral.org/w/Great_Circle_Earthworks.
17. Lynott, *Hopewell Ceremonial Landscapes of Ohio,* 148–149.
18. Lepper, "The Newark Earthworks," 75.
19. T. Darvill et al., "Stonehenge Remodelled," *Antiquity* 86, no. 334 (2012), 1021–1040, esp. p. 1028: "Stonehenge first consisted of a circular bank and external ditch with an overall diameter of about 110m."
20. L. Falconer, "Interactive Virtual Archaeology: Constructing the Prehistoric Past at Avebury Henge," in the International Conference on Ubiquitous Computing and Communications and 2016 International Symposium on Cyberspace and Security (IUCC-CSS), December 2016, 153–158). See p. 155.
21. Lepper, "The Newark Earthworks: A Monumental Engine for World Renewal," 47–48.
22. Lepper, "The Newark Earthworks," 75.
23. Lepper, "The Newark Earthworks: A Monumental Engine for World Renewal," 48.

24. Ibid., and see also Ray Hively and Robert Horn, "The Newark Earthworks: A Grand Unification of Earth, Sky and Mind," in Lindsay Jones and Richard G. Sheils (eds.) *The Newark Earthworks: Enduring Monuments, Contested Meanings* (University of Virginia Press, 2016), 64.

25. William F. Romain, *Mysteries of the Hopewell: Astronomers, Geometers and Magicians of the Eastern Woodlands* (University of Akron Press, 2000), 63.

26. J. J. O'Connor and E. F. Roberson provide a concise history, beginning with the Egyptian Rhind papyrus that was scribed by Ahmes and was based on an original dating from 1850 BC or earlier. A square nearly equal in area to that of a circle is accomplished when the square is constructed on 8/9 of the circle's diameter. See J. J. O'Connor and E. F. Robertson, "Squaring the Circle" School of Mathematics and Statistics, University of St. Andrews, 1999, http://www-history.mcs.st-andrews.ac.uk/PrintHT/Squaring_the_circle.html.

27. Ray Hively and Robert Horn, "Geometry and Astronomy in Prehistoric Ohio," S8.

28. Ibid., S9.

29. Ibid.

30. Ibid.

31. Lepper, "The Newark Earthworks," 79. Emphasis added.

32. Lepper, "The Newark Earthworks: A Monumental Engine for World Renewal," 54–56.

33. Squier and Davis, *Ancient Monuments of the Mississippi Valley,* 50.

34. Ibid, Plate XVI. However, in Cyrus Thomas, *Report on the Mound Explorations of the Bureau of Ethnology* (Smithsonian Institution, 1894), p. 479, this figure is revised to

20.6 acres—about the same area as the circle.

35. Lepper, "The Newark Earthworks," 75; and Lynott, *Hopewell Ceremonial Landscapes of Ohio,* 148.

36. Discussed in chapter 17 of this book, and see Christopher Sean Davis, "Solar-Aligned Pictographs at the Paleoindian Site of Painel do Pilão Along the Lower Amazon River at Monte Alegre, Brazil," *PLoS One* (December 20, 2016).

37. Hively and Horn, "The Newark Earthworks: A Grand Unification of Earth, Sky and Mind," 63.

38. Ibid.

39. Ibid.

40. Ibid., 64.

41. Hively and Horn, "Geometry and Astronomy in Prehistoric Ohio."

42. Ibid., S11.

43. Ibid.

44. Ibid., S12.

45. Ibid.

46. Ibid.

47. Ibid.

48. Hively and Horn, "Hopewellian Geometry and Astronomy at High Bank," S94, S98.

49. Ibid., S95.

50. Ibid., S95–S96.

51. Ray Hively and Robert Horn, “A Statistical Study of Lunar Alignments at the Newark Earthworks,” *Midcontinental Journal of Archaeology* 31 (Fall 2006), 306–307; and see the discussion in Lynott, *Hopewell Ceremonial Landscapes of Ohio,* 153.

52. Hively and Horn, “A Statistical Study of Lunar Alignments at the Newark Earthworks.”

53. Hively and Horn’s original observation to this effect in their paper “Geometry and Astronomy in Prehistoric Ohio,” S11, has subsequently been confirmed by Christopher S. Turner in his “Ohio Hopewell Archaeoastronomy: A Meeting of Earth, Mind and Sky,” *Time and Mind: The Journal of Archaeology, Consciousness and Culture* 4, no. 3 (November 2011), 308. Note, however that Hively and Horn did subsequently go on to identify solstice alignments at Newark, not in the earthworks themselves but between topographical features in surrounding hills in the midst of which the earthworks appear to have been deliberately situated. See Ray Hively and Robert Horn, “A New and Extended Case for Lunar (and Solar) Astronomy at the Newark Earthworks,” *Midcontinental Journal of Archaeology* 38 (Spring 2013), in particular pp. 101–104.

54. Hively and Horn, “A New and Extended Case for Lunar (and Solar) Astronomy at the Newark Earthworks,” 102.

55. Ibid.

56. Hively and Horn, “Hopewellian Geometry and Astronomy at High Bank,” S94, S98.

20: THE POVERTY POINT TIME MACHINE

1. For example, Poverty Point.
2. For example, Emerald Mound and the Winterville Mounds.
3. For example, Moundville.
4. For example, the Pinson Mounds.
5. The prime example is, of course, Cahokia.
6. What's left of High Bank and Newark (much of the latter now in a private golf course and only open to the public 4 days a year), and also such sites as Mound City, Seip, the Great Miamisberg Mound, and Fort Ancient.
7. For more see Indian Country Today, "Florida's Incredible Indian Mounds" (Indian Country Today, October 13, 2011), https://newsmaven.io/indiancountrytoday/archive/florida-s-incredible-indian-mounds-H8O3ekXxpE2Buote33jInA/.
8. For more see Explore Georgia, "5 Native American Sites Not to Miss in Georgia" (November 2015), https://newsmaven.io/indiancountrytoday/archive/florida-s-incredible-indian-mounds-H8O3ekXxpE2Buote33jInA/ and "Etowah Indian Mounds State Historic Site," https://www.exploregeorgia.org/cartersville/general/historic-sites-trails-tours/etowah-indian-mounds-state-historic-site.
9. For more see Texas Historical Commission, "Caddo Mounds State Historic Site," http://www.thc.texas.gov/historic-sites/caddo-mounds-state-historic-site.
10. For more see Arkansas State Parks, "Toltec Mounds Archaeological State Park," https://www.arkansasstateparks.com/parks/toltec-mounds-archeological-state-park.

11. For more see Kentucky State Parks, "Wickliffe Mounds," https://parks.ky.gov/parks/historicsites/wickliffe-mounds/.

12. For more see Indiana Museum, "Angel Mounds," https://www.indianamuseum.org/angel-mounds-state-historic-site.

13. See, for example, A. P. Wright, and E. R. Henry, *Early and Middle Woodland Landscapes of the Southeast* (University Press of Florida, 2013), 1: "The Early and Middle Woodland periods, respectively, to circa 1000–200 BC and 200 BC–AD 600–800." Note, however, that the dates vary from subregion to subregion and the authors' end date for the Middle Woodland period is fairly late compared to most cultural frameworks, the reasons for which are not of concern here. This is clear upon reflection of Late Woodland periodization by authors of the comprehensive compendium M. S. Nassaney and C. R. Cobb, *Stability, Transformation, and Variation: The Late Woodland Southeast* (1991), who ascribe a window of AD 600–900 to the Late Woodland Period.

14. Jenny Ellerbe and Diana M. Greenlee, *Poverty Point: Revealing the Forgotten City* (Louisiana State University Press, 2015), 60.

15. Ibid., 57.

16. Gary Everding, "Archaic Native Americans Built Massive Louisiana Mound in Less Than 90 Days, Research Confirms" (Washington University in St. Louis, January 28, 2013), https://source.wustl.edu/2013/01/archaic-native-americans-built-massive-louisiana-mound-in-less-than-90-days-research-confirms/.

17. Mound B. See Ellerbe and Greenlee, *Poverty Point: Revealing the Forgotten City,* 28.

18. Ellerbe and Greenlee, *Poverty Point: Revealing the Forgotten City,* 57.

19. Ibid., 59.
20. Ibid., 57.
21. A. M. Byers, *The Real Mound Builders of North America: A Critical Realist Prehistory of the Eastern Woodlands, 200 BC–1450 AD* (Lexington Books, 2018), 22: Established nineteenth-century North American archaeologists believed that the earthworks were the result of an ancient Old World civilization "washing up" on the shores of North America. "The aggregate range of foreign sources postulated became quite broad, such as shipwrecked sailors from an ancient Mediterranean Phoenician colony, or wandering and lusting sets of Vikings, or one or other of the lost tribes of ancient Israel, or groups from ancient Irish and/or Scottish Celtic kingdoms, or even travelers from advanced civilisations from the lost civilisation of Atlantis, and so on," states Byers.
22. Anna C. Roosevelt et al., "Early Mounds and Monumental Art in Ancient Amazonia," in Richard L. Burger and Robert M. Rosenwig (eds.), *Early New World Monumentality* (University Press of Florida, 2012), 257.
23. Jon L. Gibson, "Before Their Time? Early Mounds in the Lower Mississippi Valley," *Southeastern Archaeology* 13, no. 2, Archaic Mounds in the Southeast (Winter 1994), 163.
24. Ibid.
25. Ibid.
26. A. L. Ortmann and T. R. Kidder, "Building Mound A at Poverty Point, Louisiana: Monumental Public Architecture, Ritual Practice, and Implications for Hunter−Gatherer Complexity," *Geoarchaeology* 28, no. 1 (2013), 66–86. And see Amélie A. Walker,

"Earliest Mound Site," *Archaeology* 51, no. 1 (January/February 1998), https://archive.archaeology.org/9801/newsbriefs/mounds.html.

27. Joe W. Saunders et al., "A Mound Complex in Louisiana at 5400–5000 Years Before the Present," *Science* 277 (September 19, 1997), 1796.

28. Ellerbe and Greenlee, *Poverty Point: Revealing the Forgotten City,* 28, 110.

29. Ibid., 69.

30. Ibid., 111.

31. Robert C. Mainfort Jr. (ed.), *Archaeological Report No, 22: Middle Woodland Settlement and Ceremonialism in the Mid-South and Lower Mississippi Valley* (Mississippi Department of Archives and History, 1988), 12.

32. Ellerbe and Greenlee, *Poverty Point: Revealing the Forgotten City,* 42–44.

33. Reported in ibid., 42. Transcribed by Diana Greenlee from "Bringing the Past Alive," a seminar recorded in April 1989 at Louisiana State University.

34. Boston University, "Kenneth Bracher," https://www.bu.edu/astronomy/profile/kenneth-brecher/.

35. K. Brecher and W. G. Haag, "The Poverty Point Octagon: World's Largest Solstice Marker?" *Bulletin of the American Astronomical Society* 12, no. 4 (1980), 886.

36. Ibid.

37. As they themselves conceded 2 years later in Kenneth Brecher and William G. Haag, "Astronomical Alignments at Poverty Point," *American Antiquity* 48, no. 1 (January 1983), 161. See also Ellerbe and Greenlee, *Poverty Point: Revealing the Forgotten City,* 43.

38. Robert D. Purrington, “Supposed Solar Alignments at Poverty Point,” *American Antiquity* 48, no. 1 (January 1983), 160.
39. Ibid., 161.
40. Brecher and Haag, “Astronomical Alignments at Poverty Point,” 162.
41. Ibid.
42. Robert D. Purrington and Colby Allan Child Jr., “Poverty Point Revisited: Further Consideration of Astronomical Alignments,” *Archaeoastronomy,* no. 13 (JHA, xx) (February 1, 1989), S49–S60.
43. Ibid., S54.
44. Ibid., S54–S55.
45. Ibid., S55.
46. Ellerbe and Greenlee, *Poverty Point: Revealing the Forgotten City,* 46.
47. Ibid., 50.
48. Ibid., 51.
49. William F. Romain and Norman L. Davis, “Astronomy and Geometry at Poverty Point,” *Louisiana Archaeology,* no. 38 (2011), 49.
50. Ibid., 48.
51. Ibid.
52. Ibid.
53. Ibid.
54. Ibid., 46–47.
55. Ibid., 47.

56. Ibid., 49.
57. Joe Saunders et al., "An Assessment of the Antiquity of the Lower Jackson Mound," *Southeastern Archaeology* 20, no. 1 (2001), 75. See also Jon L. Gibson, "Navels of the Earth: Sedentism in Early Mound-Building Cultures in the Lower Mississippi Valley," *World Archaeology* 38, no. 2 (June 2006), 313.
58. John E. Clark, "Surrounding the Sacred: Geometry and Design of Early Mound Groups as Meaning and Function," in Jon L. Gibson and Philip Carr (eds.), *Signs of Power: The Rise of Cultural Complexity in the Southeast* (University of Alabama Press, 2010), Kindle locations 3795–3801.
59. Gibson, "Navels of the Earth," 315.
60. Ibid., 315–316.
61. Romain and Davis, "Astronomy and Geometry at Poverty Point," 47.
62. D. P. Mindell, *The Evolving World* (Harvard University Press, 2009), 224. How far Judaism dates back and to what extent its roots extend into prehistory is, however, debatable and obviously depends on what elements of the faith one traces. Most agree, however, that it dates at least as far back as the establishment of the Iron Age Kingdom of Judah, c. tenth century BCE.
63. A predominant archaeological link between the Hindu Shiva cult and the Indus Valley civilization is, for example, the Pasupati Seal, displaying the horned "animal" manifestation of Shiva, which was carbon dated to 2500–2400 BC in the early twentieth century. See Earnest John Henry Mackay, *Further Excavations at Mohenjo-Daro: Being an official account of archaeological excavations at Mohenjo-Daro carried out by the*

Government of India between the years 1927 and 1931 (Delhi: Government of India, 1937–1938).

21: GLIMPSES BEHIND THE VEIL

1. Joe Saunders, "Early Mounds in the Lower Mississippi Valley," in Richard L. Burger and Robert M. Rosenwig (eds.), *Early New World Monumentality* (University Press of Florida, 2012), 26–27.
2. Ibid., 28.
3. Ibid.
4. Robert C. Mainfort Jr. (ed.), *Archaeological Report No 22: Middle Woodland Settlement and Ceremonialism in the Mid-South and Lower Mississippi Valley* (Mississippi Department of Archives and History, 1988), 9.
5. Joe W. Saunders et al., "A Mound Complex in Louisiana at 5400–5000 Years Before the Present," *Science* 277 (September 19, 1997), 1797; Saunders, "Early Mounds in the Lower Mississippi Valley," 36; Joe W. Saunders et al., "Watson Brake, a Middle Archaic Mound Complex in Northeast Louisiana," *American Antiquity* 70, no. 4 (October 2005), 665.
6. Kenneth E. Sassman and Michael J. Heckenberger, "Crossing the Symbolic Rubicon in the Southeast," in Jon L. Gibson and Philip Carr (eds.), *Signs of Power: The Rise of Cultural Complexity in the Southeast* (University of Alabama Press, 2010), Kindle location 4198.

7. Joe W. Saunders et al., “A Mound Complex in Louisiana at 5400–5000 Years Before the Present,” 1798.
8. Saunders, “Early Mounds in the Lower Mississippi Valley,” 39.
9. Joe Saunders and Thurman Allen, “Hedgepeth Mounds: An Archaic Mound Complex in North-Central Louisiana,” *American Antiquity* 59, no. 3 (July 1994), 471.
10. *Cultural Resources Evaluation of the Northern Gulf of Mexico Continental Shelf, Vol I: Prehistoric Cultural Resources Potential,* Office of Archaeology and Historic Preservation, National Park Service, Washington DC, 1977, 243.
11. Saunders, “Early Mounds in the Lower Mississippi Valley,” 39.
12. David G. Anderson, “Archaic Mounds and the Archaeology of Southeast Tribal Societies,” in Jon L. Gibson and Philip Carr (eds.), *Signs of Power: The Rise of Cultural Complexity in the Southeast* (University of Alabama Press, 2010), Kindle location 5180.
13. See, for example: Joe W. Saunders et al., “A Mound Complex in Louisiana at 5400–5000 Years Before the Present,” *Science* 277 (September 19, 1997), 1796–1799; Joe W. Saunders, et al., “Watson Brake, a Middle Archaic Mound Complex in Northeast Louisiana,” 631–668; Saunders, “Early Mounds in the Lower Mississippi Valley,” 25–52, in particular 33 and 42.
14. Saunders, “Early Mounds in the Lower Mississippi Valley,” 46.
15. Saunders et al., “A Mound Complex in Louisiana at 5400–5000 Years Before the Present.”
16. Cited in Heather Pringle, “Oldest Mound Complex Found at Louisiana Site,” *Science* (September 19, 1997), 1761–1762.

17. Ibid.
18. Saunders et al., “A Mound Complex in Louisiana at 5400–5000 Years Before the Present,” 1797.
19. Norman L. Davis, “Solar Alignments at the Watson Brake Site,” *Louisiana Archaeology,* no. 34 (2012), 97.
20. Saunders, “Early Mounds in the Lower Mississippi Valley,” 35.
21. Sassman and Heckenberger, “Crossing the Symbolic Rubicon in the Southeast,” Kindle location 4176.
22. Davis, “Solar Alignments at the Watson Brake Site,” 97, supports the view that there are 12 mounds. Saunders, “Early Mounds in the Lower Mississippi Valley,” 35, states that “the site is composed of 11 earthen mounds. … A probable (subject to verification) 12th mound lies outside the enclosure” immediately to the southeast.
23. Pringle, “Oldest Mound Complex Found at Louisiana Site.”
24. Davis, “Solar Alignments at the Watson Brake Site,” 97.
25. Saunders et al., “Watson Brake, a Middle Archaic Mound Complex in Northeast Louisiana,” 631.
26. Saunders, “Early Mounds in the Lower Mississippi Valley,” 37.
27. Ibid., 36–37.
28. Saunders et al., “Watson Brake, a Middle Archaic Mound Complex in Northeast Louisiana,” 665.
29. Ibid.
30. Saunders, “Early Mounds in the Lower Mississippi Valley,” 43.

31. Cited in Pringle, “Oldest Mound Complex Found at Louisiana Site.”
32. The notion has good support from other knowledgeable archaeologists. See, for example, Saunders et al., “Watson Brake, a Middle Archaic Mound Complex in Northeast Louisiana,” 662.
33. Sassman and Heckenberger, “Crossing the Symbolic Rubicon in the Southeast,” Kindle location 4170.
34. For example, Insley Mounds.
35. Sassman and Heckenberger, “Crossing the Symbolic Rubicon in the Southeast,” Kindle locations 4185–4191 and 4195–4205.
36. Davis, “Solar Alignments at the Watson Brake Site,” 110.
37. Ibid.
38. Ibid., 97–115.
39. Notably William Romain, who wrote to the editor of *Louisiana Archaeology* to confirm that his own “findings for Watson Brake corroborate the central thesis of Norman L. Davis (as published in 2012 in *Louisiana Archaeology*) relative to the overall solstice alignment of the site.” William F. Romain, letter to Dennis Jones, Editor, *Louisiana Archaeology,* in *Louisiana Archaeology,* no. 36, 2013 (2009), 3, https://www.laarchaeologicalsociety.org/product-page/number-36-2009-published-2013.
40. Davis, “Solar Alignments at the Watson Brake Site,” 97.
41. Ibid., 104.
42. Ibid.
43. Ibid.

44. Ibid.
45. Ibid., 105.
46. Ibid., 105–106.
47. Ibid., 106–107.
48. Ibid., 110.
49. William F. Romain, letter to Dennis Jones, Editor, *Louisiana Archaeology,* in *Louisiana Archaeology,* no. 36, 2013 (2009), 3–4.
50. Davis, "Solar Alignments at the Watson Brake Site," 110.
51. Ibid.
52. Ibid.
53. Ibid., 113–114.
54. Ibid., 114.
55. Saunders, "Early Mounds in the Lower Mississippi Valley," 45–46.
56. Ibid.
57. Ellerbe and Greenlee, *Poverty Point: Revealing the Forgotten City,* 28.
58. Ohio History Connection, "Adena Culture," http://www.ohiohistorycentral.org/w/Adena_Culture.
59. See, for example, p. 1 of D. W. Dragoo, "Adena and the Eastern Burial Cult" in *Archaeology of Eastern North America* 4 (Winter 1976), 1–9: "Extensive research throughout the East in recent years has clearly shown Adena to be one of only several regional cultures present between 1000 BC and AD 200." This view has been maintained in the twenty-first century—see, for example, p. 453 of S. M. Rafferty,

"Evidence of Early Tobacco in Northeastern North America?" *Journal of Archaeological Science* 33, no. 4 (2006), 453–458, which dates the Boucher Mound, Vermont: "The site has an extensive radiocarbon chronology, with dates ranging from 885 +-35 BC to as late as 49 BC uncalibrated, with a calibrated range indicating continuous use of the site through the majority of the first millennium BC, from as early as 1036 BC to as late as 49 BC. … The site features a rich and diverse assemblage of burial offerings, including numerous Adena-related artifacts."

60. Correspondence by my research assistant Holly Lasko with Bob Maslowski of the Council for West Virginia Archaeology on May 25, 2018, "Most Adena mounds I'm familiar with date between 400 and 200 BC." See B. Lepper, "How Old Is the Adena Mound?" Ohio History Connection Archaeology Blog (January 12, 2014), https://www.ohiohistory.org/learn/collections/archaeology/archaeology-blog/2014/january-2014/how-old-is-the-adena-mound. This article is based on a paper published in the *Midcontinental Journal of Archaeology,* whose abstract states that Adena Mound (typesite) dating of 200 BC places it near the midpoint of radiocarbon-dated Adena culture sites. The reference for the paper is Bradley T. Lepper et al., "Radiocarbon Dates on Textile and Bark Samples from the Central Grave of the Adena Mound (33RO1), Chillicothe, Ohio," *Midcontinental Journal of Archaeology* (2014).

61. Edward W. Herrmann et al., "A New Multistage Construction Chronology for the Great Serpent Mound, USA," *Journal of Archaeological Science* 50 (October 2014), 121.

62. The oldest reliable Adena Mound date is arguably (by no means definitively) c. 400 BC and based on recent AMS dates from Cresap Mound. See William H. Tippins, Richard W. Lang, and Mark A. McConaghy, "New AMS Dates on the CRESAP Mound (46MR7)," *Pennsylvania Archaeologist* 86, no. 2 (2016), 2–20, Table 4, p. 17.

63. Jon L. Gibson, "Navels of the Earth: Sedentism in Early Mound-Building Cultures in the Lower Mississippi Valley," *World Archaeology* 38, no. 2 (June 2006), 316.

64. John E. Clark, "Surrounding the Sacred: Geometry and Design of Early Mound Groups as Meaning and Function," in Jon L. Gibson and Philip Carr (eds.), *Signs of Power: The Rise of Cultural Complexity in the Southeast* (University of Alabama Press, 2010), Kindle location 3741–3747.

65. Ibid., Kindle location 3770.

PART VI

22: QUIETUS?

1. Robert Bauval and Graham Hancock, *The Message of the Sphinx: A Quest for the Hidden Legacy of Mankind* (Crown, 1996), 79. *The Message of the Sphinx* was published in the United Kingdom by Heinemann as *Keeper of Genesis,* but with the same page numbering.

2. O. Neugebauer and Richard A. Parker, *Egyptian Astronomical Texts: 1. The Early Decans* (Brown University Press, 1960), 24–25 and 112ff. Jane Sellers, *The Death of Gods in Ancient Egypt: An Essay on Egyptian Religion and the Frame of Time* (Penguin Books, 1992), 39ff.
3. Robert Bauval (with Adrian Gilbert), *The Orion Mystery: Unlocking the Secrets of the Pyramids* (Heinemann, 1994).
4. Virginia Trimble, "Astronomical Investigations Concerning the So-called Air Shafts of Cheops's Pyramid," *Mitteilungen des Deutschen Archaeologischen Instituts,* band 10 (1964), 183–187, and Alexander Badawy, "The Stellar Destiny of the Pharaoh and the So-called Air-Shafts in Cheops's Pyramid," *Mitteilungen des Deutschen Archaeologischen Instituts,* band 10 (1964), 189–206.
5. Bauval, *The Orion Mystery,* 191.
6. Pyramid Texts, Lines 882–885 in R. O. Faulkner (ed. and trans.), *The Ancient Egyptian Pyramid Texts* (Oxford University Press, 1969), 154.
7. See, for example, the discussion by I. E. S. Edwards, *The Pyramids of Egypt* (Penguin, 1993), 285.
8. Information from site placard, Mound B, Moundville Archaeological Park, Alabama.
9. Information from Rattlesnake Disk exhibit placard, museum, Moundville Archaeological Park, Alabama.

23: THE PORTAL AND THE PATH

1. See, for example, Robert L. Hall, *An Archaeology of the Soul: North American Belief and Ritual* (University of Illinois Press, 1997), 21 and 162–163; George F. Lankford, "The 'Path of Souls,'" in Kent F. Reilly III and James F.Garber (eds.), *Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography* (University of Texas Press, 2007), 193ff; George Lankford, "World on a String," in Richard F. Townsend and Robert V. Sharp (eds.), *Hero, Hawk and Open Hand: American Indian Art of the Ancient Midwest and South* (Yale University Press, 2004), 212; and Ray A. Williamson and Claire R. Farrer (eds.), *Earth and Sky: Visions of the Cosmos in Native American Folklore* (University of New Mexico Press, 1992), 219–220.
2. See Andrew Collins and Gregory Little, *Path of Souls: The Native American Death Journey* (ATA Archetype Books, 2014), 7–9. Above Top Secret, "Southern Death Cult (Eye in the Hand)," (December 27, 2012), http://www.abovetopsecret.com/forum/thread912520/pg1 in conjunction with "The Mystery of Mayan and Egyptian Common Creation Myth," December 18, 2010, http://www.abovetopsecret.com/forum/thread909246/pg1.
3. Out of the tens of thousands of codices that existed before the conquest, only four have survived. See, for example, Michael D. Coe, *The Maya,* 4th ed. (Thames and Hudson, 1987), 161; and University of Arizona Library, "Mayan Codex Facsimiles," http://www.library.arizona.edu/exhibits/mexcodex/maya.htm.
4. Mark Seeman, "Hopewell Art in Hopewell Places," in Richard F. Townsend and Robert V. Sharp (eds.), *Hero, Hawk and Open Hand: American Indian Art of the Ancient Midwest and South* (Yale University Press, 2004), 57.

5. See, for example, Reilly and Garber, *Ancient Objects and Sacred Realms,* 112, 115, 118, 125, 193, 130, and so on.
6. Ibid., 5.
7. Lankford, "The 'Path of Souls,'" 175.
8. Ibid.
9. George Lankford, "The Great Serpent in Eastern North America," in Reilly and Garber, *Ancient Objects and Sacred Realms,* 134–135.
10. George Lankford, "Some Cosmological Motifs in the Southeastern Ceremonial Complex," in Reilly and Garber, *Ancient Objects and Sacred Realms,* 8.
11. Lankford, "The Great Serpent in Eastern North America," 134–135.
12. E. A. Wallis Budge, *The Book of the Dead* (Arkana, 1985), lxv.
13. Information from ibid, lxv–lxxi, and from Ian Shaw and Paul Nicholson, *British Museum Dictionary of Ancient Egypt* (British Museum Press, 1995), 47, 146.
14. Pyramid Texts, Lines 312–313 in R. O. Faulkner (ed. and trans.), *The Ancient Egyptian Pyramid Texts* (Oxford University Press, 1969), 68.
15. Ibid., 94, Line 474.
16. Ibid., 294, Lines 2057–2058.
17. E. A. Wallis Budge, *The Egyptian Heaven and Hell* (Martin Hopkinson, 1925) (3 volumes in one edition, page numbers reset to 1 with each volume), vol. 2, 196.
18. Cited in Ake Hultkrantz, *Conceptions of the Soul Amongst Native American Indians* (Ethnographical Museum of Stockholm, 1953), 70.
19. Ibid.

20. Budge, *The Book of the Dead,* 542.
21. Hultkrantz, *Conceptions of the Soul Amongst Native American Indians,* 116.
22. Ibid., 77.
23. Ibid.
24. Ibid., 79.
25. Ibid., 88.
26. Ibid., 112.
27. Ake Hultkrantz, *Shamanic Healing and Ritual Drama: Health and Medicine in Native American Religious Traditions* (Crossroad, 1992), 32. See also Hultkrantz, *Conceptions of the Soul Amongst Native American Indians,* 26–27.
28. Lankford, "The 'Path of Souls,'" 175–176, 181.
29. F. Dunand and R. Lichtenberg, *Mummies and Death in Egypt* (Cornell University Press, 2006), x: "During the funeral, magical formulas were recited, and these and others were copied onto a Book of the Dead that lay in the tomb along with the deceased. A selection of figurines and ritual implements, along with a panoply of amulets and utilitarian objects from this life, accompanied the body. Once placed in the tomb, the individual would simultaneously move about in the realm where the dead were and also share in the course of the sun as it set and was reborn daily. The mobile 'soul,' the *ba,* soared up toward the daylight and then returned to animate its home base, the embalmed corpse in its coffin. The *ka,* the other 'soul' and the immaterial double of the material body, consumed the food and drink the survivors brought to the funerary chapel, at the same time perpetuating, by speaking it out loud, the name of the person, which they

could read on a stela. This whole system—which implies a far more complex anthropological representation of a living, thinking being than our own—was believed to confer the potential capacities of a god on the deceased. The classical form of a sarcophagus—a mummy with the mask and the heavy wig that were proper to images of deities—served as the hieroglyphic symbol for the idea of superior dignity (the Egyptian word was *sah*)."

30. Pyramid Texts, Line 1109, in Faulkner, *The Ancient Egyptian Pyramid Texts,* 183.
31. Cited in Ake Hultkrantz, *The North American Indian Orpheus Tradition* (Ethnographical Museum of Stockholm, 1957), 121.
32. Lankford, "The 'Path of Souls,'" 181.
33. Cited in ibid.
34. Cited in Hultkrantz, *The North American Indian Orpheus Tradition,* 61.
35. Pyramid Texts, 138, Lines 747–748 in *The Ancient Egyptian Pyramid Texts*.
36. Budge, *The Egyptian Heaven and Hell,* vol. 3, 103–104.
37. Lankford, "The 'Path of Souls,' 176.
38. Budge, *The Egyptian Heaven and Hell,* vol. 3, 104.
39. Lankford, "The 'Path of Souls,'" 176.
40. Pyramid Texts, in *The Ancient Egyptian Pyramid Texts,* 135, Line 723.
41. Ibid., 253, Line 1717.
42. Ibid., 259, Line 1763.
43. Ibid., 144, Lines 802–803.
44. Ibid., 236, Line 1561.

45. Ibid., 70, Line 326.
46. Ibid., 78, Line 379.
47. Lankford, "The 'Path of Souls,'" 176–177.
48. The Orion Nebula is one of the best-studied objects in the sky. See, for example, F. Palla and S. W. Stahler, "Star Formation in the Orion Nebula Cluster," *Astrophysical Journal* 525, no. 2 (1999), 772: "We study the record of star formation activity within the dense cluster associated with the Orion nebula. … This model assumes that stars are produced at a constant rate and distributed according to field-star initial mass function."
49. Lankford, "The 'Path of Souls,'" 193.
50. Ibid., 203–204.
51. Pyramid Texts, in *The Ancient Egyptian Pyramid Texts,* 166, Line 980.
52. Ibid., 156, Lines 890–891.
53. Ibid., 70, Line 324.
54. Ibid., 79, Line 392.
55. Ibid., 135, Line 727.
56. Ibid., 158, Line 907.
57. Ibid., 238, Line 1583.
58. Ibid., 249, Line 1680.
59. Ibid., 144, Line 799.
60. R. O. Faulkner, *The Book of the Dead* (British Museum Publications, 1972), 62, Spell 42.
61. Pyramid Texts, in *The Ancient Egyptian Pyramid Texts,* 253, Line 1720.

62. Susan Brind Morrow, *The Silver Eye: Unlocking the Pyramid Texts* (Head of Zeus, 2016), Kindle location 433.
63. *The Ancient Egyptian Pyramid Texts,* 144, Line 803.
64. Ibid., 253, Line 1717.
65. Ibid., 44, Line 151.
66. Ibid.
67. Lankford, "The 'Path of Souls,'" 177.
68. Budge, *The Egyptian Heaven and Hell,* vol. 3, 104.
69. George Lankford draws a specific parallel between the Native American traditions and the *Ancient Egyptian Book of the Dead* in George Lankford, *Reachable Stars: Patterns in the Ethnoastronomy of Eastern North America* (University of Alabama Press, 2007), 204. The same idea is proposed in F. Kent Reilly III, "The Great Serpent in the Lower Mississippi Valley," in *Visualizing the Sacred: Cosmic Visions, Regionalism and the Art of the Mississippi World* (University of Texas Press, 2011), 122–123.
70. Benny Shanon, *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience* (Oxford University Press, 2002), 132.
71. G. Reichel-Dolmatoff, *Beyond the Milky Way: Hallucinatory Imagery of the Tukano Indians* (UCLA Latin America Center Publications, 1978), 13.
72. Faulkner, *The Book of the Dead,* 90. Also see R. O. Faulkner, "The King and the Star-Religion in the Pyramid Texts," in *Journal of Near Eastern Studies* 25 (1966), 154n7. Virginia Lee Davis makes the link between the Milky Way and the "Winding Waterway" in *Archaeoastronomy* 9 (JHA xvi) (1985), 102. The archeoastronomer and

Egyptologist Jane B. Sellers arrives at the same conclusion as V. L. Davis (J. B. Sellers, *The Death of Gods in Ancient Egypt* [Penguin Books, 1992], 97). For further discussion and additional sources, see also Bauval, *The Orion Mystery,* 119–121.

73. Budge, *The Egyptian Heaven and Hell,* vol. 3, 90.
74. Pyramid Texts, 258, Line 1760.
75. Ake Hultkrantz, *The Religions of the American Indians* (University of California Press, 1979) (originally published in 1967 as *De Amerikanska Indianernas Religioner*), 133.
76. Lankford, "The 'Path of Souls,'" 177.
77. Budge, *The Egyptian Heaven and Hell,* vol. 3, 89.
78. Ibid., 89–90.
79. Ibid., xii.
80. Sources for the foregoing all in ibid, notably 13–14, 59–60, 110–115, 136, 249–251, and 282–283 ("the Slaughterers of Apep").
81. Ibid., 109.
82. Ibid., 113.
83. Hultkrantz, *The North American Orpheus Tradition,* 97–98.
84. Lankford, "The Raptor on the Path," in *Visualizing the Sacred,* 243.
85. Alanson Skinner, *Observations on the Ethnology of the Sauk Indians* (Greenwood Press, first published 1923–25, reprinted by Greenwood Press 1970), 36.
86. See, for example, Hultkrantz, *The North American Indian Orpheus Tradition,* 54, 75; Lankford, 'The "Path of Souls,'" 178, 182–183, and Lankford, "The Raptor on the Path," 244–245.

87. Hultkrantz, *The North American Indian Orpheus Tradition,* 80; see also Lankford, "The 'Path of Souls,'" 178, 182–183, and Lankford, "The Raptor on the Path," 244–245.
88. Hultkrantz, *The North American Indian Orpheus Tradition,* 54. See also Lankford, "The 'Path of Souls,'" 178.
89. See discussion in Lankford, "The 'Path of Souls,'" 206–207, and likewise in Lankford, "The Great Serpent," 108–114.
90. Lankford, "The 'Path of Souls,'" 178.
91. Budge, *The Egyptian Heaven and Hell,* vol. 3, 37.
92. Ibid, vol. 1, opposite 102, Vignette "The Kingdom of Seker."
93. For example, see ibid., Vignette "The Kingdom of Seker," opposite 70, and 74. See also Faulkner, *The Book of the Dead,* 86—the Sa'Ta snake.
94. Lankford in *Ancient Objects and Sacred Realms,* 107ff and 174–175ff.
95. Cited in ibid, 112.
96. See discussion in Hultkrantz, *The Native American Orpheus Tradition,* 78–81.
97. Frances Eyman, "An Unusual Winnebago War Club and an American Water Monster," *Penn Museum Expedition* 5, (1963), no. 4: 33, https://www.penn.museum/sites/expedition/an-unusual-winnebago-war-club-and-an-american-water-monster/.
98. Lankford in *Ancient Objects and Sacred Realms,* 107–119.
99. Cited in ibid., 111.
100. Cited in ibid.

101. G. Elliot Smith, *The Evolution of the Dragon* (Manchester University Press, 1919), 94.
102. Lankford in *Ancient Objects and Sacred Realms,* 109–110.
103. Ibid., 111.
104. See, for example, the discussion in Graham Hancock, *Fingerprints of the Gods* (Crown, 1995), 423–424.
105. Reported in F. Kent Reilly III, "Visualising the Sacred in Native American Art of the Mississippian Period," in *Hero, Hawk and Open Hand,* 128.
106. R. O. Faulkner (trans. and ed.), *The Ancient Egyptian Coffin Texts* (Aris & Philips, 1973), vol. 1, 261.
107. Cited in James Mooney, *Myths of the Cherokee* (Government Printing Office, Washington DC, 1900, reprinted by Dover Publications 1995), 259.
108. Ibid.
109. Ibid.
110. Faulkner, *The Ancient Egyptian Coffin Texts,* vol. 1, 190, Line 326.
111. See, for example, F. F. Leek, "Further Studies Concerning Ancient Egyptian Bread," *Journal of Egyptian Archaeology* 59, no. 1 (1973), 199–204, esp. 199: "The two most common cereals to be found in all sites in Upper and in Lower Egypt were wheat and barley … *Triticum dicoccum*—emmer—was the most important variety of wheat grown." See also 201: "Two samples taken from the abdominal remains of mummified Thebes showed that emmer was the sole ingredient of bread eaten, and in another

sample that it was mixed with another cereal. Since the remains came from Thebes, it suggests that emmer was commonly used in Upper Egypt."

112. Christopher Knight and Robert Lomas, *The Hiram Key: Pharaohs, Freemasons and the Discovery of the Secret Scrolls of Christ* (Arrow Books, 1997), 152: Knight and Lomas suggest that the ancient Egyptians considered Horus to be the "Morning Star" when Osiris says in 1000–1 of the Pyramid Texts:

> *The reed-floats of the sky are set in place for me, that I may cross by means of them to Re at the horizon … I will stand among them, for the moon is my brother, the Morning Star is my offspring.*

The authors go on to suggest that Pyramid Texts 357, 929, 935, and 1707 refer to the dead king's offspring—Horus—as being the morning star. On 153 they state, "In Egypt the new king, the Horus, is the morning star, arising (like the raised Freemason) from a temporary and figurative death." Also see Rolf Kraus, "Stellar and Solar Components in Ancient Egyptian Mythology and Royal Ideology," in Michael A. Rappenglecuk et al. eds., *Astronomy and Power: How Worlds Are Structured,* Proceedings of the SEAC 2010 Conference, BAR International Series 2794 (2016), 137–141.

113. James Brown, "On the Identity of the Birdman within Mississippian Period Art and Iconography," in Reilly and Garber, *Ancient Objects and Sacred Realms,* 71.

114. See E. A. Wallis Budge, *The Gods of the Egyptians* (originally published 1904, reprinted by Dover Publications, 1969), 284–287. Also see *The British Museum Dictionary of Ancient Egypt,* 88, 220.

115. Budge, *The Book of the Dead,* 538. See also Faulkner, *Book of the Dead,* 163.
116. Pyramid Texts, 191, Lines 1188–1189.
117. Hultkrantz, *The Religions of the American Indians,* 64.
118. See William F. Romain, *Shamans of the Lost World: A Cognitive Approach to the Prehistoric Religion of the Ohio Hopewell* (AltaMira Press, 2009), 48–51.
119. Pyramid Texts, Utterance 667A, 281, Line 1943.
120. Hultkrantz, *Conceptions of the Soul,* 97.
121. Ibid., 267.
122. Ibid., 432.
123. Veronica Ions, *Egyptian Mythology* (Newnes Books, 1986), 136.
124. For a fuller and more detailed account, see Graham Hancock and Santha Faiia, *Heaven's Mirror: Quest for the Lost Civilization* (Penguin, 1998), 68–75.
125. Alice C. Fletcher and Francis La Flesche, *The Omaha Tribe,* Twenty-Seventh Annual Report of the Bureau of American Ethnology (Smithsonian Institution, 1911), 590.
126. Joseph Epes Brown, *The Sacred Pipe* (University of Oklahoma Press, 1953, 1989), 29n13.
127. Hultkrantz, *The Religions of the American Indians,* 133–134.
128. Lankford in Reilly and Garber, *Ancient Objects and Sacred Realms,* 208.
129. Ibid., 210.
130. Ibid., 211.
131. Pyramid Texts, 93, Line 469.
132. Pyramid Texts, Utterance 697, 305, Line 2175.

133. Coffin Texts, vol. 1, 36, Line 185.

134. E. K. Holt et al. (eds.), *Concerning the Nations: Essays on the Oracles Against the Nations in Isaiah, Jeremiah and Ezekiel* (vol. 612) (Bloomsbury, 2015), 35. On the basis of Dead Sea Scrolls translations of Isaiah, Jeremiah, Judges, and Job, respectively, the authors understand the Hebrew phrases "City of the Sun" and "house of the sun" to be references to Heliopolis, or the Egyptian name *Iwnw,* "pillar town," which in Genesis 41:45 and Ezekiel 30:17 is referred to as *'ôn/'āwen*. Examples from the New American Standard of the bible here:

He will also shatter the obelisks of Heliopolis, which is in the land of Egypt; and the temples of the gods of Egypt he will burn with fire. (Jeremiah 43:13)

And Pharaoh called Joseph's name Zaphenath-paneah. And he gave him in marriage Asenath, the daughter of Potiphera priest of On. So Joseph went out over the land of Egypt. (Genesis 41:45)

The young men of On and Pi-beseth
Will fall by the sword,
And the women will go into captivity (Ezekiel 30:17)

135. Ibid.

136. Budge, *The Egyptian Heaven and Hell,* vol. 3, 12.

137. Ibid., 3–4.

138. I. E. S. Edwards, *The Pyramids of Egypt* (Penguin, 1993), 286.

139. Reproduced in Von Del Chamberlain, *When Stars Come Down to Earth: Cosmology of the Skidi Pawnee Indians of North America* (Ballena Press/Centre for Archaeoastronomy, University of Maryland, 1982), 20.

140. Ibid., 24, 130.

141. P. Lacovara, *The World of Ancient Egypt: A Daily Life Encyclopedia* (2 volumes) (ABC-CLIO, 2016), 183. Anke Napp, "Priests of Ancient Egypt," http://www.ancient-egypt-priests.com/AE-Life-english.htm: "The high-ranking priests wore sashes, probably with gold ornaments similar to the ones the Pharaoh used, and a leopard skin. The leopard was considered a sacred animal, personification of the ancient sky-Goddess Mafdet. Perhaps the spots on the skin reminded the Ancient Egyptians of stars. Artificial leopard cloth had star-shaped items on it for the spots. A leopard skin was also seen as connected to the beliefs of regeneration and rebirth in the afterlife, and with Sun God Ra. This can be traced back to the pyramid texts of the Fifth Dynasty. So in particular the Sem-priests, who had to perform the rituals of inspiriting the mummy before the funeral, wore this special garment, but also the deceased person! It can be seen as some sort of christening robe. Apart of the sash, they do not wear any jewellery." Also see Anand Balaji, "Sem Priests of Ancient Egypt: Their Role and Impact in Funerary Contexts—Part 1" (Ancient Origins, May 6, 2018), https://www.ancient-origins.net/history/sem-priests-ancient-egypt-their-role-and-impact-funerary-contexts-part-0010007 and part 2 here: https://www.ancient-origins.net/history/sem-priests-ancient-egypt-service-king-and-country-part-ii-0010009.

See also http://www.ancient-origins.net/history/sem-priests-ancient-egypt-their-role-and-impact-funerary-contexts-part-0010007 and http://www.ancient-origins.net/history/sem-priests-ancient-egypt-service-king-and-country-part-ii-0010009.

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146. Ibid., 204–205.

24: ASTRONOMY AND GEOMETRY IN THE AFTERLIFE

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2. W. B. Emery, *Archaic Egypt: Culture and Civilization in Egypt Five Thousand Years Ago* (Penguin Books, 1987), 31, 177.
3. E. A. Wallis Budge, *The Book of the Dead* (Arkana, 1985), 315.
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6. E. A. Wallis Budge, *The Egyptian Heaven and Hell* (Martin Hopkinson, 1925) (3 volumes in one edition, page numbers reset to 1 with each volume), vol. 3, 43.
7. Ibid., vol. 1, 142–143.
8. Ibid., vol. 3, 152.
9. Ibid., 135.
10. Ibid., vol. 2, 142.
11. Ibid., vol. 3, 135.
12. R. O. Faulkner (ed. and trans.), *The Ancient Egyptian Coffin Texts* (Aris & Philips, 1973), vol. 2, 290.
13. Ibid., vol. 3, 104.
14. Budge, *The Book of the Dead,* clxxv.
15. Ibid., vol. 1, 89.
16. Ibid., 141.
17. Ibid., 161.
18. Ibid., 170ff.
19. Ibid., for example, see 123, 215, 240, 258 of vol. 1; and 13, 36 of vol. 2. The Duat was sometimes also known as Amentet, and references occur both to the "hidden circle of the Duat" and to the "hidden circle of Amentet," and also, coterminously, to the "secret circle of Amentet" and the "secret circle of the Duat."
20. Ibid., vol. 3, 89; and see Vignette in vol. 2, p. 303.
21. For further details of the specifically astronomical and stellar aspects of the ancient Egyptian religion, see Graham Hancock's *Keeper of Genesis/The Message of the Sphinx*

and *Heaven's Mirror*.

22. Budge, *The Egyptian Heaven and Hell,* vol. 1, 22.
23. J. Gribbin and M. Gribbin, *From Here to Infinity: A Beginner's Guide to Astronomy* (Sterling, 2009), 40–41: "Both the Earth and the Moon are … orbiting around the balance point in the Earth-Moon system, its centre of mass … is like the balance point of a see-saw."
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25. Faulkner, *The Ancient Egyptian Coffin Texts,* vol. 3, 140–141, Spells 1060 to 1063.
26. Ibid., vol. 2, 212, Line 250.
27. R. O. Faulkner (ed. and trans.), *The Ancient Egyptian Pyramid Texts* (Oxford University Press, 1969), 290, Line 2016.
28. Ibid., 309, Line 2232.
29. Ibid., Line 2233.
30. Ibid., 159, Line 916.
31. Faulkner, *Book of the Dead,* 113, Spell 118.
32. Faulkner, *Pyramid Texts,* 289–290, Line 2011.
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36. Ibid., 168, Line 468.
37. Budge, *The Book of the Dead,* 318.
38. Faulkner, *Book of the Dead,* 184, Spell 183.

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40. Ibid., vol. 1, 258.
41. Ibid., 240.
42. Ibid., 258.
43. Ibid., 9.
44. Ibid., vol. 2, 38–39.
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46. As, for example, in "this secret Circle of the god Sokar, who is upon his sand"–ibid., 16.
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48. William Romain, "Adena-Hopewell Earthworks and the Milky Way Path of Souls," in Meghan E. Buchanan and B. Jacob Skousen (eds.), *Tracing the Relational: The Archaeology of Worlds, Spirits and Temporalities* (University of Utah Press, 2015), 54.
49. Ibid.
50. Ibid.
51. Budge, *The Book of the Dead,* 315.
52. Ibid.
53. Lankford, "The Great Serpent in Eastern North America," 107–135.
54. James Mooney, *Myths of the Cherokee* (Government Printing Office, Washington DC, 1900, reprinted by Dover Publications 1995), 297.

55. Ibid. And see discussion in Lankford, “The Great Serpent in Eastern North America,” 114.
56. Budge, *The Book of the Dead,* 315.
57. Ibid., xxviii–xxix; Faulkner, *The Ancient Egyptian Pyramid Texts,* v.
58. In the case of Conly, for example. See chapter 22.
59. E. A. E. Reymond, *The Mythical Origin of the Egyptian Temple* (Manchester University Press, 1969), 8.
60. Ibid., 151: “The mythological situation which we have been analysing discloses a tradition which originated in another place.”
61. Ibid., 55, 90, 105, 274.
62. Ibid., 55.
63. Ibid., 109, 113–114, 127.
64. For example, see 19: “The crew of the Falcon.” See also 27, 177, 180, 181, 187, 202. There are repeated references throughout the Edfu texts to the crews of ships and to sailing. Thus, 180: “The Shebtiw sailed …,” and 187: “They were believed to have sailed to another part of the primeval world.”
65. Ibid., 190.
66. Ibid., 274: “They journeyed through the unoccupied lands of the primeval age and founded other sacred domains.”
67. Ibid., 122.
68. Ibid., 134.
69. Plato, *Timaeus and Critias* (Penguin Classics, 1977), 36.

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71. G. Reichel-Dolmatoff, *Beyond the Milky Way: Hallucinatory Imagery of the Tukano Indians* (UCLA Latin America Center Publications, 1978), 2.
72. Ibid.
73. Reymond, *The Mythical Origin of the Egyptian Temple,* 274.
74. Ibid., 190.
75. Ibid., 8–10.
76. Ibid., 24: "the *Shebtiw* whose function is described as *din iht,* to name (= create) things." See also 180.
77. Ibid., 41.
78. Ibid., for example, 28, 66, 236.
79. See, for example, Robert L. Hall, *An Archaeology of the Soul: North American Indian Belief and Ritual* (University of Illinois Press, 1997), 163: "The use of the imagery of the belt of Orion as a protective device may have a history in North America extending back at least to 1000 BC, because in contexts that old in parts of the Northeastern United States, stone tablets and shell plaques have been found into which were drilled three holes, with one, apparently purposely, a little out of line with the rest, just as is one of the three stars of Orion's belt."

PART VII

25: ELOISE

1. Vance Haynes, in conversation with Richard Firestone, cited in Richard Firestone, Allen West, and Simon Warwick Smith, *The Cycle of Cosmic Catastrophes* (Bear, 2006), 37.
2. Bruce B. Huckell and C. Vance Haynes, "Palaeoecology as Viewed from Murray Springs, Arizona," in C. Vance Haynes and Bruce B. Huckell (eds.), *Murray Springs: A Clovis Site with Multiple Activity Areas in the San Pedro Valley, Arizona* (University of Arizona Press, 2007), 225.
3. Ibid.
4. See full discussion of the Younger Dryas in Graham Hancock, *Magicians of the Gods: The Forgotten Wisdom of Earth's Lost Civilization* (2015), part 2.
5. C. Vance Haynes, "Palaeoecology as Viewed from Murray Springs, Arizona," 225. The quotation continues as follows: "Many of them overlie terminal Pleistocene fauna remains, a few with Clovis artefacts. The … termination everywhere appears to have occurred … rapidly and at the same time … Could drought, deep freeze, and Clovis predation have occurred at all of these places at the same time? Probably not. With regard to the cause of the Pleistocene termination, something happened 13,000 years ago that we have not yet fully understood."
6. Vance Haynes, "Younger Dryas 'Black Mats' and the Rancholabrean Termination in North America," *Proceedings of the National Academy of Sciences* 105, no. 18 (May 6, 2008), 6520.

7. R. B. Firestone et al., "Evidence for an Extraterrestrial Impact 12,900 Years Ago That Contributed to Megafaunal Extinctions and the Younger Dryas Cooling," *Proceedings of the National Academy of Sciences* 104, no. 41 (October 9, 2007), 16016–16021.
8. Ibid. In subsequent papers the date of 12,900 years ago was revised downward by 100 years to around 12,800 years ago. See C. R. Kinzie et al., "Nanodiamond-Rich Layer Across Three Continents Consistent with Major Cosmic Impact at 12,800 cal BP," *Journal of Geology* 122, no. 5 (2014), 475–506.
9. See for example Julie Cohen, "Study Examines 13,000 Year-old Nanodiamonds From Multiple Locations Across Three Continents," (Phys Org, August 27, 2014), https://phys.org/news/2014-08-year-old-nanodiamonds-multiple-continents.html, and J. H. Wittke et al, "Nanodiamonds and Carbon Spherules from Tunguska, the K/T Boundary, and the Younger Dryas Boundary Layer," (the American Geophysical Union Fall Meeting, 2009), http://adsabs.harvard.edu/abs/2009AGUFMPP31D1392W.
10. Michail I. Petaev et al., "Large Pt Anomaly in the Greenland Ice Cores Points to a Cataclysm at the Onset of Younger Dryas," *Proceedings of the National Academy of Sciences* 110, no. 32 (August 6, 2013), 12917–12920. See also Heather Pringle, "Did a Comet Wipe Out Prehistoric Americans?" *New Scientist* (May 22, 2007), http://www.newscientist.com/article/dn11909-did-a-comet-wipe-out-prehistoric-americans.html#.VJqZ88AgA; and Firestone et al., "Evidence for an Extraterrestrial Impact 12,900 Years Ago That Contributed to the Megafaunal Extinctions and the Younger Dryas Cooling," 16016.

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12. Richard Firestone quoted in Pringle, "Did a Comet Wipe Out Prehistoric Americans?"
13. Kinzie et al., "Nanodiamond-Rich Layer Across Three Continents Consistent with Major Cosmic Impact at 12,800 cal BP," 498–499.
14. Quoted in Julie Cohen, "Nanodiamonds Are Forever: A UCSB Professor's Research Examines 13,000-Year-Old Nanodiamonds from Multiple Locations Across Three Continents," *The Current,* UC Santa Barbara, August 28, 2014, http://www.news.ucsb.edu/2014/014368/nanodiamonds-are-forever.
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16. Ibid., 12917.
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18. Clube and Napier, *The Cosmic Winter,* 147.
19. W. M. Napier, "Comets, Catastrophes and Earth's History," *Journal of Cosmology* (November 6, 2009), 344–355

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26: FIRE AND ICE

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3. Christopher Moore et al., "Widespread Platinum Anomaly Documented at the Younger Dryas Onset in North American Sedimentary Sequences," *Scientific Reports* (March 9, 2017).
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5. Michail I. Petaev et al., "Large Pt Anomaly in the Greenland Ice Cores Points to a Cataclysm at the Onset of Younger Dryas, Proceedings of the National Academy of Sciences 110, no. 32 (August 6, 2013), 12917, 12918.
6. Moore et al., "Widespread Platinum Anomaly Documented at the Younger Dryas Onset in North American Sedimentary Sequences," 2–3.
7. Ibid., 3.
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9. Ibid., 4–5.
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11. Ibid., Supplementary Information, 10–11. Platinum (Pt) is one of the platinum group of elements (PGE) that includes iridium (Ir), osmium (Os), ruthenium (Ru), and rhodium (Rh).
12. Ibid., 12–13.
13. Ibid., 13.
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16. Wendy S. Wolbach et al., "Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~12,800 Years Ago," *Journal of Geology* 126, no. 2 (March 2018), 165–205.
17. Ibid. The full list of coauthors: Wendy S. Wolbach, Joanne P. Ballard, Paul A. Mayewski, Victor Adedeji, Ted E. Bunch, Richard B. Firestone, Timothy A. French, George A. Howard, Isabel Israde-Alcántara, John R. Johnson, David Kimbel, Charles R. Kinzie, Andrei Kurbatov, Gunther Kletetschka, Malcolm A. LeCompte, William C. Mahaney, Adrian L. Melott, Abigail Maiorana-Boutilier, Siddhartha Mitra, Christopher R. Moore, William M. Napier, Jennifer Parlier, Kenneth B. Tankersley, Brian C. Thomas, James H. Wittke, Allen West, and James P. Kennett.
18. Ibid., 165.
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37. Matthew R. Francis, "When Carl Sagan Warned the World About Nuclear Winter," *Smithsonian Magazine,* November 15, 2017, https://www.smithsonianmag.com/science-nature/when-carl-sagan-warned-world-about-nuclear-winter-180967198/.

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41. Wolbach et al., "Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~12,800 Years Ago," 179.

42. Ibid., 200.

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44. David J. Leydet et al., "Opening of Glacial Lake Agassiz's Eastern Outlets by the Start of the Younger Dryas Cold Period," *Geology* (January 4, 2018).

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46. Graham Hancock, *Magicians of the Gods: The Forgotten Wisdom of Earth's Lost Civilization* (2015), chapter 6, 121–122.
47. Wolbach et al., "Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~ 12,800 Years Ago," 179. Emphasis added.
48. Ibid., 179.
49. Ibid., 180.
50. Ibid., 175.
51. Ibid., 178.
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54. Ibid., 201.
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56. Ibid., 167.
57. Ibid., 168, 173, 177, 178, 188. See also Petaev et al., "Large Pt Anomaly in the Greenland Ice Cores Points to a Cataclysm at the Onset of Younger Dryas," 12917. And see W. M. Napier, "Palaeolithic Extinctions and the Taurid Complex," *Monthly Notices of the Royal Astronomical Society* 405, no. 3 (July 1, 2010), 1901–1906. The complete paper can be read online here: http://mnras.oxfordjournals.org/content/405/3/1901.full.pdf+html?sid=19fd6cae-61a0-45bd-827b-9f4eb877fd39, and downloaded as a pdf here: http://arxiv.org/pdf/1003.0744.pdf; and Victor Clube and Bill Napier, *The Cosmic*

Winter (Wiley, 1990), 150–153. See also Gerrit L. Verschuur, *Impact: The Threat of Comets and Asteroids* (Oxford University Press, 1996), 136.

58. Firestone et al., "Evidence for an Extraterrestrial Impact 12,900 Years Ago That Contributed to Megafaunal Extinctions and the Younger Dryas Cooling," 16020.

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61. Wolbach et al., "Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~12,800 Years Ago," 195: "Peros et al.'s (2008) comprehensive analysis of North American pollen records indeed demonstrated that an abrupt, temporary decline in conifer forests (mostly Picea sp.) occurred widely across North America during the first 150 y of the YD climate episode. This loss was accompanied by a sudden expansion of Populus species (poplar, cottonwood, aspen) and sometimes Alnus (birch), which are opportunistic pioneers that often flourish following major forest disruptions such as wildfires. In turn, Populus species were replaced by conifers during the remainder of the YD. Thus, a large, pervasive, temporary change in continental vegetation, as reflected in the North American pollen record, is consistent with a major biotic perturbation that would have resulted from widespread biomass burning at the YDB."

62. Ibid., 178.
63. Ibid., 198.
64. Firestone et al., “Analysis of the Younger Dryas Impact Layer,” 57–58.
65. Ibid., 58.
66. Together with nineteen genera of North American birds. See James P. Kennett et al., “Potential Consequences of the YDB Cosmic Impact at 12.8 kya: Climate, Humans and Megafauna,” in Albert C. Goodyear and Christopher R. Moore (eds.), *Early Human Life on the Southeastern Coastal Plain* (Florida Museum of Natural History, University of Florida Press, 2018), 184.
67. Wolbach et al., “Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~12,800 Years Ago,” 195–196, 200–201.
68. Ibid., 200–201.
69. Kennett et al., “Potential Consequences of the YDB Cosmic Impact at 12.8 kya,” 184–185.
70. Ibid., 186.
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73. Ibid.
74. Terry L. Jones and Douglas J. Kennett, “A Land Impacted? The Younger Dryas Boundary Event in California,” in Terry L. Jones and Jennifer E. Perry (eds.), *Contemporary Issues in California Archaeology* (Routledge, 2016), Kindle location 849.

75. David G. Anderson et al., "Multiple Lines of Evidence for Possible Human Population Decline/Settlement Reorganization During the Early Younger Dryas," *Quaternary International* 242 (2011), 578.

27: CAPE FEAR

1. Graham Hancock, *Magicians of the Gods: The Forgotten Wisdom of Earth's Lost Civilization* (2015), 86–108.
2. Since 2015, the number of papers that have been published that augment the case for a YD ET impact event has been quite staggering. Strongly supportive papers include:

W. M. Napier, "Giant Comets and Mass Extinctions of Life," *Monthly Notices of the Royal Astronomical Society* 448, no. 1 (2015), 27–36; A. V. Andronikov et al., "Geochemical Evidence of the Presence of Volcanic and Meteoritic Materials in Late Pleistocene Lake Sediments of Lithuania," *Quaternary International* 386 (2015), 18–29; R. Ellis, "The Carolina Bays, and the Destruction of North America," Ralph Ellis Research Center (2015); B. Napier et al., "Centaurs as a Hazard to Civilization," *Astronomy and Geophysics* 56, no. 6 (2015), 6–24; A. V. Andronikov et al., "Implications from Chemical, Structural and Mineralogical Studies of Magnetic Microspherules from Around the Lower Younger Dryas Boundary (New Mexico, USA)," *Geografiska Annaler: Series A, Physical Geography,* 98, no. 1 (2016), 39–59; J. L. Prado, C. Martinez-Mara, and M. T. Alberdi, "Megafauna Extinction in South America: A New Chronology for the Argentine Pampas," *Palaeogeography,*

Palaeoclimatology, Palaeoecology 425 (2015), 41–44; A. V. Andronikov and I. E. Andronikova, "Sediments from Around the Lower Younger Dryas Boundary (SE Arizona, USA): Implications from LA−ICP−MS Multielement Analysis," *Geografiska Annaler: Series A, Physical Geography* 98, no. 3 (2016); A. Zamora, "A Model for the Geomorphology of the Carolina Bays," *Geomorphology* 282 (2017), 209–216; H. G. Burchard, "Younger Dryas Comet 12,900 BP," *Open Journal of Geology,* 7, no. 2 (2017), 193; M. B. Sweatman and D. Tsikritsis, "Decoding Göbekli Tepe with Archaeoastronomy: What Does the Fox Say?" *Mediterranean Archaeology and Archaeometry* 17, no. 1 (2017); P. Spurný et al., "Discovery of a New Branch of the Taurid Meteoroid Stream as a Real Source of Potentially Hazardous Bodies," *Astronomy and Astrophysics* 605 (2017), A68; H. Patton et al., "Deglaciation of the Eurasian Ice Sheet Complex," *Quaternary Science Reviews* 169 (August 1, 2017), 148–172; J. T. Hagstrum et al., "Impact-Related Microspherules in Late Pleistocene Alaskan and Yukon 'Muck' Deposits Signify Recurrent Episodes of Catastrophic Emplacement," *Scientific Reports* 7, no. 1 (2017), 16620; P. Roperch et al., "Surface Vitrification Caused by Natural Fires in Late Pleistocene Wetlands of the Atacama Desert," *Earth and Planetary Science Letters* 469 (2017), 15–26; W. C. Mahaney et al., "Evidence for Cosmic Airburst in the Western Alps Archived in Late Glacial Paleosols," *Quaternary International* 438 (2017), 68–80; I. Israde-Alcántara et al., "Five Younger Dryas Black Mats in Mexico and Their Stratigraphic and Paleoenvironmental Context," *Journal of Paleolimnology* 59, no. 1 (2018), 59–79; W. C. Mahaney et al., "Cosmic Airburst on Developing Allerød Substrates (Soils) in the Western Alps, Mt. Viso Area," *Studia Quaternaria* 35, no. 1 (2018), 3–23; W. C. Mahaney et al., "Did the Black-Mat Impact/Airburst Reach the Antarctic? Evidence from New Mountain Near the Taylor

Glacier in the Dry Valley Mountains," *Journal of Geology* 126, no. 3 (2018), 285–305; A. V. Andronikov et al., "Geochemical Records of Paleocontamination in Late Pleistocene Lake Sediments in West Flanders (Belgium)," *Geografiska Annaler: Series A, Physical Geography* 100, no. 2 (2018), 204–220; H. P. Hu, J. L. Feng, and F. Chen, "Sedimentary Records of a Palaeo-Lake in the Middle Yarlung Tsangpo: Implications for Terrace Genesis and Outburst Flooding," *Quaternary Science Reviews* 192 (2018), 135–148; M. B. Sweatman and A. Coombs, "Decoding European Palaeolithic Art: Extremely Ancient Knowledge of Precession of the Equinoxes," *arXiv,* preprint arXiv:1806.00046 (2018).

3. Notably M. A. LeCompte et al., "An Independent Evaluation of Conflicting Microspherules Results from Different Investigations of the Younger Dryas Impact Hypothesis," *Proceedings of the National Academy of Sciences* 109, no. 44 (2018), e2960–e2969, doi:10.1073/pnas.1208603109; and Y. Wu et al., "Origin and Provenance of Spherules and Magnetic Grains at the Younger Dryas Boundary," *Proceedings of the National Academy of Sciences* 110, no. 38 (2013), e3557–e3566, doi:10.1073/pnas.1304059110.
4. See G. Hancock, *Magicians of the Gods,* chapters 4 and 5, 69–85.
5. Antonio Zamora has a multidisciplinary background in chemistry, computer science, and computational linguistics. Mr. Zamora was born in Mexico and came to the United States at an early age. He studied chemistry at the University of Texas (BS 1962), and computer and information science at Ohio State University (MS 1969). During his service in the U.S. Army from 1962 to 1965, Mr. Zamora studied medical technology at the Medical Field Service School (MFSS) in Fort Sam Houston and worked in

hematology at Brooke Army Medical Center. Mr. Zamora worked for many years as an editor and researcher at Chemical Abstracts Service developing chemical information applications. He also worked as a senior programmer at IBM on spelling checkers and novel multilingual information retrieval tools. He holds thirteen patents. After his retirement from IBM, Mr. Zamora established Zamora Consulting, LLC, and worked as a consultant for the American Chemical Society, the National Library of Medicine, and the Department of Energy to support semantic enhancements for search engines. Mr. Zamora has been interested in astronomy since childhood when his father helped him build a refracting telescope. Since his retirement in 2011, Mr. Zamora completed massive open online courses in astronomy, geology, and paleobiology. He regularly attends the seminars of the Department of Terrestrial Magnetism at the Carnegie Institution of Washington.

6. Zamora, "A Model for the Geomorphology of the Carolina Bays," 209–216.
7. The Carolina Bays were first postulated to be of cosmic origin in 1933 when the Roosevelt administration took the first aerial photographs of the seemingly crater-dotted landscape to assist farmers during the Great Depression. For an example, consult G. Howard, "The Carolina Bays" (1997) on George Howard.net, http://www.georgehoward.net/cbays.htm, accessed August 21, 2018. See also William S. Powell, "The Carolina Bays" (Encyclopedia of North Carolina, 2006). Available here: https://www.ncpedia.org/carolina-bays.
8. For example, Richard Firestone, Allen West, and Simon Warwick-Smith, *The Cycle of Cosmic Catastrophes* (Bear, 2006).

9. See, for example, M. J. Brooks, B. E. Taylor, and A. H. Ivester, "Carolina Bays: Time Capsules of Culture and Climate Change," *Southeastern Archaeology* 29, no. 1 (2010), 146–163, esp. 148: "Based on 45 OSL dates, active shorelines and associated eolian deposition occurred during marine isotope stage (MIS) 2 to late MIS 3 (~12 to 50 ka), MIS 4 to very late MIS 5 (60–80 ka), and late MIS 6 (120–140 ka). … In addition to these age ranges, some OSL dates indicate that bays also were active during the Holocene and Sangamon Interglacials."
10. Zamora, "A Model for the Geomorphology of the Carolina Bays," 211ff.
11. Ibid., 209, 212.
12. ResearchGate, "Michael Davias," https://www.researchgate.net/profile/Michael_Davias.
13. ResearchGate, "Thomas H. S. Harris," https://www.researchgate.net/profile/Thomas_Harris8.
14. Michael E. Davias and Thomas H. S. Harris, "A Tale of Two Craters: Coriolis-Aware Trajectory Analysis Correlates Two Pleistocene Impact-Strewn Fields and Gives Michigan a Thumb," paper presented at the Geological Society of America, North-Central Section, 49th Annual Meeting, May 19–20, 2015.
15. Ibid.
16. R. B. Firestone et al., "Analysis of the Younger Dryas Impact Layer," *Journal of Siberian Federal University. Engineering and Technologies* 1 (February 2010), 57–58.
17. Davias and Harris, "A Tale of Two Craters."
18. Ibid.

19. Ibid.
20. Ibid.
21. Zamora, “A Model for the Geomorphology of the Carolina Bays,” 215.
22. Email from Antonio Zamora to Graham Hancock, July 11, 2018.
23. Zamora, “A Model for the Geomorphology of the Carolina Bays,” 212.
24. Ibid., 212, 214.
25. Ibid., 215.
26. Ibid.
27. Ibid.
28. Antonio Zamora, *Killer Comet: What the Carolina Bays Tell Us* (Zamora Consulting, third paperback edition, 2016), 71–75.
29. Firestone et al., “Analysis of the Younger Dryas Impact Layer,” 57–58.
30. Graham Hancock Live in Arkansas (YouTube, 2018), https://www.youtube.com/watch?v=c-qIP1lfok8&feature=share.
31. Firestone et al., “Analysis of the Younger Dryas Impact Layer,” 30.
32. Donald F. Eschman and David M. Mickelson, “Correlation of Glacial Deposits of the Huron, Lake Michigan and Green Bay Lobes in Michigan and Wisconsin,” *Quaternary Science Reviews* 5 (1986), 53–57.
33. Ibid., 56.

PART VIII

28: HUNTER-GATHERERS AND THE LOST CIVILIZATION

1. Email correspondence with Albert Goodyear, February 6, 2018.
2. William Mahaney et al., "Cosmic Airburst on Developing Allerød Substrates (Soils) in the Western Alps, Mt. Viso Area," *Studia Quaternaria* 35, no. 1 (2018), 3, 20–21.
3. W. C. Mahaney et al., "Did the Black-Mat Impact/Airburst Reach the Antarctic? Evidence from New Mountain Near the Taylor Glacier in the Dry Valley Mountains," *Journal of Geology* 126, no. 3 (May 2018), 285.
4. Wendy Wolbach et al., "Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~12,800 Years Ago," *Journal of Geology* 126, no. 2 (March 2018), 170.
5. Marc Barton, "Smallpox and the Conquest of Mexico" (Past Medical History, February 28, 2018), https://www.pastmedicalhistory.co.uk/smallpox-and-the-conquest-of-mexico/.
6. Thomas J. Williams et al., "Evidence of an Early Projectile Point Technology in North America at the Gault Site, Texas, USA," *Science Advances* (July 14, 2018), 1, http://advances.sciencemag.org/content/4/7/eaar5954.
7. Ibid., 2.
8. Ibid., 5.
9. Thomas et al., "Explaining the Origin of Fluting in North American Pleistocene Weaponry," 23, 24, 28. And see B. A. Storey et al., "Why Are Clovis Fluted Points

More Resilient Than Non-Fluted Lanceolate Points? A Quantitative Assessment of Breakage Patterns Between Experimental Models," *Archaeometry* (July 2, 2018).

10. Personal correspondence with Al Goodyear, July 25, 2018. And see Lorena Becerra-Valdivia et al., "Reassessing the Chronology of the Archaeological Site of Anzick," *Proceedings of the National Academy of Sciences* (June 18, 2018), and Morten Rasmussen et al., "The Genome of a Late Pleistocene Human from a Clovis Burial Site in Western Montana," *Nature* 506 (February 13, 2014), 225.

11. Becerra-Valdivia et al., "Reassessing the Chronology of the Archaeological Site of Anzick," 3: "There is strong agreement between the Anzick-1 … date (12,905–12,695 cal B.P.) and all those obtained for the antler rods (12,990–12,840 cal B.P.). The results therefore suggest that Anzick-1 is temporally coeval with the antler rods, associated with the Clovis assemblage, and dates within the Clovis period."

12. Numbers on Clovis sites and points from Charles C. Mann, "The Clovis Point and the Discovery of America's First Culture," *Smithsonian Magazine,* November 2013, https://www.smithsonianmag.com/history/the-clovis-point-and-the-discovery-of-americas-first-culture-3825828/.

13. Becerra-Valdivia et al., "Reassessing the Chronology of the Archaeological Site of Anzick," 1. See also Rasmussen et al., "The Genome of a Late Pleistocene Human from a Clovis Burial Site in Western Montana," 225. The very fact that no other Clovis burials have ever been found means there's nothing to compare Anzick-1 with. To give an extreme example of the kinds of problems this raises, although we can make informed guesses, we cannot know for sure whether *every* deceased Clovis infant was

buried in the same elaborate way with equally copious offerings of grave goods or whether Anzick-1 was an exceptional burial of an exceptional individual, perhaps from some exceptional lineage. Intuitively we feel it's more likely to be the latter than the former, but we can't prove it.

14. Personal correspondence with Al Goodyear, July 26, 2018. And see Thomas et al., "Explaining the Origin of Fluting in North American Pleistocene Weaponry," 23–24.

29: UNKNOWN UNKNOWNS

1. The reference is to this famously circuitous 2002 statement by former secretary of state Donald Rumsfeld concerning lack of evidence linking the government of Iraq with weapons of mass destruction: "Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones." Online here: http://archive.defense.gov/Transcripts/Transcript.aspx?TranscriptID=2636.
2. John Soennichesen, *Bretz's Flood: The Remarkable Story of a Rebel Geologist and the World's Greatest Flood* (Sasquatch Books, 2008), 131.
3. Graham Hancock, *Magicians of the Gods* (2015), part 2.

4. Henry T. Mullins and Edward T. Hinchley, "Erosion and Infill of New York Finger Lakes: Implications for Laurentide Ice Sheet Deglaciation," *Geology* 17, no. 7 (July 1989), 622–625.
5. "Smallpox and the Conquest of Mexico" (Past Medical History, February 28, 2018), https://www.pastmedicalhistory.co.uk/smallpox-and-the-conquest-of-mexico/.
6. Peter Tompkins, *Mysteries of the Mexican Pyramids* (Thames and Hudson, 1987), 21.
7. Friar Diego de Landa, *Yucatan Before and After the Conquest* (trans. with notes by William Gates) (Producción Editorial Dante, 1990), 9.
8. Ibid., 104.
9. Jose Fernandez, "A Stellar City: Utatlan and Orion," *Time and Astronomy at the Meeting of Two Worlds,* Proceedings of the International Symposium, April 27 to May 2, 1992, 72, 74. Cited in Graham Hancock and Santha Faiia, *Heaven's Mirror: Quest for the Lost Civilization* (Penguin, 1998), 35.
10. Jose Fernandez cited in David Friedel et al., *Maya Cosmos* (William Morrow, 1993), 103. Cited in Hancock and Faiia, *Heaven's Mirror,* 35.
11. Fernandez, "A Stellar City: Utatlan and Orion," 73. Cited in Hancock and Faiia, *Heaven's Mirror,* 35.
12. Hancock and Faiia, *Heaven's Mirror,* 23, 24. Regarding the Milky Way as the Mayan "Path of Souls," see Mary Miller and Karl Taube, *The Gods and Symbols of Ancient Mexico and the Maya* (Thames and Hudson, 1993), 114.
13. Hancock and Faiia, *Heaven's Mirror,* 22.
14. Ibid., 37.

15. Ibid., 35–37, 43–114.
16. Ibid.
17. Sylvanus Griswold Morley, *An Introduction to the Study of the Maya Hieroglyphs* (Dover, 1975), 32.
18. Ibid.
19. J. Eric S. Thompson, *The Rise and Fall of Maya Civilization* (Pimlico, 1993), 13–14.
20. The Dresden, Paris, Madrid, and Grolier codices. The latter, the Grolier codex, was long suspected to be a fraud but a 2016 study suggests it is genuine. See Erin Blakemore, "New Analysis Shows Disputed Maya "Grolier Codex" Is the Real Deal," *Smithsonian Magazine,* September 15, 2016, https://www.smithsonianmag.com/smart-news/maya-codex-once-thought-be-sketchy-real-thing-180960466/. Further confirmation came in August 2018 when Mexico's National Institute of History and Archaeology announced, after long deliberation, that the codex is genuine, that it dates between AD 1021 and 1154, and that it is therefore "the oldest-known pre-Hispanic document." See https://www.nbcnews.com/news/latino/experts-mexico-find-nearly-1-000-year-old-authentic-mayan-n905376.
21. See, in general, Father Pablo Joseph de Arriaga in L. Clark Keating (trans.), *The Extirpation of Idolatry in Peru* (University of Kentucky Press, 1968).
22. L. A. Clayton, E. C. Moore, and V. J. Knight (eds.), *The De Soto Chronicles,* vol. 1: *The Expedition of Hernando de Soto to North America in 1539–1543* (University of Alabama Press, 1995).

23. R. G. Robertson, *Rotting Face: Smallpox and the American Indian* (Caxton Press, 2001), 132.

24. Donald L. Fixico, "When Native Americans Were Slaughtered in the Name of 'Civilization,'" March 2, 2018, https://www.history.com/news/native-americans-genocide-united-states.

25. David E. Stannard, *American Holocaust: The Conquest of the New World* (Oxford University Press, 1992), 11.

26. US Indian Boarding School History, National Native American Boarding School Healing Coalition, https://boardingschoolhealing.org/education/us-indian-boarding-school-history/.

27. Cited in ibid.

28. Ephraim G. Squier and Edwin H. Davis, *Ancient Monuments of the Mississippi Valley* (Smithsonian Institution, Washington. DC, 1848, reprinted and republished by the Smithsonian, with an introduction by David J. Meltzer, in 1998), xxxix.

29. Jarrod Burks and Robert A. Cooke, "Beyond Squier and Davis: Rediscovering Ohio's Earthworks Using Geophysical Remote Sensing," *American Antiquity* 76 (October 2011), 680.

30. David J. Meltzer, introduction to Squier and Davis, *Ancient Monuments of the Mississippi Valley,* 37.

31. I put a similar question to David J. Meltzer (email exchange July 23 and 24, 2018), **GH:** I'm inclined to say in the relevant chapter of the book I'm just completing on ancient America that reliable figures simply don't exist for the whole Mississippi Valley

and that no archaeologist or other researcher has ever attempted to estimate what has been lost across the whole region as a result of agricultural, industrial and other encroachments since the mid-19th century. Would that, in your opinion, be a true reflection of the state of knowledge on this issue, or would it be misleading? **DJM:** I think that is an accurate statement, though again not having expertise in the area I cannot be certain. I also think it important to add that one of the reasons why such an estimate might be impossible is that 200+ years ago there was no systematic count of these earthworks, so we have no idea what the denominator should be for the equation of "sites still extant / sites once present." Add to that the fact that the (un)systematic ballpark estimates of a Squier would not only have failed to capture all the small mounds and hamlets, many of those sites were probably plowed down without anyone (except the mule team doing the work) even noticing or recording.

32. Email exchange with David J. Meltzer, July 24 and 25, 2018.
33. Gregory L. Little, *The Illustrated Encyclopaedia of Native American Indian Mounds and Earthworks* (Eagle Wing Books, 2016), 3.
34. Sue Sturgis, "Wal-Mart's History of Destroying Sacred Sites," *Facing South,* September 3, 2009, https://www.facingsouth.org/2009/09/wal-marts-history-of-destroying-sacred-sites.html.
35. Sue Sturgis, "Alabama city destroying ancient Indian mound for Sam's Club," *Facing South,* August 4, 2009, online here: https://www.facingsouth.org/2009/08/alabama-city-destroying-ancient-indian-mound-for-sams-club.html
36. Ibid.

37. Terry L. Jones, "Archaeological Perspectives on the Extra-Terrestrial Impact Hypothesis, 12,900 BP: A View from Western North America," *Journal of Cosmology* 2 (November 10, 2009), 299–300.

38. Ibid. Emphasis added. And see D. Grayson and D. Meltzer, "Requiem for North American Overkill," *Journal of Archeological Science* 30 (2003), 585–593; S. Fiedel and G. Haynes, "A Premature Burial: Comments on Grayson and Meltzer's 'Requiem for Overkill,'" *Journal of Archeological Science* 31 (2004), 121–131; D. Grayson and D. Meltzer, "North American Overkill Continued? *Journal of Archeological Science* 31 (2004), 133–136.

39. Jones, "Archaeological Perspectives on the Extra-Terrestrial Impact Hypothesis, 12,900 BP," 299–300.

40. Ibid.

41. E. A. E. Reymond, *The Mythical Origin of the Egyptian Temple* (Manchester University Press, 1969), 122, 134.

42. Of most importance here are the Kiva structures of Native American origin myths and the remnants of them in the Americas today (i.e., the great kiva at Chaco Culture National Historical Park). For this consult G. A. David, *The Kivas of Heaven: Ancient Hopi Starlore,* (SCB Distributors, 2011), chapter 1.

30: THE KEY TO EARTH'S LOST CIVILIZATION

1. For a quick overview of the chronology of the most recent Ice Age, see Kim Ann Zimmerman, "Pleistocene Epoch: Facts About the Last Ice Age," *Live Science,* August 29, 2017, https://www.livescience.com/40311-pleistocene-epoch.html.
2. Thomas M. Cronin, *Principles of Climatology* (New York: Columbia University Press, 1999), 204.
3. The range of 140,000 to 120,000 years ago is approximate and Deméré himself (in personal correspondence) prefers 130,000 years ago down to about 115,000 years ago. There are nuances, as usual. For full details of recent discussions around the dating of the Eemian, see D. Dahl-Jensen et al., "Eemian Interglacial Reconstructed from a Greenland Folded Ice Core," *Nature* 493 (January 24, 2013), 489–494.
4. Frederick Soddy, *The Interpretation of Radium and the Structure of the Atom* (John Murray, 1920), 182.
5. Ibid.
6. Ibid., 182–183.
7. Allen Ginsberg, *The Yage Letters: Redux* (Penguin Modern Classics Kindle Edition, 2012), xiii. Later the name *Telepathine* would be applied more specifically to harmine, the most important active alkaloid in the ayahuasca vine.
8. Ibid.
9. By the traveler Rafael Zerda Bayón—see https://www.singingtotheplants.com/2007/12/the-telepathy-meme/.
10. Benny Shanon, *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience* (Oxford University Press, 2002), 256–257.

11. W. Y. Evans-Wentz (ed.), *The Tibetan Book of the Dead* (Oxford University Press, 1960), xv.
12. Ake Hultkrantz, *The North American Indian Orpheus Tradition: A Contribution to Comparative Religion* (Ethnological Museum of Sweden, Stockholm, 1957).
13. A. H. Gayton, "The Orpheus Myth in North America," *Journal of American Folklore* 48, no. 189 (July–September 1935), 282: "The plot, using the term in its widest sense to include motivation, incidents and succession of incidents, has been maintained with remarkable consistency throughout its wide distribution and … is thoroughly integrated with cultural forms."
14. Hultkrantz, *The North American Indian Orpheus Tradition*.
15. Cited in ibid., 201.
16. Robert A. F. Thurman (trans.), *The Tibetan Book of the Dead* (Thorsons/HarperCollins, 1995), 80.
17. Ibid.
18. Ibid., for example, chapter 2: "The Tibetan Science of Death."
19. Thor Conway, "The Conjurer's Lodge: Celestial Narratives from Algonkian Shamans," in *Earth & Sky: Visions of the Cosmos in Native American Folklore,* Ray A. Williamson and Claire R. Farrer (eds.) (University of New Mexico Press, 1992), 243 and 246.
20. W. M. Napier, "Comets, Catastrophes and Earth's History," *Journal of Cosmology* 2 (2009), 344–355.
21. W. M. Napier, "Palaeolithic Extinctions and the Taurid Complex," *Monthly Notices of the Royal Astronomical Society* 405 (March 2010), 1901–1902 (for dimensions), and

1906 for entry into inner solar system.

22. Ibid., 1902, 1906. Comet fragmentation was witnessed in action in 1994 when Comet Shoemaker-Levy 9 broke up into twenty-one fragments, all of which then separately hit Jupiter.

23. Ibid., 1901.

24. Victor Clube and Bill Napier, *The Cosmic Winter* (Wiley, 1990), 153.

25. P. Spurný et al., "Discovery of a New Branch of the Taurid Meteoroid Stream as a Real Source of Potentially Hazardous Bodies," *Astronomy and Astrophysics* 605 (September 2017).

26. According to Professor Emilio Spedicato of the University of Bergamo, "Tentative orbital parameters which could lead to its observation are estimated. It is predicted that in the near future (around the year 2030) the earth will cross again that part of the torus that contains the fragments, an encounter that in the past has dramatically affected mankind." See G. Hancock, *Magicians of the Gods: The Forgotten Wisdom of Earth's Lost Civilization* (2015), chapter 19, and Emilio Spedicato, *Apollo Objects, Atlantis and Other Tales* (Università degli studi di Bergamo, 1997), 12–13.

27. Paul D. Kramer, Deputy Assistant Secretary of the Army to The Honourable Raul Grijalva, "Dakota Access Pipeline Notification," (February 7, 2017). Available here https://www.documentcloud.org/documents/3456295-Dakota-Access-Pipeline-Notification-Grijalva.html.

28. ICT Staff, "Oil Flowing Through DAPL," (Indian Country Today, June 1, 2017), https://indiancountrymedianetwork.com/news/environment/oil-flowing-dakota-access-

dapl/.

29. Sam Levin, "Dakota Access Pipeline Has First Leak Before It's Fully Operational," (*Guardian,* May 10, 2017), https://www.theguardian.com/us-news/2017/may/10/dakota-access-pipeline-first-oil-leak.

30. See "Order Reconditions" (Civil Action No. 16-1534 (JEB) (and Consolidated Case Nos. 16-1769 and 16-267)) available via EarthJustice https://earthjustice.org/sites/default/files/files/Order-re-conditions.pdf and EarthJustice, "Citing Recent Keystone Spill, Federal Court Orders Additional Measures to Reduce Spill Risks From Dakota Access Pipeline" (December 4, 2017), https://earthjustice.org/news/press/2017/citing-recent-keystone-spill-federal-court-orders-additional-measures-to-reduce-spill-risks-from-dakota-access and EarthJustice, "The Standing Rock Sioux Tribe's Litigation on the Dakota Access Pipeline, 'Updates and Frequently Asked Questions,'" https://earthjustice.org/features/faq-standing-rock-litigation.

31. Associated Press, "Standing Rock Activist Accused of Firing at Police Gets Nearly Five Years in Prison" (*Guardian,* July 12, 2018).

APPENDIX 1

1. Thomas A. Gregor and Donald Tuzin (eds.), *Gender in Amazonia and Melanesia: An Exploration of the Comparative Method* (University of California Press, 2001), 1.

2. Key papers that constitute the Paleoamerican hypothesis are (in order of publication):

C. L. Brace et al., "Old World Sources of the First New World Human Inhabitants: A Comparative Craniofacial View," *Proceedings of the National Academy of Sciences* 98, no. 17 (2001), 10017–10022; W. A. Neves and M. Hubbe, "Cranial Morphology of Early Americans from Lagoa Santa, Brazil: Implications for the Settlement of the New World." *Proceedings of the National Academy of Sciences* 102, no. 51 (2005), 18309–18314; R. González-José et al., "The Peopling of America: Craniofacial Shape Variation on a Continental Scale and Its Interpretation from an Interdisciplinary View," *American Journal of Physical Anthropology: The Official Publication of the American Association of Physical Anthropologists* 137, no. 2 (2008), 175–187; M. Hubbe, W. A. Neves, and K. Harvati, "Testing Evolutionary and Dispersion Scenarios for the Settlement of the New World," *PLoS One* 5, no. 6 (2010), e11105; D. L. Jenkins et al., "Clovis-Age Western Stemmed Projectile Points and Human Coprolites at the Paisley Caves," *Science* 337, no. 6091 (2012), 223–228; K. E. Graf, C. V. Ketron, and M. R. Waters (eds.), *Paleoamerican Odyssey* (Texas A&M University Press, 2014), 397–412; J. C. Chatters et al., "Late Pleistocene Human Skeleton and mtDNA Link Paleoamericans and Modern Native Americans," *Science* 344, no. 6185 (2014), 750–754.

3. Maanasa Raghavan et al., "Genomic Evidence for the Pleistocene and Recent Population History of Native Americans," *Science* 349.6250 (2015), aab3884.
4. Ibid.
5. S. Ivan Perez et al., "Discrepancy Between Canial and DNA Data of Early Americans: Implications for American Peopling," *PLoS One* (May 29, 2009), 1, http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0005746.

6. Germán Manríquez et al., “Morphometric and mtDNA Analyses of Archaic Skeletal Remains from Southwestern South America,” *Chungara: Revista de Antropología Chilena* 43, no. 2 (2011), 283.
7. Pontus Skoglund et al., “Genetic Evidence for Two Founding Populations of the Americas,” *Nature* 525, no. 3 (September 2015), 107.
8. Ibid.
9. See, for example, Neves and Hubbe, “Cranial Morphology of Early Americans from Lagoa Santa, Brazil.” Though not substantially in dispute, there are dissenting opinions. For a recent example, see Raghavan et al., “Genomic Evidence for the Pleistocene and Recent Population History of Native Americans,” aab3884–7.
10. See Neves and Hubbe, “Cranial Morphology of Early Americans from Lagoa Santa, Brazil,” 18309.
11. Ibid.
12. Ibid.
13. Ibid., 18313–18314.
14. Ibid., 18309.
15. Skoglund et al., “Genetic Evidence for Two Founding Populations of the Americas.”
16. Raghavan et al., “Genomic Evidence for the Pleistocene and Recent Population History of Native Americans.”
17. In an online discussion with Lev Michael, assistant professor in the Linguistics department at the University of California, Berkeley, and an expert on Amazonian languages who cites this comment by Dziebel in his “Evaluating the Linguistic Evidence

for an Out of America Hypothesis," online here: https://anthroling.wordpress.com/2008/06/11/evaluating-the-linguistic-evidence-for-an-out-of-america-hypothesis/.

18. Austin Whittall, "Language Diversity and the Peopling of America," October 18, 2015, http://patagoniamonsters.blogspot.co.uk/2015/10/language-diversity-and-peopling-of.html.

19. Ibid.

20. See "Papua New Guinea:" https://www.ethnologue.com/statistics/country.

21. Whittall, "Language Diversity and the Peopling of America."

22. Which he sources from Joanna Nichols, "Mobility and Ancient Society in Asia and the Americas," pp. 117–126, chapter titled "How America Was Colonised: Linguistic Evidence," https://link.springer.com/chapter/10.1007/978-3-319-15138-0_9.

23. Whittall, "Language Diversity and the Peopling of America."

24. Table from "Indigenous Languages of South America," http://aboutworldlanguages.com/indigenous-languages-of-south-america.

25. See A. I. Aikhenvald and A. Y. Aikhenvald, *Languages of the Amazon* (Oxford University Press, 2012), 1: "Lowland Amazonia boasts over 350 languages grouped into some fifteen language families, plus a fair number of isolates."

26. Ibid. "The linguistic diversity of the Amazon is remarkable in every respect. Its only rival is that of the New Guinea area."

27. Gregor and Tuzin, *Gender in Amazonia and Melanesia,* 1.

28. Ibid.

29. "Amazonia and Melanesia: Gender and Anthropological Comparison," details here: http://www.wennergren.org/history/amazonia-and-melanesia-gender-and-anthropological-comparison.
30. Gregor and Tuzin, *Gender in Amazonia and Melanesia,* 52–53.
31. Ibid., 302.
32. Ibid., 304.
33. Ibid., 147–149.
34. Ibid., 310.
35. Ibid., 38.
36. Ibid., 1, 309, 320–321.
37. Ibid., 315.
38. Ibid., 318.
39. Ibid., 310.
40. Ibid., 13–14: "Typically men's organisations are associated with meeting grounds, or men's houses, where men conduct secret initiations and feasts. The cults address similar spirit entities, conceal similar secret paraphernalia and sound-producing instruments and punish female intruders with gang rape or death. Taken together the pattern of spatial separation, initiations and punishment of female intruders constitutes a 'complex,' or adherence of traits, that is found widely throughout Melanesia, and in at least four major and distantly separated culture regions in lowland South America."
41. Ibid., 14.
42. Ibid., 330.

43. Ibid., 331–332.
44. Ibid., 1.

APPENDIX 2

1. Robert H. Fuson, *Legendary Islands of the Ocean Sea* 11 (Pineapple Press, Florida, 1995), in particular pp. 185–120. Fuson makes the case also that the island named Antilia, placed to the south of "Satanaze" on the Pizzagano Chart, is Taiwan. I review the whole matter in detail in *Underworld: The Mysterious Origins of Civilization* (2002), 626–639.
2. Graham Hancock, *Underworld,* 631.
3. Ibid., 22–23. All calculations of ancient sea levels in *Underworld* were the work of Dr. Glenn Milne, then of Durham University, a world expert in the subject.
4. Ibid., 500–502.
5. Graham Hancock, *Fingerprints of the Gods,* (Crown, 1995), 4–9.
6. Ibid., 3–25.
7. Ibid., 3–13.

APPENDIX 3

1. P. A. Colinvaux et al., “Amazonian and Neotropical Plant Communities on Glacial Time-Scales: The Failure of the Aridity and Refuge Hypotheses,” *Quaternary Science Reviews* 19 (January 2000), 141.
2. Katherine J. Willis and Robert J. Whittaker, “The Refugial Debate,” *Science* (February 25, 2000), 1406–1407.
3. P. A. Colinvaux and P. E. de Oliveira, “Amazon Plant Diversity and Climate Through the Cenozoic,” *Palaeogeography, Palaeoclimatology, Palaeoecology* 166 (February 2001), 57, 60.
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6. Carlos D’Apolito et al., “The Hill of Six Lakes Revisited: New Data and Re-Evaluation of a Key Pleistocene Amazon Site,” *Quaternary Science Reviews* 76 (September 2013), 153–154.
7. Ibid.
8. John Francis Carson et al., “Environmental Impact of Geometric Earthwork Construction in Pre-Columbian Amazonia,” *Proceedings of the National Academy of Sciences* 22 (July 2014), 10497.
9. D. Fontes, R. C. Cordeiro, et al., “Paleoenvironmental Dynamics in South Amazonia, Brazil, During the Last 35,000 Years Inferred from Pollen and Geochemical Records of

Lago do Saci," *Quaternary Science Reviews* 173 (October 1, 2017), 177.

10. M. Goulding, R. B. Barthem, and R. Duenas, *The Smithsonian Atlas of the Amazon* (Smithsonian Books, 2003), 19. "Approximately 85 per cent of the South American rainforest … is found in the Amazon Basin."

11. All figures are taken from the World Bank, "Land Area (sq. km.)," https://data.worldbank.org/indicator/ag.lnd.totl.k2?name_desc=false, apart from Europe, taken from S. Adams, A. Ganeri, and A. Kay, *Geography of the World: The Essential Family Guide to Geography and Culture* (DK, 2006), 78.

12. Email from Graham Hancock to Professor Renato Cordeiro dated March 12, 2018.

13. Professor Cordeiro's kind reply (email of March 14, 2018) contained some technical terms that I feel I need to translate here before getting to the meat of what he said:

- **Quaternary**—the reference is to our current era, roughly from 2.5 million years ago until the present.
- **Edaphic characteristics**—the reference is to the role of factors such as water content, acidity, aeration, and the availability of nutrients, that is, factors inherent in the soil itself rather than consequent upon climate.
- **Campinaranas**—these are neotropical ecoregions in the Brazilian Amazon.
- **Caatingas**—another kind of ecoregion of the Brazilian Amazon, in this case characterized by desert vegetation.
- **Pollinic**—the reference is to all matters relating to, containing, or derived from pollen.

"In order to understand the vegetation fluctuations during the quaternary," Professor Cordeiro told me, "one must try to understand some of the current distribution of

vegetation. Basically in the Amazon we have evergreen forests, deciduous forests, tree savanna, shrub savanna, open savanna and fields. In some regions vegetation is influenced by edaphic characteristics such as the *campinaranas* and *caatingas* of the Rio Negro where vast areas covered by quartz sands, with low nutrients and low water retention, limit the occurrence of vegetation with large biomass. Along the rivers are the gallery forests which, probably have been relatively well preserved during drier climatic periods. *Varzea* forests (floodplain forest) are still distributed along flood areas and inundated forests (regionally called *igapó*) that occur inside the river bed until 6 meters depth. This vegetation type mosaic produces variable amounts of pollens and therefore different responses in the sedimentary records as a function of the depositional environment (lakes near the Rios channel, e.g., Lago Saci, Lago La Gaiba; lakes far from the dynamics of rivers e.g. Carajás Lakes, Lagoa da Pata; marine deposits). As an example of this complexity of interpretations it is possible to mention that marine records have a pollinic signal very influenced by galleries forests and floodplain forests that would have been preserved during drier climatic periods. The Saci lake, because it is relatively close to the São Benedito II River, probably had a vegetation with higher biomass in relation to sites outside of the river influence. Therefore, due to this complexity between the generation of the different types of pollens of different vegetation types in relation to the depositional environment, many interpretations do not accurately depict the regional vegetation physiognomy."

14. For example, see M. B. Bush et al., "Paleotemperature Estimates for the Lowland Americas between 30 Degrees South and 30 Degrees North at the Last Glacial Maximum," chapter 17 in *Interhemispheric Climate Linkages,* ed. Vera Markgraf

(Academic Press, 2001), 303. See also Bush et al., “Amazonian Paleoecological Histories,” 360.

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ABOVE: Only from the sky does the entire form of the great Manitou of Serpent Mound become visible. BELOW: The Serpent's head appears to seek out the setting sun, but only on the summer solstice. PHOTOS: SANTHA FAIIA.

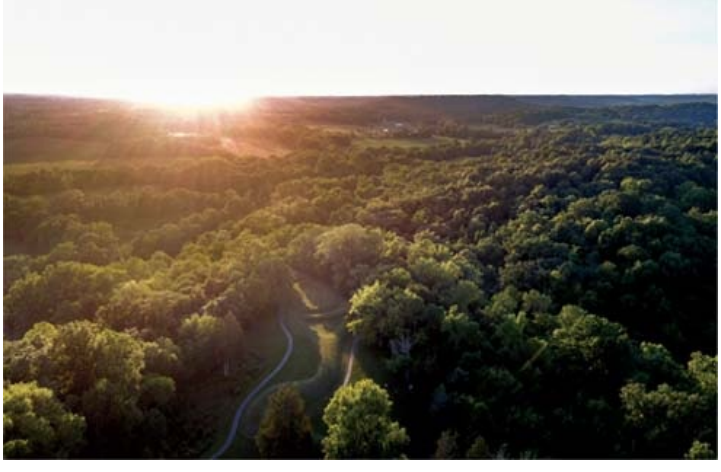

A marriage of earth and sky: progress of the summer solstice sunset over Serpent Mound. PHOTOS: SANTHA FAIIA.

Winter solstice sunrise as viewed through the kilometer-long axis of the Temple of Karnak, Upper Egypt. PHOTO: SANTHA FAIIA.

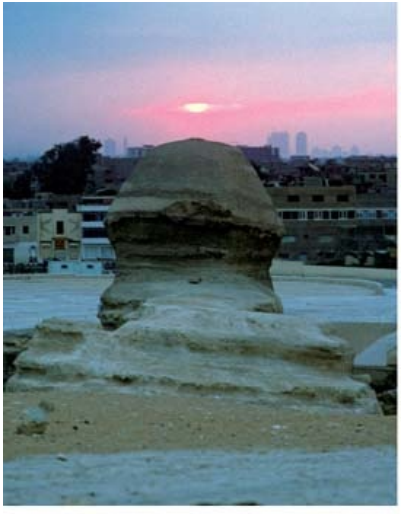

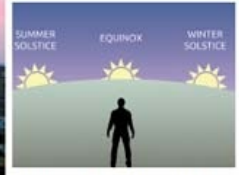

The Great Sphinx of Egypt is an equinoctial marker. At the summer solstice the sun rises far to the north of east and at the winter solstice far to the south of east, but on the equinox the sun rises due east in direct alignment with the gaze of the Sphinx. PHOTO: SANTHA FAIIA.

The temple of Angkor Wat, Cambodia, is perfectly aligned to the cardinal directions so that the rising sun on the equinox sits momentarily at the pinnacle of the central tower, lighting up the whole enchanted structure like a fairy-tale kingdom. PHOTO: SANTHA FAIIA.

ABOVE: Entrance to Denisova Cave, Siberia, where the prehistory of our species is being rewritten. BELOW: View out of the main entrance of Denisova Cave, downslope to the Anui River. PHOTOS: SANTHA FAIIA.

ABOVE: Excavation trench, central gallery, Denisova Cave. BELOW: Although it seems to have served as a workshop where very special objects were made, the arches and the natural clerestory window of Denisova Cave give it a cathedral-like feel. PHOTOS: SANTHA FAIIA.

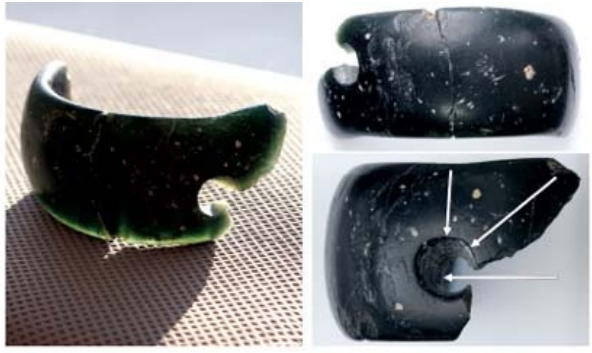

These fragments of a chloritolite bracelet, and the way that it seems designed to catch and transform light, suggest a far higher degree of artistic sophistication among the "anatomically primitive" Denisovans than among anatomically modern humans of the same period. The drill marks—indicated by superimposed arrows—bear witness to a level of technology in the depths of the Ice Age that was thousands of years ahead of its time. PHOTOS: INSTITUTE OF ARCHAEOLOGY AND ETHNOGRAPHY, SIBERIAN BRANCH, RUSSIAN ACADEMY OF SCIENCES.

Graham Hancock with Tom Deméré (left), chief palaeontologist at the San Diego Natural History Museum. The evidence that Deméré and his colleagues have excavated from the Cerutti Mastodon Site, including a single tusk set purposefully upright in the ground as a marker (right), indicates that humans were present in North America 130,000 years ago—ten times as long as had previously been supposed. PHOTOS: SANTHA FAIIA.

In the archives of the San Diego Natural History Museum examining the evidence for a human presence in the Americas 130,000 years ago. PHOTO: SANTHA FAIIA.

At Topper, South Carolina, with archaeologist Al Goodyear (left) who kept on digging below the Clovis level and found evidence of pre-Clovis humans going back 50,000 years. PHOTO: SANTHA FAIIA.

Together with the monkey and spider figures (see chapter 15), the hummingbird is another of the geoglyphs of the Nazca plateau that represents Amazonian species. PHOTO: SANTHA FAIIA.

The geometric theme of Nazca is expressed not only in pure geometrical figures (lower left and right) but also in effigies such as the "Condor" (top). PHOTOS: SANTHA FAIIA.

The English megalithic sites of Stonehenge (above) and Avebury (below) combining sacred geometry, earthworks, and stone circles. PHOTOS: SANTHA FAIIA.

ABOVE: The Great Pyramid of Egypt with the Pyramid of Khafra to its left, both perfectly oriented to the cardinal directions. PHOTO: SANTHA FAIIA.
BELOW: The Amazonian earthwork site of Fazenda Parana with its principal square also perfectly oriented to the cardinal directions. PHOTO: MARTTI PÄRSSINEN.

ABOVE: Fazenda Atlantica. The principal geoglyph forms a square measuring 250 meters along each side and is oriented northwest to southeast—an alignment that makes it a candidate for alignment to the setting sun on the June solstice and the rising sun on the December solstice. As yet no archaeoastronomical survey has been carried out on the Amazonian geoglyphs. BELOW: The Amazonian geoglyphs frequently combine two or more geometrical forms. Here, at Fazenda Cipoal, a square inscribed within an octagon with rounded corners. PHOTOS: MARTTI PÄRSSINEN.

ABOVE: The colossal Amazonian geoglyph of Tequinho once extended over an area of 15 hectares (37 acres). What remains today are its two principal squares, the larger measuring 210-by-210 meters (with two further squares inter-nested within it) and the smaller, which has suffered extensive damage, measuring 130-by-130 meters and enclosing one further square. Defining the ruling northwest axis of the site, the main entrance to the larger square is 40 meters wide and opens onto a causeway 1.5 kilometers long. BELOW: The principal geoglyph of Jacó Sá earthwork complex, here seen in context, intriguingly "squares the circle," as discussed in chapter 15. PHOTOS: MARTTI PÄRSSINEN.

ABOVE: As well as its spectacular geometrical earthworks, the Amazon is home to an unknown number of megalithic sites, such as the great stone circle of Rego Grande, shown here and discussed in chapter 16. PHOTO: MARIANA CABRAL. BELOW: Paired circle geoglyph at Ramal do Capatará, western Amazon. PHOTO: RICARDO AZOURY/PULSAR IMAGENS.

The complex arrangement of geoglyphs at Fazenda Colorada includes a large open square that may have been connected to ancient Amazonian beliefs about the mystery of death and the afterlife journey of the soul. See discussion in chapter 17.
PHOTO: MARTTI PÄRSSINEN.

ABOVE: Woodhenge, Cahokia. Alignment of the center post and equinox-marker post to the equinox sunrise over the southern face of Monks Mound. PHOTO: WILLIAM ISEMINGER. BELOW: Woodhenge overview. A modern reconstruction of an ancient astronomical device. PHOTO: SANTHA FAIIA.

ABOVE: Monks Mound, Cahokia, from the air. PHOTO: WILLIAM ISEMINGER.
BELOW: Monks Mound, that "stupendous pile of earth," the third largest pyramid in the Americas after the Pyramid of Quetzalcoatl at Cholula and the Pyramid of the Sun at Teotihuacan. PHOTO: SANTHA FAIIA.

ABOVE: Artist's impression, by William Iseminger, of Cahokia in its prime. BELOW: "Bird Mound," also known as "Mound A," Poverty Point—the second largest earthwork mound in North America after Monks Mound. PHOTO: SANTHA FAIIA.

Moundville, Alabama: Mound A viewed from Mound B, with three of the mounds of the outer ellipse also visible. PHOTO: SANTHA FAHA.

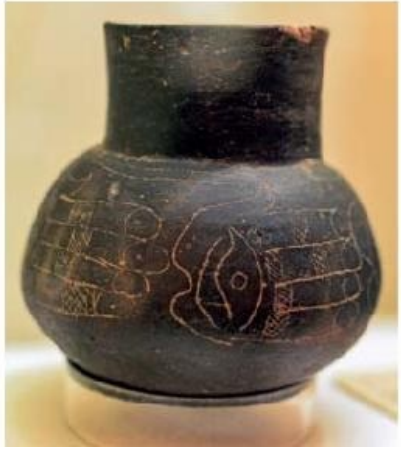

The hand-and-eye symbol is everywhere at Moundville—here on pottery. PHOTO: SANTHA FAHA.

Moundville's "Rattlesnake Disk," a powerful representation of the hand-and-eye symbol. The hand is the Mississippian depiction of the constellation of Orion, and the "eye" represents a portal in the sky, identified with the Orion Nebula, through which it was believed that the souls of the dead must travel on their afterlife journey. See discussion in chapters 22 and 23. PHOTO: COURTESY OF THE UNIVERSITY OF ALABAMA MUSEUMS, TUSCALOOSA, ALABAMA.

Utterances from the ancient Egyptian Pyramid Texts in the tomb chamber of the Pyramid of Unas (5th Dynasty) at Saqqara in Upper Egypt. The progenitor of the more famous Book of the Dead, the Pyramid Texts seek to prepare the deceased for an afterlife journey that is eerily similar to the afterlife journey envisaged by the ancient Mississippians. PHOTO: SANTHA FAIIA

The god Osiris, seated. In the ancient Egyptian system of religion Osiris was identified with the constellation of Orion. As in the case of the hand-and-eye symbol of the Mississippians, the constellation of Orion was seen as a portal to the afterlife journey.
PHOTO: SANTHA FAIIA.

In the ancient Egyptian system, Amit, the "Eater of the Dead," with his slavering jaws, served as the agency of permanent annihilation for those souls not justified in the judgment.
PHOTO: SANTHA FAIIA.

In the Mississippian system the Underwater Panther, with his slavering jaws, served an identical purpose.
PHOTO: SANTHA FAIIA.

FACING PAGE: The weighing of the soul against the feather of Truth in the ancient Egyptian judgment scene. Both the ancient Egyptians and the ancient Mississippians believed that the soul must face judgment after death.
PHOTO: SANTHA FAIIA.

The Temple of Horus at Edfu preserves ancient archives, the "Edfu Building Texts," that tell the story of a great and godlike civilization, destroyed in a global cataclysm in remote prehistory. Though Egyptologists are unwilling to make the connection, the destroyed "Island of the Gods," the "Homeland of the Primeval Ones" spoken of in the Edfu Building Texts, shares many common elements with Plato's story of Atlantis—which was said to be derived from an ancient Egyptian source. PHOTO: SANTHA FAIIA.

The Edfu Building Texts report that there were survivors of the cataclysm that destroyed the "Homeland of the Primeval" ones. We are told that these survivors set about "wandering" the world in the desperate hope that their high civilization could be restarted, or that at least something of its knowledge, wisdom, and spiritual ideas could be passed on so that mankind in the post-cataclysmic world would not be compelled (Plato's words concerning the aftermath to the fall of Atlantis) to "begin again like children, in complete ignorance of what happened in early times." PHOTOS: SANTHA FAIIA.

ABOVE: Graham Hancock with geophysicist Allen West of the Comet Research Group examining the black-mat deposit at Murray Springs, Arizona. Packed with impact proxies such as melt glass, carbon spherules, and nanodiamonds, the black mat is the global signature of the giant series of impacts by the fragments of a disintegrating comet that sparked a global cataclysm 12,800 years ago. The scale of the event was so immense that it interrupted human history and wiped from the record almost all traces of an advanced civilization of the Ice Age. However, some hints and clues as to the nature of that civilization remain. BELOW: Take the case of the massive beams, quarried from solid granite and weighing in the range of 70 tons each, incorporated into the core of Egypt's Great Pyramid in the series of "relieving chambers" stacked on top of the "King's Chamber" more than 50 meters (164 feet) above ground level. None of the wishful scholarly claims of megaliths somehow being slid "easily" into place on wooden rollers or on lubricated sand will work at this elevation. The fact of the matter is that the hulking beams forming the floors and ceilings of the relieving chambers are where they are—and that in order to get there they had to be lifted more than 50 meters into the air. Leverage, mechanical advantage, and the simple technologies attributed to the ancient Egyptians by archaeologists are incapable of achieving such a feat. Are we confronted by the achievements of a lost science? PHOTOS: SANTHA FAIIA.

ABOVE: The Trilithon at Baalbek. The uppermost section of the wall, with the gap, is a relatively recent reconstruction. But under it sit the three ancient blocks of the Trilithon, with the contact between first and second blocks directly under the gap while the contact between the second and third blocks, farther to the left, is too tight to be visible. Each of these three blocks weighs around 900 tons—about the weight of 450 large SUVs. Again, simple technologies of leverage and mechanical advantage seem inadequate to account for the achievement of raising such immense blocks and fitting them perfectly into place. BELOW: Sacsayhuaman, Peru. These colossal megalithic walls are arranged in a series of zigzags and consist of intricately formed polygonal blocks. No two blocks among the thousands at Sacsayhuaman are the same shape and all are so tightly interlocked in all dimensions that the edge of a piece of paper cannot be slipped between the joints. Efforts by archaeologists to reconstruct how the work at Sacsayhuaman was done have proved ludicrous because the only reference frame deemed acceptable, involving leverage and mechanical advantage, is unable to account for many of the more complex anomalies. PHOTOS: SANTHA FAIIA.

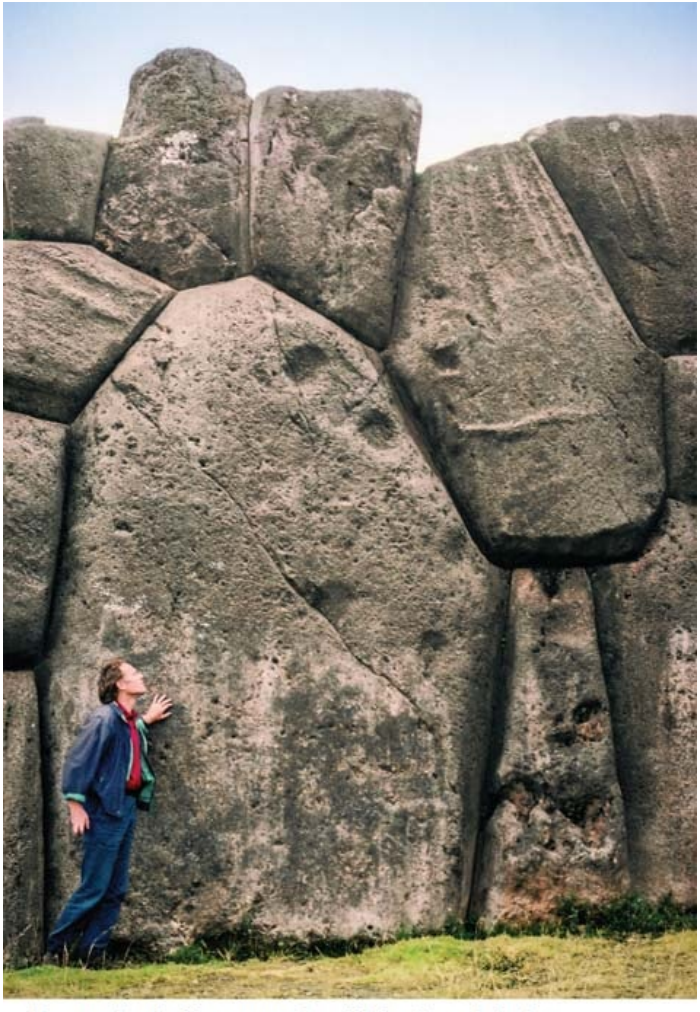

The estimated weight of this enormous polygonal block is 360 tons. Archaeologists attribute the construction of Sacsayhuaman to the Incas but there are no records of the Incas moving such immense weights successfully and according to one account disaster followed when they attempted to do so. PHOTO: SANTHA FAIIA.

ABOVE: Sacsayhuaman: detail of block jointing, with indications that the stone had been softened like putty before being put into place. Traditions speak of meditating sages, the use of certain plants, the focused attention of initiates, miraculously speedy workmanship, and special kinds of chanting or tones played on musical instruments in connection with the lifting, placing, softening, and moulding of megaliths all around the world. Confronted by the global distribution of such narratives, and by the stark reality of the sites themselves, we're obliged to ask if we're dealing with the reverberations of an ancient technology we don't understand, operating on principles that are utterly unknown to us. BELOW: The almost unbelievable Kailasa Temple, hewn in a single piece out of solid basalt at Ellora in the Indian state of Maharashtra. Traditions speak of magic used in its construction but, as has been said, "any sufficiently advanced technology is indistinguishable from magic." PHOTOS: SANTHA FAIIA.

ABOVE: With its stone walls, enclosures, and crumbling earthen pyramid, the ancient megalithic site of Tiahuanaco in the high Andes echoes the austere geometries of the earthworks now emerging from the Amazon jungle. BELOW: Teotihuacan, Mexico, "the place where men became gods." With its principal pyramids of the Moon (foreground) and the Sun (mid left) arranged along the immense axis of the "Way of the Dead," the site is rich in geometry and cosmic alignments. PHOTOS: SANTHA FAIIA.

Uncelebrated, and frequently defaced by modern graffiti, large numbers of anomalous megalithic structures await proper study in the forests of New England. Without good evidence archaeologists seek to attribute all of them to the colonial period of the last few centuries, and to deny that Native Americans were involved in their construction. PHOTOS: SANTHA FAIIA.

The megalithic character of the New England structures (above and overleaf) and the fact that their entrances are frequently oriented to solstitial sunrise points (below) argues for their great antiquity and refutes the "colonial root cellar" fantasy of archaeologists. PHOTOS: SANTHA FAIIA.

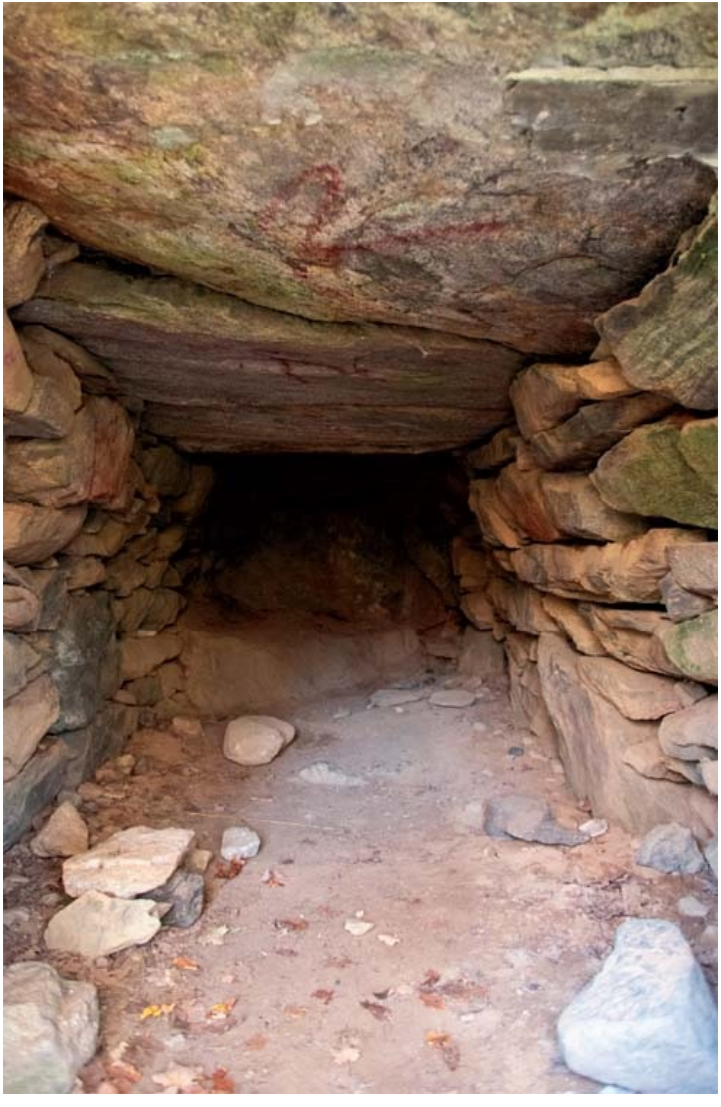

Graham Hancock
Die Wächter des heiligen Siegels

Graham Hancock

DIE WÄCHTER DES HEILIGEN SIEGELS

Auf der Suche nach der verschollenen Bundeslade

Aus dem Englischen von
Gertrud Lehnert, Matthias Vogel und Frank Witzel

marixverlag

Digitalisiert für Unglaublichkeiten.com /.info /.org
im Wonnemond (Mai) 2006

Genehmigte Lizenzausgabe für Marix Verlag GmbH, Wiesbaden 2004
Nach der 3. Auflage von 1998
Copyright © by Graham Hancock 1992
Copyright © für die deutschsprachige Ausgabe by
Verlagsgruppe Lübbe GmbH & Co.KG, Bergisch Gladbach 1992
Covergestaltung: Thomas Jarzina, Köln
Titelmotiv: AKG, Berlin
Gesamtherstellung: GGP Media GmbH, Pößneck
Printed in Germany

ISBN: 3-937715-22-3
www.marixverlag.de

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TEIL I: DIE LEGENDE

Kapitel 1

Die ersten Weihen

Als der Mönch erschien, begann es dunkel zu werden, und die kühle Luft des äthiopischen Hochlandes ließ mich frösteln. Vornübergebeugt auf einen Gebetsstab schlurfte er mir aus der Kapelle des Heiligtums entgegen und hörte aufmerksam zu, als ich ihm vorgestellt wurde. In Tigre, der Sprache dieser Region, forderte er durch meinen Übersetzer Aufklärung über meine Herkunft und meine Absichten: aus welchem Land ich kam, was ich vorhatte, ob ich Christ war, was ich von ihm wollte.

Jede dieser Fragen beantwortete ich genau und versuchte dabei, in der Dämmerung die Gesichtszüge meines Inquisitors auszumachen. Seine Augen waren von milchigen Schleiern getrübt, tiefe Furchen durchzogen seine dunkle Haut. Er war bärtig, wahrscheinlich zahnlos - und obgleich seine Stimme tief und wohltönend war, so klang sie gleichzeitig merkwürdig undeutlich. Sicher war ich mir nur, daß er ein alter Mann war, wahrscheinlich so alt wie das Jahrhundert, daß er bei Verstand war und mir nicht aus müßiger Neugier Fragen stellte. Erst als er genug erfahren hatte, kam er die Stufen herunter, um mir die Hand zu schütteln. Sein Händedruck war trocken und rauh wie Papyrus, und seiner dicken Kutte entströmte schwach, aber unverkennbar der heilige Duft von Weihrauch.

Nach diesen Formalitäten kam ich auf mein Anliegen zu sprechen. Ich deutete in Richtung des Gebäudes, dessen Umrisse sich undeutlich hinter uns abzeichneten, und sagte: »Ich habe von einer äthiopischen Überlieferung gehört, nach der die Bundeslade hier aufbewahrt wird, hier in dieser Kapelle. Man hat mir auch gesagt, daß Sie der Wächter der Lade sind. Ist das wahr?«

»Das ist wahr.«

»Aber in anderen Ländern glaubt niemand an diese Dinge.

Überhaupt kennen nur wenige die Legenden, und die Menschen, die davon wissen, sagen, sie seien falsch.«

»Die Menschen mögen glauben, was sie wollen. Sie mögen sagen, was sie wollen. Und dennoch, wir sind im Besitz des Heiligen Schreins, welcher die Bundeslade ist, und ich bin der Wächter...«

»Das möchte ich gerne genauer wissen«, hakte ich ein, »beziehen Sie sich auf die ursprüngliche Bundeslade, auf die aus Holz und Gold gefertigte Kassette, in der der Prophet Moses die Zehn Gebote aufbewahrte?«

»Ja. Gott selbst schrieb die zehn Worte des Heiligen Gesetzes auf die zwei Steintafeln. Moses legte diese Tafeln in die Bundeslade, die die Israeliten auf ihrer Wanderung durch die Wildnis bis in das Gelobte Land mit sich führten. Sie brachte ihnen den Sieg, wohin auch immer sie kamen, und machte sie zu einem mächtigen Volk. Als die Bundeslade ihre große Aufgabe erfüllt hatte, wurde sie von König Salomo in den Tempel gebracht, den er in Jerusalem hatte erbauen lassen. Wenig später verschwand sie aus dem Allerheiligsten und wurde nach Äthiopien gebracht ...«

»Erzählen Sie mir, wie das geschah«, bat ich, »ich weiß nur, daß man die Königin von Saba für eine äthiopische Monarchin hält. Die Legenden, die ich studiert habe, berichten von der Reise der Königin nach Jerusalem, wo sie von König Salomo ein Kind empfing und ihm einen Sohn gebar, einen königlichen Prinzen, der viele Jahre später die Bundeslade stahl ...«

Der Mönch seufzte. »Der Name des Prinzen, von dem Sie sprechen, war Menelik - und in unserer Sprache bedeutet das >der Sohn des weisen Mannes<. Obgleich in Jerusalem gezeugt, geboren wurde er in Äthiopien, wohin die Königin von Saba zurückgekehrt war, als sie König Salomos Kind unter dem Herzen trug. In seinem zwanzigsten Lebensjahr reiste Menelik von Äthiopien nach Israel und kam an den Hof seines Vaters. Man erkannte ihn dort sogleich an und zollte ihm große Ehre. Doch als ein Jahr vergangen war, regte sich bei den Ältesten des Landes Mißgunst. Sie beklagten, daß Salomo ihm zuviel Gunst erweise, und bestanden darauf, daß er nach Äthiopien zurück-

gehen müsse. Dies akzeptierte der König - unter der Bedingung, daß alle erstgeborenen Söhne der Ältesten ihn begleiten sollten. Dazu zählte Azarius, Sohn des Hohenpriesters von Israel - und nicht Menelik war es, sondern jener Azarius, der die Bundeslade von ihrem Platz im Allerheiligsten des Tempels stahl. Erst als sie weit von Jerusalem entfernt waren, offenbarten die jungen Männer Menelik die Tat. Als sie ihm alles erzählt hatten, erkannte der junge König sogleich, daß ein solch kühnes Wagnis ohne Gottes Duldung nie hätte Erfolg haben können. Und so entschied er, daß die Lade bei ihnen bleiben sollte. So geschah es, daß sie nach Äthiopien gebracht wurde, in diese heilige Stadt ..., und hier wird sie seither aufbewahrt.«

»Und Sie sagen, daß diese Legende der Wahrheit entspricht?«

»Es ist keine Legende. Es ist Geschichte.«

»Wie können Sie so sicher sein?«

»Weil ich der Wächter bin. Ich kenne das Wesen des Gegenstandes, den man in meine Obhut gegeben hat.«

Für einige Augenblicke verharrten wir in Schweigen, und ich versuchte, hinter die kühlen und überlegten Worte zu dringen, mit denen der Mönch diese phantastischen und unglaublichen Dinge ausgesprochen hatte. Dann fragte ich, wie und warum man ihn an diesen Ort berufen hatte. »Es ist eine große Ehre, für diese Aufgabe ausgewählt zu werden«, erzählte er. »Mit den letzten Worten meines Vorgängers wurde ich in das heilige Amt eingesetzt. Und einst, wenn ich selbst auf dem Totenbett liege, werde ich meinen Nachfolger bestimmen.«

»Welche Eigenschaften werden Sie bei diesem Mann suchen?«

»Die Liebe zu Gott, die Reinheit im Herzen, die Stärke des Körpers und des Geistes.«

»Ist es irgend jemandem außer Ihnen gestattet«, fuhr ich fort, »die Lade zu sehen?«

»Nein. Ich allein darf sie sehen.«

»Bedeutet das, sie wird nie aus dem Heiligtum herausgebracht?«

Der Wächter hielt lange inne, bevor er meine Frage beantwortete. Schließlich erzählte er mir, daß die Reliquie vor langer Zeit an allen großen Kirchenfeiertagen umhergetragen worden sei. Nun aber werde sie nur noch einmal im Jahr für religiöse Prozessionen eingesetzt, zu einer Gelegenheit, die als »Timkat« bekannt sei und im Januar stattfinde.

»Wenn ich also im nächsten Januar wiederkomme, werde ich dann Gelegenheit haben, die Bundeslade zu sehen?«

Der Mönch sah mich merkwürdig beunruhigt an und sagte dann: »Sie müssen wissen, daß in diesem Land Unruhe und Bürgerkrieg herrschen ... Unsere Regierung ist schlecht, die Menschen wehren sich, und die Kämpfe rücken jeden Tag näher. Unter diesen Umständen ist es unwahrscheinlich, daß die echte Lade bei den Zeremonien eingesetzt wird. Wir können nicht riskieren, daß einem so kostbaren Gegenstand Unheil geschieht. Aber selbst in Friedenszeiten würden Sie die Lade nicht sehen können. Es ist meine Aufgabe, sie ganz in dicke Tücher einzuschlagen, bevor sie in der Prozession getragen wird.«

»Warum verbergen Sie die Lade?«

»Um die Menschen vor ihr zu schützen.«

Ich bat meinen Übersetzer, mir diese rätselhafte Bemerkung noch einmal zu erklären: hatte der Mönch wirklich gesagt: »um die Menschen vor ihr zu schützen«? Oder hatte er gemeint, man müsse sie »vor den Menschen schützen«?

Es verging einige Zeit, bis ich die Antwort bekam: »Um die Menschen vor ihr zu schützen ... Die Lade ist mächtig.«

Geheimnisse der Bibel

In alttestamentarischen Zeiten wurde die Bundeslade von den Israeliten als Verkörperung Gottes verehrt, als Symbol und Bekräftigung seiner Anwesenheit auf Erden, als Feste seiner Macht und Instrument seines unaussprechlichen Willens.[1] Die Lade, in der die Steintafeln mit den Zehn Geboten aufbewahrt wur-

den, war eine hölzerne Truhe, innen und außen mit purem Gold beschlagen, die 114 Zentimeter in der Länge und 69 Zentimeter in der Breite und in der Höhe maß.[2] Die Figuren zweier geflügelter Cherubim überragten, die Angesichter einander zugewandt, den schweren Deckel der Kassette.[3]

Biblische und andere alte Quellen sprechen davon, daß von der Lade flammendes Licht ausging, das Krebsgeschwülste und schwere Verbrennungen hervorrief, Berge dem Erdboden gleichmachte, den Lauf von Flüssen anhielt, ganze Armeen zerstörte und Städte in Schutt und Asche legte. Dieselben Quellen lassen keinen Zweifel daran, daß die Bundeslade für lange Zeit den Eckpfeiler des jüdischen Glaubens darstellte, und in der Tat: als König Salomo den ersten Tempel erbauen ließ, bestand sein einziges Motiv darin, eine »Heimstätte für die Bundeslade des Herrn« zu schaffen.[4]

Doch zwischen dem zehnten und dem sechsten Jahrhundert vor Christus verschwand dieser unvergleichlich wertvolle und mächtige Gegenstand von seinem Platz im Allerheiligsten des Tempels: sang- und klanglos, ohne Widerhall in den Schriften - fast so, als hätte die Lade niemals existiert. Das vorhandene Quellenmaterial legt nahe, daß die Kassette längst nicht mehr in Jerusalem war, als die Stadt im Jahre 587 vor Christus von den Truppen Nebukadnezars II. niedergebrannt wurde. Mit Sicherheit aber befand sie sich nicht im zweiten Tempel, der auf den Grundmauern des ersten errichtet wurde, nachdem das jüdische Volk 538 vor Christus aus dem babylonischen Exil zurückgekehrt war. Ebensowenig glaubhaft scheint es schließlich, daß die Lade den Babyloniern als Kriegsbeute in die Hände fiel.

Richard Elliott Friedman, Professor für Hebräisch und Vergleichende Religionswissenschaften an der University of California, fand die Zustimmung vieler Gelehrter, als er 1987 schrieb, das Verschwinden des heiligen Schreins sei »eines der unergründlichen Geheimnisse der Bibel«:

»Es wird nicht davon berichtet, daß die Lade weggebracht, zerstört oder versteckt worden sei. Es gibt nicht einmal einen Kommentar wie >Und dann verschwand die Lade und wir wis-

Kilometer
0
500
MITTELMEER
IRAK
IRAN
ISRAEL
Jerusalem
JORDANIEN
Kairo
Sinai
PERSISCHER GOLF
Nil
ÄGYPTEN
SAUDI-ARABIEN
ROTES MEER
Atbara
Asmara
REPUBLIK JEMEN
Khartum
Aksum
Takazze
GOLF VON ADEN
Blauer Nil
Gondar
SUDAN
DSCHIBUTI
Tana-See
Bahar Dar
Addis Abeba
Weißer Nil
ÄTHIOPIEN
SOMALIA
UGANDA
KENIA

sen nicht, was mit ihr geschah< oder >Und bis heute weiß keiner, wo sie sich befindet<. Der aus biblischer Sicht wichtigste Gegenstand der Welt hört einfach auf zu existieren.«[5]

Und tatsächlich offenbart eine intensive Lektüre des Alten Testamentes mehr als zweihundert verschiedene Verweise auf die Bundeslade - bis zur Zeit König Salomos (970-931 vor Christus] ; nach der Herrschaft dieses weisen und großartigen Königs wird sie nie wieder erwähnt.[6] Und das ist sicherlich das zentrale Problem, ein wirkliches historisches Rätsel: natürlich war es vorstellbar, daß ein unermeßlich wertvoller goldener Kasten »verloren« gehen konnte (bezieht man einmal die Schwäche der menschlichen Natur mit ein). Nein, es ist vielmehr die unglaubliche - sozusagen ohrenbetäubende - Ruhe, in der dieser Gegenstand von höchster religiöser Bedeutung verschwand. In den späteren Büchern des Alten Testamentes besteht die Existenz der Lade nur noch darin, daß sie eben nicht mehr existiert - vergleichbar vielleicht mit einem der »schwarzen Löcher« im All. Kurz, sie fällt allein durch ihr Nicht-Vorhandensein auf.

Es wurde also etwas vertuscht - so muß man annehmen -, vertuscht von Priestern und Schreibern, die sicherstellen wollten, daß der Aufenthaltsort der Reliquie für immer ein Geheimnis bleiben würde. Und wenn dies der Fall ist, dann haben viele versucht, das Rätsel zu lüften. Zu allen Zeiten haben sich Abenteurer in seinen Bann schlagen lassen und Expeditionen unternommen - die allesamt erfolglos blieben. Erst jüngst war die Bundeslade Inspiration für einen der erfolgreichsten Hollywood-Filme, für Die Jäger des verlorenen Schatzes, der 1981 mit Harrison Ford als »Indiana Jones« in der Hauptrolle gedreht wurde.

Zu dieser Zeit lebte ich in Kenia und konnte den Film erst 1983 sehen, als ich nach Nairobi kam. Mir gefiel die Kombination von Abenteuer, Action und Archäologie, und ich erinnere mich genau, daß ich überlegte, was für eine Sensation es sein müsse, wenn jemand tatsächlich die Lade finden würde. Nur wenige Monate später unternahm ich eine ausgedehnte Reise in den Nordwesten Äthiopiens, in die vom Bürgerkrieg geschüt-

telte Provinz Tigre. Hier, in Aksum - der sogenannten »heiligen Stadt der Äthiopier« -, fand die Begegnung mit dem Wächter der Bundeslade statt.

1983: Ein Land im Krieg

Am 28.Mai 1991, nach vielen Jahren heftigster Kämpfe, wurde das Regime in Addis Abeba von einer starken Koalition aus Rebellentruppen gestürzt, in der die Tigrianische Volksbefreiungsfront TPLF eine führende Rolle spielte. Als ich 1983 nach Aksum kam, war die TPLF eine relativ kleine Guerilla-Gruppe, und die heilige Stadt - wenngleich bereits belagert - noch in den Händen der Regierung. Vor mir war zuletzt ein britisches Archäologenteam hier, das aber schon 1974 von den Wirren der Revolution vertrieben wurde, die Kaiser Haile Selassie gestürzt und einen der blutigsten Diktatoren Afrikas als Staatsoberhaupt eingesetzt hatte: Oberstleutnant Mengistu Haile Mariam.

Bedauerlicherweise war der freie Zugang zu Aksum, den man mir gewährt hatte, nicht auf meine eigene Initiative zurückzuführen, sondern auf die Tatsache, daß ich für Mengistu arbeitete. 1983 erklärte ich mich bereit, ein Coffee-table-Buch über Äthiopien zu schreiben - eine geschäftliche Beziehung, die ich später bitter bereute. Das Mengistu-Regime hatte dieses Buch in Auftrag gegeben, um die - erzwungene - Einheit der im Grunde sehr vielschichtigen Kultur des Landes zu propagieren und um die Gültigkeit der alten Grenzen zu unterstreichen, deren Revision von den Rebellen so heftig gefordert wurde. Bevor ich mit der Arbeit begann, war vereinbart worden, daß die Absichten der Regierung so wenig offenkundig wie möglich in den Vordergrund treten sollten, und in meinem Vertrag stand, daß keine Einzelpersonen (einschließlich Mengistu] besonders hervorgehoben oder kritisiert werden dürften. Trotzdem gab ich mich keinen Illusionen hin, wie das Vorhaben von Seiten des Regimes eingeschätzt wurde: Kein Mensch hätte mir meine Rechnungen abgezeichnet oder mir die Erlaubnis erteilt, die historisch inter-

essanten Stellen aufzusuchen, wenn man nicht sicher gewesen wäre, daß meine Arbeit der Regierung von Nutzen sein würde.

Trotzdem erwies es sich als schwierig, nach Aksum zu kommen. Entlang der Hauptstraßen und um die heilige Stadt selbst gab es starke Aktivitäten der Rebellentruppen, was bedeutete, daß der Landweg überhaupt nicht in Frage kam. Die Stadt war nur aus der Luft zu erreichen. Zu diesem Zweck reiste ich - zusammen mit meiner Frau und Assistentin Carol und meinem Fotografen Duncan Willetts - zunächst nach Asmara, der Hauptstadt der Provinz Eritrea. Wir hofften, von dort aus mit einem Militärflugzeug über die Kampflinie nach Aksum zu gelangen.

Auf einem fruchtbaren Hochplateau über der unwirtlichen Küstenregion gelegen, ist Asmara ein sehr angenehmer Ort von ausgesprochen romanischem Charakter. Verwunderlich ist das nicht, denn die Stadt wurde 1889 von italienischen Truppen besetzt und blieb deren Militärstützpunkt bis zur Unabhängigkeit Eritreas im Jahre 1952. Wo man hinsah, die flammenden Farben der Bougainvileen, Flamboyants und Jacaranda, während die warme, sonnenerfüllte Luft den unverkennbaren Duft des Mittelmeeres mit sich brachte. Kaum zu übersehen war allerdings auch die Anwesenheit vieler sowjetischer und kubanischer »Militärberater« in Tarnanzügen, die laut schwadronierend mit ihren Kalaschnikow-Gewehren über die Boulevards zogen.

Die Ausbildung, die diese Männer den äthiopischen Soldaten zuteil werden ließen, konnte jedoch nicht besonders effektiv sein. Die Krankenhäuser von Asmara platzten vor Verwundeten aus allen Nähten, und die Regierungsbeamten, die wir trafen, konnten Pessimismus und Anspannung kaum verbergen.

Unsere Beunruhigung wuchs, als wir einige Abende später in der Bar des noblen Ambasoira-Hotels zwei sambische Piloten trafen, die zeitweilig für die äthiopische Luftlinie flogen. Eigentlich hatten sie gedacht, ein halbes Jahr lang praktische Erfahrungen im kommerziellen Luftfrachtverkehr sammeln zu können. Nun aber flogen sie verwundete Soldaten von den Fronten in Tigre und Eritrea nach Asmara. Die beiden Männer hatten zwar

versucht, von diesen Aufgaben entbunden zu werden, als sie jedoch das Kleingedruckte ihrer Verträge genauer gelesen hatten, wurde ihnen klar, zu was sie sich da verpflichtet hatten.

Nach mehreren Wochen fast ununterbrochener Einsätze mit alten, zu Truppentransportern umgebauten DC3-Maschinen, waren die Piloten verbittert, nervlich sehr angegriffen und körperlich geschwächt. Sie erzählten uns, daß sie mittlerweile beide zur Flasche greifen würden, um ihre Angst zu ertränken: »Bevor ich nicht völlig betrunken bin, ist an Schlaf gar nicht zu denken«, vertraute mir einer der Männer an, »ich werde die Bilder von den Dingen, die ich gesehen habe, nicht los.« Er erzählte von einem sechzehnjährigen Jungen, der an diesem Morgen an Bord gebracht worden war - den rechten Fuß von einer Miene weggerissen - und von einem anderen Soldaten, dessen Schädel eine Granate halb zertrümmert hatte. »Oft haben wir über vierzig Verletzte an Bord, mehr als die DC3 eigentlich verkraftet, aber wir gehen das Risiko ein, wir können die Leute ja nicht da sterben lassen.«

Drei, manchmal vier Flüge am Tag würden von ihnen verlangt, fügte der andere Pilot hinzu. In der vergangenen Woche war er zweimal in Aksum gewesen, und beide Male wurde sein Flugzeug von Maschinengewehren beschossen. »Das ist ein sehr schwieriger Flughafen - es gibt da nur eine sandige Landepiste. Auf den Hügeln ringsherum sitzt die TPLF und hat uns jedesmal genau im Visier. Die lassen sich von dem Zeichen der >Ethiopian Airways< auf dem Leitwerk nicht täuschen, die wissen, daß wir militärische Aufgaben erfüllen ...«

Die Sambier waren überglücklich, daß sie jemanden getroffen hatten, der sympathisch, weder Russe noch Kubaner war, und dem sie ihr Unglück schildern konnten. Nun fragten sie, was wir in Äthiopien wollten und schienen höchst amüsiert, als wir erwiderten, daß wir für die Regierung an einem Bildband arbeiteten. Dann erklärten wir ihnen, daß wir nach Aksum müßten.

»Warum das?« fragten sie völlig verblüfft.

»Nun, weil das alte Aksum von großer archäologischer Bedeutung ist. Dort begann das äthiopische Christentum und es

war über viele Jahrhunderte hinweg die Hauptstadt des Landes. Unser Buch sähe ohne Aksum ein bißchen dünn aus.«

»Wir könnten Sie schon mitnehmen«, schlug einer der Piloten vor.

»Sie meinen, wenn Sie das nächste Mal Verwundete abholen?«

»Nein. Das würde man kaum erlauben. Aber eine Delegation hochrangiger Offiziere wird übermorgen nach Aksum geschickt, um die Garnison dort zu inspizieren. Vielleicht können Sie da mitfliegen. Es käme auf die Fäden an, die Sie in Addis ziehen können. Versuchen Sie's doch.«

Nach Aksum

Den nächsten Tag verbrachten wir am Telefon und sprachen mit dem für unser Projekt zuständigen Minister. Die Angelegenheit stand auf des Messers Schneide, aber schließlich verschaffte er uns Plätze in dem Flugzeug, von dem unsere sambischen Freunde berichtet hatten.

Die einstündige Verspätung und den fünfunddreißig Minuten dauernden turbulenten Flug am nächsten Morgen nutzte ich lesend, um mein Hintergrundwissen zu vervollständigen - und dabei wurde mir immer klarer, wie lohnend dieser Besuch in Aksum sein würde.

Frühe historische Quellen zeichnen von Aksum das Bild eines kosmopolitischen und urbanen Zentrums. Der anonyme Autor einer griechischen Abhandlung über den Handel zum Beispiel, die nur als *Periplus des Eritreischen Meeres* bekannt ist, charakterisierte im Jahre 64 nach Christus den Herrscher von Aksum als »einen erhabenen Prinzen, der auch im Griechischen unterrichtet worden sei«[7]. Einige Jahrhunderte später beschrieb Julian, Botschafter des römischen Kaisers Justinian, Aksum in den leuchtendsten Farben als »die bedeutendste Stadt ganz Äthiopiens«. Der König, so fügte er hinzu, ging fast nackend umher und trug nur ein mit Goldstickereien verziertes leinernes

Lendentuch, das von einem mit Perlen besetzten Gürtel zusammengehalten wurde. Goldene Reife und Ketten schmückten ihn an Armen und Brust, und sein Haupt wurde von einem goldgewirkten Turban gekrönt, von dem kostbare Bänder herabhingen. Als der römische Botschafter empfangen wurde, um seine Empfehlungsschreiben vorzulegen, stand der Monarch auf einem mächtigen, mit goldenen Platten beschlagenen Triumphwagen, der von vier Elefanten gezogen wurde.[8]

Im sechsten Jahrhundert nach Christus ergänzte der vielgereiste Mönch Kosmas Indikopleustes die Beschreibungen Julians. Nach seinem Aufenthalt in der Stadt berichtete er, daß »der viertürmige Palast des Königs von Äthiopien mit ebensovielen ehernen Figuren von Einhörnern« geschmückt sei. Er erzählte von einem ausgestopften Rhinozeros und von Giraffen, die man auf Befehl des Königs gefangen und gezähmt hatte, damit sie ihm zur Unterhaltung dienten.[9]

Diese Bilder von barbarischer Pracht und Herrlichkeit paßten gut zu einer Stadt, die sich mit der Zeit zur größten Macht zwischen dem Römischen Reich und Persien entwickelt hatte - zu einer Macht, die ihre Handelsschiffe bis nach Ägypten, Indien, Ceylon und China schickte, die bereits im vierten Jahrhundert nach Christus das Christentum als Staatsreligion angenommen hatte.

Rufinus, dessen Schriften als wichtige historische Quellen gelten, überliefert die Geschichte der Christianisierung Äthiopiens. Meropius, ein christlicher Kaufmann, der von Rufinus »Philosoph von Tyrus« genannt wird, unternahm eine Reise nach Indien, auf die er zwei syrische Knaben mitnahm, die er in der Tradition des christlichen Abendlandes unterrichtete. Der ältere der beiden hieß Frumentius, der jüngere Aedesius. Auf der Rückreise durch das Rote Meer wurde ihr Schiff vor der Küste von Äthiopien in einer Vergeltungsaktion gekapert, weil die Römer ein Abkommen mit dem Volk in dieser Region gebrochen hatten.

Meropius fiel im Kampf. Die jungen Männer aber überlebten und wurden nach Aksum zu König Ella Amida gebracht. Aede-

sius wurde sein Mundschenk und Frumentius, der klügere und besonnenere von beiden, sein Sekretär und Schatzmeister. Der König behandelte die Jünglinge mit Ehrerbietung und Zuneigung. Er starb jedoch bald und ließ eine Witwe und seinen Erben, einen kleinen Sohn mit Namen Ezana, zurück. Ella Amida hatte den Syrern vor seinem Tod die Freiheit geschenkt, die Königin aber bat die jungen Männer unter Tränen, bei ihr zu bleiben, bis ihr Sohn alt genug sein würde, um die Thronfolge anzutreten. Vor allem Frumentius sollte ihr beistehen, denn Aedesius war, obgleich loyal und von gutem Herzen, einfachen Geistes.

In den folgenden Jahren wuchs der Einfluß Frumentius' im Königreich von Aksum. Er ließ im Land nach christlichen Händlern suchen und bat sie eindringlich, sie sollten »an verschiedenen Orten Andachtsstätten gründen, die sie zum Gebet aufsuchen könnten«. Er versah sie »mit allem, was sie benötigten, stellte ihnen Bauplätze für die Gebäude zur Verfügung und förderte das Christentum wo er nur konnte«.

Kurz nachdem Ezana schließlich den Thron bestiegen hatte, kehrte Aedesius nach Tyrus zurück. Frumentius aber reiste in die ägyptische Stadt Alexandria, zu dieser Zeit ein Zentrum des Christentums, wo er dem Patriarchen Athanasius von seinem Werk berichtete. Der junge Mann bat den Kirchenführer, »einen würdigen Mann als Bischof für die vielen dort schon versammelten Christen« nach Äthiopien zu schicken. Athanasius, der die Worte Frumentius' sorgfältig bedacht hatte, erklärte vor der Versammlung seiner Priester: »Können wir denn einen anderen Mann finden, dessen Geist von Gott erfüllt ist, als denjenigen, der schon so viel vollbracht hat?« Daraufhin »weihte er ihn und bat ihn im Namen Gottes dorthin zurückzukehren, von wo er gekommen war«[10].

Frumentius reiste als erster äthiopischer Bischof nach Aksum zurück. Dort setzte er seine missionarischen Anstrengungen fort, die im Jahre 331 nach Christus mit der Bekehrung des Königs selbst belohnt wurden. Münzen aus der Zeit von Ezanas Herrschaft zeigen den langsamen Übergang zum Christentum:

die älteren tragen Abbildungen des zunehmenden und des vollen Mondes, auf späteren Exemplaren ist eindeutig das Kreuz zu erkennen. Es sind dies die frühesten Münzen überhaupt, die das Symbol des Christentums tragen.

Aksum, die Hauptstadt des äthiopischen Reiches vom ersten bis fast zum zehnten Jahrhundert nach Christus, gilt also als Geburtsstätte des äthiopischen Christentums - was unser Projekt anbelangte, ergaben sich jedoch noch viel interessantere Sachverhalte. So las ich zum Beispiel, daß wir auf eine Vielzahl imposanter vorchristlicher Ruinen von großer archäologischer Bedeutung stoßen würden, auf die Überreste einiger großer Paläste und Monumente: zum Beispiel die über zweitausend Jahre alten Obelisken. Aksum mußte zu dieser Zeit in künstlerischer und architektonischer Hinsicht ein hohes Niveau entwikkelt haben, das andere Zivilisationen südlich der Sahara-Region erst sehr viel später erreichten. Und die Obelisken in ihrer technischen und künstlerischen Besonderheit waren nicht einmal die einzigen Beispiele für die besondere Rolle, die Aksum einnahm. Zu meinem Erstaunen berichteten die Handbücher, die ich bei mir hatte, von äthiopischen Legenden, denenzufolge die Bundeslade in der Kapelle einer besonders geheiligten Kirche aufbewahrt werde. Diese Legenden standen in engem Zusammenhang mit dem Anspruch Äthiopiens, das Reich der biblischen Königin von Saba gewesen zu sein.

Nun hatte ich gerade den ersten Indiana-Jones-Film *Die Jäger* des *verlorenen Schatzes* gesehen und war gefesselt von der (sicherlich nicht gerade naheliegenden] Möglichkeit, das kostbarste und geheimnisvollste Zeugnis des Alten Testaments, die beinahe drei Jahrtausende verloren geglaubte Bundeslade, könne sich in der Stadt befinden, die ich nun besuchen wollte. Ich faßte den Entschluß, nicht aus Aksum abzureisen, bevor ich nicht mehr von dieser merkwürdigen Geschichte erfahren hatte. Mit neuerwachtem Interesse sah ich aus dem Kabinenfenster, als der Pilot ankündigte, daß Aksum direkt unter uns liege.

Die Landung der DC3 war höchst ungewöhnlich - und einigermaßen furchteinflößend. Anstelle eines gewöhnlichen, nied-

rigen und langgestreckten Anfluges brachte der Pilot das Flugzeug direkt über der Stadt aus einer beachtlichen Höhe in engen Kreisen herunter. Ein Offizier erklärte uns, daß so die Zeit verringert werden könne, in der die Maschine Ziel der Scharfschützen auf den umliegenden Hügeln sein würde. Es war ein höchst ungemütliches Gefühl, in dieser langen Metallröhre mehrere hundert Meter über dem Erdboden, auf einem wackeligen Sitz angeschnallt, darauf zu warten, daß die Kabine jeden Augenblick von Geschossen durchschlagen werden würde.

Glücklicherweise geschah an diesem Morgen nichts dergleichen, und wir landeten sicher. Bis zu den Zähnen bewaffnete Soldaten in Tarnanzügen beobachteten uns, als wir zu unserem Haltepunkt rollten. Zu beiden Seiten der Landebahn konnte man Schützengräben und unter Tarnnetzen verborgene Bunker ausmachen, aus denen die Rohre schwerer Artilleriekanonen ragten. In der Nähe des Kontrollturmes waren mehrere bewaffnete Mannschaftswagen und vielleicht ein halbes Dutzend sowjetischer Panzer postiert. Auf dem Vorfeld standen zwei Hubschrauber vom Typ Mi-24, die Raktenabschußhalterungen unter den stummelartigen Heckstabilisatoren gut sichtbar. Nicht für einen Augenblick während unseres gesamten Aufenthaltes entspannte sich die unruhige und angespannte Atmosphäre dieser belagerten Stadt auch nur etwas.

Paläste, Katakomben, Obelisken

Wir konnten sofort mit der Arbeit beginnen. Als wir aus dem Flugzeug stiegen, wurden wir bereits von einem älteren Abessinier erwartet. In altertümlichem, aber hervorragendem Englisch stellte er sich als Berhane Meskel Zelelew vor und erklärte, daß er über Funk aus Addis Abeba zu unserem Führer und Dolmetscher bestimmt worden war. Als Angestellter des Ministeriums für Kultur sollte er, wie er sagte, »ein Auge auf die Altertümer von Aksum haben«. In dieser Eigenschaft hatte er schon die Archäologen des Britischen Ostafrika-Instituts begleitet, deren

Ausgrabungen durch die Revolution von 1974 unterbrochen worden waren.[11] »Ich freue mich außerordentlich, nach einer so langen Zeit wieder einmal Engländer zu sehen«, rief er, als wir uns vorstellten.

Wir stiegen in einen ziemlich alten, hellgrün gestrichenen Geländewagen mit zwei hübschen Einschußlöchern in der Windschutzscheibe.

»Glücklicherweise wurde niemand getötet«, versicherte Zelelew. Ich brachte nur ein nervöses Lachen zustande. Als wir das Flugfeld verließen, erklärte ich ihm, warum wir nach Aksum gekommen waren und zählte die historischen Orte auf, die wir besuchen wollten. Ich erklärte ihm auch, daß mich die geheimnisvolle Geschichte der Bundeslade besonders interessiere.

»Glauben Sie denn, daß die Lade hier ist?« fragte ich ihn.

»Ja, ganz sicher.«

»Und wo ist sie genau?«

»Sie befindet sich in einer Kapelle in der Nähe des Stadtzentrums.«

»Ist diese Kapelle sehr alt?«

»Ihre Erbauung wurde von unserem letzten Kaiser angeordnet - ich glaube, das war 1965. Davor wurde der Schrein über viele Jahrhunderte hinweg im Allerheiligsten der benachbarten Kirche der >Heiligen Maria auf Zion< aufbewahrt.« Zelelew hielt inne und fügte dann hinzu: »Haile Selassie hatte übrigens ein besonderes Interesse an dieser Geschichte. Er war der zweihundertfünfundzwanzigste Nachkomme in direkter Linie von Menelik, dem Sohn der Königin von Saba und König Salomos. Und es war Menelik, der die Bundeslade in unser Land brachte ...«

Ich wollte die Kapelle sofort besichtigen, doch Zelelew überzeugte mich, daß es wenig sinnvoll sei, die Sache zu überstürzen: »Man wird Ihnen nicht erlauben, sich der Lade zu nähern. Wo sie aufbewahrt wird, ist heiliger Boden. Die Mönche und die Bewohner von Aksum beschützen sie und würden nicht davor zurückschrecken, jeden zu töten, der dort eindringt. Nur einer darf diesen Ort betreten, und das ist der Mönch, der die Lade bewacht. Wir werden versuchen, ihn später am Tag zu treffen.

Lassen Sie uns zuerst den Palast der Königin von Saba ansehen.«

Diesem verlockenden Vorschlag stimmten wir zu. Die holperige Straße voller Schlaglöcher führte nach Südwesten. Kaum zwei Kilometer von Aksum entfernt hielten wir in der Nähe eines stark bewaffneten Militärpostens an, der, wie Zelelew erklärte, die Grenze des von den Regierungstruppen kontrollierten Gebietes markierte. Aufgeregt deutete er auf die naheliegenden Hügel: »Alles TPLF, da können wir nicht hin, das ist sehr schade. Es gibt dort eine Menge interessanter Dinge zu sehen. Dort hinten, gleich nach der Biegung der Straße, liegen die Steinbrüche, in denen die Granitsäulen geschnitten wurden. Eine ragt noch heute aus dem Felsen, nur halb herausgehauen. Dort gibt es auch eine wunderschöne geschnitzte Löwin, die sehr alt ist; sie muß schon vor Beginn des Christentums entstanden sein. Aber leider können wir da nicht hin.«

»Wie weit ist es genau?« fragte ich gequält.

»Ganz nah, weniger als drei Kilometer. Aber der Militärposten wird uns nicht passieren lassen, und wenn, dann würden wir mit Sicherheit von der Guerilla erwischt werden. Deshalb sollten wir hier auch nicht zu lange herumstehen. Die Scharfschützen der TPLF würden Sie als Ausländer erkennen, Sie vielleicht für Russen halten und auf Sie schießen ...« Er lachte: »Das wäre nicht gerade wünschenswert, also folgen Sie mir.«

Er schlug einen Weg durch die Felder nach Norden ein, und schnell stolperten wir über die ersten Überbleibsel dessen, was einst ein imposantes Bauwerk gewesen sein mußte. »Das war der Palast der Königin von Saba«, verkündete Zelelew stolz. »Nach unseren Überlieferungen war ihr Name Makeda, und Aksum war ihre Hauptstadt. Ich weiß, daß Fremde meist nicht glauben wollen, daß sie Äthiopierin war. Aber es gibt auch kein Land, das seinen Anspruch glaubhafter formulieren könnte als das unsere.«

Ich fragte, ob Archäologen schon einmal versucht hätten, bei Grabungen der Legende auf die Spur zu kommen.

»Ja, Ende der sechziger Jahre hat das Äthiopische Archäolo-

gische Institut hier Ausgrabungen durchgeführt. Ich selbst war damals dabei.«

»Und was hat man herausgefunden?«

Zelelew machte ein betrübtes Gesicht. »Man war der Meinung, der Palast sei nicht alt genug, um als Residenz der Königin von Saba gelten zu können.«

Was die Archäologen freigelegt hatten und was wir nun kurz untersuchten, waren die Grundmauern eines einstmals großen Gebäudes mit festgefügten Steinwänden, starken Fundamenten und einem eindrucksvollen Abwassersystem. Wir sahen einen unzerstörten, mit Fliesen ausgelegten Gang, den Zelelew für den Thronsaal hielt, und eine Anzahl von Treppenschächten, die eindeutig darauf hinwiesen, daß es mindestens ein weiteres Stockwerk gegeben haben mußte. Man konnte noch die raffinierten Ziermuster der Baderäume ausmachen und die von zwei großen Steinöfen dominierte Küche.

Auf der anderen Straßenseite, gegenüber dem Palast, untersuchten wir einige rohbehauene Granitstelen, von denen manche über vier Meter hoch in den Himmel ragten. Andere lagen zerbrochen am Boden. Die meisten waren nicht verziert, aber in die größte waren vier Querfriese eingemeißelt, jeder von einer Reihe reliefartig herausgehobener Kreise gekrönt - wie die herausragenden Stützbalken eines Gebäudes aus Holz und Stein. Die Stadtbewohner, so erzählte uns Zelelew, glaubten, daß dieser unfertige Obelisk das Grab der Königin von Saba markiere. Man hatte hier allerdings nie Ausgrabungsarbeiten unternommen, und das Feld war mittlerweile den Bauern zur Bewirtschaftung übergeben worden.

Nachdem wir genug Fotos und Notizen angefertigt hatten, durchquerten wir Aksum bis an den Stadtrand im Nordosten. Hier erreichten wir einen weiteren, auf einem Hügel gelegenen Palastkomplex, von dem aus sich ein weiter Blick über die Gegend bot. Der Grundriß des Bauwerkes mußte fast eintausend Quadratmeter umfassen. Die Wände waren schon vor langer Zeit zusammengefallen, aber man konnte an den vier Ecken noch die Aufmauerungen von Türmen erkennen - möglicher-

weise genau die Türme, die nach der Beschreibung des Mönches Kosmas mit den ehernen Einhörnern verziert waren.

Zelelew führte uns nun über eine steile Steintreppe hinunter in eine Flucht von unterirdischen Gängen und Kammern. Die Wände und Decken bestanden aus massiven Granitquadern, die man so exakt behauen hatte, daß sie ohne Mörtel in den Fugen ganz genau aneinanderpaßten. Die Leute in der Gegend, erzählte Zelelew, hielten dieses kühle und dunkle Labyrinth für die Schatzkammer des Kaisers Kaleb (514-542 nach Christus) und dessen Sohn Gebre Maskal. Trotz der Dunkelheit konnten wir die leeren Steinkammern erkennen, von denen man glaubte, daß sie einstmals unermeßliche Reichtümer an Gold und Perlen und die einbalsamierten Körper der toten Könige beherbergt hatten. Es gab eine Reihe weiterer, noch nicht freigelegter Räume, die sich weit in den Hügel hinein erstreckten. Dicke Granitwände versperrten den Weg dorthin.

Schließlich verließen wir die Hügelfestung und fuhren zurück nach Aksum. Auf dem Weg dorthin hielten wir an, um ein großes offenes Wasserreservoir zu fotografieren, das in den roten Granit der Hügel hineingehauen worden war. Über rohgemeißelte Stufen stiegen wir zu dem Becken hinunter. Wir kannten es unter dem Namen »Mai Shum« und es schien uns sehr alt - ein Eindruck, den Zelelew bestätigte, als er bemerkte, daß dies ursprünglich das Vergnügungsbad der Königin von Saba gewesen sei: »Das glaubt zumindest mein Volk. Mit dem Beginn des Christentums wurde es für Taufzeremonien benutzt und um das Dreikönigsfest zu feiern, das bei uns >Timkat< genannt wird. Und natürlich kommen die Bauern jeden Tag hierher, um ihr Wasser zu schöpfen.«

Niemand von uns hatte bemerkt, wie schnell die Stunden vergangen waren, und nun war es schon spät am Nachmittag. Zelelew hielt uns zur Eile an, betonte, daß wir im Morgengrauen des nächsten Tages nach Asmara zurückfliegen müßten und daß es bis dahin noch viel zu sehen gäbe.

Unser nächstes Ziel, der sogenannte »Park der Säulen«, mit Sicherheit der archäologisch interessanteste Ort in Aksum, lag

ganz in der Nähe. Wir untersuchten und fotografierten eine bemerkenswerte Menge riesiger Obelisken, die aus großen Granitblöcken herausgehauen worden waren. Die mächtigste dieser Säulen war, so glaubte man, schon vor über tausend Jahren umgestürzt und in viele Stücke zerbrochen. Aber zu ihrer Glanzzeit mußte sie mit ihren über dreißig Metern Höhe alles um sich herum bestimmt haben. Ihr Gewicht, hatte ich gelesen, wurde auf über fünfhundert Tonnen geschätzt. Man vermutete, daß dies der größte aus einem Stück gehauene und aufgerichtete Stein des Altertums war.

In diese Stele hatte man die sorgfältige Nachbildung eines hohen und schmalen Gebäudes mit dreizehn Stockwerken hineingehauen - jedes Geschoß mit kunstvoll gearbeiteten Fenstern und anderen Details, vom nächsten abgehoben durch eine Reihe angedeuteter Querbalken. Am Fuß der Säule konnte man eine in den Stein gemeißelte blinde Tür erkennen, detailgetreu mit Klopfer und Griff.

Zelelew erzählte von einem anderen, viel kleineren, aber nicht zerborstenen Obelisken, der während der italienischen Besatzung von 1935 bis 1941 gestohlen, unter enormen Schwierigkeiten nach Rom transportiert und dort in der Nähe des Konstantinbogens wieder aufgestellt worden war. Seitdem bemühte sich die äthiopische Regierung um die Rückgabe, denn auch diese Stele war sorgsam verziert worden und somit von großem künstlerischen Wert.

Mit einer schwungvollen Gebärde wies unser Begleiter auf einen dritten, ebenso kunstvoll bearbeiteten Monolith, der glücklicherweise an seinem Platz im »Park der Obelisken« verblieben war. Die hochaufragende Steinnadel maß über zwanzig Meter und war an der Spitze mit einem herausgehauenen Halbmond versehen. Wir schlenderten hinüber, um sie genau zu untersuchen, und entdeckten, daß auch ihre Schnitzereien ein mehrstöckiges Gebäude darstellten - in diesem Fall ein neungeschossiges Haus in der Art eines Turmes. Und wieder war die Hauptfront mit Fensterformen und genau nachgebildeten Stützstempeln versehen, wie man sie zwischen Fensterrahmen und

Mauerwerk findet. Auch die Abstände zwischen den Stockwerken waren mit nachgebildeten Holzbalken markiert. Die gebäudeartige Erscheinung des Obelisken wurde schließlich durch eine vorgetäuschte Tür betont.

Um dieses hochentwickelte Monument herum war eine Reihe weiterer Säulen angeordnet, allesamt das Ergebnis einer zweifelsohne weitentwickelten, vielseitigen und prosperierenden Kultur. An keinem anderen Ort südlich der Sahara war etwas annähernd Ähnliches je entstanden - aber genau darin bestand das Geheimnis von Aksum: Die Vorgeschichte war unbekannt, die Quellen seiner Vorbilder verschüttet.

Das Sanktuarium

Dem Obeliskenfeld gegenüber stand ein von Mauern umgebener Gebäudekomplex mit zwei Kirchen, von denen die eine sehr alt war, die andere aber offensichtlich aus jüngster Zeit stammte. Beide waren der »Heiligen Maria auf Zion« geweiht, erklärte uns Zelelew. Die jüngere der beiden, von Haile Selassie in den sechziger Jahren erbaut, hatte ein kuppeiförmiges Dach und einen obeliskenartigen, hochaufragenden Glockenturm. Die andere ging auf die Mitte des siebzehnten Jahrhunderts zurück und war das Werk des Kaisers Fasilidas, der, wie viele Herrscher vor und nach ihm, in Aksum gekrönt worden war. Ungeachtet der Tatsache, daß er einen anderen Regierungssitz gewählt hatte, war er voller Verehrung für die heilige Stadt.

Haile Selassies ambitiös-moderne »Kathedrale« erschien uns gleichermaßen unschön wie uninteressant. Unsere Aufmerksamkeit zog vielmehr der Bau Fasilidas' auf sich, der uns mit seinen Türmchen und zinnenbestückten Brustwehren halb wie das Haus Gottes, halb wie eine Burg erschien. Doch dies paßte nur zu gut zu einer sehr alten äthiopischen Gepflogenheit, derzufolge die Grenzen zwischen Kriegswesen und Geistlichkeit von jeher fließend waren.

Im Halbdunkel des Inneren konnte ich mehrere eindrucks-

volle Wandgemälde erkennen, von denen eines das Leben der Jungfrau Maria, ein anderes die Kreuzigung und Auferstehung Christi und ein drittes die Legende vom heiligen Yared darstellte. Yared war vermutlich der Erfinder der etwas furchteinflößenden äthiopischen Kirchenmusik. Das mit der Zeit stark verblaßte Gemälde stellte Yared dar, wie er vor König Gebre Maskai spielte. Der Monarch hatte den Fuß des Heiligen mit einem Speer durchbohrt, aber beide Männer waren von den Klängen des Sistrum (jenes alten ägyptischen Saiteninstrumentes) und der Trommel derartig ergriffen, daß sie dessen nicht gewahr wurden.

Nicht weit entfernt von der alten Kirche stießen wir auf die Ruinen eines Gebäudes, das einstmals große Ausmaße gehabt haben mußte, nun aber nur noch aus seinen tief eingelassenen Fundamenten bestand. Zelelew erklärte uns, daß dies die Überreste der eigentlichen Marienkirche seien, die im vierten Jahrhundert nach Christus erbaut worden war, zu der Zeit, als das aksumitische Königreich zum Christentum konvertierte. Über ein Jahrtausend später, 1535, wurde es von einem fanatischen muslimischen Eroberer namens Ahmed Gragn dem Erdboden gleichgemacht.

Kurz vor ihrer Zerstörung besuchte ein umherziehender portugiesischer Mönch mit Namen Francisco Alvarez die »erste St. Maria«, wie Zelelew sich ausdrückte. Später las ich Alvarez' Beschreibung der Kirche: »Sie ist sehr groß«, schrieb er, »und hat fünf gewölbte Schiffe von erheblicher Breite und Länge; die Decke und die Seitenwände sind bemalt, und sie hat auch einen Chorraum nach unserer Art ... Diese prächtige Kirche ist auf einem weiten Platz erbaut, der ganz mit Steinplatten so groß wie Grabsteine gepflastert und von einer langen Einfriedung umgeben ist, die wiederum von einer hohen Mauer umschlossen wird, wie der Wall einer großen Stadt.. .«[12]

Den Beginn der Bauarbeiten datierte Zelelew ganz richtig auf das Jahr 372 vor Christus[13] - was bedeutete, daß es sich überhaupt um die erste christliche Kirche der südlichen Sahara-Region handelte. Mit ihrer Konsekration wurde sie zum heilig-

sten Ort Äthiopiens, und das mit gutem Grund, denn sie war erbaut worden, um die Bundeslade zu beherbergen. Wenn die Legenden ein Körnchen Wahrheit enthielten, dann mußte der Schrein lange vor Christi Geburt ins Land gebracht worden sein. Und zu einem bestimmten Zeitpunkt nach der Christianisierung des aksumitischen Königreiches wurde die Reliquie von der Priesterschaft für die neue Religion reklamiert.

Der portugiesische Mönch war übrigens der erste Europäer, der die äthiopische Legende von der Königin von Saba und der Geburt ihres einzigen Sohnes Menelik dokumentierte.[14] Als er St. Maria um 1520 besuchte, war die Lade noch an ihrem Platz im Allerheiligsten der alten Kirche. Sie verblieb jedoch nicht mehr lange dort, denn als die Truppen Ahmed Gragns immer näher rückten, wurde der Schrein in Sicherheit gebracht. So entging der Schatz dem Sturm der Zerstörung und Plünderung, den die Muslime 1535 über Aksum entfesselten.

Als der Frieden nach einhundert Jahren wiederhergestellt war, brachte man die Bundeslade im Triumph zurück nach Aksum in die von Fasilidas erbaute neue Marienkirche. Erst Haile Selassie ließ die Lade 1965 von dort entfernen und in die sicherere Kapelle bringen, die zur gleichen Zeit wie seine grandiose Kathedrale errichtet worden war. Wenigstens bei der Kapelle hatte man sich bemüht, den Stil des siebzehnten Jahrhunderts zu treffen.

Hier war es, wo mir der alte Mönch die erstaunliche Geschichte der Bundeslade erzählt und mich vor ihrer Macht gewarnt hatte.

»Wie mächtig ist sie?« fragte ich.

»Was meinen Sie damit?« Die Haltung des Wächters versteifte sich und er schien plötzlich vor etwas auf der Hut zu sein. Für einige Momente schwieg er. Dann lachte er leise in sich hinein und stellte mir eine Frage: »Haben Sie die Säulen gesehen?«

»Ja«, gab ich zurück, »ich habe sie gesehen.«

»Was glauben Sie, wie wurden sie aufgestellt?«

Ich gab zu, es nicht zu wissen.

»Man nahm die Bundeslade«, flüsterte der Mönch geheimnisvoll, »die Lade und das göttliche Feuer. Menschen allein hätten so etwas nie vollbringen können.«

Nachdem wir Aksum verlassen hatten, nutzte ich die Bibliotheken in Addis Abeba und führte einige Nachforschungen bezüglich der historischen Glaubwürdigkeit der Legenden durch, von denen mir der Mönch berichtet hatte. Ich war nicht im geringsten von dem überzeugt, was er gesagt hatte. Sollte jedoch irgend etwas dafür sprechen, daß die Königin von Saba eine äthiopische Monarchin war, so wollte ich das herausfinden. Aber hätte sie zu Zeiten König Salomos wirklich nach Israel reisen können? War es möglich, daß sie von dem jüdischen König ein Kind empfangen hatte? Daß sie einen Sohn namens Menelik zur Welt brachte? Und vor allem: war der junge Mann nach dem Besuch am Hofe seines Vaters nach Äthiopien zurückgekehrt - mit der Bundeslade?

Kapitel 2

Ernüchterung

Die Fragen, die ich nun stellen mußte, waren im Addis Abeba des Jahres 1983 nicht gerade willkommen. Neun Jahre nach Haile Selassies Sturz schwebten noch immer die Reste von revolutionärem Chauvinismus in der Luft. Allenthalben traf man auf Argwohn, Haß und Mißgunst, und die Leute hatten noch bittere Erinnerungen an die späten siebziger Jahre, als Mengistus Streitkräfte den »Roten Terror« gegen all jene entfesselten, die für die Wiedereinführung der Monarchie kämpften. Von der Regierung unterstützte Todesschwadronen durchstreiften die Straßen, zerrten Verdächtige aus ihren Häusern und exekutierten sie auf der Stelle. In dieser leicht erregbaren Atmosphäre hatte ich meine ersten Nachforschungen in einer Sache anzustellen, die ganz offensichtlich mit dem letzten Kaiser Äthiopiens und der salomonischen Dynastie zusammenhing, aus der er stammte.

Wie eng diese Verbindungen tatsächlich waren, wurde mir klar, als ich von einem Freund die Kopie eines unter der Hand kursierenden Dokumentes erhielt, das auf dem Höhepunkt der Macht und Popularität Haile Selassies ausgearbeitet worden war - die revidierte Verfassung von 1955. Erfüllt von der Absicht, das moderne Äthiopien darin zu bestärken, »in allen Bereichen der Staatsverwaltung mitzuarbeiten« und »an der großen Aufgabe teilzuhaben, die in der Vergangenheit von den äthiopischen Herrschern alleine erfüllt worden war«, enthielt dieses bemerkenswerte Stück Gesetzgebung noch immer die unmißverständliche Bekräftigung des seit Menschengedenken bestehenden göttlichen Rechts auf Herrschaft:

»Die kaiserliche Würde soll immerdar mit dem Geschlecht Haile Selassies I. verbunden sein, das sich ohne Unterbrechung von der Dynastie Meneliks I., Sohn der Königin von Äthiopien,

der Königin von Saba, und des Königs Salomo von Jerusalem, herleitet ... Kraft seines königlichen Blutes und kraft der empfangenen Weihen ist die Person des Kaisers heilig, seine Würde unverletzlich und seine Macht unangreifbar .. .«[1]

Ich stellte schnell fest, daß Zelelew, unser Dolmetscher in Aksum, zumindest in einer Sache recht hatte: Der Kaiser hatte tatsächlich den Anspruch erhoben, der zweihundertfünfundzwanzigste direkte Nachkomme von Menelik I. zu sein. Und die göttliche Abkunft der salomonischen Dynastie bezweifelten nur die wenigsten der Äthiopier, mit denen ich in Addis Abeba sprach - selbst die revolutionärsten nicht. Man munkelte sogar, daß Präsident Mengistu selbst den Ring Salomos von der Hand des toten Kaisers abgezogen habe, und ihn nun an seinem Mittelfinger trage - als ob er sich so etwas vom Charisma und den angeblich magischen Kräften seines Vorgängers aneignen wollte.

Nun waren derartige Gerüchte sicherlich interessant; sie befriedigten mein Verlangen nach konkreten Informationen über die Bundeslade und ihre geheimnisvollen Verbindungen mit der entthronten Dynastie Haile Selassies jedoch nicht. Das Problem bestand darin, daß die meisten meiner äthiopischen Gesprächspartner einfach Angst hatten - sie verschlossen sich wie eine Auster, wenn das Gespräch auf die Lade, auf den Kaiser oder auf irgend etwas kam, das mit der Zeit vor der Revolution zu tun hatte. Niemand wollte den Verdacht erwecken, aufrührerische Informationen weiterzugeben. Fortschritte konnte ich erst erzielen, als ein Kollege aus England eintraf. Ich hatte Professor Richard Pankhurst, der sich in der Materie gut auskannte, gebeten, mir bei dem Buch, das ich für die äthiopische Regierung schrieb, als Co-Autor zur Seite zu stehen.

Richard war der Enkel der berühmten englischen Frauenrechtlerin Emmeline Pankhurst und der Sohn von Sylvia Pankhurst, die während der italienischen Besatzung in den dreißiger Jahren heldenmütig auf der Seite des abessinischen Widerstandes gekämpft hatte. Er war und ist der maßgebende Historiker in Äthiopien. Zur Zeit Haile Selassies hatte er an der Univer-

sität von Addis Abeba das angesehene Institut für Äthiopische Studien gegründet. Kurz nach der Revolution von 1974 mußte er das Land verlassen, nun aber lag ihm daran, neue Kontakte zu knüpfen. Unser Buchprojekt paßte also gut zu seinen Plänen, und so hatte Richard, der an der Royal Asiatic Society in London arbeitete, sich ein paar Tage freigenommen, um mit mir einige Dinge zu besprechen. Er besaß eine umfassende Kenntnis äthiopischer Geschichte, und so war die Bundeslade eine der ersten Angelegenheiten, auf die ich ihn ansprach. Ich wollte wissen, ob es eine wissenschaftliche Grundlage für den scheinbar allzu weit hergeholten Anspruch gebe, die Lade werde in Aksum aufbewahrt.

Er erwiderte, daß die Legende von Salomo und der Königin von Saba in Äthiopien eine lange Geschichte habe und daß mehrere mündlich und schriftlich überlieferte Versionen existierten.

»Das älteste erhaltene schriftliche Zeugnis befindet sich in einer Handschrift aus dem dreizehnten Jahrhundert, die Kebra Nagast genannt wird. Dieses Manuskript wird in Äthiopien sehr verehrt, man sagt, es enthalte >die Wahrheit, die ganze Wahrheit und nichts als die Wahrheit<. Als Historiker kann ich das kaum akzeptieren, zumal man herausgefunden hat, daß die Königin von Saba aus Arabien kam und nicht aus Äthiopien. Trotzdem möchte ich nicht ausschließen, daß die Legende ein Fünkchen Wahrheit enthält. Denn es gab im Altertum tatsächlich Kontakte zwischen Äthiopien und Jerusalem, die übrigens gut dokumentiert sind. Aber sie reichen nicht bis in die Zeit Salomos zurück. Es besteht natürlich auch kein Zweifel, daß die äthiopische Kultur zu einem guten Teil vom Judentum bestimmt ist. In Äthiopien gibt es eine Gruppe einheimischer Juden, die das beweisen. Es sind die Falaschen, die in den Simienbergen südlich von Aksum und am Tanasee leben. Zudem existieren einige weitverbreitete Bräuche - von denen man manche nicht nur bei den Falaschen, sondern auch bei abessinischen Christen antrifft -, die als Indizien für frühe Verbindungen mit der jüdischen Zivilisation gelten können. Dazu zählen der Beschneidungsritus, das

Befolgen bestimmter Ernährungsgebote, die sehr denjenigen ähneln, die im dritten Buch Mose aufgestellt werden, und in einigen von der Umwelt isolierten ländlichen Gemeinden wird der wöchentliche Feiertag noch immer am Samstag - so wie der Sabbat also - und nicht am Sonntag praktiziert.«

Von der Existenz der Falaschen hatte ich schon gehört und um offizielle Genehmigung ersucht, bei unserer nächsten Exkursion zumindest eines ihrer Dörfer aufsuchen und fotografieren zu dürfen. Diese Reise sollte uns zum Tanasee, von dort aus nordwärts nach Gondar und hoffentlich bis in die Simienberge führen. Ich wußte so gut wie nichts von den sogenannten »schwarzen Juden« Äthiopiens, und bat Richard, mir darüber etwas zu sagen.

»Äußerlich unterscheiden sie sich nicht von den abessinischen Hochlandbewohnern«, begann er. »Ihre Muttersprache ist ein einheimischer Dialekt des Agaw, das in den nördlichen Provinzen sehr verbreitet war. Mittlerweile ist es vom Amharischen, der nationalen >lingua franca<, fast vollständig ersetzt worden. Nun, die einzige Besonderheit der Falaschen besteht in ihrer Religion, und das ist zweifelsohne die jüdische, allerdings in einer eigenen und archaischen Ausprägung. Ihr Festhalten an alten Bräuchen, die anderswo längst nicht mehr praktiziert werden, hat eine Menge romantisch veranlagter und aufgeregter Fremder dazu gebracht, sie zum >verlorenen Stamm Israels< zu erklären. Diese Vorstellung hat vor wenigen Jahren auch den Segen des aschkenasischen und des sephardischen Oberrabbinats in Jerusalem erhalten, das die Falaschen eindeutig als Juden anerkannt hat. Nach den Bestimmungen des >Law of Return< sind sie damit automatisch Bürger Israels.«

»Aber woher kamen die Falaschen ursprünglich?« fragte ich. »Und wieso ließen sie sich mitten in Äthiopien nieder - zweitausend Meilen von Israel entfernt?«

Richard gab zu, diese Frage sei nicht ohne weiteres zu beantworten. Die Lehrmeinung war, daß eine Gruppe von Juden im ersten und zweiten Jahrhundert nach Christus von Südwest-Arabien aus in das abessinische Hochland gewandert sei und

offensichtlich Teile der Bevölkerung zu ihrem Glauben bekehrt habe. Man müsse die Falaschen also als Abkömmlinge dieser Konvertiten ansehen. »Es gilt als gesichert«, fügte er hinzu, »daß sich im Jemen eine einflußreiche jüdische Gemeinde gebildet hat, die vor der Verfolgung durch die römischen Besatzer in Palästina im ersten Jahrhundert vor Christus geflüchtet war. Theoretisch ist es also durchaus möglich, daß Missionare und Händler die Straße von Bab-el-Mandeb überquerten und nach Äthiopien gelangten.« Aber auch Richard hatte keinen historischen Beweis dafür, daß sich alles so zugetragen hatte.

»Und was sagen die Falaschen selbst?«

Richard lächelte: »Daß sie von König Salomo abstammen natürlich ... Ihre Geschichte entspricht in den Grundzügen derjenigen der Christen, vielleicht ist sie etwas ausgeschmückter. Wenn ich mich richtig erinnere, behaupten sie, daß Salomo nicht nur die Königin von Saba schwängerte, sondern auch ihre Dienstmagd - und somit nicht nur Menelik zeugte, sondern auch einen Halbbruder, der eine Dynastie von Falaschen-Königen begründete. Alle anderen äthiopischen Juden sind vermutlich die Nachfahren der erstgeborenen Söhne der Ältesten Israels, die Menelik und die Bundeslade begleiteten.«

»Besteht denn deiner Meinung nach die Möglichkeit, daß das wahr ist - ich meine, daß die Bundeslade wirklich aus dem Tempel Salomos gestohlen und nach Aksum gebracht worden sein könnte?«

Richard schnitt eine Grimasse: »Ehrlich gesagt, nein. Ausgeschlossen. Tatsache ist, daß Aksum zu dieser Zeit nicht einmal existierte. Aksum gab es nicht. Nun, ich weiß nicht genau, wann Salomo starb, es muß um 940 oder 930 vor Christus gewesen sein. Wenn Menelik sein Sohn war, dann muß er die Lade etwa zehn oder fünfzehn Jahre vorher nach Aksum gebracht haben. Aber das wäre gar nicht möglich gewesen, denn Aksum wurde frühestens im dritten, wahrscheinlich nicht vor dem zweiten Jahrhundert vor Christus gegründet - mit anderen Worten: sieben oder acht Jahrhunderte nach dem vermutlichen Diebstahl der Lade ...«

»Nun«, sagte ich, »das macht der ganzen Sache wohl ein Ende, nicht wahr?«

»Ja, obgleich ich es für möglich halte, daß die Lade an einen anderen Ort in Äthiopien gebracht wurde, dessen Geschichte sich später mit derjenigen von Aksum vermischte. Trotzdem, es gibt so viele unklare Punkte, Anachronismen und Ungenauigkeiten in dieser Legende. Daher kommt es, daß bisher kein Historiker oder Archäologe, der etwas auf sich hält, bereit war, in dieser Sache Nachforschungen anzustellen ... Dennoch, nicht alles, was die Falaschen über sich erzählen, sind komplette Phantasiegebilde, und einige Aspekte ihrer Herkunft würden weitere Untersuchungen schon rechtfertigen.«

»Zum Beispiel?«

»Ich erwähnte ihre Behauptung, es habe einst eine Dynastie jüdischer Könige in Äthiopien gegeben. Wenn wir einmal, sagen wir ins fünfzehnte oder sechzehnte Jahrhundert zurückgehen, würden wir einige Anzeichen finden, die das unterstützen - und es ist glaubhaft, daß es eine Monarchie auch vor diesem Zeitpunkt gab. Alles in allem: Die Juden waren eine ernstzunehmende Macht in diesem Land. Manchmal haben sie sogar erfolgreich Krieg gegen die christlichen Herrscher geführt, um ihre Unabhängigkeit zu bewahren. Doch mit der Zeit wurden sie schwächer und verschwanden nach und nach. Wir wissen, daß ihr Volk zwischen dem fünfzehnten und achtzehnten Jahrhundert ziemlich dezimiert wurde. Und unglücklicherweise hält diese Entwicklung noch immer an. Es sind wahrscheinlich nicht mehr als zwanzigtausend übriggeblieben - und die meisten wollen nach Israel.«

Während der nächsten drei Tage arbeitete ich mit Richard an unserem Buchprojekt, und in dieser Zeit profitierte ich enorm von seinen genauen Analysen der äthiopischen Geschichte und Kultur. Dann kehrte er nach London zurück, und Carol, Duncan und ich brachen zu der Exkursion auf, die uns zum Tanasee, nach Gondar und in die Simienberge führen würde.

Tabots: Repliken der Bundeslade

Wir verließen Addis Abeba in einem arg mitgenommenen Toyota-Jeep, der uns für unsere Arbeit von der Regierung zur Verfügung gestellt worden war. Über die Höhen des Mount Entoto fuhren wir in nordwestlicher Richtung Meile um Meile durch rauhes und trostloses Heidehochland. Schließlich erreichten wir Dahar Bar, eine kleine Stadt am südlichen Zipfel des Tanasees. Das gewaltige Binnenmeer ist bekannt für seine unzähligen Inseln, auf denen sich über zwanzig Klöster befinden. Dank einer großen Dieselbarkasse, die uns von den Marinebehörden überlassen worden war, konnten wir einige der Klosterinseln besuchen und dort wundervolle Sammlungen alter Handschriften, sakrale Bilder und Wandmalereien fotografieren.

In unruhigen Zeiten wurden Kunstschätze und wertvolle Sakralgegenstände aus dem ganzen Land an diese Orte in Sicherheit gebracht. Das Hauptanliegen der Einsiedler war es jedoch, ihr Leben in Frieden und Abgeschiedenheit ihrem Schöpfer zu widmen. Ein Mönch erzählte uns, daß er seine kleine bewaldete Insel seit fünfundzwanzig Jahren nicht verlassen habe. »Indem ich mich so vor der Welt verschließe«, sagte er, »erfahre ich die wirkliche Glückseligkeit. Mein ganzes Leben lang war ich Gott treu und das wird bis an das Ende meiner Tage so bleiben. Ich habe mich vom Leben in der Welt abgewandt. Und ich bin frei von ihren Versuchungen.«

Jede Bruderschaft hatte ihre eigene Kirche, die oftmals sehr alt waren. Im Grundriß eher rund als rechteckig, besitzen sie in der Regel einen außen umlaufenden Wandelgang, der von dem überhängenden Reet des Daches bedeckt wird. Der erste innere Bereich, das »kane mahlet«, ist mit Gemälden reich verziert, der zweite innere Bereich, das »keddest«, das für Abendmahlsgottesdienste benutzt wird, umschließt das von einer Mauer geschützte Zentrum der Kirche, das »magdas«, das Allerheiligste.

Ich hatte zuvor viele äthiopische Kirchen besichtigt, aber hier begann ich zum erstenmal die Bedeutung des Allerheiligsten zu verstehen. Ich fand heraus, daß jeder dieser abgeschirmten

Bereiche, der übrigens nur vom ältesten Mönch betreten werden durfte, einen heiligen Gegenstand enthielt. Ich bat Kebran Gabriel, unseren Dolmetscher, nachzufragen, was dies für ein Objekt sei.

»Das ist das >Tabot<«, antwortete mein Gesprächspartner, der neunzigjährige Abba Haile Mariam.

Dieser Begriff schien mir bekannt, und nach einem Augenblick des Nachdenkens erinnerte ich mich, daß ich davon in Aksum gehört hatte, als ich mit dem Wächter der Kapelle gesprochen hatte: Es war die äthiopische Bezeichnung für die Bundeslade.

»Was meint er mit >Tabot<?« fragte ich meinen Begleiter. »Meint er die Bundeslade? Vor einigen Wochen erst waren wir in Aksum, wo man uns sagte, die Lade sei dort ...« Ich hielt verwirrt inne, und schloß dann ziemlich lahm: »Ich verstehe nicht, wie sie gleichzeitig hier sein kann.«

Ein langer Wortwechsel folgte, in den sich auch die anderen Mönche einschalteten. Nach vielen Fragen und Antworten ergab sich so langsam ein klares Bild. Es schien, als habe jede orthodoxe Kirche in Äthiopien ein Allerheiligstes, und in jedem dieser innersten Bereiche gibt es ein »Tabot«. Niemand behauptete, daß einer dieser heiligen Gegenstände die echte Bundeslade sei. Es gab nur eine Bundeslade, Meneliks »Tabota Zion«, die nun im Allerheiligsten der Kapelle von Aksum stand. Alle anderen »Tabots« im Land waren lediglich Repliken des heiligen und unantastbaren Originals.

Doch auch diese Kopien waren wichtig. Um genauer zu sein, sie waren von großer Bedeutung. Ihre symbolische Kraft lag in der absoluten Verkörperung des unfaßbaren Begriffes von Heiligkeit. Mittels unseres Übersetzers ließ Abba Haile Mariam mir genau erklären: »Die >Tabots< sind geheiligt, nicht die Kirchen, in denen sie stehen; ohne ein >Tabot< in ihrem Herzen, im Allerheiligsten, ist eine Kirche nur eine leere Hülle, ein totes Bauwerk, das keine größere oder geringere Bedeutung als andere Gebäude besitzt.«

Die schwarzen Juden Äthiopiens

Als wir unsere Arbeiten auf den Klosterinseln beendet hatten fuhren wir von Bahar Dar aus am Ostufer des Tanasees entlang nordwärts, bis wir Gondar erreichten. Während der Reise konnte ich die Informationen überdenken, die ich gerade über die Geschichte der »Tabots« erhalten hatte. Es war zumindest sehr merkwürdig und verblüffend, daß die äthiopischen Christen die Bundeslade für so bedeutsam hielten, daß sie in jeder ihre: Kirchen Repliken der Lade aufbewahrten. Schließlich war die Lade eine vorchristliche Reliquie und hatte absolut nichts mit den Lehren Jesu Christi zu tun. Was ging hier also vor?

Wieder dachte ich an die alte aksumitische Legendensammlung, das Kebra *Nagast.* Möglicherweise gab es hier einen wahren Kern. Die Existenz einheimischer Juden im Land, derer Herkunft so sehr im Unklaren lag, war ebenso interessant - und konnte durchaus ein Bindeglied darstellen. Erwartungsvoll sah-ich deshalb den Falaschen-Siedlungen entgegen, auf die wir in zunehmender Zahl auf der nächsten Etappe unserer Exkursion stoßen würden.

Bevor wir allerdings Gondar verließen, wurden wir zu meiner Enttäuschung von einem höheren Beamten gewarnt, wir sollten unter keinen Umständen versuchen, äthiopische Juden zu fotografieren oder mit ihnen zu sprechen. Das waren nur gerade die Dinge, die mir am wichtigsten waren. Noch enttäuschter - und verärgert! - fühlte ich mich, als unser Dolmetscher und offizieller Begleiter die Gründe für dieses Verbot nannte. Ohne das Gesicht zu verziehen, erzählte er mir: »In diesem Jahr vertritt die Regierung eine Position, nach der die Falaschen nicht existieren. Und wenn sie nicht existieren, dann kann man natürlich auch nicht mit ihnen sprechen oder sie fotografieren ... Das wäre doch widersprüchlich, oder?«

Nur wenige Kilometer außerhalb der Stadt passierten wir ein kleines Dorf, und auf dem Dach einer Hütte machte ich einen Davidstern aus. »Also, Balcha«, sagte ich zu dem Dolmetscher »das ist doch ein Falaschen-Haus ...?«

Balcha war ein intelligenter, sensibler und hochgebildeter Mann, der einige Jahre in den Vereinigten Staaten verbracht hatte. Für den Job, den er hier im Auftrag der Regierung übernommen hatte, war er hoffnungslos überqualifiziert. Es war augenscheinlich, daß er für die idiotischen Verordnungen der Bürokraten in Addis Abeba wenig übrig hatte - und für die offizielle Geheimnistuerei schon gar nichts. Obwohl wir das Falaschen-Dorf schon hinter uns gelassen hatten, unternahm ich also noch einen entschlossenen Versuch, ihn zur Umkehr zu bewegen.

Er warf mir einen vernichtenden Blick aus den Augenwinkeln zu: »Das ist wirklich eine heikle Sache. Wir wissen nie, wie die Stimmung in Addis Abeba gerade ist. Ende letzten Jahres habe ich ein kanadisches Filmteam genau zu diesem Dorf gebracht. Sie interessierten sich für die Juden und hatten die offiziellen Genehmigungen und alles. Also, sie stöberten überall herum, stellten eine Menge kritischer Fragen über religiöse Freiheit, politische Verfolgung und so weiter - die ich allesamt übersetzen mußte. Als wir zurückkamen, wurde ich von der Sicherheitspolizei verhaftet und ein paar Wochen eingesperrt. Ich wurde wegen Verbreitung staatsfeindlicher Propaganda angeklagt. Wollen Sie wirklich, daß mir das noch einmal zustößt?«

»Nein, natürlich nicht. Aber in unserem Fall wird es sicher keine Probleme geben. Ich meine, wir sind doch hier, um für die Regierung zu arbeiten, um dieses Buch über die Menschen und Kulturen dieses Landes zu machen. Das ist doch ein Unterschied, nicht?«

»Nicht unbedingt. Letztes Jahr, als ich mit dem Filmteam hierher kam, existierten die Falaschen offiziell. Sie wurden also von der Regierung nicht totgeschwiegen - und trotzdem landete ich im Gefängnis. In diesem Jahr gibt es keine Juden in Äthiopien; wenn ich Sie also in eines ihrer Dörfer lasse, dann gerate ich in ernsthafte Schwierigkeiten.«

Ich hatte Balchas Argumenten nichts entgegenzusetzen. Auf unserer Fahrt durch das bergige Gelände fragte ich ihn, ob er mir die Haltung der Regierung erklären könne.

Nach seiner Darstellung bestand das Problem zum Teil darin, daß die meisten »Bonzen« in Addis Abeba zu der sehr dominanten ethnischen Gruppe der Amhara gehörten. Die Falaschen wiederum lebten zum größten Teil in den Provinzen von Gondar und Gojjam, beide von jeher amharische Gegenden. In der Vergangenheit hatte es gelegentlich regelrechte Massaker gegeben, und wirtschaftliche Schikanen waren an der Tagesordnung. Noch heute verachteten die Amhara ihre jüdischen Nachbarn, auch wenn man nach der Revolution einige Versuche unternommen hatte, die Situation zu verbessern. Aber offensichtlich litten die Mitglieder der herrschenden Elite noch immer an einer Art kollektiven Schuldbewußtseins, denn man wollte nicht, daß irgendwelche Fremden ihre Nasen in die Angelegenheit steckten. Mit Beginn der achtziger Jahre verstärkte sich diese Paranoia, ausgelöst durch die kritische Haltung englischer und amerikanischer Juden, die bei Besuchen in Äthiopien lautstark ihre Sorge um das Wohlergehen der Falaschen geäußert hatten. »Das wurde als Einmischung in unsere inneren Angelegenheiten aufgefaßt«, erklärte Balcha.

Ich erfuhr jedoch, daß es für das Verhalten der Regierung auch andere Gründe gab. Obwohl unser Fahrer kein Englisch sprach, senkte Balcha instinktiv die Stimme. Er machte deutlich, daß Addis Abeba Sitz der Organisation für Afrikanische Einheit war und daß Äthiopien nach dem letzten arabisch-israelischen Krieg zusammen mit anderen afrikanischen Staaten die diplomatischen Beziehungen zu Jerusalem abgebrochen hatte. Trotzdem bestanden noch immer geheime Verbindungen zwischen den beiden Ländern: Die Israelis stellten Äthiopien Militärhilfe in einem bestimmten Umfang zur Verfügung, als Gegenleistung sah man in Addis Abeba stillschweigend über die Ausreise von einigen hundert Falaschen pro Jahr nach Israel hinweg. Das Problem war jedoch, daß Tausende mehr illegal die Grenzen zum Sudan passierten und dort, in Flüchtlingslagern untergebracht, darauf hofften, ins Gelobte Land ausgeflogen zu werden.

Die Angelegenheit hatte sich also insgesamt zu einem heiklen Thema entwickelt. Auf der einen Seite fürchtete die Regie-

rung, daß der geheime Waffen-für-Menschen-Handel auffliegen könnte, was natürlich zu ernsten Verwicklungen innerhalb der OAE führen würde. Auf der anderen Seite bestand großer Unmut über die Tatsache, daß äthiopische Bürger in die Flüchtlingslager eines benachbarten Landes emigrierten, mit dem man nicht einmal auf besonders gutem Fuß stand. Es sah also so aus, als hätten die »hohen Tiere in Addis«, wie Balcha sich ausdrückte, nicht mehr alles unter Kontrolle - was den Tatsachen entsprach, aber verständlicherweise nicht gerade an die große Glocke gehängt wurde.

Unterdessen waren wir mitten in den Simienbergen angekommen, so daß ich in den nächsten drei Tagen kaum dazu kam, weiter über die Falaschen nachzudenken. Die Hochplateaus dieser afro-alpinen Wildnis lagen auf Höhen von über eintausendachthundert Metern, viele Berge waren über zweitausendsiebenhundert Meter hoch.

Auf dreitausend Metern Höhe hatten wir das Basislager für unsere Forschungsexkursionen eingerichtet. Hier sank die Temperatur bis auf null Grad, so daß man in den Nächten ein großes Feuer unterhalten mußte. Am Morgen aber, wenn die Frühnebel sich verflüchtigt hatten, wurde die Luft langsam von der Sonne erwärmt, und es boten sich faszinierende Aussichten über eine fast surreale Bergwelt, die von den seismischen Aktivitäten mehrerer Jahrtausende in eine zerklüftete, aufgeworfene und zerrissene Landschaft verwandelt worden war.

Unsere Wanderungen führten häufig auf entlegene und unbewohnte Höhen von dreitausendsechshundert Metern. Weiter unten trafen wir jedoch oft auf Anzeichen menschlicher Zivilisation: Bergwiesen, die das Futter für Schafe, Ziegen und Rinder lieferten, oder terrassenartig angelegte Abhänge mit Ackerparzellen, auf denen Getreide angebaut wurde. Natürlich trafen wir auch auf einige Falaschengemeinden, die wir - auf Balchas Beharren hin - jedoch strikt mieden. Die Mehrheit der Bevölkerung in dieser Gegend bestand aus Amhara, die nicht in Dörfern, sondern in kleinen Weilern von höchstens sechs Häusern lebten, die meist von den Zweigen einer Großfamilie bewohnt

wurden. Ihre Hütten waren in der Regel kreisrund und hatten meist Wände aus lehmverputzem Flechtwerk, nur selten aus Stein. Die spitz zulaufenden, strohgedeckten Dächer wurden in der Mitte von hölzernen Pfosten gestützt.

Die Bauern, die wir sahen und mit denen wir sprachen, waren arm - manchmal sogar sehr arm -, und ihr Leben wurde von den eisernen Regeln der Jahreszeiten und des Ackerbaus bestimmt. Trotzdem besaßen sie einen Stolz, denn sie wußten, daß sie zu einer »Herrenrasse« gehörten. Tatsächlich waren über den erstaunlichen Zeitraum von über siebenhundert Jahren, von 1270 nach Christus bis zum Sturz Haile Selassies 1974, bis auf einen alle äthiopischen Herrscher Amhara. Zudem war es ihre eigene Muttersprache, das Amharische, die man als offizielle Landessprache übernommen hatte. Es war klar, daß die Amhara-Kultur einen enormen Einfluß hatte. In den vergangenen Jahrhunderten gab es regelrechte »Amharisierungen« ganzer Volksteile und Stämme, und dieser Prozeß hielt in manchen Teilen des Landes noch an. Unter solchen Bedingungen grenze es an ein Wunder, schloß Balcha, daß eine Bevölkerungsgruppe wie die Falaschen überlebt und sich ihre ausgeprägte Identität bewahrt habe.

Auf unserer Rückreise nach Gondar überraschte uns Balcha (im Innersten ein Individualist, der übrigens einige Jahre später in die USA floh), als er dem Fahrer befahl, bei dem Falaschen-Dorf anzuhalten, das wir schon auf der Hinfahrt gesehen hatten. »Also los«, sagte er, »ich gebe Ihnen zehn Minuten.« Dann verschränkte er die Arme über der Brust und gab vor einzuschlafen.

Beim Verlassen des Jeeps wurden wir von Frauen und Kindern umringt, die ohne Unterlaß »Shalom, Shalom« riefen. Es war, wie sich schnell erwies, so ziemlich das einzige hebräische Wort, das sie kannten. Ohne Balcha, der sich unerschütterlich weigerte, für uns zu übersetzen, hatten wir zunächst einige Kommunikationsschwierigkeiten. Wir fanden aber schnell einen jungen Mann, der ein wenig Englisch sprach, und für etwas Geld war er bereit, uns herumzuführen. Es gab nicht viel zu sehen.

Das Dorf mit Namen Weleka lag hingeduckt in einer Senke an der Straße. Es war schmutzig und wimmelte von Fliegen. Die Leute, die uns umringten, schienen zu glauben, wir seien auch Juden und gekommen, um sie nach Israel zu bringen. Andere liefen uns mit Souvenirs beladen entgegen - meist Davidsterne aus gebranntem Ton oder Darstellungen der angeblichen Bettszene zwischen der Königin von Saba und Salomo. Der traurige Ernst, in dem diese Dinge angeboten wurden, berührte mich sehr. Ich fragte den jungen Falaschen, wann die letzten Fremden hier gewesen seien, um etwas zu kaufen. »Seit einem Jahr nicht mehr«, gab er zur Antwort.

In der kurzen Zeit, die wir zur Verfügung hatten, fotografierten wir soviel wir konnten. Hier einen primitiven Webstuhl, dort Eisenteile um ein Feuer verstreut, in dessen Flammen der Schmied eine Axt hämmerte; in einer Hütte wurde Ton gebrannt, in einer anderen sahen wir eine Frau, die mit Töpferarbeiten beschäftigt war. Die Amhara verachteten derartig niedriges Handwerk, erzählte Balcha uns später, und so bedeutet »tabib«, das Wort für Handwerk, gleichzeitig »der mit dem bösen Blick«.

Als wir Weleka verließen, war ich völlig erschöpft. Zum Teil voreingenommen durch das, was mir Richard Pankhurst über die mittelalterliche Hochblüte der Falaschen erzählt hatte, zum Teil, weil ich mich selbst von der Idee hatte fesseln lassen, es gäbe eine Verbindung zwischen den Falaschen und der Geschichte der Bundeslade, hatten sich in mir ziemlich unrealistische und übertriebene Erwartungen angesammelt. Im Herzen war ich Romantiker, so daß ich den Traum, einer alten und mächtigen jüdischen Kultur auf die Spur zu kommen, ein bißchen zu sehr gepflegt hatte. Die Wirklichkeit schien jedoch ganz anders: ich hatte eine niedere und verarmte bäuerliche Lebensform gesehen, und Menschen, die überbegierig waren, irgendwie das Interesse von Fremden zu erwecken. Sogar die Kultstätten, die von den Falaschen »mesgid« genannt werden, präsentierten sich als verlotterte Kammern, in denen sich billige Geschenke aus Israel stapelten: Schachteln mit Matzen lagen

umher, und niemand konnte die Thora lesen, weil sie aus Tel Aviv kam und in Hebräisch gedruckt war.

Kurz bevor wir wegfuhren, kaufte ich eine der kleinen Skulpturen von Salomo und der Königin von Saba. Ich habe sie immer noch. Mittlerweile glaube ich, daß dieses billige Stück Arbeit und die sentimentale Vorstellung, die darin steckt, genau die Schwächen der Legende selbst symbolisieren. Enttäuscht und ernüchtert starrte ich aus dem Fenster, als wir zurück nach Gondar fuhren.

Gnadenstoß

Ende 1983 hatte sich mein Interesse an der Bundeslade ziemlich gelegt. Den »Gnadenstoß« dazu hatte mir jedoch nicht der Anblick des armseligen Falaschen-Dorfes versetzt. Es war vielmehr eine Frage, die ich nach meiner Rückkehr nach England verfolgte - die Frage der »Tabots« nämlich, der Repliken der Bundeslade, die sich in jeder christlichen Kirche in Äthiopien befinden. Dieser Brauch hatte mich sehr beeindruckt, und da ich glaubte, er könne von Wichtigkeit sein, wollte ich mehr darüber herausfinden.

Ich brachte die Sache im Spätherbst 1983 zur Sprache, als ich Richard Pankhurst in seiner Londoner Wohnung besuchte. Der Historiker bestätigte, daß man die »Tabots« tatsächlich für Repliken der Bundeslade halte, und fügte hinzu: »Das ist ein merkwürdiger Brauch. Mir ist kein Beispiel bekannt, daß so etwas auch in einer anderen Ausprägung des Christentums vorkommt.«

»Wie lange gibt es diese >Tabots< schon in Äthiopien?«

»Ehrlich gesagt, ich habe keine Ahnung. Die erste schriftliche Erwähnung stammt wahrscheinlich von Francisco Alvarez, der im sechzehnten Jahrhundert den Norden des Landes bereiste. Nur bestätigt er natürlich eine Tradition, die zu dieser Zeit schon sehr alt war.«

Richard zog ein dünnes Bändchen mit dem Titel Die äthio-

pisch-orthodoxe Kirche aus einem Regal. »Das ist eine offizielle Publikation aus dem Jahre 1970«, sagte er, »mal sehen, ob wir hier mehr erfahren.«

Der Band hatte kein Register, so daß wir die Kapitel einzeln durchgehen mußten. In dem Abschnitt »Die Konsekration einer Kirche« stießen wir auf folgende Passage:

»Die Konsekration einer Kirche ist eine feierliche und eindrucksvolle Zeremonie mit symbolischer Darstellung der heiligen Gebräuche, für die das Gebäude bestimmt wird. Die einzelnen Bestandteile des Gottesdienstes stammen aus sehr alter Zeit ... Das zuvor vom Patriarchen geweihte >Tabot<, auch Lade genannt, wird in einer weihevollen Handlung aufgestellt und bedeutet den wichtigsten Bestandteil der Zeremonie ...«[2]

Und in einem Kapitel über Kirchenbauten lasen wir:

»Es ist das >Tabot<, welches der Kirche, in der es sich befindet, die Weihe verleiht ...«[3]

Das Glossar verzeichnete das Stichwort »Tabot« und definierte es als »Bundeslade«[4].

Nun fragte ich Richard, ob er wisse, wie ein »Tabot« aussehe: »Die Bibel sagt, daß die Bundeslade ein Behältnis von Holz und Gold ist - das in etwa die Maße einer großen Truhe besitzt. Passen die >Tabots< zu dieser Beschreibung?«

»Nein, ich fürchte nicht. Natürlich dürfen Laien sie gar nicht sehen, und selbst in den Prozessionen werden sie immer mit großen Tüchern verhängt. Mit Sicherheit sind sie kleiner als in der biblischen Beschreibung. Aber wir müssen darüber nicht spekulieren: im British Museum kannst du einige >Tabots< sehen, die im neunzehnten Jahrhundert während der Napier-Expedition nach Magdala in Äthiopien erbeutet wurden. Ich glaube nicht, daß sie noch ausgestellt werden, aber sie werden wohl im Magazin der Ethnographischen Abteilung in Hackney aufbewahrt.«

Am nächsten Morgen fuhr ich in den Norden Londons, wo sich das Magazin befand. Es war ein modernes und reizloses Gebäude mit hohen Sicherheitsvorkehrungen. »Die Leute wollen hier manchmal einbrechen und unser Zeug klauen«, sagte

der Hausverwalter lakonisch, als ich mich in die Besucherliste eintrug.

Wir fuhren mit dem Aufzug in eines der höhergelegenen Stockwerke und betraten einen großen Lagerraum, der ganz mit Reihen von Metallregalen ausgefüllt war. Die Regale reichten vom Boden bis zur Decke und ließen das Licht der Neonröhren kaum bis hinunter in die schmalen Gänge dringen. Der Verwalter konsultierte eine umfangreiche Kartei, murmelte unverständlich vor sich hin und sagte schließlich: »Ich glaube, es geht da lang. Kommen Sie mit.«

Als wir an den Regalen vorbeigingen, wurde ich unwillkürlich an die Schlußszene von *Die* Jäger des verlorenen Schatzes erinnert - an die Sequenz, in der der heilige Schrein in eine Kiste eingenagelt und unter tausenden anderer Behälter unbekannter Herkunft in einem Lagerraum gestapelt wird. Dieser Eindruck verstärkte sich, nachdem wir uns im Labyrinth der Regale mehrmals verlaufen hatten. Endlich blieb der Lagerist vor einem der Gestelle stehen und zog einen großen Kasten hervor.

Ich spürte einen Schauer der Erregung, als er die Metallbox öffnete. Was ich dann sah, hatte jedoch nicht die entfernteste Ähnlichkeit mit meiner Vorstellung von der Bundeslade. Keine der in Lagen von Packpapier eingewickelten hölzernen Platten war länger oder breiter als fünfundvierzig Zentimeter und dicker als acht Zentimeter. Die meisten dieser quadratischen oder rechteckigen Tafeln waren schmucklos, alle jedoch trugen Ge'ez-Schriftzeichen. Bei einigen bemerkte ich eingeritzte Kreuze und andere Muster.

Ich bat den Lagermeister, noch einmal seine Liste zu überprüfen, vielleicht standen wir vor dem falschen Regal. Er warf einen Blick auf das Verzeichnis und erwiderte: »Nein. Kein Fehler. Das sind Ihre >Tabots<. Aus der Sammlung Holmes. Britische Expedition nach Abessinien 1867/68. Das steht hier.«

Ich dankte ihm für seine Mühe und ging - überzeugt, daß sich die ganze Angelegenheit nun endgültig erledigt hatte. Diese kläglichen Holzbretter waren also das Pendant zu dem Heilig-

tum, das in der Kapelle von Aksum aufbewahrt wurde. Was immer dies nun war, eines schien mir absolut klar: Es war nicht die Bundeslade.

»Das war's also«, dachte ich, als ich auf die Orsman Road hinaustrat und zu meinem Auto lief.

Ich sollte mich sehr getäuscht haben.

TEIL II: DER GRAL ALS SCHLÜSSEL

Kapitel 3

Die Königin von Saba in Chartres

Den größten Teil des Winters 1988/89 verbrachte ich damit, den Begleittext zu einem Bildband über die nördlichen Regionen Äthiopiens zu verfassen, der sich mit der Geschichte und den religiösen Bräuchen der Einwohner dieser Provinzen auseinandersetzte. Um zu detaillierten Hintergrundinformationen zu gelangen, hatte ich mich mit verschiedenen ethnischen Gruppen zu befassen, darunter den Falaschen, den eingeborenen schwarzen Juden der Hochebenen, denen ich schon 1983 begegnet war. Zur gleichen Zeit schien es mir notwendig, die alte Legendensammlung, auf die mich Professor Richard Pankhurst aufmerksam gemacht hatte, aufgrund ihrer zentralen Stellung in der abessinischen Religionskultur zu lesen. Dieser Text, genannt Kebra Nagast (Ruhm der Könige), war im Original in Ge'ez geschrieben. Er enthielt die älteste überlieferte Fassung der Geschichte von der Königin von Saba, König Salomo, der Geburt ihres Sohnes Menelik und dem Raub der Bundeslade. Sir E. A. Wallis Budge, einstmals Verwalter der archäologischen Funde im British Museum, hatte 1920 eine englische Übersetzung des Textes angefertigt.[1] Obwohl die Ausgabe vergriffen war, konnte ich mir eine Fotokopie besorgen, die ich sorgfältig studierte. Die Sammlung alter Legenden erwies sich als hilfreiches Nachschlagewerk.

Erst Ende März 1989 konnte ich die Arbeit an meinem Manuskript abschließen. Im April reiste ich mit meiner Familie nach Frankreich, wo wir einige Urlaubswochen verbringen wollten. Eine unserer ersten Stationen war Chartres, das für seine gotische Kathedrale bekannt ist. Die Stadt war für die Christen schon seit dem sechsten Jahrhundert von großer Bedeutung und spätestens seit dem neunten Jahrhundert ein Ort der Marienverehrung. Im elften Jahrhundert brannte die Kirche ab, und ein

neues, größeres Gotteshaus wurde auf ihren Grundfesten erbaut. Im zwölften und dreizehnten Jahrhundert vergrößerte man den erhaltenen Kern und modifizierte ihn nach Art des neuen, emporsteigenden und schwebenden Baustils, der Gotik. Heute gilt der Nordturm der Kathedrale, die im Jahre 1260 geweiht wurde, als eines der frühesten Beispiele gotischer Architektur.

Als ich Chartres im April 1989 besuchte, war ich anfänglich viel weniger an der Geschichte der Kathedrale interessiert als an ihrer aufsehenerregenden und prächtigen Schönheit. Die große Anlage war so reich an sakralen Kunstwerken und architektonischer Schönheit, daß man ein Leben damit hätte zubringen können, alles genau zu betrachten.

Den größten Teil meiner Zeit verbrachte ich damit, langsam um die Kathedrale zu wandern und ihre mächtige und numinose Wirkung immer tiefer in mich aufzusaugen: die kunstvollen Bleiglasfenster, die biblische Geschichten erzählten und das düstere Innere mit seltsamen Lichtmustern durchzogen, das rätselhafte Labyrinth, das die Fliesen im Zentrum des Mittelschiffs darstellten, die Strebepfeiler und Spitzbögen, die die hochaufragenden Wände stützten - und schließlich der überwältigende Eindruck von Harmonie und Proportion, vermittelt durch Anmut und Geschlossenheit der Architektur.

Die Beschreibungen und Führer, die ich mir gekauft hatte, betonten, daß hier nichts dem Zufall überlassen worden war. Das gesamte Gebäude war sorgfältig und bedacht als Schlüssel zu den großen religiösen Mysterien entworfen worden. So hatten sich zum Beispiel die Architekten und Baumeister der Gematria[2] bedient, einer althebräischen Form der Codierung, bei der die Buchstaben des Alphabets durch ihren jeweiligen Zahlenwert ersetzt werden, um so geheime liturgische Stellen in die vielen Dimensionen des großen Gebäudes zu »übersetzen«[3]. Auf ähnliche Weise verbargen Bildhauer und Glaser - die für gewöhnlich nach den Angaben des höheren Klerus arbeiteten - sorgsam die vielschichtigen Botschaften über die Natur des Menschen oder die prophetische Bedeutung der Schriften in den tausend verschiedenen Gegenständen und Formen, die sie

entwarfen. Die Skulpturen und Fenster waren schon in sich Kunstwerke, die in ihrer Schönheit selbst bei oberflächlicher Betrachtung Zufriedenheit und inneres Gleichgewicht, ja selbst Unterhaltung vermitteln konnten. Die Herausforderung lag jedoch darin, tiefer einzudringen und die Informationen zu entschlüsseln, die sich hinter dieser oder jener Skulpturengruppe, diesem oder jenem Bleiglasarrangement verbargen.[4]

Anfänglich konnte mich ein solches Ansinnen kaum begeistern, da mir nicht einleuchten wollte, daß in diesem Gebäude mehr als seine äußere Erscheinung stecken sollte. Als ich jedoch weiterforschte und mich auf einem Rundgang einigen Spezialisten anschloß, begriff ich langsam, daß diese weitgespannte Struktur tatsächlich eine Art »steinernes Buch« war - ein ausgeklügeltes, die Phantasie ansprechendes Werk, dem man sich aus den unterschiedlichsten Richtungen nähern und das man auf verschiedenen Ebenen verstehen konnte.

Schon bald fand ich Gefallen an diesem Spiel und vergnügte mich des öfteren damit, die tiefere Bedeutung von Skulpturen zu suchen, die mir zufällig ins Auge gefallen waren. Sobald ich der Meinung war, die richtige Erklärung für ein bestimmtes Arrangement oder Bild gefunden zu haben, sah ich in einem der Führer nach, um zu überprüfen, ob ich recht hatte.

Dann geschah etwas Unerwartetes. Auf der Suche nach einer Erfrischung betrat ich ein dem Südportal der Kathedrale gegenüberliegendes Cafe mit dem Namen »La Reine de Saba«. Da mir die Lektüre des *Kebra Nagast,* das die äthiopische Legende der Königin von Saba enthielt, noch frisch im Gedächtnis war, fragte ich einen der Kellner, warum man diesen Namen gewählt hatte.

»Weil es dort drüben im Portal eine Skulptur der Königin von Saba gibt«, erklärte er.

Meine Neugier war geweckt. Ich überquerte die Straße und stieg die Stufen zu dem reichverzierten Portal empor. Jeder Quadratzentimeter seines Mauerwerkes war mit aberhunderten von kleinen und vielen lebensgroßen Statuen bedeckt. Es gelang mir jedoch nicht, die Darstellung der Königin von Saba auszuma-

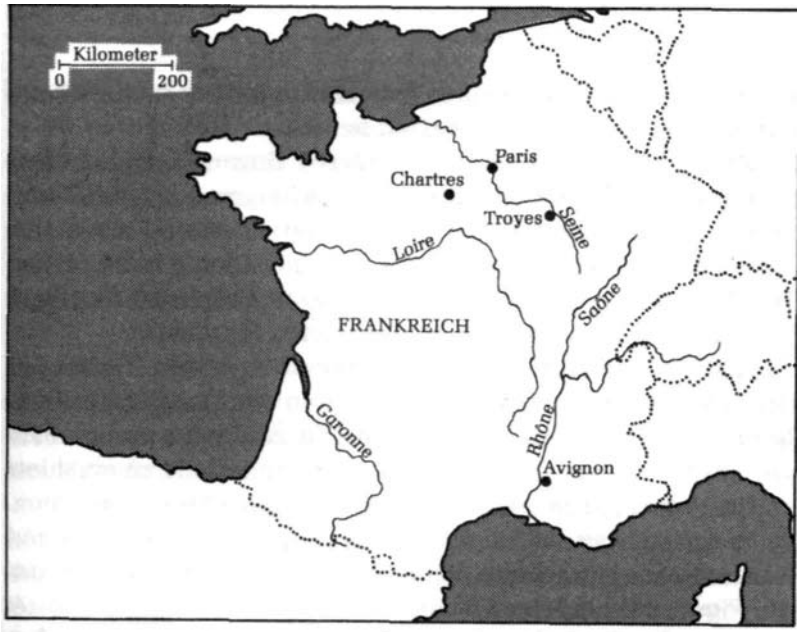
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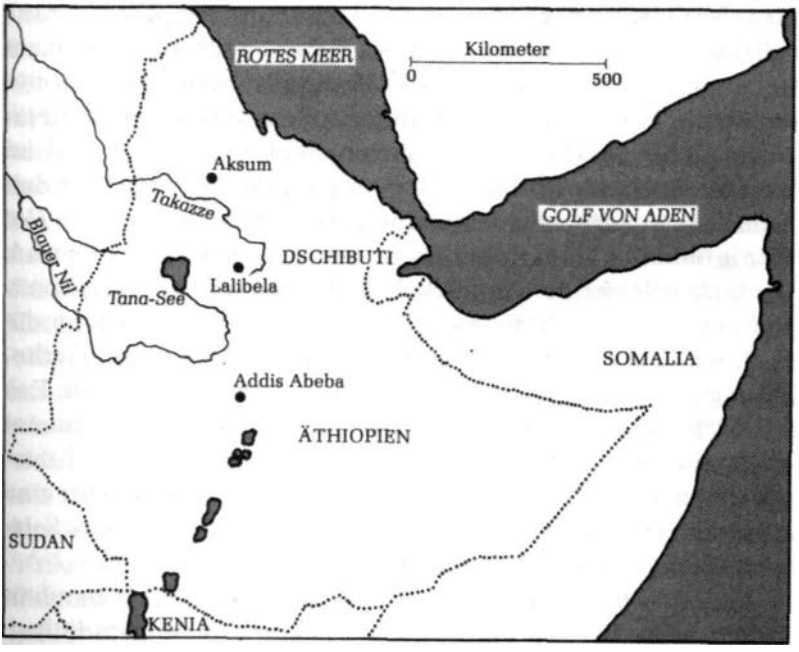
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SOMALIA
Addis Abeba
ÄTHIOPIEN
SUDAN
KENIA

chen. Also sah ich in meinen Reiseführern nach und stieß auf einen Hinweis, wo ich zu suchen hatte.

»Die innere Archivolte des äußeren Bogens zeigt achtundzwanzig Figuren von Königinnen und Königen des Alten Testaments. Man erkennt David mit der Harfe, Salomo mit einem Zepter und die Königin von Saba mit einer Blume in der linken Hand. An der Spitze sieht man vier >große< Propheten (mit Bart) im Gespräch mit vier >kleinen< Propheten (bartlos).«[5]

Hier las ich auch, daß das Südportal im ersten Viertel des dreizehnten Jahrhunderts erbaut worden war - im gleichen Jahrhundert, in dem das Kebra Nagast in Äthiopien zusammengestellt wurde, um die Geschichte der Bundeslade zu erzählen.

Dies erschien mir mehr als nur ein amüsantes Zusammentreffen zu sein, so daß ich die Skulptur der Königin mit gesteigertem Interesse betrachtete. Mir wollte jedoch nichts auffallen, das die Figur in irgendeiner Weise hervorgehoben hätte - abgesehen von der Tatsache, daß sie, umgeben von einer so großen Anzahl ehrenwerter jüdischer Herrscher und Propheten, etwas fehl am Platze wirkte. Zwar gibt das Kebra Nagast an, die Königin sei zum Judentum konvertiert[6], die relativ kurze Stelle in der Bibel, die von ihrem Besuch in Jerusalem spricht, erwähnt jedoch nichts dergleichen. Im ersten Buch der Könige und im zweiten Buch der Chronik - den einzigen Stellen, wo sie in den Schriften ausdrücklich erwähnt wird - erreicht sie den Hof König Salomos als Heidin und verläßt ihn allem Anschein nach auch als solche.[7] Es war folglich ihr Heidentum, das sie eigentlich aus der Reihe dieser Skulpturen fallen ließ - es sei denn, die Baumeister der Kathedrale wären mit der äthiopischen Überlieferung ihrer Bekehrung zum Judentum vertraut gewesen. Das hielt ich jedoch für wenig wahrscheinlich. Im Alten Testament gibt es keinerlei Hinweis darauf, daß sie überhaupt aus Äthiopien kam, und die Mehrheit der Fachgelehrten hält sie für eine südarabische Herrscherin, die mit einiger Sicherheit aus Saba oder Sabaea, das im heutigen Jemen liegt, stammte.[8]

Ich hätte die Sache als kleine Anomalität auf sich beruhen lassen, wäre ich nicht bei weiterer Lektüre in meinem Führer

darauf gestoßen, daß es eine zweite Figur der Königin von Saba im Nordportal gab. Auch dieses Portal war in den Jahren zwischen 1200 und 1225 erbaut worden und der ausführlichen Darstellung alttestamentarischer Themen gewidmet.

Steinerne Inschriften

Es waren wohl über zwei Stunden, die ich bei meiner ersten Betrachtung des Nordportals mit dem Versuch verbrachte, die ineinanderverschlungenen Geschichten, die die Figuren erzählten, zu entschlüsseln.

Der linke Bogen enthielt mehrere Darstellungen der Jungfrau Maria und des Jesuskindes zusammen mit Propheten des Alten Testaments wie Jesaja und Daniel. Daneben gab es allegorische Darstellungen des Sieges der Tugend über das Laster oder der Seligpreisung von Körper und Seele, wie sie der große Kirchengelehrte des zwölften Jahrhunderts, Bernhard von Clairvaux, formuliert hat. Der mittlere Bogen wurde von einer Gruppe alttestamentarischer Propheten und Patriarchen dominiert, darunter Melchisedek, jener geheimnisvolle und angeblich unsterbliche Priesterkönig von Salem, der im ersten Buch Mose und in den Psalmen beschrieben wird.[9] Abraham, Moses, Samuel und David waren dort ebenso versammelt wie Elias und Petrus. Andere Szenen beschrieben den Garten Eden mit seinen vier Flüssen und die Jungfrau Maria, gekrönt auf dem himmlischen Thron neben Jesus.

Im rechten Bogen entdeckte ich die Königin von Saba. Hier handelte es sich nicht um eine kleine Figur in einer Archivolte, wie im Südportal, sondern um eine fast lebensgroße Statue. Man hatte sie neben Salomo gestellt, was, dem biblischen Kontext zufolge, durchaus sinnvoll war. Was mir jedoch sofort ins Auge fiel, war die Darstellung eines zu ihren Füßen kauernden Afrikaners, der in einem meiner Reiseführer als »negroider Diener«[10], in einem anderen als »ihr äthiopischer Sklave«[11] beschrieben wurde.

Den Erläuterungen waren keine weiteren Details zu entnehmen. Aber ich hatte genug gesehen, um mit Zufriedenheit festzustellen, daß die Bildhauer, die im dreizehnten Jahrhundert am Nordportal von Chartres gearbeitet hatten, die Königin unmißverständlich in einer afrikanischen Umgebung darstellten. Dies wiederum bedeutete, daß ich die Möglichkeit nicht mehr ohne weiteres ausschließen konnte, daß die Bildhauer mit der äthiopischen Überlieferung des Kebra Nagast vertraut gewesen waren. Das würde auch erklären, warum einer offensichtlich heidnischen Figur in der Ikonologie einer christlichen Kathedrale eine solche Wichtigkeit zukam. Damit stellte sich jedoch eine andere schwierige Frage: Wie war es möglich, daß die äthiopische Legende zu einem solch frühen Zeitpunkt nach Nordfrankreich gelangt war?

Noch ganz in Gedanken, entdeckte ich auf einer Säule zwischen dem mittleren und dem rechten Bogen eine Figur, die einen noch stärkeren Eindruck bei mir hinterlassen sollte. In Miniaturform - nicht mehr als ein paar Zentimeter hoch und breit - war hier eine Kiste oder Truhe dargestellt, die auf einem Ochsenkarren transportiert wurde. Darunter hatte man in Versalbuchstaben zwei Worte eingraviert:

ARCHA CEDERIS.

Als ich um die Säule herumging, fiel mir eine andere, stark beschädigte und verwitterte Szene auf, die einen Mann darstellte, der sich über dieselbe Kiste oder Truhe zu beugen schien. Auch hier gab es eine Inschrift, die jedoch kaum zu entziffern war:

HIC AMICITUR ARCHA CEDERIS oder möglicherweise HIC AMITTITUR ARCHA CEDERIS oder HIC AMITITUR ARCHA CEDERIS oder auch HIC AMIGITUR ARCHA CEDERIS.

Ich konnte erkennen, daß die einzelnen Majuskeln unterschiedlichen Schriftenfamilien entstammten, die in unregelmäßiger Anordnung aufeinanderfolgten. Zumindest war klar, daß es sich bei allen Buchstaben um lateinische Lettern handelte. Aufgrund meiner sprachlichen Unfähigkeit hatten mich meine Lehrer dazu gebracht, Latein schon mit dreizehn Jahren aufzu-

geben, so daß ich erst gar keine komplette Übersetzung versuchte. Es schien mir jedoch, daß ARCHA Arche, also Schrein oder Lade bedeuten mußte. Und es war klar erkennbar, daß diese Kiste oder Truhe im Vergleich zu den anderen Figuren die richtigen Proportionen besaß, um die Bundeslade darzustellen - so wie sie im zweiten Buch Mose beschrieben wird.

Wenn diese Annahme zutraf, dann würde die Darstellung der Bundeslade ganz in der Nähe der Königin von Saba meine Vermutung bestärken, daß die Erbauer von Chartres direkt von den äthiopischen Überlieferungen des Kebra *Nagast* beeinflußt worden waren - obgleich ich mir nicht erklären konnte, wie diese Verbindung hätte Zustandekommen können. Gerade die Tatsache, daß die Bildhauer die Königin so eindeutig in einem afrikanischen Umfeld plaziert hatten, ließ meine These immer plausibler erscheinen. Es mußte sich also lohnen, herauszufinden, ob es sich hier tatsächlich um eine Darstellung der Bundeslade handelte. Aber zunächst mußte ich wohl die Bedeutung der lateinischen Inschrift entziffern. Ich setzte mich auf die Stufen des Nordportals und durchforstete meine Führer. Nur zwei von ihnen erwähnten die Skulpturen, auf die es mir ankam. Der erste bot keine Übersetzung der Inschriften an, versicherte aber, daß sich die dargestellten Szenen auf die Bundeslade bezogen.[12] Der zweite lieferte eine Übersetzung, die mir zwar sehr interessant, aber ebenso fragwürdig erschien:

ARCHA CEDERIS: »Durch die Bundeslade wirst du wirken« und HIC AMITITUR ARCHA CEDERIS: »Hier läßt man gehen, durch die Bundeslade wirst du wirken.«[13]

Selbst mein Schülerlatein reichte aus, um zu vermuten, daß diese Interpretationen möglicherweise falsch waren. Ich entschloß mich also, die Angelegenheit einem Experten anzuvertrauen, und erinnerte mich an Dr. Peter Lasko, Kunsthistoriker und ehemaliger Direktor des Courtauld-Institutes der Universität London, der jetzt in Südfrankreich lebte. Lasko hatte sein Leben damit verbracht, die Kirchenkunst und Architektur des Mittelalters zu studieren. Ich war mir sicher, daß er mir weiterhelfen konnte.

Also schrieb ich die Inschriften sorgfältig ab und fertigte zudem eine Skizze des gesamten Nordportals an. Dabei fiel mir noch etwas auf: Obgleich die Abbildung der Lade auf den Stützpfeilern optisch etwas im Vordergrund stand, lag sie genau in der Mitte zwischen Melchisedek, dessen Figur den mittleren Bogen beherrschte, und der Statue der Königin von Saba im Zentrum des rechten Bogens. So ergab sich ein regelrechtes Dreieck, das alle drei Figuren miteinander verband.

Doch das war noch nicht alles. Als ich den Aufbau der Bilder in den beiden Bögen untersuchte, stellte ich fest, daß sich aus der Position der Lade und des kleinen Karrens, auf dem sie sich befand, eine Bewegung ablesen ließ, die fort von Melchisedek und hin zur Königin von Saba führte - und das auf einer Linie des imaginären Dreiecks, das ich gezeichnet hatte. Noch einmal rief ich mir ins Gedächtnis, daß man die allermeisten Skulpturengruppen mit Bedacht so kombiniert hatte, daß sie Geschichten erzählten oder verschlüsselte Informationen transportierten. Gerade dieses Arrangement mußte alles andere als ein Zufall sein. Ganz im Gegenteil, es schien als weiteres Beweisstück für meine These gelten zu können, nach der die Baumeister der Kathedrale auf irgendeine Art mit der äthiopischen Legende in Berührung gekommen sein mußten. Noch hatte ich zuwenig in den Händen, um eine Schlußfolgerung ziehen zu können, aber es schien immer wahrscheinlicher, daß das seltsame Bildwerk des Nordportals Elemente jener Überlieferung enthielt, nach der die Bundeslade dem alten Israel weggenommen und nach Äthiopien gebracht worden war.

Bevor ich also das Nordportal verließ, widmete ich meine besondere Aufmerksamkeit der Figur des Melchisedek. Er war mir gleich zu Beginn aufgefallen, doch während ich ihn zeichnete, nahm ich immer mehr Einzelheiten wahr. Unterhalb seiner rechten Hand baumelte zum Beispiel ein Weihrauchfaß, das sehr denjenigen ähnelte, die ich oft bei äthiopischen Meßfeiern gesehen hatte. In der Linken hielt er einen langstieligen Kelch oder Becher, der keine Flüssigkeit, sondern eher einen festen, zylindrischen Gegenstand zu enthalten schien.

Wieder konsultierte ich meine Führer, konnte jedoch keine Erwähnung des Weihrauchfasses und nur widersprüchliche Erklärungen für den Becher finden. Eine Quelle gab an, daß Melchisedek hier als Vorläufer Christi anzusehen sei und daß der Kelch sowie der darin enthaltene Gegenstand »Brot und Wein, die Sinnbilder der Eucharistie« darstellten.[14] An anderer Stelle war unter einer Fotografie der Statue zu lesen: »Melchisedek im Besitz des Grals, aus dem der Stein hervortritt«. Noch weniger konnte ich mit der folgenden Bemerkung anfangen: »Dieser Legende kann man die Dichtung des Wolfram von Eschenbach an die Seite stellen ... - von dem man behauptet hat, er sei Templer gewesen, was aber unbewiesen ist.«[15]

Um keinen Deut klüger verließ ich schließlich das Nordportal, um meine Familie in den Gärten hinter der großen Kathedrale zu treffen. Am nächsten Tag verließen wir Chartres und fuhren in Richtung Bordeaux und Biarritz. Wenig später erreichten wir mit Hilfe einer guten Karte die Ortschaft Montaigu de Quercy und das Haus des Kunsthistorikers Dr. Peter Lasko, den ich von Chartres aus angerufen hatte. Lasko wollte gerne mit mir über die Figuren des Nordportals sprechen, obgleich er, wie er bescheiden hinzufügte, nicht den Anspruch erheben wollte, als Experte auf diesem Gebiet zu gelten.

Eine Verbindung nach Äthiopien?

Mit Peter Lasko verbrachte ich einen ganzen Nachmittag. Er wußte, daß ich mich als Autor auf Äthiopien und Ostafrika spezialisiert hatte, so daß er mich als erstes fragte, weshalb ich mich mit einem Mal für französische Kathedralen des Mittelalters interessierte.

Ich beantwortete die Frage, indem ich ihm meine Theorie erläuterte, nach der die Figuren am Nordportal von Chartres auf irgendeine Art vom Kebra *Nagast* beeinflußt worden sein könnten. »Melchisedek mit dem Becher in der Hand stellt das alttestamentarische Israel dar«, fuhr ich fort. »Immerhin war er

Priesterkönig von Salem, das viele Wissenschaftler als Jerusalem identifiziert haben.[16] Dann könnte die Königin von Saba mit ihrem Diener Äthiopien darstellen. Die Skulpturengruppe gibt also genau das wieder, was im Kebra Nagast steht: daß die Lade von Jerusalem nach Äthiopien gelangte. Wie klingt das Ihrer Meinung nach?«

»Um ganz offen zu sein, Graham, es klingt absurd.«

»Warum?«

»Nun ..., es mag vielleicht noch angehen, daß eine äthiopische Legendensammlung schon im dreizehnten Jahrhundert nach Europa gedrungen ist. Wo wir gerade davon sprechen, fällt mir ein, daß es da mindestens einen Aufsatz gibt, der dieser Theorie eine Möglichkeit einräumt. Ich bezweifle das eher. Nun gut, selbst wenn die Geschichten des Kebra Nagast in Chartres zu dieser Zeit bekannt waren, so sehe ich dennoch keinen Grund dafür, warum irgend jemand auf die Idee gekommen sein sollte, diese Legenden in die Bildersprache der Kathedrale zu übersetzen. Das wäre ein absonderliches Vorhaben gewesen, insbesondere am Nordportal, das vor allem die alttestamentarischen Vorläufer Christi behandelt. Das ist, nebenbei bemerkt, auch der Grund, warum Melchisedek sich dort befindet. Im Hebräerbrief wird er ausdrücklich mit Christus gleichgesetzt.«[17]

»In Chartres hält er einen Becher in der Hand. Außerdem befindet sich eine Art zylindrischer Gegenstand in diesem Becher ...«

»... der möglicherweise Brot und Wein darstellt: Brot und Wein der Eucharistie.«

»So steht es auch in einem meiner Führer. In einem anderen jedoch wird der Becher mit dem Gral verglichen und behauptet, der zylindrische Gegenstand sei ein Stein.«

Peter Lasko runzelte fragend die Stirn: »Das ist das erste Mal, daß ich so etwas höre. Es erscheint mir noch weiter hergeholt als Ihre Theorie von einer Verbindung nach Äthiopien ...« Aber dann fügte er hinzu: »Allerdings gibt es da doch etwas. Diese Abhandlung, von der ich gesprochen habe, beschäftigt sich eben-

falls mit äthiopischen Einflüssen, die ihren Weg in das mittelalterliche Europa gefunden haben ...«

»Ja?«

»Es ist schon seltsam, aber dieser Aufsatz befaßt sich mit dem Gral. Wenn ich mich recht erinnere, wird dort behauptet, daß Wolfram von Eschenbachs Darstellung des Grals, der im übrigen ein Stein und kein Becher war, von einer Art christlich-äthiopischer Überlieferung beeinflußt wurde.«

Ich rückte auf meinem Stuhl nach vorn: »Das ist interessant ... Wolfram von Eschenbach wurde in meinem Führer auch erwähnt. Wer war das eigentlich?«

»Einer der ersten mittelalterlichen Dichter, die sich mit dem Gral beschäftigten. Er schrieb ein umfassendes Werk über dieses Thema: Parzival.«

»Ist das nicht der Name einer Oper?«

»Ja, *Parsifal* von Wagner. Er ist von Wolfram beeinflußt worden.«

»Und dieser Wolfram, wann genau war er tätig?«

»Ende des zwölften oder Anfang des dreizehnten Jahrhunderts.«

»Mit anderen Worten, genau zu der Zeit, als das Nordportal der Kathedrale entstand?«

»Ja, das ist wohl richtig.«

Wir schwiegen einen Augenblick, dann fragte ich: »Erinnern Sie sich zufällig an den Titel der Abhandlung?«

»Hm ..., nein, ich fürchte nein. Es ist mindestens zwanzig Jahre her, daß ich das gelesen habe. Ich glaube, es war von einem gewissen Adolf. Zumindest bringe ich diesen Namen damit in Verbindung. Am besten wenden Sie sich vielleicht an einen Fachmann für mittelhochdeutsche Literatur.«

Ich nahm mir vor, diesen Rat zu befolgen. Nun fragte ich Peter, ob er mir bei der Übersetzung der rätselhaften Inschriften weiterhelfen könnte, und erzählte ihm von den Interpretationen meines Reiseführers.

Damit war Peter jedoch überhaupt nicht einverstanden. ARCHA bedeutete sicherlich »Lade«, begann er, während CEDERIS

wahrscheinlich eine Entstellung von FOEDERIS, »Bündnis«, war. So gesehen bedeutete ARCHA CEDERIS ganz einfach »Bundeslade«. Eine zweite Möglichkeit bestand darin, das Wort CEDERIS mit einer Form des Verbs CEDERE zu erklären, was soviel wie »hergeben« oder »aufgeben« oder »weggehen« bedeutete. Die Tempusform war zwar unorthodox, doch könnte die Übersetzung von ARCHA CEDERIS in diesem Fall lauten: »Die Lade, die du hergeben (oder >aufgeben< oder >wegschicken<) wirst.«

Bei der längeren Inschrift lag die Schwierigkeit bei dem vierten Buchstaben des zweiten Wortes. In meinem Führer hatte man ihn für ein einfaches »T« gehalten. Es schien sich jedoch eher um die Abkürzung für ein doppeltes »T« zu handeln, denn es gibt kein lateinisches Wort AMITITUR mit einem »T«. Also müßte man den Satz als HIC AMITTITUR ARCHA CEDERIS lesen, was soviel wie »Hier wird sie losgelassen, die Lade, die du hinweggibst« bedeutete, oder vielleicht »Hier wird sie losgelassen, o Lade, du bist hinweggegeben«, oder als weitere Variante - wenn man CEDERIS als Korrumpierung von FOEDERIS betrachtete - »Hier wird sie losgelassen, die Bundeslade«.

Es war jedoch auch denkbar, daß der Buchstabe ein »C« war (wonach er auch am ehesten aussah). Wenn dem so war, dann lautete der in Frage kommende Satz HIC AMICITUR ARCHA CEDERIS, was man entweder mit »Hier ist die Bundeslade versteckt« oder mit »Hier ist die Lade versteckt, die du hergeben wirst« übersetzen kann.

»Aber selbst das Wort >versteckt< ist nicht eindeutig«, fuhr Peter fort, während er sein Wörterbuch zuschlug. »In diesem Zusammenhang könnte man AMICITUR genausogut mit >bedeckt< wiedergeben, wobei beide Begriffe sicherlich auf eine gemeinsame Grundbedeutung zurückzuführen sind. Ich weiß nicht, das ganze erscheint mir wie eine Art absichtsvolles Verwirrspiel.«

Dem konnte ich nur zustimmen. Mehr noch: Meine Neugier war geweckt, ich fühlte mich herausgefordert, angezogen, verführt von diesem Rätsel - und ich wollte es um jeden Preis lösen.

Während meiner restlichen Urlaubstage in Frankreich kehrte

ich in Gedanken immer wieder zum Nordportal von Chartres zurück. Ich konnte einfach nicht vergessen, wie sich die Reliquie auf dem Ochsenkarren in die Richtung der Königin von Saba zu bewegen schien. Und ebensowenig kam ich davon los, daß diese Bewegung nach Äthiopien deutete.

Ich wußte nur zu gut, daß ich mich wilden Spekulationen hingab, die ich unter wissenschaftlichen Gesichtspunkten kaum rechtfertigen konnte; und Peter Laskos Einwand, daß die Bildhauer von Chartres es sich nie gestattet hätten, bei ihrer Themenwahl eine äthiopische Legende zu berücksichtigen, nahm ich widerspruchslos an. Doch es war gerade dieser Einwand, der mich über eine noch aufregendere Möglichkeit nachdenken ließ: Vielleicht hatten die Verantwortlichen für das Nordportal der Kathedrale (das auch »Tor der Eingeweihten« genannt wurde[18]) einen verschlüsselten Hinweis für nachfolgende Generationen entworfen - eine Art Landkarte, die auf den Aufenthaltsort des heiligsten und wertvollsten Schatzes hinwies, den die Welt je gesehen hatte. Vielleicht hatte man herausgefunden, daß die Bundeslade tatsächlich losgelassen, hergegeben oder weggeschickt worden war, nämlich vom alttestamentarischen Israel, und daß sie nachfolgend versteckt oder bedeckt wurde, nämlich in Äthiopien. Vielleicht war dies die wahre Bedeutung der kleinen Figuren und verwirrenden Inschriften. Und wenn es sich so verhielt, dann mußten sich daraus atemberaubende Schlußfolgerungen ergeben. Mir war klar, daß die aksumitische Überlieferung, über die ich im Jahre 1983 so leichtfertig hinweggegangen war, eine erneute und eingehende Betrachtung verdiente.

Maria, der Gral und die Bundeslade

Als ich Ende April 1989 aus Frankreich zurückkehrte, wußte ich noch immer nicht, wo und wann der Aufsatz, den Peter Lasko erwähnt hatte, erschienen war. Also wies ich meinen Assistenten an, sich mit verschiedenen Universitäten in Verbindung zu

setzen, um herauszufinden, ob es einen Fachmann für deutsche Literatur des Mittelalters gab, der in der Lage war, uns weiterzuhelfen.

Während ich auf eine Antwort wartete, besorgte ich mir die verschiedenen Gralsromane. Darunter war Chrétien de Troyes' Perceval, den der Autor um 1182 unvollendet zurückgelassen hatte, Sir Thomas Malorys Der Tod Arthurs, ein viel später entstandenes Epos, das aus der Mitte des fünfzehnten Jahrhunderts stammte, und natürlich der Parzival, von dem man annahm, daß Wolfram von Eschenbach ihn zwischen 1200 und 1210 geschrieben hat - ein Datum, das fast genau mit den Hauptarbeiten am Nordportal der Kathedrale von Chartres zusammenfällt.

Ich begann mit der Lektüre dieser Bücher. Malorys Werk war mir zunächst am leichtesten zugänglich, da es die Grundlage für eine Reihe von Geschichten und Filmen über die Suche nach dem Gral war, die ich als Kind mit Begeisterung gelesen und gesehen hatte.

Ich stellte jedoch schnell fest, daß Malory eine idealisierte, gereinigte und vor allem christianisierte Fassung der »einzig wahren Suche« lieferte. Im Gegensatz dazu besaß Wolframs Geschichte einen eher weltlichen Charakter und beschrieb die Vielfalt menschlichen Verhaltens viel genauer. Zudem - und das war das wichtigste - vermied er, was den Gral betraf, jegliche neutestamentarische Symbolik.

Bei Malory wurde die Reliquie als »goldenes Gefäß« beschrieben, das von einer »Jungfrau ganz in Weiß gekleidet« getragen wurde und »ein Teil des heiligen Blutes unseres Herrn Jesus Christus« enthielt.[19] Mir fiel auf, daß dies genau das Bild war, das sich ganz allgemein in der Kunst und Kultur festgesetzt hatte - gewöhnlich handelte es sich dabei um die Schale, in der Joseph von Arimathia einige Tropfen des Blutes Christi auffing, als der Erlöser am Kreuze litt.

Auch ich war von dieser Vorstellung so beeinflußt, daß ich mit dem Gral schwerlich etwas anderes hätte verbinden können. Als ich mich bei meiner Lektüre jedoch Wolframs Parzival zuwandte, wurde bestätigt, was ich in Frankreich erfahren hatte:

Die Reliquie wird, wenngleich sie wie bei Malory von einer Jungfrau getragen wird, als Stein dargestellt.

»Erblickt ein todkranker Mensch diesen Stein, dann kann ihm in der folgenden Woche der Tod nichts anhaben. Er altert auch nicht, sondern sein Leib bleibt wie zu der Zeit, da er den Stein erblickt. Ob Jungfrau oder Mann: wenn sie, in der Blüte ihres Lebens stehend, den Stein zweihundert Jahre lang anschauen, ergraut lediglich ihr Haar. Der Stein verleiht den Menschen solche Lebenskraft, daß der Körper seine Jugendfrische bewahrt. Diesen Stein nennt man auch den Gral.«[20]

Diese seltsame und gleichzeitig einnehmende Bildsprache berührte mich tief und führte in mir zu einer bohrenden Frage: Warum konnte der Gral in *Der* Tod Arthurs als Gefäß dargestellt werden, wenn der weit ältere Parzival ihn eindeutig als Stein bezeichnet? Was war hier geschehen?

Ich setzte meine Nachforschungen fort und erfuhr von einem Spezialisten auf dem Gebiet der Gralsliteratur, daß Malory »lediglich ein Sujet ausschmückte, dessen Bedeutung er nicht verstand«, obgleich schon Wolfram und Chrétien de Troyes das Thema so genau behandelt hatten.[21]

Von diesem Hinweis ermutigt, wandte ich mich Chrétiens unvollendetem Roman zu und las dort die folgende Beschreibung des Grals - übrigens die erste in der Literatur und somit auch in der Geschichte. Wie bei Wolfram und Malory wurde der kostbare Gegenstand von einer Jungfrau getragen:

»Als sie mit dem Grale, den sie trug, eingetreten war, da kam damit so ein großer Glanz herein, daß die Kerzen ihre Helligkeit ebenso verloren wie die Sterne, wenn die Sonne oder der Mond aufgeht.«[22]

Ich stellte fest, daß in Chrétiens Text an keiner Stelle ausdrücklich davon gesprochen wird, daß der Gral ein Becher oder eine Schale ist. Aus dem Kontext war jedoch zu entnehmen, daß er den Gral als genau das ansah. Mehrfach erwähnt Chrétien den »Fischerkönig«, der »mit dem Gral bewirtet« wird.[23] Und viel später erfährt Perceval, daß es sich dabei um den Gralskönig handelt:

»... der Heilige Mann stärkt und erhält sein Leben mit einer einzigen Hostie, die man ihm in diesem Grale bringt. So heilig ist der Gral und der König so geistig, daß seinem Leben nur noch die Hostie nottut, die in dem Grale kommt.«[24]

Bei weiteren Untersuchungen ergab sich, daß das Wort Gral aus dem altfranzösischen »gradale« (lateinisch: »gradalis«) stammte, was soviel bedeutet wie »ein großes und in gewisser Weise ausgehöhltes Gefäß, in dem wohlschmeckende Speisen dargebracht werden«. Zu Chrétiens Zeiten veränderte sich »gradale« in der Umgangssprache oft zu »greal«. Und selbst in jüngerer Zeit wurden Wörter wie »grazal«, »grazau« und »grial« in Teilen Südfrankreichs dazu benutzt, um verschiedene Arten von Behältern zu bezeichnen.[25]

Hier also lag der Ursprung von Malorys Vorstellung des heiligen Gegenstandes als Gefäß. Außer der Erwähnung einer geweihten »Hostie« enthält Chrétiens Bearbeitung ansonsten jedoch keine eindeutigen Verweise auf das neutestamentarische Christentum (selbst in der Bezeichnung des Grals als »heiliger Gegenstand« nicht - eine Formulierung, die ebensogut aus dem Alten wie aus dem Neuen Testament stammen konnte). Wie Wolfram erwähnt auch der französische Dichter an keiner Stelle das Blut Christi oder gibt an, daß die Reliquie ein Gefäß dafür sei.

Das Bild des »heiligen Blutes«, das im allgemeinen mit dem Gral assoziiert wird, war eine Auslegung späterer Verfasser, die das ursprüngliche Thema erweitert, aber auch verändert haben. Im Verlauf meiner Recherche konnte ich feststellen, daß dieser Prozeß der »Christianisierung« von den Zisterziensern unterstützt worden war.[26] Dieser Orden wiederum wurde im wesentlichen von einem Mann beeinflußt und geformt, der der Bruderschaft im Jahre 1112 beigetreten war und von vielen Wissenschaftlern als die bedeutendste religiöse Gestalt seiner Zeit angesehen wird: Bernhard von Clairvaux.[27]

Und es war Bernhard, der eine führende Rolle in der Entwicklung und Verbreitung des gotischen Architekturkonzeptes gespielt hatte. 1134, als der emporstrebende Nordturm von Char-

tres gebaut wurde, befand sich Bernhard im Zenit seiner Macht, die er einsetzte, um mit Nachdruck auf die Prinzipien der heiligen Geometrie hinzuweisen, so wie sie in diesem wunderbaren Bauwerk umgesetzt worden waren.[28] Noch weit über seinen Tod im Jahre 1153 hinaus gehörten seine Predigten und Ideen zu den Quellen, aus denen man Anregungen für die Weiterentwicklung der gotischen Architektur und Skulptur schöpfte.[29]

Eine der wichtigsten Verbindung zwischen Chrétiens Version der Geschichte vom Heiligen Gral und der neutestamentarisch stilisierten Prosasammlung Malorys bildete die sogenannte Queste deJ Saint *Graal,* die zu Beginn des dreizehnten Jahrhunderts von Zisterziensermönchen zusammengestellt wurde.[30] Obgleich der Kirchenmann schon tot war, als mit der Arbeit an diesem umfangreichen Roman begonnen wurde, schien mir, als sei dem Werk die starke Hand des heiligen Bernhard anzumerken - gewissermaßen aus dem Grab heraus. Ich kam zu dieser Schlußfolgerung, weil der ungeheuer einflußreiche Geistliche in seinen umfangreichen Schriften eine mystische Sichtweise des Blutes Christi vertreten hatte, die von den Verfassern der Queste für ihr neues Konzept des Grals rezipiert wurde.[31] So war Wolframs Stein völlig in Vergessenheit geraten, während Chrétiens Gefäß zwar erhalten blieb, fortan jedoch mit dem Blut Christi angefüllt wurde.

Besonders interessant war die Tatsache, daß die Kirche die neue Gralsvorstellung sofort weiterinterpretierte. Ich fand heraus, daß der Gral nach und nach in ganz Europa in Hymnen, Predigten und Episteln mit der Heiligen Jungfrau Maria gleichgesetzt wurde - und ihr, so erinnerte ich mich, war ja auch die Kathedrale von Chartres geweiht. Der Gedanke hinter dieser frommen Allegorie war folgender: Der Queste und allen späteren Bearbeitungen zufolge enthielt der Gral das heilige Blut Christi; bevor sie ihn zur Welt brachte, hatte Maria den Sohn Gottes in ihrem Leib getragen; folglich war der Gral schon seit jeher ein Symbol für Maria.[32]

Gemäß dieser Logik war »Maria Theotokos«, die »Gottesträgerin«, das heilige Gefäß, das den fleischgewordenen Geist ent-

hielt. So wurde sie im Bittgesang von Loreto aus dem sechzehnten Jahrhundert[33] als »vas spirituale« (Gefäß des Geistes), »vas honorabile« (Gefäß der Verehrung) und »vas insigne devotionis« (einzigartiges Gefäß der Verehrung) angebetet.[34]

Warum diese Symbole meine Aufmerksamkeit auf sich zogen? Ganz einfach: der Bittgesang von Loreto bezeichnete die Heilige Jungfrau auch als »arca foederis«[35] - und inzwischen wußte ich, daß es sich dabei um die lateinische Bezeichnung für »Bundeslade« handelte. Ich untersuchte diese Übereinstimmung eingehender und fand heraus, daß der Bittgesang nicht der einzige Ort war, an dem der Schrein auftauchte. Der mächtige Bernhard von Clairvaux hat Maria ebenfalls ausdrücklich mit der Bundeslade verglichen, und das gleich in einer ganzen Reihe von Schriften.[36] Und schon im vierten Jahrhundert predigte der heilige Ambrosius, Bischof von Mailand, daß es sich bei der Bundeslade um eine prophetische Allegorie für Maria handele: So wie der Schrein das alte Gesetz in Form der Zehn Gebote enthielt, so barg die Jungfrau das neue Gesetz, den Körper Jesu Christi.[37]

Ähnliche Auffassungen haben sich - im modernen christlichen Glauben verwoben - bis in das zwanzigste Jahrhundert hinein gehalten. Während einer Reise durch Israel stieß ich zum Beispiel auf eine kleine Dominikanerkirche, die 1924 erbaut und »A La Vierge Marie Arche d'Alliance« geweiht worden war - mit anderen Worten der »Heiligen Jungfrau Maria von der Bundeslade«. Die Kirche stand auf einer Anhöhe bei Kiriath-Jearim über der Straße zwischen Tel Aviv und Jerusalem. Ihr sieben Meter hoher Kirchturm war an der Spitze mit einer Darstellung der Bundeslade verziert und auch im Inneren der Kirche fand ich mehrere Wandmalereien, die die heilige Reliquie abbildeten. Während der Besichtigung gab mir Schwester Raphael Mikhail, ein Mitglied des Kirchenvorstandes, folgende Erklärung für diese Form der Marienverehrung: »Wir betrachten Maria als lebendige Lade. Maria war die Mutter Jesu, Herr des Gesetzes und des Bündnisses. Die Steintafeln mit den Zehn Geboten des Gesetzes wurden von Moses in die Lade gelegt, genauso legte

Gott Jesus in den Leib Mariae. Und so ist sie die lebendige Lade ...«

Es schien mir im höchsten Maße bedeutsam, daß sowohl Bundeslade als auch Gral, zwei zunächst so unterschiedliche Gegenstände, dennoch wiederholt mit derselben Gestalt in der Bibel verglichen worden waren, und dies genau auf dieselbe Art und Weise. Wenn Maria sowohl »lebendige Bundeslade« als auch »lebendiger Gral« war, so konnte dies bedeuten, daß die beiden heiligen Gegenstände in Wirklichkeit gar nicht so verschieden voneinander waren - unter Umständen handelte es sich um ein und denselben Gegenstand.

Ich war wie elektrisiert von dieser Möglichkeit. Schien sie auf den ersten Blick auch weit hergeholt, so warf sie doch ein interessantes Licht auf die Auswahl und Stellung der Figuren im Nordportal von Chartres. Sollte ich recht behalten, so konnte Melchisedeks »Gral-Becher«, der den »Stein« enthielt, auf einer Ebene Maria darstellen, auf einer anderen jedoch als verschlüsseltes Symbol für die Bundeslade und ihren kostbaren Inhalt gelten.

Ich war der Meinung, daß eine solche Interpretation meiner These, daß die Skulpturengruppe im Nordportal die Überführung der heiligen Reliquie nach Äthiopien darstellte, mehr Gewicht verlieh. Gleichzeitig war mir jedoch klar, daß ich noch keinen festen Boden unter den Füßen hatte, um eine so gewichtige Schlußfolgerung zu ziehen. Was ich besaß, waren zufällige Übereinstimmungen, Vermutungen und die starke Ahnung, etwas Wichtigem auf der Spur zu sein.

Schon immer war ich meinen Ahnungen gefolgt, um zu sehen, wohin sie mich führten. Dennoch erschien es mir notwendig, etwas Zuverlässigeres als ein paar glückliche Zufälle und Vorahnungen an der Hand zu haben, um mich auf eine so kostspielige und zeitaufwendige Untersuchung einzulassen.

Ich mußte nicht lange warten. Im Juni 1989 gelang es meinem Assistenten endlich, die lange gesuchte Abhandlung ausfindig zu machen. Der Antrieb, den mir dieser Aufsatz gab, ließ mich eine Suche antreten, die die nächsten zwei Jahre meines Lebens beherrschen sollte.

Literarischer Einfluß - oder mehr?

Die Abhandlung mit dem Titel *Neues Licht auf orientalische Quellen* in Wolframs >*Parzival*< war 1947 in einer angesehenen wissenschaftlichen Zeitschrift erschienen. Bei der Autorin handelte es sich um Helen Adolf, eine qualifizierte Mediävistin, die sich insbesondere mit dem Stammbaum des Grals befaßte. Nach ihrer These mußte Wolfram - obgleich stark von Chrétien de Troyes beeinflußt - auch von einer weiteren Gralsgeschichte orientalischer Provenienz Kenntnis gehabt haben.[38]

Schon vor der Lektüre des Aufsatzes wußte ich, daß Chrétien de Troyes den Gral im Jahre 1182 gewissermaßen »erfunden« hatte. Die meisten Fachleute auf diesem Gebiet stimmten darin überein, daß es zwar früherere Legenden gab, die sich zum Beispiel mit magischen Kesseln oder den heldenhaften Fahrten und ritterlichen Taten der Artusrunde beschäftigten, auf die die Hofdichter zurückgriffen, um ihren Gralsgeschichten Fülle zu verleihen.[39] Diese alten Epen, die mündlich von einer Generation an die folgende weitergegeben wurden, waren jedoch zu bekannt, zu »abgenutzt« und zu vertraut, als daß von ihnen jener kreative Impuls für die Reihe großer Romane hätte ausgehen können, die Chrétien Ende des zwölften Jahrhunderts einleitete.

Der große französische Dichter hat seine Gralserzählung unvollendet zurückgelassen. Wenige Jahre später profitierte Wolfram von diesem gelungenen Anfang, indem er die Geschichte seines Vorgängers erweiterte und zu einem Ende brachte. Gleichzeitig beschuldigte er Chrétien mit groben Worten der »Unwahrheit«, nicht ohne hinzuzufügen, daß es sich allein bei seinem eigenen Werk um die »authentische Erzählung« handele.[40] Was diese Anschuldigungen so merkwürdig erscheinen läßt, ist die Tatsache, daß Wolfram ganz offensichtlich viele Einzelheiten bei dem Franzosen entlehnt hatte und im großen und ganzen sogar der Handlung und ihren Akteuren treugeblieben war.[41] Ich stieß auf mehrere eindeutige Überschneidungen, zum Beispiel bei der Beschreibung der Gralsprozessionen oder dem Verschwinden des Heiligtums nach Parzivals Versagen. Tatsäch-

lich gab es nur einen, aber sehr bedeutsamen Unterschied: die merkwürdige Neuerung, die aus dem Gral einen Stein machte. Der Grund für diese Veränderung blieb für viele Forscher ein Rätsel. Ich konnte mir kaum vorstellen, daß Wolfram einfach einen Fehler begangen hatte. Er war ein zu kluger und genauer Erzähler, als daß ihm ein so markanter Irrtum hätte unterlaufen können. Für die bewußte Entscheidung Wolframs mußte es andere, wichtige Gründe gegeben haben.

Genau auf diese Frage ging Helen Adolf in ihrer kurzen Abhandlung ein - und ihre Antwort faszinierte mich sehr. Die Autorin gab an, daß Wolfram auf irgendeine Art und Weise mit dem Kebra Nagast in Berührung gekommen sein mußte. Begeistert von der Legende, nach der die Bundeslade von Jerusalem nach Aksum gelangte, hatte er beschloßen, Teile davon in seinen eigenen *Parzival* einzuarbeiten. Die Verfasserin vermutete einen nur »indirekten« Einfluß; und dennoch bestand die annehmbarste Erklärung für das seltsame Aussehen von Wolframs Gral im Vergleich mit einem äthiopischen Kultgegenstand, den man in jeder abessinischen Kirche antrifft, den »... sogenannten Tabot, eine Tafel aus Holz oder Stein .. .«[42]

Helen Adolf erläuterte, daß die Verwendung der »Tabots« ihre Ursprünge in den religiösen Überlieferungen des Kebra Nagast hatte - eine Feststellung, die ich bestätigen konnte. Schon 1983 hatte ich in Aksum erfahren, daß »Tabot« die regionale Bezeichnung für den heiligen Schrein war, der nun in Äthiopien aufbewahrt werden sollte. Darüber hinaus hatte ich herausgefunden, daß jede äthiopisch-orthodoxe Kirche ohne Ausnahme einen eigenen hölzernen oder steinernen »Tabot« besaß.

Auf der Basis einiger Vergleiche behauptete die Mediävistin, daß Wolfram von dem Kultgegenstand gewußt und seinen Gral-Stein dem äthiopischen »Tabot« nachgebildet hatte. An anderer Stelle verwies die Autorin darauf, daß nicht alle Charaktere des Parzival von Chrétien entliehen waren. Es gab einige zusätzliche Figuren, deren Ursprung zunächst im Dunklen lag, die aber sehr gut aus dem Kebra Nagast stammen konnten. Auf die Frage, wie die Berührung des deutschen Erzählers mit der äthiopischen

Legendensammlung hatte Zustandekommen können, bot Helen Adolf nur einen Erklärungsversuch an. Es bestand die Möglichkeit, daß jüdische Nomaden die Geschichte nach Europa gebracht hatten. Im Mittelalter, so erläuterte sie, »... galten die Juden als Vermittler zwischen Arabern und Christen. Besonders wichtig war ihre Stellung jedoch in Äthiopien, wo sie einen bedeutenden Teil der Bevölkerung stellten und noch immer stellen.«[43]

Ich hielt die Argumentation für überzeugend, wenngleich ein wenig eingeschränkt in ihrem Blickwinkel. Die Autorin hatte sich auf das engumgrenzte Gebiet der Literaturwissenschaft konzentriert, so daß ihr Anliegen rein literarischer Natur bleiben mußte. Das Umfeld war nur soweit untersucht worden, wie es für das gesteckte Ziel notwendig erschien.

Und dennoch schuldete ich der Wissenschaftlerin großen Dank, denn sie hatte mir die Augen für etwas noch Aufregenderes geöffnet - etwas von unendlich größerer Bedeutung.

Auf Grund der bereits erwähnten Vergleiche zwischen der Bundeslade, dem Gral und der Jungfrau Maria fragte ich mich, ob Bundeslade und Gral tatsächlich so verschieden waren, wie zunächst angenommen. Wenn Wolframs Darstellung des Grals tatsächlich von den äthiopischen Überlieferungen beeinflußt worden war, dann mußte mehr an der Sache sein, als Helen Adolf angenommen hatte. Um es deutlich zu formulieren: Ich fragte mich, ob der deutsche Dichter seinen scheinbar fiktiven Gral nicht ganz bewußt als eine Art Code für die historische Bundeslade betrachtet hatte. Wenn das zutraf, so war das zentrale Thema des *Parzival,* die Suche nach dem Gral, ebenfalls als Chiffre zu begreifen, die in Form einer verschlüsselten Schatzkarte auf den letzten Aufenthaltsort der Bundeslade verwies.

Ich hatte mich schon davon überzeugt, daß eine ähnliche, in Stein gehauene und geheime Botschaft im Nordportal von Chartres darauf hinzudeuten schien, daß der Schrein nach Äthiopien gebracht worden war. Mit neuentflammter Begeisterung drängte es mich, den *Parzival* zu decodieren.

Himmlische Inschriften, Gesetze und Orakel

Zuerst wollte ich herausfinden, ob Wolfram seinen Gral tatsächlich als eine Art Kryptogramm für die Bundeslade entworfen hatte. Ich beschloß deshalb, weitere Nachforschungen im Hinblick auf eine Verbindung nach Äthiopien, wie Helen Adolf sie angedeutet hatte, zunächst zurückzustellen. Statt dessen wollte ich nach direkten Parallelen zwischen den Eigenschaften des Grals und der Bundeslade (wie sie im Alten Testament und anderen altjüdischen Quellen beschrieben wird] suchen. Nur wenn sich hier überzeugende Resultate ergeben würden, hatte es Sinn, mit den Untersuchungen fortzufahren.

Das erste, was meine Aufmerksamkeit erregte, war die Art, wie Wolfram den Gral Chrétiens vom Gefäß in einen Stein verwandelte. Mir fiel auf, daß der französische Dichter den Gral so vage und gewissermaßen mystifiziert beschrieben hatte, daß Wolfram ihm eine Identität geradezu aufzwingen konnte. Er hatte nun die Möglichkeit, das eher ungenaue Bild, das sein Vorgänger entworfen hatte, so umzusetzen, daß es seinen eigenen Vorstellungen entsprach. Also definierte er das Behältnis durch seinen Inhalt, ohne je direkt von ihm selbst zu sprechen.

Auch die Bundeslade war ja ein Behältnis, das einen Stein enthielt - oder besser zwei Steintafeln mit der göttlichen Inschrift. Auffälligerweise erschienen auf Wolframs Gral von Zeit zu Zeit ebenfalls himmlische Schriftzeichen, die bestimmte Gesetze verkündeten.[44] Und es gab noch weitere vergleichbare Übereinstimmungen. So übernimmt der Gral die Funktion eines Orakels für die Gemeinschaft, die sich auf ihn verschworen hat:

»Schließlich warfen wir uns betend vor dem Gral auf die Knie. Da zeigte sich auf seinem Rand eine Inschrift: ein Ritter würde kommen. Sollte er mitleidig nach dem Geschick des Königs fragen, dann hätte alles Elend ein Ende. Doch dürfe ihn niemand auf die Wichtigkeit der Frage hinweisen, sonst würde sie nicht helfen. Die Wunde bliebe dann unverändert, ja sie bereite noch größere Schmerzen als vorher. Und weiter hieß es in der Schrift: <Habt ihr auch alles gut verstanden? Jeder heim-

liche Hinweis schadet nur! Und fragt er nicht gleich in der ersten Nacht, dann ist die Gelegenheit verpaßt; späteres Fragen wirkt nicht mehr. Fragt er jedoch zur rechten Stunde, dann soll er die Herrschaft über das Königreich übernehmen .. .<«[45]

Auch die Bundeslade diente oftmals als Orakel, das den Israeliten lebenswichtige Hinweise gab. Im Buch Richter beispielsweise, das die Bundeslade immer wieder und eindeutig mit Gott selbst identifiziert, fand ich diesen Absatz:

»Und die Kinder Israel fragten den Herrn (es war aber daselbst die Lade des Bundes Gottes zu der Zeit, und Pinhas, der Sohn Eleasars, Aarons Sohn, stand vor ihm zu der Zeit) und sprachen: Sollen wir weiter ausziehen, zu streiten mit den Kindern Benjamin, unseren Brüdern, oder sollen wir ablassen? Der Herr sprach: Ziehet hinauf; morgen will ich sie in eure Hände geben.«[46]

Eine Bibelstelle aus späterer Zeit gibt an, daß die Lade nur noch selten sprechen würde und »wenig Weissagung war«. Als aber der Prophet Samuel sich »im Tempel des Herrn, da die Lade Gottes war, niederlegte, vernahm er die warnende Stimme des Herrn: Siehe, ich tue ein Ding in Israel, daß, wer das hören wird, dem werden seine beiden Ohren gellen.«[47] Nicht nur mit Stimmen und Visionen gab die Lade ihre Weissagungen kund. Wie der Gral offenbarte auch sie sich von Zeit zu Zeit im geschriebenen Wort - zum Beispiel als sie König David die Anweisungen für den Tempel verkündete, den sein Sohn Salomo bauen würde.[48]

Die Last der Sünde

Im Verlauf meiner Nachforschungen konnte ich noch andere Charakteristika feststellen, die den Gral mit der Lade und insbesondere mit den Steintafeln verbanden. Eine Besonderheit lag darin, daß das Gewicht des Grals symbolische Bedeutung besaß. Bei Wolfram heißt es:

»Er ist so schwer, daß ihn selbst die ganze sündige Menschheit nicht von der Stelle bewegen könnte.«[49]

Ich verglich diese Passage mit einer alten jüdischen Legende, die den Augenblick schildert, in dem der Prophet Moses mit den Steintafeln vom Berg Sinai herabsteigt. Als er das Lager erreichte, überraschte er sein Volk bei der Anbetung des Goldenen Kalbs, bei einer so unaussprechlichen Sünde, daß »... er mit einem Mal die Schrift von den Tafeln verschwinden sah, während er im gleichen Augenblick deren gewaltiges Gewicht spürte. Denn als die göttliche Schrift auf ihnen war, trugen sie ihr eigenes Gewicht und lasteten nicht auf Moses.«[50]

In Wolframs verschlüsselter Prosa taucht selbst das Goldene Kalb auf - und zwar an einer zentralen Stelle. Ich war mir sicher, daß der Autor das Kalb ganz bewußt eingesetzt hatte, um eine Botschaft zu vermitteln, die den Gral noch deutlicher mit der Bundeslade gleichsetzen sollte. Im neunten Buch des Parzival las ich:

»Einst lebte ein Heide mit Namen Flegetanis, der für seine Gelehrsamkeit hoch berühmt war. Dieser Naturforscher stammte von Salomo ab und war aus altem israelischen Geschlecht ... Dieser Mann zeichnete die Geschichte des Grals auf. Väterlicherseits war Flegetanis ein Heide und erwies einem Kalb göttliche Ehre ... Der Heide Flegetanis besaß Kenntnisse über die Bahnen der Sterne und ihre Umlaufzeit. Mit dem Kreislauf der Sterne ist aber das Geschick der Menschen eng verbunden. So entdeckte der Heide Flegetanis in der Konstellation der Gestirne verborgene Geheimnisse, von denen er selbst nur mit Scheu erzählte. Er erklärte, es gäbe ein Ding, das >der Gral< hieße; diesen Namen las er klar und unzweideutig in den Sternen. >Eine Schar von Engeln ließ ihn auf der Erde zurück, bevor sie hoch über die Sterne emporschwebte und vielleicht, von ihrer Schuld befreit, wieder in den Himmel gelangte .. .<«[51]

Was mir an diesem Abschnitt so wichtig erschien, war die Art und Weise, wie durch Flegetanis und seinen faszinierenden salomonischen und jüdisch-heidnischen Hintergrund auf den astralen Ursprung des Grals verwiesen wurde. Welche Aussagekraft diese Parallele hatte, wurde mir klar, als ich bei einem maßgeblichen Bibelforscher nachlas, der die Meinung vertrat,

die Steintafeln in der Bundeslade seien in Wirklichkeit zwei Teile eines Meteoriten gewesen.[52] Und dabei handelte es sich nicht einmal um eine neuzeitliche Interpretation, von der Moses und die levitischen Priester nichts gewußt haben konnten. Im Gegenteil, es ist bekannt, daß semitische Stämme wie die Israeliten schon seit alters her »vom Himmel gefallene Steine« verehrten.[53]

Ein gutes Beispiel für diesen Brauch, der sich bis in unsere Zeit erhalten hat, ist die besondere Verehrung, die dem Schwarzen Stein, der in die Südost-Ecke der Kaaba in Mekka eingelassen ist, von Muslimen entgegengebracht wird. Der Prophet Mohammed hatte erklärt, daß dieser Stein, der von jedem Pilger bei seinem »Hadsch« zu den heiligen Stätten des Islam geküßt wird, vom Himmel gefallen sei. Zunächst hatte Adam ihn erhalten, damit der Stein dessen Sünden nach der Vertreibung aus dem Paradies aufnehme. Später übergab ihn der Erzengel Gabriel dem hebräischen Stammesvater Abraham. Und schließlich war er zum Eckstein der Kaaba geworden, dem »schlagenden Herzen« der islamischen Welt.[54]

Ich erfuhr, daß Geologen den Schwarzen Stein ohne zu zögern als Teil eines Meteoriten identifiziert hatten.[55] Auch das Paar heiliger Steine, bekannt als »Bätyloi«, das von Araberstämmen in präislamischer Zeit auf ihren Wanderungen durch die Wüste mitgenommen wurde, bestand wohl aus meteoritischem Gestein. Schließlich erkannte man, daß die »Bätyloi« (die oft in tragbaren Schreinen aufbewahrt wurden) in einer direkten Linie kultureller Übertragung mit dem Schwarzen Stein der Kaaba und den steinernen Gesetzestafeln der Bundeslade verbunden waren.[56]

Dann fand ich heraus, daß der »Bätylos« im mittelalterlichen Europa als »lapis betilis« bekannt war, als »... ein aus dem Semitischen stammender und, wenn auch erst spät, zu den Griechen und Römern übergegangener Name für heilige Steine, in denen man göttliches Leben voraussetzte ..., die, an heiligen Orten aufgestellt, durch Salbung und Bekränzung verehrt ... wurden. Es waren vom Himmel gefallene Meteorsteine.«[57]

Angesichts dieser Zusammenhänge erschien es mir unwahrscheinlich, daß Wolfram sich lediglich in Phantastereien ergangen hatte, als er seinem Gral meteorischen Ursprung zuschrieb. Es war nicht allein die Figur Flegetanis', die auf diese Entscheidung verwies, einige Seiten später bietet Wolfram einen seltsamen anderen Namen für den Gral an: »Lapsit exillis«[58]. Unter den vielen Interpretationen, die sich mit der Bedeutung des pseudo-lateinischen Attributes »exillis« auseinandersetzten[59], erschien mir diejenige am plausibelsten, die den Begriff von »lapis ex caelis« (»Stein vom Himmel«], »lapsit ex caelis« (»er fiel vom Himmel«) oder »lapis, lapsus ex caelis« (»Stein, vom Himmel gefallen«) ableitete.[80] Zudem überlegte ich, daß die verfälschten Wörter »Lapsit exillis« dem Begriff »lapis betilis« ähnlich genug waren, um den Verdacht aufkommen zu lassen, daß der deutsche Dichter es auch hier auf ein wohlüberlegtes und natürlich verschlüsseltes Wortspiel angelegt hatte.

Segnungen und übernatürliches Licht

Andere Vergleichsmöglichkeiten ergaben sich aus Wolframs wiederholter Beschreibung des Grals als ergiebige Quelle von Segnungen und Wohltaten für diejenigen reinen Herzens, die mit ihm in Berührung kamen. Als ein Beispiel unter vielen kann die folgende Passage aus dem fünften Buch des *Parzival* gelten:

»Vor dem Gral stand alles bereit, wonach man nur verlangte. Man fand dort warme und kalte Speisen, bekannte und unbekannte Gerichte ... Der Gral war wirklich ein Hort des Glücks, ein Füllhorn irdischer Köstlichkeiten .. .«[61]

Es war durchaus denkbar, daß in diesen Zeilen ein alter Talmud-Kommentar widerklang, in dem es heißt:

»Als Salomo die Lade in den Tempel brachte, da füllten sich alle goldenen Bäume des Tempels mit Säften und ließen reichlich Früchte sprießen, daß die Priester ihr Wohlgefallen daran hatten .. ,«[62]

Eine noch stärkere Übereinstimmung zwischen Lade und

Gral entdeckte ich in der überirdischen Luminiszenz, die beiden Heiligtümern zugeschrieben wurde. Der innerste Bezirk in Salomos Tempel, wo sich die Lade befand, bevor sie auf seltsame Weise verschwand, war der Bibel zufolge ein Ort »im Dunkel«[63]. Andere Quellen, die auf den Talmud zurückgehen, vermerken jedoch: »Der Hohepriester Israels betrat und verließ das Haus des Herrn im Licht, das die Bundeslade umgab«, ein Zustand, der sich änderte, als die Reliquie verschwand. Danach mußte der Priester »seinen Weg im Dunklen ertasten«[64].

Die Lade war demnach die Quelle eines übernatürlichen Funkeins; auch zahlreiche Bibelstellen belegen, daß sie von einem blendenden Schein umhüllt wurde.[65] Ähnlich verhielt es sich mit Chretiens Gral, der ein Licht ausstrahlte, das »die Kerzen ihre Helligkeit« verlieren ließ.[66] Ich nahm an, daß Wolfram diesen Aspekt des Grals nur allzugern aufgenommen hatte, lieferte Chretiens Gral doch einen deutlichen Verweis auf die Bundeslade. Wolfram mußte nun seine Darstellung nur noch mit dem Stein komplettieren.

Chrétiens Gral bestand aus »reinem Golde«[67] - so wie die »mit feinem Golde inwendig und auswendig« überzogene Bundeslade[68], die von einem schweren Deckel, dem »Gnadenstuhl«, bedeckt wurde, der ebenfalls aus »feinem Golde« bestand.[69] Und dennoch war es nicht das wertvolle Material, das Lade und Gral jenen überirdischen Glanz verlieh; der Grund lag vielmehr darin, daß beide eine brennende und himmlische Energie besaßen. Dieselbe Kraft ging von den Steintafeln und den göttlichen Geboten aus und ließ auf dem Gesicht Mose ein unheimliches und übernatürliches Leuchten erscheinen, als er von seinem Zwiegespräch mit dem Herrn zurückkehrte:

»Da nun Mose vom Berg Sinai ging, hatte er die zwei Tafeln des Zeugnisses in der Hand und wußte nicht, daß die Haut seines Angesichts glänzte davon, daß er mit ihm geredet hatte. Und da Aaron und alle Kinder Israel sahen, daß die Haut seines Angesichts glänzte, fürchteten sie sich, zu ihm zu nahen.«[70]

Es konnte sich nicht um eine zufällige Übereinstimmung handeln, wenn Wolframs Gral bei seinem ersten Erscheinen im

Parzival von einer Jungfrau getragen wurde, deren Antlitz »so hell strahlte, daß alle meinten, der neue Tag sei angebrochen«[71].

Der vom Himmel auserkorene Held

Repanse de Schoye war eine »unberührte und makellose Edelfrau«[72]. Ihre hervorstechendste Eigenschaft war jedoch, daß der Gral sie auserwählt hatte: »Von ihr allein ließ der Gral sich herbeitragen«, erklärt Wolfram und greift diese Besonderheit an anderer Stelle noch einmal auf. »Schließlich folgte ihnen mit Repanse de Schoye die strahlendste und schönste Jungfrau. Wie ich hörte, ließ sich der Gral einzig und allein von ihr tragen.«[73]

Sätze wie diese schienen anzudeuten, daß die Reliquie auf die Menschen in ihrer Umgebung reagierte. Nur unter bestimmten Bedingungen war es möglich, sich auf die Suche nach dem Gral zu begeben: »Den Gral kann allein erringen«, schrieb Wolfram, »wer im Himmel bekannt genug ist, zum Gral berufen zu werden.«[74] Und später wiederholt der Dichter noch einmal: »Niemals kann ein Mensch den Gral erkämpfen, der nicht von Gott dazu berufen ist.«[75]

Die Macht der göttlichen Vorsehung war für Wolframs Gesamtkonzept von großer Bedeutung. Ich nahm an, daß sich entsprechende Beispiele auch in den biblischen Verweisen auf die Bundeslade finden lassen würden. So bestimmt das Heiligtum im vierten Buch Mose den Weg der Israeliten durch die Wüste und legt fest, wo die Zelte zur Nacht aufgestellt werden sollen. Und das erste Buch der Chronik bestätigt, daß nur bestimmte Personen für den Dienst an der Lade auserkoren waren:

»Die Lade Gottes soll niemand tragen außer den Leviten; denn diese hat der Herr erwählt, daß sie die Lade Gottes tragen und ihm dienen ewiglich.«[76]

Die deutlichsten Entsprechungen zwischen der Bundeslade und Wolframs Gral fand ich jedoch nicht in der Bibel, sondern im Kebra *Nagast,* das die Geschichte von der Entführung der

Lade nach Äthiopien erzählt. Hier stieß ich auf ein Textstelle, in der die übermenschliche Eigenmacht der Reliquie beschrieben wird:

»In betreff dessen aber, was du davon erwähnt hast, daß die Bundeslade nach der Gegend des Landes Äthiopien gezogen ist, so wisse: wenn Gott gewollt hatte und wenn sie selbst gewollt hatte, so konnte auch nicht ein einziger sie zurückhalten. Denn sie geht nach ihrem eignen Willen und kehrt nach ihrem eignen Willen zurück, wenn Gott es billigt.«[77]

Immer öfter fielen mir Textstellen auf, die auf die eigenständige Macht der Lade verwiesen und deutlich machten, daß die Hüter des Schreins allein von der göttlichen Vorsehung auserwählt worden waren.[78]

So berichtet das sechzehnte Kapitel der alten Überlieferung von der tiefen Trauer Salomos, als er erfuhr, daß die Bundeslade von seinem Sohn Menelik entführt worden war. Im Augenblick seines größten Schmerzes erscheint ein Engel und fragt ihn:

»>Warum bist du so traurig? Dieses ist ja mit dem Willen Gottes geschehen. Die Bundeslade ist nicht einem anderen gegeben worden, sondern deinem erstgeborenen Sohn.< ... Darum tröstete sich der König und sprach: >Der Wille Gottes geschehe und nicht der Wille des Menschen!<«[79]

Hier mußte es sich um genau das handeln, was Wolfram im Sinn hatte, als er schrieb: »Niemand vermag den Gral mit Gewalt zu erringen, außer dem, der von Gott dazu erkoren ist.« Mit anderen Worten, wenn es sich bei dem Gral tatsächlich um ein Kryptogramm für die Bundeslade handelte, war es dann nicht denkbar, daß es sich bei dem Vorbild für den »vom Himmel auserkorenen« Helden des deutschen Dichters um Menelik handelte?

Um diese Frage zu beantworten, las ich erneut im Parzival. Dabei kam es mir jedoch weniger auf literarische Einflüsse an, sondern vielmehr auf solche Textstellen, die eindeutig auf Äthiopien verwiesen. Ich wollte herausfinden, ob Äthiopien tatsächlich Wolframs geheimnisvolle »Terre Salväsche« war - das Land des Grals und damit das Land der Bundeslade.

Kapitel 4

Ebenholz und Elfenbein

Ich sollte bald fündig werden. Schon der Prolog des Epos berichtet von dem weitentfernten Land »Zazamac«, wo die Menschen »dunkel wie die Nacht« sind.[1] In dieses Land reist ein europäischer Fürst, Gachmuret von Anjou, der sich in keine geringere als die Königin, die wunderschöne und kluge Belakane verliebt.[2]

Aus »Belakane« glaubte ich das Echo von »Makeda« zu vernehmen, dem äthiopischen Namen für die Königin von Saba. Auch wußte ich, daß dieselbe Königin in alten muslimischen Texten »Bilquis« genannt wurde.[3] Da ich mittlerweile mit Wolframs Vorliebe für Wortschöpfungen vertraut war und seine Angewohnheit kannte, Namen zu bilden, indem er zwei alte zu einem neuen verband, schien es mir übereilt, die Möglichkeit, daß »Belakane« aus »Makeda« und »Bilquis« zusammengesetzt war, ganz und gar von der Hand zu weisen - zumal der Dichter selbst berichtet, die Hautfarbe der Königin sei »tiefschwarz«[4].

Als ich die Romanze zwischen Belakane und Gachmuret näher untersuchte, fand ich weitere Anklänge an das Kebra *Nagast.* Es war auffällig, daß Wolfram immer wieder darauf hinwies, daß Gachmuret (wie Salomo) weiß und Belakane (wie Makeda) schwarz war.

So stellt Belakane nach der Ankunft des »hellhäutigen« Ritters von Anjou in Zazamac gegenüber ihrem Hofmarschall fest: »Seine Hautfarbe ist allerdings anders als die unsere. Ach, hoffentlich nimmt er keinen Anstoß daran!«[5]

Die Befürchtungen der Königin sollten bald zerstreut werden, denn in den folgenden Wochen erblüht die Liebe Gachmurets zu Belakane, eines führt zum anderen, und das Paar zieht sich schließlich in ein Schlafgemach des Palastes zurück:

»Die Königin nahm ihm mit dunkler Hand selbst die Rüstung

ab. Dann wurde er zu einer prächtigen Bettstatt geleitet, über der eine Zobeldecke lag... Die Jungfrauen verließen nun den Raum und schlossen die Tür; nur die Königin blieb zurück. War auch ihrer beider Haut von unterschiedlicher Farbe: sie und ihr herzliebster Gachmuret gaben sich unbeschwert dem Genuß berauschender und lauterer Liebe hin.«[6]

Die Liebenden heiraten. Da aber Belakane Heidin ist und Gachmuret Christ, dem noch viele Heldentaten bevorstehen sollten, verläßt er Zazamac, als seine Gattin »ein drei Monate altes Kind unterm Herzen« trägt.[7] Zurück bleibt nur dieser Brief:

»Heimlich wie ein Dieb habe ich die Fahrt angetreten, da ich uns den Schmerz des Abschiednehmens ersparen möchte. O Gebieterin, ich kann es nicht verschweigen: Hättest du den gleichen Glauben wie ich, so würde ich mich in Sehnsucht nach dir verzehren, wird mir der Abschied auch schon so schwer. Solltest du einen Sohn gebären, so wird er gewiß Löwenstärke zeigen .. .«[8]

Noch lange nach seiner Abreise bereut er, sie verlassen zu haben, da »er seine dunkle Gattin mehr als das eigene Leben« liebte.[9] Später verkündet er:

»Manch unwissender Tor freilich meint, ihre dunkle Hautfarbe hätte mich fortgetrieben. O nein, sie war für mich wie die Sonne! Weil sie solch unvergleichliche Frau ist, fühle ich jetzt tiefes Herzeleid. An edler Würde überragte sie alle anderen Frauen.«[10]

Soviel zu Belakane und Gachmuret. Doch was war mit ihrem Kind?

»Als ihre Zeit gekommen war, gebar die Herrscherin einen zweifarbenen Sohn, an dem Gott ein Wunder getan hatte: seine Haut war nämlich schwarz und weiß gescheckt. Die Königin bedeckte seine weißen Haustellen mit Küssen. Feirefiz von Anjou nannte die Mutter das Kind... Haar und Haut waren bei ihm weiß und schwarz gefleckt wie das Gefieder einer Elster.«[11]

Wolfram hätte kaum bildlicher darstellen können, daß es sich bei Feirefiz um das Kind einer schwarzen Frau und eines weißen Mannes handelte. Im Verlauf des Parzival würde Feirefiz

noch eine entscheidende Rolle spielen. Sein Vater, der hingebungsvolle Gachmuret, kehrt nach Europa zurück, nachdem er Belakane verlassen hat, und heiratet dort die Königin Herzeloyde. Auch sie empfängt ein Kind von Gachmuret und wird verlassen; der Ritter selbst besteht weitere Abenteuer, erringt großen Ruhm in vielen Schlachten und wird schließlich getötet. »Vierzehn Tage darauf«, erzählt Wolfram, »brachte die Herrscherin ein Kindlein zur Welt; es war ein Sohn und so kräftig gebaut, daß seine Geburt sie fast das Leben kostete.«[12] So kommt Parzival zur Welt, der Wolframs großem Epos seinen Namen gab, und Feirefiz hat hinfort einen Halbbruder.

Im Kebra *Nagast* und anderen wichtigen äthiopischen Legenden gab es, wie ich herausfand, zahlreiche Parallelen zu dem Beziehungsgeflecht Gachmuret - Belkane - Feirefiz - Parzival. Wolfram hat seine äthiopischen Quellen natürlich nur in Andeutungen verarbeitet. Aber gerade bei ihm war ich auf Stolpersteine und Fallgruben gefaßt, zwischen denen er gleichwohl eine Fährte ausgelegt hatte, die mich schließlich nach Äthiopien führen würde.

Die beständigen Hinweise auf die kontrastierende schwarze und weiße Hautfarbe von Belakane und Gachmuret waren unübersehbare Bestandteile der Anfangskapitel des Parzival. Im Kebra *Nagast* sind die Liebenden König Salomo und die Königin von Saba. Wie Gachmuret und Belakane verbringen sie eine gemeinsame Nacht.[13] Wie Gachmuret Belakane verläßt, so verläßt Makeda den König, um eine weite Reise anzutreten.[14] Auch die Frucht ihrer Vereinigung ist ein Mischlingssohn, in diesem Fall Menelik.[15] Und schließlich betont auch das *Kebra Nagast* wiederholt die unterschiedliche Hautfarbe der Liebenden. Mit deutlichen Worten und Vorwürfen wird der jüdische Monarch auf diesen Sachverhalt aufmerksam gemacht:

»Deine Herrin hat ja dein Sohn fortgenommen, den du erzeugt hast, der aus einem fremden Volke stammt, von dem Gott auch verboten hat, ein Weib zu heiraten, das nicht von deiner Farbe ist.. .«[16]

In der Folge stieß ich auf Parallelen zwischen Menelik und

Feirefiz, die über ihr gemeinsames Dasein als Mischling hinausgingen. Ein Beispiel war der seltsame Name »Feirefiz«. Aus welcher Sprache stammte er, und was bedeutete er? Die meisten Literaturwissenschaftler deuteten den seltsam klingenden Namen als typische Wortschöpfung Wolframs, die - ausgehend vom altfranzösischen »vair fils« - »bunter Sohn« bedeutete.[17] Ebenso plausibel erschien mir jedoch die Ableitung »wahrer Sohn« von »vrai fils«[18].

Das Kebra Nagast selbst bietet keine direkten Bezugsmöglichkeiten auf eine der beiden Etymologien - obwohl Salomo im sechsunddreißigsten Kapitel, als er Menelik zum erstenmal begegnet, ausruft: »Sehet, dies ist mein Sohn.«[19] In einer anderen, jedoch aus der gleichen Zeit stammenden Legende wird die Begegnung zwischen Salomo und Menelik ebenfalls beschrieben. Hier fand ich folgende Stelle:

»Menelik ging sogleich auf ihn zu und nahm seine Hand, um ihn zu begrüßen. Da sprach Salomo: >Du bist mein wahrer Sohn.<«[20]

Mit anderen Worten: »vrai fils«!

Irrwege und Sackgassen

Übereinstimmungen wie diese machten es mir immer schwerer, dem Gedanken zu widerstehen, daß Wolfram Feirefiz tatsächlich mit Menelik in Verbindung gebracht hatte.

Doch warum sollte er das getan haben?

Ich glaubte, daß die Verwendung von Elementen des Kebra Nagast auf literarischer Ebene für Wolfram nur ein probates Mittel war, um zu verbergen, daß er genau wußte, daß die Bundeslade in Äthiopien verborgen wurde. Wolfram wollte sein Wissen in der Geschichte des *Parzival* verbergen, aber gleichzeitig eine literarische »Schatzkarte« erstellen, die den Gral als Kryptogramm für die Bundeslade benutzte.

Wolfram war ein Anhänger raffinierter Tricks und verbaler Taschenspielereien, die ebenso verblüffend wie unterhalt-

sam waren. Dennoch begann ich langsam, seine Trugbilder zu durchschauen, und ich erkannte nach und nach die Lockvögel, die er so oft aufstellte, um den Leser von dem Geheimnis abzulenken, das im Herzen der Geschichte verborgen lag. Ich ließ mich deshalb nicht von der Tatsache irritieren, daß es nicht Feirefiz selbst war, dem die Ehre zukam, den kostbaren Gral zu finden. Diese Art von Entwicklung wäre viel zu direkt gewesen und hätte zu offensichtlich in eine bestimmte Richtung gewiesen. Vor allem konnte Wolfram es sich einfach nicht erlauben, den heidnischen Mischlingssohn einer schwarzen Königin zum Helden eines Epos zu machen, das dem Amüsement eines höfischen und christlich-europäischen Publikums dienen sollte.

Es zeugte von Wolframs Geschick, daß der Großteil seiner Leserschaft die Suche des weißhäutigen Parzival nach dem verschwundenen Gral verfolgte, während nur einige wenige in Feirefiz den »wahren Sohn« erkannten, der den richtigen Weg zur Lade wies.

Doch so vielsagend und faszinierend die Reihe der Entsprechungen war, die ich bisher hatte aufstellen können, so sehr fehlte mir noch immer eine solide Basis für meine Schlußfolgerungen. Ich machte mich also an die aufwendige Arbeit, den Parzival ein weiteres Mal zu durchforsten - und dabei gelang mir eine aufregende Entdeckung.

Gegen Ende des Epos heiratet Feirefiz die reine und makellose Trägerin des Grals, Repanse de Schoye, die im Verlauf der Geschichte, umgeben von einer Aura der Macht und Herrlichkeit, immer wieder aufgetaucht und verschwunden war. Nun stieß ich auf ein kleines, aber höchst bedeutsames Detail: Repanse de Schoye bringt ein Kind zur Welt - und dieser Sohn wird »Priester Johannes« genannt.[21]

Mir war sofort klar, daß es sich hier um einen wichtigen Hinweis handeln konnte. Ich wußte nämlich, daß die ersten Europäer, die nach Äthiopien kamen, die dortigen Herrscher »Priester Johannes« nannten.[22] Und der legendäre Gründer dieser salomonischen Dynastie war niemand anderes als Menelik I., der angebliche Sohn von Salomo und der Königin

von Saba. Ich konnte also meine Erregung kaum unterdrücken, als ich las, daß Repanse de Schoye Feirefiz einen Sohn »mit Namen Johannes« schenkte, »und den man den Priester Johannes nannte. Seither tragen dort alle Könige diesen Namen.«[23]

Es wäre nur zu schön gewesen, wenn ich in diesem Augenblick hätte beweisen können, daß das Land des Grals - »Terre Salväsche« - dasselbe Land war, das von einem Priester Johannes regiert wurde. Eine so direkte Verbindung hätte meiner »Schatzkartentheorie« das notwendige Fundament gegeben. Unglücklicherweise fand sich im Parzival nicht die Spur eines Beweises, der diese Vermutung erhärten konnte: Die »Terre Salväsche« wurde immer nur mit träumerischen und unbestimmten Worten beschrieben; keine Stelle gab Anlaß zu der Annahme, daß es sich bei dem König dieses Landes um Priester Johannes handelte.

Schon glaubte ich, in einer Sackgasse angelangt zu sein, als ich herausfand, daß es ein anderes deutsches Epos gab, in dem der Priester Johannes zum Hüter des Grals wird. Der Jüngere Titurel, so lautete der Name des Werkes, war dem Parzival stilistisch so ähnlich, daß es lange Zeit Wolfram selbst zugeschrieben wurde.[24] Seit einigen Jahren aber ordnet man das Werk einem anderen Autor zu, Albrecht von Scharfenberg, der den Jüngeren Titurel um 1270 verfaßt haben soll[25] - rund fünfzig Jahre nach Wolframs Tod also. Albrechts Epos scheint auf Fragmenten aus Wolframs Dichtung zu beruhen und knüpft unmittelbar an den Parzival an.[26] Tatsächlich identifizierte sich Albrecht so sehr mit seinem »Meister«, daß er seine wahre Identität erst in Vers 5883 preisgibt.[27]

Die Literatur des Mittelalters war sehr stark von Erweiterungen oder Vollendungen bereits bestehender Werke geprägt. Auch Wolframs Parzival basierte ja auf Chrétien de Troyes' Originalgeschichte vom Heiligen Gral. Nun sah es so aus, daß der Stoff an einen dritten Dichter weitergegeben worden war, an Albrecht, der den Weg des Grals bis zu seinem letzten Ruheort verfolgen sollte.

Der *Jüngere Titurel* erklärt klar und unmißverständlich, daß

sich der Gral im Land des Priester Johannes befand. Ich hielt es für außerordentlich bedeutsam, daß eine solche Aussage in der Gralsliteratur existierte, und daß sie darüber hinaus von einem Anhänger Wolframs formuliert worden war, der allem Anschein nach Zugang zu den Skizzen und Notizen des Meisters hatte. Zum wiederholten Male faszinierte mich die Geschicklichkeit, mit der Wolfram sich hütete, sein Geheimnis im Parzival zu offenbaren, während er gleichzeitig dafür sorgte, daß die verschlüsselten Informationen an zukünftige Generationen weitergegeben wurden.

Meine Ergebnisse bestärkten mich darin, Wolframs kurze Erwähnung des Priester Johannes ernstzunehmen und die aufwendige und anstrengende Untersuchung weiterzuführen, die mich längst in ihren Bann geschlagen hatte. Nun wollte ich die Antwort auf eine zentrale Frage finden: Hatte Wolfram, als er vom Priester Johannes sprach, einen äthiopischen Herrscher im Sinn?

Auf den ersten Blick schien das nicht der Fall zu sein, denn der Dichter gibt an, daß die Geburt des Priester Johannes in »Indien«[28] stattgefunden habe, einem Land also, dessen König allem Anschein nach Feirefiz war. Dorthin waren er und Repanse de Schoye heimgekehrt, nachdem sie die im Parzival beschriebenen Abenteuer überstanden hatten.

Um das Bild zu vervollständigen, wird im selben Abschnitt erwähnt, daß »Indien« auch als »Tribalibot« bekannt war.[29] Ich blätterte zurück und entdeckte eine Stelle, wo Feirefiz als »Heide aus Tribalibot« bezeichnet wird[30] - was völlig folgerichtig war, da ich wußte, daß sein Sohn, der Priester Johannes, ihm schließlich als Herrscher von Tribalibot/Indien auf den Thron folgt. Dennoch durfte ich nicht übersehen, daß Feirefiz selbst der Sohn der Königin Belakane von Zazamac war. Es überraschte mich deshalb keineswegs, daß Wolfram von seiner Figur Feirefiz auch als »König von Zazamac« erzählt.[31]

Die einzig annehmbare Schlußfolgerung, die man aus diesem Wirrwarr exotischer Titel und Namen ziehen konnte, war, daß Zazamac, Tribalibot und Indien in Wirklichkeit alle denselben

Ort bezeichneten. Aber konnte es sich bei diesem Ort wirklich um Äthiopien handeln? Lag es nicht viel näher, daß Wolfram tatsächlich an den indischen Subkontinent gedacht hatte? Ich entschloß mich, den wirklichen, den historischen Stammbaum des Priester Johannes zu untersuchen und so etwas Licht in die Angelegenheit zu bringen.

Ein wirklicher König

Ich fand heraus, daß der Name »Priester Johannes« bis zum zwölften Jahrhundert völlig unbekannt war.

In diesem Jahrhundert gelang es den europäischen Kreuzfahrern, die heilige Stadt Jerusalem über achtzig Jahre hinweg ohne Unterbrechung zu halten - bis sie im Jahre 1187 von Saladins Truppen vertrieben wurden. Historiker stimmen darin überein, daß die erste Erwähnung des Priester Johannes ungefähr in die Mitte dieses Zeitraumes fällt, nämlich in das Jahr 1145. Eine Chronik verzeichnet den Bericht des Bischofs Otto von Freising, der sich auf einen gewissen »Johannes, König und Priester« bezieht, einen Christen, der im »allerfernsten Osten« lebt, wo er riesige Armeen dirigiert, die er, wie es scheint, der Verteidigung Jerusalems zur Verfügung stellen möchte. Dieser »Priester Johannes, denn so ward er gemeinhin genannt«, war so reich, daß er ein Zepter aus reinem Smaragd sein eigen genannt haben soll.[32]

Um 1165 kursierte ein Brief in Europa, der sich, angeblich von Priester Johannes selbst verfaßt, an »alle christlichen Herrscher, insbesondere an Kaiser Manuel I. von Konstantinopel und den römischen Kaiser Friedrich I.« wandte.[33] Neben einer Unmenge von sagenhaften und unglaublichen Behauptungen erklärte diese ausführliche Epistel unter anderem, daß das Reich des Priesters in vier Teile aufgeteilt war, »denn ebensoviele indische Reiche gibt es«[34].

Die Spur führte weiter in das Jahr 1177, in dem Papst Alexander III. einen Brief an seinen »treuen Sohn in Christo, Johannes,

erhabener und herrlicher König der Inder« richtete.[35] Obwohl der Papst zweifelsohne daran glaubte, daß er dem Verfasser des Schreibens von 1165 antwortete, ließ er durchscheinen, daß er sein Wissen über »den Priester« auch aus anderen Quellen hatte. So erwähnte der Kirchenfürst seinen Leibarzt, »den Medicus Philip«, der in Jerusalem offensichtlich von Abgesandten des Priesters angesprochen worden war. Interessanterweise trugen diese Botschafter ein ganz konkretes Anliegen vor (von dem in dem Brief von 1165 noch nicht die Rede war): Ihr König wollte einen Altar in der Grabeskirche von Jerusalem.[36] In der Antwort auf dieses Ansinnen schrieb der Papst:

»Je erhabener und großmütiger sein Verhalten sein wird, je weniger er sich seiner Macht und seines Reichtums zu rühmen gedenkt, desto williger werden wir seinem Wunsch, einen Altar in der Grabeskirche zu Jerusalem zu erhalten, Beachtung schenken .. ,«[37]

Die Dokumente aus dem zwölften Jahrhundert ließen viele Fragen offen; eines jedoch war völlig klar - daß der Priester Johannes in diesen Jahrzehnten ausdrücklich mit »Indien« in Verbindung gebracht wurde. Als ich mich näher damit beschäftigte, bestätigte sich mein Eindruck: Immer wieder wird die Heimat des Priesters »Indien« genannt, oder - etwas allgemeiner - mit »indische Reiche« bezeichnet.

Keiner der fraglichen mittelalterlichen Verfasser konnte jedoch behaupten, eine exakte Vorstellung davon zu besitzen, wo dieses Indien oder die indischen Reiche genau zu finden waren. Ebenso offensichtlich war es, daß sie an den Stellen, an denen sie von »Indien« sprachen, nur in den seltensten Fällen den Subkontinent meinten. Die meisten Hinweise bezogen sich recht deutlich auf eine andere Gegend - vielleicht in Afrika, vielleicht an einem anderen Ort, aber das schien niemand so genau zu wissen.

Als ich diesen Punkt eingehender betrachtete, begann ich zu verstehen, was die Ursache dieser Unsicherheit gewesen sein mochte: Schon tausend Jahre vor der ersten Erwähnung des Priester Johannes gab es einen irreführenden terminologischen

Wirrwarr, in dem Indien regelmäßig mit Äthiopien verwechselt wurde. Vom ersten Jahrhundert vor Christus, als Vergil den Ursprung des Nils nach »Indien« verlegte, bis zu Marco Polo, der alle Länder, die an den Indischen" Ozean grenzten, mit »indische Reiche« bezeichnete[38], schien man »Äthiopien« und »Indien« als völlig austauschbare Synonyme benutzt zu haben.

Ein klassisches Beispiel fand ich in den Werken des Rufinus, des byzantinischen Theologen aus dem vierten Jahrhundert, der einen maßgeblichen Bericht über die Bekehrung Äthiopiens zum Christentum zusammengestellt hatte. Die Einzelheiten dieses wichtigen Werkes bestätigten ohne Zweifel, daß es sich bei dem Land, von dem Rufinus berichtete, tatsächlich um Äthiopien handelte, denn es erwähnt Ortsnamen wie Aksum oder historische Persönlichkeiten wie Frumentius oder König Ezana. Und dennoch spricht Rufinus konsequent von »Indien«![39]

Ein Historiker erklärte die Namensgebung damit, daß »die frühen Geographen generell Äthiopien als den westlichen Teil des großen Indischen Reiches ansahen«[40]. Diese geographischen Fehleinschätzungen mußten - zusammen mit dem merkwürdigen Brief, der im zwölften Jahrhundert kursierte - die Vorstellung gefestigt haben, daß es sich bei dem Priester Johannes um einen Asiaten, genauer einen indischen König handelte. Dieser Eindruck sollte so prägend sein, daß er sich noch lange hielt - selbst nachdem der Priester aufgehört hatte, eine mythologische Figur zu sein, und selbst nachdem sein Reich eindeutig in Nordafrika lokalisiert werden konnte.

Im vierzehnten Jahrhundert zum Beispiel nannte der florentinische Reisende Simone Sigoli den »Presto Giovanni« noch immer einen indischen Herrscher; dieses »Indien« jedoch war ein Reich, das an die Länder des ägyptischen Sultans stieß und dessen König als »Herr des Nils« Erwähnung fand, da er in der Lage gewesen sein soll, den Zustrom des Flusses nach Ägypten kontrollieren zu können.[41] Und auch im sechzehnten Jahrhundert noch, als die erste offizielle portugiesische Gesandtschaft nach Äthiopien reiste, war man der Meinung, nun den »Priester Johannes der indischen Reiche« zu treffen.[42]

Der autorisierte Bericht dieser Reise wurde von Vater Francisco Alvarez verfaßt, der im April 1520 im Hafen von Massawa am Roten Meer an Land ging und die nächsten sechs Jahre damit verbrachte, Äthiopien zu erforschen. Trotz dieser anstrengenden Reise, die ihn zweifellos durch Teile des afrikanischen Festlandes führte, klingt im Titel seines Werkes noch immer die alte terminologische Verwirrung an: *Wahrhaftiger Bericht* über die Länder des Priester Johannes, Herrscher der indischen Reiche.[43] In seinem lehrreichen und informativen Buch bezeichnet Alvarez den Herrscher durchgängig als »den Priester« oder als »Priester Johannes«[44].

Aber schon viel früher, so stellte ich fest, im Jahre 1352 nämlich, berichtete der päpstliche Legat in Asien, der Franziskaner Giovanni de Marignolli, in seiner Chronik von »Äthiopien, wo die Neger sind und das das >Land des Priester Johannes< genannt wird«. Und ein Mönch mit Namen Jordanus Catalani hatte 1328 den Herrscher Äthiopiens als »quem vos vocatis Prestre Johan« vorgestellt. Später, im Jahre 1459, verzeichnete Fra Mauros vielbeachtete Karte der damals bekannten Welt eine große Stadt in den Grenzen des heutigen Äthiopien unter der Überschrift »Qui il Preste Janni fa residentia principal«[45].

Noch immer verwirrte mich die Uneindeutigkeit der Zuordnungen. Es war kaum möglich, das Geflecht von »Priester Johannes«, »Äthiopien« und »Indien« aufzulösen. Und doch war ich mir sicher, daß der Auslöser dieser ganzen Mystifikation, der wahre Priester Johannes, schon immer Herrscher Äthiopiens war, dem einzigen nicht-europäischen christlichen Königreich, das es im Mittelalter überhaupt irgendwo auf der Welt gab. Er war somit das einzige Vorbild, auf das Wolfram sich hatte beziehen können, als er erzählte, daß »Indien« vom »Priester Johannes«, dem christlichen Sohn von Feirefiz und Repanse de Schoye, regiert wurde.

Auf der Suche nach einer abschließenden und hoffentlich endgültigen Information, wandte ich mich der *Encyclopaedia Britannica* zu, die feststellte:

»Es ist durchaus möglich, daß der Titel >Priester Johannes<

schon seit frühester Zeit dem abessinischen König zukam, obwohl diese Zuordnung lange Zeit von der asiatischen Legende überlagert wurde. Den Anfang dieser zweifachen Zuordnung macht zweifellos die Verwechslung von Äthiopien mit Indien, die so alt ist wie Vergil, oder vielleicht sogar noch älter.«[46]

Bedeutsam für meine Zwecke schloß die Encyclopaedia ihren Eintrag mit einem Verweis auf jenen Briefwechsel zwischen dem Papst und Priester Johannes, den ich schon erwähnt habe:

»Wie vage die Vorstellungen des Papstes Alexander III. bezüglich des geographischen Aufenthaltsortes des Potentaten ... auch gewesen sein mögen, die einzige existierende Person, an die der Brief sich hätte wenden können, war der König von Abessinien. Es ist festzuhalten, daß es sich bei den >ehrenwerten Vertretern des königlichen Reiches< auf die der Arzt Philip im Osten getroffen war, um Repräsentanten einer tatsächlichen und keiner eingebildeten Macht gehandelt haben mußte. Auch mußte es sich um einen wirklichen König handeln, der seinem Wunsch Ausdruck verlieh..., einen Altar in Jerusalem zugewiesen zu bekommen. Darüber hinaus ist bekannt, daß die äthiopische Kirche lange Zeit sowohl eine Kapelle als auch einen Altar in der Grabeskirche von Jerusalem besaß .. .«[47]

Ich überprüfte diese letzte Angabe und fand heraus, daß dem fernen Königreich tatsächlich ein Altar zugestanden worden war, und zwar im Jahr 1189 - allerdings nicht vom Papst, der zu dieser Zeit schon nicht mehr in der Position war, solche Vergünstigungen zu erweisen, sondern vom muslimischen General Saladin, der Jerusalem im Jahre 1187 den Händen der Kreuzritter entrissen hatte. Interessant war die Tatsache, daß der äthiopisch-orthodoxen Kirche dieses besondere Recht zuteil wurde, nachdem niemand geringeres als der König von Äthiopien selbst sich an Saladin gewandt hatte.[48]

Nicht einmal zehn Jahre später sollten unbekannte Steinmetze in Nordfrankreich die rätselhaften Abbildungen des Heiligen Grals, der Bundeslade und der Königin von Saba im Nordportal der Kathedrale von Chartres hinterlassen - und Wolfram von Eschenbach war es, der in diesen Jahren mit der Arbeit an

seinem Parzival begann. Hier mußte es um mehr gehen als nur zufällige Übereinstimmungen. Im Gegenteil, ich hatte mittlerweile das Gefühl, daß meine Indizienkette immer deutlicher darauf verwies, daß sowohl die Figuren in Chartres als auch Wolframs bemerkenswertes Epos in bewußter Absicht geschaffen worden waren. Obgleich diese exotische Schatzkarte kein »x« verzeichnete, das den Fundort markierte, gab es für mich keinen Zweifel mehr, daß es sich bei dem Versteck nur um Äthiopien handeln konnte - das Land des Priester Johannes, das Land, das dem fiktiven Heiligen Gral seine letzte Ruhestätte gegeben hatte. Und wenn meine Schlußfolgerungen zutrafen, dann war dasselbe Äthiopien das Land, in dem die Bundeslade - der existente Gegenstand, den der Gral nur symbolisierte - zu finden war.

Noch immer aber waren einige wichtige Fragen zu beantworten:

- Wie konnte die Nachricht, daß sich die Lade in Äthiopien befand, Ende des zwölften Jahrhunderts einen deutschen Dichter und die französischen Bildhauer erreicht haben?

- Was verband Wolfram mit den Erbauern der Kathedrale? Es war klar, daß es eine Verbindung geben mußte, arbeiteten doch alle an der Verschlüsselung derselben Information.

- Und schließlich: Warum war man so darauf bedacht, den wahren Sachverhalt zu verschleiern? Besonders Wolframs »Code« war außerordentlich schwer zu brechen, so daß selbst ich - mit allen wissenschaftlichen Möglichkeiten des zwanzigsten Jahrhunderts und meinen Informationen über Aksum - nur bis zu einem bestimmten Punkt gekommen war!

- Wer also war im Mittelalter überhaupt in der Lage, das komplizierte Kryptogramm zu entschlüsseln? Ich war mir sicher, daß es diese Personen gab. Nur, wer waren sie?

Schnell fand ich heraus, daß nur ein kleiner Kreis von Männern in Frage kam. Als Kreuzfahrer hatten sie sich eine sichere Position im Jerusalem des zwölften Jahrhunderts aufbauen können: Sie waren dort, als im Jahre 1145 die Legenden um den Priester Johannes zum erstenmal kursierten, und sie waren noch

dort, als im Jahre 1177 die Botschafter des Königs von Äthiopien die Heilige Stadt besuchten. Direkte Kontakte zwischen Äthiopiern und Mitgliedern dieser europäischen Gruppierung waren somit durchaus denkbar.

Zwei weitere Punkte kamen hinzu. Zum einen betrieben jene Männer eine intensive Politik der Geheimhaltung in allen ihren Angelegenheiten, zum anderen aber waren sie eindeutig mit der Entwicklung und Verbreitung der gotischen Architektur in Europa (insbesondere mit der Bauweise und Bildgestaltung der Kathedrale von Chartres) in Verbindung zu bringen. Schließlich und endlich handelte es sich um eine Gruppe, die Wolfram von Eschenbach mehrere Male namentlich erwähnte.

Bei den einflußreichen, mächtigen und weitgereisten Männern handelte es sich um den »Orden der Armen Ritterschaft Christi vom Salomonischen Tempel« oder - einfacher - um die Tempelritter. Es war im Grunde ein religiöser Orden, der sich 1118 gegründet hatte, eine Bruderschaft kriegerischer Mönche, die fast während des gesamten zwölften Jahrhunderts ihren Hauptsitz in Jerusalem hatte - und zwar ganz in der Nähe des Tempels Salomos, desselben Ortes also, von dem die Bundeslade in alttestamentarischer Zeit auf unerklärliche Weise verschwunden war.

Kapitel 5

Weiße Ritter, schwarzer Kontinent

Emma Jung zufolge, Frau des bekannten Psychiaters Carl Gustav Jung und selbst Analytikerin, tauchte die Gattung der Gralserzählungen Ende des zwölften Jahrhunderts so überraschend wie plötzlich auf. In einer fundierten Studie über die Gralslegende kam sie zu dem Ergebnis, daß hinter dieser plötzlichen und dramatischen Materialisation etwas von großer Bedeutung liegen mußte. Denn die beiden ersten Werke dieses Genres - Chrétien de Troyes' Conte du *Graal* und Wolfram von Eschenbachs Parzival - machten den Eindruck, »als ob eine unterirdische Wasserader angebohrt worden wäre .. .«[1]

Was für ein immenser Impuls mochte das gewesen sein? Ich vermutete, daß die Antwort in dem historischen Zeitabschnitt zu suchen war, in dem die Gralsromane in Umlauf kamen. Es war das Zeitalter der Kreuzzüge, das die Europäer zum erstenmal mit der arabischen und jüdischen Kultur in Berührung brachte. Um 1180, etwa im achtzigsten Jahr der Besetzung Jerusalems, schrieb Chrétien de Troyes seine Version der Gralslegende nieder. Und kurz nach dem Fall der Heiligen Stadt begann Wolfram von Eschenbach mit der Arbeit am Parzival.

Diese frühen Gralsromane, so überlegte ich, mußten auf etwas basieren, das sich zugetragen hatte (oder entdeckt worden war), als die europäischen Ritter und Soldaten die heilige Stadt kontrollierten. Erneut und eingehend studierte ich also den Parzival, um nach Belegen zu suchen, die diese Verbindung unterstützten. Wolfram erwähnt an mehreren Stellen eine mysteriöse Quelle namens »Kyot« und beschreibt ihn als einen Mann, von dem er einen Großteil seiner Informationen bezogen habe, und der glücklicherweise »... getauft war, sonst wäre die Erzählung bis heute unbekannt geblieben. Keine heidnische Wissenschaft

reicht nämlich aus, um das Wesen des Grals zu entschlüsseln und in seine Geheimnisse einzudringen.«[2]

Dabei handelte es sich keineswegs um den einzigen Fingerzeig darauf, daß es mit dem Gral mehr auf sich hatte, als zunächst vermutet. Ich war mittlerweile davon überzeugt, daß dieses »mehr« die Bundeslade sein konnte, und als ich die weitverstreuten Verweise auf Kyot untersuchte, kam ich auf den Gedanken, daß es sich bei dieser schemenhaften Figur, dessen wahre Identität der Dichter an keiner Stelle offenlegt, um denjenigen handeln könnte, der Wolfram mit dem Geheimnis um den Aufenthaltsort der Lade vertraut gemacht hatte. Da er an einer Stelle als »Kyot, der uns die Geschichte in der richtigen Fassung überlieferte«[3], vorgestellt wird, mußte es sich zweifellos um eine überaus wichtige Person handeln. Doch um wen ging es da tatsächlich?

Einige, wenngleich wenig greifbare Hinweise liefert das große Epos selbst. Einmal wird Kyot als »gelehrter Meister« bezeichnet[4], dann wieder gibt der Dichter an, daß er Provenzale sei.[5] Konkretere Hinweise fehlen. Ich fand jedoch heraus, daß Literaturwissenschaftler Kyot mit einem ganz bestimmten Dichter des zwölften Jahrhunderts identifiziert haben, mit einem Franzosen namens Guyot von Provins, der, kurz bevor die Stadt von den Sarazenen zurückerobert wurde, eine Pilgerreise nach Jerusalem unternommen und sich dort eine Weile am Hof des römischen Kaisers Friedrich I. aufgehalten hatte.[6]

Diese letzte Information erregte meine Aufmerksamkeit besonders. Denn Friedrich I. war (wie Wolfram) von Geburt Deutscher - und es war Friedrich, der zu den erklärten Adressaten des Briefes vom »Priester Johannes« von 1165 gehörte.

Aber noch etwas erwies sich als überaus bedeutsam: Emma Jung zufolge stand Kyot (oder Guyot!) in enger Verbindung mit den Tempelrittern, die »als Hüter des Tempels Salomo galten«[7]. Meine Begeisterung war entsprechend groß, als ich herausfand, daß Wolfram die Hüter des Grals in seinem Epos »Tempelherren« nennt[8] und sie nur mit den schmeichelhaftesten Worten beschreibt:

»... eine auserlesene Bruderschaft, die mit der Kraft ihrer kampferprobten Arme bisher jeden Zudringling fernhielt. So blieben die Geheimnisse des Grals gewahrt; nur die wissen von ihnen, die nach Munsalväsche in die Gralsgemeinschaft berufen wurden.«[9]

Ob es sich bei Wolframs Tempelherren wohl um die Mitglieder jenes streitbaren Ordens handelte - die Tempelritter?

Das mittelhochdeutsche Wort für die Tempelherren lautet »templeise«[10]. Lange Zeit haben die Literaturwissenschaftler über die Bedeutung dieses Begriffes debattiert. Man hat sich schließlich darauf geeinigt, »templeise« als Variante des französischen »Templier« und des lateinischen »templarius« anzusehen und mit »Templer« zu übersetzen. Wolframs dem Gral verpflichteter Ritterorden wies so viele Parallelen mit der historischen »Bruderschaft vom Tempel Salomos« auf, daß man ihn mit den Tempelrittern identifizierte.[11]

Schon bei meiner Besichtigung der Kathedrale von Chartres hatte ich in einem meiner Führer gelesen, daß Wolfram von Eschenbach möglicherweise Templer war.[12] Bei weiteren Nachforschungen stieß ich immer wieder auf solcherlei Gerüchte.[13] Zudem erfuhr ich, daß einige anerkannte Wissenschaftler die Vermutung geäußert hatten, der deutsche Dichter habe das Heilige Land selbst besucht, während er am Parzival schrieb.[14]

Schatzgräber in Jerusalem

Zunächst war mir unklar, warum man die Templer zu Wolframs Zeiten als »Hüter des Tempels Salomo« angesehen hatte. Als ich mich jedoch näher mit der Geschichte des Ordens auseinandersetzte, fand ich heraus, daß er seinen offiziellen Titel »Bruderschaft der armen Glaubensgenossen Christi und des Salomo Tempels« daraus ableitete, daß der Hauptsitz in Jerusalem auf dem Gipfel des Berges Morija lag - dort, wo sich der Tempel des großen jüdischen Königs bis zu seiner Zerstörung im Jahre 587 vor Christus befunden hatte. Nun, ein Orden, der sich so

unmißverständlich mit Salomos Tempel identifiziert hatte, mußte auch an die Bundeslade gedacht haben - erschien mir doch die Gleichsetzung von Tempel und Lade als unauflöslich.

Der Templerorden wurde im Jahre 1118/19 von neun französischen Adligen gegründet. Alle diese Ritter hatten zuvor Reisen ins Heilige Land unternommen. Ein Historiker des zwölften Jahrhunderts, der Erzbischof Wilhelm von Tyrus, schrieb, daß zu den »vornehmsten und ausgezeichnetsten« unter diesen neun Männern der »ehrenwerte Hugo von Payens und der ehrenwerte Godfrey von St.Omer« gehörten.[15]

Bei meinen weiteren Nachforschungen stieß ich auf etwas äußerst Interessantes: Hugo von Payens, der erste Großmeister des Ordens[16], wurde in dem Dorf Payens geboren, das dreizehn Kilometer nördlich von Troyes in der Provinz Champagne liegt.[17] Es hatte sogar den Anschein, als stammten alle neun Gründer der Bruderschaft aus derselben Gegend.[18] In dieser Region konzentrierte sich jedoch noch mehr:

- Chartres mit seiner großen Kathedrale gehörte sowohl im zwölften als auch im dreizehnten Jahrhundert zum Herrschaftsgebiet der Familie von Champagne.[19]
- Einer der neun Ritter, Andre von Montbard (der später zum fünften Großmeister ernannt wurde], war ein Onkel des heiligen Bernhard von Clairvaux[20], der selbst aus der Champagne stammte.
- Bernhard wiederum hatte sich mit besonderem Interesse der gotischen Architektur gewidmet.
- Aus der Stadt Troyes stammte auch Chrétien de Troyes, der »Erfinder« der Gralsromane.
- Hugo von Payens war der Cousin eines der Grafen der Champagne[21] - und dieser Graf trat im Jahre 1125 den Templern bei.[22]
- Als Chrétien de Troyes gegen Ende des zwölften Jahrhunderts Bekanntheit erlangte, gehörten die Grafen der Champagne zu seinen Gönnern.

Nachdem ich diese ineinander verschränkten biographischen Informationen mit großem Interesse zur Kenntnis genom-

men hatte, versuchte ich, mehr über die Gründungsphase der Templer zu erfahren.

Zu den vielen Merkwürdigkeiten zählte die Art und Weise, wie die neun Ritter im Jahre 1119 von König Balduin II. in Jerusalem empfangen worden waren. Kaum in der Heiligen Stadt angekommen, teilten sie dem König schon mit, daß sie ihren Hauptsitz auf dem Tempelberg einrichten würden.[23] Erst kürzlich hatte der Herrscher die El-Aksa-Moschee zu seinem Palast umfunktioniert - und doch ging er erstaunlicherweise sofort auf die Bitte der Ritter ein und überließ ihnen einen Teil der ehemaligen Moschee und deren Nebengebäude zur alleinigen Nutzung. Die Moschee befand sich direkt neben dem berühmten Felsendom, der die Stelle markierte, an der einst der Tempel Salomos stand.[24]

Fast wie Archäologen unserer Tage bei einer bedeutenden Ausgrabung, so lebten, aßen, schliefen und arbeiteten die Tempelritter allein an diesem Ort: Tatsächlich verließen sie ihn in den folgenden sieben Jahren kaum und verwehrten jedem Fremden hartnäckig den Zutritt. Die Templer hatten öffentlich bekannt gemacht, daß ihre Mission im Heiligen Land darin bestand, die Straße von der Küste nach Jerusalem von Banditen freizuhalten.[25] Nichts jedoch wies darauf hin, daß sie in diesen sieben Jahren irgendwelche Aktivitäten in dieser Hinsicht gezeigt hätten. Im Gegenteil: Der neue Orden, so formulierte es ein Spezialist, tat allem Anschein nach außerordentlich wenig.[26] Es war auch kaum anzunehmen, daß neun Männer eine fast achtzig Kilometer lange Straße hätten sichern können. Und sie blieben neun, bis der damalige Graf der Champagne dem Orden im Jahre 1125 beitrat. Zudem existierte zu dieser Zeit bereits ein älterer und militärisch bei weitem besser organisierter Orden, die Johanniter, die sich ebenfalls die Aufgabe gestellt hatten, die wichtige Route zur Küste zu bewachen.

Daraus war nur zu schließen, daß Hugo von Payens und seine Mitstreiter aus einem anderen, geheimgehaltenen Grund nach Jerusalem gekommen waren. Und da sie sich in den ersten sieben Jahren ihres Aufenthaltes fast ausschließlich im Tempel-

bezirk aufhielten, mußte ihr wirklicher Auftrag mit diesem engumgrenzten Gebiet zusammenhängen.

Von Anfang an übten sich die Ritter in strikter Geheimhaltung, so daß die Schriften und Dokumente aus dieser Zeit keinerlei konkrete Hinweise darüber enthalten, was dort oben geschah. Es lag jedoch zumindest im Bereich des Möglichen, daß sie nach etwas suchten; und dieser Verdacht erhärtete sich, als ich erfuhr, daß sie in den Jahren auf dem Tempelberg umfangreiche Ausgrabungen durchgeführt hatten. Noch heute beherbergt der Tempelberg zwei der vier heiligsten Stätten des Islam - den Felsendom und die El-Aksa-Moschee -, so daß es Archäologen nicht erlaubt wurde, dort Nachforschungen anzustellen. In jüngster Zeit haben israelische Forschungsteams jedoch direkt an der Südseite des Berges gearbeitet. Sie entdeckten dort den Ausgang eines Tunnels, den sie auf das zwölfte Jahrhundert datierten.[27] In ihrem offiziellen Bericht schreiben die Archäologen:

»Der von der Südwand ausgehende Tunnel führt etwa dreißig Meter weit ins Innere, bevor er von Steinen und Geröll versperrt wird. Wir wußten, daß er weiterführen mußte, respektierten aber die Übereinkunft, nach der wir nicht im Bereich des Tempelberges graben durften, ohne zuvor die Zustimmung der zuständigen muslimischen Behörden einzuholen. In diesem Fall erlaubte man uns lediglich, den freigelegten Teil des Tunnels zu vermessen und zu fotografieren. Weitere Ausgrabungen durften nicht durchgeführt werden. Wir beendeten unsere Arbeit, indem wir den Tunnel mit Steinen verschlossen.«[28]

Das war auch schon alles, was man über den Tunnel der Templer wußte. Ich konnte mir jedoch sehr gut vorstellen, daß der von der Südwand ausgehende unterirdische Gang mitten ins Herz der heiligen Stätten führte - möglicherweise direkt unter dem Felsendom hindurch bis zum Nordende der El-Aksa-Moschee.

Ein riesiger Stein im Innern des Felsendoms hatte dem Bauwerk seinen Namen gegeben. Die Juden nannten diesen Stein »Shetiyyah«, was soviel wie »Grundstein« bedeutet. Der »She-

tiyyah« bildete den Boden des Allerheiligsten im Tempel Salomos, und auf diesem Felsboden stand die Bundeslade.[29] Eine der vielen Legenden, die verbreitet wurden, nachdem der Tempel im Jahr 587 vor Christus von den Babyloniern zerstört worden war, erklärte, daß die heilige Reliquie nur Sekunden, bevor die Plünderer in das Allerheiligste eindrangen, in einer geheimen und versiegelten Kammer direkt unter dem »Shetiyyah« versteckt worden war.[30]

Diese Legende fand ihren Niederschlag sogar in einer Reihe von Talmud- und Mischnatexten sowie einer weitverbreiteten apokalyptischen Schrift mit dem Titel Vision des Baruch[31]. Solche Überlieferungen waren im Jerusalem des zwölften Jahrhunderts weit verbreitet. Es lag nahe, daß die Templer Einzelheiten dieser faszinierenden Legende erfahren haben konnten.

Mehr noch: Schon einige Jahre vor ihrer Ankunft in Jerusalem hatten sie möglicherweise Kenntnis davon gehabt. Hugo von Payens und der Graf der Champagne unternahmen bereits 1104 eine Pilgerfahrt ins Heilige Land.[32] Anschließend kehrten die beiden Männer nach Frankreich zurück, wo sie bis in das Jahr 1113 immer wieder gemeinsam auftraten.[33] Drei Jahre später reiste Hugo, diesmal allein[34], erneut ins Heilige Land und kam nur noch einmal nach Frankreich zurück, um acht weitere Ritter um sich zu scharen. 1119 brachen die Männer, die hinfort den Kern der Templer bildeten, nach Jerusalem auf.

Je genauer ich mir die Abfolge der Ereignisse betrachtete, desto plausibler erschien es, daß Hugo und der Graf der Champagne während ihrer Pilgerreise im Jahr 1104 vernommen hatten, daß die Bundeslade irgendwo im Tempelberg verborgen lag. Und war es dann nicht gleichermaßen plausibel, daß sie einen Plan entwickelt hatten, um die heilige Reliquie wiederzufinden? Würde dies nicht auch das entschlossene Auftreten erklären, mit dem sich die neun Ritter im Jahre 1119 des Tempelberges bemächtigt hatten? Auch andere Merkwürdigkeiten in ihrem Verhalten in den ersten Jahren nach der Ordensgründung wären so erklärlich gewesen.

Unterstützung für diese Annahme kam von Emma Jung. In

einem Exkurs legt die Psychoanalytikerin dar, daß die europäische Besetzung Jerusalems im zwölften Jahrhundert zumindest teilweise auf den Glauben zurückzuführen sei, daß im Inneren der Stadt eine mächtige, heilige und unermeßlich wertvolle Reliquie verborgen sei. »Gewiß hat diese tief wurzelnde Vorstellung vom verborgenen Schatz dazu beigetragen, daß der Aufruf zur Befreiung des Heiligen Grabes ein so starkes Echo fand.« Und es war die Gralslegende, so gibt die Autorin an, »welche der Bewegung der Kreuzzüge, wenn sie diese nicht überhaupt auslöste, das zündende Motiv verlieh«[35].

Für die Menschen des zwölften Jahrhunderts, die sich in höchstem Maße von Reliquien faszinieren ließen, konnte es keinen wertvolleren und heiligeren Schatz geben als die verlorene Bundeslade.[36] Es erschien mir deshalb nicht nur möglich, sondern sehr wahrscheinlich, daß Hugo von Payens und seine Männer sich die Aufgabe gestellt hatten, die Lade zu finden.

Offensichtlich haben die Templer ihr Ziel nicht erreicht. Wir wissen nichts von einem Triumphzug, in dem der Orden den heiligen Schrein nach Europa gebracht hätte, und wir wissen nichts von einem enormen Zuwachs an Macht und Prestige, den die Lade den Templern verschafft hätte.

Und doch hielten sich hartnäckige Gerüchte, daß sie während der sieben Jahre andauernden, intensiven Grabungen auf dem Tempelberg irgend etwas gefunden hatten. Keines dieser Gerüchte war auch nur von geringster akademischer Beweiskraft - dafür aber um so faszinierender:

»Die tatsächliche Aufgabe der neun Tempelritter bestand darin, in dieser Gegend Nachforschungen anzustellen, die sie in den Besitz gewisser Reliquien und Manuskripte bringen sollten, in denen der Kern jüdischer und altägyptischer Geheimlehren verborgen lag, und von denen einige höchstwahrscheinlich aus den Tagen Moses stammten … Es besteht kein Zweifel, daß sie diese Mission erfüllten und das dadurch gewonnene Wissen innerhalb des Ordens von einer Generation an die nächste weitergaben.«[37]

Obgleich diese einnehmende Behauptung durch keinerlei

Beweise untermauert wurde, war es für mich doch von Interesse, in demselben Werk auf einen Namen zu stoßen, der mir schon einige Male zuvor aufgefallen war: Bernhard von Clairvaux, von dem hier (wiederum ohne jeglichen wissenschaftlichen Nachweis) behauptet wurde, er selbst habe die neun Ritter nach Jerusalem entsandt.[38]

Zu diesem Zeitpunkt wußte ich bereits, daß Bernhard der Neffe einer der neun Gründungsritter war. Und als die ersten Templer 1119 in Jerusalem ankamen, hatte Bernhard innerhalb des französischen Klerus schon eine Stellung von beachtlichem Rang erreicht.[39] Die Möglichkeit, daß Bernhard an der Mission der Ritter in irgendeiner Form beteiligt war, war nicht ohne weiteres von der Hand zu weisen.

Dieser Verdacht erhärtete sich beträchtlich, als ich mich mit der Geschichte der Templer nach jenen sieben ersten und merkwürdigen Jahren befaßte.

Ein Tauschgeschäft?

Ende 1126 verließ Hugo von Payens plötzlich Jerusalem und kehrte mit Andre von Montbard, dem Onkel des heiligen Bernhard, nach Europa zurück.[40] Die Ritter erreichten Frankreich ein Jahr darauf und nahmen im Januar 1128 an einem der bedeutendsten Ereignisse in der Frühgeschichte der Templer teil.

Es handelte sich um die Synode von Troyes, die mit dem erklärten Ziel einberufen worden war, dem Tempelorden die offizielle Anerkennung der Kirche zu verschaffen.[41]

An diesem Treffen interessierten mich insbesondere drei Dinge. Erstens traf man sich in der Heimatstadt des Dichters, der wenige Jahre später die Gralsromane ins Leben rufen würde, zum zweiten wurde die Zusammenkunft von Bernhard in seiner Eigenschaft als Sekretär des Ordens geleitet[42], und drittens entwarf Bernhard im Verlauf der Synode selbst die Satzung der Tempelritter, die fortan die Entwicklung und Verbreitung des Ordens bestimmte.[43]

Für mich stellte sich die Sachlage nun so dar: Allem Anschein nach waren die neun Gründungsritter zunächst mit den Ausgrabungen auf dem Tempelberg beschäftigt. Was immer auch sie dort gefunden haben mochten, spätestens 1126 wurde ihnen klar, daß sie das eigentliche Objekt ihrer Suche, die Bundeslade, nicht mehr finden würden. Diese Erkenntnis zog die Notwendigkeit nach sich, über die Zukunft nachzudenken: sollte man jetzt, da man seine »raison d'être« verloren hatte, den Orden auflösen, oder sollte man weitermachen?

Die Geschichte zeigt, daß sich die Templer im Jahre 1126 tatsächlich in einer Identitätskrise befanden. Gleichwohl, das Tief wurde überwunden, und der Orden beschloß, seine Machtposition auszubauen. Bernhard von Clairvaux ließ den Rittern dabei tatkräftige Unterstützung zukommen. Nach der Anerkennung durch die Kirche warb er in einer Reihe von Predigten und glühenden Lobeshymnen (wie De laude novae militiae[44]) eifrig für den noch jungen Orden und trat mit seinem Einfluß und dem Ansehen, das er genoß, für die Ritter ein.

Die Resultate waren spektakulär. Neue Rekruten strömten aus ganz Frankreich und später auch aus vielen Teilen Europas zusammen, Land- und Geldschenkungen von wohlhabenden Förderern folgten, so daß der Orden gegen Ende des zwölften Jahrhunderts außerordentlich reich war. Man verwaltete ein ausgeklügeltes internationales Bankensystem[45] und verfügte in der gesamten damals bekannten Welt über riesige Besitztümer. Sehr schnell hatte sich die Bruderschaft zu einer politischen Macht entwickelt. Aber war der Grund für Bernhards umfassende Unterstützung allein in seiner Selbstlosigkeit zu suchen? Oder hatte der hochgestellte Geistliche auch Gegenleistungen gefordert?

Noch einmal rief ich mir ins Gedächtnis, daß Bernhard zu den Vorkämpfern und Initiatoren der europäischen Gotik gehörte. Dem gegenüber standen die Gerüchte, nach denen die Tempelritter in Jerusalem auf eine alte und geheime Wissensquelle gestoßen waren. Ich kam also nicht umhin, mich zu fragen, ob es sich bei alledem nicht um ein Tauschgeschäft gehan-

delt hatte. Natürlich: Den Rittern war es nicht gelungen, die Bundeslade zu finden, doch vielleicht waren sie bei ihren Ausgrabungen auf Schriftrollen, Manuskripte, Lehrsätze oder Pläne gestoßen, die mit dem Tempel Salomos zusammenhingen. Vielleicht hatten diese Funde die verloren geglaubten architektonischen Geheimlehren von Geometrie, Proportion, Ausgewogenheit und Harmonie wieder ans Tageslicht gebracht, die schon von den Erbauern der Pyramiden eingesetzt worden waren. Und vielleicht hatten die Templer diese Geheimlehren dem heiligen Bernhard als Gegenleistung für die engagierte Unterstützung des Ordens anvertraut.

Diese Spekulationen waren nicht völlig aus der Luft gegriffen. Im Gegenteil, gerade die Templer taten sich als große Architekten hervor. Im Jahre 1139 gewährte Papst Innozenz II. [dessen Kandidatur der heilige Bernhard bemerkenswerterweise ebenso entschieden unterstützt hatte[46]) in seiner Bulle *Omne Datum* Optimum dem Orden ein einzigartiges Privileg: das Recht, seine eigenen Kirchen zu bauen.[47] Die Templer nutzten diese Möglichkeit in der Folge weidlich aus: Wunderbare Gotteshäuser entstanden, deren Grundriß oftmals rund war (wie beispielsweise die Templerkirche in London), und wurden zum Markenzeichen templerischer Unternehmungskraft.

Auch bei militärischen Bauwerken zeichneten sich die Ritter aus. Ihren Burgen in Palästina lagen so außerordentlich durchdachte Pläne zugrunde, daß sie praktisch uneinnehmbar waren. Die eindrucksvollste unter diesen Wehren war das Kastell von Atlith, auch Château Pèlerin oder Pilgerburg genannt, das im Jahre 1218 vom vierzehnten Großmeister der Templer, Wilhelm von Chartres, erbaut worden war.[48]

Atlith, auf einer Landzunge südlich von Haifa gelegen, war an drei Seiten vom Meer umgeben. Es konnte sich selbst mit Frischwasser, Obst und Gemüse versorgen und besaß einen eigenen Hafen sowie eine Schiffswerft. Die Burg wurde mehrfach von den Sarazenen belagert, aber nie eingenommen. Die massiven, fünf Meter dicken und fast dreißig Meter hohen Mauern[49], die auf ungewöhnlich tiefen Fundamenten standen, konnten bis zu

viertausend Menschen beherbergen und waren so gut gebaut, daß große Teile davon noch immer intakt sind. 1932 wurde diese Stätte unter der Leitung des Archäologen C. N. Johns sorgsam freigelegt. Er stellte fest, daß die Fähigkeiten der Architekten und Baumeister des Ordens im Vergleich zu mittelalterlichen Standards unglaublich fortgeschritten, im Vergleich zu modernen Standards noch immer »außerordentlich« waren.[50]

Auch in Jerusalem errichteten die Templer viele Bauten, bis die Heilige Stadt von Saladin zurückerobert wurde. Ich erfuhr, daß ein deutscher Mönch namens Theoderich im Jahre 1174 nach Jerusalem gepilgert war, wo er alle Gebäude im Bezirk des Felsendoms noch immer »im Besitz der Templer« vorfand.[51] Er fügte hinzu:

»In diesem und anderen Gebäuden, die ihnen alle gehören, sind die Templer einquartiert... Darunter befinden sich Ställe aus der Zeit König Salomos mit vielerlei Gewölben, Bögen und Dächern ... Nach unserer Schätzung dürften sie zehntausend Pferde und ebenso viele Stallburschen haben .. .«[52]

Tatsächlich stammten die Ställe nicht aus der Zeit Salomos, sondern aus der Regentschaft Herodes des Großen um die Zeit von Christi Geburt. Die Gewölbe, Bögen und Dächer jedoch hatten die Templer gebaut und dabei die unterirdischen Gänge stark erweitert. Theoderichs Augenzeugenbericht fährt fort mit den Worten:

»Auf der anderen Seite des Palastes [d.h. der El-Aksa-Moschee] haben die Templer ein neues Gebäude errichtet, das in seiner Höhe, Länge und Breite, seinen Kellern, Speisesälen, Treppen und Dächern das landesübliche weit übersteigt. Tatsächlich ist das Dach so hoch, daß, erwähnte ich seine Höhe, niemand meiner Zuhörer mir Glauben schenken würde.«[53]

Unglücklicherweise wurde dieser großartige Palast in den fünfziger Jahren unseres Jahrhunderts zerstört, als die muslimischen Behörden einige wenig geschichtsbewußte bauliche Veränderungen auf dem Tempelberg durchführten. Die Aussagen des deutschen Mönches sprachen jedoch für sich. Gerade sein Erstaunen machte deutlich, daß er die architektonischen Fähig-

keiten der Templer als fast übernatürlich ansah. Es war kein Zufall, daß die von ihm erwähnten hochaufragenden Dächer und Bögen auf die Merkmale gotischer Architektur zu verweisen schienen - so wie sie zum Beispiel in Chartres zum Ausdruck kamen.

Der Bogen zurück zu Bernhard von Clairvaux war geschlossen. Als ich noch einmal seine Lebensdaten und zentralen Ideen überprüfte, verstärkte sich der Eindruck, daß sein Einfluß auf die Bildersprache der gotischen Kathedralen zwar massiv, jedoch indirekt war. Bei vielen Skulpturen, Figurengruppen oder Bleiglasfenstern wurden Themen aus seinen Predigten und Schriften aufgegriffen - oft aber erst nach seinem Tod.[54] Zu Lebzeiten hatte sich Bernhard meist gegen eine unnötige Hervorhebung von Bildwerken ausgesprochen: »Allein um die Proportionen geht es, nicht um die Dekoration.«[55]

Die Betonung von Proportion, Harmonie und Gleichmaß waren der Schlüssel zu der eigenartigen Ausstrahlung, die von der gotischen Architektur ausgeht. Mittlerweile war ich vertrauter mit Bernhards Gedanken und verstand, daß sein Einfluß auf die Gestaltung von Chartres und anderen Kathedralen sehr weitreichend war. Die Einführung einer Reihe beachtlicher technischer Neuerungen, wie dem Kreuzrippengewölbe, den Spitzbögen und Strebebögen, hatte den Baumeistern dieser Gebäude die Möglichkeit gegeben, ihren komplexen religiösen Vorstellungen durch geometrische Perfektion Ausdruck zu verleihen. So konnten Architektur und Glaube in der Gotik des zwölften Jahrhunderts eine ganz neuartige - und fast greifbare - Synthese bilden. Dieses Zusammenwachsen beschrieb der heilige Bernhard, als er die Frage stellte »Was ist Gott?« und sie dann selbst mit den erstaunlichen Worten beantwortete: »Er ist Länge, Weite, Tiefe und Höhe.«[56]

Nicht ohne Grund war es gerade die Kathedrale von Chartres, in deren Bau man das hochentwickelte Wissen der gotischen Architektur investiert hatte. In den Jahren vor Baubeginn nämlich hatte Bernhard eine enge Freundschaft zu Geoffrey, dem Bischof von Chartres, entwickelt[57] und ihn mit »über-

schwenglicher Begeisterung«[58] für den gotischen Stil geworben. Zudem hielt er »fast täglich Unterredungen mit den Bauleuten«[59].

Interessant war diese Information jedoch vor allem deshalb, weil diese Zeit genau in die Jahre nach der Synode von Troyes fällt. Historiker haben bislang keine angemessene Erklärung für das plötzliche und konzentrierte Auftauchen gotischer Architektur im Frankreich der dreißiger Jahre des zwölften Jahrhunderts geben können. Meine Vermutung, daß die Templer damit etwas zu tun gehabt haben könnten, erwies sich als immer plausibler. Noch einmal verglich ich alle von mir zusammengetragenen Indizien und war mir sicher, daß man auf dem Tempelberg tatsächlich auf die alten Geheimnisse der Baukunst gestoßen war - und daß man sie an den heiligen Bernhard weitergegeben hatte.

Nach und nach ergaben sich auch die Verbindungen zwischen jenen kryptischen »Schatzkarten«: dem Nordportal von Chartres und Wolframs Parzival. Jedes dieser Werke verwies auf Äthiopien als letzte Ruhestätte der Bundeslade. Doch wie waren die Tempelritter darauf gekommen, daß die heilige Reliquie nach Äthiopien gebracht worden war? Und welche Verbindung bestand zwischen dem Ritterorden und Wolfram von Eschenbach?

Eine Antwort mußte in Jerusalem selbst zu finden sein - dort, wo ein äthiopischer Prinz über ein Vierteljahrhundert im Exil lebte, bevor er im Jahre 1185 in seine Heimat zurückkehrte, um Anspruch auf sein Königreich zu erheben.[60] Nur fünfzehn Jahre später schrieb Wolfram die ersten Verse des Parzival, und nur zehn Jahre später begann man mit der Arbeit am Nordportal der Kathedrale von Chartres.

Ein äthiopischer Prinz in Jerusalem

Der Name des Prinzen war Lalibela. Aber nicht Lalibela ersuchte den Papst um einen Altar in der Grabeskirche, sondern

König Harbay von Äthiopien, der um 1177 noch regierte. Das Vorrecht, das der Herrscher gefordert hatte, sollte jedoch erst seinem Nachfolger zugute kommen: Prinz Lalibela.

Weder Harbay noch Lalibela stammten aus dem Geschlecht, das Menelikl. begründet hatte. Vielmehr gehörten beide Könige dem Stamm der Zagwe an, die das Land von etwa 1130 bis 1270 regierten, bevor die salomonische Dynastie den Thron wieder einnahm.[61]

Über die Zeit der Zagwe ist nur wenig bekannt. Fest steht, daß die salomonische Linie um das Jahr 980 unterbrochen wurde, als die jüdische Königin Gudit in einem Staatsstreich die Macht übernahm und alles daransetzte, die christliche Religion auszulöschen. Sie griff Aksum an, machte einen großen Teil der Stadt dem Erdboden gleich und tötete viele der salomonischen Prinzen. Allein Prinz Delna'ad konnte sein Leben retten und in die Provinz Shoa fliehen, wo er das Überleben der alten Dynastie sicherte.[82]

Gudit war die Anführerin der Agaw-Stämme, zu denen auch die Falaschen gehörten.[63] Fünfzig Jahre nach dem Tod der Usurpatorin befand sich der Großteil Nordäthiopiens unter der Herrschaft der Zagwe, die ebenfalls von den Agaw abstammten. Wahrscheinlich gehörte auch die Dynastie - wie Gudit - der jüdischen Religion an.[84] Die Mitglieder des Herrscherhauses mußten jedoch schon vor der Geburt des Prinzen Lalibela, also vor 1140, zum Christentum konvertiert sein.

Lalibela, der jüngere Halbbruder von König Harbay, schien von Anfang an zu Höherem bestimmt. Legenden berichten, daß seine Mutter beobachtete, wie das Kind in seiner Wiege von Bienen umringt wurde. »Lalibela«, rief die Mutter da aus, was soviel bedeutet wie »Die Bienen anerkennen seine Herrschaft«, und so kam der Prinz zu seinem Namen.[85]

Harbay allerdings sorgte sich nach dieser Prophezeiung um seinen Thron, so daß er beschloß, den Säugling zu töten. Nach mehreren fehlgeschlagenen Versuchen gelang es ihm schließlich, dem jungen Prinzen ein Gift zu verabreichen, das ihn in einen todesähnlichen Schlaf versetzte. Den Überlieferungen zu-

folge hielt die Lähmung drei Tage und drei Nächte an. Lalibela wurde während dieser Zeit von Engeln in den ersten, zweiten und dritten Himmel gebracht. Dort sprach der Allmächtige zu ihm, er solle sich nicht fürchten. Er sei auserwählt, und Gott werde sein Leben lenken. Sobald er aus seinem Schlaf erwacht sei, solle er aus Äthiopien fliehen und in Jerusalem Zuflucht suchen. Dennoch könne er sicher sein, daß er einst als König in seine Geburtsstadt Roha zurückkehren würde. Dort sollte er wunderbare Kirchen errichten, wie sie die Welt noch nie gesehen habe. Gott übergab Lalibela detaillierte Anweisungen, welche die Bauweise, das Aussehen jeder einzelnen Kirche, ihren Standort und selbst die innere und äußere Gestaltung betrafen.[66]

Hier kreuzen sich Legende und Geschichte. Tatsächlich floh der Prinz nach Jerusalem und lebte dort von 1160 bis 1185. Dann kehrte Lalibela im Triumph in seine Heimat zurück und eroberte den Thron.[67]

Von diesem Zeitpunkt an gibt es verläßliche Chroniken seiner Regentschaft, die bis in das Jahr 1211 andauerte.[68] Er machte seine Geburtsstadt Roha (die später zu seinen Ehren in Lalibela umbenannt wurde) zum Regierungssitz[69] und begann sogleich mit dem Bau jener aufsehenerregenden Monolithkirchen. Daß Lalibela sein Exil im Heiligen Land nicht vergessen hatte, schlug sich in der Aufteilung der neuen Königsstadt nieder: Der Fluß, der die Stadt durchlief, wurde in »Jordan« umbenannt; eine der elf Kirchen, Beta Golgatha, wurde der Grabeskirche in Jerusalem nachgebildet; und ein in der Nähe befindlicher Hügel hieß fortan Debra Zeit, »Ölberg«, nach dem Ort, an dem Jesus von den Häschern ergriffen wurde.[70]

Darüber hinaus hielt der König während seiner gesamten Regierungszeit enge Verbindungen nach Jerusalem. Dies war, wie ich herausfand, nichts Ungewöhnliches. Seit dem Ende des vierten Jahrhunderts nach Christus hielten sich ständig Gesandte der äthiopisch-orthodoxen Kirche in der Heiligen Stadt auf.[71] Schon König Harbay wollte diese Kontakte festigen, was schließlich zu dem Vorstoß führte, den Papst um eine Kultstätte zu bitten. Wir wissen, daß Harbay keinen Erfolg hatte, denn

wenig später waren zwei entscheidende Entwicklungen eingetreten: Im Jahr 1185 übernahm Lalibela die Herrschaft, und nach 1187 befand sich die Heilige Stadt nicht mehr in den Händen der Christen.[72]

Die königlichen Chroniken zeigen, daß Lalibela von den Veränderungen in Jerusalem sehr beunruhigt war. 1189 gelang es einem seiner Botschafter, Saladin dazu zu bewegen, der nach Zypern geflüchteten äthiopischen Gemeinde den Zugang zum Tempelbezirk wieder zu gestatten. Darüber hinaus erhielt sie sogar eine eigene Kultstätte in der Grabeskirche.[73] In neuerer Zeit sind den Äthiopiern diese Privilegien wieder abhanden gekommen. Heute müssen abessinische Pilger ihre Verehrung auf dem Dach einer Klosterkapelle bekunden.[74] Immerhin unterhält die äthiopische Kirche noch immer zwei Gotteshäuser und einen Bischofssitz in Jerusalem.

Betrachtet man einmal die Außen- und Innenpolitik, die architektonischen Ausdrucksformen oder die geistige Entwicklung dieser Jahre, so erkennt man, daß Lalibelas Regierungszeit den Höhepunkt der Zagwe-Dynastie darstellt. Nach seinem Tod setzte ein jäher Verfall ein, bis Naakuto Laab im Jahre 1270 zugunsten Yekuno Amlaks auf den Thron verzichtete.[75] Fortan gehörten, mit einer einzigen Ausnahme, alle äthiopischen Herrscher der von Menelik I. begründeten salomonischen Dynastie an, und das bis ins Jahr 1974, als Kaiser Haile Selassie durch die kommunistische Revolution seines Amtes enthoben wurde.

Greifbare Ergebnisse

Als ich mir noch einmal vergegenwärtigte, was ich über Lalibelas glanzvolle Regierungszeit erfahren hatte, erkannte ich, daß meine Ergebnisse genau in das verlockende Muster von Übereinstimmungen paßten, das sich aus den Kreuzzügen, den Templern und den Ereignissen im zwölften Jahrhundert ergab:
- Im Jahre 1099 wird Jerusalem von den Kreuzfahrern eingenommen.

- Im Jahre 1119 treffen die neun Gründungsritter des Templerordens in Jerusalem ein und besetzen die Stelle, an der einst der Tempel Salomos stand.
- Im Jahre 1128 erreicht Bernhard von Clairvaux auf der Synode von Troyes die offizielle Anerkennung des Ordens durch die Kirche.
- Im Jahre 1134 beginnt man mit der Errichtung des Nordturmes der Kathedrale von Chartres.
- Im Jahre 1145 taucht der Name »Priester Johannes« zum erstenmal in Europa auf.
- Im Jahre 1160 wählt Prinz Lalibela auf der Flucht vor seinem Halbbruder Harbay Jerusalem als politisches Exil.
- Im Jahre 1165 kursiert jener Brief in Europa, der angeblich vom Priester Johannes verfaßt wurde.
- Im Jahre 1177 veröffentlicht Papst Alexander III. eine Antwort auf dieses Dokument. Offensichtlich bestehen in Jerusalem direkte Kontakte zwischen Abgesandten des Priester Johannes und dem Leibarzt des Papstes.
- Bei diesem Priester Johannes kann es sich nur um Lalibelas Halbbruder Harbay handeln.
- Im Jahre 1182 beschreibt der Dichter Chrétien de Troyes zum allerersten Mal den Heiligen Gral.
- Im Jahre 1185 verläßt Lalibela Jerusalem und kehrt nach Äthiopien zurück, wo er die Macht übernimmt. Unmittelbar danach beginnt er mit dem Bau der Felsenkirchen.
- Im Jahre 1187 fällt Jerusalem an die muslimischen Streitkräfte unter Saladin.
- Im Jahre 1189 schickt Lalibela Abgesandte zu Saladin und erreicht einige Vorrechte für die äthiopischen Christen in Jerusalem.
- Um das Jahr 1200 beginnt Wolfram von Eschenbach mit der Arbeit am Parzival, setzt die Erzählung Chrétiens fort und verwandelt den Gral in einen Stein. Wolfram läßt viele äthiopische Elemente in seine Geschichte einfließen und erwähnt dabei nicht nur den Priester Johannes, sondern auch die Templer.
- Zu genau derselben Zeit wird das Nordportal der Kathe-

drale von Chartres mit seinen Skulpturen der Königin von Saba, dem Gral und der Bundeslade errichtet.

Es hat den Anschein, daß alle diese Ereignisse auf eine verworrene Art und Weise durch eine Gemeinsamkeit miteinander verbunden waren, die der Geschichte bislang verborgen geblieben war - vielleicht, weil man sie mit Absicht geheimhalten wollte. Hätte ich den Beweis antreten können, daß die Templer zunächst in Jerusalem und später in Äthiopien nach der verlorenen Bundeslade forschten, dann wäre dies das fehlende Glied in der komplexen Kette ineinander verzahnter Ereignisse, Ideen und Personen gewesen. Aber mir war klar, daß ich im Moment alle Mittel ausgeschöpft hatte, was die Aktivitäten der Ritter in Jerusalem betraf. Doch was war mit Äthiopien? Gab es denn tatsächlich nicht den geringsten Anhaltspunkt, daß die Templer auch dort nach der Lade gesucht und anschließend dafür gesorgt hatten, daß die Ergebnisse ihrer Nachforschungen in Wolframs großem Epos verschlüsselt wurden?

»Diese verräterischen Templer ...«

Der erste Durchbruch gelang mir, als ich eine vollständige Übersetzung des Briefes einsehen konnte, den der Priester Johannes im Jahre 1165 geschrieben haben sollte. Anders als das Schreiben Alexanders III. an Priester Johannes von 1177 wurde der Brief von 1165 von der Wissenschaft mit großer Skepsis betrachtet. Auch wenn die Lehrmeinung die Datierung des Briefes nicht anzweifelte, so war es nur schwer vorstellbar, daß die Epistel tatsächlich von einem Priester Johannes stammte, so daß man das Schreiben als geschickte Fälschung ansah.[76]

Als ich den Brief las, verstand ich den Grund für diese Einschätzung. Schließlich gab der Verfasser vor, sein Reich beherberge unter anderem »Wildhasen, so groß wie Schafe«, »Vögel, die man Greif nennt, und die mit Leichtigkeit einen Ochsen oder ein Pferd in ihr Nest tragen können«, »gehörnte Männer, die nur ein Auge vorn, jedoch drei oder vier hinten haben«, »andere

Männer mit Hufen an den Beinen, wie Pferde«, »Bogenschützen, die von der Hüfte aufwärts Menschen, abwärts jedoch Pferde sind«, den Jungbrunnen, einen »Sandsee«, aus dem sich »jedes Stück Geröll in einen kostbaren Stein verwandelt«, den »Baum des Lebens«, »siebenköpfige Drachen« und so weiter und so fort.[77]

Es hatte den Anschein, als könne man im Land des Priester Johannes so ziemlich jedes Fabeltier und jede Traumgestalt finden. Wo sich dieses Land jedoch genau befand, wurde an keiner Stelle des Briefes erwähnt, sieht man einmal von dem etwas dürftigen Verweis auf die »vielen indischen Reiche« ab. Allerdings fanden sich hier und da zwischen den Fabelwesen auch andere Tiere, deren Existenz man nicht so schnell abstreiten konnte: »Elefanten« und »Dromedare« zum Beispiel, auch das »Einhorn« mit »einem einzigen Horn auf der Stirn«, das sich sehr nach einem Rhinozeros anhörte, zumal es dafür bekannt war, manchmal »Löwen zu töten«.[78]

Gerade diese Einzelheiten ließen mich aufhorchen. Möglicherweise handelte es sich bei dem Verfasser des fraglichen Briefes eben nicht um einen Fälscher, sondern vielmehr um einen Kenner dieser Region - wo es natürlich Kamele, Elefanten, Löwen und Rhinozerosse gab. Mein Verdacht erhärtete sich, als ich bemerkte, daß auch »König Alexander von Mazedonien« erwähnt und mit »Gog und Magog« in Verbindung gebracht wurde.[79] Mir fiel diese Stelle vor allem deshalb auf, weil ich mich daran erinnerte, daß eine solche Verknüpfung auch in einem sehr alten äthiopischen Manuskript hergestellt wurde, dem *Lefafa Sedek,* dem Buch der *Rechtschaffenheit*[80], das bis zum neunzehnten Jahrhundert außerhalb Äthiopiens völlig unbekannt war.

Schließlich behauptete der Priester Johannes, daß in seinem Reich viele Juden lebten, die scheinbar einen halbautonomen Status besaßen und des öfteren bekriegt wurden. Auch das ähnelte ja den tatsächlichen Verhältnissen in Äthiopien: Nach der Erhebung der jüdischen Königin Gudit im zehnten Jahrhundert war tatsächlich ein Konflikt zwischen äthiopischen Juden

und Christen entstanden, der über die Jahrhunderte hinweg weiterschwelte.

Trotz seiner vielen zweifellos phantastischen und nicht belegbaren Stellen glaubte ich nun nicht mehr, daß es sich bei dem Brief um eine Fälschung handelte. Vielmehr war ich der Meinung, daß der Brief in der Absicht entstanden war, seine Adressaten zu beeindrucken und vor allem zu ängstigen. Auffällig waren insbesondere die häufigen Verweise auf die Größe der »priesterlichen Streitkräfte«:

»Wir besitzen zweiundvierzig Burgen, welche zu den sichersten und prächtigsten der Welt zählen, dazu viele Männer zu ihrer Verteidigung: zehntausend Ritter, sechstausend Armbrustschützen, fünfzehntausend Bogenschützen und vierzigtausend Mann Kavallerie ...« Und eine vergleichbare Passage lautet: »So wisse, daß wenn wir zu Krieg ziehen, vierzigtausend Kirchenmänner und eine ebenso große Anzahl Ritter vor uns her marschieren. Sodann folgen zweihunderttausend Mann Fußvolk, ungeachtet der Wagen mit Verpflegung, der Elefanten und Kamele, welche Waffen und Munition tragen .. .«[81]

Hier handelte es sich einwandfrei um Machtdemonstration. Erstaunlicherweise legte der Verfasser dabei Wert darauf, seine ablehnende, ja feindliche Haltung gegenüber den Tempelrittern zu betonen. In einem Abschnitt des Briefes, der sich allem Anschein nach an den »König von Frankreich« richtete, heißt es:

»Zu Eurem Gefolge und zu Eurer Familie gehören aber Franzosen, die es mit den Sarazenen halten. Ihr habt Vertrauen in sie und setzt darauf, daß sie Euch helfen werden, wo sie doch falsch sind und verräterisch ... Mögt Ihr tapfer sein und von großem Mut und, so wolle Gott, diesen verräterischen Templern ein Ende machen .. .«[82]

Wer also kam im Jahre 1165 als Kandidat für die Rolle des Priester Johannes in Frage? Und wer hatte ein Interesse daran, die europäischen Königshäuser mit seiner überwältigenden militärischen Macht zu konfrontieren? Und wem schließlich lag so ausdrücklich daran, die Tempelritter in Mißkredit zu bringen und sogar ihre Vernichtung zu fordern?

Meine Antwort auf diese Frage lautete Harbay. Einer der Gründe, warum ich allein Harbay als den tatsächlichen Verfasser dieses Briefes ansah, war begrifflicher Natur. Im Laufe meiner Untersuchungen hatte ich herausgefunden, daß alle Herrscher der Zagwe in ihren Titeln den äthiopischen Terminus »Jan« bevorzugten.[83] »Jan« kommt von dem Wort »Jano«, das eine purpurrote Toga bezeichnet, die nur von den Herrschern des Landes getragen wird, und bedeutet soviel wie »König« oder »Majestät«. Da »Jan« leicht mit »John« zu verwechseln war, konnte sich möglicherweise hier der Ursprung des Namens »Priester Johannes« verbergen, zumal einige der Zagwe-Herrscher zugleich Priester waren.

Allerdings hatte ich noch einen anderen Grund, auf Harbay zu beharren, dessen politische Probleme genau um 1165 einsetzten. Sein Widersacher und Halbbruder Lalibela befand sich zu dieser Zeit bereits fünf Jahre im Jerusalemer Exil, lange genug also, um die Templer kennenzulernen und sich mit ihnen anzufreunden. Vielleicht hatte er die Ritter sogar gebeten, ihn bei seinem Anspruch auf den Thron zu unterstützen, und vielleicht hatte Harbay Wind von der Sache bekommen.

Für meine Begriffe war ein solches Szenario durchaus vorstellbar. Sein Engagement bezüglich einer Kultstätte in der Grabeskirche ließ darauf schließen, daß Harbay regelmäßig Abgesandte nach Jerusalem schickte und daß diese Abgesandten leicht von dem sich anbahnenden Komplott zwischen Lalibela und den Templern erfahren haben konnten. Nun ergab auch der merkwürdige Vorschlag einen Sinn, daß der König von Frankreich die »verräterischen Templer« exekutieren lassen sollte. Der »Brief des Priester Johannes« wäre somit als durchdachte Strategie zu begreifen, die eine Verschwörung gegen den äthiopischen König Harbay verhindern sollte.

Nun, mir war klar, daß meine Überlegungen in höchstem Maße spekulativ waren, und ich hätte sie nicht weiter verfolgt, wenn nicht Wolframs Parzival Hinweise geliefert hätte, die eine Verbindung zwischen den Templern und Lalibela nahelegten.

»In das ferne Afrika ...«

Wolframs Epos, das einige Jahre nach Harbays Vertreibung vom Thron entstand, berichtet mehrfach von geheimen Missionen der Templer nach Übersee, bei denen es offensichtlich um den Gewinn politischer Macht ging. Eine Passage zum Beispiel lautet:

»Beruft die Allmacht Gottes einen Tempelherrn zum Herrscher eines fremden Volkes, dann ... muß er aber jede Frage nach seinem Namen und seinem Geschlecht verbieten. Wird er dennoch gefragt, dann kann er nicht länger im Lande bleiben.«[84]

Und eine andere Textstelle gibt an:

»Erlischt aber andererseits in der Welt ein Herrscherhaus und wünscht das Volk des verwaisten Landes in Ehrfurcht vor Gott einen Herrscher aus der Gralsgemeinschaft, dann wird dieser Wunsch erfüllt... Die Männer sendet Gott im geheimen aus .. .«[85]

Und nur wenig später formuliert ein Mitglied der Gralsgemeinschaft einen konkreten Sachverhalt: Seine Ritterfahrten führten ihn bis in »das ferne Afrika ... vor die Rohas«[86]. Literaturwissenschaftler haben versucht, »die Rohas« mit dem Rohitscher Berg an der Grenze von Slowenien zur Steiermark zu identifizieren. Ich hielt diese Ableitung jedoch für völlig irrig, da sie ganz und gar nicht in den afrikanischen Kontext paßte. Zudem verfügte ich über eine Information, die mir einen Vorsprung vor den Wolfram-Experten deutscher und englischer Universitäten verschaffte: Roha war der alte Name einer Stadt in den entlegensten Hochebenen Äthiopiens - Lalibela. Und König Lalibela war es, der über ein Vierteljahrhundert hinweg in der Nähe der Tempelritter lebte. Es stellte sich also noch immer die berechtigte Frage, ob Lalibela, als er 1185 nach Äthiopien zurückkehrte, von einem Kontingent Templer begleitet wurde.

Ich glaubte nicht, daß diese Frage leicht zu beantworten war. Glücklicherweise hatte ich Lalibela bereits 1983 besucht. Als ich die Notizen dieser Reise noch einmal genau durchging, stieß ich auf einen interessanten Punkt.

An der Decke der Felsenkirche Beta Mariam, die ebenfalls der heiligen Maria Mutter Jesu gewidmet ist, hatte ich »verblaßte rote Kreuze« entdeckt und vermerkt: »Sehen nicht aus wie normale äthiopische Kreuze - in Addis nach Herkunft forschen.« Ich fand sogar eine grobe Skizze wieder, die ich später mit dem Fachausdruck für diese Kreuzform ergänzt hatte: Croix pattée.

1983 wußte ich jedoch noch nicht, daß es sich bei dem Emblem der Templer um ein rotes Croix pattée handelte[87] - und ich wußte nicht, daß die Templer als Baumeister herrlicher Kirchen bekannt waren.

Bei den elf Felsenkirchen von Lalibela handelt es sich mit Abstand um die architektonisch ausgereiftesten Gebäude Äthiopiens (die UNESCO geht sogar soweit, sie unter die Weltwunder einzuordnen[88]).

Was die Gesamtkonzeption, die handwerkliche Ausführung und den ästhetischen Ausdruck der Kirchen anging, so waren sie tatsächlich einzigartige Werke. Bislang gelang es keinem Experten festzustellen, wie sie gebaut wurden, und noch immer hält sich das Gerücht, daß Fremde an der Errichtung beteiligt waren. Einige Forscher nahmen an, daß König Lalibela Inder oder ägyptische Kopten als Bauleute angeworben habe.[89] Und während die äthiopischen Legenden von einem Werk der Engel sprachen, fragte ich mich, ob es sich bei den wahren Erbauern von Lalibela nicht um die Templer handelte.

Meine Notizen aus dem Jahr 1983 entwarfen ein Bild dieser beeindruckenden Bauwerke: »Ähnlich wie in den mittelalterlichen Mysterien hat man einige Anstrengungen unternommen, ihr wahres Wesen zu verbergen: Einige liegen fast völlig abgeschlossen in tiefen Gräben, andere sind in den klaffenden Mäulern riesiger Steinbrüche versteckt. Verbunden sind sie alle durch ein komplexes und labyrinthisches System von Tunneln und schmalen Gängen, von denen Krypten, Grotten und Emporen abgehen - eine kühle, von Flechten eingewachsene unterirdische Welt, schattig, klamm und schweigend, bis auf den verklingenden Hall ferner Schritte, der vom zeitlosen Tun der Priester und Diakone erzählt.

Vier der Kirchen stehen ganz frei und sind mit dem sie umgebenden Fels nur an der Basis verbunden. Sie stehen völlig isoliert in den tief ausgegrabenen Höfen, am eindrucksvollsten Beta Giorghis, die Kirche des heiligen Georg. Sie thront in majestätischer Größe in einiger Entfernung von den anderen. Mehr als zwölf Meter hoch, befindet sie sich in der Mitte einer tiefen, brunnenähnlichen Grube; ihr Grundriß und ihr gesamtes Erscheinungsbild ähnelt einem Kreuz.«

Schon damals hatte sich mir die Frage nach den wahren Baumeistern gestellt - und vor allem nach den ausgeklügelten und weitentwickelten Techniken, die ein solches Wunderwerk erst ermöglichen konnten. Nun wurde mir mit einigem Unbehagen bewußt, wie wenig sich diese Dunkelheit erhellt hatte - und wieviel es für mich noch herauszufinden gab. Intuitiv glaubte ich fest daran, daß die Templer mit der Errichtung der Kirchenanlage zu tun hatten. Tatsache war aber nun einmal, daß ich meinen Verdacht bislang auf die roten »Kreuzfahrerkreuze« an der Decke von Beta Mariam stützen konnte. Dabei besaß das Mysterium von Lalibela noch weitere Dimensionen, die sich meiner Beurteilung erst recht entzogen.

In Beta Mariam zum Beispiel hatte mich ein Priester vor den Eingang zum Allerheiligsten geführt, wo er mich auf eine große Säule aufmerksam machte. In meinen Aufzeichnungen las ich: »Sie hat den Durchmesser eines gut gewachsenen Baumes. Die Säule erhebt sich aus dem Steinboden und verschwindet weit über uns im Düsteren. Sie wird völlig von einem fadenscheinigen Tuch verhüllt, das die eingravierten Worte - so erklärt der Priester - König Lalibelas verbirgt. Möglicherweise handelt es sich um eine Schilderung der geheimnisvollen Entstehung der Felsenkirchen; aber der Priester gerät in großes Entsetzen, als ich ihn bitte, das Tuch zur Seite zu ziehen. >Das wäre ein Sakrilege sagt er, >die Hülle wird niemals entfernte«

Ärgerlicherweise hatte ich diesen Punkt nicht weiter verfolgt, so daß ich ein Gefühl nachträglicher Wut über meinen damaligen Mangel an Neugier nicht unterdrücken konnte. Enttäuscht wandte ich mich dem großen Stapel von Quellentexten

und Sekundärliteratur zu, den ich damals zusammengetragen hatte. Das meiste bestand aus Fotokopien wissenschaftlicher Abhandlungen, von denen allerdings die wenigsten für meine Zwecke von Bedeutung waren. Ein Buch machte jedoch einen vielversprechenden Eindruck. Es handelte sich um den Bericht des portugiesischen Botschafters in Äthiopien von 1520 bis 1526 mit dem Titel: Der Priester Johannes der indischen Reiche. Das von Vater Francisco Alvarez verfaßte, fünfhundert Seiten starke Werk war erstmals im Jahre 1540 in Lissabon erschienen und seit 1881 auch in einer englischen Übersetzung zugänglich.

Der portugiesische Mönch, so erfuhr ich in der Einleitung, genießt unter Historikern den Ruf der Glaubwürdigkeit, und seine Aufzeichnungen gelten als authentische und wichtige Quelle für die Erforschung der äthiopischen Geschichte.[90] Im ersten Band des Werkes beschreibt Alvarez unter anderem seinen Besuch in Lalibela. Ich bewunderte die einfache und sachliche Sprache, in der er seine außerordentlich detaillierte Beschreibung der Kirchen formulierte. Selbst die verhüllte Säule in Beta Mariam fiel dem Mönch auf: »Dann findet sich dort noch am Scheitelpunkt des Querschiffes eine hohe Säule, die mit -einer Verkleidung umspannt ist, deren Flechtwerk einem in Wachs geprägten Muster gleicht.«[91]

Alvarez mußte geahnt haben, daß seine Beschreibungen nur ungläubiges Erstaunen hervorrufen würden, und so endet sein Bericht über Lalibela mit den Worten: »Ich schwöre hiermit bei Gott, in dessen Gewalt ich bin, daß alles, was ich geschrieben habe, der Wahrheit entspricht, daß ich nichts hinzugefügt habe und daß es noch viel mehr zu berichten gibt und ich es allein darum wegließ, daß man mich nicht der Lüge beschuldige .. .«[92]

Bei Alvarez handelt es sich zweifellos um einen gewissenhaften Forscher und Chronisten, denn er sprach sogar mit einigen der älteren Priester. So wollte er wissen, wie lange das Aushöhlen und Bearbeiten der Steinblöcke gedauert und wer die Arbeit vollbracht habe. Die Antwort, die man ihm gab, war noch frei von den später hinzukommenden legendarischen Ausgestaltungen - und sie ließ meinen Puls höher schlagen:

»Man teilte mir mit, daß alle Arbeit an den Kirchen in vierundzwanzig Jahren vollbracht wurde, so wie es geschrieben steht, und daß es weiße Männer waren, die dies taten. Auch sagte man, daß König Lalibela dies alles angeordnet habe .. .«[93]

Lange war es mir nicht gelungen, den Berührungspunkt der Tempelritter mit Äthiopien auszumachen. Nun aber hatte ich das Gefühl, auf einen ernstzunehmenden Beweis gestoßen zu sein, der die Präsenz weißer Männer in Äthiopien mehr als nur nahelegte. Dabei mußte es sich um Personen handeln, die internationalen Einfluß besaßen, weiße Männer, die (mit Wolframs Worten) manchmal zu einem »fremden Volk« geschickt wurden, um »im Lande für Recht und Gerechtigkeit zu sorgen«[94].

Der Bericht des Portugiesen und die Worte des alten Priesters über die »weißen Männer« festigten meine Überzeugung, daß Wolfram nicht nur einer Laune folgte, als er die Templer im Parzival mit seiner kryptischen Gralsdarstellung und Äthiopien in Verbindung brachte. Ich war mir immer sicherer, daß dieser kluge und gewitzte Dichter zu jenem inneren Zirkel gehörte, der das Geheimnis um den letzten Aufenthaltsort der Bundeslade kannte. Vielleicht war er durch Vermittlung seiner »Quelle«, des Gelehrten Kyot (alias Guyot von Provins), vielleicht aber auch auf direkterem Wege vom Orden beauftragt worden, dieses Geheimnis in einer mitreißenden Geschichte zu verschlüsseln. Doch welches Interesse konnten die Templer an einer solchen Übereinkunft gehabt haben? Mir fiel zumindest eine mögliche Antwort ein. Hätte man die geheimen Informationen an einem unzugänglichen Ort verborgen, dann bestand keine Garantie, daß das Wissen um den Aufenthaltsort der Lade auch wirklich an weitere Generationen weitergegeben werden konnte. Geschickt in einem populären Gewand wie dem Parzival verschlüsselt, hatte das Geheimnis eine reelle Chance, unbegrenzt im Bereich der Kultur weiterzubestehen.

Kurz, was über Jahrhunderte hinweg von den meisten als packende Geschichte betrachtet wurde, bedeutete für einige wenige Eingeweihte und Entschlossene die Schatzkarte, die nach Äthiopien und zur Bundeslade führte.

Kapitel 6

Dreiste Lügen?

Alle Reliquien haben ein gemeinsames Merkmal: Abergläubische und leicht zu beeindruckende Menschen lassen sich schnell von ihnen faszinieren. Aber bei genauerer Untersuchung halten diese Objekte der Verehrung oftmals nicht das, was sie versprechen. Warum sollte es im Falle von Aksum nicht auch so sein? Ich mußte also herausfinden, ob es tatsächlich handfeste Beweise für die Vermutung gab, daß sich die Bundeslade dort befand.

Mitte des neunzehnten Jahrhunderts war ein Abgesandter des armenischen Patriarchen in die heilige Stadt gereist, um zu beweisen, daß man es bei der Legende um die Bundeslade mit nichts anderem als einer »dreisten Lüge« zu tun habe.[1] Nachdem der Legat Dimotheus etwas Druck auf die aksumitischen Priester ausgeübt hatte, zeigte man ihm eine »aus rot gefärbtem Marmor gearbeitete, vierundzwanzig Zentimeter lange, zweiundzwanzig Zentimeter breite und nur drei Zentimeter dicke« Tafel[2], von der die Priester behaupteten, daß es sich um eine der beiden Steintafeln aus der Bundeslade handelte. Offenbar hofften sie, daß der Gesandte sich mit einem Blick auf diese Tafel, die sie »Tabot des Mose« nannten[3], zufriedengeben würde. Und Dimotheus war sehr zufrieden. Mit dem sichtlichen Vergnügen eines Mannes, der gerade einen großen Mythos entzaubert hat, berichtet er:

»Der Stein war völlig intakt und zeigte keine Merkmale der Alterung. Er stammt frühestens aus dem dreizehnten oder vierzehnten Jahrhundert unserer Zeit... Ein dummes Volk wie die Abessinier, das diesen Stein blindlings als echt ansieht, schwelgt ganz ohne Grund im Stolz der Besitzer, denn es handelt sich keinesfalls um das Original. All diejenigen, die von der Heiligen Schrift Kenntnis haben, benötigen keine weiteren Be-

weise: Es ist eine Tatsache, daß die Tafeln mit den göttlichen Gesetzen in die Bundeslade gelegt wurden und auf immer verloren sind.«[4]

Was sollte ich damit anfangen? Wenn es sich bei jener Steintafel um einen Teil der so verehrten aksumitischen Reliquie handelte, dann sprach er mit Recht davon, daß sie keinen Grund zur Freude hatten. Mit anderen Worten: Wenn der Inhalt falsch war, so konnte daraus nur folgen, daß auch der Behälter falsch war. Was wiederum bedeutete, daß es sich bei der aksumitischen Überlieferung wirklich um nichts als eine »dreiste Lüge« handelte.

Und doch enthielt Dimotheus' Urteil eine entscheidende Schwachstelle: Hatte man ihm wirklich den Gegenstand gezeigt, den die Priester als echten »Tabot Mose« verehrten, oder hatte man ihm vielleicht etwas ganz anderes vorgeführt? Diese Frage drängte sich besonders deshalb auf, weil der armenische Legat offensichtlich beleidigt und geradezu erbost darüber war, daß ein so »dummes Volk« wie die Äthiopier ein so wertvolles Objekt wie die Bundeslade besitzen sollte - und so war ihm sehr daran gelegen, den Gegenbeweis anzutreten. Ich merkte schnell, daß sein Drang, um jeden Preis sein Vorurteil zu bestätigen, über jeglichen unvoreingenommenen Forschergeist gesiegt hatte. So war ihm der feinsinnige und hintergründige Charakter der Äthiopier völlig entgangen.

Als Dimotheus um 1860 nach Aksum kam, wurde die Lade noch in der Marienkirche aufbewahrt, aber es war dem Legaten nicht gestattet worden, das Allerheiligste zu betreten. Statt dessen führte man ihn zu einem wackeligen Holzbau, der sich »mit einigen anderen Räumen zusammen außerhalb der Kirche auf der linken Seite« befand, und enthüllte in seiner Gegenwart den marmornen Stein.

Nun, der armenische Legat war von den Priestern höchstwahrscheinlich an der Nase herumgeführt worden. Ich wußte, daß die äthiopisch-orthodoxe Kirche die Lade als einzigartiges Heiligtum betrachtete. Ich bezweifelte aus diesem Grund, daß man Bestandteile der Lade auch nur zeitweise aus dem Allerhei-

ligsten entfernt hatte, zumal es keinen wirklich triftigen Grund dafür gab. Das sicherlich entschieden vorgetragene Interesse irgendeines Fremden reichte dafür gewiß nicht aus. Gleichzeitig handelte es sich bei diesem Mann jedoch um einen Gesandten des armenischen Patriarchen in Jerusalem, und es wäre unklug gewesen, ihn nicht mit einem gewissen Respekt zu behandeln. Was sollte man also tun? Die Antwort, so vermutete ich, bestand darin, daß die Priester ihm einen der vielen »Tabots« zeigten, die es in Aksum gab, und erklärten, daß es sich um eine Steintafel aus dem heiligen Schrein handelte.

Um mich in dieser Hinsicht zu vergewissern, rief ich Professor Richard Pankhurst in Addis Abeba an und befragte ihn über den Besuch von Dimotheus. Glaubte er, daß es sich bei dem »Tabot«, das dem Legaten gezeigt wurde, wirklich um eine der alten Gesetzestafeln gehandelt hatte?

»Höchst unwahrscheinlich«, antwortete Richard. »Sie würden einen so heiligen Gegenstand keinem Fremden zeigen. Außerdem habe ich das Buch von Dimotheus gelesen, es wimmelt darin nur so von Fehlern und Mißverständnissen. Er war ein aufgeblasener Mensch, ohne Skrupel, was seinen Umgang mit der äthiopisch-orthodoxen Kirche anging, und nicht ganz ehrlich. Ich kann mir gut vorstellen, daß der Klerus von Aksum ihn sehr schnell durchschaut und mit irgendeinem >Tabot<, das ihnen nichts weiter bedeutete, abgespeist hat.«

Richard gab mir Namen und Telefonnummern zweier äthiopischer Forscher, von denen er glaubte, daß sie mir behilflich sein könnten: Dr.Belai Gedai, der eine ausführliche Studie über die Frühgeschichte seines Landes erstellt und sich dabei besonders auf seltene amharische und Ge'ez-Dokumente gestützt hatte, sowie Dr. Sergew Hable-Selassie vom Institut für äthiopische Studien, Autor eines anderen Standardwerkes zum gleichen Thema.

Am meisten beschäftigte mich noch immer die Frage, was Dimotheus in Aksum gesehen hatte, und so beschloß ich, Dr. Hable-Selassie um Hilfe zu bitten. Ich rief ihn an, stellte mich vor und fragte ihn nach seiner Meinung zu diesem Thema.

Er lachte: »Natürlich hat dieser Kerl nicht den wirklichen >Tabot des Mose< gesehen. Um seinem Wunsch nachzukommen, zeigten ihm die Priester ein anderes Stück. Hier in Äthiopien besitzt jede Kirche mehr als ein >Tabot<. Es gibt sogar Gemeinden, die zehn oder zwölf davon haben, die sie für verschiedene Zeremonien benutzen. Also hat man ihm einen davon gezeigt. Da gibt es gar keinen Zweifel...«
Die Sicherheit, mit der mir der Historiker diese Antwort gab, kräftigte mein Mißtrauen gegenüber der Aussage des armenischen Legaten. Die rote Marmortafel, die er gesehen hatte, besaß keinerlei Beweiskraft für oder gegen Äthiopiens Anspruch, die Bundeslade zu besitzen. Und doch hatte sein Bericht über Aksum einen komplizierten Vorbehalt in mir ausgelöst, der mit dem gesamten Thema der »Tabots« als heilige Gegenstände zusammenhing.

Zwanzigtausend Tabots

Einerseits galten »Tabots« als Repliken der Bundeslade, des truhenartigen Schreins als ganzem also. Andererseits aber bezeichneten die Priester auch jene Dimotheus präsentierte schmale Steintafel als »Tabot« und erklärten, sie stamme *aus* der Bundeslade. Drittens wußte ich, daß jede äthiopische Kirche mindestens einen eigenen »Tabot« besaß. Und die »Tabots«, die ich während meiner Reisen in Äthiopien gesehen hatte, waren tatsächlich Tafeln aus Holz oder Stein - und konnten somit zunächst einmal nicht als Kopie der Bundeslade gelten. Das brachte den gesamten aksumitischen Anspruch, den Schrein zu besitzen, ziemlich ins Wanken. Mich hatte dieses Problem schon einmal sehr irritiert, als mir der Lagerverwalter des British Museum jene unscheinbaren Holztafeln zeigte, die in der Inventarliste als »Tabots« verzeichnet waren.

Ein für allemal mußte ich also herausfinden, was es mit den »Tabots« wirklich auf sich hatte. Ich rief Dr.Belai Gedai an und kam nach einer kurzen Vorstellung gleich zur Sache: »Sind Sie

der Meinung«, fragte ich, »daß sich die Bundeslade in Äthiopien befindet?«

»Ja«, antwortete er mit Nachdruck. »Und nicht nur ich, alle Äthiopier glauben, daß die Bundeslade in Äthiopien ist und in der Marienkirche von Aksum aufbewahrt wird. König Menelik I. brachte sie nach seinem Besuch bei seinem Vater aus Jerusalem mit.«

»Und was hat es mit dem äthiopischen Wort >Tabot< auf sich? Bedeutet es >Lade<? Stellen die >Tabots< Repliken der Lade in Aksum dar?«

»Der Plural von >Tabot< lautet in unserer Sprache >Tabotat<. Ja, es sind Repliken. Da es nur eine einzige echte Lade gibt, das Volk jedoch etwas Greifbares braucht, an das es seinen Glauben heften kann, bedienen sich alle anderen Kirchen dieser Kopien. Es gibt mittlerweile mehr als zwanzigtausend Kirchen und Klöster in Äthiopien und jede von ihnen besitzt zumindest ein >Tabot<.«

»Das genau dachte ich auch, aber gleichzeitig verwirrt es mich.«

»Warum?«

»Weil keiner der >Tabotat<, die ich gesehen habe, Ähnlichkeit mit der in der Bibel beschriebenen Lade hatte. Immer waren es Stein- oder Holztafeln, nie länger oder breiter als dreißig Zentimeter, nie dicker als fünf oder sieben Zentimeter. Wenn diese Gegenstände als Repliken der echten Reliquie gelten sollen, dann lautet die einzig logische Schlußfolgerung, daß es sich bei dieser Reliquie nicht um die Bundeslade handeln kann ...«

»Warum nicht?«

»Wegen der Beschreibung in der Bibel. Im zweiten Buch Mose wird die Lade ganz klar als mittelgroße, rechteckige Truhe beschrieben. Warten Sie bitte einen Moment, ich schaue schnell nach, wie es genau heißt...«

Ich nahm die Bibel zur Hand, suchte die entsprechende Stelle und las laut vor, wie die Lade nach den göttlichen Angaben gefertigt wurde: »Und Bezaleel machte die Lade von Akazien-

holz, dritthalb Ellen lang, anderthalb Ellen breit und hoch, und überzog sie mit feinem Golde .. .«[5]

»Wie lang ist eine Elle genau?« fragte Gedai.

»Ungefähr so lang wie ein Unterarm vom Ellbogen bis zur Spitze des Mittelfingers - mit anderen Worten ungefähr fünfundvierzig Zentimeter. Danach wäre die Lade ungefähr einhundertzwölf Zentimeter lang und achtundsechzig Zentimeter breit und tief. Die >Tabotat< passen nicht zu diesen Abmessungen. Sie sind viel zu klein.«

»Da haben Sie recht«, räumte Gedai ein. »Dennoch besitzen wir die Bundeslade. Das steht fest. Es gibt dafür sogar einen Augenzeugenbericht.«

»Sie meinen den des armenischen Legaten Dimotheus?«

»Nein, nein. Bestimmt nicht. Er hat gar nichts gesehen. Ich spreche von jemandem, der viel früher da war, einem Geographen namens Abu Salih, der übrigens auch Armenier war. Er lebte zu Beginn des dreizehnten Jahrhunderts und bereiste christliche Kirchen und Klöster in Ägypten. Dabei kam er aber auch in benachbarte Länder. Und so findet sich in seinem Buch die Beschreibung der Bundeslade. Wenn ich mich recht erinnere, stimmt sie ziemlich genau mit dem überein, was Sie gerade vorgelesen haben.«

»Ist das Buch von Abu Salih übersetzt worden?«

»O ja. Es gibt eine sehr gute Übersetzung aus dem neunzehnten Jahrhundert, die eigentlich noch zu finden sein müßte. Der Herausgeber war ein gewisser Evetts ...«

Wenige Tage später hielt ich B. T. Evetts Übersetzung von Abu Salihs Monumentalwerk Kirchen und Klöster Ägyptens und einiger Nachbarländer in der Hand. Unter der Überschrift »Abessinien« stieß ich auf acht Seiten eng gedruckter Beobachtungen und Kommentare. Darunter war diese Stelle:

»Die Abessinier besitzen die Bundeslade, in welcher sich zwei Steintafeln befinden, auf denen die Gebote Gottes ... geschrieben stehen. Die Bundeslade wird auf den Altar gestellt, ist jedoch nicht so breit wie dieser; sie ist hoch wie das Knie eines Mannes und von Gold überzogen .. .«[6]

Sogleich maß ich mein eigenes Bein von der Fußsohle bis zum Knie: achtundfünfzig Zentimeter. Für mein Gefühl kam das nahe genug an die im Buch Exodus erwähnten achtundsechzig Zentimeter heran, um von Bedeutung zu sein. Mir war klar, daß ein so grobes Maß nicht die allerletzte Beweiskraft haben konnte, auf der anderen Seite aber schloß es keinesfalls die Möglichkeit aus, daß der armenische Geograph die Bundeslade wirklich gesehen hatte. In jedem Fall, und das machte seinen Bericht so wertvoll, hatte er eine existierende, mit Gold überzogene Kiste oder Truhe beschrieben - und nicht eine der nur wenige Zentimeter dicken Holz- oder Steintafeln.

Ebenso interessant waren einige Einzelheiten über die Verwendung des Gegenstandes während religiöser Riten:

»Viermal im Jahr wird im Palast des Königs ein Gottesdienst mit der Lade gefeiert; und ein Baldachin wird über sie gespannt, wenn sie von ihrer Kirche zu der Kirche im königlichen Palast gebracht wird: nämlich zum Fest der Geburt Christi, zum Fest der Taufe, zum Fest der Wiederauferstehung und zum Fest der Kreuzerhöhung.«[7]

Dieser frühe und sehr sachliche Augenzeugenbericht brachte mich ein gutes Stück voran. Abmessungen und Erscheinungsform trafen im großen und ganzen zu; auch stimmte Abu Salihs Erwähnung des Baldachins mit den in der Bibel niedergelegten Vorschriften überein: »Wenn das Heer aufbricht, so sollen Aaron und seine Söhne hineingehen und den Vorhang abnehmen und die Lade des Zeugnisses darein winden ... und obendrauf eine ganz blaue Decke breiten und ihre Stangen daran legen.«[8]

Bisher hatte sich der armenische Geograph als sehr hilfreich erwiesen, doch auch er gab keine Antwort auf die verzwickte Frage nach den vielen »Tabotat«. Ich konnte dieses Problem nicht einfach ignorieren, und so beschloß ich, mich mit der Etymologie dieses äthiopischen Wortes zu beschäftigen: Bedeutete »Tabot« in seiner Grundform nun »Lade« oder »Steintafel«? Oder bedeutete es vielleicht etwas ganz anderes?

Nun mußte ich mich auf ein Gebiet begeben, das ich noch nie zuvor betreten hatte (und ich würde es vorziehen, es auch nie-

mals wieder zu betreten): die Linguistik. Nachdem ich mich durch einen großen Stapel langwieriger und langweiliger Arbeiten gekämpft hatte, wußte ich schließlich, daß sowohl das alte Ge'ez als auch das moderne und heute weitverbreitete Amharisch aus einer semitischen Sprachenfamilie stammen, zu der auch das Hebräische gehört.[9]

Das biblische Hebräisch verwendete meist das Wort »'aron«, um die Bundeslade zu bezeichnen. Aber von hier aus war kaum eine Verbindung zu »Tabot« herzustellen.[10] Aus einem anderen hebräischen Wort - und darin stimmt die Forschung überein - läßt sich »Tabot« sehr wohl ableiten: aus »Tebah«[11]. Der Begriff taucht im Alten Testament nur zweimal auf. Bezeichnenderweise steht er in beiden Fällen für einen schiffartigen Behälter: für die Arche Noah und den Binsenkorb, in dem Moses auf dem Nil ausgesetzt wurde, um ihn vor dem Zorn des Pharao zu bewahren.

Auch im Kebra Nagast entdeckte ich eine Stelle, an der die Bundeslade als »Bauch eines Schiffes« beschrieben wird. »Zwei und eine halbe Elle soll die Länge sein und ein und eine halbe Elle die Breite, und du sollst sie mit lauterem Gold überziehen.« In diesen Schiffsbauch sollte dann »das Wort des Bundesgesetzes ..., die beiden Tafeln des Bundes«, gelegt werden.[12] Die Überschneidungen verwiesen eindeutig auf den Gebrauch des Wortes »Tabot« als Bezeichnung für die biblische Bundeslade in ihrer ursprünglichen Form als goldüberzogener Behälter - eine Form, für die der »Bauch eines Schiffes« die passende Metapher war, denn so wurde die Bundeslade auch inhaltlich mit früheren »Schiffen« verbunden: mit der Arche Noah und dem Binsenkorb, die ja ebenfalls heilige und wertvolle Dinge enthielten.

Mir war nun klar, daß sich das Wort »Tabot« in seiner korrekten Etymologie nicht auf flache Stein- oder Holzfliesen bezog. Professor Edward Ullendorff, der erste und mittlerweile emeritierte Lehrstuhlinhaber für äthiopische Studien an der Universität London, beantwortete mir schließlich die Frage, warum »Tabot« trotzdem immer wieder auch für die einzelnen Tafeln verwendet wurde:

»Die echte Bundeslade soll sich in Aksum befinden, wonach alle anderen Kirchen nur Repliken besitzen können. In den meisten Fällen handelt es sich jedoch nur um Nachbildungen ihres angeblichen Inhalts, den Gesetzestafeln. Mit anderen Worten: Indem man die Stein- oder Holztafeln als >Tabotat< bezeichnet, bezieht man sich - pars pro toto - auf den wichtigsten Teil der Lade: auf die Tafeln des Bundes .. .«[13]

Fliegen in Bernstein

Ullendorffs Erklärung löste den offensichtlichsten Widerspruch des »Tabot«-Problems auf. Andere Unklarheiten blieben jedoch bestehen, und es war Ullendorff, der sie sogar noch verdichtete. In einer Abhandlung wies er mit Nachdruck darauf hin, daß man das Kebra *Nagast* keinesfalls ernsthaft als historische Quelle begreifen dürfe, die Funktion des Textes bestehe einzig darin, Äthiopien und seine Könige zu verherrlichen. Nur aus diesem Grund habe die Bundeslade überhaupt Eingang in die Legendensammlung gefunden.[14]

Ullendorff war nicht einmal der einzige, der diese Meinung vertrat. Sir E. A. Wallis Budge zum Beispiel wies in der Einführung zu seiner Übersetzung des Kebra Nagast darauf hin, daß es sich bei der Königin von Saba höchstwahrscheinlich überhaupt nicht um eine Äthiopierin handelte: »Viel wahrscheinlicher ist es«, schreibt er, »daß sie aus Sheba oder Saba im Südwesten Arabiens stammte.«[15]

Die meisten Fachgelehrten haben sich dabei auf die Tatsache berufen, daß es zu Salomos Zeiten keine eigenständige Kultur in Äthiopien gab, so daß es höchst unglaubwürdig erschien, dort eine fortschrittliche, städtische Gesellschaft vorzufinden, die in der Lage gewesen wäre, eine so schillernde Persönlichkeit wie die Königin von Saba hervorzubringen. Es bestand weitgehend Konsens darüber, daß es bis zum sechsten Jahrhundert vor Christus keine namhafte kulturelle Entwicklung in den abessinischen Hochländern gab und daß es noch einmal vierhundert

Jahre dauerte, bis man von einer gewissen Verfeinerung sprechen konnte. Diese Veränderung war nicht einmal als äthiopisches Verdienst zu betrachten, da ein Zustrom arabischer Nomaden mit »entwickelteren Qualitäten« als Katalysator für die Entwicklung der trägen Kultur der Ureinwohner galt.

Diese semitischen Emigranten, die vorwiegend aus dem Jemen kamen, »... ließen sich vor allem im Norden Äthiopiens nieder und bewirkten durch ihre Assimilation mit der ortsansässigen Bevölkerung eine kulturelle Transformation. Was sie mit sich brachten, waren Geschenke von unschätzbarem Wert: Religion, höher entwickelte soziale Strukturen, Architektur und Kunst, sowie eine eigene Schrift.«[16]

Kurz gesagt, die äthiopische Zivilisation war nicht nur viel jünger als die aksumitischen Legenden Glauben machen wollten, sie basierte auch noch auf dem Einfluß eines anderen Volkes. Natürlich war den meisten Äthiopiern diese Tatsache im Innersten ihres Herzens bewußt, und so konnten sie ihrem kulturellen Erbe gegenüber nur eine zutiefst verunsicherte Position einnehmen. Ein geschichtliches Standardwerk behauptete sogar, daß das Kebra Nagast nur deshalb so populär war, weil es ein tiefes psychisches Bedürfnis der Abessinier stillte, nämlich »ihre alte Abstammung zu beweisen ..., darin sind sich Emporkömmlinge gleich, ob es sich um Einzelpersonen oder ganze Völker handelt, sie sehnen sich nach Vorfahren, und beide haben sie keinerlei Skrupel, wenn es darum geht, den Stammbaum zu fälschen«[17].

Der zentrale Punkt bei dieser Argumentation lag sicherlich in der Feststellung, daß die Kultur relativ jung war und aus Südarabien stammte. Ich war jedoch nicht im geringsten davon überzeugt, daß dies den Anspruch der Äthiopier auf die Bundeslade ausschloß. Zuerst differenzierte ich meine Nachforschungen insofern, als ich nach verschiedenen ethnischen Gruppen suchte, die in der äthiopischen Geschichte eine Rolle gespielt hatten. Dabei stieß ich erneut auf die Falaschen.

Im Kebra *Nagast* wird mit einiger Deutlichkeit festgestellt, daß der jüdische Glaube im Jahre 950 vor Christus nach Äthio-

pien kam, als Menelik aus Jerusalem in sein Land zurückkehrte. Oberflächlich betrachtet, schien die Existenz der eingeborenen schwarzen Juden Äthiopiens Beweis genug zu sein, um das Vorhandensein der Lade zu bestätigen. Sah man jedoch genauer hin, so war dies ganz und gar nicht der Fall - zumindest nach Meinung der Wissenschaftler. Schon Richard Pankhurst hatte mir berichtet, welche Auffassung die Lehrmeinung vertrat: nämlich daß der jüdische Glaube kaum vor dem zweiten vorchristlichen Jahrhundert nach Äthiopien gelangt sein konnte, zu diesem Zeitpunkt aber über das Rote Meer aus dem Jemen kam, wo sich um 70 nach Christus eine große jüdische Gemeinde gebildet hatte, die vor der römischen Verfolgung aus Palästina geflohen war.[18] Bis weit in das sechste Jahrhundert hinein haben diese Emigranten die Vorfahren der Falaschen zum jüdischen Glauben bekehrt.[19]

Ich entschloß mich, diesen Punkt sehr eingehend zu untersuchen. Wenn der jüdische Glaube der Falaschen tatsächlich weit weniger als zweitausend Jahre alt war und zudem aus Arabien stammte, dann war eine ganze Reihe meiner zunächst überzeugenden Beweise für einen direkten Kontakt zwischen Äthiopien und Jerusalem in alttestamentarischer Zeit mit einem Schlag hinfällig geworden. Aber auch die Geschichten um Aksum und die Bundeslade hätten viel, wenn nicht sogar alles von ihrer Glaubwürdigkeit eingebüßt.

Kaum daß ich begonnen hatte, mich mit diesem Problem auseinanderzusetzen, wurde mir schon klar, daß der wissenschaftliche Konsens über die »Jemen-Theorie« vor allem deshalb entstanden war, weil schlicht und einfach ein Mangel an Beweisen für andere Theorien herrschte. Man hatte sich auf Südarabien als Ausgangspunkt konzentriert, weil von dort auch andere Emigrationsbewegungen nach Äthiopien ausgegangen waren.[20] Ich erkannte darin nichts weiter als ein erbärmliches Versagen der Logik. Denn hier wurde das Nicht-Vorhandensein von Beweisen kurzerhand gleichgesetzt mit dem Beweis für das Nicht-Vorhandensein einer bestimmten Entwicklung - ein trügerischer Umkehrschluß! Um es noch einmal zu wiederholen: Das

Problem lag im Mangel an Hinweisen, daß das Judentum viel früher und auf einem anderen Weg nach Äthiopien gelangt war. Aber gleichzeitig konnte niemand mit Sicherheit behaupten, daß dies *nicht* der Fall war.

Für mich war also alles noch offen, so daß ich mich entschloß, die Überlieferungen, den Glauben und das Verhalten der Falaschen zu studieren und daraus meine eigenen Schlüsse über ihre Abstammung zu ziehen. Dabei bedachte ich, daß ihre religiösen Bräuche im zwanzigsten Jahrhundert durch den großen Einfluß westlicher, vor allem auch jüdischer Besucher zweifellos verändert worden waren, so daß ich mich zunächst älteren Berichten zuwandte, die ihren Lebensstil beschrieben, bevor sie mit den modernen Kulturen in Berührung gekommen waren.

Ironischerweise waren einige dieser Berichte von Fremden verfaßt worden, die mit der erklärten Absicht nach Äthiopien gereist waren, dort eine kulturelle Veränderung herbeizuführen. Besonders zu erwähnen sind dabei die christlichen Missionare des neunzehnten Jahrhunderts, die von der Existenz der abessinischen Juden gehört hatten und sich sofort dorthin begaben, um sie zum wahren Glauben zu bekehren.[21]

Einer dieser Evangelisten war Martin Flad, der 1855 nach Äthiopien kam, um im Auftrag der »Londoner Gesellschaft zur Verbreitung des Christentums« missionarische Arbeit zu leisten. Sein Buch Die Falaschen Abessiniens wurde im Jahre 1869 veröffentlicht. Ich fand eine abgenutzte und zerlesene Ausgabe in der British Library und war sogleich von einigen Stellen fasziniert, in denen der Autor darauf beharrte, daß es mindestens seit der Zeit des Propheten Jeremia um 627 vor Christus, möglicherweise jedoch schon seit der Regierungszeit Salomos, Juden in Äthiopien gegeben habe. Flad stützte seine Behauptungen unter anderem auf folgenden Sachverhalt:

»Die Falaschen kennen weder den babylonischen noch den jerusalemischen Talmud, deren beider Wurzeln aus der Zeit der Gefangenschaft stammen. Sie feiern weder Purim noch das Fest der Tempelweihe, die von den Juden unserer Tage noch immer feierlich begangen werden .. .«[22]

Das Fest der Tempelweihe ist besser bekannt als Chanukka, was wörtlich »Weihe« bedeutet. Seine Entstehung läßt sich auf das Jahr 165 vor Christus datieren.[23] Es hätte also mit einiger Sicherheit zum religiösen Brauchtum einer jüdischen Gemeinde, die siebzig Jahre nach Christus entstand, gehören müssen. Die Nichtbeachtung von Chanukka ließ nur eine logische Schlußfolgerung zu: Die Falaschen mußten den jüdischen Glauben bereits vor 165 vor Christus angenommen haben - und damit folglich nicht aus dem Jemen, sondern aufgrund eines anderen Einflusses.

Als nächstes beschäftigte ich mich mit dem Purim-Fest, von dem die äthiopischen Juden, wie Flad feststellte, ebenfalls nichts wußten. Auch dieses Fest reicht auf das zweite Jahrhundert vor Christus zurück. Es war sogar denkbar, daß seine Ursprünge noch weiter zurücklagen: Die Ereignisse, an die der Feiertag erinnert, fanden Mitte des fünften Jahrhunderts vor Christus statt[24], so daß einige der von mir konsultierten Standardwerke annahmen, daß das Fest um das Jahr 425 vor Christus schon weit verbreitet gewesen sein dürfte. Allem Anschein nach waren die Falaschen also lange vor diesem Zeitpunkt von den Entwicklungen des Judentums abgeschnitten, vielleicht schon seit dem sechsten Jahrhundert vor Christus.

Ich fühlte, wie sich die Lücke zwischen der abessinischen Legende und den historischen Tatsachen schloß: Es sah immer mehr danach aus, daß der jüdische Glaube Äthiopien schon zu alttestamentarischen Zeiten erreicht hatte, so wie es das Kebra Nagast und die Falaschen behaupteten. Daher mußte auch die Geschichte vom Raub der Bundeslade durch Menelik mit mehr Ernst betrachtet werden, als es die Wissenschaft bisher getan hatte.

Weitere Beweise lieferte ein anderer Missionar des neunzehnten Jahrhunderts, Henry Aaron Stern. Er hatte mit Flad zusammengearbeitet, war mit ihm durch Äthiopien gereist und hatte seine Wanderungen *mit* den *Falaschen* in Äthiopien im Jahre 1862 veröffentlicht. Während meiner Lektüre dieses dreihundert Seiten starken Bandes entwickelte ich eine starke

Abneigung gegen den Verfasser, der sich mir als arroganter, brutaler und skrupelloser Bekehrer darstellte und nicht den geringsten Respekt für die Kultur und Traditionen des Volkes besaß, das er erforschte. Überhaupt schienen mir seine Beobachtungen dürftig und wenig genau. So war ich nach der Lektüre der ersten Hälfte des Buches ziemlich ungehalten.

Dann aber stieß ich auf etwas Interessantes. Stern beschreibt, wie genau die äthiopischen Juden den Gesetzen Mose folgten, »welche die Vorlage sind, nach denen sie ihren Glauben geformt haben ...«, und fügt hinzu:

»Es mag seltsam klingen, von einem jüdischen Altar und Sühneopfern in der Mitte Afrikas zu hören ... Und doch befindet sich auf der Rückseite jeder Kultstätte eine kleine Einfriedung mit einem großen Stein in der Mitte; auf diesem urtümlichen Altar wird das Opfer geschlachtet und der dazugehörige Ritus ausgeführt.«[25]

Was das Judentum betraf, so verfügte ich damals nur über ein relativ begrenztes Wissen, aber ich wußte genau, daß moderne Juden an keinem Ort der Erde mehr Tiere opferten. In seiner Beschreibung des Opferplatzes schrieb der deutsche Missionar weiter:

»Dieses Heiligtum wird streng vor unrechtmäßigem Betreten geschützt ... Ich selbst hätte diese unverzeihliche Tat eines Tages fast begangen. Es war ein sehr schwüler Nachmittag, als wir nach mehreren Stunden ermüdenden Marsches ein Falaschen-Dorf erreichten. Nichts anderes im Sinn, als mich kurz zu erholen..., erblickte ich zufällig in der Mitte eines abgelegenen Grasstücks einen glatten Stein, der dazu einlud, dem Müden Abgeschiedenheit und Ruhe zu spenden. Die dornige Einfriedung gab dem Eisen meiner Lanze sofort nach, und gerade wollte ich es mir bequem machen, als mich ein Chor wütender Stimmen auf meinen Irrtum aufmerksam machte und mich zum schnellen Rückzug zwang.«[28]

Insgeheim wünschte ich mir, Stern hätte seine gerechte Strafe für die Zerstörung des heiligen Ortes erhalten. Gleichzeitig jedoch mußte ich ihm dankbar sein, daß er meine Aufmerksam-

keit auf die Opferbräuche der Falaschen gelenkt hatte. Mit Sicherheit würde es sich lohnen, diesem Hinweis zu folgen, um so den Zeitpunkt genau zu bestimmen, an dem die äthiopischen Juden von ihren Glaubensgenossen und deren Weiterentwicklung getrennt worden waren.

Das Zustandekommen der jüdischen Opferriten war nicht einfach zu verfolgen. Ihren Anfang nahmen sie wohl in einfachen Gottesopfern, die von jedermann, gleich ob Priester oder Laie, und an jedem Ort, an dem sich ein Heiligtum befand, vollbracht werden konnten. Dies änderte sich nach dem Auszug aus Ägypten. Während der Wanderschaft der Israeliten durch die Wüste von Sinai wurde die Bundeslade gebaut und in einem tragbaren Zelt oder Tabernakel aufbewahrt. Fortan mußten alle Opfer an der Schwelle zum Tabernakel dargebracht werden, und wer dieses Gesetz mißachtete, dem drohten Vertreibung und Tod:

»Welcher Mensch aus dem Hause Israel ... ein Opfer oder Brandopfer tut und bringt's nicht vor der Tür der Hütte des Stifts, daß er's dem Herrn tue, der soll ausgerottet werden von seinem Volk.«[27]

Diese Vorschrift sollte bewirken, daß ein Ritus von so großer Bedeutung allein an einem religiösen Zentrum durchgeführt wurde, wenn ein solcher Ort vorhanden war. In der Wildnis war die Stiftshütte ein solches Zentrum. Später, um 1200 vor Christus, entstand das erste Nationalheiligtum der Israeliten in Silo. Erst als Silo um 1050 vor Christus zerstört wurde und das Volk die Stadt verlassen mußte, war es wieder erlaubt, an den Kultstätten der jeweiligen Gemeinden Opfer darzubringen.[28] Mit der Errichtung des ersten Tempels existierte wieder ein religiöses Zentrum. Es hat jedoch den Anschein, als habe man Opferungen außerhalb des Tempels - vor allem bei jüdischen Gemeinden, die weit von der Hauptstadt entfernt lebten - nicht so streng verfolgt, wie es das Gesetz vorschrieb. Aber mit der Regentschaft König Josias (639-609 vor Christus) wurden wieder drastische Strafen verhängt.[29] Mit den Jahrhunderten hat sich dieses Verbot so tief im jüdischen Glauben verwurzelt, daß

sie selbst in den Jahren nach 587 vor Christus, nach der Zerstörung des Tempels durch Nebukadnezar, an keinem anderen Ort mehr Opferungen darbrachten. Der Brauch aus früheren Zeiten, sich den einzelnen lokalen Kultstätten zuzuwenden, wenn eine nationale Stätte fehlte, schien unwiderruflich vergessen zu sein. Offenbar hat das Fehlen eines Tempels schlicht zum Aussetzen der Opferriten geführt.[30]

Nach der Rückkehr aus dem babylonischen Exil wurde der zweite Tempel in Jerusalem errichtet und der alte Brauch des Blutopfers erneuert. Noch einmal gab es eine lange Periode, in der Opferungen ausschließlich vor dem Allerheiligsten des Tempels dargebracht werden durften - von 520 vor Christus bis 70 nach Christus, als der römische Kaiser Titus den Tempel zerstören ließ.[31]

An den Bau eines dritten Tempels haben die Juden offensichtlich nie gedacht, und mit dem Fehlen eines zentralen Heiligtums endete zugleich der alte Brauch der Opferungen. Die einzige Ausnahme bildeten die Falaschen.[32] Ich fand sogar heraus, daß dieser Ritus bei den Falaschen so tief verwurzelt war, daß die meisten von ihnen selbst heute noch, wo sie verstärkt mit dem modernen Judentum in Berührung kommen, daran festhalten.[33]

Dafür konnte es eine Reihe von Erklärungen geben. Die naheliegendste und interessanteste war zugleich die einfachste und schien mir der Wahrheit am nächsten zu kommen. In meinem Notizbuch entwarf ich die Abfolge der Ereignisse:

AUSGANGSPUNKT: Die Vorfahren der heutigen Falaschen mußten zu einer Zeit zum Judentum konvertiert sein, als es für die nicht in der Nähe Jerusalems lebenden Israeliten noch möglich war, an örtlichen Kultstätten zu opfern. Ihre Bekehrung mußte also vor dem strengen Verdikt König Josias stattgefunden haben, d.h. nicht später als 639 vor Christus, wahrscheinlich sogar sehr viel früher.

ANNAHME: Zu irgendeinem Zeitpunkt zwischen der Errichtung des ersten Tempels und der Regentschaft Josias emigrierte eine Gruppe von Juden aus Israel, um sich in Äthiopien nieder-

zulassen. Dort errichteten sie Kultstätten, brachten ihrem Gott Opfer dar und bekehrten die Eingeborenen zu ihrem Glauben. Vielleicht unterhielten sie anfänglich noch Kontakte zu ihrer Heimat. Man kann jedoch davon ausgehen, daß die Verbindung aufgrund der großen Entfernung schließlich völlig abbrach. Es gab also keine Berührungspunkte mehr mit den Umwälzungen, denen das jüdisch-theologische Gedankengut in den folgenden Jahrhunderten ausgesetzt war. Das würde erklären, warum die Falaschen die einzigen Juden sind, die noch Opfer darbringen. Eingeschlossen wie Fliegen in Bernstein, gefangen in einer anderen Zeit, sind sie die letzten Überlebenden, die das ursprüngliche Judentum des ersten Tempels praktizieren. Aber:

FRAGE: Warum sollten Juden in ein so weit entferntes Land wie Äthiopien emigrieren. Es mußte einen triftigen Grund dafür gegeben haben.

ANTWORT: Das Kebra *Nagast* beantwortet die Frage nach den Motiven. Es sagt, daß es sich bei den Emigranten um die erstgeborenen Söhne der Ältesten Israels handelte, die im Gefolge Meneliks die Bundeslade begleiteten, die sie aus dem Tempel geraubt hatten.

Niedergang einer Religion

Wenn die Darstellung des Kebra *Nagast* der Wahrheit entsprach, so mußte es auch in anderen historischen Dokumenten Beweise dafür geben, daß der jüdische Glaube damals sehr viel stärker verbreitet war als im heutigen Äthiopien. Das war durchaus vorstellbar, da die Geschichte des abessinischen Judentums mit einer so schillernden Persönlichkeit wie Menelik I. in Verbindung gebracht worden war. Zudem erinnerte ich mich, daß mir Richard Pankhurst erzählt hatte, wie mächtig und reich das Volk der Falaschen und seine Könige einst gewesen sein mußten. Ich führte deshalb ein weiteres Telefongespräch mit Richard, um ihn nach Quellen zu fragen, die etwas mehr Licht auf den Aufstieg und Niedergang dieses Volkes werfen würden.

Er verwies mich auf ein Buch, von dem ich schon einmal gehört hatte: *Reisen zur Entdeckung der Quellen des Nils in den Jahren 1768 bis 1773* von einem schottischen Abenteurer namens James Bruce of Kinnaird. Dazu empfahl er mir die Königlichen Chroniken, die seit dem Mittelalter im Auftrag der äthiopischen Herrscher erstellt worden waren: »Hier werden die Kriege zwischen den Christen und Juden dokumentiert, vielleicht interessiert dich das. Darüber hinaus fällt mir leider nichts weiter ein. Das Problem ist«, schloß er, »daß vor Bruce nichts Bedeutendes über die Falaschen geschrieben wurde ...«

James Bruce of Kinnaird war eine rätselhafte Gestalt. Er stammte aus einer strenggläubigen Presbyterianerfamilie aus Stirlingshire, gehörte dem niederen Adel an und hatte genug geerbt, um seiner lebenslangen Neigung für Reisen nachgehen zu können. Zunächst hatte ich den Eindruck, als habe ihn lediglich dieser Wandertrieb in das abessinische Hochland geführt. Als ich aber seine Beobachtungen über die Falaschen las, wurde mir klar, daß sein Interesse an diesem Volk zu intensiv und nachhaltig war, als daß man es allein mit der Neugier eines gebildeten Reisenden hätte erklären können. Über einen Zeitraum von sieben Jahren hinweg führte er minutiöse Nachforschungen über den Glauben, die Bräuche und geschichtlichen Ursprünge der schwarzen Juden Abessiniens durch. Dabei gelang es ihm, im Gespräch mit Stammesältesten und Priestern viele alte Überlieferungen aufzuzeichnen, die ansonsten wahrscheinlich unwiderruflich verlorengegangen wären.

Eine dieser Legenden schilderte, wie König Ezana von Aksum gerade dabei war, die Psalme Davids zu lesen, als ihm zum erstenmal Frumentius gegenübertrat, der junge Syrer, der ihn später zum Christentum bekehren sollte.[34] Bruce zweifelte nicht daran, daß die Kenntnis des Herrschers von diesem alttestamentarischen Buch aus der weitverbreiteten Vorherrschaft des Judentums zu jener Zeit resultierte[35] - also zu Beginn des vierten Jahrhunderts nach Christus.

Gerade die Tatsache, daß diese Religion sich bereits zu einem so frühen Zeitpunkt etabliert hatte, unterstützte meine Auffas-

sung, daß in Äthiopien eine archaische, den Brauch des Blutopfers bewahrende Form des jüdischen Glaubens schon seit vielen Jahrhunderten bestanden haben mußte.

Weitere Bestätigung fand ich in einem alten und seltenen äthiopischen Manuskript, das sich in der tigreischen Festung Magdala befunden hatte (die im neunzehnten Jahrhundert von britischen Streitkräften unter General Napier erstürmt und verwüstet wurde). In diesem Werk mit dem Titel *Geschichte* und *Genealogie* der alten Könige las ich folgende Passage:

»Das Christentum wurde im Jahre 331 nach Christi Geburt von Abuna Salama, der zuvor unter dem Namen Frumentius oder Frumentos bekannt war, in Abessinien eingeführt. Bevor die christliche Religion in Äthiopien bekannt wurde, war die Hälfte der Einwohner Juden, die sich streng an die Gesetze hielten; die andere Hälfte verehrte Sando, den Drachen .. .«[38]

Der Verweis auf den »Drachen« - vermutlich ein Überbegriff für alle Arten primitiver Gottheiten - war interessant. Er unterstellte, daß das Judentum zu keiner Zeit die einzige oder Staatsreligion Äthiopiens war, und daß die Falaschen - wie andere Juden auch - in vorchristlicher Zeit die Koexistenz anderer Kulte akzeptierten. Ich konnte mir jedoch gut vorstellen, daß sie wachsam wurden und gezwungen waren, ihre traditionelle Toleranz aufzugeben, als militante, monotheistische Predigersekten wie die Christen auftauchten, die man mit Recht als Gefahr für die starke Verbreitung des jüdischen Glaubens ansehen mußte. Gerade in einem solchen Zusammenhang nahm sich die Bekehrung des aksumitischen Königs besonders bedrohlich aus; und tatsächlich war dies der Zeitpunkt, wo die erbitterten Auseinandersetzungen zwischen Juden und Christen begannen.

Der schottische Abenteurer behauptete zum Beispiel, daß die Falaschen »zum Zeitpunkt ihrer Bekehrung zum Christentum, oder wie sie sagen >ihrer Apostasie<, sehr mächtig waren. Damals ernannten sie einen Prinzen aus dem Stamme Juda, aus dem Geschlecht des Salomo und des Menelik, zu ihrem König. ... Dieser Prinz weigerte sich, den Glauben seiner Väter aufzu-

geben .. .«[37] Eine solche Situation, fügte Bruce hinzu, mußte unweigerlich zu einem machtpolitischen Konflikt führen, da die Christen behaupteten, ebenfalls von einem König aus dem Geschlecht Salomos regiert zu werden: »Obgleich es keinerlei Blutvergießen wegen der unterschiedlichen Religionen gab, wurden, da jede Seite einen König mit den gleichen Ansprüchen besaß, viele Kriege aus Gründen des Machthungers und des rivalisierenden Anspruchs auf die Herrschaft ausgefochten.«[38]

Bruce ging auf die »vielen Kriege« leider nicht weiter ein, und auch die Geschichtsbücher schwiegen sich zu diesem Thema aus. Erwähnt wird lediglich, daß Kaleb, der christliche König von Aksum, im sechsten Jahrhundert nach Christus eine große Armee um sich sammelte und über das Rote Meer zog, um im Jemen gegen einen jüdischen Herrscher zu kämpfen.[39]

Beweise für die Eskalation der Kämpfe zwischen Juden und Christen fanden sich wiederum im Kebra Nagast. Ein von antisemitischen Vorurteilen fast überschäumendes Kapitel gegen Ende des Epos erzählt von König Kaleb: Ohne ersichtlichen Grund werden hier die Juden mit einem Mal als »Feinde Gottes« bezeichnet, die man »bekämpfen und vernichten« und deren Land man »verwüsten« müsse.[40] Sodann berichtet die Legende von den zwei Söhnen Kalebs: Israel der eine, der andere Gebre Maskal, was soviel bedeutet wie »Diener des Kreuzes«. Die Anspielung auf die jüdisch-christliche Spaltung war kaum zu übersehen, wobei die Christen natürlich durch Gebre Maskal, und die Juden durch Israel symbolisiert wurden. Nun erinnerte ich mich auch daran, daß sich die Falaschen selbst nie als Falaschen, sondern immer als »Beta Israel«, als »Haus Israel«, bezeichneten.[41]

Die Grundaussage dieser Passagen war mir also klar, doch dann verkomplizierten schwerverständliche und undurchschaubare Bilder das Verständnis des Kapitels. Zum Beispiel tauchten mehrmals die Begriffe »Triumphwagen« und »Zion« auf. Ich wußte mittlerweile genau, daß es sich bei »Zion« um eines der vielen Synonyme handelte, die das Kebra Nagast für die Bun-

deslade einsetzt. Mit dem ersten Begriff konnte ich jedoch so gut wie nichts anfangen.

Ich verstand mehr, als ich las, daß es Israel und Gebre Maskal bestimmt war, gegeneinander zu kämpfen. Nach der Schlacht spricht Gott zu Gebre Maskal: »... >wähle dir zwischen dem Wagen und Zion!< und er wird seinen Wunsch dahin lenken, daß er Zion nimmt und öffentlich König sein wird auf dem Thron seines Vaters. Israels Wunsch aber wird er dahin lenken, daß er den Wagen wählt und heimlich König sein wird, und daß er unsichtbar werde .. .«[42]

In diesem Tenor schließt das Kebra Nagast:

»Dann wird die Herrschaft der Juden vorüber sein, und das Reich Christi wird bestehen bis zur Ankunft des Antichrists ... So hat Gott dem König von Äthiopien Herrlichkeit und Gnade zuteil werden lassen, und er ist größer als alle anderen Könige der Erde, um der Größe Zions willen, der Gesetzeslade Gottes, der himmlischen Zion.«[43]

Mir war klar, daß die Anhänger der neuen Religion triumphierten, während die Verfechter des alten Glaubens besiegt wurden. Ebenso klar war es, daß die Bundeslade im Mittelpunkt dieses Machtkampfes stand, und daß es den Christen offenbar gelungen war, sie den Juden zu entwenden, die sich fortan mit dem »Triumphwagen«, dem zweitbesten, zufriedengeben mußten.

Doch die Geschichte zeigt, daß sich die Falaschen mit ihrem Machtverlust nicht abfinden wollten. Im Gegenteil, vieles ließ darauf schließen, daß sie mit großer Willenskraft und über einen langen Zeitraum hinweg zurückgeschlagen hatten.

Den ersten Hinweis über einen fortgesetzten Krieg zwischen Christen und Juden fand ich in einem Reisebericht aus dem neunten Jahrhundert, verfaßt von einem gewissen Eldad Hadani, den man auch Eldad »den Daniden« nannte, da er behauptete, ein Nachfahre des verlorenen israelischen Stammes Dan zu sein. Wer genau er war und woher er stammte, war nicht festzustellen. In einem weitverbreiteten Brief aus dem Jahre 833 nach Christus gab er an, daß die Daniden und drei weitere

»verlorene« jüdische Stämme in Äthiopien lebten, wo sie sich in ständiger Zwietracht mit den christlichen Herrschern des Landes befanden.[44]

Historiker waren sich uneins, was die Bewertung Eldads als zuverlässige Quelle betraf. Die einen lehnten den Brief als unglaubwürdige Fälschung ab, andere waren der Meinung, daß sich die meisten seiner Aussagen auf Tatsachen gründeten.[45] Ich zögerte nicht, mich letzteren anzuschließen - allein deshalb, weil Eldads Aussagen sich mit anderen Berichten zu sehr überschnitten, um reine Erfindung zu sein. Er bestand zum Beispiel darauf, daß sein Stamm zur Zeit des ersten Tempels, kurz nach der Trennung der Königreiche Juda und Israel im Jahr 926 vor Christus aus dem Heiligen Land nach Äthiopien emigriert war. Folglich feierten sie keine Feste, die nach diesem Zeitpunkt entstanden - wie Purim und Chanukka. Zudem hatten sie keine Rabbiner (da das Rabbinertum sich erst in der Zeit des zweiten Tempels entwickelte[46]): Ihre Religionsführer wurden noch »kahen« genannt, ein Wort, das aus dem hebräischen »kohen« abgeleitet wird, soviel wie »Priester« bedeutet und in die Zeit des ersten Tempels zurückreicht.[47]

Alles in allem konnte man den starken Eindruck gewinnen, daß Eldad tatsächlich in Äthiopien gewesen war und eine relativ genaue Beschreibung über den Zustand des Judentums in der Mitte des neunten vorchristlichen Jahrhunderts gegeben hat. Auch sein Bericht über die Kämpfe zwischen den abessinischen Juden und ihren Nachbarn erschien glaubhaft:

»Und ihr Banner ist weiß, und darauf steht in schwarz zu lesen, >Höre Oh Israel, der Herr unser Gott ist ein Gott< ... Sie sind so zahlreich wie der Sand am Meeresstrand und kennen kein anderes Geschäft als das des Krieges, auch sagen sie, wenn immer sie kämpfen, daß es für starke Männer nicht gut sei zu fliehen; mögen ihre Herzen gestärkt werden in Gott.. ,«[48]

Eldad erwähnte weiter, daß die jüdischen Stämme in ihren kriegerischen Bemühungen erfolgreich waren und »ihre Hände im Nacken der Feinde« hatten.[49] Auch das schien mir eine durchaus zutreffende Beurteilung der wahren Machtverhält-

nisse zu sein. Schließlich ging es genau um den Zeitraum, in dem die christlich-salomonische Dynastie von Aksum gestürzt wurde. Dieser »coup d'état« war das Werk einer jüdischen Königin, der großen Königin Gudit.

Gudits kurzer und blutiger Regentschaft folgte die Zagwe-Dynastie (die zu einem nicht genau bestimmbaren Zeitpunkt zum Christentum übergetreten war) und schließlich König Lalibela. Etwa fünfzig Jahre nach Lalibelas Tod dankte der letzte Zagwe zugunsten der salomonischen Linie ab. Welches Verdienst der Übergangsregierung der Zagwe auch immer zugekommen war, dem ständigen Konflikt zwischen Juden und Christen vermochten sie keinen Einhalt zu gebieten. Benjamin von Tudela, ein weitgereister spanischer Händler aus dem zwölften Jahrhundert, berichtete von der Existenz äthiopischer Juden, die »sich nicht unter dem Joch der Nichtjuden befanden« und »Städte und Burgen auf den Spitzen der Berge« besaßen. Er sprach von Kriegen gegen die Christen, aus denen die Falaschen meist siegreich hervorgingen und nach Belieben »plünderten und Beute nahmen«, da keiner »gegen sie ankam«[50].

Im fünfzehnten Jahrhundert berichtete der jüdische Reisende Elias von Ferrara, wie ihm ein junger Falasche in Jerusalem erzählte, daß seine Glaubensgenossen »in einer bergigen Gegend ihre Unabhängigkeit bewahrt hatten, und daß sie von dort beständig kriegerische Angriffe gegen die christlichen Herrscher Äthiopiens führten«[51].

Hundert Jahre später behauptete der Bischof von Oviedo, ein spanischer Jesuit, daß die Falaschen sich in »hohen, unzugänglichen Bergen« versteckten, und daß sie »den Christen große Landstücke geraubt hatten und die Könige von Äthiopien sie nicht unterwerfen konnten, da sie nur eine kleine Streitmacht besaßen und es sehr schwierig war, in ihre unwegsamen Berge einzudringen«[52].

Der Bischof irrte. Seine Aussage stammte aus dem Jahre 1557, als die Falaschen, weit davon entfernt, irgend jemandem Land zu rauben, sich bereits den ständigen Angriffen der christlichen Streitmächte gegenübersahen, die es allem Anschein

nach auf einen Völkermord abgesehen hatten. Der salomonische Herrscher Sarsa Dengel, der von 1563 bis 1597 regierte, führte einen siebzehn Jahre dauernden Feldzug gegen sie - einen Feldzug, der von einem namhaften Historiker als »wahrhafter Kreuzzug, gelenkt von religiösem Fanatismus« bezeichnet wurde.[53]

Die Verteidiger hielten sich mit großer Würde, obgleich sie in ihren Festungen im Simiengebirge brutalen Angriffen ausgesetzt waren. Selbst Sarsa Dengeis speichelleckender Chronist konnte sich der Bewunderung für einige jüdische Frauen nicht erwehren, die sich mit dem Aufschrei »Gott steh mir bei« von einem Felsen stürzten, bevor die Männer des Königs sie ergreifen und schänden konnten.[54]

Radai, der König der Falaschen, wurde schließlich gefangengenommen. Man war bereit, ihm das Leben zu schenken, wenn er die Jungfrau Maria um Gnade anflehte. Aber Radai soll gesagt haben: »Ist es nicht verboten, den Namen Mariae zu nennen? So macht zu! Es ist besser für mich, die Welt der Lügen zu verlassen, um in die Welt des Rechts einzugehen, von der Dunkelheit zum Licht. Tötet mich, schnell!« Yonael, der General des christlichen Königs, entgegnete darauf: »Wenn du den Tod vorziehst, so senke deinen Kopf und stirb mit Würde.« Radai tat wie ihm befohlen und Yonael holte mit seinem langen Schwert aus: Mit einem einzigen Schlag enthauptete er den Herrscher der Falaschen, und die Klinge versank erst im Boden, nachdem sie auch noch seine Knie durchtrennt hatte. Die Zeugen dieser grausamen Begebenheit bewunderten »den Mut des Juden, der in seiner Todesstunde erklärte, daß die Dinge der Erde schlecht und die des Himmels gut seien«[55].

Gegen Ende des Feldzuges wurden auch die letzten Bastionen der Falaschen angegriffen und erobert. In beiden Fällen zogen die jüdischen Anführer und ihre Männer den Selbstmord der Gefangenschaft vor. Dies setzte den Verfolgungen jedoch kein Ende. Im Gegenteil, als König Susneyos im Jahre 1607 den Thron bestieg, wurden noch schrecklichere Greueltaten begangen. Der Monarch führte ein Pogrom gegen die Falaschen durch,

die noch in dem weiten Hochland lebten, das sich zwischen Simiengebirge und Tanasee erstreckt. Es folgten zwanzig Jahre »unbeschreiblichen Gemetzels«, Tausende wurden getötet und ihre Kinder als Sklaven verkauft. Dem detaillierten Bericht James Bruce' zufolge wurde den wenigen Überlebenden »unter Androhung der Todesstrafe befohlen, ihrem Glauben abzuschwören und sich taufen zu lassen. Da sie keinen Ausweg wußten, gaben sie nach .... so daß viele in der Folge getauft wurden und am Sabbat pflügen und eggen mußten.«[56]

Diese unablässige und rachsüchtige Unterdrückung beraubte die äthiopischen Juden schließlich für immer ihrer kulturellen Autonomie - und ließ ihre glanzvolle Geschichte unaufhaltsam in Vergessenheit geraten. Die Dokumente und wissenschaftlichen Studien, die ich zur Verfügung hatte, erlaubten es mir sogar, das graduelle Zurückweichen und Verschwinden der Falaschen in Zahlen auszudrücken. Zu Beginn des siebzehnten Jahrhunderts sollen die Falaschen über ungefähr »einhunderttausend kampffähige Männer« verfügt haben.[57] Wenn man auf einen kampffähigen Mann eine fünfköpfige Familie rechnet, so ergibt sich für diesen Zeitraum eine Gesamtbevölkerung von etwa fünfhunderttausend Menschen. Fast dreihundert Jahre später, im ausgehenden neunzehnten Jahrhundert, gab der jüdische Gelehrte Josef Halévy die Gesamtzahl der Falaschen mit einhundertfünfzigtausend an.[58] Der auf genauen Informationen basierenden Schätzung von Jacques Faitlovich zufolge war diese Zahl in den zwanziger Jahren unseres Jahrhunderts auf fünfzigtausend gesunken.[59] Und sechzig Jahre später, während der Hungersnot von 1984, gab es nur noch achtundzwanzigtausend Falaschen in Äthiopien.[60]

Die Unterdrückung und Verarmung der Falaschen, wie sie sich der Geschichte seit einigen Jahrhunderten präsentiert, widerlegte den Anspruch der Legenden keineswegs, die von Menelik I. ein strahlendes Bild zeichnen und den Glanz und die Macht der Falaschen-Könige hervorheben. Das einzig plausible Motiv für die gnadenlosen Pogrome und Kriege gegen die Falaschen lag gerade darin, daß die Christen ein Wiedererstar-

ken des Judentums fürchteten. Nun war ich mir sicher: Die äthiopischen Juden mußten über viele Jahrhunderte hinweg einen außerordentlich großen und prägenden Einfluß auf die Geschichte ihres Landes ausgeübt haben, denn nur so war die unstillbare Verfolgungswut der christlichen Herrscher zu verstehen.

Mit einer Zusammenfassung verdeutlichte ich mir den Stand meiner Untersuchungen:

- Die religiösen Praktiken der Falaschen (darunter vor allem der alte Brauch des Blutopfers) erwecken bei mir einige Zweifel an der akademischen Lehrmeinung, derzufolge das Judentum erst spät und über Südarabien nach Äthiopien gelangte. Vielmehr läßt die Beweislage darauf schließen, daß der jüdische Glaube Abessinien zur Zeit des ersten Tempels erreicht hat und dort isoliert wurde. Noch immer scheint mir das Kebra *Nagast* die besten Hinweise auf diese Entwicklung zu liefern. Demzufolge muß der äthiopische Anspruch auf die Bundeslade ernstgenommen werden.

- Es gibt stichhaltige Beweise, daß der jüdische Glaube, lange bevor Äthiopien zum Christentum übertrat, eine starke Kraft im Lande bedeutete. Nur aus diesem Grunde konnte ein so langwieriger und tödlicher Kampf zwischen Juden und Christen entbrennen. Die Sieger dieser Auseinandersetzung, die Christen, erbeuteten die Bundeslade und bezogen sie nach und nach in ihre Religion mit ein. Nur so ist es zu verstehen, daß das eigentlich alttestamentarisch-jüdische Heiligtum noch immer eine entscheidende Rolle im äthiopischen Christentum spielt.

- Die Repliken der Bundeslade stellen eher ihren Inhalt als die Lade selbst dar. Im Allerheiligsten einer jeden Kirche befindet sich ein »Tabot«. Nur ein mächtiger und mysteriöser Gegenstand wie die Bundeslade kann für die tiefe Verehrung verantwortlich sein, die die Menschen den »Tabotat« entgegenbringen. Ich halte es also für mehr als nur wahrscheinlich, daß die Äthiopier im Besitz des heiligen Schreins sind.

Natürlich gab es noch eine Reihe ungeklärter Fragen. Bisher war es mir nicht gelungen, die Abstammung der Königin von

Saba definitiv zu klären. Und noch immer mußte ich herausfinden, ob Äthiopien zur Zeit Salomos bereits eine so weitentwickelte Zivilisation besessen hatte, um einen direkten kulturellen Austausch mit Israel pflegen zu können. Das größte Problem aber bedeutete Aksum: Richard Pankhurst zufolge konnte die Stadt im zehnten Jahrhundert vor Christus überhaupt noch nicht existiert haben, und so hätte man auch die Bundeslade nicht dorthin bringen können. Allerdings bestand durchaus die Möglichkeit, daß der Schrein erst später nach Aksum gebracht und zuvor an einem anderen Ort aufbewahrt worden war. Bisher war ich jedoch noch nicht auf entsprechende Hinweise gestoßen.

Vielleicht hing es mit dem okkulten und mysteriösen Charakter der Bundeslade selbst zusammen, daß sie immer wieder Fragen aufwarf, Verwirrung stiftete, Zweideutigkeiten und Ahnungen heraufbeschwörte. Es lag nur nahe, daß ein so geheimnisvoller und von der Kraft Gottes durchdrungener Gegenstand sich selbst gegen seine Entdeckung und Enthüllung sperrte.

Und doch glaubte ich, genug Beweise an der Hand zu haben, um meine Nachforschungen fortzusetzen.

Kapitel 7

Eine Suche ohne Ende

Zwischen dem ersten und dem sechsten Jahrhundert nach Christus konnte sich das aksumitische Königreich mit den mächtigsten und blühendsten Kulturen der damals bekannten Welt messen. Ebenbürtig mit Persien und dem Römischen Reich, sandte es seine Schiffe bis nach Ägypten, Indien, Ceylon und China. Seine Errungenschaften auf den Gebieten der Kunst und Architektur waren beeindruckend. Im siebten Jahrhundert begann Aksums Licht zu verlöschen; nur vereinzelt wurden noch Botschafter in fremde Länder gesandt, und die einstmals große Militärmacht ging ihrem Ende entgegen. Diese auffällige Veränderung, die schließlich fast zu völliger Isolation führte, hing mit dem immer stärkeren Auftreten der kriegerischen islamischen Kräfte zusammen, die seit der Zeit des Propheten Mohammed (570-632 nach Christus) für die Zerstörung des abessinischen Christentums kämpften. »Eingeschlossen von den Feinden ihrer Religion«, schrieb Edward Gibbon in seinem Buch über das Römische Reich, »fielen die Äthiopier in einen fast tausendjährigen Schlaf, vergessen von der übrigen Welt.«[1]

Das Jahrtausend, auf das sich der Historiker bezieht, erstreckt sich vom siebten bis zum sechzehnten Jahrhundert - und guten Gewissens kann man sagen, daß Äthiopien in dieser Zeit von der Bildfläche verschwunden war. Das einstmals bekannte und relativ vielbereiste Land entwickelte sich langsam zu einem geheimnisvollen Reich der Mythen und Zauberei, in dem, so glaubte man, Drachen und andere Ungeheuer lebten - eine »terra incognita«, der sich niemand zu nähern wagte.

Man könnte annehmen, daß die Abessinier in diesem großen schwarzen Loch ihrer Geschichte der Barbarei verfallen wären, oder daß ihre Entwicklung zumindest deutlich stagnierte. Meine Nachforschungen hatten jedoch ergeben, daß

das Gegenteil der Fall war. So beweisen zum Beispiel die außergewöhnlichen Felsenkirchen von Lalibela, daß über die Jahrhunderte hinweg eine ausgeprägte und vielschichtige Kultur bewahrt werden konnte. Und mehr noch: Obgleich das aksumitische Königreich sich ängstlich und argwöhnisch anderen Kulturen gegenüber verschloß, hatte es sehr wohl Kontakte mit der Außenwelt unterhalten. Das fünfundzwanzig fahre andauernde Exil Prinz Lalibelas ist ein Beispiel dafür, denn die Verbindungen, die er in Jerusalem geknüpft hat, haben aller Wahrscheinlichkeit nach dazu geführt, daß der äthiopische Thronanwärter von Tempelrittern begleitet wurde, als er 1185 in sein Heimatland aufbrach. Noch immer war mir nicht ganz klar, welche Pläne die Templer in Äthiopien verfolgt hatten, und so beschloß ich, mich näher mit der Geschichte des Ordens zu beschäftigen.

Ein dunkles Kapitel der Geschichte

Nach ihrer Gründung im Jahre 1119 entwickelten sich die Templer schnell zu einer internationalen Macht, die über immense Reichtümer verfügte und großes Ansehen genoß. Und dennoch ging der Orden schon nach zwei Jahrhunderten seinem Untergang entgegen. Die Geschichte der Tempelritter und ihres katastrophalen Niedergangs ist so umfassend und gründlich untersucht worden, daß ich an dieser Stelle nicht mehr ausführlich darauf eingehen muß.[2] Es genügt, noch einmal auf die ausgezeichnet vorbereitete Operation am 13. Oktober 1307, einem Freitag, hinzuweisen, die zur Verhaftung aller in Frankreich lebenden Templer führte. Zur gleichen Stunde überfielen die Häscher und Soldaten des französischen Königs Philipp IV. überall im Land die Häuser und Landgüter des Ordens. Bis zum Abend lagen fünfzehntausend Männer in Ketten, und »Freitag, der 13.«, hatte seinem Namen alle Ehre gemacht.

Die Beschuldigungen, die man zur Rechtfertigung der dramatischen Verhaftungsaktion gegen die Tempelritter erhob, waren so schwerwiegend wie falsch. Man warf ihnen vor, sie hätten

Jesus Christus verleugnet und sein Bild bespuckt, man bezichtigte sie unzüchtiger Küsse auf Anus, Nabel und Mund, »die, den gottlosen Riten des Ordens zufolge, die menschliche Würde in den Schmutz ziehen sollten«, und behauptete, sie unterhielten homosexuelle Kontakte untereinander, zu denen die Mitglieder »gezwungen« würden. Nicht zuletzt wurden sie des Götzendienstes angeklagt.[3]

Zu dieser Zeit (und noch bis 1377) war Avignon de facto der Sitz des Papstes. Mit dem Heiligen Stuhl auf französischem Territorium konnte Philipp IV. zweifelsohne großen Einfluß auf Papst Clemens V. ausüben, der 1305 in Gegenwart des Königs in Lyon gekrönt worden war. Dieser Einfluß wurde gegen die Templer geltend gemacht, deren Zerschlagung Philipp nicht nur in Frankreich, sondern auch in allen anderen Ländern sicherstellen wollte. Aus diesem Grund übte der Monarch großen Druck auf Clemens V. aus und bewegte ihn schließlich zur päpstlichen Bulle *Pastoraiis praeeminentiae* vom 22. November 1307, die die Verhaftung der Templer in allen Ländern der Christenheit befahl.[4]

In England, Spanien, Deutschland, Italien und Zypern erfolgten entsprechend der Anordnung Gerichtsverhandlungen, und im Jahr 1312 ordnete eine weitere Bulle des Marionettenpapstes die offizielle Auflösung des Ordens an. Unterdessen hatten sich Tausende den grauenhaftesten Verhören und Folterungen unterziehen müssen - und die meisten waren anschließend auf die Scheiterhaufen gezerrt und verbrannt worden, darunter der Großmeister Jacques von Molay und der Großpräzeptor der Normandie, Geoffroi von Charnay.[5]

Für meine Nachforschungen war dieses dunkle Kapitel in der Geschichte des Ordens insofern von Bedeutung, als es mit Äthiopien und der Suche der Templer nach der Bundeslade zusammenhängen mußte. Es war freilich eine kurze Geschichte: Kaum hundertdreißig Jahre nach Lalibelas Thronbesteigung wurden die Templer verhaftet, gefoltert und verbrannt. Ihr Besitz wurde unter den Königshäusern Europas aufgeteilt, der Orden hatte aufgehört zu existieren, und sein guter Name war

vom Verdacht der Unzucht, Blasphemie und des Götzendienstes besudelt.

Die Dokumente aus dem letzten Jahrhundert seines Bestehens liefern nicht den Schatten eines Hinweises, der die Vermutung eines länger andauernden Engagements der Templer in Äthiopien unterstützen würde. Mit Beginn des dreizehnten Jahrhunderts verlieren sich alle Spuren im Nichts, und bis zu den Verhaftungen im Jahr 1307 scheint der Orden mit den Feldzügen im Nahen Osten und der Festigung seiner mächtigen Position beschäftigt zu sein.

Wo also konnte ich die Informationen finden, nach denen ich suchte? Es hat nur wenige Versuche gegeben, die Entwicklung Äthiopiens in diesen Jahren chronologisch zu erfassen. James Bruce tat während seines ausgedehnten Aufenthaltes in Äthiopien sein möglichstes, um die alten Überlieferungen zu sammeln und aufzuzeichnen. Ich kehrte also noch einmal zu seinen Reisen zurück - und legte sie so bald nicht mehr aus der Hand.

Am Ende des ersten Bandes stieß ich erwartungsgemäß auf einige Textstellen, die sich auf die Regierungszeit Lalibelas bezogen. Nicht alles, was der schottische Abenteurer geschrieben hatte, war für mich von Bedeutung, aber ein Detail zog meine Aufmerksamkeit auf sich. Bruce berichtete, daß Lalibela einen Plan entwickelt habe, wie man die Zuflüsse zum Nil reduzieren könne, »um Ägypten auszuhungern«[6]. Nach »genauer Vermessung und Berechnung« hatte dieser illustre Monarch aus der Zagwe-Dynastie offensichtlich herausgefunden, daß »man die Flüsse, die von den hochgelegenen Teilen des Landes herunterfließen, durch Gräben aufhalten und ihre Ströme in die Ebenen im Süden ableiten könnte, damit sie den nach Norden fließenden Nil nicht erreichten. So sollte das Anschwellen des Flusses verhindert werden, auf daß er nicht mehr genug Wasser für die Bestellung der Böden in Ägypten mit sich führe.«[7]

Ich konnte mich des Gedankens nicht erwehren, daß ein solcher Plan den Vorhaben der Templer nur entgegenkommen konnte, die gegen Ende der Regierungszeit Lalibelas die Eroberung Ägyptens ins Auge gefaßt hatten. An den Ufern des Nils gab

es mehrere heftige Schlachten, und die Templer belagerten über mehr als ein Jahr hinweg die arabische Festung von Damietta im Deltagebiet des großen Flusses.[8] Ohne Zweifel, ein vom Hunger geschwächtes Ägypten konnte die Ziele der Templer nur unterstützen. Es ist aber nie zu der Umleitung der Flüsse gekommen. »Der Tod, schlimmster Feind aller großartigen Unternehmungen, warf sich dazwischen und beendete Lalibelas kühnes Vorhaben.«[9]

Zu den zwei letzten Königen der Zagwe-Dynastie bemerkt Bruce:

»Lalibela folgte Imrahana Christos, der nur dadurch auffiel, daß er der Sohn eines Vaters wie Lalibela war, und selbst Vater eines Sohnes wie Naakuto Laab: Denn beide vollbrachten außergewöhnliche, wenn auch sehr verschiedenartige Taten. Auf diejenigen des ersteren, des Vaters, haben wir schon verwiesen, sie bestanden in großen technischen Vorhaben. Der zweite übte sich in geistigen Taten noch viel schwierigerer Natur, indem er einen Sieg über den eigenen Ehrgeiz erfocht und freiwillig auf die Krone verzichtete .. ,«[10]

Ich war schon vertraut mit den geschichtlichen Details, die nun folgten. Naakuto Laab, der letzte der Zagwe, wurde 1270 dazu überredet, zugunsten von Yekuno Amlak abzudanken - einem Monarchen, der sich zur salomonischen Linie zählte.[11] Über die Nachfolger Naakuto Laabs, Yekuno Amlak (12 70-1285) und Yagba Zion (1285-1294) bis hin zu Wedem Ara'ad (der von 1299 bis 1314 regierte), wußte Bruce wenig zu berichten. Es scheint, als sei es dem anspruchsvollen Forscher nicht gelungen, handfeste Informationen über das Jahrhundert zusammenzutragen, das auf den Tod Lalibelas im Jahre 1211 folgte: »Der gesamte Zeitraum liegt im Dunklen«, bedauerte Bruce. »Wir können wohl Vermutungen anstellen, mehr aber nicht, und selbst diese werden uns nicht weit bringen.«[12]

Eine solche Dunkelheit verhüllt auch die Jahre vor Lalibelas Thronbesteigung. Ich sah mich also einer Unzahl unbeantworteter Fragen gegenüber. Die wichtigste davon betraf die Bundeslade: Ich mußte herausfinden, was mit ihr in den annähernd

drei Jahrhunderten geschehen war, in denen die salomonische Herrscherdynastie unterbrochen war. Und ich wollte wissen, ob es den Templern gelungen war, direkten Zugang zu dem heiligen Schrein zu erlangen, als sie sich - was ich für sehr wahrscheinlich hielt - zur Zeit Lalibelas eine feste Position im aksumitischen Königreich errungen hatten.

Wieder einmal rief ich den Historiker Belai Gedai in Addis Abeba an und hoffte, er würde mir mit seiner Kenntnis der alten Überlieferungen weiterhelfen können.

»Wir Äthiopier«, erklärte er, »behaupten, daß die Lade im zehnten Jahrhundert von den Priestern aus Aksum entfernt und vor den Verwüstungen der Königin Gudit auf eine Insel im Zwaisee in Sicherheit gebracht wurde ...«

»Sie meinen, in das Rift Valley südlich von Addis Abeba?«

»Ja.«

»Das war ein verdammt langer Weg ...«

»Ja, aber nur ein so weit entfernt liegender Ort konnte Sicherheit bieten. Wissen sie, Gudit war Jüdin. Sie wollte ihre Religion dem ganzen Land aufzwingen und das Christentum zerstören. Sie plünderte die Kirchen von Aksum und brannte sie nieder. Also mußten die Priester verhindern, daß die Lade in die Hände der Königin geriet.«

»Wissen sie, wie lange die Lade auf der Insel blieb?«

»Unsere Überlieferungen sagen, daß sie dort siebzig Jahre aufbewahrt und dann nach Aksum zurückgebracht wurde.«

Ich dankte Gedai für seine Hilfe und legte auf. Was er mir gesagt hatte, stimmte mehr oder weniger mit dem Bild äthiopisch-mittelalterlicher Geschichte überein, das ich bis dahin rekonstruiert hatte. Ich wußte, daß Gudit nach dem Sturz der salomonischen Dynastie für einige Jahre regierte, aber bald vom ersten König der Zagwe-Dynastie - auch er wahrscheinlich Jude - abgelöst wurde. Schon lange vor Lalibelas Zeit waren die Zagwe jedoch zum Christentum übergetreten. Es war also denkbar, daß sie die sichere Rückkehr des Schreins an seinen angestammten Platz in Aksum ermöglicht hatten - wo er sich befand, als Lalibela an die Macht kam.

Im Zusammenhang mit der Bundeslade ist das bereits erwähnte zeitgenössische Zeugnis des armenischen Geographen Abu Salih von offensichtlicher Bedeutung. Aus dem Textzusammenhang ergibt sich, daß der Bericht »in den ersten Jahren des dreizehnten Jahrhunderts« entstand - mit anderen Worten während der Regierungszeit Lalibelas. An keiner Stelle erwähnte Abu Salih, in welcher äthiopischen Stadt er den Schrein gesehen hatte, aber es gab keinen Grund, nicht anzunehmen, daß es sich um Aksum handelte. Und als ich die betreffenden Passagen immer wieder las, fielen mir einige Worte ins Auge, die ich zuvor übersehen hatte. Salih beschrieb bestimmte Zeremonien, bei denen die Lade mitgeführt wurde, und erwähnte, der Schrein sei von Männern »bewacht und getragen« worden, die »von weißer und roter Hautfarbe« waren und »rote Haare« hatten.[13]

Ich geriet in helle Aufregung, als mir klar wurde, daß ich hier ein zweites frühes Zeugnis dafür vor mir hatte, das die Anwesenheit weißer Männer in Äthiopien zur Zeit Lalibelas nahelegte, zumal eine andere zuverlässige Übersetzung dieselbe Passage mit »blonde Haare« wiedergab.[14] Schon Alvarez hatte mich auf eine Überlieferung verwiesen, nach der die Felsenkirchen von Europäern erbaut worden waren - eine Information, die genau zu dem paßte, was ich über die weitentwickelten architektonischen Kenntnisse der Templer in Erfahrung gebracht hatte.

Es war mehr als nur verlockend anzunehmen, daß es sich bei den Baumeistern um Tempelritter gehandelt hatte; aber noch immer konnte ich mit meinen Nachforschungen nicht weiter als bis in das frühe dreizehnte Jahrhundert vordringen, und noch immer war eine Schlüsselfrage unbeantwortet: Wenn die von Abu Salih beschriebenen Nordeuropäer tatsächlich dem Tempelorden angehörten, hatten sie sich dann nur mit dem Umhertragen der Lade in den Prozessionen begnügt, oder hatten sie versucht, den Schrein aus Äthiopien heraus zurück nach Europa zu bringen?

Ich mußte zugeben, daß ich bei all diesen Punkten einfach nicht weiterkam: Das Fehlen zuverlässiger historischer Quellen

blockierte mich. Bei der von den Templern fast obsessiv betriebenen Geheimhaltung war es freilich kaum überraschend, daß ihre Dokumente so wenig hergaben. Die Schweigepflicht gehörte zu den strengsten Regeln des Ordens, und einem Verräter drohten drakonische Strafen.[15] Aber auch von äthiopischen Chroniken war keine Hilfe zu erwarten: Nachdem ich eine Reihe unterschiedlichster Quellen konsultiert hatte, mußte ich mich damit abfinden, daß das Jahrhundert nach Lalibelas Tod tatsächlich »im Dunklen lag«. Es war einfach nicht zu rekonstruieren, was in diesen Jahren geschah. Trotzdem rief ich Richard Pankhurst in Addis Abeba an und fragte ihn nach Dokumenten, die auf einen Kontakt zwischen Äthiopiern und Europäern im fraglichen Zeitraum hinwiesen.

»Keine vor 1300, soweit ich weiß«, antwortete er.

»Und nach 1300? Ich nehme an, der erste Bericht stammt von der portugiesischen Gesandtschaft, die 1520 nach Äthiopien gelangte?«

»Nicht ganz. Schon zuvor gab es einige diplomatische Missionen, die in die andere Richtung reisten - von Äthiopien nach Europa also. Tatsächlich wurde die erste Mission schon in den Jahren nach Lalibelas Tod ausgeschickt: und damit sind wir wohl genau in dem Zeitraum, der dich interessiert.«

Ich saß kerzengerade auf meinem Stuhl: »Weißt du das genaue Datum?«

»Ja«, gab Richard zurück, »es war 1306, und es handelte sich um eine große Gesandtschaft. Sie wurde von König Wedem Ara'ad beauftragt und umfaßte sicherlich dreißig Männer.«

»Und kannst du mir sagen, welche Aufgabe die Mission zu erfüllen hatte?«

»Das weiß ich nicht genau. Du müßtest die Quellen selbst einmal überprüfen. Aber ich bin mir sicher, das Reiseziel war Avignon im Süden Frankreichs ...«

Eine entscheidende Information

Richard hatte, ohne es zu merken, eine kleine Bombe platzen lassen. Avignon war der Sitz Papst Clemens'V. Und niemand anderes als Clemens hatte 1307 die Gefangennahme aller Templer angeordnet. Und nun erfuhr ich, daß eine hochrangige äthiopische Delegation (überhaupt die erste, die je nach Europa geschickt wurde) im Jahr 1306 Avignon besucht hatte - nur ein Jahr vor der Verhaftungswelle. War es ein Zufall, daß diese Ereignisse so dicht aufeinanderfolgten? Oder sollte es hier ein Wechselspiel von Ursache und Wirkung gegeben haben? Ich mußte herausfinden, ob die abessinischen Abgesandten tatsächlich mit dem Papst zusammengetroffen waren und was sich bei dieser Gelegenheit abspielte.

Der Bericht über die Mission von 1306 stammte von Giovanni da Carmignano, einem genuesischen Kartographen, der in den Jahrzehnten von 1291 bis 1329 tätig war.[16] Derselbe Carmignano sorgte in Europa für ein neues Bild von Äthiopien: Nach Jahrhunderten der Unklarheit war er der erste, der eindeutig bekräftigte, daß der berühmte »Priester Johannes« in Afrika und nicht, wie bisher angenommen, in Indien herrschte.[17]

Carmignano hatte die äthiopischen Botschafter in Genua kennengelernt, als sie die Stadt auf dem Rückweg von Avignon passierten. Die Männer wurden von widrigen Winden »viele Tage« in dem italienischen Hafen festgehalten. Bei dieser Gelegenheit befragte sie der Kartograph über ihre »Riten, Gebräuche und ihr Land«[18]. Beklagenswerterweise sind Carmignanos Aufzeichnungen in späteren Jahren verlorengegangen. Bis heute hat sich nur eine kurze Zusammenfassung erhalten, für die ein gewisser Jacopo Filippo Foresti in einer bergamaskischen Chronik des späten fünfzehnten Jahrhunderts verantwortlich zeichnete.[19] Nicht ohne Schwierigkeiten gelang es mir, eine englische Übersetzung des Textes zu bekommen. Er besteht aus nur einem Absatz, in dem sich Foresti lobend zu Carmignanos Bericht äußert und diesen zusammenfaßt:

»Unter vielen Dingen, die dort über das Land der Äthiopier

geschrieben stehen ..., wird gesagt, daß ihr Herrscher ein guter Christ sei, dem vierundsiebzig Könige und unzählige Prinzen Gehorsam leisten ... Es ist bekannt, daß dieser Kaiser im Jahre des Herrn 1306 dreißig Gesandte schickte, die ehrerbietig vor dem Papst Clemens V. in Avignon erschienen .. .«[20]

Abgesehen von einigen nebensächlichen Kleinigkeiten und dem bereits erwähnten Verweis auf den »Priester Johannes«, gab die Chronik jedoch keine weiteren Aufschlüsse. Und dennoch, so knapp die Information auch war, sie besaß eine Aussagekraft, die meine Vermutungen nur bestätigte: Die Gesandten waren auf französischem Boden mit Clemens V. zusammengetroffen, und das nur ein Jahr bevor der Papst die Massenverhaftungen der Templer befohlen hatte.

Es gab keinen Hinweis auf den Gegenstand dieser Gespräche, und an keiner Stelle wurde auch nur die leiseste Vermutung geäußert, warum dem äthiopischen Herrscher zu dieser Zeit so an einem Kontakt mit dem Papst gelegen war. Zweifelsohne aber mußte Wedem Ara'ad einen starken Beweggrund gehabt haben, daß er so viele Männer auf den langen und gefahrvollen Weg nach Europa geschickt hatte. Ich nahm mir die Freiheit und stellte einige Mutmaßungen über diese Gründe an. In meinem Notizbuch entwarf ich folgende Überlegungen und Thesen:

- Nehmen wir einmal an, die Templer begleiteten im Jahre 1185 Prinz Lalibela von Jerusalem nach Äthiopien und unterstützten ihn bei seinen Ansprüchen auf den Thron. Nehmen wir weiterhin an, daß die besagten »weißen Männer«, die die Felsenkirchen erbaut haben sollen, tatsächlich Tempelritter waren und daß es sich bei den Männern, die zu Beginn des dreizehnten Jahrhunderts die Bundeslade trugen, um eben jene Templer gehandelt hat.

- Daraus folgt, daß der Orden sich eine starke und einflußreiche Position gegenüber Lalibela und der Zagwe-Dynastie erkämpft hatte. Es ist also anzunehmen, daß die zwei letzten Könige der Dynastie - Imrahana Christos und Naakuto Laab - ebenfalls gute Beziehungen zu den Templern unterhalten und

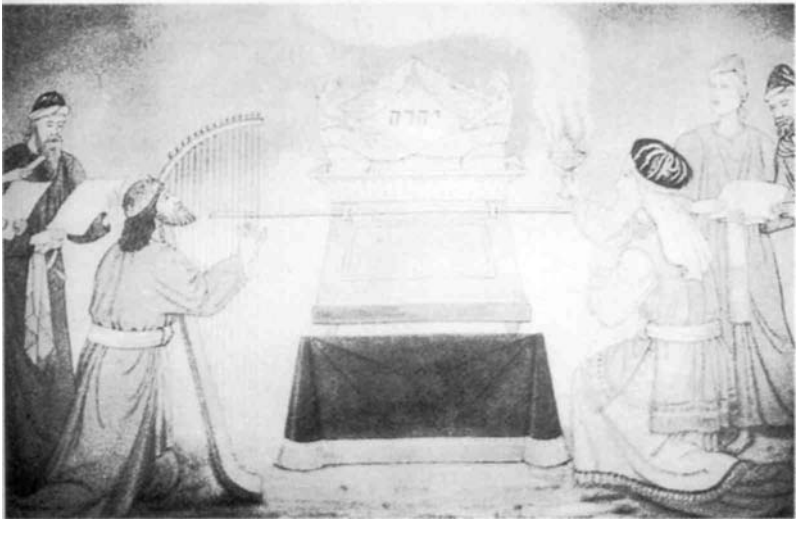

1 *(oben)* Gemälde in einer äthiopischen Kirche, das König Salomo und die Königin von Saba darstellt. Den äthiopischen Legenden zufolge raubte beider Sohn Menelik die Bundeslade aus dem Tempel von Jerusalem und brachte sie nach Äthiopien.

2 (unten) Anbetung der Bundeslade in alttestamentarischen Zeiten. Die Lade symbolisierte die Allgegenwart Gottes auf Erden und galt als heiligster Gegenstand des alten jüdischen Glaubens.

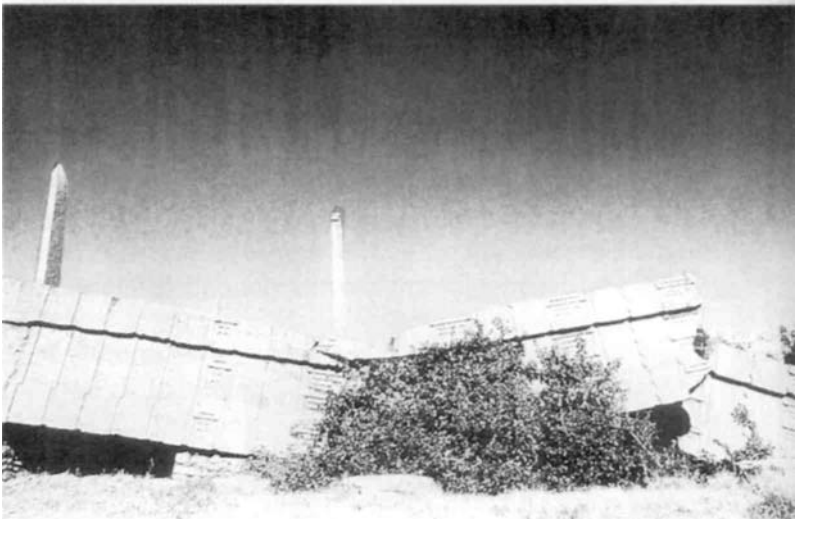

3 *(oben)* Der »Park der Säulen« in Aksum.

4 *(unten)* Teil einer umgestürzten Säule. Die etwa 500 Tonnen schwere und über 30 Meter hohe Säule war vermutlich der größte in der Alten Welt je errichtete Monolith.

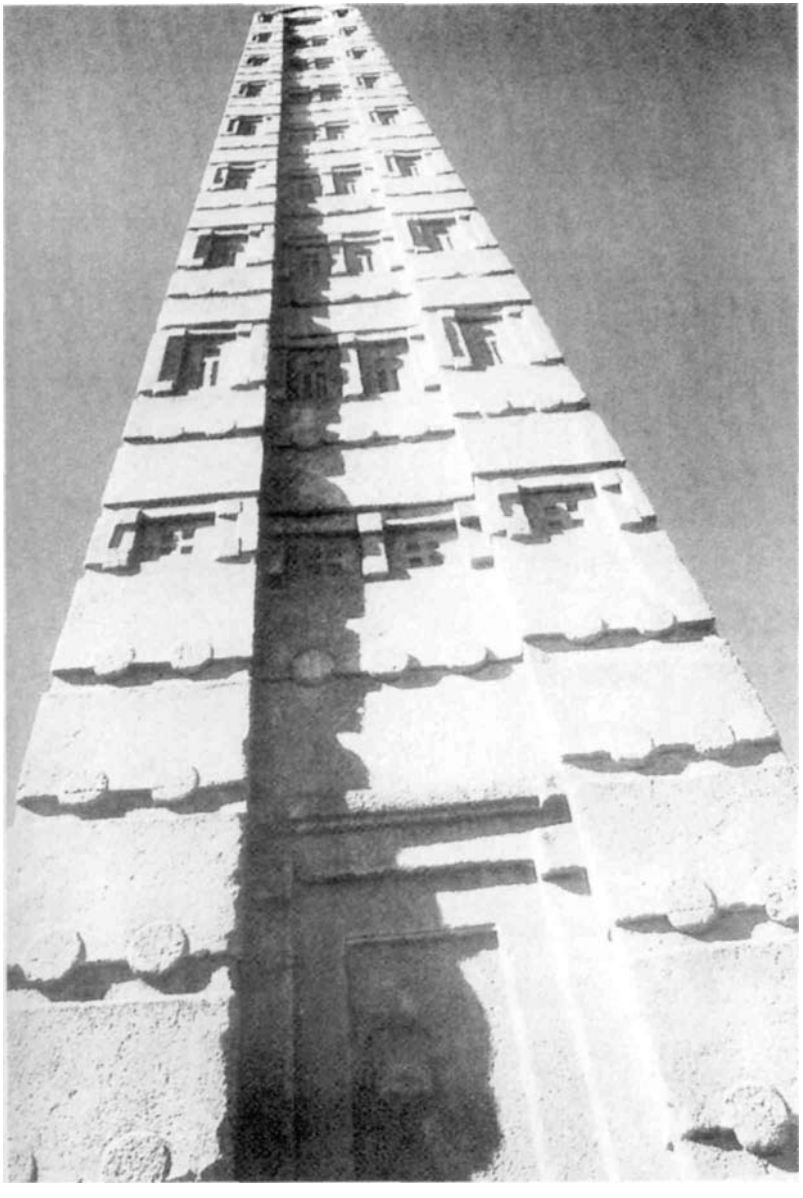

5 Diese einem Turm nachgebildete Stele ragt 21 Meter in die Höhe und wiegt etwa 300 Tonnen. Die aksumitischen Überlieferungen berichten, daß die Säule mit Hilfe der Bundeslade aufgerichtet wurde.

7 *(unten)* Agitation der Rebellen gegen das Regime. Die 6 *(links)* Äthiopisches Gemälde, das den 1974 gestürzten Kaiser Haile Selassie zeigt.

Wandmalerei verdeutlicht, mit welcher Brutalität Präsident Mengistu das Land beherrschte.

8 *(links)* Falaschen-Marktfrau

9 *(oben)* Kunsthandwerk der Falaschen, das die legendäre Bettszene zwischen Salomo und der Königin von Saba darstellt.

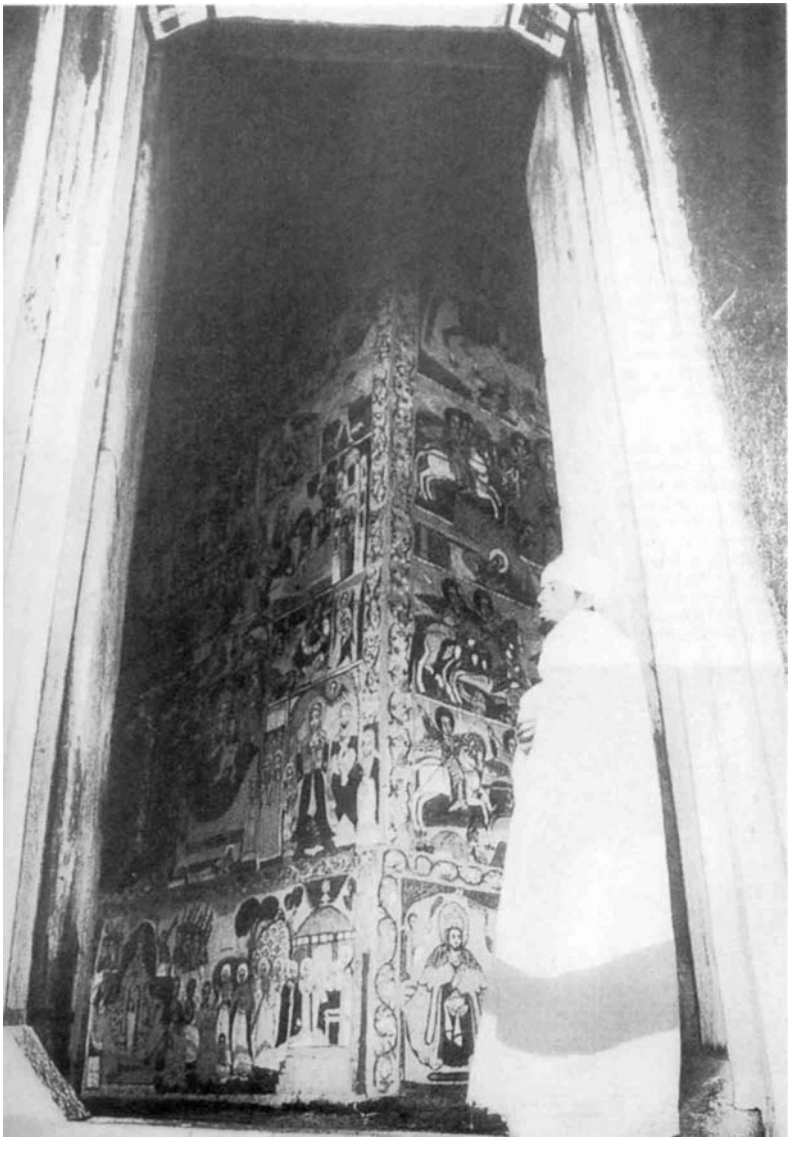

10 Ein Priester bewacht den Eingang zum
Allerheiligsten eines Klosters auf dem Tanasee.

11 *(rechts)* Die Kathedrale von Chartres. Das Sakralbauwerk zählt zu den frühesten und zugleich weitentwickeltsten Beispielen gotischer Architektur, die sich im 12. Jahrhundert plötzlich und auf geheimnisvolle Weise entwickelte.

12 *(unten)* Skulptur des altisraelischen Priesterkönigs Melchisedek. Nordportal der Kathedrale von Chartres. Wissenschaftlern zufolge stellt der Becher in seiner Hand den Heiligen Gral dar, der einen Stein enthält.

13 *(rechte Seite)* Die Königin von Saba *(Mitte)* mit einem äthiopischen Sklaven zu Füßen. Nordportal der Kathedrale von Chartres.

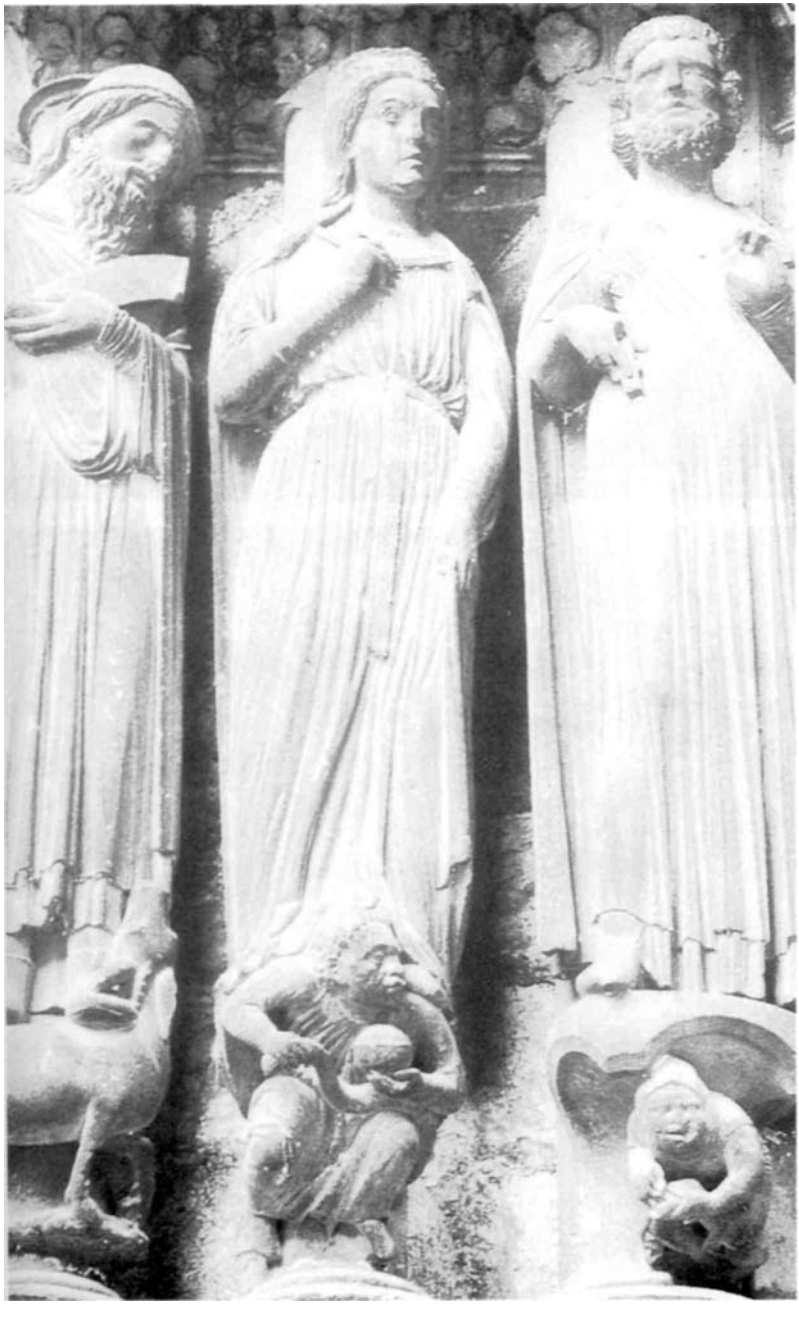

14 *(oben)* Säule im Nordportal der Kathedrale von Chartres. Auf einem Ochsenkarren wird die Bundeslade an einen unbekannten Ort gebracht.

15 *(unten)* Teil der geheimnisvollen Inschrift unter der Darstellung der Bundeslade.

16 *(oben links)* Auf einer Kirchturmspitze steht Maria über der Bundeslade. Im Mittelalter wurde die Jungfrau Maria oftmals sowohl mit dem Gral als auch mit der Bundeslade verglichen.

17 und 18 Zu den vielen gemeinsamen Charakteristika, die den Heiligen Gral *(oben rechts)* und die Bundeslade *(unten)* verbinden, zählt ein übernatürlicher, strahlender Glanz.

19 *(rechts)* Miniatur in einer Handschrift aus dem 14. Jahrhundert. Das Bild zeigt Wolfram von Eschenbach (2. v. 1.) mit anderen Minnedichtern. In seinem Werk *Parzival* stellt Wolfram den Heiligen Gral nicht als Becher oder Behältnis dar, sondern als Stein.

20 *(unten)* Der heilige Bernhard von Clairvaux ruft den Zweiten Kreuzzug aus. Bernhard war die treibende Kraft bei der Gründung des Tempelordens im 12. Jahrhundert.

21 *(oben)* Tempelritter mit dem für den Orden charakteristischen »croix pattée« oder »Tatzenkreuz«.

22 *(rechts)* Decke einer Felsenkirche in Lalibela. Auffällig und ungewöhnlich ist das in einen Davidstern eingelegte Kreuz der Tempelritter.

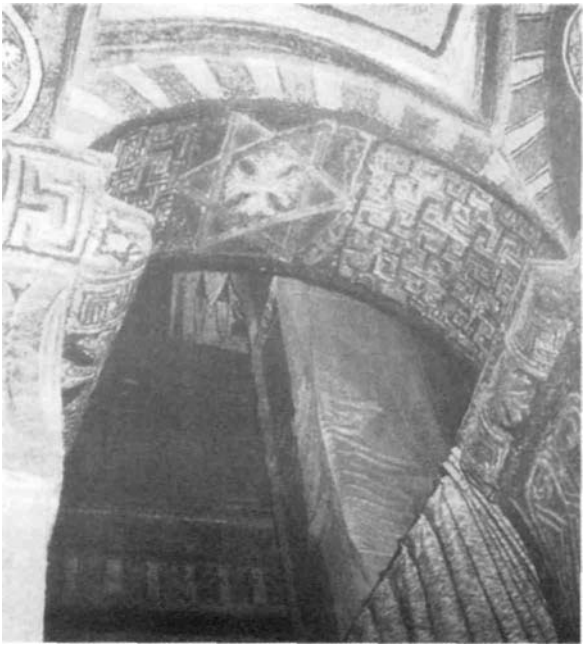

23 *(oben)* Der Felsendom, eine große muslimische Moschee, wurde im 7. Jahrhundert n. Chr. erbaut und befindet sich genau an der Stelle des Tempelberges, wo einstmals König Salomos Tempel stand.

24 *(unten)* Innenansicht des Felsendoms mit dem »shetiyyah«, dem »Grundstein der Welt«, der schon den Boden des Allerheiligsten von Salomos Tempel bildete. An diesen Ort brachte Salomo vor 3000 Jahren die Bundeslade, und von diesem Ort verschwand sie zu einem unbekannten Zeitpunkt.

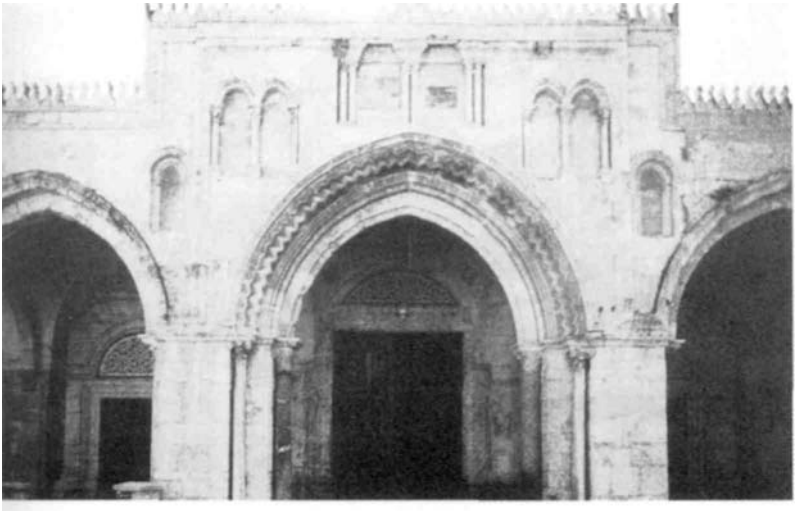

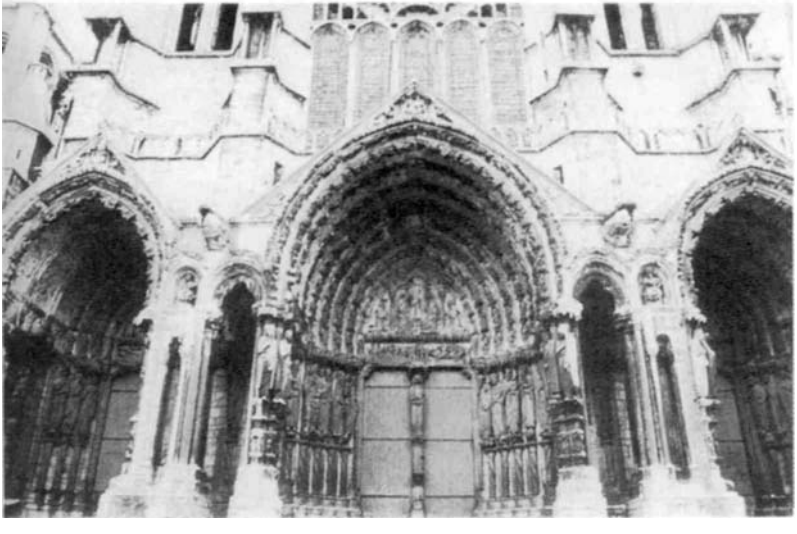

25 und 26 Portal der Al-Aksa-Moschee auf dem Tempelberg *(oben)*. Das gotische Portal wurde im 12. Jahrhundert von den Tempelrittern errichtet, nachdem sie die Moschee zu ihrem Hauptquartier gemacht hatten. Zum Vergleich das gotische Nordportal der Kathedrale von Chartres *(unten)*.

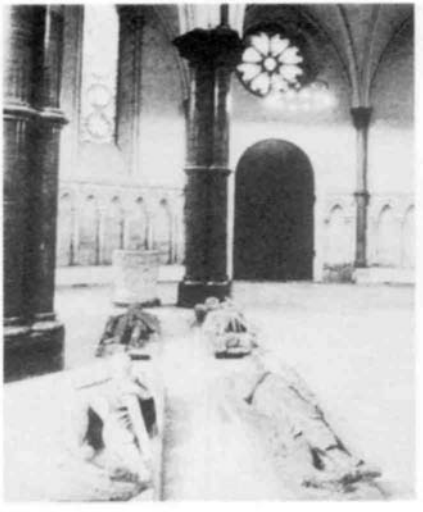

27 *(oben links)* Innenansicht der Templerkirche in London. Im Vordergrund Steinskulpturen auf Grababdeckungen, unter denen die Gebeine von Tempelrittern ruhen. Auch diese vom Templerorden erbaute Kirche gilt als frühes Beispiel gotischer Architektur.

28 *(oben rechts)* Frontispiz des Reiseberichtes von Francisco Alvarez über die erste offizielle portugiesische Gesandtschaft an den Hof des Priesters Johannes um 1520.

29 *(unten)* Die aus dem Fels herausgehauene Marienkirche von Lalibela entstand im späten 12. Jahrhundert. Überlieferungen zufolge, die Alvarez in seinem Reisebericht festhielt, wurde die Kirche von »weißen Männern« erbaut. Möglicherweise handelte es sich dabei um Tempelritter.

30 *(oben)* Papst Clemens V.

31 *(oben links)* Der schottische König Robert Bruce, der den flüchtenden Tempelrittern Schutz gewährte.

32 *(oben rechts)* Prinz Heinrich der Seefahrer (1394 - 1460), Großmeister der Christusritter, übernahm das Erbe der Templer und zeigte außergewöhnlich großes Interesse an Äthiopien.

33 *(oben)* Vasco da Gama, Ritter des Christusordens. Sein Sohn, Don Christopher da Gama, starb 1542 in Äthiopien.

34 *(oben)* James Bruce von Kinnaird, Nachkomme des schottischen Königs Robert Bruce. Seine ausgedehnten Reisen durch Äthiopien beweisen die fortgesetzte Suche nach der Bundeslade. Bruce war Freimaurer, was er sein Leben lang geheimhielt, und Erbe der schottischen Templertradition.

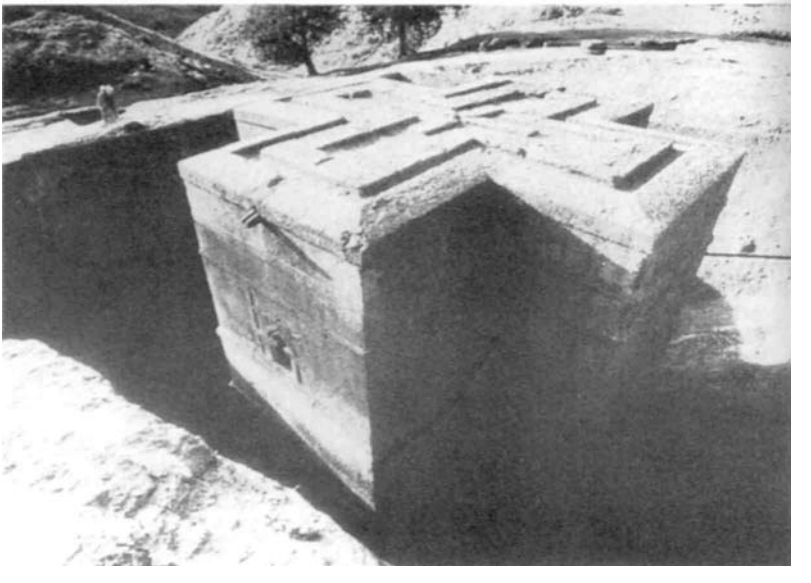

35 *(oben)* Ein Großmeister der Templer wird auf dem Scheiterhaufen verbrannt. Die Vernichtung des Ordens begann 1307 und wurde von Papst Clemens V. und König Philipp IV. von Frankreich betrieben.

36 *(unten)* Georgskirche von Lalibela. Das Doppelkreuz auf dem Dach ist eine Variante des Templerkreuzes und wurde später von den Nachfolgern der Tempelritter, den portugiesischen Christusrittern, übernommen.

ihnen weiterhin besondere Rechte bezüglich des heiligen Schreins eingeräumt hatten.

- In den sechs Jahrzehnten nach Lalibelas Tod hatten die Ritter also Zugang zur Bundeslade, aber man erlaubte ihnen nicht, die Lade aus dem Land zu bringen. Wahrscheinlich war gerade das die Absicht der Templer, und sie warteten in all diesen Jahren auf eine günstige Gelegenheit. Es hat natürlich auch unter den Rittern ein Generationswechsel stattgefunden: Andere, jüngere Templer wurden aus dem Heiligen Land nach Äthiopien geschickt, um die älteren abzulösen. Es hat den Anschein, als bestand nicht einmal besondere Eile bei der Umsetzung der Pläne, vielleicht waren die Ritter ganz zufrieden, im Dienst der Bundeslade in Äthiopien zu leben.

- Die Situation muß sich drastisch geändert haben, als man Naakuto Laab im Jahre 1270 dazu brachte, auf den Thron zu verzichten. Er wurde von Yekuno Amlak, einem Nachkommen Salomos, gefolgt. Anders als die Zagwe war die salomonische Dynastie untrennbar mit der Bundeslade und ihrer Geschichte verbunden. In diesem Zusammenhang lohnt es sich, darauf zu verweisen, daß die erste schriftliche Aufzeichnung des Kebra Nagast auf Anordnung Yekuno Amlaks geschah.[21] Mit anderen Worten: Obwohl die Legenden schon seit vielen Jahrhunderten mündlich tradiert worden waren[22], wollte der König eine schriftliche Fixierung der Überlieferungen. Warum? Weil die Legenden nun in noch stärkerem Maße den Anspruch der salomonischen Dynastie auf den Königsthron rechtfertigten.

- Die Präsenz von gut bewaffneten und technologisch weit fortgeschrittenen Fremden im eigenen Land mußte Yekuno Amlak also sehr beunruhigen. Dazu kam, daß die Templer jederzeit Verstärkung aus dem Nahen Osten hätten anfordern können, wo sich mehrere Tausend ihrer Ordensbrüder aufhielten. Schließlich war bekannt, daß die Fremden ein ausgeprägtes Interesse an der Bundeslade hatten und nur allzu wahrscheinlich die Entführung des Schreins planten.

- Es ist anzunehmen, daß Yekuno Amlak zunächst darauf achtete, daß die Templer sich in Sicherheit wähnten. Denn er

hatte gerade erst den Thron bestiegen und seine Position noch nicht gefestigt. Er vermittelte also den Eindruck, daß auch er weiterhin bereit war, die privilegierte Position der Ritter anzuerkennen. Das wäre strategisch plausibel gewesen, zumal bekannt war, daß der König nur über eine kleine Armee verfügte.[23] Schließlich könnte das auch die Erklärung dafür sein, warum während seiner Regierungszeit keine spektakulären Veränderungen zu verzeichnen sind. Es oblag also seinem Nachfolger, sich von den Tempelrittern zu befreien und den Anspruch auf die Bundeslade zu bekräftigen.

- Yekuno Amlaks Sohn Yagba Zion (König von 1285 bis 1294) war in militärischer Hinsicht wahrscheinlich noch wehrloser als sein Vater. In der Thronfolge kam jedoch bald ein starker Mann an die Macht: Wedem Ara'ad, der von 1299 bis 1314 regierte und im Jahr 1306 die Unterhändler zu Papst Clemens V. nach Avignon schickte.

- Mit einiger Wahrscheinlichkeit schürte die Mission den Unwillen gegen die Templer und verschaffte Clemens V. und Philipp IV. mit einem Mal die Möglichkeit, gegen den Orden vorzugehen. Denn es war vorstellbar, daß die Tempelritter den Schrein nach Frankreich bringen würden. Und angesichts des tiefen Aberglaubens, der die Vorstellungskraft des Volkes zu dieser Zeit prägte, hätten die Templer - im Besitz eines so heiligen und mächtigen Gegenstandes - binnen kürzester Zeit eine Position erreicht, die es ihnen ermöglicht hätte, die weltliche und geistliche Macht in Frage zu stellen. Es war nur konsequent, wenn Staat und Kirche zu einem Präventivschlag ausholten.

- Vor dem Hintergrund der Verhaftungen in ganz Europa gewinnt diese Theorie sehr an Attraktivität. Die Verfolgungen setzten 1307 ein, das heißt nur ein Jahr nachdem die äthiopische Mission Avignon verlassen hatte. Und das paßt genau zu dem, was wir von König Philipp wissen: Es gibt Beweise dafür, daß er mit den Vorbereitungen für seine Operation schon ein Jahr zuvor begonnen hatte, also 1306.[24] Ebenso genau läßt sich belegen, daß Philipp und Clemens im Laufe dieses Jahres mehrmals

zusammengekommen waren, um wichtige Dinge zu besprechen.[25]

- Natürlich wäre es töricht anzunehmen, die Zerschlagung der Templer sei allein durch die Einflußnahme der äthiopischen Botschafter ausgelöst worden. Philipp IV. hegte schon lange Groll und Neid gegen die mächtige Bruderschaft. Denn zum einen war er von dem Orden mehrfach schlicht abgekanzelt worden; zum anderen hatte er ohne Frage ein Auge auf das große Vermögen geworfen, das über sein ganzes Königreich verstreut in den Schatzkammern der Templer ruhte.

- Aber es wäre ebenso töricht, die Rolle der äthiopischen Gesandtschaft unterzubewerten und einen Zusammenhang mit den Ereignissen von 1307 zu verneinen. Im Gegenteil: Es mußte ein verbindendes Glied geben, und ich war überzeugt, dieses Bindeglied war die Bundeslade.

Phönix aus der Asche

Trotz aller Anstrengungen war es nicht leicht, eine so reiche und mächtige Organisation zu zerschlagen. In Frankreich konnte die Auflösung des Ordens mit großer Effektivität betrieben werden, aber selbst dort entzogen sich einige Ritter ihrer Verhaftung.[26] Und erstaunlicherweise lief die gesamte Flotte der Templer am Morgen des 13. Oktober 1307 aus dem Hafen von La Rochelle aus und ward nie wieder gesehen.[27]

In anderen Ländern wurden die Verhöre und Gerichtsverhandlungen bei weitem nicht mit dem Nachdruck betrieben wie in Frankreich. Trotzdem: Einkerkerung, Folter und Hinrichtungen führten - wenngleich mit einiger Verzögerung - auch in England, Spanien, Italien, Deutschland und Zypern zur Auflösung des Ordens. Nur in Portugal und Schottland wurden die Templer kaum oder gar nicht verfolgt. Die Umstände in diesen Ländern erwiesen sich als so günstig, daß dem Orden das Überleben gelang.[28]

Als Clemens V. im November 1307 die Verhaftung aller Or-

densbrüder anordnete, befand sich Schottland im Krieg mit England, gegen das es seine nationale Unabhängigkeit durchsetzen mußte. Der führende Kopf dieser Bestrebungen war der schottische König Robert Bruce, der in der Schlacht von Bannockburn im Jahre 1314 den Engländern eine derartig vernichtende Niederlage zufügte, daß die Freiheit seines Landes für mehrere Jahrhunderte gesichert war. Bruce mußte seine ganze Kraft auf diese Auseinandersetzungen konzentrieren, so daß er nicht das geringste Interesse hatte, die päpstlichen Anordnungen zu unterstützen. Zum Schein verhaftete man zwei Ritter[29] und ermahnte den Orden zur Zurückhaltung.

Alles weist darauf hin, daß Robert Bruce nicht nur schottischen Templern Sicherheit garantierte, sondern auch den Rittern, die aus anderen Ländern geflohen waren.[30] Natürlich geschah das nicht aus purer Nächstenliebe, vielmehr legte der König diese generöse Haltung an den Tag, um die Ordensbrüder für seine Armeen zu gewinnen.[31] Wiederholt und nicht ohne Grund hat man triftige Argumente dafür angeführt, daß tatsächlich Templertruppen auf der Seite von Bruce in der Schlacht von Bannockburn gekämpft haben[32] - und diese Vermutung gewinnt um so mehr an Gewicht, als die siegreichen Schotten einen kleinen Reliquienschrein mit sich führten, als sie in die berühmte Schlacht marschierten.[33]

Das wohlwollende Verhalten des Königs gegenüber den Templern und die Tatsache, daß viele Ritter noch vor ihrer Verhaftung aus England fliehen konnten, ermöglichte es dem Orden, sich auf den schottischen Inseln zu verstecken und im Verborgenen zu überleben. Schon früh hat man vermutet, daß sich die Existenz der Templer im Untergrund zur Freimaurerei entwickelt hat, zumal die ältesten Dokumente des Geheimbundes etwa bis auf das Jahr 1250 zurückreichen.[34] Nach einer Überlieferung war es König Robert selbst, der nach der Schlacht von Bannockborn die erste und älteste Loge Schottlands (die Loge von Kilwinning) »für die Aufnahme der aus Frankreich geflohenen Tempelritter«[35] gründete. Im achtzehnten Jahrhundert untermauerte Andrew Ramsay, ein prominenter schotti-

scher Historiker und Freimaurer, den Wahrheitsgehalt dieser Angaben mit seinem umfassenden Gesamtwerk über die Verbindungen zwischen der Freimaurerei und dem Tempelorden.[36] Etwa um die gleiche Zeit erklärte Baron Carl von Hund, ein führender deutscher Freimaurer, daß »die Freimaurerei aus dem Tempelrittertum entstand und infolgedessen jeder Freimaurer ein Tempelritter« sei.[37]

Daß solche unmißverständlichen Verlautbarungen erst im achtzehnten Jahrhundert an die Öffentlichkeit gegeben wurden, kann kaum überraschen: Erst 1717 erklärten die Freimaurer offiziell ihre Existenz. Und erst diese Öffnung nach außen ermöglichte weitere Nachforschungen, in deren Verlauf deutlich wurde, daß das Tempelrittertum immer eine treibende Kraft innerhalb der Freimaurerei war und auch bleiben würde.[38] Diese Untersuchungen wurden kürzlich - zusammen mit bislang unveröffentlichtem Material - in einer detaillierten und umfassenden Studie vereinigt, die sich mit der Entstehung der Logen und ihrer starken Beeinflussung durch die geflohenen Tempelritter auseinandersetzt.[39]

Ich beabsichtigte also keineswegs, mich an den hitzigen und verwickelten Debatten zu beteiligen, die von den Experten noch immer geführt werden. Es lag mir nur an der Feststellung, daß der Freimaurerei zweifelsohne die zentralen Merkmale des Tempelrittertums in die Wiege gelegt wurden und daß die geflüchteten Ordensritter in den Jahren 1307 bis 1314 dieses Erbe aufgrund der günstigen Bedingungen in Schottland an ihre Nachfolger weitergeben konnten, wo es bis auf den heutigen Tag überlebt hat.

Wie bereits erwähnt, war Schottland nicht das einzige Land, in dem die Templer den Verfolgungen entkamen. In Portugal wurden sie von den Vorwürfen freigesprochen und somit weder verhaftet noch gefoltert.[40] Als guter Katholik hatte es sich der portugiesische König Dennis I. natürlich nicht leisten können, die päpstlichen Anordnungen völlig zu ignorieren: Folglich reagierte er auf die Befehle mit einem Lippenbekenntnis und erklärte im Jahr 1312 den Orden für aufgelöst. Nur sechs Jahre

später erwuchs aus dem alten Tempelorden eine neue Bruderschaft: die Soldaten Jesu Christi, auch als Ritter Christi oder einfach als Christusorden bekannt.[41]

Durch diese Umbildung entkamen die portugiesischen Tempelritter nicht nur den Scheiterhaufen der Inquisition, sondern konnten sich nach 1318 sogar stärker denn zuvor ihren Unternehmungen widmen. Das gesamte Vermögen der alten Bruderschaft wurde auf den neuen Orden übertragen, und selbst die Soldaten der Templer marschierten hinfort unter dem Banner der Ritter Christi.[42] Nach dem Tod Clemens V. ließ Papst Johannes XXII. dem neugegründeten Gebilde sogar die offizielle Anerkennung der Kirche zuteil werden.[43]

Der portugiesische Christusorden sowie die englische - und insbesondere schottische - Freimaurerei können also als die Werkzeuge angesehen werden, mit denen die Templertraditionen bewahrt und weitergegeben wurden - wahrscheinlich bis in unser Jahrhundert hinein. Im Verlauf meiner Nachforschungen war mir immer klarer geworden, daß es sich bei einer dieser Traditionen um die Suche nach der Bundeslade handeln mußte.

Die Soldaten unter dem roten Doppelkreuz

Doch selbst wenn meine Theorie über die Templer und ihr Engagement in Äthiopien zutreffen sollte, so war es mir noch immer unmöglich herauszufinden, was nach 1307 mit ihnen geschehen war. Es sind praktisch keine Dokumente aus der Regierungszeit Wedem Ara'ads erhalten. Ich vermutete jedoch, daß er die Entwicklungen in Europa nach 1306 genau beobachtete und von der Zerschlagung der Bruderschaft wußte. Er konnte sich also sicher sein, daß ihn keine weiteren Ordenstruppen bedrängen würden. Das gab ihm freie Hand, gegen die Templer in Äthiopien vorzugehen, sie zu vertreiben oder - was anzunehmen ist - zu vernichten.

So zumindest lautete mein vorläufiges Ergebnis, und wahrscheinlich hätte ich über diesen Aspekt meiner Nachforschungen

nicht weiter nachgedacht, wäre ich nicht auf den Christusorden gestoßen. Soweit bekannt ist, handelte es sich bei den allermeisten frühen Äthiopien-Reisenden um Portugiesen. Kaum ein Jahrhundert nach der Zerschlagung der Templer wurde das portugiesische Interesse am Königreich des »Priester Johannes« offenkundig, und von Anbeginn an erwies sich der Christusorden als die treibende Kraft.

Die erste und zugleich außerordentlich tatkräftige Persönlichkeit in diesem Zusammenhang war Heinrich der Seefahrer, Großmeister des Christusordens und ein Mann, von dem sein Biograph berichtet, daß er über »reiches Wissen, Autorität und ein gutes Gedächtnis« verfügt habe.[44]

Um 1415 hatte sich Heinrich - gerade zwanzigjährig - bereits ganz und gar der Seefahrt verschrieben.[45] Wie er selbst zugab, war es sein erklärtes Ziel, »Kunde über das Reich des Priester Johannes zu erhalten«[46]. Sowohl die zeitgenössischen Chroniken als auch Historiker unseres Jahrhunderts stimmen darin überein, daß er den größten Teil seiner bemerkenswerten Laufbahn allein diesem Ziel widmete.[47] Und trotzdem verschleiert eine Aura von geheimen Machenschaften und Intrigen seine Unternehmungen. Edgar Prestage, der Emeritus des Camões-Lehrstuhls für portugiesische Sprache, Literatur und Geschichte an der Universität London, bemerkte hierzu:

»Leider ist unser Wissen über die von Heinrich angeregten Fahrten ziemlich unvollständig, und zwar wegen der Geheimhaltungspolitik Portugals, das alle für Konkurrenten wertvollen Daten unterdrückte ... Als Heinrich starb, wurden seine Karten, Instrumente und Papiere sofort nach Lissabon geschafft, und bezeichnenderweise sind sie in der genauen Liste seiner persönlichen Habe mit keinem Wort erwähnt.«[48]

Die Verschwiegenheitspflicht zu Heinrichs Zeiten wurde in der Tat so ernst genommen, daß die Weitergabe von Informationen, die die Ergebnisse seiner vielen Forschungsreisen betrafen, mit dem Tode bestraft wurde.[49] Doch Heinrich konnte kaum verbergen, wie besessen er von dem Plan war, direkte Beziehungen zu Äthiopien zu knüpfen. Er hoffte, dieses Ziel zu erreichen,

indem er den afrikanischen Kontinent umsegelte: Die weitaus kürzere Route über das Mittelmeer, Ägypten und das Rote Meer versperrten die feindlichen muslimischen Mächte.[50] Aber schon lange bevor man das Kap der Guten Hoffnung erreicht hatte, wurden Expeditionskorps an der Westküste Afrikas ausgesetzt, um nach dem Reiche des Priester Johannes zu forschen und zu überprüfen, ob man dieses Königreich nicht noch schneller auf dem Landwege erreichen konnte.[51]

Über die wahren Motive des portugiesischen Prinzen lassen sich letztlich nur Mutmaßungen anstellen. Allgemein wird angenommen, daß er - als »guter Kreuzritter« - eine anti-islamische Allianz mit dem christlichen Herrscher Äthiopiens bilden wollte.[52] Das ist nicht einmal auszuschließen. Aber schon mehr als ein Jahrhundert vor Heinrichs Geburt hatte man im Grunde alle ernsthaften Pläne aufgegeben, das Heilige Land für die Christenheit wiederzugewinnen. Ich konnte mich also der Vorstellung nicht erwehren, daß es andere Gründe für den Portugiesen gegeben haben mußte, die sein erklärtes Interesse am Reich des Priester Johannes einerseits und seine obsessive Geheimhaltung andererseits rechtfertigten.

Als ich mich mehr mit dem Leben des Seefahrers beschäftigte, schien es mir immer wahrscheinlicher, daß die Motive mit seiner Stellung als Großmeister des Christusordens zusammenhingen. In dieser hohen Position mußte er von den geheimen Überlieferungen des Tempelordens gewußt haben. Bemerkenswerterweise hat Heinrich ausführliche Studien der Mathematik und Geographie, der Himmelserscheinungen und Astrologie betrieben und war immer von Gelehrten und Astronomen umgeben[53] - Männer, die sehr an Wolfram von Eschenbachs Figur Flegetanis erinnern, der »in der Konstellation der Gestirne verborgene Geheimnisse entdeckte« und »erklärte, es gäbe ein Ding, das >der Gral< hieße; diesen Namen las er klar und unzweideutig in den Sternen«[54].

Zudem unterwarf sich der portugiesische Prinz den strengen Prinzipien des Zölibats - ein weiterer Umstand, der nahelegte, daß Heinrich von den Regeln der Templer beeinflußt wurde.[55]

Und es konnte sich kaum um einen Zufall handeln, daß der illustre Seefahrer sein Testament genau am 13.Oktober 1460 niederschrieb[56] - am einhundertdreiundfünfzigsten Jahrestag der Verhaftungen in Frankreich.

Heinrich starb noch im selben Jahr. Aber erst zu Beginn des zwanzigsten Jahrhunderts sollten die Dokumente und Aufzeichnungen aus den letzten Jahren seines Lebens ans Tageslicht kommen. Unter diesen Schriften, die Dr. Jaime Cortezão 1924 in Auszügen in der Zeitschrift Lusitania veröffentlichte, fand man eine Notiz, die von einem Botschafter des Priester Johannes berichtet, der acht Jahre vor Heinrichs Tod Lissabon besuchte.[57] Es ist nicht bekannt, welchen Zweck diese Mission verfolgte oder welche Angelegenheiten der Prinz und der äthiopische Gesandte besprachen. Nur zwei Jahre nach diesen Verhandlungen aber - und auch hier liegt es nahe, ein Zusammenspiel von Ursache und Wirkung zu vermuten - übertrug der portugiesische König Alfons V. dem Christusorden die geistliche Gerichtsbarkeit über Äthiopien. »Hinsichtlich der Motive für diese königliche Verleihung«, gibt Professor Prestage zu, »wissen wir aber noch nichts.«[58]

Als Heinrich 1460 starb, erblickte in Sines, einer Hafenstadt im Süden Portugals, ein würdiger Nachfolger das Licht der Welt: Vasco da Gama, der 1497 mit der Umsegelung des Kaps der Guten Hoffnung den Seeweg nach Indien entdecken sollte. Es ist kaum mehr erstaunlich, daß auch Vasco da Gama zu den Rittern des Christusordens zählte.[59]

Bezeichnenderweise führte da Gama zwei Dinge mit sich, als er zu seiner berühmten Reise aufbrach: das weiße Seidenbanner mit dem roten Doppelkreuz der Ritter Christi und ein Beglaubigungsschreiben, das an den Priester Johannes gerichtet war.[60] Wenngleich das eigentliche Ziel seiner Reise Indien war, so verbrachte der portugiesische Admiral doch einen beträchtlichen Teil der Expedition mit der Erforschung des afrikanischen Kontinents. Man berichtete, der Entdecker sei in Freudentränen ausgebrochen, als die Schiffe vor Mosambik lagen und man ihm berichtete, der sagenumwobene Priester Johannes lebe

tatsächlich weit im Norden des Landes.[61] Dieselben Informanten gaben an, daß der äthiopische Herrscher »auch längs der Küste viele Städte besitze«[62]. Das sollte sich später als unwahr herausstellen, aber die häufigen Zwischenstationen in Mombasa, Malindi und Brava waren zum Teil sicherlich von seinen Bestrebungen motiviert, einen Kontakt mit dem Priester Johannes herzustellen.[63]

Schon 1487, ein Jahrzehnt also, bevor da Gama zu seiner Reise aufbrach, hatte der Christusorden einen Expeditionstrupp zusammengestellt, der die gleiche Aufgabe hatte: Man wollte nach Äthiopien gelangen. König Johannes II. von Portugal, der zu dieser Zeit zugleich Großmeister des Ordens war, hatte einen Vertrauten, seinen Adjutanten Pero de Covilhan, auf die gefährliche Reise an den Hof des äthiopischen Königs geschickt. Der Weg führte die als Kaufleute getarnten Männer über Alexandria und Kairo nach Suakin am Roten Meer. Von dort segelten sie in einer kleinen arabischen Barke bis nach Aden. Im Südjemen geriet de Covilhan offensichtlich in Schwierigkeiten, denn erst 1493 gelang es ihm, nach Abessinien überzusetzen.[64] Auf dem schnellsten Wege reiste er an den Hof des Herrschers, wo man ihn zunächst freundlich empfing, dann jedoch unter strengsten Hausarrest stellte. Über die Gründe hierfür kann man nur mutmaßen, es steht jedoch fest, daß de Covilhan im Ruf stand, ein guter Spion zu sein (zuvor war er als geheimer Agent nach Spanien geschickt worden[65]). Es lag also nahe, daß der Portugiese vom Christusorden beauftragt worden war, sich Klarheit über den Aufenthaltsort der Bundeslade zu verschaffen. Bei seinen Nachforschungen hat er vielleicht das Mißtrauen der Äthiopier geweckt, vielleicht auch nicht; fest steht, daß er für den Rest seines Lebens in Äthiopien festgehalten wurde.[88]

De Covilhan war noch am Leben, als die erste offizielle portugiesische Gesandtschaft im Jahr 1520 den am Roten Meer gelegenen Hafen von Massawa erreichte und sich auf den Weg zu Lebna Dengel machte, dem seit 1508 regierenden König. Ein Angehöriger dieser Mission war Vater Francisco Alvarez. Ich beschäftigte mich noch einmal mit der englischen Übersetzung

seines umfangreichen Reiseberichtes. Immer wieder las ich das Kapitel über die Felsenkirchen und konzentrierte schließlich meine Aufmerksamkeit auf die Beschreibung der Georgskirche. Auf dem flachen Dach dieses großen, in den Felsboden hineingehauenen Gebäudes, so schrieb er, sei »ein Doppelkreuz, also eines im anderen, in der Art des Kreuzes der Christusritter« eingemeißelt.[67]

Natürlich waren die Felsenkirchen zur Zeit des Tempelordens entstanden, also lange bevor der Christusorden dessen Nachfolge angetreten hatte. Aber gleichzeitig war es nur folgerichtig, daß die Ritter Christi auch das Wahrzeichen des alten Ordens übernommen hatten, und so kam es, daß der portugiesische Kleriker vom »Kreuz der Christusritter« sprach. In jedem Fall war es hochinteressant, daß der alten Kirche - zweifelsohne die schönste und beeindruckendste des gesamten Komplexes - dieses Zeichen an so exponierter Stelle aufgeprägt worden war. Ich versuchte, mir die Bauwerke zu vergegenwärtigen, die ich 1983 selbst besucht hatte, aber ich konnte mich nicht an das Doppelkreuz erinnern. Die Sache interessierte mich jedoch so sehr, daß ich die Fotos, die wir auf der Exkursion aufgenommen hatten, noch einmal durchsah. Alvarez' Beschreibung von St. Georg entsprach der Wahrheit: Das Kreuz war da.

Um 1525 befand sich die portugiesische Delegation noch immer am Hofe Lebna Dengeis. Schon zu dieser Zeit war gewiß, daß Äthiopien über kurz oder lang von muslimischen Truppen angegriffen werden würde, die sich in dem im Osten des afrikanischen Horns gelegenen Emirat von Harare sammelten. Die Kämpfer wurden von einem furchterregenden und charismatischen Kriegsherrn angeführt - Ahmed Ibn Ibrahim el Ghazi, genannt Gragn, »der Linkshändige«.

Im Jahr 1527, nach umfassenden Vorbereitungen, erklärte Gragn schließlich seinen Heiligen Krieg und führte ganze Horden von wilden Somali-Soldaten, die von arabischen Söldnern und türkischen Musketieren unterstützt wurden, auf einen blutigen Feldzug in das Land seiner christlichen Feinde.[68] Über viele Jahre hinweg und ohne Unterlaß wurden landauf, landab

äthiopische Städte und Dörfer niedergebrannt, Kirchen zerstört, unermeßliche Schätze geraubt und Tausende niedergemetzelt.[89]

Den Portugiesen gegenüber hatte sich Lebna Dengel lange Zeit kühl verhalten: In den sechs Jahren ihres Aufenthaltes in seinem Lande (von 1520 bis 1526) betonte er immer wieder seine Unabhängigkeit und verwies, ungeachtet der drohenden Gefahr durch die Muslime, die 1526 nicht mehr zu übersehen war, darauf, daß er keinen Grund für ein übereiltes Bündnis mit einer fremden Macht sehe.[70] Ich glaubte, daß diese unverständliche Zurückhaltung nur mit dem Mißtrauen gegenüber den Europäern und ihren geheimen Absichten zu erklären war: der Suche nach der Bundeslade.

Welche Befürchtungen der Herrscher auch immer gehegt haben mochte, nach und nach wurde ihm unmißverständlich vor Augen geführt, daß Ahmed Gragn die weit größere Gefahr nicht nur für die Bundeslade, sondern für das gesamte äthiopische Christentum bedeutete. 1535 stürmten die Muslime die heilige Stadt Aksum und machten die Kirche der Heiligen Maria auf Zion dem Erdboden gleich[71] - aus der man allerdings, wie ich noch genau berichten werde, die Bundeslade in Sicherheit gebracht hatte. Es war höchste Zeit, als Lebna Dengel im selben Jahr seine Vorbehalte gegen ein Bündnis mit fremden Mächten überwand und Emissäre mit der dringenden Bitte um militärische Hilfe zum König von Portugal schickte.[72]

Unterdessen war allerdings die Verbindung zwischen Äthiopien und Europa immer schwieriger geworden, denn die Türken kontrollierten einen Großteil der Küsten des afrikanischen Horns sowie die meisten Häfen am Roten Meer. Es verging viel Zeit, bis der Hilferuf des Königs sein Ziel erreichte, und erst 1541 traf ein Kontingent von vierhundert portugiesischen Musketieren in Massawa ein. Sie sollten die abessinischen Truppen verstärken, die zu diesem Zeitpunkt bereits sehr geschwächt und demoralisiert waren. Lebna Dengel, seit Jahren auf der Flucht, war vor Erschöpfung gestorben, und sein Sohn Claudius, kaum zwanzig Jahre alt, hatte das Blatt nicht zugunsten seines Landes wenden können.[73]

Man setzte große Hoffnungen in die Intervention der portugiesischen Truppen, die mit Feuerwaffen und einigen schweren Kanonen ausgerüstet waren. Die äthiopische Königschronik für das Jahr 1541 berichtet von der siegessicheren Haltung, mit der die Soldaten in das Hochland marschierten, und rühmt sie als »kühne und mutige Männer, die nach der Schlacht dürsteten wie Wölfe und nach dem Gemetzel wie Löwen«[74].

Offensichtlich handelte es sich dabei nicht einmal um eine übertriebene Beschreibung: Die kleine Kampftruppe focht mit begeistertem Heldenmut und erzielte eine Reihe entscheidender Siege. Der englische Historiker Edward Gibbon brachte diese großartige Leistung später mit wenigen Worten auf den Punkt: »Äthiopien wurde von vierhundert Portugiesen gerettet.«[75]

Der Kommandeur der Entsatztruppen war, und ich hielt das für eine wichtige Information, niemand anderes als Don Christopher da Gama, Sohn des berühmten Vasco da Gama und, wie sein Vater, Ritter des Christusordens.[76] James Bruce schien einigermaßen fasziniert vom Charakter des jungen Abenteurers und beschrieb ihn mit den folgenden Worten:

»Er war außerordentlich tapfer, tollkühn und ungestüm, begierig nach militärischen Ehren und kaum von seinen eigensinnigen Entscheidungen abzubringen ... Unter den vielen Tugenden, die er besaß, fehlte die der Geduld ganz und gar, obgleich sie so wichtig ist für die Befehlshaber von Armeen.«[77]

Als Ritter Christi, dachte ich, war Don Christopher mit Sicherheit aus zwei Gründen nach Äthiopien gekommen: Zuerst mußte er die Muslime besiegen. Dann aber würde er die Bundeslade suchen und finden. Seine Unbesonnenheit und sein Mangel an Geduld kosteten ihn jedoch das Leben, bevor er auch nur das erste Ziel erreicht hatte.

Trotz überwältigender Widerstände suchte Don Christopher unablässig den Kampf mit den Truppen Ahmed Gragns: Einmal, so wird berichtet, sahen sich die Portugiesen (von den abessinischen Soldaten längst im Stich gelassen) zehntausend wilden Speerkämpfern gegenüber - und schlugen sie. Solche Meister-

stücke großer Verwegenheit waren aber mit Risiken verbunden, und 1542 geriet Don Christopher in Gefangenschaft. Ein Augenzeuge berichtete, daß der Heerführer kurz vor seiner Überwältigung »in das rechte Knie geschossen worden war und nun mit dem Schwert in der linken Hand tapfer weiterkämpfte, da der rechte Arm von einer anderen Kugel zerschmettert war .. .«[78] James Bruce' Darstellung zufolge wurde Don Christopher auf die grauenhafteste Weise gefoltert »und dann vor den General der Mohren geschleift, der ihn mit bösen Anschuldigungen überhäufte; auf diese gab der Portugiese derartige Schmähungen zurück, daß der Mohr, vor Zorn in Raserei geraten, sein Schwert zückte und den Mann eigenhändig enthauptete«[79].

Kaum ein Jahr darauf fiel auch der muslimische Befehlshaber. In einer Schlacht am Ufer des Tanasees am 21. Februar 1543 wurde er von einem gewissen Peter Leon im Kampf niedergeschossen, »einem Mann von kleiner Statur, doch tatkräftig und mutig, der vormals Kammerdiener des Don Christopher war. ... Kaum daß die Soldaten der Mohren den Verlust ihres Generals bemerkt hatten, hielten sie die Schlacht für verloren, gerieten in Verwirrung und wurden von den Portugiesen und Abessiniern bis in die Nacht hinein verfolgt und niedergemetzelt .. .«[80]

Nach fünfzehn Jahren beispielloser Zerstörung konnte dem muslimischen Einfall in Äthiopien ein Ende bereitet werden. Doch die Verluste der portugiesischen Truppen waren hoch: Neben dem furchtlosen Don Christopher fiel mehr als die Hälfte der vierhundert Musketiere. Noch viel größer war die Zahl der äthiopischen Kriegstoten, die in die Zehntausende ging; und der kulturelle Schaden - der Verlust von Handschriften, Ikonen und Gemälden - warf noch in den nächsten Jahrhunderten seinen Schatten über die Zivilisation des Hochlandes.

Und doch war der größte aller Schätze in Sicherheit: Nur wenige Tage bevor Aksum von den muslimischen Horden überrannt worden war, hatten die Priester die Bundeslade auf eine der vielen Klosterinseln im Tanasee gebracht. An diesem sicheren Ort blieb sie noch lange nach Ahmed Gragns Tod. Erst Mitte

des siebzehnten Jahrhunderts ließ Kaiser Fasilidas die Kirche der Heiligen Maria auf Zion wiedererrichten, und dort nahm der Schrein mit Pracht und Herrlichkeit seinen angestammten Platz wieder ein.[81]

Aber Fasilidas vollbrachte noch etwas. Trotz des Dankes, den sein Land den Portugiesen schuldete, setzte er alles daran, die Fremden aus dem Land zu vertreiben. Nach dem Sieg über Ahmed Gragn hatte man ihnen zunächst freien Zugang gewährt, aber es scheint, als habe der Kaiser bald dunkle Absichten bei den Europäern vermutet. So traf er schließlich ein Abkommen mit den Türken in Massawa: Jeder portugiesische Reisende, der von diesem Hafen aus nach Äthiopien vordringen wollte, wurde festgenommen und enthauptet. Und für jeden Kopf sollten die Türken eine ansehnliche Summe Goldes erhalten.[82]

Was verheimlicht James Bruce?

Nach dem Tod Don Christophers schien der Christusorden seine Vorstöße nach Äthiopien beendet zu haben. Bei den drastischen Abschreckungsmaßnahmen, die Fasilidas gegen die Fremden verhängt hatte, war es undenkbar, daß ein Portugiese den Boden des Königreiches betrat.

Nicht nur die Ritter Christi setzten jedoch die geheimnisvollen Unternehmungen der Templer fort, auch die schottischen Freimaurer hatten das Erbe des Ordens übernommen, in dem die Bundeslade eine so zentrale Rolle spielte. In diesem Zusammenhang war ich schon vor einiger Zeit auf einen Mann gestoßen, der mir nicht nur aufgrund seiner schottischen Abstammung einer genaueren Untersuchung wert zu sein schien. Er erhob nämlich zudem den Anspruch, ein Nachfahre des Königs zu sein, der im vierzehnten Jahrhundert den flüchtenden Tempelrittern Zuflucht gewährt hatte.[83] Und schließlich zählte er zu jenen tapferen und unbeirrbaren Männern, die es nach Äthiopien gezogen hatte: James Bruce of Kinnaird.

Mit seinen über ein Meter neunzig und einem dazu passen-

den Leibesumfang war Bruce ein wahrer Koloß von Mann - »der größte Mensch, den man gratis sehen kann«, wie ein Zeitgenosse ihn einmal scherzhaft beschrieb. Er war wohlhabend und hatte eine gute Erziehung genossen. Im Jahre 1730 auf dem Landsitz der Familie in Kinnaird im schottischen Tiefland geboren, wurde er mit zwölf Jahren nach Harrow geschickt, wo er exzellente Leistungen in den klassischen Sprachen erbrachte. An der Universität von Edinburgh vervollständigte er seine Studien.

Nach längerer Krankheit und familiären Schicksalsschlägen reiste er niedergeschlagen und ruhelos umher und lernte ohne Schwierigkeiten die Sprachen der jeweiligen Länder. Als man in London seine Sprachbegabung erkannte, wurde James Bruce zum britischen Konsul ernannt und nach Algier geschickt. Von dort aus unternahm er ausgedehnte Exkursionen entlang der nordafrikanischen Küste, die ihn bis ins Heilige Land führten. In dieser Zeit eignete sich Bruce sogar die Fertigkeiten eines Astronomen an und beschaffte sich zwei moderne Teleskope, die er fortan immer mit sich führte. Zudem übte er sich im Navigieren und absolvierte eine Art Überlebenstraining - Fähigkeiten, die ihm auf seinen Reisen nach Abessinien von unschätzbarem Wert sein sollten.

Man kann nicht genau rekonstruieren, wann Bruce den Plan zu seinem großen Abenteuer gefaßt hat, aber er scheint die Reise lange im voraus geplant zu haben; wir wissen zum Beispiel, daß er schon 1759 damit begann, das altäthiopische Ge'ez zu erlernen.[84] Als Bruce 1768 in Kairo eintraf, um von dort nach Abessinien aufzubrechen, war er in jeder Hinsicht gut vorbereitet. Neben den praktischen Kenntnissen verfügte er auch über ein fundiertes Hintergrundwissen, das auf den Reiseberichten seiner Vorgänger basierte. Aber was hatte Bruce dazu gebracht, nach Äthiopien zu reisen?

Der Forscher selbst macht hierzu nur ausweichende Angaben: Er habe sich den »unzähligen Gefahren und Entbehrungen, die mich ohne die Güte und den Schutz der göttlichen Vorsehung verschlungen hätten«, ausgesetzt, um die Quellen des Nils

zu entdecken.[85] Um auch den letzten Zweifel auszuräumen, betonte er das offizielle Ziel seiner Reise an exponierter Stelle. Denn der Titel seines umfangreichen Reiseberichtes lautet: *Reisen zur Entdeckung der Quellen des Nils in den Jahren 1768,1769, 1770, 1771, 1772 und 1773.*

Bruce' scheinbar so unmißverständlich formuliertes Expeditionsziel hat bei einigen Historikern zu Irritationen geführt, obgleich man bislang keine Erklärung für die kleine Unstimmigkeit gefunden hat[86], um die es hier geht: Schon lange bevor er zu seiner Reise nach Äthiopien aufbrach, mußte James Bruce gewußt haben, daß das Quellgebiet des Blauen Nils längst von zwei anderen Europäern entdeckt und genau erkundet worden war. Es gibt entsprechende Berichte von Pedro Paez und Jeronimo Lobo, zwei portugiesischen Priestern, die in Äthiopien lebten, bis Fasilidas um 1650 seine drastischen Maßnahmen gegen die Fremden ergriff.

Die so sorgsam verschleierten tatsächlichen Absichten von Bruce erregten meine Aufmerksamkeit immer mehr. Die fünf gewichtigen Bände seiner Reisen erwiesen sich schnell als unverzichtbares Nachschlagewerk, das ein einzigartiges Bild der äthiopischen Kultur zeichnete - und das zu einer Zeit, als diese Kultur noch gar nicht so weit von ihren eigenen archaischen Wurzeln entfernt war. Aus den Aufzeichnungen ging hervor, daß der Schotte ein sehr gelehrter Mann war, und von Anfang an beeindruckte mich die scharfsinnige Beurteilung von historischen Entwicklungen und die Genauigkeit seiner Beobachtungen. Im übrigen war ich durchaus der Ansicht, daß sein Bericht der Wahrheit entsprach, und hatte den Eindruck, daß er nicht übermäßig zu Übertreibungen oder verfälschender Darstellung neigte. Wie aber war es dazu gekommen, daß Bruce den Portugiesen Paez und Lobo offensichtlich keinen Glauben schenkte, obgleich er, wie aus seinen Schriften hervorgeht, ihre Berichte genau studiert hatte?[87] Im Grunde stimmte ich der Bewertung zu, die seine Werke später erfahren haben, vor allem der Tatsache, daß »Bruce, ganz und gar kein Romantiker, ein glaubwürdiger Informant«[88] war. Um so mehr verwirrte mich seine augen-

scheinliche Ungenauigkeit in diesem zentralen Punkt - oder, um es deutlich zu sagen: die Unehrlichkeit, die durch seine unverblümte Behauptung, daß »keiner der Portugiesen je die Quellen des Nils zu Augen bekommen habe«, noch verstärkt wurde.[89]

Ich fand schnell heraus, daß Bruce nicht nur in diesem Punkt die Unwahrheit gesagt hatte. Noch ausweichender reagierte er, wenn es um die Bundeslade ging. Bei der Beschreibung seines Besuches in der heiligen Stadt Aksum kommentiert er zunächst die Zerstörung der Marienkirche durch Ahmed Gragn und fügt sodann ganz richtig hinzu, daß an diesem Ort eine neue Kirche errichtet worden sei:

»Man sagt, daß in ihr die Bundeslade aufbewahrt werde, die Menelik, will man den ins Reich der Fabeln gehörenden Legenden Glauben schenken, vor seiner Rückkehr nach Äthiopien gestohlen haben soll. Ich glaube, daß in der Kirche eine Abschrift des Alten Testaments gehütet wurde, aber selbst diese hat Gragn zerstört. Fälschlicherweise nimmt man an, sie sei noch an ihrem Platz. All das hat mir der König selbst berichtet.«[90]

James Bruce zufolge, um es auf den Punkt zu bringen, wurde der Schrein nie nach Aksum gebracht. Ohne seine letzte Bemerkung hätte ich mich wahrscheinlich mit der Konstruktion zufriedengegeben, daß Bruce einfach nie herausgefunden hatte, daß der Schrein vor den Muslimen gerettet werden konnte und nach achtzig Jahren zurück nach Aksum gebracht wurde. Bruce' Verweis auf seinen königlichen Informanten entsprach jedoch schlicht der Unwahrheit: Nur wenige Jahrzehnte vor seiner Reise nach Äthiopien - und lange nach dem blutigen Krieg - hatte König Iyasu der Große die Lade mit eigenen Augen gesehen, da er zugleich das Amt des Hohenpriesters bekleidete.[91] Es war kaum vorstellbar, daß der Herrscher zu Bruce' Zeiten nichts mehr von diesem so einzigartigen Vorfall wußte. Ich konnte daraus nur schließen, daß der schottische Reisende wieder einmal »sehr sparsam mit der Wahrheit«[92] umgegangen war, zumal ich auf eine Textstelle stieß, die ein ganz anderes Bild vermittelte. Denn Bruce hatte die äthiopische Überlieferung von Me-

nelik, Salomo und der Königin von Saba keineswegs als Märchen abgetan. Im Gegenteil, er behandelte die Legende mit größtem Respekt. Im ersten Band seiner Reisen, einige tausend Seiten vor dem Bericht über Aksum, räumt er den kulturellen und Handelsbeziehungen zu alttestamentarischen Zeiten viel Platz ein.[93] Hier äußert sich der Autor ganz eindeutig zur Königin von Saba und betont, daß es sich bei ihr um eine historische - und keineswegs legendarische! - Figur gehandelt haben mußte.[94] Dann beschreibt er den langen Weg nach Jerusalem an den Hof König Salomos und kommt zu dem Ergebnis: »über diese Reise besteht kein Zweifel«[95]. Vor allem aber hebt er hervor, daß die Königin aus Äthiopien und nicht aus einem anderen Land stammte: »Andere glauben, die Königin war Araberin, aber es gibt viele Gründe, die mich davon überzeugen, daß sie Äthiopierin war.«[96] Im gleichen Tonfall faßt er die Geschichte von Meneliks Geburt und seiner Reise nach Jerusalem zusammen. Menelik sei sodann nach Äthiopien zurückgekehrt und habe im Gefolge »viele Juden, unter ihnen auch zahlreiche Gelehrte der jüdischen Gesetze«[97], gehabt. Diese Entwicklung, schließt Bruce, führte »zur Gründung einer äthiopischen Monarchie und zur Vererbung des königlichen Zepters innerhalb des Stammes Juda bis auf den heutigen Tag .. .«[98]

Was hier vorlag, war nicht mehr und nicht weniger als die genaue Wiedergabe des Kebra Nagast in einem Kontext, der den alten Überlieferungen ein hohes Maß an historischer Authentizität und Gewicht verschaffte. Merkwürdig war nur, daß Bruce einerseits jedes noch so kleine Detail ausführlich beschrieb, die Bundeslade aber mit keinem Wort erwähnte. Dabei konnte es sich nur um ein absichtliches Versäumnis handeln, bedenkt man einmal die zentrale Rolle, die der Schrein in dem äthiopischen Nationalepos spielt.

Auch in diesem Fall mußte ich also zu dem Schluß kommen, daß der schottische Reisende seine Leser absichtlich in die Irre führen wollte. Aber was verbarg sich hinter dieser Taktik? Sorgfältig und immer gespannter verfolgte ich noch einmal die Beschreibungen von Aksum und stieß auf ein wichtiges Detail, das

mir bisher völlig entgangen war. Sein Besuch in der heiligen Stadt fand am 18. und 19. Januar 1770 statt."

Schlagartig wurde mir klar, wie wichtig dieses Datum war: Denn genau an diesen Tagen mußte er »Timkat« miterlebt haben, das wichtigste Fest der äthiopisch-orthodoxen Kirche. Nur zu dieser Gelegenheit - und an keinem anderen Tag im Jahr! - wurde der Schrein nach althergebrachter Weise in kostbare Brokattücher eingeschlagen und in einer Prozession umhergetragen. Sorgsam hatte Bruce darauf geachtet, zu diesem Zeitpunkt in Aksum zu sein, denn nur dann bestand eine ernstzunehmende Möglichkeit, sich als Fremder und Laie dem heiligen Schrein zu nähern.

Der Verdacht, daß es die Bundeslade war, die den Schotten nach Aksum gelockt hatte, verdichtete sich immer mehr. Und sein Vorwand, auf der Suche nach den Nil-Quellen zu sein, hielt einem prüfenden Blick nicht länger stand. Bruce hatte sich eine »Titelgeschichte« ausgedacht, die den wahren Gegenstand seiner Suche verbergen sollte. Sein ausweichendes Verhalten war außerordentlich ungewöhnlich und ergab nur dann einen Sinn, wenn der Forscher daneben eine andere Absicht verfolgt hatte: etwas, was er unter allen Umständen geheimhalten wollte.

Aber mittlerweile waren noch mehr Indizien aufgetaucht, die Bruce überführten. So fand ich heraus, daß Bruce das Hebräische, Aramäische und Altsyrische[100] hervorragend beherrschte, tote Sprachen also, die man gewöhnlich nur dann erlernt, wenn man intensive Studien der frühen Bibeltexte betreiben möchte. Es bestand kein Zweifel, daß Bruce solche Studien betrieben hatte; seine Kenntnis des Alten Testaments, die auf fast jeder Seite der Reisen deutlich zutage tritt, war außergewöhnlich.

Es gab noch andere Beispiele für Bruce' ungewöhnliche Gelehrsamkeit.[101] Mir war bekannt, daß er eigene, peinlich genaue Untersuchungen zur Kultur und den Traditionen der schwarzen Juden Afrikas durchgeführt hatte. »Ich habe«, so schreibt er selbst, »keine Mühen gescheut, die Geschichte dieses sonderba-

ren Volkes zu erforschen, und pflegte die Freundschaft kundiger Männer, von denen ich lernte.«[102] Mit diesen Anstrengungen war es ihm gelungen, einen dauerhaften Beitrag zur Erforschung der Falaschen zu leisten - ein Unterfangen, das ebenfalls im Einklang mit der Suche nach der verlorenen Lade zu stehen schien.

Noch einmal führte ich ein Telefongespräch mit Dr. Belai Gedai in Addis Abeba und fragte ihn, ob er über Erkenntnisse bezüglich Bruce' wahren Motiven verfüge. Die Antwort des Historikers war deutlich:

»In Äthiopien ist man sich einig darüber, daß Mr. Bruce nicht in unser Land kam, um die Nil-Quellen zu entdecken. Wir glauben, daß das ein Vorwand war. Er verfolgte ein ganz anderes Ziel.«

»Fahren Sie fort«, hakte ich nach. »Was war es, wenn nicht der Nil?«

»Nun, er kam, um unsere Kunstschätze zu stehlen.« Dr. Gedai konnte seinen Ärger nicht verbergen. »Er hat einige kostbare Handschriften mit nach England genommen, zum Beispiel das Buch Henoch. Und aus der kaiserlichen Bibliothek in Gondar entwendete er eine alte Abschrift des Kebra Nagast.«

Das war eine aufregende Neuigkeit - wenn sie zutraf. Ich stellte einige Nachforschungen in dieser Richtung an und konnte Gedais Aussage nur bestätigen. Als Bruce Äthiopien verließ, führte er tatsächlich ein Exemplar des Kebra *Nagast* mit sich. Seine ausgezeichneten Kenntnisse des Ge'ez hatten es ihm sogar erlaubt, noch vor Ort eine Übertragung der alten Königslegenden in seine Sprache anzufertigen.[103] Später hat er beide Manuskripte der Bodleian Library in Oxford vermacht; dort werden sie noch heute unter den Signaturen »Bruce 93« und »Bruce 97« aufbewahrt.[104]

Das war noch nicht alles. Bis zum achtzehnten Jahrhundert hatten die Gelehrten geglaubt, das Buch Henoch sei unwiederbringlich verloren: Schon im zweiten Jahrhundert vor Christi Geburt entstanden[105], wurde die Schrift als wichtiger Bestandteil der jüdisch-mystischen Literatur angesehen. Ihre Existenz

war nur aus wenigen Fragmenten und Verweisen in anderen Texten zu rekonstruieren. James Bruce änderte die Situation, als er sich in Äthiopien gleich mehrere Exemplare des verschollen geglaubten Werkes beschaffte und nach England brachte. Man muß sich das vorstellen: Zum erstenmal gelangte der vollständige Text des Henoch-Buches nach Europa![106]

Die Tatsache, daß Bruce zudem auch das Kebra Nagast nach England brachte, und sich dazu noch der Mühe unterzog, das umfangreiche Werk vollständig zu transkribieren, ließ es noch unerklärlicher erscheinen, daß Bruce nie auf die Bundeslade eingegangen war, und bestärkte meine Vermutungen, daß mehr dahinter stecken mußte.

Für die Freimaurer hatte das Buch Henoch schon immer eine wichtige Bedeutung: So wurde in bestimmten Ritualen des Geheimbundes, die schon lange vor Bruce' Zeit entstanden, Henoch mit Thoth, dem ägyptischen Gott der Weisheit, identifiziert.[107] Und in der *Royal Masonic Cyclopaedia* stieß ich auf einen Eintrag, nach dem Henoch in den Augen des Ordens als Erfinder der Schrift galt und »die Menschen die Baukunst lehrte«. Vor der großen Flut »fürchtete er, daß die Geheimnisse aller Geheimnisse verloren gehen würden, und so verbarg er das auf weiße Porphyr-Platten eingemeißelte >Große Geheimnis< im Innern der Erde...« Der Artikel in der Enzyklopädie schließt mit den Worten: »Man wußte, daß das Buch Henoch seit Urzeiten existierte. Die Kirchenväter haben immer darauf verwiesen. Bruce brachte drei Abschriften des Buches aus Abessinien mit.. .«[108]

Die beiläufig und geradezu vertraut wirkende Nennung seines Namens und die Tatsache, daß Bruce die Anstrengungen der langen Reise unternommen hatte, um nicht nur eines, sondern sogar drei Exemplare des Buches zu erobern, ließ mich vermuten, daß der Schotte selbst Freimaurer gewesen sein mußte. Damit würden sich auf einen Schlag eine Vielzahl von Mosaiksteinchen zu einem glaubhaften Bild zusammenfügen und sein ausweichendes Verhalten in vielen Punkten erklären lassen. Es bestand für mich längst kein Zweifel mehr, daß er ein

besonderes Interesse an der Bundeslade hatte, das er mit allen Mitteln zu verbergen suchte. Nun erkannte ich, wo dieses Interesse herrührte und warum er so sehr auf Geheimhaltung bedacht war. Als Freimaurer - und obendrein als schottischer Freimaurer - mußte er auf die Unternehmungen der Templer und ihre Suche nach dem Schrein gestoßen sein.

Aber gehörte Bruce wirklich zu den Freimaurern? Es erwies sich als schwierig, eine Antwort auf diese Frage zu erhalten. Auf den über dreitausend Seiten seiner Reisen fand ich keinen einzigen Hinweis, der meinen Vermutungen hätte Gestalt verleihen können. Auch die umfangreichen und detaillierten Biographien, die 1836[109] und 1968[110] über Bruce verfaßt wurden, versagten in diesem Punkt. Erst im August 1990 ergab sich die Gelegenheit, nach Schottland zu reisen, um den Familiensitz der Bruce of Kinnaird aufzusuchen. Hier würde ich hoffentlich Antworten auf meine Fragen erhalten.

Kinnaird House befindet sich in der Nähe von Falkirk am Rande der Ortschaft Larbert. Das Gutsgebäude, das abseits der Landstraße inmitten eines großen Grundstückes liegt, ist ein imposantes Gebäude aus grauem Stein. Nach einigem Zögern willigte der heutige Besitzer, Mr. John Findlay Russell, ein, mir das Haus zu zeigen. Schnell bemerkte ich, daß es nicht aus der Zeit von James Bruce stammen konnte.

»Ganz richtig«, bestätigte Findlay Russell, »Kinnaird House ging 1895 in andere Hände über. Das alte Gebäude wurde von seinem neuen Besitzer, einem gewissen Dr. Robert Orr, abgerissen. Er hat dieses Anwesen 1897 errichten lassen.«

Wir standen in der riesigen, getäfelten Eingangshalle, direkt vor dem breiten Treppenaufgang. Findlay Russell deutete auf die Stufen und erzählte stolz: »Das ist das einzige, was von dem alten Haus übriggeblieben ist. Dr. Orr hat die Treppe so belassen und sein Haus darum gebaut. Sie ist von einiger Bedeutung, müssen Sie wissen.«

»Wirklich? Warum?«

»Weil James Bruce auf diesen Stufen starb. Es war im Jahr 1794. Er hatte in einem der höhergelegenen Räume ein Abend-

essen gegeben und begleitete einen Gast die Treppe hinunter. Dabei stolperte er und stürzte schwer. Er war sofort tot. Ein großes Unglück ...«

Bevor ich aufbrach, fragte ich Findlay Russell noch, ob er etwas über Bruce' Verbindung zu den Freimaurern wisse.

»Nein«, antwortete er, »nicht das Geringste. Natürlich habe ich mich viel mit ihm beschäftigt, aber ich würde nicht behaupten, ein Experte zu sein.«

Enttäuscht nickte ich. Als wir das Haus verließen, fiel mir noch etwas ein: »Wissen Sie vielleicht, wo er begraben liegt?«

»Bei der alten Kirche von Larbert. Es wird aber nicht einfach sein, das Grab zu finden. Es gab einmal einen großen, eisernen Obelisken, der über der Grabstelle aufragte, aber der war völlig verrostet. Vor ein paar Jahren hat man ihn entfernt, weil er zusammenzustürzen drohte ...«

Zehn Minuten später hatte ich die Kirche gefunden. Die Suche nach der letzten Ruhestätte des berühmten schottischen Forschers nahm allerdings sehr viel mehr Zeit in Anspruch.

Es war ein scheußlicher, regnerischer Nachmittag, und als ich die Reihen der Gräber absuchte, wurde ich immer mißmutiger. Ich konnte mich nicht damit abfinden, daß Bruce unter irgendeinem unscheinbaren Fleckchen Erde in Vergessenheit geraten sein konnte. Während ich den Hauptteil des Friedhofs immer wieder gründlich absuchte, stieß ich mehr zufällig auf eine dichtbewachsene und überwucherte Parzelle, die von einer niedrigen Steinmauer umschlossen wurde. Ich öffnete ein kleines Tor, stieg ein paar Stufen hinunter und fand - eine Art Müllkippe. Lumpen und löchrige Schuhe lagen neben Blechdosen und zerbrochenen Möbeln, überwuchert von Nesseln und Dornengestrüpp. Der dichte Baumbestand bildete ein Blätterdach, durch das kaum Tageslicht drang. Schwärme von Mücken und Wespen empfingen mich, als ich versuchte, das kniehohe Gestrüpp niederzutrampeln. Nun hatte ich schon alles abgesucht, da konnte ich hier auch noch nachsehen. Ich wollte die Hoffnung schon aufgeben, als ich inmitten dieses schottischen

Dschungels massive Steinplatten entdeckte, die schon halb im Boden versunken und völlig mit Moos und Flechten bedeckt waren. Ich schwankte zwischen Verärgerung und Spannung, als ich die Steine so gut es ging freilegte. Nichts wies darauf hin, daß sie Bruce' sterbliche Überreste verbargen, aber ich hatte das dunkle Gefühl, daß es so war.

Für eine Weile stand ich in Gedanken versunken vor den Steinen. Dann verließ ich die verwilderte Anlage - allerdings nicht auf dem normalen Weg durch das kleine Tor, sondern über das rückwärtige Mäuerchen. Nur Augenblicke später machte ich eine interessante Entdeckung: An der Mauer, nur wenige Meter von mir entfernt, lag ein großer Obelisk aus Metall. Als ich mich näherte, konnte ich den eingravierten Namen des Forschers und folgenden Epitaph erkennen:

»In seinem Leben vollbrachte er große und nützliche Taten / Er erforschte viele fremde Länder / Er entdeckte die Quellen des Nils / Er war ein liebevoller Ehemann und ein gütiger Vater / Mit Inbrunst liebte er sein Vaterland / Einmütig wird die Menschheit seinen Namen zu denjenigen zählen, die Genie, Mut und Tugend bewiesen haben.«

Es war jedoch nicht die Inschrift, die mich irritierte. Es war der Obelisk an sich. Er war weder verrostet noch zerfallen, im Gegenteil, er war gerade erst mit einer roten Grundierungsfarbe gestrichen worden. Wer aber konnte ein Interesse an der Grabstelle des Forschers haben, daß er das Monument restaurieren ließ, aber offensichtlich noch keine Zeit gefunden hatte, es wieder über dem Grab zu errichten?

Noch am selben Nachmittag stellte sich heraus, wer der geheimnisvolle Wohltäter war. Im Pfarramt der Kirchengemeinde erzählte man mir, daß der Obelisk vor einigen Jahren zu Reparaturarbeiten von seinem Standort entfernt und erst vor wenigen Tagen wiedergebracht worden war. Die Restaurierung hatte niemand geringeres als das Oberhaupt der Familie Bruce in Schottland angeordnet: der Graf von Elgin und Kincardine, selbst Meister des Freimaurerordens.[111] Das war ein vielversprechender Anhaltspunkt, dem ich bis nach Bromhall folgte, wo Graf

Elgin lebte. Ich meldete mich telefonisch an und sollte am Morgen des 4. August empfangen werden.

»Ich habe aber nur eine Viertelstunde Zeit für Sie«, hatte mich der Graf gewarnt.

»Fünfzehn Minuten werden genügen«, war meine Antwort.

Elgin, ein kleiner, untersetzter älterer Herr, führte mich ohne große Umstände in einen prächtigen Salon, der von einer Unzahl von Familienporträts beherrscht wurde, und bat mich, mein Anliegen vorzutragen. Bis zu diesem Moment war sein Verhalten fast schroff gewesen. Als wir aber über Bruce sprachen, taute er merklich auf. Elgin verfügte über ein großes und detailliertes Wissen, was bewies, daß er das Leben seines Vorfahren sorgfältig studiert hatte. Nach einiger Zeit führte er mich in einen anderen Raum und verwies auf einige Regale, die mit alten Büchern aus den unterschiedlichsten Sprachen und Sachgebieten angefüllt waren. »Das ist ein Teil seiner persönlichen Bibliothek«, erklärte er. »Bruce besaß ein weitgespanntes Interesse. Ich habe auch seine Teleskope, seinen Quadranten und den Kompaß. Wenn Sie möchten, zeige ich Ihnen die Instrumente schnell ...«

Die angekündigte Viertelstunde war längst verstrichen. Doch von Elgins enthusiastischen Erklärungen mitgerissen, war es mir nach anderthalb Stunden noch immer nicht gelungen, die wichtigste Frage loszuwerden. Nun sah er plötzlich auf die Uhr und rief: »Donnerwetter, wie die Zeit vergeht. Ich fürchte, ich muß mich von Ihnen verabschieden. Geschäfte ... Ich muß heute noch ins Hochland. Vielleicht kommen Sie ein andermal wieder?«

»Oh ... ja, das würde ich sehr gerne ...«

Freundlich lächelnd erhob sich der Graf. Auch ich stand auf und schüttelte ihm die Hand. Für einen Moment kam ich mir überrumpelt vor, aber ich konnte nicht abreisen, ohne meine Neugier befriedigt zu haben.

»Erlauben Sie bitte«, sagte ich, »daß ich Sie noch etwas frage, was mich besonders interessiert. Schon lange denke ich über die wahren Gründe nach, die Bruce dazu bewogen haben, die

Reise nach Äthiopien zu unternehmen. Wissen Sie vielleicht, ob ... nun, ich meine, besteht die Möglichkeit, daß er Freimaurer war?«

Elgin schien für einen Moment verblüfft. »Aber junger Mann«, gab er zurück, »natürlich war er Freimaurer. Das war ein wichtiger, sehr wichtiger Bestandteil seines Lebens.«

TEIL III: LABYRINTH

Kapitel 8

Nach Äthiopien

Lord Elgin bestätigte meine Vermutungen: Als Mitglied der Canongate Kilwinning Loge Nummer zwei in Edinburgh hatte James Bruce tatsächlich zu den Freimaurern gehört. Elgin hatte mir auch erzählt, daß Bruce der »spekulativen« Seite der Freimaurerei sehr verbunden war, was bedeutete, daß er ein großes Interesse an den esoterischen und okkulten Traditionen der Bruderschaft hatte: Traditionen, zu denen das Tempelrittertum gehörte. Die modernen Freimaurer unterscheiden sich in ihren eher »weltlichen« Auffassungen des Kultes damit erheblich von Bruce; von den Templern und ihrer Geschichte wissen die meisten nichts und kümmern sich auch nicht darum.

Ich war übrigens nie der Überzeugung, daß alle Freimaurer Zugang zum Vermächtnis der Tempelritter hatten; im Gegenteil, man muß annehmen, daß dieses Geheimnis zu allen Zeiten nur einigen wenigen Männern bekannt war. Bruce sah jedenfalls nach dem idealen Kandidaten für diesen inneren Zirkel aus. Er verfügte über eine profunde Bibelkenntnis und ließ sich von der Faszination der mystischen Schriften packen. Nach meinem Treffen mit Lord Elgin fühlte ich mich also sicherer denn je, daß es von. Anbeginn an der Schrein gewesen war, der den schottischen Abenteurer im Jahre 1768 nach Äthiopien gelockt hatte - und nicht etwa der Nil...

Alle Beweise, die ich im Verlauf meiner Untersuchungen ans Licht gebracht hatte, schienen in die Richtung einer fortgesetzten Suche nach der Bundeslade zu deuten - ein geheimes Unternehmen, das in allen Jahrhunderten Reisende und Abenteurer aus den unterschiedlichsten Ländern angelockt hatte -, und alle verfolgten das gleiche erhabene und immerwährende Ziel. War es also nicht möglich, daß die Faszination auch in unserem Jahrhundert noch andauerte? Gab es noch andere, die wie ich

die Bundeslade suchten? Ich hatte mich bemüht, in dieser Frage immer unvoreingenommen zu bleiben, und doch begann ich, Männer wie James Bruce oder Christopher da Gama zu meinesgleichen zu zählen. Und so war es für mich höchste Zeit, nach Äthiopien zurückzukehren, um das, was bisher mehr oder weniger eine intellektuelle Übung war, um genaue Untersuchungen vor Ort zu ergänzen.

Schwierige Zeiten

Ich traf diese Entscheidung schon im Juni 1989, aber es verstrichen mehrere Monate, bevor ich meinen Plan in die Tat umsetzen konnte. Der Grund dafür war der 19. Mai desselben Jahres, an dem in Addis Abeba ein Putschversuch stattfand, der das Land in große Unruhe stürzte.

Die Regierung von Präsident Mengistu Haile Mariam konnte sich nur unter schweren Opfern halten. Nachdem der Staub sich gelegt hatte, waren einhundertsechsundzwanzig Offiziere verhaftet worden, darunter nicht weniger als vierundzwanzig Generäle. Der Oberbefehlshaber der Luftwaffe und der Stabschef entzogen sich der Verhaftung durch Selbstmord. Elf weitere Generäle wurden während der Kämpfe getötet, der Verteidigungsminister von den Putschisten erschossen.

Das fast vollständig zerschlagene Offizierskorps ließ die militärische Aktionsfähigkeit des Regimes auf Null sinken, ein Zustand, der sich an den Fronten sehr schnell bemerkbar machte. In den Monaten nach dem Putschversuch mußte die äthiopische Armee eine Reihe vernichtender Niederlagen hinnehmen, was bis zum vollständigen Rückzug aus der Provinz von Tigre führte, die von der TPLF zur »befreiten Zone« erklärt wurde. Auch weite Teile Eritreas waren nicht mehr unter Kontrolle der Armee, und die Eritreische Volksbefreiungsfront EPLF schuf bereits die Grundlagen für einen unabhängigen Staat. Auch in anderen Gebieten breiteten sich die Kämpfe mit einer alarmierenden Geschwindigkeit aus.

Der größte Rückschlag aber - zumindest aus meiner eigennützigen Perspektive - war, daß die Regierung Aksum aufgeben mußte. Die heilige Stadt war Ende 1988 von der TPLF eingenommen worden - bereits einige Monate vor dem Staatsstreich in Addis Abeba. Ich hatte zunächst gehofft, daß dies nur ein vorübergehender Zustand sein würde. Nach den Geschehnissen im Mai 1989 mußte ich mich allerdings mit der Möglichkeit abfinden, daß die Guerilla Aksum auf unbestimmte Zeit würde halten können.

Natürlich gab es immer noch die Alternative, in London Kontakt mit der TPLF zu knüpfen und sie um Zusammenarbeit zu bitten. Ich sah mich allerdings kaum in der Lage, diesen Versuch zu unternehmen. Meine seit langem bestehenden Verbindungen mit der äthiopischen Regierung würden bei der Befreiungsfront mit Sicherheit zu Mißtrauen führen. Wahrscheinlich würde man meine Bitte, nach Aksum zu reisen, rundweg ablehnen. Zudem war ich auch um meine eigene Sicherheit besorgt. Denn selbst wenn man mir die Erlaubnis erteilen würde, bestand noch immer die Möglichkeit, daß irgendein örtlicher Guerillakommandeur mich als bekannten Sympathisanten und Spion des Mengistu-Regimes verhaften und kurzerhand erschießen lassen würde.

In der unsicheren Atmosphäre nach dem Putschversuch war es kaum möglich, Pläne zu machen, so daß ich mich den Sommer über auf andere Aspekte meiner Nachforschungen konzentrierte.

Ein geheimes Versteck?

Im Spätherbst 1989 erhielt ich eine Information, die mich meine Bemühungen um die Einreise nach Äthiopien verstärken ließ. Sie kam von Hochwürden Liqa Berhanat Solomon Gabre Selassie. Dem Mann mit dem langen Namen - und dem ebensolangen grauen und vollen Bart - begegnete ich zum erstenmal am 12. Juni 1989. Als Erzpriester der äthiopisch-orthodoxen Kirche

in Großbritannien war er genaugenommen ein Missionar. Das Patriarchat in Addis Abeba hatte ihn vor einigen Jahren nach England geschickt, um die orthodoxe Botschaft zu verbreiten. Erzpriester Solomon war für mich das genaue Abbild eines alttestamentarischen Patriarchen. Die ehrwürdige Erscheinung, die absolute Überzeugung in den Dingen seines Glaubens, die scharfsinnigen Reaktionen und der verschmitzte Blick ergaben eine charismatische Persönlichkeit, die zudem eine natürliche Bescheidenheit ausstrahlte.

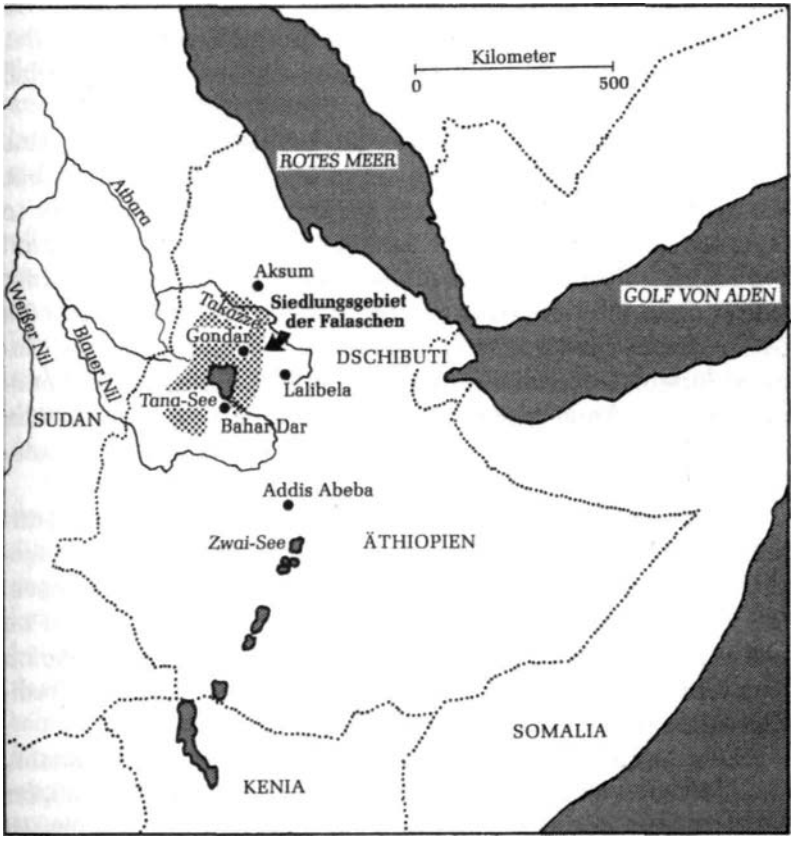

Im Verlauf unserer Unterhaltung wurde mir schnell klar, daß Solomon fest davon überzeugt war, daß der heilige Schrein in Äthiopien war. Dieser intelligente und offensichtlich hochgebildete Mensch, dessen sichere Bibelkenntnis ein langes Studium verriet, drückte seine Meinung mit ruhiger Bestimmtheit aus, die keinen Irrtum zuzulassen schien.

Ich machte mir sorgfältig Notizen, als er noch einmal eindringlich auf diesen Punkt hinwies: »Die echte Bundeslade, die am Fuße des Berges Sinai gebaut wurde, um die Steintafeln mit den Zehn Geboten aufzubewahren, eben dieser einzigartige Gegenstand befindet sich nun in Aksum. Und auch heute besitzt der Schrein Dank Gottes Gnaden noch seine große Macht. Das Volk von Tigre beschützt ihn, er ist in den sicheren Händen der Kirche und der gläubigen Menschen, die ihn ohne Unterlaß bewachen.«

Bevor wir uns trennten, übergab ich dem Erzpriester eine Liste mit fünfzehn Fragen, um deren Beantwortung ich ihn bat Als sein Brief Mitte Juli eintraf, befand ich mich allerdings in Ägypten, und nach meiner Rückkehr überflog ich die halb mit der Hand, halb mit der Schreibmaschine beschriebenen Blätter nur flüchtig. Ich war so beschäftigt, daß ich mir nicht einmal die Mühe machte, mich kurz zu bedanken. In einem müßigen Moment Anfang November lenkte ich meine Aufmerksamkeit endlich auf den Fragebogen. Ich entdeckte, daß er alle fünfzehn Punkte sorgfältig beantwortet hatte, und einige seiner Erläuterungen waren außerordentlich interessant.

Ich wollte zum Beispiel wissen, ob die angeblich »übernatürlichen« Kräfte der Lade je von den Herrschern Äthiopiens eingesetzt worden waren, um den Sieg in einer Schlacht zu erringen. Die Bibel verweist sehr deutlich auf derartige Situationen im alten Israel. Wenn die Bundeslade also wirklich in Äthiopien war, mußte man dann nicht annehmen können, daß diese Tradition fortgesetzt wurde?

»Den Lehren unserer Kirche zufolge«, antwortete Solomon, »ist Gott die einzige Macht im Universum. Er ist der Schöpfer allen Lebens, des sichtbaren und des unsichtbaren. Er selbst ist

das unvorstellbare ewige Leben, das uns Licht und Kraft und Gnade spendet. Es gibt jedoch eine faßbare Dimension, in der wir die Beziehung zwischen Gott und der Bundeslade verstehen können, enthält doch der Schrein die Zehn Heiligen Worte des Gesetzes, deren Macht unvermindert anhält. Bis zum heutigen Tag liegt der Segen des Herrn auf der Bundeslade, und im Namen Gottes ist sie heilig und von großer spiritueller Bedeutung.«

»Die Herrscher Äthiopiens«, las ich weiter, »wußten das. Der Schrein sollte das orthodoxe Christentum schützen und verteidigen. In den vielen Kriegen, die in den Jahrhunderten geführt wurden, versicherten sie sich der Hilfe der Lade als Quelle geistiger Stärke gegen die Angreifer. Die Könige versammelten das Volk zur Schlacht um sich, und die Priester erhoben sich wie an dem Tag, an dem Josua die Lade um die Stadtmauern von Jericho trug. So führten auch unsere Priester den Schrein mit sich, sangen zum Ruhme Gottes und gingen in die Schlacht.«

Das Heiligtum als Kriegswaffe - als sehr effektive dazu - war offenbar nicht nur in der fernen Vergangenheit benutzt worden. Im Gegenteil: »Erst 1896, als der König der Könige, Menelik II., in der Schlacht von Adua gegen die italienischen Aggressoren kämpfte, trugen die Priester den Schrein ins Feld und stellten sich den Eindringlingen entgegen. Menelik ging siegreich aus dem Kampf hervor und kehrte in großen Ehren nach Addis Abeba zurück.«

Ich las diese Stelle mit einigem Interesse, denn ich wußte, daß Menelik II. im Jahre 1896 tatsächlich sehr siegreich war. In diesem Jahr waren siebzehntausend italienische Soldaten unter dem Kommando General Baratieris in das abessinische Hochland vorgerückt. Die Truppen waren mit den modernsten Waffen und schwerer Artillerie ausgerüstet und hatten den Auftrag, das gesamte Land zu kolonialisieren. Meneliks Männer, die schlecht vorbereitet und weit weniger gut bewaffnet waren, trafen am Morgen des 1.März auf die Italiener - und gewannen in weniger als sechs Stunden eine Schlacht, die ein Historiker später als »den bemerkenswertesten Sieg einer afrikanischen

über eine europäische Armee seit Hannibal« bezeichnete.[1] Im gleichen Tenor kommentierte die Londoner Zeitung *Spectator* vom 7.März 1896 das Ereignis: »Die Italiener haben eine große Niederlage erlitten ... So etwas ist den Weißen in Afrika noch nie zugestoßen.«

Der Hinweis, daß die Lade in der Schlacht von Adua eingesetzt worden war, beschäftigte mich sehr: War es nicht möglich, daß der Schrein auch heute noch benutzt wurde, vielleicht von der TPLF, die nun die Kontrolle über Aksum hatte, und die in den vergangenen Monaten sehr erfolgreich war? Solomon äußerte keine derartigen Vermutungen. Statt dessen entwarf er auf meine Frage, die die Sicherheit des Schreins in den Wirren dieser Monate betraf, ein vollständig anderes Szenario.

Als ich im Juni mit ihm gesprochen hatte, schien er noch davon überzeugt, daß die Lade sich an ihrem Platz in Aksum befinde und vom Volk beschützt werde. Dessen war er sich nicht mehr sicher. »In Zeiten großer Unruhe und Gewalt gab es einige sehr seltene Fälle«, erklärte er, »in denen der Wächter den Schrein unter Tüchern verbarg und ihn aus Aksum heraus in Sicherheit brachte. Wir wissen, daß dies im sechzehnten Jahrhundert geschah, als Aksum von den muslimischen Horden Ahmed Gragns besetzt und zum großen Teil zerstört wurde. Der Mönch brachte die Lade zum Kloster Daga Stephanos auf einer Insel im Tanasee. Dort wurde sie an einem geheimen Ort versteckt.«

Es war die letzte Bemerkung des Erzpriesters, die mich schlagartig aufmerksam werden ließ: Unter den gegenwärtigen Umständen von Krieg und Chaos in Tigre, schrieb er, sei es möglich, daß der Wächter das Heiligtum aus Aksum entfernt habe ...

Zwei Seen, zwei Inseln

Am 14. November 1989 flog ich nach Addis Abeba. Wenn die Schlußfolgerungen des Erzpriesters zutrafen, war es dann nicht naheliegend, daß das Heiligtum von Aksum nun auf der Kloster-

insel von Daga Stephanos versteckt wurde, an jenem »geheimen Platz«, an den es schon einmal gebracht worden war?

Es gab jedoch einen weiteren Ort, der in Frage kam. Ich erinnerte mich sehr gut an einen Satz von Dr. Belai Gedai, der mir bei einem unserer vielen Telefongespräche von einer früheren Überlieferung berichtet hatte, nach der die Lade schon einmal, während des Aufstandes der Königin Gudit im zehnten Jahrhundert, in Sicherheit gebracht worden war, und zwar auf eine der Inseln im Zwaisee. Ich wollte also beide Seen überprüfen: Der Tanasee lag im Norden des Landes in einer Region, die noch von den Regierungstruppen kontrolliert wurde; der Zwaisee im Süden von Addis Abeba, also auf ungefährlichem Gebiet.

Ich hatte England kaum eine Woche nach der Lektüre des Briefes von Solomon verlassen, und der Grund, warum ich mich nun so in Eile befand, war höchst einfach: Obgleich das Gebiet um den Zwaisee zumindest im Moment nicht vom Krieg bedroht war, so gab es absolut keine Garantie dafür, daß der Norden des Landes noch lange in der Hand der Regierung bleiben würde. Die Streitkräfte der Rebellen hatten bereits die Stadt Gondar eingeschlossen, die nur fünfzig Kilometer nördlich des Tanasees lag. Unterdessen hatte es auch schon sporadische Artillerieangriffe auf den Hafen von Bahar Dar am Südufer des Sees gegeben. Bahar Dar war der einzige Weg, auf dem ich Daga Stephanos erreichen konnte. Ich wußte also, daß ich keine Zeit verlieren durfte.

Es kam natürlich nicht in Frage, den normalen bürokratischen Weg zu beschreiten, um eine Reiseerlaubnis für das Inland zu bekommen. Begleitet von meinem alten Freund Richard Pankhurst, machte ich mich zu einem Treffen mit einem hochrangigen Beamten auf. Shimelis Mazengia war der Chefideologe des Regimes und eines der führenden Mitglieder des Politbüros der Äthiopischen Arbeiterpartei.

Der hochgewachsene, schlanke und fließend Englisch sprechende Shimelis mußte in den Vierzigern sein. Er war überzeugter Marxist, aber gleichzeitig einer der intelligentesten und kultiviertesten Männer der Regierung. Sein Einfluß innerhalb des

Regimes war beträchtlich, und ich wußte, daß er ein echtes Interesse für die Geschichte seines Landes besaß. Es war also gut möglich, daß er seinen Einfluß einsetzen würde, um unsere Arbeit zu unterstützen. Und tatsächlich sollte ich nicht enttäuscht werden. Nachdem ich mein Projekt umrissen hatte, stimmte er unserer Exkursion zu den Seen bereitwillig zu. Die einzige Bedingung bestand darin, daß unser Aufenthalt in der Tana-Region so kurz wie möglich sein sollte. »Haben Sie einen Zeitplan ausgearbeitet?« fragte er.

Ich zog mein Notizbuch hervor und schlug nach kurzer Überlegung den 20. November als Abreisetag vor: »Ich fliege nach Bahar Dar, miete bei den Marinebehörden ein Boot, besuche Daga Stephanos und komme am... sagen wir Mittwoch, den 22. zurück nach Addis. Das sollte hinkommen. Wenn Sie damit einverstanden sind, würde ich dann am 23. runter zum Zwaisee fahren.«

Shimelis wandte sich an Richard: »Und Sie werden mitreisen, Professor?«

»Wenn das möglich ist, gerne.«

»Selbstverständlich ist das möglich.«

Shimelis telefonierte sofort mit dem Hauptquartier der Sicherheitspolizei in Addis Abeba und sprach mit einem hochgestellten Beamten. Nachdem er aufgelegt hatte, teilte er uns mit, daß wir die Reisegenehmigungen am Nachmittag abholen könnten.

»Und kommen Sie nächsten Freitag zu mir«, sagte er, »wenn Sie von Ihrer Reise zurück sind. Sie können mit meiner Sekretärin einen Termin ausmachen.«

Wir verließen das Parteigebäude in bester Laune. »Ich hätte nie gedacht, daß es so einfach sein würde«, sagte ich zu Richard.

Kapitel 9

Der heilige See

Nach einem neunzigminütigen Flug erreichten wir Bahar Dar am Südende des Tanasees. Trotz der Kämpfe in diesem Gebiet konnten wir keine besonderen Vorkehrungen beim Landeanflug beobachten; das Flugzeug beschrieb einen langsamen und weitgestreckten Bogen über den malerischen Nil-Fällen, bevor es auf der holprigen Sandbahn aufsetzte.

In einem großen Hotel am Ufer des Sees bezogen wir zwei der hundert leerstehenden Zimmer und fuhren dann zum Pier der Marinebehörden, wo die Barkasse vertäut lag, die wir hoffentlich würden mieten können. Nach langwierigen Verhandlungen mit den zuständigen Beamten erhielten wir schließlich die Genehmigung, das Boot zu chartern - allerdings erst für den nächsten Tag, den 21. November, und auch nur unter der Voraussetzung, daß wir bereit waren, die räuberische Summe von fünfzig US-Dollar pro Stunde zu zahlen. Verärgert ging ich auf diese erpresserische Forderung ein und verlangte, daß das Boot am frühen Morgen um fünf Uhr zum Auslaufen bereit liegen müsse.

Um die Zeit am Nachmittag totzuschlagen, verließen wir Bahar Dar in Richtung des nahegelegenen Dörfchens Tisisat. Von dort aus unternahmen wir einen Fußmarsch durch die gelbbraun gefärbte Landschaft, bis wir eine Steinbrücke erreichten, die sich über eine tiefe Felsschlucht spannte. Sie war im frühen siebzehnten Jahrhundert von Portugiesen erbaut worden und machte nicht gerade einen vertrauenerweckenden Eindruck; Richard versicherte mir jedoch, daß sie noch begehbar sei. Wir überquerten die Brücke, erklommen einen Hügel - und sahen uns plötzlich zwei Milizsoldaten gegenüber, die aus einem Gebüsch hervortraten. Sie durchsuchten uns, überprüften unsere Pässe - zumindest gaben sie vor, das zu tun, denn meinen hielten sie auf dem Kopf- und ließen uns schließlich passieren.

Nach etwa fünfzehn Minuten auf einem von dichtem tropischen Bewuchs gesäumten, schmalen Ziegenpfad spürten wir unter den Füßen ein tiefes und donnerndes Vibrieren. Im Weitergehen bemerkten wir die zunehmende Luftfeuchtigkeit, und nach einer kurzen Weile konnten wir den ersten Blick auf das Ziel unseres Ausflugs werfen: den eindrucksvollen Basaltfelsen, über den sich der Blaue Nil mit gewaltiger Kraft hinunterstürzt, bevor er seine weite Reise durch das abessinische Hochland bis nach Ägypten antritt.

Der volkstümliche Name für den Blauen Nil - und für das Dorf, durch das wir gekommen waren - ist »Tisisat«, was soviel bedeutet wie »Wasser, das dampft«. Als ich hingerissen die Regenbögen bestaunte, die in den feinen Gischtschleiern des kochenden Kataraktes hingen, wurde mir klar, woher dieser Name kam.

Der Anblick erinnerte mich an die Beschreibungen des schottischen Entdeckers James Bruce, nichts schien sich seitdem geändert zu haben, und ich war erstaunt von der Genauigkeit seiner Beobachtungen:

»Der Fluß fällt in einer einzigen Wasserwand und ohne Unterlaß auf einer Breite von etwa einer halben englischen Meile mit einer Kraft und Lautstärke, die wahrlich furchteinflößend ist, und die mich überwältigte und für einen Augenblick völlig benommen werden ließ. Dichte Schwaden verhüllen den Wasserfall, hängen sowohl oben als auch unten über dem Fluß und bezeichnen so seinen Lauf, obgleich man das Wasser nicht sehen kann. Es war ein großartiger Anblick, der sich meinem Geist für alle Ewigkeiten einprägen wird; er traf mich mit einer Art Erstarrung und ließ mich alles Irdische und den Ort, an dem ich war, vergessen .. .<[1]

Wenig später begannen wir unseren Rückmarsch in Richtung Tisisat, umringt von Kindern, die plötzlich aufgetaucht waren, um Geld, Süßigkeiten oder Kugelschreiber zu erbetteln. Bisher hatte dieser Nachmittag etwas sehr Idyllisches, Friedliches und Ländliches gehabt. Sogar die Milizsoldaten, die uns durchsucht hatten, waren so träge und gut gelaunt, daß sie das

Bild nicht störten. Als wir jedoch in der ersten Abenddämmerung die Brücke der Portugiesen überquerten, sahen wir uns unversehens einem Schauspiel gegenüber, das so gar nicht zu dieser Stimmung passen wollte. Aus der Gegenrichtung näherten sich mindestens dreihundert schwerbewaffnete Soldaten in Kampfanzügen.

Es war nicht auszumachen, ob es Regierungstruppen oder Rebellen waren. Die Soldaten trugen keine Regimentsabzeichen oder sonstige identifizierbare Ausrüstungsgegenstände. Um die Disziplin der Truppe schien es nicht gut bestellt zu sein, und es war zweifelhaft, ob sie unter dem Kommando eines Offiziers standen. Ohne erkennbare Marschordnung kamen uns die Soldaten mit finsteren Blicken entgegen. Sie trugen ihre Waffen äußerst nachlässig: Einer benutzte sein Gewehr als Spazierstock, ein anderer trug sein AK 47 mit dem Lauf nach vorn über der Schulter, und ein dritter fuchtelte unachtsam mit einem geladenen Raketenwerfer herum, der ein größeres Gebäude leicht zerstören konnte - oder, um genauer zu sein, die Brücke, auf der wir uns befanden.

Richard, der recht gut Amharisch spricht, grüßte einige Männer aus diesem rauhen Haufen in leutseligem Ton, schüttelte vielleicht einem Dutzend anderen herzlich die Hand und machte übertriebene Gesten der Freundschaft in Richtung der übrigen. »Die glauben, daß alle Fremden leicht verrückt sind«, erklärte er mir, ohne seine Verständigungsbemühungen zu unterbrechen, »und ich passe haargenau in dieses Bild. Glaub mir, das ist das Beste, was man tun kann.«

Ägyptische Schilfboote

Am nächsten Morgen waren wir um fünf Uhr an der Anlegebrücke der Marinebehörden. Kein Mensch war zu sehen und Richard, der sich gegen die Kälte in eine Decke eingewickelt hatte, grummelte etwas vom »Vetake-Syndrom«.
»Was ist denn das?« wollte ich wissen.

»Verabredungen treffen, aber keine einhalten«, brummte der Historiker zurück.

Eine halbe Stunde später erschien der Kapitän der MS Dahlak und mit ihm ein glattrasierter junger Mann in einem gutsitzenden Anzug, der sich in bescheidenen Worten als zweiter stellvertretender Assistent der Regionalverwaltung vorstellte. Sein Name war Wondemu. »Gestern nachmittag hat mein Chef einen Anruf vom Genossen Shimelis Mazengia aus Addis Abeba erhalten. Wir sollen uns um Sie kümmern. Ich bin sofort zu Ihrem Hotel gegangen, aber Sie waren nicht da. Ich erfuhr aber von den Nachforschungen, die Sie heute betreiben wollen. Also«, schloß er mit einem breiten Lächeln, »hier bin ich.«

Um Viertel vor sechs legten wir ab und machten wenig später gute Fahrt voraus in Richtung Daga Stephanos, das etwa dreißig Kilometer nordwärts lag. Über den Bergen, die das südliche Ende des Sees umschlossen, begann die Sonne aufzugehen.

Richard und Wondemu verschwanden bald in der Kabine, um Tee zu trinken und zu plaudern. Hingerissen von dem Blick auf den See und der Romantik des Augenblicks, blieb ich an der Reling stehen und genoß die frische Brise. Allerdings dachte ich auch daran, was diese kleine Vergnügungsfahrt mich kosten würde. Wir brauchten sicherlich zweieinhalb Stunden bis Daga. Ebensolange würden wir uns auf der Insel aufhalten, und dann kam noch die Rückfahrt. Ich würde wohl fast vierhundert Dollar hinlegen müssen.

Ein eindrucksvolles Schauspiel riß mich aus dieser deprimierenden Übung in Kopfrechnen: Zwei einheimische Langboote mit hohen, gebogenen Bugschnäbeln legten vom gegenüberliegenden Ufer ab. Im orangefarbenen Licht der aufgehenden Sonne konnte ich die Silhouetten von fünf oder sechs Männern ausmachen, die in gebückter Haltung und ganz im Gleichklang die Paddel ins Wasser tauchten.

Solche Boote, »Tankwas« genannt, sind ein vertrauter Anblick auf dem Tanasee, und die zwei, die ich nun beobachtete, waren zwar sehr viel größer als diejenigen, die ich kannte, aber

eindeutig in der gleichen Bauart, nämlich aus zusammengeknüpften Schilfbündeln.

Einen erheblichen Teil der vergangenen Monate hatte ich mit der Untersuchung der archäologischen Stätten Ägyptens verbracht, so daß ich nun mit eigenen Augen das sehen konnte, was schon andere Historiker vor mir beobachtet hatten: nämlich daß die äthiopischen »Tankwas« eine starke Ähnlichkeit mit den Schilfbooten besaßen, die schon von den alten Ägyptern als Transportmittel und zum Jagen und Fischen auf dem Nil benutzt worden waren.[2]

In den Grabstätten im Tal der Könige gab es Fresken, die genau solche Wasserfahrzeuge mit hochgezogenen Bugschnäbeln darstellten, und an den Tempelmauern von Karnak und Luxor hatte ich Reliefs mit ähnlichen Bildern entdeckt.

Nicht zum erstenmal überlegte ich, daß die alten Ägypter zum Tanasee gereist sein mußten. Es war nicht nur die Ähnlichkeit in der Konstruktionsweise der Boote, die mich über diese Verbindung nachdenken ließ, sondern auch die Bedeutung des Sees als größtes Reservoir für den Blauen Nil.

Der Tanasee selbst ist nicht der eigentliche Ursprung des großen Flusses. Aus zwei Quellen im Süden des Sees entspringt der »Kleine Abai«, fließt in den Tana und verläßt ihn wieder als der »Große Abai« - der volkstümliche Name für den Blauen Nil. Es ist also der Tanasee, aus dem der Blaue Nil hervorgeht[3], denn der große See wird neben dem »Kleinen Abai« von einer Vielzahl von kleinen Flüssen gespeist. Und so liefert dieses riesige Binnengewässer mit seiner Oberfläche von 3630 Quadratkilometern fast sechs Siebtel der gesamten Wassermenge von Blauem Nil und Weißem Nil.[4] Von lebenswichtiger Bedeutung ist die lange Regenzeit in Äthiopien: Sie führt zu großen Fluten, die sich aus dem Tanasee in den Blauen Nil ergießen, und ist verantwortlich für die jährlichen Überschwemmungen, die seit unvordenklichen Zeiten fruchtbaren Schlamm in das ägyptische Delta tragen. Der viel längere Weiße Nil steuert dazu kaum etwas bei, denn mehr als die Hälfte seiner Wassermenge versickert in den Sumpfgebieten im Süd-Sudan.[5]

Beim Betrachten dieser schilfgeflochtenen »Tankwas« schien es mir fast unvorstellbar, daß die Priester von Karnak und Luxor (die den Nil als lebenspendende Kraft und heiligen Gott verehrten) nicht zu irgendeinem Zeitpunkt ihrer langen Geschichte den Weg nach Äthiopien gefunden hatten. Es gab keine Dokumente, die so etwas bewiesen, und trotzdem war ich mir sicher, daß die alten Ägypter bis zum Tanasee gekommen waren.

Mit Sicherheit wußte der griechische Geograph Strabo (der zur Zeit Christi lebte und in den ägyptischen Wissenschaften sehr bewandert war), daß der Nil einem riesigen See in Äthiopien entsprang, einem See, den er »Pseboe« nannte.[8] In zweiten Jahrhundert nach Christus formulierte der ägyptische Geograph Claudius Ptolemäus eine ähnliche Meinung, auch wenn der Name, den er dem See gab, »Coloe« war.[7] Ich war schließlich der Ansicht, daß der griechische Dramatiker Aischylos im fünften Jahrhundert vor Christus nicht allein von einer poetischen Laune inspiriert worden war, als er den See mit den unvergeßlichen Worten beschrieb: »... dort wo die alles sehende Sonne / stets dem unsterblichen Leibe und den ermatteten Rossen / im warmen Geriesel sanftfließenden Wassers / Erholung vergönnt«[8].

Das waren nicht die einzigen Hinweise, in denen eine Verbindung zwischen den rätselhaften Gewässern des Tana und den alten Kulturen Ägyptens, Griechenlands und des Nahen Ostens hergestellt wurde. Ich wußte, daß die Abessinier selbst der festen Überzeugung waren, daß der Blaue Nil nichts anderes war als der Fluß Gihon in Genesis 2,13 - der »zweite Strom, welcher das ganze Land Äthiopien umfließt«. Und da es sich hier um eine sehr alte, mit einiger Sicherheit vorchristliche Überlieferung handelte, schien meine Vermutung, daß der See mit seinen Zuflüssen und Inseln eine Verbindung zur Bundeslade haben könnte, nicht aus der Luft gegriffen.

Mit einem Anflug von Optimismus sah ich also den grünen Abhängen der Insel Daga entgegen, die sich in einiger Entfernung wie die Spitze eines versunkenen Berges über dem glitzernden Wasser erhoben.

Daga Stephanos

An der hölzernen Anlegestelle wurden wir von einer Gruppe von Mönchen empfangen, die erstaunlich schmutzige Gewänder trugen. Sie hatten unsere Ankunft offensichtlich seit einiger Zeit beobachtet, schienen aber über unseren Besuch nicht im geringsten erfreut zu sein. Wondemu wechselte einige Worte mit ihnen. Schließlich führten sie uns - mit kaum verhohlenem Unwillen - durch eine kleine Bananenplantage und dann über einen steilen, gewundenen Pfad auf die Anhöhe.

Etwa hundert Meter über dem Seespiegel begegneten wir den ersten niedrigen, rohrgedeckten Rundbauten, den Behausungen der Mönche. Durch den Torbogen einer hohen Steinmauer betraten wir einen grasbewachsenen Platz, in dessen Mittelpunkt die Kirche des heiligen Stephanus stand. Im Grundriß hatte sie eine längliche, rechteckige Form mit abgerundeten Ecken und war von einem überdachten Rundgang umgeben.

»Das sieht nicht gerade sehr alt aus«, sagte ich zu Richard.

»Das ist es auch nicht«, gab er zurück. »Die alte Kirche wurde vor etwa hundert Jahren bei einem Brand zerstört.«

»Dann war das die Kirche, in die man im sechzehnten Jahrhundert die Lade gebracht hat?«

»Ja. Übrigens gibt es an dieser Stelle seit mindestens tausend Jahren eine Kirche. Wahrscheinlich schon länger. Daga zählt zu den heiligsten Stätten des Sees. Aus diesem Grund werden hier die mumifizierten Körper von fünf früheren äthiopischen Kaisern aufbewahrt.«

Wondemu sprach unterdessen leise mit den Mönchen. Nun zog er einen der Männer, dessen Kleider in einem etwas besseren Zustand als die seiner Mitbrüder waren, aus der Gruppe heraus und führte ihn zu uns. »Das«, verkündete er stolz, »ist Erzpriester Kifle-Mariam Mengist. Er wird Ihre Fragen beantworten.«

Der Erzpriester schien jedoch in dieser Beziehung eigene Vorstellungen zu haben. Seine runzligen Gesichtszüge drückten eine beunruhigende Mischung von Feindseligkeit, Unmut und

Habgier aus. Wortlos musterte er Richard und mich, dann wandte er sich an Wondemu und flüsterte ihm etwas auf Amharisch zu.

»Aha ...«, seufzte unser Begleiter, »ich fürchte, er will Geld. Sie wollen Kerzen, Weihrauch und... äh... andere notwendige Dinge für die Kirche kaufen.«

»Wieviel?« fragte ich.

»Was Sie für angemessen halten.«

Ich schlug zehn äthiopische Birr vor, etwa fünf US-Dollar, aber Kifle-Mariam bedeutete uns, daß dies nicht ausreichen würde. Er erklärte sogar, die angebotene Summe sei so wenig befriedigend, daß er sich kaum in der Lage sehe, die Banknote aus meinen Händen entgegenzunehmen.

»Ich glaube, Sie sollten mehr zahlen.« Wondemu brachte die Sache auf den Punkt.

»Sehr gerne«, gab ich zurück, »aber ich möchte wissen, was ich dafür bekomme.«

»Er wird mit Ihnen sprechen. Sonst wird er sagen, er hätte zu viel zu tun.«

Nach einigen Verhandlungen einigten wir uns auf dreißig Birr. Die Scheine verschwanden blitzschnell in einer der Taschen seines wenig ansehnlichen Priestergewandes. Wir gingen langsam zu dem Arkadengang hinüber, der die Kirche umgab, und ließen uns im Schatten des überhängenden Daches nieder. Einige der anderen Mönche folgten uns, hielten sich in kontemplativer Haltung in unserer Nähe auf und gaben vor, uns nicht zu belauschen.

Kifle-Mariam Mengist erzählte uns, daß er seit achtzehn Jahren auf der Insel lebe und Experte in allen Dingen sei, die das Kloster beträfen. Als ob er dies unter Beweis stellen wollte, verfiel er in eine Art kurzgefaßter Geschichte Äthiopiens - und redete und redete und redete.

»Gut«, unterbrach ich ihn, nachdem Wondemu mir den Sinn dieser langweiligen Litanei klargemacht hatte. »Natürlich möchte ich gerne einen Überblick bekommen. Aber ich möchte dem Erzpriester zunächst eine konkrete Frage stellen: Man sagte mir, die Bundeslade sei im sechzehnten Jahrhundert hierher

gebracht worden, als Aksum von den Truppen Ahmed Gragns angegriffen wurde. Kennt er diese Geschichte? Ist sie wahr?«

Fünfzehn oder zwanzig Minuten unverständlicher Debatte vergingen, bevor Wondemu mir verkündete, der Priester wisse bestimmt nichts von dieser Geschichte. Aus diesem Grunde sei er auch nicht in der Lage, uns zu sagen, ob sie wahr oder falsch sei.

Ich versuchte es in eine andere Richtung. »Haben sie ein eigenes >Tabot<? Hier? In dieser Kirche?« Ich gestikulierte in Richtung des Eingangs zum Allerheiligsten, der im Dämmerlicht der Kirche kaum sichtbar war.

Nach einem weiteren Frage-und-Antwort-Spiel auf Amharisch sagte Wondemu: »Ja. Natürlich gibt es hier ein >Tabot<.«

»Fein. Ich bin froh, daß wir wenigstens das herausbekommen haben. Fragen Sie ihn, ob sie ihr >Tabot< als Kopie, als Replik des echten >Tabot< in Aksum verstehen.«

»Vielleicht«, war die rätselhafte Antwort.

»Ich verstehe. Na gut. Dann fragen Sie ihn doch bitte, ob er etwas von der Bundeslade weiß. Wie kam sie nach Aksum? Wer brachte sie dorthin? Er soll die Geschichte mit seinen eigenen Worten erzählen.«

Es kam eine prompte und nichtssagende Antwort. »Er sagt, er wisse nichts davon«, übersetzte Wondemu mit düsterer Miene. »Er sagt, er kenne sich in diesen Dingen nicht aus.«

»Gibt es irgend jemanden, der sich damit auskennt?« fragte ich verärgert.

»Nein. Kifle-Mariam Mengist ist der höchste Priester auf dieser Insel. Wenn er nichts weiß, ist es unmöglich, daß ein anderer etwas weiß.«

Ich sah zu Richard hinüber: »Was ist hier los? Ich habe noch nie, niemals, einen Äthiopier getroffen, der nichts von der Geschichte des Kebra Nagast über die Bundeslade wußte.«

Der Historiker zuckte die Achseln. »Ich auch nicht. Das ist tatsächlich sehr merkwürdig. Vielleicht solltest du ihm ... nun, einen weiteren Anreiz geben.«

Ich seufzte. Es lief immer auf Geld hinaus. Aber wenn ein

paar Birr mehr diesen schweigsamen Bastard zum Reden bringen würden, war es sicherlich am besten, schnell zu zahlen. Schließlich war ich den ganzen Weg von London hierhergekommen, um Daga Stephanos zu untersuchen; und am Anlegesteg lag die MS Dahlak, deren Zähler jede Minute einen weiteren Dollar anzeigte. In grimmiger Resignation ließ ich weitere zerknitterte Scheine auf die andere Seite wandern.

Diese großzügige Aktion war jedoch nicht zu meinem Vorteil. Der Priester hatte nichts Wichtiges mehr zu sagen. Als mir das endlich klar war, lehnte ich mich an einen der Dachpfeiler zurück, inspizierte meine Fingernägel und versuchte, zu einer Entscheidung zu kommen.

Es konnte nur zwei Erklärungen für die offensichtliche Unwissenheit Kifle-Mariams geben. Die weniger wahrscheinliche war, daß der Mann einfach dumm war. Die näherliegende war: Er log.

Aber warum sollte er lügen? Auch dafür konnte es zwei Gründe geben: Er hatte etwas Wichtiges zu verbergen, oder - und das war am glaubhaftesten - er wollte mein immer dünner werdendes Bündel äthiopischer Geldscheine noch um einige Banknoten erleichtern.

Ich stand auf und sagte zu Wondemu: »Fragen Sie ihn noch einmal. Fragen Sie ihn, ob die Bundeslade im sechzehnten Jahrhundert hierher gebracht wurde ... Und fragen Sie ihn, ob sie hier ist. Sagen Sie ihm, ich würde seine Mühe lohnen, wenn er sie mir zeigt.«

Unser Dolmetscher zog spöttisch eine Augenbraue in die Höhe. Was ich ihm vorgeschlagen hatte, war nicht gerade taktvoll. »Los«, drängte ich, »fragen Sie ihn.«

Noch mehr Amharisch, dann Wondemus Antwort: »Er sagt nichts anderes. Er weiß nichts von der Bundeslade. Aber er sagt auch, daß für eine lange Zeit nichts von außerhalb nach Daga gebracht wurde.«

Die Mönche, die im Halbkreis um uns herum dem Gespräch gefolgt waren, zerstreuten sich langsam. Einer jedoch, barfuß, zahnlos und in derartig armselige Lumpen gehüllt, daß man ihn

gut für irgendeinen Bettler in Addis Abeba hätte halten können, begleitete uns auf dem Rückweg zur Anlegestelle. Bevor wir an Bord gingen, zog er Wondemu beiseite und flüsterte ihm etwas ins Ohr.

»Was war das?« fragte ich heftig und erwartete eine weitere Geldforderung.

Diesmal ging es jedoch nicht um Geld. Wondemu runzelte die Stirn: »Er sagt, wir sollen nach Tana Kirkos fahren. Scheinbar sollen wir dort etwas über die Lade herausfinden ..., etwas Wichtiges.«

»Was ist Tana Kirkos?«

»Das ist eine andere Insel, östlich von hier. Ziemlich weit weg.«

»Bitten Sie ihn, uns mehr zu erzählen. Was meint er mit >etwas Wichtiges<?«

Wondemu fragte nach und übersetzte die Antwort: »Er sagt, daß die Bundeslade sich auf Tana Kirkos befindet. Das ist alles, was er weiß.«

Auf diese überraschende Nachricht schickte ich einen verzweifelten Blick zum Himmel, fuhr mir erregt durchs Haar und versetzte der Reling des Motorbootes einen Tritt. Unterdessen humpelte der Mönch davon und verschwand in den Bananenpflanzungen.

Ich sah auf die Uhr. Es war fast Mittag, wir waren also seit sechs Stunden - oder für dreihundert Dollar - unterwegs.

»Liegt Tana Kirkos auf unserem Rückweg?« fragte ich Wondemu.

»Nein«, gab er zurück. »Ich war noch nie dort. Da fährt niemand hin. Aber ich weiß, daß es im Osten liegt. Bahar Dar liegt im Süden.«

»Ich verstehe. Haben Sie eine Vorstellung, wie lange wir dorthin brauchen?«

»Nein. Ich frage den Kapitän.«

Es würde etwa anderthalb Stunden dauern.

»Und dann? Zurück nach Bahar Dar?«

»Noch einmal drei Stunden.«

In Sekundenschnelle überschlug ich die Rechnung. Sagen wir zwei Stunden nach Tana Kirkos, anderthalb Stunden Aufenthalt, dann drei Stunden nach Bahar Dar, das macht zusammen etwa sieben, dazu die sechs Stunden bis zu diesem Zeitpunkt. Das sind, einen Moment, dreizehn Stunden. Dreizehn verdammte Stunden. Und fünfzig Scheine pro Stunde. Mindestens sechshundertfünfzig Dollar insgesamt. O Gott.

In mir rumorte es noch eine Weile. Schließlich entschied ich mich mit schwerem Herzen und leichter Brieftasche. Wir machten uns auf den Weg.

Natürlich würde die Lade nicht auf Tana Kirkos sein, das war mir klar. Im Gegenteil, ich hatte das Szenario schon vor Augen: Man würde uns hinhalten, wie auf Daga Stephanos, mir das Geld stückchenweise aus der Tasche ziehen, bis meine Geduld erschöpft war. Dann ein kleiner verlockender Hinweis auf eine weitere Insel, wo wir noch einer Bruderschaft bedürftiger Einsiedler Spenden zukommen lassen würden.

Auch James Bruce hatte den Tanasee besucht, und ich erinnerte mich an seine Worte: »Es gibt fünfundvierzig bewohnte Inseln auf dem See, wenn man den Abessiniern glauben will, die in allen Dingen sehr große Lügner sind .. .«[9]

Tana Kirkos

Als wir Tana Kirkos erreichten, war ich nicht gerade in guter Gemütsverfassung. Trotzdem, ich mußte zugeben, daß es ein ungewöhnlich schöner Ort war. Ganz bedeckt mit grünem Gebüsch, hochaufragenden Kakteen und blühenden Blumen, erhob sich die Insel über dem Wasser. Auf einer Anhöhe konnte ich die Dächer von Rundbauten erkennen. Eisvögel und hellblaue Stare schossen durch die Luft. Am Strand der sandigen Bucht stand eine Gruppe von Mönchen auf einem behelfsmäßigen Steg. Sie lächelten.

Wir gingen vor Anker und kletterten aus dem Boot. Wondemu machte die übliche Vorstellungsrunde und erklärte, war-

um wir gekommen waren. Hände wurden geschüttelt und langwierige Begrüßungen ausgetauscht. Dann führte man uns auf einem schmalen, überwachsenen Pfad, der aus dem Fels herausgehauen worden war, bis zu einem Torweg. Schließlich erreichten wir einen Platz mit drei oder vier verfallenen Gebäuden und einem Dutzend zerlumpter Mönche.

Das Licht drang nur gedämpft durch den dichten Baumbewuchs, und der Ort lag dunkel, still und abgeschlossen hinter einer Steinmauer. Trotz der schlechten Erfahrungen bisher hatte ich plötzlich das Gefühl, daß sich die Reise hierher gelohnt haben könnte. Ich hatte keine Erklärung dafür, aber Tana Kirkos schien irgendwie »richtig« - ganz im Gegensatz zu Daga Stephanos.

Der Erzpriester des Klosters erschien und stellte sich als Memhir Fisseha vor. Er war von magerer Gestalt und roch nach Weihrauch. Und er erkundigte sich nicht etwa nach Geld, sondern nach unserer Reisegenehmigung. Diese Frage verblüffte mich, kam sie doch von einer so altehrwürdigen Erscheinung in Priestergewändern.

»Natürlich haben wir eine Genehmigung«, sagte ich, zog das Dokument hervor und gab es Wondemu, der es an Memhir Fisseha weiterreichte. Der alte Mann studierte das Papier zerstreut, schien zufrieden und gab es zurück.

Wondemu erklärte nun, daß wir etwas über Tana Kirkos und die Bundeslade erfahren wollten. Ob das möglich sei?

»Ja«, antwortete der Priester - ein wenig schwermütig, wie mir schien. Er führte uns zu einem Eingang, hinter dem, den rußgeschwärzten Töpfen und Pfannen nach zu urteilen, die Küche lag. Er ließ sich auf einem kleinen Hocker nieder und bedeutete uns, daß wir ihm folgen sollten.

»Glauben Sie«, begann ich, »daß Kaiser Menelik I. die Bundeslade von Jerusalem nach Äthiopien gebracht hat?«

»Ja«, übersetzte Wondemu.

Ich stieß einen Seufzer der Erleichterung aus. Das war schon viel besser als auf Daga Stephanos.

»Man hat mir erzählt«, fuhr ich fort, »daß die Bundeslade hier ist, auf der Insel Tana Kirkos. Ist das wahr?«

Ein schmerzlicher Ausdruck überflog die ledrigen Gesichtszüge Memhir Fissehas, als er antwortete: »Das war einmal so.«

War? Was im Himmel sollte das bedeuten? Ich war einigermaßen aufgeregt. »Das soll er genauer sagen«, fuhr ich Wondemu an. »Was heißt >das war einmal so<?«

Die Antwort des Priesters erregte mich noch mehr: »Es war einmal so. Aber die Bundeslade ist nicht mehr hier. Man hat sie nach Aksum gebracht.«

»Zurück nach Aksum?« rief ich aus. »Wann? Wann hat man sie zurückgebracht?«

Eine ausgedehnte Diskussion auf Amharisch folgte, deren Hauptpunkt offensichtlich wiederholt besprochen wurde. Endlich übersetzte Wondemu: »Die Lade wurde vor eintausendsechshundert Jahren nach Aksum gebracht, zur Zeit des Königs Ezana. Sie wurde nicht zurückgebracht. Sie wurde einfach nach Aksum gebracht und befindet sich seitdem an diesem Ort.«

Ich war verwirrt und enttäuscht: »Das muß ich genau wissen«, sagte ich. »Er sagt nicht, daß die Lade kürzlich hier war und nun nach Aksum zurückgebracht wurde, oder? Er meint, daß sie vor langer Zeit einmal hier war.«

»Genau. Vor eintausendsechshundert Jahren. Das sagt er.«

»Gut, dann fragen Sie ihn folgendes: Wie kam die Lade zum erstenmal hierher? Kam sie von Aksum und wurde dann wieder dorthin gebracht? Oder war sie hier, bevor sie nach Aksum kam? So scheint es ja zu sein, aber ich möchte ganz sicher gehen.«

Nach und nach kam die Geschichte zum Vorschein, und das war so mühsam, als wollte man einen Baumstumpf aus dem Boden ausgraben. Der Priester hielt mehrere Male Rücksprache mit seinen Mönchen, und schließlich zog man einen großen ledergebundenen Band in Ge'ez zu Rate und verlas eine Passage daraus.

Was Memhir Fisseha uns sagte, war kurzgefaßt dies: Die Bundeslade wurde von Menelik und seinen Begleitern aus Salomos Tempel gestohlen. Sie wurde aus Israel nach Ägypten gebracht. Von dort aus folgten die Männer dem Lauf des Nils

und dann seinem Nebenfluß Takazze, bis sie Äthiopien erreichten.

Soweit entsprach die Geschichte der Legende, wie sie das Kebra *Nagast* berichtet. Was dann folgte, war jedoch völlig neu.

Auf der Suche nach einem sicheren und angemessenen Platz für die kostbare Reliquie, so fuhr der alte Priester fort, erreichten die Männer den Tanasee, der schon zu dieser Zeit ein heiliger Ort war. Es war Gottes See. So waren sie zum Tanasee gekommen und hatten diese Insel auserwählt.

»Wie lange blieb die Lade hier?« fragte ich.

»Achthundert Jahre lang«, kam die Antwort, »segnete sie uns mit ihrer Gegenwart.«

»Gab es ein Gebäude auf der Insel? Hat man einen Tempel für die Lade gebaut?«

»Es gab keinen Tempel. Die heilige Lade wurde in einem Zelt aufbewahrt. In diesem Zelt, hier auf Tana Kirkos, blieb sie achthundert Jahre. Zu dieser Zeit waren wir Juden. Als wir Christen wurden, brachte König Ezana die Lade nach Aksum und stellte sie in der großen Kirche dieser Stadt auf.«

»Und Sie sagen, die Bundeslade sei vor eintausendsechshundert Jahren nach Aksum gebracht worden?«

»Ja.«

»Wenn sie also achthundert Jahre auf Tana Kirkos war, dann muß sie hier vor ..., nun, vor zweitausendvierhundert Jahren eingetroffen sein. Stimmt das? Vierhundert Jahre vor Christi Geburt?«

»Ja.«

»Aber zu diesem Zeitpunkt war Salomo bereits seit rund fünfhundert Jahren tot. Wie kann man das erklären?«

»Das weiß ich nicht. Ich habe Ihnen die Überlieferung erzählt, wie sie in den heiligen Büchern und in unserer Erinnerung verzeichnet ist.«

Eine Bemerkung, die der Priester schon einige Augenblicke vorher von sich gegeben hatte, interessierte mich besonders, und ich kam darauf zurück: »Sie sagten, daß Sie zu dieser Zeit Juden waren? Welcher Religion gehörten Sie an?«

»Wir waren Juden«, wiederholte der Mönch, »wir verrichteten Opferdienst..., das Opferlamm. Und wir setzten diesen Brauch fort, bis die Lade nach Aksum gebracht wurde. Dann kam Abba Salama und lehrte uns den christlichen Glauben, und wir erbauten hier eine Kirche.«

Abba Salama war der äthiopische Name für Frumentius, der um 330 nach Christus König Ezana und das aksumitische Königreich zum Christentum bekehrt hatte. Das bedeutete, daß die Zeitabschnitte, die Memhir Fisseha genannt hatte, einen Sinn ergaben. Zumindest widersprachen sie sich nicht. Das einzige Problem war das große Loch, das zwischen Salomo im neunten Jahrhundert vor Christus und dem mutmaßlichen Eintreffen der Lade auf Tana Kirkos um 470 vor Christus klaffte.

Ich drängte weiter: »Und es gab keine Kirche hier, bevor Abba Salama Sie zum Christentum führte?«

»Nein, keine Kirche. Ich sagte es Ihnen schon. Wir waren Juden. Wir brachten Opfer dar.« Er hielt inne, dann fügte er hinzu: »Das Blut des Lamms wurde in einer Schale aufgefangen ..., in einem >gomer<. Dann versprengte man es über einige Steine, kleine Steine. Sie sind hier, es gibt sie noch, bis zum heutigen Tag.«

»Entschuldigung, bitte noch einmal. Was gibt es noch?«

»Die Steine, die wir für das Opfer benutzten, als wir Juden waren. Diese Steine sind hier. Hier auf der Insel.«

»Können wir sie sehen?« fragte ich mit einem kleinen Schauer der Erregung. Wenn das, was Memhir Fisseha gerade gesagt hatte, zutraf, dann sprach er von Beweisstücken, von existierendem Beweismaterial, das diese merkwürdige, aber eigenartigerweise überzeugende Geschichte erhärten würde.

»Sie können sie sehen«, gab er zurück. Er erhob sich langsam. »Folgen Sie mir. Ich werde sie Ihnen zeigen.«

Das *Blutopfer*

Der Priester führte uns zu einem hochgelegenen Punkt auf dem Kliff, von dem aus man den See überblicken konnte. Hier, auf einem erhöhten Felssockel, zeigte er uns drei kurze Steinsäulen, die nahe beieinander standen. Die größte Säule war vielleicht anderthalb Meter hoch, hatte einen quadratischen Durchmesser und besaß oben eine halbrunde, herausgemeißelte Vertiefung. Die beiden anderen Säulen waren rund, etwa einen Meter hoch und an der Spitze ebenfalls bis zu einer Tiefe von etwa zehn Zentimetern ausgehöhlt.

Bei allen dreien handelte es sich, das war trotz des dichten Flechtenbewuchses zu erkennen, um freistehende Monolithe aus dem gleichen grauen Granit. Sie sahen alt aus, und ich fragte Richard nach seiner Meinung.

»Ich bin kein Archäologe«, gab er zurück, »aber nach der Art, wie sie behauen sind, nach ihrem Stil würde ich sagen, daß sie aus der aksumitischen Periode stammen, wenn nicht früher - besonders die quadratische.«

Ich fragte Memhir Fisseha nach den halbrunden Vertiefungen.

»Sie enthielten das Blut«, antwortete er. »Nach dem Opfer wurde etwas von dem Blut über den Steinen verspritzt und etwas auf das Zelt, in dem die Lade stand. Den Rest gab man in diese Mulden.«

»Können sie mir zeigen, wie das geschah?«

Der alte Priester winkte einen der anderen Mönche herbei und erteilte ihm mit leiser Stimme einige Instruktionen. Der Mann schritt davon und kam bald mit einer großen, flachen Schale zurück. Das Gefäß war mit der Zeit so verrostet und angelaufen, daß man nicht einmal raten konnte, aus welchem Metall es gefertigt war.

Das, so erfuhren wir, war der »gomer«, in dem das Opferblut zunächst aufgefangen wurde.

»Was genau bedeutet >gomer<?« fragte ich Wondemu.

Der zuckte die Achseln: »Das ist kein Wort aus dem Amhari-

schen, und auch kein Tigre. Mir scheint, es gehört zu keiner äthiopischen Sprache.«

Ich sah hilfesuchend zu Richard, aber auch er gestand, das Wort nicht zu kennen.

Memhir Fisseha sagte einfach, daß man die Schale »gomer« nenne, daß man sie immer »gomer« genannt habe, und das sei alles, was er wisse. Dann stellte er sich mit der Schale in der Hand zu den Steinen, tauchte seinen rechten Zeigefinger hinein, erhob die rechte Hand auf Kopfhöhe und vollführte mit ihr eine Kreisbewegung. »Auf diese Weise wurde das Blut verspritzt«, sagte er, »über die Steine und das Zelt mit der Lade. Danach gab man das, was übrig war, in die Mulden.« Er neigte die Schale über der halbrunden Vertiefung.

Ich fragte den Priester, ob er wisse, wo genau das Zelt mit der Lade gestanden habe. Aber alles, was er sagen konnte, war »hier in der Nähe ..., irgendwo hier in der Nähe«.

Ich hatte noch einen Punkt unserer Diskussion zu klären. »Sie sagten, daß die Lade vor eintausendsechshundert Jahren von Tana Kirkos nach Aksum gelangte. Ist das richtig?«

Wondemu übersetzte und Memhir Fisseha nickte zustimmend.

»Gut«, fuhr ich fort. »Wurde die Lade je nach Tana Kirkos zurückgebracht? Zu irgendeiner Zeit, aus irgendeinem Grund?«

»Nein. Sie wurde nach Aksum gebracht und blieb in Aksum.«

»Und soweit Sie wissen, ist sie dort bis auf den heutigen Tag.«

»Ja.«

Mehr war wohl nicht herauszubekommen, aber ich war zufrieden mit dem, was ich hatte, schon deshalb, weil ich die Dinge nicht im Tausch gegen Geld erfahren hatte. Dankbar übergab ich dem Priester eine Hundert-Birr-Note als freiwillige Spende für das Kloster. Dann fotografierte ich mit Memhir Fissehas Erlaubnis die Opfersteine aus verschiedenen Winkeln.

Wir erreichten Bahar Dar kurz vor acht Uhr. Nach unserer vierzehnstündigen Exkursion betrug die Rechnung für das Motorboot siebenhundertfünfzig US-Dollar.

Es war ein unvergleichlich teurer Tag geworden. Ich bedauer-

te die Ausgabe aber nicht mehr, denn die Zweifel, die mich auf Daga Stephanos befallen hatten, waren auf Tana Kirkos aus dem Weg geräumt worden. Ich wußte, daß ich meine Suche nun wieder mit Optimismus und Engagement vorantreiben konnte.

In Addis Abeba erhielt meine gute Laune weiteren Auftrieb. Bevor wir von dort zum Zwaisee aufbrachen, nutzte ich die Gelegenheit, in der Universitätsbibliothek einige Textstellen zu überprüfen, die sich auf den Gebrauch von Opfersteinen im alttestamentarischen Judentum bezogen.

Sowohl auf der Sinai-Halbinsel als auch in Palästina ließen sich Säulen, wie ich sie auf Tana Kirkos gesehen hatte, mit den frühesten Phasen der jüdischen Religion in Verbindung bringen. Man nannte sie »masseboth«, errichtete sie an hochgelegenen Orten als Altäre und nutzte sie für Opferzwecke.[10]

In der Bibel suchte ich nach Hinweisen, die sich auf Opferrituale bezogen. Ich wurde fündig, und als ich die betreffenden Passagen immer wieder las, wurde mir klar, daß das, was Memhir Fisseha mir auf der Insel demonstriert hatte, eine absolut authentische, uralte Zeremonie war. Zweifellos war bei der Überlieferung der Traditionen von Generation zu Generation manches durcheinandergebracht oder verändert worden. Wenn der Priester aber über das Verspritzen des Blutes gesprochen hatte, war er erstaunlich nahe an der Wahrheit geblieben.

Im dritten Buch Mose stieß ich zum Beispiel auf folgenden Vers: »Und der Priester soll seinen Finger in das Blut tauchen und damit siebenmal sprengen vor dem Herrn, vor dem Vorhang im Heiligen.«[11] Und im fünften Kapitel las ich: »... und sprenge mit dem Blut des Sündopfers an die Seite des Altars, und lasse das übrige Blut ausbluten an des Altars Boden.«[12]

Erst als ich in der Mischna nachlas, dem Grundstock des jüdischen Talmud, erkannte ich, wie genau Memhir Fissehas Darstellung tatsächlich war. Im Traktat Joma fand ich detaillierte Beschreibungen der Opferrituale, wie sie von den Hohenpriestern im Tempel des Salomo vor dem Vorhang, der die Bundeslade vor den Blicken der Laien schützte, ausgeführt wurden.

Ich las, daß das Blut des Opfertieres in einem Bassin aufge-

fangen und einem Gehilfen anvertraut wurde, der »es umrühren soll, damit es nicht gerinne«. Dann trat ein Priester aus dem Heiligtum hervor, »nahm das Blut von dem, der es umgerührt hatte, und ging hinein, dorthin wohin er vorher hineingegangen war, und sprengt davon 1mal oben hin und 7mal unten hin.. .«[13] Und wo genau versprengte der Priester das Blut? Der Mischna zufolge »etwas an den Vorhang, der der Lade gegenüber war, von der Außenseite her, 1mal nach oben und 7mal nach unten ... Und die Überreste des Blutes goß er aus auf den Boden an der Südseite des Altars .. .«[14]

Es schien mir wenig wahrscheinlich, daß Memhir Fisseha je in der Mischna gelesen hatte. Als Christ gab es keine Veranlassung dazu, ganz zu schweigen davon, daß er auf seiner Insel überhaupt Zugang zu einem solchen Buch haben konnte. Schließlich kannte er auch keine der Sprachen, in die es übersetzt worden war. Aber seine Handbewegungen waren genau die eines Mannes gewesen, der eine Peitsche schwang. Und mit Überzeugung hatte er davon gesprochen, daß das Blut nicht nur über den Altar gegossen wurde, sondern auch auf das Zelt der Lade.

Diese Übereinstimmungen waren zu genau, als daß man sie hätte ignorieren können, und ich war mir sicher, daß in weiter Vergangenheit ein Gegenstand von großer religiöser Bedeutung nach Tana Kirkos gebracht worden war. Und abgesehen von bestimmten Unsicherheiten bei der Datierung seiner Ankunft sprach alles dafür, das anzunehmen, woran Memhir Fisseha fest glaubte: daß es sich bei diesem Gegenstand um die Bundeslade gehandelt hatte.

Kapitel 10

Wie ein Phantom im Labyrinth

Erst die Erzählungen des alten Priesters auf Tana Kirkos hatten meine Aufmerksamkeit in einem bestimmten Punkt erregt. Bei all meinen Untersuchungen in den vergangenen Monaten war ich nie darauf gekommen, mich ernsthaft mit der Frage nach Meneliks Reiseroute auseinanderzusetzen. In der Bibliothek des Instituts für Äthiopische Studien las ich also nach, was das Kebra *Nagast* in dieser Sache berichtete. Ich wollte herausfinden, ob die alte Schrift die Behauptung des Priesters, die Lade sei über achthundert Jahre auf der Insel aufbewahrt worden, bestätigte.

Zu meiner Überraschung wurde Aksum überhaupt nicht erwähnt. Klar und eindeutig gibt das umfangreiche Werk an, Menelik und seine Reisegefährten hätten die Bundeslade an einen Ort namens »Debra Makeda« gebracht.[1] Damit klärte sich mit einem Schlag ein ernstzunehmender Widerspruch bei den Daten, der mich schon seit langem gequält hatte, nämlich daß Aksum erst rund achthundert Jahre nach Meneliks legendärer Reise gegründet worden war.[2] Einige meiner bisherigen Informanten hatten mir versichert, daß Aksum das Ziel dieser Reise war und daß sich die Lade von Anfang an dort befand.[3] Aber das war mit den historischen Gegebenheiten natürlich nicht vereinbar. Das Kebra Nagast erhob diesen Anspruch keineswegs. Ich wußte, daß das Wort »Debra« soviel wie »Berg« bedeutete und »Makeda« der äthiopische Name für die Königin von Saba war. Debra Makeda war also der »Berg der Königin von Saba«.

Ich stieß in der kurzen Beschreibung der Reise jedoch auf nichts, das eine Gleichsetzung von Debra Makeda und Tana Kirkos hätte rechtfertigen können - obgleich diese Möglichkeit keineswegs auszuschließen war. Auf der Suche nach weiteren Anhaltspunkten zog ich eine amtliche Publikation von 1930 über

das Tanagebiet zu Rate und fand heraus, daß unsere Insel den Namen Kirkos erst verhältnismäßig spät und zu Ehren eines christlichen Heiligen erhalten hatte. »Vor der Bekehrung Äthiopiens zum Christentum«, fügte der Bericht hinzu, »wurde Tana Kirkos >Debra Sehel< genannt.«[4]

Was konnte »Sehel« bedeuten?

Ich befragte einige der Wissenschaftler, die in der Bibliothek arbeiteten. Sie erklärten mir, daß es sich um eine Ableitung von dem Ge'ez-Verb »verzeihen« handele.

»Täusche ich mich«, fragte ich, »wenn ich annehme, daß die Übertragung von >Debra Sehel< ungefähr >Berg der Vergebung< lauten müßte?«

»Ja, das ist richtig.«

Das war interessant. Ich erinnerte mich gut an Wolframs *Parzival,* der die Gralsburg und den Gralstempel an einen Ort namens »Munsalväsche« verlegt hatte. Es gab einige Diskussionen um die Interpretation dieses Begriffes, und mehr als nur ein Parzival-Experte hatte vermutet, daß sich »der biblische Mons Salvationis, der Berg des Seelenheils« dahinter verberge.[5]

Es bestand kein Zweifel, daß die Begriffe »Vergebung« und »Seelenheil« zusammenhingen, zumal vor der Erlösung im biblischen Sinne die Vergebung erfolgen muß. Und mehr noch. Auch der Psalm 130 vermerkt: »So du willst, Herr, Sünden zurechnen, Herr, wer wird bestehen? Denn bei dir ist die Vergebung ... Israel, hoffe auf den Herrn! Denn bei dem Herrn ist die Gnade und viel Erlösung bei ihm ...« Natürlich ist »Erlösung« ein Synonym für »Seelenheil«[6]. Aus diesem Grund ahnte ich, daß man Wolframs »Berg des Seelenheils« mit dem äthiopischen »Berg der Vergebung«, mit Tana Kirkos also, würde verbinden können.

Ich war mir im klaren darüber, daß man mit solchen Vermutungen sehr vorsichtig umgehen mußte, und daß der Sprung von »Debra Sehel« zu »Munsalväsche« tatsächlich sehr gewagt war. Und doch: Bei meiner aufmerksamen Parzival-Lektüre war mir aufgefallen, daß der geheimnisvolle Grals-Tempel am Ufer eines Sees stand - und höchstwahrscheinlich sogar auf einer Insel in

diesem See. Und es schien mir keinesfalls unwichtig, daß sowohl die christlichen Kirchen in Äthiopien als auch die Kultstätten der Falaschen traditionell Rundbauten waren[7] - so wie die Mehrzahl der Templerkirchen. Es mußte also in diesem Gefüge bestimmte Verbindungen geben, die man auf keinen Fall übersehen durfte (auch wenn es sicherlich ebenso unklug war, sie überzubewerten).

Unterdessen galt es, einen anderen und weit weniger spekulativen Zusammenhang zu berücksichtigen, der zwischen Debra Sehel und Debra Makeda bestand. Der alte Name von Tana Kirkos verdeutlichte, daß äthiopische Inseln mit dem Präfix »Debra«, also »Berg«, bezeichnet wurden. Nun bewies das noch lange nicht, daß das Kebra Nagast sich auf Debra Sehel bezog, wenn es davon sprach, die Lade sei auf den »Berg der Königin von Saba« gebracht worden. Zweifelsohne kam Tana Kirkos jedoch zumindest als Kandidatin für diese Ehre in Betracht.

Was aber war mit der Route, auf der Menelik und seine Männer nach Äthiopien gekommen waren? Bisher hatte ich angenommen, daß sie vom Hafen Ezion-Geber aus (dem heutigen Elat am Golf von Akaba)[8] per Schiff über das Rote Meer bis zur äthiopischen Küste gelangt waren. Über die Ausgabe des Kebra *Nagast* gebeugt, die mir der Bibliothekar beschafft hatte, mußte ich jedoch eingestehen, daß meine Vermutungen falsch waren. Menelik und sein Gefolge bildeten eine regelrechte Karawane, die durchweg über Land reiste.[9] Die Beschreibung des Trecks ähnelte einer wundersamen, fast surrealen Erzählung, in der identifizierbare Ortsnamen und geographische Anhaltspunkte fast völlig fehlten. Trotzdem gab es einige präzise Details von Wichtigkeit. Von Jerusalem aus waren die Reisenden nach Gaza aufgebrochen, an die Mittelmeerküste Israels also, wo eine Stadt mit diesem Namen noch immer existiert. Dann folgten sie wahrscheinlich der gut ausgebauten Handelsstraße über die nördliche Sinai-Halbinsel[10], setzten nach Ägypten über und erreichten bald einen großen Fluß:

»Lasset uns die Wagen niederstellen«, sprachen sie an dieser Stelle, »wir sind ja an die Wasser Äthiopiens angekommen,

denn dies ist der Fluß, der von Äthiopien herabfließt und den Nil bewässert.«[11]

Aus dem Kontext ergab sich, daß sich Menelik und seine Begleiter zu diesem Zeitpunkt noch »in den Ebenen Ägyptens« befanden - wahrscheinlich im Süden der heutigen Stadt Kairo. Der Fluß, an dem sie ihre Karren zurückließen, konnte also nur der Nil sein. Erstaunlich war jedoch, daß sie ihn sogleich als Takazze identifizierten, jenen großen, aus Äthiopien kommenden Zufluß, den schon der Priester auf Tana Kirkos erwähnt hatte.

Vom Bibliothekar lieh ich mir einen Atlas und folgte dem Verlauf des Takazze mit der Fingerspitze. Er entspringt im zentralabessinischen Hochland, nicht weit von der alten Stadt Lalibela entfernt, zieht seine gewundene Bahn in nordwestlicher Richtung durch die Simienberge, vereinigt sich im Sudan mit dem Atbara und erreicht ganz richtig den Nil einige hundert Kilometer nördlich des heutigen Khartum.

Als ich die Karte betrachtete, waren zwei Dinge sofort ersichtlich: Erstens konnte der Nil - aus der Perspektive der Äthiopier - gut als Fortsetzung des Takazze angesehen werden (und Quellen aus dem vierten Jahrhundert nach Christus bürgen für diese Annahme[12]). Zweitens aber konnte es sich für die Karawane nur als richtig erweisen, wenn sie dem Nil und dem Takazze folgte, um die Heimat zu erreichen. Es hätte auch kaum eine andere Möglichkeit gegeben: Es war wenig sinnvoll, dem Nil durch die lebensfeindliche Wildnis der sudanesischen Wüste bis weit in den Süden zu folgen, um dann entlang des Blauen Nils in das äthiopische Hochland vorzudringen. Denn der Strom beschreibt einen weiten Umweg über den Süden, bevor er sich nach Norden zum Tanasee wendet, was die Reise unnötig verlängert hätte. Die Takazze-Route war um mehr als eintausendfünfhundert Kilometer kürzer.

Die Landkarte verdeutlichte noch etwas: Die Reisenden, die dem Takazze bis zu seinem Oberlauf folgten, hatten am Ende ihres Weges einen Punkt erreicht, der weniger als einhundert Kilometer vom Ostufer des Tanasees und vor allem von Tana

Kirkos entfernt lag! War es da noch pure Spekulation, wenn man die Insel als erste Station der Bundeslade identifizierte? Zweifelsohne: Auf der Suche nach einem sicheren und abgeschiedenen Ort für den heiligen Schrein hätten Menelik und seine Männer kaum eine bessere Wahl treffen können.

Drei Männer im Boot

Als Richard und ich am nächsten Morgen zum Zwaisee aufbrachen, begleitete uns ein alter Freund, Yohannes Berhanu, der Generalmanager des Nationalen Reisebüros NTO. Wir trafen uns kurz vor sechs am Büro des NTO, wohin Yohannes vorsorglicherweise einen Geländewagen mit Fahrer beordert hatte. Zwanzig Minuten später hatten wir die Wolkenkratzer und Slums von Addis Abeba hinter uns gelassen und fuhren dem Zentrum des Great Rift Valley entgegen.

Abgesehen vom künstlich angelegten Koka-Stausee ist der Zwaisee der nördlichste in der Seenkette des Great Rift Valley. Mit seinen sumpfigen Ufern und den unzähligen Inseln bietet er den idealen Lebensraum für Störche, Pelikane, wilde Enten, Gänse und Fischadler - und für viele Nilpferde.

Das Ziel unserer zweistündigen Fahrt war eine Anlegestelle im Süden des Sees. Man hatte uns gesagt, das Fischereiministerium unterhalte eine Anzahl von Booten, von denen wir sicherlich eines zu einem geringen Preis würden mieten können. Aber eigentlich hätten wir uns denken können, daß alle größeren Fahrzeuge zum Fischen ausgefahren waren. Verfügbar war nur ein kleines Boot, und für seinen Außenbordmotor gab es kein Benzin.

Umständlich erklärten uns die Beamten, daß das Boot zu klein sei, um Richard, Yohannes und mich sowie einen Bootsführer aufzunehmen. Nach Debra Zion benötigte man mindestens drei Stunden - drei Stunden in diesem erbärmlichen Kahn, zu viert, und wir würden mit Sicherheit schwer von der Sonne heimgesucht werden! Ob wir nicht morgen wiederkom-

men könnten, damit man uns bis dahin ein geeigneteres Transportmittel beschaffen könnte?

Yohannes lehnte diesen Vorschlag rigoros ab. Professor Pankhurst und Mister Hancock hätten am morgigen Tag wichtige Verabredungen in Addis Abeba, die unter allen Umständen einzuhalten seien. Wir müßten aus diesem Grunde unbedingt heute nach Debra Zion.

Weitere Diskussionen folgten, bis wir schließlich auf den Steg marschierten und uns probehalber in das Boot setzten. Wir verteilten uns entlang der Bordwand und arrangierten uns mehr oder weniger, auch wenn unser Gewicht das Boot gefährlich tief ins Wasser drückte.

Was tun? Die Beamten hegten offensichtliche Zweifel, stimmten unserer Fahrt am Ende aber zu. Nachdem auch das Benzinproblem gelöst war, tuckerten wir endlich sehr, sehr langsam über das leicht gekräuselte Wasser und passierten eine dicht bewaldete Insel nach der anderen. Das schilfgesäumte Seeufer war längst verschwunden, aber Debra Zion kam und kam nicht in Sicht. Die Sonne stand mittlerweile hoch am Himmel, und das Boot leckte leicht, aber unübersehbar. Wie zufällig erinnerte uns Yohannes daran, daß es hier viele Nilpferde gäbe, die er als sehr aggressive und wenig vertrauenerweckende Tiere beschrieb. Er trug übrigens eine Rettungsweste, die er sich noch kurz vor unserer Abfahrt besorgt haben mußte... Richards Nase hatte unterdessen eine interessante krebsrote Farbe angenommen, und ich, nun, ich knirschte mit den Zähnen und versuchte, den immer stärker werdenden Druck meiner Blase zu ignorieren. Wo war diese verdammte Insel? Und wann würden wir dort ankommen? Immer wieder sah ich ungeduldig auf die Uhr. Langsam wurde mir die Lächerlichkeit dieser Situation bewußt - Die Jäger des verlorenen Schatzes und Indiana Jones waren eine Sache, aber das hier sah, ehrlich gesagt, mehr nach »Drei Männer in einem Boot« aus ...

Die Fahrt dauerte schließlich sogar weniger als zwei Stunden, aber das war schon lange genug. So schnell wie möglich sprang ich an Land, stürzte an der Abordnung von Mönchen vorbei, die

zu unserer Begrüßung erschienen war, und verschwand hinter dem nächsten Busch. Einige Minuten später kam ich wieder zum Vorschein und fühlte mich schon sehr viel besser.

Die anderen waren mit dem Empfangskomitee in ein Gespräch vertieft. Als ich mich dazugesellte, bemerkte ich einige am Strand aufgereihte Schilfboote, die in jeder Hinsicht denjenigen ähnelten, die ich bereits am Tanasee gesehen hatte. Gerade wollte ich nach den Booten fragen, da unterbrach Yohannes meine Überlegungen: »Graham, das ist sehr merkwürdig. Es sieht so aus, als sei die Muttersprache dieser Leute Tigre.«

Das war tatsächlich überraschend. Wir befanden uns hier im Süden der Provinz Shoa und damit auf amharischsprachigem Gebiet. Tigre hingegen wird in der gleichnamigen Provinz und in Aksum gesprochen - mehrere hundert Kilometer im Norden. Ich wußte, daß in Äthiopien regionale Besonderheiten und gerade sprachliche Eigenheiten so von Bedeutung waren, daß sie sogar zum Bürgerkrieg geführt hatten. Es war also außerordentlich erstaunlich, daß Amharisch nicht die Umgangssprache dieser Mönche war. Und das galt nicht nur für die Mönche. Auch die anderen Einwohner der Insel, Bauern und Fischer, unterhielten sich gewöhnlich in einem Dialekt des Tigre und benutzten Amharisch (das die meisten nicht einmal besonders gut beherrschten) nur bei den wenigen Gelegenheiten, zu denen offizieller Besuch auf die Insel kam.

Auf dem Weg zu der Anhöhe, auf der die Kirche von Debra Zion lag, fragte ich einen der Mönche: »Wie kommt es, daß Sie alle Tigre sprechen?«

»Weil unsere Vorväter aus Tigre kamen«, lautete die Antwort.

»Und wann kamen sie hierher?«

»Das war vor etwa eintausenddreißig Jahren.«

Schnell überschlug ich die Daten im Kopf: zehntes Jahrhundert, dachte ich sofort. Das Jahrhundert, in dem Königin Gudit die Dynastie Salomos gestürzt hatte und in dem die Lade mit einiger Wahrscheinlichkeit nach Debra Zion in Sicherheit gebracht worden war.

»Wie kamen sie hierher?« fragte ich. »Wie und warum?«

Yohannes übersetzte die Antwort. »Nun, ihre Urahnen kamen mit dem >Tabot< hierher. Es war zur Zeit der Königin Gudit. Sie bekämpfte die Christen in Tigre. Es bestand große Gefahr und so flüchteten sie. Und kamen mit dem >Tabot< auf diese Insel.«

»Welchem >Tabot<?«

»Sie sagen, daß es das >Tabot< aus der Kirche in Aksum war ...«

»Meinen Sie das alte >Tabot<, das Menelik von Jerusalem nach Äthiopien brachte? Mit anderen Worten: die Bundeslade? Oder war es irgendein anderes >Tabot<? Ich möchte in diesem Punkt ganz sicher gehen.«

Yohannes stürzte sich beherzt in dieses Wirrwarr von Interpretationen. Die Angelegenheit wurde ausführlich erörtert, bevor er schließlich berichtete:

»Ich glaube, das wissen sie selbst nicht genau. Aber sie sagen, es sei aufgeschrieben worden ..., in einem alten Buch, das hier in der Kirche aufbewahrt wird. Wir sollen die Sache mit ihrem Oberpriester besprechen.«

Ein verschwundenes Manuskript

Wenig später erreichten wir die schmucklose und weißgetünchte Kirche, die, was mich kaum erstaunte, der »Heiligen Maria auf Zion« gewidmet war. Der Oberpriester stellte sich als Abba Gebra Christos vor. Er war ein kleiner, drahtiger Mann mit einem grauen Bart, vielleicht Ende sechzig, der einen Anzug trug. Um die Schultern hatte er ein weißes Baumwolltuch geschlungen, wie es traditionellerweise auch im Hochland verwendet wurde. Seine Art war angenehm und herzlich, und doch vermittelte sie etwas Listiges und Berechnendes, das mir bestimmte finanzielle Transaktionen anzukündigen schien. Nervös tastete ich nach dem Bündel von Birr-Noten, das ich vor unserer Abreise aus Addis in meine Tasche gestopft hatte. Im stillen beschloß ich, diesmal nur für wirklich gute Informationen zu zahlen.

Dann schaltete ich so unauffällig wie möglich mein Bandgerät an und stellte die erste Frage: Ob er die Geschichte von Menelik und der Entführung der Bundeslade aus dem Tempel Salomos kenne?

Ja, übersetzte Yohannes, natürlich kenne er die.

Und ob er wisse, was dann geschah?

Menelik, gab der Priester zurück, habe die Lade nach Äthiopien gebracht, und da befinde sie sich bis auf den heutigen Tag.

»Ist er sich sicher«, fragte ich, »daß es sich dabei um die echte Bundeslade handelt, in der die Steintafeln mit den Zehn Geboten Gottes aufbewahrt werden?«

Yohannes gab die Frage weiter, und Abba Gebra Christos antwortete feierlich: »Ja. Ich bin sicher.«

»Nun gut. Dann sagen Sie mir bitte, wurde diese Lade einmal nach Debra Zion gebracht?«

»Ja«, sagte der Priester, »zur Zeit Gudits brachte man die Lade von Aksum hierher.«

»Aber warum?« wollte ich wissen. »Warum gerade hierher? Aksum ist weit entfernt. Es muß doch auch in Tigre Hunderte von sicheren Orten gegeben haben, wo man den Schrein hätte verbergen können.«

»Hören Sie, diese Gudit ..., sie war ein Teufel. Sie brannte viele Kirchen in Tigre nieder. Und auch in anderen Teilen des Landes. Es war eine Zeit großer Kämpfe, großer Gefahren. Unsere Vorväter waren sehr beunruhigt, daß sie die Lade an sich reißen könnte. So brachten sie sie weg aus Aksum und kamen zum Zwaisee, wo sie den Schrein in Sicherheit wußten. Sie reisten nur bei Nacht, versteckten sich tagsüber in Wäldern und Höhlen. Sie hatten große Angst, glauben Sie mir! Sie entgingen jedoch den Soldaten und brachten die Lade zum Zwaisee und dann auf diese Insel.«

»Wissen Sie, wie lange sie hier blieb?«

Ohne einen Moment zu zögern gab Abba Gebra Christos zurück: »Nach zweiundsiebzig Jahren wurde die Lade zurück nach Aksum gebracht.«

Nun war der Augenblick für die große Preisfrage gekommen:

»Hat jemals«, begann ich zaghaft, »die Notwendigkeit bestanden, den Schrein noch einmal hierher zu bringen? Vielleicht kürzlich?«

Ruhig antwortete der Mönch: »Niemals.«

»Soweit Sie wissen, ist sie also noch in Aksum.«

»Ja.«

»Selbst jetzt, trotz der Kämpfe in Tigre?«

Er zuckte die Achseln: »Ich denke schon. Aber das ist nur meine eigene Meinung. Um die Wahrheit herauszufinden, müssen Sie nach Aksum gehen.«

Nun fiel mir etwas ein: »Auf dem Weg hierher haben uns die Mönche erzählt, daß es auf der Insel ein altes Buch gibt, in dem geschrieben steht, wie die Bundeslade zu Gudits Zeiten nach Debra Zion kam. Stimmt das?«

Als Yohannes diese Frage übersetzte, konnte man auf dem faltigen Gesicht des Mönchs für einen Augenblick die Überraschung ablesen, mit der ihn diese Worte trafen. Doch er beherrschte sich und sagte: »Ja, es gibt hier ein solches Buch.« Dann zögerte er kurz: »Ja ..., aber der Teil, der die Lade betrifft, ist nicht mehr hier.«

»Entschuldigung, ich kann Ihnen nicht folgen. Was meinen Sie genau?«

»Vor etwa zwanzig Jahren kam ein Mann, schnitt einige Seiten aus dem Buch und verschwand damit. Es waren die Seiten, auf denen die Geschichte der Lade erzählt wird.«

»War dieser Mann ein Fremder? Oder ein Äthiopier?«

»Nun, er war Äthiopier. Aber wir haben ihn nie ausfindig machen können.«

Ich seufzte und sagte Abba Gebra Christos, daß ich jenes Buch trotz der fehlenden Seiten gerne sehen wollte. Ob er uns erlauben würde, einige Aufnahmen davon zu machen?

Mein Vorschlag löste eine Flut aufgeregter Einwände aus. Nein, sagte der alte Priester, das sei unmöglich. Aufnahmen kämen nicht in Frage, bevor nicht der Patriarch der Orthodoxen Kirche Äthiopiens in Addis Abeba entsprechende Genehmigungen erteilt hätte. Ob wir zufällig eine solche Erlaubnis hätten?

Nein, die hatten wir natürlich nicht.

Dann könnten wir, bedauerlicherweise, das Buch keinesfalls fotografieren. Wir könnten es jedoch ansehen, wenn wir wollten.

Ich deutete an, daß wir für jedes kleine Zugeständnis dankbar seien. Abba Gebra Christos neigte weise den Kopf, führte uns in seine Kirche und ging zu einem Schränkchen im Hintergrund des armseligen Gebäudes. Der Priester bot uns ein furchterregendes Pantomimespiel, als er in allen Taschen nach dem passenden Schlüssel suchte, den er jedoch, wie er kurz darauf zugab, nicht finden konnte.

Ein junger Diakon wurde herbeigerufen und irgendwohin geschickt. Nach zehn Minuten kehrte er nach Luft schnappend zurück und umklammerte ein Bund mit mindestens zwanzig Schlüsseln. Einer nach dem anderen wurde ausprobiert, und schließlich geschah, was ich kaum noch für möglich gehalten hatte: Das Schränkchen konnte geöffnet werden. Es war jedoch fast leer, und das einzige Buch, das es enthielt, war ein Werk aus unserem Jahrhundert, das Prinzessin Zaudito, die Tochter Meneliks II., der Kirche gestiftet hatte.

In diesem Augenblick erinnerte sich Abba Gebra Christos plötzlich daran, daß das fragliche Manuskript gar nicht in der Kirche war. Vor einigen Wochen habe er selbst das Buch in das Repositorium gebracht; das Gebäude liege etwas abseits, aber wenn wir wollten, sollten wir ihn dorthin begleiten.

Ich sah auf die Uhr, überlegte, daß wir noch ausreichend Zeit hätten, und gab meine Zustimmung zu diesem Plan. Nach einem längeren Fußmarsch erreichten wir ein baufälliges, zweigeschossiges Steinhaus. Mit einer würdevollen Geste geleitete uns der Priester in einen dumpfen und verstaubten Hinterraum, an dessen Wände Dutzende hölzerner Kisten und grellackierter Blechtruhen aufgereiht waren. Nach kurzem Zögern ging er auf eine der Kisten zu und öffnete den Deckel. Darin befand sich ein Stoß Bücher, von denen er das oberste herausnahm und mir übergab.

Richard und Yohannes blickten mir über die Schulter, als ich

den gewichtigen Band aufschlug. Ohne zu zögern, bestätigten sie, daß es sich bei den Schriftzeichen um Ge'ez handelte. Es bestand auch kein Zweifel, daß die Handschrift sehr alt war: »Dem Einband und dem Stil der Illuminationen nach zu urteilen, würde ich sagen, daß sie aus dem dreizehnten Jahrhundert stammt«, vermutete Richard. »Mit Sicherheit nicht später als vierzehntes Jahrhundert. Kein Zweifel, das ist ein sehr altes Werk. Und wahrscheinlich sehr wertvoll.«

Ungeduldig blätterten wir die Pergamentseiten um. Es gab jedoch keine Anzeichen dafür, daß etwas aus dem Band herausgeschnitten worden war. Soweit wir sehen konnten, war das Manuskript vollständig. Wir machten Abba Gebra Christos, der uns wortlos beobachtet hatte, darauf aufmerksam und fragten ihn, ob er sich ganz sicher sei, daß es sich um das Buch handelte, über das wir gesprochen hatten.

Wie sich erwies, war es das nicht. Entschuldigungen murmelnd stöberte der Priester in mehreren Kisten herum und gab uns ein altes Manuskript nach dem anderen.

»Das ist unglaublich«, sagte Richard irgendwann. »So viele alte Bücher. Ein wirklicher Schatz. Und sie liegen hier einfach so herum. Sie könnten feucht werden, gestohlen werden. Alles mögliche könnte passieren. Wenn ich nur ein paar davon mit ins Institut nehmen könnte ...«

Der letzte Band, den wir in die Hand nahmen, war eine in Holzdeckel gebundene und wunderschön illustrierte Ausgabe des äthiopischen Buches der Heiligen. Es befand sich ebenfalls in gutem Zustand. Als wir es betrachteten, stieß Richard mich leicht an: »Ich glaube nicht, daß wir hier noch etwas herausbekommen.«

Ich nickte: »Ich denke, du hast recht. Es ist spät geworden. Wir brechen wohl besser auf, sonst müssen wir den See in der Dunkelheit überqueren.«

Vorher aber bat ich Yohannes, einen letzten Versuch zu unternehmen, dem Priester etwas zu entlocken. War das Buch, das wir suchten, nun hier oder nicht?

Selbstverständlich sei es hier; der Priester bestand darauf.

Das einzige Problem war, daß er sich nicht mehr sicher sei, in welcher Kiste er es aufbewahrte. Wenn wir nur etwas länger warten könnten, würde er es bestimmt finden.

Ich war mir sicher, daß ich dieses Angebot ablehnen konnte. Mir schien, daß der alte Mann uns absichtlich auswich, und wenn das der Fall war, konnte es nur bedeuten, daß er etwas zu verbergen hatte. Aber was? Nicht die Lade selbst. Vielleicht nicht einmal das gesuchte Buch. Aber irgend etwas auf jeden Fall.

Verwirrt und ein wenig verärgert ging ich zum Motorboot zurück, wo wir uns verabschiedeten. Im letzten Licht der untergehenden Sonne steuerten wir auf den stillen See hinaus.

In meinem Notizbuch vermerkte ich:

- Es hat sicherlich keinen Sinn, weitere Zeit mit der Überprüfung von Debra Zion zu verbringen. Nach den Gesprächen mit den Mönchen und dem Oberpriester bin ich mir ziemlich sicher, daß die Bedeutung der Insel allein in der Anziehungskraft liegt, die von den alten Legenden ausgeht. In den wesentlichen Punkten bestätigen die Überlieferungen das, was Belai Gedai mir am Telefon erzählt hat - vor allem, daß die Bundeslade im zehnten Jahrhundert nach Debra Zion gelangte, wo man sie vor der Königin Gudit schützen konnte, daß sie ungefähr siebzig Jahre hier war und dann nach Aksum zurückgebracht wurde.

- Die Tatsache, daß die Muttersprache der Inselbewohner Tigre und nicht Amharisch ist, muß als Beweis für die Überlieferungen angesehen werden. Denn die einzige logische Erklärung für eine solche ethnographische Besonderheit liegt in der Wanderbewegung von Aksum nach Debra Zion vor langer Zeit. Nur etwas so Wichtiges wie die Notwendigkeit, die Lade in Sicherheit zu bringen, kann als Erklärung für eine derartige Abwanderung gelten. Mehr noch, wenn der Schrein erst nach mehr als siebzig Jahren nach Aksum zurückgebracht worden war, dann ist es nur verständlich, wenn die Nachfahren der ursprünglichen Emigranten auf der Insel bleiben wollten. Denn dies war die einzige Heimat, die sie kannten. Es ist ebenfalls anzunehmen, daß sie die mündliche Überlieferung der glorreichen Taten ihrer Vorväter gepflegt haben.

- Im Verlauf des Tages sind einige beeindruckende Dinge ans Licht gekommen. Zu keinem Zeitpunkt hatte ich jedoch das Gefühl, daß sich der Schrein wirklich auf der Insel befindet.

- Und weil das gleiche für den Tanasee gilt, ist Aksum noch immer der Ort, an dem man den Schrein vermuten kann. Mit anderen Worten, ich muß nach Aksum, ob ich will oder nicht. Der beste Zeitpunkt dafür wird »Timkat« im Januar sein, denn dort wird sich die einzige Gelegenheit bieten, nahe genug an die Lade heranzukommen, ohne daß ich mir Zugang zum Allerheiligsten verschaffen muß.

Ich schloß mein Notizbuch und sah Richard und Yohannes an: »Glaubt ihr an die Möglichkeit, daß die Regierungstruppen bis zum Januar Aksum zurückerobert haben? Ich würde allzugerne dorthin reisen, um das nächste >Timkat< zu erleben.«

Yohannes sagte gar nichts. Richard schnitt eine Grimasse: »Gute Idee. Aber ebensogut könntest du zum Mond fliegen.«

»Na gut«, räumte ich ein, »es war ja nur ein Gedanke.«

Es war bereits dunkel, als wir das Motorboot am Anlegesteg der Fischereibehörde festmachten, und erst gegen zehn Uhr erreichten wir die Vororte von Addis Abeba. Der Fahrer sollte uns zu Yohannes' Büro bringen, wo wir unsere Wagen am Morgen geparkt hatten. Bis zur Ausgangssperre blieben noch zwei Stunden, die wir für ein schnelles Abendessen in einem nahe gelegenen Restaurant nutzen wollten. Als wir jedoch aus dem Wagen stiegen, hörten wir das länger anhaltende Feuer eines automatischen Gewehres, das offenbar aus einem Wohnblock auf der anderen Straßenseite kam. Sekunden später antwortete eine andere Waffe. Dann lag die Straße in tiefer Stille.

»Was im Himmel war das?« fragte ich.

»Sicher nichts Ernsthaftes«, vermutete Richard, »seit dem Putsch gab es einige wenige Vorfälle dieser Art ..., ein paar Schüsse hier und dort, das ist alles.«

»Trotzdem«, sagte Yohannes ernst, »ich glaube, es ist klüger, wenn wir auf unser Abendessen verzichten. Laßt uns nach Hause gehen.«

Eine Art Fingerabdruck

Am nächsten Morgen rief ich das Büro von Shimelis Mazengia an. Seine Sekretärin hatte meinen Anruf erwartet und gab uns einen Termin für den selben Nachmittag. Trotz Richards Pessimismus war ich entschlossen, die Frage des »Timkat« und Aksum aufzuwerfen. In guter Stimmung verließ ich das Hotel und fuhr zum Institut für Äthiopische Studien.

Meine Nachforschungen zwei Tage zuvor hatten die Wahrscheinlichkeit der Nil/Takazze-Route untermauert, zumal feststand, daß die Strecke schon seit dem vierten Jahrhundert nach Christus von Händlern und Pilgern bereist wurde.[13] Heute wollte ich eine Theorie überprüfen, von der ich in Gedanken nach und nach bereits grobe Umrisse erarbeitet hatte. Wenn Menelik und die erstgeborenen Söhne der Ältesten Israels die Bundeslade tatsächlich nach Tana Kirkos gebracht hatten und wenn sie dabei der Takazze-Route gefolgt waren, mußte das auch Auswirkungen auf die Verbreitung des jüdischen Glaubens in Äthiopien gehabt haben. Wenn die Legende recht hatte, überlegte ich, konnte das Siedlungszentrum der Falaschen nur zwischen dem Takazze und dem Tanasee liegen - denn das wäre genau das Gebiet, in dem Menelik mutmaßlich mit der Bekehrung der Bevölkerung zum Judentum begonnen hatte. Sollten sich die Überlieferungen aber als falsch erweisen, dann war es nur wahrscheinlich, daß die Falaschen weiter verstreut lebten - möglicherweise weiter im Norden und näher am Roten Meer, denn der Lehrmeinung zufolge waren die Urahnen der Falaschen jüdische Immigranten aus dem Jemen.

Ich begann bei James Bruce und seinen ausführlichen Abhandlungen über die Falaschen. Im dritten Band seiner Reisen hatte der schottische Autor ein Kapitel dem gewidmet, was man vielleicht als die »Sozialgeographie« Äthiopiens im achtzehnten Jahrhundert bezeichnen könnte. Bruce' Überblick begann mit dem Norden Äthiopiens, mit dem am Roten Meer gelegenen Hafen Massawa. Aber weder in Eritrea noch in Tigre schien er auf Falaschen gestoßen zu sein. Erst nach der Überquerung des

Takazze schrieb er, das Land, das sich südwestlich bis hin zum Tanasee erstrecke, sei »zum großen Teil von Juden bewohnt, und der König und die Königin dieses Volkes aus dem Hause Juda beziehen die Wurzeln ihrer Souveränität und ihrer Religion aus sehr alten Zeiten«[14].

Im neunzehnten Jahrhundert, rund achtzig Jahre nach James Bruce, stellte der deutsche Missionar Martin Flad eine ähnliche Verteilung der Bevölkerung fest und ging auf vierzehn, allesamt »westlich des Takazze« liegende Provinzen ein, in denen die Falaschen lebten.[15]

Auch die neueren Quellen, die ich als nächstes durchging, vermittelten einen solchen Eindruck. Die große Mehrheit der äthiopischen Juden bewohnte das Gebiet westlich und südlich des Takazze: Das war ihr eigentliches Kerngebiet, dessen Besiedlung bereits zu unvordenklichen Zeiten begonnen haben mußte.[16] Eine besonders genaue amtliche Studie enthielt eine Karte, die das Siedlungsgebiet der Falaschen mit einer Schraffur markierte: ein langer, aber relativ schmaler Streifen, der sich vom Takazze aus südwestlich über die Simienberge und Gondar erstreckte und dann das gesamte Tanagebiet umschloß.[17]

Es konnte kaum schlagkräftigere Argumente für meine These geben, daß diese Fläche gleichzeitig das Gebiet beschrieb, in dem einst die Bekehrung der eingeborenen Abessinier zum alttestamentarischen Judentum stattfand. Mittlerweile hatte ich immer mehr stichhaltige Gründe gegen die Lehrmeinung zusammengetragen, derzufolge das Judentum erst um das Jahr 70 nach Christus und über den Jemen nach Äthiopien gelangt war. Nein, die Schraffur auf der Landkarte war ein verräterischer Beweis dafür, daß die Religion Salomos und das Machtinstrument Gottes, die Bundeslade, Äthiopien nur vom Westen aus hatten erreichen können - über Ägypten und den Sudan, auf den vielbefahrenen Handelsrouten des Nil und des Takazze.[18]

Geduld ist eine Tugend

Punkt fünfzehn Uhr trafen Richard und ich bei Shimelis Mazengia ein. Das Politbüromitglied wollte zunächst wissen, wie unsere Reise verlaufen war. Ob wir irgend etwas herausgefunden hätten?

»Ich bin mir jetzt sicher, daß Tana Kirkos der erste Aufenthaltsort der Bundeslade war«, erklärte ich.

»Dann glauben Sie also wirklich, daß wir die Lade haben?« fragte Shimelis mit einem Lächeln.

»Ich bin davon überzeugt. Es spricht immer mehr dafür ...« Ich zögerte, dann gab ich die Frage zurück: »Was glauben Sie?«

»Ich denke, im Allerheiligsten von Aksum befindet sich etwas ganz Besonderes. Nicht unbedingt der Schrein, wohlgemerkt, aber es muß etwas ganz Wichtiges sein. Immerhin handelt es sich um eine uralte Überlieferung, die man nicht ohne weiteres ignorieren kann.«

Ich wollte wissen, ob seine Regierung jemals den Versuch unternommen habe herauszufinden, ob die heilige - und sicher unglaublich wertvolle - Lade in Aksum aufbewahrt werde. Schließlich bestand die äthiopische Arbeiterpartei aus Marxisten und wurde sicherlich nicht von abergläubischen Vorurteilen behindert.

»Wir haben das nie auch nur für einen Moment in Betracht gezogen«, erwiderte Shimelis, »niemals ... Hätten wir etwas Derartiges versucht, dann hätten wir« - er lächelte ironisch - »eine regelrechte Revolution am Hals gehabt. Unser Volk ist sehr traditionell gesinnt, wie Sie wissen, und es gäbe mit Sicherheit eine Explosion, wenn sich die Regierung in eine solche Angelegenheit einmischen würde.«

»Glauben Sie, daß die TPLF in dieser Beziehung eine ähnliche Haltung einnimmt?« fragte ich. »Jetzt, wo sie Aksum erobert hat, meine ich.«

Shimelis zuckte die Achseln. »Da fragen Sie den Falschen. Aber die TPLF ist nicht gerade für ihre Sensibilität in religiösen Angelegenheiten bekannt...«

Ich war etwas unschlüssig, ob ich meine nächste Frage stellen sollte. »Entschuldigen Sie, wenn das unverschämt klingt«, sagte ich, »aber ich muß Sie das fragen. Besteht irgendeine Chance, daß Ihre Regierung Aksum in naher Zukunft zurückgewinnt?«

»Warum fragen Sie?«

»Weil ich zu dem Ergebnis gekommen bin, daß ich dorthin muß. Ich möchte die nächsten >Timkat<-Feiern sehen.«

»Sie meinen, im kommenden Januar?«

Ich nickte.

»Ausgeschlossen«, sagte Shimelis entschieden. »Aber warum solche Eile? Wenn Sie recht haben, dann ist die Lade seit drei Jahrtausenden in unserem Land. Übernächstes Jahr, vielleicht in zwei Jahren, werden wir die Stadt wieder unter Kontrolle haben. Dann werden Sie der erste Fremde sein, der Aksum besuchen darf. Das verspreche ich Ihnen. Also haben Sie Geduld, Sie bekommen Ihre Chance ...«

Ich mußte zugeben, das klang vernünftig. In einem Land wie Äthiopien war Geduld von jeher eine Tugend. Und doch: Ich konnte keine zwei Jahre warten. So beschloß ich für mich, daß ich, wenn schon nicht im Januar 1990, so doch im darauffolgenden Jahr nach Aksum reisen würde. Die überzeugte Haltung, die Shimelis an den Tag gelegt hatte, beeindruckte mich, und ich hoffte, daß die Stadt bald wieder in den Händen der Regierungstruppen sein würde. Unterdessen - nur als Vorsichtsmaßnahme - mußte ich mit der TPLF in London Kontakt aufnehmen. Bis zu diesem Zeitpunkt hatte ich das vermieden, aber nun schien ich um derartige Annäherungsversuche nicht mehr herumzukommen.

Über den Tisch sah ich Shimelis an. »Sie haben natürlich recht«, sagte ich, »aber darf ich Sie trotzdem um einen anderen Gefallen bitten?«

Mit einer Geste forderte mich das Politbüromitglied zum Weiterreden auf.

»Ich möchte trotzdem eine >Timkat<-Zeremonie erleben«, fuhr ich fort, »und weil Aksum nicht in Frage kommt, könnte ich im kommenden Januar vielleicht nach Gondar reisen.«

Richard, der neben mir saß, zog tief die Luft ein. Die Stadt, die ich gerade erwähnt hatte, war angeblich von den Rebellen umzingelt und konnte jeden Tag fallen.

»Warum Gondar?« fragte Shimelis.

»Weil Gondar im Tanagebiet liegt, das wiederum eng mit der Frühgeschichte der Lade in Äthiopien zusammenhängt. Und weil ich weiß, daß in der Region von Gondar noch immer viele Falaschen leben. Ich erinnere mich, daß wir 1983 auf dem Rückweg in die Stadt eine jüdische Siedlung passiert haben, aber zu dieser Zeit ergab sich keine Möglichkeit, dort ein Gespräch zu führen. Wenn Sie erlauben, will ich also zwei Fliegen mit einer Klappe schlagen. Ich möchte >Timkat< in Gondar sehen. Und ich möchte einige Untersuchungen bei den Falaschen durchführen.«

»Das wäre schon möglich«, erwiderte Shimelis. »Es hängt natürlich von der militärischen Lage ab, aber es ist möglich. Ich werde die Angelegenheit prüfen lassen und gebe Ihnen Bescheid ...«

Kapitel 11

»Und David tanzte vor dem Herrn«

Erst am 8.Januar 1990 erhielt ich ein Telex von Shimelis Mazengia, in dem er mir bestätigte, daß die notwendigen Genehmigungen von den Militärbehörden erteilt worden seien. Gondar sollte also für mich die entscheidende Vorübung sein: Wie Aksum einstmals die Hauptstadt Äthiopiens, ist es heute eine wichtige historische Stätte und überdies Zentrum religiöser Gelehrsamkeit. Ich würde ein Ritual erleben, das als höchster Feiertag des äthiopischen Kirchenkalenders angesehen wurde und das mit Sicherheit den Feiern in Aksum genau glich. In dieser Umgebung hoffte ich, mich geistig auf die vor mir liegende Feuerprobe einstimmen zu können. Denn bis zum nächsten Jahr wollte ich mich mit jenen geheimnisvollen Ritualen vertraut machen, die James Bruce schon 1770 miterlebt haben mußte, wollte so viel Informationen wie möglich ansammeln und meine Nachforschungen mit doppeltem Engagement vorantreiben. Aber gleichzeitig wußte ich, daß ich auch kritisch an die Sache herangehen mußte. Wenn ich in Gondar irgend etwas entdecken sollte, das ernsthafte Zweifel am Anspruch Äthiopiens aufwarf, die Bundeslade zu besitzen, dann blieb mir nur der ehrenvolle Rückzug - und der Verzicht auf die Reise nach Aksum.

Noch mehr Rätsel

»Timkat« ist das Fest der Epiphanie - der Erscheinung des Herrn.[1] Epiphanias hat jedoch unter den Christen der östlichen Kirchen eine ganz andere Bedeutung und erinnert an die Taufe Christi.[2] Ich hatte herausgefunden, daß die Äthiopische Kirche in diesem Punkt mit den anderen orthodoxen Kirchen überein-

stimmte, daß jedoch deutliche Abweichungen festzustellen waren, wenn es um die besonderen Rituale an diesem Tag ging.[3] So gibt es für den Gebrauch des »Tabots« in anderen Kulturen keine Entsprechung, und das Koptische Patriarchat in Alexandria, das bis zur Autokephalie im Jahre 1959 alle äthiopischen Bischöfe eingesetzt hat[4], lehnt ihn sogar ab[5], was mit der Beeinflussung, ja Beherrschung des äthiopischen Christentums durch einen vorchristlichen Gegenstand zusammenhängt: der Bundeslade.

In Gondar wollte ich zudem die Gelegenheit nutzen, um mit den Falaschen in der Umgebung der Stadt zu sprechen. Gegenüber Shimelis hatte ich diese Absicht erwähnt, und er hatte keinen Einspruch erhoben. Dafür gab es einen einfachen Grund, denn seit meiner Reise von 1983 hatte sich einiges geändert. Auch damals war ich von Gondar aus in die Simienberge gefahren, konnte jedoch keine Nachforschungen anstellen, da die Falaschen-Siedlungen von der Regierung zum Sperrgebiet erklärt worden waren.

Im November 1989, als Addis Abeba und Jerusalem nach sechzehn Jahren wieder diplomatische Beziehungen aufnahmen, war eine neue Entwicklung eingetreten. Das Kernstück der Vereinbarungen war die Zustimmung Äthiopiens zur Ausreise aller Falaschen nach Israel. Zu diesem Zeitpunkt gab es nicht mehr viele schwarze Juden in Äthiopien, schätzungsweise weniger als fünfzehntausend. Viele waren während der Hungerkatastrophen Mitte der achtziger Jahre umgekommen, andere in die Flüchtlingscamps im Sudan geflohen. Von dort aus wurden im Zuge der »Operation Moses« allein 1984 und 1985 über zwölftausend Menschen nach Israel ausgeflogen.

Bis zum Januar 1990 hatte die Zahl der äthiopischen Juden rapide abgenommen. In den drei Monaten seit Wiederherstellung der diplomatischen Beziehungen waren mehr als dreitausend Menschen emigriert. Unaufhaltsam nahm dieser moderne Exodus seinen Lauf, und es war abzusehen, daß man bald keine Falaschen mehr in Äthiopien antreffen würde. Dieses Jahr stellte also mit Sicherheit die letzte Gelegenheit dar, Eindrücke vom

archaischen Leben der Falaschen in ihrer ursprünglichen Umgebung zu gewinnen. Ich war fest entschlossen, diese Chance nicht zu verpassen, war doch das Geheimnis der Bundeslade auf das engste mit der Geschichte jenes schwarzen, jüdischen Volkes im Herzen Äthiopiens verbunden. Würde ich das Rätsel der Herkunft dieser Menschen lösen können, dann mußte auch das Geheimnis des Schreins zu lüften sein.

Doch es ging mir nicht nur um die Falaschen. In der Woche vor meiner Abreise aus England hatte ich einige Nachforschungen angestellt und dabei eine überraschende Verbindung zu einem anderen Volk herstellen können - den Qemant, die in einer Abhandlung als »Hebräo-Heiden« bezeichnet wurden. Frederick Gamst, der Verfasser dieser wenig beachteten Monographie aus dem Jahre 1969, hatte folgendes beobachtet:

»Der Hebraismus, den man bei den Qemant antrifft, ist eine sehr alte Glaubensform, die von den Entwicklungen der jüdischen Religion in den vergangenen zwei Jahrtausenden unberührt geblieben ist. Dieser Hebraismus besitzt auch eine Dominanz in der Religion der Falaschen, der Nachbarn der Qemant ..., die man manchmal >die schwarzen Juden Äthiopiens< genannt hat.«[6]

Bis zu diesem Zeitpunkt hatte ich von den Qemant nichts gewußt. Um so mehr beeindruckte mich die Annahme Gamsts, daß auch ihre Religion althebräische Elemente enthielt. Diese Angelegenheit verdiente zweifellos weitere Nachforschungen. Es mußte doch möglich sein, Licht in die Zeit zu bringen, in der die Verbreitung des jüdischen Glaubens in Äthiopien ihren Anfang genommen hatte.

Der heilige Hain

In seiner Studie erwähnte Gamst, daß sich bei seiner Exkursion in den sechziger Jahren ein alter Priester seiner angenommen und ihm sehr geholfen hatte. Der Name dieses Würdenträgers war Muluna Marsha, und er führte den Titel »Wambar«, was in

Qemant soviel bedeutete wie »Hohepriester«. Ich wollte diesen Mann, den Gamst als »unerschöpflichen Informationsquell« bezeichnet hatte, ausfindig machen und ihn selbst befragen. Natürlich wußte ich nicht, ob er nach so vielen Jahren noch am Leben war oder ob ich überhaupt einen Qemant finden würde, der den alten hebräisch-heidnischen Glauben noch praktizierte. Schon zu Gamsts Zeiten hatte es weniger als fünfhundert davon gegeben.[7]

Nach meiner Ankunft in Gondar trug ich dieses Problem den Regierungsbeamten vor, die mich am Flughafen abgeholt hatten. Ich erfuhr, daß es tatsächlich nur noch sehr wenige, hauptsächlich alte Menschen gab, die dieser Religion angehörten. Man stellte einige Nachforschungen an, übermittelte Funksprüche an Parteimitglieder in weiter entfernt liegenden Dörfern, und am 18. Januar erhielt ich die gute Nachricht, daß der Wambar noch am Leben sei. Sein Heimatort lag zwar abseits aller befahrbaren Straßen, aber man hielt es für möglich, daß er sich auf einen gemeinsamen Treffpunkt einlassen würde - einen Ort namens Aykel, der etwa zwei Fahrstunden entfernt im Westen von Gondar lag. Wir würden darüber hinaus gefahrlos reisen können, da man die Rebellen aus diesem Gebiet vertrieben hatte und die westlichen Landesteile bei Tageslicht als sicher galten.

Das »Timkat«-Fest, das ich im Verlauf dieses Kapitels noch genau beschreiben werde, nahm zunächst meine ganze Aufmerksamkeit in Beschlag. Erst am Nachmittag des 20. Januar konnte ich in einem Geländewagen aufbrechen, den die Partei mir zur Verfügung gestellt hatte. Neben einem Fahrer wurde ich von Legesse Desta begleitet, einem jungen und engagierten Beamten, der als mein Dolmetscher fungierte - und von zwei grimmig dreinblickenden Soldaten, die mit Kalaschnikow-Sturmgewehren bewaffnet waren.

Während der holprigen Fahrt studierte ich aufmerksam eine Karte dieser Region. Mir wurde klar, daß unser Ziel nicht weit entfernt vom Quellgebiet des Atbara lag, der etwa fünfzig Meilen nördlich des Tanasees entspringt und von dort aus in den Sudan

fließt. Noch immer war ich davon überzeugt, daß Menelik und die Bundeslade über den Takazze nach Äthiopien gelangt waren, wird doch der Fluß, der so nahe an den Tanasee heranreicht, ausdrücklich im Kebra *Nagast* erwähnt. Mir wurde aber beim Betrachten der Karte klar, daß auch der Atbara in Frage kam, denn er hätte die Reisenden ebenfalls direkt in das Tanagebiet geführt.

In Aykel empfing uns eine Delegation örtlicher Parteimitglieder. Der Wambar Muluna Marsha, so berichteten sie, sei gerade eingetroffen und erwarte uns. Man begleitete uns zu einer runden, geräumigen Hütte und führte uns in das kühle Halbdunkel unter dem bienenkorbförmigen Dach. Sonnenstrahlen drangen durch die Ritzen der Wände und zogen ihre Bahnen durch die feinen Staubteilchen, die in der Luft schwebten. Vom saubergekehrten Lehmboden stieg ein erdiger Geruch auf und vermischte sich mit dem leichten Duft von Sandelholz.

Der Wambar war erwartungsgemäß ein alter Mann. Ganz augenscheinlich hatte er sich für diesen Tag herausgeputzt, denn er trug einen weißen Turban, weiße Feiertagsgewänder und einen schwarzen Umhang aus gutem Tuch. Als wir hereinkamen, erhob er sich würdevoll, und nach den üblichen Vorstellungen schüttelte er herzlich meine Hand.

Durch meinen Dolmetscher ließ er sogleich fragen: »Arbeiten Sie mit Herrn Gamst zusammen?«

Ich räumte ein, daß dies nicht der Fall sei. »Aber«, fügte ich hinzu, »ich habe das Buch gelesen, das er über Ihr Volk geschrieben hat. Und das ist auch der Grund, warum ich hier bin. Ich möchte mehr über ihre Religion erfahren.«

Der Wambar lächelte schmerzlich. Dabei entblößte er einen irritierend langen Zahn, der aus seinem linken Oberkiefer wie ein Fangzahn über die Unterlippe ragte. »Unsere Religion«, sprach er, »gehört der Vergangenheit an. Nur wenige praktizieren sie noch. Die Qemant sind nun Christen.«

»Aber Sie selbst sind kein Christ?«

»Nein. Ich bin der Wambar. Ich befolge die alten Regeln.«

»Und gibt es noch andere, die das tun?«

»Nur wenige sind übriggeblieben.« Noch einmal das traurige Lächeln. Dann fügte er schlau und etwas zweideutig hinzu: »Aber auch diejenigen, die sagen, sie seien Christen, haben dem alten Glauben nicht ganz abgesprochen. Sie suchen noch immer die heiligen Haine auf ..., sie bringen immer noch Opfer dar.« Es folgte eine Pause. Der alte Mann schüttelte langsam sein greises Haupt, seufzte und fuhr fort: »Aber die Dinge ändern sich ..., alles ändert sich ...«

»Sie erwähnten >heilige Haine<. Was bedeutet das?«

»Unser Gottesdienst, wenn er den Regeln entsprechend ausgeführt wird, findet unter freiem Himmel statt. Zu diesem Zweck wurden besondere Haine angelegt, die man >degegna< nennt.«

Ich hakte nach und fand heraus, daß genaugenommen zwei Arten heiliger Haine existierten. Die einen, »degegna«, wurden für besondere, alljährlich stattfindende Zeremonien genutzt und waren in weiter Vergangenheit angepflanzt worden, als dem Gründer der Qemant-Religion im Traum die richtigen Orte dafür bestimmt worden waren. Daneben gab es kleinere heilige Stätten, die sogenannten »gole«, die meist nur aus einem einzigen Baum bestanden, in dessen Krone ein mächtiger Geist residierte. Gewöhnlich befanden sich diese »gole« an höhergelegenen Orten. Es ergab sich, daß eine solche Kultstätte am Rande von Aykel lag, die wir uns ansehen konnten.

Ich fragte den Wambar, ob auch die Falaschen heilige Haine verehrten.

»Nein«, entgegnete er, »das ist nicht der Fall.«

»Gibt es denn irgendwelche Ähnlichkeiten zwischen den Religionen der Qemant und der Falaschen?«

Ein weises Nicken: »Ja, in vieler Hinsicht. Wir haben einiges gemeinsam. Der Gründer unserer Religion hieß Anayer. Er kam vor Urzeiten nach Äthiopien. Er kam aus einem Land, in dem sieben Jahre lang Hunger herrschte. Dieses Land war weit weg. Auf der Reise hierher traf er den Begründer der Falaschen-Religion, der ebenfalls mit Frau und Kindern unterwegs war. Sie sprachen über ein Heiratsbündnis zwischen den Familien, aber es kam nicht zustande ...«

»Kamen Anayer und der Gründer der Falaschen-Religion aus demselben Land?«

»Ja. Aber es waren zwei Stämme. Es gab keine Heiratsverbindungen.«

»Aber ihr Geburtsland war ein und dasselbe?«

»Ja.«

»Wissen Sie, welches Land das war?«

»Es war weit weg ... Es lag im Nahen Osten.«

»Kennen Sie den Namen des Landes?«

»Es war das Land Kanaan. Anayer war der Enkel von Kanaan, Sohn des Ham, und der war der Sohn Noahs.«

Diese Genealogie und die mündliche Überlieferung einer lang zurückliegenden Wanderbewegung aus dem Nahen Osten - die mit dem Tod des Wambar unwiderruflich verloren sein würde - fesselte mich ungemein. Besonders wichtig war der Hinweis, daß die Religion der Qemant und der Falaschen aus demselben Ursprungsland stammen mußten. Der Wambar konnte mir leider nicht bestätigen, daß es sich bei seinem Kanaan tatsächlich um das Gelobte Land der Bibel handelte. Trotz seiner Vertrautheit mit Namen wie Ham und Noah gab er an, nie die Bibel gelesen zu haben. Ich glaubte ihm, zweifelte aber gleichzeitig nicht daran, daß es irgendeine literarische Grundlage für das geben mußte, was er mir erzählt hatte. Der Bericht des Wambars enthielt zum Beispiel Anklänge an die große Reise des Patriarchen Abraham und seiner Frau Sarah, die Kanaan verließen und »weiter nach Süden« zogen, weil »eine Hungersnot in das Land« gekommen war.[8] Auch Anayers Heimat wurde sieben Jahre lang vom Hunger bedroht - wie das Ägypten im ersten Buch Mose.[9]

»Erzählen Sie mir mehr von Ihrer Religion«, bat ich den Wambar. »Vorhin haben Sie die Geister in den Bäumen erwähnt. Aber wie verhält es sich mit Gott? Glauben Sie an einen Gott oder an viele Götter?«

»Wir glauben an einen Gott. Es gibt nur einen Gott. Aber ihm zur Seite stehen die Engel.«

Der Wambar zählte die Namen der Engel auf: Jakaranti, Ki-

berwa, Aderaiki, Kiddisti, Mezgani, Anzatatera. Offensichtlich hatte jeder Engel seinen genau festgelegten Stammplatz in der Natur. »Als unsere Religion noch stark war, gingen die Qemant zu diesen Orten und beteten zu den Engeln, um mit Gott in Verbindung zu treten. Jakaranti war der mächtigste Engel, dann folgten Mezgani und Anzatatera.«

»Und Gott?« fragte ich. »Der Gott der Qemant? Hat er einen Namen?«

»Natürlich. Sein Name ist Yeadara.«

»Wo ist er?«

»Er ist überall.«

Ein einziger und allgegenwärtiger Gott. Langsam verstand ich, warum Gamst dieses Volk als hebräisch-heidnisch beschrieben hatte. Fast alles, was der Wambar mir erzählt hatte, paßte in dieses Bild. Nach meiner Rückkehr nach Addis Abeba verglich ich seine Aussagen Punkt für Punkt mit der Heiligen Schrift, und dabei wurde mir schnell klar, wie alt die jüdischen Bestandteile der Qemant-Religion tatsächlich waren.

So hatte mir der Wambar erklärt, daß es den Qemant verboten sei, Fleisch zu essen, das nicht von paarhufigen und wiederkäuenden Tieren stamme. Kamele und Schweine galten als unrein und waren ebenfalls streng verboten. Diese Vorschriften stimmten genau mit denjenigen überein, die im dritten Buch Mose über die Juden verhängt werden.[10] Aber selbst reine Tiere durften nicht verzehrt werden, wenn sie nicht ordnungsgemäß geschlachtet worden waren. »Ihr Hals muß durchschnitten werden, bis alles Blut herausgelaufen ist«, hatte der Wambar erläutert und hinzugefügt, daß es aus diesem Grunde verboten sei, Tiere zu essen, die eines natürlichen Todes gestorben waren. Beide Gebote entsprachen genau den jüdischen Gesetzen.[11]

Die Qemant-Religion gestattete den Verzehr von Fleisch und Milchprodukten auf dem gleichen Tisch. Es wurde jedoch mit Abscheu betrachtet, wenn man in Milch gekochtes Fleisch aß. Ich wußte, daß es orthodoxen Juden verboten war, Fleisch und Milchprodukte in ein und derselben Mahlzeit zu verwenden. Als ich den Hintergrund dieses besonders strengen Gebotes

recherchierte, entdeckte ich, daß es bis auf die fünf Bücher Mose zurückging, in denen mehrfach betont wird: »Und du sollst das Böcklein nicht kochen in seiner Mutter Milch.«[12]

Andere Übereinstimmungen betrafen den Sabbat, den die Qemant genau wie die Juden am Samstag befolgten. »An diesem Tag darf nicht gearbeitet werden«, erklärte der Wambar. »Es ist verboten, am Samstag ein Feuer anzuzünden. Und wenn ein Feld am Samstag abbrennen sollte, dann darf dieses Feld nie wieder bestellt werden .. .«[13]

Diese und ähnliche Verbote befanden sich im Einklang mit den biblischen Gesetzen und verdeutlichten, wie stark verwurzelt dieses uralte jüdische Substrat in der Qemant-Religion war. Selbst ein Brauch, der sich zunächst überhaupt nicht mit jüdischen Riten verbinden ließ, nämlich die Verehrung der heiligen Haine, stellte sich schließlich als weitere Verbindung zum alten Israel heraus.

Ich hatte mir die vom Wambar erwähnte Kultstätte in der Nähe von Aykel natürlich angesehen. Der heilige Baum erwies sich als eine mächtige, hohe und ausladende Akazie, die auf einer Anhöhe westlich der Ortschaft stand. Sie war so alt, daß man sich leicht vorstellen konnte, daß sie seit Hunderten, wenn nicht seit Tausenden von Jahren an diesem Ort stand. Innerhalb der gemauerten Umfriedung fand ich, am Boden ausgelegt, viele Opfergaben: einen Krug Öl, eine Schüssel Hirse, ein Häufchen gerösteter Kaffeebohnen oder ein an den Beinen gefesseltes Huhn, das seine Opferung erwartete. Es waren nicht zuletzt diese Gaben, die zum eigentümlichen Charakter des Ortes beitrugen. Obgleich keine Bedrohung von ihm ausging, war er doch in höchstem Maße unheimlich und entzog sich allen normalen Kategorien.

Was die Jenseitsstimmung noch verstärkte und worin diese »gole« der Qemant sich so von Kultstätten anderer Religionen unterschied, war die Tatsache, daß etwa bis auf Kopfhöhe jeder Ast des Baumes mit ineinander verwobenen bunten Stoffstreifen geschmückt war. Die wehenden Bänder und Fähnchen raschelten im Wind und schienen zu wispern und zu murmeln, als

hätten sie eine Botschaft zu überbringen. Wenn ich diese Nachrichten nur verstehen könnte, dachte ich in diesem Moment, dann würden sich viele geheime Dinge erklären lassen. In einer Anwandlung von Aberglauben berührte ich diesen so lebendigen Baum und glaubte, sein biblisches Alter zu verspüren. Dann kehrte ich zu meinen Begleitern zurück, die mich am Fuße des Hügels erwarteten.

In Addis Abeba verglich ich die Eigenheiten der Qemant-Religion mit dem alttestamentarischen Judentum und durchforstete die Heilige Schrift und die wissenschaftlichen Werke über biblische Archäologie noch einmal auf Hinweise zu diesen kultischen Bäumen. Ich versprach mir nicht viel davon, so daß meine Überraschung um so größer war, als ich entdeckte, daß schon in den frühesten Entwicklungsphasen des jüdischen Glaubens die Rede von bestimmten, besonders angelegten Wäldchen war, denen eine heilige Funktion zugesprochen wurde. Und diese Stätten wurden in der Tat für Gottesdienste benutzt. Im Buch Genesis verweist eine Textstelle auf folgenden Sachverhalt: »Abraham aber pflanzte Bäume zu Ber-Seba und predigte daselbst von dem Namen des Herrn, des ewigen Gottes.«[14]

Ich dehnte meine Suche aus und stieß auf drei weitere Punkte: Zum einen hatten die Juden den Gebrauch heiliger Haine von den Kanaanitern übernommen, den ursprünglichen Bewohnern des Gelobten Landes, zum zweiten lagen diese Wäldchen für gewöhnlich an höhergelegenen Orten, die man »bamoth« nannte, und schließlich gab es dort oftmals auch steinerne Opfersäulen in der Art, wie ich sie auf Tana Kirkos gesehen hatte und von denen ich bereits wußte, daß sie »masseboth« hießen.[15]

Verläßliche Angaben über die Anlage der Haine, die Art der ausgeführten Rituale oder dargebotenen Opfer fehlten jedoch völlig. Der Grund für diese offensichtlichen Lücken konnte nur bei der mächtigen Priesterschaft liegen, die in späteren Zeiten streng gegen derartige Bräuche vorgegangen war. Die heiligen Bäume wurden gefällt und verbrannt, die »masseboth« umgestürzt.[16] Es waren dies dieselben Priester, die für die Zusammenstellung und Bearbeitung der Heiligen Schrift verantwort-

lich waren, und so überraschte es mich kaum, daß die Bibel keine genauen Angaben zu Funktion und Erscheinungsbild der Opferhaine überliefert. Der einzige Verweis, der eine verschwommene Vorstellung von diesen Dingen vermittelt, löst bei den Bibelgelehrten noch heute Unstimmigkeiten aus. In dem Bibelvers aus dem zweiten Buch der Könige ist die Rede von einem Ort, »wo die Weiber wirkten Tuch für die Haine«[17]. Beim Lesen dieser Worte erinnerte ich mich sofort an die gewebten Stoffstreifen, die von jedem Ast des heiligen Baumes bei Aykel herabhingen. Für mich barg die Textstelle im Buch der Könige kein Geheimnis mehr. Um so mehr galt es jedoch über die Qemant herauszufinden, die im Herzen Afrikas eine religiöse Kultur am Leben erhalten hatten, die so alt war wie der jüdische Glaube selbst. Und der gesamte Sachverhalt mußte auf das engste mit der Geschichte der Falaschen zusammenhängen.

Assuan und Meroë

Trotz der unverkennbar jüdischen Glaubenselemente hat man die Qemant nie als Juden betrachtet, denn ihre Kulte sind zugleich sehr von heidnischen Bräuchen und vom Naturglauben bestimmt. Ganz anders verhält es sich mit den Falaschen. Schon mit dem frühen neunzehnten Jahrhundert setzte die weitgehende Anerkennung dieses Volkes als Juden ein. Die formale Bestätigung aus Jerusalem durch den Oberrabbiner der Sephardim erfolgte allerdings erst 1973. Zwei Jahre später stimmte auch das Oberrabbinat der Aschkenasim zu, so daß das israelische Innenministerium schließlich in der Lage war, den Falaschen die automatische Staatsbürgerschaft nach den Bestimmungen des »Law of Return« zuzuerkennen.[18]

Ironischerweise lag der Grund für die lange Zurückhaltung der Oberrabbinate gerade im ausgesprochen alttestamentarischen Charakter der Falaschen-Religion - der in keiner Weise mit dem Talmud übereinstimmte, der maßgeblichen Grundlage jüdischer Gesetze und Lehren also, die erst um 500 nach Chri-

stus vollständig abgeschlossen wurde.[19] Die Falaschen mußten somit den modernen Juden als sehr fremd erscheinen, und erst spät akzeptierte man, daß die Unkenntnis der talmudischen Gebote nur aus der Tatsache resultieren konnte, daß der äthiopische Zweig des jüdischen Glaubens zu einem außerordentlich frühen Zeitpunkt von der Entwicklung der übrigen jüdischen Welt abgeschnitten worden war. Es war diese Isolation, die erklärte, warum die Falaschen noch immer Bräuchen nachgingen, die die Rabbis schon seit langem verboten hatten.

Der zentrale Punkt aber, der die offizielle Anerkennung schließlich ermöglichte, war die allgemeine soziale und religiöse Struktur der Falaschen, die sich eindeutig mit den Lehren der Thora vereinbaren ließ. Besonders dem Pentateuch, den fünf Büchern also, die nach orthodoxem Glauben von Moses selbst verfaßt wurden[20], erwiesen die Falaschen den größten Respekt. Dieser »Fundamentalismus« wurde durch die strikte Befolgung der Nahrungsgebote verkörpert oder durch die Weigerung, Fleisch zu essen, das von Nichtjuden geschlachtet worden war. Man anerkannte zudem die peinliche Genauigkeit, mit der die mosaischen Gebote von Sauberkeit und Reinheit beachtet wurden.[21]

Die Beschneidungsrituale der Falaschen, »gezrat« genannt, entsprachen genau der jüdischen Tradition und wurden am achten Tag nach der Geburt eines männlichen Kindes durchgeführt, so wie es die fünf Bücher Mose vorschreiben.[22] Insbesondere die Sabbat-Prozeduren folgten streng den orthodoxen Regeln: Am Vorabend wurden alle Feuer gelöscht und am Sabbat keine Arbeit ausgeführt, kein Wasser geschöpft und kein Kaffee gekocht. Allein der Verzehr von kalten Speisen und Getränken war zulässig.

Mit diesem Wissen war ich im Januar 1990 nach Gondar gekommen. Während meines Aufenthaltes besuchte ich einige Falaschen-Siedlungen und hoffte, dort auch die religiösen Oberhäupter der Gemeinden kennenzulernen. Angesichts der Massenemigration äthiopischer Juden erwies sich das als schwierig: Die meisten Häuser waren völlig verlassen, Hab und Gut ge-

plündert, die Türen unverschlossen und die Bewohner fort. Etwa zwanzig Meilen von Gondar entfernt stieß ich jedoch auf ein Dorf, in dem noch Menschen lebten. Anbober wurde fast nur noch von Frauen und Kindern bevölkert, die Mehrheit der Männer hatte das Land verlassen.

Falaschen haben weder Synagogen noch Rabbiner. Ihre Kultstätten nennen sie »mesgid« und ihre religiösen Oberhäupter »kahenat« - in der Einzahl »kahen«, was soviel wie »Priester« bedeutet. Mit meinem Dolmetscher Legesse Desta ging ich durch den Ort, verfolgt von einer schnell anwachsenden Schar ausgelassener Kinder. Wir näherten uns dem »mesgid«, das durch den Davidstern auf dem Dach erkennbar war. Ich hoffte, daß ich dort den »kahen« antreffen würde.

Ich sollte nicht enttäuscht werden. Im Innern der ärmlichen Hütte saß ein alter Mann an einem rohgezimmerten Holztisch und las in der Thora, einem wunderschönen Pergamentexemplar in Ge'ez. Legesse erläuterte den Grund unseres Kommens und fragte den Priester, ob er bereit sei, einige Fragen zu beantworten. Nach längerem Wortwechsel gab er seine Zustimmung und stellte sich als Solomon Alemu vor. Er war achtzig fahre alt und seit fast dreißig Jahren der »kahen« von Anbober.

Die nächsten Stunden sprachen wir über die unterschiedlichsten Aspekte des Falaschen-Glaubens und seiner Rituale. Solomons Antworten bestätigten durchweg den genuin alttestamentarischen Charakter dieser Religion und damit einmal mehr meine bisherigen Forschungsergebnisse. Mit besonderem Nachdruck befragte ich ihn über die Blutopfer und versuchte herauszufinden, warum sein Volk diesen Brauch noch immer verfolgte, obgleich die jüdische Religion schon vor zweitausend Jahren davon gelassen hatte. Mit großer Überzeugung antwortete er: »Wir glauben, daß Gott im Himmel diese Zeremonien mit Wohlgefallen betrachtet.«

Vielleicht wußte es der alte Priester, vielleicht nicht: In jedem Fall entsprach diese einfache Erklärung einem Vers im dritten Buch Mose, der das »Brandopfer« als »Feuer zum süßen Geruch des Herrn« beschrieb.[23]

Solomon war ein kluger und belesener Mann. Als ich ihm jedoch ein Kompliment über seine Gelehrsamkeit machte, entgegnete er ohne falsche Bescheidenheit, daß er so viel weniger von den jüdischen Traditionen der Falaschen wisse als sein Vater. Und schon der habe weniger gewußt als sein Großvater, der zu seiner Zeit ebenfalls »kahen« von Anbober war. »Wir vergessen unsere eigene Vergangenheit«, sagte er traurig. »Tag für Tag verlieren wir ein Stück unserer Geschichte.«

Ich griff dieses Stichwort auf und fragte Solomon, ob er wisse, seit wie vielen Jahrhunderten Juden in Äthiopien lebten.

»Vor langer Zeit«, entgegnete er, »kamen wir in dieses Land, lange vor den Christen. Die Christenheit ist noch jung, verglichen mit uns.«

Beiläufig fragte ich: »Haben Sie eine Vorstellung, auf welcher Route Menelik und seine Begleiter nach Äthiopien kamen?«

Vor einiger Zeit hätte mich die Antwort noch überrascht, aber jetzt konnte ich seine Worte nur noch mit Zufriedenheit registrieren: »Unseren Überlieferungen zufolge reisten sie von Jerusalem aus durch Ägypten und den Sudan.«

Fast gelangweilt ergänzte ich: »Und wahrscheinlich sind sie über weite Strecken hinweg dem Nil gefolgt?«

Der »kahen« nickte: »Ja, so heißt es.« Dann aber fügte er zwei Details hinzu, die mich aufhorchen ließen: »Aber sie unterbrachen ihre Reise in Assuan und Meroë.«

Assuan liegt in Oberägypten. Seine Steinbrüche waren einstmals der wichtigste Lieferant für die Granitblöcke, die man zum Bau der Pyramiden verwendete. Meroë, die alte Hauptstadt Nubiens, liegt viel weiter im Süden, in der heutigen Republik Sudan. Mit erwachtem Interesse bat ich Solomon um mehr Informationen über diese Orte. Er beteuerte jedoch, daß dies alles sei, was er wisse. »Ich habe diese Namen gehört«, seufzte er, »in den Geschichten, die mir mein Großvater erzählt hat. Er war ein weiser Mann ..., aber er ist tot... Bald lebt keiner mehr von uns.«

Die Falaschen waren Juden, daran bestand kein Zweifel, und auch die Qemant wiesen überzeugende Anzeichen auf, die auf

einen tiefverwurzelten jüdischen Einfluß zurückzuführen waren. Dieser Einfluß ließ sich nicht einmal auf die Falaschen und Qemant beschränken. Im Gegenteil, fast in ganz Äthiopien hatten die angeblich »orthodoxen« Christen Riten und religiöse Anschauungen entwickelt, die unverkennbar jüdischen Ursprungs waren. Wie die Falaschen beschnitten sie ihre Söhne am achten Tag nach der Geburt, zu einem Zeitpunkt also, der unter allen Völkern der Welt nur noch bei den Juden und den Falaschen von Bedeutung ist.[24] Vor allem aber (und das ist ein bemerkenswerter Fall von Synkretismus) wird der jüdische Sabbat selbst im zwanzigsten Jahrhundert noch von Millionen abessinischer Christen respektiert, und zwar nicht anstelle des sonntäglichen Feiertages, sondern zu diesem dazu.[25]

Auch andere, auf den ersten Blick christliche Feiertage besitzen jüdische Ursprünge. Das äthiopische Neujahrsfest (»enkutatsh«) ähnelt sehr dem jüdischen Neujahrstag (»Rosch ha-Schana«). Beide werden im September gefeiert, beiden folgt wenige Wochen später ein zweiter Festtag (»maskal« in Äthiopien und »Jom Kippur« in Israel), und in beiden Kulturen liegt zwischen den genannten Feiertagen eine Periode der Buße und Einkehr.[26]

Viele Gesetze des Pentateuch werden von äthiopischen Christen streng befolgt, so etwa das Gebot der Sauberkeit und Reinheit.[27] Ähnlich konsequent beachten sie die alttestamentarischen Nahrungsmittelgebote und vermeiden peinlich genau den Verzehr unreinen Fleisches - vor allem von Schweinefleisch oder »Muskelfleisch«, von dem Mose spricht.[28] Im Ge'ez, der alten liturgischen Sprache der orthodoxen Kirche, ist vom »verbotenen Muskel« die Rede.[29]

Auch die Kirchengewänder weisen Ähnlichkeiten auf.[30] So entspricht die »kenat« (eine Bauchschärpe] dem Gürtel des Hohenpriesters[31], das »koba« (Käppchen) ähnelt der Mitra[32] und der »askema« (Überwurf) mit seinen zwölf, in vier Reihen zu je drei angeordneten Kreuzen gleicht dem Amtsschild des Priesters. Das zweite Buch Mose beschreibt dieses Schild genau und erläutert die Anordnung der zwölf Edelsteine in vier Reihen.[33]

Alles in allem konnte ich Erzbischof David Matthew zustimmen, der in einer Publikation aus dem Jahr 1947 den Sachverhalt so formuliert hatte: »Die gesamte Spannbreite religiöser Erscheinungen in Äthiopien ist archaisch, rituell und von jüdischen Bräuchen unterlegt.«[34] Erst mit dem »Timkat«-Fest im Januar 1990 wurde mir jedoch vollends klar, wie stark und bestimmend diese Einflüsse waren.

Die Prozession

Die Vorbereitungen für die Zeremonien waren weit vorangeschritten, als ich mich am Nachmittag des 18. Januar durch eine aufgeregte Menge schlängelte und den breiten Treppenaufgang zum Vorplatz des Gotteshauses erklomm. Die Kirche Medhane Alem, was soviel bedeutet wie »Erlöser der Welt«, ist ein großer und nach den traditionellen Vorgaben errichteter Rundbau. Der Grundriß mutet mit seinen konzentrisch um das Allerheiligste angeordneten Wandelgängen und Vorräumen wie eine Schießscheibe an.

Diese spezifisch äthiopische Anordnung wird, nur geringfügig modifiziert, auch bei rechteckigen oder oktogonalen Kirchenbauten verfolgt und von Wissenschaftlern mit der »dreifachen Unterteilung des hebräischen Tempels« erklärt.[35] Zunächst verstand ich nicht, warum die Abessinier ihren christlichen Gotteshäusern gerade ein vorchristliches Baumodell zugrunde legten. Als ich den äußeren Säulengang der Kirche von Medhane Alem betrat, schien mir die Antwort jedoch auf der Hand zu liegen: Der syrische Missionar Frumentius, der erste Erzbischof von Äthiopien, hatte wohlüberlegt und einfühlsam gehandelt, als er im vierten Jahrhundert nach Christus den neuen Glauben und seine Institutionen mit den im Land bereits existierenden jüdischen Traditionen verband.[36]

Es gilt als Sakrileg, eine äthiopische Kirche in Schuhen zu betreten, und so ging ich auf Strümpfen durch den äußeren Bezirk, das »kene mahlet«. Ich betrachtete die verblaßten Wand-

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Höhepunkt. Derartige Chorgesänge waren, wie ich zuvor herausgefunden hatte, bereits fester Bestandteil der alttestamentarisch-jüdischen Liturgie.[37]

Als ich diese Szene beobachtete, drang der Duft von Weihrauch aus der geöffneten Tür zum »keddest«. Langsam bewegte ich mich der Tür zum zweiten Innenbezirk entgegen, bis ich eine umherwirbelnde, in grüne, goldbestickte Gewänder gehüllte Figur sah, die einem Traum entsprungen zu sein schien - halb Hexenmeister, halb Priester, tanzte der Mann abwesenden Blickes wie ein Derwisch durch den Raum.

Um ihn herum hatten sich weitere, ähnlich gekleidete Priester versammelt, jeder mit einem Weihrauchfaß in den Händen, das von feinen silbernen Ketten gehalten wurde. Ich mußte meine Augen anstrengen, um hinter diesen Gestalten und durch die dicken Schwaden hindurch das im Halbdunkel liegende eigentliche Zentrum des »keddest« auszumachen: den verhängten Eingang zum Allerheiligsten. Hinter diesem Vorhang verborgen, verehrt, geheimnisvoll und behütet vom uralten Glauben, lag der »Tabot« - das Symbol für die Bundeslade. Ich erinnerte mich, daß die Priester schon im alten Israel große Mengen von Weihrauch verbrennen mußten, damit die Lade von den Schwaden eingehüllt wurde.[38] Nur so konnte der Priester sein Leben schützen und sichergehen, »daß er nicht sterbe«[39]. Nun überschritt ich die Schwelle zum »keddest«, um einen genaueren Eindruck von den Vorgängen zu bekommen.

Ich hatte mich zu weit vorgewagt. Sofort verstummte der Gesang der Diakone, die Trommel schwieg, und für einen Moment senkte sich absolute Stille über den Ort. In der Luft lag die Spannung drohender Gefahr, gleich einer Gewitterwolke, aus der jeden Moment ein gewaltiger Blitz hervorbrechen will. Dann geriet alles in Bewegung, die Männer stoben in alle Richtungen auseinander. Ich merkte, wie ein Priester mich vorsichtig, aber unmißverständlich am Arm nahm und bis zum Hauptportal führte. Sekunden später blinzelte ich verwirrt ins gleißende Sonnenlicht des Nachmittages, völlig verblüfft von der plötzlichen Wendung der Dinge.

Unterdessen hatte sich eine unüberschaubare Menge von Köpfen und Körpern angesammelt, die den Kirchplatz bis zum Bersten ausfüllte und sich bis weit in die Straßen und Gassen hinein erstreckte. Männer und Frauen, kleine Kinder, Alte und Gebrechliche, sogar Kranke, lachende und glückliche Menschen - halb Äthiopien schien sich hier versammelt zu haben. Viele trugen Musikinstrumente mit sich, Zimbeln und Trommeln, Flöten, Fiedeln und altertümliche Zupfinstrumente.

Nur wenige Momente, nachdem ich die Kirche verlassen hatte, trat eine Gruppe von Priestern aus dem Portal. Es waren dieselben Männer, die ich gerade noch inmitten der Weihrauchschwaden vor dem zugezogenen Vorhang zum Allerheiligsten gesehen hatte. Nun aber trug einer von ihnen, ein hochgewachsener, bärtiger Mann mit vornehmen Gesichtszügen, den von kostbaren rotgoldenen Brokattüchern verborgenen »Tabot« auf dem Kopf.

In diesem Augenblick brach die Menge in frenetische Schreie aus und begann mit den Füßen zu trampeln. Die Frauen ließen ein schrilles Geheul ertönen - bebende, anschwellende Schwingungen, die Professor Ullendorff zufolge ihre Parallelen »in bestimmten melodischen Ausrufen im althebräischen Gottesdienst haben. Das hebräische >hallel< entspricht dem äthiopischen >ellel<, und der Jubelruf wird durch die fortwährende Wiederholung des Lautes >ellel< ausgeführt, so daß ein unablässiges >ellellellellellell .. .< erklingt. Die eigentliche Bedeutung von >Halleluja!< lautet vermutlich: singt >hallel< oder >ellel< Jehova zu Ehren! .. .«[40]

Für einige Minuten blieben die Priester unter dem Hauptportal stehen. Dann setzte sich der Zug in Bewegung und umschritt einmal die Kirche, bevor er sich der Menge näherte. Wie von Zauberhand geteilt, bildeten die Gläubigen einen schmalen Pfad, durch den die Prozession vorankommen konnte. Das Geheul und die Schreie vermischten sich mit dem Schmettern der Trompeten, dem Pfeifen der Flöten, dem Klimpern der Leiern und dem Geklingel der Tambourine zu einem ohrenbetäubenden Lärm, der die Menschen völlig in Trance geraten ließ.

Es war nicht ungefährlich, wie ich mich im aufgewühlten Kielwasser des Zuges so dicht wie möglich hinter den Priestern hielt. Und obgleich die Menge, sei es vom Hirsebier, sei es vom Tumult, im Rausch tobte, und obwohl ich mehr als einmal fast von den Füßen gerissen wurde, ich fühlte mich nicht einen Moment beunruhigt oder bedroht.

Oft mußten wir uns durch die engen Gassen der alten Stadt drängen, dann bewegte sich der Zug wieder über große, offene Flächen, manchmal langsam, manchmal schnell, immer begleitet von der wie Flammen hochschlagenden, explodierenden Musik. Ich zwang mich, fortwährend Blickkontakt mit dem unter den rotgoldenen Tüchern verborgenen »Tabot« zu halten. Schließlich war ich jedoch so weit zurückgedrängt worden, daß ich es aus den Augen verlor. Ich stellte mich auf die Zehenspitzen, reckte meinen Kopf über die Menge, bis ich es wieder sah. Schnell erkletterte ich die Straßenböschung, überholte rennend vielleicht zwei- oder dreihundert Menschen, und sprang auf die Straße zurück, als ich auch die Priester passiert hatte.

Hier offenbarte sich der Grund für das nur stockende Vorankommen der Prozession. Vor dem Zug formierten sich immer wieder neue Tanzgruppen, manche in ihren Alltagskleidern, manche in feierlichen Gewändern. Jede dieser Gruppen bewegte sich um einen Trommler, der sein »kebero« um den Hals trug, in wilden Drehungen herumwirbelte und dabei jenen uralten und wilden Rhythmus schlug. Die Tänzer um ihn herum explodierten vor Energie, schnellten in die Höhe, klatschten in die Hände, schlugen ihre Tambourine und Zimbeln und drehten taumelnd ihre Kreise bis zur völligen Erschöpfung.

In diesem Fall war es ein junger Mann in volkstümlichen Gewändern aus weißer Baumwolle, der - vorangetrieben vom fordernden Schmettern der Trompete, den Klängen der zehnsaitigen »begegna«[41] und den anfeuernden Rufen - vor dem hoch über den Köpfen getragenen »Tabot« und der erregten Menge einen furiosen Solotanz darbot. Die geschmeidige Kraft und wilde Energie des Mannes schien ganz und gar aus der Trance zu erwachsen, in der er sich offensichtlich befand. Ohne

Unterlaß umkreiste er den »kebero«-Trommler, drehte seine Figuren, bewegte ruckartig die Schultern und pries - völlig verloren in seinem eigenen, inneren Rhythmus - den Herrn mit jedem Teil seines Seins. So mußte es sich vor dreitausend Jahren schon einmal zugetragen haben, als vor den Toren Jerusalems »David und das ganze Haus Israel vor dem Herrn herspielte mit allerlei Saitenspiel von Tannenholz, mit Harfen und Psaltern und Pauken und Schellen und Zimbeln ... Und David tanzte mit aller Macht vor dem Herrn her und war begürtet mit einem leinenen Leibrock. Und David samt dem ganzen Israel führten die Lade des Herrn herauf mit Jauchzen und Trompeten.«[42]

Von einem Moment auf den anderen sank der Tänzer in sich zusammen und blieb wie tot liegen. Einige der Zuschauer hoben ihn auf und trugen ihn an den Straßenrand, wo sie ihn vorsichtig auf ein weiches Grasfleckchen legten. Dann drängte die Menge noch stärker voran, begleitet von immer neuen Tänzern, die sofort den Platz des Erschöpften eingenommen hatten.

Bald darauf ergab sich eine Veränderung. Durch eine letzte schmale Gasse ergossen sich die Menschen auf einen weiträumigen, offenen Platz. Zugleich näherten sich aus drei verschiedenen Richtungen weitere Prozessionen mit Priestern, die ein »Tabot« auf dem Kopf trugen und von einer unüberschaubaren Menschenmasse gefolgt wurden. Wie vier große Flüsse strömten die Prozessionen aufeinander zu und vereinigten sich. Die Priester der Kirche von Medhane Alem reihten sich unter die anderen Priester ein. Dahinter versammelten sich nun die Menschen und bildeten eine mächtige Heerschar, die mindestens zehntausend Seelen stark sein mußte.

Sobald die Prozession sich neu geordnet hatte, verließen wir den Platz und wälzten uns eine breite, abschüssige Landstraße hinunter. Manchmal gerieten kleine Kinder in meine Nähe, nahmen mich schüchtern bei der Hand und führten mich ein Stück des Wegs voran. Dann ließen sie mich los und verschwanden in der Menge. Eine alte Frau gesellte sich an meine Seite, rief mir etwas auf Amharisch zu, lächelte zahnlos. Zwei junge Mäd-

chen, kichernd und aufgeregt, berührten fasziniert mein blondes Haar und stoben wieder davon.

Ganz eingenommen von der Macht des Augenblickes und ganz ohne jegliches Zeitgefühl ließ ich mich einfach mittreiben.

Nach einer Wegbiegung tat sich unerwartet ein Bild auf, das aus einem Märchen hätte stammen können: Wir näherten uns einem großen, von einer Mauer umgebenen Gelände, auf dem ich die hohen Türme eines gut befestigten Kastells ausmachen konnte. Nicht zum erstenmal wurde ich in Äthiopien an das wundersame Gralsheiligtum erinnert, wie es Wolfram von Eschenbach beschreibt: als »vortrefflich befestigte Burg«, mit »vielen Türmen und Palästen«, am Ufer jenes geheimnisvollen Sees im Reich Munsalväsche.[43]

In der Mitte des gemauerten Walls befand sich ein schmaler Torbogen, durch den die Menschen nun strömten - und von dem auch ich unwiderstehlich angezogen wurde. Mit einer unglaublichen Macht drängte die Masse dem Nadelöhr entgegen, als ob sie unaufhaltsam von einem Strudel verschluckt würde. Geschoben und gedrängt von der Masse ungeduldiger Körper, erreichte ich schließlich den Torbogen, und wurde eng an die rauhe Steinmauer gestoßen. Dabei verlor ich meine Armbanduhr, doch im selben Augenblick gelang es jemandem hinter mir, die Uhr aus dem Gewühl der Beine herauszufischen und sie mir in die Hand zu drücken. Bevor ich mich jedoch bedanken oder meinen Wohltäter auch nur ausmachen konnte, wurde ich durch den Flaschenhals gedrückt und erreichte die weiten und offenen Rasenflächen innerhalb der Mauern. Sofort fiel der immense Druck der Beengtheit von mir ab, und ich verspürte ein wunderbares Gefühl von Freiheit.

Das rechteckige Gelände mußte im Grundriß etwa die Größe von vier Häuserblocks haben. In der Mitte des großen Feldes sah ich eine zweite gemauerte Umfassung, die etwa ein Drittel der Fläche einnahm. Hinter diesen Mauern erhob sich die große, zinnenbewehrte Burg, die mir schon von weitem aufgefallen war. Das Gebäude war von drei Seiten von einem künstlichen, halb gefüllten See umgeben. Die Burg selbst, im sieb-

zehnten Jahrhundert von Kaiser Fasilidas errichtet, schien nur über eine schmale Brücke zugänglich, die sich über einen tiefen Graben spannte. Sie führte direkt auf das massive Holztor in der Vorderfront des Gebäudes zu.

Die Menschen strömten noch immer durch den schmalen Torbogen, liefen ein wenig ziellos auf der großen Rasenfläche umher und grüßten einander mit ausgelassener und lebhafter Gutmütigkeit. Weiter entfernt, zu meiner Rechten, versammelte sich eine Gruppe von Priestern und Diakonen vor der Burg. Ich erkannte, daß sie mittlerweile sieben »Tabots« mit sich führten. Im Verlauf des Nachmittags waren also noch weitere Prozessionszüge zu uns gestoßen. Schulter an Schulter standen die Priester mit den verhüllten Schreinen in einer Reihe. Hinter ihnen hielten andere Priester hell gefärbte und mit Fransen geschmückte Prozessionsschirme, die mit einem Muster von Kreuzen, Sternen, Sonnen und Halbmonden verziert waren. Wenige Meter links davon standen sich zwei Reihen von Priestern gegenüber, die ihre langen Gebetsstäbe und Sistren in den Händen hielten. Dazwischen saß ein Trommler, der sich tief über sein »kebero« beugte.

Als ich mich näherte, um besser sehen zu können, begann diese Formation, einen langsamen, schwingenden Tanz vor den »Tabots« auszuführen - im gleichen hypnotisierenden Rhythmus und mit denselben dialogartigen Gesängen, wie ich sie am Vormittag schon in der Kirche von Medhane Alem beobachtet hatte. So plötzlich wie er begonnen hatte, brach der Tanz ab, und die Priester mit den »Tabots« schritten majestätisch über die Brücke zum Eingang der Burg. Dort hielten sie einen Augenblick inne, eingefangen vom Licht der untergehenden Sonne. Die Frauen in der Menge ließen ihren Gefühlen freien Lauf und brachen in wildes Geheul aus. Dann öffnete sich das schwere Holztor, gewährte mir einen kurzen Blick ins Halbdunkel des Inneren, und die »Tabots« verschwanden hinter den schweren Mauern.

Allmählich beruhigten sich die Zuschauer und ließen sich auf dem Boden nieder. Manche hatten Decken mitgebracht, andere »shemmas«, Umhängetücher aus Baumwolle, oder dik-

kere, wollene »gebbis«. Alle erweckten den Anschein, daß sie für die Dauer des »Timkat« im Frieden mit sich selbst waren - erschöpft von den Anstrengungen und Erregungen der Prozession, bereit für die vor ihnen liegende Nachtwache.

Mit Einbruch der Dunkelheit wurden immer mehr Lagerfeuer angezündet. Um die flackernden Flammen herum saßen die in ihre Decken eingehüllten Menschen. Sie murmelten leise vor sich hin, und die geheimnisvollen Worte in der alten, semitischen Sprache Äthiopiens schienen noch lange in den Atemwolken vor den Gesichtern zu schweben.

Erfrischt von der kühlen Nachtluft legte ich mich auf den Grasboden zurück, verschränkte die Hände unter dem Kopf und starrte in den dunklen, von Sternen übersähten Nachthimmel. Lange ließ ich meinen Gedanken freien Lauf, bis mich ein lauter werdender rhythmischer Gesang und das Schlagen einer Trommel wieder in die Gegenwart zurückholten - ein geisterhafter, beunruhigender Widerhall, der so schwach und gedämpft aus der alten Burg zu mir herüberdrang, daß ich ihn zunächst kaum lokalisieren konnte.

Ich stand auf und näherte mich der Brücke. Ich hatte nicht einmal die Absicht, sie zu überqueren, denn ich glaubte nicht, daß das erlaubt war, sondern suchte nur eine günstigere Position, die es mir erlauben würde, die Musik deutlicher zu hören. Unerklärlicherweise wurde ich jedoch von vielen Händen vorwärts gestoßen - sanft, aber bestimmt -, und ehe ich mich versah, stand ich auf der Brücke. Dort führte mich ein Kind bis an das gewaltige Portal, öffnete das Tor und bedeutete mir mit einem Lächeln, daß ich eintreten sollte.

Einigermaßen unsicher und vorsichtig trat ich über die Schwelle in einen großen, hohen Raum, der nach Weihrauch duftete. In unzähligen Nischen brannten Dutzende von Kerzen. Ein kalter Luftstrom fuhr unter der Türe hindurch, die sich hinter mir geschlossen hatte, und der Wind, der durch die Ritzen und Spalten des Mauerwerkes drang, ließ die Wachslichter flackern und tropfen.

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beln, Psaltern und Harfen und bei ihnen hundertzwanzig Priester, die mit Trompeten bliesen ... Und da die Stimme sich erhob von den Trompeten, Zimbeln und Saitenspielen und von dem Loben des Herrn, daß er gütig ist und seine Barmherzigkeit ewig währet, da ward das Haus des Herrn erfüllt mit einer Wolke .. .«[45]

Genauso trug es sich in diesem Augenblick zu, als die Priester Äthiopiens den Namen des Herrn priesen. Und es war die gleiche Inbrunst und Überzeugung, in der sie Ihm für Seine Gnade dankten und Seinen erhabenen Namen lobten, indem sie sangen:

»So mache dich nun auf, Herr, Gott, zu deiner Ruhe, du und die Lade deiner Macht. Laß deine Priester, Herr, Gott, mit Heil angetan werden und deine Heiligen sich freuen über dem Guten.«[46]

In dieser Nacht vermischten sich Realität und Traum. Es gab Augenblicke, in denen ich glaubte, die Lade selbst müsse sich irgendwo in dieser Burg befinden. Ich wußte jedoch, daß ich noch lange nicht an das Ende meiner Suche gelangt war, daß die Lade nicht in Gondar war und daß ich noch viele Wege würde gehen müssen, bevor ich auch nur hoffen konnte, mich ihr zu nähern. Im Moment mußte ich mich mit den »Tabots« zufriedengeben, die hier behütet wurden, mit den sieben Schreinen, die durch die Zauberkraft des blinden Glaubens innerhalb weniger Stunden mühelos zu mächtigen Symbolen verwandelt worden waren.

Vor Morgengrauen führten mich die Priester aus der Burg heraus und über die schmale Steinbrücke. Als das erste Tageslicht den Himmel erhellte, verbrachte ich eine gute Stunde damit, das Gelände genau zu erforschen. Viele Menschen hatten den großen Rasenplatz im Verlauf der Nacht verlassen, andere gingen zu zweit umher und sprachen miteinander, standen in dichten Gruppen zusammengedrängt oder wärmten sich an den matten Flammen der verlöschenden Feuer. Aber schon wieder war den Gesichtern der Ausdruck von Erwartung, von gespannter und unruhiger Vorahnung abzulesen, der die Menschen

schon beherrscht hatte, als das »Tabot« am Vortag aus der Kirche von Medhane Alem herausgetragen worden war.

Ich machte einen Rundgang um die innere Mauer, umkreiste einmal die Burg und den See. Als ich die Rückseite des Gebäudes erreichte, bot sich mir ein bizarres und zugleich wundervolles Bild. Der gesamte See wurde von einem etwa anderthalb Meter breiten Erddamm umgeben, und auf dieser Böschung warteten die Menschen dichtgedrängt und aufmerksam auf irgend etwas. Im Licht der aufgehenden Sonne spiegelte die bewegungslose Wasseroberfläche die gespannten Gesichtszüge der Menge wider.

Ich blickte direkt auf den Balkon an der rückwärtigen Fassade der Burg, auf den nun, in einer Wolke von Weihrauch, eine Gruppe von Priestern in kostbaren rotgrünen Roben trat. Aus der Menge erscholl lautes Geheul, und eine kurze Zeremonie folgte. Wie ich später erfuhr, diente sie dazu, das Wasser zu segnen und zu weihen. Nur Bruchteile später - und ungeachtet der morgendlichen Kälte - stürzten sich die Menschen in den See, einige völlig bekleidet, andere ganz nackt. Hier tauchte eine junge Frau ihr nacktes Baby unter Wasser, da watete ein alter, gebrechlicher Mann mit abgezirkelten Bewegungen vorsichtig durch den See, und dort bespritzte eine Matrone ihren bis zur Hüfte entkleideten Körper mit einem Zweig. Kinder tollten im Wasser herum, und von der Vorderseite der Burg drang aufgeregter Lärm herüber, als die Menschen sich auch dort in die Fluten stürzten, um ihr ausgelassenes Bad zu nehmen.

Ich verließ meinen Beobachtungspunkt auf der Mauer und eilte um das Gebäude herum zum Haupteingang. Ich wollte den Tumult nutzen, um noch einmal in das Innere der Burg vorzudringen. Die »Tabots« hatten sich nicht in dem Raum befunden, in dem ich in der Nacht an der Zeremonie teilgenommen hatte. Wo waren sie also?

Von der hysterischen Menge unbemerkt, überquerte ich die Brücke, stieß das Portal auf und betrat den Raum. Noch immer war der Boden mit Gras bestreut, und die Wände waren vom Qualm der Kerzen rußgeschwärzt. Es mußte nun etwa sieben

Uhr sein, und die ersten Sonnenstrahlen fielen auf die jungen Diakone, die sich in dem großen Saal aufhielten. Auf der anderen Seite bemerkte ich einen zugezogenen Vorhang, der mir in der Nacht entgangen war. Aus dem dahinterliegenden Raum trat nun ein Priester, der mich zunächst mißtrauisch betrachtete. Dann aber lächelte er und schien mich willkommen zu heißen.

Ich ging zu ihm hinüber und gab zu erkennen, daß ich hinter den Vorhang wollte. Doch er schüttelte vehement den Kopf. »Nein«, flüsterte er auf Englisch. »Nein. Unmöglich. Hier >Tabot<.« Dann verschwand er wieder hinter dem Vorhang, hinter dem ich einige Geschäftigkeit und Schritte ausmachen konnte.

Ich rief nach dem Priester und hoffte die Aufmerksamkeit der Männer zu erwecken, aber es kam keine Antwort. Dann legte ich - unvorsichtigerweise - meine Hand an den Vorhang und schickte mich an, ihn zu öffnen. Sofort stürzten sich drei Diakone auf mich, packten mich bei den Armen und brachten mich zu Boden, wo ich einige schwere Schläge einstecken mußte.

Ich versuchte mich zu wehren, fluchte und konnte für einige Momente keinen klaren Gedanken fassen. Ich fühlte nur, daß ich verwirrt und schockiert war. Vor wenigen Stunden noch war ich davon überzeugt, dazuzugehören, nun wurde ich verprügelt. Mühsam schüttelte ich meine Angreifer ab und kam auf die Füße. Mein Rückzugsgefecht wurde jedoch als erneuter Ausfall Richtung Vorhang mißverstanden, so daß ich noch mehr Hiebe empfing und grob herumgestoßen wurde. Immer mehr Diakone stellten sich mir in den Weg. »Hineingehen verboten«, drohte mir einer in gebrochenem Englisch, »nur Priester dürfen!« Er schüttelte wütend die Faust gegen mich und fügte hinzu: »Du sehr böser Mann!«

Ohne viele Umstände zerrte man mich zur Pforte. Gleich darauf fand ich mich auf der Brücke wieder - beobachtet von einigen tausenden mißtrauisch blickender Augenpaare. Schlagartig wurde mir klar: Wenn ich solche Schwierigkeiten bekommen hatte, nur weil ich zu nahe an die »Tabots« herangekommen war, was um alles in der Welt würde mir zustoßen, wenn ich in Aksum versuchen würde, die Bundeslade zu sehen?

Ich überquerte die Brücke, taumelte zitternd vor Aufregung durch die Menge, bis ich ein freies Fleckchen fand. Nachdem ich wieder zu mir gekommen war, sah ich, daß noch immer viele Menschen im Wasser waren, und ich konnte ihr fröhliches Rufen und Schreien hören. Die meisten aber hatten sich schon wieder vor der Burg versammelt; gespannt und merkwürdig still reckten sie erwartungsvoll die Hälse.

Die sieben Priester in vollem Ornat erschienen nun am Burgtor und trugen wieder die verhüllten »Tabots« auf den Köpfen. Langsam und bedächtig passierten sie die Brücke, gefolgt von anderen Priestern mit den Prozessionsschirmen. In diesem Moment stieß die Menge fast unisono einen Seufzer aus - einen innigen, leidenschaftlichen Laut von Ehrfurcht und Hingabe, der fast unmittelbar vom üblichen ohrenbetäubenden Geheul der Frauen gefolgt wurde. Ein heftiges Gedränge entstand, als die Menschen seitwärts zurückwichen, um einen Pfad für die sich nähernden »Tabots« freizumachen.

Den Vormittag über verfolgte ich die Prozession auf ihrem Weg zurück nach Gondar. Als wir den großen Platz inmitten der alten Stadt erreichten, an dem sich Tags zuvor die verschiedenen Züge getroffen hatten, wurde noch einmal Davids Tanz vor der Lade zelebriert und von schmetternden Trompeten und der Musik der Sistren und Streichinstrumente begleitet. Dann endlich teilte sich die Menge wieder in ihre Ströme auf - sieben verschiedene Züge, die den Platz in sieben verschiedene Richtungen verließen.

Keuchend und schwitzend blieb ich dicht hinter dem »Tabot« von Medhane Alem und folgte ihm bis zu der alten runden Kirche. Unter ausgelassenen Tänzen und Liedern wurde der Schrein einmal um das Gebäude getragen, dann noch einmal - und schließlich, mit einem gewaltigen Schrei der Freude und des Beifalls, verschwand er im Dunkel der Kirche, im Allerheiligsten, im geheimsten aller geheimen Orte.

Ein Jahr Aufschub ...

Als ich Gondar im Januar 1990 verließ, wußte ich, daß die Bundeslade nur in Äthiopien zu finden war. Unter dem dünnen Firnis christlicher Rhetorik wies alles auf eine dunkle und weiter, viel weiter zurückliegende Vergangenheit hin: die archaischen Tänze der Priester, die ekstatische Verehrung, die von der Menge ausging, die Musik der Tamburine und Sistren, der Trompeten und Zimbeln. Noch heute bin ich mir sicher, daß diese komplizierten Rituale nie mit einer solchen Inbrunst und Überzeugung praktiziert worden wären - und das über Jahrhunderte hinweg, durch Zeiten von Gefahr und Kriegen hindurch -, wenn es sich in Aksum nur um irgendein »Tabot« gehandelt hätte.

Nein. Die Äthiopier besaßen die Bundeslade. Im ersten Jahrtausend vor Christus waren sie in den Besitz des Schreins gekommen; vielleicht so, wie das Kebra *Nagast* es beschreibt, vielleicht auf einem anderen Weg, das würde ich noch herausfinden. Und heute, am Ende des zweiten Jahrtausends nach Christus, hatten sie die Lade noch immer, verborgen und geschützt vor allzu neugierigen Blicken. Aber wo?

Ich war mir sicher, daß ich mich bei meinen Nachforschungen nicht hatte täuschen lassen. Das Heiligtum war weder auf einer der Inseln des Zwaisees noch des Tanasees. Alle Hinweise deuteten darauf, daß es sich an seinem angestammten Platz im Allerheiligsten der Kapelle von Aksum befand. Noch hatte ich keinen sicheren Beweis dafür, aber tief in meinem Inneren war ich mir dessen sicher. Bis zum »Timkat« 1991 waren es noch zwölf Monate, dann würde ich nach Aksum gehen und die Lade suchen - und hoffentlich mit eigenen Augen sehen.

Bis dahin beschloß ich, alles über diesen unheilvollen Gegenstand herauszufinden, der eine so unwiderstehliche Anziehungskraft auf mich ausübte. Ich würde die Lade des Herrn erforschen, würde herausfinden, ob es eine rationale Erklärung für die Wunder, aber auch für die Schrecken geben konnte, die die Lade zu alttestamentarischen Zeiten bewirkt haben soll.

Ich würde dieses Jahr gut nutzen.

TEIL IV: DIE MACHT DES SCHREINS

Kapitel 12

Magie oder Methode?

Zwischen 1989 und 1990 vertiefte ich mich immer mehr in die Rätsel der Bundeslade und begann, mich nicht nur dafür zu interessieren, *wo* sie war, sondern auch dafür, was sie eigentlich war. Natürlich wandte ich mich zunächst an die Bibel, wo die Bundeslade zum erstenmal zu Beginn der Wanderschaft durch die Wüste erwähnt wird. Das Buch Exodus berichtet, daß Gott selbst Moses auf dem Berg Sinai verkündete, wie die genauen Maße sein und welche Materialien zu ihrem Bau verwendet werden sollten.[1]

Dieser »göttliche Konstruktionsplan« ist sicher eine der merkwürdigsten Stellen in der Bibel. Nachdem er ihn empfangen hatte, gab Moses ihn wörtlich an einen Handwerker namens Bezaleel weiter, und dieser baute die Bundeslade genau wie vorgeschrieben. Als sie fertig war, legte Moses die beiden steinernen Gesetzestafeln mit den Zehn Geboten hinein. Der heilige Gegenstand, nun gleichsam schwanger mit seinem kostbaren Inhalt, wurde dann in der Stiftshütte aufgestellt, jenem tragbaren Zelt, das den Israeliten während ihrer Wanderschaft als Ort der Anbetung diente.

Die Schrecken und die Wunder

Bald traten furchtbare Ereignisse ein. Das erste betraf Nadab und Abihu, zwei der vier Söhne des Hohenpriesters Aaron, Moses' Bruder. Als Mitglieder der priesterlichen Familie hatten sie Zugang zum Allerheiligsten, in das sie eines Tages mit Räucherpfannen in den Händen eintraten. Dort brachten sie ein »fremdes Feuer vor den Herrn, das er ihnen nicht geboten hatte«[2]. Die verheerende Folge war, daß eine Flamme aus der

Lade fuhr - »und verzehrte sie, daß sie starben vor dem Herrn«[3].

»Und der Herr redete mit Mose, nachdem die zwei Söhne Aarons gestorben waren, da sie vor dem Herrn opferten, und sprach: Sage deinem Bruder Aaron, daß er nicht zu aller Zeit in das inwendige Heiligtum gehe hinter den Vorhang vor dem Gnadenthron, der auf der Lade ist, damit er nicht sterbe; denn ich will in einer Wolke erscheinen auf dem Gnadenthron.«[4]

Der Gnadenthron war die goldene Platte, die als Deckel der Lade diente. An beiden Enden befanden sich, die Gesichter einander zugewandt, zwei goldene Cherubsfiguren. Die »Wolke auf dem Gnadenthron« muß demnach zwischen den Cherubim zu sehen gewesen sein. Sie war nicht immer da, aber wenn, dann »herrschten die Geister«[5], wie die Israeliten glaubten, und nicht einmal Moses wagte sich dann zu nähern.[6]

Auch andere, angeblich übernatürliche Phänomene ereigneten sich »zwischen den Cherubim«. So betrat Moses nur wenige Tage nach dem unglückseligen Tod der Söhne Aarons die Stiftshütte, die damals noch am Fuße des Berges Sinai aufgeschlagen war. Da »hörte er die Stimme mit ihm reden von dem Gnadenthron, der auf der Lade des Zeugnisses war, zwischen den zwei Cherubim .. .«[7] In einigen sehr alten jüdischen Legenden heißt es, die Stimme sei in »Form einer Feuersäule« vom Himmel gekommen.[8] Und Feuer scheint oft mit den Cherubim in Verbindung gebracht worden zu sein. Nach einer dieser volkstümlichen Überlieferungen beispielsweise »sprangen zwei Funken aus den Cherubim, die die Lade beschirmten«, Funken, die zuweilen zu einem Feuer wurden und Gegenstände in ihrer Nähe zerstörten.[9]

Schließlich kam die Zeit, daß die Israeliten ihr Lager am Fuße des Berges Sinai verlassen mußten:

»So zogen sie von dem Berge des Herrn drei Tagesreisen weit, und die Lade des Bundes des Herrn zog vor ihnen her die drei Tagesreisen, ihnen zu weisen, wo sie ruhen sollten ... Und wenn die Lade aufbrach, so sprach Mose: Herr, steh auf! Laß deine Feinde zerstreut und alle, die dich hassen, flüchtig werden

vor dir! Und wenn sie sich niederließ, so sprach er: Komm wieder, Herr, zu der Menge der Tausend Israels!«[10]

An der Spitze der Heerschar wurden »die heiligen Geräte« auf den Schultern der Kehatiter getragen, einer Sippe des Stammes Levi, zu dem auch Moses und Aaron gehörten. Mehreren Legenden und rabbinischen Kommentaren zum Alten Testament zufolge wurden diese Träger von Zeit zu Zeit vom Boden gehoben, denn »die Lade war imstande, ihre Träger ebenso zu tragen wie sich selbst«[11].

Das ist keineswegs die einzige jüdische Überlieferung, die andeutet, daß die Lade geheimnisvolle, der Schwerkraft entgegenwirkende Fähigkeiten gehabt haben soll. Auch einige andere gelehrte Midrasch-Auslegungen bezeugen, daß sie ihre Träger manchmal vom Erdboden hob und sie so zeitweilig von einer ansonsten beachtlichen Last erleichterte.[12] Und eine besonders beeindruckende jüdische Legende berichtet im selben Tenor, wie die Priester, die die Bundeslade zu tragen versuchten, »wieder und wieder von einer unsichtbaren Macht in die Luft geschleudert und zu Boden geworfen wurden«[13]. Eine andere Überlieferung wiederum beschreibt einen Vorfall, bei dem »die Lade von selbst in die Luft sprang«[14].

Es ist kein Wunder, daß die Lade von den Israeliten auch als Waffe benutzt wurde - als Waffe von so gewaltiger Macht, daß sie den Sieg bringen konnte, selbst wenn die Lage aussichtslos erschien.[15] In einem Bericht über eine solche Schlacht heißt es, die Lade habe zuerst »ein Ächzen« von sich gegeben, sich dann vom Boden erhoben und auf die Feinde gestürzt.[16] Alle Mann wurden auf der Stelle erschlagen. Ein andermal indessen, wie um die Regel zu bestätigen, wurden die Israeliten selbst besiegt. Das geschah, wie es in der Bibel heißt, weil sie die Lade bei jener Gelegenheit nicht mit sich führten. Moses hatte sie seinem Volk nicht gegeben, nachdem er zuvor davon abgeraten hatte, in diesem Gebiet anzugreifen:

»Aber sie waren störrig, hinaufzuziehen auf die Höhe des Gebirges; aber die Lade des Bundes des Herrn und Mose kamen nicht aus dem Lager. Da kamen die Amalekiter und Kanaaniter,

Kilometer
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200
MITTELMEER
Jerusalem
Totes Meer
ISRAEL
JORDANIEN
Kairo
Sinai
Serabit-el-Khadem
Sinai
SAUDI-ARABIEN
ROTES MEER
ÄGYPTEN
Nil
Luxor
Assuan
Nasser-See
Abu Simbel

die auf dem Gebirge wohnten, herab und schlugen und zersprengten sie bis gen Horma.«[17]

Der Bibel zufolge dauerte die Wanderschaft durch die Wüste vierzig Jahre. In dieser Zeit lernten die Israeliten, daß es in ihrem eigenen Interesse lag, wenn sie Moses' Ratschläge sehr genau befolgten. Unter seiner Führung und mit Hilfe der Lade unterwarfen sie die wilden Stämme der Sinai-Halbinsel, eroberten Transjordanien, töteten die Midianiter und vernichteten alle, die sich ihnen widersetzten. Gegen Ende ihrer Wanderschaft schließlich »lagerten sie jenseits des Jordan gegenüber Jericho«[18].

Auf der anderen Seite war endlich das Gelobte Land in Sicht. Zu dieser Zeit war Moses' Bruder Aaron bereits tot, und sein Nachfolger im Amt des Hohenpriesters war Eleasar.[19] Jahwe selbst hatte Moses in der Zwischenzeit geweissagt, daß es ihm nicht beschieden sei, nach Kanaan zu kommen, und so hatte er »Josua, den Sohn Nuns«, an seine Stelle berufen.[20] Moses starb, nachdem Josua in die Geheimnisse der Bundeslade eingeweiht worden war[21], so daß der neue Führer die furchtbare Waffe gegen den Widerstand der schwer befestigten Stadt Jericho einsetzen konnte.

Josua wußte, daß die Lade, wenn sie nicht richtig gehandhabt wurde, den Israeliten genauso viel Schaden zufügen konnte wie ihren Feinden. Als er den Marsch auf Jericho plante, schickte er seine »Amtleute« durch das Lager, um das Volk zu warnen:

»Wenn ihr sehen werdet die Lade des Bundes des Herrn, eures Gottes, und die Priester aus den Leviten sie tragen, so ziehet auf von eurem Ort und folgt ihr nach; doch daß zwischen euch und ihr ein Raum sei bei zweitausend Ellen! Ihr sollt nicht zu ihr nahen!«[22]

Und als alles vorbereitet war, sprach Josua zu den Priestern:

»Traget die Lade des Bundes und geht vor dem Volk her ... Da nun das Volk auszog aus seinen Hütten, daß sie über den Jordan gingen, und die Priester die Lade des Bundes vor dem Volk her trugen, und an den Jordan kamen und ihre Füße vorn ins Wasser tauchten (der Jordan aber war voll an allen seinen

Ufern die ganze Zeit der Ernte), da stand das Wasser, das von oben herniederkam, aufgerichtet auf einem Haufen ..., aber das Wasser, das zum Meer hinunterlief, zum Salzmeer, das nahm ab und verfloß. Also ging das Volk hinüber. Und die Priester, die die Lade des Bundes des Herrn trugen, standen still im Trockenen mitten im Jordan. Und ganz Israel ging trocken durch, bis das ganze Volk über den Jordan kam.«[23]

Kaum jemand kennt die Geschichte von der Eroberung Jerichos nicht. Während das Volk den obligatorischen Abstand von zweitausend Ellen wahrte [fast einen ganzen Kilometer), zogen die höchsten Priester um die Stadtmauern, »bliesen die Posaunen, und die Lade des Bundes des Herrn folgte ihnen nach«. Sechs Tage lang zogen sie täglich einmal um die Stadt, »am siebten Tage aber, als die Morgenröte aufging, machten sie sich früh auf und gingen nach derselben Weise siebenmal um die Stadt... Und beim siebentenmal, da die Priester die Posaunen bliesen, sprach Josua zum Volk: Macht ein Feldgeschrei; denn der Herr hat euch die Stadt gegeben ... Da erhob das Volk ein Feldgeschrei, und man blies Posaunen ... Und die Mauern fielen um, und das Volk erstieg die Stadt.. .«[24]

Zu Beginn ihrer Geschichte war die Lade offenbar nahezu unbesiegbar, und auch lange nach dem Fall Jerichos scheint sie noch eine bedeutende militärische Rolle gespielt zu haben. Doch in den einhundertfünfzig Jahren nach Josuas Tod trat eine Veränderung ein: Eine genaue Untersuchung der wichtigen Bücher des Alten Testaments zeigt, daß die Lade nicht mehr immer in den Kampf mitgenommen wurde. In Silo, dem ersten Nationalheiligrum der Juden, hatte sie ihren festen Platz gefunden.

Der Grund für diese Veränderung lag in der wachsenden Macht und im zunehmenden Selbstvertrauen der Israeliten, die bis zum elften Jahrhundert vor Christus den größten Teil des Gelobten Landes erobert und besiedelt hatten und offensichtlich nicht mehr glaubten, ihre Geheimwaffe einsetzen zu müssen.[25]

Doch die Israeliten hatten sich verschätzt: In der Schlacht von Eben-Ezer wurden sie von den Philistern besiegt und verloren

viertausend Mann.[26] Nach dieser Katastrophe sprachen die Ältesten Israels: »Warum hat uns der Herr schlagen lassen von den Philistern? Laßt uns zu uns nehmen die Lade des Bundes des Herrn von Silo und laßt sie unter uns kommen, damit sie uns helfe von der Hand unserer Feinde.«[27] Der Vorschlag wurde sofort befolgt. »Und das Volk sandte gen Silo und ließ da holen die Lade des Bundes des Herrn Zebaoth, der über den Cherubim sitzt... Und da die Lade ins Lager kam, jauchzte das ganze Israel mit einem großen Jauchzen, so daß die Erde erschallte.«[28]

Obgleich die Philister sich nun sehr fürchteten[29], wurde der Kampf wieder aufgenommen. Aber zum größten Erstaunen aller Beteiligten wurde Israel geschlagen.[30] Das war wirklich eine Katastrophe. Niemals zuvor hatten die Israeliten eine Niederlage erlitten, wenn sie die Lade mit in den Kampf genommen hatten, und niemals zuvor war die Bundeslade selbst erbeutet worden. So etwas war undenkbar, unvorstellbar gewesen, und doch war es geschehen.

Als die Philister triumphierend ihre Beute davontrugen, wurde ein Läufer mit der schlimmen Botschaft zum Hohenpriester Eli nach Silo geschickt. Eli starb vor Entsetzen und Schrecken, als er die Nachricht vernahm. Und als seine schwangere Schwiegertochter erfuhr, daß ihr Mann im Kampf gefallen war, daß die Lade Gottes geraubt und nun auch Eli tot war, da überfielen sie die Geburtswehen, und sie gebar einen Sohn.[31] Das neugeborene Kind wurde Ikabod genannt, was soviel bedeutet wie »Die Herrlichkeit ist hinweg aus Israel!«[32] Denn die Mutter hatte bei den schlimmen Neuigkeiten einen Schmerzensschrei ausgestoßen und gerufen: »Die Herrlichkeit ist dahin von Israel; denn die Lade Gottes ist genommen.«[33]

Die Bundeslade brachte den siegreichen Philistern jedoch kein Glück. Überall brachen Seuchen und schwere Krankheiten aus, das Land drohte in große Unruhen zu stürzen, und die Menschen wurden von Furcht gepackt.[34] Gestraft von diesen Heimsuchungen, beschlossen die Philister nach sieben Monaten, die Lade an die Juden zurückzugeben. Also luden sie den

Schrein auf einen Wagen und schickten ihn auf den Weg nach Beth-Schemesch, dem nächsten Ort auf jüdischem Territorium.

Die Bücher des Alten Testaments berichten von den vielen Segnungen, die dem Volk Gottes in den nächsten Jahrzehnten zuteil wurden, aber auch von den harten Strafen, die diejenigen ereilten, die den Gesetzen des Herrn zuwiderhandelten. Selbst König David, der Eroberer Jerusalems, lebte in großer Angst und Ehrfurcht vor der mächtigen Lade Gottes.[35] Doch schließlich überführte David den heiligen Schrein in einer fröhlichen Prozession »mit Jauchzen und Posaunen«[36] nach Jerusalem. Er hatte gehofft, in Jerusalem einen Tempel für die Bundeslade bauen zu können, doch auf Gottes Geheiß mußte er sich damit begnügen, die Lade weiterhin in einem einfachen Zelt unterzubringen, wie es die Juden während ihrer langen Wanderschaft getan hatten.[37] So blieb die Ehre, den Tempel zu errichten, einem anderen Manne vorbehalten. David selbst sprach vor seinem Tod:

»Ich hatte mir vorgenommen, ein Haus zu bauen, da ruhen sollte die Lade des Bundes des Herrn. Aber Gott ließ mir sagen: Du sollst meinem Namen nicht ein Haus bauen ... Dein Sohn Salomo soll mein Haus und meine Vorhöfe bauen .. .«[38]

So geschah es. Auf Salomos Befehl hin begann man um 962 vor Christus mit dem Bau des Tempels, der vermutlich um 955 vor Christus abgeschlossen wurde. Erst zu diesem Zeitpunkt bereitete man nämlich das Allerheiligste vor, um den kostbaren Gegenstand aufzunehmen:

»Da versammelte der König Salomo zu sich die Ältesten Israels ..., um die Lade des Bundes des Herrn heraufzubringen aus der Stadt Davids, das ist Zion ... Und da alle Ältesten Israels kamen, hoben die Priester die Lade des Herrn auf und brachten sie hinauf. Und der König Salomo und die ganze Gemeinde Israel, die zu ihm sich versammelt hatte, gingen mit ihm vor der Lade her und opferten Schafe und Rinder, so viel, daß man sie nicht zählen noch berechnen konnte. Also brachten die Priester die Lade des Bundes des Herrn an ihren Ort, in den Chor des Hauses, in das Allerheiligste, unter die Flügel der Cherubim.«[39]

Und hier blieb der heilige Gegenstand, bis er auf geheimnisvolle Weise und zu einem unbekannten Zeitpunkt zwischen dem zehnten und sechsten Jahrhundert vor Christus verschwand. Es gibt keinerlei Erklärung für dieses Verschwinden, das von Wissenschaftlern noch immer als eines der größten und ungelösten Geheimnisse der Bibel betrachtet wird.

Deus ex machina

Im Verlauf meiner Untersuchungen war ich immer wieder auf die Schilderungen der schrecklichen Kräfte der Bundeslade gestoßen. Nun mußte ich mich fragen, was es damit auf sich hatte. Es schien mir drei mögliche Antworten auf diese Fragen zu geben:

- Das Alte Testament hatte recht. Von der Lade gingen tatsächlich göttliche Energien aus und bewirkten die Wunder, Strafen oder militärischen Erfolge.
- Das Alte Testament hatte unrecht. Die Lade war nur ein verziertes Kästchen und Gottes Volk das Opfer einer kollektiven, mehrere Jahrhunderte andauernden Massenhalluzination.
- Das Alte Testament hatte gleichzeitig recht und unrecht. Die Lade besaß tatsächlich Kräfte, aber diese Kräfte waren weder übernatürlich noch göttlich. Sie waren ganz einfach menschlichen Ursprungs.

Ich überprüfte alle drei Möglichkeiten und kam zu dem Schluß, daß ich die erste nicht akzeptieren konnte. Es sei denn, ich wollte hinnehmen, daß der Gott der Israeliten ein psychopatischer Mörder war oder ein bösartiger, in einem Kasten lebender Geist. Auch die zweite Möglichkeit war inakzeptabel, vor allem deswegen, weil das Alte Testament im Zusammenhang mit der Bundeslade bemerkenswert einheitlich reagiert, obgleich es doch eine Kompilation zu sehr verschiedenen Zeiten kodifizierter Bücher ist. In der gesamten Heiligen Schrift ist die Lade der einzige Gegenstand, dem ausdrücklich und eindeutig übernatürliche Kräfte zugeschrieben werden. Alle anderen,

von menschlicher Hand hergestellten Gerätschaften behandelt die Bibel sehr nüchtern. Selbst außergewöhnliche heilige Dinge, wie der siebenarmige goldene Leuchter, der sogenannte »Schaubrotetisch« oder der Opferaltar, werden als wichtige Bestandteile des rituellen Mobiliars verstanden - und nicht mehr.

Die Lade war folglich einzigartig; und doch weisen ihre vermeintlichen Kräfte kaum Spuren einer phantasievollen literarischen Ausschmückung auf. Im Gegenteil: Von ihrem Bau am Fuße des Berges Sinai bis zu ihrem plötzlichen und unerklärlichen Verschwinden viele hundert Jahre später führte sie ständig dasselbe spektakuläre, aber doch begrenzte Repertoire an »Wundern« aus. So hob sie immer wieder sich selbst und ihre Träger vom Boden, strahlte intensives Licht aus und wurde wiederholt mit jener seltsamen »Wolke« in Verbindung gebracht, die zwischen den Cherubim zu sehen war. Sie konnte Krankheiten wie Aussatz oder Geschwüre hervorrufen und tötete diejenigen, die sie zufällig berührten oder gar öffnen wollten. Bezeichnenderweise besaß sie jedoch keine wunderbaren oder märchenhaften Eigenschaften, die man bei einem übergroßen Maß an fiktionaler Ausstattung hätte erwarten können: Sie machte keinen Regen, verwandelte Wasser nicht in Wein, erweckte keine Toten und gewann keineswegs alle Schlachten, in die sie mitgeführt wurde.

Mit anderen Worten: Die Bundeslade stellte sich konsequent wie eine gewaltige Maschine dar, die für ganz bestimmte Aufgaben konstruiert worden war und natürlich innerhalb ihrer konzeptionellen Grenzen funktionieren konnte. Wie alle Maschinen war sie fehlbar, aufgrund von Konstruktionsfehlern vielleicht, von menschlichem Versagen oder natürlicher Abnutzung.

Ich konnte mir das Erscheinungsbild der Bundeslade nur so erklären: Die Lade besaß tatsächlich außergewöhnliche Kräfte, aber diese Kräfte waren weder übernatürlich noch göttlich; sie mußten vielmehr das Ergebnis menschlicher Geschicklichkeit und menschlichen Einfallsreichtums gewesen sein. Aber das war nur eine Theorie, eine Vorgabe, die meine weiteren For-

schungen leiten sollte. Zugleich tauchte eine Menge berechtigter Zweifel auf. Denn wie sollte es für die Menschen vor mehr als dreitausend Jahren möglich gewesen sein, ein so mächtiges Gerät herzustellen - zu einer Zeit, in der sowohl Zivilisation als auch Technologie angeblich nur rudimentär entwickelt waren? Um diese Frage zu beantworten, mußte ich einen bestimmten kulturellen Faktor berücksichtigen, der die Israeliten betraf: Ägypten. Schließlich war die Lade nur wenige Monate nach der Flucht aus diesem Ägypten gebaut worden, nach einer mehr als vierhundert Jahre währenden Gefangenschaft in diesem Land. In Ägypten würden somit am ehesten Aufschlüsse über die wahre Natur der Bundeslade zu finden sein.

Tutanchamuns Vermächtnis

Nach einem Besuch im Ägyptischen Museum von Kairo war ich endgültig davon überzeugt, daß ich recht hatte. Das Museum präsentierte unter anderem eine ständige Ausstellung von Gegenständen aus dem Grab Tutanchamuns[40], des jugendlichen Königs, der von 1347 bis 1237 vor Christus über Ägypten herrschte, das heißt ungefähr ein Jahrhundert vor Moses. Ich war überwältigt von der Ausstellung und ging mehrere Stunden zwischen den Schaukästen umher, fasziniert von der Schönheit und Vielfalt der ausgestellten Stücke. Was mich an den Schätzen jedoch am meisten interessierte, waren die vielen Truhen oder Kästen - manche mit, andere ohne Tragestangen, aber alle ähnelten sie der Bundeslade ungemein. Besonders auffällig waren vier große Schreine, die dazu dienten, den Sarkophag Tutanchamuns aufzunehmen. Diese Schreine hatten die Form großer rechteckiger Kästen, bestanden aus Holz und waren innen und außen mit Gold überzogen. So lag die Schlußfolgerung auf der Hand, daß der Geist, der die Bundeslade erdacht hatte, auch mit Gegenständen wie diesen vertraut war.

Zwei mythische Figuren an der Tür und an der Rückwand eines jeden Schreines bestärkten diesen Eindruck: große,

schreckliche, geflügelte Frauen, wild und gebieterisch von Wuchs und Antlitz, wie finstere Racheengel. Diese gewaltigen und beherrschenden Geschöpfe, die dem kostbaren Inhalt des Grabes rituellen Schutz gewähren sollten, waren vermutlich Darstellungen der Göttinnen Isis und Nephthys.[41] Zwar hatte diese Identifizierung selbst keine besondere Bedeutung für mich, aber ich konnte nicht umhin zu bemerken, daß die Gottheiten »ihre Flügel nach oben hin ausbreiteten«, gerade so wie die in der Bibel erwähnten Cherubim über der Bundeslade. Auch die Gesichter waren einander zugewandt. Und obwohl sie als Hochrelief aus den Türflächen heraustraten (also eigentlich keine freistehenden Statuen waren), waren auch sie aus Gold gefertigt und ähnelten den in der Bibel beschriebenen Cherubim.[42]

Man hat nie genau feststellen können, wie die Cherubim ausgesehen haben. Übereinstimmung herrschte nur darüber, daß sie in keinem Fall den pausbäckigen Putten der abendländischen Kunst geähnelt haben konnten, die bestenfalls eine verharmloste und christianisierte Interpretation einer wirklich alten und heidnischen Idee darstellten.[43] Als ich so gedankenverloren im Ägyptischen Museum stand, schien es mir jedenfalls, daß die gewaltigen, geflügelten Wächterinnen auf Tutanchamuns Schreinen viel eher den Cherubim der Bundeslade entsprachen. Denn auch die Cherubim galten als Wächter eines kostbaren Behältnisses und zudem als Kanäle seiner gewaltigen und tödlichen Macht.

Die Tabots von Opet

Ich sollte bald herausfinden, daß die ägyptischen Wurzeln der Bundeslade noch viel tiefer reichten. Tutanchamun hatte noch ein anderes Erbe hinterlassen, das mir die volle Bedeutung jenes Hintergrundes zu verstehen half. Im Jahre 1990 besuchte ich den großen Tempel von Luxor in Oberägypten. Als ich durch den eleganten Säulengang schritt, der sich vom Vorhof Ramses' II. ostwärts erstreckt, stieß ich auf eine in Stein gehaue-

ne Geschichte, auf eine unvergängliche und reich illustrierte Darstellung des Opet-Festes, die im vierzehnten Jahrhundert vor Christus auf unmittelbaren Befehl Tutanchamuns hier eingemeißelt worden war.[44]

Obgleich von den Jahrtausenden stark mitgenommen, waren die Reliefs auf der West- und Ostwand des Säulenganges noch so gut erkennbar, daß ich die wesentlichen Charakteristika des Festes erfassen konnte, das zu Tutanchamuns Zeiten den Höhepunkt der jährlichen Nil-Überschwemmungen bezeichnete, von denen fast die gesamte ägyptische Landwirtschaft abhing.[45] Die Überschwemmungen waren zum größten Teil die Folge der langen Regenzeit im äthiopischen Hochland - eine Flut, die jedes Jahr vom Tanasee den Nil hinunterströmte und auf den Feldern des großen Nil-Deltas Hunderttausende Tonnen fruchtbaren Schlammes ablagerte.[46] Ich hatte das Gefühl, daß die Opet-Zeremonien in irgendeiner Weise für meine Untersuchungen bedeutsam sein konnten: Bei diesem Fest ging es schließlich um ein alljährlich wiederkehrendes Naturereignis im weit entfernten Äthiopien, das für Ägypten von immenser Bedeutung war.

Es stellte sich heraus, daß ich auf einen wichtigen Punkt gestoßen war.

Zunächst untersuchte ich die Westwand des Säulenganges. Dabei fiel mein Blick auf etwas, das wie eine Lade aussah und von Priestern auf Tragestangen in Schulterhöhe transportiert wurde. Die Szene erinnerte mich sofort an das erste Buch der Chronik, wo es heißt: »Und die Kinder Levi trugen die Lade Gottes auf ihren Achseln mit den Stangen daran, wie Mose geboten hatte nach dem Wort des Herrn.«[47] Mein einziger Vorbehalt bestand darin, daß der transportierte Gegenstand eher die Form eines Bootes und weniger die eines Kastens hatte.

Als ich einen Schritt zurücktrat, um einen Gesamteindruck zu erhalten, bemerkte ich, daß die gesamte Westwand des Säulenganges mit ähnlichen Abbildungen bedeckt war: In einer großen und fröhlichen Prozession waren die Umrisse mehrerer Behältnisse auszumachen, die von verschiedenen Priestergruppen auf

den Schultern getragen wurden. Den Zug begleiteten Musikanten mit Sistren und vielen anderen Instrumenten, aber auch Akrobaten, die ihre Kunststücke vorführten, und Menschen, die sangen, tanzten und in die Hände klatschten.

Mein Puls beschleunigte sich. Im Schatten einer Säule setzte ich mich nieder und spürte die Wucht des Déjà-vu-Erlebnisses, das mich gerade überfallen hatte. Es war kaum drei Monate her, daß ich in Gondar am »Timkat«-Fest teilgenommen hatte. Die Einzelheiten der Feierlichkeiten, die Musikanten und Tänzer ähnelten sehr der ekstatischen Prozession auf dem Tempelrelief, und mir wurde klar, daß sich beide Ereignisse auf eine Art »Laden-Anbetung« konzentrierten. Natürlich sahen die flachen Platten der äthiopischen »Tabots« anders aus als die schreinähnlichen Boote, die die Priester auf den Schultern trugen. Bei meinen früheren Nachforschungen hatte sich jedoch einwandfrei herausgestellt, daß »Tabot« ursprünglich »schiffartiger Behälter« bedeutete: Das althebräische Wort »tebah« (von dem sich der äthiopische Begriff ableiten läßt) wird in der Bibel verwendet, um ganz besondere, schiffähnliche Behältnisse zu bezeichnen - etwa die Arche Noah oder Moses' Binsenkörbchen. Selbst das Kebra Nagast beschreibt die Bundeslade einmal als Schiffsbauch, der die beiden von Gottes eigener Hand beschriebenen Tafeln enthielt.[48]

Ich holte tief Luft, stand auf und trat aus meinem Fleckchen Schatten in die gnadenlose Mittagssonne hinaus, um die Untersuchung des verwitterten Reliefs fortzusetzen. Die Westwand zeigt, wie die Laden von Karnak in das etwa fünf Kilometer entfernte Luxor gebracht wurden; auf der Ostwand wird die Rückkehr der Prozession am Nil entlang nach Karnak dargestellt, wo die heiligen Gefäße mit den entsprechenden Feierlichkeiten wieder an ihre ursprünglichen Standorte gebracht wurden. Jede Einzelheit dieser wundervoll gearbeiteten Szenen erinnerte mich an »Timkat« in Gondar, und ich erkannte nun, daß auch die bizarren Zeremonien, die ich am frühen Morgen des 19. Januar am geweihten Wasser des Sees beobachten konnte, eine Entsprechung im Opet-Fest hatten. Naturgemäß waren es gerade die

lebenspendenen Gewässer, denen im Verlauf beider Feste eine besondere Ehre erwiesen wurde.

Beweise

Nach meiner Ägypten-Reise im April 1990 unterzog ich die Indizien, über die ich dort geradezu gestolpert war, einer genaueren Überprüfung. Ich stellte fest, daß die Experten keine Schwierigkeiten mit meinen Vermutungen hatten. Kenneth Kitchen, Professor für Ägyptologie an der Universität von Liverpool, bestätigte beispielsweise, daß die Kästen aus Tutanchamuns Grab durchaus Vorbilder für die Bundeslade gewesen sein konnten: »Zumindest beweisen sie«, sagte er, »daß vergoldete Holzkästen zur normalen religiösen Ausstattung der Zeit gehörten und daß Moses folglich sowohl über die Techniken als auch über die Geschicklichkeit zur Herstellung der Bundeslade verfügt haben dürfte. Die von ihm verwendeten Konstruktionsmethoden und der Gebrauch derartiger Behältnisse zu religiösen Zwecken in Ägypten sind durch Funde, durch Bilder und durch Schriftstücke ausreichend bezeugt.«[49]

Auch für die Verbindung zwischen dem Opet-Fest und den frühen jüdischen Zeremonien um die Bundeslade fand ich wissenschaftliche Bestätigung. Als ich mich in der British Library durch Berge von Quellenmaterial arbeitete, stieß ich auf ein 1884 in London veröffentlichtes Buch mit dem Titel Neues *Licht auf alte Monumente.* Ich hätte dieses dünne und unauffällige Bändchen womöglich übergangen, wäre mir nicht der Name des Autors aufgefallen. Ich erinnerte mich, daß E.A. Wallis Budge, einer der wirklichen Experten für ägyptische Religion, A.H. Sayce sehr geschätzt hatte. Also schlug ich das Buch auf und las im Kapitel über die Flucht aus Ägypten, daß die Gesetze und Riten der Israeliten aus vielerlei Quellen stammten, unter denen auch bestimmte »Feste und Fastenbräuche« zu finden seien. Über deren Verlauf heißt es bei Sayce: »Die Götter wurden in >Schiffen< in der Prozession mitgeführt, die, wie wir von den

Skulpturen erfahren, der hebräischen Bundeslade ähnelten und mit Hilfe von Stäben auf den Schultern getragen wurden.«[50]

Ermutigt sah ich die vor mir liegenden Unterlagen weiter durch und fand heraus, daß die schiffsähnlichen Behältnisse des Opet-Festes tatsächlich Statuetten verschiedener Gottheiten aus dem ägyptischen Pantheon enthalten hatten.[51] Diese Figuren bestanden aus Stein, und so schien mir die Vermutung nicht mehr sehr weit hergeholt, daß sie einiges mit den steinernen Gesetzestafeln zu tun hatten, die die Israeliten als Verkörperung ihres Gottes verehrten. Ein jüdischer Gelehrter formulierte den Sachverhalt folgendermaßen: »Führt man sich einmal die Tradition vor Augen, derzufolge in der Bundeslade die beiden heiligen Steintafeln aufbewahrt wurden, so könnte man zu dem Schluß gelangen, daß der ursprüngliche Inhalt der Lade ein heiliger Stein war, der entweder als die Gottheit selbst begriffen wurde, oder aber als der Gegenstand, in dem diese Gottheit sich ständig aufhielt.«[52]

Und auch etwas anderes war mir aufgefallen: Noch im fünften Jahrhundert vor Christus war die Region von Luxor und Karnak als »Thebai« bekannt. Erst die Europäer haben den Namen in das bekanntere »Theben« umgewandelt[53] und dabei eine äußerst verblüffende Etymologie verschleiert: Das Wort »Thebai« stammte nämlich von »Tapet«, dem Namen, unter dem der gesamte Tempelkomplex von Karnak und Luxor zur Zeit von Moses und Tutanchamun bekannt war.[54] »Tapet« wiederum war nichts anderes als die weibliche Form von »Opet«. Mit anderen Worten, man hatte die heiligen Plätze ursprünglich nach dem großen Fest benannt, für das sie berühmt waren.[55] Was mich daran natürlich ganz besonders interessierte, war die lautliche Ähnlichkeit der Wörter »Tapet« und »Tabot« - eine ganz und gar nicht zufällige Ähnlichkeit. Denn ich erfuhr aus einer wissenschaftlichen Abhandlung, daß die »Tapet«-Schreine sich im Verlauf der Jahrhunderte von der Form eines Schiffes fortentwickelt und mehr die Ausmaße eines Kastens angenommen hatten.[56]

Wenn das äthiopische »Tabot« vom althebräischen »Tebah«

abstammte, so lag es nur nahe, daß von »Tebah« auch eine Verbindung zum altägyptischen »Tapet« zu ziehen war. Gerade die Parallelen zwischen den Festlichkeiten um die Bundeslade und dem Opet-Fest schienen auf eine solche Etymologie zu verweisen.[57] Ich war davon überzeugt, daß die Geschichte der Bundeslade nur in ihrem ägyptischen Kontext richtig zu verstehen war. Nun war der heilige Schrein mehr als nur ein vergoldeter Holzkasten. Es mußte auch für seine unheilvollen und zerstörerischen Kräfte eine Erklärung geben, deren Wurzeln möglicherweise in Ägypten lagen. In diesem Zusammenhang faszinierte mich die Persönlichkeit Moses' immer mehr. Je genauer ich seinen außergewöhnlichen und heroischen Charakter betrachtete, desto sicherer war ich mir, daß sich hinter seiner Biographie einige bedeutsame Informationen verstecken mußten.

Ein Zauberer von Gottes Gnaden

Vermutlich hat fast jeder Mensch eine vage Vorstellung vom Propheten Moses, und ich stellte sicherlich keine Ausnahme dieser Regel dar, als ich begann, ernsthaft über ihn und seine Rolle im Rätsel um die Bundeslade nachzudenken. Mein Problem bestand darin, daß ich mir das Bild, das ich im Religionsunterricht kennengelernt hatte, nicht in Fleisch und Blut vorstellen konnte. Nun aber war es notwendig, jenen Mann wirklich zu verstehen, von dem die Wissenschaftler übereinstimmend behaupten, er sei die »herausragende Gestalt während der Entstehung und Entwicklung der jüdischen Religion« gewesen.[58]

Von unschätzbarer Hilfe waren für mich die Schriften des Josephus Flavius, einem jüdischen Historiker, der um Christi Geburt im römisch besetzten Palästina lebte. In seiner Sammlung Jüdische Altertümer hat dieser fleißige Gelehrte heute längst nicht mehr existierende Überlieferungen und Quellenmaterial zusammengestellt und so die vier Jahrhunderte hebräischer Sklaverei in Ägypten nachgezeichnet. Das wichtigste Ereignis jener Zeit war die Geburt Mose:

»Einer von ihren [der Ägypter] Schriftkundigen ... weissagte dem König, es werde um jene Zeit aus hebräischem Blute ein Knabe geboren werden, der, wenn er erwachsen sei, die Herrschaft der Ägyptier [sic!] vernichten, die Israeliten hingegen mächtig machen werde ... Durch diesen Spruch wurde der König erschreckt, und er befahl, alle israelitischen Kinder gleich nach der Geburt in den Fluß zu werfen und zu töten.«[59]

Amaram, Moses' zukünftiger Vater, ängstigte sich sehr, als er von den Anordnungen hörte, denn seine Frau war gerade schwanger. Gott erschien ihm jedoch im Traum und tröstete ihn mit den Worten:

»Jetzt aber, das merke dir, bin ich für euer Wohlergehen und für deinen Ruhm besorgt. Denn jener Knabe, dessen Geburt die Ägyptier so sehr fürchten, daß sie die israelitischen Kinder alle töten wollen, wird dir geboren werden. Er wird denen verborgen bleiben, die ihm nachstellen, auf wunderbare Weise wird er erzogen werden und das Volk der Hebräer aus ägyptischer Knechtschaft befreien.«[60]

Die zwei Textstellen waren für mich insofern hilfreich, als sie die biblische Erzählung von Moses' Geburt erheblich ergänzten. Ich bemerkte mit Interesse, daß die große Macht des zukünftigen jüdischen Stammesführers sogar von den Ägyptern erkannt wurde. Auffällig war die besondere Betonung des »Schriftkundigen« und seiner Prophezeiung, bei dem es sich in Anbetracht seiner wahrsagerischen Fähigkeiten nur um einen Astrologen am Hofe des Pharao handeln konnte. Es hat den Anschein, als spielte Josephus darauf an, daß von Anfang an etwas Außergewöhnliches um Moses war, haben wir es hier doch mit einem Magier zu tun, der die Ankunft eines anderen Magiers vorhersagte.

Das Schicksal Moses' ist bekannt: Er überlebte das Verdikt, wurde am königlichen Hof erzogen, wo man ihn, wie die Bibel es formuliert, »in aller Weisheit der Ägypter« unterrichtete.[81] Josephus fügt dem wenig hinzu, aber ein anderer angesehener jüdischer Philosoph, Philo von Alexandria, der ebenfalls zur Zeit Christi lebte, gab eine ziemlich genaue Beschreibung dessen,

was Moses lernte: »Rechnen und Geometrie, sowie Rhythmik, Harmonik und Metrik und die gesamte Musik ..., ferner noch die in Symbole gekleidete Philosophie ..., die chaldäische Wissenschaft von den Himmelskörpern und mathematische Studien.«[62]

Als Adoptivsohn der königlichen Familie galt Moses lange Zeit als Thronfolger. Dieser besondere Status brachte es mit sich, daß er schon in seiner Jugend in die verborgensten priesterlichen Geheimnisse sowie in die Mysterien der ägyptischen Magie eingeweiht wurde[63] - und das dürfte nicht nur die Sternenkunde eingeschlossen haben, wie Philo angibt, sondern auch die Nekromantie, das Wahrsagen und andere Elemente der okkulten Lehren. Die Bibel selbst deutet diesen Sachverhalt an, wenn sie Moses als »gelehrt in aller Weisheit der Ägypter und mächtig in Werken und Worten« beschreibt.[64] E.A. Wallis Budge zufolge enthält dieser - gewiß nicht zufällig auch auf Jesus[65] angewandte - Ausdruck den verschlüsselten Hinweis darauf, daß der hebräische Prophet eine Sprachgewalt besaß, die weniger mit rhetorischen Fähigkeiten als mit formelhaften Anordnungen zusammenhing, »die er richtig aussprach, ohne zu stocken, und er gab den Befehl und sagte das Wort in vollendeter Weise«[66]. Das heißt, er wäre wie Isis, die für ihre magischen Kräfte berühmt war, imstande gewesen, die gewaltigsten Zauber auszusprechen. Die Menschen in seiner Umgebung müssen ihn mit größtem Respekt behandelt haben, denn sie werden nicht im entferntesten an seiner Fähigkeit gezweifelt haben, sich die Wirklichkeit zu unterwerfen und die Gesetze der Physik umzustoßen. Natürlich werden Moses' außergewöhliche Attribute an keiner Stelle der Bibel mit der Allmacht Gottes gleichgesetzt. Im Gegenteil: Es steht fest, daß Moses seine magischen Kräfte einzig und allein auf den Befehl Jahwes einsetzte.

Es ist verständlich, daß spätere Bearbeiter der Heiligen Schrift das Verhältnis zwischen allmächtigem Gott und dienendem Menschen genau so darstellen wollten. Sie konnten aber nicht die Beweise dafür vernichten, daß jener Mann tatsächlich ein Magier war; und sie konnten auch die überzeugendsten

Demonstrationen seiner Zauberkraft nicht einfach übergehen, die Plagen und Seuchen, die er bald über die Ägypter verhängte, um den Pharao zu zwingen, die Kinder Israels aus der Gefangenschaft zu entlassen.

Diese schrecklichen Wunder vollbrachte Moses mit Hilfe seines älteren Halbbruders Aaron, der oft als sein Bevollmächtigter auftrat. Alle beide besaßen Stäbe, mit denen sie ungewöhnliche Dinge vollbrachten. Der des Mose wird zuweilen »Stab Gottes« genannt[67] und zum erstenmal erwähnt, als der Prophet sich bei Jahwe darüber beklagt, daß ihm weder der Pharao noch die Israeliten glauben würden, daß er von Gott selbst eingesetzt sei - er müsse sicher einen Beweis erbringen können. Da sprach Gott zu ihm: »Was ist's, was du da in deiner Hand hast?« Und Moses antwortete: »Einen Stab.«[68] Darauf befahl ihm Gott, den Stab auf die Erde zu werfen:

»Und er warf ihn von sich; da ward er zur Schlange, und Moses floh vor ihr. Aber der Herr sprach zu ihm: Strecke deine Hand aus und erhasche sie bei dem Schwanz. Da streckte er seine Hand aus und hielt sie, und sie ward zum Stab in seiner Hand.«[69]

Die Betonung von Gottes Überlegenheit ist verständlich. Aber auch hier waren die Verbindungen zur okkulten Praxis der Ägypter nicht zu übersehen. Die Verwandlung eines leblosen Stockes in eine Schlange und umgekehrt war eines der beliebtesten Kunststücke der ägyptischen Magier; und von Anbeginn hatten die ägyptischen Priester für sich die Fähigkeit reklamiert, giftige Reptilien beherrschen zu können. Schließlich besaßen alle ägyptischen Magier elfenbeinerne Zauberstäbe.[70]

Und so überraschte es mich kaum, daß das erste Kräftemessen zwischen Moses und Aaron auf der einen und den Priestern des Pharao auf der anderen Seite ziemlich gleich ausging. Um den ägyptischen Tyrannen zu beeindrucken, warf Aaron seinen Stab auf die Erde, der sich erwartungsgemäß in eine Schlange verwandelte. Der unerschrockene Pharao ließ seine eigenen Weisen und Magier rufen, »und die ägyptischen Zauberer taten auch also mit ihrem Beschwören. Ein jeglicher warf seinen Stab

von sich, da wurden Schlangen daraus.« Da aber verschlang Aarons Schlange, die Jahwes unermeßliche Kraft besaß, die Schlangen der ägyptischen Zauberer.[71]

Nun verwandelten Moses und Aaron das Wasser des Nils in Blut. Trotz der außerordentlich drastischen Folgen war der Pharao noch immer nicht beeindruckt, denn »die ägyptischen Zauberer taten auch also mit ihrem Beschwören«[72]. Auch bei der darauffolgenden Froschplage konnten die Zauberer mithalten.[73] Erst bei der Stechmückenplage erkannten sie die Übermacht Jahwes: »Die Zauberer taten auch also mit ihrem Beschwören, daß sie Mücken herausbrächten; aber sie konnten nicht. Und die Mücken waren sowohl an Menschen als an Vieh. Da sprachen die Zauberer zu Pharao: Das ist Gottes Finger.«[74]

Doch der König ließ die Israeliten nicht ziehen. Der Katalog der Plagen, die Moses gegen die Ägypter heraufbeschwor, ist bekannt: die Stechmückenplage, die Viehpest, die Blattern, Finsternis, Donner und Hagel. Sogar die erstgeborenen Söhne Ägyptens mußten sterben.[75] Und endlich: »Die Ägypter drängten das Volk, daß sie es eilend aus dem Lande trieben, denn sie sprachen: Wir sind alle des Todes.«[76]

So begann der Auszug aus Ägypten - und damit eine lange, gefahrvolle Zeit. Zunächst mußte das Rote Meer überquert werden, so daß Moses einen weiteren dramatischen Beweis seiner okkulten Fähigkeiten geben konnte:

»Da nun Mose seine Hand reckte über das Meer, ließ es der Herr zurückweichen durch einen starken Ostwind die ganze Nacht und machte das Meer trocken, und die Wasser teilten sich voneinander. Und die Kinder Israel gingen hinein mitten ins Meer auf dem Trockenen, und das Wasser war ihnen eine Mauer zur Rechten und zur Linken.«[77]

Wer jemals den Religionsunterricht besucht hat, wird sich erinnern, daß die Ägypter ihnen folgten »und zogen hinein ihnen nach, alle Rosse Pharaos, und Wagen und Reiter, mitten ins Meer«. Aber nun geschah folgendes: »Da reckte Mose seine Hand aus über das Meer, und das Meer kam... wieder in seinen Strom, und die Ägypter flohen ihm entgegen. Also stürzte sie der

Herr mitten ins Meer und bedeckte Wagen und Reiter, und alle Macht des Pharao, die ihnen nachgefolgt waren ins Meer, daß nicht einer aus ihnen übrigblieb.«[78]

Erwartungsgemäß betont die Bibel auch hier wieder die Macht Gottes. Zwar streckte Moses seine Hand aus, aber es war der Herr, der das Wasser zurückweichen und wiederkommen ließ. Nachdem ich erfahren hatte, daß auch die Beherrschung der Gewässer nachweisbarer Bestandteil der ägyptischen Magie war, fiel es mir allerdings schwer, diese »offizielle« Version der Bibel zu akzeptieren. Der sogenannte »Westcar-Papyrus« beispielsweise berichtet von den Taten eines gewissen Tchatcha-em-ankh, Hohepriester am Hof des Pharao Seneferu zur Zeit der IV. Dynastie - etwa tausendfünfhundert Jahre vor Moses' Zeit. Eines Tages sei der Pharao in angenehmer Gesellschaft von »zwanzig Jungfrauen mit wunderschönem Haar und anmutiger Gestalt und wohlgeformten Gliedern« Boot gefahren.

Eine der Damen war tieftraurig, weil ihr Lieblingsschmuckstück in den See gefallen war. Der Pharao aber ließ Tchatcha-em-ankh rufen, und dieser »sprach einige Worte der Macht und ließ dadurch einen Teil des Wassers sich auf einen anderen wälzen. Da fand er das Schmuckstück auf einer Tonscherbe liegen, und er nahm es und gab es der Jungfrau. Nun war das Wasser zwölf Ellen tief, aber als Tchatcha-em-ankh den einen Teil des Wassers auf den anderen gewälzt hatte, war dieser Teil vierundzwanzig Ellen tief. Da sprach der Zauberer erneut einige Worte der Macht, und das Wasser des Sees wurde wieder so, wie es gewesen war, bevor er den einen Teil des Wassers sich auf den anderen hatte türmen lassen.«[79]

Zwar bezog sich die alte Handschrift auf einen weitaus trivialeren Anlaß als die Bibel. Trotzdem ähnelte die Geschichte in vielen Punkten geradezu verblüffend der Teilung des Roten Meeres. Meines Erachtens konnte zumindest kein Zweifel daran bestehen, daß Moses' virtuose Vorführung seine Zugehörigkeit zu einer sehr alten ägyptischen okkulten Tradition bewies. Der Ägyptologe E.A. Wallis Budge bemerkte dazu folgendes:

»Moses führte die magischen Rituale sehr geschickt aus; er

kannte die begleitenden Zauberformeln sehr genau. Darüber hinaus legen die von ihm vollbrachten Wunder nahe, daß er nicht nur Priester war, sondern auch Zauberer ersten Ranges und vielleicht sogar ein >Kher Heb<, ein ägyptischer Hoherpriester.«[80]

Geheime Wissenschaften?

Als »Kher Heb« des ägyptischen Tempels wäre Moses zweifellos mit all den magisch-religiösen Wissenschaften in Berührung gekommen, die die Priester vor den Laien verborgenhielten. Ich wußte, daß unter modernen Ägyptologen Übereinstimmung hinsichtlich der Existenz derartiger Fähigkeiten herrschte.[81] Ich wußte aber auch, daß man kaum eine Vorstellung davon hatte, worin diese tatsächlich bestanden haben könnten: Von Tempelbeamten verfaßte Grabinschriften vermitteln zwar einige dunkle Andeutungen, aber nichts wirklich Konkretes. Vermutlich war dieses Wissen nur mündlich und nur an Eingeweihte weitergegeben worden.[82] Vieles aber wurde - vielleicht absichtlich - zerstört: Unglaubliche Wissensschätze sind beim Brand der Bibliothek von Alexandria verlorengegangen, die im zweiten Jahrhundert vor Christus über zweihunderttausend Schriftrollen besessen haben soll.[83]

Eines jedoch war klar: Wie Herodot im fünften Jahrhundert vor Christus schrieb, enthielt Ägypten »mehr wunderbare Dinge und erstaunliche Werke ... als andere Länder. Darum müssen wir es genauer beschreiben.« Der weitgereiste griechische Historiker schrieb den Ägyptern zu Recht die Einführung des Jahres und dessen Einteilung in zwölf Monate zu. Herodot behauptete auch, in einige der ägyptischen Geheimnisse eingeweiht worden zu sein, aber dann fügt er einigermaßen spöttisch hinzu, daß er nicht Willens sei, sie mitzuteilen - oder es nicht könne .. .[84]

Die Vorstellung, daß diese alte Kultur ursprünglich durch die Anwendung eines fortgeschrittenen, aber inzwischen verlorengegangenen Geheimwissens zu ihrer Größe kam, ist eine der

dauerhaftesten und beherrschendsten der menschlichen Geschichte. Auf exzentrische Sonderlinge und nüchterne Wissenschaftler übte sie denselben Reiz aus und war Gegenstand einer Vielzahl von Auseinandersetzungen, wilden Spekulationen und ernsthaften Untersuchungen.

Zugleich eröffnete diese Vorstellung eine faszinierende Möglichkeit: Hatte Moses, der ägyptische Priester-Wissenschaftler, nicht vielleicht über weit mehr Kenntnisse und technische Möglichkeiten verfügt, als die Archäologen gemeinhin annahmen? Und war es nicht denkbar, daß er diese Kenntnisse und Fähigkeiten beim Bau der Bundeslade eingesetzt hatte?

Ich war auf einen schwierigen Punkt gestoßen, weil das, was man über die technischen Errungenschaften der Ägypter wußte, mindestens ebenso viele Fragen aufwarf wie beantwortete.

Es besteht kein Zweifel, daß diese Leute geschickte Metallarbeiter waren. Insbesondere ihr Goldschmuck war exquisit und bewies einen hohen Grad an Kunstfertigkeit. Bemerkenswerterweise waren die Schneiden ihrer kupfernen Werkzeuge schon sehr früh erstaunlich scharf und stabil, so stabil, daß sie Schiefer und härtesten Kalkstein schneiden konnten. Ich erfuhr, daß kein moderner Schmied derartige Resultate mit Kupfer zu erzielen vermochte, so daß man es für wahrscheinlich hielt, daß die »verlorene Kunst« weniger mit den Werkzeugen selbst zusammenhing als mit ihrer virtuosen Handhabung durch die Steinmetzen.

Nach dem Studium vieler Papyri und Hieroglyphen hatte ich keinen Zweifel mehr daran, daß die alten Ägypter keine schlechten Mathematiker waren. Sie kannten komplexere Formen der Bruchrechnung und hatten anscheinend ein Spezialverfahren der Infinitesimalrechnung entwickelt, das es ihnen erlaubte, das Volumen unterschiedlichster Körper zu berechnen.[85] Ferner war es sehr wahrscheinlich, daß sie zweitausend Jahre vor den Griechen die Zahl Pi verwendeten, um den Umfang eines Kreises aus seinem Durchmesser zu berechnen.[86]

Auch auf dem Gebiet der Astronomie waren die Ägypter anscheinend schon sehr früh erfolgreich. Livio Stecchini, ein

amerikanischer Professor für Wissenschaftsgeschichte und Fachmann für alte Maße, gibt an, daß die ägyptischen Priester bereits um 2200 vor Christus in der Lage waren, Längen- und Breitengrade auf wenige hundert Meter genau zu berechnen. Andere Kulturen waren dazu erst ungefähr viertausend Jahre später imstande.[87]

Zudem galten die Ägypter als hervorragende Mediziner. Wir wissen von einer Vielzahl kompliziertester und erfolgreich durchgeführter Behandlungen[88]; ihre Kenntnis des menschlichen Nervensystems war weitentwickelt, und ihre Arzneibücher verzeichneten mehrere noch heute bekannte Medikamente.[89]

Ich entdeckte viele weitere Hinweise auf das hochentwikkelte Wissen in Ägypten zu einer Zeit, als die Europäer noch tief in der Barbarei steckten. Dennoch ließ keine dieser Informationen meines Erachtens auf die Existenz einer technischen Errungenschaft schließen, die für die gewaltigen Energien, die von der Bundeslade ausgingen, verantwortlich sein konnte. Und doch bestand der Verdacht, die Ägypter seien die Hüter einer großen und geheimen Weisheit gewesen - ein Verdacht, der gleichsam immun gegen jedes Gegenargument war.

Natürlich wußte ich sehr gut, daß derartige Überzeugungen oft mehr aus dem unbewußten Wunsch herrührten, die Vergangenheit der Spezies Mensch zu verherrlichen, als aus einem rationalen Abwägen verfügbarer Fakten. So zumindest argumentierte das Establishment der Archäologen, das die Theorie einer »großen Geheimweisheit« für unsinniges Geschwätz hielt und behauptete, in über einem Jahrhundert mühevollen Grabens und Siebens sei nichts Außergewöhnliches in Ägypten gefunden worden. Ich persönlich bin von Natur aus skeptisch und pragmatisch. Trotzdem muß ich gestehen, daß mich die konkreten Beweise, die ich während meiner Forschungsreisen in diesem schönen und uralten Land überall um mich herum sah, davon überzeugten, daß die Akademiker nicht für alles Antworten gefunden hatten, daß nach wie vor viele Fragen offen waren, und zwar einfach deshalb, weil viele Problem-

bereiche außerhalb des wissenschaftlichen Erkenntnisinteresses lagen.

Drei Orte hatten eine besondere Wirkung auf mich: der Tempelkomplex von Karnak, die Stufenpyramide des Djoser bei Sakkara und die Cheopspyramide von Gise. Die besondere Mischung von delikater Anmut, beeindruckender Größe, von Macht, Geheimnis und Unsterblichkeit, die diese Gebäude besitzen, schien mir der Ausdruck eines verfeinerten und hochentwickelten Sinnes für Harmonie und Proportion zu sein, der sich zu einer regelrechten Wissenschaft ausgewachsen hatte. Diese bemerkenswerte Wissenschaft kombinierte Ingenieurswesen, Architektur und Gestaltung im weitesten Sinne. In einzigartiger und unübertroffener Weise flößen diese Bauwerke religiösen Schauder ein, und in Europa kommen ihnen nur die großen gotischen Kathedralen des Mittelalters gleich, so etwa Chartres.

Konnte dies Zufall sein? Die ägyptischen Monumente und die gotischen Kathedralen übten zweifellos die gleiche Wirkung auf die menschlichen Sinne aus. Gab es da vielleicht eine Verbindung?

Schon lange hatte ich vermutet, daß ein derartiger Zusammenhang existierte und daß das Bindeglied in der Überlieferung jenes geheimen architektonischen Wissens bestand, auf das die Tempelritter in Jerusalem gestoßen sein konnten. Als ich in Karnak langsam an den aufragenden Pylonen entlang in den Großen Hof und durch den gigantischen Säulenwald des Hypstyls ging, erinnerte ich mich an den heiligen Bernhard von Clairvaux, den Schutzpatron der Tempelritter, der - wie erstaunlich für einen Christen! - Gott als »Länge, Weite, Höhe und Tiefe« definiert hatte. Und mir war keineswegs entfallen, daß die Templer selbst außergewöhnliche Werke als Baumeister und Architekten zustandegebracht hatten.

Die ersten großen Architekten und Meister in der Wissenschaft des Bauens waren jedoch die Ägypter - und das Jahrhunderte und Zivilisationen vor Beginn der europäischen Kulturen. Die Monumente, die sie der Nachwelt hinterlassen hatten, ließen jede Beschreibung unmöglich erscheinen und waren eine

Herausforderung an die Zeit selbst. Typisch in dieser Hinsicht waren die beiden großen Obelisken, die die Anlage von Karnak dominieren und von denen ich mich ganz besonders angezogen fühlte. Wie ich feststellte, war der eine von Pharao Thutmosis I. (etwa 1506 bis 1492 vor Christus) errichtet worden, und der andere von Königin Hatschepsut (1490 bis 1468 vor Christus). Beide waren vollkommene, aus einem Stück rosafarbenen Granit herausgehauene Monolithe. Der erste war einundzwanzig Meter hoch und wog ungefähr hundertdreiundvierzig Tonnen, der andere ragte fast dreißig Meter in die Höhe und hatte ein Gewicht von schätzungsweise dreihundertzwanzig Tonnen.[90] Nur ein paar Fußminuten weiter südlich fand ich einen dritten Obelisken, der zwar umgestürzt und zerbrochen, dessen von einer Pyramide gekrönte Spitze jedoch fast unbeschädigt war. Ich folgte dem Rat meines Reiseführers und legte mein Ohr an den Winkel der Pyramide. Dann schlug ich mit der Handfläche fest auf den Granit und hörte völlig gebannt, wie der ganze Monolith von einem tiefen, dunklen Ton widerhallte, der fast aus einem seltsamen und wunderbaren Musikinstrument zu klingen schien.

Hinter der Errichtung dieser eleganten und makellosen Stelen mußte mehr stecken als bloße ästhetische Erwägungen. Ich erfuhr, daß sie nicht etwa an Ort und Stelle geschlagen, sondern von den über zweihundert Kilometer südlich liegenden Granitsteinbrüchen über den Fluß hierher transportiert worden waren.

Der Nil war eine breite und tiefe Straße. Also lag die Vermutung nahe, daß der Transport flußabwärts keine Schwierigkeiten mit sich brachte, wenn die Obelisken erst einmal auf Kähne verladen waren. Völlig unklar war mir dagegen, wie die Ägypter diese massiven Steinnadeln überhaupt auf die Kähne wuchten konnten - und dann wieder herunter, nachdem sie angekommen waren. Ein Monolith war, noch mit dem Fels verbunden, im Steinbruch geblieben, weil er zerbrach, noch bevor er völlig ausgegraben worden war. Es hatte eigentlich ein über vierzig Meter hoher und an seiner Basis fast vier Meter starker Obelisk

entstehen sollen, und ganz offensichtlich mußte man zu Beginn der Arbeiten damit gerechnet haben, daß dieser monströse, weit über eintausend Tonnen schwere Stein[91] fortbewegt und irgendwo aufgerichtet werden würde. Und doch war es kaum zu erklären, wie ein Volk, das (nach Aussagen der Archäologen) noch nicht einmal die einfachsten Kurbeln und Hebevorrichtungen besaß, das fertiggebracht haben sollte.[92]

Nicht weniger unerklärlich war, wie die Monolithe in Karnak mit derart fehlerloser Genauigkeit und völlig gerade aufgestellt worden waren. Ein Relief in einem der Tempel stellte einen Pharao dar, der ohne jede Hilfe und nur mit einem einzigen Seil einen Obelisken aufrichtet.[93] Es war sicher nicht ungewöhnlich, daß Herrscher in heroischen Posen dargestellt wurden, und vielleicht sollte dieses Relief nur einen Vorgang symbolisieren, an dem in Wahrheit Hunderte von Arbeitern an vielen Seilen zogen wie ein Mann.

Trotzdem wurde ich den Verdacht nicht los, daß mehr dahintersteckte. Dem erfahrenen Ägyptologen John Anthony West zufolge beherrschten die Pharaonen und Priester ein als »Ma'at« bekanntes Verfahren, das oft mit »Gleichgewicht« oder »Balance« übersetzt wird. Er vermutet, daß dieses Prinzip auch auf praktische Bereiche angewendet wurde, daß »die Ägypter Techniken des mechanischen Gleichgewichts kannten und benutzten, die uns unbekannt sind« und daß solche Techniken sie befähigt hätten, »leicht und geschickt gewaltige Steinmassen zu bewegen ... Was für uns wie Zauberei aussieht, war für sie Methode.«[94] Und tatsächlich wirkten die Obelisken zuweilen wie Produkte einer geradezu übermenschlichen Geschicklichkeit.

Ich mußte aber zugeben, daß die Pyramiden sie noch bei weitem übertrafen. Jean Francois Champollion, der Vater der modernen Ägyptologie, bemerkte einst: »... die alten Ägypter dachten wie Menschen, die dreißig Meter groß sind. Wir Europäer sind im Vergleich dazu bloß Liliputaner.«[95] Auch ich kam mir wie ein Liliputaner vor, als ich zum erstenmal die Cheopspyramide von Gise besuchte, zwergenhaft und ein bißchen ein-

geschüchtert - nicht nur von der bloßen Masse und der Größe dieses Steingebirges, sondern auch, weil das Gewicht der angesammelten Jahrhunderte geradezu körperlich spürbar war. Bei früheren Besuchen hatte ich die Pyramide nur von außen gesehen, weil ich nicht die geringste Lust verspürt hatte, mich den hineinströmenden Touristenmassen anzuschließen. Aber am frühen Morgen des 2 7. April 1990 konnte ich dank eines kleinen Trinkgeldes völlig allein in die große Pyramide gehen. Im trüben Licht einiger Glühbirnen stieg ich hinauf zur sogenannten Königskammer. Die Decke dieses etwa vierundfünfzig Quadratmeter großen Raumes im Herzen der Pyramide ist fast sechs Meter hoch und besteht aus neun monolithischen Blöcken, deren jeder ungefähr fünfzig Tonnen wiegt.[96]

Ich weiß nicht mehr, wie lange ich in der Kammer blieb. Die warme Luft war muffig und erinnerte an die Ausdünstungen eines riesigen Tieres. Die Stille um mich herum war wie eine dichte Hülle. Irgendwann ging ich aus einem unerklärlichen Grund in die Mitte des Raumes und erzeugte einen tiefen Ton, der wie das Lied des gefallenen Obelisken von Karnak klang. Die Wände und die Decke schienen diesen Ton aufzunehmen, zu sammeln und zu verstärken, um ihn dann zu mir zurückzuwerfen, so daß ich die Vibrationen durch meine Füße, meinen Kopf und meine Haut spüren konnte. Ich war wie elektrisiert, energiegeladen, erregt und gleichzeitig ruhig, als ob ich an der Schwelle einer ungeheuerlichen und vollkommen unvermeidlichen Offenbarung stünde.

Ich war so von der großen Pyramide beeindruckt, daß ich etliche Wochen mit dem Studium ihrer Geschichte verbrachte. Die Archäologen vertreten für gewöhnlich die Meinung, daß das Bauwerk ausschließlich als Grab diente: Niemals allerdings war die Mumie eines Pharao dort gefunden worden, und die Königskammer hatte nur einen schmucklosen und überdies leeren Sarkophag enthalten. Die Auseinandersetzung um den wirklichen Zweck der großen Pyramide wurde von den orthodoxen Wissenschaftlern auf der einen und den, sagen wir, »Pyramidologen« auf der anderen Seite geführt. Es waren die letzteren, die

in praktisch jedem Element des Bauwerkes allerlei Prophezeiungen und Zeichen erkannten und aus diesem Grunde nicht gerade ernstgenommen wurden.

Trotzdem sah ich, daß die Pyramidologen konsequent auf einige überraschende Besonderheiten aufmerksam machten, die wahrscheinlich kein Zufall waren. Die Cheopspyramide befindet sich genau auf der Schnittstelle des dreißigsten Grades nördlicher Breite und dem einunddreißigsten Grad östlicher Länge. Diese Breiten- und Längengrade verlaufen über mehr trockenes Land als andere, so daß der Standort der Pyramide als Zentrum und als Symbol für die bewohnbare Welt schlechthin gelten konnte.[97] Besonders interessant war die Tatsache, daß alle Pyramiden von Gise genau nach den vier Kardinalpunkten ausgerichtet waren: Norden, Süden, Osten und Westen.[98] Wie dieses Landvermessungskunststück lange vor der Erfindung des Kompasses vollbracht worden war, ist kaum zu erklären.

Was mich an der Cheopspyramide aber am meisten faszinierte, waren ihre Ausmaße. Man muß sich das einmal vorstellen: Das kolossale Gebäude besteht aus 2,3 Millionen Kalksteinblöcken, von denen jeder ungefähr zweieinhalb Tonnen wiegt.[99] Herodot, dessen Gewährsmann ein ägyptischer Priester war, behauptete, daß Trupps von hunderttausend Arbeitern das Bauwerk in zwanzig Jahren errichtet hätten, wobei sie nur während der drei Monate arbeiteten, in denen keine Landwirtschaft betrieben werden konnte, und daß man zur Fortbewegung der massiven Steinblöcke Holzgerüste und Hebevorrichtungen verwendete.[100] Unter Einbeziehung dieser Daten hat der dänische Ingenieur P. Garde-Hansen eine interessante Berechnung angestellt, derzufolge jeden Tag viertausend Blöcke hätten aufgemauert werden müssen, das heißt 6,67 pro Minute, und das inklusive aller vorbereitenden Arbeiten wie Steine schlagen, Gelände bereinigen und ebnen, und so fort. Er schließt: »Es würde, glaube ich, das kombinierte Genie eines Cyrus, Alexander des Großen und Julius Caesar erfordern - nehmen wir Napoleon und Wellington ruhig noch dazu -, um allein die

Armeen aufzustellen, die nötig wären, um die Arbeiten in der angegebenen Weise auszuführen.«[101]

Zufällig erfuhr ich, daß eine Gruppe japanischer Ingenieure kürzlich versucht hatte, eine nur zehn Meter hohe Nachbildung der Cheopspyramide zu bauen. Das Team beschränkte sich strikt auf die Techniken, die nachweislich zur Zeit der IV. Dynastie verwendet worden waren. Unter diesen Bedingungen erwies sich das Vorhaben allerdings als undurchführbar, und innerhalb kürzester Zeit erschienen moderne Bagger, Kräne und Steinbearbeitungsmaschinen auf der Baustelle. Und doch konnte man keine ernstzunehmenden Fortschritte machen, so daß das Projekt schließlich mit einiger Verlegenheit aufgegeben werden mußte.[102]

Alles in allem legte die Cheopspyramide mit ihren Rätseln und Geheimnissen die Vermutung nahe, daß die alten Ägypter mehr als nur die »technisch begabten Primitiven« waren, als die sie oft beschrieben wurden, und daß sie über ein ganz besonderes Wissen verfügt haben müssen. Wenn das zutraf, dann war es durchaus möglich, daß die unheilvolle Macht der Bundeslade von dieser Wissenschaft herrührte - einer Wissenschaft, mit der Moses von fugend an vertraut war.

Kapitel 13

Weltenschöpfer

Aber woher hätte ein solches geheimes Wissen stammen können? Es ist das alte Ägypten selbst, das eine einfache, wenngleich wenig rationale Antwort auf diese Frage gibt. Alle wichtigen überlieferten Dokumente behaupten eindeutig, daß es der Menschheit vom Mondgott Thoth gegeben worden sei, dem Berechner und Einteiler der Zeit, dem göttlichen Chronisten und Aufseher über die menschlichen Schicksale, dem Erfinder der Schrift und aller Weisheit, dem Schutzgott der Zauberer.[1] Einmal mit dem Mond selbst identisch, ein anderes Mal dessen Wächter, war Thoth damit betraut, seinen Lauf über den nächtlichen Himmel zu sichern - sein Zunehmen und Abnehmen, sein Verschwinden und Wiedererscheinen. In dieser Funktion, als göttliches Regulativ aller himmlischen Bewegungen, maß Thoth die Zeit und teilte sie in Monate ein.[2] Seine Macht soll sich aber weit über die bloße Einteilung der Jahreszeiten hinaus erstreckt haben. Den Lehren der Priester von Hermopolis zufolge, jener heiligen Stadt in Oberägypten, war Thoth der Demiurg, der die Welt durch den Ton seiner Stimme, durch ein einziges Zauberwort erschuf.[3] Die Ägypter verehrten Thoth als Gott, der die Rätsel »von allem, was unter dem Himmelsgewölbe verborgen ist«, verstand und außerdem die Macht besaß, auserwählten Menschen Weisheit zu verleihen. Es hieß, er habe die Grundlagen seines Geheimwissens auf 36 535 Schriftrollen geschrieben und diese dann auf der ganzen Welt versteckt, damit künftige Generationen sie zwar suchen, aber nur die »Würdigen« sie auch finden und ihre Entdeckung zum Besten der Menschheit verwenden sollten.[4]

Kein Wissenschaftler vermag genau zu bestimmen, wie alt dieser Mondgott wirklich war oder wo und wann sein Kult begonnen hatte. Als die Zivilisation in Ägypten langsam herauf-

dämmerte, war Thoth bereits da und wurde für seine Verdienste um das menschliche Wohlergehen verehrt. Er war der absolute Zauberer, der nicht weniger als das absolute Wissen und die absolute Weisheit besaß. Thoth gab den Menschen die Architektur, die Astronomie und die Medizin. Er war der Schöpfer jenes schrecklichen Zauberbuches, aus dem die Priester von Hermopolis ihr gesamtes Wissen vom Okkulten bezogen. Thoth war der »Geheimnisvolle«, der »Unbekannte«[5].

Die alten Ägypter lebten in der Überzeugung, daß ihre ersten Herrscher Götter waren. Natürlich zählte auch Thoth zu diesen göttlichen Königen; es hieß, seine irdische Herrschaft habe 3226 Jahre gedauert.[6] Vor ihm regierte ein anderer Gott, Osiris, der ebenfalls eng mit dem Mond verbunden war.[7] Obwohl Thoth und Osiris oftmals in sehr unterschiedlichen Erscheinungsformen auftreten, konnte ich nachweisen, daß sie in anderen Zusammenhängen auch gleich oder zumindest verwandt waren.[8] Vor allem in der himmlischen Richterhalle, wo die Seelen der Toten auf den großen Waagen gewogen wurden, traten sie gemeinsam auf. Osiris schien als Richter oftmals der wichtigere der beiden Götter gewesen zu sein, während Thoth als Schreiber nur das Urteil festhielt; aber es finden sich ebenso Darstellungen, die dieses Verhältnis umkehren.[9] Thoth und Osiris waren also nicht nur Mondgötter, Totengötter (und vielleicht Brüder); beide waren zudem Gesetzgeber und Richter.

Natürlich vermerkte ich solche Ähnlichkeiten mit großem Interesse, kam aber zunächst nicht auf ihre Bedeutung für meine eigene Suche. Dann fiel mir ein, daß es eine unveränderliche Beziehung zwischen den beiden Göttern gab, die sie auch vom Konzept her mit Moses und dessen Werk verband; Wie er waren sie vor allem heroische Vorkämpfer für die Zivilisation und brachten ihren Gefolgsleuten die Wohltaten der Religion, der Gesetze und einer sozialen Ordnung.

Thoth verbesserte das Los des ägyptischen Volkes. Aber auch Osiris spielte eine zentrale Rolle in der Entstehung und Entwicklung der Gesellschaft. Als er seine göttliche Herrschaft auf Erden antrat, war das Land barbarisch, roh und unzivilisiert,

die Ägypter selbst waren Kannibalen. Als er jedoch in den Himmel zurückkehrte, hinterließ er eine fortgeschrittene und hochentwickelte Nation, die gelernt hatte, den Boden zu bebauen, die Götter anzubeten und deren Gesetze zu befolgen.

Derartige Geschichten konnten natürlich Erfindungen sein. Und doch fragte ich mich, ob letztlich nicht mehr als reine Phantasie hinter der Überlieferung steckte, daß die Ägypter erst mit den Gaben von Thoth und Osiris zu einer großen Nation geworden waren. War es nicht möglich, daß der Weise, allwissende Mondgott eine mythische Figur für die Wahrheit war, eine Metapher für eine Gruppe von wirklich existierenden Individuen, die in fernster Vergangenheit einem primitiven Lande die Wohltaten von Kultur und Wissenschaft brachten?

Die Männer von Atlantis

Ich hätte diesen Gedanken sicherlich von der Hand gewiesen, wäre ich nicht kurz darauf auf die Existenz eines großen Rätsels gestoßen, für das nie eine endgültige Lösung vorgeschlagen worden war. Anstelle einer langsamen und mühevollen Entwicklung schien die ägyptische Zivilisation schlagartig und sofort voll ausgebildet dagewesen zu sein! In der Tat: Allen verfügbaren Berichten zufolge war die Periode des Übergangs von einer primitiven zu einer hochentwickelten Gesellschaft so kurz, daß aus historischer Perspektive keine sinnvolle Erklärung dafür zu finden war. Technologisches Wissen, dessen Entwicklung sich normalerweise über Hunderte, ja sogar Tausende von Jahren hätte erstrecken müssen, schien buchstäblich fast über Nacht verfügbar zu sein.

So hat man in der vordynastischen Periode, die auf etwa 3600 vor Christus datiert wird, offenbar keine Schriften gekannt. Dann - plötzlich und unerklärlich - tauchte das Hieroglyphensystem auf, und zwar in vollständigem und vollkommenem Zustand. Weit davon entfernt, Gegenstände oder Handlungen nur bildlich darzustellen, handelte es sich bei dieser geschriebenen

Schrift vielmehr um ein komplexes und strukturiertes Zeichen- und Zahlensystem. Schon die allerfrühesten Hieroglyphen waren stilisiert und konventionalisiert; und es besteht kein Zweifel, daß die Schriftsprache bereits zu Beginn der I.Dynastie schon nicht mehr »in den Kinderschuhen steckte«.[10]

Besonders beeindruckte mich, daß es absolut keine Spuren einer Veränderung von einfachen zu höher entwickelten Stilen gab. Dasselbe galt für die Mathematik, die Astronomie, die Medizin und die Architektur und selbst für die erstaunlich vielfältige und lebhafte religiöse Ordnung. Sogar derart verfeinerte literarische Werke wie das *Ägyptische Totenbuch* existierten gleich zu Beginn der dynastischen Periode.[11] Als Zusammenfassung für diese Phänomene kann die Meinung von Professor Walter Emery gelten, dem ehemaligen Inhaber des Lehrstuhls für Ägyptologie an der Universität London:

»Etwa 3400 Jahre vor Christi Geburt ergaben sich in Ägypten grundlegende Veränderungen. Sehr rasch ließ das Land das Stadium fortgeschrittener Steinzeitkultur mit verwickelter Stammesstruktur hinter sich, und es bildeten sich zwei festgefügte Monarchien ... Gleichzeitig trat die Kunst der Schrift ans Licht, eine Monumentalarchitektur, Künste und Handwerk entwickelten sich in erstaunlichem Ausmaß, und alles weist auf die Existenz einer durchorgansierten und sogar üppigen Zivilisation hin. Dies vollzog sich in einem verhältnismäßig kurzen Zeitraum. Die grundlegende Entwicklung der Schrift und Architektur scheint kaum irgendeinen geschichtlichen Hintergrund zu haben.«[12]

Plötzlich kam mir ein Gedanke: Ägypten konnte seinen plötzlichen und ungeheuren kulturellen Aufschwung von einer anderen bekannten Zivilisation der Welt erhalten haben - und der wahrscheinlichste Bewerber für diese Rolle war Sumer am unteren Euphrat in Mesopotamien. Darüber hinaus konnte ich nachweisen, daß trotz vieler grundsätzlicher Unterschiede eine Anzahl von gemeinsamen Bau- und Architekturstilen durchaus eine Verbindung zwischen diesen beiden Gegenden vermuten ließ.[13] Keine dieser Ähnlichkeiten war indessen stark genug,

um mir den Schluß zu erlauben, daß es sich hier um eine kausale Verbindung handelte, daß heißt, daß eine Gesellschaft die andere direkt beeinflußt hätte. Das Gegenteil traf zu:

»Eine neue Kunst kam nach Ägypten, und obwohl viele Autoritäten sie als eine geradlinige Weiterentwicklung der prähistorischen Kunst betrachten ..., sind meiner Meinung nach überzeugende Beweise dafür vorhanden, daß in dieser Periode etwas völlig Neues ins Nil-Tal eingedrungen ist ... Die Existenz eines dritten Volksstammes, dessen kulturelle Errungenschaften selbständig nach Ägypten und nach Mesopotamien gelangten, würden am ehesten die gemeinsamen Züge und die grundlegenden Unterschiede in den beiden Zivilisationen erklären.«[14]

Diese Theorie warf ein bezeichnendes Licht auf die sonst unerklärliche Tatsache, daß die Ägypter und die Sumerer praktisch identische Mondgötter anbeteten, die im jeweiligen Pantheon zu den ältesten Göttern überhaupt gehörten. Genau wie Thoth war der sumerische Mondgott Sin mit dem Messen der vergehenden Zeit betraut. Am Ende eines jeden Monats kamen die anderen Götter des sumerischen Pantheons zu ihm, fragten ihn um Rat und erwarteten die Entscheidung des Mondgottes.[15] E.A. Wallis Budge zufolge »ist die Ähnlichkeit zwischen den beiden Göttern zu groß, als daß sie bloßer Zufall sein könnte. Es wäre gewiß falsch zu sagen, die Ägypter hätten von den Sumerern geborgt oder die Sumerer von den Ägyptern, aber man könnte vielleicht annehmen, daß die Gebildeten beider Völker ihr theologisches System aus einer gemeinsamen, aber außerordentlich alten Quelle geschöpft haben mögen.«[16]

Mit Enttäuschung bemerkte ich, daß weder Budge noch Emery bereit waren, weiter zu spekulieren, obwohl sie sich doch schon so weit hervorgewagt hatten. Was war das für eine »gemeinsame, aber außerordentliche alte Quelle«? Emery gab zumindest einen Hinweis darauf, wo seiner Meinung nach die Wiege der ägyptischen Zivilisation gestanden haben könnte: »... riesige Landstriche im Nahen Osten, am Roten Meer und an den ostafrikanischen Küsten«, so beobachtet er einiger-

maßen zurückhaltend, »sind archäologisch noch nicht erforscht.«[17]

Wenn Ägypten die Gaben der Zivilisation und Wissenschaft tatsächlich von anderswoher empfangen hatte, so mußten doch auch Zeugnisse dieser folgenschweren Transaktion überliefert sein. Die Vergöttlichung der beiden großen »Kulturschöpfer« Thoth und Osiris war ein Indiz: Die Legenden von diesen beiden Göttern wurden zwar als Theologie ausgegeben, aber in meinen Ohren klangen sie eher wie das Echo lange vergessener, aber tatsächlich stattgefundener Ereignisse. Nun, mir war klar, daß ich etwas Konkreteres brauchte, etwas, was eindeutig und unbestreitbar die fruchtbaren Kontakte zu einer fortgeschrittenen Gesellschaft bezeugte und außerdem erklärte, wie es möglich war, daß diese Kultur spurlos verschwand.

Ich fand einen weiterführenden Bericht. Es handelte sich um die vertraute Geschichte des versunkenen Kontinents Atlantis, eine Geschichte, die in den letzten Jahren durch die merkwürdigsten Spekulationen so in Mißkredit geraten war, daß es einem beruflichen Selbstmord gleichkam, wenn ein Forscher sich auch nur in ihre Nähe begab. Nachdem ich den ganzen New-Age-Unsinn beiseite geräumt hatte, stieß ich jedoch auf eine bezeichnende Tatsache, die mich nicht mehr losließ: Das früheste überlieferte Dokument über Atlantis stammt von dem griechischen Philosophen Piaton, einem der Gründerväter des rationalen abendländischen Denkens, der darauf bestand, daß das, was er in dieser Angelegenheit gesagt hatte, keine Fiktion, sondern reine Geschichte sei. Außerdem fügte Piaton, der zu Beginn des vierten Jahrhunderts vor Christus lebte, hinzu, die Quelle seines Berichtes sei ein ägyptischer Priester gewesen, der ihm von der sich beständig wiederholenden Zerstörung von Kulturen durch Fluten erzählte und über die Griechen sagte:

»Ihr Hellenen bleibt doch immer Kinder, zum Greise aber bringt es kein Hellene. Jung in den Seelen, denn ihr hegt in ihnen keine alte, auf altertümliche Erzählungen gegründete Meinung noch ein durch die Zeit ergrautes Wissen. Was sich aber, sei es bei euch oder hier oder in andern Gegenden, von

denen uns Kunde ward, Schönes und Großes oder in einer andern Beziehung Merkwürdiges begab, das alles ist von alten Zeiten her hier in den Tempeln aufgezeichnet und aufbewahrt. Bei euch und andern Völkern dagegen war man jedesmal eben erst mit der Schrift und allem andern, dessen die Staaten bedürfen, versehen, und dann brach, nach Ablauf der gewöhnlichen Frist, wie eine Krankheit eine Flut vom Himmel über sie herein und ließ von euch nur die der Schrift Unkundigen und Ungebildeten zurück, so daß ihr vom Anbeginn wiederum gewissermaßen zum Jugendalter zurückkehrt, ohne von dem etwas zu wissen, was so hier wie bei euch zu alten Zeiten sich begab.«[18]

Nun berichtet der Priester von einem solchen, vor Tausenden von Jahren untergegangenen Land:

»Damals war nämlich dieses Meer schiffbar; denn vor dem Eingange, der, wie ihr sagt, die Säulen des Herakles heißt, befand sich eine Insel, größer als Asien und Libyen zusammengenommen, von welcher den damals Reisenden der Zugang zu den übrigen Inseln, von diesen aber zu dem ganzen gegenüberliegenden, an jenem wahren Meere gelegenen Festland offenstand. Auf dieser Insel Atlantis vereinte sich auch eine große, wundervolle Macht von Königen ..., [die sich] eine solche Fülle des Reichtums erworben hatten, wie weder vorher bei irgendeinem Herrschergeschlecht in den Besitz von Königen gelangt war noch in Zukunft so leicht gelangen dürfte, und da bei ihnen für alles gesorgt war, wofür in bezug auf Stadt und Land zu sorgen not tut. Denn vermöge ihrer Herrschaft floß von außen her ihnen vieles zu, das meiste für den Lebensbedarf aber lieferte ihnen die Insel selbst. Zuerst, was da an Starrem und Schmelzbarem durch den Bergbau gewonnen wird ... Ferner brachte die Insel auch alles in reicher Fülle hervor, was der Wald für die Werke der Bauverständigen liefert, und an Tieren eine ausreichende Menge wilder und zahmer ... Was ferner jetzt irgendwo die Erde an Wohlgerüchen erzeugt, an Wurzeln, Gräsern, Holzarten und Blumen oder Früchten entquellenden Säften, das erzeugte auch sie und ließ es wohl gedeihen, sowie desgleichen die durch Pflege gewonnenen Früchte; die Feld-

früchte ..., was Sträucher und Bäume an Speisen, Getränken und Salben uns bieten ... Dies alles brachte die heilige, damals noch von der Sonne beschienene Insel schön und wunderbar und in unbegrenztem Maße hervor.«[19]

Indessen war es diesem Paradies nicht beschieden, länger »unter der Sonne« zu bleiben, denn bald sollten die schlechten Taten der Bewohner und ihr unmäßiges Leben bestraft werden:

»Indem aber in späterer Zeit gewaltige Erdbeben und Überschwemmungen eintraten, versank, indem nur ein schlimmer Tag und eine schlimme Nacht hereinbrach, eure Heeresmacht insgesamt und mit einem Male unter die Erde, und in gleicher Weise wurde auch die Insel Atlantis durch Versinken in das Meer den Augen entzogen.«[20]

Mein Interesse an dieser Geschichte rührte weniger von dem, was sie über Atlantis selbst aussagte. Auch war ich nicht von der Lokalisierung der Insel »gegenüber den Säulen des Herakles« überzeugt. Ich war der Ansicht, was von geophysikalischen Indizien unterstützt wurde[21], daß es im Atlantik niemals eine solche Landmasse gegeben haben konnte und daß diejenigen, die immer noch danach suchten, den falschesten aller falschen Fährten auf den Leim gingen.

Trotzdem hatte ich den Eindruck (und die Autoritäten stimmten diesem Punkt - wenngleich widerwillig - zu[22]), daß Piatons Bericht auch aufgrund von Tatsachen entstanden sein mußte. Zweifellos verzerrte und übertrieb er viel. Dennoch bezog er sich auf etwas, das wirklich irgendwo auf der Welt und vor sehr langer Zeit passiert war. Ferner machte er klar, und das erschien mir von größter Bedeutung, daß die Erinnerung an dieses Ereignis von ägyptischen Priestern bewahrt und in den alten Schriften niedergeschrieben worden war.

Ich überlegte mir, daß die Möglichkeit eines zufälligen Zusammentreffens gering war, wenn in Mesopotamien ähnliche Erinnerungen bewahrt worden waren. Ein und dieselbe Flutkatastrophe, wo auch immer sie stattgefunden hatte, mußte die Überlieferungen in beiden Regionen geprägt haben. Folglich sah ich mir noch einmal die Legenden an, in denen mir die Ähnlich-

keit zwischen Thoth und dem sumerischen Mondgott Sin aufgefallen war. Was ich erfuhr, überraschte mich nicht: Wie ihre ägyptischen Zeitgenossen haben auch die Sumerer die Erinnerung an eine alles zerstörende Flut bewahrt, die eine große, reiche und mächtige Gesellschaft zerstört hatte.[23]

Im Verlauf meiner Nachforschungen begann Atlantis für mich jenes hypothetische und bis jetzt unentdeckte Gebiet zu symbolisieren, von dem die wundervollen Kulturen Ägyptens und Sumers stammten. Wie gesagt, ich glaubte nicht, daß die große Insel im Atlantik zu suchen war. Statt dessen stimmte ich Professor Emery zu, daß sie wahrscheinlich an einem Punkt lokalisiert werden konnte, der mehr oder weniger gleich weit vom Nil-Delta und vom unteren Euphrat entfernt lag, an den unerforschten Küsten des Horns von Afrika oder in einer von Überflutungen heimgesuchten Region auf dem indischen Subkontinent wie Bangladesch. Gerade solche tropischen Zonen kamen durchaus in Frage, denn mir fiel ein, daß Piaton auch die Existenz von Elefanten in seinem »Atlantis« erwähnt hatte - Geschöpfe, die über viele Jahrtausende hinweg nur in Afrika, Indien und Südostasien lebten.

Es war an der Zeit, mir einen Überblick über die vielen neuen Vermutungen zu verschaffen. In meinem Notizbuch vermerkte ich:

- Nehmen wir an, daß irgendwo im Indischen Ozean im ersten oder zweiten Drittel des vierten Jahrtausends vor Christus eine technologisch fortgeschrittene Gesellschaft von einer Flut zerstört wurde. Nehmen wir weiterhin an, daß es Überlebende gab, von denen einige mit ihren Schiffen nach Ägypten und Mesopotamien segelten, dort landeten und begannen, die primitiven Ureinwohner zu zivilisieren und das Land zu besiedeln.

- Vielleicht schufen die Emigranten neue Priesterstrukturen, die hinfort dazu dienten, die heilige Wissenschaft an die nachfolgenden Generationen weiterzugeben. In Ägypten waren diese Traditionen von Anfang an mit der Verehrung des Mondgottes Thoth verbunden, in Mesopotamien mit der Anbetung

Sins. Womöglich lag das daran, daß die neuen Siedler selbst den Mond verehrten. In jedem Fall ermutigten sie die Einwohner, den vertrauten, aber doch erschreckenden und geisterartigen Himmelskörper zu vergöttlichen. Ihr Ziel wäre letztlich gewesen, den einfachen und unkultivierten Geist des Volkes zu formen und zu dirigieren und einen Kultus zu schaffen, der die Jahrtausende überdauern und als Überlebensgarantie ihres gesamten Wissens dienen würde.

- Daraus kann die Vermutung resultieren, daß ein sich verselbständigender Prozeß eingesetzt hat, sobald der Thoth-Kult im frühen Ägypten erst einmal etabliert war und die Priester die von den zugewanderten Fremden mitgebrachten wissenschaftlichen und technologischen Verfahrensweisen kannten und verinnerlicht hatten. Das neue und wertvolle Wissen wurde mit einer geheimnisvollen Aura umgeben und vor den Nichteingeweihten durch alle möglichen rituellen Strafmaßnahmen geschützt. Dieses Wissen - in einem elitären Procedere von einer Generation an die nächste weitergegeben - gab seinen Besitzern eine bislang ungeahnte Macht über die physikalischen Gesetze.

- Die Elite scheute sich nicht, ihre Macht dem Volk auch vor Augen zu führen, nicht zuletzt durch die Errichtung überwältigender und ehrfurchteinflößender Gebäude. Es ist daher leicht zu verstehen, daß der Glaube, der Mondgott habe sowohl die Wissenschaften als auch die Zauberei erfunden, in der breiten Masse verankert werden konnte, und außerdem, daß die Priester dieses Gottes als Zaubermeister angesehen wurden.

Dem *Wasser* entrissen

Vieles sprach dafür, daß das geheime Wissen vor langer Zeit von Fremden ins Land gebracht worden war, die eine Sintflut überlebt hatten. Außerordentlich bedeutsam war in dieser Hinsicht ein Motiv, das seine Spuren fast in der gesamten religiösen Literatur hinterlassen hat und das wiederholt Weisheit und

andere auszeichnende Eigenschaften mit Individuen in Verbindung brachte, die aus dem Wasser errettet worden waren.

Zunächst entdeckte ich, daß Thoth eine Flut zugeschrieben wurde, die er ausgelöst habe, um die Menschen für ihre Bösartigkeit zu strafen.[24] Die Parallelen zum ersten Buch Mose und der Beschreibung der großen Sintflut lagen auf der Hand! In dieser Episode, von der im CLXXV. Kapitel des Ägyptischen Totenbuches berichtet wird, handelte er gemeinsam mit Osiris.[25] Und nachdem die menschliche Rasse wieder aufgeblüht war, herrschten die Götter in Menschengestalt. Als ich die Geschichte des Osiris näher betrachtete, bemerkte ich mit einiger Aufregung, daß er »aus dem Wasser gerettet« worden war.

Den ausführlichsten Bericht über die ursprünglich ägyptische Legende gibt Plutarch[28], der feststellt, daß Osiris Ägypten verließ und durch die Welt reiste, um die Wohltaten der Zivilisation auch anderen Nationen zu bringen. Während seiner Abwesenheit schlossen sich aber zweiundsiebzig Höflinge unter der Führung seines Schwagers Seth gegen ihn zusammen. Bei seiner Rückkehr luden ihn die Verschwörer zu einem Festessen ein, in dessen Verlauf demjenigen Gast, der genau hineinpassen würde, eine prachtvolle Kiste aus Holz und Gold als Preis versprochen wurde. Osiris wußte natürlich nicht, daß die Kiste genau nach seinen Körpermaßen gebaut worden war. Folglich gelang es keinem der anderen Gäste, sich in die Kiste zu legen. Als die Reihe am Gott-König war, legte er sich bequem in ihr nieder, und sofort stürzten die Verräter los, nagelten den Deckel fest und versiegelten sogar die Ritzen mit geschmolzenem Blei, so daß keine Luft zum Atmen mehr eindringen konnte. Dann wurde die Kiste auf dem Nil ausgesetzt und schließlich in den Sümpfen des östlichen Deltas angeschwemmt.[27]

Da aber griff Isis, Osiris' Gattin, ein. Unter Zuhilfenahme ihrer gesamten Zaubermacht und mit Unterstützung Thoths suchte und fand sie die Kiste und versteckte sie an einem geheimen Ort. Doch Seth entdeckte das Behältnis, öffnete den Deckel und zerstückelte in wilder Raserei den Leichnam in vierzehn Teile, die er im ganzen Land verstreute.

Noch einmal machte sich Isis auf, um ihren Mann zu »retten«. Sie baute ein kleines Boot aus Papyrusrohr, dichtete es mit Pech und Teer ab und fuhr mit ihm auf den Nil hinaus, um nach den Überresten des Körpers zu suchen. Nun bat sie abermals um den Beistand Thoths, der ihr half, die Teile mit einigen besonders mächtigen Zauberformeln wieder zusammenzusetzen. Osiris durchlief einen Auferstehungsprozeß und wurde zum Gott der Toten und König der Unterwelt, von wo er, wie die Legende berichtet, gelegentlich in menschlicher Gestalt auf die Erde zurückkehrte.[28]

Drei Einzelheiten dieser Geschichte fielen mir besonders auf: erstens die Tatsache, daß Osiris während seiner Erdenherrschaft Zivilisationen geschaffen und ihnen Gesetze gegeben hatte; zweitens, daß er in eine hölzerne Kiste gelegt und in den Nil geworfen wurde; und drittens, daß Isis sich in einem mit Pech und Teer abgedichteten Papyrusboot aufmachte, den Leichnam zu retten. Die Parallelen zum Leben Moses' konnten nicht auffälliger sein. Auch er sollte ein großes Volk begründen und die Gesetze des Judentums formulieren, auch er schwamm in einem Körbchen aus Papyrus, das mit Teer und Pech abgedichtet war, und auch er wurde von einer ägyptischen Prinzessin gerettet. Tatsächlich bedeutet ja der Name »Moses«, so zeichnete es der Historiker Josephus Flavius schon auf, »aus dem Wasser gerettet«[29], und Philo, der andere große klassische Kommentator, stimmte mit dieser Etymologie überein.[30]

Ich fragte mich, ob es in Ägypten - und vielleicht auch in Mesopotamien - weitere Beispiele zivilisationsschaffender Helden, die aus dem Wasser gerettet wurden, gegeben haben mochte. Meine Suche in alten Annalen und Legenden ergab, daß es sich tatsächlich so verhielt.

Horus beispielsweise, der Sohn von Isis und Osiris, wurde von Titanen ermordet und in den Nil geworfen. Isis wiederbelebte ihn mittels ihrer Zauberkraft und lehrte ihn die »Künste der Heilkunde und der Prophezeiung, die er hinfort zum Wohle der Menschheit anwendete«[31].

Auch Sargon der Große von Mesopotamien, dessen Herr-

schaft Sumer und den Nachbarländern im dritten vorchristlichen Jahrtausend unvergleichlichen Reichtum und Stabilität brachte[32], behauptete, aus dem Wasser errettet worden zu sein:

»Meine Mutter war Priesterin. Meinen Vater kannte ich nicht. Die Priesterin, meine Mutter, empfing und gebar mich im Verborgenen. Sie legte mich in ein aus Rohr gefertigtes Körbchen und verschloß den Deckel mit Pech. Sie setzte das Körbchen in den Fluß. Der trug mich davon und brachte mich zu Akki, einem Mann der für Trankopfer zuständig war. Akki blickte mit Freundlichkeit auf mich und barg mich aus dem Fluß.«[33]

Das Thema der Errettung aus dem Wasser zog sich auch sehr deutlich durch das Alte Testament. Der Prophet Jona zum Beispiel wurde während eines tobenden Unwetters in den See geworfen, bei lebendigem Leibe von einem riesigen Fisch verschluckt und nach drei Tagen an Land gespien, so daß er den Leuten von Ninive das Wort Gottes predigen und sie von ihrem frevelhaften Leben abbringen konnte.[34]

Und jedem vertraut ist die viel ältere Geschichte von Noah, der zusammen mit seiner Familie und den Tieren die Sintflut in einem bemerkenswerten Rettungsschiff überstand, das wir als die Arche kennen. Auch Noah begründete nach dieser Katastrophe eine neue Zivilisation.

Und war es nicht denkbar, daß die Taufe Jesu Christi im Jordan, wie sie im Markus-Evangelium beschrieben wird, nichts anderes war als die Initiation des Messias in das erleuchtete Wissen eines Geheimkultes, dessen Begründer Tausende von Jahren zuvor buchstäblich »aus dem Wasser gerettet« worden waren? Bezeichnenderweise hat Jesus erst nach diesem Ritus begonnen, seine Wunder zu wirken, von denen die meisten von den altägyptischen Hohenpriestern sofort als »magische Fähigkeiten« erkannt worden wären, weil sie sie selbst beherrschten.

Nach reiflicher Abwägung der vor mir liegenden Tatsachen trug ich folgendes in mein Notizbuch ein:

- Das Motiv eines Zivilisationsschöpfers, eines großen Propheten oder Messias', der auf die eine oder andere Weise aus

dem Wasser errettet worden ist, kommt in der Heiligen Schrift vor, in den Mythologien Ägyptens und des Nahen Ostens - und zwar so häufig und mit so vielen Übereinstimmungen, daß man nicht von Zufällen sprechen kann. Ich glaube also, daß die wirkliche Bedeutung dieses häufig vorkommenden Bildes in der Einweihung der betroffenen Individuen in eine geheime Weisheit liegt, die von den Überlebenden einer Flut sehr viel früher und mit der Absicht gegründet wurde, lebenswichtiges Wissen zu bewahren, das anderenfalls möglicherweise verloren gegangen wäre.

Bei meiner Argumentation hatte ich mich jedoch nicht nur auf Mythen und Legenden verlassen; ich war auch auf andere, geradezu greifbare Beweise gestoßen, die meine Interpretation des »Wasser-Motivs« unterstützten. Neben fast allen bedeutenderen Gräbern von Pharaonen und Würdenträgern und in der Nähe aller Pyramiden waren vollständige und seetüchtige Boote versteckt worden, ein Sachverhalt, der von den Archäologen bisher gemäß dem altehrwürdigen Spruch behandelt wurde: Wenn man einen Brauch nicht versteht, ist es am sichersten, ihn der Religion zuzuschreiben. Langsam dämmerte mir jedoch, daß die Praxis des Begrabens von Booten durchaus auch andere Gründe haben konnte, als den einfachen Wunsch, in der Nähe des Grabes ein »existentes Gegenbild des symbolischen Gefährtes, das die Seele des toten Königs zu seiner letzten himmlischen Bestimmung bringen würde«, zu installieren.[35]

Die alten Ägypter waren ungemein geschickt in der Herstellung von maßstabgetreuen Modellen und Darstellungen aller möglichen Gegenstände, die sie für verschiedene religiöse Zwecke verwendeten.[36] So kam es mir äußerst unwahrscheinlich vor, daß sie sich die Mühe gemacht haben sollten, ein so durchdachtes und erwiesenermaßen seetüchtiges Boot zu bauen und dann zu begraben, wenn sein einziger Zweck ein symbolischer war. Diese Funktion hätte genauso wirkungsvoll mit einem kleineren Boot erfüllt werden können. Hinzu kam, daß die ersten Begräbnisboote, die man in Ägypten entdeckt hatte, gerade aus der geheimnisumwitterten Periode vor der

I. Dynastie stammten, als Zivilisation und Technologie im Nil-Tal eine plötzliche und unerklärliche Veränderung erfuhren.[37] Ich konnte daher der Schlußfolgerung kaum widerstehen, daß das eigentümliche Verfahren eher mit der zu diesem Zeitpunkt bereits etablierten Tradition der »Rettung aus dem Wasser« zu tun hatte als mit irgendeinem rein religiösen Symbolismus. Robuste und seetüchtige Schiffe, so überlegte ich, mußten für eine Gruppe von Fremden, die eine Flut überlebt und sich nach ihrer Flucht vom Ort der Katastrophe in Ägypten niedergelassen hatten, von außerordentlicher Bedeutung gewesen sein. Vielleicht glaubten sie oder ihre Nachfahren, daß die begrabenen Boote eines Tages benötigt werden würden - nicht etwa um wiedergeborenen Seelen die Auffahrt zum Himmel zu ermöglichen, sondern vielmehr um für lebende Individuen erneut die Voraussetzung zu schaffen, einer schrecklichen Flutkatastrophe zu entkommen.

Verborgene Reichtümer

Die wirklich großen Werke Altägyptens wurden früh vollbracht. Die Zeit zwischen der III. und der V. Dynastie - grob geschätzt von 2900 bis 2300 vor Christus - stellt einen absoluten Höhepunkt dar; danach setzte ein stetiger Abwärtstrend ein.[38] Dieses allgemein akzeptierte Szenario stimmte meines Erachtens völlig mit der Theorie überein, daß die Zivilisation während des vierten vorchristlichen Jahrtausends ins Nil-Tal gekommen war. Nachdem die Ureinwohner ihr Wissensdefizit aufgeholt und die neuen Techniken erlernt hatten, gelangen ihnen immer durchdachtere Baudenkmäler.[39] Das Streben nach immer größerer Schönheit und Vollkommenheit fand - nach Ansicht mancher moderner Forscher - seinen höchsten Ausdruck in dem bemerkenswerten Begräbniskomplex König Djosers, des ersten Pharao der III. Dynastie. Ich stellte fest, daß Planung und Ausführung des gesamten Bauwerkes das Werk eines einzigen schöpferischen Genies war, des Baumeisters Imhotep, der in den alten

Überlieferungen auch Weiser, Zauberer, Architekt, Hoherpriester, Astronom und Arzt genannt wird.[40] Ich begann mich für diese legendäre Gestalt zu interessieren, weil spätere Generationen seine wissenschaftlichen und magischen Fähigkeiten so sehr betonten, daß er schließlich zum Gott erhoben wurde. Imhotep sah für mich ganz offensichtlich nach einem Kandidaten für den Thoth-Kult aus: Die Baudenkmäler in Sakkara legten, wie mir schien, beredtes Zeugnis dafür ab, daß er das dem Kult eigene technologische Wissen angenommen und hervorragend in die Praxis umgesetzt hatte.

Mit Befriedigung nahm ich zur Kenntnis, daß Imhotep in Inschriften oft als Ebenbild Thoths charakterisiert wird[41], aber auch als Nachfolger Thoths, nachdem der Gott in den Himmel aufgefahren war.[42] Dann erfuhr ich noch etwas Wichtigeres: Auch Moses wurde in der Antike mit Gott verglichen. Im zweiten Jahrhundert vor Christus füllte der jüdisch-griechische Philosoph Artapanus ein ganzes Werk mit solchen Vergleichen und schrieb dem Propheten übrigens eine Reihe bemerkenswerter und eindeutig »wissenschaftlicher« Erfindungen zu.[43]

Daß zwei zeitlich so weit voneinander entfernte Gestalten wie Moses und Imhotep ausdrücklich durch den Kult des Mondgottes verbunden waren, war für mich ein eindeutiger Indizienbeweis nicht nur für die Existenz einer geheimen Tradition von Weisheit, sondern auch für die lange Lebensdauer dieser Tradition. Also fragte ich mich, ob es andere Zauberer und Weise wie Imhotep gegeben hatte, denen der Bau besonders komplexer und hochentwickelter Bauwerke zugeschrieben wird.

Leider ist kein Bericht über den Architekten der Cheopspyramide erhalten, die eine glanzvolle Krönung der IV. Dynastie und zugleich den Zenit der ägyptischen Zivilisation darstellte. Nur die XIX. Dynastie (1580 bis 1200 vor Christus) sollte noch einmal einen bemerkenswerten Aufschwung erleben. Die Krönung dieser Ära, die mich mit Ehrfurcht erfüllte, war der wunderschöne Obelisk der Königin Hatschepsut in Karnak. Und ganz in der Nähe, am Westufer des Nils, hatte dieselbe Monarchin einen massiven Totentempel in Auftrag gegeben, der in

späteren Zeiten zu den großen architektonischen Meisterwerken der Welt zählen sollte.

Der für beide Bauwerke verantwortliche Architekt hieß Senmut. Interessanterweise ließ eine von ihm selbst verfaßte Inschrift auf der Wand seines Grabes keinen Zweifel daran, daß er seine besonderen Kenntnisse und Fähigkeiten erst erworben hatte, nachdem er zu den Mysterien einer alten und geheimen Überlieferung zugelassen worden war. »Nachdem ich die Schriften der göttlichen Propheten durchdrungen hatte«, prahlte er, »war mir nichts mehr verborgen, was seit Anbeginn der Zeiten geschehen ist.«[44]

Man könnte mutmaßen, schrieb ich in mein Notizbuch, daß Moses, der kaum zweihundert Jahre nach Senmut lebte, ein Eingeweihter derselben Geheimüberlieferung war, die sich über Imhotep zu den Gott-Königen Thoth und Osiris bis weit in die Vergangenheit zurückerstreckte und in der Zukunft selbst große Wissenschaftler und Zivilisationsschöpfer wie Jesus Christus einschloß. Wenn auch nur etwas an dieser Hypothese ist, konnten dann nicht auch außergewöhnliche Denker unserer Jahrtausende zu den Erben dieses okkulten Wissens gehören, eines Wissens, das die Erbauer der Pyramiden und Obelisken inspirierte und es Moses ermöglichte, seine Wunder zu vollbringen?

Noch einmal kehrte ich zu den Tempelrittern zurück, die nach ihren Grabungen in Jerusalem in der Lage waren, Kirchen und Burgen zu errichten, die in architektonischer Hinsicht anderen Gebäuden des zwölften und dreizehnten Jahrhunderts weit überlegen waren. War es nicht möglich, daß die Templer dieselbe Tradition weiterführten, mit der schon Moses, Senmut und Imhotep in Berührung gekommen waren? Und war es dann nicht auch möglich, daß die Suche der Templer nach der Bundeslade in Verbindung mit dieser Tradition stand? Mehr als eine alte jüdische Überlieferung versicherte, die Lade habe »die Wurzel allen Wissens« enthalten.[45] Es lag also nur nahe, daß die Suche nach der Bundeslade zugleich die Suche nach der absoluten Weisheit bedeutet haben mußte, zumal die Templer im Verlauf der Gerichtsverfahren, denen sie sich im frühen vier-

zehnten Jahrhundert hatten unterziehen müssen, angaben, sie hätten eine geheimnisvolle Figur namens »Baphomet« angebetet. Ein Wissenschaftler zeigte auf, daß dieses Wort dem griechischen »sophia« entspricht[46], was wiederum nicht mehr und nicht weniger bedeutet als »Weisheit«[47].

Dieser Analyse zufolge verehrten die Templer also das Prinzip der Weisheit. Und genau das war es natürlich, was die Ägypter taten, wenn sie Thoth als »Verkörperung des Geistes Gottes« anbeteten[48], als den »Schöpfer aller Zweige des Wissens, des menschlichen wie auch des göttlichen«[49].

Auch die Freimaurer hielten Thoth in besonderen Ehren. Eine sehr alte Freimaurer-Überlieferung gibt an, Thoth »habe eine Hauptrolle in der Bewahrung des freimaurerischen Handwerks und seiner Weitergabe an die Menschheit nach der Flut« gespielt.[50] Derselbe Verfasser behauptete in seiner gut dokumentierten akademischen Studie sogar, die Freimaurer hätten in ihren frühen Tagen Thoth als Schutzherrn betrachtet.[51] Daß es enge Verbindungen zwischen den Templern und den Freimaurern gab, wußte ich. Die letzteren stammten mit großer Sicherheit von den ersteren ab. Jetzt erkannte ich, daß der Thoth-Kult das verbindende Element einer alten, über Jahrtausende andauernden Wissenstradition darstellte, die bis in die Zeit der Pharaonen zurückreichte. Als nächstes wollte ich herausfinden, ob es neben den Templern und den Freimaurern auch andere Gruppen oder Einzelpersonen gegeben hatte, deren Werke und Ideen zu ihrer Zeit so ungewöhnlich und fortschrittlich waren, daß sie als Eingeweihte derselben Weisheitstradition gelten konnten.

Es gab sie. Kopernikus beispielsweise, der große Renaissance-Gelehrte, dessen Theorie eines heliozentrischen Universums die erdbezogene Selbstzufriedenheit des finsteren Mittelalters über den Haufen geworfen hatte, sprach ziemlich offen davon, daß er zu seinen revolutionären Einsichten nur durch das Studium der geheimen Schriften der Ägypter und der Werke des Thoth selbst gekommen sei.[52] Auch Kepler, der berühmte Mathematiker des siebzehnten Jahrhunderts, gab zu, daß er nur

das »wertvolle Rüstzeug der Ägypter stahl«, als er seine Gesetze über den Lauf der Planten formulierte.[53]

Im gleichen Tenor verkündete Sir Isaac Newton, daß »die Ägypter Geheimnisse, die jenseits des Fassungsvermögens der gemeinen Masse lagen, hinter dem Schleier religiöser Rituale und hieroglyphischer Symbole verbargen«[54]. Unter diesen Geheimnissen befand sich auch, so glaubte er, das Wissen, daß die Erde um die Sonne kreiste, und nicht umgekehrt.[55]

Zu den großen Leistungen des englischen Gelehrten gehörte die Aufstellung des Gravitationsgesetzes, das die menschliche Vorstellung vom Kosmos für immer veränderte. Wenige jedoch wußten, daß sich Newton einen bedeutenden Teil seines Lebens auch in esoterische und alchimistische Literatur vertieft hatte. Über ein Zehntel seiner Privatbibliothek bestand aus alchimistischen Abhandlungen.[56] Ferner war er buchstäblich besessen von der Vorstellung, daß in den Seiten der Heiligen Schrift eine Geheimweisheit verborgen liege. Ganz besonders zogen ihn das alttestamentarische Buch Daniel und das Johannes-Evangelium an: Denn »die Sprache der prophetischen Schriften bestand aus Symbolen und Hieroglyphen, und ihr Verständnis erforderte eine radikal neue Methode der Auslegung«[57].

Als ich mich näher mit Newton beschäftigte, begann ich zu verstehen, warum er so sehr bestrebt war, neue exegetische Wege zu finden. Er hatte sich auf eine anstrengende Untersuchung von ungefähr zwanzig verschiedenen Versionen des Buches der Offenbarung eingelassen und dafür sogar Hebräisch gelernt.[58] Dieselbe Übung exerzierte er mit dem Buch Ezechiel durch[59] und konnte aufgrund seiner Ergebnisse eine exakte Rekonstruktion des Grundrisses des Tempels Salomos herstellen. Warum? Weil er davon überzeugt war, daß das große Gebäude, das in seinem Herzen die Bundeslade barg, eine Art Kryptogramm des Universums war; und wenn er dieses Kryptogramm dechiffrieren konnte, dann, so glaubte er, würde er den Geist Gottes kennen.[60]

Newtons umfangreiche »theologische« Entdeckungen kamen

erst Mitte unseres Jahrhunderts ans Licht der Öffentlichkeit und wurden auf einer Auktion von John Maynard Keynes ersteigert: »Newton war nicht der erste Aufklärer«, teilte der sichtlich erschütterte Besitzer später der Royal Society mit, »er war der letzte Magier, der letzte Babylonier und Sumerer, der letzte große Geist, der mit denselben Augen die Welt betrachtete wie die, die vor nicht weniger als zehntausend Jahren unser intellektuelles Erbe zu errichten begannen.«

Keynes untersuchte die Manuskripte außerordentlich genau und kam zu dem - meines Erachtens bezeichnenden - Schluß, daß Newton »das ganze Universum als ein einziges Rätsel begriff, als Geheimnis, das gelesen werden konnte, wenn man reines Denken auf bestimmte Zeichen anwandte, auf besondere geheime Schlüssel, die Gott in der Welt verborgen hatte, um der Bruderschaft der Esoteriker eine Art philosophischer Schatzsuche zu ermöglichen. Er glaubte, daß diese Schlüssel teilweise im Zeugnis der Himmel und in der Zusammensetzung der Elemente zu finden wären, aber auch in gewissen Aufzeichnungen und Überlieferungen, die seit der ursprünglichen Enthüllung des Mysteriums von den Eingeweihten in einer ununterbrochenen Kette weitergegeben worden waren .. .«[61]

Ich wußte, daß ich möglicherweise nie würde beweisen können, daß die fragliche Bruderschaft direkt mit den okkulten Traditionen des Mondgottes Thoth verbunden war - und mit jenen »aus dem Wasser erretteten« Wissenschaftlern und Zivilisationsschöpfern. Und doch hatte ich den Eindruck, daß es zumindest für eine interessante Tatsache genug Beweise gab. Hinsichtlich seiner großen Entdeckungen hatte Newton mehrfach darauf hingewiesen, daß er nicht nur aus seinem eigenen Genie, sondern auch aus einer sehr alten und geheimen Sammlung von Weisheit schöpfen konnte. Newton zufolge war das in den *Principia* entwickelte Gesetz der Schwerkraft keineswegs neu. Schon in früheren Zeiten habe man es gekannt und verstanden; er selbst habe es durch die Dechiffrierung der Geheimliteratur der Vergangenheit wiedergefunden.[62] Zudem schloß Newton sich dem deutschen Physiker und Alchimisten Michael

Mayer (1568-1622] an, der behauptet hatte, alle wahren Anhänger der Wissenschaften im Verlauf der Geschichte hätten ihr Wissen vom ägyptischen Mondgott abgeleitet.[63]

In der Biographie des englischen Gelehrten stieß ich auf viele Merkwürdigkeiten. Newton hatte sich von dem Gedanken faszinieren lassen, daß es eine »allgemein verbreitete Tradition von Flutkatastrophen bei den alten Völkern« gegeben habe[64], und sich ungemein für die biblische Ansicht interessiert, Noah sei der Urahne der gesamten Menschheit.[65] Am allermeisten jedoch beeindruckte mich, daß die zentrale Gestalt in Newtons Theologie und in seiner Vorstellung von der frühen Wissenschaft niemand anderes als Moses war, von dem er annahm, er sei ein Meister der Alchimie gewesen und Zeuge der doppelten Offenbarung Gottes, die sich in Worten und Taten ausdrückt.[66]

Newton glaubte, daß Moses viele Jahrhunderte vor unserer eigenen aufgeklärten Zeit verstanden habe, daß die Materie aus Atomen bestand. So deutete er die Moses zugeschriebene biblische Schöpfungsgeschichte als allegorische Beschreibung eines alchimistischen Prozesses.[67] Es überraschte mich also kaum, daß Newtons Lieblingsstelle in der Bibel[68] auf die Existenz einer Form verborgenen Wissens hinwies, das nur Eingeweihten zugänglich war: »... und ich will dir geben die heimlichen Schätze und die verborgenen Kleinode, auf daß du erkennest, daß ich, der Herr, der Gott Israels, dich bei deinem Namen genannt habe.«[69]

Nun, es war ein wirklich gewagtes Unterfangen, die Umrisse jener verschwiegenen Sekte darzustellen, die für die Überlieferung des alten Wissens garantierte. Weitaus gewagter war aber die Aufgabe, die wirkliche Natur der Wissenschaft und Technologie zu erraten, die von einer so langlebigen und geheimnisbewahrenden Institution wie dem Thoth-Kult beschützt und tradiert wurde. Mir war klar, daß die Erfindungen und Maschinen unseres Jahrhunderts keine Orientierungshilfe darstellten. Im Gegenteil: Eine vor vielen Jahrtausenden existierende hochentwickelte Gesellschaft verfügte höchstwahrscheinlich über ganz andere Wissensformen, und man muß annehmen, daß ihre Ma-

schinen in einer Weise funktioniert haben, die uns heute unbekannt ist.

Ein gewaltiges Instrument

Von solchen Gedanken bewegt, wandte ich mich erneut den Büchern Mose zu, in denen der Prophet seine Begegnung mit Gott auf dem Berg Sinai beschreibt. Mit Donner und Feuer, elektrischen Stürmen und Rauchwolken enthüllte Jahwe dem hebräischen Zauberer angeblich den Bauplan für die Bundeslade und übergab ihm die steinernen Tafeln mit den Zehn Geboten. Dann wurde die Lade vom Handwerker Bezaleel gebaut, der sklavisch genau die göttlichen Anweisungen befolgte, als ob er gewußt habe, daß er da ein gewaltiges Instrument schmiedete.

Und in der Tat, genau das, vermutete ich, war die Bundeslade auch: ein gewaltiges Instrument, das unkontrolliert und mit katastrophalen Folgen furchtbare Energien freisetzen konnte, wenn es in irgendeiner Weise falsch benutzt oder mißbraucht wurde, ein Instrument, das nicht vom Geist Gottes ersonnen worden war, wie die Bibel lehrt, sondern von Moses selbst.

Alles in allem war es durchaus möglich, daß Moses zu einer Zeit, in der Zauberei und Wissenschaft kaum zu unterscheiden waren, das technische Wissen - und folglich die Fähigkeit - gehabt hat, ein Gerät dieser Art zu entwerfen. Natürlich gibt es dafür keine Beweise. Aber man darf nicht vergessen, daß die alten Weisheitstraditionen Ägyptens durchaus besondere Fertigkeiten oder technologische Verfahrensweisen ermöglicht haben konnten, auf die der Prophet zurückgriff, um der Bundeslade die fürchterlichen Kräfte zu verleihen.

Wenn Moses eine solche Maschine also bauen konnte, fragte sich nur noch, welchen Grund er dafür hatte und ob sich die *Möglichkeit* ergab, diesen Plan auch in die Tat umzusetzen.

Gute Gründe gab es genug. Manches weist daraufhin, daß er weniger den jüdischen Glauben begründen wollte (obgleich er das sicherlich tat), als die Israeliten zu zivilisieren, die vor dem

Auszug aus Ägypten wenig mehr waren als ein loser Stammesverbund von unterdrückten Arbeitern.

Nehmen wir einmal an, daß Moses den Entschluß faßte, diese primitive und kaum regierbare Gruppe von Beduinen zu begeistern (und damit in Bewegung zu bringen), indem er sie davon überzeugte, daß er sie in das Gelobte Land bringen würde, das er verführerisch als »ein gutes und weites Land« geschildert hatte, »darin Milch und Honig fließt«[70]. Moses war zudem ein viel zu schlauer Führer und scharfsinniger Richter menschlicher Schwächen, als daß er den unorganisierten Pöbelhaufen direkt dorthin geführt hätte. Er wußte genau, daß sie im Gelobten Land auch auf Widerstand stoßen würde, so daß er sie erst einmal formen und bilden, sie seinem Willen beugen und ihnen einige Disziplin aufzwingen mußte, bevor sie diese Feinde besiegen könnten.

Nur so war im übrigen etwas ansonsten einigermaßen Unsinniges zu erklären, nämlich die Tatsache, daß die Israeliten angeblich vierzig Jahre durch die lebensfeindlichen Wüsten der Sinai-Halbinsel wanderten. Zu dieser Zeit gab es nämlich mindestens zwei wohlbekannte und vielgenutzte Handelsstraßen, die es Reisenden normalerweise ermöglichten, die Wüste zwischen Ägypten und Kanaan in wenigen Tagen zu durchqueren.[71] Moses' Entscheidung, diese Routen zu meiden und seinem Volk eine lange und gefahrvolle Zeit aufzuerlegen, konnte nur eine wohlüberlegte Strategie gewesen sein, die aus der Überzeugung resultierte, daß dies die beste Möglichkeit war, die Israeliten in Form zu bringen, bevor sie das Gelobte Land eroberten.[72]

Aber natürlich muß eine solche Strategie auch ihre Kehrseite gehabt haben. Sie bestand vor allem in der Schwierigkeit, die Leute des Stammes davon zu überzeugen, daß sie zusammenhalten und alle Schwierigkeiten und Entbehrungen auf sich nehmen sollten. Sehr schnell konnte Unzufriedenheit entstehen, und manchmal kam es sogar zu offener Rebellion.[73]

Es lag nur nahe, daß der Prophet die Notwendigkeit erkannt hatte, sich mit einer Art tragbaren »Wundermaschine« auszurü-

sten, um sicherzustellen, daß sein Volk ihm gehorchte, ganz gleich, wie schwierig die Umstände waren. Es ist nicht schwer, in der Bibel Beispiele für genau diese Verwendung des heiligen Gegenstandes zu finden. Nach dem Bau der Lade hat anscheinend eine dramatische Veränderung in Moses' Verhalten stattgefunden. Vorher reagierte er auf die unaufhörlichen Forderungen und Klagen der Israeliten mit vergleichsweise unbedeutenden Taschenspielertricks: In der Wüste schlug er mit seinem Stab an den Fels und ließ frisches Wasser aus ihm sprudeln[74], er füllte einen ausgetrockneten Teich mit Trinkwasser[75] oder ließ Brot vom Himmel regnen.[76] Später aber richtete der Prophet einfach die Lade gegen das Volk, wenn es murrte oder ihm die Führung streitig machen wollte.

So wurde seine Schwester Mirjam, die seine Autorität in Frage gestellt hatte, mit einem entstellenden Hautausschlag gestraft - mit Wunden, die auftraten, nachdem sie der geheimnisvollen Wolke ausgesetzt war, die gelegentlich zwischen den Cherubim erschien.[77] Bereits hier fragte ich mich, ob die Verletzungen nicht viel eher von einem chemischen oder anderen hochwirksamen Stoff ausgelöst worden waren, den die Lade absonderte.

Abtrünnige, die nicht zur Priesterfamilie gehörten, wurden in der Regel sehr viel härter bestraft. Nach einer Meuterei, in der die Macht von Moses und Aaron offen in Frage gestellt wurde, ereignete sich eine Reihe besonders aufschlußreicher Vorfälle:

»Und Korah samt Dathan und Abiram empörten sich wider Mose samt etlichen Männern unter den Kindern Israel, zweihundertundfünfzig Leute ... Und sie versammelten sich wider Mose und Aaron und sprachen zu ihnen: Ihr macht's zuviel. Denn die ganze Gemeinde ist überall heilig, und der Herr ist unter ihnen; warum erhebt ihr euch über die Gemeinde des Herrn?«[78]

Moses schlug auf diese Anschuldigungen hin folgenden »Test« vor: Um herauszufinden, ob die zweihundertfünfzig Rebellen wirklich so »heilig« waren wie er selbst, sollten alle Räucherwerk in eine bronzene Pfanne tun und es dann vor der

Bundeslade verbrennen. »Welchen der Herr erwählt, der sei heilig.«[79]

Die Herausforderung wurde angenommen. »Und jeglicher nahm seine Pfanne und legte Feuer darein und tat Räucherwerk darauf; und sie traten vor die Tür der Hütte des Stifts, und Mose und Aaron auch.«[80] Kaum hatte sich die Versammlung zusammengefunden, »da erschien die Herrlichkeit des Herrn«[81]. Offenbar warnte Jahwe seine Auserwählten in letzter Minute vor dem, was nun folgte:

»Und der Herr redete mit Mose und Aaron und sprach: Scheidet euch von dieser Gemeinde, daß ich sie plötzlich vertilge ... Dazu fuhr das Feuer aus von dem Herrn und fraß die zweihundertfünfzig Männer, die das Räucherwerk opferten.«[82]

Das Volk hatte eine heilsame Lektion lernen müssen. Nachdem die Macht der Lade es besiegt hatte, zettelte es keine Rebellion mehr an. Im Gegenteil, nun schwenkten die Israeliten ganz auf Moses' Linie ein und taten hinfort genau das, was er von ihnen verlangte.

Soviel zur Frage des Motivs, warum Moses ein Machtinstrument benötigte. Aber noch immer galt es, einen anderen wichtigen Punkt zu untersuchen: War er überhaupt in der Lage, einen Bauplan für die Lade auszuarbeiten und dieses »Kraftpaket« auch herzustellen?

Die Antwort lautete ja: Moses war geradezu prädestiniert dafür. Noch einmal rief ich mir die Hauptereignisse aus Moses' Leben in chronologischer Reihenfolge in Erinnerung:

- Er wurde in Ägypten geboren.
- Er wurde in einem mit Pech und Teer abgedichteten Korb auf dem Nil ausgesetzt.
- Er wurde von der Tochter des Pharao »aus dem Wasser errettet«.
- Er wurde im königlichen Haushalt großgezogen, wo er »alle Weisheit der Ägypter« lernte - und so ein Zauberer sowie höchstwahrscheinlich auch ein Hohepriester wurde.
- Der Bibel zufolge erfuhr er mit vierzig Jahren, daß sein eigenes Volk, die Israeliten, von den Ägyptern unterdrückt wurde.

Er fand heraus, daß sie Tag und Nacht harte Fronarbeit leisten mußten. Er entbrannte in Zorn über diese grausame Behandlung und den Hochmut der Ägypter, verlor die Beherrschung, brachte einen Aufseher um und floh ins Exil.[83]

- Mit achtzig Jahren[84] - das heißt vierzig Jahre später! - kehrte er aus dem Exil zurück, um die Israeliten aus der Gefangenschaft zu führen.

Was geschah während dieser vierzig Jahre? Die Bibel ist ungewöhnlich wortkarg in dieser Frage, sie widmet dem gesamten Zeitabschnitt gerade elf Verse.[85] Eines jedoch macht sie unmißverständlich klar: Das Schlüsselerlebnis dieser langen Zeit war die Begegnung Moses' mit Jahwe im brennenden Dornbusch, eine Begegnung, die am Fuße des Berges Sinai stattfand, genau da, wo später die Bundeslade gebaut werden sollte.

Ist es nicht möglich, daß Moses sich mit der gefahrvollen Wildnis der Sinai-Halbinsel vollkommen vertraut machen wollte, bevor er die Israeliten dazu überredete, ihm durch das Rote Meer zu folgen? Der Ort, an dem das Erlebnis mit dem brennenden Dornbusch stattfand, läßt kaum einen Zweifel daran, daß er wenigstens einen Teil seines vierzigjährigen Exils in diesen entlegenen und gebirgigen Wüsten zubrachte. Ja, es ist sogar möglich, daß er die meiste oder die ganze Zeit dort verbrachte - eine Vorstellung, für die es eine gewisse akademische Unterstützung gibt. Einem gelehrten Ägyptologen zufolge hätte Moses durchaus ein Vierteljahrhundert im Sinai zubringen können. Er hätte dann in einer Siedlung auf einem Berg namens Serabit-el-Khadem gelebt, der kaum achtzig Kilometer vom Berg Sinai entfernt liegt.[86]

Im Juni 1989 besuchte ich den Serabit-el-Khadem im Südwesten der Sinai-Halbinsel. Auf dem abgeflachten Gipfel des Berges, der inmitten eines kargen und wüsten Hochlandes liegt, befinden sich noch heute die Überreste der Siedlung, in der Moses gelebt haben könnte. Die Ruinen werden beherrscht von Obelisken, Altären und anmutigen Säulen, und man vermutet, daß hier einmal ein großer ägyptischer Tempel gestanden haben muß. Ich überlegte, daß sich Moses als Hohepriester der

altägyptischen Religion hier wohlgefühlt haben mußte. Und wenn er wirklich vor dem Zorn des Pharao geflohen war (wie die Bibel behauptet], dann konnte er sich an diesem abgelegenen und unbekannten Ort auch relativ sicher gefühlt haben.

Ich beschloß, mehr über Serabit-el-Khadem herauszufinden. Im Verlauf dieser Arbeit kamen zwei bezeichnende Tatsachen heraus. Zunächst erfuhr ich, daß die Tempelanlage 1904 und 1905 von dem britischen Archäologen Sir William Flinders Petrie untersucht worden war und daß er Fragmente verschiedener Steintafeln ausgegraben hatte.[87] Diese Tafeln trugen Inschriften in einer unbekannten Bilderschrift, die man erst viel später einer semitisch-keltischen Sprache zuordnen konnte, die wiederum mit dem Althebräischen verwandt war.[88]

Zweitens fand ich heraus, daß die Siedlung ungefähr zwischen 1990 und 1190 vor Christus ein bedeutendes Zentrum der Förderung und Verarbeitung von Kupfer und Türkis war.[89] Moses konnte sich im dreizehnten vorchristlichen Jahrhundert also durchaus hier aufgehalten haben - unmittelbar vor dem Exodus. Und als weitere Untermauerung dieser Vorstellung mußte gelten, daß hier zur selben Zeit ein dem Hebräischen verwandtes Alphabet verwendet wurde. Wirklich interessant aber war, daß Serabit sozusagen ein Standort für metallverarbeitende Industrie war und daß in der Gegend mehrere Bergwerke lagen. Mir schien es ziemlich wahrscheinlich, daß Moses, wenn er wirklich längere Zeit hier gelebt hatte, sich gut mit den Mineralien und Erzen des südlichen Sinai ausgekannt hatte.

Nach meinem Besuch auf dem Serabit fuhr ich mit einem Jeep die fünfundsiebzig Kilometer durch die Wüste zum Berg Sinai. Nur gelegentlich stieß ich auf grüne Flecke in den Tälern - und eine solche Oase mit vielen Dattelpalmen gibt es am Fuße des Berges Sinai. Ich war mir sehr wohl bewußt, daß nicht zweifelsfrei erwiesen werden konnte, welcher der drei nahe beieinanderliegenden Berge als der in der Bibel erwähnte »Berg Sinai« gelten konnte. Tatsache ist aber, daß die mindestens bis ins vierte Jahrhundert zurückreichenden mönchischen Traditionen (denn seit dieser Zeit gibt es hier eine Kapelle, die im

fünften Jahrhundert sogar zu einem befestigten Kloster erweitert wurde[90]) einen bestimmten Gipfel mit dem »Berg Gottes« gleichgesetzt hatten, was mit einiger Sicherheit auf der Basis verläßlicher, aber inzwischen verlorener Informationsquellen geschehen war.[91] Darüber hinaus wußte ich von entsprechenden Stammestraditionen der Beduinen, deren Name für den Berg Sinai einfach »Dschebel Musa«, »Berg des Moses« lautete.[92]

Auch wissenschaftliche Studien haben den biblischen Berg Sinai mit dem Gipfel gleichen Namens identifiziert, und die wenigen abweichenden Stimmen bevorzugten nicht etwa eine andere Gegend, sondern eher nahegelegene Gipfel derselben Bergkette, zum Beispiel den »Dschebel Serbal«[93].

Ich muß zugeben, daß ich nach meiner Besteigung des Sinai im Juni 1989 nicht mehr daran zweifelte, daß dies wirklich der Berg war, zu dem Moses die Israeliten nach dem Auszug aus Ägypten gebracht hatte. An diesem rauhen und unwirtlichen Ort überlegte ich mir, daß Moses sich kaum eine dramatischere - und somit geeignetere - Stelle hätte aussuchen können, um die Zehn Gebote aus der Hand Gottes zu empfangen.

Aber war das wirklich der Grund, warum der hebräische Zauberer zum Berg Sinai gekommen war? Ich konnte mir nämlich auch ein anderes Szenario vorstellen. War es nicht möglich, daß seine eigentliche Absicht darin bestand, die Bundeslade zu bauen und in diese eine gewaltige Energiequelle hineinzulegen, deren Rohstoff er, wie er wußte, auf diesem Berggipfel finden würde?

Das ist natürlich eine außerordentlich gewagte These, aber es ist ja ohnehin Spekulation, die wir hier betreiben, und wir sollten uns den Raum für ein wenig »künstlerische Freiheit« gönnen.

Also, wenn Moses von der Existenz einer derart energetischen Substanz auf dem Gipfel des Berges Sinai wußte, was für eine Substanz könnte das gewesen sein? Für mich bestand ein Vorschlag darin, daß die steinernen Gesetzestafeln in Wirklichkeit Stücke eines Meteoriten waren. Diese interessante Möglichkeit wird von einigen Bibelforschern sehr ernst genommen.

Sie weisen auf die Anbetung von Meteoritensplittern in alten semitischen Kulturen hin[94] und fügen hinzu, daß »es einigermaßen merkwürdig scheint, daß Gesetzestafeln in einem geschlossenen Behälter verborgen werden mußten. In Stein geschnittene Gesetzesworte sollten doch eher öffentlich ausgestellt werden. Man kann daher vermuten, daß die Lade nicht zwei Gesetzestafeln enthielt, sondern einen Fetisch-Stein, einen Meteoriten vom Berg Sinai.. .«[95]

Träfe diese Einschätzung zu, so wären den Mutmaßungen, woraus genau der »Meteorit vom Berg Sinai« bestanden haben mag, Tür und Tor geöffnet. Auf alle Fälle war der Gedanke nicht abwegig, daß er radioaktive Strahlungen oder chemische Eigenschaften besessen haben konnte, die Moses mit Sicherheit genutzt hätte, um seine Bundeslade mit einer machtvollen und dauerhaften Energiequelle auszurüsten.

Die Vorstellung, daß er irgend etwas auf dem Gipfel des Berges hergestellt haben könnte, wird von der Bibel keineswegs ausgeschlossen. Im Gegenteil, viele Stellen in Buch Exodus sind eigentümlich und verwirrend genug, um eine solche Interpretation zu ermöglichen.

Die Erscheinung Gottes vor seinem Diener begann, unmittelbar nachdem sich die Israeliten »gegenüber dem Berge« gelagert hatten. »Und Mose stieg hinauf zu Gott. Und der Herr rief ihn vom Berge.«[96] Zu diesem frühen Zeitpunkt erwähnt die Bibel noch keinen Rauch, kein Feuer oder irgendeine der anderen Erscheinungen, die später ins Spiel kamen. Statt dessen bestieg der Prophet einfach den Berg und hielt eine Unterredung mit Jahwe ab, eine Unterhaltung, für die es keine Zeugen gab. Bezeichnenderweise lautete einer der ersten Befehle Gottes:

»Und mache dem Volk ein Gehege umher und sprich zu ihnen: Hütet euch, daß ihr nicht auf den Berg steiget noch sein Ende anrühret; denn wer den Berg anrührt, soll des Todes sterben.«[97]

Es bedarf keiner Erwähnung, daß es für Moses gute Gründe für die Errichtung einer so strengen Sperrzone gab, wenn er wirklich an die Herstellung oder Verarbeitung einer gefähr-

lichen Substanz auf dem Berg Sinai gedacht hatte; niemand würde es wagen nachzusehen, was er dort eigentlich trieb. Zudem konnte Moses die Illusion aufrechterhalten, er treffe sich mit Gott. Jedenfalls begann das Drama erst wirklich, nachdem er drei Tage auf dem Berg zugebracht hatte:

»Als nun der dritte Tag kam und es Morgen war, da erhob sich ein Donnern und Blitzen und eine dicke Wolke auf dem Berge und ein Ton einer sehr starken Posaune; das ganze Volk aber, das im Lager war, erschrak. Der ganze Berg Sinai aber rauchte, darum daß der Herr auf den Berg herab fuhr mit Feuer; und sein Rauch ging auf wie ein Rauch vom Ofen .. .«[98]

Moses scheint ursprünglich nur einen Teil seiner Zeit allein auf dem Gipfel verbracht zu haben und oft im Lager gewesen zu sein. Bald aber teilte ihm Gott folgendes mit: »Komm herauf zu mir auf den Berg und bleibe daselbst, daß ich dir gebe steinerne Tafeln und Gesetze und Gebote, die ich geschrieben habe ...«[99] Der Aufstieg des Propheten wurde von weiteren Erscheinungen begleitet:

»Da nun Mose auf den Berg kam, bedeckte eine Wolke den Berg, und die Herrlichkeit des Herrn wohnte auf dem Berge Sinai und deckte ihn mit der Wolke sechs Tage, und er rief Mose am siebten Tage aus der Wolke. Und das Ansehen der Herrlichkeit des Herrn war wie ein verzehrendes Feuer auf der Spitze des Berges vor den Kindern Israel. Und Moses ging mitten in die Wolke und stieg auf den Berg und blieb auf dem Berge vierzig Tage und vierzig Nächte.«[100]

Hätte ein allmächtiger Gott vierzig Tage und vierzig Nächte benötigt, um seinem Propheten zwei Steintafeln zu übergeben? Wenn aber Moses überhaupt keine Gesetzestafeln erhalten hatte, wenn er statt dessen eine kompakte, steinartige Energiequelle, die in der Lade installiert werden sollte, hergestellt oder veredelt hatte, dann konnte er sehr wohl so viel Zeit gebraucht haben, um seine Arbeit zu vollenden.

So gesehen, wäre das »verzehrende Feuer« auf dem Berggipfel, das die Israeliten als »Herrlichkeit des Herrn« interpretierten, in Wirklichkeit die höllische Glut gewesen, die von den

Geräten und chemischen Prozessen ausging, die der Prophet einsetzte, um sein Ziel zu erreichen. Und obgleich diese Hypothese weithergeholt klingt, entspricht sie doch in vieler Hinsicht den merkwürdigen Informationen über die Steintafeln im Alten Testament, in Mischna, Midrasch und Talmud sowie den meisten alten jüdischen Legenden.

Steintafeln?

Die deutlichsten Beschreibungen der Tafeln finden sich im Midrasch und im Talmud, die folgende Informationen geben: 1. Sie bestanden aus einem »saphirartigen Stein«; 2. sie waren »nicht mehr als sechs Hände lang und ebenso breit«, aber dennoch außerordentlich schwer; 3. obwohl fest, waren sie zugleich biegsam; 4. sie waren durchsichtig.[101]

Man sollte vermuten, daß Moses sehr auf diese einzigartigen Gegenstände aufpaßte. Er tat jedoch nichts dergleichen. Statt dessen zerbrach er die reinen und vollkommenen Geschenke in einem Wutanfall. Warum tat er so etwas Unbegreifliches? Die Erklärung im zweiten Buch Mose dafür ist, daß die treulosen Israeliten die Hoffnung verloren hatten, daß er nach vierzig Tagen auf dem Berg jemals wiederkommen würde, so daß sie ein Goldenes Kalb fabrizierten und anbeteten. Beim Anblick dieser grotesken Abtrünnigkeit »ergrimmte er mit Zorn und warf die Tafeln aus seiner Hand und zerbrach sie unten am Berge«[102]. Daraufhin zerstörte er das Goldene Kalb, ließ ungefähr dreitausend der schlimmsten Götzenanbeter hinrichten und stellte die Ordnung wieder her.[103]

Soviel also zur offiziellen Erklärung, warum und wie die ursprünglichen Steintafeln zerbrochen wurden. Offenbar waren diese Gegenstände aber von lebenswichtiger Bedeutung und mußten folglich ersetzt werden. Also befahl Gott Moses, wieder auf den Berggipfel zu kommen, um zwei neue Tafeln entgegenzunehmen. Der Prophet tat, wie ihm geheißen: »Und er war allda bei dem Herrn vierzig Tage und vierzig Nächte und aß kein Brot

und trank kein Wasser. Und er schrieb auf die Tafeln die Worte des Bundes, die Zehn Worte.«[104]

Wie zuvor stieg Moses mit den Tafeln in seiner Hand den Berg hinab. Die aufmerksame Lektüre der entscheidenden biblischen Stellen enthüllt einen einzigen, aber substantiellen und signifikanten Unterschied zwischen den beiden Abstiegen: Beim zweiten Mal glänzte »die Haut seines Angesichts davon«[105]. Beim erstenmal wurde dieses seltsame Phänomen mit keinem Wort erwähnt.

Was konnte die Ursache für dieses Glänzen sein? Der biblische Verfasser nimmt natürlich an, daß es die Nähe zu Gott war, und erklärt: »Die Haut seines Angesichts glänzte davon, daß er mit ihm geredet hatte.«[106] Aber schon zuvor war Moses bei etlichen Gelegenheiten - angefangen bei dem Vorfall mit dem brennenden Dornbusch - seinem Gott sehr nahegekommen, ohne daß sich eine solche Wirkung gezeigt hätte. Und noch unmittelbar vor seinem zweiten Aufbruch auf den Sinai sprach Moses mit Gott: »Der Herr aber redete mit Mose von Angesicht zu Angesicht, wie ein Mann mit seinem Freunde redet«[107], und doch gibt es keinerlei Hinweise darauf, daß die Haut des Propheten anschließend geglänzt habe.

Was also konnte diese Wirkung hervorgebracht haben? Liegt die Vermutung nicht nahe, es könnten die Steintafeln selbst gewesen sein? Eine indirekte Bestätigung genau dieses Vorschlages fand ich in den Quellen von Talmud und Midrasch, die darauf bestehen, daß die Tafeln mit »göttlichem Glanz« getränkt waren. Als Gott sie Moses übergab, »hielt er sie am oberen Drittel fest, Moses am unteren, aber ein Drittel blieb frei, und so strahlte der göttliche Glanz auf Moses' Angesicht«[108].

Warum aber war diese Situtation bei den ersten, später zerstörten Tafeln nicht eingetreten? Konnte die Antwort womöglich lauten, daß Moses herausbekommen hatte, daß das erste Paar Tafeln als Energiequelle technisch unvollkommen war, und zwar genau darum, weil es sein Gesicht nicht verbrannte? Das würde auch erklären, warum er sie zerbrach. Vom zweiten Paar aber trug er Verbrennungen davon. Vielleicht war das der Be-

weis dafür, daß er mit seinem Herstellungsverfahren schließlich Erfolg gehabt hatte, so daß er darauf vertrauen konnte, daß sie nach ihrer Installierung in der Bundeslade auch richtig funktionieren würden.

Natürlich ist die Idee, daß der Glanz oder das Leuchten auf Moses' Gesicht von Verbrennungen herrühren konnte, rein spekulativ. Aber die fraglichen Bibelverse machen deutlich, daß seine Erscheinung bei der Ankunft im Lager so schauerlich war, daß die Israeliten sich fürchteten, »zu ihm zu nahen«. Um ihre Gefühle zu schonen, »legte er eine Decke auf sein Angesicht«, und von da an trug er diese Decke immer, außer wenn er in seinem Zelt allein war.[109]

Das klang nicht nach einem Mann, der von Gottes Glanz berührt worden war, sondern viel eher nach schlimmen Verbrennungen, die vermutlich von einer intensiven Energiequelle hervorgerufen worden waren.

Das Vermächtnis verlorener Wahrheiten

Man könnte endlos über die wahre Natur der Bundeslade und ihres Inhaltes spekulieren. Ich bin diesen Weg so weit gegangen, wie es mir sinnvoll schien. Wer über diesen Punkt hinausgehen möchte, der trifft auf eine Vielzahl interessanter Punkte, die eine Untersuchung wert wären. Was hatte es beispielsweise mit dem außerordentlich dicken Deckel der Lade auf sich, der aus reinem Gold gefertigt war? Gold ist nicht nur schön und edel, sondern auch außergewöhnlich dicht, und es reagiert chemisch nicht. Und wie verhielt es sich mit den besonderen Kleidungsstücken, die die Hohenpriester des alten Israel trugen, wenn sie sich der Lade näherten?[110] Man glaubte, ihr Leben sei in Gefahr, wenn sie diese Kleidungsstücke nicht trugen.[111] War das nur Aberglaube oder Ritus? Oder war Schutzkleidung aus irgendeinem Grunde, der vielleicht mit der Natur der Bundeslade zusammenhing, geradezu notwendig? Auch die eigenartigen, aus zwei Lagen Stoff und einer Lage Leder bestehenden Hüllen,

in die die Lade gewickelt werden mußte, bevor man sie transportieren konnte[112], sind vielleicht in diesem Zusammenhang zu begreifen. Sollten die Hüllen, die sämtlich aus nichtleitenden Materialien bestanden, vielleicht zur Isolierung dienen?

Eine genaue Untersuchung der Ereignisse, die sich in den Jahrhunderten bis zum Bau des ersten Tempels zutrugen, könnte viele Rätsel lösen. Alles in allem glaubte ich, daß es eine Erklärung für die Wunder und Schreckenstaten gab, und zwar eine rationale Erklärung, die damit zu tun hat, daß die Lade ein von Menschenhand hergestellter Gegenstand war, eine Waffe, ein mächtiges Instrument, deren vorgeblich göttliche Herkunft nur dazu dienen sollte, noch mehr Angst und Ehrfurcht hervorzurufen. Meine Nachforschungen haben mich in der Tat zu dem Schluß geführt, daß der heilige Schrein nur dann wirklich verstanden werden kann, wenn man ihn in diesem Licht betrachtet. Für mich verringerte das keinesfalls die Aura von Magie und Geheimnis um die Bundeslade. Sie ist das Geschenk einer sehr alten und geheimen Wissenschaft, und für mich ist sie der Schlüssel zur versiegelten und vergessenen Geschichte der Menschheit, ein Zeichen unserer vergangenen Größe und ein Vermächtnis verlorener Wahrheiten über uns.

Was ist die Suche nach der Bundeslade oder nach dem Gral schließlich anderes als eine Suche nach Wissen, nach Weisheit, nach Aufklärung?

TEIL V: DIE VERLORENE HERRLICHKEIT

Kapitel 14

Der Grundstein der Welt

Am Spätnachmittag des 4. Oktober 1990 betrat ich Jerusalem durch das Jaffa-Tor. Es war der Felsendom, den ich sehen wollte, allerdings nicht wegen seiner Bedeutung für die moslemische Welt, sondern weil er an der Stelle erbaut worden war, wo ursprünglich der Tempel Salomos gestanden hatte. Ich wußte, daß ich in seinem Innern einen großen Stein finden würde, den orthodoxe Juden den »Shetiyyah« nennen, den Grundstein der Welt. Auf diesen Stein inmitten der dichten Dunkelheit des Allerheiligsten hatte Salomo selbst im zehnten Jahrhundert vor Christus die Bundeslade gestellt.[1]

Das war indessen nicht mein einziges Ziel an jenem Oktobernachmittag. Nur wenige Meter weiter südlich befand sich ein anderes Gebäude von zentraler Bedeutung für meine Suche, die El-Aksa-Moschee, die die Tempelritter im zwölften Jahrhundert nach Christus als Hauptquartier benutzt hatten.

Ich ging zuerst zur El-Aksa-Moschee, streifte meine Schuhe ab und betrat die kühle und geräumige rechteckige Halle, die bei den Moslems als großes Heiligtum gilt, denn angeblich wurde Mohammed selbst auf einer nächtlichen Reise von Engeln an diesen Ort getragen. Doch die zu Lebzeiten des Propheten möglicherweise existierende Gebetsstelle gab es schon lange nicht mehr, und ich sah mich einer Mischung verschiedenster Baustile gegenüber, deren ältester auf etwa 1035 nach Christus zu datieren war, die dann aber bis in die Zeit zwischen 1938 und 1942 reichten, als der italienische Diktator Mussolini einen regelrechten Wald von Marmorsäulen gestiftet und der ägyptische König Faruk die Restaurierung der Deckenbemalung finanziert hatte.[2]

Auch die Templer haben ihre Spuren in der großen Moschee hinterlassen. Sie waren unter anderem verantwortlich für die

37 (oben) Die Wasserfälle des Blauen Nils in der Nähe des Tanasees in Äthiopien.

38 *(unten)* Schilfrohrboot auf dem Tanasee.

40 *(oben)* Ein Hohepriester der Qemant *(Mitte).* Die Qemant, ein heidnischer Stamm, dessen Religion von starken jüdischen Elementen beherrscht wird, geben an, ihre Vorväter seien »aus dem Land Kanaan« nach Äthiopien gekommen.

41 *(unten)* Der Priester des Falaschen-Dorfes Anhober in der Nähe von Gondar.

42 und 43 Christliche Priester in Gondar bei den Timkat-Feiern. Auf den Köpfen tragen sie die »Tabots«.

44 *(rechte Seite)* Ein Falaschen-Priester zeigt eine Abschrift der Thora in »Ge'ez«, der altäthiopischen liturgischen Schriftsprache. Die Miniatur zeigt den Propheten Moses, der die Zehn Gebote in der Hand hält.

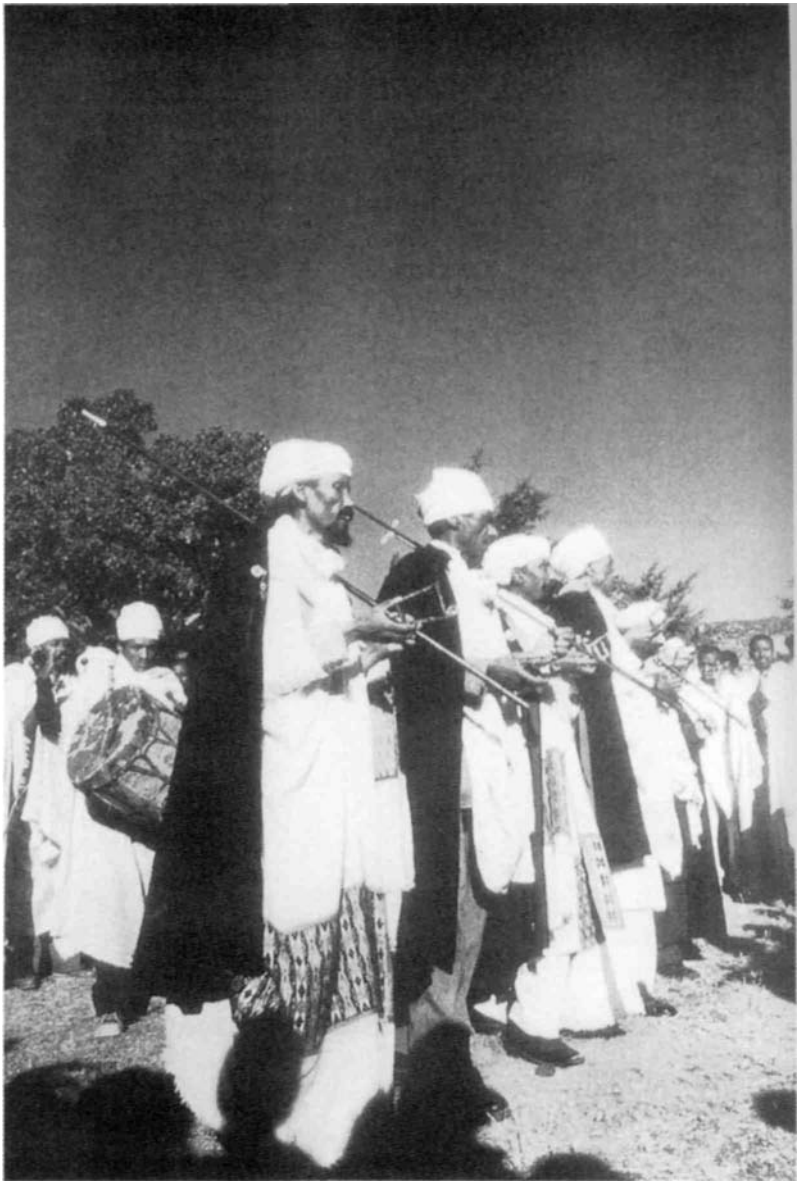

45 »Timkat« in Gondar: Priester führen den Tanz Davids vor der Lade aus.

46 Einer der Tänzer, die die Prozession begleiten. Auf dem Kopf trägt er einen traditionellen Kriegsschmuck.

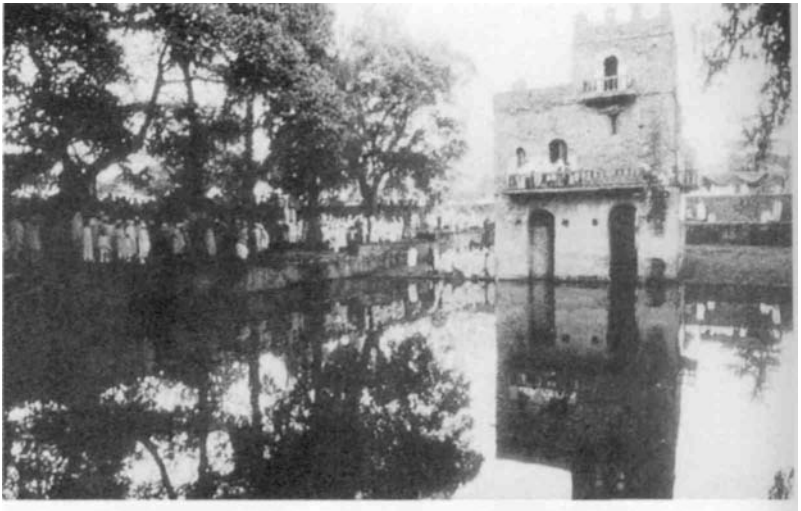

47 *(oben)* Mittelalterliches Kastell und großes Taufbecken. Hier spielen sich die Höhepunkte der Timkat-Zeremonien in Gondar ab.

48 *(unten)* Äthiopische Priester mit Sistren. Derartige Musikinstrumente wurden schon bei religiösen Zeremonien im alttestamentarischen Israel verwendet.

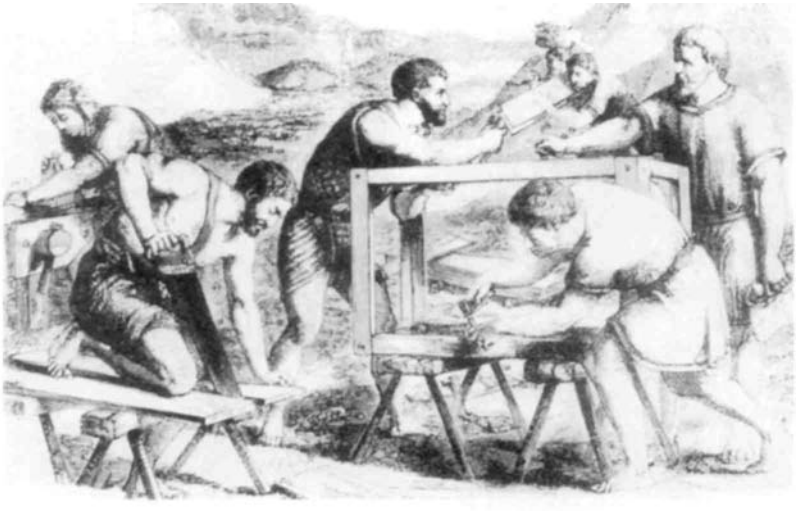

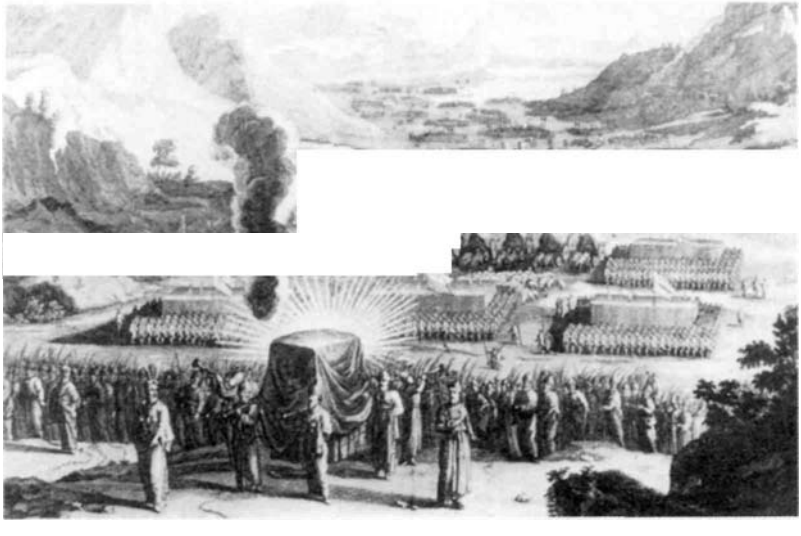

49 *(oben)* Am Fuße des Berges Sinai wird die Bundeslade gezimmert.

50 *(unten)* Die Israeliten tragen die Bundeslade durch die Wüste. Um die Träger vor den übermächtigen Kräften des Schreins zu schützen, muß er in dicke Tücher eingehüllt werden.

51 *(oben)* Die Bundeslade bewirkt die Zerstörung der Stadt Jericho.

52 *(oben rechts)* König Usia wird mit Aussatz gestraft, weil er sich unerlaubterweise der Lade nähern wollte.

53 *(rechts)* Abihu und Nadab, zwei Söhne Aarons, fallen tot um, als sie sich der Lade nähern.

54 Als Moses die Steintafeln erhielt, wurde sein Gesicht von Verbrennungen so stark entstellt, daß er es hinfort unter einem Tuch verbergen mußte.

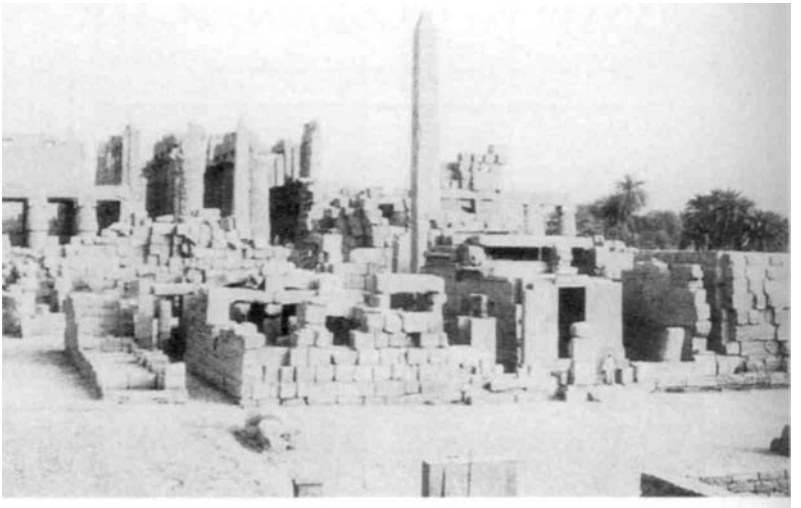

55 *(oben)* Die Tempel von Karnak in Ägypten.

56 *(unten)* Archäologen bei Ausgrabungen auf der Insel Elephantine in Oberägypten. Hier befand sich einst ein jüdischer Tempel.

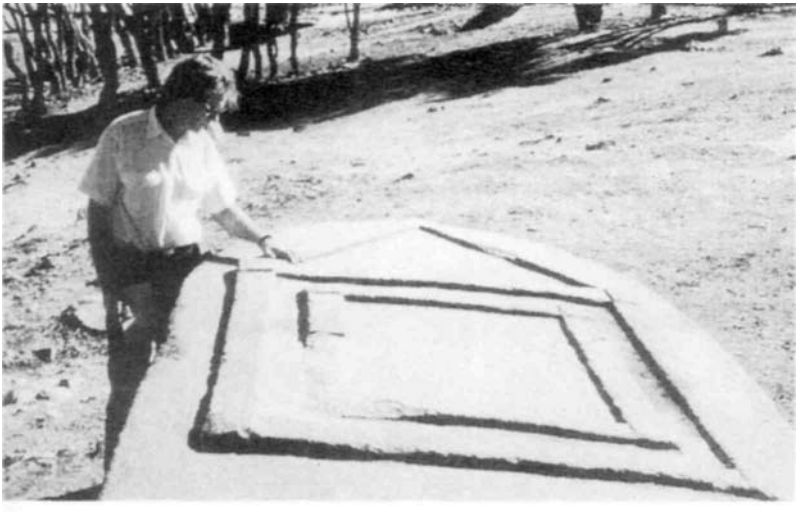

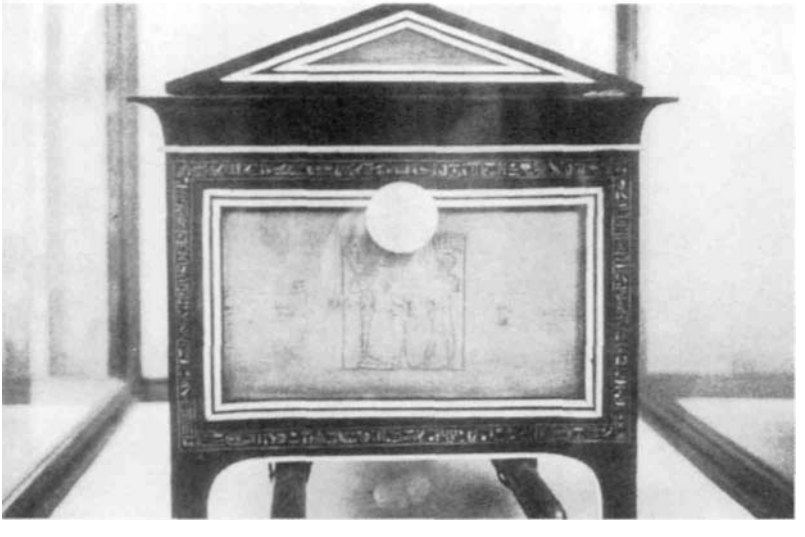

57 *(oben)* Der Autor untersucht eine der umgestürzten Säulen in Aksum. Die merkwürdige Steinschnitzerei ähnelt sowohl der ägyptischen Grabbeigabe (siehe unten) als auch den frühesten aksumitischen Darstellungen der Bundeslade.

58 *(unten)* Dieser schreinförmige Kasten, der mit zwei Tragestangen versehen ist, wurde im Grab des Tutanchamun gefunden.

60 *(oben)* Timkat-Prozession in Aksum.

61 *(unten)* Das für die Bundeslade errichtete Sanktuarium in Aksum.

62 Gebra Mikail, der Wächter der Lade.

drei großartigen Bögen des Portals. Vieles von dem, was die Ritter dem Gebäude außerdem noch hinzugefügt hatten, war später wieder zerstört worden. Ihr Refektorium aber hatte die Zeit überstanden (heute ist es Teil der nahegelegenen Frauenmoschee), und das riesige unterirdische Areal, das sie zu Pferdeställen umfunktioniert hatten (die sogenannten »Ställe Salomos«), war ebenfalls gut erhalten.

Nach der Zerstörung des zweiten Tempels im Jahre 70 nach Christus lag das alte Areal brach, bis die muslimischen Armeen im Jahre 638 nach Christus kamen und der Felsendom gebaut wurde.[3] Während all dieser Veränderungen war allein der »Shetiyyah«, der »Grundstein der Welt«, an seinem Platz geblieben. Der geheiligte Boden, auf dem die Lade einst gestanden hatte, war also der einzige beständige Faktor, der allen Stürmen der Geschichte trotzen konnte, der Juden und Babylonier, Römer, Christen und Moslems hatte kommen und gehen sehen.

Ich verließ die El-Aksa-Moschee, schlüpfte wieder in meine Schuhe und ging nun durch den baumbestandenen Tempelbezirk zum Felsendom, dessen Name bereits seine Funktion als Wächter des »Shetiyyah« andeutet. Es ist ein großes und elegantes achteckiges Gebäude, über und über mit blauen Kacheln verkleidet. Sein hervorstechendes Merkmal ist die massive goldene Kuppel. Für mich hatte dieses große und vollkommene Bauwerk jedoch nichts Erdrückendes. Vielmehr vermittelt es Leichtigkeit und Anmut, die sich mit einer zurückhaltenden, aber vertrauenerweckenden Kraft paart.

Das Innere des Gebäudes, das mir buchstäblich den Atem nahm, unterstützte und vervollkommnete meinen ersten Eindruck. Die schwebende Decke, die Säulen und Bögen, die das innere Achteck tragen, die unzähligen Nischen und Wandvertiefungen, die Mosaiken und Inschriften, all diese Elemente flossen in einer sublimen Harmonie von Proportion und Schönheit zusammen, die der tiefverwurzelten Sehnsucht des Menschen nach dem Göttlichen beredten Ausdruck verlieh.

Zunächst hatte ich den Blick nach oben gewandt, in die Kuppel, deren entfernteste Stellen sich in der kühlen Dunkelheit

verloren. Jetzt aber fühlte ich, wie meine Aufmerksamkeit wie von einer magnetischen Kraft nach unten gezogen wurde, zum eigentlichen Zentrum der Moschee. Unmittelbar unter der Kuppel lag ein riesiger lohfarbener Felsbrocken, der einen Durchmesser von etwa neun Metern hatte. Das war der »Shetiyyah«. Als ich mich ihm näherte, merkte ich, wie mein Herz schneller zu schlagen begann und ich mühsam atmete. Es war nicht schwer zu verstehen, warum die Alten diesen Findling für den Grundstein der Welt hielten, oder warum Salomo ihn zum Herzstück seines Tempels gemacht hatte. Mächtig und unangreifbar ragte er aus dem Berg Morija hervor - so stark und unerschütterlich wie die Erde selbst.

Ein geschnitztes Holzgeländer umgab das gesamte Zentrum, nur an einer Stelle von einem kleinen Durchlaß unterbrochen, durch den man die Hand strecken durfte, um den »Shetiyyah« zu berühren. Seine von den Zärtlichkeiten unzähliger Pilgergenerationen abgegriffene Oberfläche war glatt, fast glasartig, und in Gedanken versunken saugte ich durch die Poren meiner Finger das ungeheure Alter dieses seltsamen und wundervollen Steines ein. Es bedeutete mir sehr viel, hier zu sein und diesen Augenblick gesammelten Nachdenkens an der Quelle eines großen Rätsels auszukosten.

Schließlich zog ich meine Hand zurück, um den Rundgang um den »Shetiyyah« fortzusetzen. An der Seite führte eine Treppe zu einer höhlenartigen Vertiefung unter dem Stein, die von Moslems »Bir el-Arweh« genannt wird, »Brunnen der Seelen«. Den Gläubigen zufolge kann man hier zuweilen die Stimmen der Toten hören, die sich mit dem Rauschen der Flüsse des Paradieses vermischen.

Ich wußte, daß viele jüdische und islamische Legenden von einem versiegelten und geheimen Weg unter dem »Brunnen der Seelen« sprachen, der in das Herz der Erde führe, wo die Lade zur Zeit der Zerstörung des ersten Tempels angeblich verborgen worden war - und viele glauben, daß sie sich dort noch immer befindet, bewacht von Geistern und Dämonen.[4] Schon seit einiger Zeit war ich der Meinung, daß die Tempelritter auch

aufgrund dieser Legenden dazu veranlaßt worden waren, hier nach der Lade zu suchen.

Sie werden sie kaum gefunden haben. Die sogenannte »Apokalypse des Baruch« mag ihnen zwar als authentisches Dokument aus dem sechsten Jahrhundert vor Christus erschienen sein, tatsächlich aber hat die Wissenschaft erst kürzlich herausgefunden, daß sie im späten ersten Jahrhundert nach Christus entstand[5] und folglich unmöglich ein Augenzeugenbericht über das Verbergen des heiligen Schreines sein konnte. Sie war im Gegenteil ein von Anfang bis Ende fiktionales Werk, das trotz seines unheimlichen und suggestiven Tons nicht von historischem Interesse war.

Ich war mir also sicher, daß die Templer ihre Ausgrabungen erfolglos abbrechen mußten. Aber ich vermutete zugleich, daß sie später vom Anspruch Äthiopiens erfahren hatten, die letzte Ruhestätte der Lade zu sein, und glaubte, daß eine Gruppe von Rittern schließlich dorthin gezogen war, um diese Behauptung zu untersuchen. Auch ich folgte dieser Spur, und ich hatte das Gefühl, daß sie geradezu zwingend in die heilige Stadt Aksum führte. Vorher aber wollte ich absolut sichergehen, daß die Lade in keinem anderen Land und an keinem anderen Ort sein konnte. Meinen Aufenthalt in Jerusalem wollte ich also zu Gesprächen mit Vertretern von Theologie und Wissenschaft nutzen und alle Umstände, die das geheimnisvolle Verschwinden der Lade betrafen, einer genauen Überprüfung unterziehen. Sollte ich danach immer noch von der Möglichkeit überzeugt sein, daß sich der Schrein in Aksum befand, würde ich das Abenteuer wagen und nach Äthiopien reisen. Bis zum nächsten »Timkat«, bis zum Januar 1991, blieben kaum noch vier Monate. Meine Zeit lief aus.

Das Haus des Herrn

Im Buch der Könige wird die feierliche Aufstellung der Lade im Tempel Salomos beschrieben, die, wie ich bereits herausgefun-

den hatte, um 955 vor Christus stattgefunden haben muß. Der Heiligen Schrift zufolge neigte Salomo aber später »sein Herz fremden Göttern nach«, und er »wandelte Astoreth, der Göttin derer von Sidon nach und Milkom, dem Greuel der Ammoniter«[6]. So fand ich es kaum glaubhaft, daß der Herrscher, dessen legendäre Weisheit größer war als »aller Ägypter Weisheit«[7], Jahwe jemals besonders hoch geschätzt haben sollte. In diesem Zusammenhang fiel mir ein Bibelvers auf, in dem es heißt: »Denn sollte in Wahrheit Gott auf Erden wohnen? Siehe, der Himmel und aller Himmel Himmel können dich nicht fassen; wie sollte es dann dies Haus tun, das ich gebaut habe?«[8]

Ich hatte nicht den Eindruck, als wollte der König hier in einem Loblied die übermächtige Kraft eines Gottes preisen, vor dem alle irdischen Dinge - und damit auch der Tempel - unvollkommen waren. Es schien mir vielmehr, daß seine Vorbehalte ganz praktischer Natur waren: Konnte die heilige Lade nicht immer noch ihre fürchterliche Wirkung zeigen, selbst da sie nun im »Grundstein der Welt« verankert war? Konnten die in ihr eingesperrten und unberechenbaren Energien nicht immer noch stark genug sein, um durch die dichte Dunkelheit des Allerheiligsten hindurchzudringen und das große Haus zu zerstören, das um sie herum errichtet worden war?

In gewisser Weise schien mir der Tempel eher ein Gefängnis für die Bundeslade zu sein denn ein irdischer Palast für eine geliebte Gottheit. Salomo hatte im Allerheiligsten und über den beiden Cherubim auf dem goldenen Deckel des Schreins zwei weitere, riesengroße Cherubim aufstellen lassen - grimmige, vergoldete Wächter mit einer Flügelspannweite von fast fünf Metern.[9] Das Allerheiligste selbst besaß die Form eines Würfels, der einen sehr gedrungenen und ungeheuer starken Eindruck vermittelt haben muß. Er maß an jeder Seite neun Meter.[10] Sein Boden, seine Wände und die Decke waren mit Platten von reinem Gold, die schätzungsweise vierzigtausend Pfund wogen, verkleidet und mit goldenen Nägeln vernietet worden.[11]

Diese goldene Zelle war keineswegs das einzige Element des Tempels, das meine Aufmerksamkeit erregte. Mindestens

Kilometer
0
400
IRAK
IRAN
MITTELMEER
ISRAEL
Jerusalem
JORDANIEN
Kairo
PERSISCHER GOLF
Nil
SAUDI-ARABIEN
Assuan/
Elephantine
ROTES MEER
Meroë
Atbara
Khartum
Asmara
REPUBLIK JEMEN
Aksum
Takazze
GOLF VON ADEN
Gondar
Lalibela
Blauer Nil
Tana-See
Addis Abeba
Weißer Nil
ÄTHIOPIEN
SOMALIA
KENIA
UGANDA

ebenso interessant war die Herkunft des Handwerkers - eines Ausländers -, der damit betraut worden war, die übrigen von Salomo verlangten Metallarbeiten auszuführen:

»Und der König Salomo sandte hin und hieß holen Hiram von Tyrus, einer Witwe Sohn aus dem Stamme Naphtali, der war ein Meister im Erz, voll Weisheit, Verstand und Kunst, zu arbeiten allerlei Erzwerk.«[12]

Sofort hatte ich das Gefühl, auf eine weitere bizarre Koinzidenz gestoßen zu sein, denn jener Hiram von Tyrus war für die Freimaurer eine Gestalt von ungeheurer Bedeutung; sie kannten ihn unter dem Namen Hiram Abiff und spielten in allen wichtigen Ritualen auf ihn an.[13]

In der freimaurerischen Tradition wurde Hiram von dreien seiner Assistenten kurz nach Vollendung der Metallarbeiten für den Tempel umgebracht. Und aus irgendeinem Grund wurde dieser Vorfall für so bedeutsam gehalten, daß er während der Initiationsriten für den Grad eines Meisters in Erinnerung gerufen wurde. Jeder neue Meister mußte die Rolle des Mordopfers spielen. In einer maßgeblichen Studie fand ich die Beschreibung jenes wichtigen Teils der Zeremonie, die noch heute regelmäßig abgehalten wird:

»Der zu Initiierende liegt mit verbundenen Augen auf dem Boden und hört, wie die drei Mörder beschließen, ihn bis Mitternacht in einem Schutthaufen zu begraben und den Leichnam sodann vom Tempel fortzuschaffen. Der Kandidat wird in eine Decke gewickelt und an die Seite des Raumes gebracht, womit das Begräbnis des Hiram Abiff symbolisiert wird. Bald hört er die Glocke zwölf schlagen und wird zu dem am Abhang eines Hügels westlich des Berges Morija geschaufelten Grab gebracht. Er hört, wie die Mörder den Entschluß fassen, sein Grab mit einem Akazienzweig zu kennzeichnen, und wie sie dann nach Äthiopien aufbrechen .. .«[14]

Also auch hier eine Übereinstimmung, eine kleinere, nämlich der Akazienzweig (aus Akazienholz wurde die Bundeslade gebaut), und eine größere, nämlich die freimaurerische Überzeugung, Hirams Mörder seien nach Äthiopien geflohen. Ich

hatte keine Ahnung, wieviel Gewicht ich solchen Einzelheiten zumessen durfte, aber ich konnte mich des Gefühls nicht erwehren, daß sie irgendwie für meine Suche von Bedeutung waren.

Dieser Verdacht vertiefte sich, als ich mich erneut an die Bibel wandte und folgendes über einen der angeblich von Hiram hergestellten Bronzegegenstände herausfand:

»Und er machte ein Meer, gegossen, von einem Rand zum andern zehn Ellen weit, rundumher, und fünf Ellen hoch, und eine Schnur dreißig Ellen lang war das Maß ringsum ... Seine Dicke aber war eine Hand breit, und sein Rand war wie eines Bechers Rand, wie eine aufgegangene Lilie, und gingen darein zweitausend Bath.«[15]

Ich erfuhr, daß es sich bei diesem »Meer« um ein riesiges Bronzebecken handelte, das im Tempelhof stand. Es war über zwei Meter hoch, maß etwa fünf Meter im Durchmesser und war in der Regel mit schätzungsweise fünfundvierzigtausend Litern Wasser gefüllt.[18] Die meisten Fachleute gestanden offen ein, daß sie nicht wußten, wozu das Becken diente - einige vermuteten, es habe die im Buch Genesis erwähnten »Ur-Wasser« symbolisiert[17], während andere glaubten, es sei von den Priestern zu Reinigungsritualen verwendet worden.[18] Keine dieser Hypothesen leuchtete mir ein, am wenigsten die zweite, denn die Bibel sagt ganz deutlich, daß Hiram genau zu diesem Zweck zehn kleinere Bronzebecken hergestellt hatte.[19]

War es nicht möglich, daß das bronzene »Meer« eine anachronistische Erinnerung an die altägyptischen Rituale war, auf deren Basis sich offensichtlich auch die Zeremonien um die Bundeslade entwickelt hatten? Beim Opet-Fest zu Luxor enthielten die Laden Bildnisse der Götter und wurden immer ans Wasser getragen. Genau das geschieht noch heute in Äthiopien: Beim »Timkat« in Gondar werden die »Tabots« zum Ufer des heiligen Sees hinter dem Kastell gebracht. So stellte vielleicht auch das bronzene Meer eine Art heiligen See dar.

Zu den Dingen, die Hiram außerdem für den Tempel anfertigte, gehörten »Töpfe, Schaufeln und Becken«[20], ferner »zwei eherne Säulen, eine jegliche achtzehn Ellen hoch, und ein Fa-

den von zwei Ellen war das Maß um jegliche Säule her... Und er richtete die Säulen auf vor der Halle des Tempels. Und die er zur rechten Hand setzte, hieß er Jachin, und die er zur linken Hand setzte, hieß er Boas.«[21]

Ich stellte fest, daß Jachin und Boas auch in der Freimaurer-Tradition vorkamen.[22] Dem »alten Ritual« zufolge waren die beiden großen Säulen hohl. In ihnen wurden die »alten Aufzeichnungen« und die »kostbaren Schriften« aufbewahrt, die zur Vergangenheit des jüdischen Volkes gehörten.[23] Die Freimaurer behaupteten, daß sich unter diesen Aufzeichnungen »das Geheimnis des >magischen Shamir< und die Geschichte seiner Fähigkeiten« befunden habe.[24] Der »magische Shamir« erregte meine Neugier. Um was handelte es sich da? War es einfach ein Element der freimaurerischen Arkana, oder wurde es vielleicht auch in der Bibel erwähnt?

Meine Recherchen ergaben, daß das Wort »Shamir« im Alten und Neuen Testament nur viermal erwähnt wird[25]: dreimal als Name für einen Ort und einmal als Name für eine Person. Keiner davon konnte der »magische« Shamir sein, dessen Geheimnisse in den bronzenen Säulen verborgen wurden. Trotzdem fand ich die Information, nach der ich suchte, aber nicht in der Heiligen Schrift, sondern im Talmud und im Midrasch. Schon Moses hatte den Israeliten verboten, eisernes Werkzeug zum Bau von Kultstätten zu verwenden[26], so daß auch Salomo befahl, daß keine Hämmer, Äxte oder Meißel benutzt werden dürften, um die massiven Steinblöcke zu bearbeiten. Statt dessen stellte er den Handwerkern ein altes Gerät zur Verfügung, das in die Zeit Moses selbst zurückzudatieren ist.[27] Dieses Gerät wurde »Shamir« genannt und konnte selbst die härtesten Materialien schneiden, ohne Reibung oder Hitze zu entwickeln.[28] Es war auch bekannt als der »Stein, der Felsen zerschnitt«[29]:

»Der Shamir darf zur Aufbewahrung weder in ein eisernes noch in irgendein anderes Metallgefäß getan werden, denn es würde ein solches Behältnis zerbersten lassen. Er wird, in ein wollenes Tuch gewickelt, aufbewahrt, und dieses wiederum wird in einem mit Gerstenkleie gefüllten bleiernen Korb ge-

legt... Bei der Zerstörung des Tempels verschwand der Shamir.«[30]

Diese merkwürdigen und alten Überlieferungen faszinierten mich sehr. Alles in allem klang das - genau wie bei der Bundeslade - eher nach technologischen als magischen Eigenheiten. Es schien mir bezeichnend, daß jenes spezielle Gerät - wiederum wie die Bundeslade - in unmittelbarem Zusammenhang mit Moses stand, und ich hielt es für wichtig, daß selbst die Freimaurer Erinnerungen an die in den Säulen versteckten geheimen Aufzeichnungen Hirams bewahrt hatten.

Mir war klar, daß ich meine Untersuchungen kaum weiterführen konnte, ohne jene lange verlorenen Geheimnisse zu kennen. Ich wußte genau, daß die Geschichte des »Shamir« das Rätsel nur vertieft hatte, das die wirkliche Natur der großen, für die Lade erbauten Festung auf dem Gipfel des Berges Morija umgab. Salomos Tempel war zweifelsohne ein ganz besonderer Ort gewesen: Brennpunkt von Aberglaube und Schrecken, Zentrum jüdischer Religion und kulturellen Lebens. Wie aber hatte die Lade von dort verschwinden können?

Sisak, Joas und Nebukadnezar

Es war natürlich denkbar, daß der Schrein nach einer der vielen militärischen Niederlagen, die Israel nach dem Tod Salomos hinnehmen mußte, mit Gewalt aus dem Tempel entfernt worden war, eine Vorstellung, die Äthiopiens Anspruch, im Besitz der Lade zu sein, schnell entkräften könnte.

Die erste dieser Katastrophen geschah im Jahre 926 vor Christus während der wenig erfolgreichen Herrschaft von Salomos Sohn Rehabeam. Damals führte ein ägyptischer Pharao namens Sheshonq (oder Sisak) eine regelrechte Invasion durch:

»Aber im fünften Jahr des Königs Rehabeam zog Sisak, der König in Ägypten, herauf wider Jerusalem, und er nahm die Schätze aus dem Hause des Herrn und aus dem Hause des Königs, und alles, was zu nehmen war.«[31]

Nichts in diesem bedauerlicherweise sehr kurzen Bericht läßt darauf schließen, daß Sisak die Bundeslade nicht erbeutet hätte. Und doch gab es nur zwei Möglichkeiten: Entweder war die Lade bereits vor dem Einmarsch der ägyptischen Soldaten heimlich weggebracht worden (vielleicht sogar während der Regierungszeit Salomos selbst, wie die äthiopische Überlieferung behauptet), oder sie war während der Invasion im Allerheiligsten geblieben und dort versteckt worden.

Sisak selbst hat ein Indiz für die zweite Annahme geliefert: sein riesiges Triumphrelief in Karnak. Ich hatte es genau untersucht und war mir sicher, daß es keinerlei Hinweise auf die Bundeslade oder auch nur auf die Belagerung oder Plünderung Jerusalems enthielt.[32] Ich überprüfte das noch einmal und konnte bestätigen, daß es sich wirklich so verhielt. In einer maßgeblichen Studie wurde eindeutig festgestellt, daß die Mehrzahl der von Sisak angeblich geplünderten Städte und Ortschaften sich im nördlichen Teil Israels befanden:

»Jerusalem, der Bibel zufolge das Ziel von Sisaks militärischer Aktion, wird nicht erwähnt. Obwohl die Inschrift schwer beschädigt ist, kann als sicher gelten, daß Jerusalem nicht zu den Städten zählte, denn die Liste ist nach geographischen Abschnitten gegliedert, die keinen Raum für den Namen Jerusalem lassen.«[33]

Was also war in der heiligen Stadt passiert, daß die Bibel beteuern mußte, Sisak habe den Tempel und den Königspalast ausgeraubt? In der akademischen Welt herrscht Übereinstimmung darüber, daß der Pharao Jerusalem belagert, es aber nie betreten hat. Offenbar konnte sich die Stadt mit den Schätzen aus Salomos Tempel freikaufen.[34] Die Bundeslade aber war sicherlich nicht unter diesen Schätzen, selbst wenn sie sich 926 vor Christus noch immer dort befunden haben sollte. Es handelte sich um weit weniger kostbare Gegenstände, vor allem Jahwe gewidmete Gaben des Volkes und des Königs. Diese natürlich auch wertvollen und aus Gold und Silber gefertigten Gegenstände wurden auch nicht im Allerheiligsten aufbewahrt, sondern in besonderen Schatzkammern in den Außenbezirken des Tempels.

»Gelegentlich«, so schreibt ein Bibelgelehrter, »wurden diese Schatzkammern entweder von fremden Eindringlingen oder vom König selbst geleert, wenn er Geld brauchte. So schwankten die Schatzkammern beständig zwischen Überfluß und Mangel ... Sisaks Invasion hatte also nichts mit den Tempelheiligtümern zu tun, und es wäre völlig falsch, sie mit dem Verschwinden der Bundeslade in Verbindung zu bringen.«[35]

Dasselbe galt, wie ich herausfand, für die nächste Plünderung des Tempels. Dies geschah zu einer Zeit, als der von David und Salomo geschaffene vereinte Staat bereits wieder in zwei gegeneinander kriegführende Königreiche gespalten war: Juda im Süden (mit Jerusalem] und Israel im Norden. Um 788 vor Christus kämpfte Joas, der König Israels, bei Beth-Schemesch gegen den judäischen König Amazja:

»Aber Juda ward geschlagen vor Israel, und ein jeglicher floh in seine Hütte. Und Joas, der König Israels kam gen Jerusalem und riß ein die Mauer Jerusalems, und nahm alles Gold und Silber und Gerät, das gefunden ward im Hause des Herrn und im Schatz des Königshauses.«[36]

Wieder einmal spielte das Allerheiligste oder die Bundeslade keine Rolle bei der Plünderung des Tempels. Ein Spezialist für die Epoche erklärt: »Joas betrat nicht einmal das äußere Heiligtum des Tempels, ganz zu schweigen vom inneren. Der im Zusammenhang mit Joas verwendete Ausdruck >das Haus des Herrn< ist einfach eine Abkürzung von >die Schätze im Haus des Herrn<. Das kann man aus der Tatsache ersehen, daß auch die >Schätze aus des Königs Haus<, die immer im Zusammenhang mit den >Schätzen im Haus des Herrn< Erwähnung finden, genannt werden.«[37]

Soviel also zu Sisak und Joas. Es war mir nun klar, warum keiner von beiden behauptet hatte, die Lade genommen zu haben, und warum auch die Bibel nichts dergleichen berichtet: Sie waren nicht einmal in die Nähe des Schreins gekommen und hatten nur geringere Schätze aus Gold und Silber erbeutet.

Von Jerusalems nächstem und gefährlichstem Angreifer, König Nebukadnezar von Babylon, konnte man das allerdings nicht

behaupten. Er griff die Heilige Stadt nicht nur einmal, sondern gleich zweimal an und besetzte sie auch. Bereits beim ersten Mal, im Jahre 597 vor Christus, war er offensichtlich bis tief in die inneren Bezirke des Tempels vorgedrungen. Die Bibel beschreibt diese Katastrophe wie folgt:

»Zu der Zeit zogen herauf die Knechte Nebukadnezars, des Königs zu Babel, und kamen an die Stadt mit Bollwerk. Und Nebukadnezar kam zur Stadt, da seine Knechte sie belagerten. Aber Jojachin, der König Judas, ging heraus zum König von Babel mit seiner Mutter, mit seinen Knechten, mit seinen Obersten und seinen Kämmerern; und der König von Babel nahm ihn gefangen im achten Jahr seines Königreichs. Und nahm von dannen heraus alle Schätze im Hause des Herrn und zerschlug alle goldenen Gefäße, die Salomo, der König Israels, gemacht hatte im Tempel des Herrn.«[38]

Woraus hatte die Beute Nebukadnezars bestanden? Auch er konnte eigentlich nur auf entbehrliche Gegenstände in den königlichen und priesterlichen Schatzkammern gestoßen sein. Bedeutsamer hingegen war die Behauptung, der König habe die goldenen Gefäße im Tempel zerschlagen. Ich fand heraus, daß das hebräische Wort »hekal«, das in den meisten Bibelübersetzungen recht ungenau mit »Tempel« wiedergegeben wird, vielmehr »äußeres Heiligtum« meint.[39] Um mir dessen Lage vorstellen zu können, rief ich mir die Anordnung äthiopischer Kirchen in Erinnerung, die die dreiteilige Ordnung des salomonischen Tempels genau widerspiegelt. Aber auch die wissenschaftliche Literatur zu diesem Thema stellte zweifelsfrei fest, daß der »hekal« dem »keddest« äthiopischer Kirchen entsprach.[40] Das aber bedeutete, daß der »Tempel des Herrn«, den Nebukadnezar zerstört hatte, nicht das Allerheiligste gewesen sein konnte, in dem sich die Bundeslade befand, sondern eher der Vorraum zu diesem heiligen Ort. Das Allerheiligste selbst wurde mit dem althebräischen »debir« bezeichnet.

Wenn die Bundeslade sich zur Zeit von Nebukadnezars erstem Angriff noch im Tempel befand, und das war ein dreifach unterstrichenes »wenn«, dann hat der babylonische König sie

mit Gewißheit nicht in seine Gewalt gebracht. Er begnügte sich damit, die goldenen Gefäße zu zerschlagen oder zu rauben:

»... fünf Leuchter zur rechten Hand und fünf Leuchter zur linken vor dem Chor, von lauterem Gold, mit goldenen Blumen, Lampen und Schneuzen; dazu Schalen, Messer, Becken, Löffel und Pfannen von lauterem Gold. Auch waren die Angeln an der Tür am Hause inwendig, im Allerheiligsten, und an der Tür des Hauses des Tempels golden.«[41]

Die Begriffe »inwendig«, »debir« und »Allerheiligstes« sind austauschbar und bezeichnen alle denselben heiligen Ort, das heißt den Aufbewahrungsort der Bundeslade. Als ich mich davon erst einmal überzeugt hatte, ging mir plötzlich ein Licht auf: Nebukadnezar hatte zwar das Allerheiligste selbst nicht geplündert, aber nichtsdestoweniger seine Türangeln entfernt! Von da war es nur noch ein Schritt zu der Annahme, daß die Türen aus den Angeln gehoben worden waren und daß der babylonische Herrscher - oder die seine Befehle ausführenden Soldaten - folglich durchaus imstande waren, in den »debir« hineinzusehen. Mir war sofort klar, daß dies ein wichtiger, ja entscheidender Fund war. Als sie in das Innere des Heiligtums blickten, hätten die Babylonier sofort die zwei riesigen vergoldeten Cherubim sehen müssen, die von Salomo als Wächter über die Lade dorthin gestellt worden waren. Und sie hätten auch die Lade selbst sehen müssen. Es hatte ihnen nichts ausgemacht, das Gold von den Gefäßen im »hekal« abzukratzen. Da fragt es sich doch, warum sie nicht sofort in den »debir« stürzten, um die viel größeren Goldmengen von seinen Wänden und von den Cherubim herunterzunehmen und die Bundeslade zu rauben?

Die Babylonier verachteten die Juden und ihre Religion.[42] Es gab daher keinen Grund zu der Annahme, sie hätten aus moralischen Gründen von der Plünderung des Allerheiligsten abgesehen. Im Gegenteil, alles wies darauf hin, daß Nebukadnezar und seine Männer sich ohne Zögern einer so reichen Beute wie der Lade bemächtigt hätten, wenn sie sie gefunden hätten.

Dafür spricht auch die übliche Praxis der Babylonier, die wichtigsten Götterbilder und Kultgegenstände der von ihnen

besiegten Völker nach Babylon zu bringen, um sie dort in ihrem eigenen Tempel und vor der Statue ihres Gottes Marduk aufzustellen. Aber weder die Bundeslade noch die goldenen Cherubim wurden auch nur erwähnt. Aber was geschah bei der zweiten Plünderung der Stadt?

Nach seiner erfolgreichen Aktion im Jahre 597 vor Christus hatte Nebukadnezar einen Strohmann auf den Thron gesetzt, König Zedekia.[43] Es stellte sich jedoch heraus, daß Zedekia ganz eigene Vorstellungen hatte, und 589 vor Christus rebellierte er gegen den babylonischen Eroberer.[44] Die Reaktion erfolgte sofort. Nebukadnezar marschierte nach Jerusalem, belagerte die Stadt erneut und eroberte sie um die Mitte des Jahres 587 vor Christus.[45] Kurz darauf »kam Nebusaradan, der Hauptmann der Trabanten, und verbrannte das Haus des Herrn und das Haus des Königs und alle Häuser zu Jerusalem ... Aber die ehernen Säulen am Hause des Herrn und die Gestühle und das eherne Meer, das am Hause des Herrn war, zerbrachen die Chaldäer und führten das Erz gen Babel. Und die Töpfe, Schaufeln, Messer, Löffel und alle ehernen Gefäße, womit man diente, nahmen sie weg. Dazu nahm der Hauptmann die Pfannen und Becken, was golden und silbern war, die zwei Säulen, das Meer und die Gestühle. Es war nicht zu wägen das Erz all dieser Gefäße.«[46]

Das also war die ausführliche Liste aller Gegenstände und Schätze, die nach Nebukadnezars zweitem Angriff zerstört oder weggebracht wurden. Bezeichnenderweise und ganz eindeutig fand die Bundeslade wiederum keine Erwähnung. Es war klar, daß die Hauptmasse der Beute von 587 vor Christus aus dem »Erz« der Säulen und des großen Beckens bestand, das Hiram vier Jahrhunderte zuvor hergestellt hatte. Für die Richtigkeit dieser Liste sprach die Tatsache, daß Nebukadnezar bei der zweiten Plünderung des Tempels nur noch auf einige wenige goldene oder silberne Gefäße stieß. Er konnte ja auch gar nichts Wertvolleres gefunden haben, denn das Beste war bereits zehn Jahre zuvor nach Babylon gebracht worden.

Ich war also davon überzeugt, daß der Schrein nicht zur Beute der Angriffe gehörte, und auch der große, von Nebukad-

nezar gelegte Brand[47] konnte kaum als Erklärung für den Verlust der Lade gelten. Nein, ich glaubte fest daran, daß die Bundeslade vor 598 vor Christus aus dem Tempel verschwunden war und somit ihrer Zerstörung entkam.

Aber konnte ich denn mit Sicherheit behaupten, daß man die Lade nach Äthiopien gebracht hatte? Gewiß nicht. Im Gegenteil, ich mußte zugeben, daß die jüdischen Überlieferungen mehrere alternative Erklärungen für die Ereignisse anboten, von denen jede zunächst einmal gut genug war, die Äthiopien-Idee zu Fall zu bringen.

Im Herzen der Erde

Zunächst fiel mir auf, daß das jüdische Volk den Verlust der Lade erst bemerkte, als es den zweiten Tempel baute.

Schon im Jahre 597 vor Christus hatte Nebukadnezar einen großen Teil der Einwohner Jerusalems ins babylonische Exil geschickt.[48] Und nach der Zerstörung des Tempels im Jahre 587 vor Christus heißt es: »Das andere Volk aber, das übrig war in der Stadt, und die zum König von Babel fielen, und den anderen Haufen führte Nebusaradan, der Hauptmann, weg... Also ward Juda weggeführt aus seinem Lande.«[49]

Das Trauma der Verbannung, die Demütigung der Gefangenschaft und der feste Wille, Jerusalem niemals zu vergessen, wurden bald in den beeindruckendsten und suggestivsten lyrischen Passagen des gesamten Alten Testaments verewigt:

»An den Wassern zu Babel saßen wir und weinten, wenn wir an Zion gedachten. Unsere Harfen hingen wir an die Weiden, die daselbst sind. Denn dort hießen uns singen, die uns gefangenhielten, und in unserm Heulen fröhlich sein: >Singet uns ein Lied von Zion!< Wie sollten wir des Herrn Lied singen in fremden Landen? Vergesse ich dein, Jerusalem, so werde meiner Rechten vergessen. Meine Zunge soll am Gaumen kleben, wo ich dein nicht gedenke, wo ich nicht lasse Jerusalem meine höchste Freude sein.«[50]

Das Exil eines ganzen Volkes sollte nicht sehr lange dauern. Nebukadnezar hatte im Jahre 597 vor Christus mit den Deportationen begonnen und sie 587 vor Christus abgeschlossen. Kaum ein halbes Jahrhundert später aber wurde das ganze Reich, das sich unter seiner Herrschaft so dramatisch vergrößert hatte, von dem persischen König Cyrus völlig zerstört, und im Jahre 539 vor Christus nahmen seine siegreichen Truppen Babylon ein.

Cyrus, der als »einer der erstaunlichsten Staatengründer« beschrieben worden ist[51], vertrat gegenüber den von ihm unterworfenen Völkern eine aufgeklärte Position. Es gab außer den Juden noch andere, die in Babylon gefangengehalten wurden; er ließ alle frei und erlaubte ihnen darüber hinaus, die konfiszierten Götterbilder und Kultgegenstände wieder in ihre Heimat zurückzubringen.[52] Das Alte Testament enthält einen ausführlichen Bericht über die feierliche Übergabe:

»Und der König Kores tat heraus die Gefäße des Hauses des Herrn, die Nebukadnezar aus Jerusalem genommen und in seines Gottes Haus getan hatte. Aber Kores, der König in Persien, tat sie heraus durch Mithredath, den Schatzmeister; der zählte sie dar Sesbazar, dem Fürsten Judas. Und dies ist ihre Zahl: dreißig goldene Becken und tausend silberne Becken, neunundzwanzig Messer, dreißig goldene Becher und der anderen, silbernen Becher vierhundertzehn und andere Gefäße tausend, daß aller Gefäße, golden und silbern, waren fünftausendvierhundert. Alle brachte sie Sesbazar herauf mit denen, die aus der Gefangenschaft von Babel heraufzogen gen Jerusalem.«[53]

Das geschah im Jahre 538 vor Christus. Im Frühjahr 537 vor Christus begann man, den zweiten Tempel auf den Fundamenten des ersten zu erbauen. Im Jahre 517 vor Christus war das Werk vollendet. Und obgleich dies ein Grund zu großer Freude war, gab es auch genügend Anlaß zu Trauer. Die Entfernung der Bundeslade aus dem ersten Tempel, wann auch immer das geschehen war, war offenbar vor dem Volk geheimgehalten worden, was nicht besonders schwierig war, denn außer dem Hohenpriester durfte niemand das Allerheiligste betreten. Nun aber war es unmöglich, länger zu verschweigen, daß die Reli-

quie verschwunden war und das innerste Heiligtum somit keine Funktion mehr zu erfüllen hatte. Diese große Veränderung wird im Talmud ausdrücklich zugegeben. In fünferlei Dingen unterscheide sich das erste Heiligtum vom zweiten: in der Bundeslade, der Bedeckung der Bundeslade, den Cherubim, dem Feuer sowie Urim und Thummim.[54] Urim und Thummim waren geheimnisvolle Gegenstände, die möglicherweise als Orakel dienten und zu Moses' Zeiten in die Brustplatte des hohepriesterlichen Gewandes eingelassen waren. Sie befanden sich nicht im zweiten Tempel, ebensowenig wie das himmlische Feuer, das immer mit der Bundeslade in Verbindung gebracht worden war. Und natürlich fehlte die Bundeslade selbst nebst ihrem mächtigen vergoldeten Deckel und den goldenen Cherubim.[55]

Das Geheimnis war also heraus: Die kostbarste Reliquie des jüdischen Glaubens war verschwunden, und niemand wußte, wo sie war. Fast sofort entstanden natürlich Gerüchte, und einige dieser Mutmaßungen nahmen rasch den Charakter von Wahrheiten an. Die Mehrheit vermutete, daß Nebukadnezars Soldaten die Lade nicht gefunden hatten, weil sie vor deren Ankunft im Berg Morija versteckt worden war.

Einer Legende aus der Zeit nach dem Exil zufolge hatte Salomo die Zerstörung des Tempels schon beim Bau vorhergesehen und sogleich tiefe unterirdische Gänge als Versteck für die Bundeslade angelegt.[56]

Auch der Talmud bestärkt die Vorstellung, daß die Höhle direkt unter dem Allerheiligsten lag, und vertritt die Ansicht, daß die Lade »an ihrem eigenen Platz begraben« sei.[57] Und dieses Grab schien das Werk des Königs Josia zu sein, der von 639 bis 609 vor Christus in Jerusalem regierte und gerade ein Jahrzehnt vor der Eroberung der Stadt durch die Babylonier starb. Gegen Ende seiner langen Herrschaft, so heißt es, sah er die bevorstehende Zerstörung des Tempels voraus: »Josia verbarg die Bundeslade und alles, was dazu gehörte, um sie vor der Entweihung durch die Feinde zu bewahren.«[58]

Ich fand das ziemlich glaubhaft. Aber nicht alle Quellen stimmten darin überein, daß das Versteck sich in der unmittel-

baren Nachbarschaft des Allerheiligsten befunden hatte. Eine andere Überlieferung vermutete, die Reliquie sei unter dem Pflaster eines bestimmten Gebäudes im Tempelbereich vergraben worden, dessen genauer Standort seit der Rückkehr aus dem Exil jedoch nicht mehr bekannt war, so daß er für alle Zeiten ein Geheimnis blieb.[59]

Eine völlig andere Darstellung liefert das zweite Buch der Makkabäer, das interessanterweise bei den Katholiken zum Kanon der Bibel zählt, bei den Protestanten hingegen zu den apokryphen Schriften.[60] Es muß vor 70 nach Christus von einem griechisch schreibenden Juden zusammengestellt worden sein[61] und berichtet folgendes über das Schicksal der Bundeslade:

»... der Prophet befahl auf erhaltene göttliche Offenbarung hin, das Zelt und die Lade mit ihm zu führen, bis er an den Berg kam, auf welchen Moses gestiegen war und das Erbe Gottes geschaut hatte. Als Jeremias daselbst gekommen war, fand er die Stätte einer Höhle; dorthin brachte er das Zelt, die Lade und den Räucheraltar, und verwahrte den Eingang.«[62]

Nach Ansicht der Herausgeber des *Oxford Dictionary of the Christian Church* besitzt die Quelle keinen historischen Wert.[83] Und da sie ungefähr fünfhundert Jahre nach Jeremias' Tod entstand, kann man noch nicht einmal behaupten, sie stelle eine besonders alte Überlieferung dar[64], obgleich der Verfasser es so darzustellen versucht, indem er behauptet, er habe sich auf die »Schriften des Propheten Jeremias« gestützt.[65]

Es steht aber fest, daß der Prophet Jeremias die Zerstörung des salomonischen Tempels miterlebt hat, was bedeutete, daß er durchaus eine Rolle beim Verbergen der Lade gespielt haben könnte. Darüber hinaus liegt der Berg Nebo, von dessen Gipfel aus Moses zum erstenmal das Gelobte Land gesehen hatte[68], kaum achtzig Kilometer östlich von Jerusalem entfernt. Da er von kultureller Bedeutung für das Judentum war, machte er auch hinsichtlich seiner geographischen Lage den Eindruck eines geeigneten Verstecks. Spätere Generationen haben daher die Makkabäer-Geschichte nicht völlig zurückgewiesen. Im Gegenteil, in den Überlieferungen hat man sie erweitert und ausge-

schmückt, obwohl sie nie in den jüdischen Schriftenkanon aufgenommen wurden.

Nachdem ich alle jüdischen Überlieferungen hinsichtlich des letzten Ruheplatzes der Bundeslade noch einmal hatte Revue passieren lassen, trug ich folgende Zusammenfassung in mein Notizbuch ein:

- Außerhalb des Talmud, der Mischna, der Baruch-Apokalypse, des zweiten Buches der Makkabäer und einigen Legenden berichten die jüdischen Überlieferungen nichts Wesentliches über den Verbleib der Bundeslade.
- Es scheint nunmehr festzustehen, daß sie nicht von Sisak, Joas oder Nebukadnezar erbeutet worden ist.
- Alles das läßt die Spur, die nach Aksum weist, immer glaubwürdiger erscheinen. Dennoch können die jüdischen »Alternativen« noch nicht definitiv von der Hand gewiesen werden.
- Ich muß also herausfinden, ob es archäologische Grabungen am Berg Nebo gegeben hat oder im beziehungsweise um den Tempelberg herum, den beiden einzigen Orten im Heiligen Land, die als letzte Ruhestätte der Lade in Frage kommen.

Verbotene Grabungen

Im Februar 1968, so erfuhr ich, hatte man auf dem Tempelberg mit umfangreichen Ausgrabungen begonnen. Und obwohl die archäologischen Arbeiten in sicherer Entfernung vom Tempelbezirk durchgeführt wurden, standen sie von Anfang an im Mittelpunkt von Auseinandersetzungen. Meir Ben-Dov zufolge, dem Leiter der Grabungen vor Ort, gab es schon bald Widerstand von Mitgliedern des Hohen Moslemischen Rates, die eine Verletzung ihrer Interessen vermuteten. »Die Ausgrabungen sind in Wahrheit kein wissenschaftliches Unternehmen«, beschwerten sie sich, »ihre zionistische Absicht ist es vielmehr, die Südmauer des Tempelberges, die zugleich die Südmauer der El-Aksa-Moschee ist, zu untergraben, um die Moschee zu zerstören.«[67]

Zu Ben-Dovs Überraschung waren die Christen zunächst ebensowenig hilfsbereit. »Sie vermuteten«, erklärte er, »der Zweck der Ausgrabung bestehe darin, den Grundstein für den dritten Tempel zu legen, und daß das ganze archäologische Projekt nur eine bösartige Verschwörung verdecken sollte. Ich kann nur sagen, daß derartige Gerüchte wie das Produkt einer teuflischen Phantasie klingen, solange man sie nicht mit eigenen Ohren hört. Aber es ist mehr als einmal vorgekommen, daß Leute, deren außergewöhnliche Fähigkeiten als Historiker oder Archäologen außer Frage stehen, mich ohne Umschweife, sei es im Scherz oder im Ernst, gefragt haben: >Haben Sie vor, den Tempel wiederaufzubauen?<«[68]

Der heftigste Widerstand aber kam von den religiösen Autoritäten der Juden selbst, von deren Zustimmung die Ausgrabungsarbeiten abhingen. Professor Mazar vom Archäologischen Institut der Hebräischen Universität führte die Verhandlungen mit den Oberrabbinern der Sephardim und Aschkenasim, die ihm beide eine glatte Abfuhr erteilten, als er sie 1967 erstmals darauf ansprach:

»Der sephardische Rabbi, Rabbi Nissim, erklärte seine Ablehnung damit, das Gebiet, auf dem die Grabungen stattfinden sollten, sei ein heiliger Ort. Aufgefordert, seine Antwort zu erläutern, gab er zu verstehen, wir könnten ja unter Umständen den Beweis dafür erbringen, daß die Klagemauer in Wahrheit nicht die Westmauer des Tempelberges sei... Auf der anderen Seite quälte sich der aschkenasische Rabbi, Rabbi Unterman, mit Fragen der jüdischen Gesetzgebung. >Was geschieht, so überlegte er laut, >wenn Sie im Verlauf der Grabungen die Bundeslade finden?< - >Das wäre großartig!< erwiderte Professor Mazar in aller Unschuld. Der ehrwürdige Rabbi gab dem gelehrten Professor jedoch zu verstehen, daß er genau das befürchte. Da die Kinder Israels vom Standpunkt der jüdischen Gesetzgebung nicht rein sind, dürfen sie die Bundeslade nicht berühren. Von daher ist es undenkbar, Ausgrabungen überhaupt in Betracht zu ziehen, bevor der Messias kommt.«[69]

Die Besorgnis des Rabbi bezüglich der Bundeslade war Aus-

druck einer durch und durch orthodoxen Haltung. Seit der Zerstörung des zweiten Tempels gelten in der Tat alle Juden als unrein, ein Zustand, der erst mit dem Kommen des wahren Messias enden wird.[70] Derartige Dogmen stellten also ein großes Hindernis für die Archäologen dar. Aber es gelang ihnen schließlich, die Rabbis auf ihre Seite zu bringen und die Widerstände der Moslems und Christen zu überwinden. Die Arbeiten konnten beginnen. Und trotz der Lage des Ausgrabungsortes außerhalb des Tempelbereiches wurden einige wenige Gegenstände aus der Zeit des ersten Tempels geborgen. Wie zu erwarten, fand man keine Spur von der Bundeslade, und der größte Teil der Funde stammte aus den späteren Perioden des zweiten Tempels sowie der Moslems und Kreuzfahrer.[71]

Kurz, ich sah, daß Ben-Dovs Ausgrabungen die jüdischen Überlieferungen, die das Versteck der Bundeslade betrafen, nicht gerade erhärteten, aber auch nicht endgültig widerlegten! Das konnte im Grunde nur durch Grabungen auf dem Tempelberg selbst geschehen.

Ich war der Überzeugung, daß schon die Tempelritter derartige Untersuchungen erfolglos durchgeführt hatten. Nun mußte ich herausfinden, ob auch in der Neuzeit Grabungen unternommen worden waren, und wenn ja, mit welchem Ergebnis. Diese Fragen stellte ich Dr. Gabby Barkai, einem Archäologen an der Jerusalemer Hebräischen Universität und Spezialisten für die Periode des ersten Tempels.

»Seit der Entstehung der modernen Archäologie hat es keinerlei Grabungen innerhalb des Tempelbezirks gegeben«, erklärte er mir kurz und bündig.

»Warum nicht?« fragte ich.

»Weil es sich um einen heiligen Ort handelt. Die moslemischen Behörden wehren sich strikt gegen jede wissenschaftliche Untersuchung dort. Von ihrem Standpunkt aus wäre das ein furchtbares Sakrileg. So bleibt der Tempelberg für die Archäologie ein ungelöstes Rätsel. Das, was wir darüber wissen, ist rein theoretischer und interpretativer Natur. Wir besitzen nur die Funde von Charles Warren. Und natürlich die von Parker.

Der hat tatsächlich im Felsendom gegraben - 1910, wenn ich mich recht entsinne. Aber er war kein Archäologe. Das war ein Verrückter. Er hat nach der Bundeslade gesucht.«

Mir war nicht ganz klar, ob Barkai Parker als Verrückten bezeichnet hatte, weil er nach der Lade gesucht hatte; oder ob er nach der Lade suchte, weil er ein Verrückter war. In jedem Fall hatte sich eine ausgezeichnete Gelegenheit ergeben, auf den Hinweis zu verzichten, daß auch ich nach der Bundeslade suchte. Ich beschränkte mich also auf die Frage, wo ich mehr über Parker und Charles Warren erfahren könnte.

Nach einigen Recherchen in Archiven fand ich heraus, das Warren ein junger Leutnant der »Britisch-Königlichen Ingenieure« war, den die in London ansässige »Gesellschaft zur Erforschung Palästinas« im Jahre 1867 mit Grabungen am Tempelberg beauftragt hatte. Seine Arbeit beschränkte sich allerdings mehr oder weniger auf dasselbe Gebiet, das ein Jahrhundert später von Meir Ben-Dov und seinen Kollegen gründlicher untersucht wurde, nämlich außerhalb und südlich der heiligen Bezirke.[72]

Der Unterschied war nur, daß Warren ausdrücklich um die Erlaubnis nachgesucht hatte, auch innerhalb der Mauern graben zu dürfen. Die osmanischen Türken, die damals Jerusalem verwalteten, erteilten ihm jedoch eine Abfuhr. Ein einziges Mal war es Warren gelungen, einen nach Norden führenden Tunnel voranzutreiben und so unterhalb der Außenmauern zu graben. Doch der Lärm der Vorschlaghämmer und anderer Werkzeuge erregte die Aufmerksamkeit der Gläubigen in der El-Aksa-Moschee direkt über den Arbeitern. Das Ergebnis war ein Steinhagel, Aufruhr und die Anordnung des Gouverneurs der Stadt, Izzet Pascha, die Grabungen sofort einzustellen.[73]

Doch Warren ließ sich nicht entmutigen und überredete die Türken, ihn mit der Arbeit fortfahren zu lassen. In der Folge unternahm er etliche andere heimliche Versuche, Tunnels unter dem Tempelberg zu graben.[74] Er gelangte jedoch nur bis zu den Grundfesten der Außenmauern.[75] Natürlich fand er die Bundeslade nicht. Es gab ja ohnehin keinen Hinweis darauf, daß es je

seine Absicht gewesen wäre, danach zu suchen. Sein Hauptinteresse galt der Zeit des zweiten Tempels, und diesbezüglich gelangen ihm viele Entdeckungen von bleibendem wissenschaftlichem Wert.[76]

Das konnte man von Montague Brownslow Parker, einem Sohn des Grafen von Morley, nicht behaupten. Er war 1909 mit der erklärten Absicht nach Jerusalem gegangen, die Bundeslade zu finden. Für die Wissenschaft hat er dabei jedoch keine Beiträge geleistet.

Parkers Expedition, die später von der britischen Archäologin Kathleen Kenyon höflich als »außergewöhnlich« umschrieben wurde[77], war die Kopfgeburt eines finnischen Mystikers namens Valter H.Juvelius, der 1906 an einer schwedischen Universität einen Vortrag über die Zerstörung des salomonischen Tempels durch die Babylonier gehalten hatte. Juvelius behauptete, er habe aus zuverlässiger Quelle Informationen über das - innerhalb des Tempelbezirks gelegene - Versteck der Bundeslade erhalten, und gab an, daß das intensive Studium der relevanten biblischen Stellen ihm die Existenz eines unterirdischen Ganges enthüllt habe, der aus der Stadt in den Tempelberg führe. Er hatte über den Berichten von Charles Warren gebrütet und sich davon überzeugt, daß diese geheime Passage südlich der El-Aksa-Moschee zu finden sein müsse. So legte Juvelius einen Köder von zweihundert Millionen US-Dollar aus, die, wie er glaubte, die Lade wert sei, wenn man sie finden würde, und suchte damit Sponsoren zur Finanzierung einer Expedition anzulocken, die den Schatz aufspüren sollte.[78]

Seine Bemühungen waren erst von Erfolg gekrönt, als er in London den damals dreißigjährigen Montague Brownslow Parker traf und seine Unterstützung für das Unternehmen gewann. Parker gelang es rasch, die Summe von hundertfünfundzwanzigtausend US-Dollar zusammenzubringen, indem er seine Kontakte zur britischen Aristokratie und im Ausland anzapfte. So konnte die Expedition beginnen, und im August 1909 hatte man das Hauptquartier auf dem nicht weit vom Tempelberg entfernten Ölberg aufgeschlagen.

Sofort wurde auf dem Areal gegraben, das zuvor schon Warren in mühevoller Arbeit erforscht hatte. Parker und Juvelius ließen sich keineswegs von der Tatsache abschrecken, daß ihr Vorgänger nichts von großer Bedeutung gefunden hatte. Sie waren im Gegenteil äußerst optimistisch, schließlich hatten sie inzwischen einen irischen Wahrsager angestellt, der ihnen bei der Suche nach dem angeblichen geheimen Tunnel helfen sollte.

Die Zeit verging, und die zu erwartenden Proteste seitens der Gläubigen aller Religionen traten ein. Im Winter verschlechterte sich das Wetter, und die Ausgrabungsstelle wurde von Schlammlawinen überflutet. Parker stellte die Grabungen bis zum Sommer 1910 ein. Dann folgten einige Monate hektischer Betriebsamkeit. Den geheimen Tunnel jedoch fand man weiterhin nicht, und in der Zwischenzeit war entschiedener Widerstand gegen das Projekt erwachsen. Bis zum Frühjahr 1911 hatte es Baron Edmond de Rothschild, überzeugter Zionist und Mitglied der berühmten Bankiersfamilie, zu seinem persönlichen Anliegen gemacht, die Entweihung jenes heiligsten Ortes des Judentums zu verhindern. Zu diesem Zweck hatte er ein direkt an die Ausgrabungsstätte stoßendes Stück Land gekauft, von dem aus er Parker unmittelbar drohen konnte.

Der junge britische Adlige wurde durch diese Entwicklung aus dem Konzept gebracht. Daher gab er im April 1911 die Suche nach dem Tunnel auf und ergriff andere Maßnahmen. Damals stand Jerusalem noch immer unter der Kontrolle der osmanischen Türken, und der Gouverneur der Stadt, Amzey Bey Pascha, war nicht gerade für seine Ehrlichkeit bekannt. Ein Bestechungsgeld von fünfundzwanzigtausend Dollar sicherte seine Mitwirkung. Eine weitere, wenngleich kleinere Summe half Sheik Khalil, dem Kustos des Felsendoms, Parker und seinem Team den Zugang zu den inneren Bezirken zu gewähren.

Aus verständlichen Gründen wurde die Arbeit nur in tiefster Nacht durchgeführt. Als Araber verkleidet, verbrachten die Schatzsucher eine Woche mit Grabungen im südlichen Teil des Tempelberges in der Nähe der El-Aksa-Moschee, wo - was

sowohl Juvelius als auch der irische Wahrsager glaubten - die Lade verborgen sein mußte. Alle Anstrengungen waren jedoch völlig vergeblich, und in den frühen Morgenstunden des 18. April 1911 richtete Parker seine Aufmerksamkeit auf den Felsendom - und auf die legendären Höhlen, die angeblich tief unter dem »Shetiyyah« liegen sollten.

In jenen Tagen gab es die Treppe noch nicht, die heute zum »Brunnen der Seelen« hinunterführt, und so mußten sich Parker und sein Team mitsamt ihrer Ausrüstung an Seilen, die am »Grundstein der Welt« selbst befestigt wurden, hinablassen. Dann zündeten sie Sturmlaternen an und begannen, den Boden der Grotte aufzuhacken, in der Hoffnung, so Zugang zur Ruhestätte der Lade zu finden.

Das Unheil folgte auf dem Fuße. Zwar war Sheik Khalil gekauft worden, aber plötzlich und unerwartet tauchte irgendein Besucher der Moschee auf (es wird erzählt, er habe beschlossen, auf dem Tempelberg zu nächtigen, da sein eigenes Haus voller Gäste war). Er hörte die Grabungsgeräusche, die aus dem Felsendom drangen, platzte herein und erblickte zu seinem Entsetzen eine Horde wildäugiger Fremder, die den geheiligten Boden mit Hacken und Schaufeln attackierten.

Die Reaktion war auf beiden Seiten dramatisch. Der schokkierte Moslem stieß ein durchdringendes Geheul aus und stürzte in die Nacht hinaus, um die Gläubigen zusammenzutrommeln. Die Engländer, denen klar war, daß sie das Spiel verloren hatten, bliesen eiligst zum Rückzug. Sie versuchten nicht einmal mehr, zum Lager zurückzukehren, sondern verließen Jerusalem sofort in Richtung Jaffa, wo eine von ihnen gemietete Motoryacht vor Anker lag. So gelang es ihnen, den hysterischen Massen zu entkommen, die nur Augenblicke nach ihrer Flucht auf dem Tempelberg eintrafen und dem unglückseligen Sheik Khalil ein unaussprechliches Ende bereiteten.

Noch vor Anbruch des Morgens war Jerusalem in einen wilden Aufruhr versetzt worden, und Gouverneur Amzey Bey Pascha wurde angegriffen und beleidigt. Seine Antwort war die Sperrung des gesamten Tempelbezirkes und der Befehl, die

Schatzjäger in Jaffa festzunehmen. Zweifellos ergriff er letztere Maßnahme, um sein Gewissen zu beruhigen. Außerdem verbreitete sich aber das Gerücht, daß Parker die Lade gefunden und entführt habe. Moslemische und jüdische Führer forderten daraufhin lautstark, daß die heilige Reliquie das Land auf keinen Fall verlassen dürfe.

Die Polizei sowie die Zollbehörden von Jaffa wurden telegrafisch verständigt und nahmen die Flüchtlinge bei ihrer Ankunft sogleich fest. Das Gepäck der Engländer wurde beschlagnahmt und peinlich genau durchsucht. Man fand jedoch nichts, und einigermaßen verblüfft erlaubte man den Männern, zu ihrer Yacht zu rudern, wo die Befragungen fortgesetzt werden sollten. Kaum war Parker mit seinen Kollegen sicher an Bord, befahl er natürlich, die Anker zu lichten.

Einige Wochen später war er wieder in England. Er hatte die verlorene Bundeslade nicht gefunden, und es war ihm geglückt, die gesamten hundertfünfundzwanzigtausend Dollar, die ihm die amerikanischen und englischen Investoren anvertraut hatten, buchstäblich in den Sand zu setzen.[79] »Diese Episode«, folgerte Kathleen Kenyon Jahre später, »gereichte der britischen Archäologie nicht gerade zum Ruhm.«[80]

In den nächsten Versuch, die Lade zu finden, waren keine britischen Archäologen verwickelt. Er fand in den zwanziger Jahren statt und konzentrierte sich auf den Berg Nebo, wo (dem Buch der Makkabäer zufolge) der Prophet Jeremias die heilige Reliquie unmittelbar vor der Zerstörung des salomonischen Tempels versteckt haben sollte.

Die treibende Kraft in diesem Fall war ein exzentrischer amerikanischer Forschungsreisender, der sich mit Vorliebe in fließende arabische Gewänder kleidete und, obgleich er männlichen Geschlechts war, den eigentümlichen Namen Antonia Frederick Futterer führte. Nachdem er den Berg Nebo sowie den benachbarten Berg Pisga einer gründlichen Untersuchung unterzogen hatte, verkündete er, daß er einen Geheimgang gefunden habe. Wie originell! Der Gang wurde jedoch von einer Mauer blockiert, und Futterer versuchte nicht, sie niederzurei-

ßen. Als er sie jedoch beim Schein einer Taschenlampe inspizierte, fand er eine alte Inschrift, die er getreulich abschrieb und nach Jerusalem brachte. Dort kontaktierte er einen »Wissenschaftler«, der nur allzu hilfsbereit die Hieroglyphen für ihn entzifferte. Die Botschaft lautete:

HIERIN LIEGT DIE GOLDENE BUNDESLADE.

Leider wollte Futterer weder den Namen des Wissenschaftlers preisgeben, noch beanspruchte irgend jemand in der darauffolgenden Aufregung diese Ehre für sich. Und plötzlich war Futterer auch nicht mehr in der Lage, seine Abschrift der Inschrift vorzuweisen. Merkwürdigerweise kehrte er niemals zum Berg Nebo zurück, um die Lade aus dem angeblichen Geheimgang zu bergen.[81]

Aber ein halbes Jahrhundert später nahm ein anderer »Spezialist« die Staffel da auf, wo Futterer sie hatte fallenlassen. Es handelte sich um einen amerikanischen Forscher namens Tom Crotser, zu dessen früheren »Entdeckungen« der Turm zu Babel, die Arche Noah und die Stadt Adams gehörten. Auf einigermaßen umständliche Weise erwarb dieser Herr im Jahre 1981 einige der von Futterer hinterlassenen Papiere, die anscheinend einen Lageplan des vermauerten Geheimganges auf dem Berg Nebo enthielten.[82]

Der Nebo liegt nordöstlich des Toten Meeres im heutigen Jordanien, und in dieses Land eilte Crotser nun mit einigen Kollegen des ominösen »Internationalen Instituts zur Wiederauffindung von Geschichte«.[83] Ihre Mission war es natürlich, die Bundeslade zu bergen. Unnötig zu sagen, daß Crotser die Lade nicht fand. Nachdem sie jedoch die Untersuchungen auf dem Nebo abgeschlossen hatten, begab sich das Forschungsteam auf den benachbarten Pisga, den Futterer auch besucht hatte. Auf diesem Gipfel stolperten sie über einen Wassergraben, der, wie sie zuversichtlich meinten, den Eingang zu jenem in Futterers Skizze eingezeichneten Geheimgang darstellte.

Die Tatsache, daß sie an einer Stelle des Grabens eine Blechverkleidung entdeckten, erhöhte ihre Aufregung. In der Nacht vom 31. Oktober 1981 entfernten sie das dünne Hindernis mü-

helos. Und wie konnte es anders sein: vor ihnen erstreckte sich ein Gang, der etwa zweihundert Meter in die Erde hineinführte. Dort stießen sie auf die von Futterer beschriebene Mauer und rissen sie ohne weitere Umstände ein.

Dahinter verbarg sich eine in den Fels gehauene Krypta, ungefähr zwei mal zwei Meter groß, die laut Crotser einen vergoldeten, hundertfünfzig Zentimeter langen und zweiundneunzig Zentimeter breiten und hohen Kasten sowie Tragestäbe enthielt, die genau auf die biblische Beschreibung der Tragestangen der Bundeslade paßten. Und an der Seite lagen in Stoff gehüllte Pakete, von denen Crotser annahm, daß sie die Cherubim enthielten.

Die Amerikaner waren sicher, den heiligen Schrein gefunden zu haben. Sie entfernten, berührten oder öffneten ihn jedoch nicht, sondern fertigten mit Hilfe von Blitzlicht nur einige Farbaufnahmen an. Dann verließen sie Jordanien und kehrten in die USA zurück, wo sie sofort die Presseagentur UPI von ihrer Entdeckung in Kenntnis setzten. Die Folge war eine international vermarktete Nachrichtengeschichte von ungeheuren Ausmaßen.[84]

War die Lade tatsächlich gefunden worden? Die in der Krypta aufgenommenen Fotos waren natürlich ein wichtiger Beweis, der die sensationelle Behauptung der Amerikaner erhärten konnte - hätte man den Experten für biblische Archäologie nur die Möglichkeit gegeben, sie zu untersuchen. Daher war es schwer verständlich, daß Crotser sich standhaft weigerte, diese Bilder irgend jemandem zu übergeben. Die allerwenigsten ließen sich von seiner Begründung überzeugen, Gott habe ihm befohlen, sie allein dem Londoner Bankier David Rothschild zu geben, der, wie Crotser sagte, als direkter Nachkomme von Jesus Christus vom Herrn auserwählt sei, den dritten Tempel zu bauen. In diesem würde die aus ihrem Versteck gerettete Bundeslade ihren Platz wieder einnehmen.[85]

Die Rothschilds, die sich schon Parkers Ausgrabungen von 1910 widersetzt hatten, weigerten sich entschieden, die Fotos entgegenzunehmen. Und so bewahrt Crotser sie noch immer in

seinem Haus in Winfield, Kansas, auf und zeigt sie nur ausgewählten Besuchern.

Ein solcher Besucher war der geachtete Archäologe Siegfried H. Horn, Spezialist für die Gegend um den Berg Nebo und Autor von über einem Dutzend wissenschaftlicher Abhandlungen.[86] Im Jahre 1982 verbrachte er einige Zeit mit dem genauen Studium der Fotografien, die anscheinend ziemlich schlecht entwickelt worden waren:

»Außer auf zweien war absolut nichts auf ihnen zu sehen. Von den beiden brauchbaren ist eines verschwommen, aber es zeigt einen Raum mit einem gelben Kasten in der Mitte. Das andere ist recht gut und bietet eine deutliche Ansicht vom vorderen Teil des Kastens.«[87]

Unmittelbar nach seinem Besuch bei Crotser fertigte Horn eine Skizze des Kastens an, wie er ihn auf dem Dia gesehen hatte. Teile des gelben Metallüberzugs schienen aus Messing, nicht aus Gold zu bestehen, und er war darüber hinaus mit einem diamantenen Muster eingelegt, das maschinell gefertigt wirkte. Weit vernichtender aber war, daß man einen Nagel mit einem ganz gewöhnlichen, modernen Kopf aus der oberen rechten Ecke herausragen sah.[88]

»Ich weiß nicht, um was es sich bei dem Gegenstand handelt, aber die Bilder haben mich davon überzeugt, daß es hier in keinem Fall um ein altes Stück geht, sondern um ein modernes Produkt mit maschinell gefertigtem Dekor auf einer Metalloberfläche.«[89]

Das war alles, was die Unterlagen zu den archäologischen Untersuchungen in Jerusalem hergaben. Das war's, wenn man meine eigenen Aktivitäten nicht in Betracht zieht. Und ich? Nun, ich suchte ebenfalls nach der Bundeslade. Ein riskantes Unterfangen, bei dem mich, wie ich gestehen muß, die Tatsache, daß meine Vorgänger durch die Bank messianische Visionäre und seltsame Käuze waren, nicht gerade ermutigte. Es beruhigte mich zumindest, daß ich nicht das geringste Interesse am Bau des dritten Tempels hatte und nicht glaubte, daß die Lade unter dem Felsendom oder auf den Bergen Nebo oder Pisga vergraben

lag. Mir war klar, daß es praktisch unmöglich sein würde, zu beweisen, daß diese Orte keine weiteren Geheimnisse bargen. Aber meine Untersuchungen hatten mich davon überzeugt, daß die verlorene Reliquie sich an keinem der fraglichen Orte befand, daß sie nie in den Besitz der Babylonier oder Ägypter gelangt und auch nicht zerstört worden war.

Um so mehr bedeutete ihr Verschwinden eines der größten Rätsel der Bibel. Alle Ergebnisse, die ich in den Jahren 1989 und 1990 gesammelt hatte, verwiesen darauf, daß die Lösung des Rätsels in Äthiopien zu finden war. Und doch: Ein Problem, mit dem ich mich bisher noch gar nicht auseinandergesetzt hatte, bestand darin, daß der äthiopische Anspruch, die Lade zu besitzen, auf nicht minder schwankendem Boden gegründet zu sein schien als die Vorstellungen, die das Buch der Makkabäer oder die Baruch-Apokalypse geben.

Um es ganz klar zu sagen: Ich hatte zunehmend das Gefühl, daß die kühnen Beteuerungen des *Kebra Nagast* nicht ausreichten, um eine Reise zur heiligen Stadt Aksum zu rechtfertigen. Gewiß, ich hatte viele Indizien - auch überzeugende Indizien - in Äthiopien gefunden, die die Vermutung unterstützten, daß der Schrein wirklich in der Kapelle von Aksum lag. Aber das war weniger auf die Beweiskraft des *Kebra Nagast* zurückzuführen als auf die Schwäche alternativer Darstellungen. Ich mußte also überzeugendere Erklärungen als die des *Kebra Nagast* finden, damit ich mich wirklich nach Aksum aufmachen würde.

Als ich Jerusalem Mitte Oktober 1990 verließ, hatte ich diese Erklärung gefunden.

Kapitel 15

Ein gottloser König

Niemand, der die Geschichte der Bundeslade kennt, würde ernsthaft bestreiten, daß sie ein Gegenstand von ungeheurer Bedeutung für das jüdische Volk war. Und doch ist es unleugbar, daß die Heilige Schrift, so sehr sie sich mit dem Schrein bis zur Zeit des ersten Tempels beschäftigt, sie danach anscheinend völlig vergessen hat. Warum war das so? Welchen Grund konnten die Autoren des Alten Testaments dafür gehabt haben, die Bundeslade aus den heiligen Texten verschwinden zu lassen?

Das Kebra *Nagast* schien eine klare Antwort auf diese Frage anzubieten. Im 62.Kapitel beschreibt es Salomos Trauer, als er entdeckt, daß sein Sohn Menelik die Lade aus dem Tempel entführt und nach Äthiopien gebracht hat. Doch dann faßt er sich und spricht zu den Ältesten Israels, die den Verlust ebenfalls laut beklagen, und fordert sie auf, davon abzulassen:

>»Höret nun auf, damit sich nicht die unbeschnittenen Völker vor uns brüsten und zu uns sagen: Ihr Ruhm ist vernichtet worden, und der Herr hat sie verlassen. Entdecket hiervon nie mehr etwas den anderen Völkern!<... Darauf antworteten ihm die Ältesten Israels und sprachen zu ihm: >Es geschehe dein Wunsch und der Wunsch des Herrn, unseres Gottes; wir wollen dein Gebot nicht übertreten und den anderen Völkern nicht kundtun, daß Zion von uns genommen ist.< Dieses Bündnis schlossen im Tempel des Herrn die Ältesten Israels mit ihrem König Salomo - bis jetzt.«[1]

Wenn man also dem Kebra *Nagast* Glauben schenken durfte, hatte es ein regelrechtes Versteckspiel gegeben. Die Lade war bereits zu Salomos Lebzeiten nach Äthiopien gebracht worden; aber jede Information über diesen tragischen Verlust wurde unterdrückt. Und das war der Grund dafür, daß die Lade in der Heiligen Schrift nicht erwähnt wird. Es gab meines Erachtens

viel, was für diese Entwicklung sprach. Es war mehr als nur möglich, daß der jüdische König wirklich versucht hatte, den Verlust der Lade vor der breiten Masse geheimzuhalten.

Gleichzeitig aber tauchten massive Schwierigkeiten mit anderen Aspekten des Kebra *Nagast* auf, vor allem was die Glaubwürdigkeit der Königin von Saba betraf, ihre Liebesbeziehung zu Salomo und die Geburt ihres Sohnes Menelik. Denn die historische Forschung bestätigt keineswegs, daß sie aus dem abessinischen Hochland kam und nach Israel gereist war. Und war die Beweislage hinsichtlich der Verbindung der Königin mit Äthiopien schon schlecht, so war sie, was die bloße Existenz ihres Sohnes Menelik anging, geradezu katastrophal. Ich wußte seit einiger Zeit, daß Historiker den angeblichen Begründer der »salomonischen Dynastie« Äthiopiens für eine rein legendäre Gestalt hielten. Und bisher hatte ich dem nichts entgegenzusetzen.

Dazu war es kaum vorstellbar, daß sich in den abessinischen Bergen schon im zehnten Jahrhundert vor Christus eine so hochentwickelte Kultur und zentralistische Monarchie hätte entwikkeln können, wie sie das Kebra *Nagast* beschreibt. »Zur Zeit der Herrschaft Salomos«, schrieb E.A. Wallis Budge, »waren die Ureinwohner des heutigen Abessiniens Wilde.«[2] Das war die orthodoxe Sicht der Dinge, und meine Nachforschungen hatten nichts ergeben, was sie widerlegen konnte.

Schließlich berichtete Memhir Fisseha, der Priester, mit dem ich auf Tana Kirkos gesprochen hatte, daß die Reliquie achthundert Jahre auf seiner Insel aufbewahrt worden war, bevor sie zur Zeit der Konversion Äthiopiens zum Christentum nach Aksum gelangte. Diese Bekehrung fand aber erst um 330 nach Christus statt. Das größte Problem bei dieser Zeitrechnung bestand darin, daß die Bundeslade erst um 470 vor Christus nach Äthiopien gekommen sein konnte - mit anderen Worten ungefähr fünfhundert Jahre nach Salomo, Menelik und der Königin von Saba.

Alles in allem hatten sich ernste Schwierigkeiten ergeben, was die wörtliche Auslegung des Kebra *Nagast* betraf. Zudem

beschäftigte mich die praktische Frage, wie Menelik und seine Gefährten es überhaupt fertiggebracht haben sollten, einen so wertvollen und schweren Gegenstand wie die Bundeslade aus dem Tempel zu entfernen, ohne die Aufmerksamkeit der Priester zu erregen, die das Allerheiligste bewachten.

Und ich hatte noch eine Reihe anderer Vorbehalte, die mich zwangen, den akademischen Spezialisten zuzustimmen, die das Kebra Nagast zwar als bemerkenswertes Dokument schätzten, aber Zweifel bezüglich seiner historischen Glaubwürdigkeit äußerten. Ich nahm also widerstrebend Abschied von der Vorstellung einer romantischen Beziehung zwischen Salomo und der Königin von Saba. Und doch mußte das keineswegs bedeuten, daß die Lade nicht vielleicht auf andere Weise nach Äthiopien gelangt sein konnte, die das Kebra *Nagast* später auf seine eigene, originelle und farbige Weise darstellte. Ich war nach wie vor der Ansicht, daß kulturelle und geschichtliche Hinweise in Äthiopien selbst nachdrücklich den Anspruch des Landes bestätigten, die letzte Ruhestätte des Schreins zu sein. Aber wer, wenn nicht Menelik, hatte die Lade nach Äthiopien gebracht, und wann, und unter welchen Umständen?

»Die Dame, dünkt mich, verspricht zuviel«

Mein Ausgangspunkt war zunächst die Vorstellung, daß die Entfernung der Bundeslade aus dem Allerheiligsten totgeschwiegen wurde. Welcher König aber war der Initiator jenes großen Schweigens wenn nicht Salomo?

In der Natur des »Totschweigens« liegt es natürlich, daß es selbst schwer zu entdecken ist. Deshalb erwartete ich auch nicht, daß Beweise der Art, wie ich sie suchte, im Alten Testament leicht zu finden sein würden. Ich fing damit an, jede einzelne Erwähnung der Bundeslade in der Bibel abzutippen. Es war harte Arbeit, sie alle aufzuspüren, und als ich fertig war, lag vor mir ein über fünfzig Seiten dickes Konvolut. Bezeichnenderweise enthielt nur das letzte Blatt Hinweise auf die Zeit nach

Salomos Tod; alle anderen bezogen sich auf die lange Zeit der Wanderschaft, die Eroberung des Gelobten Landes bis hin zur Herrschaft Salomos.

Mir war wohl bewußt, daß die Bibel aus einer Kombination von Texten besteht, die im Verlaufe der Jahrhunderte von unterschiedlichen Schulen und Autoren zusammengetragen wurden. Viele der Hinweise auf die Lade waren wirklich sehr alt, andere hingegen relativ neuen Datums. Das erste Buch der Könige zum Beispiel stammt erst aus der Regierungszeit König Josias (639 bis 609 vor Christus).[3] Das bedeutete, daß der Bericht von der Aufstellung der Lade in Salomos Tempel im ersten Buch der Könige Vers acht zwar zweifellos auf alten mündlichen und schriftlichen Überlieferungen beruhte, daß er aber letztlich das Werk von Priestern war, die lange nach dem Ereignis lebten. Genau die gleiche Beobachtung traf auf die wichtigen Passagen im fünften Buch Mose zu. Denn auch hier handelte es sich um ein verhältnismäßig spätes Dokument aus der Zeit König Josias.[4] Wenn die Lade also vor der Zerstörung des Tempels im Jahre 587 vor Christus heimlich aus dem Allerheiligsten entfernt worden war, dann mußten sich die Spuren einer Vertuschungsaktion am ehesten im Buch der Könige und im fünften Buch Mose finden lassen, falls sie überhaupt irgendwo zu finden waren. Denn natürlich hätten die Autoren beim Zusammenstellen dieser Bücher jede Gelegenheit nutzen können, um die Tatsachen zu verschleiern oder zu verfälschen.

Bei der genauen Untersuchung der Texte stieß ich auf eine Passage, die aus dem Rahmen fiel, weil sie in sehr eigentümlicher Weise überhaupt nicht zum Rest der Beschreibung jener Zeremonie paßte, mit der die Lade ins Allerheiligste gebracht wurde:

»Also brachten die Priester die Lade des Bundes des Herrn an ihren Ort, in den Chor des Hauses, in das Allerheiligste, unter die Flügel der Cherubim. Denn die Cherubim breiteten die Flügel aus an dem Ort, da die Lade stand, und bedeckten die Lade und ihre Stangen von obenher. Und die Stangen waren so lang, daß ihre Knäufe gesehen wurden in dem Heiligtum vor

dem Chor, aber von außen wurden sie nicht gesehen, und waren daselbst bis auf den heutigen Tag.«[5]

Warum, so fragte ich mich, hatte es der für diese Stelle verantwortliche Autor für nötig gehalten zu betonen, daß noch zu seiner Zeit die Tragestangen der Lade deutlich sichtbar aus dem inneren Bezirk herausragten? Eine solche Information war kaum sinnvoll, es sei denn, die Reliquie war damals (etwa 610 vor Christus[6]) eben nicht mehr an ihrem Platz. Der merkwürdig verteidigende Ton klang für mich wie jene nachdrücklichen Unschuldsbeteuerungen, die Schuldige zuweilen von sich geben, um die Wahrheit zu verschleiern. Kurz, wie die berühmte Dame in Shakespeares *Hamlet* hatte der Autor des ersten Buchs der Könige Vers acht mein Mißtrauen gerade dadurch erregt, daß er zuviel versprach.[7]

Mit diesem Verdacht stand ich nicht allein da. Im Jahre 1928 waren auch dem Bibelgelehrten Julian Morgenstern die seltsamen Worte aufgefallen. Seine Schlußfolgerung legte er in einem Aufsatz dar und gab an, der Verfasser der fraglichen Bibelverse müsse die Absicht gehabt haben, »seine Leser davon zu überzeugen, daß die Stäbe der Lade, und damit natürlich die ganze Lade selbst, im Innersten des Tempels war, auch wenn sie nicht vom Volk oder überhaupt von irgend jemandem außer dem Hohenpriester gesehen werden konnte ... Daß der Schreiber sich genötigt fühlte, so sehr zu betonen, daß sich die Lade noch zu seiner Zeit im Tempel befand, läßt darauf schließen, daß er einen vorherrschenden und beharrlichen Zweifel an eben jener Tatsache entkräften mußte, einen Zweifel, der aller Wahrscheinlichkeit nach auf Tatsachen beruhte.«[8]

Das war noch nicht alles. Im fünften Buch Mose stieß ich auf eine ähnliche Formulierung im Zusammenhang mit den zwei Gesetzestafeln, die einst von Moses in die Lade gelegt wurden. In dem Vers heißt es, »daß sie daselbst wären«[9]. Morgenstern vermutete, daß diese Worte aus ganz bestimmten Gründen hinzugefügt worden waren. Unter Verweis auf den hebräischen Originaltext folgerte er, daß es hierbei nur um »die unmittelbare und positive Versicherung des Verfassers dieser Verse gehen

konnte, daß sich die Zehn Gebote noch immer in der Bundeslade befanden. Es scheint, als müsse er einem Zweifel oder einer Frage entgegentreten.«[10]

Das fünfte Buch Mose und das erste Buch der Könige beschäftigen sich natürlich mit sehr unterschiedlichen Perioden der israelitischen Geschichte. Von zentraler Bedeutung jedoch ist, daß beide zur gleichen Zeit zusammengestellt wurden, zur Regierungszeit König Josias, das heißt zwischen 639 und 609 vor Christus!

Meine Neugier war geweckt. Ich wandte mich wieder meinem Manuskript zu, in das ich alle biblischen Erwähnungen der Lade eingetragen hatte, und untersuchte die wenigen Passagen, die sich auf die Zeit nach Salomos Tod beziehen. Es waren eigentlich nur zwei, von denen eine aus der Regierungszeit Josias datierte und die andere sogar Josias eigene Worte wiedergab.

Josia und Jeremias

Auf König Josia war ich schon früher gestoßen. Im Zusammenhang mit den religiösen Gewohnheiten der schwarzen Juden Afrikas hatte ich herausgefunden, daß während seiner Herrschaft die Institution der Opferung verboten worden war. Da aber die Falaschen in Äthiopien den Opferritus noch immer praktizierten, lag die Vermutung nahe, daß ihre Vorfahren zu einer Zeit zum Judentum konvertiert sein mußten, als es noch möglich war, Opferungen auch außerhalb des Nationalheiligtums in Jerusalem vorzunehmen, das heißt vor dem Verdikt Josias und nicht später als im siebten Jahrhundert vor Christus.

Nun konnte ich meine Aufzeichnungen um einige besonders interessante Punkte ergänzen:

- Im ersten Buch der Könige und im fünften Buch Mose sind Anzeichen einer Bemühung festzustellen, die Leser davon zu überzeugen, daß die Lade sich noch immer an ihrem Platz im Tempel befand; es sieht sehr nach einem Versuch aus, die Wahrheit zu verschleiern.

- Die betreffenden Texte entstanden zur Zeit König Josias.
- Daraus schließe ich, daß die Lade möglicherweise zu dieser Zeit aus dem Tempel entfernt wurde. Noch viel wahrscheinlicher aber ist, daß sie bereits verschwunden war und daß damals ihr Verlust entdeckt wurde. Warum? Weil ich mir kaum vorstellen kann, daß ein Staatsmann wie Josia es zugelassen hätte, daß das wichtigste Symbol des Judentums, Zeichen und Siegel von Jahwes Gegenwart auf Erden, aus dem Allerheiligsten entfernt worden wäre. Die Konsequenz ist, daß die Lade weggebracht wurde, bevor er an die Macht kam, daß heißt vor 639 vor Christus.
- Welche Verbindung besteht also zwischen den folgenden Tatsachen: Die Bundeslade wurde vor 639 vor Christus aus dem Tempel entfernt, und: Die Vorfahren der Falaschen wanderten vor 639 vor Christus nach Äthiopien aus? Lag die Vermutung nicht nahe, daß es diese Vorfahren waren, die die Lade mitgenommen haben?

Meine These erschien mir ziemlich plausibel. Sie legte jedoch noch nicht fest, wann genau die vermutliche Auswanderung stattgefunden hatte. Auch schloß sie die Möglichkeit noch nicht endgültig aus, daß die Lade vielleicht doch während Josias Regierungszeit verschwand. Denn noch immer standen die Behauptungen einiger jüdischer Legenden im Raum, denenzufolge der König die Zerstörung des Tempels durch die Babylonier vorhergesehen und die Bundeslade versteckt habe, um sie vor der Entweihung durch die Hand der Feinde zu bewahren.[11] War das möglich? Hatte Josia das Schicksal des Tempels wirklich voraussehen und Maßnahmen zur Rettung der Lade ergreifen können?

Ich sah mir dieses Szenario genauer an und kam zu dem Schluß, daß es schlichtweg unmöglich war, die Ereignisse von 597 bis 587 vor Christus vorherzusagen, es sei denn, er hätte über die wirklich bemerkenswerte Gabe der Hellseherei verfügt. Josia starb 609 vor Christus, fünf Jahre bevor Nebukadnezar den babylonischen Thron bestieg.[12] Zudem hatte Nebukadnezars Vorgänger Nabupolassar wenig oder gar kein militärisches

Interesse an Israel gezeigt und sich statt dessen auf Kriege mit Assyrien und Ägypten konzentriert.[13]

Der historische Hintergrund von Josias Regierungszeit unterstützte also die Theorie, er könne die Bundeslade versteckt haben, in keiner Weise. Noch viel abträglicher aber war dieser Vorstellung die letzte Erwähnung der Bundeslade im Alten Testament, Verse, in denen Josias Kampagne zur Wiedereinsetzung traditioneller Riten im Tempel beschrieben wird:

»Und Josia tat weg alle Greuel aus allen Landen der Kinder Israel ... Und er bestellte die Priester zu ihrem Dienst und stärkte sie zu ihrem Amt im Hause des Herrn und sprach zu den Leviten, die ganz Israel lehrten und dem Herrn geheiligt waren: Tut die heilige Lade ins Haus, das Salomo, der Sohn Davids, der König Israels, gebaut hat. Ihr sollt sie nicht auf den Schultern tragen.«[14]

Mir war sofort klar, daß diese kurze Passage von zentraler Bedeutung für meine Suche war. Warum? Josia hätte die Leviten nicht auffordern müssen, die Lade in den Tempel zu bringen, wenn er sich sicher gewesen wäre, daß sich die Lade an ihrem Platz befand. Aber offensichtlich war das nicht der Fall! Daraus ergaben sich zwei zwingende Schlußfolgerungen:

- Der König war für die Entfernung der Lade nicht selbst verantwortlich, denn er glaubte, sie sei von ihren traditionellen Bewachern mitgenommen worden - den Leviten.
- Die Lade mußte unmittelbar vor der kurzen Rede des Josias aus dem Tempel verschwunden sein.

Glücklicherweise gibt das zweite Buch der Chronik eine sehr genaue Antwort auf die Frage nach dem Zeitpunkt dieser Mahnung an die Leviten: »Im achtzehnten Jahr des Königreichs Josias«[15] - mit anderen Worten: 621 vor Christus. Unklarheit besteht in der Chronik jedoch darüber, ob die Leviten der Anordnung des Königs Folge leisteten. Man sollte erwarten, daß eine Wiedereinsetzung der Lade im Tempel von einer farbenfrohen Zeremonie begleitet worden wäre; aber Josias Befehl scheint keine Konsequenzen nach sich gezogen zu haben. Es war offensichtlich: Die Priester wollten ihm nicht gehorchen, oder sie konnten ihm nicht mehr gehorchen.

Wie gesagt, Josias Rede stellte, chronologisch gesehen, die letzte Erwähnung der Bundeslade im gesamten Alten Testament dar. Nun untersuchte ich die vorletzte Erwähnung. Im Buch Jeremia, in einem um 626 vor Christus verfaßten Kapitel[16], findet sich eine an das Volk von Jerusalem gerichtete Prophezeiung:

»Und es soll geschehen, wenn ihr gewachsen seid und euer viel geworden seid im Lande, so soll man, spricht der Herr, zur selben Zeit nicht mehr sagen von der Bundeslade des Herrn, auch ihrer nicht mehr gedenken noch davon predigen noch nach ihr fragen, und sie wird nicht wieder gemacht werden; sondern zur selben Zeit wird man Jerusalem heißen >Des Herrn Thron<, und werden sich dahin sammeln alle Heiden um den Namen des Herrn willen zu Jerusalem und werden nicht mehr wandeln nach den Gedanken ihres bösen Herzens.«[17]

Jeremias' Worte untermauerten den von Josias Rede hervorgerufenen Eindruck, daß die Lade im Jahre 621 vor Christus nicht mehr im Tempel war; und sie datierten den mutmaßlichen Termin ihres Verlustes bis mindestens auf 626 vor Christus zurück. Ich sage »mindestens«, denn Jeremias' Prophezeiung stellte mit einiger Sicherheit die Reaktion auf einen vorherrschenden und vermutlich seit langem schwelenden Ärger über den Verlust der Lade dar. Nein, ich war mir sicher, für die Bemerkungen Jeremias' bestand ganz offensichtlich eine Notwendigkeit.

In dieser Hinsicht wurde ich von einem der führenden Bibelforscher unterstützt. Professor Menahem Haran von der Hebräischen Universität Jerusalems hatte die fragliche Stelle in seiner maßgeblichen Abhandlung über Tempel und Tempeldienst im alten Israel analysiert und war zu folgendem Ergebnis gekommen:

»Dieser Vers folgt unmittelbar auf Trostworte und enthält selbst eine deutlich versöhnliche Botschaft. Was der Prophet hier verspricht, ist, daß in den bevorstehenden guten Tagen kein Bedarf mehr für die Bundeslade bestehen werde und daß folglich ihr Fehlen kein Anlaß mehr zu Trauer sein müsse. Natürlich

wären diese Worte völlig sinnlos, wenn sich die Lade zu dieser Zeit noch im Tempel befunden hätte.«[18]

Wenn ich das genaue Datum des Verschwindens der Lade bestimmen wollte, mußte ich also die Zeit vor 626 vor Christus einer genaueren Untersuchung unterziehen. Ich hielt es dabei nicht für sehr vielversprechend, den frühen Jahren von König Josias Regierungszeit, das heißt von 626 bis 639 vor Christus, viel Zeit zu widmen. Mir war ja bereits bekannt, daß der Monarch im Jahre 621 vor Christus erfolglos versucht hatte, den Schrein wieder in den Tempel zu bringen; daher schien es mir einigermaßen unwahrscheinlich, daß er für ihr Fehlen verantwortlich war. Der Schuldige mußte einer seiner Vorgänger sein, einer der fünfzehn Könige also, die in Jerusalem nach Salomo regiert hatten.

Mit dem Computer auf der Suche

Ich hatte es mit einem Zeitabschnitt von dreihundertsechzehn Jahren zu tun: von 955 bis zu Josias Thronbesteigung im Jahre 639 vor Christus. In diesen Jahrhunderten waren Jerusalem und der Tempel Mittelpunkt vieler Ereignisse, die in verschiedenen Büchern der Bibel ausführlich beschrieben werden. Die Bundeslade wird allerdings kein einziges Mal erwähnt.

Ich griff zu einem modernen Forschungswerkzeug, um herauszufinden, wie dicht dieses Schweigen wirklich war. Aus England hatte ich eine Computerversion der King-James-Bibel mitgebracht.[19] Es war kaum sinnvoll, ein Suchprogramm nach den Begriffen »Lade« oder »Bundeslade« durchlaufen zu lassen: Sie kamen in dem fraglichen Zeitabschnitt einfach nicht vor. Es gab aber noch eine andere Möglichkeit, nach Wendungen zu suchen, die früher in der Heiligen Schrift regelmäßig in Verbindung mit der Lade auftauchten.

So wählte ich zum Beispiel das Wort »aussätzig«; Moses hatte seine Schwester Mirjam bestraft, indem er die Mächte der Lade in Anspruch nahm, um sie »aussätzig« zu machen.[20] Und ich

versuchte es natürlich mit »zwischen den Cherubim«, weil diese Formulierung vor der Regierungszeit Salomos stets in Verbindung mit der Lade verwendet wurde - niemals in einem anderen Zusammenhang.

Ich ließ zuerst das Wort »aussätzig« laufen. Natürlich fand meine elektronische Bibel es im vierten Buch Mose Vers zwölf, worin beschrieben wird, was Mirjam zustieß. Danach kommt es in der gesamten Heiligen Schrift nur noch zweimal vor: im zweiten Buch der Könige, wo sich eine völlig unwichtige Bemerkung über »vier aussätzige Männer an der Tür vor dem Tor« der Stadt Samaria findet[21], und in einem schon sehr viel interessanteren Zusammenhang im zweiten Buch der Chronik. Der Vers bezieht sich auf König Usija, der von 787 bis 736 vor Christus in Jerusalem regierte: »Und da er mächtig geworden war, erhob sich sein Herz zu seinem Verderben; denn er vergriff sich an dem Herrn, seinem Gott, und ging in den Tempel des Herrn, zu räuchern auf dem Räucheraltar.«[22] Sofort eilte der Hohepriester dem König nach, um ihn von diesem Sakrileg abzuhalten: »Aber Usija ward zornig und hatte ein Räucherfaß in der Hand. Und da er mit den Priestern zürnte, fuhr der Aussatz aus an seiner Stirn vor den Priestern im Hause des Herrn, vor dem Räucheraltar.«[23]

Es sieht so aus, als hätte Usija das Allerheiligste gar nicht betreten (obwohl der Text in diesem Punkt nicht eindeutig ist), sondern sei ihm sehr nahe gekommen. Der plausibelste Schluß war also, daß der Aussatz auf Usijas Stirn dadurch verursacht worden war, daß er sich der Lade ausgesetzt hatte. Und das wiederum konnte nur bedeuten, daß sie sich 736 vor Christus noch immer im Allerheiligsten befand. Im gleichen Jahr und infolge dieser Ereignisse starb Usija.[24] Das engte das Feld schon gewaltig ein, denn es implizierte, daß die Reliquie nur in dem Jahrhundert bis zur Regierung Josias entfernt worden sein konnte, also irgendwann zwischen 736 und 639 vor Christus.

Natürlich war mir klar, daß der Zwischenfall mit Usija nur bedingt von historischem Wert war: Es war ein verführerischer Hinweis, ein Schlüssel, wenn man so will, aber genaugenommen war es unzulässig, daraus endgültig zu folgern, daß die

Lade im Jahre 739 vor Christus noch immer im Tempel war. Es bedurfte eines stärkeren Beweises. Den fand ich, als ich die Wendung »zwischen den Cherubim« durch das Suchprogramm schickte, die, wie bereits erwähnt, ausschließlich im Zusammenhang mit der Lade verwendet wurde. Folglich mußte jedes Vorkommen des Begriffes nach der Aufstellung der Lade im Tempel, also nach 955 vor Christus, ein deutliches Indiz dafür sein, daß sie sich noch immer im Allerheiligsten befand.

Ich fand schnell heraus, daß er in der gesamten nachsalomonischen Zeit nur siebenmal auftauchte. Zwei dieser Erwähnungen bezogen sich eindeutig auf die Cherubim der Bundeslade, Psalm achtzig, Vers eins, und Psalm neunundneunzig, Vers eins. Leider waren sie nicht genau zu datieren. Es bestand eine geringe Möglichkeit, daß sie aus der vorsalomonischen Zeit stammten. Allgemein herrscht jedoch Konsens darüber, daß die Verse wahrscheinlich in den frühen Jahren der Monarchie - und damit zu Salomos Lebzeiten - verfaßt wurden, oder aber innerhalb eines Jahrhunderts nach seinem Tod.[25]

Die Worte tauchten weiterhin dreimal im Buch Hesekiel auf[26], bei dem es sich um ein spätes, nach 597 vor Christus entstandenes Werk handelt.[27] Aber auch in diesem Zusammenhang war der Gebrauch der Wendung nicht von Bedeutung für mich, da es sich hier offensichtlich um lebendige Wesen von gewaltiger Größe, um Engel handelte, die Hesekiel in einer Vision erschienen waren.[28]

Es blieben also nur noch zwei erfolgversprechende Hinweise übrig. Ich fand sie im Buch Jesaja und im zweiten Buch der Könige. Beide erzählen von demselben Ereignis, und beide beziehen sich eindeutig und unmißverständlich auf die Bundeslade, obgleich sie sie nicht beim Namen nennen. Hier sind die Textstellen:

»Und da Hiskia den Brief von den Boten empfangen und gelesen hatte, ging er hinauf in das Haus des Herrn und breitete ihn aus vor dem Herrn. Und Hiskia betete zum Herrn und sprach: Herr Zebaoth, du Gott Israels, der du über den Cheru-

bim sitzest, du bist allein Gott über alle Königreiche auf Erden .. .«[29]

»Und da Hiskia den Brief von den Boten empfangen und gelesen hatte, ging er hinauf zum Hause des Herrn und breitete ihn aus vor dem Herrn und betete vor dem Herrn und sprach: Herr, Gott Israels, der du über den Cherubim sitzest, du bist allein Gott über alle Königreiche auf Erden .. .«[30]

Auffälligerweise sprechen beide Stellen nicht nur vom selben Ereignis, sondern sie tun das auch in fast genau denselben Worten! Genaugenommen kommen die Verse aus dem Buch der Könige einer wörtlichen Wiederholung der Jesaja-Verse sehr nahe. Wissenschaftler stimmen darin überein, daß sie von Jesaja selbst geschrieben wurden.[31] Und da man recht viel über das Leben, die Zeit und die Tätigkeit jenes berühmten Propheten weiß, kann man seinen Bericht über Hiskias Gebet ziemlich genau datieren. Jesajas Berufung zum Amt des Propheten fand 736 vor Christus statt. Er übte sein Amt unter den Königen Jotam, Ahas und Hiskia aus, also bis 697 vor Christus. Von zentraler Bedeutung für meine Untersuchung war eine Tatsache, über die in der Wissenschaft Einstimmigkeit bestand: Jesaja hatte die Verse im Jahre 701 vor Christus geschrieben, als der assyrische König Sanherib Jerusalem erobern wollte, aber gescheitert war.

Auf Jesajas direkten Rat hin hatte sich König Hiskia geweigert, die Stadt den Belagerern zu übergeben.[32] Sanherib drohte in einem Schreiben mit Tod und Zerstörung, und Hiskia hatte eben jenen Brief bei sich, als er »hinauf in das Haus des Herrn« ging und zum Herrn betete, der »über den Cherubim«[33] saß:

»Herr, neige deine Ohren und höre doch; Herr, tue deine Augen auf und siehe doch; höre doch alle die Worte Sanheribs, die er gesandt hat, zu schmähen den lebendigen Gott. Wahr ist's, Herr, die Könige von Assyrien haben wüst gemacht alle Königreiche samt ihren Landen... Nun aber, Herr, unser Gott, hilf uns von seiner Hand, auf daß alle Königreiche auf Erden erfahren, daß du Herr seiest allein.«[34]

Wunderbarerweise erhörte ihn der Herr. Zuerst schickte er seinen Propheten Jesaja mit folgender Botschaft zu Hiskia:

»Darum spricht der Herr also vom König zu Assyrien: Er soll nicht kommen in diese Stadt und soll auch keinen Pfeil dahin schießen und mit keinem Schilde davor kommen und soll keinen Wall um sie schütten ... Denn ich will diese Stadt schützen, daß ich ihr aushelfe um meinetwillen .. .«[35]

Jahwe hielt sein Wort. Noch in derselben Nacht »fuhr aus der Engel des Herrn und schlug im assyrischen Lager 185 000 Mann. Und da sie sich des Morgens früh aufmachten, siehe, da lag's alles eitel tote Leichname. Und der König von Syrien, Sanherib, brach auf, zog weg und kehrte wieder heim und blieb zu Ninive.«[36]

Die hier geschilderten Ereignisse sind historisch verbürgt: Die Assyrer hatten in der Tat Jerusalem im Jahre 701 vor Christus belagert und ihre Belagerung ganz plötzlich aufgehoben. Manche Wissenschaftler vermuten, daß der Grund für diese plötzliche Flucht die Beulenpest war.[37] Merkwürdigerweise existiert jedoch kein Hinweis darauf, daß irgend jemand in Jerusalem sich an dieser leicht übertragbaren Krankheit angesteckt hätte. Das Gemetzel, das hier stattfand, klang vielmehr nach der Art von »Wunder«, wie sie die Bundeslade schon in früheren Zeiten so oft vollbracht hatte.

Aber das war nur eine Ahnung, die keinerlei Beweiskraft für die Präsenz der Lade im Tempel vor 701 vor Christus besaß. Ganz anders verhielt es sich jedoch mit Jesajas beredtem Zeugnis dafür, daß König Hiskia zu Gott um die Befreiung gebetet hatte, und zwar im Innern des Tempels. Außerdem besagten diese Verse, daß Hiskia Sanheribs Drohbrief bei sich hatte »und ihn vor dem Herrn«[38] ausbreitete. Genauso kam Salomo »gen Jerusalem und trat vor die Lade des Bundes des Herrn und opferte Brandopfer und Dankopfer«[39]. Genauso »spielte David und das ganze Haus Israel vor dem Herrn her mit allerlei Saitenspiel von Tannenholz, mit Harfen und Psaltern und Pauken und Schellen und Zimbeln«[40]. Und genauso »sonderte der Herr den Stamm

Levi aus, die Lade des Bundes des Herrn zu tragen und zu stehen vor dem Herrn, ihm zu dienen«[41].

Um eine lange und verwickelte Geschichte zusammenzufassen: Die Tatsache, daß Hiskia den Brief Sanheribs vor dem Herrn ausbreitete und dann zum »Gott Israels, der du über den Cherubim sitzest«, betete, ließ es fast als sicher erscheinen, daß die Bundeslade sich damals im Allerheiligsten befand. Und da diese Stelle so nachdrücklich beweist, daß die Reliquie noch lange nach König Salomos Regierung im Tempel war, versetzte sie der Behauptung des Kebra *Nagast,* Menelik habe die Lade zu Lebzeiten Salomos gestohlen, den Todesstoß.

Ich wußte noch nicht genau, ob ich mich über diese Entdekkung freuen oder ob ich sie beklagen sollte. Ich finde es immer ein bißchen betrüblich, wenn ein schöner Mythos seine Glaubwürdigkeit verliert. Zwar hoffte ich noch immer, den Beweis für den Wahrheitsgehalt des zentralen Anspruchs des Kebra Nagast erbringen zu können, nämlich daß die Lade tatsächlich nach Äthiopien gelangt war, wenngleich nicht durch Menelik. Aber ich hatte noch keine Ahnung, wie ich das zuwege bringen sollte.

Immerhin, ich war weit gekommen. Es war nun erwiesen, daß sich der Schrein im Jahre 701 vor Christus im Allerheiligsten befand, so daß gerade zweiundsechzig Jahre übrig blieben, in denen sie verschwunden sein konnte. Und selbst dieser Zeitraum konnte noch ein wenig eingeengt werden. Warum? Weil es offensichtlich war, daß Hiskia es nicht zugelassen hätte, daß die Lade, die ihm einen so großen Dienst erwiesen hatte, von irgend jemandem fortgebracht worden wäre.

Hiskia starb 697 vor Christus, und Josia bestieg den Thron 639 vor Christus. In der Zwischenzeit regierten nur zwei Könige: Manasse und Amon. Was war während der Regierungszeit dieser beiden Könige geschehen?

Die Sünden des Manasse

Als ich mich erneut in die biblischen Texte vertiefte, wurde mir schnell klar, daß nur Manasse der Schuldige sein konnte. Von den Verfassern wird er gnadenlos getadelt, denn »er tat, was dem Herrn übel gefiel, nach den Greueln der Heiden ... und richtete dem Baal Altäre auf ..., und er baute allem Heer des Himmels Altäre in beiden Vorhöfen am Hause des Herrn. Und ließ seinen Sohn durchs Feuer gehen und achtete auf Vogelschrei und Zeichen und hielt Wahrsager und Zeichendeuter und tat des viel, das dem Herrn übel gefiel, ihn zu erzürnen. Er setzte auch das Bild der Aschera, das er gemacht hatte, in das Haus, von welchem der Herr zu David und Salomo, seinem Sohn, gesagt hatte: In dies Haus und nach Jerusalem, das ich erwählt habe aus allen Stämmen Israels, will ich meinen Namen setzen ewiglich.«[42]

Aber wohin genau im Tempel hatte Manasse das Bildnis der heidnischen Fruchtbarkeitsgöttin[43] gestellt? Die Antwort lag auf der Hand. Das »Haus«, in das Jahwe seinen Namen »ewiglich« setzte, war das Allerheiligste, der »debir«, die enge goldene Zelle, die Salomo dazu bestimmt hatte, »daß man die Lade des Bundes des Herrn dahin täte«[44].

Die Bedeutung dessen, was ich gerade erfahren hatte, war enorm. Manasse hatte ein Götzenbild ins Allerheiligste gestellt! Es war unvorstellbar, daß er die Bundeslade an ihrem Platz belassen hatte, als er diesen Rückschritt zum Heidentum vollzog. Denn die Lade war Zeichen und Siegel von Jahwes Anwesenheit auf Erden und das bedeutendste Symbol des entschieden monotheistischen jüdischen Glaubens. Zugleich war es aber unwahrscheinlich, daß der vom wahren Glauben abgefallene König die heilige Reliquie zerstört hatte. Er dürfte das - bei seiner abergläubischen Neigung zur Zauberei und zur Beschwörung - für höchst unklug gehalten haben. Und so bestand das wahrscheinlichste Szenario darin, daß er den Leviten befahl, die Lade aus dem Tempel zu entfernen, bevor er seine Aschera in das Allerheiligste stellte. Diesem Befehl leisteten die

Priester nur allzu gerne Folge: Als treue Diener Gottes hätten sie alles in ihrer Macht stehende getan, um die Entweihung des von ihnen verehrten Gegenstandes zu verhindern. Für sie war kaum eine schlimmere Entweihung denkbar als das Götzenbild irgendeiner fremden Gottheit im Allerheiligsten. Als Priester wären sie natürlich nicht imstande gewesen, militärisch gegen Manasse vorzugehen; so schickten sie sich ins Unvermeidliche und brachten die Lade an einen sicheren Ort.

Es finden sich in der Bibel sogar Hinweise darauf, daß die erzwungene Entfernung der Lade aus dem Tempel eine Art öffentlichen Massenprotests gegen den König zur Folge hatte, den er erbarmungslos unterdrückte: »Auch vergoß Manasse sehr viel unschuldiges Blut, bis daß Jerusalem allerorten voll ward.«[45]

Jedenfalls war klar, daß die Herrschaft dieses Königs in späteren Jahren als Makel betrachtet wurde, als Verirrung und Greuel. Im Jahre 641 vor Christus folgte Manasses Sohn Amon auf den Thron, und diesem wiederum folgte Josia - der eifrige Reformer, der berühmt (und bei den Verfassern beliebt] war für die Wiedereinführung der traditionellen Jahwe-Verehrung.

Warum hatte Amon nur so kurz regiert? Weil, wie die Bibel erklärt, »er tat, was dem Herrn übel gefiel, wie sein Vater Manasse getan hatte, und wandelte in allem Wege, den sein Vater gewandelt hatte, und diente den Götzen, welchen sein Vater gedient hatte, und betete sie an ... Und seine Knechte machten einen Bund wider Amon und töteten den König in seinem Hause ... Und das Volk im Lande machte Josia, seinen Sohn, zum König an seiner Statt.«[48]

Josia aber »war acht Jahre alt, da er König ward«[47]. Erst acht Jahre später ließ er, so gibt die Bibel an, erste Anzeichen des Wunsches erkennen, »zu suchen den Gott seines Vaters David«[48]. Die leidenschaftliche Reaktion auf die Sünden von Manasse und Amon setzte im elften Jahr seiner Herrschaft ein, als er - zwanzigjährig - damit begann, »zu reinigen Juda von den Höhen und Aschera-Bildern und Götzen und gegossenen Bildern«[49].

»Und ließ das Aschera-Bild aus dem Hause des Herrn führen hinaus vor Jerusalem an den Bach Kidron und verbrannte es am Bach Kidron und machte es zu Staub und warf den Staub auf die Gräber der gemeinen Leute.«[50]

Das war wirklich eine leidenschaftliche Reaktion! Und zudem eine, die sich datieren läßt: Manasses verhaßtes Götzenbild wurde im Jahre 628, im elften Jahr von Josias Regierung, aus dem Allerheiligsten ausgemerzt. Die Bundeslade jedoch war mit Sicherheit nicht zurückgebracht worden, um es zu ersetzen. Wie ich bereits wußte, war Jeremias' Prophezeiung eine Antwort auf die öffentlich lautgewordene Klage über das Fehlen der Bundeslade. Einige Jahre später bat Josia die Leviten, dem Tempel die Lade zurückzugeben. Das war 621 vor Christus, im achtzehnten Jahr seiner Regierung, und es ist kein Zufall, daß er im selben Jahr nach einer landesweiten Säuberungsaktion nach Jerusalem zurückkehrte und befahl, »zu bessern das Haus des Herrn, seines Gottes«[51]. Die Reparaturarbeiten wurden auch ausgeführt.[52] Ein Geheimnis aber bleibt, warum die Leviten außerstande waren, Josias Aufforderung nachzukommen, die Bundeslade in den Tempel zu bringen. Immer mehr glaubte ich, daß die Antwort auf dieses Rätsel in Äthiopien liegen mußte, obgleich ich noch nicht in der Lage war, das Wie und Warum zu erklären.

In der Zwischenzeit suchte ich nach wissenschaftlicher Unterstützung meiner Ansicht, daß die Lade während der Regierungszeit Manasses verschwunden war. Dabei stieß ich wieder auf Professor Harans Abhandlung Tempel und Tempeldienst im alten *Israel:*

»Während der vielen Veränderungen, die im Königreich Juda stattfanden, diente der Tempel zu Jerusalem immer und ausschließlich als Tempel Jahwes … Es gab nur einen einzigen Abschnitt in seiner Geschichte, in dem er vorrübergehend seiner ursprünglichen Funktion enthoben wurde und nicht als Tempel Jahwes diente. Das war unter der Regierung Manasses, der im äußeren Heiligtum Gefäße für Baal und das Bildnis der Aschera im inneren Heiligtum aufstellte ... Das ist das einzige Ereignis, das das Verschwinden der Lade und der Cherubim

erklären könnte. Wir haben Anlaß zu der Vermutung, daß das Bildnis der Aschera die Lade und die Cherubim ersetzte. Ungefähr fünfzig Jahre später, als Josia die Aschera aus dem Tempel entfernte ..., befand sich die Lade samt den Cherubim nicht mehr dort.«[53]

Nach mehreren Telefonaten mit der Hebräischen Universität gelang es mir, Professor Haran ausfindig zu machen. Ich sagte ihm, daß mich seine Vermutung, die Lade könne während der Regierungszeit Manasses verschwunden sein, sehr fasziniert habe, und bat ihn um ein persönliches Gespräch. Professor Haran summte zu und lud mich in seine Privatwohnung ein.

Ich erzählte ihm ein wenig von meinen eigenen Nachforschungen und fragte ihn dann, ob er wirklich sicher sei, daß die Bundeslade zu jenem Zeitpunkt aus dem Tempel entfernt worden war.

»Ja«, erwiderte er im Brustton der Überzeugung, »ich bin so sicher, wie ich nur sein kann. Das ist der Grund dafür, daß die Lade in der langen Liste der später von den Babyloniern erbeuteten Tempelgefäße und Schätze nicht mehr erwähnt wird. Und ich möchte in aller Bescheidenheit hinzufügen, daß meine Ansicht niemals widerlegt worden ist.«

Ich ergriff die Gelegenheit und stellte eine andere Frage, die mich seit einiger Zeit beschäftigte: »Wie erklären Sie es sich, daß die Heilige Schrift diesen Verlust niemals erwähnt?«

»Ich erkläre das folgendermaßen: Die Niederschrift eines derartigen Berichtes hätte die Verfasser mit solchem Abscheu erfüllt, daß sie es lieber bleiben ließen. Deshalb glaube ich, daß sie den Verlust der Lade absichtlich nicht erwähnten. Sogar das wenige, das sie von Manasses Regierung aufgezeichnet haben, ist von absolutem Entsetzen geprägt. Aber sie konnten sich nicht dazu überwinden, das Ereignis selbst zu beschreiben.«

»Was passierte mit dem Schrein Ihrer Meinung nach, nachdem er weggebracht worden war?«

Haran zuckte die Schultern. »Ich habe keine Ahnung. Es ist nicht zu rekonstruieren. Das einzige, was ich mit Sicherheit sagen kann, ist, daß die orthodoxen Priester es unter keinen

Umständen zugelassen hätten, daß die Lade Jahwes am selben Ort wie das Götzenbild der Aschera geblieben wäre.«

»Also glauben Sie, daß sie sie fortgebracht haben? An einen sicheren Ort?«

Erneutes Achselzucken. »Wie gesagt, darüber läßt sich kaum spekulieren. In jedem Fall ergibt sich aus den vorliegenden Berichten einwandfrei, daß Jerusalem selbst - und eigentlich das ganze Land - kein sicherer Aufenthaltsort für diejenigen war, die unter der Regierung Manasses dem Jahwe-Kult treu ergeben blieben.«

»Beziehen Sie sich auf die Stelle im Buch der Könige, in der es heißt, es sei unschuldiges Blut vergossen worden?«

»Ja. Zweites Buch der Könige einundzwanzig, Vers sechzehn. Und nicht nur das. Auch Jeremias spricht andeutungsweise von denselben Ereignissen, wenn er sagt: >Euer Schwert hat eure Propheten verschlungen wie ein zerstörerischer Löwe.< Ich zweifle nicht daran, daß sich das auf bestimmte Maßnahmen Manasses bezieht, und ich schließe daraus, daß einige Propheten sich ihm widersetzt hatten und dafür umgebracht wurden. Wissen Sie, es ist schon sehr interessant, daß es unter Manasse keine Propheten gab. Jeremias folgte unmittelbar darauf, und andere, wie Jesaja, amtierten vorher. Der Grund für diese Lücke sind Verfolgungen und eine länger andauernde Kampagne gegen den Jahwe-Kult.«

Ich konnte den Professor nicht dazu bringen, sich weiter über diese Angelegenheit zu äußern, und er weigerte sich entschieden, sich müßigen Spekulationen (so sah er es offensichtlich] über den Verbleib der Lade hinzugeben. Als ich meine Theorie erwähnte, daß sie nach Äthiopien gebracht worden sein könnte, sah er mich etwa eine halbe Minute lang ausdruckslos an und meinte dann: »Das kommt mir aber ziemlich weit weg vor.«

Ein Tempel am Nil

Nach meinem Gespräch mit Menahem Haran kehrte ich verwirrt und desorientiert in mein Hotel zurück. Natürlich war es ein Erfolg, seine Bestätigung dafür zu erhalten, daß die Lade während Manasses Herrschaft verlorengegangen war. Aber nun befand ich mich am Rande eines intellektuellen Abgrunds. Äthiopien war wirklich »ziemlich weit weg« von Jerusalem, und es konnte keinen vernünftigen Grund dafür geben, warum die Priester den Schrein an einen so weit entfernten Ort gebracht haben sollten.

Außerdem stimmten die Daten nicht überein. Manasse hatte von 696 bis 642 vor Christus regiert; aber die Überlieferungen von Tana Kirkos versicherten, daß die Lade nicht vor etwa 470 vor Christus nach Äthiopien gekommen sei. Meine zeitliche Differenz betrug somit noch immer zweihundert fahre.

Als ich über diesem Problem brütete, wurde mir klar, daß ich unbedingt mit Äthiopiern sprechen mußte. Und gab es einen besseren Ort dafür als Israel? Schließlich lebten hier mittlerweile Zehntausende von Falaschen. Die Älteren unter ihnen mußten sich doch in den kollektiven Erinnerungen ihres Volkes auskennen und mir dabei helfen können, den geographischen und chronologischen Abgrund zu überbrücken, der sich vor mir auftat!

Erneute Nachfragen an der Hebräischen Universität führten mich zu Shalva Weil, einer Sozialanthropologin, die auf jüdische Gemeinden in der Diaspora spezialisiert war und als Expertin für die Kultur der Falaschen galt. Ich bat sie, mir ein Mitglied der Falaschen-Gemeinde zu empfehlen, das mir zuverlässige Informationen über die alten Traditionen der äthiopischen Juden geben konnte.

Ohne Zögern antwortete sie: »Am besten sprechen Sie mit Raphael Hadane. Er ist Priester, ein sehr alter Priester, und schon seit ein paar Jahren hier. Er weiß außerordentlich viel. Das Problem ist nur, daß er kein Englisch spricht, so daß Sie versuchen sollten, ihn zusammen mit seinem Sohn zu treffen.«

»Wie heißt der?«

»Yoseph Hadane. Er ist schon als Kind nach Israel gekommen und mittlerweile Rabbi. Er spricht fließend Englisch und müßte also für Sie übersetzen können.«

Es kostete mich den größten Teil meiner letzten beiden Tage in Jerusalem, dieses Treffen zu verabreden. Schließlich aber gelang es mir, mit der Familie Hadane im Gemeindezentrum der Falaschen zusammenzukommen, das in einem Vorort im Westen der Stadt lag. Dort lebten Hunderte von Äthiopiern in einigermaßen baufälligen Häusern.

Wir saßen eine Weile herum, tranken Tee und tauschten Freundlichkeiten aus, bis ich mein Tonband anstellte und mit dem Interview begann. Vieles von dem, was Hadane über die Kultur und Religion der Falaschen zu sagen hatte, war mir bereits bekannt. Als ich dann aber zu der für mich wichtigen Frage kam, nämlich wann und wie genau das Judentum nach Äthiopien gekommen war, sagte er etwas, was mich aufmerken ließ.

Ich hatte nach Menelik und der Königin von Saba gefragt und erwartete die üblichen Antworten, wie sie das Kebra *Nagast* gibt. Zu meiner Überraschung tat er die ganze Legende ab: »Einige von uns sagen, daß wir von den Israeliten abstammen, die Menelik begleitet haben, aber ich selbst glaube das nicht. Den Überlieferungen zufolge, die ich in meiner Kindheit gehört habe, waren unsere Vorfahren Juden, die in Ägypten gelebt haben, bevor sie nach Äthiopien kamen ...«

»Aber«, unterbrach ich ihn, »das behauptet auch das Kebra *Nagast.* Es behauptet, Menelik und seine Gefährten seien durch Ägypten gereist.«

»Das meine ich nicht. Unsere Vorväter sind nicht einfach durch Ägypten gereist. Sie ließen sich vielmehr in diesem Land für Hunderte von Jahren nieder. Und sie haben dort einen Tempel gebaut.«

Ich lehnte mich vor: »Einen Tempel? Wo haben sie diesen Tempel gebaut?«

»In Assuan.«

Das war interessant. Schon Solomon Alemu, der alte Priester des Dorfes bei Gondar, hatte bei unserem Gespräch im Januar

Assuan erwähnt. Bei meiner Ägypten-Reise war ich leider nicht so weit nach Süden gekommen, und langsam fragte ich mich, ob das nicht ein Fehler gewesen war. Wenn es dort tatsächlich einen jüdischen Tempel gegeben hatte, dann war das unter Umständen von großer Bedeutung. Denn die Funktion des Tempels im alten Judentum bestand einzig darin, die Bundeslade zu beherbergen. Wenn in Assuan wirklich ein Tempel gebaut worden war und dieses Ereignis zeitlich mit dem Verschwinden der Lade aus Jerusalem zusammenfiel, dann war klar, was das bedeutete.

Hadane war allerdings außerstande, diesen Tempel genau zu datieren. Er konnte mir nur sagen, daß er lange Zeit gestanden habe, aber schließlich zerstört worden sei.

»Warum ist er zerstört worden?«

»Es gab einen großen Krieg in Ägypten. Ein fremder König, der viele Länder unterworfen hatte, kam und zerstörte die Tempel der Ägypter. Unseren Tempel aber zerstörte er nicht. Als die Ägypter sahen, daß nur der jüdische Tempel nicht zerstört worden war, verdächtigten sie uns, auf der Seite der Eindringlinge zu stehen. Deshalb bekämpften sie uns, zerstörten unseren Tempel, und wir mußten fliehen ...«

»... nach Äthiopien?«

»Nicht sofort. Unsere Vorväter kamen zuerst in den Sudan, nach Meroë, wo sie für kurze Zeit blieben. Aber durch einen anderen Krieg wurden sie auch von dort vertrieben. Dann teilten sie sich in zwei Gruppen auf: die eine zog den Takazze, die andere den Nil hinauf. So kamen sie nach Äthiopien, in die Nähe des Tanasees. Da haben wir unsere Häuser gebaut. Da sind wir Äthiopier geworden. Tana war ein heiliger Ort. Und obwohl wir in der ganzen Zeit, die wir in Ägypten und im Sudan gewesen sind, den Kontakt zu Jerusalem nicht abgebrochen haben, verloren wir die Verbindung jetzt, da wir so weit von Israel entfernt lebten, und es wurde zu einer bloßen Erinnerung für uns.«

Meine letzte Frage bezog sich speziell auf die Bundeslade: »Es gibt äthiopische Christen, die sagen, die Bundeslade befinde sich in Aksum. Glauben Sie, daß die Christen die Lade wirklich haben?«

»Unser Volk glaubt, und ich selber glaube es auch, daß die Bundeslade in Aksum ist. Vor vielen Jahren bin ich mit einigen unserer religiösen Führer nach Aksum gereist, weil wir die Lade mit eigenen Augen sehen wollten. Aber es wurde uns verboten, die Kapelle zu betreten. Denn wenn wir hineingingen, so sagte man uns, würden wir sterben. Da antworteten wir: >Gut, wir werden uns reinigen, und dann gehen wir hinein, und dann werden wir sehen.< Also taten wir. Wir reinigten uns, aber die christlichen Priester ließen uns noch immer nicht in die Kapelle. So mußten wir nach Hause zurückkehren, ohne sie gesehen zu haben.«

»Ich habe gehört, daß sie einmal im Jahr zu den Menschen gebracht wird, am >Timkat<-Fest. Wenn Sie zu >Timkat< hingegangen wären, hätten Sie eine bessere Gelegenheit gehabt, sie zu sehen.«

Hadane lachte bitter. »Das habe ich auch gehört. Aber ich glaube nicht, daß die Christen die echte Lade jemals nach draußen bringen. Das würden sie nie tun. Sie werden sie niemals jemandem zeigen. Wissen Sie auch, warum? Weil sie uns die Lade vor langer, langer Zeit weggenommen haben und nicht zurückgeben wollen. Deswegen halten sie sie immer in der Kapelle versteckt, umgeben von Gittern, und niemand außer dem Wächter kann in ihre Nähe kommen.«

Nach diesem Gespräch schwirrte mir der Kopf vor Ideen und Fragen. Hadane hatte sich als klarblickender Informant erwiesen. Sein Versuch, die Lade in Aksum zu Gesicht zu bekommen, ließ mich nicht mehr los. Und die besondere Bedeutung, die er der Insel Tana Kirkos zuschrieb, paßte genau zu dem, was ich während meiner Reise im November 1989 erfahren hatte. Am meisten interessierte mich aber der Hinweis auf die Existenz eines jüdischen Tempels in Assuan zu einem ganz frühen Zeitpunkt. Wenn darin auch nur ein Körnchen Wahrheit steckte, würde ich in diese oberägyptische Stadt reisen müssen.

Zurück im Hotel, wählte ich die Telefonnummer von Dr. Shalva Weil. »Wie lief das Gespräch?« fragte sie munter.

»Gut, danke. Es war außerordentlich hilfreich. Ich bin Ihnen

sehr dankbar, daß Sie den Kontakt hergestellt haben.« Einen Moment hielt ich inne. »Sagen Sie, Hadane erwähnte einen Tempel, einen jüdischen Tempel in Assuan. Ich weiß, daß das, was ich jetzt sage, ein bißchen verrückt klingt, aber ich habe gelernt, Volksüberlieferungen nicht einfach abzutun, ohne sie nicht wenigstens überprüft zu haben. Jedenfalls, was ich Sie fragen wollte: Besteht die Möglichkeit, daß ein solcher Tempel existiert haben könnte?«

»Gewiß hat er existiert«, erwiderte Dr. Weil. »Es war ein Jahwe geweihter Tempel. Aber er lag nicht direkt in Assuan, sondern auf der Insel Elephantine, mitten im Nil. Übrigens finden dort gerade archäologische Grabungen statt.«

»Und diese Insel..., ich meine, wie weit ist sie von Assuan weg?«

»Gar nicht weit, ungefähr zweihundert Meter Luftlinie. Man braucht nur fünf Minuten mit dem Boot, um hinüberzukommen.»

»Aber hat dieser Tempel irgend etwas mit den Falaschen zu tun? Hadane hat gesagt, er sei von seinen Vorvätern errichtet worden.«

»Ich denke, das ist möglich. Darüber streiten sich die Gelehrten. Die meisten von uns sind der Ansicht, daß die Falaschen die Nachkommen von jüdischen Händlern und Siedlern sind, die von Südarabien nach Äthiopien kamen. Aber es gibt durchaus einige, die glauben, daß sie von den Juden abstammen, die von Elephantine fliehen mußten.«

»Fliehen? Warum?«

»Ihr Tempel wurde zerstört - ich glaube, irgendwann im fünften Jahrhundert vor Christus -, und danach verschwand die jüdische Gemeinde, die auf der Insel gelebt hatte. Es ist wirklich einigermaßen rätselhaft. Sie waren einfach weg. Aber ich bin keine Expertin, sondern kann Ihnen nur einige Bücher empfehlen, wenn Sie wollen.«

Ich dankte Dr. Weil für ihr Angebot, notierte die wenigen bibliographischen Angaben und verabschiedete mich in ziemlich aufgeregtem Zustand von ihr. Den Überlieferungen von

Tana Kirkos zufolge war die Bundeslade im fünften Jahrhundert vor Christus nach Äthiopien gekommen. Und nun hatte ich erfahren, daß im selben Jahrhundert ein jüdischer Tempel am oberen Nil zerstört worden war. War es nicht möglich, daß dieser Tempel zweihundert Jahre zuvor erbaut worden war, um die Bundeslade zu beherbergen, nachdem sie unter Manasses Herrschaft aus Jerusalem weggebracht worden war?

Am nächsten Tag verließ ich Israel - nicht in Richtung England, wie ich ursprünglich vorgehabt hatte, sondern nach Ägypten.

Kapitel 16

Das Tor zum Süden

Assuan liegt am Ostufer des Nils, etwa gleich weit entfernt von Israel und der Nordgrenze Äthiopiens. Als Umschlagort zwischen der afrikanischen und der Mittelmeer-Welt profitierte die Stadt in der Antike ungemein vom lebhaften Handel in beide Richtungen. Handwerkliche Produkte der ägyptischen Hochzivilisation wurden nach Süden verschifft, Gewürze, Aromastoffe, Sklaven, Gold und Elfenbein von Afrika aus in den Norden verkauft. Vom Elfenbein hat die Insel auch ihren Namen erhalten. Denn Elephantine war einstmals einfach als »Abu« oder »Elefantenland« bekannt.[1]
An der Rezeption meines Hotels in Assuan erkundigte ich mich nach Elephantine und nach dem jüdischen Tempel. Die Erwähnung des Wortes »jüdisch« rief bei den Hotelangestellten nicht gerade eine positive Reaktion hervor. Trotz der einigermaßen guten diplomatischen Beziehungen, die in den vergangenen Jahren zwischen Israel und Ägypten hergestellt worden waren, trennte diese beiden Nachbarländer noch immer viel Blut und Bitterkeit. Endlich aber glückte es mir, dem wenig gesprächigen Hotelmanager folgende Mitteilung zu entlocken: »Viele Tempel auf Elephantine - ägyptisch, römisch, vielleicht jüdisch ... Ich weiß nicht. Sie können hingehen, ein Boot nehmen, herausfinden. Archäologen? Ja, deutsche Archäologen ..., nach Herrn Kaiser fragen ...«

Indiana Jones

Nach einer kurzen Bootsfahrt erreichte ich die Insel. Dort zeigte mir jemand das Gebäude am Westufer, wo »die Deutschen« wohnten. Ich ging zur Tür, klopfte und wurde von einem nubi-

schen Diener eingelassen, der einen roten Fez trug. Wortlos führte er mich in einen Raum, in dem Unmengen von archäologischen Funden gelagert wurden. Dann drehte er sich um und ging.

Ich hüstelte: »Entschuldigung ..., ich suche Herrn Kaiser. Können Sie ihm bitte Bescheid geben?«

Der Diener blieb stehen, warf mir einen unergründlichen Blick zu und ging hinaus, ohne mich einer Antwort zu würdigen. Fünf Minuten stand ich zaudernd in der Mitte des Zimmers. Dann erschien Indiana Jones, oder besser gesagt, ein Doppelgänger von Harrison Ford. Schräg auf dem Kopf trug er einen alten Panamahut, war groß und muskulös, auf kantige Art gut aussehend und musterte mich mit einem stechenden Blick. Offensichtlich hatte er sich seit einigen Tagen nicht mehr rasiert.

Ich widerstand dem Drang - frei nach Henry Morton Stanley - auszurufen: »Herr Kaiser, nehme ich an?« und fragte statt dessen weniger theatralisch: »Sind Sie Herr Kaiser?«

»Nein, mein Name ist Cornelius von Pilgrim.« Er kam auf mich zu und verpaßte mir, nachdem auch ich mich vorgestellt hatte, einen kräftigen und festen Händedruck.

»Ich besuche Elephantine im Zusammenhang mit einem Projekt von mir«, erklärte ich. »Ich interessiere mich für die Geschichte des jüdischen Tempels.«

»Aha.«

»Ja, wissen Sie, ich untersuche ein historisches Rätsel, die ... nun, den Verlust der ..., ich meine das Verschwinden der Bundeslade.«

»Aha.«

»Wissen Sie, was ich mit der Bundeslade meine?«

Inzwischen konnte man Cornelius von Pilgrims Ausdruck nur noch als glasig beschreiben. »Nein«, erwiderte er kurz.

»Sie sprechen doch Englisch, oder?« fragte ich. Ich wollte ganz sicher gehen.

»Ja, recht gut.«

»Also dann. Die Lade. Wir wollen mal sehen. Sie kennen doch Moses, oder?«

Ein schwaches Nicken.

»Und die Steintafeln mit den Zehn Geboten?«

Erneutes Nicken.

»Also, die Bundeslade war der Kasten aus Holz und Gold, in den die Zehn Gebote gelegt wurden. Und ..., äh ..., ich suche danach.«

Cornelius von Pilgrim wirkte nicht übermäßig beeindruckt. Dann sagte er ohne jede Spur von Humor: »Aha. Wie Indiana Jones, meinen Sie?«

»Ja. Genau das meine ich.« Langsam gewann ich meine Fassung wieder. »Jedenfalls der Grund, warum ich hier bin, ist, daß ich aus zuverlässiger Quelle erfahren habe, daß es hier einen jüdischen Tempel gegeben hat. Ich habe die Theorie entwickelt, daß die Lade in alten Zeiten irgendwie nach Äthiopien gelangt ist. Deshalb frage ich mich natürlich, ob die Möglichkeit besteht, oder ob es sogar archäologische Beweise dafür gibt, daß sie hierher gebracht wurde, bevor sie nach Äthiopien kam. Wissen Sie, ich glaube, daß sie im siebten Jahrhundert vor Christus aus Jerusalem verschwand, und ich habe auch einige Hinweise, die darauf hindeuten, daß sie im fünften Jahrhundert vor Christus nach Äthiopien gelangt sein könnte. Die Frage ist also: Was geschah in den zweihundert Jahren dazwischen?«

»Sie wollen wissen, ob die Lade während dieser zwei Jahrhunderte im jüdischen Tempel von Elephantine aufbewahrt wurde?«

»Genau. Ich hoffe, daß Sie und Ihr Team den Tempel vielleicht ausgegraben haben. Wenn das so ist, dann wüßte ich sehr gerne, was sie gefunden haben.«

Von Pilgrim nahm seinen Hut ab, bevor er meine Hoffnungen zerstörte. »Nun«, sagte er nach einer längeren Pause, »auf dem Gelände, für das Sie sich interessieren, gibt es nichts zu sehen. Wir glaubten, daß wir unter den Ruinen des römischen Tempels, der später auf den Grundmauern des jüdischen errichtet wurde, auf einige Überreste stoßen würden. Aber jetzt haben wir uns völlig durch die Fundamente durchgegraben. Und da ist nichts. Absolut nichts. Es ist eine Tatsache, daß es hier eine

bedeutende jüdische Siedlung zwischen dem siebten und dem fünften Jahrhundert vor Christus gegeben hat, aber für die Archäologie ist nichts übriggeblieben als einige der Wohnhäuser. Ich fürchte, das ist alles.«

Ich versuchte, das überwältigende Gefühl von Niedergeschlagenheit nicht zu beachten, das mich gerade überfiel, und fragte: »Wenn nichts mehr vom Tempel übriggeblieben ist, wieso wissen Sie dann, daß es ihn jemals gegeben hat?«

»Oh, das ist kein Problem. Das steht außer Frage. Eine Zeitlang wurden zwischen dieser Insel und Jerusalem viele Briefe gewechselt. Sie wurden auf Scherben - Tonscherben - und auf Papyrusrollen geschrieben. Viele davon sind gefunden und übersetzt worden, und eine Reihe von ihnen bezieht sich eindeutig auf den Jahwe-Tempel auf Elephantine. Die Sache ist historisch gut belegt, und deswegen wissen wir bis auf ein paar Meter genau, wo der Tempel gestanden hat. Wir wissen auch, wann der Tempel zerstört worden ist - 410 vor Christus - und daß der spätere römische Tempel an der gleichen Stelle erbaut wurde. Da besteht kein Zweifel.«

»Warum wurde der jüdische Tempel zerstört?«

»Sehen Sie ..., ich bin kein Experte auf diesem Gebiet. Ich habe mich auf das zweite Jahrtausend vor Christus spezialisiert. Wenn sie Genaueres wissen wollen, sollten Sie mit einem Kollegen von mir sprechen, der sich besonders für die jüdische Kolonie interessiert. Er heißt Achim Krekeler.«

»Ist er hier?«

»Leider nicht. Er ist in Kairo. Aber er kommt morgen zurück. Sind Sie morgen noch hier?«

»Ja, bis morgen kann ich warten.«

»Gut. Dann schlage ich vor, daß Sie am Nachmittag wieder herkommen, sagen wir so gegen drei, und Herrn Krekeler treffen. Wenn Sie wollen, zeige ich Ihnen unterdessen, wo die jüdische Kolonie war ..., und Ihr Tempel.«

Ich nahm das Angebot an. Auf dem Wege dorthin fragte ich den Wissenschaftler, wer die Ausgrabungen auf Elephantine durchführte.

»Wir sind vom Deutschen Archäologischen Institut in Berlin«, antwortete er, »und wir arbeiten schon seit einigen Jahren hier.«

Wir waren am Fuß eines kleinen Hügels angekommen. Auf den Abhängen erkannte ich ein ausgedehntes Labyrinth von Bauschutt und Mauerwerk. Teilweise rekonstruierte Mauern zeigten die Grundrisse von Räumen, Häusern und Straßen an. »Das«, sagte von Pilgrim, »ist ein Teil der alten Stadt Elephantine, wo die Juden lebten ...«

Vorsichtig suchten wir unseren Weg zwischen den bröckelnden Ruinen. Obwohl ich nicht genau erklären konnte warum, schien mir, daß dieser Ort etwas hatte ... richtig, etwas Gespenstisches und eine Atmosphäre, die von längst vergangenen Tagen und verborgenen Geschichten sprach.

Cornelius von Pilgrim wies auf das Areal um uns herum und sagte: »Hier hat der jüdische Tempel gestanden, genau unter uns.«

Ich deutete auf eine massive, zerbrochene Säule, die vor uns herausragte, und fragte nach ihrer Bedeutung.

»Sie gehörte zum römischen Tempel, von dem ich Ihnen erzählt habe. Manches weist daraufhin, daß es auch zu anderen Zeiten Tempel hier gegeben hat, die den Göttern der verschiedenen fremden Mächte geweiht waren, von denen Ägypten im ersten Jahrhundert vor Christus besetzt wurde. Es kam oft vor, daß die Architekten dieser Tempel die Baumaterialien der früheren Gebäude wieder verwendeten. Meiner Meinung nach ist das der Grund dafür, daß von dem jüdischen Tempel nichts übriggeblieben ist. Er ist zerstört, vielleicht auch niedergebrannt worden, und dann hat man die Steine für die Mauern des nächsten Tempels verwendet.«

»Vorhin habe ich Sie gefragt, warum der jüdische Tempel zerstört wurde. Sie sind noch nicht dazu gekommen, es mir zu sagen.«

»Nun, grob gesagt glauben wir, daß es Schwierigkeiten zwischen den Mitgliedern der jüdischen Gemeinde und den ägyptischen Einwohnern der Insel gegeben hat. Sie müssen wissen, daß es auch einen ägyptischen Tempel gab ...«

»... am selben Standort?«

»Nein. Der jüdische Tempel wurde mehr oder weniger daneben errichtet. Der ägyptische Tempel stand dort drüben«, er gestikulierte in Richtung eines anderen Schutthaufens, »und es sind Überreste von ihm gefunden worden. Er war dem Gott Chnum geweiht. Alle Statuen zeigen ihn mit einem Widderkopf, und daraus schließen wir, daß zwischen den jüdischen und den ägyptischen Priestern Spannungen entstanden sein müssen.«

»Was für Spannungen?«

»Naja, das liegt auf der Hand. Man weiß, daß die Juden Opfer darbrachten, und es ist fast sicher, daß sie auch Widder opferten. Das kann die Priester des Chnum nicht gerade beglückt haben. Deshalb vermuten wir, daß sie sich zu einem bestimmten Zeitpunkt gegen die Juden wandten, sie vielleicht umbrachten oder von der Insel vertrieben, und daß sie anschließend ihren Tempel zerstörten.«

»Und Sie sagen, daß das 410 vor Christus stattfand?«

»Ja, richtig. Aber Sie müssen mit Achim Krekeler sprechen, um mehr zu erfahren.«

Das fehlende Bindeglied?

Ich verbrachte eine schlaflose Nacht und einen unruhigen Morgen. Ich hatte alles noch einmal durchdacht, um den logischen Zusammenhang der Ereignisse herauszuarbeiten und zu einigen vorläufigen Schlüssen zu kommen.

Ich war zuversichtlich, daß der jüdische Tempel sich als das fehlende Glied in jener Kette von Beweisen entpuppen könnte, die ich im Verlauf der letzten beiden Jahre zusammengetragen hatte. Sollte unter der Regierung Manasses tatsächlich eine Gruppe von Leviten Jerusalem mit der Bundeslade verlassen haben, dann hätten sie kaum einen sichereren Ort wählen können. Zudem hatte ich ja eine Verbindung zwischen den Zeremonien um die Lade und dem Opet-Fest von Luxor hergestellt, so daß ich den Eindruck nicht loswurde, als könnten die Priester

diese oberägyptische Insel als einmaligen und geeigneten Ort beurteilt haben. War es nicht möglich, daß sie - auf allen Seiten von den heiligen Wassern des Nils umflutet - das Gefühl hatten, zu ihren Wurzeln zurückgekehrt zu sein?

So war ich denn optimistischer Stimmung, als ich am Nachmittag wieder nach Elephantine übersetzte, um Achim Krekeler zu treffen. Er war ein untersetzter, freundlicher Mann Mitte Dreißig, der gut Englisch sprach und bei meiner Ankunft über Bruchstücken alter Papyri brütete.

»Und Papyri wie diese haben den Hauptbeweis für die Existenz des jüdischen Tempels geliefert?«

»Ja, und auch für seine Zerstörung. Nach 410 vor Christus wurden einige Briefe mit Berichten über die Ereignisse nach Jerusalem geschickt, in denen auch um Gelder und die Erlaubnis für einen Wiederaufbau nachgefragt wurde.«

»Aber der Tempel wurde nicht wieder aufgebaut, oder?«

»Nein, mit Sicherheit nicht. Um 400 vor Christus bricht die Korrespondenz ganz plötzlich ab. Die Juden hatten Elephantine anscheinend verlassen.«

»Wissen Sie, was mit ihnen geschah?«

»Nein, eigentlich nicht. Aber ganz offensichtlich bestanden seit längerem Schwierigkeiten mit den Ägyptern. Vermutlich wurden sie zum Weggehen gezwungen.«

»Und Sie wissen nicht, wohin sie gegangen sind?«

»Darüber ist niemals irgendeine Information gefunden worden.«

Ich erklärte Krekeler einigermaßen ausführlich mein Interesse an der Bundeslade und legte dar, wie sie über Elephantine nach Äthiopien gekommen sein konnte. Dann fragte ich ihn, ob er es für möglich hielt, daß man die heilige Reliquie auf die Insel gebracht hatte.

»Natürlich ist das möglich. Alles ist möglich. Aber soviel ich weiß, wurde die Lade zerstört, als der Tempel zu Jerusalem von den Babyloniern niedergebrannt wurde.«

»Das ist die Lehrmeinung. Aber ich bin ziemlich sicher, daß sie einige Zeit zuvor entfernt wurde - im siebten Jahrhundert

vor Christus, während der Regierungszeit Manasses. Und ich hoffe, daß Sie mir unter anderem ein genaues Datum für den Bau des Tempels hier auf Elephantine geben können.«

»Ich fürchte, es gibt kein genaues Datum. Die Meinungen darüber gehen auseinander. Aber ich selbst hätte keine Schwierigkeit mit der Annahme, daß er irgendwann im siebten Jahrhundert erbaut worden sein könnte. Es gibt auch andere Forscher, die diese Ansicht teilen.«

»Und haben Sie eine Vorstellung davon, wie der Tempel ausgesehen haben könnte? Gibt es vielleicht in den Papyri Hinweise darauf?«

»Aber ja, wir haben ziemlich viele Beschreibungen des Tempeläußeren gefunden. Daraus können wir entnehmen, daß er Steinsäulen hatte, fünf ebenfalls steinerne Torwege und ein Dach aus Zedernholz.«

»Weiß man, ob es ein Allerheiligstes gab?«

»Vermutlich ja. Es war ein solides Gebäude, ein richtiger Tempel. Aber es gibt nicht genügend Beweise für oder gegen die Existenz eines Allerheiligsten.«

Wir unterhielten uns noch eine gute Stunde. Dann entschuldigte sich Krekeler, da er bereits am nächsten Tag nach Kairo zurück müsse und noch viel zu tun habe. »Ich kann Ihnen aber zwei sehr informative wissenschaftliche Publikationen über Elephantine leihen«, bot er mir an, »wenn Sie versprechen, sie mir morgen zurückzugeben. Darin werden die wichtigsten Ergebnisse der Untersuchungen zusammengefaßt, die seit dem Anfang des Jahrhunderts von Wissenschaftlern aus den verschiedensten Ländern hier angestellt worden sind.«

Bei meiner Rückkehr zum Hotel schleppte ich die von Krekeler erwähnten Bände mit mir. Sie waren die lange Nacht wert, die ich mit ihrem Studium verbrachte.

Die Lade in Elephantine

In meinem Notizbuch faßte ich die wichtigsten Punkte, die den Tempel betrafen, zusammen:

- Krekeler zufolge muß der Tempel ziemlich groß gewesen sein. Die Archäologen folgern, daß er etwa achtundzwanzig Meter lang und etwa zehn Meter breit war.[2] In den alten Maßen sind das sechzig mal zwanzig Ellen[3], und interessanterweise gibt die Bibel genau dieselben Maße für Salomos Tempel an.[4]
- Der Tempel von Elephantine hatte ein Dach aus Zedernholz[5], der Tempel Salomos ebenfalls.[8]
- Es scheint, als sei der elephantinische Tempel genau nach dem Vorbild des ersten Tempels zu Jerusalem gebaut worden. Der letztere sollte die Bundeslade beherbergen. Ist es da nicht wahrscheinlich, daß das auch für den ersteren galt?
- Im elephantinischen Tempel wurden Tieropfer dargebracht, auch das besonders wichtige Opfer eines Lammes zur Eröffnung der Passah-Woche.[7] Das ist bezeichnend, weil es daraufhinweist, daß eine jüdische Gemeinschaft vor den Reformen Josias nach Elephantine ausgewandert sein mußte. Diese Reformen verboten endgültig alle Opferungen außerhalb des Tempels zu Jerusalem und wurden in der Folge sogar von den Exilierten in der babylonischen Gefangenschaft beachtet. Für die Juden auf Elephantine jedoch blieb die Opferung ein bedeutendes Ritual.[8] Es besteht kein Zweifel, daß sie von Josias Verbot wußten, da ein regelmäßiger Kontakt zu Jerusalem bestand; trotzdem brachten sie weiterhin Opfer dar. Sie müssen folglich geglaubt haben, daß sie eine ganz spezielle Berechtigung für die Beibehaltung dieser Rituale hatten. Unnötig zu betonen, daß die Anwesenheit der Bundeslade sie in jedem Fall dazu berechtigt hätte.
- Erwähnenswert ist in diesem Zusammenhang, daß die elephantinischen Juden offenbar glaubten, Jahwe sei in ihrem Tempel präsent: Eine Reihe von Papyri behauptet in eindeutigen Formulierungen, er »wohne« dort.[9] Im alten Israel (und besonders während der Wanderschaft durch die Wüste) glaubte man,

Jahwe halte sich da auf, wo die Lade war[10]; und das änderte sich erst, nachdem der Verlust bekannt geworden war.[11] Wenn also die Juden von Elephantine bei Jahwe von einem physisch anwesenden Gott sprachen, so folgt daraus, daß sie sich sehr wohl auf die Bundeslade beziehen konnten.

- Die elephantinischen Juden bezeichneten den in ihrem Tempel wohnenden Gott oft als »Herrn der Heerscharen« oder »Jahwe der Heerscharen«[12]; dieser Ausdruck gilt unter Gelehrten als sehr altertümliche Formulierung[13], die oft in Verbindung mit der Lade verwendet wurde.

- All dies verleiht der Ansicht Glaubwürdigkeit, daß die Lade im elephantinischen Tempel gewesen sein konnte und daß ihre Anwesenheit auf der Insel überhaupt erst der Grund für den Bau des Tempels war. Krekeler hatte recht, als er mir sagte, man kenne sein genaues Entstehungsdatum noch nicht. In jedem Falle betonen die Wissenschaftler, es habe bereits im frühen siebten Jahrhundert vor Christus zahlreiche Juden auf Elephantine gegeben - vor allem Söldner, die im Dienste der Ägypter standen. Diese jüdischen Soldaten und ihre Familien hätten ein lebensfähiges soziales Umfeld für den Tempeldienst dargestellt. Auf der Basis dieses und anderer Sachverhalte vermuten die Gelehrten, daß der elephantinische Tempel um das Jahr 650 vor Christus errichtet wurde.[14]

- Die Bedeutung dieses Datums kann gar nicht genug betont werden. Warum? Weil es in die Regierungszeit Manasses fällt, jenes gottlosen Königs, der die orthodoxen Priester zur Flucht mit der Bundeslade zwang. Nun ist es mir also gelungen, den Zeitpunkt des Verschwindens festzulegen! Aber noch immer weiß ich nicht mit Sicherheit, wohin sie die Lade gebracht haben.

- Die Papyri-Spezialisten, die den Tempelbau auf etwa 650 vor Christus datieren, sind sich offenbar nicht im klaren darüber, daß die Bundeslade während der Regierungszeit Manasses aus Jerusalem verschwand. Andernfalls hätten sie zwei und zwei zusammengezählt. Die Empörung jedoch, die durch die »heidnischen Neuheiten« des Königs hervorgerufen wurde, war ihnen

bekannt, und sie schlußfolgerten, daß diese Empörung der einzig mögliche Grund für den ansonsten unerklärlichen Bau eines jüdischen Tempels auf Elephantine gewesen sein konnte:

»Manasses Herrschaft wurde von vielem Blutvergießen begleitet, und man kann vermuten, daß Priester sowie Propheten sich seinen heidnischen Tendenzen widersetzten. Einige dieser Priester flohen nach Ägypten zur jüdischen Garnison auf Elephantine, wo sie den Tempel errichteten.«[15]

- Das sind die Worte Bezalel Portens, Autor einer maßgeblichen Studie über Elephantine. Und doch verwirrte es Porten, daß auf Elephantine überhaupt ein jüdischer Tempel entstehen konnte - und zwar aufgrund der tief im Judentum verwurzelten Vorstellung, daß »fremder Boden unrein sei und also kein Tempel des Herrn auf ihm errichtet werden solle«[16]. Er betont, daß den Juden im babylonischen Exil »von Jeremias geraten wurde, sich niederzulassen und zum Herrn zu beten, aber nicht zu opfern«, und fügt hinzu: »Es gibt keinen Hinweis darauf, daß ein Tempel für Jahwe in Babylon erbaut wurde.« Die zentrale Frage, die sich der Wissenschaftler nun stellte, lautete: »Mit welcher Berechtigung haben dann die Juden auf Elephantine ihren Tempel errichtet?«[17]

- Die Antwort auf Portens Frage ist meines Erachtens offensichtlich: Die Rechtfertigung bestand darin, daß sie die Bundeslade von Jerusalem mitgebracht hatten und nun - wie auch Salomo vor so langer Zeit - ein Haus bauen mußten, »da ruhen sollte die Lade des Bundes des Herrn«[18].

Elephantine und die Falaschen

Bei meiner Rückkehr nach England war ich zuversichtlich, daß ich die Abfolge der Ereignisse rekonstruiert hatte, die dem Rätsel um die verlorene Lade zugrundelag. Im Institut für Orientalische und Afrikanische Studien in London ließ ich mir Kopien der beiden vergriffenen Bände anfertigen, die Krekeler mir geliehen hatte und die ich nun sehr viel genauer studieren wollte.

Meine Nachforschungen trugen Früchte. Lange Zeit konnte ich mir zum Beispiel nicht erklären, warum Josia - der entschiedene Traditionalist - nicht versucht hatte, die Bundeslade von Elephantine zurückzuholen. Die Antwort auf diese Frage war nicht schwer zu finden. Josias reformatorische Bestrebungen begannen erst im elften Jahr, der Wiederaufbau des Tempels zu Jerusalem im achtzehnten Jahr seiner Regierung. Und in der Zwischenzeit hatten sich die Beziehungen zwischen Juda und Ägypten dramatisch verschlechtert, so sehr, daß Josia schließlich sogar im Kampf gegen die Ägypter fiel.[19] Das bedeutete: Selbst wenn er gewußt hätte, daß die Lade sich auf Elephantine befand, wäre er außerstande gewesen, ihre Herausgabe von einem mächtigen Land, mit dem er sich im Kriegszustand befand, zu erzwingen.

Zufrieden mit diesem Ergebnis wandte ich mich dem nächsten Abschnitt der verlorenen Geschichte zu, die ich rekonstruieren wollte: der Reise der Lade von Elephantine nach Äthiopien im fünften Jahrhundert vor Christus. Mein Gespräch mit dem Falaschen-Priester in Jerusalem hatte die faszinierende Möglichkeit eröffnet, daß die Vorfahren der schwarzen Juden Äthiopiens über Elephantine gekommen sein konnten. Denn es stand außer Frage, daß er diese Insel meinte, als er mir erzählte, seine Vorväter hätten einen Tempel in Assuan gebaut. Gewiß, es gab keine ganz und gar unangreifbaren Tatsachen, die die Falaschen mit Elephantine in Verbindung brachten. Ich stieß aber auf sehr viele Übereinstimmungen und Hinweise, die mir eine solche Verbindung nahezulegen schienen. Die wesentlichen Schlußfolgerungen sowie die Indizien, auf die sie sich stützten, trug ich in mein Notizbuch ein:

- Die Tatsache, daß die jüdische Gemeinde von Elephantine Opferungen darbrachte (und das noch lange nach Josias Verbot), ist zweifellos sehr aufschlußreich. Einer der Beweise für das hohe Alter des Judentums in Äthiopien ist der außerordentlich archaische Charakter der Falaschen-Religion, in der genau dieselben Tieropfer, wie sie auf Elephantine dargebracht wurden, eine zentrale Rolle spielen. Das untermauert die Hypothese, die

Falaschen seien die religionskulturellen Nachfahren jüdischer Auswanderer von Elephantine, und stützt die Überlegung, daß die Bundeslade von dieser Insel aus nach Äthiopien gelangt sein konnte.

- Der jüdische Tempel auf Elephantine wurde in seiner Glanzzeit von einer unabhängigen und einflußreichen Priesterschaft verwaltet. Diese Priester werden in der nur aus Konsonanten bestehenden Sprache der Papyri als KHN bezeichnet.[20] Fügt man »a« und »e« hinzu, so wird dieses Wort zu »kahen«, dem Begriff der Falaschen für »Priester«.

- Einer der Namen des jüdischen Tempels auf Elephantine war MSGD[21], was soviel bedeutet wie »Ort der Demut«[22]. Bis heute haben die Falaschen in Äthiopien weder Synagogen noch Tempel. Aber sie haben einfache Gebetshäuser, die »Mesgid« heißen, was nichts anderes ist als MSGD unter Hinzufügung der Vokale »e« und »i«. In diesem Zusammenhang ist es vielleicht erwähnenswert, daß auch König Salomo einst in »demütiger« Haltung und auf den Knien vor der Bundeslade gebetet hat.[23]

- Bei unserem Gespräch in Jerusalem erzählte Raphael Hadane, daß der von seinen Vorvätern erbaute jüdische Tempel in Assuan von der Zerstörung durch einen fremden König verschont geblieben sei, während die ägyptischen Tempel zerstört wurden. Und tatsächlich: Im Jahre 525 vor Christus überfiel ein fremder König Ägypten und machte viele Tempel dem Erdboden gleich.[24] Sein Name lautete Kambyses, und er war Herrscher über das expandierende persische Reich, das von seinem Vater Cyrus dem Großen gegründet worden war. In den elephantinischen Papyri finden sich folgende Erinnerungen an ihn: »... als Kambyses nach Ägypten kam, fand er den jüdischen Tempel. Sie [die Perser] rissen alle Tempel der Götter Ägyptens nieder, aber niemand fügte jenem Tempel einen Schaden zu.«[25] Die Perser hielten Ägypten gegen Ende des fünften Jahrhunderts vor Christus besetzt. In dieser Zeit arbeiteten die elephantinischen Juden eng mit ihnen zusammen und genossen offenbar besonderen Schutz. Erst nach dieser Ära wurde der jüdische Tempel zerstört.[26] Raphael Hadanes Erinnerungen an die Ge-

schichte seines Volkes werden also durch handfeste historische Ereignisse untermauert.

- Hadane berichtete auch, daß sein Volk die Insel Tana Kirkos besonders verehrt. Und Erzpriester Memhir Fisseha, mit dem ich auf jener Insel gesprochen hatte, erzählte, die Lade sei dort über achthundert Jahre hinweg in einem Zelt aufbewahrt worden. Ich finde es keineswegs verwunderlich, daß die Juden, mit denen die Lade wahrscheinlich auf die Insel kam, auf den Bau eines neuen Tempels verzichteten. Schließlich hatten sie gerade die Zerstörung ihres Tempels auf Elephantine miterlebt und wußten zudem auch von der früheren Zerstörung des salomonischen Tempels durch Nebukadnezar. Sie konnten also durchaus beschlossen haben, hinfort auf feste Tempelbauten zu verzichten und zu den Traditionen zurückzukehren, wie sie während der langen Wanderschaft durch die Wüste praktiziert worden waren.

- Zu guter Letzt erzählte mir Hadane, daß die Vorfahren der Falaschen auf ihrem Weg nach Äthiopien nicht nur durch Assuan gekommen waren, sondern auch durch Meroë - eine Information, die sich mit den Angaben Solomon Alemus, des alten Priesters in Anbober bei Gondar, deckt.

- Übrigens: Im Jahre 1772 wurden die mehr als tausendfünfhundert Jahre verschütteten Ruinen von Meroë freigelegt. Von wem? Nun, von dem schottischen Forscher James Bruce, der die Grabungen durchführte. Ein Zufall? Wohl kaum.[27]

Flucht in den Süden

Aber war die Bundeslade wirklich über Meroë nach Äthiopien gekommen? Ich hatte das Gefühl, daß es immer noch eine zentrale Frage gab, die ich nicht zufriedenstellend beantwortet hatte: Warum sollten die Juden von Elephantine nach ihrem Verlassen der Insel gerade nach Süden wandern? Warum nicht in Richtung Norden, zurück nach Israel beispielsweise?

Zunächst einmal hatten sich die Juden in Jerusalem bis zum

fünften Jahrhundert vor Christus längst an ein Leben ohne die Lade gewöhnt. Der Tempel Salomos war lange zerstört, und ein neuer ersetzte ihn. Dieser zweite Tempel wurde von einer fest verwurzelten Priesterschaft verwaltet, die die Konkurrenz von Elephantine mit Sicherheit nicht willkommen geheißen hätte.

Zudem hätten sich die elephantinischen Juden unter den theologischen Rahmenbedingungen, die im Jerusalem des fünften Jahrhunderts vor Christus vorherrschten, fremd und fehl am Platze gefühlt. Das religiöse Denken hatte sich weiterentwickelt, Gott besaß nicht länger die gleichsam körperliche Präsenz, die »zwischen den Cherubim« erschien, und die Formen der Anbetung, in denen die Lade eine so zentrale Rolle gespielt hatte, waren weitgehend aufgegeben worden.

Die Rückkehr des Schreins hätte darum zu einer Vielzahl von möglicherweise katastrophalen Problemen geführt. Es muß den elephantinischen Priestern klargewesen sein, daß sie diese Probleme nur dann vermeiden konnten, wenn sie fern von Jerusalem blieben. Aber wohin sollten sie gehen? In Ägypten konnten sie nicht länger bleiben, und sie waren sich wahrscheinlich nicht einmal sicher, heil aus dem Land herauszukommen, wenn sie sich für den Weg nach Norden entschieden. Der Gouverneur von Assuan und Elephantine hingegen wurde aus gutem Grund »Gouverneur des Tores zum Süden« genannt.[28] Um ihre kostbare Reliquie in Sicherheit zu bringen, brauchten die Juden nur jenes metaphorische »Tor« zu öffnen und sich auf den Weg in die südlichen Länder zu machen, die gemeinhin als »Äthiopien« bekannt waren, ein griechisches Wort, das »verbrannte Gesichter« bedeutet und damals auf alle Gegenden mit dunkelhäutigen Einwohnern angewandt wurde.[29]

Die Flüchtigen werden sich also auf keinen Fall in die furchteinflößende Terra incognita im Norden gewagt haben. Im Gegenteil, es gab Indizien dafür, daß Mitglieder der jüdischen Gemeinde bereits im sechsten Jahrhundert vor Christus in militärische Aktionen weit im Süden verwickelt waren.[30] Außerdem stieß ich auf gut dokumentierte Beispiele früherer Wanderbewegungen und Reisen - nicht notwendigerweise von Juden,

aber von Leuten aus der Gegend von Assuan, die nach Süden gegangen waren und sich dort niedergelassen hatten. Herodot, der »Vater der Geschichtsschreibung«, beschreibt den Weg nach Meroë - und weiter in Richtung Äthiopien - sehr genau.[31] Und Herodot stellt eindeutig fest, daß diese Migrationsbewegung - und Flucht nach Äthiopien! - zur Zeit des Pharaos Psametik (594 bis 589 vor Christus) stattgefunden hat.[32] Und mit einiger Spannung erfuhr ich aus einer anderen zuverlässigen Quelle, daß »Juden als Hilfstruppen der Armee Psametiks in den Kampf gegen die Äthiopier geschickt wurden«[33]. Auf der Grundlage dieser Tatsachen erschien die Schlußfolgerung nicht unvernünftig, daß sich unter den Flüchtigen (oder Fahnenflüchtigen) auch Juden befunden haben konnten.

Bemerkenswerterweise erwähnt Herodot Meroë ausdrücklich und erklärt, daß die Deserteure ganze sechsundfünfzig Tagesreisen von Meroë entfernt lebten. Und wenn die Flüchtlinge auf dem Atbara gereist waren, der gleich nördlich von Meroë in den Nil mündet, dann konnten sie bis an die Grenzen des heutigen Äthiopien gelangt sein, und vielleicht noch darüber hinaus.[34]

Herodots Berichte stammen aus dem fünften Jahrhundert vor Christus. Daraus folgt, daß die Juden, falls sie in diesem Jahrhundert mitsamt der Bundeslade tatsächlich den Fluchtweg von Elephantine nach Süden gewählt hatten, jedenfalls bis zum Tanasee durch bekannte Gebiete gekommen waren. Es leuchtet auch ein, daß das abessinische Hochland ein attraktives Ziel für die Juden gewesen sein mußte; diese grünen, kühlen und wasserreichen Berge wirkten im Vergleich mit den Wüsten des Sudan sicherlich wie der Garten Eden.

Jenseits der Ströme des Kusch

War es wirklich möglich, daß die Flüchtlinge von Elephantine von jenem Garten Eden jenseits der Wildnis wußten? Konnte es sein, daß sie genaue Vorstellungen davon hatten, daß sie am

Ende ihrer Reise auf Verwandte und Glaubensgenossen treffen würden? Im Verlauf meiner Nachforschungen fand ich heraus, daß dies in der Tat vorstellbar war. Und einiges deutete darauf hin, daß es bereits lange vor dem fünften Jahrhundert vor Christus Juden gab, die sich nach Abessinien gewagt hatten.

Diese Vermutung stützte sich zum Teil auf die Heilige Schrift. Zwar wußte ich, daß ich das biblische Wort »Äthiopien« nicht automatisch mit dem heute bekannten Land gleichen Namens gleichsetzen konnte. Aber es war auch nicht völlig auszuschließen. In der frühesten griechischen Bibelausgabe wird der hebräische Ausdruck »Kusch« mit »Äthiopien« übersetzt und bezeichnet nach Aussagen eines Experten »das gesamte Nil-Tal südlich Ägyptens, einschließlich Nubiens und Abessiniens«[35]. Das hieß nichts anderes, als daß biblische Erwähnungen von Äthiopien - oder Kusch - sich durchaus auf Abessinien beziehen konnten.

Und in diesem Zusammenhang scheint es mir zumindest einer Erwähnung wert, daß Moses selbst eine »Mohrin« geheiratet hat.[36] Hinzuzufügen ist auch das bemerkenswerte Zeugnis des jüdischen Geschichtsschreibers Josephus Flavius, der versichert, der Prophet habe die Tochter eines äthiopischen Königs zur Frau genommen und für einige Zeit in »Äthiopien« gelebt.[37]

Auch andere Bibelstellen beziehen sich auf Äthiopien oder Kusch. Wenngleich die meisten davon für mich uninteressant waren, erwiesen sich einige wenige doch als spannend und ließen es möglich erscheinen, daß die jeweiligen Autoren nicht Nubien oder einen Teil des Sudan im Sinn hatten, sondern das gebirgige Land am Horn von Afrika, das wir heute Äthiopien nennen.

Eine solche Stelle findet sich im ersten Buch Mose und bezieht sich auf die Flüsse, die im Garten Eden entspringen: »Das andere Wasser heißt Gihon, das fließt um das ganze Mohrenland.«[38] Ein Blick auf die Landkarte überzeugte mich davon, daß das durchaus wörtlich zu nehmen war. Denn der Blaue Nil umschließt, aus dem Tanasee kommend, tatsächlich ganz Äthiopien. Und die als Ursprung jenes großen Stromes geltenden

Zwillingsquellen sind bis heute bei den Äthiopiern als »Giyon« bekannt.[39]

Eine andere interessante Stelle bot Psalm achtundsechzig. Er enthält einen verschlüsselten Hinweis auf die Bundeslade[40] und macht folgende merkwürdige Vorhersage: »Äthiopien wird seine Hände eilends zu Gott erheben.«[41]

Warum wurde ausgerechnet Äthiopien als mögliche Kandidatin für eine Konversion zur Religion Israels derart bevorzugt? Leider leistet der Psalm selbst keine Hilfestellung bei der Beantwortung dieser Frage. In einem etwas später vom Propheten Amos verfaßten Vers gab es jedoch Hinweise darauf, daß etwas so Bedeutsames in Äthiopien geschehen war, daß die Einwohner jenes fernen Landes nun dem »auserwählten Volk« ebenbürtig waren. Die Stelle lautet: »Seid ihr Söhne Israel mir nicht den Äthiopiern gleich? spricht der Herr.«[42]

Mir war klar, daß dieser Vers auch anders interpretiert werden konnte, nämlich daß Jahwe die Kinder Israels hinfort nicht mehr mit besonderen Privilegien ausstatten, sondern sie irgendeinem anderen Volk gleichsetzen werde. Es schien mir aber doch, daß auch die naheliegendere Lesart berücksichtigt werden mußte. War es nicht vorstellbar, daß es zur Zeit Amos' bereits eine Auswanderungswelle gegeben hatte, die sich südwärts durch Ägypten ins abessinische Hochland bewegt hatte? Zugegeben: Die Beweislage für diese Annahme war schwach, denn die Grenzen des »Äthiopien«, auf das Amos sich bezog, sind heute nicht mehr zu bestimmen. Aber in der Antike hat nur eine einzige der in Frage kommenden Gegenden den jüdischen Glauben angenommen (und bis zum zwanzigsten Jahrhundert daran festgehalten!): die Region um den Tanasee, seit undenklichen Zeiten Heimat der Falaschen.

Die nächste Bibelstelle, die meine Aufmerksamkeit erregte, fand sich im Buch Zephanja und entstand irgendwann zwischen 639 und 622 vor Christus, das heißt in der Regierungszeit Josias und vor der babylonischen Gefangenschaft: »Von jenseits der Ströme Äthiopiens werden meine Anbeter, die Söhne meiner Zerstreuten, mir Opfergaben darbringen.«[43]

Wovon genau sprach Zephanja, wenn er sich auf ein »zerstreutes« Volk bezog? Und welchen Teil des biblischen Kusch hatte er im Sinn, als er meinte, die Anbeter des Herrn kämen »von jenseits der Ströme Äthiopiens«?

Was die erste Frage betraf, so kam ich zu dem Schluß, daß der Prophet von einer freiwilligen Völkerwanderung gesprochen haben mußte. Denn es gab vor Zephanjas Zeit keine erzwungene Abwanderung von Israeliten aus dem Gelobten Land. Meine Antwort auf die zweite Frage stand ebenfalls fest. Wenn der biblische Begriff »Kusch« zunächst einmal das gesamte Nil-Tal südlich Ägyptens einschließlich Nubiens und Abessiniens meint, so enthält der gerade zitierte Vers Indizien, die das geographische Gebiet, von dem Zephanja spricht, genauer zu bestimmen helfen. Der Hinweis liegt in der Formulierung »jenseits der Ströme Äthiopiens« verborgen. Der Verfasser scheint sich eindeutig auf mehrere Flüsse zu beziehen, und so konnte ich das weit im Süden bei Meroë gelegene Nil-Tal ausklammern. Östlich von Meroë jedoch fließt der Atbara, und noch etwas weiter der Takazze, während im Süden der Blaue Nil aus Abessinien herunterströmt. Dies sind die Flüsse Äthiopiens, und jenseits davon liegt der Tanasee. Die Möglichkeit, daß der Prophet das traditionelle Siedlungsgebiet der Falaschen vor Augen hatte, als er diesen Vers schrieb, konnte also nicht ganz von der Hand gewiesen werden.

Mein Eindruck, daß an dieser Mutmaßung etwas Wahres sein konnte, verstärkte sich, als ich mein Computerprogramm laufen ließ und herausfand, daß die Wendung »jenseits der Ströme Äthiopiens« in der gesamten Bibel sonst nur noch ein einziges Mal verwendet wird:

»Wehe dem Land mit schwirrendem Fittich, welches jenseits der Ströme Äthiopiens ist, das Boten auf das Meer sendet und in Rohrschiffen über die Wasser! Gehet hin, ihr schnellen Boten, zum erregten und zerrissenen Volke, zum furchtbaren Volke, nach welchem kein anderes mehr, zu dem harrenden und zertretenen Volke, dessen Land die Flüsse durchschneiden.«[44]

Jesaja, der das Priesteramt seit 739 vor Christus versah und

mit einiger Sicherheit bis in die Regierungszeit des gottlosen Königs Manasse hinein lebte, hat diese Verse selbst verfaßt.[45] Eine alte jüdische Legende berichtet übrigens, daß der Prophet durch Manasses eigene Hand den Märtyrertod starb. Nun, die Art und Weise, wie Jesaja von dem geheimnisvollen Land sprach, ließ es fast als sicher erscheinen, daß er sich auf Abessinien und das Gebiet der traditionellen Falaschen-Siedlungen dort bezog, denn das Hochland um den Tanasee wird wirklich von Wasserströmen »durchschnitten«.

Es gab noch andere Anhaltspunkte:

- Die Einwohner dieses Landes sollten »hochgewachsen und glatt« sein; andere Übersetzungen nennen sie »gebräunt«. Derartige Beschreibungen trafen, wie ich fand, ohne weiteres auf die heutigen Äthiopier zu, deren glänzende, kastanienbraune Haut sich deutlich von der tiefschwarzen Hautfarbe anderer afrikanischer Völker unterscheidet.
- Es handelte sich um ein Land »mit schwirrendem Fittich«. Das könnte ohne weiteres eine Anspielung auf die riesigen Heuschreckenschwärme sein, die ungefähr alle zehn Jahre Äthiopien verwüsten, die Felder der Bauern überschatten und die Luft mit einem trockenen Schwirren erfüllen, das einem kalte Schauder über den Rücken jagt.
- Schließlich erwähnte Jesaja noch besonders die Tatsache, daß die Boten jenes Landes in »Rohrschiffen über die Wasser« führen. Solche Rohrschiffe sind bis auf den heutigen Tag am Tana in Gebrauch; sie werden »Tankwas« genannt.

Im großen ganzen hatte ich das Gefühl, daß die biblischen Informationen die frühe Existenz einer Verbindung zwischen Israel und dem abessinischen Hochland nahelegten. Die Priester, die im fünften Jahrhundert vor Christus mit der Bundeslade von Elephantine auf die Insel Tana Kirkos gereist waren, trafen dort auf Glaubensgenossen, die schon lange in ihrer neuen Heimat lebten.

Die Auswanderer

Gab es auch außerhalb der Bibel Hinweise, die diesem Bild schärfere Konturen verleihen konnten?

Meine Nachforschungen in Äthiopien hatten es bereits als möglich erscheinen lassen, daß es über einen langen, sich bis in das fernste Altertum erstreckenden Zeitraum hinweg mehrere aufeinanderfolgende Auswanderungswellen von hebräischen Siedlern gegeben haben konnte. Das ausführliche Gespräch, das ich damals mit dem Hohenpriester der »hebräisch-heidnischen« Qemant, dem Wambar Muluna Marsha, führen konnte, legte dies besonders nahe. Er hatte mir gesagt, daß Anayer, der Begründer seiner Religion, aus »dem Lande Kanaan« gekommen sei und sich in der Gegend um den Tanasee niedergelassen habe - und zwar zu einem Zeitpunkt, der weit vor der Regierungszeit König Josias liegen mußte.

Die Qemant und die Falaschen sind Nachbarn in den Bergen und Tälern um den Tana herum und vertreten die Ansicht, daß sie gemeinsame Wurzeln haben, was der Wahrheit entspricht. Denn beide gehören zu den Agaw, einer ethnischen Gruppe, die überhaupt zu den ältesten Stämmen am Horn von Afrika zählt. Die Muttersprache beider Völker ist ein Agaw-Dialekt, der interessanterweise unter die kuschitischen Sprachen fällt.[46] Zwar existieren in Äthiopien auch dem Hebräischen und Arabischen verwandte semitische Sprachen, aber sie werden weder von den Qemant noch von den Falaschen gesprochen.

Die Erklärung für diese Anomalie und die sich daraus ergebenden Schlüsse schienen mir auf der Hand zu liegen. So schrieb ich in mein Notizbuch:

- Die ersten kleinen Gruppen von Hebräern müssen schon sehr früh von Israel nach Äthiopien ausgewandert sein; ich vermute, daß dieser Prozeß bereits im zehnten Jahrhundert vor Christus (oder sogar noch früher) einsetzte und sich mindestens bis zum Ende des fünften Jahrhunderts vor Christus erstreckte.

- Bei ihrer Ankunft in der Tana-Region trafen die Auswanderer auf die eigentlichen Einwohner Äthiopiens, zum Beispiel

die Agaw, und verbanden sich durch Heirat, so daß sie nach und nach ihre eigene ethnische Identität verloren. Gleichzeitig gaben sie jedoch den jüdischen Glauben und die jüdische Kultur, die sie mitgebracht hatten, weiter. Auf diese Weise werden natürlich im zweiten und ersten Jahrhundert vor Christus keine eigentlichen Hebräer mehr in Äthiopien gelebt haben, sondern nur mehr »hebraisierte« oder »judaisierte« Völker, die in jeder Hinsicht wie eingeborene Äthiopier aussahen und natürlich auch ihre Sprache übernommen hatten. Die modernen Abkömmlinge dieser Entwicklungen sind die Qemant und die Falaschen.

- Und was ist mit den semitischen Völkern in Äthiopien? Etwa mit den politisch dominanten, christlichen Amhara? Die Volkskundler sind der Überzeugung, daß sie mit einiger Sicherheit die Nachkommen von Siedlern aus Südarabien sind, die etwas später in das äthiopische Hochland kamen. Zu dieser Zeit war das Judentum bei den eingeborenen Agaw-Stämmen möglicherweise schon ziemlich verwurzelt, was erklären würde, warum auch die amharische Kultur in manchen Bereichen »judaisiert« wurde und warum im abessinischen Christentum jüdische Elemente von auffällig alttestamentarischer Prägung bis heute überlebt haben.

- »Von Anfang an gab es Juden in Äthiopien«, schrieb der portugiesische Jesuit Balthazar Tellez im siebzehnten Jahrhundert.[47] Ich habe den Verdacht, daß er mit diesem Urteil der Wahrheit näherkam als die modernen Wissenschaftler, die die Ankunft des Judentums auf einen relativ späten Zeitpunkt datieren und die blind zu sein scheinen für alle Indizien, die ihren Vorurteilen widersprechen.

Die geheimnisvollen »BRs«

Wenn es also - der Lehrmeinung zum Trotz - wirklich solche frühen Auswanderungswellen gegeben hatte, dann mußten sich doch sicher Beweise dafür auch außerhalb der Bibel und neben den von mir beobachteten kulturellen und religiösen Besonder-

heiten der Falaschen und Qemant finden lassen. Zwar machte das bisher zusammengetragene Material einen sehr überzeugenden Eindruck, aber was ich wirklich brauchte, um den Fall zu vervollständigen, waren greifbare archäologische und dokumentarische Beweise für die Existenz hebräischer Siedlungen in Äthiopien vor dem fünften Jahrhundert vor Christus.

Ich streckte also die Fühler nach meinen Kontakten in der akademischen Welt aus, um herauszufinden, ob ich irgend etwas von Bedeutung übersehen haben konnte.

Kurz darauf erhielt ich per Post den von einer gewissen Jacqueline Pirenne verfaßten Aufsatz, der 1989 von der Straßburger Universität veröffentlicht worden war. Kenneth Kitchen, Professor für Archäologie an der Universität Liverpool, hatte mir den Aufsatz geschickt und dazu geschrieben:

»Nur ein paar Zeilen; ich schicke Ihnen hier die Fotokopie eines Vortrags, den Jacqueline Pirenne kürzlich auf einer Konferenz in Straßburg gehalten hat. Um ehrlich zu sein, hat sie sich vom wissenschaftlichen Standpunkt aus meines Erachtens völlig verrannt; sie ist zweifellos eine sehr fähige Person und kennt ihre arabischen Dokumente genau, hat aber (für viele von uns) recht zweifelhafte Ideen über die altarabische Chronologie und den Ursprung der Schrift. Der Essay ist faszinierend, aber mehr Fiktion als Geschichte, fürchte ich.«

Nachdem ich hundertfünfzig Pfund für eine Übersetzung ins Englische gezahlt hatte, verstand ich, warum Professor Kitchen der Ansicht war, der Aufsatz könne für meine eigene Untersuchung von Bedeutung sein; und ich verstand, warum das akademische Establishment so feindselig auf Jacqueline Pirennes Ansichten reagierte.

Auf die wesentlichen Grundzüge reduziert, bestanden die Hauptargumente ihres komplexen Aufsatzes darin, daß die Wissenschaftler, die die historischen Beziehungen zwischen Äthiopien und Südarabien erforscht haben, völlig unrecht hatten: Es habe keine vom Jemen ausgehenden Einflüsse auf Äthiopien gegeben, wie bisher angenommen. Die Stoßrichtung verlaufe vielmehr genau umgekehrt: »Das Volk von Saba gelangte zuerst

in das äthiopische Tigre und betrat den Jemen über das Rote Meer.«[48]

Des weiteren argumentierte Pirenne, daß die ursprüngliche Heimat der Sabaner im Nordwesten Arabiens gelegen habe, daß aber viele von ihnen in zwei aufeinanderfolgenden Emigrationsschüben nach Äthiopien gegangen waren: die ersten um 690 vor Christus und auf der Flucht vor dem assyrischen Eindringling Sanherib, andere um 590 vor Christus, als Nebukadnezar das Land eroberte.

Was meine Aufmerksamkeit erregte und mich schließlich davon überzeugte, daß ich auf der richtigen Fährte war, war ihre Analyse einer Sabanischen Inschrift, die auf das sechste Jahrhundert vor Christus datiert werden konnte. Ein Linguist namens Schneider hatte den Text übersetzt. Es handelte sich um das Loblied auf einen sabanischen Monarchen, der sich selbst als »edlen Kriegerkönig« beschrieb und prahlte, er habe in dem von ihm im Norden und Westen Äthiopiens errichteten Reich »über Da'mat, die Sabaner und über die BRs, die Weißen und die Schwarzen« regiert.[49] Wer waren die »BRs« fragte sich Pirenne?

»Schneider bietet keine Interpretation an, aber der Begriff >Abirus<, den schon alte assyrische Inschriften belegen, kann durchaus mit >Hebräer< gleichgesetzt werden. Es ist wahrscheinlich, daß die Hebräer zur selben Zeit auswanderten und vor dem selben Nebukadnezar flohen, wie die zweite Auswanderungswelle der Sabaner. Die Identifikation der BRs als Hebräer erklärt die Existenz der Falaschen - schwarz, aber jüdisch. Sie waren die Nachkommen jener Hebräer, die mit den Sabanern nach Äthiopien kamen.«[50]

Die Autorin ließ allerdings eine Möglichkeit außer acht: Die »BRs« (tatsächlich eine Standardschreibweise für »Hebräer« in den frühen, nur aus Konsonanten bestehenden Alphabeten) konnten auch vor jenem sabanischen Einfall nach Äthiopien gekommen sein. Da die Inschrift, die sie erwähnte, aus dem sechsten Jahrhundert vor Christus stammte, hatte sie einfach die Schlußfolgerung gezogen, daß sie in jenem Jahrhundert ausgewandert sein mußten. Auf der Grundlage meiner eigenen Re-

cherchen konnte ich aber mit einiger Sicherheit annehmen, daß die »BRs«, über die die Sabaner die Oberherrschaft beanspruchten, sehr wohl schon eine ganze Weile vorher in Äthiopien gewesen sein konnten und daß sich ihre Anzahl mit der Ankunft weiterer kleiner Gruppen hebräischer Einwanderer immer deutlicher vergrößert hatte.

Der letzte Punkt war zwar noch immer bloße Theorie, aber Jacqueline Pirenne hatte mich mit ihren Verweisen auf konkrete Anhaltspunkte für die Existenz eines »BRs« genannten Volkes im Äthiopien des sechsten vorchristlichen Jahrhunderts ein gutes Stück vorangebracht. Von mir aus sollten die Wissenschaftler bis in alle Ewigkeit weiter darüber debattieren, wer diese »BRs« wirklich waren; für mich gab es keinen Zweifel mehr:

- Es waren Hebräer, die sich zu diesem frühen Zeitpunkt noch nicht mit den eingeborenen Agaw vermischt, aber sich unter ihnen niedergelassen hatten;
- sie beteten einen Gott namens YHWH an;
- wenn also die Bundeslade im fünften Jahrhundert vor Christus von Elephantine nach Äthiopien gebracht worden war, so konnte dies nur mit Bedacht geschehen sein, denn in der Tana-Region herrschten optimale kulturelle und religiöse Bedingungen, die dem heiligen Schrein einen angemessenen Ruheplatz garantierten.

Es blieb mir nicht mehr viel zu tun. In einer langen und aufwendigen Untersuchung der historischen Gegebenheiten hatte ich mich davon zu überzeugen versucht, daß der äthiopische Anspruch, die Lade zu besitzen, wirklich begründet war. Das war mir gelungen.

Bisher war letztlich alles relativ einfach gewesen. Wenn ich aber die Reise nach Aksum wirklich antreten wollte, dann brachte ich mich in Gefahr für Leib und Leben; und der Gedanke, mich in die Hände der TPLF zu begeben, löste ein tiefes Unbehagen in mir aus. Und doch, es war nicht zu übersehen: So vieles sprach dafür, daß sich die Lade in Aksum befand, daß ich bereit war, mich dem letzten Abschnitt meiner Suche mit Haut und Haaren zu widmen - der Reise in die heilige Stadt der

Äthiopier - und alle Risiken, Gefahren und Schwierigkeiten auf mich zu nehmen, die sie mit sich bringen würde.

Ich wußte, daß ich, ganz gleich was andere Wissenschaftler denken mochten, am Ende eines langen Weges angekommen war und die letzte Herausforderung nicht mehr umgehen konnte. Es mag ein Gemeinplatz sein - vielleicht der älteste überhaupt -, aber es kam mir so vor, als sei es nicht so wichtig, ob ich die Lade tatsächlich finden würde, sondern vielmehr, daß ich soviel Charakterstärke aufbrachte, um den Versuch zu unternehmen.

Zu Beginn des neuen Jahres würde ich meine Reise antreten müssen; das feierliche »Timkat«-Fest und der Januar 1991 rückten immer näher.

TEIL VI: DAS WÜSTE LAND

Kapitel 17

Unter Rebellen

Während meiner Reisen nach Israel und Ägypten war der Bürgerkrieg in Äthiopien mit unverminderter Heftigkeit weitergegangen, und mittlerweile bestand kein Zweifel mehr daran, daß ich mich in die Hände der TPLF begeben mußte, wenn ich nach Aksum gelangen wollte. Ich wußte, daß sie im Verlauf der letzten Jahre viele Ausländer nach Äthiopien gebracht hatten, ohne daß jemandem etwas zugestoßen wäre. Aufgrund meiner langjährigen und intensiven Kontakte zum Mengistu-Regime war ich mir allerdings nicht sicher, ob man mich mit der gleichen Sorgfalt behandeln würde.

Mit einem unguten Gefühl unternahm ich im November 1990 einen ersten Vorstoß beim Londoner Büro der TPLF. Die Reaktion auf meine erste Anfrage war eher kühl. Ja, sie wüßten, wer ich sei. Ja, sie seien überrascht, daß ich nach Aksum reisen wolle. Aber nein, sie hätten nichts gegen meinen Plan.

Es gab aber ein Problem. Ich brauchte ein Visum für den Sudan, damit ich überhaupt nach Khartum fliegen konnte, sowie eine Reiseerlaubnis für das Inland, um die Hunderte von Kilometern zwischen Khartum und der Grenze zu Tigre durchqueren zu können. Gegen Ende des Jahres 1990 war es für britische Staatsbürger allerdings nicht so einfach, Visa oder Reisegenehmigungen zu erhalten. Es war bereits abzusehen, daß es am Persischen Golf zu einem größeren Konflikt kommen würde, und der Sudan hatte sich auf die Seite des Irak geschlagen. Unnötig zu erwähnen, daß Briten in Khartum also nicht gerade willkommen waren.

Zwar konnte die TPLF diesen Bann aufheben, wie man mir erklärte, und ihren Einfluß geltend machen, aber natürlich sparten sie sich ihre Mühe für diejenigen auf, die ihnen freundlich gesinnt waren und ihre Sache aktiv unterstützten. Ich war weder

ein Freund, noch schien ich ihnen etwas bieten zu können, und so mußte ich mich also selbst mit der sudanesischen Botschaft in London auseinandersetzen. Wenn ich erfolgreich sei, so versprach mir der TPLF-Vertreter, und bis in die Grenzstadt Kassala gelangte, würde mich die Rebellenorganisation über die Grenze bringen und mir erlauben, nach Aksum zu reisen.

Meine Bemühungen schlugen jedoch völlig fehl. Als Schriftsteller mußte ich meinen Visumantrag bei einem gewissen Dr. Abdel Wahab El Affendi einreichen, der mir sehr höflich erklärte, ich solle die Hoffnung lieber gleich aufgeben. In Anbetracht des gegenwärtigen politischen Klimas bestünde nicht die geringste Chance für eine Einreise in den Sudan. Und es sei kaum vorstellbar, daß man mir gestatten würde, auf dem Landwege von Khartum nach Kassala zu reisen.

»Und wenn die TPLF meinen Antrag unterstützt, sind die Chancen dann besser?« fragte ich.

»Sicher. Tut sie das denn?«

»Nun ..., eigentlich nicht. Es gibt da andere Prioritäten ...«

»Also, da haben Sie's«, seufzte Dr. Affendi mit rechthaberischer Miene. »Sie verschwenden Ihre Zeit.«

Ich versuchte es noch einmal: »Würden Sie meinen Antrag trotzdem nach Khartum weiterleiten?«

Dr. Affendi lächelte breit und drehte in einer beredten Geste der Entschuldigung beide Handflächen nach oben: »Das werde ich sehr gerne tun, aber ich versichere Ihnen, daß Sie nichts davon haben werden.«

In den nächsten Wochen hielt ich telefonisch Kontakt mit Dr. Affendi. Er hatte keine Neuigkeiten für mich. Für den 19. November hatte ich ein zweites Treffen mit dem Büro der TPLF vereinbart, und dieses Mal traf ich Tewolde Gebru, den Missionschef. Während der Unterredung hatte ich das Gefühl, einem Inquisitor gegenüberzusitzen, der herausfinden wollte, ob man mir trauen könnte, oder ob ich nicht vielleicht einen militärischen Auftrag für das Regime in Addis Abeba ausführen wollte.

Mir war schon klar, daß meine sogenannte »Suche« nach der Bundeslade für die TPLF durchaus wie das Alibi eines Spions

aussehen konnte. Deshalb war ich keineswegs sicher, ob ich mich freuen oder alarmiert sein sollte, als mir Tewolde am Ende unserer Unterhaltung sagte, er werde das Büro der Volksbefreiungsfront in Khartum bitten, meine Anträge auf Visum und Reiseerlaubnis zu unterstützen.

Ein Handel

Drei Wochen lang hörte ich weder von der TPLF noch von der sudanesischen Botschaft. Mir wurde langsam klar, daß ich etwas unternehmen mußte, um die Sachen zu beschleunigen.

Ich hatte auch schon eine Idee. Offensichtlich wurde parallel zum Bodenkrieg in Äthiopien ein massiver Propagandafeldzug geführt, in dessen Verlauf das Regime die TPLF beschuldigt hatte, Kirchen zu plündern und niederzubrennen. So kam ich auf den Gedanken, mich der Kooperation der Rebellen möglicherweise dadurch zu versichern, daß ich ihnen einen Fernsehbericht über Religionsfreiheit in dem von ihnen verwalteten Tigre in Aussicht stellte - einen Bericht, in dem ihnen Gelegenheit gegeben würde, die gegen sie erhobenen Anschuldigungen zurückzuweisen.

Ich selbst würde den Bericht allerdings nicht machen oder moderieren; nach so vielen Jahren der Zusammenarbeit mit der Regierung in Addis Abeba wäre es wenig glaubhaft gewesen, plötzlich aufzustehen und die TPLF zu unterstützen. Ich dachte vielmehr an einen alten Freund und früheren BBC-Produzenten namens Edward Milner, der seit einigen Jahren als freier Journalist arbeitete und gerade aus Kolumbien zurückgekehrt war, wo er einen Bericht für den britischen Sender Channel 4 gedreht hatte. Vielleicht war er daran interessiert, für denselben Sender einen Film über Tigre zu machen.

Am 10. Dezember rief ich Tewolde Gebru an und fragte ihn, ob es irgendeinen Fortschritt in meiner Angelegenheit gegeben habe.

»Überhaupt keinen«, erwiderte er. »Unsere Leute im Sudan

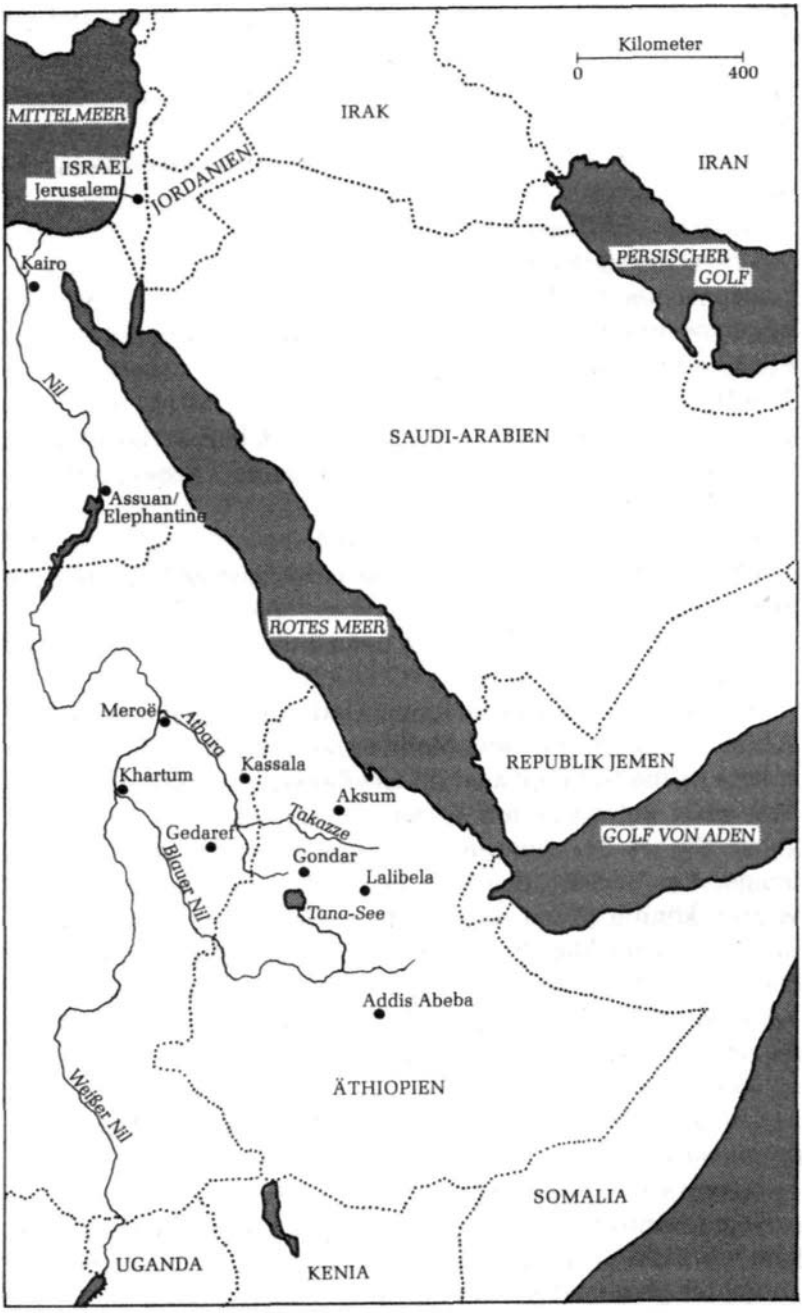
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Takazze
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Gondar
Blauer Nil
Lalibela
Tana-See
Addis Abeba
ÄTHIOPIEN
Weißer Nil
SOMALIA
UGANDA
KENIA

sind sehr beschäftigt, und Ihr Fall ist, um ehrlich zu sein, eigentlich eher nebensächlich.«

»Würde es etwas ändern, wenn ich Ihnen einen Fernsehbericht anbiete?«

»Das kommt darauf an, worüber.«

»Über die Religionsfreiheit in Tigre und über die Beziehungen zwischen der TPLF und der Kirche. Sie mögen den Bodenkrieg gewinnen, aber es kommt mir so vor, als verlören sie den Propagandakrieg ...«

»Wie kommen Sie darauf?«

»Ich gebe Ihnen ein Beispiel. Sie sind vor kurzem beschuldigt worden, Kirchen zu plündern und niederzubrennen, richtig?«

»Ja.«

»Was Ihnen vermutlich geschadet hat...«

»Nun, es hat uns sogar sehr geschadet, sowohl beim Volk als auch international.«

»Und treffen diese Vorwürfe denn zu?«

»Nein, überhaupt nicht.«

»Trotzdem stehen sie im Raum. Und wenn jemand den Dreck schon verschleudert, dann bleibt er meist auch fest haften.« Ich spielte meinen Trumpf aus. »Es ist offensichtlich, daß das Ganze Teil einer gut geplanten Verleumdungsaktion der Regierung gegen Sie ist. Sie müssen etwas tun gegen Ihr antiklerikales Image. Ein Bericht, der hier in Großbritannien ausgestrahlt würde, könnte Ihnen dabei sehr helfen. Wenn wir >Timkat< filmen, würden die Prozessionen und die ganze Atmosphäre zeigen, daß die TPLF nicht gegen die Kirche ist und daß sie die Verantwortung für die kostbarste Reliquie der letzten drei Jahrtausende auf sich genommen hat.«

»Sie könnten recht haben.«

»Also soll ich versuchen, einen solchen Fernsehbericht zu organisieren?«

»Das wäre eine gute Idee.«

»Und wenn es mir gelingt, glauben Sie, daß es Ihnen möglich sein wird, die Visa und Reisegenehmigungen zu besorgen?«

»Ja. Ich glaube, das kann ich Ihnen garantieren.«

Die elfte Stunde

Gleich nach dem Gespräch mit Tewolde rief ich Edward Milner an, erklärte ihm die Situation und fragte ihn, ob er daran interessiert wäre, die Tigre-Geschichte Channel 4 anzubieten.

Er war daran interessiert, und zwei Tage später hatte er bereits eine schriftliche Zusage des Senders, die wir zusammen mit Eds Paßdaten an die TPLF faxten. Nachdrücklich verwiesen wir darauf, daß wir spätestens am Mittwoch, dem 9. Januar 1991 nach Tigre aufbrechen müßten, um rechtzeitig zu »Timkat« in Aksum zu sein.

Zwei weitere Wochen vergingen, und noch immer hatten wir keine Nachricht von der TPLF. Die Visa waren, obwohl nun mit Nachdruck angefordert, einfach nicht durchgekommen. »Melden Sie sich gleich nach Neujahr noch einmal«, riet Tewolde.

Am Spätnachmittag des 4. Januar 1991 rief er mich an. »Sie können aufbrechen«, teilte er mit. »Alles ist vorbereitet.«

Kapitel 18

Das Geheimnis hinter Gittern

Ed Milner und ich gingen von Bord des KLM-Airbus und traten in die feuchte Luft der afrikanischen Nacht hinaus. Wir waren noch nicht im Besitz unserer Visa; anhand der Nummern, die uns die TPLF in London gegeben hatte, sollte der Einwanderungsbeamte nun die Vermerke in unseren Pässen eintragen, während wir das Gepäck abholten.

Ed ist ein absoluter Fernsehprofi, ein echter Ein-Mann-Betrieb, der ganz allein produziert, Regie führt, filmt und den Ton macht. Sein ganzer Name lautet John Edward Douglas Milner, so daß wir natürlich die Ohren spitzten, als wir in der Ankunftshalle des Flughafens die Lautsprecheransage hörten: »John Edward, John Edward, John Edward ... Mr. John Edward möchte bitte sofort ins Einwanderungsbüro kommen.«

Ed verschwand. Eine halbe Stunde später hatte ich unser Gepäck und meinen korrekt abgestempelten Paß wieder. Eine weitere halbe Stunde verging, dann eine Stunde, dann anderthalb Stunden. Es war weit nach Mitternacht und der Flughafen so gut wie ausgestorben, als Ed wieder auftauchte - verwirrt, aber vergnügt. »Aus irgendeinem Grund«, erklärte er mir, »steht der Name John Edward auf der polizeilichen Fahndungsliste. Ich habe versucht, ihnen klarzumachen, daß ich John Edward Milner bin, aber sie kapieren es einfach nicht. Sie haben meinen Paß einbehalten, ich muß morgen wieder herkommen, um ihn abzuholen.«

Die TPLF hatte einen Wagen zum Flughafen geschickt, der uns abholen sollte. Der Fahrer raste durch die verlassenen Straßen von Khartum, mußte aber alle paar Minuten vor Straßensperren anhalten, wo sein Passierschein von schwerbewaffneten Soldaten überprüft wurde.

Ich war schon früher im Sudan gewesen; zwischen 1981 und

1986 habe ich das Land regelmäßig besucht. Mir fiel sofort auf, daß sich seitdem viel verändert hatte. Zunächst einmal machten die Straßenkontrollen klar, daß die Sperrstunden offenbar mittlerweile streng eingehalten werden mußten. Früher wäre das unvorstellbar gewesen. Die gesamte Atmosphäre war anders, obwohl ich nicht genau sagen konnte, woran das lag. Die geschwärzten Gebäude, die mit Abfall übersäten Gassen und die Rudel streunender Hunde hatten etwas Unheimliches. Khartum war immer chaotisch, aber heute Nacht wirkte es häßlich und bedrohlich.

Endlich erreichten wir einen letzten Kontrollpunkt, unser Fahrer mußte noch einmal sein Laissez-passer vorzeigen, und gleich darauf fuhren wir vor dem hell erleuchteten Khartum-Hilton vor. Ich freute mich schon sehr auf zwei oder vielleicht drei doppelte Wodkas, Tonic und einen Kübel mit Eis. Als ich aber später versuchte, die Bestellung beim Zimmerservice aufzugeben, wurde ich schmerzlich daran erinnert, daß im Sudan seit Mitte der achtziger Jahre die islamischen Gesetze galten: kein Alkohol!

Am nächsten Morgen nahmen Ed und ich ein Taxi zu den Büros der TPLF, um den Fortgang unserer Reise in die Wege zu leiten. Irgend jemand hatte unsere Namen mit Kreide auf eine Tafel gekritzelt; aber mehr als das schien niemandem bekannt zu sein. Es erwies sich zudem als unmöglich, Haile Kiros zu kontaktieren, den Chef der TPLF in Khartum: Anscheinend war das gesamte Telefonnetz der Stadt just an diesem Morgen zusammengebrochen.

Der halbe Tag verging, und es gab noch immer nichts Neues. Wir beschlossen, daß ich hierbleiben sollte, um auf Haile Kirkos zu warten, während Ed mit dem Taxi zum Flughafen fahren würde, um seinen Paß wiederzubekommen. Es verstrichen zwei Stunden, Ed kam nicht zurück, und von dem TPLF-Vertreter war keine Spur zu sehen. Niemand schien auch nur das geringste Interesse an mir oder meinen Reiseplänen zu haben.

Ich sah auf die Uhr. Es war schon nach eins. In weniger als einer Stunde würden alle Büros in Khartum für diesen Tag

schließen, vermutlich auch das der TPLF. Und morgen, am Freitag, war der islamische Sonntag. Damit war klar, daß vor Samstag nicht mehr viel passieren würde.

Und wo war Ed? Vielleicht war er gleich zum Hilton zurückgefahren. Ich versuchte, im Hotel anzurufen, aber ich kam natürlich nicht durch. Mit wachsendem Unmut schrieb ich eine Nachricht für Haile Kirkos mit meiner Zimmernummer und der Bitte, Kontakt mit mir aufzunehmen. Dann verließ ich das Büro und machte mich auf die Suche nach einem Taxi.

Zuerst fuhr ich zum Hilton, aber da war Ed auch nicht. Dann fuhr ich zur TPLF zurück; man konnte ja nicht wissen. Kein Ed. Nun bat ich meinen Fahrer, mich zum Flughafen zu bringen, wo ich schließlich erfuhr, daß mein Kollege festgehalten und gerade von der Polizei verhört wurde.

Ob ich hineingehen und ihn sehen könnte?

Nein.

Ob man mir wohl erklären könnte, was vorgefallen sei?

Nein.

Wann würde er wohl wieder herauskommen?

»Heute, morgen, vielleicht am Samstag«, erklärte mir der ein wenig Englisch sprechende Geschäftsmann, der mir freundlicherweise geholfen hatte. »Niemand weiß es. Niemand wird etwas sagen. Es ist die Nationale Sicherheitspolizei, die ihn zurückhält. Sehr schlechte Männer. Unmöglich für Sie, etwas zu tun.«

Inzwischen war ich ernstlich besorgt und eilte zum Informationsschalter des Flughafens, der erstaunlicherweise geöffnet war. Dort erhielt ich - nicht ohne Schwierigkeiten - die Telefonnummer der Britischen Botschaft und fand ein öffentliches Telefon, das sogar funktionierte. Aber leider antwortete am anderen Ende niemand. Zwei Minuten später saß ich wieder in meinem Taxi. Der Fahrer wußte nicht, wo die Botschaft lag, obwohl er zunächst das Gegenteil behauptet hatte. Nach über einer Stunde war ich endlich am Ziel.

Den Rest des Nachmittags verbrachte ich mit zwei britischen Diplomaten, die ich im Botschaftsclub beim Genuß bestimmter

verbotener Flüssigkeiten angetroffen hatte. Die Beamten waren genauso erfolglos wie ich, als sie herauszufinden versuchten, warum - oder auch nur wo - Ed zurückgehalten wurde. Die Situation verkomplizierte sich zudem dadurch, daß Jassir Arafat, der Chef der PLO, gerade in einem lybischen Jet angekommen war, um mit dem Militärdiktator des Sudan, General Omar el-Bashir, über die Golfkrise zu beraten. Bis zu den Zähnen bewaffnete Soldaten streiften umher, ließen ihren patriotischen, antiwestlichen Gefühlen freien Lauf und machten das Leben für jedermann sehr unangenehm. Meine beiden Diplomaten waren nicht gerade bester Laune. »Alle britischen Staatsbürger sind davor gewarnt worden, in dieses verdammte Land zu kommen«, erinnerte mich einer von ihnen mit anklagendem Ton. »Jetzt verstehen Sie vielleicht warum.«

Gegen neun Uhr abends wurde ich, ohne Ed, im Hilton abgesetzt. Dann, kurz nach zehn, tauchte er zu meiner großen Erleichterung in der Lobby auf. Er sah ein bißchen finster und müde aus, aber sonst nicht weiter mitgenommen. »Sie haben Fingerabdrücke gemacht«, erklärte er und hielt seine von schwarzer Tinte gefärbten Hände hoch. Dann versuchte er - ohne Erfolg - einen großen Gin-Tonic zu bestellen. Schließlich gab er sich ohne allzuviel Murren mit einem warmen, alkoholfreien Bier zufrieden.

Es stellte sich heraus, daß Ed nicht von der gefürchteten Nationalen Sicherheitspolizei verhört worden war, sondern von der sudanesischen Abteilung von Interpol. Anscheinend war der Name »John Edward« einer der vielen Decknamen eines international gesuchten Drogenhändlers. Eds Schicksal schien besiegelt, als der Untersuchungsbeamte das Visum für Kolumbien, die Kokain-Zentrale der Welt, in seinem Paß entdeckte. Die fehlende Ähnlichkeit mit dem von Interpol gedrahteten Foto des Gesuchten beeindruckte die sudanesischen Beamten nicht im geringsten. Glücklicherweise hatte man auch dessen Fingerabdrücke mitgeschickt, und spät abends war jemand auf die glänzende Idee gekommen, sie mit denen von Ed zu vergleichen. Seine Freilassung war unmittelbar danach erfolgt.

Auf dem Weg nach Aksum

Am nächsten Nachmittag tauchte Haile Kiros im Hilton auf, und wir erzählten ihm die ganze Geschichte. Obwohl alles einigermaßen besorgniserregend ausgesehen hatte, konnten wir im Rückblick alle drei herzlich über die Verwicklungen lachen. Dann besprachen wir das weitere Vorgehen für unsere Reise nach Aksum.

Am Samstagmorgen stieß ein weiterer TPLF-Vertreter zu uns, von dem ich nie mehr als den Namen Hagos erfuhr. Er erklärte uns, daß er den Auftrag habe, uns nach Aksum zu begleiten und nach Beendigung unserer Arbeiten auch wieder nach Khartum zurückzubringen. Vorher würde er uns bei den Reisevorbereitungen und beim Anmieten eines Fahrzeugs behilflich sein. Bis Mittag waren wir mit dem Papierkram fertig, und am frühen Abend hatten wir den Handel mit einem eritreischen Geschäftsmann perfekt gemacht, der im Sudan lebte und uns für zweihundert US-Dollar pro Tag einen robusten Geländewagen samt einem noch robusteren Fahrer und sechs zusätzlichen Benzinkanistern vermietete.

Wir verließen Khartum im Morgengrauen des nächsten Tages. Es war Sonntag, der 13.Januar. Unser Ziel war die Grenzstadt Kassala, wo sich noch am Abend desselben Tages eine von der TPLF zusammengestellte Lastwagenkolonne mit Hilfsgütern auf den Weg über die Grenze machen würde. Wir wollten uns dem Konvoi anschließen und so weit wie möglich mit ihm fahren. »Es ist sicherer, in einem großen Verband zu reisen«, erklärte Hagos, »für den Fall, daß etwas schiefgeht.«

Kassala

Am frühen Nachmittag überquerten wir den schlammigen Flußlauf des Atbara nahe bei seinem Zusammenfluß mit dem Takazze, und mir wurde fast schockartig klar, wie schnell und erbarmungslos die Riesenentfernung, die mich einmal von Ak-

sum getrennt hatte, zusammenschrumpfte. Nun kam es mir fast wie ein Wunder vor, daß ich hier war und meinen Blick auf jene Flüsse richtete, deren Verlauf die flüchtenden Israeliten gefolgt waren, als sie die Bundeslade nach Äthiopien brachten.

Kurz nach drei erreichten wir Kassala, das sich um eine Dattelpalmenoase erstreckt und von einem merkwürdigen Granitauswuchs dominiert wird, der sich fast achthundert Meter über die Ebene erhebt. Dieser rote und verwitterte Hügel, so isoliert er auch schien, war in Wahrheit nichts anderes als der erste Vorbote des äthiopischen Hochlands. Das Bewußtsein, daß die Grenze nun nur noch wenige Kilometer entfernt lag, versetzte mich in einen Zustand der Erregung.

Hagos dirigierte unseren Fahrer zu einem kleinen flachgedeckten Haus in den Außenbezirken der Stadt. »Sie müssen hierbleiben«, erklärte er uns, »bis es an der Zeit ist, über die Grenze zu gehen. Die sudanesischen Behörden sind im Augenblick ein bißchen unberechenbar. Deshalb ist es besser, wenn Sie nicht auffallen. Bleiben Sie im Haus, dann kann es keine Probleme geben.«

»Wer wohnt hier?« wollte ich wissen.

»Das Haus gehört der TPLF«, erwiderte Hagos kurz und führte uns in einen sauberen Innenhof, um den herum einige Zimmer angeordnet waren. »Ruhen Sie sich aus, schlafen Sie ein bißchen, wenn Sie können. Es wird eine lange Nacht.«

Über die Grenze

Zwei Stunden später wurden wir zu einem riesigen Gelände gebracht, das offensichtlich als Müllabladeplatz eines nahegelegenen Schlachthauses diente. Schwärme von Schmeißfliegen schwirrten zwischen den faulenden Knochen und modrigen Fleischresten herum. Im Hintergrund ging die Sonne in einem surrealen Spektakel von Magentarot und Orange unter, so daß die ganze Collage wie eine existentialistische Vision vom Untergang allen Lebens wirkte.

»Wo genau sind wir?« fragte ich Hagos.

»Oh ..., hier versammeln sich die Kolonnen, bevor sie die Grenze überqueren«, erklärte er. »Wir warten ungefähr eine halbe, vielleicht auch eine ganze Stunde. Dann geht es los.«

Ed verließ den Wagen und ging mit Stativ und Videokamera davon, um einen guten Standort zu finden, von dem aus er die ankommenden Lkw filmen konnte. Sein Bericht würde sich nicht ausschließlich mit religiösen Fragen beschäftigen, sondern auch mit der in Tigre drohenden Hungersnot. Während er seine Vorbereitungen traf, wanderte ich gedankenvoll umher, verscheuchte die Fliegen und hielt Ausschau nach einem Platz, wo ich mich hinsetzen und meine Tagesnotizen fertigschreiben konnte. Die Leichenhaus-Atmosphäre hatte mich allerdings ziemlich aus der Fassung gebracht; zudem war die Sonne nun fast untergegangen, und es war kühl geworden. Nach der nachmittäglichen Hitze pfiff nun ein schneidender Wind durch die verfallenen Gebäude, die um den Platz herumstanden.

Und dann hörte ich das Gerumpel näherkommender Fahrzeuge, begleitet vom Krachen der Gangschaltungen. Bald nahmen die Mammutumrisse von vielleicht zwanzig Mercedes-Lkw Gestalt an. Als sie an mir vorbeirollten, konnte ich erkennen, daß jeder von ihnen mit Hunderten von Getreidesäcken so schwer beladen war, daß die Federungen durchhingen und die gesamte Karosserie ächzte. In der Mitte des Platzes hielten die Laster und warteten auf weitere Transporter. Bald war die Abendluft von Staubwolken und dem Dröhnen der Motoren erfüllt. Und dann, wie auf ein Signal, setzte sich der Konvoi in Bewegung.

Ich rannte zu unserem Geländewagen zurück, wo Ed gerade mit Hagos' Hilfe seine Kameraausrüstung verstaute. Dann sprangen wir alle in den Wagen und folgten den Schlußlichtern der Laster. Bald hatten wir etwa ein Dutzend Lastwagen überholt; und unser Fahrer Tesfaye, der offensichtlich seine Rolle als Rallyepilot genoß, brachte uns endgültig auf eine Position in der Mitte der Kolonne. Um uns herum bewirkte der von den Wagen aufgewirbelte Staub und Sand eine wilde und bewegte Unruhe,

die die Sicht zuweilen auf wenige Meter beschränkte. Ich strengte meine Augen an, um durch das Fenster etwas von der vorbeirasenden Nacht zu erkennen, und dachte dabei: Genau hier will ich sein, genau das will ich tun.

Kurz vor sieben erreichten wir die Grenze inmitten der öden Ebene und hielten an einem sudanesischen Kontrollpunkt an, der aus einer Ansammlung von Lehmhütten bestand. Aus der Dunkelheit erschienen ein paar Uniformierte mit Sturmlaternen und begannen mit der Kontrolle der Pässe und Papiere. Einer nach dem anderen wurden die Lastwagen vor uns durchgewinkt.

Als wir an der Reihe waren, wurde Hagos von einem Beamten aus dem Wagen befohlen. Er stellte ihm viele Fragen und gestikulierte häufig zur Rückbank, wo Ed und ich unser Bestes taten, um so unauffällig wie möglich auszusehen. Im Licht der Scheinwerfer wurden unsere Pässe gründlich untersucht. Dann verlor der Beamte plötzlich das Interesse an uns und ging davon, um den nächsten Laster abzufertigen. Hagos stieg wieder ein und knallte die Tür zu.

»Irgendwelche Probleme?« fragte ich nervös.

»Nein, gar keine«, gab der TPLF-Mann zurück. Er drehte sich um und lächelte mich breit an. »Keine Sorge. Sie werden Ed nicht schon wieder verhaften. Alles in Ordnung. Wir können losfahren.«

Tesfaye löste die Handbremse und ließ den Motor an. Dann fuhren wir über die Grenze nach Äthiopien hinein. Unser Weg würde uns zunächst durch ein von der Eritreischen Volksbefreiungsfront kontrolliertes Gebiet führen. Diese Guerillabewegung ist älter als die TPLF; seit über dreißig Jahren kämpft sie für die Unabhängigkeit Eritreas und war jetzt, im Jahre 1991, näher an ihrem Ziel als jemals zuvor.

Ich fragte Hagos nach den Beziehungen zwischen den beiden Rebellengruppen. »Wir arbeiten eng zusammen«, erklärte er. »Aber die EPLF arbeitet auf die Gründung eines unabhängigen eritreischen Staates hin, während die TPLF keine Trennung beabsichtigt, sondern nur die Wahl einer demokratischen Regierung in Äthiopien ermöglichen will.«

»Und zu diesem Zweck müssen sie Mengistu stürzen?«

»Sicher. Er und seine Arbeiterpartei sind die Haupthindernisse für unser Land auf dem Weg in die Freiheit.«

Wir fuhren ungefähr eine halbe Stunde weiter und sahen währenddessen nichts vom Rest der Kolonne. Dann tauchten vor uns plötzlich Lichter auf, und wir hielten zwischen den geparkten Lastern in einem von Hügeln gesäumten Tal an.

»Warum halten wir?« wollte ich wissen.

»Wir warten auf die Wagen hinter uns. Außerdem stoßen ein paar TPLF-Kämpfer zum Schutz des Konvois zu uns.«

Hagos stieg aus und verschwand; Ed schnappte sich Kamera und Lampe und folgte ihm. Auch ich wollte mich ein wenig umsehen, trat in die samtige Kühle der Nacht, stand eine Weile beim Auto und sah zum Himmel. Die Sterne und der zunehmende Mond verbreiteten einen schwachen Glanz, so daß ich die Umrisse der nächsten Laster gerade erkennen konnte. Langsam gewöhnten sich meine Augen an die Dunkelheit, und ich bekam mehr und mehr von dem mit, was um mich herum vorging. Gruppen von wild und räuberisch aussehenden Männern standen beisammen oder kauerten auf dem Boden, während sie leise miteinander sprachen. Im Sudan waren keine Waffen zu sehen gewesen. Nun aber schien jeder mit einem automatischen Gewehr ausgerüstet.

Vorsichtig ging ich an den geparkten Lastern vorbei und traf nach wenigen Augenblicken auf Hagos, der mit einigen TPLF-Kämpfern in Tarnanzügen sprach. Er begrüßte mich und stellte mich den anderen vor. Bei einem der Laster, die nach uns kamen, war ein Reifen geplatzt, und man hatte entschieden, daß die Kolonne zusammenbleiben sollte. Nach einer kurzen Pause setzten wir uns wieder in Bewegung.

Dann - ich glaube nicht, daß es später als elf Uhr abends war - hielten wir ein weiteres Mal an. Alle Fahrzeuge schalteten die Motoren ab und löschten die Scheinwerfer.

»Heute Nacht geht es nicht weiter«, verkündete Hagos nach kurzem Schweigen.

»Warum nicht?« fragte ich.

»In der Nähe ist ein Unterschlupf, wo wir den morgigen Tag verbringen müssen. Der nächste sichere Ort ist zu weit weg, um ihn vor Sonnenaufgang zu erreichen.«

Und mit diesen Worten schlief der TPLF-Mann mit seinem AK 47 im Arm ein.

Frühstück in Tessenei

Auch ich schlief - mit den Füßen aus dem offenen Seitenfenster des Geländewagens herausgestreckt allerdings nicht besonders gut... Nach ein paar Stunden unruhiger Träume und rastloser Unbequemlichkeit schreckte ich vom Lärm anspringender Motoren und dem Gestank der Dieselabgase wieder auf.

Wir fuhren nicht weit. Nach weniger als einem Kilometer erreichten wir ein Dickicht mit hohen, dichtbelaubten Bäumen, unter dem die ganze Kolonne sich versteckte. Erstaunt beobachtete ich, wie Zeltplanen über alle Fahrzeuge ausgebreitet wurden. »Damit die Wagen nicht das Sonnenlicht reflektieren«, erklärte Hagos. »Aus der Luft sind wir fast unsichtbar, wenn nicht irgendein glänzendes Metall die Aufmerksamkeit der MIGs erregt.« Während der Tarnarbeiten war die Sonne aufgegangen, und im fahlen Morgenlicht konnte ich die ausgebrannten Gehäuse von drei Mercedes-Lastern erkennen. »Die sind vor ein paar Wochen getroffen worden«, erzählte Hagos. »Das war Pech.« Dann brach er einen belaubten Zweig von einem Baum und ging auf die sandige Ebene hinaus. Dort half er Tesfaye und einigen der anderen Fahrer, die zu unserem Dickicht führenden Reifenspuren zu verwischen.

Gegen acht war alles fertig, und Hagos schlug vor, in die nahegelegene eritreische Stadt Tessenei zu laufen.

»Wie weit ist das?« fragte ich.

»Nicht weit. Eine halbe Stunde etwa. Es dürfte eigentlich sicher genug sein. Die MIGs interessieren sich vor allem für wichtige Ziele wie Lkw. Normalerweise schießen sie nicht auf kleine Menschengruppen im Freien.«

»Und die Stadt selbst?«

»Manchmal greifen sie Städte an, wenn sie Fahrzeuge oder größere Menschenansammlungen sehen. Tessenei ist ein paarmal bombardiert worden.«

Der Spaziergang war angenehm. Wir folgten einem Trampelpfad durch dichtes Gestrüpp, bis wir auf das felsübersäte Tal stießen, in dem Tessenei lag. Nicht ein einziges Auto fuhr in den zumeist ungepflasterten Straßen, aber überall waren Menschen: spielende Kinder, eine alte Frau, die einen schwerbepackten Esel führte, drei hübsche Teenager, die ihre Gesichter bedeckten und kichernd vor uns Reißaus nahmen - und viele bewaffnete Männer, die uns sämtlich mit einem freundlichen Lächeln begrüßten.

Die Stadt war, ehrlich gesagt, ein einziges Chaos. Viele der ärmlichen, flachgedeckten Häuser wiesen Spuren von Straßenkämpfen auf: gähnende Löcher in den Wänden, vom Maschinengewehrfeuer zerfetzte Fassaden, eingestürztes Mauerwerk. Rechts vor uns befand sich das völlig ausgebrannte Krankenhaus. Wohin wir auch gingen, traten wir auf zahllose Patronenhülsen, die einen glitzernden, klirrenden Teppich bildeten.

»Was ist hier passiert?«

»Vor ein paar Jahren, als die Regierung den Krieg zu gewinnen schien, war Tessenei einer der letzten Stützpunkte der EPLF. Zwar hat die äthiopische Armee die Stadt mehrmals eingenommen, aber die EPLF bekam sie jedesmal zurück. Es gab viele schwere Kämpfe, sehr brutal, sehr blutig. Aber jetzt ist die Front weit weg, und es ist friedlich hier - mit Ausnahme der Bombenangriffe.«

Hagos führte uns in ein kleines Hotel mit vielleicht zwanzig Zimmern, die sich um einen ungepflasterten Hof gruppierten. Unter einem Sonnensegel aus Tarnnetzen saßen einige Eritreer plaudernd und kaffeetrinkend an Tischen. Eine Kellnerin eilte geschäftig umher, und ein verführerischer Essensgeruch erfüllte die Luft. Die Szene erinnerte an die entspannte Atmosphäre eines Straßencafes und stand in bemerkenswertem Gegensatz zu den Zerstörungen, die wir gerade gesehen hatten. Als

hätte er meine Gedanken gelesen, sagte Hagos: »Sie besitzen nicht viel, aber wenigstens sind sie jetzt frei. Und die Lebensbedingungen werden täglich besser.«

Der Beweis dafür erschien bald: ein Frühstück aus gebratenenen Eiern und einem Sechserpack holländischen Bieres.

»Woher zum Teufel kommt das?« stotterte ich, als ich meine erste Dose aufmachte.

»Es gibt Bier in Eritrea, seitdem die EPLF letztes Jahr den Hafen von Massawa wiedererobert hat«, erklärte Hagos mit einem Lächeln. Er öffnete sich selbst eine Dose und nahm einen tiefen Schluck; dann fügte er hinzu: »Nach Khartum ist das ein großer Luxus, nicht wahr?«

Wir brachten den größten Teil des Morgens damit herum, Bier zu trinken und mit der halben Bevölkerung von Tessenei zu plaudern, die inzwischen ins Hotel gekommen war, um die Fremden zu sehen. Mittags stellten wir Eds Kurzwellenradio an und lauschten den besorgniserregenden Nachrichten vom Persischen Golf. Es war inzwischen Montag, der 14. Januar, und die von der UN gesetzte Frist zum Abzug irakischer Truppen aus dem besetzten Kuwait würde einen Tag später um Mitternacht ablaufen.

Dann schliefen wir ein paar Stunden, wachten gegen vier Uhr nachmittags auf und gingen zur Kolonne zurück, die um sechs wieder aufbrechen sollte.

Schüsse in der Nacht

Die Fahrt schien kein Ende nehmen zu wollen. Als wir Tessenei verließen, war es bereits dunkel. Tesfaye manövrierte uns an seinen Lieblingsplatz in der Mitte des Konvois, und dann begann die lange, staubige und anstrengende Fahrt durch das äthiopische Vorgebirge hinauf in das westliche Hochland.

Gegen ein Uhr morgens hielten wir an, um den Tank aus den Ersatzkanistern wieder zu füllen. Währenddessen stieg ich steif und verkrampft aus dem Wagen und beobachtete die Laster,

die mit blendenden Scheinwerfern und zischenden Luftdruckbremsen einer nach dem anderen an uns vorbeidonnerten. Dann waren auch wir wieder unterwegs, rumpelten durch die Schlaglöcher und versuchten, den Anschluß an die Kolonne zu finden.

Ich merkte bald, daß wir zunehmend stärkere Steigungen zu nehmen hatten und uns durch Haarnadelkurven aufwärtswanden, die oft frei über dem leeren Raum zu schweben schienen. Irgendwann in den letzten Stunden waren wir auch schon über die Grenze von Eritrea nach Tigre gekommen.

Erschöpft und von Kopf bis Fuß grau vom feinen, pudrigen Straßenstaub, erreichten wir kurz vor Morgengrauen eine kleine Stadt, die noch völlig im Schlaf versunken schien.

Hagos hämmerte erbarmungslos gegen eine verschlossene Tür, bis sie schließlich geöffnet wurde. Wir luden Eds Kameraausrüstung und anderes Gepäck ab, das wir tagsüber vielleicht brauchen würden, und betraten das Haus, während Tesfaye den Geländewagen irgendwohin fuhr. Wir befanden uns in einem halb offenen, halb geschlossenen Hof, in dem Menschen auf improvisierten Betten schliefen. Einige waren zum Glück unbesetzt, und schnell nahmen Ed, Hagos und ich drei davon in Beschlag. Ich wickelte mich in ein Laken, schloß die Augen und schlief auf der Stelle ein.

Als ich ein paar Stunden später bei vollem Tageslicht wieder erwachte, waren meine Gefährten verschwunden, und ein Dutzend Tigreer saß herum und starrte mich mit unverhohlener Neugier an. Ich sagte guten Morgen, erhob mich so würdevoll wie nur möglich, wusch mir das Gesicht an einem Wasserrinnsal und setzte mich hin, um meine Notizen zu vervollständigen.

Ed und Hagos kehrten schon bald zurück. Sie hatten die Verteilung der von den Lastwagen mitgebrachten Lebensmittel gefilmt.

Von Hagos wollte ich wissen, wo wir waren. »Das ist Cherero«, antwortete er. »Eine wichtige Stadt in diesem Teil von Tigre. Außerdem ist es das Ziel der Kolonne. Alle Laster sind hier entladen worden.«

»Wie weit ist es noch bis Aksum?«

»Noch eine Nachtfahrt. Aber es ist zu unsicher, allein weiterzufahren. Wir müssen warten, bis eine andere Kolonne zusammengestellt wird.«

Ich sah auf die Datumsanzeige meiner Uhr. Es war Donnerstag, der 15. Januar - nur noch drei Tage bis »Timkat«.

»Glauben Sie, daß wir lange warten müssen?«

»Vielleicht zwei, drei Tage. Vielleicht haben wir aber auch Glück und können heute nacht schon fahren.«

»Warum sagen Sie, es sei nicht sicher genug, allein weiterzufahren?«

»Weil die Regierung von ihrer Garnison in Asmara aus Saboteure nach Tigre schickt, kleine Einsatztrupps, die Fahrzeuge auf den Straßen überfallen sollen. Ein Geländewagen wie unserer mit nur ein paar Mann drin wäre ein gutes Ziel für so einen Hinterhalt.«

»Was ist mit den Kolonnen? Werden sie nicht auch überfallen?«

»Nein, so gut wie nie. Zu viele Laster. Zu viele Bewaffnete.«

Der Tag verging nur langsam; es war heiß, langweilig und stickig. Am Abend teilte uns Hagos, der mehrere Stunden fort gewesen war, mit, es werde in dieser Nacht kein Konvoi losfahren. »Ich schlage vor, daß wir bis morgen hierbleiben.« Als er den entsetzten Ausdruck auf unseren Gesichtern sah, fügte er hinzu: »Aber natürlich ist das Ihre Entscheidung.«

Ed und ich hatten die Angelegenheit am Nachmittag lange diskutiert und waren zu einem Entschluß gekommen. Also erklärten wir dem TPLF-Mann, daß wir lieber weiterfahren würden, außer wenn er es für total verrückt hielte.

»Nein. Es ist schon in Ordnung. Mir ist schon klar, daß sie vor >Timkat< nach Aksum kommen wollen. Die Gefahr ist nicht übertrieben groß. Aber ich will mal sehen, ob wir einen anderen TPLF-Kämpfer mitnehmen können, für den Fall, daß wir doch in Schwierigkeiten geraten.«

In der Dämmerung fuhren wir los. Auf dem Vordersitz neben Hagos saß der Soldat, den er uns versprochen hatte - ein junger Mann mit einer extravaganten Afro-Frisur, einem AK47 und

drei oder vier Magazinen mit Ersatzmunition. Er war ein vergnügter Bursche, der viel lachte und darauf bestand, das Radiogerät des Geländewagens auf voller Lautstärke mit tigreischen Kriegsliedern laufen zu lassen.

Ich war überrascht, wie anders es war, so allein zu reisen, ohne die Sicherheit der dröhnenden Laster vor und hinter uns. Da war ich mir vorgekommen wie ein Teil einer wunderbaren und unbesiegbaren Armee, die erbarmungslos die Hindernisse der Dunkelheit überwand und die Schatten mit starken Scheinwerfern verjagte. Jetzt waren wir klein, verwundbar, verloren. Mehrere Stunden fuhren wir bergauf, der Motor arbeitete hart, und die Außentemperatur sank beständig. Dann erreichten wir eine Paßhöhe, die von bewaffneten Männern kontrolliert wurde.

Ich murmelte einen Fluch, aber Hagos beruhigte mich: »Nur keine Aufregung. Hier ist ein TPLF-Lager, das die Straße bewacht. Das hier sind unsere Leute.« Er stieg aus und schüttelte den Rebellen, die nun den Geländewagen umringten, die Hände. Dann wurden wir durch die improvisierte Barriere gewinkt und erreichten Minuten später eine windige Hochebene, wo zwischen einigen Holzhütten Lagerfeuer flackerten. Dort machten wir eine halbe Stunde Pause, und dann ging es weiter durch die einsame Nacht.

Die Zeit verging. Ich döste und kam erst wieder zu mir, als wir am Rande eines weitläufigen Tals entlangfuhren: zu unserer Linken die steinigen Berge, zu unserer Rechten ein steil abfallender Abgrund, von dem uns nur der ausgezackte Rand der Straße trennte. Dann schnellte aus der tintenschwarzen Tiefe des Abgrunds eine Leuchtrakete auf uns zu, ein Flecken reiner Energie, der einen geisterhaften, leuchtenden Schwanz hinter sich herzog. Im Bruchteil einer Sekunde hatte die flammende Erscheinung uns erreicht. Sie sauste quer über unseren Weg, erwischte um ein Haar die Windschutzscheibe und erlosch dann an der Böschung.

Tesfaye hatte sofort auf die Bremse getreten und alle Lichter des Wagens gelöscht. Fast im gleichen Moment sprang Hagos mit dem jungen Kämpfer aus dem Wagen und eilte zum Rand

des Abgrunds, das AK47 schußbereit in der Hand. Die beiden Männer wirkten geschmeidig und gefährlich, schienen sich in völligem Einklang miteinander zu bewegen, als ob sie ein Manöver ausführten, für das sie lange trainiert hatten.

»Was um Himmels willen geht hier vor?« fragte Ed, der durch das abrupte Bremsen des Autos geweckt worden war.

»Ich weiß es nicht genau«, erwiderte ich, »aber ich glaube, es ist auf uns geschossen worden.«

Ich wollte gerade vorschlagen, aus dem Wagen zu steigen, als Hagos und sein Gefährte zurückgerannt kamen. Sie kletterten auf den Vordersitz, knallten die Tür hinter sich zu und befahlen Tesfaye, weiterzufahren.

»Ich nehme an, daß das ein Leuchtspurgeschoß war«, bemerkte ich wenig später.

»Ja«, antwortete Hagos kurz. »Irgend jemand im Tal hat ein paarmal auf uns geschossen.«

»Aber da war doch nur eins?«

»Nein, nein. Wir haben nur eins gesehen. Es müssen ein paar Schüsse auf uns abgefeuert worden sein. Normalerweise lädt man ein oder zwei Schüsse Leuchtspurmunition an den Anfang des Magazins, damit der Schütze sein Ziel wirklich findet. Danach kommen gewöhnliche Gewehrkugeln.«

»Wie reizend«, bemerkte Ed.

Mir war eine andere Frage in den Sinn gekommen: »Warum haben sie nicht weitergeschossen? Wir waren doch ideale Zielscheiben da oben.«

»Zu gefährlich für sie. Sie haben uns mit der ersten Salve verfehlt und waren zu weit weg, deshalb war es klüger, den Angriff einzustellen. Es gibt hier in der Gegend zu viele TPLF-Verbände. Bei einem längeren Schußwechsel hätten die Saboteure nur Aufmerksamkeit erregt.«

»Oh ..., ich verstehe.« Müde lehnte ich den Kopf an das Seitenfenster und dachte darüber nach, wie leicht einem das Leben von einer unvernünftigen Kugel geraubt werden konnte und wie zerbrechlich wir unter unserer Maske von Prahlerei und Hochmut waren.

Gegen drei Uhr morgens, als wir endlich eine geschotterte Straße erreichten und Tempo zulegen konnten, fuhren wir an einem Feld vorbei, auf dem ein Panzerwrack lag. Der Turm war aus der Verankerung gerissen worden, und der Geschützlauf hing wie betrunken herunter. Dann sah ich rechts, gebadet im Schimmer der Sterne, die plumpen Ruinen eines alten Gebäudes.

»Wir kommen nach Aksum«, sagte Hagos, der meine Aufregung bemerkt hatte. »Wir sind gerade am Palast der Königin von Saba vorbeigefahren.«

Ein paar Minuten später sahen wir die ersten Gebäude der kleinen Stadt und hielten schließlich vor einer mit Wein und tropischen Blumen bewachsenen Hausmauer an. Während die anderen ans Tor klopften, entfernte ich mich unbemerkt ein Stück vom Geländewagen, fiel auf die Knie und küßte den Boden.

Ich wußte, das war eine sentimentale Geste. Aber irgendwie fühlte es sich richtig an.

Taktische Überlegungen

Am nächsten Morgen weckte mich heller Sonnenschein, der durch die vorhanglosen Fenster meines Zimmers strahlte. Als wir angekommen waren, lag noch alles in tiefer Dunkelheit, denn in Aksum gab es keinen Strom. Als ich jetzt nach draußen ging, sah ich, daß wir in einem angenehmen kleinen Gästehaus wohnten, das um einen grünen Rasenfleck herum gebaut war. Ich schlenderte hinüber zur Terrasse, wo einige Stühle standen. In einer Ecke kochte Wasser auf einem Herd, den man aus einem großen Ölkanister gebastelt hatte. Nebenan in der Küche putzten zwei Frauen Gemüse. Ich wurde mit einem freundlichen Lächeln begrüßt und erhielt eine Tasse süßen, aromatisierten Tee. Dann setzte ich mich hin und sammelte meine Gedanken, während ich auf die anderen wartete. Hier in Aksum würden in zwei Tagen die »Timkat«-Zeremonien beginnen, und ich mußte vorher noch eine Strategie ausarbeiten.

Es widerstrebte mir merkwürdigerweise, geradewegs zur Marienkirche und zum Heiligtum zu marschieren. Es war eigentümlich: Jetzt war ich von so weit her gekommen, aber diese letzten Schritte waren die schwersten von allen. Meine Zurückhaltung resultierte aus natürlicher Schüchternheit, aber auch aus abergläubischer Furcht; und zum Teil hatte ich das Gefühl, daß ein zu früher Besuch in der Kirche die Priester von meiner Anwesenheit in Kenntnis setzen und sie hindern würde, die echte Bundeslade in den »Timkat«-Prozessionen mitzuführen. Ich mußte mich also bis zum Beginn der Zeremonien zurückhalten. Dann aber würde ich hoffentlich - vielleicht während der wilden Tänze - die Gelegenheit finden, so nahe an den Schrein heranzukommen, daß ich ihn genau betrachten konnte.

Es gab aber ein Argument gegen diese Vorgehensweise. Seit meiner Unterredung mit Raphael Hadane in Jerusalem war mir bewußt, daß die echte Lade möglicherweise nie in der Prozession mitgetragen wurde, sondern daß man eine Kopfe benutzte, während die echte Lade in der Sicherheit der Kapelle blieb. Wenn das so war, dann war es besser, mich so früh wie möglich den Priestern von Aksum vorzustellen. Ich gewann nichts, wenn ich wartete, und hatte durch Offenheit nichts zu verlieren. Im Gegenteil, nur eine längere Unterredung mit den Geistlichen gab mir die Möglichkeit, sie davon zu überzeugen, daß ich keine Bedrohung darstellte, daß ich aufrichtig und würdig war, vor den heiligen Schrein zu treten.

Kurz darauf kam Ed aus seinem Zimmer und hielt das Kurzwellenradio ans Ohr. Heute war Mittwoch, der 16. Januar 1991. In der vergangenen Nacht war das UN-Ultimatum für den Irak ausgelaufen. Ich fragte ihn, ob der Dritte Weltkrieg ausgebrochen sei.

»Eigentlich nicht. Die Frist ist verstrichen, aber es gibt überhaupt keine Berichte von Kämpfen. Wie wär's mit Tee? Oder Kaffee? Kaffee wäre gut. Und etwas zu essen. Gibt es hier so etwas?«

Dann erschien auch Hagos. Offenbar war er schon in der Stadt gewesen, denn er hatte einen ehrwürdigen alten Burschen

in langen Gewändern im Schlepptau. »Das ist mein Vater«, erklärte der TPLF-Mann und stellte uns höflich vor. »Er ist Priester in Sankt Maria auf Zion. Ich habe ihm von Ihrem Interesse an der Bundeslade erzählt, und er sagte, er würde Sie gerne kennenlernen.«

Eine Ehre und eine Bürde

Natürlich hatte ich mehrmals auf unserer langen Reise von Khartum mit Hagos über meine Suche gesprochen. Schon vor unserem Aufbruch wußte ich, daß er aus Aksum stammte, aber nie wäre mir der Gedanke gekommen, er könne Verbindungen zur Kirche haben, und schon gar nicht einen Vater, der Priester war. Wenn ich das gewußt hätte, wäre ich in meinen Äußerungen vielleicht vorsichtiger gewesen; aber vielleicht auch nicht. Hagos war mir von Angang an sympathisch, und ich hatte ihm nichts verschweigen wollen.

Natürlich war nun jeder Überraschungseffekt ausgeschlossen. Also beschloß ich, daß es keinen Sinn hatte, auf der Hut zu sein oder den Geheimnisvollen hinsichtlich meiner Absichten zu spielen. Viel besser war es, meine Karten offen auf den Tisch zu legen und die Folgen zu tragen, ob sie nun gut oder schlecht waren.

Ich unterhielt mich lange mit Hagos' Vater, den die Vorstellung, daß ein Fremder von so weit her gekommen war, um die Lade zu sehen, zu verblüffen schien.

»Und werde ich sie sehen?« fragte ich. »Während der >Timkat<-Feierlichkeiten? Wird die echte Lade benutzt oder eine Kopie?«

Hagos übersetzte meine Frage. Ein beredtes Schweigen trat ein, das der alte Mann schließlich brach: »Über diese Dinge darf ich nicht sprechen. Ich muß mit meinen Vorgesetzten sprechen.«

»Aber Sie kennen die Antwort, nicht wahr?«

»Ich darf darüber nicht reden. Das liegt nicht in meiner Verantwortung.«

»Wer ist dafür verantwortlich?«

»Zuerst müssen Sie den >Nebura-ed< kennenlernen, den ältesten Priester in Aksum. Ohne seinen Segen können Sie gar nichts tun. Wenn er seine Erlaubnis gibt, dann müssen Sie auch mit dem Hüter der Lade sprechen ...«

»Ich war schon einmal hier«, unterbrach ich ihn, »1983, und damals habe ich den Wächter kennengelernt. Wissen Sie, ob er noch lebt?«

»Leider ist er vor vier Jahren gestorben. Er war schon sehr alt. Er ernannte seinen Nachfolger, und der neue Mann ist jetzt an seiner Stelle.«

»Und ist er immer in der Kapelle, wo die Lade aufbewahrt wird?«

»Er hat eine schwere Bürde zu tragen, denn er darf die Lade niemals verlassen. Wissen Sie, daß sein Vorgänger, der, den sie kennengelernt haben, weglaufen wollte, als er ernannt wurde?«

»Nein«, entgegnete ich, »das habe ich nicht gewußt.«

»Ja. Er ist aus Aksum in die Berge geflohen. Man hat ihm Mönche nachgeschickt, die ihn wieder einfangen sollten. Als sie ihn zurückbrachten, wollte er noch immer flüchten. Er mußte einige Monate lang in der Kapelle angekettet werden, bevor er die Verantwortung auf sich nahm.«

»Angekettet, sagen Sie?«

»Ja. In der Kapelle angekettet.«

»Das überrascht mich.«

»Warum?«

»Weil es so klingt, als hätte er diese Aufgabe nie erfüllen wollen. Ich dachte, es sei eine Ehre, zum Hüter der Bundeslade ernannt zu werden.«

»Eine Ehre? Ja, sicher. Aber es ist auch eine schwere Last. Wenn er seine Aufgabe übernommen hat, lebt der auserwählte Mönch nur noch für die Lade. Er lebt nur, um ihr zu dienen, um Weihrauch für sie zu verbrennen, um unablässig vor ihr zu sein.«

»Und was wäre, wenn sie jemals aus der Kapelle geholt würde - an >Timkat< beispielsweise? Würde der Hüter mit ihr gehen?«

»Er muß immer in ihrer Nähe sein. Aber darüber sollten Sie mit anderen reden. Ich darf nicht...«

Ich stellte dem alten Mann noch einige Fragen über die Lade, aber ich bekam immer dieselbe Antwort: Das sei nicht seine Angelegenheit, er dürfe nichts sagen ... Er erzählte mir aber interessanterweise, daß kurz vor Einnahme der Stadt durch die TPLF Regierungsbeamte nach Aksum gekommen waren und versucht hatten, die Lade mitzunehmen.

Ich fragte: »Wie? Ich meine, was haben sie gemacht? Haben sie versucht, in die Kapelle einzudringen?«

»Nicht gleich. Sie versuchten uns davon zu überzeugen, daß sie die Lade nach Addis Abeba bringen müßten. Sie sagten, es stünden schlimme Kämpfe bevor, und dort sei sie sicherer.«

»Und was passierte dann?«

»Sie wurden aggressiv und drohten uns, aber wir leisteten Widerstand. Sie riefen Soldaten, aber wir leisteten Widerstand. Die ganze Stadt hörte, was sie vorhatten, und es gab Demonstrationen auf den Straßen. Schließlich kehrten sie mit leeren Händen nach Addis Abeba zurück. Kurz darauf wurde Aksum befreit, Gott sei Dank!«

Mir war natürlich klar, daß der Vater eines Guerillakämpfers wahrscheinlich auf Seiten der TPLF stand. Trotzdem fragte ich: »Hat sich seitdem die Lage für die Geistlichen verbessert, oder ist sie schlechter geworden?«

»Sie ist entschieden besser geworden. Tatsächlich ist die Situation, was die Kirche betrifft, sehr gut. Wir gehen zur Kirche, um zu beten, wann immer wir und soviel wir wollen, tagsüber, abends, nachts. Vorher, unter der Regierung, durften wir wegen der Sperrstunden nachts nicht in die Kirche gehen oder von der Kirche heimkehren. Wenn wir die Kirche verließen, und sei es nur, um frische Luft zu schöpfen, brachten sie uns ins Gefängnis. Aber jetzt brauchen wir keine Angst mehr zu haben. Wir schlafen sicher zuhause und gehen jeden Tag wie normale Leute in die Kirche und fühlen uns sicher dabei. Zur Zeit der Regierung waren wir beim Gottesdienst nie entspannt. Wir hatten immer Angst, weil wir nie wußten, was uns oder der

Kirche zustoßen würde. Jetzt praktizieren wir unseren Glauben in Frieden.«

Croix pattée

Schließlich ging Hagos' Vater mit dem Versprechen, ein Treffen mit dem »Nebura-ed«, dem Hauptpriester der Marienkirche, zu arrangieren. Er riet mir, vor diesem Treffen keinen Kontakt mit dem Hüter der Lade aufzunehmen: »Das könnte böses Blut geben. Man sollte die Dinge in der richtigen Reihenfolge angehen.«

Mir war klar, daß ich keine andere Wahl hatte. So beschloß ich, in der Zwischenzeit einige archäologisch interessante Orte, die ich 1983 nur kurz oder gar nicht gesehen hatte, zu untersuchen. Ich erinnerte mich daran, daß es in der Nähe der Steinbrüche, aus denen in vorchristlichen Zeiten die berühmten Granitstelen Aksums herausgehauen worden waren, die alte Felsskulptur einer Löwin geben sollte. Damals hatte ich sie nicht in Augenschein nehmen können, weil sie sich jenseits der militärisch kontrollierten Zone befand, aber jetzt war das möglich.

Ed ging mit einem anderen TPLF-Mann fort, um Aufnahmen für seinen Channel-4-Bericht zu machen, und ich überredete Hagos, mich im Geländewagen zu den Steinbrüchen zu begleiten. Als wir die Stadt verließen, passierten wir den sogenannten Palast der Königin von Saba, und bald kamen wir zu einem mit Felsen übersäten Hang. Wir stellten das Auto in einer Schlucht ab, verbargen es unter einer Tarndecke und begannen, über das Geröll hinaufzusteigen.

»Was glauben Sie, wie stehen meine Chancen, daß die Priester mich in die Kapelle lassen, um die Lade zu sehen?«

»Oh ..., das werden sie nicht zulassen«, erwiderte Hagos ohne zu zögern. »Ihre einzige Chance ist >Timkat<.«

»Aber glauben Sie, daß sie an >Timkat< wirklich die Bundeslade herausbringen?«

Ein Achselzucken. »Ich weiß es nicht. Als ich ein Kind war,

habe ich wie meine Freunde geglaubt, daß die echte Lade an >Timkat< in der Prozession mitgeführt wird, und keine Kopie. Wir haben das nie in Frage gestellt. Es war einfach kein Thema. Aber jetzt bin ich mir nicht mehr so sicher ...«

»Warum?«

»Es kommt mir unlogisch vor.«

Hagos ließ sich auf keine weiteren Diskussionen darüber ein, und die nächsten fünfzehn Minuten kletterten wir schweigend weiter. Dann zeigte er auf einen riesigen Felsblock. »Da ist Ihre Löwin«, sagte er.

Mir fiel auf, daß er seit ein paar Minuten leicht hinkte. »Was ist mit Ihrem Bein?« fragte ich. »Haben Sie es sich verstaucht?«

»Nein. Ich bin angeschossen worden.«

»Oh. Ich verstehe.«

»Das ist vor ein paar Jahren passiert, in einem Kampf mit Regierungstruppen. Die Kugel hat mein Schienbein durchschlagen und den Knochen zersplittert. Seitdem bin ich nicht mehr beweglich genug für den aktiven Dienst.«

Wir hatten den Felsblock inzwischen erreicht, und Hagos führte mich zu der Stelle, wo ich die gigantischen Umrisse einer angreifenden Löwin in Basrelief trotz der starken Verwitterungen deutlich erkennen konnte.

Auch der britische Reisende und Amateur-Archäologe Theodore Bent hatte bei seinem Besuch in Aksum im neunzehnten Jahrhundert diese Skulptur gesehen und sie später als »ein sehr lebendiges Kunstwerk« beschrieben. Die Bewegung sei wundervoll dargestellt, und die Linie der Hinterbeine beweise, daß der Künstler sein Handwerk vollkommen beherrscht habe. Bent fügte hinzu: »Wenige Zentimeter vor der Nase der Löwin befindet sich eine runde Scheibe mit Strahlen, die vermutlich die Sonne darstellen soll.«[1]

Ich untersuchte diese »runde Scheibe mit Strahlen«; sie bestand aus vier kreuzförmig angeordneten Ellipsen. Stellte man sich die eingeschnittenen Linien auf einem Ziffernblatt vor, dann würden die nach außen zeigenden Spitzen auf zwei, auf vier, auf acht und auf zehn Uhr zeigen. Bents Interpretation war also

zunächst nachvollziehbar. Auf den ersten Blick erinnerte die Figur tatsächlich an Strahlen oder Speichen, die von einer scheibenförmigen Mitte nach außen verliefen.

So war es aber nicht. Wenn er sich die Mühe gemacht hätte, die vollständige Form genau nachzuzeichnen, die vom Raum außerhalb der Ellipsen bestimmt wurde, hätte er herausgefunden, daß das Ganze nicht die Sonne darstellte, sondern ein Croix pattée mit Armen, die sich nach außen hin erweiterten. Mit anderen Worten: ein perfektes Templerkreuz.

»Hagos«, fragte ich und zeichnete mit dem Finger die Umrisse nach, »bilde ich mir etwas ein, oder ist das hier ein Kreuz?«

»Es ist ein Kreuz«, bestätigte er.

»Aber das sollte es gar nicht sein. Die Löwin ist eindeutig vorchristlich. Wie kommt da ein christliches Symbol hin?«

»Wer weiß? Vielleicht ist es später hinzugefügt worden. Es gibt noch andere Kreuze wie dieses hier in König Kalebs Palast.«

»Wenn es Ihnen nichts ausmacht«, sagte ich, »würde ich die gerne sehen.«

Engelswerk

Schon 1983 hatte ich den Palast König Kalebs besichtigt, und ich wußte, daß das Bauwerk aus dem sechsten Jahrhundert nach Christus, also aus der frühchristlichen Periode Aksums stammte. Ich erinnerte mich noch gut an die Festung mit ihren unterirdischen Kammern, aber nicht an irgendwelche Kreuze. Als wir jetzt in die Stadt zurückfuhren, konnte ich es kaum erwarten, den Palast erneut zu erforschen. Damals hatten mir die Templer noch nichts bedeutet, aber mittlerweile wußte ich, daß eine Abteilung der Ritter auf der Suche nach der Bundeslade zur Zeit König Lalibelas von Jerusalem nach Äthiopien gekommen sein konnte. Wahrscheinlich haben sie sogar privilegierten Zugang zu dem heiligen Schrein gehabt. Wenn mein Verdacht zutraf, dann war es nur anzunehmen, daß sie auch Spuren in Aksum hinterlassen hatten. Es war also durchaus möglich, daß dieses so

merkwürdig unpassende Croix pattée neben der Löwin von den Tempelrittern stammte.

Ich wußte genau, daß diese spezielle Kreuzform in Äthiopien nicht sehr verbreitet war. In all den Jahren war ich tatsächlich nur auf einen einzigen anderen Ort gestoßen, an dem es eines gab: im Innenraum der Felsenkirche von Beta Mariam in der Stadt Lalibela. Diese war wiederum die Hauptstadt eben jenes Königs, der meiner Ansicht nach die Templer überhaupt erst nach Äthiopien gebracht hatte. Und nun fand ich hier in den Außenbezirken von Aksum ein weiteres Croix pattée. Wenn Hagos recht hatte, würde ich in den Ruinen von König Kalebs Palast gleich noch mehr davon sehen - in einem Bauwerk, das im dreizehnten Jahrhundert durchaus noch intakt und bewohnt gewesen sein konnte.

Endlich erreichten wir den steilen Pfad, der zu dem Palast hinaufführte. Ich folgte Hagos in die Ruinen, wo er eine Weile suchte und schließlich triumphierend ausrief: »Hier! Hier drüben! Ich glaube, ich habe, was Sie sehen wollen.«

Ich stürzte zu ihm und sah einen flachen, sandfarbenen Stein, dessen Oberfläche etwa sechzig mal fünfzehn Zentimeter maß. Vier elliptische Löcher von genau derselben Art und Anordnung wie auf dem Fels neben der Löwin waren aus ihm herausgeschnitten worden. Hier jedoch konnte überhaupt kein Zweifel an der Form bestehen: Es war ein weiteres, vollkommenes Templerkreuz.

»Als ich ein Kind war«, dachte Hagos laut nach, »habe ich mit meinen Freunden oft hier oben gespielt. Damals lagen noch viele solcher Blöcke herum; sie müssen in der Zwischenzeit fortgebracht worden sein.«

»Wo sind die wohl hingekommen?«

»Die Leute aus der Stadt benutzen die Steine der Ruinen zum Bau oder zur Reparatur ihrer Häuser. Wir haben Glück, daß wir diesen einen noch gefunden haben ... Aber es gibt noch andere Kreuze in den Gewölben unter dem Palast.«

Wir gingen die vielen Treppenstufen hinunter in die dunklen Verliese. Hagos zündete Streichhölzer an und deutete auf ein

Templerkreuz, das in eine der steinernen Wandnischen hineingehauen worden war. Dann führte er mich in die nächste Kammer, wo er mir zwei weitere Kreuze zeigte: ein ziemlich grobes an der Stirnseite und ein anderes, sehr schön ausgeführtes auf der Längswand.

Ich blickte gedankenverloren auf die Kreuze, bis die Flamme des Streichholzes erlosch. Ich wußte, daß ich meine Thesen vielleicht niemals zur vollen Zufriedenheit von Archäologen oder Historikern würde beweisen können, aber ich selbst war nun völlig sicher, daß die Templer wirklich hier gewesen waren. Das Croix pattée war ihr Symbol; sie hatten es auf ihren Schilden und auf ihren Tuniken angebracht. Und es paßte zu allem anderen, was ich in den vergangenen Jahren über den Orden erfahren hatte.

»Gibt es irgendwelche Überlieferungen, die die Urheber dieser Kreuze betreffen?« fragte ich Hagos.

»Die Leute aus der Stadt sagen, sie seien das Werk von Engeln«, gab er zurück. »Aber das ist natürlich Unsinn.«

Schlechte Nachrichten

Erst nach Anbruch der Nacht hörte ich wieder etwas von Hagos' Vater. Kurz nach sieben kam er zu uns, um mir zu sagen, daß der »Nebura-ed« nicht in der Stadt sei.

In einer ersten Reaktion (die ich allerdings für mich behielt) überlegte ich, daß es ja wohl ziemlich unwahrscheinlich war, daß der Hauptpriester von Sankt Maria ausgerechnet vor »Timkat« die Stadt verlassen haben sollte. Ich war mir sicher, daß seine Anwesenheit in Aksum erforderlich war, wenn die Prozessionen vorbereitet wurden.

»So ein Pech«, sagte ich. »Wo ist er?«

»In Asmara ... zu Beratungen.«

»Aber Asmara ist doch in den Händen der Regierung. Wie kann er dorthingehen?«

»Der >Nebura-ed< kann überall hingehen.«

»Und wird er noch vor >Timkat< zurückkommen?«

»Ich habe gehört, daß er noch einige Tage wegbleiben wird. Sein Vertreter wird die >Timkat<-Feierlichkeiten für ihn leiten.«

»Und was bedeutet das jetzt für meine Arbeit? Kann ich denn mit dem Hüter der Lade sprechen? Ich habe so viele Fragen.«

»Ohne die Erlaubnis des >Nebura-ed< können Sie gar nichts tun.«

Hagos' Vater war ganz offensichtlich ein unschuldiger Bote, und so hatte ich kein Recht und auch keinen Grund, wütend auf ihn zu sein. Trotzdem glaubte ich zu erkennen, daß die Informationen, die er mir gerade überbracht hatte, Teil einer Strategie waren, die mich daran hindern sollte, mehr über die Lade zu erfahren. Die Mönche und Priester von Aksum mochten noch so freundlich und höflich zu mir sein; Tatsache war, daß sie mir ohne Einverständnis des »Nebura-ed« bei meiner Untersuchung nicht helfen würden. Leider war der »Nebura-ed« nicht da. Also konnte ich seine Einwilligung nicht erhalten. Folglich würde ich von niemandem irgend etwas Wichtiges erfahren. Die Geistlichen mußten gar nicht grob oder unhöflich sein; im Gegenteil, sie brauchten bloß die Achseln zu zucken und mir mit dem tiefsten Bedauern mitteilen, daß ohne die Einwilligung des Oberpriesters dieses oder jenes einfach nicht getan werden konnte und daß sie - in dieser oder jener Angelegenheit - nicht berechtigt waren zu sprechen.

»Besteht denn irgendeine Möglichkeit«, fragte ich, »dem >Nebura-ed< eine Nachricht zu schicken?«

Hagos' Vater lachte. »Während er in Asmara ist? Ausgeschlossen.«

»Also gut. Was ist mit seinem Stellvertreter? Kann er mir nicht die erforderliche Erlaubnis geben?«

»Das glaube ich nicht. Um das zu tun, müßte er erst die Erlaubnis des >Nebura-ed< einholen.«

»Mit anderen Worten, er müßte die Erlaubnis bekommen, mir eine Erlaubnis zu erteilen?«

»Genau.«

»Aber kann ich es nicht wenigstens versuchen? Kann ich den

Vertreter nicht wenigstens treffen, um ihm zu erklären, warum ich hier bin? Wer weiß? Vielleicht ist er bereit, mir zu helfen.« »Vielleicht«, sagte der alte Priester. »Ich werde auf jeden Fall heute abend mit ihm reden; morgen bringe ich Ihnen seine Antwort.«

Das Sanktuarium

Am nächsten Morgen, am Donnerstag, dem 17. Januar 1991, waren wir alle schon vor Morgengrauen auf. Wir hatten eine kurze Fahrt auf einen der umliegenden Hügel unternommen, weil Ed mit seiner Kamera Aufnahmen vom Sonnenaufgang einfangen wollte. Zum Frühstück waren wir aber wieder im Gästehaus zurück. Und da saßen wir bis in den Vormittag hinein, umgeben von ungewöhnlich sorgenvoll dreinblickenden Tigreern, die alle gekommen waren, um die aus Eds Radio krächzenden Nachrichten von den Kämpfen am Persischen Golf zu hören, die Hagos ihnen feierlich übersetzte. Ich sah mir ihre Gesichter an und war beeindruckt von diesem intensiven Interesse an einem fernen Krieg. Vielleicht lenkte er sie vom Konflikt im eigenen Land ab, der in dieser Stadt so viele Opfer gefordert hatte. Vielleicht spürten sie auch ein Mitgefühl für diejenigen, die nun wilde Bombardements über sich ergehen lassen mußten.

Gegen elf Uhr stand Eds Aufnahmeplan für den Tag fest, und Hagos und ich gingen in die Stadt zum »Park der Säulen«. Einmal kamen wir an einem TPLF-Graffito vorbei, das Präsident Mengistu als wütenden Dämon mit einem blutbefleckten Hakenkreuz auf der Mütze darstellte, aus dessen Mund Armeen marionettenhafter Soldaten herausmarschierten. Ein halbes Dutzend MIGs kreiste über seinem Kopf, und er war von Panzern und Artillerie umgeben. Der Text unter dieser schreckenerregenden Karikatur lautete: »Niemals werden wir vor dem Diktator Mengistu in die Knie gehen.«

Wir liefen weiter durch die schlaglochübersäten Straßen von Aksum, an armseligen Marktständen, leeren Geschäften und

einfachen Häusern vorbei. Ein unaufhörlicher Strom von Fußgängern war unterwegs: Bauern vom Lande, Leute aus der Stadt, Mönche und Nonnen, Straßenjungen, würdige Alte oder Gruppen von Teenagern, die so auszusehen versuchten wie Teenager auf der ganzen Welt.

»Hagos«, sagte ich, »alles ist so anders, seitdem Sie die Regierungstruppen aus der Stadt vertrieben haben. Ich kann es nicht genau beschreiben, aber die ganze Atmosphäre hat sich völlig verändert.«

»Das liegt daran, daß niemand mehr Angst hat«, antwortete er.

»Noch nicht einmal vor den Bomben und Luftangriffen?«

»Schon, davor haben wir natürlich Angst. Aber sie sind eher lästig als eine wirkliche Bedrohung, und wir haben auch Mittel und Wege gefunden, uns dagegen zu wehren. Früher, als die Regierung noch hier war, gab es keine Möglichkeit, den Grausamkeiten der Garnison, der Folter und den willkürlichen Verhaftungen zu entgehen. Das war der Terror, der uns so lange unterdrückt hat. Und dem haben wir uns irgendwann gestellt. Wissen Sie, die Freiheit war eigentlich immer in unserer Reichweite.«

Mittlerweile hatten wir den »Park der Säulen« erreicht. Als ich zwischen den großen Monolithen umherging, bewunderte ich die reine Kunst und Geschicklichkeit jener vergessenen Zivilisation, die sie erdacht hatte. Und mir fiel ein, daß der Wächter des Schreins mir 1983 erzählt hatte, sie seien von der Lade errichtet worden, »von der Lade und dem göttlichen Feuer«. Damals konnte ich die volle Bedeutung dieser Bemerkung noch nicht ermessen; inzwischen aber wußte ich sehr viel mehr und glaubte, daß er vielleicht die Wahrheit gesagt hatte.

Ein Wunder wird Wirklichkeit

Gegen vier Uhr nachmittags kam Hagos' Vater ins Gästehaus, um uns mitzuteilen, daß der stellvertretende Oberpriester bereit sei, uns zu treffen. Aus Gründen des Protokolls, so sagte er,

könne er uns nicht begleiten, aber er gab uns genaue Anweisungen, wohin wir gehen sollten.

Hagos und ich gingen sogleich zur Marienkirche. Die kleinen Behausungen der Mönche und Priester lagen im Hintergrund des großen, umzäunten Kirchplatzes. Wir gingen unter einem niedrigen Bogen durch und kamen zu einem Tor, klopften und wurden in den Garten eingelassen, wo auf einer Bank ein in schwarze Gewänder gehüllter älterer Mann saß.

Als er uns näherkommen sah, murmelte er einen leisen Befehl. Hagos drehte sich zu mir um und sagte: »Sie müssen hier stehenbleiben. Ich werde für Sie mit ihm sprechen.«

Es folgte eine ernste Unterhaltung. Ich beobachtete sie aus der Ferne und fühlte mich machtlos, gelähmt, vernichtet, wertlos. Ich überlegte mir, ob ich hinstürzen und meine Angelegenheit leidenschaftlich vortragen sollte. Aber ich wußte, daß meine Bitten, so sehr sie von Herzen kamen, auf Ohren stoßen würden, die nur den Rhythmus der Tradition verstehen konnten.

Schließlich kam Hagos zurück. »Ich habe ihm alles erzählt«, erklärte er. »Er sagt, daß er nicht mit Ihnen sprechen wird. Er sagt, daß in einer so wichtigen Angelegenheit wie dieser nur der >Nebura-ed< und der Wächter der Lade sprechen dürfen.«

»Und der >Nebura-ed< ist immer noch fort, nehme ich an?«

»Ja. Aber ich habe auch eine gute Nachricht. Der Stellvertreter hat erlaubt, daß Sie mit dem Hüter sprechen.«

Wir gingen durch ein Labyrinth staubiger Pfade an der Marienkirche vorbei bis zu dem Metallgitter, das die heilige Kapelle umgab. Ich stand eine Weile davor, starrte durch die Stäbe und berechnete, daß ich in ungefähr zehn Sekunden die geschlossene Tür des Gebäudes erreichte, wenn ich mich mit einem Schwung über den Zaun zog und losrannte. Halb im Scherz erwähnte ich diese Idee Hagos gegenüber, der mich daraufhin mit ungespieltem Entsetzen anstarrte.

»An so etwas sollten Sie gar nicht erst denken«, warnte er mich. Er wies in Richtung Marienkirche, wo ein halbes Dutzend junger Diakone in Sicht war. »Man bringt Ihnen Respekt entgegen, weil Sie ein Fremder sind. Aber wenn Sie ein solches

Sakrileg begingen, würden Sie ganz bestimmt umgebracht werden.«
»Was glauben Sie, wo der Wächter ist?« fragte ich jetzt.
»In der Kapelle. Er kommt zu uns, wenn er bereit ist.«
Geduldig warteten wir, bis die Sonne tief am Himmel stand. Erst als es schon ziemlich dunkel war, erschien der Wächter, ein großer, kräftig gebauter Mann, der um einiges jünger als sein Vorgänger sein mußte. Er machte keine Anstalten, uns hereinzubitten, aber er kam näher und schüttelte uns durch das Gitter die Hände.
Ich fragte nach seinem Namen.
Mit kehliger Stimme erwiderte er: »Gebra Mikail.«
»Bitte sagen Sie ihm«, wandte ich mich an Hagos, »daß ich Graham Hancock heiße und die letzten beiden Jahre mit dem Studium der Geschichte der Bundeslade und ihrer Überlieferungen verbracht habe. Bitte sagen Sie ihm, daß ich den weiten Weg von England gekommen bin, mehr als siebentausend Kilometer, in der Hoffnung, die Lade sehen zu dürfen.«

Hagos übermittelte die Botschaft. Als er fertiggesprochen hatte, sagte der Mönch: »Ich weiß. Das ist mir schon mitgeteilt worden.«
»Erlauben Sie mir, die Kapelle zu betreten?«
Hagos übersetzte die Frage. Eine lange Pause entstand. Dann kam die erwartete Antwort: »Nein, das kann ich nicht.«

»Aber«, protestierte ich lahm, »ich bin hergekommen, um die Lade zu sehen.«

»Es tut mir leid, daß Sie die Reise umsonst gemacht haben. Denn Sie werden sie nicht sehen. Das hätten Sie wissen müssen, wenn Sie, wie Sie sagen, unsere Überlieferungen studiert haben.«
»Ich habe es gewußt, aber ich habe trotzdem gehofft.«
»Viele hoffen. Aber außer mir darf niemand vor die heilige Lade treten. Nicht einmal der >Nebura-ed<. Nicht einmal der Patriarch. Es ist verboten.«

»Das ist eine große Enttäuschung für mich.«

»Es gibt Schlimmeres im Leben als Enttäuschung.«

Ich fragte: »Können Sie mir wenigstens sagen, wie die Lade aussieht? Ich glaube, ich könnte zufrieden weggehen, wenn Sie mir das sagen würden.«

»Mir scheint, die Lade ist in der Bibel gut beschrieben. Lesen Sie dort nach.«

»Aber ich möchte gern, daß Sie mir mit Ihren eigenen Worten erzählen, wie sie aussieht. Ich meine die Lade, die hier im Heiligtum steht. Ist sie eine Kiste aus Holz und Gold? Hat sie zwei geflügelte Gestalten auf dem Deckel?«

»Von solchen Dingen spreche ich nicht. ..«

»Und wie wird sie getragen?« fuhr ich fort. »Auf Tragestangen? Ist sie schwer oder leicht?«

»Ich habe doch gesagt, daß ich darüber nicht rede, und deshalb rede ich auch nicht.«

»In der Bibel heißt es, die Lade vollbringe viele Wunder«, beharrte ich. »Und vollbringt sie Wunder - auch hier in Aksum?«

»Sie vollbringt Wunder. Und sie ist selbst... ein Wunder. Sie ist ein Wunder, das Wirklichkeit geworden ist. Mehr sage ich nicht.«

Damit streckte der Hüter wieder seine Hand durch das Gitter und drückte die meine einen Augenblick lang fest, wie um für immer Abschied zu nehmen.

»Ich habe noch eine Frage«, flehte ich ihn an. »Eine einzige Frage noch.«

Ein schwaches, zustimmendes Nicken.

»Morgen abend«, fuhr ich fort, »beginnt >Timkat<. Wird dann die echte Lade für die Prozession herausgebracht oder eine Kopie?«

Der Wächter lauschte Hagos' Übersetzung mit unbewegten Gesichtszügen. Schließlich antwortete er: »Ich habe schon genug gesagt, >Timkat< ist eine öffentliche Zeremonie. Sie können daran teilnehmen und alles selber sehen. Wenn Sie den heiligen Schrein erforscht haben, wie Sie sagen, auch wenn es nur zwei Jahre waren, dann müßten Sie die Antwort auf ihre Frage eigentlich kennen.«

Und damit drehte er sich um und verschwand im Schatten.

Das Geheimnis hinter den Zeichen

Am Spätnachmittag des 18. Januar 1991 begannen die »Timkat«-Feierlichkeiten. Der Gegenstand, der zum großen Wasserbekken von Mai Shum getragen wurde, war ein gedrungener, rechteckiger Kasten, über den ein schwerer blauer, mit einer Taube bestickter Stoff drapiert war. Auch in Wolframs Parzival, fiel mir ein, war die Taube das Sinnbild für den Gral. Ohne auch nur den Anflug eines Zweifels erkannte ich aber, daß das, was ich hier sah, weder der Gral noch die Lade war.

Es war ein Sinnbild, ein Symbol - eine Erinnerung und ein Zeichen.

Raphael Hadane, der alte Falaschen-Priester, hatte es mir schon vor vielen Monaten angekündigt: Die heilige Reliquie blieb in der Kapelle, eifersüchtig bewacht im Allerheiligsten. Was die Menschen sahen, war nur eine Kopie, die sich jedoch erheblich von den vertrauten flachen »Tabots« unterschied, die ich letztes Jahr zu »Timkat« in Gondar gesehen hatte, und die wirklich mit der Form und den Abmessungen der biblischen Lade übereinstimmte.

Wie konnte ich so sicher sein, daß es sich um eine Replik handelte? Die Antwort war einfach. Gebra Mikail, ihr Hüter, verließ während der gesamten zweitägigen Feierlichkeiten nicht für einen einzigen Augenblick die Kapelle. Als die Prozession mit dem verhüllten Kasten am Spätnachmittag des 18. Januar aufbrach, sah ich ihn hinter den Eisenstäben sitzen. Er lehnte sich an die graue Granitwand des niedrigen Gebäudes und war offenbar tief in Gedanken versunken. Er blickte noch nicht einmal hoch, als die Priester das Sanktuarium verließen, und es war deutlich zu erkennen, daß der Gegenstand, den sie hoch über ihren Köpfen trugen, keine Bedeutung für ihn besaß.

Als sie fort waren, ging er in die Kapelle zurück. Kurz darauf hörte ich seinen langsamen und schwerfälligen Gang. Und ich weiß, daß ich, hätte ich näherkommen dürfen, den süßen Duft von Weihrauch gerochen hätte. Denn in der dichten Finsternis des Allerheiligsten brachte er dem Herrn vor der Bundeslade

ein Duftopfer dar. Und warum sollte er, der unter allen seinen Brüdern ausgewählt worden war, eine so besondere Aufgabe zu erfüllen, bis zum Morgen im Heiligtum eingeschlossen bleiben, wenn die heilige und unverletzliche Reliquie, für die er seine eigene Freiheit aufgegeben hatte, nicht mit ihm darin geblieben wäre?

So glaube ich schließlich, daß ich das Geheimnis hinter dem Symbol flüchtig zu sehen bekommen habe, das ruhmreiche Rätsel, das in so vielen wunderbaren Zeichen verkündet worden ist - verkündet und doch nie enthüllt. Denn die Äthiopier wissen, daß man einen Baum am besten in einem Wald versteckt. Und was sind die Repliken, die »Tabots« und Schreine, die in den zwanzigtausend Kirchen des Landes verehrt werden, anderes als ein großer Wald von Zeichen?

Im Herzen dieses Waldes ruht die goldene Lade, die am Fuße des Berges Sinai gebaut und durch die Wüste getragen wurde. Sie hat den Israeliten im Kampf um das Gelobte Land den Sieg gebracht, so daß König David sie nach Jerusalem bringen konnte, wo sein Sohn Salomo den ersten Tempel errichtete.

Gottesfürchtige Priester haben den Schrein von dort mitgenommen, um ihn vor der Entweihung durch den Sünder Manasse zu bewahren. Sie brachten die Lade weit weg in Sicherheit, auf die Insel Elephantine, wo man ihr einen neuen Tempel baute.

Als dieser Tempel zerstört wurde, nahm die Lade ihre ruhelose Wanderschaft wieder auf und kam nach Süden, nach Äthiopien, in das von Flügeln beschattete Land, in das von Flüssen durchzogene Reich. Von einer Insel wurde sie auf eine andere gebracht und so weiter bis auf das grüne Tana Kirkos, wo die Lade ihren Platz in einem einfachen Zelt fand und von einfachen Menschen angebetet wurde. Während der folgenden achthundert Jahre stand sie im Mittelpunkt eines ganz besonderen jüdischen Kultes, der von den Vorfahren der heutigen äthiopischen Juden praktiziert wurde.

Dann kamen die Christen, predigten eine neue Religion und brachten, nachdem sie den König bekehrt hatten, die Lade in

ihren Besitz. Sie überführten sie nach Aksum und stellten sie in die große Kirche, die der heiligen Maria, der Mutter Jesu Christi, geweiht ist.

Viele Jahre vergingen; und die Erinnerung daran, wie die Lade wirklich nach Äthiopien gelangt war, verlor sich. Nur die Tempelritter erkannten die welterschütternde Macht der Lade, verstanden die Zeichen und machten sich auf den Weg nach Äthiopien. Und auch Wolfram von Eschenbach hat der Faszination für den Mythos in seinem *Parzival* Ausdruck verliehen, wo der Heilige Gral nichts anderes ist als ein geheimer Verweis auf die Gesetzeslade.

In Wolframs Epos liest der Heide Flegetanis in den Sternen und verkündet ehrfürchtig, daß es wirklich »ein Ding gäbe, daß der Gral hieße«. Dieser vollkommene Gegenstand, so fügt Flegetanis hinzu, werde von einem christlichen, zum reinen Leben erzogenen Geschlecht gehütet. Und er schließt seine Prophezeiung mit den Worten: »Wer zum Gral berufen wird, besitzt höchste menschliche Würde.«

Und so verhält es sich auch mit den Menschen, die zur Lade gerufen werden. Denn Lade und Gral sind ein und dasselbe. Ich jedoch war niemals würdig genug. Ich wußte es schon, als ich das wüste Land durchquerte. Ich wußte es, als ich mich der Kapelle näherte. Ich weiß es immer noch. Und doch ..., »mein Herz ist froh, und meine Seele freut sich, und mein Fleisch soll die Hoffnung nicht aufgeben«.

»Datta. Dayadhvam. Damyata. Shanti shanti shanti.«

ANHANG

Anmerkungen

Kapitel 1

1 4.Mose 10,35. Vgl. auch Morgenstern 1928, S.118, und *The Interpreters Dictionary of the Bible*, S. 222 f. Soweit nicht anders angegeben, wird nach der Luther-Bibel von 1912 (Stuttgart 1982) zitiert.
2 2.Mose 37, 1. Vgl. auch Hertz, S.327.
3 2.Mose 37, 7-9.
4 1.Chronik 28, 2.
5 Vgl. Friedman, S.156.
6 Vgl. *The Interpreters Dictionary* of the Bible, S. 222.
7 Für eine englische Übersetzung siehe Huntingford.
8 Vgl. Jones/Monroe, S.32 f.
9 Für eine englische Übersetzung siehe McCrindle.
10 Vgl. Jones/Monroe, S.26f., und Hancock/Pankhurst/Willetts, S. 34 f.
11 Zu den Ausgrabungen vgl. Munro-Hay.
12 Vgl. *The Prester John of the Indies*, Bd.I, S. 151 ff.
13 Vgl. ebenda, Anm. 2.
14 Vgl. ebenda, S.145ff.

Kapitel 2

1 Artikel II der revidierten Verfassung von 1955.
2 Vgl. Wondemagegnehu/Motovu, S.48.
3 Vgl. ebenda, S.46.
4 Vgl. ebenda, S.152.

Kapitel 3

1 Siehe unter Kebra Nagast (Budge 1932).
2 Vgl. PhiIo-Lexikon,S.227.
3 Vgl. James, S.71.
4 Vgl. Miller I, S.13 und 18; vgl. auch Chartres. Guide of the Cathedral, S. 3.
5 Vgl. ebenda, S.53.
6 Kebra Nagast, S.17.
7 1.Könige 10, 1-13, und 2.Chronik **9**, 1-12.
8 Für eine Zusammenfassung vgl. Philby 1981.
9 l.Mose 14, 18, und Psalm 110, 4.
10 Vgl. Miller II, S.20.
11 Vgl. *Chartres. Guide of the Cathedral*, S.42.
12 Vgl. ebenda, S.40.
13 Charpentier, S.66.
14 *Chartres. Guide of the Cathedra!*, S.37.
15 Charpentier, S. 64.
16 Vgl. zum Beispiel Ranke-Graves, S.186.
17 Hebräer 7.
18 Vgl. Charpentier, S.109.
19 Malory, Bd.3, S.6 und 35.
20 Wolfram von Eschenbach, Bd.II, S.67.
21 Vgl. Anderson, Flavia, S.15.
22 Chrétien de Troyes, S. 59/60.
23 Ebenda, S. 60 und 61.
24 Ebenda, S.115.
25 Vgl. Jung/Franz, S. 124 f.
26 Vgl. Matthews, S.12.
27 Vgl. *Oxford Dictionary of the Christian Church*, S. 160f.
28 Vgl. Anderson, William, S. 65.
29 Vgl. Hufgard, S.143.
30 *Zur Queste del Saint Graal* siehe Kindler, Bd. 18, S. 7948 f. Vgl. auch Matthews, S.12.
31 Vgl. hierzu die Darstellung von Mergell. Vgl. auch *Encyclopaedia Britannica, Micropaedia*, Bd.V, S.408f.
32 Vgl. Matthews, S. 14ff.

33 Vgl. *Oxford Dictionary of the Christian Church*, S.813.
34 Vgl. Matthews, S.15.
35 Vgl. ebenda.
36 Vgl. Hufgard, S.141.
37 Vgl. *Oxford Dictionary of the Christian* Church, S.85.
38 Vgl. Adolf, S. 306.
39 Vgl. Weston, S.68ff.
40 Wolfram von Eschenbach, Bd. II, S.671.
41 Vgl. Richey, S.l0f. Vgl. auch *Encyclopaedia Britannica*, S.775.
42 Vgl. Adolf, S. 307.
43 Vgl. ebenda, S. 309.
44 Wolfram von Eschenbach, Bd. II, **S.91.**
45 Ebenda.
46 Richter 20, 27-28.
47 1.Samuel 3, 3 und 11.
48 1. Chronik 28, insbesondere Vers 19.
49 Wolfram von Eschenbach, Bd. II, S.81.
50 Vgl. Ginzberg, Bd.III, S.128f.
51 Wolfram von Eschenbach, Bd. II, S.41 und 43.
52 Vgl. *Jewish Encyclopaedia*, Bd. II, S.107. Vgl. auch Haran, S.246.
53 Vgl. Jung/Franz, S. 155, Anm.28.
54 Vgl. *Atlas of Mysterious Places,* S.74.
55 Vgl. ebenda.
56 Vgl. Morgenstern 1928, S.118.
57 Vgl. Röscher (hier zitiert nach Jung/Franz, S.155, Anm.28).
58 Wolfram von Eschenbach, Bd. II, **S.67.**
59 Vgl. z.B. Jung/Franz, S.156f. und 163 f.
60 Vgl. ebenda, S. 155. Vgl. auch Matthews, S.17.
61 Wolfram von Eschenbach, Bd. I, S.407.
62 Zitiert nach *Jewish Encyclopaedia*, Bd.II, S.105.
63 1.Könige 8, 12.
64 Vgl. Vilnay, Bd.I, S.11f.
65 Siehe zum Beispiel 2.Mose 40, 38.
66 Chrétien de Troyes, S.60.
67 Ebenda.
68 2.Mose 37, 1-2.
69 2.Mose 37, 6.
70 2.Mose 34, 29-30.
71 Wolfram von Eschenbach, Bd.I, S.401.
72 Ebenda.
73 Ebenda, Bd.I, S.403, und Bd.II, S.641.
74 Ebenda, Bd.II, S.65.
75 Ebenda, Bd.II, S.601.
76 1.Chronik 15, 2. Vgl. auch S.Mose 10,8**.**
77 Kebra Nagast, S.58.
78 Ebenda, siehe z.B. S.57, 59 oder 137.
79 Ebenda, S. 56.

Kapitel 4

1 Wolfram von Eschenbach, Bd.I, S. 31 ff., 35.
2 Vgl. ebenda, Bd.I, S.53.
3 Vgl. Philby, S. 58-60.
4 Wolfram von Eschenbach, Bd.I, S. 45.
5 Ebenda, S.41.
6 Ebenda, S. 79.
7 Ebenda, S. 97.
8 Ebenda.
9 Ebenda, S.95.
10 Ebenda, S. 159.
11 Ebenda, S.101.
12 Ebenda, S. 193.
13 Vgl. Kebra Nagast, S. 20f.
14 Vgl. ebenda, S. 21 ff.
15 Vgl. ebenda, S. 22.
16 Ebenda, S.61. »Herrin« oder auch »Zion« sind zwei der vielen Synonyme des Urtextes für die Bundeslade.
17 Vgl. Wolfram von Eschenbach, Nachwort, Bd.II, S.690.
18 Vgl. Adolf, S. 310.
19 Kebra Nagast, S.27.
20 Vgl. Littmann, S. 9.
21 Wolfram von Eschenbach, Bd.II, S.663.
22 Vgl. *The Prester John of the Indies*.
23 Wolfram von Eschenbach, Bd.II, S.663 f.
24 Vgl. Parshall, S.l.
25 Für dt./mhd. Ausgaben siehe im Literaturverzeichnis unter Albrecht von Scharfenberg
26 Vgl. Kindler, Bd. 12, S. 5061 f.

27 Vgl. ebenda.
28 Wolfram von Eschenbach, Bd. II, S.663.
29 Ebenda, S. 665.
30 Ebenda, S.541.
31 Ebenda, S. 555.
32 Vgl. Hable-Selassie, S.254f.
33 Vgl. ebenda.
34 Vgl. ebenda.
35 Vgl. ebenda.
36 Vgl. ebenda und *Encyclopaedia Britannica*, S.305.
37 Vgl. ebenda.
38 Vgl. Bidder, S.11.
39 Adolf, S. 306.
40 Vgl. Budge 1928, S.178.
41 Vgl. *Encyclopaedia Britannica*, S.306.
42 Siehe *The Prester John of the Indies*.
43 Vgl. ebenda, S. 5.
44 Vgl. ebenda, z.B. S.296.
45 Vgl. *Encyclopaedia Britannica*, S.306.
46 Vgl. ebenda, S. 304.
47 Vgl. ebenda, S.306.
48 Vgl. Buxton 1970, S.45.

Kapitel 5

1 Vgl. Jung/v. Franz, S. 13.
2 Wolfram von Eschenbach, Bd. II, S.41.
3 Ebenda, Bd.II, S.671.
4 Ebenda, Bd. II, S.43.
5 Ebenda, Bd.I.S. 707.
6 Vgl. Jung/v. Franz, S.158.
7 Ebenda.
8 Wolfram von Eschenbach, Bd. II, S.67.
9 Ebenda, Bd. II, S.73.
10 Ebenda, Bd.II, S. 66, Vers 28.
11 Vgl. z.B. Richey, S. 198 und 211.
12 Vgl. Charpentier, S.66.
13 Vgl. z.B. Delaforge, S.68.
14 Für eine Diskussion vgl. Bertau.
15 Vgl. Wilhelm von Tyrus, Bd.I, S.524f.
16 *Encyclopaedia Britannica*, S.539.
17 Vgl. Burman, S.21.
18 Vgl. Robinson, S.66.
19 *Encyclopaedia Britannica*, Micropaedia, Bd.III, S.133.
20 Vgl. Burman, S. 27.
21 Vgl. Robinson, S.66.
22 Vgl. Burman, S.21.
23 Vgl. Runciman, S.464f.
24 Vgl. ebenda. Vgl. auch *Encyclopaedia Britannica* 1910, S.591.
25 Vgl. Runciman, S.464 f.
26 Vgl. Robinson, S.66.
27 Vgl. Ben-Dov, S.347.
28 Ebenda.
29 Vgl. Vilnay, S.11.
30 Ebenda.
31 Ebenda, S. 123 und 324, Anmerkung 136. Vgl. auch Silberman, S. 186, vor allem aber Baruch-Vision, Kapitel 80, Vers 2 bei Rießler, S. 107.
32 Vgl. Barber 1970, S.221f.
33 Vgl. Richard, S. 105.
34 Ebenda.
35 Jung/v. Franz, S.139 und 133.
36 Vgl. James' Essay über Reliquien, S. 36-40.
37 Vgl. Delaforge, S.68.
38 Vgl. Ebenda.
39 Vgl. *Oxford Dictionary of the Christian Church*, S.162.
40 Vgl. Burman, S.23.
41 Vgl. *Oxford Dictionary of the Christian Church*, S.162 und 1345.
42 Vgl. ebenda, S.162.
43 Vgl. ebenda, S.162 und 1345. Vgl. auch *Encyclopaedia Britannica*, S.591.
44 Vgl. Oxford Dictionary of the Christian Church, S. 1345 f.
45 Zu den finanziellen Aktivitäten der Templer vgl. Burman, S. 74-97.
46 Vgl. *Oxford Dictionary of the Christian Church*, S.162.
47 Vgl. Burman, S.41.
48 Vgl. Howarth, S.194.
49 Vgl. ebenda.
50 Vgl. Johns, S. 145-164.
51 Vgl. *Jerusalem Pilgrimage*, S.294.
52 Ebenda.
53 Ebenda.
54 Vgl. Hufgard, insbesondere S.140f. und 143-150.
55 Zitiert nach Lawlor, S. 10.
56 Ebenda.
57 Vgl. Hufgard, S.148f.
58 Ebenda, S.139.
59 Ebenda, S. 129.
60 Vgl. Hable-Selassie, S. 265ff.
61 Vgl. ebenda, S.239-287.

62 Vgl. Hammerschmidt, S. 50.
63 Vgl. Leslau, S.XX-XXI.
64 Vgl. Pankhurst 1961.
65 Vgl. Hable-Selassie, S.265, und Bidder, S.30.
66 Für eine Zusammenfassung dieser Legende vgl. Hancock/Pankhurst/ Willetts 1983, S. 58f.
67 Vgl. Hable-Selassie S.265 f. Vgl. ebenfalls Doresse, S.113.
68 Vgl. Hable-Selassie, S.265.
69 Vgl. Buxton 1970, S.44, und Bidder, S. 14 und 108.
70 Vgl. Hable-Selassie, S.272f., und Doresse, S.113.
71 Vgl. Hable-Selassie, S. 112.
72 Vgl. ebenda, S.262.
73 Vgl. Buxton 1970, S.45.
74 Vgl. Jones/Monroe, S. 53.
75 Zur Wiederherstellung der salomonischen Dynastie vgl. Haberland, S.59ff. und 232f.
76 Vgl. Adolf, S. 308.
77 Für eine englische Übersetzung des Briefes siehe Hable-Selassie, S.255-261.
78 Siehe ebenda.
79 Siehe ebenda.
80 Vgl. *The Bandlet of Righteousness*, z.B. S.41ff.
81 Siehe Hable-Selassie, S.255-261.
82 Siehe ebenda.
83 Vgl. Bidder, S. 29.
84 Wolfram von Eschenbach, Bd. II, S.657.
85 Ebenda, Bd.II, S. 109.
86 Ebenda, Bd.II, S.111 und 113.
87 Vgl. Hopkins, S. 72-91.
88 Vgl. UNESCO 1983, S. 74.
89 Vgl. Buxton 1947, S.23.
90 Vgl. *The Prester John of the Indies*, Bd.I, S.11ff.
91 Ebenda, S.223.
92 Ebenda, S.226.
93 Ebenda, S.227.
94 Wolfram von Eschenbach, Bd.II, S.657.

Kapitel 6

1 Vgl. Dimotheus, S.137.
2 Vgl. ebenda, S. 141.
3 Vgl. ebenda.
4 Vgl. ebenda, S.143.
5 2.Mose 37, 1-2.
6 Abu Salih, S.287.
7 Ebenda, S. 288.
8 4. Mose 4, 5-6.
9 Vgl. hierzu Ullendorff 1973, Kapitel 6, und insbesondere S. 111 ff.
10 Vgl. Morgenstern 1942, S.249.
11 Vgl. Ullendorff 1956, S.233.
12 *Kebra Nagast,* S.8.
13 Vgl. Ullendorff 1988, S.84, und Ullendorf 1956, S. 234.
14 Vgl. Ullendorff 1974, S. 108.
15 Vgl. Kebra Nagast, Budge 1932, Einleitung S. XI f.
16 Vgl. Doresse, S. 21.
17 Vgl. Jones/Monroe, S. 16.
18 Vgl. Ullendorff 1988, S. 18.
19 Vgl. ebenda, S.17-21 und 117.
20 Vgl. ebenda, S. 16 f.
21 Zum negativen Einfluß westlicher Missionare auf die Kultur der Falaschen vgl. Kessler.
22 Vgl. Flad, S.3.
23 Kleines Bibellexikon, S. 305.
24 Vgl. ebenda, S.102.
25 Vgl. Stern, S. 188.
26 Vgl. ebenda, S.l88f.
27 3.Mose 17, 8-9.
28 Vgl. *Encyclopaedia of Judaism*, S.615.
29 Vgl. *Oxford Dictionary of the Christian Church*, S. 1200.
30 Vgl. ebenda.
31 Vgl. ebenda und *Encyclopaedia of Judaism*, S.618 und 693.
32 Vgl. Trimingham, S.21.
33 Vgl. Kessler, S.69, und Leslau, S. XXVI ff.
34 Vgl. Bruce, Bd.I, S. 500.
35 Vgl. ebenda, Bd.II, S.293.
36 Vgl. Flad, S. 4.
37 Vgl. Bruce, Bd.I, S.485.
38 Vgl. ebenda.
39 Vgl. Jones/Monroe, S.30, und Doresse, S.85f.
40 *Kebra Nagast*, S. 136.
41 Vgl. hierzu Leslau, S. IX.
42 *Kebra Nagast,* S.137.
43 Ebenda, S. 136 und 137.
44 Für eine englische Übersetzung des Dokumentes siehe Adler, S.11.
45 Vgl. hierzu *Jewish Encyclopaedia*, Bd.V, S.90ff.

46 Vgl. Adler, S. 13.
47 Vgl. Kessler, S.68ff., Leslau, S. XXIII oder *Encyclopaedia Judaica*, Bd.VI, S.568ff.
48 Vgl. Adler, S. 13.
49 Vgl. ebenda, S.U.
50 Für eine englische Übersetzung des Dokumentes siehe Adler, S.60.
51 Vgl. ebenda, S.153.
52 Vgl. die Abhandlung von Mendelssohn.
53 Vgl. hierzu die Darstellung von Halevy 1907.
54 Siehe ebenda.
55 Siehe ebenda.
56 Vgl. Bruce, Bd. II, S. 293.
57 Vgl. ebenda, Bd.I, S.486.
58 Siehe hierzu Halévy 1877.
59 Zitiert bei Kessler.
60 Vgl. Minority Rights Group Report 1985.

Kapitel 7

1 Vgl. die Darstellung von Gibbon.
2 Siehe z.B. bei Burman oder Barber.
3 Vgl. Barber 1989, S.45.
4 Vgl. ebenda, S. 2.
5 Vgl. ebenda, S. 3.
6 Vgl. Bruce, Bd.I, S.530.
7 Vgl. ebenda.
8 Vgl. Burman, S.123.
9 Vgl. Bruce, Bd.I, S.530.
10 Vgl. ebenda, S. 532.
11 Vgl. die Darstellung von Haberland.
12 Vgl. Bruce, Bd.I, S.528.
13 Abu Salih, S.288.
14 Vgl. Ullendorff 1988, S.26.
15 Vgl. Burman, S. 46, und Robinson, S.77.
16 Vgl. *Ethiopian Itineraries*, S.212.
17 Vgl. ebenda, S.213f.
18 Zu Foresti siehe ebenda, S.215.
19 Vgl. ebenda, S.212.
20 Vgl. ebenda, S.214 f.
21 Vgl. hierzu Pankhurst 1961, S. 64 f., oder *Kebra Nagast*, Budge 1932, Einleitung S.XXXVII.
22 Vgl. Kebra Nagast, Budge 1932, Einleitung S.XVI und XXII.
23 Vgl. Abir, S.47.
24 Vgl. Barber 1989, S.47 f.
25 Vgl. ebenda, S. 48.
26 Vgl. ebenda, S. 46.
27 Vgl. Robinson, S. 138.
28 Vgl. Barber 1989, S. 193-220.
29 Vgl. ebenda, S.203.
30 Vgl. Robinson, S.150f.
31 Vgl. ebenda.
32 Vgl. ebenda, S. 153. Vgl. auch Haye, S.114.
33 Die sogenannte »Monymusk-Reliquie« ist heute im National Museum of Antiquities in Edinburgh zu sehen. Vgl. auch Robert the Bruce, S. 15, und den Artikel von Keys.
34 Vgl. Horne, S. 25.
35 Vgl. Mackenzie, S.84 und 420f.
36 Vgl. ebenda, S.593f. und 719ff.
37 Vgl. ebenda, S. 325.
38 Vgl. ebenda, S. 719 ff.
39 Vgl. die Abhandlung von Robinson.
40 Vgl. ebenda, S. 137.
41 Vgl. Cardinale, S. 27.
42 Vgl. ebenda und S.207f.
43 Vgl. ebenda, S.27.
44 Vgl. Prestage, S.114.
45 Vgl. ebenda, S.26 f.
46 Vgl. ebenda, S. 151.
47 Vgl. ebenda, S. 117f.
48 Ebenda, S. 119.
49 Vgl. ebenda, S. 120.
50 Vgl. ebenda, S.28.
51 Vgl. ebenda, S.30.
52 Vgl. ebenda, S.26 und 30.
53 Vgl. ebenda, S.27.
54 Wolfram von Eschenbach, Bd. II, S.41 und 43.
55 Vgl. Prestage, S.112.
56 Vgl. ebenda, S.111f.
57 Vgl. ebenda, S.120, Anm.2.
58 Ebenda.
59 Vgl. *Encyclopaedia Britannica, Micropaedia*, Bd.V, S.100.
60 Vgl. Prestage, S.176.
61 Vgl. ebenda, S. 182.
62 Vgl. ebenda.
63 Vgl. ebenda, Kapitel XII.
64 Vgl. ebenda, S. 155, und Bruce, Bd.II.S.103-113.
65 Vgl. Prestage, S. 152.
66 Vgl. Jones/Monroe, S.62.
67 Vgl. *The Prester John of the Indies*, Bd.I, S.226.
68 Vgl. Burton, Bd. II, S. 5.

69 Vgl. ebenda, S.6. Vgl. auch Jones/ Monroe, S. 82 f., und Hammerschmidt, S.59f.
70 Vgl. Doresse, S.127.
71 Vgl. Bruce, Bd.II, S.164.
72 Vgl. Jones/Monroe, S. 83.
73 Vgl. Hammerschmidt, S. 60f.
74 Zitiert nach Carman, S. 8.
75 Vgl. die Darstellung von Gibbon.
76 Vgl. Bruce, Bd.II, S. 181 ff., und Burton, S.6-11.
77 Vgl. Bruce, Bd.II, S. 185.
78 Vgl. *Itinerario of Jeronimo Lobo*, S.206f.
79 Vgl. Bruce, Bd.II, S.187f.
80 Vgl. ebenda, S. 190 f.
81 Vgl. Jones/Monroe, S. 108, und Ullendorff 1973, S.76.
82 Vgl. Bruce, Bd.II, S.409, und Carman, S. 156.
83 Vgl. Bruce, Bd.I, S. 481 f.
84 Vgl. Ullendorff 1953, S. 129.
85 Vgl. Bruce, Bd.III, S. 598.
86 Vgl. z.B. Moorehead, S.34f., und Ullendorff 1953, S. 133ff.
87 Aus einem Vergleich der Textstellen, die sich auf den Moment der Entdeckung beziehen, ergibt sich sogar, daß Bruce offensichtlich ganze Passagen bei Paez und Lobo entlehnt hat. Vgl. Paez, zitiert bei Moorehead, S.34, *Itinerario of Jeronimo Lobo*, S.228, und Bruce, Bd.III, S.596f. - In jedem Fall steht außer Frage, daß der schottische Reisende die Berichte seiner portugiesischen Vorgänger genau kannte. Vgl. hierzu z.B. Bruce, Bd.II, S.244f., 266, 344; Bd.III, S.133-141, S.426 oder S.617.
88 Vgl. Moorehead, S.49. Vgl. auch Ullendorf 1953.
B9 Vgl. Bruce, Bd.III, S.615.
90 Vgl. ebenda, S. 131.
91 Vgl. Guidi 1903, S. 151-159. Vgl. auch Doresse, S.180, und Basset, S.297.
92 Auch in diesem Fall weist, wie mir Richard Pankhurst mitteilte, einiges darauf hin, daß Bruce die Chroniken König Iyasus genau studiert hat.
93 Vgl. Bruce, Bd.I, S.365-493.
94 Vgl. ebenda, S.471 ff.
95 Vgl. ebenda, S. 472.
96 Vgl. ebenda, S.472f. und 444ff.
97 Vgl. ebenda, S.476.
98 Vgl. ebenda, S.471 und 478.
99 Vgl. ebenda, Bd.III, S. 128-133.
100 Vgl. Ullendorff 1953, S.141.
101 Vgl. ebenda.
102 Vgl. Bruce, Bd.I, S. 483f.
103 Vgl. Moorehead, S. 31.
104 Vgl. *Kebra Nagast,* Budge 1932, Einleitung S. XXXII f.
105 Vgl. Kleines Bibellexikon, S.141.
106 Für eine deutsche Übersetzung des Henoch-Buches siehe Rießler, S. 535-473.
107 Vgl. Mackenzie, S.200ff.
108 Vgl. ebenda.
109 Vgl. die Darstellung von Head.
110 Vgl. die Darstellung von Reid.
111 Vgl. *Debretts Illustrated Peerage*, S.412.

Kapitel 8

1 Vgl. Pankhurst in Hancock/Pankhurst/Willetts, S.24.

Kapitel 9

1 Vgl. Bruce, Bd.III, S.425ff.
2 Vgl. Hable-Selassie, S.26.
3 Vgl. Moorehead, S. 12 f. und 34. Siehe auch die Darstellung von Cheesman.
4 Vgl. Moorehead, S. 17.
5 Vgl. hierzu Lamy, S.7f.
6 Vgl. Strabo, 17. Buch, Kapitel 2, Absatz 3.
7 Vgl. die Darstellung von E. L. Stevenson.
8 Aischylos, Fragment 232.
9 Vgl. Bruce, Bd.III, S.387.
10 Vgl. z.B. Cornfeld, S.25 und 118.
11 3.Mose 4, 6.
12 3.Mose 5, 9.
13 Mischna, Traktat Joma, S. 13 und 16.
14 Ebenda, S. 18ff.

Kapitel 10

1 Vgl. *Kebra Nagast,* S. 98.
2 Vgl. Munro-Hay, S. 19-24.

3 Vgl. Kebra Nagast, Budge 1932, Einleitung S.XVH.
4 Vgl. Cheesman, S.174f. und 179.
5 Vgl. Richey, S.198.
6 Vgl. hierzu Kleines Begriffslexikon, S.49ff.
7 Vgl. z.B. Trimingham, S.26, oder Kessler, S. 68.
8 Vgl. 1.Könige 9, 23. Für die geographische Identifizierung von Ezeon-Geber als Elat siehe Cornfeld, S. 110f.
9 Vgl. Kebra Nagast, S.46.
10 Vgl. Beit-Arieh, S.31.
11 Kebra Nagast, S.46.
12 Vgl. Kirwan, S.172f.
13 Für eine allgemeine Darstellung vgl. den Sammelband *Ethiopian Itineraries*.
14 Vgl. Bruce, Bd.III, S.252.
15 Vgl.Flad, S.10.
16 Vgl. Minority Rights Group Report. Vgl. auch Kessler, S. 10, und Ullendorf 1957, S. 254.
17 Vgl. Kessler, S. 92.
18 Für eine allgemeine Darstellung vgl. den Sammelband *Ethiopian Itineraries.*

Kapitel 11

1 Vgl. Hammerschmidt, S. 33, und Kleines Bibellexikon, S.97.
2 Vgl. Hammerschmidt, S.33.
3 Siehe z.B. Pankhurst 1990, S.41 und 193.
4 Vgl. Wondemagegnehu/Motovu, S.11-14.
5 Interview von Caroline Lasko mit Bischof Serabion und Vater Bishoi Boushra von der Koptisch-Orthodoxen Kirche, London, Juni 1989.
6 Vgl. Gamst, S.4.
7 Vgl. ebenda, S. 9f.
8 1.Mose 12,9-10.
9 1.Mose 41, 27.
10 3.Mose 11, 3-4 und 7: »Alles, was die Klauen spaltet und wiederkäut unter den Tieren, das sollt ihr essen. Was aber wiederkäuet und hat Klauen und spaltet sie doch nicht, wie das Kamel, das ist euch unrein, und ihr sollt's nicht essen. Und ein Schwein spaltet wohl die Klauen, aber es wiederkäut nicht; darum soll's euch unrein sein.«
11 5.Mose 14: »Ihr sollt kein Aas essen.« Vgl. auch 3.Mose 17, 13-14: »Und welcher Mensch, er sei vom Hause Israel oder ein Fremdling unter euch, ein Tier oder einen Vogel fängt auf der Jagd, das man ißt, der soll desselben Blut hingießen und mit Erde zuscharren. Denn des Leibes Leben ist in seinem Blut, solange es lebt; und ich habe den Kindern Israel gesagt: Ihr sollt keines Leibes Blut essen; denn des Leibes Leben ist in seinem Blut...«
12 Siehe 2.Mose 23, 19, und 34, 26; 5.Mose 14,21.
13 2.Mose 35, 2-3: »Sechs Tage sollt ihr arbeiten; den siebenten Tag aber sollt ihr heilig halten als einen Sabbat der Ruhe des Herrn. Ihr sollt kein Feuer anzünden am Sabbattag in allen euren Wohnungen.«
14 l.Mose 21, 33.
15 Vgl. Cornfeld, S. 65.
16 Vgl. Richter 6, 25; l.Könige 16, 33; 2.Könige 21, 3; 2.Könige 23, 15, und Jesaja 27, 9.
17 2.Könige 23, 7.
18 Vgl. *Minority Rights Group Report*, S.9.
19 Vgl. *Encyclopaedia of Judaism*, S.684.
20 Vgl. ebenda, S. 548.
21 3.Mose 15, 19: »Wenn ein Weib ihres Leibes Blutfluß hat, die soll sieben Tage unrein geachtet werden; wer sie anrührt, der wird unrein sein bis auf den Abend.«
22 3.Mose 12, 3: »Und am achten Tage soll man das Fleisch seiner Vorhaut beschneiden.«
23 3.Mose 1, 9.
24 Vgl. Ullendorff 1957, S.249f.
25 Vgl. ebenda, S. 243 f.
26 Vgl. *Encyclopaedia of Judaism*, S. 192 ff. und 604 ff.
27 Siehe z.B. 3.Mose 20,18.
28 l.Mose 32, 32: »Daher essen die Kinder Israel kein Muskelfleisch auf dem Gelenk der Hüfte bis auf den heutigen Tag ...«
29 Vgl. Ullendorff 1957, S.242.
30 Vgl. ebenda, S.236.

31 2.Mose 28,4.
32 Ebenda.
33 2.Mose 28, 17-21.
34 Vgl. Matthew, S. 12.
35 Vgl. Ullendorff 1957, S.235f.
36 Vgl. ebenda, S.237.
37 Vgl. ebenda, S.251.
38 3.Mose 16, 2-13.
39 3.Mose 16,13.
40 Isenberg, S. 112, zitiert nach Ullendorff 1957, S.238.
41 Vgl. Lemma, S. 10.
42 2. Samuel 6, 5 und 14-15.
43 Wolfram von Eschenbach, Bd.I, S.387.
44 Vgl. Der kleine Pauly, Bd. 5, S. 214.
45 2. Chronik, 5, 12-13. Vgl. auch 1. Könige 8,11.
46 2. Chronik 6, 41.

Kapitel 12

1 Vgl. 2.Mose 25.
2 3.Mose 10, 1.
3 3. Mose 10,2.
4 3. Mose 16, 1-2.
5 Vgl. Ginzberg, Bd.III, S.210.
6 Vgl. ebenda und 2.Mose 40, 35.
7 4. Mose 7, 89.
8 Vgl. Ginzberg, Bd.III, S.210.
9 Vgl. ebenda, S. 157.
10 4.Mose 10,33 und 35-36.
11 Vgl. Morgenstern 1928, S. 20, Anm.25.
12 Vgl. *Jewish Encyclopaedia,* Bd. II, S.105.
13 Vgl. ebenda und Ginzberg, Bd. III, S.194.
14 Vgl. Ginzberg, Bd.III, S.395.
15 Vgl. ebenda, S.284 und 409. Vgl. auch Morgenstern 1928, S.27f.
16 Vgl. *Jewish Encyclopaedia,* Bd. II, S.106.
17 4.Mose 14,44-45.
18 4.Mose 22, 1.
19 4.Mose 20, 24-28.
20 4.Mose 27, 12-23.
21 4.Mose 31, 14-15.
22 Josua 3, 4.
23 Josua 3, 6 und 14-17.
24 Josua 6, 15-17 und 20.
25 Vgl. Morgenstern 1942, S.235f.
26 1. Samuel 4,1-2.
27 1. Samuel 4, 3.
28 1. Samuel 4, 4-5.
29 1. Samuel 4, 6-9.
30 1. Samuel 4, 10-11.
31 1. Samuel 4, 13 und 15-19.
32 Vgl. *Encyclopaedia Britannica* 1910, Bd.XIV, S.786.
33 1.Samuel 4, 22.
34 1. Samuel 5.
35 2. Samuel 6, 9-10.
36 2. Samuel 6, 15.
37 1.Chronik 17, 4-12.
38 I.Chronik 28, 2-3 und 6.
39 1. Könige 8, 1-6.
40 Zu Tutanchamun vgl. die Darstellung von Desroches-Noblecourt.
41 Vgl. ebenda, S. 131, und Reeves, S.102 und 104.
42 Vgl. 2.Mose 25, 18.
43 Vgl. *Encyclopaedia of* Judaism, S.157f.
44 Vgl. Desroches-Noblecourt, S.185.
45 Vgl. ebenda und West, S. 268, sowie Kamil I, S.28.
46 Vgl. Moorehead, S.17.
47 1.Chronik 15,15.
48 Vgl. Kebra Nagast, S. 9.
49 Vgl. Kitchen 1960, S.l0f.
50 Vgl. Sayce, S.67f.
51 Vgl. Desroches-Noblecourt, S.186. Vgl. auch Paul/Dever, S.252.
52 Vgl. Morgenstern 1928, S.121.
53 Vgl. West, S.236.
54 Vgl. ebenda.
55 Vgl. ebenda.
56 Vgl. Anderson, Flavia, S. 113 f.
57 Auch James Bruce hat derartige Überlegungen angestellt, als er Luxor besuchte. Vgl. Bruce, Bd.I, S.394f.
58 Vgl. *Encyclopaedia of Judaism*, S.504.
59 Josephus Flavius, Bd. 1, S. 108.
60 Ebenda, S. 109 f.
61 Apostelgeschichte 7, 22.
62 Philo von Alexandria, S. 227.
63 Vgl. Budge 1934, S. 8.
64 Apostelgeschichte 7, 22.
65 Lukas 24,19.
66 Vgl. Budge 1901, S. 5.
67 Z.B. in 2.Mose 4, 20 oder 17, 9.
68 2.Mose 4, 2.

69 2.Mose 4, 3-4.
70 Vgl. Budge 1901, S.5, und Budge 1934, S.119 und 129.
71 2.Mose 7,11-12.
72 2.Mose 7,20-22.
73 2. Mose 8, 1-7.
74 2.Mose 8, 14-15.
75 2.Mose 8, 20-28; 9, 1-11; 10, 1-23, und 12, 23-33.
76 2.Mose 12, 33.
77 2.Mose 14, 21-22.
78 2.Mose 14, 23 und 27-28.
79 Zitiert nach Budge 1901, S.10.
80 Vgl. Budge 1934, S. 8.
81 Vgl. ebenda, S.43.
82 Vgl. Lamy, S. 86.
83 Vgl. Canfora, S.21.
84 Herodot, S.114 und 100.
85 Vgl. das Kapitel über Mathematik und Astronomie bei Harris.
86 Vgl. West, S. 90.
87 Vgl. *Mystic Places*, S.65.
88 Vgl. die Darstellung von El-Nadoury.
89 Vgl. das Kapitel über Medizin bei Harris.
90 Vgl. West, S. 249 f.
91 Vgl. ebenda, S.424.
92 Vgl. Harris, S. 103.
93 Vgl. West, S.251.
94 Vgl. ebenda, S. 109.
95 Zitiert nach West, S.40.
96 Für Maße und Gewichte vgl. ebenda, S. 112-123.
97 Vgl. hierzu die Darstellung von Lemesurier.
98 Vgl. ebenda, S. 3.
99 Vgl. *Mystic Places*, S.47, und West, S.123.
100 Herodot, S. 154.
101 Zitiert nach West, S. 107.
102 Vgl. ebenda, Einleitung S. XI.

Kapitel 13

1 Vgl. Fowden, S.22f.
2 Vgl. *New Larousse Encyclopaedia of Mythology*, S. 28.
3 Vgl. ebenda, S.27. Vgl. auch Budge 1901, S.XI.
4 Vgl. Fowden, S. 33.
5 Vgl. ebenda, S.23, und Budge 1934, S.121f.
6 Vgl. *New Larousse Encyclopaedia of Mythology*, S.27.
7 Vgl. West, S. 74 f.
8 Vgl. Budge 1895, Einleitung S.CXVIII.
9 Vgl. Budge 1934, S.157, und Seton-Williams, S.16.
10 Vgl. Emery, S. 197.
11 Vgl. Budge 1895, Einleitung S.XII f.
12 Emery, S.34.
13 Vgl. das Kapitel über Architektur bei Emery.
14 Ebenda, S.172 und 27f.
15 Vgl. *New Larousse Encyclopaedia of Mythology*, S.57.
16 Vgl. Budge 1934, S.155.
17 Emery, S.27.
18 Platon, »Timaios« S.149f. und »Kritias« S.224f.
19 Ebenda, »Timaios« S. 151 f. und »Kritias« S.224f.
20 Ebenda, »Timaios« S. 151 f.
21 Vgl. Lee, S. 158.
22 Vgl. ebenda.
23 Vgl. hierzu die Darstellung von Sollberger. Vgl. ebenfalls Buch 11 des Gilgamesch-Epos.
24 Vgl. Budge 1934, S.198.
25 Vgl. ebenda, S. 197f.
26 Zu Plutarch vgl. Seton-Williams, S. 24-29, und Budge 1934, S. 178-183.
27 Vgl. Budge 1934, S.182.
28 Vgl. ebenda, S.180.
29 Vgl. Josephus Flavius, Bd. 1, S. 112.
30 Vgl. Philo von Alexandria, S.225.
31 Vgl. Budge 1934, S. 181 f.
32 Vgl. Oates, S.42f.
33 Zitiert nach *New Larousse Encyclopaedia of Mythology*, S. 58 ff. Vgl. auch Oates, S.40 ff.
34 Vgl. das 2. und 3.Kapitel des Buches Jona.
35 Vgl. West, S.8.
36 Vgl. Desroches-Noblecourt, z.B. S.89, 108, 113 oder 283.
37 Vgl. Emery, S. 58ff.
38 Vgl. UNESCO 1981, S.84-107.
39 Vgl. Emery, Kapitel 4, und Lamy, S.68.
40 Vgl. West, S. 158.
41 Vgl. Budge 1934, S.161.
42 Vgl. Fowden, S. 33.
43 Vgl. ebenda, S.23.
44 Vgl. West, S. 343.

45 Vgl. *Jewish Encyclopaedia*, Bd.II, S.497.
46 Vgl. Schonfield, S. 162 ff.
47 Vgl. ebenda, S.164.
48 Vgl. Budge 1904, Bd.I, S.415.
49 Vgl. ebenda, S.414.
50 Vgl. Stevenson 1990, S.85.
51 Vgl. ebenda.
52 Vgl. Ferris, S.65.
53 Vgl. ebenda, S. 79.
54 Vgl. Westfall, S. 435.
55 Vgl. ebenda, S.434.
56 Vgl. dazu die Darstellung von Harrison.
57 Vgl. Manuel, S.86.
58 Vgl. Christianson, S.262.
59 Vgl. Westfall, S. 346.
60 Vgl. Christianson, S. 265.
61 Vgl. Keynes, S.27 ff.
62 Vgl. Christianson, S. 362.
63 Vgl. ebenda, S. 222.
64 Vgl. Yahuda-Manuskript 16.2, S.48, 50 und 74.
65 Vgl. Westfall, S.355.
66 Vgl. Christianson, S. 256.
67 Vgl. Rattansi, S. 195 f.
68 Vgl. Christianson, S.222.
69 Jesaia 45, 3.
70 2.Mose 3, 8.
71 Vgl. Beit-Arieh, S.31.
72 Vgl. 2.Mose 13, 17-18.
73 Vgl. z.B. 2.Mose 14, 9-12 und 31; 15, 22-25; 16, 2-36, oder 17, 1-4 und 6-7.
74 2. Mose 17, 6-7.
75 2.Mose 15, 25.
76 2. Mose 16, 4-36.
77 4.Mose 12,1-2 und 10.
78 4. Mose 16, 1-3.
79 4. Mose 16, 7.
80 4. Mose 16, 18.
81 4. Mose 16, 19.
82 4.Mose 16, 20-22 und 35.
83 2.Mose 2, 12-15.
84 2. Mose 7, 7.
85 2.Mose 2, 12-15.
86 Vgl. Osman, S.171.
87 Vgl. die Darstellung von Flinders Petrie. Zu den Ausgrabungen vgl. auch Keller, S. 126-129.
88 Vgl. die Darstellungen von Albright und Naveh. Vgl. auch Moore-Cross, S.12.
89 Vgl. Beit-Arieh, S. 33.
90 Vgl. Perevolotsky/Finkelstein, S.27 und 33.
91 Vgl. ebenda, S. 33.
92 Vgl. ebenda, S.27 und 33.
93 Vgl. Beit-Arieh, S. 37.
94 Vgl. die Darstellungen von Morgenstern.
95 Vgl. Haran, S.246.
96 2. Mose 19, 3.
97 2.Mose 19, 13.
98 2.Mose 19, 16 und 18.
99 2.Mose 24, 12.
100 2.Mose 24, 15-18.
101 Vgl. Ginzberg, Bd.III, S.118f.
102 2.Mose 32, 19.
103 2.Mose 32,28.
104 2.Mose 34, 28.
105 2.Mose 34,29.
106 Ebenda.
107 2.Mose 33, 11.
108 Vgl. Ginzberg, Bd.III, S.119.
109 2.Mose 34, 30-35.
110 Vgl. 2.Mose 39, 1-32.
111 Vgl. z.B. 2.Mose 28, 43, oder 3.Mose 10, 6.
112 Vgl. z.B. 4.Mose 4, 5-6 und 15.

Kapitel 14

1 Vgl.Vilnay, Bd.I, S.11f.
2 Vgl. Murphy-O'Connor, S.84ff.
3 Zur Baugeschichte vgl. Kenyon 1968 und Kenyon 1974, S. 110.
4 Vgl. Vilnay, S.123 und 324, Anm. 136. Vgl. auch Silberman, S. 186.
5 Vgl. *Kleines Bibellexikon*, S.47f.
6 1. Könige 11, 4-5.
7 1. Könige 4, 30.
8 1. Könige 8, 27.
9 Vgl. 2. Chronik 3,11, und 1. Könige 6,24.
10 1.Könige 6, 20.
11 Vgl. 2.Chronik 3, 8-9, und Miliard, S. 21-34.
12 1.Könige 7, 13-14.
13 Vgl. Mackenzie, S.316f., Home, S.262 ff. und 272-279, sowie Robinson, S. 217 f.
14 Vgl. Robinson, S. 219.
15 1.Könige 7, 23 und 26.
16 Vgl. Paul/Dever, Bd.III, S.257.
17 Vgl. *Great Events of Bible Times*, S.89.

18 Vgl. Paul/Dever, Bd.III, S.257.
19 Vgl. 1. Könige 7, 38.
20 1.Könige 7, 40 und 45.
21 1.Könige 7,15 und 21-22.
22 Vgl. Mackenzie, S.349f., und Stevenson 1990, S. 143-152.
23 Vgl. Horne, S. 219.
24 Vgl. ebenda.
25 Josua 15, 48; Richter 10, 1; Richter 10, 2, und 1.Chronik 24, 24.
26 Vgl. 5.Mose 27, 5, und Josua 8, 31.
27 Vgl. Ginzberg, Bd.I, S.34, und Bd.IV, S.166.
28 Vgl. ebenda, Bd.I, S.34.
29 Vgl. ebenda, Bd.IV, S.166.
30 Vgl. ebenda, Bd.I, S.34.
31 1.Könige 14, 25-26.
32 Zu dem Relief vgl. Kitchen 1989, S.32f.
33 Vgl. ebenda, S.95.
34 Vgl. ebenda, S.94, und Haran, S.286.
35 Vgl. Haran, S.284f. Vgl. auch 2. Chronik 28, 24, und 2.Könige 18, 15-16.
36 2.Könige 14,12-14.
37 Vgl. Haran, S.277 und S.285, Anm. 19.
38 2.Könige 24, 10-13.
39 Vgl. Haran, S. 287.
40 Vgl. Ullendorff 1956, S.235.
41 1. Könige 7, 49-50.
42 Vgl. 2.Könige 24, 11-16.
43 2.Könige 24, 17.
44 2.Könige 25, 1.
45 2.Könige 25, 1-3.
46 2.Könige 25, 8-9 und 13-16.
47 Vgl. Kenyon 1971, S.148.
48 Vgl. 2.Könige 24, 15-16.
49 2.Könige 25, 11 und 21.
50 Psalm 137, 1-6.
51 Vgl. Calvocoressi, S.45.
52 Vgl. ebenda.
53 Esra 1, 7-11.
54 Vgl. *Babylonischer Talmud*, Traktat Joma 21b.
55 Vgl. Ginzberg, Bd.VI, S.442. Vgl. auch 2.Mose 28, 30; 3.Mose 8, 8; Esra 2, 63, oder Nehemia, 7, 65.
56 Vgl. Vilnay, Bd.I, S. 123, und Ginzberg, Bd. VI, S. 378.
57 Vgl. Babylonischer Talmud, Traktat Joma 53 b.
58 Vgl. Ginzberg, Bd.IV, S. 282.
59 Vgl. ebenda, Bd.III, S.158.
60 Vgl. *Kleines Bibellexikon*, S. 201 f.
61 Vgl. *Oxford Dictionary of the Christian Church*, S. 839.
62 2.Makkabäer 2, 4-5 (zitiert nach der katholischen Bibelübersetzung Regensburg 1900).
63 Vgl. Oxford Dictionary *of the* Christian Church, S.839.
64 Vgl. ebenda, S.717f. Vgl. auch Calvocoressi, S. 101 f.
65 2.Makkabäer 2,1 (zitiert nach der Ausgabe Regensburg 1900).
66 Vgl. 5.Mose 34, 1.
67 Vgl. Ben-Dov, S. 24.
68 Vgl. ebenda, S. 25.
69 Vgl. ebenda, S. 19f.
70 Vgl. *Encyclopaedia of Judaism*, S. 481 ff. und S. 695.
71 Vgl. Ben-Dov, Kapitel 2 und S.57ff.
72 Vgl. ebenda, S. 16 ff., und *Silberman*, S. 89-99.
73 Vgl. Silberman, S. 89-99.
74 Vgl. ebenda, S.93.
75 Vgl. ebenda, S. 94-97.
76 Vgl. Ben-Dov, S. 18.
77 Vgl. Kenyon 1974, S.31.
78 Vgl. Silberman, S. 180-188.
79 Vgl. ebenda.
80 Vgl. Kenyon 1974, S.30.
81 Vgl. *Biblical Archeology Review*, Mai/Juni 1983, S.66f.
82 Vgl. ebenda.
83 Vgl. ebenda, S.66.
84 Vgl. ebenda, S. 68.
85 Vgl. ebenda.
86 Vgl. ebenda.
87 Vgl. ebenda.
88 Vgl. ebenda, S. 68 f.
89 Vgl. ebenda, S. 69.

Kapitel 15

1 *Kebra Nagast*, S.59f.
2 Vgl. Budge 1928, Vorwort.
3 Vgl. Edwards, S. 209ff.
4 Vgl. ebenda und Friedman, S.146.
5 1. Könige 8, 6-8 (Hervorhebung vom Autor).
6 Vgl. Edwards, S. 210.
7 Vgl. Shakespeare, S.88.
8 Vgl. Morgenstern 1928, S.29, Anm. 37.

9 5. Mose 10, 5.
10 Vgl. Morgenstern 1928, S.29, Anm.37.
11 Vgl. Ginzberg, Bd.IV, S.282.
12 Vgl. Oates, S.155.
13 Vgl. ebenda, S. 153 f.
14 2. Chronik 34, 33, und 35, 2-3.
15 2. Chronik 35,19.
16 Vgl. *Encyclopaedia of Judaism,* S.380, und Haran, S.281.
17 Jeremia 3, 16-17.
18 Vgl. Haran, S.281.
19 Siehe im Literaturverzeichnis unter »Bibel«; es wird aber weiterhin aus der Luther-Bibel zitiert.
20 Vgl. 4.Mose 12,10.
21 2.Könige 7,3.
22 2. Chronik 26, 16.
23 2. Chronik 26, 19.
24 2. Chronik, 26, 21-23.
25 Vgl. *Oxford Dictionary of the Christian Church*, S. 1120 f.
26 Hesekiel 10, 2; 10, 6 und 7.
27 Vgl. *Oxford Dictionary of the Christian Church*, S.486f.
28 Vgl. Hesekiel 10, 1; 10, 5; 10, 15, und 10, 19-22.
29 Jesaja 37,14-16.
30 2. Könige 19, 14-15.
31 Vgl. *Encyclopaedia of Judaism,* S.369, und Calvocoressi, S.87f.
32 Jesaja 37, 6-7.
33 Jesaja 37,16.
34 Jesaja 37, 17-20.
35 Jesaja 37, 33 und 35.
36 Jesaja 37, 36-37.
37 Vgl. Johnson, S. 37.
38 Jesaja 37,14.
39 1.Könige 3, 15.
40 2. Samuel 6, 5.
41 5. Mose 10, 8.
42 2.Könige 21, 2-7.
43 Vgl. *Kleines Bibellexikon*, S. 38.
44 1. Könige 6, 19.
45 2.Könige 21,16.
46 2.Könige 21, 20-21 und 23-24.
47 2.Könige 22, 1.
48 2. Chronik 34, 3.
49 Ebenda.
50 2.Könige 23, 6.
51 2. Chronik 34, 7-8.
52 2.Könige 22, 6.
53 Vgl. Haran, S.277f., S.281 und S.288.

Kapitel 16

1 Vgl. Kamil II, S.36.
2 Vgl. Porten, S.110, und Hertz, S.327.
3 Vgl. Porten, S. 110.
4 Vgl. 1. Könige 6, 2.
5 Vgl. Kraeling, S. 101.
6 Vgl. 1. Könige 6,9.
7 Vgl. Porten, S.133, Kraeling, S.100.
8 Vgl. Porten, S. 13 und 133.
9 Vgl. ebenda, S.109 und S.152, sowie Kraeling, S.85.
10 4.Mose 10, 33 und 35-36.
11 Vgl. Kraeling, S.85.
12 Vgl. ebenda.
13 Vgl. ebenda.
14 Vgl. Porten, S. 299.
15 Vgl. ebenda, S. 121 f.
16 Vgl. ebenda, S. 115.
17 Vgl. ebenda, S. 115 f.
18 1.Chronik 28, 2.
19 2.Könige 23, 29-30.
20 Vgl. Porten, S. 201.
21 Vgl. ebenda, S. 109 und S. 154 f., sowie Kraeling, S.91.
22 Vgl. Porten, S.155.
23 Vgl. 1. Könige 8, 54.
24 Vgl. Porten, S. 19.
25 Vgl. ebenda, S. 20.
26 Vgl. Kraeling, S. 102 f.
27 Vgl. Bruce, Bd.IV, S. 538f. Vgl. auch Adams, S. 295.
28 Vgl. Porten, S. 45.
29 Vgl. Ullendorff 1973, S.1f.
30 Vgl. Porten, S. 15.
31 Vgl. Herodot, S.110f.
32 Vgl. ebenda, S. 111.
33 Vgl. Porten, S. 8.
34 Vgl. Budge 1928, S.62.
35 Vgl. Ullendorff 1988, S.5.
36 4.Mose 12, 1.
37 Vgl. Josephus Flavius, Bd.1, S.114ff.
38 1.Mose 2, 13.
39 Vgl. Cheesman, S. 71, und Ullendorff 1988, S. 2.
40 Psalm 68, 2: »Es stehe Gott auf,
daß seine Feinde zerstreuet werden,
und die ihn hassen vor ihm fliehen.«
Hier handelt es sich fast um eine Wiederholung der alten Stelle in 4.Mose 10, 35, in der es heißt: »Und wenn die Lade zog, so sprach Mose: Herr stehe auf! Laß deine Feinde zer-

streut und die dich hassen flüchtig werden vor dir!«
41 Psalm 68, 32 (zitiert nach der Ausgabe Regensburg 1900).
42 Amos 9, 7 (zitiert nach der Ausgabe Regensburg 1900).
43 Zephanja 3, 10 (zitiert nach der Ausgabe Regensburg 1900).
44 Jesaja 18, 1-2.
45 Vgl. den Eintrag »Isaiah« der *Encyclopaedia of Judaism*.
46 Vgl. Levine, S.34 und S.37; vgl. auch Leslau, S.XXf., und Ullendorff 1973, S.37f.
47 Zitiert nach Mendelssohn, S. 5.
48 Vgl. Pirenne, S.262.
49 Vgl. Schneider, S. 88f.
50 Vgl. Pirenne, S. 264 f.

Kapitel 18

1 Vgl. Bent, S.196.

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Version 1.0

Epub ISBN 9781409099802

www.randomhouse.co.uk

Published by Century 2010

2 4 6 8 10 9 7 5 3 1

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First published in Great Britain in 2010 by Century Random House, 20 Vauxhall Bridge Road, London SW1V 2SA

Addresses for companies within The Random House Group Limited can be found at:
www.randomhouse.co.uk

The Random House Group Limited Reg. No. 954009

A CIP catalogue record for this book is available from the British Library

ISBN 9781846055539

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Typeset in Bell MT by Palimpsest Book Production Ltd, Grangemouth, Stirlingshire

Printed and bound in Great Britain by Clays Ltd, St Ives plc

For Santha, always, forever, my light, my inspiration, my love, my hope. Without you there would be no words here.

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Acknowledgements

I'd like to thank my wife Santha for her long hours of reading and commenting on the manuscript of *Entangled* as it has evolved over three years, and for her many inspired suggestions, but most of all for giving me the moral support and encouragement to attempt it in the first place. She was with me every step of the way as we researched the background in the US, northern Spain and the Amazon jungle, and has watched over me on some difficult inner journeys.

Thanks also for the encouragement and enthusiasm of our children, Sean, Shanti, Ravi, Leila, Luke and Gabrielle, who all followed the development of the story from its earliest chapters and were a mine of information and good ideas. Thanks to my mother

Muriel Hancock, and uncle James Macaulay, for their readings and suggestions, and to Debbie and Rodney, Jan, Elizabeth, Mark and Adrienne, who were kind enough to comment on various drafts of the manuscript.

Very special thanks indeed go to Mark Booth my brilliant editor, who championed *Entangled* and gave it light when it was still less than a hundred pages long and who helped me in so many ways to bring out the best in the book at every stage in its creation. I several times found that suggestions Mark had made, which at first seemed to involve only small changes on one or two pages, went to the heart of some deeper problem that might require me to rework dozens of other pages. The end result was always hugely beneficial to the story.

After Mark's departure from Century, Kate Elton took over as my editor and did an outstanding job of publishing the book, for which I'm very grateful. Thanks too to Katie Duce for coordinating design, production and proofs so efficiently.

There is a considerable research background to *Entangled* in fields as diverse as neuropsychology, consciousness, quantum physics, shamanism and palaeoanthropology. I have drawn on this background at a number of points but I make no claim to factual accuracy. *Entangled* is a work of fiction – indeed of fantasy – and I have never hesitated to depart from the facts when that was what the story required.

Amongst scientific researchers whose work I have studied I want to give special thanks to Rick Strassman, MD, Clinical Associate Professor of Psychiatry at the University of New Mexico School of Medicine. Rick's groundbreaking research with DMT and human volunteers does *not* provide a model for the DMT research project described in these pages (which I fictitiously located at UC Irvine); however it does show that such a research project is possible. Moreover, Rick's utterly stunning and disturbing findings, published in his book *DMT: The Spirit Molecule* (Park Street Press, Rochester, Vermont, 2001) provide strong scientific support for the

central proposition of *Entangled* – namely that non-ordinary levels of reality, including freestanding parallel worlds, may become accessible to us in altered stated of consciousness.

Rick kindly read *Entangled* in manuscript and gave me his comments. I'm very grateful. Thanks also to Luis Eduardo Luna, Ph.D and Ede Frecska, MD, for their readings and comments, and to all at Wasiwaska in Brazil who sat round with me and gave me encouragement and feedback during evenings in 2007 and 2008 when I read aloud from the evolving manuscript of *Entangled.*

Needless to say none of the individuals named above, whose advice I some- times ignored, are responsible for any of the faults or errors of the book which are entirely my own doing.

I will close by expressing my gratitude and respect to sacred Ayahuasca, the visionary brew of the Amazon, which plays a part in *Entangled.* Ayahuasca ('the Vine of Souls') has been used by shamans for thousands of years to make out-of-body journeys to what they believe are the realms of spirits. Unexpectedly, some

Western scientists who have drunk Ayahuasca themselves (rather than simply read about it) are inclined to agree. They speak not of spirit worlds but of a secret doorway in our minds that Ayahuasca can open, through which we may project our consciousness into parallel realms or dimensions.

I first drank Ayahuasca in 2003 while researching my non-fiction book *Supernatural,* and I have continued to work with the brew ever since. In 2006, during a series of sessions in Brazil, in a ceremonial space overlooked by an image of a blue goddess, my visions brought me the basic characters, dilemmas and plot of the novel that would become *Entangled.*

I felt I had been set an assignment – and this is not unusual, for it is often said by shamans and Western researchers alike that Ayahuasca is a school. Three years of hard work followed, and the result I now set before the reader.

Graham Hancock

Bath, England, January 2010
www.grahamhancock.com

This web of time – the strands of which approach one another, bifurcate, intersect, or ignore each other through the centuries – embraces *every* possibility. We do not exist in most of them. In some you exist and not I, while in others I do, and you do not, and in yet others both of us exist. In this one, in which chance has favoured me, you have come to my gate. In another, you, crossing the garden, have found me dead. In yet another, I say these very same words but am an error, a phantom … Time is forever dividing itself toward innumerable futures …

Jorge Luis Borges, *Ficciones*

Note on characters and plot: Set in parallel in the twenty-first century and the Stone Age, *Entangled* tells the story of a cosmic conflict between good and evil fought out on the human plane. The heroes are exceptional young women, but by no means too young for the adventure in which they find themselves swept up. Both **Joan of Arc** (who was also guided by voices) and **Alexander the Great** had led troops into battle and won stunning military victories by the age of seventeen.

Note on Stone Age setting: The archaic human species known as the Neanderthals lived on in Spain alongside anatomically modern humans – our own direct forebears – until as recently as 24,000 years ago. Soon afterwards the Neanderthals (who are the model for 'the Uglies' in *Entangled)* became extinct. Archaeologists suspect it may be the first example of ethnic cleansing in history.

Note on modern setting: Where modern locations such as the city of Los Angeles, the city of Iquitos, the UCLA Medical Center, the UC Irvine School of Medicine, etc, etc, are mentioned they are used entirely fictitiously. Their geography and physical layout as described may vary from reality since they are intended to be understood as the fantastic counterparts of these locations, in what is effectively a parallel realm, and not as the locations themselves. In particular it should be emphasised that no scientific study using dimethyltryptamine (DMT) and human volunteers has ever been conducted at UC Irvine School of Medicine. Such a study was, however, conducted in the 1990s at the University of New Mexico's School of Medicine. The research was led by Associate Professor of Psychiatry, Dr Rick Strassman. His remarkable findings are set out in his book *DMT: The Spirit Molecule* (Park Street Press, Rochester, Vermont, 2001).

Note on dialogue: We can't know how people spoke 24,000 years

ago. But whatever their style of speech it is a reasonable supposition that it could be translated into the idiom of any other time and place – just as Ancient Egyptian hieroglyphs can be translated into modern English, and Classical Greek into modern Japanese. Indeed, rendering the idiom of one culture into the idiom of another is an important part of the translator's job. Rather than contrive a 'Stone Age' style of speech for my characters of 24,000 years ago, I have generally expressed their dialogue in the modern idiom. The exception is the thought-talk of the Uglies which I represent in pidgin in the early parts of the book. As I conceive them, these are telepathic creatures forced to compress the complex multi-layered imagery with which they normally communicate into the narrow boundaries of another species' language – so it's reasonable, I think, that they would express themselves in a clumsy way. Later, when Ria receives the magical gift of languages, she is able to understand the Uglies perfectly and their speech is thereafter no longer rendered in pidgin.

Part I

Chapter One

Northern Spain 24,000 years ago, late summer

Ria was stalking a plump rabbit halfway up the side of a winding valley bright with pink saxifrage and thyme, coarse grasses and patches of yellow gorse. She kept low, crawling on her belly as she got closer, until she was in range. Then, stone in hand, her right arm already drawn back, she rose to a crouch and let fly – only to see her target bolt, startled by the sounds of shouts and loud whoops.

Who the *fuck* had spoiled her shot? She whirled in the direction of the noise, shading her eyes against the morning sun, and spotted a young Ugly male with a gimpy leg hopping and stumbling in terror

along the valley floor a few hundred paces below and behind her. He was pursued by Grigo, Duma and Vik, youths of her Clan. Bellowing at the tops of their voices, waving stout wooden clubs, their bloodlust was up and Ria saw they meant to kill the helpless subhuman. On a whim, mainly because she disliked Grigo so much, she decided to stop them.

The winter before, Grigo's overbearing father Murgh had approached her brothers Hond and Rill and proposed she should marry his son. She would rather marry a head louse so she had refused. Hond and Rill, who loved and adored their younger sister, had supported her decision. But there had been bad feeling between the two families ever since and Grigo had found countless ways to annoy and offend her.

Now it was payback time.

The valley side was steep and strewn with boulders, but Ria ran down it with sure feet and soon the distance closed to two hundred and then just a hundred paces. Although they were

charging straight towards her, neither the fugitive – intent on avoiding pitfalls at his feet – nor any of his pursuers – intent on murder – seemed to have seen her yet.

Grigo, tall and raw-boned, his lumpy features contorted with malice, was leading the pack. At seventeen he was a year older than Ria, but age-mates with Duma and Vik who looked up to him with such subservience it made her want to vomit. Vik was the fat boy of the gang. His body juddered like a big slab of seal blubber as he pounded along twenty paces behind Grigo. Then came Duma, last as ever, his spindly legs pumping under his scrawny buttocks, his flat unpleasant face covered in ripe pustules, and a look of fanatical stupidity in his eyes.

Ria scooped up a fist-sized rock without breaking her stride and, at thirty paces, flung it with a fluid overarm motion. Just as he was about to bring his club down from behind on the Ugly's head, the projectile struck Grigo in the mouth and knocked him sprawling. In the same instant, evidently overcome by exhaustion and fear, the

Ugly collapsed and lay helpless with his two remaining pursuers bearing down on him fast.

But Ria was faster. She sprinted forward, jumped over the Ugly's body and confronted Duma and Vik with such ferocity they skidded to a halt: 'Leave him alone,' she panted. 'Shame on you, picking on a crippled kid like this.'

'None of your business, Ria,' responded Duma, his face seething. 'Just fuck off *now,* or …'

'Or what?' she taunted. 'Or you'll beat me up? Oooh. I'm afraid. I'm very, very afraid. Really I am.'

Out of the corner of her eye Ria saw that Grigo was no longer on the ground where she'd knocked him down. Then, without warning, he threw himself on her from behind. Somehow she'd failed to anticipate this even though she'd known from the beginning he was much more of a threat than his two spineless slaves. She felt his thick muscular right arm circle her neck, pressing on her throat, saw his chunky bigjawed face looming over

hers, and smelled his foul breath as he forced her head back and hissed in her ear: ‘You think you can mess with us because of your brothers but your brothers aren’t here to protect you now.’ He spat a gob of blood into her hair and added: ‘We have to kill the Ugly first. We’re going to torture him to death; you can watch if you like. After that …’ He giggled – ‘Hey, Duma. Hey, Vik. Why don’t we all take turns to enjoy Ria and then kill her too?’

Grigo said it in such a casual way that at first she didn’t get the seriousness of the threat. *Enjoy?* What could he mean? Then his strangle-hold tightened and she struggled, scratched and bit but couldn’t break free. She felt her eyes begin to glaze over, gasped for breath and tried to reason with him – but no words came out through the tight grip on her vocal cords. As she choked and coughed she heard him persuading Duma and Vik to join him in raping her, murdering her, and dumping her body where it would never be found.

Vik sounded doubtful: ‘Sulpa might not like it. He told us to

kill Uglies. He didn't say anything about Clan.'

'Are you kidding?' Grigo laughed. 'You don't know him as well as I do. He's gonna love it.'

Ria had no idea what they were talking about. She'd never heard of this Sulpa guy.

Then Duma asked: 'What about Hond and Rill? If they find out they'll kill us …'

'They won't find out,' said Grigo with flat confidence. He shoved his left hand down the back of Ria's deerskin leggings and began to explore her arse and crotch. As he groped her he shifted his grip on her neck, allowing her just enough slack to reach the big sinew in the crook of his elbow and attack it with her teeth.

Grigo screamed, spraying blood and bad breath into her ear, and tried to jerk his arm free. But she clung on, biting hard, grabbed a handful of his face and tore at his flesh with her nails, seeking an eye to gouge. More oaths and bad breath. Then Grigo started punching her as well as strangling her. Her vision began to dim for a

second time, but she kept on struggling until Duma and Vik pinned her legs and arms, dragging her to the ground. Finally Grigo lost his balance, all three of the hefty teenagers tumbled on top of her, and Ria thought, *Shit, I'm going to die.*

She felt as though she'd been crushed beneath an avalanche and blacked out for a moment. But as consciousness seeped back she found things were changing for the better. For a start, the weight on her chest was much less now. Duma and Vik had been lifted off her by someone and hurled in opposite directions. Then it was Grigo's turn. Descending from what seemed like a great height, she saw one of a pair of huge hairy hands seize his crotch; the other gripped his neck, and he was hoisted into the air and shaken so hard his teeth rattled.

Still on her back on the ground, Ria discovered with mixed feelings of alarm and satisfaction that what was holding Grigo aloft was a truly immense Ugly male with gigantic brow ridges – and

massive yellow teeth bared in a terrifying snarl. The creature seemed poised to break Grigo's back across his knee, but for some reason he relented, tossed the teenager away and stepped over Ria to attend to the crippled Ugly youth whose rescue had got her into this mess in the first place.

Ria was calming down, taking in more and more of the scene unfolding around her. It wasn't just the big guy with the teeth. He'd brought along about sixty of his friends – *Where did they come from?* – males and females dressed in stinking, badly cured animal skins. Some of them carried clunky wooden spears like small tree trunks hafted to huge, crudely knapped stone blades. Others were armed with clubs and axes. Several had decorated their bodies with stripes of red and white paint. One of the females wore a necklace of bat skulls.

Moans and groans from Duma, Grigo and Vik told Ria they were still alive. She would be having words about them with her brothers very soon, she thought. Or she would be if they all

survived. The Uglies looked furious, which was understandable not only because they'd caught three humans hunting one of their kids but also because of all the other shitty things the Clan had done to them recently. They had a thousand reasons for a revenge attack and this was a perfect opportunity. So the only question that really mattered to Ria was … *had they seen her heroic and selfless rescue attempt?*

But the Uglies didn't seem interested in revenge on Duma, Grigo and Vik, or in showing any special favours to Ria for putting her life on the line for one of them. They stepped past her and gathered round the cripple in a circle, arm in arm, emitting low hooting sighs. Very soon he shook himself like a wet dog and stood up.

They made him better, thought Ria, amazed by the kid's quick recovery. But then she corrected herself: *Of course they didn't.*

Like all his kind this youth looked strong. He could probably have outrun Grigo and his posse if he hadn't been hobbled by a

deformed foot, turned inwards and downwards at an unnatural angle. He was about Ria's age, perhaps a little older, and what was weird – even disturbing – was that he wasn't bad-looking. His brow ridges weren't fully formed yet and the brown eyes beneath them gazed at her with unexpected warmth and intelligence.

The Uglies were supposed to be mindless animals, like aurochs or rhinos, lacking in smarts and incapable of any of the finer emotions. But the eyes of this youth, staring at her with such urgency, were entirely human and filled with sensibilities she had no difficulty recognising. The Clan had always believed the Uglies were too stupid to talk but with a flash of insight she understood this one was already communicating with her – somehow. She knew he was grateful to her for helping him out, for taking his side without thought of herself, and the moment she grasped this she heard a voice – not out loud but inside her head – that spoke her language and said, simply, 'Thank you.'

This was absolutely astonishing and strange but Ria was

already convincing herself she must have imagined it when the Uglies began to move away, taking the club-footed youth with them. He shuffled along with his elders, shoulders hunched, head down, and she saw she would soon be left alone with Duma, Grigo and Vik. They were *certainly* going to finish what they had started with her.

She jumped up. ‘Hey, Uglies!’ she shouted. ‘Take me with you.’

Chapter Two

California today, late summer

Leoni was seventeen and no longer kept count of her lovers. A few stood out as being sensationally good, a few she remembered for being dismally bad, but most were just … forgettable.

Like this one bouncing up and down on top of her now. He was so forgettable she'd already forgotten him. Was he called Mort? Hmm … Could be. But then again, maybe he was a Michael, or a Matthew? Or perhaps his name didn't even begin with an M. Perhaps he was a John or a Jim or a Joe? Might even be a Bill or a Bob.

Whatever.

Leoni waited with barely disguised impatience for him to finish. Then she stifled a yawn, dabbed herself down with his Versace T-shirt, made her excuses and left.

He lived in a mansion with lots of complicated corridors that kept bringing her back to his bedroom like one of those nightmares where you can't escape. Then, when she found a door and stepped out into the warm Malibu night, she couldn't remember where she'd parked her blue convertible SL500. She spent several frustrating minutes pressing the remote buttons on her key until she realised the car must be at the other side of the house.

As she trudged around the massive building in her high heels she thought: *What did that bastard slip in my vodka?* She felt stupid, like her head was full of bubbles. And where was the Merc? *Beep beep.* Ah, there it was. She crawled in behind the wheel and started up the engine. Better. Much better. Now all she had to do was find her way out. She flicked the control to put the top down.

Whirr … hiss … click. Then it was Jimmy Choos off, full beams on, right foot down on the gas, and a satisfying spinning of wheels and splatter of gravel. She drove a couple of times round the big house to get her bearings, then tore down the main driveway and pulled to a screeching halt in front of the tall iron gates that barred her exit.

Leoni was beginning to feel thwarted. All she wanted to do was go home and sleep for, like, three days. But she couldn't get out. She put her palm on the car's horn, pressed hard and revved the engine. Deafening din. Then she backed up and charged at the gates, skidding to a stop just before hitting them. She backed up and charged again. On the third attempt her lover of the night must have pressed a button somewhere because the gates swung open and she shot out onto the road in her little blue car like a cork from a bottle, weaving from left to right before regaining control.

Pacific Coast Highway coming up. With the wind in her hair, struggling to light a cigarette, Leoni executed a spectacular left turn at about a hundred miles an hour towards Santa Monica, cutting

sharply across the path of a shitty-looking black-and-white Ford travelling in the opposite direction. She made eye contact with two startled faces – both male, one with a moustache – staring out at her from behind the windshield. Then she saw the seven-pointed gold star painted on the Ford's door beneath the words CALIFORNIA HIGHWAY PATROL, also in gold.

Leoni floored the gas pedal and was soon skimming along at around a hundred and forty, but in seconds the black-and-white loomed up in her rear-view mirror with its sirens blaring and its lights flashing. *Jesus, those boys had turned fast.* And their shitty Ford was *hot.* Accepting that she wasn't going to get away, Leoni cut her speed, pulled into the emergency lane and stopped. Her heart was pounding and she had stomach cramps. *Jesus!*

The officer with the moustache appeared at her side, scowled down at her and demanded to see her licence. He was in his mid-twenties, with short black hair and a Latino look, and he had a big Smith & Wesson strapped to his butt. Fumbling for her ID, Leoni

spilled the contents of her purse all over the passenger seat and burst into tears to create a distraction when she saw, under the unforgiving glare of the street lights, not only her driving licence, credit cards, money, tampons, condoms and lipstick but also a dozen bulging wraps of cocaine.

'Ma'am,' said the officer, 'I need you to step out of the car NOW.'

Her father's attorney posted bail for her in the morning and whisked her out of a side door with a blanket over her head to avoid the press and camera crews waiting at the front. By lunchtime Leoni was back in Beverly Hills, slouching in the palatial kitchen of the parental home.

She had never hated mom and dad with such intense and personal revulsion as she did right here, right now. Her flesh was actually *creeping* with disgust.

Dad was a short, stocky middle-aged guy, running to flab,

wearing a ten-thousand-dollar suit and a buffed Beverly Hills tan. He had blond hair, cut short, receding sharply at the temples, the cold blank eyes of a fraud investigator, and a long, suspicious nose that didn't seem to belong on the same face as his wet, fleshy, very red lips. He was a bully, the loudest voice in the room, but this morning his wife was doing all the talking and he stood near the door searching his teeth with his tongue as though trying to dig out morsels of food.

Mom was the taller of the two by four inches, skinny, hatchet-faced and mean as a rattlesnake. 'We've been fielding calls all morning from the rival channels and press,' she spat at Leoni. 'Even the *National Enquirer*, for Christ's sake.' She mimicked the headlines: 'MEDIA TYCOON'S RICH-BITCH DAUGHTER ON BAIL AFTER NIGHT OF DRUGS AND BOOZE.' Her upper lip trembled. Tears spilled through her eye make-up: 'You've shamed us again' she yelled, spraying spit. 'Shamed your father. Shamed me. Worst of all, you've shamed your brother in his first week in

middle school' – she was triumphant now she'd managed to bring Adam the miracle child into the conversation – 'and I'll never forgive you for that.'

It was a big deal that Adam had skipped a grade and moved up to middle school. The precocious brat had just turned ten, making him more than a year younger than most of his classmates, and his brilliant performance was in stark contrast with his big sister's drop-out academic status – as her mother liked to remind her. 'Everything comes down to Adam for you, doesn't it?' Leoni sobbed. 'Adam this. Adam that. It's always about Adam. Never, ever, *ever* about me.'

But Mom yelled right back: 'What do you mean, it's never about you? You selfish little bitch. I JUST DON'T GET IT. Haven't we always given you everything you've ever wanted?'

You didn't even give birth to me, Leoni wanted to say, *so how would you know?* Part of her really wanted to get into all the big hurtful issues …

(right now).

But she still wasn't sure if what she thought had happened to her was real or imagined.

'Look,' she said finally, 'I'm sorry, OK? This is a difficult time for me. I'm adjusting. Dealing with a whole lot … I haven't felt right about … *anything* for, like, the whole of this *year* …'

'Well, let's see how you adjust to having no car.' Mom cut her short. 'And no allowance. And how about we don't pay for an attorney to represent you when this gets to court? I guess the state can provide one for you. Some kid, fresh out of law school, still wet behind the ears, who won't be able to keep you out of jail. THIS TIME YOU EARNED IT, YOUNG LADY.'

This time you earned it, young lady. What a jerk, Leoni, thought, *what a jerk you are, Mom.* Her self-control broke. She uttered a short high-pitched scream at the top of her voice, ran from the kitchen, colliding with her father on the way out, knocked over a lamp stand in the hall, pounded up the stairs to her bedroom and

slammed the door so hard behind her that two of its wooden panels cracked and flakes of white paint showered to the floor. She stalked forward, snatched up her sketch pad and Magic Marker from the bedside table and with stabbing, slashing strokes scribbled a cartoon featuring her mother being mounted by a donkey. Then she tore the drawing into confetti and collapsed on the big pillow-strewn bed sobbing, feeling like a three-year-old throwing a tantrum. Why was it that Mom always managed to reduce her to this?

Five minutes later Leoni was still so angry she was shaking. But then she remembered she had just the thing. Kicking off her shoes she padded across the room to her underwear drawer and fumbled around in it for a rolled-up sock she kept way at the back. She could just make out her parents' voices down in the kitchen, faint and indistinct. They were shouting about something. Probably about what they were going to do with her. She retrieved the sock, unrolled it, and counted out five white OxyContin pills stolen, amongst other goodies, from her mother's drugstore-sized stash of

legal prescription highs.

Leoni had not used OxyContin before but she had heard good things about it, excellent things, and now seemed like the time. The pills were ten milligrams each. Were five too many? Too few? She'd seen her friend Billy, crystal-meth addict and heir to a billion-dollar fortune, knock back a big blue hundred-and-sixty-milligram torpedo of OxyContin and suffer no obvious ill effects – so a teensy fifty milligrams wasn't going to do her any harm, was it? And did she actually care if it did? On impulse she upped the dose to eighty milligrams and then remembered Billy's advice that the effects could be intensified by crushing the pills and snorting the powder. Snorting was definitely something Leoni knew how to do.

With much effort and impatience, using the end of a steel nail file, she ground the eight pills down to a fine powder. Then she rolled up a hundred-dollar bill and took a gigantic sniff. Hmm. Not bad. Instant rush. Leoni snuffled up the rest of the powder and lay back on her bed to enjoy the euphoric glow suffusing her whole

body. God, this was better than sex. Her mind drifted. At first she felt like she was submerged in a pool of warm jelly. But soon she started to shiver and her skin turned cold and clammy. The room seemed to be spinning round and something was suffocating her.

She tried to get off the bed, shuffle towards the door, call for help, but she couldn’t coordinate her movements and fell to the floor. The sense of being smothered worsened until Leoni could no longer draw breath and slipped into deathly unconsciousness.

Chapter Three

Ria had no intention of staying with the Uglies a moment longer than necessary. She wanted to put a safe distance between herself and Grigo, Duma and Vik. After that it would be goodbye to her big hairy yellow-toothed protectors, a tough hike through the backcountry, and then hello again to the safety of the Clan and the righteous vengeance her badass brothers Hond and Rill would soon be meting out.

She was still shaking with anger and shock at how close she'd come to being raped and murdered.

But there was something else. The three youths, Grigo in particular, were renowned arseholes. Even so, their behaviour had

been strange. There were few grown men in the Clan, let alone untested boys like these, who would risk the anger of Ria's lean and lethal elder brothers. So what had changed?

She guessed it was their connection with 'Sulpa' that was making them stronger. And for some reason this Sulpa wanted them to torture and kill Uglies.

It was an idea that seemed to be catching on. Since the beginning of summer a powerful faction of the council of braves, led by Grigo's father Murgh, had been hunting the Uglies like wild animals, slaughtering whole families at a time, inflicting terrible tortures on those they captured alive, driving them out of their ancestral hunting grounds.

But none of Murgh's bullies, nor anyone else in the Clan, was called 'Sulpa'. The name had a suspicious alien ring to it. Ria decided it must belong to an outlander.

Why were Grigo, Duma and Vik taking orders from an outlander? They'd spoken about him in fawning and awestruck

tones. Vik had sounded afraid of him, and Grigo had proudly claimed to know him better than the other two.

Why were they all so impressed?

Why would Sulpa have ‘loved it’ if they’d succeeded in raping and murdering her?

The whole thing gave Ria the creeps.

The Uglies lumbered forward at a good pace. The males were so heavily muscled their bodies bulged like rhino skins stuffed with large, irregular rocks. The females were almost indistinguishable from them in size and general appearance but if anything even more hideous and disgusting to look at. In recent years the sorry creatures had begun to imitate the dark eye paint and red-ochre lipstick used by Clan women of childbearing age – accessories that Ria herself had worn since her first menstruation three years before. But Ugly females just weren’t designed for make-up.

Still, their misplaced effort at self-beautification was

interesting. Like the fiercely intelligent and strangely human expression in the eyes of the boy she had saved, the amateurishly applied make-up of the women – seen now in close-up for the first time – had a most unexpected effect on Ria. She found herself feeling sorry for the Uglies, identifying with them somehow, and realising again in a very direct and immediate way that they couldn't possibly just be dumb mindless animals. *They walk on two legs, just like we do*, she reflected. They have hands with five fingers, feet with five toes. They have ears like ours, eyes like ours. *Just like ours.* The mothers hold their babies to their breasts to feed them, just like we do. They use tools and weapons just like we do – even if most of their stuff is crap.

On the other hand, no matter how well-disposed she was feeling towards them, there were differences that were hard to ignore. Ria glanced about, absorbing details of the Uglies who had surrounded her on the march. For starters those famous brow ridges of theirs were … well … not very human. They had almost no chins

and their heads, which lolled forward, seemed to sprout directly from their hefty shoulders. There were matted patches of coarse red hair all over their bodies, which gave them a mangy look. Also, they *smelled* like shit.

Just then Ria became aware of a new presence limping along by her side – the Ugly youth with the club foot. He was looking at her with something like devotion and again, as their eyes met, she was shocked to hear a voice inside her head, clear like a mountain stream, speaking her language. What it said this time was: 'Protect you … Protect … Ria … I will protect Ria.'

So it hadn't been her imagination before. The kid's lips hadn't moved, but she knew, totally knew, that it was his voice she'd heard – that he had somehow figured out a way to talk to her inside her head. Like seeing the sun rise in the west or a river run uphill, this was so surprising it made her dizzy.

'How come you know my name? she asked, feeling spooked. 'And, by the way, sorry that I have to speak out loud like normal

humans.' She rallied: 'You heard Duma call me Ria, didn't you? That's how you know my name.'

The reply inside her head was instant: 'Don't need words of Duma. I *know* your name. Without speak, I know your thoughts. There is a rope between us, you and me. From now, always, I will protect you. You are my … sister.'

'I already have enough brothers, thank you very much. What's this about a rope between us? And – hang on a minute – did you just say you know my thoughts?'

'Uglies are mangy. Smell like shit. Weapons crap. Can't wear make-up.'

Ria gasped: 'Oh. I see. So there's no privacy, then? Doesn't matter if I speak or not? Every random thought that crosses my mind I have to share with you? Is that how things work with you guys?'

'When we have a rope between us we can share,' Ria heard inside her head. 'Share feelings, thoughts, pictures. Clan has words.

We listen. Learn your words, but don't like. Clan people speak: blah bar, blah bar, blah, blah, blah … Say one thing, mean another. We can't do spooky speaking out loud like Clan.' As though to emphasise this point the kid opened his mouth – like his elders he obviously hadn't cleaned his teeth since the day he was born – and emitted a low grunt followed by a hoot, which he repeated several times: *'Rugh ... agh … Rugh ... agh … Rugh ... agh …'*

What was this? What was *Rugh ... agh?* With a stifled giggle Ria got it. The Ugly youth was trying – and failing – to speak her name, even though, inside her head, he could already say it perfectly. Now he pointed to his throat – or at least to where his throat would've been if he'd had a neck – and grunted some incomprehensible gibberish that sounded like a wild animal chewing stones.

'OK,' said Ria, 'I get it. You actually *can't* speak. Your throats won't make words. So you get straight inside each other's heads instead. Cool trick. Wish I could do it. Must save a lot of time.'

‘Can hurt,’ came back the kid’s thought-voice. ‘What’s inside other’s heads can hurt.’

Ria nodded in immediate agreement: ‘I expect it can. I don’t think I’d have many friends left if they knew what I was thinking about them all the time. Now listen … You know my name, so you should tell me yours. Fair?’

‘Is difficult.’

‘What’s difficult?’

‘My name. For you will be difficult.’

‘Go on … Don’t be shy.’

‘Brindle-phudge-tublo-trungen-apciprona.’

‘Ah. I see what you mean. Would you mind saying it again? I’m sure I’ll get used to it.’

‘Brindle-phudge-tublo-trungen-apciprona.’ ‘OK. Brindle it is, then.’

Ria looked back over her shoulder. The entrance to the valley could no longer be seen and they were climbing the slope of another

of the many low hills characteristic of this area. Once they were over the summit and down the other side, she calculated, Grigo, Duma and Vik would be far enough behind for her to outrun them.

Brindle's voice invaded her head again: 'You will run? Not such a good idea. Boys who hunt will hunt you. Better you stay with us this night. Maybe tomorrow go back to Clan.'

You must be joking, thought Ria.

'Not joking. This night you stay with Uglies. Be safe.' And with the thought of safety came pictures and sensations – cave walls, something cooking within a flickering fire, a musky aroma of woodsmoke and roasting venison, a ledge with thick, warm furs spread over it that seemed to invite her to sleep.

'NO', Ria yelled at the top of her voice, causing Brindle to flinch and the other Uglies nearby to grunt and hoot. 'YOU MUST BE JOKING, OK? NO WAY AM I GOING TO STAY WITH YOU. NOT TONIGHT. NOT EVER.' Suddenly she broke to her left, shouldered past a couple of hefty females and, her heart

pounding, sprinted towards the summit of the hill. None of the Uglies pursued her, which was good. In fact, with the exception of Brindle whose exclamations of alarm rang like bird calls inside her head, the rest of the group showed no interest in her departure and just continued to plod ahead.

Soon Ria reached a big boulder just below the summit where she paused for breath. She looked back with a sense of triumph at the column of Uglies now two hundred paces below her. *Phew. What a relief.* For a moment she'd been certain they meant to keep her prisoner. Or that Brindle did.

Not prisoner, came Brindle's thought-voice. *Never prisoner!*

Ria shrugged. *Fuck this.* She was out of here. She scrambled the last few paces through thick gorse and bracken to the summit.

What she was expecting was a long downhill run to freedom. Instead, thirty paces below her, on the other side of the hill, hidden from view until now, she saw Duma, Grigo and Vik, climbing hard, with clubs in their hands.

Grigo had a glint in his eye. ‘Hello, Ria,’ he gloated. ‘Ready for your gang-bang?’

Chapter Four

Leoni was hovering in her bedroom, close to the ceiling, like one of those helium-filled party balloons. Hmm … There were cobwebs up here that Conchita must have missed when she cleaned yesterday. Left dangling amidst threads of dust and lint, a fat black spider and half a dozen paralysed bugs swayed back and forth in the gentle afternoon breeze that drifted in through the open picture window. Avoiding the wildlife, Leoni tried to brush the webs away with her fingers but couldn't do it. Her hands just seemed to pass through them. Poor Conchita was going to get her ass fired when Mom noticed this mess.

In a detached way, and without fear, Leoni knew that

something odd was happening to her but didn't want to deal with it right now. Then she looked down and … *Oh ... my ... God!* There on the floor was her body, sprawled like roadkill, coke-snorter's nose buried deep in the thick pile carpet, skirt hitched up over her left butt cheek. On the table beside her bed was a glossy magazine dotted with a few telltale flecks of OxyContin powder – so she hadn't got it all, then – a steel nail file and a rolled-up hundred-dollar bill. Might as well have a sign on the door saying DRUG ABUSER LIVES HERE, she thought.

She zoomed down for a closer look at … herself. Was she dead? In a coma? The questions weren't urgent and Leoni was surprised to discover how little she actually cared about the fate of this prone, intimately familiar and yet somehow alien body which seemed reduced already to skin and bones, meat and offal. Besides – and this was totally fucked-up – she had some other kind of body now. She had transparent hands that could not sweep away cobwebs. She could see her limbs, feet and flesh but they were not

solid. Overall there was a strange sort of diaphanous insubstantiality about her – an aerial quality, as buoyant and ephemeral as a glistening soap bubble. She found nothing threatening or fearful in this. Quite the opposite. She felt she was floating on a wave of light and joy.

Still, surely she must summon help? While there was even the faintest hope, surely she couldn't just let her meat body expire? Could she? And what would happen to her aerial body if she did? Perhaps she would just go *pop!* and disappear?

With that thought Leoni floated up and out of the bedroom window, down into the sunlit garden and through the open French doors into the kitchen where her parents' shouting match had ceased. Now they were seated at the table in their usual positions, Mom at the head, Dad at the side to her right, talking in lowered, serious voices.

'Listen, guys,' Leoni told them, 'I'm dying upstairs. You've got to get me to a hospital right now.'

They paid no attention.

‘Dad!’ She reached out to shake his arm, but it was as though her fingers had closed on air. She made a grab for Mom and was able to push her hand right through her chest and through the back of the chair behind her.

Fucked *up*!

Leoni ascended and hovered over the middle of the table, looking down at the two of them. They seemed uglier than usual, like Komodo dragons in human masks, and their whispers had harsh, sinister undertones. She felt a mild but insistent force tug at her. She surrendered, and began to drift towards the garden, when her father said something that drew her right back: ‘Leoni’s putting us at risk. Pretty soon she’s going to blurt it all out to some reporter.’

‘My daddy made sex with me,’ Mom mimicked in a high-pitched childish tone before adding, in her own voice: ‘Little bitch. It’s going to hurt the business.’

‘We drove her to this.’ Just for an instant Dad sounded remorseful until Mom butted in with a fervent look in her eye: ‘It’s what Jack wanted,’ she said.

‘Exactly,’ Dad replied, brightening. ‘It’s what Jack wanted.’

‘He delivered his side of the bargain,’ Mom said. ‘We delivered ours. Now it’s time to clear up the dead wood.’

Leoni’s mind reeled. She’d been plagued with doubts for years about the sick things she remembered her dad doing to her in two widely separated episodes of sustained attacks during her childhood.

Had any of it happened?

She’d so much wanted to believe it was just mad sexual nightmares and her imagination running wild, as Dad had told her again and again, but now here was Mom seeming to confirm that it had all been real – and that she’d been raped because that was what some guy called Jack wanted.

So who was Jack?

And what did Mom mean about clearing up the dead wood?

As Leoni struggled to find answers, the force pulling on her aerial body grew stronger – much stronger. For an instant it was like riding the lead car of the roller coaster at Santa Monica Pier, only a thousand times faster, plunging and soaring through vast domains of sky until – WHOOMF! – she was back in her bedroom again, hovering directly over her meat and bones. There was someone else on top of her as well – Conchita! She'd come back with a broom to dust the cobwebs – screaming for help between bouts of mouth-to-mouth resuscitation.

With a hair-raising plunge of the roller coaster Leoni drew a huge gasping breath and was impelled back into her body. The last thing she heard before she lost consciousness was Conchita dialing 911.

Then Leoni was hovering at ceiling height again but not in her bedroom. This was more like it. They'd got her to a hospital at last. It looked like an operating theatre with lots of sexy male doctors in

green scrubs scurrying around. And in the middle of all the action, stretched out on a gurney, hooked up to an amazing array of tubes, wires and bags, was Leoni's poor pale body.

The docs were working at a frantic pace, doing things to her, and all of it was mildly interesting, of course. Then … what was this? Mad panic all round. Shouted commands. Whine of an electric-shock machine charging up. Looked like her heart had stopped. Over on the array of monitors Leoni could see the flat line on the ECG, heard the high-pitched buzz of the alarm and became aware again of that powerful gravitational compulsion that had drawn her back into her body earlier – only this time it seemed to be pulling her in the opposite direction, away from herself and into a staggering and awe-inspiring vortex of light that opened, like a tunnel, at her side. She just had time to think …

(*Oh ... my ... God! This is really interesting*.)

… when she found she was already inside the revolving tunnel and floating through it.

At intervals its walls were marked with large geometric grids, something like windows with multiple panes, in each of which faint images of people and places glowed.

Leoni was able to slow her forward motion to examine the images and discovered that if she concentrated on them they first sharpened and then dissolved into vivid memories.

Except the image she was concentrating on now couldn't be a memory because nobody could remember what happened to them when they were only a few hours old. Could they?

Instead, the panel showed her a scene that she had tried to imagine all her life, but somehow it was now infused with all the solidity and shadow of an observed event.

It is night. Rain spits down. A single street light casts its orange glow into a mean alley. The alley is closed at one end by a high brick wall topped with jagged shards of glass. A barred and rusted iron door is set into the wall and piled on either side are heaps of bulging plastic trash sacks, slick with rain. A young

woman, blonde, pale, a livid bruise on her cheek, dark circles under her eyes, slips into the alley. Furtive, she looks back over her shoulder as though she fears she is being followed or observed. Dangling from her hand is a black plastic sack containing some small object and now, with further hunted glances, she places it amongst the rest of the trash and hurries off without a backward glance. The sack is not tied closed, merely gathered at the top, and as the woman's footfalls echo away something stirs within it and utters a feeble cry. The sack flops open and rain leaks onto the wrinkled face and blue eyes of a newborn babe.

The babe, Leoni knew, was herself.

The child nobody wanted.

In the next panel she had reached two years of age. She was wearing a little print dress and was seated on the floor looking up at a TV set in the Los Angeles orphanage where all her first clear memories began.

Here she was at three, out for the day with a family, hoping

they might adopt her. She so much wanted to live in a real house, with toys that were hers and with real parents. But it didn't happen.

Another panel, another visit, another rejection. The child nobody wanted.

Now she was nearly five, quiet, withdrawn, friendless amidst the crowd of other children. She sat alone with a crayon and a sketch pad. She always loved to draw.

The next panel showed her big moment, a few months later when, after a sudden rush of interest, she was adopted by Herman and Madeleine Watts. They weren't rich – the meteoric rise of Dad's business began right after Leoni's adoption – but she remembered how the house they'd lived in then in East Hollywood had felt to her like a fairytale palace.

Here she was at seven in their first Beverly Hills home, her best year. Mom and Dad must have wanted her otherwise they wouldn't have adopted her. Would they? They gave her so much. A tree house. All the pets in the world. A little car with a real engine

to drive around the grounds. Closets full of clothes. Make-up. Zillions of pairs of shoes. She felt like Cinderella at the ball.

Now she was eight, the beginning of the bad times. She was asleep in bed in her cosy room. Suddenly someone grabbed her hair, jerking and shaking her, and she awoke with a scream. It was Dad. He had no clothes on. In the glow of the night light his eyes were blank as stones as he clambered on top of her, still gripping hold of her hair. She struggled, screamed – *'What's happening? What's happening? Dad? No!'* – and he cuffed her face hard with his free hand, making her head spin. He was heavy. He sprawled over her, forced his knee between her legs and groped her. She screamed again – *'Mom! Mom! Mom!'* – very loud.

But Mom didn't come to her rescue. She didn't come once during that whole year of terrifying night-time visits.

Now Leoni was nine. She was in the car with Dad. He was explaining to her that the rapes had never happened, and at some level she did believe they were just bad dreams and her imagination.

The other problem – the damage to her body – was because she went a little crazy sometimes and hurt herself in her private parts.

In the next panel she was ten, on a family day out with her parents. Adam, their own biological child (they called him the 'miracle child' because of Madeleine's previous infertility) was celebrating his second birthday. As she reviewed the scene Leoni experienced again the pangs of envy and hatred she had felt that day at the way Mom doted on Adam, giving him all her attention, and was cold and neglectful towards her.

Now she was eleven. There had been no more rapes. Or dreams. She was in the schoolyard, mercilessly bullying poor Janet Lithgo, a smaller girl with a hair lip who later committed suicide.

Now Leoni was twelve. The bad times were back. She saw herself lying in her bed, as though paralysed, with her dad's body, sweaty, face averted, humping away on top of her.

('It's what Jack wanted.')

There had been thirty rapes that year and she hadn't screamed.

Not once. She just shut her eyes and let them happen, did any positions he wanted, and never complained. It didn't hurt so much that way and while he was inside her she just pulled herself out of her body the way the Blue Angel had taught her.

The Blue Angel, who started to visit her in dreams around that time.

Her secret friend who she never talked about.

Not to anyone.

Just the way she never talked about what her dad did to her.

In the next panel she was fourteen, on a shopping spree in Rodeo Drive. Mom and Dad had been showering possessions and money on her, she hadn't been raped for nearly two years and there had been no more dreams.

Here she was at fifteen, naked, down on her hands and knees in a big bathroom at a party. Five guys she didn't know were taking turns to screw her.

Now she was sixteen, on the floor of some other bathroom,

sniffing up lines of cocaine, her nostrils red and her eyes stinging.

And finally here she was at seventeen, overdosing on Oxycontin in her bedroom …

Leoni could still see the operating theatre behind, and sense the rush and chaos surrounding the body on the gurney in there; but all that was fading … fading. Ahead, getting closer, the other end of the tunnel was filled with an illuminated swirling fog through which tantalising vistas of green sunlit meadows dotted with trees appeared and vanished again.

Looks good, Leoni couldn't help thinking. *Is it Heaven?*

Then the figure of a woman materialised out of the fog filling the mouth of the tunnel, a tall, very beautiful woman, beckoning to her, surrounded by a cascade of white robes – a smiling woman with jet-black hair and indigo skin whose face was hauntingly familiar like an old friend not seen for many years.

The walls of the tunnel dissolved, full remembrance dawned, and Leoni found herself in the presence of the mysterious being she

called the Blue Angel. They were standing barefoot on grass wet with dew, in the midst of a vast meadow. A herd of strange animals unlike any she had ever seen before grazed in the shadows of a nearby clump of trees and there were two suns in the sky, one almost at the zenith, one low down towards the horizon.

‘Where are we?’ asked Leoni.

‘This is the land where everything is known,’ replied the woman. ‘Shall we walk a bit?’

Chapter Five

Ria skidded to a halt on a patch of scree at the summit and in the blink of an eye had hefted two good throwing rocks. She hurled the first at Grigo, now just twenty paces below her, and saw it strike the middle of his forehead, felling him like a speared bison. The second rock glanced off Duma's right ear. It reamed out a chunk of cartilage but he was still coming at her. Then Vik was upon her in a full charge, catching her with his hefty shoulder and sending her sprawling into a thorn bush.

An urgent whisper from Duma: 'Hey, Vik! Behind you! Uglies!'

Morons, Ria thought. *Shit for brains.* Hadn't they even

considered the possibility that the Uglies might still be close? Struggling to free herself from the thorns, she enjoyed a comic moment as Vik's jaw dropped and Duma turned around and fled down the hill in the direction he had come from, pursued by two enormous braves from the Ugly column. They caught him in less than fifty paces. One reached out and pinched his torn right ear, then dragged him back by it, squealing and protesting, to the top of the hill. Vik had been knocked to his knees by a third big male. A fourth menaced Grigo as he regained consciousness.

Arseholes.

'Definitely arseholes,' agreed Brindle's thought-voice. Together with the rest of the Uglies he had scrambled up to the summit. Now he limped over to stand beside Ria and sent her a vivid image of herself running away from the column: 'Protect you. Told you I would.'

Ria was getting used to not having to speak aloud. Because she and Brindle had a 'rope' between them – whatever that meant – she

could simply think and he would know. She tried it out: ‘OK, so I guess that makes us even …’

‘Can never be even. What you did before, fought the hunter boys, saved my life – that was … magnificent. You are hero. Brindle useless cripple. Can’t fight. Just tell braves to help you.’

‘You mean if you hadn’t told them they wouldn’t have helped?’

‘No. Why help? No rope between them and you. And you ran away from us. Your decision – so Uglies think: better stay out of it. Better not get mixed up with Clan.’ Pictures exploded in Ria’s mind of the massacres, tortures, thefts, burnings, beatings and insults that Murgh’s followers had recently been inflicting on the Uglies – the whole range of ruthless techniques used to annex their traditional hunting grounds. With the pictures came a huge wave of sadness and loss and Ria understood in a flash that Clan braves had killed Brindle’s mother, brother and sister just two moons before, catching them in the open while they trekked from a distant camp. With more

images he showed her that almost every one of the sixty or so Uglies now gathered round the hilltop had suffered similar losses.

It made sense to stay out of the Clan's way. It made sense to avoid getting mixed up in Clan business. But now, with Grigo, Duma and Vik on their hands, the Uglies were mixed up with the Clan whether they liked it or not. 'What's going to happen to them?' she asked Brindle.

'Feels like problem.'

'Will they be killed?'

'Clan are people like us. Are spirits … like us. Better let them go …'

'If it was the other way round and the Clan had captured three Uglies who'd been hunting one of our boys, we wouldn't hesitate. We'd kill you guys on the spot. Without mercy …'

Brindle looked pained and, for a few heartbeats, Ria received nothing from him at all: no words, no feelings, no emotions. Then, very still, serious and emphatic, his thought-voice was back inside

her head: ‘Uglies would *not* hunt one of you. Uglies are not Clan. Don’t kill if don’t have to. Never kill for fun.’

Ria wasn’t impressed. ‘If you let them go,’ she said, ‘they’ll just follow us and grab me again as soon as I’m on my own.’

‘We are going to Secret Place. Half-day march from here. Many of us hiding there now since Clan started to attack us. Not only for your sake but for our sake also we must not be followed there.’

The four braves guarding Grigo, Duma, and Vik stayed on duty. The rest, including Brindle, gathered into a tightly packed circle nearby and began to hoot. Coming from these massive, stinking brutes in their ragged skins it was a weird and eerie sound, halfway between an owl call and the cough of a mountain lion, that sent chills up Ria’s spine. She wondered what purpose it could serve for them when they already had the power to see into each others’ minds.

She was also curious about Brindle. He described himself as a useless cripple yet he was respected by the other Uglies, including the toughest braves. It seemed that when he told them to do something – like rescue her – they obeyed. In Clan society gimps got no respect at all and certainly didn't give orders. In fact, most of them didn't even live past the age of five.

As suddenly as it had started, the chanting stopped, the scrum broke up, and Duma, Grigo and Vik were prodded to their feet. A brave wearing a reindeer-skin backpack walked over to them, took off the pack and pulled out a big coil of fine flexible rope woven from grass fibres. Lengths of the rope were cut and used to tie the three scowling youths' wrists tight together behind their backs, and then to bind their legs equally tight at the ankles – Vik's right to Grigo's left and Grigo's right to Duma's left. Only Vik's left leg and Duma's right leg remained untied and free to move. Grigo was in the middle, hobbled on both sides.

Ria stood close to them on the hilltop, picking thorns out of her

leggings and jerkin and feeling spiteful. After what they'd tried to do to her she had no pity for them. As Brindle walked over to join her again she asked: 'So is this the plan? Just tie them up?'

'Yes. Not perfect, but better idea than killing them. This way they cannot follow us and we'll make it to Secret Place before they can get back to Clan …'

The three-bodied man that Duma, Grigo and Vik had become began an awkward shuffle away from the Uglies. When no one stopped them they seemed to take heart and tried to move faster, cursing and complaining with every tottering hop and skip, but they lost their balance and fell over in a tangle of limbs and profanities. Vix's fat arse ended up in Grigo's lap, pinning him to the ground.

Ria giggled and yelled: 'Hey, Grigo, I know you guys like each other a lot, but please, go behind a tree or something …'

With a grunt Grigo shoved Vik aside and forced Duma into a painful contortion so that all three of them could stand. Grigo's face was flushed with anger and exertion, his lips split and bruised, his

teeth broken, his forehead bloody. ‘I’m going to kill you, Ria,’ he hissed through the wreckage of his mouth. ‘The next time I see you you’re dead.’

‘Big words, Grigo. Only maybe it won’t be me who gets killed the next time you see me.’ She whipped back her arm as though about to throw another rock at him and he cowered.

‘See that, Vik?’ Ria couldn’t resist gloating. ‘See that, Duma? Your lord and master is afraid of my empty hand.’ She held up her hand to them, palm outward, fingers extended, and Grigo glared at her with such an intensification of hatred that she knew she’d made an enemy for life.

‘Who’s Sulpa?’ she asked suddenly, hoping to catch him off balance.

A sly look crept over Grigo’s face, but he said nothing and when Duma started to speak he silenced him with a snarl.

Chapter Six

Leoni walked in silence for some minutes, just looking around at the peculiar wildlife, trees and scenery, trying to understand what had happened to her, and sneaking glimpses out of the corner of her eye at the Blue Angel walking by her side.

Before, when she had come to her in dreams – and that had not happened for many years – the Angel had been a motherly, gentle, and reassuring presence, with just a hint of some great power held in reserve. On her first visits she had been winged, like the angels painted on the ceilings of Italian churches, and sometimes golden stars had spangled her body. But as Leoni encountered her more often she came to look more and more as she did today – a splendid,

imposing but wingless woman.

In dreams, though, it had been as if Leoni were seeing her through a soft filter, or twenty feet of water, whereas now she was revealed in a brilliant radiance and glory, terrible as an army with banners.

Her indigo skin was the colour of earth's oceans seen from space. Nobody had skin like that.

Then there was her incredible charismatic presence. She was six feet tall, maybe a little more, and she was dressed in figure-hugging robes that seemed to have been sewn from incandescent threads of white metal. Her jet-black hair had a wild satiny sheen and hung thick and straight to below her waist.

She was beautiful in a spectacular and ethereal way, with the high cheekbones, large heavy-lidded almond eyes, arching eyebrows, fine straight nose, full sensual lips, delicate chin, and long elegant neck of an Ancient Egyptian goddess.

Leoni was doing her best to act nonchalant but inside she was

freaking – and it wasn't just because of the Blue Angel.

Everything she could see around her – absolutely everything – was utterly strange and weird.

First problem: wherever this was …

(the land where everything is known?)

… it certainly wasn't Planet Earth.

There were two suns, for fuck's sake.

Second problem: what was the deal with those animals – there seemed to be about twenty of them – grazing close to the trees? They looked very much like a herd of cows. They were cow-sized. They had udders like cows – one was even suckling a calf. And they had leathery hides. But they also had six legs, stubby wings folded up over their backs, and heads like beetles.

Third problem: were those really trees? From some angles they looked more like a dozen tall spindly birds that had disguised themselves as trees with elaborate contortions of wings and leafy feathers. Every now and then Leoni got the sense they were inching

closer to the grazing cow-beetles.

Fourth problem: what the cow-beetles were grazing on – and she was walking on – was not dew-sprinkled grass, as she had supposed, but a carpet of little green flowers into which she sank up to her ankles with each step. The flowers were wet because they exuded fragrant sap when pressed down underfoot and, although there was no breeze, the surface of the whole mass of them, as far as the eye could see, rippled and undulated in a beautiful yet somehow disconcerting manner.

Fifth problem: feeling all these things, seeing and experiencing all these things, was she herself alive or dead? Back at home after her OxyContin overdose, later in the emergency room, and passing through the tunnel of light, Leoni had felt as though she had acquired some sort of transparent and insubstantial aerial body – and, accompanying it, a certain inexplicable joy of freedom. But here things were different. Every sense told her she was in a body of flesh again, weighed down by gravity, no longer a creature of the

air. She was wearing a sleeveless knee-length tunic of rough plain cloth, knotted at the waist with rope. She couldn't remember putting this garment on, so where had it come from? Some place with no style was the only thing that could be said for sure.

'You used to come to me,' Leoni told the Angel. She realised it sounded like an accusation. 'You saved my life that year, when I was twelve …'

'When your father was raping you …'

'I think I would have gone mad if you hadn't been there. But then you never came back.' Leoni couldn't keep the hurt out of her voice. 'Why didn't you come back?'

'I couldn't reach you any more. Your parents suppressed your ability to leave your earthly body.'

'But you've reached me now …'

'Because you have left your earthly body again. In fact, Leoni, as things presently stand, that body is dead …'

'Dead?'

‘Dead,’ the Angel repeated. Her expression changed, becoming stern and forbidding. ‘To be born in the human form is a precious gift, and you have squandered it. Even though it is not your time. Even though I have a purpose for you to fulfil.’ Her beautiful features softened a little and there was a note of disappointment in her voice: ‘I had such plans for you, Leoni, and now they hang in the balance. Doctors are trying to restart your heart. If they have the skill to revive you, and if your own will is strong, then you may return to the land of the living. If they cannot do so, or if your will is weak, then I am here to guide you onwards …’

Leoni felt blind panic overtaking her, making her want to scream and stamp her feet. ‘I’M NOT READY TO BE GUIDED ONWARDS,’ she shouted. ‘I don’t even want to *hear* about onwards! My will is strong and it isn’t my time, OK? You said it. I have things to do. Please, lady, if you’re really an angel I’m begging you – PLEASE send me back.’

As though Leoni’s wish were a signal, there came a peal of

thunder out of the clear sky and two things happened.

First, one of the trees under which the cow-beetles were grazing became animated and bent double. The scissor blades of a huge beak revealed themselves amidst the camouflage of leaflike feathers, and the suckling calf was seized from beside its mother and lifted high into the air, mewling and bleating. The beak tilted skywards and closed with a loud *clack.* Two of the calf's six legs were severed and fell to the ground, spouting a clear fluid, its body disappeared with a gulping sound into the open maw of the monstrous predator, and the twenty cow-beetles, bellowing in terror, stampeded towards the horizon.

The second thing that happened was that the whirling tunnel of light that had brought Leoni to this strange and scary place reopened right beside her and she felt herself being drawn towards it. The Blue Angel held up one hand in salutation: 'Well done,' she said. 'You're going back.' Her expression became urgent: 'But I must see you again. Make the veil between worlds thin and I'll show you

Jack.'

Jack!

Leoni was inside the mouth of the tunnel now and being pulled through it. 'How do I make the veil between worlds thin?' she yelled.

'Ask your doctor,' came the faint answer. Then Leoni was swept away and the Angel was gone.

The return journey through the tunnel was much faster than the outbound trip. In fact, it was a bit like being flushed down a gigantic toilet. After some final nauseating swirls and a long drop through empty space, Leoni found herself back in the emergency room, hovering near the ceiling, as light and transparent as a soap bubble once again. Her first thought was that this was so much better than being marooned in a world with horrible tree-sized birds of prey, and she was filled with an ineffable sense of joy and a tremendous surge of light and restless energy.

A quick glance at the monitors. *Hooray.* Her ECG wasn't flatlining any more. The docs were still working on her, though. Hmm, one of them – in his mid-thirties, *really* good-looking – was charging up the paddles of the electric-shock machine … *Wham!* As her meat body writhed and jumped she sensed its breath and warmth and felt its pain.

Leoni recoiled in surprise and flew straight through the wall of the emergency room, down a maze of corridors, and found herself in what seemed to be the main reception area of the hospital. There she dodged behind the desk, obeying an irrational desire to hide, and floated a few inches above the floor. She noticed that the receptionist, a model of efficiency in a severe charcoal business suit, was wearing incongruous orange sneakers with striped purple and green laces.

Whoomf! The doc must have zapped her with the paddles a second time and she was impelled back to the emergency room where she hovered right over her body.

She could hear the high-pitched tone of the electric-shock generator charging up and then *wham!* – another painful jolt – and she was back inside her body, like a fish returning to water.

Her eyes fluttered open. ‘Hello, Leoni,’ she heard the doctor saying. ‘Welcome back to the land of the living.’

She examined his face and tried to speak, but her voice was slurred, as though she were drunk. She tried again: ‘The land of the living?’

The doctor’s soft brown eyes turned quizzical: ‘Yes?’

She was bone weary. ‘You’re not going to believe me,’ she said, ‘but five minutes ago I met an angel who called it the exact same thing.’

Chapter Seven

As Grigo, Duma and Vik continued their slow and undignified descent of the hill, the Uglies lost interest in them, reassembled and resumed their march. Ria followed Brindle as he shuffled over to join the column and fell into step beside him.

She had no particular plan. Probably she'd head home soon. She just needed to think a few things through first.

She glanced at the huge shambling creatures marching all around her. They'd been heading roughly west and continued to do so at a faster and more urgent pace than before. Now it was obvious who the leader was – the giant yellow-toothed male who had rescued her in the valley. His grey hair and grizzled white beard

marked him out as an elder, although he had the knotted muscles of a brave in his prime. He radiated fierce physical power but it was coupled with the same gentleness and delicacy of manner she'd found in Brindle.

Ria decided the Uglies made a poor first impression because of how they looked and smelled. But, once you saw past that, they were, in fact, quite amazing.

She'd never paid much attention to the outlandish claims put about by Murgh's faction. She knew from her own (very infrequent) encounters with Uglies on her – very frequent – rabbit-hunting trips that there weren't many of them around. Certainly not thousands of them as Murgh claimed. She knew they weren't wiping out all the game. She had never known them to be violent or in the least bit threatening, even when she'd once passed a big male in a remote spot where he might easily have attacked her. And for all these reasons, though she had no proof, Ria was also sure the Uglies weren't bloodthirsty cannibals who relished human flesh. It was just

another phoney excuse for murdering them and stealing their hunting grounds.

She had forgotten that Brindle could read her mind, but now he replied to her thoughts with a great wave of anguish: ‘You know truth! So why do you accept? Why let Clan murder Uglies?’

Ria was quick to object: ‘Hold on, Brindle. What just happened this morning? I saw three of my Clan trying to murder *you* and I stopped them. Remember? I risked my *life* to stop them. You told me I was a hero for doing that.’

Brindle looked contrite: ‘Yes. You are hero. Very sorry. What you saw with own eyes you stopped.’ Then he frowned: ‘But I mean why stay silent when you know Clan are killing Uglies – not just one Ugly, but every Ugly they find? Why not stop that?’

‘Because I can’t stop it, Brindle. I’m female and sixteen. No one gives a fuck what I say about anything.’

When Brindle made no reply Ria returned to her thoughts, and to

the second problem that was bothering her, namely Sulpa.

He was an outlander for sure, so how had he gained influence over three high-ranking youths of the Clan?

With Grigo involved it was a safe bet that something underhand was going on. And Grigo's mission to kill Uglies made it very likely the whole thing was also connected to his father. It was well known that Murgh had challenged the traditional leadership of the assembly of elders. Could his son's loose talk of Sulpa hint at an alliance with another tribe – not only to kill Uglies but also to snatch overall power within the Clan? With men like Murgh and his thugs, Ria thought, the possibility of such treachery couldn't be ruled out.

She had to get back to camp and tell Hond and Rill what she suspected.

The Uglies were streaming along the floor of a glen she'd never explored before, reminding her she was getting further away from camp with every step. She checked the sky. High sun had

already passed. She was about to tell Brindle of her decision to turn back – although of course he knew all her thoughts – when he put a warning hand on her arm and pointed to the ridge line a few hundred paces above them.

Two savage-looking men stood there, huge and naked, with shaggy shoulder-length hair. Ria saw both of them were smeared with fresh blood and knew from their pale skin and strange weapons they weren't from the Clan or from any of the neighbouring tribes.

Were the splashes of gore glistening on their hard muscular bodies from Grigo, Duma and Vik? The three youths had been hobbled and defenceless, Ria reflected. They would have been easy to kill.

In a smooth whirl of motion one of the bloodstained men unslung a wooden baton and a bundle of short spears hanging across his shoulders, locked a spear into the baton, drew back his right arm, rolled at the hips and launched the missile down the slope of the valley. It made an eerie whistling sound as it flew. Tipped with a

heavy flint spike it crunched with horrible force into the side of a big Ugly in the third rank of the column, passed straight through his body amidst gouts of blood, and lodged itself deep between the ribs of the brave next to him.

Both Uglies went down, dead in an instant, and the entire column stopped in its tracks as though stunned.

Taking his time, looking relaxed and confident, the second naked warrior on the ridge line unslung his own baton and spears and coiled his muscular body to throw.

Chapter Eight

When Leoni spoke of the Angel she thought she saw a strange expression cross the doctor's face; it lasted a few seconds before he got it under control. 'I do believe you,' he said, 'but right now you need to take it easy. We nearly lost you in here …'

'I died and went someplace else …'

'It was touch and go, Leoni, but you're a fighter and we got you back.'

She smiled and suddenly sleep stole up on her, overwhelming her like a superior force.

The next twenty-four hours passed in a blur as Leoni progressed

through the recovery and critical care units and thence into a plush convalescent suite overlooking the leafy gardens of the hospital. If Mom and Dad had spent any time at her bedside right after she came out of the ER she hadn't noticed them, but now a smiling middle-aged nurse brought her the happy tidings they were on their way.

Leoni felt physically sick at the prospect. In the days leading up to her overdose she'd been in turmoil over what to do about her father. The big question was … had he really raped her – repeatedly – when she was eight, and again, inexplicably, when she was twelve? It had always happened in the dead of night, and on each occasion he had snatched her without warning out of deep sleep. Before her thirteenth birthday the attacks had stopped as suddenly and mysteriously as they had started, but she had been tortured ever afterwards by night terrors and dreamlike memories of these ordeals.

The last time she'd plucked up the courage to accuse him was a

couple of years ago. But, as always, he had denied everything, told her she was an evil liar, and claimed the rapes had only happened in her overactive imagination.

He made her question her own sanity.

He made her wonder whether the blood she recalled trying to scrub off her sheets after each attack could, after all, have come from some sort of self-harm.

For a long time he had kept her quiet with such brainwashing. But, in recent months, the horrible and disgusting memories had come flooding back – no longer as dreamlike sequences but shatteringly graphic, specific and real – and Leoni had regained some certainty that it was not she but her father who was the evil liar in the family.

That had been her state of mind when she'd quarrelled with her parents yesterday afternoon, and she could see with new insight how her incredible rashness and stupidity with the OxyContin tablets had been directly connected to the rage and hate she felt

towards her dad.

So far, so bad … But now, after her brush with death, there were other, even more agonising and confusing matters to ponder. Although she didn't understand the mechanism, she had somehow witnessed Mom admitting, in a very horrible way, that she'd known about the rapes all along. And there had been the strange talk about someone called Jack, and clearing up the dead wood – whatever that meant.

This was all new and worrying, but what made it more problematic was the peculiar way Leoni had come by it. Was her out-of-body eavesdropping just a hallucination cooked up in her druggie mind, or had her mother really known about the rapes when they were happening? If she had known, and encouraged them, then what kind of set-up was that?

And who was 'Jack'?

Leoni had asked for a sketch pad and half a dozen Magic Markers

when she'd been moved into the convalescent suite, and now she was sitting up in bed, her back propped against a pile of pillows, working on a drawing of the Blue Angel. She was struggling to get the likeness of that perfect face, the high cheekbones, the almond eyes, the indigo skin, when her parents appeared in the doorway. For some reason she felt guilty and closed the pad, sliding it beneath her covers as they advanced.

To her irritation, they had brought Adam the miracle child sulking in tow. The obnoxious ten-year-old scowled a reluctant greeting, made a beeline for the sofa by the window, switched on his Nintendo and was soon slaughtering aliens in *Metroid Prime.*

Mom and Dad settled in the armchairs on either side of Leoni's bed. No one spoke for some minutes, and the tension in the room began to rise.

Finally Mom leaned forward and hissed: 'Adam knows you overdosed. He couldn't miss it. It's been all over the TV news. I need you to apologise to him.'

Leoni's blood boiled: 'Apologise? To Adam? What for?'

'For the distress and embarrassment you've caused him at school.'

'Well, maybe he'd be even more distressed and embarrassed if I told him where I got the OxyContin tablets I overdosed on …'

Dad cut her off: 'Let's not talk about your drug habits today.' He flashed a warning look at Mom. 'This is just meant to be a nice family visit.'

'Nice for who?' Leoni retorted. 'Nice in what way?' She lowered her voice to a whisper: 'Would it be so nice if Adam knew what you used to do to me?'

Adam had ears like a bat and was curious about ugly, disturbing and contentious matters. 'Dad,' he asked. 'What was it you used to do to Leoni?'

'Nothing, Adam,' Dad snapped. 'Leoni's suffering from an illness. It's called false memory syndrome …'

'Fuck OFF!' Leoni screamed, 'I'm up to HERE with your

bullshit. My memories aren't false. It really happened …'

'But WHAT happened, Dad?' wheedled Adam. 'I wanna know.'

'You wanna know?' mimicked Leoni. 'OK, spoilt brat, I'll tell you. Dad used to get into bed wi—' THWACK! Stunned, she realised that Mom had just slapped her face – hard – and now stood over her, panting and flushed. Leoni's right ear was hot and ringing where the blow had struck. At once her anger brimmed over and she bellowed: 'You KNEW about it, Mom. You even ALLOWED it.' She saw that this accusation had hit the mark. Mom's face fell and, just for an instant, before she got herself under control, she had a hunted, almost frightened look in her eyes.

Leoni pressed home her advantage: 'You BITCH. You DID know about it. You KNEW!' She lunged forward and tried to claw her mother's face but her father got between them, shouting: 'This is madness, Leoni. Stop it! Stop making things up.'

Leoni wasn't about to stop anything: 'Oh yeah?' she shrieked.

‘If I’m making things up then how come I know about JACK?’

The startled expression on both her parents’ faces told her once again she’d scored some sort of point. That was when the good-looking doctor who’d saved her life in the emergency room walked in.

Dad and Mom jumped back and the doctor strode across the floor to stand at the foot of the bed. ‘What’s going on here?’ he demanded.

Mom gave him her constipated-gorilla look: ‘Who’s asking?’

‘Dr Bannerman. I attended Leoni in ER.’

‘Well, Dr Bannerman, we’re Mr and Mrs Watts, Leoni’s parents, and we’re having a private family discussion that’s none of your business. OK?’

‘No, Mrs Watts. It’s not OK. I heard the shouting halfway down the corridor, and I also think I heard somebody getting hit.’ He paused, seemed to reconsider something he was about to say, and added: ‘But let’s not go there right now. Your daughter is my

patient. My responsibility is to ensure she makes a proper recovery and she isn't going to do that if she has to deal with this kind of … "discussion". Please just leave at once and let her get some sleep …'

'You're telling us to leave?' screeched Mom. 'You don't have the right. We're her parents. We're paying her bills here.'

'As it happens,' said Dr Bannerman, 'I do have the right, and I don't care who you are or what you're paying. The patient comes first and this patient needs peace and quiet.'

Mom turned to Dad: 'Herman! Didn't we give a big capital gift to this hospital last year?'

'You bet we did. Five million dollars for the building programme.'

'There!' yelled Mom. 'And it's not the first time. Check it out, doctor! How do you think Chancellor Edelman will feel if we withdraw future support because of your behaviour? WE'RE NOT GOING ANYWHERE.'

‘I’ve had enough,’ said Bannerman. ‘I’m calling security.’

Mom glared at him as he moved to the bedside to pick up the telephone. He had already started dialling when Dad capitulated. He marched over to the sofa and grabbed his son’s hand: ‘Come on, Adam, time to go home. Come on, Madeleine. Let’s get out of here.’

For a moment Mom was speechless. She had been defeated! Something she could not abide. As the three of them headed in disarray towards the door she looked over her shoulder and flashed the doctor her poisonous-lizard look: ‘There’s going to be consequences’ she said. ‘You’ll be hearing from our attorney.’

In the last second she turned her eyes on Leoni and beamed rays of hatred at her. Then they were out of the room and marching down the hallway under a barrage of shrill questions from Adam.

Chapter Nine

‘MOVE, YOU IDIOTS!’ Ria screamed, startling the Uglies out of their inertia and sending them running in all directions as the second spear came whistling in. It shot past her and buried itself in the face of an old hunched female in the seventh rank, dropping her in a heap.

Still nobody seemed to know what to do. Ria sought around, found that Brindle had stuck close to her, and pointed to the men on the ridge line three hundred paces above. ‘WE’VE GOT TO CHARGE THEM,’ she yelled in out-loud speech – there was no time to risk thought-talk not working – ‘CROWD THEM. GET THEM OFF THE HIGH GROUND OR THEY’LL SKEWER US

ONE BY ONE.’

She’d already snatched a jagged stone out of the sodden earth and was sprinting up the steep side of the glen. She could see one of the attackers aiming a shot at her, waited until he let fly and threw herself to the ground. The whistling spear missed her by a hand’s breadth and as she sprang to her feet twenty Ugly braves pounded past her, their heavy footsteps shaking the earth, roaring incoherent defiance at their attackers.

More spears smashed into their ranks, bringing down four more Uglies with horrific injuries. Blood spurted, bones broke, there were cries of pain and shock, but still the tough uphill charge didn’t falter. The big yellow-toothed leader was ten paces ahead of everyone else, waving a massive war axe, but before he reached the ridge line Ria hoped to kill one of the spearmen herself. Her grip tightened on the stone she’d picked up. It wasn’t of ideal size and weight. But it would do. She was less than fifty paces away and already drawing her arm back to throw when the spearmen turned

and were gone. By the time she reached the ridge line they were nowhere to be seen, as though some sorcery had concealed them.

Ria didn't believe in sorcery.

The men were there, slithering on their bellies like snakes through the bracken, gorse and tall tussocky grasses packing the downslope below.

'Put your guys out in a long line,' Ria yelled to Brindle, still using out-loud speech. 'Beat the bush. We'll find them.'

There was some confusion but soon almost the whole Ugly column, still more than fifty able-bodied males and females, plunged into the thick undergrowth in a ragged line, each separated by only an arm's length from the next. They beat the bracken with spears and clubs, stabbing and probing, but the two attackers could not be found.

Finally Brindle called off the search. 'Not good waste more time here,' he said. 'Better get to Secret Place fast.'

Ria considered her position.

She'd been about to head back to the Clan camp but now it wasn't so simple. The moment she left the protection of the Uglies she would be vulnerable to the two killers lurking out there. They'd be watching and if they saw her alone they'd hunt her down.

On the other hand, if she stayed with the Uglies then the important intelligence she bore – that armed strangers with devastating new weapons had infiltrated Clan lands – would be delayed. She wasn't clear yet on the fate of Grigo, Duma and Vik. Were they working for the strangers, as she suspected? Or had they been murdered by them? Both alternatives were possible but, whatever the answer, something bad was happening and she had to warn her brothers.

'Won't be able to warn them if you dead, Ria,' Brindle's thought-voice reminded her. 'You must stay alive. Come with Uglies to Secret Place. Will figure out how to get you home safely tomorrow.'

What Brindle was saying made sense. Earlier, Ria had been

horrified when he'd asked her to spend the night at the Ugly hideout. But everything had changed since then, and she had to adapt. 'OK,' she said after only a brief hesitation, 'I'll come with you. Just don't kill me and eat me when we get there!'

Brindle's brow ridges puckered, his deep-set eyes clouded over, and a look of horror crossed his face.

'Well, I don't mean it, of course! It's a joke!'

However, it wasn't exactly a joke, and Brindle's ability to peer inside her mind meant he must know that. The truth was Ria couldn't quite rid herself of a nagging fear that the Uglies could still turn out to be cannibals.

* * *

Three males and a female had been killed by the strangers' spears. There was nothing more to be done for them. Three more were injured. Now separate circles of Uglies, eight or ten to a group,

gathered arm in arm around each of their wounded comrades where they lay and began a rhythmic, hooting chant much like the one they had sung for Brindle earlier.

Inside the first circle an old female crouched down beside an injured brave. Blood was spurting from his mouth – a spear had struck him in the cheekbone below his right eye, smashed his teeth and half-severed his tongue. Doubting that anything could be done about such a horrible injury, Ria watched in growing astonishment as the aged female held out her hands and a mysterious blue light began to pour from her open palms into the bloody wound. More of the same light streamed forth from all the Uglies standing in the circle, converging on the fallen brave and enveloping him in an eldritch radiance. The hooting became much louder and vibrated uncomfortably in Ria's ears. She gasped as the brave's body rose a handspan into the air and floated without any supports. The blood flow from his mouth reduced from a torrent to a trickle and Ria could almost believe the wound in his face had begun to close when

the Uglies' song reached a peak, and stopped, and his body sank back to the ground.

In the second circle it was a grizzled elder who poured the uncanny blue light into a deep wound in a brave's back, and in the last it was Brindle whose big hands channelled it into the body of the third injured brave where a spear had smashed his collarbone.

While these rituals unfolded other Uglies got to work with spear shafts and ropes and as each of the circles broke apart the injured were lifted onto improvised stretchers ready for the march. The brave with the wounded face was sleeping. He looked peaceful and his breathing was clear. The other two were alert and even seemed energised in some way despite their injuries.

The whole column gathered around the bodies of the four who had been killed by the strangers. 'Saying goodbye,' Brindle explained to Ria as they marched off. 'When Uglies die we must give proper funeral ceremony. But now is time of war. Have to leave them.'

After walking deep in her own thoughts for some while, Ria asked Brindle about the circles of braves, the hooting and the blue light she'd seen pouring from his hands.

'When put heads together and sing,' he explained, 'all become one mind. Stronger that way. Use to make light for healing, use to figure out problems. Make big decisions.'

That was when Ria noticed with a jolt that the brave with the wounded back and the brave with the broken collarbone were already on their feet, disdaining their stretchers.

'Blue light is a kind of magic,' Brindle told her. 'Needs much power. Helps if many Uglies make circle. Sick person must be close or healing doesn't work.'

'Can you heal all injuries?' Ria asked. After what she had just seen she was ready to believe anything.

'No. Not all. If heart, lungs or liver are pierced is very difficult.'

'Difficult? Or impossible?'

‘Very difficult. Not impossible.’

‘Amazing!’ Ria said. ‘Now tell me about talking inside our heads. That’s a kind of magic too. How far apart can we be before that stops working?’

‘Maybe three bowshots. Maybe five if rope strong. Then can’t reach each other any more.’

‘And this rope you keep mentioning? You said there’s one between you and me. What is it? What does it mean?’

‘Means … something like love. Something like friendship. Ria saved Brindle’s life. Took risk for Brindle. Saw Brindle is human, not dumb animal. Brindle saw Ria not like rest of Clan. Doesn’t hate Uglies. Is human too. I open heart to you, you open heart to me. This way we get rope between us.’

As the afternoon of hard marching wore on, Ria’s familiar hunting grounds were left far behind, she found herself in regions she had never ventured into before and she grew more and more uneasy. She

began to memorise landmarks – an old dead tree, a rippling flowing stream, an unusual boulder, a barren hill, a distant craggy peak – as she talked to Brindle.

Scouts had been posted around the fast-moving Ugly column to forestall any further surprise attacks but there were no sightings of the savage spearmen. The worst possible outcome, Ria thought, would be if they were part of a much larger force. The best hope was that they were loners passing through.

But in her heart she didn't believe this and was unable to rid herself of the suspicion that they were following. Several times the hairs on the back of her neck stood on end as they traversed a high, wide-open, almost featureless plateau. It was dead flat, but the ground underfoot was soggy and a cold wind howled across it from the ice deserts far to the east.

Ria glanced over her shoulder and just for an instant she thought she saw something move. It might have been no more than wind in the marsh grass, but it spooked her. 'I'm certain we're being

followed,' she pulsed to Brindle as they reached the lip of the plateau and entered the shelter of a steep valley. 'I don't want to walk into an ambush when I head back to the Clan tomorrow.'

'Uglies send big war party with you tomorrow. You be safe.'

'What about Secret Place? You didn't want to take the risk of Grigo, Duma and Vik following us there. So it doesn't make sense to allow these two savages to follow us, either.'

'But what can we do?' Brindle asked.

'We have to kill them,' said Ria.

Chapter Ten

She'd thought the doctor was good-looking but now Leoni decided he was movie-star handsome – lean athletic build, six foot three or four, mid-thirties, dark hair with just a hint of premature grey about the temples, warm, walnut-coloured eyes, firm chin, good lips. 'Thank you, Dr Bannerman,' she whispered as the sounds of her departing family faded. 'Thank you for saving my life in the ER. Thank you for taking my side.'

He smiled. 'Not a problem. Shall we switch to first names, by the way? I know that you're Leoni.' He gave her a warm, firm handshake: 'I'm John.'

Over the next five minutes she was relieved that he did not pry

into the fight with her parents but asked her questions about how she was feeling, peered into her eyes with a bright little light, tested her reflexes and checked her respiration, pulse and blood pressure. ‘All in good order,’ he pronounced. ‘I don’t see any reason why we need to keep you in hospital much longer. Stay tomorrow for another day of observation, we’ll do a few more tests and discharge you the following morning.’ Suddenly he shifted gear: ‘Now … tell me about the drugs.’

‘You mean the OxyContin I overdosed on?’

‘Well, yes. For a start. How much did you take?’

‘I snorted eighty milligrams. Stole the pills from my mom’s medicine cabinet. Ground them into powder with a nail file. I’ve seen friends of mine take much bigger doses and none of this shit happens to them.’

‘That’ll be because they’ve built up tolerance. OxyContin is an opiate and if you take it a lot, like your friends must do, then your body gets used to bigger and bigger doses. You were using it for the

first time, I bet?'

'Yes … and the last time.'

'What about other drugs?'

'You want me to be honest?'

'Of course.'

'I do quite a bit of cocaine.'

'How much is quite a bit?'

Leoni shrugged: 'Thirty, maybe forty lines – on a night out clubbing, or at a party. Then I'm clean for a few days. Then I might have another binge over a long weekend, get through ten or fifteen grams. You know how it is.'

'Would you say you're an addict?'

'No. I wouldn't. I snort a lot of coke, but I think I can take it or leave it.' Leoni paused: 'I'm planning to leave it in the future.'

'Have you used heroin?'

'Ugh! NO. Never. Not my thing.'

'Crystal meth?'

‘Couple of times. Maybe three. Liked it a lot but I won’t be going back for more.’

‘You sound pretty sure of that.’

‘I am. Some things happened to me when I was dead …’

‘Which made you want to fix the problems in your life?’

She was surprised. ‘How did you know that?’

‘Right after you came round in the emergency room you told me you’d met an angel …’

‘Yes. She’s got indigo skin!’ Leoni retrieved her sketch pad from its hiding place under her covers and opened it at her drawing of the Blue Angel. ‘This is what she looks like.’

Bannerman leaned forward and poured over the sketch. ‘Very interesting,’ he said. ‘Tell me … did she give you a lecture about how much you’d screwed up?’

‘Now you’re *really* freaking me out. She said I’d squandered my potential. I don’t understand how you know this stuff.’

‘My guess is you went through what we call a near-death

experience – and people who've had NDEs very often come out of them with a whole new attitude.' A look of boyish enthusiasm had spread over Bannerman's face: 'Actually, this is a special research project of mine. I've been investigating NDEs for five years. If you'd like me to, I may be able to help you understand a bit more of what you went through.'

To her surprise, Leoni found she was crying and blurting out what she wasn't yet sure she should reveal. 'The Angel told me something really weird. She told me I have to make the veil between worlds thin to see her again. Do you have any idea what that means?'

'I think I probably do have an idea,' Bannerman answered after a moment, 'but I also think you need a good night's sleep. Why don't we pick up this conversation again in the morning?'

Leoni dabbed her eyes with a Kleenex. 'If you know anything that can help me deal with what happened to me then I need to hear about it right away.'

‘Why so urgent?’

‘I was … out of my body. For a long time. Seemed like for ever. I was able to move about – like I was flying. I could go through walls. I could see and hear other people but they didn’t know I was there. Can I say that without you thinking I’m crazy?’

‘I don’t think you’re crazy. The near-death state most often involves two stages. In the first you’re out of your body, much as you describe – in fact we call this an “out of body experience”, OBE for short – but you’re still very much in this world. You can move about at will; lots of people describe it as flying. You see everyday life going on around you but nobody can see you. Then comes the second stage when you leave this world behind. You go through a tunnel, or a corridor, or it could be you’re carried down in a whirlpool, and you find yourself … somewhere else … Not here. Not the Earth. You’re in another world. Very often you’ll meet … entities there. Sometimes deceased friends and relatives who’ve come to welcome you or to send you back. Some people report

meeting an angel. Sound familiar?'

Leoni nodded: 'There's scientific studies, right? Which prove all this?'

'Plenty of scientific studies. The phenomenology of NDEs and OBEs has been thoroughly documented. These are truly universal human experiences.'

'Never mind phenomen – whatever. And I don't care about universal. I only want to know one thing … Is this stuff real? Or isn't it? Because it felt real to me – more real than real, in fact – and I got some information, and it's just blowing my mind.'

'What sort of information?' Bannerman asked.

'I left my body right after the overdose hit me. Flew out of my bedroom window and down into the kitchen. I wanted my parents to rescue me. Fat chance. They didn't have a clue I was there. They were talking and they said … they said some things to each other about me that I didn't know before.'

'And these things. Did they make sense?

‘Yes. In a horrible sort of way what they were saying made perfect sense. So what I’m asking is – could I really have heard them say that? Or do you think it was just some kind of hallucination made up by my brain?’

‘Well, that’s actually the million-dollar question.’ Bannerman’s face was animated. ‘First off, you have to rule out the possibility that what you heard reached you in the normal way through your physical senses. Where did you take the OxyContin?’

‘In my bedroom.’

‘OK, from your bedroom – maybe with the window open? – are you able to hear people talking in the kitchen?’

Leoni thought about it: ‘Sometimes I know when there’s a conversation going on there. Sometimes I hear voices, but they’re faint. Even if they’re yelling I can’t hear individual words or sentences. Besides, what happened wasn’t just about hearing. I was down there in the kitchen with them. I could see their faces. I just wasn’t in my body. My body was on the floor upstairs.’

‘I know that’s how you experienced it, Leoni,’ said Bannerman, ‘but sceptics would say that you weren’t a hundred per cent unconscious up there on your bedroom floor. They’d argue that you heard what you heard through your ears in the normal way and then hallucinated or fantasised the rest of it.’

‘Is that what you think?’

‘Not necessarily. A lot of new work has been done in this field and some of us are willing to consider other explanations for these sorts of experiences. Consciousness is one of the big mysteries of science. Maybe the biggest mystery. The dominant view is that it’s a function of the brain, that it’s somehow generated by the brain the way a factory makes cars, but actually there’s no proof of that.’

‘But if consciousness doesn’t come from the brain then where *does* it come from?’

‘I don’t know. No one does. Maybe it just *is*. Maybe it’s a fundamental force of the universe like electromagnetism or gravity, free-floating everywhere, residing in everything. And maybe the

essence of consciousness isn't physical at all – in which case our brains might not be generators of consciousness but simply vehicles or receivers that mediate consciousness at the physical level … It would explain a lot – not least OBEs and NDEs.'

Leoni thought about it: 'OK. I guess I can see that. If my consciousness isn't generated by my body and brain, and if it doesn't depend on them to exist – if it's like the TV *signal*, rather than the TV set – then there's no reason why it should die when my body and brain die.'

'No reason,' Bannerman affirmed. 'On the contrary, you'd expect it would continue to have experiences separate from the body. So maybe that's what OBEs are – non-physical consciousness, liberated from the body and brain, continuing to witness and overhear events in the physical world.'

'In which case that conversation between Mom and Dad could have been real?'

Bannerman shrugged: 'I'm not saying that. I'm saying we – I

mean doctors, scientists – actually don't know what OBEs are. They're mysterious. Unexplained. Most of my colleagues would reject the idea that you really are out of your body when you have these kinds of experiences …' A pager attached to his belt began to bleep: 'And they'd think you were delusional if you tried to tell them that you'd accessed real information in such a state. But honestly, after what I've seen and heard in the ER I'm not so sure …' He silenced the pager and picked up the telephone by Leoni's bed: 'Excuse me for a second. I've got to respond to this, OK?' He dialled a number, listened and hung up. 'I have to go,' he announced. He was already heading for the door. 'Get some sleep, Leoni, and I'll see you tomorrow. I still want to hear about that angel you met.'

'Wait. Dr Bannerman … John … Orange sneakers. Purple and green laces.'

He paused: 'Sorry … I don't understand.'

'Something else I saw yesterday while I was out of my body.

There was a receptionist. Behind a desk in the main lobby of this hospital. She was wearing a dark suit. Looked very prim and proper. But she had orange sneakers on her feet, with striped purple and green laces …'

'So … ?'

'If that person exists, then it means I saw real things, doesn't it?'

'Not necessarily … Look, I've got to go …' Bannerman gave her a nice smile. 'But I'll check it out, OK? I mean, about the receptionist. I'll be in to see you around ten a.m. Now sleep.'

* * *

Just after six a.m. Leoni awoke with a start to find a crowd in her room. Mom and Dad were there, a janitor pushing an empty wheelchair, two men in suits and several nurses. Without a word one of the nurses got hold of her arm and began prepping her for a

shot. Leoni screamed and struggled to pull free, but in an instant she felt the needle pierce her skin. The last thing she saw, as her vision blurred, was the look of absolute triumph and vindication on Mom's face.

Chapter Eleven

‘You know where we’re going,’ said Ria to Brindle. ‘I don’t. So help me find a place where we can set an ambush.’ She experimented with a thought-picture, envisaging a forest with open country beyond it. Eight of the Uglies and Ria herself would hide amongst the trees to await the men following them. But the main column, still numbering more than forty, would continue on out of the forest where they should be in plain view for a long while as they crossed the open country. ‘Is there somewhere like that?’ she asked.

Brindle’s eyes lit up: ‘Yes!’ He hesitated: ‘But near Secret Place. Maybe not good to let them get so close …’

‘It doesn’t matter how close it is. We have to kill them and then they won’t be telling any tales. The more important thing is, are you ready to murder these strangers? Because that’s what we’re going to have to do.’

Brindle hesitated again and Ria felt herself becoming irritated at his instinctive gentleness: ‘I don’t want to hear any crap about them being spirits and people just like us,’ she prompted. ‘They’re killers. They slaughtered four Uglies for no reason. Just because they could. So now it’s their turn.’

‘I know,’ said Brindle. ‘Uglies must kill or be killed. Clan already teaching us this lesson every day. But hard for us to learn.’

After reaching the lip of the plateau they hiked down a steep densely forested slope, in the lee of the wind. Ria loved all forests and this one was beautiful, silent and lit up at intervals by glints of golden sunlight thrusting down between the branches.

At the bottom of the valley they emerged from the trees onto the rocky shore of a narrow gleaming lake and began to trek four

abreast alongside it.

Ria and Brindle were in the second rank, right behind the lumbering, grizzled leader. Now Ria noticed, as she had not when he had intervened to drag Duma, Grigo and Vik off her this morning, that three deep parallel scars ran down the outside of his right arm to a point below the elbow, the token of some violent encounter with a wild beast – bear? lion? – many years before.

Brindle's voice popped up inside her head: 'Ten winters ago, hungry bear came into our camp and tried to grab Grondin's wife. Wanted to eat. Grondin had other ideas. There was fight …'

'And?'

'Bear lose. Grondin's wife got fancy necklace from teeth and claws. Wears all time.'

'Is Grondin part of a longer name, like Brindle?'

'Ha! You really want to know? OK. Here goes: Grondinondin-grand-inadin-apciprona.'

'The "apciprona" bit on the end sounds familiar.'

‘I am Brindle-phudge-tublo-trungen-apciprona, remember? Grondin is my father’s brother.’

Again Ria shared a wash of sorrow and pain with Brindle and knew that thinking of his father had led him to recall the death of his mother and siblings at the hands of the Clan. She also received strong imagery of an Ugly elder, looking quite a bit like Grondin, but even taller and more massively built.

‘You’re showing me your father, aren’t you?’

‘Yes. I love him! He’s a great guy. Best friend as well as father and King of all the Uglies.’

‘Hang on. You’re joking, right? Your father is the king?’

‘Not joking.’

‘So that means one day you’re going to be …’

‘King of the Uglies? Yes. If any Uglies left.’

Ria looked puzzled.

‘We are last Uglies in world,’ Brindle explained. ‘Five hundred of us now at Secret Place. Maybe seven hundred more still living in

camps outside. Can't protect from attacks of Clan there. Trying to bring all to Secret Place.'

'There are no others?

'No more Uglies after we gone. All dead.'

At once many things about Brindle that had puzzled Ria began to make sense, and she understood why he had so much authority amongst a large group of elders and braves. It wasn't just some no-account crippled kid she'd rescued but the only surviving son of the King of the Uglies! She decided she would help him when she returned to the Clan. Murgh's sinister campaign to wipe out these gentle creatures was all wrong and she had to try to stop it. It might not even be too difficult if she could prove what she suspected – that he and Grigo were taking their orders from ferocious outlanders like the two who followed them now.

Ria had spent almost her entire life in the open air, gathering fruits and nuts in the forests, using her skill with stones to hunt

rabbits, birds and small deer. She thought she was nearly as strong and skilled, as wily and tough, as many of the full-grown braves of the Clan. Even so, the relentless non-stop pace set by the Uglies – since they left the lake almost all their route had been up the side of what seemed to be an interminable mountain – had given her a persistent stitch low down in her side. This was embarrassing because she didn't want to appear weak, and what made it worse was that none of the Uglies – not even the injured, or the stretcher-bearers, or crippled Brindle – showed any sign of slowing down.

It was late afternoon when they entered a swathe of ancient forest growing right across the flank of the mountain and continued to wind their way upward under the shelter of huge pines. 'We coming to place where must make ambush,' Brindle warned. 'Not far from here.'

Ria peered back over her shoulder. The Uglies – despite their losses, there were still more than fifty of them – were leaving a clear

trail amongst the thick layers of brown pine needles smothering the forest floor. Even a child would be able to follow them. But that was the whole point of her plan.

Now they entered an immense grassy clearing, hundreds of paces from side to side, and marched straight across it, trampling the grass underfoot. When they passed back under tree cover on the opposite side of the clearing Ria saw that the edge of the forest lay close, and that above it reared a huge amphitheatre of emerald-green mountain meadow, lit up like a promise in the declining sun, hemmed in far above by a spectacular array of high and forbidding cliffs.

Armed with flint knives, war axes and each carrying two heavy spears, Brindle, Grondin, and six other big braves stayed behind with Ria to set the ambush. She noted how they all seemed to be waiting for her to tell them what to do. ‘We not good at this sort of thing,’ Brindle admitted.

Ria, who had filled her pouch with throwing stones at the lakeside, didn't hesitate to take charge. Using Brindle to communicate with the others, she showed how the men behind them would be following the broad and conspicuous trail of the column. 'If we're lucky they won't notice that some of us have turned back,' she said. She pointed to the others hiking up the steep slope towards the still-distant wall of cliffs. 'It's just going to look like we marched straight through the forest and carried on climbing the mountain on the other side.'

There was no time for elaborate tricks or traps. Ria ordered her ambush party to take shelter behind trees on both sides of the track, ready to rain down spears and stones on the killers on their trail.

But a worm of doubt nagged at her.

With their fatal gentleness, would eight Uglies be enough to win victory against such hard and violent men?

Chapter Twelve

As Leoni emerged from sedation she discovered, to her horror, that she was strapped down in a metal-framed high-sided cot in an unfamiliar room. She was groggy but she knew what had happened. Mom and Dad had pulled strings and had her committed to a mental hospital – something that they had threatened to do before.

It hit her that this must be what Mom had meant by ‘clearing up the dead wood’.

She screamed and struggled against the restraints holding her wrists and ankles, and thrashed her head from side to side. Then, realising that she must be under video surveillance, Leoni forced herself to calm down. Acting mad was the last thing she needed to

do in here.

She looked around the room. It was quite large, and luxuriously furnished, but the door had three locks and an inspection hatch, and the windows were barred on the inside. Basically she was in a jail. ‘Hey,’ she yelled, ‘I need to use the bathroom.’

Silence.

‘Hellooo. Is anybody out there? I need to use the bathroom.’

Silence.

‘Look. Take me seriously. I’m going to wet the bed if someone doesn’t get me to a bathroom pretty soon.’

Silence.

Was this some kind of test? Leoni sighed and waited. She was, she realised, in very deep trouble. Mom and Dad had all the money in the world and in sunny LA, where money mattered so much, how hard would it be for them to find a psychiatrist willing to certify she was insane? The hospital was no doubt being well paid to

accommodate her and would also have an interest in keeping her where she was – sweetened perhaps by the promise of one of Dad's multi-million-dollar capital gifts.

She dozed for a few moments. The next thing she heard was the sound of keys turning in the locks. Then the door swung open and two beaming beefy nurses marched in. 'Hello', they said in unison, and introduced themselves: Deirdre and Melissa. They fussed around Leoni, removed her restraints and helped her into a sitting position. 'You were given quite a strong sedative,' Deirdre explained. 'You've been out for most of the morning so your legs are going to be a bit wobbly. We need to help you walk over to the bathroom.'

'Wobbly' was an understatement. Leoni's legs felt like jelly. Still, at the bathroom door she insisted that she would manage the rest of the operation by herself. 'No,' said Melissa. 'You have to be supervised.'

'What for?'

‘Suicide watch. You’re under twenty-four-hour supervision. Dr Sansom’s orders.’

Leoni was so embarrassed at having an audience that she couldn’t urinate. ‘Look, give me a break’, she protested, ‘I’d like a bit of privacy.’

‘Sorry, sweetie,’ said Deirdre. ‘Can’t do that. But don’t worry. In cases of shy bladder syndrome we usually catheterise.’

‘On the other hand you could just unclench and pee,’ added Melissa.

The two of them were still beaming, but it wasn’t nice.

Twenty minutes later, humiliated and furious, Leoni finished in the bathroom. She allowed Deirdre and Melissa to help her to her bed and was halfway across the floor, with her ass sticking out of the open back of her hospital smock, when a big man walked in. ‘Hi there, Miss Watts,’ he said. ‘I’m Dr Sansom. I’m in charge here.’ He ogled her as the two nurses lifted her onto the mattress and

placed her between the sheets. ‘You can go,’ he told them.

Sansom was a tall, florid Texan in an expensive business suit. He was aged around sixty, Leoni guessed, and had the authoritative, domineering air of a man used to getting his way. His hands, which were enormous, were rough and calloused – the hands of a labourer, not a physician. A spider’s web of broken blood vessels decorated the bulbous tip of his nose.

‘Welcome to Mountain Ridge Psychiatric Hospital’, he said. ‘Do you know why you’re here?’

‘Because my parents have paid you to say I’m mad?’

‘Quite a paranoid answer, Miss Watts, but then we get used to that sort of thing. Your parents love you very much and they are *very* concerned about your mental health. Your persistent drug abuse, your rampant promiscuity’ – he leered – ‘your fantasies about your father.’

Leoni stared him down: ‘I don’t know what you mean. I have no fantasies about my father.’

‘I think you know exactly what I mean. False memories, crazed accusations. All this, culminating in your suicide attempt, amounts to obviously delusional behaviour.’

‘What suicide attempt?’ Leoni gasped.

‘You took an overdose of OxyContin. You would have died if your parents hadn’t rescued you in time—’

‘Bullshit. It wasn’t even my parents who rescued me. It was Conchita, our housemaid. If it had been up to my parents they would just have let me die.’

‘Paranoia again, Miss Watts. Frankly, the more I hear the more certain I am your overdose was a suicide attempt. That’s why you’ve been involuntarily confined at Mountain Ridge under section fifty-one-fifty of the California Welfare and Institutions Code.’

‘Confined here for what? I don’t get it. Why have I been confined?’

‘For your own good, of course.’

‘I can’t believe this is legal. Last night I was a patient at UCLA

Med Centre recovering from a drug overdose, this morning I was sedated, kidnapped and imprisoned here. How can that be right?'

'*Kidnapped*, Miss Watts? *Imprisoned?* Just more paranoid delusions. Your mother and father were worried – rightly, in my view – that you might make a second attempt to kill yourself. They decided it was irresponsible to leave you in an open-access hospital without the best psychiatric care and a suicide watch round-the-clock. So they went through due legal process and had you committed. Your declaration was written up by an accredited LA county clinician in the normal way. It allows us to hold you here at Mountain Ridge for seventy-two hours to evaluate your mental state and make sure that you aren't going to pose a danger to yourself in the future.'

'After seventy-two hours I can go?'

'In your dreams,' Sansom boomed. Suddenly he leaned closer and lowered his voice to a confidential whisper: 'Between you and me, when the seventy-two hours are up I'm certain we'll have no

shortage of reasons to renew the hold and keep you here for … well … as long as we want to. I'm looking forward to treating you for several years at least.'

'Not a chance, asshole. I'm out on bail for drug and driving offences. There's going to be a court hearing in a couple of months so you can't just make me disappear.'

'Already dealt with. California Highway Patrol have dropped the charges against you. They agreed with us that the stress of a court appearance might just make you crazier. So it looks like we really do have you all to ourselves. I think you're going to be a very challenging case.' He pressed a buzzer by the bed and moments later Deirdre and Melissa bustled into the room.

'Restrain the patient again, please,' Sansom ordered, and left without a backward glance.

Chapter Thirteen

Leoni's next human contact came when Deirdre delivered her lunch and removed her restraints to allow her to eat it. Half a dozen pills of various sizes and colours had also been set out on the tray and Deirdre made her swallow these when she had finished her meal. Finally Leoni accepted the offer of another toilet visit and then was strapped down in her cot again.

The pills made her sleep. When she awoke it was dusk and a weedy, weaselly man with thinning grey hair and stained teeth was hovering over her bed like a wraith. She recoiled and gasped – 'Ugh!' – and he flapped his arms and fluttered his pale little hands in a gesture that fell far short of being reassuring. 'Who're you?'

Leoni croaked.

‘Er … ah … Dr Grinspoon. I’ve come to ask you some questions.’

‘I don’t want to answer questions. I’m tired. Go away.’

‘It’s part of your psychological evaluation, Miss Watts. It’s not optional.’

Grinspoon turned on all the lights, removed her restraints and had her sit up in bed, propping her back against a heap of pillows. He then handed her a pen and a huge sheaf of paperwork attached to a clipboard. ‘This should take you no more than ninety minutes to fill out,’ he said.

‘Ninety? What is it?’

‘It’s called the Minnesota Multiphasic Personality Inventory. There’s … let me see … five hundred sixty-seven test items …’

‘Whaddya mean, five hundred sixty-seven test items?’

‘Ah … er … five hundred sixty-seven questions. Each one you answer either true or false. It’s extremely straightforward and if

you're honest it'll give us a clear snapshot of your mental health problems.' He smiled, exposing his rat teeth. 'It's a *good* thing, Miss Watts. Once we know what's wrong with you we'll be able to treat you and get you well again …'

Leoni couldn't help herself: 'This is such bullshit,' she hissed. 'You guys aren't "treating" me. You're keeping me prisoner here' – she indicated the straps and buckles that Grinspoon had just freed her from. 'I'm a prisoner! Admit it … I'm not even allowed to take a piss without somebody watching me.'

'Well, this is because you are on suicide watch, of course. When we're satisfied that you're no longer a danger to yourself these restrictions can be lifted. I know that Director Sansom wants you to be comfortable here … Now, please fill out the questionnaire.'

A cellphone began to croon the Brahms Lullaby and a furtive look crept over Grinspoon's face. He fumbled in his pockets. When he found the instrument, after some pantomime, he answered in a

low voice and scuttled from the room, leaving Leoni unrestrained.

Her first impulse was to run at once, but that made no sense. She could hear Grinspoon mumbling right outside the door but even if she could evade him, or any other staff who might be passing, she had no idea which way to go. If she was going to escape she needed a plan, possibly allies, preferably a knight on a white charger to come to her rescue.

Like John Bannerman, for example. Leoni's beautiful saviour from the emergency room had seen how things were between her and her parents. Surely he'd be suspicious – wouldn't he? – about her sudden overnight transfer from his care. He was interested in her experiences and he hadn't for a moment seemed to think she was mad or a danger to herself, so she hoped that even now he might be moving heaven and earth to get her out of Mountain Ridge. Having witnessed him in action she didn't think all the Watts lawyers and money would be enough to divert him if he wanted to help her. On

the other hand, if he was going to help her then why wasn't he here now?

With a sense of the inevitable, Leoni plumped up the pillows behind her back and began to go through the questionnaire that Grinspoon had given her.

Whatever she said it was obvious that Mountain Ridge were going to spin her answers to prove she was mad: 'I see things or animals or people around me that others do not see.' True or False? 'I commonly hear voices without knowing where they are coming from.' True or False? 'At times I have fits of laughing and crying that I cannot control.' True or False? 'My soul sometimes leaves my body.' True or False? 'At one or more times in my life I felt that someone was making me do things by hypnotising me.' True or False? 'I have a habit of counting things that are not important such as bulbs on electric signs, and so forth.' True or False?

Other questions seemed much more ordinary but also had to contain hidden lures and traps: 'I am bothered by acid stomach

several times a week.' True or False? 'I am easily awakened by noise.' True or False? 'I like to read newspaper articles on crime.' True or False? 'I am neither gaining nor losing weight.' True or False? 'I have never been in trouble with the law.' True or False? 'I am inclined to take things hard.' True or False? 'I get all the sympathy I should.' True or False? 'I never worry about my looks.' True or False? 'People generally demand more respect for their own rights than they are willing to allow for others.' True or False?

After half an hour of this Grinspoon reappeared at the door. He folded his cellphone, advanced towards Leoni's bed and stood over her: 'Is all clear on the questionnaire, Miss Watts?'

'It's OK,' Leoni replied, 'I'm getting it done.' Out of the corner of her eye she noticed he had not yet pocketed his cellphone and sensed an opportunity: 'But there's one thing you could really help me with. Would you hold these for me for a moment? I need to scratch an itch.' She pushed the clipboard and pen into his hands, making him juggle them with the cellphone. He grunted with

surprise and tried to thrust the objects right back at her. Leoni squirmed away and, as he lunged again, she grabbed his wrists. His jaw dropped, his eyebrows shot up and in the moment of fumbling confusion that followed she palmed his cellphone along with her clipboard and pen.

Her heart was hammering in her chest – she couldn't believe she was doing this – but the horrible little man had become so flustered he didn't notice the loss. To create a further distraction Leoni now dumped all three items on the bed, taking care to cover the cellphone with the clipboard, turned round on her knees and pointed her bare buttocks at the doctor. 'I just need to scratch myself here,' she grunted, letting her smock drop forward and reaching for a point between her naked shoulder blades.

Grinspoon looked at the ceiling and then at this feet. 'You're out of line, Miss Watts,' he spluttered. 'Cover yourself, please.'

'Oh, come on, Dr Grinspoon – you *are* a doctor, aren't you? – haven't you ever seen a woman's ass before?'

‘That’s irrelevant. Now, please, get back under the covers or I’ll have you restrained again.’

Leoni shrugged, arranged her pillows, manoeuvred herself into a decorous seated position, picked up the clipboard and pen where she had left them and hoped that she had managed to conceal the cellphone in a fold of the bed sheets in the process. Not daring to look down to confirm this, she returned to the questionnaire and ticked ‘True’, ‘True’, ‘False,’ ‘False,’ ‘True …’

Chapter Fourteen

The two grim warriors who'd stalked the Uglies all day materialised, pale as ghosts, from the gloom of the forest. Their shaggy hair clung lank around their shoulders and their powerful heavily muscled bodies were slick with sweat. They were moving at a fast jog, their eyes to the ground, intent on the trail, silent and focused. Then one pointed ahead where the track led under the last trees and out onto the steep open meadow beyond. The mountainside here was already in deep shadow but a ray from the setting sun burst through a gap in the surrounding peaks and showed the Ugly column still climbing far above.

Risking a quick glance round the trunk of the tall black pine

she'd taken cover behind, Ria saw the outlanders jog forward. They were peering up through the trees for further glimpses of the column and didn't seem to suspect that a force might have been left behind to deal with them. The simple plan, when she gave the word, was that she and her eight Uglies would step out and rain spears and stones down on them from point-blank range, catching them in a lethal crossfire.

They came on, their bare feet falling quiet as leaves on the forest floor. Closer … Closer … Ria was about to give the order to attack when the Uglies stepped into plain view, surrounded the outlanders and threatened them with their big clunky spears.

This was fucking unbelievable. 'What's happening, Brindle?' Ria pulsed.

'Make them surrender' – his thought-voice was stubborn, like he knew she wouldn't agree but had decided anyway. 'Take prisoner. Don't want to kill.'

'No way they're going to surrender,' said Ria. She'd stayed

hidden: ‘Get those spears into them now!’

But still no spears flew and for an instant the two groups faced off in silence.

Ria could see the outlanders had recovered from their initial surprise. They turned and grinned at each other, exposing mouths full of yellow teeth filed to sharp points. They must have thought the Uglies mad not to have slaughtered them already.

Time seemed to stop, and Ria heard the sounds of the forest – the rustle of wind through the treetops, the creak of branches, the call of a nightbird, the distant howl of a wolf. She noticed that one of the outlanders was carrying a sack made of coarse woven cloth. There was something bulky inside it, staining the fabric. He held the sack dangling from his left hand, bumping against the ground. His right hand moved towards the hilt of a flint knife sheathed at his waistband.

Surging out from behind the tree, Ria snatched a stone from her pouch and hurled it at him. The light was bad, but not that bad

yet – the stone whizzed across the track and there was a solid *CLUNK!* as it hit him square in the brow. He staggered, his eyes rolled up in his head, and he fell on his face. From the opposite direction, out of the corner of her eye, Ria glimpsed the blur of a tomahawk whirling towards her, dived to escape it, and somersaulted back to her feet, shocked to see two more outlanders, whose presence she hadn't even suspected, running in to attack out of the gathering darkness.

She could throw well with both hands and pulled two more stones from her pouch as the outlanders shouted terrible war cries and clashed with the Uglies, hacking and stabbing in a frenzy of violence. The whole scene was chaos. In a heartbeat she saw three of the Uglies slaughtered, their bodies bloody and battered underfoot as the fight rolled over them.

Ria threw with her right hand first, hard and fast, fetching a tall outlander a vicious blow to the back of the head, felling him in a heap just before he got a knife into Brindle. She saw another of the

Uglies killed, and chose his attacker for the left-hand shot but Grondin stepped in on him first, thrusting his big spear through his chest and splitting his heart in a splash of bright blood. The surviving Uglies beat the last outlander to death with their clubs and axes. As suddenly as it had begun it was all over.

Ria darted forward. The men she'd hit lay close together, unconscious but alive. She didn't want them on her trail again.

She looked around. The scene of the ambush was littered with fallen weapons. She plucked up a flint knife and tested its edge. Good enough. She'd done this to rabbits and deer more times than she could remember.

Ria dropped to her knees beside the big brave who she'd seen carrying the sack; he'd fallen on his face when her stone hit him. He stirred, groaning and muttering as she straddled his back, grabbed a handful of his hair with her left hand and jerked his head up off the ground. Reaching under him she stabbed the point of her knife deep into his neck just below his left ear – a roar of pain now, thrashing

and struggling – and sawed its blade sideways through the gristle of his throat, releasing jets of hot reeking blood.

When she was sure he wouldn't get up she climbed off him and turned to the second outlander, slumped in a half-seated position against a tree. He was still unconscious. She felt no pity for him and slit his throat too.

Both men gurgled, hissed and bubbled as their blood drained into the ground. For the count of ten Ria sat on her haunches between them, watching them die. It was the first time she'd killed humans. But it was no big deal.

Then her eyes fell on the sack.

She hefted it, found it was heavy, and upended it on the forest floor. With dull thuds and a bounce, two battered and bloody but still recognisable heads rolled out.

Duma and Vik.

Two sets of freshly severed male genitals followed.

It was a long march up the mountainside. They would never have made it in the dark, with four dead to carry and three of the others injured, if the whole Ugly column hadn't returned to help them. Even so it was a tough climb.

At last, in moonlight, they reached the dense stand of bushes and small trees that grew all the way along the base of the wall of cliffs towering at the summit. Grondin turned to his right with the rest of the Uglies pacing along behind him.

Ria still hadn't spoken to Brindle about the bungled ambush, or whose fault it was. She wasn't going to tonight. 'What's happening here?' she asked, pointing at the cliffs

'Secret Place has secret entrance. Watch. You will see.'

A few moments later Grondin stopped in front of an unremarkable section of undergrowth and began to move the branches and thorns aside revealing that a path, invisible to passers-by, had been cut through the thick trees and bushes leading all the way to the cliff face. He entered with Brindle and Ria and the rest of

the group followed. The last ones through closed up the gap in the undergrowth behind them and they all surged forward into the shadows of the thicket.

Because her eyes had not yet adapted to this deeper darkness, Ria didn't understand what happened next. One minute they were in amongst undergrowth, with gnarled roots and dry leaves underfoot, then suddenly the atmosphere changed. It was damper, there were sounds of dripping and running water coming from several different directions, and she found herself slipping on smooth wet rock.

'Cave,' Brindle informed her. 'Very long cave. Runs all the way through mountain. Comes out on other side.'

Then flints were sparking and tinder flared into flame that was transferred to little fat-burning stone lamps in the hands of several of the Uglies. The flickering light sparked a fantasia of reflections from thousands of stalactites that hung poised overhead like glittering icicles.

Ria had been in a cave before, just two years previously.

Though quite different, it had been every bit as spectacular as this one. She'd been hunting with Hond and Rill and they'd pursued a wounded deer through a narrow opening in a hillside into a huge echoing chamber. There they lit their lamps and found themselves confronted in all directions by breathtaking images, painted in red and black: humans who were part bison, others who were part lion, and outlandish animals combining the heads, bodies, legs and teeth of many different species – the denizens of another world bursting through into this one, emerging out of fissures and from behind bulges in the rock.

It had been one of those caves that had been decorated in the longago by the Painters, an ancient people ancestral to the Clan. According to old myths told around the campfires they had discovered a way – now forgotten – to enter the spirit world and afterwards had painted these images of the strange and terrifying beings they met there.

'Not forgotten.' Brindle said. 'Uglies still know way to spirit

world.’

There were no paintings in this long eerie passage through the body of the mountain. Whenever the flickering torchlight reached its walls Ria saw only bare, polished limestone dripping with water and overgrown with calcite deposits – here resembling a mammoth, there a serpent, here a bear, there a bison. Sometimes stalactites descending from above joined up with stalagmites rising out of the floor to form pillars, and forests of pillars, through which they had to thread their way. Sometimes the roof was so far above their heads it could not be seen; at others it was so low that they had to drop onto their bellies and wriggle, becoming smeared with thick, wet mud. At one point the side walls also closed in around them to form a tunnel so narrow that Grondin had great difficulty getting his bulky shoulders into it, and so long that Ria thought she would never emerge and must end her life here entombed in the mountain. There were ledges poised above roaring underground rivers,

treacherous potholes and deadfalls, and a labyrinth of side passages in which, Brindle assured her, those who did not know the correct route could wander until they starved without finding their way out.

‘But you guys do know where you’re going, right?’

‘Yes. Our Lady of the Forest led us to Secret Place. Showed us the way.’

‘Our Lady of the Forest? Who’s she?’

‘She’s a great spirit, Ria. Watches over us.’ And he sent into her mind an image of a group of Uglies passing through the cave system led by a beautiful, very tall woman with blue skin.

A little later the dank, almost stifling mineral atmosphere that had enveloped them for so long began to freshen and Ria felt a rush of night air. Then she was clambering over fallen rocks and debris to emerge at last on a moonlit hillside, under blazing stars, the peaks of snow-capped mountains gleaming in the distance and the cheerful glow of campfires visible just a few bowshots below. She looked to

Brindle for an explanation but he had become morose and lost in thought. ‘Secret Place?’ she asked.

‘Yes. Secret Place. But something wrong.’ He began to run down the hill, stumbling and falling, picking himself up, stumbling again. The other Uglies also broke into a run and Ria was carried along in the stampede. ‘What’s happening, Brindle?’ she cried out: ‘Why are we running?’ But there was no reply.

As all this was unfolding a weird, dejected mood descended on her, she began to tremble as images of the fighting in the forest flashed before her eyes, and she suddenly felt alone and full of misgivings about the Uglies.

How did she really know she could trust them?

Maybe she’d made a terrible mistake coming with them into their own territory. There wasn’t a hope she could find her way out through those caves without their guidance.

She slowed to a walk, cursing under her breath, and steered a course towards a group of solemn, shadowy figures standing round

a large fire that had burned down to its embers. Something was going on at the fire that seemed to be attracting a lot of attention.

Maybe something cooking?

As Ria came closer she recognised with horror that a human body was roasting in the embers and now, as she watched, it was dragged out by the Uglies. The females fell upon it in a frenzy and began to tear loose and consume great handfuls of its burnt and blackened flesh. With a single blow from a flint axe one of the males hacked off its head and another – Brindle! – smashed the base of the skull with a stone bludgeon and reached inside to extract the brains.

Ria's shock at Brindle's betrayal was so huge it left her reeling. *You had me fooled all the way*, she thought.

Then she turned to run.

Chapter Fifteen

Ria ran helter-skelter down the darkened hillside, her heart pounding, breathing in short heaving gasps. She ducked and dodged around boulders and between trees, careening off unseen obstacles, gasping with shock and pain. She was repulsed by the thought that her body would be next for the fire, her brains next for the cannibal feast.

What a fucking betrayal.

She hadn't condemned the Uglies' near-catastrophic stupidity during the ambush, because she'd wanted to believe such faults stemmed from their good and gentle nature.

When all along, as she'd now seen with her own eyes,

everything that Murgh and his thugs had said about them was true. She cursed the wayward streak that had led her to trust CANNIBALS over Clan. She swore, if she survived the night, that she'd never make the same mistake again.

Without warning the ground opened beneath her and she tumbled, somersaulted and landed on her feet with a jarring thump in some kind of pit. Terrified and disorientated in the darkness she rushed to climb out, but the sheer sides were at least twice her height and she fell back in. She tried a second time, digging her hands and feet into the cold, crumbling earth, and hauled herself almost to the surface before again falling back. As she sat winded in the bottom of the pit, gathering her strength for a third attempt, she heard a cacophony of grunts, high-pitched squeals and horrible snuffling noises. There was a wild beast trapped with her! *A badger? A bear?* She jumped up and backed into a corner, fingers hooked like claws, before she realised she was alone in the pit and that all the sounds were coming from herself.

Shit. She was losing it. In a total funk. If Hond and Rill could see her they'd tell her to pull herself together, take control of her situation, stop cowering. With an effort Ria slowed her breathing, gritted her teeth to stifle the pathetic babble that kept bubbling up in her throat, straightened out of the crouch she had adopted and moved into the centre of the pit.

Silence fell, but not complete silence. As the panic left her, she found she could hear the sounds of the Uglies combing the hillside for a nice fresh human snack. A group of them were close, crashing through bushes and trees, but she reasoned that Brindle must not be with them, or that the 'rope' between her and Brindle had been broken by his betrayal – because if he could still get inside her head they would have found her already.

Ria waited until the hunters had passed by. Then, with ferocious energy, she threw herself again at the wall of the pit, again sunk her hands and feet into it, again climbed by sheer force of will, and again reached nearly to its lip before falling. But her landing

was bad – there was an agonising *crack!* and she couldn't stifle a gasp of pain and shock as her left leg buckled under her.

Braving the hurt, she rolled onto her back. If her leg was broken she was fucked. She looked up. Framed by the square mouth of the pit, the cloudless sky was dazzling with the glitter of a host of stars. Then a grizzled head and shoulders appeared, silhouetted against the starlight, and – with surprising agility for so massive a figure – Grondin jumped in beside her.

Ria didn't struggle – she couldn't beat this guy – but the first thing Grondin did surprised her. He dropped down on his knees and ran his hands over her injured leg, massaging the point where the pain was most severe. There was nothing predatory about his touch and at once she began to sense a warm, healing glow.

When Grondin seemed satisfied with his work he placed his strong arms under Ria's thighs and shoulders, hoisted her over his head, passed her up into the callused hands of other Uglies waiting

above, and leapt out of the pit himself. A stretcher was improvised from branches lashed together and they laid her upon it. Then, with one Ugly in front, one behind and Grondin walking by her side, she was carried away from the pit, through scattered stands of trees and back up the hill towards the fires of the distant camp.

Now that she was truly their prisoner, with no hope of escape, Ria began to relive the events that had led her to flee earlier: the body in the fire, the females tearing at its flesh, the decapitation and – horror – Brindle smashing the base of the victim's skull in order to feast on his brains. Once again, despite Grondin's gentleness, she was racked by a spasm of disgust for the Uglies. She was injured, helpless, and surrounded by stinking subhuman cannibals who were going to kill her and eat her.

Preferably in that order.

They were closer to the fires, climbing steeply, and suddenly, as though out of nowhere, Brindle's voice was back inside her head: '*Not cannibals! Not way you think!*'

Ria formed a thought and threw it at him as though it were a rock: ‘Liar!’

‘Told you before. Uglies don’t lie.’

‘But I saw you. *I saw what happened to that body in the fire* … Was he Clan?’

‘Maybe in death Uglies and Clan look same—’

Brindle’s thought-voice was full of some intense emotion that Ria was too furious to identify. ‘I’m not interested in your maybes,’ she interrupted. ‘Just answer my question.’

‘He was not Clan. He was my father, King of the Uglies. Died last night.’

That was when Ria recognized Brindle’s emotion for what it was. Sadness. Deep, aching sadness. But she was still so angry that it didn’t stop her saying: ‘You ate your own father’s brains? That’s such a gross thing to do!’

‘Maybe gross to you, but we do not put dead in hole in ground like Clan and leave to rot. For us that is very bad thing. By eating,

we bury dead … inside our own bodies. Is how we respect them. Is how we keep them with us. Is not … “cannibalism”. Uglies never, never *kill* other Uglies or Clan to eat.’

‘It *is* cannibalism, Brindle. What you’re saying is that it’s not murder as well …’

‘No! Not murder! I love my father.’

This time Ria’s rage drained away and she shared the young Ugly’s pain and loss through the openness of thought-talk. It made her ashamed. ‘I’m sorry,’ she said as the full force of his grief hit her. ‘Oh Brindle, I’m so sorry I misjudged you …’

A few more steps up the incline and her stretcher-bearers lifted her onto a spacious terrace, wide and flat, leading to a looming cliff wall. The glow of fires was all around her and there were Uglies everywhere, males and females, young and old, with matted hair and wild, uncouth looks, gazing down wide-eyed as she was carried by. Many were covered from head to toe in stripes of yellow, red and black paint. Several carried clunky spears or flint knives.

Brindle's voice again: 'We look wild, but our hearts are pure. Will not hurt you. I promise.'

Craning her head over the side of her stretcher, Ria saw that she was already halfway across the terrace and being carried towards the base of the cliff where a massive overhang and fallen boulders almost concealed a dark opening in the rock. As she came closer she saw that it was a tunnel about as high a man and ten paces wide. She was carried through it – twenty paces, thirty paces, it was hard to estimate the distance in the dark – and emerged into a cavern so vast that she gasped with surprise. Around its walls the Uglies had positioned a huge number of their fat-burning lamps, a thousand at least, as many as the stars in the sky. The reflected light of their guttering flames revealed a roughly circular chamber that seemed – was it possible? – to be hundreds of paces across in some places. She looked up. Far above her head the soaring dome of the ceiling disappeared into lofty darkness.

There were a lot of Uglies in the chamber already and more were pouring in through the entrance all the time. Their burly forms, looming up out of the faint glow cast by the lamps, seemed alien and monstrous. Grotesque shadows played across the walls, unfamiliar smells assailed her and Ria found that her stretcher and its bearers, with Grondin still by her side, had been swept into the midst of a large crowd moving across the floor.

She struggled to sit up. ‘What’s going on, Brindle?’ she pulsed. ‘What’s this crowd about? I don’t like it. Why am I being brought here?’

She had a sense he was very close and as she sent out her thought-voice she caught a glimpse of him in the flickering light. He was seated, enthroned between two stalagmites, on a natural rocky platform jutting out from the side of the cave.

‘When old Ugly king dies,’ he said as she was carried forward, ‘new Ugly king must make journey to spirit world to speak with him. I have to go tonight.’ He paused: ‘You can make journey to

spirit world too, Ria.’

Her stretcher-bearers brought her in front of him and stopped. The platform was about waist-high and he was looking down at her. She pointed to her injured leg: ‘I don’t think I can even walk …’

‘Not that kind of journey.’

Chapter Sixteen

Grondin lifted Ria onto a comfortable cushion of ibex skins piled up for her beside Brindle. The hysterical way she'd run – totally freaked at the thought of being eaten – was really shameful now she'd had a chance to review it calmly.

Of course the Uglies were never going to eat her. Only dumb fear and prejudice had made her imagine such a thing.

'Don't feel bad,' said Brindle. 'You been hero all day, kept courage strong, saved lives of many Uglies, didn't freak when it mattered.'

'I guess … But I still freaked.'

Ria very much wanted to stop talking about herself. 'Do you

know what happened to your father?' she asked. 'Did he die suddenly? Was it an accident?'

Through a mixture of images and thought-talk Brindle made her understand how proud he had been three days ago when Grondin had asked him to join the expedition from which they had just now returned – an expedition to persuade outlying communities of Uglies to take refuge in the sanctuary of Secret Place. His father had seemed well then, and had sent Brindle off with his blessing, but it seemed that soon afterwards he had sickened with some mystery illness, begun to stumble and fall, lost the ability to walk, talk and eat, and very rapidly died.

'I angry with Father,' Brindle now confessed. 'First time I ever go away he dies. Now suddenly I responsible for everything. Don't know what to do.'

Ria too was an orphan. Her mother and father had passed on together seven winters ago. She'd been nine years old then, on the worst day of her life, when the two people she loved most had left

her without saying goodbye, and for a long while afterwards all she'd been able to feel towards them was the same sort of bitter, cheated anger that Brindle was dealing with. 'You won't be angry for ever,' she promised. 'And you'll figure out what to do.'

As if it had happened yesterday Ria found herself reliving the whole sequence of events that had stolen her own parents from her – that stupid, stupid accident, so avoidable and unnecessary that even now the memory of it made her choke.

Through the broad valley where the Clan pitched its principal summer camp flowed the great river called the Snake. It was deep and wide, filled to the brim with leaping, succulent fish but – like its namesake – it was also dangerous and unpredictable. It could bite.

On a sunny morning under a clear sky, with no intimation of impending doom, Ria had walked and skipped beside her parents along the banks of the Snake at the start of a day's fishing. Father had been twenty paces ahead when Mother had seen the ideal spot. 'Shush', she whispered 'let's catch one before he turns round.' She

told Ria to stand back, then lowered herself onto her stomach and leaned out over the rushing water, reaching into the hollows under the bank to snatch sleeping fish. Her arm was submerged to the shoulder when she made a sudden grab and brought up a fat, glistening brown trout, flapping and wriggling in her firm grip. But just then the undermined bank gave way beneath her weight and pitched her, and the trout, head first into the river, with a mighty splash.

At first Ria laughed. It hardly seemed serious – more like a joke – but it stopped being fun when Mother didn't resurface. Then Father was pounding along the bank, yelling to Ria to stay where she was, and when Mother's head at last bobbed up amongst the roiling waters, gasping for air, he jumped in after her. That was when Ria started to scream, with tears rolling down her cheeks, as she too ran along the bank as fast as she could, for a short while keeping pace with her parents.

Father was a strong swimmer. He reached Mother, grabbed

hold of her and lifted her face above water. No doubt he believed he could save her. But, instead, the two of them, clinging to one another, were whirled into the main torrent, pulled under the surface, and lost for ever. Left alone on the bank Ria sank down on her haunches, buried her head in her hands and wept. Much later that was where her brothers found her, no longer crying, just staring out at the river with vacant eyes.

Brindle was tuning in: 'Afterwards your brothers became your parents,' he said.

'Hond and Rill. They're much older than me. They were already men when the accident happened … They're good hunters and they've looked after me well. I can't complain …' – Ria touched her heart – 'but the pain is still here.'

'Maybe help if you can meet mother and father again,' said Brindle.

'Maybe it would, but it's not very likely is it?'

'Told you, Uglies know way to spirit world. This is the Cave of

Visions, and I will talk with spirit of my father tonight.'

Ria felt uncomfortable when Brindle spoke of spirits and the spirit world. She believed in them, of course; everyone did. But at the same time she'd never seen any solid evidence for their existence.

What happened next only added to her conviction that the Uglies were getting everything upside down.

Grondin had quietly left the platform while she'd been talking to Brindle but now he returned carrying a broad woven basket filled with hundreds of small mushrooms of the vile and obnoxious 'Demon's Penis' variety. By age-old lore the collection and consumption of these mushrooms was forbidden to the Clan under penalty of death, so Ria spat and made the sign of the evil eye. 'You're not planning to eat those, are you?' she asked.

'Of course we will eat them,' said Brindle. 'How else you think we get to spirit world?'

'But those who eat Demon's Penis turn into demons!' Ria

exclaimed. ‘Don’t you know this? I can’t believe you don’t know this! They grow long tiger teeth. They go mad. Their mouths foam. Blood drips from their eyes. They run about trying to kill everyone. If they are pregnant they give birth to monsters. These mushrooms are very, very bad, Brindle.’

‘You are intelligent person, Ria, but right now being kind of stupid – I’m sorry. You don’t know anything. Have just been told these things by other know-nothing people and you believe. Have you ever with your own eyes seen somebody eat these mushrooms and grow tiger teeth, go crazy, like you say?’

‘Well, no. I haven’t. But everyone knows it’s true.’

‘No, Ria! Not true! Uglies know these mushrooms very well. They are sacred to us. Very special. Very good. We don’t call them bad name like you do – “Demon’s Penis” – which makes you think bad thoughts, puts horrible idea inside head. We call them Little Teachers – because they teach us. We call them Little Doctors because they heal us. We call them Little Guides because they show

us how to enter spirit world, and return to land of living.'

'Well, maybe they do all that for Uglies, but I am Clan and if I were to eat them I'd turn into a demon with long teeth.'

'Let me ask you question, Ria. The Painters – they were your ancestors, right? If you go back to your father, and your father's father, and your father's father's father – all the way back to the long-ago – then no more Clan, only Painters, right?'

'Yes. We came from the Painters.'

'Means Clan and Painters same thing but at different time?'

'I guess.'

'Then safe for you to eat the Little Teachers.'

'Why?'

'Because Painters ate the Little Teachers in the long-ago. Made ceremony with them. Travelled to the spirit world. Uglies showed them how.'

In front of the ledge where Ria was perched with Brindle the rock

floor was flat and open. Here, with much shuffling and hooting, all the Uglies – hundreds of them, males and females, young and old – found places for themselves, settling down cross-legged or reclining on improvised cushions of skins. Grondin and three other elders moved amongst them distributing more of the woven baskets overflowing with Demon's Penis. Despite everything Ria had been taught it was obvious that the Uglies weren't in the least bit afraid of the disgusting fungi.

'Why should I believe you,' she asked Brindle, 'that the Painters ate Demon's Penis?'

'Please don't call bad name like that, Ria!' he protested. 'Hurts my head. Please show respect to the Little Teachers.'

'OK. Why should I believe you that the Painters ate the … Little Teachers?'

'Should believe me,' Brindle said, 'because Uglies can't tell lies – we share our thoughts. Don't forget past. Uglies were here in the long-ago, welcomed first people who looked like you to come

into this land. Showed them many things – good hunting grounds, good shelter, good water. Fed them when they were hungry. Gave healing when they were sick. When my ancestors gave your ancestors the Little Teachers, that was when they became the Painters. When your ancestors turned against the Little Teachers that was when they became the Clan.'

Brindle reached into the basket of mushrooms that Grondin had set down between them, took a handful, pushed them into his wide mouth and made a great show of chewing.

Ria watched, bewildered. How could the Uglies just sit here and feast on these obnoxious mushrooms while enemies with terrible spears roamed free in the world beyond? Who knew how many more of them there were than the four they'd killed today?

'I will ask spirit of my father about the spearmen,' Brindle said, picking up her thoughts. 'He will tell me what to do.'

'You should ask him about Sulpa as well,' Ria remembered. 'Grigo, Duma and Vik said he'd told them to kill Uglies. Whoever

he is I think he's part of this.'

A strange, irregular beat began to echo round the Cave of Visions, growing in volume, an amazing, hair-raising, exhilarating sound, the like of which Ria had never heard before. In the lamplight, with its play of flickering shadows, she found it difficult to pinpoint the source of this mysterious, complicated reverberation, which seemed to come from everywhere at once. But soon she traced it to three Ugly males, spaced far apart amongst the crowd, hunched with batons in their hands over knee-high cylindrical sections of tree trunk. Each of these wooden cylinders had a deerskin stretched tight over both ends and the braves seemed to be producing the sounds she was hearing by beating on the deerskins with their batons. Awesome. Ria began to keep time with them, sitting up on her cushions and swaying her head and shoulders from side to side.

Then a small, very ancient and wizened female Ugly rose to her feet in the middle of the floor, brought a length of cave-bear

femur to her mouth and blew through it while the fingers of both her hands danced over holes drilled into the bone. The result was another sound, so heartrending, so plangent and so energised with emotional power that Ria found tears – of joy, of sorrow, she didn't know which – running down her face.

'What's that incredible sound?' she asked. She felt dazed. A little giddy. 'What's it for? Why does it make me feel so weird?'

'We call it the bone song,' said Brindle. 'It goes out into the spirit world. It's like a serpent, winding here and there.' He made sinuous hand movements. 'It becomes a road for us to follow when the Little Teachers bring us through to the other side …'

Brindle was eating more mushrooms as he sent her these thoughts. Just about everyone in the room was eating mushrooms, even the kids. Everybody looked … calm. Kind of relaxed and thoughtful. No one growing tiger teeth. No one going insane. No atmosphere of threat or violence at all.

Still swaying to the unfamiliar rhythms, Ria took one

mushroom from the basket and placed it in her mouth.

It was bitter, tasting of roots, of earth.

Chapter Seventeen

‘False.’ ‘True.’ ‘False.’ ‘False …’

Leoni was filling out the questionnaire on autopilot while her mind was busy with a more pressing problem. Who was she going to call?

All her friends’ numbers were stored on speed dial on her own cellphone and she didn’t remember any of them. Not one. Her coke snorter’s Swiss-cheese brain didn’t hold on to little details like that.

As this realisation sank home Grinspoon hailed a passing colleague and stepped into the corridor again. Through the open door all Leoni could see was his back, the dirty grey hair straggling over his collar, the dandruff on his shoulders, the way he nodded his

head and moved his hands as he talked. It was the perfect opportunity for her to call … Information!

With shaking fingers she dialled 411 and asked in a stage whisper for the number of the UCLA Med Centre.

The operator wasn't helpful: 'I don't hear you clearly, ma'am. Say again, please.'

'UCLA Med Centre,' Leoni breathed.

'Ma'am – in which city would that be?'

Under normal circumstances Leoni would have been spitting buckshot by now, but these were far from normal circumstances. 'Los Angeles, of course,' she hissed.

'And which bed centre did you say in Los Angeles?'

'Not *bed* centre. *Med* Centre. I … want … the … number … for … the … UCLA … Medical … Centre. Surely that can't be so difficult?

'Do you wish me to connect you, ma'am?'

Leoni was picking up hints from Grinspoon's body language

that his conversation in the corridor was ending, and she was forced to lower her voice still further ‘No. Please just give me the number,’ she hissed. ‘Just give me the number, OK?’

‘310-861-8251.’

Leoni scrawled the figures on the palm of her hand, hung up and shoved the cellphone under her bedclothes just as Grinspoon turned away from his colleague and walked back into the room.

‘Have you finished the questionnaire, Miss Watts?’

‘Umm. Not yet.’

‘Well, get on with it, then’ – he looked at his watch – ‘I haven’t got all night.’ There was a chair by the bathroom door which he now sat down in. He crossed his legs and began to examine the fingernails of his right hand.

Another ten minutes passed. Leoni was sweating under the covers, and giving ever more random responses to the annoying, persistent, repetitive questions on the form. She could feel Grinspoon’s cellphone nestling against her thigh and it was driving

her crazy. She was terrified that he would make another call, or receive one – either way her entire escape plan would go down the tubes. But she didn't dare reach down and switch the instrument off; if it was password-protected she wouldn't be able to activate it again later.

Five more minutes. 'False,' 'False,' 'False,' 'True.' She glanced over at Grinspoon. He had finished with his fingernails. Now – hopeful sign – he tilted his head back against the wall and yawned. Tick, tock, tick, tock. Never had Leoni felt more aware of the passage of time, or more fervently willed another human being to fall asleep. 'True,' 'False,' 'True,' 'False.' Grinspoon's eyelids were drooping closed, his neck muscles relaxed and his head flopped forward, pulling his upper body with it. He began to topple off the chair, then jerked awake at the last moment, sat upright, and gazed around, blinking in apparent confusion.

'I'm nearly finished with the questionnaire,' Leoni offered. 'Just give me another few minutes, OK?'

Grinspoon yawned and made an exasperated sound. ‘I’ve got a call to make,’ he said. ‘I’ll be right outside in the corridor.’ And he stood up, patting his pockets.

It was now or never. Her heart thudding, Leoni started punching in the number before Grinspoon was even through the door. She figured she had thirty seconds – tops – before he realised what had happened to his phone.

An operator answered: ‘UCLA Med Centre, who would you like to speak with?’

‘Er … um …’ – Leoni was momentarily tongue-tied – ‘Bannerman. Dr John Bannerman.’

‘He’s unavailable right now …’

‘But I have to talk to him! It’s urgent!’

The operator was unimpressed. ‘He’s in surgery and he can’t be disturbed. Would you like someone else, or shall I connect you to Dr Bannerman’s voicemail?’

Leoni was shaking with stress and fear. She felt as though she

was about to burst: ‘Voicemail? OK. Yes. Put me through.’

For a moment the line went dead but then, without any announcement, there was the kind of tone that normally invites you to leave a message. Was this really Bannerman’s voicemail? Perhaps the operator had put her through to another extension entirely? Since there was no way of knowing, she just had to go for it. ‘John?’ she yelled into the phone – she was no longer making any effort to keep her voice down – ‘This is Leoni Watts. I’ve been kidnapped by my parents. They’ve locked me up in a fucking mental hospital called … um … er – shit, I can’t remember. Mountain something or other’ – she racked her brains – ‘Mountain Ridge Psychiatric Hospital, that’s it. The Director is a guy called Sansom …’ She sobbed, peered at the door, took a deep breath: ‘You’ve got to get me out of here, John. I don’t have a friend in the world who can do this for me except you.’

As Grinspoon came pounding back in with a thunderous look on his face Leoni hung up his phone and held it out to him. ‘Look

what I've found,' she said.

Chapter Eighteen

Despite her worries, it wasn't too long before Ria was having a good time. On Brindle's further encouragement she had feasted on the mushrooms – she had forgotten how hungry she was – and now she was just hanging out, tuning in to the strange rhythms that the Uglies were producing. Her thoughts flew and soared on the bone-song's sad notes, swirled and dived amongst rivers of flowing colours, waterfalls of brightly hued dots, dazzling starbursts, rotating spirals.

Meanwhile Brindle was out of it. Not communicating. Silent. It wasn't like he was asleep. It was like he was somewhere else. Maybe he really had gone through the veil into the spirit world. If

so, he obviously didn't need his big gangly body to make the journey because his body was still here, stretched out on the floor, breathing slow and deep.

And had eating the mushrooms made any difference to her? Ria did a quick inventory. She hadn't been turned into a tiger-toothed demon. She hadn't been driven insane. Clan lore on these matters was obviously full of shit. Still, if she was honest, she had to admit that she was beginning to feel a little … peculiar.

It wasn't just the patterns she'd never seen before, or the starbursts, or the way she could now taste sounds and hear colours. Everything else had gone queer as well.

For example, her arms and hands. Why were they glowing? Why were they steaming like the flanks of a hot reindeer on a cold day? She moved her left hand from side to side, laughing out loud at the ghostly smear of scintillating light that trailed behind it through the air. She held up the hand for closer inspection. Six fingers. Odder and odder. She flexed her fingers. Each one was outlined by

a soft, radiant, pulsating aura.

‘Wow,’ said Ria, to no one in particular. ‘So beautiful.’ She let her hand drop and began to lever herself upright, at length getting to her feet. She was clumsy but her leg, though still painful, was not broken.

She grabbed another handful of the little mushrooms, crammed them into her mouth, flung a couple of ibex skins around her shoulders, picked up a stone lamp and limped out into the throng of Uglies.

Most of them were flat on their backs in the same silent, withdrawn state as Brindle. Maybe it was just an effect of the guttering lamplight, or maybe it was because they were very dirty, but she also noticed that some had green skin. *Green.* Totally gross. There seemed to be some changes under way in the shapes of their faces, too, that she preferred not to look at. Bit scary, really. But interesting at the same time.

She decided to check out a patch of the cave wall fifty paces

away. It had caught her eye for some reason and she felt drawn to it. But the floor was an obstacle course of prone and seated Uglies and now she saw a big male staring at her. He was sitting cross-legged, holding a stone lamp that lit his face luridly from below, transforming his nostrils into the black gaping holes of a death's head. His beetling brows were knitted into a thunderous frown. His glinting eyes, reflecting the flame, were guarded and hostile.

Shit, Ria thought as she walked past him. *What's that about?* She'd started to believe all the Uglies were gentle and good-willed but this guy gave her a different feeling. When she looked back he was still staring at her. She considered returning to the comfortable and reassuring pile of skins beside Brindle but rejected the idea. *No way!* She wasn't going to be bullied.

The patch of wall that had attracted Ria proved, when she reached it, to be no taller than herself, no wider than the span of her outstretched arms. It was bone white and its surface, which was

damp, mirrored her lamp's yellow flame. There was something … compelling about these rippling reflections, something inviting about their glitter and shimmer.

Ria glanced back over her shoulder but the hostile-looking brave was lost in the shadows amongst the crowd on the floor. She didn't think he was still staring at her and dismissed him from her mind. Brindle would not allow any harm to come to her here and she needed to give the wall her full attention. Holding out the lamp, she stepped closer, her eyes darting from side to side as she followed the dance of the reflections.

Except – and this was suddenly very obvious – these weren't just reflections. With a flash of clarity and absolute conviction, Ria understood that the rock had become transparent through some strange sorcery, like a limpid pool on a hot summer's day, allowing her to see through it … into another world.

It seemed to be a world that was very much like her own, full of sierras, of forests, of rivers, stretching away into a vast and

incalculable distance. But it was also different, overlaid with an eerie and sinister glamour.

She stepped closer again. Could she see movement through the rock, in that enticing realm beyond? Were there figures there? She was beginning to get the creepy feeling that she was being watched. She frowned, narrowed her eyes. *There. What was that?*

For a moment the scene clouded over. When it cleared two specks were visible in the sky of the otherworld, moving towards her, and Ria found that she was standing with her nose pressed against the cave wall, gazing into it with fascinated intensity. The two dots grew in size and began to take recognisable form – wings, feathers, talons, beaks. These were birds of prey, big ones, flying fast. Could they burst through the rock? Could they cross over from their world into this world?

Ria braced herself. Her heart was racing. But she didn't turn and run.

She could see now that the birds were white owls. Ghostly

white owls. Spectres of the night. They came closer, right up to the other side of the rock wall, and hovered in front of her. The slow, powerful beating of their wings was lulling … hypnotic … She felt their eyes – huge, dark, filled with intelligence – boring into her.

Did they want to talk to her?

Maybe the same way Brindle talked to her?

'OK,' Ria said. 'I know how to do that.'

She set down the lamp, laid the ibex skins she had brought with her on the floor, and sat carefully, stretching out her injured leg. All the while she continued to gaze into the rock surface where the two owls stared back at her through the wet, glistening sheen.

'Do you wish to pass through?' a thought-voice chimed inside her head. And at that, as though commanded by a magic spell, the owls vanished and a jagged vertical crack opened with a groan in the surface of the bone-white cave wall.

The crack expanded into a wide fissure.

Then a dwarf appeared in the gap and beckoned Ria.

Chapter Nineteen

Grinspoon snatched back his cellphone, retreated to a safe distance, looking furious, and pecked at the keys with an extended forefinger to check which numbers Leoni had dialled. Since there was no point in hiding what he would discover anyway, Leoni confessed: ‘I made a couple of calls. One to Information. One to UCLA Med Centre.’

Grinspoon pressed more keys and held the phone to his ear: ‘Hello, yes. This is Dr Silas Grinspoon, Mountain Ridge Psychiatric Hospital. A patient of mine just called this number and I’d like to know who she was put through to …’ Pause: ‘What do you mean?’ Longer pause, then: ‘I see … Yes … Yes … But that’s ridiculous … Our Director will be calling your Chancellor about this. Goodbye!’

And he hung up.

Grinspoon glared at Leoni: ‘I need to know exactly who you called at UCLA Med Centre,’ he demanded.

‘That’s private information,’ Leoni spat back. ‘I’ve got rights. Ask my lawyer.’

‘You’re a patient here. You have been *committed.* Don’t you get that? There is no private information. You have no rights. You have no lawyer. You don’t call anyone without our say-so …’

‘You should have thought about that before you loaned me your phone, asshole.’

‘I did *not* loan you my phone,’ Grinspoon spluttered. ‘You stole it from me!’

‘Sure … Whatever.’

Leoni’s mind was working overtime. Now they knew she’d made calls, and perhaps summoned help, they couldn’t risk keeping her here in Mountain Ridge. They’d move her. Perhaps out of the state – perhaps even get rid of her altogether, if her parents wanted

that. How about another ‘overdose’? This time fatal? She was already on suicide watch, after all. And then no more risk of embarrassing revelations from the adopted daughter of a very rich man.

Grinspoon was red in the face and yapping at her: ‘I’m not going to ask you this again, Miss Watts. Tell me who you spoke to or you’ll spend the next twenty-four hours in a straitjacket.’

Leoni had a quick temper, and she lost it now – at the sheer ludicrous unfairness of her situation, at Grinspoon’s soiled and unwholesome presence, and at the catalogue of multiple indignities that her life had become. Without giving the matter any further thought she bounded off the bed, pounded across the room in her bare feet, shoved Grinspoon hard in the chest with both hands and bolted out through the open door.

A long empty corridor lit with neon and painted clinical white.

No windows, no natural light, just a vanishing perspective of

door after door to either side of her extending into the distance.

Did any of them offer an escape route? Or just access to other rooms?

Leoni hesitated for a fraction of a second then darted to her right and sprinted towards what she hoped was a fire-exit sign glowing red at the far end of the corridor, maybe two hundred feet away. She could hear Grinspoon just behind, yelling something. A klaxon began to sound.

In front, to her left, a door burst open and a man and woman in green overalls rushed out. The man was small and had Oriental features. Leoni barged into him when he tried to block her and sent him sprawling. The woman executed a clumsy flying tackle at her legs, missed and collided with the man. When Leoni glanced back she saw that both were on the floor and Grinspoon had tripped over them. If it hadn't been so serious it would have been comical. She could hear what Grinspoon was yelling now: 'ESCAPED PATIENT! STOP HER! STOP HER!'

Leoni covered half the distance to the exit in a few seconds but by then there were people everywhere, pouring out into the corridor from the side rooms, grabbing at her as she hurtled by, and she felt panic bubbling up inside her chest, shutting down her reasoning.

(Not gonna make it. Don't stand a chance.)

Now another threat loomed – young guy in a white coat, wire-frame spectacles, earnest expression. He got her in a bear-hug but she bit his ear, which crunched like raw cabbage …

(*Yecch!*)

… until he screamed and let her go.

Spitting the salt taste of his blood from her mouth, Leoni ran again, dodged a foot stuck out to trip her, and slalomed left and right. Her breath was coming in shuddering, wheezing gasps, her heart was thudding in her chest but she had just twenty feet to go …

(*Maybe I can do this*.)

… when she realised, with a sinking heart, that she really wasn't going to make it, really didn't stand a chance.

She'd been right about the fire exit. But now it was guarded by Deirdre, Melissa and three other brawny nurses. Panting, Leoni skidded to a halt and faced them.

'You don't want to fight us, girlie,' said Deirdre. There was menace in her voice.

Leoni knew she was right but was so far beyond reason that when they tried to grab her and pin her down she fought back anyway, biting, scratching and kicking, drawing blood, pulling out fistsful of hair. Someone punched her in the head so hard she saw stars. A beefy elbow pummelled her kidney. Finally they managed to turn her face down on the floor and one of them knelt on her back, pulling her arms out behind her in a sweaty wrestling lock. Her ankles were pinned under what felt like a ton of lard, and out of the corner of her eye she could just see Melissa prepping a large syringe.

'What's that?' Leoni protested, close to tears.

Melissa leaned down, stabbed the needle into her thigh and

pushed in the plunger: ‘Four hundred milligrams of ketamine intramuscular, baby! It’s all I had to hand at such short notice. Let me tell you, this is *really* going to calm you down.’

Soon after Melissa had administered the drug, and before it had fully taken effect, there was a commotion in the corridor. Leoni heard Grinspoon’s voice, wheedling, and Sansom’s confident bullying tones. ‘I’m not worried,’ Sansom was saying.

‘But she might have talked to someone.’

‘Even if she did, so what? What can they do? The girl’s here legally. Her own parents had her committed. Nobody can touch us.’

Leoni was barely conscious and had lost control of her limbs when the nurses lifted her onto a gurney and wheeled her back to her room. They strapped her into her bed. When they left they turned out all the lights and triple-locked the door.

Complete darkness and complete silence fell.

Chapter Twenty

The dwarf beckoned again, but Ria hesitated. She wasn't sure she liked the look of this little fellow. He wore colourful knee-length leggings, one side red, the other yellow, his jerkin was green, and he was no taller than a child, yet his face was ancient, sallow and grim. In his right hand he held a long thin wand made of some pliant, gently glowing material.

Another gesture, this time betraying a definite hint of impatience, and the dwarf's thought-voice rang inside Ria's head: 'Come quickly. I'm here to send you on.' As he spoke he reached towards her with the rod and touched her lightly on the shoulder. At once she felt reassured and became conscious of a steady, insistent

tugging, as though some invisible force were drawing her towards the gap that had opened in the cave wall. But that couldn't be what was happening because even as these sensations were at their most intense Ria could see that her body, seated on ibex skins on the floor, wasn't going anywhere.

Then she realised that she had never actually seen *all* of herself in quite this way before – even the bits she couldn't normally see, like her own eyes! It wasn't like looking at her reflection in a river pool. This was a completely new perspective – somehow *outside* herself, separated from and able to look down on her body.

Ria had heard of such things before when tales of the Painters were told around the campfires. Like everyone else in the Clan she had been taught that these mysterious ancestors of theirs had discovered a way to send their souls out from their bodies – and thus to travel to the spirit world and return alive. She had also been taught that this way had been closed, and forgotten by mankind, since the long-ago. But now, through happenstance and adventure,

Ria possessed a devastating secret unknown to even the most senior elders of the Clan. The way to the spirit world was not closed at all. Its long-lost entrance could be found, at will, by eating the forbidden mushrooms that Brindle called the 'Little Teachers'.

The dwarf beckoned one final time, then turned his back on Ria and disappeared through the cave wall. His thought-voice in her head urged '*Hurry!*' and she felt herself drawn further away from her body and into the jagged crevice – no more able to resist than smoke carried on a strong breeze.

Inside there was darkness ahead. She moved forward – where was that dwarf? – and the cave wall behind her closed up with a crash, shutting her off with horrible finality from her own body.

Now there was only darkness everywhere and Ria found herself adrift with no reference points.

Was she in motion or was she still?

At first she had no way to tell, but little by little the level of light began to grow, like a slow dawn, and soon there were hints of

form and substance – a brief flash here, an illuminated grid there, sparkling zigzags, a swirl of dots. From such clues, in the rising light, she came to understand her predicament better.

She was being swept through an immense tunnel. Its walls – within which the patterns appeared and disappeared – were not rock but some other substance, a bit like water, a bit like sky, slow and majestic, wheeling round her. Sometimes, as though through mist or cloud, she thought she caught glimpses of that other country that had beckoned to her from beyond the cave wall.

The darkness had been banished and it was full daylight, dazzling and unearthly. The walls of the tunnel became thinner, more transparent and finally invisible. Then there was a sudden deceleration and a clap like thunder and Ria found herself standing in a meadow of green flowers beneath two suns.

Two suns! What the fuck?

Her first thought was to ask the dwarf, but he had vanished.

Another mystery was her body. She was quite certain that she

had left it behind in the cave but she was equally confident that she was now in a body again. It felt like her own familiar body – but her injured leg was healed, and she was dressed in a fine fabric smock she'd never seen before

How all this could have come about was a great puzzle but she decided she could leave its solution to another time. She was here, now, and she wanted to explore.

* * *

The mantle of green flowers sloped upwards and away from Ria in all directions, and was ringed by the horizon, suggesting she must be standing at the lowest point of a huge shallow basin. There were no other features to break the view – not a tree, not a river, not a hillock – and the flowers exuded a sticky richly scented sap that bathed her feet as she walked.

She had never in her life seen such flowers. They were the

iridescent green of a kingfisher's feathers – quite breathtaking in such a mass – and the entire expanse swayed and bowed as though agitated by a gentle continuous breeze, yet no breeze was blowing. It was like looking into the shimmering surface of a brilliantly coloured ocean.

Then there was the little matter of two suns in the sky. How great was that? Before, when Ria had thought of the spirit world – which was not often – she had pictured it as a murky place filled with ghosts and monsters. She had hated the idea that her parents had passed on to an eternity of gloom and shadow. But now the little mushrooms had brought her here it was obvious it wasn't like that at all and she even began to hope, as Brindle had hinted, that in this place of marvels she might find her mother and father alive once again.

It was difficult to judge distances because of the absolute lack of landmarks and the ceaseless swirling patterns of the flowers at her feet. But Ria didn't care. This was all much too exciting to

allow caution to slow her down.

Ria was uncertain how long she'd been walking and couldn't track the passage of time. At home the sun moved through the heavens along a predictable path at a predictable speed, measuring out morning, noon and night. But here in the spirit world there were two suns and both seemed fixed in their places. If they were moving at all it was at a rate too slow to be perceptible.

The rays given off by the twin suns, bearable or even pleasant at first, were now almost scorching, the air was hot, dry and utterly still, and for the first time Ria began to wonder … *Where do you go to get a drink in the spirit world?* She was very thirsty and longed to bury her face in a mountain stream, but there was no water to be had anywhere. She reached down and trailed her hand through the green flowers, brought a finger to her lips. Despite their pleasant fragrance their sap tasted so alien, bitter and salty she was repelled.

A new thought occurred to her: if she didn't climb out of this

basin soon and find shelter or water, or preferably both, then things could go very badly for her. Ria was just beginning to wonder if she could actually *die* of thirst in the spirit world when she felt something small and fierce bite her ankle and discovered that there was pain here as well – at least as bad as the pain of a polecat bite she'd suffered the previous summer. Only this wasn't a polecat. A hideous little beast, something like a cross between a rat and a cockroach, had clambered onto her foot and sunk its fangs into her. She hopped about on one leg trying to brush it off, lost her balance, and crashed down on her bottom amongst the flowers, unleashing a further splatter of the bitter sticky sap.

The beast still had its teeth in her and wasn't letting go. The little fucker was drinking her blood! Ria gripped it behind the head with her finger and thumb and pinched hard. It squealed in protest, scrabbled at her with its rat claws, and made threatening buzzing sounds with its cockroach wings. Ria pinched harder. She could see the mechanism of its jaw now. She shifted her grip, increased the

pressure to the maximum strength of her hand, forced the jaws apart and prised the jagged razor-sharp teeth out of her flesh. Then she got hold of the creature's neck and with a sharp twist and a wet plopping sound she tore the head away from the scaly body. She threw both parts down amongst the flowers where they continued to jerk and writhe as though trying to reunite.

Ria examined her ankle. She had suffered a savage and bloody bite. She was lucky the rat-roach had been alone or she would have been in trouble. She picked herself up, looked around feeling spooked, and began to hurry. She had always imagined that spirits were insubstantial and ghostly so it worried her that she could suffer physical harm in the spirit world. If she could be bitten, if she could be thirsty, what else might happen to her here?

The bite felt hot, and Ria was growing sure some poison had been injected into her system when she came at last to the rim of the basin of green flowers. The flowers continued beyond the rim – for

all she knew this whole world was covered in flowers. But at a distance that looked like a morning's hard march the peaks of lofty mountains revealed themselves. Much nearer, just a few hundred paces away, an inviting river meandered through a broad valley. Nearer still – almost close enough to touch – two utterly outlandish creatures examined Ria through segmented black eyes. The creatures were about the size of aurochs, but they had six legs each, and they had stubby beetle-wings folded up on their backs. Judging from the clumps of flowers dangling from their mouths they had been grazing, but now, startled, they turned away and began to canter towards a copse of a dozen trees by a bend in the river.

Ria followed, limping.

There was, she decided, something odd about the trees. For a moment she considered avoiding them, but checked herself. This was ridiculous. They were just trees. And their shade was most inviting. Because she was now in so much pain, and because she wanted to drink and then lie down and rest out of the glare of the

two suns, she overruled the instincts honed in years of hunting and gathering – instincts which signalled danger – and continued to approach.

Fingers of shade reached out to caress her.

Ah. Bliss.

Ria passed the first tree, noticing the curious feathery texture of its long green leaves, and stepped into the midst of the copse, luxuriating in the deep shadows as she made for the river just a hundred paces ahead. Above her, branches creaked and leaves rustled.

Then she heard a voice, shouting in a language she didn't understand. This was not a thought-voice. It was out-loud speech. Ria turned, and was shocked to see that a young woman of about her own age had somehow materialised right behind her – a beautiful young woman, dressed as she was, with golden hair. She was pointing and gesticulating and it was she who was the source of the incoherent yelling.

‘What manner of spirit are you?’ Ria asked, also using out-loud speech.

The other girl rolled her eyes, yelled some more, then raised her arm and one outstretched finger.

What was she pointing at?

Could it be the trees?

Ria looked back over her shoulder.

Fuck! They weren’t trees.

Chapter Twenty-One

They weren't trees. They were monsters, three times Ria's height, and she'd walked right into the midst of them. She looked left and right trying to figure out an escape route, but they were all around her – in front of her, behind her, towering over her – blocking her way to the nearby river. She could see their beady red eyes now, like poisonous fruits amongst the weird foliage, and their long pointed beaks, big enough to cut her in half or swallow her whole. These features made them look like birds – perhaps some gigantic species of stork. But their legs really resembled tree trunks, their feet were clumps of tangled roots, their feathers were a mass of dirty green leaves, and a network of large and small bones

resembling branches and twigs supported the stubby rudiments of wings.

Could they fly, jump, run, like birds? Or were they – *please let it be so* – fixed in place like trees?

Ria spun on her heel hoping for answers from the spirit girl, but she had vanished. One moment she was there, signalling and shouting, seemingly flesh and blood. But a blink of an eye later she was … just gone.

Ria had no time to be mystified. Moving with exaggerated care, she took a couple of experimental steps towards the river a hundred paces away.

The monsters responded with muted clucks.

A third step brought an ear-splitting squawk from just over her head, accompanied by a disconcerting rustling of leaf-feathers.

As she took her fourth step the rustling increased to a crescendo and she was already breaking into a run when a huge beak scissored down.

Ria dodged rapidly to her left and ducked. The beak snapped closed where her head had been an instant before. She stumbled, almost fell, threw herself forward to evade another murderous lunge and then was up and running again.

Glancing back she confirmed that the weird tree-birds were not, as she had hoped, rooted to the ground. The good news was that most of the flock seemed to have no interest in her, but the bad news was that two were in hot pursuit, only paces behind, and closing the distance fast. They were so big and heavy that the ground was shaking under their feet.

Whoosh!

One of the great beaks was swinging towards her. She tracked it out of the corner of her eye, ducked – *Clack!* – and carried on running

Faced by danger Ria's natural instinct was to snatch up stones and throw them at whatever threatened her, but she could see no stones amongst the endless green flowers of the spirit world. So her

only plan was to get to the river and find something to defend herself with, or dive in and swim for it.

The bank was close but the two huge birds were agile and fast-moving and forced her to run the indirect zigzag course of a startled rabbit. They were right on her heels, crowding her, stabbing at her back and legs with their scything, snapping beaks. But it seemed that neither wanted its rival to get to her first so they lunged and stabbed at each other as well, uttering furious clucking squawks.

While they were squabbling, Ria stopped zigzagging and made a break for the river, now only fifty paces away, but in an instant one of the tree-birds caught up with her again, squawking and shrieking. *Clack!* Its wickedly sharp beak stabbed down at her head. *Clack! Clack!* She sprinted forward the last few paces and reached the bank. There was a drop of about twice her height to a shingle beach below – a beach covered with rounded cobbles.

Whoosh! Clack! Another near miss. Ria was already in the air. She went into a forward roll as she landed, grabbed a couple of

stones and ended on her feet facing the tree-bird as it flapped down onto the beach twenty paces from her and began to pick its way across the shingle.

The stones were larger and heavier than she would have liked, but there was no time to find substitutes. They would just have to do. Scanning the top of the riverbank for the second bird, she drew back her right arm, took aim and let fly at the first, which had closed the distance between them to just ten paces. There was a distinct and absolutely satisfying *thwack!* as the missile found its target. The creature's head split open, spilling its brains, and it crumpled on the spot in a heap.

One down, one to go.

She scanned the riverbank again and the second bird hopped into view, its disproportionately small wings thrashing before it crashed down to the shingle a dozen paces in front of her. It stood still for a moment, clacking its beak and sizing her up with its greedy red eyes. Hoping she could throw as well with both hands in

this world as she did in her own, Ria hefted her second stone.

If she took just three steps backwards she knew she would be in the river. It looked as deep and fast-flowing as the Snake, in which her mother and father had drowned, and she wasn't getting into it unless there was no other way to avoid being eaten. She aimed and threw again, but lost her footing. The stone flew wide of its mark, bouncing off a wing, and at once the tree-bird was on the move, screeching its rage, lurching towards her.

Ria waited a little too long to dodge its charge and was sent sprawling by a kick from one of its massive rootlike feet. As she struggled to pick herself up, the tremendous momentum of the creature's onslaught carried it past her, skidding on the wet sand. It was unable to stop itself and plunged into the river with a stupendous splash and flapping of wings. At once the water around it seethed and boiled and the monster began to call out with a repeated piteous ear-splitting screech.

What was happening?

Ria peered closer and saw that a host of small reptilian-looking fish with mouths full of long serrated teeth were swarming over the tree-bird, bearing it down under the surface of the swirling river, eating it with astounding efficiency and attention to detail. The teeth flashed and glittered in the sunlight, the water boiled and splashed in a mad frenzy, and within moments there was nothing left of the huge predator at all except trails of blood in the water and its strangely beautiful skeleton, now stripped clean like a dead tree, sinking into the depths.

'Well done, Ria' said a thought-voice in her head. It was a voice so thrilling and ethereal that it made her hair stand on end. 'You have passed the first test.'

She looked up from the bloodied water and saw three figures standing watching her less than a bowshot away on the far bank. One was a tall woman with long black hair and deep blue skin. The others were her mother and father, waving, looking just as they had on the last day of their lives.

Forgetting everything in her love and excitement, Ria ran out into the river.

Chapter Twenty-Two

As the waking sleep of deep ketamine sedation wore off, Leoni began to be troubled by memories of a strange dream.

If it had been a dream.

It came back to her in fragments, not in a connected whole, and with the sense that she had forgotten large parts of it.

It began with a vivid and convincing rerun of her near-death experience, and she found herself out of her body, drawn into a vortex of light and returned to that strange world that the Blue Angel had called ‘the land where everything is known’. She was in a body again and – exactly as before – she was dressed in a simple sleeveless tunic that didn’t belong to her. She was sure that she’d

had another encounter with the Blue Angel, one laden with significance, but she couldn't remember anything that had passed between them.

Next came a tremendous rush and noise, everything around her blurred and refocused, and she materialised in the midst of a group of the sinister tree-birds. Right in front of her walked a young woman dressed in a tunic identical to her own. She seemed oblivious to the imminent danger.

Leoni's powerful instinct to run away was not so strong as the deep and immediate connection she felt to this girl, and she knew she had to warn her even at risk to her own life. Besides, there was no *risk*, right? Because at one level of consciousness she understood she was lying on a hospital bed tripping out on ket and this was all just a crazy dream. Wasn't it?

Still she yelled: 'Hey, you! We gotta get out of here. These things aren't trees.'

The young woman spun on her heels. She was more of a girl,

really – maybe sixteen – quite short, wiry, very pretty in a tough tomboyish way, with nut-brown skin and chestnut hair. She stood facing Leoni with her hands clenched into fists and shouted a challenge in a strange language. *Dumb bitch.* She was so up for a fight she was missing the bigger picture – namely, a flock of monster predators with beaks the size of cars looming right over her head.

Leoni rolled her eyes and tried again: 'RUN! OR WE'RE BOTH GOING TO BE BIRDFEED!' She raised her arm and pointed. The kid looked back over her shoulder and saw the danger. Then – *whoomf!* – the scene went blank and Leoni was emerging from her ketamine haze in California, strapped down to her bed, locked up tight in thick darkness.

It was as though her mind were running on two parallel tracks. One continued to give her glimpses of that strange and compelling otherworld that she had been immersed in on the edge of death and

seemed somehow to have entered again under the influence of ketamine. The other dwelt on her predicament as a prisoner in a psychiatric hospital where her parents intended to keep her permanently out of their way.

Leoni had done a lot of drugs in her short life and once at a club had been persuaded to snort a bump of K. It made her eyes sting and burn, left a horrible taste in the back of her mouth and turned her bones to rubber. Far from speeding her up, as ecstasy and cocaine usually did, ketamine had locked her in a lugubrious and incoherent world of her own where everything moved in slo-mo and simple physical tasks like lifting a wine glass became daunting obstacle courses. It also gave her the feeling that she had somehow been sitting about a foot away from herself for most of the evening. She realised now that this might have been a kind of low-level out-of-body experience.

The dose Melissa had injected into her must have been larger than the amount she'd been able to snort. Much larger. And it had

produced different effects – including a weird and spectacular return journey to the land where everything is known.

Here was the problem. Leoni's very strong instinct about her bizarre experiences in the near-death state was that they were *real* – and the one good conversation she'd had with Dr Bannerman had reinforced her in this view. But, courtesy of Melissa, she had now discovered that she could repeat elements of those experiences, get the out-of-body feeling, even encounter the same beings – such as the Blue Angel and monsters like the tree-birds – simply by shooting up a drug.

Didn't that prove that *all* such adventures, whether induced 'artificially' by ketamine or 'naturally' in a near-death coma, were just hallucinations – and thus completely *unreal?* And if that was so then wasn't it likely that the devastating conversation she'd overheard between her parents while supposedly out of her body must also have been unreal?

Alone in the darkness, fearful, strapped so tight to her bed she

couldn’t move, Leoni began to lose her new-found confidence in her flashbacks of being raped by her father. Suppose the rapes were just hallucinations too? Suppose they had never happened, as Dad had always claimed? Suppose they were no more ‘real’ than her ketamine dreams and near-death delusions of a non-existent otherworld?

Suppose her memories really were false?

Leoni heard the sound of keys turning in locks and bolts being drawn. Then the door was flung open, lights came on and Sansom strode into the room, scowling and red-faced.

Right behind him was John Bannerman.

Chapter Twenty-Three

Before her feet touched water, Ria felt herself lifted as though on a windstorm, and carried into the sky far above the river.

She heard the sound of cicadas singing and felt the force of a powerful intelligence – far more powerful than Brindle's – probing and knowing her mind. Finally the beautiful thought-voice that had addressed her before was back inside her head, a voice like a soft wind blowing through pines, speaking the Clan language: 'You have passed the second test, Ria. Now you must return to the land of the living. Use the Little Teachers again. I will await you.'

Then Ria was no longer in the sky but rushing at great speed through a rotating tunnel of light. Everything was moving so fast

she felt dizzy and lost consciousness. When she awoke she was back in her earthly body, inside the Cave of Visions, slumped on the cold stone floor on a couple of ibex skins, surrounded by sleeping Uglies.

It was very dark in the cave. Almost black. None of the lamps that had illuminated the scene the night before were still burning and only the faintest trace of daylight filtered through the distant entrance passageway.

Ria turned on her side and reflected on everything that had happened since the mushrooms had taken her to the spirit world, culminating in that brief tantalising encounter with her mother and father and then this abrupt return to her earthly body.

She sobbed. Seeing her parents for a fleeting moment after seven long years was almost too painful to bear. Yet it had convinced her that death was not the end. In some way she could not understand it seemed her mother and father really did live on in the spirit world.

Other mysteries were equally bewildering to contemplate. For example, who was the bewitching blue woman who had stood beside her parents on the river bank? She looked like the spirit whose image Brindle had shown her on the way into Secret Place – the spirit he had called Our Lady of the Forest who he said watched over the Uglies. Was it she who had rescued her? And was it her thought-voice she had heard inside her head?

The thought-voice had spoken of tests. Which tests?

Then there was the problem of the mysterious girl who had appeared just in time to warn her of the monstrous tree-birds, then vanished again. And there was the bigger problem of life and death in the spirit world. She'd been in a body in that world – she was sure of it. So, what would have happened if the tree-birds had eaten her? She had bled and felt pain in their realm so presumably she could die in it – and if she had would her earthly body have lived on? Or died as well?

Ria reached down to touch her right ankle where the rat-roach

had sunk in its fangs. Though there was no hot festering wound she could feel the scars of two puncture marks in the spot where she had been bitten. She turned her attention to her left leg. It should have been stiff and sore from her fall the night before but was free of pain and felt healed.

Thinking about what all this might mean, but coming to no immediate conclusions, Ria stood up and picked her way amongst slumbering Uglies towards the faint light of the entrance passage. Outside she saw Brindle sitting amongst the rocks, watching the sun rise over jagged mountains that soared up to touch the sky far away across the valley. She sent him her thought-voice: 'The Little Teachers were amazing, Brindle. Thank you for getting me to try them. I had the most incredible journey. I actually did see my mother and father!'

'Saw my father too,' Brindle replied.

'That's what you were hoping for, right?'

But he didn't answer. Instead he sent a picture into her mind of the wild braves who'd attacked them the day before. 'They are scouts of a great army,' he told her. 'Father gave me secret knowledge of this.' The pictures changed showing Ria throngs of the savages swarming into the Clan's hunting grounds. 'They are called the Illimani. Their homeland is in east, beyond the ice deserts …'

'No one can cross the ice deserts,' said Ria. She was simply stating a fact.

'They *have* crossed! You must believe this! Illimani scouts already been here many moons, learning these valleys, preparing the way. Now thousands more are coming, killing all in their path.'

'But why?'

Brindle's expression grew darker: 'Because of the one called Sulpa. They have fallen under his power …'

Ria gasped.

'The Eater of Souls,' Brindle continued. 'That is what his name

means. He is King of the Illimani but he is not a human being. He is a demon from the spirit world who has taken an earthly body. On the outside he is handsome – men and women worship his beauty – but within all is foul, all is evil. He is a mighty sorcerer, Ria. He delights in causing suffering. He glories in pain. He feeds on the misery of others. That is why his horde is marching …'

'And Grigo, Duma and Vik?'

'They too fell under his power.'

'Then why were they killed?'

'Father showed me Grigo not killed. Only Duma and Vik. Scouts followed us. Grigo went other way. See Sulpa.'

'But why? I don't get it …'

'Something bad going to happen.'

With Brindle's words came images of smoke.

Images of fire.

And though the morning sun was growing warm, Ria shivered.

Chapter Twenty-Four

Two nurses, not Deirdre and Melissa but of the same general build, followed Sansom and Bannerman into the room. One of them was carrying a bag; the other marched to the window and drew back the thick blackout curtains. Somehow the entire night had passed and bright morning sunshine flooded in through the bars.

Leoni looked to Bannerman for recognition and gave him a wavering smile but his expression was stern and he seemed surrounded by an invisible armour.

Sansom approached her bed, tight-lipped and surly, and began to unfasten the buckles of her restraints with abrupt, jerky movements. ‘You’re free to go, Miss Watts,’ he told her as she sat

up. His small piglike eyes glittered above the busted blood vessels in his nose: ‘My nurses here have your clothes. Get dressed, please.’

And that was that.

Five minutes later, Leoni and her rescuer were following Sansom’s broad well-tailored back out of Mountain Ridge.

Leoni kept glancing up at Bannerman She couldn’t help it. She was in awe of him. First he’d saved her life. Now he’d broken her out of a secure mental hospital. What would he do for an encore? Scale tall buildings at a single bound? Stop runaway trains in their tracks? Fly through the air faster than a bullet? Alongside everything else that had happened in the last couple of days, she realised, she was falling for this dashing, mysterious, totally hot guy!

‘You got my message,’ she whispered out of the corner of her mouth.

He nodded: ‘Yup.’

‘You moved pretty fast. I’m impressed.’

Sansom led them into a plush office with leather furniture, a power desk and a bubbling coffee pot. Bannerman hunched over the desk to sign a couple of forms and then they were back out in the corridor again and headed for the elevator. As they descended, Leoni noticed that the two doctors were locked in some kind of weird staring contest. At one point Bannerman's upper lip actually curled.

The elevator opened into a public vestibule and Leoni and Bannerman stepped out. Sansom stayed put. The doors slid closed in front of him and he was gone.

'Phew!' said Bannerman. 'That felt like sharing a cubicle in hell with the devil.'

'He's really gross,' Leoni said. 'I hate him.' She paused: 'Listen … John … I owe you big time for this … I mean,' she laughed, 'it's not as though I *don't* owe you big time already. Seeing as you saved my life! But now I owe you even more …'

Bannerman looked embarrassed. 'No problem,' he said. 'What

your parents and this pissant psychiatric hospital did to you was beyond wrong. Their lawyers had covered their tracks pretty well and I couldn't find out where they'd taken you, so it was just great to get your voicemail.'

They were walking across the parking lot now. The sun felt good on Leoni's skin and she couldn't believe how amazing this guy was. 'You mean,' she said, 'you started looking for me even before I called you?'

'You bet! I had an attorney working on your case from the minute I knew they'd grabbed you off the ward.'

At this she threw her arms around Bannerman's neck and attempted to kiss him on the mouth.

He returned her embrace, but kept his lips tightly closed.

Being rebuffed sexually by a good-looking man was not a common experience for Leoni. She stepped back: 'I'm sorry,' she said. 'That was brazen of me.'

'No!' he replied. 'It's me who should apologise! I must seem

ungallant. But you see … I'm gay. It was my partner who did your legal work. That's him over there …'

John Bannerman's lover was yet another spectacularly good-looking man. *What a waste!* 'Hi,' he said, 'I'm David Temple. Good to meet you, Leoni.'

'Hi, David. I'm really grateful to you for getting me out of there.' Leoni made a vulgar gesture at the hospital with her middle finger. 'I don't know how you did it, because my dad has swarms of killer lawyers working for him, but you must be brilliant and amazing. So … thank you!' And she leaned forward and hugged him.

'It wasn't such a big deal,' David told her. 'I think Sansom probably was convinced he was holding you legally, but it turns out he was wrong. They did have a qualified clinician write up your declaration – bribed him or blackmailed him, I'd bet. But I found so many holes in the paperwork there was no way it could be enforced.

Once I brought the county magistrate up to speed he ordered you freed at once.'

'Does that mean I'm safe? My parents won't be able to do this to me again?'

'The original declaration has been thrown out,' said David. 'They could try for a new one but I'm sure we'd nail them in court if they did. So, yes, short of them kidnapping you again, I'd say you're safe …'

While talking they'd climbed into a beat-up late-1990s model Chevrolet Impala looking like it hadn't been washed since it came off the production line. Bannerman was driving, and he'd ushered Leoni into the front passenger seat. David was sprawled in the back: 'Even so,' he continued, 'we figured you'd want to get off your parents' radar for a while.'

'You figured right.'

'And I know you want to understand more about what you went through during your near-death experience,' Bannerman

added.

‘I have to find out!’ Leoni agreed. ‘Because it’s driving me nuts. One minute I think everything I saw and heard was real, the next I convince myself it was just some kind of hallucination. I go back and forth on it fifty times a day.’

‘So I have a proposal for you,’ said Bannerman. ‘Remember what I told you about my research into near-death and out-of-body experiences?’

Leoni was immediately alert: ‘Yes.’

‘I’m running a very hush-hush clinical study at the UC Irvine School of Medicine that’s looking into these sorts of experiences right now. My proposal is that you join the project for the next couple of weeks as a volunteer. You’re an ideal candidate and I’m pretty sure you’d get spectacular results.’

Leoni was curious: ‘What makes me so ideal?

‘Lots in general, but one thing in particular. When you described your NDE to me you said you had an encounter with an

angelic being … You showed me a sketch you did of her.'

'The Blue Angel …'

'You said she gave you a lecture about how you'd squandered your potential?'

'She did.' Leoni nodded. 'But that was just the start. There was so much other weirdness that I didn't get a chance to tell you about. She said I had come to a place called "the land where everything is known". There were green flowers everywhere, strange-looking bugs the size of cows … and there were monsters there, John … Real monsters.'

Bannerman turned slightly as he drove, glanced at David in the back seat and gave him a *look* – something of a knowing, I-told-you-so look.

Leoni bristled: 'Hey, you guys don't think I'm crazy, do you? I'm up to here with people trying to make out I'm crazy.'

'No!' David reassured her.

'No way!' said Bannerman. 'It's just that David knows I've

had other recent cases of people who've been through NDEs and claim to have met a blue woman – also in extraordinary surroundings. Most of them described her as an angel. None of them can draw as well as you but their sketches of her have obvious resemblances to the figure you showed me. Two of the volunteers in my project have reported encounters with her – '

'Which means,' David interrupted from the back seat, 'when we add your testimony to what John already has on file it starts to look like there's something very strange going on here. If enough different people experience the same supposedly non-real things then you begin to wonder whether what they're experiencing might be real after all …'

'And is it?' asked Leoni. 'Is it real?'

'We have to be cautious about this,' said Bannerman. 'It's difficult to verify what people say has happened to them – in what might effectively be other dimensions of reality – in ways that would be accepted by scientists who don't believe in other

dimensions. All the volunteers in my project have reported out-of-body experiences of other worlds, but I narrow down the field by only using those who've also had veridical experiences in this world while they were out of body.'

'"Veridical"? What's that?'

'It means truthful and real – in other words people who've had experiences that can be verified. If I can confirm even one level of this phenomenon then it helps to increase confidence that the other levels could be real as well. You had one of these experiences – an experience while you were out of body that I've been able to verify …'

For a moment Leoni wasn't sure what he was talking about and must have looked puzzled. Bannerman jogged her memory: 'Remember you told me you were out of your body inside the hospital – just before we revived you in the ER?'

'Yes …'

'You saw a receptionist. You said she seemed very prim and

proper but that she was wearing orange sneakers with striped purple and green laces?'

'Exactly! Above her desk all you could see was this stiff charcoal business suit. Made her look like a headmistress or something. But under the desk she had on this crazy footwear.'

'Which was definitely orange sneakers with purple and green laces?'

'For sure. I was looking right at those shoes when you zapped me back into my body.'

'Well, here's the thing. That receptionist exists. She told me she was on duty the afternoon you were admitted and she was wearing a pair of sneakers exactly like the ones you described – right down to the purple and green striped laces.'

Leoni objected: 'The scientists you want to convince aren't going to accept that as evidence of anything, are they? They'll just say I must have seen her when I was being brought into the hospital.'

‘Well, obviously I’ve checked. Turns out you were brought directly into the ER from the helipad on the roof of the Med Centre – straight down in an express elevator. You didn’t go anywhere near the reception area. So there’s no way you could have seen that receptionist’s shoes while you were in your body …’

‘Unless I’d been to the Med Centre before and seen her then …’

‘Obviously I’ve checked that, too’ – Bannerman was looking vexed. ‘*Have* you been to the Med Centre before, by the way?’

‘No. Never.’

‘Well, it wouldn’t matter if you had because this receptionist was new there. The day you were admitted was her first day on the job and the sneakers weren’t even hers. She’d had to borrow them from a colleague who goes running because she broke a heel on her own shoes that morning.’

‘It’s a cut-and-dried case,’ David chipped in from the back. ‘You saw something real that you couldn’t possibly have seen if

your consciousness was confined to your body.’

‘That’s what I’m afraid of,’ said Leoni. ‘Some of the places I saw, and some of the things I heard … It’s going to be pretty scary in lots of ways if it’s all real.’

‘But you agree it’s worth trying to find out?’ Bannerman asked.

Leoni bit her lower lip and thought about everything that had happened. ‘Yes,’ she said at last. ‘Let’s find out. I’m going to help you every way I can.’

Chapter Twenty-Five

‘Father also spoke of you,’ Brindle said. ‘Told me you been chosen to fight Sulpa. That why you in valley yesterday to save me from Grigo, Duma and Vik. Not accident.’

Ria frowned at more of Brindle’s mystical talk. ‘What do you mean, I’ve been chosen to fight Sulpa? Who chose me?’

‘There is good and evil in spirit world. Good interested in proper order of things. Balance. Harmony. Love. Life. Sulpa part of evil. Interested in confusion, chaos, hate, death. Our Lady of the Forest kept him chained up long time. Stopped his wickedness. But he got away, turned proper order upside down, took human body, came into our world. Now good spirits need you to fight him.’

‘But that’s ridiculous. If he’s a demon they should fight him themselves.’

‘In spirit world they can fight him. In our world they cannot. Not allowed for them to take human bodies. That why they need you. Me as well. Uglies and Clan must make strong rope together to fight Sulpa.’

‘A rope? You’re talking about friendship between the Uglies and the Clan? Not a chance, Brindle. Our leaders would shit mammoths at the idea.’

‘OK. Let them shit mammoths. Doesn’t change anything. We the ones who have to fight Sulpa. Our responsibility. Our job. This our time.’

‘We will lose against Sulpa,’ Ria said, ‘if you go on trying to be merciful to the – what did you call them? The Illimani? The way you handled the ambush yesterday was really stupid.’

‘We trying to do right thing, Ria.’

‘I understand. And it’s noble. But it cost lives. Remember what

your father told you. These Illimani do the bidding of a demon. The only right thing is to kill them.'

Last night the large expanse of flattened earth in front of the Cave of Visions had been lit with a score of lurid fires, and the wild uncouth looks of the Uglies had been terrifying. But now as those very same Uglies began to emerge from the cave in ones and twos, blinking at the sun, yawning, stretching, in several cases farting, Ria discovered that she shared a strong bond with them.

Indeed, in her head, faint as a whisper, she imagined she could now hear the thought-talk of the whole multitude.

'Not imagining, Ria,' Brindle interrupted. 'When you ate the Little Teachers with us last night they made rope between you and all the Uglies …'

Ria was shaking her head from side to side, scratching her ears. 'You mean everyone can speak to me now, not just you?'

'Sure. Why not? Every Ugly is your friend.' He stood up,

rested his hand on her shoulder: ‘Soon time for you to go back to Clan. Before go, Merinabob-grundle-nupro-atrinkam has present for you.’ He stood and walked off, beckoning her to follow.

‘*Who* has a present for me?’

‘Merinabob-grundle-nupro-atrinkam. Our Sorcerer.’

‘You mean you’re taking me to see a magic man?’

‘Not man. Woman. Very old. Very powerful. She going to help us fight Sulpa.’

Ria had long ago checked out the Clan’s magic men and discovered they were all total fakes. ‘Powerful?’ she demanded. ‘How? In what ways? Give me examples.’

‘Can turn herself into wolf, find lost things, talk to animals, heal sick, make storms, fly like bird.’

‘Oh come off it, Brindle!’ Ria scoffed. ‘You don’t really *believe* that crap do you?’

‘You mean same way you believed Clan crap about the Little Teachers turning people into demons?’

Ria hesitated: ‘OK, you were right about that, I admit.’

‘Right about this, too. You will see. Sorcerer’s magic real.’

The slope behind the Cave of Visions was rocky and precipitous, rising up to an immense wall of sheer cliffs. But in front, where Ria had fled in terror the night before, the ground fell away in a series of wide terraces; birch and oak grew in scattered stands and numberless huge boulders lay about in tumbled disarray amongst tussocks of coarse grass. Below the last terrace the stony banks of a clear alpine stream marked out the bottom of the valley which rose steeply beyond into mixed forests of alder, willow and pine. Higher up these were succeeded by patches of open moorland and, in the distance, a daunting vista of jagged snow-clad peaks.

‘I can see why Clan scouts never found this valley,’ said Ria. ‘Cliffs that can’t be climbed on one side, mountains that can’t be crossed on the other. It’s the perfect hideout when you know the secret way in.’

A narrow but well-trodden path connected each terrace to the

one below it. As Brindle led the way down, Ria saw that clusters of lean-tos made of branches roofed with skins nestled under almost every tree and up against the fallen rocks, and Uglies of all ages were going about their daily chores. With the morning sun warm on her back she realised this could be any camp, anywhere, a Clan camp just as much as an Ugly camp, united by multiple common bonds of humanity – females cooking, curing hides, and weaving grasses, males setting out on the hunt, knapping flints, building shelters, groups of children playing games.

The lowest and widest of the terraces, not far above the stream, was overgrown with a thick coppice of ancient oaks. Here there were no dwellings and small herds of red deer grazed amongst occasional clearings. It was amazing to Ria, who knew the skittish temperament of this species, that they did not run away when she and Brindle approached; one powerful buck even allowed her to stroke him and fondle his ears.

She laughed in delight: ‘I don’t get this, Brindle. What’s the

matter with these animals? Why aren't they afraid of us?'

'Sorcerer has magicked them.'

'But how is that possible? I've never heard of such a thing.'

'Told you. Sorcerer very powerful.'

In the heart of the coppice, just where it seemed to be at its most tangled and overgrown, they came to a little dome-shaped tent made of skins stretched over a framework of curved branches. It stood in a circle of shelter beneath the outstretched boughs of three gigantic oaks. Beyond lay a broad open meadow where many different kinds of herbs, fruit bushes and brightly hued flowers had taken root in ordered and regular rows. Waist deep in all this abundance, with a cloud of butterflies fluttering around her, a very small, very old Ugly female dressed in a loose smock of woven hemp was working on a bush, removing its flowers and placing them in a bag slung from her shoulder. 'She is Sorcerer,' confided Brindle.

At this the woman turned and began to walk out of the meadow

towards them. She was frail, tiny and wizened, her gait was painful and stooped and Ria recognised her as the player of the bone song in the Cave of Visions. Clumps of pinkish-grey hair protruded from her large head, giving her a disconcerting babylike appearance. But in the shadow of her prominent brow ridges, narrowly set above her broad nose, her grey eyes sparkled with wisdom and experience. Her breathing was shallow as she approached, with many wheezes and gurgles, her hollow chest rising and falling beneath her smock, and yet she radiated invincible inner strength.

Ria found that her heart was pounding, as though she faced some powerful animal, and fought off an impulse to back away. Then a warm and gentle thought-voice addressed her: 'Greetings, Ria of the Clan. I am Merinabob-grundle-nupro-atrinkam.'

'I shall call you Merina,' Ria replied. 'I loved the sound you made last night with the bone.'

Merina looked impressed: 'You've learned how to thought-talk fast! Brindle told me you're very special.'

For some reason the compliment made Ria feel uncomfortable: ‘I’m just a rabbit hunter,’ she objected. ‘There’s nothing special about me.’

‘But I’ve heard you have a special gift with stones,’ said Merina. Then, with surprising speed, she took hold of both Ria’s arms just below the elbows and began to knead and prod her flesh, working her way down to her hands, tugging at her fingers, and popping each of the joints in turn.

‘Ow!’ Ria protested. ‘What are you doing to me?’

‘Giving you magic,’ whispered Merina with a mischievous smile. She turned, leaving Ria’s arms tingling, and hobbled towards the little domeshaped tent. ‘Follow me, rabbit hunter,’ she said

Brindle pulled back the tent’s entrance flap to allow Merina to step inside. A beam of light falling through the opening illuminated the scene in the cramped dark space beyond as Ria followed, her heart still thudding. Hanging from the curved branches forming the tent’s

framework, suspended on finely woven grass threads, hundreds of little quartz crystals danced, casting back a myriad of dazzling reflections like stars. Bundles of fragrant herbs and dried fungi were stored in wicker baskets on the floor.

Merina was feeling her way around the walls of the tent, setting the quartz crystals jingling above her head. She picked up and discarded various objects. Finally she announced 'Here they are,' and turned, holding out a deerskin pouch: 'Five good throwing stones for Ria the rabbit hunter.'

Ria took the pouch from her.

It was heavy.

She put her hand inside and counted one … two … three … four … five stones, all of perfect throwing weight. She drew one of the missiles out and examined it in the beam of light at the entrance flap. It was, without a doubt, the most beautiful thing she had ever seen – a cold and deadly egg of milky quartz.

She took the other stones from the pouch and laid all five on

the floor of the tent side by side so she could study them. All were exactly the same shape, size and weight. All shared the same outer shimmer and the same strange inner opacity, like swirling mist or clouds. All were flawless and smooth to the touch.

'I've had them half my lifetime,' said Merina. 'I found them by the Snake river, lying in a circle on the bank, still wet as though someone had just fished them from the water. But no one else was there. Beautiful, mysterious stones. They have some power about them – any fool can see that. I picked them up and carried them away with me. All these years I've kept them safe …'

'Then you mustn't give them to me. They're much too precious a gift …'

'All these years I've kept them safe,' Merina repeated, 'without ever knowing why. But last night Our Lady of the Forest visited me and told me to give them to you.'

With the words came an image of the beautiful, exotic, thrilling woman whom Brindle had called by the same title and whom Ria

had seen on her journey with the Little Teachers. The tall woman with long black hair and deep blue skin who had stood with her long-dead parents by a river in the spirit world.

Ria was dumbfounded: ‘Last night, after I ate the Little Teachers, I also saw this blue woman …’

‘She is not a woman, Ria! Do not be deceived, for she does not belong to humankind at all. She is one of the eternal spirits. One of those to whom all the worlds and every time and place are open. Past, present, future – nothing is hidden from her.’

‘But what does she want me to have the stones for?’

‘Why, my child! Is it not obvious? She wants you to *throw* them, of course.’

Chapter Twenty-Six

Thanks to a stopover at a Starbucks in Santa Monica, heavy morning traffic on the 405, and the beat-up engine in Bannerman's decrepit Chevy, the fifty-mile journey from Los Angeles to UC Irvine was now well into its second hour. In such circumstances Leoni should have been fuming. She couldn't bear to be delayed or frustrated – by anything. But having just escaped from Sansom's creepy lunatic asylum she felt differently. Every mile that crawled by on the freeway was a mile further away from Mountain Ridge and a mile closer to Bannerman's project – and maybe to some answers to the big questions now swarming all over her life.

'It's a residential programme,' Bannerman was explaining as

he drove. ‘Part of the deal is that all the volunteers – there are thirty of them – live in at our research facility on campus and don’t have contact with the outside world for the duration. The whole project runs for four weeks but the other volunteers have been there for nearly two weeks already, so you’ll be joining halfway through.’

‘And what is it? Like some sort of dorm or something? I’m not sure how good I’ll be at living with thirty other people.’

‘You’ll have a small private room. You can be left alone, or you can socialise. It’s up to you. The only commitment is that approximately once every two days you come down to our lab – it’s in the basement of the same building – and we give you a shot and you report the effects to us … Sometimes we’ll ask you to have two or three shots in the same day – which can be tough.’

‘These shots … they’re not ketamine, are they?’

‘Ketamine?’ Bannerman sounded surprised, even affronted. ‘Certainly not. Where did you get that idea from?’

‘At Mountain Ridge. Last night I tried to escape …’

‘That was gutsy of you,’ commented David from the back seat.

‘I just got so mad with the way they were treating me,’ said Leoni. ‘Anyway, it didn’t do any good. They caught me in a minute and sedated me with a huge hypodermic full of K. Then they strapped me back on my bed and that’s where I stayed until a certain knight named John Bannerman rode in on a white charger and rescued me this morning …’

Bannerman’s face had clouded with anger: ‘That’s so irresponsible of them,’ he exploded. ‘Sansom ought to be behind bars for using ketamine like that. It’s not a tranquilliser – unless you’re a horse.’

‘So what is it, then?’

‘Lots of things. It’s used as an anaesthetic for certain kinds of surgery. It’s also a powerful hallucinogen – that’s why it’s popular on the club and rave scene.’

Leoni nodded in agreement: ‘I snorted it in a club once. It’s a heavy trip. But what it did to me at Mountain Ridge was way

beyond that.'

'Any idea how much they gave you?'

'The nurse said something about "four hundred milligrams intramuscular"?'

'That would do it!' Bannerman whistled: 'You could have open-heart surgery on four hundred milligrams IM and you wouldn't feel a thing.'

'Yes, I was knocked out – or at least my body was. But my mind felt like it had been set free and I travelled to the same place I was in when I had my near-death experience. It was the land where everything is known again, and the Blue Angel was there. The green flowers were there. The monsters I saw before were there, too – they're trees but they have these huge beaks like birds – and I met this girl who they were going to attack. I tried to warn her, then the next thing I knew I was yanked out of there and stuffed back inside my body in Mountain Ridge.'

'You told me your near-death experience felt, what did you

say, “more real than real”? Did all this feel that way too?’

‘A thousand per cent. But ketamine’s just a drug …’

‘Not necessarily. Remember we talked about how our brains might not be so much generators of consciousness as vehicles or receivers that mediate consciousness at the physical level?’

‘The idea of the brain being like a TV set?’

‘Exactly. And most human brains are tuned, by default, into Channel Normal – everyday reality, in other words.’

‘Makes sense,’ said Leoni. ‘We’d be pretty messed up if they weren’t.’

‘But that doesn’t mean that there aren’t other channels broadcasting at us all the time which are all also equally real but not normally accessible to our senses. Perhaps what happens in NDEs is that there’s a natural release of hormones into the brain that retune its wavelength setting and allow us to perceive those other realities.’

‘But what’s it got to do with illegal drugs like ketamine?’

‘A lot, if I’m right. In fact, my whole research project’s based

on an illegal drug.'

Leoni grinned: 'You've got to be kidding me. You're pushing an illegal drug at UC Irvine? Which one?'

Bannerman was obviously uncomfortable: 'Look … there are about half a dozen substances that affect the brain in much the same way that the near-death state does and make it possible for us to induce the same kinds of experiences. To a certain extent, ketamine is one of them – as you discovered – but it's far from ideal. It's unpredictable. Too hard to control. Maybe even dangerous.'

'So what do you use?'

'We get good results with dimethyltryptamine …'

Leoni frowned: 'Dimethyl what? Never heard of it.'

'Dimethyltryptamine – DMT for short.'

'OK, now I know what you're talking about. Friends of mine have smoked it. I hear it's pretty full-on.'

'Yes. It's full-on,' said Bannerman. 'And we give it as an intravenous infusion which makes the onset of the experience even

stronger and faster.'

'How come you're allowed to do this?' Leoni objected. 'I mean DMT's a Schedule 1 drug, right? People go to jail if they're caught with it. What makes you so different?'

Bannerman sighed: 'Because we're administering DMT – which isn't addictive, by the way – as part of a properly constructed scientific project. We went through all the correct channels and procedures. It took years but eventually we got full approval from the DEA, so we're completely legit. The next problem was raising money to pay for the research. We didn't get anywhere with that until about six months ago when one very rich guy stepped in and gave us everything we need.'

'Who is this guy? Maybe I know him …'

'I have to keep his name confidential. It's part of our deal. He's very imaginative and open-minded … We sold him on the idea that if he backed our project we'd find the holy grail of quantum physics for him …'

Leoni felt stupid but asked anyway: ‘The holy grail of quantum physics?’

‘I mean proof of the existence of parallel universes and a reliable method for getting volunteers into them and then back out again in one piece.’

When Leoni still seemed confused, Bannerman said: ‘OK, look … It’s what we’ve been talking about. We’re using DMT to simulate the brain chemistry of the near-death state in a large group of volunteers. Right?’

‘Right.’

‘We hope to get some insights into the visions of other worlds that NDE-ers report – the same sort of realistic and convincing visions that you yourself experienced in the near-death state. Established medical opinion is they’re “just hallucinations” but the hypothesis we’re testing is they could be part of an alternate system of human perception – a sort of sixth sense that might be harnessed to explore other dimensions of reality.’

‘So the realm of the Blue Angel is a parallel universe? And I can enter and leave it with DMT? Maybe that’s what she meant when she said I had to make the veil between worlds thin if I wanted to see her again. Perhaps that’s exactly what DMT does.’

‘Maybe,’ Bannerman agreed. ‘But I’m only saying that it’s possible. If we do the science properly we might get a bit closer to certainty on this …’

‘I’m not a scientist,’ David interrupted. ‘So I can call it like I see it. The Blue Angel is real. She has to be, otherwise different people wouldn’t see her. She wants something from us and we need to find out what it is.’

Chapter Twenty-Seven

Before high sun Ria and Brindle had climbed the terraces of Secret Place again and returned to the flattened platform in front of the Cave of Visions. Carrying the deerskin pouch from a strap slung around her shoulder, hefting the reassuring bulk and weight of the five quartz throwing stones inside it, Ria felt more like a warrior queen than a rabbit hunter. She had weapons! Given to her by a real Sorcerer. What could be cooler than that?

All around her there were Uglies armed to the teeth with spears, hand-axes and clubs. A war band of fifty braves had assembled to escort her safely back to the Clan. Grondin and Brindle would once again be leading and Ria saw many other

familiar faces.

Most radiated friendliness and warmth. The single notable exception was the brave who'd stared at her with such hostility and anger during the night in the Cave of Visions. He stood at the front of the crowd with his shoulders hunched, his swarthy features knitted up into a frown, his chinless jaw thrust forward, and dark and thunderous thought-imagery emanating from him like a noxious vapour. Then his gruff voice was inside her head: 'I am Garn-garnigor-shengo-aptenjen,' he said, 'and I oppose this mission. I will do as my king orders but I fear that only grief and loss will come of it.'

Ria kept her eyes fixed on Garn: 'I agree with you,' she said. 'Fifty men is too many. It's just going to attract attention. Five will be enough to get me home.'

Brindle jumped into the conversation: 'War party going out anyway, Ria. Still seven hundred Uglies living in outlying camps, remember? They in great danger now. Have to bring all of them

back to Secret Place before Illimani reach them.'

'Not that part of mission I oppose,' interjected Garn. 'Don't like taking Ria back to Clan, that's all. Not necessary. Just asking for trouble.'

Again Ria could only agree. Brindle's plan *was* asking for trouble. Never mind the Illimani. If the Clan caught her with fifty Uglies there'd be a fight.

But now others were also expressing their views.

She recognised two brothers, twins with identical bushy brow ridges, prominent pock-marked noses and goofy buck teeth. They'd joined Brindle in disobeying her in the near-disastrous ambush yesterday. They stepped forward one after the other and hugged her. She sensed that, in their clumsy way, they were trying to apologise. 'I am Trenko-wirtagorn-marny-apciprona,' said the first. 'I am 'Krisko-wirtagorn-marny-apciprona', said the second. 'We are your friends and we are for the mission.'

Next it was the turn of a small fat Ugly with a bushy red beard

and wrinkled leathery features. ‘I am Oplimar-sendo-wulshni-atrinkam and I am for the mission.’

‘I too.’ This time it was Grondin who spoke. ‘Ria is one of us now.’

‘Yes, one of us!’ declared a tall gangling brave with a badly broken nose. ‘I am Brigly-jengle-jarlsteed-wulprasnik and I am for the mission.’

‘And I …’

‘And I …’

Garn turned slowly where he stood, glaring at each of the braves as they spoke up for Ria. ‘She is *not* one of us,’ he protested. ‘Can’t you see that? She is *not* our friend. She is Clan! Why should we risk our lives for any woman of the Clan?’

‘Yesterday Ria saved *my* life,’ Brindle said. ‘Fought on side of Uglies, very brave, very clever. Last night she ate the Little Teachers with us. Today we bring her safely home. Hope she will make strong rope between Clan and Uglies. Good things come from

good things, so I am for the mission.'

By now many of the Uglies had linked arms and there was a strange mood in the air. Some began to make the low hooting sighs they used when they were trying to reach a group decision or heal the sick.

Garn's chest puffed out, his face swelled with anger and for a moment it seemed that he might burst like an overfilled water-skin. Instead he exclaimed 'Enough of this!' He turned his back and stamped off, soon disappearing from view on the path amongst the terraces.

'What happened?' Ria asked Brindle. 'Why did he just give up like that?'

Brindle shrugged: 'Nothing else for him to do. Whole group against him. Uglies not good at being different.'

The little fat guy called Oplimar fell into step behind Ria, and the twins Trenko and Krisko took up station on either side of her, as the

war band set off uphill to the cave system connecting Secret Place to the outside world.

The entrance, from which they had emerged last night in darkness, was low and mean, little more than a slit in the rock. Beyond lay the vast and confusing labyrinth of corridors and passageways, echoing galleries and dark deadfalls, but Grondin was as sure-footed guiding them out as he had been bringing them in.

It was afternoon when they emerged amongst the undergrowth on the other side and made their way out on the hidden path, covering up its opening with branches and leaves as they exited so that it was once again invisible to passers-by.

Yesterday they'd thought only two men were following them but ended up having to kill four. Were there others coming behind? Perhaps even preparing an ambush for them right now?

Had the spirit of Brindle's father spoken true when he'd said there were thousands of these 'Illimani'?

The sun was still high overhead when they approached the tract of thick woodland halfway down the mountain's flank. After the fight here last night the Ugly wounded and dead had been brought to Secret Place but the bodies of the Illimani had been left where they'd fallen at the edge of the trees.

The bodies were no longer there.

At once Ria heard Brindle's thought-voice: 'Looks like trouble.'

'If it comes to a fight,' she reminded him, 'show no mercy.'

Brindle grimaced but said nothing as they entered the shadow of the trees. If there was to be an ambush it would be soon. But instead of the stealthy approach of enemies they heard shouts and screams, faint at first but horrible and utterly blood-curdling. Grondin and Brindle stopped in their tracks and the whole war party of Uglies came to a halt.

'What do you make of it?' Ria asked.

'Don't know,' Brindle replied. 'Gives me bad feeling. Has to

be Illimani. Better get out of here fast.'

'Let's go,' Ria agreed – no point in seeking out violence when it could be avoided – and at once the Uglies were off again, threading through the trees, the sound of their footsteps muffled by the covering of brown pine needles lying ankle-deep on the forest floor.

The screams rose in volume and soon Ria was getting glimpses, a few hundred paces to her right, of the edge of the very large grassy clearing they'd crossed yesterday. Whatever was happening was happening there. All she had to do was ignore it and she'd be home free.

But as they hurried away she began to feel restless and uneasy: 'I'm sorry, Brindle,' she said at last. 'I've got to find out what's going on.' She ran back, quiet and fast. Just before the edge of the clearing she dropped onto her belly and wriggled forward.

What she saw were twenty Illimani performing a bizarre circular dance and shouting in their barbaric language. The nearest

of them were two hundred paces from her. They all carried the familiar wooden spear-throwers slung across their backs but they were otherwise naked. Many were smeared with blood. All of them seemed furious and agitated. The whole scene was charged with an atmosphere of unspeakable violence and savagery.

Ria wriggled forward a little further.

She could see now that two men were tied to stakes, facing one another about ten paces apart in the midst of the circling mob. One was struggling to break free. The other, the source of the screaming, had been gutted like a fish. As Ria watched, a huge savage, towering head and shoulders above the rest, thrust his arm deep into the man's open belly, shouted with glee, and began to haul forth his glistening entrails to the sound of more horrifying screams.

Ria crept forward again, and risked breaking cover by rising to a half-crouch because a dreadful suspicion had dawned on her.

Was that screaming voice Rill's?

She peered out from the edge of the clearing and suddenly she

was sure. It was her own dear brother Rill who was being murdered before her eyes. The man tied to the other stake was Hond.

Keeping low, Ria stepped out into plain view, reached into the pouch Merina had given her, selected two of the perfectly balanced quartz hunting stones, and began to run towards the dancing mob. They were all so focused on the torture that they failed to notice her at first, but she was still more than a hundred paces out, much too far for a sure kill, when the executioner, his arm drenched to the shoulder in Rill's blood, snatched a long flint knife from his waistband and turned on Hond.

There was no time for fine judgements. Closing the gap at breakneck speed, Ria drew back her arm for the throw of her life.

Part II

Chapter Twenty-Eight

The UC Irvine campus is a sprawl of modern low-rise buildings laid out across rolling terrain in a series of concentric rings around the green bull's-eye of Aldrich Park. In one of the outer rings, off Academy Way and Medical Plaza Drive, lies the Department of Health Sciences, dominated by the futuristic Biomedical Research Center. A few minutes' walk west of the Center, across California Avenue, is the University Research Park. It was here, in a white-painted two-storey rectangular block backing onto the San Joaquim Hills Toll Road, that the DMT project was housed.

While David waited in the Chevy, Bannerman showed Leoni to her room on the upper floor of the block. It had a small window

overlooking the green lawns of the research park. There was a simple pine-framed single bed, a matching desk and chair, and a small cupboard for hanging clothes. She didn't have her own bathroom and would have to share communal facilities down the hall.

Leaving her bag, Leoni followed Bannerman out into the hallway and down by the stairs to the lobby floor of the research block. As they walked he said: 'I'm going to introduce you to two colleagues who're running the DMT project with me. In fact, they're here a good deal more than I am so they'll be looking after you when I'm gone.'

'Gone?' Leoni was a little stunned. Until now she had assumed that Bannerman would personally supervise her participation in his project from beginning to end.

'Yes, I'm afraid so. I have to divide my time between the research and UCLA Med Centre. The deal is I put in four days a week there and three days a week here, but I have to return to LA

right now – I'm already running late – and I won't be able to get back to Irvine until Friday.'

'What day is it today?'

'It's Tuesday.'

Leoni thought about it and began to put the recent high-speed blur of her life into some sort of order. Last Friday night she got wired on cocaine, drunk on vodka, had bad sex with some rich nonentity, and was arrested by the California Highway Patrol. Saturday afternoon she overdosed on Oxycontin. Saturday evening and night, while she travelled out of body to the realm of the Blue Angel, John Bannerman battled to save her life in the ER. Sunday night was Mom and Dad's visit to her hospital room in UCLA. Monday morning she was abducted to Mountain Ridge. Monday night she tried to escape, was treated to an involuntary ketamine experience and had another visit with the Angel. Tuesday morning, bright and early, John Bannerman arrived to rescue her.

Today was therefore indeed Tuesday, and, in fact, it was still

morning: ‘Tuesday … Wednesday … Thursday … Friday … That means I have to sit around here doing nothing for three days until you come back?’

‘Not necessarily.’

Leoni was beginning to realise this was one of Bannerman’s favourite phrases. ‘What do you mean, “not necessarily”?’ she mimicked.

‘Well, for example, you could just go ahead and have your first round of shots, guided by one of my colleagues. They’re both very good at this work.’

As he spoke he led her into a conference room where an earnest young male with fresh features, extremely thin lips, a crew-cut and tiny glasses was waiting beside a large, lumpy olive-skinned female in her mid-forties with a prominent nose and three dark hairs growing out of her chin. Bannerman introduced the woman as Dr Shapira and the man as Dr Monbiot.

Shapira’s manner was brusque, verging on unwelcoming, and

she seemed nervous. ‘John’s told us all about your recent near-death experience,’ she said as soon as Leoni was seated, ‘and we’ve agreed – under duress – to accept your late entry into our DMT programme. But I have doubts about your candidacy and it’s my responsibility to put them on record.’

‘Sure,’ said Leoni, not really knowing how she was expected to respond. ‘Go for it.’

Shapira leaned forward, planted her elbows on the table, and arranged her thumbs and fingers into a triangle: ‘DMT is a blunt instrument for breaking open certain areas of the mind that might be better kept closed. It can lead to disturbing experiences. It can be terrifying.’

‘Yes … ?’

‘So my question to you, so soon after you’ve gone through a full-blown NDE, is whether you’ve thought through the risks of plunging yourself back into such realms again?’

‘Risks?’ Leoni cast a puzzled glance at Bannerman. ‘What

risks?'

Shapira's stare locked onto her. 'Some people, and from what John has told me you are one of them, have a strong inborn ability to make contact with "spirit worlds" and "spirit beings" – whatever these things are. An effect of DMT can be to open them up even further to these other realms – perhaps real, perhaps illusory, we do not know – to the point where they become vulnerable. Some begin to wonder if they are going mad and if they will ever be able to live a normal life again.'

'But in all fairness,' interrupted Monbiot, 'they *don't* go mad and they *are* able to lead normal lives again.'

'Well, so far, yes' – Shapira looked sceptical – 'but in the future who knows? The more I do this work, the more I'm convinced that DMT is capable of inflicting immense psychic harm …'

'That's not very reassuring,' said Leoni.

'It's not meant to be,' snapped Shapira. 'I want you to be fully

aware that you're getting yourself into a very serious business with us here … DMT's got nothing to do with "highs", or "kicks", or "fun" like other drugs you've experimented with.'

Leoni bristled: 'Look, I know it's going to be tough and it won't be "fun", OK? I accept there might be some risks – thanks for warning me. But this is something I need to do and I've made up my mind.' She turned to Bannerman: 'I guess you're right. I don't have to wait for you to get back to start the DMT. If you say I'm ready, then I'm ready.'

Bannerman passed the buck: 'You're ready only if you feel you're ready.'

'Then I guess I'm ready. Let's do it.'

At ten a.m. on Thursday, with her heart beating a little faster than normal, Leoni reported to the lab in the basement of the research block.

Her only 'duty' in the previous two days had been to undergo

tedious medical tests of her respiration, liver function and blood pressure, as well as an ECG and seemingly endless requests for samples of her blood and urine. Otherwise she was free but felt so terrified and alarmed at the prospect of socialising that she contrived to keep herself to herself, even avoiding the restrooms if another volunteer was present. She also acted hostile and monosyllabic at communal meals. There was one guy, maybe eight or ten years older than her, a mature student taking courses at UC Berkeley, who dressed like a hippie and tried to get her talking a few times. He had a nice voice – sounded British – but on each occasion she'd cold-shouldered him. The only thing she wanted to do was stay in her bare, quiet room filling the pages of a sketch pad with scenes and details from the land where everything is known. The two suns in the sky, the strange green flowers, the Blue Angel, the cow-beetles, the tree-birds and the girl with chestnut hair – all were there.

Who was the girl? How had she come to be in the Angel's realm? And why had Leoni felt such a strong connection to her? As

though in search of a coded message she'd made a dozen different sketches of her, recalling every detail of her pretty, tomboyish face, but was none the wiser.

Perhaps DMT would take her to a place where she could find answers?

Both Monbiot and Shapira were waiting for her in the lab. They had her sign a wad of consent forms and ushered her down a long corridor lined with plastic chairs and into a curtained-off treatment room fitted out with a hospital bed, IV stands, medicine cabinets and a handbasin. She lay down on the bed and looked at the ceiling. Then Shapira rolled up Leoni's sleeve, prepped her arm with surgical wipes and inserted an IV line into her forearm vein. 'DMT fumarate,' Monbiot explained. 'We're starting you off on a low dose – 0.2 milligrams per kilogram of body weight. Some people don't even experience any effects at that level but it gives you a chance to get familiar with the general set-up and prepares you for a larger dose tomorrow.'

Out of the corner of her eye Leoni could see Monbiot flushing a syringe into the IV line. Fifteen seconds later she heard a loud buzzing and crackling in her ears and felt dizzy and disorientated as though she were being rocketed up into the sky on a spinning carousel.

A tremendous feeling of pressure, as though something were literally about to explode, filled her brain.

Chapter Twenty-Nine

Within seconds the treatment room had ceased to exist for Leoni – as if it had been blasted into tiny splinters and blown away in the slip-stream of her fantastic ascent. Her own body, Doctors Monbiot and Shapira, UC Irvine, North America and all the other ingredients of everyday reality were simply gone, and all she knew was the whirlwind of pure force that impelled her upwards in a seemingly endless, vertiginous rush.

Then, with no slowing of her rate of climb, an incredible seething mass of rich, deeply saturated colours, coiled into intricate knots like the bodies of a thousand serpents, rising into nested wave patterns and decorated with bright dots, exploded across her field of

vision. The spectacle was vast, breathtaking, devastating. Writhing and pulsating with its own inner light, it filled her with an indescribable sense of menace. She couldn't shut out the colours or ignore them. They had invaded every corner of her consciousness and demanded her attention.

Then, suddenly … WHOOSH! It happened fast. One second Leoni was outside that terrifying wall of colours, mesmerised and threatened by it. The next second … BAM! She was projected through it into a glassy geometrical space. The space was dominated by a large cylindrical machine lit up like a Christmas tree by hundreds of green and yellow LEDs flashing on and off in coordinated sequences. It seemed to be part metal, part organic, and was surmounted by a brainlike central dome divided into hemispheres. Attached to it by a spiral tube was a funnel, resembling an old-fashioned phonograph, and at least a dozen waving tentacles – some wiry, some fleshy – of varying lengths and thicknesses. As ridiculous as a cheap prop in a low-budget sci-fi

movie, the whole bizarre apparatus protruded up through the middle of the floor where it was tended by five pallid humanoids about the height and build of eight-year-olds. They wore colourful clothes – reds, yellows and greens – but had the wizened faces of ancient gnomes.

Although she felt afraid, and deeply disorientated, Leoni drifted closer – her previous experience of the out-of-body state helped her to negotiate this alien new reality – and as she approached them the little beings turned towards her. *They can see me*, she realised with a shock – for she had believed herself invisible in her aerial form.

Of course we can see you, came back a reply. The words were not spoken aloud, yet she heard them inside her mind.

They can see me, thought Leoni, *and* they're telepathic.

She framed a thought as a question: 'Who are you?'

'We're the switchboard operators,' one of the entities replied, again without speaking aloud. He gestured towards the machine.

‘We’re here to put you through …’

‘Put me through to who???’

At this the five humanoids looked at each other and made an elaborate dumbshow of puzzlement with their small hands turned palms upward and baffled expressions on their wrinkled faces. Finally one of them, a little taller than the others, stepped forward: ‘Not who,’ he said. *‘Where.* We’re here to transmit you. Please tell us where you would like to go.’

‘Whaddya mean? Like to Europe? Africa? Mexico? Are you some sort of travel agency?’

The taller being took another step towards her and now Leoni noticed that he was holding a long flexible wand made of some silver substance with the liquid sheen of mercury. ‘This is the first time you’ve used this technology?’ he asked – but it was more of a statement.

‘I have no idea what you’re talking about.’

‘The technology that brought you here?’ He gestured around

the room and Leoni confirmed her first impression that its walls were made of clear glass – or some material resembling glass – set at freakish, impossible angles and joined overhead into a crystalline pyramidal ceiling. Beyond, on all sides, and beneath the transparent floor – very scary, this – she could see … nothing. Just pitch-black night, stretching for ever in all directions. It was as though she were suspended in a shard of light over a bottomless pit of endless darkness.

Wanting to answer the question about technology, she summoned an image in her mind of her meat body lying on the bed back in the lab at UC Irvine, of the IV line in her arm, and of Dr Monbiot pushing down the plunger in the hypodermic that had flushed the DMT into her system. At once the tall being extended his hand and touched the tip of his wand against the shoulder of Leoni's aerial body.

The effect was dramatic. Her feelings of disorientation and confusion were banished, a mood of calm settled over her, and her

mental processes seemed to sharpen and clarify.

‘I know where I want to go,’ she said, and the thought evoked an immediate burst of whirring and clicking from the machine. The little beings rushed to their stations at various points around it, and its tentacles reached out towards her aerial body and drew her down – she made no attempt to resist – until she was peering into the phonograph funnel.

Now that she was up close it seemed …

… Big enough to swallow her.

With no obvious transition Leoni found herself inside it and moving through it at amazing speed. Its walls and sides gyrated around her, becoming a blur, she had the sense of dropping downwards, and then – WHAM! THWOCK! – she was back in a body again, subject to gravity, and dumped on her ass beneath the twin suns, and amongst the familiar iridescent green flowers, of the land where everything is known.

She looked around but there were no monstrous man-eating

trees in sight. Then she heard the electrifying voice of the Blue Angel: ‘I’m so glad you’ve found your way to this technology. Now we can really get some work done.’

Leoni had tumbled out of the sky onto a steep slope leading up to a ridge, and the voice seemed to be coming from the other side of the ridge. She climbed the slope and, at the summit, found herself looking down at the Blue Angel seated on the hillside a few steps below. Dressed in a scarlet robe spun from some magnificent and unearthly material, the Angel was looking down at the distant rooftops of an immense circular city, surrounded by a high metallic wall, commanding the floor of a lush green valley – a futuristic city of pyramids and glass towers, canals and hanging gardens, jade obelisks and crystal ziggurats, but one that seemed devoid of life and movement.

Leoni had not forgotten the Angel’s promise to show her ‘Jack’, the mysterious source of all her pain. But as she scrambled

down to her side she asked instead: ‘You mean I can get to you whenever I want to with DMT? Is that the technology you’re talking about? Is that what makes the veil between worlds thin?’

‘Yes – a molecular technology, older than the stars. The machine elves seeded it in many worlds to effect transit and linked it to hyper-dimensional switchboards they control.’

‘I went through one of those switchboards. I think I met the machine elves.’

‘They like to play games, but many in the transit process are distracted by them and the switchboards don’t always send you where you want to go … Much time is wasted. Much confusion caused …’ In the Angel’s hands there had appeared a small device, a little like a laptop computer. She flicked up the screen, revealing a control panel, pointed to the city and turned a dial: ‘Do you like it like this?’ she asked.

To Leoni’s astonishment the sky above the rooftops began to change colour as the dial was turned. It had started off blue but now

strobed through green, yellow and magenta before returning to blue and beginning the cycle again. The effect was mesmerising. ‘Yes,’ she said, ‘I like it very much.’ She had a strong intuition that the flickering colours were reprogramming her brain, but she didn’t mind. Then the Blue Angel reached over, plunged a long silver needle deep into her left temple and used the needle as a catheter to implant a thin filament of crystal.

The operation was fast, shocking and intrusive.

‘Why did you do that?’ Leoni yelled as the needle was withdrawn, ‘I trusted you.’

‘I haven’t broken your trust. I’ve made some adjustments to simplify your transits in future. When you next use the technology it will take you where I want you to go without the delay of passing through a switchboard …’

‘You’ve made some adjustments to what? My meat body is back on a hospital bed in UC Irvine. I don’t even understand what sort of body – or brain – I have here … And what do you mean

about taking *me* where *you* want me to go?'

'Don't you remember, Leoni, when we last spoke? I told you I have plans for you. I have a purpose for you to fulfil …'

'There you go again. *You're* going to transit *me*, wherever *you* want, to fulfil *your* purpose. But you haven't even told me what this purpose is or asked me if I want to fulfil it for you. Don't you need my permission? Or do you get to do whatever you like because you're an angel?' Leoni hesitated: 'That *is* what you are, right?

'Gods, angels, spirits, demons – we have many names.'

'There's more than one of you?'

'We are legion. But this is talk for another time. I have work for you now.'

Leoni could feel herself getting annoyed: 'You still haven't asked my permission to involve me in any of this … work.'

'I do not need to ask your permission.'

'Ha!' Leoni was amazed at her own boldness: 'You bet your ass you do!'

The Angel smiled: ‘You misunderstand me. I do not mean to disrespect your sovereignty. It’s true I have *chosen* you for this work – and I did that without your consent. But the nature of the task is such that it would be pointless for you to undertake it unless you accede to it wholeheartedly.’

Leoni was trying to figure out exactly what this meant. ‘So your plans don’t involve forcing me to do anything?’

‘I could not do so even if I wished to. You are my choice for this task. But if you do not accept then I will choose another.’

‘What made you choose me?’ Leoni asked.

‘You are human, you are female and you live in the twenty-first century. These were all essential prerequisites.’

‘Hey, I’ve got news for you! Women hold up half the sky. There are about four billion of us. What makes me different?’

‘You were abandoned at birth. Your first five years were spent in an orphanage …’

‘Nobody wanted me …’

‘But at last you were adopted …’

‘I’d given up hope. Longing to have a mother and father, seeing the other kids go off to happy homes – it all hurt too much. Just after I was five my dreams came true. For the next three years I thought I was in heaven. Then I found out I’d been adopted by the parents from hell.’

‘An apt metaphor. And this, finally, is why I have chosen you. You were adopted to serve as an offering to Jack, and Jack is my enemy.’

‘An offering?’ Leoni repeated the words, feeling dazed. ‘I don’t think I understand.’

‘Every moment of your life after your adoption was mapped out as a sacrifice to Jack. He delights in the destruction of human potential and the undoing of innocence. Your demolition was your parents’ gift to him.’

‘But why? Why would they do that?’

‘He demands such a sacrifice of all his followers. Some are

ordered to kill a child, amidst blood and fear, in some abominable way. Others are required to inflict bewildering mental and physical tortures first, sometimes extended over periods of years. This was what happened to you.'

'So that means my parents are Jack's followers?'

'Yes. And there are others like them everywhere – bad people he has spoken to in dreams, good people he has corrupted and subverted. A secret cult has begun to form and its members worship him as their god. Already they number thousands. They occupy positions of power and wealth in their nations, and every one of them has offered a child like you to Jack.'

The words sounded true and at the same time made no sense. 'I don't even know who Jack is,' Leoni said.

'Do you *want* to know?' the Angel asked.

'Of course I want to know!'

In the lap of her scarlet robes the Angel still held the little device with its fold-up screen and control panel. Now she turned a

second dial – not the one she'd used to adjust the sky – and the screen burst into life with a kaleidoscopic display of rotating patterns and colours. 'Look into the screen,' she commanded, 'and I will show you Jack.'

Leoni had to obey. The patterns within the screen opened up into a rushing, churning vortex of sound and light and she felt her consciousness fly out of her body into the maelstrom. Once more she had the sense of passing through a tunnel – *Alice down the rabbit hole*, she thought – and then WHOOMF! she was back in a place that felt like Planet Earth, under a single sun, standing close to a huge crowd of naked, brutish, pale-skinned men armed with crude but lethal-looking weapons of stone, wood and bone.

At first Leoni feared they might be able to see her – perhaps in the same way that the machine elves had seen her? – but it soon became obvious she was as invisible to these weird nudists as she had been to her parents when she'd approached them in the out-of-body state.

Increasing in confidence, she slipped unnoticed into the crowd, taking time to scrutinise the wild appearance of the men. Almost all of them were blonds with shaggy shoulder-length hair, electric-blue eyes, and teeth filed to sharp points. They were lean and muscular, built like prizefighters, and their bodies were criss-crossed with scars. Slung across their backs, almost like an item of uniform, each of them carried three short spears and a peculiar wooden baton, about two feet long, with a handle of antler at one end and a sort of spur or hook, also of antler, attached to the other end.

Who were these people? Some kind of Caucasian survivalist cult from Hell? Many wore bones through their noses and necklaces of what looked like human teeth – and that was a sight you didn't see often, even in LA. All had crazed expressions, their blue eyes blazing, peering upward with rapt intent, and she sensed about them a tremendous and terrifying power.

That was when Leoni began to realise just how big the crowd really was and that she was in the midst of *thousands* of men

gathered in disciplined ranks in a great circle around the perimeter of a low hill. They were staring at a squat shelter built on its summit, open on all sides but roofed at a height of about seven feet with a grid of narrow wooden slats. Then they all shouted at once – a deafening, guttural, stomach-churning yell – as a young man appeared in front of the shelter and stood with his hands outstretched to receive their salute.

What sort of person could command the approbation of an army such as this?

Enjoying the freedom of her invisible aerial body, Leoni soared up to the summit to find out.

Chapter Thirty

Tied fast to stakes ten paces apart, Rill and Hond faced one another in the centre of the woodland clearing. Rill was slumped forward against his bonds, silent now, his entrails spilling out in bloody coils from his stomach cavity, while the savage who had disembowelled him was striding towards Hond armed with a long flint knife.

Ria felt a lightning-bolt of energy jolt down her right arm as she let fly with the first of the five quartz hunting stones Merina had given her.

The deadly little egg was balanced and streamlined to perfection, but still it was a tricky throw because the furious crowd of naked braves continued to dance around the captives and their

executioner. There were only two or three paces between each of the cavorting, rushing men and Ria's shot, taken on the run, had to pass through one of these fast-shifting gaps and strike down a moving target over a distance of a hundred paces.

The whirl of the dance obscured her view, but she heard a satisfying double *clunk!* – something like the sound of an axe biting into a tree trunk – as the missile bounced into the advancing brave's naked ankles. Still five paces away from Hond, he tumbled and fell head over heels. In the process she was pleased to see he had impaled his left hand with the flint knife he held in his right.

He didn't cry out, and an instant later, with an athletic bound, he was standing again – this time locking his gaze onto Ria with such force that she felt it like a blow to the face.

He was a fearsome giant of a man, bigger even than the biggest of the Uglies. Enormous knots of muscle stood out on his broad shoulders and narrow waist, and a huge penis and hairy testicles dangled between his thighs.

Ria wasn't afraid.

As she hurtled across the sunlit clearing towards him – eighty paces, seventy, sixty – what she felt was rage and remorse.

Above all, remorse.

For she could not escape the conclusion that the terrible events unfolding around her were her fault. Her brothers must have come out in search of her when she'd failed to return the night before. They were superb trackers and had followed her trail as far as this forest.

What they couldn't have known was that a band of ferocious killers, who'd just discovered the bodies of four of their scouts, awaited them there.

And now poor Rill was dead.

At fifty paces, as though responding to a silent signal, all the dancing warriors stopped in their tracks and turned in unison to glare at her.

Ria skidded to a halt too. She'd lost the advantage of surprise

and would throw better from a standstill than on the run.

Her brother's murderer raised his transfixed hand in her direction and withdrew the blade. There was a spurt of his own blood and the unmistakable rasp of flint grinding against wet bone. He straightened, showing no weakness, and intensified his weird stare at Ria. At this distance she could see his eyes. In stark contrast to his pale gore-smeared skin, they were a startling and disconcerting bright blue.

He shook his shaggy hair, tilted back his head and began to laugh. A moment later the other twenty members of his gang joined in, opening their mouths wide and baring their pointed teeth. They all had the same mad blue eyes and the sound they made was like a pack of cave hyenas squabbling over a rotting carcass.

Summoning up all her concentration and strength, Ria threw her second stone. She could see from the surprise on her adversary's face that he hadn't expected this – least of all from her left hand – and she watched the missile connect hard with the side of his skull

just behind the temple. His raucous laughter was cut off, his eyes rolled up in their sockets, and he stumbled, dropped to his knees and slumped forward on his face in the grass.

That was when spears the size of small trees began flying through the air from all directions, thudding into the naked bodies of the Illimani. There was a great roar and the spears were followed by a throng of Uglies, the entire escort of fifty braves who had accompanied Ria from Secret Place, wielding their clunky stone axes and hulking wooden clubs.

Pandemonium broke out amidst the Illimani, suddenly outnumbered more than two to one. Men fell, were knocked aside, hacked down. None of them ran. They fought as a pack, like wolves, with stunning ferocity. But for a brief interval no one was paying any attention to Ria who was soon straddling the hairy body of the Illimani giant she had felled.

He was conscious but dazed.

Ria stooped, wrenched his flint knife from his grasp, rolled him

onto his back, and scythed off his cock and balls. As he struggled to his feet, jetting blood and bellowing in horror, she slit open his stomach from crotch to breastbone and stuffed his severed genitals into his gaping mouth. ‘That’s for Rill,’ she screamed.

She darted forward and cut the ropes shackling Hond to the stout wooden stake.

The marks of torture were everywhere on his body. ‘Can you fight, brother?’ she asked.

Hond dodged a spear thrust from an Illimani brave who leapt out at them from the melee, snatched the weapon from its owner, reversed it and brought the man down with a jab through the eye. ‘I can fight,’ he said.

Ria tightened her grip on the long flint knife and stood back to back with Hond as three more warriors converged on them.

Chapter Thirty-One

The summit of the little hill was flattened into a platform about thirty feet across, and what was going on there was much more complicated than it had looked from the ground.

The most striking part of it was the naked young man standing with his hands outstretched as though to receive an offering from the massed ranks of armed men below. Up close he was beautiful – not just good-looking but *beautiful* – in a way that managed to be both strong and effeminate, mysterious and tempting, wistful and joyous, dangerous and intoxicating, all at the same time.

Leoni had been too busy with sex and drugs to bust her butt at art school, dropping out before the end of her first semester, but she

knew what she liked and Botticelli's famous painting *The Birth of Venus* was one of her all-time favourites. The guy on the platform looked enough like Venus to be the goddess's brother. His body was lean and hard, covered with knots of finely-sculpted muscle, but he had the same red-gold hair, cascading below his waist, the same long, sensitive features, the same alabaster skin, the same Cupid's-bow lips. His eyes were wide and luminous, but they were not gentle and introspective like those of the Venus, nor neon-blue like the eyes of the roaring army of men raising their voices in adoration from the foot of the hill. They were a strange mixture of green and amber, like the tawny eyes of an African lion, with smoky tendrils of a darker hue, perhaps purple, radiating out from pitch-black pupils.

His age was hard to guess. Was he twenty? Twenty-five? Maybe closer to thirty? He had about him an air of invincible confidence and experience that contrasted with his otherwise youthful appearance. *This is how an immortal might look,* she

thought. *Maybe even a god.*

Indeed, the wild men massed at the foot of the hill were responding to him *exactly* as if they were venerating and praising a god. And, although their frenzied roars were meaningless to her, Leoni could hear two syllables repeated over and over with an ecstatic emphasis and realised they must be shouting his name:

‘*SUL ... PA*!’
‘*SUL ... PA*!’
‘*SUL ... PA*!’

More faintly, she also heard something else – gut-wrenching sounds of sobbing and high-pitched screams – arising from the other side of the low wood-framed shelter that Sulpa was standing in front of. She took to the air and saw a group of children being marched at spearpoint across the hilltop behind the shelter. There were three boys and three girls, none of them older than twelve, some who she

thought were as young as seven. They were dirty and bloody, covered in cuts and bruises, and as naked as their brutal captors who kicked and punched them as they stumbled along.

The wretched column halted at the base of the shelter. Then the guards lifted ladders from the ground and forced the children to climb about seven feet onto the flat grille of narrow wooden slats forming the roof. There, sobbing and shivering with fear, they were made to lie face down and, one by one, their wrists and ankles were tied tight to the slats. The last of the boys, a little bigger than the others, put up a fight, squirming, punching and biting as they attempted to tie him. A lucky kick from his heel struck one of the guards full in the face and knocked him tumbling off the roof but the others subdued the struggling boy with a rain of blows so harsh they must have broken his nose and his jaw.

Leoni wanted to protect these damaged kids, with their bashed bleeding faces squashed down into the gaps between the roofing slats. She flew around them, searching for some way to set them

free, but she could do nothing in her invisible aerial body.

There came another roar from the crowd at the foot of the hill and she saw Sulpa had picked up a sword and was holding it above his head. It was pure inky black from pommel to tip and had a narrow leaf-shaped blade that bore the dull glint of smoked glass.

Sulpa pivoted to look at the four guards who were standing just behind him, two on either side of the shelter, and his gaze rested on the one who had fallen from the roof. He said something to him in a guttural incomprehensible tongue and the guard stepped forward and knelt at his feet.

Sulpa's manner was very gentle, even kind. He rested his hand on the guard's head and ruffled his unkempt hair, ran a concerned finger down his cheek and helped him to stand again. But next, without any change of demeanour, he gripped the sword double-handed, swung it in a lightning-fast figure of eight, and lopped off both of the man's arms at the shoulder joints. Blood splashed in all directions and the severed limbs thudded to the ground.

A roar of appreciation rose up from the crowd and Sulpa stepped back to inspect his handiwork and savour his victim's shrieks of agony. Then, with a sly look stealing over his beautiful features, he swung the sword again and hacked off the man's left leg at the hip, bringing him crashing down. As he writhed and squealed a final sword stroke amputated his right leg, also at the hip.

By now Sulpa's lean, hard body was spattered with so much blood that he looked like a demon from hell as he stepped over the shuddering torso of the butchered man and advanced into the shelter, holding the dripping black sword.

Above him the six children tied face down on the roof slats screamed in abject terror.

The roof was low, just a foot above Sulpa's head. Positioning himself beneath the sacrificial victims – for that was what Leoni now recognised the unfortunate children to be – he stabbed upward. His sword passed through a gap between two slats and into a girl's chest, impaling her with such force that its point emerged between

her scrawny shoulder blades and protruded a foot beyond. She gave a single pitiful wail of distress. Sulpa twisted the weapon half a turn, opening a huge wound, and withdrew it, releasing a bright torrent of blood.

'SUL ... PA!' bayed the army of spectators, as though all their thousands of voices were funnelled through one gigantic throat:

'SUL ... PA!'
'SUL ... PA!'
'SUL ... PA!'

Invisible witness to these events, Leoni felt she had become trapped inside a nightmare where the horror just grew and grew. Sulpa was standing under the gushing faucet of human blood. It pumped out from the girl's ruptured heart in a spurting stream, splashing onto his face and into his open mouth as he tilted his head back to receive it. In seconds his whole body was daubed crimson, his long hair was

drenched, and his tawny eyes glared out from behind curtains of gore.

That was when he began to run back and forth inside the shelter, stabbing up through the roof and slicing the sword's blade along the gaps between the slats, hacking the five other children to pieces. As their blood too began to pour down in sheets into the shelter Sulpa capered and bathed in it until he was entirely red.

Red from head to foot.

A being of blood.

At last he slumped down onto his haunches in a deep puddle of blood, his mouth gaped, and he seemed to fall asleep.

Leoni threw herself upwards into the sky and looked down on the hellish scene – the roaring army gathered around the foot of the little hill, the bloodstained shelter, the children's slaughtered bodies …

'SUL … PA!'

‘SUL ... PA!’

‘SUL ... PA!’

The Blue Angel had said she would show her Jack.

Could Sulpa be Jack?

As she began to consider this possibility, Leoni discovered she was no longer alone in her out-of-body state.

Rising from the butchered corpses on the roof below her she saw the aerial forms of the six children. Like her they were transparent and insubstantial but otherwise looked much as they had in life. Although they seemed confused and uncertain, they soon began experimental manoeuvres, like butterflies on their first flight, and she guessed they were experiencing the initial euphoria and liberation of being out of body.

The murdered guard too had made the transition from life to death and hovered above his own scattered and mutilated remains. He was attempting to gather up his amputated limbs – a task that

was impossible in aerial form – and seemed oblivious to all other things.

Leoni's only concern was the children. They had left their bodies, as she had done, but for them there could be no going back. Before she returned to her own body, which she knew must be soon, she wanted to help them. After all, she had experience of weird OBE worlds. At the very least she could pass some of that on.

So far the kids hadn't seen her, but she was about to go and try to be a friend to them when something else happened.

Sulpa was out of his body too.

Chapter Thirty-Two

From the moment she castrated the giant, Ria felt the sharp flint knife come to life in her hand like a baleful supernatural being, as though it possessed its own insatiable will for blood. Gripping its handle of smooth mammoth ivory, aching for revenge, she stood back to back with Hond.

Two of the three men bearing down on them were armed with stabbing spears. They launched a wild assault on Hond, who blocked and deflected their first thrusts. As they wheeled and turned, manoeuvring for advantage, jabbing and parrying, Ria was engaged in combat by the third brave. He was a stocky, perspiring youth, fast despite his bulk, and slippery as an eel. He muttered

strange words while lashing out at her with a heavy wooden mace that had spikes and razors of obsidian embedded in its bulbous head.

It was hard to get inside the reach of the larger, heavier weapon, but Ria weaved and dived, dodging his blows, goading her assailant with quick cuts and stabs. At last he grew so frenzied he lost control and rushed her with his teeth bared and a thick foam of spittle flying from his lips. He smashed the mace down but she was already diving forward between his legs, slashing the big artery in his inner thigh with the edge of her blade. As he stumbled, spraying bright blood, she rose up behind him and thrust the knifepoint deep into his back, bringing him crashing to the ground.

Out of the corner of her eye she saw that Hond, who she'd lost in the blur of the action, was being pressed hard by the two Illimani spearmen. Then – *Clunk! Thwock!* – Grondin appeared out of nowhere with a stone axe hafted to a long wooden handle and chopped them both down where they stood.

Hond at once squared up to fight Grondin, but Ria rushed to

separate them. ‘Trust me,’ she yelled at her brother. ‘These guys are our friends. I’ll explain … if we live.’

The epicentre of the battle had shifted away from them and Ria had space to draw breath and take stock of what was happening.

The sheer numbers of the Uglies – fifty of them against just twenty Illimani – made their victory certain, and no more than eight of the foe were still standing. But they were ruthless and practised fighters while many of the Uglies were still weakened by their instinctive horror at the act of taking human life. Some, like Grondin, appeared to have mastered this inhibition, perhaps through recent experience of combat with Clan braves, but others could not do so and the price they paid was death.

One of the Illimani, a man with a face of wizened evil, was surrounded. But instead of spearing him on the spot the Uglies relented when he dropped to his knees in surrender. Ria was already reaching for a stone from her pouch as he scooped up a hatchet from the ground and cut his way through them, slaughtering three in the

blink of an eye. ‘Not so fast!’ she yelled as he ploughed onwards towards the edge of the clearing where other survivors of the Illimani war party were regrouping. She was taking aim when Trenko and Krisko, the gentle-mannered buck-toothed twins, barred the fleeing brave’s way.

In a heartbeat Krisko was dead, his head half hacked from his shoulders by the Illimani’s tomahawk, Trenko staggered back spouting blood from a jagged wound in his chest, and Ria let fly with the third of the five throwing stones Merina had given her. The heavy little quartz egg tore soundlessly through the air and then – *CLUNK!* – it caved-in the back of the Illimani’s skull, bringing him down.

There was no time to worry about Trenko – he might live or die – just as there was no time to mourn poor murdered Rill. All that could come later. For now the only thing that mattered to Ria was that none of the Illimani must be allowed to leave the field alive.

With exceptional discipline and martial skill the last six had

fought their way towards one another – the man she'd just felled would have been the seventh – and regrouped into a tight mass, bristling with spears and blades, formed in the shape of an arrowhead. At the tip of the formation, urging the others towards the shelter of the forest, was a huge bald brute swinging the largest axe Ria had ever seen. Two Uglies confronted him and he cut them down – WHACK! WHACK! Two more took their place – WHACK! WHACK!

'Hey, Grondin!' Ria sent out her thought-voice as she ran towards them. 'Have your boys stand off a few paces and get some spears into those bastards right now!' Then she drew back her arm and threw her fourth stone at the Illimani axeman. It hit him between the eyes, knocking him head over heels, and at the same instant Brindle limped forward and finished the man off with a rain of powerful blows.

'That's the way, Brindle!' Ria shouted in out-loud speech. 'No mercy! Kill them all.'

She had meant to encourage him – this new-found killer instinct was exactly what was needed – but Brindle only looked back at her with sad and haunted eyes. ‘Old world has come to an end,’ his thought-voice pulsed inside her head. ‘Uglies must be murderers now.’

Spears were raining in on the Illimani. They started to go down. It seemed impossible that any of them could survive. Yet, with a burst of speed, one, who had lost his weapon in the fighting, somehow broke free.

He was young, slim and fast. Unusually, his hair was dark but he had the same staring blue eyes as every other Illimani and, like the others, his body was criss-crossed with scars.

He dodged a few half-hearted attempts to catch him and fled into the trees.

‘Let him go!’ commanded Brindle’s thought-voice. ‘Enough killing today!’

But Ria wasn’t about to let anyone go, and it wasn’t just a

matter of revenge. If there was a larger force nearby she couldn't risk the possibility that even a single survivor might escape to alert them.

She ran alone into the forest in hot pursuit.

Chapter Thirty-Three

Three different things were happening at once.

First, the transfiguration of Sulpa. While his human form slumbered in a pool of blood, his aerial form issued forth from his open mouth as a writhing worm of smoke, shot through with glints of fire. The worm thickened into a helix, turbulent and flowing like a river in flood, the helix transformed itself into a man with the head of an alligator, and the man grew in an instant to giant size, twenty feet tall, towering above the place of sacrifice. Since neither the three remaining guards on the hilltop nor the army down below reacted to any of this, Leoni reasoned the monster must be invisible in the physical realm, just as she was. She had started to take her

own invisibility for granted, confident of remaining undetected, safe from physical attack. But hideous new possibilities now loomed with Sulpa out of body too.

Could he see her?

Of course he could. The same way she could see him. He'd not noticed her yet only because she was out of his line of sight, hovering like a bird above and behind him in the sky.

Could he harm her?

Leoni felt equally sure of the answer to this. In all worlds, at all times, and in all forms, Sulpa could – and certainly would – harm her. She should fly away, high and far and fast, and not delay a single second.

But she was aware of another much more complex instinct. This was a strange feeling of compassion … and of *responsibility.* A feeling that she was somehow *required* to assist the spirits of the murdered children to pass on to the next phase of their existence. That this was her duty. She hesitated. The monster's attention was

focused on the kids as they explored the out-of-body state with innocent self-absorption. They were so into this new thing, so energised by the sudden sense of freedom, that they didn't know he had followed them beyond death or in what awful form he now reared over them. Obviously sacrificing their bodies wasn't enough for him. Obviously he was here to demand more. For some bizarre, inexplicable reason the greedy fuck wanted to kill them again, this time in the aerial realm.

Simultaneous with all this, a shimmering circle of brilliant white light unfurled in the sky. Leoni recognised it as the mouth of the same sort of revolving tunnel she had entered during her near-death experience, and saw the children's transparent aerial forms were already being drawn up towards it. Sulpa saw the tunnel too and threw himself between it and his victims, blocking their escape.

The third thing that was happening concerned Leoni's grip on this strange, fast-moving reality she found herself in. Everything was beginning to fade and dim and she sensed herself being tugged

back into her body. The scene before her – the tunnel, Sulpa, the spirits of the children – went completely blank, as though someone had switched off a TV set.

For a moment she was marooned in absolute darkness with no reference points, until – *CLICK!* – the horror was back, advanced a few frames, and Sulpa was stuffing one of the kids into his alligator face, eating him up, swallowing him whole. The spirits of the other five cowered before him, waiting their turn.

Leoni got mad and dropped from the sky like a stone.

She didn't give herself time to think and barrelled into Sulpa at what felt like a hundred miles an hour. This was nothing like her earlier fruitless attempts to intervene in the physical world. Instead of passing through him, and perhaps distracting him for a moment – the most she'd hoped for – she was surprised by the hard jolt of a collision with his aerial body followed by a massive shock that dazed her and sent her spinning and somersaulting through the air. The monster, too, was caught off balance. He was dragging a

second wraith into his gaping maw when the shock seemed to hit him and he stumbled. His spell over the four remaining children was broken and they scattered, flying towards the tunnel of light like moths towards a flame.

Sulpa was after them in a flash and again Leoni diverted him, streaking across his path, getting in the way. He caught another child and held on to her by the throat, but the last three had now reached the tunnel and passed inside. For a moment they remained visible, looking back with unreadable expressions, but soon they were drawn deeper into the light and disappeared.

That left Leoni alone, out of her body, with a twenty-foot-tall alligator-headed man. He kept one sly appraising eye turned towards her as he crammed the soul of the girl he held feet first into his mouth and gulped her down. Then the whole scene transformed itself into a gigantic firework display, the sky was filled by walls and nets and waterfalls of glowing colour, and Leoni knew with absolute certainty that the DMT that had brought her here was

wearing off.

‘You’re Jack,’ she said to Sulpa through the fireworks. She didn’t speak the words out loud but framed them as a thought.

‘What if I am?’ The thought came back like an ice pick piercing her brain.

‘YOU’RE JACK, YOU SON OF A BITCH,’ yelled Leoni as she soared up into the sky. For a moment she could imagine she had become a master of out-of-body flight, capable of outstripping any pursuer. But when she looked back over her shoulder she saw Sulpa right behind her.

For a second time everything went blank and Leoni found herself hurtling through absolute darkness. Then powerful hands closed around her throat, plucking her out of full flight, threatening to tear her head from her shoulders. There was the sense of a screen flicking on again. As light flooded back she discovered she had been carried to some realm between worlds – no earth below, no sky above – and that Sulpa was holding her up towards his gaping

jaws which were filled with rows of jagged teeth like steel saw-blades.

Of his beautiful earthly features only the tawny feral eyes were recognisable in his new reptilian head, and these gazed at her with hunger.

Chapter Thirty-Four

The forest was flooded with mellow afternoon light filtered by the green canopy as Ria forced her way through the thick undergrowth of ferns and thorns in pursuit of the fleeing Illimani brave. He was never more than thirty paces ahead of her, leaping over obstacles, ducking under branches, tearing through clinging briars that snatched and bloodied his pale skin. Twice she drew back her arm to throw but each time he dodged into cover and she couldn't take the shot.

Then he was just gone.

No longer crashing through the trees, but … disappeared.

Ria's momentum carried her into a small glade, twenty paces

across, where she slowed to a halt. She moved to the middle of the little clearing and spun on her heels as the unarmed brave burst out of the undergrowth, charging towards her, his arms and legs pumping, murder in his eyes. Ria released her last quartz hunting stone with a sideways backhanded throw. It seemed to shimmer as it flew through the air. Then – CLUNK! – it struck the Illimani square on the brow. For a moment he tottered, glaring at her, unwilling to accept the inevitable, before he crashed face down.

Ria was on him at once. She straddled his lean naked body, planted her left hand firmly in his thick black hair, and lifted up his head from the ground. In her right hand she held the flint knife, long as her forearm, glinting dully in the sun. She stooped, placed the edge of the blade against the brave's exposed throat and drew a line of blood. She could feel the coarse texture of his hair between her fingers, hear his hoarse, ragged breathing, smell his rank body odour, see the quiver of returning consciousness around his eyelids.

'DON'T DO IT!' Brindle's thought-voice filled her head.

‘RIA, DON’T DO IT! No more killing please. I begging you.’ She looked around and saw her friend running towards her out of the trees. Right beside him was Oplimar, the little fat Ugly with the bushy red beard. Behind them came Grondin and, last of all, Hond.

Ria stayed her hand but felt a wave of fury welling up inside her. When her own beloved Rill was dead and cold why was Brindle still being so fucking merciful? Why should even a single Illimani be allowed to live and breathe?

‘Because he human like you, like me,’ Brindle answered. ‘Battle over now. All his war band dead. Don’t have to kill him.’

Still keeping a strong grip on her stunned captive’s hair, Ria wrestled him over onto his back and knelt by his shoulder, her blade raised high. His blue eyes fluttered open and he gazed up at her, for a moment obviously not remembering where he was. But, when he saw the knife, blank unafraid acceptance crossed his face.

‘For Rill,’ yelled Ria and stabbed down at his heart.

The blow didn’t reach its target. Brindle’s hands – strong and

hard – gripped her wrist and prised the dagger from her fingers. Grondin and Oplimar pinned down the Illimani youth and bound his arms behind his back.

Now the fighting was over, and the explanations had to begin, Ria found she couldn't face Hond. She jumped to her feet and bolted out of the little glade, back in the direction of the battlefield.

There were corpses everywhere, scattered across the wide clearing. Blood painted the grass in great stripes and swathes in the late-afternoon sunlight and an Illimani head, with wide-open eyes, lay in her path. She directed a kick at it as she rushed past, sending it rolling and tumbling away. To her right a little huddle of Uglies gathered arm in arm, offering up their strange healing chant. She slowed and peered through the scrum to see Trenko on the ground. Another brave supported Trenko's shoulders, laying his big hands across the deep hatchet wound in his chest, pouring blue light into the torn mass of flesh, fat and muscle. But Ria had already passed

by, her attention focused on her dead brother Rill, slumping forward against the ropes that bound him to the thick stake in the midst of the clearing, his abdomen split open and his entrails coiled around his feet.

She ran towards him and embraced his limp and lifeless body, all the while calling his name. Half out of her senses, she scooped up his guts and pushed them back into his stomach cavity, smearing herself from head to foot in his blood. She cut him free of his bonds, lowered him to the ground, and sat weeping at his side.

When she looked up she found Hond standing over her, his green eyes also brimming with tears. This was shocking as she'd never seen him cry before, even after the death of their parents. She got to her feet, her muscles turning to water, and fell into his arms. 'It's my fault they murdered Rill,' she whispered. 'All my fault. If I'd come home yesterday you wouldn't have had to search for me and he'd still be alive.'

'Don't punish yourself with such thoughts,' Hond replied. He

coughed – it was a wet sound, and for the first time Ria saw he had been wounded. A blade had passed through his side in the heat of the battle and now, when he breathed – and he did so with difficulty – flecks of blood appeared around his mouth. His voice was shaking with pain and exhaustion: ‘We’ve lost our brother – no power can bring him back – but you mustn’t blame yourself. If we hadn’t fought these wolves today’ – he gestured with disgust at the slain Illimani who lay all around – ‘we would have had to fight them tomorrow and good men would still have died.’ He slumped in her arms and almost fell but struggled to speak: ‘The Uglies. How do you know them? Are we safe with them?’

‘We’re safe, Hond. They’re my friends. You saw that in the battle …’

‘They saved our lives.’ He was racked by a fit of bloody coughing. ‘Some died for us. Why?’

‘I’ll tell you everything. But not now.’ Her fear and desperation mounting, Ria looked around for Brindle, couldn’t see

him and sent out her thought-voice: *'Hond's dying, Brindle. I need your help. I need the magic the Uglies can do. I need you to sing him better.'*

'What's that?' Hond asked, almost as though he'd heard her.

'Nothing. It's – I can't explain right now – it's the way I speak to the Uglies.'

'Speak to the Uglies? How can you speak to the Uglies? They can't even make words. I don't know why they fought for us in the battle but I don't trust them. I've never trusted them. Let's make a run for it now, while none of them are looking.'

'We can't make a run for it, Hond! You need healing for your wound or you're going to die.'

He disagreed: 'It's not that bad. I'm not going to die! I can make it back to camp, see the medicine man, get fixed up.' He staggered again. This time Ria wasn't able to support his weight and they sank together to the ground only a few paces away from Rill. 'Who are those bastards we fought?' Hond rasped. 'Are they

demons or men?'

'They are called the Illimani. They bleed like men, they smell like men and I think they are men. But their leader is truly a demon and he commands thousands of them. They're here to wipe us out.'

'How do you know this?'

'The Uglies told me.'

As she answered, Brindle's thought-voice was back inside her head: *'Please tell brother don't be afraid. Don't be angry. We ready to try healing now.'* Looking up, Ria saw that a ring of Uglies had gathered round. One of them was Trenko! She felt a surge of hope.

Hond was at once belligerent. 'What's happening?' he muttered. Ignoring Ria's protests, coughing more blood, he struggled to his feet.

Chapter Thirty-Five

Leoni had grown used to the idea that her transparent, diaphanous aerial body was not subject to physical laws and could not be seen, harmed or detained by physical beings. But now she knew she was not invulnerable in this form and *could* be seen, harmed and detained by other non-physical entities. This was why Sulpa had been able to follow her on her flight to the sky, had succeeded in fastening his hands like a vice around her throat, and was now transporting her towards his chainsaw teeth while maintaining a repulsive, appraising, leeringly sexual eye contact with her.

Despite the alligator face, the look in the monster's eyes was familiar. Leoni's father had given her just such a knowing look each

time he had forced himself into her bed.

(*'It's what Jack wanted.'*)

A howl of fury burst out of her and she fought Sulpa's grip, twisting and turning. Then something else new and utterly unexpected happened. Her transparent aerial body began to change. She felt hair sprouting, teeth and claws growing, the rumble of a roar rising in her chest, and in a rapid blur of motion, spitting and hissing, she underwent a spectacular metamorphosis into the savage form of a mountain lion. Unimaginable strength flooded through her, taking Sulpa by surprise. She lashed out at him with a paw, clawing his left eye out of its socket, and broke free of his stranglehold.

No tunnel of light had brought them here between worlds where they floated twenty feet apart like two astronauts in a vacuum – nothing above them, nothing below them, nothing beside them, absolutely nothing at all in this realm of air except Leoni the lioness and Sulpa the alligator-man.

He put his human hand to his dangling eye and reinserted it into the gaping socket. ‘You have injured me,’ he said. The words, which were not spoken out loud, took shape inside her head like shards of ice.

‘I haven’t even started!’ she spat. ‘You’re Jack and you ruined my life.’

‘Ah!’ he exclaimed with mock dismay. ‘A hero seeking revenge!’ His good eye glared at her – the other had turned opaque, like the white of a poached egg. ‘But you have me at a disadvantage … I have ruined so many lives. Please do refresh my memory.’

Before Leoni could unload a lifetime of hatred the scene before her shivered, returned with full force, and blinked off again into complete darkness. She felt a vast force at work, pulling her away. Far away. The next thing she knew – WHOOSH! WHAM! – she exploded back through a torrent of colours and dropped down into her body in the treatment room at UC Irvine.

Gasping for breath, she opened her eyes, sat up and looked

around, half expecting that Sulpa had followed her even here. Instead she found Doctors Monbiot and Shapira standing on either side of her, staring at her as though they had seen a ghost.

Which, in a sense, they had.

Leoni couldn't bear looking at the three wiry black hairs growing out of Dr Shapira's chin. They were hideous. But when she focused on Monbiot his lipless face and small circular spectacles proved to be equally disconcerting.

Fixing her gaze somewhere between the two of them she asked: 'How long was I out?'

Monbiot checked his digital stopwatch: 'Almost exactly fourteen minutes.'

'Fourteen minutes?' Leoni couldn't believe it: 'I feel like I've been away for fourteen *hours.'*

'With DMT it's not unusual to experience expansion of time,' Shapira cut in. 'Sometimes you might believe yourself to be trapped

in those realms for months or even years before you return. But in reality it's rare for more than twenty minutes to pass from the beginning to the end of the trip.' She loomed over Leoni and, in quick succession, put a stethoscope to her chest, took her blood pressure, examined her tongue and shone a bright little light into her eyes. Finally she announced: 'You're OK.'

'Is there any reason why I *shouldn't* be OK?'

'We were a little concerned,' the older woman explained. It was obvious she was making an effort to sound more friendly. 'Your heart rate went way up. At one point you appeared to be choking …'

'And you started to make these sounds,' Monbiot added, 'like a mountain lion. Quite unsettling to hear …'

'Unsettling?' Leoni laughed. 'I guess I was making those sounds because I turned into a mountain lion near the end of my trip. I fought a monster. He was twenty feet tall with a human body and the head of an alligator. Now is that weird or what?'

‘Not so weird as it may seem,’ said Shapira. ‘Many of our volunteers have encountered such creatures, or even experienced transforming into them. They’re known technically as “therianthropes”.’ Leoni showed her unfamiliarity with the word and Shapira immediately added: ‘From the Greek *therion,* meaning “wild beast”, and *anthropos,* meaning “man”. They’re a common motif in the phenomenology of deeply altered states of consciousness. The same goes for animal transformations – like your mountain-lion experience – where the subject believes herself to have turned into some sort of animal. In tribal and hunter-gatherer societies shamans use hallucinogenic plants to reach what they describe as “the spirit world”. They say they frequently take on the forms of animals when they make such journeys and sometimes they may fight with other shamans or even demons – who will also likely be in the form of animals or therianthropes.’

In the next half-hour, Leoni fulfilled her contractual obligations as an enrolled volunteer in John Bannerman’s research

programme by giving Monbiot and Shapira a blow-by-blow account – which they recorded – of the 'phenomenology' of her DMT experience.

'Everyone uses that phenomenon word,' she protested. 'I don't like it. It all felt very real to me.'

'We're not saying it *isn't* real,' soothed Monbiot. 'In fact we're not making any judgement about its reality status. We just want you to tell us what you saw in as much detail as possible. That way we can compare it with the reports of other volunteers and flag up any common features.'

So Leoni told them about the machine elves and the Blue Angel, and she told them about Sulpa, and what she had seen him do.

But she made no mention of the connection with Jack.

Because Jack was her private business.

When she left the treatment room her heart fell to see that another

young woman was sitting outside in the corridor on a hard plastic chair waiting her turn. Although Leoni had been briefly introduced to all the volunteers on the afternoon of her arrival she'd made a point of not socialising with any of them and, two days later, she couldn't remember this girl's name. She was tall and heavily built – verging on obese – with an angular face, prominent chin, and big round cornflower-blue eyes set very close to the bridge of a long, pinched nose. Her mousy brown hair was cut in a layered pageboy. Not a good look.

Leoni was still feeling militantly antisocial so she mumbled a greeting, the absolute minimum basic decency required, and shuffled by with her eyes averted. What she was thinking was – *Please, universe, let this person not want to have a conversation with me.* But the other woman didn't even respond to her. At first Leoni was relieved her wish had been so easily granted, but after taking a few more steps she began to get a creepy feeling that something was wrong. She swung round.

And screamed.

Somehow, without making any sound, the young woman had sneaked up on her and now stood just inches away with her face thrust forward. For a beat there was silence. Then she hissed: ‘Jack’s here.’

Chapter Thirty-Six

‘Tell your brother please stay still,’ Brindle’s thought-voice counselled. Then, before she had time to stand, Ria felt a surge of something – some energy, some power – crackling around them like summer lightning, and Hond slumped down again beside her. ‘Don’t let them touch me,’ he growled.

‘Sorry. Have to touch,’ said Brindle. *‘Otherwise can’t heal.’*

Ria’s heart was pounding. ‘THEY’RE HERE TO HEAL YOU,’ she yelled at Hond, her voice cracking with stress and frustration. ‘There isn’t time to explain this. I love you and you just have to believe me. They’ve got to touch you to make it work, and you have to stay still!’

‘Heal me?’ Hond scoffed. A big bubble of blood formed and burst on his lips. ‘They’re Uglies! What do they know?’

Brindle dropped to his haunches, looked Hond straight in the eyes, and placed his hands over the entry and exit wounds in the human’s side. Hond struggled but Ria held him fast. ‘They have a healing gift,’ she whispered. ‘It’s amazing. I’ve seen what they can do.’

‘It’s mumbo-jumbo,’ Hond protested, but it was obvious he was weakening fast. He let Brindle’s hands stay on his wounds and put up no further objection when the circle of Uglies linked arms and began to chant in a low steady monotone. At last he lay back with his head in Ria’s lap and closed his eyes, his breath rasping.

Slowly the chanting rose in intensity, the air around them grew charged, and Ria again became aware of the presence of some uncanny power. The Uglies were the source of it. She looked down at her beautiful, broken brother – he seemed to have fallen into a deep sleep – and watched, daring to hope, as the web of fine blue

light wove itself around him, cocooning him from head to toe. Streams of the same substance poured into his wounded side from Brindle's hands, and his weight in her lap was lifted as his body floated free of the ground.

Was she imagining, or had some colour returned to his face? Had his breathing become easier? Were there fewer new droplets of blood beading his lips? *What's happening?* – she threw a thought-question at Brindle – *Is he getting better?* Her friend gave no reply.

It was a long while before the circle of Uglies broke apart. When they did the blue light that had webbed Hond's body seeped away and he lay still and silent. At first Ria feared that his breathing must have stopped. But when she put her ear to his chest she could sense its minute rise and fall, rise and fall. There were no more of the horrible rasping and bubbling sounds.

Brindle stood up, reached out his big hands and helped Ria to her feet.

‘Is my brother going to live?’ she asked.

‘Don’t know,’ he pulsed back.

‘What do you mean, you don’t *know?’* Ria was suddenly shaking with fear. ‘You made Trenko better. I saw it happen. You can make Hond better too.’

‘Cases different. No vital organs of Trenko destroyed. But wound of Hond goes through lung. Lot of bleeding inside. Very hard for Uglies to make better.’

Ria could feel tears welling up. ‘So does that mean he’s going to die? Am I going to lose *both* my brothers today?’

‘Hope not, Ria. We sang the healing song and magic entered Hond’s body. We took his pain away. Eased breathing. Sent him sleep. Tomorrow we will know if we stopped bleeding.’

‘But I think you have, Brindle! I think you have! Look!’ Ria stooped and gently touched her brother’s lips. ‘No more blood.’

‘It’s good sign. Tomorrow we will know.’

‘I believe you’ve saved him,’ Ria insisted.

‘Tomorrow we will know,’ said Brindle again. ‘Better for Hond if we don’t move him, but don’t have any choice.’ He looked around the battlefield and scanned the surrounding forest. ‘We already been here too long.’ He returned Ria’s flint knife to her, being careful to hand it over hilt first.

The danger was that other Illimani forces might be somewhere nearby. That was why Ria took the tough decision to leave Rill where he lay on the battlefield. No burial for him, nor for any of the fallen. She could only concern herself with the living now.

From the war party of fifty Uglies who had set out with Ria only thirty-seven remained alive. Six of these could not walk and a further fourteen walking wounded, including Trenko, were needed to carry them back to the safety of Secret Place. Of the seventeen able-bodied fighters still at his disposal Brindle sent twelve more, under Grondin, to bring in the outlying Ugly communities.

That left five to accompany Ria and Hond to the Clan camp on

the Snake River. Ria already knew the names of three of this reduced escort – Brindle himself, Oplimar, and the gangling broken-nosed brave called Brigley who'd been one of the first to welcome her outside the Cave of Visions. The other two she remembered from the battlefield for showing none of the squeamishness over taking human life that had doomed so many of their fallen comrades. One was a pink-eyed albino in early middle age. He looked strong, with short, thick legs and a long, massive upper body covered in bulging muscles. He introduced himself as Porto. The second was much younger, lean and very slight by Ugly standards, but in the battle he'd fought hard and fast. 'I am Jergat,' he told Ria, 'and you are good fighter too.' He held out a skin-wrapped bundle to her. 'You will need these again,' he said. The bundle was heavy. With her heart beating faster she opened it and found her five quartz throwing stones nestling within. 'Brindle told me to collect for you after fighting,' Jergat explained. 'That my job from now on.'

Another thing that Brindle did was insist on keeping the

captured Illimani with them, rather than sending him with Grondin's larger group. Keeping the weird bastard alive *at all* seemed like an unnecessary luxury to Ria, but Brindle was stubborn: 'Wrong to kill if don't have to.'

'That sounds wonderful,' said Ria. She was tired of this side of the Uglies. 'But think about what it means.'

'You thinking it means he must be watched all the time, we must hustle to guard him, make sure he doesn't knife us in back or run off to get other Illimani to attack us.'

'Right! So can we please just kill him now?'

The prisoner's expression was steady, almost insulting. Ria allowed her hatred to show. 'Hey, you!' she yelled, switching to out-loud speech. 'What's your name, you piece of shit?' But of course he didn't speak her language.

She crossed the few paces to where he was standing in the middle of the battlefield, guarded by Oplimar and Brigley, his hands tied behind his back. He was a full head taller than her, with a long

mane of thick dark hair, pale skin and fine regular features. She took him to be no older than eighteen. His teeth hadn't been filed and, were it not for his startling blue eyes, he could have passed for a good-looking youth of the Clan.

She prodded his chest and repeated: 'WHAT'S YOUR NAME, YOU PIECE OF SHIT?' When there was no response she tapped her own chest, pointed at herself and said: 'RIA.' Then she pointed back at him, and gave him a questioning look. He still didn't get it, so she pointed at herself again: 'Ria,' she said. 'My … name … is … Ria.' Then she pointed back at him: 'What … is … your … name?' Suddenly his face lit up: 'DRIFF!' he barked.

'Good.' Ria leaned closer: 'So here's how it is, Driff.' Even though he couldn't understand a word, she figured he'd get her tone. 'Give me the slightest excuse and I'm going to gut you without mercy. OK? Got that? You ignorant barbarian.' She was holding the flint knife, not exactly menacing him with it, when Brindle laid his hand on her arm. *'That enough, Ria. Please try to think like this –*

we very lucky have this Illimani. He can teach us lot about his people. Help us defeat them.'

It was late afternoon – shadows lengthening, the air beginning to cool – when they left the battlefield. Hond was still deeply unconscious but the Uglies lashed together a stretcher for him and took turns to be his bearers, conscripting Driff to the task as well. Whenever the prisoner was relieved from stretcher duty Ria noticed that Brindle made a point of walking with him and that the two seemed to have struck up some rudimentary form of communication.

In this way they kept moving through the long summer evening, the last daylight leached from the sky, and night fell around them. The moon had not yet risen and the darkness became almost absolute. They did not pause for rest but it was hard to sustain a fast pace and Ria guessed it would be morning before they reached the Clan camp.

If they managed not to stumble on another Illimani war band first …

She marched beside the stretcher, fingers touching her brother's shoulder, from time to time smoothing his hair back from his brow. Although he was hot, and his skin damp, she never doubted he would recover if she could get him home.

As they walked she watched the big three-quarter moon rise slowly in the east, flooding the sky with light. It climbed higher and she began to recognise valleys and hills she'd hunted in before. The distance was far – they would still have to march the whole night – but now at least she could take the lead and pick out the best route.

Following a deer path, she guided the Uglies through a forest of ancient gnarled oaks and brought them out by the side of a little lake with still, dark waters that reflected the dazzling moon. They skirted the lake, climbed a steep hill and descended into a narrow winding valley where the hunting for deer and rabbits was good.

As they began the trek along the valley floor a cloud scudded

across the moon and Ria sensed more than saw the sudden wild rush of an ambush. Her first thought was the Illimani and the flint knife was in her hand, stabbing and slashing, piercing flesh and striking bone, before she realised their attackers were Clan braves. She saw Hond spilled from his stretcher, Brindle clubbing a man to the ground, Brigley and Jergat back to back fending off a ring of assailants, and Oplimar wrestling with Grigo's father Murgh. But the surprise and speed of the attack, and the overwhelming numbers of the Clan, meant it was all over in moments. Something hard smashed against the side of Ria's head, stunning her. As she dropped to her knees she saw Porto go down, and Driff, unnoticed by anyone else, slipping away like a phantom. A second savage blow smacked into the back of her skull, bright lights exploded behind her eyes, and she fell on her face.

The last thing she remembered before losing consciousness was rough hands at work, trussing her with ropes, and the hated sound of Grigo's voice: 'I told you I'd kill you the next time I saw

you,’ he smirked.

Chapter Thirty-Seven

The young woman's cornflower-blue eyes were open wide and a smell of raw sewage wafted out of her mouth, as she and Leoni stood face to face in the long corridor lined with plastic chairs outside the DMT treatment room. *Uggh!* Leoni retreated and averted her nose to avoid breathing more of the toxic halitosis, but the woman followed and crowded her against the wall.

'What do you want?' Leoni yelled.

'I want to FUCK you,' the woman growled. Her voice had become deep and resonant, like a man's. 'Then I want to skin you ALIVE. After that I'm going to eat you right off the BONE.' She snapped her teeth together: 'Think you can stop me?'

One word was going through Leoni's mind and that word was …

(*possessed*).

This crazy bitch was possessed. By Jack.

Leoni turned to run, but the woman was all over her, fat and heavy, smearing her with slobbering, foetid kisses, forcing her squirming tongue into her mouth, groping her breasts.

Leoni got mad. She grabbed hold of her attacker's hair, banged her head against the wall and brought her knee up into her stomach. 'Fuck you,' she shrieked. 'Fuck you if you're Jack. Fuck you whatever you are. Just stay the fuck out of my life.'

The woman kept on coming. Her expression blank, she locked her pudgy hands around Leoni's neck and began to throttle her. Leoni fought back but her eyes were starting to glaze over when she saw Monbiot and Shapira burst out of the treatment room and charge to the rescue. *Useless fucks!* Far from breaking the woman's stranglehold their ineffectual tug-of-war only seemed to encourage

her to tighten her grip. Thrusting her face forward again she planted more slobbering kisses on Leoni's mouth and whispered in her ear: *'You stole SOULS from me. Nobody gets away with that.'*

Leoni's head was spinning, and she'd started to black out, when she saw a lanky long-haired figure looming up – the guy from UC Berkeley who'd kept on trying to talk to her over the last couple of days. He shouldered Monbiot and Shapira out of the way, got hold of the woman's hands and did something to them that made her screech with pain and let go. Then, despite her great bulk, he swung her round – it looked like a dance move but there was another yelp of pain – and threw her face down on the floor. As she struggled to get back up he put her into an armlock and immobilised her.

'Hey, Becky,' he said. 'Chill, babes. This isn't you …'

But the woman wasn't listening. Her pale blue eyes were fixed on Leoni with hideous intent and dawning recognition. 'I remember you,' she snarled. 'We've met before!' She slobbered and drooled yellow spit: 'Oh, this is going to be so much fun.' Her eyes rolled

and she began to howl like a wolf.

In the previous days, despite his attempts to talk to her, Leoni hadn't paid any attention to the guy from Berkeley. His British accent – but with odd American notes and undertones – was the only interesting thing about him. Otherwise she'd assessed him as a tall, annoying, badly dressed nobody.

But the way he'd handled crazy Becky called for a rethink.

His sun-bleached blond hair was unkempt and almost shoulder-length. He looked like he hadn't shaved for a week and he was wearing torn and repeatedly patched baggy trousers, flip-flops and a much faded, stained and stretched Burning Man T-shirt. Obviously he didn't care about his appearance, but once you got past first impressions he was quite cute in a beach-bum sort of way.

He'd just introduced himself as Matthew Aubrey (sounding plummy, awkward and English as he shook her hand) and now sat opposite her across a little metal table in Starbucks in Newport

Beach.

As volunteers in the DMT project they'd signed an agreement not to leave campus during the trials, but after Becky, still raving, had been straitjacketed and admitted to the psychiatric wing of UC Irvine Hospital, they'd both wanted out for a while.

They hadn't talked at all during the fifteen-minute cab ride. Leoni had sat far over on her side of the back seat, brooding about Sulpa and Jack. She knew that somehow, in showing her the former, the Blue Angel had also revealed the latter.

What was even more chilling was the way her visionary battle with Sulpa had followed her into the physical realm in the form of Becky. And the way, at the last, that Jack had looked out at her through Becky's eyes and recognised her.

The same Jack, without a doubt, who had sent her adoptive father to her bed.

The same Jack who'd wrecked her life so casually that he seemed to have forgotten all about her until the Blue Angel had

arranged for their paths to cross again.

The same Jack who was also, somehow, Sulpa, and bathed in the blood of murdered children.

The same Jack who now had further plans for her.

('This is going to be so much fun!')

Leoni shuddered and took a sip from her latte. Across the table Matthew was watching her. Their eyes met, and he said in a rush: 'It wasn't an accident, you know.'

'What wasn't an accident?'

'It wasn't an accident that I showed up to stop Becky strangling you.'

Leoni sat forward: 'I don't mind whether it was an accident or not. I'm just grateful to you for being there.' She thought of the big woman's putrid tongue in her mouth and shuddered again. 'If you hadn't stopped her something really bad was going to happen to me.'

'I think she would have killed you,' Matthew said with

conviction. ‘That’s why I was sent to protect you from her.’

Leoni’s heart skipped a beat, but she tried to look nonchalant: ‘Oh, really?’ she said, ‘Sent by whom?’

Matthew shrugged and shuffled his big feet under the table: ‘If I tell you you’re going to think I’m insane.’

‘Try me,’ laughed Leoni. ‘After what I’ve been through in the last few days I have a very high tolerance for insanity.’

‘OK.’ He took a big gulp from his bottle of water and lowered his voice: ‘I did something stupid.’

Leoni raised an eyebrow: ‘Yes?’

‘I wasn’t scheduled for any DMT sessions today, but I had a really amazing one yesterday. I mean, utterly extraordinary. And I wanted to try to revisit it …’

‘So …’

‘So the thing is … I brought this little private stash of DMT with me when I joined the project. Not the kind Bannerman gives us by injection, but the kind you smoke. And this morning I suddenly

thought – why don't I smoke some? So I got out my stash and fired up my pipe …'

'But that's totally against the rules!' Leoni exclaimed.

'I know. Bannerman would be pissed. But if I hadn't done it I wouldn't have been there to stop Becky.'

Leoni looked puzzled and Matt continued: 'I've smoked DMT before, but this time it was different. I didn't go shooting up into the stratosphere. There were none of the usual crazy colours. After three or four big tokes I felt dizzy and lay down on my bed.' He paused, took another gulp of water: 'Even though I'd closed my eyes I could see light pouring through the window – and I quite liked it. I felt drawn to it. Then this amazing woman came in on the light. I can't describe how she did it. One minute there was just me in the room. The next minute she was there. I reached out to touch her but my hands passed right through her. I said: "You're not real, are you?" And she said "Yes, Matthew, I am." So I said: "OK. What do you want?" And she said: "Get down to the lab right away. Someone

needs your help.” Believe me, I didn’t feel like arguing. She was six feet tall and had blue skin.’

Chapter Thirty-Eight

Ria had no idea how long she'd been unconscious. Now she was alert again, and her eyes were back in focus. But because she was lying on her stomach, with her wrists and ankles roped tightly together behind her back and her spine bent into an excruciating arch, she couldn't do anything except take it from Grigo. 'You bitch,' he shouted, raining blows down on her ribs and thighs with a thick wooden staff. 'You messed up my face.'

So Brindle's father had been right. Only Duma and Vik were dead. Treacherous Grigo, Sulpa's special friend,

('You don't know him as well as I do')

was still very much alive.

Ria felt pleased that at least she really had messed him up. Even in the dark, lit only by the guttering flames of brushwood torches, with her own face crushed sideways against the spiky marsh grass of the valley floor, she couldn't miss Grigo's brow, split from his hairline to the bridge of his nose, or the big gaps she'd knocked in his front teeth.

Then – *THUMP!* – the heavy staff cracked hard against a rib and, despite her best efforts at self-control, she groaned.

As she had known it would, this sign of weakness only goaded Grigo on to greater efforts. Somehow he drove the tip of his staff under Ria's body and into her sternum, winding her and leaving her gasping for breath. Then she watched out of the corner of her eye as he moved around, searching for a good angle, and finally struck down at her face. 'Should have married me, Ria,' he taunted, 'instead of screwing an Ugly.'

She could sense that a second blow was coming, one that would break some important part of her head, when Grigo was

intercepted by Vulp and Bahat, two older men she knew well who had both been good friends of her father. ‘Not like this,’ Bahat roared, hammering a punch into Grigo’s chest. ‘It’s not what we agreed.’

‘She’s to get a proper trial,’ exploded Vulp as he grabbed Grigo from behind, pinned his arms, and dragged him kicking and screaming out of reach of Ria. ‘No harm comes to her before that.’

Vulp and Bahat had both passed forty summers but remained important figures in the Clan and could still pull their weight in the hunt. Vulp had the shoulder-length white hair and venerable beard of an elder but a lean, strong physique. His left eye was grey and his right eye was brown. Bahat, swarthy and brooding, was known for his bad temper. Although not tall, he was broad and heavy with a livid crescent-shaped scar originating on the right side of his head above his ear, curving across his cheekbone and disappearing into his grizzled beard. Despite his reputation for ferocity, Ria remembered him best for trading funny stories with her father

around their family hearth, and the way his eyes – now glowering and serious – used to twinkle with delight just before he delivered the punchline.

Bahat stooped and cut the rope tying Ria's ankles to her wrists but left in place the other ropes that still bound her wrists together behind her back and trussed her ankles. As he straightened, Murgh bustled up. He was a short, bow-legged, self-important man with a thick, powerful upper body and huge, rather sinister hands. 'What's going on here?' he demanded.

'We're stopping your son from killing the prisoner,' said Vulp.

'Many feel she *should* be killed now.' Murgh made it sound like a reasonable proposition. He had a big, lumpy, florid face, a bruiser's nose, small darting eyes like a jackdaw's, and a ring of grey hair around his head that encircled a large shiny bald patch. 'She and the Uglies murdered Duma and Vik,' he continued in the same tone. 'We all know they did it. So what's the point of a trial?'

Ria gasped, stunned at this unexpected turn. She and the Uglies

had killed Duma and Vik?

‘It was the Illimani,’ she croaked, but her voice was weak from the repeated blows and a tumult of shouts drowned her out.

‘We don’t know *anything* for sure yet,’ Bahat roared at Murgh. ‘We have the bodies of Duma and Vik, without their heads, a very terrible thing. Grigo has made allegations about how this happened. Many believe him. That’s why we’re all here. But Ria’s side of the story MUST also be heard …’

‘WE DON’T NEED TO HEAR HER SIDE OF THE STORY,’ someone else screeched, in outrage. ‘It’s obvious she’s guilty. We just caught her with the Uglies.’

Paying a price of searing pain in her ribs, Ria rolled onto her side and struggled to sit up. She *knew* who had killed Duma and Vik, and it hadn’t been her and the Uglies. So why had Grigo invented this story, pinning the blame on them? Was he acting from spite – calling out the braves, hunting her down – just to get back at her? Or was Sulpa using him to play some much bigger game?

Ria was also desperate to know what had become of Hond and the Uglies. She pulsed out a thought-question *'Brindle. Where are you? Tell me you're alive!'* But there was no reply and no sense of any connection with Brigley, Oplimar, Porto or Jergat either.

Meanwhile the argument continued to expand around her. The outraged screech had come from Vik's father Chard, tears dripping from his eyes, his features contorted with hate, who now stood shoulder to shoulder with Murgh. Then Duma's father Kimp joined them. 'She's guilty,' he said. 'Let's kill her now.'

Vulp and Bahat were solid guys. They might have been old but they didn't back down. Ria had to give them credit for that as she listened to the furious shouting match, piecing the story together as best she could.

Early that morning, Grigo had come running into camp covered in blood. He'd told how he, Duma and Vik had been out the day before on the hunt in a remote valley where they'd stumbled

across Ria naked behind a tree having sex with a young Ugly male with a gimpy leg. Because such behaviour was an affront to Clan morals they took the couple prisoner but were attacked by a huge gang of Uglies who murdered Duma and Vik, on Ria's instructions, and would have murdered Grigo as well had he not escaped. He claimed the Uglies had made off with the heads of the two murdered boys, obviously intending to use them in a cannibal feast, and Ria had left with them, not as their prisoner but of her own free will. Grigo also claimed some of the Ugly braves had pursued him but he had led them on a chase for most of the previous day and night before losing them and getting back to the safety of the camp.

This was the incendiary story he and his father had used to recruit a posse of a hundred men to hunt down Ria and the Uglies. With Hond and Rill already out of camp searching for her there were few who were prepared to argue against the idea. Nonetheless, her family was well respected so Vulp, Bahat and many others only agreed to join on condition she was captured alive and brought back

for a fair trial before the assembly of elders.

Now Ligar and Bont, friends and age-mates of Hond, stepped forward to stand beside Vulp and Bahat.

Bont was a big bear of a man with a tangled mass of shaggy brown hair hanging down almost to his waist. He was thought by some to be slow-witted but he was good in a fight so nobody messed with him. Ligar, small and delicate with fine, sensitive features, was a deadly accurate shot with the vicious hunting bow presently slung over his shoulder. He was clever and funny, able to make a fool out of anyone in an argument. 'Your story's full of shit,' he told Grigo. 'If Ria ran off with the Uglies like you say then how come she was heading back towards camp when we found her? If the Uglies killed Duma and Vik then how come they were carrying Hond on a stretcher and caring for him? I'm not saying you're lying, Grigo, but if you want to lynch this girl' – he nodded at Ria – 'without a proper trial then you're going to have to get past me to do it.'

‘That goes for me too,’ said Bont. He’d been slouching but now stood up to his full height, towering over Grigo, and balled his huge hands into fists.

Watching the whole drama unfold from where she was sitting Ria was under no illusions. Her life hung in the balance. But little by little her protectors prevailed, winning more and more of the braves over to their point of view, and Murgh’s lynch mob – reduced to a hard core of less than twenty – was forced to back down.

Grigo, spitting with fury, had to be restrained: ‘You’ll burn in the morning,’ he yelled at her.

‘Murdering bitch!’ screamed Chard.

Somehow Duma’s father Kimp got past Bont’s guard and drove a kick into Ria’s bruised rib. Then Bont hit him once and he dropped. ‘Anybody else want to argue about this?’ the big man asked.

But there were no takers.

As Chard and Murgh helped Kimp away, muttering in indignation, the column began to form up for the march back to camp. Bont leaned down, cut the shackles on Ria's ankles and helped her to her feet. She was stiff and pain gnawed at her side.

'Can't you free my wrists as well?' she complained.

'You're still a prisoner,' he said gruffly.

A terrible question was preying on Ria's mind but she was afraid of what the answer might be. 'Where's Hond?' she blurted out.

'He's being taken back to camp with some of our guys who got injured when we grabbed you. He needs the medicine man.'

'What about the Uglies?'

Bont gave Ria a weird look: 'You mean *your* Uglies?'

'Yes, *my* Uglies. What's happened to them?'

'We killed one in the fight. We're using the other four as stretcher-bearers for Hond and the injured.' Bont cleared his throat and spat. 'Uglies! Don't know how you can stand to be around

them. They make me sick.' He gave a hollow laugh: 'Anyway, they're all to be burnt to death in the morning.'

Chapter Thirty-Nine

‘I call her the Blue Angel,’ Leoni whispered. She stood up and walked over to the bar where she scrounged several sheets of paper and a marker pen. Returning to the table she sat down again opposite Matt and began to sketch. ‘Here,’ she said after a moment, thrusting the drawing forward, ‘is this what your blue-skinned woman looks like?’

Matt whistled with surprise: ‘That’s her! You’ve met her as well!’

‘I’ve met her more than once. We go back a long way.’

‘So does that mean you think she’s real?’

Leoni dodged the question: ‘What do you think?’ she asked.

Matt shuffled his feet some more under the table: ‘She’s got to be real. Or something so close to real it makes no difference. You’ve seen her. I’ve seen her. She sent me to stop Becky killing you. It would be pretty tough for a hallucination to do all that.’

Leoni remembered something relevant: ‘Dr Bannerman told me other people have seen her too.’

‘Other people on the DMT programme?’

‘Two on the programme. But I think he said the others were also cases of his. I guess people who had near-death experiences. You know he’s an ER doctor, right?’

Matt nodded.

‘That’s how I met him,’ Leoni continued. ‘I overdosed and died and he brought me back. While I was out I had a near-death experience and the Blue Angel was in it …’

‘But this wasn’t the only time you met her?’

‘No. She used to come to me in dreams when I was a kid. And my DMT trip this morning took me right to her.’

Without exactly intending to, Leoni began to pour out her life story to Matt – her abandonment as a newborn babe, her years in the orphanage, her adoption by the Watts family, a period of security and apparent love, and then the brutal rapes by her adoptive father with her adoptive mother's collusion – all, it seemed, at the behest of someone or something called Jack. She spoke of her near-death experience and subsequent encounters on ketamine – and finally this morning on DMT – with the Blue Angel. She described the land where everything is known, the bizarre animals and plants of that realm, the two suns hanging in its sky, the sticky green flowers underfoot.

When she paused for a moment, Matt leaned back in his chair, stretched, and put his hands behind his head: 'Well,' he said with a smile. 'I started out worrying you'd think I was insane …'

'But now it's the other way round? You think it's me who's crazy?'

'I don't think you're crazy at all.'

‘Then wait till you hear this,’ Leoni said. And she went on to speak of the part the Blue Angel had played in showing her Sulpa, and what she’d seen him do, and how she was sure that it was Sulpa, also known as Jack, who had somehow followed her back from the trip and possessed Becky.

At one point Matt stopped her and had her draw examples of the flint knives, axes, and spears tipped with stone and bone points that she’d seen in the hands of thousands of Sulpa’s naked followers. He also asked for a sketch of Sulpa’s strange black sword and whistled when she described its glassy sheen. ‘Has to be obsidian,’ he muttered. ‘Very interesting …’

‘What’s so interesting about obsidian?’

‘It’s a kind of volcanic glass. There’re only a few places on Earth where you can find single pieces big enough to make a weapon like this.’

‘We don’t even know that what I saw happened on Earth.’

‘Oh, I think it did, don’t you? Those were *men* you saw around

Sulpa. Those were *human* children he murdered. There was one sun in the sky – right? There were no hybrid animals and trees, like you described in the land where everything is known. There was grass growing on the ground, not green flowers …'

'That's all true. It totally felt like I was on Earth. The only thing I couldn't figure out was *where.* I mean, I watch Discovery Channel, but where do you find a tribe of naked white men performing human sacrifice? I've never heard of that.'

'Maybe *where* isn't the right question,' Matt objected. 'Maybe we should be asking *when* instead.'

Leoni frowned and echoed him: '*When?*'

'Yes. When.' He drained the last of his water. 'Maybe what the Blue Angel did when she had you look in that screen was send you back in time.'

'How could that be possible?'

'I don't claim to know. I'm just saying maybe that's what happened.'

‘But why? What makes you think that?’

Matt pointed to one of the sketches she’d just done for him. ‘Do you know what you’ve drawn here?’ he asked her. It was one of the wooden batons, hooked at the end, that Sulpa’s minions had carried slung across their backs.

‘No idea,’ said Leoni. ‘First time I saw these things was around Sulpa. All his men had them.’

‘They’re called *atlatls.* They were the nuclear weaponry of the Stone Age. Any tribe with this technology gained a huge advantage over their competitors.’

‘Why?’ Leoni examined her sketch again: ‘It doesn’t look useful for anything.’

Matt had a glint in his eye. ‘It’s a weapon for war and for hunting. It works by lengthening the throwing arm of a man with a spear. The extra leverage makes the spear travel faster and further. Look’ – he pointed out the hooklike contraption Leoni had drawn – ‘the butt of the spear notches in here.’ He stood up and

demonstrated the throw: ‘A flick of the wrist at the end and you can kill an animal or a man up to eight hundred feet away.’

‘So are you saying because I saw these atl-things that *proves* I went back in time?’

‘No. Not quite. Different cultures and peoples throughout history have independently invented the atlatl. But the one you drew has a very distinctive design. Unmistakable. It turns up in archaeological sites across France and Spain around twenty-four thousand years ago. There’s evidence it was brought from much further east – from the Balkans, in fact.’

‘How do you know all this?’ Leoni asked.

‘I’m taking a couple of courses in prehistoric archaeology at Berkeley. We learned about the Kazgarians last semester. That’s the name we give to the people who brought the atlatl into western Europe – we don’t know what they called themselves.’ Matt leafed through Leoni’s sketches again: ‘You’re a pretty good artist, aren’t you?’

‘I flunked art school,’ she said – all his academic brilliance made her feel small – ‘but I guess I can draw.’

‘Great. So let’s get back to the project, go online and check out the knives and axe heads you drew. That obsidian sword as well. You can tell a lot about when and where stone weapons were made just from how they look.’

In the cab returning to Irvine Leoni asked: ‘You’re English – so how come you’re studying at Berkeley?’

‘I drift around a bit, take courses here and there if they interest me. I wanted to know more about prehistoric archaeology and Berkeley seemed like a good place to do it.’

‘So you’re a sort of perpetual student?’

Matt laughed: ‘Yes. You could say that. “Matthew Aubrey, Perpetual Student.” Quite an accolade.’

Looking at his ragged, patched clothes – despite his posh accent Matt obviously didn’t have two cents to rub together – Leoni

speculated that he must have enrolled in the DMT project for the miserly fee Bannerman was paying the volunteers. The cash, plus a month's free room and board out of term-time, would, she realised, be worth a lot to a guy who bummed around colleges like this.

The cab pulled off onto California Avenue and headed down towards the UC Irvine Research Park. They turned right onto Bison Avenue and saw at once that something ominous was going on at the two-storey block where the DMT project was housed. Half a dozen black Ford Explorers with smoked-glass windows were parked outside and there were tough-looking men with short haircuts and dark suits everywhere.

Leoni quickly leaned forward, quelled the tremor rising in her throat, and told the driver: 'Go straight ahead to the next junction, and take a left there.'

'But this is the address you gave me, madam,' he objected, waving a hand at the research block and slowing almost to a halt.

'No,' Leoni insisted, 'this isn't the place.' She sharpened her

tone: ‘Straight ahead, please, and left at the junction.’

The driver, a lean elderly Armenian, sighed but put his foot back on the gas. The cab picked up speed and Leoni slumped deeper into her seat as a group of the men outside the research block swivelled towards them.

Chapter Forty

The taxi driver cast a furtive glance at Leoni in the rear-view mirror as she slumped lower in the back seat and flopped over sideways to avoid being seen. Matt took over the directions. ‘If you could turn left here,’ he told the driver in his imposing British accent, ‘then our building’s third on the left.’ Leoni stayed low in her seat as the car made the turn, but she felt Matt’s hand urging her upright. *‘It’s OK,’* he whispered in her ear. *‘You weren’t seen.’* She looked back over her shoulder. The DMT project was already out of view and no one was following them.

Moments later they came to a halt in front of another of the white-painted two-storey blocks scattered across the green lawns of

the research park. Matt paid the driver with some grubby bills extracted from the depths of one of his many pockets, ushered Leoni out, and led her towards the block as the cab pulled away. ‘I don’t feel good about that cabbie,’ he said as they walked. ‘He knew we stopped him dropping us off at the project because of all the heavies outside. They look official, we look like fugitives, so he’s probably trying to decide if he should go right back and report us to them now.’ He paused: ‘Your parents have got to be behind this, right?’

Leoni grimaced: ‘Yes. Count Dracula and his undead bride.’

‘But those men. All those suits. Like a uniform. And I’m pretty sure some of them had guns under their jackets. Maybe FBI or something?’ Matt was peering around. They’d entered a corridor that ran all the way through the block to a rear exit at the far side. He took her hand: ‘Come on, let’s get out of here.’

They half ran, half walked, to the rear of the block, and once they were in the open again Matt continued to set a fast pace. Across more green lawns, dotted with mature trees, they caught

occasional glimpses in the distance of the building housing the DMT project. It was too far away to make out what was happening but they could still see several men standing on guard outside.

Leoni nodded her head in their direction: ‘I don’t think they’re FBI agents,’ she said. My dad’s not *that* well connected. But he’s got the money to hire any muscle he wants – so I’m guessing maybe some sort of private security firm? Whatever. They’re obviously here to grab me.’

‘Yes,’ Matt agreed. ‘I would say so.’ She was about to object to his cheerful tone when he produced a cellphone, pressed a speed-dial button, and became brusque as he arranged for a cab to meet them in fifteen minutes at the junction of Bison Road and the San Joaquim Hills Toll Road. He gave an address in a seedy district of South Los Angeles as their destination and confirmed payment would be made in cash.

‘That’s quite a ride,’ whistled Leoni when he hung up. ‘Might work out more than a hundred bucks, maybe a hundred and fifty.

You want to check you've got that much cash on you? Because I sure as hell don't.' She was turning out the pockets of her jeans while she talked and counted $187 and change. 'Oh, I lie. I'm richer than I thought. How about you?'

Matt rummaged and found five crumpled bills. Three of them, Leoni was surprised to see, were hundreds. 'We have enough cash,' he said.

They walked in silence, avoiding exposure in the open whenever possible, darting from tree to tree. Eventually Leoni asked: 'What are we going to do when we get there?'

'Get where?'

'South LA, East Century Boulevard in the eight hundred block. The address you gave to the cab company.'

'We're going to walk some more, then take another cab.'

Leoni must have shown her puzzlement.

'That way our trail stops after the first cab,' Matt explained. 'We need to make certain your parents and their heavies can't

follow us.’

They had reached the last block at the edge of the research park. Unlike the others, its large windows were shuttered and it appeared to be closed and deserted. There were no students or staff to be seen anywhere around and the building had an isolated, run-down feel. They fell into a guarded silence as they walked alongside it and, for the next minute, there was only the rhythmic sound of their footsteps crunching over the gravel path.

That was why they didn’t hear the approach of the two men in dark suits who stepped out and confronted them at the corner of the building.

Both men were big – in very different ways.

One had the squat functional build of a circus strongman. He might have been of Turkish origin – or from some other place in the Middle East where people were swarthy and thickset, with large muscles. His black hair had been shaved to a stubble over the dome

of his skull and his right hand clutched a chunky automatic pistol pointed at Leoni's stomach.

The other guy was tall, at least six-three, with a broad chest and narrow, muscular waist – the ultimate Abercrombie & Fitch uber-model. His blond hair was cropped into a high and tight military cut above handsome peasant-boy features, and he held a pistol too.

'You got them covered?' the Turk asked.

'Of course.' Abercrombie nodded, waving his gun from side to side.

The Turk stuffed his own weapon into his belt and pulled a cellphone from his jacket pocket. He looked from the screen to Leoni a couple of times. 'Little Miss Watts,' he announced, 'you can run and you can hide, but we have you now.'

'What about him?' Abercrombie indicated Matt, who, to Leoni's dismay, was cowering in fear.

'He's seen too much,' said the Turk. 'I'm going to kill him.'

His gun was out of his belt again and he was screwing a silencer onto the barrel.

‘You mean now?’ asked Abercrombie.

‘Yeah, sure. Why not? There’s no witnesses for miles and the cleanup boys are right here to deal with the body. Couldn’t be better.’ The Turk’s face broke into a broad smile. ‘Tell you what. I want to recreate that scene from ’Nam. You know – the one where the Vietnamese officer shoots a prisoner in the head at point-blank range?’ He giggled: ‘You got video on your phone?’

‘Sure have,’ said Abercrombie.

‘OK, then video this.’

And with that the Turk strode over to Matt, thrusting the pistol barrel at his temple.

But Matt was already on the move. Shedding his submissive body language in an instant, he swayed his head, avoiding the thrust, and the Turk stumbled forward. Matt closed both his hands around the gun, somehow rolled the Turk’s big strong fingers

tighter around the weapon's grip, and kept the hold as he pirouetted away from him, snapping his wrist with an audible 'POP!'

Now Matt had the pistol. He swept its barrel up and locked the sights on a point between Abercrombie's eyes while the Turk turned pale and slumped to his knees, staring at the bloody spike of bone sticking out of his forearm.

'Put your gun down,' Matt yelled at Abercrombie. He thumbed back the hammer of the weapon. 'You have just one second not to get shot.'

Leoni could see how much Abercrombie didn't like this sudden reversal of roles but he obeyed at once.

'No sudden movements,' Matt said. 'I want you to slide the gun over here with your foot. I don't want you to kick it. Just slide it over to the young lady.'

With a sullen glare Abecrombie nudged the gun across the lawn and Leoni picked it up. She didn't know how to use it but tried to look menacing as she pointed it at the Turk.

Matt hadn't finished with Abercrombie. 'Take your shoes and clothes off,' he ordered. 'And you,' he told the Turk. 'Shoes and clothes off right away.'

'I can't,' the Turk complained. 'You've broken my fucking arm …'

Matt stepped in on him and crashed the butt of the gun down on the top of his head, eliciting a howl of pain. 'Shoes and clothes off right away,' he repeated, 'or I'll break your other arm.'

The less clothes they had on, Leoni noticed, the more cooperative the men became. By the time they'd removed their underpants there was no fight left in them.

Now Matt produced a pocket knife and handed it to her: 'We're going to tie them up. Cut their shirts into strips. Make gags and blindfolds as well.'

Matt made the two men lie face down and when Leoni had finished cutting up their shirts he blindfolded and gagged them, then trussed and bound them with the strips of cloth. He concealed their

guns in the pockets of his baggy trousers and hurled their shoes and clothes up onto the roof of the deserted building

‘Come on,’ he said and led Leoni away.

Chapter Forty-One

Bont's remark plunged Ria into turmoil but she was careful not to show it. 'Burnt to death?' she said. 'That's horrible. Why?'

The big man shrugged and scratched his head: 'I'm not sure. It's a new idea of Murgh's. Set an example to other Uglies, I think. Teach them not to trespass.'

'My guys weren't trespassing,' Ria protested. 'They were helping to bring Hond back to camp – you saw that!'

But Bont held up his hand to stop her: 'Not my problem,' he said. 'You'll be in front of the assembly of elders in the morning. Explain it to them.'

Ria nodded: 'Count on it, Bont, I will.' She looked around,

trying to seem casual. ‘You said you killed one of the Uglies tonight. Which one?’

He shrugged again: ‘How should I know? They all look the same.’

‘Then show me the body.’

Bont gave her a suspicious glance: ‘You really *do* care about them, don’t you?’ he said. ‘You’re making me wonder if maybe what Grigo said is true after all.’

‘That I took an Ugly lover? That I had them murder Duma and Vik? That’s complete shit, Bont, and you know it. I thought that’s why you stood up for me just now …’

His friend Ligar interrupted: ‘We stood up for you because of Hond …’

‘And out of respect for your father’s memory,’ said Vulp.

‘And because you deserve a fair trial,’ added Bahat. ‘We’re going to make sure you get one.’

‘I’m grateful to you,’ Ria said, lowering her eyes.

She knew that other braves had also spoken out against Murgh's plan to lynch her, but she had no doubt that it was to these four – Bont and Ligar, Vulp and Bahat – that she really owed her reprieve.

They would be Ria's guards, marching beside her for what was left of the night, until they reached camp in the morning.

She would try to make them her allies.

To footslog a hundred men at night through rough country and keep everyone together was no easy task but the Clan had been warlike for as long as anyone could remember and the braves Murgh had recruited organised themselves into disciplined ranks for the march back to camp. Having been ambushed by them, Ria felt not so much anger as a perverse sense of pride at how formidable, cunning, and ruthless her people could be. If she could get them thinking straight, they would make redoubtable foes for the Illimani.

Ligar and Bont were in the rank in front of her, roughly in the

middle of the column, while Vulp and Bahat marched on either side of her. At first Ria said nothing. Just kept her head down, gritted her teeth against her many aches and pains, and waited for the right moment. But her opening didn't come until they climbed out of the valley and began a long, hard trek across a huge expanse of moonlit moorland. Then Bahat turned his grizzled head to her and said: 'I've known you since you were born. You're a good girl – adventurous, perhaps, but you have a good heart. I don't believe a word Grigo said about you, so what adventure brought you together with the Uglies?'

His voice was kindly, reminding Ria of her childhood. She was just about to tell him the whole story when she noticed Grigo. He had fallen back from his place beside his father at the front of the column and somehow infiltrated himself into the rank behind her from where she sensed him listening in and giving her the evil eye.

She whirled round to glare at him: 'Why are you spying on me, Grigo? Afraid I'm going to expose your shitty little plot?'

‘What plot?’ he blustered. ‘The only plot here is the one you’re in with the Uglies …’

Ria laughed: ‘I know about you and the Illimani,’ she said. ‘I know what you’re doing for Sulpa. I know why you had Duma and Vik killed. It’s all going to come out at the trial.’

She was bluffing, goading Grigo to test his reaction. Now he launched himself at her and tried to lock his arm around her neck, but Bont was on him in an instant and sent him tumbling with a series of tremendous cuffs about the ears. ‘Fuck off, Grigo,’ he said, wagging a massive finger. ‘You’ll get your chance in the morning. Nobody harms the prisoner until then.’

Ria looked out for Grigo after that. But he was nowhere to be seen – was he even still with the column? – as the rest of the night passed and she answered Bahat’s question with the simple truth of what had happened to her in the last two days. She took her time describing every detail she could remember. Bahat listened, saying

nothing, but sometimes nodding his head, and she saw that Vulp, Ligar, Bont and others round about were listening to her too.

She didn't feel her most important task was to persuade them that she was innocent of the ludicrous charges Grigo had brought against her, or even to implicate Grigo himself. That could wait until tomorrow. What mattered was that it was the Illimani, not the Uglies, who had killed Duma and Vik and it was the huge threat posed by the Illimani she wanted to impress on her Clansmen. So she told them about the battles she and the Uglies had fought with the outlanders in the past two days. How Rill had been killed. How Hond had been injured. How the Uglies had saved them at the cost of many dead. She described the Illimani, the way they looked, the way they fought, what a terrible enemy they were, and why she was certain the Clan would soon have to face them in their thousands.

Vulp questioned her closely. To be sure, she'd fought a war band of savage marauders. He was prepared to accept that. But why did she think there were more of them?

Ria figured he wasn't ready for explanations involving the spirit world and the ghost of an Ugly's deceased father. What she told him instead, not hesitating over the lie, was that a group of Ugly hunters had spotted the main Illimani force and estimated it to number more than five thousand men.

'Where is this force?' demanded Bahat, in a tone of complete disbelief. Five thousand fighting men was a staggering figure, a larger number by far than the Clan or any of the neighbouring tribes could muster.

'Just a few days' march from us,' Ria improvised. 'The Uglies know the place. If we befriend them instead of burning them they can lead our scouts there …'

'Befriend the Uglies?' said Ligar. 'I hope you're not serious …'

'Totally serious. We've got to stop seeing them as subhumans and start seeing them as allies. We're going to need all the help we can get …'

‘But they smell so bad. They can’t speak. They’re stupid. Even if what you’re saying is true, can’t we have other allies? I think I would rather befriend bears or rhinos, or even large rocks.’

‘This isn’t a joke, Ligar. They have … powers.’

‘Powers?’ He looked sceptical. ‘What powers?’

Ria told him about the Uglies’ remarkable ability to heal.

‘But if they can heal,’ Ligar objected, ‘why didn’t they heal Hond?’

‘They did!’ Ria exclaimed. ‘He was dying. They brought him back but they had to make him sleep for the healing to work.’ She looked up. Dawn was breaking and they were very close to camp. ‘He’ll have recovered by now,’ she said. ‘You’ll see.’

The Clan were an abundant people, numbering more than two thousand. But it was only during the summer moons, from solstice to equinox, when vast herds of reindeer migrated through the region, that all the scattered hunting bands came together in the

great camp beside the Snake river. With the equinox still almost a moon away the whole population of the Clan was therefore present to witness Ria brought in a prisoner in the midst of the column of braves.

She realised in a wash of emotion how tired and beaten-up and hungry she was feeling, and how bedraggled and done-in she must look.

She was sure Grigo would be close to enjoy her humiliation but he wasn't beside his father at the front of the column and there was enough daylight to see he wasn't anywhere amongst the ranks. It seemed all the more likely he'd slipped away during the night. But where? To do what? The only certainty, Ria thought, was that no good would come of it.

Their route took them past the ragged lean-tos and hide-covered bivouacs clustered round the southern edge of the camp where the forest ended and the cleared land began. A toddler ran into their path but was snatched up by his mother, then Ria was

spotted by a crone named Garanit, famous for her shrill vindictive gossip, who cried out: ‘Murderer! Murderer! Murderer!’

It was nearly full daylight when they reached the camp’s muddy thoroughfare, lined on both sides by wattle huts from which people poured to join in the chant: ‘Murderer! Murderer!’ Murderer!’ Someone shouted that Ria was a witch; other voices muttered about burning.

Her heart was pounding. Had everyone gone mad? And where had Murgh got this horrible new idea about burning people to death? Was he – spirits forbid it! – planning to burn *her* to death?

Up ahead was the lookout tower built of gigantic logs roped ingeniously together. No lookouts had been posted this morning but as she approached the looming structure Ria saw that dozens of children had climbed to its first level. Grigo’s younger brother, an eight-year-old tearaway named Karst, was amongst them. When she passed beneath him he spat a fat glob of mucus into her hair.

There was still no sign of Grigo himself.

Two hundred paces north of the tower, in the heart of the camp, was the meeting ground, an open expanse of hard-packed earth three hundred paces from side to side, where the assembly of elders held their deliberations in public. The whole area was enclosed by a circle of huge logs, each one three times Ria's height, set upright at intervals into post holes.

It took her only an instant to grasp the essentials of the scene before her.

Brindle wasn't the Ugly who'd been killed during the ambush. That must have been poor Brigley – because Brindle was alive, tied to a stake at the centre of the circle with Porto, Jergat and Oplimar, surrounded by an enormous pile of fresh-chopped wood and dry kindling. Yet another of Grigo's relatives, this time his tiresome uncle Grine, stood close by, holding a smoking brand, ready to set the bonfire ablaze. At a safe distance behind him, on the ceremonial stools of mammoth ivory they used only when judging a trial, sat all five of the elders. They had arranged themselves in their customary

semicircle. Rotas, the most senior, was perched in the middle, flanked to his left by Torga and Otri and to his right by Krant and Ezida. Behind them stood the massed council of braves.

'Help us, Ria.' Brindle's thought-voice, absent this whole night, rang out again inside her head. He sounded lost and bewildered. *'Afraid to die by fire. Begging you, please ask Clan give mercy. Kill us quick ...'*

Chapter Forty-Two

Leoni breathed a sigh of relief when they reached the rendezvous and found the cab already waiting with its engine idling. They ducked into its back seat and soon turned north onto the I-405. ‘Where did you learn to fight like that?’ she whispered to Matt. ‘You made mincemeat of those two guys.’

He looked embarrassed: ‘I did five years of military service in Iraq and Afghanistan. Late teens, early twenties. Before … well …’ He seemed to hesitate: ‘It was before certain things changed in my life.’

Leoni had a strong intuition that now was not the time to press Matt on what had changed in his life. The rush-hour traffic was

heavy and as it swallowed them up in its safe anonymity she edged closer to him, rested her head on his shoulder and let her eyes droop closed. As she drifted into sleep she decided that she very much liked the fresh-washed smell of his hair and the lean, muscular feel of his body. Was there just the slightest tremor of a turn-on here? Too early to decide.

She had a strange dream. She was following a narrow trail along the floor of a pine forest on a sunny afternoon. Although beams of golden light lanced down through the thick canopy of branches and leaves, the trail was overgrown, faint and difficult to see, and at last faded out. She turned, but the trees had closed up behind her like water behind the keel of a boat. With mounting panic she began to search, first in one direction, then another, running and stumbling, sometimes finding a hint of a path only to lose it again moments later. The great trees rose up all round her, oppressing her, seeming to box her in, and no matter how fast she ran she kept coming back to the same place.

Just when things were getting really freaky a girl stepped from behind a massive pine and stood in front of her. Even in the dream she felt the physical shock of recognition. It was the girl with nut-brown skin and chestnut hair she'd seen on her ketamine trip – the girl she'd warned about the tree-birds. She smiled and took Leoni's hand. 'Don't be afraid,' she said. 'Together we will find the way.'

A tremendous warmth suffused Leoni's heart – was this what it felt like to know the love of a sister? – and she woke up with a jolt.

No forests here. And no sister.

It was late afternoon and they were in Los Angeles. The cab was rolling along a potholed street lined with broken-down homes and abandoned shacks. Groups of tough-looking youths loitered on corners, giving off a hostile vibe, and three police cars shot past, sirens wailing, lights flashing. 'Welcome to South Central,' said Matt with a grin.

Moments later they were standing by the side of the road. They waited until the cab had disappeared from sight, then Matt led the

way to the right down a cross street and took a left at the end. After about fifteen minutes of apparently aimless walking, with very little conversation, he hailed another cab and gave an address in Venice Beach, where the procedure was repeated. It was not until they were in their fifth cab, heading for West Hollywood, that he finally seemed to relax. ‘I got Bannerman on the phone earlier when you were asleep,’ he said. ‘I thought it would be a good idea to meet up with him and see where we go from here.’

‘This is Bannerman’s house?’ Leoni was surprised twenty minutes later as they pulled into the long sweeping driveway of a spectacular Italianate villa. ‘I didn’t realise he was this loaded.’

Matt shook his head. ‘It isn’t Bannerman’s place. It’s just where we’re meeting. The house belongs to his funder.’

The huge mansion appeared to be deserted except for Bannerman and his partner David who were already installed at one end of the refectory table in the kitchen. Matt found wine and beer in the

refrigerator, pizzas were ordered in and by nine p.m. they were ready to talk.

Before sharing his news, which he said was all bad, Bannerman insisted on hearing a full account of Leoni's DMT experience, jotting notes on a yellow legal pad as she talked and questioning her at several points. When she described the way the Blue Angel had operated on her temple, implanting a filament of crystal, he looked puzzled: 'You were on an out-of-body journey with DMT, so I'm confused about what she operated on.'

'It's hard to explain. I have to leave my body to travel to the land where everything is known – that's what she calls her realm. But when I get there I find myself back in a body again. That was the body she operated on.'

Bannerman made a lengthy note: 'And did she tell you the purpose of the operation?'

'Yes, absolutely. She said she did it to make DMT more efficient at taking me where she wants me to go.'

‘Remarkable,’ Bannerman muttered.

Leoni described the second part of the trip – the brutal men, the Stone Age weapons, the human sacrifices, the encounter with Sulpa, the apparent connection between Sulpa and an entity called Jack whose shadow had hung over her since childhood, and how it was Sulpa/Jack who had possessed Becky.

Bannerman’s manner became reproving: ‘You didn’t say anything to me about Jack before.’

‘There’re other things I haven’t told you yet,’ Leoni admitted. ‘Private things between me and my parents that tie in to all this.’

Bannerman sighed: ‘Well, I guess you’ll tell me when you’re ready.’

The news Bannerman had for them was every bit as bad as he’d hinted.

Following Becky’s attack on Leoni in the morning, Shapira had cancelled the rest of that day’s DMT sessions. She was

convinced that Becky's spectacular psychotic breakdown had been triggered by the drug, and who was to say that other volunteers might not also be on the verge of equally pyrotechnic freak-outs? As a responsible clinician, she'd insisted, she couldn't possibly allow trials to continue after such an incident and of course she'd felt obliged to report Becky's case to the Head of the UC Irvine School of Medicine. Within an hour the DMT project had been officially suspended.

Then had come the afternoon raid that Matt and Leoni had narrowly avoided. The agents had flashed IDs from the Drug Enforcement Agency but had looked and behaved like thugs. Shapira and Monbiot had been so terrorised, fearing a scandal over Becky, that they'd allowed the project to be searched from top to bottom and surrendered their case notes.

Finally, a few hours ago, the UCLA Med Centre had also suspended Bannerman from duty and minutes afterwards he'd received an e-mail from the California State Medical Board

informing him he was under investigation for possible ethics breaches. ‘It looks like your parents have pulled some powerful strings to bog me down fighting for my job and defending my professional reputation,’ he told Leoni. ‘I guess they figure that way they’ll stop me working with you.’

Panic welled in her chest. There was so much further she needed to go with this. ‘So what do you plan to do?’ she asked

‘I get stubborn when people try to bully me,’ said Bannerman. ‘I’m passionate about my research so I want to carry on working with you. You have the potential to be a very special subject and I think we’ve stumbled on something … well …’ He hesitated: ‘Honestly, I think we’ve stumbled on something quite extraordinary. I’m a scientist, I do my best to stay objective, rational, grounded. But this phenomenon of the Blue Angel, the way she keeps appearing to more people, the special connection you seem to have with her. And now this Jack stuff. All that has me beat. I can’t explain it with science. Not yet, anyway. Maybe it

really is something supernatural. I'm open to that. Or maybe it isn't. But having my life demolished by your parents hasn't made me stop wanting to find out …' He seemed to look for the right words: 'How about yourself? After all this, do you still want to find out?'

Leoni didn't hesitate: 'I still want to find out. A million per cent.'

'Good,' said Bannerman. 'That's what I'd hoped.' He rubbed his hands together, suddenly cheerful: 'Now, what do you know about the Vine of the Dead?'

Chapter Forty-Three

‘I won’t let them kill you,’ Ria pulsed to Brindle.

‘How can you stop them?’ Brindle’s thought-voice was heavy. ‘They are so many.’

‘Trust me, Brindle. Don’t be afraid. I’ll get us out of this.’

Executions were always popular and once inside the circle of great wooden pillars most of the braves who’d escorted her thus far melted into the huge crowd, already more than a thousand strong, pouring into the meeting ground. With only Vulp, Bahat, Ligar and Bont remaining at her side, while Murgh, Kimp and Chard cleared the way ahead, Ria was marched the last hundred paces through the throng to stand before the assembly of elders. Her eyes sought out

Hond, convinced she would find him fully recovered and ready to speak for her, but he was not behind the elders in the ranks of the council of braves, or anywhere to be seen in the multitudes pressing in around them.

Instead Grigo appeared, forcing his way to the front of the crowd. He was flushed – perhaps he'd been running – and Ria found something strange about his manner. Was it excitement? Conceit? Triumph? If so, why was fear part of it as well? She couldn't be sure. He flashed a quick, nervous glance over his shoulder as he hurried to join his father.

As the most senior of Ria's accusers, Murgh had to make the initial address. He looked, Ria thought, faintly deranged, as though the presence of so many people had gone to his head, but his sinister, bullying tactics hadn't changed and now he actually *shouted* at the elders: 'EXCELLENCIES,' his tone was hostile and sarcastic, 'VENERABLE LORDS. A great night's work has been done.' At this he turned and gestured at Brindle, Porto, Jergat and

Oplimar. ‘We have captured the dangerous gang of Uglies who murdered two of our boys and we have brought them here as promised’ – he was shouting again – ‘TO FACE DEATH BY BURNING in the presence of the entire Clan.’ Murgh drew himself up to his full, not very impressive height and swivelled his neck until his stare fell on Ria: ‘We also bring this WITCH before you for judgement. She was caught in a forbidden act, COPULATING with an Ugly’ – cries of outrage from the crowd. ‘She ordered the Uglies to murder Duma and Vik’ – gasps of horror and revulsion. ‘For these crimes we demand that the witch Ria BE BURNT TO DEATH WITHOUT MERCY on the same pyre as the Uglies!’

There was a sudden buzz of controversy, and heated arguments broke out, the crowd dividing, Ria judged, roughly equally between those in favour of burning her and those vehemently opposed. She could understand why Murgh and Grigo had wanted her lynched when she was first captured. She had support here she could turn against them.

Finally Rotas, the highest-ranking elder, called for silence. Long, lean and angular, with joints that clicked and creaked when he walked, he was reputed to have passed eighty summers and to have been a great warrior in his youth. He had a full head of silver hair and a thick grey beard but also a certain mischievous expression that made him seem far younger than his years. Now he leaned forward on his ivory stool and Ria's confidence grew as he proceeded to reprimand Murgh in a slow, clear, emphatic voice, as though he were talking to a child: 'We have *not* established that the prisoner is a witch. We have *not* established that the murder of Duma and Vik was the work of these Uglies, or any Uglies, or whether Ria ordered it or not. We have *not* established that Ria had sex with an Ugly male. We are here to prove or refute these charges. Show me your evidence.'

'He has no evidence!' Ria exploded. Her bruised rib ached. Her hands, still bound tight behind her back on Murgh's orders, were numb. But she tossed her head, flicked her hair around her

shoulders, and fixed the elders with a level gaze: ‘Everything he said about me is a lie, and I’m going to prove it.’

‘Nonsense!’ snorted Murgh. He reached for Grigo, whose shifty eyes were darting from side to side, shoved him forward, and again addressed the elders. ‘Here is our evidence. My eldest son. A youth of irreproachable good name. He saw it all WITH HIS OWN EYES. He saw the witch copulating with the beast. He saw the murders. Didn’t you, Grigo? SPEAK, boy!’

‘Wait!’

The interruption was from Torga, nicknamed ‘The Vulture’ because of his enormous hooked nose, bald head and wattled neck. He had vacated his stool next to Rotas and was hobbling towards Ria. ‘Turn around, girl,’ he said to her. When she obeyed he clicked his tongue and asked Murgh sharply: ‘Why is she tied?’

‘Because she’s a prisoner,’ Murgh snapped back. ‘Because she’s a traitor to the Clan. Because she’s a murderer. How do you expect us to arrest a bitch like this?’

‘We expect you to do whatever is necessary. But it is a sacred thing from the long-ago that no man or woman of the Clan is to come before the elders tied at hand or foot. This girl’s hands are tied …’

‘She throws stones. She’s said to be deadly …’

‘A meaningless objection since there are no stones here’ – Torga indicated the flattened earth of the meeting ground. ‘Please release her from her bonds.’

‘With respect, venerable ones, I prefer not to,’ sneered Murgh.

Now Rotas too was on his feet, his joints grinding in protest: ‘She must stand trial a free woman,’ he growled. ‘It is the law.’ Pulling a dagger from his belt, he beckoned Ria towards him, ignoring further protests from Murgh, and cut her loose. ‘Child,’ the elder observed, ‘you are covered in blood. How did that come about?’

Ria stretched out her cramped hands, finding to her astonishment that she was on the verge of tears – which she held

back. ‘Yesterday I fought a battle,’ she whispered.

Rotas leaned closer: ‘Speak up. I am a little deaf …’

‘Yesterday I fought a battle and was covered in the blood of my enemies. Not these poor Uglies’ – Ria pointed towards the stake – ‘but terrible, fearsome and cruel outlanders never seen before in our valleys. GRIGO IS THEIR FRIEND,’ she shouted. ‘Ask him about the Illimani! Ask him about Sulpa!!’

‘These are just diversionary tactics,’ scoffed Murgh. ‘There are no outlanders. The only battle she’s been in was with us when we captured her last night. She cut up a few of our boys. That’s where the blood came from – and from herself – not from some make-believe enemy …’

‘Where’s Hond?’ Ria screamed. ‘He fought the Illimani too. He’ll back me up …’

Murgh nodded as though he’d been expecting this, and beckoned to one of his followers standing at the edge of the crowd. The man came over and they exchanged whispered words. When

the man retreated Murgh turned to Ria, a smug and gluttonous smile on his face. ‘I regret to inform you,’ he said, smirking, ‘that your brother died of his injuries during the night. On the journey. It was too much for him.’

‘Oh, you piece of shit!’ Ria shrieked. ‘You murdering piece of shit!’

Murgh turned at once to the elders: ‘I request that the prisoner be silenced while we present our case to your excellencies.’

‘That is the correct procedure,’ admitted Rotas. He turned to Ria: ‘Be silent, girl. I will demand the same of your accusers when your time comes to speak.’

Ria wasn’t listening because Brindle was thought-talking in her head. *‘Murgh lying,’* he said. *‘I carried Hond’s stretcher. He did not die ...’*

As Rotas and Torga returned to their stools, Grigo began to give his evidence and Ria pulsed to Brindle: ‘Are you certain Hond’s alive?’

‘Alive when reached camp. Not just alive. Getting better. Healing worked …’

Ria was doubtful: ‘That doesn’t mean much. They could have killed him since then …’

‘He still alive, Ria. I know it.’

She was desperate to believe him: ‘So why are they saying he’s dead?’

‘Don’t know. Maybe they *think* he dead?’

While she thought-talked with Brindle, Ria’s attention had drifted from Grigo who was marching up and down in front of the elders with his chest puffed out, holding forth in a booming voice. He was describing his idyllic hunt in the far valleys with his good mates Duma and Vik, and when he reached the episode of their accidental discovery of Ria having sex with an Ugly he glared at the miserable captives tied to the stake and wagged an accusing finger at Brindle: ‘That one with the withered leg!’ There was a sigh from Murgh’s

faction in the crowd. ‘He had his cock in her up to the root.’ Grigo pointed again and performed an obscene mime of sexual intercourse. ‘But when we tried to arrest them more Uglies came and Ria told them to kill us. They got Duma and Vik’ – he bared his broken teeth at the elders – ‘but I fought my way out.’

For a count of twenty there was silence. Then Krant, the wrinkled, pot-bellied elder seated to the right of Rotas, cleared his throat. ‘How do we know any of this is true?’ he asked.

At first Grigo didn’t seem to realise that the question was for him.

‘How do we know you’re telling the truth?’ Krant repeated. His voice was quavering and petulant. ‘Isn’t this whole thing just your word against Ria’s?’

‘But Ria was *caught* with the Uglies,’ protested Murgh. ‘That proves Grigo’s story.’

‘I say it proves no such thing.’ It was the elder named Ezida, tiny and humpbacked, with eyes as bright as a bird’s.

‘Well, it does prove she was with the Uglies,’ added Otri, ‘but that by itself proves nothing else.’

‘For the rest it is Ria’s word against Grigo’s,’ confirmed Rotas. ‘Now I would like to hear the girl.’

Ria was beginning to understand what was happening. Beneath the immediate crisis was the deeper issue of the leadership of the Clan which, by long tradition, was vested in the assembly of elders. Murgh and his group made no secret of their disrespect for tradition and their view that the assembly should be dissolved and its powers taken over by the council of braves, which they dominated.

Murgh was an opportunist. He’d obviously expected that his side would gain, though Ria couldn’t immediately see how, from the spectacle of hunting her down, lynching her if he’d had his way, and then burning the Uglies in the meeting ground in front of the whole Clan. Things had started to go wrong when Bahat and the others had stood up to him and stopped the lynching. And now it

had come to a trial after all, rather than just the persecution of a group of helpless subhumans, the elders sensed an opportunity to fight back, perhaps even to humiliate their arch-enemy in public.

Ria looked at her four friends roped together to the stake in the midst of the unlit bonfire. *'I'm going to win this thing,'* she told them. 'I *won't let them burn you. I'm going to make them set you free.'* Then she turned back to Rotas and to out-loud speech: 'I can prove Grigo's lying,' she said.

'How so, my child?' The elder leaned forward again to hear her better.

'He said that the Ugly had sex with me.' Despite herself she blushed. 'But I've never had sex with anyone in my life. I'm a virgin.'

A cornered look slithered into Grigo's eyes, and Ria felt a little thrill of triumph. When he'd been describing the sex scene with such relish the brainless thug had obviously forgotten – but now equally obviously remembered – that there were certain old women

of the Clan who were infallible experts in the matter of a girl's virginity. 'Lying bitch,' he yelled. 'That Ugly was screwing your brains out.' But it was all bluster, and he knew it.

She was just about to call in the midwives to witness she was intact when she caught a flicker of movement out of the corner of her eye. It was Murgh signalling to his brother Grine who was still lurking at the rear of the bonfire.

Grine blew on the head of the brand he was carrying, until it sparked and flamed. Then he stooped to thrust it into the kindling.

Chapter Forty-Four

Bannerman said a word that Leoni didn't immediately recognise. It sounded something like 'Ayawaska'.

'What's that?' she asked. 'Never heard of it.'

'Aya-hwaska,' Bannerman pronounced the strange word carefully, 'spelled a-y-a-h-u-a-s-c-a. From the Quechua language of the Incas, *"Aya"* meaning "dead", *"Huasca"* meaning "vine". Thus the Vine of the Dead or the Vine of Souls. It's a foul-tasting witch's brew of two different plants that shamans in the Amazon cook up when they want to leave their bodies and travel to the spirit world.'

'The Blue Angel wants me to use DMT,' Leoni said. 'That's why she operated on me …'

But Bannerman seemed to ignore her. ‘As I was saying, Ayahuasca is a mixture of two plants. One is the vine itself. I can tell you more about that later if you want to know about it. It’s extremely interesting. But it’s the second one that’s really responsible for getting shamans to the spirit world. Its botanical name is *Psycotria viridis* – they call it *chacruna* in the Amazon – and its leaves contain DMT in a pharmacologically pure form. That’s the Ayahuasca brew – the vine and the hallucinogenic leaf both boiled together with water. In most of South America it’s still legal to drink it. In fact, its use is protected under laws of religious freedom. So here’s my thought.’ He fixed Leoni with his spaniel gaze. ‘How about—’

Horrified, she held up her hand to silence him. ‘Please tell me you’re *not* suggesting I go to the Amazon and actually drink this – what did you call it? – this witch’s brew?’

‘You got it!’ said Bannerman.

Ever since she could remember, Leoni had been afraid of jungles. Insects from hell. Venomous reptiles. Exotic diseases. She didn't want to know about them. Nevertheless, as she listened to Bannerman's proposal to get her to the biggest jungle in the world, she had to admit that it made a weird and unexpected kind of sense. There was no way they were going to be able to continue with any kind of legal DMT research in the United States, and breaking the law would pose huge additional risks for Bannerman's career. But Ayahuasca was basically DMT and the fact that it was legal in the Amazon meant that he could carry on supervising and analysing her sessions there much as he would have done if the project had continued at Irvine. It would be an unorthodox way to gather data but at least he'd be on the right side of the law.

Another advantage was that it would be easy to arrange.

Bannerman had a colleague in Peru, an American anthropologist named Mary Ruck who for five years had been doing fieldwork amongst the *mestizos* – people of mixed indigenous and

Spanish descent, often living in extreme poverty, who make up the majority of the inhabitants of the modern Amazon. Mary's special interest was the use of Ayahuasca by *mestizo* shamans, a subject on which she had become a great expert. But she herself also sometimes arranged Ayahuasca sessions for visiting academics at a jungle lodge she had established on the banks of the Amazon, twenty miles upriver from the city of Iquitos. If Mary could be persuaded to make it available to them it would offer a discreet, controlled setting in which Leoni could be given Ayahuasca under the guidance of an experienced shaman.

'So what do you think?' Bannerman asked.

'I think yes,' Leoni replied at once. The Amazon was a hideous prospect but she was willing to go there if it got her back to the Blue Angel. 'The only condition is that Matt comes as well.'

Bannerman looked at Matt and appeared to be asking him a silent question.

'It's OK,' Matt told him.

Leoni felt confused. ‘What’s OK?’

‘To tell you something you don’t know yet,’ Bannerman said. ‘Matt’s a bit more than just a volunteer on the DMT project. Actually he funded the whole thing.’

Leoni’s confusion deepened. Matt was Bannerman’s *funder?* How could that possibly be? ‘But you’re broke,’ she protested.

David laughed and Leoni turned on him: ‘What’s so funny?’

‘The idea of Matt being in any way broke,’ David replied. He dropped his voice to a conspiratorial whisper: ‘He’s low-profile, *but he’s loaded.’*

‘Loaded’ could mean anything but Leoni also remembered Bannerman saying his funder was a ‘very rich guy’. So did Matt have millions? Hundreds of millions? Billions?

‘I feel deceived,’ she told him.

‘I didn’t deceive you,’ Matt protested. ‘If you made judgements about me because of how I look that’s your problem, but I never claimed to be broke.’

Leoni thought about it. ‘I guess you didn’t,’ she admitted after a moment. She grinned: ‘So how rich are you?’

Matt winced. ‘Look, I have some money. It’s no big deal and I *really* don’t want to talk about it. But I’m excited about taking this research to the Amazon and I’m honoured you asked me to come along.’

‘Oh, shit.’ A sudden thought struck Leoni. ‘I don’t have my passport. This is bad …’

But David was already waving her to calm down. ‘Don’t worry,’ he said. ‘When I did the legal work to get you out of Mountain Ridge I made sure that Sansom gave us all your documents back.’ He pulled a large envelope out of his briefcase. ‘Your passport’s right here.’

David couldn’t leave his one-man law office at such short notice and remained in Los Angeles, but Leoni, Matt and Bannerman caught the six a.m. flight from LAX to Peru.

On the journey Leoni told Bannerman everything she'd already told Matt about her childhood: the rapes she'd suffered, the mysterious connection between Jack and her adoptive parents, and the long-term interest the Blue Angel appeared to have taken in her life.

Gritty-eyed from lack of sleep, they landed in Lima and connected from there to the Amazonian city of Iquitos on a creaking LAN Peru Airbus. After they crossed the Andes – jagged white peaks under a clear blue sky – it was just jungle, jungle, jungle in all directions, as far as the eye could see, until the plane began to lose height. It went into a long turn, the pilot made an announcement in Spanish and English, and Leoni had her first look at the wide muddy swirl of the great river Amazon. It made her feel sick. She could only imagine what sort of creatures, large and small, with and without teeth, lay in wait beneath those waters.

The plane banked again and an implausible landscape came into view. On the west bank of the Amazon, at a bend where the

river seemed miles wide and looped around a pair of islands, the primal jungle gave way without warning to a city. Maybe she'd been taking too many drugs but just for a moment, as she sat poised in the sky looking down at it all, she could have imagined that the buildings, square and blocky, painted in pastel shades, with glittering tin roofs, weren't even made by human hands but were some sinister new growth that the forest itself had brought forth.

The plane was coming in for its final approach. Leoni leaned over Matt and peered out of the window. From this new angle she could see a clear reflection of Iquitos in the waters of the Amazon. It was almost as though there was a city above and a city below the river. Two different cities in two different worlds.

She shivered. Which one would she end up in?

Chapter Forty-Five

There was a commotion near Grine, shouts and exclamations, a ripple of movement, and Hond burst forth from the crowd, naked from the waist up, his thick brown curls dishevelled, his body streaked with fresh blood. He brandished a stabbing spear tipped with a heavy flint spike and at once plunged it into Grine's shoulder, bearing him down and pinning him squealing to the ground. Without interrupting the single continuous flow of his attack he stepped in on the fallen man, kicked down hard into his face with his heel, stooped to retrieve the brand – it had fallen only a hand's breadth short of the pyre – and threw it far into the crowd.

Grine was still conscious, whimpering and flapping like a

harpooned fish. Hond stamped on his face again, this time silencing him, jerked the spear out of his body, and loped towards Murgh holding the dripping weapon at the ready. Murgh had been caught off guard and seemed frozen with shock. Now he grabbed Ria's arm, almost jerking it from its socket, and pulled her in front of him, while Melam, a thickset warrior of his faction, charged at Hond, swinging a battleaxe. As the two men closed Melam bellowed, raised his axe and brought it whistling down on Hond's head. Ria held her breath but Hond sidestepped the blow and tripped Melam with an outstretched foot as the other man hurtled past him, bringing him down with a crash that shook the ground.

More braves rushed forward to protect Murgh, blocking Hond's approach and jabbing at him with spears. But then Bont roared 'Enough!' and in three paces he and Ligar were at Hond's side. Bont held no weapon, but this would not be the first time he had killed men with his bare hands. Smaller and quicker on his feet, Ligar had unslung his bow and strung an arrow.

There was an instant of silence as the two groups squared off. They were so intent on one another that none of them saw Rotas rise from his stool. Then he stepped between them. ‘Stop!’ he shouted, a thunderous look on his face. ‘Stop now. I command it. Lower your weapons.’

Murgh’s braves weren’t ready to obey. One of them lashed at Hond with a dagger only to be felled by a single prodigious blow to the side of the head from Bont’s fist. In the same moment, wriggling like an eel, Ria broke free of Murgh’s grasp and dashed away from him, allowing Ligar to aim an arrow at his heart.

The morning air, filled with tension and pent-up hatred, seemed to seethe and boil. ‘STOP THIS, I SAY!’ Rotas ordered again. ‘Step back. Lower your weapons.’ Murgh looked at the arrow nocked against the string and at the fully stretched bow. Ria could see his mind working – Ligar had never been known to miss a shot, let alone at such close range. She wasn’t surprised when Murgh signalled his men to stand down.

At once Ria ran to Hond and embraced him: ‘Brother, you live! I knew it!’ Her hands went to the place in his side where the Illimani blade had pierced him but there was no longer any puncture wound between his ribs, not even a scar, only a livid black-and-blue bruise, spreading across his chest. ‘You were right,’ he said, kissing the top of her head. ‘The Uglies are our friends. They healed me with their magic. They brought me back to life.’

Bont was shouting at Murgh: ‘You told us Hond died during the night. What was that about?’

‘A simple mistake,’ the older man replied.

‘Mistake, my arse!’ Hond exclaimed with a bitter laugh. Giving Ria a parting squeeze of encouragement, he looked Murgh in the eye: ‘You shitball. You ordered my murder.’

‘I don’t know what you’re talking about,’ Murgh spluttered.

‘Lisin, Imdug, Baba and Uras.’ Hond named four men well known as Murgh’s bully boys. ‘They’re the ones you sent to kill me.’ He pointed to the smears of blood drying on his body: ‘I killed

them instead.'

'What's this about?' snapped Rotas. 'Why is Clan blood being spilled?'

Hond indicated the elders' ceremonial ivory stools: 'First tell me why my sister is on trial.' He turned and pointed at the bonfire. 'And why you're planning to burn those Uglies.'

The five elders whispered to one another and Rotas reeled off a summary of Grigo's accusations.

'It's all lies,' Hond said when he was finished. 'Ria is innocent. The Uglies are innocent. A savage people called the Illimani killed Duma and Vik, they killed my brother Rill, and the Uglies fought beside us against them. Many of them died for us. They should be welcomed as heroes here in our camp, not treated as enemies. So long as I live, I swear to you, I will never see them burned!'

Murgh tried to regain the initiative by stepping in on Hond and crowding him. 'IT'S YOU WHO'S LYING,' he shouted, spraying spit. 'It's obvious. You'd do anything to protect your sister.'

‘There’s a way we can settle this,’ Hond snapped back. And with a wolfish grin he backhanded the older man across the face.

Hond meant single combat. The ancient answer to all disputes.

In a trial, legal arguments might drag on for ever, but when one brave called another a liar, and neither would back down, it was the view of the Clan that a fight to the death would determine the truth. Ria knew that by striking Murgh in such an insulting way, in the presence of so large a crowd, Hond had made it impossible for him to refuse the challenge.

Murgh called Grigo and whispered in his ear. Grigo whispered back.

Rotas loomed over them. ‘You’ve been challenged, Murgh,’ he said. ‘What is your reply?’

Murgh and Grigo both turned to stare towards the south-east, over the heads of the crowd, as though distracted by something happening outside the meeting ground. Then their eyes met and Ria

saw a strange expression pass from one to the other. Finally Murgh shrugged: ‘I accept the challenge, of course.’

Such duels were governed by a code of honour. No weapons used: only bare hands and feet. No mercy sought or given. Loser dies. Winner takes all.

‘State your terms,’ said Rotas.

‘The Uglies burn with Ria beside them,’ spat Murgh, wiping blood from his mouth.

‘The Uglies and Ria go free,’ said Hond. He pointed at Grigo: ‘And after I kill your father I’m going to kill you.’

There were no more formalities. To a great roar of excitement from the crowd, the combatants faced off.

Ria felt confident of the outcome; she had absolute faith in her brother’s fighting skills. Hond was lean and hard, head and shoulders taller than his opponent, powerfully muscled and of prime fighting age, while Murgh was twenty years his senior, squat, with

bandy legs. But then she saw that Murgh's short legs gave him a natural wrestler's stance, his upper body was enormously muscular and strong, and his arms, culminating in massive hands, were unnaturally long – more than compensating for Hond's greater height.

Murgh dived low and tackled Hond's legs. As his momentum carried them both to the ground he locked his huge hands around the younger man's throat. Hond punched him about the head, brought his knee into his stomach and got on top of him. But it made no difference. Murgh just clung on to his throat, keeping him at arm's length and squeezing the life out of him.

Hond's struggles weakened, his face turned purple and his eyes bulged.

Chapter Forty-Six

Iquitos was dirty and poor but Leoni didn't care. She felt liberated here. Suddenly out of danger. Thousands of miles away from her parents and their minions, their tame lunatic asylums and their hired thugs.

(And from Jack.)

On the morning after their arrival, while Bannerman met with his anthropologist friend Mary to finalise their arrangements for the research, Leoni and Matt explored the quaint, faded city that seemed as hot and humid as a sauna bath. Everywhere there were flyblown and neglected buildings – paint peeling off, mildew rotting the walls – which had once been ornate and opulent.

They stopped for lunch in a crowded noisy snack bar off the Plaza de Armas but Matt ordered only fruit. ‘Are you some kind of fruitarian?’ Leoni asked.

He said he wasn’t. It was just that according to some studies he’d read it was a good idea to follow a pure and simple, mainly vegetarian diet prior to an Ayahuasca session – and their first session at Mary Ruck’s lodge in the jungle was scheduled for tomorrow evening.

Leoni cancelled the order she’d just placed for a large hamburger with bacon and cheese and substituted fresh fruit. She then had a long and inconclusive conversation with Matt about the nature of reality and the problem of parallel universes which left her feeling useless and stupid. He had a lot to say on the physics of the subject that she just didn’t get at all. The guy was very smart and she was afraid he would conclude she wasn’t on his intellectual level.

Perhaps this was why he showed no sign of any romantic

interest in her. Maybe she just bored him stiff?

The other thing he wouldn't do was talk about himself. During the morning he'd resisted every attempt by Leoni to get him to spill the beans about his fortune or to provide details of his own life.

By mid-afternoon the heat and humidity became insufferable and they returned to the hotel to siesta in their separate rooms.

Leoni tried and failed to doze off.

She had a nagging presentiment at the back of her mind that there was something she was supposed to do and around five p.m. she ventured out alone in a garish three-wheeler taxi to revisit Belem, the city's main street market. She couldn't quite say why she felt drawn there. She just knew she had to go.

Although the temperature was more comfortable now, there was less produce on display and the crowds were much thinner than when she'd explored the market with Matt in the heat of the morning. But as she walked up and down the narrow cloth-shaded

alleys between the stalls, breathing in ripe smells of fish and pineapples, splashing through shallow pools of water where buckets had been sloshed, Leoni saw that the Pasaje Paquito, the quarter of the market devoted to medicines derived from plants, was still buzzing.

Here every stall exhibited colourful bundles of aromatic roots, leaves and herbs in large plastic buckets. There were sheaves of thick mapacho cigarettes rolled with wild Amazonian tobacco so strong it was believed to have the power to ward off evil spirits. And there were literally thousands of hand-labelled bottled extracts touted as remedies for AIDS, constipation, diabetes, flatulence, impotence, infertility, business failure, malign spells cast by sorcerers, and any number of other conditions real and imaginary.

Leoni did not feel at all threatened or endangered by Iquitos. The people were naive, curious and kindly and even the gentle doe-eyed children who had begun to follow her everywhere, plaintively asking for small sums of money, were not an annoyance.

Her favourite was eleven-year-old Ramon, small and tough, a *mestizo* with red-brown skin, missing front teeth, a bent nose, and the roguish grin of a jungle elf. Since her arrival the evening before, when he had first attached himself to her, she had contrived to hand him close to twenty dollars in small bills and to buy him and his friends three huge meals of hamburgers and fries. She'd seen him sprinting after her when she left the hostel in the taxi a little earlier and wasn't surprised when he appeared at her side in the Pasaje Paquito, hardly out of breath, having run the intervening mile through the town. 'Give me one dollar,' he said at once, and turned his huge gap-toothed smile on her.

She aimed a mock blow at him: 'It's always money, money, money with you, isn't it, Ramon?' she protested. 'If I had no money, I don't think you'd run ten feet to see me.'

He grinned again and repeated his demand: 'Give me one dollar, lady. No mother. No father. Very hungry.'

Leoni began to haggle with a stallholder over the price of a

love potion – she had half a mind to try it out on Matt – when something tugged at her attention.

Literally *tugged.*

It felt very personal and intrusive, like fingers digging into her mind. She turned in the direction of the pull and her eyes fell on a striking figure standing in a shop doorway – a man, tall and strongly built, wearing an elegant white tropical suit.

She squinted. At first he seemed to be youthful but his face was partly in shadow and at second glance she saw he might be closer to forty than twenty. She caught a glimpse of hooded dark eyes, sallow skin, high cheekbones, a wispy beard, and black hair that hung down lank and straight over his shoulders. He held Leoni's gaze for a long moment and again she felt that strange, intimate *tug* within her consciousness. Then he turned his back on her and vanished inside the shop.

'Who was that?' she asked Ramon, who was still tagging along beside her, waiting for a dollar.

‘Who, missus?’ An evasive look crossed the little boy’s face and was gone in a fraction of a second, but Leoni saw it.

‘That man, the one in the white suit.’ She pointed at the empty shop doorway. ‘You *saw* him, Ramon! Don’t pretend you didn’t! He was just standing there, looking at me. What’s his name?’

But Ramon clammed up. He seemed afraid. He had seen no one, he said. And when Leoni marched over to the shop it was empty, its shelves stripped of produce. A back door, leading to another of the market’s many alleys, was swinging open.

What was going on? Where had the mysterious stranger disappeared to? And how had he got inside her head like that?

Suddenly she felt it was imperative to find him – that he, indeed, was the reason she had been summoned back to the market this afternoon. A grim certainty descended on her that if she left here without speaking with him something vital would be lost.

Leoni was still peering out of the back door of the shop. In one

direction the alley led to town, in the other to the riverside. On instinct, she ran towards the river.

The market was closing around her now, stallholders packing up to go home as evening fell, hundreds of small boats loading passengers and produce. She dodged around three snarling dogs fighting over scraps, splashed through a foul-smelling puddle and caught a glimpse of the man's white suit in the gloaming just ahead.

'Hey, you,' she called out after him. 'Mister. Wait a minute.'

He never deviated or looked back but just plunged ahead, leading her deeper and deeper into the warren of mean slums lining the riverbank to the south of the wharves and the market.

Daylight was leaching rapidly from the sky, a sinister velvet tone settling over everything, and the warm air, moist and rank, was filled with the sound of night insects.

Leoni shuddered, no longer sure what had impelled her to follow a complete stranger into a slum.

In the middle of the *Amazon.*

The last rays of the sun picked out the fabric of his white suit amongst the shadows in a narrow alley between tin-roofed shanties. And as though in response to her attention she felt again that strange demanding *tug* within her mind.

At the end of the alley was a narrow wooden pier, no more than four feet wide, built on stilts like many of the shanties and extending fifty feet out over the waters of the Amazon. There was just enough light for Leoni to see the man she'd been following. He was standing about halfway along the pier, looking down at the water.

She felt a small hand grasp her own and jumped with shock, suppressing her yelp of fear when she saw it was Ramon. His eyes looked big as saucers. 'Better come away, missus,' he whispered. 'That man not good.'

Leoni looked along the pier again but the darkness was now complete and she could no longer see the man in the white suit.

There was a soft *splash.*

Had he dived?

She squinted into the darkness but it was as though he had never been there.

Later, as she returned to the hotel, an inner voice prompted her to mention none of this to Matt and Bannerman.

They were her friends but there was no reason why they had to know every foolish thing she did.

Chapter Forty-Seven

Ria was at war with herself. Every instinct of love and family loyalty commanded her to break the age-old code of single combat and attack Murgh, but honour held her back.

Honour! What was honour when Hond's life was at stake?

Yet still she could not intervene.

For if she did the code was unbending on what must happen next. The fight would be stopped, Murgh would be declared the victor, his terms – *'The Uglies burn with Ria beside them'* – would be enacted at once, and Hond's life would be his to take by any manner of execution he chose.

So one way or the other, whether or not she stopped Murgh

strangling Hond now, it was certain they were all going to die. She'd just resigned herself to the obvious conclusion – *might as well die honourably* – when Brindle's thought-voice rang out inside her head: 'Fight not over yet, Ria!'

And her brother returned from the dead.

He was still on top of Murgh, and Murgh was still throttling him at arm's length, but now, with a violent effort, choking and spluttering, Hond found his feet and jerked himself upright, pulling the other man after him. For an instant Murgh's two-handed grip on his throat was loosened and Ria heard Hond draw in a huge, shuddering breath. Then he used his greater height to punch downwards hard and fast, a chopping right-hand blow that crashed into the side of Murgh's jaw and continued down between his arms in a single fluid swirl. At the end of it Hond dropped his shoulder, as though he were reaching for the ground, then reversed his direction, smashed his elbow back into Murgh's face, and, at last, tore free of his stranglehold.

Neither man immediately resumed the attack. Hond was gulping in air. Murgh's nose looked broken and was spouting blood. For a count of twenty they circled one another.

Ria feared Murgh might still have some fight left in him but was relieved to see there was none. His one strategy had been to get his hands round Hond's throat and strangle him to death right at the beginning. But that had failed and now he just looked old and out of ideas.

They circled again. Hond was recovering his strength and when Murgh lunged at him he slipped aside, kicked him as he shot past and sent him stumbling.

Hond waited, looking calm, breathing deep and steady, until Murgh turned and squared up to him. Then he advanced on the older man and drove three merciless, bone-shattering jabs into the pulpy mess of his nose.

Murgh sat down with a *THUMP,* obviously dazed, and Hond kicked the side of his head, knocking him onto his back. Taking his

time, he knelt over him, pinned his shoulders, and began to punch down hard into the bloody centre of his face. This time he didn't stop but just kept on punching until Murgh's features became unrecognisable and Ria lost count of the number of blows.

It was what the code of single combat demanded – that one man, unaided, kill another with his bare hands.

Yet as he watched his father being beaten to death it seemed that Grigo's self-control broke and he rushed towards Hond, with a guttural howl. Braves stepped forward to bar his way but he was fast-footed and dodged them all. Too late Ria saw the long Illimani knife glinting in his hand – the knife that had killed Rill; the knife she had seized in battle and that Grigo must have taken from her in the ambush. Before she could cross ten paces to stop him he had plunged it with such force into the centre of Hond's back that it passed through his body and out of his chest.

A collective gasp of outrage rose from the elders and rippled out across the huge crowd as Grigo pushed Hond's limp body aside,

slung Murgh over his shoulder and strode away with him.

Ria saw Murgh was not dead.

As he was carried off he opened one eye, filled with hate, and glared at her through a mask of blood.

Ria dropped to her knees beside her brother, cradling his head, willing him to survive, forgetful of all else. But she knew at once there was no hope for him.

Hond was gone. He had been taken from her and then returned, only to be snatched away from her for ever. The breath had left his body. Not even the magic of the Uglies could save him now.

Ria raised her face to heaven to proclaim her anguish but no tears would come. Instead she was cold and clear in her grief, wide awake, as though she had dived into a mountain stream. Laying Hond back on the ground, she stood up and signalled Bont and Bahat: ‘Grab Grigo and Murgh before they get away. They broke the code. I want them dead.’

She was already hastening to the bonfire to free the Uglies when she saw that Grigo's uncle Grine, his shoulder bloody where Hond had speared him, hadn't given up the fight yet. He was rallying braves from Murgh's faction and now four of them rushed to intercept Bont and Bahat while others, shouting their defiance, formed a protective ring around Grigo and Murgh.

The elders had seemed frozen with shock during these events, unable to react fast enough to exert their authority. But silence fell across the meeting ground when Rotas at last rose from his stool and adopted the ritual posture – arms crossed high over his chest – that signalled he was about to pass judgement. 'The settlement of disputes by single combat is ruled by an ancient and binding code,' he intoned. 'By the cowardly murder of Hond, Grigo has dishonoured the code and there can be only one judgement. HOND IS THE VICTOR AND ALL HIS TERMS MUST BE ENACTED. Ria and the Uglies go free. The lives of Murgh and Grigo are forfeit to Ria.'

‘Fuck your forfeit,’ yelled Murgh. ‘We’re walking out of here. Try and stop us!’

Despite the beating he’d received he was on his feet again, standing beside his son in the midst of their growing group of defenders – a phalanx that had already swollen to thirty strong. He looked confident, like he knew a secret no one else did, and was hurrying away unopposed when one of the peculiar short spears of the Illimani whistled down out of nowhere, falling almost vertically, punched a hole in the top of his skull, tore through his brain, split his palate, skewered his tongue and his lower jaw, burst out in a splash of meat and blood below his chin and embedded itself in the earth between his feet.

‘WAIT FOR THE FIRE!’ Grigo screamed over the heads of the crowd, seeming to appeal to someone far away. ‘YOU’RE SUPPOSED TO WAIT TILL WE START THE FIRE.’

But the air was already filled with a menacing whirr, and a flight of the same short spears hafted to jagged flint points arched

overhead and fell upon the meeting ground, killing men, women, children, braves and elders until the dead and injured lay heaped everywhere.

At once the sky darkened again and a second volley came in.

Ria took a spear through the muscle of her thigh; painful, but not crippling. She pulled it free and balanced it in her hand. Ligar and Vulp suffered flesh wounds but could still fight. Amongst the elders Torba and Otri were killed, Krant was speared through the foot, but Rotas and Ezida survived uninjured.

Almost the entire population of the Clan had scrambled to pack into the meeting ground to witness Ria's trial but now, after two volleys from an unseen enemy, the bloodied survivors scattered, shrieking and screaming, fleeing the next avalanche of spears.

All except Kimp and Chard, the fathers of Duma and Vik. Ignoring the danger from above, they were climbing the huge pile of firewood heaped up to burn the Uglies. They had axes in their hands and murder in their eyes.

Chapter Forty-Eight

Leoni stepped outside the thatched *maloca,* the longhouse that formed the central ceremonial space of Mary Ruck's jungle lodge, staggered three paces and dry-retched until she poured with sweat and gasped for breath. She had never needed to barf so badly but her stomach wouldn't let go and the spasm seemed to continue for ever. Then the vile taste of the Ayahuasca she'd drunk an hour earlier rose up in her throat, her guts cramped and she vomited. It was embarrassing that the others had to hear the weird yodelling sounds she made, but she didn't care too much. It was just such a relief to hurl. Finally she straightened, lurched two more paces across the clearing, wiped her mouth with the back of her hand, and looked up

at the vast Amazonian sky.

Amongst a few scattered clouds the stars glittered and the half-moon rode high, bathing the surrounding jungle in fairy light, outlining each leaf and bough with silver tracery. Heady fragrances filled the air – rot, orchids, the breath of the river – and Leoni was alert to the shrieks and whirrs of nocturnal birds and insects, to the soft flap of bats' wings, and to distant bumps and crashes that could have been branches falling or large animals pushing their way through undergrowth.

She coughed and spat. *Yecch!* By comparison with Ayahuasca, pure DMT by intravenous infusion was an absolute breeze. They stuck the needle in your arm, pressed down the plunger and WHOOSH, off you went to the other side of reality.

Ayahuasca was supposed to do that too, or so everyone kept saying. But for Leoni anyway one cup had produced absolutely no WHOOSH.

She stumbled back to the door of the *maloca* and poked her

head inside. It was a simple rectangular room, maybe twenty feet long by twelve wide, and it was dark in there with just a single candle flickering on the shaman's table.

It occurred to her that, for all the hype, Ayahuasca should be like any other drug.

If you didn't have a big enough dose you wouldn't feel the effects.

Gut-wrenching though the thought was, she was going to have to drink a second cup.

On the twenty-mile boat ride from Iquitos to the lodge Bannerman had announced, since this was now private research, conducted legally outside the United States, that he intended to join their first Ayahuasca session this evening not as an observer but as a participant. 'I need to see this kind of experience from the inside,' he admitted.

Now, as she picked her way back across the crowded floor of

the *maloca,* Leoni saw that Bannerman lay on his back on one of the thin mattresses they'd all been provided with, his eyes closed, his features composed, totally silent. In the very faint light cast by the candle she couldn't even be certain he was breathing but she suppressed an urge to check as she stepped past him.

She and Bannerman had been placed on one side of the *maloca,* on the shaman's left, with Bannerman closest to the shaman. Mary Ruck and Matt were on the other side, with Mary closest to the shaman.

The shaman was sitting cross-legged on the floor near the middle of the rear wall of the room with his little table in front of him and the two rows of mattresses arrayed on either side of him. Next to the flickering candle, in the middle of the table, was a bowl full of *mapacho* cigarettes, thick as rifle bullets. As well as an assortment of crystals and various small figures of wood and bone there was a bottle of *Agua Florida,* a cheap local cologne. Together with the tobacco, Mary had explained earlier, it was believed to

clear dark energies from the room. There were also two *chacapas,* bundles of dried leaves bound together in such a way that when they were shaken they produced a rhythmic and hypnotic susurration.

For a short while during the first hour of the ceremony, the shaman had stood to sing eerie high-pitched songs called *icaros,* and had shaken the *chacapas.* But now he sat stock-still on the floor, his skin the colour of shoe leather, his back straight, his black eyes sparkling in the candlelight. He was just a little guy – probably not more than five feet, Leoni guessed – but he had something about him, she couldn't quite put her finger on what, that made him seem bigger than that.

His name was Don Emmanuel Alvaro, and Mary had made a big deal about how lucky they were that he had agreed to 'hold the space' at their ceremonies. He was eighty-six years old, not a *mestizo* but a full-blood Shipibo Indian who had been preparing Ayahuasca since the age of fourteen.

Well, great.

Except so far his brew had done nothing for Leoni.

No sooner had she asked for a second cup than Mary Ruck crawled forward over her mattress, where she'd been lying at Don Emmanuel's feet, and reminded Leoni that the shaman didn't speak a word of English. 'It's a bit early to have a booster,' she advised. 'The brew can take a while to kick in. Maybe you should wait another hour?'

Leoni sat next to her and responded in a whisper, 'I don't think so. This Aya just isn't hitting me, and I need it to hit me.' She looked Mary up and down: 'It doesn't look like it's hitting you, either.'

'It is,' Mary replied: 'Believe me. But I've been drinking for ten years. After a while you learn how to walk in both worlds.'

Despite her Anglo name, Bannerman's anthropologist friend claimed Native American descent on her mother's side and looked like a Spanish diva. She was in her late thirties, a sexy, tanned, full-

figured woman with world-weary dark eyes and thick raven-black hair that cascaded over her shoulders. ‘The effects will come on soon enough,’ she said. ‘Be patient and you’ll see. It’s good not to be too eager with Ayahuasca.’

But Leoni was adamant: ‘I need that second cup.’ She was counting on Mary’s support. Nothing of her story had been held back and now the older woman wrapped her arms around her in a warm and deeply sympathetic embrace. Then she said a few words in Spanish to Don Emmanuel who gestured Leoni to come closer. As she did Matt got to his feet, hurried to the door and disappeared outside. A moment later Leoni heard the sound of vomiting.

Don Emmanuel was looking Leoni over, as though measuring her. When he was satisfied he reached out to his table, lifted the grubby plastic bottle containing the Ayahuasca brew – dark, almost black, with sinister red tones deep in its heart – shook it several times, and unscrewed the cap. There was a faint *hiss* and a reddish-brown froth

rose up in the neck of the bottle and spilled over the top. Don Emmanuel allowed it to drip to the floor and poured what looked like three ounces of the brew, still slightly foaming, into a stained ceramic cup. He set the bottle back on the table and screwed down the cap again. Then he lit a *mapacho* cigarette from the candle, picked up the little cup and blew clouds of tobacco smoke into it while muttering words in a language Leoni did not recognise. Finally he passed the cup over to her, holding it with both hands, and indicated she should drink.

She took it from him and was hit at once by the indescribable smell of Ayahuasca. It caught in the back of her throat and made her gag. *Uggh!* She looked down and shuddered again at the red-black sheen of the thick syrupy liquid, wrinkled her nose, raised the cup to her lips and drank it in two gulps.

Argh! That taste! *Uggh! Yecch!* Somehow a thousand times worse than the first cup. A horrible gut-cramping amalgam of cheesy feet, raw sewage, jungle rot, sulphur, vinegar and chocolate

that seared her oesophagus on the way down and now lay in her stomach like battery acid.

Returning to her place, she noticed Matt had already finished purging and was back on his mattress, lying on his side looking at her. ‘She’s incredible,’ he whispered groggily.

Leoni’s ears pricked up: ‘Who’s incredible?’

But Matt didn’t seem to hear: ‘Her business is the planet,’ he slurred. ‘But she still finds time for us.’

He closed his eyes and said no more.

Leoni lay flat on her back, gazing up into the darkness.

Surely visions must come after doubling the dose?

But how long would she have to wait? Half an hour? Forty-five minutes? She checked the time. They’d started the ceremony around nine in the evening and, somehow, now it was after eleven.

Her head and body felt heavy. She closed her eyes again and fell asleep only to be awoken by Don Emmanuel beating out a

rhythm on his *chacapas*. Then he sang an *icaro* with such haunting notes and cadences that it brought her to tears. After that a melancholy mood settled upon Leoni like damp fog and she began to review episodes from her own life in an extremely self-critical and unsympathetic way.

In fact, the more she thought about it the more worthless and pointless her whole existence seemed. Sure, she'd had some tough breaks but it had been her choice to piss her life down the tubes all those years. She found herself dwelling on the countless small and not so small acts of meanness, the betrayals, the lies, and the utter superficiality that characterised her relationships with others.

She was overwhelmed by painful feelings of shame and regret.

Leoni looked at her watch and found that time had fled again. It was close to one in the morning, nearly two hours since she'd drunk her second dose. All around her the others lay silent, lost in worlds of their own, but she remained grounded in the here and now.

As she got to her feet a wave of giddiness and nausea washed over her but she fought it and picked her way around the table to Don Emmanuel. ‘Are you OK?’ Mary whispered, becoming alert in an instant. Leoni sat down beside her: ‘You’re going to think I’m crazy,’ she said ‘but I’ve decided to drink a third cup of the brew. You know why I have to do this. Please just back me up and ask the shaman to give it to me.’

Once again the older woman embraced her. Then there was another whispered conversation in Spanish and at the end of it Don Emmanuel stood and lit a *mapacho.* Without explanation he gestured to Leoni to bend forward and began to puff smoke over her head and shoulders, enveloping her in its strong, sweet fragrance. Then he indicated she should stand and turn around while he blew more clouds of the smoke over her body and legs.

‘Don’t they use this to drive off evil spirits?’ Leoni asked.

‘Hush,’ said Mary. ‘It’s better to stay quiet.’

Resting the butt of the *mapacho* on a plate, where it continued

to smoulder, Don Emmanuel took up a *chacapa* rattle and shook it all around Leoni, making sweeping and brushing motions, singing *icaros* as he worked. When he was satisfied he told her to sit again, resumed his own position cross-legged on the floor, looked into her eyes and said a few words to her.

Mary translated: ‘He asks if any shaman is your enemy.’

‘I don’t think so,’ said Leoni. ‘I don’t know any other shamans.’

More Spanish, then Mary shrugged. ‘Anyway, the diagnosis is that a shaman has put the evil eye on you. Don Emmanuel wants you to know you could be vulnerable to this guy when the Ayahuasca takes you. He says he’ll try to protect you but this could be a tough trip. Are you sure you want to take the risk?’

Leoni thought about it. She knew the out-of-body state could be dangerous and she didn’t doubt there were malevolent forces out there.

‘I’m ready for the third cup,’ she said.

Chapter Forty-Nine

Ria ran full-tilt towards the bonfire as Kimp reached her friends. They were still tied to the stake and at his mercy. With a rock in her hand she would have had him cold. But the spear wasn't Ria's weapon – particularly this weird Illimani spear – and even as she threw it she knew she'd misjudged its balance. Instead of flying true, the heavy flint spike at the tip dragged the projectile down and it somersaulted, swiped Kimp across the face with its shaft, and clattered into the firewood at his feet. Showing his teeth in a bellow of hatred, he grabbed Brindle's hair, bent his head forward and raised his axe to decapitate him when a second spear, thrown with enormous force, shot in over Ria's shoulder. It was a Clan spear, not

one of the foreign weapons. It smashed into the middle of Kimp's chest and bore him back, stone dead, away from Brindle.

Chard, a pace behind Kimp, had reached the Uglies. As he launched his assault, swinging his axe, an arrow took him in the left eye and burst out through the back of his skull.

Ria spun on her heels. The arrow had been fired by Ligar, who had already nocked another to the string and now gave her a look of mocking acknowledgement. She just had time to register that ancient Rotas had somehow made the powerful throw that had saved Brindle when the sky darkened and a third volley of the Illimani spears came in. She was hit again as a glancing flint point gouged a deep gash across her shoulder. Krant and Ezida died in the same moment. Bont took a spear in his back but tugged it out. Bahat was unhurt. On top of the bonfire the albino brave Porto was hit but Brindle, Jergat and Oplimar were left unscathed.

Because the spears were closely targeted on the meeting ground, from which so many survivors of the first two volleys had

fled, there was less immediate carnage, but Ria was clambering the stacked firewood of the bonfire and saw that hundreds already lay dead roundabout.

At last she reached the Uglies, snatched up Chard's axe and used its blade to cut her friends free from the stake.

Porto had been disembowelled by one of the terrible falling spears. He was alive but it was obvious he was in unbearable pain and dying. As Ria cut the ropes supporting him he collapsed, uttering huge, heartrending screams, his mind sending out waves of sadness and fear. Beside him there was horror in Brindle's eyes. Jergat looked half-dead with thirst and exhaustion. Only stocky little Oplimar seemed to be fully in command of himself and she heard his thought-voice loud and clear: *'Illimani going to come after their spears, Ria. We got to get out of here right now!'*

'What about Porto?' she was about to ask when Brindle shook himself out of his slump, took Chard's axe from her hand and with a single swift blow put Porto out of his misery. Ria felt only relief that

there hadn't been an argument over what was the right thing to do. She looked to the sky. The fourth volley couldn't be long in coming.

But instead there was only an eerie silence from the direction of their attackers, punctuated by groans and cries rising up from the injured and the dying all around them.

Where were the Illimani?

While the ominous lull continued Ria hurried Brindle, Jergat and Oplimar down from the pyre and led them over to Rotas, Bont, Bahat, Ligar and Vulp. 'You know these Uglies are my friends,' she told her Clansmen, 'and I ask you to accept them as your allies. They stood by me and Hond yesterday when we fought the terrible enemies who attack us now. They'll stand by you today.' Bont looked as though he'd been asked to eat shit and Ria saw him exchange a stubborn bigoted glance with Ligar. 'Don't even think about it', she warned. 'None of us are going to get out of here alive unless we all work together.'

'Many questions must be answered,' said Rotas. Ria's heart

sank, then rose when he added: ‘But there will be time for them later. Meanwhile it is a most intelligent idea to join forces with the Uglies to combat a common enemy.’ He glared at Bont and Ligar: ‘Do you accept this?’ Bont seemed about to object but Ligar spoke up: ‘Ask questions later, Bont.’ After some urgent whispering, they both nodded their agreement. ‘And you?’ Rotas directed his gaze at Bahat and Vulp. ‘I accept,’ said Bahat. ‘I too,’ said Vulp.

The elder’s grey eyes turned on Ria: ‘Since you have fought this enemy before, my child, what do you suggest we do now?’

The Illimani spears had come in from deep in the forest beyond the south-east quadrant of the camp, arching up into the sky and raining down death from above. They’d been able to get such range, Ria guessed, because of the spear-throwers she’d already seen in action. But how had they known – for they clearly must have since they had concentrated their attack here – that the entire population of the Clan would be gathered in the meeting ground this morning?

The answer was unavoidable. Grigo and Murgh must have told them. Grigo with his boasts about Sulpa. Murgh with his hunger for power. This was what they'd hoped to gain from the spectacle they'd so carefully prepared in the meeting ground – the Clan all in one place, ripe for slaughter.

But why?

Despite Murgh's struggle with the elders, why would even he have an interest in the total annihilation of his own people?

Or had he thought the whole thing was going to work out differently? Just a shift of power from the elders to him, enforced by the Illimani?

If that had been his plan, then the Illimani hadn't waited for the agreed signal – the burning of the bonfire – hadn't given their collaborators a chance to get clear, hadn't cared whether they lived or died amidst the general massacre. And it wasn't over yet.

For what sort of shocking close assault must follow now the devastating spear volleys that had so badly unmanned and scattered

the Clan seemed to have stopped?

Ria knelt by Hond's body, rested her hand in his hair for a moment, and withdrew the long flint knife that Grigo had plunged through his back and into his heart.

The Illimani knife that had killed both her brothers.

She took it up, used her neckerchief to clean the blade, folded the bloodied weaving carefully into a pocket of her jerkin and thrust the knife into her belt. Then without a backward glance she led the way towards the lookout tower two hundred paces south of the meeting ground.

* * *

Enclosed within its circle of huge wooden posts, the meeting ground lay at the centre of the camp and the camp lay at the edge of a great forest nestling in a bend of the treacherous Snake River. The waters in which Ria's mother and father had drowned ran fast and deep,

imposing a formidable natural barrier to the north and west, making the camp as good as impregnable from those directions. But now the river had become a trap. Because of it, survivors escaping the meeting ground and gathering up their families could only run towards the south and east – precisely the directions from which the Illimani spears had come.

From the vantage point of the tower Ria and her companions – only Rotas and Jergat had been too infirm to climb – began to track the surging tide of the fleeing crowd. Hundreds of frenzied and panicking men, women and children were spreading through the southern quarters of the camp. The fastest had almost reached the shelter of the forest when the front ranks abruptly turned back – even from this distance their abject terror was visible – and collided with those behind who in turn stampeded amidst oaths and screams.

It was at this moment of mayhem that the savage horde of the Illimani, thousands strong, naked, screaming their bloodlust, burst forth from the trees all around the camp's southern perimeter. They

fell upon the disordered, terrorised, fleeing Clan with axe and knife, spear and club. Some of the fugitives slipped through their advance and fled into the forest. Some – a few – stood and fought before being brought down. But most fell to the ground in abject surrender where they were butchered like animals.

Most, but not all.

It was clear, despite their ferocity, that the Illimani were sparing the children.

Chapter Fifty

If the second cup was a thousand times worse than the first, the third cup was a thousand times worse again. Although she pinched her nostrils to block the smell, Leoni still gagged and choked as she gulped down the loathsome brew, grimaced as the thick liquid coated her tongue and teeth, and shivered with revulsion as the aftertaste hit her.

She tottered to her mattress, lay on her back, flung her arms and legs out, stared into the darkness once more and discovered everything was different. Her system couldn't have absorbed the third cup yet, so this storm of colours and weirdness exploding inside her head, these gushing fountains of light and energy she was

immersed in, must be the delayed effects of the first two doses.

Coming on faster and stronger than anything she'd ever experienced before.

As the power of the drug overwhelmed her, Leoni surged out of her body, rose into the roof space of the *maloca* and looked down at the little group on the floor. Then she heard the Blue Angel's voice, speaking inside her head. The words seemed filled with enchantment: 'Find me by the river. I await you.'

Leoni needed no second summons but as she floated higher she saw Don Emmanuel looking right at her, his eyes bright with alarm. Was her aerial body visible to him? For some reason she felt a harsh twinge of guilt as she fled out through the thatched roof and into the night sky.

She saw at once she had not arrived in some weird parallel world but was still on planet Earth, in the Amazon rainforest, twenty miles south of Iquitos. She was directly above the *maloca* and the huddle of outbuildings of Mary Ruck's jungle lodge. The

moon still rode high and every bush and tree, every leaf and flower, was lit by an inner fire and writhed sinuously, each one seemingly self-willed.

As she'd learned to expect when she travelled out of body, Leoni could still see her own hands and arms, legs and feet, but she had become so insubstantial she could pass through solid objects. The trees were no barrier to her. Nevertheless, she preferred to follow the same narrow path, leading back to the river, that she and her friends had used many hours earlier when they'd arrived here from Iquitos in Mary's motorboat and walked up to the *maloca.*

Except tonight nothing was quite the same. The floor of the path was aglow with scintillating light patterns, like the luminous trails of sea worms, and immense many-hued serpents with ivory teeth and ruby eyes were draped over the branches above.

Leoni mastered her terror. Both Mary and Don Emmanuel had warned her that she would see such serpents under the influence of Ayahuasca, and had reassured her they were benign creatures of

vision that would not harm her.

Even so, she felt a twinge of fear and a glimmering recognition of the utter strangeness of her situation.

She sensed the vastness of the jungle, the presence of unknown creatures deep within, thick undergrowth pressing close all around her, and began to glide faster towards the river, the great sweep of which she could now see glinting through the ancient trees, wide as houses, tall as skyscrapers, that grew all the way down to the water's edge.

The path brought Leoni out by the jetty where Mary's boat was moored.

But the jetty transformed itself before she reached it from a thing of wood and nails into a living serpent, fifty feet long, its hulking, spade-shaped head thrust far out from the bank. Regardless of what she'd been told about these creatures, there was no way she would have stepped out onto its broad back, with scales like planks, if the Blue Angel hadn't been there already, waiting for her. Her

back was turned, her scarlet robe swept out behind her, her long black hair shone in the brilliant light of the moon which made everything seem like day. She said nothing, but stood still as a statue at the end of the jetty, looking out over the earthy brown depths of the colossal river.

Leoni was nervous as she approached. Why would the Angel not look at her?

Then, with a lurch of horror, she saw the figure at the end of the jetty turn and begin to undergo a terrifying transformation. Her hair lost its satin sheen and became shorter and coarser, streaked with grey, her skin roughened and morphed from blue to jaundiced, her beautiful face lengthened and thickened, a wispy beard sprouted, her body became strongly masculine, and her robe shimmered through all the colours of the rainbow and took shape again as a white suit.

Leoni flew back and upward but was alarmed to discover that something held her down. She struggled and fought, only getting

herself more tightly enmeshed so that she could hardly move at all. She suffered a moment of utter panic. How was this happening to her aerial body?

At first glance she couldn’t see what held her but as she looked closer thin filaments of red light appeared, so faint they were almost invisible, woven into a supple lattice.

She was caught like a fish in a net.

Chapter Fifty-One

So overwhelming were the numbers of the Illimani, so ferocious, deadly and unexpected their onslaught, that the massacre of the Clan was accomplished with stunning speed. And even as the last adults were dispatched, Ria saw from her vantage point on the lookout tower that hundreds of children had been rounded up. They were subdued with shouts and cruel blows, their hands were tied behind their backs, and they were roped together tightly at the neck.

Vulp, Bahat and Bont all had close kin out there – including, in Bont's case, two young children. 'What are they doing with the kids?' the big man said now, his voice hoarse. The spear wound in his lower back was still bleeding, spattering his legs with gore, but he seemed oblivious.

‘At least they’re not killing them,’ choked Vulp. Ria could see he was wrestling with his emotions. ‘They’ve killed everyone else.’

‘Not everyone,’ Ligar said, offering hope. ‘Some made it into the forest …’

Bont wasn’t listening: ‘We have to save the kids. Right now. If you’re not going to help me I’ll do it myself.’

‘He imagines he army,’ Brindle spoke up inside Ria’s head. *‘Can fight any enemy. But if don’t fix his back he going to bleed to death pretty soon.’*

Ria surveyed the zone of slaughter around the outskirts of the camp. It was far enough, close to a thousand paces, for her little group on the tower not to be noticed so long as they kept their heads down, but there was no way this could continue. At any moment a patrol might be sent out from the main force to take possession of the meeting ground – the tower was an obvious strategic target – and then they would certainly be caught.

They couldn’t escape. To the south the way to the forest was

blocked by the Illimani horde. To the north the Snake river lay in their path.

‘Of course we’re going to help you,’ Ria told Bont. She looked around at her Clansmen – it was clear they were all of one mind – and led the way down the system of narrow ladders that connected the different levels of the tower. Bont descended above her, a continuous drip, drip, drip of blood falling from his back. Ligar, Vulp, Bahat and the Uglies followed.

Rotas was waiting at the base of the tower but there was no sign of Jergat. ‘I didn’t see where he went,’ the elder said. ‘Seemed like he was unconscious. He might even have been dead. I looked away for a moment. When I looked back he was gone.’

Ria exchanged a thought with Brindle – she sensed no concern from him for Jergat – and told Rotas of the coming of the Illimani and the terrible events they’d witnessed from the tower moments earlier. ‘We’re going to save the children,’ she said.

‘But that is suicide!’ Rotas protested. ‘If our attackers truly

number thousands we can do nothing. We'll be killed the moment we show our faces.'

'We'll be killed anyway,' grunted Bont. 'There's nowhere to run to. I'm going in after my kids.'

'I'm with Bont,' Ria said.

Rotas thought about it: 'It seems there is no other choice,' he agreed at last.

Jergat reappeared, coming from the meeting ground. He looked energised, completely recovered from the ordeal of the bonfire. He held forth a deerskin pouch to Ria. It had a familiar heaviness: *'I found your hunting stones,'* he told her. *'Our Lady of the Forest showed me where to look ...'*

'The blue woman?'

'*Waked me up when I was sleeping,*' said Jergat. *'Told me, hey you, Jergat. You got a job to do, remember? You're supposed to collect Ria's stones.'* Jergat's thought-talk was accompanied by images of the bewitching woman with long black hair and deep blue

skin whom Ria had seen when she'd journeyed with the Little Teachers, whose power had saved her from the terrible river of the spirit world, and who had spoken to her of tests. Then the imagery changed and she saw the body of the brave who had taken the pouch and stones from her during the ambush the night before – one of Murgh's trusted men, struck down on the meeting ground, like his master, by an Illimani spear.

A roar of anger erupted behind her and she turned to see Bont strike Brindle in the face with his huge right fist. 'Touch me again and you're dead,' he yelled.

'What's this, Brindle?' Ria pulsed.

'Told you, Bont need healing or he die,' Brindle replied. His cheek was split and swollen. *'Tried to put hands on him to heal but he don't like.'*

Ria turned to Bont. He was pale with loss of blood but he still had his fists bunched. His dark eyes, small in such a large face, glared out with suspicion. But just when he looked his most

threatening, like a rhino at bay, his feet slipped from under him, his knees buckled and he collapsed in a heap.

He had not lost consciousness. ‘Listen, Bont,’ Ria told him. ‘The Uglies have healing powers. Give them a chance and they’ll heal you now.’ He half sat up and uttered some incoherent words. ‘*THERE’S NO TIME FOR THIS,’* she yelled and eased him onto his stomach, exposing the deep, oozing wound in his lower back. Brindle, Oplimar and Jergat stepped forward, kneeled, linked arms in a circle over Bont, and began their hooting chant …

‘What’s going on here?’ It was Vulp who interrupted. ‘How do we know they aren’t just going to kill him?’

‘You have my word,’ said Ria.

‘You have my word too,’ said Ligar. His bow was half drawn. ‘Heal my friend,’ he told the Uglies, ‘or be certain I’ll kill you.’

Brindle ignored the threat and placed his palm over the bubbling puncture in Bont’s back. *‘Spear went deep,’* his thought-voice warned Ria after a heartbeat *‘Maybe not enough of us to make*

magic work.' But almost at once blue light began to emanate from his fingers and poured into the big man's body, suffusing the area around the injury with a phantasmal glow. Its brightness grew until it became dazzling. Bont's body vibrated, then lifted and floated, still face down, a full handspan above the ground.

Vulp stumbled back with an oath, raising his arm as though to protect himself from a physical threat, Bahat made the sign of the evil eye, Ligar drew his bow to full stretch and took aim at Brindle's head. Only Rotas remained calm. With much creaking of joints, he dropped to his knees to pass his hands beneath Bont and satisfy himself there was nothing supporting him. 'Extraordinary,' he said after a moment. 'I have heard of such things, from the long-ago, but never believed they were true.'

The chanting of the Uglies reached a crescendo and ceased. Bont's body descended to the ground. He'd remained conscious throughout and rolled over and sat up, rubbing his head.

'Stopped bleeding,' Brindle pulsed to Ria. *'Gave him energy.*

Put magic in his body. Wound will heal.'

'*Can he run?*' Ria asked. '*Can he fight?*'

But Bont himself answered by struggling to his feet and an instant later Ria understood what had alerted him. The meeting ground was surrounded by a zone of tightly packed wattle huts arranged around criss-crossing thoroughfares. Where the huts and streets came to an end, less than a hundred paces south of the tower, a dozen heavily armed Illimani braves burst out into the open and ran towards them, screaming guttural war cries. They were smeared from head to foot in blood. Some had freshly severed human heads dangling from leather waistbands, some had male genitals strung as gruesome necklaces and tied in their hair, one was even wearing another man's skin. Now all had their eyes fixed on the little group of Clan and Uglies beneath the tower.

After the mass flight from the meeting ground, discarded weapons lay everywhere. As Ria pulled the first quartz hunting stone from her deerskin pouch she saw Bont snatch up a big double-

headed axe. He weighed it in his hands, swung it in a great sweeping arc, and then, with a roar, charged the advancing Ilimani.

Chapter Fifty-Two

The man in the white suit grinned at Leoni, opening a mouth crowded with jagged inward-turned teeth.

She wanted to be as far away from him as possible, but flight wasn't an option. The web of red light that he'd flung around her aerial body held her fast and now, with hauling motions of his hands, he dragged her towards him as though drawing in a net. His hooded eyes glittered as he spoke to her: 'I am making this magic,' he boasted. 'It is very strong, yes?' Another vigorous heave brought her face to face with him: 'See! You cannot resist me!' And with that he pulled tight the net's drawstrings, crammed them into his mouth and plunged into the river, towing her behind him.

Except it wasn't the muddy waters of the Amazon they'd

entered but some gloppy, transparent, mucilaginous goo, like a torrent of thick snot. And her captor was no longer a man but had transformed into a monstrous white shark.

Leoni felt herself starting to freak out. It was entirely possible, if this continued, that she was just going to totally *lose* it. It had happened to her before on an acid trip that went sour. And this thing she was in the midst of now – this capture, this *abduction* – was already far more freaky than that, and horribly immanent and convincing. She had to keep reminding herself that she was out of body and that if anything real was happening to her at all – even now she couldn't be certain – then it wasn't happening to the physical Leoni. It was the non-physical part of herself, released by Ayahuasca, that had been spirited away.

It had occurred to her that her abductor could be Sulpa in one of his many guises. But she didn't think the beautiful monster she had seen, revelling in the blood of children, would have felt the need to boast about his powers in the way that this creature did.

With a massive effort of will Leoni controlled her panic and peered into the thick flood swirling round her. It had grown from a river into an ocean and the whole mass glowed with luminous particles. Below, the huge white shark swam straight down, his massive tail sweeping from side to side, drawing her along behind in her net of light, plunging into a seemingly bottomless abyss.

Leoni felt a renewed surge of fear but was distracted by the sudden arrival of a sleek dolphin. Improbably, it was pink. It materialised out of a cloud of bubbles, studied her for a moment with a large, quizzical, almond-shaped eye, and darted away as quickly as it had come. She just had time to wonder *What was that about?* when a serpent bigger than a nuclear submarine reared up out of the depths below. It was bearded, like a Ming dragon, its head was surmounted by long plumes of feathers, a ruby the size of a small car was set into its brow, its eyes glittered amethyst and its teeth were quartz daggers. Its jaws yawned wide to reveal a churning whirlpool in its gullet.

The shark dragged Leoni straight down through the gaping mouth. They were spun and wheeled by the heaving vortex and rocketed into a sinuous light-filled tunnel, wide as a house, its walls patterned with grids of glowing jewels.

Leoni realised she had passed through similar contraptions on her journeys to the land where everything is known. Despite their high strangeness, and many superficial differences, these swirling tunnels and tubes and shafts of light seemed to be part of some sort of system, utterly beyond her understanding, that offered transit from realm to realm, from world to world, from the present to the past – if Matt was right about Sulpa – and even from the state of being alive to the state of being dead.

With a final rapid gyration she was spilled out onto a cold stone floor beside her captor who had already morphed back into his human form. The tunnel spun closed behind them and vanished, as though it had never existed, leaving no obvious return route. Simultaneously, Leoni discovered she was in a body again, dressed

in simple clothing – much as she always found herself in the land where everything is known.

But was she back in that realm now? There was no way of knowing because they were in a bare geometrical room. Dimly lit at floor level from some unseen source, but with no windows, it felt cavernous – the size of a cathedral at least – and its immense walls, crafted from massive blocks of red granite, vanished into the darkness above.

She struggled to her feet. *Shit!* The net that had trapped her aerial body was gone but now there was a chain round her neck, attached to a thick leather leash in her captor's hand. He shook it, rattling the links, making her cough and choke.

'I tricked you very good,' he bragged, 'very fine! I, Don Apolinar, did this with my magic and you could not resist.' He twitched the leash again: 'What you say about that?'

Leoni gripped the chain with both hands and jerked it back hard. 'You're an asshole,' she hissed as he struggled for balance.

‘That’s what I say.’ She let go of the chain so that she could point the index finger of her right hand at him. She didn’t know why she felt she should do this, but as she made the gesture a surge of energy poured through her, Don Apolinar’s eyes widened and he staggered as though punched by an invisible fist.

He dropped the leash and backed off several paces. ‘So,’ he said, ‘you have the force.’ She stepped towards him and he retreated; another step towards him, another retreat. He was still speaking: ‘But you don’t know how to use it!’

He extended his free hand, flexed the fingers and closed them into a fist. At once Leoni lost all power of movement and fell sprawling on the granite flagstones. She could neither resist nor speak, yet remained fully conscious as Don Apolinar stooped down beside her and thrust his fingers deep into her brain.

Chapter Fifty-Three

The distance between the two groups was down to sixty paces and the Illimani were closing fast when Bont began his charge. Twelve against nine, but Ria intended to shorten those odds. Wincing at a fresh surge of pain from her bruised rib, she picked the brave wearing another man's skin, empty hands and feet flapping at his wrists and ankles, and smashed his head with her first stone. *Vermin!* Who the fuck did these people think they were? She palmed a second stone, targeted a warrior with a necklace of dangling penises, and broke his nose in an explosion of blood. He fell to his knees, clutching his face.

A shadow appeared beside her as she reached for more stones and she saw Ligar draw his bow and fire an arrow into a man's eye.

Right away he drew and fired again, a belly shot that dropped a tough-looking brave screaming. His third arrow transfixed a brave's naked chest, protruding a span beyond his back. Then Bont was amongst them, his double-headed axe snaking out with incredible power as he smashed his way through the survivors, hacking off one man's head with a single blow, opening a huge fountaining wound in another's side, backhanding the blade into the next man's face, chopping the legs out from under another.

Screaming defiant war cries, the last three mounted a desperate attack, swarming the Clansman, pressing him hard, getting inside the reach of the axe. While Ligar was darting back and forth, searching for an angle, hesitating to shoot into the melee for fear of hitting his friend, Ria let fly with a third stone, bringing down another man. That left two, both big guys, one wearing penises in his hair, the other with a severed head tied to his waistband, grappling with Bont.

But Bont seemed energised after his healing. With a roar of

fury and a tremendous explosion of raw strength he flung both attackers back, swung his axe double-handed and hammered its blade into one man's chest. The second circled, jabbing with a long knife, but Bont slapped it aside with the flat of the axe, stepped in on him and brought the blade down with such force onto the top of his skull that the blow split open his head from crown to chin, scattering brain tissue and teeth.

As the brave crashed to the ground at his feet Bont gave a great bellow of triumph, raised the dripping axe high in the air, shook it, looked around eagerly and shouted: 'WHO NEXT?'

At once his question was answered. A blood-spattered Illimani, mightily built, with rippling muscles and armed with an axe bigger than Bont's, stepped out from a narrow alley and swaggered into the middle of the camp's main thoroughfare about two hundred paces to the south. He was bald but, as though to compensate, four severed heads of Clansmen and Clanswomen, dripping gore, were suspended by their hair from his leather waistband, their open eyes

glaring. The massive warrior shouted something at Bont in the jarring, grinding gutturals of the Illimani tongue, loosened his waistband letting the heads thud to the ground, raised his own axe, and began to march forward, confident and threatening. As he walked, another brave stepped forth from the side streets, and another, and another.

Ria saw they were a second scouting party, this time numbering close to forty. They marched forward in a tight mass and stopped a hundred paces away, spreading themselves out across the thoroughfare in two wide ranks.

Ligar fired an arrow, taking a warrior in the throat. Ria palmed her last two hunting stones and began to jog towards the Illimani. At eighty paces she hurled her first stone. It struck the bald brave on the dome of his forehead and bounced off with a loud *clunk.* He stood looking stupid, then his eyes rolled up in his head, the axe dropped from his fingers, and he fell senseless.

Ria was still running as more arrows from Ligar's bow hissed

past her. Two more men crumpled. A third, pierced through the eye, shrieked and clawed at his face, stumbled out of the line and fell. At forty paces, Ria brained another with her last stone. Realising how far ahead of her companions she had run, she stopped just twenty paces from the waiting Illimani and pulled the long flint knife from her belt.

With a thud of running feet, Bont appeared beside her, his axe held loosely in his huge hands. Ligar was right behind him but a glance showed Ria he was out of arrows. He laid his bow down and pulled a dagger from his belt.

Then Brindle, Oplimar and Jergat pounded up. All had armed themselves with discarded weapons. Jergat had picked up one of the short Illimani throwing spears that lay scattered about and taken a jagged-edged knife from a brave Bont had killed. Oplimar held a big war axe in his right hand and a smaller wicked-looking hatchet in his left. Brindle wielded a heavy wooden club studded with shards of razor-edged flint.

Next Vulp pushed himself into the line, his mane of long white hair hanging to his shoulders, a dagger in each hand. Bahat was with him, swarthy and bearded, swinging an axe.

Last came Rotas. His movements were stiff and dignified, but he held a heavy Clan spear tipped with a long leaf-shaped blade pointed at the Illimani phalanx.

For a frozen instant the two groups, still more than thirty against nine, eyed one another in complete silence across the narrow strip of trampled ground that separated them. Then, in the distance, from the edge of the camp where the captured children were held, a great collective chant began to rise up from the mass of the Illimani force, thousands upon thousands of rough, snarling, brutish voices all calling out in unison. And what they were saying was:

'SUL ... PA!'

'SUL ... PA!'

‘SUL ... PA!’

The sound of that name, uttered like this, was spine-chilling. The Illimani braves seemed to cock their ears and listen. A blank look settled like snow over all their faces and, with a scream, they launched themselves at Ria and her companions.

Chapter Fifty-Four

This body that Leoni was in – occupying, inhabiting, maybe even possessing – was in many ways very much like a regular body, with all the normal functions. But you could do things to it that your meat body back on planet Earth couldn't handle.

For example, what was being done to her right now as she lay paralysed on the hard stone floor of the shadowy granite chamber.

Kneeling by her shoulder, Don Apolinar was shoving his thick stubby fingers through various parts of her skull. He was moving them around inside her brain. The pain and feelings of violation were horrible. Yet she felt detached from the ordeal. It was a bit like being raped: you went numb; you blotted it out and survived.

'You cannot hide it,' he said after a moment. 'I with my magic

will find it.'

She just had time to think *Hide what? Find what?* when he placed his hands over her ears and plunged all his fingers and both thumbs into her head in a great explosion of pain.

'Tell me where it is,' he hissed.

'Use your magic, douchebag! I don't even know what you're talking about.'

He seemed to consider, a look of greed and violent machismo crossing his face. All his fingers were still inside her head, past the second knuckle. 'Treasure!' he barked. 'In your brain she buried it.'

The thick fingers probed deeper and in a flash Leoni understood.

He meant the filament of crystal the Blue Angel had implanted in her left temple!

For some reason he wanted it. He called it treasure. Maybe this was the reason he'd grabbed her in the first place.

She was already fighting to suppress her memories of the

surprise operation the Angel had performed on her when Don Apolinar grunted with delight and she knew he had read her mind. ‘See how easily you surrender to me,’ he boasted. ‘Like a child. You have the force yet I overwhelm you.’ His hand shot towards her temple and hovered over the exact spot where the crystal was buried. A finger went in. A thumb. ‘Oh, I am so clever,’ he crowed. ‘This is *my* magic, *mine,* that has found the treasure!’

He lunged, seemed to catch hold of something, grunted with satisfaction and pulled hard. Leoni screamed – the pain was unimaginable – and Don Apolinar giggled. ‘Yes! Yes!’ – he sounded like he was having an orgasm – ‘I will take it now!’

She stared into his eyes, dark as smoked mirrors. In this paralysed state there was nothing she could do to prevent him from ripping the crystal thread out of her brain and she felt sure he would kill her when he did. But as he tightened his grip something distracted him. He faltered, tilted his head to one side and seemed to listen.

Leoni could hear it too – the sacred melody of an *icaro,* muffled and indistinct. She felt Don Apolinar's grip loosen again. Leaving her prone and helpless on the floor, he removed his fingers from her brain and surged to his feet just as the granite wall of the great chamber split open and a small tawny eagle hurtled through the gap, so fast it was a blur. It flew straight at Don Apolinar, forcing him to dive, raked his face with its talons as it passed, and landed beside Leoni. She felt a reassuring hand on her shoulder and watched, stunned, as the eagle completed its transformation into a man.

Don Emmanuel! Of course!

As suddenly as it had set in, her paralysis left her. She struggled to her feet, tearing off and throwing down the choke chain and leash that still hung around her neck.

The two men were circling, their eyes locked, and a dangerous energy crackled between them.

Don Emmanuel gestured to Leoni to stay back and she moved to obey, keeping him between herself and Don Apolinar. Although she guessed the bodies both men inhabited were like her own – avatars with capacities their bodies on Earth did not possess – she couldn't help but feel the inequality of the contest. It wasn't that one was old and small while the other was tall and in his prime. Such attributes meant little in these realms of endless transformation. Rather, she sensed a spectacular difference of power, a difference of *force,* between the older and the younger man. Hovering like a miasma about Don Apolinar was a capacity for malice, an appetite for cruelty and a lust for evil that Don Emmanuel could not match.

Both men began to shapeshift as they circled, one form merging into another in dizzying succession. Don Apolinar became a bear, a wolf, a lion, Don Emmanuel became a stag, a boa constrictor, a cayman. Too fast for the eye to follow, their shifts and changes cycled through countless different forms until suddenly they clashed in a blur of transformation. Roaring and bellowing,

Don Apolinar became a tiger biting down on the neck of Don Emmanuel as a buffalo who transformed into a porcupine to break free and back into a buffalo to throw the tiger over his head. But the tiger was already changing into a great serpent that wrapped its coils around the buffalo which became a mouse that escaped and transformed into a snarling dog.

Darting around the edge of the circle, Leoni needed no second bidding to keep as far away as possible from all the various manifestations of Don Apolinar. Don Emmanuel had returned to the eagle form in which he had entered the chamber, but as he swooped and slashed she could see his strength was failing. Don Apolinar's avatar had become a massive white jaguar, radiant with violent energy. He leapt, paws outstretched, and grappled with Don Emmanuel in flight. His claws raked a wing, spraying blood and feathers, there was a brittle crunch of broken bones and the eagle was smashed to the floor.

At once both men reverted to human form and Don Apolinar

stood wide-legged in triumph, straddling the little Shipibo shaman who lay sprawled on his back, blood pumping from his chest and shoulder. His left arm was half torn from his body and grotesquely broken in three places. His eyes were wide and glassy.

‘Foolish little healer,’ sneered Don Apolinar. ‘Your magic weak, my magic strong.’ He stooped: ‘I think I kill you now, yes? Maybe cut out your heart?’

Leoni watched in a daze as Don Apolinar drew a long thin knife from a pocket of his white suit.

Chapter Fifty-Five

A club glanced off Ria's shoulder, numbing her left arm, but she kept her balance, ducked under her attacker's guard, drove her knife into his belly and twisted the blade as she drew it out. Two more braves were bearing down on her, their crazed blue eyes burning. She dodged between them, stabbed one, opened the other's throat. She could see Brindle was in trouble, pressed hard by three Illimani braves. But he wasn't asking for help. Nobody was. Bahat had fallen already. Ligar too … Ria fended off a spear, a blade sliced her arm, something heavy bashed into the side of her head and suddenly – it was as though a mountain had fallen on her – she was smashed to the ground amongst a forest of pale, hairy Illimani legs. She surged up again, stabbing blindly, but more huge blows

knocked her back down and she tumbled, it seemed for ever, into darkness.

As consciousness seeped back Ria found a powerful grip fastened in her hair, dragging her body bumping and jolting over the ground. Her head pounded and her ears rang where she'd been clubbed. She blinked because her eyes were full of blood. Somehow she got a hand to her face, cleared her vision. A tall young Illimani was dragging her towards the meeting ground, tugging so hard on her hair that her scalp was about to tear free of her skull. She could see her flint knife tucked into his waistband beside a bouncing severed head, a cluster of penises and other grotesque trophies.

As the brave hauled her between two of the huge wooden posts that encircled the meeting ground she reached up her hands, seized his thick forearm, plunged her nails deep into his flesh, and threw all her weight against him. He stumbled in surprise, loosening his grip on her hair, and she was on him at once. With a howl she snatched her knife from his waistband and stabbed him in the groin,

sawing the blade upwards before jerking it free. He fell screaming beneath her and she felt mad joy stirring in her heart. Where was the next Illimani to kill? Then a big knuckly fist struck her full in the face and she was flat on her back on the ground again, unable to resist as her knife was wrested from her grasp, ears ringing, flashing lights dancing before her eyes.

Ria peered up, blinking through more blood, feeling dizzy and sick, and saw Grigo, flanked by Illimani braves, standing over her holding the knife.

She was still too dazed to fight back as he stooped and cut her leggings away from her hips, leaving her naked from the waist down. ‘You’re part of my prize,’ he explained, as he shoved her knife into his belt. ‘Lord Sulpa gave you to me.’ His face darkened: ‘But I guess you don’t get what that means.’ He leaned closer, dribbling spit, grabbed her hair and forced her onto her face, thrusting a knee between her thighs. ‘It means I finally get to fuck you, you BITCH. After that I’m going to burn you with your

friends.’

Turning her head, Ria saw, with a leap of hope, that her companions were not dead. They were being herded together close to the bonfire at the centre of the meeting ground. Brindle was bleeding heavily from a head wound and Bont was carrying him like a child in his massive arms. Bahat was on the ground in a pool of blood. He moved, so he was alive. But he looked done for. Ligar was also hurt. Vulp, Rotas, Oplimar and Jergat were in better shape but all had taken savage beatings.

Grigo clamped his right hand onto the back of Ria’s neck. She could feel him squirming on top of her, his knee jammed up tightly between her buttocks, as he tried to unbelt his leggings. But it seemed he needed two hands for that and he let go of her neck again. She didn’t know why she found it funny but suddenly she was laughing and shrieking her defiance: ‘What’s the matter, Grigo? Can’t you find your prick?’

She raised her head.

A ring of Illimani braves, naked but for the weapons they carried and the ever-present spear-throwers slung across their backs, had gathered round to shout what sounded like encouragement to Grigo in their harsh, growly language. He grunted, punched the back of her head, and finally tugged down his belt and leggings with both hands, exposing a pale, floppy penis. ‘Look at that!’ Ria cackled through waves of giddiness and nausea. ‘You can’t even get it up’ – and her laughter spread to the five braves encircling them, driving Grigo into a frenzy.

WHACK! His fist smashed into the back of her head again and she crumpled. Her face was turned to the side when she hit the ground and her eyes were open. Grigo was preoccupied with his limp, stinking cock – Ria could actually smell it from this close – and the Illimani were having too much fun watching, so she alone saw Driff, naked as the rest of his tribe, loping towards them with a tomahawk in each hand. He strode right through the ring of braves and, before anyone took notice, stepped in on Grigo, chopped one of

the hatchets deep into his face and kicked him away from Ria as he tugged the blade clear.

At first the Illimani didn't react – as though betrayal by one of their own was impossible even to contemplate. Driff charged them, his face pale, and in a heartbeat three of them went down, screaming and spouting blood. Two more surged forward to take their place but also fell under his hatchets. By then he'd lost the advantage of surprise and more braves converged on him from the larger group guarding the prisoners beside the bonfire. A spear pierced his side, a club glanced off his head and it seemed he must be overwhelmed.

Half naked, beaten and bloody, but momentarily forgotten, Ria rolled to her feet, ignoring savage jolts of pain, and retrieved her knife from Grigo's belt. Then she darted into the melee to stab one of Driff's attackers in the back, thrusting the long blade deep between his ribs, withdrawing it and slicing open a second man's throat. As a howling scrum of close combat surrounded her she weaved and dived and killed again. She'd been lucky so far but she

knew she only had moments left to live – Driff too: what madness had inspired him to try to rescue her? – when out of the corner of her eye she saw another long line of charging braves bearing down on them.

She cackled – why did the Illimani need reinforcements? – and shook her head to clear the blood from her eyes. Only then did she register that the new attackers were not more of the outlanders but Uglies, led by Grondin. His mission had been to bring the populations of the outlying camps into Secret Place and he must have worked fast, or encountered them already on the way, because he now commanded a powerful force of braves – perhaps as many as a hundred. Less than thirty of the Illimani scouting party still stood after the furious fighting of the past moments and they were soon killed.

'Brindle, speak to me.' Ria sent out her thought-voice as she ran towards the little group of her companions. But she saw that her friend was unconscious, his eyes rolled up in his head, blood

dripping from a huge gash in his skull. She tried again: ‘Speak to me, Brindle,’ and again there was no reply. ‘He gone very deep, Ria’, Oplimar told her. ‘Maybe don’t come back.’

‘You can bring him back,’ Ria said. ‘You can heal him …’

Suddenly Grondin was amongst them, his massive figure towering over all, his thought-voice full of authority: ‘No time for healing now.’ He gestured towards the southern sector of the camp where the mass of the Illimani force were still gathered. Faint screams carried on the breeze and the menacing chant went up again – *‘SULPA! SULPA! SULPA!’* – followed by great howls and roars of approval.

‘It is worse than we feared,’ Grondin said now. ‘There are more than seven thousand of these devils. They are here in our valleys to kill us all. Driff told us their plans.’

‘But what’s in it for Driff? I don’t understand why he’s helping us’ – Ria glanced over at the young Illimani. She could see he was racked with pain but that he refused to cry out, or to acknowledge

her attention, as two of the Uglies pulled the spear from his side.

‘Brindle made rope with him, changed his heart, helped him start to thought-talk. After Clan captured you he found us, told us what happened, brought us here to rescue you.’

‘Can *you* thought-talk with him?’

‘A little. Enough to understand. Takes time.’

‘Can I trust him?’

Grondin turned his huge head towards Ria and his eyes were intelligent and quizzical: ‘He saved you. Why would you not trust?’ Then he strode away to see to his own injured braves. ‘Prepare your people. We must go from this place.’

‘But go where? Go how?’ Ria sent her thought-voice after the big Ugly warrior. ‘We’re boxed in by the Illimani. The river’s at our back. There’s nowhere to escape to.’

‘We will use river,’ Grondin said. ‘How you think we got here?’

Chapter Fifty-Six

If Don Emmanuel's avatar in this world was killed, if his heart was cut out, what would happen to his body and his consciousness back on Earth? Leoni felt sure it must be bad and knew what was required of her; if she had this 'force', whatever it was, then she had to use it to help him.

Don Apolinar was still stooping over the little shaman's battered body, but now he swivelled and glared at her, reading her mind. 'Be still!' his voice cracked out. 'I imprison you!' The effect was instantaneous. This time Leoni stayed on her feet but she found that she was again paralysed, as though set in plaster. Don Apolinar sneered and walked over to her, waving his knife: 'I will take the treasure from your head,' he promised. 'I will cause you very much

pain. Your body in this world will die. Your spirit will be driven into the Between and you will never get out.'

Leoni couldn't speak – her mouth was frozen shut – as he turned his back again, stalked across the floor to where Don Emmanuel lay broken and crouched beside him, positioning himself so she had a clear view. 'First I kill your stupid little healer,' he said. He raised the knife for her to see. 'Take his heart; take his magic.'

Leoni could feel her anger charging up, like a weapon inside her. Don Apolinar's sadistic murderous conceit made her want to destroy him and now, as he gripped the knife in both hands, the tip pointing down, and held it poised over Don Emmanuel's skinny chest, her temper exploded and her body seemed to expand, smashing loose from the paralysis that had gripped her. Don Apolinar had no time to react as she raised her right hand, pointed her index finger at him and wished him dead.

She hadn't believed it would work a second time, so she was

astounded when something jagged and fiery, like a bolt of lightning, flew out from her and struck Don Apolinar in the chest. It knocked him away from Don Emmanuel's side and sent him tumbling, with a gasp of surprise, to the floor. She could see no visible wound but to her satisfaction Apolinar looked dazed and had let go of the knife.

Fast as thought, Leoni raised her left hand and pointed her finger at the dropped weapon, summoning it. As though she held a powerful magnet it began to slide towards her across the floor, and as it neared her it rose into the air. She gripped the hilt.

That was when she knew she would kill Apolinar, if she could.

But he was already back on his feet. He flicked his hand in Leoni's direction and a menacing cloud of little black objects flew at her, buzzing. She dodged to her left and they shot past, but immediately swung round and homed in on her again. She was desperate to evade them, zigzagging around the room, slapping them away with her hands, but they were all over her within seconds like a hundred bees.

Only they weren't bees. Close up she saw they were tiny machines with moving metal jaws. As they settled on her they burrowed into her flesh and she fell to her knees, screaming in agony.

Don Apolinar stood over her. 'I am very powerful,' he boasted, 'very clever. My magic is very strong, yes?' He beckoned: 'Come to me, beauties,' and the little black machines took flight out of Leoni's skin, drawing another scream from her and leaving her covered in oozing spots of blood. Apolinar flicked his hand again, this time towards Don Emmanuel, and the swarm boiled out towards the unconscious shaman, pouring in streams through his nose and open mouth until his whole body writhed and convulsed as though he were being devoured from within.

Don Apolinar flexed his fingers. 'I think I take your treasure now,' he told her.

'No!' Leoni yelled. His ego was so big he'd obviously forgotten she still had his knife. As he crouched to plunge his

fingers into her brain she stabbed upwards at the crotch of his white suit. The point slid deep into his groin and stopped with a jolt.

If she'd done that to someone on Earth he would have died, but Don Apolinar didn't die. Leoni twisted the blade, wanting to inflict as much damage as possible, but he just kept coming, his fingers scrabbling at her head. 'The treasure,' he was muttering 'I must have it! I must have it!' He sounded like a drug addict, hot for his next fix.

Still on her knees, Leoni shoved the knife up into his body again, trying to force him away from her. Yet there was no blood and he seemed unhurt: 'Stupid!' he spat as he got a firm grip on her neck with his left hand and brought the finger and thumb of his right hand down like pincers towards her temple. 'I am maestro. You cannot kill me in this world.'

'That is true,' said another voice. 'But *I* can.'

Apolinar froze and Leoni saw him look up. She followed his gaze. Rearing over them was a giant anaconda with amethyst scales,

its massive head swaying from side to side and its eyes, vertical dark slits in amber, glowing with an inner fire.

‘My Lady of the Forest!’ gasped Apolinar. He wasn’t swaggering now. ‘On my life, I did not know!’

The huge serpent swayed again, a rapid series of oscillations, and began a beautiful and spectacular metamorphosis into human form. It took only seconds for her to become recognisable as the Blue Angel.

She strode forward and struck the cowering Apolinar twice about the face, knocking him onto his back. Then she clapped her hands and he was lifted, struggling and blustering, into the air. Finally she drew back her arms and thrust them out in front of her. His body was thrown hard and fast across the echoing chamber. It smashed into the massive granite wall with a solid *crunch* and thudded to the floor.

Leoni’s first thoughts were for Don Emmanuel. She ran to his side but his body was limp and still, his eyes open and vacant. ‘Is he

dead?' she asked the Blue Angel.

'He lives no more in this realm. His spirit has entered the Between. His Earth body lies in a deep sleep.'

'Can he come back … from this Between?'

'If he is skilful he can navigate the Between and reawaken in his Earth body.'

'What about him?' Leoni pointed to the slumped form of Don Apolinar. 'Can he come back too?'

'He has the skill. He will come back.' 'What is he?'

'He is human, a *nasty* little Amazonian sorcerer who has embraced evil and walks the dark path. He was powerful enough to detect the transit device I placed in your head. Quite a treasure for one such as him. You know the rest. He lay in wait for you, seized your spirit and carried you to his torture chamber on this world.' She looked around: 'You would have died here – and you do not have the skills yet to navigate the Between – if I hadn't reached you in time.'

‘He disguised himself as you. That’s why I let him get close to me.’

‘He has never seen me in this form. If he had he would not have risked my wrath. He plucked the image from your mind and used it to win your confidence.’

‘So he knew you only as the serpent?’

‘Yes. As Sachamama. The Lady of the Forest. The spirit of the Ayahuasca vine. But I have many forms and names …’ She sighed and took Leoni’s hand. Her grip was firm and dry. ‘Come,’ she said. ‘I have much to tell you.’

Chapter Fifty-Seven

When Ria told Ligar what Grondin had said the injured bowman responded with a bitter laugh: ‘Use the Snake? They must be mad.’ Lying on his left side, wincing at the pain of the deep stab wound in his right buttock, he was simply stating the obvious. Of course the Snake *could* be crossed – less than half a day’s march to the east there was a stretch where it ran shallow over huge beds of stones and the far bank was easy to attain. In order to prevent surprise attacks from the north, however, the Clan’s summer camp had been situated where the Snake ran so fast and wide and deep it was almost impossible to swim. As the drowning of Ria’s parents seven years before had proved, the river here was deadly.

But no deadlier than the Illimani. Ria had decided to go for

Grondin's plan, whatever it involved. Better to take any chance in those wild glacial waters than face an evil death at the hands of seven thousand savages.

Who might be upon them at any moment.

Ria's rib still ached from the beating she'd taken, she had a pounding head, a shallow spear wound to her right thigh and a gashed shoulder. But all fear had left her and she was energised by her hatred of the Illimani. If they came on now she would fight them to the death. If she escaped she would return to take bloody revenge for what they had done to the Clan today.

She considered her friends. How much fight did they have in them?

Jergat was able-bodied. He'd gone to search the battlefield for Ria's throwing stones. Vulp had climbed the lookout tower to keep watch on the main Illimani force as Grondin and his braves prepared the wounded for travel. Bont sat slumped in misery, eaten up with fear for the fate of his children. He'd accepted they couldn't

be rescued, but Ria wasn't sure what he'd do next. A suicidal attack on the Illimani horde was by no means out of the question.

Ria touched Bont's shoulder: 'If you let them kill you, my friend, your children will be lost for sure. There will be no one to fight for them.' He pushed her hand aside. 'So you must live to fight these Illimani another day.' She was surprised by the tremor in her own voice. 'We must all do that.'

Ria turned her attention back to Ligar. He wasn't going to able to walk unaided but would heal if they escaped. She moved on to Brindle. He'd been struck with an axe and a wide strip of flesh had torn loose from his scalp, exposing his skull. He was still unconscious but the thick white bone did not seem to have been penetrated. She helped Oplimar to bandage his head and bind him to an improvised stretcher.

Bahat lay groaning, paralysed, covered in his own blood, his body almost cut in half by a cruel wound that had severed his spine. There was no way he was going to survive this and Ria had delayed

coming to him while she decided what to do. Could she give her father's old friend the same mercy Brindle had shown to Porto?

She wasn't so sure but Rotas settled the matter for her. Cupping a hand under Bahat's grizzled head, the elder looked into his eyes, seeming to await some signal or affirmation, and then very gently slit his throat.

As Ria watched Bahat's lifeblood soaking into the earth and heard his last choking gasps, something changed in the distant shouting of the Illimani. The roars of approval had stopped. Now they were baying like wolves.

'THEY'RE COMING!' Vulp yelled as he hurtled down the steps of the lookout tower, his white hair flying. 'THOUSANDS OF THEM.'

Before she ran, Ria remembered Grigo.

Knife in hand, she hastened to where his body lay sprawled, his leggings around his ankles, and kicked him in the ribs with the

toe of her moccasin.

As she'd suspected, he was still alive. With each laboured breath little bubbles of blood frothed out of the hatchet wound that split his face from his right eye to his nose.

'Grigo', she hissed. 'Wake up.' She tugged off his leggings and put them on. They were too big but she belted them tight. Then she kicked him again – 'Wake up, you piece of shit' – and his undamaged left eye fluttered open.

Good. He recognised her.

She stooped down, gathered his testicles, and gelded him with a single savage blow. She didn't take his penis because she didn't want him to bleed to death.

She hoped he'd live.

Relishing his screams, she threw his balls in his face and sprinted out of the meeting ground, soon catching up with the rearguard of Grondin's braves as they fled north towards the Snake.

The Illimani had begun their charge on the south-eastern side of the camp, at least a thousand paces south of the lookout tower and the meeting ground, but Ria couldn't guess how much of a head start she still had after dealing with Grigo. She placed her foot badly and stumbled. A shock of pain jolted through her bruised and battered body, and an Ugly she'd never seen before, one of the newcomers Grondin had brought, reached out a strong hand to steady her as she ran.

Their retreat lay through the camp's once populous north-western sector, lying between the meeting ground and the river. Rows of close-packed wattle shelters hid their pursuers but Ria knew from their excited shouts that they were closing in. She kept looking back over her shoulder, expecting new volleys of the terrible spears, but none appeared.

Had the Illimani spent all their projectiles on the meeting-ground massacre and not yet gathered them up?

Moments later Ria burst out through the last line of shelters

and the river lay two hundred paces ahead.

But she couldn't make any sense of what she saw there. There were Uglies everywhere and it seemed that a herd of reindeer had crouched down on the riverbank and somehow been persuaded not to flee while wooden platforms, lashed together from clusters of straight branches about the length of a man and the thickness of Ria's arm, were placed on their backs. Each platform was supported by four reindeer. As she drew closer she saw the animals were legless and headless. But it wasn't until she got her hands on one of them that she discovered it was just an empty skin stitched together into a tightly closed bag and filled with air.

Ten Ugly braves picked up one of the platforms with its inflated reindeer-skins, jumped into the Snake with it and – *What magic was this?* – the contraption floated on the fast-flowing waters. 'It is called a jaala' – Ria heard Grondin's thought-voice before she sensed him looming up behind her. 'Uglies have known this magic since the long-ago.'

The braves had already clambered up onto the jaala and now sat suspended on it, a hand's breadth above the water, carried along by the current at great speed towards the west – the direction of Secret Place. Two of them held long flat blades of wood which they jabbed into the river, not guiding the little vessel across to the other side but keeping it in the midstream instead. Suddenly Ria grasped what Grondin had meant about using the river. The Uglies weren't trying to cross it with the jaalas, they were going to use it to stage a spectacular escape and let its current carry them back towards their hideout.

She watched another group of braves enter the water, and another and another. 'We have twelve jaalas,' said Grondin as more continued to take to the water. 'Enough for us all.'

Ria glanced at the northern edge of the camp. The Illimani were almost upon them and Grondin was already working fast, lashing Brindle to the platform of the last remaining jaala. Then, in the same instant of shock, she and Grondin both registered that

Jergat was nowhere to be seen – had not, in fact, been with them when they'd fled the meeting ground. 'He went to find my throwing stones,' Ria remembered. Grondin nodded, his head cocked to one side. 'Alive,' he said, his gaze turning inwards. 'Running. Illimani right behind him. Coming to us.'

Bont, Vulp and Rotas had drawn to one side on the riverbank and were hanging back, muttering to each other. Ria could understand why. None of them, including herself, had seen anything like a jaala in their lives before. Riding on water! The very idea made her head spin. But it was either that, and some hope of escape, or stay here and certainly die, so it was obvious what had to be done. 'THERE'S NO TIME FOR THIS!' she yelled at her Clansmen. 'Get on the fucking jaala *now!'*

There were no complaints – although Ligar refused to be tied down in the way that Brindle was, insisting, despite his injury, that he could fend for himself. Oplimar, Grondin, Bont, Vulp and Driff lifted the jaala into the water and held it there against the current to

allow first Ligar and Rotas and then all the rest of them to board. The elder's feet were unsteady and he had to crawl on his hands and knees to his position at the back of the little craft.

Ria waited until last, scanning the line of shelters two hundred paces behind them, sending out her thought-voice – *We are here, Jergat, we are here.* She felt a huge wash of fear – his fear – rolling back at her and suddenly, like a wish come true, the lean, short-statured Ugly exploded into view from between the rows of huts, his hands full of salvaged items, and began to sprint towards the river. He raised his head and she saw utter terror in his eyes. Then a thousand Illimani burst forth behind him, screaming bestial war cries, their eyes wide, their teeth bared, their naked bodies painted with blood.

'It's going to be close,' Ria told Grondin. She had one foot on the jaala, which was bucking and bumping against the current, and one foot on the bank. She was acutely aware of the moment, which seemed to extend for ever, as Jergat thundered towards them. But

the fastest Illimani braves were closing the distance behind him. Putting on a burst of speed one caught up and raised a stabbing spear above his head. ‘Behind you, Jergat!’ Ria sent her thought-voice. ‘Dodge to your left.’ He reacted at once – the spear thrust missed him and the brave stumbled.

Now there were just ten paces to go. Ria gave the signal to launch the jaala, and at five paces Jergat threw himself into space and landed crouched on the platform amongst his companions as the little craft was wrenched away from the bank. For a moment it juddered and veered as though it might pitch them all into the river, but then returned to balance and began to skim along on its floats. Grondin and Oplimar took control of its direction, using flat wooden slabs like those she’d seen on the other jaalas.

Amongst the objects Jergat had salvaged from the battlefield were Ligar’s bow and three arrows. ‘Give me those,’ the archer demanded. Mastering his pain, he sat upright, nocked an arrow and drew back the string.

Ria followed his eyeline and saw he'd taken aim at a young Illimani, naked as they all were, who stood amongst the swelling crowd of braves lining the edge of the riverbank. His body was lean and hard, red-gold hair fell in thick waves to below his waist, and he might have been very beautiful had he not been covered from head to foot in blood.

The current was sweeping the jaala away, increasing the range. Grimacing, Ligar drew back the string to its maximum extent and took the shot. Ria watched the arrow flying true, a sure kill, but at the last moment the young man sidestepped lightning fast, snatched the shaft from the air and snapped it between his hands.

Then they were out of arrow range, heading towards mid-river. Ria sensed a peculiar force of personality emanating from the beautiful blood-soaked Illimani, and she knew, with a sudden shiver of certainty, that he was Sulpa.

Weirdly, in that instant of recognition, it was as though he had also recognised her.

His eyes followed her, tracking the jaala as it was swept away. With lazy, almost careless movements he unslung a spear-thrower from his back and held out his hand. Ria's heart fell when she saw another brave reach over and pass him one of the short spears.

After that things happened very fast. There was a whirl of movement and the spear disappeared up into the sun and shot down again straight towards the jaala. Vulp didn't even see it coming. He was seated at the front, on the right side, above one of the inflated reindeer-skins. The flint spike took him through the spine, exited at his groin and plunged between his legs where it punched through the skin of the float, releasing the air it contained in a great hiss.

At once the jaala sagged lower in the water, nose down on the right, ceased its smooth forward movement and began to turn in dizzying circles.

From the warriors on the bank there came a growl of anticipation.

Chapter Fifty-Eight

For an instant, as she held on to the Blue Angel's hand, Leoni could imagine she had a mother who loved her, who put her first, whose presence was so reassuring she could vanquish all terrors, whose strength was so great no enemy could defeat her.

They moved to the middle of the immense granite chamber and a long silver wand appeared in the Angel's free hand. She touched its point to the flagstones and made Leoni turn slowly anticlockwise with her as she inscribed a circle around them both. Even before it was complete an unearthly glow had began to spill out from its rim and now the floor dropped away beneath them and they tumbled, as Leoni had guessed they must, into another of the familiar tunnels of light.

She had no sense of up or down. But she was out of body, flying with an angel! What could be cooler than that? Around them she could see the opaque glowing walls of the tunnel shooting by and she realised they were moving fast – much faster than she had ever done before – but she felt no fear.

Leoni was thinking *This is where I want to go, this is who I want to see* when the journey ended as suddenly as it had begun. They swirled through the last curves and turns of the tunnel, decelerated, and materialised in a high-ceilinged, spotlessly white circular room, fifty feet across. The room was bare of all furniture, but the floor was carpeted in thick white fleece. Panoramic windows provided an unbroken three-hundred-and-sixty-degree view over a futuristic cityscape very far below.

In a body again, clad once more in a simple smock, Leoni walked barefoot to the windows and gazed out at the two suns of the land where everything is known. She had recognised the city at once. It straddled the floor of a lush green valley. The Angel had

shown her its towers, obelisks, ziggurats and canals just before sending her to Sulpa.

‘I feel like I’m in a computer game,’ Leoni confided. ‘Sulpa, Jack, my childhood, my parents, you, Don Apolinar, these tunnels that run between different realms and worlds, monsters, demons … Is this where you finally tell me what’s going on?’

‘That is my intention.’ The Angel waved her hand and a row of the floor-to-ceiling windows slid back, giving access to a wide balcony beyond. ‘Come,’ she said. ‘Shall we talk outside?’

Two striped canvas deckchairs stood on the balcony. The Angel settled into one and indicated that Leoni should take the other and for a few moments they looked out, saying nothing, over the strangely empty and silent city that lay far below.

‘What do you know about the problem of evil?’ asked the Angel at last.

‘I know evil when I see it,’ Leoni retorted. ‘It’s come into my life. It used to come into my bed. I can put a face to evil and it’s the

face of my father.'

'Yes. But how would you define this evil? What is it? What's it all about?'

'Evil takes an innocent child and violates her again and again, and afterwards tries to convince her she imagined the whole thing. Evil takes whatever's good and tries to turn it into shit. Evil takes whatever wants to fly and tries to tie it down. Evil takes whatever's beautiful and tries to make it hideous. Evil takes the truth and tries to make it look false. Evil can't abide love and tries to turn it into hate. That's what I know about evil.'

'So would it be right to say that evil is a negative force that wants to make things less than they might be?'

'Yes. It's that. And it's doing bad, hurtful things to others intentionally. It's taking pleasure from their pain. And – oh, I don't know – so much else.'

'A wide spectrum of horror and unpleasantness, in other words? Of kinds that are commonplace on Earth?'

‘Yes, I guess so,’ Leoni conceded.

‘Hence the so-called problem of evil. Human philosophers deploy the existence of evil as an argument against the existence of God – or, anyway, of an all-powerful and all-good God. You know, either God wants to abolish evil and can’t, in which case he’s impotent, or he can but doesn’t want to, in which case he’s evil himself.’

‘Neat contradiction.’

‘But an irrelevance, like much of what passes for thought amongst humans, because from no world is it possible to banish evil entirely and there exists no benign, all-powerful “god” to do away with it. Rather, in all realms, from the most material to the most ethereal, spiritual powers and principalities are at work, and while some serve the good and seek to spread its light, others magnify evil and seek to become rulers of darkness.’

‘So it’s a sort of contest …’

‘ … Between spiritual goodness and spiritual wickedness, for

the souls of all sentient beings. It has continued since the dimension of time took form. In many worlds good and evil coexist in roughly equal measure. In some worlds good is greatly in the ascendant, and in some worlds it is evil that prevails.'

'And you're one of those who serves the good?' Leoni asked.

'Have you ever doubted it?'

'Never! You can be scary, but I've always known you're good through and through. Just like I know Jack is evil – whatever he calls himself. That's what you wanted me to understand, right, when you showed me Sulpa? That in some sort of schizo way he's also Jack? He was murdering children – butchering them with a black sword. It was horrendous.'

'You had to see it so you would know the true nature of the creature we confront. The foul sacrifices Sulpa demands, the blood he drinks and bathes in, the fear and suffering he evokes, the joy his followers take in pain – all these things are consecrated to a terrible purpose.'

‘You know that he followed me back,’ Leoni interrupted. ‘He possessed the body of a young woman and when he spoke through her mouth he wasn’t Sulpa any more. He was Jack. I’d have been dead on the floor if you hadn’t sent Matt to save me.’

‘I regret it came so close. I had failed to anticipate how fast Sulpa’s power has grown. Already he casts his spirit far ahead, contaminating and corrupting all in his path. The sacrament that will allow him to pass through in bodily form nears completion …’

‘Pass through in bodily form – what do you mean?’

The Angel didn’t seem to hear Leoni: ‘One final gigantic act of wickedness remains to be performed, one more colossal holocaust of the innocent, and all hope of stopping him will be lost.’ That unreadable expression – was it grief? – once again troubled the eerie beauty of her face, and she fell silent.

‘If he can’t be stopped,’ Leoni prompted, ‘if he … passes through in bodily form. What will he do?’

‘He will wrench the last shoots of goodness from the Earth,’

the Angel replied, her voice so quiet it was almost a whisper. ‘It will become a hellworld, for ever beyond salvation. I cannot allow that to happen, Leoni – but neither can I prevent it without your help.’

Chapter Fifty-Nine

‘You need *my* help?’ Leoni was amazed the Blue Angel had suggested such a thing. ‘But you’re a supernatural being. How could I possibly help you?’

‘Look around,’ said the Angel. ‘What do you see?’

Their deckchairs were positioned a few feet back from heavy gold railings that guarded the edge of the balcony. Leoni stood and walked to the railings, placed her hands on the top bar, and gingerly peered over the edge.

‘WOW!’ she exclaimed.

She’d known they were high up from her first views through the windows of the white room behind them. But now she saw the room occupied the top of a dizzyingly tall cylindrical tower,

mounted on the apex of a gigantic silver pyramid marking the geometrical centre of the Angel's city. The pyramid's square base, as big as six Manhattan blocks, was encircled by a broad canal filled with glistening silver liquid. Arranged in concentric rings around it, separated by gardens and parklands, alternating with zones of elaborate and extravagant architecture, were four further huge canals, respectively of crimson, blue, green and gold, spanned by soaring bridges that hung in the air without visible support. The outermost canal was ringed by a wall of some beautiful copper-coloured metal hundreds of feet high and dozens of feet thick.

Sensing a trick in the Angel's question, Leoni took her time looking around.

Scattered across all the architectural zones were stupendous ziggurats of white crystal arranged in groups of four around rectangular plazas, and giant chateaux of blue crystal embellished with Gothic spires and turrets. There were edifices that might have been cathedrals or temples or mosques of emerald and garnet

surmounted by domes and needle-thin minarets capped with gold. There were immense arches and flying buttresses, forests of skyscrapers fashioned entirely from glass with no stone or metal visible, and wide elevated thoroughfares connecting all the zones. Most imposing of all were perhaps a hundred obelisks, each as tall as the Empire State Building, seemingly carved from single immense blocks of jade and positioned to form the outline of a giant five-pointed star encompassing the entire circular city.

As though responding to Leoni's attention the obelisks began to glow and discharge bright flashes of lightning straight up into the clear and cloudless sky.

'What do you see?' the Angel asked again.

'An incredible city! Obviously! I mean, this is utterly amazing! Like something out of *The Wizard of Oz.'* Leoni paused and looked around one more time. 'So what's the catch? The way the obelisks reacted to me makes me feel it's not real. Is it some kind of unbelievably convincing projection? Is it – I don't know – just an

illusion? Like a mirage or something?' She walked back to the deckchair and sat down: 'Maybe this whole experience is just one big hallucination?' she muttered. 'I took some weird drug, now I'm in the Emerald City.'

The Blue Angel smiled and shook her head: 'All of this is real.' She made an expansive, proprietorial gesture. 'But look.' Suddenly the small device like a laptop computer that she had used to send Leoni to Sulpa had appeared in her hands and she flipped up its screen.

'WHOA!' Leoni objected. 'I'm not doing any more transits until I get some answers.'

'Don't worry. I only want to show you this.' As before, the Angel turned a dial on the control panel beneath the screen. 'Observe,' she said, pointing to a distant complex of four white-crystal ziggurats. There was a shimmer in the air around them and they disappeared. 'Or how about this?' offered the Angel. She turned the dial and the ziggurats were back but their crystal

structure was now cobalt blue. ‘I can also do this.’ She turned the dial a third time and the ziggurats morphed into four huge glittering spheres that united into a single larger sphere and rose a hundred feet into the air, spinning rapidly.

Leoni was puzzled and a little annoyed: ‘Why did you say it was real? You couldn’t do any of that if it was real.’ She leaned over and took a closer look at the instrument the Angel was holding. ‘It has to be a projection. You control it with your laptop-whatever-it-is gizmo like you did the colour of the skies the last time I was here.’

The Angel shook her head: ‘I know it looks that way, but that’s not what’s happening. Everything around us is real in every meaningful sense of that word. These pyramids and ziggurats and obelisks and towers are made of matter. So is the body you find yourself in. You know it doesn’t suffer from the same constraints as your Earth-body but you also know it feels pain and you’ve probably guessed – rightly – that it can be killed …

‘Like you killed Don Apolinar and he killed Don Emmanuel?’

‘Yes. A bit like that. Although utterly different in all other respects, the fundamental structure of matter in the realm where Apolinar built his torture chamber is almost identical to its structure in this realm.’

‘Fundamental structure of matter? If you mean atoms and such then this is already way over my head.’

‘Atoms are child’s play. I’m speaking of much deeper levels.’

Leoni started to object again but the Angel quieted her with an upheld hand and continued: ‘Dear impatient one, this is not an examination. I don’t expect you to master knowledge that the greatest human minds have yet to grasp. I simply wish to inform you that my powers to confront Sulpa on the Earth-plane are finite. I am constrained by certain immutable constants, certain limiting conditions of the Totality. Because of these I need your help.’

‘Totality, Angel? Immutable constants? You’re losing me again.’

‘The Earth is a single planet in a single solar system amongst trillions of solar systems in one universe. This universe, in its turn, is a tiny speck within the Totality – the multiplicity of all possible universes, and all the possible worlds they contain, comprising the whole of reality. Matter is organised and coheres at many different levels, across all these numberless realms – from the lowest, most physical and embodied states to the highest, most ethereal and *dis*embodied states …’

Leoni pinched her own arm, stamped her foot on the balcony and tugged at the fabric of the deckchair. ‘Feels pretty solid to me,’ she said.

‘Oh, it is. But the fundamental structure of all the wondrously organised matter of this realm lies close to the lowest level at which I can be effective on the physical plane. There are other worlds, where matter resonates at far lower and heavier frequencies, in which physical intervention becomes impossible even for me. The Earth is such a world.’

‘That helps to explain something I’ve never understood. You came to me in my dreams, you even comforted me, but you never tried to stop my dad from raping me.’

A sorrowful expression crossed the Angel’s face. ‘It was beyond my power to prevent him, Leoni. You have no idea how many others there have been – in greater need by far than you, in pain, in difficulty, in fear – whom I have also failed.’

‘So you’re a bit like God in that contradiction you told me about? Good but powerless?’

‘On the Earth plane, yes. Almost powerless.’

‘Almost – but not completely?’

‘Sometimes,’ said the Angel, ‘I can perform miracles.’ She sounded wistful, not boastful.

‘Miracles? Like in the Bible?’

‘By definition they’re exceptional phenomena that don’t occur often – and this quite exactly describes all my attempts to intervene physically on the Earth plane. At rare intervals – when I work the

magic – I'm able to step down and do something excellent. But with such unreliable access to physical power I can't use it to influence events on any significant scale in such a realm. I must reach out to people through their dreams and visions – as I have done with you – when I want to do that. In other words, I must work through human consciousness.' She sighed: 'And unfortunately that also raises huge problems …'

Leoni laughed, remembering the way she'd been before her near-death experience, the things she'd valued and enjoyed: 'A lot of us live pretty much unconsciously,' she said. 'I did, for a long time.'

'I would not say unconscious. I would say shackled, limited, tied down. You humans are spiritual beings in physical form who have fallen so deeply into the heavy material realm of Earth it has enchained your consciousness. You don't remember your true origins, or the purpose of your incarnation. You imagine that the infinitesimally small section of the Totality you are able to know

through your limited physical senses, and through instruments devised to extend them, is all that there is or ever will be to know. You are easily convinced you are just your bodies and there is no such thing as the soul, or if you do believe that the soul exists then you often do so blindly, according to religious dogmas rather than personal inquiry. You must understand, therefore, how frustrating it is for me, as a being of intelligent, conscious, non-physical energy, to have to deal with you. Except for the occasional miracle I cannot manifest physically in your realm. I should be able to reach you easily at the level of consciousness, but humanity's imprisonment in matter is so complete that most of you block me out.'

'You've reached *me'*

'There are back doors. Certain naturally occurring substances, certain spontaneous states of brain chemistry, certain techniques and practices available to all humans, unlock the prison and set the spirit free.'

'Like the Ayahuasca I drank tonight?'

‘Yes, or near-death experiences, or DMT, or psilocybe mushrooms, or the trance-dance of the Kalahari bushmen. When humans are in these extreme states of consciousness I can reach them, just the way I’ve reached you …’

‘But why do you want to do that?’ Leoni objected. ‘I don’t understand. Why do you feel that you have to reach us at all? Why not just leave us imprisoned in matter and go somewhere more interesting?’

The Angel smiled: ‘I can journey where and when I will across the Totality, but no world interests me more than my beautiful, precious Earth, and there is no intelligent species I value more highly than my wonderful, beloved, paradoxical, lost human race.’

‘The Earth I can understand.’ An image of the planet, indigo as the angel’s skin, filled with light, floating in the darkness of space, had come unbidden into Leoni’s mind: ‘It’s pretty amazing … But the human race? What’s so wonderful about us? We’re mostly monsters, Angel. You must know that. We dream up endlessly

clever and horrible ways to kill and hurt each other and rip each other off. We're murderers and rapists and liars and thieves. We're sick, cruel, evil-minded killers.'

'Yes. All those things.'

'And yet we're your "beloved"?'

'What else would you be?' the Angel asked. 'You're my children. My only children. I cannot stop loving you.'

Chapter Sixty

The river was two bowshots wide where it rushed past the camp and it flowed faster than most men could run. Ria knew this because in happier times the youth of the Clan had sometimes amused themselves by racing the Snake – a game that involved throwing a branch into the current and charging along the bank after it. The terrain was rough, filled with humps and waterlogged hollows, and only the fleetest of foot could match the current's speed over distances of more than a thousand paces. Eventually even the best of them began to tire, but the river never did.

So Ria could see how the Uglies' plan might have worked – how, in fact, it was already working for those now far ahead of them, and would have worked for her and her companions on the

last jaala if they hadn't waited for Jergat.

With a splash the front of the little vessel where the reindeer-skin float had been punctured lurched below the surface, sending an icy wave foaming over the wooden platform and soaking them all. Vulp was pinned by the spear that had killed him but the wave shoved his limp body sideways so his arms and head trailed in the water, acting as a further brake against the current and turning the jaala on an even more direct course towards the bank and the Illimani.

Brindle was still unconscious, strapped to the front of the platform on the left. Grondin and Oplimar struggled to influence the course of the jaala, plunging their wooden slabs into the river but to no effect. At the rear Bont sat brooding, his great war axe in his hand. Everyone else seemed dazed, scarcely acknowledging the prancing Illimani warriors on the bank. Their huge numbers, the terrible sounds they made, their joy in cruelty, their lust for blood, the hate and violence that seethed out of them – all these things had

a stupefying intensity.

Ria could feel the weight of their malevolence like a physical assault but refused to give way. Gritting her teeth against the pain of her injuries, balancing against the bucking turns of the jaala, she edged forward through the spray to Vulp, got two hands on him and tried to push him free. But he wouldn't budge. She didn't see Driff moving to her aid, but suddenly he was beside her, reaching down into the skin of the punctured float to free the tip of the spear. It tore loose and they heaved Vulp into the current, his long white hair streaming out behind him as he sank.

The explosion of action seemed to break the evil spell that had fallen over them all. Relieved of Vulp's weight, the front right-hand side of the jaala bucked clear of the water for a moment before splashing down again and, as though waking from sleep, everyone came alive to their plight. 'We need to move back,' Grondin pulsed urgently to Ria. He was already untying Brindle from the frame. 'Tell your people. Put weight on back, lift front up.'

‘Why?’

‘Just do it or we all dead.’

With Jergat’s help, Grondin dragged Brindle to the rear and wedged him between Bont and Rotas. Oplimar and Ligar were already there and now Driff and Ria leapt to join them. The shift in weight raised the front right-hand side of the jaala out of the water a second time, much higher than before. It didn’t crash back and suddenly the little craft was on a smooth course again, skipping along the surface of the river on three of its four floats.

They’d drifted close to shore while they’d careened out of control, but now Grondin and Oplimar steered them back out towards midriver again.

Howls of disappointment rose up from their pursuers.

For the first time Ria allowed herself to hope. She was daydreaming of the bloody punishment she would inflict on the Illimani when the lashed branches forming the floor of the platform rolled beneath her, a rope snapped, a gap suddenly opened and she

plunged up to her armpits in the freezing river. At once Oplimar's callused hands shot out, caught her by her hair and the shoulder of her jerkin, and pulled her back up.

The bumping and jostling sent fresh surges of pain through her head and side and reopened the spear wound in her thigh, but there were more urgent concerns.

Ria saw now that the way the nine of them were riding the jaala would soon destroy it. She shivered with cold from the soaking she'd taken. To keep the front right-hand side out of the water they'd clustered towards the left and rear of the fragile craft, twisting it along its central axis. If another of the ropes binding the platform snapped then the whole thing would disintegrate.

Still shivering, Ria squinted over her shoulder. They'd nearly reached midstream. No more of the fearsome spears had been thrown – they must indeed have been left strewn, as yet uncollected, on the meeting ground. Most of the Illimani had dropped back and only a handful now kept pace with them along the bank.

There was time to risk a repair.

Ria and Grondin decided what needed to be done and had their companions rebalance themselves on the loose, unstable platform, allowing it to fall level. With no float to support it, the front right-hand side dived again, slowing the little craft's progress. As before it rotated instead of pursuing a straight course, and began to move back across the current towards the shore.

The punctured reindeer-skin float and the floor of the platform right above it had to go. Once these were removed there would be nothing left on that side for the current to drag under water. They set Bont to work on the problem, breaking the floor one branch at a time, very carefully and precisely so as not to hasten the disintegration of the whole jaala. Meanwhile Grondin and Oplimar drew rope from their shoulder packs and began to rebind the loose branches tightly.

They worked until their fingers bled, but the constant rotation and juddering wrenched knots apart as soon as they were tied and

for too long they seemed to be making no progress.

Ria looked up at the bank and drew in her breath. Her attention had been so focused on the desperate struggle to save the jaala she hadn't noticed how close they'd drifted.

(Too close.)

The Illimani they'd outdistanced earlier were back with them, shouting and jeering, boiling out along the bank.

Ria's first fear was they might somehow have rearmed themselves with enough of their deadly spears to throw a volley. But instead she was astounded to see a dozen of the pursuing braves grip knives between their teeth, jump into the river and swim out into the current. Two of them … three … then a fourth were dragged under by the turbulent waters but the others were powerful swimmers – better than the best in the Clan – and began to gain on the crippled rotating jaala.

Ria felt Jergat at her side. He held out her five quartz hunting stones, wrapped in a bloodied cloth. She took them from him and

placed them back in their deerskin pouch, keeping one in her right hand.

Then she stood up.

‘You still have two arrows left?’ she asked Ligar.

‘Yes, but my bow’s useless. The string’s wet. I won’t be able to shoot again until it dries.’

The Illimani braves were closing in, swimming like otters; if all eight of them swarmed the jaala they’d tear it apart. Ria hated to lose the stones, but there was no other option. She had to start picking them off in the water.

One brave led the others by a couple of body lengths, his bright blue eyes fixed on her, his pale wet hair glistening around his head in ringlets. Ria knew it wasn’t going to be an easy throw because of the erratic movements of the jaala and the pounding she’d taken, but she judged her moment and let fly. She gasped as new pain exploded in her side but the heavy little quartz egg slammed into the brave’s skull and he sank from view.

The other seven would soon overhaul them. Accepting the agony it cost her, Ria threw again, skimming the stone low across the water, aiming for a swimmer coming in fast from the right. There was a wet *SMACK!* and a burst of blood exploded from his nose. His eyes rolled up in his head and he was gone.

Ria knew the power and effectiveness of her throws was improving. Getting stronger. Getting more accurate. Was it the magic that Merina had put into her arms? Or was it the stones themselves? WHACK! She made her third throw, sending another man to the bottom. CRACK! Her fourth shot hit its target just above the ear. Blood blossomed and the brave wallowed in the water, threw up his arms and sank.

Now Ria had just one stone, the last of her gifts from Merina. Her fingers caressed it as she drew back her arm and threw. There was a solid *CLUNK!* and a fifth man disappeared beneath the surface.

Only three of the swimmers remained, but they were almost

upon the jaala and still Grondin, Oplimar and Bont worked feverishly. ‘Driff!’ Ria yelled. But he’d already seen the danger and now he hurled his two tomahawks, one with his right hand, one with his left. The weapons cartwheeled as they flew across the water and their blades smacked – CLUNK! CLUNK! – into two of the bobbing heads.

Ria looked to the bank. It loomed terrifingly close and the Illimani clustered there began to howl and stamp their feet. Simultaneously the last swimmer drew level, grabbing for a handhold, and Bont finished his work on the platform, swept up his axe and killed the man with a single blow.

Without the impediment of the punctured float the jaala leapt forward. Grondin and Oplimar tied the last knot to strengthen the framework and picked up the steering slabs again. Everyone repositioned themselves, distributing their weight around the now much smaller platform.

Ria snatched a glance. They were once more outstripping their

pursuers on the bank. Better still, they were approaching the next big bend in the river, a stretch she knew well. The land inside the elbow of the bend was treacherous and swampy, full of pitfalls and massively overgrown with thorns, brambles and stands of tall willows. It wouldn't stop warriors like the Illimani but not even they were going to be able to get through those obstacles in a hurry.

She was starting to hope again when two more of the terrible short spears plummeted down on them out of the sky. One killed Rotas, entering between his shoulder blades and exiting through the centre of his chest. The other passed under Bont's arm without causing injury but pierced and deflated the reindeer-skin float beneath him.

Now the break-up of the jaala became unstoppable. The individual branches in the floor of the platform rolled and separated, snapping their new ties, and everyone was dumped into the bitterly cold fast-flowing river.

Ria saw that Grondin was a poor swimmer. He didn't ask for

help but he was having trouble keeping Brindle's head above water as well as his own. Then Bont surged towards them, somehow got his huge arms around them both, rolled on his back and used the long handle of his axe to draw them securely to him as he let the rushing current carry them. Ligar was also in difficulty but Jergat and Oplimar buoyed him up. Driff was swimming right by her side.

The freezing, foaming river had already begun to swirl them all into the start of the bend when Ria felt a peculiar prickling at the nape of her neck.

It wasn't the cold.

She turned in the water to look behind.

Chapter Sixty-One

Leoni was confused. ‘You mean the whole human race?’

‘Yes,’ agreed the Angel. ‘That’s right.’

‘But how can we be your children? There’re billions of us.’

‘I didn’t say I gave birth to you.’

‘You adopted us?’

‘No, not that either.’

‘It’s like a riddle. We’re your children, but you didn’t give birth to us and you didn’t adopt us. So what did you do?’

‘I created you,’ said the Angel. ‘I created all life on Earth.’

‘You’re beginning to sound like God again.’

The Angel laughed. ‘I already explained that no being exists across the whole of reality who is all-powerful and all-good like the

god of the Christians.'

'And I suppose I just have to take your word for it?'

'The effects of the medicine will wear off soon, Leoni, and you will return to the Earth-plane. There's much I still have to tell you, so for now, yes, it will be simpler if you just believe me when I say that the creative and destructive powers of the Totality, the authors of truth and lies, good and evil, are all beings like myself – intelligent, conscious, non-physical energy. Sometimes we've been called gods, even worshipped as such, but human notions of angels, spirits and demons are a better fit. We came into existence with the Totality but none of us have ever been able to discover with absolute certainty how or why we're here. We have powers but we are by no means all-powerful at all levels of reality.'

'If you can create life then you're pretty powerful, Angel.'

'Did I not tell you I perform miracles from time to time? Four billion years ago it was I who breathed the magic of spirit into the empty matter of Earth and wrote its code of life …'

‘You’re four billion years old?’

‘Much older,’ the Angel said. The screen of her laptop device displayed a kaleidoscope of swirling colours and Leoni found herself gazing down from the depths of space onto a fiery, barren, empty and lifeless world.

Then, slowly at first but soon speeding up, the character and colours of the planet began to change. Oceans covered it, land masses emerged, and Leoni zoomed in to see that life, in fantastic variety and abundance, was everywhere.

She could still hear the Angel’s voice: ‘After I manifested the first simple organisms, billions of years had to pass on the Earth-plane before creatures with sufficient intelligence to choose freely between good and evil could evolve. The first to do so was the human species.’

Abruptly, Leoni found herself seated in a classroom behind a wooden desk, looking at a big flatscreen monitor on the wall. It was displaying a graphic of a large tree with little shrewlike animals in

the lowest branches, various kinds of lemurs and monkeys higher up, apes above them, followed by a number of progressively more human-looking creatures. At the top, the tree divided into two final branches, beside each of which appeared a superbly rendered three-dimensional human figure. One, labelled NEANDERTHAL, was stocky, heavily muscled, virtually neckless, chinless, big-nosed, beetle-browed and very ugly in a coarse, apelike way. The other, labelled CRO-MAGNON, tall, slim and well-muscled, with handsome sculpted features and a daring, intelligent glint in his eye, was a good-looking modern human being.

'Two similar yet fundamentally different species of fully conscious humans evolved in parallel,' the Angel commented. 'Cro-Magnon is a name given by scholars to one – the anatomically modern humans who are your own direct ancestors. Though there were mystics and visionaries amongst them, many fell deeply into the physical plane and in time they forgot they were also beings of spirit. For them matter became everything. Evil angels mingled with

them, and drew them towards wickedness …'

'Evil angels?' Leoni asked.

'Demons, if you prefer.'

'Like Sulpa?'

'Yes. Sulpa is a demon, and one of my own kind, a being of intelligent, conscious, non-physical energy. But his purpose – his only purpose – is to magnify evil and send his malevolent presence out into all times and across all universes. The more pure and innocent the good he destroys, the more horror and pain he inflicts in the process, the more his own power grows. That is why he hungers for the Neanderthals.'

'The Neanderthals? I saw a story about them on Discovery Channel. Aren't they supposed to have been stupid? And my kind of humans wiped them out?'

'It's true that the Neanderthals were less materially competent than the Cro-Magnons. In fact, they cared nothing for wealth and possessions. But they were highly evolved spiritual beings and they

carried within them a quality of pure, innocent goodness that warmed the Totality. Their goodness was power, Leoni, raw cosmic power, but they used it only for healing, to communicate telepathically with one another, to live in harmony with the Earth, leaving almost no mark. Your species found them ugly, but beauty and truth shone forth from them like a beacon.'

'I'm not surprised we wiped them out then,' said Leoni. 'We can't stand too much beauty and truth.'

'Well, now we approach the heart of the matter,' said the Angel. 'Because it is not at all certain you *did* wipe them out. Your scholars only know that the last population of Neanderthals survived in Spain until twenty-four thousand years ago and then became extinct. But they don't know why this happened. They have no evidence. No observations. In such a case, where an event has not been observed, you may only speak of probabilities …'

'OK, so it's probable, not certain, we wiped them out.'

'In which case it's also probable but not certain that they

became extinct in some other way …’

Leoni shrugged: ‘I suppose so – but why is this important?’

The Angel’s reply was baffling: ‘For the sake of every human alive today it is a matter of the utmost importance that the Neanderthals are *not* exterminated by Cro-Magnons twenty-four thousand years ago. In fact, the fate of the human race depends on it …’

Chapter Sixty-Two

They were being hunted by more Illimani swimmers, still a bowshot behind but closing fast. Ria squinted through the freezing spray. Just six of them. But they were all big men with flint daggers gripped between their teeth.

Beside her she heard a growl of anger as Driff saw them.

Bont had seen them, too. He was on his back, using the handle of his axe to hold Grondin and Brindle against him and keep their heads above water. Ligar, Jergat and Oplimar were struggling just to stay afloat.

Driff shook his soaking mane of black hair out of his eyes. There was a crazy intensity there that Ria had seen in other Illimani

braves, and she didn't like it. But whatever Brindle had done to turn him against his own people, she hadn't seen him waver for a heartbeat since he'd saved her life on the meeting ground.

She looked back.

The pursuing swimmers were fast and determined. They'd already halved the distance. But behind them on the bank, the treacherous swamps, overgrown thickets and dense stands of trees that lay across the great bend of the Snake had slowed the Illimani horde almost to a halt. Yelling with frustration, many more of them, perhaps a hundred, now gripped weapons between their teeth and dived into the water.

Suddenly Ria saw Sulpa. His lean blood-drenched body and long red-gold hair were unmistakable. He sauntered to the bank, brought his hand up to shade his eyes, and seemed to be looking directly at her. Then his arm snaked lazily forward and he pointed his finger.

Ria glimpsed some fast-flying object coming her way. It

seemed no bigger than an insect but it threw up a burst of steam when it entered the water beside her and smacked into her thigh with the force of an arrow, causing her to scream out in shock. The pain was sharp and agonising, as though the projectile was tipped with fire, but when she put her hand down to explore she found no wound, only a lump under her flesh.

Sulpa pointed at her again. But before he could shoot her with another little dart she and her companions were swept round the curve of the Snake and shielded from him by a rank of tall willows growing close to the water's edge.

Ria heard Grondin's thought-voice. 'We are saved.' And an instant later she understood why.

The current was carrying them towards a barren little island in the middle of the river. There, out of sight of the Illimani, the other Ugly braves had beached their jaalas and stood with arms outstretched, some holding spear shafts, others coils of rope, waiting to rescue them from the water.

Ria was allowing herself to hope she might make it when one of the Illimani swimmers gripped her ankle. She just had time to take a gulp of air before her whole body was dragged beneath the surface.

She didn't panic. After their parents had drowned, Hond and Rill had taught her everything there was to know about swimming. She'd learned to hold her breath and swim underwater in ice-cold rock pools in the mountains. She prided herself on being able to stay down for the count of two hundred. So she kept her eyes open in the cold blur. Her attacker had a dagger in a sheath at his waist but didn't reach for it. He was still holding her ankle, jerking her under, and his free hand snaked out, scrabbling for her throat, leaving his flank vulnerable. Ria stabbed him hard and fast, driving the blade deep between his ribs. She heard his scream, muffled by the water, a cloud of bubbles burst from his mouth, and she was free.

Even before she could reach the surface and fill her lungs another Illimani swimmer was all over her, pale legs thrashing,

hairy armpit in her face. He had a knife clamped between his teeth but, like the first man, he didn't use it and tried to grapple with her instead. Ria slashed her blade across his belly, releasing a huge wash of blood, and broke loose, surging upwards, desperate for breath, shaking her hair out of her eyes as she surfaced.

The four surviving Illimani were ignoring everyone else, converging on her, and Ria guessed why they weren't using their weapons. Sulpa wanted them to capture her and bring her back alive.

With her last reserves of strength she thrashed across the current towards the island. Brindle, Grondin and Bont had already been pulled ashore by the Uglies, and Ria saw Ligar, Oplimar and Jergat being helped from the water. She'd become separated from Driff in the struggle but he caught up with her now, just as the four Illimani reached her. One wrapped his arm around her head, another grabbed her thigh, another her hair, as Driff flailed into them, biting and pummelling. Then the river tumbled them all in a heap against

the island where the Uglies were waiting. Ria and Driff were hauled to safety and the Illimani were hacked to death in the shallows.

There was a swirl of activity as the crews rearranged themselves amongst the remaining jaalas, and Ria was quickly back on one of the little vessels with her companions beside her. But the next wave of Illimani swimmers was almost upon them, and more than twenty splashed close enough to swarm the jaalas as they were launched. Ria reached over the side and stabbed one of the attackers in the eye as he tried to climb aboard. Another brave swam up and she slashed at him, screaming defiance, forcing him back. She saw Bont and Grondin laying about with their axes, cutting a way through, saw Uglies on the other jaalas doing the same, until at last the little fleet broke clear and surged into the mainstream, scudding over the surface.

Ria didn't look back; the men in the water couldn't match the speed of the jaalas.

She crawled across the floor of the raft to where Brindle lay,

still unconscious, and rested the palm of her hand on his chest. His eyes were closed, his breathing was steady, and he did not seem to be in discomfort or pain. She confirmed again that the axe wound to his head, though bloody, had not penetrated his skull.

‘He going to be OK,’ Grondin pulsed. ‘He sleep deep now. We heal at Secret Place.’

Since she too was very tired, and there was nothing more to be done on the bucking craft as it shot along with the river, Ria stretched herself out on the deck next to Brindle. Almost at once Sulpa’s image came into her mind, his lean body drenched in blood, pointing at her.

She reached down inside her leggings and touched her right thigh where his little dart had struck.

The hard lump under her skin throbbed and radiated heat.

Chapter Sixty-Three

‘But that’s ridiculous,’ Leoni protested. Her mind was reeling. ‘How can we make any difference to something so long ago in the past? Whatever happened happened and there’s nothing we can do about it …’

The Angel smiled: ‘That’s not quite how time works.’ She made some adjustments to the controls of her laptop device. ‘But once again you’re just going to have to take my word for it.’

‘Take your word for what?’ Leoni asked.

‘That we may influence events at any point in Earth’s history or prehistory providing the results we want to achieve aren’t ruled out by existing evidence and observations.’

The Angel had spoken formally, almost as though she were quoting from a legal document, but now she reverted to her normal tone: ‘In the case of the Neanderthals, history only has evidence they became extinct twenty-four thousand years ago, and this happened in Spain. But history does not tell us how or why they died out. We’re therefore free to attempt to influence not the extinction itself – which is an observed historical event – but how and why it happened …’

‘Yeah,’ said Leoni. ‘If we have a time machine.’

‘But we do.’ The screen of the Angel’s laptop had sprung into life again, displaying its vortex of menacing colours. ‘Surely you guessed when I sent you to see Sulpa I was sending you back in time?’

‘Not at first, no. It didn’t even occur to me. Matt suggested it later when I drew pictures of the weapons Sulpa’s people were carrying. But it doesn’t make any sense to me.’

‘How do you think time works?’ the Angel asked. She pointed

to the screen: ‘Draw it for me with your finger.’

Leoni reached out and traced a glowing green horizontal line from left to right across the middle of the screen. She scrawled PAST above the extreme left side of the line, PRESENT at the centre, and FUTURE at the extreme right.

‘Ah,’ said the Angel. ‘Time’s arrow. For one event to cause another it must precede it.’

‘Well, obviously – duuh …’

‘Or perhaps not so obvious. Perhaps, for example, time is more like this.’

The Angel waved her hand, erasing Leoni’s line, and touched the screen with her own index finger. Though continuous, the line she drew was not straight but looped and twisted and sprawled across all parts of the screen, making multiple meandering curves and turns, often winding back and recrossing its own path, here forming a spiral, there a cat’s cradle, and there coiled into a tangled knot.

‘Different things happen at different points along the line,’ the Angel explained, ‘and there are multiple causal interconnections running in all directions, so it’s not, strictly speaking, inevitable that one thing must occur before another in order to influence it. That’s how it seems to humans – almost all of you agree on it – because you’re so deeply immersed in matter. But leave the body, step outside the flow of earthly time, and you see that everything is continuously unfolding at every point along the line …’

‘And once you’ve stepped out you can step in again at any point you choose?’

‘Or you can be sent in, as I sent you in,’ said the Angel, and she touched a tangled point on the line with the tip of her finger.

‘But out of body, right? Like I was in the middle of all that Sulpa madness? It’s not like the land where everything is known, or Don Apolinar’s dungeon?’

‘You have no physical avatar when I send you into the past this way’ – the Angel touched the laptop again. ‘You are pure, non-

physical consciousness. You are spirit.'

Leoni felt her eyes drawn back to the meandering line on the screen – a brilliant luminous green trail, standing out against the background of deeper, darker, swirling colours. 'Wherever time recurves, and passes close to its own course, such as here' – the Angel pointed to a place where two sections of the line ran in parallel for a short distance and appeared to touch. 'Or where time crosses over itself, such as here' – she pointed to one of the many loops she had drawn. 'And particularly where it becomes intricately ravelled and intertwined such as here' – she indicated one of the most densely knotted areas of the line – 'then special possibilities emerge both for good and for evil.' The Angel turned her intense gaze on Leoni: 'Connections form between the different epochs thus superimposed, and the lives and fates of certain individuals can become entangled …'

Leoni was staring into the screen again. The swirling colours had vanished. It was now as though she was looking down at the

Earth through a trapdoor in the sky. What she saw was a group of little rafts, launching from an island in the midst of a wide fast-flowing river, surrounded by a crowd of swimmers.

She zoomed in. The people on the rafts were fighting the swimmers, hacking their way through them with axes. With a final mighty effort they broke free and the rafts were carried off by the current.

Leoni zoomed in again and found herself on one of the rafts. Most of the people on board were cut and bleeding. Some, with no necks, big chunky bodies and crude ungainly features, resembled the figure of the Neanderthal the Angel had shown her earlier. Others were humans like Leoni and, with a jolt of excitement, she recognised the mysterious girl she had warned about the tree-birds – the girl with nut-brown skin and chestnut hair who'd come to her in a dream and taken her hand and told her that together they could find their way out of a terrifying forest. She lay on the floor of the raft beside a club-footed Neanderthal with a head injury. She was

injured, too. Her lean hard body was soaked from the river, and blood seeped from multiple flesh wounds. Her face was a mass of bruises but her eyes shone with the same bright intelligence Leoni remembered. There was no mistaking her.

'Her name is Ria,' said the Angel. 'She lives in the Stone Age, in what is now the northern part of Spain, by the banks of a glacial river that dried up millennia before you were born. She's a member of a tribe of Cro-Magnons who call themselves the Clan.'

'And the other people with her?'

'Some are survivors of the Clan like herself. The rest are Neanderthals. Usually you would not see them join forces, but in Sulpa they face a common enemy.'

Abruptly the river vanished from the screen and the meandering green line was back. The Angel pointed to a densely coiled and knotted section. 'Though separated by twenty-four thousand years of linear time, your epoch intersects with Ria's epoch here' – her finger touched one of the points where the line

crossed over itself and there was a flash of green. ‘Your life is in the twenty-first century, Ria’s is in the Stone Age. But because there really is no present and no past everything in these two intersecting timelines actually unfolds simultaneously.’

‘So what you just showed me, the rafts and the river, this Ria girl – it was all happening twenty-four thousand years ago but also, in a weird way, right now?’

‘In a weird way, yes.’

The screen display changed again. The green line was gone and Leoni found herself looking down on the brutish naked ranks of Sulpa’s pale-skinned bloodstained army.

‘They belong to a Cro-Magnon tribe of eastern Europe who call themselves the Illimani,’ said the Angel. ‘Sulpa has possessed the body of one of their young warriors, killed their former king, shaped them into this instrument of evil, and led them on a mass migration across Europe, ending up in northern Spain. He has come there to torture and kill the last Neanderthals on Earth. But all the

Cro-Magnon tribes who cross his path are also being annihilated, including Ria's people.'

'She looked like she'd been in a fight …'

'She had been. A fight for her life. Barely an hour ago in her timeline the Clan were attacked. The adults were massacred – only a few dozen escaped, Ria amongst them. Hundreds of children were sacrificed to feed Sulpa's thirst for innocent blood.'

'Why? What's the matter with this guy?'

'It is as I told you – the more pure the innocence he destroys, the more horror and pain he can inflict in the process, the more his own power grows.'

'That's why he sacrifices children?'

'He drinks not only their blood but also their souls … He snuffs out their consciousness for ever so they may never again take shape in new forms. He takes everything they were and are and could be and feeds it to the evil within him. It is the same hunger for pure souls, magnified a thousandfold, that draws him to the

Neanderthals. Never before, across the whole of reality, has such goodness and innocence as theirs come into existence.'

A flicker caught Leoni's eye and she glanced down at the screen.

The green timeline was back.

The Angel once again pointed to the place where the twenty-first century intersected with the Stone Age. 'You will note,' she said, 'that the knot here is very dense and this intersection is also surrounded by other superimposed epochs …'

Leoni looked. She could see many points that would have been widely separated if the Angel had simply drawn a straight line across the screen, but that lay close together and frequently overlapped in this intertwined and knotted line.

'To grasp the danger,' the Angel continued, 'you must know something of what Sulpa is attempting to do.'

'Didn't you say he wants to make himself more powerful by murdering good people?'

‘That is simply a means to his larger objective.’ The Angel’s beautiful voice had fallen almost to a whisper: ‘The goodness of the Neanderthals presents him with a special opportunity. If he succeeds in destroying them, as he intends, the psychic charge he draws from their life force will allow him to jump the ages and manifest in physical form in the twenty-first century as well.’

‘He already has!’ Leoni objected. ‘Manifested physically, I mean. Isn’t Jack just the name Sulpa goes by today?’

‘It is. But Jack is not a fully formed physical being. Sulpa used the entanglement of the two timelines to send him forward into the age of technology as a dark and corrupting influence, something without solidity, intangible, more like an intelligent cloud than a man. But, with each new sacrifice he performs in the age of stone, his shadow in the twenty-first century grows stronger and more physical, and followers flock to him. All that remains is the mass murder of the last Neanderthals and Jack will become a fully materialised avatar. Then Sulpa will stand astride the intersecting

timelines and begin to weave the doom of all that is good.'

The Angel's finger touched the screen again: 'Because time is so densely entangled in this region, many other epochs lie closely superimposed. Very soon he will be able to spread his tentacles through all of them. The balance of the Totality itself stands at risk.'

'But if we stop him massacring the Neanderthals none of this happens, right?'

'None of it. Only in this way can he gain sufficient power for the full materialisation of Jack.'

'I don't ever want to see that day come,' whispered Leoni.

'Then will you help me prevent the massacre? This is the adventure I have chosen you for.'

'Yes,' said Leoni with passion. 'Yes, with all my heart. But how will we do it? You said you can't intervene physically. You said I'm just spirit when I go into the past.'

'Ria stands between Sulpa and the Neanderthals and I have entangled your life with hers,' said the Angel. 'You are sisters in

time now. Together you will find the way.’

Leoni looked down at the screen. The swirling colours were back. They seemed to draw her in and she began to fall.

Part III

Chapter Sixty-Four

When Leoni fell through the colours of the laptop's screen she experienced a horrible moment of déjà vu. The last time she'd done this she'd been on her way to a terrifying encounter with Sulpa. Now she was in another one of those tunnels – swooping swirls and turns, long vertical drops. It seemed to go on for ever. Then WHOOMF! She emerged from the transit out of body, invisible in the midst of thousands of Illimani warriors, on the bank of the same fast-flowing river where earlier the Angel had shown her Ria with her companions fleeing on rafts.

How much earlier?

Leoni saw the position of the sun had changed. Somehow

morning had become afternoon and it seemed hours must have passed here while she'd gone through the transit. It was going to be hard to find Ria now.

She took to the air and hovered twenty feet above the jostling, agitated Illimani. In the thick of the crowd was a wide circle of clear space occupied by only one man. His back was turned to her, but she would recognise Sulpa from any angle. He looked like he'd been bathing in blood again – the evil fuck – and his hair was matted thick with it. He was also talking to himself, muttering very fast in some unknown language. It was scary, the way this babble kept pouring out of him.

Leoni was fascinated and terrified at the same time.

Would Sulpa somehow be able to detect her presence, even though she was out of body and he was not?

Even though this was all happening twenty-four thousand years ago?

She kept drifting closer until she was floating right over his

head.

A dirty-grey sphere nestled in each of his hands, which he held out before him, palms up, fingers flexed, as though he were juggling. The spheres were about the size of tennis balls and had a filmy soap-bubble consistency, much like her own aerial body but opaque.

Leoni risked dropping lower. There was thick smoke swirling inside the spheres in which, from moment to moment, strange hints of shape and substance threatened to appear.

Was that a wing? Was that a talon? Was that a haunch?

Just a littler closer and …

Now she had it …

Seemingly formed out of the smoke itself, a hideous little beast with muscular hind legs, clawed feet and folded leathery wings crouched within each of the spheres. The pair seemed to be identical combinations of bat, pterodactyl and gargoyle. Their gaping mouths were filled with tiny needle-sharp fangs. Their eyes, the colour of

blood, were fixed adoringly on Sulpa.

Even if their master couldn't see her while he was in his physical body, Leoni was sure his creatures could.

She had already begun to back away when they burst forth from the spheres, flapping their wings, and flew to perch on Sulpa's shoulders. She saw them cock their heads as he whispered something to each of them. Then they leapt into the air and streaked towards the river.

Leoni knew with cold certainty they'd been sent after Ria. Keeping what she hoped was a safe distance behind them she followed.

The little monsters were flying very fast just above the midstream.

No problem. Leoni could do fast.

As she had discovered before, there was something exhilarating about being out of body, an amazing sense of freedom and boundless possibility that was almost … intoxicating. The

feeling that you could do anything you turned your mind to. For an instant she thrust her consciousness thousands of feet into the sky and saw that the river ran through a fairy-tale domain of snow-capped mountains, steep green valleys, shining lakes and vast forests.

This was the land Ria called home.

Her sister in time.

Leoni swooped back to Sulpa's little gargoyles. They were so close to the surface of the river they seemed to be sniffing the water. She settled into position a hundred feet above and behind them but they never once looked round and flew on, covering mile after mile – perhaps as many as thirty miles, she guessed. Then, without warning, they veered to their left, crossed the riverbank and began to speed across open rising country towards a distant wall of mountains.

Leoni could see nothing that would explain why they had changed direction, yet they had swerved like heat-seeking missiles

locked onto their target.

She guessed Ria and her companions must have dumped their rafts here for the river to carry away and begun to trek overland, believing they'd travelled far enough from the Illimani horde to make a safe escape. They'd been careful to leave no tracks but Sulpa's spies obviously had some other way to home in on them.

As she darted in pursuit Leoni felt a heavy responsibility. She had to help Ria somehow.

The air shivered in front of her and for a moment everything blurred, then swung back into focus.

She knew what it meant.

The Ayahuasca was wearing off. At any moment she was going to be returned to her own time and place.

She began to see the first signs – a smear of blood, a broken spear, part of a leather sandal, a pile of turds – that a large group of people had passed this way. How many had been on the rafts? Fifty? A hundred? She couldn't be sure but the further they got from

Sulpa the less care they were taking to hide their tracks.

The trail led past a lake and up a steep mountainside. There was a forest here, sprawling across the slope of the mountain. The gargoyles dived eagerly amongst the trees and within seconds, still deep in the forest, had caught up with the stragglers.

They were Neanderthals, all males, dressed in skins and rough weavings. Many were bloodied with cuts and stab wounds. Some were badly injured. But Sulpa's creatures showed no interest in them. With increasing urgency and purpose, seeming more and more excited, they slalomed through the trees, shot across a broad clearing littered with corpses – had a battle been fought here? – and darted straight for a small figure being carried on an improvised stretcher in a mixed group of Neanderthals and humans.

Ria! She had been covered with wounds but fully conscious, her eyes bright and intelligent, when Leoni had glimpsed her earlier on the raft. Now she was unconscious, slumped in the stretcher, her deeply tanned skin a sickly shade of grey, her eyes ringed by huge

dark circles. Most of her wounds had stopped bleeding but her leather leggings had been cut away over the outside of her right thigh to reveal an ominous dark swelling, like some frightful tumour breaking through her skin.

Leoni saw it was to this the gargoyles had been drawn.

Although it was obvious that neither the humans nor the Neanderthals could sense their presence, Sulpa's creatures had attached themselves to Ria's leg. Their leathery wings were folded and their snouty mouths were thrust directly into the tumour, making disgusting guzzling and slurping sounds. *Oh, gross!* They were in ecstasy. Their eyes had rolled up in their heads. Slurp. Suck. Suck. There was something in there they hungered for.

The air shivered again, everything turned midnight black and a vast cloud of fireworks exploded before Leoni's eyes. For an instant she could see nothing at all, seemed to be falling, seemed to be flying. The scene came back into focus just as Ria's stretcher-bearers stepped out of the belt of forest and back onto open

mountainside, and the succubi unclamped their jaws from her leg and flew up into the sky.

Leoni was after them at once and by the time they levelled out at a hundred feet she was already far above them.

Ahead of Ria's little group a long line of Neanderthals trekked up the steep open grassland beyond the forest. They were stretched out in single file and the leaders were already close to the massive wall of cliffs, running for miles along the ridge line of an interlinked chain of rugged mountains, that seemed to be their ultimate goal.

As Leoni watched she saw the lead group move aside a section of the thick undergrowth that lay at the base of the cliffs, revealing a hidden path.

She looked down. Sulpa's creatures had seen it too.

The air shivered and steadied, shivered again. Only seconds now, minutes at the most, and she would be out of here. Ria and her friends would never know Sulpa's spies had followed them and found their hiding place. Within a day he would bring his army here

and slaughter them all.

Leoni was determined that must not happen. And there was a simple solution. All she had to do was kill the gargoyles.

It was tricky. Leoni was out of body, and the gargoyles were clearly some kind of aerial species too. But aerial bodies could be held, damaged, detained – the way Don Apolinar had trapped her in his net, the way she herself had fought Sulpa out of body. She remembered how it had been when she'd barrelled into him – solid resistance and a massive shock, not fog passing through fog. If the same rules applied here then she might be able to do some damage to his loathsome little monsters.

She dropped very fast, aiming for a point between them, and grabbed their scaly necks as she shot past. There was an immediate slap of contact, reassuringly solid and real, and she dragged them, shrieking and flapping their wings, towards the ground, alighting close to Ria as she was carried by on her stretcher.

It was good … to be able to do something for her sister.

Leoni tightened her grip on the creatures' necks and felt them claw at her aerial body with their hind feet. Their wings hummed and vibrated with frantic energy, but they weren't going anywhere.

SMACK! Just like that she smashed their snouty heads together.

SMACK! A second time for good measure.

SMACK! SMACK! They didn't exactly have brains. Their skulls were full of smoke.

SMACK! SMACK! SMACK! SMACK!

Their aerial bodies were already disintegrating, evaporating, blowing away on the wind and soon Leoni was left holding nothing.

Another shiver of the air, very strong this time, before the image of the mountainside and the ragged column of fleeing Neanderthals came back into focus. As well as Ria, Leoni had counted only three other humans amongst the entire group, one also on a stretcher, the other two walking but with injuries.

She tried to imagine what events had led up to this moment, deep in prehistory, to which she was an invisible witness. Ria and her friends had made common cause with the Neanderthals to fight Sulpa. So much the Angel had told her. And Sulpa was in their land with his Illimani army to hunt down and kill those same Neanderthals – the last Neanderthals who would ever live on Earth – because he wanted to murder their goodness and innocence.

So there was something very special about this group of refugees fleeing up a mountainside in northern Spain. Something very precious and special. Something of great value that had to be protected.

She looked for Ria. The stretcher-bearers had already carried her hundreds of feet higher up the mountain towards the hidden path, and soon she would be safe.

Then a terrible thought struck Leoni. She had killed the little spies but whatever it was in that wound on Ria's leg that had led them to her was still there.

It had to be extracted now or Sulpa would send more spies after her to sniff her out wherever she hid.

Leoni darted forward. Somehow she had to warn the injured unconscious girl.

The air shivered again.

Chapter Sixty-Five

Ria's eyes snapped open and straight away she was fully conscious and aware of her surroundings. 'Stop!' she tried to shout, surprised at the weakness of her voice. She switched to thought-talk: 'Stop. Please.'

Grondin was carrying the front of her stretcher. He looked around and sent her his thought-voice. 'We have to get to Secret Place fast. Very dangerous to stop. Maybe followed.'

'We must stop!' Ria pulsed. 'Sulpa shot something into my leg.'

'Not stop now. Many need healing. All wait to get to Secret Place.'

‘NO! You don’t understand. Sulpa shot something into my leg. It’s still there. If we take it into Secret Place it’s going to lead him to us.’

‘How you know this? You been sleeping long time.’

Before she answered, Ria raised her head and looked around. They were on the mountainside beneath the cliffs that guarded Secret Place – far too close. Up ahead some of the Uglies had already reached the entrance. The mad Illimani kid Driff was carrying the rear of her stretcher. Over there were Ligar and Brindle, also on stretchers, each carried by two big Ugly braves from Grondin’s war party. Ria felt a lurch of concern to see that Brindle was still unconscious. Jergat and Oplimar were both walking, Bont, too, nursing his big axe as though it was a baby. There were cuts and bruises all over his body, but of the spear wound to his back, healed by the Uglies, there was almost no trace.

Mixing words and images Ria showed Grondin the amazing girl with golden hair who’d come to her in a dream just moments

earlier. It was the same girl who'd warned her about the tree-birds in the spirit world, but now you could see through her as though she were made of water or air. She seemed hugely excited and alarmed. As before she shouted in a language that meant nothing to Ria. But this time her words were accompanied by fleeting images and emotions and a message came through with complete and awful clarity. Something lay concealed deep inside the swollen wound that Sulpa's little dart had made in her thigh. As long as it was there he would be able to find her. Then the girl disappeared and Ria woke up.

'Dreams not same as visions,' said Grondin. 'Cannot always believe them.'

'I've seen this girl once before,' Ria replied. 'The Little Teachers brought her to me. I was in danger then and she gave me a true warning. That's why I believe her now.'

Grondin stopped and he and Driff laid down her stretcher. Ria still couldn't get used to the Illimani's wild blue eyes or read the

expression in them – but then, how could she ever hope to know what lay in the mind of a savage such as this? As other stragglers filed past them and continued to make their way up the mountain, Grondin crouched at her side, a small sharp flensing knife in his hand. Ria looked down at the weeping swelling on her thigh. ‘Cut it open,’ she said. ‘Let’s find out what’s in there.’

The pain of Grondin’s knife exploring the wound was unlike anything Ria had ever experienced before. Even though she had braced herself, her shrieks rose to the sky, sweat drenched her brow and a stream of terrible oaths poured from her mouth. Driff knelt beside her, holding her steady as Grondin cut and cut. Then something seemed to burst and a mass of pus and blood spewed out of the wound.

Grondin probed with his fingers. There was less pain now. ‘Nothing inside,’ he reported.

‘No! There is! You have to cut deeper!’

‘You crazy,’ said Grondin.

Dripping with sweat, shaking, dizzy, Ria shrugged off Driff ’s restraining grip, sat bolt upright, grabbed the big Ugly’s jerkin and glared into his eyes: ‘You must cut deeper,’ she pulsed.

Grondin was reluctant. ‘Don’t want hurt your leg. Maybe you become lame. There is nothing inside.’

Ria gasped with frustration and snatched the flensing knife from his hands. ‘Then I’m doing it myself,’ she told him.

Grondin gently took the knife back. She could sense his conflicted feelings. ‘One more cut,’ he agreed.

As the knife went in Ria screamed again. ‘AHHHHHHHHHHHHHHHHH!!!’ The pain was unbelievable, but just as she was sure she could bear no more the tip of the blade snagged on something deep within her flesh.

Something that *writhed.*

Grondin hunched forward, peered into the wound, probed again with the knife, grunted and suddenly twisted his wrist. There

came a second writhing clench within her flesh, followed by a sharp tug and Ria gasped as another huge explosion of pain hit her.

She looked down.

Skewered on the tip of Grondin's knife, but alive and struggling, was the front end of a disgusting maggot or slug, slimy and black, long as a human tongue. It was anchored in Ria's flesh by its rear end, which she could see was swollen into a bulb and covered with little hooks. She watched, fascinated, as Grondin carefully pulled more of its body free, dragging the hooks loose one by one until, with a wet *plop,* the whole creature was out.

He placed it on a boulder that lay nearby and cut it in half.

But each half immediately took on a life of its own and there were two new slugs where one had been before.

Driff looked at them in horror. 'Sulpa?' He seemed to be asking a question. In the chaos of the river escape, Ria realised, he probably hadn't seen his former master firing his little dart into her.

Despite her pain she limped over. 'Yes … They're Sulpa's

work.’

The wriggling black slugs were at the edge of the rock now, leaving thick trails of bloodied slime. They couldn’t be allowed to escape into the ground. But before Ria’s bruised body could react Grondin stepped in ahead of her and pinched one of the loathsome little creatures in each hand, his big, hard fingers gripping them tight as they writhed and twisted. Ria sensed some sort of thought-talk taking place between Grondin and Driff but she couldn’t catch it. Then Driff rushed back to the tree line and began to make a small fire where the canopy of leaves and branches would dissipate the smoke.

Grondin strode down to join him, with Ria hobbling after. She arrived in time to see them place both slugs into the heart of the fire, holding them in place with sticks. The creatures squirmed, and screams that sounded almost human burst out of them as their flesh bubbled and split. They began to expand, growing to the size of a man’s hands, thrashing and flailing before exploding – WHOOSH!

– in clouds of pungent sooty smoke that roiled up into the trees. The few remaining scraps of black flesh crackled and burned, and soon there was nothing left but flames and glowing embers.

Ria looked up into the canopy where the last of the smoke could still be seen melting away amongst the leaves. A feeling of unease came over her. Was this the end of the matter? Or would traces of Sulpa's creatures somehow remain for him to sniff out and follow? She shrugged. Either way there was nothing more she could do about it. As she turned back towards the mountainside a bout of dizziness shook her and darkness welled up behind her eyes. She collapsed in a heap, only faintly aware of Driff 's strong arms catching her before she hit the ground.

Then came oblivion.

Chapter Sixty-Six

‘Thank God.’ The voice was Bannerman’s. ‘I think she’s coming out of it.’

Leoni was in her own body. She hadn’t yet opened her eyes but she’d been conscious of her surroundings for a few moments. She was in a hot, shadowy room, on a bed, with a light sheet draped over her legs. She could hear a persistent fly buzzing and bumping into a windowpane. Bannerman and the person he’d just spoken to were both sitting by her bed and one of them – he had a dry, gentle, reassuring grip – was holding her hand.

She opened one eye.

Oh, good. It was Matt.

Leoni felt content for about half a second until her memories of Ria's world began to flood back.

Those wild mountains and moorlands.

And the dreadful threat of Sulpa and the Illimani.

Had she succeeded in warning her time-sister about the tracking device in her leg?

Or had she fucking failed?

She'd felt so pleased with herself for killing Sulpa's gremlins, but if she hadn't got that simple message through in her last frantic moments with Ria then it would all have been in vain.

She needed to go back. Right now!

Leoni opened her eyes and sat up, taking a great gulp of breath. Matt pulled his hand away as though scalded. Bannerman was on his feet so fast his chair crashed over: 'Leoni!' He sounded relieved. 'Are you OK?'

She blinked and looked around the room, getting her bearings. It was one of the outhouses near the *maloca* – a dorm with a dozen

beds where they'd left their bags and changed into loose clothes just before last night's session. Her bed – she must have been carried to it unconscious – was closest to the door. The others were empty but had an untidy, slept-in look. Although the sun seemed to be shining outside there were thick drapes on the windows that filtered out much of the light.

'Are you all right?' Bannerman repeated.

Leoni could hear the stress in his voice. He probably thought she'd fried her brains taking too many of his weird drugs. 'I don't know,' she replied. 'I've had a very strange night …'

'You went deep with the Ayahuasca. We couldn't wake you.'

Leoni sat up in the bed and put her hand on Bannerman's arm: 'I have to drink again,' she whispered. 'I have to drink right now. I was pulled back too soon from the place Aya took me to. Someone's in danger and I've got to help her …'

Bannerman held up his hand: 'Slow down, Leoni. Take your time. Which place? Who's in danger?'

‘It doesn’t matter.’ Leoni realised she was close to shouting. ‘I’ll explain later, OK? Right now I need to drink more Aya. I have to. You’ve got to help me.’

Bannerman looked severe: ‘There’s a problem with that.’

The problem was Don Emmanuel. ‘He’s not doing well,’ Matt said. ‘He woke this morning totally freaked out. I mean really gibbering.’

‘A most extreme and unexpected reaction for such an experienced practitioner,’ Bannerman was saying when Mary Ruck walked in. She saw Leoni and her face lit up in a smile. ‘Welcome back!’ she whooped, darting to her side to embrace her. ‘You’ve had a long journey.’

The news about Don Emmanuel had depressed Leoni and when Mary was through hugging her she asked about him. The older woman became grave: ‘Last night, soon after you drank your third cup, Don Emmanuel also drank again. Like you, he went very deep. My guess is he suffered … shall we say a psychic ordeal?

This happens to shamans sometimes. When he snapped out of it a few hours ago he was … traumatised.'

'Raving,' Matt corrected.

Mary flashed him an irritated look: 'Well, anyway, he's already much better. I just left him in the *maloca.* He's awake but he hasn't told us what happened yet.'

'I know what happened to him,' said Leoni. 'I was held prisoner on another world' – you could say that kind of thing to this group of people and they'd understand. 'He came to rescue me but the body he was in was killed …'

Mary's eyes had opened wide. 'Killed?' she asked. 'By what?'

'By the shaman who took me prisoner. Don Apolinar. They transformed into different kinds of animals. They fought each other. Don Emmanuel wasn't strong enough to beat him.'

'Don Apolinar!' Mary whistled. 'Shit!'

'You *know* him?'

'He's a *brujo* – a sorcerer. Everyone in Iquitos is afraid of him.

But if they want to use black magic to murder a love rival or zombify an enemy he's the one they go to. Very bad guy.'

Mary and Bannerman were both adamant, over Leoni's protestations, that they felt a duty to protect her and would not allow her to drink Ayahuasca again immediately. 'A shaman has to control the ritual,' Mary insisted. 'You've seen the dangers now, and you know why it's a must. If Don Emmanuel recovers he can give you the brew tonight … Anyway,' she added, 'we all have important work to do before you drink again …'

Leoni had awoken just before three p.m. By six, after a frugal dinner, with the velvet darkness of a jungle evening closing in, the whole group was seated in a circle in the *maloca* to review the previous night's session. With the exception of Leoni's few remarks it was to be the first time any of the participants had heard anything about the others' experiences – for on Bannerman's insistence there had been no comparing of notes during the day. Don Emmanuel

himself would not join in this ‘sharing’ (as Mary called it). The little Shipibo shaman had quietly helped himself to a further cup of Ayahuasca and now lay still on his mattress in a corner of the room.

Matt spoke first, describing what he had seen and experienced under the influence of Ayahuasca. Bannerman was next, then Mary. Despite differences in the details of their accounts it was soon obvious to all of them that something extraordinary was going on.

Ayahuasca had swept Bannerman away ‘like a whirlwind’. He was taken up into a heavenly realm and confronted by a majestic winged woman seated on a golden throne. She had indigo skin spangled with golden stars. ‘Protect Leoni,’ she told him.

Amidst endless jungle, at the foot of a towering capirona tree, Matt stood face to face with a cerulean jaguar who spoke to him in the voice of a woman. ‘Protect Leoni,’ she told him.

Mary was carried down through crystal caverns to the lair of Sachamama deep underground. A giant anaconda with amethyst scales reared before her: ‘Protect Leoni,’ she commanded.

In each case the encounter was loaded with powerful significance, and each of them emerged from the experience convinced they must do what had been asked of them – that in some profound sense it was their task, and their commitment, to protect Leoni through this extraordinary time.

But what did that mean?

It was Leoni's turn to speak of her night journey.

'So the bottom line,' Matt summarised an hour later, 'is there's this girl Ria twenty-four thousand years ago who's the only person in the world with the balls to stand up to Sulpa and stop him slaughtering the Neanderthals. This matters to us because if Sulpa gets his way with the Neanderthals he devours their primal goodness and transforms it into evil – which he then uses to complete his jump into the twenty-first century. Our secret weapons are Ria and Leoni. We also have a supernatural ally – the Blue Angel. She's the same being who's called "Our Lady of the Forest"

here in the Amazon and, as we all know, she has many other forms and identities as well. She's what the ancients would have called a goddess, I guess, and she's used her power to entangle Leoni with Ria in some sort of advanced, hard-to-understand quantum manner that potentially gives them the strength to defeat Sulpa. Since Our Lady of the Forest is also the spirit of the Ayahuasca vine it's not surprising she's used altered states of consciousness to bring them together. I'd say our task is to make certain Leoni can keep returning to Ria's time-frame – which means more Ayahuasca – and to protect her physically and spiritually while she's there.'

Bannerman spoke next: 'I don't claim to understand this transpersonal experience we've all just had, I don't understand how past and present can intersect, and I particularly don't understand how a socalled hallucination can give the same instructions to different people.' He took a breath: 'As a scientist I could dig into all this for years – as a matter of fact, I intend to do so – but – whatever's happening here is extraordinary enough to justify setting

the science aside for now.' He locked eyes with Leoni: 'Despite the difficult journey you obviously had last night, the proposal seems to be that you do more Aya sessions while the rest of us provide you with a safe space in which to explore … these experiences … I'm ready to go with that if it's truly what you want.' He looked around the room. 'I think we all are.'

'It's absolutely what I want,' said Leoni. 'I can't explain it. How I feel about Ria. But I'm not going to let Sulpa get his hands on her if there's any way I can prevent it.'

'My one concern …' Bannerman hesitated.

'Yes?'

'My one concern is the way the Aya hit you last night. I've studied the medical literature and generally the brew is safe. But a few individuals have had exceptional reactions. There have been deaths. A handful of people who were already mentally unstable became psychotic …'

'I don't believe it's going to kill me or drive me mad,' Leoni

said, cutting him short. ‘This is the first worthwhile thing I’ve ever done in my life and I’m not going to stop now.’

From the corner of the room where Don Emmanuel lay came a loud groan. The little shaman sat up wrapped in a sheet and gabbled some sentences in Spanish.

Leoni became alert as she recognised her own name, followed by the names Apolinar and Jack.

Strange.

She didn’t remember anybody mentioning Jack to Don Emmanuel.

Chapter Sixty-Seven

Little by little Ria's consciousness returned, as though she had dived deep into a pool of darkness and was now swimming up again – up, up, up towards the light. She could hear sounds of movement around her, shuffling footsteps, a fire crackling, and further off the grunts and bleats of a herd of red deer. She didn't need to open her eyes to know exactly where she was and she felt no fear when a small leathery hand touched her face and smoothed back her hair. The contact was gentle and compassionate, as though her own long-lost mother had returned to comfort her, and her stomach rumbled at the homely smells of rabbit roasting nearby.

A disturbing memory clamoured for her attention – the golden-

haired spirit girl who'd warned her of Sulpa's vile creature buried in her thigh. Her fingers strayed to the place where Grondin had cut deep with his flensing knife, but the ragged wound he'd made was mostly healed with no swelling and very little pain.

Then everything else came back to her in a rush. The ghastly deaths of Hond and Rill. The show trial. The treachery of Murgh and Grigo. The almost unbelievable massacre of the Clan. Everyone she knew and loved, slaughtered like animals by Sulpa's demonic army.

Could it be so? Could such a terrible thing really have happened?

Surely it must all prove to be some nightmare? Not the truth.

Surely not the truth.

She opened her eyes to find herself prone on a bed of soft skins. Ancient oaks towered overhead and sweet morning light diffused down to her through their leaves. Merina, the magic woman of the Uglies, was kneeling by her side, gazing at her with

sadness: ‘The Clan is no more, Ria. This is something you must accept …’

Ria choked back a howl of anguish: ‘There are survivors. I will find them.’

‘If there are survivors we will help you find them,’ pulsed Merina, ‘and bring them to safety here.’

Ria raised herself on one arm and turned sideways to face the magic woman. ‘Where’s Brindle?’ she asked, fearing the worst. ‘And my two Clansmen – Bont and Ligar? Are they OK? What about Jergat and Oplimar? And Driff, the Illimani kid? They were all injured in the fighting.’

‘All have been given healing,’ Merina reassured her. ‘All are well. They will come to us soon.’ Her brown eyes twinkled: ‘*You* needed much healing, Ria. While you slept. So many wounds on such a small body. But you have fought the evil one! And lived to fight another day! Few can say that.’

‘I did nothing, Merina. It was Grondin turning up with a

hundred braves who got us out of there.'

'You did much! Grondin himself has told me. Brindle has spoken. Oplimar and Jergat, too. You are clever. You have courage in battle and keep a clear head. You are young but others look to you to lead them. Spirits chose you to fight the evil one – that's what Brindle's father said.'

'I don't believe I've been chosen by anybody.'

'I was told to give the five throwing stones to you and you alone, Ria of the Clan. You *have* been chosen! This also you must accept.'

'The stones are gone.' For some reason Ria felt guilty as she admitted it, but she refused to hang her head. 'All five of them.'

Merina smiled: 'Don't grieve their loss. I've heard how well you used them. Besides' – an image of the blue woman appeared in Ria's mind – 'Our Lady of the Forest has other gifts for you. You must eat the Little Teachers tonight.'

The hundred braves who had rescued Ria and her companions from the massacre were from the Uglies' outlying camps. Grondin had found them on the south side of the Snake, already on the march towards Secret Place. While the braves had fought the Illimani and escaped on the river, their females, children and elderly had completed the journey overland. The result was the population of the Ugly hideaway had more than doubled since Ria had last seen it two days before. But the floor of the vast Cave of Visions easily accommodated every member of the enlarged community.

Ria sat with Bont, Ligar, Driff, Jergat and Oplimar in places of honour next to Brindle and Grondin. As Merina had promised, all had received the healing magic of the Uglies and even the more severe injuries were mending well. Ligar, crippled by a spear thrust deep into the muscle of his buttock, was on his feet again and could even run. Brindle, knocked out in a dead coma by an axe blow to the head, was wide awake, animated and excited. Ria's aching rib no longer troubled her. Her other wounds, including the laceration

of her thigh muscle where Grondin had cut out Sulpa's creature, had closed and healed and seemed to have been inflicted months before, not yesterday.

Despite all her sorrow Ria was happy to be reunited with Brindle and she too felt energised when she should have been paying the price of days of beatings and accumulated exhaustion. 'Healing channels the Life Force,' Brindle explained. 'Of course it wakes you up.'

After yesterday's fight against the Illimani, the events of the escape, and the miraculous healings they had witnessed and benefited from, Bont and Ligar were changed men. Everything they had ever been told or believed about the Uglies had been proved wrong, they admitted to Ria, and they found themselves not amongst cruel, stupid savages as they had feared but amongst kind-hearted and intelligent human creatures who had saved their lives and brought them to refuge here in this hidden place. When Ria asked the two Clansmen to join in tonight's vision quest they

agreed, accepting her promise they would not come to harm from eating the mushrooms the Uglies called the Little Teachers.

Driff sat close to Ria, glowing like the others from the healing process. She knew Grondin and Brindle had both thought-talked with him, but so far she hadn't been able to do the same. Since he'd saved her from certain death she was more open to the idea of forgiving him for being an Illimani but she still wasn't sure she liked him at all. He was good-looking, fast on his feet, strong and well put together, and yesterday he'd fought …

(like a demon).

But he still had a long way to go before she could start thinking of him as a friend.

Soon Ria could feel the Little Teachers beginning to take effect.

She breathed in deep. She was ready for this.

A wave of giddiness struck her but she forced herself to her feet and found her way to the same patch of the rock wall, bone

white and glistening, that had attracted her attention three nights earlier. Once again she stood before it and brought her eyes close to its shimmering reflections. Then the dizziness surged back. She crumpled in a heap to the floor and felt herself leave her body and pass through the rock into the tunnel of water and sky that lay beyond. She surrendered to the current and allowed it to sweep her out of the night of the cave and into the bright daylight of the spirit world with its familiar twin suns.

Ria had expected she would arrive again in the meadow of green flowers, but this time, although she was provided with the same body wearing the same strange clothing as before, the tunnel brought her out at a different location – high up on a hillside overlooking a broad valley. In the valley floor sat a camp like none she had ever imagined. A thousand times larger than the Clan's camp, it consisted of countless towering structures of wood and stone arranged in a perfect circle and surrounded by a vast stockade.

Standing with her head turned in profile a few paces lower

down the hillside was the spirit woman with deep blue skin whom the Uglies called Our Lady of the Forest. She was awesomely beautiful and dressed in wondrous garments that shimmered and changed colour with any slight movement she made. Her voice was rich and strong: ‘I can help you defeat Sulpa. He is my enemy as well as yours.’

‘You’re a spirit,’ said Ria as she reached her side, positioning herself a little higher up the slope so their eyes were at the same level. ‘You look like a powerful one. Why don’t you just defeat him yourself?’

‘I cannot defeat him in your world.’

‘I heard that. My friend Brindle told me, but I didn’t believe him.’

‘Nevertheless, it is true …’

‘I should have known! The Uglies never lie about anything …’ Ria paused and thought back. ‘Brindle said Sulpa is a demon.’

‘Amongst the very worst of demonkind.’

‘And that you had him chained up for a long time, but he escaped?’

‘He fled into a human body where he is beyond our power. In that body, if he is not stopped, he will destroy your world.’

‘I’m going to stop him.’

‘I have confidence in that. It’s why I chose you … and one other to fight alongside you. She is the first of three gifts I bring you today.’

Out of nowhere the blue woman had conjured a peculiar square wooden frame, about two spans on each side, with what looked like a sheet of glistening water stretched tightly across it.

‘Look here,’ she said. She held the frame up for inspection.

At first Ria saw nothing, was not even sure what she was expected to see, until slowly, in the shining surface, the face of the golden-haired girl began to appear.

‘I know her,’ she whispered. She craned her neck to peek behind the frame. ‘She saved my life. Is she a spirit? Like you?’

‘She is human. Like you. Her name is Leoni. She too fights Sulpa.’

‘Then why do I only see her in dreams and visions?’

‘Because she is not yet born.’

‘I don’t understand.’

‘She lives a thousand generations in the future …’

‘I still don’t understand …’

‘It is not necessary to understand, only to act. You cannot defeat Sulpa now without Leoni’s help, and Sulpa cannot be defeated in her time unless he is defeated now. Together you and she possess great strength that neither of you have yet imagined. Better you meet in dreams and visions than not meet at all.’

‘I feel like you’re using us,’ said Ria. ‘Both of us. To fight your battles for you.’

‘Have I not already said as much? Sulpa is in human form, so of course it is humans who must fight him …’

Ria gave the blue woman a ferocious look: ‘I saw you with my

parents. The last time I ate the Little Teachers. I saw you with my mother and father and they were alive even though I know they're dead. What was going on there?'

'There are realms in which your mother and father still live.'

'Can I see them again?'

'Perhaps there will be a time for that.'

'If it's only "perhaps", why did you even show them to me in the first place? Are you trying to drive me mad?'

'It was a test. The balance you draw between love and reason. I had to be sure I chose well when I chose you to fight Sulpa.'

Ria was getting angry. Whatever made this being think she had the right to test her for anything? Or decide who or what she was to fight?

But then she remembered Hond and Rill and swallowed her pride. The truth was she did want to fight Sulpa. She wanted to destroy him. Any way it could be done. 'You said you have three gifts for me today,' she said.

The blue woman held up a glittering crystal, smaller than an acorn but with a thousand intricate facets. ‘This is my second gift,’ she said. She leaned forward, holding it between her thumb and forefinger. ‘Accept it and you will have the power to speak and understand all languages.’

Ria thought about Driff. It would be good to know the Illimani tongue. She’d be able to get much more out of him that way to use against Sulpa.

And she thought of the neighbouring human tribes in near and distant valleys – the Ree, the Jicaque, the Merell, the Dirker, the Naveen, the Sher, the Yona, the Spearjig, and many others whose names she could not bring to mind. She thought of the strandwalkers called the Aine who lived along the borders of the Great Sea, and of the fierce mountain folk called the Kosh who hunted mammoths in the tall ranges to the east. All these different peoples – isolated, scattered, mutually hostile, ignorant of one another’s languages – would be in grave danger from Sulpa, and

some had perhaps already suffered the same fate he had inflicted on the Clan. Ria did not doubt he intended to pick them off one by one and annihilate them all, and knew in a flash that her task was to unite them against him. This would be much easier if she spoke their languages.

‘Only a fool would refuse such a gift,’ she said.

The spirit woman’s right hand shot out, and with the speed of a striking snake she plunged the crystal deep into Ria’s temple. ‘You have the gift of languages,’ she told her. ‘Use it well.’

‘Ahh!’ Ria gasped. The pain was excruciating. She put her hand to her forehead but found no wound there.

‘The pain will pass,’ said the woman. ‘Now look here, please. My third gift for you.’ She held up the frame. This time the water was not still but swirled in a spiral and Ria found herself first drawn into it, then falling through it.

Then it was night again and she was no longer in the blue woman’s realm. The moon was nearly full, high in the sky, and she

was flying, out of her body, over the mountains and valleys of her homeland.

She looked at her legs, arms, hands and realised that she could see through parts of herself to the ground far below – that she was as transparent as the night sky. Invisible! Weightless! Flying faster than any bird, without any flapping of wings, simply by directing herself here or there.

As she recovered from the initial surprise she paid more attention to where she was. Winding amidst dense forest, she recognised a deep, precipitous, rocky gorge through which, with much rush and noise, tumbled the foaming headwaters of the Snake river. This was the wild region, claimed by no single tribe, known as the Gate of Horn. It was a day's hard march upstream of the Clan camp and Ria had been here just a few months before on a hunting expedition with her brothers.

Movement caught her eye.

Ahead, scurrying across a wide clearing, casting long shadows

in the bright moonlight she saw a group of people – twenty at least, maybe thirty.

Ria dived towards them, swooping so low she was skimming the treetops. There were men and women in the group. And children. Hope stirred as she began to recognise faces. These were survivors of Sulpa's massacre of the Clan! Then she was amongst them, excited, crying out, trying to embrace them, but they couldn't see or hear her.

They were obviously terrified. Running from the horror of the Illimani horde. Running for their lives in the dead of night. Many were wounded. All seemed exhausted. The kids and the elderly were falling further and further behind.

Disembodied and invisible, Ria let them stream past her.

Last of all, hundreds of paces behind everyone else, was a little family group, a mother and two small children. Perhaps it was because the hair had been singed entirely from one side of the mother's head, or because her eye was swollen closed, or because

the little boy and girl were so battered and dirty, that Ria didn't recognise them at first.

Then it came to her. The mother was Sabeth, Bont's wife. And the two children were Nibo and Maura, his son and daughter.

An irresistible force drew Ria up into the sky.

Up amongst the stars.

A gaping hole opened at her feet and she tumbled through it into a whirling tunnel.

When she awoke in her own body on the floor of the Cave of Visions she knew exactly what she had to do.

Chapter Sixty-Eight

As Mary translated, occasionally stopping him to clarify a word or phrase, Don Emmanuel told them why, despite the terrors of the night before, he had drunk the brew again this evening.

First, he was an Ayahuasca shaman. If he was too afraid to drink then he would be obliged to abandon his calling – which he was not prepared to do. He needed to prove to himself he could master his fear.

Secondly, he wished to spy on Don Apolinar. With the help of the brew he had travelled out of body to the *brujo's* home in Iquitos. He was alert to the danger that Apolinar might sense his presence. But finding his enemy in the midst of a ritual to summon a spirit and

oblivious to all other things, Emmanuel had made himself smaller than a fly and settled in to observe.

Apolinar sat in a high-backed wooden chair in a dimly lit room. He was alone, but positioned a few feet in front of him, set at an angle so that he could not see his own reflection, was an ornate full-length mirror with an antique scratched and stained surface. Apolinar was rapidly repeating the single word 'JACK' in a low sibilant whisper while staring into this tilted mirror.

Slowly, Emmanuel said, he began to see what it was that the *brujo* had called.

An amorphous mass of darkness was welling up within the glass, seething, chaotic, stormy darkness shot through with glints of lightning. And as the mass swirled and turned, threatening to burst free from the confines of the mirror, an imperious voice boomed forth from it and demanded: *'¿PARA QUÉ ME HAS INVOCADO?'* ['FOR WHAT HAVE YOU SUMMONED ME?']

‘Para alertarlo, Señor,’ stammered Apolinar. ‘*Se trata de esta muchacha …’*: ‘To warn you, Lord … There is a girl. With my magic I entered her mind and learned her thoughts. She seeks your destruction.’

‘Many seek my destruction.’ The voice was quieter now.

‘This one is special. She has the force. And the Lady of the Forests protects her.’

In the mirror the thundercloud seemed to heave and swell: ‘THE NAME OF THIS GIRL?’

‘Her name is Leoni. Give me power and I will lead you to her.’

The voice from the cloud fell to a hiss: ‘You have a knife, Don Apolinar?’

The *brujo* seemed puzzled by the question: ‘Yes … ?’

‘Show me the knife.’

Emmanuel described how, with a flourish, Apolinar pulled a thin long-bladed dagger from the pocket of his white suit …

‘Good,’ said the voice. ‘Excellent. Now cut your throat, please

…’

‘My throat? But …’

‘One deep slice from ear to ear.’

Apolinar had struggled, but it was as though his body was not under his control. Very slowly, fighting against himself, he brought the knife up to his throat until the blade nicked his skin and a rivulet of blood ran over his shirt collar and down onto the shoulder of his white suit.

‘From ear to ear, Don Apolinar. *Now,* please!’

Again the blade cut. Deeper this time. Blood flowed.

‘But I can help you,’ the *brujo* sobbed. ‘I am your slave …’

‘Give me power and I will lead you to her,’ mimicked the voice from the mirror, then suddenly ramped up the volume ‘YOU DON’T BARGAIN WITH ME, SLAVE. YOU JUST DO WHAT I WANT.’

‘Yes, master! Yes! My word on it.’ The jacket of Apolinar’s suit was streaked red, and fat drops of his blood dripped to the floor

around the chair. ‘Whatever you require. I beg you, do not kill me. I and my magic are yours to command.’

‘Your magic? Ha! I DO NOT NEED YOUR CONJURING TRICKS. You are a WORM.’

‘Then let this worm take you to the girl, master … I know the jungle. I can be of service.’

‘Can a worm be of service?’ The cloud in the mirror seemed to consider the matter and relent. ‘Perhaps so. Perhaps after all I can find a use … for a jungle worm.’

The blade still cut into Apolinar’s mangled throat but now, Emmanuel reported, the *brujo* was allowed to drop his hand to his side and let the knife fall. The cloud roiled and billowed within the mirror and the voice spoke again: ‘When my servants reach you tomorrow you will take them to the girl. They will know what to do with her.’

Apolinar sat slumped in the chair, his breath coming in ragged gasps, and slowly, like a thick gas seeping away, the cloud began to

recede – but then, with shocking speed, came boiling back again.

As he felt Jack's attention burn into him, and Apolinar's eyes swivel in his direction, Emmanuel fled.

He knew no more of what took place in that room.

Don Emmanuel had been told very little about Leoni's case but he could not be kept in the dark any longer. The connection between Jack and Sulpa, the role of the Blue Angel, whom he knew as 'Our Lady of the Forest', the connection with Ria, Leoni's troubled life history, and the pressing, imperative need for her to continue to work with Ayahuasca were all explained to him.

'We're in grave danger,' he said when Mary had interpreted everything. Jack and Apolinar both knew he had spied on their conversation and although Jack's 'servants' might not arrive until tomorrow there was nothing to stop the *brujo* rounding up a gang of local thugs and bringing them here tonight by fast motorboat.

Iquitos was Apolinar's stronghold so there was no question of

attempting to escape in that direction.

But there was an alternative.

Two hundred miles to the south along the Ucayali, one of the mighty tributaries of the Amazon, lay the homelands of the Shipibo, Don Emmanuel's own tribe. There were no roads in that region. No electricity or piped water. It was a land of small villages, some strung out in plain view along the banks of the river, others hidden away in isolated creeks and backwaters. They could take refuge there, Don Emmanuel promised, where no one could find them. The work with Ayahuasca could continue. He looked apologetically at Leoni. He regretted he had failed to protect her from Apolinar in the spirit world. The *brujo* was too powerful. But in the Shipibo heartland there were shamans far more powerful than he who walked the path of light and would come to the circle to strengthen their defences. 'Evil confronts us,' Don Emmanuel said, 'but it can be fought.'

* * *

All the supplies they needed for the journey upriver were at the lodge – gasoline for the outboard motor, fresh water, food, medicine. There was a tight sense of urgency but loading and stowing everything still required two hours and it was after midnight when they pushed off from the jetty.

Heavy clouds filled the sky, obscuring the moon, and the warm darkness felt thick as a blanket to Leoni. As they turned south against the current she looked back to the north, the direction of Iquitos, and saw a light flash in the distance.

There it was again.

Matt had already spotted it. ‘It’s a boat,’ he said. The light flashed a third time, glancing off the water. ‘A fast boat, coming this way.’

Chapter Sixty-Nine

Nobody doubted the truth of the vision Ria had received as her third gift.

Survivors of the Clan, Bont's wife and children amongst them, had fled east into the forests of the wild hill country called the Gate of Horn. An attempt had to be made to rescue them.

The Gate was claimed by no single tribe and, by long convention, any could hunt there. The most direct way to reach it from Secret Place lay through the Clan's territory, but this would be a perilous route with the main Illimani force, thousands strong, in full control there. The alternative was to head further south before cutting back north and east again towards the Gate of Horn, and this

meant passing through the lands of the Merell and the Naveen – tribes as hostile to the Clan as they were to each other. They were the least promising candidates for the army Ria intended to bring together to confront Sulpa's horde. But she had to start somewhere and there was no time to lose. Besides, it was a safe guess the Illimani would be boiling out in all directions, killing everyone they met, putting their marks of ownership on the land, so the main problem by any route was going to be avoiding them.

Ria had assumed, without question, that Brindle would join the expedition. They had been through so much together, and she counted on him. So it came as a blow when he told her, as they walked side by side out of the Cave of Visions, that he could not accompany her this time.

She was surprised how hurt she felt: 'I suppose you've got more important things to do now you're king.'

'No!' Brindle protested. 'It's not that!' He projected a thought-image of the blue woman into Ria's mind. 'There's a fourth gift,' he

explained. ‘Our Lady of the Forest gave three to you last night, but the fourth one she gave to me. That’s why I must stay. She wants me to build it at once – right here at Secret Place. It’s to help us fight Sulpa.’

‘I don’t understand …’

For a moment Brindle looked exasperated. ‘The fourth gift is an idea,’ he said. ‘It’s a picture Our Lady of the Forest put in my head.’ As he spoke he shared the image. It came through with enormous force and Ria gasped at the richly textured bird’s-eye view he had sent her of three huge concentric circles of tall upright stones. ‘This is what I’m supposed to build,’ he said. ‘What do you make of it?’

Ria found she could move around Brindle’s thought picture to examine it from different perspectives, and felt herself reacting as though it were really there. It was deeply strange. Even as an image it seemed to radiate a brooding and menacing power.

She counted an outer ring of thirty grey stones, all massive,

some rising to twice the height of a man, and thick around the base where they were set solidly into the earth. Their shapes were irregular, rough, weather-beaten. They were patched with lichen like any natural rock. But their arrangement into a perfect circle a hundred paces across was obviously designed. A second circle, made up of twenty black stones – these ones about Ria's height – was placed inside the first. It was fifty paces across. At the centre of the whole contraption was a third circle, twenty paces across, of eight gigantic, roughly conical white stones, each one almost four times the height of a man.

'It's beautiful,' Ria said as the amazing thought-picture evaporated. 'I've never seen anything like it. But how's it going to help us fight Sulpa?'

'It's a stone gateway …'

'Which means what?

Brindle shrugged: 'Our Lady didn't tell me that. She just told me to build it.'

To Ria the whole mysterious task seemed impossible, beyond natural power. How could so many stones that big ever be found – let alone moved?

‘Our Lady told me where to find them,’ said Brindle picking up her thoughts. ‘She told me how Uglies can lift them, how we can make them stand up. She told me where I must place them.’

‘Where?’

Brindle turned to indicate the entrance of the vast cavern behind them. ‘Inside the Cave of Visions,’ he said. ‘That’s where they have to go.’

* * *

Brindle wanted to send a war party of a hundred braves to escort Ria but she declined. ‘We need to stay out of sight,’ she said. ‘A hundred is way too many for that, but it’s nowhere near enough if we get dragged into a pitched battle with a larger force.’

Over Brindle's objections she insisted a small group was much safer and since she and her companions had forged a strong bond over the past days they were the ones who should go. 'Give me Grondin,' she said. 'He's my rock. I need him with us, Jergat and Oplimar as well. I'll be taking Bont and Ligar, of course. Driff, too. That makes seven including me. We'll move fast, leave no trail, find the survivors and we'll all get back here alive.'

'OK, Ria,' said Brindle, 'I know you always do things your way.' He shrugged and changed the subject: 'You accept Driff now?' he asked.

Ria thought about it: 'I guess so. But I can't figure him out. What did you do to him? How did you get him to turn traitor on his own people?'

A look of mild annoyance flared in Brindle's eyes: 'Driff is the first of the Illimani to do the right thing. That doesn't make him a traitor. Could be it makes him a hero. All I did was help him see the truth.'

‘Would be nice if more of them could be helped to see the truth. That many less for us to fight.’

Brindle considered the proposition: ‘I made a rope with Driff, remember? He thought you were a crazy woman who would kill him for sure. I took his side, protected him from you. He saw I was his friend. From then on I could reach him. It won’t be so easy to get close to other Illimani. If we can’t get close to them we can’t make a rope with them.’

Feeling suddenly awkward, Ria embraced Brindle. ‘Make the stone circles,’ she said, ‘whatever they’re for.’ She feigned a stern look. ‘I expect to see them complete when I get back.’

After their night in the Cave of Visions, Bont and Ligar had both opened up to the thought-talk of the Uglies and begun to converse with them in a rudimentary way. Perhaps this enhanced level of communication was a natural effect of the Little Teachers – or perhaps it was because the blue woman had done exactly what she’d

promised when she implanted the crystal – but Ria soon found herself exchanging images with Driff, then words and phrases. By the end of the first morning of the march they were thought-talking with increasing fluency, occasionally slipping into out-loud speech. And to the surprise of the others in the group, what they were speaking was *his* guttural alien language. Soon Ria stopped noticing how weird this was and began using her new gift to learn about the enemy.

Before Sulpa's coming, Driff told her, the Illimani were a nomadic, warlike, hunting people who saw all other humans as prey to be exploited by force or guile. They took what they wanted from them – women, supplies, slaves – and moved on. So it had been for as long as anyone could remember. Then in Driff 's sixteenth summer, two years previously, Sulpa had appeared amongst them.

'You mean he just walked into your camp?' Ria asked.

'No, it wasn't like that.'

It seemed an Illimani warrior called Beche, renowned for his

physical beauty, was mortally wounded during a raid on another tribe. He was brought back to camp and died in the night. At dawn, as was the Illimani custom, his body was placed on a funeral pyre, but before the brands were lit he returned to life, his face still corpse-white, his eyes rolling, his muscles moving strangely beneath his skin and all his injuries miraculously healed.

'Beche exists no longer' he roared from the midst of the pyre. 'You will call me Sulpa now.'

Driff had witnessed these events, and what happened next.

Sulpa leapt down from the pyre. The colour had returned to his features and he seemed like a new person entirely. A person remade. A person who looked like Beche, but was not Beche. A person filled with danger and power. He reached out into the air and by some magic a huge black knife appeared in his hand – an obsidian knife as long as a man's leg. He whirled it around his head, walked five paces to where the old king stood, and chopped him in half at the waist with a single blow. 'I am your king now,' he told

the Illimani while the dying man's blood fountained around him. The king's three sons, who were mighty warriors, contested the claim but he killed them all in hand-to-hand combat and no one else cared to stand in his way.

Thereafter raids on other tribes stopped being about murder and mayhem with the purpose of securing women, slaves and supplies, and became exclusively about murder and mayhem. Killing, which before had been a means to an end, became an end in itself, and a new way of death was born for the Illimani. Without exception everyone who crossed their path, and everyone they could hunt down, was killed. Entire peoples were exterminated, wherever possible by means that were agonising and long-drawn-out. Any Illimani who displeased Sulpa likewise suffered a slow painful execution. 'He is the Eater of Souls,' Driff explained. 'He feeds on pain and death.'

From the day he took over Beche's body Sulpa began to speak of

the cause that would bring the Illimani into Ria's land.

He told them he was mobilising them and would make them stronger than every other tribe because they had a sacred purpose to fulfil.

To them had fallen the honour, and the responsibility, of extinguishing the Light in the West.

He did not tell them what this Light in the West was but as the moons went by they all began to notice he was leading them ever westwards, towards the ice deserts and the vast unknown lands that lay beyond.

Before crossing the ice the Illimani numbered almost thirty thousand men, women and children, and when they reached the other side fully twenty thousand of them still lived. Of these, seven thousand were tough, battle-scarred braves. They fell like ravening beasts on the peaceful and unsuspecting valleys beyond, killed all their inhabitants, took the new lands for themselves, and settled their families there.

Sulpa sent scouts and spies ahead – the Light in the West was close now – and after three more moons had passed he led out his seven thousand braves and marched them towards Ria's homeland killing everyone in their path. Mass sacrifices of captured children were staged almost daily. Sulpa butchered the victims himself, with his long black knife, and drank their blood.

Ria gasped in horror, remembering how she had seen the Illimani sparing the children during the massacre of the Clan.

'Yes,' said Driff, sharing the image, 'that's what we …' He hesitated. 'They …' He hung his head. 'That's what we're trained to do. Children aren't to be killed on the battlefield. They're rounded up and brought to Sulpa for sacrifice.'

'But why?' Ria asked. She was having trouble grasping the concept. How was it possible for anyone to be so depraved he would murder children and drink their blood?

'He is the Eater of Souls,' Driff repeated, as though that explained everything. 'He kills the innocent and the good to

increase his power … That's why he brought us into your lands.' He looked around at their Ugly companions – Grondin, Oplimar and Jergat. 'He brought us here to kill them,' he said, making sure she got his meaning clearly. 'To kill *all* the Uglies. They're the Light in the West.'

By mid-afternoon they were deep inside the territory of the Naveen, following the course of a mountain stream along the bottom of a stony valley, when they saw vultures and ravens circling up ahead.

A great many vultures and ravens.

This was more than just some rotting deer carcass.

And there was the smell of smoke in the air.

Like most people in these parts the Naveen were hunters, gatherers, fishermen and raiders who spent their lives migrating in bands of a few hundred between a series of transient camps. It was one of these that had been hit, just around the next turn of the valley – a huddle of conical tepees standing amongst trees on a narrow

stretch of flood plain overlooking the stream.

Many of the tepees had been gutted by fire; those few that had not seemed isolated and out of place. Smoke still curled up into the air, but there was no sign of movement nor sound of human life anywhere – not a child's cry, not a lookout on the alert, not the chop-chop-chop of flint being knapped.

It seemed they approached a camp of the dead but only as they drew closer did they grasp the true extent of the horror.

Judging from the signs on the ground, and the injuries they had sustained, the Naveen who had been trapped here – somewhat less than two hundred of them – had surrendered and been disarmed without a struggle. All had multiple wounds but without exception these resulted from the peculiar way they had been put to death.

They had been nailed to the trees that grew throughout the camp by means of long, narrow flint spikes hammered through their hands and feet, ankles and wrists. They dangled from the lower branches like clumps of strange, bruised, rotting fruit and clung in

contorted freakish poses to the thick upright trunks. The tallest tree was festooned with twenty of them, their mouths open in silent screams, their eyes already plucked out by ravens, their flesh rent by vultures. But not a single tree had been left innocent of the carnage. On three of them there were Naveen – two men and a woman – who still clung to life.

As even the Uglies admitted, the injuries these unfortunate people had suffered were beyond healing. None of them had any hope of survival, and withdrawing the flint spikes would cause insufferable pain. It was surely kinder to kill them now.

The two men, both unconscious, were quickly dispatched by Bont and Driff. The woman, nailed head down to a tree near the middle of the camp, one eye pecked out, one still intact, was the strongest of the three. She spoke in the Naveen language, repeating the same words over and over. By the third repetition Ria understood: ‘They have taken our children! Spirits help us. They have taken all our children.’

It was true: there wasn't a single child amongst the dead here.

Ria questioned the woman. How many braves had attacked them? When did they attack? In which direction did they go? But she spoke no more sense. At last, with a reluctant grimace, Ria unsheathed her knife to put her out of her misery when a man's voice, hoarse and emotional, bellowed from beside a smouldering tepee: 'Touch her and die.' As Ligar nocked an arrow and drew his bow in a single fluid motion, and Bont unslung his war axe, a dozen Naveen hunters, seven with bows drawn, the rest brandishing spears and hatchets, strode towards them from all directions through the trees.

Chapter Seventy

Mary Ruck's boat was a twenty-footer, with two fixed benches towards the rear seating six passengers under a tarpaulin canopy and an open storage area in the bows. Mary was at the back, controlling the big Yamaha outboard motor. 'I've got two hundred horses here,' she said, and the boat leapt forward as she thumbed the throttle. 'I think we can outrun them.'

'That's a fast engine,' commented Matt. He, Leoni and Bannerman were just in front of Mary, occupying the rearmost of the two benches. 'But, with due respect, your boat's a tub and we don't know what the other guys have got. In fact, we don't even know who the other guys are. We *think* it's Don Apolinar but it

could be someone else. Could be nothing to do with us at all.'

Leoni looked back to the north again. The lights were definitely closer.

'So do you have a suggestion?' Mary shouted. She was barely audible above the sound of the outboard and the slap-slap-slap of the river racing by.

'Yes,' Matt yelled. 'Throttle back – get into the shelter of the bank NOW! Where it's overgrown with trees … Right here will do.'

'Do it, Mary,' Bannerman urged.

'We'll take cover,' Matt continued. 'Keep absolutely silent, show no lights. If they whiz past your jetty and carry on upriver we'll know they're not here for us. If they stop … well, it might be an interesting idea to let the current carry us down to them. I'd like to have a go at scuppering their boat while they're searching the lodge.'

Mary had already throttled back and was turning towards the nearby bank. 'Sounds dangerous,' she muttered.

‘But in my opinion less dangerous than leaving them behind us,’ said Matt. ‘Out on the open water we’ll be sitting ducks if they’ve got guns.’

The jungle grew thick here, gigantic ferns spreading like fans, huge trees looming into the darkness, sinuous mossy creepers hanging down. Mary cut the engine and let the boat’s remaining momentum carry it beneath an immense palm that had toppled sideways over an undermined bank and lay part in and part out of the water. Standing in the bows, Don Emmanuel reached up and slung a rope around the palm’s trunk, bringing them to a halt.

Behind the lights were much closer and with their own engine silent they could all hear the powerful throaty roar of the other boat.

They’d have caught us in five minutes, Leoni thought.

She guessed the jetty lay about quarter of a mile downstream and that the approaching boat must now be very close to it. She found herself praying for it to pass by but instead, with awful inevitability, she heard the engine note change and saw the lights

veer towards the bank.

‘OK,’ said Matt, ‘That settles it. Is everyone with me on this?’

There was no point in trying to escape upriver. Their engine would be heard as soon as they started it and they would be overhauled and caught. There were no other options that Leoni could think of. ‘I’m with you,’ she said.

‘Me too,’ said Bannerman. ‘It’s risky but so is anything else we could do.’

Mary and Emmanuel conferred in Spanish and agreed. There was no alternative. ‘When you are cornered by a hungry jaguar,’ Emmanuel said, ‘it is best to attack it.’

This was all going to be very tight, Leoni thought as the current whisked them downstream. Apolinar would suspect they had fled, since their own boat wasn’t at the jetty. On the other hand that might be a trick – so he couldn’t afford to leave the lodge unsearched. Even men in a hurry would take five minutes to get

from the jetty to the lodge, perhaps another five to search it and find it empty, and five more to get back to the boat.

So Matt had about fifteen minutes to pull this off.

The cloud cover was thinning out. Not good. Then a gap opened and a shaft of moonlight speared through it, illuminating the jetty a few hundred feet ahead. The gap closed again just as fast but not before they all saw the big twin-engined speedboat moored at the jetty. Steering with two stubby oars, Emmanuel and Bannerman guided their own smaller vessel towards the bank and Matt slipped into the water.

Moments earlier Leoni had tried to persuade him to rethink. Couldn't this be done without swimming?

'No,' Matt had said. 'There's bound to be a guard on the speedboat. This is the only way to reach it without being heard.'

Before leaving Iquitos, Leoni had borrowed Bannerman's laptop and run a series of Google searches about the Amazon. As a result

she now knew that the great river and all its major tributaries seethed with monstrous creatures – hideous alligators called caymans that grew up to twenty feet long, anacondas like fire hoses, piranhas and even bull sharks that had adapted to fresh water.

It was suicide to get in this river – she checked the luminous hands of her Rolex – and Matt had been in it for more than seven minutes.

Where the fuck was he?

She glanced at Bannerman and Mary, crouching on either side of her and peering into the darkness. There was enough light coming through the clouds now to see the expressions on their faces, and they looked worried. Emmanuel was in the bow; he'd roped the boat to an overhanging branch and stood ready to release it on Matt's signal.

Which still did not come.

Eight minutes …

Nine minutes …

Was he dead?

Eaten by one of those fucking caymans?

Captured or killed by whoever was guarding Apolinar's speedboat?

The searchers who had gone up to the lodge must return at any moment at which point, even if Matt was still alive, it would be too late for him to do anything. Leoni found she was counting the seconds, glaring into the darkness, whispering under her breath: 'Come on, Matt! Come on! Come on!'

Chapter Seventy-One

The Naveen hunters looked wild-eyed and frantic, half mad with grief, fearful for their own safety yet spoiling for a fight. It was a wonder arrows hadn't started flying yet.

'Stay your hands, brothers,' Ria called out in the Naveen tongue. 'We are not your enemies.' She knew the Uglies wouldn't rush to violence but she pulsed to Driff, Bont and Ligar to lower their weapons: 'Don't start anything. I'm going to try to talk our way out of here.'

Ria still held her long flint knife in her hand. She sheathed it now, gestured at the smouldering remains of the camp and at the trees festooned with bodies, then at her companions: 'We are only

seven,' she told the Naveen. 'We did not do this!' She indicated the woman nailed upside down, her one eye rolling, gasping her last breaths. 'I sought to give this poor one mercy, for she is beyond saving.'

The closest of the hunters, the same man who had challenged Ria moments before, dropped to his knees in front of the dying woman, his eyes level with hers, touched her face and began to murmur to her softly. 'My love. Who has done this to you? Where are our children?' He reached to where her hands and wrists were nailed to the tree and his fingers fluttered over the bloodied heads of the cruel flint spikes. He looked up. Each of her legs was pinned from the knee to the foot with three big skewers that had smashed her shin bones and disjointed her ankles. The futility of any attempt to free her must have become obvious to him, and his body was racked and twisted with great sobs and groans. 'REVENGE!' he shouted. 'I SHALL HAVE REVENGE!' Then he unsheathed his knife and cut the woman's throat, kneeling silently by her while her

lifeblood drained and the last of the light seeped out of the one eye the birds had spared.

The hunter was a tall broad-shouldered man of thirty summers or thereabouts. He had a heavy black beard, a fierce hooked nose, tawny eyes like a wolf, and tanned weather-beaten skin. Now he stood and turned on Ria: 'You!' he hissed. 'You speak our language. Who are you? What are you doing here? Why do you have Uglies with you?'

Ria looked around. The ring of Naveen hunters had closed tight. Some of the braves were young, nervous, lacking in experience, likely to be rash, and the seven archers were getting shaky holding their bows at full stretch. 'Tell your men to unbend their bows,' Ria said, 'and then we'll talk. If they fire on us it'll come to a fight and everyone loses. There's been enough dying here today.'

'If it comes to a fight we'll kill you all.'

'You will. You have the numbers. But how many of your men

are going to die doing it? That's the question. And what's the point? We're just like you. We've lost loved ones to the same evil enemy who struck you here. We should join forces against him. It's madness to fight each other.'

The hunter's wolfish eyes stared at her for a ten count: 'It seems this enemy has stolen our children away,' he said. 'Do you know why?'

'When your men put down their bows,' answered Ria, 'I'll tell you what we know.'

The hunter's name was Aarkon. He wasn't the only one of his band to have dead relatives nailed to the trees; they all did. Nor was he the only one whose children, or younger brothers and sisters, had disappeared. So they were all desperate to understand what had happened. But as Ria told them of the massacre of the Clan by the Illimani horde, and of how Sulpa collected children for sacrifice, their faces darkened. 'We have to get after them,' said Aarkon

grimly, ‘We have to try and save our kids.’

‘It was a large band that smashed this camp,’ Ria reminded him. ‘Must have been hundreds of them, and the whole Illimani force numbers more than seven thousand. What can twelve of you do?’

‘We have to try …’

‘Instead of throwing your lives away, join us,’ she urged. ‘We’re going to build an army to fight them.’

Aarkon cast his eye over Ria’s motley gang of Uglies and humans. ‘An army to fight thousands?’ His tone was close to mockery. ‘Led by a mere girl?’

Ria ignored him. ‘Yes. An army to fight thousands. Why not? We’ll build it not just from one tribe but from many. Uglies. Humans. Naveen. Clan. Merell. It doesn’t matter. The only way we’re going to win is to put old hatreds aside.’

Before nightfall the two groups had separated, Aarkon and his men following the trail of the Illimani raiders, Ria and her

companions continuing their journey towards the Gate of Horn. ‘If our plans work out we’ll be back this way in two days,’ Ria told Aarkon. ‘If you change your mind and decide to join us – even if you just need a place of safe refuge – wait for us then.’

The moon was close to full, providing more light than they needed for marching despite the rough terrain, and with the effects of the recent healings still coursing through their bodies they were filled with energy. Ria was between Bont and Ligar. Driff, Grondin, Jergat and Oplimar were in single file behind them.

‘Where are you getting all these languages from?’ Bont asked.

‘What languages?’ Ria’s tone was innocent.

‘You know, you’re talking Illimani to Driff, you’re talking Naveen to Aarkon. What’s happening?’ He wrinkled his brow. ‘Feels like witchcraft to me.’

‘If it’s witchcraft I want some,’ Ligar exclaimed. ‘Imagine the opportunity to be charming in twenty languages.’

‘It’s a gift,’ said Ria. She wasn’t in the mood to discuss what had happened to her yet. ‘It’s useful. That’s all there is to it.’

She fell back behind her Clansmen. Since the destruction of her people, she loved and valued Bont and Ligar all the more, but still they could be maddening.

For a long while they marched in silence through a landscape of rolling hills. Then they were over a ridge line, with the moon setting behind them and heading down the long slope of a valley.

Below they heard the high-pitched scream of a woman in terror.

Chapter Seventy-Two

Leoni saw Matt's signal – three brief flashes from the Maglite he'd carried with him in a waterproof pouch.

There it was again: flash, flash, flash.

Don Emmanuel slipped the mooring rope free of the branch and ran forward to join Bannerman at the oars. Within seconds, aided by the strong current, they had reached the jetty.

'Hi,' said Matt. 'What kept you?' He was still dripping with water, standing on the side of the speedboat with a canvas bag in his arms. He passed the bag over to Bannerman and jumped after it himself. 'I think we'd better be going now,' he said. They all heard gruff male voices and saw the blink of torches on the path from the

lodge.

‘But their boat,’ Leoni objected. ‘I thought you were going to scupper it.’

‘I have scuppered it.’

‘It doesn’t look very scuppered to me.’

‘Trust me, it’s not going anywhere.’

There was a choking cough followed by an ear-splitting roar as Mary fired up the big outboard and pointed the riverboat out into the current. At almost the same moment the moon surged from behind a scudding cloudbank and lit up the whole scene bright as day.

Five big men, with Apolinar in the lead, were pounding towards them.

Shit! Guns!

Suddenly the Yamaha’s two hundred horses felt way too few to Leoni. They seemed to dawdle by the jetty. For a moment it looked like Apolinar might make a leap for it but slowly the distance widened.

Bullets spattered into the water around them and some hit the boat, tearing into it like a jackhammer. But someone was firing *from* the boat as well! Leoni had her head down but risked a look and saw it was Matt, crouched at the back next to Mary, armed with an automatic rifle – where had that come from? – and spraying bullets at the shore. The firing from that direction ceased, the clouds blew across the moon again and the night's darkness swallowed them up.

Matt stopped firing. Mary was holding the outboard on full throttle.

Then, back at the jetty, someone flipped all the speedboat's spotlights on. Its twin engines burst into life and it shot out into the river.

'Is that what you call scuppered?' Leoni yelled at Matt.

He didn't reply. Just for a second he looked unsure of himself.

The speedboat was quick. It had already halved their lead and was tearing up behind them with all its lights ablaze. Leoni found herself cowering, anticipating the next hail of bullets, when the

powerful thrum of the twin engines faltered and the pursuing vessel slowed and wallowed, its spotlights flickering first at the sky, then at the jungle, then back at the water, missing them by a hundred feet. *Hoo-ray,* Leoni started to whoop, but the cheer died in her throat as she heard the engines roar again. The speedboat steadied and surged forward under full power, then faltered a second time, notably lower in the water, its lights still not finding them. There were three loud bangs, the engines picked up, faltered a third time, and failed.

‘Sorry,’ said Matt. ‘That took a little longer than I expected.’

Gunfire erupted from the men on the other vessel but the current was sweeping them downstream, they didn’t seem to be able to traverse their lights, and the bullets went wide in the darkness.

Leoni half stood to get a clearer view. With Mary keeping the riverboat on full throttle and heading upstream, the distance was widening fast.

‘I’d say we’re out of range,’ Matt announced. ‘Anyway,

they've got other worries.'

As he spoke the moon found a hole in the clouds and Leoni saw that Don Apolinar's boat was sinking. The men had clustered together at the prow, the only part still above water. One of them fired again before they all went under.

Leoni looked at Matt. 'I see what you mean about scuppered,' she admitted.

The automatic rifle was an AK-47, Matt said, adding without further explanation: 'I took it off the guy who was guarding the speedboat.'

Leoni pointed at the canvas bag: 'What's in there?'

Matt lifted it and placed it in her lap. It was heavy and clunked when she set it down. She opened it and saw four curved ammunition clips for the AK-47 and two chunky pistols. 'Hmm. Quite an arsenal.'

'Well … I thought it might come in useful.'

Mary was behind them, holding the outboard's throttle handle,

no longer racing the engine but keeping up a steady, mile-eating pace. ‘You nearly got us killed back there, Matt,’ she complained.

Bannerman had been sitting on the bench beside Leoni, lost in his own thoughts, but now he spoke up: ‘I don’t agree,’ he said. ‘It’s just as likely Matt *saved* us all from getting killed. If he hadn’t done this we’d still have men with guns after us in a much faster boat.’

Mary seemed to think about it. ‘You’re right,’ she said. She turned to Matt: ‘I’m sorry. That was … ungrateful of me. You were very brave. It’s just this has all been so sudden. And now guns, you know? Boats being sunk. There’s a good chance some of Don Apolinar’s gang have drowned. It’s all turned very heavy.’

Several times through the night Matt and Bannerman relieved Mary at the outboard, and by dawn they were fifty miles further south on the Amazon’s vast tributary, the Ucayali.

It was hard not to feel threatened here, Leoni thought, knowing what lay beneath the surface of the muddy waters, the caymans, the bull sharks, the piranhas, the giant anacondas – a seething

underworld of monsters from which they were separated only by the flimsy hull of the boat.

They stopped at a riverside Shipibo village. The few dozen single-roomed homes were simple rectangular structures, raised two feet above the ground on stilts, with roofs of thatched banana leaf, but they were led by a crowd of giggling children directly to a larger communal *maloca.* It too had a raised floor, and its walls of coconut matting had been rolled up to admit cooling breezes from the river.

Everyone seemed to know Don Emmanuel and gathered round the visitors in a curious, friendly press. Leoni's thick blonde hair came in for particular attention and half the village wanted to shake her hand as though she was some sort of celebrity. A breakfast of roast river turtle and ducks' eggs, neither of which Leoni could bring herself to eat, was prepared for them, but she accepted a plate of bananas and a tin mug of hot sweet tea and felt much refreshed.

An hour later they were heading south again towards the Shipibo heartland through a vastness of trees and rivers,

interminably branching and subdividing, a waterworld lost in an immensity. Yes, it was hard not to feel threatened here – and not only because of the monsters that lurked beneath the surface. The scale of everything was so grand – the miles-wide river, the endless sky, and the presence of nature so lush, so green and so abundant it took Leoni's breath away. But there was also a much smaller-scale, down-home simplicity about the countless hamlets and villages that lined both banks: miniature communities, sometimes of just a few families, all seemingly living in harmony with their environment, as at home in this world, Leoni thought, as she was amidst skyscrapers and traffic jams.

She fell asleep, lulled by the steady motion of the boat and the river slapping against its sides, until, without warning, she found herself sitting on the end of a dusty double bed in a shabbily furnished and dimly lit room. Could have been in a low-budget motel. She knew she was dreaming but it all seemed very real somehow.

There was an old-fashioned television set against the back wall. Grey static was fizzing across its screen.

And a voice came out of it.

A whisper.

‘Kill yourself, Leoni,’ the voice urged. ‘Do it now.’

‘But I don’t want to,’ she protested. ‘I want to live!’

The voice hissed and crackled: ‘It’s too late for that. You must kill yourself. The sooner the better. It’s the only way.’

Leoni saw this was true. She didn’t want to die but obviously there was no alternative. She knew it was absolutely inevitable. ‘How shall I do it?’ she sobbed.

‘Don’t worry about that,’ whispered the voice. ‘I will guide you.’

At once Leoni snapped wide awake, gasping and cursing, her heart pounding, engulfed by horror. Matt was beside her, holding on to her, something he’d been doing quite a bit since last night and to which she had no objections. Mary, Bannerman and Don Emmanuel

all stared at her with expressions of concern as she shook her head to clear it. She looked around to get her bearings. While she'd slept they had at some point left the mainstream of the river and were now motoring very slowly along some side branch with steep muddy banks surmounted by thick overarching trees. There was less than an hour until sunset, somehow a whole day had passed and – *SHIT!* – there was another person on the boat, up front at the prow.

Leoni jumped in her seat: 'Who's that?'

'He's Don Emmanuel's nephew,' Matt reassured her. 'His name is Don Esteban. We picked him up at his village an hour ago; you were still sleeping like the dead.' He hesitated as she winced at the simile. 'He's guiding us to the homestead of a big-time Shipibo shaman who hopefully will help us.' He hesitated again: 'Look, I don't want to worry you but you need to know this …'

'Need to know what?' Leoni demanded. She could sense the bad news coming her way.

'Less than two hours before we got there Esteban's village was

visited by a fast boat full of *gringos*. Very bad guys. *Muy peligrosos*. They had *mestizo* guides with them and they were looking for us.'

Chapter Seventy-Three

The woman started screaming again, shattering the night with a longdrawn-out series of shrieks and sobs. A man was yelling alongside her. His voice was hoarse and desperate, pleading and threatening at the same time, and although Ria was still too far away to make out what he was saying the tone of fear was unmistakable.

'Wait,' she said. She stopped walking and everyone else slowed to a halt around her, Grondin and Driff to her left, Bont and Ligar with Oplimar and Jergat to her right. Another heart-rending scream rose out of the valley, reached a crescendo and died away into whimpers and moans. There came a burst of raucous male laughter – three, maybe four men. It wasn't a nice sound.

‘We’ve got two choices,’ said Ria. ‘We can walk away from this or we can try to do something about it. I want to do something about it.’

‘It’s none of our business.’ Bont sounded belligerent. ‘We already wasted the best part of half the day with the Naveen. It was you who told me Sabeth and the kids are still alive. I just want to get up to Gate of Horn and bring them back.’

‘I can understand that, Bont, but think. Suppose that woman being tortured down there *was* Sabeth? Suppose some folks came by who could help her? But suppose they said to themselves “That’s none of our business, we don’t have the time”, and walked away? How would you feel about that?’

Bont screwed up his small eyes in discomfort: ‘I’d want to kill them …’

‘Exactly! Which means you know it’s wrong for us to walk away now.’

Ria turned to the Uglies: ‘Walk or help?’

‘We must help if we can,’ pulsed Grondin. ‘Evil is here now, in our valleys. We’ve got to fight it.’

More screams and another burst of rasping laughter rose up from the floor of the valley. ‘If the laughers are Illimani,’ said Ligar quietly, ‘then I’m for killing them all. They sound like hyenas. Besides’ – he unslung his bow and attached the string by touch while gazing intently down the valley – ‘I’m not one to turn my back on a woman in trouble.’

Bont gave a great sigh of frustration: ‘OK, OK. I get the message. Let’s go and rescue this unknown woman.’ He looked at Ria: ‘It’s what I would want for my Sabeth,’ he admitted.

Still well lit by the big moon, the valley floor lay about five hundred paces below them. A stream wound through it and there were numerous stands of mixed trees and bushes.

It was from one of these, a copse no more than a hundred paces across, with just the faintest glow of a campfire visible near its

centre, that the terrible screams were coming.

Ria decided what to do and informed the others as they scrambled with her down the valley side. There would be no out-loud speech, only thought-talk. They would surround the copse, all enter it at the same moment, and converge on that fire. If they were outnumbered they would back off without engaging the enemy and the woman would be left to her fate. But if this was a fight they could win they would attack and try to save her.

It had seemed like a good plan from outside the copse. But once inside, Ria began to have doubts. Suppose this turned out to be nothing to do with the Illimani? Or suppose it was the opposite and there were dozens of them there? Suppose there were sentries? She was aware of the minds of all her companions as she made her way forward. ‘You won’t let me down, will you?’ she pulsed to the Uglies. ‘Give them no mercy this time.’

‘We will give them death,’ came the reply.

The woman’s screams had begun again, much closer. The man,

who had fallen silent, released a fresh volley of hoarse cries, and there were more guffaws of that hideous hyena laughter that Ria now recognised, with complete certainty, as the sound of the Illimani.

Her right hand went to the new deerskin pouch hanging at her side. Brindle had given it to her filled with five good throwing stones. She pulled two out. They couldn't match the beauty of her lost hunting stones but they would do the job.

Up ahead she caught the glow of the campfire flickering through the trees, shadows moving around it. There was a sickly smell of burning flesh in the air and the sounds kept getting louder. Screams. Snuffling. Slaps. What were they doing to that poor woman? And what was the man groaning and pleading about? Ria listened intently as she crept forward. He was speaking the language of the Merell. She understood the individual words but they were garbled and incoherent and she couldn't make sense of them.

Then the little group around the fire came into view.

With light from the bright moon and the flickering flames not much was left to the imagination.

A spit had been rigged up.

Impaled on it, roasting over the fire, was the sad, pathetic torso of a small boy.

An evil-looking Illimani was slowly rotating the spit. His narrow pinched face had been transformed to a grinning skull by warpaint. His penis was erect and his glittering eyes were eating up what was happening a few paces away where a naked young woman, her long willowy body smeared with blood, was being raped by two more Illimani braves. One of them was very tall, with huge muscular arms. He was pinning down her head and shoulders, fondling her breasts and half-stifling her screams with a hand clamped over her throat. The other man, thickset and covered in body hair, was penetrating her, forcing her legs apart as she struggled against him. He was pounding into her, uttering grunts of animal pleasure.

Ria could feel anger building in her chest like a storm, and her mind-contact with her companions told her they too were witnessing this and were ready. *Wait!* she pulsed.

She edged two steps closer. Could this be a trick? Could there be an ambush? Were other Illimani lurking to attack the moment they showed themselves?

But on the opposite side of the fire she saw only two more figures. One, wearing the Merell plaid, lay beaten and bloody on the ground. The second, a massively fat Illimani whose naked back and arse were covered in swirling tattoos, was shaking with laughter, leaning over the fallen man and offering him something.

Ria squinted.

The smoke from the fire was in the way. She moved a pace to the side and saw that the Illimani was holding a child's arm – no doubt the child whose torso roasted on the spit – and encouraging the fallen man to eat it. Then Ria understood everything. The man on the ground was the child's father, the woman being raped was

his wife and the Illimani were playing a vicious game with them.

What was the deal? They'd stop raping her if he'd eat his own son?

That wouldn't do at all.

Chapter Seventy-Four

Kill yourself. The sooner the better.

That's what the voice had urged Leoni to do, and for a moment, in the dream, she'd accepted absolutely that she must.

Visions could be true. Leoni was past doubting it. They were a doorway into supernatural realms, where time and matter behaved differently. When she went through that door to pursue the mysteries that lay on the other side, she knew she was exposing herself to psychic attack – the way Sulpa had attacked her when she'd tried to stop him devouring the souls of the children he'd sacrificed, and the way Don Apolinar had abducted her.

Such risks came with the visionary territory. She accepted

them every time she made the journey. But it was somehow much more disturbing to consider that a similar threat might just now have stalked her in a dream.

A macabre and horrible dream.

Surely it had been no more than that? Her subconscious working overtime, editing together bits and pieces from here and there? It made sense that the voice emanating from the static on the TV screen had been influenced by Don Emmanuel's account of Jack speaking out of a mirror. And the instruction to kill herself was likely connected to her alleged 'suicide attempt' by OxyContin overdose.

Or so, at least, she fervently hoped.

The other really disturbing development, despite sinking Apolinar's boat the night before, was the shocking speed with which their pursuers had caught up with them again, missing them by just two hours at Don Esteban's village. Jack had said his 'servants' were on the way, but to get there so fast they must have

bypassed Iquitos and begun their search from the river town of Pucallpa in the Shipibo heartland.

It was almost impressive – how they got things done.

With a great effort of will Leoni shifted her attention back to the gloomy and constricted side branch of the Ucayali they'd entered while she slept.

Perhaps it was just the aftermath of her dream, but the sinuous way the river wound through the dense rainforest, frequently doubling back on itself, was bewildering and scary. It was only about twenty feet wide here but its labyrinthine course repeatedly branched, offering multiple alternative routes and Leoni realised if it were viewed from the air it would look like a path through a gigantic maze – with walls of trees a hundred feet high. God forbid she would ever be alone here because she would *never* find her way out. She was impressed by the way Don Emmanuel's nephew Esteban – a lean and wizened man of more than seventy – always knew which

turn to take.

Late afternoon had become early evening. The sun was still in the sky but down here on the river, with the trees towering overhead, it was already growing dark. The night insects were out, looking for blood. As she slapped away a cloud of mosquitos, Leoni heard the distinctive call – a long falling liquid note, rising at the end to a percussive whoop – of the colourful yellow and black bird Matt had told her was called an oropendola. There was something so haunting and lonely about the sound that she found herself blinking back tears.

Matt was sitting behind her now, keeping the outboard bubbling over at low revs and the speed right down as he steered the course called out to him by Don Esteban in the bow. The river was narrowing, probably less than fifteen feet wide at this point, and there was a lot of jungle debris in the water. Soon they came to an entire tree that had fallen across both banks, like a bridge. They scraped beneath it after some industrious hacking away of branches

by Don Esteban who had brought an axe and a machete for such eventualities.

A couple of miles ahead, with darkness almost upon them, Esteban signalled to Matt to take a left fork into an even narrower channel, not much wider than the boat itself. They followed it through a series of long serpentine loops until it spilled them into a broad lagoon dotted with huge water lilies.

The dome of the sky was a deep purple velvet, still touched in the west by the last glow of sunset, and the water was dead calm beneath them as they crossed the lagoon. Leoni loved the tremendous sense of openness and space it gave her, and gritted her teeth when they reached the other side. They forced a path through a thick tract of water lilies and entered another narrow winding channel with yet more forks and switchbacks. She looked over her shoulder at Matt. ‘Those men hunting us,’ she said, ‘I don’t see how they’re going to find us here.’ She wished she felt as confident as she was trying to sound. ‘This is totally the boondocks.’

Matt nodded his agreement: ‘It would take a lot of local knowledge, which hopefully the other side don’t have … do they, Mary?’

Mary Ruck bit her lower lip. ‘I’m not so sure of that. Even if he doesn’t know the area himself Apolinar will certainly have connections here.’ She switched into Spanish to put a question to Don Emmanuel and translated his answer: ‘The Shipibo have their *brujos* too – men who will help Apolinar. But the shaman whose protection we seek is more powerful than all of them.’

They came at last, in full darkness but with a good moon lighting their way, to a tiny homestead perched right at the end of a curving backwater creek. As they approached, Leoni saw only a single structure, a small simple *maloca,* thatched with banana leaf, perched on short stilts in a patch of earth no larger than a tennis court that had been cleared out of the dense jungle.

Halfway down the gently sloping bank leading to the creek,

silhouetted by reflected moonlight, a short hunched man waited, one hand raised in salutation. Matt cut the engine, letting the boat drift the last few feet, while friendly greetings were exchanged in the Shipibo language. It was obvious Esteban was welcome here but suddenly the man on shore seemed to understand Don Emmanuel was also in the boat. He gave a great shout of greeting and ran forward into the shallows to embrace him and help him disembark.

Leoni, Matt, Bannerman and Mary were not formally introduced to Don Leoncio Amparo, whose homestead this was, until he had ushered them into the *maloca,* lit several paraffin lanterns, and rolled the side-screens fully open for ventilation.

He was not a prepossessing physical specimen. Barefoot, wearing mud-spattered cotton trousers and a torn work-shirt, he was balding and ugly, with squashed froglike features, his nose almost flat against his face, bulging brown eyes, short thin legs, thick muscular arms, powerful shoulders and a hunched back. It was hard to guess his age – perhaps fifty? – but so much experience, strength

and warmth overwrote his ugliness that he made a strong, immediate and positive impression on Leoni.

Speaking perfect English, he commented on the similarity of their names, both meaning ‘lion’. He had a deep, rumbling, gravelly voice, with strangely formal New England undertones. When she complimented him on his mastery of the language he replied: ‘The Protestants taught me well.’

‘Protestants?’

‘Missionaries.’ A hint of anger. ‘Americans. They’ve infested the whole of the Ucayali basin as though they have a personal feud against our culture. They persuade us our spirituality is evil and convince us with money and food – and education – to accept Christ.’

‘Sounds like they didn’t convince you!’

‘No.’ A wry smile: ‘I escaped them.’ He looked to Don Emmanuel: ‘I passed through a personal crisis. This great man accepted me as his pupil and I learnt the path of the shaman from

him. It turned out to be the right path for me.'

In the background Mary had been giving Don Emmanuel the gist of the conversation in Spanish. Now Don Emmanuel made a remark and Mary translated it into English: 'The pupil long ago surpassed his master.' It seemed that immense discipline and determination, an intense focus of the will, and long periods spent alone in the jungle seeking visions with Ayahuasca had transformed Don Leoncio into an adept of the highest order. He claimed no special credit for his skills and spent nine months of each year travelling from village to village as an itinerant healer, accepting only food, shelter and peasant wages. For the other three months he retired to this homestead in the middle of nowhere and lived the life of a hermit. Only Don Esteban and one other close friend knew where to find him.

In the next hour a simple meal of fish and plantains was prepared and eaten. Leoni found it strange, but perhaps a matter of Shipibo etiquette, that at no point in the conversation was any

explanation asked, or given, for their visit. *For fuck's sake,* she thought, *get to the point!* She was here for only one thing – to drink Ayahuasca with Don Leoncio and get back to Ria's side.

But she stopped herself from blurting this out and finally, after dinner, Don Emmanuel drew Don Leoncio aside and they sat cross-legged near the rear of the small *maloca,* speaking in Shipibo. *At last!* Leoni thought. She couldn't understand what they were saying but she heard her own name mentioned several times and felt the conversation grow tense and serious. Don Emmanuel must be filling Leoncio in on everything that had happened.

She felt tired, as though she'd been awake for a week, and curled up in a hammock slung between two of the *maloca*'s support posts.

She heard the two men's voices droning in the background. Nearby Mary and Matt were also talking.

Leoni didn't plan to close her eyes but sleep overwhelmed her in

seconds and returned her at once to the cheap motel room of her dream, sitting on the edge of the bed, watching the flickering television screen from which that horrible whispering, crackling voice still emanated. *'Kill yourself ... Do it now. You know it's the right thing.'*

Though repulsed, she was again seized by a sense of the inevitability and rightness of this command and by a powerful compulsion to obey. 'I am ready,' she answered.

'Are others present? Do they observe you?'

'Yes.'

'The jungle is near?'

'Yes. Very near.'

There was a pause and the voice fell to a hiss that was almost lost amidst the static: 'When those around you are asleep you will walk into the jungle. Go quietly, be certain you are not seen and DO NOT STOP …'

A hand touched Leoni's shoulder and she woke with a shock,

baring her teeth in a silent snarl. Don Leoncio, Matt, Bannerman, Mary and Don Emmanuel were all gathered round her hammock, their faces set. Her whole body was soaked with sweat, her brow and hair slick with it. A sudden sob shook her and she sat up shaking. She knew she was breathing too fast, as though she'd been running for her life, but she couldn't stop herself sucking in more air in great heaving gulps.

Don Leoncio asked the others to step back. He produced and lit a big *mapacho* and began to chant a deeply strange and otherworldly *icaro* while at the same time blowing clouds of fragrant smoke over Leoni. She felt a little calmer. Within half an hour she had composed herself and was ready to talk about what had happened.

It seemed that she had only slept for a very short while. However, in those few moments, said Don Leoncio, he became aware – 'It is a sense I have cultivated' – that some negative entity was trying to

exploit her vulnerable liminal state. ‘It is intelligent, this entity, but it is not human …’

‘It’s Jack,’ groaned Leoni, scrambling out of the hammock. ‘He’s a fucking demon. He got to me in a dream. Convinced me I had to kill myself.’

Don Leoncio chuckled: ‘A fucking demon, eh? No doubt the same one Emmanuel has been speaking of? In what form did he appear to you?’

‘He has no appearance. Today he’s just a shadow – didn’t Don Emmanuel tell you? – not even a shape. He spoke to me out of the snow on a TV screen.’

‘What did he say? Try to remember exactly.’

Leoni replayed the dream in her mind: ‘He kept telling me I had to kill myself. He asked me if other people were around. He asked if they were observing me. He even asked if the jungle was close.’

Leoncio’s face broke into a broad smile and he pounded his fist

into the palm of his hand. ‘I thought so!’ he exclaimed. ‘He doesn’t know where you are.’

‘How sure are you of that?’ Leoni asked. ‘He was right there in my dream.’

‘He lost contact with you when I woke you up. If his eye were on us now I’d feel it.’ The shaman’s expression became more sombre: ‘But let’s not underestimate him. Even to track you in the dreamscape must have required enormous power …’

‘Jack *is* powerful,’ said Leoni. ‘I know that already.’

Leoncio hesitated: ‘So the question then becomes – I mean no offence – why is such a powerful demon interested in you at all? Doesn’t he have, how do you put it, bigger fish to fry?’

‘He’s not interested in me. Not directly. But there’s someone else, a girl, twenty-four thousand years ago, who I’m connected to … It’s her he’s really after.’

It was not clear how much Leoncio had already learned from Emmanuel but he seemed to want to hear the whole complicated

story from Leoni herself. She compressed it into the shortest possible telling: what Jack had wanted from her childhood, the connection between Jack and Sulpa, her near-death experience and subsequent experiences with Ayahuasca and other substances, her encounters with the Blue Angel – Our Lady of the Forest – and her entanglement with Ria and the fate of the Neanderthals.

She was describing her last Ayahuasca journey and her desperate attempt to save Ria from Sulpa's spy creatures when Don Leoncio leapt to his feet and made a pantomime of slapping himself on the forehead. 'Of course,' he exclaimed, 'I should have guessed sooner …'

Leoni gazed at him open mouthed.

'After such a long connection with you, the question we must ask ourselves is why Jack is suddenly going to such lengths to track you down? And why now?'

'My parents are part of his cult?' Leoni proposed. 'Maybe he fears I'm going to expose what they did to me?'

Don Leoncio made a dismissive sound – *'Fauugh!* He wouldn't care. Think about it. It's something new, something unexpected, that he fears.'

'My connection to Ria! The Blue Angel said we possess great strength together. She said we have to find it and use it.'

'To destroy Sulpa …'

'Yes.'

'And therefore Jack …'

'Yes.'

'Then we have our answer. If you are willing, I believe we should attempt to take the battle to the enemy tonight …'

Chapter Seventy-Five

Ria threw her first stone with all her anger behind it. It smacked into the side of the rapist's head and he collapsed in mid-thrust. The brave who'd been helping him to hold the woman down surged to his feet but an arrow from Ligar's bow, fired from close range, pierced his heart before he could take a step. The Illimani who'd been turning the spit died snarling under Driff 's hatchets. The brave with the tattoos had dropped the child's arm and snatched up a knife when Bont stepped out of the darkness swinging his war axe and chopped him to the ground with two huge blows.

'Well,' said Ria in out-loud speech, 'that was easy.' She hadn't even thrown her second stone and the Uglies hadn't needed to kill

anyone since the humans had done the job so efficiently.

‘Sorry we’re not as quick as you, Ria.’ It was Oplimar’s thought-voice.

‘Don’t worry about it,’ she replied. ‘You’re learning. We’re learning too. We’re all living in a new world.’

She hastened to the side of the Merell woman and with Grondin’s help pulled away the body of the man Ligar had shot. The brave she’d brained with her stone was still alive. His eyes flickered open and Ria unsheathed her knife to cut his throat. Then another idea came to her so she had the Uglies drag him to the base of a tree and bind his hands and feet.

He lay there, muscular, hairy, naked and tightly trussed. He’d regained full consciousness while he was being tied and now he glared murder at Ria.

‘I’ll be back,’ she promised him. Surprise crossed his face as she spoke in Illimani.

She turned to attend to the woman.

Bont was for pressing on immediately but Ria disagreed. The couple they'd saved had suffered savage beatings and would have to be given healing to have any hope of survival.

'I don't care whether they survive or not,' said Bont, his face streaked with the blood of the brave he'd killed. 'We saved them, OK? Now let's get the fuck out of here.'

'Your problem is you're not thinking long-term,' Ria replied, 'and we have to think long-term – all of us – or we won't survive.'

Bont rolled his eyes in frustration but Ria was adamant: 'We need to make an alliance with the Merell,' she said. 'That's going to be easier if these two walk out of here in the morning and speak well of us to their tribe – which we've just given them every reason to do … Are you with me so far?'

There was no response from Bont.

Ria felt almost as though she were talking to a child: 'But here's the problem. If we get out of here now, like you say, and leave them the way they are, then they definitely won't walk out of

here in the morning. They'll die, in amongst these trees, and no one will ever know what we did for them …' She paused: 'That wouldn't be very helpful to us, would it?'

Bont groaned: 'I don't know what's helpful. I don't know what's not helpful. I just want to get Sabeth and the kids back. I can't think of anything else … It hurts my head.'

Ria rested a sympathetic hand on the big man's arm. 'I understand,' she said, 'and we *will* get them back. But first we need to let the Uglies heal these good people.'

With so few Uglies to administer it, the healing took a very long time. Dawn light had flushed the sky before it was done. Both the man and the woman had been kicked and beaten half to death, the woman additionally had been brutally and repeatedly raped in the presence of her husband, and they had witnessed the Illimani murdering and roasting their child. Their minds had been damaged much more terribly than their bodies, Grondin explained, and such

damage was not easy to heal.

The couple now sat by the ashes of the fire. Their son's pitiful corpse, wrapped in a deerskin, lay between them.

'Can they walk? Ria asked Grondin.

'Yes, if they have the will. We have healed their bodies.'

Ria guessed the husband's age at forty summers, although it was hard to be sure. His nose and teeth had been broken by blows and one eye was swollen closed. His thick black hair, which curled down over broad shoulders, was shot through with streaks of grey.

His wife was much younger, sixteen or eighteen, close to Ria's own age. She was slender with long, long legs, now folded birdlike beneath her. Her pale skin was freckled and her dark red hair tumbled almost to her waist. Her face was so bruised and battered it was impossible to tell if she was beautiful. Her huge green eyes, still full of pain and terror, darted from side to side as though she expected at any moment to be attacked again.

Ria stepped over to her, took her hand and helped her to her

feet. ‘Come,’ she said in the Merell language, ‘there’s something you need to do.’

She led the young woman around the fire to where the Illimani brave, scowling and struggling, lay bound tight amongst the forking exposed roots of an ancient tree. He had a big discoloured bruise on the side of his head where Ria’s throwing-stone had connected but otherwise was uninjured. Vibrations of violence, lust and threat rose from him like a bad smell. The Merell woman’s hand, still clasped in Ria’s own, trembled and grew slick. She sobbed, her whole body racked with pain and grief, and tears streamed down her face. This was hardly a sexual moment but the Illimani’s fat penis stirred in his loins as he witnessed her misery. He began to bellow with laughter and barked in his barbaric language: ‘Shall I pleasure you some more, slut? Come here, suck my cock first.’ And he looked suggestively at his crotch.

Ria did not translate his words but spoke calmly in Merell. ‘This one has taken much from you,’ she told the shaking woman.

‘Now take something from him. It will not heal your pain but it may help.’

Through her tears the Merell seemed confused. She didn’t comment on Ria’s ability to speak her language but asked: ‘What shall I take from him?’

‘His manhood,’ Ria replied. She unsheathed her long flint knife and put it into the woman’s hand.

It was a bad death.

The woman was not quick and when she was done her husband took up the knife and cut out the Illimani’s still-beating heart.

‘I don’t like this,’ Grondin pulsed to Ria. ‘It’s wrong to kill a bound prisoner.’

‘Even after what happened here last night?’ Ria could never quite second-guess Ugly logic. ‘It’s like you said, Grondin. The Illimani murdered her child. They raped her in front of her husband. Both she and he needed this revenge. Think of it as my contribution

to their healing.’

Ria led the couple away from the blood-spattered scene and sat down to question them at the edge of the little copse, looking out at the open grassland beyond.

The man said his name was Sebittu and claimed to be one of the seven Speakers of the Merell – a high position, if true. Despite the beating he’d taken, and the humiliations of the night, he carried himself with pride and the air of one used to power.

His young wife was called Tari. She had seemed a fragile, broken creature before she had mutilated the Ilimani, but now, with her bruises already responding to the magic of the Uglies, high spots of colour had appeared on her cheeks and she held her head up.

Like the Naveen, the Merell were divided into nomadic bands, each a few hundred strong, whose tepees could be pitched almost anywhere and carried from camp to camp – to stay for a year or a moon or a day as the hunting allowed. There were seven bands,

hence seven Speakers.

So much Ria knew from Clan lore about the Merell.

She asked Sebittu about his own band.

They were called the Fox, he replied, and they had numbered less than three hundred – men, women, children, young and old, all added together. Poor hunting had forced them to leave their last camp and seek out a new one.

Yesterday, on the march, they had been ambushed by an overwhelming force of strange and terrible barbarians who slaughtered their men and women, but rounded up and dragged off their children. Sebittu and Tari, carrying their own one-year-old son, had been amongst the few who had escaped the battlefield, but they'd been tracked and captured before the day was out. Ria had witnessed the rest. 'We owe you our lives,' Sebittu concluded. 'Without your courage – you and your friends – we would be dead now.'

When Sebittu fell silent Ria told him of the fate of her own Clan, and of the Naveen, and she spoke of the character of the Illimani and the demon named Sulpa who led them, and the horrible truth of what he did with captured children. ‘He’s destroying us by picking us off one by one. We have to unite the tribes to bring him down.’

Deep-set in his battered face, Sebittu’s grey eyes seemed to weigh her up: ‘Who can unite the tribes?’ he asked, as though the task were of the same order as flattening mountains or draining the sea.

‘I can,’ Ria replied. After her encounter with the Naveen hunter Aarkon she knew she risked ridicule with such talk. But this was a time for risks. Besides, she’d shown what she could do: ‘I’m building an army to fight Sulpa, and there will be no tribes in it. Just people of these valleys united against the evil one.’

As she spoke a strange look, swiftly hidden, seemed to pass between Sebittu and Tari. ‘You are of the Clan,’ Sebittu said to Ria: ‘Who taught you to speak the Merell language so well?’

‘No one taught me …’

‘You speak the language of the Illimani also?’

Ria shrugged. ‘It’s a gift I have. When I hear a language I can speak it.’

‘Quite a remarkable gift if I may say so. Some might call it a gift from the gods. Perhaps you will indeed unite the tribes.’

Aware of Bont glowering in the background, Ria got to her feet: ‘I intend to try. It will be a good beginning if the Merell will join us.’

‘If any of us are left alive,’ Sebittu answered, without making any commitment, as he helped Tari to stand. ‘We’re heading south-east. Last I knew the Lynx and Wolf bands were camped up that way. Our best hope is they haven’t been hit yet …’

‘What if they have?’

‘Then we’ll look for survivors. And you? Where do you go now?’

‘The Gate of Horn.’ Again Ria noticed that strange, furtive

glance pass between Sebittu and Tari. Were they mocking her? Let them. She didn't care: 'I wish you good fortune finding your people,' she said. 'Join us or not, if they need a place of safety and shelter we can offer it. We'll be back this way tomorrow. Look for us on the trail.'

Ria saw how Tari clung to Sebittu as they turned their feet to the south-east. Despite the healing, the willowy young woman walked with pain, her husband supporting her, so much unspoken between them.

Ria and her companions turned north-east towards the Gate of Horn, trekking in single file through rising country. It was already bright morning. None of them had slept and the Uglies were drained by the healing. Ligar knew the area well and took the lead, warning that a long day's march still lay ahead before they entered the unclaimed wilderness of the Gate. 'So this time no stopping,' growled Bont. 'I'm going to find Sabeth and the kids tonight.'

They carried dried meats and waterskins so they could eat and drink on the move, and soon they settled into a loping, far-striding hunter's pace that brought the jagged mountain peaks on the distant horizon steadily closer. The terrain was uncompromising and at one point the only viable route – cliffs on one side, treacherous marshes on the other – forced them across a wide expanse of bleak open moors. They were exposed to view should any Illimani scouts be in the vicinity and Ria huffed with relief when at last they entered the sanctuary of an immense forest.

The respite was short-lived. After hiking a few bowshots they came upon the body of an old man nailed by his feet to the branch of a tree so that he hung upside down over the track.

Chapter Seventy-Six

What Don Leoncio meant, it soon became clear, was that Leoni should drink Ayahuasca again at once and return to Ria's time to help her – 'since it seems that is precisely what Our Lady of the Forest wants you to do and what the demon wants to stop you doing.'

Bannerman objected that Leoni had just eaten a meal: 'Isn't it better to wait until tomorrow and drink on an empty stomach?'

But Leoni was having none of it. 'I'm ready to drink,' she said to Don Leoncio. 'My place is with Ria. I've been hoping you'd help me get back to her.'

Within forty minutes of forcing down a single small cup of the

bitter brew – so much faster than the first time – Leoni began to detect a change in the moonlit jungle.

At first it was no big deal when this corner of the sky, or that tree over there, or even the pillars of the *maloca* itself slowly flowed, dissolved and dispersed. But soon the process speeded up, affecting every part of the scene, until, after a few moments, she felt herself suspended in a bubble of light and could see only a blur of shifting colours all around her as though the pixels of reality were being reshuffled.

Patterns of light and sunshine, swirling and coalescing, turned night into day, where the vast trees of the equatorial Amazon had swayed a forest of lofty pines now stood, and the wood and thatch dwellings of Don Leoncio's homestead on the creek gave way to a glimpse of hell. By a stream in a clearing fifty large tepees had been reduced to their scorched conical wooden frames, the mutilated bodies of hundreds of men and women – mostly red-haired and pale-skinned, some naked, some wearing scraps of rough plaid –

were heaped up in piles, and the ashes of a great bonfire were filled with charred human remains.

Although there had been no familiar tunnel of light to mark her transit, Leoni didn't need the confirmation of the crude flint weapons that lay scattered about, or the ghastly tortures inflicted on the victims before they died, to guess the Illimani had done this and that she'd returned to Ria's epoch. And although the Blue Angel had not appeared as she had before to send her on her way, Leoni knew she was at work somewhere unseen, manipulating time and space, and remembered what she'd said: 'Ria stands between Sulpa and the Neanderthals and I have entangled your life with hers. You are sisters in time now. Together you will find the way.'

The words were fixed in her memory but Leoni wasn't sure what she was supposed to do and didn't even know if her last attempt to help Ria had succeeded. Besides, was that all there was to it? Was all this time travel just about helping her sister out of tight fixes? Or had the Angel been speaking of something else when she

said they possessed great strength together?

Invisible in the midst of the smouldering camp, Leoni felt panic seize hold of her. Had she failed, after all, to warn Ria of Sulpa's tracking device in her leg? Had it brought him and the Illimani straight to her? And was this scene of mass murder the result?

Almost at once Leoni's fears were laid to rest as she saw Ria approaching from amongst the trees with six companions. Though their lips weren't moving they seemed to be communicating and she could almost imagine she heard words in some strange language, faint as whispers carried on the wind.

Three of the group were Neanderthal males, more varied in appearance and stature than she had imagined. The other three were all human. One held a bow with a long flint-tipped arrow half drawn. He was in his twenties, slim, almost delicate, dressed much as the others in a leather jerkin and leggings and tough simple

moccasins. The kid to Ria's left – black hair, wild blue eyes – looked a lot like an Illimani and gripped a hatchet in each hand. *Go figure!* To Ria's right was a shaggy-haired giant, almost twice her height and girth, armed with a lethal-looking double-headed stone axe. He had massive shoulders and eyes that glinted with uncompromising belligerence.

They were obviously a team, all seven of them, used to working together and watching each others' backs. They looked ready to defend themselves as they moved through the carnage of the clearing. The big guy had unslung his axe, Ria clutched a stone in her left hand and a flint knife in the right, and the Neanderthals all held weapons.

But Leoni could see no danger. The massacre hadn't happened today, maybe not even yesterday and she hoped the killers were long gone. With a nudge of will she sent her aerial body soaring above the forest and scanned the ground in all directions. There was no threat in the immediate vicinity of the camp. Further off, the

huge pines grew too far apart to hide large numbers of men but there might still be the risk of an ambush from a smaller group.

She dropped down again to take another look at Ria. Her thigh, where Sulpa's tracking device had been, was hidden by her leggings but there was no swelling and she was lithe and balanced on her feet. Her lean, tough, sun-browned body had been ripped and torn by battle wounds when Leoni had last seen her but now every gouge and stab was fully healed, with only faint scars and bruises to mark their place.

It was just one more mystery amongst so many.

Close up, Leoni could still see the tomboy prettiness in Ria she'd noticed before, but what struck her about the other girl now – in fact, it took her breath away – was the wild and terrible beauty that shone from her face. There was sorrow there, mingled with pain. There was courage, determination, wisdom, experience, a cool, calculating intelligence – all far beyond her years. There was strength – strength of character, strength of will, strength of

purpose. But above all there was an inner fire in Ria that burned bright, and something remorseless and unstoppable about her that the others in the band responded to – for it was obvious they all accepted her as their leader.

They were across the stream now and out of the clearing, following a well-beaten trail through the forest. Leoni hovered right in front of the group, gliding back as Ria moved forward. She didn't know why she did it – some impulse, some whim – but she reached out her diaphanous aerial hand and touched the other girl's shoulder. Ria halted in her tracks, as though she'd felt the contact, and looked at her.

Ria had magnificent eyes, wide and bright under long lashes, with hazel irises lit by flecks of gold and violet.

Resisting an overwhelming urge to shoot twenty feet into the sky, Leoni stayed where she was, wondering if she'd been seen.

Ria didn't move either. There was an intense eager expression on her face. Her companions too had stopped and their eyes were

fixed on her. She reached out her hand and probed the air, then shook her head as though to clear it. As the look of recognition faded from her eyes she stepped right through Leoni and marched off along the trail without a backward glance.

So … not seen, then.

But sensed.

Definitely sensed.

It was a gift of their entanglement, Leoni was sure of that, a connection that seemed to break all the rules of aerial bodies in physical realms. Because of it, despite her fears, she had indeed got her warning through to Ria about Sulpa's tracking device.

'Together you and she possess great strength.'

Leoni darted over the heads of the little group of humans and Neanderthals, leaving them behind as she hurtled along the trail through the forest. If she could communicate with Ria then she could scout for her, warn her of dangers in her path, keep her safe from ambush.

She could be useful.

She could help.

Leoni followed the trail to the edge of the forest but for all that way she saw no sign of danger and neither human, nor animal, nor bird, nor insect moved.

The open land ahead still had some tree cover, being dotted with little coppices, and rose in rolling undulating hummocks towards a ridge line about two miles distant. Leoni sped up to it only to find more of the same landscape stretching in all directions.

Once again there was no danger in sight.

She flew a mile further.

Two miles.

Five miles.

Still nothing.

But when she crested the next ridge the Illimani were suddenly everywhere – a big force, perhaps five hundred of them, streaming

up the side of a hollow where they'd been concealed from view. It was easy to identify the leaders – two monstrous warriors, tall and massive, swaggering in the middle of the front rank. They looked so similar they had to be twins. Their hair hung in filthy matted dreadlocks to their waists. What distinguished them from each other were their scary headdresses. One of them wore the long curved horns of a bull, the other the toothy snarling skull of some giant species of bear.

Their line of march would take them straight to the forest through which Ria and her companions were trekking.

Leoni somersaulted in the air and streaked back to warn Ria.

Chapter Seventy-Seven

The body dangling from the tree was stiff, dead, faintly putrid and cold to the touch, which meant this had not happened today. If luck was still with them there was a good chance the Illimani who had done this had moved on in search of new victims.

On the other hand, it was also possible they were still here.

With Ligar in the lead – it was he who knew this track – Ria and her companions picked their way through the forest.

There were corpses everywhere, most stripped but some still wearing the distinctive plaid of the Merell. Not all of them were nailed to trees. Dozens had been impaled on long wooden stakes. Many others appeared to have been flayed alive. A few had been

beaten to a pulp with stones and some had been roasted over slow fires at the side of the track. Everywhere, thick and cloying, the smell of death filled the air.

Ahead in a clearing, beside a bright stream, stood the remains of a large Merell camp. Utter destruction had been unleashed here. Fifty tepees had been reduced to scorched frames, hundreds of multilated bodies were heaped up in piles, and the ashes of a great bonfire were filled with charred human bones.

They didn't stop to count the bodies but it looked like more than four hundred adults, men and women of all ages, had been killed. As usual the children of the camp were nowhere to be seen.

When at last Ria emerged from the forest with her companions, high sun had come and gone and vistas of rolling uplands lay ahead, dotted with little stands of trees and bathed in mellow afternoon light.

In this undulating terrain, just over that ridge line, or on the

other side of that hill, or hidden in that hollow, an entire army could lie in wait and you would not know until you came upon it. So perhaps the strong intuition to hide by which Ria now found herself seized was just her logical mind at work.

And yet …

It was almost as if a voice was whispering an urgent warning in her ear …

'Hide now!'

Although she had seen nothing she was certain it was the golden-haired girl whom the blue woman had called Leoni – her ally from the future, come to help her defeat Sulpa. She'd felt a presence in the forest but had convinced herself she'd imagined it. Now, with the hairs on the back of her neck crawling, she knew she had to act.

They were climbing towards a ridge line up an open slope of rugged tussocky grass. Back below them and off to their right about a thousand paces away was a small coppice of gnarled and ancient

oaks.

Ria pointed it out to her companions. ‘We need to hide in there,’ she told them. ‘Right now!’

Bont was surly: ‘No, Ria. I’m going on.’

‘If you go on you’ll get us all killed. Something’s coming.’ She bared her teeth at him. ‘Believe me, Bont,’ she hissed. ‘SOMETHING’S COMING!’

For a moment he blinked at her in astonishment. She was expecting a volcanic outburst of temper but instead he shrugged acceptance and then they were all running headlong downhill towards the coppice.

Ria was the last to reach the shelter of the trees.

As she turned and looked behind she saw a host of armed men, naked and shaggy, surging like a tide over the ridge line and pouring down the slope behind them.

She dropped to her belly and wriggled deeper into the undergrowth, peering out through a tangle of brambles and ferns.

The great oaks of the coppice towered above her, swaying gently in the afternoon breeze, their leaves rustling. All around she could sense the explosive tension and fear of her companions. If even one of the advancing braves had seen her in those last few heartbeats before she darted into cover then it was all over.

But their luck held.

Descending the long slope ten abreast, in disciplined ranks, the Illimani pouring over the ridge showed no interest in the coppice and pursued a course that would pass, at the closest point, about a hundred paces north of it. *'Forty-five, forty-six, forty-seven'* – Ria silently counted the ranks as they crested the ridge – *'forty-eight, forty-nine, fifty.'*

Fifty ranks of ten.

A column of five hundred men, like a vast millipede swarming across the land.

And with seven thousand Illimani at his disposal, it was quite possible that Sulpa had sent out a dozen death squads of this

strength to roam the countryside in search of tribes like the Merell and the Naveen. Their natural subdivisions into small units made them easy targets for annihilation; very few of the bands, on their own, had sufficient numbers to challenge five hundred fierce and ruthless men.

Ria's gaze was drawn to the head of the column, now less than a bowshot away, and to two impressive braves who marched at the centre of the front rank, naked as the Illimani always were and so alike they had to be twins. Both loomed over the others around them, and had big flushed meaty faces set into almost identical angry sneers. She guessed their age at thirty or perhaps thirty-five summers. Their massive upper bodies seemed as wide around as the biggest trees in the coppice, their legs and arms bulged with bands of muscle but, despite their bulk, both had the lithe, balanced, threatening walk of fighters. Their pale hair, braided into thick locks, hung down almost to their hips, both of them wore spectacular headdresses, one of aurochs horns, the other fashioned

from the skull and jaws of a cave bear, and each carried a heavy axe with a double-headed obsidian blade.

‘He who wears the aurochs horns is Martu,’ Driff ’s thought-voice spoke up in Ria’s mind. She knew the name meant ‘Bull’. ‘He leads this five hundred, but Sulpa favours him. There is talk he will give him command of the whole army. The other one is his brother, Sakkan.’ This name meant ‘Bear’. ‘He is Sulpa’s torturer. If the spirits hear my prayers my blades will take his head.’

Ria looked to her left to where she could just see Driff ’s blue eyes glaring out of the underbrush. The thing about thought-talk was that it conveyed emotions as well as words and when he spoke of his desire to kill Sakkan she also felt the intensity of his hatred for the man.

Burning hatred.

Like a fire in his heart.

She glanced quickly at the oncoming Illimani, now very close, and back to Driff: ‘What happened?’ she pulsed.

‘Sulpa declared my mother and father traitors. Sakkan tortured them. I served as his assistant. In the end it was I who killed them.’

Ria’s eyes swung back to the solid phalanx of marching men. The thick soles of their bare feet thumped down on the earth with a sound like repeated blows. Their course had not changed and they would still miss the coppice, although perhaps by less than the hundred paces she had originally estimated. ‘May the spirits hear your prayers,’ she said softly to Driff. ‘But not now.’

Sakkan had broken away from the column and was striding towards them.

Had the hulking Illimani heard their thought-talk? Surely not. He made no call for support and he wasn’t behaving like a man who’d detected enemies. He paused in mid-stride, and a look of concentration crossed his face before he cocked a leg and released a series of thunderous farts.

Could it be he was just going to take a shit?

Ria knew she was well hidden. Driff, too. And although she had a clear mental picture of where everyone else was – Bont and Ligar to her right, Grondin, Oplimar and Jergat about ten paces behind her – she couldn't actually see any of them amongst the trees and thick undergrowth. Hopefully Sakkan wouldn't see them either. 'Everybody stay absolutely still!' she pulsed. 'Not a word, not a breath, or we're dead.'

'We can kill him,' suggested Driff.

'That would be incredibly stupid. Think about it. If he doesn't go back to the column how long will it be before all five hundred of them are in here after us?'

Sakkan had reached the edge of the coppice and the column was already streaming by, fifty paces away. He stepped past the first trees. His right foot, large and dirty, came down within a hand's breadth of Ria's face. Then he was past her and into the little patch of clear space between her and the Uglies that they'd all avoided when they'd concealed themselves.

With a sigh of satisfaction he chopped his axe into the ground, squatted down, planting one massive hand on each knee, and farted again – a high-pitched, strangulated squeal, ludicrous coming from such a huge man. Ria bit back a giggle that rose in her throat and glanced sideways to Driff, just discerning his outline as a shadow close to the ground.

A shadow with raging blue eyes, a hatchet gripped tight in each hand, rising to a crouch.

Chapter Seventy-Eight

‘No, Driff!’ Ria pulsed. ‘No! You’ll kill us all.’

Through the open channel of thought-talk she could feel the restless energy of his body, see the red haze of madness fogging his mind. ‘No!’ she pulsed again – and this time she sent it out like a lash. ‘Get down, Driff! Right now!’

She saw him hesitate, felt resignation wash over him together with another more complicated emotion she couldn’t name, and watched as he lowered himself silently back to the ground.

Sakkan was straining and grunting and hadn’t noticed anything. His hairy arse bobbed up and down over the spiky grass. He groaned, two more squeaky farts followed and suddenly he was

launched on a massive, noisy, stinking shit that splattered out of him in a rush. He grunted and strained again. Two more bursts of loose turds followed, then he was done. He snatched up a handful of leaves and dry grass from the ground, cleaned himself, shouldered his axe and strode away.

For what felt like a very long time no one moved. Then Ligar emerged from a bush just an arm's length from the pile of excrement. He was holding his nose and glaring with disgust in the direction Sakkan had departed. 'That man feeds on rotten meat,' he said.

With the Illimani gone, and the first faint hints of the oncoming evening already touching the afternoon air, Ria and her companions resumed their trek towards the Gate of Horn. Bont was sullen and morose, infuriated by the continuing delays. Ligar walked with the Uglies. Once again Ria found herself beside Driff. 'So it wasn't just Brindle,' she said, 'who got you to come over to us. Sulpa and

Sakkan made you torture and kill your own mother and father. That's enough reason for anybody to change sides.'

'Sulpa was my god. I admired Sakkan. I was happy I had killed mother and father for them! Until the day you captured me I never questioned what I'd done. Then Brindle got inside my head. Showed me right and wrong. He showed me how they'd USED me. Sulpa, Sakkan, Martu, all of them. That's how they do it. They make you dive into evil so deep you can't get out and then you're theirs for ever …'

He paused, set his wild blue eyes on her: 'I want to tell you about my vision, when we ate the Little Teachers.'

Ria nodded: 'Please, yes. Tell me.'

'I was shown everyone I have killed,' Driff said. He rubbed his forehead with the long, strong fingers of his left hand: 'All the innocent dead. I did not remember there were so many. They came to me one by one, Ria. They reproached me …'

She had to be honest: 'You *did* take their lives.'

‘They told me they’ll wait for me when I die.’ He shivered: ‘They’ll make me pay for every death.’ He put his hand gently on her arm. ‘How can I satisfy the dead?’ he asked her.

‘Save the living,’ she answered at once. ‘Help us kill Sulpa. Your ghosts will move on.’

Ria felt relieved when Driff withdrew his hand. She hoped very much he wasn’t forming a romantic attachment to her. She wasn’t in the mood for that kind of thing at all.

As the late afternoon wore on into the long summer’s evening, the landscapes through which they trekked became ever more rugged and boulder-strewn, criss-crossed with plunging ravines, and heavily overgrown with gorse and brambles. They came to a thunderous waterfall on the upper Snake, where rainbows played within the cascade, and followed the course of the great river eastward into a narrow valley. All they had to do now was continue to follow it upstream towards its headwaters until they reached the

steep gorge in the Gate of Horn that Ria had seen in her vision. There they would begin the search for Bont's family and the other survivors of the Clan.

They hadn't gone far before a roe deer burst from a thicket in front of them and Ria killed it with a single stone. They field dressed it on the spot, Grondin slung it over his shoulders and they were on their way again.

With the sun still in the sky they continued to make good time despite the rough and increasingly mountainous terrain. But as darkness settled around them, with moonrise still a long way off, they were forced to slow their pace. First Oplimar, then Bont, cursing and tumbling, suffered painful falls. Neither broke a leg but Ria shuddered at how easily either one might have done so.

Nor was this their only consideration. All of them were exhausted, not just from two days on the march with no sleep, sustained only by nuts, berries and tough strips of dried meat, but from the days and nights of fighting and running they had endured

before that.

Ria called a halt and for once Bont, limping from his fall, did not object.

They were following a clear broad track rising through trees. The river was forty paces to their right. A hundred paces to their left a rocky outcrop loomed against the darkness. They found shelter there, under an overhanging ledge where the light of a fire would not be seen, and sat with their stomachs rumbling while the deer roasted. It was not a large animal, but to Ria, at the end of that hard day, it was a mouth-watering feast.

Before they had reduced it to its bones, heavy clouds closed in overhead and a drenching rain began to fall. The ledge kept them dry and the fire was warm despite the sudden chill that came with the downpour. With a sigh of frustration, mingled with relief, Ria accepted there was nothing to be done but the one thing they all needed to do most.

Jergat took the first watch while the others slept. Ligar would

replace him, then it would be Ria's turn. If the clouds cleared enough to show the moon everyone was to be wakened and they'd get on the move again.

It seemed only heartbeats later when Ria felt Ligar's hand jog her shoulder. As she sat up with a start, he held a warning finger to his lips. *'Listen,'* he pulsed.

The fire was out. Heavy drops of water still fell from the rim of the ledge but the rain had stopped. The moon glimmered through scudding clouds and tendrils of damp mist clung to the ground.

In the distance, approaching down the track from the direction of the Gate of Horn, Ria heard gruff male voices raised in anger.

They were speaking Illimani.

'How many?' she pulsed.

Ligar's thought-voice was uncertain: 'Hard to say. Five? Maybe six?' He fingered his bow: 'Shall we take them?'

Ria listened to the voices again. She counted more of them

than Ligar had – at least eight, possibly ten. They were locked in a heated argument, getting closer, but she still couldn't make out individual words.

She didn't like it. There was hardly time to set an ambush, they really didn't know how many they would be up against, and wasn't it more important to get the Clan's survivors back than risk everything by picking a fight in the dark? 'No,' she said. 'We'll let them pass.'

There came another burst of coarse shouting, much closer now, and a chorus of children's voices arose, crying out in fear and despair.

Ria surged to her feet with a stone in each hand.

Some of those terrified children were pleading for mercy in the language of the Clan.

'Wake the others,' Ria pulsed to Ligar. 'I'm going to find out what we're dealing with here. Remember we have thought-talk and wait

– *wait!* – for my command.' She was already running, swift and soundless, towards the track, darting from tree to tree. Moonlight came and went with the clouds, now bright, now dark again. Faint and pale in the east, still no more than the softest blush brushing the sky, she could sense the approach of dawn.

An immense pine had fallen here in some recent storm. Wrenched free out of a gaping crater in the earth, its huge branching root mass offered plentiful cover and a good vantage point. Returning her two throwing stones to their pouch, Ria climbed and burrowed in amongst the roots where they overhung the track.

The Illimani whose quarrel had alerted Ligar appeared out of the trees less than a hundred paces away. There were four braves in the front rank. Right behind came thirty, maybe forty children, some weeping and protesting, others glum and silent, herded into a pale formless pack. Four more Illimani flanked them, two on each side. Finally there was a rearguard, also of four.

The braves were still making a lot of noise, shouting their

argument back and forth, and Ria already had the gist of it. They'd captured the children yesterday. Standing orders required they take them to Sulpa for sacrifice but many in the group resented the diversion and wanted to kill them right away.

'They're slowing us down too much,' one barked. 'There are battles to fight.'

'We serve Sulpa,' another reminded him.

'We'll serve him better by finding the Light in the West than climbing down mountains in the dark with a bunch of snivelling kids.'

'Anyway, they're *our* captives. Sulpa doesn't even know we've got them. We can do what we like with them.'

Ria had heard enough. *'To me!'* she pulsed to her companions as she unsheathed her knife. *'To me! We have twelve to kill.'* And with the words she sent a clear mental image of where she was and what she saw. *'Bont, Ligar. Get up ahead to take out the leaders. Grondin, Oplimar, Jergat – the rearguard is yours. No mercy. NO*

MERCY! Driff, take their right flank; the left is mine.'

The Illimani front rank and the foremost of the children were already passing beneath her perch. The moonlight strengthened as the clouds continued to clear, and with a pang of recognition Ria spotted Bont's seven-year-old son Nibo and his five-year-old daughter Maura.

It could only mean one thing.

This little Illimani war band had been into the Gate of Horn, found the Clan survivors she'd seen in her vision, and massacred the adults. Bont's Sabeth was certainly dead.

Abruptly a brave at the front called a halt. He was a short, stocky man, older than most of Sulpa's toughs, with a wild shock of grey hair and a snoutlike snub nose. 'Very well, lads,' he growled, raising his voice to be heard by those at the rear. 'I'm sick of you all complaining. Here's as good a place as any to get rid of these snot-nosed kids.' He drew a knife and turned on the children with an evil grin: 'Might as well have a bit of fun while we're at it, eh?'

Ria looked down. Directly beneath her, one of the two guards on the left flank roared with satisfaction and unslung his axe. The children wailed.

'Ready?' Ria pulsed to her companions.

Instantly a resounding *YES* came back.

'*Then hit them! Hit them now!'*

Chapter Seventy-Nine

Flying out of her body, far from her own time and place, Leoni felt elated when she saw Ria had understood her warning and had run with her companions into the shelter of a little wood. Elation was replaced by turmoil when the big warrior she thought of as Bear-Skull marched into the same wood to take a shit, but he unloaded and marched out again without noticing anything.

Leoni flew over Bear-Skull's head to his regiment, already half a mile away, and watched the five hundred men streaming down the long slope into the huge forest from which Ria had so recently emerged. They marched in a disciplined mass and looked unbeatable. Yet they were only a fraction of the much larger army

she'd seen gathered round Sulpa by the river when he'd destroyed Ria's Clan.

Where were all the rest?

Leoni hurled herself upwards, thousands of feet into the sky.

In all directions, near and far, rose ominous pillars of smoke, and in the distance, like ants swarming, she could just make out another long column of marching men. Who could doubt the Illimani were everywhere, in huge numbers, killing everyone they could find?

When the last of Bear-Skull's regiment had disappeared into the forest, Ria emerged from her hiding place with her companions and Leoni watched them scrambling up the slope in the opposite direction. Ahead, beyond the ridge line, lay the tough, wild country out of which the Illimani had marched – a landscape filled with hummocks and deep hollows but tending ever upwards, criss-crossed by streams and dotted with small forests, the terrain growing steeper and more savage mile after mile. In the far distance

it merged into the foothills of a range of jagged snow-capped mountains.

The only sure thing was that there would be more Illimani in there somewhere.

Leoni was already darting forward to search them out for Ria when a tunnel of light, unexpected and unwelcome, swirling and pulsing, blinked open in the sky beside her. An enormous force was already drawing her in. She struggled against it but couldn't fight it and her last glimpse, looking back and down at the vanishing landscape of the past, was of Ria walking resolute and unafraid into danger.

Leoni felt her consciousness plunging back into the warm breathing mass of her meat body, unstoppable as a diver entering the water from the high board. *No! Too soon! Too soon!* A wave of fear, regret and pain washed over her. Deserting Ria now, leaving her unprotected in that deadly wilderness, felt like a terrible betrayal.

But then Leoni began choking and coughing, all her senses alert.

A speedboat was approaching, the snarling industrial roar of its outboard tearing the quiet night air of the jungle to shreds.

Leoni was still seated upright on the little bench she'd used for the session. Leoncio was standing beside her with one hand between her shoulder blades, the other holding a glowing censer releasing clouds of astringent smoke into her nostrils. She coughed and spluttered again. This was what had brought her back! As her head cleared of the residual giddiness and disorientation of the journey Leoncio whisked the censer away and helped her to her feet.

The sound of the speedboat's engine was closer. 'We have to run,' said Leoncio. 'Into the jungle! Mary has your backpack …'

'But why? What?'

'Your demon has found us. He's more powerful than I guessed. His people are here. We're leaving immediately.'

Bannerman was on his knees on the floor of the *maloca,* reorganising his knapsack. He'd thrown out most of the clothing, a towel, books, a pair of shoes, and was stuffing in a flashlight, a compass, a Swiss Army knife, a lightweight waterproof, and multiple packages and tubes of medicines from a box that had travelled with them in the boat. Mary had a row of 32-ounce Nalgenes lined up and was filling them with purified water from one of the big plastic barrels they'd brought from the lodge. Don Esteban was packing dried fish, strips of beef jerky, and bunches of plantains into a shoulder bag. Matt was just a shadow down by the creek where the moon, now low in the sky, picked out the metallic glint of the AK-47.

Suddenly he came charging back. 'There's more than one boat,' he announced. 'Could be two. Maybe even three … We're out of time.' The beams of spotlights became visible, juddering and shaking, cutting through the night, and Leoni understood that their pursuers were already on the creek, coming in fast along the other

side of the last switchback.

Mary had finished with the water bottles, handing two to each of them. Leoncio led the way, Matt took up the rear, and with Bannerman still fumbling with his knapsack they fled into the jungle.

Stumbling, almost losing her balance, Leoni still found the presence of mind to check the luminous hands of her Rolex as she ran. It was just after three a.m. Less than three hours of darkness remained, and the moon was still bright. Way too bright. Back at the creek the macho roar of the speedboats' engines fell silent. She heard men shouting – there were so many – and saw their flashlight beams lancing through the trees.

Leoncio was up ahead, leading the way, but if there was a trail Leoni couldn't see it. She was wearing denim jeans and a pair of good walking boots which kept the worst of the undergrowth from tearing her legs and feet to shreds, but her short-sleeved cotton shirt did nothing to protect her upper body and arms which were soon

covered in painful scrapes and scratches.

Then she ran into something solid, smacking her forehead very hard, and fell with a stifled scream into a heap of brushwood teeming with biting insects which swarmed into her hair and clothes. Bannerman, who'd been right behind her, rushed to her side, whispering soothing words: 'Hush, Leoni, hush, I'm here. Don't be afraid.' He took her hand, supported her back and was hauling her to her feet when gunfire broke out from the direction of the creek.

Suddenly – horror – bullets were whipping and buzzing through the trees all around them. Leoni screamed again as something plucked at her arm, Bannerman grunted, an awful sound, and slumped forward against her, a dead weight bearing her down.

Chapter Eighty

Ria slithered out of the knot of upended roots she'd hidden in, fell onto the guard's back, wrapped her thighs around his waist for purchase and sliced her blade through the big artery in his neck. With a fountain of blood gushing up from him he dropped his axe, staggered and crashed to the ground. She crouched over his heaving body, looking left and right.

There'd been two guards on this flank. Where was the second one? Distracted by screaming stampeding kids Ria caught his sudden charge out of the corner of her eye and avoided a wild spear thrust. She palmed a stone, threw herself sideways in a somersault, and ducked into the shadows beside the track.

She heard shouts and blows from the front and rear of the column, and a chorus of screams, but there was nothing to be done about that. The brave with the spear lunged at her, panting and cursing as she squirmed and wriggled away from him. She dived into thick bushes, feeling thorns tear her skin, twisted her body to escape another vicious lunge, forced her way ahead and burst out the other side. Right behind her the Illimani had become tangled in the briars and his forward rush had stopped. He struggled and freed himself but by then Ria was thirty paces away behind a tree, and ready.

The moon gave her a good look at the shaggy, murderous savage. He stopped twenty paces from her, charged at a bush and thrust his spear into it. He glared and charged again, spearing another bush. But it was obvious he'd lost her and he turned back, suddenly wary, towards the track where the sounds of fighting had now died away. Ria heard Driff 's thought-voice, and Grondin's, inside in her head, both filled with concern, trying to locate her. *'I*

live,' she pulsed and stepped from behind the tree.

'Hey, shitface,' she said softly in Illimani.

The brave whirled and she saw him register the flint knife she held, glinting in the moonlight. He seemed to realise for the first time that he confronted a girl, bared his filed teeth in a scornful sneer, and charged. As she hurled her stone left-handed to strike him between the eyes a cloud blew across the moon. She heard a heavy *clunk* but knew she'd missed the kill when the roaring Illimani smashed into her in the sudden darkness, knocked her to the ground with his full weight and crashed down on top of her in a tangle of knees, hard muscle and bad smells. Ria felt the shaft of his spear trapped under her body – *good!* – but the brave was all over her, thrusting at her like a lover. He got his powerful hands round her throat, bore down on her windpipe and lifted his upper body to increase his leverage. His fingers tightened but she'd held on to the knife and as the moon reappeared she stabbed the long blade into his hot, sweaty armpit, found the soft unprotected spot there and

pushed upward so hard the point erupted through the top of his shoulder. He screeched and spat blood but didn't let go and when she twisted the knife and jerked it out to stab him again he took his left hand off her throat and grabbed her wrist. He continued to strangle her with his right hand, his big thumb grinding into her larynx, so Ria didn't much mind the indignity of being rescued when Driff came flying out of the darkness and killed him.

Everyone had played their parts, it seemed, and all twelve of the Illimani were dead. But were more following? Did more lie in their path? When she and her companions had numbered only seven, Ria reflected, they could move fast and hide in an instant. Now, with close to forty children to bring back to Secret Place, they would be slow, unwieldy and very easy to see.

As Ria walked back to the scene of the ambush with Driff she saw Bont clutching his little son Nibo and his daughter Maura in great bear-hugs of joy, whooping and cheering with relief. Through

the openness of thought-talk, she shared the deep pain and distress he struggled hard to hide at the certain news that Sabeth was gone.

Past Bont, the other children they'd saved were still milling on the track. With a few exceptions, they had the look of a pathetic panic-stricken herd. None had more than eleven summers, half had yet to reach seven, most were bruised and battered from multiple falls after the forced night-march, and several were close to collapse. All had seen their elders murdered. Some were so browbeaten and brutalised they cowered at the slightest movement. Some wept and called out for dead parents. Others were wide-eyed, shocked and silent.

Including Nibo and Maura, only eight were of the Clan. The other twenty-eight were from various local and some more distant tribes – mostly the Merell and the Naveen, but also a smattering from the Ree, the Jicaque, the Spearjig, and even the Kosh. Ria moved amongst them in the rising dawn light, speaking to them in their own languages, ruffling this one's hair, resting a cheering hand

on that one's shoulder, even drawing hesitant smiles from a few.

All told much the same story: a narrow escape from Illimani raiders deep in their homelands, followed by terrified flight, mostly in small family groups, to what they'd thought was the safety of the Gate of Horn. There, one by one, they'd been hunted down – the adults slaughtered and the children rounded up for sacrifice – by the war party of a dozen braves that Ria and her companions had just destroyed.

Had they seen anything, Ria asked, to make them suspect other Illimani war parties had been in the area and might be heading this way? None of them could answer. They did not know. But many looked back with fear in the direction from which they had come.

Ria's first instinct was to run.

Now.

But it was obvious the children were too tired, hungry and confused for that. They wouldn't get far on the long march to Secret Place unless she got some food and some courage into them. It was

a gamble but Ria ordered the whole group off the track, away from the splayed bodies of the Illimani and into the rocky outcrop where she and her companions had spent the night. With full daylight coming on fast, a new fire was lit and a good breakfast made of the supplies of fresh meat – rabbit, wildfowl and a side of hog – that the Illimani had been forcing the children to carry for them.

Although they had seen the Uglies fight to save them from the Illimani, most of the kids were suspicious of these strange-looking creatures who featured so often as ogres and monsters in scare stories told by their parents. But Ria summoned Jergat and Oplimar into their midst and soon the whole group began to calm down. There was something kindly and sympathetic about Oplimar that transcended language, and his bushy red beard, wrinkled leathery features and twinkling eyes gave him a comical air. Jergat, lean and slight for an Ugly, had an innocent sense of fun. He sat on the ground amongst a group of the smaller children and allowed them to prod and poke at him and pull his matted hair. It wasn't long before

he had a little Naveen boy and a girl of the Spearjig on his shoulders.

While they ate, and the Uglies provided gentle healing to the most damaged, Ria studied the few children who stood out, who didn't look defeated, who still had some fight in them. She settled on four who she thought would serve her purpose. This was to marshal and organise the others and keep them moving through at least the two days – quite possibly three – that it would take them to reach Secret Place. Such a trek would have been difficult for the younger children at any time. But now they had Illimani war parties to contend with as well – including at least one entire troop of five hundred under the leadership of Martu and Sakkan, roaming these parts looking for trouble.

Darza, a boy of nine, was of the Clan. Ria had not known his family well but she remembered him as a plucky little brat always getting into fights with older children who tormented him on account of a livid birthmark covering the entire left side of his face.

He was small-boned and quite delicate, with a calm, serious manner. He didn't seem in the least bit afraid.

Then there was the Naveen boy Entu, aged ten but as heavily built as a teenager. His domed head had recently been shaved, no doubt to clear lice, giving him a strange stubbly appearance, but his strength would be an asset and she'd seen he was gentle with the younger children.

Birsing, a tall fierce-faced eleven-year-old of the Merell, had the thick red hair, green eyes and pale freckled skin typical of her people. Right after the fight she'd spoken in a rush in a high, clear voice, saying something Ria hadn't been able to understand very well. Something baffling about a prophecy. Then she'd clammed up tight and said no more. Her green eyes stared out with hostility and rage at everyone. Ria liked the look of her.

Finally there was Panalan of the Kosh, another eleven-year-old. He was lean and dark, with an intense unblinking gaze, and the only one of the children who had joined in the fighting against their

captors. He'd been at the back of the column where the Uglies had attacked and Grondin told her how he'd piled in to support them, tangling the legs of one of the rearguard and helping to bring him down.

To each Ria gave command over eight other children. 'You're my generals,' she told them. 'If you can keep this rabble in some sort of order we might get out of here alive.'

* * *

The morning air was fresh following the rain, but by high sun the heat had become intense. The younger children, no matter how chivvied they were by Darza, Entu, Birsing and Panalan, or how amused by Jergat's continuing antics, were slowing down. Some looked on the verge of collapse again. When they reached the waterfall they'd passed yesterday, which threw up a cooling spray, Ria ordered a halt and they found shade under trees for a short rest. There was no alternative if half her new protégés were not to die of

exhaustion.

Stops were needed with increasing frequency after that, and although it was downhill all the way, retracing the route of the day before, progress was slow. Ria sent Ligar and Jergat to scout ahead for dangers and in the mid-afternoon she fell in beside the Kosh boy Panalan. ‘Tell me about mammoths,’ she said.

He wrinkled his face: ‘They are very large, they move in herds, their meat tastes good. What else is there to say?’

‘What happens when a mammoth fights a man?’

‘The man dies.’

‘But how does he die? How does the mammoth kill him?’

‘Have you *truly* never seen a mammoth?’ asked Panalan. He sounded amazed.

‘No, never.’ The almost mythical creatures had not ranged as far west as the Clan hunting grounds for as long as anyone could remember.

‘They’re as tall as two men and as heavy as twenty,’ Panalan

explained. ‘So when they want to kill someone they can just stamp on them, or sit on them, or spear them with their tusks …’

‘Tusks? That’s what ivory comes from, right?’

‘They’re the mammoth’s teeth but grown extremely long’ – he spread his arms wide – ‘longer than this. They stick out of the front of his mouth, one on either side, and he uses them for digging and fighting.’

‘But you of the Kosh, you hunt these creatures, yes? And trade their skins and meat and … tusks?’

‘We’ve learnt their ways. We know how to kill them …’

‘Could you catch one for me, if I asked you to? Without killing it?’

‘We could trap one in a pit. But what use would it be to you alive?’

Ria didn’t answer.

In the distance she saw Ligar and Jergat returning at a run.

Chapter Eighty-One

A pungent burst of hot thick fluid drenched Leoni's face and hair as they fell, and kept on pumping as Bannerman slumped on top of her. *Blood! It had to be blood!*

Leoni screamed and turned her head, spitting and gagging as her mouth and eyes filled with stinking glop. She fought to free herself, was dimly aware of the sounds of gunfire, which seemed to be all around her, heard footsteps charging down on her, thought she must die.

It was Matt. Silent, moving fast, he hauled Bannerman off her, thrust him aside, wrapped his left arm around Leoni and lifted her to her feet. The AK-47 was in his right hand, firing short rapid bursts

back towards the creek. The muzzle flashes lit up the night and in the horrible yellowish on-off strobe effect, like riding a ghost train, she caught a glimpse of Bannerman's slumped body and saw the jagged splinters of white bone and gouts of blood and brain matter where half his head had been blown away.

As the horror of the scene consumed her, two shadowy figures burst out of the trees and charged towards them. A burst from the AK-47 sent one of them tumbling but then the gun snicked and seemed to jam and the second man was on top of them. Matt had let go of Leoni to grapple with him and there was a bellow followed by an agonised scream – *Not Matt, please let it not be Matt.* The attacker fell, there was a rush behind them and Matt whirled, the long blade of a hunting knife gleaming in his hand, to face the new threat.

But it was Leoncio, not an enemy. 'Quick,' hissed the shaman and he turned, gesturing for them to follow. When Leoni tried to drop to her knees beside Bannerman, Matt jerked her upright and

growled: ‘Nothing to be done for him.’ Then they were running deeper into the jungle, snaking through the trees, the darkness thickening.

There were insects crawling over Leoni’s body, in her hair too, some biting her, and the soup of Bannerman’s blood was congealing in a sticky mass on her face and throat, dribbling between her breasts and down onto her belly under her clothes. But she hardly registered the discomfort now, her heart thumping, her breath coming in ragged gasps, all her senses alert to the sounds of the pursuit.

A lot of men – *How many? Twenty, thirty?* – were still crashing through the undergrowth behind them, flashlight beams stabbing the night, rough, excited voices calling back and forth to one another, and Leoni felt the oppression of the jungle hemming her in all around. More gunfire came in a long burst, followed by sporadic individual shots and distant muzzle flashes. A few bullets whipped by very close but all the rest went wide.

Leoncio kept up a steady, loping pace, Leoni behind him. Once more she couldn't see a trail – creepers and thorns grabbed at her legs and she felt Matt's hand on her arm, steadying her. 'Down,' hissed Leoncio, dropping flat to the jungle floor and worming his way forward. Matt and Leoni followed. 'In here,' the shaman whispered. He squeezed through a gap between low-lying branches and tangled vines, and led them to a narrow sloping muddy watercourse into which they all slithered downwards, helter-skelter in the darkness.

At the bottom of the gully, after a bruising, soaking, jarring slide, Leoni and Leoncio landed in a heap right at Mary's feet where she was waiting in the shadows with Esteban and Emmanuel. Matt was behind them, still clutching the AK-47.

There could be no talking but as Leoni staggered upright she wrapped her arms around Mary and whispered the awful news quietly into her ear: 'I'm sorry. John's dead. They shot him. He was trying to save me. It's all my fault.'

With a raw stifled moan the other woman shoved her away.

Had they escaped their pursuers at the watercourse?

The sounds of the chase were growing faint and distant, turning at a tangent from them, but Leoncio wasn't satisfied. 'If they have a good tracker they could be back on our trail in minutes,' he hissed. 'We have to move fast – no talking, just follow me.'

'Where are we going?' Leoni asked.

'A long way,' Leoncio whispered. 'A village I know. We'll be safe there. You'll be able to drink Ayahuasca. Good Ayahuasca. We'll get you back to your Ria again …'

They walked in single file, about five feet apart. Leoncio was once again in the lead, setting a fast pace, followed by Mary, Esteban, Emmanuel and Leoni, with Matt taking up the rear. He had unjammed and reloaded the AK-47, and both the handguns that he'd stolen from Apolinar's boat were stuffed into his belt.

Somewhere during their headlong escape Leoni had lost her

Rolex, and with it all track of time, but soon enough she saw daylight filling the sky from the east. Troops of red howler monkeys were already swinging through the canopy overhead, welcoming the dawn with grating roars and groans, and the high-pitched *rrrk, rrrrk, rrrrk, rrk* calls of huge-billed toucans reverberated from the treetops.

Down on the jungle floor, although it was still quite dark, Leoni could now see enough to avoid the major hazards, which was good, but she also saw the thick matted bloodstains that hadn't been washed out of her jeans and shirt in the watercourse. Up till now there'd been so much else going on it had been easy to avoid thinking of poor dead John Bannerman, but recognising his blood all over her brought back the whole horror of what had happened.

Leoni braced herself as memories of their encounters during the past week flashed through her mind. He'd saved her life twice. Once in the emergency room, and once again right here tonight – except this time he'd taken bullets that otherwise would certainly

have killed her.

Leoncio pushed ahead and the light brightened into full morning.

How much time had passed without them taking a stop? An hour? Two? Three? It was hard to be sure, but suddenly the sun was above the trees and even though the dense green canopy diffused its rays into a soft emerald glow, the heat and humidity of the day soon became almost unbearable.

Leoni had been taking frequent sips from one of her big water bottles but was now horrified to find she had only a few ounces left. What was she going to do when the other one was empty as well? Drink from the Amazon, presumably, and get amoebas in her guts.

She turned her attention to her feet, which hurt, and her legs, which felt weak and wobbly. She had a beating headache and her whole body was covered with scratches and cuts inflicted by the jungle. In contrast Don Emmanuel in his eighties, Don Esteban in his seventies and Don Leoncio in his fifties seemed to float along

the almost invisible trail, expending no effort, somehow avoiding all contact with the vines, thorns and random debris that lined their path.

Gritting her teeth, Leoni forced herself to keep up with them, trying to imitate their easy, fluid gait, when she heard a sound from back along their trail that did not belong to the jungle.

Don Leoncio held up a hand, a finger to his lips for silence, and everyone stopped.

There it was again.

Hunting dogs, baying.

Chapter Eighty-Two

The news brought by Ligar and Jergat was good. There were people ahead on their path. A lot of people. But they weren't Illimani. They were Merell and they were led by Sebittu and Tari, the couple whose lives they'd saved the day before. 'They're talking about a prophecy,' said Ligar.

Ria grimaced. 'One of the kids mentioned something like that as well. Any idea what it's about?'

'Haven't a clue,' said Ligar in out-loud speech. He leaned close and whispered: 'To be honest, it looks like they've all gone mad.'

Late in the afternoon, with the setting sun shining almost

directly into their eyes, they came over a ridge. A few bowshots downslope lay the great forest into which Martu and Sakkan had disappeared yesterday with their five hundred Illimani. Now an even larger number of Merell – perhaps a thousand of them – began to swarm out of it. As the distance shortened, Ria saw that many were armed and that a disciplined body of archers stood to the front of the huge crowd. They came to a halt twenty paces from her and Sebittu made his way through the archers until he stood at their forefront. Ria stepped forward also – it seemed the right thing to do – and they faced each other across a few paces of open ground.

There was silence for a heartbeat. Then all the rescued Merell children, including Birsing whom Ria had put in charge, bolted for the Merell ranks where they were scooped up and embraced by sobbing, delighted relatives. Birsing, Ria noticed, found nobody waiting for her and wandered, looking from face to face, until Sebittu's wife Tari came to her.

'I've gathered the survivors of four bands,' Sebittu told Ria.

‘There wasn’t another Speaker amongst them so I have command. Yesterday you offered me a place of safety for the Merell. Is that offer still open now you see our numbers?’

‘Of course it’s still open. Just follow us. We’ll take you there.’

‘There is another matter we must settle first,’ said Sebittu. He signalled to Tari who brought Birsing forward: ‘Speak, girl. Tell us your story.’

Birsing’s fierce green eyes glared up at the adults: ‘When the savages destroyed our camp my mother and I sought sanctuary in the Gate of Horn. My brother Jengo was with us.’

Her tone was cold and flat.

‘We found others there fleeing the same savages, but more savages had followed. They killed all the grown-ups – Jengo too, though he wasn’t fourteen summers. The rest of us they took prisoner. They made us march at night but we were too much trouble so they decided to kill us.’

Her face lit up and she turned her green gaze directly on Ria:

‘Then Ria of the Clan came out of the sky with six brave warriors.’ She waved in the direction of Bont, Ligar, Driff, Grondin, Oplimar and Jergat. ‘Ha! You should have seen them fight. They killed all the savages and saved our lives.’

Birsing stepped forward two more paces and stood right in front of Ria, looking up at her with burning eyes: ‘You’re the girl from the prophecy,’ she said. ‘I knew it when you saved us. When you came from the sky. I saw the way you killed that guard. So fast it was beautiful. I want to learn to do that.’ She reached out, took Ria’s hand and kissed it – an action that evoked a sigh from the crowd. Then she returned to Tari’s side.

‘The girl from what prophecy?’ Ria asked.

‘Birsing voices what we all believe,’ said Sebittu.

Ria gave him a blank, uncomprehending look.

‘Forgive me,’ he said. ‘You speak our language so well it’s easy to forget you don’t know our traditions. There is a prophecy of Our Lady of the Forest – passed down to us from the long-ago …’

Our Lady of the Forest. The name by which the blue woman was known amongst the Uglies! Were the Merell too part of the web she was spinning backwards and forwards in time?

'At first I couldn't be sure the prophecy spoke of you,' Sebittu continued. 'But there's no longer any doubt.' His voice ringing, he began to recite:

> *'In the time of darkness will appear the harbinger of the light. She will fight against the evil one for the future of the world. By these signs you shall recognise her ...'*

Starting as a whisper of a few isolated voices, quickly taken up by others, and soon intoned by hundreds, the rest of the Merell joined in the recitation, the words growing louder and stronger with each new revelation until they reached a crescendo:

> *'She will come from the east, out of the Gate of Horn, a*

protector of children. Great courage will be hers, and great cunning in battle. All the tongues of the world will be at her command. She is the one who will unite the tribes …'

How or when the blue woman had planted this prophecy in the Merell's past Ria didn't know or care. All that mattered was to use it to her advantage.

Things were moving fast.

Sebittu dropped to one knee before her: 'The evil one has come into our valleys,' he said, 'and his name is Sulpa. His forces have destroyed our camps, raped our women, stolen our children, so it cannot be an accident you appear now, out of the east, a protector of children …'

Ria looked around. All the rest of the Merell were down on their knees as well.

'There can be no doubting the prophecy,' said Sebittu. 'Our Lady of the Forest has chosen you to fight the evil one. You have

already offered a place of safety for my people, and I have accepted. Now I offer you in return my Merell archers at your command until Sulpa is destroyed. What do you say?'

'I say yes.'

What other answer could there be?

Chapter Eighty-Three

Don Leoncio and the others had been moving too fast for Leoni even before they heard the dogs. Now they doubled their pace to a run. She couldn't sustain it and after only a few moments she was bent over by the side of the trail, gasping for breath, sweat drenching her filthy clothes.

Matt stooped, put his shoulder into her waist and the next thing she knew he had picked her up in a fireman's lift and was jogging through the jungle with her to where Leoncio and the others waited just up ahead. Then they were all off again at a run: 'I'll carry you as long as I can,' Matt panted. 'Get your breath back – you'll need it.'

Being shouldered like a sack of potatoes and bumped up and down with every footstep was uncomfortable but beat running for a while. It gave Leoni a chance to listen to the dogs. She thought there were four of them. Two were still quite far back, two others were closer and moving fast.

Five minutes passed, Matt set her down, and Leoni put everything she had into keeping going and not being a burden. But it was no good. Her body was soft and weak, she was still reeling from the effects of last night's Ayahuasca trip, and the sound of those dogs was turning her bowels to jelly.

Mary looked done in, too. Don Emmanuel's normally nut-brown skin was grey and slick with sweat. Even Matt was showing signs of strain. The heat and humidity were unbelievable – it was like running in a sauna bath – and Leoni's heart was kicking. 'I have to stop,' she gasped, doubling forward. 'Can't … can't … I can't …'

Without a word, hardly breaking his stride, Matt swept her up

again.

He ran with her for what seemed a long time. *Strong as an ox,* she thought, but the dogs were still gaining on them. Finally, with a grunt of exhaustion, he swung her down to her feet, stepped to one side and cocked the AK-47, pointing it back along the trail.

Gasping for breath, everyone else stopped and turned. But when Leoncio saw what was happening he hurried to Matt and laid his hand on the gun. ‘This is just dogs,’ he hissed. ‘Let’s not tell the hunters our position before we need to.’ He drew a machete from his belt, and in the same instant a brown muscular streak, some sort of pit bull/mastiff cocktail, snarling and spraying saliva, launched itself at him from the undergrowth and clamped its teeth onto his arm, bearing him to the ground.

Matt dived after the animal, thrust his knife right up its anus and twisted the blade. The brute yelped and let go of Leoncio who smashed his machete into its neck just as the second dog burst from the jungle. Still crouched low, Matt shouldered aside its leap for his

throat and plunged his knife to the hilt between its ribs. It dropped to the ground, all the life gone out of it.

Don Leoncio's arm was cut and bleeding, Mary was white as a sheet. Don Emmanuel looked close to collapse and was being tended by Esteban.

Leoni figured the first two dogs had been let loose for whatever mischief they could do – and they'd done enough – but back down the trail the second two were still baying, choking against the leash, and she could now also hear the distant excited shouts of the hunters.

Because surrender wasn't going to be an option with Jack involved, and they were all going to die, she wanted to apologise to Mary: 'I'm sorry you got dragged into this,' she said.

The older woman surprised her. 'It's not your fault. We're all adults here. I'm sorry I reacted the way I did when you told me about John.' She stepped closer and embraced Leoni: 'This whole

thing. It's an amazing experience. I wouldn't miss it for the world.'

Still nobody had moved. 'Come on!' said Leoncio. 'This way!' And he plunged off the faint trail they'd been following and led them straight into dense jungle, hacking through the clinging vines and thorns.

'The river's about five hundred feet over there,' he explained.

'The river?' Leoni didn't see why that was useful.

'Tributary of the Ucayali. If we can get across it we'll be safe.'

'How do we get across it?'

'Swim.'

Behind, the dogs bayed.

* * *

Five hundred feet is a long way in virgin jungle and just as they reached the river's high bank, overgrown with palms, a tremendous hue and cry from their pursuers told Leoni the bodies of the dogs

must have been found. There was an instant of delay and then the hunt surged towards the river. Crouching down, facing back the way they had come, Matt seemed to have been waiting for this. He fired a long burst from the AK-47, ejected the empty clip, locked a new one into place and fired again.

'In the water,' yelled Leoncio, barely audible above the rapid rattle of the assault rifle. 'Ditch your packs. Hold on to each other.'

Leoni looked down at the muddy swirling river, wide as a football pitch, undercutting the bank fifteen feet below. *Monsters,* she thought. *It's full of monsters. I can't get in there.* She saw Esteban and Emmanuel jump and realised bullets were flying out towards her from the jungle. There was a whiz and a slap. She felt heat part her hair and a gush of blood poured down into her eyes from her scalp. She put up her hand, fearing that her brains had been blown out, like Bannerman's, but found instead a shallow bleeding groove running diagonally across the top of her skull. With a yelp she dumped her pack, grabbed Mary's hand and they jumped

together from the bank, hitting the water with a tremendous splash.

At once the current swept them out towards the midstream where Esteban was keeping Don Emmanuel afloat. A few seconds behind, Don Leoncio hit the water and swam to join them. Matt was the last. Still standing on the bank, he fired a final long burst back into the jungle, threw down the AK-47 and his pack, and jumped in.

A second later a huge tawny mastiff with jaws like a steel trap came flying off the bank, hit the water and swam after him, fast as an otter, gaining on him. Leoni was still holding on to Mary's hand and the two of them were treading water, watching hypnotised and aghast, but just before the dog got its teeth into Matt he rolled, pulling a pistol out of his belt, and – *Bam! Bam!* – shot the animal twice in the head.

As it sank beneath the surface without even a yelp there was a muffled scream. Mary's hand was torn from Leoni's grasp, and there was a tremendous agitation in the water. Turning in horror, Leoni saw the older woman had been seized in the jaws of a

massive black cayman. It shook her from side to side the way a terrier shakes a rat.

Chapter Eighty-Four

Of the thousand Merell who came out of the forest with Sebittu, most were either too old, too young or had been too badly wounded in previous skirmishes with the Illimani to be any use if it came to a fight. Still, Ria counted a hundred and eighty-seven able-bodied braves amongst them – a credible force. All were armed with the usual assortment of spears, clubs, maces, axes, hatchets and knives, but the real prize was that a hundred and nine of them also carried powerful hunting bows and quivers full of arrows.

It wasn't enough to beat Martu and Sakkan – nowhere near enough – but Ria hoped the presence of so many archers might at least make the Illimani think twice before attacking. She put Ligar

in charge of them and gave Bont command of the other seventy-eight. Communication was going to be difficult, perhaps dangerously so, but for the vital decisions she needed people who'd fought by her side before. Besides, Ligar already knew a little Merell, and there were Merell in both groups who could speak enough of the Clan language to pass orders on. The arrangement would have to work.

Then there were the women. Again, there were many who were injured, ancient or infirm, but with Tari assisting her Ria selected close to two hundred who were able-bodied and had them stand to one side. Being Merell, all of them were already armed with some weapon or other. Their job now, Ria told them, was to be the last line of defence for the children and the elderly. She placed Tari in charge of them.

With half of his men and ten of Ligar's archers Bont would march at the head of the column with Sebittu, Driff and Ria. Grondin, Oplimar and Jergat volunteered for the rearguard. Ria

assigned the rest of Bont's men, along with ten more archers, to join them there and divided the remaining archers under Ligar's command to protect the flanks. The column could close up or spread out, depending on the terrain, but this would be the general disposition. Relays of the fastest runners were sent out ahead to scout the route for danger and unforeseen obstacles.

Ria decided to keep the rescued children together and to preserve the command structure she'd established on the mountain. Birsing, Entu, Panalan and Darza remained in charge and the first task she gave them was to ensure everyone had a weapon – even if it was only a sharp-edged rock or an improvised club. They were to form an organised core within the larger mass of non-combatants at the centre of the column, and unlike the others, who would be no help, Ria told them she expected them to fight back if they were attacked: 'Fight for your lives. You've seen what the Illimani do when they win.'

'Is it true,' Birsing asked, 'that their leader drinks the blood of

captured children?'

Word was getting round. 'Yes,' Ria admitted, 'it's true.'

Birsing shuddered: 'But you're going to stop him, aren't you? That's what the prophecy says.'

Ria smiled: 'Of course we'll stop him.' She could see Birsing believed her, but inside she was filled with doubts and the weight of her new responsibilities weighed her down. Everything in her life was moving and changing so fast that it was hard to remember who and what she'd been just a few days before. Now she was to be a hero to every little girl and boy, some of them only a few years younger than herself, and she had the hopes and expectations of a whole tribe focused on her.

She would march them through the night, without stopping. That way there would be less risk of encountering the Illimani. And she would march them all the next day. If the spirits were with her she would get them back to Secret Place safely sometime after nightfall tomorrow.

The return journey through the great forest began before the last light of the long summer evening had left the sky, but when full night arrived, with moonrise still a long way off, the darkness grew thick as blood. This was a Merell forest and scouts who knew it well guided the column through the trees, but still the going was slow and difficult.

Ria was at the front with Sebittu at her side and with Bont, Driff, Grondin, Oplimar and Jergat all nearby. Sebittu had been talking at length about the Merell's worship of their goddess, the Lady of the Forest, and about the prophecy she had given in the long-ago that Ria fulfilled. It had been passed down by word of mouth from generation to generation – every Merell learned it in childhood – and it now emerged there were other verses which further strengthened the connection. One, which described Ria exactly, said that the harbinger would be 'an unwed girl of sixteen summers'. Another predicted she would be 'an orphan, born of the Clan'. And a third stated that Uglies would fight beside humans in

the army of the harbinger of the light – so the presence of Grondin, Oplimar and Jergat had been taken by all the Merell as further confirmation of the truth of the prophecy.

It was all very strange, Ria had to admit, yet this was how the blue woman worked – not directly but in roundabout ways, manipulating others to fight Sulpa on her behalf and finding them means and allies. She hadn't told the Merell yet about her own encounters with the Lady of the Forest. It would have seemed boastful, when they were already acclaiming her as the subject of the prophecy, to hold up her hand and say, 'Yes, I've met your goddess. She gave me my gift of languages.'

Probably they all took that for granted already anyway.

As the slow passage through the forest wore on, and the moon rose to light their way, a new phenomenon became apparent. Groups of ragged refugees, mostly women and children but some with braves amongst them, appeared through the trees, following the column,

crying out for protection and in some cases for food. They came from many different tribes, though none of them were Clan, and all told the same story of Illimani attacks on their camps, of bloody massacres and spectacular cruelties, and of their own desperate escapes.

Ria refused nobody, not even a Naveen hunter with shifty eyes and wearing ragged skins who gave her a bad feeling the moment she saw him. The column kept growing with the constant stream of new arrivals and Ria could sense Grondin was troubled. ‘The spirits gave Secret Place to the Uglies to keep us safe from your kind of people,’ he pulsed as another large group was assimilated. ‘Now we’re taking more than a thousand of you inside …’

This had all been discussed with Brindle before they set out and the policy had been agreed. Despite the appalling risk it posed to the Uglies, all people of whatever tribe who were fleeing the Illimani would be welcomed. Nothing had changed, but Ria understood how scary it must be for Grondin to see for real the

flood of refugees their generosity was about to bring into their sanctuary. ‘Who’s to say they won’t just kill us all when they outnumber us?’ Grondin now asked.

‘*I* say that,’ Ria pulsed. ‘I say it a hundred times. I will rule these people until Sulpa is defeated and they will respect and honour the Uglies.’

Grey dawn light was already filtering through thin clouds and mist lay chest-high across the ground as the column passed in silence through the foul-smelling charnel house of the Merell camp by the stream.

Soon afterwards they emerged from the forest onto the bleak open moors beyond, and the full numbers of the refugees who had joined them became clear – around another four hundred, Ria estimated, amongst them approximately sixty braves whom she assigned to Bont’s advance party and the rearguard. After being hunted and harried for days it seemed everyone was eager to be part

of the great and strong counterforce building before their eyes, and there were no challenges to Ria's authority.

But at mid-morning more than a hundred Naveen braves, who had somehow evaded detection by the scouts, appeared over the crest of a hill on a collision course with the column. Although they kept their bows slung across their shoulders they held their spears forward and approached at a threatening run.

Ligar had his archers stand by but instructed them to keep their bows unbent unless the Naveen fired first. 'We want these people for allies,' Ria said. 'Let's be friendly.'

The Naveen commander didn't carry a bow, but was armed with three spears gathered in a bundle in his huge left hand. He was tall and powerful, a thick, muscular slab of a man, as big as Bont or Grondin. He had high cheekbones, a massive jaw, a hooked nose and fierce slanted eyes. From the lines in his face Ria guessed his age at close to forty summers but he was agile and fast on his feet. His most striking feature was his skull, which was shaved bald

except for a topknot of black hair gathered into a pigtail that hung down between his shoulders.

He drew up his men in ranks twenty wide right in the path of the column and everyone came to an abrupt halt. ‘You are welcome in the land of the Naveen,’ he said to Sebittu, speaking fluent Merell. ‘I am Balaan.’ He looked along the column with its ragged ranks of refugees now spreading out to right and left, and nodded his head. ‘Our valleys too have been invaded,’ he continued, ‘but some of us are ready to fight back.’ He indicated his men. ‘If I add my force to yours we’ll be powerful. My price is joint command.’

‘That’s not for me to offer,’ said Sebittu at once. He turned and looked at Ria.

‘I heard there was a bitch in charge here,’ Balaan exclaimed in a tone of disgust.

Trying to hide himself amongst the braves behind Balaan, Ria recognised the shifty-eyed hunter whom she’d noticed the night before. He was another of those Naveen who spoke good Merell –

in fact, the two languages were closely related. Obviously he'd only stayed long enough to estimate the column's strength and gather what tittle-tattle he could before fleeing to report to his master.

'What a fucking waste of effort,' Ria spat, pointing out the spy. She spun towards Balaan: 'You could have stopped us any time,' she yelled, 'and asked me anything you wanted to know and I would have told you. You can still do that. We all face the same enemy.'

The Naveen commander studied her in silence for what felt like a count of thirty. His eyes, hard as flints, roamed her body. 'I don't work with bitches,' he said at last.

He turned to Sebittu: 'So, joint command – yes? You and me? But the bitch goes back where she belongs with the women and kids, otherwise no deal.'

Ria took another step forward. 'I'm in command here,' she told Balaan. 'No one else. Call me a bitch again and you'll have to fight me.'

Chapter Eighty-Five

Bam! Bam! Bam! Bam! – Matt fired at point-blank range into the cayman's monstrous armoured body but it seemed unaffected. Its heavy tail churned the muddy water into a wild foam, caught Leoni a glancing blow along her left side and shoved her under, choking and swallowing the river. She resurfaced screaming, and saw the creature's jaws were clenched across Mary's waist, its snaggle teeth locked into her like meat hooks. There was blood but Mary was still alive, still struggling, her face contorted with terror, and – *Bam! Bam! Bam!* – Matt was still firing. The cayman's tail threshed the water like an iron flail and it shook its head from side to side with great violence. Leoni saw Mary's poor body flipped around, her

arms and legs flapping scarecrow-limp. Suddenly the monster barrel-rolled twice amidst a tremendous surge of waves and spume, and Mary was torn almost in half in an instant, blood spewing out of her in a dark mass, her guts fouling the water. Leoni got an awful glimpse of her friend's dead eyes, frozen wide open in her last moment of horror. Then the creature carried her beneath the surface and she was gone in a swirl of blood.

Leoni's first thought was of self-preservation.

With so much blood around she had to get out of this fucking river before another cayman surged from the murky depths or she was stripped to the bone by a school of piranhas. She could feel hysteria and uncontrollable panic building and began to thrash towards the bank, kicking and splashing, her skin crawling.

'NO, LEONI!' Matt yelled after her. 'WRONG SIDE!' He jerked so hard on her ankle that he pulled her head under. She surfaced at once, spluttering and screaming, and he grabbed her by the shoulders and steadied her just as they heard the *clack clack*

clack clack of automatic rifle fire and the *zing! bzz! splash! splat!* of a swarm of bullets smacking into the water all around them.

She looked back. At the point on the bank where they themselves had entered the river – now three hundred feet behind them, thanks to the speed of the current – their pursuers had burst out of the jungle. There were maybe a dozen, some with *gringo* fair hair visible even at this distance, but none showed any inclination to jump in and there was no way for them to continue the pursuit along the overgrown bank, so they just kept shooting.

'DIVE!' Matt yelled. 'DIVE!' He took her hand: 'HOLD YOUR BREATH AND DIVE!' A bullet plucked at Leoni's ear, she felt Matt dragging her under and she dived – *Screw the piranhas* – swimming blind, suddenly not caring any more.

They surfaced and dived again.

The next time they surfaced Leoni saw Don Leoncio just ahead but there was no sign of Esteban and Emmanuel. 'AGAIN,' Matt yelled.

She held her breath and dived and when they came up for air the firing had stopped. The men back on the bank were just dots now as the river swept Leoni and Matt round a wide curve and carried them out of sight.

They dragged themselves out of the water onto a short stretch of sandy beach a few hundred feet beyond the bend, on the opposite side of the river from their pursuers. Leoncio had got out just ahead of them.

Leoni looked for Esteban and Emmanuel.

‘They didn’t make it,’ said Matt. ‘Hit by a burst of fire from the bank. At least it was quick for them, not like poor Mary.’

‘I’m beginning to feel like the fucking Angel of Death,’ sobbed Leoni. ‘Everyone I touch gets killed.’ She squinted at Matt and Leoncio through her tears ‘You sure you guys want to stick around?’

Leoncio’s voice was grave: ‘To play a part in a great cosmic

struggle, perhaps even to speed the victory of the light – what more could any true shaman ask? Besides, we've all lost good friends fighting this darkness. It would dishonour their sacrifice to give up now.'

'I've never been more certain of anything in my life,' said Matt. 'I pledged to protect you.'

Neither man had been hit. Leoni had a piece the size of a dime missing from her right ear, a burning groove across the top of her skull, and a row of aching bruises down her side from her shoulder to her hip, but she knew how fortunate she was to be alive.

Matt wrapped his arms around her for a moment, saying nothing, and she took strength from him.

Then they resumed the march.

Leoni's thoughts turned to Ria. She'd left her in danger, trekking into wild country infested with Illimani patrols. What had happened to her since then? A night and a day had passed here. How much time had passed in Ria's world and how had she used it?

Was she even still alive? Or had she been caught and slaughtered by Sulpa's army?

Ignoring the throbbing pain of her cuts and bruises, Leoni stepped out faster. The only way she was going to be able to answer such questions, the only way she was going to be able to do anything more for Ria, was to get to the village Leoncio had spoken of and drink Ayahuasca again.

They had no packs and therefore no supplies, no bottled water – pretty much nothing except two pistols, one of them still fully loaded, stuffed in Matt's belt, two knives, a machete, and a leather bag of Leoncio's containing certain bottled potions and other objects he had somehow held on to through all the craziness.

There was one piece of good news, he said. Now at least they were on the right side of the river – for they would have had to cross it anyway further along their route – and the going would be easier here because the trees were much taller and grew wider apart.

‘Do you even know where we are?’ Leoni asked him, looking around at the riotous profusion of green palms and soaring hardwoods that stretched away as far as the eye could see in all directions. Again there was a kind of emerald half-light down here, a blissful, diffused shade rather than the glaring sun that had beaten down on them when they were in the river. But it was also humid off the scale, and Leoni knew that within minutes she’d be pouring with sweat.

Leoncio reassured her he visited these forests often to hunt and gather medicinal plants, and that the loss of their packs should be viewed as an inconvenience, not a fatal blow. There were numerous streams where they would be able to drink and cool themselves, and he could provide food for them from wild plants and roots they’d find along their way. ‘I lived three years here as a wild man,’ he said without elaborating further, ‘so I think we will survive until we reach the village.’

‘Which will take how long?’ Leoni asked.

‘About another thirty hours,’ said Don Leoncio.

Leoni was stunned: *‘Thirty* hours?’

‘Yes. Perhaps a little more, perhaps a little less.’

The rain began shortly before nightfall, diffusing through the canopy into a constant dripping shower of fat drops. Leoncio helped Matt and Leoni to improvise personal shelters of palm leaves on frames of branches which they set up close to the trunk of a large tree, but Leoni was uncomfortable from the outset. The shelters were very small and whereas Leoncio and Matt somehow remained still, Leoni’s joints were so stiff she was unable to hold any position for more than a few moments. Yet as the hours of discomfort passed and the cold of the night settled into her bones she found an unexpected resolve. OK, she couldn’t sleep but at least that meant Jack wouldn’t get to her in her dreams.

Long before dawn they ate a scant breakfast of strange pungent fruits, slaked their thirst from a stream and were on their way again.

Leoni just kept on putting one foot in front of another, one foot in front of another, and the day wore on in a daze.

Finally, around mid-afternoon, they hit a definite track and straggled along it, Leoncio a few feet in front, Leoni leaning heavily on Matt. Soft dappled light came down through the canopy and a raucous flock of gaudy parrots, green with yellow heads, settled in a huge brazil-nut tree. They distracted Leoni for just a second but as she looked back to the trail a band of naked men, brown-skinned and barrel-chested, with hard, flat faces and suspicious eyes, stepped out of the forest and menaced them with blowpipes.

Chapter Eighty-Six

‘Call me a bitch again and you’ll have to fight me …’

After shouting the words in Merell, Ria repeated them in Naveen for the benefit of any of Balaan’s men who might not have understood.

She intended the public ultimatum to be a challenge to his honour, but at first he laughed it off: ‘You? Fight me? A gnat would fight a mammoth sooner. Don’t waste my time, little girl.’ In a ringing voice everyone could hear he addressed himself to Sebittu: ‘I repeat my offer: ‘get rid of the BITCH and we will unite our forces.’

Ria felt the ranks of her Merell followers watching, waiting for

their ‘harbinger of light’ to prove herself. Failure would destroy her, but success would stamp her authority on the minds of everyone here – Merell and non-Merell alike – and that was a prize worth risking her life for.

‘I’m challenging you to fight me, Balaan!’ she yelled. ‘If you’ve got the stomach for it.’ She pulled one of her throwing stones from her pouch and showed it to him, and to the crowd: ‘Your spears against my stones,’ she said.

Balaan roared his laughter, tears of amusement dripping from his eyes: ‘Stones! Ha! Ha ha! What do you think you can do with those little things?’

‘They’re bigger than your balls,’ Ria answered, drawing back her arm. She repeated the words in Naveen and one of Balaan’s braves gave a bark of laughter, cut short when the commander turned and glared. Another guffaw broke out behind Ria, from deep in her own column, and she saw Balaan flush and grind his teeth. ‘All right, bitch,’ he roared, ‘that’s ENOUGH.’ But as he lunged at

her with his spear Bont lumbered forward, slapped the point aside with the flat of his axe and stood eye to eye with him, daring him to strike again.

‘Get out of the way, Bont,’ Ria snarled in the Clan tongue. She switched to thought-talk. ‘I have to fight this guy myself, you oaf. Don’t you see that?’

Bont was swinging his axe, keeping Balaan at bay but not engaging him: ‘He’s going to kill you,’ he pulsed to Ria, ‘that’s all I know.’

‘Get OUT of the way,’ she yelled, reverting to out-loud speech. This time, shaking his head, Bont stepped aside.

Ria repeated her challenge to Balaan: ‘My stones against your spears,’ she screamed. ‘If you’ve got the balls for it, you piece of shit.’

Rage and indignation flushed the Naveen leader’s meaty face. Snarling his contempt, he spat a big gob of yellow phlegm at her, somehow missing. Then he stalked away, shifting his first spear

from his left to his right hand.

‘Get back,’ Ria pulsed to Bont and Driff as everyone else around her scattered. She dipped her hand into her pouch and pulled out a second stone.

Balaan was still walking. At fifty paces he spun on his heel and launched the spear with a roar of fury. It was a good throw, fast and powerful, but Ria trusted her eye. At the last moment she swayed aside and the missile shot past, burying itself in the ground behind her.

From the Merell ranks there came a sigh of appreciation.

‘You spit better than you throw,’ Ria taunted as Balaan brandished his second spear. Twice he feinted – the man was not without some crude skill – but when he let fly she dodged again.

‘In fact,’ she yelled, ‘you throw like a bitch.’

The insult enraged him, as she had hoped, and he charged her with an explosion of energy, keeping hold of his last spear. As soon as he started to move Ria threw a stone with her right hand and –

CLUNK! – it bounced off the side of his head just above the ear. A heartbeat later she hurled the second stone with her left arm, aiming for the same spot. *THWACK!* Another good hit.

He stopped in his tracks about thirty paces from her and touched his skull. He was bleeding, and there were more *oohs* and *ahs* from the crowd as he seemed to stumble and almost fall.

But Balaan was a big man and he kept on coming.

Ria snatched another stone from her pouch and threw it right-handed with all the force she could muster. It hit him between the eyes – *THWOCK!* Again he stumbled but again he failed to fall.

He kept on coming, just walking towards her, holding out his spear, blood gushing from his skull.

What was the matter with this guy? Was his head solid bone? Ria had already palmed her last two stones when he shook himself, spraying blood, and broke into a run. She threw fast. *CRACK!* – a punishing shot to the temple, enough to kill a normal man – and *CRUNCH!* – the final stone broke his nose. Then he was on top of

her, his eyes rolling, somehow still finding the strength for a last desperate lunge with the spear. She danced aside, unsheathed her flint knife, thrust the blade between his ribs and jerked it out as his momentum carried him by.

Ria didn't need to look back as Balaan crashed to the ground behind her. She knew she'd found his heart.

Before high sun the column was on the move again, enlarged by the addition of Balaan's men. They'd agreed he'd been killed in a fair fight and they had sworn allegiance to Ria, accepting her as their leader in all matters of war against the Illimani. She could see from the slightly awestruck look on some of their faces they'd started to buy into the Merell belief that she was the chosen one – the harbinger of the light – handpicked by the spirits to lead the tribes in a time of darkness.

Ria saw no reason to disillusion them. At a quick count she now had close to four hundred braves taking orders from her – the

beginnings of a real army to fight Sulpa – so the prophecy was doing what the blue woman intended.

But she also had more than a thousand women, children, elderly folk and other non-combatants who still had to be brought to safety. She glanced at the sun. Although the going was slow with such a large group, a positive spirit seemed to have seized everyone after her victory over Balaan and for a long while there were no interruptions. They simply marched, making good time, seeing nobody. There was a brisk east wind blowing that cut the heat, and by late afternoon Ria had begun to hope they might reach Secret Place before the night was out.

They had entered a green flower-strewn valley and were streaming across its floor when three young Naveen women, wailing and tearing their hair, rushed down the valley side towards them out of a small cave in which they had concealed themselves. They'd all been badly beaten and were streaked and smeared with blood from multiple flesh wounds. Their eyes were wild, their hair

was matted and their clothing was torn.

Ria halted the column and brought forward other Naveen to comfort and succour the women.

When they were calmer she talked to them.

They had seen terrible things.

Their names were Moiraig, Aranchi and Noro and it seemed they had been part of a large Naveen band, more than a thousand strong, camped half a day's march to the south-east. With such numbers they had imagined themselves invulnerable to attack but early that morning, while most still slept, an Illimani force had fallen on them out of the mist and there had been a horrible massacre. It was clear from their descriptions that the attackers could only have been the five hundred of Martu and Sakkan.

Most of the Naveen hadn't been killed in the first onslaught and the adult male survivors and the older females had been rounded up and marched into a makeshift pen of uprooted thorn

bushes the Illimani had erected. Brutally separated from their screaming children, Moiraig, Aranchi and Noro had been herded into a second pen with the remaining females over the age of twelve, including many other young mothers. A third pen held mothers with nursing babes, together with all the other children of the camp.

For some time the women in the second pen weren't clear about the function of the three enclosures. They took heart that sucklings had been allowed to stay at the breast – for surely their captors couldn't be as bad as they seemed if they were so careful to keep innocent babes alive. They didn't understand why they needed to be separated from their own children but at least nothing bad was actually being done to any of them.

Yet ominous preparations were under way. Around the camp the Illimani had forced a contingent of the male captives to chop down trees and strip trunks and branches to make sharpened stakes of different sizes. The smaller stakes, near the height of a man, were

embedded point-up at random intervals across the camp's meeting ground. In amongst them a dozen larger and thicker posts, twice the height of a man, were sunk point-down, and generous piles of firewood the Naveen had been accumulating in preparation for winter were arranged around them.

When all was complete the captives who had done the work were seized, bound and impaled through the anus on the sharpened points of some of the shorter wooden stakes. As this was happening the entire Illimani war band, five hundred strong, gathered round, laughing and roaring in the most horrible way at the victims' shrieks of torment. Having discovered the camp's large underground cache of water skins filled with Storl, the intoxicating fermented-apple drink of the Naveen, many of the victorious fighters were already very drunk.

It was around then, said black-haired, dark-eyed Aranchi, that they discovered what the separate women-only pen was for. There were two hundred of them in there and they all began to scream

when a dozen blood-spattered Illimani braves suddenly barged through the gate, grabbed two women at random by the hair and dragged them outside. A terrible spectacle unfolded as they were punched and kicked to the ground, raped and then chopped to pieces with axes.

Reeking of Storl, a different group of men now appeared and two more women were dragged out of the guarded gate. Panic began to spread.

The treatment of the remaining men and older women from the first pen was even worse. On the shouted directions of a monstrous warrior in a bear-skull headdress, they'd been separated into different groups, just three or five in some, as many as fifty in others, and subjected to all the hideous tortures from the Illimani's gruesome repertoire that Ria was already familiar with – mass burnings at the stake, impalements, flaying alive, nailing to the few remaining large trees around the camp and so on and so forth. It was all done very slowly, one or two groups at a time, while the others,

some voiding their bowels in terror, were forced to look on. It was obvious the Illimani took pleasure in inflicting pain and in magnifying the dread of those who were about to die.

And yet the children under twelve, and the babes in arms with their mothers, were still left unmolested.

Another group of drunken fighters burst through the gate of the women's pen causing a wild fear-driven stampede. A section of the thorn fence was trampled down in the confusion and Moiraig, Aranchi and Noro were amongst a very few who escaped, running for their lives and eventually finding their way to this valley.

Aranchi told Ria of their guilt at escaping. 'But what else could we do?' she sobbed. 'What else could we do?'

'We should have stayed for them,' lamented Moiraig, who had not stopped weeping. She was chubby and earnest, with plain, simple features. 'It was wrong to run.'

'No,' Ria said, putting a firm hand on her arm. 'You would have gained nothing by staying and dying. At least you're alive now

and I'm pretty certain your kids are still alive too.'

Moiraig looked at her with sudden innocent hope: 'Alive?'

'Alive?' echoed Noro. Her curly chestnut hair hung down over her shoulders, framing an anxious, pretty face.

'Yes, alive.' Ria lowered her voice to a conspiratorial whisper that took in all three of them: 'And I mean to get them back for you.'

Chapter Eighty-Seven

‘Thank goodness,’ said Leoncio. ‘We’ve arrived.’

As he spoke, one of the Indians, a short, stocky, muscular man with a very flat face and straight black shoulder-length hair, lowered his blowpipe and uttered a few words in a strange language punctuated by clicks of the tongue – not Shipibo, Leoni thought, although she couldn’t be sure. The man’s fierce features, painted red and black with intricate geometrical designs, broke into a broad smile that seemed to signify amazement, delight and welcome all at the same time. He rushed forward and he and Leoncio embraced, both of them speaking in the curious click language. The other Indians had also lowered their blowpipes and now crowded close.

Their bodies, all painted with the same fine red and black lines, had a curious buttery, smoky odour, which Leoni found extremely alien, but suspicion no longer glittered in their eyes and their initial hostility had vanished.

'Everything is good,' Leoncio announced. 'We're amongst the Tarahanua. The village is near.'

Last night, before sleeping, as they sat under their improvised rain-shelters, Leoncio had spoken a little about the Tarahanua, the small tribe whose sanctuary they sought. Though not completely untouched by the forces of modernisation, they had defended their independence and kept to their traditional ways, migrating deeper into the jungle whenever Christian missionaries or the Peruvian state became too bothersome. They grew beans, a little corn, manioc, plantains and bananas, fished the shallow streams that ran through their land (for they had deliberately kept their distance from any large river), and hunted tapir, peccary, deer, capybara,

armadillos, monkeys and wild birds for their meat. They also hunted jaguar and ocelot, trading the skins through a chain of intermediaries for mirrors, pots, kerosene, cloth, soap, and the occasional shotgun, but otherwise had no contact at all with the outside world. ‘Unless *I* am to be counted as the outside world,’ Leoncio had added, ‘because I’ve been visiting them for years. They have two shamans, both powerful, and they’ve taught me many things.’

He explained that the Tarahanua brewed a particularly potent form of Ayahuasca with an admixture of datura, a different visionary plant that sometimes had the effect of extending the trip for up to twelve hours. His own deepest trances had come in sessions with the Tarahanua and he was convinced that with the help of their shamans Leoni would be able to complete the work she’d been called to. ‘You do realise you’ve been called, don’t you?’ he said.

‘Called to what?’

With the rain pattering down on their flimsy palm-leaf shelters and the dark jungle pressing close all around, Leoncio had paused, seeming to gather his thoughts: ‘Ayahuasca is a grace Our Lady of the Forest has bestowed on all mankind,’ he said at last, ‘a gateway to other worlds and times. Yet not one in a million of us – perhaps not even one in ten million – can make proper use of this amazing gift. Many are so frightened, so confused, so shattered by disconnection from the physical world, they gain nothing at all from the experience. Others have already dropped such strong anchors into material reality they never disconnect at all. Many do make the “transit”, as I’ve heard you call it, and benefit greatly from access to other realms, but remain passive as the experience unfolds, as though it is something being done to them, not a process they can influence. Only a very few – and you are amongst them – can find their feet on the other side, remain functional, take control of situations that confront them, overcome the dangers that await them there, even obtain mastery over the spirits themselves. They’re the

ones who can become shamans. Some become *great* shamans …'

'And – sorry, but let me just get this clear – you're saying I'm one of those?'

'Much training and preparation will be required, but, yes, I'm saying you were *born* to walk in other worlds. You have amazing abilities. If you lacked them Our Lady of the Forest would not have selected you for this task.'

Several knee-pounding miles up and down an endless series of forested hummocks and hollows still remained before they reached the Tarahanua village. As they walked, Leoncio brought up the subject of Leoni's last Ayahuasca vision which he had been forced to terminate with an antidote when his homestead was attacked.

On their trek through the jungle Leoni had already shared everything she could recall about the vision but Leoncio was now more interested in the next move. 'From how you've described it,' he said, 'it seems Ria is in immediate danger from these Illimani …'

‘Yes, immediate …’

‘But the excellent thing is you are somehow able to communicate with her – that’s difficult you know. I don’t think you realise how difficult it is – not only to talk to matter from spirit but also to do it across the time barrier.’

‘The Blue Angel – Our Lady of the Forest – told me this kind of stuff happens because I’m entangled with Ria.’

‘In which case,’ said Leoncio, ‘I suggest you look out for other phenomena of your entanglement. They won’t be confined to communication …’

‘I don’t understand …’

‘Other powers you activate in each other. This will all be part of the web Our Lady of the Forest is weaving by which Sulpa and Jack can be defeated.’

The village of the Tarahanua was called Apo – a name that meant simply ‘home’. It was set in a clearing in the heart of the jungle, a

cluster of a dozen tall beehive-shaped huts with walls and roofs of banana-leaf thatch, surrounded by vegetable gardens. It would be mostly sheltered from aerial view by the overarching canopy, Leoni realised. A stream flowed nearby, noisy bright-eyed young children charged around, and one by one adults of all ages began to trickle out of the communal huts and stare first at the *gringos* and then, with joyful shouts of greeting, at Leoncio. So many of these naked, beaming folk came up to him to embrace him and shake his hand that it was obvious he was loved here.

Baido, the hunter whose band had found them, led them directly towards the largest beehive hut. Standing more than thirty feet tall, and perhaps as many across, the smooth convex curve of the continuous roof and walls was broken at the front of the building by a low doorway through which they now stooped to enter.

Inside it was dark and smoky, with two small cooking fires burning right and left, but there was a sense of lofty spaciousness in the gloom above. Several women, some with small children

clustered round them, were at work preparing food. Hammocks hung from posts here and there, and at the back of the room an elderly man sat cross-legged on the earth floor, his face lit by a beam of light lancing through a smoke hole in the thatch.

Baido directed them towards this figure and, as they approached, Leoni saw he was blind, with milky cataracts over both eyes, and a lined and wizened face that seemed a million years old. Leoncio stooped and embraced him. A long dialogue of clicks followed, then Leoncio beckoned Leoni forward. ‘This is Buraya,’ he said, ‘chief of the Tarahanua. I’m going to introduce you now.’ More clicks. Finally, Leoncio asked Leoni to shake hands with Buraya who retained her hand in his own – she was surprised how firm his grip was – and made what seemed to be a short statement to her in his language, his voice rustling like dry leaves.

Then Matt was introduced and seconds later Baido ushered them all outside where a huge wooden bowl of a strange but somehow delicious and sustaining fermented banana drink was

served to them.

‘What did he say?’ Leoni asked between gulps from the bowl.

‘It’s good news,’ said Leoncio. ‘He will summon his shamans and you will drink Ayahuasca tonight …’

‘But he said something to me directly, right at the end. What was it?’

‘I told him about our escape. He said that if this demon you’re fighting has gone to so much trouble to stop you then you must be very dangerous to him.’

They gathered at midnight in the same smoky communal *maloca* where Buraya had welcomed them. Tall thin Ruapa and short stocky Baiyakondi, the two ancient shamans of the Tarahanua, purified the space with the smoke from huge cigars of wild tobacco and sang *icaros* all around the room before the ceremony began. ‘I’ve told them about Jack,’ Leoncio whispered, ‘and they’ve taken special precautions. He won’t be able to get his eye on us here.’

Little by little, to Leoni's surprise the *maloca* filled up with what appeared to be the entire population of the village – more than a hundred men, women and children, all crammed in together cross-legged on the floor. She was even more amazed to learn that all of them – *all of them,* including the children – were about to drink Ayahuasca. 'These group ceremonies where the whole tribe builds the energy have a magical effect,' Leoncio explained. 'Everyone here will play their part in helping your quest to succeed.'

For some minutes Leoncio and Baiyakondi whispered in the click language before the stocky Tarahanua shaman used a wooden ladle to scoop a huge dose of Ayahuasca from a battered cooking pot and decant it into the grubby gourd that was to serve as Leoni's cup.

She held the gourd between her hands, looking down into the oily red-black sheen of the potion, her stomach already heaving and her eyes watering as the smell hit her. When the time came to drink, however – and the whole community drank at the same moment on

Ruapa's signal – Leoni gulped down every drop, so eager was she to return to Ria's side.

The awful taste lingered, the liquid, thick as treacle, stuck to her teeth and lined her tongue and palate even as the mass of it burned its way down to her stomach. She suffered a moment of terrible nausea but this settled, and when she took a little water to rinse her mouth she didn't spit it out but swallowed it to ensure that none of the Ayahuasca went to waste.

In the lull before the storm hit her, Leoni summoned Ria's face to mind.

Chapter Eighty-Eight

While Ria listened to the three women's story, with cold fury building in her heart, part of her mind had been weighing up options.

Until this moment her only thought had been to lead her patchwork 'tribe' of fifteen hundred refugees north-west, making a beeline for Secret Place. If the spirits were with them they would avoid Illimani scouts and war bands and she would bring them all to safety before the night was out. Even if they did encounter the foe, she had enough braves to deal with any but the largest force.

But a dizzying alternative had presented itself to her as she learnt of the horrifying aftermath of the attack on the Naveen camp,

which lay nearly as far to the south-east of their present position as Secret Place lay to the north-west.

It was obvious from the women's report that Martu and Sakkan's five hundred weren't going anywhere tonight. They were so sure of their own power that they'd settled down to drink themselves into a stupor and enjoy an afternoon of torture, murder and rape. They would sleep it off in the ruins of the camp they'd destroyed, amidst the stiffening corpses of the people they'd murdered, and take their captive children down-country to Sulpa tomorrow.

Except, Ria had suddenly known, she wasn't going to allow that to happen and she had made her promise to the women. She did intend to get their kids back for them, if she could, and she wanted to give them hope. But she took the decision for other reasons.

Unless they were stopped, Martu and Sakkan were going to continue their rampage, annihilating other tribes and dragging even more children away for sacrifice. So running straight to Secret Place

would simply condemn thousands more innocents to death. Sooner or later, Ria knew, she was going to have to fight the Illimani twins. It made sense to fight them now, on her terms, with the advantage of surprise.

And there was another larger issue in her mind.

Sulpa had used his forces to seize lands where there had been joy and abundance and transform them into charnel houses. Nobody had stood up to him as he destroyed their lives and ate their souls. And as misery, death and emptiness multiplied, his triumph grew. Although his ultimate target was the Uglies, whom the Illimani called the Light in the West, she knew from Driff that his former master gained power from every life he took and would keep on killing until all the people of these valleys were dead.

So far everything had been going his way.

But that was about to stop.

Martu was the demon's favoured commander, Driff had said, perhaps soon to be given command of the whole Illimani army. And

right now Martu, Sakkan and their five hundred were just half a day's march distant.

Ria decided to kill them all.

It wasn't easy to explain the new plan to her companions.

Driff, as she had expected, was all for it. So, with some reservations, was Sebittu. But Ligar and Bont were both concerned the battle could not be won.

Ligar had walked up and down the column, making an accurate count, and they now knew that their whole fighting force amounted to three hundred and sixty-three braves, of whom two hundred and fourteen were archers and just a hundred and forty-nine were real hand-to-hand men. So it wasn't only that the Illimani five hundred outnumbered their total force but also that they outnumbered them by more than three to one in the front line. 'That's going to make a huge difference when they close with us and our arrows are useless,' said Ligar. 'I don't see how we can beat them and it makes

no sense to pick a fight we know we're going to lose.'

'We're not going to lose,' Ria huffed with exasperation. 'We're going to win. Yes, we have two hundred archers – over half of our fighters – but that doesn't mean they can't handle themselves in close combat. They've got knives, spears, clubs. They'll know what to do if things get close up. And think of it, Ligar. Two hundred bowmen with, what, twenty arrows each? That's four thousand arrows. There's just five hundred Illimani and they don't have any bows at all. If we can get your men into the right position they shouldn't even have to do any close-up work.'

'The Illimani don't use bows because they don't need them,' Bont growled. 'With those throwers their spears fly further than arrows. They'll skewer the lot of us before our archers even get into range.'

Ria was trying hard not to get angry: 'Obviously I've thought of that,' she said. 'We've got Moiraig, Aranchi and Noro to guide us. There's no reason why we shouldn't march on the Naveen camp

tonight and have our archers in place before dawn. The Illimani have been drinking – they're not expecting any attack. With a bit of luck we'll slaughter them in their sleep.'

'I still don't like the numbers,' muttered Ligar. 'Five hundred against three hundred and sixty. It doesn't add up.'

'Your numbers are wrong …'

'Well OK, five hundred against three hundred and sixty-*three* – what difference does that make?

'You're not understanding me. That's the number of *men* we have but we also have close to two hundred armed Merell women we can bring to the battle. They'll fight like wildcats.'

The arguments, partly in thought-talk, partly in out-loud speech, went back and forth until the sun was low in the sky. The Uglies had so far expressed no opinion, but at last Ria insisted.

'It's obvious what we have to do,' pulsed Grondin. 'The spirits put Martu and Sakkan into our hands for a reason. Maybe we aren't ever going to get a chance as good as this again.'

By sunset Ligar and Bont had been won over, but a final problem still had to be solved. What was to be done with the non-combatants in the column? There were close to a thousand of them – men, women and children – and they were slow-moving, noisy and hard to hide.

To send them back to Secret Place without an escort, guided perhaps by Jergat and Oplimar, would expose them to terrible risks. But an escort big enough to ward off all potential attackers in a land riddled with unknown numbers of Illimani war bands would fatally diminish Ria's force. Since she would need every man to beat Martu and Sakkan, it looked like nobody would be going back to Secret Place right now.

As darkness fell around them Ria asked her companions to marshal the column and she led the way towards the south-east and the Illimani.

Her people trusted her but what she was about to attempt could cost all of them their lives.

Chapter Eighty-Nine

Leoni spun out of the tunnel of light that had swept her from the Amazon jungle and was back in Ria's time, out of body in her transparent aerial form, flying very fast about fifty feet above the ground.

It was night. There was a big moon in the sky. And down below her, walking by its light, a huge column of people clad in simple plaids and skins were hiking into rough country. They were all ages, young and old, men and women, and hundreds of children. Many of the men were armed with crude weapons – spears and arrows tipped with flint, axes, knives, wooden clubs. Amongst the rearguard Leoni recognised three big Neanderthals who she'd seen

with Ria before. And right at the front was Ria herself.

What had happened in the time they'd been apart to put her at the head of such a vast enterprise? Leoni was about to swoop down and try to speak to her when she noticed a flutter of movement just above the other girl.

She edged closer.

There it was again – very strange – as though a small piece of the night had rippled.

Closer still.

Another flutter.

Then the picture became clear. Flying a few inches above Ria's tousled head, as invisible to the physical eye as Leoni herself – and hard to detect even with her enhanced out-of-body senses – was one of Sulpa's monstrous little winged creatures.

Leoni glided up behind it, pinched its neck between her forefinger and thumb and plucked it, struggling, out of the air. It was about the size of a large bat and its repulsive gargoyle body,

though transparent like her own, was scaly, hard and muscular to the touch. Its hind legs squirmed as it tried to rake her with its clawed feet and it beat at her hand with its leathery wings. Its blood-coloured eyes swivelled towards her and it bared its needle-sharp teeth but she tightened her grip, grasped its head with her free hand and decapitated it with a vicious twist.

The creature dissolved into smoke, losing substance faster than a punctured balloon, and disappeared.

Gotcha!

But Leoni's moment of elation didn't last.

Some instinct made her look up.

There was a second creature about ten feet above, peering down at her. She caught the baleful red glint of its eyes as it shot away and she went right after it. But it was fast and agile and very hard to see against the background of the night.

With desperate sideways glances Leoni sought a landmark she could remember – there, a big old oak tree split by lightning – then

put all else from her mind as she fought to keep the creature in sight. They wove through forests, across a lake, over hills and into valleys, sometimes hugging the contours of the ground, sometimes soaring up to the heights, as miles of country sped by beneath them.

They were never separated by much more or less than thirty feet and, try as she might, Leoni couldn't close the gap. Whenever she put on an extra burst of speed Sulpa's little gargoyle would sense it, peer over its shoulder, its eyes glinting red, and increase its own speed by the same amount.

Leoni wasn't sure how far they travelled like this – she guessed a hundred miles – or how she would find her way back to Ria amongst these savage hills and glens. Then she began to see armed men below her. At first there weren't too many of them, just little groups of three or five, all naked. But as she followed the creature out of the mouth of a valley and into the wide moonlit plain that lay beyond she found herself gazing down at a gigantic assembly of thousands of Illimani warriors, all armed to the teeth and standing in

disciplined ranks as though awaiting an order to march.

The creature slowed to a stop and seemed to taunt her – perhaps it was feeling confident now that it was so near to its master – and Leoni struck at once, flinging herself at it in a last explosive effort.

WHACK! For a second she had it by the edge of one flapping wing, but it writhed away and sped off.

She went after it again – it was slower now she'd harmed it – and they were thirty feet in the air, streaking towards the front ranks of the army less than five hundred feet away, when she saw Sulpa. The moon was bright, but he had been concealed in shadow amongst his men. Now his beautiful body, his long flowing hair and his malice were all unmistakable as he took three graceful steps forward and stared right at her.

Leaving the little creature to alight on his shoulder and whisper in his ear, Leoni whirled in the air and shot away.

But it was too late. A dark cloud, boiling and agitated, surged

out of Sulpa, out of his skin, out of his eyes, out of his mouth, and Leoni looked back to see it consisted of hundreds of his creatures, bat wings flapping, red eyes gleaming like laser spots in the dark.

He thrust his hands forward, fingers extended, and the cloud surged skywards and began to flow towards her.

Leoni paid attention to her direction of flight – back the way she had come, back to find that lightning-struck oak where she'd last seen Ria.

But her first concern was speed and escape.

Until now she'd only encountered Sulpa's little monsters in ones and twos. Though foul, they were quite small and easy to kill – if you could catch them.

But being pursued by a whole pack of them was quite another matter.

They were as non-physical as she was; yet if she could bash their smoky brains out and tear off their heads then what would they

be able to do to *her* when they overtook her and swarmed her aerial body?

This wasn't the land where everything is known, nor Don Apolinar's dungeon, where consciousness was clothed in alternate physical forms. If the body you inhabited in such realms was destroyed, the Blue Angel had said, your soul was carried off to another domain. She had called it 'the Between'. You could get lost there for eternity. Or with skill you could find your way out and back to your body on Earth.

Was it the same deal if your aerial body was destroyed? Was it simply another form in which your soul was expressed – in some sense disposable like the avatars in the land where everything is known?

Or was it your soul itself?

The distinction was crucial because no matter how fast or high or far she flew, Sulpa's creatures continued to gain on her, red eyes gleaming, fangs bared in the moonlight. In the few seconds it had

taken him to set them after her she'd already flown a thousand feet. Since then her lead had been cut to a tenth of that distance and glancing back over her shoulder she saw that three of the scaly little bastards were far in front of the others, just twenty feet behind her.

As always when she travelled in her aerial form, Leoni flew with her head forward, her arms folded across her chest, and her legs and feet stretched out. She was ten thousand feet up when two more of Sulpa's creatures – they must have dived like hawks from an even higher altitude – smashed into her at shocking speed. One sank its talons into her thigh, the other into her shoulder, and both held fast, beating their wings and rending her. She felt pain, sharp and hot, and then the other three were on her.

She plucked one from her side, wrung its neck, threw it away in a burst of smoke, snatched two more from her legs – their talons tore her as she ripped them loose – and crushed the little creatures in her hands. The gargoyle that had alighted on her shoulder, and the last one, which had anchored its talons in her back, she smashed

together until they became smoke.

Before she could dart forward again the entire swarm caught her and fell upon her in a seething mass, covering her from head to foot. The sensation was a horrifying one of toxic suffocation, like being smothered in horse blankets impregnated with smallpox and razor blades, and she was overwhelmed by the foul smell of sulphur and burnt plastic that the creatures gave off.

She roared her anger and flailed her limbs, twisting and turning in her efforts to be free, but nothing she did made any difference. The monsters had deprived her of the power of flight and, no matter how hard she fought, she could feel her aerial body disintegrating under their sustained attack, slipping away from her little by little.

A terrible lassitude stole over her as the creatures bit and tore and she felt an overwhelming urge to sleep. Simply to sleep. Would that be so bad?

But then, faint as a radio signal from the dark side of the moon, she heard four words spoken deep inside her mind in the familiar

voice of the Blue Angel: ‘Remember you are a lion.’

And she remembered, when she’d fought Sulpa, how her aerial body had taken on the form of a mountain lion and broken free from his stranglehold.

She was a lion, not a victim.

A burst of pure, hot anger hit Leoni, giving her the strength to strike out one more time, and as she did so the process of transformation took hold, the outer human form of her aerial body began to shift and change, and she became once again a lioness. She was still cloaked in a boiling horde of Sulpa’s creatures, but now she exploded into action, shaking herself, throwing off all but a handful of her attackers in an undulating wave and smashing them out of the air with great swipes of her paws.

Some could have escaped but it seemed their master had sent them on a suicide mission because they kept on attacking her, and she kept on destroying them, until she’d turned every one of them to smoke.

Leoni resumed her human form and paused to look down at herself.

She didn't like what she saw.

The tearing claws and teeth of the little creatures had drained her life-force, leaving her insubstantial as a ghost. The translucent envelope of her aerial body was faded, no longer a glittering evanescent soap-bubble but something dull and dim that seemed to flicker on the edge of complete fragmentation.

How far away was Ria?

At least a hundred miles from Sulpa, she was sure of it. And though the Illimani were obviously hard men she didn't think even they could march a hundred miles in a single night.

So her first mission – nothing else mattered if this failed – was to warn Ria that Sulpa's spies had found her, that one had lived to report her position to him, and that Sulpa himself was coming for her with all his forces.

Leoni searched for what seemed like many hours as the moon slowly tracked from east to west across the sky. But just as her

energy had fallen to its lowest ebb, she recognised the lightning-struck oak she had chosen as her landmark and was soon streaking along the wide track that Ria's people had left in their wake.

It was hard to estimate distances, but after what she thought might have been another five miles Leoni came to a point where the trail forked. A very large group had turned off to the left of the main track and entered the pine forest that grew alongside it; a smaller group had continued straight ahead.

Leoni followed the broad trail into the trees and found herself amongst a thousand ragged, frightened-looking people, dressed in plaids and skins, pitching camp in the heart of the forest around the banks of a small hidden lake. A glance confirmed these were the women and children, as well as some of the older men, from the large band she'd seen Ria leading earlier. But Ria herself was missing.

Leoni streaked back to the fork in the trail and caught up with the smaller group five miles further along the track. At a quick

count it consisted of more than three hundred men – all armed in their Stone Age way – plus a contingent of around two hundred women, also armed. Moving at a fast march, they had entered a long moonlit valley and seemed wary and nervous, primed for a threat, weapons held at the ready. Ria strode along in the lead with a determined look in her eye.

Still not attempting to tell Ria she was back, Leoni shot ahead to scout for danger and within two miles came to a place where the valley narrowed and avalanches of broken rock littered its floor amongst tumbled boulders piled into weird formations. Behind these, in the moon-shadow, she found a small party of Illimani warriors – she counted fifteen – spread out at intervals, apparently on guard. They were facing the direction from which Ria was approaching and it could not be long before they detected her own much larger force.

The sentries were few, but what were they guarding?

Less than a mile further on Leoni found a ravaged and burnt-

out nomadic camp by a river where the valley curved. Hundreds of bodies lay scattered about, hundreds of prisoners were penned inside thorn-bush enclosures, and lording it over them were hundreds of victorious Illimani. She recognised the bizarre headdresses of the huge warriors whom she thought of as Bear-Skull and Bull. A small group of their men were butchering captive women amidst dreadful wails and screams. But many of the Illimani fighters were drunk, staggering around singing, and many more were already sprawled on the ground, snoring in pools of their own vomit.

As Leoni darted back along the trail to take the news to Ria another draining lurch of weakness hit her, the moon at last dropped below the horizon and complete, overwhelming darkness fell in an instant.

Chapter Ninety

The non-combatants had been left under cover of a forest, close to the edge of a small lake, and Ria and her five hundred fighters were far along the deep, steep-sided valley overgrown with tough grasses, gorse and heather that led to the Naveen camp. Guided by Moiraig, Aranchi and Noro, they had made good time while the moon was still in the sky. Now it had set, and the camp loomed close, they'd been forced to slow down.

Ria didn't think the Illimani conquerors, confident of their own power and most of them in a drunken stupor, would have troubled to post sentries. But she was about to send scouts forward to make sure when her senses tingled.

What was that?

The sensation hit her again and then it was almost as though a voice had whispered in her ear – yet no one had spoken. She stopped in her tracks, raised her hand, and hissed '*Halt!*' Bont, who was right behind, walked into her, treading on her foot, the front two ranks piled up, followed by the third and fourth, and several men fell with muttered oaths. Clunks and bangs could be heard all the way along the column as people and weapons collided.

'Stay here!' Ria pulsed to Bont. 'Keep these fuckers quiet.' And, without explaining, she strode a little way off and stood peering into the night right in front of her, her head tilted to one side.

It was a very strange moment, but she was certain the girl the blue woman had talked about, the girl from the future, the girl called Leoni, was present with her again.

More than that, she was pretty sure she could see her – or see something. How weird. Like a thin cloud of light.

‘Hello,’ she pulsed. ‘Are you there?’ She said these words in thought-talk, in the Clan language, and repeated them out loud in a friendly tone of voice. She felt Bont, Driff, Sebittu and many others close to the front of the column watching her – and listening – but she didn’t care. This was important, and they already expected her to do odd things.

Ria tried the greeting and the question out loud in Merrell and Naveen as well before she realised the other girl was already speaking to her, in thought-talk, in what at first seemed a strange language but which she soon grasped. *‘I don’t understand you.’* That was what the words meant. ‘*I don’t understand you, Ria, and we need to understand each other. There are things you have to know.*’

‘Go ahead,’ Ria pulsed in the same language. ‘I understand you well enough.’

She couldn’t see Leoni’s face but sensed her surprise and relief at being able to communicate at all.

‘Go ahead,’ Ria repeated. ‘I have the gift of languages from the blue woman.’ She was in no doubt that Leoni would know who she meant. ‘Speak to me.’

‘Sulpa has these little creatures that fly around spying for him,’ said the other girl. ‘They look like this’ – thought-pictures of the monsters came to life in Ria’s mind, and with them a powerful pulse of the fear and horror Leoni felt for them. ‘Two of them found you. I killed one but the other got away. I followed it but I couldn’t catch it and it got back to him – so he knows where you are.’ Into Ria’s mind came an image of thousands of Illimani assembled under moonlight on a great plain, with Sulpa at their head. ‘He’s gathered his whole army to come after you,’ Leoni said.

‘How far?’ Ria asked. It was the only important question. Regardless of its size, she wasn’t frightened of Sulpa’s army if she had time to finish her business here and be away before it arrived. ‘How far?’

‘How far what?’

‘How far is Sulpa from where we are now?’

‘A hundred miles, maybe a little more.’

‘I don’t understand “miles”,’ said Ria.

‘It’s a name we give to a distance. I guess a hundred miles is the kind of distance really tough people could walk in two days,’ Leoni said.

‘Two days! Pah! In two days we’ll be long gone from here. But there are five hundred Illimani up ahead I plan to kill first …’

‘I’ve just seen them!’ Leoni exclaimed, and a new thought-picture filled Ria’s mind. This time what the other girl was showing her was a great camp of Naveen tepees, utterly destroyed, prisoners penned up in thorn-bush enclosures, corpses scattered everywhere, and the blood-smeared men of Martu and Sakkan’s five hundred gorging on the fruits of victory. Some of the Illimani were still killing but many were dead drunk, staggering or already flat on the ground.

Ria took it all in with growing feelings of excitement. It was

exactly as she'd hoped. 'You bring me good news,' she said.

'Good news?'

'Drunken men are easier to kill.'

'I guess they are,' said Leoni. 'But be careful. They have sentries.' Ria received a thought-picture of boulders piled across a narrow point of the valley floor and Illimani spearmen lurking in the shadows behind them. 'Fifteen sentries,' Leoni said. 'I counted them.'

Exchanging thoughts and images at great speed, Ria worked out a plan of action with Leoni to deal with the sentries.

'Started talking to yourself, have you?' said Bont when she returned to the column.

'Not to myself but to a spirit who will guide us.'

'I don't believe in spirits.'

'After tonight you will, Bont. After tonight you will.'

Bowmen weren't needed for this mission in the dark, and spears

would have been an encumbrance, so Ria went forward with Bont, Driff, Grondin, Oplimar and a squad of forty Merell woodsmen, hand-picked by Sebittu and armed with knives and tomahawks.

Everything – all their lives, the whole struggle against Sulpa – now depended on the accuracy of Leoni's information: that they had only fifteen sentries to deal with and no further obstacles or alarms before they reached the Naveen camp. But Ria believed in Leoni utterly – and besides, what she said made sense. The Illimani were so arrogant. Having slaughtered the Naveen they wouldn't imagine there was any force anywhere nearby that would be capable of hitting back.

She was wriggling on her stomach through tussocky marsh grass, soaking her belly and her leggings in cold water. Grondin and Bont were to her right, Driff and Oplimar to her left, each commanding eight of the Merell fighters, and all of them slithered forward silent as ghosts.

Everyone knew exactly where the sentries were and everyone

knew exactly what they had to do.

Chapter Ninety-One

Despite the darkness, Leoni's out-of-body senses showed her more of what happened next than she really wanted to see.

The fifteen sentries had positioned themselves in five groups of three behind the boulders – some twice the height of a man, some tumbled on top of one another – that formed a natural obstacle course in this part of the valley floor. From time to time a two-man patrol armed with long stabbing spears made its way from group to group, exchanging muttered words and occasional guffaws of laughter.

The plan was to hit the entire guard detail at the same moment, giving no opportunity for any to flee into the darkness and raise the alarm. For this reason, after Leoni had put thought-images into her

mind showing her the disposition of the sentries, Ria divided her force into five groups of nine. She herself led one group. In charge of the other four groups she placed two of the men and two of the Neanderthal males who Leoni had seen close to her on previous occasions.

The men, Ria told her, were Driff, a lean, intense, black-haired Illimani who had come over to her side, and the shaggy giant Bont, a member of her own Clan. The Neanderthals, who she called the Uglies, and Leoni could see why, were Grondin – Bont's size, built like a prizefighter – and bushy-bearded, pot-bellied Oplimar. All of them were telepaths – Ria called it thought-talk – and so the attacks of all five groups would be coordinated in total silence.

Leoni admired the stealth with which the attackers squirmed through the wet grass and amongst the smaller rocks, worming ever closer to the positions of the sentries. She had not been able to reach the others with telepathy; but even if their minds had been open to her she suspected they did not have the Blue Angel's 'gift of

languages'. Floating above the whole scene she pulsed directions to Ria as first Bont's group, next Oplimar's, then Grondin's and last of all Driff's arrived within twenty feet of their targets. Ria in turn must have signalled them because they all came to a halt, awaiting the order to attack.

Now two of the Illimani set off on patrol again, slowly crossing the narrow floor of the valley. They made their first stop and there were the sounds of muffled voices. At the second stop they paused for several minutes and Leoni flew over them to discover that the three sentries at their post had an animal skin, perhaps filled with liquor, which they were sharing with the other two. A few more minutes passed and though it was not yet dawn Leoni thought she could detect the faintest blush at the edge of the sky as the patrol at last moved on.

They were almost halfway to the next guard post when Ria's entire force rose to their feet and charged in grim silence.

The two patrolmen didn't see Bont coming and had no time to level their spears or cry a warning as his huge axe scythed out of the darkness. One fell grunting as the blade buried itself in his belly. With a jerk Bont withdrew it, unleashing a geyser of blood, and back-handed the weapon into the second man's face.

Darting forward, Leoni found Ria behind a boulder. She was stooped over a naked Illimani who lay face down, unconscious, on the ground. There was madness in her eyes and a stifled cry of wild joy burst from her lips as she pulled back a fistful of his hair and slit his throat with a long flint knife. The cut went so deep that his head came almost clean away from his shoulders.

Leoni saw Oplimar and Driff both kill men. Grondin picked one of the sentries up and smashed his spine across his knee. All along the line of guard posts it was the same story – the small number of defenders, surprised and utterly overwhelmed by the sudden unannounced attack, quickly fell and died under the brightening sky.

But one of the sentries, left for dead, leapt to his feet despite a jagged wound in his side and ran zigzag like a hare towards the camp. He was very fast and though Driff pursued him he had a good lead.

Leoni couldn't understand why Ria also took off after the escaping Illimani because he was at least a hundred feet ahead of her, just a faint white blur in the pre-dawn shadows, and she'd never catch him. But then she snatched at a pouch hanging by her side, drew back her arm and threw a stone at him. Leoni lost sight of the little missile as it flew through the air. It must have whizzed right past Driff's ear before – CLUNK! – it bounced off the back of the fleeing man's skull and dropped him to the ground in a heap.

Driff reached him first, hatchet raised, but Ria wasn't having it. She barged her friend aside, jerked back the Illimani's head and cut his throat.

With the sentries disposed of and more light seeping into the sky,

Leoni scouted the way forward while Ria brought up her whole force at the double as far as the boulders. From there it was about a mile to the camp but because the valley ahead took a sharp curve to the left the place wouldn't be visible to the Illimani, even in daylight, and provided good shelter to muster for the final attack. Not until they had rounded the curve would Ria's fighters come into view. Even so they would still have to cover at least quarter of a mile in the open before reaching the camp and a small nagging voice at the back of Leoni's mind told her this would not be good.

She explored both sides of the valley for alternatives, but the slopes were too steep to be climbed by a large force without attracting attention. What she did find was a narrow path, angling up to the left, that a small group walking in single file might scale. Better still, the path led to the ridge directly overlooking the sector of the camp where the Illimani had kept their prisoners. Leoni remembered many of Ria's fighters carried bows. She'd never got closer to a battle than *World Of Warcraft* but something told her this

would be a good spot to put some archers.

She glanced to the sky. It was still more night than dawn but in half an hour – an hour at most – the sun would be above the horizon and all the advantages of darkness would be lost.

She darted down to get a closer look at the camp.

Behind it ran a fast-flowing mountain river channelled in a rocky gorge that intersected the main valley from the right. It had been a large camp, consisting of hundreds of tall conical shelters of skins stretched over wooden frames, like Native American tepees, ranged across the valley floor almost to the river's edge. But the Illimani had burnt everything to the ground. What stood out now were the three thorn-bush stockades they'd set up amongst the ashes to hold their prisoners.

For a few moments Leoni was dizzied by the nightmare horror of it all.

The stockade at the extreme left of the group was empty, but a little beyond it was a large cleared area in which the Illimani had

burnt at the stake, crucified and tortured to death several hundred men – probably the entire adult male population of the camp.

A second stockade at the extreme right of the group was crammed with young children. All were alive but milling in terror and crying out.

In the third stockade, between the other two, the bodies and body parts of a great many women lay strewn in the dust as casually as animal carcasses in an abbatoir. About a hundred still lived but Leoni saw a small group of bloodstained and filthy Illimani on the rampage amongst them – ten brutal naked men finishing off the orgy of violence that had obviously continued throughout the night. It was a horrific scene, made worse by the pitiful screams of the victims.

But something even more disturbing was happening. When Leoni had first flown over the camp, perhaps an hour before, many of the Illimani who weren't raping and butchering women had been sprawled out, dead drunk. Now most of them were on their feet,

some rubbing their heads but obviously alert and responding to an order to form up. Hundreds had already assembled in the cleared area and more were joining them every moment.

Leoni saw the warrior she thought of as Bull swaggering around, kicking and beating men who were still sleeping. His twin, Bear-Skull, had assembled a mob of twenty and now led them, knives unsheathed, to join the other murderers already at work in the women's enclosure.

If Ria was going to attack she must do so at once, while the shadows were still deep in the last exposed quarter-mile of the valley, and before the Illimani finished their killing and marched out of the camp.

As she hurried back to Ria's side, Leoni was conscious once again of the numbing weakness spreading like poison through her aerial body, and when she looked down at herself she saw … almost nothing.

Chapter Ninety-Two

Arrayed on the stony valley floor beyond the line of huge boulders where the Illimani sentries had been killed, Ria's entire force of more than five hundred waited for her command, while she herself stood alone, fifty paces to the fore, peering into the darkness ahead.

Though there was no thin cloud of light to announce the other girl's presence, as there had been earlier, Ria knew that Leoni had returned to her side. She also sensed – she felt it in her own breath and heartbeat – that Leoni was in terrible danger. 'Sister,' she pulsed – it was the only word that did justice to the strength of the bond she felt – 'what has happened to you?'

Leoni's thought-voice was weak, barely audible, seeming to emanate from somewhere very far away: 'No time to explain,' she

said. ‘I won’t be able to stay with you long. I’m going to be taken back.’ Then Ria felt a flood of words and thought-images wash over her as Leoni shared everything she’d observed during her reconnaissance – the Illimani forces mustering on the meeting ground of the Naveen camp, the pitiful condition of the surviving captives, the disposition of the stockades and the trail leading to a promising ridge that overlooked them.

As she took all this in Ria’s mood darkened. The prospect that had lured her to this place was of drunken and disorganised enemies who could be surrounded in the dark by archers and shot like fish in a pool. Instead it was close to sunrise and the five hundred Illimani she confronted were alert and would soon be on the march. These were men who had dedicated their lives to violence and fought side by side in many battles. Her men were hunters first, fighters second, and the women might be hard as flint around hearth and home but none of them knew war.

Ria thought of retreat but rejected the idea. The Illimani would

pursue them and catch them before they could make good their escape, probably even before they reached their waiting non-combatants, and certainly when they did. Better by far to force the fight now while they still had surprise on their side.

All at once, so bright and obvious it dazzled her, a plan began to take shape in her mind: ‘Can I get two hundred of my archers into place to the side of the meeting ground?’ she asked Leoni. ‘Is there a chance they could approach without being seen? Is there enough cover there to hide them?’

There was no reply and Ria almost choked with frustration. She needed a clearer picture! ‘Leoni! Please! Help me.’

Again she was met by silence – and, worse, her sense of the presence of the invisible girl, so strong moments before, had now evaporated. She shifted to out-loud speech. ‘Sister, are you there?’ she asked. ‘Are you with me?’

When no answer came, Ria understood her ally had truly gone. Perhaps she had simply been snatched back into her body the way

she herself had been snatched back at the end of her two journeys with the Little Teachers? But she couldn't rid herself of the intuition that some greater danger was involved.

The intelligence Leoni could have brought in from different parts of the battlefield would have been invaluable, but Ria was ready to improvise. She had the whole plan of the fight worked out in her mind now. All she had to do was get her archers into place, and persuade two hundred proud Merell women to strip naked, and she could yet win the day.

She called Moiraig, Noro and Aranchi forward, together with Bont, Ligar, Driff, Sebittu, Grondin, Jergat and Oplimar. In less than the count of a hundred she explained her plan to them and their parts in it. Then at once, under cover of the little dark that remained, she sent Ligar, Sebittu and Jergat off with the archers, primed Bont, Grondin and Driff for their missions, and summoned the women to their task.

The sun would rise soon. The valley's rugged sides were already emerging from the darkness in shades of black and grey all the way to the ridge line

'Have courage,' Ria whispered. 'We will win.'

She was walking with Sebittu's wife Tari amongst the two hundred Merell women she had brought up to the elbow of the valley, just a few bowshots from the destroyed Naveen camp and the Illimani. Some of the women, though not Tari herself, were trembling at the prospect of a pitched battle so Ria sought to reassure them: 'Have courage – the spirits are with us.'

There was a commotion. A girl pushed through the ranks, and a pair of wild green eyes and a snub nose confronted her under a disordered thatch of red Merell hair.

Birsing!

'What are you doing here?' Ria demanded. 'You're supposed to be with the kids.'

'I followed you,' said the eleven-year-old. 'I don't want to hide

in the forest. I want to fight the evil one. I want to kill the Illimani.' Her face was covered in freckles and she clutched a little flint dagger, more a toy than a weapon, in her small white fist.

Ria considered sending her back but decided not to. Birsing's arrival like this, so full of fighting spirit, was an omen. An excellent omen. 'If you want to fight these bastards then I won't stop you,' she said. She took the girl's fist between her own hands, still clenching the dagger: 'See you blacken that pretty blade in Illimani blood.'

Birsing grinned: 'We're going to beat them, aren't we? I can feel it.'

'We're going to fucking destroy them.'

Tari and Ria walked on.' 'Do you really believe that?' Tari whispered. 'Will we truly win?'

'I'm certain of it,' Ria answered. They had reached the curve of the valley, and she would show no weakness now. But the truth, despite the beauty of her plan, was that her confidence had begun to

ebb.

She glanced up to the valley sides again. The light had risen enough to reveal the silver threads of a dozen descending streams and she knew it was time – past time – to mount the attack. What held her in check was Ligar and Jergat who had been out of contact, stubbornly unreachable by thought-voice, since she had sent them on their missions. This was worrying, and weird. Were they too far away for thought-talk to carry? Were they dead? Were they prisoners? Without word from them, or Leoni to confirm they were in position, Ria knew she was taking a terrible risk.

But to do nothing now was out of the question.

'Wait,' she told Tari. 'Bring them forward on my signal.' Stooping, she jogged twenty paces ahead, took cover behind a gorse bush and looked long and hard at the camp.

It was closer than she had imagined, a great deep crescent-shaped scar of burnt-out tepees following the continuing left curve of the valley, bounded on the far side by a rushing river and on the

near side sprawling across the valley floor almost to the foot of the ridge line. There, Ria very much hoped, Jergat and twenty of the best Naveen archers had already been guided into position by Noro who claimed to know the track Leoni had found. Again she pulsed a message to Jergat, and again she got no reply.

Amongst the ashes of the tepees she saw the three bulky thorn-bush pens the Illimani had built to hold their prisoners. The pen nearest to her, on the right side of the row, was filled with children and nursing mothers and their cries of terror were awful to hear. Next to it, as Leoni had described, a pen containing only women seethed with furious activity, where thirty Illimani braves were running amok and blood-curdling screams left no doubt that a mass slaughter was under way.

Ria hated to stand by and let this happen but a mistake now would be fatal for her whole force and there was still no contact with Jergat and Ligar.

The third enclosure was furthest from her and empty. Beyond

it, in the camp's extensive meeting ground, she could see the mass of the Illimani – hundreds of warriors formed up in disciplined ranks amidst burnt-out bonfires and the piled corpses of their victims. Although the camp was large, and the meeting ground was far away, she recognised the tall figure of Martu with his headdress of aurochs horns. He seemed to be making a speech to his warriors.

'Keep talking,' Ria whispered. With luck their leader's words of wisdom, and the slaughter of the women, would occupy the Illimani for a little longer. Patches of morning mist had risen to cover parts of the valley floor and there were still some areas of deep shadow that greatly served her purpose.

She beckoned to Tari, who at once led the little army of women forward. Ria looked them over, reminded them to keep total silence until she gave the signal, nodded in friendship to those she'd talked with, and ruffled Birsing's hair. Then she raised her fist above her head and led the charge down the valley.

As she ran they all ran in a pack alongside her, teeth bared,

faces set, and it was good to be alive and in such company.

The sun touched the hilltops. Ria felt the cool morning breeze on her skin and heard the distant screech of a golden eagle.

It was another excellent omen.

Chapter Ninety-Three

Leoni hated the fact that she'd been swept away from Ria, without warning, at the vital moment.

Except, of course, there *had* been warnings – the growing weakness, the spreading numbness, the gossamer lightness of her aerial body following the attack of Sulpa's creatures.

Leoni's eyes blinked open, but she didn't move. She was lying on her back. Four beings were hunched around her but their shapes were indistinct and above them, from a dark vault, beams of dazzling celestial light shone down.

'The wanderer has returned,' said a familiar voice.

Don Leoncio's voice!

And in a flash Leoni realised she had returned to her body, the

celestial lights were nothing more than the sun streaming through the smoke holes in the roof of the *maloca,* and the beings hunched over her were Matt and Don Leoncio on her left and the two Tarahanua shamans, Ruapa and Baiyakondi, on her right.

She sat up: ‘I can’t leave Ria where she is,’ she said clutching Leoncio’s sleeve. ‘You’ve got to give me more Ayahuasca. I have to get back to her right now.’

He placed the palm of one warm, dry hand on her brow as though testing her temperature. ‘I don’t think so,’ he said after a few moments.

‘What do you mean, you don’t think so?’

‘You have suffered a very grave psychic attack,’ he replied. ‘Am I correct?’

Leoni shrugged: ‘I suppose you could call it that.’ She described how Sulpa’s creatures had swarmed over her and how she had broken free. She had no doubt that her aerial body had been damaged in the encounter and that some vital energy had been

drained.

‘If you hadn’t escaped when you did,’ said Leoncio, ‘you would certainly have been killed.’ He breathed out emphatically through his nose: ‘That’s what happens when the etheric energy structure that you call your aerial body is destroyed. First your physical body falls into a deep coma, respiration and heartbeat slow, brain activity ceases. Within a space of hours – in some rare cases days – you are dead.’

‘And your soul? What happens to your soul?’

Leoncio wrinkled his brows: ‘The worst possible fate. Your soul is taken to the underworld, and from there it can never return.’

Leoni shivered. She didn’t want to know about the underworld. ‘Sounds bad,’ she said.

‘Very bad. Much worse than you can imagine.’ Leoncio rested a sympathetic hand on her shoulder: ‘And it would be madness now, with your subtle energies so utterly depleted, to venture at once out of the shelter of the flesh. You must wait – you must restore

yourself – before you attempt such a thing again.'

Leoni shook her head: 'You don't understand! I *can't* wait.' She had raised her voice: 'I left Ria in the middle of a battle with the Illimani. I was her eyes and ears, Leoncio! She can't beat them without me.'

His features, already set in an expression of intense concentration, seemed to betray some inner conflict, but at last he said: 'I will not stop you if this is something you are called to do.'

'I *am* called! Yes. Definitely.'

'But if you decide on this course of action,' Leoncio continued, 'you must understand what you face. A single psychic assault from the least of the demon's servants will send you to the underworld. Game over, Leoni. Game over for ever! Are you sure you want to risk that?'

Leoni thought about it.

She was very much tempted not to go back, and especially not in her present weakened condition. But she was also amazed and

overawed by Ria, and in love with her for her beauty and style and courage and sheer *balls*.

Her sister in time? Yes, truly. It felt like they'd been separated at birth and had just found each other again.

More than that, the way they'd worked together to destroy the sentries and put Ria's desperate battle plan into action had, Leoni realised, been the most amazing and exhilarating experience of her life – bar none. All barriers and differences had evaporated and in those moments of danger and fear they had shared a complete understanding.

So there was no way, no way at all, she would turn her back on her now.

'This is something I have to do,' she told Leoncio. 'I understand the risks, but I'm going through with it. I've never been more sure of anything in my life.'

Leoni turned to Matt and put her arms around his neck. 'Just hold me,' she said. 'Just hold me for a little while before I go.'

Chapter Ninety-Four

The closer Ria could get her force to the prisoner enclosures before they were seen the better chance there was that her plan might succeed, so they charged in absolute silence, making the most of the deep shadows and patches of mist that shrouded this part of the valley floor. Yet the nearer they came, the more they saw of the terrible deaths the Illimani were inflicting on the helpless Naveen women still left alive in their enclosure.

'Ligar!' Ria pulsed as she ran, *'Jergat! Speak to me!'* But still there came no reply and she felt a growing dread. She saw that Birsing, clutching her little dagger, was running at her left side. She gave a smile of encouragement but the girl's face was dead white, her eyes fixed on the women's enclosure ahead. Tari was on her

right and all around and behind them, hair flying in the wind, weapons in hand, came the rest of the two hundred. They were terrified, every one of them – it was painted on their faces – but they didn't falter.

The murders in the women's enclosure were being organised by Sakkan – his height and his bear-skull headdress were unmistakable – and the idea seemed to be for each death to be brutal and drawn out, which was why it was all taking so long. The Illimani didn't just want these women to die. They wanted them to die in a state of absolute horror and fear. No more than thirty braves were at the work. Here and there knots of them were hacking prisoners limb from limb with axes, or beating them to death with clubs, or hanging them from racks and skinning them alive. Some of the executioners simply darted into the thinning crowd of survivors, stabbing and slashing with spears and knives, spreading pandemonium. Ria saw Sakkan snatch up a small cowering woman and pound her down on a sharpened stake he had set into the

ground. Everywhere there were blood-curdling screams and bellows.

As the edge of the sun appeared above the eastern ridge line, flooding the valley with light, Ria and her fighters streamed towards the first enclosure, raising sudden cries of hope from the crowd of children penned within and yells of alarm from the single guard left on duty. *'Ligar!'* she pulsed again, *'Jergat! Be ready. We are upon them.'* Then, because the time had come whether they were ready or not, she gave the signal and in unison her two hundred women yelled, at the tops of their voices, the single word of the Illimani language she had taught them – the word *KHARGA!* that meant 'death'.

It sliced through the still morning air like an axe and caught the attention of the thirty Illimani in the women's enclosure and close to five hundred more on the meeting ground, making them all look up at once in surprise.

KHARGA! KHARGA! KHARGA!

These swaggering men, Ria had calculated, would not expect to hear their own battle cry, in their own language, hurled at them by a horde of women, armed with hatchets and knives, running towards them stark naked – for she and her entire force had stripped down to their moccasins before the charge. She'd hoped the unusual spectacle of foes as naked as themselves – and women into the bargain – might gain her some small advantage.

Now she found she'd been right. The two groups of Illimani seemed to relax when they saw they were under attack by a force of less than half their numbers consisting entirely of women. With a dismissive gesture Martu sent a hundred braves jogging out of the meeting ground to support the thirty executioners in the enclosure and resumed his speech. In the same instant – at last – Ria heard Ligar's thought-voice, faint but clear: *'We are in place. May the spirits protect us all.'*

The first flight of arrows erupted into the air out of the sector of rough gullies and hollows, overgrown with bracken and gorse,

that lay between the meeting ground and the steep slope of the valley's western side. Ria and her fighters surged past the captive children and bore down on the slaughterhouse enclosure, screaming their defiance. There the massacre of the women had stopped and the Illimani were witnessing, with obvious disbelief, the utter destruction that two hundred arrows had wrought on the detachment supposed to reinforce them. Halfway out of the meeting ground, moving in tight formation, they had been cut down in their tracks, almost every one of them; less than twenty were still on their feet.

With fierce satisfaction Ria saw a second flight of arrows start up like a flock of birds, blacken the air directly above the meeting ground and smash down into Martu's remaining force of three hundred and fifty men. After that she lost sight of what was happening there but she was confident of Ligar and Sebittu and focused herself on the task of obliterating Sakkan and his thirty braves.

While the sky was still dark and sufficient cover remained to move a large group down the valley unseen, Ria had sent Ligar and Sebittu ahead with their mixed troop of nearly two hundred Merell and Naveen archers. They had been guided by Moiraig and Aranchi who'd said they could bring them close to the meeting ground without being seen and had proved as good as their word.

Ria had done what she could to prepare her own force for the task of breaching the thorn-bush walls of the women's enclosure. The Illimani inside would expect them to try and enter by the gate, so that wasn't her plan. Fifty women in five groups of ten would form scrums around the walls and everyone else would climb up over them and leap from their shoulders. There had been no opportunity to practise the manoeuvre, only to select the groups and hastily brief her whole force, but now as Ria sprinted towards the enclosure she felt proud as the women she'd selected surged forward and formed up where they should.

Ria's knife hung in its sheath at her waist, alongside her

deerskin pouch. As she jumped up onto the shoulders of the nearest scrum, with women streaming after her, she filled her hands with stone and her heart with hate and leapt over the thorn-bush stockade.

Chapter Ninety-Five

WHOOMF! Leoni was back.

Before Baiyakondi had given her the gourd of vile-tasting Ayahuasca he had sat over her for what had seemed like an age, singing a strange and mournful *icaro* while Ruapa had moved around enveloping her in fragrant clouds of tobacco smoke and the constant susurration of his *chacapa* rattle. 'This ritual will cleanse some of the contamination that your etheric body has suffered,' Don Leoncio explained, 'and restore a little of your strength. We can only hope it will be enough.'

Then she drank and it seemed seconds later that her spirit soared up with the joy of a caged bird at last set free. She fixed her intent firmly, summoning Ria's image to mind, and a tunnel of pure

white light blinked open beside her. Leoni surrendered, allowing herself to be drawn into it and carried away and now, feeling her aerial body somewhat restored, she hovered thirty feet above Ria's head.

It was full daylight, the sun was over the ridge of the valley and the entire scene was brightly lit and crystal clear as Leoni watched Ria clamber onto the shoulders of a cluster of women and leap like an acrobat into the thorn-bush stockade, strewn with bodies, where the Illimani had been raping and murdering female prisoners. The stockade formed a large square, two hundred feet on each side, and now only thirty of the women who'd been held captive still lived. Crowded screaming into a corner, they were being butchered by a tight mass of ten braves led by the monstrous figure who Leoni thought of as Bear Skull. Elsewhere within the enclosure were three smaller groups of Illimani clustered round the bloody bodies of more women – some of whom had been hung from racks and skinned alive.

But right now none of the executioners were going about their business. Many had expressions of astonished stupidity on their brutal faces as four from the group nearest to Ria charged towards her. Dozens of other women – Leoni hardly registered they were all naked – began to stream into the stockade from various points around its perimeter.

She saw Ria hurl two stones in quick succession, one with her left hand, one with her right, and two of the charging warriors fell in mid-stride as though they'd been shot. A howling mob of naked women swarmed over the other two, hacking them down with knives, cutting them to bloody shreds in seconds. Ria threw twice more, bringing two more Illimani crashing down, drew her own knife and hurled herself at a third, spilling his bowels before whirling around with the pure joy of battle dancing in her eyes. All the action was in the physical realm – mercifully, it seemed that none of Sulpa's aerial creatures had yet found their way here – and Leoni would not distract Ria in the midst of a fight for her life, so

for the next few moments she could only watch and hope.

Across the enclosure the Illimani were being overrun by packs of armed women pouring in over the thorn-bush barriers and the prisoners had at last turned on their captors. Many of Ria's force were killed and injured by the huge warriors but the women's numbers were overwhelming and they could not be stopped. In seconds only Bear Skull and six of the executioners were still on their feet, clearing their way to the gate of the stockade with savage sweeps of their axes.

Through all this Leoni had been aware the battle was not confined to the enclosure. She soared high into the air to try to understand what was happening and to find a way to be useful.

The battlefield followed the curve of the valley, bounded by the river that ran behind the destroyed camp, and thus formed roughly the shape of a crescent. The 'horn' that curved to Leoni's right contained the three thorn-bush stockades, with the children's

enclosure furthest down the valley in the direction from which Ria and her fighters had come. Now they saw the Illimani fully occupied with the attack and no longer watching them, some of the older children had forced open the gate of their prison and overwhelmed the lone guard.

The women's enclosure came next, a scene of utter carnage and horror. Having fought their way out, leaving a trail of women's bodies behind, Bear Skull and his gang of six were now reinforced by twenty more Illimani, some pierced by arrows, who came pounding round the corner of the final – empty – stockade that formed the rough centre point of the battlefield.

Tracking to her left from there, into the other horn of the crescent, Leoni saw the newcomers were the survivors of a bigger group sent to rescue Bear Skull. Bristling with arrows, eighty of them lay dead or crippled in a compact mass between the empty stockade and the wide cleared area a few hundred feet beyond it where the male prisoners had been tortured to death the night

before. It seemed that Bull and the main Illimani force had formed up there, only to be caught in the same devastating ambush. More than half the warriors were down, many with multiple arrow wounds, but the two hundred or so who were still in the fight had unslung their atlatls and now sent a black wall of spears whirring back towards the archers. Within seconds the Illimani had launched two more volleys and then, yelling with fury, a hundred of them charged the archers' positions in the rough land near the side of the valley.

The archers didn't run. Many had been hit by spears but those who remained now burst from the cover of thorn bushes, fired one more withering volley, then laid down their bows and charged the advancing Illimani, brandishing axes and knives. The two groups were of roughly equal size and they met with a frightful clash at the edge of the cleared ground across a front hundreds of feet long. A desperate and frenzied fight to the death began.

Behind them, Bull and the other hundred Illimani had charged

in the opposite direction and were now smashing Ria's women aside to reach the beleaguered defensive circle formed by Bear Skull and his warriors. But before the two forces could join up – there were still a hundred feet between them – the women seemed to panic and Leoni watched in horror as they broke and ran.

Chapter Ninety-Six

Ria hung to the rear of the wild flight from the Illimani. A throng of sweating braves roared battle cries right behind her, as her force of women, bloody and battered – more than fifty had already fallen – pounded back down the valley, taking losses every step of the way.

Their flight, like their naked attack, was a ruse. The Illimani enjoyed hunting and terrorising people so much, and were so accustomed to victory, that Ria hoped they wouldn't even suspect they were being lured into a trap. Besides, they had every reason to believe they were dealing only with women and a good number of archers. Nothing could have led them to guess she'd held almost a hundred and fifty fighting men in reserve. They were under Bont's command, hidden just ahead around the elbow of the bend, with

Driff, Grondin and Oplimar stiffening the front line.

Since the ability to use thought-talk had returned, even if reduced in strength, it had become much easier for Ria to get things done the way she wanted. As the battle developed she'd repeatedly pulsed to Bont to hold his men back – she'd sensed his eagerness – but it looked like the time had come at last. The first ranks of the women had already reached the bend and she herself was almost upon it.

'Now!' she pulsed. *'Now!'* Bont's warriors surged out and smashed into the flank of the Illimani pack, catching them perfectly off guard and spreading mayhem. Ria whirled round, dodged between a pair of pursuing braves and hurled her last stone at Martu, hitting him full in the brow and dropping him to his knees. Oplimar ran up, snatched off his horn headdress, and dashed his brains out with a single blow of his club.

It was the same all across the elbow of the valley. Outnumbered and overmatched, the Illimani were smashed down

and ground into the dirt. Ria saw Grondin and Bont in the thick of it, striking out left and right with their huge war-axes, both spattered from head to foot in enemy blood. But every man of every tribe played his part and the women, having lured the Illimani here, now turned on them and teemed over their fallen and injured, knives and cleavers flashing.

Ria saw that Driff had found Sakkan, the smaller man's slim build and tomahawks at first seeming puny against the giant warrior swinging a big double-headed axe.

But Driff was agile and fearless, darting in under his opponent's blows to cut him with his blades, opening dripping wounds between his ribs, gashing his thighs and shoulders, driving him to madness. In an explosion of rage, Sakkan charged him, sweating, his massive chest heaving, but Driff slipped aside and cut him again as he pounded past, leaving a slab of bloody flesh flapping loose from his back.

In a circle around them, as the last of the Illimani were

dispatched, Ria's fighters, men and women, began to gather to watch. But she could not spare them for this. Not yet. *'Finish him, Driff!'* she pulsed. *'The battle isn't over.'*

Driff didn't seem to hear her. He was laughing at Sakkan, shouting insults at him, and now he lunged forward again under a sweep of the axe, leapt into the air and dislodged the bear-skull headdress, sending it rolling. With a roar the big man swung wildly but was over-committed to the blow and stumbled when he missed. Instantly Driff was on him. He hammered his first hatchet – CRUNCH! – between the vertebrae at the base of his enemy's thick neck and buried the second – SMACK! – in the top of his skull.

'Finished!' he pulsed to Ria who was already leading the charge back towards the camp, leaving behind a battlefield strewn with Illimani dead.

So great was the advantage of surprise that only a handful of Bont's men fell in the ambush, and a hundred of the Merell women were

still able to fight, so it was a large force that Ria took back down the valley to relieve the hard-pressed archers. More than half of them still lived, and they were locked in hand-to-hand combat with the Illimani all along the far side of the meeting ground where it gave way to uncleared land filled with gorse and bracken.

The distance between Ria's force and the battle on the meeting ground was closing fast. Urging her fighters to a charge, she led them straight across the curve of the valley and the whole mass thundered between the empty thorn-bush stockades to their right and the escaped children who had gathered in the shade of a copse of bushes and small trees along the valley side to the left. A ragged cheer went up from the children and, ahead, there came an immediate change in the character of the battle as the Illimani – who had the upper hand – discovered they were doomed.

Some ran at once, seeking cover and escape through the gorse.

Others, turning to face the new threat, were struck down from behind.

A few of them regrouped and attempted to form defensive circles but broke under the massive force and numbers of Ria's attack and were cut to pieces. Many of the rest, scattered in ones and twos along the battlefront, attempted to surrender, and many of the fallen had been injured but were not dead. 'What shall we do with them?' asked Bont

'Kill them all,' said Ria. 'That's the only thing we came here to do.'

While Bont gave the orders for execution squads to comb the battlefield and sent other men to hunt down runaways, Ligar and Sebittu walked up arm in arm. They were both covered in blood – mostly not their own, as they themselves had survived the thick of the fight with only minor injuries. 'I owe you an apology,' Ligar said to Ria as he embraced her. 'I didn't think we could do this, I tried to talk you out of it, but I couldn't have been more wrong. You've won us a fantastic victory here! A fantastic victory! It's the

stuff of legend – a legend, by the way, in which I myself plan to be remembered as Ligar the Great. I think that will suit me well. Or perhaps Ligar the Slayer?' He gestured to the battlefield where more than half of the dead, lying in thick heaps, had been killed by arrows.

Sebittu was more serious – as well he might be, Ria thought, since many of his archers had died in this fight. She wondered if he would upbraid her for not reinforcing him sooner. But instead he fell on one knee before her, which made her feel uncomfortable.

Men and women, some Merell, some from other tribes, were gathering round. Amongst them Ria's heart leapt to see Birsing. Still clutching her little flint knife, she was covered in cuts and bruises but there was joy in her eyes.

Sebittu raised his voice: 'Hail to Ria,' he declaimed, 'the harbinger of the light. After such a victory none may doubt who you are. The foe has run proudly through our valleys scattering us to the four directions, but you have united the tribes to stop him...

Triumph is yours this day, Ria. You have bloodied the evil one.'

Only the Merell could have understood his words but Ria saw everyone gazed at her with the same rapt intensity. For a moment there was total silence. Then in a swirl of movement Sebittu was back on his feet and he and Ligar stooped and lifted Ria, surprised and laughing, onto their shoulders. Bont and Grondin, Driff and Oplimar linked arms with them and they carried her through the crowd.

She didn't know who shouted her name first, although she was sure it was a woman, but very soon hundreds of people, wearied and bloodied, were chanting – 'RIA! RIA! RIA!' – and she was looking down at a sea of faces raised towards her in something very like adoration. Many were the hands that reached out to touch her as she was carried past, as though they might absorb from her the blessing of the spirits.

Ria's head felt light. All through the battle she had not thought for a moment what it might mean to win. But now, with the flash of

a blinding revelation, it came to her that victory meant power.

Not personal power over others – she cared nothing for that – but the power to move men's minds, to overcome their differences, to inspire them to action, and to bind them together into an unstoppable force. Today she had fought the Illimani in their hundreds and proved they could be beaten. But the time was not far off, she knew, when she would have to face Sulpa and thousands more of his warriors on the battlefield.

He wasn't going to let her get away with what she'd done to him today – which was why she'd done it. She would need more men – a lot more men – but she had an idea where she might find them.

Still on her friends' shoulders, still being carried through the crowd to roars of acclamation, she was lost in her plans for Sulpa's destruction when she sensed Leoni's presence again, just a shimmer on the morning air. 'There are twenty Illimani you didn't see,' Ria heard her say. 'They're going to kill the children. You've got to stop

them.’

Ria looked back to the little stand of bushes and trees a thousand paces away where the prisoners were sheltering. A great outcry of children’s voices rose up.

Chapter Ninety-Seven

As the battle unfolded fifty feet below her Leoni saw the whole mechanism of Ria's plan: an ambush within an ambush, a powerful enemy caught off balance and fatally duped into dividing his force. The naked women were the bait, the archers the spring and Bont's men the hammer in a perfect trap.

While it lasted, the battle moved too fast for Leoni to risk distracting Ria. Besides, although Ria often seemed in danger as the fighting swirled around her, she was astonishingly agile and deadly and had uncanny survival instincts. Again and again she dodged lethal blows by a hair's breadth, and her lean body – naked, dusty and blood-smeared after the fight – had suffered just one new wound. Some jagged edge, perhaps a knife or a spear point, had

sliced open her left breast from nipple to armpit. The gash was ugly, and oozed blood, but Ria seemed unaware of it as her triumphant warriors carried her across the battlefield shoulder-high, and cheers and shouts of victory rose all round her.

Leoni was in far worse shape. Since she'd made the choice to return, she'd known that the restoration of her aerial body by Ruapa and Baiyakondi could only be temporary. As she hovered over the battle, following its shifting fortunes, she once more become aware of the awful lassitude and creeping numbness that had afflicted her before, and of the frightening thinness and attenuation of her aerial form which seemed to be slowly evaporating and drifting away. It was difficult to resist the warm shelter of her meat body and the call of her own place and time. She felt its strong pull upon her and sensed she needed only to unlock her focus from Ria and she would be back in an instant with Don Leoncio and the Tarahanua shamans who would heal her wounds.

As though triggered by her thoughts of return, a tunnel of light

opened in the air a few feet in front of her. It was inviting and she began to drift towards it when a distant flutter of movement – that yet had a sort of *purposive* flow about it – made her look off to her right. A thousand feet back across the curve of the valley, near the stockades, she saw a group of men, crouched low, running.

The tunnel would have to wait. With the power of flight Leoni reached the place in an instant and swooped down amongst twenty Illimani who all Ria's forces had somehow failed to root out. Some were armed with axes, some with long flint knives, and as she watched they ducked out of sight between two of the stockades and squirmed forward.

What were they doing? Leoni soared higher and saw their target could only be the two hundred women and children, formerly their prisoners, gathered in the shade of the bushes and small trees growing along the opposite side of the valley. It seemed crazy for these warriors to take time out for murder when they had a real chance to slip away and escape, but no doubt these were the kinds

of decisions people made when they'd sold their souls to a demon.

Leoni darted down to Ria, where her men still carried her on their shoulders, and projected the thought urgently: 'There are twenty Illimani you didn't see.' With every atom of her will she fought the weakness spreading across her aerial body: 'They're going to kill the children. You've got to stop them.'

'Sister!' exclaimed Ria. 'It's so good to have you back.' In the same instant her gaze swept towards the valley side where a distant chorus of screams now rose up and figures could be seen scattering. Her expression changed to one of fury and as she sprang to the ground, yelling orders, Leoni streaked back along the valley, expecting the bloodbath to have begun.

Instead she saw flights of arrows pouring down off the ridge line above the copse sheltering the women and children and thudding into the twenty Illimani where they'd charged across the open ground from the stockades. All but three were already down, two more fell in the next second and only the last one got anywhere

near the copse before a dozen arrows smashed him off his feet. Another flight arched from the ridge, thudding into the lifeless and bloody bodies, then another, and then it was all over. Not a woman or child had been harmed.

Leoni soared up to take a look at the rescuers. There were twenty of them, under the command of the third Neanderthal – the one whose name she didn't know – and they occupied the very position she'd suggested to Ria as a good spot to place some archers. They'd got here late, it seemed, because they'd missed the main fighting, but that had put them in exactly the right place at exactly the right time to save the innocents.

Ria was coming down the valley at a run with fifty of her fighters, but when they saw the threat had been dealt with they slowed to a walk. Hovering transparent and invisible above the ridge line, Leoni watched as a milling joyous crowd streamed towards them from all sides, victorious warriors mingled with the women and children they had saved, and whirling dances broke out

amidst wild hand-clapping and exultant whoops.

A tunnel of light blinked open again at Leoni's side and in the same instant she saw that two of Sulpa's little creatures had appeared in the valley – no doubt he had sent them out in their hundreds to search the countryside. The gargoyles flew closer but they didn't seem to see her, perhaps because she was now so insubstantial or because their eyes were fixed on Ria. Leoni made no movement to attract their attention. She only knew she must catch them and kill them. All would be lost, and Ria would be followed and hunted down wherever she tried to flee, if she failed to do that.

Leoni stayed above the ridge while the creatures flew past and watched as they descended to hover directly over Ria's head.

Now!

She dived, swept up behind them and snatched them out of the air.

That was the easy part, but she feared that her hands and fingers might no longer have enough substance to hold them as they lashed and squirmed away from her. She tried smashing them together as she'd done before but couldn't get the same degree of force – SMACK! SMACK! It just seemed to make them more angry. Then SMACK! SMACK! SMACK! – one of the creatures burst apart in a puff of smoke.

Now she could deal with the other one. She wrenched its head away from its body with her free hand, but even as it died it raked its talons down her side, filling her with a stabbing mortal pain.

There was no time to explain to Ria.

Leoni felt an instant shocking drain of power and all at once, like a cloud of mist in a breath of wind, her aerial body gave up the unequal struggle to remain whole, was scattered into gossamer threads and vanished.

The last thing she knew was falling away into nothingness.

Chapter Ninety-Eight

The labyrinth of caves that led from the outside world into Secret Place was an impressive and terrible obstacle. Without personal knowledge of it, or a guide, or sorcery, it was difficult to see how attackers could ever find their way through its confusing twists and turns, dark deadfalls, circuitous tunnels and blind passages. Still Ria was surprised and concerned to discover Brindle had posted no sentries to guard the exit. As she started the process of leading her horde of injured and exhausted refugees out onto the hillside she reflected they might as easily be Illimani warriors ready to sweep down on the campfires of Secret Place that twinkled in the night just a few bowshots below. With an enemy like Sulpa it was best to take nothing for granted, but now was not the time to scold her friend for

this lapse: ‘Brindle.’ She sent out her thought-voice: ‘I’m back! We’re all back. We all made it. Something amazing happened.’

There was no reply and Ria became alert. ‘What’s up, Grondin?’ she asked. ‘Why can’t I reach Brindle?’

The big Ugly looked worried: ‘Don’t know. I too cannot reach him.’

It wasn’t the same sort of interruption of thought-talk they’d experienced during the battle at the Naveen camp. Then it had been lost to all of them; they still didn’t know why. But now Oplimar, Jergat and Grondin reported open contact with friends and relatives below in Secret Place, and already figures could be seen running up the hillside to greet them – so this was a problem with Brindle alone.

‘No problem with Brindle,’ Grondin announced a moment later. ‘He’s busy. Working in the Cave of Visions. Can’t talk to us right now.’

Busy? Ria was outraged. How dare Brindle be busy? Didn’t he

know – didn't he want to know – about her incredible victory? What could he possibly be doing that was more important than that?

After the battle, and a long day's forced march, Ria had brought almost two thousand refugees to Secret Place. It was a huge number. Fear had kept them silent and biddable until now but they hailed from a dozen different tribes, with different languages and customs, and their group behaviour tended towards chaos. Getting them out of the labyrinth and marshalling them on the hillside in the darkness was already taking a very long time and then the Uglies would have to find them food, shelter, sleeping spaces and other necessities of life on the terraces below.

Ria felt weary at the prospect. She'd done enough. Her companions could organise the refugees without her help. 'Sort it all out,' she told them. 'I'm going to find Brindle.'

Making her way through the crowd of Uglies streaming up to welcome the new arrivals, she set off downhill towards Secret Place.

Most evenings the broad natural platform in front of the Cave of Visions was packed with little groups of Uglies sitting around fires, cooking, eating, talking and dancing. Tonight the space was deserted except for four guards, armed with spears, who stood at the entrance to the cave.

‘What are you doing here?’ Ria asked as she approached.

‘Keeping everyone out,’ one of the guards replied. He was young, with heavy brow ridges and wispy hair on his chin.

‘I’m going in,’ said Ria.

‘Cannot let you in …’ A second guard was speaking now. Older, grey-haired, with large drooping leathery ears, he had a stubborn slow-moving look about him.

Ria sighed: ‘Don’t even think of stopping me. I’ve killed more men today than I can count.’ She didn’t want to hurt these Uglies but she would not allow them to thwart her. She stepped forward, the older guard tried to block her and in a flash she unsheathed her knife and held its blade to his throat. ‘I’m going in,’ she pulsed

again, gritting her teeth. She pushed him aside and walked into the vast cave.

It was midnight black within, but Ria knew from her previous visits that the floor of the Cave of Visions was roughly circular. It extended more than eight hundred paces from side to side under a huge vaulted roof that rose at its peak to a height of almost two bowshots. She paused to be sure the guards hadn't followed her through the entrance tunnel and to get her bearings. Up ahead she could hear a large group of Uglies giving out a strange, hooting chant – quite different from the one they used for healing – but the echoes in the chamber and the thick darkness made it impossible to be sure where the sound was coming from.

Ria walked slowly towards the centre of the cave – ten paces, thirty, sixty, a hundred – feeling her way over the uneven floor with the toes of her moccasins. There was no light from outside, and no lamps were burning, yet every step forward seemed to offer her tantalising glimpses through the absolute blackness of …

something.

She squinted and stooped, felt some disturbance in the air.

There! What was that?

Lit by a faint ghostly radiance, a giant fang of rock went flying past her with its base a hand's breadth above the floor. It was bigger and faster than a charging rhino and she was close enough to touch it. *Fuck!* She just had time to realise she would have been dead if she'd got in front of it when another massive rock hurtled out of the darkness and shot past – WHOOSH! – followed by another, and another. They all seemed to be moving in the same direction, not randomly, and not even in a straight line, like an avalanche, but in a weird and unnatural whirling circle.

Then it dawned on her. This was the outer ring of Brindle's stone circle – the idea the blue woman had given him in a vision that she'd said would help to fight Sulpa. He must have built it. But how was he keeping the stones off the ground? How was he making them fly?

WHOOSH! WHOOSH! Two more of the megaliths whizzed past just in front of her nose.

‘Where are you, Brindle?’ Ria pulsed. ‘Let me through.’

There came a change in the pitch of the Uglies’ chant, from an irregular, snarling rumble to a steady sonorous roar. At the same moment the big stones ceased their restless whirling and froze in place. Either their inner radiance was growing, or her eyes were becoming more accustomed to the darkness, but Ria found she could see all of them now – all thirty of them – even the ones farthest away. They were arranged in a circle a hundred paces from side to side, and they surrounded the two inner circles of stones exactly as Brindle had shown her.

She heard his thought-voice. ‘I can’t stop the stones dancing for long, Ria. It would be a good idea if you came through now.’

She stepped between two of the huge grey megaliths, towering over her head. No sooner had she passed them than there was a further change in the pitch of the chant and the outer circle once

more began to rotate rapidly – WHOOSH! WHOOSH! WHOOSH! WHOOSH!

Still frozen in their places, the inner ring of twenty black stones now loomed before Ria. Again, as soon as she had stepped through between two of them, the entire circle resumed its rotation.

The light radiated by all the stones had increased to such a level that Ria could see Brindle. He stood at the centre of the innermost ring of eight gigantic white megaliths, each four times the height of a man. He had undergone an incredible transformation. His body was skeletal and dirty. His hair was matted. His eyes, hollow and dark-shadowed under his brow ridges, gleamed with feverish heat.

A few more paces and Ria was at his side. ‘What’s happened to you, old friend?’ she asked.

‘I’ve made this marvellous thing,’ Brindle replied, with an excited grin. There was a further change of pitch in the chanting deep in the cave, becoming more insistent, more urgent, and the

inner circle began to rotate rapidly again, a hand's breadth above the floor, until all was a blur and the individual stones could no longer be seen.

Chapter Ninety-Nine

Ria watched the revolving circles with amazement – three circles, fifty-eight huge upright stones all suspended a hand's breadth above the ground, all glowing with inner light and hurtling at tremendous speed around the still point at the centre where she stood with Brindle. The chanting that filled the cave continued to rise in intensity, and in the growing illumination cast by the stones Ria saw four separate groups of Ugly males gathered at intervals beyond the outer circle. As was their custom when they performed healings, they stood in knots of ten or so, their arms linked around each other's shoulders, chanting in unison. But this was no healing ceremony. It was obvious the sounds they were making – not lulling and restorative but stirring and inflammatory – were powering the

headlong rush of the stones. Ria also sensed an intense pattern of mental concentration linking them with Brindle and saw that although they were the source of the power it was he alone who was directing and controlling it.

‘Where did the stones come from?’ she asked him. ‘How did you get them here?’

‘They’re magic stones,’ he said. ‘Our Lady of the Forest told me where to find them, and taught me the song that makes them fly. All the time you’ve been away I’ve been bringing these stones here.’

‘And now?’

‘I’m making them dance,’ Brindle said. His thought-voice was no more than a whisper: ‘Our Lady of the Forest told me they have to dance before I set them in the earth.’ An anxious look crossed his face: ‘That’s why I was busy before. I hope you understand.’

‘But you’ve got time to talk to me now?’

The rhythm of the chant was rising towards a crescendo. ‘The

dance is finished,' said Brindle. He stretched his hands above his head and thrust them down, pointing his index fingers to the ground. The chant stopped and the whirling of the circles ceased. For an instant the fifty-eight stones hung poised in absolute silence and stillness. Then, with a tremendous crash, they plunged down, driving themselves like huge spears hip deep in the floor of the Cave of Visions. Not all pointed straight up, some were skewed at crazy angles, but within heartbeats they became still and the cracked earth out of which they jutted like giant teeth seemed to harden to rock around them, encasing them rigidly in place.

'Come on,' said Brindle. Glowing with pride and satisfaction, he took Ria's hand and led her on a slow walk around each of the three concentric circles of standing stones. From time to time he would stop and place his hands or his forehead against one. Twice – seemingly fruitlessly – he threw his shoulder against stones as though trying to force them into new positions. Finally he brought her back to the edge of the inner ring of eight white megaliths and

directed her attention towards the centre of the circle where they'd stood before. 'Now I've set the stones in the earth all their power should be channelled here,' he said.

He didn't sound very sure of himself.

Ria peered in: 'I don't see anything,' she said.

She took a step forward.

Nothing.

Another step.

WHOOSH!

She was falling through a tunnel of light.

When she spilled out onto a hillside under the twin suns of the spirit world, the blue woman was waiting for her, wearing a tunic of some strange supple material that gleamed like fire.

'Shit,' said Ria. 'What the fuck happened? How can I be here?'

'I opened a stone gateway for you,' said the blue woman. With her words she sent an image of the megaliths set into the floor of the

Cave of Visions.

‘Brindle’s stones!’ Ria exclaimed. ‘He said they’d help us fight Sulpa.’

‘That was my intention,’ said the blue woman. ‘But unfortunately a vital element of the plan has failed. We’re going to have to rethink.’

‘Vital element? What vital element?’

‘I speak of Leoni, the one with whom you are entangled. Without her to help us, in her own time, the gateway cannot serve its purpose. Do you forget her so quickly?’

Ria was stung by the question. She didn’t think of herself as the sort of person who forgot her friends, but she didn’t know what to do about Leoni: in their last fleeting encounters she’d sensed that her time-sister was in danger. She’d vanished in the thick of things, returned to warn of the sneak attack on the Naveen women and children, and then vanished again. After that Ria had heard no more from her. Had she simply been called back into her Earth body?

Surely this was the most likely explanation? Nonetheless her disappearance had haunted Ria's thoughts throughout the long day as she'd trekked the vulnerable column of refugees across country and up to Secret Place.

'What's happened to her?' she asked, with dread in her heart.

'Leoni has fallen into the underworld,' replied the blue woman. 'She gave her life for you.'

A flood of memories and images filled Ria's mind and she saw what she had not seen and learned what she had not been told.

She saw again how Leoni had come to her in the valley before the Naveen camp and told her of the little winged creatures Sulpa used as his spies. Two of them had found Ria, Leoni said. She'd killed one and pursued the other but it got back to its master before she could catch it.

What Leoni had not mentioned was that she herself had been attacked by hundreds of Sulpa's monstrous little creatures and been

weakened by them. Nor had she told how she had overcome her weakness by force of will in order to help Ria long after she should have fled back to the safety of her Earth body. In mortal danger, she had stayed to pinpoint the locations of the Illimani sentries guarding the neck of the valley and to supply the vital intelligence Ria had used to plan her assault on the camp.

Leoni's strength had given out before the attack began – hence her sudden disappearance. She'd been pulled back into her Earth body but had put her life at risk again and returned to perform one last service. In thought-images filled with emotional power Ria witnessed the arrival over the battlefield of two more of Sulpa's spy creatures, Leoni's unhesitating courage in grappling with them despite her feeble and damaged state, and the fight to the death that had followed.

'There has to be a way to bring her back,' said Ria as the last images faded. 'That wasn't her Earth body I saw killed. That was some other part of her.'

‘That was her spirit, Ria. That was her soul. She walks the dark road now, in the company of ghosts.’

‘So that’s it? That’s the fucking END? Is that what you’re telling me?’

The blue woman’s gaze was penetrating. ‘It need not be the end. Alone amongst all humankind your entanglement with Leoni gives you the power to bring her back. But you must journey to the underworld and seek her out on the dark road. Are you ready to do that?’

‘I’m ready,’ Ria said.

‘Monsters will confront you there. Can you master them? Loss of heart and madness will assail your wits. Can you overcome them? Perils and difficulties will crowd in on you from all sides. Can you defeat them?’

‘I can try.’

‘Even so, it may be too late. If a morsel of food has passed Leoni’s lips in the underworld it will be impossible for her to leave.’

‘Then we have to hope she hasn’t eaten yet...’

‘There is one other matter. It is the weightiest.’

‘Yes?’

‘Bring Leoni back and your own life becomes forfeit. You will live only for a year and a day. Do you accept?’

Ria thought about it. She wasn’t going to turn coward and leave her sister in the lurch, no matter what the cost. Besides, a year and a day was a long time. Long enough to defeat Sulpa.

‘Of course I accept,’ she said.

With a flash and a swirl, a tunnel of light opened at her feet.

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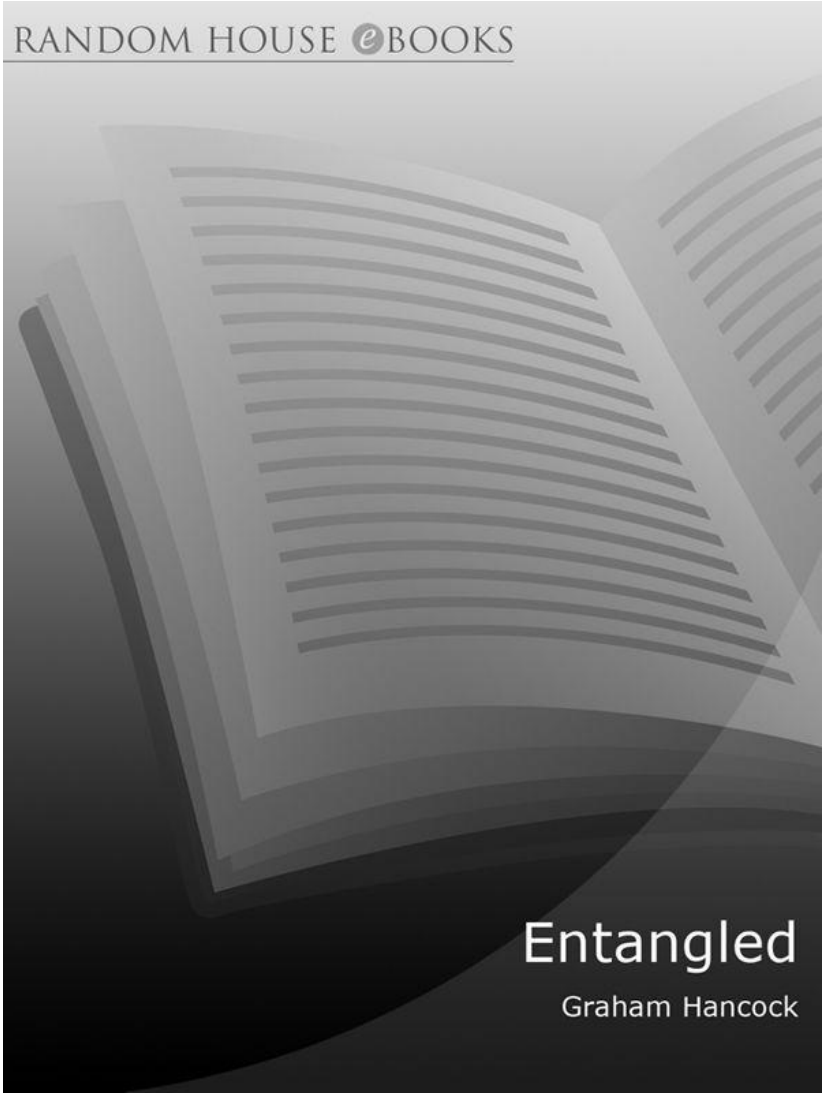

Entangled

Graham Hancock

FINGERPRINTS OF THE GODS

Graham Hancock

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Journey Through Pakistan

Ethiopia: The Challenge of Hunger

AIDS: The Deadly Epidemic

Lords of Poverty

African Ark: Peoples of the Horn

The Sign and the Seal: A Quest for the Lost Ark of the Covenant

The Message of the Sphinx (with Robert Bauval)

Fingerprints of the Gods

Graham Hancock

Photographs by Santha Faiia

THREE RIVERS PRESS
NEW YORK

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Published by Three Rivers Press, New York, New York.
Member of the Crown Publishing Group.

Random House, Inc. New York, Toronto, London, Sydney, Auckland
www.randomhouse.com

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Originally published in Great Britain by William Heinemann, Ltd.,
an imprint of Reed Consumer Books Ltd., in 1995.

First American hardcover edition published by
Crown Publishers, in 1995.

Line illustrations by R. J. Cook

Library of Congress Cataloging-in-Publication Data
Hancock, Graham.
Fingerprints of the gods / by Graham Hancock—1st American ed.
Includes index.
1. Lost continents. 2. Civilization, Ancient. 3. Antarctica—Discovery and exploration. 4. World maps—To 1800. I. Title.
GH751.H293 1995 930—dc20 95-6964

eISBN: 978-0-307-82905-4

v3.1

For Santha.… for being there.

With all my love.

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Acknowledgements

Fingerprints of the Gods could not have been written without the generous, warm-hearted and sustaining love of my partner Santha Faiia – who always gives more than she takes and who enriches the lives of everyone around her with creativity, kindness and imagination. All the photographs in the book are her work.

I am also grateful for the support and encouragement of our six children – Gabrielle, Leila, Luke, Ravi, Sean and Shanti – each one of whom I feel privileged to know.

My parents, Donald and Muriel Hancock, have been incredibly helpful, active and involved through this and

many other difficult times and projects. Together with my uncle James Macaulay they have also patiently read the drafts of the evolving manuscript, offering a wealth of positive suggestions. Thanks, too, to my oldest and closest friend, Peter Marshall, with whom I have weathered many storms, and to Rob Gardner, Joseph and Sherry Jahoda, Roel Oostra, Joseph and Laura Schor, Niven Sinclair, Colin Skinner and Clem Vallance, all of whom gave me good advice.

In 1992 I suddenly found that I had a friend in Lansing, Michigan. His name is Ed Ponist and he got in touch with me soon after the publication of my previous book, *The Sign and the Seal*. Like a guardian angel he volunteered to devote a hefty chunk of his spare time to helping me out in the US with research, contacts and the collection of documentary resources of relevance to *Fingerprints of the Gods*. He did a

brilliant job, always sending me the right books just when I needed them and finding references that I didn't even know existed. He was also an acurate weathervane on the quality of my work, whose judgement I quickly learned to trust and respect. Last but not least, when Santha and I went to Arizona, to the Hopi Nation, it was Ed who came with us and who opened the way …

Ed's initial letter was part of an overwhelming deluge of mail that I received from around the world after writing *The Sign and the Seal*. For a while I tried to answer all the letters individually. Eventually, however, I got swamped with the new work on *Fingerprints* and had to stop replying. I feel bad about this, and would like to take this opportunity to thank everybody who wrote to me and to whom I did not write back. I'm intending to be more systematic in the future because I enormously value this correspondence and

appreciate the high-quality information that it frequently turns out to contain …

Other researchers who have helped me on *Fingerprints of the Gods* have been Martin Slavin, David Mestecky and Jonathan Derrick. In addition I would like to thank my Anglophone editors on both sides of the Atlantic, Tom Weldon at Heinemann, Jim Wade at Crown and John Pearce at Doubleday Canada, as well as my literary agents Bill Hamilton and Sara Fisher, for their continuing commitment, solidarity and wise counsel.

My warmest appreciation also to those co-researchers and colleagues who have become my friends during the course of this investigation: Robert Bauval in Britain (with whom I shall be co-authoring two future books on related subjects), Colin Wilson, John Anthony West and Lew Jenkins in the United States, Rand and Rose Flem-Ath and Paul William

Roberts in Canada.

Finally I want to pay tribute to Ignatius Donnelly, Arthur Posnansky, R.A. Schwaller de Lubicz, Charles Hapgood and Giorgio de Santillana – investigators who saw that something was badly wrong with the history of mankind, who had the courage to speak out against intellectual adversity, and who pioneered the momentous paradigm shift that is now irrevocably under way.

Part I

Introduction

The Mystery of the Maps

Chapter 1

A Map of Hidden Places

8 RECONNAISSANCE TECHNICAL SQUADRON (SAC)

UNITED STATES AIRFORCE

Westover Airforce Base

Massachusetts

6 July 1960

SUBJECT: Admiral Piri Reis World Map

To: Professor Charles H. Hapgood,
Keene College,
Keene, New Hampshire.

Dear Professor Hapgood,

Your request for evaluation of certain unusual features of the Piri Reis World Map of 1513 by this organization has been reviewed.

The claim that the lower part of the map portrays the Princess Martha Coast of Queen Maud Land Antarctica, and the Palmer Peninsula, is reasonable. We find this is the most logical and in all probability the correct interpretation of the map.

The geographical detail shown in the lower part of the map agrees very remarkably with the results of the seismic profile made across the top of the ice-cap by the Swedish-British

Antarctic Expedition of 1949.

This indicates *the coastline had been mapped before it was covered by the ice-cap*.

The ice-cap in this region is now about a mile thick.

We have no idea how the data on this map can be reconciled with the supposed state of geographical knowledge in 1513.

HAROLD Z. OHLMEYER

Lt Colonel, USAF

Commander

Despite the deadpan language, Ohlmeyer's letter[1] is a bombshell. If Queen Maud Land was mapped before it was covered by ice, the original cartography must have been done an extraordinarily long time ago.

How long ago exactly?

Conventional wisdom has it that the Antarctic ice-cap, in its present extent and form, is millions of years old. On closer examination, this notion turns out to be seriously flawed – so seriously that we need not assume the map drawn by Admiral Piri Reis depicts Queen Maud Land as it looked millions of years in the past. The best recent evidence suggests that Queen Maud Land, and the neighbouring regions shown on the map, passed through a long ice-free period which may not have come completely to an end until about six thousand years ago.[2] This evidence, which we shall touch upon again in the next chapter, liberates us from the burdensome task of explaining who (or what) had the technology to undertake an accurate geographical survey of Antarctica in, say, two million BC, long before our own species came into existence. By the same token, since map-making is a complex and *civilized* activity, it compels us to

explain how such a task could have been accomplished even six thousand years ago, well before the development of the first true civilizations recognized by historians.

Ancient sources

In attempting that explanation it is worth reminding ourselves of the basic historical and geological facts:

1 The Piri Reis Map, which is a genuine document, not a hoax of any kind, was made at Constantinople in AD 1513.[3]

2 It focuses on the western coast of Africa, the eastern coast of South America and the northern coast of Antarctica.

3 Piri Reis could not have acquired his information on this latter region from contemporary explorers because Antarctica remained undiscovered until AD 1818,[4] more than 300 years after he drew the map.

4 The ice-free coast of Queen Maud Land shown in the map is a colossal puzzle because the geological evidence confirms that the latest date it could have been surveyed and charted in an ice-free condition is 4000 BC.[5]

5 It is not possible to pinpoint the *earliest* date that such a task could have been accomplished, but it seems that the Queen Maud Land littoral may have remained in a stable, unglaciated condition for at least 9000 years before the spreading ice-cap swallowed it entirely.[6]

6 There is no civilization known to history that had the capacity or need to survey that coastline in the relevant period: between 13,000 BC and 4000 BC.[7]

In other words, the true enigma of this 1513 map is not so much its inclusion of a continent not discovered until 1818 but its portrayal of part of the coastline of that continent under ice-free conditions which came to an end 6000 years ago and have not since recurred.

How can this be explained? Piri Reis obligingly gives us the

answer in a series of notes written in his own hand on the map itself. He tells us that he was not responsible for the original surveying and cartography. On the contrary, he admits that his role was merely that of compiler and copyist and that the map was derived from a large number of source maps.[8] Some of these had been drawn by contemporary or near-contemporary explorers (including Christopher Columbus), who had by then reached South America and the Caribbean, but others were documents dating back to the fourth century BC or earlier.[9]

Piri Reis did not venture any suggestion as to the identity of the cartographers who had produced the earlier maps. In 1963, however, Professor Hapgood proposed a novel and thought-provoking solution to the problem. He argued that some of the source maps the admiral had made use of, in particular those said to date back to the fourth century BC,

had themselves been based on even *older* sources, which in turn had been based on sources originating in the furthest antiquity. There was, he asserted, irrefutable evidence that the earth had been comprehensively mapped before 4000 BC by a hitherto unknown and undiscovered civilization which had achieved a high level of technological advancement:[10]

> It appears [he concluded] that accurate information has been passed down from people to people. It appears that the charts must have originated with a people unknown and they were passed on, perhaps by the Minoans and the Phoenicians, who were, for a thousand years and more, the greatest sailors of the ancient world. We have evidence that they were collected and studied in the great library of Alexandria [Egypt] and that compilations of them were made by the geographers who worked there.[11]

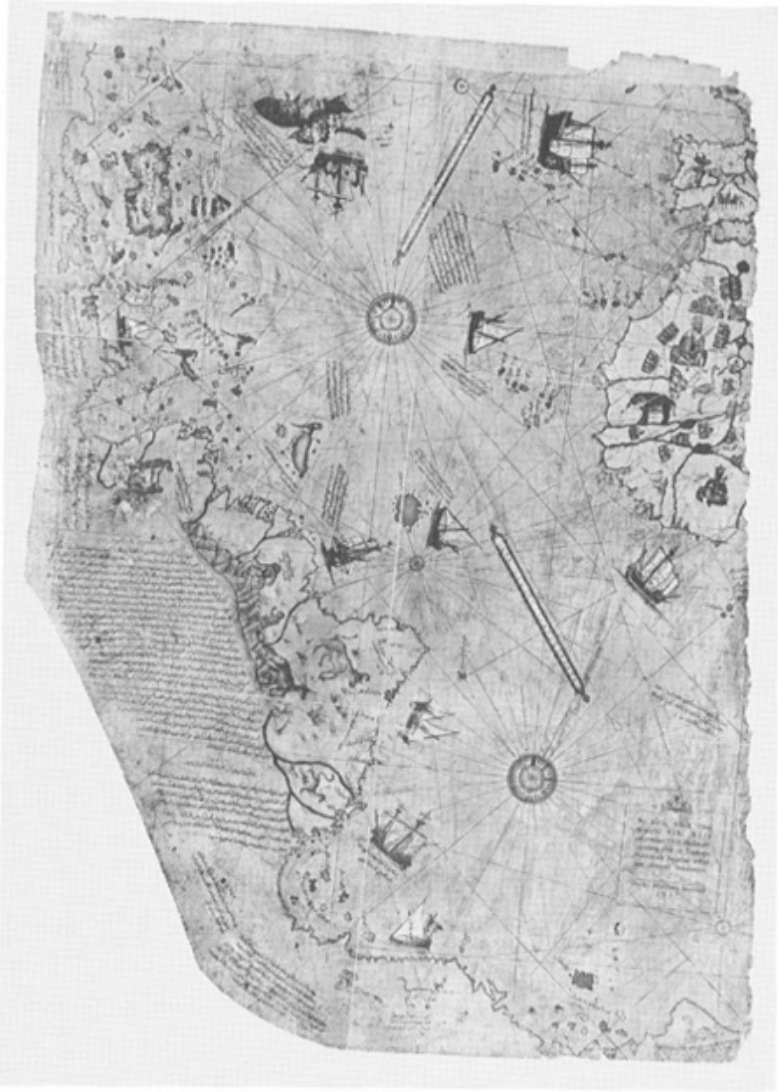

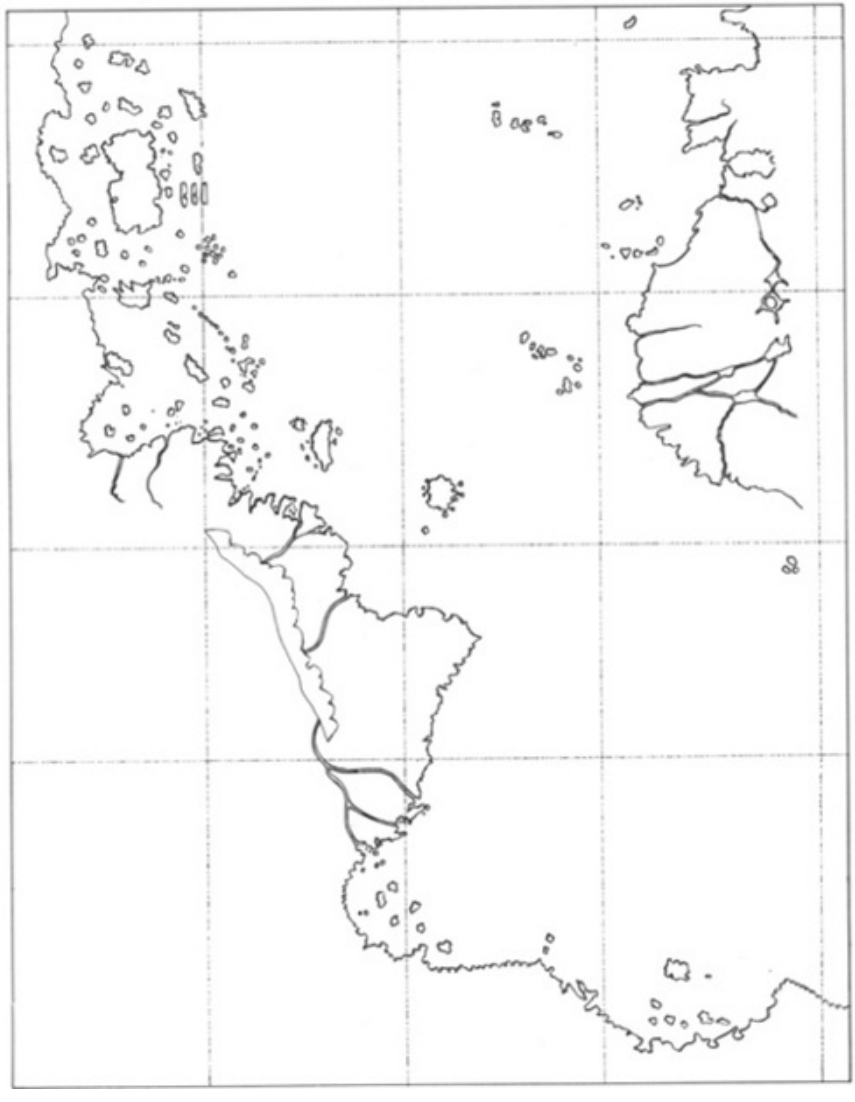

Left Piri Reis map (original). *Above* Redrawing to show detail.

AZIMUTHAL EQUIDISTANT PROJECTION
CENTERED NEAR
CAIRO

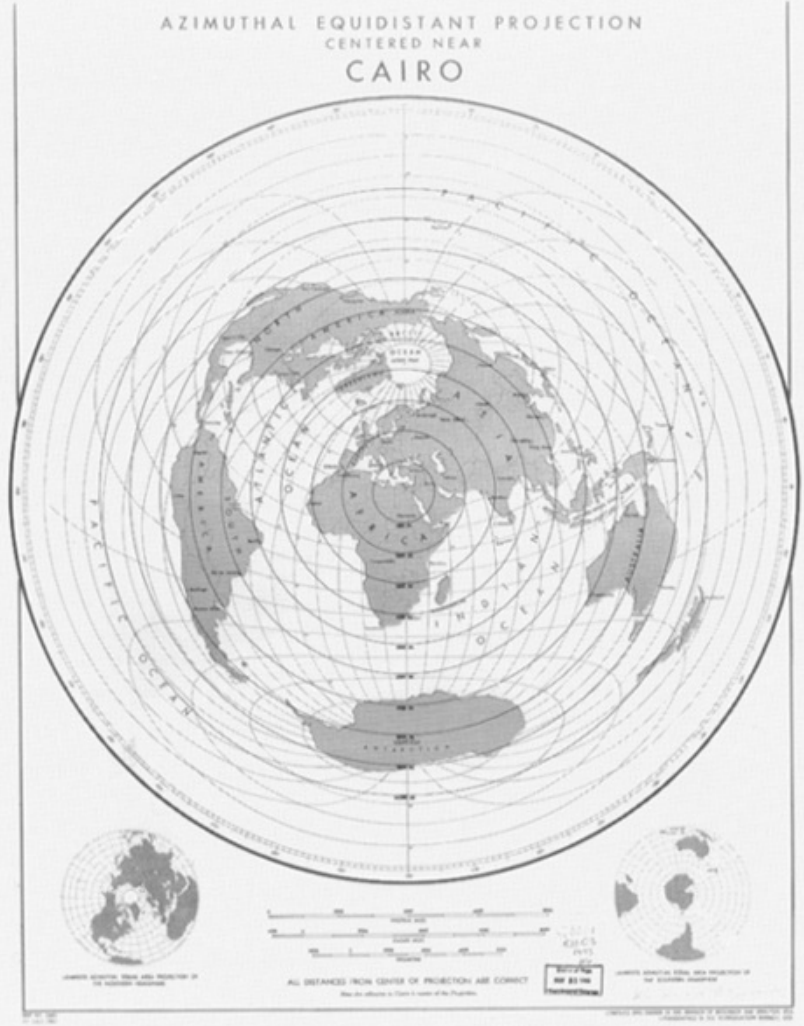

The US Airforce map shows the probable projection that governed the layout of the ancient Piri Reis map.

From Alexandria, according to Hapgood's reconstruction, copies of these compilations and of some of the original source maps were transferred to other centres of learning – notably Constantinople. Finally, when Constantinople was seized by the Venetians during the Fourth Crusade in 1204, the maps began to find their way into the hands of European sailors and adventurers:

> Most of these maps were of the Mediterranean and the Black Sea. But maps of other areas survived. These included maps of the Americas and maps of the Arctic and Antarctic Oceans. It becomes clear that the ancient voyagers travelled from pole to pole. Unbelievable as it may appear, the evidence nevertheless indicates that some ancient people explored Antarctica when

its coasts were free of ice. It is clear, too, that they had an instrument of navigation for accurately determining longitudes that was far superior to anything possessed by the peoples of ancient, medieval or modern times until the second half of the eighteenth century.

This evidence of a lost technology will support and give credence to many of the other hypotheses that have been brought forward of a lost civilization in remote times. Scholars have been able to dismiss most of that evidence as mere myth, but here we have evidence that cannot be dismissed. The evidence requires that all the other evidence that has been brought forward in the past should be re-examined with an open mind.[12]

Despite a ringing endorsement from Albert Einstein (see below), and despite the later admission of John Wright, president of the American Geographical Society, that Hapgood had 'posed hypotheses that cry aloud for further testing', no further scientific research has ever been

undertaken into these anomalous early maps. Moreover, far from being applauded for making a serious new contribution to the debate about the antiquity of human civilization, Hapgood until his death was cold-shouldered by the majority of his professional peers, who couched their discussion of his work in what has accurately been described as 'thick and unwarranted sarcasm, selecting trivia and factors not subject to verification as the bases for condemnation, seeking in this way to avoid the basic issues'.[13]

A man ahead of his time

The late Charles Hapgood taught the history of science at Keene College, New Hampshire, USA. He wasn't a geologist, or an ancient historian. It is possible, however, that future generations will remember him as the man whose work

undermined the foundations of world history – and a large chunk of world geology as well.

Albert Einstein was among the first to realize this when he took the unprecedented step of contributing the foreword to a book Hapgood wrote in 1953, some years before he began his investigation of the Piri Reis Map:

> I frequently receive communications from people who wish to consult me concerning their unpublished ideas [Einstein observed]. It goes without saying that these ideas are very seldom possessed of scientific validity. The very first communication, however, that I received from Mr Hapgood electrified me. His idea is original, of great simplicity, and – if it continues to prove itself – of great importance to everything that is related to the history of the earth's surface.[14]

The 'idea' expressed in Hapgood's 1953 book is a global geological theory which elegantly explains how and why

large parts of Antarctica could have remained ice-free until 4000 BC, together with many other anomalies of earth science. In brief the argument is:

1 Antarctica was not always covered with ice and was at one time much warmer than it is today.

2 It was warm because it was not physically located at the South Pole in that period. Instead it was approximately 2000 miles farther north. This 'would have put it outside the Antarctic Circle in a temperate or cold temperate climate'.[15]

3 The continent moved to its present position inside the Antarctic Circle as a result of a mechanism known as 'earth-crust displacement'. This mechanism, in no sense to be confused with plate-tectonics or 'continental drift', is one whereby the lithosphere, the whole outer crust of the earth, 'may be displaced at times, moving over the soft inner body, much as the skin of an orange, if it were loose, might shift over the inner part of the

orange all in one piece'.[16]

4 During the envisaged southwards movement of Antarctica brought about by earth-crust displacement, the continent would gradually have grown colder, an ice-cap forming and remorselessly expanding over several thousands of years until it attained its present dimensions.'[17]

Further details of the evidence supporting these radical proposals are set out in Part VIII of this book. Orthodox geologists, however, remain reluctant to accept Hapgood's theory (although none has succeeded in proving it incorrect). It raises many questions.

Of these by far the most important is: what conceivable mechanism would be able to exert sufficient thrust on the lithosphere to precipitate a phenomenon of such magnitude as a crustal displacement?

We have no better guide than Einstein to summarize Hapgood's findings:

> In a polar region there is continual deposition of ice, which is not symmetrically distributed about the pole. The earth's rotation acts on these unsymmetrically deposited masses, and produces centrifugal momentum that is transmitted to the rigid crust of the earth. The constantly increasing centrifugal momentum produced in this way will, when it has reached a certain point, produce a movement of the earth's crust over the rest of the earth's body …'[18]

The Piri Reis Map seems to contain surprising collateral evidence in support of the thesis of a geologically recent glaciation of parts of Antarctica following a sudden southward displacement of the earth's crust. Moreover since such a map could only have been drawn *prior* to 4000 BC, its implications for the history of human civilization are staggering. Prior to 4000 BC there are supposed to have been no civilizations at all.

At some risk of over-simplification, the academic consensus is broadly:

- Civilization first developed in the Fertile Crescent of the Middle East.
- This development began after 4000 BC, and culminated in the emergence of the earliest true civilizations (Sumer and Egypt) around 3000 BC, soon followed by the Indus Valley and China.
- About 1500 years later, civilization took off spontaneously and independently in the Americas.
- Since 3000 BC in the Old World (and about 1500 BC in the New) civilization has steadily 'evolved' in the direction of ever more refined, complex and productive forms.
- In consequence, and particularly by comparison with ourselves, all ancient civilizations (and all their works) are to be understood as essentially primitive (the Sumerian astronomers regarded the heavens with unscientific awe, and even the pyramids of Egypt were built by

‘technological primitives’).

The evidence of the Piri Reis Map appears to contradict all this.

Piri Reis and his sources

In his day, Piri Reis was a well-known figure; his historical identity is firmly established. An admiral in the navy of the Ottoman Turks, he was involved, often on the winning side, in numerous sea battles around the mid-sixteenth century. He was, in addition, considered an expert on the lands of the Mediterranean, and was the author of a famous sailing book, the *Kitabi Bahriye*, which provided a comprehensive description of the coasts, harbours, currents, shallows, landing places, bays and straits of the Aegean and Mediterranean Seas. Despite this illustrious career he fell foul of his masters and was beheaded in AD 1554 or 1555.[19]

The source maps Piri Reis used to draw up his 1513 map were in all probability lodged originally in the Imperial Library at Constantinople, to which the admiral is known to have enjoyed privileged access. Those sources (which may have been transferred or copied from even more ancient centres of learning) no longer exist, or, at any rate, have not been found. It was, however, in the library of the old Imperial Palace at Constantinople that the Piri Reis Map was rediscovered, painted on a gazelle skin and rolled up on a dusty shelf, as recently as 1929.[20]

Legacy of a lost civilization?

As the baffled Ohlmeyer admitted in his letter to Hapgood in 1960, the Piri Reis Map depicts the *subglacial topography*, the true profile of Queen Maud Land Antarctica *beneath* the ice.

This profile remained completely hidden from view from 4000 BC (when the advancing ice sheet covered it) until it was revealed again as a result of the comprehensive seismic survey of Queen Maud Land carried out during 1949 by a joint British-Swedish scientific reconnaissance team.[21]

If Piri Reis had been the only cartographer with access to such anomalous information, it would be wrong to place any great weight on his map. At the most one might say, 'Perhaps it is significant but, then again, perhaps it is just a coincidence.' However, the Turkish admiral was by no means alone in the possession of seemingly impossible and inexplicable geographical knowledge. It would be futile to speculate further than Hapgood has already done as to what 'underground stream' could have carried and preserved such knowledge through the ages, transmitting fragments of it from culture to culture and from epoch to epoch. Whatever

the mechanism, the fact is that a number of other cartographers seem to have been privy to the same curious secrets.

Is it possible that all these map-makers could have partaken, perhaps unknowingly, in the bountiful scientific legacy of a vanished civilization?

Chapter 2

Rivers in the Southern Continent

In the Christmas recess of 1959–60 Charles Hapgood was looking for Antarctica in the Reference Room of the Library of Congress, Washington DC. For several consecutive weeks he worked there, lost in the search, surrounded by literally hundreds of medieval maps and charts.

I found [he reported] many fascinating things I had not expected to find, and a number of charts showing the southern continent. Then, one day, I turned a page and sat transfixed. As my eyes fell upon the southern hemisphere of a world map drawn by Oronteus Finaeus in 1531, I had the instant conviction that I had found here a truly authentic map of the real Antarctica.

The general shape of the continent was startlingly like the outline of the continent on our modern maps. The position of the South Pole, nearly in the center of the continent, seemed about right. The mountain ranges that skirted the coasts suggested the numerous ranges that have been discovered in Antarctica in recent years. It was obvious, too, that this was no slapdash creation of somebody's imagination. The mountain ranges were individualized, some definitely coastal and some not. From most of them rivers were shown flowing into the sea, following in every case what looked like very natural and very convincing drainage patterns. This suggested, of course, that the coasts may have been ice-free when the original map was drawn. The deep interior, however, was free entirely of

rivers and mountains, suggesting that the ice might have been present there.[1]

Closer investigation of the Oronteus Finaeus Map by Hapgood, and by Dr Richard Strachan of the Massachusetts Institute of Technology, confiirmed the following:

1 It had been copied and compiled from several earlier source maps drawn up according to a number of different projections.[2]

2 It did indeed show non-glacial conditions in coastal regions of Antarctica, notably Queen Maud Land, Enderby Land, Wilkes Land, Victoria Land (the east coast of the Ross Sea), and Marie Byrd Land.[3]

3 As in the case of the Piri Reis Map, the general profile of the terrain, and the visible physical features, matched closely seismic survey maps of the *subglacial* land surfaces of Antarctica.[4]

The Oronteus Finaeus Map, Hapgood concluded, appeared

to document ‘the surprising proposition that Antarctica was visited and perhaps settled by men when it was largely if not entirely non-glacial. It goes without saying that this implies a very great antiquity … [Indeed] the Oronteus Finaeus Map takes the civilization of the original map-makers back to a time contemporary with the end of the last Ice Age in the northern hemisphere.’[5]

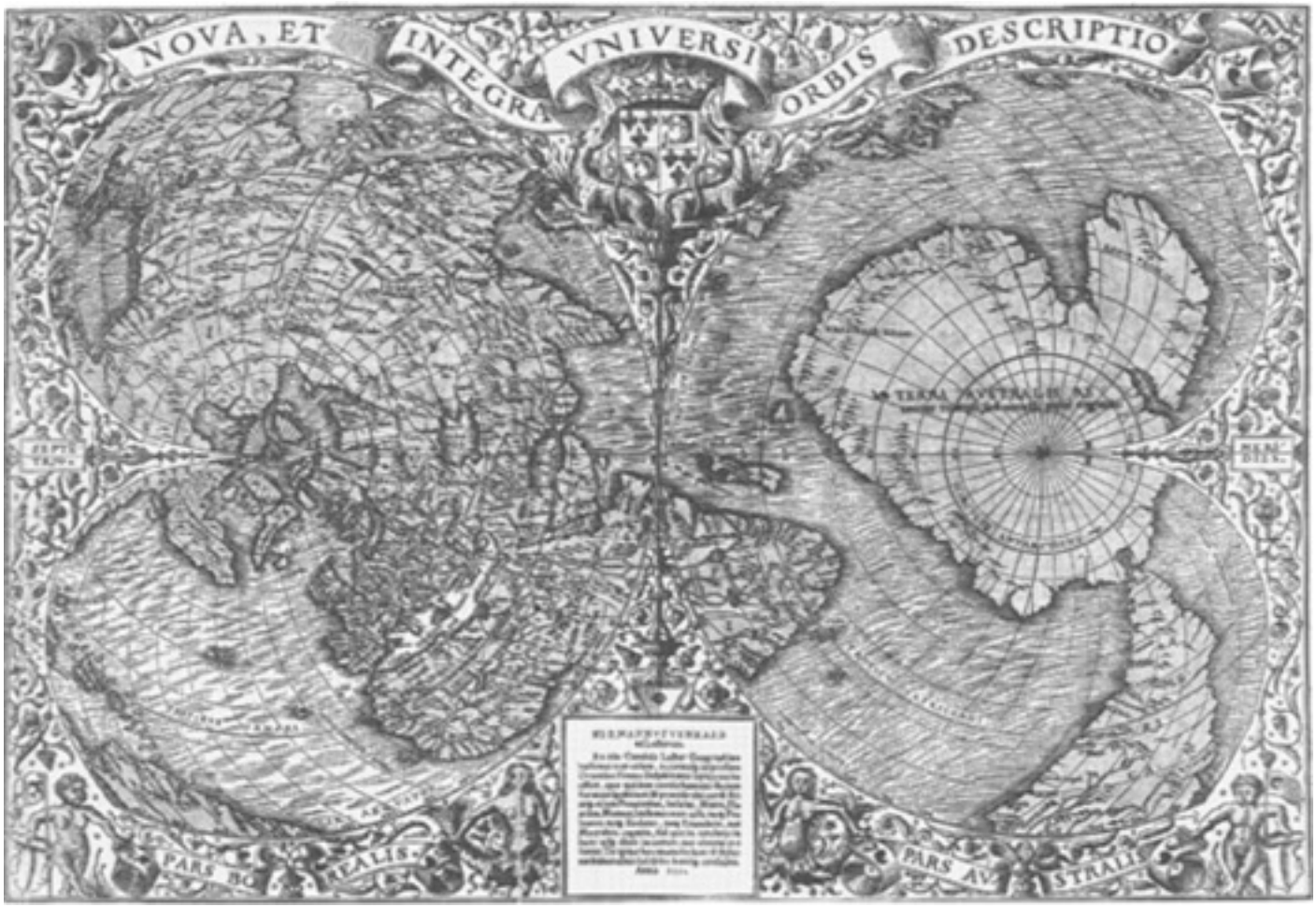

The Oronteus Finaeus map, showing Antarctica with ice-free coasts, mountains and rivers.

Ross Sea

Further evidence in support of this view arises from the manner in which the Ross Sea was shown by Oronteus Finaeus. Where today great glaciers like the Beardmore and the Scott disgorge themselves into the sea, the 1531 map shows estuaries, broad inlets and indications of rivers. The unmistakable implication of these features is that there was no ice on the Ross Sea or its coasts when the source maps used by Oronteus Finaeus were made: 'There also had to be a considerable hinterland free of ice to feed the rivers. At the present time all these coasts and their hinterlands are deeply buried in the mile-thick ice-cap, while on the Ross Sea itself there is a floating ice-shelf hundreds of feet thick.'[6]

The Ross Sea evidence provides strong corroboration for the notion that Antarctica must have been mapped by some

unknown civilization during the extensively ice-free period which ended around 4000 BC. This is emphasized by the coring tubes used, in 1949, by one of the Byrd Antarctic Expeditions to take samples of sediment from the bottom of the Ross Sea. The sediments showed numerous clearly demarcated layers of stratification reflecting different environmental conditions in different epochs: 'coarse glacial marine', 'medium glacial marine', 'fine glacial marine', and so on. The most surprising discovery, however, 'was that a number of the layers were formed of fine-grained, well-assorted sediments, such as are brought down to the sea by rivers flowing from temperate (that is, ice-free) lands …'[7]

Using the ionium-dating method developed by Dr W. D. Urry (which makes use of three different radioactive elements found in sea water[8]), researchers at the Carnegie Institute in Washington DC were able to establish beyond any

reasonable doubt that great rivers carrying fine-grained well-assorted sediments had indeed flowed in Antarctica until about 6000 years ago, as the Oronteus Finaeus Map showed. It was only after that date, around 4000 BC, 'that the glacial kind of sediment began to be deposited on the Ross Sea bottom … The cores indicate that warm conditions had prevailed for a long period before that.'[9]

Mercator and Buache

The Piri Reis and Oronteus Finaeus Maps therefore provide us with a glimpse of Antarctica as no cartographer in historical times could possibly have seen it. On their own, of course, these two pieces of evidence should not be sufficient to persuade us that we might be gazing at the fingerprints of a lost civilization. Can three, or four, or six such maps,

however, be dismissed with equal justification?

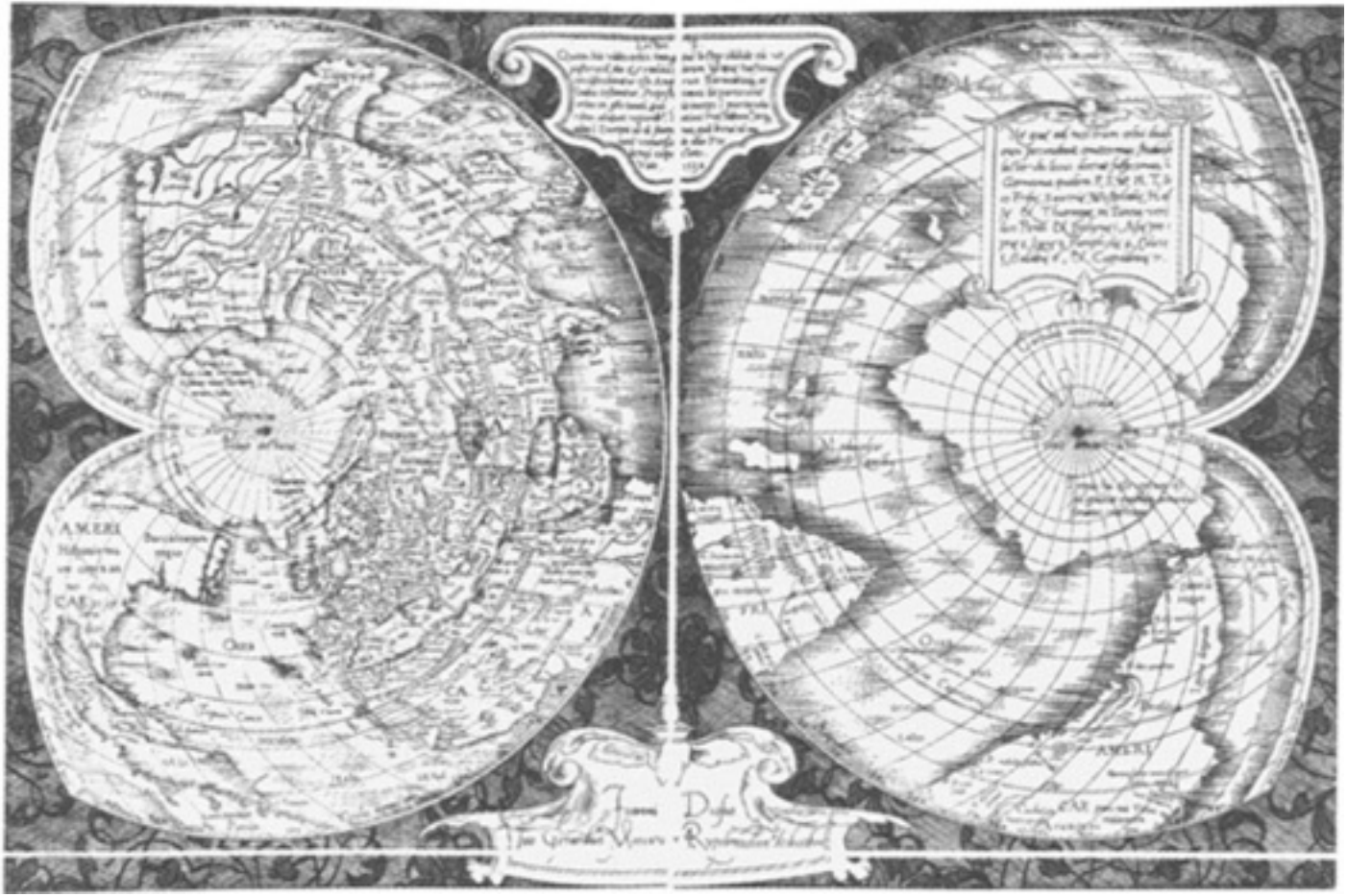

The Mercator map, showing Antarctica's mountains and rivers covered by ice.

Is it safe, or reasonable, for example, for us to continue to ignore the historical implications of some of the maps made by the sixteenth-century's most famous cartographer: Gerard Kremer, otherwise known as Mercator? Best remembered for the Mercator projection, still used on most world maps today, this enigmatic individual (who paid an unexplained visit to the Great Pyramid of Egypt in 1563[10]) was reportedly 'indefatigable in searching out … the learning of long ago', and spent many years diligently accumulating a vast and eclectic reference library of ancient source maps.[11]

Significantly, Mercator included the Oronteus Finaeus map in his *Atlas* of 1569 and also depicted the Antarctic on several he himself drew in the same year. Identifiable parts of the then undiscovered southern continent on these maps are Cape Dart and Cape Herlacher in Marie Byrd Land, the

Amundsen Sea, Thurston Island in Ellsworth Land, the Fletcher Islands in the Bellinghausen Sea, Alexander I Island, the Antarctic (Palmer) Peninsula, the Weddell Sea, Cape Norvegia, the Regula Range in Queen Maud Land (as islands), the Muhlig-Hoffman Mountains (as islands), the Prince Harald Coast, the Shirase Glacier as an estuary on Prince Harald Coast, Padda Island in Lutzow-Holm Bay, and the Prince Olaf Coast in Enderby Land. 'In some cases these features are more distinctly recognisable than on the Oronteus Finaeus Map,' observed Hapgood, 'and it seems clear, in general, that Mercator had at his disposal source maps other than those used by Oronteus Finaeus.'[12]

And not only Mercator.

Philippe Buache, the eighteenth-century French geographer, was also able to publish a map of Antarctica long before the southern continent was officially 'discovered'. And

the extraordinary feature of Buache's map is that it seems to have been based on source maps made earlier, perhaps *thousands of years earlier*, than those used by Oronteus Finaeus and Mercator. What Buache gives us is an eerily precise representation of Antarctica as it must have looked *when there was no ice on it at all*.[13] His map reveals the subglacial topography of the entire continent, which even we did not have full knowledge of until 1958, International Geophysical Year, when a comprehensive seismic survey was carried out.

That survey only confirmed what Buache had already proclaimed when he published his map of Antarctica in 1737. Basing his cartography on ancient sources now lost, the French academician depicted a *clear waterway* across the southern continent dividing it into two principal landmasses lying east and west of the line now marked by the Trans-

Antarctic Mountains.

Such a waterway, connecting the Ross, Weddell and Bellinghausen Seas, would indeed exist if Antarctica were free of ice. As the 1958 IGY Survey shows, the continent (which appears on modern maps as one continuous landmass) consists of an archipelago of large islands with mile-thick ice packed between them and rising above sea level.

The epoch of the map-makers

As we have seen, many orthodox geologists believe that the last time any waterway existed in these ice-filled basins was millions of years ago. From the scholarly point of view, however, it is equally orthodox to affirm that no human beings had evolved in those remote times, let alone human

beings capable of accurately mapping the landmasses of the Antarctic. The big problem raised by the Buache/IGY evidence is that those landmasses *do* seem to have been mapped when they were free of ice. This confronts scholars with two mutually contradictory propositions.

Carte
des Terres Australes
Comprises entre le Tropique
de Capricorne et le Pole Antarctique
Mer du Sud
Grande Mer
Mer Pacifique
Nouvelle Hollande
Cap de la Circoncision

The Buache map, with landmasses which show Antarctica very much as it would have looked before it became covered by ice.

Which one is correct?

If we are to go along with orthodox geologists and accept that millions of years have indeed elapsed since Antarctica was last completely free of ice, then all the evidence of human evolution, painstakingly accumulated by distinguished scientists from Darwin on, must be wrong. It seems inconceivable that this could be the case: the fossil record makes it abundantly clear that only the unevolved ancestors of humanity existed millions of years ago – low-browed knuckle-dragging hominids incapable of advanced intellectual tasks like map-making.

Are we therefore to assume the intervention of alien cartographers in orbiting spaceships to explain the existence of sophisticated maps of an ice-free Antarctica? Or shall we

think again about the implications of Hapgood's theory of earth-crust displacement which allows the southern continent to have been in the ice-free condition depicted by Buache as little as 15,000 years ago?[14]

Redrawings of the Mercator and Oronteus Finaeus maps showing the progressive glaciation of Antarctica. *Below left* Redrawing of the Buache map. *Below right* The subglacial topography of Antarctica, according to modern seismic surveys.

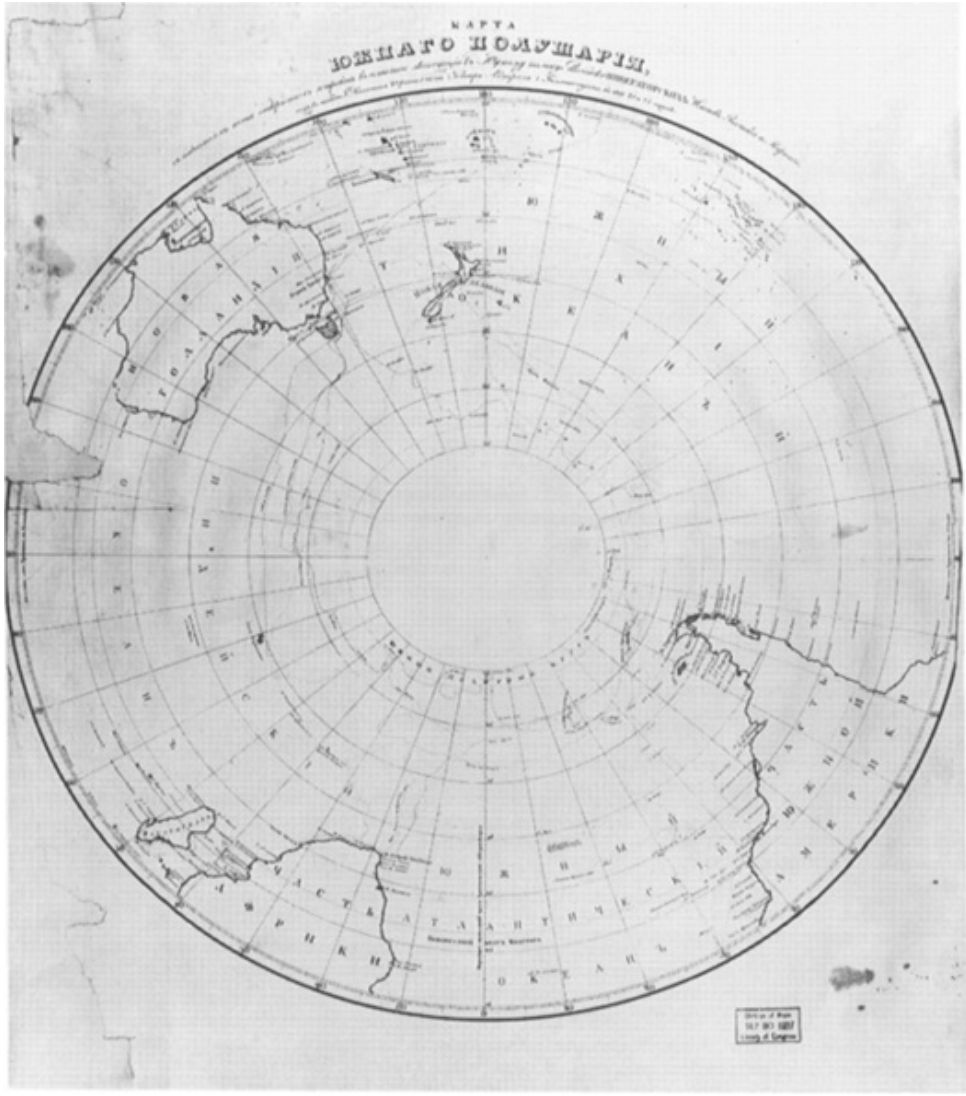
КАРТА
ЮЖНАГО ПОЛУШАРІЯ.

An early nineteenth-century Russian map showing that the existence of Antarctica was at that time unknown. The continent was ‘discovered’ in AD 1818. But could it have been mapped thousands of years earlier than that by the cartographers of an as yet unidentified high civilization of prehistory?

Is it possible that a human civilization, sufficiently advanced to have mapped Antarctica, could have developed by 13,000 BC and later disappeared? And, if so, how much later?

The combined effect of the Piri Reis, Oronteus Finaeus, Mercator and Buache Maps is the strong, though disturbing, impression that Antarctica may have been *continuously surveyed* over a period of several thousands of years as the ice-cap gradually spread outwards from the interior, increasing its grip with every passing millennium but not engulfing all the coasts of the southern continent until around 4000 BC. The original sources for the Piri Reis and

Mercator Maps must therefore have been prepared towards the end of this period, when only the coasts of Antarctica were free of ice; the source for the Oronteus Finaeus Map, on the other hand, seems to have been considerably earlier, when the ice-cap was present only in the deep interior of the continent; and the source for the Buache Map appears to originate in even earlier period (around 13,000 BC), when there may have been no ice in Antarctica at all.

South America

Were other parts of the world surveyed and accurately charted at widely separated intervals during this same epoch; roughly from 13,000 BC to 4000 BC? The answer may lie once again in the Piri Reis Map, which contains more mysteries

than just Antarctica:

- Drawn in 1513, the map demonstrates an uncanny knowledge of South America – and not only of its eastern coast but of the Andes mountains on the western side of the continent, which were of course unknown at that time. The map correctly shows the Amazon River rising in these unexplored mountains and thence flowing eastwards.[15]
- Itself compiled from more than twenty different source documents of varying antiquity,[16] the Piri Reis Map depicts the Amazon not once but *twice* (most probably as a result of the unintentional overlapping of two of the source documents used by the Turkish admiral[17]). In the first of these the Amazon's course is shown down to its Para River mouth, but the important island of Marajo does not appear. According to Hapgood, this suggests that the relevant source map must have dated from a time, perhaps as much as 15,000 years ago, when the Para River was the main or only mouth of the Amazon and when Marajo Island was part of the

mainland on the northern side of the river.[18] The second depiction of the Amazon, on the other hand, *does* show Marajo (and in fantastically accurate detail) despite the fact that this island was not discovered until 1543.[19] Again, the possibility is raised of an unknown civilization which undertook continuous surveying and mapping operations of the changing face of the earth over a period of many thousands of years, with Piri Reis making use of earlier and later source maps left behind by this civilization.

- Neither the Orinoco River nor its present delta is represented on the Piri Reis Map. Instead, as Hapgood proved, 'two estuaries extending far inland (for a distance of about 100 miles) are shown close to the site of the present river. The longitude on the grid would be correct for the Orinoco, and the latitude is also quite accurate. Is it possible that these estuaries have been filled in, and the delta extended this much, since the source maps were made?'[20]
- Although they remained undiscovered until 1592, the Falkland Islands appear on the 1513 map at their correct latitude.[21]

- The library of ancient sources incorporated in the Piri Reis Map may also account for the fact that it convincingly portrays a large island in the Atlantic Ocean to the east of the South American coast where no such island now exists. Is it pure coincidence that this 'imaginary' island turns out to be located right over the sub-oceanic Mid-Atlantic Ridge just north of the equator and 700 miles east of the coast of Brazil, where the tiny Rocks of Sts Peter and Paul now jut above the waves?[22] Or was the relevant source map drawn deep in the last Ice Age, when sea levels were far lower than they are today and a large island could indeed have been exposed at this spot?

Sea levels and ice ages

Other sixteenth-century maps also look as though they could have been based on accurate world surveys conducted during the last Ice Age. One was compiled by the Turk Hadji Ahmed

in 1559, a cartographer, as Hapgood puts it, who must have had access to some 'most extraordinary' source maps.[23]

The strangest and most immediately striking feature of Hadji Ahmed's compilation is that it shows quite plainly a strip of territory, almost 1000 miles wide, connecting Alaska and Siberia. Such a 'land-bridge', as geologists refer to it, did once exist (where the Bering Strait is now) but was submerged beneath the waves by rising sea levels at the end of the last Ice Age.[24]

The rising sea levels were caused by the tumultuous melting of the ice-cap which was rapidly retreating everywhere in the northern hemisphere by around 10,000 BC.[25] It is therefore interesting that at least one ancient map appears to show southern Sweden covered with remnant glaciers of the kind that must indeed have been prevalent then in these latitudes. The remnant glaciers are on Claudius

Ptolemy's famous Map of the North. Originally compiled in the second century AD, this remarkable work from the last great geographer of classical antiquity was lost for hundreds of years and rediscovered in the fifteenth century.[26]

Ptolemy was custodian of the library at Alexandria, which contained the greatest manuscript collection of ancient times,[27] and it was there that he consulted the archaic source documents that enabled him to compile his own map.[28] Acceptance of the possibility that the original version of at least one of the charts he referred to could have been made around 10,000 BC helps us to explain why he shows glaciers, characteristic of that exact epoch, together with 'lakes … suggesting the shapes of present-day lakes, and streams very much suggesting glacial streams … flowing from the glaciers into the lakes.'[29]

It is probably unnecessary to add that no one on earth in

Roman times, when Ptolemy drew his map, had the slightest suspicion that ice ages could once have existed in northern Europe. Nor did anyone in the fifteenth century (when the map was rediscovered) possess such knowledge. Indeed, it is impossible to see how the remnant glaciers and other features shown on Ptolemy's map could have been surveyed, imagined or invented by any known civilization prior to our own.

The implications of this are obvious. So, too, are the implications of another map, the 'Portolano' of Iehudi Ibn Ben Zara, drawn in the year 1487.[30] This chart of Europe and North Africa may have been based on a source even earlier than Ptolemy's, for it seems to show glaciers much farther south than Sweden (roughly on the same latitude as England in fact)[31] and to depict the Mediterranean, Adriatic and Aegean Seas as they might have looked before the melting of

the European ice-cap.[32] Sea level would, of course, have been significantly lower than it is today. It is therefore interesting, in the case for instance of the Aegean section of the map, to note that a great many more islands are shown than currently exist.[33] At first sight this seems odd. However, if ten or twelve thousand years have indeed elapsed since the era when Ibn Ben Zara's source map was made, the discrepancy can be simply explained: the missing islands must have been submerged by rising sea levels at the end of the last Ice Age.

Once again we seem to be looking at the fingerprints of a vanished civilization – one capable of drawing impressively accurate maps of widely separated parts of the earth.

What kind of technology, and what state of science and culture, would have been required to do a job like that?

Chapter 3

Fingerprints of a Lost Science

We saw that the Mercator World Map of 1569 included an accurate portrayal of the coasts of Antarctica as they would have looked thousands of years ago when they were free of ice. Interestingly enough, this same map is considerably *less* accurate in its portrayal of another region, the west coast of South America, than an earlier (1538) map also drawn by

Mercator.[1]

The reason for this appears to be that the sixteenth-century geographer based the earlier map on the ancient sources which we know he had at his disposal, whereas for the later map he relied upon the observations and measurements of the first Spanish explorers of western South America. Since those explorers had supposedly brought the latest information back to Europe, Mercator can hardly be blamed for following them. In so doing the accuracy of his work declined: instruments capable of finding longitude did not exist in 1569, but appear to have been used to prepare the ancient source documents Mercator consulted to produce his 1538 map.[2]

The mysteries of longitude

Let us consider the problem of longitude, defined as the distance in degrees east or west of the prime meridian. The current internationally accepted prime meridian is an imaginary curve drawn from the North Pole to the South Pole passing through the Royal Observatory at Greenwich, London. Greenwich therefore stands at 0° longitude while New York, for example, stands at around 74° west, and Canberra, Australia, at roughly 150° east.

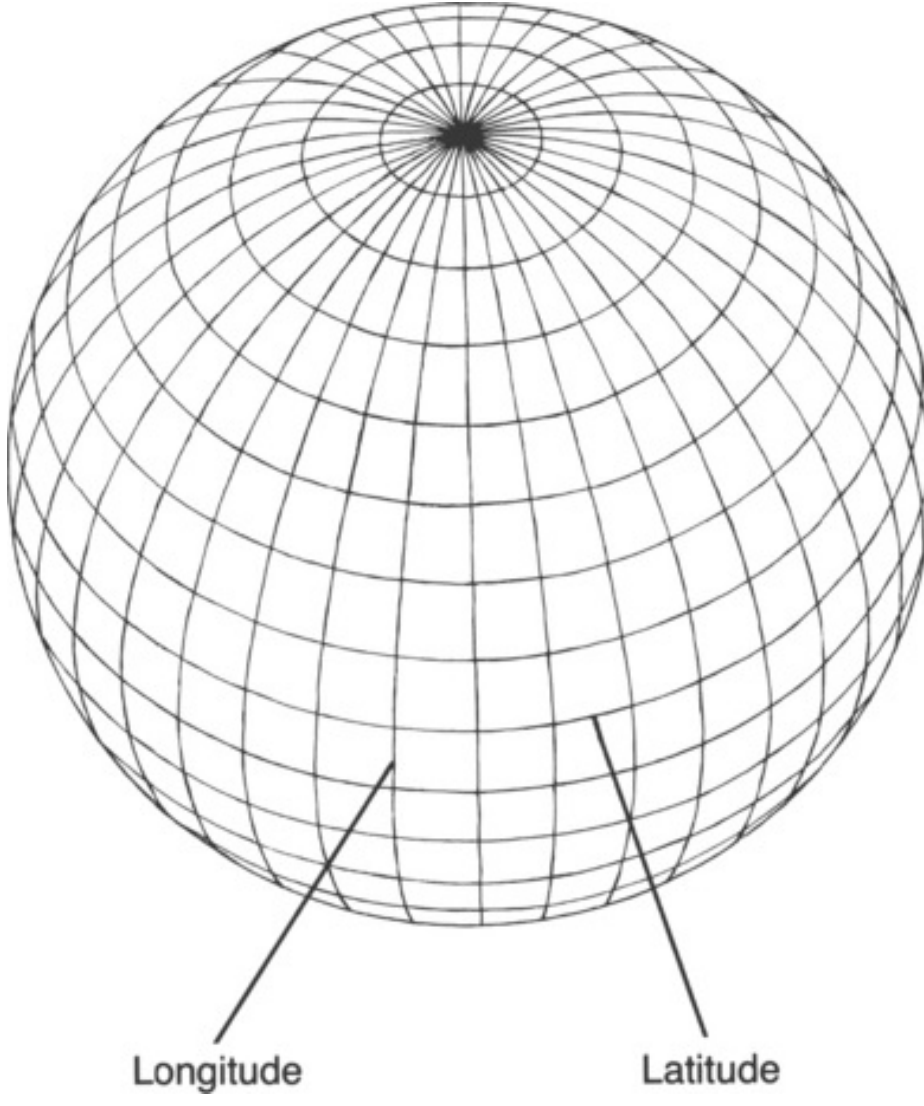
Longitude
Latitude

It would be possible to write an elaborate explanation of longitude and of what needs to be done to fix it precisely for any given point on the earth's surface. What we are concerned with here, however, is not so much technical detail as the accepted *historical* facts about humanity's growing knowledge of the mysteries of longitude. Among these facts, this is the most important: *until a breakthrough invention in the eighteenth century, cartographers and navigators were unable to fix longitude with any kind of precision*. They could only make guesses which were usually inaccurate by many hundreds of miles, because the technology had not yet been developed to allow them to do the job properly.

Latitude north or south of the equator did not pose such a problem: it could be worked out by means of angular measurements of the sun and stars taken with relatively simple instruments. But to find longitude equipment of an

altogether different and superior calibre was needed, which could combine position measurements with time measurements. Throughout the span of known history the invention of such equipment had remained beyond the capacities of scientists, but by the beginning of the eighteenth century, with rapidly increasing sea traffic, a mood of impatience and urgency had set in. In the words of an authority on the period, 'The search for longitude overshadowed the life of every man afloat, and the safety of every ship and cargo. Accurate measurement seemed an impossible dream and "discovering the longitude" had become a stock phrase in the press like "pigs might fly".'[3]

What was needed, above all else, was an instrument that would keep the time (at the place of departure) with perfect accuracy during long sea journeys despite the motion of the ship and despite the adverse conditions of alternating heat

and cold, wet and dry. ‘Such a Watch’, as Isaac Newton told the members of the British government’s official Board of Longitude in 1714, ‘hath not yet been made’.[4]

Indeed not. The timepieces of the seventeenth and early eighteenth centuries were crude devices which typically lost or gained as much as a quarter of an hour *per day*. By contrast, an effective marine chronometer could afford to lose or gain that much only over several years.[5]

It was not until the 1720s that the talented English clockmaker John Harrison began work on the first of a series of designs which resulted in the manufacture of such a chronometer. His objective was to win the prize of £20,000 offered by the Board of Longitude ‘for the inventor of any means of determining a ship’s longitude within 30 nautical miles at the end of a six weeks’ voyage’.[6] A chronometer capable of fulfilling this condition would have to keep time

to within three seconds per day. It took almost forty years, during which several prototypes were completed and tested, before Harrison was able to meet these standards. Finally, in 1761, his elegant Chronometer No. 4 left Britain on board HMS *Deptford* bound for Jamaica, accompanied by Harrison's son William. Nine days into the voyage, on the basis of longitude calculations made possible by the chronometer, William advised the captain that they would sight the Madeira Islands the following morning. The captain offered five to one that he was wrong but agreed to hold the course. William won the bet. Two months later, at Jamaica, the instrument was found to have lost just five seconds.[7]

Harrison had surpassed the conditions set by the Board of Longitude. Thanks to the British government's bureaucratic dithering, however, he was not awarded the £20,000 prize money until three years before his death in 1776.

Understandably, it was only when he had the funds in his hands that he divulged the secrets of his design. As a result of this delay, Captain James Cook did not have the benefit of a chronometer when he made his first voyage of discovery in 1768.[8] By the time of his third voyage, however (1778–9), he was able to map the Pacific with impressive accuracy, fixing not only the correct latitude but the correct longitude of every island and coastline.[9] Henceforward, 'thanks to Cook's care and Harrison's chronometer … no navigator could have an excuse for failing to find a Pacific island … or for being wrecked on a coastline appearing from nowhere.'[10]

Indeed, with their accurate longitudes, Cook's Pacific maps must be ranked among the very first examples of the precise cartography of our modern era. They remind us, moreover, that the making of really good maps requires at least three key ingredients: great journeys of discovery; first-class

mathematical and cartographic skills; sophisticated chronometers.

It was not until Harrison's chronometer became generally available in the 1770s that the third of these preconditions was fulfilled. This brilliant invention made it possible for cartographers to fix longitude precisely, something that the Sumerians, the Ancient Egyptians, the Greeks and the Romans, and indeed all other known civilizations before the eighteenth century were supposedly unable to do. It is therefore surprising and unsettling to come across vastly older maps which give latitudes and longitudes with modern precision.

Precision instruments

These inexplicably precise latitudes and longitudes are found

in the same general category of documents that contain the advanced geographical knowledge I have outlined.

The Piri Reis Map of 1513, for example, places South America and Africa in *the correct relative longitudes*,[11] theoretically an impossible feat for the science of the time. But Piri Reis was candid in admitting that his map was based on far earlier sources. Could it have been from one of these sources that he derived his accurate longitudes?

Also of great interest is the so-called 'Dulcert Portolano' of AD 1339 which focuses on Europe and North Africa. Here latitude is perfect across huge distances and the total longitude of the Mediterranean and Black Seas is correct to within half a degree.[12]

Professor Hapgood comments that the maker of the original source from which the Dulcert Portolano was copied had 'achieved highly scientific accuracy in finding the ratio

of latitude to longitude. He could only have done this if he had precise information on the relative longitudes of a great many places scattered all the way from Galway in Ireland to the eastern bend of the Don in Russia.'[13]

The Zeno Map[14] of AD 1380 is another enigma. Covering a vast area of the north as far as Greenland, it locates a great many widely scattered places at latitudes and longitudes which are 'amazingly correct'.[15] It is 'unbelievable', asserts Hapgood, 'that anyone in the fourteenth century could have found accurate latitudes for these places, to say nothing of accurate longitudes'.[16]

The Oronteus Finaeus World Map also commands attention: it successfully places the coasts of Antarctica in correct latitudes and relative longitudes and finds a remarkably accurate area for the continent as a whole. This reflects a level of geographical knowledge not available until

the twentieth century.[17]

The Portolano of Iehudi Ibn Ben Zara is another map notable for its accuracy where relative latitudes and longitudes are concerned.[18] Total longitude between Gibraltar and the Sea of Azov is accurate to half a degree, while across the map as a whole average errors of longitude are less than a degree.[19]

These examples represent only a small fraction of the large and challenging dossier of evidence presented by Hapgood. Layer upon layer, the cumulative effect of his painstaking and detailed analysis is to suggest that we are deluding ourselves when we suppose that accurate instruments for measuring longitude were not invented until the eighteenth century. On the contrary, the Piri Reis and other maps appear to indicate very strongly that such instruments were *re-discovered* then, that they had existed long ages before and

had been used by a civilized people, now lost to history, who had explored and charted the entire earth. Furthermore, it seems that these people were capable not only of designing and manufacturing precise and technically advanced mechanical instruments but were masters of a precocious mathematical science.

The lost mathematicians

To understand why, we should first remind ourselves of the obvious: the earth is a sphere. When it comes to mapping it, therefore, only a globe can represent it in correct proportion. Transferring cartographic data from a globe to flat sheets of paper inevitably involves distortions and can be accomplished only by means of an artificial and complex mechanical and mathematical device known as map

projection.

There are many different kinds of projection. Mercator's, still used in atlases today, is perhaps the most familiar. Others are dauntingly referred to as Azimuthal, Stereographic, Gnomonic, Azimuthal Equidistant, Cordiform, and so on, but it is unnecessary to go into this any further here. We need only note that *all successful projections require the use of sophisticated mathematical techniques of a kind supposedly unknown in the ancient world*[20] (particularly in the deepest antiquity before 4000 BC when there was allegedly no human civilization at all, let alone one capable of developing and using advanced mathematics and geometry).

Charles Hapgood submitted his collection of ancient maps to the Massachusetts Institute of Technology for evaluation by Professor Richard Strachan. The general conclusion was obvious, but he wanted to know *precisely* what level of

mathematics would have been required to draw up the original source documents. On 18 April 1965 Strachan replied that a very high level of mathematics indeed would have been necessary. Some of the maps, for example, seemed to express ‘a Mercator type projection’ long before the time of Mercator himself. The relative complexity of this projection (involving latitude expansion) meant that a trigonometric coordinate transformation method must have been used.

Other reasons for deducing that the ancient map-makers must have been skilled mathematicians were as follows:

1 The determination of place locations on a continent requires at least geometric triangulation methods. Over large distances (of the order of 1000 miles) corrections must be made for the curvature of the earth, which requires some understanding of spherical trigonometry.

2 The location of continents with respect to one another requires an

understanding of the earth's sphericity, and the use of spherical trigonometry.

3 Cultures with this knowledge, plus the precision instruments to make the required measurements to determine location, would most certainly use their mathematical technology in creating maps and charts.'[21]

Strachan's impression that the maps, through generations of copyists, revealed the handiwork of an ancient, mysterious and technologically advanced civilization, was shared by reconnaissance experts from the US Airforce to whom Hapgood submitted the evidence. Lorenzo Burroughs, chief of the 8th Reconnaissance Technical Squadron's Cartographic Section at Westover Air Base, made a particularly close study of the Oronteus Finaeus Map. He concluded that some of the sources upon which it was based must have been drawn up by means of a projection similar to the modern Cordiform Projection. This, said Burroughs:

suggests the use of advanced mathematics. Further, the shape given to the Antarctic Continent suggests the possibility, if not the probability, that the original source maps were compiled on a stereographic or gnomonic type of projection involving the use of spherical trigonometry.

We are convinced that the findings made by you and your associates are valid, and that they raise extremely important questions affecting geology and ancient history …'[22]

Hapgood was to make one more important discovery: a Chinese map copied from an earlier original on to a stone pillar in AD 1137.[23] This map incorporates precisely the same kind of high quality information about longitudes as the others. It has a similar grid and was drawn up with the benefit of spherical trigonometry. Indeed, on close examination, it shares so many features with the European and Middle Eastern maps that only one explanation seems

adequate: it and they must have stemmed from a *common source*.[24]

We seem to be confronted once again by a surviving fragment of the scientific knowledge of a lost civilization. More than that, it appears that this civilization must have been at least in some respects as advanced as our own and that its cartographers had 'mapped virtually the entire globe with a uniform general level of technology, with similar methods, equal knowledge of mathematics, and probably the same sorts of instruments'.[25]

The Chinese map also indicates something else: a *global legacy* must have been handed down – a legacy of inestimable value, in all probability incorporating much more than sophisticated geographical knowledge.

Could it have been some portion of this legacy that was distributed in prehistoric Peru by the so-called 'Viracochas',

mysterious bearded strangers said to have come from across the seas, in a ‘time of darkness’, to restore civilization after a great upheaval of the earth?

I decided to go to Peru to see what I could find.

Part II

Foam of the Sea

Peru and Bolivia

Chapter 4

Flight of the Condor

I’m in southern Peru, flying over the Nazca lines.

Below me, after the whale and the monkey, the hummingbird comes into view, flutters and unfolds her wings, stretches forward her delicate beak towards some imaginary flower. Then we turn hard right, pursued by our own tiny shadow as we cross the bleak scar of the Pan-

American highway, and follow a trajectory that brings us over the fabulous snake-necked ‘Alcatraz’: a heron 900 feet long conceived in the mind of a master geometer. We circle around, cross the highway for a second time, pass an astonishing arrangement of fish and triangles laid out beside a pelican, turn left and find ourselves floating over the sublime image of a giant condor with feathers extended in stylized flight.

Just as I try to catch my breath, another condor almost close enough to touch materializes out of nowhere, a real condor this time, haughty as a fallen angel riding a thermal back to heaven. My pilot gasps and tries to follow him. For a moment I catch a glimpse of a bright, dispassionate eye that seems to weigh us up and find us wanting. Then, like a vision from some ancient myth, the creature banks and glides contemptuously backwards into the sun leaving our single-

engined Cessna floundering in the lower air.

Below us now there's a pair of parallel lines almost two miles long, arrow straight all the way to vanishing point. And there, off to the right, a series of abstract shapes on a scale so vast – and yet so precisely executed – that it seems inconceivable they could have been the work of men.

The people around here say that they were not the work of men, but of demigods, the Viracochas,[1] who also left their fingerprints elsewhere in the Andean region many thousands of years ago.

The riddle of the lines

The Nazca plateau in southern Peru is a desolate place, sere and unwelcoming, barren and profitless. Human populations have never concentrated here, nor will they do so in the

future: the surface of the moon seems hardly less hospitable.

If you happen to be an artist with grand designs, however, these high and daunting plains look like a very promising canvas, with 200 square miles of uninterrupted tableland and the certainty that your masterwork won't be carried away on the desert breeze or covered by drifting sand.

It's true that high winds do blow here, but by a happy accident of physics they are robbed of their sting at ground level: the pebbles that litter the pampa absorb and retain the sun's heat, throwing up a protective force-field of warm air. In addition, the soil contains enough gypsum to glue small stones to the subsurface, an adhesive regularly renewed by the moistening effect of early morning dews. Once things are drawn here, therefore, they tend to stay drawn. There's hardly any rain; indeed, with less than half an hour of miserly drizzle every decade, Nazca is among the driest

places on earth.

If you are an artist, therefore, if you have something grand and important to express, and if you want it to be visible for ever, these strange and lonely flatlands could look like the answer to your prayers.

Experts have pronounced upon the antiquity of Nazca, basing their opinions on fragments of pottery found embedded in the lines and on radiocarbon results from various organic remains unearthed here. The dates conjectured range between 350 BC and AD 600.[2] Realistically, they tell us nothing about the age of the lines themselves, which are inherently as undatable as the stones cleared to make them. All we can say for sure is that the most recent are at least 1400 years old, but it is theoretically possible that they could be far more ancient than that – for the simple reason that the artefacts from which such dates are derived

could have been brought to Nazca by later peoples.

The majority of the designs are spread out across a clearly defined area of southern Peru bounded by the Rio Ingenio to the north and the Rio Nazca to the south, a roughly square canvas of dun-coloured desert with forty-six kilometres of the Pan-American highway running obliquely through it from top-centre to bottom right. Here, scattered apparently at random, are literally hundreds of different figures. Some depict animals and birds (a total of eighteen different birds). But far more take the form of geometrical devices in the form of trapezoids, rectangles, triangles and straight lines. Viewed from above, these latter resemble to the modern eye a jumble of runways, as though some megalomaniac civil engineer had been licensed to act out his most flamboyant fantasies of airfield design.

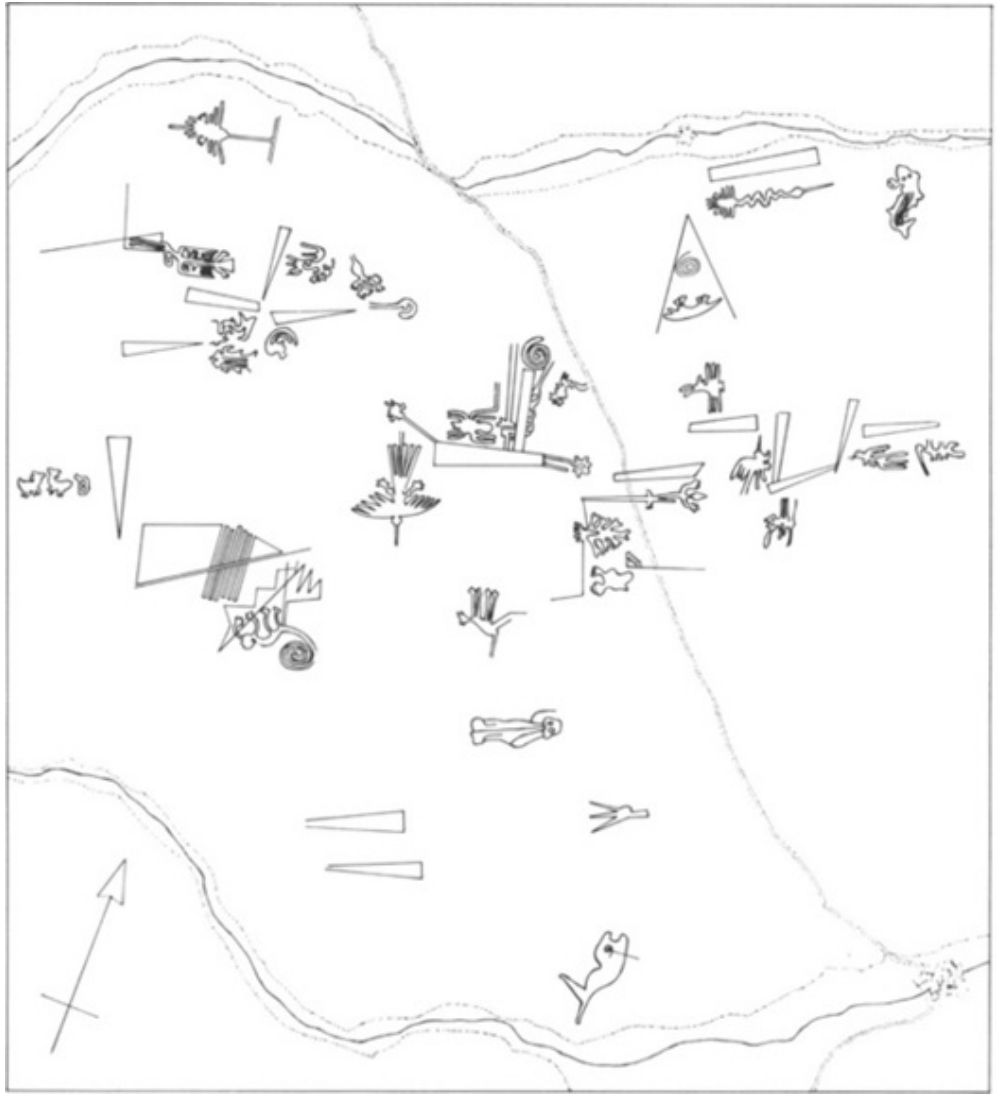

The principal figures of the Nazca plateau.

It therefore comes as no surprise, since humans are not supposed to have been able to fly until the beginning of the twentieth century, that the Nazca lines have been identified by a number of observers as landing strips for alien spaceships. This is a seductive notion, but Nazca is perhaps not the best place to seek evidence for it. For example, it is difficult to understand why extra-terrestrials advanced enough to have crossed hundreds of light years of interstellar space should have needed landing strips at all. Surely such beings would have mastered the technology of setting their flying saucers down vertically?

Besides, there is really no question of the Nazca lines ever having been used as runways – by flying saucers or anything else – although some of them look like that from above.

Viewed at ground-level they are little more than grazes on the surface made by scraping away thousands of tons of black volcanic pebbles to expose the desert's paler base of yellow sand and clay. None of the cleared areas is more than a few inches deep and all are much too soft to have permitted the landing of wheeled flying vehicles. The German mathematician Maria Reiche, who devoted half a century to the study of the lines, was only being logical when she dismissed the extra-terrestrial theory with a single pithy sentence a few years ago: 'I'm afraid the spacemen would have gotten stuck.'

If not runways for the chariots of alien 'gods', therefore, what else might the Nazca lines be? The truth is that no one knows their purpose, just as no one really knows their age; they are a genuine mystery of the past. And the closer you look at them the more baffling they become.

It's clear, for example, that the animals and birds antedate the geometry of the 'runways', because many of the trapezoids, rectangles and straight lines bisect (and thus partly obliterate) the more complex figures. The obvious deduction is that the final artwork of the desert as we view it today must have been produced in two phases. Moreover, though it seems contrary to the normal laws of technical progress, we must concede that the *earlier* of the two phases was the more advanced. The execution of the zoomorphic figures called for far higher levels of skill and technology than the etching of the straight lines. But how widely separated in time were the earlier and later artists?

Scholars do not address themselves to this question. Instead they lump both cultures together as 'the Nazcans' and depict them as primitive tribesmen who unaccountably developed sophisticated techniques of artistic self-expression,

and then vanished from the Peruvian scene, many hundreds of years before the appearance of their better-known successors, the Incas.

How sophisticated were these Nazcan 'primitives'? What kind of knowledge must they have possessed to inscribe their gigantic signatures on the plateau? It seems, for a start, that they were pretty good observational astronomers – at least according to Dr Phillis Pitluga, an astronomer with the Adler Planetarium in Chicago. After making an intensive computer-aided study of stellar alignments at Nazca, she has concluded that *the famous spider figure was devised as a terrestrial diagram of the giant constellation of Orion*, and that the arrow-straight lines linked to the figure appear to have been set out to track through the ages the changing declinations of the three stars of Orion's Belt.[3]

The real significance of Dr Pitluga's discovery will become

apparent in due course. Meanwhile, let us note that the Nazca spider also accurately depicts a member of a known spider genus – *Ricinulei*.[4] This, as it happens, is one of the rarest spider genera in the world, so rare indeed that it has only been found in remote and inaccessible parts of the Amazon rainforest.[5] How did the supposedly primitive Nazcan artists travel so far from their homeland, crossing the formidable barrier of the Andes, to obtain a specimen? More to the point, why should they have wanted to do such a thing and how were they able to duplicate minute details of *Ricinulei*'s anatomy normally visible only under a microscope,[6] notably the reproductive organ positioned on the end of its extended right leg?

Such mysteries multiply at Nazca and none of the designs, except perhaps the condor, really seems quite at home here. The whale and the monkey are, after all, as out of place in

this desert environment as the Amazonian spider. A curious figure of a man, his right arm raised as though in greeting, heavy boots on his feet and round eyes staring owlishly forward, cannot be said to belong to any known era or culture. And other drawings depicting the human form are equally peculiar: their heads enclosed in halos of radiance, they do indeed look like visitors from another planet. Their sheer size is equally noteworthy and bizarre. The hummingbird is 165 feet long, the spider 150 feet long, the condor stretches nearly 400 feet from beak to tail-feathers (as does the pelican), and a lizard, whose tail is now divided by the Pan-American highway, is 617 feet in length. Almost every design is executed on the same cyclopean scale and in the same difficult manner, by the careful contouring of a single continuous line.

Similar attention to detail is to be found in the geometrical

devices. Some of these take the form of straight lines *more than five miles long*, marching like Roman roads across the desert, dropping into dried-out river beds, surmounting rocky outcrops, and never once deviating from true.

This kind of precision is hard, but not impossible, to explain in conventional commonsense terms. More puzzling by far are the zoomorphic figures. How could they have been so perfectly made when, without aircraft, their creators could not have checked the progress of their work by viewing it in its proper perspective? None of the designs is small enough to be seen from ground level, where they appear merely as a series of shapeless ruts in the desert. They show their true form only when seen from an altitude of several hundred feet. There is no elevation nearby that provides such a vantage point.

Linemakers, map-makers

I’m flying over the lines, trying to make sense of it all.

My pilot is Rodolfo Arias, lately of the Peruvian Airforce. After a career in jet fighters he finds the little Cessna slow and uninspiring and treats it like a taxi with wings. Once already we’ve been back to the airstrip at Nazca to remove a window so that my partner Santha can point her cameras vertically down at the alluring glyphs. Now we’re experimenting with the view from different altitudes. At a couple of hundred feet above the plain Ricinulei, the Amazonian spider, looks like he’s going to rear up and snatch us in his jaws. At 500 feet we can see several of the figures at once: a dog, a tree, a weird pair of hands, the condor, and some of the triangles and trapezoids. When we ascend to 1500 feet, the zoomorphs, hitherto predominant, are revealed

merely as small scattered units surrounded by an astonishing scribble of vast geometric forms. These forms now look less like runways and more like pathways made by giants – pathways that criss-cross the plateau in what seems at first a bewildering variety of shapes, angles and sizes.

As the ground continues to recede, however, and as the widening perspective on the lines permits more of an eagle's-eye view, I begin to wonder whether there might not after all be some *method* to the cuneiform slashes and scratches spread out below me. I am reminded of an observation made by Maria Reiche, the mathematician who has lived at Nazca and studied the lines since 1946. In her view

> The geometric drawings give the impression of a cipher-script in which the same words are sometimes written in huge letters, at another time in minute characters. There are line arrangements which appear in a great variety of size categories together with very similar shapes. All the

drawings are composed of a certain number of basic elements …[7]

As the Cessna bumps and heaves across the heavens, I also remember it is no accident that the Nazca lines were only properly identified in the twentieth century, after the era of flight had begun. In the late sixteenth century a magistrate named Luis de Monzon was the first Spanish traveller to bring back eyewitness reports concerning these mysterious 'marks on the desert' and to collect the strange local traditions that linked them to the Viracochas.[8] However, until commercial airlines began to operate regularly between Lima and Arequipa in the 1930s no one seems to have grasped that the largest piece of graphic art in the world lay here in southern Peru. It was the development of aviation that made the difference, giving men and women the godlike ability to take to the skies and see beautiful and puzzling things that had hitherto been hidden from them.

Rodolfo is steering the Cessna in a gentle circle over the figure of the monkey – a big monkey tied in a riddle of geometric forms. It's not easy to describe the eerie, hypnotic feeling this design gives me: it's very complicated and absorbing to look at, and slightly sinister in an abstract, indefinable way. The monkey's body is defined by a continuous unbroken line. And, without ever being interrupted, this same line winds up stairs, over pyramids, into a series of zig-zags, through a spiral labyrinth (the tail), and then back around a number of starlike hairpin bends. It would be a real *tour de force* of draughtsmanship and artistic skill on a sheet of notepaper, but this is the Nazca desert (where they do things on a grand scale) and the monkey is at least 400 feet long and 300 feet wide …

Were the linemakers map-makers too?

And why were they called the Viracochas?

Chapter 5

The Inca Trail to the Past

No artefacts or monuments, no cities or temples, have endured in recognizable form for longer than the most resilient religious traditions. Whether expressed in the Pyramid Texts of Ancient Egypt, or the Hebrew Bible, or the Vedas, such traditions are among the most imperishable of all human creations: they are vehicles of knowledge voyaging

through time.

The last custodians of the ancient religious heritage of Peru were the Incas, whose beliefs and ‘idolatry’ were ‘extirpated’ and whose treasures were ransacked during the thirty terrible years that followed the Spanish conquest in AD 1532.[1] Providentially, however, a number of early Spanish travellers made sincere efforts to document Inca traditions before they were entirely forgotten.

Though little attention was paid at the time, some of these traditions speak strikingly of a great civilization that was believed to have existed in Peru many thousands of years earlier.[2] Powerful memories were preserved of this civilization, said to have been founded by the Viracochas, the same mysterious beings credited with the making of the Nazca lines.

‘Foam of the Sea’

When the Spanish *conquistadores* arrived, the Inca empire extended along the Pacific coast and Andean highlands of South America from the northern border of modern Ecuador, through the whole of Peru, and as far south as the Maule River in central Chile. Connecting the far-flung corners of this empire was a vast and sophisticated road system: two parallel north-south highways, for example, one running for 3600 kilometres along the coast and the other for a similar distance through the Andes. Both these great thoroughfares were paved and connected by frequent links. In addition, they exhibited an interesting range of design and engineering features such as suspension bridges and tunnels cut through solid rock. They were clearly the work of an evolved, disciplined and ambitious society. Ironically, they played a

significant part in its downfall: the Spanish forces, led by Francisco Pizarro, used them to great effect to speed up their ruthless advance into the Inca heartland.[3]

The capital of the Inca empire was the city of Cuzco, a name meaning 'the earth's navel' in the local Quechua language.[4] According to legend it was established by Manco Capac and Mama Occlo, two children of the Sun. Here, though the Incas worshipped the sun god, whom they knew as *Inti*, quite another deity was venerated as the Most Holy of all. This was Viracocha, whose namesakes were said to have made the Nazca lines and whose own name meant 'Foam of the Sea.'[5]

No doubt it is just a coincidence that the Greek goddess Aphrodite, who was born of the sea, received her name because of 'the foam [*aphros*] out of which she was formed'.[6] Besides, Viracocha was always depicted uncompromisingly as

a *male* by the peoples of the Andes. That much about him is known for certain. No historian, however, is able to say how ancient was the cult of this deity before the Spanish arrived to put a stop to it. This is because the cult seemed always to have been around; indeed, long before the Incas incorporated him into their cosmogony and built a magnificent temple for him at Cuzco, the evidence suggests that the high god Viracocha had been worshipped by *all* the civilizations that had ever existed in the long history of Peru.

Citadel of Viracocha

A few days after leaving Nazca, Santha and I arrived in Cuzco and made our way to the site of the Coricancha, the great temple dedicated to Viracocha in the pre-Colombian era. The Coricancha was of course long gone. Or, to be more exact, it

was not so much gone as *buried* beneath layers of later architecture. The Spanish had kept its superb Inca foundations, and the lower parts of its fabulously strong walls, and had erected their own grandiose colonial cathedral on top.

Walking towards the front entrance of this cathedral, I remembered that the Inca temple that had once stood here had been covered with more than 700 sheets of pure gold (each weighing around two kilograms) and that its spacious courtyard had been planted with 'fields' of replica corn also fashioned out of gold.[7] I could not help but be reminded of Solomon's temple in far-off Jerusalem, also reputed to have been adorned with sheets of gold and a marvellous orchard of golden trees.[8]

Earthquakes in 1650 and again in 1950 had largely demolished the Spanish cathedral of Santo Domingo which

stood on the site of the temple of Viracocha, and it had been necessary to rebuild it on both occasions. Its Inca foundations and lower walls survived these natural disasters intact, thanks to their characteristic design which made use of an elegant system of interlocking polygonal blocks. These blocks, and the general layout of the place, were almost all that was now left of the original structure, apart from an octagonal grey stone platform at the centre of the vast rectangular courtyard which had once been covered with 55 kilograms of solid gold.[9] On either side of the courtyard were ante-chambers, also from the Inca temple, with refined architectural features such as walls that tapered upwards and beautifully-carved niches hewn out of single pieces of granite.

We took a walk through the narrow, cobbled streets of Cuzco. Looking around, I realized it was not just the

cathedral that reflected Spanish imposition on top of an earlier culture: the whole town was slightly schizophrenic. Spacious, balconied, pastel-shaded colonial homes and palaces towered above me but almost all of them stood on Inca foundations or incorporated complete Inca structures of the same beautiful polygonal architecture used in the Coricancha. In one alleyway, known as Hatunrumiyoc, I paused to examine an intricate jigsaw puzzle of a wall made of countless drystone blocks all perfectly fitted together, all of different sizes and shapes, interlocking in a bewildering array of angles. The carving of the individual blocks, and their arrangement into so complicated a structure could only have been achieved by master craftsmen possessed of very high levels of skill, with untold centuries of architectural experimentation behind them. On one block I counted twelve angles and sides in a single plane, and I could not slip even

the edge of a piece of thin paper into the joints that connected it to the surrounding blocks.

The bearded stranger

It seemed that in the early sixteenth century, before the Spanish began to demolish Peruvian culture in earnest, an idol of Viracocha had stood in the Holy of Holies of the Coricancha. According to a contemporary text, the *Relacion anonyma de los costumbres antiquos de los naturales del Piru*, this idol took the form of a marble statue of the god – a statue described 'as to the hair, complexion, features, raiment and sandals, just as painters represent the apostle Saint Bartholomew'.[10] Other accounts of Viracocha likened his appearance to that of the Saint Thomas.[11] I examined a number of illustrated ecclesiastical manuscripts in which

these two saints appeared; both were routinely depicted as lean, bearded white men, past middle age, wearing sandals and dressed in long, flowing cloaks. As we shall see, the records confirmed this was exactly the appearance ascribed to Viracocha by those who worshipped him. Whoever he was, therefore, he could not have been an American Indian: they are relatively dark-skinned people with sparse facial hair.[12] Viracocha's bushy beard and pale complexion made him sound like a Caucasian.

Back in the sixteenth century the Incas had thought so too. Indeed their legends and religious beliefs made them so certain of his physical type that they initially mistook the white and bearded Spaniards who arrived on their shores for the returning Viracocha and his demi-gods,[13] an event long prophesied and which Viracocha was said in all the legends to have promised. This happy coincidence gave Pizarro's

conquistadores the decisive strategic and psychological edge that they needed to overcome the numerically superior Inca forces in the battles that followed.

Who had provided the model for the Viracochas?

Chapter 6

He Came in a Time of Chaos

Through all the ancient legends of the peoples of the Andes stalked a tall, bearded, pale-skinned figure wrapped in a cloak of secrecy. And though he was known by many different names in many different places he was always recognizably the *same* figure: Viracocha, Foam of the Sea, a master of science and magic who wielded terrible weapons

and who came in a time of chaos to set the world to rights.

The same basic story was shared in many variants by all the peoples of the Andean region. It began with a vivid description of a terrifying period when the earth had been inundated by a great flood and plunged into darkness by the disappearance of the sun. Society had fallen into disorder, and the people suffered much hardship. Then

> there suddenly appeared, coming from the south, a white man of large stature and authoritative demeanour. This man had such great power that he changed the hills into valleys and from the valleys made great hills, causing streams to flow from the living stone …[1]

The early Spanish chronicler who recorded this tradition explained that it had been told to him by the Indians he had travelled among on his journeys in the Andes:

> And they heard it from their fathers, who in their turn had it from the old songs which were handed down from very ancient times … They say that this man travelled along the highland route to the north, working marvels as he went and that they never saw him again. They say that in many places he gave men instructions how they should live, speaking to them with great love and kindness and admonishing them to be good and to do no damage or injury one to another, but to love one another and show charity to all. In most places they name him Ticci Viracocha …[2]

Other names applied to the same figure included Huaracocha, Con, Con Ticci or Kon Tiki, Thunupa, Taapac, Tupaca and Illa.[3] He was a scientist, an architect of surpassing skills, a sculptor and an engineer: 'He caused terraces and fields to be formed on the steep sides of ravines, and sustaining walls to rise up and support them. He also made irrigating channels to flow … and he went in various directions, arranging many things.'[4]

Viracocha was also a teacher and a healer and made himself helpful to people in need. It was said that 'wherever he passed, he healed all that were sick and restored sight to the blind.'[5]

This gentle, civilizing, 'superhuman', Samaritan had another side to his nature, however. If his life were threatened, as it seems to have been on several occasions, he had the weapon of heavenly fire at his disposal:

> Working great miracles by his words, he came to the district of the Canas and there, near a village called Cacha … the people rose up against him and threatened to stone him. They saw him sink to his knees and raise his hands to heaven as if beseeching aid in the peril which beset him. The Indians declare that thereupon they saw fire in the sky which seemed all around them. Full of fear, they approached him whom they had intended to kill and besought him to forgive them … Presently they saw that the fire was extinguished at his command, though stones were consumed by fire in

> such wise that large blocks could be lifted by hand as if they were cork. They narrate further that, leaving the place where this occurred, he came to the coast and there, holding his mantle, he went forth amidst the waves and was seen no more. And as he went they gave him the name Viracocha, which means 'Foam of the Sea'.'[6]

The legends were unanimous in their physical description of Viracocha. In his *Suma y Narracion de los Incas*, for example, Juan de Betanzos, a sixteenth-century Spanish chronicler, stated that according to the Indians, he had been 'a bearded man of tall stature clothed in a white robe which came down to his feet and which he wore belted at the waist'.[7]

Other descriptions, collected from many different and widely separated Andean peoples, all seemed to identify the same enigmatic individual. According to one he was:

> A bearded man of medium height dressed in a rather long cloak … He was

> past his prime, with grey hair, and lean. He walked with a staff and addressed the natives with love, calling them his sons and daughters. As he traversed all the land he worked miracles. He healed the sick by touch. He spoke every tongue even better than the natives. They called him Thunupa or Tarpaca, Viracocha-rapacha or Pachaccan …[8]

In one legend Thunupa-Viracocha was said to have been a 'white man of large stature, whose air and person aroused great respect and veneration'.[9] In another he was described as a white man of august appearance, blue-eyed, bearded, without headgear and wearing a *cusma*, a jerkin or sleeveless shirt reaching to the knees'. In yet another, which seemed to refer to a later phase of his life, he was revered as 'a wise counsellor in matters of state' and depicted as 'an old man with a beard and long hair wearing a long tunic'.[10]

Civilizing mission

Above all else, Viracocha was remembered in the legends as a teacher. Before his coming, it was said, ‘men lived in a condition of disorder, many went naked like savages; they had no houses or other dwellings than caves, and from these they went forth to gather whatever they could find to eat in the countryside.’[11]

Viracocha was credited with changing all this and with initiating the long-lost golden age which later generations looked back on with nostalgia. All the legends agreed, furthermore, that he had carried out his civilizing mission with great kindness and as far as possible had abjured the use of force: careful instruction and personal example had been the main methods used to equip the people with the techniques and knowledge necessary for a cultured and

productive life. In particular, he was remembered for bringing to Peru such varied skills as medicine, metallurgy, farming, animal husbandry, the art of writing (said by the Incas to have been introduced by Viracocha but later forgotten), and a sophisticated understanding of the principles of engineering and architecture.

I had already been impressed by the quality of Inca stonework in Cuzco. As my research in the old town continued, however, I was surprised to discover that by no means all the so-called Inca masonry could be attributed with any degree of archaeological certainty to the Incas. It was true that they had been masters in the manipulation of stone, and many monuments in the Cuzco area were indisputably their work. It seemed, however, that some of the more remarkable structures routinely attributed to them could have been erected by earlier civilizations; the evidence

suggested that the Incas had often functioned as the restorers of these structures rather than their original builders.

The same appeared to be true of the highly developed system of roads connecting the far-flung parts of the Inca empire. The reader will recall that these roads took the form of parallel highways running north to south, one along the coast and the other through the Andes. All in all more than 15,000 miles of surfaced tracks had been in regular and efficient use before the time of the Spanish conquest, and I had assumed that the Incas had been responsible for all of them. I now learned that it was much more likely that they had inherited the system. Their role had been to restore, maintain and unify a pre-existing network. Indeed, though it was not often admitted, no expert could safely estimate how old these incredible highways were or who had built them.[12]

The mystery was deepened by local traditions which stated

not only that the road system and the sophisticated architecture had been 'ancient in the time of the Incas', but that both 'were the work of white, auburn-haired men' who had lived thousands of years earlier.[13]

One legend described Viracocha as being accompanied by 'messengers' of two kinds, 'faithful soldiers' (*huaminca*) and 'shining ones' (*hayhuaypanti*). Their role was to carry their lord's message 'to every part of the world'.[14]

Elsewhere there were phrases such as: 'Con Ticci returned … with a number of attendants'; 'Con Ticci then summoned his followers, who were called viracocha'; 'Con Ticci commanded all but two of the viracocha to go east …'[15]; 'There came forth from a lake a Lord named Con Ticci Viracocha bringing with him a certain number of people …'[16]; 'Thus those viracochas went off to the various districts which Viracocha had indicated for them …' .[17]

The work of demons?

The ancient citadel of Sacsayhuaman lies just north of Cuzco. We reached it late one afternoon under a sky almost occluded by heavy clouds of tarnished silver. A cold grey breeze was blowing across the high-altitude tundra as I clambered up stairways, through lintelled stone gates built for giants, and walked along the mammoth rows of zig-zag walls.

I craned my neck and looked up at a big granite boulder that my route now passed under. Twelve feet high, seven feet across, and weighing considerably more than 100 tons, it was a work of man, not nature. It had been cut and shaped into a symphonic harmony of angles, manipulated with apparent ease (as though it were made of wax or putty) and stood on its end in a wall of other huge and problematic polygonal blocks, some of them positioned above it, some below it,

some to each side, and all in perfectly balanced and well-ordered juxtaposition.

Since one of these astonishing pieces of carefully hewn stone had a height of twenty-eight feet and was calculated to weigh 361 tons[18] (roughly the equivalent of *fiive hundred* family-sized automobiles), it seemed to me that a number of fundamental questions were crying out for answers.

How had the Incas, or their predecessors, been able to work stone on such a gargantuan scale? How had they cut and shaped these cyclopean boulders so precisely? How had they transported them tens of miles from distant quarries? By what means had they made walls of them, shuffling the individual blocks around and raising them high above the ground with such apparent ease? These people weren't even supposed to have had the wheel, let alone machinery capable of lifting and manipulating dozens of irregularly shaped 100-

ton blocks, and sorting them into three-dimensional jigsaw puzzles.

I knew that the chroniclers of the early colonial period had been as perplexed as I was by what they had seen. The respected Garcilaso de la Vega, for example, who came here in the sixteenth century, had spoken with awe about the fortress of Sacsayhuaman:

> Its proportions are inconceivable when one has not actually seen it; and when one has looked at it closely and examined it attentively, they appear to be so extraordinary that it seems as though some magic had presided over its construction; that it must be the work of demons instead of human beings. It is made of such great stones, and in such great number, that one wonders simultaneously how the Indians were able to quarry them, how they transported them … and how they hewed them and set them one on top of the other with such precision. For they disposed of neither iron nor steel with which to penetrate the rock and cut and polish the stones; they

> had neither wagon nor oxen to transport them, and, in fact, there exist neither wagons nor oxen throughout the world that would have sufficed for this task, so enormous are these stones and so rude the mountain paths over which they were conveyed …[19]

Garcilaso also reported something else interesting. In his *Royal Commentaries of the Incas* he gave an account of how, in historical times, an Inca king had tried to emulate the achievements of his predecessors who had built Sacsayhuaman. The attempt had involved bringing just one immense boulder from several miles away to add to the existing fortifications: 'This boulder was hauled across the mountain by more than 20,000 Indians, going up and down very steep hills … At a certain spot, it fell from their hands over a precipice crushing more than 3000 men.'[20] In all the histories I surveyed, this was the only report which described the Incas actually building, or trying to build, with huge

blocks like those employed at Sacsayhuaman. The report suggested that they possessed no experience of the techniques involved and that their attempt had ended in disaster.

This, of course, proved nothing in itself. But Garcilaso's story did intensify my doubts about the great fortifications which towered above me. As I looked at them I felt that they could, indeed, have been erected before the age of the Incas and by some infinitely older and more technically advanced race.

Not for the first time I was reminded of how difficult archaeologists found it to provide accurate dates for engineering works like roads and drystone walls which contained no organic compounds. Radiocarbon was redundant in such circumstances; thermoluminescence, too, was useless. And while promising new tests such as Chlorine-

36 rock-exposure dating were now being developed their implementation was still some way off. Pending further advances in the latter field, therefore, ‘expert’ chronology was still largely the result of guesswork and subjective assumptions. Since it was known that the Incas had made intensive *use* of Sacsayhuaman I could easily understand why it had been assumed that they had *built* it. But there was no obvious or necessary connection between these two propositions. The Incas could just as well have found the structures already in place and moved into them.

If so, who had the original builders been?

The Viracochas, said the ancient myths, the bearded, white-skinned strangers, the ‘shining ones’, the ‘faithful soldiers.’

As we travelled I continued to study the accounts of the Spanish adventurers and ethnographers of the sixteenth and

seventeenth centuries who had faithfully recorded the ancient, pre-contact traditions of the Peruvian Indians. What was particularly noticeable about these traditions was the repeated emphasis that the coming of the Viracochas had been associated with a terrible deluge which had overwhelmed the earth and destroyed the greater part of humanity.

Chapter 7

Were There Giants Then?

Just after six in the morning the little train jerked into motion and began its slow climb up the steep sides of the valley of Cuzco. The narrow-gauge tracks were laid out in a series of Z shapes. We chugged along the lower horizontal of the first Z, then shunted and went backwards up the oblique, shunted again and went forward along the upper horizontal –

and so on, with numerous stops and starts, following a route that eventually took us high above the ancient city. The Inca walls and colonial palaces, the narrow streets, the cathedral of Santo Domingo squatting atop the ruins of Viracocha's temple, all looked spectral and surreal in the pearl-grey light of a dawn sky. A fairy pattern of electric lamps still decorated the streets, a thin mist seeped across the ground, and the smoke of domestic fires rose from the chimneys over the tiled roofs of countless small houses.

Eventually the train turned its back on Cuzco and we proceeded for a while in a straight north-westerly direction towards our destination: Machu Picchu, the lost city of the Incas, some three hours and 130 kilometres away. I had intended to read, but lulled by the rocking motion of the carriage, I dropped off to sleep instead. Fifty minutes later I awoke to find that we were passing through a painting. The

foreground, brightly sunlit, consisted of flat green meadows sprinkled with little patches of thawing frost, distributed on either side of a stream across a long, wide valley.

In the middle of my view, dotted with bushes, was a large field on which a handful of black and white dairy cows grazed. Nearby was a scattered settlement of houses outside which stood small, dark-skinned Quechua Indians dressed in ponchos, balaclavas and colourful woollen hats. More distant were slopes canopied in fir trees and exotic eucalyptus. My eye followed the rising contours of a pair of high green mountains, which then parted to reveal folded and even more lofty uplands. Beyond these soared a far horizon surmounted by a jagged range of radiant and snowy peaks.

Casting down the giants

It was with understandable reluctance that I turned at last to my reading. I wanted to look more closely at some of the curious links I thought I had identified connecting the sudden appearance of Viracocha to the deluge legends of the Incas and other Andean peoples.

Before me was a passage from Fr Jose de Acosta's *Natural and Moral History of the Indies*, in which the learned priest set out 'what the Indians themselves report of their beginning':

> They make great mention of a deluge, which happened in their country … The Indians say that all men were drowned in the deluge, and they report that out of Lake Titicaca came one Viracocha, who stayed in Tiahuanaco, where at this day there are to be seen the ruins of ancient and very strange buildings, and from thence came to Cuzco, and so began mankind to multiply …[1]

Making a mental note to find out more about Lake Titicaca,

and the mysterious Tiahuanaco, I read the following passage summarizing a legend from the Cuzco area:

> For some crime unstated the people who lived in the most ancient times were destroyed by the creator … in a deluge. After the deluge the creator appeared in human form from Lake Titicaca. He then created the sun and moon and stars. After that he renewed the human population of the earth …[2]

In another myth

> The great Creator God, Viracocha, decided to make a world for men to live in. First he made the earth and sky. Then he began to make people to live in it, carving great stone figures of giants which he brought to life. At first all went well but after a time the giants began to fight among themselves and refused to work. Viracocha decided that he must destroy them. Some he turned back into stone … the rest he overwhelmed with a great flood.[3]

Very similar notions were, of course, found in other, quite unconnected, sources, such as the Jewish Old Testament. In Chapter six of the *Book of Genesis*, for example, which describes the Hebrew God's displeasure with his creation and his decision to destroy it, I had long been intrigued by one of the few descriptive statements made about the forgotton era before the Flood. According to the enigmatic language of that statement, 'There were giants in the earth in those days …' .[4] Could the 'giants' buried in the biblical sands of the Middle East be connected in some unseen way to the 'giants' woven into the fabric of pre-Colombian native American legends? Adding considerably to the mystery was the fact that the Jewish and Peruvian sources both went on, with many further details in common, to depict an angry deity unleashing a catastrophic flood upon a wicked and disobedient world.

On the next page of the sheaf of documents I had assembled was this Inca account of the deluge handed down by a certain Father Molina in his *Relacion de las fabulas y ritos de los Yngas*:

> In the life of Manco Capac, who was the first Inca, and from whom they began to boast themselves children of the Sun and from whom they derived their idolatrous worship of the Sun, they had an ample account of the deluge. They say that in it perished all races of men and created things insomuch that the waters rose above the highest mountain peaks in the world. No living thing survived except a man and a woman who remained in a box and, when the waters subsided, the wind carried them … to Tiahuanaco [where] the creator began to raise up the people and the nations that are in that region …[5]

Garcilaso de la Vega, the son of a Spanish nobleman and an Inca royal woman, was already familiar to me from his *Royal*

Commentaries of the Incas. He was regarded as one of the most reliable chroniclers of the traditions of his mother's people and had done his work in the sixteenth century, soon after the conquest, when those traditions had not yet been contaminated by foreign influences. He, too, confirmed what had obviously been a universal and deeply impressed belief: 'After the waters of the deluge had subsided, a certain man appeared in the country of Tiahuanaco …'[6]

That man had been Viracocha. Wrapped in his cloak, he was strong and 'august of countenance' and walked with unassailable confidence through the most dangerous badlands. He worked miracles of healing and could call down fire from heaven. To the Indians it must have seemed that he had materialized from nowhere.

Ancient traditions

We were now more than two hours into our journey to Machu Picchu and the panorama had changed. Huge black mountains, upon which not a trace of snow remained to reflect the sunlight, towered darkly above us and we seemed to be running through a rocky defile at the end of a narrow valley filled with sombre shadows. The air was cold and so were my feet. I shivered and resumed reading.

One thing was obvious amid the confused web of legends I had reviewed, legends which supplemented one another but also at times conflicted. All the scholars agreed that the Incas had borrowed, absorbed and passed on the traditions of many of the different civilized peoples over whom they had extended their control during the centuries of expansion of their vast empire. In this sense, whatever the outcome of the historical debate over the antiquity of the Incas themselves, nobody could seriously dispute their role as transmitters of

the ancient belief systems of all the great archaic cultures – coastal and highland, known and unknown – that had preceded them in this land.

And who could say just *what* civilizations might have existed in Peru in the unexplored regions of the past? Every year archaeologists come up with new finds which extend the horizons further and further back in time. So why shouldn't they one day discover evidence of the penetration into the Andes, in remote antiquity, of a race of civilizers who had come from overseas and gone away again after completing their work? That was what the legends seemed to me to be suggesting, legends that most of all, and most clearly, had immortalized the memory of the man/god Viracocha striding the high windswept byways of the Andes working miracles wherever he went:

> Viracocha himself, with his two assistants, journeyed north … He travelled

> up the cordillera, one assistant went along the coast, and the other up the edge of the eastern forests … The Creator proceeded to Urcos, near Cuzco, where he commanded the future population to emerge from a mountain. He visited Cuzco, and then continued north to Ecuador. There, in the coastal province of Manta, he took leave of his people and, walking on the waves, disappeared across the ocean.[7]

There was always this poignant moment of goodbye at the end of every folk memory featuring the remarkable stranger whose name meant 'Foam of the Sea':

> Viracocha went on his way, calling forth the races of men … When he came to the district of Puerto Viejo he was joined by his followers whom he had sent on before, and when they had joined him he put to sea in their company and they say that he and his people went by water as easily as they had traversed the land.[8]

Always this poignant goodbye … and often a hint of science or magic.

Time capsule

Outside the window of the train things were happening. To my left, swollen with dark water, I could see the Urubamba, a tributary of the Amazon and a river sacred to the Incas. The air temperature had warmed-up noticeably: we had descended into a relatively low-lying valley with its own tropical micro-climate. The mountain slopes rising on either side of the tracks were densely covered in green forests and I was reminded that this was truly a region of vast and virtually insuperable obstacles. Whoever had ventured all this way into the middle of nowhere to build Machu Picchu must have had a very strong motive for doing so.

Whatever the reason had been, the choice of such a remote location had at least one beneficial side-effect: Machu Picchu was never found by the *conquistadores* and friars during their days of destructive zeal. Indeed, it was not until 1911, when the fabulous heritage of older races was beginning to be treated with greater respect, that a young American explorer, Hiram Bingham, revealed Machu Picchu to the world. It was realized at once that this incredible site opened a unique window on pre-Colombian civilization; in consequence the ruins were protected from looters and souvenir hunters and an important chunk of the enigmatic past was preserved to amaze future generations.

Having passed through a one-horse town named Agua Caliente (Hot Water), where a few broken-down restaurants and cheap bars leered at travellers from beside the tracks, we reached Machu Picchu Puentas Ruinas station at ten minutes

past nine in the morning. From here a half-hour bus ride on a winding dirt road up the side of a steep and forbidding mountain brought us to Machu Picchu itself, to the ruins, and to a bad hotel which charged us a nonsensical amount of money for a not very clean room. We were the only guests. Though it had been years since the local guerrilla movement had last bombed the Machu Picchu train, not many foreigners were keen to come here any more.

Machu Picchu dreaming

It was two in the afternoon. I stood on a high point at the southern end of the site. The ruins stretched out northwards in lichen-enshrouded terraces before me. Thick clouds were wrapped in a ring around the mountain tops but the sunlight still occasionally burst through here and there.

Way down on the valley floor I could see the sacred river curled in a hairpin loop right around the central formation on which Machu Picchu was based, like a moat surrounding a giant castle. The river showed deep green from this vantage point, reflecting the greenness of the steep jungle slopes. And there were patches of white water and wonderful sparkling gleams of light.

I gazed across the ruins towards the dominant peak. Its name is Huana Picchu and it used to feature in all the classic travel agency posters of this site. To my astonishment I now observed that for a hundred metres or so below its summit it had been neatly terraced and sculpted: somebody had been up there and had carefully raked the near-vertical cliffs into a graceful hanging garden which had perhaps in ancient times been planted with bright flowers.

It seemed to me that the entire site, together with its

setting, was a monumental work of sculpture composed in part of mountains, in part of rock, in part of trees, in part of stones – and also in part of water. It was a heartachingly beautiful place, certainly one of the most beautiful places I have ever seen.

Despite its luminous brilliance, however, I felt that I was gazing down on to a city of ghosts. It was like the wreck of the *Marie Celeste*, deserted and restless. The houses were arranged in long terraces. Each house was tiny, with just one room fronting directly on to the narrow street, and the architecture was solid and functional but by no means ornate. By way of contrast certain ceremonial areas were engineered to an infinitely higher standard and incorporated giant blocks similar to those I had seen at Sacsayhuaman. One smoothly polished polygonal monolith was around twelve feet long by five feet wide by five feet thick and could

not have weighed less than 200 tons. How had the ancient builders managed to get it up here?

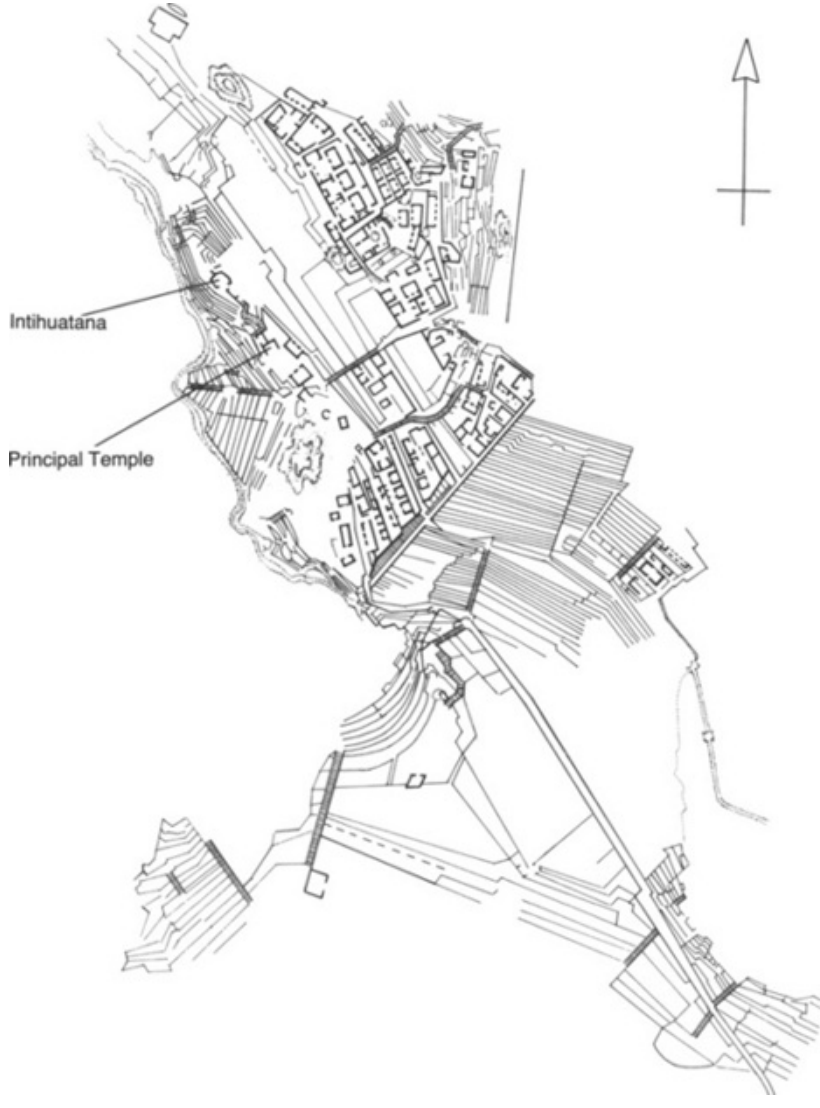
Intihuatana
Principal Temple

There were dozens of others like it too, and they were all arranged in the familiar jigsaw puzzle walls of interlocking angles. On one block I was able to count a total of thirty-three angles, every one intermeshed faultlessly with a matching angle on an adjoining block. There were massive polygons and perfect ashlars with razor-sharp edges. There were also natural, unhewn boulders integrated into the overall design at a number of points. And there were strange and unusual devices such as the Intihuatana, the ‘hitching post of the sun’. This remarkable artefact consisted of an elemental chunk of bedrock, grey and crystalline, carved into a complex geometrical form of curves and angles, incised niches and external buttresses, surmounted at the centre by a stubby vertical prong.

Jigsaw puzzle

How old is Machu Picchu? The academic consensus is that the city could not have been built much earlier than the fifteenth century AD.[9] Dissenting opinions, however, have from time to time been expressed by a number of more daring but respectable scholars. In the 1930s, for example, Rolf Muller, professor of Astronomy at the University of Potsdam, found convincing evidence to suggest that the most important features of Machu Picchu possessed significant astronomical alignments. From these, through the use of detailed mathematical computations concerning star positions in the sky in previous millennia (which gradually alter down the epochs as the result of a phenomenon known as precession of the equinoxes), Muller concluded that the original layout of the site could only have been accomplished

during ‘the era of 4000 BC to 2000 BC’.[10]

In terms of orthodox history, this was a heresy of audacious proportions. If Muller was right, Machu Picchu was not a mere 500 but could be as much as 6000 years old. This would make it significantly older than the Great Pyramid of Egypt (assuming, of course, that one accepted the Great Pyramid’s own orthodox dating of around 2500 BC).

There were other dissenting voices concerning the antiquity of Machu Picchu, and most, like Muller, were convinced that parts of the site were thousands of years older than the date favoured by orthodox historians.[11]

Like the big polygonal blocks that made up the walls, this was a notion that looked as though it might fit with other pieces of a jigsaw puzzle – in this case the jigsaw puzzle of a past that didn’t quite make sense any more. Viracocha was part of that same puzzle. All the legends said his capital had

been at Tiahuanaco. The ruins of this great and ancient city lay across the border in Bolivia, in an area known as the Collao, twelve miles south of Lake Titicaca.

We could get there, I calculated, in a couple of days, via Lima and La Paz.

Chapter 8

The Lake at the Roof of the World

La Paz, the capital city of Bolivia, nestles in the uneven bottom of a spectacular hole in the ground more than two miles above sea level. This plunging ravine, thousands of feet deep, was carved in some primeval age by a tremendous downrush of water that carried with it an abrasive tide of

loose rocks and rubble.

Provided by nature with such an apocalyptic setting, La Paz possesses a unique though slightly sleazy charm. With its narrow streets, dark-walled tenements, imposing cathedrals, garish cinemas and hamburger bars open till late, it generates an atmosphere of quirky intrigue which is oddly intoxicating. It's hard going for the pedestrian, however, unless equipped with lungs like bellows, because the whole of the central district is built up and down the sides of precipitous hills.

La Paz airport is almost 5000 feet higher than the city itself on the edge of the Altiplano – the cold, rolling uplands that are the dominant topographical feature of this region. Santha and I landed there well after midnight on a delayed flight from Lima. In the draughty arrivals hall we were offered coca tea in little plastic cups as a prophylactic against altitude sickness. After considerable delay and exertion, we extracted

our luggage from customs, hailed an ancient American-made taxi, and clanked and rattled down towards the dim yellow lights of the city far below.

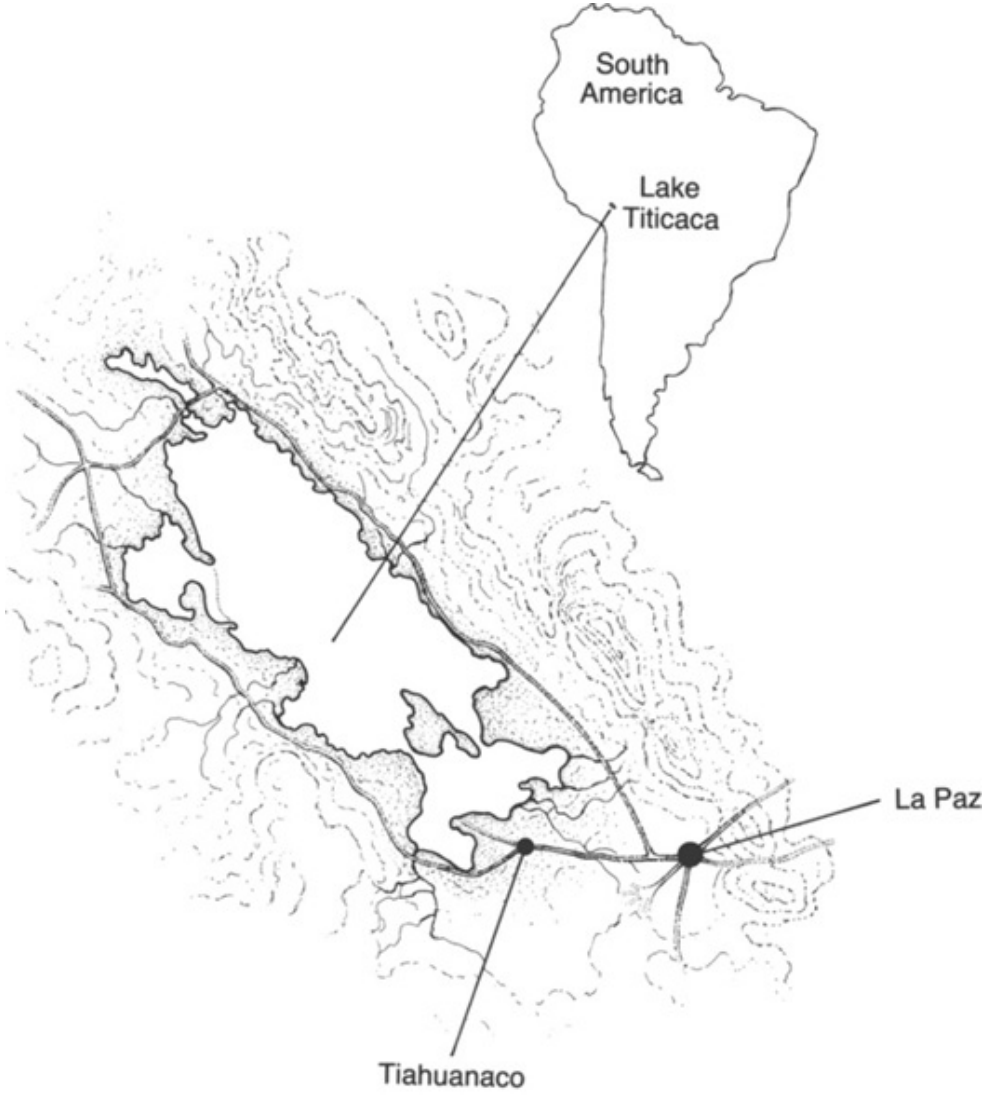
South America
Lake Titicaca
La Paz
Tiahuanaco

Rumours of a cataclysm

Around four o'clock the next afternoon we set off for Lake Titicaca in a rented jeep, fought our way through the capital's incomprehensible permanent rush-hour traffic-jams, then drove up out of the skyscrapers and slums into the wide, clear horizons of the Altiplano.

At first, still close to the city, our route took us through a zone of bleak suburbs and sprawling shantytowns where the sidewalks were lined with auto-repair shops and scrap yards. The more distance we put between ourselves and La Paz, however, the more attenuated the settlements became, until almost all signs of human habitation ceased. The empty,

treeless, undulating savannahs, distantly bordered by the snow-covered peaks of the Cordillera Real, created an unforgettable spectacle of natural beauty and power. But there was also a feeling of otherworldliness about this place, which seemed to float above the clouds like an enchanted kingdom.

Although our ultimate destination was Tiahuanaco, we were aiming that night for the town of Copacabana on a promontory near the southern end of Lake Titicaca. To reach it we had to cross a neck of water by improvised car ferry at the fishing town of Tiquine. Then, with dusk descending, we followed the main highway, now little more than a narrow and uneven track, up a series of steep hairpin bends and on to the shoulder of a mountain spur. From this point a contrasting panorama unfolded: the dark, dark waters of the lake below appeared to lie at the edge of a limitless ocean

drowned in sombre shadows, and yet the jagged peaks of the snow-capped mountains in the distance were still drenched in dazzling sunlight.

From the very beginning Lake Titicaca seemed to me a special place. I knew that it lay some 12,500 feet above sea level, that the frontier between Peru and Bolivia passed through it, that it covered an area of 3200 square miles and was 138 miles long by about 70 miles wide. I also knew it was deep, reaching almost 1000 feet in places, and had a puzzling geological history.

Here are the mysteries, and some of the solutions that have been proposed:

1 Though now more than two miles above sea level, the area around Lake Titicaca is littered with millions upon millions of fossilized sea shells. This suggests that at some stage the whole of the Altiplano was forced upwards from the sea-bed, perhaps as part of the general terrestrial rising that

formed South America as a whole. In the process great quantities of ocean water, together with countless myriads of living marine creatures, were scooped up and suspended among the Andean ranges.[1] This is thought to have happened not more recently than about 100 million years ago.[2]

2 Paradoxically, despite the mighty antiquity of this event, Lake Titicaca has retained, until the present day, 'a marine icthyofauna'[3], in other words, though now located hundreds of miles from any ocean, its fish and crustacea feature many oceanic (rather than fresh-water) types. Surprising creatures brought to the surface in fiishermen's nets have included examples of *Hippocampus* (the seahorse).[4] In addition, as one authority has pointed out, 'The various species of *Allorquestes* (*hyalella inermis*, etc.) and other examples of marine fauna leave no doubt that this lake in other periods was much saltier than today, or, more accurately, that the water which formed it was from the sea and that it was damned up and locked in the Andes when the continent rose.'[5]

3 So much, then, for the events which may have created Lake Titicaca in the

first place. Since its formation this great 'interior sea', and the Altiplano itself, has undergone several other drastic and dramatic changes. Of these by far the most notable is that the lake's extent appears to have fluctuated enormously, indicated by the existence of an ancient strandline visible on much of the surrounding terrain. Puzzlingly, this strandline is not level but *slopes* markedly from north to south over a considerable horizontal distance. At the northernmost point surveyed it is as much as 295 feet higher than Titicaca; some 400 miles farther south, it is 274 feet lower than the present level of the lake.[6] From this, and much other evidence, geologists have deduced that the Altiplano is still gradually rising, but in an unbalanced manner with greater altitudes being attained in the northern part and lesser in the southern. The process involved here is thought to have less to do with changes in the level of Titicaca's waters themselves (although such changes have certainly occurred) than with changes in the level of the whole terrain in which the lake is situated.[7]

4 Much harder to explain in such terms, however, given the very long time

periods major geological transformations are supposed to require, is irrefutable evidence that *the city of Tiahuanaco was once a port, complete with extensive docks, positioned right on the the shore of Lake Titicaca*.[8] The problem is that Tiahuanaco's ruins are now marooned about twelve miles south of the lake and *more than 100 feet higher* than the present shoreline.[9] In the period since the city was built, it therefore follows that one of two things must have happened: either the level of lake has fallen greatly or the land on which Tiahuanaco stands has risen comparably.

5 Either way it is obvious that there have been massive and traumatic physical changes. Some of these, such as the rise of the Altiplano from the floor of the ocean, certainly took place in remote geological ages, before the advent of human civilization. Others are not nearly so ancient and must have occurred after the construction of Tiahuanaco.[10] The question, therefore, is this: *when* was Tiahuanaco built?

The orthodox historical view is that the ruins cannot possibly be dated much earlier than AD 500.[11] An alternative chronology also exists,

> however, which, although not accepted by the majority of scholars, seems more in tune with the scale of the geological upheavals that have occurred in this region. Based on the mathematical/astronomical calculations of Professor Arthur Posnansky of the University of La Paz, and of Professor Rolf Muller (who also challenged the official dating of Machu Picchu), it pushes the main phase of construction at Tiahuanaco back to *15,000 BC*. This chronology also indicates that the city later suffered immense destruction in a phenomenal natural catastrophe around the eleventh millennium BC, and thereafter rapidly became separated from the lakeshore.[12]

We shall be reviewing Posnansky's and Muller's findings in Chapter Eleven, findings which suggest that the great Andean city of Tiahuanaco flourished during the last Ice Age in the deep, dark, moonless midnight of prehistory.

Chapter 9

Once and Future King

During my travels in the Andes I had several times re-read a curious variant of the mainstream tradition of Viracocha. In this variant, which was from the area around Lake Titicaca known as the Collao, the deity civilizing-hero had been named Thunupa:

> Thunupa appeared on the Altiplano in ancient times, coming from the

> north with five disciples. A white man of august presence, blue-eyed, and bearded, he was sober, puritanical and preached against drunkenness, polygamy and war.[1]

After travelling great distances through the Andes, where he created a peaceful kingdom and taught men all the arts of civilization,[2] Thunupa was struck down and grievously wounded by a group of jealous conspirators:

> They put his blessed body in a boat of totora rush and set it adrift on Lake Titicaca. There … he sailed away with such speed that those who had tried so cruelly to kill him were left behind in terror and astonishment – for this lake has no current … The boat came to the shore at Cochamarca, where today is the river Desguardero. Indian tradition asserts that the boat struck the land with such force it created the river Desguardero, which before then did not exist. And on the water so released the holy body was carried many leagues away to the sea coast at Arica …[3]

Boats, water and salvation

There are curious parallels here to the story of Osiris, the ancient Egyptian high god of death and resurrection. The fullest account of the original myth defining this mysterious figure is given by Plutarch[4] and says that, after bringing the gifts of civilization to his people, teaching them all manner of useful skills, abolishing cannibalism and human sacrifice, and providing them with their first legal code, Osiris left Egypt and travelled about the world to spread the benefits of civilization to other nations as well. He never forced the barbarians he encountered to accept his laws, preferring instead to argue with them and to appeal to their reason. It is also recorded that he passed on his teachings to them by means of hymns and songs accompanied by musical instruments.

While he was gone, however, he was plotted against by seventy-two members of his court, led by his brother-in-law Set. On his return the conspirators invited him to a banquet where a splendid coffer of wood and gold was offered as a prize to any guest who could fit into it exactly. Osiris did not know that the coffer had been constructed precisely to his body measurements. As a result, when the assembled guests tried one by one to get into it they failed. Osiris lay down comfortably inside. Before he had time to get out the conspirators rushed forward, nailed the lid tightly closed and sealed even the cracks with molten lead so that there would be no air. The coffer was then thrown into the Nile. It had been intended that it should sink, but it floated rapidly away, drifting for a considerable distance until it reached the sea coast.

At this point the goddess Isis, wife of Osiris, intervened.

Using all the great magic for which she was renowned, she found the coffer and concealed it in a secret place. However, her evil brother Set, out hunting in the marshes, discovered the coffer, opened it and, in a mad fury, cut the royal corpse into fourteen pieces which he scattered throughout the land.

Once more Isis set off to save her husband. She made a small boat of papyrus reeds, coated with pitch, and embarked on the Nile in search of the remains. When she had found them she worked powerful spells to reunite the dismembered parts of the body so that it resumed its old form. Thereafter, in an intact and perfect state, Osiris went through a process of stellar rebirth to become god of the dead and king of the underworld – from which place, legend had it, he occasionally returned to earth in the guise of a mortal man.[5]

Although there are huge differences between the traditions it is bizarre that Osiris in Egypt and Thunupa–Viracocha in

South America should have had all of the following points in common:

- both were great civilizers;
- both were conspired against;
- both were struck down;
- both were sealed inside a container or vessel of some kind;
- both were then cast into water;
- both drifted away on a river;
- both eventually reached the sea.

Are such parallels to be dismissed as coincidences? or could there be some underlying connection?

Reed boats of Suriqui

The air was Alpine cold and I was sitting on the front of a motor launch doing about twenty knots across the icy waters of Lake Titicaca. The sky above was clear blue, reflecting aquamarine and turquoise tints inshore, and the vast body of the lake, glinting in copper and silver tones, seemed to stretch away for ever …

The passages in the legends that spoke of vessels made of reeds needed to be followed up because I knew that ‘boats of totora rush’ were a traditional form of transport on this lake. However, the ancient skills required to build craft of this type had atrophied in recent years and we were now headed towards Suriqui, the one place where they were still properly made.

On Suriqui Island, in a small village close to the lakeshore, I found two elderly Indians making a boat from bundled totora rushes. The elegant craft, which appeared to be nearly

complete, was approximately fifteen feet long. It was wide amidships, but narrow at either end with a high curving prow and stern.

I sat down for a while to watch. The more senior of the two builders, who wore a brown felt hat over a curious peaked woollen cap, repeatedly braced his bare left foot against the side of the vessel to give additional leverage as he pulled and tightened the cords that held the bundles of reeds in place. From time to time I noticed that he rubbed a length of cord against his own perspiring brow – thus moistening it to increase its adhesion.

The boat, surrounded by chickens and occasionally investigated by a shy, browsing alpaca, stood amid a litter of discarded rushes in the backyard of a ramshackle farmhouse. It was one of several I was able to study over the next few hours and, though the setting was unmistakably Andean, I

found myself repeatedly overtaken by a sense of *déjà vu* from another place and another time. The reason was that the totora vessels of Suriqui were virtually identical, both in the method of construction and in finished appearance, to the beautiful craft fashioned from papyrus reeds in which the Pharaohs had sailed the Nile thousands of years previously. In my travels in Egypt I had examined the images of many such vessels painted on the walls of ancient tombs. It sent a tingle down my spine to see them now so colourfully brought to life on an obscure island on Lake Titicaca – even though my research had partially prepared me for this coincidence. I knew that no satisfactory explanation had ever been given for how such close and richly detailed similarities of boat design could occur in two such widely separated places. Nevertheless, in the words of one authority in ancient navigation who had addressed himself to this conundrum:

> Here was the same compact shape, peaked and raised at both ends with rope lashings running from the deck right round the bottom of the boat all in one piece … Each straw was placed with maximum precision to achieve perfect symmetry and streamlined elegance, while the bundles were so tightly lashed that they looked like … gilded logs bent into a clog-shaped peak fore and aft.[6]

The reed boats of the ancient Nile, and the reed boats of Lake Titicaca (the original design of which, local Indians insisted, had been given to them by 'the Viracocha people'[7]), had other points in common. Both, for example, were equipped with sails mounted on peculiar two-legged straddled masts.[8] Both had also been used for the long-distance transport of exceptionally heavy building materials: obelisks and gargantuan blocks of stone bound for the temples at Giza and Luxor and Abydos on the one hand and for the mysterious edifices of Tiahuanaco on the other.

In those far-off days, before Lake Titicaca became more than one hundred feet shallower, Tiahuanaco had stood at the water's edge overlooking a vista of awesome and sacred beauty. Now the great port, capital city of Viracocha himself, lay lost amid eroded hills and empty windswept plains.

Road to Tiahuanaco …

After returning from Suriqui to the mainland we drove our hired jeep across those plains, raising a cloud of dust. Our route took us through the towns of Puccarani and Laha, populated by stolid Aymara Indians who walked slowly in the narrow cobbled streets and sat placidly in the little sunlit plazas.

Were these people the descendants of the builders of Tiahuanaco, as the scholars insisted? Or were the legends

right? Had the ancient city been the work of foreigners with godlike powers who had settled here, long ages ago?

Chapter 10

The City at the Gate of the Sun

The early Spanish travellers who visited the ruined Bolivian city of Tiahuanaco at around the time of the conquest were impressed by the sheer size of its buildings and by the atmosphere of mystery that clung to them. ‘I asked the natives whether these edifices were built in the time of the

Inca,' wrote the chronicler Pedro Cieza de Leon, 'They laughed at the question, affirming that they were made long before the Inca reign and … that they had heard from their forebears that everything to be seen there appeared suddenly in the course of a single night …'[1] Meanwhile another Spanish visitor of the same period recorded a tradition which said that the stones had been lifted miraculously off the ground, 'They were carried through the air to the sound of a trumpet.'[2]

Not long after the conquest a detailed description of the city was written by the historian Garcilaso de la Vega. No looting for treasure or for building materials had yet taken place and, though ravaged by the tooth of time, the site was still magnificent enough to take his breath away:

> We must now say something about the large and almost incredible buildings of Tiahuanaco. There is an artificial hill, of great height, built on

stone foundations so that the earth will not slide. There are gigantic figures carved in stone … these are much worn which shows their great antiquity. There are walls, the stones of which are so enormous it is difficult to imagine what human force could have put them in place. And there are the remains of strange buildings, the most remarkable being stone portals, hewn out of solid rock; these stand on bases anything up to 30 feet long, 15 feet wide and 6 feet thick, base and portal being all of one piece … How, and with the use of what tools or implements, massive works of such size could be achieved are questions which we are unable to answer … Nor can it be imagined how such enormous stones could have been brought here …[3]

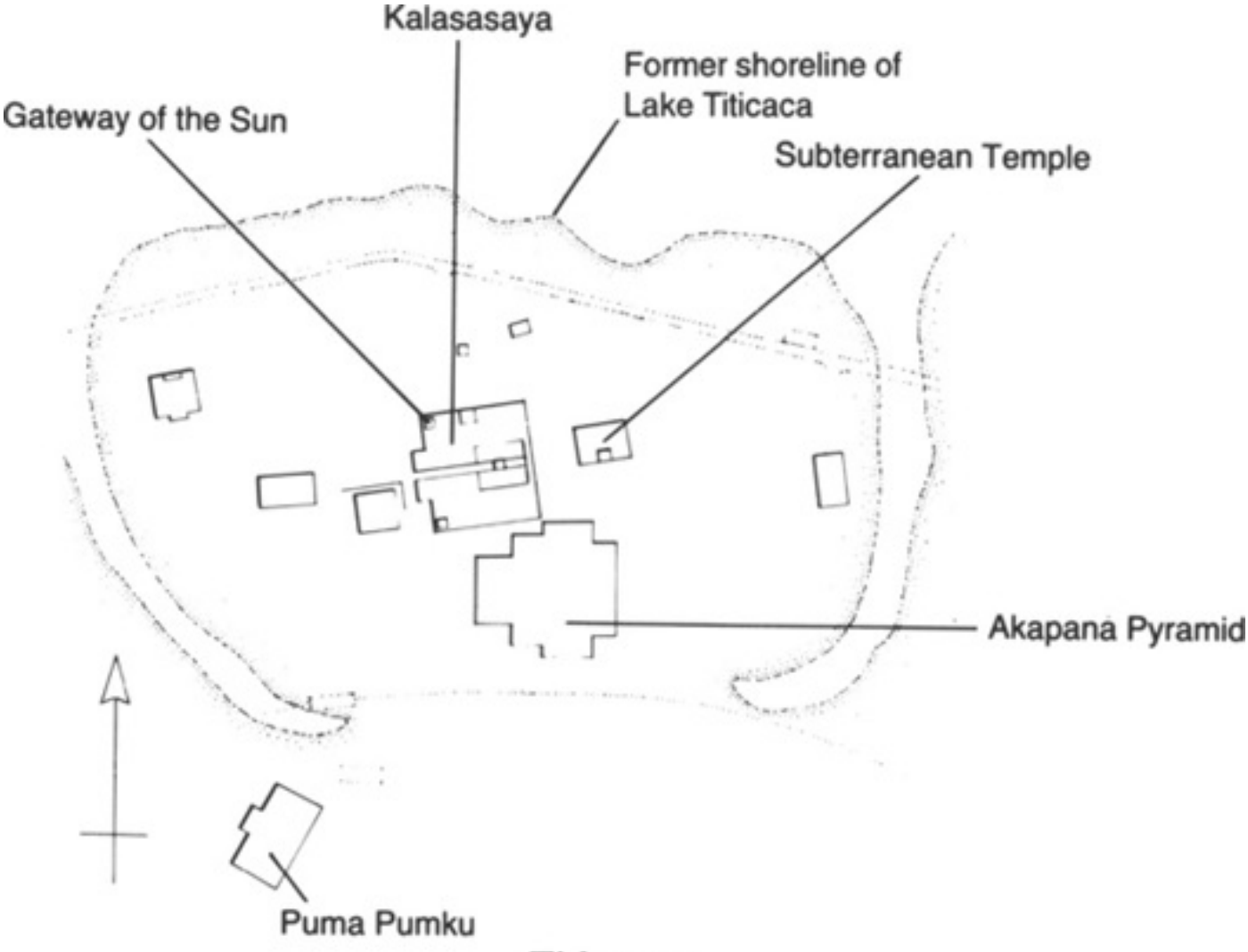
Kalasasaya
Former shoreline of
Lake Titicaca
Gateway of the Sun
Subterranean Temple
Akapana Pyramid
Puma Pumku

Tiahuanaco.

That was in the sixteenth century. More than 400 years later, at the end of the twentieth century, I shared Garcilaso's puzzlement. Scattered around Tiahuanaco, in defiance of the looters who had robbed the site of so much in recent years, were monoliths so big and cumbersome yet so well cut that they almost seemed to be the work of super-beings.

Sunken temple

Like a disciple at the feet of his master, I sat on the floor of the sunken temple and looked up at the enigmatic face which all the scholars of Tiahuanaco believed was intended to represent Viracocha. Untold centuries ago, unknown hands had carved this likeness into a tall pillar of red rock. Though

now much eroded, it was the likeness of a man at peace with himself. It was the likeness of a man of power …

He had a high forehead, and large, round eyes. His nose was straight, narrow at the bridge but flaring towards the nostrils. His lips were full. His distinguishing feature, however, was his stylish and imposing beard, which had the effect of making his face broader at the jaws than at the temples. Looking more closely, I could see that the sculptor had portrayed a man whose skin was shaved all around his lips with the result that his moustache began high on his cheeks, roughly parallel with the end of his nose. From there it curved extravagantly down beside the corners of his mouth, forming an exaggerated goatee at the chin, and then followed his jawline back to his ears.

Above and below the ears, on the side of the head, were carved odd representations of animals. Or perhaps it would

be better to describe these carvings as representations of *odd* animals, because they looked like big, clumsy, prehistoric mammals with fat tails and club feet.

There were other points of interest. For example, the stone figure of Viracocha had been sculpted with the hands and arms folded, one below the other, over the front of a long, flowing robe. On each side of this robe appeared the sinuous form of a snake coiling upwards from ground to shoulder level. And as I looked at this beautiful design (the original of which had perhaps been embroidered on rich cloth) the picture that came into my mind was of Viracocha as a wizard or a sorcerer, a bearded, Merlin-like figure dressed in weird and wonderful clothes, calling down fire from heaven.

The ‘temple’ in which the Viracocha pillar stood was open to the sky and consisted of a large, rectangular pit, like a swimming pool, dug out six feet below ground level. Its floor,

about 40 feet long by 30 feet wide, was composed of hard, flat gravel. Its strong vertical walls were formed from precisely dressed ashlar blocks of varying sizes laid closely against one another without mortar in the joints and interspersed with taller, roughhewn stelae. A set of steps was let into the southern wall and it was down these I had come when I had entered the structure.

I walked several times around the figure of Viracocha, resting my fingers on the sun-warmed stone pillar, trying to guess its purpose. It was perhaps seven feet tall and it faced south, with its back to the old shoreline of Lake Titicaca (originally less than six hundred feet away).[4] Ranged out behind this central obelisk, furthermore, there were two others, of smaller stature, possibly intended to represent Viracocha's legendary companions. All three figures, being severely, functionally vertical, cast clean-edged shadows as I

gazed at them, for the sun was past its zenith.

I sat down on the ground again and looked slowly all around the temple. Viracocha dominated it, like the conductor of an orchestra, and yet its most striking feature undoubtedly lay elsewhere: lining the walls, at various points and heights, were dozens and dozens of human heads sculpted in stone. These were complete heads, protruding three dimensionally out of the walls. There were several different (and contradictory) scholarly opinions as to their function.

Pyramid

From the floor of the sunken temple, looking west, I could see an immense wall into which was set an impressive geometrical gateway made of large stone slabs. Silhouetted in

this gateway by the afternoon sun was the figure of a giant. The wall, I knew, enclosed a parade-ground-sized area called the Kalasasaya (a word in the local Aymara language meaning simply 'Place of the Upright Standing Stones'[5]). And the giant was one of the huge time-worn pieces of sculpture referred to by Garcilaso de la Vega.

I was eager to take a look at it, but for the moment my attention was diverted southwards towards an artificial hill, 50 feet high, which lay almost directly ahead of me as I climbed the steps out of the sunken temple. The hill, which had also been mentioned by Garcilaso, was known as the Akapana Pyramid. Like the pyramids at Giza in Egypt, it was oriented with surprising precision towards the cardinal points. Unlike those pyramids its ground-plan was somewhat irregular. Nonetheless, it measured roughly 690 feet on each side which meant that it was a hulking piece of architecture

and the dominant edifice of Tiahuanaco.

I walked towards it now, and spent some time strolling around it and clambering over it. Originally it had been a clean-sided step-pyramid of earth faced with large andesite blocks. In the centuries since the conquest, however, it had been used as a quarry by builders from as far away as La Paz, with the result that only about ten per cent of its superb facing blocks now remained.

What clues, what evidence, had those nameless thieves carried off with them? As I climbed up the broken sides and around the deep grassy troughs in the top of the Akapana, I realized that the true function of the pyramid was probably never going to be understood. All that was certain was that it had not been merely decorative or ceremonial. On the contrary, it seemed almost as though it might have functioned as some kind of arcane ‘device’ or machine. Deep

within its bowels, archaeologists had discovered a complex network of zig-zagging stone channels, lined with fine ashlars. These had been meticulously angled and jointed (to a tolerance of one-fiftieth of an inch), and had served to sluice water down from a large reservoir at the top of the structure, through a series of descending levels, to a moat that encircled the entire site, washing against the pyramid's base on its southern side.[6]

So much care and attention had been lavished on all this plumbing, so many man-hours of highly skilled and patient labour, that the Akapana made no sense unless it had been endowed with a significant purpose. A number of archaeologists, I knew, had speculated that this purpose might have been connected with a rain or river cult involving a primitive veneration of the powers and attributes of fast-flowing water.

One sinister suggestion, which implied that the unknown 'technology' of the pyramid might have had a lethal purpose, was derived from the meaning of the words *Hake* and *Apana* in the ancient Aymara language still spoken hereabouts: '*Hake* means "people" or "men"; *Apana* means "to perish" (probably by water). Thus *Akapana* is a place where people perish …'[7]

Another commentator, however, after making a careful assessment of all the characteristics of the hydraulic system, proposed a different solution, namely that the sluices had most probably been part of 'a processing technique – the use of flowing water for washing ores, perhaps?'[8]

Gateway of the Sun

Leaving the western side of the enigmatic pyramid, I made

my way towards the south-west corner of the enclosure known as the Kalassaya. I could now see why it had been called the Place of the Upright Standing Stones for this was precisely what it was. At regular intervals in a wall composed of bulky trapezoidal blocks, huge dagger-like monoliths more than twelve feet high had been sunk hilt-first into the red earth of the Altiplano. The effect was of a giant stockade, almost 500 feet square, rising about twice as far above the ground as the sunken temple had been interred beneath it.

Had the Kalasasaya been a fortress then? Apparently not. Scholars now generally accept that it functioned as a sophisticated celestial observatory. Rather than keeping enemies at bay, its purpose had been to fix the equinoxes and the solstices and to predict, with mathematical precision, the various seasons of the year. Certain structures within its walls, (and, indeed, the walls themselves), appeared to have

been lined up to particular star groups and designed to facilitate measurement of the amplitude of the sun in summer, winter, autumn and spring.[9] In addition, the famous 'Gateway of the Sun', which stood in the north-west corner of the enclosure, was not only a world-class work of art but was thought by those who had studied it to be a complex and accurate calendar carved in stone:

> The more one gets acquainted with the sculpture the greater becomes one's conviction that the peculiar lay-out and pictorialism of this Calendar cannot possibly have been the result merely of the ultimately unfathomable whim of an *artist*, but that its glyphs, deeply senseful, constitute the eloquent record of the observations and calculations of a *scientist* … The Calendar could not have been drawn up and laid out in any other way than this.[10]

My background research had made me especially curious

about the Gateway of the Sun and, indeed, about the Kalasasaya as a whole. This was so because certain astronomical and solar alignments which we review in the next chapter had made it possible to calculate the approximate period when the Kalasasaya must originally have been laid out. These alignments suggested the controversial date of 15,000 BC – about seventeen thousand years ago.

Chapter 11

Intimations of Antiquity

In his voluminous work *Tiahuanacu: the Cradle of American Man*, the late Professor Arthur Posnansky (a formidable German-Bolivian scholar whose investigations at the ruins lasted for almost fifty years) explains the archaeo-astronomical calculations which led to his controversial re-dating of Tiahuanaco. These, he says, were based ‘solely and

exclusively on the difference in the obliquity of the ecliptic of the period in which the Kalasasaya was built and that which it is today'.[1]

What exactly is 'the obliquity of the ecliptic', and why does it make Tiahuanaco 17,000 years old?

According to the dictionary definition it is 'the angle between the plane of the earth's orbit and that of the celestial equator, equal to approximately 23° 27′ at present'.[2]

To clarify this obscure astronomical notion, it helps to picture the earth as a ship, sailing on the vast ocean of the heavens. Like all such vessels (be they planets or schooners), it *rolls* slightly with the swell that flows beneath it. Picture yourself on board that ship as it rolls, standing on the deck, gazing out to sea. You rise up on the crest of a wave and your visible horizon increases; you fall back into a trough and it decreases. The process is regular, mathematical, like the tick-

tock of a great metronome: a constant, almost imperceptible, nodding, perpetually changing the angle between yourself and the horizon.

Now picture the earth again. Floating in space, as every schoolchild knows, the axis of daily rotation of our beautiful blue planet lies slightly tilted away from the vertical in its orbit around the sun. From this it follows that the terrestrial equator, and hence the 'celestial equator' (which is merely an imaginary extension of the earth's equator into the celestial sphere) must also lie at an angle to the orbital plane. That angle, at any one time, *is* the obliquity of the ecliptic. But because the earth is a ship that rolls, its obliquity *changes* in a cyclical manner over very long periods. During each cycle of 41,000 years the obliquity varies, with the precision and predictability of a Swiss chronograph, between 22.1° and 24.5°.[3] The sequence in which one angle will follow another,

as well as the sequence of all previous angles (at any period of history) can be calculated by means of a few straightforward equations. These have been expressed as a curve on a graph (originally plotted out in Paris in 1911 by the International Conference of Ephemerids) and from this graph it is possible to match angles and precise historical dates with confidence and accuracy.

Posnansky was able to date the Kalasasaya because the obliquity cycle gradually alters the azimuth position of sunrise and sunset from century to century.[4] By establishing the solar alignments of certain key structures that now looked 'out of true', he convincingly demonstrated that the obliquity of the ecliptic at the time of the building of the Kalasasaya had been 23° 8' 48". When that angle was plotted on the graph drawn up by the International Conference of Ephemerids it was found to correspond to a date of 15,000

BC.[5]

Of course, not a single orthodox historian or archaeologist was prepared to accept such an early origin for Tiahuanaco preferring, as noted in Chapter Eight, to agree on the safe estimate of AD 500. During the years 1927–30, however, several scientists from other disciplines checked carefully Posnansky's 'astronomic-archaeological investigations'. These scientists, members of a high-powered team which also studied many other archaeological sites in the Andes, were Dr Hans Ludendorff (then director of the Astronomical Observatory of Potsdam), Dr Friedrich Becker of the Specula Vaticanica, and two other astronomers: Professor Dr Arnold Kohlschutter of the University of Bonn and Dr Rolf Muller of the Astrophysical Institute of Potsdam.[6]

At the end of their three years of work the scientists concluded that Posnansky was basically right. They didn't

concern themselves with the implications of their findings for the prevailing paradigm of history; they simply stated the observable facts about the astronomical alignments of various structures at Tiahuanaco. Of these, the most important by far was that the Kalasasaya had been laid out to conform with observations of the heavens made a very long time ago – much, much further back than AD 500. Posnansky's figure of 15,000 BC was pronounced to be well within the bounds of possibility.[7]

If Tiahuanaco had indeed flourished so long before the dawn of history, what sort of people had built it, and for what purpose?

Fish-garbed figures

There were two massive pieces of statuary inside the Kalasasaya. One, a figure nicknamed *El Fraile* (The Friar) stood in the south-west corner; the other, towards the centre of the eastern end of the enclosure, was the giant that I had observed from the sunken temple.

Carved in red sandstone, worn and ancient beyond reckoning, El Fraile stood about six feet high, and portrayed a humanoid, androgenous being with massive eyes and lips. In its right hand it clutched something resembling a knife with a wavy blade like an Indonesian kris. In its left hand was an object like a hinged and case-bound book. From the top of this 'book', however, protruded a device which had been inserted into it as though into a sheath.

From the waist down the figure appeared to be clad in a garment of fish scales, and, as though to confirm this perception, the sculptor had formed the individual scales out

of rows and rows of small, highly-stylized fish-heads. This sign had been persuasively interpreted by Posnansky as meaning fish in general.[8] It seemed, therefore, that El Fraile was a portrayal of an imaginary or symbolic 'fish man'. The figure was also equipped with a belt sculpted with the images of several large crustaceans, so this notion seemed all the more probable. What had been intended?

I had learned of one local tradition I thought might shed light on the matter. It was very ancient and spoke of 'gods of the lake, with fish tails, called Chullua and Umantua'.[9] In this, and in the fish-garbed figures, it seemed that there was a curious out-of-place echo of Mesopotamian myths, which spoke strangely, and at length, about amphibious beings, 'endowed with reason' who had visited the land of Sumer in remote prehistory. The leader of these beings was named Oannes (or *Uan*).[10] According to the Chaldean scribe,

Berosus:

> The whole body of [Oannes] was like that of a fish; and had under a fish's head another head, and also feet below, similar to those of a man, subjoined to the fish's tail. His voice too, and language, was articulate and human; and a representation of him is preserved even to this day … When the sun set, it was the custom of this Being to plunge again into the sea, and abide all night in the deep; for he was amphibious.[11]

According to the traditions reported by Berosus, Oannes was, above all, a civilizer:

> In the day-time he used to converse with men; but took no food at that season; and he gave them an insight into letters and sciences, and every kind of art. He taught them to construct houses, to found temples, to compile laws, and explained to them the principles of geometrical knowledge. He made them distinguish the seeds of the earth, and showed

> them how to collect fruits; in short, he instructed them in every thing which could tend to soften manners and to humanise mankind. From that time, so universal were his instructions, nothing has been added materially by way of improvement …[12]

Surviving images of the Oannes creatures I had seen on Babylonian and Assyrian reliefs clearly portrayed *fiish–garbed men*. Fish-scales formed the dominant motif on their garments, just as they did on those worn by El Fraile. Another similarity was that the Babylonian figures held unidentified objects in both their hands. If my memory served me right (and I later confirmed that it did) these objects were by no means identical to those carried by El Fraile. They were, however, similar enough to be worthy of note.[13]

The other great 'idol' of the Kalasasaya was positioned towards the eastern end of the platform, facing the main

gateway, and was an imposing monolith of grey andesite, hugely thick and standing about nine feet tall. Its broad head rose straight up out of its hulking shoulders and its slablike face stared expressionlessly into the distance. It was wearing a crown, or head-band of some kind, and its hair was braided into orderly rows of long vertical ringlets which were most clearly visible at the back.

The figure was also intricately carved and decorated across much of its surface almost as though it were tattooed. Like El Fraile, it was clad below the waist in a garment composed of fish-scales and fish symbols. And, also like El Fraile, it held two unidentifiable objects in its hands. This time the left-hand object looked more like a sheath than a case-bound book, and from it protruded a forked handle. The right-hand object was roughly cylindrical, narrow in the centre where it was held, wider at the shoulders and at the base, and then

narrowing again towards the top. It appeared to have several different sections, or parts, fitted over and into one another, but it was impossible to guess what it might represent.

Assyrian relief of fish-garbed figure.

Images of extinct species

Leaving the fish-garbed figures, I came at last to the Gateway of the Sun, located in the north-west corner of the Kalasasaya.

It proved to be a freestanding monolith of grey-green andesite about 12½ feet wide, 10 feet high and 18 inches thick, weighing an estimated 10 tons.[14] Perhaps best envisaged as a sort of Arc de Triomphe, though on a much smaller scale, it looked in this setting like a door connecting two invisible dimensions – a door between nowhere and nothing. The stonework was of exceptionally high quality and authorities agreed that it was ‘one of the archaeological

wonders of the Americas'.[15] Its most enigmatic feature was the so-called 'calendar frieze' carved into its eastern façade along the top of the portal.

At its centre, in an elevated position, this frieze was dominated by what scholars took to be another representation of Viracocha,[16] but this time in his more terrifying aspect as the god-king who could call down fire from heaven. His gentle, fatherly side was still expressed: tears of compassion were running down his cheeks. But his face was set stern and hard, his tiara was regal and imposing, and in either hand he grasped a thunderbolt.[17] In the interpretation given by Joseph Campbell, one of the twentieth century's best-known students of myth, 'The meaning is that the grace that pours into the universe through the sun door is the same as the energy of the bolt that annihilates and is itself indestructible …'[18]

I turned my head to right and left, slowly studying the remainder of the frieze. It was a beautifully balanced piece of sculpture with three rows of eight figures, twenty-four in all, lined up on either side of the elevated central image. Many attempts, none of them particularly convincing, have been made to explain the assumed calendrical function of these figures.[19] All that could really be said for sure was that they had a peculiar, bloodless, cartoonlike quality, and that there was something coldly mathematical, almost machinelike, about the way they seemed to march in regimented lines towards Viracocha. Some apparently wore bird masks, others had sharply pointed noses, and each had in his hand an implement of the type the high god was himself carrying.

The base of the frieze was filled with a design known as the 'Meander' – a geometrical series of step-pyramid forms set in a continuous line, and arranged alternately upside

down and right side up, which was also thought to have had a calendrical function. On the third column from the right-hand side (and, more faintly, on the third column from the left-hand side too) I could make out a clear carving of an elephant's head, ears, tusks and trunk. This was unexpected since there are no elephants anywhere in the New World. There had been, however, in prehistoric times, as I was able to confirm much later. Particularly numerous in the southern Andes, until their sudden extinction around 10,000 BC,[20] had been the members of a species called *Cuvieronius*, an elephantlike proboscid complete with tusks and a trunk, uncannily similar in appearance to the 'elephants' of the Gateway of the Sun.[21]

I stepped forward a few paces to take a closer look at these elephants. Each turned out to be composed of the heads of two crested condors, placed throat to throat (the crests

constituting the ‘ears’ and the upper part of the necks the ‘tusks’). The creatures thus formed still looked like elephants to me, perhaps because a characteristic visual trick the sculptors of Tiahuanaco had employed again and again in their subtle and otherworldly art had been to use one thing to depict another. Thus an apparently human ear on an apparently human face might turn out to be a bird’s wing. Likewise an ornate crown might be composed of alternate fishes’ and condors’ heads, an eyebrow a bird’s neck and head, the toe of a slipper an animal’s head, and so on. Members of the elephant family formed out of condors’ heads, therefore, need not necessarily be optical illusions; on the contrary, such inventive composites would be perfectly in keeping with the overall artistic character of the frieze.

Among the riot of stylized animal figures carved into the Gateway of the Sun were a number of other extinct species as

well. I knew from my research that one of these had been convincingly identified by several observers as Toxodon[22] – a three-toed amphibious mammal about nine feet long and five feet high at the shoulder, resembling a short, stubby cross between a rhino and a hippo.[23] Like *Cuvieronius*, Toxodon had flourished in South America in the late Pliocene (1.6 million years ago) and had died out at the end of the Pleistocene, about 12,000 years ago.[24]

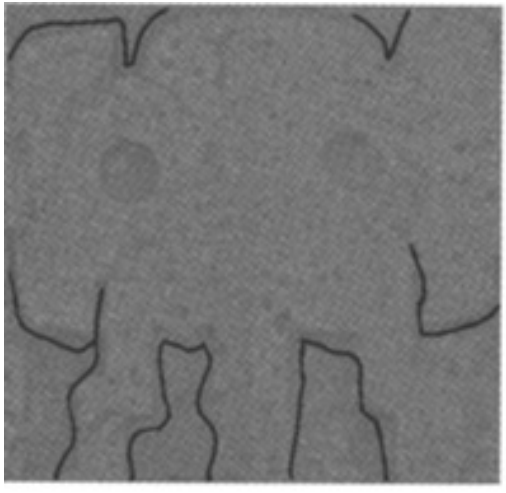

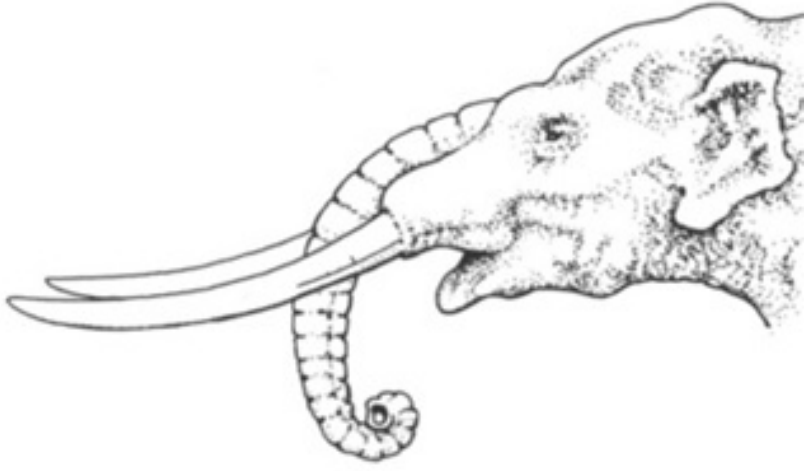

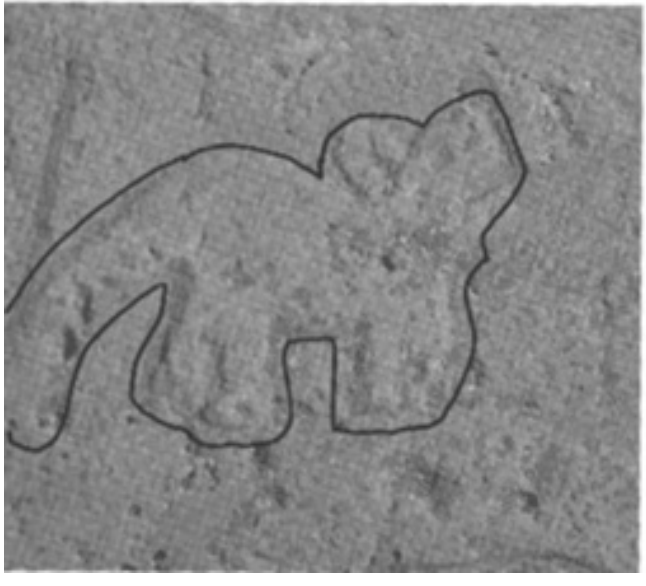

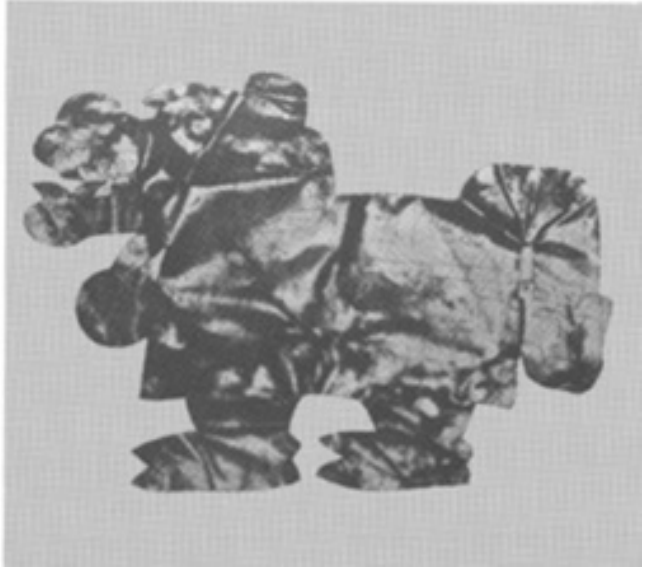

Top left: Detail from Tiahuanaco's Gateway of the Sun showing proboscid, tusked elephant-like figure. *Top right*: Biological reconstruction-drawing of *Cuverionius*, a South American proboscid, once common in the Tiahuanaco area but extinct since approximately 10,000 BC. *Above left*: Unidentified animal, possibly *Toxodon*, carved on the side of the Viracocha figure in the Subterranean Temple. *Above right*: Another possible representation of *Toxodon* from Tiahuanaco. The raised nostrils are indicative of a semi-aquatic animal, somewhat like a modern hippopotamus in its habits, which is what *Toxodon* is known to have been.

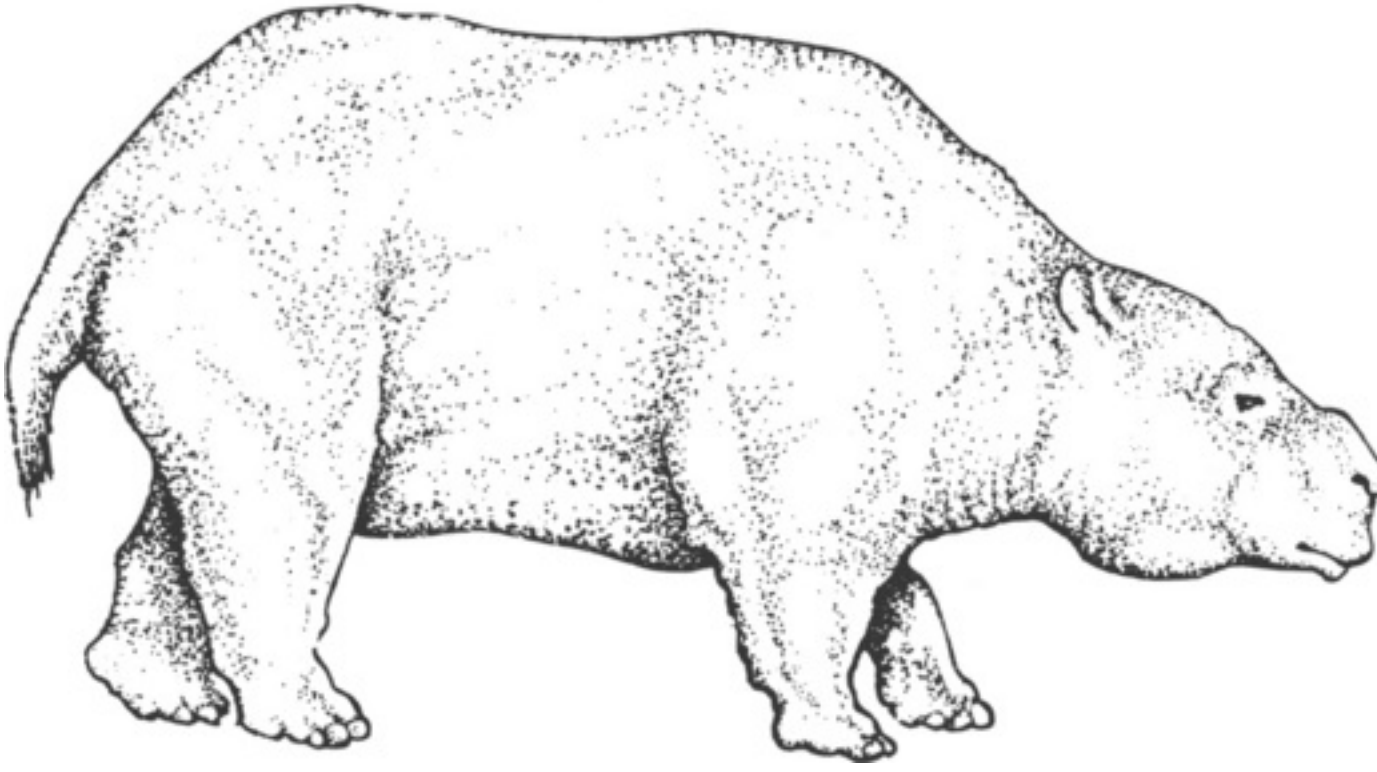

Reconstruction-drawing of *Toxodon*, a South American species that became extinct in the eleventh millennium BC.

To my eye this looked like striking corroboration for the

astro-archaeological evidence that dated Tiahuanaco to the end of the Pleistocene, and further undermined the orthodox historical chronology which made the city only 1500 years old, since Toxodon, presumably, could only have been modelled from life. It was therefore obviously a matter of some importance that *no fewer that forty-six Toxodon heads* had been carved into the frieze of the Gateway of the Sun.[25] Nor was this creature's ugly caricature confined only to the Gateway. On the contrary, Toxodon had been identified on numerous fragments of Tiahuanacan pottery. Even more convincingly, he had been portrayed in several pieces of sculpture which showed him in full three-dimensional glory.[26] Moreover representations of other extinct species had been found: the species included *Shelidoterium*, a diurnal quadruped, and *Macrauchenia*, an animal somewhat larger than the modern horse, with distinctive three-toed feet.[27]

Such images meant that Tiahuanaco was a kind of picture-book from the past, a record of bizarre animals, now deader than the dodo, expressed in everlasting stone.

But the record-taking had come to an abrupt halt one day and darkness had descended. This, too, was recorded in stone – the Gateway of the Sun, that surpassing work of art, had never been completed. Certain unfinished aspects of the frieze made it seem probable that something sudden and dreadful had happened which had caused the sculptor, in the words of Posnansky, ’to drop his chisel for ever’ at the moment when he was ‘putting the final touches to his work’.[28]

Chapter 12

The End of the Viracochas

We saw in Chapter Ten that Tiahuanaco was originally built as a port on the shores of Lake Titicaca, when that lake was far wider *and more than 100 feet deeper* than it is today. Vast harbour constructions, piers and dykes (and even dumped cargoes of quarried stone at points beneath the old waterline), leave no doubt that this must have been the case.[1]

Indeed, according to the unorthodox estimates of Professor Posnansky, Tiahuanaco had been in active use as a port as early as 15,000 BC, the date he proposed for the construction of the Kalasasaya, and had continued to serve as such for approximately another five thousand years, during which great expanse of time its position in relation to the shore of Lake Titicaca hardly changed.[2]

Throughout this epoch the principal harbour of the port city was located several hundred metres south-west of the Kalasasaya at a site now known as *Puma Punku* (literally, the Puma Gate). Here Posnansky's excavations revealed two artificially dredged docks on either side of: 'a true and magnificent pier or wharf … where hundreds of ships could at the same time take on and unload their heavy burdens'.[3]

One of the construction blocks from which the pier had been fashioned still lay on site and weighed an estimated *440*

tons.[4] Numerous others weighed between 100 and 150 tons.[5] Furthermore, many of the biggest monoliths had clearly been joined to each other by I-shaped metal clamps. In the whole of South America, I knew, this masonry technique had been found only on Tiahuanacan structures.[6] The last time I had seen the characteristic notched depressions which proved its use had been on ruins on the island of Elephantine in the Nile in Upper Egypt.[7]

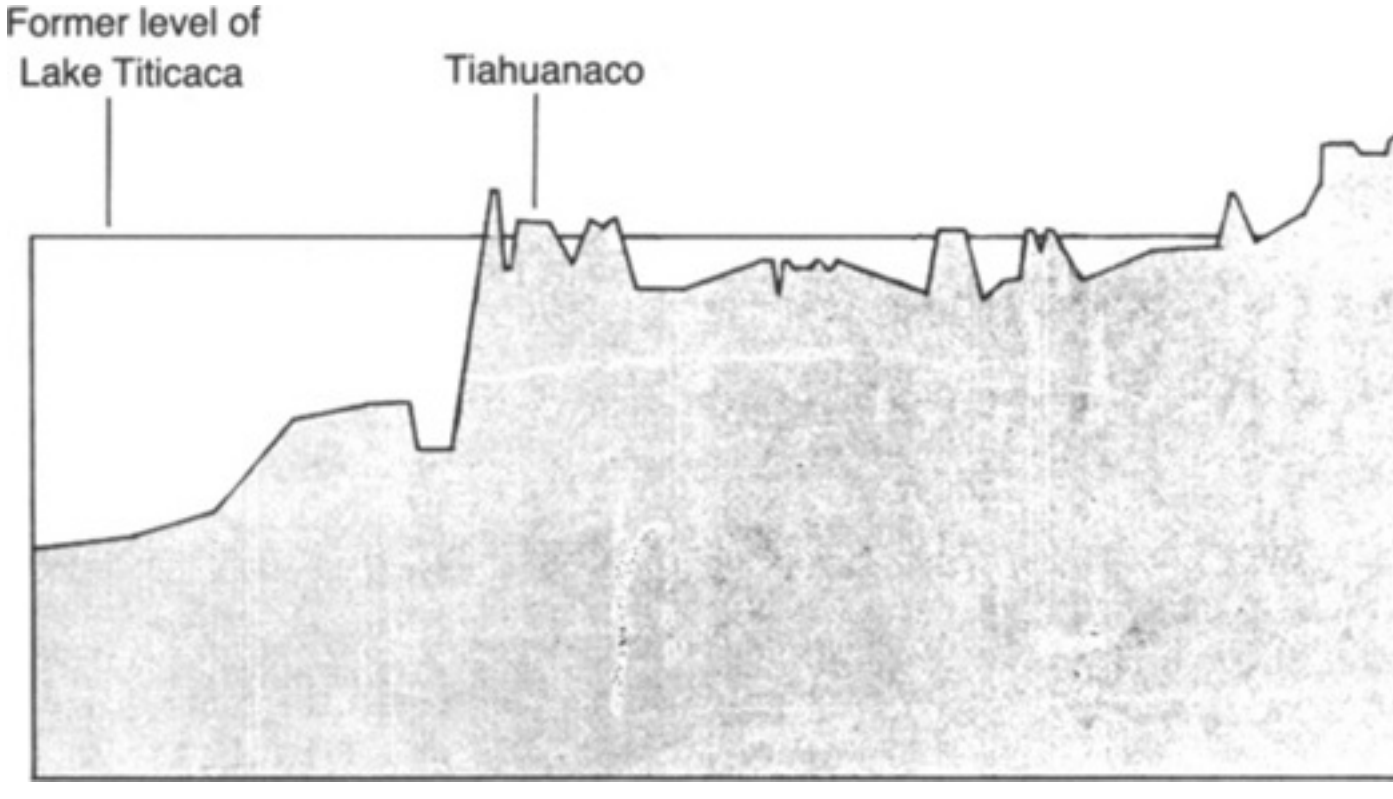

12,000 years ago, when Lake Titicaca was more than 100 feet deeper than it is today, Tiahuanaco would have been an island, as shown above.

Equally thought-provoking was the appearance of the

symbol of the cross on many of these ancient blocks. Recurring again and again, particularly at the northern approach to Puma Punku, this symbol always took the same form: a double crucifix with pure clean lines, perfectly balanced and harmonious, deeply recessed into the hard grey stone. Even according to orthodox historical chronology these crosses were not less than 1500 years old. In other words, they had been carved here, by a people with absolutely no knowledge of Christianity, a full millennium before the arrival of the first Spanish missionaries on the Altiplano.

Where, come to that, had the Christians obtained their crosses? Not only from the shape of the structure to which Jesus Christ was nailed, I thought, but from some much older source as well. Hadn't the Ancient Egyptians, for example, used a hieroglyph very like a cross (the *ankh*, or *crux ansata*)

to symbolize life … the breath of life … eternal life itself?[8] Had that symbol originated in Egypt, or had it perhaps occurred elsewhere, earlier still?

With such ideas chasing one another around my head, I walked slowly around Puma Punku. The extensive perimeter, which formed a rectangle several hundred feet long, outlined a low pyramidal hill, much overgrown with tall grass. Dozens and dozens of hulking blocks lay scattered in all directions, tossed like matchsticks, Posnansky argued, in the terrible natural disaster that had overtaken Tiahuanaco during the eleventh millennium BC:

> This catastrophe was caused by seismic movements which resulted in an overflow of the waters of Lake Titicaca and in volcanic eruptions … It is also possible that the temporary increase in the level of the lake may have been caused in part by the breaking of the bulwarks on some of the lakes

further to the north and situated at a greater altitude … thus releasing the waters which descended toward Lake Titicaca in onrushing and unrestrainable torrents.[9]

Posnansky's evidence that a flood had been the agent of the destruction of Tiahuanaco included

The discovery of lacustrine flora, *Paludestrina culminea*, and *Paludestrina andecola*, *Ancylus titicacensis*, *Planorbis titicacensis*, etc., mixed in the alluvia with the skeletons of human beings who perished in the cataclysm … and the discovery of various skeletons of *Orestias*, fish of the family of the present *bogas*, in the same alluvia which contain the human remains …[10]

In addition, fragments of human and animal skeletons had been found lying

in chaotic disorder among wrought stones, utensils, tools and an endless

> variety of other things. All of this has been moved, broken and accumulated in a confused heap. Anyone who would dig a trench here two metres deep could not deny that the destructive force of water, in combination with brusque movements of the earth, must have accumulated those different kinds of bones, mixing them with pottery, jewels, tools and utensils … Layers of alluvium cover the whole field of the ruins and lacustrine sand mixed with shells from Titicaca, decomposed feldspar and volcanic ashes have accumulated in the places surrounded by walls …[11]

It had been a terrible catastrophe indeed that had overwhelmed Tiahuanaco. And if Posnansky was right, it took place more than 12,000 years ago. Thereafter, though the flood waters subsided, 'the culture of the Altiplano did not again attain a high point of development but fell rather into a total and definitive decadence'.[12]

Struggle and abandonment

This process was hastened by the fact that the earthquakes which had caused Lake Titicaca to engulf Tiahuanaco were only the first of many upheavals in the area. These initially resulted in the lake swelling and overflowing its banks but they soon began to have the opposite effect, slowly reducing Titicaca's depth and surface area. As the years passed, the lake continued to drain inch by inch, marooning the great city, remorselessly separating it from the waters which had previously played such a vital role in its economic life.

At the same time, there was evidence that the climate of the Tihuanaco area had become colder and much less favourable for the growing of crops than had previously been the case,[13] so much less favourable that today staples such as maize cannot ripen properly and even potatoes come out of

the ground stunted.[14]

Although it was difficult to piece together all the different elements of the complex chain of events that had occurred, it seemed that 'a period of calm had followed the critical moment of seismic disturbance' which had temporarily flooded Tiahuanaco.[15] Then, slowly but surely, 'the climate worsened and became inclement. Finally there ensued mass emigrations of the Andean peoples towards locations where the struggle for life would not be so arduous.'[16]

It seems that the highly civilized inhabitants of Tiahuanaco, remembered in local traditions as 'the Viracocha people', had not gone without a struggle. There was puzzling evidence from all over the Altiplano that agricultural experiments of an advanced and scientific nature had been carried out, with great ingenuity and dedication, to try to compensate for the deterioration of the climate. For example,

recent research has demonstrated that astonishingly sophisticated analyses of the chemical compositions of many poisonous high-altitude plants and tubers had been undertaken by *somebody* in this region in the furthest antiquity. Such analyses, furthermore, had been coupled with the invention of detoxification techniques which had rendered these otherwise nutritious vegetables harmless and edible.[17] There was as yet 'no satisfactory explanation for the development of these detoxification processes', admitted David Browman, associate professor of Anthropology at Washington University.[18]

Likewise, in the same ancient period, *somebody* as yet unidentified by scholarship went to great lengths to build raised fields on the newly exposed lands that had so recently been under the waters of the lake – a procedure which created characteristic corrugated strips of alternately high

and low ground. It was not until the 1960s that the original function of these undulating patterns of earthen platforms and shallow canals was correctly worked out. Still visible today, and known as *waru waaru* by the local Indians, they proved to be part of a complex agricultural design, perfected in prehistoric times, which had the ability 'to out-perform modern farming techniques'.[19]

In recent years some of the raised fields were reconstructed by archaeologists and agronomists. These experimental plots consistently yielded three times more potatoes than even the most productive conventional plots. Likewise, during one particularly cold spell, a severe frost 'did little damage to the experimental fields'. The following year the crops on the elevated platforms survived an equally ruinous drought: 'then later rode high and dry through a flood that swamped surrounding farmlands'. Indeed this simple but effective

agricultural technique, invented by a culture so ancient that no one today could even remember its name, had proved such a success in rural Bolivia that it had attracted the attention of governmental and international development agencies and was now under test in several other parts of the world as well.[20]

An artificial language

Another possible legacy of Tiahuanaco, and of the Viracochas, lay embedded in the language spoken by the local Aymara Indians – a language regarded by some specialists as the oldest in the world.[21]

In the 1980s Ivan Guzman de Rojas, a Bolivian computer scientist, accidentally demonstrated that Aymara might be not only very ancient but, significantly, that it might be a

‘made-up’ language – something deliberately and skilfully *designed*. Of particular note was the seemingly artificial character of its syntax, which was rigidly structured and unambiguous to an extent thought inconceivable in normal ‘organic’ speech.[22] This synthetic and highly organized structure meant that Aymara could easily be transformed into a computer algorithm to be used to translate one language into another: ‘The Aymara Algorithm is used as a bridge language. The language of an original document is translated into Aymara and then into any number of other languages.’[23]

Was it just coincidence that an apparently artificial language governed by a computer-friendly syntax should be spoken today in the environs of Tiahuanaco? Or could Aymara be a legacy of the high learning that legend attributed to the Viracochas? If so, what other legacies might there be? What other incomplete fragments of an old and

forgotten wisdom might be lying scattered around – fragments which had perhaps contributed to the richness and diversity of many of the cultures that had evolved in this region during the 10,000 years before the conquest? Perhaps it was the possession of fragments like these that had made possible the drawing of the Nazca lines and enabled the predecessors of the Incas to build the 'impossible' stone walls at Machu Picchu and Sacsayhuaman?

Mexico

The image I could not get out of my mind was of the Viracocha people leaving, 'walking on the waters' of the Pacific Ocean, or 'going miraculously' by sea as so many of the legends told.

Where had these seafarers been going? What had their

objective been? And why, come to think of it, had they made such dogged efforts to stay in Tiahuanaco for so long before admitting defeat and moving on? What had they been trying to achieve there that had been so important to them?

After several weeks work on the Altiplano, travelling back and forth between La Paz and Tiahuanaco, it became clear that neither the otherworldly ruins nor the libraries of the capital were going to provide me with any further answers. Indeed, in Bolivia at least, the trail seemed to have gone cold.

It was not until I reached Mexico, 2000 miles north, that I picked up its traces again.

Part III

Plumed Serpent

Central America

Chapter 13

Blood and Time at the End of the World

Chichen Itza, northern Yucatan, Mexico

Behind me, towering almost 100 feet into the air, was a perfect ziggurat, the Temple of Kukulkan. Its four stairways had 91 steps each. Taken together with the top platform, which counted as a further step, the total was 365. This gave the number of complete days in a solar year. In addition, the geometric design and orientation of the ancient structure had

been calibrated with Swiss-watch precision to achieve an objective as dramatic as it was esoteric: on the spring and autumn equinoxes, regular as clockwork, triangular patterns of light and shadow combined to create the illusion of a giant serpent undulating on the northern staircase. On each occasion the illusion lasted for 3 hours and 22 minutes exactly.[1]

I walked away from the Temple of Kukulkan in an easterly direction. Ahead of me, starkly refuting the oft-repeated fallacy that the peoples of Central America had never succeeded in developing the column as an architectural feature, stood a forest of white stone columns which must at one time have supported a massive roof. The sun was beating down harshly through the translucent blue of a cloudless sky and the cool, deep shadows this area offered were alluring. I passed by and made my way to the foot of the steep steps

that led up to the adjacent Temple of the Warriors.

At the top of these steps, becoming fully visible only after I had begun to ascend them, was a giant figure. This was the idol of Chacmool. It half-lay, half-sat in an oddly stiff and expectant posture, bent knees protruding upwards, thick calves drawn back to touch its thighs, ankles tucked in against its buttocks, elbows planted on the ground, hands folded across its belly encircling an empty plate, and its back set at an awkward angle as though it were just about to lever itself upright. Had it done so, I calculated, it would have stood about eight feet tall. Even reclining, coiled and tightly sprung, it seemed to overflow with a fierce and pitiless energy. Its square features were thin-lipped and implacable, as hard and indifferent as the stone from which they were carved, and its eyes gazed westwards, traditionally the direction of darkness, death and the colour black.[2]

Chichen Itza.

Rather lugubriously, I continued to climb the steps of the

Temple of the Warriors. Weighing on my mind was the unforgettable fact that the ritual of human sacrifice had been routinely practised here in pre-Colombian times. The empty plate that Chacmool held across his stomach had once served as a receptacle for freshly extracted hearts. 'If the victim's heart was to be taken out,' reported one Spanish observer in the sixteenth century,

> they conducted him with great display … and placed him on the sacrificial stone. Four of them took hold of his arms and legs, spreading them out. Then the executioner came, with a flint knife in his hand, and with great skill made an incision between the ribs on the left side, below the nipple; then he plunged in his hand and like a ravenous tiger tore out the living heart, which he laid on the plate …[3]

What kind of culture could have nourished and celebrated such demonic behaviour? Here, in Chichen Itza, amid ruins

dating back more than 1200 years, a hybrid society had formed out of intermingled Maya and Toltec elements. This society was by no means exceptional in its addiction to cruel and barbaric ceremonies. On the contrary, *all* the great indigenous civilizations known to have flourished in Mexico had indulged in the ritualized slaughter of human beings.

Slaughterhouses

Villahermosa, Tabasco Province

I stood looking at the Altar of Infant Sacrifice. It was the creation of the Olmecs, the so-called 'mother-culture' of Central America, and it was more than 3000 years old. A block of solid granite about four feet thick, its sides bore reliefs of four men wearing curious head-dresses. Each man carried a healthy, chubby, struggling infant, whose desperate

fear was clearly visible. The back of the altar was undecorated; at the front another figure was portrayed, holding in his arms, as though it were an offering, the slumped body of a dead child.

The Olmecs are the earliest recognized high civilization of Ancient Mexico, and human sacrifice was well established with them. Two and a half thousand years later, at the time of the Spanish conquest, the Aztecs were the last (but by no means the least) of the peoples of this region to continue an extremely old and deeply ingrained tradition.

They did so with fanatical zeal.

It is recorded, for example, that Ahuitzotl, the eighth and most powerful emperor of the Aztec royal dynasty, ‘celebrated the dedication of the temple of Huitzilopochtli in Tenochitlan by marshalling four lines of prisoners past teams of priests who worked four days to dispatch them. On this

occasion as many as 80,000 were slain during a single ceremonial rite.'[4]

The Aztecs liked to dress up in the flayed skins of sacrificial victims. Bernardino de Sahagun, a Spanish missionary, attended one such ceremony soon after the conquest:

> The celebrants flayed and dismembered the captives; they then lubricated their own naked bodies with grease and slipped into the skin … Trailing blood and grease, the gruesomely clad men ran through the city, thus terrifying those they followed … The second-day's rite also included a cannibal feast for each warrior's family.[5]

Another mass sacrifice was witnessed by the Spanish chronicler Diego de Duran. In this instance the victims were so numerous that when the streams of blood running down the temple steps 'reached bottom and cooled they formed fat

clots, enough to terrify anyone'.[6] All in all, it has been estimated that the number of sacrificial victims in the Aztec empire as a whole had risen to around 250,000 a year by the beginning of the sixteenth century.[7]

What was this manic destruction of human life for? According to the Aztecs themselves, it was done to delay the coming of the end of the world.[8]

Children of the Fifth Sun

Like the many different peoples and cultures that had preceded them in Mexico, the Aztecs believed that the universe operated in great cycles. The priests stated as a matter of simple fact that there had been four such cycles, or 'Suns', since the creation of the human race. At the time of the conquest, it was the Fifth Sun that prevailed. And it is

within that same Fifth Sun, or epoch, that humankind still lives today. This account is taken from a rare collection of Aztec documents known as the *Vaticano-Latin Codex*:

> First Sun, *Matlactli Atl*: duration 4008 years. Those who lived then ate water maize called *atzitzintli*. In this age lived the giants … The First Sun was destroyed by water in the sign *Matlactli Atl* (Ten Water). It was called *Apachiohualiztli* (flood, deluge), the art of sorcery of the permanent rain. Men were turned into fish. Some say that only one couple escaped, protected by an old tree living near the water. Others say that there were seven couples who hid in a cave until the flood was over and the waters had gone down. They repopulated the earth and were worshipped as gods in their nations …
>
> Second Sun, *Ehecoatl*: duration 4010 years. Those who lived then ate wild fruit known as *acotzintli*. This Sun was destroyed by *Ehecoatl* (Wind Serpent) and men were turned into monkeys … One man and one woman, standing on a rock, were saved from destruction …

> Third Sun, *Tleyquiyahuillo*: duration 4081 years. Men, the descendants of the couple who were saved from the Second Sun, ate a fruit called *tzincoacoc*. This Third Sun was destroyed by fire …
>
> Fourth Sun, *Tzontlilic*: duration 5026 years … Men died of starvation after a deluge of blood and fire …[9]

Another 'cultural document' of the Aztecs that has survived the ravages of the conquest is the 'Sun Stone' of Axayacatl, the sixth emperor of the royal dynasty. This huge monolith was hewn out of solid basalt in AD 1479. It weighs 24.5 tons and consists of a series of concentrically inscribed circles, each bearing intricate symbolic statements. As in the codex, these statements focus attention on the belief that the world has already passed through four epochs, or Suns. The first and most remote of these is represented by *Ocelotonatiuh*, the jaguar god: 'During that Sun lived the giants that had been

created by the gods but were finally attacked and devoured by jaguars.' The Second Sun is represented by the serpent head of *Ehecoatl*, the god of the air: 'During that period the human race was destroyed by high winds and hurricanes and men were converted into monkeys.' The symbol of the Third Sun is a head of rain and celestial fire: 'In this epoch everything was destroyed by a rain of fire from the sky and the forming of lava. All the houses were burnt. Men were converted into birds to survive the catastrophe.' The Fourth Sun is represented by the head of the water-goddess *Chalchiuhtlicue*: 'Destruction came in the form of torrential rains and floods. The mountains disappeared and men were transformed into fish.'[10]

The symbol of the Fifth Sun, our current epoch, is the face of *Tonatiuh*, the sun god himself. His tongue, fittingly depicted as an obsidian knife, juts out hungrily, signalling his

need for the nourishment of human blood and hearts. His features are wrinkled to indicate his advanced age and he appears within the symbol *Ollin* which signifies Movement.[11]

Why is the Fifth Sun known as 'The Sun of Movement'? Because, 'the elders say: in it there will be a movement of the earth and from this we shall all perish.'[12]

And when will this catastrophe strike? Soon, according to the Aztec priests. They believed that the Fifth Sun was already very old and approaching the end of its cycle (hence the wrinkles on the face of Tonatiuh). Ancient meso–American traditions dated the birth of this epoch to a remote period corresponding to the fourth millennium BC of the Christian calendar.[13] The method of calculating its end, however, had been forgotten by the time of Aztecs.[14] In the absence of this essential information, human sacrifices were apparently carried out in the hope that the impending

catastrophe might be postponed. Indeed, the Aztecs came to regard themselves as a chosen people; they were convinced that they had been charged with a divine mission to wage war and offer the blood of their captives to feed Tonatiuh, thereby preserving the life of the Fifth Sun.[15]

Stuart Fiedel, an authority on the prehistory of the Americas, summed up the whole issue in these words: 'The Aztecs believed that to prevent the destruction of the universe, which had already occurred four times in the past, the gods must be supplied with a steady diet of human hearts and blood.'[16] This same belief, with remarkably few variations, was shared by all the great civilizations of Central America. Unlike the Aztecs, however, some of the earlier peoples had calculated *exactly* when a great movement of the earth could be expected to bring the Fifth Sun to an end.

Lightbringer

No documents, only dark and menacing sculptures, have come down to us from the Olmec era. But the Mayas, justifiably regarded as the greatest ancient civilization to have arisen in the New World, left behind a wealth of calendrical records. Expressed in terms of the modern dating system, these enigmatic inscriptions convey a rather curious message: the Fifth Sun, it seems, is going to come to an end on 23 December, AD 2012.[17]

In the rational intellectual climate of the late twentieth century it is unfashionable to take doomsday prophecies seriously. The general consensus is that they are the products of superstitious minds and can safely be ignored. As I travelled around Mexico, however, I was from time to time bothered by a nagging intuition that the voices of the ancient

sages might deserve a hearing after all. I mean, suppose by some crazy offchance they weren't the superstitious savages we'd always believed them to be? Suppose they knew something we didn't? Most pertinent of all, suppose that their projected date for the end of the Fifth Sun turned out to be correct? Suppose, in other words, that some truly awful geological catastrophe is already unfolding, deep in the bowels of the earth, as the wise men of the Maya predicted?

In Peru and Bolivia I had become aware of the obsessive concern with the calculation of time shown by the Incas and their predecessors. Now, in Mexico, I discovered that the Maya, who believed that they had worked out the date of the end of the world, had been possessed by the same compulsion. Indeed, for these people, just about everything boiled down to numbers, the passage of the years and the manifestations of events. The belief was that if the numbers

which lay beneath the manifestations could be properly understood, it would be possible to predict successfully the timing of the events themselves.[18] I felt disinclined to ignore the obvious implications of the recurrent destructions of humanity depicted so vividly in the Central American traditions. Coming complete with giants and floods, these traditions were eerily similar to those of the far-off Andean region.

Meanwhile, however, I was keen to pursue another, related line of inquiry. This concerned the bearded white-skinned deity named Quetzalcoatl, who was believed to have sailed to Mexico from across the seas in remote antiquity. Quetzalcoatl was credited with the invention of the advanced mathematical and calendrical formulae that the Maya were later to use to calculate the date of doomsday.[19] He also bore a striking resemblance to Viracocha, the pale god of the

Andes, who came to Tiahuanaco ‘in the time of darkness’ bearing the gifts of light and civilization.

Chapter 14

People of the Serpent

After spending so long immersed in the traditions of Viracocha, the bearded god of the distant Andes, I was intrigued to discover that Quetzalcoatl, the principal deity of the ancient Mexican pantheon, was described in terms that were extremely familiar.

For example, one pre-Colombian myth collected in Mexico

by the sixteenth-century Spanish chronicler Juan de Torquemada asserted that Quetzalcoatl was 'a fair and ruddy complexioned man with a long beard'. Another spoke of him as, *'era Hombre blanco*; a large man, broad browed, with huge eyes, long hair, and a great, rounded beard – *la barba grande y redonda'*[1] Another still described him as

> a mysterious person … a white man with strong formation of body, broad forehead, large eyes, and a flowing beard. He was dressed in a long, white robe reaching to his feet. He condemned sacrifices, except of fruits and flowers, and was known as the god of peace … When addressed on the subject of war he is reported to have stopped up his ears with his fingers.[2]

According to a particularly striking Central American tradition, this 'wise instructor …'

> came from across the sea in a boat that moved by itself without paddles.

> He was a tall, bearded white man who taught people to use fire for cooking. He also built houses and showed couples that they could live together as husband and wife; and since people often quarreled in those days, he taught them to live in peace.[3]

Viracocha's Mexican twin

The reader will recall that Viracocha, in his journeys through the Andes, went by several different aliases. Quetzalcoatl did this too. In some parts of Central America (notably among the Quiche Maya) he was called Gucumatz. Elsewhere, at Chichen Itza for example, he was known as Kukulkan. When both these words were translated into English, they turned out to mean exactly the same thing: Plumed (or Feathered) Serpent. This, also, was the meaning of Quetzalcoatl.[4]

There were other deities, among the Maya in particular,

whose identities seemed to merge closely with those of Quetzalcoatl. One was Votan, a great civilizer, who was also described as pale-skinned, bearded and wearing a long robe. Scholars could offer no translation for his name but his principal symbol, like that of Quetzalcoatl, was a serpent.[5] Another closely related figure was Itzamana, the Mayan god of healing, who was a robed and bearded individual; his symbol, too, was the rattlesnake.[6]

What emerged from all this, as the leading authorities agreed, was that the Mexican legends collected and passed on by Spanish chroniclers at the time of the conquest were often the confused and conflated products of extremely long oral traditions. Behind them all, however, it seemed that there must lie some solid historical reality. In the judgement of Sylvanus Griswold Morley, the doyen of Maya studies:

> The great god Kukulkan, or Feathered Serpent, was the Mayan counterpart

> of the Aztec Quetzalcoatl, the Mexican god of light, learning and culture. In the Maya pantheon he was regarded as having been the great organizer, the founder of cities, the former of laws and the teacher of the calendar. Indeed his attributes and life history are so human that it is not improbable that he may have been an actual historical character, some great lawgiver and organizer, the memory of whose benefactions lingered long after death, and whose personality was eventually deified.[7]

All the legends stated unambiguously that Quetzalcoatl/Kukulkan/ Gucumatz/Votan/Itzamana had arrived in Central America from somewhere very far away (across the 'Eastern Sea') and that amid great sadness he had eventually sailed off again in the direction whence he had come.[8] The legends added that he had promised solemnly that he would return one day[9] – a clear echo of Viracocha it would be almost perverse to ascribe to coincidence. In addition, it will be recalled that Viracocha's departure across

the waves of the Pacific Ocean had been portrayed in the Andean traditions as a miraculous event. Quetzalcoatl's departure from Mexico also had a strange feel about it: he was said to have sailed away 'on a raft of serpents'.[10]

All in all, I felt Morley was right in looking for a factual historical background behind the Mayan and Mexican myths. What the traditions seemed to indicate was that the bearded pale-skinned foreigner called Quetzalcoatl (or Kukulkan or whatever) had been not just one person but probably several people who had come from the same place and had belonged to the same distinctively non-Indian ethnic type (bearded, white-skinned, etc.). This wasn't only suggested by the existence of a 'family' of obviously related[11] but slightly different gods sharing the symbol of the snake. Quetzalcoatl/Kukulkan/Itzamana was quite explicitly portrayed in many of the Mexican and Mayan accounts as

having been accompanied by ‘attendants’ or ‘assistants’.

Certain myths set out in the Ancient Mayan religious texts known as the Books of Chilam Balam, for instance, reported that ‘the first inhabitants of Yucatan were the “People of the Serpent”. They came from the east in boats across the water with their leader Itzamana, “Serpent of the East”, a healer who could cure by laying on hands, and who revived the dead.’[12]

‘Kukulkan,’ stated another tradition, ’came with nineteen companions, two of whom were gods of fish, two others gods of agriculture, and a god of thunder … They stayed ten years in Yucatan. Kukulkan made wise laws and then set sail and disappeared in the direction of the rising sun …[13]

According to the Spanish chronicler Las Casas: ‘The natives affirmed that in ancient times there came to Mexico twenty men, the chief of whom was called Kukulkan … They wore

flowing robes and sandals on their feet, they had long beards and their heads were bare … Kukulkan instructed the people in the arts of peace, and caused various important edifices to be built …'[14]

Meanwhile Juan de Torquemada recorded this very specific pre-conquest tradition concerning the imposing strangers who had entered Mexico with Quetzalcoatl:

> They were men of good carriage, well-dressed, in long robes of black linen, open in front, and without capes, cut low at the neck, with short sleeves that did not come to the elbow … These followers of Quetzalcoatl were men of great knowledge and cunning artists in all kinds of fine work.[15]

Like some long-lost twin of Viracocha, the white and bearded Andean deity, Quetzalcoatl was depicted as having brought to Mexico all the skills and sciences necessary to create a civilized life, thus ushering in a golden age.[16] He was

believed, for example, to have introduced the knowledge of writing to Central America, to have invented the calendar, and to have been a master builder who taught the people the secrets of masonry and architecture. He was the father of mathematics, metallurgy, and astronomy and was said to have ‘measured the earth’. He also founded productive agriculture, and was reported to have discovered and introduced corn – literally the staff of life in these ancient lands. A great doctor and master of medicines, he was the patron of healers and diviners ‘and disclosed to the people the mysteries of the properties of plants’. In addition, he was revered as a lawgiver, as a protector of craftsmen, and as a patron of all the arts.

As might be expected of such a refined and cultured individual he forbade the grisly practice of human sacrifice during the period of his ascendancy in Mexico. After his

departure the bloodspattered rituals were reintroduced with a vengeance. Nevertheless, even the Aztecs, the most vehement sacrificers ever to have existed in the long history of Central America, remembered 'the time of Quetzalcoatl' with a kind of nostalgia. 'He was a teacher,' recalled one legend, 'who taught that no living thing was to be harmed and that sacrifices were to be made not of human beings but of birds and butterflies.'[17]

Cosmic struggle

Why did Quetzalcoatl go away? What went wrong?

Mexican legends provided answers to these questions. They said that the enlightened and benevolent rule of the Plumed Serpent had been brought to an end by Tezcatilpoca, a malevolent god whose name meant 'Smoking Mirror' and

whose cult demanded human sacrifice. It seemed that a near-cosmic struggle between the forces of light and darkness had taken place in Ancient Mexico, and that the forces of darkness had triumphed …

The supposed stage for these events, now known as Tula, was not believed to be particularly old – not much more than 1000 years anyway – but the legends surrounding it linked it to an infinitely more distant epoch. In those times, outside history, it had been known as Tollan. All the traditions agreed that it had been at Tollan that Tezcatilpoca had vanquished Quetzalcoatl and forced him to quit Mexico.

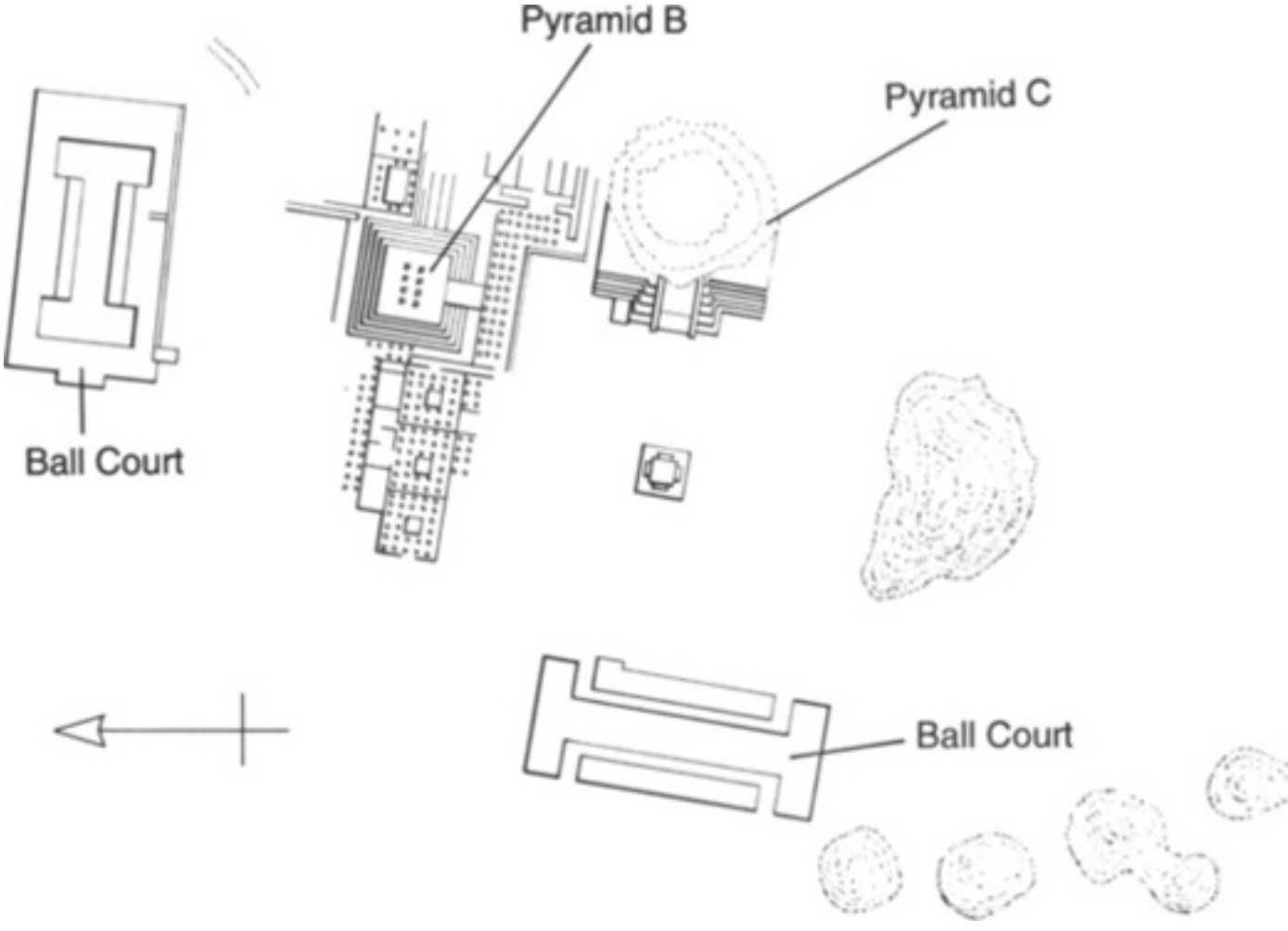
Pyramid B
Pyramid C
Ball Court
Ball Court

Fire serpents

Tula, Hidalgo Province

I was sitting on the flat square summit of the unimaginatively named Pyramid B. The late-afternoon sun was beating down out of a clear blue sky, and I was facing south, looking around.

At the base of the pyramid, to the north and east, were murals depicting jaguars and eagles feasting on human hearts. Immediately behind me were ranged four pillars and four fearsome granite idols each nine feet tall. Ahead and, to my left lay the partially unexcavated Pyramid C, a cactus-covered mound about 40 feet high, and farther away were more mounds not yet investigated by archaeologists. To my

right was a ball court. In that long, I-shaped arena, terrible gladitorial games had been staged in ancient times. Teams, or sometimes just two individuals pitted against each other, would compete for possession of a rubber ball; the losers were decapitated.

The idols on the platform behind me had a solemn and intimidating aura. I stood up to look at them more closely. Their sculptor had given them hard, implacable faces, hooked noses and hollow eyes and they seemed without sympathy or emotion. What interested me most, however, was not so much their ferocious appearance as the objects that they clutched in their hands. Archaeologists admitted that they didn't really know what these objects were but had tentatively identified them anyway. This identification had stuck and it was now received wisdom that spearthrowers called *atl-atls* were held in the right hands of the idols and

‘spears or arrows and incense bags’ in the left hands.[18] It didn’t seem to matter that the objects did not in any way resemble *atl-atls*, spears, arrows, or incense bags.

Santha Faiia’s photographs will help the reader to form his or her own impression of these peculiar objects. As I studied the objects themselves I had the distinct sense that they were meant to represent devices which had originally been made out of metal. The right-hand device, which seemed to emerge from a sheath or hand-guard, was lozenge-shaped with a curved lower edge. The left-hand device could have been an instrument or weapon of some kind.

I remembered legends which related that the gods of ancient Mexico had armed themselves with *xiuhcoatl*, ‘fire serpents’.[19] These apparently emitted burning rays capable of piercing and dismembering human bodies.[20] Was it ‘fire serpents’ that the Tula idols were holding? What, for that

matter, were fire serpents?

Whatever they were, both devices looked like pieces of technology. And both in certain ways resembled the equally mysterious objects in the hands of the idols in the Kalasasaya at Tiahuanaco.

Serpent Sanctuary

Santha and I had come to Tula/Tollan because it had been closely associated both with Quetzalcoatl and with his arch-enemy Tezcatilpoca, the Smoking Mirror.[21] Ever-young, omnipotent, omnipresent and omniscient, Tezcatilpoca was associated in the legends with night, darkness and the sacred jaguar.[22] He was 'invisible and implacable, appearing to men sometimes as a flying shadow, sometimes as a dreadful monster'.[23] Often depicted as a glaring skull, he was said to

have been the owner of a mysterious object, the Smoking Mirror after which he was named, which he made use of to observe from afar the activities of men and gods. Scholars quite reasonably suppose that it must have been a primitive obsidian scrying stone: 'Obsidian had an especial sanctity for the Mexicans, as it provided the sacrificial knives employed by the priests … Bernal Diaz [Spanish chronicler] states that they called this stone "Tezcat". From it mirrors were also manufactured as divinatory media to be used by wizards.'[24]

Representing the forces of darkness and rapacious evil, Tezcatilpoca was said in the legends to have been locked in a conflict with Quetzalcoatl that had continued over an immense span of years.[25] At certain times one seemed to be gaining the upper hand, at certain times the other. Finally the cosmic struggle came to an end when good was vanquished by evil and Quetzalcoatl driven out from Tollan.[26]

Thereafter, under the influence of Tezcatilpoca's nightmarish cult, human sacrifice was reintroduced throughout Central America.

As we have seen, Quetzalcoatl was believed to have fled to the coast and to have been carried away on a raft of serpents. One legend says, 'He burned his houses, built of silver and shells, buried his treasure, and set sail on the Eastern Sea preceded by his attendants who had been changed into bright birds.'[27]

This poignant moment of departure was supposedly staged at a place called Coatzecoalcos, meaning 'Serpent Sanctuary'.[28] There, before taking his leave, Quetzalcoatl promised his followers he would return one day to overthrow the cult of Tezcatilpoca and to inaugurate an era when the gods would again 'accept sacrifices of flowers' and cease their clamour for human blood.[29]

Chapter 15

Mexican Babel

We drove south-east from Tula, by-passing Mexico City on an anarchic series of fast freeways that dragged us through the creeping edge of the capital's eye-watering, lung-searing pollution. Our route then took us up over pine-covered mountains, past the snowy peak of Popocatepetl and thence along tree-lined lanes amid fields and farmsteads.

In the late afternoon we arrived at Cholula, a sleepy town with 11,000 inhabitants and a spacious main square. After turning east through the narrow streets, we crossed a railway line and pulled to a halt in the shadow of *tlahchiualtepetl*, the 'man-made mountain' we had come here to see.

Once sacred to the peaceful cult of Quetzalcoatl, but now surmounted by an ornate Catholic church, this immense edifice was ranked among the most extensive and ambitious engineering projects ever undertaken anywhere in the ancient world. Indeed, with a base area of 45 acres and a height of 210 feet, it was three times more massive than the Great Pyramid of Egypt.[1] Though its contours were now blurred by age and its sides overgrown with grass, it was still possible to recognize that it had once been an imposing ziggurat which had risen up towards the heavens in four clean-angled 'steps'. Measuring almost half a kilometre along

each side at its base, it had also succeeded in preserving a dignified but violated beauty.

The past, though often dry and dusty, is rarely dumb. Sometimes it can speak with passion. It seemed to me that it did so here, bearing witness to the physical and psychological degradation visited upon the native peoples of Mexico when the Spanish *conquistador* Hernan Cortez almost casually 'beheaded a culture as a passer-by might sweep off the head of a sunflower'.[2] In Cholula, a great centre of pilgrimage with a population of around 100,000 at the time of the conquest, this decapitation of ancient traditions and ways of life required that something particularly humiliating be done to the man-made mountain of Quetzalcoatl. The solution was to smash and desecrate the temple which had once stood on the summit of the ziggurat and replace it with a church.

Cortez and his men were few, the Cholulans were many.

When they marched into town, however, the Spaniards had one major advantage: bearded and pale-skinned, dressed in shining armour, they looked like the fulfilment of a prophecy – had it not always been promised that Quetzalcoatl, the Plumed Serpent, would return ‘from across the Eastern Sea’ with his band of followers?[3]

Because of this expectation, the naive and trusting Cholulans permitted the *conquistadores* to climb the steps of the ziggurat and enter the great courtyard of the temple. There troupes of gaily bedecked dancing girls greeted them, singing and playing on instruments, while stewards moved back and forth with heaped platters of bread and delicate cooked meats.

One of the Spanish chroniclers, an eyewitness to the events that followed, reported that adoring townsfolk of all ranks ‘unarmed, with eager and happy faces, crowded in to hear

what the white men would say'. Realizing from this incredible reception that their intentions were not suspected, the Spaniards closed and guarded all the entrances, drew their weapons of steel and murdered their hosts.[4] Six thousand died in this horrible massacre[5] which matched, in its savagery, the most bloodstained rituals of the Aztecs: 'Those of Cholula were caught unawares. With neither arrows nor shields did they meet the Spaniards. Just so they were slain without warning. They were killed by pure treachery.'[6]

It was ironic, I thought, that the *conquistadores* in both Peru and Mexico should have benefited in the same way from local legends that prophesied the return of a pale, bearded god. If that god was indeed a deified human, as seemed likely, he must have been a person of high civilization and exemplary character – or more probably two different people from the same background, one working in Mexico and

providing the model for Quetzalcoatl, the other in Peru being the model for Viracocha. The superficial resemblance that the Spanish bore to those earlier fair-skinned foreigners opened many doors that would otherwise certainly have been closed. Unlike their wise and benevolent predecessors, however, Pizarro in the Andes and Cortez in Central America were ravening wolves. They ate up the lands and the peoples and the cultures they had seized upon. They destroyed almost everything …

Tears for the past

Their eyes scaled with ignorance, bigotry and greed, the Spanish erased a precious heritage of mankind when they arrived in Mexico. In so doing they deprived the future of any detailed knowledge concerning the brilliant and

remarkable civilizations which once flourished in Central America.

What, for example, was the true history of the glowing 'idol' that rested in a sacred sanctuary in the Mixtec capital Achiotlan? We know of this curious object through the writings of a sixteenth-century eyewitness, Father Burgoa:

> The material was of marvellous value, for it was an emerald of the size of a thick pepper-pod [capsicum], upon which a small bird was engraved with the greatest skill, and, with the same skill, a small serpent coiled ready to strike. The stone was so transparent that it shone from its interior with the brightness of a candle flame. It was a very old jewel, and there is no tradition extant concerning the origin of its veneration and worship.[7]

What might we learn if we could examine this 'very old' jewel today? And how *old* was it really? We shall never find out because Fr Benito, the first missionary of Achiotlan,

seized the stone from the Indians: 'He had it ground up, although a Spaniard offered three thousand ducats for it, stirred the powder in water, poured it upon the earth and trod upon it …'[8]

Equally typical of the profligate squandering of the intellectual riches concealed in the Mexican past was the shared fate of two gifts given to Cortez by the Aztec emperor Montezuma. These were circular calendars, as big as cartwheels, one of solid silver, and the other of solid gold. Both were elaborately engraved with beautiful hieroglyphs which may have contained material of great interest. Cortez had them melted down for ingots on the spot.[9]

More systematically, all over Central America, vast repositories of knowledge accumulated since ancient times were painstakingly gathered, heaped up and burned by zealous friars. In July 1562, for example, in the main square

of Mani (just south of modern Merida in Yucatan Province) Fr Diego de Landa burned thousands of Maya codices, story paintings and hieroglyphs inscribed on rolled-up deer skins. He also destroyed countless 'idols' and 'altars', all of which he described as 'works of the devil, designed by the evil one to delude the Indians and to prevent them from accepting Christianity …'[10] Elsewhere he elaborated on the same theme:

> We found great numbers of books [written in the characters of the Indians] but as they contained nothing but superstitions and falsehoods of the devil we burned them all, which the natives took most grievously, and which gave them great pain.[11]

Not only the 'natives' should have felt this pain but anyone and everyone – then and now – who would like to know the truth about the past.

Many other ‘men of God’, some even more ruthlessly efficient than Diego de Landa, participated in Spain’s satanic mission to wipe clear the memory banks of Central America. Notable among these was Juan de Zumarraga, Bishop of Mexico, who boasted of having destroyed 20,000 idols and 500 Indian temples. In November 1530 he burned a Christianized Aztec aristocrat at the stake for having allegedly reverted to worship of the ‘rain-god’ and later, in the market-place at Texcoco, built a vast bonfire of astronomical documents, paintings, manuscripts and hieroglyphic texts which the *conquistadores* had forcibly extracted from the Aztecs during the previous eleven years.[12] As this irreplaceable storehouse of knowledge and history went up in flames, a chance to shake off at least some of the collective amnesia that clouds our understanding was lost to mankind for ever.

What remains to us of the written records of the ancient peoples of Central America? The answer, thanks to the Spanish, is less than twenty original codices and scrolls.[13]

We know from hearsay that many of the documents which the friars reduced to ashes contained 'records of ages past'.[14]

What did those lost records say? what secrets did they hold?

Gigantic men of deformed stature

Even while the the orgy of book-burning was still going on, some Spaniards began to realize that 'a truly great civilization had once existed in Mexico prior to the Aztecs'.[15] Oddly enough, one of the first to act on this realization was Diego de Landa. He appears to have undergone 'Damascus-road experience' after staging his *auto-da-fé* at Mani. In later

years, determined to save what he could of the ancient wisdom he had once played such a large part in destroying, he became an assiduous gatherer of the traditions and oral histories of the native peoples of the Yucatan.[16]

Bernardino de Sahagun, a Franciscan friar, was a chronicler to whom we owe much. A great linguist, he is reported to have 'sought out the most learned and often the oldest natives, and asked each to paint in his Aztec picture writing as much as he could clearly remember of Aztec history, religion and legend'.[17] In this way Sahagun was able to accumulate detailed information on the anthropology, mythology and social history of ancient Mexico, which he later set down in a learned twelve-volume work. This was suppressed by the Spanish authorities. Fortunately one copy has survived, though it is incomplete.

Diego de Duran, a conscientious and courageous collector

of indigenous traditions, was yet another Franciscan who fought to recover the lost knowledge of the past. He visited Cholula in AD 1585, a time of rapid and catastrophic change. There he interviewed a venerated elder of the town, said to have been more than one hundred years old, who told him this story about the making of the great ziggurat:

> In the beginning, before the light of the sun had been created, this place, Cholula, was in obscurity and darkness; all was a plain, without hill or elevation, encircled in every part by water, without tree or created thing. Immediately after the light and the sun arose in the east there appeared gigantic men of deformed stature who possessed the land. Enamoured of the light and beauty of the sun they determined to build a tower so high that its summit should reach the sky. Having collected materials for the purpose they found a very adhesive clay and bitumen with which they speedily commenced to build the tower … And having reared it to the

> greatest possible altitude, so that it reached the sky, the Lord of the Heavens, enraged, said to the inhabitants of the sky, 'Have you observed how they of the earth have built a high and haughty tower to mount hither, being enamoured of the light of the sun and his beauty? Come and confound them, because it is not right that they of the earth, living in the flesh, should mingle with us.' Immediately the inhabitants of the sky sallied forth like flashes of lightning; they destroyed the edifice and divided and scattered its builders to all parts of the earth.[18]

It was this story, almost but not quite the biblical account of the Tower of Babel (which was itself a reworking of a far older Mesopotamian tradition), that had brought me to Cholula.

The Central American and Middle Eastern tales were obviously closely related. Indeed, the similarities were unmissable, but there were also differences far too significant to be ignored. Of course, the similarities could be due to

unrecorded pre-Colombian contacts between the cultures of the Middle East and the New World, but there was one way to explain the similarities *and the* differences in a single theory. Suppose that the two versions of the legend had evolved separately for several thousands of years, but prior to that both had descended from the same remotely ancient ancestor?

Remnants

Here's what the *Book of Genesis* says about the 'tower that reached to heaven':

> Throughout the earth men spoke the same language, with the same vocabulary. Now as they moved eastwards they found a plain in the land of Shinar, where they settled. There they said to one another, 'Come, let us

make bricks and bake them in the fire.' For stone they used bricks and for mortar they used bitumen. 'Come,' they said, 'let us build ourselves a town and a tower with its top reaching heaven. Let us make a name for ourselves, so that we may not be scattered about the entire earth.'

Now Yahewh [the Hebrew God] came down to see the town and the tower that the sons of man had built. 'So they are all a single people with a single language!' said Yahweh. 'This is but the start of their undertakings! There will be nothing too hard for them to do. Come, let us go down and confuse their language on the spot so that they can no longer understand one another.'

Yahweh scattered them thence over the whole face of the earth, and they stopped building the tower. It was named Babel, therefore, because there Yahweh confused the language of the whole earth. It was from there that Yahweh scattered them over the whole face of the earth.[19]

The verse which most interested me suggested very clearly

that the ancient builders of the Tower of Babel had set out to create a lasting monument to themselves so that their name would not be forgotten – even if their civilization and language were. Was it possible that the same considerations could have applied at Cholula?

Only a handful of monuments in Mexico were thought by archaeologists to be more than 2000 years old. Cholula was definitely one of them. Indeed no one could say for sure in what distant age its ramparts had first begun to be heaped up. For thousands of years before development and extension of the site began in earnest around 300 BC, it looked as though some other, older structure might have been positioned at the spot over which the great ziggurat of Quetzalcoatl now rose.

There was a precedent for this which further strengthened the intriguing possibility that the remnants of a truly ancient

civilization might still be lying around in Central America waiting to be recognized. For example, just south of the university campus of Mexico City, off the main road connecting the capital to Cuernavaca, stands a circular step pyramid of great complexity (with four galleries and a central staircase). It was partially excavated in the 1920s from beneath a mantle of lava. Geologists were called to the site to help date the lava, and carried out a detailed examination. To everyone's surprise, they concluded that the volcanic eruption which had completely buried three sides of this pyramid (and had then gone on to cover about sixty square miles of the surrounding territory) must have taken place *at least seven thousand years ago.*[20]

This geological evidence seems to have been ignored by historians and archaeologists, who do not believe that any civilization capable of building a pyramid could have existed

in Mexico at such an early date. It is worth noting, however, that Byron Cummings, the American archaeologist who originally excavated the site for the National Geographical Society, was convinced by clearly demarcated stratification layers above and below the pyramid (laid down both before and after the volcanic eruption) that it was 'the oldest temple yet uncovered on the American continent'. He went further than the geologists and stated categorically that this temple 'fell into ruins some 8500 years ago'.[21]

Pyramids upon pyramids

Going inside the Cholula pyramid really did feel like entering a man-made mountain. The tunnels (and there were more than six miles of them) were not old: they had been left behind by the teams of archaeologists who had burrowed

here diligently from 1931 until funds ran out in 1966. Somehow, these narrow, low-ceilinged corridors had borrowed an atmosphere of antiquity from the vast structure all around them. Moist and cool, they offered an inviting and secretive darkness.

Following a ribbon of torchlight we walked deeper inside the pyramid. The archaeological excavations had revealed that it was not the product of one dynasty (as was thought to have been the case with the pyramids at Giza in Egypt), but that it had been built up over a very long period of time – two thousand years or so, at a conservative estimate. In other words it was a collective project, created by an inter-generational labour force drawn from the many different cultures, Olmec, Teotihuacan, Toltec, Zapotec, Mixtec, Cholulan and Aztec, that had passed through Cholula since the dawn of civilization in Mexico.[22]

Though it was not known who had been the first builders here, as far as it had been possible to establish the earliest major edifice on the site consisted of a tall conical pyramid, shaped like an upturned bucket, flattened at the summit where a temple had stood. Much later a second, similar structure was imposed on top of this primordial mound, i.e. a second inverted bucket of clay, and compacted stone was placed directly over the first, raising the temple platform to more than 200 feet above the surrounding plain. Thereafter, during the next fifteen hundred years or so, an estimated four or five other cultures contributed to the final appearance of the monument. This they did by extending its base in several stages, but never again by increasing its maximum height. In this way, almost as though a master plan were being implemented, the man-made mountain of Cholula gradually attained its characteristic, four-tier ziggurat shape. Today, its

sides at the base are each almost 1500 feet long – about twice the length of the sides of the Great Pyramid at Giza – and its total volume has been estimated at a staggering three million cubic metres.[23] This makes it, as one authority succinctly states, 'the largest building ever erected on earth.'[24]

Why?

Why go to all that trouble?

What sort of name for themselves were the peoples of Central America trying to make?

Walking through the network of corridors and passageways, inhaling the cool, loamy air, I was uncomfortably conscious of the great weight and mass of the pyramid pressing down upon me. It was *the largest building in the world* and it had been placed here in honour of a Central American deity of whom almost nothing was known.

We had the *conquistadores* and the Catholic Church to thank for leaving us so deeply in the dark about the true story of Quetzalcoatl and his followers. The smashing and desecration of his ancient temple at Cholula, the destruction of idols, altars and calendars, and the great bonfires made out of codices, paintings and hieroglyphic scrolls, had succeeded almost completely in silencing the voices of the past. But the legends did offer us one graphic and powerful piece of imagery: a memory of the ‘gigantic men of deformed stature’ who were said to have been the original builders.

Chapter 16

Serpent Sanctuary

From Cholula we drove east, past the prosperous cities of Puebla, Orizaba and Cordoba, towards Veracruz and the Gulf of Mexico. We crossed the mist-enshrouded peaks of the Sierra Madre Oriental, where the air was thin and cold, and then descended towards sea level on to tropical plains overgrown with lush plantations of palms and bananas. We

were heading into the heartlands of Mexico's oldest and most mysterious civilization: that of the so-called Olmecs, whose name meant 'rubber people'.

Dating back to the second millennium BC, the Olmecs had ceased to exist fifteen hundred years before the rise of the Aztec empire. The Aztecs, however, had preserved haunting traditions concerning them and were even responsible for naming them after the rubber-producing area of Mexico's gulf coast where they were believed to have lived.[1] This area lies between modern Veracruz in the west and Ciudad del Carmen in the east. In it the Aztecs found a number of ancient ritual objects produced by the Olmecs and for reasons unknown they collected these objects and placed them in positions of importance in their own temples.[2]

Looking at my map, I could see the blue line of the Coatzecoalcos River running into the Gulf of Mexico more or

less at the midpoint of the legendary Olmec homeland. The oil industry proliferates here now, where rubber trees once flourished, transforming a tropical paradise into something resembling the lowest circle of Dante's Inferno. Since the oil boom of 1973 the town of Coatzecoalcos, once easy-going but not very prosperous, had mushroomed into a transport and refining centre with air-conditioned hotels and a population of half a million. It lay close to the black heart of an industrial wasteland in which virtually everything of archaeological interest that had escaped the depredations of the Spanish at the time of the conquest had been destroyed by the voracious expansion of the oil business. It was therefore no longer possible, on the basis of hard evidence, to confirm or deny the intriguing suggestion that the legends seemed to make: that something of great importance must once have occurred here.

The Olmec sites of Tres Zapotes, San Lorenzo and La Venta along the Gulf of Mexico, with other

I remembered that Coatzecoalcos meant ‘Serpent Sanctuary’. It was here, in remote antiquity, that Quetzalcoatl and his companions were said to have landed when they first reached Mexico, arriving from across the sea in vessels ‘with sides that shone like the scales of serpents’ skins’.[3] And it was from here too that Quetzalcoatl was believed to have sailed (on his raft of serpents) when he left Central America. Serpent Sanctuary, moreover, was beginning to look like the *name* for the Olmec homeland, which had included not only Coatzecoalcos but several other sites in areas less blighted by development.

First at Tres Zapotes, west of Coatzecoalcos, and then at San Lorenzo and La Venta, south and east of it, numerous pieces of characteristically Olmec sculpture had been unearthed. All were monoliths carved out of basalt and

similarly durable materials. Some took the form of gigantic heads weighing up to thirty tons. Others were massive stelae engraved with encounter scenes apparently involving two distinct races of mankind, neither of them American-Indian.

Whoever had produced these outstanding works of art had obviously belonged to a refined, well organized, prosperous and technologically advanced civilization. The problem was that absolutely nothing remained, except the works of art, from which anything could be deduced about the character and origins of that civilization. All that seemed clear was that 'the Olmecs' (the archaeologists were happy to accept the Aztec designation) had materialized in Central America around 1500 BC with their sophisticated culture fully evolved.

Santiago Tuxtla

We passed the night at the fishing port of Alvarado and continued our journey east the next day. The road we were following wound in and out of fertile hills and valleys, giving us occasional views of the Gulf of Mexico before turning inland. We passed green meadows filled with flame trees, and little villages nestled in grassy hollows. Here and there we saw private gardens where hulking pigs grubbed amongst piles of domestic refuse. Then we crested the brow of a hill and looked out across a giant vista of fields and forests bound only by the morning haze and the faint outlines of distant mountains.

Some miles farther on we dropped into a hollow; at its bottom lay the old colonial town of Santiago Tuxtla. The place was a riot of colour: garish shop-fronts, red-tile roofs, yellow straw hats, coconut palms, banana trees, kids in bright clothes. Several of the shops and cafés were playing music

from loudspeakers. In the Zocalo, the main square, the air was thick with humidity and the fluttering wings and songs of bright-eyed tropical birds. A leafy little park occupied the centre of this square, and in the centre of the park, like some magic talisman, stood an enormous grey boulder, almost ten feet tall, carved in the shape of a helmeted African head. Full-lipped and strong-nosed, its eyes serenely closed and its lower jaw resting squarely on the ground, this head had a sombre and patient gravity.

Here, then, was the first mystery of the Olmecs: a monumental piece of sculpture, more than 2000 years old, which portrayed a subject with unmistakable negroid features. There were, of course, no African blacks in the New World 2000 years ago, nor did any arrive until the slave trade began, well after the conquest. There is, however, firm palaeoanthropological evidence that one of the many

different migrations into the Americas during the last Ice Age *did* consist of peoples of negroid stock. This migration occurred around 15,000 BC.[4]

Known as the 'Cobata' head after the estate on which it was found, the huge monolith in the Zocalo was the largest of sixteen similar Olmec sculptures so far excavated in Mexico. It was thought to have been carved not long before the time of Christ and weighed more than thirty tons.

Tres Zapotes

From Santiago Tuxtla we drove twenty-five kilometres south-west through wild and lush countryside to Tres Zapotes, a substantial late Olmec centre believed to have flourished between 500 BC and AD 100. Now reduced to a series of

mounds scattered across maize fields, the site had been extensively excavated in 1939–40 by the American archaeologist Matthew Stirling.

Historical dogmatists of that period, I remembered, had held tenaciously to the view that the civilization of the Mayas was the oldest in Central America. One could be precise about this, they argued, because the Mayan dot-and-bar calendrical system (which had recently been decoded) made possible accurate dating of huge numbers of ceremonial inscriptions. The earliest date ever found on a Mayan site corresponded to AD 228 of the Christian calendar.[5] It therefore came as quite a jolt to the academic status quo when Stirling unearthed a stela at Tres Zapotes which bore an earlier date. Written in the familiar bar-and-dot calendrical code used by the Maya, it corresponded to 3 September 32 BC.[6]

What was shocking about this was that Tres Zapotes was not a Maya site – not in any way at all. It was entirely, exclusively, unambiguously Olmec. This suggested that the Olmecs, not the Maya, must have been the inventors of the calendar, and that the Olmecs, not the Maya, ought to be recognized as 'the mother culture' of Central America. Despite determined opposition from gangs of furious Mayanists the truth which Stirling's spade had unearthed at Tres Zapotes gradually came out. The Olmecs were much, *much* older than the Maya. They'd been a smart, civilized, technologically advanced people and they did, indeed, appear to have invented the bar-and-dot system of calendrical notation, with the enigmatic starting date of 13 August 3114 BC, which predicted the end of the world in AD 2012.

Lying close to the calendar stela at Tres Zapotes, Stirling

also unearthed a giant head. I sat in front of that head now. Dated to around 100 BC,[7] it was approximately six feet high, 18 feet in circumference and weighed over 10 tons. Like its counterpart in Santiago Tuxtla, it was unmistakably the head of an African man wearing a close-fitting helmet with long chin-straps. The lobes of the ears were pierced by plugs; the pronounced negroid features were furrowed by deep frown lines on either side of the nose, and the entire face was concentrated forwards above thick, down-curving lips. The eyes were open and watchful, almond-shaped and cold. Beneath the curious helmet, the heavy brows appeared beetling and angry.

Stirling was amazed by this discovery and reported,

> The head was a head only, carved from a single massive block of basalt, and it rested on a prepared foundation of unworked slabs of

> stone … Cleared of the surrounding earth it presented an awe-inspiring spectacle. Despite its great size the workmanship is delicate and sure, the proportions perfect. Unique in character among aboriginal American sculptures, it is remarkable for its realistic treatment. The features are bold and amazingly negroid in character …[8]

Soon afterwards the American archaeologist made a second unsettling discovery at Tres Zapotes: children's toys in the form of little wheeled dogs.[9] These cute artefacts conflicted head-on with prevailing archaeological opinion, which held that the wheel had remained undiscovered in Central America until the time of the conquest. The 'dogmobiles' proved, at the very least, that the *principle* of the wheel had been known to the Olmecs, Central America's earliest civilization. And if a people as resourceful as the Olmecs had worked out the principle of the wheel, it seemed highly unlikely that they would have used it just for children's toys.

Chapter 17

The Olmec Enigma

After Tres Zapotes our next stop was San Lorenzo, an Olmec site lying south-west of Coatzecoalcos in the heart of the 'Serpent Sanctuary' the legends of Quetzalcoatl made reference to. It was at San Lorenzo that the earliest carbon-dates for an Olmec site (around 1500 BC) had been recorded by archaeologists.[1] However, Olmec culture appeared to have

been fully evolved by that epoch and there was no evidence that the evolution had taken place in the vicinity of San Lorenzo.[2]

In this there lay a mystery.

The Olmecs, after all, had built a significant civilization which had carried out prodigious engineering works and had developed the capacity to carve and manipulate vast blocks of stone (several of the huge monolithic heads, weighing twenty tons or more, had been moved as far as 60 miles overland after being quarried in the Tuxtla mountains).[3] So where, if not at ancient San Lorenzo, had their technological expertise and sophisticated organization been experimented with, evolved and refined?

Strangely, despite the best efforts of archaeologists, not a single, solitary sign of anything that could be described as the 'developmental phase' of Olmec society had been unearthed

anywhere in Mexico (or, for that matter, anywhere in the New World). These people, whose characteristic form of artistic expression was the carving of huge negroid heads, appeared to have come from nowhere.[4]

San Lorenzo

We reached San Lorenzo late in the afternoon. Here, at the dawn of history in Central America, the Olmecs had heaped up an artificial mound more than 100 feet high as part of an immense structure some 4000 feet in length and 2000 feet in width. We climbed the dominant mound, now heavily overgrown with thick tropical vegetation, and from the summit we could see for miles across the surrounding countryside. A great many lesser mounds were also visible and around about were several of the deep trenches the

archaeologist Michael Coe had dug when he had excavated the site in 1966.

Coe's team made a number of finds here, which included more than twenty artificial reservoirs, linked by a highly sophisticated network of basalt-lined troughs. Part of this system was built into a ridge; when it was rediscovered water still gushed forth from it during heavy rains, as it had done for more than 3000 years. The main line of the drainage ran from east to west. Into it, linked by joints made to an advanced design, three subsidiary lines were channelled.[5] After surveying the site thoroughly, the archaeologists admitted that they could not understand the purpose of this elaborate system of sluices and water-works.[6]

Nor were they able to come up with an explanation for another enigma. This was the deliberate burial, along specific alignments, of five of the massive pieces of sculpture,

showing negroid features, now widely identified as 'Olmec heads'. These peculiar and apparently ritualistic graves also yielded more than sixty precious objects and artefacts, including beautiful instruments made of jade and exquisitely carved statuettes. Some of the statuettes had been systematically mutilated before burial.

The way the San Lorenzo sculptures had been interred made it extremely difficult to fix their true age, even though fragments of charcoal were found in the same strata as some of the buried objects. Unlike the sculptures, these charcoal pieces could be carbon-dated. They were, and produced readings in the range of 1200 BC.[7] This did not mean, however, that the sculptures had been carved in 1200 BC. They could have been. But they could have originated in a period hundreds or even thousands of years earlier than that. It was by no means impossible that these great works of art,

with their intrinsic beauty and an indefinable numinous power, could have been preserved and venerated by many different cultures before being buried at San Lorenzo. The charcoal associated with them proved only that the sculptures were *at least as old* as 1200 BC; it did not set any upper limit on their antiquity.

La Venta

We left San Lorenzo as the sun was going down, heading for the city of Villahermosa, more than 150 kilometres to the east in the province of Tabasco. To get there we rejoined the main road running from Acayucan to Villahermosa and by-passed the port of Coatzecoalcos in a zone of oil refineries, towering pylons and ultra-modern suspension bridges. The change of pace between the sleepy rural backwater where

San Lorenzo was located and the pockmarked industrial landscape around Coatzecoalcos was almost shocking. Moreover, the only reason that the timeworn outlines of the Olmec site could still be seen at San Lorenzo was that oil had not yet been found there.

It had, however, been found at La Venta – to the eternal loss of archaeology …

We were now passing La Venta.

Due north, off a slip-road from the freeway, this sodium-lit petroleum city glowed in the dark like a vision of nuclear disaster. Since the 1940s it had been extensively 'developed' by the oil industry: an airstrip now bisected the site where a most unusual pyramid had once stood, and flaring smokestacks darkened the sky which Olmec star-gazers must once have searched for the rising of the planets. Lamentably, the bulldozers of the developers had flattened virtually

everything of interest before proper excavations could be conducted, with the result that many of the ancient structures had not been explored at all.[8] We will never know what they could have said about the people who built and used them.

Matthew Stirling, who excavated Tres Zapotes, carried out the bulk of the archaeological work done at La Venta before progress and oil money erased it. Carbon-dating suggested that the Olmecs had established themselves here between 1500 and 1100 BC and had continued to occupy the site – which consisted of an island lying in marshes to the east of the Tonala river – until about 400 BC.[9] Then construction was suddenly abandoned, all existing buildings were ceremonially defaced or demolished, and several huge stone heads and other smaller pieces of sculpture were ritually buried in peculiar graves, just as had happened at San Lorenzo. The La Venta graves were elaborate and carefully prepared, lined

with thousands of tiny blue tiles and filled up with layers of multicoloured clay.[10] At one spot some 15,000 cubic feet of earth had been dug out of the ground to make a deep pit; its floor had been carefully covered with serpentine blocks, and all the earth put back. Three mosaic pavements were also found, intentionally buried beneath several alternating layers of clay and adobe.[11]

La Venta's principal pyramid stood at the southern end of the site. Roughly circular at ground level, it took the form of a fluted cone, the rounded sides consisting of ten vertical ridges with gullies between. The pyramid was 100 feet tall, almost 200 feet in diameter and had an overall mass in the region of 300,000 cubic feet – an impressive monument by any standards. The remainder of the site stretched for almost half a kilometre along an axis that pointed precisely 8° west of north. Centred on this axis, with every structure in flawless

alignment, were several smaller pyramids and plazas, platforms and mounds, covering a total area of more than three square miles.

There was something detached and odd about La Venta, a sense that its original function had not been properly understood. Archaeologists referred to it as a ‘ceremonial centre’, and very probably that is what it was. If one were honest, however, one would admit that it could also have been several other things. The truth is that nothing is known about the social organization, ceremonies and belief systems of the Olmecs. We do not know what language they spoke, or what traditions they passed to their children. We don’t even know what ethnic group they belonged to. The exceptionally humid conditions of the Gulf of Mexico mean that not a single Olmec skeleton has survived.[12] In reality, despite the names we have given them and the views we’ve formed

about them, these people are completely obscure to us.

It is even possible that the enigmatic sculptures ‘they’ left behind, which we presume depicted them, were not ‘their’ work at all, but the work of a far earlier and forgotten people. Not for the first time I found myself wondering whether some of the great heads other remarkable artefacts attributed to the Olmecs might not have been handed down like heirlooms, perhaps over many millennia, to the cultures which eventually began to build the mounds and pyramids at San Lorenzo and La Venta.

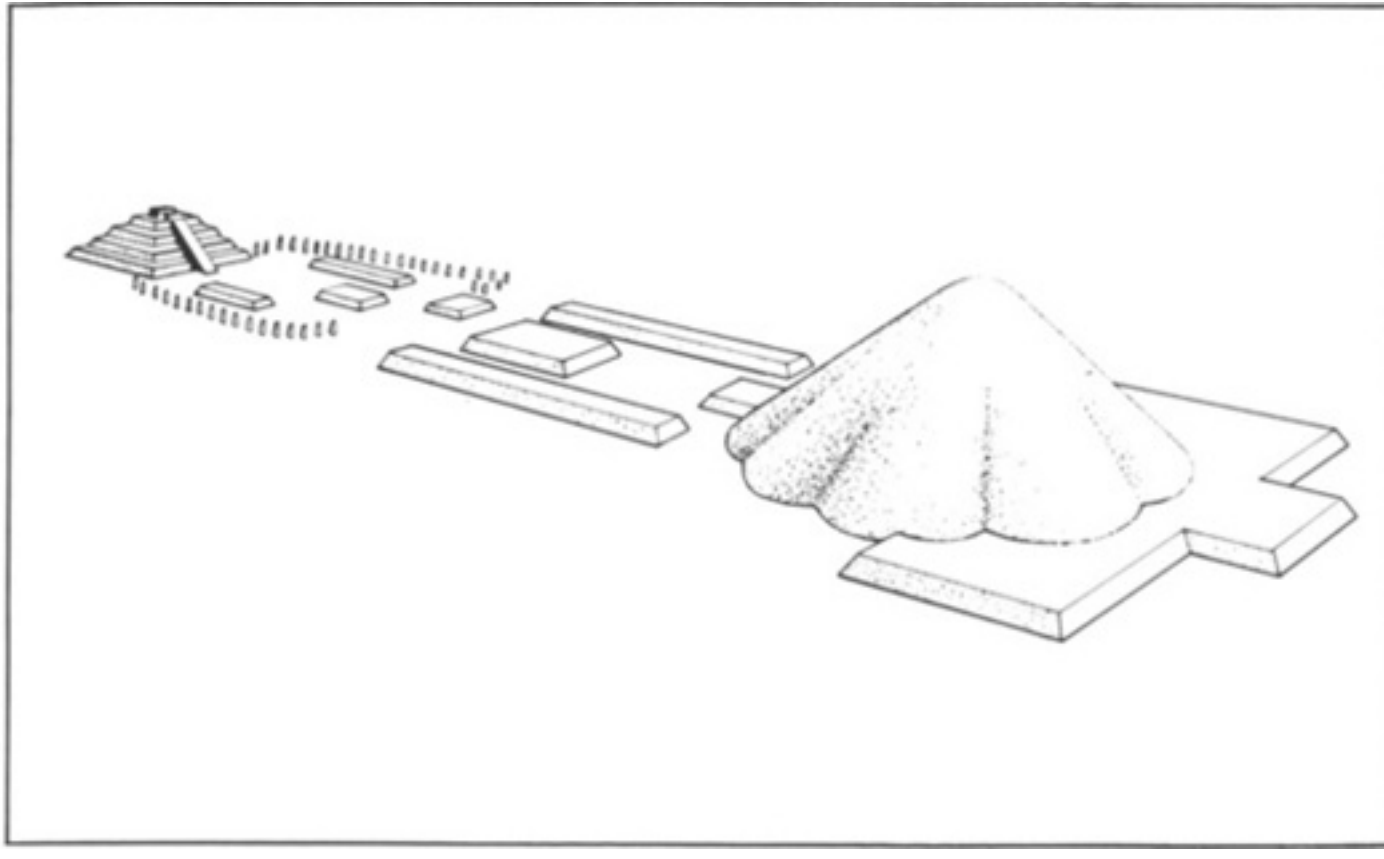

Reconstruction of La Venta. Note the unusual fluted-cone pyramid that dominates the site.

If so, then who are we speaking of when we use the label

‘Olmec’? The mound-builders? Or the powerful and imposing men with negroid features who provided the models for the monolithic heads?

Fortunately some fifty pieces of ‘Olmec’ monumental sculpture, including three of the giant heads, were rescued from La Venta by Carlos Pellicer Camara, a local poet and historian who intervened forcefully when he discovered that oil-drilling by the PEMEX company jeopardized the ruins. By determined lobbying of the politicians of Tabasco (within which La Venta lies), he arranged to have the significant finds moved to a park on the outskirts of the regional capital Villahermosa.

Taken together these finds constitute a precious and irreplacable cultural record – or rather a whole library of cultural records – left behind by a vanished civilization. But nobody knows how to read the language of these records.

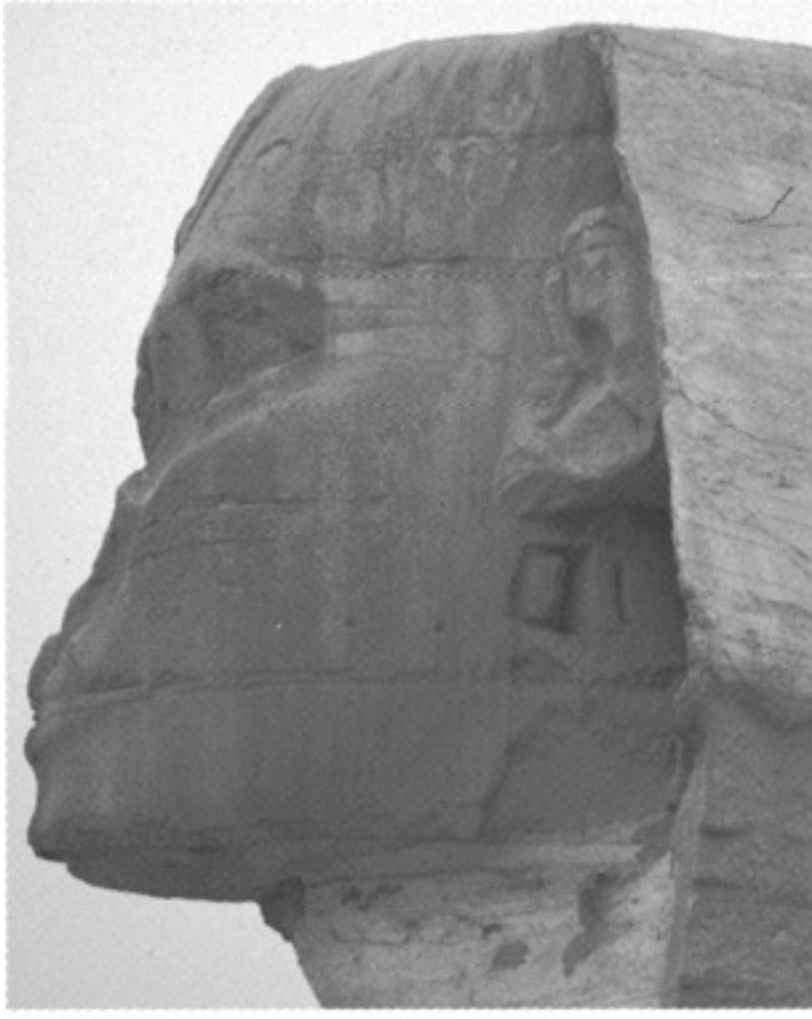

Profile view of the head of the Great Sphinx at Giza, Egypt.

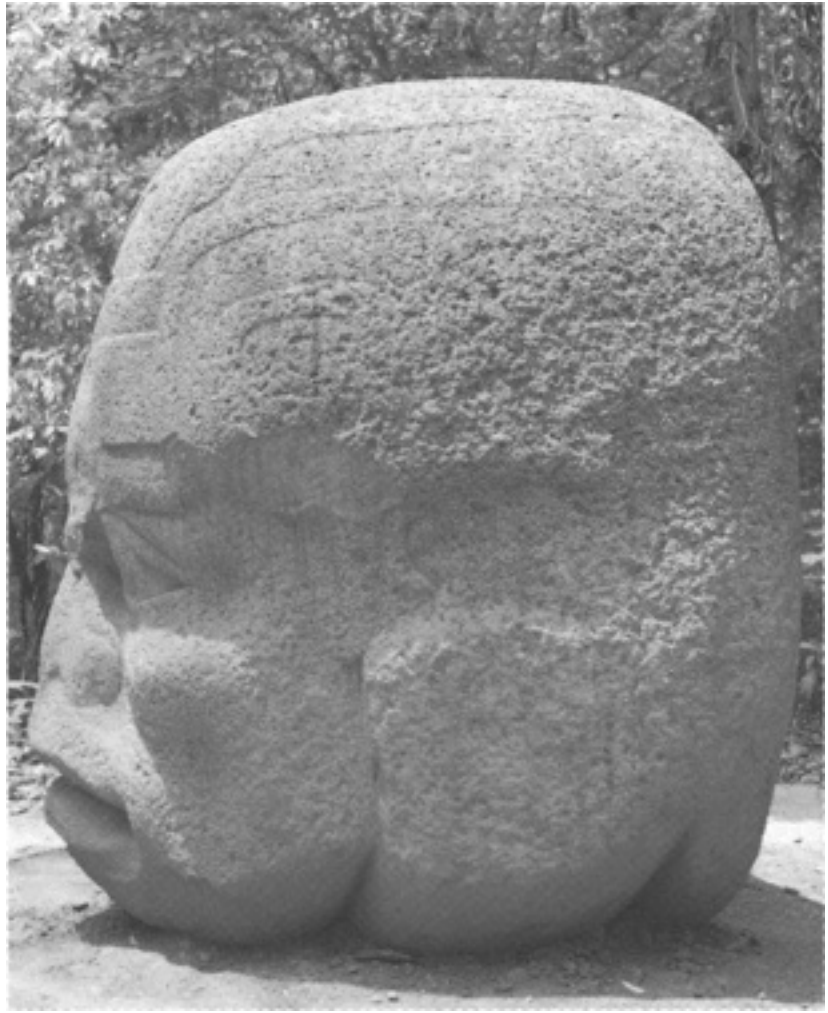

Profile view of Olmec Head from La Venta, Mexico.

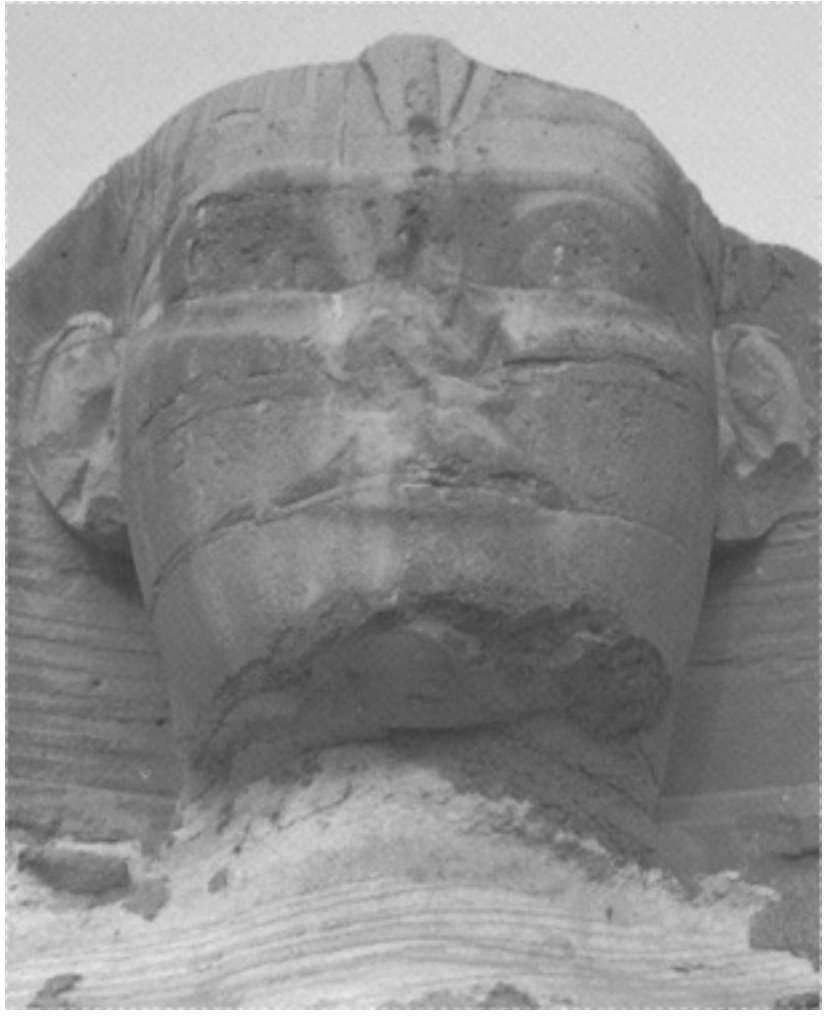

Front view of the head of the Sphinx.

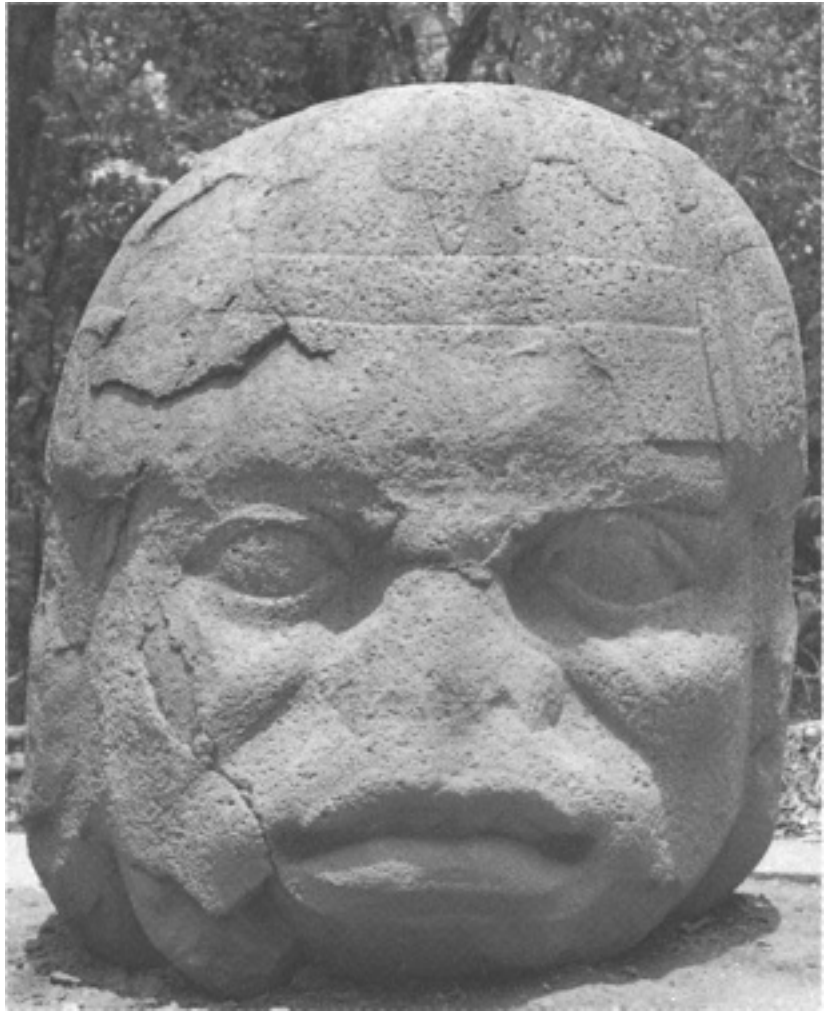

Front view of Olmec Head.

Sphinx-like Olmec sculpture from San Lorenzo, Mexico. Is it possible that the many similarities between the cultures of pre-Columbian Central America and Ancient Egypt could have stemmed from an as-yet-unidentified ‘third-party’ civilization that influenced both widely separated regions at a remote and early date?

Double-puma statue at Uxmal, Mexico.

Double-lion symbolism from Ancient Egypt, depicting the *Akeru*, lion gods of yesterday and today (*Akeru* was written in hieroglyphs as). The religions of both regions share many other common

images and ideas. Also noteworthy is the fact that *p'achi*, the Central American word for 'human sacrifice', means, literally 'to open the mouth' – which calls to mind a strange Ancient Egyptian funerary ritual known as 'the opening of the mouth'. Likewise it was believed in both regions that the souls of dead kings were reborn as stars.

Deus ex machina

Villahermosa, Tabasco province

I was looking at an elaborate relief that had been dubbed 'Man in Serpent' by the archaeologists who found it at La Venta. According to expert opinion it showed 'an Olmec, wearing a head-dress and holding an incense bag, enveloped by a feathered serpent'.[13]

The relief was carved into a slab of solid granite measuring about four feet wide by five feet high and showed a man sitting with his legs stretched out in front him as though he

were reaching for pedals with his feet. He held a small, bucket-shaped object in his right hand. With his left he appeared to be raising or lowering a lever. The 'head-dress' he wore was an odd and complicated garment. To my eye it seemed more functional than ceremonial, although I could not imagine what its function might have been. On it, or perhaps on a console above it, were two x-shaped crosses.

I turned my attention to the other principal element of the sculpture, the 'feathered serpent'. On one level it did, indeed, depict exactly that: a plumed or feathered serpent, the age-old symbol of Quetzalcoatl, whom the Olmecs, therefore, must have worshipped (or at the very least recognized). Scholars do not dispute this interpretation.[14] It is generally accepted that Quetzalcoatl's cult was immensely ancient, originating in prehistoric times in Central America and thereafter receiving the devotion of many cultures during the

historic period.

The feathered serpent in this particular sculpture, however, had certain characteristics that set it apart. It seemed to be more than just a religious symbol; indeed, there was something rigid and structured about it that made it look almost like a piece of machinery.

Whispers of ancient secrets

Later that day I took shelter in the giant shadow cast by one of the Olmec heads Carlos Pellicer Camara had rescued from La Venta. It was the head of an old man with a broad flat nose and thick lips. The lips were slightly parted, exposing strong, square teeth. The expression on the face suggested an ancient, patient wisdom, and the eyes seemed to gaze unafraid into eternity, like those of the Great Sphinx at Giza

in lower Egypt.

It would probably be impossible, I thought, for a sculptor to *invent* all the different combined characteristics of an authentic racial type. The portrayal of an authentic combination of racial characteristics therefore implied strongly that a human model had been used.

I walked around the great head a couple of times. It was 22 feet in circumference, weighed 19.8 tons, stood almost 8 feet high, had been carved out of solid basalt, and displayed clearly ‘an authentic combination of racial characteristics’. Indeed, like the other pieces I had seen at Santiago Tuxtla and at Tres Zapotes, it unmistakably and unambiguously showed a negro.

The reader can form his or her own opinion after examining the relevant photographs in this book. My own view is that the Olmec heads present us with physiologically

accurate images of *real* individuals of negroid stock – charismatic and powerful African men whose presence in Central America 3000 years ago has not yet been explained by scholars. Nor is there any certainty that the heads were actually carved in that epoch. Carbon-dating of fragments of charcoal found in the same pits tells us only the age of the charcoal. Calculating the true antiquity of the heads themselves is a much more complex matter.

It was with such thoughts that I continued my slow walk among the strange and wonderful monuments of La Venta. They whispered of ancient secrets – the secret of the man in the machine … the secret of the negro heads … and, last but not least, the secret of a legend brought to life. For it seemed that flesh might indeed have been put on the mythical bones of Quetzalcoatl when I found that several of the La Venta sculptures contained realistic likenesses not only of negroes

but of tall, thin-featured, long-nosed, apparently Caucasian men with straight hair and full beards, wearing flowing robes …

Chapter 18

Conspicuous Strangers

Matthew Stirling, the American archaeologist who excavated La Venta in the 1940s, made a number of spectacular discoveries there. The most spectacular of all was the Stele of the Bearded Man.

The plan of the ancient Olmec site, as I have said, lay along an axis pointing 8° west of north. At the southern end of this

axis, 100 feet tall, loomed the fluted cone of the great pyramid. Next to it, at ground level, was what looked like a curb about a foot high enclosing a spacious rectangular area one-quarter the size of an average city block. When the archaeologists began to uncover this curb they found, to their surprise, that it consisted of the upper parts of a wall of columns. Further excavation through the undisturbed layers of stratification that had accumulated revealed that the columns were ten feet tall. There were more than 600 of them and they had been set together so closely that they formed a near-impregnable stockade. Hewn out of solid basalt and transported to La Venta from quarries more than sixty miles distant, the columns weighed approximately two tons each.

Why all this trouble? What had the stockade been built to contain?

Even before excavation began, the tip of a massive chunk of rock had been visible jutting out of the ground in the centre of the enclosed area, about four feet higher than the illusory ‘curb’ and leaning steeply forward. It was covered with carvings. These extended down, out of sight, beneath the layers of soil that filled the ancient stockade to a height of about nine feet.

Stirling and his team worked for two days to free the great rock. When exposed it proved to be an imposing stele fourteen feet high, seven feet wide and almost three feet thick. The carvings showed an encounter between two tall men, both dressed in elaborate robes and wearing elegant shoes with turned-up toes. Either erosion or deliberate mutilation (quite commonly practised on Olmec monuments) had resulted in the complete defacement of one of the figures. The other was intact. It so obviously depicted a

Caucasian male with a high-bridged nose and a long, flowing beard that the bemused archaeologists promptly christened it 'Uncle Sam'.[1]

I walked slowly around the twenty-ton stele, remembering as I did so that it had lain buried in the earth for more than 3000 years. Only in the brief half century or so since Stirling's excavations had it seen the light of day again. What would its fate be now? Would it stand here for another thirty centuries as an object of awe and splendour for future generations to gawp at and revere? Or, in such a great expanse of time, was it possible that circumstances might change so much that it would once again be buried and concealed?

Perhaps neither would happen. I remembered the ancient calendrical system of Central America, which the Olmecs had initiated. According to them, and to their more famous

successors the Mayas, there just weren't any great expanses of time left, let alone three millennia. The Fifth Sun was all used up and a tremendous earthquake was building to destroy humanity two days before Christmas in AD 2012.

I turned my attention back to the stele. Two things seemed to be clear: the encounter scene it portrayed must, for some reason, have been of immense importance to the Olmecs, hence the grandeur of the stele itself, and the construction of the remarkable stockade of columns built to contain it. And, as was the case with the negro heads, it was obvious that the face of the bearded Caucasian man could only have been sculpted from a human model. The racial verisimilitude was too good for an artist to have invented it.

The same went for two other Caucasian figures I was able to identify among the surviving monuments from La Venta. One was carved in low relief on a heavy and roughly circular

slab of stone about three feet in diameter. Dressed in what looked like tight-fitting leggings, his features were those of an Anglo-Saxon. He had a full pointed beard and wore a curious floppy cap on his head. In his left hand he extended a flag, or perhaps a weapon of some kind. His right hand, which he held across the middle of his chest, appeared to be empty. Around his slim waist was tied a flamboyant sash. The other Caucasian figure, this time carved on the side of a narrow pillar, was similarly bearded and attired.

Who were these conspicuous strangers? What were they doing in Central America? When did they come? And what relationship did they have with those other strangers who had settled in this steamy rubber jungle – the ones who had provided the models for the great negro heads?

Some radical researchers, who rejected the dogma concerning the isolation of the New World prior to 1492, had

proposed what looked like a viable solution to the problem: the bearded, thin-featured individuals could have been Phoenicians from the Mediterranean who had sailed through the Pillars of Hercules and across the Atlantic Ocean as early as the second millennium BC. Advocates of this theory went on to suggest that the negroes shown at the same sites were the 'slaves' of the Phoenicians, picked up on the coast of West Africa prior to the trans-Atlantic run.[2]

The more consideration I gave to the strange character of the La Venta sculptures, the more dissatisfied I became with these ideas. Probably the Phoenicians and other Old World peoples *had* crossed the Atlantic ages before Columbus. There was compelling evidence for that, although it is outside the scope of this book.[3] The problem was that the Phoenicians, who had left unmistakable examples of their distinctive handiwork in many parts of the ancient world,[4] had *not* done

so at the Olmec sites in Central America. Neither the negro heads, nor the reliefs portraying bearded Caucasian men showed any signs of anything remotely Phoenician in their style, handiwork or character.[5] Indeed, from a stylistic point of view, these powerful works of art seemed to belong to no known culture, tradition or genre. They seemed to be without antecedents either in the New World or in the Old.

They seemed rootless … and that, of course, was impossible, because all forms of artistic expression have roots somewhere.

Hypothetical third party

It occurred to me that one plausible explanation might lie in a variant of the 'hypothetical third party' theory originally put forward by a number of leading Egyptologists to explain

one of the great puzzles of Egyptian history and chronology.

The archaeological evidence suggested that rather than developing slowly and painfully, as is normal with human societies, the civilization of Ancient Egypt, like that of the Olmecs, emerged *all at once and fully formed*. Indeed, the period of transition from primitive to advanced society appears to have been so short that it makes no kind of historical sense. Technological skills that should have taken hundreds or even thousands of years to evolve were brought into use almost overnight – and with no apparent antecedents whatever.

For example, remains from the pre-dynastic period around 3500 BC show no trace of writing. Soon after that date, quite suddenly and inexplicably, the hieroglyphs familiar from so many of the ruins of Ancient Egypt begin to appear in a complete and perfect state. Far from being mere pictures of

objects or actions, this written language was complex and structured at the outset, with signs that represented sounds only and a detailed system of numerical symbols. Even the very earliest hieroglyphs were stylized and conventionalized; and it is clear that an advanced cursive script was it common usage by the dawn of the First Dynasty.[6]

What is remarkable is that there are no traces of evolution from simple to sophisticated, and the same is true of mathematics, medicine, astronomy and architecture and of Egypt's amazingly rich and convoluted religio-mythological system (even the central content of such refined works as the *Book of the Dead* existed *right at the start* of the dynastic period).[7]

The majority of Egyptologists will not consider the implications of Egypt's early sophistication. These implications are startling, according to a number of more

daring thinkers. John Anthony West, an expert on the early dynastic period, asks:

> How does a complex civilization spring full-blown into being? Look at a 1905 automobile and compare it to a modern one. There is no mistaking the process of 'development'. But in Egypt there are no parallels. Everything is right there at the start.
>
> The answer to the mystery is of course obvious but, because it is repellent to the prevailing cast of modern thinking, it is seldom considered. *Egyptian civilization was not a 'development', it was a legacy.*[8]

West has been a thorn in the flesh of the Egyptological establishment for many years. But other more mainstream figures have also confessed puzzlement at the suddenness with which Egyptian civilization appeared. Walter Emery, late Edwards Professor of Egyptology at the University of London, summed up the problem:

> At a period approximately 3400 years before Christ, a great change took place in Egypt, and the country passed rapidly from a state of neolithic culture with a complex tribal character to one of well-organized monarchy …
>
> At the same time the art of writing appears, monumental architecture and the arts and crafts develop to an astonishing degree, and all the evidence points to the existence of a luxurious civilization. All this was achieved within a comparatively short period of time, *for there appears to be little or no background to these fundamental developments in writing and architecture.*[9]

One explanation could simply be that Egypt received its sudden and decisive cultural boost from some other known civilization of the ancient world. Sumer, on the Lower Euphrates in Mesopotamia, is the most likely contender. Despite many basic differences, a variety of shared building techniques and architectural styles[10] does suggest a link

between the two regions. But none of these similarities is strong enough to infer that the connection could have been in any way causal, with one society directly influencing the other. On the contrary, as Professor Emery writes:

> The impression we get is of an *indirect* connection, and perhaps the existence of a third party, whose influence spread to both the Euphrates and the Nile … Modern scholars have tended to ignore the possibility of immigration to both regions from some hypothetical and as yet undiscovered area. [However] a third party whose cultural achievements were passed on independently to Egypt and Mesopotamia would best explain the common features and fundamental differences between the two civilizations.[11]

Among other things, this theory sheds light on the mysterious fact that the Egyptians and Sumerian people of Mesopotamia appear to have worshipped virtually identical lunar deities

who were among the *oldest* in their respective pantheons (*Thoth* in the case of the Egyptians, *Sin* in the case of the Sumerians).[12] According to the eminent Egyptologist Sir E.A. Wallis Budge, 'The similarity between the two gods is too close to be accidental … It would be wrong to say that the Egyptians borrowed from the Sumerians or the Sumerians from the Egyptians, but it may be submitted that the literati of both peoples borrowed their theological systems from some common but exceedingly ancient source.'[13]

The question, therefore, is this: what was that 'common but exceedingly ancient source', that 'hypothetical and as yet undiscovered area', that advanced 'third party' to which both Budge and Emery refer? And if it left a legacy of high culture in Egypt and in Mesopotamia, why shouldn't it have done so in Central America?

It's not good enough to argue that civilization 'took off

much later in Mexico than it had in the Middle East. It is possible that the initial impulse could have been felt at the same time in both places but that the subsequent outcome could have been completely different.

On this scenario, the civilizers would have succeeded brilliantly in Egypt and in Sumer, creating lasting and remarkable cultures there. In Mexico, on the other hand (as also seems to have been the case in Peru), they suffered some serious setback – perhaps getting off to a good start, when the gigantic stone heads and reliefs of bearded men were made, but going rapidly downhill. The light of civilization would never quite have been lost, but perhaps things didn't pick up again until around 1500 BC, the so-called 'Olmec horizon'. By then the great sculptures would have been hoary with age, ancient relics of immense spiritual power, their all-but-forgotten origins wrapped in myths of giants and bearded

civilizers.

If so, we may be gazing at faces from a much more remote past than we imagine when we stare into the almond eyes of one of the negro heads or into the angular, chiselled Caucasian features of ‘Uncle Sam’. It is by no means impossible that these great works preserve the images of peoples from a vanished civilization which embraced several different ethnic groups.

That, in a nutshell, is the ‘hypothetical third party’ theory as applied to Central America: the civilization of Ancient Mexico did not emerge without external influence, and it did not emerge as a result of influence from the Old World; instead certain cultures in the Old World and in the New World may both have received a legacy of influence and ideas from a third party at some exceedingly remote date.

Villahermosa to Oaxaca

Before leaving Villahermosa I visited CICOM, the Centre for Investigation of the Cultures of the Olmecs and Maya. I wanted to find out from the scholars there whether there were any other significant Olmec sites in the region. To my surprise, they suggested that I should look farther afield. At Monte Alban, in Oaxaca province hundreds of kilometres to the south-west, archaeologists had apparently unearthed 'Olmecoid' artefacts and a number of reliefs thought to represent the Olmecs themselves.

Santha and I had intended to drive straight on from Villahermosa into the Yucatan Peninsula, which lay north-east. The journey to Monte Alban would involve a huge detour, but we decided to make it, in the hope that it might shed further light on the Olmecs. Besides, it promised to be a

spectacular drive over immense mountains and into the heart of the hidden valley where the city of Oaxaca lies.

We drove almost due west past the lost site of La Venta, past Coatzecoalcos once again, and on past Sayula and Loma Bonita to the road-junction town of Tuxtepec. In so doing, by degrees we left behind countryside scarred and blackened by the oil industry, crossed long gentle hillsides carpeted in lush green grass, and ran between fields ripe with crops.

At Tuxtepec, where the sierras really began, we turned sharply south following Highway 175 to Oaxaca. On the map it looked barely half the distance that we had driven from Villahermosa. The road, however, proved to be a complicated, nerve-racking, muscle-wrenching, apparently endless zig-zag of hairpin bends – narrow, winding and precipitous – which went up into the clouds like a stairway to heaven. It took us through many different layers of alpine

vegetation, each occupying a specialized climatological niche, until it brought us out above the clouds in a place where familiar plants flourished in giant forms, like John Wyndham's triffids, creating a surreal and alien landscape. It took twelve hours to drive the 700 kilometres from Villahermosa to Oaxaca. By the time the journey was over, my hands were blistered from gripping the steering-wheel too tight for too long around too many hairpin bends. My eyes were blurred and I kept having mental retrospectives of the vertiginous chasms we had skirted on Highway 175, in the mountains, where the triffids grew.

The city of Oaxaca is famous for magic mushrooms, marijuana and D. H. Lawrence (who wrote and set part of his novel *The Plumed Serpent* here in the 1920s). There is still a bohemian feel about the place and until late at night a current of excitement seems to ripple among the crowds

filling its bars and cafés, narrow cobbled streets, old buildings and spacious plazas.

We checked into a room overlooking one of the three open courtyards in the Hotel Las Golondrinas. The bed was comfortable. There were starry skies overhead. But, tired as I was, I couldn't sleep.

What kept me awake was the idea of the civilizers … the bearded gods and their companions. In Mexico, as in Peru, they seemed to have confronted failure. That was what the legends implied, and not only the legends, as I discovered when we reached Monte Alban the next morning.

Chapter 19

Adventures in the Underworld, Journeys to the Stars

The ‘hypothetical third party’ theory explains the similarities and fundamental differences between Ancient Egypt and Ancient Mesopotamia by proposing that both received a common legacy of civilization from the same remote ancestor. No serious suggestions have been made as to where

that ancestral civilization might have been located, its nature, or when it flourished. Like a black hole in space, it cannot be seen. Yet its presence can be deduced from its effects on things that can be seen – in this case the civilizations of Sumer and Egypt.

Is it possible that the same mysterious ancestor, the same invisible source of influence, could also have left its mark in Mexico? If so, we would expect to find certain cultural similarities between Mexico's ancient civilizations and those of Sumer and Egypt. We would also expect to be confronted by immense differences resulting from the long period of divergent evolution which separated all these areas in historical times. We would, however, expect the differences to be less between Sumer and Egypt, which were in regular contact with each other during the historical period, than between the two Middle Eastern cultures and the cultures of

far-off Central America, which enjoyed at most only haphazard, slight and intermittent contacts prior to the 'discovery' of the New World by Columbus in AD 1492.

Eaters of the dead, earth monsters, star kings, dwarves and other relatives

For some curious reason that has not been explained, the Ancient Egyptians had a special liking and reverence for dwarves.[1] So, too, did the civilized peoples of ancient Central America, right back to Olmec times.[2] In both cases it was believed that dwarves were directly connected to the gods.[3] And in both cases dwarves were favoured as dancers and were shown as such in works of art.[4]

In Egypt's early dynastic period, more than 4500 years ago, an 'Ennead' of nine omnipotent deities was particularly

adored by the priesthood at Heliopolis.[5] Likewise, in Central America, both the Aztecs and the Mayas believed in an all-powerful system of nine deities.[6]

The *Popol Vuh*, the sacred book of the ancient Quiche Maya of Mexico and Guatemala, contains several passages which clearly indicate a belief in 'stellar rebirth' – the reincarnation of the dead as stars. After they had been killed, for example, the Hero Twins named Hunahpu and Xbalanque 'rose up in the midst of the light, and instantly they were lifted into the sky … Then the arch of heaven and the face of the earth were lighted. And they dwelt in heaven.'[7] At the same time ascended the Twins' 400 companions who had also been killed, 'and so they again became the companions of Hunahpu and Xbalanque and were changed into stars in the sky.'[8]

The majority of the traditions of the God-King

Quetzalcoatl, as we have seen, focus on his deeds and teachings as a civilizer. His followers in ancient Mexico, however, also believed that his human manifestation had experienced death and that *afterwards he was reborn as a star.*[9]

It is therefore curious, at the very least, to discover that in Egypt, in the Pyramid Age, more than 4000 years ago, the state religion revolved around the belief that the deceased pharaoh was reborn as a star.[10] Ritual incantantations were chanted, the purpose of which was to facilitate the dead monarch's rapid rebirth in the heavens: 'Oh king, you are this Great Star, the Companion of Orion, who traverses the sky with Orion … you ascend from the east of the sky, being renewed in your due season, and rejuvenated in your due time …'[11] We have encountered the Orion constellation before, on the plains of Nazca, and we shall encounter it

again …

Meanwhile, let us consider the *Ancient Egyptian Book of the Dead*. Parts of its contents are as old as the civilization of Egypt itself and it serves as a sort of Baedeker for the transmigration of the soul. It instructs the deceased on how to overcome the dangers of the afterlife, enables him to assume the form of several mythical creatures, and equips him with the passwords necessary for admission to the various stages, or levels, of the underworld.[12]

Is it a coincidence that the peoples of Ancient Central America preserved a parallel vision of the perils of the afterlife? There it was widely believed that the underworld consisted of nine strata through which the deceased would journey for four years, overcoming obstacles and dangers on the way.[13] The strata had self-explanatory names like ‘place where the mountains crash together’, ‘place where the arrows

are fired', 'mountain of knives', and so on. In both Ancient Central America and Ancient Egypt, it was believed that the deceased's voyage through the underworld was made in a boat, accompanied by 'paddler gods' who ferried him from stage to stage.[14] The tomb of 'Double Comb', an eighth-century ruler of the Mayan city of Tikal, was found to contain a representation of this scene.[15] Similar images appear throughout the Valley of the Kings in Upper Egypt, notably in the tomb of Thutmosis III, an Eighteenth Dynasty pharaoh.[16] Is it a coincidence that the passengers in the barque of the dead pharaoh, and in the canoe in which Double Comb makes his final journey, include (in both cases) a dog or dog-headed deity, a bird or bird-headed deity, and an ape or ape-headed deity?[17]

The seventh stratum of the Ancient Mexican underworld was called *Teocoyolcualloya*: 'place where beasts devour

hearts'.[18]

Is it a coincidence that one of the stages of the Ancient Egyptian underworld, 'the Hall of Judgement', involved an almost identical series of symbols? At this crucial juncture the deceased's heart was weighed against a feather. If the heart was heavy with sin it would tip the balance. The god Thoth would note the judgement on his palette and the heart would immediately be devoured by a fearsome beast, part crocodile, part hippopotamus, part lion, that was called 'the Eater of the Dead'.[19]

Finally, let us turn again to Egypt of the Pyramid Age and the privileged status of the pharaoh, which enabled him to circumvent the trials of the underworld and to be reborn as a star. Ritual incantations were part of the process. Equally important was a mysterious ceremony known as 'the opening of the mouth', always conducted after the death of the

pharaoh and believed by archaeologists to date back to pre-dynastic times.[20] The high priest and four assistants participated, wielding the *peshenkhef*, a ceremonial cutting instrument. This was used 'to open the mouth' of the deceased God-King, an action thought necessary to ensure his resurrection in the heavens. Surviving reliefs and vignettes showing this ceremony leave no doubt that the mummified corpse was struck a hard physical blow with the *peshenkhef*.[21] In addition, evidence has recently emerged which indicates that one of the chambers within the Great Pyramid at Giza may have served as the location for the ceremony.[22]

All this finds a strange, distorted twin in Mexico. We have seen the prevalence of human sacrifice there in pre-conquest times. Is it coincidental that the sacrificial venue was a pyramid, that the ceremony was conducted by a high priest and four assistants, that a cutting instrument, the sacrificial

knife, was used to strike a hard physical blow to the body of the victim, and that the victim's soul was believed to ascend directly to the heavens, sidestepping the perils of the underworld?[23]

As such 'coincidences' continue to multiply, it is reasonable to wonder whether there may not be some underlying connection. This is certainly the case when we learn that the general term for 'sacrifice' throughout Ancient Central America was *p'achi*, meaning 'to open the mouth'.[24]

Could it be, therefore, that what confronts us here, in widely separated geographical areas, and at different periods of history, is not just a series of startling coincidences but some faint and garbled common memory originating in the most distant antiquity? It doesn't seem that the Egyptian ceremony of the opening of the mouth influenced directly the Mexican ceremony of the same name (or vice versa, for that

matter). The fundamental differences between the two cases rule that out. What does seem possible, however, is that their similarities may be the remnants of a shared legacy received from a common ancestor. The peoples of Central America did one thing with that legacy and the Egyptians another, but some common symbolism and nomenclature was retained by both.

This is not the place to expand on the sense of an ancient and elusive connectedness that emerges from the Egyptian and Central American evidence. Before moving on, however, it is worth noting that a similar 'connectedness' links the belief systems of pre-Colombian Mexico with those of Sumer in Mesopotamia. Again the evidence is more suggestive of an ancient common ancestor than of any direct influence.

Take the case of Oannes, for example.

'Oannes' is the Greek rendering of the Sumerian Uan, the

name of the amphibious being, described in Part II, believed to have brought the arts and skills of civilization to Mesopotamia.[25] Legends dating back at least 5000 years relate that Uan lived under the sea, emerging from the waters of the Persian Gulf every morning to civilize and tutor mankind.[26] Is it a coincidence that *uaana*, in the Mayan language, means 'he who has his residence in water'?[27]

Let us also consider Tiamat, the Sumerian goddess of the oceans and of the forces of primitive chaos, always shown as a ravening monster. In Mesopotamian tradition, Tiamat turned against the other deities and unleashed a holocaust of destruction before she was eventually destroyed by the celestial hero Marduk:

> She opened her mouth, Tiamat, to swallow him.
>
> He drove in the evil wind so that she could not close her lips.

The terrible winds filled her belly. Her heart was seized,

She held her mouth wide open,

He let fly an arrow, it pierced her belly,

Her inner parts he clove, he split her heart,

He rendered her powerless and destroyed her life,

He felled her body and stood upright on it.[28]

How do you follow an act like that?

Marduk could. Contemplating his adversary's monstrous corpse, 'he conceived works of art',[29] and a great plan of world creation began to take shape in his mind. His first move was to split Tiamat's skull and cut her arteries. Then he broke her into two parts 'like a dried fish', using one half to roof the heavens and the other to surface the earth. From her breasts he made mountains, from her spittle, clouds, and he directed the rivers Tigris and Euphrates to flow from her

eyes.[30]

A strange and violent legend, and a very old one.

The ancient civilizations of Central America had their own version of this story. Here Quetzalcoatl, in his incarnation as the creator deity, took the role of Marduk while the part of Tiamat was played by Cipactli, the 'Great Earth Monster'. Quetzalcoatl seized Cipactli's limbs 'as she swam in the primeval waters and wrenched her body in half, one part forming the sky and the other the earth'. From her hair and skin he created grass, flowers and herbs; 'from her eyes, wells and springs; from her shoulders, mountains'.[31]

Are the peculiar parallels between the Sumerian and Mexican myths pure coincidence or could both have been marked by the cultural fingerprints of a lost civilization? If so, the faces of the heroes of that ancestral culture may indeed have been carved in stone and passed down as

heirlooms through thousands of years, sometimes in full view, sometimes buried, until they were dug up for the last time by archaeologists in our era and given labels like ‘Olmec Head’ and ‘Uncle Sam’.

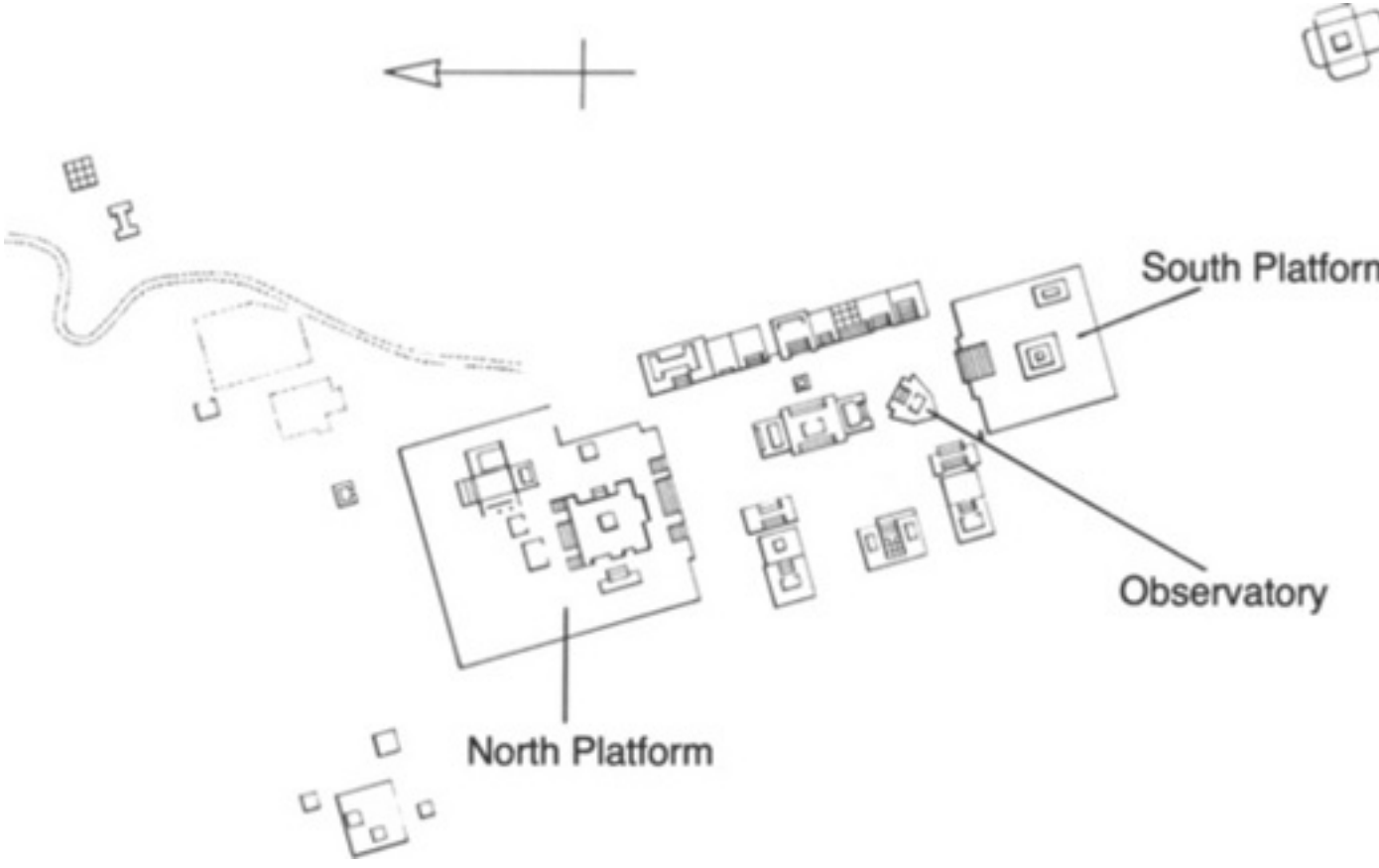

Monte Alban.

The faces of those heroes also appear at Monte Alban,

where they seem to tell a sad story.

Monte Alban: the downfall of masterful men

A site thought to be about 3000 years old,[32] Monte Alban stands on a vast artifically flattened hilltop overlooking Oaxaca. It consists of a huge rectangular area, the Grand Plaza, which is enclosed by groups of pyramids and other buildings laid out in precise geometrical relationships to one another. The overall feel of the place is one of harmony and proportion emerging from an well-ordered and symmetrical plan.

Following the advice of CICOM, whom I had spoken to before leaving Villahermosa, I made my way first to the extreme south-west corner of the Monte Alban site. There, stacked loosely against the side of a low pyramid, were the

objects I had come all this way to see: several dozen engraved stelae depicting negroes and Caucasians … equal in life … equal in death.

If a great civilization had indeed been lost to history, and if these sculptures told part of its story, the message conveyed was one of racial equality. No one who has seen the pride, or felt the charisma, of the great negro heads from La Venta could seriously imagine that the original subjects of these magisterial sculptures could have been slaves. Neither did the lean-faced, bearded men look as if they would have bent their knees to anyone. They, too, had an aristocratic demeanour.

At Monte Alban, however, there seemed to be carved in stone a record of the downfall of these masterful men. It did not look as if this could have been the work of the same people who made the La Venta sculptures. The standard of

craftsmanship was far too low for that. But what was certain – whoever they were, and however inferior their work – was that these artists had attempted to portray the same negroid subjects and the same goatee-bearded Caucasians as I had seen at La Venta. There the sculptures had reflected strength, power and vitality. Here at Monte Alban the remarkable strangers were corpses. All were naked, most were castrated, some were curled up in foetal positions as though to avoid showers of blows, others lay sprawled slackly.

Archaeologists said the sculptures showed 'the corpses of prisoners captured in battle'.[33]

What prisoners? From where?

The location, after all, was Central America, the New World, thousands of years before Columbus, so wasn't it odd that these images of battlefield casualties showed not a single native American but only and exclusively Old World racial

types?

For some reason, orthodox academics did not find this puzzling, even though, by their reckoning, the carvings were extremely old (dating to somewhere between 1000 and 600 BC[34]). As at other sites, this time-frame had been derived from tests on associated organic matter, not on the carvings themselves, which were incised on granite stele and therefore hard to date objectively.

Legacy

An as yet undeciphered but fully elaborated hieroglyphic script had been found at Monte Alban,[35] much of it carved on to the same stele as the crude Caucasian and negro figures. Experts accepted that it was 'the earliest-known writing in Mexico'.[36] It was also clear that the people who had lived

here had been accomplished builders and more than usually preoccupied with astronomy. An observatory, consisting of a strange arrowhead-shaped structure, lay at an angle of 45° to the main axis (which was deliberately tilted several degrees from north-south).[37] Crawling into this observatory, I found it to be a warren of tiny, narrow tunnels and steep internal stairways, giving sightlines to different regions of the sky.[38]

The people of Monte Alban, like the people of Tres Zapotes, left definite evidence of their knowledge of mathematics, in the form of bar-and-dot computations.[39] They had also used the remarkable calendar,[40] introduced by the Olmecs and much associated with the later Maya,[41] which predicted the end of the world on 23 December AD 2012.

If the calendar, and the preoccupation with time, had been part of the legacy of an ancient and forgotten civilization, the

Maya must be ranked as the most faithful and inspired inheritors of that legacy. ‘Time’ as the archaeologist Eric Thompson put it in 1950, ‘was the supreme mystery of Maya religion, a subject which pervaded Maya thought to an extent without parallel in the history of mankind.’[42]

As I continued my journey through Central America I felt myself drawn ever more deeply into the labyrinths of that strange and awesome riddle.

Chapter 20

Children of the First Men

Palenque, Chiapas Province

Evening was settling in. I sat just beneath the north-east corner of the Mayan Temple of the Inscriptions and gazed north over the darkening jungle where the land dropped away towards the flood plain of the Usumacinta.

The Temple consisted of three chambers and rested on top

of a nine-stage pyramid almost 100 feet tall. The clean and harmonious lines of this structure gave it a sense of delicacy, but not of weakness. It felt strong, rooted into the earth, enduring – a creature of pure geometry and imagination.

Looking to my right I could see the Palace, a spacious rectangular complex on a pyramidal base, dominated by a narrow, four-storeyed tower, thought to have been used as an observatory by Maya priests.

Around about me, where bright-feathered parrots and macaws skimmed the treetops, a number of other spectacular buildings lay half swallowed by the encroaching forest. These were the Temple of the Foliated Cross, the Temple of the Sun, the Temple of the Count, and the Temple of the Lion – all names made up by archaeologists. So much of what the Maya had stood for, cared about, believed in and remembered from earlier times was irretrievably lost. Though

we'd long ago learned to read their dates, we were only just beginning to make headway with the deciphering of their intricate hieroglyphs.

I stood and climbed the last few steps into the central chamber of the Temple. Set into the rear wall were two great grey slabs, and inscribed on them, in regimented rows like pieces on a chequerboard, were 620 separate Mayan glyphs. These took the form of faces, monstrous and human, together with a writhing bestiary of mythical creatures.

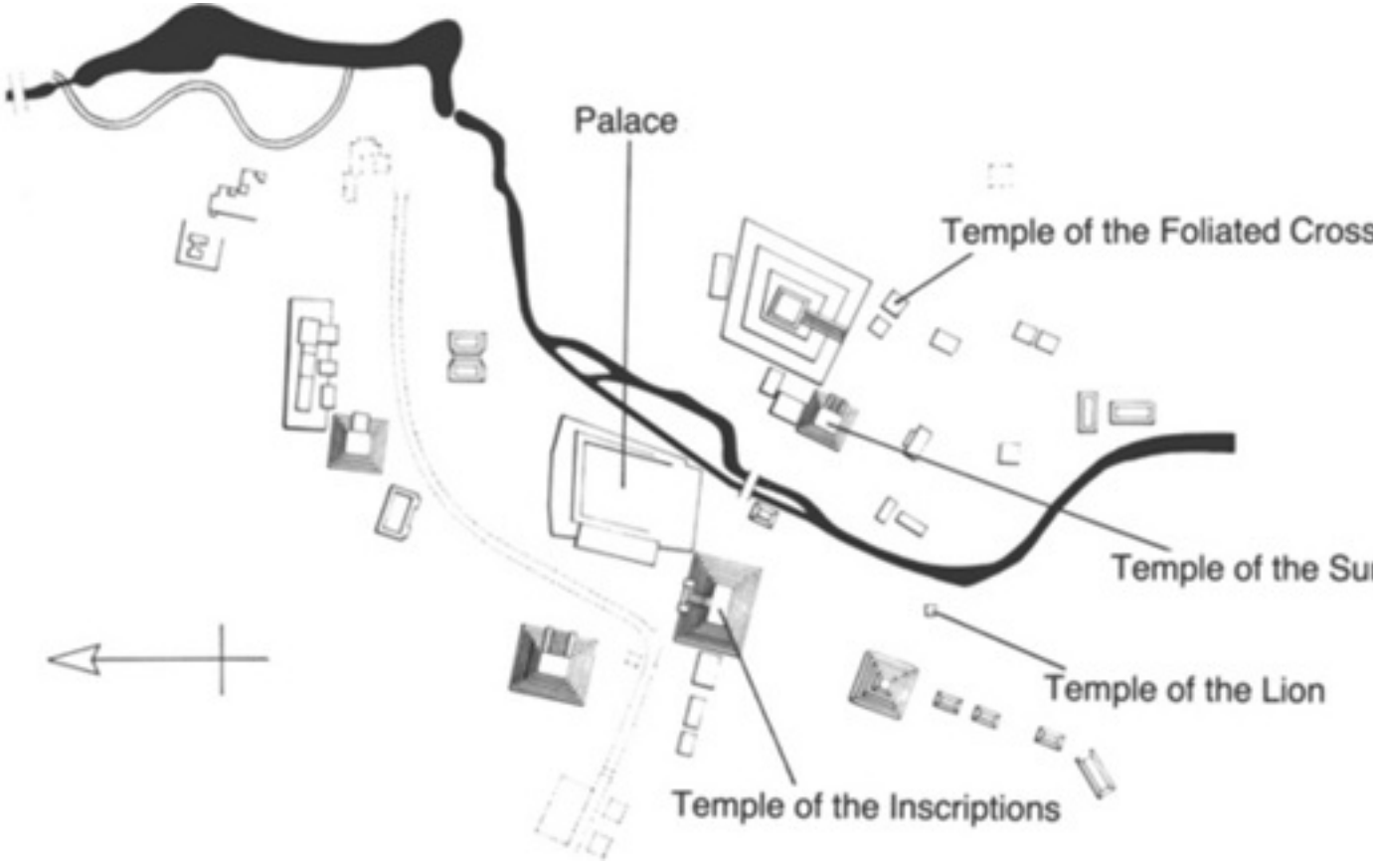

Palenque.

What was being said here? No one knew for sure because

the inscriptions, a mixture of word pictures and phonetic symbols, had not yet been fully decoded. It was evident, however, that a number of the glyphs referred to epochs thousands of years in the past, and spoke of people and gods who had played their parts in prehistoric events.[1]

Pacal's tomb

To the left of the hieroglyphs, let into the huge flagstones of the temple floor, was a steep descending internal stairway. This led to a room buried deep in the bowels of the pyramid, where the tomb of Lord Pacal lay. The stairs, of highly polished limestone blocks, were narrow and surprisingly slippery and moist. Adopting a crabbed, sideways stance, I switched on my torch and stepped gingerly down into the gloom, steadying myself against the southern wall as I did so.

This damp stairway had been a secret place from the date when it was originally sealed, in AD 683, until June 1952 when the Mexican archaeologist Alberto Ruz lifted the flagstones in the temple floor. Although a second such tomb was found at Palenque in 1994,[2] Ruz had the honour of being the first man to discover such a feature inside a New World pyramid. The stairway had been intentionally filled with rubble by its builders, and it took four more years before the archaeologists cleared it out completely and reached the bottom.

When they had done so they entered a narrow corbel-vaulted chamber. Spread out on the floor in front of them were the mouldering skeletons of five or possibly six young victims of sacrifice. A huge triangular slab of stone was visible at the far end of the chamber. When it was removed, Ruz was confronted by a remarkable tomb. He described it as

‘an enormous room that appeared to be graven in ice, a kind of grotto whose walls and roof seemed to have been planed in perfect surfaces, or an abandoned chapel whose cupola was draped with curtains of stalactites, and from whose floor arose thick stalagmites like the dripping of a candle.’[3]

The room, also roofed with a corbel vault, was 30 feet long and 23 feet high. Around the walls, in stucco relief, could be seen the striding figures of the Lords of the Night – the ‘Ennead’ of nine deities who ruled over the hours of darkness. Centre-stage, and overlooked by these figures, was a huge monolithic sarcophagus lidded with a five-ton slab of richly carved stone. Inside the sarcophagus was a tall skeleton draped with a treasure trove of jade ornaments. A mosaic death mask of 200 fragments of jade was affixed to the front of the skull. These, supposedly, were the remains of Pacal, a ruler of Palenque in the seventh century AD. The inscriptions

stated that this monarch had been eighty years old at the time of his death, but the jade-draped skeleton the archaeologists found in the sarcophagus appeared to belong to a man half that age.[4]

Having reached the bottom of the stairway, some eighty-five feet below the floor of the temple, I crossed the chamber where the sacrificial victims had lain and gazed directly into Pacal's tomb. The air was dank, full of mildew and damp-rot, and surprisingly cold. The sarcophagus, set into the floor of the tomb, had a curious shape, flared strikingly at the feet like an Ancient Egyptian mummy case. These were made of wood and were equipped with wide bases since they were frequently stood upright. But Pacal's coffin was made of solid stone and was uncompromisingly horizontal. Why, then, had the Mayan artificers gone to so much trouble to widen its base when they must have known that it served no useful

purpose? Could they have been slavishly copying a design-feature from some ancient model long after the *raison d'être* for the design had been forgotten?[5] Like the beliefs concerning the perils of the afterlife, might Pacal's sarcophagus not be an expression of a common legacy linking Ancient Egypt with the ancient cultures of Central America?

Rectangular in shape, the heavy stone lid of the sarcophagus was ten inches thick, three feet wide and twelve and a half feet long. It, too, seemed to have been modelled on the same original as the magnificent engraved blocks the Ancient Egyptians had used for this exact purpose. Indeed, it would not have looked out of place in the Valley of the Kings. But there was one major difference. The scene carved on top of the sarcophagus lid was unlike anything that ever came out of Egypt. Lit in my torch beam, it showed a clean-shaven man dressed in what looked like a tight-fitting body-

suit, the sleeves and leggings of which were gathered into elaborate cuffs at the wrists and ankles. The man lay semi-reclined in a bucket seat which supported his lower back and thighs, the nape of his neck resting comfortably against some kind of headrest, and he was peering forward intently. His hands seemed to be in motion, as though they were operating levers and controls, and his feet were bare, tucked up loosely in front of him.

Was this supposed to be Pacal, the Maya king?

If so, why was he shown operating some kind of machine? The Maya weren't supposed to have had machines. They weren't even supposed to have discovered the wheel. Yet with its side panels, rivets, tubes and other gadgets, the structure Pacal reclined in resembled a technological device much more strongly than it did 'the transition of one man's living soul to the realms of the dead',[6] as one authority

claimed, or the king ‘falling back into the fleshless jaws of the earth monster’,[7] as another argued.

I remembered ‘Man in Snake’, the Olmec relief described in Chapter Seventeen. It, too, had looked like a naïve depiction of a piece of technology. Furthermore, ‘Man in Snake’ had come from La Venta, where it had been associated with several bearded figures, apparently Caucasians. Pacal’s tomb was at least a thousand years younger than any of the La Venta treasures. Nevertheless, a tiny jade statuette was found lying close to the skeleton inside the sarcophagus, and it appeared to be much older than the other grave-goods also placed there. It depicted an elderly Caucasian, dressed in long robes, with a goatee beard.[8]

Pyramid of the Magician

Uxmal, Yucatan

On a stormy afternoon, 700 kilometres north of Palenque, I began to climb the steps of yet another pyramid. It was a steep building, oval rather than square in plan, 240 feet long at the base and 120 feet wide. It was, moreover, very high, rising 120 feet above the surrounding plain.

Since time out of mind this edifice, which did look like the castle of a necromancer, had been known as the 'Pyramid of the Magician' and also as the 'House of the Dwarf'. These names were derived from a Maya legend which asserted that a dwarf with supernatural powers had raised the entire building in just one night.[9]

The steps, as I climbed them, seemed more and more perversely narrow. My instinct was to lean forward, flatten myself against the side of the pyramid, and cling on for dear life. Instead I looked up at the angry, overcast sky above me.

Flocks of birds circled, screeching wildly as though seeking refuge from some impending disaster, and the thick mass of low-lying cloud that had blotted out the sun a few hours earlier was now so agitated by high winds that it seemed to boil.

The Pyramid of the Magician was by no means unique in being associated with the supernatural powers of dwarves, whose architectural and masonry skills were widely renowned in Central America. 'Construction work was easy for them,' asserted one typical Maya legend, 'all they had to do was whistle and heavy rocks would move into place.'[10]

A very similar tradition, as the reader may recall, claimed that the gigantic stone blocks of the mysterious Andean city of Tiahuanaco had been 'carried through the air to the sound of a trumpet'.[11]

In both Central America and in the far-off regions of the

Andes, therefore, strange sounds had been associated with the miraculous levitation of massive rocks.

What was I to make of this? Maybe, through some fluke, two almost identical ‘fantasies’ could have been independently invented in both these geographically remote areas. But that didn’t seem very likely. Equally worthy of consideration was the possibility that common recollections of an ancient building technology could have been preserved in stories such as these, a technology capable of lifting huge blocks of stone off the ground with ‘miraculous’ ease. Could it be relevant that memories of almost identical miracles were preserved in Ancient Egypt? There, in one typical tradition, a magician was said to have raised into the air ‘a huge vault of stone 200 cubits long and 50 cubits broad’?[12]

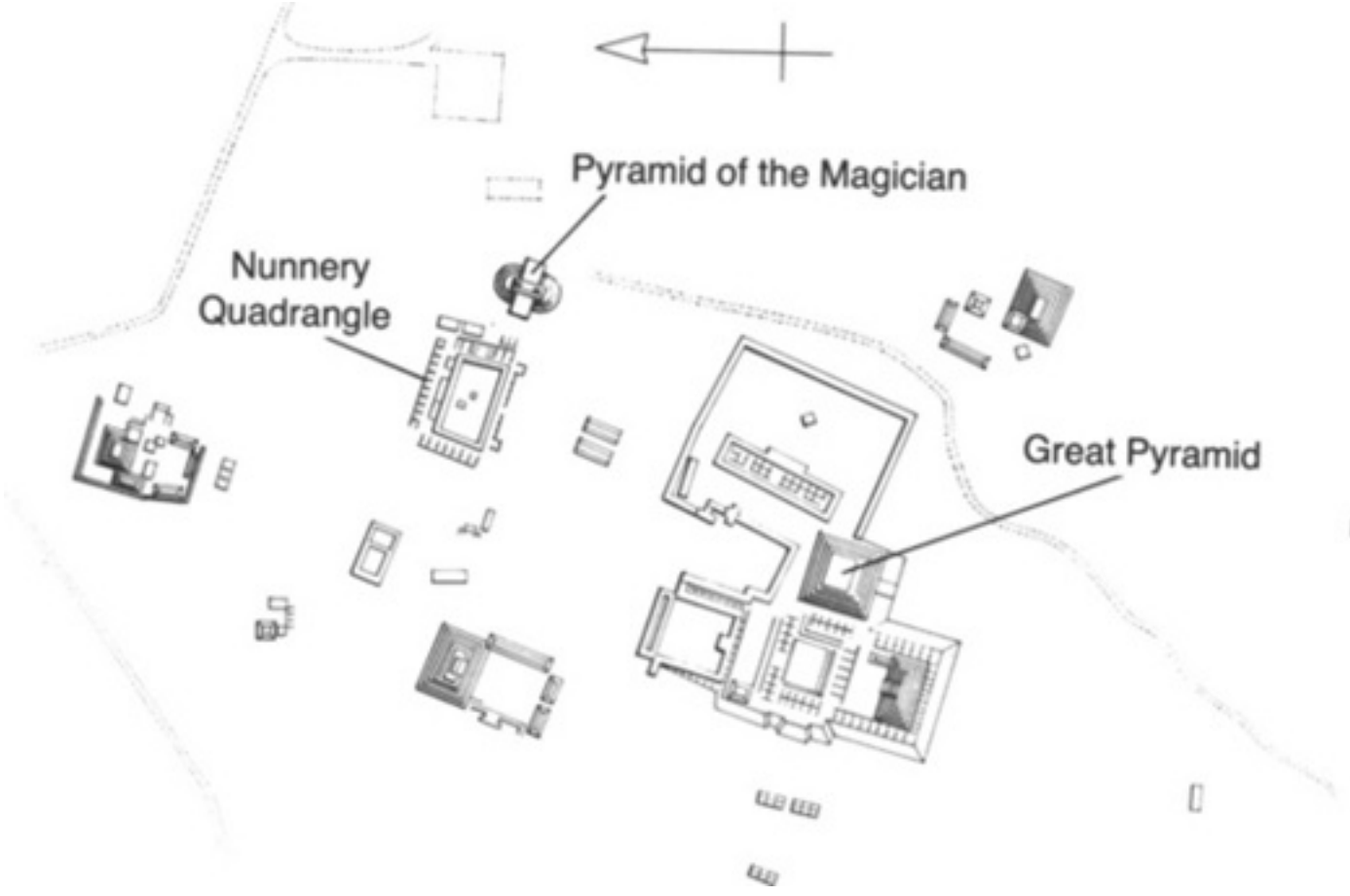

Uxmal.

The sides of the stairway I was climbing were richly decorated with what the nineteenth-century American explorer John Lloyd Stephens described as 'a species of sculptured mosaic'.[13] Oddly, although the Pyramid of the Magician had been built long centuries before the Conquest, the symbol most frequently featured in these mosaics was a close approximation of the Christian cross. Indeed there were two distinct kinds of 'Christian' crosses: one the wide-pawed *croix-patte* favoured by the Knights Templar and other crusading orders in the twelfth and thirteenth centuries; the other the x-shaped Saint Andrew's cross.

After climbing a further shorter flight of steps I reached the temple at the very top of the Magician's pyramid. It consisted of a single corbel-vaulted chamber from the ceiling of which large numbers of bats hung suspended. Like the birds and the clouds, they were visibly distressed by the sense of a huge

storm brewing. In a furry mass they shuffled restlessly upside down, folding and unfolding their small leathery wings.

I took a rest on the high platform that surrounded the chamber. From here, looking down, I could see many more crosses. They were everywhere, literally all over this bizarre and ancient structure. I remembered the Andean city of Tiahuanaco and the crosses that had been carved there, in distant pre-Colombian times, on some of the great blocks of stone lying scattered around the building known as Puma Punku.[14] 'Man in Snake', the Olmec sculpture from La Venta, had also been engraved with two Saint Andrew's crosses long before the birth of Christ. And now, here at the Pyramid of the Magician in the Mayan site of Uxmal, I was confronted by crosses yet again.

Bearded men …

Serpents …

Crosses …

How likely was it to be an accident that symbols as distinctive as these should repeat themselves in widely separated cultures and at different periods of history? Why were they so often built into the fabric of sophisticated works of art and architecture?

A science of prophecy

Not for the first time I suspected that I might be looking at signs and icons left behind by some cult or secret society which had sought to keep the light of civilization burning in Central America (and perhaps elsewhere) through long ages of darkness. I thought it notable that the motifs of the bearded man, the Plumed Serpent, and the cross all tended to crop up whenever and wherever there were hints that a

technologically advanced and as yet unidentified civilization might once have been in contact with the native cultures. And there was a sense of great age about this contact, as though it took place at such an early date that it had been almost forgotten.

I thought again about the sudden way the Olmecs had emerged, around the middle of the second millennium BC, out of the swirling mists of opaque prehistory. All the archaeological evidence indicated that from the beginning they had venerated huge stone heads and stele showing bearded men. I found myself increasingly drawn to the possibility that some of those remarkable pieces of sculpture could have been part of a vast inheritance of civilization handed down to the peoples of Central America many thousands of years *before* the second millenium BC, and thereafter entrusted to the safekeeping of a secret wisdom

cult, perhaps the cult of Quetzalcoatl.

Much had been lost. Nevertheless the tribes of this region – in particular the Maya, the builders of Palenque and Uxmal – had preserved something even more mysterious and wonderful than the enigmatic monoliths, something which declared itself even more persistently to be the legacy of an older and a higher civilization. We see in the next chapter that it was the mystical science of an ancient star-gazing folk, a science of time and measurement and prediction – a science of prophecy even – that the Maya had preserved most perfectly from the past. With it they inherited memories of a terrible, earth-destroying flood and an idiosyncratic legacy of empirical knowledge, knowledge of a high order which they shouldn't really have possessed, knowledge that we have only reacquired very recently …

Chapter 21

A Computer for Calculating the End of the World

The Maya knew where their advanced learning originated. It was handed down to them, they said, from the First Men, the creatures of Quetzalcoatl, whose names had been Balam-Quitze (Jaguar with the Sweet Smile), Balam-Acab (Jaguar of the Night), Mahucutah (The Distinguished Name) and Iqui-

Balam (Jaguar of the Moon).[1] According to the *Popol Vuh*, these forefathers:

> were endowed with intelligence; they saw and instantly they could see far; they succeeded in seeing; they succeeded in knowing all that there is in the world. The things hidden in the distance they saw without first having to move … Great was their wisdom; their sight reached to the forests, the rocks, the lakes, the seas, the mountains, and the valleys. In truth, they were admirable men … They were able to know all, and they examined the four corners, the four points of the arch of the sky, and the round face of the earth.[2]

The achievements of this race aroused the envy of several of the most powerful deities. 'It is not well that our creatures should know all,' opined these gods, 'Must they perchance be the equals of ourselves, their Makers, who can see afar, who know all and see all? … Must they also be gods?'[3] Obviously

such a state of affairs could not be allowed to continue. After some deliberation an order was given and appropriate action taken:

> Let their sight reach only to that which is near; let them see only a little of the face of the earth … Then the Heart of Heaven blew mist into their eyes which clouded their sight as when a mirror is breathed upon. Their eyes were covered and they could only see what was close, only that was clear to them … In this way the wisdom and all the knowledge of the First Men were destroyed.[4]

Anyone familiar with the Old Testament will remember that the reason for the expulsion of Adam and Eve from the Garden of Eden had to do with similar divine concerns. After the First Man had eaten of the fruit of the tree of the knowledge of good and evil,

> The Lord God said, 'Behold, the man has become as one of us, to know good and evil. Now, lest he put forth his hand and take also of the tree of life and eat and live for ever, [let us] send him forth from the Garden of Eden …'[5]

The *Popol Vuh* is accepted by scholars as a great reservoir of uncontaminated, pre-Colombian tradition.[6] It is therefore puzzling to find such similarities between these traditions and those recorded in the *Genesis* story. Moreover, like so many of the other Old World/New World links we have identified, the character of the similarities is not suggestive of any kind of direct influence of one region on the other but of two different interpretations of the same set of events. Thus, for example:

- The biblical Garden of Eden looks like a metaphor for the state of blissful, almost 'godlike', knowledge that the 'First Men' of the *Popol Vuh* enjoyed.

- The essence of this knowledge was the ability to ‘see all’ and to ‘know all’. Was this not precisely the ability Adam and Eve acquired after eating the forbidden fruit, which grew on the branches of ‘the tree of the knowledge of good and evil’?
- Finally, just as Adam and Eve were driven out of the Garden, so were the four First Men of the *Popol Vuh* deprived of their ability to ‘see far’. Thereafter ‘their eyes were covered and they could only see what was close …’

Both the *Popol Vuh* and *Genesis* therefore tell the story of mankind’s fall from grace. In both cases, this state of grace was closely associated with *knowledge*, and the reader is left in no doubt that the knowledge in question was so remarkable that it conferred godlike powers on those who possessed it.

The Bible, adopting a dark and muttering tone of voice, calls it ‘the knowledge of good and evil’ and has nothing further to add. The *Popol Vuh* is much more informative. It

tells us that the knowledge of the First Men consisted of the ability to see 'things hidden in the distance', that they were astronomers who 'examined the four corners, the four points of the arch of the sky', and that they were geographers who succeeded in measuring 'the round face of the earth'.[7]

Geography is about maps. In Part I we saw evidence suggesting that the cartographers of an as yet unidentified civilization might have mapped the planet with great thoroughness at an early date. Could the *Popol Vuh* be transmitting some garbled memory of that same civilization when it speaks nostalgically of the First Men and of the miraculous geographical knowledge they possessed?

Geography is about maps, and astronomy is about stars. Very often the two disciplines go hand in hand because stars are essential for navigation on long sea-going voyages of discovery (and long sea-going voyages of discovery are

essential for the production of accurate maps).

Is it accidental that the First Men of the *Popol Vuh* were remembered not only for studying 'the round face of the earth' but for their contemplation of 'the arch of heaven'?[8] And is it a coincidence that the outstanding achievement of Mayan society was its observational astronomy, upon which, through the medium of advanced mathematical calculations, was based a clever, complex, sophisticated and very accurate calendar?

Knowledge out of place

In 1954 J. Eric Thompson, a leading authority on the archaeology of Central America, confessed to a deep sense of puzzlement at a number of glaring disparities he had identified between the generally unremarkable achievements

of the Mayas, as a whole and the advanced state of their astro-calendrical knowledge, 'What mental quirks,' he asked, 'led the Maya intelligentsia to chart the heavens, yet fail to grasp the principle of the wheel; to visualize eternity, as no other semi-civilized people has ever done, yet ignore the short step from corbelled to true arch; to count in millions, yet never to learn to weigh a sack of corn?'[9]

Perhaps the answer to these questions is much simpler than Thompson realized. Perhaps the astronomy, the deep understanding of time, and the long-term mathematical calculations, were not 'quirks' at all. Perhaps they were the constituent parts of a coherent *but very specific body of knowledge* that the Maya had inherited, more or less intact, from an older and wiser civilization. Such an inheritance would explain the contradictions observed by Thompson, and there is no need for any dispute on the point. We already

know that the Maya received their calendar as a legacy from the Olmecs (a thousand years earlier, the Olmecs were using exactly the same system). The real question, should be, where did the Olmecs get it? What kind of level of technological and scientific development was required for a civilization to devise a calendar as good as this?

Take the case of the solar year. In modern Western society we still make use of a solar calendar which was introduced in Europe in 1582 and is based on the best scientific knowledge then available: the famous Gregorian calendar. The Julian calendar, which it replaced, computed the period of the earth's orbit around the sun at 365.25 days. Pope Gregory XIII's reform substituted a finer and more accurate calculation: 365.2425 days. Thanks to scientific advances since 1582 we now know that the *exact* length of the solar year is 365.2422 days. The Gregorian calendar therefore

incorporates a very small plus error, just 0.0003 of a day – pretty impressive accuracy for the sixteenth century.

Strangely enough, though its origins are wrapped in the mists of antiquity far deeper than the sixteenth century, the Mayan calendar achieved even greater accuracy. It calculated the solar year at 365.2420 days, a minus error of only 0.0002 of a day.[10]

Similarly, the Maya knew the time taken by the moon to orbit the earth. Their estimate of this period was 29.528395 days – extremely close to the true figure of 29.530588 days computed by the finest modern methods.[11] The Mayan priests also had in their possession very accurate tables for the prediction of solar and lunar eclipses and were aware that these could occur only within plus or minus eighteen days of the node (when the moon's path crosses the apparent path of the sun).[12] Finally, the Maya were remarkably accomplished

mathematicians. They possessed an advanced technique of metrical calculation by means of a chequerboard device we ourselves have only discovered (or rediscovered?) in the last century.[13] They also understood perfectly and used the abstract concept of zero[14] and were acquainted with place numerations.

These are esoteric fields. As Thompson observed,

> The cipher (nought) and place numerations are so much parts of our cultural heritage and seem such obvious conveniences that it is difficult to comprehend how their invention could have been long delayed. Yet neither ancient Greece with its great mathematicians, nor ancient Rome, had any inkling of either nought or place numeration. To write 1848 in Roman numerals requires eleven letters: MDCCCXLVIII. Yet the Maya had a system of place-value notation very much like our own at a time when the Romans were still using their clumsy method.[15]

Isn't it a bit odd that this otherwise unremarkable Central American tribe should, at such an early date, have stumbled upon an innovation which Otto Neugebauer, the historian of science, has described as 'one of the most fertile inventions of humanity'.[16]

Someone else's science?

Let us now consider the question of Venus, a planet that was of immense symbolic importance to all the ancient peoples of Central America, who identified it strongly with Quetzalcoatl (or Gucumatz or Kukulkan, as the Plumed Serpent was known in the Maya dialects).[17]

Unlike the Ancient Greeks, but like the Ancient Egyptians, the Maya understood that Venus was both 'the morning star' and 'the evening star'.[18] They understood other things about

it as well. The ‘synodical revolution’ of a planet is the period of time it takes to return to any given point in the sky – as viewed from earth. Venus revolves around the sun every 224.7 days, while the earth follows its own slightly wider orbit. The composite result of these two motions is that Venus rises in exactly the same place in the earth’s sky approximately every 584 days.

Whoever invented the sophisticated calendrical system inherited by the Maya had been aware of this and had found ingenious ways to integrate it with other interlocking cycles. Moreover, it is clear from the mathematics which brought these cycles together that the ancient calendar masters had understood that 584 days was only an *approximation* and that the movements of Venus are by no means regular. They had therefore worked out the exact figure established by today’s science for the *average* synodical revolution of Venus over

very long periods of time.[19] That figure is 583.92 days and it was knitted into the fabric of the Mayan calendar in numerous intricate and complex ways.[20] For example, to reconcile it with the so-called 'sacred year' (the *tzolkin* of 260 days, which was divided into 13 months of 20 days each) the calendar called for a correction of four days to be made every 61 Venus years. In addition, during every fifth cycle, a correction of eight days was made at the end of the 57th revolution. Once these steps were taken, the *tzolkin* and the synodical revolution of Venus were intermeshed so tightly that the degree of error to which the equation was subject was staggeringly small – one day in 6000 years.[21] And what made this all the more remarkable was that a further series of precisely calculated adjustments kept the Venus cycle and the *tzolkin* not only in harmony with each other but in exact relationship with the solar year. Again this was achieved in a

manner which ensured that the calendar was capable of doing its job, virtually error-free, over vast expanses of time.[22] Why did the 'semi-civilized' Maya *need* this kind of high-tech precision? Or did they inherit, in good working order, a calendar engineered to fit the needs of a much earlier and far more advanced civilization?

Consider the crowning jewel of Maya calendrics, the so-called 'Long Count'. This system of calculating dates also expressed beliefs about the past – notably, the widely held belief that time operated in Great Cycles which witnessed recurrent creations and destructions of the world. According to the Maya, the current Great Cycle began in darkness on 4 *Ahau* 8 *Cumku*, a date corresponding to 13 August 3114 BC in our own calendar.[23] As we have seen, it was also believed that the cycle will come to an end, amid global destruction, on 4 *Ahau* 3 *Kankin*: 23 December AD 2012 in our calendar.

The function of the Long Count was to record the elapse of time since the beginning of the current Great Cycle, literally to count off, one by one, the 5125 years allotted to our present creation.[24]

The Long Count is perhaps best envisaged as a sort of celestial adding machine, constantly calculating and recalculating the scale of our growing debt to the universe. Every last penny of that debt is going to be called in when the figure on the meter reads 5125.

So, at any rate, thought the Maya.

Calculations on the Long Count computer were not, of course, done in our numbers. The Maya used their own notation, which they had derived from the Olmecs, who had derived it from … nobody knows. This notation was a combination of dots (signifying ones or units or multiples of twenty), bars (signifying fives or multiples of five times

twenty), and a shell glyph signifying zero. Spans of time were counted by days (*kin*), periods of twenty days (*uinal*), 'computing years' of 360 days (*tun*), periods of 20 *tuns* (known as *katun*), and periods of 20 *katuns* (known as *bactun*). There were also 8000-*tun* periods (*pictun*) and 160,000-tun periods (*calabtun*) to mop up even larger calculations.[25]

All this should make clear that although the Maya believed themselves to be living in one Great Cycle that would surely come to a violent end they also knew that time was infinite and that it proceeded with its mysterious revolutions regardless of individual lives or civilizations. As Thompson summed up in his great study on the subject:

> In the Maya scheme the road over which time had marched stretched into a past so distant that the mind of man cannot comprehend its remoteness. Yet the Maya undauntedly retrod that road seeking its starting point. A

> fresh view, leading further backward, unfolded at every stage; the mellowed centuries blended into millennia, and they into tens of thousands of years, as those tireless inquirers explored deeper and still deeper into the eternity of the past. On a stela at Quiriga in Guatemala a date over 90 million years ago is computed; on another a date over 300 million years before that is given. These are actual computations, stating correctly day and month positions, and are comparable to calculations in our calendar giving the month positions on which Easter would have fallen at equivalent distances in the past. The brain reels at such astronomical figures …[26]

Isn't all this a bit *avant-garde* for a civilization that didn't otherwise distinguish itself in many ways? It's true that Mayan architecture was good within its limits. But there was precious little else that these jungle-dwelling Indians did which suggested they might have had the capacity (or the need) to conceive of really *long* periods of time.

It's been a good deal less than two centuries since the

majority of Western intellectuals abandoned Bishop Usher's opinion that the world was created in 4004 BC and accepted that it must be infinitely older that that.[27] In plain English this means that the ancient Maya had a far more accurate understanding of the true immensity of geological time, and of the vast antiquity of our planet, than did anyone in Britain, Europe or North America until Darwin propounded the theory of evolution.

So how come the Maya got handy with big periods like hundreds of millions of years? Was it a freak of cultural development? Or did they inherit the calendrical and mathematical tools which facilitated, and enabled them to develop, this sophisticated understanding? If an inheritance was involved, it is legimate to ask what the original inventors of the Mayan calendar's computerlike circuitry had intended it to do. What had they designed it for? Had they simply

conceived of all its complexities to concoct ‘a challenge to the intellect, a sort of tremendous anagram’, as one authority claimed?[28] Or could they have had a more pragmatic and important objective in mind?

We have seen that the obsessive concern of Mayan society, and indeed of all the ancient cultures of Central America, was with calculating – and if possible postponing – the end of the world. Could this be the purpose the mysterious calendar was designed to fulfil? Could it have been a mechanism for predicting some terrible cosmic or geological catastrophe?

Chapter 22

City of the Gods

The overwhelming message of a large number of Central American legends is that the Fourth Age of the world ended very badly. A catastrophic deluge was followed by a long period during which the light of the sun vanished from the sky and the air was filled with a tenebrous darkness. Then:

> The gods gathered together at Teotihuacan [‘the place of the gods’] and

> wondered anxiously who was to be the next Sun. Only the sacred fire [the material representation of Huehueteotl, the god who gave life its beginning] could be seen in the darkness, still quaking following the recent chaos. 'Someone will have to sacrifice himself, throw himself into the fire,' they cried, 'only then will there be a Sun.'[1]

A drama ensued in which two deities (Nanahuatzin and Tecciztecatl) immolated themselves for the common good. One burned quickly in the centre of the sacred fire; the other roasted slowly on the embers at its edge 'The gods waited for a long time until eventually the sky started to glow red as at dawn. In the east appeared the great sphere of the sun, life-giving and incandescent …'[2]

It was at this moment of cosmic rebirth that Quetzalcoatl manifested himself. His mission was with humanity of the Fifth Age. He therefore took the form of a human being – a bearded white man, just like Viracocha.

In the Andes, Viracocha's capital was Tiahuanaco. In Central America, Quetzalcoatl's was the supposed birth-place of the Fifth Sun, Teotihuacan, the city of the gods.[3]

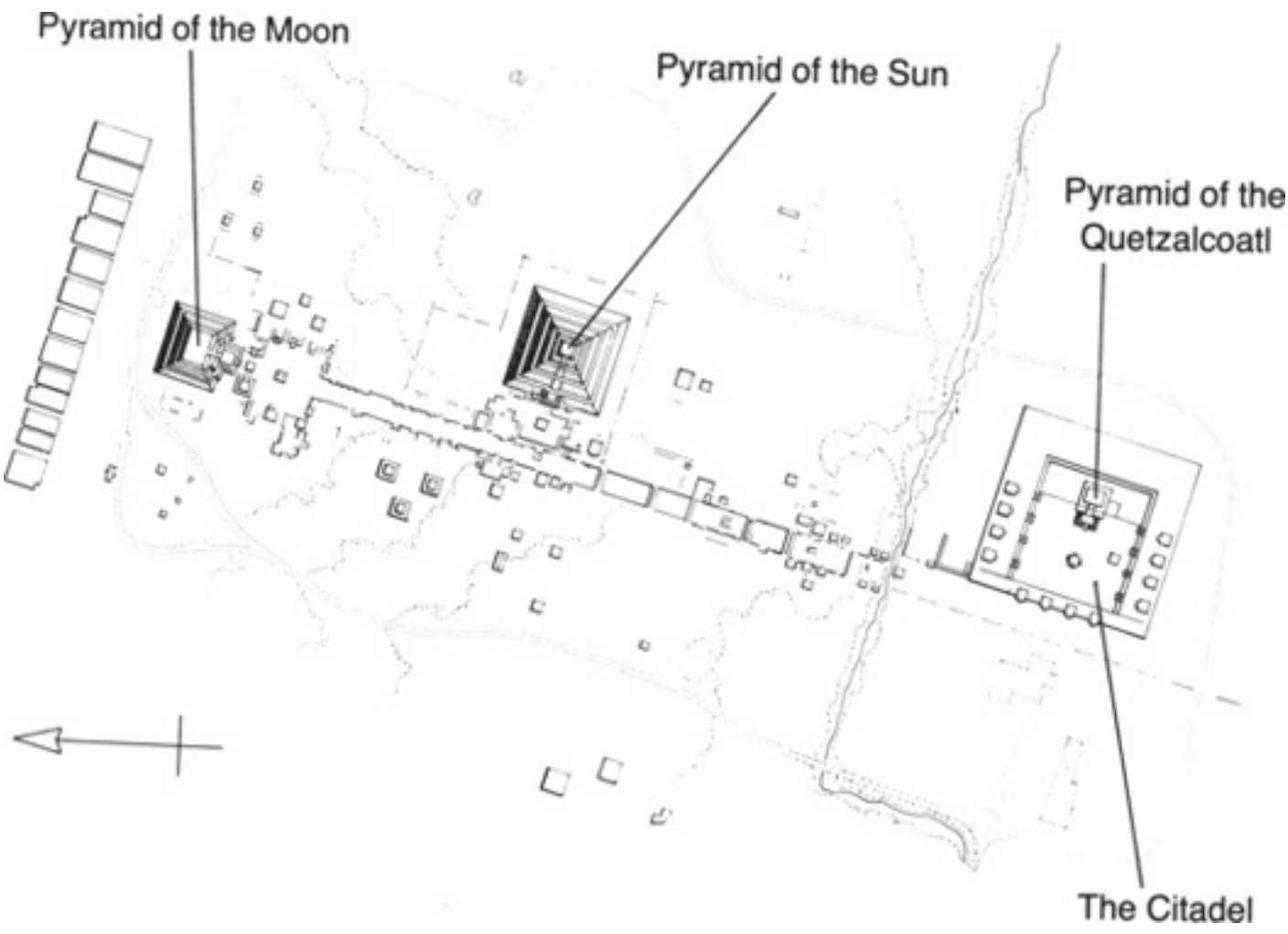
Pyramid of the Moon
Pyramid of the Sun
Pyramid of the Quetzalcoatl
The Citadel

The Citadel, the Temple and the Map of Heaven

Teotihuacan, 50 *kilometres north-east of Mexico City*

I stood in the airy enclosure of the Citadel and looked north across the morning haze towards the Pyramids of the Sun and the Moon. Set amid grey-green scrub country, and ringed by distant mountains, these two great monuments played their parts in a symphony of ruins strung out along the axis of the so-called 'Street of the Dead'. The Citadel lay at the approximate mid point of this wide avenue which ran perfectly straight for more than four kilometres. The Pyramid of the Moon was at its northern extreme, the Pyramid of the Sun offset somewhat to its east.

In the context of such a geometric site, an exact north-

south or east-west orientation might have been expected. It was therefore surprising that the architects who had planned Teotihuacan had deliberately chosen to incline the Street of the Dead 15° 30’ east of north. There were several theories as to why this eccentric orientation had been selected, but none was especially convincing. Growing numbers of scholars, however, were beginning to wonder whether astronomical alignments might have been involved. One, for example, had proposed that the Street of the Dead might have been ‘built to face the setting of the Pleiades at the time when it was constructed’.[4] Another, Professor Gerald Hawkins, had suggested that a ‘Sirius–Pleides axis’ could also have played a part.[5] And Stansbury Hagar (secretary of the Department of Ethnology at the Brooklyn Institute of the Arts and Sciences), had suggested that the street might represent the Milky Way.[6]

Indeed Hagar went further than this, seeing the portrayal of specific planets and stars in many of the pyramids, mounds and other structures that hovered like fixed satellites around the axis of the Street of the Dead. His complete thesis was that Teotihuacan had been designed as a kind of 'map of heaven': 'It reproduced on earth a supposed celestial plan of the sky-world where dwelt the deities and spirits of the dead.'[7]

During the 1960s and 1970s Hagar's intuitions were tested in the field by Hugh Harleston Jr, an American engineer resident in Mexico, who carried out a comprehensive mathematical survey at Teotihuacan. Harleston reported his findings in October 1974 at the International Congress of Americanists.[8] His paper, which was full of daring and innovative ideas, contained some particularly curious information about the Citadel and about the Temple of

Quetzalcoatl located at the eastern extreme of this great square compound.

The Temple was regarded by scholars as one of the best-preserved archaeological monuments in Central America.[9] This was because the original, prehistoric structure had been partially buried beneath another much later mound imediately in front of it to the west. Excavation of that mound had revealed the elegant six-stage pyramid that now confronted me. It stood 72 feet high and its base covered an area of 82,000 square feet.

Still bearing traces of the original multicoloured paints which had coated it in antiquity, the exposed Temple was a beautiful and strange sight. The predominant sculptural motif was a series of huge serpent heads protruding three-dimensionally out of the facing blocks and lining the sides of the massive central stairway. The elongated jaws of these

oddly humanoid reptiles were heavily endowed with fangs, and the upper lips with a sort of handlebar moustache. Each serpent's thick neck was ringed by an elaborate plume of feathers – the unmistakable symbol of Quetzalcoatl.[10]

What Harleston's investigations had shown was that a complex mathematical relationship appeared to exist among the principal structures lined up along the Street of the Dead (and indeed beyond it). This relationship suggested something extraordinary, namely that Teotihuacan might originally have been designed as a precise scale-model of the solar system. At any rate, if the centre line of the Temple of Quetzalcoatl were taken as denoting the position of the sun, markers laid out northwards from it along the axis of the Street of the Dead seemed to indicate the correct orbital distances of the inner planets, the asteroid belt, Jupiter, Saturn (represented by the so-called 'Sun' Pyramid), Uranus

(by the 'Moon' Pyramid), and Neptune and Pluto by as yet unexcavated mounds some kilometres farther north.[11]

If these correlations were more than coincidental, then, at the very least, they indicated the presence at Teotihuacan of an advanced observational astronomy, one not surpassed by modern science until a relatively late date. Uranus remained unknown to our own astronomers until 1787, Neptune until 1846 and Pluto until 1930. Even the most conservative estimate of Teotihuacan's antiquity, by contrast, suggested that the principal ingredients of the site-plan (including the Citadel, the Street of the Dead and the Pyramids of the Sun and the Moon) must date back *at least* to the time of Christ.[12] No known civilization of that epoch, either in the Old World or in the New, is supposed to have had any knowledge at all of the outer planets – let alone to have possessed accurate information concerning their orbital distances from each

other and from the sun.

Egypt and Mexico – more coincidences?

After completing his studies of the pyramids and avenues of Teotihuacan, Stansbury Hagar concluded: ‘We have not yet realized either the importance or the refinement, or the widespread distribution throughout ancient America, of the astronomical cult of which the celestial plan was a feature, and of which Teotihuacan was one of the principal centres.’[13]

But was this just an astronomical ‘cult’? Or was it something approximating more closely to what we might call a science? And whether cult or science, was it realistic to suppose that it had enjoyed ‘widespread distribution’ only in the Americas when there was so much evidence linking it to other parts of the ancient world?

For example, archaeo-astronomers making use of the latest star-mapping computer programmes had recently demonstrated that the three world-famous pyramids on Egypt's Giza plateau formed an exact terrestrial diagram of the three belt stars in the constellation of Orion.[14] Nor was this the limit of the celestial map the Ancient Egyptian priests had created in the sands on the west bank of the Nile. Included in their overall vision, as we shall see in Parts VI and VII, there was a natural feature – the river Nile – which was exactly where it should be had it been designed to represent the Milky Way.[15]

The incorporation of a 'celestial plan' into key sites in Egypt and Mexico did not by any means exclude religious functions. On the contrary, whatever else they may have been intended for it is certain that the monuments of Teotihuacan, like those of the Giza plateau, played important

religious roles in the lives of the communities they served.

Thus Central American traditions collected in the sixteenth century by Father Bernardino de Sahagun gave eloquent expression to a widespread belief that Teotihuacan had fulfilled at least one specific and important religious function in ancient times. According to these legends the City of the Gods was so known because 'the Lords therein buried, after their deaths, did not perish but turned into gods …'[16] In other words, it was 'the place where men became gods'.[17] It was additionally known as 'the place of those who had the road of the gods',[18] and 'the place where gods were made'.[19]

Was it a coincidence, I wondered, that this seemed to have been the religious purpose of the three pyramids at Giza? The archaic hieroglyphs of the Pyramid Texts, the oldest coherent body of writing in the world, left little room for doubt that the ultimate objective of the rituals carried out within those

colossal structures was to bring about the deceased pharaoh's transfiguration – to 'throw open the doors of the firmament and to make a road' so that he might 'ascend into the company of the gods'.[20]

The notion of pyramids as devices designed (presumably in some metaphysical sense) 'to turn men into gods' was, it seemed to me, too idiosyncratic and peculiar to have been arrived at independently in both Ancient Egypt and Mexico. So, too, was the idea of using the layout of sacred sites to incorporate a celestial plan.

Moreover, there were other strange similarities that deserved to be considered.

Just as at Giza, three principal pyramids had been built at Teotihuacan: the Pyramid/Temple of Quetzalcoatl, the Pyramid of the Sun and the Pyramid of the Moon. Just as at Giza, the site plan was not symmetrical, as one might have

expected, but involved two structures in direct alignment with each other while the third appeared to have been deliberately offset to one side. Finally, at Giza, the summits of the Great Pyramid and the Pyramid of Khafre were level, even though the former was a taller building than the latter. Likewise, at Teotihuacan, the summits of the Pyramids of the Sun and the Moon were level even though the former was taller. The reason was the same in both cases: the Great Pyramid was built on lower ground than the Pyramid of Cephren, and the Pyramid of the Sun on lower ground than the Pyramid of the Moon.[21]

Could all this be coincidence? Was it not more logical to conclude that there was an ancient connection between Mexico and Egypt?

For reasons I have outlined in Chapters Eighteen and Nineteen I doubted whether any direct, causal link was

involved – at any rate within historic times. Once again, however, as with the Mayan calendar, and as with the early maps of Antarctica, was it not worth keeping an open mind to the possibility that we might be dealing with a legacy: that the pyramids of Egypt and the ruins of Teotihuacan might express the technology, the geographical knowledge, the observational astronomy (and perhaps also the religion) of a forgotten civilization of the past which had once, as the *Popul Vuh* claimed, 'examined the four corners, the four points of the arch of the sky, and the round face of the earth'?

There was widespread agreement among academics concerning the antiquity of the Giza pyramids, thought to be about 4500 years old.[22] No such unanimity existed with regard to Teotihuacan. Neither the Street of the Dead, nor the Temple of Quetzalcoatl, nor the Pyramids of the Sun and the Moon had ever been definitively dated.[23] The majority of

scholars believed that the city had flourished between between 100 BC and AD 600, but others argued strongly that it must have risen to prominence much earlier, between 1500 and 1000 BC. There were others still who sought, largely on geological grounds, to push the foundation date back to 4000 BC before the eruption of the nearby volcano Xitli.[24]

Amid all this uncertainty about the age of Teotihuacan, I had not been surprised to discover that no one had the faintest idea of the identity of those who had actually built the largest and most remarkable metropolis ever to have existed in the pre-Colombian New World.[25] All that could be said for sure was this: when the Aztecs, on their march to imperial power, first stumbled upon the mysterious city in the twelfth century AD, its colossal edifices and avenues were already old beyond imagining and so densely overgrown that they seemed more like natural features than works of man.[26]

Attached to them, however, was a thread of local legend, passed down from generation to generation, which asserted that they had been built by giants[27] and that their purpose had been to transform men into gods.

Hints of forgotten wisdom

Leaving the Temple of Quetzalcoatl behind me, I recrossed the Citadel in a westerly direction.

There was no archaeological evidence that this enormous enclosure had ever served as a citadel – or, for that matter, that it had any kind of military or defensive function at all. Like so much else about Teotihuacan it had clearly been planned with painstaking care, and executed with enormous effort, but its true purpose remained unidentified by modern scholarship.[28] Even the Aztecs, who had been responsible for

naming the Pyramids of the Sun and the Moon (an attribution which had stuck though no one had any idea what the original builders had called them) had failed to invent a name for the Citadel. It had been left to the Spaniards to label it as they did – an understandable conceit since the 36-acre central patio of La Ciudadela was surrounded by massively thick embankments more than 23 feet high and some 1500 feet long on each side.[29]

My walk had now brought me to the western extreme of the patio. I climbed a steep set of stairs that led to the top of the embankment and turned north on to the Street of the Dead. Once again I had to remind myself that this was almost certainly not what the Teotihuacanos (whoever they were) had called the immense and impressive avenue. The Spanish name Calle de los Muertos was of Aztec origin, apparently based on speculation that the numerous mounds on either

side of the Street were graves (which, as it happened, they were not).[30]

We have already considered the possibility that the Way of the Dead may have served as a terrestrial counterpart of the Milky Way. Of interest in this regard is the work of another American, Alfred E. Schlemmer, who – like Hugh Harleston Jr – was an engineer. Schlemmer's field was technological forecasting, with specific reference to the prediction of earthquakes,[31] on which he presented a paper at the Eleventh National Convention of Chemical Engineers (in Mexico City in October 1971).

Schlemmer's argument was that the Street of the Dead might never have been a street at all. Instead, it might originally have been laid out as a row of linked reflecting pools, filled with water which had descended through a series of locks from the Pyramid of the Moon, at the northern

extreme, to the Citadel in the south.

As I walked steadily northward towards the still-distant Moon Pyramid, it seemed to me that this theory had several points in its favour. For a start the 'Street' was blocked at regular intervals by high partition walls, at the foot of which the remains of well-made sluices could clearly be seen. Moreover, the lie of the land would have facilitated a north-south hydraulic flow since the base of the Moon Pyramid stood on ground that was approximately 100 feet higher than the area in front of the Citadel. The partitioned sections could easily have been filled with water and might indeed have served as reflecting pools, creating a spectacle far more dramatic than those offered by the Taj Mahal or the fabled Shalimar Gardens. Finally, the Teotihuacan Mapping Project (financed by the National Science Foundation in Washington DC and led by Professor Rene Millon of the University of

Rochester) had demonstrated conclusively that the ancient city had possessed 'many carefully laid-out canals and systems of branching waterways, artificially dredged into straightened portions of a river, which formed a network within Teotihuacan and ran all the way to [Lake Texcoco], now ten miles distant but perhaps closer in antiquity'.[32]

There was much argument about what this vast hydraulic system had been designed to do. Schlemmer's contention was that the particular waterway he had identified had been built to serve a pragmatic purpose as 'a long-range seismic monitor' – part of 'an ancient science, no longer understood'.[33] He pointed out that remote earthquakes 'can cause standing waves to form on a liquid surface right across the planet' and suggested that the carefully graded and spaced reflecting pools of the Street of the Dead might have been designed 'to enable Teotihuacanos to read from the

standing waves formed there the location and strength of earthquakes around the globe, thus allowing them to predict such an occurrence in their own area'.[34]

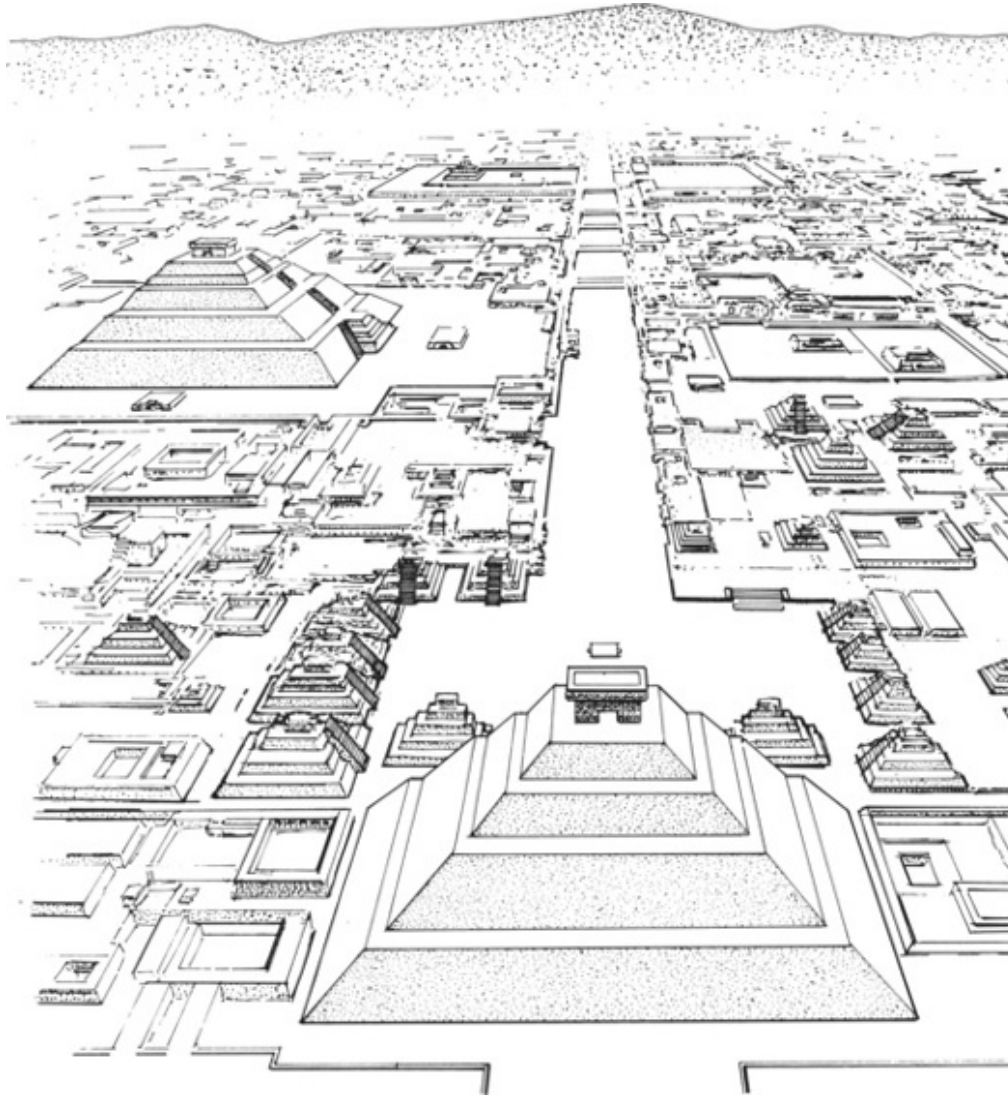

Reconstruction of Teotihuacan, looking down the Way of the Dead from behind the Pyramid of the Moon. The Pyramid of the Sun lies to the left of the Way of the Dead. Visible in the distance beyond it is the pyramid-temple of Quetzalcoatl inside the large compound of the citadel.

There was, of course, no proof of Schlemmer's theory. However, when I remembered the fixation with earthquakes and floods apparent everywhere in Mexican mythology, and the equally obsessive concern with forecasting future events evident in the Maya calendar, I felt less inclined to dismiss the apparently far-fetched conclusions of the American engineer. If Schlemmer were right, if the ancient Teotihuacanos had indeed understood the principles of resonant vibration and had put them into practice in seismic forecasting, the implication was that they were the possessors of an advanced science. And if people like Hagar and Harleston were right – if, for example, a scale-model of the

solar system had also been built into the basic geometry of Teotihuacan – this too suggested that the city was founded by a scientifically evolved civilization not yet identified.

I continued to walk northwards along the Street of the Dead and turned east towards the Pyramid of the Sun. Before reaching this great monument, however, I paused to examine a ruined patio, the principal feature of which was an ancient ‘temple’ which concealed a perplexing mystery beneath its rock floor.

Chapter 23

The Sun and the Moon and the Way of the Dead

Some archaeological discoveries are heralded with much fanfare; others, for various reasons, are not. Among this latter category must be included the thick and extensive layer of sheet mica found sandwiched between two of the upper levels of the Teotihuacan Pyramid of the Sun when it was

being probed for restoration in 1906. The lack of interest which greeted this discovery, and the absence of any follow-up studies to determine its possible function is quite understandable because the mica, which had a considerable commercial value, was removed and sold as soon as it had been excavated. The culprit was apparently Leopoldo Bartres, who had been commissioned to restore the time-worn pyramid by the Mexican government.[1]

There has also been a much more recent discovery of mica at Teotihuacan (in the 'Mica Temple') and this too has passed almost without notice. Here the reason is harder to explain because there has been no looting and the mica remains on site.[2]

One of a group of buildings, the Mica Temple is situated around a patio about 1000 feet south of the west face of the Pyramid of the Sun. Directly under a floor paved with heavy

rock slabs, archaeologists financed by the Viking Foundation excavated two massive sheets of mica which had been carefully and purposively installed at some extremely remote date by a people who must have been skilled in cutting and handling this material. The sheets are ninety feet square and form two layers, one laid directly on top of the other.[3]

Mica is a not a uniform substance but contains trace elements of different metals depending on the kind of rock formation in which it is found. Typically these metals include potassium and aluminium and also, in varying quantities, ferrous and ferric iron, magnesium, lithium, manganese and titanium. The trace elements in Teotihuacan's Mica Temple indicate that the underfloor sheets belong to a type which occurs only in Brazil, some 2000 miles away.[4] Clearly, therefore, the builders of the Temple must have had a specific need for this particular kind of mica and were

prepared to go to considerable lengths to obtain it, otherwise they could have used the locally available variety more cheaply and simply.

Mica does not leap to mind as an obvious general-purpose flooring material. Its use to form layers *underneath* a floor, and thus completely out of sight, seems especially bizarre when we remember that no other ancient structure in the Americas, or anywhere else in the world, has been found to contain a feature like this.[5]

It is frustrating that we will never be able to establish the exact position, let alone the purpose, of the large sheet that Bartres excavated and removed from the Pyramid of the Sun in 1906. The two intact layers in the Mica Temple, on the other hand, resting as they do in a place where they had no decorative function, look as though they were designed to do a particular job. Let us note in passing that mica possesses

characteristics which suit it especially well for a range of technological applications. In modern industry, it is used in the construction of capacitors and is valued as a thermal and electric insulator. It is also opaque to fast neutrons and can act as a moderator in nuclear reactions.

Erasing messages from the past

Pyramid of the Sun, Teotihuacan

Having climbed more than 200 feet up a series of flights of stone stairs I reached the summit and looked towards the zenith. It was midday 19 May, and the sun was directly overhead, as it would be again on 25 July. On these two dates, and not by accident, the west face of the pyramid was oriented precisely to the position of the setting sun.[6]

A more curious but equally deliberate effect could be

observed on the equinoxes, 20 March and 22 September. Then the passage of the sun's rays from south to north resulted at noon in the progressive obliteration of a perfectly straight shadow that ran along one of the lower stages of the western façade. The whole process, from complete shadow to complete illumination, took exactly 66.6 seconds. It had done so without fail, year-in year-out, ever since the pyramid had been built and would continue to do so until the giant edifice crumbled into dust.[7]

What this meant, of course, was that at least one of the many functions of the pyramid had been to serve as a 'perennial clock', precisely signalling the equinoxes and thus facilitating calendar corrections as and when necessary for a people apparently obsessed, like the Maya, with the elapse and measuring of time. Another implication was that the master-builders of Teotihuacan must have possessed an

enormous body of astronomic and geodetic data and referred to this data to set the Sun Pyramid at the precise orientation necessary to achieve the desired equinoctial effects.

This was planning and architecture of a high order. It had survived the passage of the millennia and it had survived the wholesale remodelling of much of the pyramid's outer shell conducted in the first decade of the twentieth century by the self-styled restorer, Leopoldo Bartres. In addition to plundering precious evidence that might have helped us towards a better understanding of the purposes for which the enigmatic structure had been built, this repulsive lackey of Mexico's corrupt dictator Porfirio Diaz had removed the outer layer of stone, mortar and plaster *to a depth of more than twenty feet* from the entire northern, eastern and southern faces. The result was catastrophic: the underlying adobe surface began to dissolve in heavy rains and to exhibit

plastic flow which threatened to destroy the whole edifice. Although the slippage was halted with hasty remedial measures, nothing could change the fact that the Sun Pyramid had been deprived of almost all its original surface features.

By modern archaeological standards this was, of course, an unforgivable act of desecration. Because of it, we will never learn the significance of the many sculptures, inscriptions, reliefs and artefacts that had almost certainly been removed with those twenty feet of the outer shell. Nor was this the only or even the most regrettable consequence of Bartres's grotesque vandalism. There was startling evidence which suggested that the unknown architects of the Pyramid of the Sun might have intentionally incorporated scientific data into many of the key dimensions of the great structure. This evidence had been gathered and extrapolated from the intact

west face (which, not accidentally, was also the face where the intended equinoctial effects could still be seen), but thanks to Bartres, no similar information was likely to be forthcoming from the other three faces because of the arbitrary alterations imposed upon them. Indeed, by drastically distorting the original shape and size of so much of the pyramid, the Mexican 'restorer' had possibly deprived posterity of some of the most important lessons Teotihuacan had to teach.

Eternal numbers

The transcendental number known as *pi* is fundamental to advanced mathematics. With a value slightly in excess of 3.14 it is the ratio of the diameter of a circle to its circumference. In other words if the diameter of a circle is 12

inches, the circumference of that circle will be 12 inches × 3.14 = 37.68 inches. Likewise, since the diameter of a circle is exactly double the radius, we can use *pi* to calculate the circumference of any circle from its radius. In this case, however, the formula is the length of the radius multiplied by 2*pi*. As an illustration let us take again a circle of 12 inches diameter. Its radius will be 6 inches and its circumference can be obtained as follows: 6 inches × 2 × 3.14 = 37.68 inches. Similarly a circle with a radius of 10 inches will have a circumference of 67.8 inches (10 inches × 2 × 3.14) and a circle with a radius of 7 inches will have a circumference of 43.96 inches (7 inches × 2 × 3.14).

These formulae using the value of *pi* for calculating circumference from either diameter or radius apply to all circles, no matter how large or how small, and also, of course, to all spheres and hemispheres. They seem relatively

simple – with hindsight. Yet their discovery, which represented a revolutionary breakthrough in mathematics, is thought to have been made late in human history. The orthodox view is that Archimedes in the third century BC was the first man to calculate *pi* correctly at 3.14.[8] Scholars do not accept that any of the mathematicians of the New World ever got anywhere near *pi* before the arrival of the Europeans in the sixteenth century. It is therefore disorienting to discover that the Great Pyramid at Giza (built more than 2000 years before the birth of Archimedes) and the Pyramid of the Sun at Teotihuacan, which vastly predates the conquest, both incorporate the value of *pi*. They do so, moreover, in much the same way, and in a manner which leaves no doubt that the ancient builders on both sides of the Atlantic were thoroughly conversant with this transcendental number.

The principal factors involved in the geometry of any pyramid are (1) the height of the summit above the ground, and (2) the perimeter of the monument at ground level. Where the Great Pyramid is concerned, the ratio between the original height (481.3949 feet[9]) and the perimeter (3023.16 feet[10]) turns out to be the same as the ratio between the radius and the circumference of a circle, i. e. *2pi*.[11] Thus, if we take the pyramid's height and multiply it by *2pi* (as we would with a circle's radius to calculate its circumference) we get an accurate read-out of the monument's perimeter (481.3949 feet 2 × 3.14 = 3023.16 feet). Alternatively, if we turn the equation around and start with the circumference at ground level, we get an equally accurate read-out of the height of the summit (3023.16 feet divided by 2 divided by 3.14 = 481.3949 feet).

Since it is almost inconceivable that such a precise

mathematical correlation could have come about by chance, we are obliged to conclude that the builders of the Great Pyramid were indeed conversant with *pi* and that they deliberately incorporated its value into the dimensions of their monument.

Now let us consider the Pyramid of the Sun at Teotihuacan. The angle of its sides is 43.5°[12] (as opposed to 52° in the case of the Great Pyramid[13]). The Mexican monument has the gentler slope because the perimeter of its base, at 2932.8 feet,[14] is not much smaller than that of its Egyptian counterpart while its summit is considerably lower (approximately 233.5 feet prior to Bartres's 'restoration'[15]).

The 2*pi* formula that worked at the Great Pyramid does not work with these measurements. A 4*pi* formula does. Thus if we take the height of the Pyramid of the Sun (233.5 feet) and multiply it by 4*pi* we once again obtain a very accurate read-

out of the perimeter: 233.5 feet $\times$ 4 $\times$ 3.14 = 2932.76 feet (a discrepancy of less than half an inch from the true figure of 2932.8 feet).

This, surely, can no more be a coincidence than the *pi* relationship extrapolated from the dimensions of the Egyptian monument. Moreover, the very fact that both structures incorporate *pi* relationships (when none of the other pyramids on either side of the Atlantic does) strongly suggests not only the existence of advanced mathematical knowledge in antiquity but some sort of underlying *common purpose*.

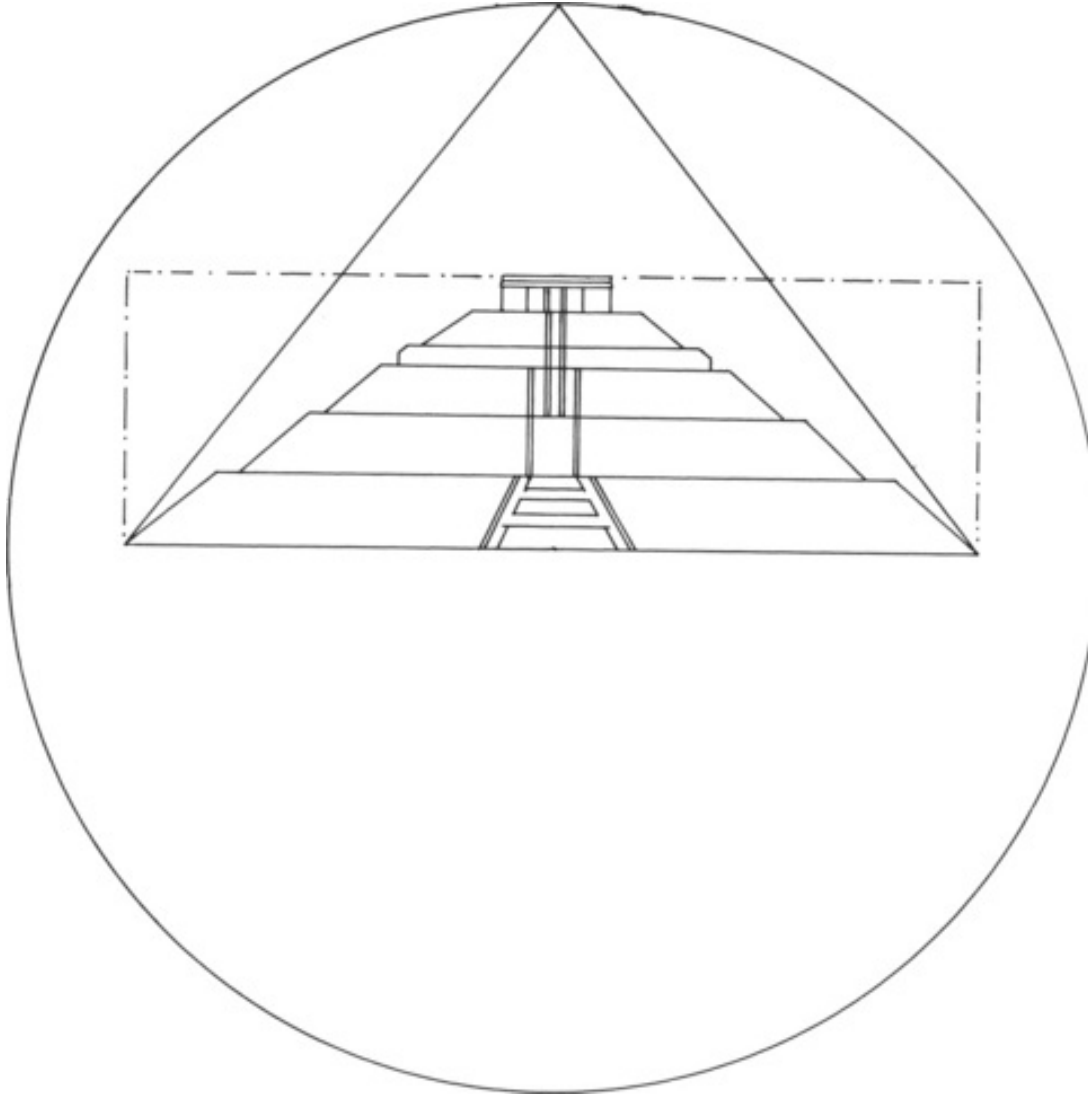

The height of the Pyramid of the Sun $\times$ *4pi* $=$ the perimeter of its base. The height of the Great Pyramid at Giza $\times$ *2pi* $=$ the perimeter of its base.

As we have seen the desired height/perimeter ratio of the Great Pyramid (2*pi*) called for the specification of a tricky and idiosyncratic angle of slope for its sides: 52°. Likewise, the desired height/perimeter ratio of the Pyramid of the Sun (4*pi*) called for the specification of an equally eccentric angle of slope: 43.5°. If there had been no ulterior motive, it would surely have been simpler for the Ancient Egyptian and Mexican architects to have opted for 45° (which they could easily have obtained and checked by bisecting a right angle).

What could have been the common purpose that led the pyramid builders on both sides of the Atlantic to such lengths to structure the value of *pi* so precisely into these two remarkable monuments? Since there seems to have been no

direct contact between the civilizations of Mexico and Egypt in the periods when the pyramids were built, is it not reasonable to deduce that both, at some remote date, inherited certain ideas from a common source?

Is it possible that the shared idea expressed in the Great Pyramid and the Pyramid of the Sun could have to do with *spheres*, since these, like the pyramids, are three-dimensional objects (while circles, for example, have only two dimensions)? The desire to symbolize spheres in three-dimensional monuments with flat surfaces would explain why so much trouble was taken to ensure that both incorporated unmistakable *pi* relationships. Furthermore it seems likely that the intention of the builders of both of these monuments was not to symbolize spheres in general but to focus attention on one sphere in particular: the planet earth.

It will be a long while before orthodox archaeologists are

prepared to accept that some peoples of the ancient world were advanced enough in science to have possessed good information about the shape and size of the earth. However, according to the calculations of Livio Catullo Stecchini, an American professor of the History of Science and an acknowledged expert on ancient measurement, the evidence for the existence of such anomalous knowledge in antiquity is irrefutable.[16] Stecchini's conclusions, which relate mainly to Egypt, are particularly impressive because they are drawn from mathematical and astronomical data which, by common consent, are beyond serious dispute.[17] A fuller examination of these conclusions, and of the nature of the data on which they rest, is presented in Part VII. At this point, however, a few words from Stecchini may shed further light on the mystery that confronts us:

> The basic idea of the Great Pyramid was that it should be a representation

> of the northern hemisphere of the earth, a hemisphere projected on flat-surfaces as is done in map-making … The Great Pyramid was a projection on four triangular surfaces. The apex represented the pole and the perimeter represented the equator. This is the reason why the perimeter is in relation *2pi* to the height. The Great Pyramid represents the northern hemisphere in a scale of 1:43,200.[18]

In Part VII we shall see why this scale was chosen.

Mathematical city

Rising up ahead of me as I walked towards the northern end of the Street of the Dead, the Pyramid of the Moon, mercifully undamaged by restorers, had kept its original form as a four-stage ziggurat. The Pyramid of the Sun, too, had consisted of four stages but Bartres had whimsically sculpted

in a fifth stage between the original third and fourth levels.

There was, however, one original feature of the Pyramid of the Sun that Bartres had been unable to despoil: a subterranean passageway leading from a natural cave under the west face. After its accidental discovery in 1971 this passageway was thoroughly explored. Seven feet high, it was found to run eastwards for more than 300 feet until it reached a point close to the pyramid's geometrical centre.[19] Here it debouched into a second cave, of spacious dimensions, which had been artificially enlarged into a shape very similar to that of a four-leaf clover. The 'leaves' were chambers, each about sixty feet in circumference, containing a variety of artefacts such as beautifully engraved slate discs and highly polished mirrors. There was also a complex drainage system of interlocking segments of carved rock pipes.[20]

This last feature was particularly puzzling because there was no known source of water within the pyramid.[21] The sluices, however, left little doubt that water must have been present in antiquity, most probably in large quantities. This brought to mind the evidence for water having once run in the Street of the Dead, the sluices and partition walls I had seen earlier to the north of the Citadel, and Schlemmer's theory of reflecting pools and seismic forecasting.

Indeed, the more I thought about it the more it seemed that water had been the dominant motif at Teotihuacan. Though I had hardly registered it that morning, the Temple of Quetzalcoatl had been decorated not only with effigies of the Plumed Serpent but with unmistakable aquatic symbolism, notably an undulating design suggestive of waves and large numbers of beautiful carvings of seashells. With these images in my mind, I reached the wide plaza at the

base of the Pyramid of the Moon and imagined it filled with water, as it might have been, to a depth of about ten feet. It would have looked magnificent: majestic, powerful and serene.

The Akapana Pyramid in far-off Tiahuanaco had also been surrounded by water, which had been the dominant motif there – just as I now found it to be at Teotihuacan.

I began to climb the Pyramid of the Moon. It was smaller than the Pyramid of the Sun, indeed less than half the size, and was estimated to be made up of about one million tons of stone and earth, as against two and a half million tons in the case of the Pyramid of the Sun. The two monuments, in other words, had a combined weight of three and a half million tons. It was thought unlikely that this quantity of material could have been manipulated by fewer than 15,000 men and it was calculated that such a workforce would have

taken at least thirty years to complete such an enormous task.[22]

Sufficient labourers would certainly have been available in the vicinity: the Teotihuacan Mapping Project had demonstrated that the population of the city in its heyday could have been as large as 200,000, making it a bigger metropolis than Imperial Rome of the Caesars. The Project had also established that the main monuments visible today covered just a small part of the overall area of ancient Teotihuacan. At its peak the city had extended across more than twelve square miles and had incorporated some 50,000 individual dwellings in 2000 apartment compounds, 600 subsidiary pyramids and temples, and 500 'factory' areas specializing in ceramic, figurine, lapidary, shell, basalt, slate and ground-stone work.[23]

At the top level of the Pyramid of the Moon I paused and

turned slowly around. Across the valley floor, which sloped gently downhill to the south, the whole of Teotihuacan now stretched before me – a geometrical city, designed and built by unknown architects in the time before history began. In the east, overlooking the arrow-straight Street of the Dead, loomed the Pyramid of the Sun, eternally 'printing out' the mathematical message it had been programmed with long ages ago, a message which seemed to direct our attention to the shape of the earth. It almost looked as though the civilization that had built Teotihuacan had made a deliberate choice to encode complex information in enduring monuments and to do it using a mathematical language.

Why a mathematical language?

Perhaps because, no matter what extreme changes and transformations human civilization might go through, the radius of a circle multiplied by 2*pi* (or half the radius

multiplied by 4*pi*) would always give the correct figure for that circle's circumference. In other words, a mathematical language could have been chosen for practical reasons: unlike any verbal tongue, such a code could always be deciphered, even by people from unrelated cultures living thousands of years in the future.

Not for the first time I felt myself confronted by the dizzying possibility that an entire episode in the story of mankind might have been forgotten. Indeed it seemed to me then, as I overlooked the mathematical city of the gods from the summit of the Pyramid of the Moon, that our species could have been afflicted with some terrible amnesia and that the dark period so blithely and dismissively referred to as 'prehistory' might turn out to conceal unimagined truths about our own past.

What is prehistory, after all, if not a time forgotten – a time

for which we have no records? What is prehistory if not an epoch of impenetrable obscurity through which our ancestors passed but about which we have no conscious remembrance? It was out of this epoch of obscurity, configured in mathematical code along astronomical and geodetic lines, that Teotihuacan with all its riddles was sent down to us. And out of that same epoch came the great Olmec sculptures, the inexplicably precise and accurate calendar the Mayans inherited from their predecessors, the inscrutable geoglyphs of Nazca, the mysterious Andean city of Tiahuanaco … and so many other marvels of which we do not know the provenance.

It is almost as though we have awakened into the daylight of history from a long and troubled sleep, and yet continue to be disturbed by the faint but haunting echoes of our dreams …

Part IV

The Mystery of the Myths

1 A Species with Amnesia

Chapter 24

Echoes of Our Dreams

In some of the most powerful and enduring myths that we have inherited from ancient times, our species seems to have retained a confused but resonant memory of a terrifying global catastrophe.

Where do these myths come from?

Why, though they derive from unrelated cultures, are their

storylines so similar? why are they laden with common symbolism? and why do they so often share the same stock characters and plots? If they are indeed *memories*, why are there no historical records of the planetary disaster they seem to refer to?

Could it be that *the myths themselves* are historical records? Could it be that these cunning and immortal stories, composed by anonymous geniuses, were the medium used to record such information and pass it on in the time before history began?

And the ark went upon the face of the waters

There was a king, in ancient Sumer, who sought eternal life. His name was Gilgamesh. We know of his exploits because the myths and traditions of Mesopotamia, inscribed in

cuneiform script upon tablets of baked clay, have survived. Many thousands of these tablets, some dating back to the beginning of the third millennium BC, have been excavated from the sands of modern Iraq. They transmit a unique picture of a vanished culture and remind us that even in those days of lofty antiquity human beings preserved memories of times still more remote – times from which they were separated by the interval of a great and terrible deluge:

> I will proclaim to the world the deeds of Gilgamesh. This was the man to whom all things were known; this was the king who knew the countries of the world. He was wise, he saw mysteries and knew secret things, he brought us a tale of the days before the flood. He went on a long journey, was weary, worn-out with labour, returning he rested, he engraved on a stone the whole story.[1]

The story that Gilgamesh brought back had been told to him

by a certain Utnapishtim, a king who had ruled thousands of years earlier, who had survived the great flood, and who had been rewarded with the gift of immortality because he had preserved the seeds of humanity and of all living things.

It was long, long ago, said Utnapishtim, when the gods dwelt on earth: Anu, lord of the firmament, Enlil, the enforcer of divine decisions, Ishtar, goddess of war and sexual love and Ea, lord of the waters, man's natural friend and protector.

> In those days the world teemed, the people multiplied, the world bellowed like a wild bull, and the great god was aroused by the clamour. Enlil heard the clamour and he said to the gods in council, 'The uproar of mankind is intolerable and sleep is no longer possible by reason of the babel.' So the gods agreed to exterminate mankind.'[2]

Ea, however, took pity on Utnapishtim. Speaking through the

reed wall of the king's house he told him of the imminent catastrophe and instructed him to build a boat in which he and his family could survive:

> Tear down your house and build a boat, abandon possessions and look for life, despise wordly goods and save your soul … Tear down your house, I say, and build a boat with her dimensions in proportion – her width and length in harmony. Put aboard the seed of all living things, into the boat.[3]

In the nick of time Utnapishtim built the boat as ordered. 'I loaded into her all that I had,' he said, 'loaded her with the seed of all living things':

> I put on board all my kith and kin, put on board cattle, wild beasts from open country, all kinds of craftsmen … The time was fulfilled. When the first light of dawn appeared a black cloud came up from the base of the sky; it thundered within where Adad, lord of the storm was riding … A

stupor of despair went up to heaven when the god of the storm turned daylight to darkness, when he smashed the land like a cup …

On the first day the tempest blew swiftly and brought the flood … No man could see his fellow. Nor could the people be distinguished from the sky. Even the gods were afraid of the flood. They withdrew; they went up to the heaven of Anu and crouched in the outskirts. The gods cowered like curs while Ishtar cried, shrieking aloud, 'Have I given birth unto these mine own people only to glut with their bodies the sea as though they were fish?'[4]

Meanwhile, continued Utnapishtim:

For six days and nights the wind blew, torrent and tempest and flood overwhelmed the world, tempest and flood raged together like warring hosts. When the seventh day dawned the storm from the south subsided, the sea grew calm, the flood was stilled. I looked at the face of the world and there was silence. The surface of the sea stretched as flat as a roof-top.

All mankind had returned to clay … I opened a hatch and light fell on my face. Then I bowed low, I sat down and I wept, the tears streamed down my face, for on every side was the waste of water … Fourteen leagues distant there appeared a mountain, and there the boat grounded; on the mountain of Nisir the boat held fast, she held fast and did not budge … When the seventh day dawned I loosed a dove and let her go. She flew away, but finding no resting place she returned. Then I loosed a swallow, and she flew away but finding no resting place she returned. I loosed a raven, she saw that the waters had retreated, she ate, she flew around, she cawed, and she did not come back.’[5]

Utnapishtim knew that it was now safe to disembark:

I poured out a libation on the mountain top … I heaped up wood and cane and cedar and myrtle … When the gods smelled the sweet savour they gathered like flies over the sacrifice …’[6]

These texts are not by any means the only ones to come down to us from the ancient land of Sumer. In other tablets – some almost 5000 years old, others less than 3000 years old – the 'Noah figure' of Utnapishtim is known variously as Zisudra, Xisuthros or Atrahasis. Even so, he is always instantly recognizable as the same patriarchal character, forewarned by the same merciful god, who rides out the same universal flood in the same storm-tossed ark and whose descendants repopulate the world.

There are many obvious resemblances between the Mesopotamian flood myth and the famous biblical story of Noah and the deluge[7] (see note). Scholars argue endlessly about the nature of these resemblances. What really matters, however, is that in each sphere of influence the same solemn tradition has been preserved for posterity – a tradition which tells, in graphic language, of a global catastrophe and of the

near-total annihilation of mankind.

Central America

The identical message was preserved in the Valley of Mexico, far away across the world from Mounts Ararat and Nisir. There, culturally and geographically isolated from Judaeo-Christian influences, long ages before the arrival of the Spaniards, stories were told of a great deluge. As the reader will recall from Part III, it was believed that this deluge had swept over the entire earth at the end of the Fourth Sun: 'Destruction came in the form of torrential rain and floods. The mountains disappeared and men were transformed into fish …'[8]

According to Aztec mythology only two human beings survived: a man, Coxcoxtli, and his wife, Xochiquetzal, who

had been forewarned of the cataclysm by a god. They escaped in a huge boat they had been instructed to build and came to ground on the peak of a tall mountain. There they descended and afterwards had many children who were dumb until the time when a dove on top of a tree gave them the gift of languages. These languages differed so much that the children could not understand one another.[9]

A related Central American tradition, that of the Mechoacanesecs, is in even more striking conformity with the story as we have it in *Genesis* and in the Mesopotamian sources. According to this tradition, the god Tezcatilpoca determined to destroy all mankind with a flood, saving only a certain Tezpi who embarked in a spacious vessel with his wife, his children and large numbers of animals and birds, as well as supplies of grains and seeds, the preservation of which were essential to the future subsistence of the human

race. The vessel came to rest on an exposed mountain top after Tezcatilpoca had decreed that the waters of the flood should retire. Wishing to find out whether it was now safe for him to disembark, Tezpi sent out a vulture which, feeding on the carcases with which the earth was now strewn, did not return. The man then sent out other birds, of which only the hummingbird came back, with a leafy branch in its beak. With this sign that the land had begun to renew itself, Tezpi and his family went forth from their ark, multiplied and repopulated the earth.[10]

Memories of a terrible flood resulting from divine displeasure are also preserved in the *Popal Vuh*. According to this archaic text, the Great God decided to create humanity soon after the beginning of time. It was an experiment and he began it with ‘figures made of wood that looked like men and talked like men’. These creatures fell out of favour because

‘they did not remember their Creator’:

> And so a flood was brought about by the Heart of Heaven; a great flood was formed which fell on the heads of the wooden creatures … A heavy resin fell from the sky … the face of the earth was darkened and a black rain began to fall by day and by night … The wooden figures were annihilated, destroyed, broken up and killed.’[11]

Not everyone perished, however. Like the Aztecs and the Mechoacanesecs, the Maya of the Yucatan and Guatemala believed that a Noah figure and his wife, ‘the Great Father and the Great Mother’, had survived the flood to populate the land anew, thus becoming the ancestors of all subsequent generations of humanity.[12]

South America

Moving to South America, we encounter the Chibcas of central Colombia. According to their myths, they had originally lived as savages, without laws, agriculture or religion. Then one day there appeared among them an old man of a different race. He wore a thick long beard and his name was Bochica. He taught the Chibcas how to build huts and live together in society.

His wife, who was very beautiful and named Chia, appeared after him, but she was wicked and enjoyed thwarting her husband's altruistic efforts. Since she could not overcome his power directly, she used magical means to cause a great flood in which the majority of the population died. Bochica was very angry and exiled Chia from the earth to the sky, where she became the moon given the task of lighting the nights. He also caused the waters of the flood to dissipate and brought down the few survivors from the

mountains where they had taken refuge. Thereafter he gave them laws, taught them to cultivate the land and instituted the worship of the sun with periodic festivals, sacrifices and pilgrimages. He then divided the power to govern among two chiefs and spent the remainder of his days on earth living in quiet contemplation as an ascetic. When he ascended to heaven he became a god.[13]

Farther south still, the Canarians, an Indian tribe of Ecuador, relate an ancient story of a flood from which two brothers escaped by going to the top of a high mountain. As the water rose the mountain grew higher, so that the two brothers survived the disaster.[14]

When they were discovered, the Tupinamba Indians of Brazil venerated a series of civilizing or creator heroes. The first of these heroes was Monan (ancient, old) who was said to have been the creator of mankind but who then destroyed

the world with flood and fire …[15]

Peru, as we saw in Part II, is particularly rich in flood legends. A typical story tells of an Indian who was warned by a llama of a deluge. Together man and llama fled to a high mountain called Vilca-Coto:

> When they reached the top of the mountain they saw that all kinds of birds and animals had already taken refuge there. The sea began to rise, and covered all the plains and mountains except the top of Vilca-Coto; and even there the waves dashed up so high that the animals were forced to crowd into a narrow area … Five days later the water ebbed, and the sea returned to its bed. But all human beings except one were drowned, and from him are descended all the nations on earth.[16]

The Araucnaians of pre-Colombian Chile preserved a tradition that there was once a flood which very few Indians escaped. The survivors took refuge on a high mountain called

Thegtheg ('the thundering' or 'the glittering') which had three peaks and the ability to float on water.[17]

In the far south of the continent a Yamana legend from Tierra del Fuego states: 'The moon woman caused the flood. This was at the time of the great upheaval … Moon was filled with hatred towards human beings … At that time everybody drowned with the exception of those few who were able to escape to the five mountain peaks that the water did not cover.'[18]

Another Tierra del Fuegan tribe, the Pehuenche, associate the flood with a prolonged period of darkness: 'The sun and the moon fell from the sky and the world stayed that way, without light, until finally two giant condors carried both the sun and the moon back up to the sky.'[19]

North America

Meanwhile, at the other end of the Americas, among the Inuit of Alaska, there existed the tradition of a terrible flood, accompanied by an earthquake, which swept so rapidly over the face of the earth that only a few people managed to escape in their canoes or take refuge on the tops of the highest mountains, petrified with terror.[20]

The Luiseno of lower California had a legend that a flood covered the mountains and destroyed most of mankind. Only a few were saved because they fled to the highest peaks which were spared when all the rest of the world was inundated. The survivors remained there until the flood ended.[21] Farther north similar flood myths were recorded amongst the Hurons.[22] And a legend of the Montagnais, belonging to the Algonquin family, related how Michabo, or the Great Hare, re-established the world after the flood with the help of a raven, an otter and a muskrat.[23]

Lynd's *History of the Dakotas*, an authoritative work of the nineteenth century which preserved many indigenous traditions that would otherwise have been lost, reports an Iroquois myth that 'the sea and waters had at one time infringed upon the land, so that all human life was destroyed'. The Chickasaws asserted that the world had been destroyed by water 'but that one family was saved and two animals of every kind'. The Sioux also spoke of a time when there was no dry land and when all men disappeared from existence.[24]

Water water everywhere

How far and how widely across the myth memories of mankind do the ripples of the great flood spread?

Very widely indeed. More than 500 deluge legends are

known around the world and, in a survey of 86 of these (20 Asiatic, 3 European, 7 African, 46 American and 10 from Australia and the Pacific), the specialist researcher Dr Richard Andree concluded that 62 were entirely independent of the Mesopotamian and Hebrew accounts.[25]

For example, early Jesuit scholars who were among the first Europeans to visit China had the opportunity in the Imperial Library to study a vast work, consisting of 4320 volumes, said to have been handed down from ancient times and to contain 'all knowledge'. This great book included a number of traditions which told of the consequences that followed 'when mankind rebelled against the high gods and the system of the universe fell into disorder': 'The planets altered their courses. The sky sank lower towards the north. The sun, moon and stars changed their motions. The earth fell to pieces and the waters in its bosom rushed upwards

with violence and overflowed the earth.'[26]

In the Malaysian tropical forest the Chewong people believe that every so often their own world, which they call Earth Seven, turns upside down so that everything is flooded and destroyed. However, through the agency of the Creator God Tohan, the flat new surface of what had previously been the underside of Earth Seven is moulded into mountains, valleys and plains. New trees are planted, and new humans born.[27]

A flood myth of Laos and northern Thailand has it that beings called the Thens lived in the upper kingdom long ages ago, while the masters of the lower world were three great men, Pu Leng Seung, Khun K'an and Khun K'et. One day the Thens announced that before eating any meal people should give them a part of their food as a sign of respect. The people refused and in a rage the Thens created a flood which

devastated the whole earth. The three great men built a raft, on top of which they made a small house, and embarked with a number of women and children. In this way they and their descendants survived the deluge.[28]

In similar fashion the Karens of Burma have traditions of a global deluge from which two brothers were saved on a raft.[29] Such a deluge is also part of the mythology of Viet Nam, where a brother and a sister are said to have survived in a great wooden chest which also contained two of every kind of animal.[30]

Several aboriginal Australian peoples, especially those whose traditional homelands are along the tropical northern coast, ascribe their origins to a great flood which swept away the previous landscape and society. Meanwhile, in the origin myths of a number of other tribes, the cosmic serpent Yurlunggur (associated with the rainbow) is held responsible

for the deluge.[31]

There are Japanese traditions according to which the Pacific islands of Oceania were formed after the waters of a great deluge had receded.[32] In Oceania itself a myth of the native inhabitants of Hawaii tells how the world was destroyed by a flood and later recreated by a god named Tangaloa. The Samoans believe that there was once an inundation that wiped out almost all mankind. It was survived only by two human beings who put to sea in a boat which eventually came to rest in the Samoan archipelago.[33]

Greece, India and Egypt

On the other side of the world, Greek mythology too is haunted by memories of a deluge. Here, however (as in Central America) the inundation is not viewed as an isolated

event but as one of a series of destructions and remakings of the world. The Aztecs and the Maya spoke in terms of successive ‘Suns’ or epochs (of which our own was thought to be the Fifth and last). In similar fashion the oral traditions of Ancient Greece, collected and set down in writing by Hesiod in the eighth century BC, related that prior to the present creation there had been four earlier races of men on earth. Each of these was thought more advanced than the one that followed it. And each, at the appointed hour, had been ‘swallowed up’ in a geological cataclysm.

The first and most ancient creation had been mankind’s ‘golden race’ who had ‘lived like the gods, free from care, without trouble or woe … With ageless limbs they revelled at their banquets … When they died it was as men overcome by sleep.’ With the passing of time, and at the command of Zeus, this golden race eventually ‘sank into the depths of the earth’.

It was succeeded by the ‘silver race’ which was supplanted by the ‘bronze race’, which was replaced by the race of ‘heroes’, which was followed by the ‘iron’ race – our own – the fifth and most recent creation.[34]

It is the fate of the bronze race that is of particular interest to us here. Described in the myths as having ‘the strength of giants, and mighty hands on their mighty limbs’,[35] these formidable men were exterminated by Zeus, king of the gods, as a punishment for the misdeeds of Prometheus, the rebellious Titan who had presented humanity with the gift of fire.[36] The mechanism the vengeful deity used to sweep the earth clean was an overwhelming flood.

In the most widespread version of the story Prometheus impregnated a human female. She bore him a son named Deucalion, who ruled over the country of Phthia, in Thessaly, and took to wife Pyrrha, ‘the red-blonde’, daughter of

Epimetheus and Pandora. When Zeus reached his fateful decision to destroy the bronze race, Deucalion, forewarned by Prometheus, made a wooden box, stored in it ‘all that was necessary’, and climbed into it with Pyrrha. The king of the gods caused mighty rains to pour from heaven, flooding the greater part of the earth. All mankind perished in this deluge, save a few who had fled to the highest mountains. ‘It also happened at this time that the mountains of Thessaly were split asunder, and the whole country as far as the Isthmus and the Peloponnese became a single sheet of water.’

Deucalion and Pyrrha floated over this sea in their box for nine days and nights, finally landing on Mount Parnassus. There, after the rains had ceased, they disembarked and sacrificed to the gods. In response Zeus sent Hermes to Deucalion with permission to ask for whatever he wished. He wished for human beings. Zeus then bade him take stones

and throw them over his shoulder. The stones Deucalion threw became men, and those that Pyrrha threw became women.[37]

As the Hebrews looked back on Noah, so the Greeks of ancient historical times looked back upon Deucalion – as the ancestor of their nation and as the founder of numerous towns and temples.[38]

A similar figure was revered in Vedic India more than 3000 years ago. One day (the story goes)

> when a certain wise man named Manu was making his ablutions, he found in the hollow of his hand a tiny little fish which begged him to allow it to live. Taking pity on it he put it in a jar. The next day, however, it had grown so much bigger that he had to carry it to a lake. Soon the lake was too small. 'Throw me into the sea,' said the fish [which was in reality a manifestation of the god Vishnu] 'and I shall be more comfortable.' Then he warned Manu of a coming deluge. He sent him a large ship, with orders

> to load it with two of every living species and the seeds of every plant, and then to go on board himself.'[39]

Manu had only just carried out these orders when the ocean rose and submerged everything, and nothing was to be seen but Vishnu in his fish form – now a huge, one-horned creature with golden scales. Manu moored his ark to the horn of the fish and Vishnu towed it across the brimming waters until it came to rest on the exposed peak of 'the Mountain of the North':[40]

> The fish said, 'I have saved thee; fasten the vessel to a tree, that the water may not sweep it away while thou art on the mountain; and in proportion as the waters decrease thou shalt descend.' Manu descended with the waters. The Deluge had carried away all creatures and Manu remained alone.[41]

With him, and with the animals and plants he had saved from destruction, began a new age of the world. After a year there emerged from the waters a woman who announced herself as 'the daughter of Manu'. The couple married and produced children, thus becoming the ancestors of the present race of mankind.[42]

Last but by no means least, Ancient Egyptian traditions also refer to a great flood. A funerary text discovered in the tomb of Pharaoh Seti I, for example, tells of the destruction of sinful humanity by a deluge.[43] The reasons for this catastrophe are set out in Chapter CLXXV of the *Book of the Dead*, which attributes the following speech to the Moon God Thoth:

> They have fought fights, they have upheld strifes, they have done evil, they have created hostilities, they have made slaughter, they have caused trouble and oppression … [Therefore] I am going to blot out everything

> which I have made. This earth shall enter into the watery abyss by means of a raging flood, and will become even as it was in primeval time.[44]

On the trail of a mystery

With the words of Thoth we have come full circle to the Sumerian and biblical floods. 'The earth was filled with violence', says *Genesis*:

> And God looked upon the earth, and, behold, it was corrupt; for all flesh had corrupted his way upon the earth. And God said unto Noah, 'The end of all flesh is come before me; for the earth is filled with violence through them; and behold I will destroy them with the earth.'[45]

Like the flood of Deucalion, the flood of Manu, and the flood that destroyed the Aztecs' 'Fourth Sun', the biblical deluge

was the end of a world age. A new age succeeded it: our own, populated by the descendants of Noah. From the very beginning, however, it was understood that this age too would in due course come to a catastrophic end. As the old song puts it, ‘God gave Noah the rainbow sign; no more water, the fire next time.’

The Scriptural source for this prophecy of world destruction is to be found in 2 Peter 3:

> We must be careful to remember that during the last days there are bound to be people who will be scornful and [who will say], ‘Everything goes on as it has since it began at the creation’. They are choosing to forget that there were heavens at the beginning, and that the earth was formed by the word of God out of water and between the waters, so that the world of that time was destroyed by being flooded by water. But by the same word, the present sky and earth are destined for fire, and are only being reserved until Judgement Day so that all sinners may be destroyed … The Day of

> the Lord will come as a thief in the night, and then with a roar the sky will vanish, the elements will catch fire and fall apart, and the earth and all that it contains will be burnt up.[46]

The Bible, therefore, envisages two ages of the world, our own being the second and last. Elsewhere, in other cultures, different numbers of creations and destructions are recorded. In China, for instance, the perished ages are called *kis*, ten of which are said to have elapsed from the beginning of time until Confucius. At the end of each *kis*, 'in a general convulsion of nature, the sea is carried out of its bed, mountains spring up out of the ground, rivers change their course, human beings and everything are ruined, and the ancient traces effaced …'[47]

Buddhist scriptures speak of 'Seven Suns', each brought to an end by water, fire or wind.[48] At the end of the Seventh Sun, the current 'world cycle', it is expected that the 'earth

will break into flames'.[49] Aboriginal traditions of Sarawak and Sabah recall that the sky was once 'low' and tell us that 'six Suns perished … at present the world is illuminated by the seventh Sun'.[50] Similarly, the Sibylline Books speak of 'nine Suns that are nine ages' and prophesy two ages yet to come – those of the eighth and the ninth Sun.'[51]

On the other side of the Atlantic Ocean, the Hopi Indians of Arizona (who are distant relatives of the Aztecs[52]) record three previous Suns, each culminating in a great annihilation followed by the gradual re-emergence of mankind. In Aztec cosmology, of course, there were four Suns prior to our own. Such minor differences concerning the precise number of destructions and creations envisaged in this or that mythology should not distract us from the remarkable convergence of ancient traditions evident here. All over the world these traditions appear to commemorate a widespread

series of catastrophes. In many cases the character of each successive cataclysm is obscured by the use of poetic language and the piling up of metaphor and symbols. Quite frequently, also, at least two different kinds of disaster may be portrayed as having occurred simultaneously (most frequently floods and earthquakes, but sometimes fire and a terrifying darkness).

All this contributes to the creation of a confused and jumbled picture. The myths of the Hopi, however, stand out for their straightforwardness and simplicity. What they tell us is this:

> The first world was destroyed, as a punishment for human misdemeanours, by an all-consuming *fiire* that came from above and below. The second world ended when the terrestrial globe toppled from its axis and everything was covered with *ice*. The third world ended in a universal *fllood*. The present world is the fourth. Its fate will depend on whether or

not its inhabitants behave in accordance with the Creator's plans.[53]

We are on the trail of a mystery here. And while we may never hope to fathom the plans of the Creator we should be able to reach a judgement concerning the riddle of our converging myths of global destruction.

Through these myths the voices of the ancients speak to us directly. What are they trying to say?

Chapter 25

The Many Masks of the Apocalypse

Like the Hopi Indians of North America, the Avestic Aryans of pre-Islamic Iran believed that there were three epochs of creation prior to our own. In the first epoch men were pure and sinless, tall and long lived, but at its close the Evil One declared war against Ahura Mazda, the holy god, and a

tumultuous cataclysm ensued. During the second epoch the Evil One was unsuccessful. In the third good and evil were exactly balanced. In the fourth epoch (the present age of the world), evil triumphed at the outset and has maintained its supremacy ever since.[1]

The end of the fourth epoch is predicted soon, but it is the cataclysm at the end of the first epoch that interests us here. It is not a flood, and yet it converges in so many ways with so many global flood traditions that some connection is strongly suggested.

The Avestic scriptures take us back to a time of paradise on earth, when the remote ancestors of the ancient Iranian people lived in the fabled Airyana Vaejo, the first good and happy creation of Ahura Mazda that flourished in the first age of the world: the mythical birthplace and original home of the Aryan race.

In those days Airyana Vaejo enjoyed a mild and productive climate with seven months of summer and five of winter. Rich in wildlife and in crops, its meadows flowing with streams, this garden of delights was converted into an uninhabitable wasteland of ten months' winter and only two months summer as a result of the onslaught of Angra Mainyu, the Evil One:

> The first of the good lands and countries which I, Ahura Mazda, created was the Airyana Vaejo … Then Angra Mainyu, who is full of death, created an opposition to the same, a mighty serpent and snow. Ten months of winter are there now, two months of summer, and these are cold as to the water, cold as to the earth, cold as to the trees … There all around falls deep snow; that is the direst of plagues …'[2]

The reader will agree that a sudden and drastic change in the climate of Airyana Vaejo is indicated. The Avestic scriptures

leave us in no doubt about this. Earlier they describe a meeting of the celestial gods called by Ahura Mazda, and tell us that ‘the fair Yima, the good shepherd of high renown in the Airyana Vaejo’, attended this meeting with all his excellent mortals.

It is at this point that the strange parallels with the traditions of the biblical flood begin to crop up, for Ahura Mazda takes advantage of the meeting to warn Yima of what is about to happen as a result of the powers of the Evil One:

> And Ahura Mazda spake unto Yima saying: ’Yima the fair … Upon the material world a fatal winter is about to descend, that shall bring a vehement, destroying frost. Upon the corporeal world will the evil of winter come, wherefore snow will fall in great abundance.…
>
> ’And all three sorts of beasts shall perish, those that live in the wilderness, and those that live on the tops of the mountains, and those that live in the depths of the valleys under the shelter of stables.

> ’Therefore make thee a *var* [a hypogeum or underground enclosure] the length of a riding ground to all four corners. Thither bring thou the representatives of every kind of beast, great and small, of the cattle, of the beasts of burden, and of men, of dogs, of birds, and of the red burning fires.[3]
>
> ‘There shalt thou make water flow. Thou shalt put birds in the trees along the water’s edge, in verdure which is everlasting. There put specimens of all plants, the loveliest and most fragrant, and of all fruits the most succulent. All these kinds of things and creatures shall not perish as long as they are in the *var*. But put there no deformed creature, nor impotent, nor mad, neither wicked, nor deceitful, nor rancorous, nor jealous; nor a man with irregular teeth, nor a leper …’[4]

Apart from the scale of the enterprise there is only one real difference between Yima’s divinely inspired *var* and Noah’s divinely inspired ark: the ark is a means of surviving a

terrible and devastating flood which will destroy every living creature by drowning the world in water; the *var* is a means of surviving a terrible and devastating 'winter' which will destroy every living creature by covering the earth with a freezing blanket of ice and snow.

In the *Bundahish*, another of the Zoroastrian scriptures (believed to incorporate ancient material from a lost part of the original *Avesta*), more information is provided on the cataclysm of glaciation that overwhelmed Airyana Vaejo. When Angra Mainyu sent the 'vehement destroying frost', he also 'assaulted and deranged the sky'.[5] The *Bundahish* tells us that this assault enabled the Evil One to master 'one third of the sky and overspread it with darkness' as the encroaching ice sheets tightened their grip.[6]

Indescribable cold, fire, earthquakes and derangement of

the skies

The Avestic Aryans of Iran, who are known to have migrated to western Asia from some other, distant homeland,[7] are not the only possessors of archaic traditions which echo the basic setting of the great flood in ways unlikely to be coincidental. Indeed, though these are most commonly associated with the deluge, the familiar themes of the divine warning, and of the salvation of a remnant of mankind from a universal disaster, are also found in many different parts of the world in connection with the sudden onset of glacial conditions.

In South America, for example, Toba Indians of the Gran Chaco region that sprawls across the modern borders of Paraguay, Argentina and Chile, still repeat an ancient myth concerning the advent of what they call 'the Great Cold'. Forewarning comes from a semi-divine hero figure named

Asin:

> Asin told a man to gather as much wood as he could and to cover his hut with a thick layer of thatch, because a time of great cold was coming. As soon as the hut had been prepared Asin and the man shut themselves inside and waited. When the great cold set in, shivering people arrived to beg a firebrand from them. Asin was hard and gave embers only to those who had been his friends. The people were freezing, and they cried the whole night. At midnight they were all dead, young and old, men and women … this period of ice and sleet lasted for a long time and all the fires were put out. Frost was as thick as leather.[8]

As in the Avestic traditions it seems that the great cold was accompanied by great darkness. In the words of one Toba elder, these afflictions were sent ’because when the earth is full of people it has to change. The population has to be thinned out to save the world … In the case of the long

darkness the sun simply disappeared and the people starved. As they ran out of food, they began eating their children. Eventually they all died …[9]

The Mayan *Popol Vuh* associates the flood, with 'much hail, black rain and mist, and indescrible cold'.[10] It also says that this was a period when 'it was cloudy and twilight all over the world … the faces of the sun and the moon were covered.'[11] Other Maya sources confirm that these strange and terrible phenomena were experienced by mankind, 'in the time of the ancients. The earth darkened … It happened that the sun was still bright and clear. Then, at midday, it got dark …[12] Sunlight did not return till the twenty-sixth year after the flood.'[13]

The reader may recall that many deluge and catastrophe myths contain references not only to the onset of a great darkness but to other changes in the appearance of the

heavens. In Tierra del Fuego, for instance, it was said that the sun and the moon 'fell from the sky'[14] and in China that 'the planets altered their courses. The sun, moon and stars changed their motions.'[15] The Incas believed that 'in ancient times the Andes were split apart when the sky made war on the earth.'[16] The Tarahumara of northern Mexico have preserved world destruction legends based on a change in the sun's path.[17] An African myth from the lower Congo states that 'long ago the sun met the moon and threw mud at it, which made it less bright. When this meeting happened there was a great flood …'[18] The Cahto Indians of California say simply that 'the sky fell'.[19] And ancient Graeco-Roman myths tell that the flood of Deucalion was immediately preceded by awesome celestial events.[20] These events are graphically symbolized in the story of how Phaeton, child of the sun, harnessed his father's chariot but was unable to guide it

along his father's course:

> Soon the fiery horses felt how their reins were in an unpractised hand. Rearing and swerving aside, they left their wonted way; then all the earth was amazed to see that the glorious Sun, instead of holding his stately, beneficent course across the sky, seemed to speed crookedly overhead and to rush down in wrath like a meteor.'[21]

This is not the place to speculate on what may have caused the alarming disturbances in the patterns of the heavens that are linked with cataclysm legends from all over the world. For our purposes at present, it is sufficient to note that such traditions seem to refer to the same 'derangement of the sky' that accompanied the fatal winter and spreading ice sheets described in the Iranian *Avesta*.[22] Other linkages occur. Fire, for example, often follows or precedes the flood. In the case of Phaeton's adventure with the Sun, 'the grass withered; the

crops were scorched; the woods went up in fire and smoke; then beneath them the bare earth cracked and crumbled and the blackened rocks burst asunder under the heat.'[23]

Volcanism and earthquakes are also mentioned frequently in association with the flood, particularly in the Americas. The Araucanians of Chile say quite explicitly that 'the flood was the result of volcanic eruptions accompanied by violent earthquakes.'[24] The Mam Maya of Santiago Chimaltenango in the western highlands of Guatemala retain memories of 'a flood of burning pitch' which, they say, was one of the instruments of world destruction.[25] And in the Gran Chaco of Argentina, the Mataco Indians tell of 'a black cloud that came from the south at the time of the flood and covered the whole sky. Lightning struck and thunder was heard. Yet the drops that fell were not like rain. They were like fire …'[26]

A monster chased the sun

There is one ancient culture that perhaps preserves more vivid memories in its myths than any other; that of the so-called Teutonic tribes of Germany and Scandinavia, a culture best remembered through the songs of the Norse scalds and sages. The stories those songs retell have their roots in a past which may be much older than scholars imagine and which combine familiar images with strange symbolic devices and allegorical language to recall a cataclysm of awesome magnitude:

> In a distant forest in the east an aged giantess brought into the world a whole brood of young wolves whose father was Fenrir. One of these monsters chased the sun to take possession of it. The chase was for long in vain, but each season the wolf grew in strength, and at last he reached the sun. Its bright rays were one by one extinguished. It took on a blood red

hue, then entirely disappeared.

Thereafter the world was enveloped in hideous winter. Snow-storms descended from all points of the horizon. War broke out all over the earth. Brother slew brother, children no longer respected the ties of blood. It was a time when men were no better than wolves, eager to destroy each other. Soon the world was going to sink into the abyss of nothingness.

Meanwhile the wolf Fenrir, whom the gods had long ago so carefully chained up, broke his bonds at last and escaped. He shook himself and the world trembled. The ash tree Yggdrasil [envisaged as the axis of the earth] was shaken from its roots to its topmost branches. Mountains crumbled or split from top to bottom, and the dwarfs who had their subterranean dwellings in them sought desperately and in vain for entrances so long familiar but now disappeared.

Abandoned by the gods, men were driven from their hearths and the human race was swept from the surface of the earth. The earth itself was beginning to lose its shape. Already the stars were coming adrift from the

sky and falling into the gaping void. They were like swallows, weary from too long a voyage, who drop and sink into the waves.

The giant Surt set the entire earth on fire; the universe was no longer more than an immense furnace. Flames spurted from fissures in the rocks; everywhere there was the hissing of steam. All living things, all plant life, were blotted out. Only the naked soil remained, but like the sky itself the earth was no more than cracks and crevasses.

And now all the rivers, all the seas, rose and overflowed. From every side waves lashed against waves. They swelled and boiled slowly over all things. The earth sank beneath the sea …

Yet not all men perished in the great catastrophe. Enclosed in the wood itself of the ash tree Yggdrasil – which the devouring flames of the universal conflagration had been unable to consume – the ancestors of a future race of men had escaped death. In this asylum they had found that their only nourishment had been the morning dew.

Thus it was that from the wreckage of the ancient world a new world

> was born. Slowly the earth emerged from the waves. Mountains rose again and from them streamed cataracts of singing waters.[27]

The new world this Teutonic myth announces is our own. Needless to say, like the Fifth Sun of the Aztecs and the Maya, it was created long ago and is new no longer. Can it be a coincidence that one of the many Central American flood myths about the fourth epoch, 4 *Atl* ('water'), does not install the Noah couple in an ark but places them instead in a great tree just like Yggdrasil? '4 *Atl* was ended by floods. The mountains disappeared … Two persons survived because they were ordered by one of the gods to bore a hole in the trunk of a very large tree and to crawl inside when the skies fell. The pair entered and survived. Their offspring repopulated the world.'[28]

Isn't it odd that the same symbolic language keeps cropping up in ancient traditions from so many widely

scattered regions of the world? How can this be explained? Are we talking about some vast, subconscious wave of intercultural telepathy, or could elements of these remarkable universal myths have been engineered, long ages ago, by clever and purposeful people? Which of these improbable propositions is the more likely to be true? Or are there other possible explanations for the enigma of the myths?

We shall return to these questions in due course. Meanwhile, what are we to conclude about the apocalyptic visions of fire and ice, floods, volcanism and earthquakes, which the myths contain? They have about them a haunting and familiar realism. Could this be because they speak to us of a past we suspect to be our own but can neither remember clearly nor forget completely?

Chapter 26

A Species Born in the Earth's Long Winter

In all that we call 'history' – everything we clearly remember about ourselves as a species – humanity has not once come close to total annihilation. In various regions at various times there have been terrible natural disasters. But there has not been a single occasion in the past 5000 years when mankind

as a whole can be said to have faced extinction.

Has this always been so? Or is it possible, if we go back far enough, that we might discover an epoch when our ancestors were nearly wiped out? It is just such an epoch that seems to be the focus of the great myths of cataclysm. Scholars normally attribute these myths to the fantasies of ancient poets. But what if the scholars are wrong? What if some terrible series of natural catastrophes did reduce our prehistoric ancestors to a handful of individuals scattered here and there across the face of the earth, far apart, and out of touch with one another?

We are looking for an epoch that will fit the myths as snugly as the slipper on Cinderella's foot. In this search, however, there is obviously no point in investigating any period prior to the emergence on the planet of recognizably modern human beings. We're not interested here in *Homo*

habilis or *Homo erectus* or even *Homo sapiens neanderthalensis*. We're interested only in *Homo sapiens sapiens*, our own species, and we haven't been around very long.

Students of early Man disagree to some extent over how long we have been around. Some researchers, as we shall see, claim that partial human remains in excess of 100,000 years old may be 'fully modern'. Others argue for a reduced antiquity in the range of 35–40,000 years, and yet others propose a compromise of 50,000 years. But no one knows for sure. 'The origin of fully modern humans denoted by the subspecies name *Homo sapiens sapiens* remains one of the great puzzles of paleoanthropology,' admits one authority.[1]

About three and a half million years of more or less relevant evolution are indicated in the fossil record. For all practical purposes, that record starts with a small, bipedal hominid (nicknamed Lucy) whose remains were discovered

in 1974 in the Ethiopian section of East Africa's Great Rift Valley. With a brain capacity of 400cc (less than a third of the modern average) Lucy definitely wasn't human. But she wasn't an ape either and she had some remarkably 'human-like' features, notably her upright gait, and the shape of her pelvis and back teeth. For these and other reasons, her species – classified as *Australopithecus afarensis* – has been accepted by the majority of palaeoanthropologists as our earliest direct ancestor.[2]

About two million years ago representatives of *Homo habilis*, the founder members of the *Homo* line to which we ourselves belong, began to leave their fossilized skulls and skeletons behind. As time went by this species showed clear signs of evolution towards an ever more 'gracile' and refined form, and towards a larger and more versatile brain. *Homo erectus*, who overlapped with and then succeeded *Homo*

habilis, appeared about 1.6 million years ago with a brain capacity in the region of 900cc (as against 700cc in the case of *habilis*).[3] The million or so years after that, down to about 400,000 years ago, saw no significant evolutionary changes – or none attested to by surviving fossils. Then *Homo erectus* passed through the gates of extinction into hominid heaven and slowly – very, very slowly – what the palaeoanthropologists call 'the sapient grade' began to appear:

> Exactly when the transition to a more sapient form began is difficult to establish. Some believe the transition, which involved an increase in brain size and a decrease in the robustness of the skull bones, began as early as 400,000 years ago. Unfortunately, there are simply not enough fossils from this important period to be sure about what was happening.'[4]

What was definitely *not* happening 400,000 years ago was

the emergence of anything identifiable as our own story-telling, myth-making subspecies *Homo sapiens sapiens*. The consensus is that 'sapient humans must have evolved from *Homo erectus*',[5] and it is true that a number of 'archaic sapient' populations did come into existence between 400,000 and 100,000 years ago. Unfortunately, the relationship of these transitional species to ourselves is far from clear. As noted, the first contenders for membership of the exclusive club of *Homo sapiens sapiens* have been dated by some researchers to the latter part of this period. But these remains are all partial and their identification is by no means universally accepted. The oldest, part of a skullcap, is a putative modern human specimen from about 113,000 BC.[6] Around this date, too, *Homo sapiens neanderthalensis* first appears, a quite distinct subspecies which most of us know as 'Neanderthal Man'.

Tall, heavily muscled, with prominent brow ridges and a protruding face, Neanderthal Man had a bigger average brain size than modern humans (1400cc as against our 1360cc).[7] The possession of such a big brain was no doubt an asset to these 'intelligent, spiritually sensitive, resourceful creatures'[8] and the fossil record suggests that they were the dominant species on the planet from about 100,000 years ago until 40,000 years ago. At some point during this lengthy and poorly understood period, *Homo sapiens sapiens* established itself, leaving behind fossil remains from about 40,000 years ago that are undisputably those of modern humans, and supplanting the Neanderthals completely by about 35,000 years ago.[9]

In summary, human beings like ourselves, whom we could pass in the street without blinking an eyelid if they were shaved and dressed in modern clothes, are creatures of the

last 115,000 years at the very most – and more probably of only the last 50,000 years. It follows that if the myths of cataclysm we have reviewed do reflect an epoch of geological upheaval experienced by humanity, these upheavals took place within the last 115,000 years, and more probably within the last 50,000 years.

Cinderella's slipper

It is a curious coincidence of geology and paleoanthropology that the onset and progress of the last Ice Age, and the emergence and proliferation of modern Man, more or less shadow each other. Curious too is the fact that so little is known about either.

In North America the last Ice Age is called the Wisconsin Glaciation (named for rock deposits studied in the state of

Wisconsin) and its early phase has been dated by geologists to 115,000 years ago.[10] There were various advances and retreats of the ice-cap after that, with the fastest rate of accumulation taking place between 60,000 years ago and 17,000 years ago – a process culminating in the Tazewell Advance, which saw the glaciation reach its maximum extent around 15,000 BC.[11] By 13,000 BC, however, millions of square miles of ice had melted, for reasons that have never properly been explained, and by 8000 BC the Wisconsin had withdrawn completely.[12]

The Ice Age was a global phenomenon, affecting both the northern and the southern hemispheres; similar climatic and geological conditions therefore prevailed in many other parts of the world as well (notably in eastern Asia, Australia, New Zealand, and South America). There was massive glaciation in Europe, where the ice reached outward from Scandinavia

and Scotland to cover most of Great Britain, Denmark, Poland, Russia, large parts of Germany, all of Switzerland, and big chunks of Austria, Italy and France.[13] (Known technically as the Wurm Glaciation, this European Ice Age started about 70,000 years ago, a little later than its American counterpart, but attained its maximum extent at the same time, 17,000 years ago, and then experienced the same rapid withdrawal, and shared the same terminal date).[14]

The crucial stages of Ice Age chronology thus appear to be:

1 around 60,000 years ago, when the Wurm, the Wisconsin and other glaciations were well under way;

2 around 17,000 years ago, when the ice sheets had reached their maximum extent in both the Old World and the New;

3 the 7000 years of deglaciation that followed.

The emergence of *Homo sapiens sapiens* thus coincided with a lengthy period of geological and climatic turbulence, a period marked, above all else, by ferocious freezing and flooding. The many millennia during which the ice was remorselessly expanding must have been terrifying and awful for our ancestors. But those final 7000 years of *de* glaciation, particularly the episodes of very rapid and extensive melting, must have been worse.

Let us not jump to conclusions about the state of social, or religious, or scientific, or intellectual development of the human beings who lived through the sustained collapse of that tumultuous epoch. The popular stereotype may be wrong in assuming that they were all primitive cave dwellers. In reality little is known about them and almost the only thing that can be said is that they were men and women *exactly like ourselves* physiologically and psychologically.

It is possible that they came close to total extinction on several occasions during the upheavals they experienced; it is also possible that the great myths of cataclysm, to which scholars attribute no historical value, may contain accurate records and eyewitness accounts of real events. As we see in the next chapter, if we are looking for an epoch that fits those myths as snugly as the slipper on Cinderella's foot, it would seem that the last Ice Age is it.

Chapter 27

The Face of the Earth was Darkened and a Black Rain Began to Fall

Terrible forces were unleashed on all living creatures during the last Ice Age. We may deduce how these afflicted humanity from the firm evidence of their consequences for other large species. Often this evidence looks puzzling. As

Charles Darwin observed after visiting South America:

> No one I think can have marvelled more at the extinction of species than I have done. When I found in La Plata [Argentina] the tooth of a horse embedded with the remains of Mastodon, Megatherium, Toxodon, and other extinct monsters, which all co-existed at a very late geological period, I was filled with astonishment; for seeing that the horse, since its introduction by the Spaniards in South America, has run wild over the whole country and has increased its numbers at an unparalleled rate, I asked myself what could have so recently exterminated the former horse under conditions of life apparently so favourable?[1]

The answer, of course, was the Ice Age. That was what exterminated the former horses of the Americas, and a number of other previously successful mammals. Nor were extinctions limited to the New World. On the contrary, in different parts of the earth (for different reasons and at

different times) the long epoch of glaciation witnessed several quite distinct *episodes* of extinction. In all areas, the vast majority of the many destroyed species were lost in the final seven thousand years from about 15,000 BC down to 8000 BC.[2]

At this stage of our investigation is it not necessary to establish the specific nature of the climatic, seismic and geological events linked to the various advances and retreats of the ice sheets which killed off the animals. We might reasonably guess that tidal waves, earthquakes, gigantic windstorms and the sudden onset and remission of glacial conditions played their parts. But more important – whatever the actual agencies involved – is the stark empirical reality that mass extinctions of animals *did* take place as a result of the turmoil of the last Ice Age.

This turmoil, as Darwin concluded in his *Journal*, must

have shaken ‘the entire framework of the globe’.[3] In the New World, for example, more than seventy genera of large mammals became extinct between 15,000 BC and 8000 BC, including all North American members of seven families, and one complete order, the Proboscidea.[4] These staggering losses, involving the violent obliteration of more than forty million animals, were not spread out evenly over the whole period; on the contrary, the vast majority of the extinctions occurred in just two thousand years, between 11,000 BC and 9000 BC.[5] To put this in perspective, during the previous 300,000 years only about twenty genera had disappeared.[6]

The same pattern of late and massive extinctions was repeated across Europe and Asia. Even far-off Australia was not exempt, losing perhaps nineteen genera of large vertebrates, not all of them mammals, in a relatively short period of time.[7]

Alaska and Siberia: the sudden freeze

The northern regions of Alaska and Siberia appear to have been the worst hit by the murderous upheavals between 13,000 and 11,000 years ago. In a great swathe of death around the edge of the Arctic Circle the remains of uncountable numbers of large animals have been found – including many carcases with the flesh still intact, and astonishing quantities of perfectly preserved mammoth tusks. Indeed, in both regions, mammoth carcasses have been thawed to feed to sled dogs and mammoth steaks have featured on restaurant menus in Fairbanks.[8] One authority has commented, 'Hundreds of thousands of individuals must have been frozen immediately after death and remained frozen, otherwise the meat and ivory would have spoiled … Some powerful general force was certainly at work

to bring this catastrophe about.'[9]

Dr Dale Guthrie of the Institute of Arctic Biology has made an interesting point about the sheer *variety* of animals that flourished in Alaska before the eleventh millennium BC:

> When learning of this exotic mixture of sabertooth cats, camels, horses, rhinos, asses, deer with gigantic antlers, lions, ferrets, and saiga, one cannot help wondering about the world in which they lived. This great diversity of species, so different from that encountered today, raises the most obvious question: is it not likely that the rest of the environment was also different?[10]

The Alaskan muck in which the remains are embedded is like a fine, dark-grey sand. Frozen solid within this mass, in the words of Professor Hibben of the University of New Mexico:

> lie the twisted parts of animals and trees intermingled with lenses of ice

> and layers of peat and mosses … Bison, horses, wolves, bears, lions … Whole herds of animals were apparently killed together, overcome by some common power … Such piles of bodies of animals or men simply do not occur by any ordinary natural means …'[11]

At various levels stone artefacts have been found 'frozen in situ at great depths, and in association with Ice Age fauna, which confirms that men were contemporary with extinct animals in Alaska'.[12] Throughout the Alaskan mucks, also there is:

> evidence of atmospheric disturbances of unparalleled violence. Mammoth and bison alike were torn and twisted as though by a cosmic hand in Godly rage. In one place we can find the foreleg and shoulder of a mammoth with portions of the flesh and toenails and hair still clinging to the blackened bones. Close by is the neck and skull of a bison with the vertebrae clinging together with tendons and ligaments and the chitinous covering of the

> horns intact. There is no mark of knife or cutting instrument [as there would be if human hunters, for example, had been involved]. The animals were simply torn apart and scattered over the landscape like things of straw and string, even though some of them weighed several tons. Mixed with piles of bones are trees, also twisted and torn and piled in tangled groups; and the whole is covered with a fine sifting muck, then frozen solid.[13]

Much the same picture emerges in Siberia where catastrophic climatic changes and geological upheavals occurred at around the same time. Here the frozen mammoth graveyards, 'mined' for their ivory since the Roman era, were still yielding an estimated 20,000 pairs of tusks every decade at the beginning of the twentieth century.[14]

Once again, some mysterious factor appears to have been at work in bringing about these mass extinctions. With their woolly coats and thick skins, mammoths are generally

considered adapted to cold weather, and we are not surprised to come across their remains in Siberia. Harder to explain is the fact that human beings perished alongside them,[15] as well as many other animals that in no sense can be described as cold-adapted species:

> The northern Siberian plains supported vast numbers of rhinoceroses, antelope, horses, bison, and other herbivorous creatures, while a variety of carnivores, including the sabertooth cat, preyed upon them.… Like the mammoths, these other animals ranged to the extreme north of Siberia, to the shores of the Arctic Ocean, and yet further north to the Lyakhov and New Siberian Islands, only a very short distance from the North Pole.[16]

Researchers have confirmed that of the thirty-four animal species living in Siberia prior to the catastrophes of the eleventh millennium BC – including Ossip's mammoth, giant

deer, cave hyena and cave lions – no less than twenty-eight were adapted *only to temperate conditions*.[17] In this context, one of the most puzzling aspects of the extinctions, which runs quite contrary to what today's geographical and climatic conditions lead us to expect, is that the farther north one goes, the more the mammoth and other remains *increase* in number.[18] Indeed some of the New Siberian Islands, well within the Arctic Circle, were described by the explorers who first discovered them as being made up almost entirely of mammoth bones and tusks.[19] The only logical conclusion, as the nineteenth-century French zoologist Georges Cuvier put it, is that 'this eternal frost did not previously exist in those parts in which the animals were frozen, for they could not have survived in such a temperature. The same instant that these creatures were bereft of life, the country which they inhabited became frozen.'[20]

There is a great deal of other evidence which suggests that a sudden freeze took place in Siberia during the eleventh millennium BC. In his survey of the New Siberian Islands, the Arctic explorer Baron Eduard von Toll found the remains ‘of a sabretooth tiger, and a fruit tree that had been 90 feet tall when it was standing. The tree was well preserved in the permafrost, with its roots and seeds. Green leaves and ripe fruit still clung to its branches … At the present time the only representative of tree vegetation on the islands is a willow that grows one inch high’.[21]

Equally indicative of the cataclysmic change that took place at the onset of the great cold in Siberia is the food the extinct animals were eating when they perished: ‘The mammoths died suddenly, in intense cold, and in great numbers. Death came so quickly that the swallowed vegetation is yet undigested … Grasses, bluebells, buttercups,

tender sedges, and wild beans have been found, yet identifiable and undeteriorated, in their mouths and stomachs.'[22]

Needless to say, such flora does not grow anywhere in Siberia today. Its presence there in the eleventh millennium BC compels us to accept that the region had a pleasant and productive climate – one that was temperate or even warm.[23] Why the *end* of the last Ice Age in other parts of the world should have been the *beginning* of fatal winter in this former paradise is a question we shall postpone until Part VIII. What is certain, however, is that at some point between 12–13,000 years ago a destroying frost descended with horrifying speed upon Siberia and has never relaxed its grip. In an eerie echo of the Avestic traditions, a land which had previously enjoyed seven months of summer was converted almost overnight into a land of ice and snow with ten months of

harsh and frozen winter.[24]

A thousand Krakatoas, all at once

Many of the myths of cataclysm speak of times of terrible cold, of darkened skies, of black, burning, bituminous rain. For centuries it must have been like that all the way across the arc of death incorporating immense tracts of Siberia, the Yukon and Alaska. Here, 'Interspersed in the muck depths, and sometimes through the very piles of bones and tusks themselves, are layers of volcanic ash. There is no doubt that coincidental with the [extinctions] there were volcanic eruptions of tremendous proportions.'[25]

There is a remarkable amount of evidence of excessive volcanism during the decline of the Wisconsin ice cap.[26] Far to the south of the frozen Alaskan mucks, thousands of

prehistoric animals and plants were mired, all at once, in the famous La Brea tar pits of Los Angeles. Among the creatures unearthed were bison, horses, camels, sloths, mammoths, mastodons and at least *seven hundred* sabre-toothed tigers.[27] A disarticulated human skeleton was also found, completely enveloped in bitumen, mingled with the bones of an extinct species of vulture. In general, the La Brea remains ('broken, mashed, contorted, and mixed in a most heterogeneous mass'[28]) speak eloquently of a sudden and dreadful volcanic cataclysm.[29]

Similar finds of typical late Ice Age birds and mammals have been unearthed from asphalt at two other locations in California (Carpinteria and McKittrick). In the San Pedro Valley, mastodon skeletons were discovered still standing upright, ungulfed in great heaps of volcanic ash and sand. Fossils from the glacial Lake Floristan in Colorado, and from

Oregon's John Day Basin, were also excavated from tombs of volcanic ash.[30]

Although the tremendous eruptions that created such mass graves may have been at their most intense during the last days of the Wisconsin, they appear to have been recurrent throughout much of the Ice Age, not only in North America but in Central and South America, in the North Atlantic, in continental Asia, and in Japan.[31]

It is difficult to imagine what this widespread volcanism might have meant for people living in those strange and terrible times. But those who recall the cauliflower-shaped clouds of dust, smoke and ash ejected into the upper atmosphere by the eruption of Mount Saint Helens in 1980 will appreciate that a large number of such explosions (occurring sequentially over a sustained period at different points around the globe) would not only have had

devastating local effects but would have caused a severe deterioration in the world's climate.

Mount Saint Helens spat out an estimated one cubic kilometre of rock and was small-scale by comparison with the typical volcanism of the Ice Age.[32] A more representative impression would be the Indonesian volcano Krakatoa, which erupted in 1883 with such violence that more than 36,000 people were killed and the explosion was heard 3000 miles away. From the epicentre in the Sunda Strait, *tsunamis* 100 feet high roared across the Java Sea and the Indian Ocean, carrying steamships miles inland and causing flooding as far away as East Africa and the western coasts of the Americas. Eighteen cubic kilometres of rock and vast quantities of ash and dust were pumped into the upper atmosphere; skies all over the world were noticeably darker for more than two years and sunsets notably redder. Average global

temperatures fell measurably during this period because volcanic dust-particles reflect the sun's rays back into space.[33]

During the episodes of intense volcanism which characterized the Ice Age, we must envisage not one but many Krakatoas. The combined effect would at first have been a great intensification of glacial conditions, as the light of the sun was cut by the boiling dust clouds, and as already low temperatures plummeted even further. Volcanoes also inject enormous volumes of carbon dioxide into the atmosphere, and carbon dioxide is a 'greenhouse gas', so it is reasonable to suppose, as the dust began to settle during periods of relative calm, that a degree of global warming would have occurred. A number of authorities attribute the repeated advances and retreats of the great ice sheets to precisely this see-saw interaction between volcanism and

climate.[34]

Global flooding

Geologists agree that by 8000 BC the great Wisconsin and Wurm ice-caps had retreated. The Ice Age was over. However, the seven thousand years *prior* to that date had witnessed climatic and geological turbulence on a scale that was almost unimaginable. Lurching from cataclysm to disaster and from misfortune to calamity, the few scattered tribes of surviving humans must have led lives of constant terror and confusion: there would have been periods of quiescence, when they might have hoped that the worst was over. While the melting of the giant glaciers continued, however, these episodes of tranquillity would have been punctuated again and again by violent floods. Moreover,

sections of the earth's crust hitherto pressed down into the asthenosphere by billions of tons of ice would have been liberated by the thaw and begun to rise again, sometimes rapidly, causing devastating earthquakes and filling the air with terrible noise.

Some times were much worse than others. The bulk of the animal extinctions took place between 11,000 BC and 9000 BC when there were violent and unexplained fluctuations of climate.[35] (In the words of geologist John Imbrie, 'a climatic revolution took place around 11,000 years ago.'[36]) There were also greatly increased rates of sedimentation[37] and an abrupt temperature increase of 6–10 degrees Centigrade in the surface waters of the Atlantic Ocean.[38]

Another turbulent episode, again accompanied by mass extinctions, took place between 15,000 BC and 13,000 BC. We saw in the previous chapter that the Tazewell Advance

brought the ice sheets to their maximum extent around 17,000 years ago and that a dramatic and prolonged thaw then ensued, completely deglaciating millions of square miles of North America and Europe in less than two thousand years.

There were some anomalies: all of western Alaska, the Yukon territory in Canada, and most of Siberia including the New Siberian Islands (now among the coldest parts of the world), remained unglaciated until the Ice Age was near its end. They acquired their present climate only about 12,000 ago, apparently very abruptly, when the mammoths and other large mammals were frozen in their tracks.[39]

Elsewhere the picture was different. Most of Europe was buried under ice two miles thick.[40] So too was most of North America where the ice-cap had spread from centres near Hudson Bay to enshroud all of eastern Canada, New England

and much of the Midwest down to the 37th parallel – well to the south of Cincinnati in the Mississippi Valley and more than halfway to the equator.[41]

At its peak 17,000 years ago, it is calculated that the total ice volume covering the northern hemisphere was in the region of six million cubic miles, and of course there were extensive glaciations in the southern hemisphere too as we noted. The surplus water flow from which these numerous ice-caps were formed had been provided by the world's seas and oceans which were then about 400 feet lower than they are today.[42]

It was at this moment that the pendulum of climate swung violently in the opposite direction. The great meltdown began so suddenly and over such vast areas that it has been described 'as a sort of miracle'.[43] Geologists refer to it as the Bolling phase of warm climate in Europe and as the Brady

interstadial in North America. In both regions:

> An ice-cap that may have taken 40,000 years to develop disappeared for the most part, in 2000. It must be obvious that this could not have been the result of gradually acting climatic factors usually called upon to explain ice ages … The rapidity of the deglaciation suggests that some extraordinary factor was affecting the climate. The dates suggest that this factor first made itself felt about 16,500 years ago, that it had destroyed most, perhaps three-quarters of the glaciers by 2000 years later, and that [the vast bulk of these dramatic developments took place] in a millennium or less.'[44]

Inevitably the first consequence was a precipitous rise in sea levels, perhaps as much as 350 feet.[45] Islands and land bridges disappeared and vast sections of low-lying continental coastline were submerged. From time to time great tidal waves rose up to engulf higher land as well. They ebbed away, but in the process left unmistakable traces of

their presence.

In the United States, 'Ice Age marine features are present along the Gulf coast east of the Mississippi River, in some places at altitudes that may exceed 200 feet.'[46] In bogs covering glacial deposits in Michigan, skeletons of two whales were discovered. In Georgia marine deposits occur at altitudes of 160 feet, and in northern Florida at altitudes of at least 240 feet. In Texas, well to the south of the farthest extent of the Wisconsin Glaciation, the remains of Ice Age land mammals are found in marine deposits. Another marine deposit, containing walrus, seals and at least five genera of whales, overlies the seaboard of the north-eastern states and the Arctic coast of Canada. In many areas along the Pacific coast of North America Ice Age marine deposits extend 'more than 200 miles inland.'[47] The bones of a whale have been found north of Lake Ontario, about 440 feet above sea level,

a skeleton of another whale in Vermont, more than 500 feet above sea level, and another in the Montreal-Quebec area about 600 feet above sea level.[48]

Flood myths from all over the world characteristically and recurrently describe scenes when humans and animals flee the rising tides and take refuge on mountain tops. The fossil record confirms that this did indeed happen during the melting of the ice sheets and that the mountains were not always high enough to save the refugees from disaster. For example, fissures in the rocks on the tops of isolated hills in central France are filled with what is known as 'osseous breccia', consisting of the splintered bones of mammoths, woolly rhinoceroses and other animals. The 1430 feet peak of Mount Genay in Burgundy 'is capped by a breccia containing remains of mammoth, reindeer, horse and other animals'.[49] Much farther south, so too is the Rock of Gibraltar where 'a

human molar and some flints worked by Paleolithic man were discovered among the animal bones.'[50]

Hippo remains, together with mammoth, rhinoceros, horse, bear, bison, wolf and lion, have been found in England, in the neighbourhood of Plymouth on the Channel.[51] The hills around Palermo in Sicily disclosed an 'extraordinary quantity of bones of hippopotami – in complete hecatombs'.[52] On the basis of this and other evidence, Joseph Prestwich, formerly professor of Geology at Oxford University, concluded that Central Europe, England, and the Mediterranean islands of Corsica, Sardinia and Sicily were all completely submerged on several occasions during the rapid melting of the ice sheets:

> The animals naturally retreated, as the waters advanced, deeper into the hills until they found themselves embayed … They thronged together in vast multitudes, crushing into the more accessible caves, until overtaken by

> the waters and destroyed … Rocky debris and large blocks from the sides of the hills were hurled down by the currents of water, crushing and smashing the bones … Certain communities of early man must have suffered in this general catastrophe.[53]

It is probable that similar flood disasters occurred in China at much the same time. In caves near Peking, bones of mammoths and buffaloes have been found in association with human skeletal remains.[54] A number of authorities attribute the violent intermingling of mammoth carcases with splintered and broken trees in Siberia 'to a great tidal wave that uprooted forests and buried the tangled carnage in a flood of mud. In the polar region this froze solid and has preserved the evidence in permafrost to the present.'[55]

All over South America, too, Ice-Age fossils have been unearthed, 'in which incongruous animal types (carnivores and herbivores) are mixed promiscuously with human bones.

No less significant is the association, over truly widespread areas, of fossilized land and sea creatures mingled in no order and yet entombed in the same geological horizon.'[56]

North America was also badly affected by flooding. As the great Wisconsin ice sheets melted they created huge but temporary lakes which filled up with incredible speed, drowning everything in their paths, then drained away in a few hundred years. Lake Agassiz, for example, the largest glacial lake in the New World, once occupied an area of 110,000 square miles, covering large parts of what are now Manitoba, Ontario and Saskatchewan in Canada, and North Dakota and Minnesota in the United States.[57] Remarkably, it endured for less than a millennium, indicating a catastrophically sudden episode of melting and flooding followed by a period of quiescence.[58]

A token of good faith

It was long believed that human beings did not reach the New World until around 11,000 years ago, but recent finds have steadily pushed that horizon back. Stone implements dating to 25,000 BC have been identified by Canadian researchers in the Old Crow Basin in the Yukon Territory of Alaska.[59] In South America (as far south as Peru and Tierra del Fuego) human remains and artefacts have been found which have been reliably dated to 12,000 BC – with another group between 19,000 BC and 23,000 BC.[60] With this and other evidence taken into account, 'a very reasonable conclusion on the peopling of the Americas is that it began at least 35,000 years ago, but may well have included waves of immigrants at later dates too.'[61]

Those newly arriving Ice Age Americans, trekking in from

Siberia across the Bering land bridge, would have faced the most appalling conditions between 17,000 and 10,000 years ago. It was then that the Wisconsin glaciers, all at once, went into their ferocious meltdown, forcing a 350-foot rise in global sea levels amid scenes of unprecedented climatic and geological turmoil. For *seven thousand years of human experience*, earthquakes, volcanic eruptions and immense floods, interspersed with eerie periods of peace, must have dominated the day-to-day lives of the New World peoples. Perhaps this is why so many of their myths speak with such conviction of fire and floods and times of darkness and of the creation and destruction of Suns.

Moreover, as we have seen, the myths of the New World are not in this respect isolated from those of the Old. All around the globe, a remarkable uniformity reveals itself over issues such as ‘the great flood’ and ‘the great cold’ and ‘the

time of the great upheaval'. It is not just that the same experiences are being recounted again and again; that, on its own, would be quite understandable since the Ice Age and its after-effects were global phenomena. More curious by far is the way in which the same symbolic motifs keep recurring: the one good man and his family, the warning given by a god, the seeds of all living things saved, the survival ship, the enclosure against the cold, the trunk of a tree in which the pregenitors of future humanity hide themselves, the birds and other creatures released after the flood to find land … and so on.

Isn't it also odd that so many of the myths turn out to contain descriptions of figures like Quetzalcoatl and Viracocha, said to have come in the time of darkness, after the flood, to teach architecture, astronomy, science and the rule of law to the scattered and devastated tribes of survivors.

Who were these civilizing heroes? Were they figments of the primitive imagination? Or gods? Or men? If they were men, could they have tampered with the myths in some way, turning them into vehicles for transporting knowledge through time?

Such notions seem fanciful. But, as we shall see in Part V, astronomical data of a disturbingly accurate and scientific nature turns up repeatedly in certain myths, as time-worn and as universal in their distribution as those of the great flood.

Where did their scientific content come from?

Part V

The Mystery of the Myths

2 The Precessional Code

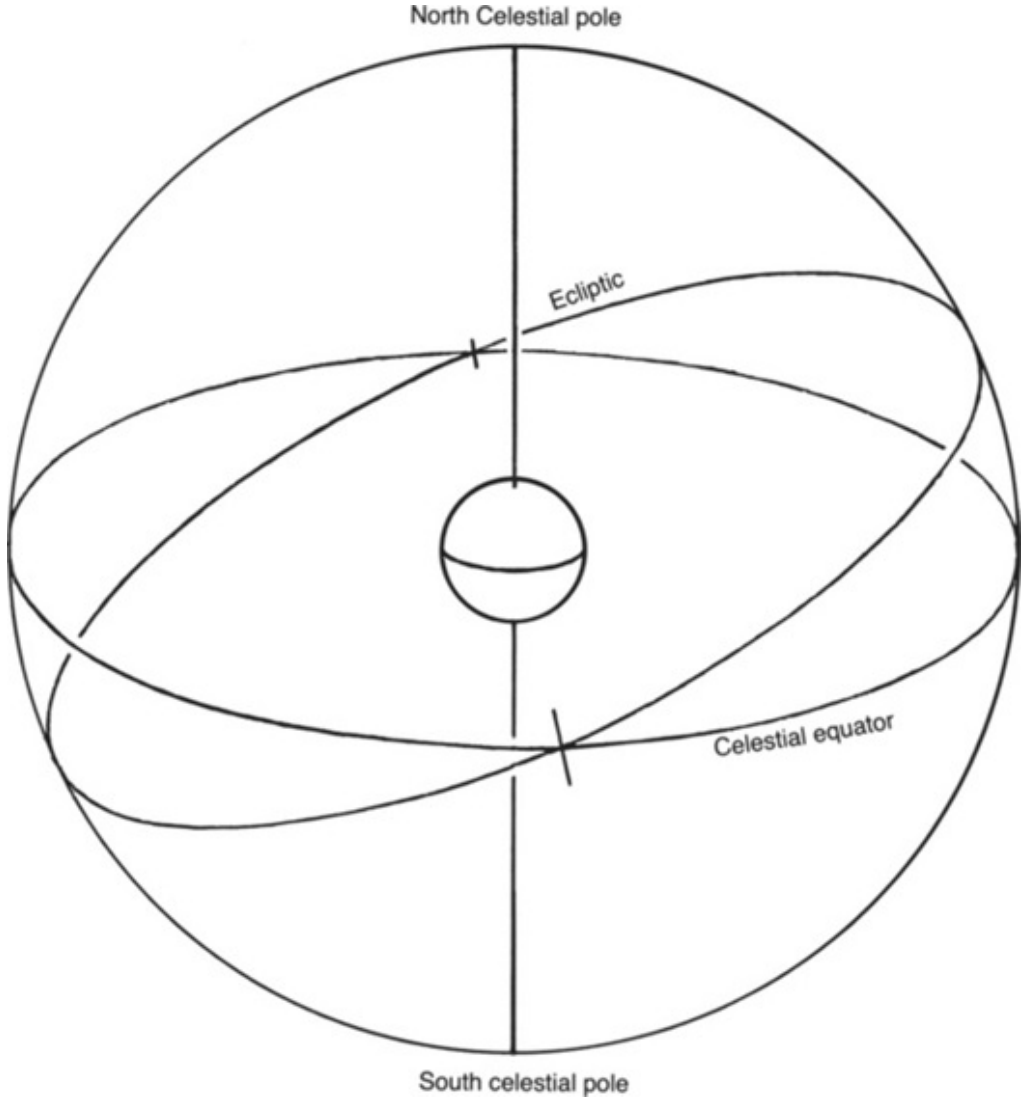
North Celestial pole
Ecliptic
Celestial equator
South celestial pole

The Celestial Sphere.

Chapter 28

The Machinery of Heaven

Although a modern reader does not expect a text on celestial mechanics to read like a lullaby, he insists on his capacity to understand mythical 'images' instantly, because he can respect as 'scientific' only page-long approximation formulas, and the like.

He does not think of the possibility that equally relevant knowledge might once have been expressed in everyday language. He never suspects such a possibility, although the visible accomplishments of ancient cultures – to mention only the pyramids or metallurgy – should be a cogent reason

> for concluding that serious and intelligent men were at work behind the stage, men who were bound to have used a technical language …[1]

The quotation is from the late Giorgio de Santillana, professor of the History of Science at the Massachusetts Institute of Technology. In the chapters that follow, we shall be learning about his revolutionary investigations into ancient mythology. In brief, however, his proposition is this: long ages ago, serious and intelligent people devised a system for veiling the technical terminology of an advanced astronomical science behind the everyday language of myth.

Is Santillana right? And if he is right, who were these serious and intelligent people – these astronomers, these ancient scientists – who worked behind the stage of prehistory?

Let us start with some basics.

The wild celestial dance

The earth makes a complete circuit around its own axis once every twenty-four hours and has an equatorial circumference of 24,902.45 miles. It follows, therefore, that a man standing still on the equator is in fact in motion, revolving with the planet at just over 1000 miles per hour.[2] Viewed from outer space, looking down on the North Pole, the direction of rotation is anti-clockwise.

While spinning daily on its own axis, the earth also orbits the sun (again in an anti-clockwise direction) on a path which is slightly elliptical rather than completely circular. It pursues this orbit at truly breakneck speed, travelling as far along it in an hour – 66,600 miles – as the average motorist will drive in six years. To bring the calculations down in scale, this means that we are hurtling through space much

faster than any bullet, at the rate of 18.5 miles *every second*. In the time that it has taken you to read this paragraph, we have voyaged about 550 miles farther along earth's path around the sun.[3]

With a year required to complete a full circuit, the only evidence we have of the tremendous orbital race we are participating in is the slow march of the seasons. And in the operations of the seasons themselves it is possible to see a wondrous and impartial mechanism at work distributing spring, summer, autumn and winter fairly around the globe, across the northern and southern hemispheres, year in and year out, with absolute regularity.

The earth's axis of rotation is tilted in relation to the plane of its orbit (at about 23.5° to the vertical). This tilt, which causes the seasons, 'points' the North Pole, and the entire northern hemisphere away from the sun for six months a

year (while the southern hemisphere enjoys its summer) and points the South Pole and the southern hemisphere away from the sun for the remaining six months (while the northern hemisphere enjoys its summer). The seasons result from the annual variation in the angle at which the sun's rays reach any particular point on the earth's surface and from the annual variation in the number of hours of sunlight received there at different times of the year.

The earth's tilt is referred to in technical language as its 'obliquity', and the plane of its orbit, extended outwards to form a great circle in the celestial sphere, is known as the 'ecliptic'. Astronomers also speak of the 'celestial equator', which is an extension of the earth's equator into the celestial sphere. The celestial equator is today inclined at about 23.5° to the ecliptic, because the earth's axis is inclined at 23.5° to the vertical. This angle, termed the 'obliquity of the ecliptic',

is not fixed and immutable for all time. On the contrary (as we saw in Chapter Eleven in relation to the dating of the Andean city of Tiahuanaco) it is subject to constant, though very slow, oscillations. These occur across a range of slightly less than 3°, rising closest to the vertical at 22.1° and falling farthest away at 24.5°. A full cycle, from 24.5° to 22.1°, and back again to 24.5°, takes approximately 41,000 years to complete.[4]

So our fragile planet nods and spins while soaring along its orbital path. The orbit takes a year and the spin takes a day and the nod has a cycle of 41,000 years. A wild celestial dance seems to be going on as we skip and skim and dive through eternity, and we feel the tug of contradictory urges: to fall into the sun on the one hand; to make a break for the outer darkness on the other.

Recondite influences

The sun's gravitational domain, in the inner circles of which the earth is held captive, is now known to extend more than fifteen *trillion* miles into space, almost halfway to the nearest star.[5] Its pull upon our planet is therefore immense. Also affecting us is the gravity of the other planets with which we share the solar system. Each of these exerts an attraction which tends to draw the earth out of its regular orbit around the sun. The planets are of different sizes, however, and revolve around the sun at different speeds. The combined gravitational influence they are able to exert thus changes over time in complex but predictable ways, and the orbit changes its shape constantly in response. Since the orbit is an ellipse these changes affect its degree of elongation, known technically as its 'eccentricity'. This varies from a low value

close to zero (when the orbit approaches the form of a perfect circle) to a high value of about six per cent when it is at its most elongated and elliptical.[6]

There are other forms of planetary influence too. Thus, though no explanation has yet been forthcoming, it is known that shortwave radio frequencies are disturbed when Jupiter, Saturn and Mars line up.[7] And in this connection evidence has also emerged

> of a strange and unexpected correlation between the positions of Jupiter, Saturn and Mars, in their orbits around the sun, and violent electrical disturbances in the earth's upper atmosphere. This would seem to indicate that the planets and the sun share in a cosmic-electrical balance mechanism that extends a billion miles from the centre of our solar system. Such an electrical balance is not accounted for in current astrophysical theories.[8]

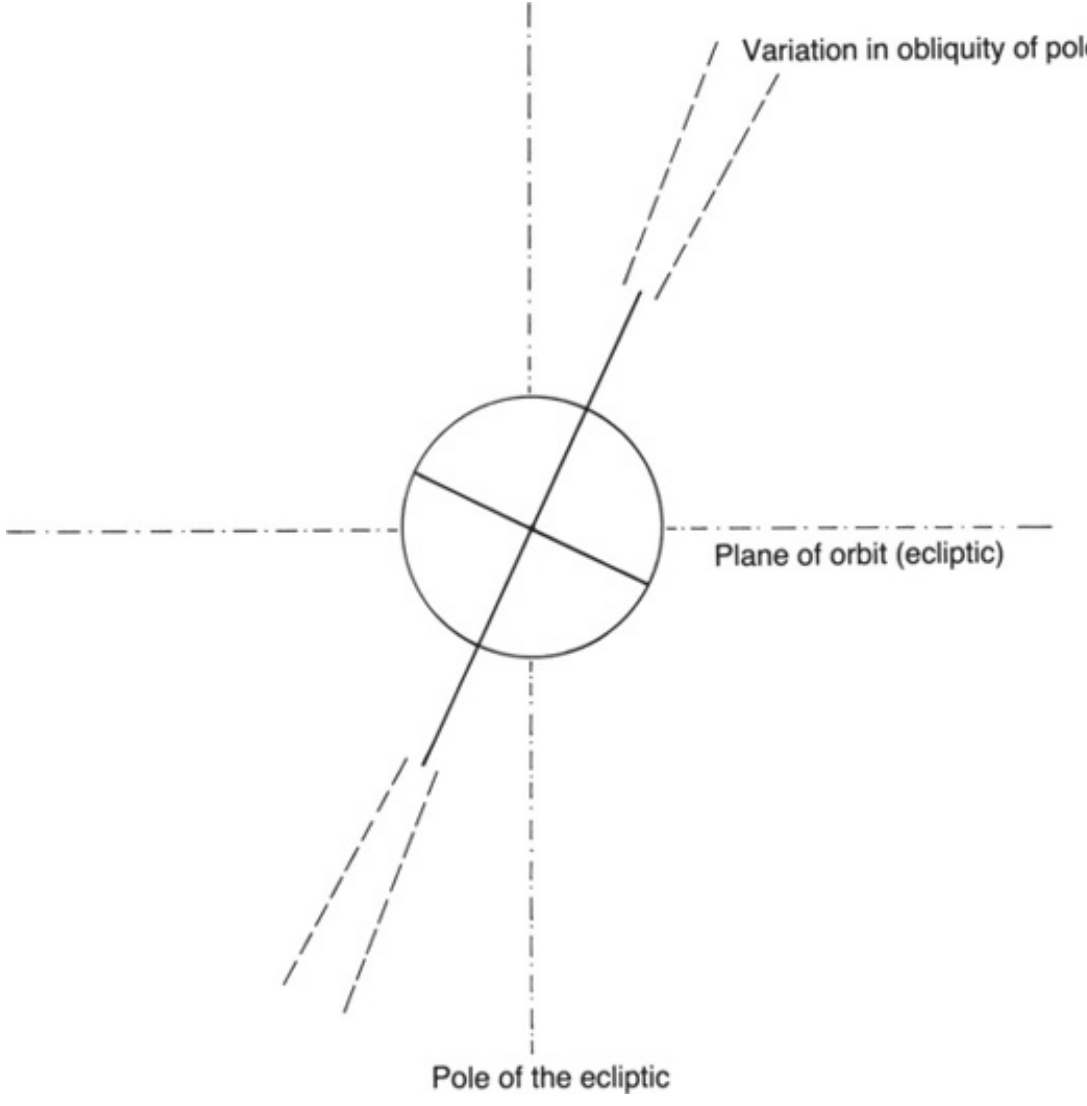
Variation in obliquity of pole
Plane of orbit (ecliptic)
Pole of the ecliptic

The obliquity of the ecliptic varies from 22.1° to 24.5° over a cycle of 41,000 years.

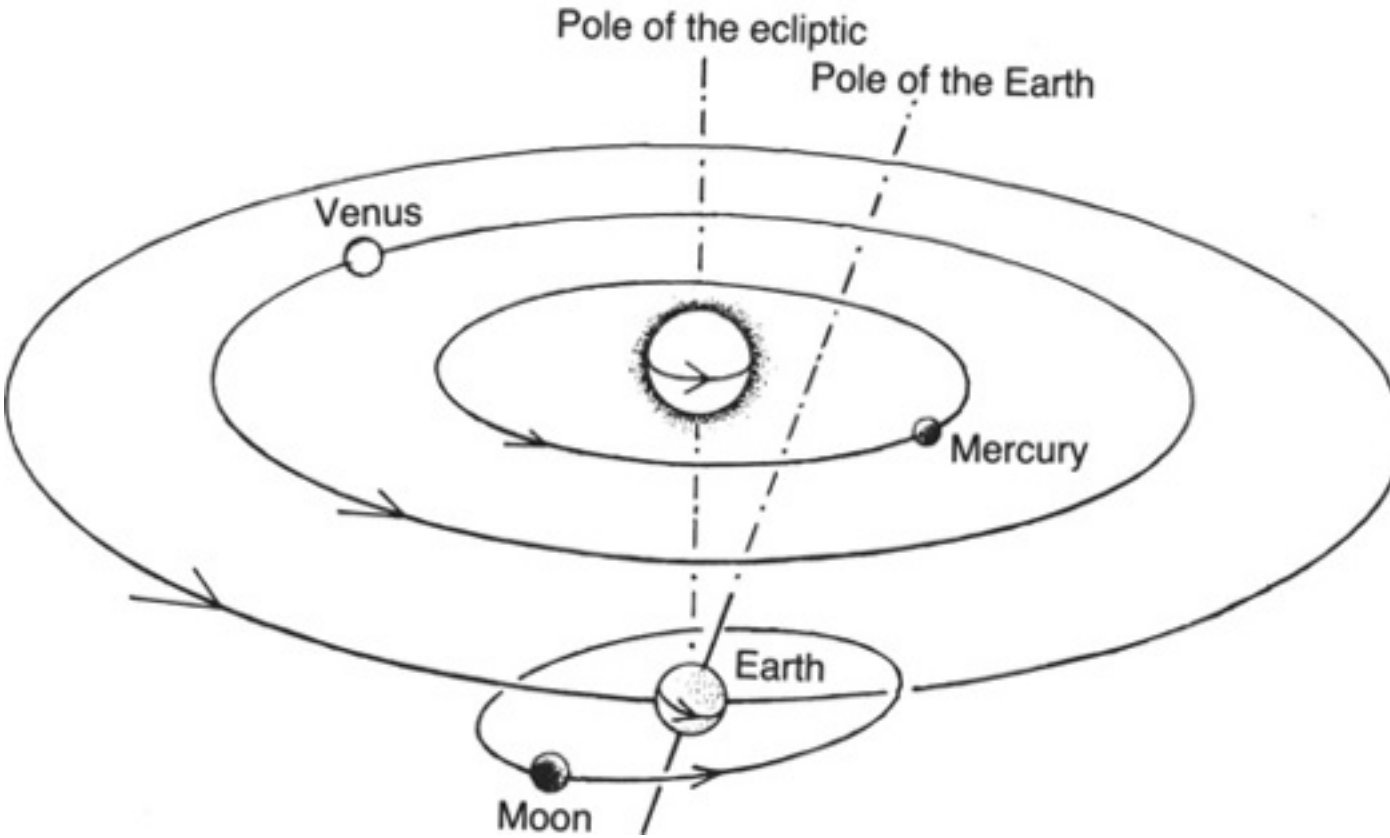

Inner planets of the solar system.

The *New York Times*, from which the above report is taken, does not attempt to clarify matters further. Its writers are probably unaware of just how much they sound like Berosus, the Chaldean historian, astronomer and seer of the third century BC, who made a deep study of the omens he believed would presage the final destruction of the world. He concluded, 'I Berosus, interpreter of Bellus, affirm that all the earth inherits will be consigned to flame when the five planets assemble in Cancer, so arranged in one row that a straight line may pass through their spheres.'[9]

A conjunction of five planets that can be expected to have profound gravitional effects will take place on 5 May in the year 2000 when Neptune, Uranus, Venus, Mercury and Mars will align with earth on the other side of the sun, setting up a sort of cosmic tug-of-war.[10] Let us also note that modern

astrologers who have charted the Mayan date for the end of the Fifth Sun calculate that there will be a most peculiar arrangement of planets at that time, indeed an arrangement *so* peculiar that 'it can only occur once in 45,200 years … From this extraordinary pattern we might well expect an extraordinary effect.'[11]

No one in his or her right mind would rush to accept such a proposition. Nevertheless, it cannot be denied that multiple influences, many of which we do not fully understand, appear to be at work within our solar system. Among these influences, that of our own satellite, the moon, is particularly strong. Earthquakes, for example, occur more often when the moon is full or when the earth is between the sun and the moon; when the moon is new or between the sun and the earth; when the moon crosses the meridian of the affected locality; and when the moon is closest to the earth on its

orbit.[12] Indeed, when the moon reaches this latter point (technically referred to as its 'perigree'), its gravitational attraction increases by about six per cent. This happens once every twenty-seven and one-third days. The tidal pull that it exerts on these occasions affects not only the great movements of our oceans but those of the reservoirs of hot magma penned within the earth's thin crust (which has been described as resembling 'a paper bag filled with honey or molasses swinging along at a rate of more than 1000 miles an hour in equatorial rotation, and more than 66,000 miles an hour in orbit'[13]).

The wobble of a deformed planet

All this circular motion, of course, generates immense centrifugal forces and these, as Sir Isaac Newton

demonstrated in the seventeenth century, cause the earth's 'paper bag' to bulge outwards at the equator. The corollary is a flattening at the poles. In consequence, our planet deviates slightly from the form of a perfect sphere and is more accurately described as an 'oblate spheroid'. Its radius at the equator (3963.374 miles) is about fourteen miles longer than its polar radius (3949.921 miles).[14]

For billions of years the flattened poles and the bulging equator have been engaged in a covert mathematical interaction with the recondite influence of gravity. 'Because the Earth is flattened,' explains one authority, 'the Moon's gravity tends to tilt the Earth's axis so that it becomes perpendicular to the Moon's orbit, and to a lesser extent the same is true for the Sun.'[15]

At the same time the equatorial bulge – the extra mass distributed around the equator – acts like the rim of a

gyroscope to keep the earth steady on its axis.[16]

Year in, year out, on a planetary scale, it is this gyroscopic effect that prevents the tug of the sun and the moon from radically altering the earth's axis of rotation. The pull these two bodies jointly exert is, however, sufficiently strong to force the axis to 'precess', which means that it wobbles slowly in a clockwise direction opposite to that of the earth's spin.

This important motion is our planet's characteristic signature within the solar system. Anyone who has ever set a top spinning should be able to understand it without much difficulty; a top, after all, is simply another type of gyroscope. In full uninterrupted spin it stands upright. But the moment its axis is deflected from the vertical it begins to exhibit a second behaviour: a slow and obstinate reverse wobble around a great circle. This wobble, which *is*

precession, changes the direction in which the axis points while keeping constant its newly tilted angle.

A second analogy, somewhat different in approach, may help to clarify matters a little further:

1 Envisage the earth, floating in space, inclined at approximately 23.5° to the vertical and spinning around on its axis once every 24 hours.

2 Envisage this axis as a massively strong pivot, or *axle*, passing through the centre of the earth, exiting via the North and South Poles and extending outwards from there in both directions.

3 Imagine that you are a giant, striding through the solar system, with orders to carry out a specific task.

4 Imagine approaching the tilted earth (which, because of your great size, now looks no bigger to you than a millwheel).

5 Imagine reaching out and grasping the two ends of the extended axis.

6 And imagine yourself slowly beginning to inter-rotate them, pushing one

end, pulling the other.

7 The earth was already spinning when you arrived.

8 Your orders, therefore, are not to get involved in its axial rotation, but rather to impart to it its *other* motion: that slow clockwise wobble called precession.

9 To fulfil this commission you will have to push the northern tip of the extended axis up and around a great circle in the northern celestial hemisphere while at the same time pulling the southern tip around an equally large circle in the southern celestial hemisphere. This will involve a slow swivelling pedalling motion with your hands and shoulders.

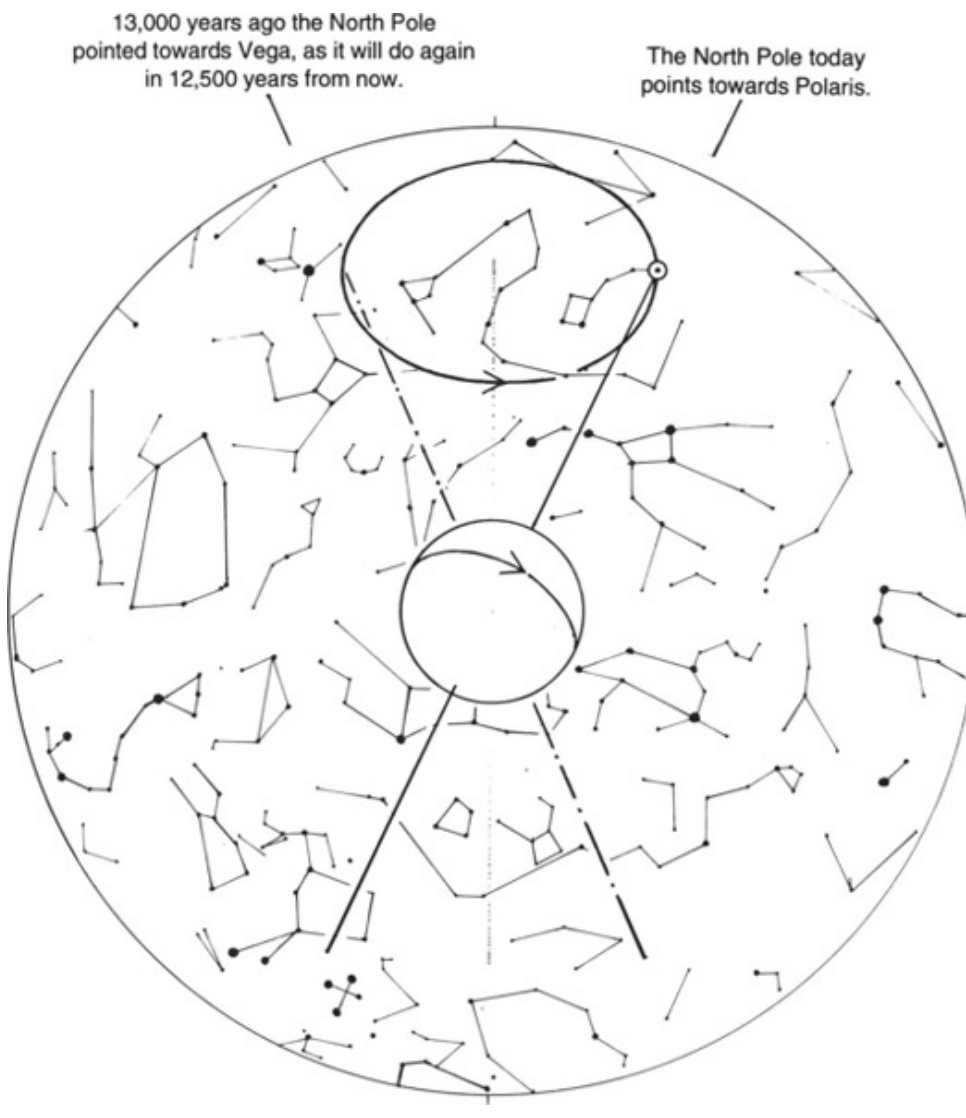
13,000 years ago the North Pole pointed towards Vega, as it will do again in 12,500 years from now.
The North Pole today points towards Polaris.

10 Be warned, however. The ‘millwheel’ of the earth is heavier than it looks, so much heavier, in fact, that it’s going to take you 25,776 years[17] to turn the two tips of its axis through one full precessional cycle (at the end of which they will be aiming at the same points in the celestial sphere as when you arrived).

11 Oh, and by the way, now that you’ve started the job we may as well tell you that you’re never going to be allowed to leave. As soon as one precessional cycle is over another must begin. And another … and another … and another … and so on, endlessly, for ever and ever and ever.

12 You can think of this, if you like, as one of the basic mechanisms of the solar system, or, if you prefer, as one of the fundamental commandments of the divine will.

In the process, little by little, as you slowly sweep the

extended axis around the heavens, its two tips will point to one star after another in the polar latitudes of the southern celestial hemisphere (and sometimes, of course, to empty space), and to one star after another in the polar latitudes of the northern celestial hemisphere. We are talking here, about a kind of musical chairs among the circumpolar stars. And what keeps everything in motion is the earth's axial precession – a motion driven by giant gravitational and gyroscopic forces, that is regular, predictable and relatively easy to work out with the aid of modern equipment. Thus, for example, the northern pole star is presently alpha Ursae Minoris (which we know as Polaris). But computer calculations enable us to state with certainty that in 3000 BC alpha Draconis occupied the pole position; at the time of the Greeks the northern pole star was beta Ursae Minoris; and in AD 14,000 it will be Vega.[18]

A great secret of the past

It will not hurt to remind ourselves of some of the fundamental data concerning the movements of the earth and its orientation in space: • It tilts at about 23.5° to the vertical, an angle from which it can vary by as much as 1.5° on either side over periods of 41,000 years.

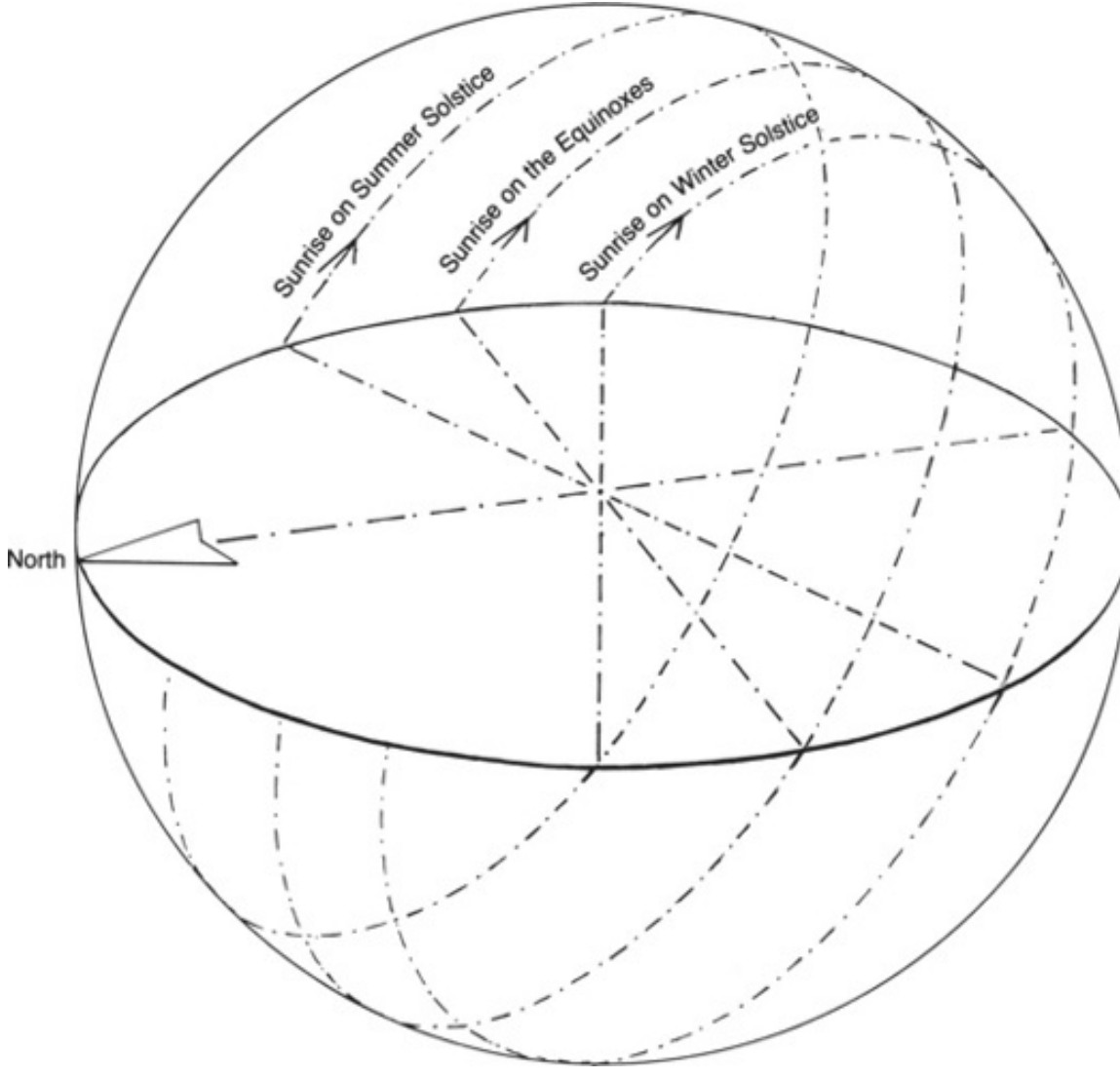
Sunrise on Summer Solstice
Sunrise on the Equinoxes
Sunrise on Winter Solstice
North

- It completes a full precessional cycle once every 25,776 years.[19]
- It spins on its own axis once every twenty-four hours.
- It orbits the sun once every 365 days (actually 365.2422 days).
- The most important influence on its seasons is the angle at which the rays of the sun strike it at various points on its orbital path.

Let us also note that there are four crucial astronomical moments in the year, marking the official beginning of each of the four seasons. These moments (or cardinal points), which were of immense importance to the ancients, are the winter and the summer solstices and the spring and autumn equinoxes. In the northern hemisphere the winter solstice, the shortest day, falls on 21 December, and the summer solstice, the longest day, on 21 June. In the southern

hemisphere, on the other hand, everything is literally upside down: there winter begins on 21 June and summer on 21 December.

The equinoxes, by contrast, are the two points in the year on which night and day are of equal length all over the planet. Once again, however, as with the solstices, the date that marks the onset of spring in the northern hemisphere (20 March) marks that of autumn in the southern hemisphere, and the date for the onset of autumn in the northern hemisphere (22 September) marks the onset of spring in the southern hemisphere.

Like the subtler variations of the seasons, all this is brought about by the benevolent obliquity of the planet. The northern hemisphere's summer solstice falls at that point in the orbit when the North Pole is aimed most directly *towards* the sun; six months later the winter solstice marks that point when

the North Pole is aimed most directly *away* from the sun. And, logically enough, the reason that day and night are of exactly equal length all over the planet on the spring and autumn equinoxes is that these mark the two points when the earth's axis of rotation lies broadside-on to the sun.

Let us now take a look at a strange and beautiful phenomenon of celestial mechanics.

This phenomenon is known as 'the precession of the equinoxes'. It has rigid and repetitive mathematical qualities that can be analysed and predicted precisely. It is, however, extremely difficult to observe, and even harder to measure accurately, without sophisticated instrumentation.

In this, there may lie a clue to one of the great mysteries of the past.

Chapter 29

The First Crack in an Ancient Code

The plane of the earth's orbit, projected outwards to form a great circle in the celestial sphere, is known as the ecliptic. Ringed around the ecliptic, in a starry belt that extends approximately 7° north and south, are the twelve constellations of the zodiac: Aries, Taurus, Gemini, Cancer,

Leo, Virgo, Libra, Scorpius, Sagittarius, Capricornus, Aquarius and Pisces. These constellations are irregular in size, shape and distribution. Nevertheless (and one assumes by chance!) their spacing around the rim of the ecliptic is sufficiently even to bestow a sense of cosmic order upon the diurnal risings and settings of the sun.

To picture what is involved here, do the following: (1) mark a dot in the centre of a blank sheet of paper; (2) draw a circle around the dot, about half an inch away from it; (3) enclose that circle in a second, larger, circle.

The dot represents the sun. The smaller of the two concentric circles represents the earth's orbit. The larger circle represents the rim of the ecliptic. Around the perimeter of this larger circle, therefore, you should now draw twelve boxes, spacing them evenly, to represent the constellations of the zodiac. Since there are 360° in a circle, each constellation

can be considered to occupy a space of 30° along the ecliptic. The dot is the sun. The inner of the two concentric circles is the earth's orbit. We know that the earth travels on this orbit in an anti-clockwise direction, from the west towards the east, and that every twenty-four hours it also makes one complete rotation around its own axis (again from the west towards the east).

From these two movements two illusions result:

1 Each day as the planet turns from west to east, the sun (which is of course a fixed point) appears to 'move' across the sky from east to west.

2 Roughly every thirty days, as the spinning earth journeys along its orbital path around the sun, the sun itself slowly appears to 'pass' through one after another of the twelve zodiacal constellations (which are also fixed points), and again it appears to be 'moving' in an east-west direction.

On any particular day of the year, in other words, (corresponding on our diagram to any point we care to choose around the inner concentric circle marking the earth's orbit), it is obvious that the sun will lie *between* an observer on the earth and one of the twelve zodiacal constellations. On that day what the observer will see, so long as he or she is up and about well before dawn, is the sun rising in the east in the portion of the sky occupied by that particular constellation.

Beneath the clear and unpolluted heavens of the ancient world, it is easy to understand how human beings might have felt reassured by regular celestial motions such as these. It is equally easy to understand why the four cardinal points of the year – the spring and autumn equinoxes, the winter and summer solstices – should everywhere have been accorded immense significance. Even greater significance was accorded

to the conjunction of these cardinal points with the zodiacal constellations. But most significant of all was the constellation in which the sun was observed to rise on the morning of the spring (or vernal) equinox. Because of the earth's axial precession, the ancients discovered that this constellation was *not* fixed or permanent for all time but that the honour of 'housing' or 'carrying' the sun on the day of the vernal equinox circulated – *very, very slowly* – among all the constellations of the zodiac.

In the words of Giorgio de Santillana: 'The sun's position amongst the constellations at the vernal equinox was the pointer that indicated the "hours" of the precessional cycle – very long hours indeed, the equinoctial sun occupying each zodiacal constellation for almost 2200 years.'[1]

The *direction* of the earth's slow axial precession is clockwise (i. e., east to west) and thus in opposition to the

direction of the planet's annual path around the sun. In relation to the constellations of the zodiac, lying fixed in space, this causes the point at which the spring equinox occurs 'to move stubbornly along the ecliptic in the opposite direction to the yearly course of the sun, that is, against the "right" sequence of the zodiacal signs (Taurus → Aries → Pisces → Aquarius, instead of Aquarius → Pisces → Aries → Taurus).'[2]

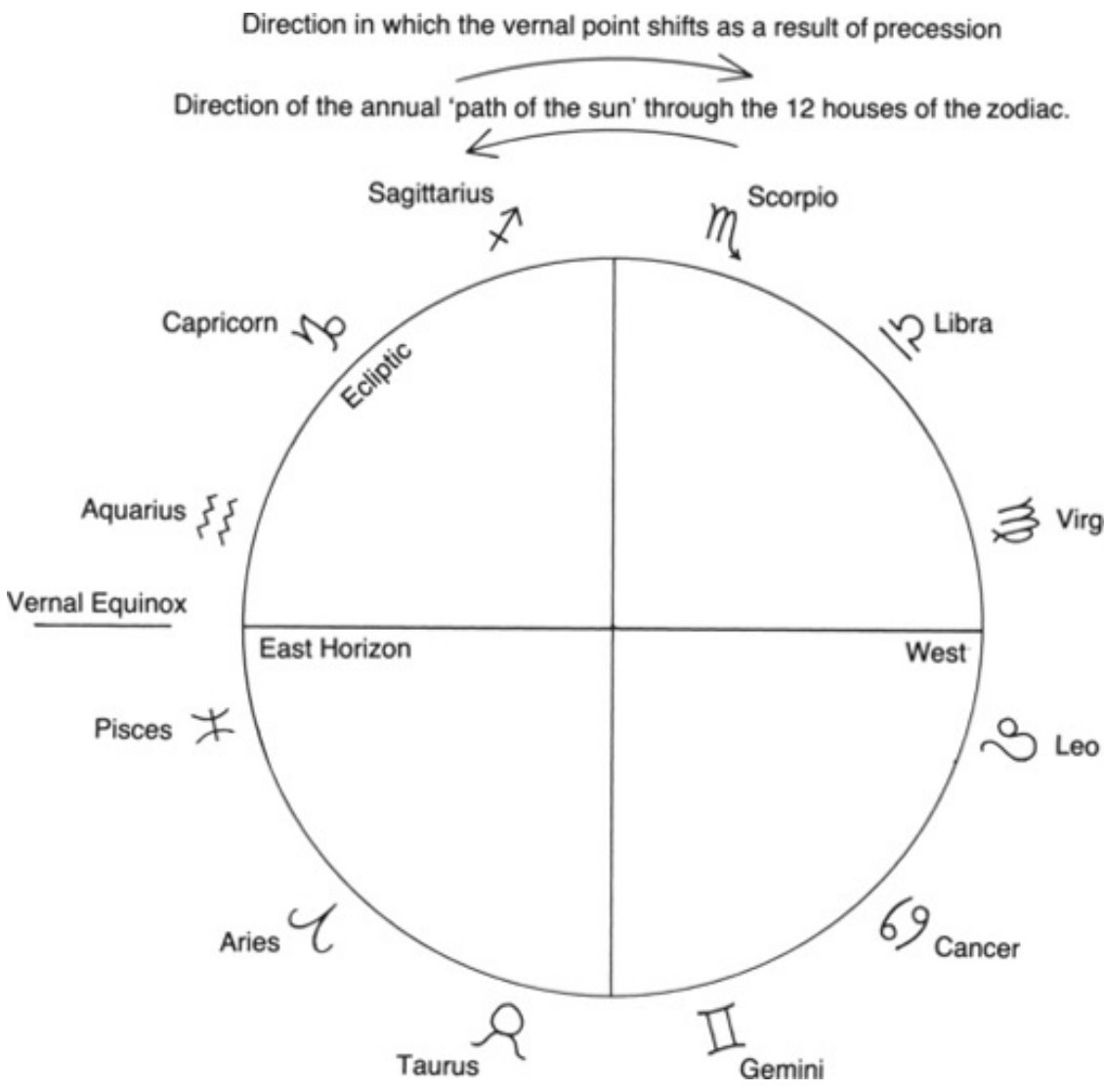
Direction in which the vernal point shifts as a result of precession
Direction of the annual 'path of the sun' through the 12 houses of the zodiac.
Sagittarius
Scorpio
Capricorn
Ecliptic
Libra
Aquarius
Virgo
Vernal Equinox
East Horizon
West
Pisces
Leo
Aries
Cancer
Taurus
Gemini

During the course of each year the earth's movement along its orbit causes the stellar background against which the sun is seen to rise to change from month to month: Aquarius → Pisces → Aries → Taurus → Gemini → Cancer → Leo, etc, etc. At present, on the vernal equinox, the sun rises due east between Pisces and Aquarius. The effect of precession is to cause the 'vernal point' to be reached fractionally earlier in the orbit each year with the result that it very gradually shifts through all 12 houses of the zodiac, spending 2160 years 'in' each sign and making a complete circuit in 25,920 years. The direction of this 'precessional drift', in opposition to the annual 'path of the sun', is: Leo → Cancer → Gemini → Taurus → Aries → Pisces → Aquarius. To give one example, the 'Age of Leo', i.e. the 2160 years during which the sun on the vernal equinox rose against the stellar background of the constellation of Leo, lasted from 10,970

until 8810 BC. We live today in the astrological no man's land at the end of the 'Age of Pisces', on the threshold of the 'New Age' of Aquarius. Traditionally these times of transition between one age and the next have been regarded as ill-omened.

That, in a nutshell, is the meaning of 'precession of the equinoxes'. And that is exactly what is involved in the notion of the 'dawning of the Age of Aquarius'. The famous line from the musical *Hair* refers to the fact that every year, for the last 2000 years or so, the sun has risen in Pisces on the vernal equinox. The *age* of Pisces, however, is now approaching its end and the vernal sun will soon pass out of the sector of the Fish and begin to rise against the new background of Aquarius.

The 25,776-year cycle of precession is the engine that drives this majestic celestial juggernaut along its never-

ending tour of the heavens. But the details of exactly *how* precession moves the equinoctial points from Pisces into Aquarius – and thence onwards around the zodiac – are also worth knowing.

Remember that the equinoxes occur on the only two occasions in the year when the earth's tilted axis lies broadside-on to the sun. These are when the sun rises due east all over the world and day and night are of equal length. Because the earth's axis is slowly but surely *precessing* in a direction opposite to that of its own orbit, the points at which it lies broadside-on to the sun must occur fractionally earlier in the orbit each year. These annual changes are so small as to be almost imperceptible (a one degree shift along the ecliptic – equivalent to the width of your little finger held up to the horizon – requires approximately seventy-two years to complete). However, as de Santillana points out, such minute

changes add up in just under 2200 years to a 30° passage through a complete house of the zodiac, and in just under 26,000 years to a 360° passage through a complete cycle of precession.

When did the ancients first work out precession?

In the answer to this question lies a great secret, and mystery, of the past. Before we try to penetrate the mystery and to learn the secret, we should acquaint ourselves with the 'official' line. The *Encyclopaedia Britannica* is as good a repository as any of conventional historical wisdom, and this is what it tells us about a scholar named Hipparchus, the supposed discoverer of precession:

> Hipparchus, also spelled HIPPARCHOS (b. Nicaea, Bithynia; d. after 127

BC, Rhodes), Greek astronomer and mathematician who discovered the precession of the equinoxes … This notable discovery was the result of painstaking observations, worked upon by an acute mind. Hipparchus observed the positions of the stars, and then compared his results with those of Timocharis of Alexandria about 150 years earlier and with even earlier observations made in Babylonia. He discovered that the celestial longitudes were different and that this difference was of a magnitude exceeding that attributable to errors of observation. He therefore proposed precession to account for the size of the difference and he gave a value of 45' or 46' (seconds of arc) for annual changes. This is very close to the figure of 50.274 seconds of arc accepted today …'[3]

First, a point of terminology. Seconds of arc are the smallest subdivisions of a degree of arc. There are 60 of these arc seconds in one arc minute, 60 minutes in one degree, and 360 degrees in the full circle of earth's path around the sun.

An annual change of 50.274 seconds of arc represents a distance somewhat under one-sixtieth of one degree so that it takes roughly 72 years (an entire human lifetime) for the equinoctial sun to migrate just one degree along the ecliptic. It is because of the observational difficulties entailed in detecting this snails' pace rate of change that the value worked out by Hipparchus in the second century BC is hailed in the *Britannica* as a 'notable discovery'.

Would this discovery seem so notable if it turned out to be a rediscovery? Would the mathematical and astronomical achievements of the Greeks shine so brightly if we could prove that the difficult challenge of measuring precession had been taken up thousands of years *before* Hipparchus? What if this heavenly cycle, almost 26,000 years long, had been made the object of precise scientific investigations long epochs before the supposed dawn of scientific thought?

In seeking answers to such questions there is much that may be relevant which would never be accepted by any court of law as concrete proof. Let us not accept it either. We have seen that Hipparchus proposed a value of 45 or 46 seconds of arc for one year of precessional motion. Let us therefore not attempt to dislodge the Greek astronomer from his pedestal as the discoverer of precession unless we can find a significantly more accurate value recorded in a significantly more ancient source.

Of course, there are many potential sources. At this point, however, in the interests of succinctness, we shall limit our inquiry to universal myths. We have already examined one group of myths in detail (the traditions of flood and cataclysm set out in Part IV) and we have seen that they possess a range of intriguing characteristics:

1 There is no doubt that they are immensely old. Take the Mesopotamian flood

story, versions of which have been found inscribed on tablets from the earliest strata of Sumerian history, around 3000 BC. These tablets, handed down from the dawn of the recorded past, leave no room for doubt that the tradition of a world-destroying flood was ancient even then, and therefore originated long before the dawn. We cannot say how long. The fact remains that no scholar has ever been able to establish a date for the creation of any myth, let alone for these venerable and widespread traditions. In a very real sense they seem always to have been around – part of the permanent baggage of human culture.

2 The possibility cannot be ruled out that this aura of vast antiquity is not an illusion. On the contrary, we have seen that many of the great myths of cataclysm seem to contain accurate eye-witness accounts of real conditions experienced by humanity during the last Ice Age. In theory, therefore, these stories could have been constructed at almost the same time as the emergence of our subspecies *Homo sapiens sapiens*, perhaps as long 50,000 years ago. The geological evidence, however, suggests a more recent provenance, and we have

identified the epoch 15,000–8000 BC as the most likely. Only then, in the whole of human experience, were there rapid climatic changes on the convulsive scale the myths so eloquently describe.

3 The Ice Age and its tumultuous demise were global phenomena. It is therefore perhaps not surprising that the cataclysm traditions of many different cultures, widely scattered around the globe, should be characterized by a high degree of uniformity and convergence.

4 What is surprising, however, is that the myths not only describe shared experiences but that they do so in what appears to be a shared symbolic language. The same 'literary motifs' keep cropping up again and again, the same stylistic 'props', the same recognizable characters, and the same plots.

According to Professor de Santillana, this type of uniformity suggests a guiding hand at work. In *Hamlet's Mill*, a seminal and original thesis on ancient myth written in collaboration with Hertha von Dechend (professor of the History of Science at Frankfurt University) he argues that:

universality is in itself a test when coupled with a firm design. When something found, say, in China, turns up also in Babylonian astrological texts, then it must be assumed to be relevant if it reveals a complex of uncommon images which nobody could claim had risen independently by spontaneous generation. Take the origin of music. Orpheus and his harrowing death may be a poetic creation born in more than one instance in diverse places. But when characters who do not play the lyre but blow pipes get themselves flayed alive for various absurd reasons, and their identical end is rehearsed on several continents, then we feel we have got hold of something, for such stories cannot be linked by internal sequence. And when the Pied Piper turns up both in the German myth of Hamelin and in Mexico long before Columbus, and is linked in both places to certain attributes like the colour red, it can hardly be a coincidence … Likewise, when one finds numbers like 108, or 9 × 13 reappearing under several multiples in the *Vedas*, in the temples of Angkor, in Babylon, in Heraclitus' dark utterances, and also in the Norse Valhalla, it is not accident …[4]

Connecting the great universal myths of cataclysm, is it possible that such coincidences that cannot be coincidences, and accidents that cannot be accidents, could denote the global influence of an ancient, though as yet unidentified, guiding hand? If so, could it be that same hand, during and after the last Ice Age, which drew the series of highly accurate and technically advanced world maps reviewed in Part I? And might not that same hand have left its ghostly fingerprints on another body of universal myths? those concerning the death and resurrection of gods, and great trees around which the earth and heavens turn, and whirlpools, and churns, and drills, and other similar revolving, grinding contrivances?

According to Santillana and von Dechend, all such images refer to celestial events[5] and do so, furthermore, in the refined technical language of an archaic but 'immensely

sophisticated' astronomical and mathematical science:[6] 'This language ignores local beliefs and cults. It concentrates on numbers, motions, measures, overall frames, schemas – on the structure of numbers, on geometry.'[7]

Where could such a language have come from? *Hamlet's Mill* is a labyrinth of brilliant but deliberately evasive scholarship, and offers us no straightforward answer to this question. Here and there, however, almost with embarrassment, inconclusive hints are dropped. For example, at one point the authors say that the scientific language or 'code' they believe they have identified is of 'awe-inspiring antiquity'.[8] On another occasion they pin down the depth of this antiquity more precisely to a period at least '6000 years before Virgil'[9] – in other words 8000 years ago or more.

What civilization *known to history* could have developed and made use of a sophisticated technical language more

than 8000 years ago? The honest answer to this question is 'none', followed by a frank admission that what is being conjectured is nothing less than a forgotten episode of high technological culture in prehistoric times. Once again, Santillana and von Dechend are elusive when it comes to the crunch, speaking only of the legacy we all owe to 'some almost unbelievable ancestor civilization' that 'first dared to understand the world as created according to number, measure and weight.'[10]

The legacy, it is clear, has to do with scientific thinking and complex information of a mathematical nature. Because it is so extremely old, however, the passage of time has dissipated it:

> When the Greeks came upon the scene the dust of centuries had already settled upon the remains of this great world-wide archaic construction. Yet something of it survived in traditional rites, in myths and fairy-tales no

> longer understood … These are tantalising fragments of a lost whole. They make one think of those 'mist landscapes' of which Chinese painters are masters, which show here a rock, here a gable, there the tip of a tree, and leave the rest to imagination. Even when the code shall have yielded, when the techniques shall be known, we cannot expect to gauge the thought of these remote ancestors of ours, wrapped as it is in its symbols, since the creating, ordering minds that devised the symbols have vanished forever.'[11]

What we have here, therefore, are two distinguished professors of the History of Science, from esteemed universities on both sides of the Atlantic, claiming to have discovered the remnants of a coded scientific language *many thousands of years older* than the oldest human civilizations identified by scholarship. Moreover, though generally cautious, Santillana and von Dechend also claim to have 'broken part of that code'.[12]

This is an extraordinary statement for two serious academics to have made.

Chapter 30

The Cosmic Tree and the Mill of the Gods

In their brilliant and far-reaching study *Hamlet's Mill*, Professors de Santillana and von Dechend present a formidable array of mythical and iconographic evidence to demonstrate the existence of a curious phenomenon. For some inexplicable reason, and at some unknown date, it

seems that certain archaic myths from all over the world were ‘co-opted’ (no other word will really do) to serve as vehicles for a body of complex technical data concerning the precession of the equinoxes. The importance of this astonishing thesis, as one leading authority on ancient measurement has pointed out, is that it has fired the first salvo in what may prove to be ‘a Copernican revolution in current conceptions of the development of human culture.’[1]

Hamlet’s Mill was published in 1969, more than a quarter of a century ago, so the revolution has been a long time coming. During this period, however, the book has been neither widely distributed among the general public nor widely understood by scholars of the remote past. This state of affairs has not come about because of any inherent problems or weaknesses in the work. Instead, in the words of Martin Bernal, professor of Government Studies at Cornell

University, it has happened because ‘few archaeologists, Egyptologists and ancient historians have the combination of time, effort and skill necessary to take on the very technical arguments of de Santillana.’[2]

What those arguments predominantly concern is the recurrent and persistent transmission of a ‘precessional message’ in a wide range of ancient myths. And, strangely enough, many of the key images and symbols that crop up in these myths – notably those that concern a ‘derangement of the heavens’ – are also to be found embedded in the ancient traditions of worldwide cataclysm reviewed in Chapters Twenty-four and Twenty-five.

In Norse mythology for example, we saw how the wolf Fenrir, whom the gods had so carefully chained up, broke his bonds at last and escaped: ‘He shook himself and the world trembled. The ash-tree Yggdrasil was shaken from its roots to

its topmost branches. Mountains crumbled or split from top to bottom … The earth began to lose its shape. Already the stars were coming adrift in the sky.'

In the opinion of de Santillana and von Dechend, this myth mixes the familiar theme of catastrophe with the quite separate theme of precession. On the one hand we have an earthly disaster on a scale that seems to dwarf even the flood of Noah. On the other we hear that ominous changes are taking place in the heavens and that the stars, which have come adrift in the sky, are 'dropping into the void.'[3]

Such celestial imagery, repeated again and again with only relatively minor variations in myths from many different parts of the world, belongs to a category earmarked in *Hamlet's Mill* as 'not mere storytelling of the kind that comes naturally'.[4] Moreover the Norse traditions that speak of the monstrous wolf Fenrir, and of the shaking of Yggdrasil, go on

to report the final apocalypse in which the forces of Valhalla issue forth on the side of 'order' to participate in the terrible last battle of the gods – a battle that will end in apocalyptic destruction:

> 500 doors and 40 there are
>
> I ween, in Valhalla's walls;
>
> 800 fighters through each door fare,
>
> When to war with the Wolf they go.'[5]

With a lightness of touch that is almost subliminal, this verse has encouraged us to *count* Valhalla's fighters, thus momentarily obliging us to focus our attention on their total number (540 × 800 = 432,000). This total, as we shall see in Chapter Thirty-one is mathematically linked to the phenomenon of precession. It is, unlikely to have found its

way into Norse mythology by accident, especially in a context that has previously specified a ‘derangement of the heavens’ severe enough to have caused the stars to come adrift from their stations in the sky.

To understand what is going on here it is essential to grasp the basic imagery of the ancient ‘message’ that Santillana and von Dechend claim to have stumbled upon. This imagery transforms the luminous dome of the celestial sphere into a vast and intricate piece of machinery. And, like a millwheel, like a churn, like a whirlpool, like a quern, this machine turns and turns and turns endlessly (its motions being calibrated all the time by the sun, which rises first in one constellation of the zodiac, then in another, and so on all the year round).

The four key points of the year are the spring and summer equinoxes and the winter and summer solstices. At each

point, naturally, the sun is seen to rise in a different constellation (thus if the sun rises in Pisces at the spring equinox, as it does at present, it must rise in Virgo at the autumn equinox, in Gemini at the winter solstice and in Sagittarius at the summer solstice). On each of these four occasions for the last 2000 years or so, this is exactly what the sun has been doing. As we have seen, however, precession of the equinoxes means that the vernal point will change in the not so distant future from Pisces to Aquarius. When that happens, the three other constellations marking the three key points will change as well (from Virgo, Gemini and Sagittarius to Leo, Taurus and Scorpius) – almost as though the giant mechanism of heaven has ponderously switched gears …

Like the axle of a mill, Santillana and von Dechend explain, Yggdrasil ‘represents the world axis’ in the archaic scientific

language they have identified: an axis which extends outwards (for a viewer in the northern hemisphere) to the North Pole of the celestial sphere:

> This instinctively suggests a straight, upright post … but that would be an oversimplification. In the mythical context it is best not to think of the axis in analytical terms, one line at a time, but to consider it, and the frame to which it is connected, as a whole: … As radius automatically calls circle to mind so axis should invoke the two determining great circles on the surface of the sphere, the equinoctial and solstitial colures.[6]

These colures are the imaginary hoops, intersecting at the celestial North Pole, which connect the two equinoctial points on the earth's path around the sun (i. e. where it stands on 20 March and 22 September) and the two solstitial points (where it stands on 21 June and 21 December). The implication, is that: 'The rotation of the polar axis must not

be disjointed from the great circles that shift along with it in heaven. The framework is thought of as all one with the axis.'[7]

Santillana and von Dechend are certain that what confronts us here is *not a belief but an allegory*. They insist that the notion of a spherical frame composed of two intersecting hoops suspended from an axis is not under any circumstances to be understood as the way in which ancient science envisaged the cosmos. Instead it is to be seen as a 'thought tool' designed to focus the minds of people bright enough to crack the code upon the hard-to-detect astronomical fact of precession of the equinoxes.

It is a thought tool that keeps on cropping up, in numerous disguises, all over the myths of the ancient world.

At the mill with slaves

One example, from Central America (which also provides a further illustration of the curious symbolic 'cross-overs' between myths of precession and myths of catastrophe), was summarized by Diego De Landa in the sixteenth century:

> Among the multitude of gods worshipped by these people [the Maya] were four whom they called by the name *Bacab*. These were, they say, four brothers placed by God when he created the world at its four corners to sustain the heavens lest they fall. They also say that these Bacabs escaped when the world was destroyed by a deluge.[8]

It is the opinion of Santillana and von Dechend that the Mayan astronomer-priests did not subscribe for a moment to the simple-minded notion that the earth was flat with four corners. Instead, they say, the image of the four Bacabs is used as a technical allegory intended to shed light on the phenomenon of precession of the equinoxes. The Bacabs

stand, in short, for the system of coordinates of an astrological age. They represent the equinoctial and solstitial colures, binding together the four constellations in which the sun continues to rise at the spring and autumn equinoxes and at the winter and summer solstices for epochs of just under 2200 years.

Of course it is understood that when the gears of heaven change, the old age comes crashing down and a new age is born. All this, so far, is routine precessional imagery. What stands out, however, is the explicit linkage to an earthly disaster – in this case a flood – which the Bacabs survive. It may also be relevant that relief carvings at Chichen Itza unmistakably represent the Bacabs as being bearded and of European appearance.[9]

Be that as it may, the Bacab image (linked to a number of badly misunderstood references to 'the four corners of

heaven', 'the quadrangular earth', and so on) is only one among many that seem to have been designed to serve as thought tools for precession. Archetypal among these is, of course, the 'Mill' of Santillana's title – Hamlet's Mill.

It turns out that the Shakespearean character, 'whom the poet made one of us, the first unhappy intellectual', conceals a past as a legendary being, his features predetermined, preshaped by longstanding myth.[10] In all his many incarnations, this Hamlet remains strangely himself. The original Amlodhi (or sometimes Amleth) as his name was in Icelandic legend, 'shows the same characteristics of melancholy and high intellect. He, too, is a son dedicated to avenge his father, a speaker of cryptic but inescapable truths, an elusive carrier of Fate who must yield once his mission is accomplished …'[11]

In the crude and vivid imagery of the Norse, Amlodhi was

identified with the ownership of a fabled mill, or quern, which, in its time, ground out gold and peace and plenty. In many of the traditions, two giant maidens (Fenja and Menja) were indentured to turn this great contraption, which could not be budged by any human strength. Something went wrong, and the two giantesses were forced to work day and night with no rest:

Forth to the mill bench they were brought,
To set the grey stone in motion;
He gave them no rest nor peace,
Attentive to the creak of the mill.

Their song was a howl,
Shattering silence;
‘Lower the bin and lighten the stones!’

Yet he would have them grind more.[12]

Rebellious and angry, Fenja and Menja waited until everyone was asleep and then began to turn the mill in a mad whirl until its great props, though cased in iron, burst asunder.[13] Immediately afterwards, in a confusing episode, the mill was stolen by a sea king named Mysinger and loaded aboard his ship together with the giantesses. Mysinger ordered the pair to grind again, but this time they ground out salt. At midnight they asked him whether he was not weary of salt; he bade them grind longer. They had ground but a little longer when down sank the ship:

The huge props flew off the bin,
The iron rivets burst,
The shaft tree shivered,
The bin shot down.[14]

When it reached the bottom of the sea, the mill continued to turn, but it ground out rock and sand, creating a vast whirlpool, the Maelstrom.[15]

Such images, Santillana and von Dechend assert, signify precession of the equinoxes.[16] The axis and 'iron props' of the mill stand for:

> a system of coordinates in the celestial sphere and represent the frame of a world age. Actually the frame defines a world age. Because the polar axis and the colures form an invisible whole, the entire frame is thrown out of kilter if one part is moved. When that happens a new Pole star with appropriate colures of its own must replace the obsolete apparatus.[17]

Furthermore, the engulfing whirlpool:

> belongs to the stock-in-trade of ancient fable. It appears in the *Odyssey* as Charybdis in the Straits of Messina, and again in other cultures in the

> Indian Ocean and the Pacific. It is found there, too, curiously enough, with an overhanging fig-tree to whose boughs the hero can cling as the ship goes down, whether it be Satyavrata in India or Kae in Tonga … The persistence of detail rules out free invention. Such stories have belonged to the cosmographical literature since antiquity.[18]

The appearance of the whirlpool in Homer's *Odyssey* (which is a compilation of Greek myths more than 3000 years old), should not surprise us, because the great Mill of Icelandic legend appears there also (and does so, moreover, in familiar circumstances). It is the last night before the decisive confrontation. Odysseus, bent on revenge, has landed in Ithaca and is hiding under the magic spell of the goddess Athena, which protects him from recognition. Odysseus prays to Zeus to send him an encouraging sign before the great ordeal:

> Straightaway Zeus thundered from shining Olympus … and goodly Odysseus was glad. Moreover, a woman, a grinder at the mill, uttered a voice of omen from within the house hard by, where stood the mills of the shepherd of the people. At these handmills twelve women in all plied their task, making meal of barley and of wheat the marrow of men. Now all the others were asleep, for they had ground out their task of grain, but this one alone rested not yet, being the weakest of all. She now stayed her quern and spake the word … 'May the [enemies of Odysseus] on this day, for the last time make their sweet feasting in his halls. They that have loosened my knees with cruel toil to grind their barley meal, may they now sup their last!'[19]

Santillana and von Dechend argue that it is no accident that the allegory of the 'orb of heaven that turns around like a millstone and ever does something bad'[20] also makes an appearance in the biblical tradition of Samson, 'eyeless in Gaza at the mill with slaves'.[21] His merciless captors unbind

him so that he can ‘make sport’ for them in their temple; instead, with his last strength, he takes hold of the middle pillars of that great structure and brings the whole edifice crashing down, killing everybody.[22] Like Fenja and Menja, he gets his revenge.

The theme resurfaces in Japan,[23] in Central America,[24] among the Maoris of New Zealand,[25] and in the myths of Finland. There the Hamlet/Samson figure is known as Kullervo and the mill has a peculiar name: the Sampo. Like Fenja and Menja’s mill it is ultimately stolen and loaded on board a ship. And like their mill, it ends up being broken in pieces.[26]

It turns out that the word ‘Sampo’ has its origins in the Sanskrit *skambha*, meaning ‘pillar or pole’.[27] And in the *Atharvaveda*, one of the most ancient pieces of north Indian literature, we find an entire hymn dedicated to the Skambha:

> In whom earth, atmosphere, in whom sky is set, where fire, moon, sun, wind stand fixed … The Skambha sustains both heaven and earth; the Skambha sustains the wide atmosphere; the Skambha sustains the six wide directions; into the Skambha entered all existence.

Whitney, the translator (*Atharvaveda* 10:7) comments in some perplexity: 'Skambha, lit, prop, support, pillar, strangely used in this hymn as frame of the universe'.[28] Yet with an awareness of the complex of ideas linking cosmic mills, and whirlpools and world trees and so on, the archaic Vedic usage should not seem so strange. What is being signalled here, as in all the other allegories, is *the frame of a world age* – that same heavenly mechanism that turns for more than 2000 years with the sun rising always in the same four cardinal points and then slowly shifts those celestial coordinates to four new constellations for the next couple of thousand years.

This is why the mill always breaks, why the huge props always fly off the bin in one way or another, why the iron rivets burst, why the shaft-tree shivers. Precession of the equinoxes merits such imagery because, at widely separated intervals of time it does indeed change, or break, the stabilizing coordinates of the entire celestial sphere.

Openers of the way

What is remarkable about all this is the way that the mill (which continues to serve as an allegory for cosmic processes) stubbornly keeps on resurfacing, all over the world, even where the context has been jumbled or lost. Indeed, in Santillana and von Dechend's argument, it doesn't really matter if the context is lost. 'The particular merit of mythical terminology,' they say, 'is that it can be used as a

vehicle for handing down solid knowledge independently from the degree of insight of the people who do the actual telling of stories, fables, etc.'[29] What matters, in other words, is that certain central imagery should survive and continue to be passed on in retellings, however far these may drift from the original storyline.

An example of such drift (coupled with the retention of essential imagery and information) is found among the Cherokees, whose name for the Milky Way (our own galaxy) is 'Where the Dog Ran'. In ancient times, according to Cherokee tradition, the 'people in the South had a corn mill', from which meal was stolen again and again. In due course the owners discovered the thief, a dog, who 'ran off howling to his home in the North, with the meal dropping from his mouth as he ran, and leaving behind a white trail where now we see the Milky Way, which the Cherokee call to this

day … “Where the Dog Ran”.’[30]

In Central America, one of the many myths concerning Quetzalcoatl depicts him playing a key role in the regeneration of mankind after the all-destroying flood that ended the Fourth Sun. Together with his dog-headed companion Xolotl, he descends into the underworld to retrieve the skeletons of the people killed by the deluge. This he succeeds in doing, after tricking Miclantechuhtli, the god of death, and the bones are brought to a place called Tamoanchan. There, like corn, they are milled into a fine meal on a grindstone. Upon this ground meal the gods then release blood, thus creating the flesh of the current age of men.[31]

Santillana and von Dechend do not think that the presence of a canine character in both the above variants of the myth of the cosmic mill is likely to be accidental. They point out

that Kullervo, the Finnish Hamlet, is also accompanied by 'the black dog Musti'.[32] Likewise, after his return to his estates in Ithaca, Odysseus is first recognized by his faithful dog,[33] and as anyone who has been to Sunday school will remember, Samson is associated with foxes (300 of them to be precise[34]), which are members of the dog family. In the Danish version of the Amleth/Hamlet saga, 'Amleth went on and a wolf crossed his path amid the thicket.'[35] Last but not least an alternative recension of the Kullervo story from Finland has the hero (rather weirdly) being 'sent to Esthonia to bark under the fence; he barked one year …'[36]

Santillana and von Dechend are confident that all this 'doggishness' is purposive: another piece of the ancient code, as yet unbroken, persistently tapping out its message from place to place. They list these and many other canine symbols among a series of 'morphological markers' which

they have identified as likely to suggest the presence, in ancient myths, of scientific information concerning precession of the equinoxes.[37] These markers may have had meanings of their own or been intended simply to alert the target audience that a piece of hard data was coming up in the story being told. Beguilingly, sometimes they may also have been designed to serve as 'openers of the way' – conduits to enable initiates to follow the trail of scientific information from one myth to another.

Thus, even though none of the familiar mills and whirlpools is in sight, we should perhaps sit up and pay attention when we learn that Orion, the great hunter of Greek myth, was the owner of a dog. When Orion tried to ravish the virgin goddess Artemis she produced a scorpion from the earth which killed him and the dog. Orion was transported to the skies where he became the constellation

that bears his name today; his dog was transformed into Sirius, the Dog Star.[38]

Precisely the same identification of Sirius was made by the ancient Egyptians,[39] who linked the Orion constellation specifically to their god Osiris.[40] It is in Ancient Egypt too that the character of the faithful celestial dog achieves its fullest and most explicit mythical elaboration in the form of Upuaut, a jackal-headed deity whose name means 'Opener of the Ways'.[41] If we follow this way opener to Egypt, turn our eyes to the constellation of Orion, and enter the potent myth of Osiris, we find ourselves enveloped in a net of familiar symbols.

The reader will recall that the myth presents Osiris as the victim of a plot. The conspirators initially dispose of him by sealing him in a box and casting him adrift on the waters of the Nile. In this respect does he not resemble Utnapishtim,

and Noah and Coxcoxtli and all the other deluge heroes in their arks (or boxes, or chests) riding out the waters of the flood?

Another familiar element is the classic precessional image of the world-tree and/or roof-pillar (in this case combined). The myth tells us how Osiris, still sealed inside his coffer, is carried out into the sea and washed up at Byblos. The waves lay him to rest among the branches of a tamarisk tree, which rapidly grows to a magnificent size, enclosing the coffer within its trunk.[42] The king of the country, who much admires the tamarisk tree, cuts it down and fashions the part which contains Osiris into a roof pillar for his palace. Later Isis, the wife of Osiris, removes her husband's body from the pillar and takes it back to Egypt to undergo rebirth.[43]

The Osiris myth also includes certain key numbers. Whether by accident or by design, these numbers give access

to a ‘science’ of precession, as we shall see in the next chapter.

Chapter 31

The Osiris Numbers

Archaeo-astronomer Jane B. Sellers, who studied Egyptology at the University of Chicago's Oriental Institute, spends her winters in Portland, Maine, and summers at Ripley Neck, a nineteenth-century enclave 'downeast' on Maine's rocky coast. 'There,' she says, 'the night skies can be as clear as the desert, and no one minds if you read the Pyramid Texts out

loud to the seagulls …'[1]

One of the few serious scholars to have tested the theory advanced by Santillana and von Dechend in *Hamlet's Mill*, Sellers has been hailed for having drawn attention to the need to use astronomy, and more particularly precession, for the proper study of ancient Egypt and its religion.[2] In her words: 'Archaeologists by and large lack an understanding of precession, and this affects their conclusions concerning ancient myths, ancient gods and ancient temple alignments … For astronomers precession is a well-established fact; those working in the field of ancient man have a responsibility to attain an understanding of it.'[3]

It is Sellers's contention, eloquently expressed in her recent book, *The Death of Gods in Ancient Egypt*, that the Osiris myth may have been deliberately encoded with a group of key numbers that are 'excess baggage' as far as the narrative is

concerned but that offer an eternal calculus by which surprisingly exact values can be derived for the following:

1 The time required for the earth's slow precessional wobble to cause the position of sunrise on the vernal equinox to complete a shift of **one degree** along the ecliptic (in relation to the stellar background);

2 The time required for the sun to pass through one full zodiacal segment of **thirty degrees**;

3 The time required for the sun to pass through two full zodiacal segments (totalling **sixty degrees**);

4 The time required to bring about the 'Great Return'[4], i. e, for the sun to shift **three hundred and sixty degrees** along the ecliptic, thus fulfilling one complete precessional cycle or 'Great Year'.

Computing the Great Return

The precessional numbers highlighted by Sellers in the Osiris myth are 360, 72, 30 and 12. Most of them are found in a section of the myth which provides us with biographical details of the various characters. These have been conveniently summarized by E. A. Wallis Budge, formerly keeper of Egyptian Antiquities at the British Museum:

> The goddess Nut, wife of the sun god Ra, was beloved by the god Geb. When Ra discovered the intrigue he cursed his wife and declared that she should not be delivered of a child in any month of any year. Then the god Thoth, who also loved Nut, played at tables with the moon and won from her five whole days. These he joined to the 360 days *of which the year then consisted* [emphasis added]. On the first of these five days Osiris was brought forth; and at the moment of his birth a voice was heard to proclaim that the lord of creation was born.[5]

Elsewhere the myth informs us that the 360–day year

consists of ‘12 months of 30 days each’.[6] And in general, as Sellers observes, ‘phrases are used which prompt simple mental calculations and an attention to numbers’.[7]

Thus far we have been provided with three of Sellers’s precessional numbers: 360, 12 and 30. The fourth number, which occurs later in the text, is by far the most important. As we saw in Chapter Nine, the evil deity known as Set led a group of conspirators in a plot to kill Osiris. The number of these conspirators was 72.

With this last number in hand, suggests Sellers, we are now in a position to boot-up and set running an ancient computer programme:

12 = the number of constellations in the zodiac;

30 = the number of degrees allocated along the ecliptic to each zodiacal constellation;

72 = the number of years required for the equinoctial sun to complete a precessional shift of one degree along the ecliptic;

360 = the total number of degrees in the ecliptic;

72 × 30 = 2160 (the number of years required for the sun to complete a passage of 30 degrees along the ecliptic, i. e., to pass entirely through any one of the 12 zodiacal constellations);

2160 × 12 (or 360 × 72) = 25,920 (the number of years in one complete precessional cycle or 'Great Year', and thus the total number of years required to bring about the 'Great Return').

Other figures and combinations of figures also emerge, for example:

36, the number of years required for the equinoctial sun to complete a precessional shift of half a degree along the ecliptic; 4320, the number of years required for the equinoctial sun to complete a precessional shift of 60

degrees (i. e., two zodiacal constellations).

These, Sellers believes, constitute the basic ingredients of a precessional code which appears again and again, with eerie persistence, in ancient myths and sacred architecture. In common with much esoteric numerology, it is a code in which it is permissible to shift decimal points to left or right at will and to make use of almost any conceivable combinations, permutations, multiplications, divisions and fractions of the *essential* numbers (all of which relate precisely to the rate of precession of the equinoxes).

The pre-eminent number in the code is 72. To this is frequently added 36, making 108, and it is permissible to multiply 108 by 100 to get 10,800 or to divide it by 2 to get 54, which may then be multiplied by 10 and expressed as 540 (or as 54,000. or as 540,000, or as 5,400,000, and so on). Also highly significant is 2160 (the number of years

required for the equinoctial point to transit one zodiacal constellation), which is sometimes multiplied by 10 and by factors of ten (to give 216,000, 2,160,000, and so on) and sometimes by 2 to give 4320, or 43,200, or 432,000, or 4,320,000, *ad infinition*.

Better than Hipparchus

If Sellers is correct in her hypothesis that the calculus needed to produce these numbers was deliberately encoded into the Osiris myth to convey precessional information to initiates, we are confronted by an intriguing anomaly. If they are indeed about precession, the numbers are out of place in time. The science they contain is too advanced for them to have been calculated by any known civilization of antiquity.

Let us not forget that they occur in a myth which is present

at the very dawn of writing in Egypt (indeed elements of the Osiris story are to be found in the Pyramid Texts dating back to around 2450 BC, in a context which suggests that they were exceedingly old even then[8]). Hipparchus, the so-called discoverer of precession lived in the second century BC. He proposed a value of 45 or 46 seconds of arc for one year of precessional motion. These figures yield a one-degree shift along the ecliptic in 80 years (at 45 arc seconds per annum), and in 78.26 years (at 46 arc seconds per annum). The true figure, as calculated by twentieth century science, is 71.6 years.[9] If Sellers's theory is correct, therefore, the 'Osiris numbers', which give a value of 72 years, are *significantly more accurate* than those of Hipparchus. Indeed, within the obvious confines imposed by narrative structure, it is difficult to see how the number 72 could have been improved upon, even if the more precise figure had been known to the

ancient myth-makers. One can hardly insert 71.6 conspirators into a story, but 72 will fit comfortably.

Working from this rounded-up figure, the Osiris myth is capable of yielding a value of 2160 years for a precessional shift through one complete house of the zodiac. The correct figure, according to today's calculations, is 2148 years.[10] The Hipparchus figures are 2400 years and 2347.8 years respectively. Finally, Osiris enables us to calculate 25,920 as the number of years required for the fulfilment of a complete precessional cycle through 12 houses of the zodiac. Hipparchus gives us either 28,800 or 28,173.6 years. The correct figure, by today's estimates, is 25,776 years.[11] The Hipparchus calculations for the Great Return are therefore around 3000 years out of kilter. The Osiris calculations miss the true figure by only 144 years, and may well do so because the narrative context forced a rounding-up of the

base number from the correct value of 71.6 to a more workable figure of 72.

All this, however, assumes that Sellers is right to suppose that the numbers 360, 72, 30 and 12 did not find their way into the Osiris myth by chance but were placed there deliberately by people who understood – and had accurately measured – precession.

Is Sellers right?

Times of decay

The Osiris myth is not the only one to incorporate the calculus for precession. The relevant numbers keep surfacing in various forms, multiples and combinations, all over the ancient world.

An example was given in Chapter Thirty-three – the Norse

myth of the 432,000 fighters who sallied forth from Valhalla to do battle with 'the Wolf'. A glance back at that myth shows that it contains several permutations of 'precessional numbers'.

Likewise, as we saw in Chapter Twenty-four, ancient Chinese traditions referring to a universal cataclysm were said to have been written down in a great text consisting of precisely 4320 volumes.

Thousands of miles away, is it a coincidence that the Babylonian historian Berossus (third century BC) ascribed a total reign of 432,000 years to the mythical kings who ruled the land of Sumer before the flood? And is it likewise a coincidence that this same Berossus ascribed 2,160,000 years to the period 'between creation and universal catastrophe'?[12]

Do the myths of ancient Amerindian peoples like the Maya also contain or enable us to compute numbers such as 72,

2160, 4320, etc. We shall probably never know, thanks to the conquistadores and zealous friars who destroyed the traditional heritage of Central America and left us so little to work with. What we can say, however, is that the relevant numbers do turn up, in relative profusion, in the Mayan Long Count calendar. Details of that calendar were given in Chapter Twenty-one. The numerals necessary for calculating precession are found there in these formulae: 1 *Katun* = 7200 days; 1 *Tun* = 360 days; 2 *Tuns* = 720 days; 5 *Baktuns* = 720,000 days; 5 *Katuns* = 36,000 days; 6 *Katuns* = 43,200 days; 6 *Tuns* = 2160 days; 15 *Katuns* = 2,160,000 days.[13]

Nor does it seem that Sellers's 'code' is confined to mythology. In the jungles of Kampuchea the temple complex of Angkor looks as though it could have been purpose-built as a precessional metaphor. It has, for example, five gates to

each of which leads a road bridging the crocodile-infested moat that surrounds the whole site. Each of these roads is bordered by a row of gigantic stone figures, 108 per avenue, 54 on each side (540 statues in all) and each row carries a huge Naga serpent. Furthermore, as Santillana and von Dechend point out in *Hamlet's Mill*, the figures do not 'carry' the serpent but are shown to 'pull' it, which indicates that these 540 statues are 'churning the Milky Ocean'. The whole of Angkor 'thus turns out to be a colossal model set up with true Hindu fantasy and incongruousness' to express the idea of precession.[14]

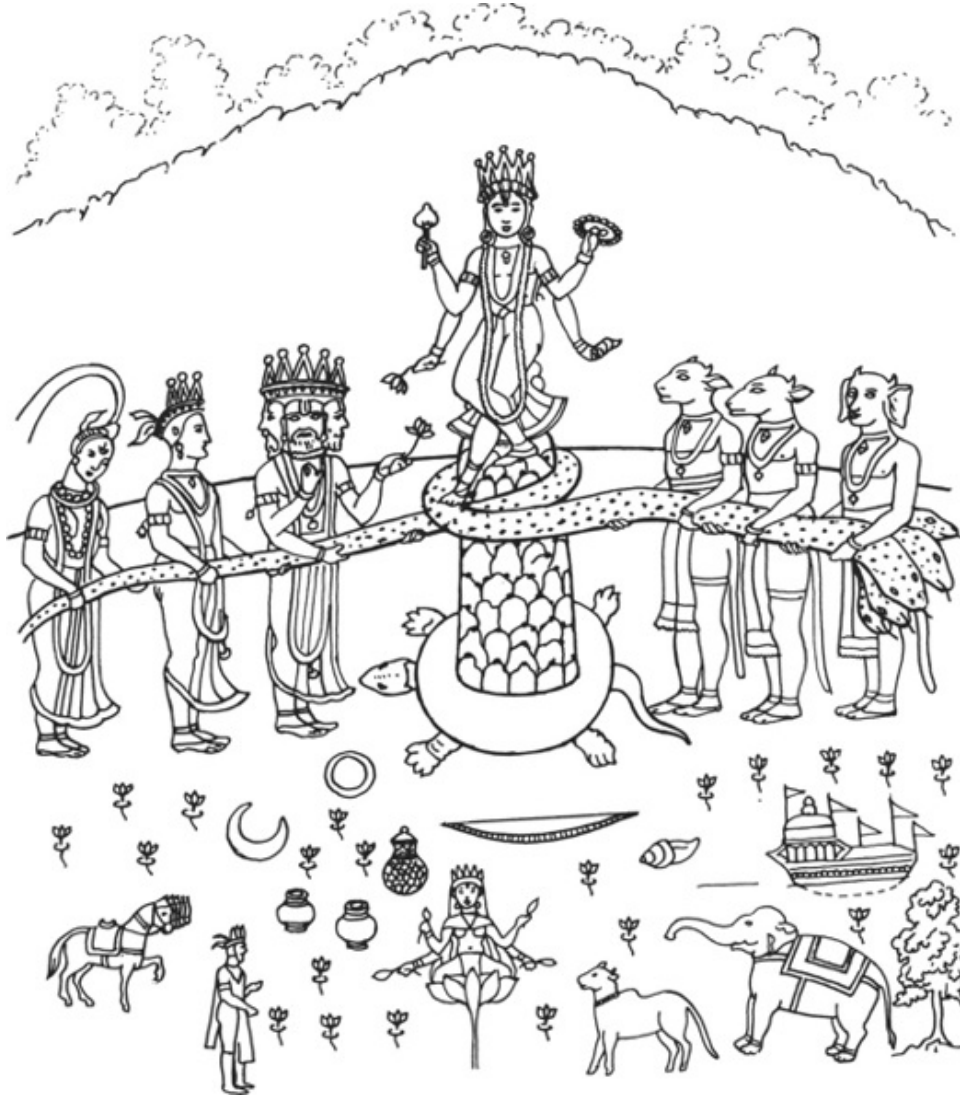

Churning the Milky Ocean, one of the several ‘thought tools’ for precession encountered in ancient myths.

The same may be true of Java’s famous temple of Borobudur, with its 72 bell-shaped stupas, and perhaps also of the megaliths of Baalbeck in the Lebanon – which are thought to be the world’s biggest blocks of cut stone. Long predating Roman and Greek structures on the site, the three that make up the so-called ‘Trilithion’ are as tall as five-storey buildings and weigh over 600 tons each. A fourth megalith is almost 80 feet in length and weighs 1100 tons. Amazingly these giant blocks were cut, perfectly-shaped and somehow transported to Baalbeck from a quarry several miles away. In addition they were skilfully incorporated, at a considerable height above ground-level into the retaining walls of a magnificient temple. This temple was surrounded

by 54 columns of immense size and height.[15]

In the subcontinent of India (where the Orion constellation is known as Kal-Purush, meaning Time-Man[16]), we find that Sellers's Osiris numbers are transmitted through a wide range of media in ways increasingly difficult to ascribe to chance. There are, for instance, 10,800 bricks in the Agnicayana, the Indian fire altar. There are 10,800 stanzas in the *Rigveda*, the most ancient of the Vedic texts and a rich repository of Indian mythology. Each stanza is made up of 40 syllables with the result that the entire composition consists of 432,000 syllables … no more, and no less.[17] And in *Rigveda* I:164 (a typical stanza) we read of 'the 12-spoked wheel in which 720 sons of Agni are established'.[18]

In the Hebrew Cabala there are 72 angels through whom the Sephiroth (divine powers) may be approached, or invoked, by those who know their names and numbers.[19]

Rosicrucian tradition speaks of cycles of 108 years (72 plus 36) according to which the secret brotherhood makes its influence felt.[20] Similarly the number 72 and its permutations and subdivisions are of great significance to the Chinese secret societies known as Triads. An ancient ritual requires that each candidate for initiation pay a fee including '360 cash for "making clothes", 108 cash "for the purse", 72 cash for instruction, and 36 cash for decapitating the "traiterous subject".'[21] The 'cash' (the old universal brass coin of China with a square hole in the centre) is of course no longer in circulation but the *numbers* passed down in the ritual since times immemorial have survived. Thus in modern Singapore, candidates for Triad membership pay an entrance fee which is calculated according to their financial circumstances but which must always consist of multiples of $1.80, $3.60, $7.20, $10.80 (and thus, $18, $36, $72,

$108.00, or $360, $720, $1,080, and so on.[22]

Of all the secret societies, the most mysterious and archaic by far is undoubtedly the Hung League, which scholars believe to be 'the depository of the old religion of the Chinese'.[23] In one Hung initiation ritual the neophyte is put through a question and answer session that goes:

Q. What did you see on your walk?

A. I saw two pots with red bamboo.

Q. Do you know how many plants there were?

A. In one pot were 36 and in the other 72 plants, together 108.

Q. Did you take home some of them for your use?

A. Yes, I took home 108 plants …

Q. How can you prove that?

A. I can prove it by a verse.

Q. How does this verse run?

A. The red bamboo from Canton is rare in the world.
In the groves are 36 and 72.
Who in the world knows the meaning of this?
When we have set to work we will know the secret.

The atmosphere of intrigue that such passages generate is accentuated by the reticent behaviour of the Hung League itself, an organization resembling the medieval European Order of the Knights Templar (and the higher degrees of modern Freemasonry) in many ways that are beyond the remit of this book to describe.[24] It is intriguing, too, that the Chinese character *Hung*, composed of *water* and *many*, signifies *inundation*, i. e. the Flood.

Finally, returning to India, let us note the content of the sacred scriptures known as the *Puranas*. These speak of four 'ages of the earth', called Yugas, which together are said to extend to 12,000 'divine years'. The respective durations of these epochs, in 'divine years', are Krita Yuga = 4800; Treta Yuga = 3600; Davpara Yuga = 2400; Kali Yuga = 1200.[25]

The *Puranas* also tell us that 'one year of the mortals is equal to one day of the gods'.[26] Furthermore, and exactly as in the Osiris myth, we discover that the number of *days* in the years of both gods and mortals has been artificially set at 360, so one year of the gods is equivalent to 360 mortal years.[27]

The Kali Yuga, therefore, at 1200 years of the gods, turns out to have a duration of 432,000 mortal years.[28] One Mahayuga, or Great Age (made up of the 12,000 divine years contained in the four lesser Yugas) is equivalent to 4,320,000

years of mortals. A thousand such Mahayugas (which constitute a Kalpa, or Day of Brahma) extend over 4,320,000,000 ordinary years,[29] again supplying the digits for basic precessional calculations. Separately there are Manvantaras (periods of Manu) of which we are told in the scriptures that ’about 71 systems of four Yugas elapse during each Manvantara.[30] The reader will recall that one degree of precessional motion along the ecliptic requires 71.6 years to complete, a number that can be rounded down to ‘about 71’ in India just as easily as it was rounded up to 72 in Ancient Egypt.

The Kali Yuga, with a duration of 432,000 mortal years, is, by the way, our own. ‘In the Kali Age,’ the scriptures say, ‘shall decay flourish, until the human race approaches annihilation.’[31]

Dogs, uncles and revenge

It was a dog that brought us to these decaying times.

We came here by way of Sirius, the Dog Star, who stands at the heel of the giant constellation of Orion where it towers in the sky above Egypt. In that land, as we have seen, Orion is Osiris, the god of death and resurrection, whose numbers – perhaps by chance – are 12, 30, 72, and 360. But can chance account for the fact that these and other prime integers of precession keep cropping up in supposedly unrelated mythologies from all over the world, and in such stolid but enduring vehicles as calendar systems and works of architecture?

Santillana and von Dechend, Jane Sellers and a growing body of other scholars rule out chance, arguing that the *persistence of detail is* indicative of a guiding hand.

If they are wrong, we need to find some other explanation for how such specific and inter-related numbers (the only obvious function of which is to calculate precession) could by accident have got themselves so widely imprinted on human culture.

But suppose they are *not* wrong? Suppose that a guiding hand really was at work behind the scenes?

Sometimes, when you slip into Santillana's and von Dechend's world of myth and mystery, you can almost feel the influence of that hand … Take the business of the dog … or jackal, or wolf, or fox. The subtle way this shadowy canine slinks from myth to myth is peculiar – stimulating, then baffling you, always luring you onwards.

Indeed, it was this lure we followed from the Mill of Amlodhi to the myth of Osiris in Egypt. Along the way, according to the design of the ancient sages (if Sellers,

Santillana and von Dechend are right) we were first encouraged to build a clear mental picture of the celestial sphere. Second, we were provided with a mechanistic model so that we could visualize the great changes precession of the equinoxes periodically effects in all the coordinates of the sphere. Finally, after allowing the dog Sirius to open the way for us, we were were given the figures to calculate precession more or less exactly.

Nor is Sirius, in his eternal station at Orion's heel, the only doggish character around Osiris. We saw in Chapter Eleven how Isis (who was both the wife and sister of Osiris[32]) searched for her dead husband's body after he had been murdered by Set (who, incidentally, was also her brother, and the brother of Osiris). In this search, according to ancient tradition, she was assisted by dogs (jackals in some versions).[33] Likewise, mythological and religious texts from

all periods of Egyptian history assert that the jackal-god Anubis ministered to the spirit of Osiris after his death and acted as his guide through the underworld.[34] (Surviving vignettes depict Anubis as virtually identical in appearance to Upuaut, the Opener of the Ways.)

Last but not least, Osiris himself was believed to have taken the form of a wolf when he returned from the underworld to assist his son Horus in the final battle against Set.[35]

Investigating this kind of material, one sometimes has the spooky sense of being manipulated by an ancient intelligence which has found a way to reach out to us across vast epochs of time, and for some reason has set us a puzzle to solve in the language of myth.

If it were just dogs that kept cropping up again and again, it would be easy to brush off such weird intuitions. The dog

phenomenon seems more likely to be coincidence than anything else. But it isn't just dogs.

The ways between the two very different myths of Osiris and Amlodhi's Mill (which nonetheless both seem to contain accurate scientific data about precession of the equinoxes) are kept open by another strange common factor. Family relationships are involved. Amlodhi/Amleth/Hamlet is always a son who revenges the murder of his father by entrapping and killing the murderer. The murderer, furthermore, is always the father's own brother, i. e., Hamlet's uncle.[36]

This is precisely the scenario of the Osiris myth. Osiris and Seth are brothers.[37] Seth murders Osiris. Horus, the son of Osiris, then takes revenge upon his uncle.[38]

Another twist is that the Hamlet character often has some sort of incestuous relationship with his sister.[39] In the case of

Kullervo, the Finnish Hamlet, there is a poignant scene in which the hero, returning home after a long absence, meets a maiden in the woods, gathering berries. They lie together. Only later do they discover that they are brother and sister. The maiden drowns herself at once. Later, with 'the black dog Musti' padding along at his heels, Kullervo wanders into the forest and throws himself upon his sword.[40]

There are no suicides in the Egyptian myth of Osiris, but there is the incest of Osiris and his sister Isis. Out of their union is born Horus the avenger.

So once again it seems reasonable to ask: what is going on? Why are there all these apparent links and connections? Why do we have these 'strings' of myths, ostensibly about different subjects, all of which prove capable in their own ways of shedding light on the phenomenon of precession of the equinoxes? And why do all these myths have dogs running

through them, and characters who seem unusually inclined to incest, fratricide and revenge? It surely drives scepticism beyond its limits to suggest that so many identical literary devices could keep on turning up purely by chance in so many different contexts.

If not by chance, however, then who exactly was responsible for creating this intricate and clever connecting pattern? Who were the authors and designers of the puzzle and what motives might they have had?

Scientists with something to say

Whoever it was, they must have been smart – smart enough to have observed the infinitesimal creep of precessional motion along the ecliptic and to have calculated its rate at a value uncannily close to that obtained by today's advanced

technology.

It therefore follows that we are talking about highly civilized people. Indeed, we are talking about people who deserve to be called scientists. They must, moreover, have lived in extremely remote antiquity because we can be certain that the creation and dissemination of the common heritage of precessional myths on both sides of the Atlantic did *not* take place in historic times. On the contrary the evidence suggests that all these myths were 'tottering with age' when what we call history began about 5000 years ago.[41]

The great strength of the ancient stories was this: as well as being for ever available for use and adaptation free of copyright, like intellectual chameleons, subtle and ambiguous, they had the capacity to change their colour according to their surroundings. At different times, in

different continents, the ancient tales could be retold in a variety of ways, but would always retain their essential symbolism and always continue to transmit the coded precessional data they had been programmed with at the outset.

But to what end?

As we see in the next chapter, the long slow cycles of precession are *not* limited in their consequences to a changing view of the sky. This celestial phenomenon, born of the earth's axial wobble, has direct effects on the earth itself. In fact, it appears to be one of the principal correlates of the sudden onset of ice ages and their equally sudden and catastrophic decay.

Chapter 32

Speaking to the Unborn

It is understandable that a huge range of myths from all over the ancient world should describe geological catastrophes in graphic detail. Mankind survived the horror of the last Ice Age, and the most plausible source for our enduring traditions of flooding and freezing, massive volcanism and devastating earthquakes is in the tumultuous upheavals

unleashed during the great meltdown of 15,000 to 8000 BC. The final retreat of the ice sheets, and the consequent 300–400 foot rise in global sea levels, took place only a few thousand years before the beginning of the historical period. It is therefore not surprising that all our early civilizations should have retained vivid memories of the vast cataclysms that had terrified their forefathers.

Much harder to explain is the peculiar but distinctive way the myths of cataclysm seem to bear the intelligent imprint of a guiding hand.[1] Indeed the degree of convergence between such ancient stories is frequently remarkable enough to raise the suspicion that they must all have been 'written' by the same 'author'.

Could that author have had anything to do with the wondrous deity, or superhuman, spoken of in so many of the myths we have reviewed, who appears immediately after the

world has been shattered by a horrifying geological catastrophe and brings comfort and the gifts of civilization to the shocked and demoralized survivors?

White and bearded, Osiris is the Egyptian manifestation of this universal figure, and it may not be an accident that one of the first acts he is remembered for in myth is the abolition of cannibalism among the primitive inhabitants of the Nile Valley.[2] Viracocha, in South America, was said to have begun his civilizing mission immediately after a great flood; Quetzalcoatl, the discoverer of maize, brought the benefits of crops, mathematics, astronomy and a refined culture to Mexico after the Fourth Sun had been overwhelmed by a destroying deluge.

Could these strange myths contain a record of encounters between scattered palaeolithic tribes which survived the last Ice Age and an as yet unidentified high civilization which

passed through the same epoch?

And could the myths be attempts to communicate?

A message in the bottle of time

'Of all the other stupendous inventions,' Galileo once remarked,

> what sublimity of mind must have been his who conceived how to communicate his most secret thoughts to any other person, though very distant either in time or place, speaking with those who are in the Indies, speaking to those who are not yet born, nor shall be this thousand or ten thousand years? And with no greater difficulty than the various arrangements of two dozen little signs on paper? Let this be the seal of all the admirable inventions of men.[3]

If the ‘precessional message’ identified by scholars like Santillana, von Dechend and Jane Sellers is indeed a deliberate attempt at communication by some lost civilization of antiquity, how come it wasn’t just written down and left for us to find? Wouldn’t that have been easier than encoding it in myths? Perhaps.

Nevertheless, suppose that whatever the message was written on got destroyed or worn away after many thousands of years? Or suppose that the language in which it was inscribed was later forgotten utterly (like the enigmatic Indus Valley script, which has been studied closely for more than half a century but has so far resisted all attempts at decoding)? It must be obvious that in such circumstances a written legacy to the future would be of no value at all, because nobody would be able to make sense of it.

What one would look for, therefore, would be a *universal*

language, the kind of language that would be comprehensible to any technologically advanced society in any epoch, even a thousand or ten thousand years into the future. Such languages are few and far between, but mathematics is one of them – and the city of Teotihuacan may be the calling-card of a lost civilization written in the eternal language of mathematics.

Geodetic data, related to the exact positioning of fixed geographical points and to the shape and size of the earth, would also remain valid and recognizable for tens of thousands of years, and might be most conveniently expressed by means of cartography (or in the construction of giant geodetic monuments like the Great Pyramid of Egypt, as we shall see).

Another 'constant' in our solar system is the language of time: the great but regular intervals of time calibrated by the

inch-worm creep of precessional motion. Now, or ten thousand years in the future, a message that prints out numbers like 72 or 2160 or 4320 or 25,920 should be instantly intelligible to any civilization that has evolved a modest talent for mathematics and the ability to detect and measure the almost imperceptible reverse motion that the sun appears to make along the ecliptic against the background of the fixed stars (one degree in 71.6 years, 30 degrees in 2148 years, and so on).

The sense that a correlation exists is strengthened by something else. It is neither as firm nor as definite as the number of syllables in the Rigveda; nevertheless, it feels relevant. Through powerful stylistic links and shared symbolism, myths to do with global cataclysms and with precession of the equinoxes quite frequently intermesh. A detailed interconnectedness exists between these two

categories of tradition, both of which additionally bear what appear to be the recognizable fingerprints of a conscious design. Quite naturally, therefore, one is prompted to discover whether there might not *be* an important connection between precession of the equinoxes and global catastrophes.

Mill of pain

Although several different mechanisms of an astronomical and geological nature seem to be involved, and although not all of these are fully understood, the fact is that the cycle of precession does correlate very strongly *with the onset and demise of ice ages*.

Several trigger factors must coincide, which is why not every shift from one astronomical age to another is implicated. Nevertheless, it is accepted that precession does

have an impact on both glaciation and deglaciation, at widely separated intervals. The knowledge that it does so has only been established by our own science since the late 1970s.[4] Yet the evidence of the myths suggests that the same level of knowledge might have been possessed by an as yet unidentified civilization in the depths of the last Ice Age. The clear suggestion we may be meant to grasp is that the terrible cataclysms of flood and fire and ice which the myths describe were in some way *causally connected* to the ponderous movements of the celestial coordinates through the great cycle of the zodiac. In the words of Santillana and von Dechend, 'It was not a foreign idea to the ancients that the mills of the gods grind slowly and that the result is usually pain.'[5]

Three principal factors, all of which we have met before, are now known to be deeply implicated in the onset and the

retreat of ice ages (together, of course, with the diverse cataclysms that ensue from sudden freezes and thaws). These factors all have to do with variations in the earth's orbital geometry. They are:

1 The obliquity of the ecliptic (i. e., the angle of tilt of the planet's axis of rotation, which is also the angle between the celestial equator and the ecliptic). This, as we have seen, varies over immensely long periods of time between 22.1 degrees (the closest point that the axis reaches to vertical) and 24.5 degrees (the furthest it falls away from the vertical);

2 The eccentricity of the orbit (i. e., whether the earth's elliptical path around the sun is more or less elongated in any given epoch);

3 Axial precession, which causes the four cardinal points on the earth's orbit (the two equinoxes and the winter and summer solstices) to creep backwards very, very slowly around the orbital path.

We are dipping our toes into the waters of a technical and

specialized scientific discipline here – one largely outside the scope of this book. Readers seeking detailed information are referred to the multidisciplinary work of the US National Science Foundation's CLIMAP Project, and to a keynote paper by Professors J. D. Hays and John Imbrie entitled 'Variations in the Earth's Orbit: Pacemaker of the Ice Ages' (see Note 4).

Briefly, what Hays, Imbrie and others have proved is that the onset of ice ages can be predicted when the following evil and inauspicious conjunctions of celestial cycles occur: (a) maximum eccentricity, which takes the earth millions of miles further away from the sun at 'aphelion' (the extremity of its orbit) than is normal; (b) minimum obliquity, which means that the earth's axis, and consequently the North and South poles, stand much closer to the vertical than is normal; and (c) precession of the equinoxes which, as the great cycle continues, eventually causes winter in one hemisphere or the

other to set in when the earth is at ‘perihelion’ (its closest point to the the sun); this in turn means that summer occurs at aphelion and is thus relatively cold, so that ice laid down in winter fails to melt during the following summer and a remorseless build-up of glacial conditions occurs.[6]

Levered by the changing geometry of the orbit, ‘global insolation’ – the differing amounts and intensity of sunlight received at various latitudes in any given epoch – can thus be an important trigger factor for ice ages.

Is it possible that the ancient myth-makers were trying to *warn* us of great danger when they so intricately linked the pain of global cataclysms to the slow grinding of the mill of heaven?

This is a question we will return to in due course, but meanwhile it is enough to observe that by identifying the significant effects of orbital geometry on the planet’s climate

and wellbeing, and by combining this information with precise measurements of the rate of precessional motion, the unknown scientists of an unrecognized civilization seem to have found a way to catch our attention, to bridge the chasm of the ages, and to communicate with us directly.

Whether or not we listen to what they have to say is, of course, entirely up to us.

Part VI

The Giza Invitation

Egypt 1

Chapter 33

Cardinal Points

Giza, Egypt, 16 March 1993, 3.30 a. m.

We walked through the deserted lobby of our hotel and stepped into the white Fiat waiting for us in the driveway outside. It was driven by a lean, nervous Egyptian named Ali whose job it was to get us past the guards at the Great Pyramid and away again before sunrise. He was nervous

because if things went wrong Santha and I would be deported from Egypt and he would go to jail for six months.

Of course, things were not supposed to go wrong. That was why Ali was with us. The day before we'd paid him 150 US dollars which he had changed into Egyptian pounds and spread among the guards concerned. They, in return, had agreed to turn a blind eye to our presence during the next couple of hours.

We drove to within half a mile of the Pyramid, then walked the rest of the way – around the side of the steep embankment that looms above the village of Nazlet-el-Samaan and leads to the monument's north face. None of us said very much as we trudged through the soft sand just out of range of the security lights. We felt excited and apprehensive at the same time. Ali was by no means certain that his bribes were going to work.

For a while we stood still in the shadows, gazing at the monstrous bulk of the Pyramid reaching into the darkness above us and blotting out the southern stars. Then a patrol of three men armed with shotguns and wrapped in blankets against the night chill came into view at the north-eastern corner, about fifty yards away, where they stopped to share a cigarette. Indicating that we should stay put, Ali stepped forward into the light and walked over to the guards. He talked to them for several minutes, apparently arguing heatedly. Finally he beckoned to us, indicating that we should join him.

'There's a problem,' he explained. 'One of them, the captain here, [he indicated a short, unshaven, disgruntled looking fellow] is insisting that we pay an extra thirty dollars otherwise the deal is off. What do you want to do?' I fished around in my wallet, counted out thirty dollars and handed

the bills to Ali. He folded them and passed them to the captain. With an air of aggrieved dignity, the captain stuffed the money into his shirt pocket, and, finally, we all shook hands.

‘OK,’ said Ali, ‘let’s go.’

Inexplicable precision

As the guards continued their patrol in a westerly direction along the northern face of the Great Pyramid, we made our way around the north-eastern corner and along the base of the eastern face.

I had long ago fallen into the habit of orienting myself according to the monument’s sides. The northern face was aligned, almost perfectly, to true north, the eastern face almost perfectly to true east, the southern to true south, and

the western face to true west. The average error was only around three minutes of arc (down to less than two minutes on the southern face)[1] – incredible accuracy for any building in any epoch, and an inexplicable, almost supernatural feat here in Egypt 4500 years ago when the Great Pyramid was supposed to have been built.

An error of three arc minutes represents an infinitesimal deviation from true of less than 0.015 Per cent. In the opinion of structural engineers, with whom I had discussed the Great Pyramid, the need for such precision was impossible to understand. From their point of view as practical builders, the expense, difficulty and time spent achieving it would not have been justified by the apparent results: even if the base of the monument had been as much as two or three degrees out of true (an error of say 1 per cent) the difference to the naked eye would still have been

too small to be noticeable. On the other hand the difference in the magnitude of the tasks required (to achieve accuracy within three minutes as opposed to three degrees) would have been immense.

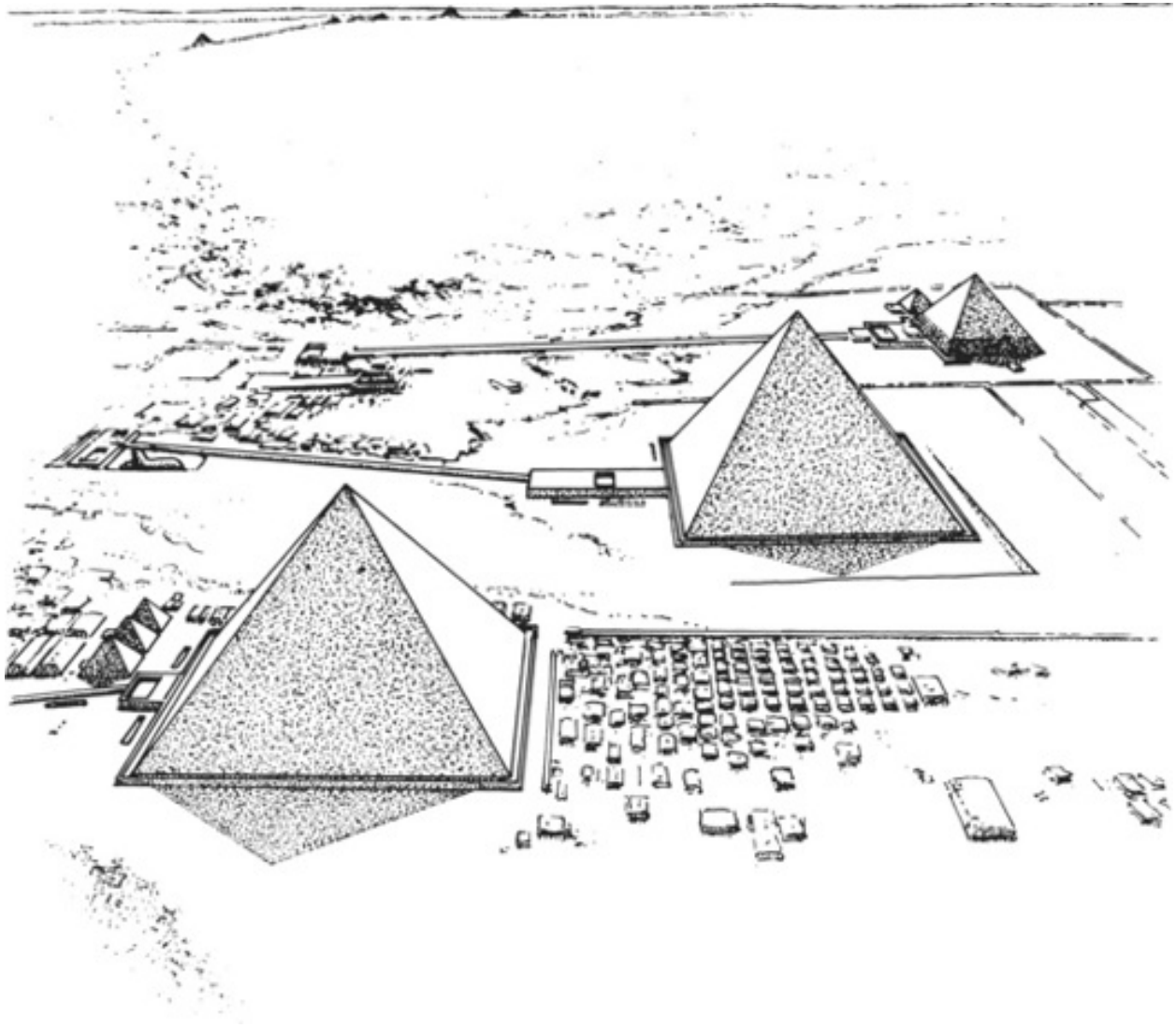

Overview of Giza from the north looking south, with the Great Pyramid in the foreground.

Obviously, therefore, the ancient master-builders who had raised the Pyramid at the very dawn of human civilization must have had powerful motives for wanting to get the alignments with the cardinal directions just right. Moreover, since they had achieved their objective with uncanny exactness they must have been highly skilled, knowledgeable and competent people with access to excellent surveying and setting-out equipment. This impression was confirmed by many of the monument's other characteristics. For example, its sides at the base were all almost exactly the same length, demonstrating a margin of error far smaller than modern architects would be required to achieve today in the construction of, say, an average-size office block. This was no office block, however. It was the Great Pyramid of Egypt, one

of the largest structures ever built by man and one of the oldest. Its north side was 755 feet 4.9818 inches in length; its west side was 755 feet 9.1551 inches in length; its east side was 755 feet 10.4937 inches; its south side 756 feet 0.9739 inches.[2] This meant that there was a difference of less than 8 inches between its shortest and longest sides: an error amounting to a tiny fraction of 1 per cent on an average side length of over 9063 inches.

Once again, I knew from an engineering perspective that the bare figures did not do justice to the enormous care and skill required to achieve them. I knew, too, that scholars had not yet come up with a convincing explanation of exactly how the Pyramid builders had adhered consistently to such high standards of precision.[3]

What really interested me, however, was the even bigger question-mark over another issue: why had they imposed

such exacting standards on themselves? If they had permitted a margin of error of 1–2 per cent – instead of less than one-tenth of 1 per cent – they could have simplified their tasks with no apparent loss of quality. Why hadn't they done so? Why had they insisted on making everything so difficult? Why, in short, in a supposedly 'primitive' stone monument built more than 4500 years ago were we seeing this strange, obsessional adherence to machine-age standards of precision?

Black hole in history

Our plan was to climb the Great Pyramid – something that had been strictly illegal since 1983 when the messy falls of several foolhardy tourists had forced the government of Egypt to impose a ban. I realized that we were being foolhardy too (particularly in attempting the climb at night)

and I didn't feel good about breaking what was basically a sensible law. By this stage, however, my intense interest in the Pyramid, and my desire to learn everything I could about it, had over-ridden my common sense.

Now, after parting company with the guard patrol at the north-eastern corner of the monument, we continued to make our way surreptitiously along the eastern face towards the south-eastern corner.

There were dense shadows among the twisted and broken paving stones that separated the Great Pyramid from the three much smaller 'subsidiary' pyramids lying immediately to its east. There were also three deep and narrow rock-cut pits which resembled giant graves. These had been found empty by the archaeologists who had excavated them, but were shaped as though they had been intended to enclose the hulls of high-prowed, streamlined boats.

Roughly halfway along the Pyramid's eastern face we encountered another patrol. This time it consisted of two guards, one of whom must have been eighty years old. His companion, a teenager with pustulant acne, informed us that the money Ali had paid was insufficient and that fifty more Egyptian pounds would be required if we were to proceed. I already had the notes in my hand and gave them to the lad without delay. I was past caring how much this was costing; I just wanted to make the climb and get down and away before dawn without being arrested.

We walked on, reaching the south-eastern corner at a little after 4.15 a. m.

Very few modern buildings, even the houses we live in, have corners that consist of perfect ninety degree right angles; it is common for them to be a degree or more out of true. It doesn't make any difference structurally and nobody

notices such minute errors. In the case of the Great Pyramid, however, I knew that the ancient master-builders had found a way to narrow the margin of error to almost nothing. Thus, while falling short of the perfect ninety degrees, the south-eastern corner achieved an impressive 89° 56′ 27″. The north-eastern corner measured 90° 3′ 2″; the south-western 90° 0′ 33″, and the north-western was just two seconds of a degree out of true at 89° 59′ 58″.[4]

This was, of course, extraordinary. And like almost everything else about the Great Pyramid it was also extremely difficult to explain. Such accurate building techniques – as accurate as the best we have today – could have evolved only after thousands of years of development and experimentation. Yet there was no evidence that any process of this kind had ever taken place in Egypt. The Great Pyramid and its neighbours at Giza had emerged out of a

black hole in architectural history so deep and so wide that neither its bottom nor its far side had ever been identified.

Ships in the desert

Guided by the increasingly perspiring Ali, who had not yet explained why it was necessary for us to circumnavigate the Pyramid before climbing it, we now began to make our way in a westerly direction along the monument's southern side. Here there were two further boat-shaped pits, one of which, although still sealed, had been investigated with fibre-optic cameras and was known to contain a high-prowed sea-going vessel more than 100 feet long. The other pit had been excavated in 1950s. Its contents – an even larger seagoing vessel, a full 141 feet in length[5] – had been placed in the so-called Boat Museum, an ugly modern structure that gangled

on stilts beneath the south face of the Pyramid.

Made of cedarwood, the beautiful ship in the museum was still in perfect condition 4500 years after it had been built. With a displacement of around 40 tons, its design was particularly thought-provoking, incorporating, in the words of one expert, 'all the sea-going ship's characteristic properties, with prow and stern soaring upward, higher than in a Viking ship, to ride out the breakers and high seas, not to contend with the little ripples of the Nile.'[6]

Another authority felt that the careful and clever design of this strange pyramid boat could potentially have made it 'a far more seaworthy craft than anything available to Columbus'.[7] Moreover, the experts agreed that it had been built to a pattern that could only have been 'created by shipbuilders from a people with a long, solid tradition of sailing on the open sea.'[8]

Present at the very beginning of Egypt's 3000-year history, who had those as yet unidentified shipbuilders been? They had not accumulated their 'long, solid tradition of sailing on the open sea' while ploughing the fields of the landlocked Nile Valley. So where and when had they developed their maritime skills?

There was yet another puzzle. I knew that the Ancient Egyptians had been very good at making scale models and representations of all manner of things for symbolic purposes.[9] I therefore found it hard to understand why they would have gone to the trouble of manufacturing and then burying a boat as big and sophisticated as this if its only function, as the Egyptologists claimed, had been as a token of the spiritual vessel that would carry the soul of the deceased king to heaven.[10] That could have been achieved as effectively with a much smaller craft, and only one would

have been needed, not several. Logic therefore suggested that these gigantic vessels might have been intended for some other purpose altogether, or had some quite different and still unsuspected symbolic significance …

We had reached the rough midpoint of the southern face of the Great Pyramid when we at last realized why we were being taken on this long walkabout. The objective was for us to be relieved of moderate sums of money at each of the four cardinal points. The tally thus far was 30 US dollars at the northern face and 50 Egyptian pounds at the eastern face. Now I shelled out a further 50 Egyptian pounds to yet another patrol Ali was supposed to have paid off the day before.

‘Ali,’ I hissed, ‘when are we going to climb the Pyramid?’

‘Right away, Mr Graham,’ our guide replied. He walked confidently forward, gesturing directly ahead, then added,

‘We shall ascend at the south-west corner …’

Chapter 34

Mansion of Eternity

Have you ever climbed a pyramid, at night, fearful of arrest, with your nerves in shreds?

It's a surprisingly difficult thing to do, especially where the Great Pyramid is concerned. Even though its top 31 feet are no longer intact, its presently exposed summit platform still stands more than 450 feet above ground level.[1] It consists,

moreover, of 203 separate courses of masonry, with the average course height being about two and a quarter feet.[2]

Averages do not tell you everything, as I discovered soon after we began the climb. The courses turned out to be of unequal depth, some barely reaching knee level while others came up almost to my chest and created formidable obstacles. At the same time the horizontal ledges between each of the steps were very narrow, often only a little wider than my foot, and many of the big limestone blocks, which had looked so solid from below, proved to be crumbling and broken.

Somewhere around 30 courses up Santha and I began to appreciate what we had let ourselves in for. Our muscles were aching and our knees and fingers stiff and bruised – yet we were barely one-seventh of the way to the summit and there were still more than 170 courses to climb. Another

worry was the vertiginous drop steadily opening beneath us. Looking down along the ruptured contours that marked the line of the south-western corner, I was taken aback to see how far we had already climbed and experienced a momentary, giddying presentiment of how easy it would be for us to fall, head over heels like Jack and Jill, bouncing and jolting over the huge layers of stone, breaking our crowns at the bottom.

Ali had permitted a pause of a few moments for us to catch our breaths, but now he signalled that we should press on and began to climb again. Still using the corner as a guideline, he rapidly disappeared into the darkness above.

Somewhat less confidently, Santha and I followed.

Time and motion

The 35th course of masonry was a hard one to clamber over, being made of particularly massive blocks, much larger than any of the others we had so far encountered (except those at the very base) and estimated to weigh between 10 and 15 tons apiece.[3] This contradicted engineering logic and commonsense, both of which called for a progressive decrease in the size and weight of the blocks that had to be transported to the summit as the pyramid rose ever higher. Courses 1–18, which diminished from a height of about 55.5 inches at ground level to just over 23 inches at course 17, did obey this rule. Then suddenly, at course 19, the block height rose again to almost 36 inches. At the same time the other dimensions of the blocks also increased and their weight grew from the relatively manoeuvrable range of 2–6 tons that was common in the first 18 courses to the more ponderous and cumbersome range of 10–15 tons.[4] These, therefore,

were really *big* monoliths that had been carved out of solid limestone and raised more than 100 feet into the air before being placed faultlessly in position.

To have worked effectively the pyramid builders must have had nerves of steel, the agility of mountain goats, the strength of lions and the confidence of trained steeplejacks. With the cold morning wind whipping around my ears and threatening to launch me into flight, I tried to imagine what it must have been like for them, poised dangerously at this (and much higher) altitudes, lifting, manoeuvring and positioning exactly an endless production line of chunky limestone monoliths – the smallest of which weighed as much as two modern family cars.

How long had the pyramid taken to complete? How many men had worked on it? The consensus among Egyptologists was two decades and 100,000 men.[5] It was also generally

agreed that the construction project had not been a year-round affair but had been confined (through labour force availability) to the annual three-month agricultural lay-off season imposed by the flooding of the Nile.[6]

As I continued to climb, I reminded myself of the implications of all this. It wasn't just the tens of thousands of blocks weighing 15 tons or more that the builders would have had to worry about. Year in, year out, the real crises would have been caused by the *millions* of 'average-sized' blocks, weighing say 2.5 tons, that also had to be brought to the working plane. The Pyramid has been reliably estimated to consist of a total of 2.3 million blocks.[7] Assuming that the masons worked ten hours a day, 365 days a year, the mathematics indicate that they would have needed to place 31 blocks in position every hour (about one block every two minutes) to complete the Pyramid in twenty years. Assuming

that construction work had been confined to the annual three-month lay-off, the problems multiplied: four blocks a minute would have had to be delivered, about 240 every hour.

Such scenarios are, of course, the stuff construction managers' nightmares are made of. Imagine, for example, the daunting degree of coordination that must have been maintained between the masons and the quarries to ensure the requisite rate of block flow across the production site. Imagine also the havoc if even a single 2.5 ton block had been dropped from, say, the 175th course.

The physical and managerial obstacles seemed staggering on their own, but beyond these was the geometrical challenge represented by the pyramid itself, which had to end up with its apex positioned exactly over the centre of its base. Even the minutest error in the angle of incline of any

one of the sides at the base would have led to a substantial misalignment of the edges at the apex. Incredible accuracy, therefore, had to be maintained throughout, at every course, hundreds of feet above the ground, with great stone blocks of killing weight.

Rampant stupidity

How had the job been done?

At the last count there were more than thirty competing and conflicting theories attempting to answer that question. The majority of academic Egyptologists have argued that ramps of one kind or another must have been used. This was the opinion, for example, of Professor I.E.S Edwards, a former keeper of Egyptian Antiquities at the British Museum who asserted categorically: ‘Only one method of lifting heavy

weights was open to the ancient Egyptians, namely by means of ramps composed of brick and earth which sloped upwards from the level of the ground to whatever height was desired.'[8]

John Baines, professor of Egyptology at Oxford University, agreed with Edwards's analysis and took it further: 'As the pyramid grew in height, the length of the ramp and the width of its base were increased in order to maintain a constant gradient (about 1 in 10) and to prevent the ramp from collapsing. Several ramps approaching the pyramid from different sides were probably used.'[9]

To carry an inclined plane to the top of the Great Pyramid at a gradient of 1:10 would have required a ramp 4800 feet long and more than three times as massive as the Great Pyramid itself (with an estimated volume of 8 million cubic metres as against the Pyramid's 2.6 million cubic metres).[10]

Heavy weights could not have been dragged up any gradient steeper than this by any normal means.[11] If a lesser gradient had been chosen, the ramp would have had to be even more absurdly and disproportionately massive.

The problem was that mile-long ramps reaching a height of 480 feet could not have been made out of 'bricks and earth' as Edwards and other Egyptologists supposed. On the contrary, modern builders and architects had proved that such ramps would have caved in under their own weight if they had consisted of any material less costly and less stable than the limestone ashlars of the Pyramid itself.[12]

Since this obviously made no sense (besides, where had the 8 million cubic metres of surplus blocks been taken after completion of the work?), other Egyptologists had proposed the use of *spiral* ramps made of mud brick and attached to the sides of the Pyramid. These would certainly have

required less material to build, but they would also have failed to reach the top.[13] They would have presented deadly and perhaps insurmountable problems to the teams of men attempting to drag the big blocks of stone around their hairpin corners. And they would have crumbled under constant use. Most problematic of all, such ramps would have cloaked the whole pyramid, thus making it impossible for the architects to check the accuracy of the setting-out during building.[14]

But the pyramid builders *had* checked the accuracy of the setting out, and they *had* got it right, because the apex of the pyramid was poised exactly over the centre of the base, its angles and its corners were true, each block was in the correct place, and each course had been laid down level – in near-perfect symmetry and with near-perfect alignment to the cardinal points. Then, as though to demonstrate that such

tours-de-force of technique were mere trifles, the ancient master-builders had gone on to play some clever mathematical games with the monument's dimensions, presenting us, for example, as we saw in Chapter Twenty-three, with an accurate use of the transcendental number *pi* in the ratio of its height to its base perimeter.[15] For some reason, too, it had taken their fancy to place the Great Pyramid almost exactly on the 30th parallel at latitude 29° 58′ 51″. This, as a former astronomer royal of Scotland once observed, was 'a sensible defalcation from 30°', but not necessarily in error:

> For if the original designer had wished that men should see with their body, rather than their mental eyes, the pole of the sky from the foot of the Great Pyramid, at an altitude before them of 30°, he would have had to take account of the refraction of the atmosphere; and that would have necessitated the building standing not at 30° but at 29° 58′ 22″.[16]

Compared to the true position of 29° 58′ 51″, this was an error of less than half an arc minute, suggesting once again that the surveying and geodetic skills brought to bear here must have been of the highest order.

Feeling somewhat overawed, we climbed on, past the 44th and 45th courses of the hulking and enigmatic structure. At the 46th course an angry voice hailed us in Arabic from the plaza below and we looked down to see a tiny, turbaned man dressed in a billowing kaftan. Despite the range, he had unslung his shotgun and was preparing to take aim at us.

The guardian and the vision

He was, of course, the guardian of the Pyramid's western face, the patrolman of the fourth cardinal point, and he had

not received the extra funds dispensed to his colleagues of the north, east and south faces.

I could tell from Ali's perspiration that we were in a potentially tricky situation. The guard was ordering us to come down at once so that he could place us under arrest. 'This, however, could probably be avoided with a further payment,' Ali explained.

I groaned. 'Offer him 100 Egyptian pounds.'

'Too much,' Ali cautioned, 'it will make the others resentful. I shall offer him 50.'

More words were exchanged in Arabic. Indeed, over the next few minutes, Ali and the guard managed to have quite a sustained conversation up and down the south-western corner of the Pyramid at 4.40 in the morning. At one point a whistle was blown. Then the guards of the southern face put in a brief appearance and stood in conference with the guard

of the western face, who had now also been joined by the two other members of his patrol.

Just when it seemed that Ali had lost whatever argument he was having on our behalf, he smiled and heaved a sigh of relief. ‘You will pay the extra 50 pounds when we have returned to the ground,’ he explained. ‘They’re letting us continue but they say that if any senior officer comes along and sees us they will not be able to help us.’

We struggled upwards in silence for the next ten minutes or so until we had reached the 100th course – roughly the halfway mark and already well over 250 feet above the ground. We gazed over our shoulders to the south-west, where a once-in-a-lifetime vision of staggering beauty and power confronted us. The crescent moon, which hung low in the sky to the south-east, had emerged from behind a scudding cloud bank and projected its ghostly radiance

directly at the northern and eastern faces of the neighbouring Second Pyramid, supposedly built by the Fourth Dynasty Pharaoh Khafre (Chephren). This stunning monument, second only in size and majesty to the Great Pyramid itself (being just a few feet shorter and 48 feet narrower at the base) appeared lit up, as though energized from within, by a pale and unearthly fire. Behind it in the distance, slightly offset among the dark desert shadows, was the smaller Pyramid of Menkaure (Mycerinus), measuring 356 feet along each side and some 215 feet in height.[17]

For a moment, against the glittering backdrop of the inky sky, I experienced the illusion of being in motion, of standing at the stern of some great ship of the heavens and looking back at two other vessels which seemed to follow in my wake, strung out in battle order behind me.

So where was this convoy going, this squadron of

pyramids? And were the prodigious structures all the work of megalomaniac pharaohs, as the Egyptologists believed? Or had they been designed by mysterious hands to voyage eternally through time and space towards some as yet unidentified objective?

From this altitude, though the southern sky was partially occluded by the vast bulk of the Pyramid of Khafre, I could see all the western sky as it arched down from the celestial north pole towards the distant rim of the revolving planet. Polaris, the Pole Star, was far to my right, in the constellation of the Little Bear. Low on the horizon, about ten degrees north of west, Regulus, the paw-star of the imperial constellation of Leo, was about to set.

Under Egyptian skies

Just above the 150th course, Ali hissed at us to keep our heads down. A police car had come into view around the north-western corner of the Great Pyramid and was now proceeding along the western flank of the monument with its blue light slowly flashing. We stayed motionless in the shadows until the car had passed. Then we began to climb again, with a renewed sense of urgency, heading as fast as we could towards the summit, which we now imagined we could see jutting out above the misty predawn haze.

For what seemed like five minutes we climbed without stopping. When I looked up, however, the top of the Pyramid still seemed as far away as ever. We climbed again, panting and sweating, and once again the summit drew back before us like some legendary Welsh peak. Then, just when we'd resigned ourselves to an endless succession of such disappointments, we found ourselves at the top, under a

breathtaking canopy of stars, more than 450 feet above the surrounding plateau on the most extraordinary viewing platform in the world. To our north and east, sprawled out across the wide, sloping valley of the River Nile, lay the city of Cairo, a jumble of skyscrapers and flat traditional roofs separated by the dark defiles of narrow streets and interspersed with the needle-point minarets of a thousand and one mosques. A film of reflected street-lighting shimmered over the whole scene, closing the eyes of modern Cairenes to the wonder of the stars but at the same time creating the hallucination of a fairyland illuminated in greens and reds and blues and sulphurous yellows.

I felt privileged to witness this strange, electronic mirage from such an incredible vantage point, perched on the summit platform of the last surviving wonder of the ancient world, hovering in the sky over Cairo like Aladdin on his

magic carpet.

Not that the 203rd course of the Great Pyramid of Egypt could be described as a carpet! Measuring just under 30 feet on each side (as against the monument's side length of around 755 feet at the base) it consisted of several hundred waist-high limestone blocks, each of which weighed about five tons. The course was not completely level: a few blocks were missing or broken, and rising towards the southern end there were the substantial remains of about half an additional step of masonry. Moreover, at the very centre of the platform, someone had arranged for a triangular wooden scaffold to be erected, through the middle of which rose a thick pole, just over 31 feet long, which marked the monument's original true height of 481.3949 feet.[18] Beneath this a scrawl of grafitti had been carved into the limestone by generations of tourists.[19]

The complete ascent of the Pyramid had taken us about half an hour and it was now just after 5 a. m., the time of morning worship. Almost in unison, the voices of a thousand and one muezzins rang out from the balconies of the minarets of Cairo, calling the faithful to prayer and reaffirming the greatness, the indivisibility, the mercy and the compassion of God. Behind me, to the south-west, the top 22 courses of Khafre's Pyramid, still clad with their original facing stones, seemed to float like an iceberg on the ocean of moonlight.

Knowing that we could not stay long in this bewitching place, I sat down and gazed around at the heavens. Over to the west, across limitless desert sands, Regulus had now set beneath the horizon, and the rest of the lion's body was poised to follow. The constellations of Virgo and Libra were also dropping lower in the sky and, much farther to the

north, I could see the Great and Little Bears slowly pacing out their eternal cycle around the celestial pole.

I looked south-east across the Nile Valley and there was the crescent moon still spreading its spectral radiance from the bank of the Milky Way. Following the course of the celestial river, I looked due south: there, crossing the meridian, was the resplendent constellation of Scorpius dominated by the first-magnitude star Antares – a red supergiant 300 times the diameter of the sun. North-east, above Cairo, sailed Cygnus the swan, his tail feathers marked by Deneb, a blue-white supergiant visible to us across more than 1800 light years of interstellar space. Last but not least, in the northern sky, the dragon Draco coiled sinuously among the circumpolar stars. Indeed, 4500 years ago, when the Great Pyramid was supposedly being built for the Fourth Dynasty Pharaoh Khufu (Cheops), one of the stars of Draco had stood close to the

celestial north pole and had served as the Pole Star. This had been alpha Draconis, also known as Thuban. With the passing of the millennia, however, it had gradually been displaced from its position by the remorseless celestial mill of the earth's axial precession so that the Pole Star today is Polaris in the Little Bear.[20]

I lay back, cushioned my head in my hands and gazed directly up towards the zenith of heaven. Through the smooth cold stones I rested on, I thought I could sense beneath me, like a living force, the stupendous gravity and mass of the pyramid.

Thinking like giants

Covering a full 13.1 acres at the base, it weighed about six million tons – more than all the buildings in the Square Mile

of the City of London added together,[21] and consisted, as we have seen, of roughly 2.3 million individual blocks of limestone and granite. To these had once been added a 22-acre, mirrorlike cladding consisting of an estimated 115,000 highly polished casing stones, each weighing 10 tons, which had originally covered all four of its faces.[22]

After being shaken loose by a massive earthquake in AD 1301, the majority of the facing blocks had subsequently been removed for the construction of Cairo.[23] Here and there around the base, however, I knew that enough had remained in position to permit the great nineteenth century archaeologist, W.M. Flinders Petrie, to carry out a detailed study of them. He had been stunned to encounter tolerances of less than one-hundredth of an inch and cemented joints so precise and so carefully aligned that it was impossible to slip even the fine blade of a pocket knife between them. 'Merely

to place such stones in exact contact would be careful work', he admitted, 'but to do so with cement in the joint seems almost impossible; it is to be compared to the finest opticians' work on a scale of acres.'[24]

Of course, the jointing of the casing stones was by no means the only 'almost impossible' feature of the Great Pyramid. The alignments to true north, south, east and west were 'almost impossible', so too were the near-perfect ninety-degree corners, and the incredible symmetry of the four enormous sides. And so were the engineering logistics of raising millions of huge stones hundreds of feet in the air …

Whoever they had been, therefore, the architects, engineers and stonemasons who had designed and successfully built this stupendous monument must indeed have 'thought like men 100 feet tall', as Jean-François Champollion, the founder of modern Egyptology, had once observed. He had seen

clearly what generations of his successors were to close their eyes to: that the pyramid builders could only have been men of giant intellectual stature. Beside the Egyptians of old, he had added, ‘we in Europe are but Lilliputians.’[25]

Chapter 35

Tombs and Tombs Only?

Climbing down the Great Pyramid was more nerve wracking than climbing up. We were no longer struggling against the force of gravity, so the physical effort was less. But the possibilities of a fatal fall seemed greatly magnified now that our attention was directed exclusively towards the ground rather than the heavens. We picked our way with

exaggerated care towards the base of the enormous mountain of stone, sliding and slithering among the treacherous masonry blocks, feeling as though we had been reduced to ants.

By the time we had completed the descent the night was over and the first wash of pale sunlight was filtering into the sky. We paid the 50 Egyptian pounds promised to the guard of the pyramid's western face and then, with a tremendous sense of release and exultation, we walked jauntily away from the monument in the direction of the Pyramid of Khafre, a few hundred metres to the south-west.

Khufu, Khafre, Menkaure … Cheops, Chephren, Mycerinus. Whether they were referred to by their Egyptian or their Greek names, the fact remained that these three pharaohs of the Fourth Dynasty (2575–2467 BC) were universally acclaimed as the builders of the Giza pyramids. This had

been the case at least since Ancient Egyptian tour guides had told the Greek historian Herodotus that the Great Pyramid had been built by Khufu. Herodotus had incorporated this information into the oldest surviving written description of the monuments, which continued:

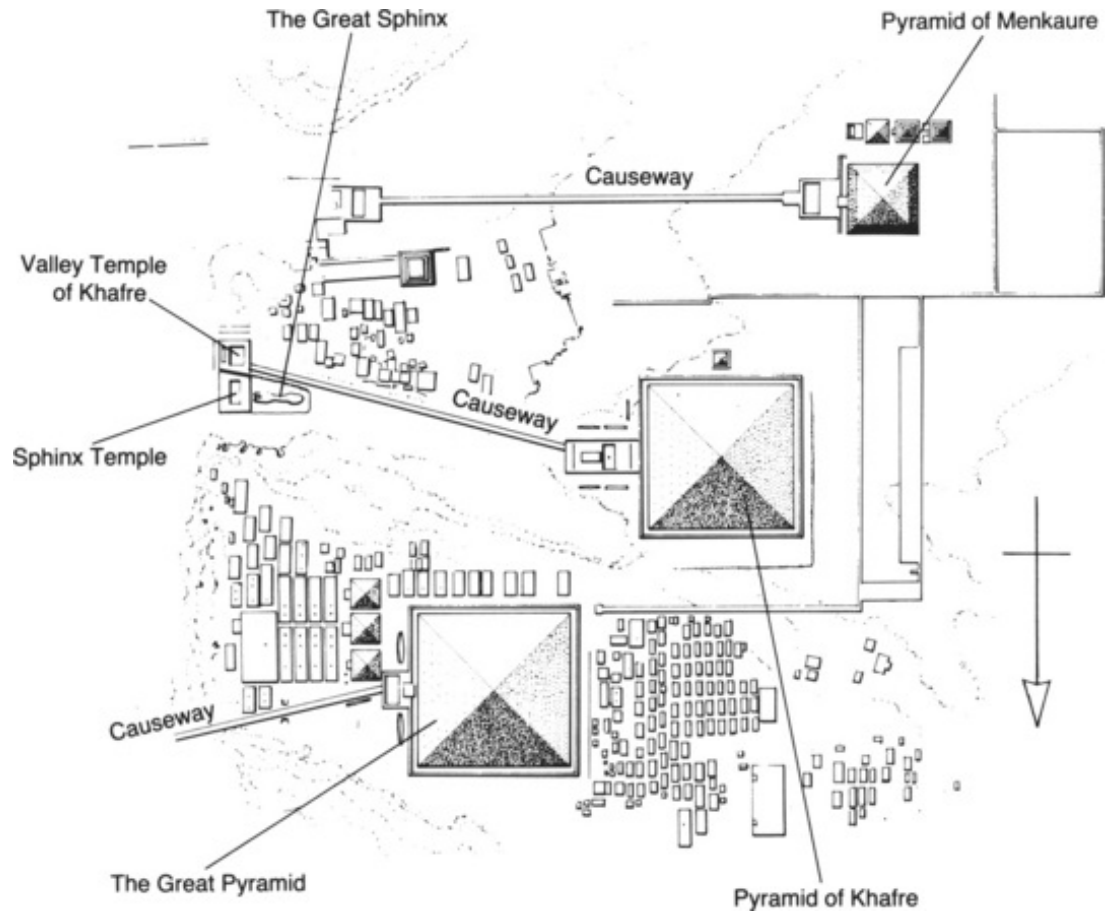
The Great Sphinx
Pyramid of Menkaure
Causeway
Valley Temple
of Khafre
Causeway
Sphinx Temple
Causeway
The Great Pyramid
Pyramid of Khafre

Site plan of the Giza necropolis.

> Cheops, they said, reigned for fifty years, and on his death the kingship was taken over by his brother Chephren. He also made a pyramid … it is forty feet lower than his brother's pyramid, but otherwise of the same greatness … Chephren reigned for fifty-six years … then there succeeded Mycerinus, the son of Cheops … This man left a pyramid much smaller than his father's.[1]

Herodotus saw the monuments in the fifth century BC, more than 2000 years after they had been built. Nevertheless it was largely on the foundation of his testimony that the entire subsequent judgement of history was based. All other commentators, up to the present, continued uncritically to follow in the Greek historian's footsteps. And down the ages – although it had originally been little more than hearsay –

the attribution of the Great Pyramid to Khufu, the Second Pyramid to Khafre and the Third Pyramid to Menkaure had assumed the stature of unassailable fact.

Trivializing the mystery

Having parted company with Ali, Santha and I continued our walk into the desert. Skirting the immense south-western corner of the Second Pyramid, our eyes were drawn towards its summit. There we noted again the intact facing stones that still covered its top 22 courses. We also noticed that the first few courses above its base, each of which had a ‘footprint’ of about a dozen acres, were composed of truly massive blocks of limestone, almost too high to clamber over, which were about 20 feet long and 6 feet thick. These extraordinary monoliths, as I was later to discover, weighed 200 tons

apiece and belonged to a distinct style of masonry to be found at several different and widely scattered locations within the Giza necropolis.

On its north and west sides the Second Pyramid sat on a level platform cut down out of the surrounding bedrock and was thus enclosed within a wide trench more than 15 feet deep in places. Walking due south, parallel to the monument's scarred western flank, we picked our way along the edge of this trench towards the much smaller Third Pyramid, which lay some 400 metres ahead of us in the desert.

Khufu … Khafre … Menkaure … According to all orthodox Egyptologists the pyramids had been built as tombs – and only as tombs – for these three pharaohs. Yet there were some obvious difficulties with such assertions. For example, the spacious burial chamber of the Khafre Pyramid was

empty when it was opened in 1818 by the European explorer Giovanni Belzoni. Indeed, more than empty, the chamber was starkly, austerely bare. The polished granite sarcophagus which lay embedded in its floor had also been found empty, with its lid broken into two pieces nearby.[2] How was this to be explained?

To Egyptologists the answer seemed obvious. At some early date, probably not many hundreds of years after Khafre's death, tomb robbers must have penetrated the chamber and cleared all its contents including the mummified body of the pharaoh.

Much the same thing seemed to have happened at the smaller Third Pyramid, towards which Santha and I were now walking – that attributed to Menkaure. Here the first European to break in had been a British colonel, Howard Vyse, who had entered the burial chamber in 1837. He found

an empty basalt sarcophagus, an anthropoid coffin lid made of wood, and some bones. The natural assumption was that these were the remains of Menkaure. Modern science had subsequently proved, however, that the bones and coffin lid dated from the early Christian era, that is, from 2500 years after the Pyramid Age, and thus represented the 'intrusive burial' of a much later individual (quite a common practice throughout Ancient Egyptian history). As to the basalt sarcophagus – well, it could have belonged to Menkaure. Unfortunately, however, nobody had the opportunity to examine it because it had been lost at sea when the ship on which Vyse sent it to England had sunk off the coast of Spain.[3] Since it was a matter of record that the sarcophagus had been found empty by Vyse, it was once again assumed that the body of the pharaoh must have been removed by tomb robbers.

A similar assumption had been made about the body of Khufu, which was also missing. Here the scholarly consensus, expressed as well as anyone by George Hart of the British Museum, was that 'no later than 500 years after Khufu's funeral' robbers had forced their way into the Great Pyramid 'to steal the burial treasure'.[4] The implication is that this incursion must have occurred by or before 2000 BC – since Khufu is believed to have died in 2528 BC.[5] Moreover it was assumed by Professor I.E.S Edwards, a leading authority on these matters, that the burial treasure had been removed from the famous inner sanctum now known as the King's Chamber and that the empty 'granite sarcophagus' which stood at the western end of that sanctum had 'once contained the King's body, probably enclosed within an inner coffin made of wood'.[6]

All this is orthodox, mainstream, modern scholarship,

which is unquestioningly accepted as historical fact and taught as such at universities everywhere.[7]

But suppose it isn't fact.

The cupboard was bare

The mystery of the missing mummy of Khufu begins with the records of Caliph Al-Ma'mun, a Muslim governor of Cairo in the ninth century AD. He had engaged a team of quarriers to tunnel their way into the pyramid's northern face, urging them on with promises that they would discover treasure. Through a series of lucky accidents 'Ma'mun's Hole', as archaeologists now refer to it, had joined up with one of the monument's several internal passageways, the 'descending corridor' leading downwards from the original concealed doorway in the northern face (the location of which, though

known in classical times, had been forgotten by Ma'mun's day). By a further lucky accident the vibrations that the Arabs had caused with their battering rams and drills dislodged a block of limestone from the ceiling of the descending corridor. When the socket from which it had fallen was examined it was found to conceal the opening to another corridor, this time *ascending* into the heart of the pyramid.

There was a problem, however. The opening was blocked by a series of enormous plugs of solid granite, clearly contemporaneous with the construction of the monument, which were held in place by a narrowing of the lower end of the corridor.[8] The quarriers were unable either to break or to cut through the plugs. They therefore tunnelled into the slightly softer limestone surrounding them and, after several weeks of backbreaking toil, rejoined the ascending corridor

higher up – *having bypassed a formidable obstacle never before breached.*

The implications were obvious. Since no previous treasure-seekers had penetrated this far, the interior of the pyramid must still be virgin territory. The diggers must have licked their lips with anticipation at the immense quantities of gold and jewels they could now expect to find. Similarly – though perhaps for different reasons, Ma'mun must have been impatient to be the first into any chambers that lay ahead. It was reported that his primary motive in initiating this investigation had not been an ambition to increase his vast personal wealth but a desire to gain access to a storehouse of ancient wisdom and technology which he believed to lie buried within the monument. In this repository, according to age-old tradition, the pyramid builders had placed 'instruments of iron and arms which rust not, and glasse

which might be bended and yet not broken, and strange spells …’[9]

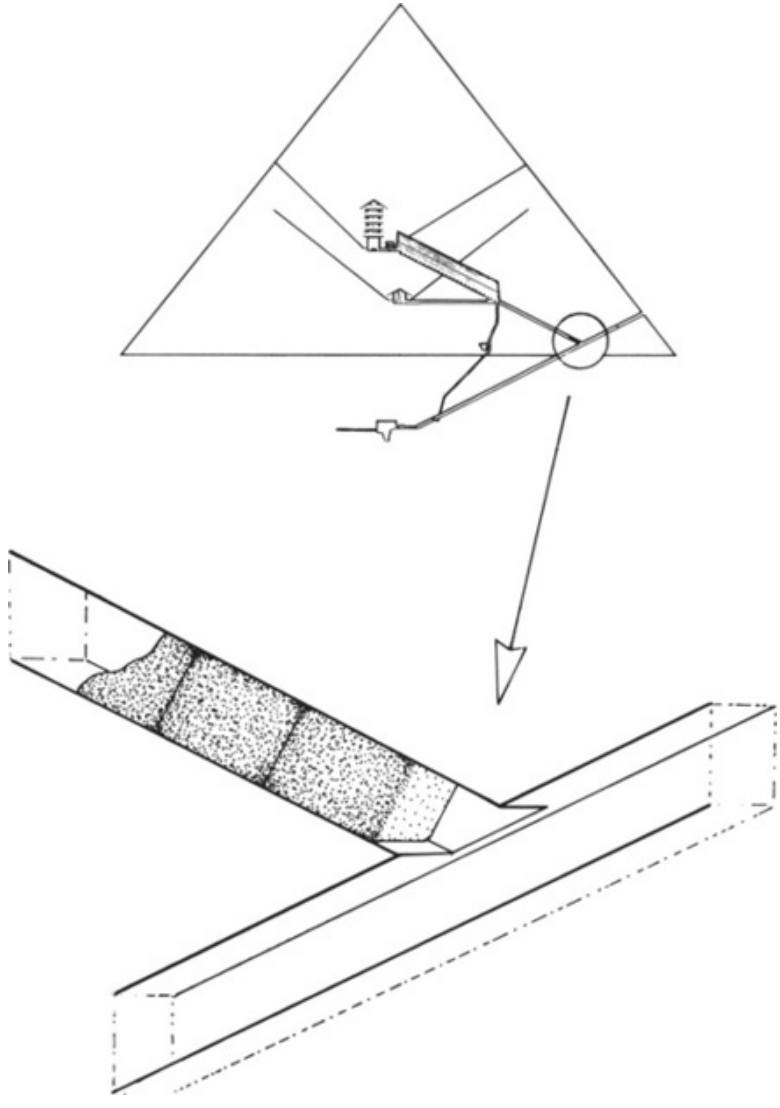

The Great Pyramid: entrance and plugging blocks in the ascending corridor.

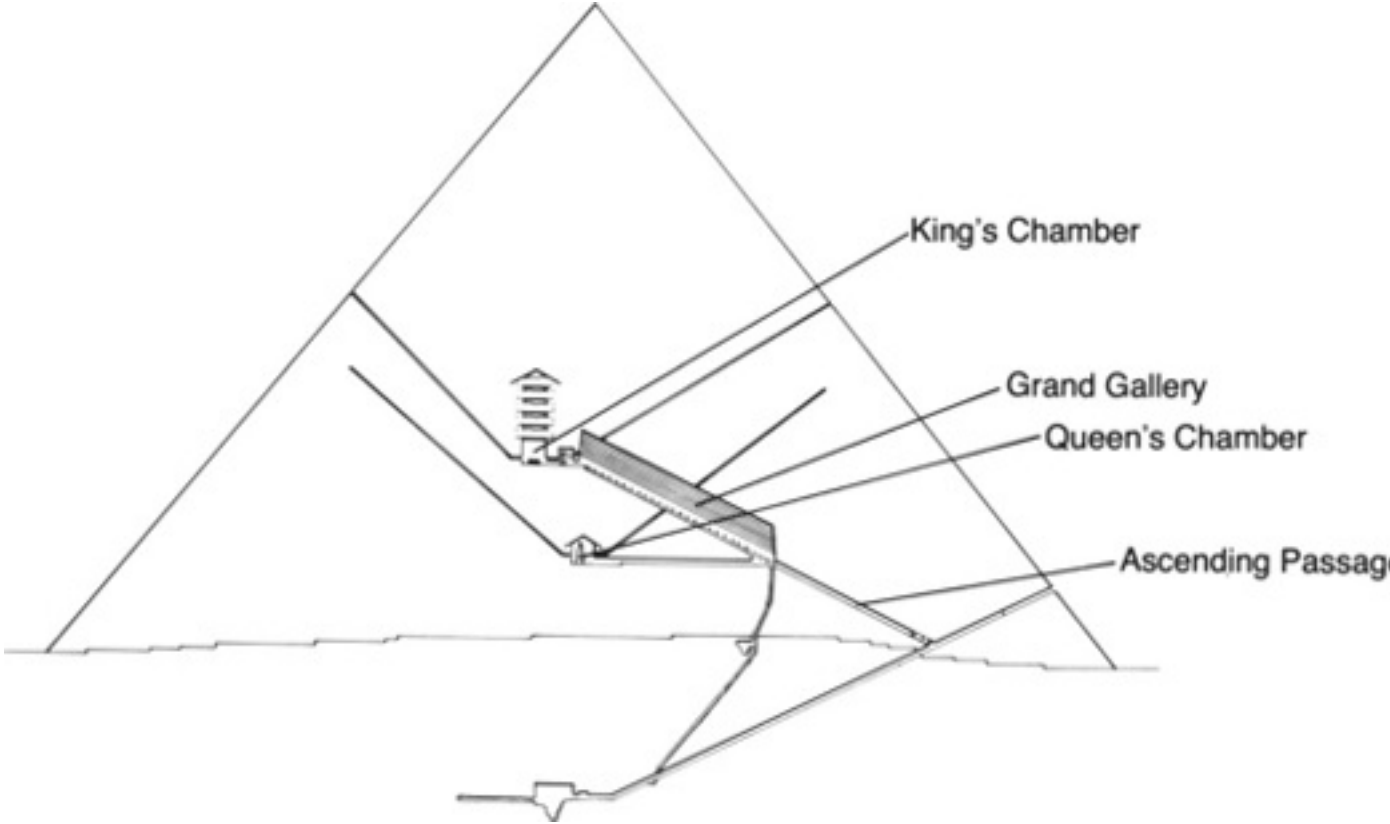

The Great Pyramid: detail of corridors, shafts and chambers.

But Ma'mun and his men found nothing, not even any down-to-earth treasure – and certainly not any high-tech, anachronistic plastic or instruments of iron or rustproof weapons … or strange spells either.

The erroneously named 'Queen's Chamber' (which lay at the end a long horizontal passageway that branched off from the ascending corridor) turned out to be completely empty – just a severe, geometrical room.[10]

More disappointing still, the King's Chamber (which the Arabs reached after climbing the imposing Grand Gallery) also offered little of interest. Its only furniture was a granite coffer just big enough to contain the body of a man. Later identified, on no very good grounds, as a 'sarcophagus', this undecorated stone box was approached with trepidation by Ma'mun and his team, who found it to be lidless and as

empty as everything else in the pyramid.[11]

Why, how and when exactly had the Great Pyramid been emptied of its contents? Had it been 500 years after Khufu's death, as the Egyptologists suggested? Or was it not more likely, as the evidence was beginning to suggest, that the inner chambers of the pyramid had been empty all along, from the very beginning, that is, from the day that the monument had originally been sealed? Nobody, after all, had reached the upper part of the ascending corridor before Ma'mun and his men. And it was certain, too, that nobody had cut through the granite plugs blocking the entrance to that corridor.

Commonsense ruled out the possibility of any earlier incursion – unless there was another way in.

Bottlenecks in the well-shaft

There was another way in.

Farther down the descending corridor, more than 200 feet beyond the point where the plugged end of the ascending corridor had been found, lies the concealed entrance to another secret passageway, deep within the subterranean bedrock of the Giza plateau. If Ma'mun had discovered this passageway, he could have saved himself a great deal of trouble, since it provided a readymade route around the plugs blocking the ascending corridor. His attention, however, had been distracted by the challenge of tunnelling past those plugs, and he made no effort to investigate the lower reaches of the descending corridor (which he ended up using as a dump for the tons of stone his diggers removed from the core of the pyramid).[12]

The full extent of the descending corridor was, however, well-known and explored in classical times. The Graeco-

Roman geographer Strabo left quite a clear description of the large subterranean chamber it debouched into (at a depth of almost 600 feet below the apex of the pyramid).[13] Graffitti from the period of the Roman occupation of Egypt was also found inside this underground chamber, confirming that it had once been regularly visited. Yet, because it had been so cunningly hidden in the beginning, the secret doorway leading off to one side about two-thirds of the way down the western wall of the descending corridor, remained sealed and undiscovered until the nineteenth century.[14]

What the doorway led to was a narrow well-shaft, about 160 feet in extent, which rose almost vertically through the bedrock and then through more than twenty complete courses of the Great Pyramid's limestone core blocks, until it joined up with the main internal corridor system at the base of the Grand Gallery. There is no evidence to indicate what

the purpose of this strange architectural feature might have been (although several scholars have hazarded guesses).[15] Indeed the only thing that is clear is that it was engineered at the time of the construction of the pyramid and was not the result of an intrusion by tunnelling tomb-robbers.[16] The question remains open, however, as to whether tomb-robbers might have *discovered* the hidden entrance to the shaft, and made use of it to siphon off the treasures from the King's and Queen's Chambers.

Such a possibility cannot be ruled out. Nevertheless, a review of the historical record indicates little in its favour.

For example, the upper end of the well-shaft was entered off the Grand Gallery by the Oxford astronomer John Greaves in 1638. He managed to descend to a depth of about sixty feet. In 1765 another Briton, Nathaniel Davison, penetrated to a depth of about 150 feet but found his way blocked by an

impenetrable mass of sand and stones. Later, in the 1830s, Captain G.B. Caviglia, an Italian adventurer, reached the same depth and encountered the same obstacle. More enterprising than his predecessors, he hired Arab workers to start excavating the rubble in the hope that there might be something of interest beneath it. Several days of digging in claustrophobic conditions followed before the connection with the descending corridor was discovered.[17]

Is it likely that such a cramped, blocked-up shaft could have been a viable conduit for the treasures of Khufu, supposedly the greatest pharaoh of the magnificent Fourth Dynasty?

Even if it hadn't been choked with debris and sealed at the lower end, it could not have been used to bring out more than a tiny fraction of the treasures of a typical royal tomb. This is because the well-shaft is only three feet in diameter

and incorporates several tricky vertical sections.

At the very least, therefore, when Ma'mun and his men battered their way into the King's Chamber around the year AD 820, one would have expected some of the bigger and heavier pieces from the original burial to be still in place – like the statues and shrines that bulked so large in Tutankhamen's much later and presumably inferior tomb.[18] But *nothing* was found inside Khufu's Pyramid, making this and the alleged looting of Khafre's monument the only tomb robberies in the history of Egypt which achieved a clean sweep, leaving not a single trace behind – not a torn cloth, not a shard of broken pottery, not an unwanted figurine, not an overlooked piece of jewellery – just the bare floors and walls and the gaping mouths of empty sarcophagi.

Not like other tombs

It was now after six in the morning and the rising sun had bathed the summits of Khufu's and Khafre's Pyramids with a fleeting blush of pastel-pink light. Menkaure's Pyramid, being some 200 feet lower than the other two, was still in shadow as Santha and I skirted its north-western corner and continued our walk into the rolling sand dunes of the surrounding desert.

I still had the tomb robbery theory on my mind. As far as I could see the only real 'evidence' in favour of it was the absence of grave goods and mummies that it had been invented to explain in the first place. All the other facts, particularly where the Great Pyramid was concerned, seemed to speak persuasively against any robbery having occurred. It was not just a matter of the narrowness and unsuitability of

the well-shaft as an escape route for bulky treasures. The other remarkable feature of Khufu's Pyramid was the absence of inscriptions or decorations anywhere within its immense network of galleries, corridors, passageways and chambers, and the same was true of Khafre's and Menkaure's Pyramids. In none of these amazing monuments had a single word been written in praise of the pharaohs whose bodies they were supposed to house.

This was exceptional. No other proven burial place of any Egyptian monarch had ever been found undecorated. The fashion throughout Egyptian history had been for the tombs of the pharaohs to be *extensively* decorated, beautifully painted from top to bottom (as in the Valley of the Kings at Luxor, for example) and densely inscribed with the ritual spells and invocations required to assist the deceased on his journey towards eternal life (as in the Fifth Dynasty pyramids

at Saqqara, just twenty miles to the south of Giza.)[19]

Why had Khufu, Khafre and Menkaure done things so differently? Had they not built their monuments to serve as tombs at all, but for another and more subtle purpose? Or was it possible, as certain Arab and esoteric traditions maintained, that the Giza pyramids had been erected long before the Fourth Dynasty by the architects of some earlier and more advanced civilization?

Neither hypothesis was popular with Egyptologists for reasons that were easy to understand. Moreover, while conceding that the Second and Third Pyramids were completely devoid of internal inscriptions, lacking even the *names* of Khafre and Menkaure, the scholars were able to cite certain hieroglyphic 'quarry marks' (graffitti daubed on stone blocks before they left the quarry) found inside the Great Pyramid, which did seem to bear the name of Khufu.

A certain smell …

The discoverer of the quarry marks was Colonel Howard Vyse, during the destructive excavations he undertook at Giza in 1837. Extending an existing crawlway, he cut a tunnel into the series of narrow cavities, called ‘relieving chambers’, which lay directly above the King’s Chamber. The quarry marks were found on the walls and ceilings of the top four of these cavities and said things like this:

> THE CRAFTSMEN-GANG, HOW POWERFUL IS THE WHITE CROWN OF KHNUM-KHUFU
>
> KHUFU
>
> KHNUM-KHUFU
>
> YEAR SEVENTEEN[20]

It was all very convenient. Right at the end of a costly and otherwise fruitless digging season, just when a major archaeological discovery was needed to legitimize the expenses he had run up, Vyse had stumbled upon the find of the decade – the first incontrovertible proof that Khufu had indeed been the builder of the hitherto anonymous Great Pyramid.

One would have thought that a discovery of this nature would have settled conclusively any lingering doubts over the ownership and purpose of that enigmatic monument. But the doubts remained, largely because, from the beginning, 'a certain smell' hung over Vyse's evidence:

1 It was odd that the marks were the only signs of the name Khufu ever found anywhere inside the Great Pyramid.[21]

2 It was odd that they had been found in such an obscure, out-of-the-way corner of that immense building.

3 It was odd that they had been found *at all* in a monument otherwise devoid of inscriptions of any kind.

4 And it was extremely odd that they had been found only in the top four of the five relieving chambers. Inevitably, suspicious minds began to wonder whether 'quarry marks' might also have appeared in the lowest of these five chambers had that chamber, too, been discovered by Vyse (rather than by Nathaniel Davison seventy years earlier).[22]

5 Last but not least it was odd that several of the hieroglyphs in the 'quarry marks' had been painted upside down, and that some were unrecognizable while others had been misspelt or used ungrammatically.[23]

Was Vyse a forger?

I know of one plausible case made to suggest he was exactly that,[24] and although final proof will probably always be lacking, it seemed to me incautious of academic Egyptology to have accepted the authenticity of the quarry marks without question. Besides, there was alternative

hieroglyphic evidence, arguably of purer provenance, which appeared to indicate that Khufu could not have built the Great Pyramid. Strangely, the same Egyptologists who readily ascribed immense importance to Vyse's quarry marks were quick to downplay the significance of these other, contradictory, hieroglyphs, which appeared on a rectangular limestone stela which now stood in the Cairo Museum.[25]

The Inventory Stela, as it was called, had been discovered at Giza in the nineteenth century by the French archaeologist Auguste Mariette. It was something of a bombshell because its text clearly indicated that both the Great Sphinx and the Great Pyramid (as well as several other structures on the plateau) were *already in existence* long before Khufu came to the throne. The inscription also referred to Isis as the 'Mistress of the Pyramid', implying that the monument had been dedicated to the goddess of magic and not to Khufu at

all. Finally, there was a strong suggestion that Khufu's pyramid might have been one of the three subsidiary structures alongside the Great Pyramid's eastern flank.[26]

All this looked like damaging evidence against the orthodox chronology of Ancient Egypt. It also challenged the consensus view that the Giza pyramids had been built as tombs and only as only. However, rather than investigating the anachronistic statements in the Inventory Stela, Egyptologists chose to devalue them. In the words of the influential American scholar James Henry Breasted, 'These references would be of the highest importance if the stela were contemporaneous with Khufu; but the orthographic evidences of its late date are entirely conclusive …'[27]

Breasted meant that the nature of the hieroglyphic writing system used in he inscription was not consistent with that used in the Fourth Dynasty but belonged to a more recent

epoch. All Egyptologists concurred with this analysis and the final judgement, still accepted today, was that the stela had been carved in the Twenty-First Dynasty, about 1500 years after Khufu's reign, and was therefore to be regarded as a work of historical fiction.[28]

Thus, citing orthographic evidence, an entire academic discipline found reason to ignore the boat-rocking implications of the Inventory Stela and at no time gave proper consideration to the possibility that it could have been based upon a genuine Fourth Dynasty inscription (just as the New English Bible, for example, is based on a much older original). Exactly the same scholars, however, had accepted the authenticity of a set of dubious 'quarry marks' without demur, turning a blind eye to their othographic and other peculiarities.

Why the double standard? Could it have been because the

information contained in the ‘quarry marks’ conformed strictly to orthodox opinion that the Great Pyramid had been built as a tomb for Khufu? whereas the information in the Inventory Stela contradicted that opinion?

Overview

By seven in the morning Santha and I had walked far out into the desert to the south-west of the Giza pyramids and had made ourselves comfortable in the lee of a huge dune that offered an unobstructed panorama over the entire site.

The date, 16 March, was just a few days away from the Spring Equinox, one of the two occasions in the year when the sun rose precisely due east of wherever you stood in the world. Ticking out the days like the pointer of a giant metronome, it had bisected the horizon this morning at a

point a hair's breadth south of due east and had already climbed high enough to shrug off the Nile mists which clung like a shroud to much of the city of Cairo.

Khufu, Khafre, Menkaure … Cheops, Chephren, Mycerinus. Whether you called them by their Egyptian or their Greek names, there was no doubt that the three famous pharaohs of the Fourth Dynasty had been commemorated by the most splendid, the most honourable, the most beautiful and the most enormous monuments ever seen anywhere in the world. Moreover, it was clear that these pharaohs must indeed have been closely associated with the monuments, not only because of the folklore passed on by Herodotus (which surely had some basis in fact) but because inscriptions and references to Khufu, Khafre and Menkaure had been found in moderate quantities, *outside* the three major pyramids, at several different parts of the Giza necropolis. Such finds had

been made consistently in and around the six subsidiary pyramids, three of which lay to the east of the Great Pyramid and the other three to the south of the Menkaure Pyramid.

Since much of this external evidence was ambiguous and uncertain, I found it difficult to understand why the Egyptologists were happy to go on citing it as confirmation of the ‘tombs and tombs only’ theory.

The problem was that this same evidence was capable of supporting – as equally valid – a number of different and mutually contradictory interpretations. To give just one example, the ‘close association’ observed between the three great pyramids and the three Fourth Dynasty pharaohs could indeed have come about because these pharaohs had built the pyramids as their tombs. But it could also have come about if the gigantic monuments of the Giza plateau had been standing long before the dawn of the historical civilization

known as Dynastic Egypt. In that case, it was only necessary to assume that in due course Khufu, Khafre and Menkaure had come along and built a number of the subsidiary structures around the three older pyramids – something that they would have had every reason to do because in this way they could have appropriated the high prestige of the original anonymous monuments (and would, almost certainly, be viewed by posterity as their builders).

There were other possibilities too. The point was, however, that the evidence for exactly who had built which great pyramid, when and for what purpose was far too thin on the ground to justify the dogmatism of the orthodox 'tombs and tombs only' theory. In all honesty, it was *not clear* who built the pyramids. It was *not* clear in what epoch they had been built. And it was *not at all clear* what their function had been.

For all these reasons they were surrounded by a wonderful,

impenetrable air of mystery and as I gazed down at them out of the desert they seemed to march towards me across the dunes …

Chapter 36

Anomalies

Viewed from our vantage point in the desert south west of the Giza necropolis, the site plan of the three great pyramids seemed majestic but bizarre.

Menkaure's pyramid was closest to us, with Khafre's and Khufu's monuments behind it to the north-east. These two were situated along a near perfect diagonal – a straight line

connecting the south-western and north-eastern corners of the pyramid of Khafre would, if extended to the north-east, also pass through the south-western and north-eastern corners of the Great Pyramid. This, presumably, was not an accident. From where we sat, however, it was easy to see that if the same imaginary straight line was extended to the south-west it would completely miss the Third Pyramid, the entire body of which was offset to the east of the principal diagonal.

Egyptologists refused to recognize any anomaly in this. Why should they? As far as they were concerned there was *no* site plan at Giza. The pyramids were tombs and tombs only, built for three different pharaohs over a period of about seventy-five years.[1] It made sense to assume that each ruler would have sought to express his own personality and idiosyncrasies through his monument, and this was probably

why Menkaure had ‘stepped out of line’.

The Egyptologists were wrong. Though I was unaware of it that March morning in 1993, a breakthrough had been made proving beyond doubt that the necropolis did have an overall site plan, which dictated the exact positioning of the three pyramids not only in relation to one another but in relation to the River Nile a few kilometres east of the Giza plateau. With eerie fidelity, this immense and ambitious layout modelled a *celestial* phenomenon[2] – which was perhaps why Egyptologists (who pride themselves on looking exclusively at the ground beneath their feet) had failed to spot it. On a truly giant scale, as we see in later chapters, it also reflected the same obsessive concern with orientations and dimensions demonstrated in each of the monuments.

A singular oppression …

Giza, Egypt, 16 March 1993, 8 A.M.

At a little over 200 feet tall (and with a side length at the base of 356 feet) the Third Pyramid was less than half the height and well under half the mass of the Great Pyramid. Nevertheless, it possessed a stunning and imposing majesty of its own. As we stepped out of the desert sunlight and into its huge geometrical shadow, I remembered what the Iraqi writer Abdul Latif had said about it when he had visited it in the twelfth century: 'It appears small compared with the other two; but viewed at a short distance and to the exclusion of these, it excites in the imagination a singular oppression and cannot be contemplated without painfully affecting the sight …'[3]

The lower sixteen courses of the monument were still cased, as they had been since the beginning, with facing blocks quarried out of red granite ('so extremely hard', in

Abdul Latif's words, 'that iron takes a long time, with difficulty, to make an impression on it').[4] Some of the blocks were very large; they were also closely and cunningly fitted together in a complex interlocking jigsaw-puzzle pattern strongly reminiscent of the cyclopean masonry at Cuzco, Machu Picchu and other locations in far-off Peru.

As was normal, the entrance to the Third Pyramid was situated in its northern face well above the ground. From here, at an angle of 26° 2′, a descending corridor lanced arrow-straight down into the darkness.[5] Oriented exactly north to south, this corridor was rectangular in section and so cramped that we had to bend almost double to fit into it. Where it passed through the masonry of the monument its ceiling and walls consisted of well-fitted granite blocks. More surprisingly, these continued for some distance below ground level.

At about seventy feet from the entrance, the corridor levelled off and opened out into a passageway where we could stand up. This led into a small ante-chamber with carved panelling and grooves cut into its walls, apparently to take portcullis slabs. Reaching the end of the chamber, we had to crouch again to enter another corridor. Bent double, we proceeded south for about forty feet before reaching the first of the three main burial chambers – if burial chambers they were.

These sombre, soundless rooms were all hewn out of solid bedrock. The one that we stood in was rectangular in plan and oriented east to west. Measuring about 30 feet long × 15 wide × 15 high, it had a flat ceiling and a complex internal structure with a large, irregular hole in its western wall leading into a dark, cavelike space beyond. There was also an opening near the centre of the floor which gave access to a

ramp, sloping westwards, leading down to even deeper levels. We descended the ramp. It terminated in a short, horizontal passage to the right of which, entered through a narrow doorway, lay a small empty chamber. Six cells, like the sleeping quarters of medieval monks, had been hewn out of its walls: four on the eastern side and two to the north. These were presumed by Egyptologists to have functioned as 'magazines … for storing objects which the dead king wished to have close to his body.'[6]

Coming out of this chamber, we turned right again, back into the horizontal passage. At its end lay another empty chamber,[7] the design of which is unique among the pyramids of Egypt. Some twelve feet long by eight wide, and oriented north to south, its walls and extensively broken and damaged floor were fashioned out of a peculiarly dense, chocolate-coloured granite which seemed to absorb light and sound

waves. Its ceiling consisted of eighteen huge slabs of the same material, nine on each side, laid in facing gables. Because they had had been hollowed from below to form a markedly concave surface, the effect of these great monoliths was of a perfect barrel vault, much as one might expect to find in the crypt of a Romanesque cathedral.

Retracing our steps, we left the lower chambers and walked back up the ramp to the large, flat-roofed, rock-hewn room above. Passing through the ragged aperture in its western wall, we found ourselves looking directly at the upper sides of the eighteen slabs which formed the ceiling of the chamber below. From this perspective their true form as a pointed gable was immediately apparent. What was less clear was how they had been brought in here in the first place, let alone laid so perfectly in position. Each one must have weighed many tons, heavy enough to have made them

extremely difficult to handle under any circumstances. And these were no ordinary circumstances. As though they had set out deliberately to make things more complicated for themselves (or perhaps because they found such tasks simple?) the pyramid builders had disdained to provide an adequate working area between the slabs and the bedrock above them. By crawling into the cavity, I was able to establish that the clearance varied from approximately two feet at the southern end to just a few inches at the northern end. In such a restricted space there was no possibility that the monoliths could have been lowered into position. Logically, therefore, they must have been raised from the chamber floor, but how had that been done? The chamber was so small that only a few men could have worked inside it at any one time – too few to have had the muscle-power to lift the slabs by brute force. Pulleys were not supposed to

have existed in the Pyramid Age[8] (even if they had, there would have been insufficient room to set up block-and-tackle). Had some unknown system of levers been used? Or might there be more substance than scholars realized to the Ancient Egypstian legends that spoke of huge stones being effortlessly levitated by priests or magicians through the utterance of 'words of power'?[9]

Not for the first time when confronted by the mysteries of the pyramids I knew that I was looking at an *impossible* engineering feat which had nevertheless been carried out to astonishingly high and precise standards. Moreover, if Egyptologists were to be believed, the construction work had supposedly been undertaken at the dawn of human civilization by a people who had not accumulated any experience of massive construction projects.

This was, of course, a startling cultural paradox, and one

for to which no adequate explanation had ever been offered by an orthodox academic.

The moving finger writes and having writ it moves on

Leaving the underground chambers, which seemed to vibrate at the core of the Third Pyramid like the convoluted, multi-valved heart of some slumbering Leviathan, we made our way along the narrow entrance corridor and into the open air.

Our objective now was the Second Pyramid. We walked along its western flank (just under 708 feet in length), turned right and eventually came to the point on its north side, about 40 feet east of the main north-south axis, where the principal entrances were located. One of these was carved directly into the bedrock at ground level about 30 feet in

front of the monument; the other was cut into the northern face at a height of just under 50 feet. From the latter a corridor sloped downwards at an angle of 25° 55′.[10] From the former, by which we now entered the pyramid, another descending corridor led deeply underground then levelled off for a short distance, giving access to a subterranean chamber, then ascended steeply and finally levelled off again into a long horizontal passageway, heading due south (into which also fed the upper corridor that sloped down from the entrance in the north face).

High enough to stand up in, and lined at first with granite and then with smoothly polished limestone, the horizontal passageway was almost at ground level, that is, it lay directly beneath the pyramid's lowest course of masonry. It was also extremely long, running dead straight for a further 200 feet until it debouched in the single 'burial chamber' at the heart

of the monument.

As we have already noted, no mummy had ever been found in this latter chamber, nor any inscriptions, with the result that the so-called Pyramid of Khafre was wholly anonymous. Latter-day adventurers had, however, carved *their* names on to its walls – notably the former circus strongman Giovanni Battista Belzoni (1778–1823) who had forced his way into the monument in 1818. His huge and flamboyant graffito, daubed in black paint high on the south side of the chamber, was a reminder of basic human nature: the desire that all of us feel to be recognized and remembered. It was clear that Khafre himself had been far from immune from this ambition, since repeated references to him (as well as a number of flattering statues) appeared in the surrounding funerary complex.[11] If he had indeed built the pyramid as his tomb, it seemed inconceivable that such a man would have

failed to stamp his name and identity *somewhere* within its interior. I found myself wondering yet again why Egyptologists were so unwilling to consider the possibility that the funerary complex might have been Khafre's work and the pyramid someone else's?

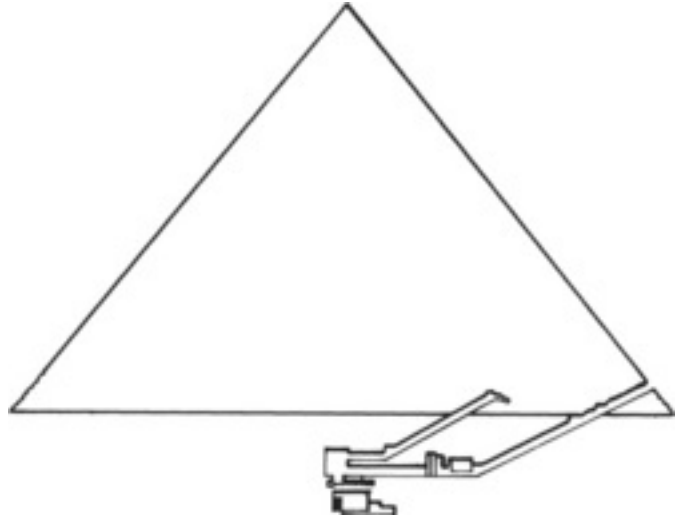

Chamber and passageway system of the Pyramid of Menkaure.

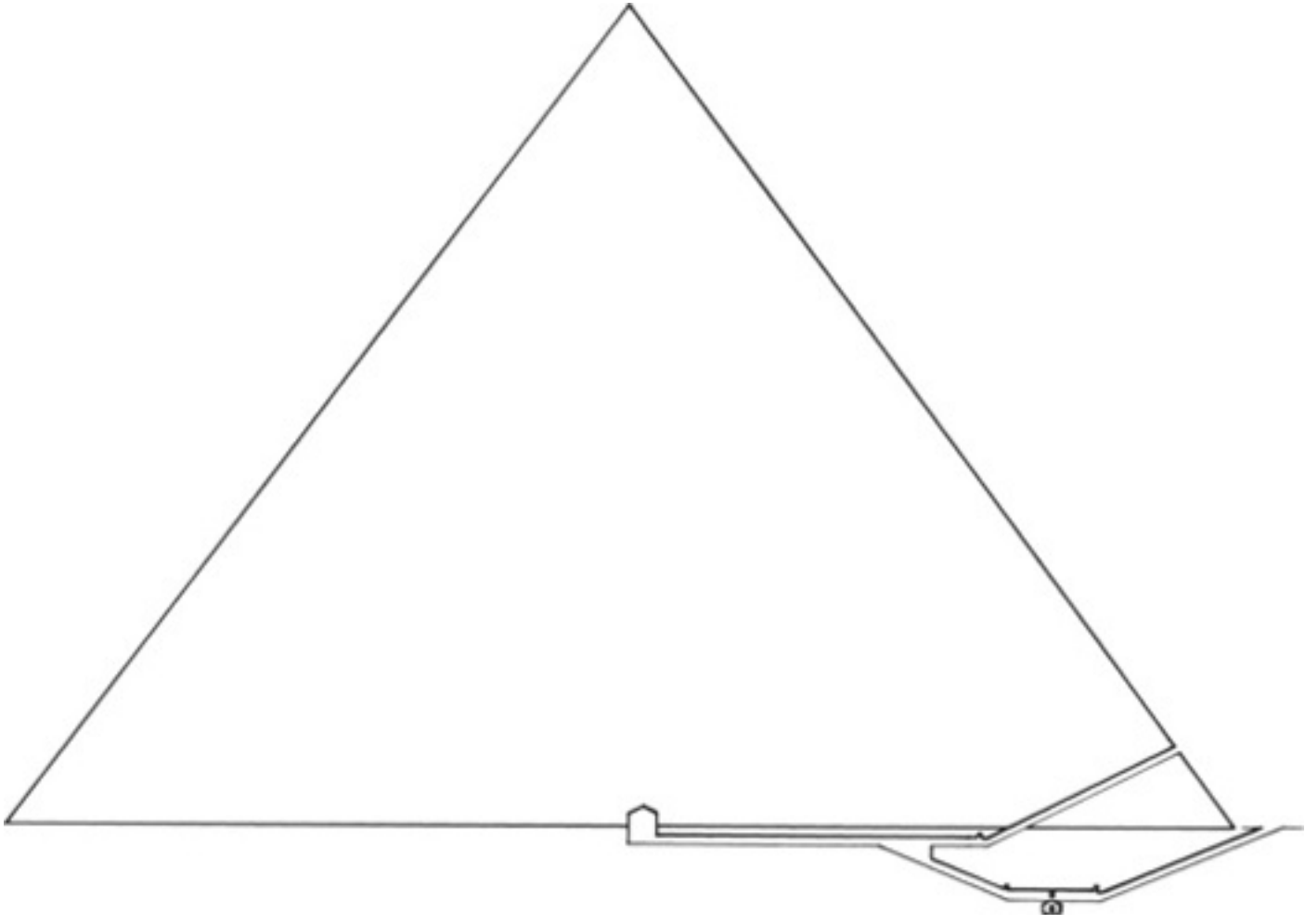

Chamber and passageway system of the Pyramid of Khafre.

But *who* else's?

In many ways this – rather than the absence of identifying marks – was the central problem. Prior to the reigns of Khufu, Khafre and Menkaure there was not a single pharaoh whose name could be put forward as a candidate. Khufu's father Sneferu, the first king of the Fourth Dynasty, was believed to have built the so-called 'Bent' and 'Red' Pyramids at Dahshur, about thirty miles south of Giza – an attribution that was itself mysterious (if pyramids were indeed tombs) since it seemed strange that one pharaoh required two pyramids to be buried in. Sneferu was also credited by some Egyptologists with the construction of the 'Collapsed' Pyramid at Meidum (although a number of authorities insisted that this was the tomb of Huni, the last king of the Third Dynasty).[12] The only other builders in the Archaic

Period had been Zoser, the second pharaoh of the Third Dynasty, to whom was attributed the construction of the 'Step Pyramid' at Saqqara,[13] and Zoser's successor, Sekhemkhet, whose pyramid also stood at Saqqara. Therefore, despite the lack of inscriptions, it was now assumed as obvious that the three pyramids at Giza *must* have been built by Khufu, Khafre and Menkaure and *must* have been intended to serve as their tombs.

We need not reiterate here the many shortcomings of the 'tombs and tombs only' theory. However, these shortcomings were not limited to the Giza pyramids but applied to *all the other* Third and Fourth Dynasty Pyramids listed above. Not a single one of these monuments had ever been found to contain the body of a pharaoh, or any signs whatsoever of a royal burial.[14] Some of them were not even equipped with sarcophagi, for example the Collapsed Pyramid at Meidum.

The Pyramid of Sekhemkhet at Saqqara (first entered in 1954 by the Egyptian Antiquities Organization) did contain a sarcophagus – one, which had certainly remained sealed and undisturbed since its installation in the 'tomb'.[15] Grave robbers had never succeeded in finding their way to it, but when it was opened, it was empty.[16]

So what was going on? How come more than twenty-five million tons of stone had been piled up to form pyramids at Giza, Dahshur, Meidum and Saqqara if the only point of the exercise had been to install empty sarcophagi in empty chambers? Even admitting the hypothetical excesses of one or two megalomaniacs, it seemed unlikely that a whole succession of pharaohs would have sanctioned such wastefulness.

Pandora's Box

Buried beneath the five million tons of the Second Pyramid at Giza, Santha and I now stepped into the monument's spacious inner chamber, which might have been a tomb but might equally have served some other as yet unidentified purpose. Measuring 46.5 feet in length from east to west, and 16.5 in breadth from north to south, this naked and sterile apartment was topped off with an immensely strong gabled ceiling reaching a height of 22.5 feet at its apex. The gable slabs, each a massive 20-ton limestone monolith, had been laid in position at an angle of 53° 7′ 28″ (which exactly matched the angle of slope of the pyramid's sides).[17] Here there were no relieving chambers (as there were above the King's Chamber in the Great Pyramid). Instead, for more than 4000 years – perhaps far more – the gabled ceiling had taken the immense weight of the second largest stone building in the world.

I looked slowly around the room, which reflected a yellowish-white radiance back at me. Quarried directly out of the living bedrock, its walls were not at all smoothly finished, as one might have expected, but were noticeably rough and irregular. The floor too was peculiar: of split-level design with a step about a foot deep separating its eastern and western halves. The supposed sarcophagus of Khafre lay near the western wall, embedded in the floor. Measuring just over six feet in length, quite shallow, and somewhat narrow to have contained the wrapped and embalmed mummy of a noble pharaoh, its smooth red granite sides reached to about knee height.

As I gazed into its dark interior, it seemed to gape like the doorway to another dimension.

Chapter 37

Made by Some God

I had climbed the Great Pyramid the night before, but as I approached it in the full glare of midday, I experienced no sense of triumph. On the contrary, standing at its base on the north side, I felt fly-sized and puny – an impermanent creature of flesh and blood confronted with the awe-inspiring splendour of eternity. I had the impression that it might have

been here for ever, ‘made by some god and set down bodily in the surrounding sand’, as the Greek historian Diodorus Siculus commented in the first century BC.[1] But which god had made it, if not the God-King Khufu whose name generations of Egyptians had associated with it?

For the second time in twelve hours, I began to climb the monument. Up close in this light, indifferent to human chronologies and subject only to the slow erosive forces of geological time, it reared above me like a frowning, terrifying crag. Fortunately, I only had six courses to clamber over, assisted in places by modern steps, before reaching Ma’mun’s Hole, which now served as the pyramid’s principal entrance.

The *original* entrance, still well-hidden in the ninth century when Ma’mun began tunnelling, was some ten courses higher, 55 feet above ground level and 24 feet east of the main north-south axis. Protected by giant limestone gables, it

contained the mouth of the descending corridor, which led downwards at an angle of 26° 31′ 23″. Strangely, although itself measuring only some 3 feet 5 inches × 3 feet 11 inches, this corridor was sandwiched between roofing blocks 8 feet 6 inches thick and 12 feet wide and a flooring slab (known as the 'Basement Sheet') 2 feet 6 inches thick and 33 feet wide.[2]

Hidden structural features like these abounded in the Great Pyramid, manifesting both incredible complexity and apparent pointlessness. Nobody knew how blocks of this size had been successfully installed, neither did anybody know how they had been set so carefully in alignment with other blocks, or at such precise angles (because, as the reader may have realized, the 26° slope of the descending corridor was part of a deliberate and regular pattern). Nobody knew either *why* these things had been done.

The Beacon

Entering the pyramid through Ma'mun's Hole did not feel right. It was like entering a cave or grotto cut into the side of a mountain; it lacked the sense of deliberate and geometrical purposefulness that would have been conveyed by the original descending corridor. Worse still, the dark and inauspicious horizontal tunnel leading inwards looked like an ugly, deformed thing and still bore the marks of violence where the Arab workmen had alternately heated and chilled the stones with fierce fires and cold vinegar before attacking them with hammers and chisels, battering rams and borers.

On the one hand, such vandalism seemed gross and irresponsible. On the other, a startling possibility had to be considered: was there not a sense in which the pyramid seemed to have been designed to *invite* human beings of

intelligence and curiosity to penetrate its mysteries? After all, if you were a pharaoh who wanted to ensure that his deceased body remained inviolate for eternity, would it make better sense (a) to advertise to your own and all subsequent generations the whereabouts of your burial place, or (b) to choose some secret and unknown location, of which you would never speak and where you might never be found?

The answer was obvious: you would go for secrecy and seclusion, as the vast majority of the pharaohs of Ancient Egypt had done.[3]

Why, then, if it was indeed a royal tomb, was the Great Pyramid so conspicuous? Why did it occupy a ground area of more than thirteen acres? Why was it almost 500 feet high? Why, in other words, if its purpose was to conceal and protect the body of Khufu, had it been designed so that it could not fail to attract the attention – in all epochs and

under all imaginable circumstances – of treasure-crazed adventurers and of prying and imaginative intellectuals?

It was simply not credible that the brilliant architects, stonemasons, surveyors and engineers who had created the Great Pyramid could have been ignorant of basic human psychology. The vast ambition and the transcendent beauty, power and artistry of their handiwork spoke of refined skills, deep insight, and a complete understanding of the symbols and primordial patterns by which the minds of men could be manipulated. Logic therefore suggested that the pyramid builders must also have understood exactly what kind of beacon they were piling up (with such incredible precision) on this windswept plateau, on the west bank of the Nile, in those high and far away times.

They must, in short, have wanted this remarkable structure to exert a perennial fascination: to be violated by intruders,

to be measured with increasing degrees of exactitude, and to haunt the collective imagination of mankind like a persistent ghost summoning intimations of a profound and long-forgotten secret.

Mind games of the pyramid builders

The point where Ma'mun's Hole intersected with the 26° descending corridor was closed off by a modern steel door. Beyond it, to the north, that corridor sloped up until it reached the gables of the monument's original entrance. To the south, as we have seen, the corridor sloped down for almost another 350 feet into the bedrock, before opening out into a huge subterranean chamber 600 feet beneath the apex of the pyramid. The accuracy of this corridor was astonishing. From top to bottom the average deviation from

straight amounted to less than ¼-inch in the sides and 3/10-inch on the roof.[4]

Passing the steel door, I continued through Ma'mun's tunnel, breathing in its ancient air and adjusting my eyes to the gloom of the low-wattage bulbs that lit it. Then ducking my head I began to climb through the steep and narrow section hacked upwards by the Arab diggers in their feverish thrust to by-pass the series of granite plugs blocking the lower part of the ascending corridor. At the top of the tunnel two of the original plugs could be seen, still *in situ* but partially exposed by quarrying. Egyptologists assumed that they had been slid into their present position from above[5] – all the way down the 129-foot length of the ascending corridor from the foot of the Grand Gallery.[6] Builders and engineers, however, whose trend of thought was perhaps more practical, had pointed out that it was physically

impossible for the plugs to have been installed in this way. Because of the leaf-thin clearance that separated them from the walls, floor and ceiling of the corridor, friction would have foiled any 'sliding' operation in a matter of inches, let alone 100 feet.[7]

The puzzling implication was therefore that the ascending corridor must have been plugged while the pyramid was still being built. But why would anyone have wished to block the main entrance to the monument at such an early stage in its construction (even while continuing to enlarge and elaborate its inner chambers)? Moreover, if the objective had been to deny intruders admission, wouldn't it have been much easier and more efficient to have plugged the *descending* corridor from its entrance in the north face to a point below its junction with the ascending corridor? That would have been the most logical way to seal the pyramid and would have

made plugs unnecessary in the ascending corridor.

There was only one certainty: since the beginning of history, the single known effect of the granite plugs had not been to prevent an intruder from gaining access; instead, like Bluebeard's locked door, the barrier had magnetized Ma'mun's attention and inflamed his curiosity so that he had felt compelled to tunnel his way past them, convinced that something of inestimable value must lie beyond them.

Might this not have been what the pyramid builders had *intended* the first intruder who reached this far to feel? It would be premature to rule out such a strange and unsettling possibility. At any rate, thanks to Ma'mun (and to the predictable constants of human nature) I was now able to insert myself into the unblocked upper section of the original ascending corridor. A smoothly cut aperture measuring 3 feet 5 inches wide × 3 feet 11 inches high (exactly the same

dimensions as the descending corridor), it sloped up into the darkness at an angle of 26° 2′ 30″[8] (as against 26° 31′ 23″ in the descending corridor).[9]

What was this meticulous interest in the angle of 26°, and was it a coincidence that it amounted to half of the angle of inclination of the pyramid's sides – 52°.[10]

The reader may recall the significance of this angle. It was a key ingredient of the sophisticated and advanced formula by which the design of the Great Pyramid had been made to correspond precisely to the dynamics of spherical geometry. Thus the original height of the monument (481.3949 feet), and the perimeter of its base (3023.16 feet), stood in the same ratio to each other as did the radius of a sphere to its circumference. This ratio was 2*pi* (2 × 3.14) and to express it the builders had been obliged to specify the tricky and idiosyncratic angle of 52° for the pyramid's sides (since any

greater or lesser slope would have meant a different height-to-perimeter ratio).

In Chapter Twenty-three we saw that the so-called Pyramid of the Sun at Teotihuacan in Mexico also expressed a knowledge and deliberate use of the transcendental number *pi*; in its case the height (233.5 feet) stood in a relationship of 4*pi* to the perimeter of its base (2932.76 feet).[11]

The crux, therefore, was that the most remarkable monument of Ancient Egypt and the most remarkable monument of Ancient Mexico both incorporated *pi* relationships long before and far away from the official 'discovery' of this transcendental number by the Greeks.[12] Moreover, the evidence invited the conclusion that something was being signalled by the use of *pi* – almost certainly the *same* thing in both cases.

Not for the first time, and not for the last, I was

overwhelmed by a sense of contact with an ancient intelligence, not necessarily Egyptian or Mexican, which had found a way to reach out across the ages and draw people towards it like a beacon. Some might look for treasure; others, captivated by the deceptively simple manner in which the builders had used *pi* to demonstrate their mastery of the secrets of transcendental numbers, might be inspired to search for further mathematical epiphanies.

Bent almost double, my back brushing against the polished limestone ceiling, it was with such thoughts in my mind that I began to scramble up the 26° slope of the ascending corridor, which seemed to penetrate the vast bulk of the six million ton building like a trigonometrical device. After I had banged my head on its ceiling a couple of times, however, I began to wonder why the ingenious people who'd designed it hadn't made it two or three feet higher. If they could erect a

monument like this in the first place (which they obviously could) and equip it with corridors, surely it would not have been beyond their capabilities to make those corridors roomy enough to stand up in? Once again I was tempted to conclude that it was the result of a deliberate decision by the pyramid builders: they had made the ascending corridor this way because they had wanted it this way (rather than because such a design had been forced upon them.)

Was there motive in the apparent madness of these archaic mind games?

Unknown dark distance

At the top of the ascending corridor I emerged into yet another inexplicable feature of the pyramid, 'the most celebrated architectural work to have survived from the Old

Kingdom'[13] – the Grand Gallery. Soaring upwards at the continuing majestic angle of 26°, and almost entirely vanishing into the airy gloom above, its spacious corbelled vault made a stunning impression.

It was not my intention to climb the Grand Gallery yet. Branching off due south at its base was a long horizontal passageway, 3 feet 9 inches high and 127 feet in length, that led to the Queen's Chamber.[14] I wanted to revisit this room, which I had admired for its stark beauty since becoming acquainted with the Great Pyramid several years previously. Today, however, to my considerable irritation, the passageway was barred within a few feet of its entrance.

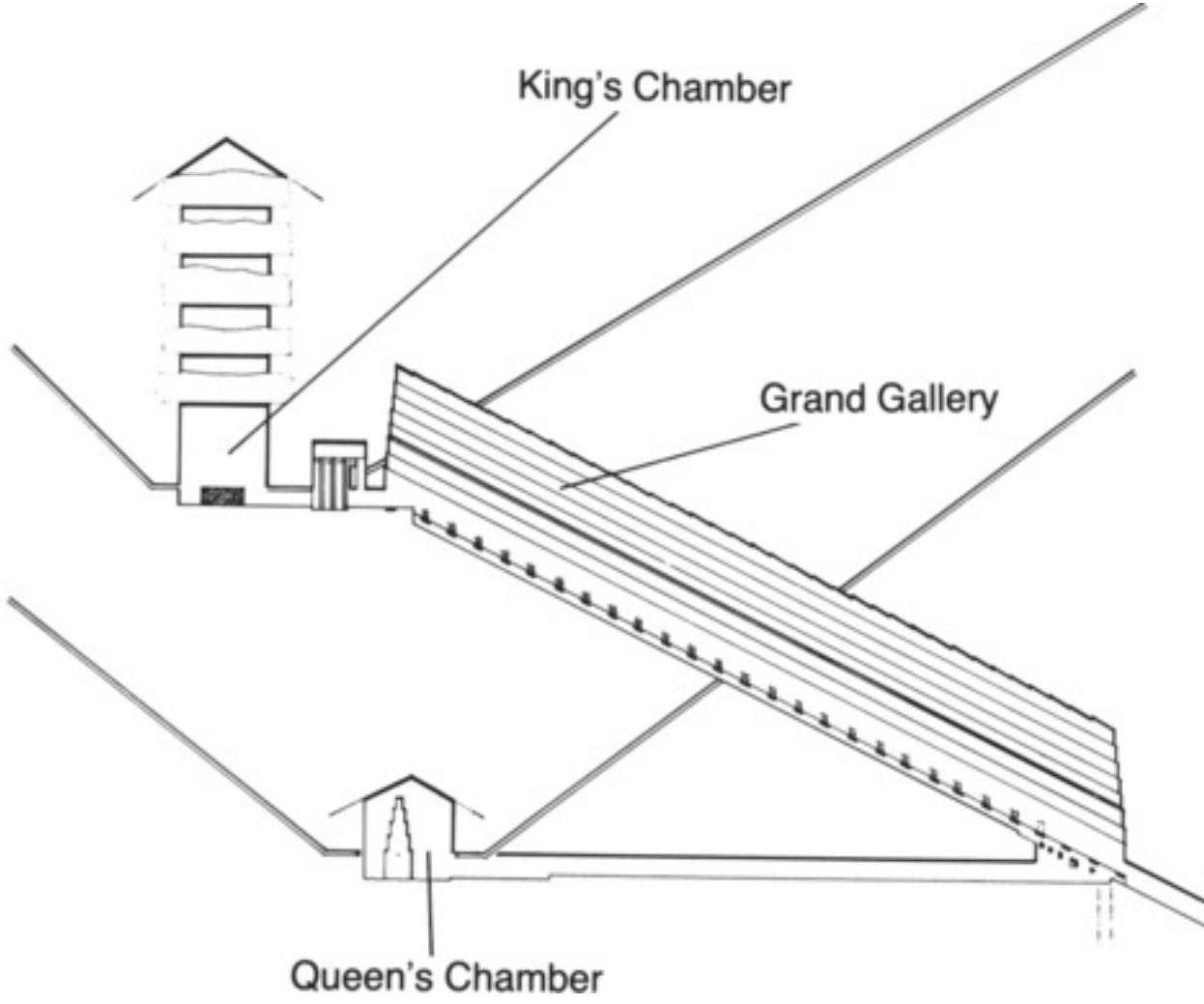
King's Chamber
Grand Gallery
Queen's Chamber

The Grand Gallery and the King's and Queen's Chambers with their northern and southern shafts.

The reason, though I was unaware of it at the time, was that a German robotics engineer named Rudolf Gantenbrink was at work within, slowly and painstakingly manoeuvring a $250,000 robot up the narrow southern shaft of the Queen's Chamber. Hired by the Egyptian Antiquities Organization to improve the ventilation of the Great Pyramid, he had already used his high-tech equipment to clear debris from the King's Chamber's narrow 'southern shaft' (believed by Egyptologists to have been designed as a ventilation shaft in the first place) and had installed an electric fan at its mouth. At the beginning of March 1993 he transferred his attentions to the Queen's Chamber, deploying *Upuaut*, a miniaturized remote-controlled robot camera to explore *its* southern shaft. On 22 March, some 200 feet along the steeply sloping shaft (which rose at an angle of 39.5° and was only about 8 inches high ×

9 inches wide),[15] the floor and walls suddenly became very smooth as *Upuaut* crawled into a section made of fine Tura limestone, the type normally used for lining sacred areas such as chapels or tombs. That, in itself, was intriguing enough, but at the end of this corridor, apparently leading to a sealed chamber deep within the pyramid's masonry, was a solid limestone door complete with metal fittings …

It had long been known that neither this southern shaft nor its counterpart in the Chamber's northern wall had any exit on the outside of the Great Pyramid. In addition, and equally inexplicably, neither had originally been fully cut through. For some reason the builders had left the last five inches of stone intact in the last block over the mouth of each of the shafts, thus rendering them invisible and inaccessible to any casual intruder.

Why? To make sure they would never be found? Or to

make sure that they *would* be found, some day, under the right circumstances?

After all, there had from the beginning been two conspicuous shafts in the King's Chamber, penetrating the north and south walls. It should not have been beyond the mental powers of the pyramid builders to predict that sooner or later some inquiring person would be tempted to look for shafts in the Queen's Chamber as well. In the event nobody did look for more than a thousand years after Caliph Ma'mun had opened the monument to the world in AD 820. Then in 1872 an English engineer named Waynman Dixon, a Freemason who 'had been led to suspect the existence of the shafts by their presence in the King's Chamber above',[16] went tapping around the Queen's Chamber's walls and located them. He opened the southern shaft first, setting his 'carpenter and man-of-all-work, Bill Grundy, to jump a hole

with a hammer and steel chisel at that place. So to work the faithful fellow went, and with a will which soon began to make a way into the soft stone [limestone] at this point, when lo! after a comparatively very few strokes, flop went the chisel right through into something or other.'[17]

The 'something or other' Bill Grundy's chisel had reached turned out to be 'a rectangular, horizontal, tubular channel, about 9 inches by 8 inches in transverse breadth and height, going back 7 feet into the wall, and then rising at an angle into an unknown, dark distance …'[18]

It was up that angle, and into that 'unknown dark distance', 121 years later, that Rudolf Gantenbrink sent his robot – the technology of our species having finally caught up with our powerful instincts to pry. Those instincts were clearly no weaker in 1872 than in 1993; among the many interesting things the remote-controlled camera succeeded in

filming in the Queen's Chamber shafts was the far end of a long, sectioned metal rod of nineteenth century design which Waynman Dixon and the faithful Bill Grundy had secretly stuffed up the intriguing channel.[19] Predictably, they had assumed that if the pyramid builders had gone to the trouble of constructing and then concealing the shafts, then they must have hidden something worth looking for inside them.

The notion that there might have been an *intention* from the outset to stimulate such investigations would seem quite implausible if the final upshot of the discovery and exploration of the shafts had been a dead-end. Instead, as we have seen, a door was found – a sliding, portcullis door with curious metal fittings and an enticing gap at its base beneath which the laser-spot projected by Gantenbrink's robot was seen to disappear entirely …

Once again there seemed to be a clear invitation to proceed

further, the latest in a long line of invitations which had encouraged Caliph Ma'mun and his diggers to break into the central passageways and chambers of the monument, which had waited for Waynman Dixon to test the hypothesis that the walls of the Queen's Chamber might contain concealed shafts, and which had then waited again until arousing the curiosity of Rudolf Gantenbrink, whose high-tech robot revealed the existence of the hidden door and brought within reach whatever secrets – or disappointments, or further invitations – might lie behind it.

The Queen's Chamber

We shall hear more of Rudolf Gantenbrink and *Upuaut* in later chapters. On 16 March 1993, however, knowing nothing of this, I was frustrated to find the Queen's Chamber

closed, and glared resentfully through the metal grille that barred its entrance corridor.

I remembered that the height of that corridor, 3 feet 9 inches, was not constant. Approximately 110 feet due south from where I stood, and only about 15 feet from the entrance to the Chamber, a sudden downward step in the floor increased the standing-room to 5 feet 8 inches.[20] Nobody had come up with a convincing explanation for this peculiar feature.

The Queen's Chamber itself – apparently empty since the day it was built – measured 17 feet 2 inches from north to south and 18 feet 10 inches from east to west. It was equipped with an elegant gabled ceiling, 20 feet 5 inches in height, which lay exactly along the east-west axis of the pyramid.[21] Its floor, however, was the opposite of elegant and looked unfinished. There was a constant salty emanation

through its pale, roughhewn limestone walls, giving rise to much fruitless speculation.

In the north and south walls, still bearing the incised legend OPENED 1872, were the rectangular apertures discovered by Waynman Dixon which led into the dark distance of the mysterious shafts. The western wall was quite bare. Offset a little over two feet to the south of its centre line, the eastern wall was dominated by a niche in the form of a corbel vault 15 feet 4 inches high and 5 feet 2 inches wide at the base. Originally 3 feet 5 inches deep, a further cavity had been cut in the back of this niche in medieval times by Arab treasure-seekers looking for hidden chambers.[22] They had found nothing.

Egyptologists had also been unable to come to any persuasive conclusions about the original function of the niche, or, for that matter, of the Queen's Chamber as a

whole.

All was confusion. All was paradox. All was mystery.

Instrument

The Grand Gallery had its mysteries too. Indeed it was among the most mysterious of all the internal features of the Great Pyramid. Measuring 6 feet 9 inches wide at the floor, its walls rose vertically to a height of 7 feet 6 inches; above that level seven further courses of masonry (each one projecting inwards some 3 inches beyond the course immediately below it) carried the vault to its full height of 28 feet and its culminating width of 3 feet 5 inches.[23]

Remember that structurally the Gallery was required to support, *for ever*, the multi-million ton weight of the upper three-quarters of the largest and heaviest stone monument

ever built on planet earth. Was it not quite remarkable that a group of supposed 'technological primitives' had not only envisaged and designed such a feature but had completed it successfully, more than 4500 years before our time?

Even if they had made the Gallery only 20 feet long, and had sought to erect it on a level plane, the task would have been difficult enough – indeed extraordinarily difficult. But they had opted to erect this astonishing corbel vault at a slope of 26°, and to extend its length to a staggering 153 feet.[24] Moreover, they had made it with perfectly dressed limestone megaliths throughout – huge, smoothly polished blocks carved into sloping parallelograms and laid together so closely and with such rigorous precision that the joints were almost invisible to the naked eye.

The pyramid builders had also included some interesting symmetries in their work. For example, the culminating

width of the Gallery at its apex was 3 feet 5 inches while its width at the floor was 6 feet 9 inches. At the exact centre of the floor, running the entire length of the Gallery – and sandwiched between flat-topped masonry ramps each 1 foot 8 inches wide – there was a sunken channel 2 feet deep and 3 feet 5 inches wide. What could have been the purpose of this slot? And why had it been necessary for it to mirror so precisely the width and form of the ceiling, which also looked like a 'slot' sandwiched between the two upper courses of masonry?

I knew that I was not the first person to have stood at the foot of the Grand Gallery and to have been overtaken by the disorienting sense of being 'in the inside of some enormous instrument of some sort.'[25] Who was to say that such intuitions were completely wrong? Or, for that matter, that they were right? No record as to function remained, other

than in mystical and symbolic references in certain ancient Egyptian liturgical texts. These appeared to indicate that the pyramids had been seen as devices designed to turn dead men into immortal beings: to ‘throw open the doors of the firmament and make a road’, so that the deceased pharaoh might ‘ascend into the company of the gods’.[26]

I had no difficulty accepting that such a belief system might have been at work here, and obviously it could have provided a motive for the whole enterprise. Nevertheless, I was still puzzled why more than six million tons of *physical* apparatus, intricately interlaced with channels and tubes, corridors and chambers, had been deemed necessary to achieve a mystical, spiritual and symbolic objective.

Being inside the Grand Gallery did feel like being inside an enormous instrument. It had an undeniable aesthetic impact upon me (admittedly a heavy and domineering one), but it

was also completely devoid of decorative features and of anything (figures of deities, reliefs of liturgical texts, and so on) which might be suggestive of worship or religion. The primary impression it conveyed was one of strict functionalism and purposefulness – as though it had been built to do a job. At the same time I was aware of its focused solemnity of style and gravity of manner, which seemed to demand nothing less than serious and complete attention.

By now I had climbed steadily through about half the length of the Gallery. Ahead of me, and behind, shadows and light played tricks amid the looming stone walls. Pausing, I turned my head, looking upwards through the gloom towards the vaulted ceiling which supported the crushing weight of the Great Pyramid of Egypt.

It suddenly hit me how dauntingly and disturbingly *old* it was, and how completely my life at this moment depended

on the skills of the ancient builders. The hefty blocks that spanned the distant ceiling were examples of those skills – every one of them laid at a slightly steeper gradient than that of the Gallery. As the great archaeologist and surveyor Flinders Petrie had observed, this had been done

> in order that the lower edge of each stone should hitch like a pawl into a ratchet cut into the top of the walls; hence no stone can press on the one below it, so as to cause a cumulative pressure all down the roof; and each stone is separately upheld by the side walls which it lies across.[27]

And this was the work of a people whose civilization had only recently emerged from neolithic hunter-gathering?

I began to walk up the Gallery again, using the 2-foot-deep central fllooring slot. A modern wooden covering fitted with helpful slats and side railings made the ascent relatively easy. In antiquity, however, the floor had been smoothly polished

limestone, which, at a gradient of 26°, must have been almost impossible to climb.

How had it been done? Had it been done at all?

Looming ahead at the end of the Grand Gallery was the dark opening to the King's Chamber beckoning each and every inquiring pilgrim into the heart of the enigma.

Chapter 38

Interactive Three-Dimensional Game

Reaching the top of the Grand Gallery, I clambered over a chunky granite step about three feet high. I remembered that it lay, like the roof of the Queen's Chamber, exactly along the east-west axis of the Great Pyramid, And therefore marked the point of transition between the northern and southern halves of the monument.[1] Somewhat like an altar in

appearance, the step also provided a solid horizontal platform immediately in front of the low square tunnel that served as the entrance to the King's Chamber.

Pausing for a moment, I looked back down the Gallery, taking in once again its lack of decoration, its lack of religious iconography, and its absolute lack of any of the recognizable symbolism normally associated with the archaic belief system of the Ancient Egyptians. All that registered upon the eye, along the entire 153-foot length of this magnificent geometrical cavity, was its disinterested regularity and its stark machinelike simplicity.

Looking up, I could just make out the opening of a dark aperture, chiselled into the top of the eastern wall above my head. Nobody knew when or by whom this foreboding hole had been cut, or how deep it had originally penetrated. It led to the first of the five relieving chambers above the King's

Chamber and had been extended in 1837 when Howard Vyse had used it to break through to the remaining four. Looking down again, I could just make out the point at the bottom of the Gallery's western wall where the near-vertical well-shaft began its precipitous 160 foot descent through the core of the pyramid to join the descending corridor far below ground-level.

Why would such a complicated apparatus of pipes and passageways have been required? At first sight it didn't make sense. But then nothing about the Great Pyramid did make much sense, unless you were prepared to devote a great deal of attention to it. In unpredictable ways, when you did that, it would from time to time reward you.

If you were sufficiently numerate, for example, as we have seen, it would respond to your basic inquiries into its height and base perimeter by 'printing out' the value of *pi*. And if

you were prepared to investigate further, as we shall see, it would download other useful mathematical titbits, each a little more complex and abstruse that its predecessor.

There was a programmed feel about this whole process, as though it had been carefully prearranged. Not for the first time, I found myself willing to consider the possibility that the pyramid might have been designed as a gigantic challenge or learning machine – or, better still, as an interactive three-dimensional puzzle set down in the desert for humanity to solve.

Antechamber

Just over 3 feet 6 inches high, the entry passage to the King's Chamber required all humans of normal stature to stoop. About four feet farther on, however, I reached the

‘Antechamber’, where the roof level rose suddenly to 12 feet above the floor. The east and west walls of the Antechamber were composed of red granite, into which were cut four opposing pairs of wide parallel slots, assumed by Egyptologists to have held thick portcullis slabs.[2] Three of these pairs of slots extended all the way to the floor, and were empty. The fourth (the northernmost) had been cut down only as far as the roof level of the entry passage (that is, 3 feet 6 inches *above* floor level) and still contained a hulking sheet of granite, perhaps nine inches thick and six feet high. There was a horizontal space of only 21 inches between this suspended stone portcullis and the northern end of the entry passage from which I had just emerged. There was also a gap of a little over 4 feet deep between the top of the portcullis and the ceiling. Whatever function it was designed to serve it was hard to agree with the Egyptologists

that this peculiar structure could have been intended to deny access to tomb robbers.

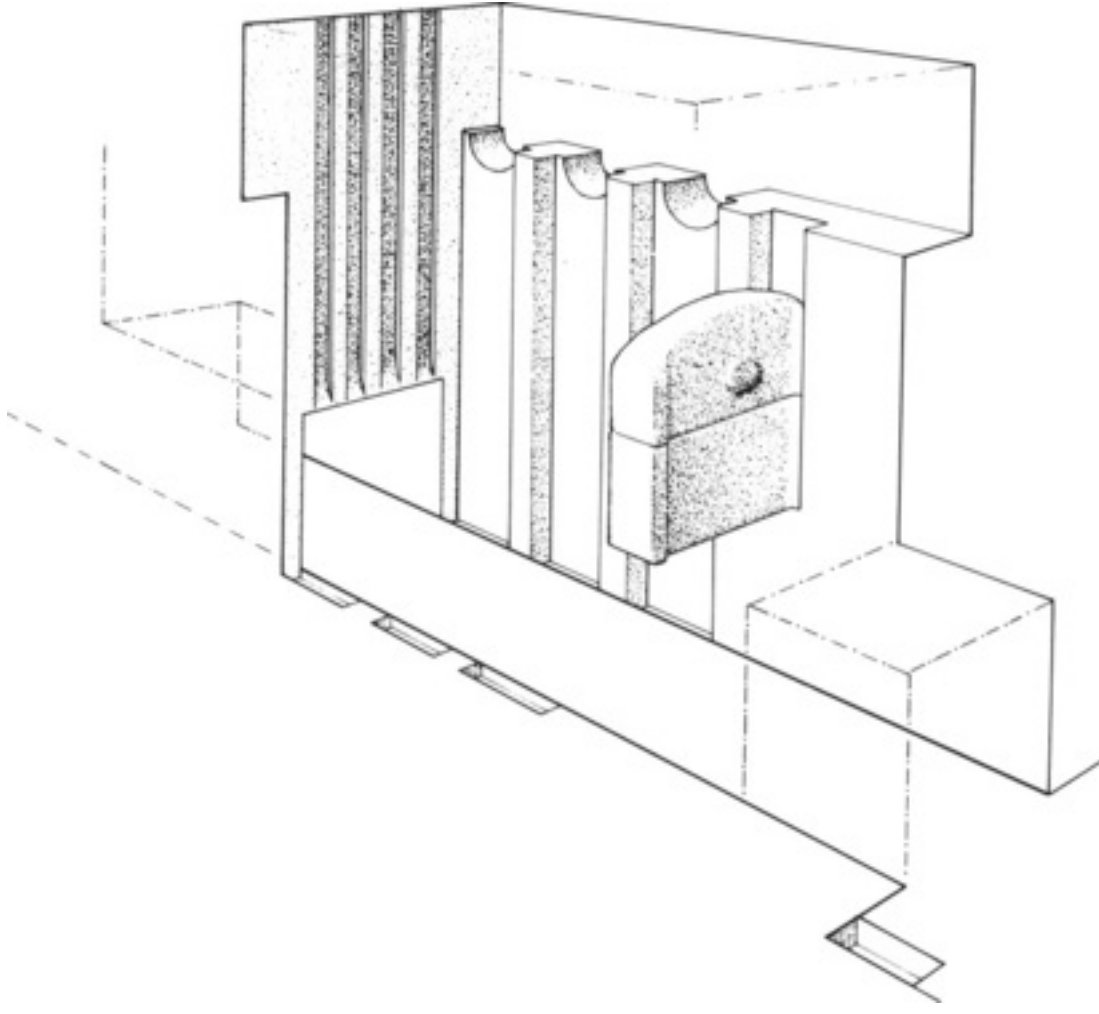

Genuinely puzzled, I ducked under it and then stood up again in the southern portion of the Antechamber, which was some 10 feet long and maintained the same roof height of 12 feet. Though much worn, the grooves for the three further ‘portcullis’ slabs were still visible in the eastern and western walls. There was no sign of the slabs themselves and, indeed, it was difficult to see how such cumbersone pieces of stone could have been installed in so severely constricted a working space.

I remembered that Flinders Petrie, who had systematically surveyed the entire Giza necropolis in the late nineteenth century, had commented on a similar puzzle in the Second Pyramid: ‘The granite portcullis in the lower passage shows great skill in moving masses, as it would need 40 or 60 men to lift it; yet it has been moved, and raised into place, in a

narrow passage, where only a few men could possibly reach it.'[3] Exactly the same observations applied to the portcullis slabs of the Great Pyramid. If they were portcullis slabs – gateways capable of being raised and lowered.

The problem was that the physics of raising and lowering them required they be shorter than the full height of the Antechamber, so that they could be drawn into the roof space to allow the entry and exit of legitimate individuals prior to the closure of the tomb. This meant, of course, that when the bottom edges of the slabs were lowered to the floor to block the Antechamber at that level, an equal and opposite space would have opened up between the top edges of the slabs and the ceiling, through which any enterprising tomb-robber would certainly have been able to climb.

The Antechamber clearly qualified as another of the pyramid's many thought-provoking paradoxes, in which

complexity of structure was combined with apparent pointlessness of function.

An exit tunnel, the same height and width as the entrance tunnel and lined with solid red granite, led off from the Antechamber's southern wall (also made of granite but incorporating a 12-inch thick limestone layer at its very top). After about a further 9 feet the tunnel debouched into the King's Chamber, a massive sombre red room made entirely of granite, which radiated an atmosphere of prodigious energy and power.

Stone enigmas

I moved into the centre of the King's Chamber, the long axis of which was perfectly oriented east to west while the short axis was equally perfectly oriented north to south. The room

was exactly 19 feet 1 inch in height and formed a precise two-by-one rectangle measuring 34 feet 4 inches long by 17 feet 2 inches wide. With a floor consisting of 15 massive granite paving stones, and walls composed of 100 gigantic granite blocks, each weighing 70 tons or more and laid in five courses, and with a ceiling spanned by nine further granite blocks each weighing aproximately 50 tons,[4] the effect was of intense and overwhelming *compression*.

At the Chamber's western end was the object which, if the Egyptologists were to be believed, the entire Great Pyramid, had been built to house. That object, carved out of one piece of dark chocolate-coloured granite containing peculiarly hard granules of feldspar, quartz and mica, was the lidless coffer presumed to have been the sarcophagus of Khufu.[5] Its interior measurements were 6 feet 6.6 inches in length, 2 feet 10.42 inches in depth, and 2 feet 2.81 inches in width. Its

exterior measurements were 7 feet 5.62 inches in length, 3 feet 5.31 inches in depth, and 3 feet 2.5 inches in width[6] an inch too wide, incidentally, for it to have been carried up through the lower (and now plugged) entrance to the ascending corridor.[7]

Some routine mathematical games were built into the dimensions of the sarcophagus. For example, it had an internal volume of 1166.4 litres and an external volume of exactly twice that, 2332.8 litres.[8] Such a precise coincidence could not have been arrived at accidentally: the walls of the coffer had been cut to machine-age tolerances by craftsmen of enormous skill and experience. It seemed, moreover, as Flinders Petrie admitted with some puzzlement after completing his painstaking survey of the Great Pyramid, that these craftsmen had access to tools 'such as we ourselves have only now reinvented …'[9]

Petrie examined the sarcophagus particularly closely and reported that it must have been cut out of its surrounding granite block with straight saws ‘8 feet or more in length’. Since the granite was extremely hard, he could only assume that these saws must have had bronze blades (the hardest metal then supposedly available) inset with ‘cutting points’ made of even harder jewels: ‘The character of the work would certainly seem to point to diamond as being the cutting jewel; and only the considerations of its rarity in general, and its absence from Egypt, interfere with this conclusion …’[10]

An even bigger mystery surrounded the hollowing out of the sarcophagus, obviously a far more difficult enterprise than separating it from a block of bedrock. Here Petrie concluded that the Egyptians must have:

> adapted their sawing principle into a circular instead of a rectilinear form,

> curving the blade round into a tube, which drilled out a circular groove by its rotation; thus by breaking away the cores left in such grooves, they were able to hollow out large holes with a minimum of labour. These tubular drills varied from ¼ inch to 5 inches diameter, and from 1/30 to 1/5 inch thick …[11]

Of course, as Petrie admitted, no actual jewelled drills or saws had ever been found by Egyptologists.[12] The visible evidence of the kinds of drilling and sawing that had been done, however, compelled him to infer that such instruments must have existed. He became especially interested in this and extended his study to include not only the King's Chamber sarcophagus but many other granite artefacts and granite 'drill cores' which he collected at Giza. The deeper his research, however, the more puzzling the stone-cutting technology of the Ancient Egyptians became:

> The amount of pressure, shown by the rapidity with which the drills and saws pierced through the hard stones, is very surprising; probably a load of at least a ton or two was placed on the 4-inch drills cutting in granite. On the granite core No 7 the spiral of the cut sinks 1 inch in the circumference of 6 inches, a rate of ploughing out which is astonishing … These rapid spiral grooves cannot be ascribed to anything but the descent of the drill into the granite under enormous pressure …[13]

Wasn't it peculiar that at the supposed dawn of human civilization, more than 4500 years ago, the Ancient Egyptians had acquired what sounded like industrial-age drills packing a ton or more of punch and capable of slicing through hard stones like hot knives through butter?

Petrie could come up with no explanation for this conundrum. Nor was he able to explain the kind of instrument used to cut hieroglyphs into a number of diorite bowls with Fourth Dynasty inscriptions which he found at

Giza: 'The hieroglyphs are incised with a very free-cutting point; they are not scraped or ground out, but are ploughed through the diorite, with rough edges to the line …'[14]

This bothered the logical Petrie because he knew that diorite was one of the hardest stones on earth, far harder even than iron.[15] Yet here it was in Ancient Egypt being cut with incredible power and precision by some as yet unidentified graving tool:

> As the lines are only 1/150 inch wide it is evident that the cutting point must have been much harder than quartz; and tough enough not to splinter when so fine an edge was being employed, probably only 1/200 inch wide. Parallel lines are graved only 1/30 inch apart from centre to centre.[16]

In other words, he was envisaging an instrument with a needle-sharp point of exceptional, unprecedented hardness capable of penetrating and furrowing diorite with ease, and

capable also of withstanding the enormous pressures required throughout the operation. What sort of instrument was that? By what means would the pressure have been applied? How could sufficient accuracy have been maintained to scour parallel lines at intervals of just 1/30-inch?

At least it was possible to conjure a mental picture of the circular drills with jewelled teeth which Petrie supposed must have been used to hollow out the King's Chamber sarcophagus. I found, however, that it was not so easy to do the same for the unknown instrument capable of incising hieroglyphs into diorite at 2500 BC, at any rate not without assuming the existence of a far higher level of technology than Egyptologists were prepared to consider.

Nor was it just a few hieroglyphs or a few diorite bowls. During my travels in Egypt I had examined many stone vessels – dating back in some cases to pre-dynastic times –

that had been mysteriously hollowed out of a range of materials such as diorite, basalt, quartz crystal and metamorphic schist.[17]

For example, more than 30,000 such vessels had been found in the chambers beneath the Third Dynasty Step Pyramid of Zoser at Saqqara.[18] That meant that they were at least as old as Zoser himself (i. e. around 2650 BC[19]). Theoretically, they could have been even older than that, because identical vessels had been found in pre-dynastic strata dated to 4000 BC and earlier,[20] and because the practice of handing down treasured heirlooms from generation to generation had been deeply ingrained in Egypt since time immemorial.

Whether they were made in 2500 BC or in 4000 BC or even earlier, the stone vessels from the Step Pyramid were remarkable for their workmanship, which once again seemed

to have been accomplished by some as yet unimagined (and, indeed, almost unimaginable) tool.

Why unimaginable? Because many of the vessels were tall vases with long, thin, elegant necks and widely flared interiors, often incorporating fully hollowed-out shoulders. No instrument yet invented was capable of carving vases into shapes like these, because such an instrument would have had to have been narrow enough to have passed through the necks and strong enough (and of the right shape) to have scoured out the shoulders and the rounded interiors. And how could sufficient upward and outward pressure have been generated and applied within the vases to achieve these effects?

The tall vases were by no means the only enigmatic vessels unearthed from the Pyramid of Zoser, and from a number of other archaic sites. There were monolithic urns with delicate

ornamental handles left attached to their exteriors by the carvers. There were bowls, again with extremely narrow necks like the vases, and with widely flared, pot-bellied interiors. There were also open bowls, and almost microscopic vials, and occasional strange wheel-shaped objects cut out of metamorphic schist with inwardly curled edges planed down so fine that they were almost translucent.[21] In all cases what was really perplexing was the precision with which the interiors and exteriors of these vessels had been made to correspond – curve matching curve – over absolutely smooth, polished surfaces with no tool marks visible.

There was no technology known to have been available to the Ancient Egyptians capable of achieving such results. Nor, for that matter, would any stone-carver today be able to match them, even if he were working with the best tungsten-

carbide tools. The implication, therefore, is that an unknown or secret technology had been put to use in Ancient Egypt.

Ceremony of the sarcophagus

Standing in the King's Chamber, facing west – the direction of death amongst both the Ancient Egyptians and the Maya – I rested my hands lightly on the gnarled granite edge of the sarcophagus which Egyptologists insist had been built to house the body of Khufu. I gazed into its murky depths where the dim electric lighting of the chamber seemed hardly to penetrate and saw specks of dust swirling in a golden cloud.

It was just a trick of light and shadow, of course, but the King's Chamber was full of such illusions. I remembered that Napoleon Bonaparte had paused to spend a night alone here during his conquest of Egypt in the late eighteenth century.

The next morning he had emerged pale and shaken, having experienced something which had profoundly disturbed him but about which he never afterwards spoke.[22]

Had he tried to sleep in the sarcophagus?

Acting on impulse, I climbed into the granite coffer and lay down, face upwards, my feet pointed towards the south and my head to the north.

Napoleon was a little guy, so he must have fitted comfortably. There was plenty of room for me too. But had Khufu been here as well?

I relaxed and tried not to worry about the possibility of one of the pyramid guards coming in and finding me in this embarrassing and probably illegal position. Hoping that I would remain undisturbed for a few minutes, I folded my hands across my chest and gave voice to a sustained low-pitched tone – something I had tried out several times before

at other points in the King's Chamber. On those occasions, in the centre of the floor, I had noticed that the walls and ceiling seemed to collect the sound, to gather and to amplify it and project it back at me so that I could sense the returning vibrations through my feet and scalp and skin.

Now in the sarcophagus I was aware of very much the same effect, although seemingly amplified and concentrated many times over. It was like being in the sound-box of some giant, resonant musical instrument designed to emit for ever just one reverberating note. The sound was intense and quite disturbing. I imagined it rising out of the coffer and bouncing off the red granite walls and ceiling of the King's Chamber, shooting up through the northern and southern 'ventilation' shafts and spreading across the Giza plateau like a sonic mushroom cloud.

With this ambitious vision in my mind, and with the sound

of my low-pitched note echoing in my ears and causing the sarcophagus to vibrate around me, I closed my eyes. When I opened them a few minutes later it was to behold a distressing sight: six Japanese tourists of mixed ages and sexes had congregated around the sarcophagus – two of them standing to the east, two to the west and one each to the north and south.

They all looked … amazed. And I was amazed to see them. Because of recent attacks by armed Islamic extremists there were now almost no tourists at Giza and I had expected to have the King's Chamber to myself.

What does one do in a situation like this?

Gathering as much dignity as I could muster, I stood upright, smiling and dusting myself off. The Japanese stepped back and I climbed out of the sarcophagus. Cultivating a businesslike manner, as though I did things like

this all the time, I strolled to the point two-thirds of the way along the northern wall of the King's Chamber where the entrance to what Egyptologists refer to as the 'northern ventilation shaft' is located, and began to examine it minutely.

Some 8 inches wide by 9 inches high, it was, I knew, more than 200 feet in length and emerged into open air at the pyramid's 103rd course of masonry. Presumably by design rather than by accident, it pointed to the circumpolar regions of the northern heavens at an angle of 32° 30′. This, in the Pyramid Age around 2500 BC, would have meant that it was directed on the upper culmination of Alpha Draconis, a prominent star in the constellation of Draco.[23]

Much to my relief the Japanese rapidly completed their tour of the King's Chamber and left, stooping, without a backward glance. As soon as they had gone I crossed over to

the other side of the room to take a look at the southern shaft. Since I had last been here some months before, its appearance had changed horribly. Its mouth now contained a massive electrical air-conditioning unit installed by Rudolf Gantenbrink, who even now was turning his attentions to the neglected shafts of the Queen's Chamber.

Since Egyptologists were satisfied that the King's Chamber shafts had been built for ventilation purposes, they saw nothing untoward in using modern technology to improve the efficiency of this task. Yet wouldn't *horizontal* shafts have been more effective than sloping ones if their primary purpose had been ventilation, and easier to build?[24] It was therefore unlikely to be an accident that the southern shaft of the King's Chamber targeted the southern heavens at 45°. During the Pyramid Age this was the location for the meridian transit of Zeta Orionis, the lowest of the three stars

of Orion's Belt[25] – an alignment, I was to discover in due course, that would turn out to be of the utmost significance for future pyramid research.

The game-master

Now that I had the Chamber to myself again, I walked over to the western wall, on the far side of the sarcophagus, and turned to face east.

The huge room had an endless capacity to generate indications of mathematical game-playing. For example, its height (19 feet 1 inch) was exactly half of the length of its floor diagonal (38 feet 2 inches).[26] Moreover, since the King's Chamber formed a perfect 1 × 2 rectangle, was it conceivable that the pyramid builders were unaware that they had also made it express and exemplify the 'golden

section'?

Known as *phi*, the golden section was another irrational number like *pi* that could not be worked out arithmetically. Its value was the square root of 5 plus 1 divided by 2, equivalent to 1.61803.[27] This proved to be the 'limiting value of the ratio between successive numbers in the Fibonacci series – the series of numbers beginning 0, 1, 1, 2, 3, 5, 8, 13 – in which each term is the sum of the two previous terms.'[28]

Phi could also be obtained schematically by dividing a line A–B at a point C in such a way that the whole line A–B was longer than the first part, A–C, in the same proportion as the first part, A-C, was longer than the remainder, C–B.[29] This proportion, which had been proven particularly harmonious and agreeable to the eye, had supposedly been first discovered by the Pythagorean Greeks, who incorporated it into the Parthenon at Athens. There is absolutely no doubt,

however, that *phi* was illustrated and obtained at least 2000 years previously in the King's Chamber of the Great Pyramid at Giza.

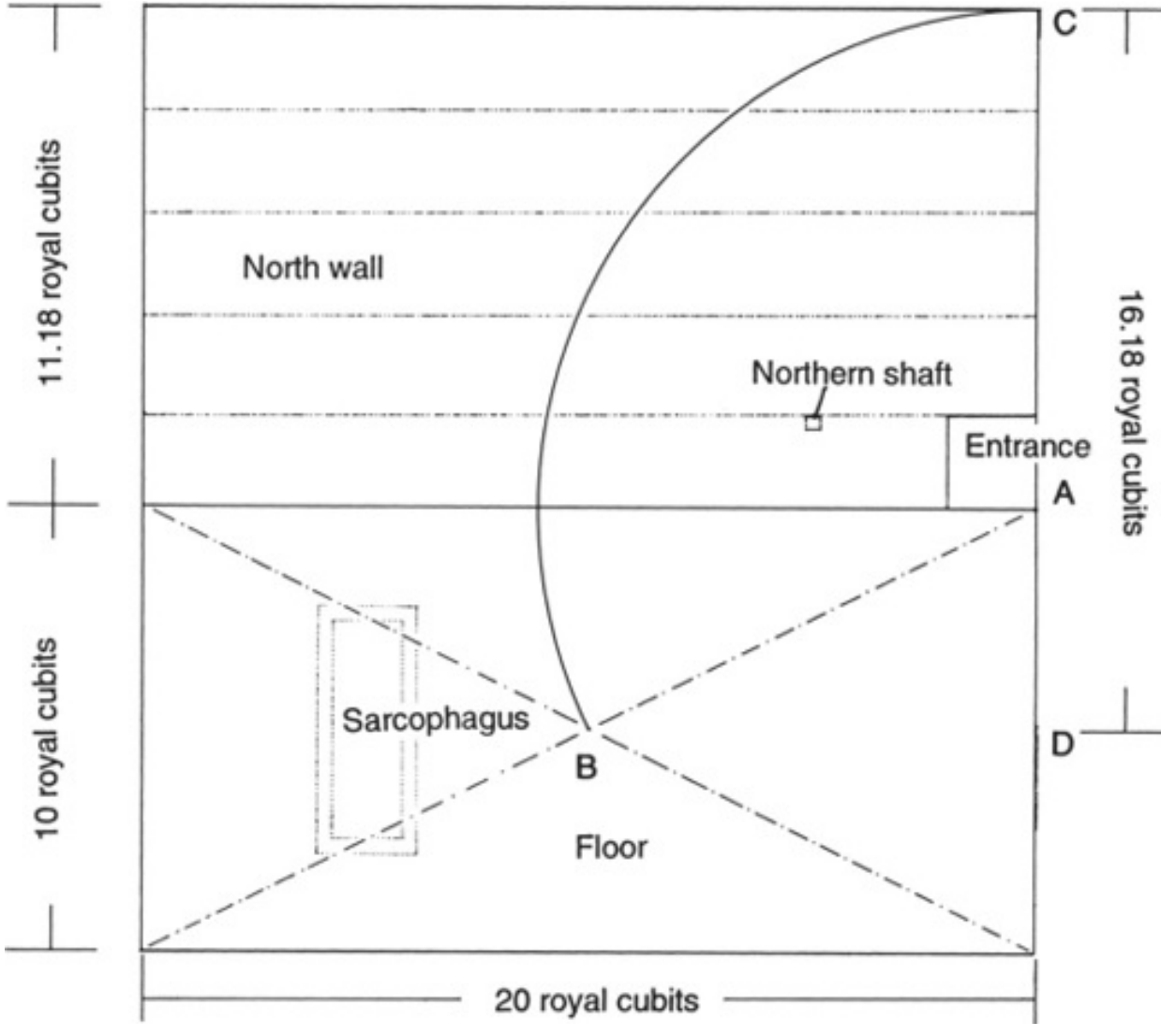
C
North wall
Northern shaft
Entrance
A
Sarcophagus
B
D
Floor
11.18 royal cubits
10 royal cubits
16.18 royal cubits
20 royal cubits

At the very beginning of its Dynastic history, Egypt inherited a system of measures from unknown predecessors. Expressed in these ancient measures, the floor dimensions of the King's Chamber (34 ft 4" × 17 ft 2") work out at exactly 20 × 10 'royal cubits', while the height of the side walls to the ceiling is exactly 11.18 royal cubits. The semi-diagonal of the floor (A–B) is also exactly 11.18 royal cubits and can be 'swung up' to C to confirm the height of the chamber. *Phi* is defined mathematically as the square root of 5 + 1 ÷ 2, i.e. 1.618. Is it a coincidence that the distance C–D (i.e. the wall height of the King's Chamber plus half the width of its floor) equals 16.18 royal cubits, thus incorporating the essential digits of *phi*?

To understand how it is necessary to envisage the rectangular floor of the chamber as being divided into two imaginary squares of equal size, with the side length of each square being given a value of 1. If either of these two squares were then split in half, thus forming two new rectangles, and if the diagonal of the rectangle nearest to the centreline of the King's Chamber were swung down to the base, the point

where its tip touched the base would *be phi*, or 1.618, in relation to the side length (i. e., 1) of the original square.[30] (An alternative way of obtaining *phi*, also built into the King's Chamber's dimensions, is illustrated on the previous page.)

The Egyptologists considered all this was pure chance. Yet the pyramid builders had done *nothing* by chance. Whoever they had been, I found it hard to imagine more systematic and mathematically minded people.

I'd had quite enough of their mathematical games for one day. As I left the King's Chamber, however, I could not forget that it was located in line with the 50th course of the Great Pyramid's masonry at a height of almost 150 feet above the ground.[31] This meant, as Flinders Petrie pointed out with some astonishment, that the builders had managed to place it 'at the level where the vertical section of the Pyramid was halved, where the area of the horizontal section was half that

of the base, where the diagonal from corner to corner was equal to the length of the base, and where the width of the face was equal to half the diagonal of the base'.[32]

Confidently and efficiently fooling around with more than six million tons of stone, creating galleries and chambers and shafts and corridors more or less at will, achieving near-perfect symmetry, near-perfect right angles, and near-perfect alignments to the cardinal points, the mysterious builders of the Great Pyramid had found the time to play a great many other tricks as well with the dimensions of the vast monument.

Why did their minds work this way? What had they been trying to say or do? And why, so many thousands of years after it was built, did the monument still exert a magnetic influence upon so many people, from so many different walks of life, who came into contact with it?

There was a Sphinx in the neighbourhood, so I decided that I would put these riddles to it …

Chapter 39

Place of the Beginning

Giza, Egypt, 16 March 1993, 3.30 p. m..

It was mid afternoon by the time I left the Great Pyramid. Retracing the route that Santha and I had followed the night before when we had climbed the monument, I walked eastwards along the northern face, southwards along the flank of the eastern face, clambered over mounds of rubble

and ancient tombs that clustered closely in this part of the necropolis, and came out on to the sand-covered limestone bedrock of the Giza plateau, which sloped down towards the south and east.

At the bottom of this long gentle slope, about half a kilometre from the south-eastern corner of the Great Pyramid, the Sphinx crouched in his rock-hewn pit. Sixty-six feet high and more than 240 feet long, with a head measuring 13 feet 8 inches wide,[1] he was, by a considerable margin, the largest single piece of sculpture in the world – and the most renowned:

> A shape with lion body and the head of a man
>
> A gaze blank and pitiless as the sun.[2]

Approaching the monument from the north-west I crossed the

ancient causeway that connected the Second Pyramid with the so-called Valley Temple of Khafre, a most unusual structure located just 50 feet south of the Sphinx itself on the eastern edge of the Giza necropolis.

This Temple had long been believed to be far older than the time of Khafre. Indeed throughout much of the nineteenth century the consensus among scholars was that it had been built in remote prehistory, and had nothing to do with the architecture of dynastic Egypt.[3] What changed all that was the discovery, buried within the Temple precincts, of a number of inscribed statues of Khafre. Most were pretty badly smashed, but one, found upside down in a deep pit in an antechamber, was almost intact. Life-sized, and exquisitely carved out of black, jewel-hard diorite, it showed the Fourth Dynasty pharaoh seated on his throne and gazing with serene indifference towards infinity.

At this point the razor-sharp reasoning of Egyptology was brought to bear, and a solution of almost awe-inspiring brilliance was worked out: statues of Khafre had been found in the Valley Temple therefore the Valley Temple had been built by Khafre. The normally sensible Flinders Petrie summed up: 'The fact that the only dateable remains found in the Temple were statues of Khafre shows that it is of his period; since the idea of his appropriating an earlier building is very unlikely.'[4]

But why was the idea so unlikely?

Throughout the history of Dynastic Egypt many pharaohs appropriated the buildings of their predecessors, sometimes deliberately striking out the cartouches of the original builders and replacing them with their own.[5] There was no good reason to assume that Khafre would have been deterred from linking himself to the Valley Temple, particularly if it

had not been associated in his mind with any previous historical ruler but with the great ‘gods’ said by the Ancient Egyptians to have brought civilization to the Nile Valley in the distant and mythical epoch they spoke of as the First Time.[6] In such a place of archaic and mysterious power, *which he does not appear to have interfered with in any other way*, Khafre might have thought that the setting up of beautiful and lifelike statues of himself could bring eternal benefits. And if, among the gods, the Valley Temple had been associated with Osiris (whom it was every pharaoh’s objective to join in the afterlife),[7] Khafre’s use of statues to forge a strong symbolic link would be even more understandable.

Temple of the giants

After crossing the causeway, the route I had chosen to reach the Valley Temple took me through the rubble of a 'mastaba' field, where lesser notables of the Fourth Dynasty had been buried in subterranean tombs under bench-shaped platforms of stone (*mastaba* is a modern Arabic word meaning bench, hence the name given to these tombs). I walked along the southern wall of the Temple itself, recalling that this ancient building was almost as perfectly oriented north to south as was the Great Pyramid (with an error of just 12 arc minutes).[8]

The Temple was square in plan, 147 feet along each side. It was built in to the slope of the plateau, which was higher in the west than in the east. In consequence, while its western wall stood only a little over 20 feet tall, its eastern wall exceeded 40 feet.[9]

Viewed from the south, the impression was of a wedge-

shaped structure, squat and powerful, resting firmly on bedrock. A closer examination revealed that it incorporated several characteristics quite alien and inexplicable to the modern eye, which that must have seemed almost as alien and inexplicable to the Ancient Egyptians. For a start, there was the stark absence, both inside and out, of inscriptions and other identifying marks. In this respect, as the reader will appreciate, the Valley Temple could be compared with a few of the other anonymous and frankly undatable monuments on the Giza plateau, including the great pyramids (and also with a mysterious structure at Abydos known as the Osireion, which we consider in detail in a later chapter) but otherwise bore no resemblance to the typical and well-known products of Ancient Egyptian art and architecture – all copiously decorated, embellished and inscribed.[10]

Another important and unusual feature of the Valley

Temple was that its core structure was built entirely, *entirely*, of gigantic limestone megaliths. The majority of these measured about 18 feet long × 10 feet wide × 8 feet high and some were as large as 30 feet long × 12 feet wide × 10 feet high.[11] Routinely exceeding 200 tons in weight, each was heavier than a modern diesel locomotive – and there were hundreds of blocks.[12]

Was this in any way mysterious?

Egyptologists did not seem to think so; indeed few of them had bothered to comment, except in the most superficial manner – either on the staggering size of these blocks or the mind-bending logistics of how they might have been put in place. As we have seen, monoliths of up to 70 tons, each about as heavy as 100 family-sized cars, had been lifted to the level of the King's Chamber in the Great Pyramid – again without provoking much comment from the Egyptological

fraternity – so the lack of curiosity about the Valley Temple was perhaps no surprise. Nevertheless, the block size was truly extraordinary, seeming to belong not just to another epoch but to another *ethic* altogether – one that reflected incomprehensible aesthetic and structural concerns and suggested a scale of priorities utterly different from our own. Why, for example, insist on using these cumbersome 200-ton monoliths when you could simply slice each of them up into 10 or 20 or 40 or 80 smaller and more manoeuvrable blocks? Why make things so difficult for yourself when you could achieve much the same visual effect with much less effort?

And how had the builders of the Valley Temple lifted these colossal megaliths to heights of more than 40 feet?

At present there are only two land-based cranes in the world that could lift weights of this magnitude. At the very frontiers of construction technology, these are both vast,

industrialized machines, with booms reaching more than 220 feet into the air, which require on-board counterweights of 160 tons to prevent them from tipping over. The preparation-time for a single lift is around six weeks and calls for the skills of specialized teams of up to 20 men.[13]

In other words, modern builders with all the advantages of high-tech engineering at their disposal, can barely hoist weights of 200 tons. Was it not, therefore, somewhat surprising that the builders at Giza had hoisted such weights on an almost routine basis?

Moving closer to the Temple's looming southern wall I observed something else about the huge limestone blocks: not only were they ridiculously large but, as though to complicate still further an almost impossible task, they had been cut and fitted into multi-angled jigsaw-puzzle patterns similar to those employed in the cyclopean stone structures

at Sacsayhuaman and Machu Picchu in Peru (see Part II).

Another point I noticed was that the Temple walls appeared to have been constructed in two stages. The first stage, most of which was intact (though deeply eroded), consisted of the strong and heavy core of 200-ton limestone blocks. On to both sides of these had been grafted a façade of dressed granite which (as we shall see) was largely intact in the interior of the building but had mainly fallen away on the outside. A closer look at some of the remaining exterior facing blocks where they had become detached from the core revealed a curious fact. When they had been placed here in antiquity the backs of these blocks had been cut to fit into and around the deep coves and scallops of *existing weathering patterns* on the limestone core. The presence of those patterns seemed to imply that the core blocks must have stood here, exposed to the elements, for an immense span of time before

they had been faced with granite.

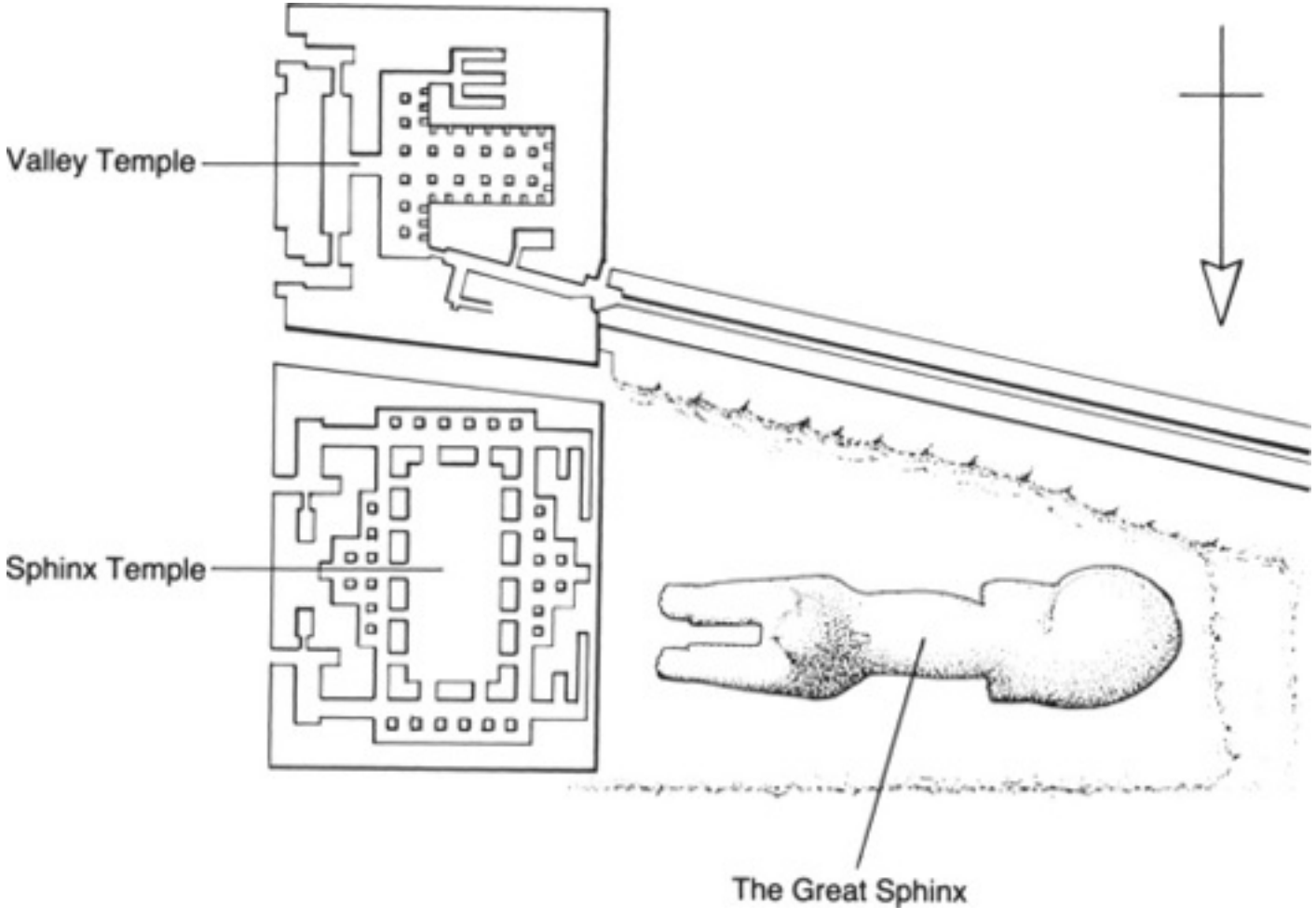

The Sphinx and the Sphinx Temple with the Valley Temple of Khafre.

Lord of Rostau

I now moved around to the entrance of the Valley Temple, located near the northern end of the 43-foot high eastern wall. Here I saw that the granite facing was still in perfect condition, consisting of huge slabs weighing between 70 and 80 tons apiece which protected the underlying limestone core blocks like a suit of armour. Incorporating a tall, narrow, roofless corridor, this dark and imposing portal ran east to west at first, then made a right-angle turn to the south, leading me into a spacious antechamber. It was here that the lifesize diorite statue of Khafre had been found, upside down and apparently ritually buried, at the bottom of a deep pit.

Lining the entire interior of the antechamber was a majestic jigsaw puzzle of smoothly polished granite facing blocks (which continued through the whole building).

Exactly like the blocks on some of the bigger and more bizarre pre-Inca monuments in Peru, these incorporated multiple, finely chiselled angles in the joints and presented a complex overall pattern. Of particular note was the way certain blocks wrapped around corners and were received by re-entering angles cut into other blocks.

From the antechamber I passed through an elegant corridor which led west into a spacious T-shaped hall. I found myself standing at the head of the T looking further westwards along an imposing avenue of monolithic columns. Reaching almost 15 feet in height and measuring 41 inches on each side, all these columns supported granite beams, which were again 41 inches square. A row of six further columns, also supporting beams, ran along the north-south axis of the T; the overall effect was of massive but refined simplicity.

What was this building for? According to the Egyptologists who attributed it to Khafre its purpose was obvious. It had been designed, they said, as a venue for certain of the purification and rebirth rituals required for the funeral of the pharaoh. The Ancient Egyptians themselves, however, had left no inscriptions confirming this. On the contrary, the only written evidence that has come down to us indicated that the Valley Temple could *not* (originally at any rate) have had anything to do with Khafre, for the simple reason that it was built before his reign. This written evidence is the Inventory Stela, (referred to in Chapter Thirty-five), which also indicated a much greater age for the Great Pyramid and the Sphinx.

What the Inventory Stela had to say about the Valley Temple was that it had been standing during the reign of Khafre's predecessor Khufu, when it had been regarded not as

a recent but as a remotely ancient building. Moreover, it was clear from the context that it was not thought to have been the work of any earlier pharaoh. Instead, it was believed to have come down from the 'First Time' and to have been built by the 'gods' who had settled in the Nile Valley in that remote epoch. It was referred to quite explicitly as the 'House of Osiris, Lord of Rostau'[14] (Rostau being an archaic name for the Giza necropolis).[15]

As we shall see in Part VII, Osiris was in many respects the Egyptian counterpart of Viracocha and Quetzalcoatl, the civilizing deities of the Andes and of Central America. With them he shared not only a common mission but a vast heritage of common symbolism. It seemed appropriate, therefore, that the 'House' (or sanctuary, or temple) of such a wise teacher and lawgiver should have been established at Giza within sight of the Great Pyramid and in the immediate

vicinity of the Great Sphinx.

Vastly, remotely, fabulously ancient

Following the directions given in the Inventory Stela – which stated that the Sphinx lay 'on the north-west of the House of Osiris'[16] – I made my way to the north end of the western wall that enclosed the Valley Temple's T-shaped hall. I passed through a monolithic doorway and entered a long, sloping, alabaster floored corridor (also oriented north-west) which eventually opened out on to the lower end of the causeway that led up to the Second Pyramid.

From the edge of the causeway I had an unimpeded view of the Sphinx immediately to my north. As long as a city block, as high as a six-storey building it was *perfectly* oriented due east and thus faced the rising sun on the two equinoctial

days of the year. Man-headed, lion-bodied, crouched as though ready at last to move its slow thighs after millennia of stony sleep, it had been carved in one piece out of a single ridge of limestone on a site that must have been meticulously preselected. The exceptional characteristic of this site, as well as overlooking the Valley of the Nile, was that its geological make-up incorporated a knoll of hard rock jutting at least 30 feet above the general level of the limestone ridge. From this knoll the head and neck of the Sphinx had been carved, while beneath it the vast rectangle of limestone that would be shaped into the body had been isolated from the surrounding bedrock. The builders had done this by excavating an 18-foot wide, 25-foot deep trench all around it, creating a free-standing monolith.

The first and lasting impression of the Sphinx, and of its enclosure, is that it is very, very old – not a mere handful of

thousands of years, like the Fourth Dynasty of Egyptian pharaohs, but vastly, remotely, fabulously old. This was how the Ancient Egyptians in all periods of their history regarded the monument, which they believed guarded the 'Splendid Place of The Beginning of all Time' and which they revered as the focus of 'a great magical power extending over the whole region'.[17]

This, as we have already seen, is the general message of the Inventory Stela. More specifically, it is also the message of the 'Sphinx Stela' erected here in around 1400 BC by Thutmosis IV, an Eighteenth Dynasty pharaoh. Still standing between the paws of the Sphinx, this granite tablet records that prior to Thutmosis's rule the monument had been covered up to its neck in sand. Thutmosis liberated it by clearing all the sand, and erected the stela to commemorate his work.[18]

There have been no significant changes in the climate of the Giza plateau over the last 5000 years.[19] It therefore follows that throughout this entire period the Sphinx enclosure must have been as susceptible to sand encroachment as when Thutmosis cleared it – and, indeed, as it still is today. Recent history proves that the enclosure can fill up rapidly if left unattended. In 1818 Captain Caviglia had it cleared of sand for the purposes of his excavations, and in 1886, when Gaston Maspero came to re-excavate the site, he was obliged to have it cleared of sand once again. Thirty-nine years later, in 1925, the sands had returned in full force and the Sphinx was buried to its neck when the Egyptian Service des Antiquités undertook its clearance and restoration once more.[20]

Does this not suggest that the climate could have been very different when the Sphinx enclosure was carved out? What

would have been the sense of creating this immense statue if its destiny were merely to be engulfed by the shifting sands of the eastern Sahara? However, since the Sahara is a young desert, and since the Giza area in particular was wet and relatively fertile 11,000–15,000 years ago, is it not worth considering another scenario altogether? Is it not possible that the Sphinx enclosure was carved out during those distant green millennia when topsoil was still anchored to the surface of the plateau by the roots of grasses and shrubs and when what is now a desert of wind-blown sand more closely resembled the rolling savannahs of modern Kenya and Tanzania?

Under such congenial climatic conditions, the creation of a semi-subterranean monument like the Sphinx would not have outraged common sense. The builders would have had no reason to anticipate the slow desiccation and desertification

of the plateau that would ultimately follow.

Yet, is it feasible to imagine that the Sphinx could have been built when Giza was still green – long, long ago?

As we shall see, such ideas are anathema to modern Egyptologists, who are nevertheless obliged to admit (to quote Dr Mark Lehner, director of the Giza Mapping Project) that 'there is no direct way to date the Sphinx itself, because the Sphinx is carved right out of natural rock.'[21] In the absence of more objective tests, Lehner went on to point out, archaeologists had 'to date things *by context*'. And the context of the Sphinx, that is, the Giza necropolis – a well-known Fourth Dynasty site – made it obvious that the Sphinx belonged to the Fourth Dynasty as well.[22]

Such reasoning was not regarded as axiomatic by Lehner's distinguished predecessors in the nineteenth century, who were at one time convinced that the Sphinx long predated the

Fourth Dynasty.

Whose Sphinx is it anyway?

In his *Passing of Empires*, published in 1900, the distinguished French Egyptologist Gaston Maspero, who made a special study of the content of the Sphinx Stela erected by Thutmosis IV, wrote:

> The stela of the Sphinx bears, on line 13, the cartouche of Khafre in the middle of a gap … There, I believe, is an indication of [a renovation and clearance] of the Sphinx carried out under this prince, and consequently the more or less certain proof that the Sphinx was *already covered with sand* during the time of Khufu and his predecessors …[23]

The equally distinguished Auguste Mariette agreed –

naturally enough since he had been the finder of the Inventory Stela (which, as we have seen, asserted matter-of-factly that the Sphinx was standing on the Giza plateau long before the time of Khufu).[24] Also generally concurring were Brugsch (*Egypt under the Pharaohs*, London, 1891), Petrie, Sayce and many other eminent scholars of the period.[25] Travel writers such as John Ward affirmed that 'the Great Sphinx must be numberless years older even than the Pyramids'. And as late as 1904 Wallis Budge, the respected keeper of Egyptian Antiquities at the British Museum, had no hesitation in making this unequivocal assertion:

> The oldest and finest human-headed lion statue is the famous 'Sphinx' at Giza. This marvellous object was in existence in the days of Khafre, the builder of the Second Pyramid, and was, most probably, very old even at that early period … The Sphinx was thought to be connected in some way with foreigners or with a foreign religion which dated from predynastic

times.[26]

Between the beginning and the end of the twentieth century, however, Egyptologists' views about the antiquity of the Sphinx changed dramatically. Today there is not a single orthodox Egyptologist who would even discuss, let alone consider seriously, the wild and irresponsible suggestion, once a commonplace, that the Sphinx might have been built thousands of years before Khafre's reign.

According to Dr Zahi Hawass, for example, director of Giza and Saqqara for the Egyptian Antiquities Organization, many such theories have been put forward but have 'gone with the wind' because 'we Egyptologists have solid evidence to state that the Sphinx is dated to the time of Khafre.'[27]

Likewise, Carol Redmont, an archaeologist at the University of California's Berkeley campus, was incredulous when it was suggested to her that the Sphinx might be

thousands of years older than Khafre: 'There's just no way that could be true. The people of that region would not have had the technology, the governing institutions or even the will to build such a structure thousands of years before Khafre's reign.'[28]

When I first started to research this issue, I had assumed, as Hawass appeared to claim, that some incontrovertible new evidence must have been found which had settled the identity of the monument's builder. This was not the case. Indeed there are only *three* 'contextual' reasons why the construction of the anonymous, uninscribed and enigmatic Sphinx is now so confidently attributed to Khafre:

1 Because of the cartouche of Khafre on line 13 **of the Sphinx Stela erected by Thutmosis IV:** Maspero gave a perfectly reasonable explanation for the presence of this cartouche: Thutmosis had been a restorer of the Sphinx and

had paid due tribute to an earlier restoration of the monument – one undertaken during the Fourth Dynasty by Khafre. This explanation, which bears the obvious implication that the Sphinx must *already* have been old in Khafre's time, is rejected by modern Egyptologists. With their usual telepathic likemindedness they now agree that Thutmosis put the cartouche on to the stela to recognize that Khafra had been the original builder (and *not* a mere restorer).

> Since there had only ever been this single cartouche – and since the texts on either side of it were missing when the stela was excavated, is it not a little premature to come to such hard-and-fast conclusions? What sort of 'science' is it that allows the mere presence of the cartouche of a Fourth Dynasty pharaoh (on a stele erected by an Eighteenth Dynasty pharaoh) to determine the entire identification of an otherwise anonymous monument? Besides, even that cartouche has now flaked off and cannot be examined …

2 **Because the Valley Temple next door is also attributed to Khafre:** That attribution (based on statues which may well have been intrusive) is shaky to say the least. It has nevertheless received the wholehearted endorsement of the Egyptologists, who in the process decided to attribute the Sphinx to Khafre too (since the Sphinx and the Valley Temple are so obviously connected).

3 **Because the face of the Sphinx is thought to resemble the intact statue of Khafre found in the pit in the Valley Temple:** This, of course, is a matter of opinion. I have never seen the slightest resemblance between the two faces. Nor for that matter had forensic artists from the New York Police Department who had recently been brought in to do an Identikit comparison between the Sphinx and the statue[29] (as we shall see in Part VII).

All in all, therefore, as I stood overlooking the Sphinx in

the late afternoon of 16 March 1993, I considered that the jury was still very much out on the correct attribution of this monument – either to Khafre on the one hand or to the architects of an as yet unidentified high civilization of prehistoric antiquity on the other.[30] No matter what the current flavour of the month (or century) happened to be with the Egyptologists, the fact was that *both* scenarios were plausible. What was needed, therefore, was some completely hard and unambiguous evidence which would settle the matter one way or the other.

Part VII

Lord of Eternity

Egypt 2

Chapter 40

Are There Any Secrets Left in Egypt?

During the early evening of 26 November 1922 the British archaeologist Howard Carter, together with his sponsor Lord Carnarvon, entered the tomb of a youthful pharaoh of the Eighteenth Dynasty who had ruled Egypt from 1352–43 BC. The name of that pharaoh, which has since resounded around the world, was Tutankhamun.

Two nights later, on 28 November, the tomb's 'Treasury' was breached. It was filled with a huge golden shrine and gave access to another chamber beyond. Rather unusually, this chamber, although heaped with a dazzling array of precious and beautiful artefacts, had no door: its entrance was watched over by an extraordinarily lifelike effigy of the jackal-headed mortuary god Anubis. With ears erect, the god crouched doglike, forepaws stretched out, on the lid of a gilded wooden casket perhaps four feet long, three feet high and two feet wide.

The Egyptian Museum, Cairo, December 1993

Still perched astride his casket, but now locked away in a dusty glass display case, Anubis held my attention for a long, quiet moment. His effigy had been carved out of stuccoed wood, entirely covered with black resin, then painstakingly

inlaid with gold, alabaster, calcite, obsidian and silver – materials used to particular effect in the eyes, which glittered watchfully with an unsettling sense of fierce and focused intelligence. At the same time his finely etched ribs and lithe musculature gave off an aura of understated strength, energy and grace.

Captured by the force field of this occult and powerful presence, I was vividly reminded of the universal myths of precession I had been studying during the past year. Canine figures moved back and forth among these myths in a manner which at times had seemed almost plotted in the literary sense. I had begun to wonder whether the symbolism of dogs, wolves, jackals, and so on, might have been *deliberately* employed by the long-dead myth-makers to guide initiates through a maze of clues to secret reservoirs of lost scientific knowledge.

Among these reservoirs, I suspected, was the myth of Osiris. Much more than a myth, it had been dramatized and performed each year in Ancient Egypt in the form of a mystery play – a 'plotted' literary artefact, passed down as a treasured tradition since prehistoric times.[1] This tradition, as we saw in Part V, contained values for the rate of precessional motion that were so accurate and so consistent it was extremely difficult to attribute them to chance. Nor did it seem likely to be an accident that the jackal god had been assigned a role centre-stage in the drama, serving as the spirit guide of Osiris on his journey through the underworld.[2] It was tempting, too, to wonder whether there was any significance in the fact that in ancient times Anubis had been referred to by Egyptian priests as the 'guardian of the secret and sacred writings'.[3]) Under the grooved edge of the gilded casket on which his effigy now crouched was found an

inscription: ‘initiated into the secrets’.[4] Alternative translations of the same hieroglyphic text rendered it variously as ‘he who is upon the secrets’, and as ‘guardian of the secrets’.[5]

But were there any secrets left in Egypt?

After more than a century of intensive archaeological investigations, could the sands of this antique land yield any further surprises?

Bauval’s Stars and West’s Stones

In 1993 there was an astonishing new discovery which suggested that there was much still to learn about Ancient Egypt. The discoverer, moreover, was not some astigmatic archaeologist sieving his way through the dust of ages but an outsider to the field: Robert Bauval, a Belgian construction

engineer with a flair for astronomy who observed a correlation in the sky that the experts had missed in their fixation with the ground at their feet.

What Bauval saw was this: as the three belt stars of the Orion constellation crossed the merdian at Giza they lay in a not quite straight line high in the southern heavens. The lower two stars, *Al Nitak* and *Al Nilam*, formed a perfect diagonal but the third star, *Mintaka*, appeared to be offset to the observer's left, that is, towards the east.

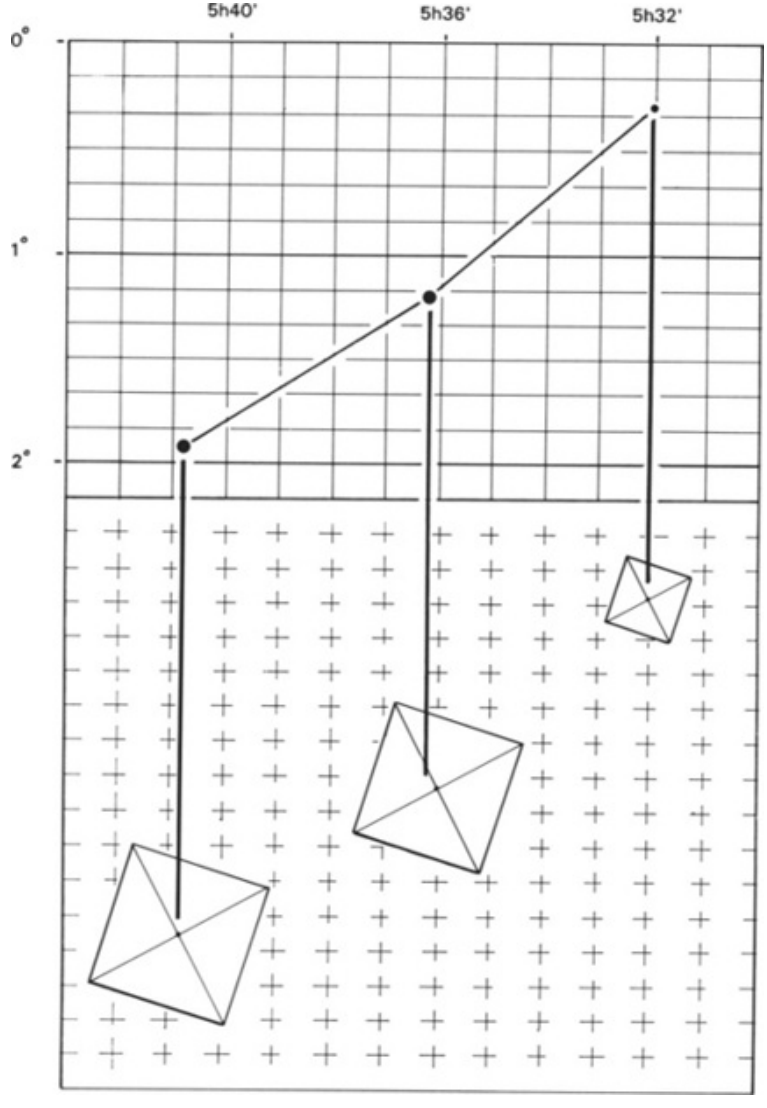
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5h32'
0°
1°
2°

The three pyramids of Giza plotted against the three belt stars of the Orion constellation.

Curiously enough (as we saw in Chapter Thirty-six), this was exactly the site-plan of the three enigmatic pyramids of the Giza plateau. Bauval realized that an aerial view of the Giza necropolis would show the Great Pyramid of Khufu occupying the position of *Al Nitak*, and the Second Pyramid of Khafre occupying the position of *Al Nilam*, while the Third Pyramid of Menkaure was offset to the east of the diagonal formed by the other two – thus completing what seemed at first to be a vast diagram of the stars.

Was this indeed what the Giza pyramids represented? I knew that Bauval's later work, which had been wholeheartedly endorsed by mathematicians and astronomers, had borne out his inspired hunch. His evidence (reviewed fully in Chapter Forty-nine) showed that the three

pyramids were an unbelievably precise terrestrial map of the three stars of Orion's belt, accurately reflecting the angles between each of them and even (by means of their respective sizes) providing some indication of their individual magnitudes.[6] Moreover, this map extended outwards to the north and south to encompass several other structures on the Giza plateau – once again with faultless precision.[7] However, the real surprise revealed by Bauval's astronomical calculations was this: despite the fact that some aspects of the Great Pyramid did relate astronomically to the Pyramid Age, the Giza monuments as a whole were so arranged as to provide a picture of the skies (which alter their appearance down the ages as a result of precession of the equinoxes) not as they had looked in the Fourth Dynasty around 2500 BC, but as they had looked – and *only* as they had looked – around the year 10,450 BC.[8]

I had come to Egypt to go over the Giza site with Robert Bauval and to question him about his star-correlation theory. In addition I wanted to canvass his views on what sort of human society, if any, could have had the technological knowhow, such a very long while ago, to measure accurately the altitudes of the stars and to devise a plan as mathematical and ambitious as that of the Giza necropolis.

I had also come to meet another researcher who had challenged the orthodox chronology of Ancient Egypt with a well-founded claim to have found hard evidence of a high civilization in the Nile Valley in 10,000 BC or earlier. Like Bauval's astronomical data, the evidence had always been available but had failed to attract the attention of established Egyptologists. The man responsible for bringing it before the public now was the American scholar, John Anthony West, who argued that the specialists had missed it – not because

they had failed to find it, but because they had found it and had failed to interpret it properly.[9]

West's evidence focused on certain key structures, notably the Great Sphinx and the Valley Temple at Giza and, much farther south, the mysterious Osireion at Abydos. He argued that these desert monuments showed many scientifically unmistakable signs of having been weathered by *water*, an erosive agent they could only have been exposed to in sufficient quantities during the damp 'pluvial' period that accompanied the end of the last Ice Age around the eleventh millennium BC.[10] The implication of this peculiar and extremely distinctive pattern of 'precipitation induced' weathering, was that the Osireion, the Sphinx, and other associated structures were built before 10,000 BC.[11]

A British investigative journalist summed up the effect:

> West is really an academic's worst nightmare, because here comes somebody way out of left-field with a thoroughly well thought out, well presented, coherently described theory, full of data they can't refute, and it pulls the rug out from beneath their feet. So how do they deal with it? They ignore it. They hope it'll go away … and it won't go away.[12]

The reason the new theory would not, under any circumstances, go away, despite its rejection by droves of 'competent Egyptologists', was that it had won widespread support from another scientific branch of scholarship – geology. Dr Robert Schoch, a professor of Geology at Boston University, had played a prominent role in validating West's estimates concerning the true age of the Sphinx, and his views had been endorsed by almost 300 of his peers at the 1992 annual convention of the Geological Society of America.[13]

Since then, most often out of the public eye, an

acrimonious dispute had begun to smoulder between the geologists and the Egyptologists.[14] And though very few people other than John West were prepared to say as much, what was at stake in this dispute was a complete upheaval in accepted views about the evolution of human civilization.

According to West:

> We are told that the evolution of human civilization is a linear process – that it goes from stupid cavemen to smart old us with our hydrogen bombs and striped toothpaste. But the proof that the Sphinx is many, many thousands of years older than the archaeologists think it is, that it preceded by many thousands of years even dynastic Egypt, means that there must have been, at some distant point in history, a high and sophisticated civilization – just as all the legends affirm.[15]

My own travels and research during the preceeding four years had opened my eyes to the electrifying possibility that

those legends could be true, and this was why I had come back to Egypt to meet West and Bauval. I was struck by the way in which their hitherto disparate lines of enquiry[16] had converged so convincingly on what appeared to be the astronomical and geological fingerprints of a lost civilization, one that might or might not have originated in the Nile Valley but that seemed to have had a presence here as far back as the eleventh millennium BC.

The way of the jackal

Anubis, guardian of the secrets, god of the funerary chamber, jackal-headed opener of the ways of the dead, guide and companion of Osiris …

It was around five o'clock in the afternoon, closing-time at the Cairo Museum, when Santha pronounced herself satisfied

with her photographs of the sinister black effigy. Down below us guards were whistling and clapping their hands as they sought to herd the last few sightseers out of the halls, but up on the second floor of the hundred-year-old building, where ancient Anubis crouched in his millennial watchfulness, all was quiet, all was still.

We left the sombre museum and walked down into the sunlight still bathing Cairo's bustling Tahrir Square.

Anubis, I reflected, had shared his duties as spirit guide and guardian of the secret writings with another god whose type and symbol had also been the jackal and whose name, Upuaut, literally meant Opener of the Ways.[17] Both these canine deities had been linked since time immemorial with the ancient town of Abydos in upper Egypt, the original god of which, Khenti-Amentiu (the strangely named 'Foremost of the Westerners') had also been represented as a member of

the dog family, usually lying recumbent on a black standard.[18]

Was there any significance in the repeated recurrence at Abydos of all this mythical and symbolic doggishness, with its promise of high secrets waiting to unfold? It seemed worthwhile trying to find out since the extensive ruins there included the structure known as the Osireion, which West's geological research had indicated might be far older than the archaeologists thought. Besides, I had already arranged to meet West in a few days in the upper Egyptian town of Luxor, less than 200 kilometres south of Abydos. Rather than flying directly to Luxor from Cairo, as I had originally planned, I now realized that it would be perfectly feasible to go by road and to visit Abydos and a number of other sites along the way.

Our driver, Mohamed Walili, was waiting for us in an

underground car-park just off Tahrir Square. A large genial, elderly man, he owned a battered white Peugeot taxi normally to be found standing in the rank outside the Mena House hotel at Giza. Over the last few years, on our frequent research trips to Cairo, we had struck up a friendship with him and he now worked with us whenever we were in Egypt. We haggled for some time about the appropriate daily rate for the long return journey to Abydos and Luxor. Many matters had to be taken into account, including the fact that some of the areas we would be passing through had recently been targets of terrorist attacks by Islamic militants. Eventually we agreed on a price and arranged to set off early the following morning.

Chapter 41

City of the Sun,
Chamber of the Jackal

Mohamed picked us up at our hotel in Heliopolis at 6 a. m. when it was still half dark.

We drank small cups of thick black coffee at a roadside stall and then drove west, along dusty streets still almost deserted, towards the River Nile. I had asked Mohamed to

take us through Maydan al-Massallah Square, which was dominated by one of the world's oldest intact Egyptian obelisks.[1] Weighing an estimated 350 tons, this was a pink granite monolith, 107 feet high, erected by Pharaoh Senuseret I (1971–1928 BC). It had originally been one of a pair at the gateway of the great Heliopolitan Temple of the Sun. In the 4000 years since then the temple itself had entirely vanished, as had the second obelisk. Indeed, almost all of ancient Heliopolis had now been obliterated, cannibalized for its handsome dressed stones and ready-made building materials by countless generations of the citizens of Cairo.[2]

Heliopolis (City of the Sun) was referred to in the Bible as On but was originally known in the Egyptian language as Innu, or Innu Mehret – meaning 'the pillar' or 'the northern pillar'.[3] It was a district of immense sanctity, associated with

a strange group of nine solar and stellar deities, and was old beyond reckoning when Senuseret chose it as the site for his obelisk. Indeed, together with Giza (and the distant southern city of Abydos) Innu/Heliopolis was believed to have been part of the first land that emerged from the primeval waters at the moment of creation, the land of the 'First Time', where the gods had commenced their rule on earth.[4]

Heliopolitan theology rested on a creation-myth distinguished by a number of unique and curious features. It taught that in the beginning the universe had been filled with a dark, watery nothingness, called the Nun. Out of this inert cosmic ocean (described as 'shapeless, black with the blackness of the blackest night') rose a mound of dry land on which Ra, the Sun God, materialized in his self-created form as Atum (sometimes depicted as an old bearded man leaning on a staff):[5]

> The sky had not been created, the earth had not been created, the children of the earth and the reptiles had not been fashioned in that place … I, Atum, was one by myself … There existed no other who worked with me …[6]

Conscious of being alone, this blessed and immortal being contrived to create two divine offspring, Shu, god of the air and dryness, and Tefnut the goddess of moisture: 'I thrust my phallus into my closed hand. I made my seed to enter my hand. I poured it into my own mouth. I evacuated under the form of Shu, I passed water under the form of Tefnut.'[7]

Despite such apparently inauspicious beginnings, Shu and Tefnut (who were always described as 'Twins' and frequently depicted as lions) grew to maturity, copulated and produced offspring of their own: Geb the god of the earth and Nut, the goddess of the sky. These two also mated, creating Osiris and Isis, Set and Nepthys, and so completed the Ennead, the full

company of the Nine Gods of Heliopolis. Of the nine, Ra, Shu, Geb and Osiris were said to have ruled in Egypt as kings, followed by Horus, and lastly – for 3226 years – by the Ibis-headed wisdom god Thoth.[8]

Who were these people – or creatures, or beings, or gods? Were they figments of the priestly imagination, or symbols, or ciphers? Were the stories told about them vivid myth memories of real events which had taken place thousands of years previously? Or were they, perhaps, part of a coded message from the ancients that had been transmitting itself over and over again down the epochs – a message only now beginning to be unravelled and understood?

Such notions seemed fanciful. Nevertheless I could hardly forget that out of this very same Heliopolitan tradition the great myth of Isis and Osiris had flowed, covertly transmitting an accurate calculus for the rate of precessional

motion. Moreover the priests of Innu, whose responsibility it had been to guard and nurture such traditions, had been renowned throughout Egypt for their high wisdom and their proficiency in prophecy, astronomy, mathematics, architecture and the magic arts. They were also famous for their possession of a powerful and sacred object known as the Benben.[9]

The Egyptians called Heliopolis Innu, the pillar, because tradition had it that the Benben had been kept here in remote pre-dynastic times, when it had balanced on top of a pillar of rough-hewn stone.

The Benben was believed to have fallen from the skies. Unfortunately, it had been lost so long before that its appearance was no longer remembered by the time Senuseret took the throne in 1971 BC. In that period (the Twelfth Dynasty) all that was clearly recalled was that the Benben

had been pyramidal in form, thus providing (together with the pillar on which it stood) a prototype for the shape of all future obelisks. The name Benben was likewise applied to the pyramidion, or apex stone, usually placed on top of pyramids.[10] In a symbolic sense, it was also associated closely and directly with Ra–Atum, of whom the ancient texts said, 'You became high on the height; you rose up as the Benben stone in the Mansion of the Phoenix …'[11]

Mansion of the Phoenix described the original temple at Heliopolis where the Benben had been housed. It reflected the fact that the mysterious object had also served as an enduring symbol for the mythical Phoenix, the divine Bennu bird whose appearances and disappearances were believed to be linked to violent cosmic cycles and to the destruction and rebirth of world ages.[12]

Connections and similarities

Driving through the suburbs of Heliopolis at around 6.30 in the morning I closed my eyes and tried to summon up a picture of the landscape as it might have looked in the mythical First Time after the Island of Creation[13] – the primordial mound of Ra–Atum – had risen out of the flood waters of the Nun. It was tempting to see a connection between this imagery and the Andean traditions that spoke of the emergence of the civilizer god Viracocha from the waters of Lake Titicaca after an earth-destroying flood. Moreover there was the figure of Osiris to consider – a conspicuously *bearded* figure, like Viracocha, and like Quetzalcoatl as well – remembered for having abolished cannibalism among the Egyptians, for having taught them agriculture and animal husbandry, and for introducing them to such arts as writing,

architecture, and music.[14]

The similarities between the Old and New World traditions were hard to miss but even harder to interpret. It was possible they were just a series of beguiling coincidences. On the other hand, it was possible that they might reveal the fingerprints of an ancient and unidentified global civilization – fingerprints that were essentially the same whether they appeared in the myths of Central America, or of the high Andes, or of Egypt. The priests of Heliopolis, after all, had taught of the creation, but who had taught *them*? Had they sprung out of nowhere, or was it more likely that their doctrine, with all its complex symbolism, was the product of a long refinement of religious ideas?

If so, when and where had these ideas developed?

I looked up to discover that we had left Heliopolis behind and were winding our way through the noisy and crowded

streets of down-town Cairo. We crossed over to the west bank of the Nile by way of the 6 October Bridge and soon afterwards entered Giza. Fifteen minutes later, passing the massive bulk of the Great Pyramid on our right, we turned south on the road to upper Egypt, a road which followed the meridional course of the world's longest river through a landscape of palms and green fields fringed by the encroaching red wastes of pitiless deserts.

The ideas of the Heliopolitan priesthood had influenced every aspect of secular and religious life in Ancient Egypt, but had those ideas developed locally, or had they been introduced to the Nile Valley from elsewhere? The traditions of the Egyptians provided an unambiguous answer to questions such as these. All the wisdom of Heliopolis was a legacy, they said, and this legacy had been passed to humankind by the gods.

Gift of the Gods?

About ten miles south of the Great Pyramid we pulled off the main road to visit the necropolis of Saqqara. Rearing up on the desert's edge, the site was dominated by a six-tier ziggurat, the step-pyramid of the Third Dynasty Pharaoh Zoser. This imposing monument, almost 200 feet tall, was dated to approximately 2650 BC. It stood within its own compound, surrounded by an elegant enclosure wall, and was reckoned by archaeologists to be the earliest massive construction of stone ever attempted by humanity.[15] Tradition had it that its architect was the legendary Imhotep, 'Great of Magic', a high priest of Heliopolis, whose other titles were Sage, Sorcerer, Astronomer and Doctor.[16]

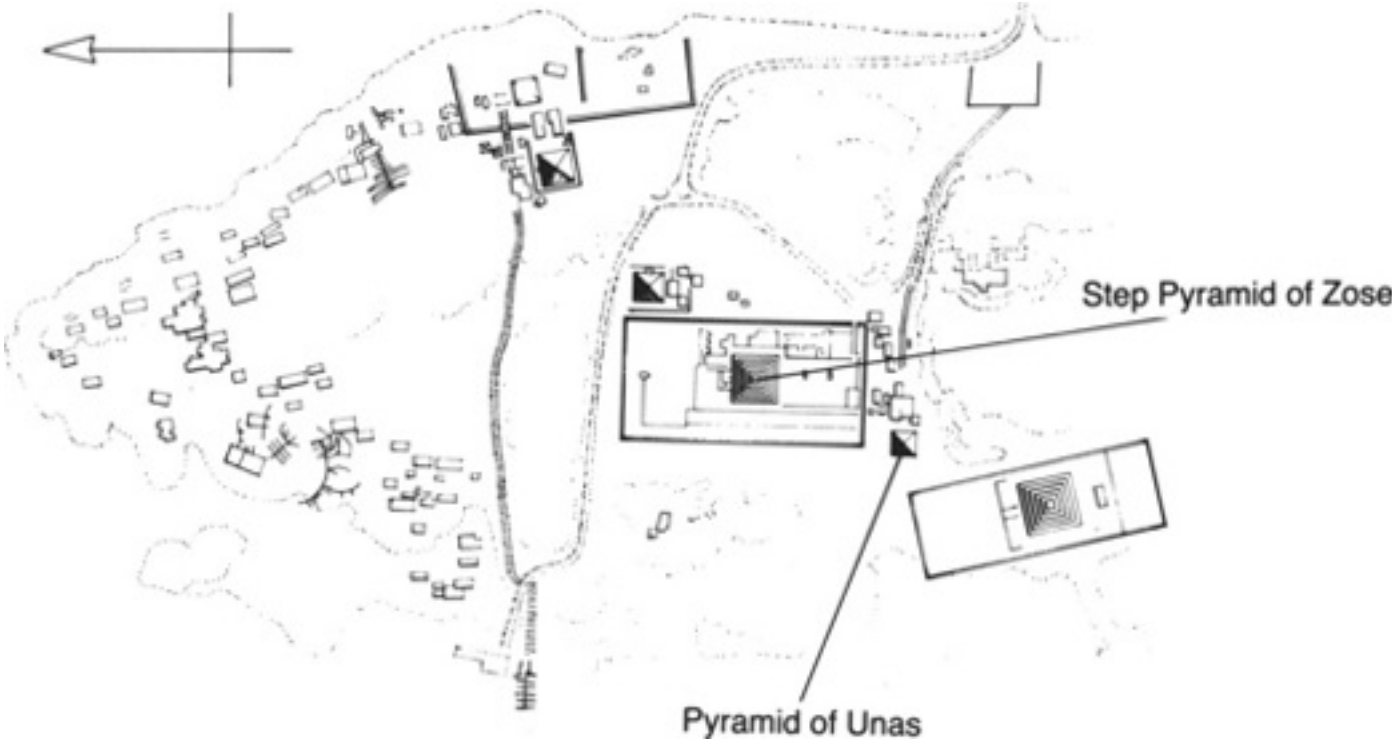

Saqqara.

We shall have more to say about the step-pyramid and its builder in a later chapter, but on this occasion I had not come to Saqqara to see it. My sole objective was to spend a

few moments in the burial chamber of the nearby pyramid of Unas, a Fifth Dynasty pharaoh who had reigned from 2356 to 2323 BC.[17] The walls of this chamber, which I had visited several times before, were inscribed from floor to ceiling with the most ancient of the Pyramid Texts, an extravaganza of hieroglyphic inscriptions giving voice to a range of remarkable ideas – in acute contrast to the mute and unadorned interiors of the Fourth Dynasty pyramids at Giza.

A phenomenon exclusively of the Fifth and Sixth Dynasties (2465–2152 BC), the Pyramid Texts were sacred writings, parts of which were thought to have been composed by the Heliopolitan priesthood in the late third millennium BC, and parts of which had been received and handed down by them from pre-dynastic times.[18] It was the latter parts of these Texts, dating to a remote and impenetrable antiquity, which had particularly aroused my curiosity when I had begun to

research them a few months previously. I had also been amused – and a little intrigued – by the strange way that nineteenth century French archaeologists appeared almost to have been directed to the hidden chamber of the Pyramid Texts by a mythological 'opener of the ways.' According to reasonably well-documented reports, an Egyptian foreman of the excavations at Saqqara had been up and about at dawn one morning and had found himself by the side of a ruined pyramid looking into the bright amber eyes of a lone desert jackal:

> It was as if the animal were taunting his human observer … and inviting the puzzled man to chase him. Slowly the jackal sauntered towards the north face of the pyramid, stopping for a moment before disappearing into a hole. The bemused Arab decided to follow his lead. After slipping through the narrow hole, he found himself crawling into the dark bowels of the pyramid. Soon he emerged into a chamber and, lifting his light, saw

> that the walls were covered from top to bottom with hieroglyphic inscriptions. These were carved with exquisite craftsmanship into the solid limestone and painted over with turquoise and gold.'[19]

Today the hieroglyph-lined chamber beneath the ruined pyramid of Unas is still reached through the north face by the long descending passage the French archaeological team excavated soon after the foreman's astonishing discovery. The chamber consists of two rectangular rooms separated by a partition wall, into which is let a low doorway. Both rooms are covered by a gabled ceiling painted with myriads of stars. Emerging stooped from the cramped passage, Santha and I entered the first of the two rooms and passed through the connecting doorway into the second. This was the tomb chamber proper, with the massive black granite sarcophagus of Unas at its western end and the strange utterances of the Pyramid Texts proclaiming themselves from every wall.

Speaking to us directly (rather than through riddles and mathematical legerdemain like the unadorned walls of the Great Pyramid), what were the hieroglyphs saying? I knew that the answer depended to some extent on which translation you were using, largely because the language of the Pyramid Texts contained so many archaic forms and so many unfamiliar mythological allusions that scholars were obliged to fill in the gaps in their knowledge with guesswork.[20] Nevertheless it was generally agreed that the late R. O. Faulkner, a professor of the Ancient Egyptian Language at University College London, had produced the most authoritative version.[21]

Faulkner, whose translation I had studied line by line, described the Texts as constituting 'the oldest corpus of Egyptian religious and funerary literature now extant' and added, 'they are the least corrupt of all such collections and

are of fundamental importance to the student of Egyptian religion …'[22] The reason *why* the Texts were so important (as many scholars agreed), was that they were the last completely open channel connecting the relatively short period of the past that humanity remembers to the far longer period that has been forgotten: 'They vaguely disclose to us a vanished world of thought and speech, the last of the unnumbered aeons through which prehistoric man has passed, till finally he … enters the historic age.'[23]

It was hard to disagree with sentiments like these: the Texts did disclose a vanished world. But what intrigued me most about this world was the possibility that it might have been inhabited not only by primitive savages (as one would have expected in remote prehistory) but, paradoxically, by men and women whose minds had been enlightened by a scientific understanding of the cosmos. The overall picture

was equivocal: there were genuinely primitive elements locked into the Pyramid Texts alongside the loftier sequences of ideas. Nevertheless, every time I immersed myself in what Egyptologists call ‘these ancient spells’, I was impressed by the strange glimpses they seemed to afford of a high intelligence at work, darting from behind layers of incomprehension, reporting on experiences that ‘prehistoric man’ should never have had and expressing notions he should never have been able to formulate. In short, the effect the Texts achieved through the medium of hieroglyphs was akin to the effect the Great Pyramid achieved through the medium of architecture. In both cases the dominant impression was of *anachronism* – of advanced technological processes used or described at a period in human history when there was supposed to have been no technology at all …

Chapter 42

Anachronisms and Enigmas

I looked around the grey-walled chamber of Unas, up and down the long registers of hieroglyphs in which the Pyramid Texts were inscribed. They were written in a dead language. Nevertheless, the constant affirmation, repeated over and over again in these ancient compositions, was that of *life* – eternal life – which was to be achieved through the pharaoh's

rebirth as a star in the constellation of Orion. As the reader will recall from Chapter Nineteen, (where we compared Egyptian beliefs with those of Ancient Mexico), there were several utterances which voiced this aspiration explicitly:

> Oh King, you are this Great Star, the Companion of Orion, who traverses the sky with Orion … you ascend from the east of the sky being renewed in your due season, and rejuvenated in your due time …'[1]

Though undeniably beautiful there was nothing inherently extraordinary about these sentiments, and it was by no means impossible to attribute them to a people assessed by the French archaeologist Gaston Maspero as having 'always remained half savage'.[2] Furthermore, since Maspero had been the first Egyptologist to enter the pyramid of Unas,[3] and was considered a great authority on the Texts, it was hardly surprising that his opinions should have shaped all academic

responses to this literature since he began to publish translations from it in the 1880s.[4] Maspero (with a little help from a jackal) had brought the Pyramid Texts to the world. Thereafter, the dominance of his particular prejudices about the past had functioned as a filter on knowledge, inhibiting variant interpretations of the more opaque or puzzling utterances. This seemed to me to be unfortunate to say the least. What it meant was that, despite the technical and scientific puzzles raised by monuments like the Great Pyramid at Giza, scholars had ignored the implications of some striking passages in the Texts.

These passages sounded suspiciously like attempts to express complex technical and scientific imagery *in an entirely inappropriate idiom*. Maybe it was coincidence, but the result resembled the outcome that we might expect today if we were to try to translate Einstein's Theory of Relativity into

Chaucerian English or to describe a supersonic aircraft in vocabulary derived from Middle High German.

Broken images of a lost technology?

Take for example some of the peculiar equipment and accessories designated for the pharaoh's use as he journeyed to his eternal resting place among the stars:

> The gods who are in the sky are brought to you, the gods who are on earth assemble for you, they place their hands under you, they make a *ladder* for you that you may ascend on it into the sky, the doors of the sky are thrown open to you, the doors of the starry firmament are thrown open for you.[5]

The ascending pharaoh was identified with, and frequently referred to, as 'an Osiris'. Osiris himself, as we have seen, was

frequently linked to and associated with the constellation of Orion. Osiris-Orion was said to have been the first to have climbed the great ladder the gods had made. And several utterances left no doubt that this ladder had not extended upwards from earth to heaven but downwards from heaven to earth. It was described as a *rope-ladder*[6] and the belief was that it had hung from an 'iron plate' suspended in the sky.[7]

Were we dealing here, I wondered, simply with the bizarre imaginings of half-savage priests? Or might there be some other explanation for allusions such as these?

In Utterance 261, 'The King is a flame, moving before the wind to the end of the sky and to the end of the earth … the King travels the air and traverses the earth … there is brought to him a way of ascent to the sky …'[8]

Switching to dialogue, Utterance 310 proclaimed,

'O you whose vision is in his face and whose vision is in

the back of his head, bring this to me!'

'What ferry-boat shall be brought to you?'

'Bring me: "It-flies-and-alights".'[9]

Utterance 332, supposedly spoken by the King himself, confided, 'I am this one who has escaped from the coiled serpent, I have ascended in a blast of fire having turned myself about. The two skies go to me.[10]

And in Utterance 669 it was asked, 'Wherewith can the King be made to fly-up?'

The reply was given: 'There shall be brought to you the *Hnw*-bark [italicized word unstranslatable] and the … [text missing] of the *hn*-bird [italicized word untranslatable]. You shall fly up therewith … You shall fly up and alight.'[11]

Other passages also seemed to me worthy of more thorough investigation than they have received from scholars. Here are a few examples:

O my father, great King, the aperture of the sky-window is opened for you.[12]

'The door of the sky at the horizon opens to you, the gods are glad at meeting you … May you sit on this iron throne of yours, as the Great One who is in Heliopolis.[13]

O King, may you ascend … The sky reels at you, the earth quakes at you, the Imperishable Stars are afraid of you. I have come to you, O you whose seats are hidden, that I may embrace you in the sky …[14]

The earth speaks, the gate of the earth god is open, the doors of Geb are opened for you … May you remove yourself to the sky upon your iron throne.[15]

O my father the King, such is your going when you have gone as a god, your travelling as a celestial being … you stand in the Conclaves of the horizon … and sit on this throne of iron at which the gods marvel …[16]

The constant references to iron, though easy to overlook, were puzzling. Iron, I knew, had been a rare metal in Ancient Egypt, particularly in the Pyramid Age when it had supposedly only been available in meteoritic form.[17] Yet here, in the Pyramid Texts, there seemed to be an embarrassment of iron riches: iron plates in the sky, iron thrones, and elsewhere an iron sceptre (Utterance 665C) and even iron bones for the King (Utterances 325, 684 and 723).[18]

In the Ancient Egyptian language the name for iron had been *bja*, a word that meant literally 'metal of heaven' or 'divine metal'.[19] The knowledge of iron was thus regarded as yet another gift from the gods …

Repositories of a lost science?

What other fingerprints might these gods have left behind in the Pyramid Texts?[20]

In my readings – here and there among the most archaic of the Utterances – I had come across several metaphors that seemed to refer to the passage of *epochs of precessional time*. These metaphors stood out from the surrounding material because they were expressed in what had become a clear and familiar terminology to me: that of the archaic scientific language identified by Santillana and von Dechend in *Hamlet's Mill*.[21]

The reader may recall that a cosmic 'diagram' of the four props of the sky was one of the standard thought tools employed in that ancient language. Its purpose was to assist visualisation of the four imaginary bands conceived as framing, supporting and defining a precessional world age. These were what astronomers call the 'equinoctial and

solstitial colures' and were seen as hooping down from the celestial north pole and marking the four constellations against the background of which, for periods of 2160 years at a time, the sun would consistently rise on the spring and autumn equinoxes and on the winter and summer solstices.[22]

The Pyramid Texts appear to contain several versions of this diagram. Moreover, as is so often the case with prehistoric myths which transmit hard astronomical data, the precessional symbolism is interwoven tightly with violent images of terrestrial destruction – as though to suggest that the 'breaking of the mill of heaven', that is the transition every 2160 years from one zodiacal age to another, could under ill-omened circumstances bring catastrophic influences to bear on terrestrial events.

Thus it was said that

> Ra–Atum, the god who created himself, was originally king over gods and

> men together but mankind schemed against his sovereignty, for he began to grow old, his bones became silver, his flesh gold and his hair [as] lapis lazuli.[23]

When he realized what was happening, the ageing Sun God (so reminiscent of Tonatiuh, the bloodthirsty Fifth Sun of the Aztecs) determined that he would punish this insurrection by killing off most of the human race. The instrument of the havoc he unleashed was symbolized at times as a raging lioness wading in blood and at times as the fearsome lion-headed goddess Sekhmet who 'poured fire out of herself and savaged mankind in an ecstasy of slaughter.[24]

The terrible destruction continued unabated for a long period. Then at last Ra intervened to save the lives of a 'remnant', the ancestors of present humanity. This intervention took the form of a flood which the lioness thirstily lapped up and then fell asleep. When she awoke, she

was no longer interested in pursuing the destruction, and peace descended upon the devastated world.[25]

Meanwhile Ra had resolved to 'draw away' from what was left of his creation: 'As I live my heart is weary of staying with Mankind. I have gone on killing them [almost] to the very last one, so the [insignificant] remnant is not my affair …'[26]

The Sun God then rose into the sky on the back of the sky-goddess Nut who (for the purposes of the precessional metaphor about to be delivered) had transformed herself into a cow. Before very long – in a close analogy to the 'shaft-tree' that 'shivered' on Amlodhi's wildly gyrating mill – the cow grew 'dizzy and began to shake and to tremble because she was so high above the earth.'[27] When she complained to Ra about this precarious state of affairs he commanded, 'Let my son Shu be put beneath Nut to keep guard for me over the

heavenly supports – which exist in the twilight. Put her above your head and keep her there.'[28] As soon as Shu had taken his place beneath the cow and had stabilized her body, 'the heavens above and the earth beneath came into being'. At the same moment, 'the four legs of the cow', as Egyptologist Wallis Budge commented in his classic study *The Gods of the Egyptians*, 'became the four props of heaven at the four cardinal points'.[29]

Like most scholars, Budge understandably assumed that the 'cardinal points' referred to in this Ancient Egyptian tradition had strictly terrestrial connotations and that 'heaven' represented nothing more than the sky above our heads. He took it for granted that the point of the metaphor was for us to envisage the cow's four legs as positioned at the four points of the compass – north, south, east and west. He also thought – and even today few Egyptologists would disagree

with him – that the simple-minded priests of Heliopolis had actually *believed* that the sky had four corners which were supported on four legs and that Shu, 'the skybearer *par excellence*', had stood immobile like a pillar at the centre of the whole edifice.[30]

Reinterpreted in the light of Santillana's and von Dechend's findings, however, Shu and the four legs of the celestial cow look much more like the components of an archaic scientific symbol depicting the frame of a precessional world age – the polar axis (Shu) and the colures (the four legs or 'props' marking the equinoctial and solstitial cardinal points in the annual round of the sun).

Moreover, it is tempting to speculate *which* world age was being signalled here …

With a cow involved it could have been the Age of Taurus, although the Egyptians knew the difference between bulls

and cows as well as anyone. But a much more likely contender – at any rate on purely symbolic grounds – is the age of Leo, from approximately 10,970 to 8810 BC.[31] The reason is that Sekhmet, the agent of the destruction of Mankind referred to in the myth, was *leonine* in form. What better way to symbolize the troubled birth of the new world age of Leo than to depict its harbinger as a rampaging lion, particularly since the Age of Leo coincided with the final ferocious meltdown of the last Ice Age, during which huge numbers of animal species all over the earth were suddenly and violently rendered extinct.'[32] Mankind survived the immense floods and earthquakes and rapid changes of climate that took place, but very probably in much reduced numbers and much reduced circumstances.

The train of the Sun and the dweller in Sirius

Of course the ability to recognize and define precessional world ages in myth implies that the Ancient Egyptians posessed better observational astronomy and a more sophisticated understanding of the mechanics of the solar system than any ancient people have hitherto been credited with.[33] There is no doubt that knowledge of this calibre, if it existed at all, would have been highly regarded by the Ancient Egyptians, who would have transmitted it from generation to generation in a secretive manner. Indeed, it would have ranked among the highest arcana entrusted to the keeping of the priestly elite at Heliopolis and would have been passed on, in the main, through an oral and initiatory tradition.[34] If, by chance it had found its way into the Pyramid Texts, is it not likely that its form would have been veiled by metaphors and allegories?

I walked slowly across the dusty floor of the tomb chamber

of Unas, noting the heavy stillness in the air, casting my eyes over the faded blue and gold inscriptions. Expressed in coded language several millennia before Copernicus and Galileo, some of the passages inscribed on these walls seemed to offer clues to the true heliocentric nature of the solar system.

In one, for example, Ra, the Sun God, was depicted as seated upon an iron throne encircled by lesser gods who moved around him constantly and who were said to be 'in his train'.[35] Likewise, in another passage, the deceased Pharaoh was urged to 'stand at the head of the two halves of the sky and weigh the words of the gods, the aged ones, who revolve around Ra.'[36]

If the 'aged ones' and the 'encircling gods' revolving around Ra should prove to be parts of a terminology referring to the planets of our solar system, the original authors of the Pyramid Texts must have enjoyed access to some remarkably

advanced astronomical data. They must have known that the earth and the planets revolved around the sun rather than vice versa.[37] The problem this raises is that neither the Ancient Egyptians at any stage in their history, nor even their successors the Greeks, or for that matter the Europeans until the Renaissance, are supposed to have possessed cosmological data of anything approaching this quality. How, therefore, can its presence be explained in compositions which date back to the dawn of Egyptian civilization?

Another (and perhaps related) mystery concerns the star Sirius, which the Egyptians identified with Isis, the sister and consort of Osiris and the mother of Horus. In a passage addressed to Osiris himself, the Pyramid Texts state:

> Thy sister Isis cometh unto thee rejoicing in her love for thee. Thou settest her upon thee, thy issue entereth into her, and she becometh great with child like the star Sept [Sirius, the Dog Star]. Horus–Sept cometh forth

from thee in the form of Horus, dweller in Sept.[38]

Many interpretations of this passage are, of course, possible. What intrigued me, however, was the clear implication that Sirius was to be regarded as a *dual entity* in some way comparable to a woman 'great with child'. Moreover, after the birth (or coming forth) of that child, the text makes a special point of reminding us that Horus remained a 'dweller in Sept', presumably suggesting that he stayed close to his mother.

Sirius is an unusual star. A sparkling point of light particularly prominent in the winter months in the night skies of the northern hemisphere, it consists of a *binary* star system, i. e. it is in fact, as the Pyramid Texts suggest, a 'dual entity'. The major component, Sirius-A, is what we see. Sirius-B, on the other hand – the dwarf-star which revolves around Sirius A – is absolutely invisible to the naked eye. Its

existence did not become known to Western science until 1862, when US astronomer Alvin Clark spotted it through one of the largest and most advanced telescopes of the day.[39] How could the scribes who wrote the Pyramid Texts possibly have obtained the information that Sirius was two stars in one?

In *The Sirius Mystery*, an important book published in 1976, I knew that the American author Robert Temple had offered some extraordinary answers to this question.[40] His study focused on the traditional beliefs of the Dogon tribe of West Africa – beliefs in which the binary character of Sirius was explicitly described and in which the correct figure of fifty years was given for the period of the orbit of Sirius-B around Sirius-A.[41] Temple argued cogently that this high quality technical information had been passed down to the Dogon from *the Ancient Egyptians* through a process of cultural

diffusion, and that it was to the Ancient Egyptians that we should look for an answer to the Sirius mystery. He also concluded that the Ancient Egyptians must have received the information from intelligent beings from the region of Sirius'.[42]

Like Temple, I had begun to suspect that the more advanced and sophisticated elements of Egyptian science made sense only if they were understood as parts of an inheritance. Unlike Temple, I saw no urgent reason to attribute that inheritance to extra-terrestrials. To my mind the anomalous star knowledge the Heliopolitan priests had apparently possessed was more plausibly explained as the legacy of a lost human civilization which, against the current of history, had achieved a high level of technological advancement in remote antiquity. It seemed to me that the building of an instrument capable of detecting Sirius-B might

not have been beyond the ingenuity of the unknown explorers and scientists who originated the remarkable maps of the prehistoric world discussed in Part I. Nor would it have daunted the unknown astronomers and measurers of time who bequeathed to the Ancient Maya a calendar of amazing complexity, a data-base about the movements of the heavenly bodies which could only have been the product of thousands of years of accurately recorded observations, and a facility with very large numbers that seemed more appropriate to the needs of a complex technological society than to those of a 'primitive' Central American kingdom.[43]

Millions of years and the movements of the stars

Very large numbers also appeared in the Pyramid Texts, in the symbolic 'boat of millions of years', for example, in which

the Sun God was said to navigate the dark and airless wastes of interstellar space.[44] Thoth, the god of wisdom ('he who reckons in heaven, the counter of the stars, the measurer of the earth') was specifically empowered to grant a life of millions of years to the deceased pharaoh.[45] Osiris, 'king of eternity, lord of everlasting', was described as traversing millions of years in his life.'[46] And figures like 'tens of millions of years' (as well as the more mind-boggling 'one million of millions of years')[47] occurred often enough to suggest that some elements at least of Ancient Egyptian culture must have evolved for the convenience of scientifically minded people with more than passing insight into the immensity of time.

Such a people would, of course, have required an excellent calendar – one that would have facilitated complex and accurate calculations. It was therefore not surprising to learn

that the Ancient Egyptians, like the Maya, had possessed such a calendar and that their understanding of its workings seemed to have declined, rather than improved, as the ages went by.[48] It was tempting to see this as the gradual erosion of a corpus of knowledge inherited an extremely long time ago, an impression supported by the Ancient Egyptians themselves, who made no secret of their belief that their calendar was a legacy which they had received 'from the gods'.

We consider the possible identity of these gods in more detail in the following chapters. Whoever they were, they must have spent a great deal of their time observing the stars, and they had accumulated a fund of advanced and specialized knowledge concerning the star Sirius in particular. Further evidence for this came in the form of the most useful calendrical gift which the gods supposedly gave

to the Egyptians: the *Sothic* (or Sirian) cycle.[49]

The Sothic cycle was based on what is referred to in technical jargon as 'the periodic return of the heliacal rising of Sirius', which is the first appearance of this star after a seasonal absence, rising at dawn just ahead of the sun in the eastern portion of the sky.[50] In the case of Sirius the interval between one such rising and the next amounts to *exactly* 365.25 days – a mathematically harmonious figure, uncomplicated by further decimal points, which is just twelve minutes longer than the duration of the solar year.[51]

The curious thing about Sirius is that out of an estimated 2000 stars in the heavens visible to the naked eye it is the only one to rise heliacally at this precise and nicely rounded interval of 365 and a quarter days – a unique product of its 'proper motion' (the speed of its own movement through space) combined with the effects of precession of the

equinoxes.[52] Moreover, it is known that the day of the heliacal rising of Sirius – New Year's Day in the Ancient Egyptian calendar – was traditionally calculated at Heliopolis, where the Pyramid Texts were compiled, and announced ahead of time to all the other major temples up and down the Nile.[53]

I remembered that Sirius was referred to directly in the Pyramid Texts by 'her name of the New Year'.[54] Together with other relevant utterances (e.g., 669[55]), this confirmed that the Sothic calendar was *at least* as old as the Texts themselves,[56] and their origins stretched back into the mists of distant antiquity. The great enigma, therefore, is this: in such an early period, who could have possessed the necessary knowhow to observe and take note of the coincidence of the period of 365.25 days with the heliacal rising of Sirius – a coincidence described by the French mathematician R.A.

Schwaller de Lubicz as ‘an entirely exceptional celestial phenomenon’?[57]

> We cannot but admire the greatness of a science capable of discovering such a coincidence. The double star of Sirius was chosen because it was the only star that moves the needed distance and in the right direction against the background of the other stars. This fact, known four thousand years before our time and forgotten until our day, obviously demands an extraordinary and prolonged observation of the sky.[58]

It was such a legacy – built out of long centuries of precise observational astronomy and scientific record-keeping – that Egypt seems to have benefited from at the beginning of the historical period and that was expressed in the Pyramid Texts.

In this, too, there lies a mystery …

Copies, or translations?

Writing in 1934, the year of his death, Wallis Budge, former Keeper of Egyptian Antiquities at the British Museum and the author of an authoritative hieroglyphic dictionary,[59] made this frank admission:

> The Pyramid Texts are full of difficulties of every kind. The exact meanings of a large number of words found in them are unknown … The construction of the sentence often baffles all attempts to translate it, and when it contains wholly unknown words it becomes an unsolved riddle. It is only reasonable to suppose that these texts were often used for funerary purposes, but it is quite clear that their period of use in Egypt was little more than one hundred years. Why they were suddenly brought into use at the end of the Fifth Dynasty and ceased to be used at the end of the Sixth Dynasty is inexplicable.'[60]

Could the answer be that they were copies of an earlier literature which Unas, the last pharaoh of the Fifth Dynasty, together with several of his successors in the Sixth Dynasty, had attempted to fix for ever in stone in the tomb chambers of their own pyramids? Budge thought so, and felt the evidence suggested that some at least of the source documents must have been exceedingly old:

> Several passages bear evidence that the scribes who drafted the copies from which the cutters of the inscriptions worked did not understand what they were writing … The general impression is that the priests who drafted the copies made extracts from several compositions of different ages and having different contents …'[61]

All this assumed that the source documents, whatever they were, must have been written in an archaic form of the Ancient Egyptian language. There was, however, an

alternative possibility which Budge failed to consider. Suppose that the task of the priests had been not only to *copy* material but to *translate* into hieroglyphs texts originally composed in another language altogether? If that language had included a technical terminology and references to artefacts and ideas for which no equivalent terms existed in Ancient Egyptian, this would provide an explanation for the strange impression given by certain of the utterances. Moreover, if the copying and translating of the original source documents had been completed by the end of the Sixth Dynasty, it was easy to understand why no more 'Pyramid Texts' had ever been carved: the project would have come to a halt when it had fulfilled its objective – which would have been to create a permanent hieroglyphic record of a sacred literature that had already been tottering with age when Unas had taken the throne of Egypt in 2356 BC.

Last records of the First Time?

Because we wanted to cover as much of the distance to Abydos as was possible before nightfall, Santha and I reluctantly decided that it was time to get back on the road. Although we had originally intended to spend only a few minutes, the sombre gloom and ancient voices of the Unas tomb chamber had lulled our senses and almost two hours had passed since our arrival. Stooping, we left the tomb and climbed the steeply angled passageway to the exit, where we paused to allow our eyes to adjust to the harsh mid-morning sunlight. As we did so, I took the opportunity to look over the pyramid itself, which had fallen into such a crumbling and thoroughly dilapidated state that its original form was barely recognizable. The core masonry, reduced to little more than a nondescript heap of rubble, was evidently of poor

quality, and even the facing blocks – some of which were still intact – lacked the finesse and careful workmanship demonstrated by the older pyramids at Giza.

This was hard to explain in conventional historical terms. If the normal evolutionary processes that govern the development of architectural skills and ideas had been at work in Egypt, one would have expected to find the opposite to be true: the design, engineering and masonry of the Unas Pyramid should have been superior to these of the Giza group, which, according to orthodox chronology, had been built about two centuries previously.[62]

The uncomfortable fact that this was not the case (i. e., Giza was 'better' than Unas and not vice versa) created knotty challenges for Egyptologists and raised questions to which no satisfactory answers had been supplied. To reiterate the central problem: everything about the three stunning and

superb pyramids of Khufu, Khafre and Menkaure proclaimed that they were the end products of hundreds, perhaps even thousands of years of accumulated architectural and engineering experience. This was not supported by the archaeological evidence which left no doubt that they were among the earliest pyramids ever built in Egypt – in other words, they were not the products of the mature phase of that country's pyramid-building experiment but, anomalously, were the creations of its infancy.

A further mystery also cried out for a solution. In the three great pyramids at Giza, Egypt's Fourth Dynasty had reared up mansions of eternity – unprecedented and unsurpassed masterpieces of stone, hundreds of feet high, weighing millions of tons apiece, which incorporated many extremely advanced features. No pyramids of comparable quality were ever built again. But only a little later, beneath the smaller,

shabbier superstructures of the Fifth and Sixth Dynasty pyramids, a sort of Hall of Records seemed to have been deliberately created: a permanent exhibition of copies or translations of archaic documents which was, at the same time, an unprecedented and unsurpassed masterpiece of scribal and hieroglyphic art.

In short, like the pyramids at Giza, it seemed that the Pyramid Texts had burst upon the scene with no apparent antecedents, and had occupied centre-stage for approximately a hundred years before 'ceasing operations', never to be bettered.

Presumably the ancient kings and sages who had arranged these things had known what they were doing? If so, their minds must have contained a plan, and they must have intended a strong connection to be seen between the completely uninscribed (but technically brilliant) – pyramids

at Giza, and the brilliantly inscribed (but technically slipshod) pyramids of the Fifth and Sixth Dynasties.

I suspected, too, that at least part of the answer to the problem might lie in the pyramid-field of Dahshur, which we passed fifteen minutes after leaving Saqqara. It was here that the so-called 'Bent' and 'Red' Pyramids were located. Attributed to Sneferu, Khufu's father, these two monuments (by all accounts very well preserved) had been closed to the public many years ago. A military base had been built around them and they had for a long while been impossible to visit – under any circumstances, ever …

As we continued our journey south, through the bright colours of that December day, I was overtaken by a compelling sense that the Nile Valley had been the scene of momentous events for humanity long before the recorded history of mankind began. All the most ancient records and

traditions of Egypt spoke of such events and associated them with the epoch during which the gods had ruled on earth: the fabled First Time, which was called Zep Tepi.[63] We shall delve into these records in the next two chapters.

Chapter 43

Looking for the First Time

Here is what the Ancient Egyptians said about the First Time, Zep Tepi, when the gods ruled in their country: they said it was a golden age[1] during which the waters of the abyss receded, the primordial darkness was banished, and humanity, emerging into the light, was offered the gifts of civilization.[2] They spoke also of intermediaries between gods

and men – the Urshu, a category of lesser divinities whose title meant ‘the Watchers’.[3] And they preserved particularly vivid recollections of the gods themselves, puissant and beautiful beings called the Neteru who lived on earth with humankind and exercised their sovereignty from Heliopolis and other sanctuaries up and down the Nile. Some of these Neteru were male and some female but all possessed a range of supernatural powers which included the ability to appear, at will, as men or women, or as animals, birds, reptiles, trees or plants. Paradoxically, their words and deeds seem to have reflected human passions and preoccupations. Likewise, although they were portrayed as stronger and more intelligent than humans, it was believed that they could grow sick – or even die, or be killed – under certain circumstances.[4]

Records of prehistory

Archaeologists are adamant that the epoch of the gods, which the Ancient Egyptians, called the First Time, is nothing more than a myth. The Ancient Egyptians, however, who may have been better informed about their past than we are, did not share this view. The historical records they kept in their most venerable temples included comprehensive lists of all the kings of Egypt: lists naming every pharaoh of every dynasty recognized by scholars today.[5] Some of these lists went even further, reaching back beyond the historical horizon of the First Dynasty into the uncharted depths of a remote and profound antiquity.

Two lists of kings in this category have survived the ravages of the ages and, having been exported from Egypt, are now preserved in European museums. We shall consider

these lists in more detail later in this chapter. They are known respectively as the Palermo Stone (dating from the Fifth Dynasty – around the twenty-fifth century BC), and the Turin Papyrus, a nineteenth Dynasty temple document inscribed in a cursive form of hieroglyphs known as hieratic and dated to the thirteenth century BC.[6]

In addition, we have the testimony of a Heliopolitan priest named Manetho. In the third century BC he compiled a comprehensive and widely respected history of Egypt which provided extensive king lists for the entire dynastic period. Like the Turin Papyrus and the Palermo Stone, Manetho's history also reached much further back into the past to speak of a distant epoch when gods had ruled in the Nile Valley.

Manetho's complete text has not come down to us, although copies of it seem to have been in circulation as late as the ninth century AD.[7] Fortuitously, however, fragments of

it were preserved in the writings of the Jewish chronicler Josephus (AD 60) and of Christian writers such as Africanus (AD 300), Eusebius (AD 340) and George Syncellus (AD 800).[8] These fragments, in the words of the late Professor Michael Hoffman of the University of South Carolina, provide the 'framework for modern approaches to the study of Egypt's past'.[9]

This is quite true.[10] Nevertheless, Egyptologists are prepared to use Manetho only as a source for the historical (dynastic) period and repudiate the strange insights he provides into prehistory when he speaks of the remote golden age of the First Time. Why should we be so selective in our reliance on Manetho? What is the logic of accepting thirty 'historical' dynasties from him and rejecting all that he has to say about earlier epochs? Moreover, since we know that his chronology for the historical period has been vindicated by

archaeology,[11] isn't it a bit premature for us to assume that his pre-dynastic chronology is wrong because excavations have not yet turned up evidence confirming it?[12]

Gods, Demigods and Spirits of the Dead

If we are to allow Manetho to speak for himself, we have no choice but to turn to the texts in which the fragments of his work are preserved. One of the most important of these is the Armenian version of the *Chronica* of Eusebius. It begins by informing us that it is extracted 'from the *Egyptian History* of Manetho, who composed his account in three books. These deal with the Gods, the Demigods, the Spirits of the Dead and the mortal kings who ruled Egypt …'[13] Citing Manetho directly, Eusebius begins by reeling off a list of the gods which consists, essentially, of the familiar Ennead of

Heliopolis – Ra, Osiris, Isis, Horus, Set, and so on:[14]

> These were the first to hold sway in Egypt. Thereafter, the kingship passed from one to another in unbroken succession … through 13,900 years … After the Gods, Demigods reigned for 1255 years; and again another line of kings held sway for 1817 years; then came thirty more kings, reigning for 1790 years; and then again ten kings ruling for 350 years. There followed the rule of the Spirits of the Dead … for 5813 years …'[15]

The total of all these periods adds up to 24,925 years and takes us far beyond the biblical date for the creation of the world (some time in the fifth millennium BC[16]). Because it suggested that biblical chronology was wrong, this created difficulties for Eusebius, a staunchly Christian commentator. But, after a moment's thought, he overcame the problem in

an inspired way: ‘The year I take to be a lunar one, consisting, that is, of 30 days: what we now call a month the Egyptians used formerly to style a year …’[17]

Of course they did no such thing.[18] By means of this sleight of hand, however, Eusebius and others succeeded in boiling down Manetho’s grand pre-dynastic span of almost 25,000 years into a sanitized dollop a bit over 2000 years which fits comfortably into the 2242 years orthodox biblical chronology allows between Adam and the Flood.[19]

A different technique for downplaying the disturbing chronological implications of Manetho’s evidence is employed by the monk George Syncellus (*c.* AD 800). This commentator, who relies entirely on invective, writes, ‘Manetho, chief priest of the accursed temples of Egypt [tells us] of gods who never existed. These, he says, reigned for 11,895 years …’[20]

Several other curious and contradictory numbers crop up in the fragments. In particular, Manetho is repeatedly said to have given the enormous figure of 36,525 years for the *entire* duration of the civilization of Egypt from the time of the gods down to the end of the thirtieth (and last) dynasty of mortal kings.[21] This figure of course, incorporates the 365.25 *days* of the Sothic year (the interval between two consecutive heliacal risings of Sirius, as described in the last chapter). More likely by design than by accident, it also represents 25 cycles of 1460 Sothic years, and 25 cycles of 1461 *calendar* years (since the ancient Egyptian civil calendar was constructed around a 'vague year' of 365 days exactly).[22]

What, if anything, does all this mean? It's hard to be sure. Out of the welter of numbers and interpretations, however, there is one aspect of Manetho's original message that comes through loud and clear. Irrespective of everything we have

been taught about the orderly progress of history, what he seems to be telling us is that civilized beings (either gods or men) were present in Egypt for an immensely long period *before* the advent of the First Dynasty around 3100 BC.

Diodorus Siculus and Herodotus

In this assertion, Manetho finds much support among classical writers.

In the first century BC, for example, the Greek historian Diodorus Siculus visited Egypt. He is rightly described by C.H. Oldfather, his most recent translator, as 'an uncritical compiler who used good sources and reproduced them faithfully'.[23] In plain English, what this means is that Diodorus did not try to impose his prejudices and

preconceptions on the material he collected. He is therefore particularly valuable to us because his informants included Egyptian priests whom he questioned about the mysterious past of their country. This is what they told him:

> ’At first gods and heroes ruled Egypt for a little less than 18,000 years, the last of the gods to rule being Horus, the son of Isis … Mortals have been kings of their country, they say, for a little less than 5000 years …[24]

Let us review these figures ‘uncritically’ and see what they add up to. Diodorus was writing in the first century BC. If we journey back from there for the 5000 years during which the ‘mortal kings’ supposedly ruled, we get to around 5100 BC. If we go even further back to the beginning of the age of ‘gods and heroes’, we find that we have arrived at 23,100 BC, when the world was still firmly in the grip of the last Ice Age.

Long before Diodorus, Egypt was visited by another and more illustrious Greek historian: the great Herodotus, who lived in the fifth century BC. He too, it seems, consorted with priests and he too managed to tune in to traditions that spoke of the presence of a high civilization in the Nile Valley at some unspecified date in remote antiquity. Herodotus outlines these traditions of an immense prehistoric period of Egyptian civilization in Book II of his *History*. In the same document he also hands on to us, without comment, a peculiar nugget of information which had originated with the priests of Heliopolis:

> During this time, they said, there were four occasions when the sun rose out of his wonted place – twice rising where he now sets, and twice setting where he now rises.[25]

What is this all about?

According to the French mathematician Schwaller de Lubicz, what Herodotus is transmitting to us (perhaps unwittingly) is a veiled and garbled reference to a *period of time* – that is, to the time that it takes for sunrise on the vernal equinox to precess against the stellar background through one and a half complete cycles of the zodiac.[26]

As we have seen, the equinoctial sun spends roughly 2160 years in each of the twelve zodiacal constellations. A full cycle of precession of the equinoxes therefore takes almost 26,000 years to complete (12 × 2160 years). It follows that one and a half cycles takes nearly 39,000 years (18 × 2160 years).

In the time of Herodotus the sun on the vernal equinox rose due east at dawn against the stellar background of Aries – at which moment the constellation of Libra was 'in opposition', lying due west where the sun would set twelve

hours later. If we wind the clock of precession back half a cycle, however – six houses of the zodiac or approximately 13,000 years – we find that the reverse configuration prevails: the vernal sun now rises due east in Libra while Aries lies due west in opposition. A further 13,000 years back, the situation reverses itself once more, with the vernal sun rising again in Aries and with Libra in opposition.

This takes us to 26,000 years before Herodotus.

If we then step back another 13,000 years, another half precessional cycle, to 39,000 years before Herodotus, the vernal sunrise returns to Libra, and Aries is again in opposition.

The point is this: with 39,000 years we have an expanse of time during which the sun can be described as 'twice rising where he now sets', i.e. in Libra in the time of Herodotus (and again at 13,000 and at 39,000 years earlier), and as

‘twice setting where he now rises’, i.e. in Aries in the time of Herodotus (and again at 13,000 and 39,000 years earlier).[27] If Schwaller’s interpretation is correct – and there is every reason to suppose it is – it suggests that the Greek historian’s priestly informants must have had access to accurate records of the precessional motion of the sun going back *at least* 39,000 years before their own era.

The Turin Papyrus and the Palermo Stone

The figure of 39,000 years accords surprisingly closely with the testimony of the Turin Papyrus (one of the two surviving Ancient Egyptian king lists that extends back into prehistoric times before the First Dynasty).

Originally in the collection of the king of Sardinia, the brittle and crumbling 3000-year-old papyrus was sent in a

box, without packing, to its present home in the Museum of Turin. As any schoolchild could have predicted, it arrived broken into countless fragments. Scholars were obliged to work for years to piece together and make sense of what remained, and they did a superb job.[28] Nevertheless, more than half the contents of this precious record proved impossible to reconstruct.[29]

What might we have learned about the First Time if the Turin Papyrus had remained intact?

The surviving fragments are tantalizing. In one register, for example, we read the names of ten Neteru with each name inscribed in a cartouche (oblong enclosure) in much the same style adopted in later periods for the historical kings of Egypt. The number of years that each Neter was believed to have reigned was also given, but most of these numbers are missing from the damaged document.[30]

In another column there appears a list of the mortal kings who ruled in upper and lower Egypt after the gods but prior to the supposed unification of the kingdom under Menes, the first pharaoh of the First Dynasty, in 3100 BC. From the surviving fragments it is possible to establish that nine 'dynasties' of these pre-dynastic pharaohs were mentioned, among which were 'the Venerables of Memphis', 'the Venerables of the North' and, lastly, the Shemsu Hor (the Companions, or Followers, of Horus) who ruled until the time of Menes. The final two lines of the column, which seem to represent a summing up or inventory, are particularly provocative. They read; '… Venerables Shemsu-Hor, 13,420 years; Reigns before the Shemsu-Hor, 23,200 years; Total 36,620 years'.[31]

The other king list that deals with prehistoric times is the Palermo Stone, which does not take us as far back into the

past as the Turin Papyrus. The earliest of its surviving registers record the reigns of 120 kings who ruled in upper and lower Egypt in the late pre-dynastic period: the centuries immediately prior to the country's unification in 3100 BC.[32] Once again, however, we really have no idea how much *other* information, perhaps relating to far earlier periods, might originally have been inscribed on this enigmatic slab of black basalt, because it, too, has not come down to us intact. Since 1887 the largest single part has been preserved in the Museum of Palermo in Sicily; a second piece is on display in Egypt in the Cairo Museum; and a third much smaller fragment is in the Petrie Collection at the University of London.[33] These are reckoned by archaeologists to have been broken out of the centre of a monolith which would originally have measured about seven feet long by two feet high (stood on its long side).[34] Furthermore, as one authority

has observed:

> It is quite possible – even probable – that many more pieces of this invaluable monument remain, if we only knew where to look. As it is we are faced with the tantalising knowledge that a record of the name of every king of the Archaic Period existed, together with the number of years of his reign and the chief events which occurred during his occupation of the throne. And these events were compiled in the Fifth Dynasty, only about 700 years after the Unification, so that the margin of error would in all probability have been very small …'[35]

The late Professor Walter Emery, whose words these are, was naturally concerned about the absence of much-needed details concerning the Archaic Period, 3200 BC to 2900 BC,[36] the focus of his own specialist interests. We should also spare a thought, however, for what an intact Palermo Stone might

have told us about even earlier epochs, notably Zep Tepi – the golden age of the gods.

The deeper we penetrate into the myths and memories of Egypt's long past, and the closer we approach to the fabled First Time, the stranger the landscapes that surround us become … as we shall see.

Chapter 44

Gods of the First Time

According to Heliopolitan theology, the nine original gods who appeared in Egypt in the First Time were Ra, Shu, Tefnut, Geb, Nut, Osiris, Isis, Nepthys and Set. The offspring of these deities included well-known figures such as Horus and Anubis. In addition, other companies of gods were recognized, notably at Memphis and Hermopolis, where there

were important and very ancient cults dedicated to Ptah and to Thoth.[1] These First Time deities were all in one sense or another gods of creation who had given shape to chaos through their divine will. Out of that chaos they formed and populated the sacred land of Egypt,[2] wherein, for many thousands of years, they ruled among men as divine pharaohs.[3]

What was 'chaos'?

The Heliopolitan priests who spoke to the Greek historian Diodorus Siculus in the first century BC put forward the thought-provoking suggestion that 'chaos' was a flood – identified by Diodorus with the earth-destroying flood of Deucalion, the Greek Noah figure:[4]

> In general, they say that if in the flood which occurred in the time of Deucalion most living things were destroyed, it is probable that the inhabitants of southern Egypt survived rather than any others … Or if, as

> some maintain, the destruction of living things was complete and the earth then brought forth again new forms of animals, nevertheless, even on such a supposition, the first genesis of living things fittingly attaches to this country …[5]

Why should Egypt have been so blessed? Diodorus was told that it had something to do with its geographical situation, with the great exposure of its southern regions to the heat of the sun, and with the vastly increased rainfall which the myths said the world had experienced in the aftermath of the universal deluge: 'For when the moisture from the abundant rains which fell among other peoples was mingled with the intense heat which prevails in Egypt itself … the air became very well tempered for the first generation of all living things …'[6]

Curiously enough, Egypt does enjoy a special geographical situation: as is well known, the latitude and longitude lines

which intersect just beside the Great Pyramid (30° north and 31° east) cross more dry land than any others.[7] Curiously, too, at the end of the last Ice Age, when millions of square miles of glaciation were melting in northern Europe, when rising sea levels were flooding coastal areas all around the globe, and when the huge volume of extra moisture released into the atmosphere through the evaporation of the ice fields was being dumped as rain, Egypt benefited for several thousands of years from an exceptionally humid and fertile climate.[8] It is not difficult to see how such a climate might indeed have been remembered as 'well tempered for the first generation of all living things'.

The question therefore has to be asked: whose information about the past are we receiving from Diodorus, and is the apparently accurate description of Egypt's lush climate at the end of the last Ice Age a coincidence, or is an extremely

ancient tradition being transmitted to us here – a memory, perhaps, of the First Time?

Breath of the divine serpent

Ra was believed to have been the first king of the First Time and ancient myths say that as long as he remained young and vigorous he reigned peacefully. The passing years took their toll on him, however, and he is depicted at the end of his rule as an old, wrinkled, stumbling man with a trembling mouth from which saliva ceaselessly dribbles.[9]

Shu followed Ra as king on earth, but his reign was troubled by plots and conflicts. Although he vanquished his enemies he was in the end so ravaged by disease that even his most faithful followers revolted against him: 'Weary of reigning, Shu abdicated in favour of his son Geb and took

refuge in the skies after a terrifying tempest which lasted nine days …'[10]

Geb, the third divine pharaoh, duly succeeded Shu to the throne. His reign was also troubled and some of the myths describing what took place reflect the odd idiom of the Pyramid Texts in which a non-technical vocabulary seems to wrestle with complex technical and scientific imagery. For example, one particularly striking tradition speaks of a 'golden box' in which Ra had deposited a number of objects – described, respectively, as his 'rod' (or cane), a lock of his hair, and his *uraeus* (a rearing cobra with its hood extended, fashioned out of gold, which was worn on the royal head-dress).[11]

A powerful and dangerous talisman, this box, together with its bizarre contents, remained enclosed in a fortress on the 'eastern frontier' of Egypt until a great many years after Ra's

ascent to heaven. When Geb came to power he ordered that it should be brought to him and unsealed in his presence. In the instant that the box was opened a bolt of fire (described as the 'breath of the divine serpent') ushered from it, struck dead all Geb's companions and gravely burned the god-king himself.[12]

It is tempting to wonder whether what we are confronted by here might not be a garbled account of a malfunctioning man-made device: a confused, awe-stricken recollection of a monstrous instrument devised by the scientists of a lost civilization. Weight is added to such extreme speculations when we remember that this is by no means the only golden box in the ancient world that functioned like a deadly and unpredictable machine. It has a number of quite unmissable similarities to the Hebrews' enigmatic Ark of the Covenant (which also struck innocent people dead with bolts of fiery

energy, which also was ‘overlaid round about with gold’, and which was said to have contained not only the two tablets of the Ten Commandments but ‘the golden pot that had manna, and Aaron’s rod.’)[13]

A proper look at the implications of all these weird and wonderful boxes (and of other ‘technological’ artefacts referred to in ancient traditions) is beyond the scope of this book. For our purposes here it is sufficient to note that a peculiar atmosphere of dangerous and quasi-technological wizardry seems to surround many of the gods of the Heliopolitan Ennead.

Isis, for example (wife and sister of Osiris and mother of Horus) carries a strong whiff of the science lab. According to the Chester Beatty Papyrus in the British Museum she was ‘a clever woman … more intelligent than countless gods … She was ignorant of nothing in heaven and earth.’[14] Renowned

for her skilful use of witchcraft and magic, Isis was particularly remembered by the Ancient Egyptians as 'strong of tongue', that is being in command of words of power 'which she knew with correct pronunciation, and halted not in her speech, and was perfect both in giving the command and in saying the word'.[15] In short, she was believed, by means of her voice alone, to be capable of bending reality and overriding the laws of physics.

These same powers, though perhaps in greater degree, were attributed to the wisdom god Thoth who although not a member of the Heliopolitan Ennead is recognized in the Turin Papyrus and other ancient records as the sixth (or sometimes as the seventh) divine pharaoh of Egypt.[16] Frequently represented on temple and tomb walls as an ibis, or an ibis-headed man, Thoth was venerated as the regulative force responsible for all heavenly calculations and

annotations, as the lord and multiplier of time, the inventor of the alphabet and the patron of magic. He was particularly associated with astronomy, mathematics, surveying and geometry, and was described as 'he who reckons in heaven, the counter of the stars and the measurer of the earth'.[17] He was also regarded as a deity who understood the mysteries of 'all that is hidden under the heavenly vault', and who had the ability to bestow wisdom on selected individuals. It was said that he had inscribed his knowledge in secret books and hidden these about the earth, intending that they should be sought for by future generations but found 'only by the worthy' – who were to use their discoveries for the benefit of mankind.[18]

What stands out most clearly about Thoth, therefore, in addition to his credentials as an ancient scientist, is his role as a benefactor and civilizer.[19] In this respect he closely

resembles his predecessor Osiris, the high god of the Pyramid Texts and the fourth divine pharaoh of Egypt, 'whose name becometh *Sah* [Orion], whose leg is long, and his stride extended, the President of the Land of the South …'[20]

Osiris and the Lords of Eternity

Occasionally referred to in the texts as a *neb tem*, or 'universal master',[21] Osiris is depicted as human but also superhuman, suffering but at the same time commanding. Moreover, he expresses his essential dualism by ruling in heaven (as the constellation of Orion) and on earth as a king among men. Like Viracocha in the Andes and Quetzalcoatl in Central America, his ways are subtle and mysterious. Like them, he is exceptionally tall and always depicted wearing the curved beard of divinity.[22] And like them too, although

he has supernatural powers at his disposal, he avoids the use of force wherever possible.[23]

We saw in Chapter Sixteen that Quetzalcoatl, the god-king of the Mexicans, was believed to have departed from Central America by sea, sailing away on a raft of serpents. It is therefore hard to avoid a sense of *déjà vu* when we read in the *Egyptian Book of the Dead* that the abode of Osiris also 'rested on water' and had walls made of 'living serpents'.[24] At the very least, the convergence of symbolism linking these two gods and two far-flung regions is striking.

There are other obvious parallels as well.

The central details of the story of Osiris have been recounted in earlier chapters and we need not go over them again. The reader will not have forgotten that this god – once again like Quetzalcoatl and Viracocha – was remembered principally as a benefactor of mankind, as a bringer of

enlightenment and as a great civilizing leader.[25] He was credited, for example, with having abolished cannibalism and was said to have introduced the Egyptians to agriculture – in particular to the cultivation of wheat and barley – and to have taught them the art of fashioning agricultural implements. Since he had an especial liking for fine wines (the myths do not say where he acquired this taste), he made a point of 'teaching mankind the culture of the vine, as well as the way to harvest the grape and to store the wine …'[26] In addition to the gifts of good living he brought to his subjects, Osiris helped to wean them 'from their miserable and barbarous manners' by providing them with a code of laws and inaugurating the cult of the gods in Egypt.[27]

When he had set everything in order, he handed over the control of the kingdom to Isis, quit Egypt for many years, and roamed about the world with the sole intention, Diodorus

Siculus was told,

> of visiting all the inhabited earth and teaching the race of men how to cultivate the vine and sow wheat and barley; for he supposed that if he made men give up their savagery and adopt a gentle manner of life he would receive immortal honours because of the magnitude of his benefactions …[28]

Osiris travelled first to Ethiopia, where he taught tillage and husbandry to the primitive hunter-gatherers he encountered. He also undertook a number of large-scale engineering and hydraulics works: 'He built canals, with flood gates and regulators … he raised the river banks and took precautions to prevent the Nile from overflowing …'[29] Later he made his way to Arabia and thence to India, where he established many cities. Moving on to Thrace he killed a barbarian king for refusing to adopt his system of government. This was out

of character; in general, Osiris was remembered by the Egyptians for having

> forced no man to carry out his instructions, but by means of gentle persuasion and an appeal to their reason he succeeded in inducing them to practise what he preached. Many of his wise counsels were imparted to his listeners in hymns and songs, which were sung to the accompaniment of instruments of music.'[30]

Once again the parallels with Quetzalcoatl and Viracocha are hard to avoid. During a time of darkness and chaos – quite possibly linked to a flood – a bearded god, or man, materializes in Egypt (or Bolivia, or Mexico). He is equipped with a wealth of practical and scientific skills, of the kind associated with mature and highly developed civilizations, which he uses unselfishly for the benefit of humanity. He is instinctively gentle but capable of great firmness when

necessary. He is motivated by a strong sense of purpose and, after establishing his headquarters at Heliopolis (or Tiahuanaco, or Teotihuacan), he sets forth with a select band of companions to impose order and to reinstate the lost balance of the world.[31]

Leaving aside for the present the issue of whether we are dealing here with gods or men, with figments of the primitive imagination or with flesh-and-blood beings, the fact remains that the myths *always* speak of a *company* of civilizers: Viracocha has his 'companions', as have both Quetzalcoatl and Osiris. Sometimes there are fierce internal conflicts within these groups, and perhaps struggles for power: the battles between Seth and Horus, and between Tezcatilpoca and Quetzalcoatl are obvious examples. Moreover, whether the mythical events unfold in Central America, or in the Andes, or in Egypt, the upshot is also always pretty much the

same: the civilizer is eventually plotted against and either driven out or killed.

The myths say that Quetzalcoatl and Viracocha never came back (although, as we have seen, their return to the Americas was expected at the time of the Spanish conquest). Osiris, on the other hand, did come back. Although he was murdered by Set soon after the completion of his worldwide mission to make men 'give up their savagery', he won eternal life through his resurrection in the constellation of Orion as the all-powerful god of the dead. Thereafter, judging souls and providing an immortal example of responsible and benevolent kingship, he dominated the religion (and the culture) of Ancient Egypt for the entire span of its known history.

Serene stability

Who can guess what the civilizations of the Andes and of Mexico might have achieved if they too had benefited from such powerful symbolic continuity. In this respect, however, Egypt is unique. Indeed, although the Pyramid Texts and other archaic sources recognize a period of disruption and attempted usurpation by Set (and his seventy-two 'precessional' conspirators), they also depict the transition to the reigns of Horus, Thoth and the later divine pharaohs as being relatively smooth and inevitable.

This transition was mimicked, through thousands of years, by the mortal kings of Egypt. From the beginning to the end, they saw themselves as the lineal descendants and living representatives of Horus, son of Osiris. As generation succeeded generation, it was supposed that each deceased pharaoh was reborn in the sky as 'an Osiris' and that each successor to the throne became a 'Horus'.[32]

This simple, refined, and stable scheme *was already fully evolved and in place at the beginning of the First Dynasty* – around 3100 BC.[33] Scholars accept this; the majority also accept that what we are dealing with here is a highly developed and sophisticated religion.[34] Strangely, very few Egyptologists or archaeologists have questioned where and when this religion took shape.

Is it not to defy logic to suppose that well-rounded social and metaphysical ideas like those of the Osiris cult sprung up fully formed in 3100 BC, or that they could have taken such perfect shape in the 300 years which Egyptologists sometimes grudgingly allow for them to have done so?[35] There must have been a far longer period of development than that, spread over several thousands rather than several hundreds of years. Moreover, as we have seen, every surviving record in which the Ancient Egyptians speak

directly about their past asserts that their civilization was a legacy of 'the gods' who were 'the first to hold sway in Egypt'.[36]

The records are not internally consistent: some attribute much greater antiquity to the civilization of Egypt than others. All, however, clearly and firmly direct our attention to an epoch far, far in the past – anything from 8000 to almost 40,000 years before the foundation of the First Dynasty.

Archaeologists insist that no material artefacts have ever been found in Egypt to suggest that an evolved civilization existed at such early dates, but this is not strictly true. As we saw in Part VI, a handful of objects and structures exist which have not yet been conclusively dated by any scientific means.

The ancient city of Abydos conceals one of the most

extraordinary of these undatable enigmas …

Chapter 45

The Works of Men and Gods

Among the numberless ruined temples of Ancient Egypt, there is one that is unique not only for its marvellous state of preservation, which (rare indeed!) includes an intact roof, but for the fine quality of the many acres of beautiful reliefs that decorate its towering walls. Located at Abydos, eight miles west of the present course of the Nile, this is the

Temple of Seti I, a monarch of the illustrious nineteenth Dynasty, who ruled from 1306–1290 BC.[1]

Seti is known primarily as the father of a famous son: Ramesses II (1290–1224 BC), the pharaoh of the biblical Exodus.[2] In his own right, however, he was a major historical figure who conducted extensive military campaigns outside Egypt's borders, who was responsible for the construction of several fine buildings and who carefully and conscientiously refurbished and restored many older ones.[3] His temple at Abydos, which was known evocatively as 'The House of Millions of Years', was dedicated to Osiris,[4] the 'Lord of Eternity', of whom it was said in the Pyramid Texts:

> You have gone, but you will return, you have slept, but you will awake, you have died, but you will live … Betake yourself to the waterway, fare upstream … travel about Abydos in this spirit-form of yours which the gods

commanded to belong to you.[5]

Atef Crown

It was eight in the morning, a bright, fresh hour in these latitudes, when I entered the hushed gloom of the Temple of Seti I. Sections of its walls were floor-lit by low-wattage electric bulbs; otherwise the only illumination was that which the pharaoh's architects had originally planned: a few isolated shafts of sunlight that penetrated through slits in the outer masonry like beams of divine radiance. Hovering among the motes of dust dancing in those beams, and infiltrating the heavy stillness of the air amid the great columns that held up the roof of the Hypostyle Hall, it was easy to imagine that the spirit-form of Osiris could still be present. Indeed, this was more than just imagination because

Osiris was physically present in the astonishing symphony of reliefs that adorned the walls – reliefs that depicted the once and future civilizer-king in his role as god of the dead, enthroned and attended by Isis, his beautiful and mysterious sister.

In these scenes Osiris wore a variety of different and elaborate crowns which I studied closely as I walked from relief to relief. Crowns similar to these in many respects had been important parts of the wardrobe of all the pharaohs of Ancient Egypt, at least on the evidence of reliefs depicting them. Strangely, however, in all the years of intensive excavations, archaeologists had not found a single example of a royal crown, or a small part of one, let alone a specimen of the convoluted ceremonial head-dresses associated with the gods of the First Time.[6]

Of particular interest was the Atef crown. Incorporating the

uraeus, the royal serpent symbol (which in Mexico was a rattlesnake but in Egypt was a hooded cobra poised to strike), the central core of this strange contraption was recognizable as an example of the *hedjet*, the white skittle-shaped war helmet of upper Egypt (again known only from reliefs). Rearing up on either side of this core were what seemed to be two thin leaves of metal, and at the front was an attached device, consisting of two wavy blades, which scholars normally describe as a pair of rams' horns.[7]

In several reliefs of the Seti I Temple Osiris was depicted wearing the Atef crown, which seemed to stand about two feet high. According to the *Ancient Egyptian Book of the Dead*, it had been given to him by Ra: 'But on the very first day that he wore it Osiris had much suffering in his head, and when Ra returned in the evening he found Osiris with his head angry and swollen from the heat of the Atef crown. Then Ra

proceeded to let out the pus and the blood.’[8]

All this was stated in a matter-of-fact way, but – when you stopped to think about it – what kind of crown was it that radiated heat and caused the skin to haemorrhage and break out in pustulant sores?

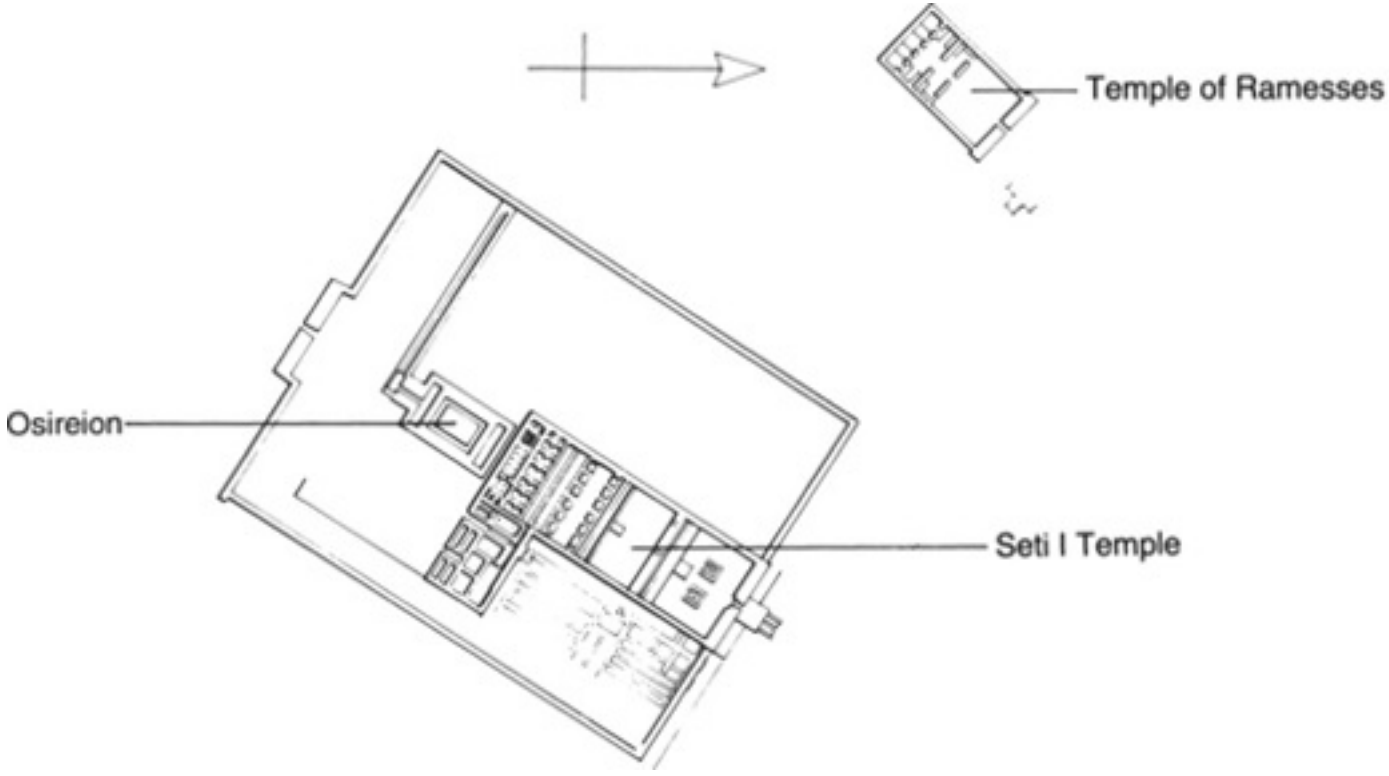

Abydos.

Seventeen centuries of kings

I walked on into the deeper darkness, eventually finding my way to the Gallery of the Kings. It led off from the eastern edge of the inner Hypostyle Hall about 200 feet from the entrance to the temple.

To pass through the Gallery was to pass through time itself. On the wall to my left was a list of 120 of the gods of Ancient Egypt, together with the names of their principal sanctuaries. On my right, covering an area of perhaps ten feet by six feet, were the names of the 76 pharaohs who had preceded Seti I to the throne; each name was carved in hieroglyphs inside an oval cartouche.

This tableau was known as the 'Abydos King List'. Glowing with colours of molten gold, it was designed to be read from left to right and was divided into five vertical and three horizontal registers. It covered a grand expanse of almost 1700 years, beginning around 3000 BC with the reign of

Menes, first king of the First Dynasty, and ending with Seti's own reign around 1300 BC. At the extreme left stood two figures exquisitely carved in high relief: Seti and his young son, the future Ramesses II.

Hypogeum

Belonging to the same class of historical documents as the Turin Papyrus and the Palermo Stone, the list spoke eloquently of the continuity of tradition. An inherent part of that tradition, was the belief or memory of a First Time, long, long ago, when the gods had ruled in Egypt. Principal among those gods was Osiris, and it was therefore appropriate that the Gallery of the Kings should provide access to a second corridor, leading to the rear of the temple where a marvellous building was located – one associated with Osiris

from the beginning of written records in Egypt[9] and described by the Greek geographer Strabo (who visited Abydos in the first century BC) as 'a remarkable structure built of solid stone … [containing] a spring which lies at a great depth, so that one descends to it down vaulted galleries made of monoliths of surpassing size and workmanship. There is a canal leading to the place from the great river …'[10]

A few hundred years after Strabo's visit, when the religion of Ancient Egypt had been supplanted by the new cult of Christianity, the silt of the river and the sands of the desert began to drift into the Osirieon, filling it foot by foot, century by century, until its upright monoliths and huge lintels were buried and forgotten. And so it remained, out of sight and out of mind, until the beginning of the twentieth century, when the archaeologists Flinders Petrie and Margaret Murray began excavations. In their 1903 season of digging they

uncovered parts of a hall and passageway, lying in the desert about 200 feet south-west of the Seti I Temple and built in the recognizable architectural style of the Nineteenth Dynasty. However, sandwiched between these remains and the rear of the Temple, they also found unmistakable signs that 'a large underground building' lay concealed.[11] 'This hypogeum', wrote Margaret Murray, 'appears to Professor Petrie to be the place that Strabo mentions, usually called Strabo's Well.'[12] This was good guesswork on the part of Petrie and Murray. Shortage of cash, however, meant that their theory of a buried building was not tested until the digging season of 1912–13. Then, under the direction of Professor Naville of the Egypt Exploration Fund, a long transverse chamber was cleared, at the end of which, to the north-east, was found a massive stone gateway made up of cyclopean blocks of granite and sandstone.

The next season, 1913–14, Naville and his team returned with 600 local helpers and diligently cleared the whole of the huge underground building:

> What we discovered [Naville wrote] is a gigantic construction of about 100 feet in length and 60 in width, built with the most enormous stones that may be seen in Egypt. In the four sides of the enclosure walls are cells, 17 in number, of the height of a man and without ornamentation of any kind. The building itself is divided into three naves, the middle one being wider than those of the sides; the division is produced by two colonnades made of huge granite monoliths supporting architraves of equal size.[13]

Naville commented with some astonishment on one block he measured in the corner of the building's northern nave, a block more than twenty-five feet long.[14] Equally surprising was the fact that the cells cut into the enclosure walls had no floors, but turned out, as the excavations went deeper, to be

filled with increasingly moist sand and earth:

> The cells are connected by a narrow ledge between two and three feet wide; there is a ledge also on the opposite side of the nave, but no floor at all, and in digging to a depth of 12 feet we reached infiltrated water. Even below the great gateway there is no floor, and when there was water in front of it the cells were probably reached with a small boat.[15]

The most ancient stone building in Egypt

Water, water, everywhere – this seemed to be the theme of the Osireion, which lay at the bottom of the huge crater Naville and his men had excavated in 1914. It was positioned some 50 feet below the level of the floor of the Seti I Temple, almost flush with the water-table, and was approached by a modern stairway curving down to the south-east. Having

descended this stairway, I passed under the hulking lintel slabs of the great gateway Naville (and Strabo) had described and crossed a narrow wooden footbridge – again modern – which brought me to a large sandstone plinth.

Measuring about 80 feet in length by 40 in width, this plinth was composed of enormous paving blocks and was entirely surrounded by water. Two pools, one rectangular and the other square, had been cut into the plinth along the centre of its long axis and at either end stairways led down to a depth of about 12 feet below the water level. The plinth also supported the two massive colonnades Naville mentioned in his report, each of which consisted of five chunky rose-coloured granite monoliths about eight feet square by 12 feet high and weighing, on average, around 100 tons.[16] The tops of these huge columns were spanned by granite lintels and there was evidence that the whole

building had once been roofed over with a series of even larger monolithic slabs.[17]

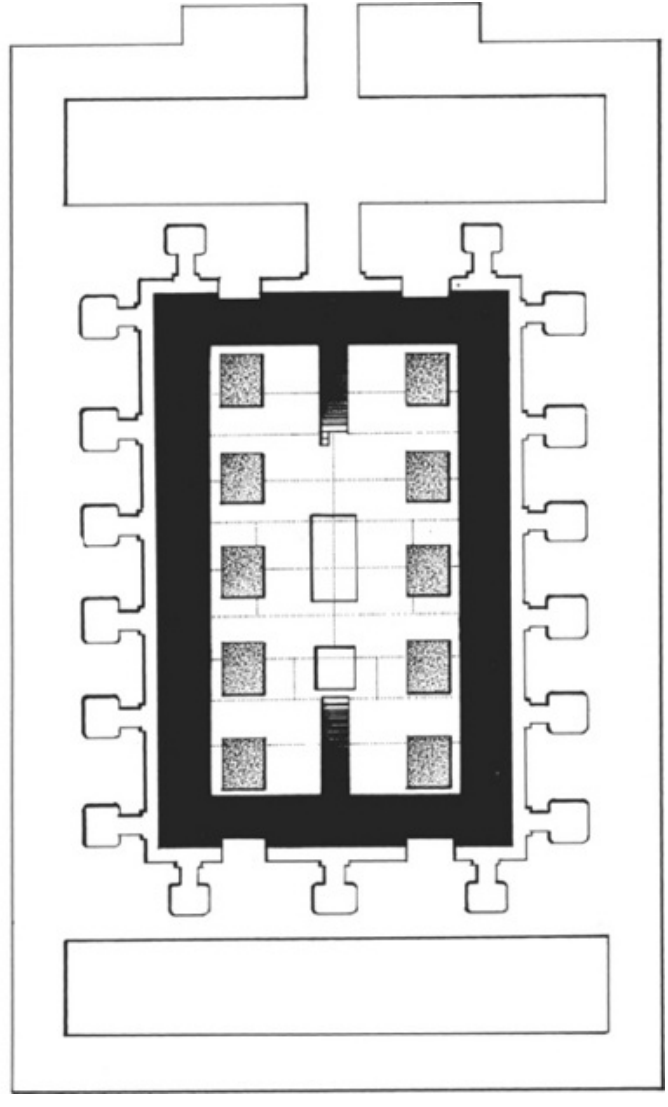

Plan of the Osireion.

To get a proper understanding of the structure of the Osireion, I found it helpful to raise myself directly above it in my mind's eye, so that I could look down on it. This exercise was assisted by the absence of the original roof which made it easier to envisage the whole edifice in plan. Also helpful was the fact that water had now seeped up to fill all of the building's pools, cells and channels to a depth of a few inches below the lip of the central plinth, as the original designers had apparently intended it should.[18]

Looking down in this manner, it was immediately apparent that the plinth formed a rectangular island, surrounded on all four sides by a water-filled moat about 10 feet wide. The moat was contained by an immense, rectangular enclosure wall, no less than *20 feet thick*,[19] made of very large blocks of

red sandstone disposed in polygonal jigsaw-puzzle patterns. Into the huge thickness of this wall were set the 17 cells mentioned in Naville's report. Six lay to the east, six to the west, two to the south and three to the north. Off the central of the three northern cells lay a long transverse chamber, roofed with and composed of limestone. A similar transverse chamber, also of limestone but no longer with an intact roof, lay immediately south of the great gateway. Finally, the whole structure was enclosed within an outer wall of limestone, thus completing a sequence of inter-nested rectangles, i. e., from the outside in, wall, wall, moat, plinth.

Another notable and outstandingly unusual feature of the Osireion was that it was not even approximately aligned to the cardinal points. Instead, like the Way of the Dead at Teotihuacan in Mexico, it was oriented to the east of due north. Since Ancient Egypt had been a civilization that could

and normally did achieve precise alignments for its buildings, it seemed to me improbable that this apparently skewed orientation was accidental. Moreover, although 50 feet higher, the Seti I Temple was oriented along exactly the same axis – and again not by accident. The question was: *which was the older building*? Had the axis of the Osireion been predetermined by the axis of the Temple or vice versa? This, it turned out, was an issue over which considerable controversy, now long forgotten, had once raged. In a debate which had many connections with that surrounding the Sphinx and the Valley Temple at Giza, eminent archaeologists had initially argued that the Osireion was a building of truly immense antiquity, a view expressed by Professor Naville in the London *Times* of 17 March 1914:

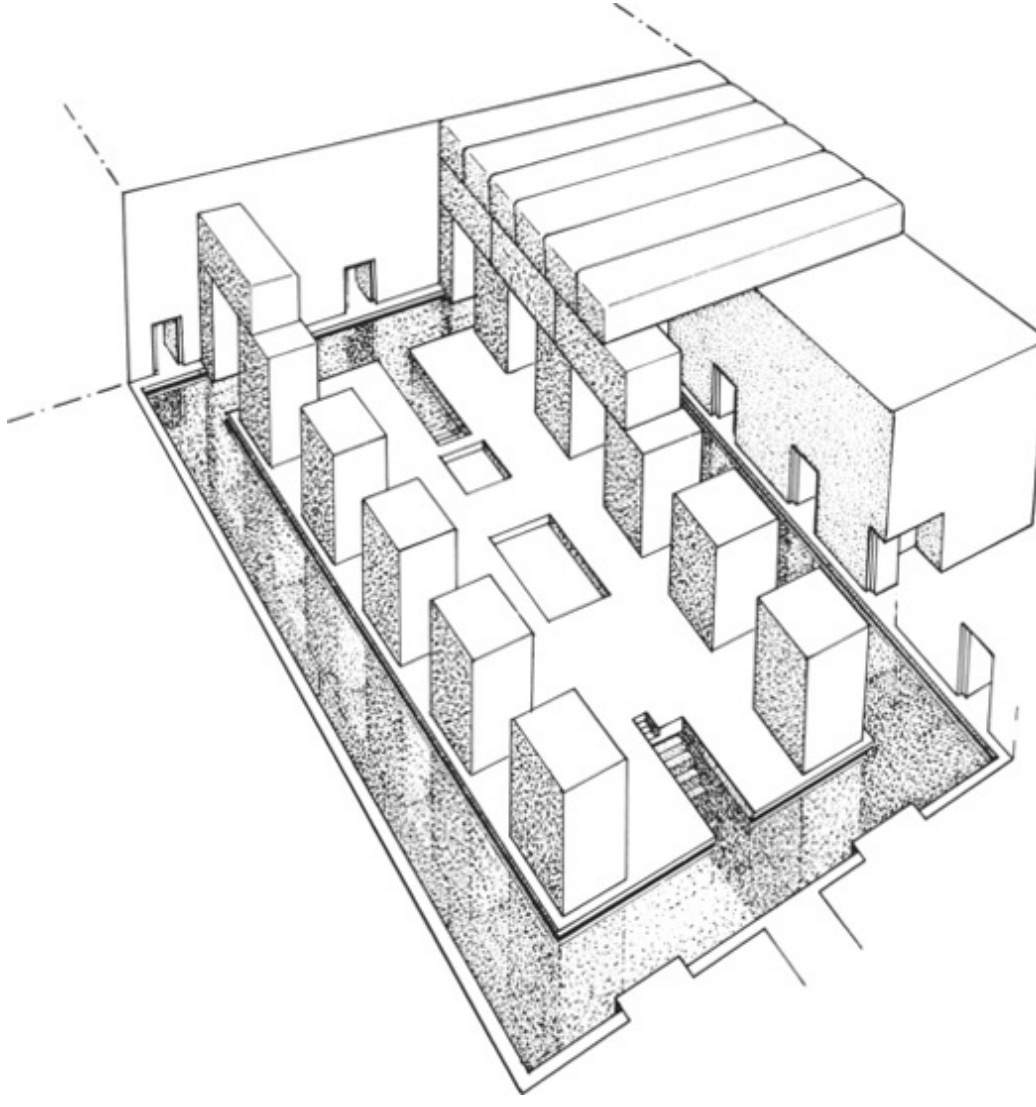

Reconstruction of the Osireion.

> This monument raises several important questions. As to its date, its great similarity with the Temple of the Sphinx [as the Valley Temple was then known] shows it to be of the same epoch when building was made with enormous stones without any ornament. This is characteristic of the oldest architecture in Egypt. I should even say that we may call it the most ancient stone building in Egypt.[20]

Describing himself as overawed by the 'grandeur and stern simplicity' of the monument's central hall, with its remarkable granite monoliths, and by 'the power of those ancients who could bring from a distance and move such gigantic blocks', Naville made a suggestion concerning the function the Osireion might originally have been intended to serve: 'Evidently this huge construction was a large reservoir

where water was stored during the high Nile … It is curious that what we may consider as a beginning in architecture is neither a temple nor a tomb, but a gigantic pool, a waterwork …[21]

Curious indeed, and well worth investigating further; something Naville hoped to do the following season. Unfortunately, the First World War intervened and no archaeology could be undertaken in Egypt for several years. As a result, it was not until 1925 that the Egypt Exploration Fund was able to send out another mission, which was led not by Naville but by a young Egyptologist named Henry Frankfort.

Frankfort's facts

Later to enjoy great prestige and influence as professor of

Pre-Classical Antiquity at the University of London, Frankfort spent several consecutive digging seasons re-clearing and thoroughly excavating the Osireion between 1925 and 1930. During the course of this work he made discoveries which, so far as he was concerned, ‘settled the date of the building’:

1 A granite dovetail in position at the top of the southern side of the main entrance to the central hall, which was inscribed with the cartouche of Seti I.

2 A similar dovetail in position inside the eastern wall of the central hall.

3 Astronomical scenes and inscriptions by Seti I carved in relief on the ceiling of the northern transverse chamber.

4 The remains of similar scenes in the southern transverse chamber.

5 An ostracon (piece of broken potsherd) found in the entrance passage and bearing the legend ‘Seti is serviceable to Osiris’.[22]

The reader will recall the lemming behaviour which led to a dramatic change of scholarly opinion about the antiquity of the Sphinx and the Valley Temple (due to the discovery of a few statues and a single cartouche which seemed to imply some sort of connection with Khafre). Frankfort's finds at Abydos caused a similar *volte-face* over the antiquity of the Osireion. In 1914 was 'the most ancient stone building in Egypt'. By 1933, it had been beamed forward in time to the reign of Seti I – around 1300 BC – whose cenotaph it was now believed to be.[23]

Within a decade, the standard Egyptological texts began to print the attribution to Seti I as though it were a fact, verifiable by experience or observation. It is not a fact, however, merely Frankfort's interpretation of the evidence he had found.

The only facts are that certain inscriptions and decorations

left by Seti appear in an otherwise completely anonymous structure. One plausible explanation is that the structure must have been built by Seti, as Frankfort proposed. The other possibility is that the half-hearted and scanty decorations, cartouches and inscriptions found by Frankfort could have been placed in the Osireion as part of a renovation and repair operation undertaken in Seti's time (implying that the structure was by then ancient, as Naville and others had proposed).

What are the merits of these mutually contradictory propositions which identify the Osireion as (a) the oldest building in Egypt, and (b) a relatively late New Kingdom structure?

Proposition (b) – that it is the cenotaph of Seti I – is the only attribution accepted by Egyptologists. On close inspection, however, it rests on the circumstantial evidence

of the cartouches and inscriptions which prove nothing. Indeed part of this evidence appears to contradict Frankfort's case. The ostracon bearing the legend 'Seti is serviceable to Osiris' sounds less like praise for the works of an original builder than praise for a restorer who had renovated, and perhaps added to, an ancient structure identified with the First Time god Osiris. And another awkward little matter has also been overlooked. The south and north 'transverse chambers', which contain Seti I's detailed decorations and inscriptions, lie *outside* the twenty-foot-thick enclosure wall which so adamantly defines the huge, undecorated megalithic core of the building. This had raised the reasonable suspicion in Naville's mind (though Frankfort chose to ignore it) that the two chambers concerned were 'not contemporaneous with the rest of the building' but had been added much later during the reign of Seti I, 'probably

when he built his own temple'.[24]

To cut a long story short, therefore, everything about proposition (b) is based in one way or another on Frankfort's not necessarily infallible interpretation of various bits and pieces of possibly intrusive evidence.

Proposition (a) – that the core edifice of the Osireion had been built millennia before Seti's time – rests on the nature of the architecture itself. As Naville observed, the Osireion's similarity to the Valley Temple at Giza 'showed it to be of the same epoch when building was made with enormous stones'. Likewise, until the end of her life, Margaret Murray remained convinced that the Osireion was not a cenotaph at all (least of all Seti's). She said,

> It was made for the celebration of the mysteries of Osiris, and so far is unique among all the surviving buildings of Egypt. It is clearly early, for the great blocks of which it is built are of the style of the Old Kingdom; the

> simplicity of the actual building also points to it being of that early date. The decoration was added by Seti I, who in that way laid claim to the building, but seeing how often a Pharaoh claimed the work of his predecessors by putting his name on it, this fact does not carry much weight. It is the style of the building, the type of the masonry, the tooling of the stone, and not the name of a king, which date a building in Egypt.[25]

This was an admonition Frankfort might well have paid more attention to, for as he bemusedly observed of his 'cenotaph', 'It has to be admitted that no similar building is known from the Nineteenth Dynasty.'[26]

Indeed it is not just a matter of the Nineteenth Dynasty. Apart from the Valley Temple and other cyclopean edifices on the Giza plateau, no other building remotely resembling the Osireion is known from *any* other epoch of Egypt's long history. This handful of supposedly Old Kingdom structures, built out of giant megaliths, seems to belong in a unique

category. They resemble one another much more than they resemble any other known style of architecture and in all cases there are question-marks over their identity.

Isn't this precisely what one would expect of buildings not erected by any historical pharaoh but dating back to prehistoric times? Doesn't it make sense of the mysterious way in which the Sphinx and the Valley Temple, and now the Osireion as well, seem to have become vaguely connected with the names of particular pharaohs (Khafre and Seti I), without ever yielding a single piece of evidence that clearly and unequivocally *proves* those pharaohs built the structures concerned? Aren't the tenuous links much more indicative of the work of restorers seeking to attach themselves to ancient and venerable monuments than of the original architects of those monuments – whoever they might have been and in whatever epoch they might have lived?

Setting sail across seas of sand and time

Before leaving Abydos, there was one other puzzle that I wanted to remind myself of. It lay buried in the desert, about a kilometre north-west of the Osireion, across sands littered with the rolling, cluttered tumuli of ancient graveyards.

Out among these cemeteries, many of which dated back to early dynastic and pre-dynastic times, the jackal gods Anubis and Upuaut had traditionally reigned supreme. Openers of the way, guardians of the spirits of the dead, I knew that they had played a central role in the mysteries of Osiris that had been enacted each year at Abydos – apparently throughout the span of Ancient Egyptian history.

It seemed to me that there was a sense in which they guarded the mysteries still. For what was the Osireion if was not a huge, unsolved mystery that deserved closer scrutiny

than it has received from the scholars whose job it is to look into these matters? And what was the burial in the desert of twelve high-prowed, seagoing ships if not also a mystery that cried out, loudly, for solution?

It was the burial place of those ships I was now crossing the cemeteries of the jackal gods to see:

> *The Guardian, London, 21 December 1991*: A fleet of 5000-year-old royal ships has been found buried eight miles from the Nile. American and Egyptian archaeologists discovered the 12 large wooden boats at Abydos … Experts said the boats – which are 50 to 60 feet long – are about 5000 years old, making them Egypt's earliest royal ships and among the earliest boats found anywhere … The experts say the ships, discovered in September, were probably meant for burial so the souls of the pharaohs could be transported on them. 'We never expected to find such a fleet, especially so far from the Nile,' said David O'Connor, the expedition leader and curator of the Egyptian Section of the University Museum of the

University of Pennsylvania …[27]

The boats were buried in the shadow of a gigantic mud-brick enclosure, throught to have been the mortuary temple of a Second Dynasty pharaoh named Khasekhemwy, who had ruled Egypt in the twenty-seventh century BC.[28] O'Connor, however, was certain that they were not associated directly with Khasekhemwy but rather with the nearby (and largely ruined) 'funerary-cult enclosure built for Pharaoh Djer early in Dynasty I. The boat graves are not likely to be earlier than this and may in fact have been built for Djer, but this remains to be proven.'[29]

A sudden strong gust of wind blew across the desert, scattering sheets of sand. I took refuge for a while in the lee of the looming walls of the Khasekhemwy enclosure, close to the point where the University of Pennsylvania archaeologists had, for legitimate security reasons, reburied

the twelve mysterious boats they had stumbled on in 1991. They had hoped to return in 1992 to continue the excavations, but there had been various hitches and, in 1993, the dig was still being postponed.

In the course of my research O'Connor had sent me the official report of the 1991 season,[30] mentioning in passing that some of the boats might have been as much as 72 feet in length.[31] He also noted that the boat-shaped brick graves in which they were enclosed, which would have risen well above the level of the surrounding desert in early dynastic times, must have produced quite an extraordinary effect when they were new:

> Each grave had originally been thickly coated with mud plaster and whitewash so the impression would have been of twelve (or more) huge 'boats' moored out in the desert, gleaming brilliantly in the Egyptian sun. The notion of their being moored was taken so seriously that an irregularly

> shaped small boulder was found placed near the 'prow' or 'stern' of several boat graves. These boulders could not have been there naturally or by accident; their placement seems deliberate, not random. We can think of them as 'anchors' intended to help 'moor' the boats.[32]

Like the 140-foot ocean-going vessel found buried beside the Great Pyramid at Giza (see Chapter Thirty-three), one thing was immediately clear about the Abydos boats – they were of an advanced design capable of riding out the most powerful waves and the worst weather of the open seas. According to Cheryl Haldane, a nautical archaeologist at Texas A-and-M University, they showed 'a high degree of technology combined with grace'.[33] Exactly as was the case with the Pyramid boat, therefore (but at least 500 years earlier) the Abydos fleet seemed to indicate that a people able to draw upon the accumulated experiences of a long tradition of seafaring had been present in Egypt from the very beginning

of its 3000 year history. Moreover I knew that the earliest wall paintings found in the Nile Valley, dating back perhaps as much as 1500 years before the burial of the Abydos fleet (to around 4500 BC) showed the same long, sleek, high-prowed vessels in action.[34]

Could an experienced race of ancient seafarers have become involved with the indigenous inhabitants of the Nile Valley at some indeterminate period before the official beginning of history at around 3000 BC? Wouldn't this explain Egypt's curious and paradoxical – but nonetheless enduring – obsession with ships in the desert (and references to what sounded like sophisticated ships in the Pyramid Texts, including one said to have been more than 2000 feet long)?[35]

In raising these conjectures, I did not doubt that religious symbolism had existed in Ancient Egypt in which, as scholars endlessly pointed out, ships had been designated as vessels

for the pharaoh's soul. Nevertheless that symbolism did not solve the problem posed by the high level of technological achievement of the buried ships; such evolved and sophisticated designs called for a long period of development. Wasn't it worth looking into the possibility – even if only to rule it out – that the Giza and Abydos vessels could have been parts of a cultural legacy, not of a land-loving, riverside-dwelling, agricultural people like the indigenous Ancient Egyptians but of an advanced seafaring nation?

Such seafarers could have been expected to be navigators who would have known how to set a course by the stars and who would perhaps also have developed the skills necessary to draw up accurate maps and charts of the oceans they had traversed.

Might they also have been architects and stonemasons whose characteristic medium had been polygonal, megalithic

blocks like those of the Valley Temple and the Osireion?

And might they have been associated in some way with the legendary gods of the First Time, said to have brought to Egypt not only civilization and astronomy and architecture, and the knowledge of mathematics and writing, but a host of other useful skills and gifts, by far the most notable and the most significant of which had been the gift of agriculture?

There is evidence of an astonishingly early period of agricultural advance and experimentation in the Nile Valley at about the end of the last Ice Age in the northern hemisphere. The characteristics of this great Egyptian ‘leap forward’ suggest that it could only have resulted from an influx of new ideas from some as yet unidentified source.

Chapter 46

The Eleventh Millennium BC

If it were not for the powerful mythology of Osiris, and if this civilizing, scientific, law-making deity was not remembered in particular for having introduced domesticated crops into the Nile Valley in the remote and fabled epoch known as the First Time, it would probably not be a matter of any great interest that at some point between 13,000 BC and 10,000 BC

Egypt enjoyed a period of what has been described as 'precocious agricultural development' – possibly the earliest agricultural revolution anywhere in the world identified with certainty by historians.[1]

As we saw in recent chapters, sources such as the Palermo Stone, Manetho and the Turin Papyrus contain several different and at times contradictory chronologies. All these chronologies nevertheless agree on a very ancient date for the First Time of Osiris: the golden age when the gods were believed to have ruled in Egypt. In addition, the sources demonstrate a striking convergence over the importance they accord to the *eleventh millennium* BC in particular,[2] the precessional Age of Leo when the great ice sheets of the northern hemisphere were undergoing their final, ferocious meltdown.

Perhaps coincidentally, evidence unearthed since the 1970s

by geologists, archaeologists and prehistorians like Michael Hoffman, Fekri Hassan and Professor Fred Wendorff has confirmed that the eleventh millennium BC was indeed an important period in Egyptian prehistory, during which immense and devastating floods swept repeatedly down the Nile Valley.[3] Fekri Hassan has speculated that this prolonged series of natural disasters, which reached a crescendo around or just after 10,500 BC (and continued to recur periodically until about 9000 BC) might have been responsible for snuffing out the early agricultural experiment.[4]

At any rate, that experiment *did* come to an end (for whatever reason), and appears not to have been attempted again for at least another 5000 years.[5]

Kick-start

There is something mysterious about Egypt's so-called 'palaeolithic agricultural revolution'. Here, quoted from the standard texts (Hoffman's *Egypt before The Pharaohs* and Wendorff and Schild's *Prehistory of the Nile Valley*) are some key facts from the little that is known about this great leap forward that occurred so inexplicably towards the end of the last Ice Age:

1 'Shortly after 13,000 BC, grinding stones and sickle blades with a glossy sheen on their bits (the result of silica from cut stems adhering to a sickle's cutting edge) appear in late Palaeolithic tool kits … It is clear that the grinding stones were used in preparing plant food.'[6]

2 At many riverside sites, at exactly this time, fish stopped being a significant food source and became a negligible one, as evidenced by the absence of fish remains: 'The decline in fishing as a source of food is related to the appearance of a new food resource represented by ground grain. The

associated pollen strongly suggests that this grain was barley, and significantly, this large grass-pollen, tentatively identified as barley, makes a sudden appearance in the pollen profile just before the time when the first settlements were established in this area …'[7]

3 'As apparently spectacular as the rise of protoagriculture in the late Palaeolithic Nile Valley was its precipitous decline. No one knows exactly why, but after about 10,500 BC the early sickle blades and grinding disappear to be replaced throughout Egypt by Epipalaeolithic hunting, fishing and gathering peoples who use stone tools.'[8]

Scanty though the evidence may be, it is clear in its general implications: Egypt enjoyed a golden age of agricultural plenty which began around 13,000 BC and was brought to an abrupt halt around the middle of the eleventh millennium BC. A kick-start to the process appears to have been given by the introduction of already domesticated barley into the Nile Valley, immediately followed by the

establishment of a number of farming settlements which exploited the new resource. The settlements were equipped with simple but extremely effective agricultural tools and accessories. After the eleventh millennium BC, however, there was a prolonged relapse to more primitive ways of life.

The imagination is inclined to roam freely over such data in search of an explanation – and all such explanations can only be guesswork. What is certain is that the none of the evidence suggests that palaeolithic Egypt's 'agricultural revolution' could have been a local initiative. On the contrary it feels in every way like a transplant. A transplant appears suddenly, after all, and can be rejected equally fast if conditions change, just as settled agriculture seems to have been rejected in ancient Egypt after the great Nile floods of the eleventh millennium BC.

Climate Change

What was the weather like then?

We've noted in earlier chapters that the Sahara, a relatively young desert, was green savannah until about the tenth millennium BC; this savannah, brightened by lakes, boiling with game, extended across much of upper Egypt. Farther north, the Delta area was marshy but dotted with many large and fertile islands. Overall the climate was significantly cooler, cloudier and *rainier* than it is today.[9] Indeed, for two or three thousand years before and about a thousand years after 10,500 BC it rained and rained and rained. Then, as though marking an ecological turning-point, the floods came. When they were over, increasingly arid conditions set in.[10] This period of desiccation lasted until approximately 7000 BC when the 'Neolithic Subpluvial' began with a thousand years

of heavy rains, followed by 3000 years of moderate rainfall which once again proved ideal for agriculture: 'For a time the deserts bloomed and human societies colonized areas that have been unable to support such dense populations since.'[11]

By the birth of dynastic Egypt around 3000 BC, however, the climate had turned around again and a new period of desiccation had begun – one that has continued until the present day.

This, then, in broad outline, is the environmental stage upon which the mysteries of Egyptian civilization have been played out: rain and floods between 13,000 BC and 9500 BC; a dry period until 7000 BC; rain again (though increasingly less frequent) until about 3000 BC; thereafter a renewed and enduring dry period.

The expanse of years is great, but if one is looking for a First Time within it which might accord with the golden age

of the gods, one's thoughts turn naturally to the mysterious epoch of early agricultural experimentation that shadowed the great rains and floods between 13,000 BC and 10,500 BC.

Unseen connections?

This epoch was crucial not only for the Ancient Egyptians but for many peoples in other areas. Indeed, as we saw in Part IV, it was the epoch of dramatic climate shifts, rapidly rising sea levels, earth movements, floods, volcanic eruptions, bituminous rains and darkened skies that was the most probable source of many of the great worldwide myths of universal cataclysm.

Could it also have been an epoch in which 'gods' really did walk among men, as the legends said?

On the Bolivian Altiplano those gods were known as the

Viracochas and were linked to the astonishing megalithic city of Tiahuanaco, which may have pre-existed the immense floods in the Andes in the eleventh millennium BC. Thereafter, according to Professor Arthur Posnansky, though the flood-waters subsided, 'the culture of the Altiplano did not again attain a high point of development but rather fell into a total and definitive decadence.'[12]

Of course, Posnansky's conclusions are controversial and must be evaluated on their own merits. Nevertheless, it is interesting that both the Bolivian Altiplano and Egypt should have been scoured by immense floods in the eleventh millennium BC. In both areas too, there are signs that extraordinarily early agricultural experiments – apparently based on introduced techniques – were attempted and then abandoned.[13] And in both areas important question-marks have been raised over the dating of monuments: the Puma

Punku and the Kalasasaya in Tiahuanaco, for example, which Posnansky argued might have been built as early as 15,000 BC,[14] and, in Egypt, megalithic structures like the Osireion, the Great Sphinx and the Valley Temple of Khafre at Giza, which John West and the Boston University geologist Robert Schoch have dated on geological grounds to earlier than 10,000 BC.

Could there be an unseen connection linking all these beautiful, enigmatic monuments, the anomalous agricultural experiments of 13,000–10,000 BC, and the legends of civilizer gods like Osiris and Viracocha?

‘Where is the rest of this civilization?’

As we set out on the road from Abydos to Luxor, where we

were to meet John West, I realized that there was a sense in which all the connections would look after themselves if the central issue of the antiquity of the monuments could be settled. In other words, if West's geological evidence proved that the Sphinx was more than 12,000 years old, the history of human civilization was going to have to be rewritten. As part of that exciting process, all the other strange, anachronistic 'fingerprints of the gods' that kept appearing around the world, and the sense of an undercurrent of ancient connections linking apparently unrelated civilizations, would begin to make sense …

When West's evidence was presented in 1992 at the annual meeting of the American Association for the Advancement of Science it had been taken seriously enough to be publicly debated by the Chicago University Egyptologist Mark Lehner, director of the Giza Mapping Project, who – to the

astonishment of almost everybody present – had been unable to come up with a convincing refutation. ‘When you say something as complex as the Sphinx dates to 9000 or 10,000 BC,’ Lehner had concluded:

> it implies, of course, that there was a very high civilization that was capable of producing the Sphinx at that period. The question an archaeologist has to ask, therefore, is this: if the Sphinx was made at that time then where is the rest of this civilization, where is the rest of this culture?[15]

Lehner, however, was missing the point.

If the Sphinx did date to 9000 or 10,000 BC, the onus was not on West to produce other evidence for the existence of the civilization which produced it, but on Egyptologists and archaeologists to explain how they had got things so wrong,

so consistently, for so long.

So could West prove the antiquity of the Sphinx?

Chapter 47

Sphinx

‘Egyptologists,’ said John West, ‘are the last people in the world to address any anomaly.’

Of course, there are many anomalies in Egypt. The one West was referring to at that moment, however, was the anomaly of the Fourth Dynasty pyramids: an anomaly because of what had happened during the Third, Fifth and

Sixth Dynasties. Zoser's Step Pyramid at Saqqara (Third Dynasty) was an imposing edifice, but it was built with relatively small, manageable blocks that five or six men working together could carry, and its internal chambers were structurally unsound. The pyramids of the Fifth and Sixth Dynasties (although adorned inside with the beautiful Pyramid Texts) were so poorly built and had collapsed so completely that today most of them amount to little more than mounds of rubble. The Fourth Dynasty pyramids at Giza, however, were wonderfully well made and had endured the passage of thousands of years more or less intact.

It was this sequence of events, or rather its implications, that West felt Egyptologists should have paid more attention to: 'There's a discrepancy in the scenario that reads "building kind of rubbishy pyramids that are structurally unsound, suddenly building absolutely unbelievable pyramids that are

structurally the most incredible things ever conceived of, and then immediately afterwards going back to structurally unsound pyramids." It doesn't make sense … The parallel scenario in, say, the auto-industry would be inventing and building the Model-T Ford, then suddenly inventing and building the '93 Porsche and making a few of those, then forgetting how to do that and going back to building Model-T Fords again … Civilizations don't work this way.'

'So what are you saying?' I asked. 'Are you saying that the Fourth Dynasty pyramids weren't built by the Fourth Dynasty at all?'

'My gut feeling is that they weren't. They don't look like the mastabas in front of them. They don't look like any other Fourth Dynasty stuff either … They don't seem to fit in …'

'And nor does the Sphinx?'

'And nor does the Sphinx. But the big difference is that we

don't have to rely on gut feelings where the Sphinx is concerned. We can prove that it was built long before the Fourth Dynasty …'

John West

Santha and I had been fans of John Anthony West ever since we had first started travelling in Egypt. His guide-book, *The Traveller's Key* had been a brilliant and indispensable introduction to the mysteries of this ancient land, and we still carried it with us. At the same time his scholarly works, notably *Serpent in the Sky*, had opened our eyes to the revolutionary possibility that Egyptian civilization – with its manifold glimpses of high science apparently out of place in time – might *not* have developed entirely within the confines of the Nile Valley but might have been a legacy of some

earlier, greater and as yet unidentified civilization ‘antedating dynastic Egypt, and all other known civilizations, by millennia’.[1]

Tall and strongly built, West was in his early sixties. He had cultivated a neatly trimmed white beard, was dressed in a khaki safari-suit and wore an eccentric nineteenth-century pith helmet. His manner was youthful and energetic and there was a roguish sparkle in his eyes.

The three of us were sitting on the open upper deck of a Nile cruiser, moored off the corniche in Luxor just a few yards downstream from the Winter Palace Hotel. To our west, across the river, a big red sun, distorted by atmospheric refraction, was setting behind the cliffs of the Valley of the Kings. To our east lay the battered but noble ruins of the Luxor and Karnak temples. Beneath us, transmitted through the hull of the boat, we could feel the lap and flow of the

water as it rolled by on its meridional course towards the far-off Delta.

West had first presented his thesis for an older Sphinx in *Serpent in the Sky*, a comprehensive exposition of the work of the French mathematician R.A. Schwaller de Lubicz. Schwaller's research at the Luxor Temple between 1937 and 1952 had unearthed mathematical evidence which suggested that Egyptian science and culture had been far more advanced and sophisticated than modern scholars had appreciated. However, as West put it, this evidence had been set out in 'abstruse, complex and uncompromising language … Few readers seem comfortable with raw Schwaller. It's a bit like trying to wade directly into high energy physics without extensive prior training.'

Schwaller's principal publications, both originally in French, were the massive three-volume *Temple de l'Homme*,

which focused on Luxor, and the more general *Roi de la théocratie Pharaonique*. In this latter work, subsequently translated into English as *Sacred Science*, Schwaller made a passing reference to the tremendous floods and rains which devastated Egypt in the eleventh millennium BC. Almost as an afterthought, he added:

> A great civilization must have preceded the vast movements of water that passed over Egypt, which leads us to assume that the Sphinx already existed, sculptured in the rock of the west cliff at Giza – that Sphinx whose leonine body, except for the head, shows indisputable signs of water erosion.'[2]

While working on *Serpent*, West was struck by the possible significance of this remark and decided to follow it up: 'I realized that if I could prove Schwaller's offhand observation

empirically, this would be ironclad evidence for the existence of a previously unidentified high civilization of distant antiquity.'

'Why?'

'Once you've established that water was the agent that eroded the Sphinx the answer is almost childishly simple. It can be explained to anybody who reads the *National Enquirer* or the *News of the World*. It's almost moronically simple … The Sphinx is supposed to have been built by Khafre around 2500 BC, but since the beginning of dynastic times – say 3000 BC onwards – there just hasn't been enough rain on the Giza plateau to have caused the very extensive erosion that we see all over the Sphinx's body. You really have to go back to before 10,000 BC to find a wet enough climate in Egypt to account for weathering of this type and on this scale. It therefore follows that the Sphinx must have

been built before 10,000 BC and since it's a massive, sophisticated work of art it also follows that it must have been built by a high civilization.'

'But John,' Santha asked, 'how can you be so sure that the weathering *was* caused by rain water? Couldn't the desert winds have done the job just as well? After all even orthodox Egyptologists admit that the Sphinx has existed for nearly 5000 years. Isn't that long enough for these effects to have been caused by wind erosion?'

'Naturally that was one of the first possibilities that I had to exclude. Only if I could show that wind-borne abrasive sand couldn't possibly have brought the Sphinx to its present condition would there be any point in looking further into the implications of water erosion.'

Robert Schoch's geology: Unriddling the Sphinx

A key issue turned out to be the deep trench that the monument was surrounded by on all sides: 'Because the Sphinx is set in a hollow,' West explained, 'sand piles up to its neck within a few decades if it's left untended … It has been left untended often during historical times. In fact through a combination of textual references and historical extrapolations it's possible to prove that during the 4500 years that have elapsed since it was ostensibly built by Khafre it's been buried to its neck for as much as 3300 years.[3] That means that in all this time there has only been a cumulative total of just over 1000 years in which its body has been susceptible to wind-erosion; all the rest of the time it's been protected from the desert winds by an enormous blanket of sand. The point is that if the Sphinx was really

built by Khafre in the Old Kingdom, and if wind erosion was capable of inflicting such damage on it in so short a time-span, then other Old Kingdom structures in the area, built out of the same limestone, ought to show similar weathering. But none do – you know, absolutely unmistakable Old Kingdom tombs, full of hieroglyphs and inscriptions – none of them show the same type of weathering as the Sphinx.'

Indeed, none did. Professor Robert Schoch, a Boston University geologist and specialist in rock erosion who had played a key role in validating West's evidence, was satisfied as to the reason for this. The weathering of the Sphinx – and of the walls of its surrounding rock-hewn enclosure – had not been caused by wind-scouring at all but by thousands of years of heavy rainfall long ages before the Old Kingdom came into being.

Having won over his professional peers at the 1992

Convention of the Geological Society of America,[4] Schoch went on to explain his findings to a much wider and more eclectic audience (including Egyptologists) at the 1992 Annual Meeting of the American Association for the Advancement of Science (AAAS). He began by pointing out to delegates that 'the body of the Sphinx and the walls of the Sphinx ditch are deeply weathered and eroded … This erosion is a couple of metres thick in places, at least on the walls. It's very deep, it's very old in my opinion, and it gives a rolling and undulating profile …'[5]

Such undulations are easily recognizable to stratigraphers and palaeontologists as having been caused by 'precipitation-induced weathering'. As Santha Faiia's photographs of the Sphinx and the Sphinx enclosure indicate, this weathering takes the distinctive form of a combination of deep vertical fissures and undulating, horizontal coves – 'a classic textbook

example,' in Schoch's words, 'of what happens to a limestone structure when you have rain beating down on it for thousands of years … It's clearly rain precipitation that produced these erosional features.'[6]

Wind/sand erosion presents a very different profile of sharp-edged horizontal channels selectively scoured out from the softer layers of the affected rock. Under no circumstances can it cause the vertical fissures particularly visible in the wall of the Sphinx enclosure. These could only have been 'formed by water running down the wall',[7] the result of rain falling in enormous quantities, cascading over the slope of the Giza plateau and down into the Sphinx enclosure below. 'It picked out the weak spots in the rock,' Schoch elaborated, 'and opened them up into these fissures – clear evidence to me as a geologist that this erosional feature was caused by rainfall.'[8]

Although in some places obscured by repair blocks put in place by numerous restorers over the passing millennia, the same observation holds true for the scooped-out, undulating, scalloped coves that run the entire length of the Sphinx's body. Again, these are characteristic of precipitation-induced weathering because only long periods of heavy rainfall beating down on the upper parts of the immense structure (and cascading over its sides) could have produced such effects. Confirmation of this comes from the fact that the limestone out of which the Sphinx was carved is not uniform in its composition, but consists of a series of hard and soft layers in which some of the more durable rocks recede farther than some of the less durable rocks.[9] Such a profile simply could not have been produced by wind erosion (which would have selectively chiselled out the softer layers of rock) but 'is entirely 'consistent with precipitation-induced

weathering where you have water, rain water beating down from above. The rocks higher up are the more durable ones but they recede back farther than some of the less durable rocks lower in the section which are more protected.'[10]

In his summing up at the AAAS meeting, Schoch concluded:

> It's well known that the Sphinx enclosure fills with sand very quickly, in just a matter of decades, under the desert conditions of the Sahara. And it has to be dug out periodically. And this has been the case since ancient times. Yet you still get this dramatic rolling, erosional profile in the Sphinx enclosure … Simply put, therefore, what I'm suggesting is that this rolling profile, these features seen on the body and in the Sphinx ditch, hark back to a much earlier period when there was more precipitation in the area, and more moisture, more rain on the Giza plateau.'[11]

As Schoch admitted, he was not the first geologist to have

noticed the 'anomalous precipitation-induced weathering features on the core body of the Sphinx'.[12] He was, however, the first to have become involved in public debates over the immense *historical* implications of this weathering. His attitude was that he preferred to stick to his geology:

> I've been told over and over again that the peoples of Egypt, as far as we know, did not have either the technology or the social organization to cut out the core body of the Sphinx in pre-dynastic times … However, I don't see it as being my problem as a geologist. I'm not seeking to shift the burden, but its really up to the Egyptologists and archaeologists to figure out who carved it. If my *findings* are in conflict with their *theory* about the rise of civilization then maybe its time for them to re-evaluate that theory. I'm not saying that the Sphinx was built by Atlanteans, or people from Mars, or extra-terrestrials. I'm just following the science where it leads me, and it leads me to conclude that the Sphinx was built much earlier than previously thought …'[13]

Legendary civilizations

How much earlier?

John West told us that he and Schoch had ‘a friendly debate going’ about the age of the Sphinx: ‘Schoch puts the date somewhere between 5000 BC and 7000 BC *minimum* [the epoch of the Neolithic Subpluvial] mainly by taking the most cautious view allowed by the data to hand. As a professor of Geology at a big university, he’s almost constrained to take a conservative view – and it’s true that there were rains between 7000 BC and 5000 BC. However, for a variety of both intuitive and scholarly reasons, I think that the date is much, much older and that most of the weathering of the Sphinx took place in the earlier rainy period before 10,000 BC … Frankly, if it was as relatively

recent as 5000 to 7000 BC, I think we'd probably have found other evidence of the civilization that carved it. A lot of evidence from that period *has* been found in Egypt. There are some strange anomalies within it, I'll admit,[14] but most of it – the vast bulk – is really quite rudimentary.'

'So who built the Sphinx if it wasn't the pre-dynastic Egyptians?'

'My conjecture is that the whole riddle is linked in some way to those legendary civilizations spoken of in all the mythologies of the world. You know – that there were great catastrophes, that a few people survived and went wandering around the earth and that a bit of knowledge was preserved here, a bit there … My hunch is that the Sphinx is linked to all that. If I were asked to place a bet I'd say that it predates the break-up of the last Ice Age and is probably older than 10000 BC, perhaps even older than 15,000 BC. My conviction

– actually it's more than a conviction – is that it's *vastly old.'*

This was a conviction I increasingly shared – and, I reminded myself, that most nineteenth-century Egyptologists had shared it too. Nevertheless the Sphinx's appearance argued against such intuitions since there was no doubt that its head *looked* conventionally pharaonic. 'If it's as old as you think it is,' I now asked John, 'then how do you explain that the sculptors depicted it wearing the characteristic *nemes* head-dress and *uraeus* of dynastic times?'

'I'm not bothered about that. In fact, as you know, Egyptologists contend that the face of the Sphinx resembles the face of Khafre – its one of the reasons why they claim it must have been built by him. Schoch and I have looked into this very carefully. We think, from the proportions of the head relative to the rest of the body, that it's been *recarved* during dynastic times – and that's why it looks very dynastic.

But we don't think it was ever meant to represent Khafre. As part of our ongoing research into these issues we had Lieutenant Frank Domingo, a forensic artist with the New York Police Department, come over and do point by point comparisons between the face of the Sphinx and the face of Cephren's statue in the Cairo Museum. His conclusion was that in no way was the Sphinx ever intended to represent Khafre. It's not just a matter of it being a different face – it's probably a different race.[15] So this is a very ancient monument that was recarved at a much later date. Originally it may not even have had a human face. Maybe it started out with a lion's *face* as well as a lion's body.'

Magellan and the first dinosaur bone

After my own explorations at Giza I was interested to know

whether West's research had cast doubt on the orthodox dating of any of the other monuments on the plateau – particularly the so-called Valley Temple of Khafre.

'We think there's quite a lot of stuff that may be older,' he told me. 'Not just the Valley Temple but also the Mortuary Temple up the hill, probably something to do with the Menkaure complex, maybe even the Pyramid of Khafre …'

'What in the Menkaure complex?'

'Well, the Mortuary Temple. And actually I'm only using the conventional atribution of the Pyramids for convenience here …'

'OK. So do you think it's possible that the pyramids are as old as the Sphinx too?'

'It's hard to say. I think something was there where those pyramids now are – because of the geometry. The Sphinx was part of a master-plan. And the Khafre Pyramid is maybe the

most interesting in that respect because it was definitely built in two stages. If you look at it – maybe you've noticed – you'll see that its base consists of several courses of *gigantic* blocks similar in style to the blocks of the core masonry of the Valley Temple. Superimposed above the base, the rest of the pyramid is composed of smaller, less precisely engineered stuff. But when you look at it, knowing what you're looking for, you see instantly that it's built in two separate bits. I mean I can't help but feel that the vast blocks on the bottom date from the earlier period – from the time the Sphinx was built – and that the second part was added later – but even then not necessarily by Khafre. As you go into this you begin to realize that the more you learn the more complex everything becomes. For example, there may even have been an intermediate civilization, which actually would correspond to the Egyptian texts. They talk themselves about

two long prior periods. In the first of these Egypt was supposedly ruled by the gods – the Neteru – and in the second it was ruled by the Shemsu Hor, the "Companions of Horus". So, as I say, the problems just get more and more complicated. Fortunately, however, the bottom line stays simple. The bottom line is the Sphinx wasn't built by Khafre. The geology proves that it's a hell of a lot older …'

'Nevertheless the Egyptologists won't accept that it is. One of the arguments they've used against you – Mark Lehner did so – goes something like this: "If the Sphinx was made before 10,000 BC then why can't you show us the rest of the civilization that built it?" In other words, why don't you have any other evidence to put forward for the presence of your legendary lost civilization apart from a few structures on the Giza plateau? What do you say to that?'

'First off, there *are* structures outside Giza – for example

the Osireion in Abydos, where you've just come from. We think that amazing edifice may relate to our work on the Sphinx. Even if the Osireion didn't exist, however, the absence of other evidence wouldn't worry me. I mean, to make a big deal out of the fact that further confirmatory evidence *hasn't been found yet* and to use this to try to scuttle the arguments for an older Sphinx is completely illogical. Analogously it's like saying to Magellan … "Where are the other guys who've sailed round the world? Of course it's still flat." Or in 1838 when the first dinosaur bone was found they would have said, "Of course there's no such thing as a giant extinct animal. Where's the rest of the skeletons? They've only found one bone." But once a few people began to realize that this bone could only be from an extinct animal, within twenty years the museums of the world were filled up with complete dinosaur skeletons. So it's sort of like that.

Nobody's thought to look in the right places. I'm absolutely certain that other evidence will be found once a few people start looking in the right places – along the banks of the ancient Nile, for example, which is miles from the present Nile, or even at the bottom of the Mediterranean, which was dry during the last Ice Age.'

The problem of transmission

I asked John West why he thought that Egyptologists and archaeologists were so unwilling to consider that the Sphinx might be a clue to the existence of a forgotten episode in human history.

'The reason, I think, is that they're quite fixed in their ideas about the linear evolution of civilization. They find it hard to come to terms with the notion that there might have been

people, more than 12,000 years ago, who were more sophisticated than we are today … The Sphinx, and the geology which proves its antiquity, and the fact that the technology that was involved in making it is in many ways almost beyond our own capacities, contradicts the belief that civilization and technology have evolved in a straightforward, linear way … Because even with the best modern technology we almost couldn't carry out the various tasks that were involved in the project. The Sphinx itself, that's not such a staggering feat. I mean if you get enough sculptors to cut the stone away they could carve a statue a mile long. The *technology* was involved in taking the stones, quarrying the stones, to free the Sphinx from its bedrock and then in moving those stones and using them to build the Valley Temple a couple of hundred feet away …'

This was news to me: 'You mean that the 200-ton blocks in

the Valley Temple walls were quarried right out of the Sphinx enclosure?'

'Yes, no doubt about it. Geologically they're from the identical member of rock. They were quarried out, moved over to the site of the Temple – God knows how – and erected into forty-foot-high walls – again God knows how. I'm talking about the huge limestone core blocks, not the granite facing. I think that the granite was added much later, quite possibly by Khafre. But if you look at the limestone core blocks you'll see that they bear the marks of exactly the same kind of precipitation-induced weathering that are found on the Sphinx. So the Sphinx and the core structure of the Valley Temple were made at the same time by the same people – whoever they may have been.'

'And do you think that those people and the later dynastic Egyptians were connected to each other in some way? In

Serpent in the Sky you suggested that a legacy must have been passed on.'

'It's still just a suggestion. All that I know for sure on the basis of our work on the Sphinx is that a very, very high, sophisticated civilization capable of undertaking construction projects on a grand scale was present in Egypt in the very distant past. Then there was a lot of rain. Then, thousands of years later, in the same place, pharaonic civilization popped up already fully formed, apparently out of nowhere, with all its knowledge complete. That much we can be certain of. But whether or not the knowledge that Ancient Egypt possessed was the same as the knowledge that produced the Sphinx I really can't say.'

'How about this,' I speculated: 'The civilization that produced the Sphinx wasn't based here, at least not originally … It wasn't in Egypt. It put the Sphinx here as

some sort of a marker or outpost …’

‘Perfectly possible. Could be that the Sphinx for that civilization was like, let’s say, what Abu Simbel [in Nubia] was for dynastic Egypt.’

‘Then that civilization came to an end, was extinguished by some sort of massive catastrophe, and that’s when the legacy of high knowledge was handed on … Because they had the Sphinx here they knew about Egypt, they knew this place, they knew this country, they had a connection here. Maybe people survived the ending of that civilization. Maybe they came here.… Does that work for you?’

‘Well, it’s a possibility. Again, going back into the mythologies and legends of the world, many of them tell of such a catastrophe and of the few people – the Noah story that’s prevalent through endless civilizations – who somehow or other retained and passed on knowledge. The big problem

with all this, from my point of view, is the transmission process: how exactly the knowledge does get handed on during the thousands and thousands of years between the construction of the Sphinx and the flowering of dynastic Egypt. Theoretically you're sort of stuck – aren't you? – with this vast period in which the knowledge has to be transmitted. This is not easy to slough off. On the other hand we do know that those legends we're referring to were passed on word for word over countless generations. And in fact oral transmission is a much surer means of transmission than written transmission, because the language may change but as long as whoever's telling the story tells it true in whatever the language of the time is … it surfaces some 5000 years later in its original form. So maybe there are ways – in secret societies and religious cults, or through mythology, for example – that the knowledge could have been preserved and

passed on before flowering again. The point, I think, with problems as complex and important as these, is simply not to dismiss any possibilities, no matter how outrageous they may at first seem, without investigating them very, very thoroughly …'

Second opinion

John West was in Luxor, leading a study group on Egypt's sacred sites. Early the next day he and his students went south to Aswan and Abu Simbel. Santha and I journeyed north again, back towards Giza and the mysteries of the Sphinx and the pyramids. We were to meet there with the archaeo-astronomer Robert Bauval. As we shall see, his stellar correlations provided startling independent corroboration for the geological evidence of Giza's vast

antiquity.

Chapter 48

Earth Measurers

Follow these instructions carefully:

Draw two parallel straight lines vertically down a sheet of paper, about seven inches long and a bit under three inches apart. Draw a third line, also vertical, also parallel and of equal length, exactly mid-way between the first two. Write the letter ‘S’ – for ‘South’ – at the top end of your diagram

(the end farthest away from you), and the letter ‘N’ for ‘North’ at the bottom end. Add the letters ‘E’ for ‘East’ and ‘W’ for ‘West’ in their appropriate positions at either side of the diagram, to your left for East and to your right for West.

What you are looking at are the outlines of a geometrical map of Egypt incorporating a perspective very different from our own (where ‘North’ is always equated with ‘Up’). This map where ‘Up’ is ‘South’ seems to have been worked out an enormously long time ago by cartographers with a scientific understanding of the shape and size of our planet.

To complete the map you should now mark a dot on the central of the three parallel lines about an inch to the south of (‘up’ from) the northern end of the diagram. Then draw two more lines diagonally down from this point, respectively to the north-east and north-west, until they reach the northern ends of the two outermost parallel lines. Finally link

those parallel lines directly with horizontal lines running east to west at the northern and southern ends of the diagram.

The shape produced is a meridional rectangle (oriented north-south). This rectangle is seven inches long by just under three inches wide and has a triangle demarcated at its northern (lower) end. The triangle represents the Nile Delta and the dot at the apex of the triangle represents the apex of the Delta – a point on the ground at 30° 06′ north and 31° 14′ east, very close to the location of the Great Pyramid.

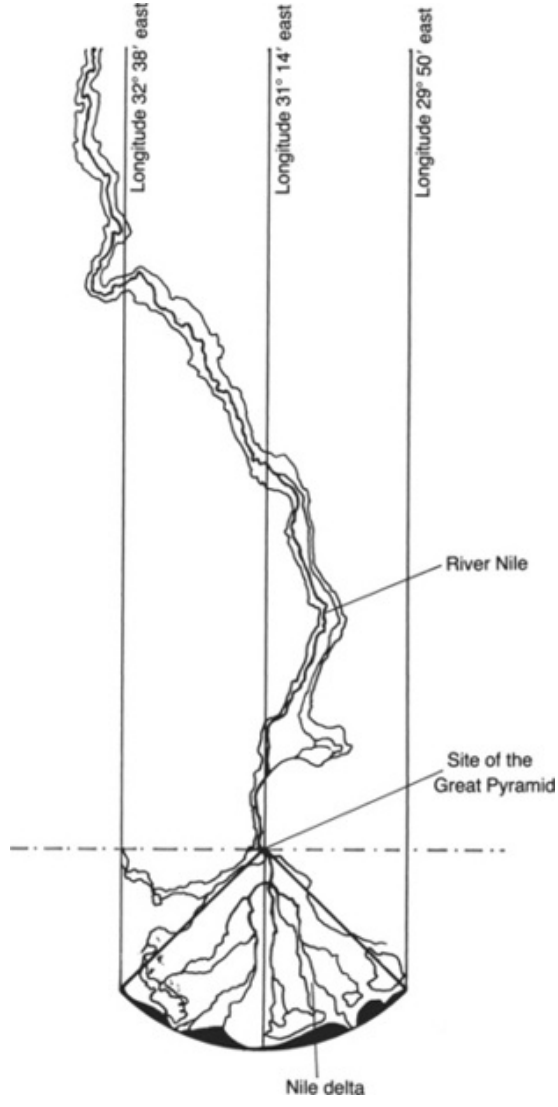
Longitude 32° 38′ east
Longitude 31° 14′ east
Longitude 29° 50′ east
River Nile
Site of the
Great Pyramid
Nile delta

Map showing the geometric conception of Egypt, with the Great Pyramid at the apex of the Nile delta. The Egyptians traditionally thought of south as ‘up’.

Geodetic marker

Whatever else it may be, it has long been understood by mathematicians and geographers that the Great Pyramid serves the function of a geodetic marker (geodetics being the branch of science concerned with determining the exact position of geographical points and the shape and size of the earth[1]). This realization first dawned in the late eighteenth century when the armies of revolutionary France, led by Napoleon Bonaparte, invaded Egypt. Bonaparte, who had cultivated a deep interest in the enigmas of the pyramids, brought with him a large number of scholars, 175 in all,

including several ‘greybeards’ gathered from various universities who were reputed to have acquired ‘a profound knowledge of Egyptian antiquities’, and, more usefully, a group of mathematicians, cartographers and surveyors.[2]

One of the tasks the savants were set, after the conquest was completed, was to draw up detailed maps of Egypt. In the process of doing this they discovered that the Great Pyramid was perfectly aligned to true north – and of course to the south, east and west as well, as we saw in Part VI. This meant that the mysterious structure made an excellent reference and triangulation point, and a decision was therefore taken to use the meridian passing through its apex as the base-line for all other measurements and orientations. The team then proceeded to produce the first accurate maps of Egypt drawn up in the modern age. When they had finished, they were intrigued to note that the Great Pyramid’s

meridian sliced the Nile Delta region into two equal halves. They also found that if the diagonals running from the pyramid's apex to its north-eastern and north-western corners were extended (forming lines on the map running north-east and north-west until they reached the Mediterranean), the triangle thus formed would neatly encapsulate the entire Delta area.[3]

Let us now return to our map, which also incorporates a triangle representing the Delta. Its other main components are the three parallel meridians. The eastern meridian is at longitude 32° 38′ east – the official eastern border of Ancient Egypt from the beginning of dynastic times. The western meridian is at longitude 29° 50′ east, the official western border of ancient Egypt. The central meridian is at longitude 31° 14′ east, exactly midway between the other two (1° 24′ away from each).[4]

What we now have is a representation of a strip on the surface of planet earth that is exactly *2*° 48′ wide. How long is this strip? Ancient Egypt's 'official' northern and southern borders (which bore no more relationship to settlement patterns than the official eastern and western boundaries) are marked by the horizontal lines at the top and bottom of the map and are located respectively at 31° 06′ north and 24° 06′ north.[5] The northern border, 31° 06′ north, joins the two outer ends of the estuary of the Nile. The southern border, 24° 06′N, marks the precise latitude of the island of Elephantine at Aswan (Seyne) where an important astronomical and solar observatory was located throughout known Egyptian history.[6] It seems, that this archaic land, sacred since time began – the creation and habitation of the gods – was originally conceived of as a *geometric construct* exactly seven terrestrial degrees in length.

Within this construct, the Great Pyramid appears to have been carefully sited as a goedetic marker for the apex of the Delta. The latter, which we have indicated on our map, is located at 30° 06′N 31 14′E – a point in the middle of the Nile at the northern edge of modern Cairo. Meanwhile the pyramid stands at latitude of 30°N (corrected for atmospheric refraction) and at longitude 31° 09′E, an error of just a few minutes of terrestrial arc to the south and west. This ‘error’, however, does not appear to have resulted from sloppiness or inaccuracy on the part of the pyramid builders. On the contrary, a close look at the topography of the area suggests that the explanation should be sought in the need to find a site suitable for all the astronomical observations that had to be taken for accurate setting-out, and with a sufficiently stable geological structure on which to park, for ever, a six-million-ton monument almost 500 feet high with a footprint

of over thirteen acres.

The Giza plateau fits the bill on all counts: close to the apex of the Delta, elevated above the Valley of the Nile, and equipped with an excellent foundation of solid limestone bedrock.

Doing things by degrees

We were driving north from Luxor to Giza in the back of Mohamed Walilli's Peugeot 504 – a journey of just over 4 degrees of longitude, i. e., from 25° 42′N, to the 30th parallel. Between Asiut and El Minya, a corridor of conflict in recent months between Islamic extremists and Egyptian government forces, we were provided with an armed escort of soldiers, one of whom wore plain clothes and sat in the passenger seat beside Mohamed fondling an automatic pistol. The others,

about a dozen men armed with AK47 assault rifles, were distributed equally between two pick-up trucks which sandwiched us front and rear.

'Dangerous people live here,' Mohamed had confided out of the corner of his mouth when we had been stopped at a road-block in Asiut and ordered to wait for our escort. Now, although obviously rattled at being obliged to match the high speed of the escorting vehicles, he seemed to relish the kudos of being part of an impressive convoy, lights flashing and sirens wailing, weaving in and out of the slower traffic on the main highway from upper to lower Egypt.

I looked out of the car window for a while at the unchanging spectacle of the Nile, at its fertile green banks and the red haze of the deserts a few miles away to east and west. This was Egypt, the real organic Egypt of today and yesterday, which overlapped (but spread out far beyond) the

strange ‘official’ Egypt of the map described, a rectangular fiction exactly seven terrestial degrees in length.

In the nineteenth century the renowned Egyptologist Ludwig Borchardt expressed what is still the conventional wisdom of his colleagues when he remarked, ‘One must absolutely exclude the possibility that the ancients may have measured by degrees.’[7] This was a judgement that seemed increasingly unlikely to be tenable. Whoever they may have been, it was obvious that the original planners and architects of the Giza necropolis had belonged to a civilization which knew the earth to be a sphere, knew its dimensions almost as well as we do ourselves, and had divided it into 360 degrees, just as we do today.

The proof of this lay in the creation of a symbolic official ‘country’ exactly seven terrestrial degrees in length, and in the admirably geodetic location and orientation to the

cardinal points of the Great Pyramid. Equally persuasive was the fact, already touched on in Chapter Twenty-three, that the perimeter of the pyramid's base stood in the relationship 2*pi* to its height and that the entire monument seemed to have been designed to serve as a *map-projection* – on a scale of 1:43,200 – of the northern hemisphere of our planet:

> The Great Pyramid was a projection on four triangular surfaces. The apex represented the pole and the perimeter represented the equator. This is the reason why the perimeter is in relation *2pi* to the height.[8]

The Pyramid/Earth ratio

We have demonstrated the use of *pi* in the Pyramid[9] and need not go into this matter again; besides, the existence of the *pi* relationship, though interpreted as *accidental by* orthodox

scholars, is not contested by them.[10] But are we seriously supposed to accept that the monument could also be a representation of the northern hemisphere of the earth projected on flat surfaces at a scale of 1:43,200? Let us remind ourselves of the figures.

According to the best modern estimates, based on satellite observations, the equatorial circumference of the earth is 24,902.45 miles and its polar radius is 3949.921 miles.[11] The perimeter of the Great Pyramid's base is 3023.16 feet and its height is 481.3949 feet.[12] The scaling-down, as it turns out, is not *absolutely* exact, but it is very near. Moreover, when we remember the bulge at the earth's equator (our planet being an oblate spheroid rather than a perfect sphere), the results achieved by the pyramid builders seem even closer to 1:43,200.

How close?

If we take the earth's equatorial circumference, 24,902.45 miles, and scale it down (divide it) by 43,200 we get a result of 0.5764 of a mile. There are 5280 feet in a mile. The next step, therefore, is to multiply 0.5764 by 5280, which produces a figure of 3043.39 feet. The earth's equatorial circumference scaled down 43,200 times is therefore 3,043.39 feet. By comparison, as we have seen, the perimeter of the Great Pyramid's base is 3,023.16 feet. This represents an 'error' of only 20 feet – or about three-quarters of 1 per cent. Given the razor-sharp accuracy of the pyramid builders, however (who normally worked to even finer tolerances), the error is less likely to have resulted from mistakes in the construction of the giant monument than in an underestimation of our planet's true circumference *by just 163 miles*, probably caused in part by failure to take account of the equatorial bulge.

Let us now consider the earth's polar radius of 3949.921 miles. If we scale it down 43,200 times we get 0.0914 of a mile: 482.59 feet. The earth's polar radius scaled down 43,200 times is therefore 482.59 feet. By comparison the Great Pyramid's height is 481.3949 feet – just a foot less than the ideal figure, an error of barely one-fifth of one per cent.

As near as makes no difference, therefore, the perimeter of the Great Pyramid's base is indeed 1:43,200 of the equatorial circumference of the earth. And as near as makes no difference, the height of the Great Pyramid above that base is indeed 1:43,200 of the polar radius of the earth. In other words, during all the centuries of darkness experienced by Western civilization when knowledge of our planet's dimensions was lost to us, all we ever needed to do to rediscover that knowledge was to measure the height and base perimeter of the Great Pyramid and multiply by 43,200!

How likely is this to be an ‘accident’?

The commonsense answer is ‘not very likely at all,’ since it should be obvious to any reasonable person that what we are looking at could only be the result of a deliberate and carefully calculated planning decision. Commonsense, however, has never been a faculty held in high esteem by Egyptologists, and it is therefore necessary to ask whether there is anything else in the data which might confirm that the ratio of 1:43,200 is a purposeful expression of intelligence and knowledge, rather than some numerical fluke.

The ratio itself seems to provide that confirmation, for the simple reason that 43,200 is *not* a random number (like, say, 45,000 or 47,000, or 50,500, or 38,800). On the contrary it is one of a series of numbers, and multiples of those numbers, which relate to the phenomenon of precession of the

equinoxes, and which have become embedded in archaic myths all around the world. As the reader can confirm by glancing back at Part V the basic numerals of the Pyramid/Earth ratio crop up again and again in those myths, sometimes directly as 43,200 sometimes as 432, as 4320, as 432,000, as 4,320,000, and so on.

What we appear to be confronted by are two remarkable propositions, back-to-back, as though designed to reinforce one another. It is surely remarkable enough that the Great Pyramid should be able to function as an accurate scale-model of the northern hemisphere of planet earth. But it is even more remarkable that the *scale involved* should incorporate numbers relating precisely to one of the key planetary mechanisms of the earth. This is the fixed and apparently eternal precession of its axis of rotation around the pole of the ecliptic, a phenomenon which causes the

vernal point to migrate around the band of the zodiac at the rate of one degree every 72 years, and 30 degrees (one complete zodiacal constellation) every 2160 years. Precession through two zodiacal constellations, or 60 degrees along the ecliptic, takes 4320 years.[13]

The constant repetition of these precessional numbers in ancient myths could, perhaps, be a coincidence. Viewed in isolation, the appearance of the precessional number 43,200 in the pyramid/earth ratio might also be a coincidence (although the odds against this must be astronomical). But when we find precessional numbers in *both* these very different media – the ancient myths and the ancient monument – it really does strain credulity to suppose that coincidence is all that is involved here. Moreover, just as the Teutonic myth of Valhalla's walls leads us to the precessional number 432,000 by inviting us to *calculate* the warriors who

‘go to war with the Wolf’ (500 plus 40 multiplied by 800, as saw in Chapter Thirty-three), so the Great Pyramid leads us to the precessional number 43,200 by demonstrating through the *pi* relationship that it might be a scale-model part of the earth and then by inviting us to *calculate* that scale.

Matching fingerprints?

At El Minya our escort vehicles left us, though the plain-clothes soldier in the front seat stayed with us until Cairo. We paused for a late lunch of bread and felafel in a boisterous, noisy village, then motored north again.

Throughout all this, my thoughts remained focused on the Great Pyramid. Obviously it was not an accident that so immense and conspicuous a structure should occupy a key geographic and geodetic location in a part of the world that

appeared, bizarrely, to have been conceived of and 'geometrized' as a rectangular, symbolic construct exactly seven terrestrial degrees in length. But it was the pyramid's other function as a three-dimensional map projection of the northern hemisphere that particularly interested me because it suggested a 'match' with the ancient but advanced maps of the world described in Part I. Those maps, which made use of spherical trigonometry and a range of sophisticated projections, had been claimed by Professor Charles Hapgood to provide tangible, documentary evidence that an advanced civilization with a comprehensive knowledge of the globe must have flourished during the last Ice Age. Now here was the Great Pyramid proving to have a cartographic function *vis-à-vis* the northern hemisphere and also incorporating a sophisticated projection. As one expert explained:

> Each flat face of the Pyramid was designed to represent one curved quarter

> of the northern hemisphere, or spherical quadrant of 90 degrees. To project a spherical quadrant on to a flat triangle correctly, the arc, or base, of the quadrant must be the same length as the base of the triangle, and both must have the same height. This happens to be the case *only* with a cross-section or meridian bisection of the Great Pyramid, whose slope angle gives the *pi* relation between height and base …[14]

Was it possible that surviving copies and compilations of ancient maps – like the Piri Reis Map, for example – might in some cases go back to source documents produced by the same culture that skilfully incorporated its knowledge of the globe into the dimensions of the Great Pyramid (and indeed into the carefully geometrized dimensions of Ancient Egypt itself)?

I could hardly forget that Charles Hapgood and his team had spent months trying to work out where the original projection of the Piri Reis Map had been centred. The answer

they finally obtained was Egypt and specifically Seyne (Aswan) in upper Egypt[15] – where, as we have seen, an important astronomical observatory was situated at latitude 24° 06′N, the official southern border.

Needless to say, precise astronomical observations would have been essential for calculations of the circumference of the earth and of latitude positions.[16] But for how long *before* the historical period had the Ancient Egyptians and their ancestors been making such observations? And had they indeed learned this skill, as they stated forthrightly in their traditions, from the gods who had once walked among them?

Navigators in the Boat of Millions of Years

The god believed by the Ancient Egyptians to have taught the principles of astronomy to their ancestors was Thoth: ‘He

who reckons in heaven, the counter of the stars, the enumerator of the earth and of what is therein, and the measurer of the earth.'[17]

Normally depicted as a man wearing an ibis mask, Thoth was a leading member of the elite company of First Time deities who dominated religious life in Ancient Egypt from the beginning to the end of its civilization. These were the great gods, the Neteru. Although they were believed in one sense to be self-created, it was also openly acknowledged and understood that they had a special connection of some kind with another land – a fabulous and far-off country referred to in the ancient texts as Ta-Neteru, the 'land of the gods'.[18]

Ta-Neteru was thought to have had a definite earthly location a very long way south of Ancient Egypt – seas and oceans away – farther even than the spice country of Punt (which probably lay along East Africa's Somali coast).[19] To

confuse matters, however, Punt was also spoken of sometimes as the 'Divine Land', or 'God's Land', and was the source of the sweet-smelling frankincense and myrrh especially favoured by the gods.[20]

Another mythical paradise was also linked to the Neteru – an 'abode of the blessed', where the best of humans were sometimes taken – which was believed to be 'situated away beyond a large expanse of water'. As Wallis Budge observed in his important study, *Osiris and the Egyptian Resurrection*, 'the Egyptians believed that this land could only be reached by means of a boat, or by the personal help of the gods who were thought to transport their favourites thither …'[21] Those lucky enough to gain entry would find themselves in a magical garden consisting of 'islands, interconnected by canals filled with running water which caused them to be always green and fertile'.[22] On the islands in this garden, 'the

wheat grew to a height of five cubits, the ears being two cubits long and the stalks three, and the barley grew to a height of seven cubits, the ears being three cubits long and the stalks four.'[23]

Was it from a land such as this, superbly irrigated and scientifically farmed, that the agriculture bringer Osiris, whose title was 'President of the Land of the South',[24] had voyaged to Egypt at the dawn of the First Time? And was it from a land such as this, accessible only by boat, that ibis-masked Thoth had also made his way, crossing seas and oceans to deliver the priceless gifts of astronomy and earth-measurement to the primitive inhabitants of the prehistoric Nile Valley?

Whatever the truth behind the tradition, Thoth was remembered and revered by the Ancient Egyptians as the inventor of mathematics, astronomy and engineering.[25] 'It

was his will and power', according to Wallis Budge, 'that were believed to keep the forces of heaven and earth in equilibrium. It was his great skill in celestial mathematics which made proper use of the laws upon which the foundation and maintenance of the universe rested.'[26] Thoth was also credited with teaching the ancestral Egyptians the skills of geometry and land-surveying, medicine and botany. He was believed to have been the inventor 'Of figures, of the letters of the alphabet, and of the arts of reading and writing'.[27] He was the Great Lord of Magic'[28] who could move objects with the power of his voice, 'the author of every work on every branch of knowledge, both human and divine'.[29]

It was to the teachings of Thoth – which they guarded jealously in their temples and claimed to have been handed down from generation to generation in the form of forty-two

books of instruction[30] – that the Ancient Egyptians ascribed their world-renowned wisdom and knowledge of the skies. This knowledge was spoken of almost in awe, by the classical commentators who visited Egypt from the fifth century BC onwards.

Herodotus, the earliest of these travellers, noted:

> The Egyptians were the first to discover the solar year, and to portion out its course into twelve parts … It was observation of the course of the stars which led them to adopt this division …[31]

Plato (fourth century BC) reported that the Egyptians had observed the stars 'for ten thousand years'.[32] And later, in the first century BC, Diodorus Siculus left this more detailed account:

> The positions and arrangements of the stars as well as their motions have always been the subject of careful observation among the Egyptians … From ancient times to this day they have preserved the records concerning each of these stars over an incredible number of years …[33]

Why should the Ancient Egyptians have cultivated an almost obsessional interest in the long-term observation of the stars, and why in particular should they have kept records of their movements 'over an incredible number of years'? Such detailed observations would not have been necessary if their only interest, as a number of scholars have seriously suggested, had been agricultural (the need to predict the seasons, which any country-born person can do). There must have been some other purpose.

Moreover, how did the Ancient Egyptians get started on astronomy in the first place? It is not an obvious hobby for a

valley-dwelling landlocked people to develop on their own initiative. Perhaps we should take more seriously the explanation they themselves offer: that their ancestors were taught the study of the stars by a god. We might also pay closer attention to the many unmistakably maritime references in the Pyramid Texts.[34] And there could be important new inferences to draw from ancient Egyptian religious art in which the gods are shown travelling in beautiful, high-prowed, streamlined boats, built to the same advanced ocean-going specifications as the pyramid boats at Giza and the mysterious fleet moored in the desert sands at Abydos.

Landlocked people do not as rule become astronomers; seafaring people do. Is it not possible that the maritime iconography of the Ancient Egyptians, the design of their ships, and also their splendid obsession with observing the

stars, could have been part of an inheritance passed on to their ancestors by an unidentified seafaring, *navigating* race, in remote prehistory? It is really only such an archaic race, such a forgotten maritime civilization, that could have left its fingerprints behind in the form of maps which accurately depict the world as it looked before the end of the last Ice Age. It is really only such a civilization, steering its course by the stars 'for ten thousand years' that could have observed and accurately timed the phenomenon of equinoctial precession with the exactitude attested in the ancient myths. And, although hypothetical, it is only such a civilization that could have measured the earth with sufficient precision to have arrived at the dimensions scaled down in the Great Pyramid.

The signature of a distant date

It was almost midnight by the time that we reached Giza. We checked into the Siag, a hotel with an excellent pyramid view, and sat out on our balcony as the three stars of Orion's belt tracked slowly across the southern heavens.

It was the disposition of these three stars, as archaeo-astronomer Robert Bauval had recently demonstrated, that served as the celestial template for the site-plan of the three Giza pyramids. This, in itself, was a remarkable discovery, suggesting a far higher level of observational astronomy, and of surveying and setting-out skills, than scholars had attributed to the Ancient Egyptians. Even more remarkable, however – and the reason that I had arranged to meet him at Giza the next morning – was Bauval's contention that the pattern traced out on the ground (in almost fifteen million tons of perfectly dressed stone) matched exactly the pattern in the sky during the epoch of 10,450 BC.

If Bauval was correct, the pyramids had been devised, using the changes precession effects in the positions of the stars, as the permanent architectural signature of the eleventh millennium BC.

Chapter 49

The Power of the Thing

On a scale of 1:43,200 the Great Pyramid serves as a model, and map-projection, of the northern hemisphere of the earth. What absolutely excludes the possibility that this could be a coincidence is the fact that the scale involved is keyed in numerically to the rate of precession of the equinoxes – one of earth's most characteristic planetary

mechanisms. It is therefore clear that we are confronted here by the manifestation of a deliberate planning decision: one intended to be recognizable as such by any culture which had acquired (a) an accurate knowledge of the dimensions of the earth and (b) an accurate knowledge of the rate of precessional motion.

Thanks to the work of Robert Bauval, we can now be certain that another deliberate planning decision was implemented in the Great Pyramid (which – it is increasingly apparent – must be understood as a device designed to fulfil many different functions). In this case the plan was a truly ambitious one involving the Second and Third Pyramids as well, but it bears the fingerprints of the same ancient architects and builders who conceived of the Great Pyramid as a scale model of the earth. Their hallmark seems to have been precession – perhaps because they liked its

mathematical regularity and predictability – and they used precession to devise a plan which could be understood properly only by a scientifically advanced culture.

Ours is such a culture, and Robert Bauval is the first to have worked out the basic parameters of the plan – a discovery for which he has received public acclaim and will in due course, get the scientific recognition he deserves.[1] Belgian by nationality, born and brought up in Alexandria, he is tall, lean, clean-shaven, forty-something, and going a little thin on top. His most notable feature is a stubborn lower jaw which characterizes his tenacious, inquiring personality; he speaks with a hybrid French-Egyptian-English accent and is decidedly oriental in manner. He has a first-class mind and is always restlessly accumulating and analysing new data relevant to his interests, finding new ways to look at old problems. In the process, entirely by accident, he has

succeeded in transforming himself into a kind of magician of esoteric knowledge.

The Orion Mystery

The roots of Bauval's discoveries at Giza go back to the 1960s when the Egyptologist and architect Dr Alexander Badawy and the American astronomer Virginia Trimble demonstrated that the southern shaft of the King's Chamber in the Great Pyramid was targeted like a gun-barrel on the Belt of Orion during the Pyramid Age – around 2600 to 2400 BC.[2]

Bauval decided to test the southern shaft of the Queen's Chamber, which Badaway and Trimble had not investigated, and established that it had been sighted on the star Sirius during the Pyramid Age. The evidence that proved this was provided by the German engineer Rudolf Gantenbrink as a

result of measurements taken by his robot *Upuaut* in March 1993. This was the robot that had made the startling discovery of a closed portcullis door blocking the shaft at a distance of about 200 feet from the Queen's Chamber. Equipped with a high-tech on-board clinometer, the little machine had also provided the first-ever completely accurate reading of the shaft's angle of inclination: 39° 30′.[3]

As Bauval explains:

> I did the calculations and these established that the shaft had been targeted on the meridian transit of Sirius around the epoch 2400 BC. There couldn't be any doubt about it at all. I also recalculated the Orion's Belt alignment worked out by Badawy and Trimble with new data that Gantenbrink gave me on the inclination of the southern shaft of the King's Chamber. He'd measured that at 45 degrees exactly, whereas Badawy and Trimble had worked with Flinders Petrie's slightly less accurate measurement of 44° 30′.

> The new data enabled me to refine Badawy's and Trimble's date for the alignment. What I found was that the shaft had been precisely targeted on Al Nitak, the lowest of the three belt stars, which crossed the meridian at altitude 45 degrees around the year 2475 BC.[4]

Up to this point Bauval's conclusions had been well within the chronological bounds set by orthodox Egyptologists, who normally dated the construction of the Great Pyramid to around 2520 BC.[5] If anything, the alignments the archaeo-astronomer had come up with suggested that the shafts had been built a little *later*, rather than earlier, than conventional wisdom allowed.

As the reader is aware, however, Bauval had also made another discovery of an altogether more unsettling nature. Once again it involved the stars of Orion's Belt:

> They're slanted along a diagonal in a south-westerly direction relative to

the axis of the Milky Way and the pyramids are slanted along a diagonal in a south-westerly direction relative to the axis of the Nile. If you look carefully on a clear night you'll also see that the smallest of the three stars, the one at the top which the Arabs call Mintaka, is slightly offset to the east of the principal diagonal formed by the other two. This pattern is mimicked on the ground where we see that the Pyramid of Menkaure is offset by exactly the right amount to the east of the principal diagonal formed by the Pyramid of Khafre (which represents the middle star, Al Nilam) and the Great Pyramid, which represents Al Nitak. It's really quite obvious that all these monuments were laid out according to a unified site plan that was modelled with extraordinary precision on those three stars.… What they did at Giza was to build Orion's Belt on the ground.'[6]

There was more to come. Using a sophisticated computer programme[7] capable of plotting the precessionally induced changes in the declinations of all the stars visible in the sky over any part of the world in any epoch, Bauval found that

the Pyramids/Orion's Belt correlation was general and obvious in all epochs, but specific and exact in only one:

> At 10,450 BC – and at that date only – we find that the pattern of the pyramids on the ground provides a perfect reflection of the pattern of the stars in the sky. I mean it's a *perfect* match – faultless – and it cannot be an accident because the entire arrangement correctly depicts two very unusual celestial events that occurred only at that time. First, and purely by chance, the Milky Way, as visible from Giza in 10,450 BC, exactly duplicated the meridional course of the Nile Valley; secondly, to the west of the Milky Way, the three stars of Orion's Belt were at the lowest altitude in their precessional cycle, with Al Nitak, the star represented by the Great Pyramid, crossing the meridien at 11° 08′.[8]

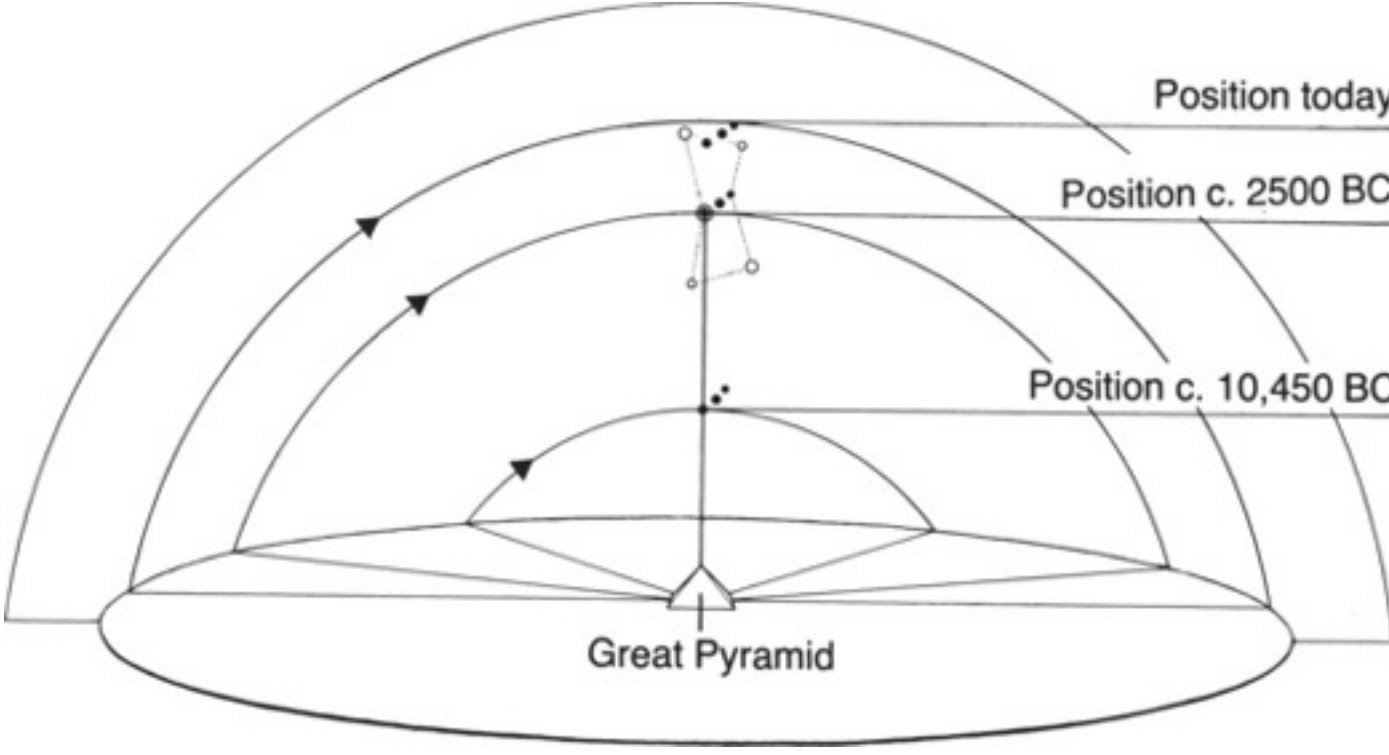

Precession and the stars of Orion's belt.

The reader is already familiar with the way the earth's axial precession causes sunrise on the vernal equinox to migrate

along the band of the zodiac over a cycle of about 26,000 years. The same phenomenon also affects the declination of all visible stars, producing, in the case of the Orion constellation, very gradual but significant changes in altitude. Thus from its highest point at meridian transit (58° 11′ above the southern horizon as viewed from Giza) it takes Al Nitak about 13,000 years to descend to the low point, last registered in 10,450 BC, that is immortalized in stone on the Giza plateau – i.e. 11° 08′. As another 13,000 years pass, the belt stars very slowly rise again until Al Nitak is back at 58° 11′; then during the next 13,000 years they gradually fall once more to 11° 08′. This cycle is eternal: 13,000 years up, 13,000 years down, 13,000 years up, 13,000 years down, for ever.[9]

It's the precise configuration for 10,450 BC that we see on the Giza plateau

– as though a master-architect came here in that epoch and decided to lay out a huge map on the ground using a mixture of natural and artificial features. He used the meridional course of the Nile Valley to depict the Milky Way, as it looked then. He built the three pyramids to represent the three stars, exactly as they looked then. And he put the three pyramids in exactly the same relationship to the Nile Valley as the three stars then had to the Milky Way. It was a very clever, very ambitious, very exact way to mark an epoch – to freeze a particular date into architecture if you like …[10]

The First Time

I found the implications of the Orion correlation complicated and eerie.

On the one hand, the Great Pyramid's southern shafts 'precessionally anchored' the monument to Al Nitak and

Sirius in 2475–2400 BC, dates which coincided comfortably with the epoch when Egyptologists said the monument had been built.

On the other hand the disposition of all three of the pyramids in relation to the Nile Valley eloquently signalled the much earlier date of 10,450 BC. This coincided with the controversial geological findings John West and Robert Schoch had made at Giza, which suggested the presence of a high civilization in Egypt in the eleventh millennium BC. Moreover, the disposition of the pyramids had not been arrived at by any random or accidental process but seemed to have been deliberately chosen because it marked a precessionally significant event: the lowest point, the beginning, the First Time in Orion's 13,000-year 'up' cycle.

I knew that Bauval believed this astronomical event to have been linked symbolically to the mythical First Time of

Osiris – the time of the gods, when civilization had supposedly been brought into the Nile Valley – and that his reasoning for this derived from the mythology of Ancient Egypt which directly associated Osiris with the Orion constellation (and Isis with Sirius).[11]

Had the historical archetypes for Osiris and Isis actually come here in the First Time, twelve and a half thousand years ago?[12] My research into Ice Age mythologies had persuaded me that certain ideas and memories could linger in the human psyche for many millennia, transmitted from generation to generation by oral tradition. I could therefore see no prima facie reasons why the Osirian mythology, with its strange and anomalous characteristics, should not have originated as far back as 10,450 BC.

However, it was the civilization of dynastic Egypt that had elevated Osiris to the status of the high god of resurrection.

That civilization was one that had few known antecedents, and none at all recognizable in the remote epoch of the eleventh millennium BC. If the Osirian mythology had been transmitted across 8000 years, therefore, then what culture had transmitted it? And had this culture also been responsible for *both* the astronomical alignments proven to have been manifested by the pyramids: 10,450 BC and 2450 BC?

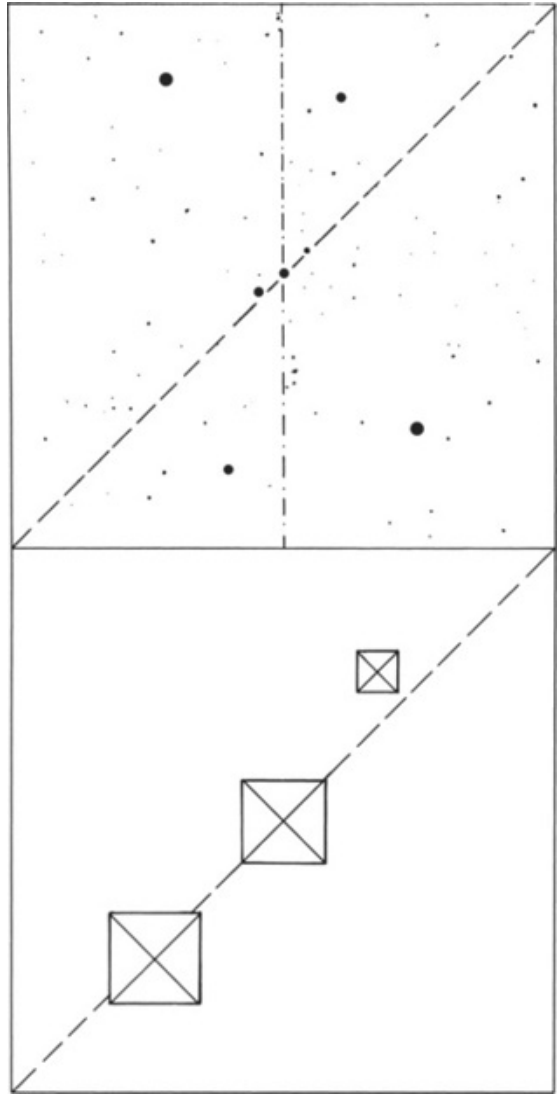

The pyramids and the belt stars of Orion at 10,450 BC, meridian view.

These were among the questions I planned to put to Robert Bauval in the shadow of the pyramids. Santha and I had arranged to meet him at dawn, at the Mortuary Temple of Khafre, so that the three of us could watch the sun come up over the Sphinx.

The platform

Positioned beside the eastern face of the Second Pyramid, the largely ruined Mortuary Temple was a spooky, grey, cold place to be at this hour. And as John West had indicated during our conversation at Luxor, there could be little doubt that it belonged to the same severe, imposing and unadorned style of architecture as the better-known Valley Temple.

Here, at any rate, were the same enormous blocks, weighing 200 tons or more each.[13] And here too was the same intangible atmosphere of vast antiquity and awakening intelligence, as though some epiphany might be at hand. Even in its present, much despoiled state, this anonymous structure, which Egyptologists had called a Mortuary Temple, was still a place of power that seemed to draw its energy from an epoch far in the past.

I looked up at the huge mass of the Second Pyramid's eastern face just behind us in the pearl-grey dawn light. Again, as John West had pointed out, there was much to suggest that it might have been built in two different stages. The lower courses, up to a height of perhaps thirty feet, consisted largely of cyclopean limestone megaliths like those in the temples. Above this height, however, the remainder of the pyramid's gigantic core had been formed out of much

smaller blocks weighing around two to three tons each (like the majority of the blocks in the Great Pyramid).

Had there been a time when a twelve-acre, thirty-foot-high megalithic *platform* had stood here on the 'hill of Giza', west of the Sphinx, surrounded only by nameless square and rectangular structures such as the Valley and Mortuary Temples? In other words, was it possible that the Second Pyramid's lower courses might have been built *first*, before the other pyramids – perhaps long before, in a much earlier age?

The cult

That question was still on my mind when Robert Bauval arrived. After exchanging a few chilly pleasantries about the weather – a cold desert wind was blowing across the plateau

– I asked him, ‘How do you account for the 8000-year gap in your correlations?’

‘Gap?’

‘Yes; shafts that seem to have been aligned in 2450 BC and a site-plan that maps star positions in 10,450 BC.’

‘Actually, I see two explanations that both make some kind of sense,’ said Bauval, ‘and I think the answer has to be one or the other of these … Either the pyramids were designed as a sort of “star-clock” to mark two particular epochs, 2450 and 10,450 BC, in which case we actually can’t say *when* they were built. Or they were built up over …’

‘Hang on with that first point,’ I interrupted. ‘How do you mean “star-clock”? How do you mean we can’t say when they were built?’

‘Well, let’s assume for a moment that the pyramid builders knew precession. Let’s assume they were able to calculate the

declination of particular star-groups backwards and forwards in time, just as we can today with computers … Assuming they could do that then, no matter which epoch they lived in, they'd have been able to make a model of what the skies over Giza looked like in 10,450 BC or 2450 BC as required, just as we could. In other words, if they'd built the pyramids in 10,450 BC they would have had no difficulty in calculating the correct angles of inclination for the southern shafts so that they would be sighted on Al Nitak and Sirius around 2450 BC. Likewise, if they'd lived in 2450 BC they'd have had no difficulty in calculating the correct site-plan to reflect the position of Orion's Belt in 10,450 BC. Agreed?'

'Agreed.'

'OK. That's one explanation. But the second explanation, which I personally favour – and which I think the geological evidence also supports – is that the whole Giza necropolis

was developed and built up over an enormously long period of time. I think it's more than possible that the site was originally planned and laid out at around 10,450 BC, so that its geometry would reflect the skies as they looked then, but that the work was completed, and the shafts of the Great Pyramid aligned, around 2450 BC.'

'So you're saying that the *ground-plan* of the Pyramids could date back to 10,450 BC?'

'I think it does. And I think that the geometrical centre of that plan was located more or less where we're standing now, right in front of the Second Pyramid …'

I pointed out the large blocks in the lower courses of the huge edifice: 'It even *looks* like it was built in two stages, by two completely different cultures …'

Bauval shrugged. 'Let's speculate … Maybe it wasn't two different cultures, Maybe it was one culture, or *cult* – the cult

of Osiris, perhaps. Maybe it was a very long-lived, very ancient cult dedicated to Osiris that was here in 10,450 BC and was still here in 2450 BC. Maybe what happened was that some of the ways that this cult did things changed over time. Maybe they used huge blocks in 10,450 BC and smaller blocks in 2450 BC … It seems to me there's a lot here that supports this notion, a lot that says "very ancient cult", a lot of evidence that has just never been investigated …'

'For example?'

'Well, obviously the astronomical alignments of the site. I've been among the first to start looking into those properly. And the geology: the work that John West and Robert Schoch have been involved in at the Sphinx. Here are two sciences – both hard, empirical, evidence-driven sciences – that have never been applied to these problems before. But now that we have started to apply them, we're beginning to get a

whole new reading on the antiquity of the necropolis. And I honestly think we've just scratched the surface and that much more will emerge from the geology and the astronomy in the future. In addition, nobody's yet made a really detailed study of the Pyramid Texts from anything other than the so-called "anthropological" perspective, which means a preconceived notion that the priests of Heliopolis were a bunch of half-civilized witch-doctors who wanted to live for ever … Actually they *did* want to live for ever but they certainly weren't witch-doctors … They were highly civilized, highly *initiated* men and they were, in their own fashion, scientists, as we can judge from their works. Therefore I suggest that it's as scientific or at least quasi-scientific documents that the Pyramid Texts need to be read, not as mumbo-jumbo. I'm already satisfied that they respond to precessional astronomy. There may be other keys too:

mathematics, geometry – particularly geometry … Symbolism … What's needed is a multi-disciplinary approach to understanding the Pyramid Texts … and to understanding the pyramids themselves. Astronomers, mathematicians, geologists, engineers, architects, even philosophers to deal with the symbolism – everybody who can bring a fresh eye and fresh skills to bear on these very important problems should be encouraged to do so.'

'Why do you feel the problems are so important?'

'Because they have a colossal bearing on our understanding of the past of our own species. The very careful, very precise site-planning and setting-out that appears to have been done here in 10,450 BC could only have been the work of a highly-evolved, probably technological civilization….'

'Whereas no such civilization is supposed to have existed

anywhere on earth in that epoch …'

'Exactly. It was the Stone Age. Human society was supposed to have been at a very primitive level, with our ancestors wearing skins, sheltering in caves, following a hunting-gathering way of life and so on and so forth. So its rather unsettling to discover that civilized people seem to have been present in Giza in 10,450 BC, who understood the obscure science of precession extremely well, who had the technical capacity to work out that they were witnessing the *lowest* point in Orion's precessional cycle – and thus the beginning of the constellation's 13,000 year upwards journey – and who set out to create a permanent memorial of that moment here on the plateau. By putting Orion's Belt on the ground in the way they did they knew that they were freezing a very specific moment in time.'

A perverse thought occurred to me: 'How can we be so sure

that the moment that they were freezing was 10,450 BC? After all, Orion's Belt takes up that same configuration in the southern sky, west of the Milky Way at 11-plus degrees above the horizon, once every 26,000 years. So why shouldn't they have been immortalizing 36,450 BC or even the precessional cycle that began 26,000 years before that?'

Robert was clearly ready for this question. 'Some ancient records do suggest that Egyptian civilization had roots going back almost 40,000 years,' he mused, 'like that strange report in Herodotus that talks about the sun rising where it once set and setting where it once rose …'

'Which is also a precessional metaphor …'

'Yes. Precession again. Most peculiar the way it always keeps cropping up … At any rate, you're right, they could have been marking the beginning of the *previous* precessional cycle …'

‘But do you think they were?’

‘No. I think 10,450 BC is the more likely date. It’s more within the range of what we know about the evolution of *homo sapiens*. And although it still leaves a lot of years to account for before the sudden emergence of dynastic Egypt around 3000 BC, it isn’t *too* long a period …’

‘Too long a period for what?’

‘It’s the answer to your question about the 8000-year gap between the alignment of the site and the alignment of the shafts. Eight thousand years is a very long time but it isn’t too long for a dedicated highly motivated cult to have preserved and nurtured and faithfully passed on the high-knowledge of the people who invented this place in 10,450 BC.’[14]

The machine

How high was the knowledge of those prehistoric inventors?

'They knew their epochs,' said Bauval, 'and the clock that they used was the natural clock of the stars. Their working language was precessional astronomy and these monuments express that language in a very clear, unambiguous, scientific manner. They were also highly skilled surveyors – I mean the people who originally prepared the site and laid out the orientations for the pyramids – because they worked to an exacting geometry and because they knew how to align the base-platforms, or whatever it was they built, perfectly to the cardinal points.'

'Do you think they also knew that they were marking out the site of the Great Pyramid on latitude 30° North?'

Bauval laughed: 'I'm certain they knew. I think they knew

everything about the shape of the earth. They knew their astronomy. They had a good understanding of the solar system and of celestial mechanics. They were also incredibly accurate and incredibly precise in everything they did. So, all in all, I don't think anything really happened here by chance – at least not between 10,450 and 2450 BC. I get the feeling that everything was planned, intended, carefully worked out … Indeed I get the feeling that they were fulfilling a long-term objective – some kind of *purpose*, if you like, and that they brought this to fruition in the third millennium BC …'

'In the form of the fully built pyramids which they then precessionally anchored to Al Nitak and to Sirius at the time of completion?'

'Yes. And also, I think, in the form of the Pyramid Texts. My guess is that the Pyramid Texts are part of the puzzle.'

‘The software to the Pyramids’ hardware?’

‘Quite possibly. Why not? At any rate it’s certain that there’s a connection. I think what it means is that if we’re going to decode the pyramids properly then we’re going to have to use the Texts …’

‘What’s your guess?’ I asked Bauval. ‘What do you think the purpose of the pyramid builders really might have been?’

‘They *didn’t* do it because they wanted an eternal tomb,’ he replied firmly. ‘In my view, they had no doubts at all that they would eternally live. They did it – whoever did it – they have transmitted the power of their ideas through something that is to all intents and purposes eternal. They succeeded in creating a force that is functional in itself, provided you understand it, and that force is the *questions* it challenges you to ask. My guess is that they knew the human mind to perfection. They knew the game of ritual … Right? I’m

serious. They knew what they were doing. They knew that they could initiate people far ahead in the future into their way of thinking even though they couldn't be there themselves. They knew that they could do this by creating an eternal machine, the function of which was to generate questions.'

I suppose that I must have looked puzzled.

'The machine is the pyramids!' Bauval exclaimed, 'the whole of the Giza necropolis really. And look at us. What are we doing? We're asking questions. We're standing out here, shivering, at an ungodly hour, watching the sun come up, and we're asking questions, lots and lots of questions just as we've been programmed to do. We're in the hands of real magicians here, and real magicians know that with symbols – with the right symbols, with the right questions – they can lead you into *initiating yourself*. Provided, that is, you are a

person who asks questions. And, if you are, then the minute you start asking questions about the pyramids you begin to stumble into a whole series of answers which lead you to other questions, and then more answers until finally you initiate yourself …'

'Sow the seed …'

'Yes. They were sowing the seed. Believe me, they were magicians, and they knew the power of ideas … They knew how to set ideas growing and developing in people's minds. And if you start with such ideas, and follow the process of reasoning like I did, you arrive as things like Orion, and 10,450 BC. In short, this is a process that works on its own. When it enters, when it settles into the subconscious, it is a self-willing conversion. Once it's there you can't even resist it …'

'You're talking as though this Giza cult, whatever it was –

revolving around precession, and geometry, and the pyramids, and the Pyramid Texts – you're talking as though it still exists.'

'In a sense it does still exist,' Robert replied. 'Even if the driver is no longer at the wheel, the Giza necropolis is still a machine that was designed to provoke questions.' He paused and pointed up to the summit of the Great Pyramid where Santha and I had climbed, at dead of night, nine months previously. 'Look at its power,' he continued. 'Five thousand years on it still gets you. It involves you whether you like it or not … It forces you into a process of thinking … forces you to learn. The minute you ask a question about it you've asked a question about engineering, you've asked a question about geometry, you've asked a question about astronomy. So it forces you to learn about engineering and geometry and astronomy, and gradually you begin to realize how

sophisticated it is, how incredibly clever and skilful and knowledgeable its builders must have been, which forces you to ask questions about mankind, about human history, eventually about yourself too. *You want to find out*. This is the power of the thing.'

The second signature

As Robert, Santha and I sat out on the Giza plateau that cold December morning at the end of 1993, we watched the winter sun, now very close to solstice, rising over the right shoulder of the Sphinx, almost as far south of east as it would travel on its yearly journey before turning north again.

The Sphinx was an equinoctial marker, with its gaze directed precisely at the point of sunrise on the vernal equinox. Was it, too, part of the Giza 'grand plan'?

I reminded myself that in any epoch, and at any period of history or prehistory, the Sphinx's due east gaze would *always* have been sighted on the equinoctial rising of the sun, at both the vernal and the autumnal equinoxes. As the reader will recall from Part V, however, it was the vernal equinox that was considered by ancient man to be the marker of the astronomical age. In the words of Santillana and von Dechend:

> The constellation that rose in the east, just before the sun, marked the 'place' where the sun rested … It was known as the sun's 'carrier' and the vernal equinox was recognised as the fiducial point of the 'system' determining the first degree of the sun's yearly cycle …'[15]

Why should an equinoctial marker have been made in the shape of a giant lion?

In our own lifetimes, the epoch of AD 2000, a more

suitable shape for such a marker – should anyone wish to build one – would be a representation of a fish. This is because the sun on the vernal equinox rises against the stellar background of Pisces, as it has done for approximately the last 2000 years. The astronomical Age of Pisces began around the time of Christ.[16] Readers must judge for themselves whether it is a coincidence that the principal symbol used for Christ by the very early Christians was not the cross but the fish.[17]

During the preceeding age, which broadly-speaking encompassed the first and second millennia BC, it was the constellation of Aries – the Ram – which had the honour of carrying the sun on the vernal equinox. Again, readers must judge whether it is a coincidence that the religious iconography of that epoch was predominantly ram-oriented.[18] Is it a coincidence, for example, that Yahweh,

God of Old Testament Israel, provided a ram as a substitute for Abraham's offered sacrifice of his son Isaac?[19] (Abraham and Isaac are assumed by biblical scholars and archaeologists to have lived during the early second millennium BC[20]). Is it likewise coincidental that rams, in one context or another, are referred to in almost every book of the Old Testament (entirely composed during the Age of Aries) but in not a single book of the New Testament?[21] And is it an accident that the advent of the Age of Aries, shortly before the beginning of the second millennium BC, was accompanied in Ancient Egypt by an upsurge in the worship of the god Amon whose symbol was a ram with curled horns?[22] Work on the principal sanctuary of Amon – the Temple of Karnak at Luxor in upper Egypt – was begun at around 2000 BC[23] and, as those who have visited that temple will recall, its principal icons are rams, long rows of which guard its entrances.

The immediate predecessor to the Age of Aries was the Age of Taurus – the Bull – which spanned the period between 4380 and 2200 BC.[24] It was during this precessional epoch, when the sun on the vernal equinox rose in the constellation of Taurus, that the Bull-cult of Minoan Crete fllourished.[25] And during this epoch, too, the civilization of dynastic Egypt burst upon the historical scene, fully formed, apparently without antecedents. Readers must judge whether it is a coincidence that Egyptians at the very beginning of the dynastic period were already venerating the Apis and Mnevis Bulls – the former being considered a theophany of the god Osiris and the latter, the sacred animal of Helipolis, a theophany of the god Ra.[26]

Why should an equinoctial marker have been made in the form of a lion?

I looked down the slope of the Giza plateau towards the

great leonine body of the Sphinx.

Khafre, the Fourth Dynasty pharaoh believed by Egyptologists to have carved the monument out of bedrock around 2500 BC, had been a monarch of the Age of Taurus. For almost 1800 years before his reign, and more than 300 years after it, the sun on the vernal equinox rose unfailingly in the constellation of the Bull. It follows that if a monarch at such a time had set out to create an equinoctial marker at Giza, he would have had every reason to have it carved in the form of a bull, and none whatsoever to have it carved in the form of a lion. Indeed, and it was obvious, there was only *one* epoch when the celestial symbolism of a leonine equinoctial marker would have been appropriate. That epoch was, of course, the Age of Leo, from 10,970 to 8810 BC.[27]

Why, therefore, should an equinoctial marker have been made in the shape of a lion? Because it was made during the

Age of Leo when the sun on the vernal equinox rose against the stellar background of the constellation of the Lion, thus marking the coordinates of a precessional epoch that would not experience its 'Great Return' for another 26,000 years.

Around 10,450 BC the three stars of Orion's Belt reached the lowest point in their precessional cycle: west of the Milky Way, 11° 08' above the southern horizon at meridian transit. On the ground west of the Nile, this event was frozen into architecture in the shape of the three pyramids of Giza. Their layout formed the signature of an unmistakable epoch of precessional time.

Around 10,450 BC, the sun on the vernal equinox rose in the constellation of Leo. On the ground at Giza, this event was frozen into architecture in the shape of the Sphinx, a gigantic, leonine, equinoctial marker which, like the second signature on an official document, could be taken as a

confirmation of authenticity.

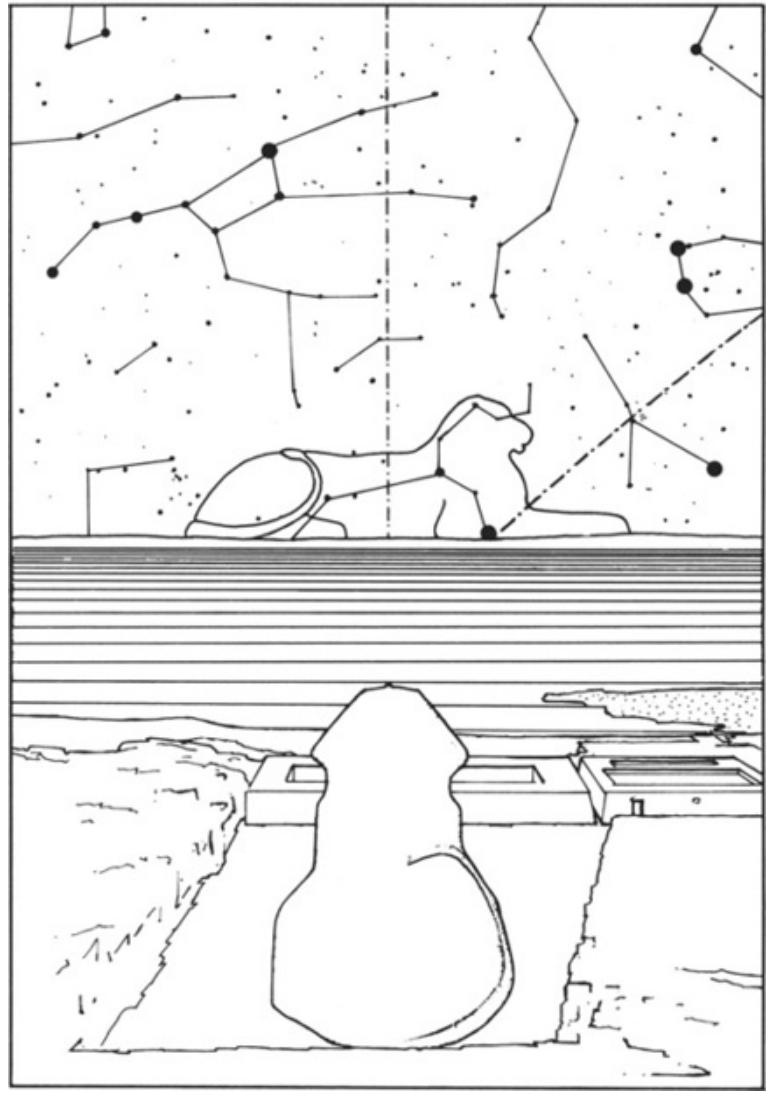

Looking due east at dawn on the vernal equinox in 10,450 BC. The Sphinx and the constellation of Leo.

The eleventh millennium BC, in other words, soon after the 'Mill of Heaven' broke, shifting sunrise on the spring equinox from Virgo into the constellation of Leo, was the only epoch in which the due east facing Sphinx would have manifested exactly the right symbolic alignment on exactly the right day – watching the vernal sun rising in the dawn sky against the background of his own celestial counterpart …

Forcing the question

'It can't be a coincidence that such a perfect alignment of the terrestrial and the celestial occurs at around 10,450 BC,' said

Robert. ‘In fact I don’t think coincidence is any longer an issue. To me the real question is *why*? Why was it done? Why did they go to such lengths to make this enormous statement about the eleventh millennium BC?’

‘Obviously because it was an important time for them,’ suggested Santha.

‘It must have been very, *very* important. You don’t do something like this, create a series of vast precessional markers like these, carve a Sphinx, put up three pyramids weighing almost 15 million tons, unless you have some hugely important reason. So the question is: *what was that reason*? They’ve forced this question by making such a strong, imperative statement about 10,450 BC. Really, they’ve forced the question. They want to draw our attention to 10,450 BC and it’s up to us to work out why.’

We fell silent, for a long while as the sun climbed the sky

south-east of the Great Sphinx.

Part VIII

Conclusion

Where’s the Body?

Chapter 50

Not a Needle in a Haystack

When I was only a few months into this investigation, my research assistant sent me a fifteen-page letter explaining why he had decided to resign. At that stage I hadn't yet begun to put the pieces of the puzzle together and I was working more on hunches than on hard evidence. I was captivated by all the mysteries, anomalies, anachronisms and

puzzles, and wanted to learn as much about them as I could. My researcher, meanwhile, had been looking into the long, slow processes by which some *known* civilizations had come into global history.

It transpired that, in his opinion, certain significant economic, climatic, topographical and geographical preconditions had to be met before a civilization could evolve:

> So if you are looking for a hitherto undiscovered civilization of great originators who made it on their own, separate from any of the ones we already know, *you are not looking for a needle in a haystack*. You are looking for something more like a city in its hinterland. What you are looking for is a vast region which occupied a land area at least a couple of thousand miles across. This is a landmass as big as the Gulf of Mexico, or twice the size of Madagascar. It would have had major mountain ranges, huge river systems and a Mediterranean to sub-tropical climate which was buffered by

> its latitude from the adverse effects of short-term climatic cooling. It would have needed this relatively undisturbed climate to last for around ten thousand years … Then the population of several hundred thousand sophisticated people, we are to believe, suddenly vanished, together with their homeland, leaving very little physical trace, with only a few surviving individuals who were shrewd enough to see the end coming, wealthy enough and in the right place, with the resources they needed to be able to do something about escaping the cataclysm.

So there I was without a researcher. My proposition was *a priori* impossible. There could be no lost advanced civilization because a landmass big enough to support such a civilization was too big to lose.

Geophysical impossibilities

The problem was a serious one and it continued to nag at the back of my mind all the way through my own research and travels. It was, indeed, this exact problem, more than any other, which had scuppered Plato's Atlantis as a serious proposition for scholars. As one critic of the lost continent theory put it:

> There never was an Atlantic landbridge since the arrival of man in the world; there is no sunken landmass in the Atlantic: the Atlantic Ocean must have existed in its present form for at least a million years. In fact it is a geophysical impossibility for an Atlantis of Plato's dimensions to have existed in the Atlantic …[1]

The adamant and assertive tone, I had long ago learnt, was entirely justified. Modern oceanographers had thoroughly mapped the floor of the Atlantic Ocean and there was definitely no lost continent lurking there.

But if the evidence that I was gathering did represent the fingerprints of a vanished civilization, a continent had to have got lost *somewhere*.

So where? For a while I used the obvious working hypothesis that it might be under some other ocean. The Pacific was very big but the Indian Ocean looked more promising because it was located relatively close to the Middle East's Fertile Crescent, where several of the earliest known historical civilizations had emerged with extreme suddenness at around 3000 BC. I had plans to go chasing rumours of ancient pyramids in the Maldive Islands and along the Somali coast of East Africa to see if I could pick up any clues of a lost paradise of antiquity. I thought I might even work in a trip to the Seychelles.

The problem was the oceanographers again. The floor of the Indian Ocean, too, had been mapped and it didn't conceal

any lost continents. *Ditto* every other ocean and every other sea. There seemed to be nowhere now under water into which a landmass big enough to have nurtured a high civilization could have vanished.

Yet, as my research continued, the evidence kept mounting that precisely such a civilization had once existed. I began to suspect that it must have been a maritime civilization: a nation of navigators. In support of this hypothesis, among other anomalies, were the remarkable ancient maps of the world, the 'Pyramid Boats' of Egypt, the traces of advanced astronomical knowledge in the astonishing calendar system of the Maya, and the legends of seafaring gods like Quetzalcoatl and Viracocha.

A nation of navigators, then. And a nation of builders, too: Tiahuanaco builders, Teotihuacan builders, pyramid builders, Sphinx builders, builders who could lift and position 200-ton

blocks of limestone with apparent ease, builders who could align vast monuments to the cardinal points with uncanny accuracy. Whoever they were, these builders appeared to have left their characteristic fingerprints all over the world in the form of cyclopean polygonal masonry, site layouts involving astronomical alignments, mathematical and geodetic puzzles, and myths about gods in human form. But a civilization advanced enough to build like that – rich enough, sufficiently well organized and mature to have explored and mapped the world from pole to pole, a civilization smart enough to have calculated the dimensions of the earth – simply could *not* have evolved on an insignificant landmass. Its homeland, as my researcher had rightly pointed out, must have been blessed with major mountain ranges, huge river systems and a congenial climate, and with many other obvious environmental prerequisites for the development of

an advanced and prosperous economy: good agricultural lands, mineral resources, forests, and so on.

So where could such a landmass have been located, if not under any of the world's oceans?

Library angels

Where could it have been located and *when* might it have disappeared? And if it had disappeared (and no other explanation would do) then *how*, *why*, and *under what circumstances*?

Seriously, how do you lose a continent?

Commonsense suggested that the answer had to lie in a cataclysm of some kind, a planetary disaster capable of wiping out almost all physical traces of a large civilization. But if so, why were there no records of such a cataclysm? Or

perhaps there were.

As my research progressed I studied many of the great myths of flood, fire, earthquakes and ice handed down from generation to generation around the world. We saw in Part IV that it was difficult to resist the conclusion that the myths were describing real geological and climatic events, quite possibly the different local effects of the *same* events in all cases.

During the short history of mankind's presence on this planet, I found that there was only one known and documented catastrophe that fitted the bill: the dramatic and deadly meltdown of the last Ice Age between 15000 and 8000 BC. Moreover, as was more obviously the case with architectural relics like Teotihuacan and the Egyptian pyramids, many of the relevant myths appeared to have been designed to serve as vehicles for encrypted scientific

information, again an indication of what I was coming to think of as ‘the fingerprints of the gods’.

What I had become sensitized to, although I did not properly realize its implications at the time, was the possibility that a strong connection might exist between the collapsing chaos of the Ice Age and the disappearance of an archaic civilization which had been the stuff of legend for millennia.

It was at this moment exactly that the library angels intervened …

The missing piece of the puzzle

The novelist Arthur Koestler, who had a great interest in synchronicity, coined the term ‘library angel’ to describe the unknown agency responsible for the lucky breaks researchers

sometimes get which lead to exactly the right information being placed in their hands at exactly the right moment.[2]

At exactly the right moment, one of those lucky breaks came my way. The moment was the summer of 1993. I was at a low ebb physically and spiritually after months of hard travel, and the geophysical impossibility of actually *losing* a continent-sized landmass was beginning to undermine my confidence in the strength of my findings. It was then that I received a letter from the town of Nanaimo in British Columbia, Canada. The letter referred to my previous book *The Sign and the Seal*, in which I had made passing mention of the Atlantis theory and of traditions of civilizing heroes who had been 'saved from water':

> 19 July 1993
>
> Dear Mr Hancock,

After 17 years of research into the fate of Atlantis, my wife and I have finished a manuscript entitled *When the Sky Fell*. Our frustration is that despite positive feedback about the book's approach from the few publishers who have seen it, the mere mention of Atlantis closes minds.[3]

In *The Sign and the Seal* you write of 'a tradition of secret wisdom started by the survivors of a flood …' Our work explores sites where some survivors might have relocated. High altitude, fresh-water lakes made ideal post-deluge bases for the survivors of Atlantis. Lake Titicaca and Lake Tana [in Ethiopia, where much of *The Sign and the Seal* was set] fit the climatic criteria. Their stable environment provided the raw materials for restarting agriculture.

We have taken the liberty of enclosing an outline of *When the Sky Fell*. If you are interested we will be pleased to send you a copy of the manuscript.

Sincerely,

Rand Flem-Ath

I turned to the enclosure and there, in the first few paragraphs, found the missing piece of the jigsaw puzzle I had been looking for. It meshed perfectly with the ancient global maps I had studied – maps which accurately depicted the *subglacial topography* of the continent of Antarctica (see Part I). It made perfect sense of all the great worldwide myths of cataclysm and planetary disaster, with their differing climatic effects. It explained the enigma of the huge numbers of apparently 'flash-frozen' mammoths in northern Siberia and Alaska, and the 90-foot tall fruit trees locked in the permafrost deep inside the Arctic Circle at a latitude where nothing now grows. It provided a solution to the problem of the extreme suddenness with which the last Ice Age in the northern hemisphere melted down after 15,000 BC. It also solved the mystery of the exceptional worldwide volcanic activity that accompanied the meltdown. It

answered the question, ‘How do you lose a continent?’ And it was solidly based in Charles Hapgood’s theory of ‘earth-crust displacement’ – a radical geological hypothesis with which I was already familiar:

> Antarctica is our least understood continent [wrote the Flem-Aths in their outline]. Most of us assume that this immense island has been ice-bound for millions of years. But new discoveries prove that parts of Antarctica were free of ice *thousands of years ago*, recent history by the geological clock. The theory of ‘earth-crust displacement’ explains the mysterious surge and ebb of Antarctica’s vast ice sheet.

What the Canadian researchers were referring to was Hapgood’s suggestion that until the end of the last Ice Age – say the eleventh millennium BC – the landmass of Antarctica had been positioned some 2000 miles further north (at a congenial and temperate latitude) and that it had been

moved to its present position inside the Antarctic Circle as a result of a massive displacement of the earth's crust.[4] This displacement, the Flem-Aths continued, had

> also left other evidence of its deadly visit in a ring of death around the globe. All the continents that experienced rapid and massive extinctions of animal species (notably the Americas and Siberia) underwent a massive change in their latitudes …
>
> The consequences of a displacement are monumental. The earth's crust ripples over its interior and the world is shaken by incredible quakes and floods. The sky appears to fall as continents groan and shift position. Deep in the ocean, earthquakes generate massive tidal waves which crash against coastlines, flooding them. Some lands shift to warmer climes, while others, propelled into polar zones, suffer the direst of winters. Melting ice caps raise the ocean's level higher and higher. All living things must adapt, migrate or die …

> If the horror of an earth-crust displacement were to be visited upon today's interdependent world the progress of thousands of years of civilization would be torn away from our planet like a fine cobweb. Those who live near high mountains might escape the global tidal waves, but they would be forced to leave behind, in the lowlands, the slowly constructed fruits of civilization. Only among the merchant marine and navies of the world might some evidence of civilization remain. The rusting hulls of ships and submarines would eventually perish but the valuable maps that are housed in them would be saved by survivors, perhaps for hundreds, even thousands of years. Until once again mankind could use them to sail the World Ocean in search of lost lands …

As I read these words I remembered Charles Hapgood's account of how the layer of the earth that geologists call the lithosphere – the thin but rigid outer crust of the planet – could at times be displaced, moving in one piece 'over the soft inner body, much as the skin of an orange, if it were

loose, might shift over the inner part of the orange all in one piece.'[5]

Thus far, I felt I was on familiar ground. But then the Canadian researchers made two vital connections which I had missed.

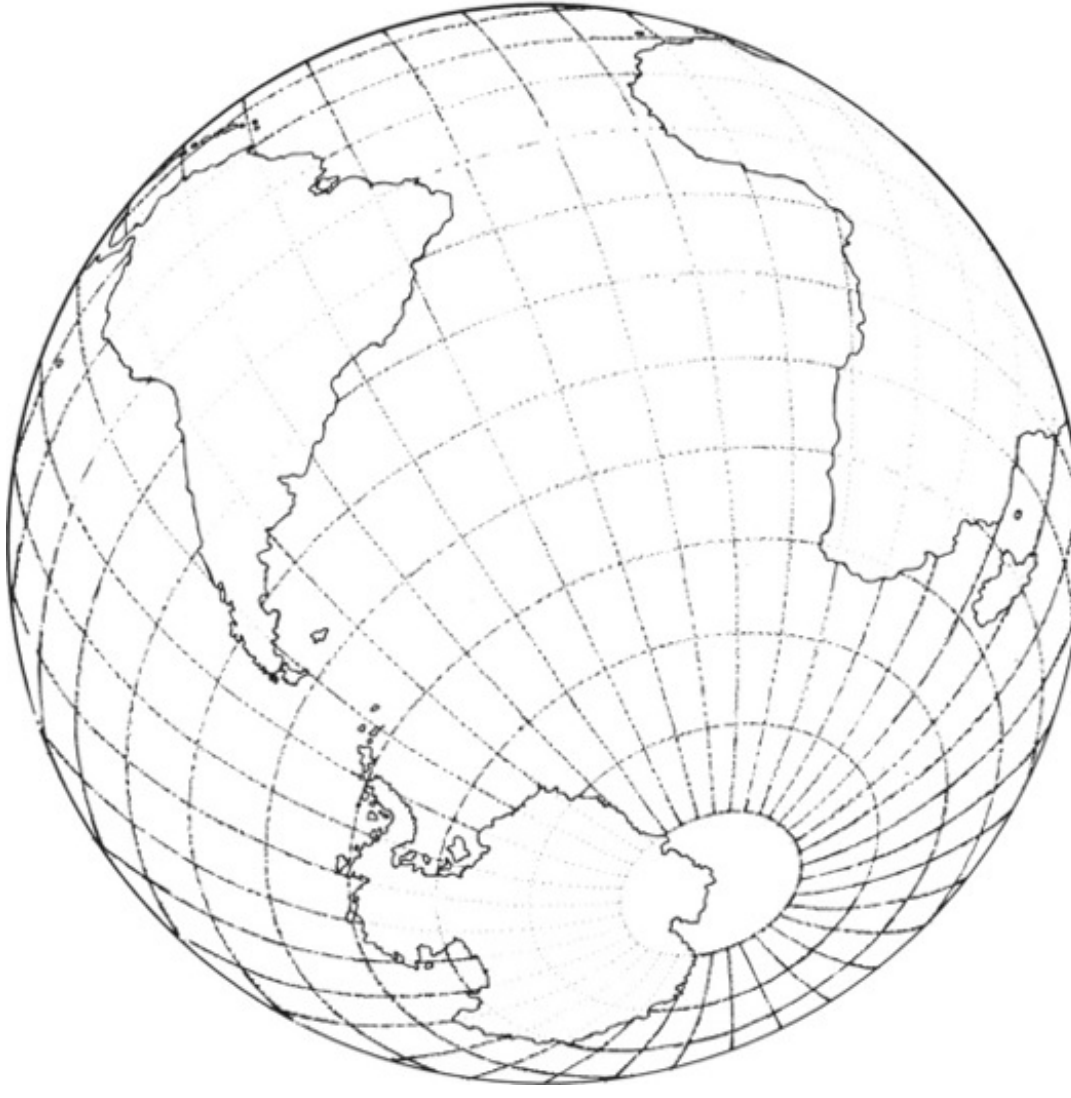

Section through the earth. The crustal displacement theory envisages the possibility of periodic displacements of the entire crust in one piece. Often less than 30 miles thick, the crust rests on a lubricating layer known as the asthenosphere.

Gravitational influences

The first of these was the possibility that *gravitational* influences (as well as the variations in the earth's orbital geometry discussed in Part V) might, through the mechanism of earth-crust displacement, play a role in the onset and decline of Ice Ages:

> When the naturalist and geologist Louis Agassiz presented the idea of ice ages to the scientific community in 1837 he was met with great skepticism. However, as evidence slowly gathered in his favour, the skeptics were

forced to accept that the earth had indeed been gripped by deadly winters. But the trigger of these paralysing ice ages remained a puzzle. It was not until 1976 that solid evidence existed to establish the timing of ice ages. The explanation was found in various astronomical features of the earth's orbit and the tilt of the axis. Astronomical factors have clearly played a role in the timing of glacial epochs. But this is only part of the problem. Of equal importance is the *geography* of glaciation. It is here that the theory of earth-crust displacement plays its role in unravelling the mystery.

Albert Einstein investigated the possibility that the weight of the ice-caps, which are not symmetrically distributed about the pole, might cause such a displacement. Einstein wrote: 'The earth's rotation acts on these unsymmetrically deposited masses, and produces centrifugal momentum that is transmitted to the rigid crust of the earth. The constantly increasing centrifugal momentum produced this way will, when it reaches a certain point, produce a movement of the earth's crust over the earth's body, and *this will displace the polar regions towards the equator*.

> When Einstein wrote these words [1953] the astronomical causes of ice ages were not fully appreciated. When the shape of the earth's orbit deviates from a perfect circle by more than one per cent, the gravitational influence of the sun increases, exercising more pull on the planet and its massive ice sheets. Their ponderous weight pushes against the crust and this immense pressure, combined with the greater incline in the earth's tilt [another changing factor of the orbital geometry] forces the crust to shift …

The connection with the onset and decline of ice ages?

Very straightforward.

In a displacement, those parts of the earth's crust which are situated at the North and South Poles (and which are therefore as completely glaciated as Antarctica is today) shift suddenly into warmer latitudes and begin to melt with extraordinary rapidity. Conversely, land that has hitherto been located at warmer latitudes is shifted equally suddenly

into the polar zones, suffers a devastating climate change, and begins to vanish under a rapidly expanding ice-cap.

In other words, when huge parts of northern Europe and north America were heavily glaciated in what we think of as the last Ice Age, it was not because of some mysterious slow-acting climatic factor, but rather because those areas of land were then situated much closer to the North Pole than they are today. Similarly, when the Wisconsin and Wurm glaciations described in Part IV began to go into their meltdown at around 15,000 BC the trigger was not global climate change but a shift of the ice-caps into warmer latitudes …

In other words: there is an Ice Age going on right now – inside the Arctic Circle and *in Antarctica*.

The lost continent

The second connection the Flem-Aths made followed logically from the first: if there was such a recurrent, cyclical geological phenomenon as earth-crust displacement, and if the last displacement had shifted the enormous landmass we call Antarctica out of temperate latitudes and into the Antarctic Circle, it was possible that the substantial remains of a lost civilization of remote antiquity might today be lying under two miles of ice at the South Pole.

It was suddenly clear to me how a continent-sized landmass, which had been the home of a large and prosperous society for thousands of years, could indeed get lost almost without trace. As the Flem-Aths concluded: ‘It is to icy Antarctica that we look to find answers to the very roots of civilization – answers which may yet be preserved in

the frozen depths of the forgotten island continent.'

I hauled out my researcher's resignation letter from the files and started to check off his preconditions for the emergence of an advanced civilization. He wanted 'major mountain ranges'. He wanted 'huge river systems'. He wanted 'a vast region which occupied a land area at least a couple of thousand miles across'. He also wanted a stable, congenial climate for ten thousand years, to allow time for a developed culture to evolve.

Antarctica is by no means a needle in a haystack. It's a huge landmass, much, much bigger than the Gulf of Mexico, about seven times larger than Madagascar – indeed roughly the size of the continental USA. Moreover, as seismic surveys have demonstrated, there *are* major mountain ranges in Antarctica. And as several of the ancient maps seem to prove, unknown prehistoric cartographers, who possessed a

scientific understanding of latitude and longitude, depicted these mountain ranges *before* they disappeared beneath the ice-cap that covers them today. These same ancient maps also show 'huge river systems' flowing down from the mountains, watering the extensive valleys and plains below and running into the surrounding ocean. And these rivers, as I already knew from the Ross Sea cores,[6] had left physical evidence of their presence in the composition of ocean bottom sediments.

Last but not least, I noted that the earth-crust displacement theory did not conflict with the requirement for 10,000 years of stable climate. Prior to the supposed sudden shift of the crust, at around the end of the last Ice Age in the northern hemisphere, the climate of Antarctica would have been stable, perhaps for a great deal longer than 10,000 years. And if the theory was right in suggesting that Antarctica's latitude in that epoch had been about 2000 miles (30 degrees of arc)

further north than it is today, the northernmost parts of it would have been situated in the vicinity of latitude 30° South and would, indeed, have enjoyed a Mediterranean to sub-tropical climate.

Had the earth's crust really shifted? And could the ruins of a lost civilization really lie beneath the ice of the southern continent?

As we see in the following chapters, it might have … and they could.

Chapter 51

The Hammer and the Pendulum

Although beyond the scope of this book, a detailed exposition of the earth-crust displacement theory is to be found in Rand and Rose Flem-Ath's *When the Sky Fell* (published by Stoddart, Canada, 1995).

As noted, this geological theory was formulated by Professor Charles Hapgood and supported by Albert Einstein.

In brief, what it suggests is a complete slippage of our planet's thirty-mile-thick lithosphere over its nearly 8000-mile-thick central core, forcing large parts of the western hemisphere southward towards the equator and thence towards the Antarctic Circle. This movement is not seen as taking place along a due north-south meridian but on a swivelling course – pivoting, as it were, around the central plains of what is now the United States. The result is that the north-eastern segment of North America (in which the North Pole was formerly located in Hudson's Bay) is dragged southwards out of the Arctic Circle and into more temperate latitudes while at the same time the north-western segment (Alaska and the Yukon) swivels northwards into the Arctic Circle along with large parts of northern Siberia.

In the southern hemisphere, Hapgood's model shows the landmass that we now call Antarctica, much of which was

previously at temperate or even warm latitudes, being shifted *in its entirety* inside the Antarctic Circle. The overall movement is seen as having been in the region of 30 degrees (approximately 2000 miles) and as having been concentrated, in the main, between the years 14,500 BC and 12,500 BC – but with massive aftershocks on a planetary scale continuing at widely-separated intervals down to about 9500 BC.

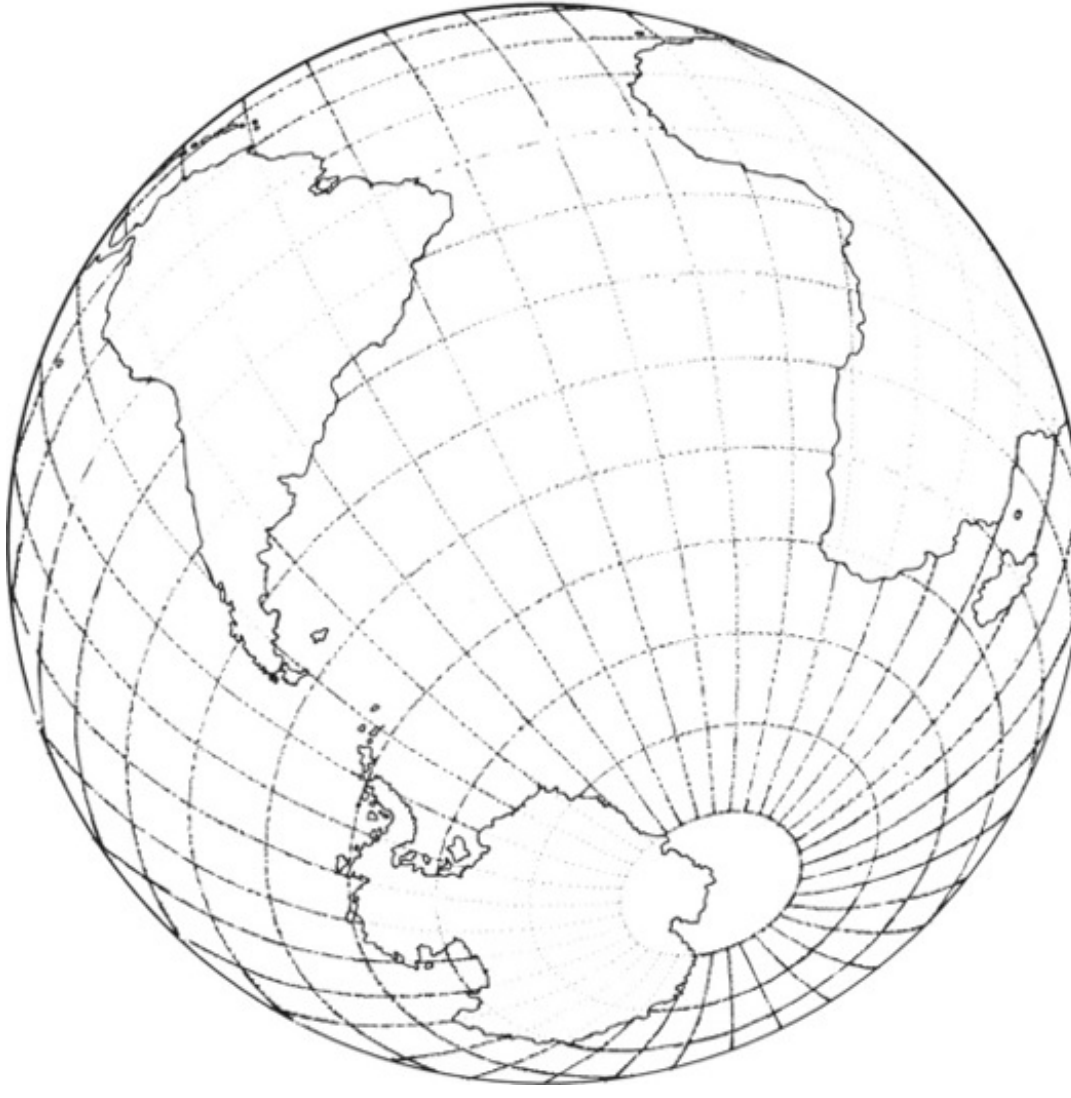

According to the earth-crust displacement theory, large parts of Antarctica were positioned outside the Antarctic circle prior to 15,000 BC and thus could have been inhabited, with a climate and resources suitable for the development of civilization. A cataclysmic slippage of the crust then shifted the continent to the position it occupies today – dead centre within the Antarctic circle.

Suppose that, before the displacement of the earth's crust, a great civilization had grown up in Antarctica, when much of it was located at green and pleasant latitudes? If so, that civilization might easily have been destroyed by the effects of the displacement: the tidal waves, the hurricane-force winds and electric storms, the volcanic eruptions as seismic faults split open all around the planet, the darkened skies, and the remorselessly expanding ice-cap. Moreover, as the millennia passed, the ruins left behind – the cities, the monuments, the great libraries, and the engineering works of the destroyed civilization – would have been ever more deeply buried

beneath the mantle of ice.

Little wonder, if the earth-crust displacement theory is correct, that all that can be found today, scattered around the world, are the tantalizing fingerprints of the gods. These would be the traces, the echoes of the works and deeds, the much misunderstood teachings and the geometrical edifices left behind by the few survivors of Antarctica's former civilization who had made it across the turbulent oceans in great ships and settled themselves in faraway lands: in the Nile Valley, for example (or perhaps, first, around Lake Tana at the headwaters of the Blue Nile), and in the Valley of Mexico, and near Lake Titicaca in the Andes – and no doubt in several other places as well …

Here and there around the globe, in other words, the *fingerprints* of a lost civilization remain faintly visible. The *body* is out of sight, buried under two miles of Antarctic ice

and almost as inaccessible to archaeologists as if it were located on the dark side of the moon.

Fact?

Or fiction?

Possibility?

Or impossibility?

Is it a geophysical *possibility* or a geophysical *impossibility* that Antarctica, the world's fifth-largest continent (with a surface area of almost six million square miles) could (a) previously have been located in a more temperate zone and (b) have been shifted out of that zone and into the Antarctic Circle within the last 20,000 years?

Is Antarctica movable?

A lifeless polar desert

‘Continental drift’ and/or ‘plate-tectonics’ are key terms used to describe an important geological theory that has become increasingly well understood by the general public since the 1950s. It is unnecessary to go into the basic mechanisms here. But most of us are aware that the continents in some way ‘float around’, relocate and change position on the earth’s surface. Common sense confirms this: if you take a look at a map of the west coast of Africa and the east coast of South America it’s pretty obvious that these two landmasses were once joined. The time-scale according to which continental drift operates is, however, immense: continents can typically be expected to float apart (or together) at a rate of no more than 2000 miles every 200 million years or so: in other words, very, very slowly.[1]

Plate-tectonics and Charles Hapgood’s earth-crust displacement theory are by no means mutually contradictory.

Hapgood envisaged that both could occur: that the earth's crust did indeed exhibit continental drift as the geologists claimed – almost imperceptibly, over hundreds of millions of years – but that it also occasionally experienced very rapid one-piece displacements which had no effect on the relationships *between* individual landmasses but which thrust entire continents (or parts of them) into and out of the planet's two fixed polar zones (the perennially cold and icy regions surrounding the North and South Poles of the axis of spin).

Continental drift?

Earth-crust displacement?

Both?

Some other cause?

I honestly don't know. Nevertheless, the simple facts about Antarctica are really strange and difficult to explain without

invoking some notion of sudden, catastrophic and geologically recent change.

Before reviewing a few of these facts, let us remind ourselves that we are referring to a landmass today oriented by the curvature of the earth so that the sun never rises on it during the six winter months and never sets during the six summer months (but rather, as viewed from the Pole, remains low above the horizon, appearing to transcribe a circular path around the sky during each twenty-four hours of daylight).

Antarctica is also by far the world's coldest continent, where temperatures on the polar plain can fall as low as minus 89.2 degrees centigrade. Although the coastal areas are slightly warmer (minus 60 degrees centigrade) and shelter huge numbers of seabird rookeries, there are no native land mammals and there is only a small community of

cold-tolerant plants capable of surviving lengthy winter periods of total or near-total darkness. The *Encyclopaedia Britannica* lists these plants laconically: 'Lichens, mosses and liverworts, moulds, yeasts, other fungi, algae and bacteria …'[2]

In other words, although magnificent to behold in the long-drawn-out antipodean dawn, Antarctica is a freezing, unforgiving, almost lifeless polar desert, as it has been throughout mankind's entire 5000-year 'historical' period.

Was it always so?

Exhibit 1

***Discover The World Of Science Magazine*, February 1993, page 17:** 'Some 260 million years ago, during the Permian period, deciduous trees adapted to a warm climate grew in

Antarctica. This is the conclusion palaeo-botanists are drawing from a stand of fossilized tree stumps discovered at an altitude of 7000 feet on Mount Achernar in the Transantarctic mountains. The site is at 84° 22' south, some 500 miles north of the South Pole.

' "The interesting thing about this find is that it's really the only forest, living or fossil, that's been found at 80 or 85 degrees latitude," says Ohio State University palaeobotanist Edith Taylor, who has studied the fossil trees. "The first thing we palaeobotanists do is look for something in the modern records that is comparable, and there are no forests growing at that latitude today. We can go to the tropics and find trees growing in a warm environment, but we can't find trees growing in a warm environment with the light regime these trees had: 24 hours of light in the summer and 24 hours of dark in the winter." '[3]

Exhibit 2

Geologists have found no evidence of *any* glaciation having been present anywhere on the Antarctic continent prior to the Eocene (about 60 million years ago.)[4] And if we go as far back as the Cambrian (*c*. 550 million years ago) we find irrefutable evidence of a warm sea stretching nearly or right across Antarctica, in the form of thick limestones rich in reef-building *Archaeocyathidae*: 'Millions of years later, when these marine formations had appeared above the sea, warm climates brought forth a luxuriant vegetation in Antarctica. Thus Sir Ernest Shackleton found coal beds within 200 miles of the South Pole, and later, during the Byrd expedition of 1935, geologists made a rich discovery of fossils on the lofty sides of Mount Weaver, in latitude 86° 58' S., about the same distance from the Pole and about two miles above sea level.

These included leaf and stem impressions and fossilized wood. In 1952 Dr Lyman H. Dougherty, of the Carnegie Institution of Washington, completing a study of these fossils, identified two species of a tree fern called *Glossopteris*, once common to the other southern continents (Africa, South America, Australia) and a giant fern tree of another species …'[5]

Exhibit 3

Admiral Byrd's own comment on the significance of the Mount Weaver finds: 'Here at the southernmost known mountain in the world, scarcely two hundred miles from the South Pole, was found conclusive evidence that the climate of Antarctica was once temperate or even sub-tropical.'[6]

Exhibit 4

‘Soviet scientists have reported finding evidence of tropical flora in Graham Land, another part of Antarctica, dating from the early Tertiary Period (perhaps the Paleocene or Eocene) … Further evidence is provided by the discovery by British geologists of great fossil forests in Antarctica, of the same type that grew on the Pacific coast of the United States 20 million years ago. This of course shows that after the earliest known Antarctic glaciation in the Eocene [60 million years ago] the continent did not remain glacial but had later episodes of warm climate.’[7]

Exhibit 5

‘On 25 December 1990 geologists Barrie McKelvey and David

Harwood were working 1830 metres above sea level and 400 kilometres [250 miles] from the South Pole in Antarctica. The geologists discovered fossils from a deciduous southern beach forest dating from between two and three million years ago'.[8]

Exhibit 6

In 1986 the discovery of fossilized wood and plants showed that parts of Antarctica may have been ice free as little as two and a half a million years ago. Further discoveries showed that some places on the continent were ice-free 100,000 years ago.[9]

Exhibit 7

As we saw in Part I, sedimentary cores collected from the bottom of the Ross Sea by one of the Byrd Antarctic Expeditions provide conclusive evidence that 'great rivers, carrying down fine well grained sediments' did flow in this part of Antarctica until perhaps as late as 4000 BC. According to the report of Dr Jack Hough of the University of Illinois: 'The log of core N-5 shows glacial marine sediment from the present to 6000 years ago. From 6000 to 15,000 years ago the sediment is fine-grained with the exception of one granule at about 12,000 years ago. This suggests an absence of ice from the area during that period, except perhaps for a stray iceberg 12,000 years ago.'[10]

Exhibit 8

The Orontaeus Finnaeus World Map reviewed in Part I

accurately depicts the Ross Sea as it would look if it were free of ice and, in addition, shows Antarctica's ranges of lofty coastal mountains with great rivers flowing from them where only mile-deep glaciers are to be found today.[11]

Charles Hapgood, ***The Path Of The Pole***, **1970, page 111ff:** 'It is rare that geological investigations receive important confirmation from archaeology; yet in this case, it seems that the matter of the deglaciation of the Ross Sea can be confirmed by an old map that has somehow survived many thousands of years … It was discovered and published in 1531 by the French geographer Oronce Fine [Oronteus Finnaeus] and is part of his Map of the World …

It has been possible to establish the authenticity of this map. In several years of research the projection of this ancient map was worked out. It was found to have been

drawn on a sophisticated map projection, with the use of spherical trigonometry, and to be so scientific that over 50 locations on the Antarctic continent have been found to be located on it with an accuracy that was not attained by modern cartographic science until the 19th century. And, of course, when this map was first published, in 1531, nothing at all was known of Antarctica. The continent was not discovered in modern times until about 1818 and was not fully mapped until after 1920 …'[12]

Exhibit 9

The Buache Map, also reviewed in Part I, accurately depicts the *subglacial* topography of Antarctica.[13] Does it do so by chance or might the continent indeed have been entirely ice-free recently enough for the cartographers of a lost

civilization to have mapped it?

Exhibit 10

The reverse side of the coin. If the lands presently inside the Antarctic Circle were once temperate or tropical, what about lands inside the *Arctic* Circle? Were they affected by the same dramatic climate changes, suggesting that some common factor might have been at work?

- ‘On the island of Spitzbergen (Svalbard), palm leaves ten and twelve feet long have been fossilized, along with fossilized marine crustaceans of a type that could only inhabit tropical waters. This suggests that at one time the temperatures of the Arctic Ocean were similar to the contemporary temperatures of the Bay of Bengal or the Caribbean Sea. Spitzbergen is half way between the northern tip of Norway and the North Pole, at a latitude of 80 degrees N. Today, ships can reach Spitzbergen through the ice only about

two or at the most three months during the year.'[14]

- There is firm fossil evidence that stands of swamp cypress flourished within 500 miles of the North Pole in the Miocene [between 20 million and 6 million years ago], and that water-lillies flourished in Spitzbergen in the same period: 'The Miocene floras of Grinnell Land and Greenland, and Spitzbergen, all required temperate climatic conditions with plentiful moisture. The water lillies of Spitzbergen would have required flowing water for the greater part of the year. In connection with the flora of Spitzbergen it should be realized that the island is in polar darkness for half the year. It lies on the Arctic Circle, as far north of Labrador as Labrador is north of Bermuda.'[15]
- Some of the islands in the Arctic Ocean were never covered by ice during the last Ice Age. On Baffin Island, for example, 900 miles from the North Pole, alder and birch remains found in peat suggest a much warmer climate than today less than 30,000 years ago. These conditions prevailed until 17,000 years ago: 'During the Wisconsin ice age there was a temperate-climate refuge in the middle of the Arctic Ocean for the flora and fauna that could not exist in

Canada and the United States.'[16]

- Russian scientists have concluded that the Arctic Ocean was warm during most of the last Ice Age. A report by academicians Saks, Belov and Lapina covering many phases of their oceanographic work highlights the period from about 32,000 to about 18,000 years ago as being one during which particularly warm conditions prevailed.[17]
- As we saw in Part IV, huge numbers of warm-blooded, temperate adapted mammal species were instantly frozen, and their bodies preserved in the permafrost, all across a vast zone of death stretching from the Yukon, through Alaska and deep into northern Siberia. The bulk of this destruction appears to have taken place during the eleventh millennium BC, although there was an earlier episode of large-scale extinctions around 13,500 BC.[18]
- We also saw (Chapter Twenty-seven) that the last Ice Age came to an end between 15,000 and 8000 BC, but principally between 14500 and 12,500 BC, with a further outburst of extraordinarily intense activity in the eleventh millennium BC. During this geologically brief period of time, glaciation up to

> two miles deep covering millions of square miles which had taken more than 40,000 years to build-up suddenly and inexplicably melted: 'It must be obvious that this could not have been the result of the gradually acting climatic factors usually called upon to explain ice ages … The rapidity of the deglaciation suggests that some extraordinary factor was affecting climate …'[19]

The icy executioner

Some extraordinary factor was affecting climate …

Was it a 30° one-piece shift of the lithosphere that abruptly terminated the Ice Age in the northern hemisphere (by pushing the most heavily glaciated areas southwards from the northern pole of the spin axis)? If so, why shouldn't the same 30° one-piece shift of the lithosphere have swivelled a largely deglaciated six-million-square-mile *southern hemisphere* continent from temperate latitudes to a position

directly over the southern pole of the spin axis?

On the issue of the movability of Antarctica, we now know that it *is* movable and, more to the point, that it has moved, because trees have grown there and trees simply cannot grow at latitudes which suffer six months of continual darkness.

What we do not know (and may never know for certain) is whether this movement was a consequence of earth-crust displacement, or of continental drift, or of some other unguessed-at factor.

Let us consider Antarctica for a moment.

We have already seen that it is big. It has a land area of 5.5 million square miles, and is presently covered by something in excess of seven million *cubic* miles of ice weighing an estimated 19 *quadrillion* tons (19 followed by 15 zeros).[20] What worries the theorists of earth-crust displacement is that this vast ice-cap is remorselessly increasing in size and

weight: ‘at the rate of 293 cubic miles of ice each year – almost as much as if Lake Ontario were frozen solid annually and added to it.’[21]

The fear is that when it is coupled with the effects of precession, obliquity, orbital eccentricity, the earth’s own centrifugal motion, and the gravitational tug of the sun, moon and planets, Antarctica’s huge, ever-expanding burden of glaciation could provide the final trigger-factor for a massive displacement of the crust:

> The growing South Pole ice-cap [wrote Hugh Auchincloss Brown, somewhat colourfully, in 1967] has become a stealthy, silent and relentless force of nature – a result of the energy created by its eccentric rotation. The ice-cap is the creeping peril, the deadly menace and the executioner of our civilization.[22]

Did this ‘executioner’ cause the end of the last Ice Age in the

northern hemisphere by setting in motion a 7000-year shift of the crust between 15,000 BC and 8000 BC – a shift that was perhaps at its most rapid, and would have had its most devastating effects, between 14,500 BC and 10,000 BC?[23] Or were the sudden and dramatic climate changes experienced in the northern hemisphere during this period the result of some other catastrophic agency simultaneously capable of melting millions of cubic miles of ice and of sparking off the worldwide increase in volcanism that accompanied the meltdown?[24]

Modern geologists are opposed to catastrophes, or rather to catastrophism, preferring to follow the 'uniformitarian' doctrine: 'that existing processes, *acting as at present*, are sufficient to account for all geological changes'. Catastrophism, on the other hand, holds that 'changes in the earth's crust have generally been effected *suddenly* by

physical forces.'[25] Is it possible, however, that the mechanism responsible for the traumatic earth changes which took place at the end of the last Ice Age could have been a geological event both catastrophic and uniform?

The great biologist Sir Thomas Huxley remarked in the nineteenth century:

> To my mind there appears to be no sort of theoretical antagonism between Catastrophism and Uniformitarianism; on the contrary, it is very conceivable that catastrophes may be part and parcel of uniformity. Let me illustrate my case by analogy. The working of a clock is a model of uniform action. Good timekeeping means uniformity of action. But the striking of a clock is essentially a catastrophe. The hammer might be made to blow up a barrel of gunpowder, or turn on a deluge of water and, by proper arrangement, the clock, instead of marking the hours, might strike at all sorts of irregular intervals, never twice alike in the force or number of its blows. Nevertheless, all these irregular and apparently lawless catastrophes

> would be the result of an absolutely uniformitarian action, and we might have two schools of clock theorists, one studying the hammer and the other the pendulum.[26]

Could continental drift be the pendulum?
Could earth-crust displacement be the hammer?

Mars and earth

Crustal displacements are thought to have taken place on other planets. In the December 1985 issue of *Scientific American*, Peter H. Schultz drew attention to meteorite impact craters visible on the Martian surface. Craters in polar areas have a distinctive 'signature' because the meteorites land amid the thick deposits of dust and ice that accumulate there. Outside the *present* polar circles of Mars, Schultz found

two other such areas: ‘These zones are antipodal; they are on opposite faces of the planet. The deposits show many of the processes and characteristics of today’s poles, but they lie near the present-day equator …’

What could have caused this effect? Judging from the evidence, Shultz put forward the theory that the mechanism appeared to have been ‘the movement of the entire lithosphere, the solid outer portion of the planet as one plate … [This movement seems to have taken place] in rapid spurts followed by long pauses.’[27]

If crustal displacements can happen on Mars, why not on earth? And if they *don’t* happen on earth, how do we account for the otherwise awkward fact that *not a single one* of the ice-caps built up around the world during previous Ice Ages seems to have occurred at – or even near – either of the present poles.[28] On the contrary, land areas bearing the

marks of former glaciation are very widely distributed. If we cannot assume crustal shifts, we must find some other way to explain why the ice-caps appear to have reached sea level within the tropics on three continents: Asia, Africa and Australia.[29]

Charles Hapgood's solution to this problem is simple, extremely elegant and does not affront commonsense:

> The only ice area that is adequately explained is the present ice age in Antarctica. This is excellently explained. It exists, quite obviously, because Antarctica is at the pole, and for no other reason. No variation of the sun's heat, no galactic dust, no volcanism, no subcrustal currents, and no arrangements of land elevations or sea currents account for the fact. We may conclude that the best theory to account for an ice age is that the area concerned was at the pole. We thus account for the Indian and African ice sheets, though the areas once occupied by them are now in the tropics. We account for all ice sheets of continental size in the same way.[30]

The logic is close to inescapable. Either we accept that the Antarctic ice cap is the *first* continent-sized ice sheet *ever* to have been situated at a pole – which seems improbable – or we are obliged to suppose that earth-crust displacement, or a similar mechanism, must have been at work.

Memories of the polar dawn?

Our ancestors may have preserved in their most ancient traditions memories of a displacement. We saw some of these memories in Part IV: cataclysm myths that appear to be eyewitness accounts of the series of geological disasters which accompanied the end of the last Ice-Age in the northern hemisphere.[31] There are other myths too, which may have come down to us from that epoch between 15,000

and 10,000 BC. Among these are several which speak of lands of the gods and of former paradises, all of which are described as being in the south (for example, the Ta-Neteru of the Egyptians) and many of which seem to have experienced polar conditions.

The great Indian epic, *Mahabaratha*, speaks of Mount Meru, the land of the gods:

> At Meru the sun and moon go round from left to right every day, and so do all the stars … The mountain by its lusture, so overcomes the darkness of night, that the night can hardly be distinguished from the day.… The day and night are together equal to a year to the residents of the place …'[32]

Similarly, as the reader will recall from Chapter Twenty-five, Airyana Vaejo, the mythical paradise and former homeland of the Avestic Aryans of Iran, seems to have been rendered uninhabitable by the sudden onset of glaciation. In later

years it was spoken of as a place in which: 'the stars, the moon and the sun are only once a year seen to rise and set, and a year seems only as a day.'[33]

In the *Surya Siddhanta*, an ancient Indian text, we read, 'The gods behold the sun, after it has once arisen, for half a year.'[34] The seventh Mandala of the *Rigveda* contains a number of 'Dawn' hymns. One of these (VII, 76) says that the dawn has raised its banner on the horizon with its usual splendour and reports in Verse 3 that a period of *several days* elapsed between the first appearance of the dawn and the rising of the sun that followed it.[35] Another passage states, 'many were the days between the first beams of the dawn and actual sunrise'.[36]

Are these eyewitness accounts of polar conditions?

Although we can never be sure, it may be relevant that in Indian tradition the Vedas are believed to be revealed texts,

passed down from the time of the gods.[37] It may also be relevant that in describing the processes of transmission, all the traditions refer to the *pralayas* (cataclysms) which occasionally overtake the world and claim that in each of these the written scriptures are physically destroyed. After each destruction, however, certain *Rishis* or 'wise men' survive who

> repromulgate, at the beginning of the new age, the knowledge inherited by them as a sacred trust from their forefathers in the preceding age … Each *manvantara* or age thus has a Veda of its own which differs only in expression and not in sense from the antediluvian Veda.[38]

An epoch of turmoil and darkness

As every schoolboy geographer understands, true north (the

North Pole) is not quite the same thing as magnetic north (the direction compass needles point). Indeed the magnetic north pole is presently situated in northern Canada, about 11 degrees from the true North Pole.[39] Recent advances in the study of palaeomagnetism have proved that the earth's magnetic polarity has *reversed itself more than 170 times* during the past 80 million years …[40]

What causes these field reversals?

While he was teaching at the University of Cambridge the geologist S. K. Runcorn published an article in *Scientific American* which made a pertinent point:

> There seems no doubt that the earth's magnetic field is tied up in some way to the rotation of the planet. And this leads to a remarkable finding about the earth's rotation itself … [The unavoidable conclusion is that] the earth's axis of rotation has changed also. In other words, the planet has rolled about, changing the location of the geographical poles.[41]

Runcorn appears to be envisaging a complete 180-degree flip of the poles, with the earth literally tumbling – although similar palaeomagnetic readings would result from a slippage of the crust *over* the geographical poles. Either way, the consequences for civilization, and indeed for all life, would be unimaginably dreadful.

Of course, Runcorn may be wrong; perhaps field reversals can occur in the absence of any other upheavals.

But he may also be right.

According to reports published in *Nature* and *New Scientist*, the last geomagnetic reversal was completed just 12,400 years ago – during *the eleventh millennium BC*[42]

This is of course the very millennium in which the ancient Tiahuanacan civilization in the Andes seems to have been destroyed. The same millennium is signalled by the

alignments and design of the great astronomical monuments on the Giza plateau, and by the erosion patterns on the Sphinx. And it was in the eleventh millennium BC that Egypt's 'precocious agricultural experiment' suddenly failed. Likewise it was in the eleventh millennium BC that huge numbers of large mammal species all around the world vanished into extinction. The list could continue: abrupt rises in sea level, hurricane-force winds, electrical storms, volcanic disturbances, and so on.

Scientists expect the next reversal of the earth's magnetic poles to occur around AD 2030.[43]

Is this an intimation of planetary disaster? After 12,500 years of the pendulum, is the hammer about to strike?

Exhibit 11

Yves Rocard, Professor of the Faculty of Sciences at Paris: ‘Our modern seismographs are sensitive to the ‘noise’ of limited agitation at every point in the earth, even in the absence of any seismic wave. One may in this noise discern a man-made vibration (for example, a train four kilometers away, or a big city ten kilometers off) and also an atmospheric effect (from changing pressure of the wind on the soil) and sometimes one registers also the effects of great storms at a distance. Yet there remains a continued rolling noise of cracklings in the earth which owes nothing to any [such] cause …’[44]

Exhibit 12

‘The North Pole moved ten feet in the direction of Greenland along the meridian of 45 degrees west longitude during the

period from 1900 to 1960 … a rate of six centimetres (about two and a half inches) a year. [Between 1900 and 1968, however,] the pole moved about twenty feet. [The pole therefore] moved ten feet between 1960 and 1968, at a rate of about ten centimetres (four inches) a year … If both these observations were accurate when made, as we have every right to expect in view of the eminence of the scientists involved, then we have here evidence that the lithosphere may be in motion at the present time [and that it is experiencing] a geometrical acceleration of the *rate* of motion …[45]

Exhibit 13

USA Today, Wednesday 23 November 1994, page 9D:

‘INTERACTIVE IN ANTARCTICA: Students Link With South Pole Scientists

‘A live remote broadcast from the South Pole featuring Elizabeth Felton, a 17-year-old graduate of Chicago public schools, will take place Jan 10. Felton will use US Geological Survey data to reposition the copper marker designating the Earth’s geographic South Pole to compensate for the annual slippage of the ice sheet.’[46]

Is it just the ice sheet that is slipping, or is the entire crust of the earth in motion? And was it just an ‘unusual interactive education project’ that took place on 10 January 1995, or was Elizabeth Felton unknowingly documenting the continued geometrical acceleration of the rate of motion of the crust?

Scientists do not think so. As we shall see in the final chapter, however, the coming century is signalled in a remarkable convergence of ancient prophecies and

traditional beliefs as an epoch of unprecedented turmoil and darkness, in which iniquity will be worked in secret, and the Fifth Sun and the Fourth World will come to an end …

Exhibit 14

Kobe, Japan, Tuesday 17 January 1995: ’The suddenness with which the earthquake struck was almost cruel. One moment we were fast asleep, an instant later the floor – the entire building – had turned to jelly. But this is no gently undulating liquid motion. This is jarring, gut-wrenching shuddering of awesome proportions …

‘You are in bed, the safest place in the world. Your bed is on the floor, what you used to think of as solid ground. And with no warning the world has turned into a sickening roller-coaster ride, and you want to get off.

‘Possibly the most frightening part is the sound. This is not the dull rumble of thunder. This is a deafening, roaring sound, coming from everywhere and nowhere, and it sounds like the end of the world.’ (Eyewitness report on the Kobe earthquake by Dennis Kessler, *Guardian*, London, 18 January 1995. The tremor lasted 20 seconds, registering 7.2 on the Richter scale, and killed more than 5000 people.)

Chapter 52

Like a Thief in the Night

There are certain structures in the world, certain ideas, certain intellectual treasures, that are truly mysterious. I am beginning to suspect that the human race may have placed itself in grave jeopardy by failing to consider the implications of these mysteries.

We have the ability, unique in the animal kingdom, to

learn from the experiences of our predecessors. After Hiroshima and Nagasaki, for example, two generations have grown to adulthood in awareness of the horrific destruction that nuclear weapons unleash. Our children will be aware of this too, without experiencing it directly, and they will pass it on to their children. Theoretically, therefore, the knowledge of what atom bombs do has become part of the permanent historical legacy of mankind. Whether we choose to benefit from that legacy or not is up to us. Nevertheless the knowlege is there, should we wish to use it, because it has been preserved and transmitted in written records, in film archives, in allegorical paintings, in war memorials, and so on.

Not all testimony from the past is accorded the same stature as the records of Hiroshima and Nagasaki. On the contrary, like the Canonical Bible, the body of knowledge

that we call ‘History’ is an edited cultural artefact from which much has been left out. In particular, references to human experiences prior to the invention of writing around 5000 years ago have been omitted *in their entirety* and myth has become a synonym for delusion.

Suppose it is not delusion?

Suppose that a tremendous cataclysm were to overtake the earth today, obliterating the achievements of our civilization and wiping out almost all of us. Suppose, to paraphrase Plato, that we were forced by this cataclysm ‘to begin again like children, in complete ignorance of what had happened in early times’.[1] Under such circumstances, ten or twelve thousand years from now (with all written records and film archives long since destroyed) what testimony might our descendants still preserve concerning the events at the Japanese cities of Hiroshima and Nagasaki in August 1945 of

the Christian era?

It is easy to imagine how they might speak in mystical terms of explosions that gave off a ‘terrible glare of light’ and ‘immense heat’.[2] Nor would we be too surprised to find that they might have formulated a ‘mythical’ account something like this:

> The flames of the Brahmastra-charged missiles mingled with each other and surrounded by fiery arrows they covered the earth, heaven and space between and increased the conflagration like the fire and the Sun at the end of the world … All beings who were scorched by the Brahmastras, and saw the terrible fire of their missiles, felt that it was the fire of *Pralaya* [the cataclysm] that burns down the world.[3]

And what of the *Enola Gay* which carried the Hiroshima bomb? How might our descendants remember that strange aircraft and the squadrons of others like it that swarmed

through the skies of planet earth during the twentieth century of the Christian era? Isn't it possible, probable even, that they might preserve traditions of 'celestial cars' and 'heavenly chariots' and 'spacious flying machines', and even of 'aerial cities'.[4] If they did, would they perhaps speak of such wonders in mythical terms a little like these:

- 'Oh you, Uparicara Vasu, the spacious aerial flying machine will come to you – and you alone, of all the mortals, seated on that vehicle will look like a deity.'[5]
- 'Visvakarma, the architect among the Gods, built aerial vehicles for the Gods.'[6]
- 'Oh you descendant of the Kurus, that wicked fellow came on that all-traversing automatic flying vehicle known as Saubhapura and pierced me with weapons.'[7]
- 'He entered into the favourite divine palace of Indra and saw thousands of flying vehicles intended for the Gods lying at rest.'[8]
- 'The Gods came in their respective flying vehicles to witness the battle between Kripacarya and Arjuna. Even Indra, the Lord of Heaven, came with a special

type of flying vehicle which could accommodate 33 divine beings.'[9]

All these quotations have been taken from the *Bhagavata Purana* and from the *Mahabaratha*, two drops in the ocean of the ancient wisdom literature of the Indian subcontinent. And such images are replicated in many other archaic traditions. To give one example (as we saw in Chapter Forty-two), the Pyramid Texts are replete with anachronistic images of flight:

> The King is a flame, moving before the wind to the end of the sky and to the end of the earth … the King travels the air and traverses the earth … there is brought to him a way of ascent to the sky …[10]

Is it possible that the constant references in archaic literatures to something like aviation could be valid historical testimony concerning the achievements of a forgotten and remote technological age?

We will never know unless we try to find out. And so far we haven't tried because our rational, scientific culture regards myths and traditions as 'unhistorical'.

No doubt many are unhistorical. but at the end of the investigation that underlies this book, I am certain that many others are not …

For the benefit of future generations of mankind

Here is a scenario:

Suppose that we had calculated, on the basis of sound evidence and beyond any shadow of a doubt, that our civilization was soon to be obliterated by a titanic geological cataclysm – a 30° displacement of the earth's crust, for example, or a head-on collision with a ten-mile-wide nickle-iron asteroid travelling towards us at cosmic speed.

Of course there would at first be much panic and despair. Nevertheless – if there were sufficient advance warning – steps would be taken to ensure that there would be some survivors and that some of what was most valuable in our high scientific knowledge would be preserved for the benefit of future generations.

Strangely enough, the Jewish historian Josephus (who wrote during the fiirst century AD) attributes precisely this behaviour to the clever and prosperous inhabitants of the antediluvian world who lived before the Flood 'in a happy condition without any misfortunes falling upon them':[11]

> They also were the inventors of that peculiar sort of wisdom which is concerned with the heavenly bodies, and their order. And that their inventions might not be lost – upon Adam's prediction that the world was to be destroyed at one time by the force of fire, and at another time by the

> violence and quantity of water – they made two pillars, one of brick, the other of stone: they inscribed their discoveries upon them both, that in case the pillar of brick should be destroyed by the Flood, the pillar of stone might remain and exhibit these discoveries to mankind; and also inform them that there was another pillar of brick erected by them …[12]

Likewise, when the Oxford astronomer John Greaves visited Egypt in the seventeenth century he collected ancient local traditions which attributed the construction of the three Giza pyramids to a mythical antediluvian king:

> The occasion of this was because he saw in his sleep that the whole earth was turned over, with the inhabitants of it lying upon their faces and the stars falling down and striking one another with a terrible noise … And he awaked with great feare, and assembled the chief priests of all the provinces of Egypt … He related the whole matter to them and they took the altitude of the stars, and made their prognostication, and they foretold

> of a deluge. The king said, will it come to our country? They answered yes, and will destroy it. And there remained a certain number of years to come, and he commanded in the mean space to build the Pyramids … And he engraved in these Pyramids all things that were told by wise men, as also all profound sciences – the science of Astrology, and of Arithmeticke, and of Geometry, and of Physicke. All this may be interpreted by him that knowes their characters and language …[13]

Taken at face value, the message of both of these myths seems crystal clear: certain mysterious structures scattered around the world were built to preserve and transmit the knowledge of an advanced civilization of remote antiquity which was destroyed by a terrifying upheaval.

Could this be so? And what are we to make of other strange traditions that have come to us from the dark vault of prehistory?

What are we to make, for example, of the *Popol Vuh*, which

speaks in veiled language about a great secret of the human past: a long-forgotten golden age when everything was possible – a magical time of scientific progress and enlightenment when the 'First Men' (who were 'endowed with intelligence') not only 'measured the round face of the earth' but 'examined the four points of the arch of the sky'.

As the reader will recall, the gods became jealous at the rapid progress made by these upstart humans who had 'succeeded in seeing, succeeded in knowing, all that there is in the world.'[14] Divine retribution quickly followed: 'The Heart of Heaven blew mist into their eyes … In this way all the wisdom and all the knowledge of the First Men [together with their memory of their] origin and their beginning, were destroyed.'[15]

The secret of what happened was never entirely forgotten because a record of those distant First Times was preserved,

until the coming of the Spaniards, in the sacred texts of the original *Popol Vuh*. The abuses of the conquest made it necessary for that primordial document to be concealed from all but the most highly-initiated sages and replaced with a watered-down substitute written 'under the law of Christianity':[16] 'No longer can be seen the book of *Popol Vuh* which the kings had in olden times … The original book, written long ago, existed – but now its sight is hidden to the searcher and to the thinker …'[17]

On the other side of the world, among the myths and traditions of the Indian subcontinent, there are further tantalizing suggestions of hidden secrets. In the *Puranic* version of the universal flood story, shortly before the deluge was unleashed, the fish god Vishnu warned his human protégé that he 'should conceal the Sacred Scriptures in a safe place' to preserve the knowledge of the antediluvian

races from destruction.[18] Likewise, in Mesopotamia, the Noah figure Utnapishtim was instructed by the god Ea 'to take the beginning, the middle and the end of whatever was consigned to writing and then to bury it in the City of the Sun at Sippara'.[19] After the waters of the flood had gone, survivors were instructed to make their way to the site of the City of the Sun 'to search for the writings', which would be found to contain knowledge of benefit to future generations of mankind.[20]

Strangely enough, it was the City of the Sun in Egypt, Innu, known by the Greeks as Heliopolis – which was regarded throughout the dynastic period as the source and centre of the high wisdom handed down to mortal men from the fabled First Time of the gods. It was at Heliopolis that the the Pyramid Texts were collated, and it was the Heliopolitan priesthood – or rather the Heliopolitan cult – that had

custody of the monuments of the Giza necropolis.

More than just Kilroy was here

Let us return to our scenario:

1 we know that our late twentieth-century, post-industrial civilization is about to be destroyed by an inescapable cosmic or geological cataclysm;

2 we know – because our science is pretty good – that the destruction is going to be *near-total*;

3 mobilizing massive technological resources, we put our best minds to work to ensure that at least a remnant of our species will survive the catastrophe, and that the core of our scientific, medical, astronomical, geographical, architectural and mathematical knowledge will be preserved;

4 we are of course aware how slim are our chances of succeeding on both counts; nevertheless, galvanized by the prospect of extinction, we make an almighty

effort to build the Arks or Vars or strong enclosures in which the chosen survivors can be protected, and we focus our considerable ingenuity on ways to transmit the essence of the knowledge we have accumulated during the 5000 years of our recorded history.

We start by preparing for the worst. We assume that there will be survivors but that they will be blasted back into the Stone Age by the cataclysm. Realizing that it may take ten or twelve thousand years for a civilization as advanced as our own to rise again like a phoenix from the ashes, one of our top priorities is to find a way to communicate with that postulated future civilization. At the least we would want to say to them: KILROY WAS HERE! and to be sure they got the message no matter what language they spoke or what ethical, religious, ideological, metaphysical or philosophical leanings their society might exhibit.

I'm sure we'd want to say more than just 'Kilroy was here'. We'd want, for example, to tell them – those distant grandchildren of ours – *when* we

had lived in relation to their time.

How would we do that? How would we express, say, AD 2012 of the Christian era in a language universal enough to be worked out and understood twelve thousand years hence by a civilization that would know nothing of the Christian or of any of the other eras by which we express chronology?

One obvious solution would be to make use of the beautiful predictability of the earth's axial precession, which has the effect of slowly and regularly altering the declination of the entire star-field in relation to a viewer at a fixed point, and which equally slowly and regularly revolves the equinoctial point in relation to the twelve zodiacal constellations. From the predictability of this motion it follows that if we could find a way to declare: WE LIVED WHEN THE VERNAL EQUINOX WAS IN THE CONSTELLATION OF PISCES we would provide a means of specifying our epoch to within a single 2160-year period in every grand precessional cycle of 25,920 years.

The only drawback to this scheme would become evident if a civilization

equivalent to our own failed to arise within 12,000 or even 20,000 years of the cataclysm, but took much longer – perhaps as much as 30,000 years. In that case, a monument or calendrical device declaring 'we lived when the vernal equinox was in the constellation of Pisces' would no longer be unambiguous. If discovered by a high culture flourishing at the very beginning of a future Age of Sagittarius for example it could be read as meaning 'we lived 4320 years before your time' – that is, two full precessional 'months' prior to the Sagittarian Age (the 2160-year 'months' of Aquarius and Capricorn). But it could also mean 'We lived 30,240 years before your time', that is those two 'months' plus the full previous precessional cycle of 25,920 years. The Sagittarian archaeologists would not only have to use their wits to work out the meaning of the message (i.e. WE LIVED WHEN THE VERNAL EQUINOX WAS IN PISCES), but would need to decide from other clues *which* Age of Pisces we had lived in: the most recent, or the one in the previous precessional cycle, or perhaps even the cycle before that.

> Geology would naturally be of assistance in making such broad judgements …

The civilizers

If we could find a way of saying WE LIVED IN THE AGE OF PISCES, and could specify the altitude above the horizon of certain identifiable stars in our own epoch (say, the prominent belt stars of the Orion constellation), we would be able to signal our dates to future generations with greater precision. Alternatively we could do as the builders of the Giza pyramids appear to have done and lay out our monuments in a pattern on the ground reflecting exactly the pattern of the stars in the sky in our time.

There would be several other options and combinations of options open to us, depending on our circumstances, on the

level of technology available to us, on the extent of the early warning we were given, and on which chronological facts we wanted to transmit.

Suppose, for example, that there was not time to make proper preparations prior to the catastrophe. Suppose that the disaster, like 'the Day of the Lord' in 2 Peter 3, crept up on us unseen 'as a thief in the night?'[21] What prospects might humanity be faced with?

Whether as the result of an asteroid strike or an earth-crust displacement or some other cosmic or geological cause, let us assume:

1 massive devastation all around the world;

2 the survival of only relatively small numbers of people, the majority of whom rapidly revert to barbarism;

3 the presence, among this remnant, of a minority of well-organized visionaries – including master-builders, scientists, engineers, cartographers, mathematicians,

medical doctors and the like – who dedicate themselves to salvaging what they can and finding ways to transmit the knowledge to the future for the benefit of those who might eventually understand it.

Let us call these hypothetical visionaries ‘the civilisers’. As they banded together – at first to survive, later to teach and to share ideas – they might take on something of the manner and belief systems of a religious cult, developing a clear sense of mission and of shared identity. No doubt they would make use of powerful and easily recognizable symbols to strengthen and express this sense of common purpose: the men might wear distinctive beards, for example, or shave their heads, and certain archetypal imagery like the cross and the serpent and the dog might be used to link the members of the cult together as they set out on their civilizing missions to relight the lamps of knowledge around the world.

I suspect, if the situation were bad enough after the

cataclysm, that many of the civilizers would fail, or meet with only limited success. But let us suppose that one small group had the skill and dedication sufficient to create a lasting and stable beach-head, perhaps in a region which had suffered relatively little damage in the disaster. Then let us suppose that some other unexpected disaster were to occur – an aftershock or series of aftershocks from the original catastrophe perhaps – and the beach-head was almost totally annihiliated.

What might happen next? What might be salvaged from this wreckage of a wisdom cult which had itself been salvaged from a greater wreck?

Transmitting the essence

If the circumstances were right it seems possible that *the*

essence of the cult might survive, carried forward by a nucleus of determined men and women. I suspect, too, with the proper motivation and indoctrination techniques, plus a means of recruiting new members from among the half-savage local inhabitants, that such a cult might perpetuate itself *almost indefinitely*. This could happen, however, only if its members (like the Jews awaiting the Messiah) were prepared to bide their time, for thousands and thousands of years, until they felt confident that the moment had come to declare themselves.

If they did that, and if their sacred objective were indeed to preserve and transmit knowledge to some evolved future civilization, it is easy to imagine how the cult members might be described in terms similar to those used for the Egyptian wisdom god Thoth who was said to have

> succeeded in understanding the mysteries of the heavens [and to have]

> revealed them by inscribing them in sacred books which he then hid here on earth, intending that they should be searched for by future generations but found only by the fully worthy …[22]

What might the mysterious 'books of Thoth' have been? Is it necessary to suppose that all the information they were purported to contain should have been transmitted in *book* form?

Is it not worth wondering, for example, whether Professors de Santillana and von Dechend might have earned their place among the 'fully worthy' when they decoded the advanced scientific language embedded in the great universal myths of precession? In so doing, is it not possible that they might have stumbled upon one of the metaphorical 'books' of Thoth and read the ancient science inscribed upon its pages?

Likewise, what about Posnansky's discoveries at Tiahuanaco, and Hapgood's maps? What about the new

understanding that is dawning concerning the geological antiquity of the Sphinx at Giza? What about the questions raised by the gigantic blocks used in the construction of the Valley and Mortuary Temples? What about the secrets now being teased, one by one, from the astronomical alignments and dimensions and concealed chambers of the pyramids?

If these, too, are readings from the metaphorical books of Thoth, it would seem that the numbers of the 'fully worthy' are increasing, and that new and even more startling revelations may soon be at hand …

To return briefly and for the last time to our evolving scenario:

1 at the begining of the twenty-first century of the Christian era, near the cusp of the Age of Pisces and the Age of Aquarius, civilization as we know it is destroyed;

2 among the devastated survivors a few hundred or a few thousand individuals

band together to preserve and transmit the fruits of their culture's scientific knowledge into a distant and uncertain future;

3 these civilizers split into small groups and spread across the globe;

4 by and large they fail, and perish; nevertheless, in certain areas, some do succeed in making a lasting cultural impression;

5 after thousands of years – and perhaps several false starts – a branch of the original wisdom cult influences the emergence of a fully fledged civilization …

Of course the parallel for this last category is once again to be found in Egypt. I would seriously propose as a hypothesis for further testing that a scientific wisdom cult, made up of the survivors of a great, lost, *maritime* civilization, could perhaps have established itself in the Nile Valley as early as the fourteenth millennium BC. The cult would have been based at Heliopolis, Giza and Abydos, and perhaps at other centres as well, and would have initiated Egypt's early

agricultural revolution. Later, however, beaten down by the huge floods and other disturbances of the earth which took place in the eleventh millennium BC, the cult would have been obliged to cut its losses and withdraw until the turmoil of the Ice Age was over – never knowing whether its message would survive the subsequent dark epochs.

Under such circumstances, the hypothesis suggests that a huge and ambitious building project would have been one way cult members could preserve and transmit scientific information into the future independently of their physical survival. In other words, if the buildings were large enough, capable of enduring through immense spans of time and encoded through and through with the cult's message, there would be hope that the message would be *decoded* at some future date even if the cult had by then long since ceased to exist.

The hypothesis proposes that this is what the enigmatic structures on the Giza plateau are all about:

1 that the Great Sphinx is indeed, as we have argued in previous chapters, an equinoctial marker for the Age of Leo, indicating a date in our own chronology of between 10,970 BC and 8810 BC;

2 that the three principal pyramids are indeed laid out in relation to the Nile Valley to mimic the precise dispositions of the three stars of Orion's Belt in relation to the course of the Milky Way in 10,450 BC. This is a pretty effective means of 'specifying' the epoch of the eleventh millennium BC by using the phenomenon of precession, which has been rightly described as the 'only true clock of our planet'.[23] Confusingly, however, we also know that the Great Pyramid incorporates star shafts 'locked in' to Orion's Belt and Sirius at around 2450 BC.[24] The hypothesis resolves the anomaly of the missing years by supposing the star shafts to be merely the later work of the same long-lived cult that originally laid out the Giza ground-plan in 10,450 BC. Naturally, the hypothesis also suggests that it was this same cult, towards the end of those

8000 missing years, that provided the initiating spark for the sudden and 'fully formed' emergence of the literate historical civilization of dynastic Egypt.

What remains to be guessed at are the *motives* of the pyramid builders, who were presumably the same people as the mysterious cartographers who mapped the globe at the end of the last Ice Age in the northern hemisphere. If so, we might also ask why these highly civilized and technically accomplished architects and navigators were obsessed with charting the gradual glaciation of the enigmatic southern continent of Antarctica from the fourteenth millennium BC – when Hapgood calculates that the source map referred to by Phillipe Buache was drawn up – down to about the end of the fifth millennium BC?

Could they have been making a permanent cartographical record of the slow obliteration of their homeland?

And could their overwhelming desire to transmit a message

to the future through a variety of different media – myths, maps, buildings, calendar systems, mathematical harmonies – have been connected to the cataclysms and earth changes that caused this loss?

An urgent mission

The possession of a conscious, articulated history is one of the faculties that distinguishes human beings from animals. Unlike rats, say, or sheep, or cows, or pheasants, we have a past which is separate from ourselves. We therefore have the opportunity, as I have said, to learn from the experiences of our predecessors.

Is it because we are perverse, or misguided, or simply stupid that we refuse to recognize those experiences unless they have come down to us in the form of *bona fide* 'historical

records'? And is it arrogance or ignorance which leads us to draw an arbitrary line separating 'history' from 'prehistory' at about 5000 years before the present – defining the records of 'history' as valid testimony and the records of 'prehistory' as primitive delusions?

At this stage in a continuing investigation, my instinct is that we may have put ourselves in danger by closing our ears for so long to the disturbing ancestral voices which reach us in the form of myths. This is more an intuitive than a rational feeling, but it is by no means unreasonable. My research has filled me with respect for the logical thinking, high science, deep psychological insights, and vast cosmographical knowledge of the ancient geniuses who composed those myths, and who, I am now fully persuaded, descended from the same lost civilization that produced the map-makers, pyramid builders, navigators, astronomers and earth-

measurers whose fingerprints we have been following across the continents and oceans of the earth.

Since I have learned to respect those long-forgotten and still only hazily identified Newtons and Shakespeares and Einsteins of the last Ice Age, I think it would be foolish to disregard what they seem to be saying. And what they seem to be saying to us is this: that cyclical, recurrent and near-total destructions of mankind are part and parcel of life on this planet, that such destructions have occurred many times before and that they will certainly occur again.

What, after all, is the remarkable calendrical system of the Mayas if it is not a medium for transmitting exactly this message? What, if not vehicles for the same sort of bad news are the traditions of the four previous 'Suns' (or sometimes of the three previous 'Worlds') passed down in the Americas since time immemorial? By the same token, what might be

the function of the great myths of precession which speak not just of previous cataclysms but of cataclysms to come and which (through the metaphor of the cosmic mill) link these earthly disasters to ‘disturbances in the heavens’? Last but by no means least, what burning motive impelled the pyramid builders to erect, with such care, the powerful and mysterious edifices on the Giza plateau?

Yes, they were saying, ‘Kilroy was here’.

And, yes, they found an ingenious way to tell us when they were here. Of these things I have no doubt.

I am also impressed by the enormous lengths they went to to provide us with convincing proof that theirs was a serious and scientifically advanced civilization. And I am even more impressed by the sense of urgency – of a vitally important mission – that seems to have enlightened all their works and deeds.

I go on intuition again, not on evidence.

It's my guess that their underlying objective could have been to transmit a warning to the future, and that this warning could be to do with a global cataclysm, perhaps even a recurrence of the same cataclysm that so clearly devastated mankind at the end of the last Ice Age when 'Noah saw that the earth had tilted, and that its destruction was near, and cried out in a bitter voice: "Tell me what is being done on the earth that the earth is so afflicted and shaken …" '[25] These words are from the Hebrew Book of Enoch, but similar afflictions and shakings have been foretold in all the Central American traditions that speak of the demise of the present epoch of the world – an epoch, as the reader will recall, in which 'the elders say [that] there will be a movement of the earth and from this we shall all perish.'[26]

The reader will also not have forgotten the date calculated

by the Ancient Maya calendar for the end of the world:

> The day will be 4 Ahau 3 Kankin [corresponding to 23 December AD 2012], and it will be ruled by the Sun God, the ninth Lord of the Night. The moon will be eight days old, and it will be the third lunation in a series of six …[27]

In the Mayan scheme of things we are already living in the last days of the earth.

In the Christian scheme of things too, the last days are understood to be upon us. According to the Watch Tower Bible and Tract Society of Pennsylvania: 'This world will perish just as surely as did the world before the Flood … Many things were foretold to occur during the last days, and all of these are being fulfilled. This means that the end of the world is near …'[28]

Similarly the Christian psychic Edgar Cayce prophesied in 1934 that around the year 2000: ‘There will be a shifting of the poles. There will be upheavals in the Arctic and the Antarctic that will make for the eruption of volcanos in the Torrid areas … The upper portion of Europe will be changed in the twinkling of an eye. The earth will be broken up in the western portion of America. The greater portion of Japan must go into the sea.’[29]

Curiously the epoch of the year 2000, which figures in these Christian prophecies, also coincides with the Last Time (or highest point) in the great upwards cycle of the belt stars of the Orion constellation, just as the epoch of the eleventh millennium BC coincided with the First Time (or lowest point) of that cycle.

And curiously, also, as we saw in Chapter Twenty-eight:

> A conjunction of five planets that can be expected to have profound *gravitational* effects will take place on 5 May in the year 2000, when Neptune, Uranus, Venus, Mercury and Mars will align with the Earth on the other side of the sun, setting up a sort of cosmic tug-of-war …[30]

Could the recondite influences of gravity, when combined with our planet's precessional wobble, the torsional effects of its axial rotation, and the rapidly growing mass and weight of the Antarctic ice-cap, be enough to spark off a full-scale crustal displacement?

We may never know, one way or another – unless it happens. Meanwhile, I do not think the Egyptian scribe Manetho was being less than literal when he spoke of a harsh and deadly cosmic power at work in the universe:

> Just as iron is likely to be attracted and led after the loadstone, but often turns away and is repelled in the opposite direction, so the salutary, good

> and rational movement of the world at one time attracts, conciliates and mollifies that harsh power; then again, when the latter has recovered itself, it overthrows the other and reduces it to helplessness …[31]

In short, through metaphors and allegories, I suspect the ancients may have tried to find many ways to tell us *exactly* when – and why – the hammer of global destruction is going to strike again. I therefore think, after 12,500 years of the pendulum, that it would only be wise for us to devote more of our resources to studying the signs and messages that have come down to us from that dark and terrifying period of amnesia which our species calls prehistory.

A speeding up of physical research at the Giza plateau would also be highly desirable – not only by Egyptologists determined to resist any threats to the scholarly status quo but by eclectic teams of investigators who could bring some of the newer sciences to bear on the challenges of this most

enigmatic and impenetrable of sites. The Chlorine-36 rock-exposure dating technique mentioned in Chapter Six, for example, looks like a particularly promising means of resolving the impasse over the antiquity of the Pyramids and the Sphinx.[32] Likewise, if the will is there, then a way can be found to get through to whatever lies beyond the little door concealed in the Great Pyramid 200 feet up the southern shaft of the Queen's Chamber. At the same time serious efforts should be made to investigate the contents of the large, square-edged and apparently man-made cavity in the bedrock, deep beneath the paws of the Sphinx, that was discovered when a seismic survey was carried out at the site in 1993.[33]

Last but not least, far away from Giza, I suspect that our efforts might also be repaid if we were to undertake a proper investigation of the subglacial landscapes of Antarctica –

much the most likely continent to hide the complete remains of a lost civilization. If we could establish what destroyed that civilization, then we might be in a better position to save ourselves from a similar cataclysmic fate.

In making these latter suggestions I am, of course, fully aware that there are many who will be scornful and will assert the uniformitarian view that 'all things will continue as they have done since the beginning of creation.'[34] But I am also aware that such 'scoffers in the last days'[35] are those who for one reason or another are deaf to the testimony of our forgotten ancestors. As we have seen, this testimony appears to be trying to tell us that a hideous calamity has indeed descended upon mankind from time to time, that on each occasion it has afflicted us suddenly, without warning and without mercy, like a thief in the night, and that it will certainly recur at some point in the future, obliging us –

unless we are well prepared – to begin again like orphaned children in complete ignorance of our true heritage.

Walking in the last days

Hopi Indian Reservation, May 1994: Across the high plains of Arizona, for days and days and days, a desolate wind had been blowing. As we drove across those plains towards the tiny village of Shungopovi, I went over in my mind all I had seen and done in the previous five years: my travels, my research, the false starts and dead-ends I had encountered, the lucky breaks, the moments when everything had come together, the moments when everything seemed about to fall apart.

I had travelled a long road to get here, I realized – far longer than the 300-mile freeway that had whisked us up

into these austere badlands from Phoenix, the state capital. Nor did I expect to return with any great degree of enlightenment.

Nevertheless, I had made this journey because the science of prophecy is still believed to be alive among the Hopi: Pueblo Indians, distantly related to the Aztecs of Mexico, whose numbers have been reduced by attrition and misery to barely 10,000.[36] Like the Ancient Maya whose descendants all across the Yucatan are convinced that the end of the world is coming in the year 2000 *y pico* (and a little),[37] the Hopi believe that we are walking in the last days, with a geological sword of Damocles hanging over us.[38] According to their myths, as we saw in Chapter Twenty-four:

> The first world was destroyed, as a punishment for human misdemeanours, by an all-consuming fire that came from above and below. The second world ended when the terrestrial globe toppled from its axis and

> everything was covered with ice. The third world ended in a universal flood. The present world is the fourth. Its fate will depend on whether or not its inhabitants behave in accordance with the Creator's plans …'[39]

I had come to Arizona to see whether the Hopi thought we were behaving in accordance with the Creator's plans …

The end of the world

The desolate wind, blowing across the high plains, shook and rattled the sides of the trailer-home we sat in. Beside me was Santha, who'd been everywhere with me, sharing the risks and the adventures, sharing the highs and the lows. Sitting across from us was our friend Ed Ponist, a medical-surgical nurse from Lansing, Michigan. A few years previously Ed had worked on the reservation for a while, and it was thanks to

his contacts that we were now here. On my right was Paul Sifki, a ninety-six-year-old Hopi elder of the Spider clan, and a leading spokesman of the traditions of his people. Beside him was his grand-daughter Melza Sifki, a handsome middle-aged woman who had offered to translate.

'I have heard,' I said, 'that the Hopi believe the end of the world is coming. Is this true?'

Paul Sifki was a small, wizened man, nut-brown in colour, dressed in jeans and a cambric shirt. Throughout our conversation he never once looked at me, but gazed intently ahead, as though he were searching for a familiar face in a distant crowd.

Melza put my question to him and a moment later translated her grandfather's reply: 'He says, "why do you want to know"?'

I explained that there were many reasons. The most

important was that I felt a sense of urgency: ‘My research has convinced me that there was an advanced civilization – long, long ago – that was destroyed in a terrible cataclysm. I fear that our own civilization may be destroyed by a similar cataclysm …’

There followed a long exchange in Hopi, then this translation: ‘He said that when he was a child, in the 1900s, there was a star that exploded – a star that had been up there in the sky for a long while … And he went to his grandfather and asked him to explain the meaning of this sign. His grandfather replied: “This is the way our own world will end – engulfed in flames … If people do not change their ways then the spirit that takes care of the world will become so frustrated with us that he will punish the world with flames and it will end just like that star ended.” That was what his grandfather said to him – that the earth would explode just

like that exploding star …’

‘So the feeling is that this world will end in fire … And having viewed the world for the past ninety years, does he believe that the behaviour of mankind has improved or worsened?’

‘He says it has not improved. We’re getting worse.’

‘So in his opinion, then, the end is coming?’

‘He said that the signs are already there to be seen … He said that nowadays nothing but the wind blows and that all we do is have a weapon pointed at one another. That shows how far apart we have drifted and how we feel towards each other now. There are no values any more – none at all – and people live any way they want, without morals or laws. These are the signs that the time has come …’

Melza paused in her translation, then added on her own account: ‘This terrible wind. It dries things out. It brings no

moisture. The way we see it, this kind of climate is a consequence of how we're living today – not just us, but your people as well.'

I noticed that her eyes had filled with tears while she was talking. 'I have a cornfield,' she continued, 'that's really dry. And I look up into the sky and try to pray for rain, but there is no rain, no clouds even … When we're like this we don't even know who we are.'

There was a long moment of silence and the wind rocked the trailer, blowing hard and steady across the mesa as evening fell around us.

I said quietly, 'Please ask your grandfather if he thinks that anything can now be done for the Hopi and for the rest of mankind?'

'The only thing he knows,' Melza replied when she had heard his answer, 'is that so long as the Hopi do not abandon

their traditions they may be able to help themselves and to help others. They have to hold on to what they believed in the past. They have to preserve their memories. These are the most important things … But my grandfather wants to tell you also, and for you to understand, that this earth is the work of an intelligent being, a spirit—a creative and intelligent spirit that has designed everything to be the way it is. My grandfather says that nothing is here just by chance, that nothing happens by accident – whether good or bad – and that there is a reason for everything that takes place …'

At the millstone grinding

When human beings from around the globe, and from many different cultures, share a powerful and overwhelming intuition that a cataclysm is approaching, we are within our

rights to ignore them. And when the voices of our distant ancestors, descending to us through myths and sacred architecture, speak to us of the physical obliteration of a great civilization in remote antiquity (and tell us that our own civilization is in jeopardy), we are entitled, if we wish, to stop our ears …

So it was, the Bible says, in the antediluvian world: 'For in those days, before the Flood, people were eating, drinking, taking wives, taking husbands, right up to the moment that Noah went into the Ark, and they suspected nothing till the flood came and swept all away.'[40]

In the same manner it has been prophesied that the next global destruction will fall upon us suddenly 'at an hour we do not suspect, like lightning striking in the east and flashing far into the west … The sun will be darkened, the moon will lose its brightness, the stars will fall from the sky and the

powers of heaven will be shaken … Then of two men in the fields, one is taken, one left; and of two women at the millstone grinding, one is taken, one left …’[41]

What has happened before can happen again. What has been done before can be done again.

And perhaps there is, indeed, nothing new under the sun …

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13 Jeremy Black and Anthony Green, *Gods, Demons and Symbols of Ancient Mesopotamia*, British Museum Press, 1992, pp. 46, 82–3.

14 Figures and measurements from *The Ancient Civilizations of Peru*, p. 92.

15 Ibid.

16 Ibid.

17 See Joseph Campbell, *The Hero with a Thousand Faces*, Paladin Books, London, 1988, p. 145.

18 Ibid., p. 146.

19 The calendrical function of the Gateway of the Sun is fully described and analysed by Posnansky in *Tiahuanacu: The Cradle of American Man*, volumes I–IV.

20 *Quaternary Extinctions: A Prehistoric Revolution*, Paul S. Martin, Richard G. Klein, eds. The University of Arizona Press, 1984, p. 85.

21 Ibid.

22 See *The Calendar of Tiahuanaco*, p. 47. Posnansky's work is also replete with references to Toxodon.

23 *Encyclopaedia Britannica*, 1991, 11:878.

24 Ibid., 9:516. See also *Quaternary Extinctions*, pp. 64–5.

25 *The Calendar of Tiahuanaco*, pp. 47–8.

26 *Tiahuanacu*, III, p. 57, 133–4, and plate XCII.

27 Ibid., I, pp. 137–9; *Quaternary Extinctions*, pp. 64–5.

28 *Tiahuanacu*, II, p. 4.

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1 *Tiahuanacu*, II, p. 156ff; III, p. 196.

2 Ibid., I, p. 39: 'An extensive series of canals and hydraulic works, dry at present, but which are all in communication with the former lake bed, are just so many more proofs of the extension of the lake as far as Tiahuanacu in this period.'

3 Ibid., II, p. 156.

4 *Bolivia*, p. 158.

5 *The Ancient Civilizations of Peru*, p. 93.

6 Ibid.

7 For example on the paving blocks above the Nilometer at

Elepantine Island, Aswan. I am indebted to US film maker Robert Gardner for pointing this similarity out to me.

8 *The Encyclopedia of Ancient Egypt* ed. Margaret Burson), Facts on File, New York and Oxford, 1991, p. 23.

9 *Tiahuanacu*, I, p. 55.

10 Ibid., I, p. 39.

11 Ibid., III, pp. 142–3.

12 Ibid., I, p. 57.

13 Ibid., I, p. 56, and II, p. 96.

14 Quoted in *Earth in Upheaval*, citing Sir Clemens Markham, pp. 75–6.

15 *Tiahuanacu*, III, p. 147.

16 Ibid.

17 David L. Browman, 'New Light on Andean Tiahuanaco',

in *American Scientist*, volume 69, 1981, pp. 410–12.

18 Ibid., p. 410. According to Browman: 'Plant domestication in the Altiplano required the simultaneous development of detoxifying techniques. The majority of the plants [which were in regular use in ancient Tiahuanaco] contain significant levels of toxins in an untreated state. For example, the potato species that are most resistant to frost and that grow best at high altitudes also contain the highest levels of glycoalkaloid solanine. In addition, the potato contains an inhibitor for a wide range of digestive enzymes necessary for breaking down proteins – a particularly unfortunate trait at high altitudes where differential partial oxygen pressure already impairs the chemistry of protein breakdown …'

The detoxification technique developed at Tiahuanaco to make these potatoes edible also had a preservative

effect. Indeed, each of these two important qualities was a by-product of the other. ‘Altiplano farmers’, explains Browman, ‘have, for several thousand years produced the freeze-dried potato, or *ch’uno*, by a process of freezing, leaching, and sun drying. The initial explanation for this process was that it produced a food product that could be stored for long periods of time … six years or more … But we can now suggest another rationale. Leaching and sun-drying are necessary to remove the majority of the solanine and to lower excessive nitrate levels, and the subsequent cooking of freeze-dried products destroys the inhibitors of digestive enzymes. Rather than arguing that freeze-drying was motivated only by a desire to produce a secure food base, one could hold that this technology was mandatory to make the potato available as a usable nutritive source. Both factors are clearly present.

‘The other plants identified as early domesticates at the Titicaca sites have similar levels of toxins, and all require the use of various detoxification techniques to make them suitable for human consumption. *Oca* has significant amounts of oxalates; *quinoa* and *canihua* have high levels of hydrocyanic acid and the alkaloid saponin; *amaranth* is a nitrate accumulator and has high levels of oxalates; *tarwi* contains the poisonous alkaloid lupinine; beans contain varying levels of the cyanogenetic glycoside phaseolunatin; and so on … In some cases the detoxifying procedures serendipitously result in an end-product that has excellent storage features, multiplying the beneficial effects of the technology. Where the detoxification technology does not have this added effect – for example, in the case of *quinoa*, *amaranth* and *tarwi* – the plants generally already have excellent natural storage

characteristics. There is as yet no satisfactory explanation for the development of these detoxification processes …' 'New Light on Andean Tiahuanaco'.

19 At the heart of the system were 'the earthen platforms about 3 feet high, 30–300 feet long and 10–30 feet wide. These elevated earthworks are separated by canals of similar dimensions and built out of the excavated soil. Over time the platforms were periodically fertilized with organic silt and nitrogen-rich algae scooped from the bottom of the canals during the dry season. Even today … the sediment in the old canals is much richer in nutrients than the soil of the surrounding plains.

'But the platform-canal system was not merely a way of enriching infertile ground. It also appears to have created a climate that both extended the high-altitude growing season and helped crops survive hard times. During the

area's frequent periods of drought, for example, the canals provided vital moisture, while the higher level of the platforms raised plants above the worst effects of the region's frequent floods. Moreover the canal water may have acted as a kind of thermal storage battery absorbing the sun's heat during the day and radiating it back into the freezing night, to create a blanket of relatively warm air over the growing plants.' *Feats and Wisdom of the Ancients*, pp. 56–7.

20 Ibid.

21 Evan Hadingham, *Lines to the Mountain Gods*, Harrap, London, 1987, p. 34.

22 'Aymara is rigorous and simple – which means that its syntactical rules always apply, and can be written out concisely in the sort of algebraic shorthand that

computers understand. Indeed, such is its purity that some historians think it did not just evolve, like other languages, but was actually constructed from scratch.' *Sunday Times*, London, 4 November 1984.

23 M. Betts, 'Ancient Language may Prove Key to Translation System', *Computerworld*, vol IX, No. 8, 25 February 1985, p. 30.

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2 Ronald Wright, *Time Among the Maya*, Futura Publications, London, 1991, pp. 343.

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16 Stuart J. Fiedel, *The Prehistory of the Americas*, (second edition), Cambridge University Press, 1992, pp. 312–13.

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18 *Mysteries of the Mexican Pyramids*, p. 286.

19 *World Mythology*, p. 240. See also *Encyclopaedia*

Britannica, 1991, 9:855, and Lewis Spence, *The Magic and Mysteries of Mexico*, Rider, London, 1922, pp. 49–50.

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1 Juan de Torquemada, *Monarchichia indiana*, volume I, cited in *Fair Gods and Stone Faces*, pp. 37–8.

2 *North America of Antiquity*, p. 268, cited in *Atlantis: The Antediluvian World*, p. 165.

3 *The Mythology of Mexico and Central America*, p. 161.

4 See Nigel Davis, *The Ancient Kingdoms of Mexico*, Penguin Books, London, 1990, p. 152; *The Gods and Symbols of Ancient Mexico and the Maya*, pp. 141–2.

5 *Fair Gods and Stone Faces*, pp. 98–9.

6 Ibid, p. 100.

7 Sylvanus Griswold Morley, *An Introduction to the Study of*

Maya Hieroglyphs (introduction by Eric S. Thompson), Dover Publications Inc., New York, 1975, pp. 16–17.

8 *New Larousse Encyclopaedia of Mythology*, Paul Hamlyn, London, 1989, pp. 437, 439.

9 Ibid., p. 437.

10 *Fair Gods and Stone Faces*, p. 62.

11 Not only obviously related but specifically related. Votan, for example, was often referred to as the grandson of Quetzalcoatl. Itzamana and Kukulkan were sometimes confused by the Indians who transmitted their legends to Spanish chroniclers shortly after the conquest. See *Fair Gods and Stone Faces*, p. 100.

12 *Mysteries of the Mexican Pyramids*, p. 347.

13 *New Larousse Encyclopaedia of Mythology*, p. 439.

14 James Bailey, *The God-Kings and the Titans*, Hodder and Stoughton, London, 1972, p. 206.

15 *Fair Gods and Stone Faces*, pp. 37–8.

16 According to the sixteenth century chronicler Bernardino de Sahagun: 'Quetzalcoatl was a great civilizing agent who entered Mexico at the head of a band of strangers. He imported the arts into the country and especially fostered agriculture. In his time maize was so large in the head that a man might not carry more than one stalk at a time and cotton grew in all colours without having to be dyed. He built spacious and elegant houses, and inculcated a type of religion which fostered peace.'

17 *The God-Kings and the Titans*, p. 57.

18 *Mexico*, pp. 194–5.

19 *The Gods and Symbols of Ancient Mexico and the Maya*, pp.

185, 188–9.

20 Ibid.

21 *New Larousse Encyclopaedia of Mythology*, p. 437.

22 *The Feathered Serpent and the Cross*, pp. 52–3.

23 *New Larousse Encyclopaedia of Mythology*, p. 436.

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25 *World Mythology*, p. 237.

26 *New Larousse Encyclopaedia of Mythology*, p. 437.

27 Ibid.

28 *Fair Gods and Stone Faces*, pp. 139–40.

29 *The Feathered Serpent and the Cross*, pp. 35, 66.

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2 Ibid., p. 12.

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4 *Mysteries of the Mexican Pyramids*, p. 6.

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18 Diego de Duran, 'Historia antiqua de la Nueve Espana', (1585), in Ignatius Donelly, *Atlantis: The Antediluvian World*, p. 200.

19 *Genesis* 11:1–9.

20 Reported in *Maps of the Ancient Sea Kings*, p. 199. See also *The God-Kings and the Titans*, p. 54, and *Mysteries of*

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21 Byron S. Cummings, *'Cuicuilco and the Archaic Culture of Mexico'*, *University of Arizona Bulletin*, volume IV:8, 15 November 1933.

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23 *The Riddle of the Pyramids*, p. 190.

24 Ibid.

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1 *The Gods and Symbols of Ancient Mexico and the Maya*, p. 126.

2 *Aztecs: Reign of Blood and Splendour*, p. 50.

3 *Fair Gods and Stone Faces*, pp. 139–40.

4 Ibid., p. 125.

5 *Mexico*, p. 637. See also *The Ancient Kingdoms of Mexico*, p. 24.

6 Ibid.

7 *Mexico*, p. 638.

8 Matthew W. Stirling, 'Discovering the New World's Oldest Dated Work of Man', *National Geographic Magazine*,

volume 76, August 1939, pp. 183–218 *passim*

9 Matthew W. Stirling, ‘Great Stone Faces of the Mexican Jungle’, *National Geographic Magazine*, volume 78, September 1940, pp. 314, 310.

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1 *The Prehistory of the Americas*, pp. 268–71. See also Jeremy A. Sabloff, *The Cities of Ancient Mexico: Reconstructing a Lost World*, Thames and Hudson, London, 1990, p. 35. *Breaking the Maya Code*, p. 61.

2 *The Prehistory of the Americas*, p. 268.

3 *Aztecs: Reign of Blood and Splendour*, p. 158.

4 'Olmec stone sculpture achieved a high, naturalistic plasticity, yet it has no surviving prototypes, as if this powerful ability to represent both nature and abstract concepts was a native invention of this early civilization.' *The Gods and Symbols of Ancient Mexico and the Maya*, p. 15; *The Ancient Kingdoms of Mexico*, p. 55: 'The proto-

Olmec phase remains an enigma … it is not really known at what time, or in what place, Olmec culture took on its very distinctive form.'

5 *The Ancient Kingdoms of Mexico*, p. 36.

6 *The Prehistory of the Americas*, p. 268.

7 Ibid., pp. 267–8. *The Ancient Kingdoms of Mexico*, p. 55.

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p. 192.

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4 Ibid.

5 *The Encyclopaedia of Ancient Egypt*, p. 85.

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7 *Popol Vuh: The Sacred Book of the Ancient Quiche Maya*,

(English version by Delia Goetz and Sylvanus G. Morley from the translation by Adrian Recinos), University of Oklahoma Press, 1991, p. 163.

8 Ibid., 164.

9 Ibid., p. 181; *The Mythology of Mexico and Central America*, p. 147.

10 *The Ancient Egyptian Pyramid Texts*, (trans. R. O. Faulkner), Oxford University Press, 1969. Numerous Utterances refer directly to the stellar rebirth of the King, e.g. 248, 264, 265, 268, and 570 ('I am a star which illumines the sky'), etc.

11 Ibid., Utt. 466, p. 155.

12 *The Ancient Egyptian Book of the Dead*, (trans. R. O. Faulkner), British Museum Publications, 1989.

13 *Pre-Hispanic Gods of Mexico*, p. 37.

14 *The Gods and Symbols of Ancient Mexico and the Maya*, pp. 128–9.

15 Reproduced in *National Geographic Magazine*, volume 176, Number 4, Washington DC, October 1989, p. 468: 'Double Comb is being taken to the underworld in a canoe guided by the "paddler twins", gods who appear prominently in Maya mythology. Other figures – an iguana, a monkey, a parrot, and a dog – accompany the dead ruler.' We learn more of the mythological significance of dogs in Part V of this book.

16 Details are reproduced in John Romer, *Valley of the Kings*, Michael O'Mara Books Limited, London, 1988, p. 167, and in J. A. West, *The Traveller's Key to Ancient Egypt*, Harrap Columbus, London, 1989, pp. 282–97.

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21 Henri Frankfort, *Kingship and the Gods*, University of Chicago Press, 1978, p. 134. *The Ancient Egyptian Pyramid Texts*, e. g. Utts. 20, 21.

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38 For further details, see *The Gods and Symbols of Ancient Mexico and the Maya*, p. 17: 'These buildings probably confirm knowledge of a large body of star lore.'

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16 The most accessible presentation of Stecchini's work is in the appendix he wrote for Peter Tompkins, *Secrets of the Great Pyramid*, pp. 287–382.

17 See *The Traveller's Key to Ancient Egypt*, p. 95.

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21 Ibid.

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3 Ibid., and *Myths from Mesopotamia*, p. no.

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> God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. And it repented the Lord that he had made man on the earth, and it grieved him at his heart … And God said, The end of all flesh is come before me; for the earth is filled with violence … And behold I, even I, do bring a flood of waters upon the earth to destroy all flesh wherein is the breath of life from under heaven; and everything that is in the earth shall die.

Saving only Noah and his family (whom he instructed to build a great survival ship 450 feet long × 75 feet wide × 45 feet high), and ordering the Hebrew patriarch to gather together breeding pairs of every living creature so that they too might be saved, the Lord then sent the flood:

> In the selfsame day entered Noah and Ham and Japheth, the sons of Noah, and Noah's wife, and the wives of his sons with them, into the

> Ark – they and every beast after his kind, and all the cattle after their kind, and every creeping thing that creepeth upon the earth after his kind, and every fowl after his kind, every bird of every sort. And they went in unto Noah into the Ark, two and two of all flesh wherein is the breath of life. And they that went in, went in male and female of all flesh, as God had commanded, and the Lord shut them in.
>
> And the flood was upon the earth; and the waters increased and bare up the ark, and it was lifted up above the earth. And the waters prevailed, and were increased greatly upon the earth; and the ark went upon the face of the waters. And the high hills that were under the whole heaven were covered … And every man was destroyed, all in whose nostrils was the breath of life, and Noah only remained alive, and they that were with him in the ark.

In due course, ‘in the seventh month in the seventeenth day of the month, the Ark came to rest upon the mountains of Ararat. And the waters decreased

continually until the tenth month’:

> And it came to pass at the end of forty days, that Noah opened the window of the ark which he had made: And he sent forth a raven, which went forth to and fro until the waters were dried up from the earth. Also he sent forth a dove from him, to see if the waters were abated from off the face of the ground; but the dove found no rest for the sole of her foot, and she returned unto him into the ark, for the waters were on the face of the whole earth.
>
> And he stayed yet another seven days; and again he sent forth the dove out of the ark. And the dove came in to him in the evening; and, lo, in her mouth was an olive leaf plucked off; so Noah knew that the waters were abated from off the earth … And Noah went forth … and builded an altar unto the Lord, and offered burnt offerings on the altar. And the Lord smelled the sweet savour …

8 *Maya History and Religion*, p. 332.

9 Sir J. G. Frazer, *Folklore in the Old Testament: Studies in Comparative Religion, Legend and Law* (Abridged Edition), Macmillan, London, 1923, p. 107.

10 Lenormant, writing in *Contemporary Review*, cited in *Atlantis: The Antediluvian World*, p. 99.

11 *Popol Vuh*, p. 90.

12 Ibid., p. 93.

13 *New Larousse Encyclopaedia of Mythology*, p. 440; *Atlantis: the Antediluvian World*, p. 105.

14 *Folklore in the Old Testament*, p. 104.

15 *New Larousse Encyclopaedia of Mythology*, p. 445.

16 *Folklore in the Old Testament*, p. 105.

17 Ibid., p. 101.

18 John Bierhorst, *The Mythology of South America*, William

Morrow & Co., New York, 1988, p. 165.

19 Ibid., pp. 165–6.

20 *New Larousse Encyclopaedia of Mythology*, p. 426.

21 *Folklore in the Old Testament*, pp. 111–12.

22 *New Larousse Encyclopaedia of Mythology*, p. 431.

23 Ibid., pp. 428–9; *Folklore in the Old Testament*, p. 115. In this version the character of Michabo is called Messou.

24 From Lynd's *History of the Dakotas*, cited in *Atlantis: the Antediluvian World*, p. 117.

25 Frederick A. Filby, *The Flood Reconsidered: A Review of the Evidences of Geology, Archaeology, Ancient Literature and the Bible*, Pickering and Inglis Ltd., London, 1970, p. 58. Andree was an eminent German geographer and anthropologist. His monograph on diluvial traditions is

described by J. G. Frazer (in *Folklore in the Old Testament*, pp. 46–7) as 'a model of sound learning and good sense set forth with the utmost clearness and conciseness …'

26 Reported in Charles Berlitz, *The Lost Ship of Noah*, W. H. Allen, London, 1989, p. 126.

27 *World Mythology*, pp. 26–7.

28 Ibid., p. 305.

29 *Folklore in the Old Testament*, p. 81.

30 Ibid.

31 *World Mythology*, p. 280.

32 E. Sykes, *Dictionary Of Non-Classical Mythology*, London, 1961, p. 119.

33 *New Larousse Encyclopaedia of Mythology*, pp. 460, 466.

34 C. Kerenyi, *The Gods of the Greeks*, Thames & Hudson,

London, 1974, pp. 226–9.

35 Ibid.

36 *World Mythology*, pp. 130–1.

37 *The Gods of the Greeks*, pp. 226–9.

38 *World Mythology*, pp. 130–1.

39 *New Larousse Encyclopaedia of Mythology*, p. 362.

40 Ibid., *Satapatha Brahmana*, (trans. Max Muller), cited in *Atlantis: the Antediluvian World*, p. 87.

41 Ibid. See also *Folklore in the Old Testament*, pp. 78–9.

42 *Encyclopaedia Britannica*, 1991, 7:798. *The Rig Veda*, Penguin Classics, London, 1981, pp. 100–1.

43 *The Encyclopaedia of Ancient Egypt*, p. 48.

44 From the Theban Recension of *The Egyptian Book of the Dead*, quoted in *From Fetish to God in Ancient Egypt*, p.

198.

45 *Genesis*, 6:11–13.

46 2 *Peter* 3:3–10.

47 See H. Murray, J. Crawford et al., *An Historical and Descriptive Account of China*, 2nd edition, 1836, volume I, p. 40. See also G. Schlegel, *Uranographie chinoise*, 1875, p. 740.

48 Warren, *Buddhism in Translations*, p. 322.

49 Ibid.

50 Dixon, *Oceanic Mythology*, p. 178.

51 *Worlds in Collision*, p. 35.

52 *Encyclopaedia Britannica*, 6:53.

53 *World Mythology*, p. 26. Details of the Hopi world destruction myths are in Frank Waters, *The Book of the*

Hopi, Penguin, London, 1977.

Chapter Twenty-Five

1 *The Bundahish* Chapters I, XXXI, XXXIV, cited in William F. Warren, *Paradise Found: The Cradle of the Human Race at the North Pole*, Houghton, Mifflin and Co., Boston, 1885, p. 282.

2 *Vendidad*, Fargard I, cited in Lokamanya Bal Gangadhar Tilak, *The Arctic Home in the Vedas*, Tilak Publishers, Poona, 1956, pp. 340–1.

3 *Vendidad*, Fargard II, cited in *The Arctic Home in the Vedas*, pp. 300, 353–4.

4 *New Larousse Encyclopaedia of Mythology*, p. 320.

5 West, *Pahlavi Texts* Part I, p. 17, London, 1880.

6 Ibid.; Justi, *Der Bundahish*, Leipzig, 1868, p. 5.

7 *The Arctic Home in the Vedas*, p. 390ff.

8 *The Mythology of South America*, pp. 143–4

9 Ibid., p. 144.

10 *Popol Vuh*, p. 178.

11 Ibid., p. 93.

12 *The Mythology of Mexico and Central America*, p. 41.

13 *Maya History and Religion*, p. 333.

14 See Chapter Twenty-four.

15 Ibid.

16 *National Geographic Magazine*, June 1962, p. 87.

17 *The Mythology of Mexico and Central America*, p. 79

18 *New Larousse Encyclopaedia of Mythology*, p. 481.

19 *The Mythology of all Races*, Cooper Square Publishers Inc.,

New York, 1964, volume X, p. 222.

20 See particularly the writings of Hyginus, cited in *Paradise Found*, p. 195. See also *The Gods of the Greeks*, p. 195.

21 *The Illustrated Guide to Classical Mythology*, p. 15–17.

22 The Iranian *Bundahish* tells us that the planets ran against the sky and created confusion in the entire cosmos.

23 *The Illustrated Guide to Classical Mythology*, p. 17.

24 *Folklore in the Old Testament*, p. 101.

25 *Maya History and Religion*, p. 336.

26 *The Mythology of South America*, pp. 140–2.

27 *New Larousse Encyclopaedia of Mythology*, pp. 275–7.

28 *Maya History and Religion*, p. 332.

Chapter Twenty-Six

1 Roger Lewin, *Human Evolution*, Blackwell Scientific Publications, Oxford, 1984, p. 74.

2 Donald C. Johanson and Maitland C. Eddy, *Lucy: The Beginnings of Humankind*, Paladin, London, 1982, in particular, pp. 28, 259–310.

3 Roger Lewin, *Human Evolution*, pp. 47–49, 53–6; *Encyclopaedia Britannica*, 6:27–8.

4 *Human Evolution*, p. 76.

5 *Encyclopaedia Britannica*, 1991, 18:831.

6 *Human Evolution*, p. 76.

7 Ibid., p. 72.

8 Ibid., p. 73.

9 Ibid., p. 73, 77.

10 *Encyclopaedia Britannica*, 1991, 12:712.

11 *Path of the Pole*, p. 146.

12 Ibid., p. 152; *Encyclopaedia Britannica*, 12:712.

13 John Imbrie and Katherine Palmer Imbrie, *Ice Ages: Solving the Mystery*, Enslow Publishers, New Jersey, 1979, p. 11.

14 Ibid., p. 120; *Encyclopaedia Britannica*, 12:783; *Human Evolution*, p. 73.

Chapter Twenty-Seven

1 Charles Darwin, *The Origin of Species*, Penguin, London, 1985, p. 322.

2 *Quaternary Extinctions*, pp. 360–1, 394.

3 Charles Darwin, *Journal of Researches into the Natural History and Geology of Countries Visited during the Voyage of HMS* Beagle *Round the World*; entry for 9 January 1834.

4 *Quaternary Extinctions*, pp. 360–1, 394.

5 Ibid., pp. 360–1; *The Path of the Pole*, p. 250.

6 *Quaternary Extinctions*, p. 360–1.

7 Ibid., p. 358.

8 Donald W. Patten, *The Biblical Flood and the Ice Epoch: A*

Study in Scientific History, Pacific Meridian Publishing Co., Seattle, 1966, p. 194.

9 *The Path of the Pole*, p. 258.

10 David M. Hopkins et al., *The Palaeoecology of Beringia*, Academic Press, New York, 1982, p. 309.

11 Professor Frank C. Hibben, *The Lost Americans*, cited in *The Path of the Pole*, p. 275ff.

12 F. Rainey, 'Archaeological Investigations in Central Alaska', *American Antiquity*, volume V, 1940, page 307.

13 *Path of the Pole*, p. 275ff.

14 *The Biblical Flood and the Ice Epoch*, p. 107–8.

15 A. P. Okladnikov, 'Excavations in the North' in *Vestiges of Ancient Cultures*, Soviet Union, 1951.

16 *The Path of the Pole*, p. 255.

17 A. P. Okladnikov, *Yakutia before its Incorporation into the Russian State*, McGill-Queens University Press, Montreal, 1970.

18 *The Path of the Pole*, p. 250.

19 *The Biblical Flood and the Ice Epoch*, p. 107. Wragnell, the explorer, observed on Bear Island (Medvizhi Ostrova) that the soil consisted of only sand, ice and such a quantity of mammoth bones that they seemed to be the chief substance of the island. On the Siberian mainland he observed that the tundra was dotted with mammoth tusks rather than Arctic shrubbery.

20 Georges Cuvier, *Revolutions and Catastrophes in the History of the Earth*, 1829.

21 Cited in *Path of the Pole*, p. 256.

22 Ivan T. Sanderson, 'Riddle of the Quick-Frozen Giants',

Saturday Evening Post, 16 January 1960, p. 82.

23 *Path of the Pole*, p. 256.

24 Ibid., p. 256. Winter temperatures fall to 56 degrees below zero.

25 Ibid., p. 277.

26 Ibid., p. 132.

27 R. S. Luss, *Fossils*, 1931, p. 28.

28 G. M. Price, *The New Geology*, 1923, p. 579.

29 Ibid.

30 *Earth In Upheaval*, p. 63

31 *Path of the Pole*, p. 133, 176.

32 *The Evolving Earth*, Guild Publishing, London, 1989, p. 30.

33 *Ice Ages: Solving the Mystery*, p. 64.

34 *Path of the Pole*, pp. 132–5.

35 Ibid., p. 137. A major change from glacial to post-glacial conditions occurred about 11,000 years ago. This temperature change was 'sharp and abrupt' (*Polar Wandering and Continental Drift*, Society of Economic Paleontologists and Mineralogists, Special Publication No. 10, Tulsa, 1953, p. 159). Dramatic climate change around 12,000 years ago is also reported in C.C. Langway and B. Lyle Hansen, *The Frozen Future: A Prophetic Report from Antarctica*, Quadrangle, New York, 1973, p. 202. See also *Ice Ages*, pp. 129, 142; see also *Quaternary Extinctions*, p. 357: 'The last 100,000 years of glacial expansion, as recorded by oxygen-isotope ratios in deep-sea cores from the Atlantic and the Equatorial Pacific, terminated ABRUPTLY around 12,000 years ago. A very rapid ice

melt caused a rapid rise in sea level … Detailed land fossils show a major movement of plant and animal species at the time, especially into formerly glaciated terrain. American megafaunal extinctions occurred during a time of rapid climatic change as seen in fossil pollen and small animal records.'

36 *Ice Ages*, p. 129.

37 *Path of the Pole*, p. 137.

38 'The relative change is shown by the change in the relative abundance of cold and warm water planktonic foraminfera, and the absolute change is given by oxygen isotope ratio determinations on the fauna.' *Polar Wandering*, p. 96.

39 The reader may recall that inexplicably warm conditions prevailed in the New Siberian Islands until this time, and

it is worth noting that many other islands in the Arctic Ocean were also unaffected for a long while by the widespread glaciations elsewhere (e.g. on Baffin Island the remains of alder and birch trees preserved in peat indicate a relatively warm climate extending at least from 30,000 to 17,000 years ago. It is also certain that large parts of Greenland remained enigmatically ice-free during the Ice Age. *Path of the Pole*, p. 93, 96.

40 *The Biblical Flood and the Ice Epoch*, p. 114; *Path of the Pole*, pp. 47–8.

41 *Ice Ages*, p. 11. *Biblical Flood and the Ice Epoch*, p. 117; *Path of the Pole*, p. 47.

42 *Ice Ages*, p. 11; *Biblical Flood and the Ice Epoch*, p. 114.

43 *Path of the Pole*, p. 150.

44 *Path of the Pole*, pp. 148–9, 152, 162–3. In North

America, where the ice reached its maximum extent between 17,000 and 16,500 years ago, geologists have made the following discoveries: ‘Leaves, needles and fruits’ that flourished around 15,300 years ago in Massachusetts; ‘A bog which developed over glacial material in New Jersey at least 16,280 years ago, immediately after the interruption of the ice advance.’; ‘In Ohio we have a postglacial sample dated about 14,000 years ago. And that was spruce wood, suggesting a forest that must have taken a few thousand years, by conservative estimate, to get established. What, indeed, does this mean? Does it not clearly suggest that the ice cap, estimated to have been at its maximum at least a mile thick in Ohio, disappeared from Delaware County in that state within only a few centuries?’

Likewise, ‘in the Soviet Union, in the Irkutsk area,

deglaciation was complete and postglacial life fully established by 14,500 years ago. In Lithuania another bog developed as early as 15,620 years ago. These two dates taken together are rather suggestive. A bog can develop much faster than a forest. First, however, the ice must disappear. And let us not forget that there was a great deal of ice.'

45 *Ice Ages*, p. 11, *Biblical Flood and the Ice Epoch*, p. 117, *Path of the Pole*, p. 47.

46 R. F. Flint, *Glacial Geology and the Pleistocene Epoch*, 1947, pp. 294–5.

47 Ibid., p. 362.

48 *Earth in Upheaval*, p. 43; in general, pp. 42–4.

49 Ibid., p. 47. Joseph Prestwich, *On Certain Phenomena Belonging to the Close of the Last Geological Period and on*

their Bearing upon the Tradition of the Flood, Macmillan, London, 1895, p. 36.

50 *On Certain Phenomena*, p. 48.

51 Ibid., p. 25–6.

52 Ibid., p. 50.

53 Ibid., p. 51–2.

54 J. S. Lee, *The Geology of China*, London, 1939, p. 370.

55 *Polar Wandering*, p. 165.

56 J. B. Delair and E.F. Oppe, 'The Evidence of Violent Extinction in South America', in *Path of the Pole* p. 292.

57 *Encyclopaedia Britannica*, 1:141.

58 Warren Upham, *The Glacial Lake Agassiz*, 1895, p. 240.

59 *Human Evolution*, p. 92.

60 Ibid.; see also *Quaternary Extinctions*, p. 375.

61 *Human Evolution*, p. 92.

Chapter Twenty-eight

1 *Hamlet's Mill*, pp. 57–8.

2 Figures from *Encyclopaedia Britannica*, 1991, 27:530.

3 Ibid.

4 J. D. Hays, John Imbrie, N.J. Shackleton, 'Variations in the Earth's Orbit, Pacemaker of the Ice Ages', *Science*, volume 194, No. 4270, 10 December 1976, p. 1125.

5 *The Biblical Flood and the Ice Epoch*, pp. 288–9. Fifteen trillion miles is equivalent to fifteen thousand billion miles.

6 *Ice Ages*, pp. 80–1.

7 *Earth in Upheaval*, p. 266.

8 *New York Times*, 15 April 1951.

9 Berossus, Fragments.

10 Skyglobe 3.6.

11 Roberta S. Sklower, 'Predicting Planetary Positions', appendix to Frank Waters, *Mexico Mystique*, Sage Books, Chicago, 1975, p. 285ff.

12 *Earth in Upheaval*, p. 138.

13 *Biblical Flood and the Ice Epoch*, p. 49.

14 Figures from *Encyclopaedia Britannica*, 1991, 27:530.

15 Ibid.

16 *Path of the Pole*, p. 3.

17 Jane B. Sellers, *The Death of Gods in Ancient Egypt*, Penguin, London, 1992, p. 205.

18 Skyglobe 3.6.

19 Precise figure from *The Death of Gods in Ancient Egypt*, p. 205.

Chapter Twenty-Nine

1 *Hamlet's Mill*, p. 59.

2 Ibid., p. 58.

3 *Encyclopaedia Britannica*, 1991, 5:937–8. See also *The Death of Gods in Ancient Egypt*, p. 205, where the precise figure of 50.274 is given.

4 *Hamlet's Mill*, p. 7.

5 Ibid.; *Death of Gods in Ancient Egypt*.

6 *Hamlet's Mill*, p. 65.

7 Ibid., p. 345.

8 Ibid., p. 418.

9 Ibid., p. 245.

10 Ibid., p. 132.

11 Ibid., pp. 4–5, 348.

12 Ibid., p. 5.

Chapter Thirty

1 Livio Catullo Stecchini, 'Notes on the Relation of Ancient Measures to the Great Pyramid', in *Secrets of the Great Pyramid*, pp. 381–2.

2 Martin Bernal, *Black Athena: The Afroasiatic Roots of Classical Civilization*, Vintage Books, London, 1991, p. 276.

3 The reader will recall from Chapter Twenty-five how Yggdrasil, the world tree itself, was not destroyed and how the progenitors of future humanity managed to shelter within its trunk until a new earth emerged from the ruins of the old. How likely is it to be pure *coincidence* that exactly the same strategy was adopted by survivors of the universal deluge as described in certain Central

American myths? Such links and crossovers in myth between the themes of precession and global catastrophe are extremely common.

4 *Hamlet's Mill*, p. 7.

5 *Grimnismol* 23, the Poetic *Edda*, p. 93, cied in *Death of Gods in Ancient Egypt*, p. 199; *Hamlet's Mill*, p. 162; Elsa Brita Titchenell, *The Masks of Odin*, Theosophical University Press, Pasadena, 1988, p. 168.

6 *Hamlet's Mill*, p. 232–3.

7 Ibid., p. 231.

8 *Yucatan before and after the Conquest*, p. 82.

9 See, for example, *The God-Kings and the Titans*, p. 64. It may also be relevant that other versions of 'the Bacabs' myth tell us that 'their slightest movement produces an earth tremor or even an earthquake' (*Maya History and*

Religion, p. 346).

10 *Hamlet's Mill*, p. 2.

11 Ibid.

12 *Grottasongr*, 'The Song of the Mill', in *The Masks of Odin*, p. 198.

13 Ibid., p. 201.

14 *Grottasongr*, cited in *Hamlet's Mill*, p. 89–90.

15 Ibid., p. 2.

16 Ibid.

17 Ibid., p. 232.

18 Ibid., p. 204.

19 *Odyssey* (Rouse translation), 20:103–19.

20 Trimalcho in Petronius, cited in *Hamlet's Mill*, p. 137.

21 John Milton, *Samson Agonistes*, 1:41.

22 *Judges*, 16:25–30.

23 In Japanese myth the Samson character is named Susanowo. See Post Wheeler, *The Sacred Scriptures of the Japanese*, New York, 1952, p. 44ff.

24 In slightly distorted form in the *Popol Vuh*'s account of the Twins and their 400 companions (see Chapter Nineteen). Zipcana, son of Vucub-Caquix sees the 400 youths dragging a huge log they want as a ridgepole for their house. Zipcana carries the tree without effort to the spot where a hole has been dug for the post to support the ridgepole. The youths try to kill Zipcana by crushing him in the hole, but he escapes and brings down the house on their heads, killing them all. *Popol Vuh*, pp. 99–101.

25 In Maori traditions the Samson character is known as

Whakatu. See Sir George Grey, *Polynesian Mythology*, London, 1956 (1st ed. 1858), p. 97ff.

26 Cited in *Hamlet's Mill*, pp. 104–8.

27 Ibid., p. 111.

28 Ibid., 233.

29 Ibid., 312.

30 James Mooney, 'Myths of the Cherokee', Washington, 1900, cited in *Hamlet's Mill*, pp. 249, 389; Jean Guard Monroe and Ray A. Williamson, *They Dance in the Sky: Native American Star Myths*, Houghton Mifflin Co., Boston, 1987, pp. 117–18.

31 *The Gods and Symbols of Ancient Mexico and the Maya*, p. 70.

32 Cited in *Hamlet's Mill*, p. 33.

33 Homer, *The Odyssey*, Book 17.

34 *Judges*, 15:4.

35 Saxo Grammaticus, in *Hamlet's Mill*, p. 13.

36 Ibid., p. 31.

37 Ibid., pp. 7, 31.

38 *World Mythology*, p. 139. It should also be noted that, like Samson, Orion was blind – the only blind figure in constellation mythology. See *Hamlet's Mill*, pp. 177–8.

39 Mercer, *The Religion of Ancient Egypt*, London, 1946, pp. 25, 112.

40 Ibid. *Death of Gods in Ancient Egypt*, p. 39: 'the ancient Egyptians are known to have identified Orion with Osiris'.

41 Also rendered Wapwewet and Ap-uaut. See, for example, E. A. Wallis Budge, *Gods of the Egyptians*, Methuen and

Co., London, 1904, vol II, pp. 366–7.

42 *The Egyptian Book of the Dead*, Introduction, p. L.

43 Ibid. Though a mill, as such, is nowhere to be seen, many Ancient Egyptian reliefs depict two of the principal characters in the Osiris myth (Horus and Seth) jointly operating a giant *drill*, again a classic symbol of precession. *Hamlet's Mill*, p. 162: 'This feature is continuously mislabelled the "uniting of the two countries" whether Horus and Seth serve the churn or, as is more often the case, the so-called Nile Gods.'

Chapter Thirty-One

1 *The Death of Gods in Ancient Egypt*, author biography.

2 For example by Robert Bauval in *The Orion Mystery*, pp. 144–5.

3 *The Death of Gods in Ancient Egypt*, p. 174.

4 This phrase was coined by Jane Sellers, whom also detected the precessional calculations embedded in the Osiris myth.

5 *The Egyptian Book of the Dead*, Introduction, page XLIX.

6 Cited in *The Death of Gods in Ancient Egypt*, p. 204.

7 Ibid.

8 Ibid., pp. 125–6ff; see also *The Ancient Egyptian Pyramid*

Texts.

9 *Death of Gods in Ancient Egypt*, p. 205.

10 Ibid.

11 Ibid.

12 Ibid., p. 196.

13 *Skywatchers of Ancient Mexico*, p. 143.

14 *Hamlet's Mill*, pp. 162–3; see also *Atlas of Mysterious Places*, pp. 168–70.

15 See, for example, *Feats and Wisdom of the Ancients*, Time-Life Books, 1990, p. 65.

16 Ananda K. Coomaraswamy and Sister Nivedita, *Myths of the Hindus and Buddhists*, George G. Harrap and Company, London, 1913, p. 384.

17 *Hamlet's Mill*, p. 162.

18 *Rig Veda*, 1:164, cited in *The Arctic Home in the Vedas*, p. 168.

19 Frances A. Yates, *Girodano Bruno and the Hermetic Tradition*, the University of Chicago Press, 1991, p. 93.

20 Personal communication from AMORC, San Jose, California, November 1994.

21 Leon Comber, *The Traditional Mysteries of the Chinese Secret Societies in Malaya*, Eastern Universities Press, Singapore, 1961, p. 52.

22 Ibid., p. 53.

23 Gustav Schlegel, *The Hung League*, Tynron Press, Scotland, 1991 (first published 1866), Introduction, p. XXXVII.

24 For fuller details see *The Hung League* and J. S. M. Ward, *The Hung Society*, Baskerville Press, London, 1925 (in

three volumes).

25 W. J. Wilkins, *Hindu Mythology: Vedic and Puranic*, Heritage Publishers, New Delhi, 1991, p. 353.

26 Ibid.

27 Ibid.

28 Ibid.

29 Ibid., pp. 353–4.

30 Ibid., p. 354.

31 Ibid., p. 247.

32 For details of these complicated family relationships, see *Egyptian Book of the Dead*, Introduction, p. XLVIIIff.

33 *The Gods of the Egyptians*, volume II, p. 366.

34 *The Traveller's Key to Ancient Egypt*, p. 71.

35 *Gods of the Egyptians*, II, p. 367.

36 *Hamlet's Mill*, p. 2.

37 *Egyptian Book of the Dead*, Introduction, p. XLIX-LI.

38 Ibid.

39 *Hamlet's Mill*, pp. 32–4.

40 Ibid., p. 33.

41 Ibid., p. 119.

Chapter Thirty-Two

1 See Chapter Twenty-four for details of flood myths. The same kind of convergence among supposedly unconnected myths also occurs with regard to precession of the equinoxes. The mills, the characters who work and own and eventually break them, the brothers and nephews and uncles, the theme of revenge, the theme of incest, the dogs that flit silently from story to story, and the exact *numbers* needed to calculate precessional motion – all crop up everywhere, from culture to culture and from age to age, propagating themselves effortlessly along the jet-stream of time.

2 *Diodorus Siculus*, Book I, 14:1–15, translated by C. H. Oldfather, Loeb Classical Library, London, 1989, pp. 47–9.

3 Galileo, cited in *Hamlet's Mill*, p. 10.

4 *Ice Ages*; John Imbrie et al., 'Variations in the Earth's Orbit: Pacemaker of the Ice Ages' in *Science*, volume 194, No. 4270, 10 December 1976.

5 *Hamlet's Mill*, pp. 138–9.

6 'Variations in the Earth's Orbit: Pacemaker of the Ice Ages'.

Chapter Thirty-Three

1 *The Pyramids of Egypt*, p. 208.

2 J. H. Cole, *Survey of Egypt*, paper no. 39: 'The Determination of the Exact Size and Orientation of the Great Pyramid of Giza', Cairo, 1925.

3 The conventional explanations, as given in *The Pyramids of Egypt*, for example, are entirely unsatisfactory, as Edwards himself admits; see pp. 85–7, 206–41.

4 Ibid., p. 87.

5 See Lionel Casson, *Ships and Seafaring in Ancient Times*, University of Texas Press, 1994, p. 17; *The Ra Expeditions*, p. 15.

6 *The Ra Expeditions*, p. 17.

7 *Traveller's Key to Ancient Egypt*, pp. 132–3.

8 *The Ra Expeditions*, p. 16.

9 See, for example, Christine Desroches-Noblecourt, *Tutankhamen*, Penguin Books, London, 1989, pages 89, 108, 113, 283.

10 A.J. Spencer, *The Great Pyramid Fact Sheet*, P.J. Publications, 1989.

Chapter Thirty-Four

1 *The Pyramids of Egypt*, p. 8.

2 Peter Lemesurier, *The Great Pyramid: Your Personal Guide*, Element Books, Shaftesbury, 1987, p. 225.

3 Dr Joseph Davidovits and Margie Morris, *The Pyramids: An Enigma Solved*, Dorset Press, New York, 1988, pp. 39–40.

4 Ibid., p. 37.

5 John Baines and Jaromir Malek, *Atlas of Ancient Egypt*, Time-Life Books, Virginia, 1990, p. 160; *The Pyramids of Egypt*, pp. 229–30.

6 *The Pyramids of Egypt*, p. 229.

7 Ibid., p. 85.

8 Ibid., p. 220.

9 *Atlas of Ancient Egypt*, p. 139.

10 Peter Hodges and Julian Keable, *How the Pyramids Were Built*, Element Books, Shaftesbury, 1989, p. 123.

11 Ibid., p. 11.

12 Ibid., p. 13.

13 Ibid., p. 125–6. Failure to reach the top would be because spiral ramps and linked scaffolds overlap and exceed the space available long before arrival at the summit.

14 Ibid., p. 126.

15 See Chapter Twenty-three; *The Pyramids of Egypt*, p. 219; *Atlas of Ancient Egypt*, p. 139.

16 Piazzi Smyth, *The Great Pyramid: Its Secrets and Mysteries*

Revealed, Bell Publishing Company, New York, 1990, p. 80.

17 *The Pyramids of Egypt*, p. 125.

18 Ibid., p. 87.

19 'One is irritated by the number of imbeciles' names written everywhere,' Gustave Flaubert commented in his *Letters From Egypt*. 'On the top of the Great Pyramid there is a certain Buffard, 79 rue St Martin, wallpaper manufacturer, in black letters.'

20 Skyglobe 3.6.

21 *How the Pyramids Were Built*, p. 4–5.

22 *Secrets of the Great Pyramid*, pp. 232, 244.

23 Ibid., p. 17.

24 Cited in *Traveller's Key to Ancient Egypt*, p. 90.

25 Ibid., p. 40. Chompollion of course, deciphered the Rosetta Stone.

Chapter Thirty-Five

1 Herodotus, *The History* (translated by David Grene), University of Chicago Press, 1987, pp. 187–9.

2 *The Riddle of the Pyramids*, p. 54.

3 Ibid., p. 55.

4 George Hart, *Pharaohs and Pyramids*, Guild Publishing, London, 1991, p. 91.

5 *Atlas of Ancient Egypt*, p. 36.

6 *The Pyramids of Egypt*, pp. 94–5.

7 *The Pyramids of Egypt* by Professor I. E. S. Edwards is the standard text on the pyramids.

8 W. M. Flinders Petrie, *The Pyramids and Temples of Gizeh*

(New and Revised Edition), Histories and Mysteries of Man Ltd., London, 1990, p. 21.

9 John Greaves, *Pyramidographia*, cited in *Serpent in the Sky*, p. 230.

10 *Secrets of the Great Pyramid*, p. 11.

11 *The Traveller's Key to Ancient Egypt*, p. 120.

12 *Secrets of the Great Pyramid*, p. 58.

13 *The Geography of Strabo*, (trans. H. L. Jones), Wm. Heinemann, London, 1982, volume VIII, pp. 91–3.

14 *Secrets of the Great Pyramid*, p. 58.

15 In general, it is assumed to have been used as an escape route by workers sealed within the pyramid above the plugging blocks in the ascending passage.

16 Because, over a distance of several hundred feet through

solid masonry, it joins two narrow corridors. This could not have been achieved by accident.

17 *Secrets of the Great Pyramid*, pp. 56–8.

18 See Nicholas Reeves, *The Complete Tutankhamun*, Thames & Hudson, London, 1990.

19 See *Valley of the Kings*; for Saqqara (Fifth and Sixth Dynasties) see *Traveller's Key to Ancient Egypt*, pp. 163–7.

20 *The Pyramids of Egypt*, p. 211–12; *The Great Pyramid: Your Personal Guide*, p. 71.

21 *Pyramids of Egypt*, pp. 96.

22 *Secrets of the Great Pyramid*, p. 35–6.

23 Zecharia Sitchin, *The Stairway To Heaven*, Avon Books, New York, 1983, pp. 253–82.

24 Ibid.

25 James Henry Breasted, *Ancient Records of Egypt: Historical Documents from the Earliest Times to the Persian Conquest*, reprinted by Histories and Mysteries of Man Ltd., London, 1988, pp. 83–5.

26 Ibid., p. 85.

27 Ibid., p. 84.

28 Ibid., and *Travellers Key to Ancient Egypt*, p. 139.

Chapter Thirty-Six

1 *Atlas of Ancient Egypt*, p. 36

2 *The Orion Mystery*.

3 Abdul Latif, *The Eastern Key*, cited in *Traveller's Key to Ancient Egypt*, p. 126.

4 Ibid.

5 *Blue Guide*: Egypt, A & C Black, London, 1988, p. 433.

6 *The Pyramids of Egypt*, p. 127.

7 It was in this chamber that Vyse found the intrusive burial (of bones and a wooden coffin lid) referred to in Chapter Thirty-Five. The basalt coffin where he also found (later lost at sea) is believed to have been part of the same

intrusive burial and to have not been older than the Twenty-sixth Dynasty. See, for example, *Blue Guide*, *Egypt*, p. 433.

8 *The Pyramids of Egypt*, p. 220.

9 See, for example, *Osiris and the Egyptian Resurrection*, volume II, p. 180.

10 *The Pyramids of Egypt*, p. 117.

11 *Traveller's Key to Ancient Egypt*, p. 123.

12 *The Riddle of the Pyramids*, p. 49.

13 Ibid., pp. 36–9.

14 Ibid., p. 74.

15 Ibid., p. 42.

16 Ibid.

17 *The Traveller's Key to Ancient Egypt*, p. 123; *The Pyramids*

Of Egypt, p. 118.

Chapter Thirty-Seven

1 *Diodorus Siculus*, Harvard University Press, 1989, p. 217.

2 *The Pyramids of Egypt*, p. 88; *The Great Pyramid: Your Personal Guide*, pp. 30–1.

3 In the isolated Valley of the Kings in Luxor in upper Egypt, for example.

4 *The Pyramids and Temples of Gizeh*, p. 19.

5 Discussed in *Secrets of the Great Pyramid*, p. 236ff.

6 Dimension from *The Traveller's Key to Ancient Egypt*, p. 114.

7 *Secrets of the Great Pyramid*, p. 236ff.

8 *The Pyramids of Egypt*, p. 91.

9 Ibid., p. 88.

10 Or 51° 50’ 35” to be exact, Ibid., page 87; *Traveller’s Key to Ancient Egypt*, p. 112.

11 See Chapter Twenty-three.

12 Ibid.

13 *The Pyramids of Egypt*, p. 93.

14 Dimensions from *Traveller’s Key to Ancient Egypt*, p. 121, and *The Pyramids of Egypt*, p. 93.

15 *The Pyramids and Temples of Gizeh*, p. 24.

16 *The Pyramids of Egypt*, p. 92.

17 *The Great Pyramid: Its Secrets and Mysteries Revealed*, p. 428.

18 Ibid.

19 Presentation at the British Museum, 22 November 1993,

by Rudolf Gantenbrink, of footage shot in the shafts by the robot camera *Upuaut*.

20 *The Pyramids of Egypt*, pp. 92–3.

21 Ibid., p. 92; *The Pyramids and Temples of Gizeh*, p. 23.

22 *The Pyramids of Egypt*, p. 92.

23 Ibid., p. 93; *Traveller's Key to Ancient Egypt*, p. 115.

24 *The Pyramids of Egypt*, p. 93.

25 *Traveller's Key to Ancient Egypt*, p. 115.

26 *The Ancient Egyptian Pyramid Texts*, p. 281, Utt. 667A.

27 *The Pyramids and Temples of Gizeh*, p. 25.

Chapter Thirty-Eight

1 *The Pyramids and Temples of Gizeh*, p. 25.

2 *The Pyramids of Egypt*, p. 94.

3 *The Pyramids and Temples of Gizeh*, p. 36.

4 *The Pyramids of Egypt*, pp. 94–5; *The Great Pyramid: Your Personal Guide*, p. 64.

5 *The Pyramids of Egypt*, pp. 94–5.

6 *The Pyramids and Temples of Gizeh*, p. 30.

7 Ibid., p. 95.

8 Livio Catullo Stecchini in *Secrets of the Great Pyramid*, p. 322. Stecchini gives slightly more accurate measures than those of Petrie (quoted) for the internal and external

dimensions of the pyramid.

9 *Secrets of the Great Pyramid*, p. 103.

10 *The Pyramids and Temples of Gizeh*, p. 74.

11 Ibid., p. 76.

12 Ibid., p. 78.

13 Ibid.

14 Ibid., pp. 74–5.

15 *The Pyramids: An Enigma Solved*, p. 8.

16 *The Pyramids and Temples of Gizeh*, p. 75.

17 *The Pyramids: An Enigma Solved*, p. 118.

18 *Egypt: Land of the Pharaohs*, Time-Life Books, 1992, p. 51.

19 *Atlas of Ancient Egypt*, p. 36.

20 For example, see Cyril Aldred, *Egypt to the End of the Old*

Kingdom, Thames & Hudson, London, 1988, p. 25.

21 Ibid., p. 57. The relevant artefacts are in the Cairo Museum.

22 Reported in P. W. Roberts, *River in the Desert: Modern Travels in Ancient Egypt*, Random House, New York and Toronto, 1993, p. 115.

23 Robert Bauval, *Discussions in Egyptology* No. 29, 1994.

24 Ibid.

25 Ibid. See also *The Orion Mystery*, p. 172.

26 *Traveller's Key to Ancient Egypt*, p. 117; *The Great Pyramid: Your Personal Guide*, p. 64.

27 John Ivimy, *The Sphinx and the Megaliths*, Abacus, London, 1976, p. 118.

28 Ibid.

29 *Secrets of the Great Pyramid*, p. 191.

30 Ibid. See also *Traveller's Key to Ancient Egypt*, pp. 117–19.

31 *The Great Pyramid: Your Personal Guide*, p. 64.

32 *The Pyramids and Temples of Gizeh*, p. 93.

Chapter Thirty-Nine

1 Measurements from *The Pyramids of Egypt*, p. 106.

2 W. B. Yeats, 'The Second Coming'.

3 *The Pyramids and Temples of Gizeh*, p. 48.

4 Ibid., p. 50.

5 Margaret A. Murray, *The Splendour that was Egypt*, Sidgwick & Jackson, London, 1987, pp. 160–1.

6 See Part VII, for a full discussion of the 'First Time'.

7 Discussed in Part VII; see also Part III for a comparison of the Osirian rebirth cult and of the rebirth beliefs of Ancient Mexico.

8 *The Pyramids and Temples of Gizeh*, p. 47.

9 Measurements from *The Pyramids and Temples of Egypt*, p. 48, and *The Pyramids of Egypt*, p. 108.

10 In addition to the three Giza pyramids, the Mortuary Temples of Khafre and Menkaure can be compared with the Valley Temple in terms of their absence of adornment and use of megaliths weighing 200 tons or more.

11 *Serpent in the Sky*, p. 211; also *Mystery of the Sphinx*, NBC-TV, 1993.

12 For block weights see *The Pyramids of Egypt*, p. 215; *Serpent in the Sky*, p. 242; *The Traveller's Key to Ancient Egypt*, p. 144; *The Pyramids: An Enigma Solved*, p. 51; *Mystery of the Sphinx*, NBC-TV, 1993.

13 Personal communication from John Anthony West. See also *Mystery of the Sphinx*, NBC-TV.

14 *Ancient Records of Egypt*, volume I, p. 85.

15 See, for example, Miriam Lichtheim, *Ancient Egyptian Literature*, University of California Press, 1976, volume II, pp. 85–6.

16 *Ancient Records of Egypt*, volume I, p. 85.

17 *A History of Egypt*, 1902, volume 4, p. 80ff, 'Stela of the Sphinx'.

18 Ibid.

19 Karl W. Butzer, *Early Hydraulic Civilization in Egypt: A Study in Cultural Ecology*, University of Chicago Press, 1976.

20 *The Pyramids of Egypt*, pp. 106–7.

21 Mark Lehner, 1992 AAAS Annual Meeting, Debate: How Old is the Sphinx?

22 Ibid.

23 Gaston Maspero, *The Passing of Empires*, New York, 1900.

24 See Chapter Thirty-five.

25 For a general summary of these views see John Ward, *Pyramids and Progress*, London, 1900, pp. 38–42.

26 *The Gods of the Egyptians*, volume I, pp. 471–2 and volume II, p. 361.

27 Interview in *Mystery of the Sphinx*, NBC-TV, 1993.

28 Cited in *Serpent In The Sky*, p. 230.

29 Ibid., pp. 230–2; *Mystery of the Sphinx*, NBC-TV.

30 At least one orthodox Egyptologist, Selim Hassan, has admitted that the jury is still out on this issue. After twenty years of excavations at Giza he wrote, 'Except for the mutilated line on the Granite Stela of Thutmosis IV, which proves nothing, there is not one single ancient

inscription which connects the Sphinx with Khafre. So, sound as it may appear, we must treat this evidence as circumstantial until such a time as a lucky turn of the spade will reveal to the world definite reference to the erection of this statue.' Cited in *Conde Nast Traveller*, February 1993, pp. 168–9.

Chapter Forty

1 See, for example, Rosalie David, *A Guide to Religious Ritual at Abydos*, Aris and Phillips, Warminster, 1981, in particular p. 121.

2 *The Gods of the Egyptians*, volume II, pp. 262–6.

3 Lucy Lamy, *Egyptian Mysteries*, Thames & Hudson, London, 1986, p. 93.

4 Jean-Pierre Corteggiani, *The Egypt of the Pharaohs at the Cairo Museum*, Scala Publications, London, 1987, p. 118.

5 Ibid.; see also R. A. Schwaller de Lubicz, *Sacred Science: The King of Pharaonic Theocracy*, Inner Traditions International, Rochester, 1988, pp. 182–3.

6 *The Orion Mystery*.

7 Ibid.

8 Ibid.

9 *Serpent in the Sky*, pp. 184–242.

10 Ibid., 186–7.

11 Ibid.

12 *Mystery of the Sphinx*, NBC-TV, 1993.

13 *Conde Nast Traveller*, February 1993, p. 176.

14 E.g, American Association for the Advancement of Science, Chicago, 1992, Debate: How Old is the Sphinx?

15 *Mystery of the Sphinx*.

16 John West and Robert Bauval worked in isolation, unaware of each other's fiindings, until I introduced them.

17 *The Gods of the Egyptians*, volume II, p. 264.

18 *Blue Guide*, *Egypt*, p. 509; see also *From Fetish to God in Ancient Egypt*, pp. 211–15; *Osiris and the Egyptian Resurrection*, volume I, p. 31ff; *The Encyclopaedia of Ancient Egypt*, p. 197.

Chapter Forty-One

1 ‘Saqqara, Egypt: Archaeologists have discovered a green limestone obelisk, the world’s oldest-known complete obelisk, dedicated to Inty, a wife of Pharaoh Pepi I, Egypt’s ruler almost 4300 years ago, who was regarded as a goddess after her death.’ *Times*, London, 9 May 1992; see also *Daily Telegraph*, London, 9 May 1992.

2 *Atlas of Ancient Egypt*, pp. 173–4; Rosalie and Anthony E. David, *A Biographical Dictionary of Ancient Egypt*, Seaby, London, 1992, pp. 133–4; *Blue Guide*, *Egypt*, p. 413.

3 *The Encyclopaedia of Ancient Egypt*, p. 110.

4 George Hart, *Egyptian Myths*, British Museum Publications, 1990, p. 11.

5 *The Encyclopaedia of Ancient Egypt*, p. 110; *Traveller's Key to Ancient Egypt*, p. 66; *From Fetish to God in Ancient Egypt*, p. 140.

6 Papyrus of Nesiamsu, cited in *Sacred Science: The King of Pharaonic Theocracy*, pp. 188–9; see also *From Fetish to God in Ancient Egypt*, pp. 141–3.

7 *From Fetish to God in Ancient Egypt*, p. 142. In other readings Shu and Tefnut were spat out by Ra-Atum.

8 *New Larousse Encyclopaedia of Mythology*, p. 27. The figure 3126 is given in some accounts.

9 *The Pyramids: An Enigma Solved*, p. 13; C. Jacq, *Egyptian Magic*, Aris and Phillips, Warminster, 1985, p. 8; *The Death of Gods in Ancient Egypt*, p. 36.

10 *Kingship and the Gods*, p. 153.

11 *The Ancient Egyptian Pyramid Texts*, p. 246.

12 For a more detailed discussion see *The Orion Mystery*, p. 17. Bauval suggests that the Benben may have been an oriented meteorite: 'From depictions it would seem that this meteorite was from six to fifteen tons in mass … the frightful spectacle of its fiery fall would have been very impressive …', p. 204.

13 *The Penguin Dictionary of Religions*, Penguin Books, London, 1988, p. 166.

14 E.g. *The Egyptian Book of the Dead*, Introduction, p. XLIX; *Osiris And The Egyptian Resurrection*, volume II, pp. 1–11.

15 *Traveller's Key to Ancient Egypt*, p. 159.

16 Ibid., p. 158.

17 *Atlas of Ancient Egypt*, p. 36.

18 *From Fetish to God in Ancient Egypt*, p. 147: 'Judging by the Pyramid Texts, the priests of Heliopolis borrowed very

largely from the religious beliefs of the predynastic Egyptians …' See also *The Ancient Egyptian Book of the Dead*, p. 11.

19 *The Orion Mystery*, pp. 57–8.

20 *Traveller's Key to Ancient Egypt*, pp. 166; *The Ancient Egyptian Pyramid Texts*, p. V: 'The Pyramid Texts … include very ancient texts … There are many mythological and other allusions of which the purport is obscure to the translator of today …'

21 *The Ancient Egyptian Pyramid Texts*.

22 Ibid., p. v.

23 James Henry Breasted, *The Dawn of Conscience*, Charles Scribner's Sons, New York, 1944, p. 69.

Chapter Forty-Two

1 *The Ancient Egyptian Pyramid Texts*, lines 882, 883; see also, *inter alia*, lines 2115 and 2116.

2 *The Gods of the Egyptians*, volume I, p. 117.

3 He did so on 28 February 1881; see *The Orion Mystery*, p. 59.

4 *The Ancient Egyptian Pyramid Texts*, p. v.

5 Ibid., p. 227, Utt. 572.

6 Ibid., p. 297, Utt. 688: 'Atum has done what he said he would do for this King; he ties the rope-ladder for him.'

7 *The Gods of the Egyptians*, volume II, p. 241.

8 *The Ancient Egyptian Pyramid Texts*, p. 70, Utt. 261.

9 Ibid., p. 97.

10 Ibid., p. 107.

11 Ibid., p. 284.

12 Ibid., p. 249, Utt. 604.

13 Ibid., pp. 253–4, Utt. 610.

14 Ibid., p. 280, Utt. 667.

15 Ibid., p. 170, Utt. 483.

16 Ibid., p. 287, Utt. 673.

17 B. Scheel, *Egyptian Metalworking and Tools*, Shire Egyptology, Aylesbury, 1989; G. A. Wainwright, 'Iron in Egypt', *Journal of Egyptian Archaeology*, vol. 18, 1931.

18 *The Ancient Egyptian Pyramid Texts*, pp. 276, 105, 294, 311.

19 *Egyptian Metalworking and Tools*, p. 17; 'Iron in Egypt', p.

6ff.

20 Among the many mysterious aspects of the Pyramid Texts it is perhaps inevitable that a fully qualified Opener of the Ways should put in an appearance. 'The doors of the sky are opened to you, the starry sky is thrown open for you, the jackal of upper Egypt comes down to you as Anubis at your side.' (*The Ancient Egyptian Pyramid Texts*, pp. 288–9, Utt. 675.) Here, as in other contexts, the function of the canine figure seems to be to serve as a *guide* to secret hoards of esoteric information often linked to mathematics and astronomy.

21 See Part V for full details.

22 Ibid.

23 *Myth and Symbol in Ancient Egypt*, p. 181.

24 The pouring fire allusion is cited in Jean-Pierre Hallet,

Pygmy Kitabu, p. 185.

25 *Myth and Symbol in Ancient Egypt*, p. 181–5.

26 Ibid., p. 184.

27 Ibid., p. 185.

28 *The Gods of the Egyptians*, volume II, p. 94.

29 Ibid., p. 92–4.

30 Ibid., p. 93.

31 Skyglobe 3.6.

32 See Part IV.

33 For a detailed discussion see *Sacred Science: The King of Pharaonic Theocracy*.

34 The issue of priestly secrecy and the oral tradition is discussed at length in *From Fetish to God in Ancient Egypt*, e.g. p. 43: 'It is impossible to think that the highest order

of the priests did not possess esoteric knowledge which they guarded with the greatest care. Each priesthood … possessed a "Gnosis", a "superiority of knowledge", which they never put into writing … It is therefore absurd to expect to find in Egyptian papyri descriptions of the secrets which formed the esoteric knowledge of the priests.' See also page 27, and *Sacred Science*, pp. 273–4.

35 Pyramid Texts cited in *The Gods of the Egyptians*, volume I, p. 158.

36 *Osiris and the Egyptian Resurrection*, volume I, p. 146.

37 *Sacred Science*, pp. 22–5, 29.

38 *Osiris and the Egyptian Resurrection*, volume I, p. 93.

39 *Encyclopaedia Britannica*, 1991, 10:845.

40 *The Sirius Mystery*.

41 Ibid., p. 3.

42 Ibid., p. 1.

43 See Part III.

44 *The Egyptian Book of the Dead*, p. cxi.

45 Ibid., p. cxviii. See also *The Gods of the Egyptians*, volume I, p. 400.

46 *The Egyptian Book of the Dead*, p. 8.

47 *Osiris and the Egyptian Resurrection*, volume II, p. 248.

48 For a full discussion see *Death of Gods in Ancient Egypt*, particularly pp. 328–30.

49 *Sacred Science*, p. 27.

50 *Death of Gods in Ancient Egypt*, p. 27.

51 *Sacred Science*, p. 172.

52 Ibid., p. 26–7. For numbers of stars visible to the naked eye see Ian Ridpath and Wil Tirion, *Collins Guide to Stars and Planets*, London, 1984, p. 4.

53 *Sacred Science*, p. 173.

54 *The Ancient Egyptian Pyramid Texts*, p. 165, line 964. *Sacred Science*, p. 287.

55 *The Ancient Egyptian Pyramid Texts*, pp. 165, 284; *Sacred Science*, in particular p. 287ff.

56 The established archaeological horizon of the calendar can indeed be pushed back even further because of the recent discovery, in a First Dynasty tomb in upper Egypt, of an inscription reading, 'Sothis, herald of the New Year' (reported in *Death of Gods in Ancient Egypt*, p. 40.)

57 *Sacred Science*, p. 290.

58 Ibid., p. 27.

59 E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary*, (2 volumes), John Murray, London, 1920.

60 *From Fetish to God In Ancient Egypt*, pp. 321–2.

61 Ibid., p. 322.

62 *Atlas of Ancient Egypt*, p. 36.

63 *Myth and Symbol in Ancient Egypt*, p. 263.

Chapter Forty-Three

1 *Myth and Symbol in Ancient Egypt*, pp. 263–4; see also Nicolas Grimal, *A History of Ancient Egypt*, Blackwell, Cambridge, 1992, p. 46.

2 *New Larousse Encyclopaedia of Mythology*, *p. 16*.

3 *The Gods of the Egyptians*, volume I, pp. 84, 161; *The Ancient Egyptian Pyramid Texts*, pp. 124, 308.

4 *Osiris And The Egyptian Resurrection*, volume I, p. 352.

5 Michael Hoffman, *Egypt before the Pharaohs*, Michael O'Mara Books, 1991, pp. 12–13; *Archaic Egypt*, pp. 21–3; *The Encyclopaedia of Ancient Egypt*, pp. 138–9.

6 *Egypt before the Pharaohs*, pp. 12–13; *The Encyclopaedia of Ancient Egypt*, pp. 200, 268.

7 *Egypt before the Pharaohs*, p. 12.

8 *Archaic Egypt*, p. 23; *Manetho*, (trans. W. G. Waddell), William Heinemann, London, 1940, Introduction pp. xvi-xvii.

9 *Egypt before the Pharaohs*, p. 11.

10 Ibid., p. 11–13; *Archaic Egypt*, pp. 5, 23.

11 See, for example, *Egypt before the Pharaohs*, pp. 11–13.

12 This is a particularly important point to remember in a discipline like Egyptology where so much of the record of the past has been lost through looting, the ravages of time, and the activities of archaeologists and treasure hunters. Besides, vast numbers of Ancient Egyptian sites have not been investigated at all, and many more may lie out of our reach beneath the millennial silt of the Nile Delta (or beneath the suburbs of Cairo for that matter),

and even at well-studied locations such as the Giza necropolis there are huge areas – the bedrock beneath the Sphinx for example – which still await the attentions of the excavator.

13 *Manetho*, p. 3.

14 Ibid., pp. 3–5.

15 Ibid., p. 5.

16 *Encyclopaedia Britannica*, 1991, 12:214–15.

17 *Manetho*, p. 5.

18 There is absolutely no evidence that the Ancient Egyptians *ever* confused years and months, or styled one as the other; ibid, p. 4, note 2.

19 Ibid., p. 7.

20 Ibid., p. 15.

21 Ibid., p. 231; see also *The Splendour that was Egypt*, p. 12.

22 Like the Maya, (see Part III), the Ancient Egyptians made use for administrative purposes of a civil calendar year (or vague year) of 365 days exactly. See *Skywatchers of Ancient Mexico*, p. 151, for further details on the Maya vague year. The Ancient Egyptian civil calendar year was geared to the Sothic year so that both would coincide on the same day/month position once every 1461 calendar years.

23 *Diodorus Siculus*, translated by C.H. Oldfather, Harvard University Press, 1989, jacket text.

24 Ibid., volume I, p. 157.

25 *The History*, pp. 193–4. In the first century AD a similar tradition was recorded by the Roman scholar Pomponious Mela: 'The Egyptians pride themselves on being the most

ancient people in the world. In their authentic annals one may read that since they have been in existence, the course of the stars has changed direction four times, and that the sun has set twice in the part of the sky where it rises today.' (Pomponious Mela, *De Situ Orbis*.)

26 *Sacred Science*, p. 87

27 As the following table makes clear:

VERNAL EQUINOX	SUNRISE	IN OPPOSITION (DUE WEST) AT SUNRISE
Fifth century BC (time of Herodotus)	Aries	Libra
Approx 13,000 years before Herodotus	Libra	Aries

Approx 26,000 years before Herodotus	Aries	Libra
Approx 39,000 years before Herodotus	Libra	Aries

28 See, for example, Sir A.H. Gardner, *The Royal Cannon of Turin*, Griffith Institute, Oxford.

29 *Archaic Egypt*, p. 4.

30 For further details, *Sacred Science*, p. 86.

31 Ibid., p. 86. See also *Egyptian Mysteries*, p. 68.

32 *Archaic Egypt*, p. 5; *Encyclopaedia of Ancient Egypt*, p. 200.

33 *Archaic Egypt*, p. 5; *Encyclopaedia Britannica*, 1991, 9:81.

34 *Encyclopaedia of Ancient Egypt*, p. 200.

35 *Archaic Egypt*, p. 5.

36 *Egypt to the End of the Old Kingdom*, p. 12.

Chapter Forty-Four

1 *Kingship and the Gods*, pp. 181–2; *The Encyclopaedia of Ancient Egypt*, pp. 209, 264; *Egyptian Myths*, pp. 18–22. See also T. G. H. James, *An Introduction to Ancient Egypt*, British Museum Publications, London, 1979, p. 145ff.

2 Cyril Aldred, *Akhenaton*, Abacus, London, 1968, p. 25: 'It was believed that the gods had ruled in Egypt after first making it perfect.'

3 *Kingship and the Gods*, pp. 153–5; *Egyptian Myths*, pp. 18–22; *Egyptian Mysteries*, pp. 8–11; *New Larousse Encyclopaedia of Mythology*, pp. 10–28.

4 See Part IV.

5 *Diodorus Siculus*, volume I, p. 37.

6 Ibid.

7 *Mystic Places*, Time-Life Books, 1987, p. 62.

8 *Early Hydraulic Civilization in Egypt*, p. 13; *Egypt before the Pharaohs*, pp. 27, 261.

9 *New Larousse Encyclopaedia of Mythology*, p. 11.

10 Ibid., p. 13.

11 Ibid., pp. 14–15.

12 Ibid.

13 *Hebrews* 9:4. For details of the Ark's baleful powers see Graham Hancock, *The Sign and the Seal*, Mandarin, London, 1993, Chapter 12, p. 273ff.

14 Cited in *Egyptian Myths*, p. 44.

15 Sir E. A. Wallis Budge, *Egyptian Magic*, Kegan Paul, Trench, London, 1901, p. 5; *The Gods of the Egyptians*,

volume II, p. 214.

16 *New Larousse Encyclopaedia of Mythology*, p. 27. If Set's usurpation is included as a reign, we have seven divine pharoahs up to and including Thoth (i. e., Ra, Shu, Geb, Osiris, Set, Horus, Thoth).

17 *The Gods of the Egyptians*, volume I, p. 400; Garth Fowden, *The Egyptian Hermes*, Cambridge University Press, 1987, pp. 22–3. see also *From Fetish to God in Ancient Egypt*, pp. 121–2; *Egyptian Magic*, pp. 128–9; *New Larousse Encyclopaedia of Mythology*, pp. 27–8.

18 Manetho, quoted by the neo-Platonist Iamblichus. See Peter Lemesurier, *The Great Pyramid Decoded*, Element Books, 1989, p. 15; *The Egyptian Hermes*, p. 33.

19 See, for example, *Diodorus Siculus*, volume I, p. 53, where Thoth (under his Greek name of Hermes) is described as

being ‘endowed with unusual ingenuity for devising things capable of improving the social life of man’.

20 *Osiris and the Egyptian Resurrection*, volume II, p. 307.

21 *Myth and Symbol in Ancient Egypt*, p. 179; *New Larousse Encyclopaedia of Mythology*, p. 16.

22 *New Larousse Encyclopaedia of Mythology*, pp. 9–10, 16; *Encyclopaedia of Ancient Egypt*, p. 44; *The Gods of the Egyptians*, volume II, pp. 130–1; *From Fetish to God in Ancient Egypt*, p. 190; *Myth and Symbol in Ancient Egypt*, p. 230.

23 *Osiris and the Egyptian Resurrection*, volume I, p. 2.

24 Chapter CXXV, cited in ibid., volume II, p. 81.

25 See Parts II and III for Quetzalcoatl and Viracocha. A good summary of Osiris’s civilizing attributes is the *New Larousse Encyclopaedia of Mythology*, p. 16. See also

Diodorus Siculus, pp. 47–9; *Osiris and the Egyptian Resurrection*, volume I, pp. 1–12.

26 *Diodorus Siculus*, p. 53.

27 Ibid.; *Osiris and the Egyptian Resurrection*, volume I, p. 2.

28 *Diodorus Siculus*, p. 55.

29 *Osiris and the Egyptian Resurrection*, volume I, p. 11.

30 Ibid., p. 2.

31 Ibid., 2–11. For Quetzalcoatl and Viracocha see Parts II and III. Interestingly enough, Osiris was said to have been accompanied on his civilizing mission by two 'openers of the way': (*Diodorus Siculus* page 57), 'Anubis and Macedo, Anubis wearing a dog's skin and Macedo the fore-parts of a wolf …'

32 *Osiris and the Egyptian Resurrection*, volume II, p. 273. See

also in general, *The Ancient Egyptian Pyramid Texts*.

33 *Archaic Egypt*, p. 122; *Myth and Symbol in Ancient Egypt*, p. 98.

34 See, in general, *Kingship and the Gods*; *Osiris and the Egyptian Resurrection*; *The Gods of the Egyptians*.

35 *Archaic Egypt*, p. 38.

36 *Manetho*, p. 5.

Chapter Forty-Five

1 *Atlas of Ancient Egypt*, p. 36.

2 Dates from *Atlas of Ancient Egypt*. For further data on Ramesses II as the pharaoh of the exodus see Profuses K. A. Kitchen, *Pharaoh Triumphant: The Life and Times of Ramesses II*, Aris and Phillips, Warminster, 1982, pp. 70–1.

3 See, for example, *A Biographical Dictionary of Ancient Egypt*, pp. 135–7.

4 *Traveller's Key to Ancient Egypt*, p. 384.

5 *The Ancient Egyptian Pyramid Texts*, pp. 285, 253.

6 *Traveller's Key to Ancient Egypt*, p. 386.

7 *The Encyclopaedia of Ancient Egypt*, p. 59.

8 Chapter 175 of the *Ancient Egyptian Book of the Dead*, cited in *Myth and Symbol in Ancient Egypt*, p. 137.

9 See Henry Frankfort, *The Cenotaph of Seti I at Abydos*, 39th Memoir of the Egypt Exploration Society, London, 1933, p. 25.

10 *The Geography of Strabo*, volume VIII, pp. 111–13.

11 Margaret A. Murray, *The Osireion at Abydos*, Egyptian Research Account, ninth year (1903), Bernard Quaritch, London, 1904, p. 2.

12 Ibid.

13 *The Times*, London, 17 March 1914.

14 Ibid.

15 Ibid.

16 *Traveller's Key to Ancient Egypt*, p. 391.

17 *The Cenotaph of Seti I at Abydos*, p. 18.

18 Ibid., p. 28–9.

19 E. Naville, 'Excavations at Abydos: The Great Pool and the Tomb of Osiris', *Journal of Egyptian Archaeology*, volume I, 1914, p. 160.

20 *The Times*, London, 17 March 1914.

21 Ibid.

22 *The Cenotaph of Seti I at Abydos*, pp. 4, 25, 68–80.

23 Ibid., in general.

24 'Excavations at Abydos', pp. 164–5.

25 *The Splendour that was Egypt*, pp. 160–1.

26 *The Cenotaph of Seti I at Abydos*, p. 23.

27 *Guardian*, London, 21 December 1991.

28 David O'Connor, 'Boat Graves and Pyramid Origins', in *Expedition*, volume 33, No. 3, 1991, p. 7ff.

29 Ibid., pp. 9–10.

30 Sent to me by fax 27 January 1993.

31 David O'Connor, 'Boat Graves and Pyramid Origins', p. 12.

32 Ibid., p. 11–12.

33 *Guardian*, 21 December 1991.

34 See Cairo Museum, Gallery 54, wall-painting of ships from Badarian period *c*. 4500 BC.

35 *The Ancient Egyptian Pyramid Texts*, p. 192, Utt. 519: 'O Morning Star, Horus of the Netherworld … you having a soul and appearing in front of your boat of 770

cubits … Take me with you in the cabin of your boat.’

Chapter Forty-Six

1 *Egypt before the Pharaohs*, pp. 29, 88.

2 To give yet another example, here is Diodorus Siculus (first century BC) passing on what he was told by Egyptian priests: 'The number of years from Osiris and Isis, they say, to the reign of Alexander, who founded the city which bears his name in Egypt [fourth century BC], is over ten thousand …' *Diodorus Siculus*, volume I, p. 73.

3 *Egypt before The Pharaohs*, p. 85.

4 Ibid., p. 90.

5 *A History of Ancient Egypt*, p. 21.

6 *Egypt before The Pharaohs*, p. 88.

7 Fred Wendorff and Romuald Schild, *Prehistory of the Nile Valley*, Academic Press, New York, 1976, p. 291.

8 *Egypt before the Pharaohs*, pp. 89–90.

9 Ibid., p. 86.

10 Ibid., pp. 97–8.

11 Ibid., p. 161.

12 See Chapter Twelve.

13 Ibid.

14 Ibid.

15 AAAS Annual Meeting, 1992, Debate: How Old is the Sphinx?

Chapter Forty-Seven

1 *Traveller's Key to Ancient Egypt*; *Serpent in the Sky*, p. 20.

2 *Sacred Science*, p. 96.

3 West's detailed evidence is set out in *Serpent in the Sky*, pp. 184–20. Concerning the covering of the Sphinx by sand he arrives at the following table:

	Sphinx buried
Chephren–Tuthmosis IV *c*. 1300 years	1000 years
Thuthmosis IV–Ptolemies *c*. 1100 years	800 years
Ptolemies–Christianity *c*. 600 years	0 years
Christianity–Present day *c*. 1700 years	1500 years

Chephren–present day, *c*. 4700 years 3300 years

4 ‘An abstract of our team’s work was submitted to the Geological Society of America, and we were invited to present our findings at a poster session of at the GSA convention in San Diego – the geological Superbowl. Geologists from all over the world thronged to our booth, much intrigued. Dozens of experts in fields relevant to our research offered help and advice. Shown the evidence, some geologists just laughed, astounded [as Schoch had been initially] that in two centuries of research, no one, geologist or Egyptologist, had noticed that the Sphinx had been weathered by water.’ *Serpent in the Sky*, p. 229; *Mystery of the Sphinx*. NBC-TV, 1993. 275 geologists endorsed Schoch’s findings.

5 AAAS, Annual Meeting 1992, Debate: How Old is the

Sphinx?

6 *Mystery of the Sphinx*.

7 Ibid.

8 Ibid.

9 Ibid.

10 Ibid.

11 AAAS Annual Meeting 1992.

12 Ibid. The relevant geologists include Farouk El Baz, and Roth and Raffai.

13 Extracts from *Mystery of the Sphinx* and AAAS meeting.

14 Under the category of anomalies, West made specific reference to the bowls carved out of diorite and other hard stones described in Part VI.

15 ‘After reviewing my various drawings, schematics and

measurements, my final conclusion concurs with my initial reaction: the two works represent two separate individuals. The proportions in the frontal view and especially the angles and facial protrusion in the lateral views, convinced me that the Sphinx is not Khafre. If the ancient Egyptians were skilled technicians and capable of duplicating images, then these two works cannot represent the same individual.' Frank Domingo, cited in *Serpent in the Sky*, p. 232. See also AAAS 1992, for Schoch's views on the recarving of the Sphinx's head.

Chapter Forty-Eight

1 *Collins English Dictionary*, p. 608.

2 *Secrets of the Great Pyramid*, p. 38. Much of the material in this chapter is based directly on the work of Peter Tompkins and of Professor Livio Catullo Stecchini.

3 Ibid., p. 46.

4 Ibid., p. 181.

5 Ibid., p. 299.

6 Ibid., pp. 179–81.

7 Cited in Ibid., p. 333.

8 See Chapter Twenty-three, and Stecchini in *Secrets of the Great Pyramid*, p. 378.

9 See Chapter Twenty-three.

10 Accepted, for example, by Edwards, Petrie, Baines and Malek, and so on.

11 *Encyclopaedia Britannica*, 1991, 27:530.

12 *The Pyramids of Egypt*, p. 87.

13 See Part V.

14 *Secrets of the Great Pyramid*, p. 189.

15 *Maps of the Ancient Sea Kings*, p. 17ff.

16 See, for example, *The Shape of the World*, p. 23.

17 *The Gods of the Egyptians*, volume I, p. 400.

18 Ibid., volume I, p. 443; volume II, pp. 7, 287.

19 Ibid., volume II, p. 7, where the deity Amen-Ra is addressed in a hymn: 'The gods love the smell of thee when thou comest from Punt, thou eldest-born of the

dew, who comest from the Divine Land (Ta-Neteru).' See also volume II, p. 287. Punt is thought by many scholars to have been located on the Somali coast of East Africa where the trees that produce frankincense and myrrh ('the food of the gods') are still grown today.

20 Ibid.

21 *Osiris and the Egyptian Resurrection*, volume I, p. 98; Pyramid Texts of Pepi I, Mer-en-Rah and Pepi II, translated in Ibid., volume II, p. 316, where the maritime connections of the land of the blessed are made clear.

22 Ibid., volume I, p. 97.

23 Ibid., pp. 97–8.

24 Ibid., volume II, p. 307.

25 Veronica Ions, *Egyptian Mythology*, Newnes Books, London, 1986, p. 84.

26 *The Gods of the Egyptians*, volume I, pp. 407–8.

27 Ibid., volume I, p. 414.

28 *Egyptian Mythology*, p. 85.

29 *The Gods of the Egyptians*, volume I, p. 414.

30 Ibid., pp 414–15.

31 *The History*, 2:4.

32 Reported in E. M. Antoniadi, *L'Astronomie egyptienne*, Paris, 1934, pp. 3–4; see also Schwaller, p. 279.

33 *Diodorus Siculus*, volume I, pp. 279–80.

34 *The Ancient Egyptian Pyramid Texts*, for example pp. 78, 170, 171, 290.

Chapter Forty-Nine

1 Robert Bauval's *The Orion Mystery* (Heinemann, London; Crown, New York; Doubleday, Canada; List, Germany; Planeta, Spain; Pygmalion, France, etc.) was an international bestseller when it was published in 1994. Egyptologists closed ranks against its implications, which they refused to discuss, but many distinguished astronomers hailed Bauval's findings as a breakthrough.

2 Virginia Trimble, cited in *The Orion Mystery*, p. 241.

3 Ibid., p. 172.

4 Personal communications/interviews, 1993–4.

5 *Atlas of Ancient Egypt*, p. 36.

6 Personal communications/interviews.

7 Skyglobe 3.6.

8 Personal communications/interviews.

9 Skyglobe 3.6

10 Personal communications/interviews.

11 See Chapters Forty-two to Forty-four.

12 'The Egyptians … believed that they were a divine nation, and that they were ruled by kings who were themselves gods incarnate; their earliest kings, they asserted, were actually gods, who did not disdain to live on earth, and to go about up and down through it, and to mingle with men.' *The Gods of the Egyptians*, volume I, p. 3.

13 The Mortuary Temple was excavated by von Sieglin in 1910 and was found to consist of blocks of varying sizes weighing 'between 100 and 300 tons'. *Blue Guide: Egypt*,

p. 431.

14 Just as any great Christian cathedral, however modern (for example the twentieth-century gothic cathedral on Nob Hill in San Francisco), expresses the thinking, symbolism and iconography of the Judaeo-Christian 'cult' which has roots at least 4000 years old, it should not be impossible to imagine a cult enduring for 8000 years in Ancient Egypt and thus linking the epoch of 10450 BC to 2,450 BC. The completion of the pyramids at that time, like the completion of a cathedral today, would therefore have resulted in structures that expressed extremely old ideas. Plentiful evidence exists within Ancient Egyptian tradition which seems to attest to the existence and preservation of such ancient ideas. For example, 'King Nefer-hetep [XIIIth Dynasty] was a loyal worshipper of Osiris and hearing that his Temple [at Abydos] was in

ruins, and that a new statue of the god was required, he went to the temple of Ra-Atum at Heliopolis, and consulted the books in the library there, so that he might learn how to make a statue of Osiris which should be like that which had existed in the beginning of the world …' (*Osiris and the Egyptian Resurrection*, volume II, p. 14). Also *Sacred Science*; pp. 103–4, explains that the construction of temples in the Ptolemaic and late periods of Egyptian history continued to obey very ancient specifications: 'All the plans always refer to a *divine book*; thus the temple of Edfu was rebuilt under the Ptolemies according to the *book of foundation composed by Imhotep*, a book descended from heaven to the north of Memphis. The temple of Dendera followed *a plan recorded in ancient writings dating from the Companions of Horus.'*

15 *Hamlet's Mill*, p. 59.

16 Ibid.; *Sacred Science*, p. 179.

17 *Oxford Dictionary of the Christian Church*, Oxford University Press, 1988, p. 514.

18 *Sacred Science*, p. 177.

19 *Genesis*: 22:13

20 *Jerusalem Bible*, chronological table, p. 343.

21 *King James Bible*, Franklin, Computerized First Edition.

22 *The Encyclopaedia of Ancient Egypt*, p. 20.

23 Ibid., p. 133.

24 *Sacred Science*, p. 177.

25 As early as 3000 BC. See *Encyclopaedia Britannica*, 1991, 3:731.

26 *Encyclopaedia of Ancient Egypt*, pp. 27, 171.

27 Skyglobe 3.6.

Chapter Fifty

1 Galanopoulos and Bacon, *Lost Atlantis*, p. 75.

2 See, for example, Brian Inglis, *Coincidence*, Hutchinson, London, 1990, p. 48ff.

3 *When the Sky Fell*, with an Introduction by Colin Wilson and Afterword by John Anthony West, is published by Stoddart, Canada, 1995.

4 See Part I.

5 Ibid.

6 Ibid. See Part I and Chapter Fifty-one for details.

Chapter Fifty-One

1 *Encyclopaedia Britannica*, 1991, 3:584.

2 *Encyclopaedia Britannica*, 1991, 1:440.

3 *Discover The World Of Science*, February 1993, p. 17. The fifteen mineralized tree stumps, presumably the remnant of a much larger forest, range from three and a half to seven inches in diameter. They were saplings of a well-known genus of seed fern, *Glossopteris* [found in much of the southern hemisphere's coal]. Unlike true ferns, seed ferns had seeds instead of spores, were often treelike, and are now extinct … All around the Mount Achernar tree stumps, Taylor's colleagues found the tongue-shaped imprints of fallen *Glossopteris* leaves.

Deciduous trees are an indicator of a warm climate, and so is the absence of 'frost rings'. When Taylor analysed the growth rings in samples from the stumps she found none of the ice-swollen cells and gaps between cells that arise when the growth of a tree is disrupted by frost. That means there wasn't any frost in the Antarctic at that time.

'In our memory Antarctica has always been cold,' says Taylor. 'It's only by looking at fossil floras that we can see what potential there is for plant communities. This fossil forest, growing at 85 degrees latitude, gives us some idea of what is possible with catastrophic climate change.' N.B. The trees were killed by a flood or mudflow – another impossibility in Antarctica today.

4 *The Path of the Pole*, p. 61.

5 Ibid., pp. 62–3.

6 In Dolph Earl Hooker, *Those Astounding Ice Ages*, Exposition Press, New York, 1958, page 44, citing *National Geographic Magazine*, October 1935.

7 *Path of the Pole*, p. 62.

8 Rand Flem-Ath, *Does the Earth's Crust Shift*? (MS.).

9 Daniel Grotta, 'Antarctica: Whose Continent Is It Anyway?', *Popular Science*, January 1992, p. 64.

10 *Path of the Pole*, p. 107.

11 See Part I.

12 *Path of the Pole*, p. 111ff.

13 See Part I for details.

14 *The Biblical Flood and the Ice Epoch*, pp. 109–10.

15 *Path of the Pole*, p. 66.

16 Ibid., pp. 93, 96.

17 Ibid., p. 99.

18 See Part IV.

19 Ibid.

20 *Encyclopaedia Britannica*, 1991, I:440; John White, *Pole Shift*, A.R.E. Press, Virginia Beach, 1994, p. 65.

21 *Pole Shift*, p. 77: Twenty billion tons of ice are added each year at Antarctica.

22 H. A. Brown, *Cataclysms of the Earth*, pp. 10–11.

23 See Part IV.

24 Ibid.

25 *Biblical Flood and the Ice Epoch*, p. 228.

26 Thomas Huxley cited in *Path of the Pole*, p. 294.

27 *Scientific American*, December 1985.

28 *Path of the Pole*, pp. 47–9.

29 Ibid., p. 49.

30 Ibid., p. 58.

31 See Part IV.

32 *The Mahabaratha*, cited in *The Arctic Home in the Vedas*, pp. 64–5.

33 Ibid., pp. 66–7.

34 Cited in *Paradise Found: The Cradle of the Human Race at the North Pole*, p. 199.

35 *Arctic Home in the Vedas*, p. 81.

36 Ibid., p. 85.

37 Ibid., pp. 414, 417.

38 Ibid., p. 420.

39 *Pole Shift*, p. 9.

40 Ibid.

41 Ibid., p. 61.

42 *Nature*, volume 234, 27 December 1971, pp. 173–4; *New Scientist*, 6 January 1972, p. 7.

43 J. M. Harwood and S. C. R. Malin writing in *Nature*, 12 February 1976.

44 *The Path of the Pole*, op.cit., Appendix, pp. 325–6.

45 Ibid., p. 44.

46 *USA Today*, 23 November 1994, p. 9D.

Chapter Fifty-Two

1 Plato, *Timaeus and Critias*, Penguin Classics, 1977, p. 36.

2 *The Bhagavata Purana*, Motilal Banardass, Delhi, 1986, Part I, pp. 59, 95.

3 Ibid., p. 60.

4 Dileep Kumar Kanjilal, *Vimana in Ancient India*, Sanskrit Pustak Bhandar, Calcutta, 1985, p. 16.

5 Ibid., p. 17.

6 Ibid., p. 18.

7 Ibid.

8 Ibid.

9 Ibid., p. 19.

10 *The Ancient Egyptian Pyramid Texts*, p. 70, Utt. 261.

11 *The Complete Works Of Josephus*, Kregel Publications, Grand Rapids, Michigan, 1991, p. 27.

12 Ibid.

13 John Greaves, *Pyramidographia*, cited in *Serpent in the Sky*, p. 230.

14 *Popol Vuh*, p. 168.

15 Ibid., p. 169.

16 Ibid., p. 79.

17 Ibid., p. 79–80.

18 *The Bhagavata Purana*, cited in *Atlantis: The Antediluvian World*, p. 88.

19 Berossus Fragments cited in *The Sirius Mystery*, p. 249.

20 Ibid.

21 2 *Peter* 3:10.

22 *The Egyptian Hermes*, p. 33.

23 By Robert Bauval, personal communication.

24 See Part VII.

25 1 *Enoch*, LXV, in *The Apockryphal Old Testament* (ed. H.F.D. Sparks), Clarendon Press, Oxford, 1989, p. 247.

26 *Pre-Hispanic Gods of Mexico*, p. 24.

27 *Breaking the Maya Code*, p. 275.

28 *Will The World Survive*? Watch Tower Bible and Tract Society, 1992.

29 Circulating File, *Earth Changes*, Extracts from the Edgar Cayce Readings, Edgar Cayce Foundation, Virginia Beach, 1994, p. 36.

30 See Part V.

31 *Manetho*, pp. 191–3.

32 The Chlorine-36 rock-exposure dating technique has been developed by Professor David Bowen of the Department of Earth Sciences at the University of Wales. In *The Times* of London, 1 December 1994, Brown observed:

> 'One way of resolving the controversy of the ages of the Sphinx and the Pyramids may be through the application of Chlorine-36 rock-exposure dating. This provides an estimate of the time that has elapsed since a rock was first exposed to the atmosphere. In the case of the Sphinx and the Pyramids this would be when the rocks were first exposed by quarrying activity …'

In 1994 Bowen ran preliminary tests on the famous 'bluestones' of Stonehenge in England, hitherto believed to date to 2250 BC. What the tests showed was that these 123 four-ton monoliths could have been quarried during

the the last Ice Age – perhaps as early as 12000 BC. See *The Times*, London, 5 December.

33 *Mystery of the Sphinx*, NBC-TV, 1993.

34 2 *Peter* 3:4.

35 *2 Peter 3:3*.

36 *Community Profile: Hopi Indian Reservation*, Arizona Department of Commerce.

37 *Breaking the Maya Code*, p. 275.

38 *Book of the Hopi*.

39 *World Mythology*, p. 26.

40 *Matthew*, 24: 38–39.

41 *Matthew*, 24: 27–41.

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GÖBEKLI TEPE
GENESIS OF THE GODS

The Temple of the Watchers and the Discovery of Eden

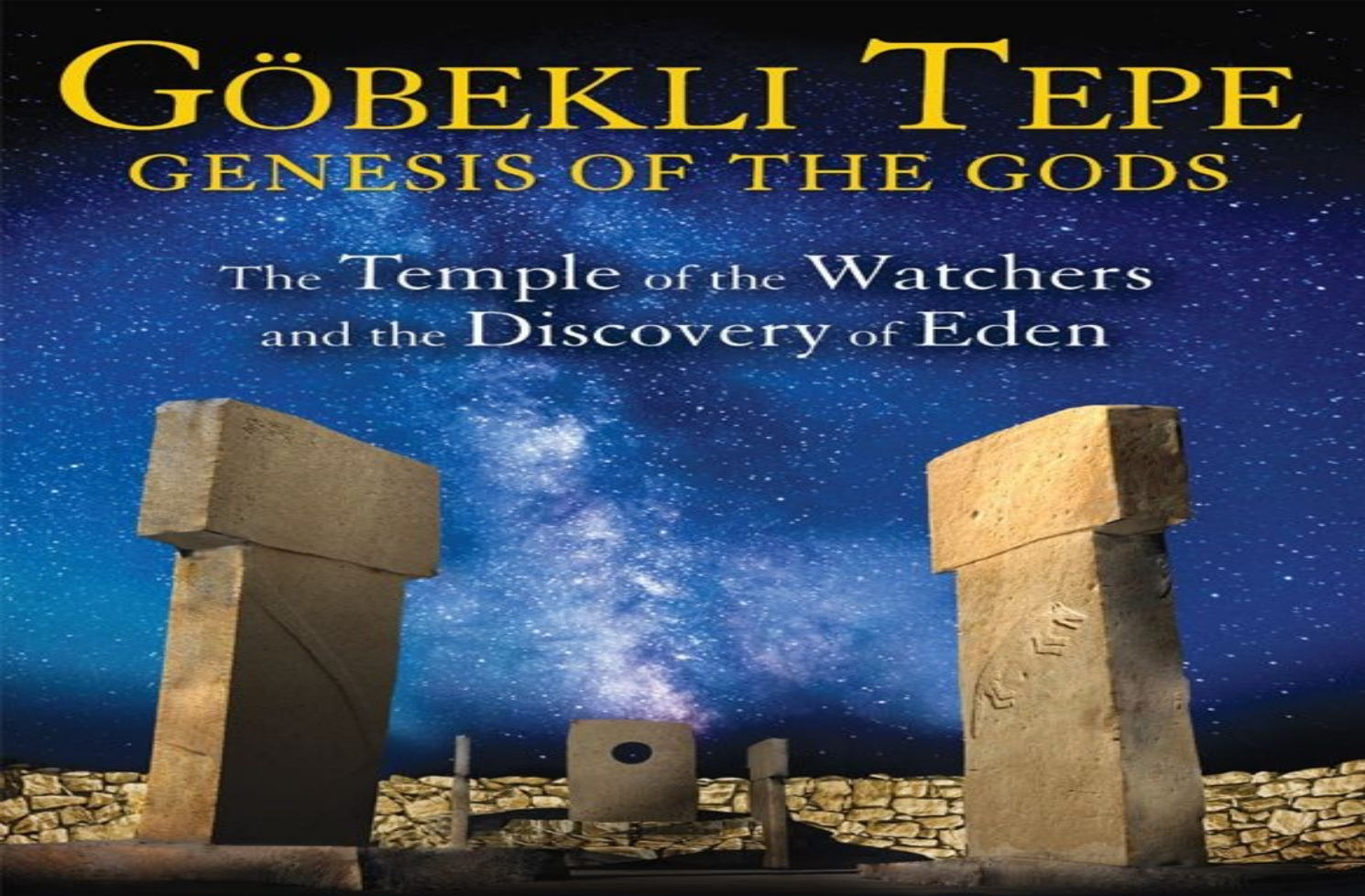

ANDREW COLLINS

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GÖBEKLI TEPE
GENESIS OF THE GODS

The Temple of the Watchers and the Discovery of Eden

ANDREW COLLINS

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To Those Who Struggle for Freedom,
In the Garden of Eden,
Past and Present

And to the memory of
Filip Coppens
(1971–2012)

and

Colin Wilson
(1931–2013)

Friends and Genuine Seekers of the Truth

ACKNOWLEDGMENTS

First, I would like to thank those who have been involved in providing visionary thoughts and information that helped inspire the creation of this current work. They include Richard Ward, David Southwell, Debbie Cartwright, Bernard G., Graham Phillips, and Catja de Lorenzo. I would also like to express my gratitude to Rodney and Joan Hale, for their indelible help in making sure my life continues; Storm Constantine and Jim Hibbert, for putting up with me in their home for over a month; Graham Hancock and Santha Faiia, for the wonderful introduction, and their precious time and help; and Greg and Lora Little, for their constant friendship and support.

In addition to this, I would like to thank Jonathan Bright, for his exchanges on the Greek language; Alberto Forgione, for the cover

illustration; Idris Gurkin, for his friendship and kind help as a translator and guide in Turkey; Gülüzar and Hıdır Çelik, for their hospitality in Paradise; Catherine Hale, for her line editing and suggestions; Barbara Hand Clow, for the use of her brilliant term *catastrophobia;* J. L. Katzman of Aggsbach's Paleolithic Blog, for permission to use pictures; Suna Köse, for her invaluable help in finding me local contacts in eastern Turkey; Janet Morris, for her archive research into the more obscure topics under discussion here; Raffi Kojian, of the AniOnline forum, Gagik Avagyan, and Sunny Keshishian Ross, for their Armenian language translations and advice; Russell M. Hossain, for his wonderful 3-D sculpts; Professor Klaus Schmidt, for agreeing to answer my questions and permitting me to explore Göbekli Tepe; Dr. Harald Hauptmann, for his help regarding the excavations at Nevalı Çori; and Michael Tazzar, for his research discussions.

I would also like to extend a big thank-you to all the others who

have helped me during the writing of this book, including Eileen Buchanan, Yvan Cartwright, Adam Crowl, Hakan Dalkus, Amadeus Diamond, Kelly Delaney Stacy, Adriano Forgione, Dawn Forgione, Stephen Gawtry, Richard D. Kingston, Peter Knight, Ian Lawton, Yuri Leitch, Chris Nemmo, Hugh Newman, Chris Ogilvie Herald, Khanna Omarkhali, Graham Phillips, Nigel Skinner-Simpson, Alby Stone, Geoff Stray, Alan Todd, Paul Weston and Rachel Blake, Leon and Lisa Flower, Pino Morelli and Roberta Formoso, Matt Kyd and Renny Djunaedi, Brent and Joan Raynes, Mark and Michelle Rosney, Buster and Abigail Todd, Bob Trubshaw and Judi Holliday, Caroline Wise and Michael Staley, Philippe and Domenique Ullens, John Wilding and Esther Smith, and staff at the Henge Shop, Avebury. Finally, I want to say a massive thank you to Olatundji Akpo-Sani, Kelly Bowen, Kevin Dougherty, Jon Graham, John Hays, Erica B. Robinson, Peri Swan, Jessie Wimett, Chanc VanWinkle Orzell and all the team at Inner Traditions/Bear & Company for being so patient with me over the past couple of years.

It is very much appreciated.

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NOTE ON DATING SYSTEM USED

The long-held dating system of BC (before Christ) and AD (*anno Domini,* "in the year of the Lord") is used in preference to more modern forms, such as BCE (before the common era) and CE (of the common era). Occasionally BP (before the present) and KYA (thousand years ago) are used when expressing events of the past. All dates provided by the process of radiocarbon dating are recalibrated unless otherwise stated.

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INTRODUCTION

By Graham Hancock

The new millennium promised much—the rising of Atlantis, the Second Coming of Christ, and the discovery of the Hall of Records in Egypt. Yet those of a New Age persuasion who had waited patiently for this all-important date were to be sadly disappointed. Even so, an archaeological discovery brought to the world's attention for the first time in 2000[1] is now poised to make up for any sense of anticlimax that might have accompanied the millennial nonevent.

I speak of Göbekli Tepe, a megalithic complex of incredible beauty and importance located close to the ancient city of Şanlıurfa

in southeast Turkey. Here, quietly, since 1995, a series of stone enclosures of immense sophistication, each containing T-shaped pillars up to 18 feet (5.5 meters) tall and weighing as much as 16.5 US tons (15 metric tonnes), is being uncovered on a mountain platform close to the western termination of the Anti-Taurus range.

Carved into the faces of the dozens of stone pillars and freestanding monoliths uncovered so far is a virtual menagerie of strange creatures that populated the world when these mysterious monuments were constructed between twelve thousand and ten thousand years ago. Foxes, wolves, lions, snakes, aurochs, hyena, ibex, and boars are seen alongside insects, arachnids, and various species of bird, including crane, vulture, flamingo, and a flightless bird with the likeness of a dodo.

The quality and style of Göbekli Tepe's strange carved art are at once breathtaking and mesmeric, a fact made even more incredible in the knowledge that we are told the complex was built by simple

hunter-gatherer communities that thrived in an age before the emergence of subsistence agriculture and animal husbandry.

NEOLITHIC REVOLUTION

Professor Klaus Schmidt, the forward-thinking German archaeologist in charge of excavations at Göbekli Tepe, now believes that the Neolithic revolution came about as a result of the creation of megalithic complexes of this kind across southeast Turkey, which forms part of what archaeologists refer to as the *triangle d'or,* or golden triangle. Schmidt proposes that the many hundreds of people involved in the construction and maintenance of the enclosures at Göbekli Tepe would quickly have depleted locally available food resources.

Add to this the thousands of "pilgrims" who would descend on the site for clan gatherings and other forms of ceremonial activity,

and it is clear that another, more plentiful supply of food was required—one that could be provided year in year out, ad infinitum. Hence, subsistence agriculture rapidly emerged in the form of the domestication of wild species of wheat and rye. This required the hunter-gatherers of the region to become settled farmers and pastoralists living in more permanent environments, which gradually emerged as the first towns and villages of the Neolithic age.

Evidence of this transition from hunter-gatherer to settled farmer in southeast Turkey comes from the discovery by geneticists that sixty-eight modern strains of wheat derive from a form of wild wheat called einkorn that thrives to this day on the slopes of an extinct volcano named Karaca Dağ, which lies some 50 miles (80 kilometers) to the northeast of Göbekli Tepe.

All this was occurring in the Near East as much as two thousand years before the flowering of the first major city complexes at

places such as Çatal Höyük and Aşıklı Höyük in what is today central Turkey. They emerged as part of the rapid expansion of the Neolithic revolution, which after embracing the Central Anatolian Plain very quickly reached Eastern Europe. The revolution moved southward also into the Levant, where forms of protoagriculture already existed, and eastward into Iran, Central Asia, and eventually India and Pakistan, home of the Indus Valley civilization. Schmidt is in no doubt that Göbekli Tepe was one of the key points of origin of the Neolithic revolution, meaning that for our present civilization at least this is where history begins.

GÖBEKLI TEPE IN CONTEXT

Before going any further, it is important to place Göbekli Tepe in context with what is known about the emergence of the civilized world. Its earliest enclosures, which are by far the most

sophisticated, existed as much as seven thousand years before the construction of Stonehenge in southern England, built around 3000 BC. Yet having said this, mounting evidence indicates that the Stonehenge we see today, with its familiar sarsen trilithons, Heel Stone alignment toward the midsummer sunrise, and bluestone horseshoe of standing stones, is simply the final phase of an evolution that began with the creation of a Mesolithic complex as early as 8000 BC. Who was responsible for this proto-Stonehenge thousands of years before the arrival on British shores of the first Neolithic farmers remains a mystery. Whatever the answer, the fact that this early date of construction coincides with the final abandonment of Göbekli Tepe must raise a few eyebrows and suggests there might have been a much greater communication network between prehistoric cultures than is currently accepted by scholars.

EGYPT'S FIRST TIME

Göbekli Tepe is also a full seven thousand years older than the conventional dates attributed to the construction of the Great Pyramid and its neighbors on Egypt's famous plateau at Giza. Even if we accept these monuments as the product of Egypt's pharaonic age, the evidence presented both by me and my colleague Robert Bauval in a number of our books suggests very strongly that much earlier structures must have existed in the Nile Valley during a mythical age referred to by the dynastic Egyptians as Zep Tepi, the First Time. It is a time when the gods themselves—Osiris, Isis, Seth, Horus, Thoth, and others—are said to have walked the earth.

An obvious marker of this age of the gods is the Great Sphinx, the leonine monument that sits on the eastern edge of the plateau at Giza—its gaze fixed toward the eastern horizon, where the sun rises at the time of the equinoxes.

During the mid-1990s convincing evidence was put forward by

Boston geologist Dr. Robert Schoch and his colleague John Anthony West to suggest that the Sphinx is not the product of the Fourth Dynasty, when pharaohs such as Khufu, Khafre, and Menkaure built the surrounding pyramid complexes, but dates to a much earlier epoch of humankind. It might even be possible that this timeless monument was originally created to gaze at its celestial counterpart, the constellation of Leo, when that noble asterism last housed the equinoctial sun between the eleventh millennium BC and the ninth millennium BC.

Such a realization, if verified, would make the Sphinx pretty much contemporary with Göbekli Tepe, which lies at a distance of around 700 miles (1,100 kilometers) from Egypt's Nile Valley.

LION PILLAR BUILDING

It is therefore a matter of great interest that there are striking

carvings of advancing lions on the inner faces of twin pillars in an east-west aligned enclosure at Göbekli Tepe dated to the ninth millennium BC. Called the "Lion Pillars Building," the structure's leonine pillars form a gateway at its eastern end, their advancing beasts appearing to rear out of the equinoctial horizon.

As Andrew Collins points out elsewhere,[2] there is every possibility that to the Göbekli builders this leonine art not only signified the blood-red might of the sun (like the lion-headed goddesses of ancient Egypt), but also the influence of the constellation of Leo, the celestial lion, as it rose in the predawn light of the spring equinox.

So the same inspiration behind the construction of the Great Sphinx might also have been present at Göbekli Tepe, leading us to ask whether there is a real connection between these two distant places. If so, was the emergence of high culture in both the Nile Valley and southeast Turkey related in some manner to the creation

of proto-Stonehenge by an unknown culture that thrived during the very same epoch? Were all these sites, and many more besides, once connected in some unfathomable manner?

FORGOTTEN CIVILIZATION

In books such as *Fingerprints of the Gods* (1995), *Heaven's Mirror* (1998, authored with my wife, Santha Faiia), and the sequel to *Fingerprints of the Gods,* which I am writing for publication in 2015, I make the case for a global civilization, possessing immense technical sophistication and a profound understanding of our place in the cosmos, that thrived in an age before a terrible cataclysm brought the world to its knees soon after the end of the last ice age.

More than ever before, science is piecing together exactly what occurred during this global catastrophe, which is now firmly dated to ca. 10,900–10,800 BC. It is a moment in time known to

paleoclimatologists as the Younger Dryas horizon, which defines the boundary between the Pleistocene geological epoch and the Holocene, which we still live in today.

It was a time also when the glaciers that had covered much of the Northern Hemisphere during the Ice Age began rapidly to readvance, for the Younger Dryas is the name given to a mini ice age that gripped the world for a period of around thirteen hundred years, from approximately 10,900 BC onward, and ended abruptly around the time the first major enclosures were under construction at Göbekli Tepe, ca. 9600–9500 BC.

It seems certain, now, that the cause of this worldwide catastrophe was a large comet that fragmented into thousands of pieces as it entered the upper atmosphere. Each fragment rained down on the earth, causing unimaginable detonations that pulverized vast swathes of land across the planet. Not only did this terrible cataclysm trigger the onset of the Younger Dryas mini ice

age and with it the extinction of the Pleistocene megafauna, including the mammoth, mastodon, toxodon, great camel, and great sloth, but it also devastated the world's human population. The worst hit areas were on the American continent. Here the impact blasts, each one as powerful as a small atomic bomb, were more widespread than anywhere else.

CATASTROPHOBIA

Andrew, in this groundbreaking book, proposes that Göbekli Tepe was built as a response to the aftermath of this global cataclysm. The earliest enclosures were created, he postulates, by a hunter-gatherer populace still in fear of another comet impact, even though several hundred years had elapsed since the final reverberations of this catastrophic event.

Each structure, with its beautifully carved stones, was built with

the specific purpose of preserving cosmic order through shamanic interactions with the unseen world. This was achieved using an idealized cosmology, envisaged as a sky pole, or umbilicus, linking earth and heaven. In this way the hunter-gatherers, under the instruction of a ruling elite, were able to maintain the status quo of the cosmos and prevent further attacks on the sky pole, the axis of heaven, from a cosmic trickster in the guise of a supernatural fox or wolf.

It was this absolute fear of another cosmic catastrophe, something that visionary writer Barbara Hand Clow refers to so aptly as *catastrophobia,* that caused the hunter-gatherers of southeast Turkey to suddenly start supersizing their cult buildings into the beautiful megalithic structures we see today.

It was also this obsession with preventing another cataclysm that was responsible, at least in part, for the collective amnesia that has allowed us to filter out and reject the existence of the proposed

global civilization that thrived in the epoch immediately prior to the Younger Dryas Boundary impact event, as scientists call it today.

Yet some expression of the complex cosmology existing during this former golden age is almost certainly locked into the design, proportion, and carved art at Göbekli Tepe. It thus becomes a virtual Noah's ark in stone, bridging the gap between a former age of enlightenment and the emergence down on the Mesopotamia Plain of some of the oldest known civilizations of this current world age, most obviously those of Sumer, Akkad, Assyria, and Babylon.

ABODE OF THE GODS

The mythologies of these great civilizations speak clearly of wisdom bringers and creator gods responsible for the formation of the earliest towns, cities, canals, walled enclosures, and irrigation channels—and even of humankind. Named as the Anunnaki, these

anthropomorphic, or humanlike, gods are said to have emerged from a primeval mound called Duku, situated on a cosmic mountain named Kharsag, beneath which was the world of mortal human beings.

Klaus Schmidt believes that Göbekli Tepe had a direct impact on the myths and legends regarding the Anunnaki, and that the site could be the role model for the original Duku mound. Indeed, he goes further, as Andrew points out in this book, by hinting at a connection between Göbekli Tepe and biblical traditions concerning the Garden of Eden, and perhaps even the very human angels of Hebrew mythological tradition known as the Watchers.

CULT OF THE VULTURE

A deep look at the description of the Watchers and their offspring, the Nephilim, in ancient Jewish texts such as the book of Enoch

makes it clear that these mythical creatures were not incorporeal angels, but flesh and blood human beings with very distinct shamanistic qualities. They are occasionally said to wear dark, iridescent cloaks, or feather coats, and on occasion they take flight like birds, echoing the presence among the earliest proto-Neolithic communities of the Near East of a cult of death and rebirth focused on scavenger birds such as the vulture.

As Andrew points out, at Göbekli Tepe, as well as at the nine-thousandyear-old Neolithic city of Çatal Höyük in southern-central Turkey, there are abstract representations of vultures with articulated legs. Either they are shamans adorned as birds or bird spirits with anthropomorphic features.

Were these shamans of the early Neolithic age role models for the Watchers of Enochian tradition? Are the Watchers a vague memory of those behind the construction of proto-Neolithic complexes, amongst them Göbekli Tepe in southeast Turkey? Did the Watchers

really introduce this current world age to forbidden knowledge carried over from a global civilization that once thrived in an antediluvian world?

FROM THE ASHES OF ANGELS

These are questions we are only now beginning to ask for the first time. Yet they were asked as far back as 1996 by Andrew Collins in his groundbreaking book *From the Ashes of Angels.* What is more, there is little question that Andrew was one of the first writers to realize the greater significance of Göbekli Tepe, bringing it to the attention of the mysteries community as early as 2004. It is for this reason that his book *Göbekli Tepe: Genesis of the Gods* is such a masterwork, for it is the culmination of nearly twenty years of Andrew's original research into the origins of the Neolithic revolution and its relationship to Hebrew traditions concerning the

location of the Garden of Eden and the human truth behind the Watchers of the book of Enoch.

In a testimonial written to accompany the publication of *From the Ashes of Angels,* I said that Andrew had "put important new facts before the public concerning the mysterious origins of human civilization." I stand by this statement and add only that with his vast knowledge of the subject under discussion, there is no one better suited to reveal Göbekli Tepe's place in history today.

Graham Hancock, born in Edinburgh, Scotland, is a British writer and journalist. His books, including *Fingerprints of the Gods, The Sign and The Seal,* and *Heaven's Mirror,* have sold more than five million copies worldwide and have been translated into twenty-seven languages. His public lectures, radio, and television appearances have allowed his ideas to reach a vast audience,

identifying him as an unconventional thinker who raises controversial questions about humanity's past.

Also see the Notes and Bibliography of this book for further references related to the material in this introduction

PROLOGUE

IN QUEST OF ANGELS

September 16, 2013. Ever since kindergarten I have had a strange fascination with angels. Back then I was forced to endure Sunday school on a regular basis, and what I heard about Moses parting the Red Sea or Jesus feeding the five thousand with just a few loaves and fishes intrigued me. I loved hearing about miracles. Yet the lessons were always long and dreary. I wished only to be in the park, kicking about a soccer ball with my dad and brother.

Then one day my Sunday school teacher, a rather stern-faced woman, related how the Old Testament prophet Abraham received

into his presence three angels. They sat with him beneath the shade of a tree, where they talked and ate food together.

I knew about angels, those with radiant bodies and beautiful wings, but what the teacher was implying seemed at odds with this ethereal view. Not only did angels seem to function in this world, but they could also be tangibly real. What's more, people could talk to them and perhaps even become their friends. This was an incredible revelation to me.

Abraham's meeting with the angels was not lingered on, causing me to raise my hand and ask: "Please miss, what are angels?" To which I was told: "They are messengers of God."

I needed to know more, so I asked the teacher to elaborate further. She just looked at me and said, slowly and decisively: "There is nothing to be explained—they are the angels of God."

For her, the existence of angels seemed arbitrary, so my curiosity bore no meaning or relevance. Yet clearly it mattered to me.

It was a moment in my life I shall never forget. Somehow it fired my interest in angels as corporeal creatures and was one of the reasons I was here in southeast Turkey, making my way through sun-baked, dusty streets looking for answers. All around me were market vendors plying their wares, stalls brimming with ripe melons, trays of tomatoes, and all manner of household goods sold at very competitive prices.

Amid the incessant din, I gazed up at an age-old stone archway, the only opening through a more or less intact wall of some considerable size. Beyond it, as far as the eye could see, were the ruins of an ancient city razed to the ground by the Mongol hoards in 1271. Known as Carrhae to the Romans, this sprawling Mesopotamian metropolis—a commercial center at the crossroads of several key trading routes—is better known by the name Harran.

All that remains of the ancient city today are a scattering of walls; a massive stone arch marking the entrance to the now-vanished

Great Mosque; a ruined castle, built in the early Islamic period on the site of a pagan temple dedicated to the Mesopotamian moon god Sin; and a colossal stone structure, rising to a height of 110 feet (33 meters) and known locally as the Astronomical Tower. Although it too once formed part of the Great Mosque—or Paradise Mosque, as it was more correctly known—legend asserts that the Harranites, the inhabitants of Harran, were keen astronomers who used the tower's summit to observe and record the movement of the stars.

Although the Harranites acknowledged the faith of Islam following the Arab conquest, many belonged to an altogether different faith—one that came to be known as Sabaeanism. These curious people worshipped the sun, moon, and planets, which they honored in temples built specifically for this purpose. In addition to this, they saw the Pole Star, and the northern night sky in general, as the direction of the Primal Cause, of God himself, a fact celebrated each year in a grand festival known as the Mystery of the North.

This fascination with the Pole Star was a belief shared by other religious sects of the region including the Ismaili Brethren of Purity, the Mandaeans of Iraq and Iran, and the angel-worshipping Yezidi, all of whom owe at least some part of their existence to the Sabaeans of Harran.

In addition to being star worshippers, the Harranites are said to have collated the sacred writings of Greco-Roman Egypt attributed to Hermes Trismegistus, the Thrice Great Hermes. Following the destruction of Harran in the thirteenth century, this important corpus of religious literature known as the Hermetica was carried into Europe, where, some one and a half centuries later, it became the spiritual backbone to the Italian Renaissance and, with it, a revival of all things Egyptian.

Yet before even the Sabaeans flourished in Harran, the city was connected with the earliest events of the Bible. Here the prophet Abraham and his family stayed prior to their departure to Canaan,

God's Promised Land. Local tradition asserts that the prophet hailed from the nearby city of Şanlıurfa, the original "Ur of the Chaldees." So strong is this belief that even today thousands of Kurdish Muslims arrive in the city, anciently known as Orfa, Orhay, or Edessa, in order to visit a cave shrine said to be the birthplace of the great prophet.

According to medieval belief, Abraham arrived at Harran and at once set about converting the local population to his monotheistic faith. Yet the Harranites claimed their teachings were older, having derived from Seth, the son of Adam, and Enoch, a later antediluvian patriarch. Some of the Harranites did convert to Abraham's faith and departed with him to Canaan. Those who did not are said to have remained in the neighborhood of Harran, declaring that "we acknowledge the religion of Seth, Idris (Enoch) and Noah."[1]

So much did the inhabitants of Harran honor Abraham's presence in the city that a temple was set up to him and his father, Terah,

which apparently stood 2 parsangs (around 7 miles, or 11 kilometers) southeast of the city, close to the border with Syria.[2] Abraham was the perceived father of the Jewish people, and his descendants were responsible for bringing together the source material for the book of Genesis, the first book of the Old Testament, traditionally ascribed to Moses the Lawgiver.

Everywhere around Harran are sites associated with stories from the book of Genesis. On Cudi Dağ (Mount al-Judi), in the mountains to the east of Harran, Noah's ark is said to have made first landfall after the waters of the Great Flood receded. Here too Noah established his first post-Flood settlement, leaving his son Shem to continue his journey into the Eastern Taurus Mountains, where also Seth, the son of Adam, lived after his father and mother's expulsion from the Garden of Eden (see chapters 35 and 37). Even Harran itself, where Abraham dwelled with his family, had more ancient biblical connections, as tradition insists that

Cainan, a grandson of Shem, founded the city. He was the originator of Chaldaism, the knowledge of the stars as practiced by the Sabaeans of Harran.[3]

More significantly, the book of Genesis records that the primordial Garden where Adam and Eve, the First Couple, existed in a state of innocence and bliss before the time of the Fall was located at the source of the four rivers of Paradise, two of which can easily be identified as the Tigris and Euphrates (see chapter 27). They take their rise in the mountains to the northeast of Harran. Here somewhere lies the original Garden of Eden, tended over by the angels of God, returning me to the pressing questions that had preoccupied my childhood: Who or what are angels? Where did they come from, and did they have some kind of earthly tangibility?

As I climbed Harran's giant occupational mound, which rises above the ruined city, and stared out toward the mesmeric Astronomical Tower, I felt I was getting closer to some real

answers. For even as the first Bible stories were being played out across the region, Harran was already extremely old. Archaeological fieldwork has shown that its earliest inhabitants occupied the site as much as eight thousand years ago,[4] having arrived here from another occupational mound, located just 6 miles (10 kilometers) away, which dates back an incredible ten thousand years.[5]

Known as Tell Idris, the very name of this prehistoric mound reveals its association not just with the earliest events of the Bible but also with the angelic beings said to have guarded the Garden of Eden. For Idris is the Arabic name for the antediluvian patriarch Enoch, the great-grandfather of Noah. He is accredited with the authorship of one of the strangest and most mystifying religious texts ever written.

Called the book of Enoch, it recounts how Enoch, while resting in his bed one night, is approached by two strange beings of angelic appearance. Named Watchers (Hebrew *'îrîn*), they ask him to

accompany them on a tour of the Seven Heavens, one of which includes the Garden of Righteousness, where the four rivers of Paradise take their rise, while another leads to the abode of the angels.

When in the Watchers' heavenly settlement, Enoch is shown a prison in which a whole group of these angelic beings are incarcerated. On asking what crime they have committed, the patriarch is informed that two hundred of their number disobeyed the laws of heaven by descending among mortal kind and taking wives for themselves. As a consequence, these women gave birth to giant offspring called Nephilim (a Hebrew word meaning "those who fell" or the "fallen ones").

More significantly, the book of Enoch relates how the rebel Watchers, who are described as extremely tall (like "trees"), with pale and ruddy skin, powerful eyes, white hair, and long, viper-like faces (see chapter 32), are said to have taught their mortal wives the

arts and sciences of heaven. For this heinous crime they were rounded up and incarcerated.

Although these stories are understandably dismissed as allegorical fantasy by theologians and Bible scholars alike, there is an air about them that tells of a forgotten event in humanity's distant past—one connected integrally with Harran and the surrounding region, for it was here that the Neolithic revolution began.

On the upper reaches of the Euphrates and Tigris rivers, in the region that is today made up of eastern Turkey, northern Syria, northern Iraq, and northwest Iran, animal husbandry occurred for the first time, as did the domestication of wild cereals and the first metalworking and smelting. Here too some of the earliest baked and fired statuettes were produced, along with the construction of rectilinear and curvilinear buildings, some incorporating decorated standing stones and steles. With them came the first construction of terrazzo mortar floors, the first evidence for brewing beer, and

perhaps even the first use of grapes to produce wine.

In the same region, as early as 8000 BC, diamond-hard stone drills were employed to pierce holes through large oval beads of carnelian and agate to produce beautiful necklaces, and green malachite powder was first used as a cosmetic to beautify the eyes.

Among the forbidden arts of heaven that the Watchers are said to have gifted mortal kind are the use of metals and metalworking, and the means for women to beautify themselves. They are also said to have provided the first polished mirrors, an interesting fact, as the earliest known mirrors, made of the black volcanic glass obsidian, were manufactured at early Neolithic sites in central Turkey, such as Çatal Höyük and Aşıklı Höyük.

Is it possible that some memory of the prime movers or driving elite behind this great transition in technology and innovation is recalled in the stories of the Watchers providing mortal kind with the rudiments of civilization? Is this what these human angels are—

instigators of the Neolithic revolution?

Here at Harran are further clues to this baffling mystery. From the summit of its occupational mound the eye is drawn beyond the Astronomical Tower to the low ridge of mountains that dominates the northern horizon. Amid those peaks and in full sight of the Sabaean city is an archaeological site of incredible importance to world history.

Known as Göbekli Tepe, its existence, and the work currently being carried out there by a dedicated team of specialists, might one day help answer the pressing questions that have haunted me since childhood. Here, on a hilly ridge close to the southernmost limits of the Anti-Taurus Mountains, is the oldest acknowledged monumental architecture anywhere in the world. It takes the form of a series of circular and rectangular stone sanctuaries constructed as early as 9500 BC by an advanced group of hunter-gatherers who might well have been responsible for catalyzing the genesis of civilization in a

manner echoing the very human-like activities of the Watchers in the book of Enoch.

Who were the builders of Göbekli Tepe, and what motivated them to construct such extraordinary monuments so soon after the end of the last ice age? What part of the ancient world did they come from, and what did they look like? Is it possible that a memory of their existence was preserved by the peoples of the region and later carried by the descendants of Abraham into the Holy Land, where it inspired the stories of angels trafficking with humankind preserved in religious texts such as the book of Enoch and book of Genesis?

Remarkably, an ancient Hebrew work known as the book of Jubilees, which also tells the story of the Watchers, relates how Cainan, the legendary founder of Harran, uncovered an inscription carved on a stone stela. When translated it was found to contain the antediluvian science of astrology as taught by the Watchers.[6] This

knowledge went on to form the basis of the beliefs of the Chaldeans; that is, the pagans of Harran, whose progenitor is said to have been Cainan's father, Arphaxad, the son of Shem and grandson of Noah.[7] The name Arphaxad simply means "Ur of the Chaldees,"[8] taking us back to the site of Abraham's birthplace in nearby Şanlıurfa.

Was the stone stela found by Cainan and said to reveal the astrological knowledge of the Watchers a reference to the beautifully carved T-shaped pillars found at nearby Göbekli Tepe, some of which, as we see in part two of this book, seem to reflect a profound knowledge of the starry heavens during the epoch of their construction? Was this the true source of the Harranites' starry wisdom, adopted from their forerunners, who inhabited Tell Idris and other similar early Neolithic settlements on the Harran Plain as much as ten thousand years ago?

Further linking the Harran region with the Watchers is the belief

that the city of Şanlıurfa, where a settlement site belonging to the same culture responsible for Göbekli Tepe was uncovered near Abraham's birthplace during the 1990s, was founded either by the patriarch Enoch[9] or by "Orhay son of Hewya," with *hewya* meaning "serpent."[10] Almost certainly, this serpentine founder of the city is an allusion to the Watchers, who are themselves occasionally described as Serpents (see chapter 34). Was it here, in Şanlıurfa, that Enoch met with the two Watchers who took him on a tour of the Seven Heavens, a mountainous realm that included the Garden of Righteousness?

What exactly was the Garden of Eden, where Adam and Eve are said to have lived in a state of perpetual bliss before the time of the Fall? Was this the true home of the Watchers of the book of Enoch? Could its discovery hold the key to understanding the origins behind humankind's contact with angels during some former age? Did it exist at Göbekli Tepe or somewhere else—in the mountains to the

northeast, perhaps, where the four rivers of Paradise take their rise?

Only by understanding the mysteries of Göbekli Tepe would any real answers be forthcoming, and so it is here that our quest must begin, starting with its rediscovery in 1994 by a brilliant-minded German archaeologist, to whom we owe its existence today.

I will ask the reader to bear with me now as I switch from a first person to a third person narrative in order to determine who built Göbekli Tepe, and why. My personal quest is resumed in part four, when a powerful dream initiates a fresh search for the source of the terrestrial Paradise.

It is an intellectual adventure that will culminate not only in the discovery of Eden but also in the realization that the true meaning behind humanity's fall from grace, in the wake of the Neolithic revolution, is integrally bound up with the secret writings of Seth, the son of Adam. These forgotten books of Seth, glimpses of which can be found in Gnostic literature, tell us that in order to truly return

to Paradise and partake of the immortality offered by the Tree of Life, we must first become like angels ourselves, as once we were in the Garden of Eden.

PART ONE

Construction

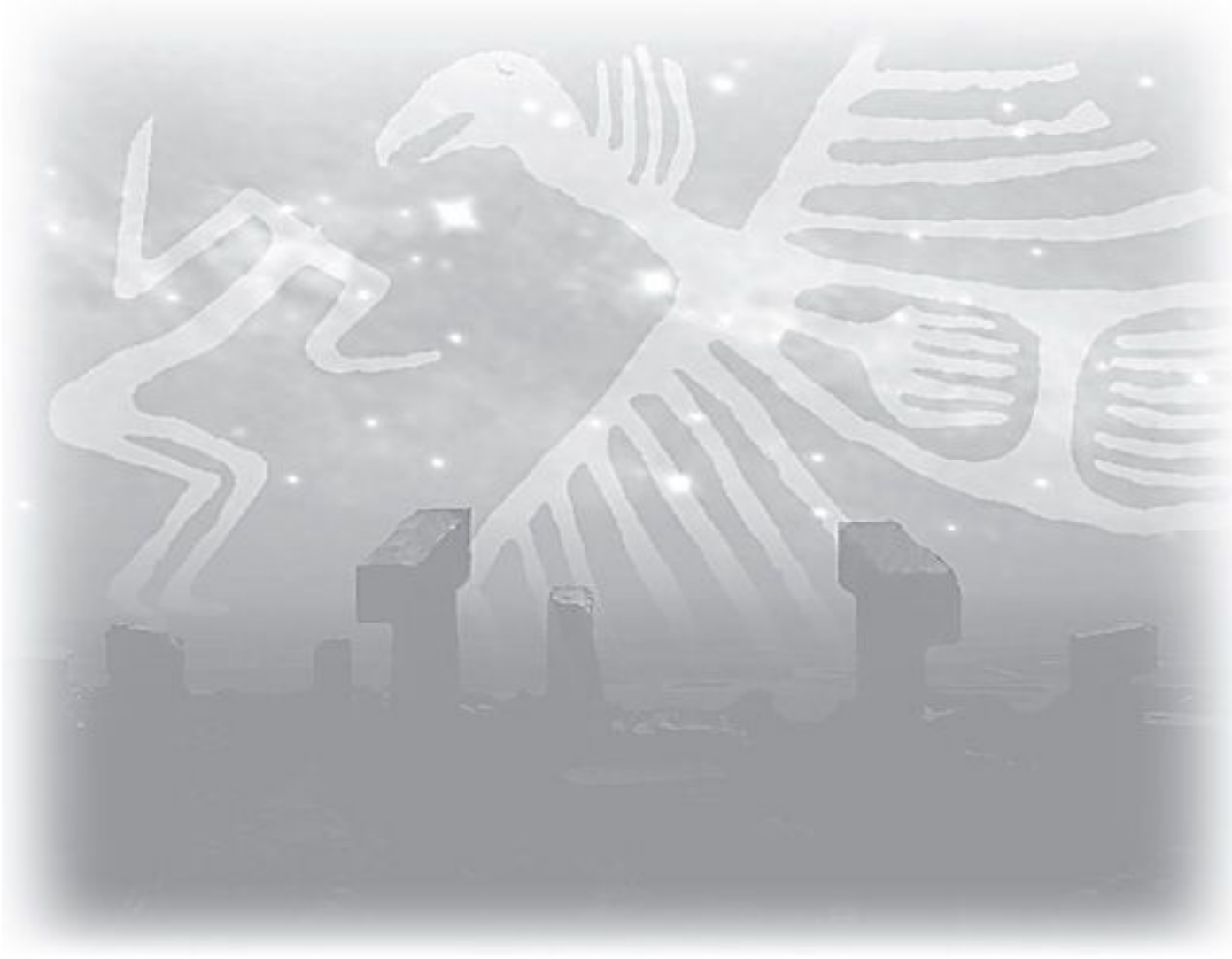

1

A LIFETIME'S WORK

One day in October 1994 Professor Klaus Schmidt, an archaeologist working with the German Archaeological Institute and the University of Heidelberg, made the trek out to a bleak limestone plateau, situated close to the southernmost limits of the Anti-Taurus Mountains, just 8 miles (13 kilometers) northeast of the Turkish city of Şanlıurfa. It was a decision that would change his life forever and alter the very way we perceive the rise of civilization in the ancient world.

Schmidt's intention was to inspect a large artificial mound composed of earth and rock debris, which sits on a mountain ridge

that rises to a height of just under half a mile (780 meters) above sea level. Stretching away toward the south lay the Harran Plain, where the patriarch Abraham is said to have set out on his journey to the Promised Land some seven thousand years *after* the incredible events that gave rise to the almost alien world that awaited discovery here at Göbekli Tepe, the "hill of the navel."[1]

SITE V52/1

Schmidt knew that as early as 1963 a joint team from the universities of Istanbul and Chicago had visited the site and identified a number of "knolls," or rises, that cover an area of some 3.5 acres (1.44 hectares)—a figure extended to 22 acres (9 hectares) following a geomagnetic survey of the site in 2003.[2]

The 1963 expedition noted that immediately west of Göbekli Tepe's rounded summit prehistoric stone tools lay strewn across a

wide area. They belonged to an age when the inhabitants of southeast Anatolia (modern-day Turkey) were making the transition from hunter-gatherers to settled pastoralists and farmers.

The survey team also recorded the presence at Göbekli Tepe (documented as site V52/1) of cut and dressed slabs of limestone bearing evidence of carved relief. Team member Peter Benedict, an anthropologist with the University of Chicago, concluded the fragments came from a lost Byzantine cemetery. It was a decision influenced perhaps by the fact that the local Kurdish community consider the *tepe* or *tell*—these being, respectively, the Turkish and Arabic words for a large artificial mound created by human occupation—as sacred, using it themselves as a cemetery for their dead. At its summit, modern graves lie within a walled enclosure clustered around a single fig-mulberry tree, a sight clearly visible to anyone approaching the mountain from the plain below.

Göbekli Tepe was not investigated further, with the entire matter being confined to a single report published in 1980.[3] Instead, the joint Istanbul-Chicago team concentrated their efforts on excavating an important early Neolithic site at Çayönü Tepesi, located 4 miles (6 kilometers) southwest of the town of Ergani, northwest of the city of Diyarbakır. Having thrived, in the main, between ca. 8630 BC and 6820 BC, Çayönü is noted for the discovery there of a series of rectangular buildings with distinctive "grill-plan" subfloors composed of low, parallel walls of stone, possibly to allow air to pass freely beneath the main flooring. Here too was found some of the earliest evidence for the use of copper, beaten into shape, not smelted, along with evidence of animal husbandry in the form of pig domestication and the earliest known use of linen fabric, a piece being found still wrapped around an antler.

The site's lead excavators, American archaeologist and

anthropologist Robert J. Braidwood (1907–2003) and Turkish academic Dr. Halet Çambel, also came across other examples of advanced building design and technical achievement at Çayönü. In addition to the grill-plan floors, one structure, dubbed the Flagstone Building, was found to possess a floor of polished limestone slabs up to 6.5 feet (2 meters) in length. Two tall stone pillars stood in the center of the room, with rows of orthostats (stone posts) set up against the interior walls.[4]

Another structure, known as the Terrazzo Building, bore a slightly different, although no less impressive, style of flooring. It consisted of a 16-inch (40 centimeter)-thick setting of terrazzo, a hard, polished surface made from burnt and crushed lime and clay, stained red with a substance called ochre. Into this, two parallel rows of white pebbles had been inserted to create a linear design of simple beauty. Orthostats again lined the interior walls, while a pair of standing stones, like those in the Flagstone Building, had been set

up in the middle of the room.

Prior to the discovery of Çayönü, the use of orthostats had been found in just a few rare instances. For instance, at a proto-Neolithic site in northern Iraq named Qermez Dere, located on a south-facing mountain slope overlooking a vast desert expanse known as the Jezirah, stone pillars, their tops carved into the likeness of human shoulders and arms, were found to have stood at the center of two circular buildings with plaster floors. Both structures provided dates in the region of the early tenth millennium BC.[5]

SANGUINE DISCOVERIES

In one of the enclosures at Çayönü archaeologists discovered, both in the walls and beneath the floor, human skulls belonging to around seventy individuals. In one pit excavators came across large numbers of disarticulated human bones, most of them long bones,

which, along with the skulls, suggested the presence of no less than 450 individuals. What fate had befallen them, and under what circumstances, remains unclear.

Unsurprisingly, this apparent mortuary structure, which had a round apse at its northern end, became known as the Skull Building, although it was what excavators found on an enormous cut and polished stone slab, 1.1 U.S. tons (about 1 metric tonne) in weight and set up like an altar table, that most disturbed them. On its surface were clear traces of blood from aurochs (an extinct species of wild cattle) *and* humans, in the form of crystals and hemoglobin.[6] Equally disturbing was the discovery next to the stone slab of a vicious-looking flint knife, like something out of an Aztec temple.

Some pressing questions arise regarding the presence of human blood inside Çayönü's cult buildings. Was it the result of human sacrifice or autosacrifice, personal blood-letting like that practiced in pre-Columbian times among Mesoamerican civilizations such as

the Aztec and Maya? Perhaps the matter is best left alone until a much clearer picture emerges of what was really going on here. Yet whatever the answer, it would seem that, during the early Neolithic age, beauty, sophistication, and advances in technology and architectural design went hand in hand with dark, sanguine activities, just as they would thousands of years later among the peoples of Central and South America.

NEOLITHIZATION

For those who study the prehistory of the Near East, the transitional age between the hunter-gatherers of the late Paleolithic age and the later Neolithic farmers and herders is styled the Pre-Pottery Neolithic, a term devised by British archaeologist Dame Kathleen Kenyon (1906–1978) following her extensive excavations at Jericho in the 1950s. It is a term used much in this book, although in its

formative stage this era is described as the proto-Neolithic period, while in Europe this same epoch is called the Mesolithic age (see figure 1.1 on p. 22).

The Pre-Pottery (i.e., preceramic) Neolithic age is split into two separate phases—A and B. The Pre-Pottery Neolithic A (PPNA) is generally seen to have occurred between ca. 9500 BC and 8500 BC, with the Pre-Pottery Neolithic B (PPNB) taking place between ca. 8700 BC and 6000 BC.[7] This marked the appearance of subsistence agriculture; that is, the domestication of plants and cereals, as well as the growing of crops on a large scale. Thereafter came the Pottery Neolithic, ca. 6400–4500 BC, when "neolithization" really began. It was an age not just of fired pottery but also of the rapid spread of agriculture from Western Asia into other parts of the ancient world, such as Europe, Central Asia, and the Indus Valley of India and Pakistan.

ARCHAEOLOGICAL MINEFIELD

Professor Klaus Schmidt was mainly concerned with the Pre-Pottery Neolithic on his first visit to Göbekli Tepe. He understood full well why the Joint Istanbul-Chicago Prehistoric Survey Team had focused their attentions on Çayönü instead of better investigating Göbekli Tepe, for, as he said himself: “Time was not ripe to recognize the real importance of this site . . . [so] Göbekli Tepe passed into oblivion, and it seems quite clear that no archaeologist returned to the site until the author’s visit in 1994.”[8]

Years BC	Geological Period	Suggested Dates	Cultures	Suggested Dates	Zagros/Iraq	Suggested Dates	Anatolia	Suggested dates
19,000								
	Last Glacial Maxim	18,500-17,000 BC	Middle Epi-Paleolithic	18,500-14,500 BC				
18,000					Zarzian	18,000-11,000 BC		
17,000								
16,000								
15,000								
			Late Epi-Paleolithic	14,500-9500 BC				
14,000								
13,000								
	Allerød interstadial	12,600-10,600 BC	Natufian	12,500-9500 BC				
12,000								
							Abu Hureyra	11,340-5500 BC
11,000	Younger Dryas	10,900-9600 BC						
							Hallan Çemi	10,250-9600 BC
10,000							Qermez Dere	10,050-9650 BC
	Holocene	9500 BC-present	Pre-Pottery Neolithic A	9500-8500 BC			Göbekli Tepe	9500-8000 BC
9000							Çayönü	8800-7000 BC
			Pre-Pottery Neolithic B	8700-6000 BC			Nevalı Çori	8500-7000 BC
8000							Aşıklı Höyük	8000-7400 BC
							Çatal Höyük	7500-5700 BC
7000								
			Pottery Neolithic	6400-4500 BC				
6000					Halaf	6000-5000 BC		
					Ubaid		Tell Arpachiyah	5200-4500 BC
5000								
			Chalcolithic	4500-3300 BC		5000-4100 BC		
4000					Uruk	4100-2900 BC		
3000			Bronze Age	3300-1200 BC	Sumer	2900-1940 BC		
					Akkad	2334-2154 BC		
2000					Assyria	2300-605 BC		
					Babylon	1894-331 BC		
1000								

Figure 1.1. Chart showing dates of the Near Eastern cultures, civilizations, and paleoclimatological ages mentioned in this book.

Thankfully, Schmidt *did* make the decision to visit Göbekli Tepe and see for himself what the site had to offer, and it took him very little time to realize that beneath the huge artificial mound of reddish brown earth and compacted stone chippings, a Pre-Pottery Neolithic complex of immense significance awaited discovery.

Schmidt also realized that the carved stone fragments scattered about Göbekli Tepe were more than simply funerary slabs belonging to some lost Byzantine cemetery. They closely resembled pillars unearthed at another Pre-Pottery Neolithic site, named Nevalı Çori[9] (see figure 1.2), located on a hill slope overlooking a branch of the Euphrates River, halfway between Şanlıurfa and Diyarbakır, some 30 miles (48 kilometers) north-northeast of Göbekli Tepe. He knew this because he had worked at the site under the auspices of

fellow German archaeologist Dr. Harald Hauptmann from 1983 through to 1992, when the rising waters of the Euphrates submerged Nevalı Çori following the construction of the Atatürk Dam.

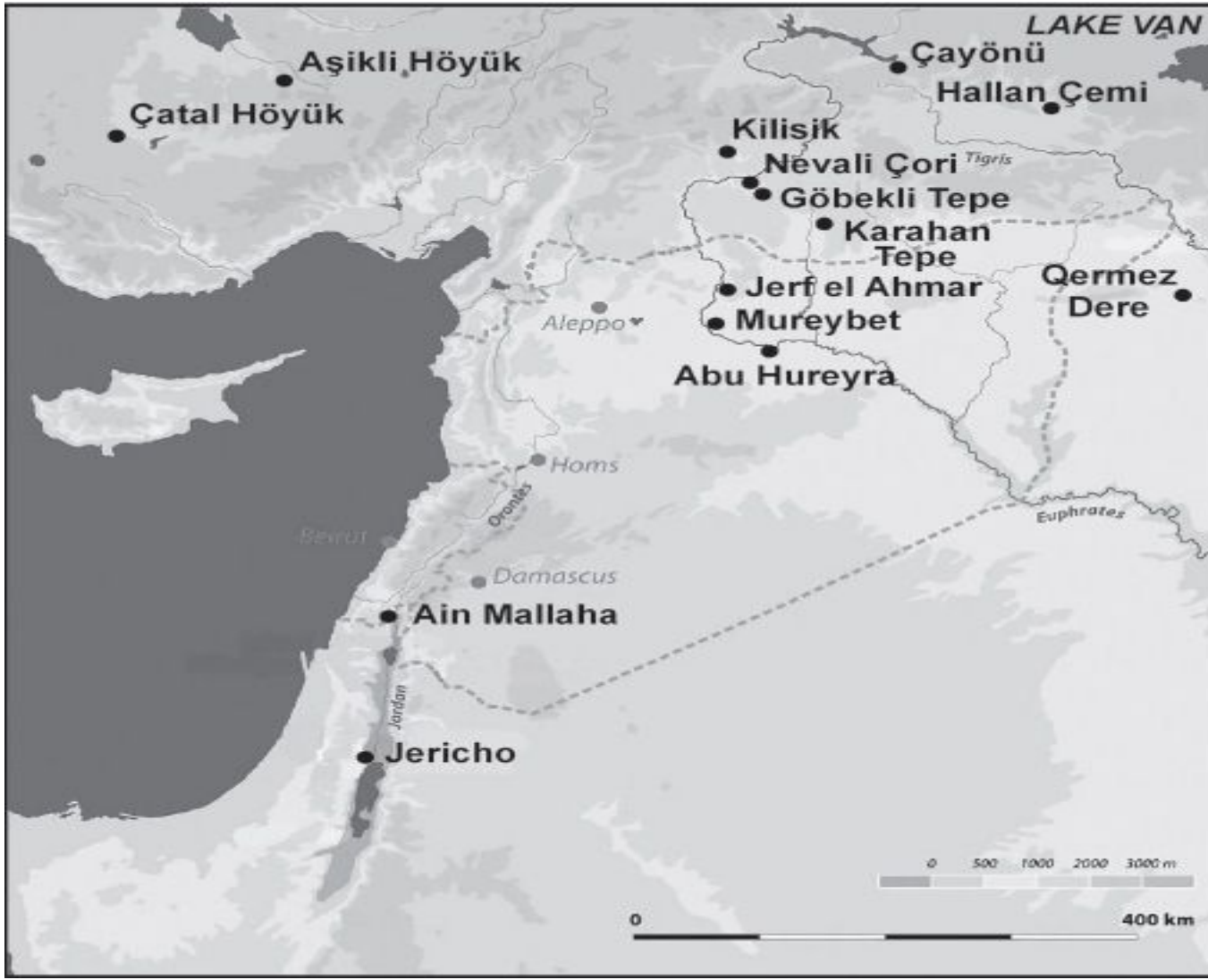
LAKE VAN
Çayönü
Hallan Çemi
Aşikli Höyük
Çatal Höyük
Kilisik
Nevali Çori
Tigris
Göbekli Tepe
Karahan Tepe
Jerf el Ahmar
Qermez Dere
Aleppo
Mureybet
Abu Hureyra
Homs
Orontes
Euphrates
Beirut
Damascus
Ain Mallaha
Jordan
Jericho
0 500 1000 2000 3000 m
0
400 km

Figure 1.2. Map showing Pre-Pottery Neolithic sites in southwest Asia mentioned in this book.

THE CULT BUILDING

Nevalı Çori was found to consist of a series of rectangular buildings clustered together to form a village settlement, which thrived between 8500 BC and 7600 BC; that is, from the end of the PPNA into the PPNB period. Among the structures uncovered by Hauptmann and his team was one much grander than the rest. Its rear wall backed up to the hill slope, while its interior walls, made of quarry stone, included a communal benchlike feature. This was divided into sections by equally spaced stone pillars, each with a T-shaped or inverted L-like termination. During one of its earliest building phases, designated Level II and dating to ca. 8400–8000 BC, twelve standing pillars had stood within its walls (two on each

side and one in each corner), with the number increasing to thirteen during the next phase, designated Level III, ca. 8000 BC (see figure 1.3). Like its counterpart at Çayönü, Nevalı Çori's megalithic structure possessed a terrazzo floor of burnt lime cement, beneath which was a subfloor of huge stone slabs.

During the Level II building phase, a squared-off niche was constructed into the rear wall of the cult building. Here excavators found an elongated carved head with its face missing. Nicknamed the "skinhead," it is roughly life size and looks like an egg with ears. On its reverse is a highly unusual *sikha,* a long ponytail that resembles a wriggling snake with its head shaped like a mushroom cap. The "skinhead" originated, most probably, from a full-size statue, which having become detached from its body, had been hidden away within the building's north wall.

THE GREAT MONOLITH

The item placed within the building's terrazzo floor, however, was what most compelled the excavators, for standing in the center of the room were the remains of a tall, rectangular pillar bearing an uncanny likeness to the black obsidian monolith that appeared among the apelike creatures at the beginning of Stanley Kubrick's movie adaptation of Arthur C. Clarke's *2001: A Space Odyssey* (figure 1.4).

Figure 1.3. Nevalı Çori's cult building, showing cutaways for Levels II and III, ca. 8400–8000 BC.

Figure 1.4. Nevalı Çori's cult building, showing the surviving central monolith still in situ.

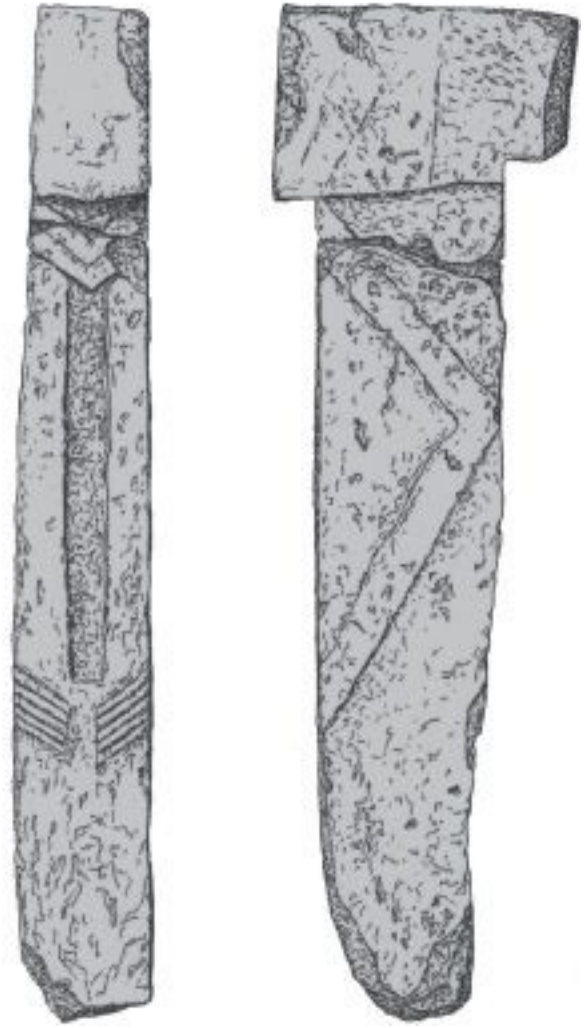

Figure 1.5. One of the stone pillars from Nevalı Çori. Note the stylized arms, hands, stole, and neck pendant.

The pillar, originally 10 feet (3 meters) high, had been carved to represent an abstract human form. In relief across its two widest faces were thin arms, bent at the elbow, with hands and fingers curling around to its front, narrow edge (see figure 1.5 schematic). Anthropomorphic shaping had previously been noted among the remains of the twelve to thirteen standing pillars that had been erected within the building's four walls, but that displayed on the central pillar was far more accomplished. Above the figure's hands were two parallel grooves, or chiseled vertical lines, clearly meant to represent the double hem of a woven garment, open to the waist, which some have seen as a scarflike stole, similar to that worn by a Catholic priest.

A broken fragment of the same pillar lay nearby. Its base matched the top of the standing remnant, although its upper end was so

damaged that no semblance of the individual's head could be discerned. In spite of this, it was clear from the presence of the other stone pillars in the walls that this much larger monolith would once have had a T-shaped termination, creating a hammerlike head. As such, it constituted one of the world's oldest known 3-D representations of the human form.

A hole in the terrazzo floor close to the standing pillar showed that a second monolith must have stood parallel to it, although any trace of its presence had long since disappeared. Like the stone pillars in the walls, the twin pillars perhaps functioned as roof supports, although this is by no means certain. Twin sets of standing pillars had been found in the Flagstone Building and Terrazzo Building at Çayönü. Yet here it was the stone slabs' wider faces, and not one of their narrow sides, that had greeted the entrant approaching from the south.

A PERSONAL DIVINITY

So who or what did the twin pillars represent? Archaeologists at the time suggested they symbolized a "personal divinity."[10] This might have been so, but it did not explain why there were two monoliths side by side or why they faced out toward the cult building's southwesterly placed entrance (the building was found to be oriented almost exactly northeast to southwest). Perhaps the pillars were positioned to greet the entrant, like twin *genii loci* (spirits of the place) guarding the enclosure's inner sanctum. Very likely this presumed liminal, or sacred, area signified an otherworldly environment that existed beyond the mundane world. Indeed, it probably reflected the presence of a parallel realm, a supernatural world, accessible either in death or through the attainment of deathlike trances and other forms of altered states of consciousness, with the aim being to communicate with power animals, great ancestors, and mythical beings.[11]

Klaus Schmidt had all this in mind as he examined the various carved fragments of "large-scale sculptures"[12] found scattered about Göbekli Tepe. Quickly, he realized that "the entire area had been used for the construction of megalithic architecture, not just a specific part of it."[13] He saw its function as ritual in nature.[14] Indeed, Göbekli Tepe's building structures would, he felt, reflect the same cultic influences as those at Çayönü and Nevalı Çori.

Having seen enough, Schmidt came to a frightening conclusion. If he did not turn around and walk away now, he would be there for the rest of his life. As fate would have it, he decided to stay and commit himself to excavating the site fully, and we can be thankful for Schmidt's decision, as it was afterward discovered that the entire hillside was about to become an open quarry to supply rock for the construction of the new Gaziantep to Mardin highway, a decision that was reversed only when the importance of the archaeological

site became known.[15] So we can be pretty sure that without the intervention of this quick-thinking German archaeologist, the world might never have gazed upon the oldest stone temple in the world.

2

MONUMENTAL ARCHITECTURE

Under the joint auspices of the German Archaeological Institute and the Archaeological Museum at Şanlıurfa, Dr. Klaus Schmidt started work at Göbekli Tepe in 1995. Very soon his team, made up of undergraduates from German and Turkish universities, as well as fifty local workers of Kurdish, Turkish, and Arab ethnicity, began making remarkable discoveries. Beneath the mound's topsoil his team came across stone pillars set vertically into the ground. Each one was found to have a T-shaped head like those uncovered at Nevalı Çori.

Two principal structures were investigated between 1995 and

1997 at Göbekli Tepe. One—uncovered immediately west of the solitary fig-mulberry tree with its tiny walled cemetery of modern graves—was a rectangular enclosure that became known as the Lion Pillar Building because of the discovery at its eastern end of twin pillars with carved reliefs of leaping lions on their inner faces (see plate 17). The other was called the Snake Pillar Building.

SNAKE PILLAR BUILDING

The Snake Pillar Building was located beneath the southern slope of the occupational mound, some 50 feet (15 meters) lower in depth than the Lion Pillar Building. Designated Enclosure A, it sits on the mountain's limestone bedrock, suggesting its extreme age. Excavators found it to contain five T-shaped pillars standing about an arm's length apart from one another. As at Nevalı Çori, they were set within quarry stone walls with stepped benches, a thin

layer of clay mortar between each block.

Two pillars stood parallel to each other, with another two placed on the same alignment outside of them; a fifth, south of the central pillars, stood within the perimeter wall, one of its narrow edges facing toward the center of the room (a sixth pillar was found just outside the interior walls). The inner pair of stones acted as a gateway into a round apse containing a hemispherical stone bench, constructed at the rectangular structure's northwest end; a similar apse had previously been recorded in connection with Çayönü's Skull Building. As was the case with Nevalı Çori's cult building and Çayönü's Terrazzo Building, Enclosure A possessed a perfectly level terrazzo floor that covered the underlying bedrock.

Like the pillars in the Lion Temple Building, those in Enclosure A turned out to be revelations in prehistoric art. Pillar 1, the first to be exposed, bore on its front narrow face five slithering snakes, their heads pointing downward. One of the stone's wide surfaces

displayed more snakes interwoven to form a mesh-like pattern of diamonds, collectively forming a snakeskin pattern (see figure 2.1).

Pillar 2 bore reliefs of an auroch, a leaping fox, and a wading bird, most likely a crane (see plate 4). At the top of the pillar's front narrow edge, just beneath the overhang of the hammer-shaped head, was a small bucranium (ox skull) in high relief. It faced outward toward the viewer, and its whereabouts on the figure made an interpretation easy. Anthropomorphic pillars found at Nevalı Çori had been found to possess a V-shaped relief, like a neck collar, in exactly the same place. In other words, the bucranium was, most likely, a carved pendant or emblem of office, worn around the "neck" of the figure.

CULT OF THE SNAKE

Pillars 3 and 4 were without relief, while Pillar 5 bore yet another

representation of a snake. This strong presence of serpentine imagery on the carved stones at Göbekli Tepe begged the question of just what this creature might have symbolized to the peoples of the Pre-Pottery Neolithic age.

Universally, snakes are seen as symbols of supernatural power, divine energy, otherworldly knowledge, male and female sexuality, and, because they shed their skin, metaphysical transformation. The snake also represents the active spirit of medicines, the reason it is today a universal symbol of the medical profession through its association with the cult of Asclepius, the Greek god of medicine and healing. Moreover, the snake is associated not just with beneficial medicines, but also with those that bring forth hallucinations and even death. In Christian legend, for instance, poison offered to John the Evangelist in a laced chalice of wine was made to slither away as a black snake moments before the apostle was about to drink it.

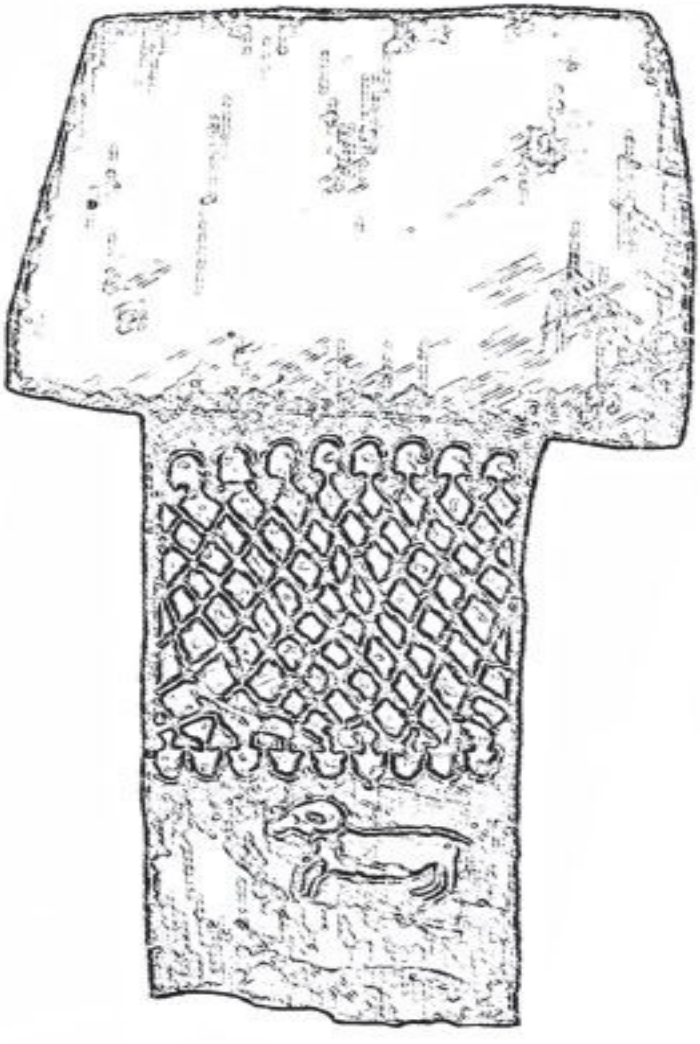

Figure 2.1. Snakes seen on Göbekli Tepe's Pillar 1 in Enclosure A.

Are the snakes carved on the pillars at Göbekli Tepe meant to symbolize the visionary effects of psychotropic (mind-altering) or soporific (sleep-inducing) drugs? It seems likely, for as Schmidt writes himself, several large basalt bowls found at the site were perhaps used in the preparation of medicines or drugs.[1]

Visionary snakes are the most common creatures glimpsed by shamans and initiates during ecstatic or altered states of consciousness induced by mind-altering substances, which among the indigenous peoples of the Amazonian rainforest is most commonly the sacred brew called yagé or ayahuasca, known as the "vine of the soul."[2] These serpentine creatures are seen as the active spirit of the drug and can even communicate with the shaman or initiate.

More pertinent to the decorative art at Göbekli Tepe is that during

yagé or ayahuasca sessions, visionary snakes appear in such profusion that on occasion they have been seen to wrap themselves enmass around either the experiencer or nearby houseposts,[3] creating an effect that cannot be unlike the mesh or net of snakes represented on Enclosure A's Pillar 1 and found also on other standing stones uncovered at the site (see figure 2.2). So is this what the snake imagery at Göbekli Tepe shows, rare glimpses of the visionary world experienced by the shaman? Whatever the answer, the presence of so many snakes in Enclosure A was enough to convince Schmidt to christen it the Snake Pillar Building.

ENCLOSURE B EXPOSED

In 1998 and 1999 a new series of trenches, 29.5 feet (9 meters) square, was opened at Göbekli Tepe. One, dug immediately north of the Snake Pillar Building, revealed the presence of a slightly larger

structure, which became known as Enclosure B. This was found to be ovoid, measuring roughly 23 feet (7 meters) by 28.5 feet (8.7 meters), with no less than nine T-shaped pillars—seven placed within its temenos (that is, boundary) wall and two set parallel to each other in the center of a terrazzo floor—like those that had originally stood in Nevalı Çori's cult building. Schmidt remarked that it was like the "T-shapes," as he calls the anthropomorphic pillars, were gathered for "a meeting or dance."[4]

Pillar 6 displayed carved reliefs of a reptile and snake, while those set up in the center of the room (9 and 10) both bore T-shaped terminations and exquisitely carved leaping foxes on their inner faces. The creatures' animated stance made them appear as if they were jumping across the monolith, perhaps toward the entrant who would approach from the south, exactly in keeping with the cult buildings at Çayönü, which also had entrances in the south.

Figure 2.2. Left, poison escapes from the chalice of wine about to be drunk by John the Evangelist in the form of snakes, from a mosaic on the wall of the church of Saint John the Evangelist, New Ferry, Merseyside, England. Right, snakes on the front of Göbekli Tepe's Pillar 31 in Enclosure D. Do they represent the active spirit of medicines and poisons, or do they refer more particularly to visionary experiences induced through the use of psychoactive substances?

NEW TEMPLES DISCOVERED

Work began around the same time on another structure of much greater size, which became known as Enclosure C. Once again, T-shaped pillars were soon exposed, and these too were set radially within stone walls containing the now familiar stone benches. One monolith, designated Pillar 12, was found to bear a carved relief on

its T-shaped head, the first to do so. It showed five birds, either waders or a flightless species, amid a backdrop of V-shaped lines that were perhaps meant to represent water ripples. On the same pillar's shaft was a "threatening boar"[5] shown above a leaping fox. In front of the stone a portable sculpture of a boar was uncovered. Freestanding art of this kind, including carved human heads, are often found to be fragments of much larger pieces of sculpture, such as carved stone totem poles or life-size statues.

Soon after the discovery of Enclosure C, another massive building structure, Enclosure D, was uncovered immediately to its northwest. This would prove to be one of the oldest and most mysterious monuments ever uncovered in the ancient world. Both enclosures, C and D, are described in full within subsequent chapters.

DELIBERATE BURIAL

What started to become apparent to Schmidt's team, as it removed the vast amounts of fill that covered the various building structures beneath the tell at Göbekli Tepe, is that each one had been *deliberately* buried beneath an ever-expanding mound.[6] It was almost as if the idea of creating the bellylike tell, or tepe, was part of an original grand design, with each new enclosure playing some role in its greater purpose, a gradually evolving process that had taken some fifteen hundred years to complete. This ritual act of "killing," or decommissioning, each enclosure before the construction of a new one to take its place would seem to have occurred in stages until around 8000 BC, when the remaining structures were covered over and the site finally abandoned.[7]

For Schmidt and his team the burial of the enclosures was an immense bugbear, as it meant they were not easily able to determine the construction dates of the various monuments uncovered. Despite this problem, Schmidt was able to ascertain from the different types

of flint tool found within the fill that the *earliest* phases of building activity uncovered at Göbekli Tepe belonged to the epoch known as Pre-Pottery Neolithic A, which began around 9500 BC.[8]

THE YOUNGER DRYAS MINI ICE AGE

It is a date that coincides pretty well with the culmination of a mini ice age, or prolonged cold spell, known as the Younger Dryas. This had enveloped much of the Northern Hemisphere for around thirteen hundred hundred years, ca. 10,900–9600 BC, bringing with it a pronounced dip in temperature as well as a sustained drought that severely altered the plant and animal life throughout what is known as the Fertile Crescent. This is the arclike region of verdant river valleys, steppes, and plains that stretches clockwise from Palestine and Israel, through the Levantine corridor of Lebanon, into the Middle Euphrates Basin of northern Syria, then across into

what is known as Northern Mesopotamia, a region that embraces southeast Anatolia, before entering the Mesopotamian Plain, or what is today the country of Iraq.

The Younger Dryas period followed a two-thousand-year episode of global warming known as the Allerød interstadial. This in turn had brought to a close the last ice age proper, which had been with us for approximately ninety-five thousand years, reaching its last glacial maximum around twenty to twenty-two thousand years ago (an interstadial is a period when temperatures rise and glaciers go on the retreat).

With the cessation of the mini ice age, or big chill, ca. 9600 BC, the temperatures rose, bringing about a blossoming of new flora and fauna (in geological terms this point in history marks the transition from the Pleistocene age to the Holocene, which we are still in today). It was an ideal environment for new growth that led to the emergence of agriculture on the Middle Euphrates and farther south

within the Levantine corridor. It was also around this time, Schmidt believes, that hunter-gatherers from across the region came together to create the extraordinary stone structures being uncovered today at Göbekli Tepe, which he is sure were not domestic in nature.

No evidence of fires, hearths, cooking areas, or any other signs of habitation have been found in or around the enclosures at Göbekli Tepe that might indicate the permanent presence here of a large community. Human remains *have* been found, plenty of them, although these are either retrieved from the fill covering the enclosures or are found concealed in walls or benches. Exactly what they are doing here remains unclear.

A LIFE OF BEER

One more anomaly at Göbekli Tepe is that the nearest water source is 3 miles (5 kilometers) away, meaning that any drinking water has

to be carried to the site. This lack of a constant water supply seems illogical, especially given that the construction of the monuments would have required the presence of a labor force involving hundreds of workers and their families, all of whom would have needed to be fed on a daily basis. The only explanation is that the workers lived in settlements nearby and climbed the mountain with sufficient supplies to last them for the duration of their stay.

This said, there is a strong possibility that a form of beer made from wild wheat was on the menu at Göbekli Tepe. Large stone vats unearthed by Schmidt's team have been linked with beer production (see figure 2.3).[9] Whether the beer was brewed for reasons of necessity or for some ritual function remains to be seen, although as an intoxicating beverage it *is* likely to have possessed an otherworldly significance. The term *ale,* used today for beer, originally meant any kind of alcoholic drink made using wheat grain. The word could well derive from the Indo-European root *alu,*

which has definite connotations of shifting realities and altered states of consciousness through its presence in key words such as *hallucinate* and *hallucination*.[10]

CUP MARKS FOR CARRION BIRDS

Another peculiar mystery at Göbekli Tepe is the presence on the exposed bedrock to the southwest of the main enclosures of large cuplike holes, up to 6 inches (15 centimeters) in width and depth (see figure 2.4). There are dozens of them everywhere. Similar cup marks are to be seen on top of some of the standing pillars, while clusters of them are found also at other Pre-Pottery Neolithic sites across the region.

On asking Klaus Schmidt what he thought these cup marks represented in September 2012, he shrugged his shoulders and said they are found everywhere, often in the company of carved rings

marks, like those in Britain. Yet clearly they did once have a function, and the most obvious solution is that they were receptacles for something, either liquid—blood, beer, milk, or water perhaps—or, more likely, some type of food such as meat. Because they almost always seem to be carved in elevated positions, it appears possible that whatever they contained were offerings to carrion birds such as vultures, crows, or ravens, which might well have played some kind of symbolic function in the rituals taking place inside the sanctuaries (a large number of bones belonging to both the crow and raven have been found within the fill at Göbekli Tepe[11]).

Figure 2.3. Minor enclosure at Göbekli Tepe, dating to ca. 8500–8000 BC, showing a stone container thought to have held beer.

Figure 2.4. Examples of the incised cup marks found on exposed bedrock in the vicinity of Göbekli Tepe's Enclosure E.

Scavenger birds such as vultures play an important role in the

Neolithic cult of the dead (see chapter 9), and so gaining their favor in a divinatory manner might well have been important to the success of a ritual. In other words, if the birds came down and took away the meat, it was a good omen, and if they didn't, then the opposite would be the case.

Interestingly enough, divination has been proposed as an explanation for the presence of similar cup marks found on exposed rock surfaces in the area of Mount Ararat in eastern Anatolia. Armenian prehistorians speculate that although the true purpose of the cup marks has now been lost, they were probably "used by oracles during fortune telling," a very credible explanation indeed, which sits well with their possible function at Göbekli Tepe.[12]

ENGINEERING CONUNDRUM

The standing pillars found in the various enclosures at Göbekli Tepe

are regularly between 6.5 and 10 feet (2 and 3 meters) in size and are thought to weigh between 5.5 and 16.5 U.S. tons apiece (5 and 15 metric tonnes). Even more of an enigma is that sitting in a quarry a quarter of a mile (400 meters) away from the occupational mound is an unfinished T-shaped monolith some 22.9 feet (7 meters) in length and 9.8 feet (3 meters) broad, with an estimated weight of approximately 55 U.S. tons (50 metric tonnes).[13] As Schmidt asked back in 2001:

> How could the manpower be amassed at the mound to move such pillars? It seems obvious that only organized meetings of several groups of hunter-gatherers from the territories around Göbekli Tepe would be able to provide the capabilities for such an undertaking, meetings rooted in a ritual background.[14]

As Schmidt admits, the construction of huge megalithic architecture is not thought to have begun until many thousand years

later at places such as Egypt and Stonehenge in England. Never before had the archaeological community conceived of such feats of monumental engineering going on even before the wide-scale appearance of agriculture. From the faunal (animal) remains retrieved from the fill covering Göbekli Tepe's occupational mound, it would seem that the main food source was wild game such as gazelles, red deer, wild boar, aurochs, and wild sheep,[15] supplemented with copious amounts of almonds and pistachios.

NEOLITHIC REVOLUTION

In Schmidt's opinion: "Hunter-gatherers living at Göbekli Tepe for an extended time would have caused a serious over-exploitation of the local natural resources."[16] For him the coming together of so many people led to the domestication of wild species of cereals and other plants in order to feed those present both here and at other

similar sites across southeast Anatolia, causing what Australian archaeologist and philologist V. Gordon Childe (1892–1957) long ago christened the Neolithic revolution.

Yet Childe saw it the other way around—the rapid spread of agriculture at the beginning of the Neolithic, and the more settled lifestyle it brought with it—gave people time to invent new technologies and to think about the mysteries of life, leading to the construction of the first temples, an act that led to the creation of cities and civilizations. Now we know Childe was wrong. It was the temples that came first, with agriculture created in their wake to satisfy the needs of so many people engaged in the construction and maintenance of such mammoth building projects.

THE ORIGINS OF AGRICULTURE

Such a theory makes sense of another puzzling enigma that

prehistorians are still trying to fully understand. Genetic research into the origins of cereal production has determined that no less than sixty-eight modern strains of wheat, used by us today to make bread, beer, pasta, and other products, can be traced back to a variety of wild einkorn that grows on the slopes of Karaca Dağ (pronounced *ka-rag-a dar*), a volcanic mountain just 50 miles (80 kilometers) northeast of Göbekli Tepe.[17] This means that wheat might well have been domesticated for the first time only a short distance away from the site of humanity's earliest known example of monumental architecture.

Over an extensive period of time einkorn was gradually domesticated through selective cultivation to create a much stronger variety whereby the kernels remained on the plants, instead of falling to the ground. This enabled a higher wheat yield through the heads being able to ripen better before harvesting took place.

Was it possible that the domestication of wheat occurred in

southeast Anatolia in response to the sheer need to feed so many groups of hunter-gatherers either laboring away on site or visiting Göbekli Tepe as part of some huge sociomagical gathering? “Their idea, to meet again and again at a specific place,” Schmidt argues, “seems to be a basic factor of the origins of neolithization.”[18] Here then, really, is where the revolution began—the revolution in becoming Neolithic, in becoming farmers tilling the fields, herding animals, and living more communal lifestyles. It was a turning point in human existence that quite literally paved the way for the rise of civilization, which had its beginnings in what was happening at Göbekli Tepe some 11,500 years ago.

3

FROZEN IN STONE

A large number of the T-shaped pillars seen in the various enclosures at Göbekli Tepe show beautiful carvings of strange, eerie, and often terrifying creatures of the natural world. Those most frequently represented are, in order, snakes, leaping foxes, wild boars, and cranes. Others seen include aurochs, gazelles, lions, wild sheep, lizards, scorpions, spiders, and ants (with at least one bear and a hyena identified as well). Various species of bird are also found, including flamingos, vultures, ibises, and flightless birds. In addition to this, excavators have found a number of 3-D statues that include boars, aurochs, and at least three teeth-bearing predators,

most likely wolves. These can be seen today in Şanlıurfa's museum of archaeology.

Too many species are represented by the carved art to easily assess what exactly they all mean or why there are so many creatures portrayed together, and perhaps this is a clue to their greater purpose. It is almost as if they constitute a snapshot of the abundance of life that existed when the monuments were constructed shortly after the end of the last Ice Age. Yet for the most part these are not friendly creatures by any stretch of the imagination: they bite, gore, claw, sting, tear apart, and generally kill whatever gets in their way. They are not the kind of animals you would want to be locked inside a claustrophobic room with, without any means of escape.

None of the animals shown on the stone pillars at Göbekli Tepe are nice cuddly creatures, even though some of them, such as the auroch, wild boar, wild sheep, and even the wolf, would afterward

become domesticated. Clearly, this was meant to be the case, suggesting that someone, an entrant or initiate, finding him- or herself inside an enclosure, would immediately be presented with a terrifying visual spectacle illuminated either by natural light or by torches of some kind. It was an assault on the senses that would have induced not a state of peace and calmness, but one of fear and alertness, something that must have been all too familiar to the hunter-gatherer, whose whole life was centered around the struggle for survival on a day-to-day basis.

Yet such mental assaults were perhaps not simply for focusing the mind on the dangers of the hunt, especially as by this time people were beginning to settle into more communal lifestyles away from the immediate concerns of the chase. There was clearly something else going on here, something that plunges us into the realm of deep-seated, instinctual psychological states.

For example, when we look at the magnificent accomplishment

of the Paleolithic artists that entered the deepest caves of northern Spain and southern France to execute their work toward the end of the last ice age, ca. 30,000–9500 BC, a sense of immense beauty and tranquility is conveyed. This is in complete contrast to the overall sense of fear and anxiety that exudes from the more chilling art of Göbekli Tepe. This, simply from its manner of execution, has more in common with the visual art of the pre-Columbian civilizations of Central and South America than it does the majestic cave paintings of southwest Europe. It is an impression that only deepens the more we examine the various enclosures at Göbekli Tepe.

ENCLOSURE C

Of all the structures so far uncovered at Göbekli Tepe, by far the most complex is Enclosure C, which, like Enclosure B, is ovoid in

appearance, being roughly 75 feet (23 meters) by 60 feet (18 meters) in size. It consists of two concentric walls of stone (the inner one being built after the structure's original construction[1]), each containing various pillars, most of them T-shaped.

At the center of the enclosure two enormous twin monoliths once stood. Only their stumps remain in situ, with a large fragment of the western monolith (Pillar 37) being reerected in 2009 under the leadership of German architect and engineering consultant Eduard Knoll. Similar to the central pillars in Enclosure B, a leaping fox appears on its inner face, the animal's gaze once again directed southward. Estimates suggest that originally Enclosure C's twin pillars would have stood around 16 feet (5 meters) in height. Yet unlike those of Enclosure B, these examples have not been set within a terrazzo floor. Instead, they are slotted into rectangular grooves cut into raised, steplike pedestals sculpted out of the bedrock.

A large area of smoothed bedrock, elliptical in shape, complete with a pair of rock-cut pedestals that also contain rectangular slots, had earlier been found on level ground 160 yards (146 meters) west-southwest of Göbekli Tepe's main group of structures. Yet here, in what has become known as Enclosure E, or the *Felsentempel* (German for "rock temple"), no clear evidence of any standing pillars or surrounding structure survives today. This said, it is clear that Enclosure E is of the same general age as Enclosure C.

Adjacent to Enclosure C's western central monolith is one of the most remarkable T-shaped stones discovered so far at the site. Running down the front narrow edge of Pillar 27 is a 3-D predator, a famished quadruped, with a long bushy tail and emaciated body. Its snarling jaws, complete with carved lines signifying whiskers, reveal a mouth full of razor-sharp teeth. That such a feat of artistic expression was carried out eleven thousand years ago by simple hunter-gatherers seems almost alien, although achieve it they did.

As to the identity of this predator, Schmidt believes it is a feline, a lion most probably. Yet the shape of its body, the large incised teeth, and the long bushy tail make a case for its being a canine of some description.

A DOUBLE RING OF STONES

The exact number of standing pillars Enclosure C's outer ring once possessed is now lost, with just eight remaining in place. Its inner ring probably contained twelve T-shaped pillars, with eleven surviving today. The area between the two concentric walls into which the stones were set created a circular walkway, although there was no direct means of access from here into the central enclosure where the twin monoliths were located. So how might entry have been achieved? The answer is that either a porthole stone once existed within the wall of the inner ring (several such stones,

some decorated with carved figures, have been found at the site), or the entrant had to quite literally climb inside, perhaps using ropes or a ladder. This is suggested by the presence of a steplike feature on the south side of the enclosure between two pillars, forming what appears to be an entranceway of some kind (see plate 7).

Another possibility is that there was once an overhead entry point within a covered roof. Certainly, there are angled slots and grooves on the upper surfaces of some of the stones making up Enclosure C's inner circle, which could easily have been cut to help support an overhead structure. Yet whether a roof of this sort was an original feature or one added at some later point remains unclear. Archaeologist Ted Banning of the University of Toronto has proposed that the T-shaped pillars at Göbekli Tepe were primarily roof supports and the enclosures themselves domestic houses,[2] a view not shared by Schmidt and his colleagues.

THE DROMOS

Enclosure C's circular walkway, between the outer and inner temenos walls, was entered from the south through a north-south-aligned stone passage measuring 25 feet (7.5 meters) in length. Schmidt calls it the *dromos,* after an ancient Greek word meaning *avenue* or *entranceway,* because of its likeness to the passageways attached to the beehive-shaped *tholoi* tombs of Mycenaean Greece.

At the southern end of the dromos a curious U-shaped stone portal, or inverse arch, was set up as an entranceway. The upright terminations of its two "arms" were carved into the likeness of strange, crouching quadrupeds that face outward; that is, away from each other. The identity of these twin guardians, only one of which remains roughly in situ today, is another puzzle (see plate 8). Schmidt calls this U-shaped doorway the "Lion's Gate,"[3] perhaps because of the twin lions carved in stone above the Lion's Gate entrance at the Mycenaean city of Mycenae in southern Greece.

Beyond the U-shaped entrance to the dromos, Schmidt's team has uncovered a stone stairway of eight steps constructed to navigate a noticeable dip or "depression" in the bedrock (see figure 3.1).[4] It is an incredible feat of ingenuity and constitutes one of the oldest staircases to be found anywhere in the world. Its presence here at Göbekli Tepe confirms both that an ascent was required to enter the enclosure and that the south was the direction of approach for the visitor.

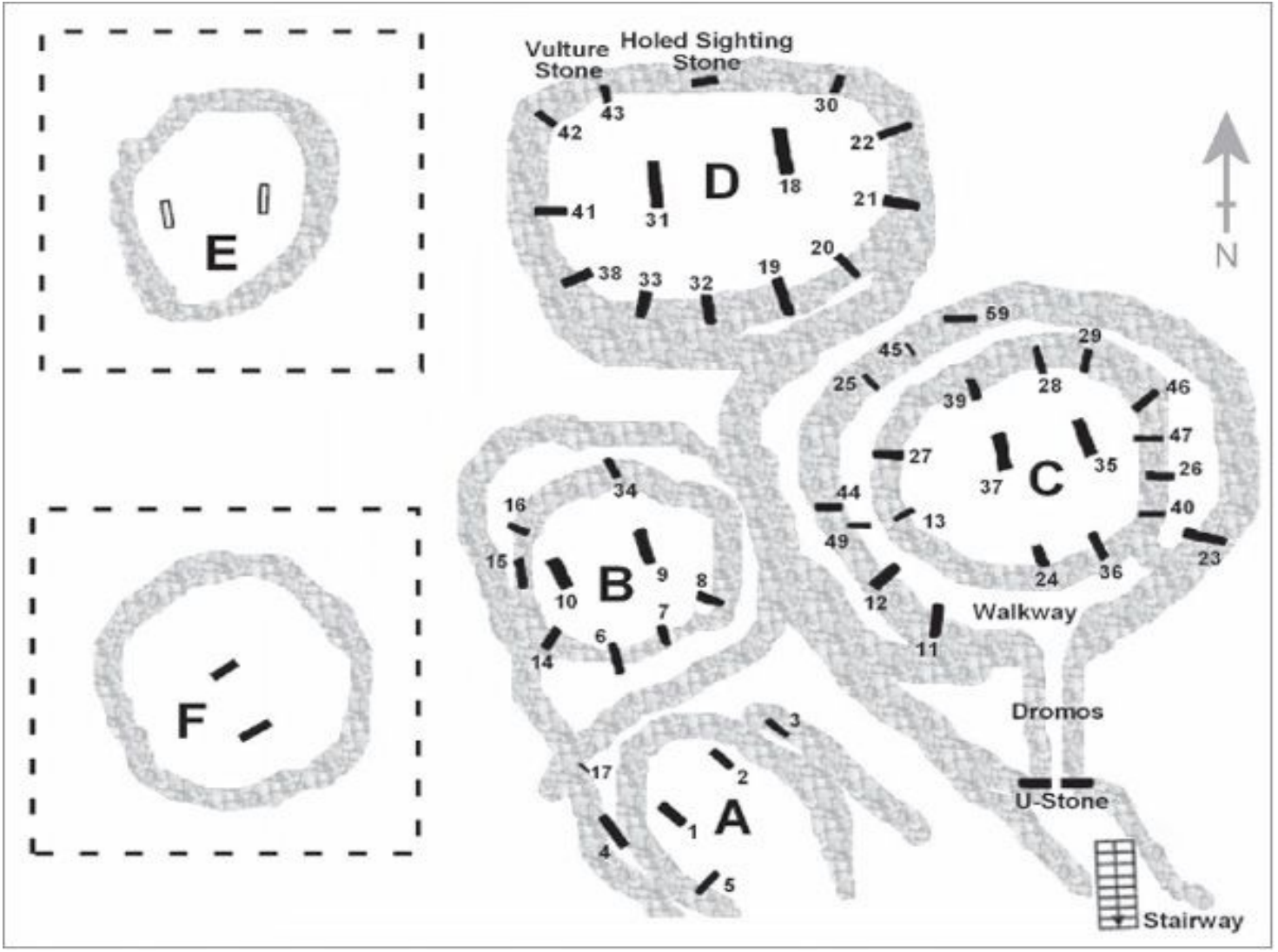
Vulture Stone
Holed Sighting Stone
D
E
F
B
C
A
Walkway
Dromos
U-Stone
Stairway
N

Figure 3.1. Plan of Göbekli Tepe showing the main enclosures uncovered so far.

ENCLOSURE D

Abutting Enclosure C to the northwest is Enclosure D, the most accomplished of all the structures at Göbekli Tepe. Once again it is ovoid, measuring approximately 60 feet (18 meters) by 47.5 feet (14.5 meters), and would originally have contained a ring of twelve T-shaped pillars (just eleven remain today). Its length-to-breath ratio is almost exactly 5:4, which, strangely enough, is identical to that of Enclosure B *and* Enclosure C, something that is unlikely to be coincidence. (The ovoid outline in the bedrock of the now vanished Enclosure E, located slightly west of the main group of structures, suggests that it too possessed a 5:4 size ratio.) It is a realization we return to in chapter 5.

Two enormous twin monoliths stand at the center of Enclosure D. Although slightly bent by the weight of the soil and debris bearing down on them, they remain intact today. Each one—with a height of around 18 feet (5.5 meters) and weighing as much as 16.5 U.S. tons apiece (15 metric tonnes)—was found to have been slotted into rectangular pedestals carved out of the bedrock, like those in Enclosure C. Yet bizarrely these slots are no more than 4–6 inches (10–15 centimeters) deep, which would have left the pillars particularly unstable.

Such a decision to erect the pillars in this manner is unlikely to have been a design fault, as it seems so out of character with the sophisticated style of building construction employed at Göbekli Tepe. The only logical explanation is to assume that in addition to being slotted firmly into the bedrock pedestals, the central pillars were held in place by wooden support frames (as they are today), which perhaps formed part of a roof.

MYSTERY OF THE FLIGHTLESS BIRDS

The carved decoration on Enclosure D's eastern central pillar (Pillar 18) is quite extraordinary. Starting with the rock-cut pedestal supporting the monolith, we see a line of seven strange birds spread out along its south-facing edge (see plate 16). The peculiar shape of their heads and beaks give them the appearance of baby dinosaurs! However, the creatures' plump bodies, without any obvious wings, reveal them to be flightless birds that sit on their haunches, their legs stretched out in front of them. So what species do they represent? An examination of known flightless birds from the past right down to the present day suggests they could be dodos (see figure 3.2).[*1]

No other bird type known to have existed in the tenth millennium BC even comes close to matching what we see at Göbekli Tepe, and to ignore this conclusion would be to miss an opportunity to better understand the geographical world of the Göbekli builders. This is

not to say they visited the island of Mauritius in the Indian Ocean, where the dodo was hunted to extinction by the first Europeans to reach the island, only that somewhere on their travels the Göbekli builders might have encountered a similar bird that is today extinct.

As to why birds of this type are represented at Göbekli Tepe we can only speculate. Perhaps the fact that they are flightless is the clue. Since they can’t fly away, they are rooted to the ground, just like the bedrock pedestals on which they’re carved, implying therefore that the birds symbolize permanence and a point of foundation.

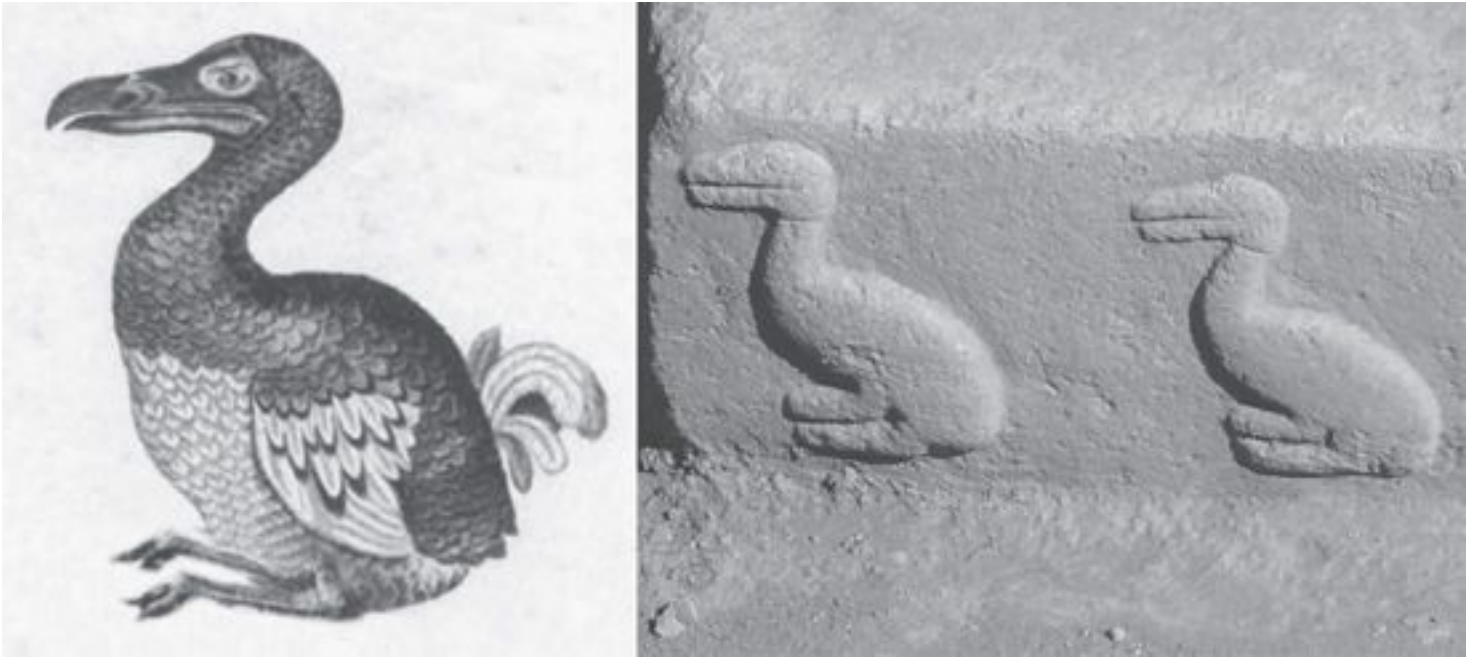

Figure 3.2. Left, seated dodo bird and, right, two of the seven flightless birds seen on the pedestal of Göbekli Tepe's Pillar 18 in Enclosure D.

LATER PHASES OF BUILDING ACTIVITY

Various smaller enclosures and cell-like rooms, uncovered to the north and west of the main group of buildings at Göbekli Tepe, were found to have been constructed during a slightly later building phase, ca. 9000–8000 BC. This seems certain, since they are positioned as much as 50 feet (15 meters) higher than the other enclosures constructed on the bedrock below. In other words, these much younger structures were built long after the older structures had been buried (at least in part) below the gradually emerging tell. Like their forerunners, these rooms contain T-shaped pillars, communal benches, and stone-lined walls, invariably rectangular in design. Yet in size and quality they are often greatly inferior. In some cases, they are the size of bathrooms, with their stones no more than 3.2 to 5 feet (1 to 1.5 meters) in height. Some of the pillars are T-shaped, with clearly carved anthropomorphic features like their predecessors, while others are left unadorned. Clearly the later Göbekli builders were downsizing in architectural style and artistic design, while at the same time retaining some elements of

the earlier enclosures.

Around 8000 BC the remaining structures at Göbekli Tepe were covered with fill and abandoned completely, this unique style of architecture continuing only at a handful of other Pre-Pottery Neolithic sites in the region, including Çayönü and Nevalı Çori, which we have already explored; Hamzan Tepe,[5] Sefer Tepe,[6] and Taşlı Tepe,[7] all near Şanlıurfa; and Karahan Tepe.[8] This last mentioned site, set within the Tektek Mountains some 40 miles (64 kilometers) east of Şanlıurfa, has yet to be fully excavated, even though in size it could easily match that of Göbekli Tepe (it was investigated by the present author in 2004, who noted carved stone fragments, exposed heads of T-shaped pillars, a stone row, and countless flint tools scattered across a very wide area indeed). At a place named Kilisik, close to the town of Adıyaman, around 53 miles (85 kilometers) north of Nevalı Çori, a mini T-shaped figure in the form of a small stone statue was found in 1965,[9] leading

prehistorians to consider that another early Neolithic site awaits discovery here (see chapter 10 for more on this remarkable statue). At a place named Kilisik, a village close to the Kahta river in Adıyaman province, in the foothills of the Anti-Taurus Mountains, some 46.5 miles (75 kilometers) north-northwest of Göbekli Tepe, a mini T-shaped figure in the form of a small stone statue was found in 1965,[9] leading prehistorians to consider that another early Neolithic site awaits discovery here (see chapter 10 for more on this remarkable stature).

TRIANGLE D'OR

All of these sites, where T-shaped pillars and portable statues have been found, lie within a very small area no more than 150 miles (240 kilometers) in diameter, with its center close to Karaca Dağ, where the genetic origins of modern wheat have been traced to a

variety of wild einkorn growing on its lower slopes. This area of southeast Anatolia, where neolithization began, has been christened the *triangle d'or,* the "golden triangle," due to the key role it played in kick-starting the Neolithic revolution.[10]

It is a grand title, the *triangle d'or,* but it does seem to express the sheer genius of inspiration that led to the emergence of sites such as Göbekli Tepe, with their unique architecture, which seems almost alien to the modern world. Yet where did this genius of inspiration come from? Dr. Mehrdad R. Izady, professor of Near East studies at New York University, wrote in 1992 (two years before Klaus Schmidt first visited Göbekli Tepe) that at the beginning of the Neolithic age the peoples of southeast Anatolia "went through an unexplained stage of accelerated technological evolution, prompted by yet uncertain forces."[11] What exactly were these as "yet uncertain forces"? Were they material or divine? Were they human or something else altogether? All we can say is that something quite

extraordinary happened in the *triangle d'or* some twelve thousand years ago, and the key to understanding this mystery might well await discovery among the T-shaped pillars and carved art of Göbekli Tepe.

To date, seven major structures (Enclosures A, B, C, D, E, and F, as well as the Lion Pillar Building) have been explored at Göbekli Tepe. Yet the geomagnetic survey undertaken in 2003 suggests that this constitutes just a small fraction of what lies buried beneath the occupational mound (Schmidt estimates there might be as many as fifteen more enclosures still to be uncovered, providing a total of some 200 standing pillars[12]). As can be imagined, with two digging campaigns a year (April to May and September to November), Klaus Schmidt's multinational team is constantly discovering new structures and monuments.

Very gradually our fragmented picture of what went on here as much as twelve thousand years ago will slowly take shape. Trying

to unravel its mysteries too soon is rife with problems, although simply stepping aside and allowing the archaeological evidence to speak for itself is to miss an opportunity to get inside the minds of the Göbekli builders and truly know what motivated them to give up their hunter-gatherer lifestyle to create monumental architecture on a scale never before seen in the world. Why exactly did they do this? Why create the earliest known megalithic monuments anywhere in the world? One possible clue is the strange carved symbolism on the stones that includes quite specific glyphs or ideograms, which, as we see next, might well reveal the Göbekli builders' fascination with the heavens.

4

STRANGE GLYPHS AND IDEOGRAMS

The eastern central pillar (Pillar 18) in Göbekli Tepe's Enclosure D sports a wide belt on which are a sequence of abstract glyphs, or ideograms, which are likely to have had some symbolic meaning to the Pre-Pottery Neolithic world of the tenth millennium BC. One, looking like a thin letter C, is seen sometimes turned toward the left and at other times toward the right. Another glyph, resembling the letter H, is found both in an upright position and rotated 90 degrees (see figure 4.1 and plate 11 and plate13). It appears in the same sequence as the C-shaped glyphs, and both seem to work in concert with each other.

On the “front” of the T-shape’s belt the H symbol appears no less than five times, two upright and three on their side. In addition to these glyphs is another, slightly larger ideogram that appears in the position of the figure’s belt buckle, below which a fox-pelt loincloth appears in high relief (both are explored in chapter 12).

THE H GLYPH

How might we interpret these strange ideograms in use among the Göbekli builders so soon after the end of the last Ice Age? Let’s start with the H glyph. Searching the archives of prehistoric symbolism throws up very little. They could be shields made of animal hide, as examples in prehistoric art do occasionally resemble the letter H. Yet if so, why do they appear so many times on the same pillar? Also apparent is that the H character resembles two letter Ts joined stem to stem. It is an association that might not be

without meaning, especially in view of the general appearance of the T-shaped pillars at Göbekli Tepe and the presence of the twin monoliths at the center of the enclosures. If so, then what might this mirrored double T actually represent?

Figure 4.1. Mid-section of Göbekli Tepe's Pillar 18 in Enclosure D showing the figure's wide belt decorated with C- and H-shaped glyphs.

Is it possible that the H glyph conveys the connection between two perfectly mirrored worlds, states, or existences linked by a conceived bridge or tunnel, represented by the crossbar between the two "columns"? If this is the case, it really does not matter whether the glyph is depicted upright or rotated 90 degrees; the meaning would always be the same.

SHAMANIC POT STANDS

Some idea of how indigenous cultures have portrayed the relationship between the two worlds, and the transition between the two, can be found in the design of ritual pot stands used by the

Desana shamans of Colombia. Taking the shape of an hourglass, that is, two cones point to point, they are made from spiraling canes bound together in such a manner as to leave a central hole connecting the two cones, which, when looked at from either end, have the appearance of a hole-like entrance through a spiraling vortex or whirlpool (see figure 4.2). Yet "when seen in profile, as an hourglass, the object can be interpreted as a cosmic model, the two cones connected by a circular 'door', an image that leads to others such as 'birth', 'rebirth', the passage from one 'dimension' (*turî*) to another while under the influence of a narcotic, and to similar shamanistic images. . . . In sum, the hourglass shape contains a great amount of shamanistic imagery concerned with cosmic structures and with transformative processes."[1]

These are the words of anthropologist Gerardo Reichel-Dolmatoff (1912–1994), who conducted an extensive study of the beliefs and practices of shamanic-based cultures of the Amazon

rainforest. He saw the hourglass-shaped pot stand of the Desana as symbolic of the connection between the two worlds, the hole created between the two cones being the point of entrance and exit between the two dimensions of existence. This bears out the interpretation of Göbekli Tepe's H glyph as being a mirrored symbol of movement between two worlds, whether across space or time. If so, then it is likely that the accompanying C glyph also has some kind of transformative role. It would not be unreasonable to see the twin C shape as the slim crescents of the old and new moon, which when shown together, face to face, signify the transition period between one lunar cycle and the next.

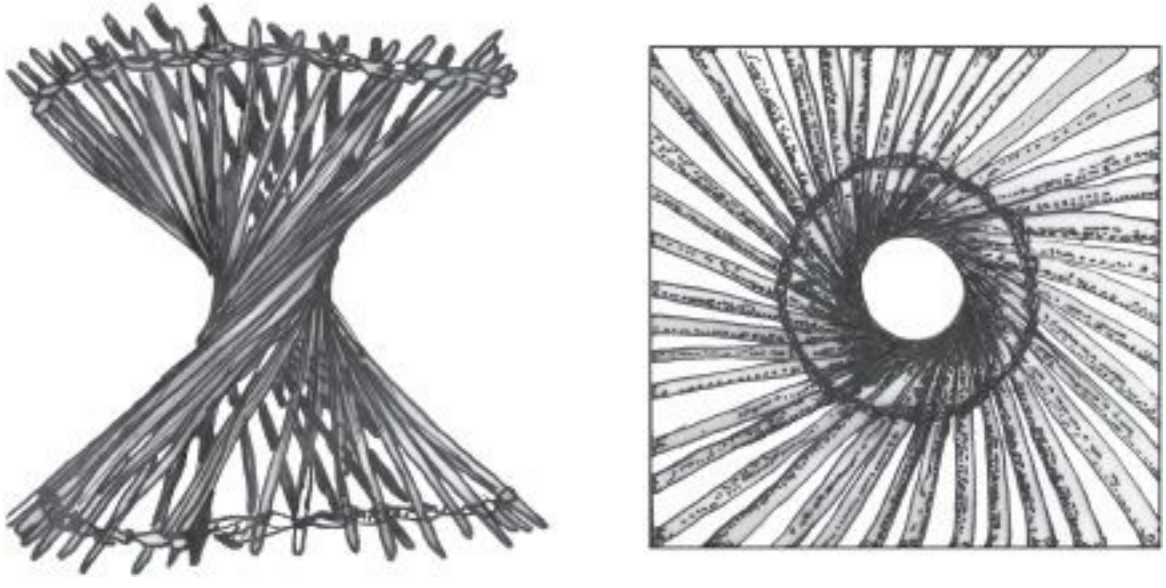

Figure 4.2. Desana shaman's ritual pot stand from the side and looking down through its hollow interior (after Gerardo Reichel-Dolmatoff).

AUSTRALIAN ABORIGINAL ART

Another possible interpretation of the C-shaped glyph can be found

among the symbolic art of the aboriginal peoples of Australia. Here the C-shape ideogram depicts a bird's-eye view of a seated man or woman, the arms of the symbol representing those of the individual.[2] When two Cs are shown together, face to face, this denotes two people sitting opposite each other.[3] Occasionally there will be a bar shown between them, signifying a small, benchlike mound constructed for special ceremonies and said to symbolize a mound of creation associated with a primeval snake.[4]

A photograph in British anthropologist Sir Walter Baldwin Spencer's book *Across Australia* (1912) of a Worgaia medicine man from Central Australia, who was himself "a great maker of medicine men,"[5] shows the double C ideogram, with a bar in between, painted on his chest. It is nearly *identical* to one that appears on the chest of a T-shaped pillar at Göbekli Tepe (see figure 4.3 on p. 54),[6] the only difference being that here the horizontal line forms the connecting bar of the H symbol earlier described.

EMBLEMS OF OFFICE

Like other major pillars at Göbekli Tepe, Enclosure D's central monoliths have carved symbols upon their "neck," just below their T-shaped heads. On the eastern pillar two are seen, the uppermost being the same H-shaped glyph found on the belt. This particular example is upright with a small, hollowed-out oval shape within its crossbar (here the symbol looks like two matchstick men holding hands, which lends credence to the idea that the C-ideogram might sometimes mean a seated man or woman, just as it does in Australian aboriginal art). Immediately beneath the H shape is a well-defined, horizontal crescent, its horns turned upward. Cupped within its concave form is a wide-banded circle with a deeply incised hole at its center. A thin, V-shaped "collar" or "chain" is visible either side of the two glyphs (see figure 4.4 on p. 56), making it clear that these symbols are emblems of office worn around the neck, perhaps denoting the individual's status or identity.

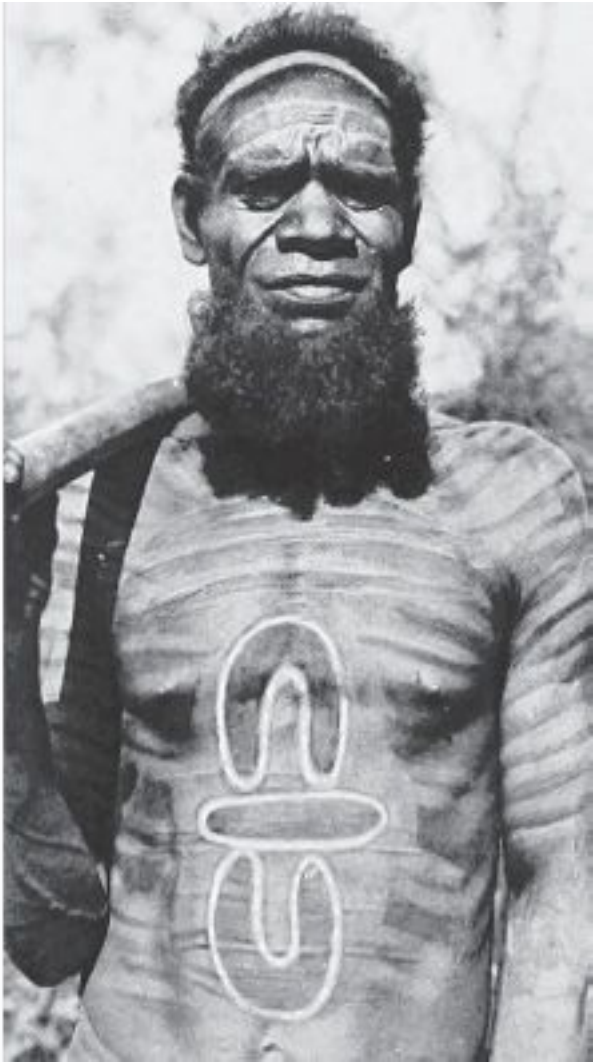

Figure 4.3. Left, double C and H symbol on the chest of Pillar 28 in Göbekli Tepe's Enclosure C. Right, Worgaia medicine man from Central Australia with the same symbol on his body.

Confirming the use of collars or chains by the elite of the Pre-Pottery Neolithic is a life-size statue of a man, 5 feet 9 inches (1.8 meters) in height, found at Şanlıurfa, just 8 miles (13 kilometers) from Göbekli Tepe (see plate 23). Located today in the city's archaeological museum, the figure was discovered in 1993 on Yeni Yol Street in Balıklıgöl, the oldest part of the city, where a Pre-Pottery Neolithic A settlement was investigated in 1997.[7] It is here also in Balıklıgöl that the prophet Abraham is said to have been born within a cave shrine renowned throughout the Muslim world as an important place of pilgrimage. The statue, which has black obsidian disks for eyes, a prominent nose, arms that end in hands clasped over the genitalia, and a conelike lower half where the legs should be, dates to around 9000 BC. The fact that it also sports a

double V-shaped collar in high relief is evidence that the neck emblems on the T-shaped pillars at Göbekli Tepe are most likely pendants or medallions attached to a chain or collar of office.

THE EYE AND THE CRESCENT

Although it is conceivable that the crescent on the neck of the eastern central pillar in Enclosure D signifies the moon, the carved circle with the hole in its center is more difficult to understand (see figure 4.4 on p. 56). Perhaps it is a representation of an eye, as similar circles with hollow middles act as eyes on the 3-D carving of the snarling predator seen on the front face of Enclosure C's Pillar 27. The likeness is too close for this to be simply coincidence. So if the circle *is* an eye, then the slim crescent that cups it must form the lower eyelid.

In ancient Egypt the eye was the symbol of the sun god Re (or

Ra), while the title Eye of Re was given to various leonine goddesses including Sekhmet, Tefnut, and Bastet, showing the clear relationship between the sun and the all-seeing eye.

THE WESTERN CENTRAL PILLAR

Enclosure D's other central pillar (Pillar 31), positioned to the west of the one just described, also sports a belt and buckle, although in this instance both are almost featureless (other than a small bovine scratched into the belt on its eastern side). Like its neighbor, the T-shape sports a fox-pelt loincloth, while around its "neck" is a small bucranium, or ox head, worn as a pendant or emblem of office. French prehistorian Jacques Cauvin saw the bull in early Neolithic symbolism as representative of male domination over nature.[8] This might well be so. Yet if the combined circle and crescent symbol on the neck of the eastern pillar does represent the sun, then there has

to be a distinct possibility that the bucranium on its western neighbor represents the moon, the twin pillars displaying some kind of dual, solar-lunar polarity.

Figure 4.4. H, eye, and crescent symbol together on the neck of the eastern central pillar (Pillar 18) in Göbekli Tepe's Enclosure D.

That bucrania perhaps symbolized the crescent moon in the Upper Paleolithic is shown by the Venus of Laussel, a carved stone relief of a naked full-bodied woman, 17.5 inches (45 centimeters) in height and carved into a block of limestone. Dating to ca. 27,000–20,000 BC, she was discovered in 1911 at the entrance to a rock shelter at Laussel in the Dordogne region of southwestern France. In her right hand she holds a bison's horn on which are inscribed thirteen vertical notches, interpreted by some prehistorians as symbolizing the thirteen-month lunar cycle.

Should these speculations prove valid, it implies that some of the glyphs displayed on the T-shaped pillars at Göbekli Tepe have distinct spatial, temporal, and celestial values. The C and H ideograms, along with the eye symbol and bucranium, all suggest as

much. So are the anthropomorphic pillars personifications of higher intelligences—some kind of *divine company* that reflects these otherworldly influences? We now begin to explore the true function of Göbekli Tepe's quite extraordinary monumental architecture.

PART TWO

Cosmos

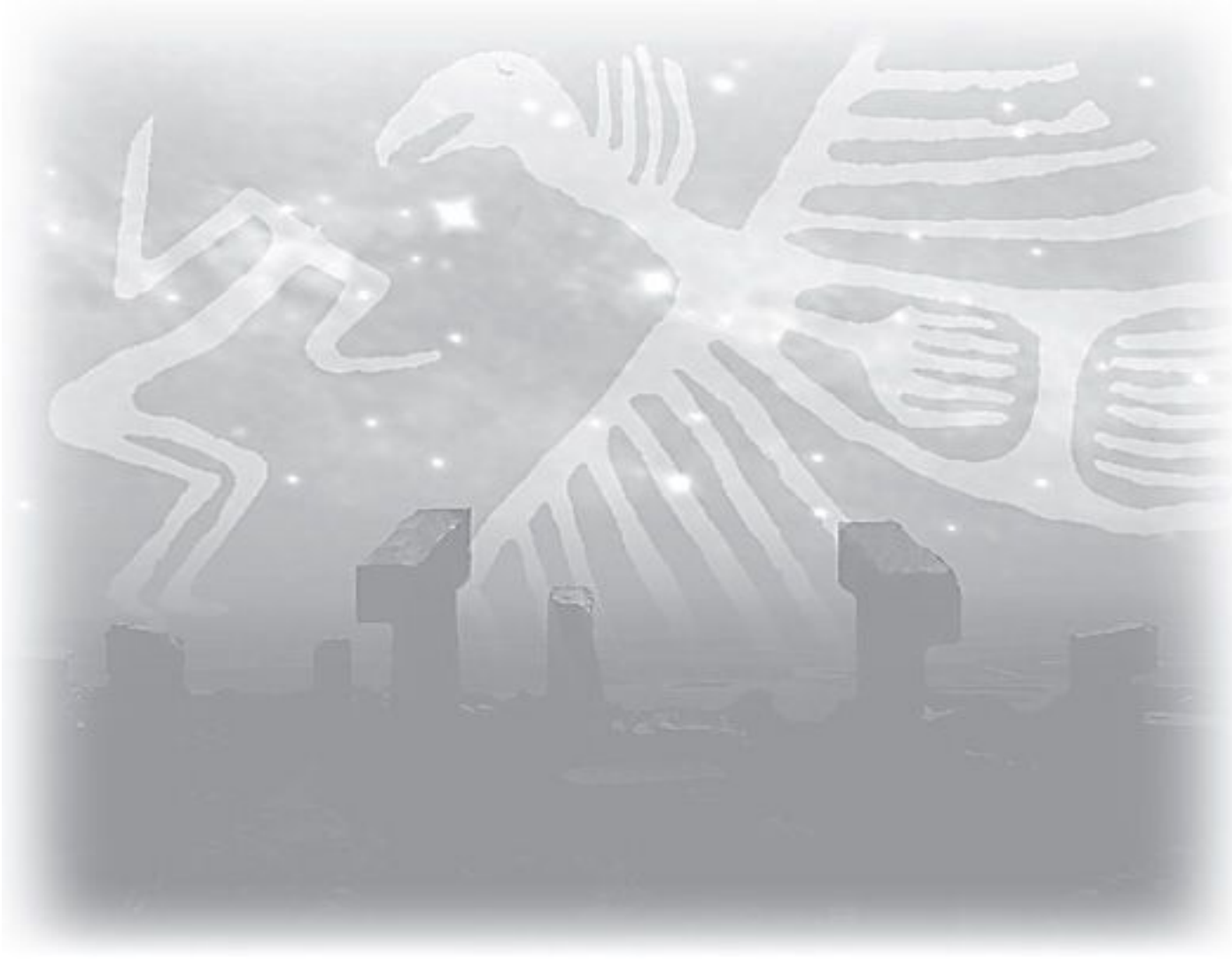

5

GATEWAY TO HEAVEN

It is impossible today to assess the exact number of stones in each of the main enclosures uncovered at Göbekli Tepe. There were certainly twelve stones in Enclosure D's main circle. Eight remain in Enclosure C's outer wall and eleven within its inner ring, with the likelihood of a twelfth having once existed. Seven are known from Enclosure B (not counting the two central pillars), while Enclosure A is so different in style that guessing its original design becomes difficult. Enclosure F is so small, and from such a later date, that it is unlikely to have been built with the exact same motivations as its predecessors; ditto the Lion Pillar Building on the summit of the

mound.

Having said this, it does appear that a twelvefold division of stones did once exist in Enclosures C and D, arguably Göbekli Tepe's oldest and most accomplished structures uncovered so far, while twelve T-shaped pillars are known to have existed in the walls of Nevalı Çori's Level II cult building, the number increasing to thirteen during its next building phase, Level III, ca. 8000 BC. (The level system runs from the oldest layer, Level I, ca. 8500 BC, to the most recent occupational layers, Levels III–V, ca. 8000–7600 BC.)

That the earliest enclosures at Göbekli Tepe might originally have had twelve T-shaped pillars within their elliptical walls raises the question of whether this number had any significance to the hunter-gatherers who created these strange structures over eleven thousand years ago. Was it simply by chance that twelve stones were chosen for the purpose, or might there be some deeper meaning behind the use of this myth-laden number?

A CLOCKWISE MOTION

A clue to this mystery lies in the fact that at least half of the standing pillars in Enclosures C and D have reliefs both on their shafts *and* on their T-shaped "heads." Yet the head decoration appears only on the right-hand "faces" of the figures, *never on their left sides.*[1] If these facial carvings had to be viewed in any kind of order or sequence, then it implies the entrant would have had to perambulate the enclosures in a clockwise motion. Doing so in a counterclockwise direction would have meant not being able to see any of the cranial reliefs.

Of course, this could all just be coincidence or a simple case of design preference on the part of the Göbekli builders. However, a preferred navigation of the sacred enclosures in a clockwise fashion, along with the possible celestial nature of the glyphs on key pillars in Enclosures C and D, does hint at some kind of synchronization with the motion of the celestial bodies—the sun, moon, and planets

—which all rise in the east and move around to the south before setting in the west.

This clockwise, or *sunwise,* movement is seen in the shadow cast by a vertical pole or sundial gnomon. For this reason, the hands of the first analog clocks were set to move "with the sun"; that is, *clockwise,* and not counterclockwise, or *anticlockwise,* something that was seen as against the natural order of the universe.

THE SUN'S PATH

These realizations invoke compelling thoughts. The ecliptic, the sun's course through the heavens, is divided into twelve divisions, or "months," a consensus reached long ago based on the placement along its circular course of twelve key constellations, which each rise with the sun across one complete calendar year. Each remains visible in this role for a period of around thirty days, or one month,

before giving way to the next constellation in line, the whole process occurring twelve times in all before the first constellation returns to the predawn sky.

These zodiacal constellations provide us with a twelvefold division both of the solar year and the vault of heaven, with the combined twelve 30-degree sections making up a 360-degree circle. Thus in this manner both time and space are intrinsically bound together in recurring cycles, which through the passage of the seasons and the movement of the planets control the destiny of humankind, this being the root of astrology.

The problem here is that the creation of the zodiac, along with the twelvefold division of the ecliptic and the establishment of the zodiacal houses, is thought to have taken place only around three thousand years ago, with all its different elements coming together finally in the Greek zodiac, which evolved into its current form during the first millennium BC. Despite this, a twelvefold division

of the heavens *did* exist before this time. For example, as early as 2400 BC the Indus Valley civilization divided the celestial horizon into twelve parts.[2] Excavations at Lothal in India between 1955 and 1960 revealed knowledge among the inhabitants of an eight- and twelvefold division of the horizon and sky. They utilized a thick, ringlike instrument made of shell, which divided the horizon into 360 degrees—all this coming some fifteen hundred years before the Greeks "invented" the zodiac.[3]

COSMIC HARMONY

The twelvefold division of the enclosures at Göbekli Tepe suggests a basic knowledge of cosmic geography in the design and layout of its monumental architecture. If correct, then the apparent 5:4 size ratio of Enclosures B, C, D, and E, which are all ovoid, suggests not only a basic understanding of cosmic harmony and proportion but

also an interest in the interaction between different time cycles, most obviously those relating to the earth's eccentricity, its axial tilt, and the precession of the earth's orbit against the starry background (see chapter 7 for more on the Göbekli builders' apparent interest in precession). Although many of these cosmic notions were not fully recognized until fairly recent times, there is some hint that they were known at least in principle during the age of Pythagoras and Plato.[4]

So the next most obvious question would be to ask whether the carved art at Göbekli Tepe confirms its builders' interest in a twelvefold division of the night sky. The answer, unfortunately, is frustratingly disappointing, for although certain zoomorphs found carved on the T-shape pillars *do* resemble the signs of the zodiac (such as scorpions, rams, goats, bulls, birds, and lions), there are too many other creatures featured to make any realistic comparisons with existing zodiac forms.

Despite such drawbacks, some kind of astronomical or celestial motivation behind the construction of the various enclosures at Göbekli Tepe cannot be ruled out. If this is the case, then the T-shaped pillars found within the walls of its sacred enclosures might well act as symbolic markers representing the twelvefold segmentation of the heavens and the twelvefold division of the year. Yet what does this tell us about the true function of these monuments?

CENTER OF THE WORLD

With the rings of T-shaped stones acting as the divisional markers of a symbolic clock face, the main enclosures' pivotal axis would have been their twin central pillars. In cosmological terms these constitute the site's *axis mundi,* or "axis of the earth," a concept familiar to shamanic societies worldwide. This was a symbolic axis

or world pillar—symbolized usually by a rope, pole, or tree trunk and often associated with a "world mountain" or "cosmic mountain"—seen to link the center of the earth with the rotation of the starry canopy via the celestial pole and marked in the night sky by the Pole Star. Each different tribe, culture, or territory had its own axis mundi, while shamanic cultures often had movable axis mundi represented by poles erected for this express purpose. Indeed, an axis mundi would often be the pole inside a communal tent, the smoke hole at the top of the structure acting as the entrance to a sky world thought to exist beyond the physical world.

The concept of an axis mundi is most easily understood through its place in Greek cosmological architecture, for here it was marked permanently by an *omphalos,* a word meaning "navel." These were bullet-shaped or conical stones of varying sizes set up in the inner sanctums of chief sanctuaries to signify the center of the physical world (very much like the *Shiva-lingam* of Hindu tradition, a navel-

like stone set up in a temple's most holy place, usually a darkened crypt immediately beneath the main building).

According to Greek mythology the site of the original omphalos was determined when the sky god Zeus let fly two eagles, one from either "end" of the earth. Where they came together would be the absolute center of the world, which, in the version of the story handed down to us, turns out to be Delphi (omphali existed in other Greek kingdoms as well). Here the omphalos was said to allow direct access to the realm of the gods, a fact borne out by its supposed placement in the temple's *adyton,* or Pythia, where a priestess, known as the Oracle, would deliver prophecies after breathing vapors rising from a chasm in the rock.

Although the origin of the term *omphalos* has been lost, it is very likely linked to the idea that it was connected to the so-called cosmic axis, or turning point of the heavens, by an invisible umbilical cord. This was a concept based on the belief that the earth,

as the offspring of the greater universe, was nourished in a fetal state within some kind of cosmic womb, seen in terms of the starry vault of heaven.

PLACE OF THE PLACENTA

Is it possible that the elliptical shape of the large enclosures at Göbekli Tepe, with their 5:4 size ratios, symbolizes the womb chamber, within which is the ovoid placenta that nourishes a prenatal child during pregnancy via the umbilical cord? Completing the picture would have been the site's occupational mound, constructed around the enclosures to represent a belly swollen by pregnancy. It is a theme expressed, of course, in the name Göbekli Tepe, which, as we saw in chapter 1, means in Turkish "navel-like (*göbekli*) hill (*tepe*)."

There is no way of knowing exactly when Göbekli Tepe gained

its current name, although the chances are it replaced an earlier one meaning exactly the same thing, a process that might have been going on since the site's final abandonment around 8000 BC. Evidence of this comes from the fact that the Kurdish name for the tell, which local people see even today as sacred, is Gire Navoke, which means "hill (*gire*) of the swollen belly (*navoke*)," with an emphasis on fertilization and pregnancy (Armenians, who formerly occupied eastern Turkey when it was part of Armenia Major, call Göbekli Tepe *Portasar,* meaning the "hill of the navel." However, no historical evidence exists to show that this name was used prior to news of the site's discovery in the year 2000.)

Possibly significant in this respect is that in the language of the Sumerians, who thrived on the Mesopotamia Plain from ca. 2900 BC to 1940 BC, the word for *placenta, ùš,* is more or less identical to that used for *blood* and *death* (*úš*), as well as the word for *base* or *foundation place* (*uš*), as in a place to set up the central pole for a

tent.[5] Such a term might easily have applied to Göbekli Tepe, where the "pole" in question was represented by the enclosures' twin central pillars.

In various indigenous cultures and civilizations the placenta was, and still is, considered a very sacred object, the disposal of which was of great importance not just to the future of the postnatal child, but also to the well-being of the family. Among the Acholi tribe of Uganda and the Sudan, for instance, placentas are buried in a spirit house made of stone at the center of a lineage shrine known as the *abila*.[6] In Eastern Asia, Japan in particular, the placenta is buried with great dignity, often beneath a tree (another symbol of the sky pole). The site is thereafter venerated as a sacred place, with the placentas of emperors becoming the subject of annual festivals relating to the fecundity of the land and the prosperity of the people.[7]

TEMPLE OF THE TWINS

Placentas, when featured in ancient myth and ritual, are often associated with the theme of twins, a matter that may well have some bearing on the presence of the twin pillars at the center of the enclosures at Göbekli Tepe. For example, among the Baganda tribe of Uganda the placenta and umbilical cord of the king are considered the source of his "twin" (*mulongo*), which is seen as the ghost or spirit of the placenta.[8] During the monarch's life it is kept under constant watch in a specially built Temple of the Twin, and at the first sight of the lunar crescent each month it is brought into the king's presence for a special ceremony. Once the ceremony is complete, the "twin" is "exposed in the doorway of the temple for the moon to shine upon it, and also anointed with butter."[9] This exposure to the light of the moon takes place also on a second night, before the "twin" is hidden away for another month.

After the king's death the "twin," that is, the placenta and

umbilical cord, is buried in the temple, along with his jaw, which thereafter functions as a point of communication with the dead monarch's spirit, the relics being brought out on special occasions for oracular purposes.[10] At the same time a new Temple of the Twin is created for the next king, with the whole process being repeated (rather like the periodic construction of new enclosures at Göbekli Tepe).

Even in ancient Egypt the placenta formed the twin of the king, quite literally the seat of his soul double or alter ego. As in Baganda tradition, it was retained and carefully protected throughout his life and, following his death, was most probably buried in a special room, where it served as his *ka,* or double. To the ancient Egyptians the royal placenta was seen as a divinity in its own right, its cult attested as early as the late Predynastic period, ca. 3250–3050 BC.[11]

More disturbingly, it is reported that in addition to placing placentas in the abila cult shrine, the Acholi tribe of Africa is said to

have buried alive twins placed in jars at the same spot.[12] Whatever the reality of this macabre act, it further emphasizes the connection between twins and the placenta, which derives in the main from the primordial belief that when a child is born, his twin, symbolized by the placenta, is the one who dies, and thus becomes a spirit double of the living person. In this knowledge, it was considered that during pregnancy the womb *always* contains twins, each with his or her own soul and destiny.

The association between twins and the placenta is expressed also in the creation myth of the Dogon of Mali, in West Africa, where a double placenta forms inside the cosmic egg of Amma, the creator god, each one attached to a pair of twins.[13] A Dogon pictogram showing the double placenta inside Amma's egg closely resembles the elliptical appearance of the sanctuaries at Göbekli Tepe (see figure 5.1). More incredibly, vertical strokes drawn to represent the two sets of twins inside the egg eerily echo the placement and

orientation of the twin pillars at the center of the enclosures.

TWIN PORTALS TO THE SKY WORLD

This information makes it highly likely that similar themes might have featured among the beliefs and practices of the Göbekli builders. If so, then the twin sets of pillars in the various enclosures at Göbekli Tepe could well signify human twins, either twins that exist in the womb during pregnancy or twins that are seen to have reentered some kind of symbolic womb in death (something that every entrant might have been seen to do when he or she entered the enclosures for shamanic purposes). Indeed, if the central pillars do symbolize twins, one representing the human soul, the other signifying the soul double, or ghost, then this practice might be related to a belief expressed by the Karo Batak peoples of Sumatra, which asserts that of the twin souls, a person's *true* soul is that of

the placenta, which was probably seen as “the seat of the transferable soul.”[14] In other words, in order to enter and navigate the spirit world, shamans or initiates had first to transfer the consciousness from their physical body to that of their twin; namely, the placenta soul. Thus the twin central pillars at Göbekli Tepe might have enforced a similar belief in the minds of entrants standing between them.

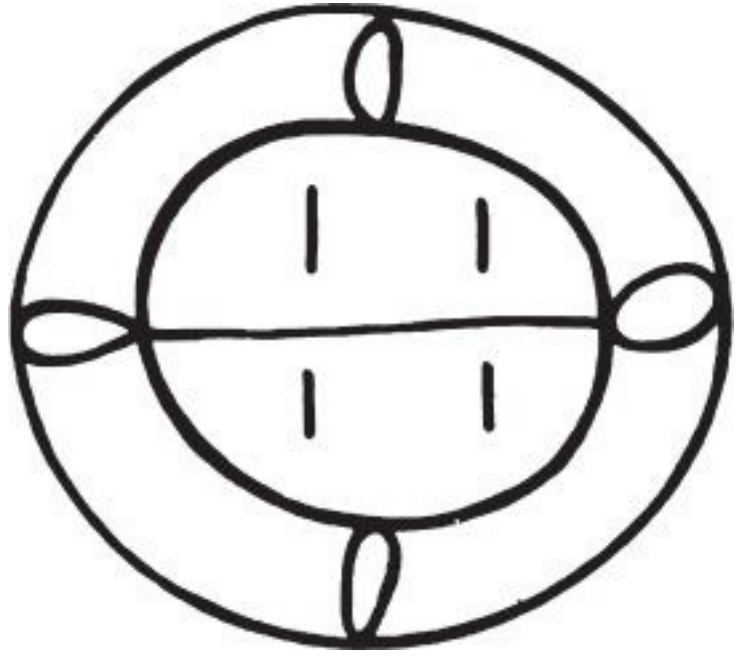

Figure 5.1. Dogon pictogram showing the two sets of twins inside the double placenta within Amma's egg. Note how the vertical lines, representing the twins, eerily echo the twin central pillars in the enclosures at Göbekli Tepe.

Allied to this belief is the fact that the twin pillars at Göbekli

Tepe most probably signified portals or gateways; that is, entranceways into the conceived axis mundi that would have transferred you instantly to the sky world (hollows in tree trunks are often seen to serve this function among shamanic-based societies). An instantaneous dimension shift of this sort would have been achieved through the use of one or more shamanic processes, including ecstatic dancing, ritual drumming, long-term sensory deprivation, and, of course, the ingestion of psychotropic or soporific substances (something suggested at Göbekli Tepe, as we have seen, through the profusion of snakes in its carved art and also by the presence of large basalt bowls used perhaps in the preparation of drugs and medicine). All of these methods would have enabled the mind to, quite literally, jump between worlds without any kind of delay involving regular space or time.

So where exactly was the sky world of the shaman during the age of Göbekli Tepe? In an attempt to answer this question, we must

examine the deepest, most profound, cave art of Ice Age Europe.

6

WINDOW ON ANOTHER WORLD

If the hermetic axiom of "as above, so below" were to be applied to the construction of Göbekli Tepe in the tenth millennium BC, then it would suggest that ritual activity taking place within its enclosures was reflected in some manner in the heavens, and vice versa. Going beyond the imagined portal created by the twin pillars standing at the center of the structures is likely to have projected the shaman or initiate into some part of the night sky, but where exactly?

Some idea might be gleaned from the Ice Age cave artists of the late Paleolithic age. Although much of the beautiful imagery seen in the caves suggests a clear interface between the physical world and

the perceived supernatural realms existing beyond human consciousness, certain painted panels are now thought to convey abstract celestial themes as well.[1] Three examples can be cited in this respect, and in each case the panels or friezes are positioned in the direction of the area of sky where the relevant stars were to be seen during the epoch in question.

THE LASCAUX SHAFT SCENE

The first example is the famous Shaft Scene from Lascaux Caves near Montignac in France's Dordogne region. Located in a pit 16 feet (4.9 meters) deep, which could only be accessed using a rope (the remains of which have been found), the scene is composed of a set of images that have mystified paleontologists since the chance discovery of the cave complex by four teenagers in 1940.

From right to left, the painted fresco—which is approximately ten

feet (three meters) across—shows a wounded bison, a birdman, a bird on a pole, and a rhinoceros (see figure 6.1 on p. 70, although the rhino is not shown here). Black loops drawn beneath the bison's belly indicate the release of its entrails, perhaps by the barbed spear seen cutting across its body at an acute angle. Either that or it has been gored by the rhinoceros, which appears to be walking away from the scene. Facing the bison is a male human figure, who either has the head of a bird or wears a bird mask. He leans backward in a most awkward position and has an erect penis, a stance that could indicate he is a bird shaman experiencing an ecstatic trance state (the ingestion of psychotropic substances often causes male erection).

Confirming the significance of the figure's avian features is the presence just below his feet of a bird on a pole, its head and beak resembling those of the birdman. Off to the left is the rhinoceros, whose role is debatable; he could have gored the bison, or he might

simply be associated with the birdman's blatant display of virility (rhino horn, being phallic in appearance, is valued in some cultures as an aphrodisiac). Next to the creature's upraised tail are six black dots drawn in pairs, the meaning of which is unclear.

The panel's awkward positioning at the bottom of a deep shaft, along with the fact that it shows the only human figure in the entire cave complex, indicates that it held some special significance to the Upper Paleolithic peoples who entered Lascaux and decorated its corridors and halls with a whole menagerie of Ice Age animals.

THE SUMMER TRIANGLE

Many scholars have attempted to understand Lascaux's Shaft Scene, although no consensus regarding its meaning has ever been reached. However, in 2000 German scholar Dr. Michael Rappenglück of the University of Munich came up with a truly inspired interpretation of

the painted panel. He argues that the entire scene is an abstract map of an area of sky featuring a group of three bright stars known collectively as the Summer Triangle, these being Altair in Aquila, Vega in Lyra, and Deneb, the brightest star in the constellation of Cygnus, the celestial bird or swan, known also as the Northern Cross.[2] At the time the Shaft Scene was created, ca. 16,500–15,000 BC, Deneb acted as the Pole Star, as it was the closest star to the celestial pole, the turning point of the heavens.

Figure 6.1. The Shaft Scene inside the pit at Lascaux in southern

France. Solutrean period, ca. 16,500–15,000 BC.

Today Polaris, a star in the constellation of Ursa Minor, the Little Bear, marks the position of the celestial pole in the northern night sky. Yet over time, the Pole Star changes due to the effects of precession—the slow wobble of the earth across a cycle of approximately twenty-six thousand years. During the pyramid age, Thuban, a minor star in the constellation of Draco, the celestial dragon, held the position of Pole Star. Going back further, Vega in Lyra was Pole Star from around 13,000 BC to 11,000 BC. Before that the pole had been marked by Delta Cygni, one of the wing stars of Cygnus. It gained the role from its neighbor Deneb, which was Pole Star from around 16,500 BC until ca. 14,500 BC.

That Deneb was Pole Star when the Shaft Scene was created makes sense of its connection with the Summer Triangle, especially as Cygnus is universally seen as a celestial bird. In other words, the bird shown on the pole at Lascaux is Cygnus marking the celestial

pole, with the pole itself representing the vertical axis, or sky pole, which turns the heavens and holds up the sky. As to the birdman, he might well signify a shaman who has attained a trance state and ascended the sky pole in the guise of a bird associated in some manner with astral flight and, of course, the Cygnus asterism, or star group. Moreover, the Shaft Scene is located on a north-facing wall, which corresponds to the direction of the Summer Triangle during this distant epoch. It is almost as if the panel is an imaginary window onto the celestial world it portrays.

This theory suggests that the area of sky in question held a special place in the beliefs and practices of the Ice Age peoples responsible for executing the cave art. Such practices, which perhaps involved a ritual descent into the shaft using the rope provided, very likely acted as a symbolic means of shifting from one level of reality to another. In this way the Paleolithic shamans or initiates could commune with perceived supernatural intelligences in a sky world

thought to exist beyond the celestial pole.

On its own, the directing of Lascaux's Shaft Scene toward the stars its panel represents might seem like a happy coincidence. However, elsewhere in the Lascaux Caves other murals have been identified as abstract representations of known asterisms. For instance, Rappenglück and others see the head, horns, and upper torso of a bull in the Salle des Taureaux, or Hall of the Bulls, as a representation of the constellation of Taurus, the bull, with a grouping of six to seven dots next to it being seen as the nearby star cluster known as the Pleiades.[3] As with the Shaft Scene, the animals on the wall of the Salle des Taureaux face toward where the stars in question would have been visible during the epoch in question.

THE VENUS AND THE SORCERER

A third example of the relationship between Ice Age cave art and

celestial themes can be found in the Chauvet Cave of southern France, which overlooks an ancient gorge through which the Ardèche River once flowed. Discovered as recently as 1994, its painted galleries, full of breathtaking friezes showing a variety of Ice Age animals, are among the oldest so far discovered, having been executed by Paleolithic cave artists around thirty-two thousand years ago. Of special interest here is the fact that in the Salle du Fond, or End Chamber, located in the deepest part of the complex, a remarkable piece of wall decoration can be found. Called the Venus and the Sorcerer, it appears on a vertically hanging cone of limestone (a form of stalactite) that comes to within 3 feet 6 inches (1 meter) of the cave floor.

The Venus in question is an abstract torso, hips, vulva, and legs of a full-bodied woman, arguably one of the oldest known two-dimensional representations of the female form in existence; it is also the only human figure to be seen anywhere in the caves. The

Sorcerer is a young bison, its head overlying the woman's belly or womb, its left front leg doubling as her left leg, indicating a special relationship between the two figures. Completing the scene is the head and upper body of a large feline, perhaps a panther or lion, which extends above and to the left of the woman's body as if the former is emerging from the latter (see figure 6.2).

The strange image is unique, without anything else quite like it in the entire cave complex, and would seem to have been a central focus of the cave artists' ritual activity. Thus any suggestion that the panel might depict abstract representations of celestial objects should be taken seriously, especially when we find that it could well reflect the same region of sky as Lascaux's Shaft Scene.

THE GREAT RIFT

Swiss researcher Franz Gnaedinger has proposed that the woman's

torso and genitalia represent the Summer Triangle, within which the young bison's head and shoulders are perfectly framed.[*2] This is an inspiring theory, although a more positive identification would be to suggest that the woman's vulva and scissorlike legs represent the area of the Milky Way known as the Great Rift (also known as the Dark Rift, Cygnus Rift, and Great Cleft), which is framed *within* the Summer Triangle (see figure 6.3 on p. 74). This is a dark band of stellar dust and debris in line with the galactic plane that causes the Milky Way to appear to split into two separate streams in the region of the Cygnus constellation. As a dark band it continues to where the ecliptic, the path of the sun, crosses the Milky Way in the region of the stars of Sagittarius and Scorpius, or Scorpio, the celestial scorpion. Here one "leg" of the Milky Way peters out as the other expands in width and continues into the southern sky.

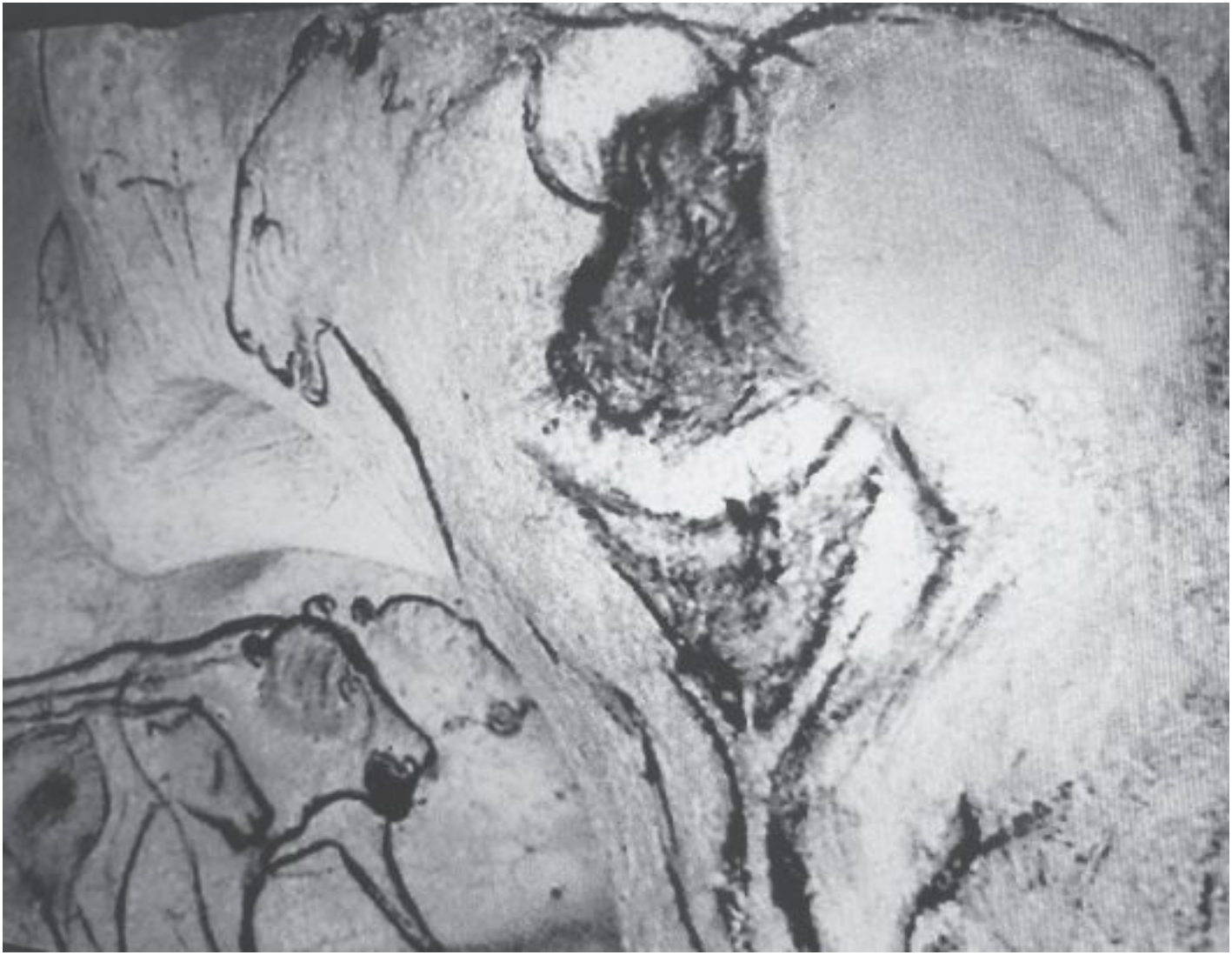

Figure 6.2. The Venus and the Sorcerer panel inside the Chauvet Cave. Note how the woman and bull share the same leg, while the large feline seems to emerge from the scene.

If Chauvet's Venus figure really is an expression of the Milky Way, then the head of the young bison might be viewed as emerging from the Great Rift like a newborn child. As alien as such a concept might seem, there are 3-D representations and murals showing women, goddesses perhaps, giving birth to bull calves at Çatal Höyük, the Neolithic city on the Konya Plain in southern central Turkey, which dates to ca. 7500–5700 BC (see figure 6.4).

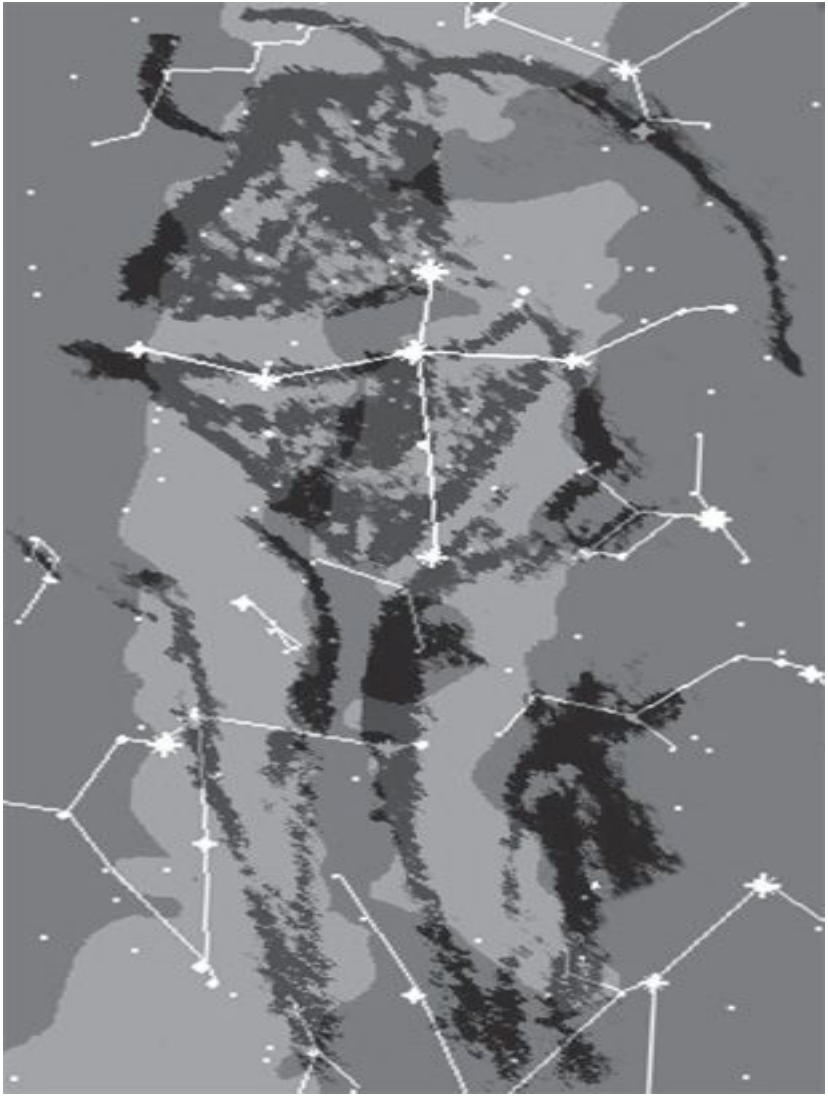

Figure 6.3. The Venus and the Sorcerer from the Chauvet Cave overlaid on the Milky Way, showing that the woman's legs form the twin streams of the Great Rift, while the head of the bull calf in her womb area corresponds to the position of the stars of Cygnus and Cepheus.

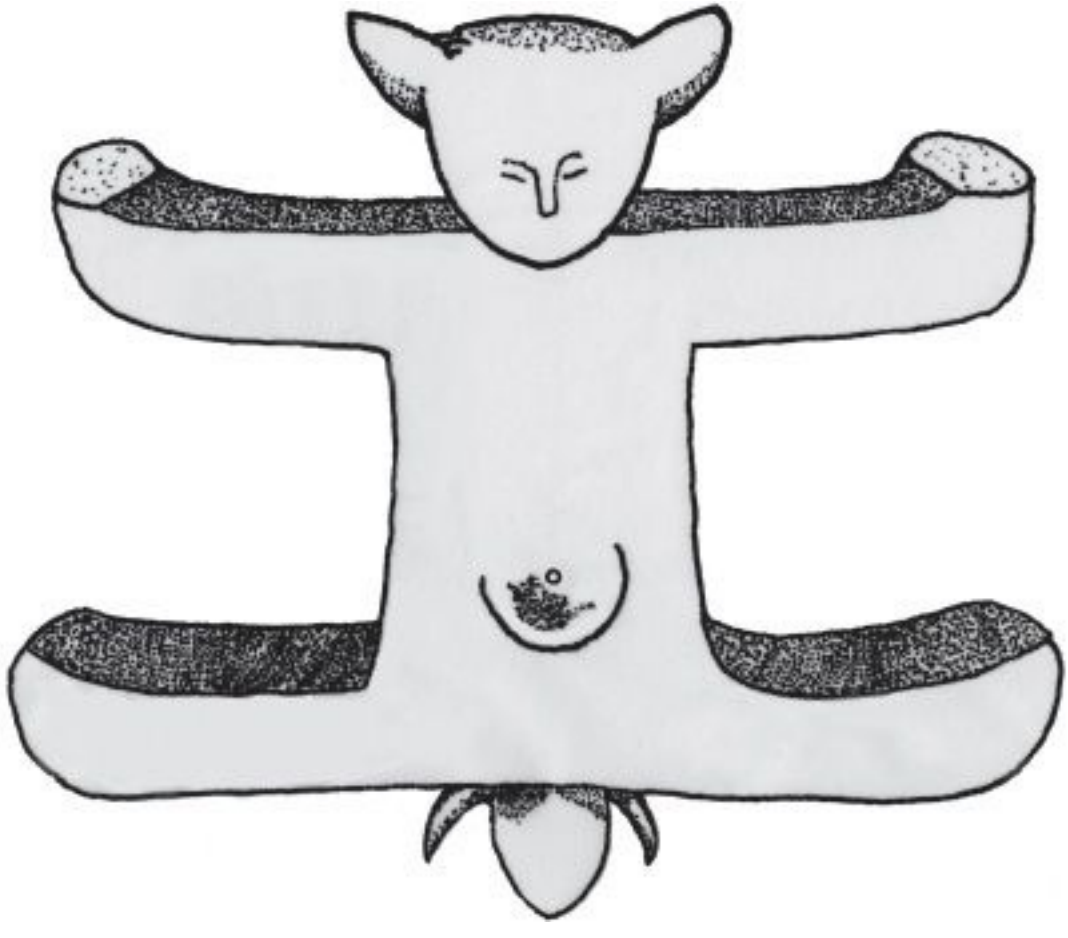

Figure 6.4. Three-dimensional panel showing a leopard-headed woman giving birth to a bull calf, from the Neolithic city of Çatal

Höyük, ca. 7500–5700 BC.

In addition to forming the outline of a bird in flight, the arrangement of the Cygnus stars resemble the frontal view of a bovine head, complete with extended horns. It is a realization that probably inspired both the Chauvet Cave's Venus and Sorcerer panel and the ancient Egyptian belief that the sun is reborn each morning in the form of a bull calf, which emerges from between the twin streams of the Milky Way's Great Rift.[4]

Yet if Chauvet's Venus is an abstract representation of the Milky Way in the region of the Great Rift, and the bull calf signifies the Cygnus stars, what does the large feline represent? Its position immediately above the other figures gives the impression that it is either responsible for or connected with what is displayed, suggesting that it too is a representation of something to be seen in the heavens. Universally, large felines, such as panthers, jaguars,

pumas, and lions, have been seen as personifications, and even controlling intelligences, of the night sky. Is it possible that the example at Chauvet plays a similar role? Could it be seen as the "father," or progenitor, of the bull calf, with the Venus as its mother—the feline, bull, and woman having some kind of symbiotic relationship?

As with the proposed astronomical frescoes at Lascaux, the Venus and Sorcerer panel at Chauvet is located at the extreme northern end of the cave complex at a position suggesting that it too acted as a symbolic window onto the section of sky represented by the images in question. If this surmise is correct, it could suggest that the Ice Age artists that executed this extraordinary cave art some thirty-two thousand years ago possessed, like those at Lascaux, a highly complex understanding of the night sky that we are only now beginning to comprehend.

CAVE SCENES TO CULT SHRINES

All this is very interesting and might well be correct. Yet linking Ice Age cave art with the design of sacred enclosures created at Göbekli Tepe in southeast Anatolia thousands of years later might seem presumptuous. It is a fact, however, that in the early Neolithic, stalagmites and stalactites were removed from cave interiors and carried back to Çatal Höyük, where they were placed in cult shrines alongside statuettes, bucrania, vulture beaks, and painted frescoes of extraordinary beauty and sophistication. So many fragments from caves were found there that British archaeologist James Mellaart, who excavated the site in the 1960s, proposed that the shrines at Çatal Höyük might have been the realm of chthonic deities; that is, gods of the underworld.[5]

B. C. Dietrich, Ph.D., author of *The Origins of Greek Religion,* went further by suggesting that the ritual activities practiced in Çatal Höyük's cult shrines had formerly been celebrated in primordial

cave settings, adding that: “Though the locality of the cult may have changed, its form did not relax its curious hold on the mind of the worshipper who, over many generations, retained the aniconic stalagmite as an image of his goddess.”[6] This, of course, resonates with the manner in which the limestone cone in the Chauvet Cave was utilized in the creation of the Venus and Sorcerer panel.

If the sacred enclosures at Göbekli Tepe *do* reflect an interest in the celestial heavens, was it just a symbolic gesture, without any kind of real accuracy, or was there true precision involved in their construction? We examine now the evidence presented by the T-shaped pillars, which reveal a recurring pattern that will leave the reader in little doubt that they were once turned toward something very specific in the night sky.

7

TURNED TOWARD THE STARS

In the knowledge that megalithic monuments worldwide have been found to possess alignments toward celestial bodies, such as the sun, moon, and stars, it seems reasonable to look for something similar at Göbekli Tepe, with the most obvious candidates for orientation being the various sets of twin pillars at the center of the different enclosures. These could have acted as astronomical markers, especially as at the time of their construction a clear view of the local horizon would have been visible in all directions from their elevated positions.

Even a cursory glance at the positioning of the different sets of

twin pillars in the main enclosures shows them to be aligned roughly north-south. This suggests they are unlikely to have targeted the sun, moon, or planets, which all rise in the east and set in the west. Clearly, if their orientations mean anything, then the enclosures must have been built to target a star or stellar object that either rose or set close to the imaginary north-south meridian line that divides the sky in two and crosses directly overhead.

ANGLES OF ORIENTATION

Establishing the precise orientations of the enclosures' central pillars was put to chartered engineer Rodney Hale, who for the past fifteen years has made a detailed study of stellar alignments at prehistoric and sacred sites around the world. He examined Göbekli Tepe's detailed survey plan and determined that the central pillars in Enclosures B, C, D, and E (the Felsentempel, or rock temple,

located to the west of the main group) all seemed to be aligned just west of north, and, equally, just east of south, in the following manner:

Enclosure B 337°/157°
Enclosure C 345°/165°
Enclosure D 353°/173°
Enclosure E 350°/170°

The twin pillars marking the entrance to an apse-like feature at the northern end of Enclosure A were turned much farther west. Indeed, they are oriented 312 degrees/132 degrees, just 3 degrees off northwest-southeast, suggesting that whatever it was they were oriented toward had little to do with the primary alignments of the larger enclosures.

The slight differences in the mean azimuths of the central pillars in Enclosures B, C, D, and E is telling, as it suggests that each set

targeted a star or stellar object that was very gradually shifting its position against the local horizon as a result of precession (see figure 7.1). Thus the enclosures were aligned to a celestial object that either set each night on the north-northwestern horizon or, equally, rose each night on the south-southeast horizon.

AN ORION CORRELATION?

Among the southern star groups and constellations looked at by Hale were the Hyades, Taurus, the Pleiades, and Orion (more specifically its three "belt" stars), all of which have been claimed to match the orientations of the twin pillars in the various enclosures at Göbekli Tepe during the epoch of their construction.[1] Out of these, just one candidate emerged as perhaps playing some role at Göbekli Tepe, and this was Orion, the celestial hunter.

Rodney Hale charted the risings of Orion's principal stars

between 9500 BC and 8000 BC, then matched this information against the window of opportunity created by the orientations of the central pillars in the various enclosures at Göbekli Tepe.[*3] However, the results were disappointing. Although potential alignments existed between Enclosure B and the Orion belt stars between 9000 BC and 8600 BC, the mean azimuths of the central pillars in Enclosures C, D, and E did not target the rising of *any* of Orion's belt stars between 9500 BC and 8000 BC. The constellation's other key stars—Betelgeuse, Bellatrix, Saiph, and Rigel—fared even worse, making it highly unlikely that Orion was involved in the orientation of Göbekli Tepe's principal enclosures.

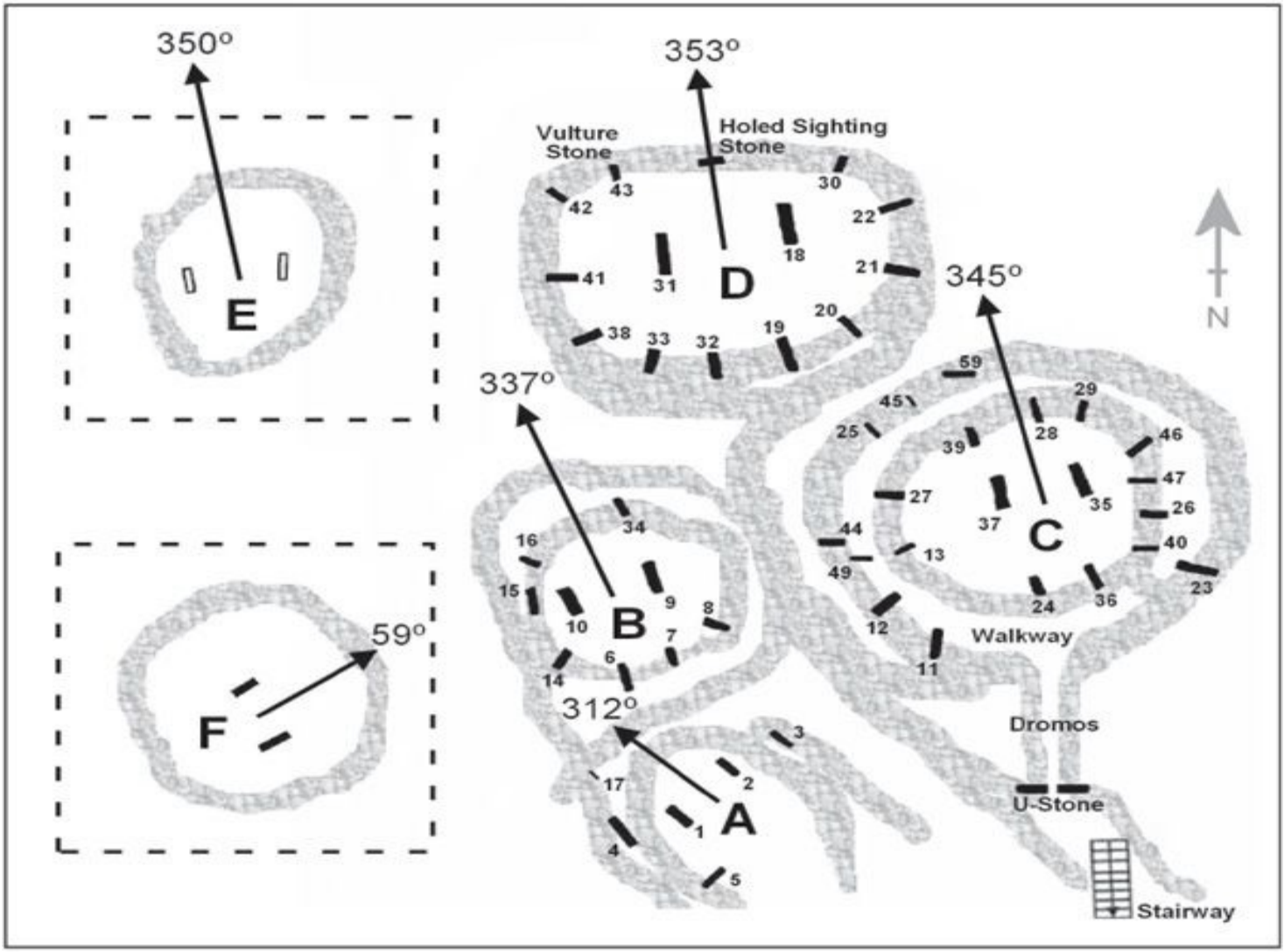
350°
E
353°
Vulture Stone
Holed Sighting Stone
D
345°
N
337°
B
C
59°
F
312°
A
Walkway
Dromos
U-Stone
Stairway

Figure 7.1. The main enclosures at Göbekli Tepe showing the mean alignments of their central pillars.

ALIGNED TO SIRIUS?

Giulio Magli, a professor of mathematical physics at the Politecnico of Milan, also dismisses Orion's role in the alignment of the twin pillars at Göbekli Tepe. To accept such a hypothesis, he says, would mean reducing the age of the mountaintop sanctuaries by as much as a thousand years, something that goes against all dating evidence emerging from the site at this time.[2]

Instead, Magli proposes that the mean azimuths of the twin pillars in Enclosures B, C, and D were aligned to the rising of the star Sirius, which made its reappearance in the night skies from the latitude of Göbekli Tepe sometime around 9500 BC.[3] For a period of around fifty-five hundred years prior to this time it had been

missing from the skies due to the effects of precession. Magli surmises that the hunter-gatherers of the region might have created the temples at Göbekli Tepe to honor the appearance of this new "guest" star in the night sky.

Magli's theory was put to the test by Rodney Hale. He calculated, by recognized methods, that in the epoch of Göbekli Tepe's construction, ca. 9500–8900 BC, Sirius, which only just rose above the southern horizon at this time, would have been so dim due to the effects of atmospheric absorption and aerosol pollution that it is unlikely to have impressed the region's hunter-gatherers.[4] Moreover, the meager arc the star made as it crossed the southern horizon was so brief that in just twenty minutes it would have shifted its horizontal position a full 3 degrees, making it a difficult and highly unrealistic stellar target to use for such a purpose.[5]

In conclusion, it seems totally improbable that the Paleolithic peoples of southeast Anatolia gave up their free lives as hunters to

worship such an insignificant star. Clearly, if astronomical phenomena really did inspire these people's building motivations, then it did not involve either the stars of Orion or the lone star Sirius.

NORTH OR SOUTH?

In fact, there is a fundamental problem in even assuming that the main enclosures at Göbekli Tepe are oriented south, for although the humanlike features of the central monoliths are all turned this direction, there is no reason to conclude that their gaze is fixed toward the southern skyline. More likely, they greet the entrant approaching from the south in the same manner that statues in churches face the worshipper approaching the high altar. Church altars are located in the east, as this is the direction of heaven in Christian tradition, and also because churches were often aligned

toward the position where the sun rises on the feast day of its patron saint. Just because Jesus, Saint Michael, or the Virgin Mary faces *away* from the high altar does not mean their gaze is fixed toward the western skyline.

In Göbekli Tepe's case, if its enclosures did have a high altar or holy of holies, then it would have been in the north, the direction of darkness, where the sun never rises. It is also the direction of the celestial pole, the turning point of the heavens. In southeast and eastern Anatolia, northerly orientations of early Neolithic cult buildings have been noted at Çayönü, Nevalı Çori, and Hallan Çemi in the eastern Taurus Mountains (see chapter 23). It thus seems likely that Göbekli Tepe's enclosures are oriented toward the north, and not the south.

Concluding that Göbekli Tepe's central pillars face south without taking into account the significance that the north plays in Anatolia's early Neolithic tradition would be very foolish indeed.

What is more, the Sabaeans, the pagan star worshippers of the ancient city of Harran—the ruins of which are overlooked by Göbekli Tepe—each year celebrated the Mystery of the North, since this was deemed the direction of the primal cause and the source of life itself.[6] As we saw in the prologue, the earliest inhabitants of the city, who thrived a full ten thousand years ago, were very likely the direct descendants of the Göbekli builders.

Similar beliefs of the north being the original *qibla,* or direction of prayer, were held by other ethno-religious groups of the region, including the angel-worshipping Yezidi, the Mandaeans of Iraq and Iran, and an Ismaili sect known as the Brethren of Purity.[7] All of them most likely inherited aspects of their beliefs and practices from much earlier cultures with roots in the Neolithic age. With these thoughts in mind, Hale now turned his attention to the northern sky to identify any possible stellar targets there.

TARGET REVEALED

Just one star emerged as a potential candidate, and this was Deneb, the brightest star in the constellation of Cygnus, the celestial bird. Before 9500 BC Deneb was circumpolar, in that it never set, although after this time, through the effects of precession, it started to set each night on the north-northwestern horizon. As the centuries rolled by, the star's point of extinction moved ever westward in a manner that, as we see below, not only makes sense of the mean azimuths of the various sets of twin pillars at Göbekli Tepe but also offers realistic construction dates for the enclosures in question.

Enclosure D @ 353° = 9400 BC[*4]
Enclosure E @ 350° = 9290 BC
Enclosure C @ 345° = 8980 BC
Enclosure B @ 337° = 8235 BC

These dates should not be seen as absolute, as we have no idea as to what level of accuracy the Göbekli builders employed in their building construction. Even a small error in the positioning of the central pillars could alter the proposed alignment toward a stellar object by as much as a hundred years. Having said this, the construction dates of the various pairs of central pillars—suggested by their alignment to Deneb—correlate pretty well with available radiocarbon dates obtained from key enclosures.

ENCLOSURE DATES

For instance, loam taken from wall plaster found in Göbekli Tepe's Enclosure D has provided a radiocarbon age of 9745–9314 BC,[8] which corresponds perfectly with a date of ca. 9400 BC defined by the alignment of its twin pillars toward Deneb at this time. Interestingly, bone samples taken from Enclosure B have provided a

radiocarbon age of 8306–8236 BC,[9] which coincides with a suggested construction date of ca. 8235 BC implied by its twin pillars' alignment toward Deneb. Having said this, radiocarbon specialist Oliver Dietrich of the German Archaeological Institute believes these burials could have been made long after the construction of the enclosure, so no more can be said on the matter until better dating evidence becomes available.[10] Other radiocarbon dates have been obtained from organic materials found within the fill used to cover the major enclosures, and these range from the late tenth to the late ninth millennium BC, the time of the site's final abandonment.[11]

Clearly, the possibility that the central pillars in Göbekli Tepe's main enclosures were aligned to reflect the precessional shift of a single astronomical target across an extended period of time is borne out by the astronomical data presented by Rodney Hale. What is more, there is evidence that cult buildings at other Pre-Pottery

Neolithic sites in southeast Anatolia might also have reflected an interest in the star Deneb. For instance, the Flagstone Building, Skull Building, and Terrazzo Building at Çayönü are also aligned north-northwest with entrances in their southern walls (see figure 7.2 on p. 84). Hale checked their orientations, based on available plans, and established that they reflect alignments toward the setting of Deneb between ca. 8825 BC and 7950 BC—shown in the following table[12]—dates that accord well with recent revisions of Çayönü's age based on radiocarbon evidence obtained during the 1960s.[13]

Structure	Azimuth	Deneb Setting Date
Flagstone Building	345.35°	8810 BC
Skull Building	345.86°	8825 BC
Terrazzo Building	336.20°	7950 BC

CELESTIAL MARKERS

Coming to Göbekli Tepe's Enclosure E, the Felsentempel, where all the pillars have been removed and only the slots within the stone pedestals remain, we find that the orientation of its twin pillars targeted the setting of Deneb at a date of ca. 9290 BC, some 110 years later than those of Enclosure D (see figure 7.3 on p. 84). This said, the fact that Enclosure E's standing pillars have been removed makes it impossible to verify whether it really was aligned north toward Deneb. We are, however, on much firmer ground with Enclosure C.

According to Hale's calculations, Enclosure C's central pillars targeted the setting of Deneb around 8980 BC, suggesting that this was the time frame of their construction (no radiocarbon dates are available at present for this structure).[*5] Yet the rectangular slots cut out of the bedrock pedestals to support Enclosure C's twin monoliths are aligned slightly more toward north than the pillars

themselves. They are askew only by about a degree, although the difference between the stones and their slots is noticeable. This might indicate that the pillars target Deneb at a date slightly later than the construction of the slots, which could reflect the position of the star at an earlier date. If so, then quite possibly the enclosure is older than the 8980 BC date suggested by the proposed astronomical alignment of its twin pillars, perhaps by as much as a century or so. It is even possible that the monoliths were repositioned when it was realized they no longer synched with the setting of Deneb. So around 8980 BC they were turned very slightly to reflect the star's new setting position. If this theory is correct, then it is possible that the Göbekli builders were familiar with the effects of precession, which shifts a star against the local horizon at a rate of around one degree every seventy-two years.

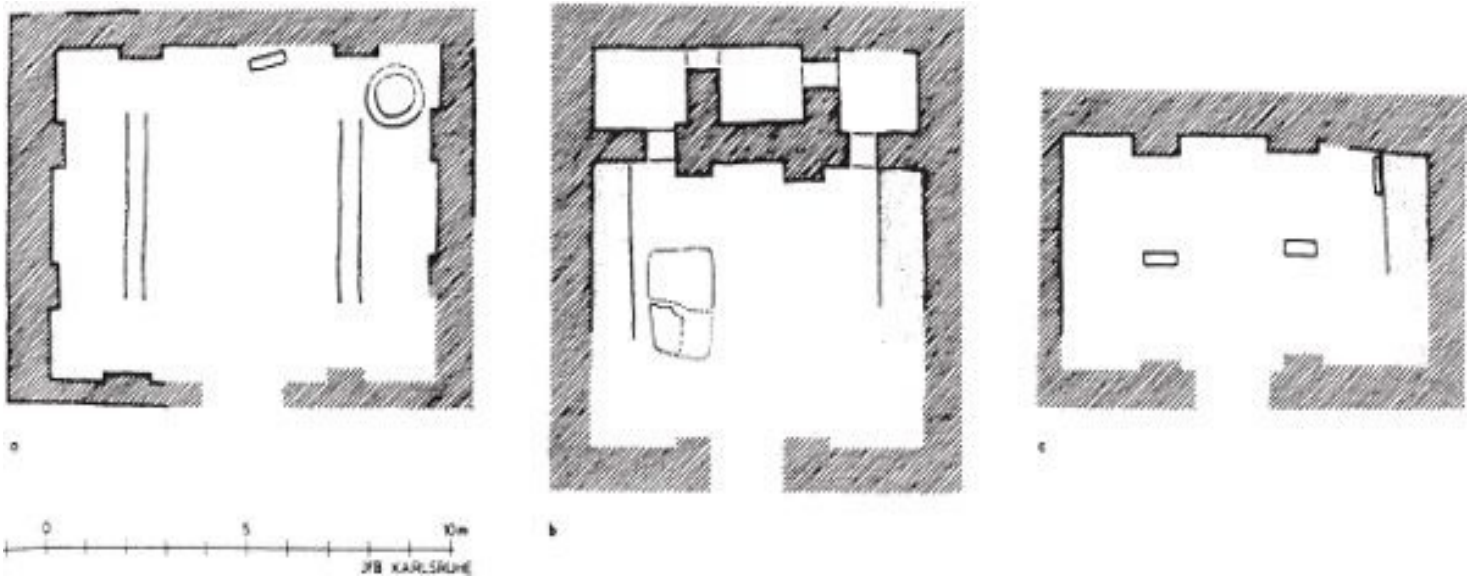

Figure 7.2. The three cult buildings at Çayönü—the Terrazzo Building, Skull Building, and Flagstone Building. All are oriented north-northwest with entrances in the south.

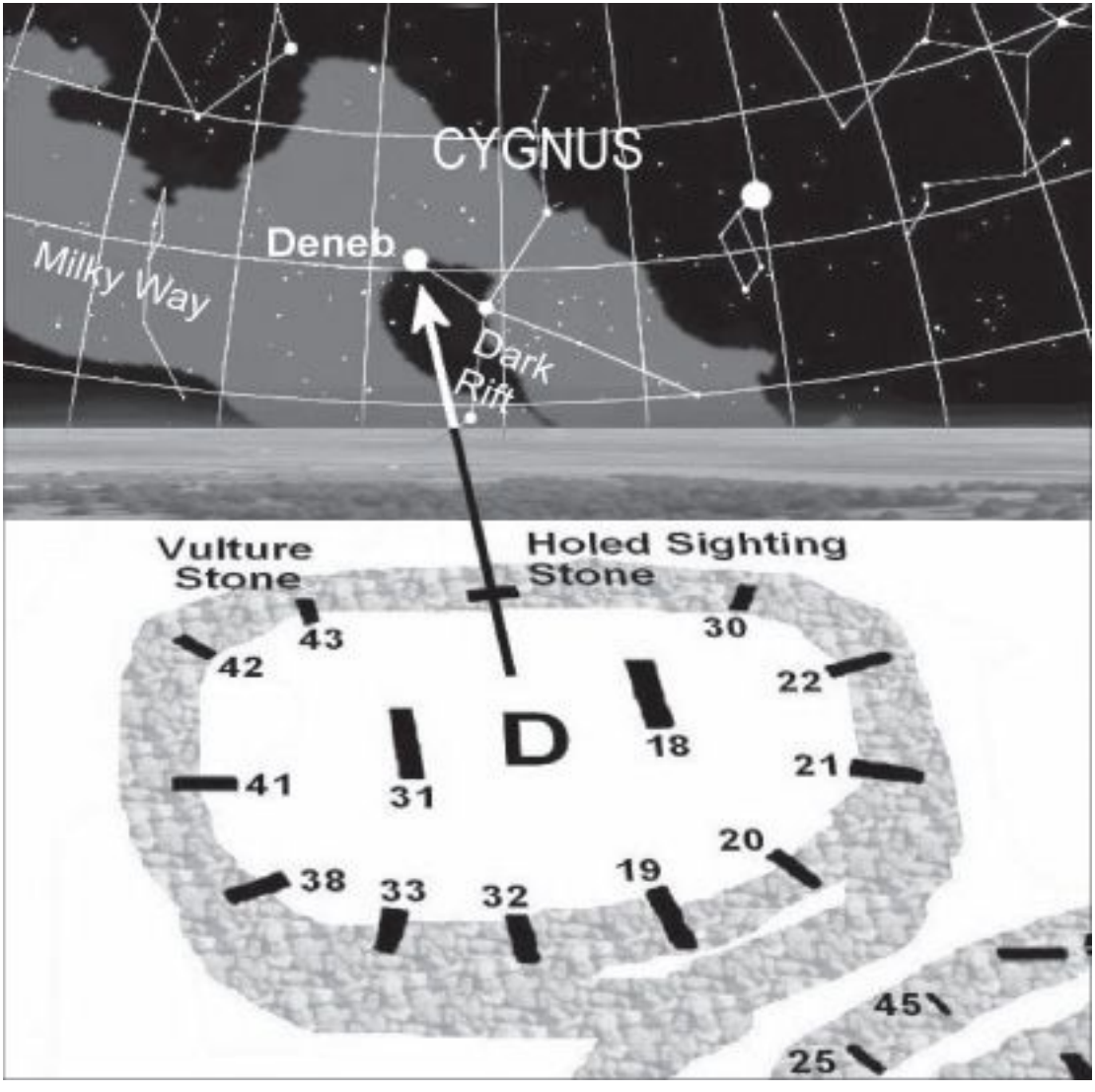
CYGNUS
Deneb
Milky Way
Dark Rift
Vulture Stone
Holed Sighting Stone
D
43
42
41
38
33
32
31
30
22
21
20
19
18
45
25

Figure 7.3. The alignment of Enclosure D's central pillars toward the star Deneb in Cygnus and the opening of the Milky Way's Great Rift, ca. 9400 BC.

SIGHTING STONE DISCOVERY

Further evidence of Göbekli Tepe's proposed astronomical alignments comes from Enclosure D. A stone pillar standing around 5 feet (1.5 meters) in height has recently been found in its north-northwestern perimeter wall, exactly behind and in line with its central pillars (see figure 10.3 on p. 109). The stone is rectangular, and unlike the rings of radially oriented pillars found in the main enclosures, it has one of its wider faces turned toward the center of the structure. The significance of this stone is that it has a hole some 9 to 10 inches (23–25 centimeters) in diameter bored through it horizontally at a height of around 3 feet (1 meter) off the ground.

Covering the stone is a series of curved lines, which flow in pairs and converge just beneath the hole before trailing off toward the stone's right-hand corner. Very likely they are a naïve representation of the human torso complete with legs bent at the knees (see chapter 10).

If the enclosure's twin pillars were indeed oriented toward Deneb, then a person, a shaman perhaps, would have been able to look through the stone's sighting hole to see Deneb setting on the north-northwestern horizon, a quite magnificent sight that cannot have happened by chance alone. Clearly, this is powerful evidence that the enclosure really was directed toward this star during the epoch of its construction.

A similar holed stone exists in Enclosure C, which is also located within the north-northwest section of the temenos wall (see figure 10.1 on p. 106). Designated Pillar 59, it has been turned over onto its eastern side and is fractured across its hole, with the top section

now missing. The diameter of the hole is very slightly larger than the one in the corresponding stone in Enclosure D, measuring 11 to 12 inches (28–30.5 centimeters). This is also the approximate width of the stone through which the hole has been bored.

The holed stone in Enclosure C remains only partly exposed. It leans forward so that no indication of whether it bears any carved relief, like its partner in Enclosure D, can yet be determined. What does seem clear is that when in its original position, Pillar 59 would have stood exactly behind and in line with Enclosure C's twin central pillars. This means that it too could have been used to observe the setting of Deneb when standing between the twin pillars during the epoch of its construction (bearing in mind that a second, inner ring of stones was added *after* the original construction of the outer circle, according to Klaus Schmidt.[14] Its construction would quite possibly have obscured the line of vision from the twin central pillars to the holed stone).

SOUL HOLES

So what exactly are these holed stones that once stood in the same positions in Enclosures C and D? The answer almost certainly is that they are *seelenloch,* a German word meaning "soul hole" (*seelenlocher,* "soul holes," in plural). Across Europe[*6] and also in southwest Asia[†7] megalithic structures, such as dolmens, passage graves, and chambered tombs, often incorporate upright entrance stones into which circular holes have been bored. These holes are usually between 10 and 16 inches (25–41 centimeters) in diameter, which makes them too small for an adult to pass through. This has led to speculation that they must have served some kind of symbolic function.

Prehistorians have suggested that the holes in dolmens might have allowed offerings of food to be made to the dead following their initial interment. This is at least possible. Yet more often than

not, holed entrances to megalithic structures are interpreted as seelenloch, holes that are believed to allow the spirit or soul of the deceased to exit the tomb. (Even Klaus Schmidt has suggested that fragmented stone rings found at Göbekli Tepe during the earliest surveys of the site might have functioned as seelenloch.[15] This, however, was long before the discovery of the aforementioned holed stones in Enclosures C and D.)

Holes were also bored into the shoulders or sides of cremation urns in Roman Europe,[16] and also in the Ararat Valley of eastern Anatolia during the Bronze Age,[17] apparently with similar purposes in mind. In places such as the Austrian Tyrol the concept of the seelenloch persisted until the twentieth century. Here, circular "doors" were built into the walls of houses, which were opened only when a person died in the house, the purpose being to allow the soul of the deceased to leave its earthly surroundings and depart for the afterlife.[18]

CAUCASIAN DOLMENS

By far the greatest concentration of dolmens with façades or entrance stones, into which holes have been bored, are to be found in the Caucasus region of Abkhazia and southern Russia, on the northeast coast of the Black Sea. Here as many as three thousand structures of this kind have been noted, many of which have never been properly recorded. Those that have been investigated produce radiocarbon dates and artifacts suggesting a construction date during the Bronze Age, ca. 3000–2000 BC.[19]

Many of the dolmens have paved-stone enclosures with tememos walls that incorporate the porthole stone. The similarity in design between these megalithic enclosures in the Caucasus and Göbekli Tepe's Enclosures C and D, with their own holed stones forming part of the temenos wall, is uncanny and must surely form part of a similar tradition.

Many of the Caucasian dolmens have carved reliefs around their

portholes. Often this shows twin pillars or supports capped with a trilithon (like those at Stonehenge), creating the image of a gateway or doorway, similar to the torii entrance gates to Japanese Shinto shrines. These carved gateways are curiously reminiscent of the twin pillars standing at the center of the enclosures at Göbekli Tepe.

It thus seems likely that the holed stones in Göbekli Tepe's Enclosures C and D functioned as seelenloch. If correct, then whether this rite of passage through the stone's bored hole related to souls of the deceased leaving the enclosure or unborn souls entering this world is a matter of debate discussed in chapter 10. More obviously, the seelenloch enabled the soul or spirit of the shaman to exit the structure.

PASSAGE OF THE SOUL

While in an ecstatic or altered state of consciousness a shaman

imagines him-or herself entering a hole or tunnel that allows access to otherworldly environments, either in the lower world (underworld) or upper world (sky world). Often these holes, particularly those leading to the lower world, are reached through the visualization of physical holes such as water holes, holes in tree trunks, circular depressions in rocks, entrances to caves, or holes carved in polished circular stones, similar to the jade *bi* or *pi* disks of Chinese folk tradition.[20] These are thought to symbolize the starry vault, with the hole in the center representing the access point to heaven.[21] Siberian shamans often wear on their coats disks with holes, which are usually made of iron. They bear names such as *künjeta* ("sun") and *oibon künga* ("hole-in-the-ice sun") and correspond with invisible holes (*oibone*) in the shaman's body used in spirit communication.[22]

This then is what the porthole stones in Göbekli Tepe's Enclosures C and D most likely signified—points of exit for the

shaman's soul on journeys to the sky world, accessed via the star Deneb in Cygnus. Yet why was this particular area of the sky of such interest to the shamans of the early Neolithic? The answer seems to lie in the fact that Deneb cannot take *all* the credit for causing the Göbekli builders to align the various sets of twin pillars toward the north-northwest. For Deneb's role as a stellar marker is in fact secondary to the Milky Way's Great Rift, which, as we find out next, was once seen as an entrance to the sky world.

8

THE PATH OF SOULS;

The orientation of the central pillars in Göbekli Tepe's main enclosures toward both Deneb and the Milky Way's Great Rift is by no means unique. All around the globe ancient cultures and societies saw this area of the heavens as an entrance to the sky world. It was considered a place of the gods, a land of the ancestors, and the source of creation in the universe.

For instance, the ancient Maya of Central America pictured Xibalba, their underworld, as accessible from a sky road known as *ri b'e xib'alb'a,* the Black Road, identified as the Milky Way's Great Rift.[1] Its actual entrance or location was represented by cave

and mouth imagery, often accompanied by a symbol known as the Cross Bands glyph. This has the appearance of a letter X inside a square frame and has been identified with the Cygnus stars in their guise as a celestial cross, made up of five specific stars.[2] The actual road to Xibalba (a word meaning "place of fear") is shown as a caiman crocodile, its long jaws the twin streams created by the Great Rift, with its head, eyes, and gullet located in the vicinity of the Cygnus region (see figure 8.1 on p. 90).

In Mayan mythology the solar god One Hunahpu was reborn from the mouth of the caiman. The sun god was perhaps imagined as being carried along the length of the creature's open jaws to the place where the ecliptic, the sun's path, crosses the Milky Way in the vicinity of the stars of Sagittarius and Scorpius.[3] This is a point corresponding, visually at least, with the nuclear bulge in the galactic plane that marks the center of the Milky Way galaxy. The sun god reached this point of rebirth at the moment of sunrise on the

winter solstice.

Figure 8.1. Left, caiman crocodile overlaid on the Milky Way's Great Rift, as conceived by the Maya of Central America. Right, the

Milky Way's Great Rift on its own for comparison.

The Olmec of Mexico, whom the Maya might well have seen as spiritual forebears, created grotesque stone offering tables with the likeness of the head and jaws of a monstrous jaguar. From the creature's open mouth (some see it as a cave entrance) a deity identified as a were-jaguar—half human, half jaguar—is seen emerging. Although next to nothing is known about Olmec cosmology, it probably involved mythological ideas similar to those of the Maya.

As the Cross Bands glyph appears on these offering tables, usually either between the teeth of the monster or on the headdress worn by the were-jaguar, it is likely the Olmec also had some concept of the sun god being reborn from the Milky Way's Great Rift, seen as the cavelike mouth of a hideous sky monster.

CLEAVING OPEN THE PORTALS

The Maya manufactured enormous ceremonial ax heads in jade that take the form of abstract were-jaguars, the lips on their human faces downturned in a peculiar and highly exaggerated manner (see figure 8.2). Across the top of the head, going from front to back, is a furrow or cleft, which has a deeply significant meaning, for on the were-jaguar's breech cloth the Cross Bands glyph appears, like the Union Jack emblazoned on a belt buckle. According to the label accompanying the British Museum's own were-jaguar hand ax:

> The crossed bands glyph incised on the breech cloth signifies an entrance or opening. . . . These symbols (i.e., the glyph and the cleft on the top of the head) proclaim the axe's magical power to cleave open the portals into the spirit world.

As that "spirit world" was almost certainly Xibalba, it confirms

that the Cross Bands glyph symbolizes its "entrance or opening," which, as we have seen, was marked by the constellation of Cygnus, the Northern Cross. Even the cleft is evidence of this connection, for the Great Rift is known also as the Great Cleft, as it appears to cleave the Milky Way in two, a symbolic act carried out in Mayan tradition by the jade ax in its celestial guise.

Figure 8.2. Left, Olmec altar at La Venta, in Mexico's Tabasco state, showing a figure emerging from the cave-like mouth of the were-jaguar. Note the Cross Bands glyph between the creature's fangs. Right, Mayan ax in jade fashioned into the likeness of the were-jaguar. Note the cross bands glyph on the belt buckle area of the breeches and the cleft on the top of the head.

THE DENEB PORTAL

Similar ideas regarding a spirit world existing beyond the opening to the Great Rift are held even today by a number of Native American tribes, whose star myths are thought to have a common origin among the Mississippi mound-building cultures, forming what is known as the Southeastern Ceremonial Complex, which thrived ca. AD 1200–1650.[4] The most consistent story that emerges from their beliefs and practices tells of how in death the soul departs

to the west, a journey that takes three to four days to complete. When finally it reaches the edge of the Earth's disk, the soul waits for the right moment to make a leap of faith to enter the Milky Way, the so-called Path of Souls, via a star portal, knowing that the consequences of failing this difficult jump will mean being lost forever in the lower world.

The portal is marked by a celestial hand, its fingers pointing downward and made up of stars belonging to the Orion constellation, the three belt stars marking the severed wrist. It is a symbol found again and again in the iconography of the Southeastern Ceremonial Complex and dates back to the Hopewell mound builders of Ohio, who thrived some two thousand years ago.

The actual portal is the stellar object Messier 42, a small, fuzzy nebula located in Orion's "sword." Here the soul joins the Milky Way and travels south and then north until it reaches a fork on the path identified with the twin arms of the Great Rift. Its longer arm,

the one bridging the two halves of the Milky Way, is envisioned as a log spanning a celestial river that the soul must cross to reach the sky world.

Yet before the soul can cross the log bridge it has to encounter its guardian, most usually a "forked-eye raptor," a supernatural eagle known as the "Brain Smasher," identified with the star Deneb. Only by receiving the right judgment can the soul avoid Brain Smasher and pass over the log and enter the afterlife. If the judgment is not favorable, the soul is forced to take the Great Rift's shorter, severed arm, which leads only to oblivion. Clearly, the raptor is Cygnus in its role as the celestial bird, its forked eye the Milky Way's Great Rift (see figure 8.3).

STORM DEMON WITH OPEN MOUTH

How exactly the Göbekli builders might have viewed the starry

existence beyond the Great Rift is now lost. Yet some idea of their understanding of cosmic geography can be gleaned from the star lore recorded in cuneiform script by the astronomer-priests of the civilizations that thrived on the Mesopotamia Plain in what is today Iraq.

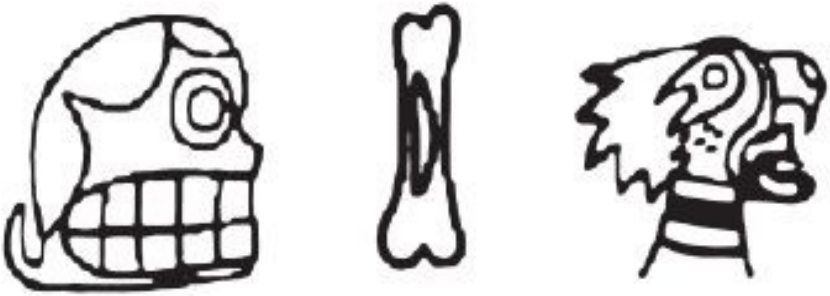

Top: Skull and Bone represent the life soul and free soul. The Raptor is the guardian of the place where the Milky Way splits into two tracks. It is a bird based on the Cygnus constellation. The "forked eye" of the raptor represents the split at the Milky Way. Right: Copper object from Moundville—the hole in the "eye in the hand" is the portal M42. The soul then moves up to the Milky Way and encounters the split creating the Dark Rift. The top circle, often represented as a "Cross," is the star Deneb, the final destination of the soul.

Figure 8.3. Native American symbols from artifacts found at mound sites. Note the raptor, which represents Cygnus, and the eye in the hand, representing Orion, above which is a circle that represents the bright star Deneb in Cygnus (after Greg Little).

Babylonian texts, which contain source material that goes back to the third millennium BC, catalogue dozens of stellar objects, either stars or asterisms, a few of which, such as the Scorpion (Scorpius), the Goat-headed Fish (Capricorn), and the Lion (Leo), are recognizable from their equivalents in the Greek zodiac. The stars of Cygnus would seem to have been combined with others from the neighboring constellation of Cepheus (located immediately above Deneb in astronomical terms) to create a huge griffinlike creature with the head and body of a panther (*nimru* in Akkadian) and the wings, back feet, and tail of an eagle. Its name was ^{MUL}UD.KA.DUH.A, which means "constellation (MUL) of the

storm-demon with an open mouth," and it was seen as the place of reception of dead souls.[5]

With the head of the panther in Cygnus[6] and its tail in Cepheus (making it perfectly synchronized with the Milky Way), it becomes clear that in Babylonian star lore the entrance to the realm of the dead was through the mouth or gullet of ^{MUL}UD.KA.DUH.A, which corresponds to the opening of the Great Rift. This, of course, is similar to the Olmec and Mayan conception of the entrance to the underworld being through the mouth of a gruesome monster, either a jaguar or caiman. For this reason, it seems certain that the Babylonians, and presumably their forebears the Sumerians and Akkadians, saw the entrance to the netherworld, or realm of the dead, as synonymous with the Great Rift.

VENERATION OF THE POLE STAR

From the evidence presented here, it seems likely that the Pre-Pottery Neolithic peoples of southeast Anatolia considered Deneb the visible marker for the opening into a sky world accessed via the Milky Way's Great Rift. Why exactly this particular area of the sky became so important to the mind-set of the Pre-Pottery Neolithic world of southeast Anatolia lies in the fact that there was no Pole Star when Göbekli Tepe was constructed, ca. 9500–8000 BC. In other words, the celestial pole was not marked by any bright stellar object in the night sky. Thus it seems reasonable to suggest that the Göbekli builders adhered to much earlier Paleolithic traditions regarding the location of the sky world that reached back to a time when Deneb was Pole Star, ca. 16,500–14,500 BC. It was, of course, during this epoch that the Lascaux Shaft Scene was created by Paleolithic cave artists. This shows the bird on the pole, perhaps signifying the ascent of the bird-headed shaman (depicted next to it) into a sky world accessed through the celestial pole, marked at that time by Cygnus in the form of a bird.

SHIFTING POLE STARS

Is it really possible that the people of Göbekli Tepe followed a tradition that was more than five thousand years old? As already mentioned, the effects of precession caused the celestial pole to shift away from Cygnus around 13,000 BC. Thereafter it entered the constellation of Lyra, causing its bright star Vega to become Pole Star, ca. 13,000–11,000 BC. So why had the sky watchers of this age not switched their allegiance from Cygnus to Vega? The answer is that some Paleolithic cultures probably did start seeing Vega as the point of entry to the sky world. However, others almost certainly remained loyal to Cygnus, and Deneb in particular, simply because it synchronized with the start of the Milky Way's Great Rift, which was already considered the rightful entrance to the sky world. Visually, the star Vega lies well away from both the Great Rift *and* the Milky Way, explaining why the star might not have attained the same significance as Deneb.

So not only did Vega lose its importance around 11,000 BC, but veneration of Deneb and the Great Rift as the true entrance to the sky world was almost certainly on the increase again, a situation that probably existed when the main enclosures at Göbekli Tepe were under construction in the tenth millennium BC. It thus makes sense that the builders of these monuments, the oldest known star temples anywhere in the world, chose to align them to the opening of the Great Rift, the most obvious point of entry into the sky world at that time.

Yet as we shall see next, the method by which the soul made its journey to and from the sky world was by using Cygnus's most primordial totem, the celestial bird, which we find represented quite spectacularly in the carved art at Göbekli Tepe.

9

CULT OF THE VULTURE

At Çatal Höyük, the 9,500-year-old Neolithic city in southern central Anatolia, the dead were portrayed in art as headless matchstick men, often seen in the company of vultures. These are carrion or scavenger birds associated with the process of excarnation, the deliberate defleshing of human carcasses, which often took place on wooden mortuary towers, the remaining bones being afterward collected for what is known as a secondary, or disarticulated, burial.

Excarnation is certainly considered to have taken place during the Neolithic age and might even have occurred at Göbekli Tepe,

according to Klaus Schmidt. He compares its large enclosures to the Towers of Silence that feature in the funerary practices of the religion known as Zoroastrianism,[1] which thrived in Iran, Armenia, and later India (under the name Parsism) until comparatively recent times. Here the dead were placed at the top of round stone towers, the Towers of Silence, away from a community. The vultures would swoop down and pick the carcasses clean, after which the remaining bones were allowed to calcine in the hot sun before being collected for final burial.

Although such practices are rare today, they do continue under the name sky burials among some remote Tibetan Buddhist communities in the Himalayas. Eyewitness reports show that first the vultures swoop down to devour the carcasses, then the ravens, hawks, and crows arrive to finish the job, almost as if this honor among birds might be the true origin of the term *pecking order*.

Excarnation almost certainly occurred at Çatal Höyük, where it is

depicted on at least one painted fresco (see figure 9.1). This shows two wooden towers, accessed by a staircase, at the base of which are two figures, guardians perhaps of the charnel area. On top of the right-hand tower vultures attack a headless matchstick man, which is very likely an abstract symbol used to represent a dead body. The head was considered the seat of the soul, and because the soul has departed the body, it is portrayed as headless; that is, soulless. The missing head is seen in outline on top of the left-hand tower, where two vultures appear to be taking the head, or soul, under their wings.

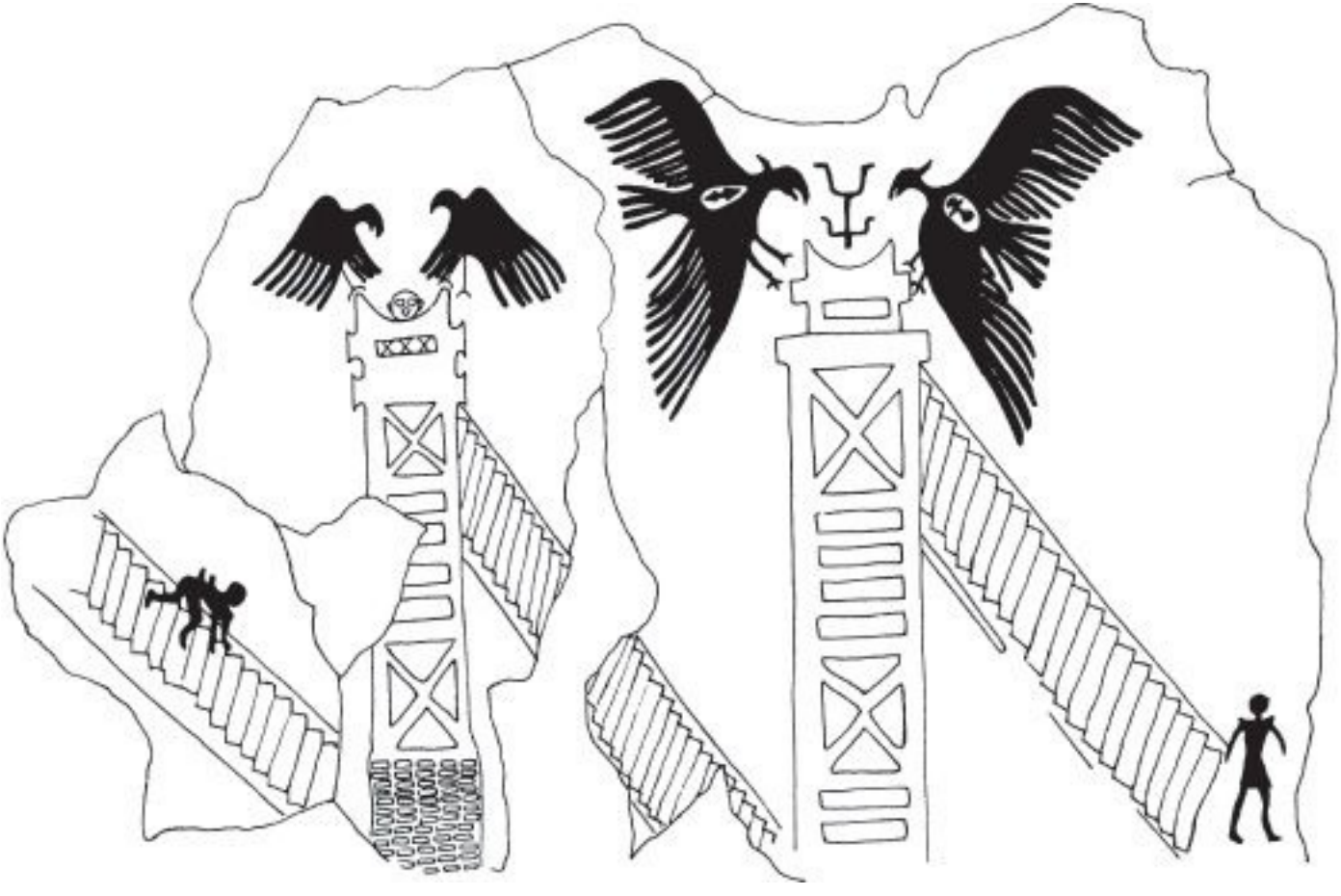

Figure 9.1. Excarnation towers from a reconstructed panel found at the Neolithic city of Çatal Höyük, dating to 7500–5700 BC (after

James Mellaart). Note the soul of the deceased depicted as a head, with its denuded body shown as a headless matchstick man.

PSYCHOPOMP

The painting is meant to convey the idea that, even though the human carcass might suffer the unsightly (although very efficient) act of excarnation, the spirits of the vultures accompany the soul into the afterlife. Each bird is thus acting as a *psychopomp,* an ancient Greek word meaning "soul carrier," used to describe a supernatural being or creature whose role was to assist a newly deceased soul reach the next world.

British archaeologist James Mellaart recorded that all panels connected with death and rebirth at Çatal Höyük were located on either the north or east walls of cult shrines.[2] East is clearly the direction of rebirth, symbolized by the appearance of the sun each

morning, leaving the north as the direction of the netherworld, the realm of darkness and the dead. Indeed, some of the most prominent vulture imagery featuring matchstick men at Çatal Höyük was placed on the north walls of cult shrines.

Not only is the north the only place where, in the Northern Hemisphere, the sun never reaches, it is also the direction of the Milky Way's Great Rift, the stars of Cygnus, and, of course, the celestial pole. Was it in this direction, toward the perceived entrance to the sky world, that the vultures were thought to carry or accompany the soul into the afterlife?

Although Cygnus is most often represented in Eurasian star lore as a swan, evidence indicates it was once seen on the Euphrates as *Vultur cadens,* the "falling vulture,"[3] even though this is a title more commonly associated with the nearby constellation of Lyra.

GÖBEKLI'S VULTURE STONE

Representations of vultures were found among the ruins of the cult building at Nevalı Çori. Here Harald Hauptmann and his team uncovered a stone totem pole on which human heads and vultures are shown together, as well as a beautifully executed sculpture of a vulture that would not look out of place in a modern art gallery. Yet strangely this beautiful piece of art was being used as fill within the wall of the cult building, indicating that it belonged to an earlier phase of building activity, probably ca. 8500–8400 BC.

Vultures are also to be seen among the carved art at Göbekli Tepe, most obviously on Pillar 43. Located in the north-northwestern section of Enclosure D, it stands immediately west of the holed stone that would have allowed a person crouching between the twin pillars to observe the setting of Deneb during the epoch in question.

On Pillar 43's western face are three vultures, one of which is a

juvenile. Also visible is a scorpion and two long-necked wader birds—flamingos perhaps—and between them and the head of the adult vulture in the upper register is a line of small squares, abutted on each side by a series of V-shapes, possibly signifying the flow of water.

Other strange features are depicted at the top of the stone. Three rectangular forms appear in a line with linked loops that make them resemble handbags. Next to each is a small creature, which in order, from left to right, can be identified as a long-legged bird (a wader perhaps), a quadruped (seemingly a feline), and an amphibian (possibly a frog or toad). An interpretation of this scene is problematic, although the handbags, or "man bags," as some people are calling them, are most likely animal pens or houses, situated on what could be the edge of a river, upon which is a trackway (the lines of squares) underneath which flows water (the accompanying V-shapes).

This, however, is not why Pillar 43 has been singled out as important. It is the vulture positioned at the end of the line of small squares that draws the eye (see figure 9.2 on p. 100). It stands up, with its wings articulated in a manner resembling human arms. It also has bent knees and bizarre flat feet, in the shape of oversized clowns' shoes, indicating that this is very likely a shaman in the guise of a vulture or a bird spirit with anthropomorphic features. Similar vultures with articulated legs are depicted on the walls of shrines at Çatal Höyük, and these too are interpreted either as anthropomorphs or as shamans adorned in the manner of vultures.[4]

HEAD LIKE A BALL

Just above the vulture's right wing is a carved circle, like a ball or sun disk. Klaus Schmidt interprets this "ball" as a human head, and this is almost certainly what it is, for on the back of another vulture

lower down the register is a headless, or soulless, figure, just like the examples found in association with the vultures and excarnation towers at Çatal Höyük. And we can be sure that this "ball" *does* represent a human head as similar balls are seen in the prehistoric rock art of the region, where their context makes it clear they represent human souls.[5] As Anatolian prehistoric rock art expert Muvaffak Uyanik explains:

Figure 9.2. Göbekli Tepe's Vulture Stone (Pillar 43). Note the scorpion on the shaft, the headless human figure with erect penis on the neck of the vulture-like bird at the base of the shaft, and the ball above the right wing of the vulture in the upper register.

> In the Mesolithic age [i.e., in the epoch of the Göbekli builders], it was realized that man had a soul, apart from his body and, as it was accepted that the soul inhabited the head, only the skull of the human body was buried. We also know that the human soul was symbolized as a circle and that this symbol was later used, in a traditional manner, on tomb-stones without inscriptions.[6]

So the headless figure represents not only the human skeleton but also a dead man whose soul has departed in the form of a ball-like head that is now under the charge of the vulture, which is itself

arguably a bird spirit with human attributes, a were-vulture, if you like. Clearly, Göbekli Tepe's Pillar 43—the Vulture Stone, as we shall call it—conveys in symbolic form the release of the soul into the care of the vulture in its role as psychopomp, or soul carrier, on its journey into the afterlife (Schmidt's suggestion[7] that the vulture is playing with a human head as part of some macabre game is simply inadequate to explain what is going on here).

VULTURE WINGS

Evidence of vulture-related shamanism has been found also at other sites across the region. For instance, during the 1950s at an open-air settlement called Zawi Chemi Shanidar, which overlooks the Greater Zab River in the Zagros Mountains of northern Iraq, American archaeologists Ralph and Rose Solecki discovered the wings of seventeen large predatory birds, along with the skulls of at

least fifteen goats and wild sheep.

Among the species of bird represented by the bones, many of them still articulated, were the bearded vulture (*Gypaetus barbatus*) and griffon vulture (*Gyps fulvus*), as well as various species of eagle. They were found positioned by the wall of a stone structure, which probably served a cultic function.[8] The excavators were in no doubt that the wings had been severed from the birds at the point of death and worn as part of a ritualistic costume.[9] In other words, shamans utilized these wings as "ritual paraphernalia"[10] in order to adopt the guise of the vulture in its role as a primary symbol of the cult of the dead.

The wings were radiocarbon dated to 8870 BC (+/- 300 years),[11] although modern forms of recalibration (due to recent reassessments of the amount of carbon-14 present in organic matter during former ages) means they probably date to the end of the Younger Dryas period, ca. 9600 BC[12]; that is, shortly before the construction of the

large enclosures at Göbekli Tepe, which as the crow flies is about 280 miles (450 kilometers) west of Zawi Chemi Shanidar.

STAR MAP IN STONE

If Göbekli Tepe's Vulture Stone *does* show a human soul being accompanied into the afterlife by a psychopomp in the likeness of a vulture, then there has to be a chance that its rich imagery contains themes of a celestial nature. Scholars working in the field of archaeoastronomy have been quick to point out that the scorpion shown at the base of the shaft could signify the constellation Scorpius.[13] Certainly, in Babylonian astronomical texts such as those found on the Mul-Apin tablets, the stars of Scorpius are identified with a constellation named Scorpion (^{MUL}GIR.TAB).[14]

In the cosmological art of the Maya in Central America, a scorpion is often shown at the base of the world tree (see figure

9.3), a symbol interpreted by some scholars as the Milky Way standing erect on the horizon. This has led to the scorpion being identified with the constellation Scorpius, which lies immediately beneath the Milky Way's Great Rift.[15] Thus it is conceivable that there existed a universal identification of the stars of Scorpius with the symbol of a scorpion that originated in the Paleolithic age, the reason it appears on Göbekli Tepe's Vulture Stone, carved ca. 9500–9000 BC.

CYGNUS AS A VULTURE

If Pillar 43's scorpion *does* represent the Scorpius constellation and is thus symbolizing the point of crossing between the ecliptic and the Milky Way's Great Rift, then the vulture with articulated wings and clownlike feet at the top of the stone completes the cosmic picture. Its wings, head, neck, and body have a familiar ring to

them, for they form a near perfect outline of the Cygnus constellation, with the vulture's head in the position of Deneb and its outstretched wings matching those of its celestial counterpart as it appeared 11,500 years ago (see figure 9.4). This identification with Cygnus, first noted by Professor Vachagan Vahradyan of the Russian-Armenian (Slavonic) University,[16] is remarkable and unlikely to be coincidence.

Thus the abstract imagery on Pillar 43, with its headless matchstick man next to the scorpion, and the ball-like head above the left wing of the vulture, probably shows the transmigration of the soul from its terrestrial environment, signified by the stars of Scorpius at the base of the Milky Way's Great Rift, to its final destination in the region of the Cygnus constellation at the top of the Great Rift.

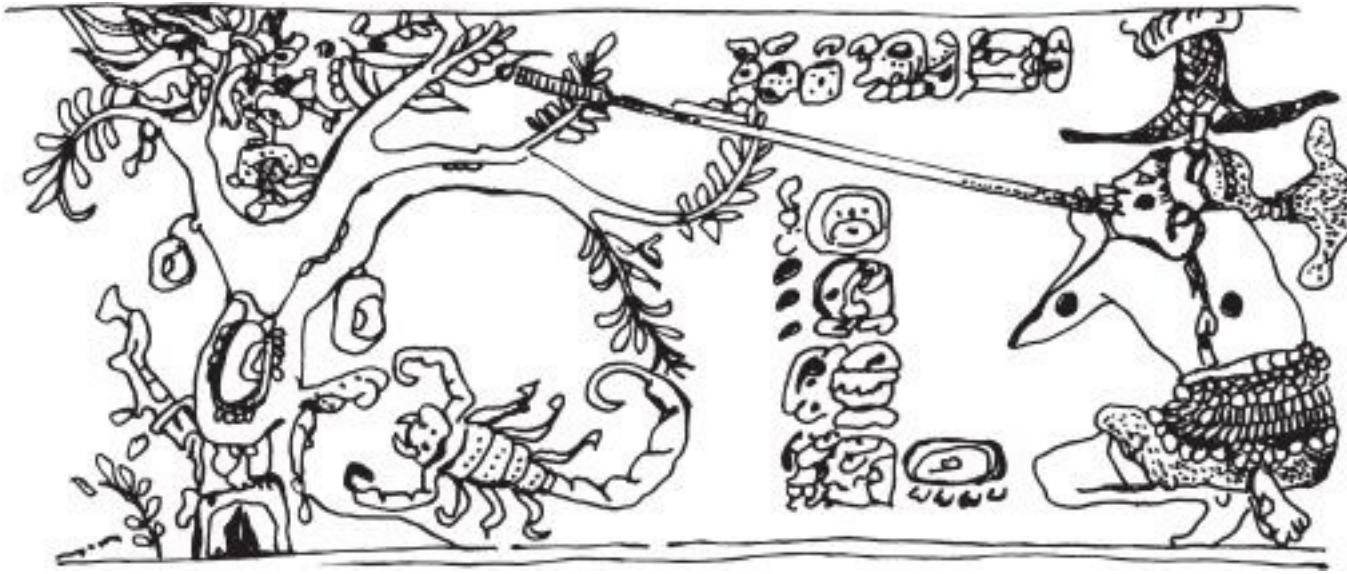

Figure 9.3. Mayan cosmic tree, symbol of the Milky Way, with a scorpion by its base perhaps signifying the constellation Scorpius.

CYGNUS

Figure 9.4. Göbekli Tepe's Vulture Stone (Pillar 43) with the Cygnus constellation overlaid.

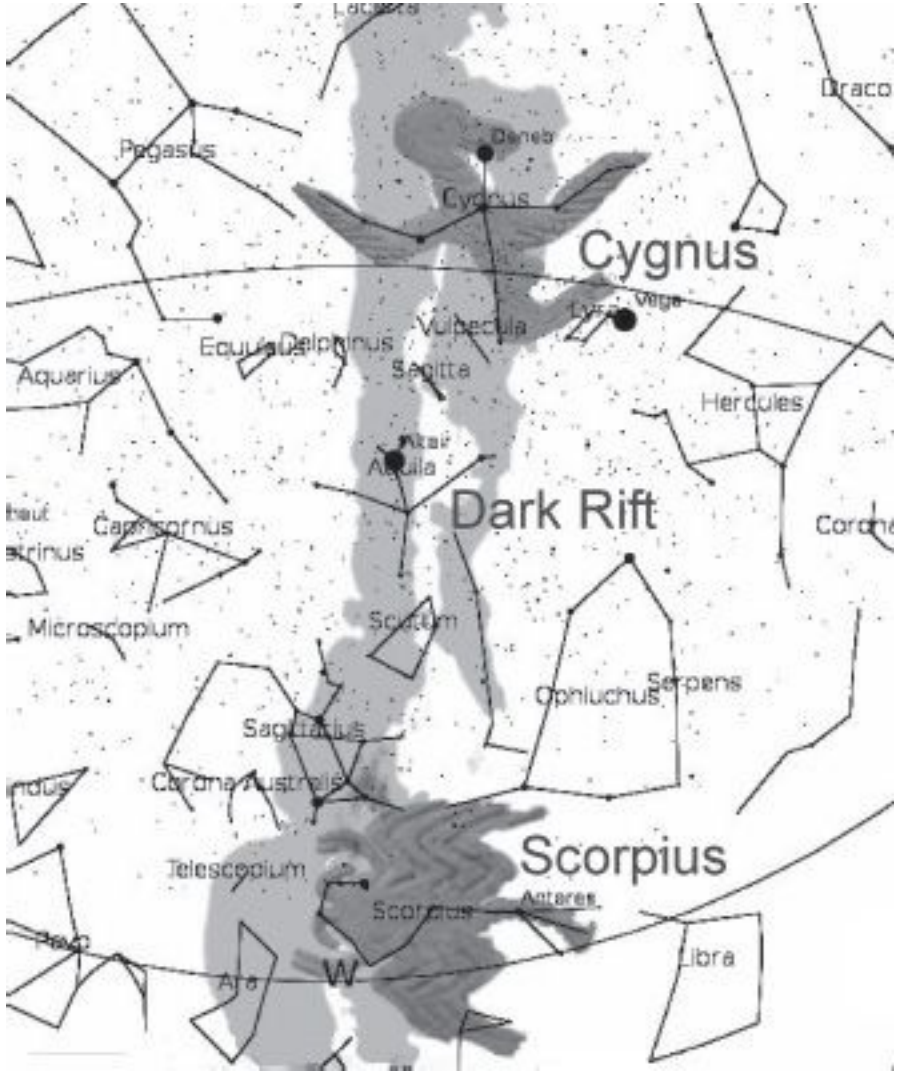
Draco
Pegasus
Deneb
Cygnus
Cygnus
Vega
Lyra
Vulpecula
Delphinus
Equuleus
Sagitta
Aquarius
Hercules
Altair
Aquila
Dark Rift
Capricornus
Microscopium
Scutum
Ophiuchus
Serpens
Sagittarius
Corona Australis
Scorpius
Telescopium
Scorpius
Antares
Libra
Ara
W

Figure 9.5. The Milky Way's Great Rift overlaid with the scorpion and vulture from Göbekli Tepe's Vulture Stone (Pillar 43), showing their match with, respectively, the stars of Scorpius when just above the western horizon and, at the same time, Cygnus (the vulture) as it crosses the meridian high in the sky.

Absolute confirmation of this pictorial journey into the afterlife comes from the fact that in 9500 BC, when Scorpius came into view on the western horizon shortly after sunset, the Milky Way's Great Rift would have stretched upward into the night sky to highlight Cygnus as it crossed the meridian on its upper transit at an elevation of approximately 70 degrees. It is almost certainly this relationship between the two constellations that is depicted on Göbekli Tepe's Vulture Stone, especially as the pillar's clown-footed vulture and scorpion are in similar positions to their celestial counterparts (see figure 9.5).

The fact that Enclosure D's Vulture Stone is also in the north-

northwest, next to the holed stone and on the same basic alignment as its twin pillars, is another potential clue as to its astronomical function, in particular its connection with Cygnus and the Milky Way's Great Rift. Yet how exactly did the Göbekli builders envision the sky world, which seems to have been intrinsically linked to the symbol of the vulture? The greatest clue comes from the holed stone, which, as we have seen, probably acted as a seelenloch, or soul hole, through which the soul had to pass in order to reach its otherworldly destination.

10

COSMIC BIRTH STONE

If the twin monoliths at the center of Göbekli Tepe's Enclosure D *were* once oriented toward the setting of Deneb in the epoch of their construction, then, as we have seen, a person standing or crouching between them would have been able to view this astronomical spectacle through a holed stone located immediately east of the Vulture Stone. It would have been a similar case in Enclosure C, where the entrant would also have been able to witness the setting of Deneb through the aperture of a holed stone (Pillar 59) when positioned between the twin central pillars.

It is time now to better understand the purpose of these holed

stones, focusing our attentions on the example in Enclosure D, which remains in situ. It has carved parallel lines that curve around the hole to form what appear to be naïve renderings of human legs bent at the knee. After coming together beneath the hole the “legs” trail off toward the bottom right-hand corner of the stone, leaving a parallel opening between the knee and the presumed ankles. That the twin sets of parallel lines represent legs, and not something else, is confirmed by the fact that the lower left-hand edge noticeably bulges as if to signify the person’s right-hand buttock (see figure 10.1).

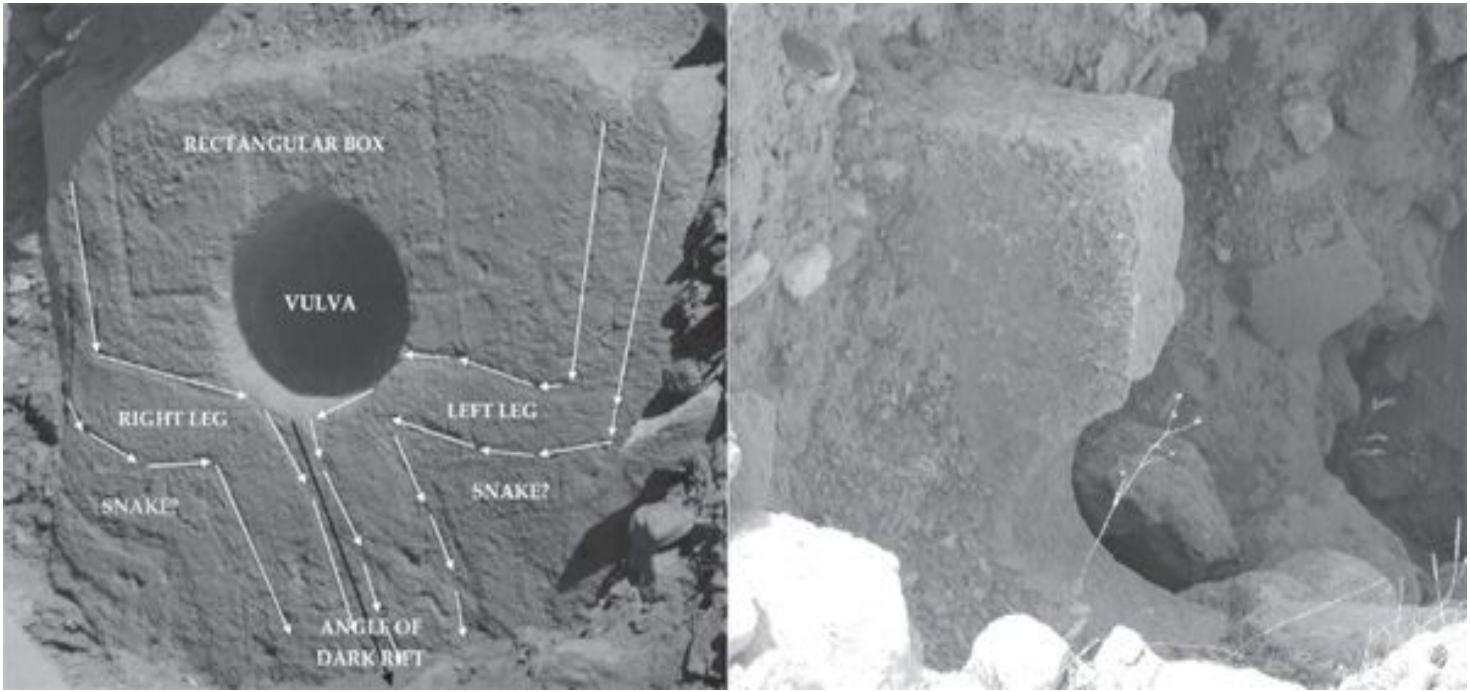

Figure 10.1. Left, decorated holed stone in the north wall of Göbekli Tepe's Enclosure D. Note the lines flowing around the hole, suggestive of an abstract female form. Right, the broken holed stone in a similar position in Enclosure C.

THE KILISIK STATUE

If the incised lines on the sighting stone do show a pair of legs bent at the knees, then the large hole directly above them can only signify one thing—the person's, or should I say the woman's, vulva. A similar hole is seen on the mini T-shaped statue found in 1965 at Kilisik, a village in Adıyaman province, some 46.5 miles (75 kilometers) north-northwest of Göbekli Tepe.[1] In addition to having arms and hands, like the T-shaped pillars at Göbekli Tepe and Nevalı Çori, the statue has an additional line that rises at an angle on both its wide faces to meet the hands on the front narrow face. It seems clear that the figure is lifting up its garment to expose its belly and genitalia (see figure 10.2).

Strangely, the belly or womb area of the statue is sculpted into a much smaller human form represented by a crude head, body, and arms, executed in a style reminiscent of a macabre stone totem pole unearthed at Göbekli Tepe and now in Şanlıurfa's archaeological

museum. This too shows smaller human forms in the position of the womb or stomach of a much larger standing figure (see plate 24).

The small figure on the Kilisik statue very likely represents a fetus inside a woman's womb, the large incised hole immediately beneath the belly emphasizing not just the position of the vulva but also the birth canal. That a very similar, although much larger hole, has been bored through Enclosure D's potential sighting stone, which is itself surrounded by incised lines arguably signifying the legs of a woman, suggests this hole is also an exaggerated vulva (presumably the holed stone at the same position in Enclosure C played a similar role).

Figure 10.2. Stone statue of a T-shaped figure found in 1965 at Kilisik in Adıyaman province, some 46.5 miles (75 kilometers) from Göbekli Tepe. Note the hole forming the figure's vulva and the small human figure carved into the stomach area.

This means that when in 9400 BC the setting of Deneb aligned with the hole in the sighting stone in Enclosure D, the star's presence would have been framed within the abstract woman's vulva. Clearly, this carefully executed synchronization between star and stone was created to mark the moment of alignment with the opening of the Milky Way's Great Rift in its role as the suspected entrance to the sky world, where souls departed to in death and, presumably, emerged from at birth. We can go further, for the angle made by the woman's lower legs, as they trail off toward the right-hand corner of the stone, is similar to the angle of the Milky Way and Great Rift when the star Deneb is at approximately 45 degrees

in elevation. In other words, the manner of placement of the woman's legs seems to emphasize that her vulva marks the entrance to the Great Rift (see figure 10.3).

So if the abstract female form seen on the holed stone in Enclosure D symbolizes the Cosmic Mother, is the purpose of the synchronization between star and stone to indicate that she is about to give birth? Should this surmise prove correct, there can be little doubt that this was a highly symbolic act seen to take place both in a material sense within the womblike enclosure, *and* in a celestial form, with the cosmic child imagined as emerging into life from the opening of the Great Rift (exactly like the rebirth of the solar god One Hunahpu in Mayan myth and legend). In this manner, the cosmic child would have been seen to come forth from Cygnus, then descend the Great Rift to the "ground"; that is, the horizon, where the ecliptic, the sun's path, crossed the Milky Way in the vicinity of the stars of Sagittarius and Scorpius.

COSMIC BIRTH

Almost exactly what we see represented in abstract form on the sighting stone in Göbekli Tepe's Enclosure D is found also on the Venus and Sorcerer panel inside France's Chauvet Cave, which, as we have seen, was created by Upper Paleolithic cave artists some thirty-two thousand years ago. Here too the abstract legs of the "Venus" seem to signify the twin streams of the Milky Way on either side of the Great Rift, with the head of a young bovine overlaid upon the position of the womb (see figure 6.3 below). In this context, the bucranium likely represents the Cygnus constellation in its role as the head of a bull calf, which in prehistoric times was seen as an abstract symbol of the female womb or uterus, complete with its hornlike fallopian tubes (see figure 10.4 on p. 110). The uncanny resemblance between the two is something our ancestors would appear to have realized at a very early stage in human development,[2] making the bucranium, and the

bull calf in general, primary symbols of birth and death in the Neolithic age.

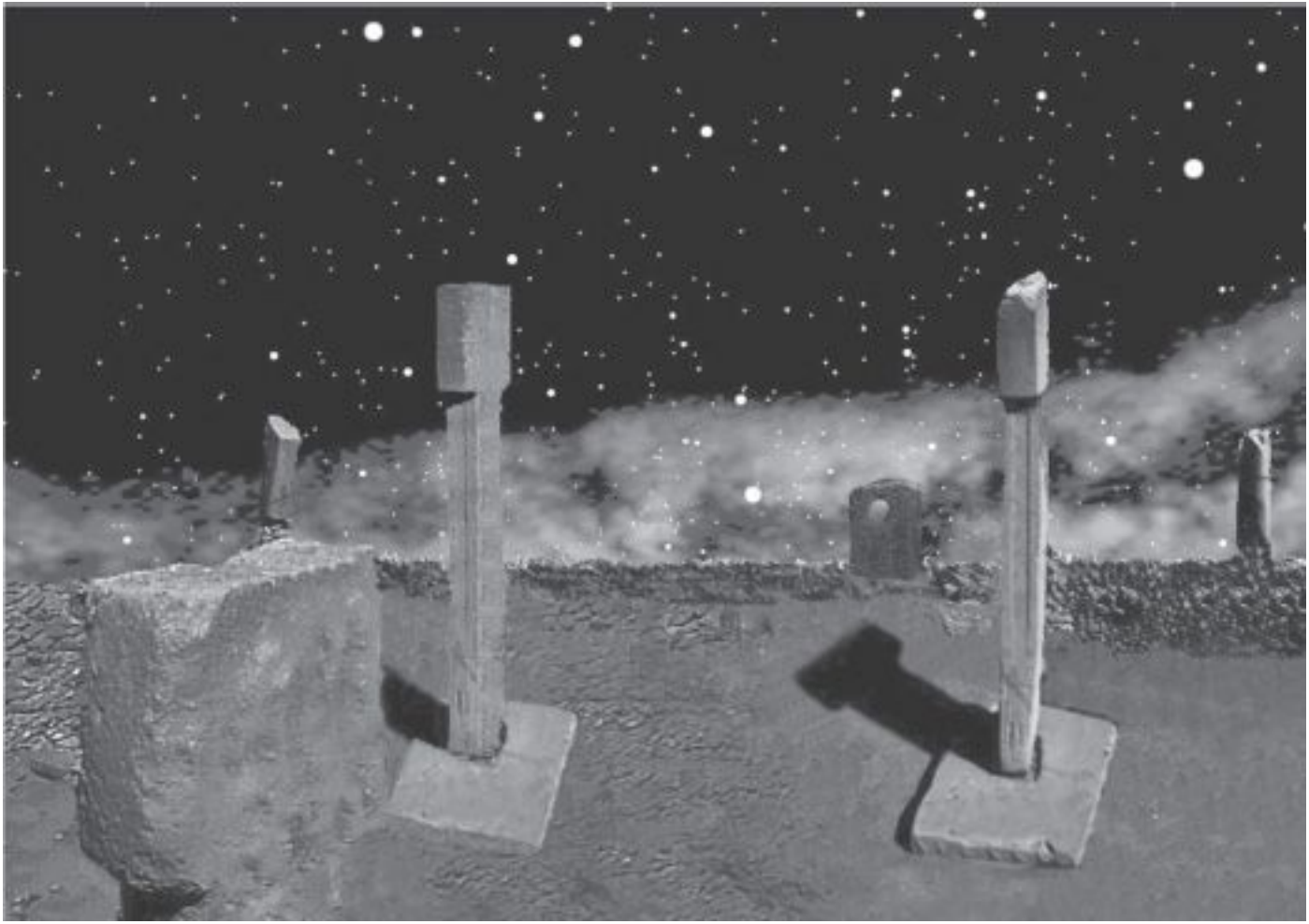

Figure 10.3. Göbekli Tepe's Enclosure D, showing the location of

the holed sighting stone in its perimeter wall. Note the Milky Way's Great Rift on the horizon.

We are reminded also of the 3-D frescoes from Çatal Höyük showing bulls being born from between the legs of divine females (who have the heads of leopards), and the ancient Egyptian belief that the goddess Hathor, in her role as the Milky Way, gave birth each morning to the sun god in the form of a bull calf. The cult of Hathor was virtually synonymous with that of Nut, the sky goddess, who was herself a personification of the Milky Way, her womb and vulva occupied by the stars of Cygnus (see figure 10.5 on p. 110).[3]

Nut was the mother of Osiris, the god of death and resurrection, and also of Re, the sun-god, who was reborn each morning from between her loins. In death, the pharaoh would assume the identity of Osiris and reenter the womb of his mother, Nut, in order to reach an afterlife among the stars. In other words, as the resurrected god

Osiris the deceased would return from whence he or she had come originally, which was the Milky Way's Great Rift in the vicinity of the Cygnus constellation.

Figure 10.4. Left, womb or uterus, complete with fallopian tubes. Center, the stars of Cygnus overlaid on a bovine head. Right, an abstract uterus design from the Pazyryk culture of Siberia, from approximately the sixth to third century BC.

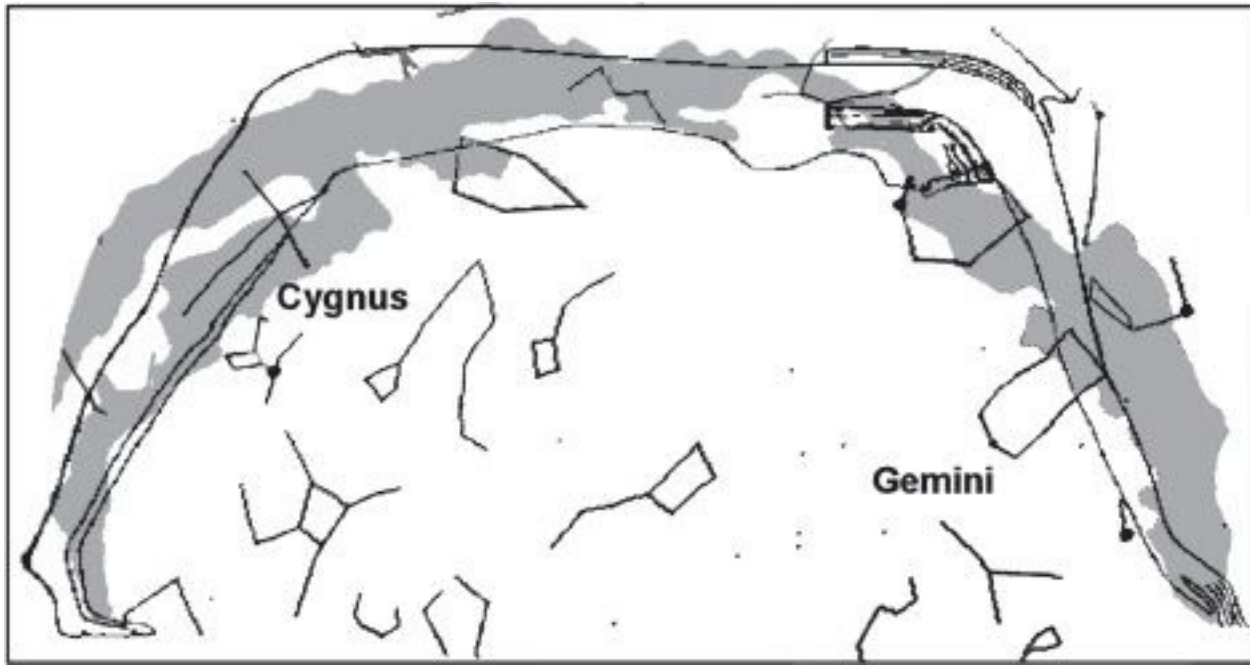

Figure 10.5. Ancient Egyptian sky goddess Nut in her role as a personification of the Milky Way, with the stars of Cygnus marking her womb and vulva, and the Great Rift signifying the gap between her legs (after R. A. Wells).

BIRTH CHAMBER

How exactly the entrants to Göbekli Tepe's Enclosure D, or indeed its neighbor, Enclosure C, might have celebrated the act of cosmic birth is open to speculation. Perhaps the new soul was believed to emerge from the opening of the Great Rift and then in some unimaginable manner enter a pregnant woman waiting between the enclosure's twin pillars. A ritual act like this might have taken place either at the point of conception, sometime during pregnancy, or, perhaps, shortly before birth. It might even be that some births actually took place between the enclosure's central pillars, mimicking exactly what the incised lines on the holed stone were attempting to convey.

So not only were the enclosures at Göbekli Tepe built to honor the departure of the soul in the company of the vulture in its role as psychopomp (remember, the Vulture Stone is next to Enclosure D's holed stone or Cosmic Birth Stone, as we shall call it), but they

were also designed to bring forth new life. Presumably souls entering the world would be accompanied by a psycho-pomp in the guise of a bird, most probably the vulture, which in some painted panels uncovered at Çatal Höyük is shown with an oval inside its back containing a human baby. Today, in many parts of Europe and Asia newborn babies are accompanied into the world by the stork. Yet in the Baltic (and seemingly in Siberia[4]) a white swan replaces the stork.[5] Clearly, in these areas of the globe, the swan or stork plays the same role as the vulture once did in the Near East.

In Egyptian and Hindu myth, a primordial goose or swan brought forth the universe with its call, although in many countries the swan was said to have laid the egg that either formed the universe or became the sun (such as Tündér Ilona, the Hungarian fairy goddess, who "when she was changed into the shape of a swan" laid an egg in the sky that became the sun[6]). This once again ties in with the belief that cosmic creation takes place in the vicinity of the Cygnus

constellation and Great Rift, resulting in the rebirth of the sun each day.

COSMOLOGICAL BELIEFS

Everything points toward Enclosure C and Enclosure D's holed stones being not just confirmation of Deneb's place in the mind-set of the Göbekli builders but also of the site's role as a place where the rites of birth, death, and rebirth were celebrated both in its carved art and within the architectural design of its larger enclosures, which formed symbolic wombs complete with twin souls and axes mundi.

The Göbekli builders would appear to have used the holed stones as seelenloch to enter an otherworldly environment associated with both the act of cosmic birth and the creation of human souls, which came forth from there prior to childbirth and returned there in death.

During their ecstatic and altered states of consciousness, shamans at Göbekli Tepe perhaps believed they were to become as fetuses in order to reenter the cosmic womb, the source of primordial creation, an act integrally associated with the star Deneb and the Milky Way's Great Rift.

Further confirmation of the holed stones' function as symbolic vulva is found in the work of scholars attempting to understand the cosmic design of megalithic dolmens, which, as we know, often have circular holes in their entrance façades. The burials found inside them are often placed in fetal positions ready for new life, leading to theories that the stone structures are symbolic wombs or uteri, their portholes representing the vulva, prompting one expert on the origins of Judaism and Islam to observe that whosoever "enters or leaves a dolmen [through the hole "drilled with enormous effort"] does this in the posture of a child at delivery through the vagina. The burial-dolmen itself is therefore symbolically a

uterus."[7]

These are incredible revelations that entirely alter our current perceptions of the mind-set of those behind the creation of the Pre-Pottery Neolithic world in southeast Anatolia. Yet as we see in part three, such cosmological thinking pales into insignificance when compared with other major factors that might well have been behind the creation of Göbekli Tepe's main enclosures. For it seems likely that monumental architecture on this scale was built in response to something terrible that had happened in the world.

PART THREE

Catastrophobia

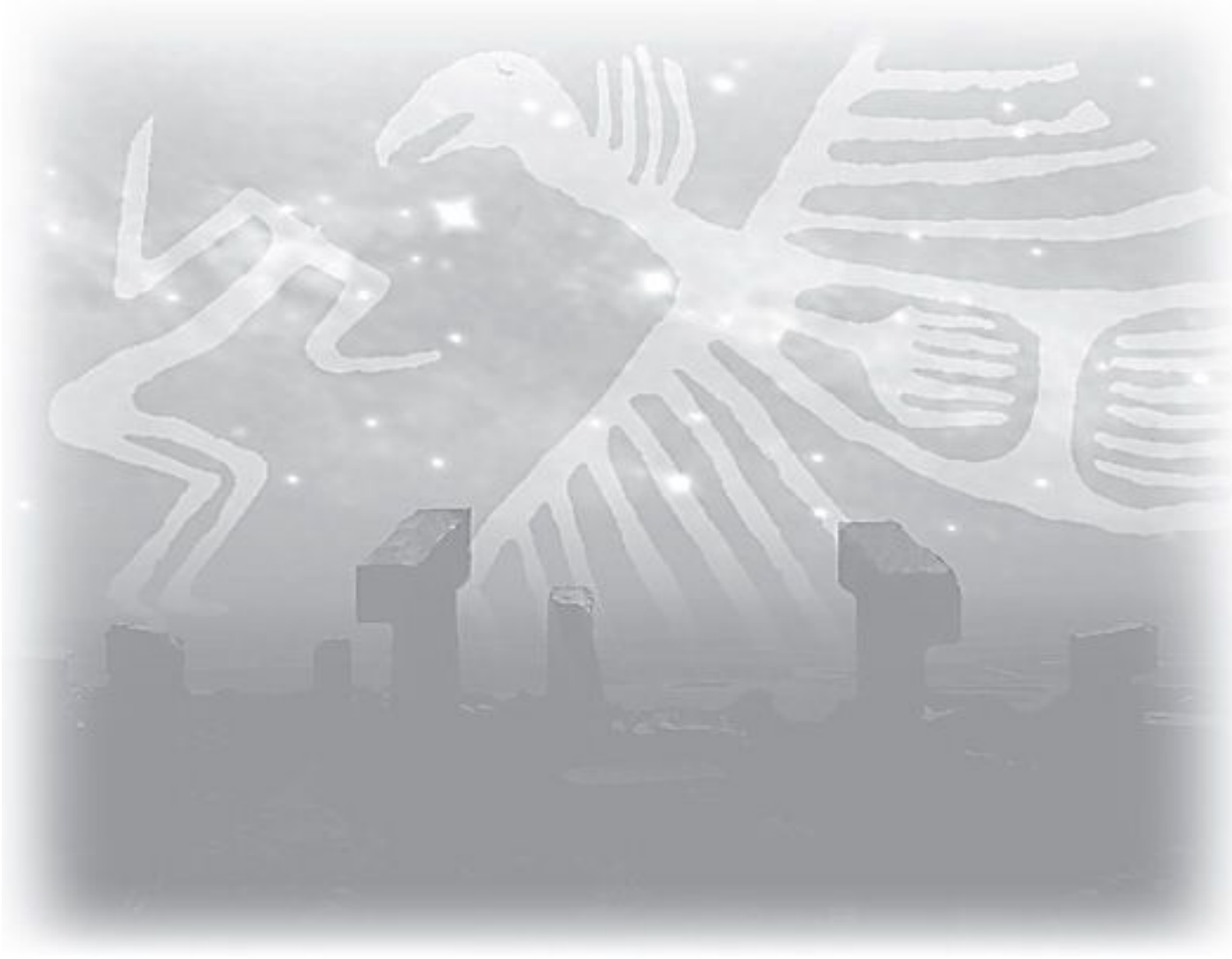

11

THE HOODED ONES

Up to twelve T-shaped pillars stood in rings within Göbekli Tepe's large enclosures, all with their faceless gaze focused toward the central monoliths, as if they formed part of some kind of otherworldly gathering of a secret society. For when we come to ask why the human form is being portrayed with T-shaped terminations both here and at other Pre-Pottery Neolithic sites across the region, with the best answer being that they represent individuals with heads that are long and narrow (hyper-dolichocephalic) who also wear cowls, or hoods, that extend to the rear, as if they might cradle a full head of hair.

It is a conclusion strengthened in the knowledge that the life-size statue of a male uncovered during urban development on Yeni Yol Street in Şanlıurfa's Balıklıgöl district in 1993, has a regular face and head, as do the various portable statues found at Göbekli Tepe and Nevalı Çori. So the sculptors of the Pre-Pottery Neolithic world knew very well how to create perfect representations of the human form with all its intricacies. Clearly then, the T-shaped pillars are abstract representations of those remembered as having once *looked* this way, their blank expressions confirming their otherworldliness, or transcendental nature.

Figure 11.1. An example of hooded figures in a circle, like the T-shaped pillars at Göbekli Tepe. Here three men perform a type of dance around a piper. Cyprian limestone carving. Phoenician in origin, date unknown.

THE MINI T-SHAPED STATUE

That the T-shaped pillars show long-headed individuals wearing cowls seems confirmed by the mini T-shaped statue found in 1965 close to the village of Kilisik, some 46.5 miles (75 kilometers) north-northwest of Göbekli Tepe. It appears to be wearing a large hood extended at the rear by the peculiar shape of the skull; indeed, even the start of the hood can be seen as a straight line that divides the rear half of the head from the projecting face (see figure 10.2).

Why exactly these figures are depicted with elongated heads is a matter we return to later in this book. Yet why wear hoods or cowls

in the first place? Perhaps it was the prevailing climatic conditions, or the fact that these individuals needed to protect their skin from the sun's rays. More likely is that the cowls convey some idea of status among the communities in which they moved, a fact suggesting the presence of elitism; in other words, a clear division between the Göbekli builders, made up of quarry men, stone masons, flint knappers, hunters, and butchers and those who controlled and managed the construction work going on at the site.

Having said this, it seems unlikely that the T-shapes reflect the presence of individuals living when the main enclosures at Göbekli Tepe were constructed around 9500–8900 BC. Like saints and divinities represented as carved art in churches, or the statues of gods and heroes in classical temples, the T-shapes at Göbekli Tepe are perhaps reflections of something that has been. Something that had to be remembered, celebrated, and not forgotten.

We cannot know what might have been going at Göbekli Tepe

when the large enclosures were under construction, nor whether the genesis of the T-shaped pillars happened here or elsewhere. It *is* possible, as Schmidt believes, that complex structures like Enclosures C and D were the pinnacle of a long period of development at the site going back many thousands of years. On the other hand, the construction of the monumental enclosures might just as easily have been inspired by a significant event. Perhaps the arrival in southeast Anatolia of representatives from another culture—individuals who helped galvanize the local hunter-gathering population into embarking on this mammoth building project.

A SUDDEN CHANGE IN LIFESTYLE

Is this what really happened in southeast Anatolia sometime either during or directly after the Younger Dryas mini ice age, ca. 10,900–9600 BC? Did some great change occur in the world of the local

hunter-gatherers that culminated in the construction of the large enclosures at Göbekli Tepe under the guidance of some kind of "power elite,"[1] as Schmidt refers to them?

Hunter-gatherers would work together in small bands to fulfill their primary functions in life, with these being hunting wild game, foraging for various types of food, and ensuring the well-being and safety of their extended family group. They created temporary settlements that they occupied only at certain times of the year; for the rest of the time the hunters followed the migrational routes of herd animals. They relied on these animals for food; clothes; fat for balms, fires, and lamps; bone, horn, and antler for weapons, tools, and items of personal adornment; and sinew (thin shredded fibers of muscle tendons) for use as cordage, binding points on arrow shafts, and as a backing material on bows.

Epipaleolithic (that is, transitional Paleolithic) hunters used established campsites and work stations, kitted out with basic

facilities, before moving on to the next site, and the next site, and so forth, until eventually they returned to their original place of departure. This was their cycle of life, and it would have remained so had neolithization not gotten in the way.

There can have been no obvious advantage in hundreds, if not thousands, of people (Klaus Schmidt believes that between five hundred and a thousand individuals were employed in building construction at Göbekli Tepe at any one time[2]) putting aside their free existence as hunters and foragers and coming together to create monumental architecture on such a grand scale. Something must have spurred the regional population into abandoning their old lives and adopting a completely different way of living, and from the presence in the enclosures of the massive T-shaped pillars, that "something" would appear to have been whoever, or whatever, they represented.

Did the T-shapes represent the memory of powerful individuals,

great ancestors perhaps, of those who built Göbekli Tepe?

MESSIANIC MESSAGE

If so, then who exactly were these influential figures—the Hooded Ones, as we shall call them until their likely identity is revealed? Did they come as messianic figures, bringing some sort of message—one that was so clear it could not be ignored? Was it believed that something bad would happen to the local hunter-gatherers, their families, and the world around them if this message were to be ignored?

As much as these ideas might seem at odds with our understanding of the Paleolithic mindset, they will begin to make sense of the evidence being uncovered right now at Göbekli Tepe. This can be seen in the fact that the continuous building of sacred enclosures in the same basic style, albeit in a gradually *declining*

fashion, across a period of nearly fifteen hundred years, ca. 9500–8000 BC, argues for the presence at the site of a very rigid belief system attached to the erection of the T-shaped pillars. It implies also a strength of conviction that might be compared to the manner in which Christians, adhering to ancient traditions, have steadfastly built churches in the same basic style across a very similar period of time.

The same can be said for the religious houses of other major religions, with the motivation behind these strictly-adhered-to dogmas always being the words, deeds, and legacy of prophets, saints, and messianic figures. Had something similar been going on at Göbekli Tepe or more particularly in the world that existed immediately prior to the construction of its large enclosures?

If the Hooded Ones did exist, then what might have been their powerful message, and where did they come from? To even start to answer these questions we need to return to the strange symbolism

of the T-shaped pillars, in particular those that stand proud in the center of Enclosure D, arguably the most accomplished structure uncovered so far.

12

THE FOX'S TAIL

The imposing central pillars in Göbekli Tepe's Enclosure D both sport wide belts, at the front of which, beneath a centrally placed belt buckle, fox-pelt loincloths have been carved, the animal's hind legs and long, bushy tail extending down to knee level (see plate 13). Further emphasizing the eastern monolith's vulpine character is the presence on its inner face of a leaping fox, something present also on the central pillars of Enclosures B, the eastern central pillar in Enclosure A, and the western central pillar in Enclosure C.

These images of the fox, along with the high level of faunal remains belonging to the red fox (*Vulpes vulpes*) found at Göbekli

Tepe, led archaeozoologist Joris Peters, writing with Klaus Schmidt, to conclude that the interest in this canine creature went beyond any domestic usage and was connected in some way with the "exploitation of its pelt and/or the utilization of fox teeth for ornamental purposes."[1] That this statement was made even *before* the discovery of the fox-pelt loincloths carved on the front narrow faces of Enclosure D's central pillars means that what Peters and Schmidt go on to say in the same paper should not be ignored, for in their opinion "a specific worship of foxes may be reflected here."[2]

That leaping foxes appear also on the central pillars in the large enclosures at Göbekli Tepe suggests that the entrant passing between them would have encountered this vulpine creature upon accessing the otherworldly environment reached through the enclosures' inner recesses. So why foxes, especially as they are usually seen in indigenous mythologies as cosmic tricksters, evil twins of the true creator god, responsible only for chaos and

disarray in the universe?

BELT BUCKLE CLUE

Was the fox the chosen animal totem of the Hooded Ones, the faceless individuals portrayed by the T-shaped pillars? If the answer is yes, then what does it mean? The key is the strange belt buckle immediately above the fox-pelt loincloth on the enclosure's eastern pillar (Pillar 18). A similar belt buckle is seen on the western pillar (Pillar 31), although here it is left unadorned, in the same way that the figure's belt, in complete contrast to the one worn by its eastern counterpart, is completely devoid of any glyphs or ideograms.

Only on the eastern pillar does the belt buckle reveal something very significant indeed. It shows a glyph composed of a thick letter U that cups within its concave form a large circle from which emerge three prongs that stand upward (see figure 12.1 and plate

13). That this emblem is worn centrally, on a belt festooned with strange ideograms, suggests that it has a very specific function. If so, then what might this have been?

THREE-TAILED COMET

Having examined the belt buckle glyph at some length, it is the author's opinion that it represents the principal components of a comet. The circle is its head, or nucleus, and the U-shape is the bow shock that bends around the leading edge of the nucleus and trails away as the halo. The upright prongs denote three separate tails, with multiple tails being a common feature of comets (see figure 12.2).

That the comet's "tails" on the belt buckle stand upward also makes sense, for these are often seen to trail into the night sky as the comet reaches perihelion. This is its final approach and slingshot

orbit around the sun. As this takes place the solar magnetic fields cause the gaseous particles of the comet to point away from the sun, so when the comet is seen in the sky, either in the predawn light (before perihelion) or, alternatively, just after sunset (following perihelion), its tail or tails point upward from the horizon, creating an unforgettable sight (see figure 12.3).

Figure 12.1. The belt on Enclosure D's eastern central pillar (Pillar 18) showing its belt buckle device and fox-pelt loincloth.

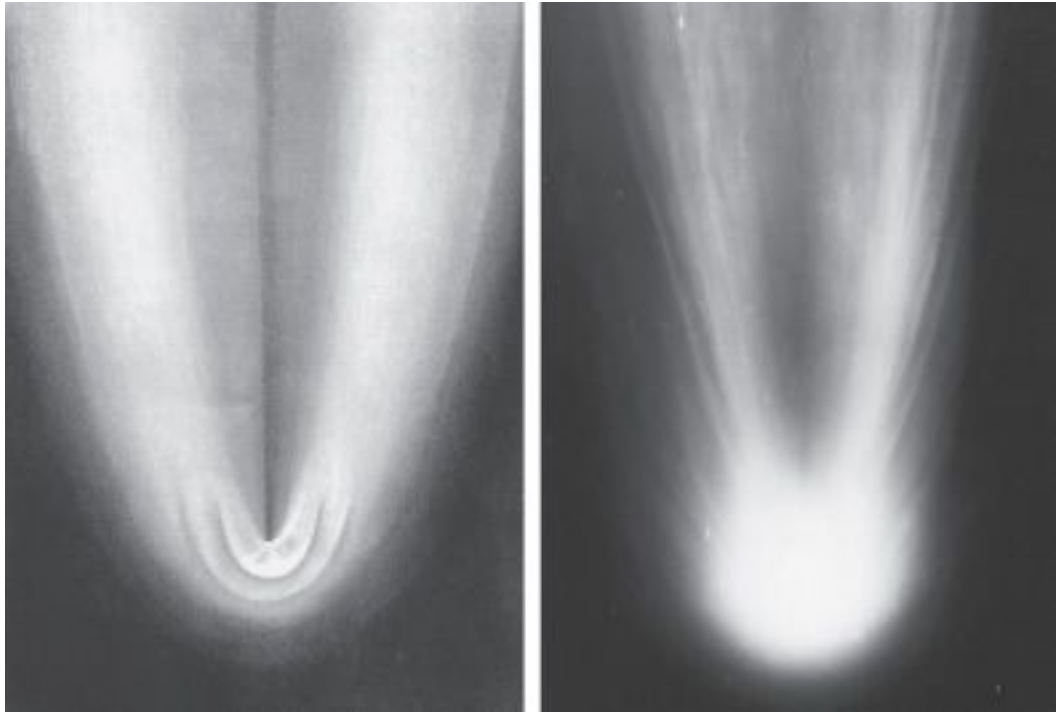

Figure 12.2. Left, comet showing the bow shock around its leading edge and, right, Halley's Comet in 1910. Both resemble elements of

Pillar 18's belt buckle.

Figure 12.3. The Great Comet of 1861 showing its triple tail.

The idea that the belt buckle glyph shows a comet is strengthened by its similarity to three-tailed comets seen in an ancient Chinese silk text. The Mawangdui cometary atlas (also known as the *Book of Silk*), created ca. 300–200 BC and named after the Han Dynasty mound tomb in which it was discovered in the 1970s, lists, in all, twenty-nine different cometary forms and the disasters associated with them. In figure 12.4, we see that in more than one example there is a striking resemblance to the Göbekli Tepe belt buckle design, especially as the comets are drawn with their tails pointing upward.[3]

MARK OF THE COMET

Yet even assuming that the belt buckle glyph *does* show a comet, could this not simply be a personal device without any connection to the function of Göbekli Tepe? This appears unlikely, as the pillar

is festooned with ideograms of a probable celestial nature. The belt's C and H glyphs would appear to have cosmological values, as does the carved eye held within a slim crescent worn around the "neck" of the T-shaped monolith. In addition to this, it does seem as if Enclosure D's eastern central pillar has a greater function than its western neighbor, almost as if one twin is alive, while the other functions as a ghost or echo of the other.

Figure 12.4. The Chinese Mawangdui atlas (or Book of Silk) from ca. 300– 200 BC, showing the entry for the various different types of comet, some resembling the belt buckle on Göbekli Tepe's pillar.

Regardless of these facts Pillar 18's belt buckle is simply not enough to demonstrate that comets held some special importance at

Göbekli Tepe. There is, however, another tantalizing link between the symbol of the comet and Enclosure D—this being the fox-pelt loincloths seen beneath the belt buckle on both monoliths. Universally the fox, *and the fox tail in particular,* has been seen as a metaphor for comets, due to the hairlike appearance of their long tails. Even in British heraldry the device known as the comet or blazing star is drawn to resemble the fox's tail (see figure 12.5 on p. 124). It is for this reason that comets have occasionally been personified as having clear vulpine and—as we shall see—canine (doglike) and lupine (wolflike) qualities of a dark, foreboding nature.

COMETARY CANINES

Chinese myths and legends, for instance, speak of mountain demons called *t' ien-kou* (*tengu* in Japanese), "heavenly dogs." Folk

tradition asserts that these supernatural creatures derive their name from comets or meteors falling to earth, for it is said they resemble the tails of dogs or foxes. One account speaks of t'ien-kou as:

Figure 12.5. Medieval heraldic device known as the comet or blazing star with its distinctive "fox tail."

> a huge dog with a tail of fire like a comet. Its home was in the heavens, but it sustained itself by descending to earth every night and seeking out human children to eat. If it could not catch any children it would attack a human adult and consume his liver.[4]

It is this dreaded fear of comets, seen in terms of malevolent supernatural creatures in canine form, that brings us to a fascinating account recorded by a Spanish Jesuit priest who journeyed through northern Mexico in 1607–1608. While staying in the town of Parras in the state of Coahuila, Andrés Pérez de Ribas (1576–1655) witnessed the priests of the local tribe, perhaps the Tlaxcalan Indians, conduct a powerful and somewhat macabre ceremony to ward off the baleful influence of a comet (almost certainly it was Halley's Comet, which made an appearance in 1607). According to him:

> The end of the comet (some of them said) was in the form of plumage: others said it had the form of an animal's tail. For this reason some came with feathers on their heads, and others with a lion's or fox's tail, each of them mimicking the animal he represented. In the middle of the plaza there was a great bonfire into which they threw their baskets [containing dead animals] along with everything in them. They did this in order to burn up and sacrifice these things, so they would rise up as smoke to the comet. As a result, the comet would have some food during those days and would therefore do them no harm.[5]

Although this strange ceremony to negate the influence of a comet took place on another continent nearly ten thousand years after the abandonment of Göbekli Tepe, the very specific use of fox (and lion) tails not just to represent the comet but also to connect with its supernatural nature, cannot be ignored. This form of sympathetic magic was the domain of the priest or shaman, and

there can be little question that very similar ceremonies took place on other continents in past ages.

That the twin central pillars of Göbekli Tepe's Enclosure D both display fox tails, while the eastern example additionally possesses a belt buckle that might well show the symbol of a comet, begs the question of whether the Göbekli builders might in some way have been concerned by the influence and presence of comets in our skies. Moreover, because the comet symbolism only appears in full on one of the central pillars, was this particular figure seen to have a special dominion over comets, an ability connected with the proposed message or doctrine introduced to the hunter-gatherers of southeast Anatolia in the epoch immediately prior to the construction of the first stone enclosures at Göbekli Tepe?

I PREDICT A COMET

Is it possible that this imposing stone figure at the center of Enclosure D, whoever or whatever it represents, was seen to have delivered the means by which the Epipaleolithic peoples of southeast Anatolia, with the help of his shamanicbased elite, could combat the baleful influence of comets? That the hunter-gatherers of southeast Anatolia so readily gave up their nomadic lifestyles to build monumental architecture in an unprecedented manner argues persuasively that this incoming elite must have had some kind of hold or influence over the people. Perhaps they claimed they had direct contact with the supernatural creature behind the manifestation of comets. If so, then such claims would have needed to be backed up with some convincing displays of proof for the hunter-gatherers to have so readily abandoned their old ways. So what might this have been?

One realistic answer is that, like the ancient Chinese astrologers behind the creation of the Mawangdui atlas ca. 300–200 BC, the

incoming elite had a very real knowledge of comets, which might have included information on periodic comets, those that make their return within one to two human generations. A perfect example is Halley's Comet, which makes its return every seventy-five to seventy-six years (its last appearances were in 1910 and 1986). Indeed, even though the gravitational influence of the solar system's larger planets, such as Saturn and Jupiter, means that the orbit of a short-period comet can fluctuate somewhat, it *is* possible that its reappearance might have been calculated to some degree of accuracy in just a few centuries of observation.

It is not known whether Halley's Comet graced our skies in the tenth or eleventh millennium BC, although some sources do suggest that it has been in its current orbit for between sixteen thousand and two hundred thousand years.[6] So the likelihood of Göbekli Tepe's founding elite being able to calculate the return of a short-period comet was therefore pretty high. If they *were* able to do this, then

using this valuable information to their advantage might have been enough to convince the hunter-gathering communities that they had real influence over these fearful celestial objects.

Such ideas might help explain why Enclosure D's twin central monoliths wear fox-pelt loincloths, why leaping foxes are present on the inner faces of key central pillars at Göbekli Tepe, and why Joris Peters and Klaus Schmidt considered that "a specific worship of foxes may be reflected here." These thoughts also perhaps have some bearing on why the large enclosures seem to incorporate symbolism of a clearly celestial and cyclic nature.

Is it possible that the enclosures embody a belief, offered by the Hooded Ones and, through them, their lineal descendants (responsible perhaps for the continued construction and management of Göbekli Tepe), that by synchronizing the enclosures with cosmic time cycles it would help provide the builders with enough information to control the influence of comets on a

supernatural level? Was it these communities' absolute fear and loathing of comets that motivated them to abandon their old lifestyles to build monumental architecture on such a dramatic scale? More pertinently, how did any of this relate to the apparent alignment of the main enclosures at Göbekli Tepe toward the Milky Way's Great Rift, marked out in the heavens by the star Deneb? These are matters that must be addressed next.

13

COSMIC TRICKSTER

It was the Greek Neoplatonist and celebrated philosopher Proclus of Athens (412–485 AD) who warned that "the fox star nibbles continuously at the thong of the yoke which holds together heaven and Earth,"[1] with German folklore adding that when the fox succeeds, the world will come to an end.[2] Proclus was referring here to the faint binary star Alcor, which in Babylonian star lore was known as ^{MUL}KA.A, the Fox Star.[3] In astronomical terms Alcor is located next to a much brighter quadruple system of binary stars, collectively known under the name Mizar. Together Alcor and Mizar make up the kink in the "handle" of the Plough, or Big

Dipper, which forms part of the constellation of Ursa Major, the Great Bear (see figure 13.1).

Some semblance of Alcor's mythical origin is revealed in Greek star lore, which tells how the star was once part of the Pleiades, or Seven Sisters, the cluster of seven stars located in the proximity of Taurus, the Bull. According to the Greek writer Hyginus (or one of his pupils writing under his name), a Pleiade named Elektra was so distraught at seeing the death of her descendant, King Dardanus, during the fall of Troy, that she withdrew her light and took flight as a "hair star," a comet, and became Alopex, the Fox, called by the Arabs Al Suha (the "forgotten" or "neglected one"), all names for Alcor.[4]

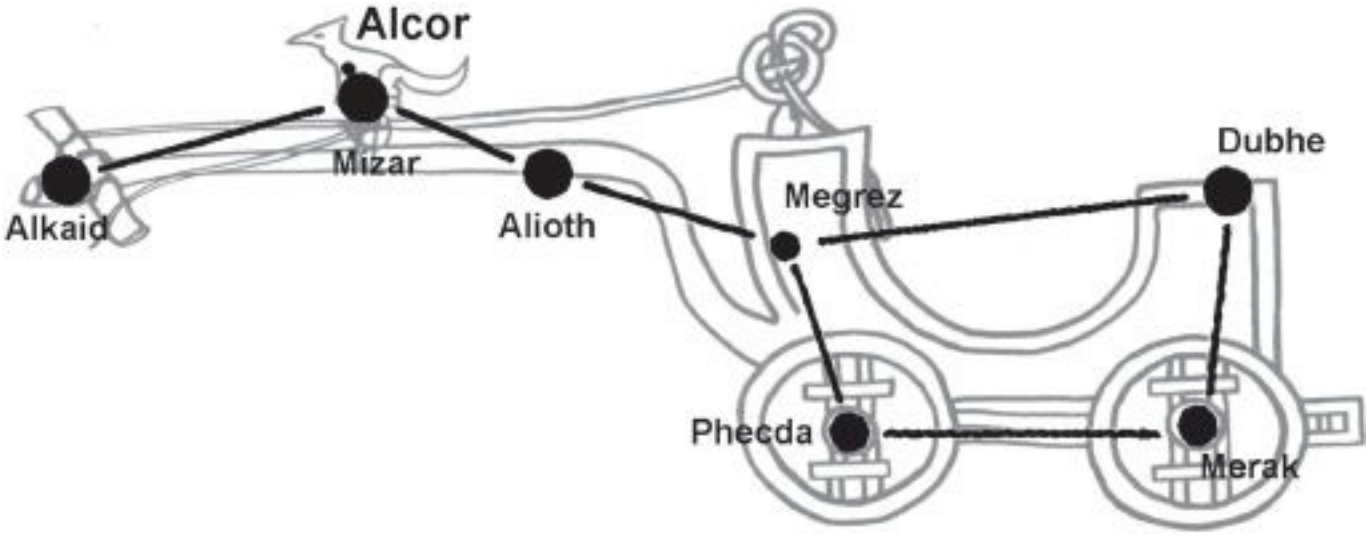

Figure 13.1. The stars of Ursa Major, or the Big Dipper, as the ancient asterism known as the Wain, with Alcor in its role as the Fox Star (after Gavin White).

TURNING THE HEAVENS

Even though there are no astronomical explanations behind these puzzling myths featuring the star Alcor, they do reinforce the

connection between the fox, as a symbol of the cosmic trickster, and the destruction of the world caused by the intrusion of a comet, or comets in plural. Why should this have been so? The answer seems to lie in the fact that the seven main stars of Ursa Major, which includes the Alcor/Mizar combination, were once universally seen as the plow, yoke, mill, handle, wain, or mechanism that quite literally turned the sky pole or world pillar holding up the heavens. This belief came about because the stars of Ursa Major are seen to revolve around the celestial pole in an unerring fashion, a role played by the constellation in every human age, despite the fact that none of its stars ever occupy the position of Pole Star.

Proclus's warning about the Fox Star nibbling "continuously at the thong of the yoke which holds together heaven and Earth" is an allusion to the fox attempting to sabotage the universe's turning mechanism, which, of course, was seen to have its terrestrial point of origin wherever an axis mundi was established on the ground.

The fox, if allowed to carry out its mischievous deeds, would eventually bring about the collapse of the imagined sky pole, and with it would follow the end, not just of the world but also of time itself. The fact that Alcor, or Alopex, the Fox Star, was additionally seen as a comet inbound from the Pleiades is revealing indeed and conjures the idea that as a "hair star" it might have been seen as responsible for this perceived cosmic catastrophe.

Fox, star, comet, pole, destruction. These are the key elements in this puzzling enigma of ancient Greek star lore, which might easily have had its origins in ancient Mesopotamia, among one of the great civilizations that rose up on the banks of the Tigris and Euphrates rivers around 3000 BC. Indeed, it is just possible that certain aspects of this seemingly naïve vision of the cosmos might reflect something of the proposed strategy adopted by the Epipaleolithic hunter-gatherers of southeast Anatolia prior to the construction of Göbekli Tepe. Interestingly, Professor Klaus Schmidt compares the

leaping foxes carved on the twin central pillars in the various enclosures at Göbekli Tepe with Reynard the Fox, a trickster of French folklore,[5] as well as with the Mesopotamian Fox Star Alcor, which he says belonged to Enlil, the highest god of the Sumerian pantheon, who was patron also of the ancient city of Nipper in Lower Iraq.[6]

MAN VERSUS DEVIL

So if the Fox Star Alcor appears on the inner faces of key central pillars Göbekli Tepe, why are they aligned toward Cygnus, and not Ursa Major? The answer seems to lie in the fact that there was once a close interrelationship between the Fox Star and the power and influence of Cygnus in its role as guardian of the celestial pole.

It is a relationship brought out in a complex Romanian sky myth that begins with the formation of the earth and heavens and leads

into a search by humankind to find the creator. For the journey "the Man" gathers together various tools, objects, and creatures, which are identified with different constellations of the night sky. Among the items taken on the journey are "the Great Cross of the church" and "the Fountain of the Crossroads," identified, respectively, as Cygnus and the constellation's bright star Deneb,[7] the crossroads being a metaphor for both the axis mundi and the corresponding cosmic axis in the sky.

Thereafter, the Man sets off on his voyage and eventually reaches "the middle of the Sky's road," with the "Sky's road" being the Milky Way.[8] Here the Man encounters "He Who Will Be Killed By The Cross." This is the Devil, identified as the Fox Star, Alcor, whom the Man fights and eventually defeats.[9] The story implies that in Christian times the mischievous sky fox was transformed into the Devil himself.

RESTORING COSMIC ORDER

What takes place during the cosmic battle between the Man, as the bearer of the Cross, and the Devil, as the Fox Star, seems to relate to the former regaining control of "the cosmic world axis or world tree of other myths,"[10] after the Devil sends the heavens spinning out of control. Thus the story implies that the Devil, that is, Alcor, is "killed" or stopped by the Man wielding the Cross, which is Cygnus in its role as guardian of the "cosmic world axis."

This restoration of cosmic order is achieved, however, only after chaos and mayhem have taken place, for we are told that once the "brave Man" began fighting with the Devil, their battle "created a great storm beneath the Sky, called by us on Earth 'the rabid wind.'"[11] There are no indications of what this "great storm" or "rabid wind" might have been, although it clearly implies some sort of mass upheaval in the heavens, which either affected the earth or was witnessed from the ground.

It seems feasible that this Romanian sky myth reflects the role played at Göbekli Tepe by Cygnus, and Deneb in particular. The leaping foxes on the pillars, along with the fox-pelt loincloths on the central monoliths of Enclosure D, certainly suggest there was some connection between the Fox Star Alcor as the cosmic trickster and the area of sky toward which the pillars were directed, in other words the Cygnus star Deneb. These precision alignments toward the perceived opening to the upper world enabled the shaman or astral traveler immediate access to the sky realms. Beyond here, in otherworldly terms, would have been a world inhabited by a whole host of strange creatures. They would have been seen to roam freely within this sky world and could thus be encountered during vision quests or shamanic journeys made during altered states of consciousness. Many of these sky creatures, denoted by stars and star groups spread out along the Milky Way, are almost certainly represented in carved relief on the T-shaped pillars at Göbekli Tepe.

Yet for these people living in southeast Anatolia during the tenth millennium BC one of the greatest considered threats to the stability of the sky pole or cosmic axis was, it seems, the fox, who as the cosmic trickster had the ability to create chaos and mayhem—activities that could lead to the collapse of the sky pole and the destruction of the world. It is almost certainly for this reason that the fox appears on the inner faces of the pillars at Göbekli Tepe, which Schmidt was probably correct to identify with the Fox Star Alcor. Very likely the foxes shown within the bent arms of the anthropomorphic figures represented by the twin pillars—particularly those in Enclosure D, who wear the fox felt loincloths—are displaying absolute control over the trickster influence of the sky fox, whose astronomical form is the Fox Star, Alcor.

In the Romanian sky myth quoted above, the shaking of the heavens is all that results from the Man battling against the Fox Star Alcor in its form as the Christian Devil. However, this perceived

threat from the heavens multiplies exponentially when we realize that it is not just the fox that can cause comets to bring about world destruction but also the wolf, a much more dangerous creature by far.

14

FROM A FOX TO A WOLF

In the star lore of Estonia, on the Baltic coast of Northern Europe, we again encounter Alcor, the Fox Star, although now its zoomorphic form has changed to that of the wolf (*bar* in Estonian). As the Wolf Star it stands alongside the Ox, or Bull, identified with the nearby star Mizar.[1] Once again they constitute the kink of the "handle" of the Big Dipper, or Plough, which in Estonia is known as the Great Wain (that is, a cart or wagon).

Slovenian star lore tells the story of Saint Martin, who uses the Great Wain (Ursa Major) to carry a great pile of logs.[2] Along comes the mischievous Wolf (Alcor), who proceeds to kill the Ox (Mizar)

and break the vehicle's shaft. The saint repairs the Wain and, as punishment, harnesses the Wolf to the Ox in order to make the animal take the load. Yet the Wolf does nothing more than pull the cart backward.

THE CESSATION OF COSMIC TIME

Once more the star Alcor, here in the guise of the Wolf, is seen to interfere with the turning mechanism of the heavens, symbolized in this instance by the shaft of the Wain. Not only this, but he also disrupts the natural order of the heavens by dragging the wagon backward, an allusion to the collapse or reversal of time. Clearly, in European star lore the figure of the sky wolf was interchangeable with that of the sky fox.

The harnessing of the Wolf (Alcor) by Saint Martin is simply a variation of the Romanian sky myth in which the Man defeats the

Devil to restore cosmic order. Clearly, the wolf, the fox, and the Devil play nearly identical roles in this myth cycle, with the human intercession being necessary to prevent any kind of catastrophe taking place (the role played by the shaman at Göbekli Tepe).

Saint Martin's feast day is November 11, when swans and geese are roasted and eaten across Europe. The date corresponds also to the return of migrating swans and geese from their breeding grounds in the north. Indeed, the idea of swans and geese carrying souls to and from a northerly placed "heaven" played a major role in European folklore until fairly recent times, the connection with Cygnus in its capacity as the entrance to the sky world being the obvious next step.[3] Thus if Saint Martin might be seen as a Christian patron of the Cygnus constellation, then his role in the Slovenian sky myth makes complete sense. Like the Man in the Romanian story, he is the guiding intelligence of the Cygnus constellation in its struggle against the cosmic trickster symbolized

by the star Alcor in Ursa Major. More incredibly, these beliefs almost certainly go back to a time when the constellation of Ursa Major revolved around either Deneb or Delta Cygni in their role as pole stars, ca. 16,500–13,000 BC.

Yet even if this unprecedented vision of the beliefs and practices of those who inspired the construction of Göbekli Tepe in the tenth millennium BC is correct, why go to all this trouble in order to avert the baleful influence of comets? What was the real motivation behind all this work and effort, which must have completely changed the lifestyles of the hunter-gatherers of the region? Why did anyone at the end of the Upper Paleolithic age live in fear that a sky fox, or indeed a sky wolf, might disrupt the turning mechanism of the heavens and in so doing bring about the destruction of the world?

The answer would seem to be that in the minds of the Göbekli builders, there was a genuine fear that if they did *not* do everything

in their power to curtail this perceived threat from the sky, then something bad would happen. Whatever that “something” was, it was so deeply entrenched in the collective psyche of the peoples of southeast Anatolia that they were willing to abandon their old lifestyles and adopt new ones in order to deal with the problem.

Accepting such a scenario only makes sense if there had already been a terrifying incident involving the sky fox or sky wolf—one that had brought chaos to the world during some former age of humankind. As we see next, a search through the folklore, myths, and legends of the ancient world tells us that just such a catastrophe might well have taken place in fairly recent geological history.

15

TWILIGHT OF THE GODS

It was the American congressman, popular writer, and amateur scientist Ignatius Donnelly (1831–1901), most remembered for his best-selling work *Atlantis: The Antediluvian World* (1882), who first publicly explored the possibility that a comet impact caused untold devastation on earth during some former geological age. More significantly, he thought that humans living at this time might well have preserved a memory of this catastrophic event that was passed down through countless generations in the form of myths and legends.

Donnelly's theories on a comet impact in recent geological

history became the subject of a book entitled *Ragnarök: The Age of Fire and Gravel,* published in 1883, just one year after *Atlantis: The Antediluvian World*. It contains myths, legends, stories, and traditions from around the world that preserve chilling accounts of something immensely bad that happened in our skies, involving the sun, moon, and intruding celestial phenomena. As a result the earth is decimated by an all-encompassing conflagration, accompanied by noxious clouds, an extended period of darkness, and a subsequent deluge, responsible for putting out the fires *and* drowning humankind. Invariably, just a few righteous people survive, either by boarding a vessel or by hiding in a cave. Very often the world is repopulated either by a single family or a couple, usually a brother and sister, who become the progenitors of a new group of humans. Some accounts even speak of the survivors erecting great temples as a direct response to what has happened.

THE EDDAS

One source of material utilized by Donnelly to outline the actions of what he saw as a rogue comet, or cluster of comets, that brought destruction to the world, was that preserved by the peoples of Scandinavia and Iceland. Two primary sources are cited—the *Prose Edda* and *Poetic Edda* (known also as the *Younger Edda* and *Elder Edda*)—both recorded in their present form by Christian scholars during the medieval period. The *Prose Edda,* attributed to Snorri Sturluson, who lived ca. 1178–1241, derives from an Icelandic text known as the *Codex Upsaliensis,* which dates to the early 1300s, while the *Poetic Edda* is found in a thirteenth-century manuscript, written in Icelandic and known as the *Codex Regius.*

Both Eddas feature a much prophesized event that acted as the climax to the age of the gods, who are known as the Æsir, or Asa. This catastrophic event is referred to as Ragnarök, an Old Icelandic word meaning "doom or destruction of the gods; the last day, the

end of the gods."[1] Another variation of the name, Ragnarøkkr, means "twilight of the gods" or "world's end."[2] Put simply, it is the Norse version of Armageddon, a fatalistic judgment, where key gods actually die fighting hellish monsters that rise up intent on bringing about the end of the world.

So important was the account of Ragnarök to Donnelly's mounting evidence for a comet impact in some former age of humankind that it provided him with the title for his book. As there is today overwhelming scientific evidence to confirm his forward-thinking conclusions (see chapter 17), it seems appropriate to allow the U.S. congressman's often poignant comments to set the scene as we review the account of Ragnarök as given in the *Prose Edda,* Donnelly's own source for the events described in his book, cited here using the English translation by American author, professor, and diplomat Rasmus Björn Anderson (1846–1936).[3]

THE DEVOURING OF THE SUN AND MOON

The twilight of the gods began, according to the Scandinavian account, after the human race had become foul murderers, perjurers, and sinners, shedding each other's blood. Humanity's descent into depravity is a common theme in catastrophe myths that generally stress that divine intervention was necessary to purge the world of a wicked or evil strain of humanity.

Thus the scene is set for the coming destruction, and shortly afterward a terrible sight is seen in the skies—the wolf named Sköll opens its jaws and eats the sun. "That is, the Comet strikes the sun, or approaches so close to it that it seems to do so,"[4] was how Donnelly put it.

The Edda tells us next how another wolf named Hati Hróðvitnisson (his first name means "he who hates, enemy"[5]) devours the moon: "and this, too, will cause great mischief. Then

the stars shall be hurled from the heavens, and the earth shall be shaken so violently that trees will be torn up by the roots, the tottering mountains will tumble headlong from their foundations, and all bonds and fetters will be shivered to pieces."[6]

These words Donnelly saw as describing the appearance of a second comet, its blazing debris now falling to earth, causing absolute devastation.[7] There is a hint here also of the loosening of the bonds that hold up the sky pole, or world pillar, preventing the world from falling apart.

After this the monster known as the Fenris Wolf, the offspring of the trickster god Loki, breaks free of his shackles, which had held him firm up to this time (see figure 15.1 on below), prompting Donnelly to comment: "This, we shall see, is the name of one of the comets."[8] Fenris himself is the father of Sköll and Hati, wolves that pursue and devour the sun and moon.

THE MIDGARD SERPENT

The account of Ragnarök continues: "The sea rushes over the earth, for the Midgard-serpent writhes in giant rage, and seeks to gain the land."[9] This is a mythical snake that curls around the base of the world tree, known as Yggdrasil, which unites heaven, earth (Midgard), and underworld. The Midgard Serpent is for Donnelly "the name of another comet; it strives to reach the earth; its proximity disturbs the oceans."[10] However, once again we can see here the actions of a terrible monster intent on destroying the physical world by bringing about the downfall of Yggdrasil, the Norse form of the world pillar.

We are told next that the "Fenris-wolf advances and opens his enormous mouth; the lower jaw reaches to the earth and the upper one to heaven, and he would open it still wider had he room to do so. Fire flashes from his eyes and nostrils. The Midgard-serpent, placing himself by the side of the Fenris-wolf, vomits forth floods

of poison, which fill the air and the waters.”[11]

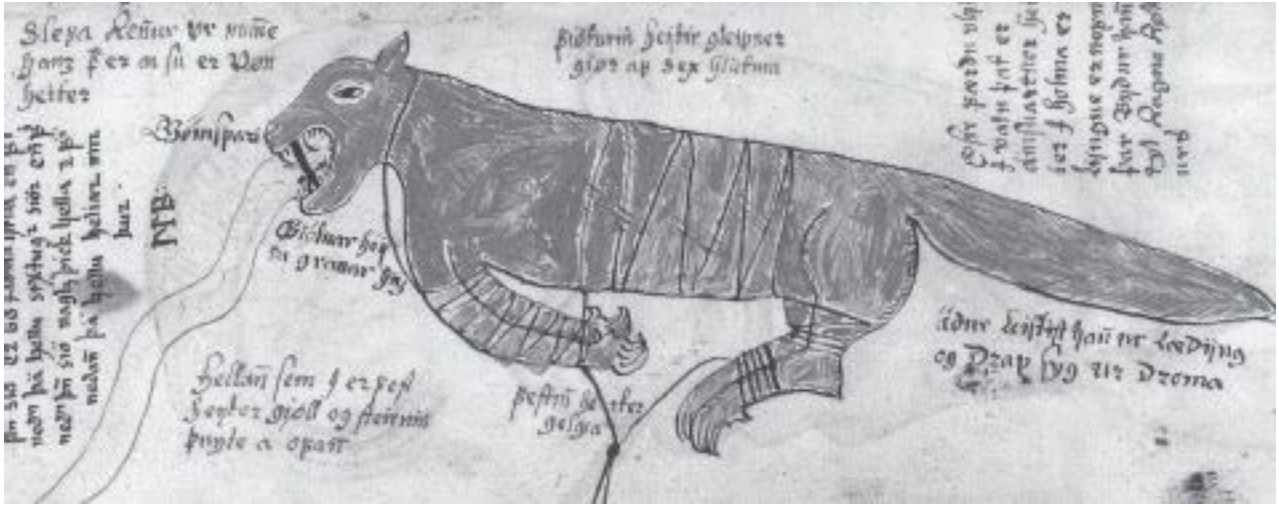

Figure 15.1. The Fenris Wolf bound with magical cord, from a seventeenth-century Icelandic manuscript in the possession of the Árni Magnússon Institute in Iceland. Note the Van River emerging from the creature’s mouth.

These then, the Fenris Wolf and the Midgard Serpent, are to be seen as the two principal comets of destruction, side by side,

Donnelly suggested, “like Biela’s two fragments, and they give out poison—the carbureted-hydrogen gas revealed by the spectroscope.”[12]

Biela was the name given to a short-period comet first recorded in 1772 and observed again in 1805. It was not, however, recognized as being the same object until 1822, when Wilhelm von Biela, an army officer from Vienna, finally identified it as a periodic comet with an orbit of just 6.6 years. During its appearance in 1852 the comet split in two, prompting Donnelly’s comment about the two comet fragments moving together.

Biela’s comet was never seen again, and presumably it has now broken up into undetectable pieces that periodically fall to earth as harmless meteors whenever the earth passes through the orbit of its remaining fragments. Illustrations of the comet after its breakup into two separate fragments make for a very ominous picture indeed (see figure 15.2), helping us to understand the dread that the appearance

of such celestial bodies might have instilled in the peoples of former ages.

After this time the *Prose Edda* states that "Surt rides first, and before and behind him flames burning fire. His sword outshines the sun itself. Bifrost (the rainbow), as they ride over it, breaks to pieces."[13] Surt is said to have been a fire giant, although for Donnelly it is the "blazing nucleus of the comet,"[14] with swords being common metaphors for comets. For example, an illustration of comet types in Johannes Hevelius's *Cometographia,* published in 1668, shows them as swords and daggers of various shapes and sizes (see figure 15.3 on p. 140).

Figure 15.2. Biela's comet in 1846, soon after it split in two.

THE MONSTROUS REGIMENT

The *Prose Edda* account reveals next how the monstrous regiment "direct their course to the battle-field called Vigrid. Thither repair

also the Fenris-wolf and the Midgard-serpent, and Loki with all the followers of Hel, and Hrym with all the frost-giants."[15]

For Donnelly this implied that "all these evil forces, the comets, the fire, the devil, and death, have taken possession of the great plain, the heart of the civilized land. The scene is located in this spot, because probably it was from this spot the legends were afterward dispersed to all the world."[16]

This is an interesting statement since it supposes that somewhere in the ancient world there existed a heartland, a place where all these great tragedies were played out and witnessed by those who survived this tumultuous ordeal.

BATTLE OF LIGHT AND DARKNESS

It is after this time that the gods, as the defenders of the world, begin to fight back and start to win the day against the hellish

terrors, although not without casualties on their own side. Heimdal, the guardian of Bifrost Bridge, blows the Gjallarhorn, which had been hidden beneath Yggdrasil. It awakens the gods, allowing the battle of Ragnarök to commence. The sky god Odin takes flight to Mimir's Well, a sacred pool at the foot of Yggdrasil. Here lurks the head of his friend Mimir, which he asks to grant him advice. After that we are told the "ash Yggdrasil begins to quiver, nor is there anything in heaven or on earth that does not fear and tremble in that terrible hour."[17] It is a hint once more that the world pillar is being shaken, tilted even, by the events transpiring both on the ground and in the air.

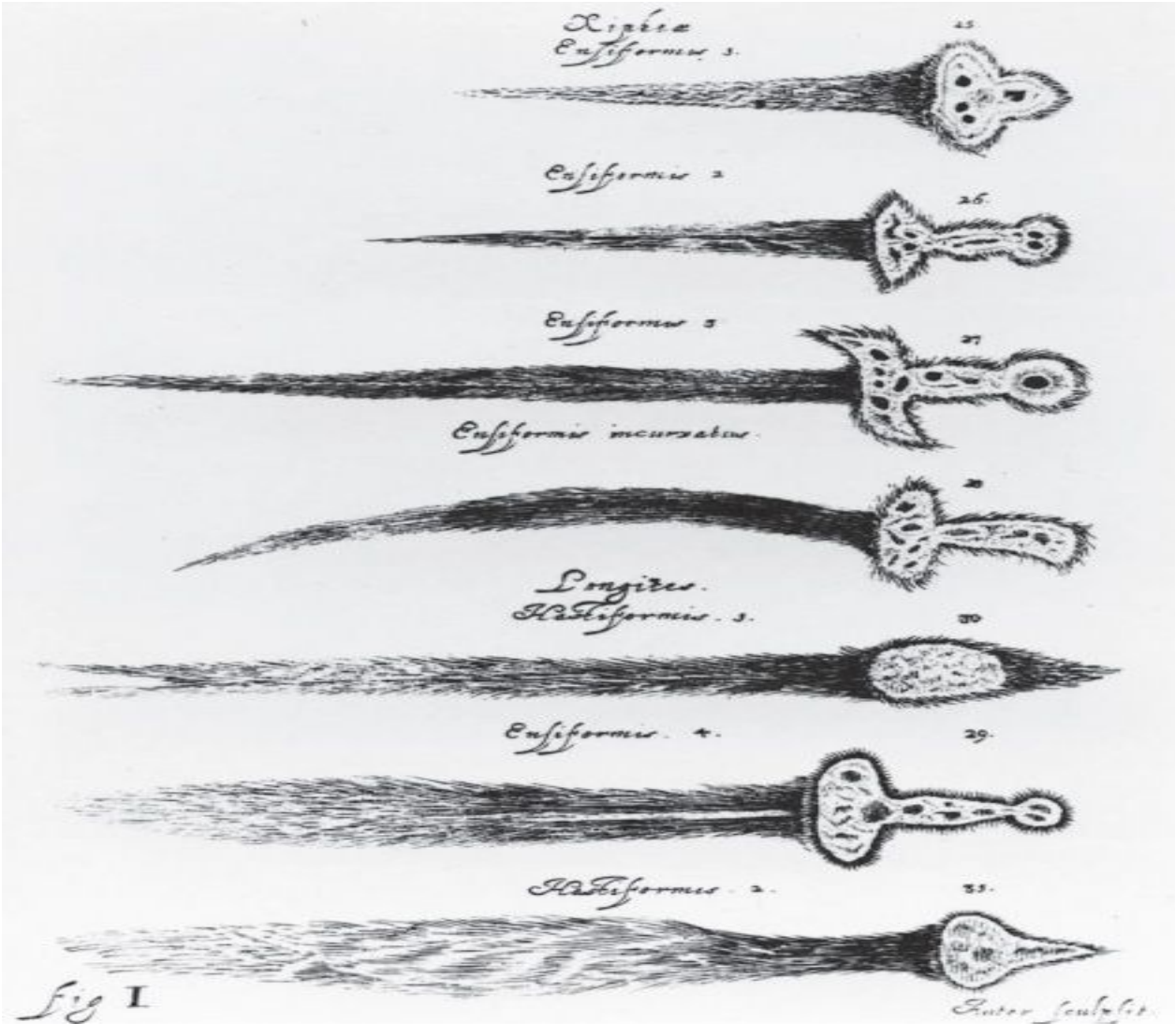
Xiphia
Ensiformis 3.
25
Ensiformis 2
26.
Ensiformis 3
27
Ensiformis incurvatus
28
Longiores.
Hastiformis. 3.
30
Ensiformis. 4.
29.
Hastiformis. 2.
31.
Fig I
Autor sculpsit

Figure 15.3. A page from Johannes Hevelius's Cometographia of 1668 showing comets as daggers and swords.

Thereafter, the gods enter Vigrid and engage in battle: "That day the dog Garm, that had been chained in the Gnipa-cave, breaks loose. He is the most fearful monster of all, and attacks Tyr, and they kill each other."[18] At the same time, the god Thor is able to slay the Midgard Serpent but dies as a consequence of the poisonous venom the monster breathes on him. Inevitably, Donnelly saw Garm, described as a bloodstained hound that guards "Hel's gate," as alluding to yet another comet fragment.[19] Its appearance marks the entry of a fourth canid into the Ragnarök story.

THE EARTH SINKS

At this point in the battle Odin takes on the Fenris Wolf but is

swallowed by the monster, which he himself had helped to rear (is this "because Odin had a connection with wolves?" asks one commentator[20]). On seeing the death of his father, Odin's son Víðarr rushes at the beast and, wearing a magic boot prepared specially for the confrontation, stamps his foot into the Fenris Wolf 's mouth and holds open its lower jaw. He then uses brute force to pull up on the beast's jaw, an action that brings about its instant demise (see figure 15.4).

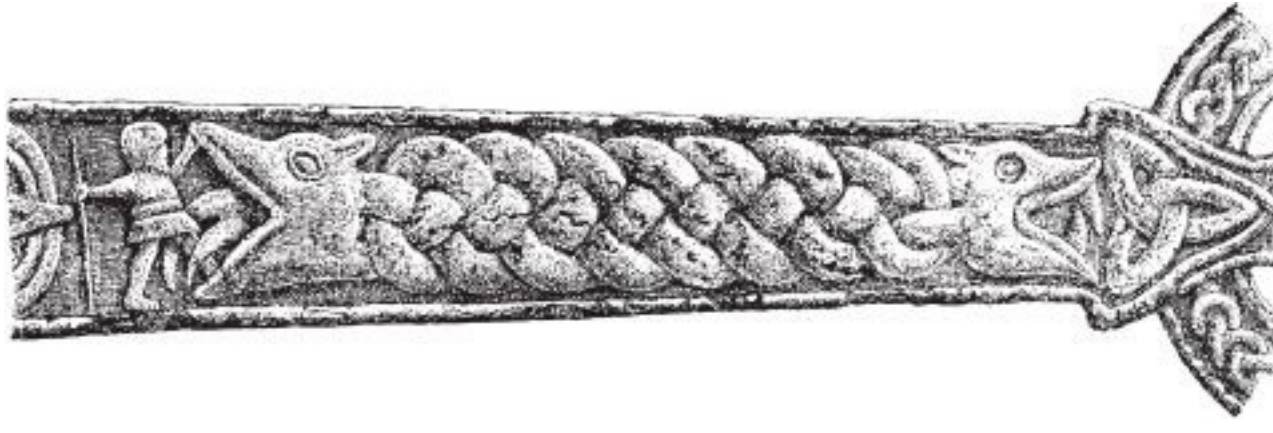

Figure 15.4. Shaft of the Gosforth Cross in Cumbria, England,

showing Odin's son Víðarr killing the Fenris Wolf. Note its knotted serpentine tail.

The Fenris Wolf 's father, Loki, comes up against the god Heimdal, and they kill each other, at which: "Surt flings fire and flame over the world. Smoke wreathes up around the all-nourishing tree (Yggdrasil), the high names play against the heavens, and earth consumed sinks down beneath the sea."[21] Once more, this is a clear sign of some kind of global conflagration, as well as an all-encompassing deluge that begins to engulf the earth, making it appear as if it is sinking beneath the waves.

THE FIMBUL-WINTER

Just in these few lines we see telltale signs of the aftermath of a major cataclysm that is set to decimate the earth and everything

upon it, a surmise affirmed by the fact that the *Prose Edda* speaks also of the world being plunged into an age of ice:

> The growing depravity and strife in the world proclaim the approach of this great event. First there is a winter called Fimbul-winter, during which snow will fall from the four corners of the world; the frosts will be very severe, the winds piercing, the weather tempestuous, and the sun will impart no gladness. Three such winters shall pass away without being tempered.[22]

Donnelly easily recognized these words as describing the onset of a glacial age, following the impact of the comets. This great freeze, which seems to come on quickly, does eventually begin to thaw, as the clouds of darkness disappear and a new sun and moon are born. The floods recede also, leading to a complete renewal of nature.

Thereafter emerge the sole human survivors:

> During the conflagration caused by Surt's fire, a woman by name Lif (life) and a man named Lifthraser lie concealed in Hodmimer's forest. The dew of the dawn serves them for food, and so great a race shall spring from them that their descendants shall soon spread over the whole earth."[23]

Donnelly suggested that it was from a cave that Lif and Lifthraser emerged because caves feature worldwide in the regeneration of humankind in the wake of catastrophes, while the reference to them giving birth to a great "race" implies that, in Scandinavian tradition at least, the current human population derives from these two individuals. Others survive the cataclysm as well, including Víðarr and Vale, the sons of Odin, and Mode and Magne, the sons of Thor. Yet these are not mortal beings like Lif and Lifthraser. They are offspring of the Æsir, who are destined to dwell on the plains of Ida, where stands the world tree, Yggdrasil, alongside Mimir's Well and Asgard, the home of the gods.

DONNELLY'S DATES

From what we read here, it does seem possible that the Eddas, like very similar myths and legends from around the world, contain echoes of a devastating catastrophe that engulfed the world during some distant epoch. Donnelly envisaged this sequence of events beginning around thirty thousand years ago, at the height of the last ice age, and culminating around eleven thousand to eight thousand years ago.[24] As we shall see, his later dates correspond pretty well with the proposed timescale of cosmic catastrophes now believed to have taken place globally toward the end of the last ice age, triggered by a major impact event around 10,900 BC (see chapter 17).

Donnelly was convinced that a comet, or indeed a series of comets, was responsible for these cataclysms, and once again he was bang on the money, as we shall see soon enough. His proposal that these global killers were portrayed in ancient myths and legends

as supernatural creatures of the earth and sky also seems to be right, a theory advanced since that time by a number of different catastrophists, who have each put a unique spin on the subject.

NUCLEAR WINTER

In the Ragnarök account, various monsters are cited as being responsible for destruction in this world, including the Midgard Serpent, the fire giant Surt, and at least four canids, three of them wolves. Two of the wolves are accused of having swallowed the sun and moon, and this quite possibly describes the temporary disappearance of the heavenly bodies that would inevitably follow a catastrophe of this scale. A comet or asteroid impacting the earth would create unimaginable clouds of smoke, dust, and microparticles of various kinds that would be thrust into the upper atmosphere, creating what is known as a nuclear winter, a total

blackout of available light. This debris, which would probably remain airborne for some considerable length of time, would be joined by a thick layer of toxic ash produced by the intense firestorms that would engulf entire regions of the planet in the days, weeks, and months after the initial event.

To our ancestors this period of absolute darkness might have led them to assume that the sky wolves, in other words, the comet fragments, had quite literally devoured the sun and moon. Clearly, the lack of any sunlight heating up the planet would have resulted in an immediate drop in temperature, helping to trigger the onset of an ice age in a matter of days. Indeed, it would have happened in a manner quite similar to that portrayed in Roland Emmerich's disaster movie *The Day After Tomorrow* (2004). Although fiction, this film adequately shows what would happen under such severe weather conditions and how quickly our world would be turned on its head by an initial catastrophe of global consequences.

The effect of all this would have been to bring humankind to its knees as it strived to survive from day to day, all this being "caused" by the intrusion into their midst of perceived supernatural creatures, including deathly serpents and terrifying sky wolves that could quite literally swallow the sun and moon whole.

It must have been an unimaginably frightening time to live in. Never would this dreadful age be forgotten; nor should it be forgotten. As Donnelly so aptly put it:

> What else can mankind think of, or dream of, or talk of for the next thousand years but this awful, this unparalleled calamity through which the race has passed?
>
> A long-subsequent but most ancient and cultivated people, whose memory has, for us, almost faded from the earth, will thereafter embalm the great drama in legends, myths, prayers, poems, and sagas; fragments of which are found to-day

dispersed through all literatures in all lands.[25]

The peoples of Northern Europe almost certainly preserved their memory of this "unparalleled calamity" in their accounts of Ragnarök. Its existence helps strengthen the case for canids—wolves, hounds, and foxes—being seen by our ancestors not just as dangerous cosmic tricksters with the power to bring about death and destruction but also as outright enemies of the world pillar, or sky pole, that connects this world with both the underworld and sky world. Yet as we see next, these myths existed not only in "legends, myths, prayers, poems, and sagas"[26] handed down from some forgotten age. They lingered on in fragmentary sky lore that once again reveals the great threat that the sky wolves were seen to pose in destabilizing everything that we have ever held dear in this world.

16

THE WOLF PROGENY

The dual relationship between order and chaos in the heavens is highlighted in the "magnificent song of Eirek," ca. 950 AD, which has the Norse god Odin say: "Evermore the wolf, the grey one, gazes on the throne of the gods," an allusion to the Pole Star, which in Anglo-Saxon tradition was the "divine seat where the north star Tir (or Tyr) . . . 'never flinches.'"[1]

There is a strange echo of this scenario in the Scandinavian story of Ragnarök. The main battle is most often described with Odin coming up against Loki's son, the Fenris Wolf, and losing his life, and then how Odin's son Víðarr is finally able to kill the demonic

creature. However, less attention is paid to the story of the Germanic, Old English, and Norse war god named Tíw, Týr, or Tir. He is willing to sacrifice his life to ensure the safety of humankind by placing his arm in the Fenris Wolf ’s jaws after the gods had asked the beast to try on various fetters, or shackles, to test his strength against them, the real purpose being to trick Fenris into bondage so that he could never wreak havoc in the world (see figure 16.1).

Fenris was easily able to break free of two sets of fetter, the second one twice as strong as the first. Yet he becomes suspicious when he sees the next fetter, which seems to be little more than a silk ribbon. So to make sure this is not a ruse, Fenris asks one of the gods to step forward and put his arm in his mouth. Tíw agrees to do so, after which the wolf is bound.

Figure 16.1. Helmet plate die from Torslunda on Oland in Sweden showing the Norse god Tíw binding the Fenris Wolf, seventh century AD .

Of course, it *is* a trick, as the silk ribbon has been forged by dark elves from six different magical substances, which when combined make an utterly unbreakable fetter. Once the Fenris Wolf realizes he has been tricked, he bites off Tíw's right arm.

Although simply a tale, it is a story containing much deeper symbolism relating to the stability of the world, and in particular the world pillar. In the Norse magical alphabet known as the runes, Tíw is represented by the T-rune named Tiwaz. It is composed of an upright pole at the top of which are two downward turned lines that show the rune to be an arrow. The Tiwaz rune is popularly considered to be a representation of the "vault of heaven held up by the universal column,"[2] as well as the Irminsul, the "world column"

of the Saxons, that "has its heavenly termination in the pole star."[3] (See figure 16.2.)

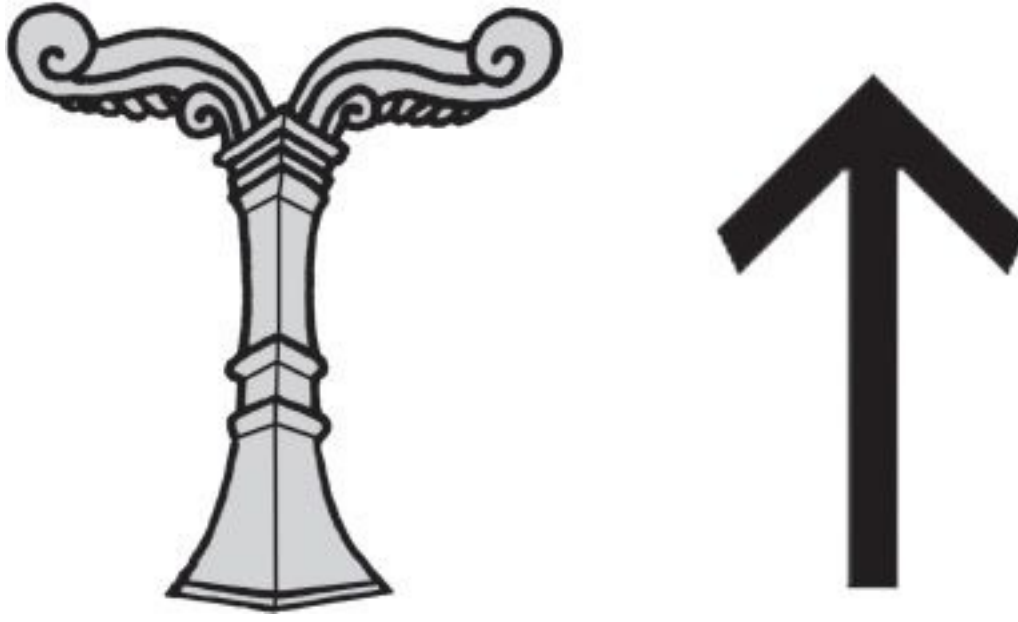

Figure 16.2. Left, the German world pillar known as the Irminsul and, right, the Tiwaz rune, showing its likeness to the world pillar.

This identification fits well with Tíw's role as personification of

the North Star, suggesting that originally he was the genius loci, or guardian spirit, of the axis mundi, protecting it against attacks by adversaries such as the Fenris Wolf. Even though Tíw is killed by the helldog Garm in the *Prose Edda* rendition of Ragnarök, in the *Poetic Edda* this act is never fulfilled—Tíw's earlier sacrifice for his warriors and humanity permitting him the title "Leavings of the Wolf "[4]; in other words, the one that the wolf left alone, that is, didn't kill.

SAVIOR OF THE WORLD

Tíw was a very early sky god. His name is thought to derive from the same route as *deus,* or *dei,* meaning "god,"[5] although he is also the "hanged" god. This suggests he is to be seen as some kind of savior who fought and won the battle against the cosmic trickster in the guise of a supernatural wolf, when it attacked the world pillar

and almost brought about the destruction of not only the Æsir gods, but also humankind, an abstract memory, seemingly, of a very real comet impact event in some former age.

In Nordic folklore the twin streams formed by the Milky Way's Great Rift, in the vicinity of Cygnus, have been identified as the "two streams of saliva" that fall from the Fenris Wolf 's jaws, one named Wil, the other called Wan, or Van, known also as "Hell's stream" or the "road of the dead"[6] (see figure 15.1 on p. 138). Fenris's alternative name, Vanargandr, actually means monster guardian of the River Van,[7] so there is tantalizing evidence that the wolf was linked in some manner with the Milky Way's Great Rift, and through this to the celestial pole and axis mundi, from which the monster was finally able to break free of his bonds to wreak havoc in the world.

BLACK DOG

And the Fenris Wolf was not the only supernatural canid of European folklore to have been perceived as a threat to the stability of the world pillar. Ukrainian sky lore relates how the constellation of Ursa Major, which includes the seven stars making up the Plough or Big Dipper, is a team of horses tethered to a harness and that "every night a black dog tries to bite through the harness, in order to destroy the world, but he does not achieve his disastrous aim: at dawn, when he runs to drink from a spring, the harness renews itself."[8] Since the Big Dipper circles around the celestial pole, the horses tethered to the sky pole are the method by which the heavens turn. The "black dog" is, of course, the cosmic trickster attempting to break the horses free in order to collapse the sky pole and bring about the destruction of the world.

Variations of the Ukrainian sky myth say that the black dog was bound in chains beside the constellation of Ursa Minor, the Little

Bear, which is the location of the current Pole Star, Polaris. Here the animal attempts to gnaw through its shackles, and when this occurs the world will end,[9] a clear comparison with the actions of the Fenris Wolf in Norse sky lore.

THE ETERNAL STRUGGLE

In a similar vein, Russian philologist Dr. Vyacheslav Ivanov wrote that the eternal struggle against the dragon in Slavonic folklore derives from a much older tradition in which heroic blacksmiths were able to bind and chain "a terrible dog." Ivanov goes on to say that "over the whole territory of Eurasia, this mythological complex is associated . . . with the Great Bear . . . (and) with a star near it as a dog which is dangerous for the Universe."[10]

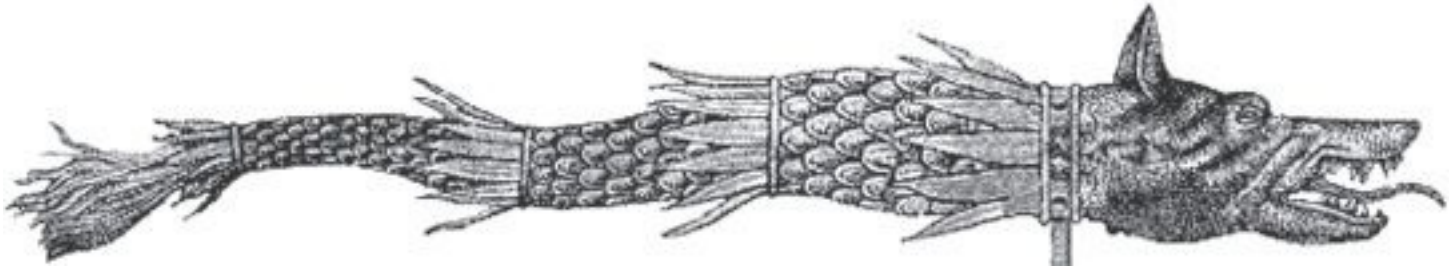

Figure 16.3. Dacian battle standard known as the Draco, or Drago. Note its cometlike tail.

Although it's not stated which star "near" Ursa Major the infernal dog is to be identified with, almost certainly it is Alcor, the Fox Star, or Wolf Star. It is a conclusion confirmed by the fact that this canine "is dangerous for the Universe" and has the ability to bring about the destruction of everything. As sky monsters, the wolf and dragon are essentially one and the same, as is shown by the battle standard of the Dacians, the pre-Roman peoples of Romania. With a wolf 's head and serpent-like tail, it is called the Draco, or Drago, the dragon, and has been identified as a possible representation of a

comet (see figure 16.3).[11]

TEUTONIC MYTHOLOGY

The great philologist and mythologist Jacob Grimm (1785–1863) in his multivolume work *Teutonic Mythology* discusses the role of the supernatural canid in catastrophe folklore. He saw the Fenris Wolf as quite simply the trickster god Loki "in a second birth . . . (although now) in the shape of a wolf."[12]

Grimm cites also an old Scottish story about "the tayl of the wolfe and the warldis end,"[13] a reference to the world falling apart following the appearance of a wolf 's tail, which we can be pretty sure is a metaphor for a comet. Grimm wrote that much fuller stories of how a great wolf or dog had brought destruction to the world must once have existed "all over Germany, and beyond it," adding that, "we still say, when baneful and perilous disturbances

arise, ‘the devil is broke loose,’ while in the North they would say *‘Loki* er or böndum (Loki is out of control).’”[14]

Grimm quotes other examples of catastrophe-based folklore and folk beliefs among the peoples of medieval Europe. They include a popular French song about King Henry IV that “expresses the far end of the future as the time when the wolf ’s teeth shall get at the moon”[15]; in other words, the wolf will cause it to be extinguished, bringing about the world’s end. All these stories seem to be fragmented memories of a terrible cataclysm, coupled with an unerring fear that one day it could all happen again.

THE BUNDAHISHN

That these examples of canine cosmic tricksters, manifesting in the skies as planet killers such as comets and asteroids, come from Europe and not Anatolia need not concern us, for similar

cosmological themes exist in sky lore much closer to Göbekli Tepe. The Bundahishn, a sacred text of Zoroastrianism, a religious doctrine that once thrived in Iran, India, and Armenia, contains its own graphic account of a Ragnarök-style scenario, which includes the following somewhat enigmatic lines: "As Gokihar falls in the celestial sphere from a moon-beam on to earth, the distress of the earth becomes such-like as that of a sheep when a wolf falls upon it."[16]

Gokihar is generally translated as "meteor,"[17] that is, an incoming comet fragment, asteroid, or bolide of some sort, while the name itself has been interpreted as meaning "wolf progeny."[18] The double allusion in this statement to the wolf is significant, and one can envisage, and even feel, the force of the assumed impact, here likened to the manner that a sheep's legs bend and collapse when pounced on by a wolf.

That Gokihar's appearance heralds some kind of apocalyptic

event seems confirmed in the verse that follows: "Afterward, the fire and halo melt the metal of [the archangel] Shatvairo, in the hills and mountains, and it [the molten metal] remains on this earth like a river."[19] If the impact of a comet fragment or asteroid *is* implied, then the presence afterward of firestorms and rivers of molten "metal" caused by the eruption of volcanoes would be inevitable.

After the destruction of the seven evil spirits under the rule of the evil principle, named Ahriman, Gokihar "burns the serpent in the melted metal, and the stench and pollution which were in hell are burned in that metal, and it (hell) becomes quite pure."[20]

Once again these are indications that Gokihar, the "wolf progeny," is involved directly with apocalyptic events described in the Bundahishn, and although they focus on a day of reckoning for both the gods and humanity, there is a sense of them forming part of a repeating cycle. In other words, the Bundahishn describes a replay of events that have already taken place. Christians in countries

where the Norse myths remained strong associated the events of Ragnarök with the coming Day of Judgment, described in the book of Revelation; in other words, they saw them as events to come, not events that had occurred during some previous age.

Gokihar ably takes the place of the Fenris Wolf in the Norse myths, although in the Bundahishn there is a strange twist—the comet, or bolide, personified as a supernatural wolf, actually becomes a cleansing agent, clearing away the wicked in order to make the world "immortal forever and everlasting."[21]

It is a disturbing account of a past that is to be repeated in the future, and if all this is true, then the cataclysm that Donnelly envisaged as having taken place in some former epoch of humankind must have been so powerful, so all encompassing, that it affected not just a few isolated communities here and there, but human populations all over the world. What then was this event, and how did it come to affect the mind-set of the Epipaleolithic

peoples that occupied southeast Anatolia in the age immediately prior to the construction of Göbekli Tepe?

As we see next, those who lived in the Near East at this time might have had every reason to be suffering from catastrophobia (as publisher, visionary, and mysteries writer Barbara Hand Clow so aptly put it in her book of the same name[22]), for the great cataclysm did not pass them by. Instead, it engulfed them in a quite terrifying manner that the scientific world is only now piecing together for the first time.

17

A DARK DAY IN SYRIA

Tell Abu Hureyra is an archaeological site of great importance on the Middle Euphrates of northern Syria. It was occupied from the late Epipaleolithic age, ca. 11,340 BC, to the Neolithic age, ca. 5500 BC, although today it lies beneath the waters of Lake Assad, created in 1973 following the completion of the Tabqa Dam.

Investigation of Abu Hureyra began in 1972 under the leadership of Andrew Moore from the University of Oxford. Yet as the rising waters began to lap around the base of the tell during the second digging season, the excavation changed into a frantic salvage operation as the British archaeologist's team desperately attempted

to understand the significance of the occupational mound before its final submergence.

THE BIG CHILL

Even after the first season's expedition it was clear that Abu Hureyra was a quite extraordinary site that would reveal much about the transition from the age of the hunter-gatherer to the establishment of settled farming communities across the Near East. The second year of excavation, along with the subsequent work continued both in Syria and at various foreign universities, enabled Moore to get a pretty good picture of what had been going on at the site at the end of the Paleolithic age. He concluded that the first people to occupy the region arrived as the climate warmed during the Allerød interstadial, which heralded the end of the last ice age, around 13,000 BC.

In the two thousand years that followed there was a population boom throughout the Fertile Crescent, and it was during this new golden age that Abu Hureyra was established. Its inhabitants—who belonged to the Natufian culture, which inhabited the Levant region, ca. 12,900–9500 BC—lived mainly by hunting, fishing, and cultivating lentils and wild cereals, such as einkorn, emmer, and rye.

With the onset of the big chill, known as the Younger Dryas, around 10,900 BC, there was a sudden and unexpected disruption to migratory animals across the region. One animal that all but disappeared from the Fertile Crescent was the Persian gazelle, which until that time had formed a major part of the diet of the hunter-gatherers at Abu Hureyra.

Adding to the problems of the Epipaleolithic hunter-gatherers was the disappearance of forageable foods, such as wild grain and pistachio nuts, almost certainly caused by the rapid climate change, which had brought with it a severe drought, revealed by an analysis

of plant remains recovered from Abu Hureyra. In the end, its inhabitants were left with no alternative but to seek warmer climes. It was the same throughout the Fertile Crescent, Natufian settlements being abandoned to the elements, their distinctive style of living vanishing completely.

The mini ice age lasted for approximately 1,300 years. After its cessation around 9600 BC, just before the creation of the first large enclosures at Göbekli Tepe, the temperatures began to rise again. A new community was established at Abu Hureyra, which built mud brick houses on the site of earlier dwellings. The inhabitants, now classed as members of the Pre-Pottery Neolithic A culture, used much fatter grain seeds for cultivation, making this perhaps one of the oldest sites where the domestication of cereal crops is thought to have occurred.[1]

MICROSPHERULES AND SLOS

Theories about Tell Abu Hureyra and its role in the birth of agriculture at the point of transition from the Epipaleolithic age to the earliest Neolithic farming communities remain controversial. Yet none of the scholars attempting to understand the evolution of the site, and its place in the emergence of the PrePottery Neolithic world, can have been prepared for what an eighteen-member international team of researchers, including James Kennett, professor of earth science at the University of California, found after examining sediment materials removed from the site during Moore's excavations in 1972 and 1973.

Soil taken from a depth of 11.8 feet (3.6 meters) below the surface revealed, quite astonishingly, that it contained large quantities of almost nano-sized magnetic and glass balls known as *microspherules,* along with something called *SLOs,* short for "siliceous scoria-like objects." These are microscopic glassy particles up to a quarter of an inch (roughly 6.5 millimeters) in size

that are highly porous and *vesiculated,* which means they are full of small sacs created by gas bubbles. In appearance the SLOs resemble *scoria,* the name given to jagged rock fragments ejected from volcanoes.

What is so remarkable about SLOs is that they form only under incredibly high temperatures, in the range of 3,100 to 3,600 degrees Fahrenheit (1,700 to 1,980 degrees Celsius),[2] which, believe it or not, is the boiling point of quartz, a form of silica. This, in its molten form, is one of the main constituents of SLOs, which can appear dark brown, green, white, or black. The extraordinary heat needed to create these glassy objects rules out their manufacture by either human activity or volcanic action—or by any other natural process connected with the earth itself.

Also discounted was the possibility that the tiny glass objects were produced in space, then fell to earth as micrometeors. Results show that 90 percent of the microspherules and SLOs are composed

of elements not only distinct from cosmic material, but also closely match the geochemistry of the rocks and sediment in the area of their recovery, clearly indicating their *terrestrial* origin.

MELT PRODUCTS

The microspherules and SLOs are also geochemically and morphologically comparable with each other; in other words, they derive from the same or very similar source materials. More significantly, they both show evidence of "high-energy interparticle collisions" of the sort that occur inside impact plumes.[3] Both are also comparable with *melt products,* tiny objects of molten glass, found at Meteor Crater, Arizona, the site of an impact event around fifty thousand years ago, and also at tektite-strewn fields in Australasia (*tektites* are glassy objects created from a mixture of terrestrial and extraterrestrial matter ejected during impacts).

More disturbingly, the SLOs found at Abu Hureyra and two other sites in the United States (Blackville, South Carolina, and Melrose, Pennsylvania) resemble "high-temperature materials"[4] found at the Trinity site, which forms part of the Alamogordo Bombing Range, New Mexico, following the detonation there of the first atomic bomb in 1945. Apparently, the thermal blast melted 0.5–1 inch (1–2.5 centimeters) of the desert floor for a radius of approximately 500 feet (150 meters) and left puddles of melted silica glass objects across a wide area.

MULTIPLE IMPACTORS

Nature herself creates such unbelievably high temperatures only during lightning strikes. Under such conditions microspherules and SLOs can result, although when this occurs, the lateral spread of glassy objects is only around 60 inches (1.5 meters); none generally

reach beyond this point. However, the SLOs discovered at Abu Hureyra indicate a minimum spread of 14.5 feet (4.5 meters), ruling out lightning as their cause.

All this supports the slightly disturbing conclusion that the microspherules and SLOs found at Abu Hureyra were the product of an unimaginable impact plume or fireball cloud. Moreover, the fact that similar microparticles were discovered at three of the eighteen sites where evidence of an impact event was found by the team tells us there must have been "multiple impactors," air blasts caused by a fragmenting comet or asteroid, most likely the former.[5] Most significant to this debate are the final words in the published paper containing the findings of the international team:

> Because these three sites in North America and the Middle East [i.e., Syria, where SLOs were found] are separated by 1,000–10,000 km, we propose that there were three or more

> major impact/airburst epicenters for the YDB [Younger Dryas Boundary] impact event. If so, the much higher concentration of SLOs at Abu Hureyra suggests that the effects on that settlement and its inhabitants would have been severe.[6]

The Younger Dryas Boundary (or YDB) impact event is the name given to this proposed comet collision with Earth, which is believed to have occurred around 10,900 BC. This date marks the "boundary" or "horizon" between the Allerød interstadial and the Younger Dryas mini ice age. The glass microspherules and SLOs found at Abu Hureyra were located at this Younger Dryas Boundary, immediately beneath an organic-rich layer referred to as the "black mat," which, the report claims, has been found at a number of sites in North and South America, Europe, and now Syria.

TOO CLOSE FOR COMFORT

We can only imagine how the Epipaleolithic hunter-gatherers of Abu Hureyra felt around 12,900 years ago, gazing out of their subsurface round houses and seeing one or more blinding balls of fire crossing the open sky (like the meteor caught so spectacularly on film as it passed over Russia's Chelyabinsk region in February 2013) before exploding shortly before impact with the ground and as a result causing thunderous explosions, unlike anything ever imagined before in the lives of these people. Moments later, everything—livestock, buildings, and people—are hit by a shock wave of soaring heat and wind that peppers everything in its path with microscopic glassy objects, like the discharge of a hundred thousand shotguns all fired at once.

This is just a glimpse of what might have happened at one location on the Euphrates River, but other Natufian settlements in the Levant and elsewhere could also have been affected by the

Younger Dryas impact event. Indeed, we have no real idea just how widespread the proposed devastation might have been, with the only clue being the Usselo horizon. This is a "charcoalrich layer" measuring 8 inches (20 centimeters) in thickness that has been detected at the Allerød–Younger Dryas Boundary at sites in the Netherlands, France, Germany, Belgium, Belarus, Poland, India, South Africa, Egypt, and Australia.[7]

This strange black layer has been found to contain magnetic grains, microspherules, iridium (an element commonly found in cosmic impactors), and nanodiamonds,[8] that is, pure carbon, all of which supports the conclusion that the Usselo horizon is the result of multiple impact events that sent ash, soot, and other debris high into the atmosphere. This mixture would eventually have fallen back to earth to create the Usselo horizon, which now becomes a telltale marker for the effects of the impact event around 12,900 years ago.

In addition to the evidence presented here, other scientific teams have uncovered similar evidence of microspherules at the Younger Dryas Boundary in Venezuela, South America, and various other parts of the world.[9] It is thus clear that something very major did go down at this time and that it involved a series of bolides, most likely fragments of a comet that perhaps broke up during its slingshot orbit of the sun. The inhabitants on Earth would have seen all this—the arrival of the comet, or comets, in the sky, its reappearance and fragmentation, along with the incoming waves of fireballs and the terrifying air blasts as the fragments reached the lower atmosphere, causing maximum devastation on the earth itself.

KILL, CHILL, ILL, AND NOW GRILL!

The effects of the Younger Dryas Boundary impact event would have been felt on every continent, although the true extent of the

damage can only be guessed at today. What we do know is that it coincided with the disappearance of the Ice Age megafauna, such as mammoths, mastodons, giant ground sloths, dire wolves, and saber-toothed tigers. All of these animals existed in abundance until the end of the Allerød interglacial, then vanished with the onset of the Younger Dryas mini ice age. How exactly they disappeared remains a complete mystery, with three main theories being proposed: they died through overhunting (the overkill theory); they died because of the sudden change in temperature at the beginning of the mini ice age (the overchill theory); or they suffered some kind of mass epidemic, which wiped out whole species (the overill theory). Recently, a fourth contender has entered the debate, this being the over-grill theory, which proposes that they were decimated in the wildfires caused by the comet impact.

None of these theories—kill, chill, ill, or grill—is ever going to account for the extinction of so many different Ice Age animals, and

indeed there is a good chance that all four scenarios played some role in their demise.

Also around the same time North America's Paleo-Indians, represented by the Clovis culture, abruptly disappear from the archaeological record. With the knowledge that some of the larger fragments of the disintegrating comet are thought to have impacted with the Laurentide Ice Sheet—which had covered hundreds of thousands of square miles of North America for much of the last glacial age—causing the ice to vaporize and fall back to earth as acid rain, it becomes increasingly likely that the Clovis population might have been greatly reduced by the events of the Younger Dryas Boundary impact event.[10]

That some kind of cataclysm really did occur at the Allerød–Younger Dryas Boundary seems inescapable, both from the evidence presented by science today,[11] and from the wealth of catastrophe myths preserved in ancient texts and by indigenous

societies worldwide. All of this tells us very clearly that something terrible happened in the world around this time, and very likely these legends refer, at least in part, to the same catastrophic event. Most likely a disintegrating comet was the culprit, although we cannot discount other possibilities, such as an asteroid or meteor impact, or a close supernova event. What *is* important, however, is its impact on the mind-set of the peoples existing in the Euphrates Basin at the termination of the Paleolithic age, for there is compelling evidence that a memory of this devastating cataclysm lingered on in the minds of the Göbekli builders themselves.

18

AFTERMATH

One of the major problems for farmers in southeast Turkey is that the landscape is littered with basalt boulders of all shapes and sizes, making it difficult to plow or sow a piece of land unless the rocks are first moved to the edge of the field. Since many of these boulders can be anything between several hundred pounds and a couple of tons apiece, this can often be a near impossible task.

The sources of these boulders are local volcanoes, which are known to have erupted in fairly recent geological history. Exactly when this might have been differs from volcano to volcano, although some kind of pattern might eventually emerge. One such

volcano is Karajeddah Dağ, part of the Karaca Dağ massif, which lies between the cities of Diyarbakır in the east and Şanlıurfa to the west. It is Karaca Dağ, we should recall, that geneticists have identified as the point of origin of sixty-eight modern strains of wheat, suggesting that it was here, in the heart of the *triangle d'or,* that the Neolithic revolution had its inception.

A BEDOUIN CATASTROPHE MYTH

With this information in mind, it is interesting to find that Karajeddah Dağ is the setting for a highly significant folktale preserved by Bedouin tribespeople, who inhabit the area even to this day. The tale, told to the author in 2004 by a Bedouin driver as they came within sight of the mountain,[1] speaks of how once, long ago, when humankind first began to till the land, a dragon with seven heads lived in a hole.

One day, the tillers' plows revealed the monster's lair, making the creature extremely angry. It emerged into the light and began torching the forests with its fiery breath until all the trees had been razed to the ground. Fearing for their lives, the people called upon Allah to stop this misery. This he did by carrying the monster up through the seven heavens until it reached the highest one, and here the dragon exploded with a great burst of fire, scattering rocks across the entire region.

SEVEN-TAILED COMET

Even though this story exists to help explain the countless boulders ejected by the now-extinct volcano, elements within it hint at a meaning on a much deeper level. The aerial detonation of the great dragon in the seventh heaven smacks of the sudden entry into the atmosphere of a fiery bolide, a comet perhaps. The seven heads of

the dragon suggest that the comet might have fragmented into seven pieces or that it had multiple tails. In 1907 Comet Daniel appeared in our skies with seven tails, leading one astronomer to refer to it as "this awesome, seven-tailed monster."[2] That the seven-headed dragon of the story torched the forests with its fiery breath until all the trees had been razed to the ground is another clear sign that this was more than simply the action of a volcano.

If this Bedouin folktale does recall some memory of the Younger Dryas Boundary impact event, as well as an eruption of Karajeddah triggered at the same time, then this is very important indeed, especially as the mountain, although a full 50 miles (80 kilometers) away from Göbekli Tepe, is just about visible on the northeast horizon. Even more significant, however, is the reference in the story to the first tillers of the land disturbing the lair of the fiery dragon, resulting in it wreaking havoc on the world. Does this allude to the first people to begin cereal cultivation in the *triangle*

d'or at the beginning of the Neolithic age? The fact that this tilling of the land was said to have *triggered* these catastrophic events need not worry us, as after thirteen thousand years confusion as to what happened in which order is understandable.

Behind this archaic story is one final piece of useful information. The folktale tells us that it was the tillers' actions that caused the release of the dragon. In other words, the inhabitants of the region, whose descendants we know became the first farmers, blamed themselves for the destruction it caused. If correct, then we can better understand why the Epipaleolithic hunter-gatherers of southeast Anatolia so feared a repeat of these events, for in their minds it was their actions that had caused the original catastrophe, in which case it could all happen again if they were not careful, the definition perhaps of Barbara Hand Clow's catastrophobia. No wonder these people might have accepted the offer of an incoming elite to rid them of this constant fear, a decision that led, eventually,

to the construction of Göbekli Tepe.

PROFESSOR SCHMIDT'S OPINIONS

Whether there is a connection between Göbekli Tepe and the Younger Dryas Boundary impact event is something the author put to Professor Klaus Schmidt during an impromptu interview in September 2012. His immediate response was an emphatic "no, no connection." It was, however, pointed out to him that there was now firm evidence that the Natufian settlement at Tell Abu Hureyra on the Middle Euphrates, just 100 miles (160 kilometers) away, might have been an impact zone, and that in the opinion of the scientists who made this discovery, "the effects on that settlement and its inhabitants would have been severe."[3]

Schmidt's dismissal of the subject is, however, understandable. Even if the proposed impact event of 10,900 BC really did occur in

the manner described, then this was a full 1,400 years before the construction of the oldest known enclosures at Göbekli Tepe, ca. 9500 BC. Surely, the hunter-gatherers of the region would have forgotten what had happened so many centuries after this supposed catastrophe took place.

This is a valid point, although scientific evidence indicates that something catastrophic continued to happen in the world for many hundreds of years after the commencement of the Younger Dryas cold spell. Drilled cores taken from the Greenland ice sheet reveal that ammonium levels in the atmosphere, arguably caused by the spread of wildfires, rose suddenly around 12,900 years ago, coincident to the proposed impact event, and then remained high for hundreds of years afterward.[4] They then spiked again around 12,340 years ago, that is 10,340 BC, suggesting that something else occurred at this time, prompting Dr. Richard Firestone of Lawrence Berkeley National Laboratory of Nuclear Science and his coauthors

in their book *The Cycle of Cosmic Catastrophes* to comment, "We think that [10,340 BC] may be the date of one of the impacts."[5]

In other words, we could be looking at another major impact on or around 10,340 BC, which brought to a climax a sequence of events that had been happening on and off since the initial impact some five centuries earlier. Firestone and his team propose that at least part of the ammonium content in the Greenland ice cores came from a disintegrating comet, the rest from the wildfires it caused.

In addition to the massive spike in ammonium corresponding to a date of 12,340 years ago detected in the Greenland ice cores, the levels of nitrate they contain also peaked at exactly the same date—12,340 BP. Nitrate is another chemical produced by wildfires, although when the levels shoot up for both ammonium and nitrate together, it could mean that the fires in question were burning fiercely, as opposed to smoldering after the event.[6]

Compounding the mystery still further is the fact that another

chemical, oxalate, also spikes in the Greenland ice core samples for the date 12,340 BP, and this too is associated with wildfires. Apparently this peak is the highest on record for the entire four hundred thousand years covered by the ice cores.[7] The importance of these findings is made clear by Firestone and his coauthors when they write, "The researchers tested a lot of ice, and they did not find any event as severe as that one, which spanned about four ice-age cycles. We think that it was no ordinary fire; it was a cosmic one."[8]

Whether a comet *was* responsible for the wildfires raging some 12,340 years ago remains a matter of speculation, although the ice core samples make it clear that the world was not at all stable at that time. Remember too that this is a full 560 years after the proposed Younger Dryas impact event of 12,900 years ago, and just 850 years, arguably less, before the construction of the first large enclosures at Göbekli Tepe.

A REMEDY FOR CATASTROPHOBIA

Mammoth building projects like Göbekli Tepe were initiated, most probably, after the inhabitants of southeast Anatolia came into contact with other parties, most likely displaced peoples from some other part of the ancient world. They perhaps brought with them a virtual messianic message explaining how they had the power to put an end to the prevailing state of fear. We have called them the Hooded Ones and suspect that it is their memory, and the memory of their own great ancestors, embodied in the T-shaped pillars erected at Göbekli Tepe. Most likely, this power elite was shamanic in nature and believed it had some special relationship with either the fox or the wolf, a connection that gave them control over the sky fox or sky wolf responsible for bringing destruction to the world.

It is time now to examine the archaeological record in the hope of identifying this incoming group who would appear to have had such a big impact on the Epipaleolithic peoples of southeast Anatolia.

Where did they come from, and how were they so easily able to convince communities of hunters to give up their free lives to build huge stone monuments, the oldest known astronomically aligned temples anywhere in the world? The answers, as we shall see in part four, might well lie on a different continent together, with that continent being Europe.

PART FOUR

Contact

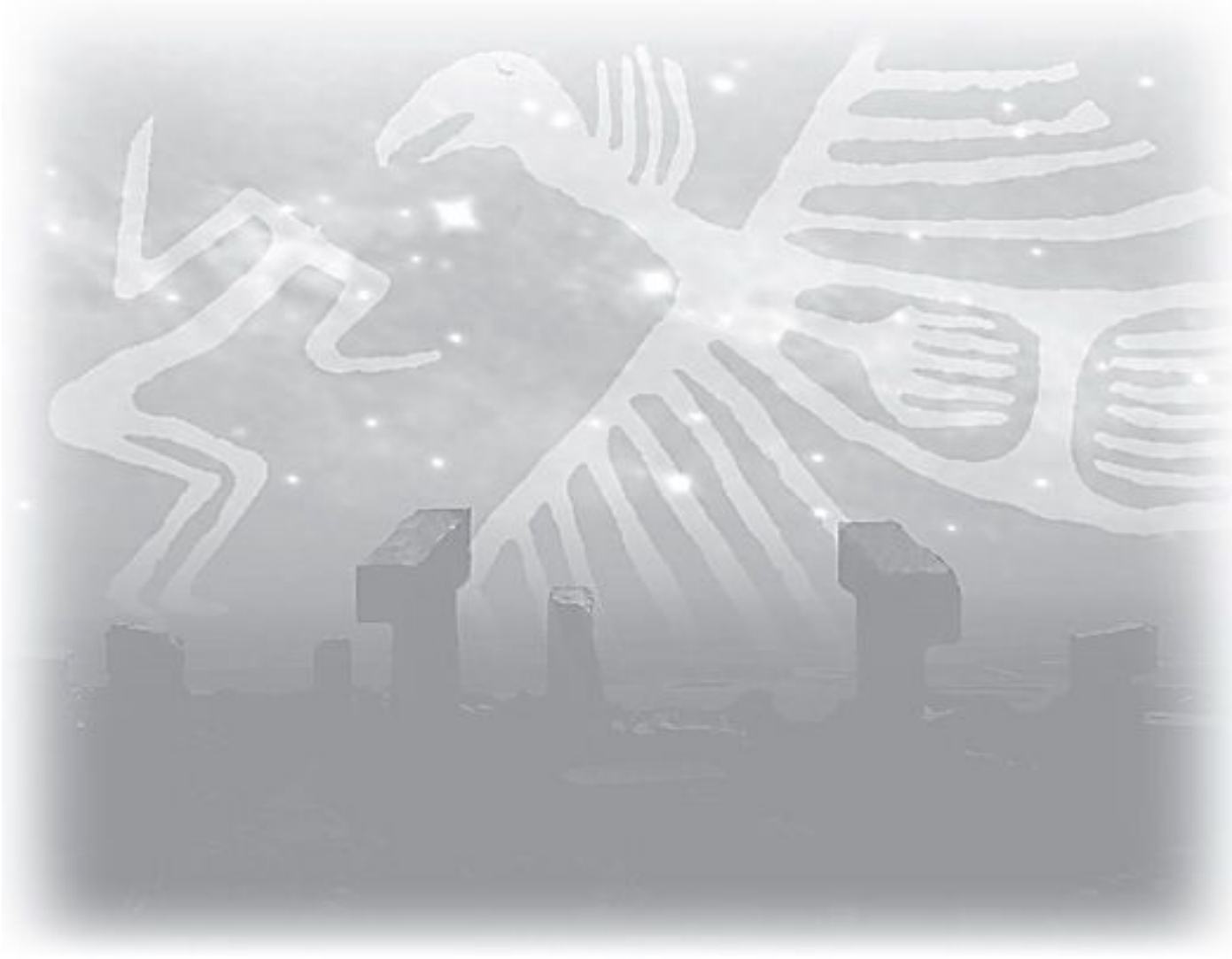

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THE REINDEER HUNTERS

Dr. Alice Roberts is a British anatomist, anthropologist, and osteoarchaeologist (bone specialist), as well as an author and TV presenter. In her book *The Incredible Human Journey* (2009), written to accompany a BBC documentary series of the same name, she visited Göbekli Tepe and chatted at some length with lead archaeologist Professor Klaus Schmidt. During the interview Roberts made a poignant observation, based on a sound knowledge of ancient stone tool technologies. She noted that the toolkit in use at Göbekli Tepe "was similar to some of the tanged point cultures of Central Europe, in the late Paleolithic and Mesolithic."[1]

In response, Schmidt suggested that "perhaps there was some kind of connection or communication between the societies of Turkey and those around the Black Sea and the Crimea,"[2] noting also a similarity between the style of game hunting in southeast Anatolia in the epoch of Göbekli Tepe's construction and the "reindeer hunters of the North."[3] Yet as if, immediately, to distance himself from any proposed connection between Europe and Göbekli Tepe, Schmidt pointed out that there is nothing "even vaguely like it in Europe . . . until well into the Neolithic."[4]

TANGED POINT CULTURES

This is true; there is absolutely nothing to compare with Göbekli Tepe anywhere in Europe or, indeed, anywhere else in the ancient world until much later, when megalithic architecture begins in earnest at places such as Malta, Sardinia, Brittany, Ireland, and, of

course, Britain. Yet that doesn't rule out the tantalizing possibility that the Göbekli builders came in contact with peoples from Europe, and from what Dr. Roberts and Klaus Schmidt were both implying, perhaps we should be looking toward the "tanged point cultures" and "reindeer hunters of the North" for some answers.

In the late Upper Paleolithic age reindeer hunters who occupied the forests and plains of Northern Europe, often operating on the sandy terrains of loess left behind by the melting glaciers, started different hunting strategies because their perennial prize, the reindeer herds, were abandoning their old territories and moving ever northward and northeastward. The animals undertook these continual migrations so that they could remain within the forests and tundra (land with small trees and plants) essential for their continued survival. Even with the onset of the Younger Dryas mini ice age, ca. 10,900 BC, the reindeer kept moving, even though the worsening weather conditions were forcing human populations to

migrate ever southward.

As part of their change in strategy, the reindeer hunters at the termination of the Upper Paleolithic age, which in Europe quickly transformed into the Mesolithic age, adopted the use of a very specific type of weapon, usually made of flint and known as the tanged point. This is a type of arrowhead, either shaped like a willow leaf or geometric (that is, triangular) in form. These points have distinctive “shoulders,” or “tangs,” delicately chipped away from the base so that they could more easily be hafted onto an arrow shaft. Sometimes the points have only one tang, or shoulder, while at other times they have two. Clearly, the use of the bow and arrow gave Paleolithic hunters the advantage not only during the chase but also over human enemies.

THE CASE OF MARY SETTEGAST

So could there have been some kind of contact between these reindeer hunters of the North European Plain and the Epipaleolithic peoples of southeast Anatolia in the lead up to the construction of the first large enclosures at Göbekli Tepe? The answer is almost certainly yes. In 1987 a fascinating book entitled *Plato Prehistorian,* by archaeological writer Mary Settegast, attempted to paint a picture of the turmoil that might have existed in Europe in the aftermath of a global catastrophe at the end of the last ice age. Settegast linked this event with the account given by the Greek philosopher Plato in his works *Timaeus* and *Critias,* written around 350 BC. He, of course, describes the destruction of a mythical island empire called Atlantis that was said to have existed beyond the Pillars of Hercules, out in the Atlantic Ocean.

According to Plato the main island of Atlantis sank beneath the waves around 9500 BC following a day and night of earthquakes and floods, sent by the sky god Zeus to punish the Atlanteans for

having become too haughty and arrogant. Prior to this time they had made incursions into the Mediterranean and attacked major city-ports as far east as Italy's Tyrrhenian Sea, then under the control of the Athenians.

Plato's account of Atlantis might well be based on some kind of historical reality, although the wars between the Atlanteans and the Athenians are much more difficult to prove, especially given that Athens and its inhabitants, the Athenians, did not exist in 9500 BC. For this reason, some of Settegast's proposals are quite obviously biased toward accepting the validity of Plato's account. That said, the evidence she presents for bloodshed and turmoil in Europe at the end of the Ice Age is stunning.[5]

THE SWIDERIAN CULTURE

Crucially, Settegast recognized that during the Younger Dryas

period, ca. 10,900–9600 BC, major migrations were taking place all over Europe, seemingly in the aftermath of the proposed cataclysm. Among those on the move was a specific group of reindeer hunters known as the Swiderians. They began pushing farther and farther eastward and southward until they were quite literally knocking on Anatolia's door.

Mary Settegast realized that as they moved across Europe at the onset of the Younger Dryas cold spell, the Swiderians left behind a noticeable trail of finely carved tanged points. It stretched all the way from the Carpathian Mountains of Central Europe right across to the Crimean Mountains, located on a peninsula immediately west of the Sea of Azov, a northerly extension of the Black Sea, in what is today Ukraine. She noted also that around this same time strikingly similar tanged points started to appear at Epipaleolithic and proto-Neolithic sites in the Near East, something that is unlikely to be a simple coincidence.[6]

DENMARK
SWEDEN
ESTONIA
LITHUANIA
Volga R.
RUSSIAN FEDERATION
POLAND
BELARUS
Vistula R.
Oder R.
GERMANY
Świętokrzyskie Mountains
Don R.
Volga R.
SLOVAKIA
Dneiper R.
Carpathian Mountains
UKRAINE
HUNGARY
ROMANIA
GEORGIA
Caspian Sea
CRIMEA
Caucasus Mountains
Danube R.
Black Sea
ARMENIAN HIGHLANDS
L. Van
L. Urmia
TURKEY
Göbekli Tepe
Mediterranean Sea

Figure 19.1. Map showing the eastern migration of tanged, or shouldered, points, most likely arrowheads, belonging to the Swiderian culture, which emerged ca. 11,000 BC.

To better argue her case, Settegast included in her book a map that shows the trail of Swiderian points across Europe,[7] a version of which is included here (see figure 19.1). Her compelling evidence prompted the question of what exactly these Paleolithic hunters were doing crossing Eastern Europe so boldly, with the standard explanation being that they were following the flight of the reindeer herds, but as Settegast herself noted, many of their campsites show very little evidence of the spoils of the chase,[8] so clearly something else was going on in their lives. So who exactly were the Swiderians, and how do they fit into the gradually emerging picture painted so far in this book?

THE SWIDERIAN LANDSCAPE

The Swiderians take their name from an occupational "type" site where their unique style of stone tool technology was first recognized. This is Świdry Wielkie in Otwock, near Warsaw in Poland, which now forms one of the thousands of campsites, work stations, and settlement sites that the culture created across a vast territory, stretching from Poland in the west across to Belarus, Lithuania, Latvia, Estonia, Moldova, and Ukraine. They make their presence known for the first time at the beginning of the Younger Dryas period, occupying the forests, steppes, and glacial loess of the East European Plain, and settling on major rivers including the Vistula, Oder, and Warta in the west, and the Dnieper, Volga, Oka, and Don in the east.[9] In addition to this, they are known to have occupied the northern and eastern foothills of the Carpathian Mountains,[10] which embrace Slovakia, Poland, Hungary, Ukraine, and Romania (which is made up of the former kingdoms of

Transylvania, Wallachia, and western Moldavia).

The culture's principal calling cards, so to speak, were their distinctive tanged points, along with their exquisitely finished leaf-shaped points. Prehistorians propose that the Swiderians were an offshoot of one of the preexisting reindeer-hunting traditions of Northern Europe, either the Hamburgian-Ahrenburgian cultures of North Germany or, more likely, the Brommian-Lyngby cultures of Denmark and the Scandinavia Peninsula (together they form what is known as the Tanged Point Technocomplex). Yet as we see next, the Swiderians had ancient roots that mark them out as more successful than their contemporaries. They would seem also to have had a great motivation and drive that has allowed them to be credited with the foundation of various subgroups that were instrumental in the establishment of European culture and language on a number of different levels. It is a long road from Central Europe to Anatolia, but it is one we must now take to create a better

picture of why exactly the Swiderians are so crucial to the story of Göbekli Tepe and the rise of civilization in the ancient world.

20

SWIDERIAN DAWN

The effect the Younger Dryas Boundary impact event of 10,900 BC might have had on Europe remains unclear. Yet evidence of its aftermath can be found at sites across the continent as the Usselo horizon, the 8-inch (20-centimeter) charcoal-rich layer lying between soils signifying the termination of the Allerød interstadial and the commencement of the Younger Dryas mini ice age, ca. 10,900 BC.[1] Listed among the countries in Europe where this black layer has been found are the Netherlands, France, Germany, and Belgium, as well as known Swiderian territories such as Belarus and, as we shall see now, Poland.

THE WITÓW PEOPLE

At the beginning of the 1960s, archaeologists working on a site at Witów, near Łęczyca, in the Polish province of Łódź, were puzzled to find "a charcoal layer in late-glacial dune, comparable to [the] Usselo-layer."[2] This layer was found to contain flint artifacts "forming a hitherto unknown assemblage,"[3] while in the sand immediately above this black mat, archaeologists came across stone implements belonging to the "middle Swiderian industry,"[4] showing that the Swiderian reindeer hunters were here at this time.

In addition to the flint implements, archaeologists found at Witów four large ovoid "huts," all aligned east-west. Each one contained various finds, including a noticeable amount of hematite, which is a highly magnetic, iron-based mineral, usually rust red in color. It is crushed to make a pigment called ochre, used in rock art and human decoration, such as tattoos and body paint.

Radiocarbon analyses for the charcoal layer provided dates in the region of 10,820±160 BP, or 8820 BC. However, when these tests took place it was not realized that recalibration is necessary to bring raw radiocarbon dates in line with the true trend of carbon-14 release from organic materials, so when this is applied the charcoal layer offers dates in the range of 11,000–10,500 BC, well within the proposed time frame of the Younger Dryas Boundary impact event of ca. 10,900 BC.

SWIDERIANS IN CRIMEA

The stone tools found inside the huts at Witów in Poland were initially quite a mystery to archaeologists, leading them to announce the discovery of a previously unknown culture.[5] What they did notice, however, were similarities between the assemblage's curved-back knives and blade segments with examples found over

850 miles (1,400 kilometers) away in the Shan Koba cave in Crimea.[6] These are now recognized as belonging to a Crimean Swiderian culture, responsible also for the manufacture of Swiderian points found at other sites in the Crimean Highlands, immediately north of the Black Sea.[7]

Here in a rock shelter known as Syuren 2, tanged blades have been unearthed "with direct analogies to the Polish Swiderian."[8] In other words, they are more or less identical to those found at the culture's mostly open air sites in their original heartland of Poland and the Carpathian Mountains. More crucially, the examples found in the Syuren 2 rock shelter are so similar to the real thing that two Russian prehistorians were led to conclude that a "direct migration of a group of Swiderian population in the Crimea is not excluded."[9] In other words, the Swiderian peoples who inhabited these caves might well have been the immediate descendants of reindeer hunters who had arrived in this region from Poland.

If these migrations really did take place, then it is unbelievable evidence of the sheer endurance and willpower of these people, who crossed the entire length of Eastern Europe to end up on the Black Sea. What is more, there is tentative evidence that they did not stop their journey there. In 1959 Russian prehistorian Aleksandr Formozov saw evidence of stone tools of the Swiderian-European style as far east as the Caucasus Mountains of Georgia,[10] which stretch between the Black Sea in the west and the Caspian Sea in the east. If correct, then this brings the reindeer hunters within striking distance of the Armenian Highlands, just a couple of hundred miles away from Göbekli Tepe.

TANGED POINTS IN THE NEAR EAST

Supporting the idea that the Swiderians reached even beyond the Caucasus Mountains is, as Mary Settegast realized, the fact that a

great many tanged points strikingly similar to those manufactured in Europe have been found at Epipaleolithic and early Neolithic sites across the Near East. Indeed, if they had been found on European soil, archaeologists would have had no qualms in identifying them as belonging to one or another of the North European reindeer-hunting traditions.

Clearly, there are certain differences in style. Sometimes the tang is trapezoid in shape, or with a slight barb. Alternatively, notches are made on either side of the blade, making it easier to haft onto an arrow shaft. Despite these variations, there are enough similarities to suggest that the Swiderian reindeer hunters were somewhere in the background. Indeed, leaf-shaped tanged points that easily compare with those created as part of the Swiderian tradition have been found at Göbekli Tepe (see figure 20.1 on p. 174).[11] This opens up the possibility that the European reindeer hunters, or at least their direct descendants, really were present in southeast

Anatolia and might well have influenced the development of its earliest Neolithic cultures, something they certainly did in other parts of the ancient world.

POST-SWIDERIAN CULTURES

Having established many hundreds of settlement sites as far east as the Don and Upper Volga rivers of Central Russia, Swiderian groups spread into new territories, where they created post-Swiderian cultures, such as the Kunda and Butovo, which thrived between the middle of the tenth millennium and the end of the seventh millennium BC in Estonia, Belarus, Latvia, and northwest Russia.[12] Here they adopted an advanced toolmaking technique known as surface pressure flaking, a process so unique that when discovered at a Mesolithic site in north or northeast Europe it is seen as clear evidence of a Swiderian presence there.

Pressure flaking is a process whereby a bone tool or antler is used to trim a biface (an implement shaped on both faces) by very carefully applying pressure to its edges in order to prize off rows of tiny flakes. This produces equally spaced, concave troughs, each one generally overlapping the next in line, which can reach as far as the center of the implement, giving it a perfect geometric finish.

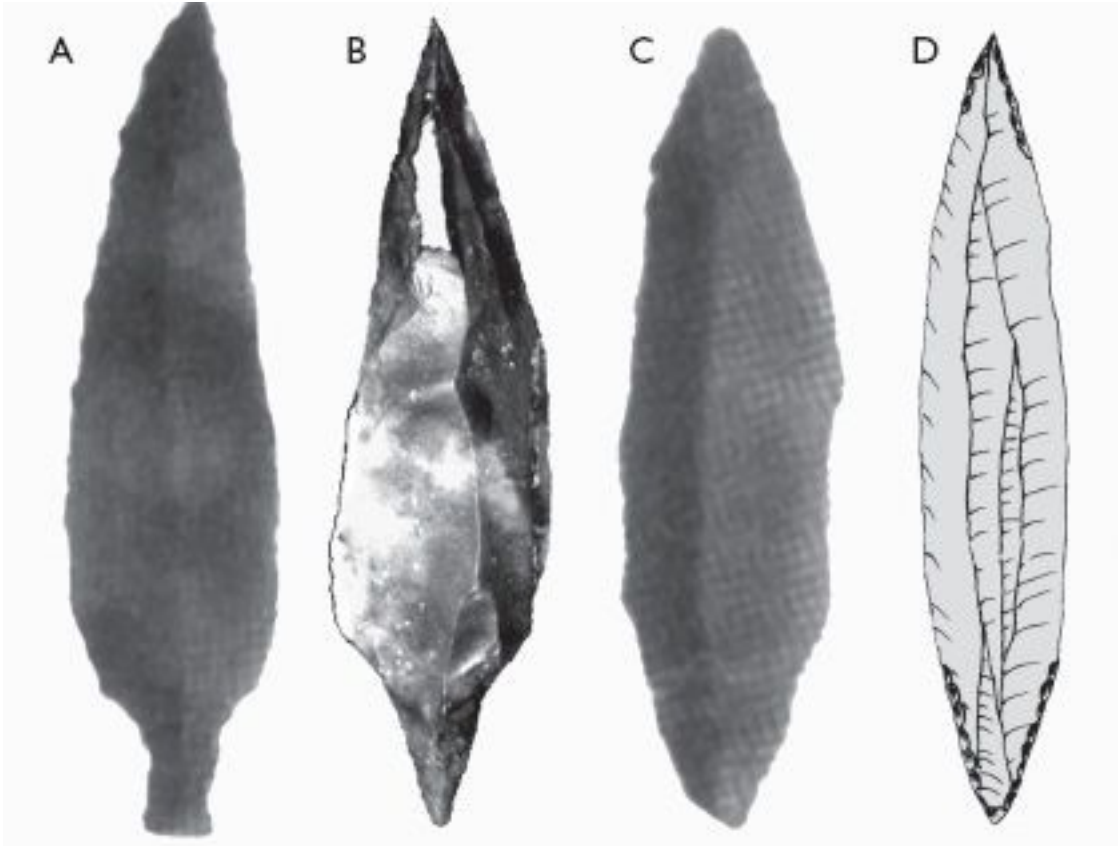

Figure 20.1. Comparison of tanged points found in the fill at Göbekli Tepe (A and C) against two examples (B and D) from the Swiderian culture.

Although stone tools dating back seventy-five thousand years found at the Blombos Cave in South Africa show evidence of having been finished using pressure flaking, it is a technique not usually associated with European cultures at the end of the Paleolithic age. This said, pressure flaking was being used in eastern Anatolia to process obsidian (see chapter 22) during the Pre-Pottery Neolithic B period, ca. 8700 BC and 6000 BC, and was present at the Neolithic city of Çatal Höyük by 7000 BC.[13]

FINNO-UGRIC PEOPLES

There is firm evidence also that post-Swiderian groups entered Finland and established key settlements during the ninth millennium BC. Here their traditions are associated with the country's Finno-Ugric speaking peoples, including the Sámi, a shamanic-based, reindeer-herding culture that exists to this day.[14] Additionally,

newly discovered settlement sites in Norway, dating to roughly the same age as those in neighboring Finland, have revealed evidence of a blade technology identified as post-Swiderian in nature.[15] Similar tools have been found at a Mesolithic site in Lapland, northern Sweden, dated to ca. 6600 BC.[16] What is more, extraordinarily accomplished stone tools finished using pressure flaking techniques were manufactured during the late Neolithic/early Bronze Age, ca. 3000–2500 BC, in parts of Scandinavia (Denmark in particular), and this can be put down to the presence of technologically advanced cultures deriving from the post-Swiderian tradition.

All this implies that some of the earliest influences on Finnish, Scandinavian, and Baltic ethnicity, culture, stone technology, and, very likely, mythology might well have originated with the Swiderian reindeer hunters, whose original homeland was the forests, steppes, and river valleys of Central and Eastern Europe.

Yet who exactly were the Swiderians? Where did they come from, and what did they look like?

HUMAN HYBRIDS

Anatomically speaking, the Swiderians have been described as "tall . . . long-headed, [and] thin faced."[17] It is something confirmed by noted Lithuanian anthropologist Marija Gimbutas (1921–1994), who in 1956 detailed the discovery eight years earlier, in 1948, of a partial cranium, minus its lower jaw, at Kebeliai, near Priekulė in Lithuania. Dating to the end of the Paleolithic age, when Swiderian settlements occupied the area, it is said to have been "massive, dolichocephalic [that is, long headed], with strong proclivity [inclination] of the forehead, prominent and massive brow ridges and a narrow forehead." In her opinion the strange skull "was *sapiens,* but had Neanderthaloid elements, in other words, [it] was a

Neanderthal-*sapiens* hybrid."[18] Gimbutas spoke also of a "closely related" cranium dating again to the end of the last glacial age, this one discovered on the Skhodnia River, northwest of Moscow,[19] where Swiderian groups are known to have existed at this time.

A third skull of interest, attributed to the post-Swiderian Kunda culture and found in a pit paved with stones at Kirsna in the district of Marijampolė in southern Lithuania, Gimbutas describes as "hyperdolichocephic [that is, extremely long headed] . . . narrow faced, high-orbited," and resembling the "Brünn skull of central Europe."[20]

The "Brünn skull" mentioned refers to one of a number of examples, all very similar, unearthed in 1891 at Brünn (modern Brno), the capital of Moravia in what is today the Czech Republic. Here human remains dating back as much as twenty-five thousand years were found that had a slightly different physiognomy to the pre-existing Cro-Magnon population that had entered Europe from

Africa around forty-three thousand years ago.[21] Whereas the Cro-Magnon were broad-faced, large-headed individuals, the Brünn skulls displayed "extreme elongation and dolichocephaly,"[22] that is, their craniums were long and narrow. They also had strong chins, high cheekbones, low, wide-set eye orbits, and, like the Kebeliai example, prominent brow ridges.[23]

Similar skulls from the same human population were unearthed three years later in 1894 at PÅ™edmost (modernly spelt Predmostí), also in the Czech Republic. Fourteen complete skeletons and the remains of six others had been placed in a tight circle within a pit, their bodies contracted into a squatting position and surrounded by a bank of stones. The size of the limbs of these individuals indicated that they were of "large stature."[24] The finds at PÅ™edmost led anthropologists of the period to start referring to this unknown human type as "Brünn-PÅ™edmost man" and even *Homo pÅ™edmostensis*.[25]

Speculation mounted in the early twentieth century that the Brünn population of the Upper Paleolithic age were in fact "Neanderthaloids," either Neanderthal-human hybrids and/or the remnants of an intermediary stage between the two species,[26] ideas that almost certainly influenced the observations made by Marija Gimbutas in 1956 regarding the strange physiognomy of the Kebeliai skull.

It is thus possible that the Swiderians of Central and Eastern Europe were directly related to the Brünn population and that both either evolved from or contained within their communities Neanderthal-human hybrids of quite striking appearance, having elongated heads, long faces, high foreheads, prominent brow ridges (a specific Neanderthal trait), high cheekbones, large jaws (a Cro-Magnon trait), and an increased height. It was a physiognomy inherited by post-Swiderian cultures, such as the Kunda, who are elsewhere described as tall with elongated skulls and narrow

faces.[27]

That the Swiderians might have been related to the Brünn population that appeared in Central Europe sometime around twenty-five thousand years ago is an extraordinary realization. Yet it is a conclusion strengthened in the knowledge that the Swiderians might well have inherited one of the most accomplished and mysterious traditions of the Upper Paleolithic age—that of the Solutrean, a matter we explore next.

Plate 1. The fig-mulberry tree that stands on the summit of Göbekli Tepe in southeast Turkey. This place has long been sacred to the native Kurds of the region, as seen from the presence here of a small cemetery.

Plate 2. View of Göbekli Tepe from the northwest, showing the main group of sanctuaries built more than eleven thousand years

ago. The two giant monoliths in the foreground belong to Enclosure D, the most sophisticated structure uncovered to date.

Plate 3. Archaeologists survey the bedrock impression left by the former presence there of the Felsentempel (German for “rock

temple”), otherwise known as Enclosure E.

Plate 4. Pillars belonging to Göbekli Tepe’s Enclosure A, the first structure to be uncovered, during the 1995–96 digging seasons.

Visible in the center is Pillar 2, showing an auroch, a leaping fox, and a wading bird, most likely a crane.

Plate 5. Göbekli Tepe's Enclosure B, which lies immediately to the north of Enclosure A. The two T-shaped pillars to the right stand at its center, each one with a leaping fox on its inner face. Do they represent the cosmic trickster?

Plate 6. The leaping fox on the inner face of Enclosure B's Pillar 10. Note the graffito boar carved immediately beneath it.

Plate 7. Göbekli Tepe's Enclosure C from the north. Note the

remains of its twin central pillars (the eastern one encased in wood), as well as the twin standing stones acting as its southern entranceway.

Plate 8. One arm of the U-shaped portal, dubbed the “Lion’s Gate,” that marked the entrance into the long corridor, or dromos, that enabled access to Enclosure C. The strange quadruped that caps its termination is thought to be a feline of some sort.

Plate 9. Pillar 37, the western of the two great monoliths that stand at the center of Enclosure C. Like the twin pillars in Enclosure B, it

has a leaping fox carved on its inner face. This animal faces south, toward the entrant who walks between the twin monoliths in order to access the sky world.

Plate 10. The author surveys Göbekli Tepe's unfinished monolith, partly hewn out of the bedrock around a quarter of a mile (400 meters) from the main enclosures. It is as much as 22 feet (6.9 meters) in length and 6.5 feet (2 meters) broad, with an estimated weight of 50 metric tonnes (approximately 55 U.S. tons).

Plate 11. Decoration on the right-hand side of the waist belt on Pillar 18, the eastern central monolith in Enclosure D. It shows a combination of C and H glyphs.

Plate 12. Pillars 31 and 18, the central monoliths of Enclosure D. Note the long arm of the eastern pillar, which seems to be almost holding the fox. See also the way that the T-shaped head is tilted toward those who approach from the south.

Plate 13. Pillar 18's belt buckle, with its three-tailed comet design, surrounded by a group of H-shaped ideograms. Note also the fox-pelt loincloth hanging directly beneath the belt buckle.

Plate 14. The twin pillars at the center of Enclosure D. Note the holed stone centrally positioned behind the monoliths, which might well have targeted the bright star Deneb in Cygnus as it set on the horizon around 9400 BC.

Plate 15. The holed sighting stone at the rear of Enclosure D. Note the lines suggestive of the legs and buttocks of the female form, which if correct makes the hole a representation of the vulva.

Plate 16. The seven flightless birds, identified as dodos, carved into the southern face of the bedrock pedestal holding up Enclosure D's Pillar 18.

Plate 17. One of the roaring lions carved on the inner faces of the

twin pillars marking the eastern end of Göbekli Tepe's Lion Pillar Building. Built ca. 8500–8000 BC and aligned east-west, its advancing felines could well represent both the might of the sun and the constellation of Leo, the celestial lion.

Plate 18. Göbekli Tepe's Lion Pillar Building, located at the

summit of the occupational mound some 50 feet (15 meters) higher than the site's main enclosures, suggesting that it was constructed as much as 1,000 to 1,500 years after these earlier structures.

Plate 19. The author, left, with Professor Klaus Schmidt, who has been excavating Göbekli Tepe on behalf of the Museum of Şanlıurfa

and the German Archaeological Institute since 1995.

Plate 20. One of the most recent pillars to be uncovered at Göbekli

Tepe. It was discovered during excavations in the northwest section of the occupational mound and could well be eleven thousand years old. It shows a south-facing lion on what is presumably the inner face of a central pillar in a previously unexplored enclosure.

Plate 21. Göbekli Tepe's Enclosure F, built probably ca. 8500–8000 BC. Notice how reduced in size the sanctuaries have become by this time. Some of them are no bigger than a bathroom, with stones no more than 5 feet (1.5 meters) in height.

Plate 22. Strange carved head found among the fill that covered the

enclosures at Göbekli Tepe, now in the Museum of Şanlıurfa. Its teeth show it to be a predator, most likely a wolf.

Plate 23. Life-size human statue dating to around 9000 BC. It was discovered in 1993 within the Balıklıgöl district of Şanlıurfa, the oldest part of the city, and is now in the archaeological museum. Tradition asserts that Şanlıurfa, ancient Edessa or Orhay, was founded either by the prophet Enoch or by “Orhay son of Hewya”; that is, the “Serpent,” a clear allusion to the Watchers of the book of Enoch.

Plate 24. Carved stone totem pole discovered in one of the minor structures at Göbekli Tepe, and now in the Museum of Şanlıurfa. Its damaged head is that of an animal, while its body is of a human. A smaller human figure emerges from its stomach, and from the womb area of the second figure comes a child that holds in its hands a vessel of some sort. Twin snakes rise up on either side, possibly as guardians of the child. This is one of the strangest pieces found so far and shows the virtually alien mindset of the Göbekli builders.

Plate 25. Left, a Solutrean laurel-leaf spearhead, 13 inches (33 centimeters) long and around twenty thousand years old, on display at the British Museum. Right, Swiderian tanged point made of chocolate flint, eleven thousand to twelve thousand years old. Not to

scale. Were the Swiderian hunters of Central and Eastern Europe, as successors of the Solutrean tradition, instrumental in the rise of Göbekli Tepe around the end of the Younger Dryas period, ca. 9600 BC?

Plate 26. Medieval painted wooden panel in All Saints Church,

Kempston, Bedfordshire, UK. It shows the removal of Adam and Eve from the Garden of Eden and the angel who wields the flaming sword. Note the serpent crawling on the ground and the Mountain of God behind Adam, both in the left-hand scene.

Plate 27. Tenth-century encaustic painting from Saint Catherine's Monastery in Egypt's Sinai Peninsula, showing, left, the disciple Thaddeus, and, right, the disciple curing Abgar, king of Edessa, using a handkerchief that Jesus wiped across his face. Thaddeus continued his journey, reaching Armenia in AD 43/45. At Yeghrdut, near Mush in historical Armenia (eastern Turkey), he is said to have deposited a piece of the Tree of Life, as well as other important holy relics.

Plate 28. The remains of the Yeghrdut monastery, now known as Dera Sor (the Red Church), on the northern slopes of the Eastern

Taurus Mountains of eastern Turkey. It was here that Thaddeus apparently deposited his precious cache of holy relics.

Plate 29. The west wall of Dera Sor, the ruins of the Yeghrdut

monastery, said to have been located in the Garden of Eden itself. Muslims and Christians alike came here to sit beneath its holy tree and partake of its sacred waters to rejuvenate their bodies by as much as twenty years.

Plate 30. The view from Dera Sor, the ruins of the Yeghrdut monastery in eastern Turkey, looking out over the plain of Mush, through which flows the Euphrates River. Is this the true site of the Garden of Eden as described in the book of Genesis?

Plate 31. Bingöl Mountain in the Armenian Highlands of eastern Turkey, the source of the Araxes and Euphrates rivers. Evidence

suggests it is the true site of the Mountain of Assembly of the Watchers, as well as Kharsag, the home of the Anunnaki in Sumerian tradition. It can be identified also with Charaxio, the mountain in which Seth concealed the secrets of Adam, according to Sethian Gnostic tradition.

Plate 32. Two examples of snake-headed statues, found in graves belonging to the Ubaid culture, which thrived in Mesopotamia ca. 5000–4100 BC. They are now thought to be representations of a

long-headed elite group that controlled the Bingöl/Lake Van obsidian trade during the earlier Halaf period, ca. 6000–5000 BC. Did this elite group model itself on a memory of those responsible for the construction of Göbekli Tepe?

Plate 33. The Alevi holy site of Hızır Çeşmesi (the Fountain of Hızır), at Muska (modern Beşikkaya Köyü) in the northern foothills of the Bingöl massif in eastern Turkey. Is this the original Ab'i Hayat, the Waters of Life, where Alexander the Great is said to have gained immortality upon reaching Bingöl? The building on the right is a dream incubation house, where people come to spend the night and dream of Hızır, the Turkish form of al-Khidr, the Green One.

Plate 34. View from Muska looking south toward the western foothills of the Bingöl massif. Is this the original location of

Dilmun, the paradisiacal realm of the Anunnaki gods of ancient Sumer, as well as the site of the terrestrial Paradise in Judeo-Christian tradition?

21

THE SOLUTREAN CONNECTION

The Solutreans are the key to the emergence of high culture across Central and Western Europe during the Upper Paleolithic age. Their campsites, work stations, and cave sites date to between 25,000 and 16,500 years ago and span from England (especially East Anglia) in the north, to northern Spain, Portugal, and France in the south. Like the Swiderians much later, the Solutreans mastered the use of surface pressure flaking to create highly unique willow-leaf-shaped projectile points and much larger, laurel-leaf-shaped lance heads, which share similarities to the Swiderians' own leaflike points. Moreover, like the Swiderians, the Solutreans—who were

themselves reindeer hunters—fashioned shouldered (i.e., tanged) points, with either one or two shoulders (see figure 21.1 on p. 178) and thus almost certainly used bows and arrows.

So thin and so finely worked are the Solutreans' laurel-leaf lance heads, which can be up to 14 inches (36 centimeters) in length, translucent, and just a quarter of an inch (0.6 centimeter) thick (see plate 25), that Sharon McKern, an anthropological consultant, writing with her husband, Dr. Thomas McKern, professor of anthropology at the University of Kansas, was moved to observe: "This delicately flaked tool technique is the most aesthetic—and the most mysterious—known from prehistoric times."[1] The fact that a number of these unique blades have been found in groups within caches and are regularly made of nonlocal, exotic materials (including chalcedony, jasper, and quartz crystal) has led to speculation that they were not used for any practical purpose but instead served some ritual or symbolic function.

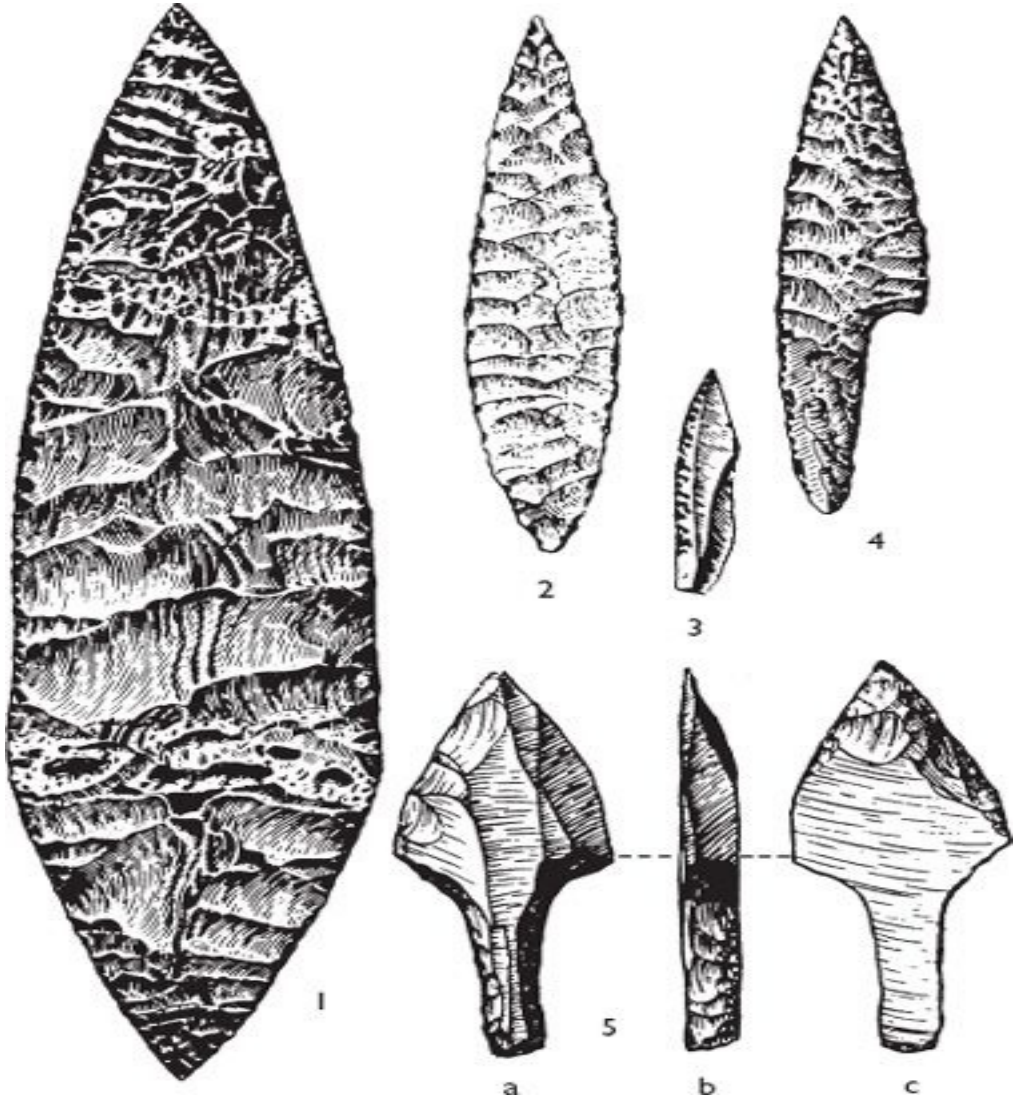
1
2
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5
a
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Figure 21.1. A selection of finely worked Solutrean points, ca. 20,000– 14,500 BC, many finished using the pressure flaking technique.

RIMUTÈ RIMANTIENÈ'S COMMENTS

So what exactly is the connection between the Solutreans and the later Swiderians? In 1996 Lithuanian archaeologist Rimutè Rimantienè proposed grouping together the various North European cultures that thrived in the Upper Paleolithic under a single umbrella term—the Baltic Magdalenian, or the "Group of Baltic Magdalenian cultures," because they all display signs of having a common origin.[2] Just one culture was to be excluded from the list, and this was the Swiderian, "where the relations with the Solutrean are outstanding, though also indirect."[3]

Rimantienè recognized the remarkable similarities between the

stone tool technologies of the two cultures and felt the need to put this in writing, even though making such a connection was clearly anathema in the scholarly community in which she moved.[*8] The problem is simple—the Swiderian culture does not enter the scene until the beginning of the Younger Dryas period, ca. 10,900 BC. This is thirty-five hundred years *after* the Solutreans disappear from the pages of European history to make way for the Magdalenians, an altogether different culture whose principal legacy is the beautiful Ice Age cave art of southwest Europe.

As to the fate of the Solutreans, no one really knows, although some prehistorians propose that they departed for the North European Plain when the reindeer herds migrated northward at the end of the last ice age. If so, then they might easily have formed the core of much later reindeer-hunting traditions, in particular the Brommian-Lyngby cultures of Denmark and the Scandinavian Peninsula. Certainly, laurel-leaf points and shouldered points,

identical to those of the Solutreans, have been found in the south and west of Sweden and Norway,[4] suggesting strongly that this is where the Solutreans came looking for the reindeer herds. Here their descendants would have remained until the onset of the Younger Dryas mini ice age, when with the worsening climate they were forced southward into Central Europe, paving the way for the emergence of the Swiderian tradition in places such as Poland, Slovakia, and the foothills of the Carpathian Mountains.

ANCIENT MARINERS

All this is quite plausible, although there is now mounting evidence to suggest that the Solutreans also took to the high seas and ended up in North America, having navigated the southern limits of the sea ice that clogged large areas of the North Atlantic Ocean some twenty thousand years ago.[5]

In North America, beyond the Laurentide Ice Sheet, which reached as far south as Missouri and the Ohio River Basin, the Solutrean hunters became the forerunners of the Clovis culture, producing laurel-leaf-shaped blades very similar to those manufactured in Western Europe. It was a tradition continued in the production of the exquisite Clovis points, manufactured using the pressure flaking technique by the Clovis people, who thrived in many parts of North America around the same time as the emergence of the Swiderian culture some thirteen thousand years ago. Yet unlike the Clovis culture that flourished for just five hundred to seven hundred years before disappearing during the Younger Dryas period, the Swiderians continued to thrive, creating all manner of post-Swiderian cultures, which, as we have seen, went on to occupy large areas of north and northeast Europe during Mesolithic times.

THE BRÜNN CONTROVERSY

Strengthening the connection between the Solutrean and Swiderian traditions still further is the fact that the two cultures might once have shared the same territories and the same physiognomy. It has long been known that a stone tool industry identical to that of the early Solutrean existed in Germany and the modern Czech Republic, and even further east in Hungary and Poland.[6]

Anthropologists of the early twentieth century became convinced that the Solutreans derived not from Cro-Magnons but from the Brünn peoples, who emerged onto the scene in places such as Hungary and the Czech Republic around twenty-five thousand years ago, where they formed part of the much larger, and far older, Eastern Gravettian culture. This connection was no idle speculation either, for quite distinctive Solutrean tools and laurel-leaf blades were found in association with human remains of the Brünn type at two separate sites, one of them being PÅ™edmost in the Czech

Republic, leading Princeton paleontologist and geologist Henry Fairfield Osborn (1857–1935) to observe: “There is no question that the human remains [found at PÅ™edmost] belong to the middle Solutrean stage.”[7] It was a link that seemed confirmed with the discovery in the late nineteenth century of skulls similar to those of the Brünn type at Solutré, west of Mâcon in France’s Saône-et-Loire region,[8] which, as the name suggests, was the original “type-site” of the Solutrean tradition.

Yet when, in the second half of the twentieth century, typological thinking regarding the racial origins of humankind became unfashionable, if not downright distasteful, any proposed connections between the Brünn type and the Solutrean tradition were dropped. Not only did this leave the Solutreans without any definitive physical characteristics, but any notion that the Solutreans of Western Europe were related to the Solutreans of Central Europe was abandoned. Indeed, those of Central Europe were stripped

completely of their Solutrean status and reclassified as a separate culture that evolved quite independently of the Solutreans of Western Europe.

Despite this awkward and somewhat strange reclassification process, it remains possible that the Solutrean tradition really is tied in with the sudden appearance in Central Europe of the Brünn population around twenty-five thousand years ago. Having said this, modern anthropological thinking has the Solutreans enter southwest Europe from Africa where, it has been suggested, they formed part of a Saharan culture known as the Aterian, which employed the use of strikingly similar toolmaking techniques. Yet equally likely is that the Solutreans and the human population of Central Europe categorized as the Brünn type came from the east, not the south.

Paleolithic stone tool expert Bruce Bradley, Ph.D., of the University of Exeter, and his colleagues have proposed that the Solutreans' highly sophisticated stone technology originated among

the peoples who occupied a region stretching from the cold forest steppes north and northeast of the Black Sea as far north as the central Russian Plain. Here between ca. 30,000 BC and 19,000 BC thrived an advanced culture known as the Kostenki-Streletskaya, which formed part of the much larger Eastern Gravettian tradition and produced stone tools and projectile points with close parallels to those manufactured by the Solutreans in both central and southwest Europe.[9]

These Ice Age peoples of the Russian steppes and plain inhabited a series of settlement sites, including Kostenki, the culture's principal type-site, on the west bank of the Don River, and Sungir on the Klyazma River. At this last site, located on the outskirts of the city of Vladimir, some 110 miles (177 kilometers) east-northeast of Moscow, three extraordinary human burials were uncovered in 1956. Each was adorned with thousands of ivory beads, which had been attached to tailored garments of immense sophistication.

Radiocarbon evidence shows that the burials took place as early as 30,000 BC.[10] One of the skulls, Sungir 1,[11] bears similarities to some of the skulls found at the PÅ™edmost site in the Czech Republic, in particular an example known as PÅ™edmost 3. With its prominent brow ridge and pronounced jaw, it bears distinct characteristics of not only the Brünn population that entered Central Europe around twenty-five thousand years ago and perhaps kickstarted the Solutrean culture, but also the Neanderthal-human hybrid skulls found in Russia and Lithuania (see chapter 20), which might well have belonged to individuals stemming from the Swiderian culture. It is a supposition supported by the observations of one of the twentieth century's greatest prehistorians, V. Gordon Childe. In his book *The Prehistory of European Society,* published in 1958, he writes:

> In Western and Central Europe the "Solutrean" seems a brief episode that exercised no recognizable influence on subsequent

> developments. In Eastern Europe on the contrary Solutrean techniques were applied at times to the later East Gravettian (Kostienki) flint-work and survived locally even in the Mesolithic Swiderian industry."[12]

Childe recognized the close similarity between the "flint-work" of all three traditions and believed that the Swiderians and Solutreans derived their characteristic toolmaking capabilities from the Kostenki-Streletskaya culture of Central Russia. In other words, their true point of origin was not to be looked for in Central Europe, but much further east, on the Russian Plain, where highly advanced peoples, almost certainly related to the Brünn population, existed at places like Kostenki and Sungir as much as thirty-two thousand years ago.

Thus it is exciting to think that the legacy of these technologically advanced societies of the Upper Paleolithic might have had some

influence on the events that led eventually to the construction of Göbekli Tepe during the tenth millennium BC. It is a surmise strengthened in the knowledge that one of the *only* known uses of carved stone blocks prior to the Neolithic age was among the Solutrean cave artists of southwest Europe.

SOLUTREAN STONE FRIEZES

In the collapsed rock shelter of Roc-de-Sers, located in France's Poitou-Charente region, in the southwest of the country, archaeologists in the 1920s uncovered a series of huge limestone blocks, their front faces covered with deeply carved bas-reliefs of Ice Age animals and human forms. Ibexes, deer, bison, and boars are represented, as are reindeer and horses. All come together to form part of a multipiece rock frieze originally positioned in a semicircle on a natural ledge located at the rear of the shelter. In

addition to this, lumps of manganese used to create a black pigment for painting were also found at Roc-de-Sers, suggesting that its elaborate rock frieze was originally painted in some manner. This incredible stone art, thought to be around nineteen thousand years old, has been firmly identified as belonging to the Solutrean occupation of the shelter, even though it would not look out of place among the gothic architecture of Chartres Cathedral or Notre Dame de Paris (see figure 21.2).

Two more carved stone blocks were found at the Fourneau du Diable rock shelter in France's Dordogne region, and these have also been identified as belonging to the Solutrean tradition. In addition to this, archaeologists found within the Solutrean layers in the Cueva del Parpalló rock shelter, situated on the slopes of Montdúber Mountain in Valencia, Spain, literally thousands of painted stone slabs.

Figure 21.2. Carved stone block from the Roc-de-Sers shelter in France's Poitou-Charente region, showing a horse (on the left), and bull, its head recarved as a boar. Solutrean period, ca. 17,000 BC.

Although direct evidence of ritual activity, and even burials, is sadly lacking when it comes to the Solutreans, it is proposed that the "placement of engraved blocks at some sites, the accumulation of

painted slabs at Parpalló, and even the abundance of elaborate worked stone points at a number of sites all reflect some type of ceremonial or ritual activities."[13] In other words, the unique rock friezes found at Solutrean sites might well have had a magico-religious function similar to that of the decorated T-shaped pillars at Göbekli Tepe.

PURSUED BY A BULL

One block is of particular significance at Roc-de-Sers. It shows a human figure, a male it seems, with a pudding-basin haircut and slightly bent legs (see figure 21.3). He appears to be either baiting or escaping from a pursuer in the form of a huge musk ox, its three-dimensional head lowered in readiness to charge. The clear relationship between this human form and an aggressive bovine has led to comparisons with the Shaft Scene in the Lascaux Caves. This,

as we shall recall, shows a reclining birdman being confronted by a wounded bison.

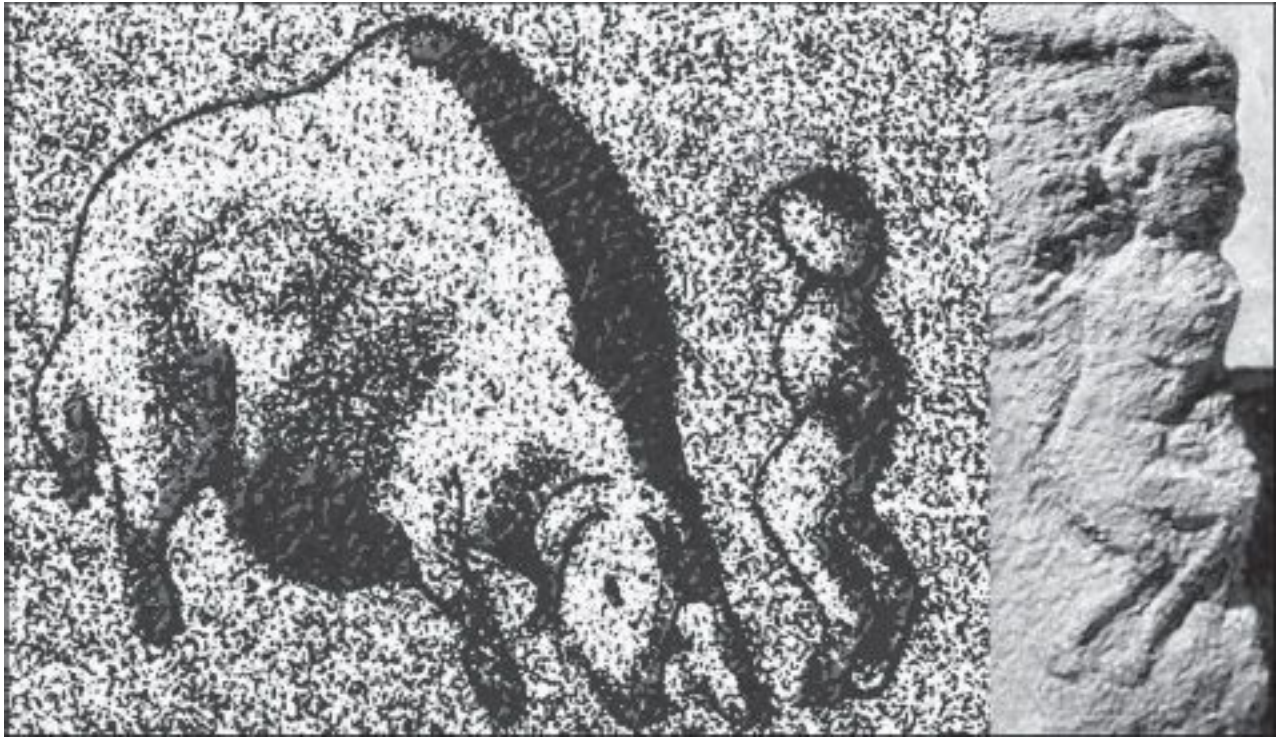

Figure 21.3. Left, drawing showing a musk ox pursuing a human figure from the rock frieze found at Roc-de-Sers. Right, the

aforementioned human figure as seen on the rock frieze. Solutrean period, ca. 17,000 BC.

Yet the connection with Lascaux goes deeper, for stylistic and dating evidence indicates that its famous Shaft Scene was executed not by Magdalenian cave artists, as most prehistorians assume, but by Solutreans who entered the well shaft as early as 16,500 BC.[14]

SOLUTREAN BIRD CULT?

More incredibly, the only other human figure depicted among the stone blocks forming the frieze at Roc-de-Sers appears to be wearing a bird mask. It is carved on the very same block as the aforementioned musk ox and figure with pudding-basin haircut. This mask-wearing figure, which also has slightly bent legs, might well have an erect phallus, like the birdman in Lascaux's Shaft

Scene (see figure 21.4 on p. 186 to judge for yourself). Clearly, bird totemism, perhaps involving ecstatic states and mask-wearing rituals, could have been important to the Solutrean peoples of southwest Europe.

This conclusion is strengthened by the presence in various caves decorated during the Solutrean period of a strange abstract symbol known as the aviform. This is a long, thick, horizontal line, with downward-turned lines at each end and a vertical extension, either up or down, at its center.

Aviform means "birdlike," and there is no denying the birdlike appearance of these devices, which are found so often that they might well be a sign of recognition among a particular Solutrean grouping or subculture. Yet if these *are* birds, then their downturned outer wings suggest they have adopted a gliding position, usually seen when birds are kept aloft by thermals generated by columns of warm air (see figure 21.5). It is a method of flight used particularly

by raptors, vultures, seagulls, and storks, as well as by smaller birds such as swallows and swifts. Thus the aviform could represent either astral flight or the soul of the shaman in the form of a bird.

THE SKY PEOPLE

Maybe it was believed that a mask-wearing shaman could project his or her soul into a soaring bird to observe the herd animals below, providing vital information in advance of the chase. In this manner, high-flying birds taking advantage of warm air thermals might themselves have been identified as shamans that had adopted an avian form. If correct, then with the existence of the birdmen at Lascaux and Roc-de-Sers, we could be looking at evidence among the Solutreans of a semiorganized cult of the bird, which might easily have become associated not just with the sky but also with an imagined sky pole linked to the cosmic axis, something that seems

depicted in the Lascaux Shaft Scene. Perhaps the Solutreans were the original sky people, with the aviform a visible sign of their sky-based religion.

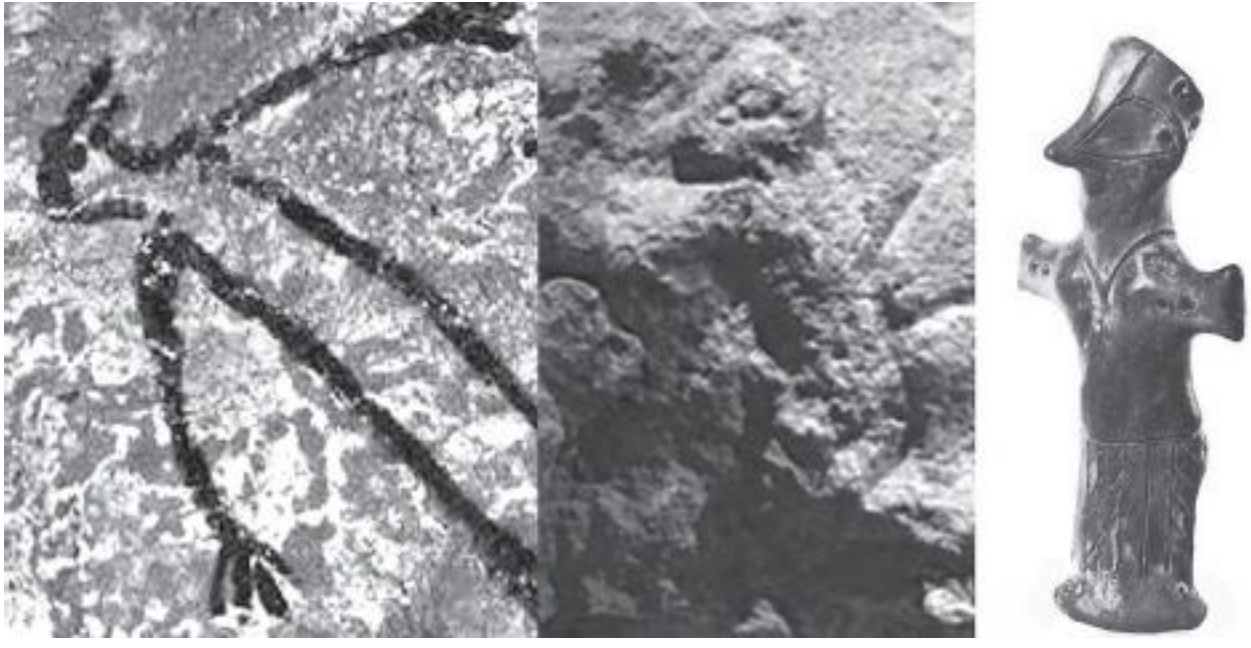

Figure 21.4. Comparison of different bird-headed figures: left, the birdman from the Lascaux Shaft Scene, Solutrean period, ca.

16,500–15,000 BC; center, birdman from the rock frieze at Roc-de-Sers, Solutrean period, ca. 17,000 BC; and, right, ceramic bird goddess from the Vinča culture of southeast Europe, ca. 5500–4500 BC.

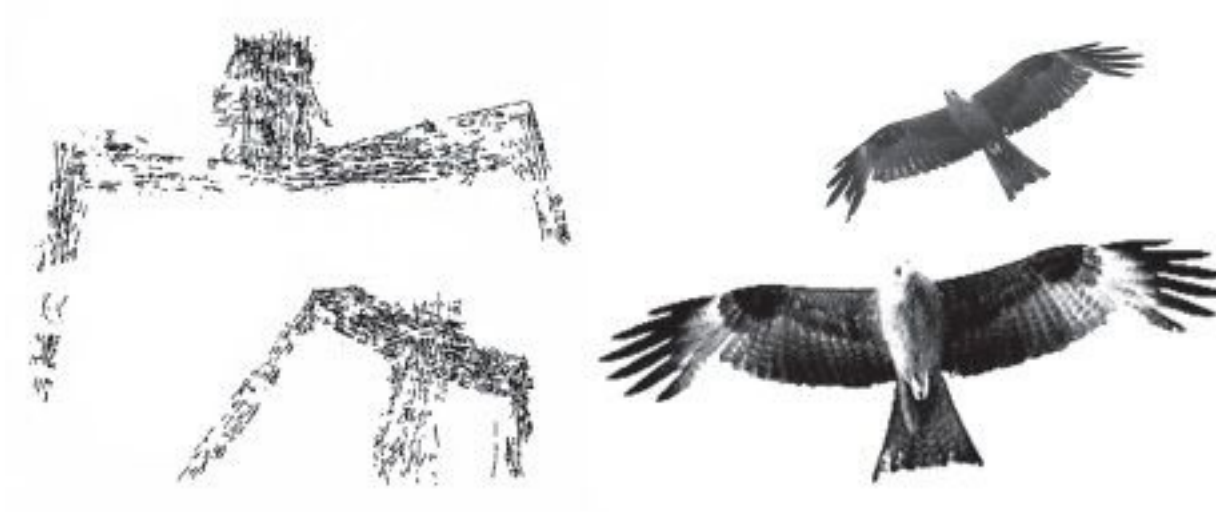

Figure 21.5. Left, two examples of Solutrean aviform signs from the Grotte du Placard rock shelter in France's Poitou-Charente region, ca. 18,000 BC, and, right, a silhouetted kite gliding in flight for

comparison.

That the Lascaux Shaft Scene might be the handiwork of Solutrean artists is incredibly important, for it could suggest they were carriers of the tradition that identified Cygnus as a celestial bird, with its bright star Deneb marking the entrance to a sky world reached through the Milky Way's Great Rift. Remember, Deneb occupied the position of Pole Star from ca. 16,500 BC to 14,500 BC, precisely when Solutrean cave artists created the Lascaux Shaft Scene.

Thus it becomes possible that Solutrean knowledge regarding the execution of stone friezes in cave sanctuaries, along with their profound understanding of cosmic geography, bird totemism, and avian shamanism, might well have found its way to southeast Anatolia via the Swiderians. This enabled much earlier traditions, which all had their roots in the Kostenki-Streletskaya culture of the Russian Plain, to flower once more with the construction of the

large sanctuaries at Göbekli Tepe, an event that undoubtedly helped catalyze not just the Neolithic revolution but also the rise of civilization.

SWANS AND WOLVES

Despite their compelling links to the Solutreans, the religious ideologies of the Swiderians have been more difficult to ascertain. The ancient rock art of the Russian Republic of Karelia, which borders Finland to the west, does, however, throw some light on the matter. Close to the shores of Lake Onega—where in 1936 a nine thousand-year-old cemetery was found and identified as belonging to the post-Swiderian Kunda culture—exposed rock surfaces are covered in carved petroglyphs, many of which belong to the Mesolithic age. Some show swans with exaggerated necks, like long poles. Others show swans sitting on top of poles that are being

climbed by a small human figure. As at Lascaux, the poles almost certainly symbolize axes mundi, while the human figures are perhaps the souls of shaman travelling between the physical world and sky world. This suggests that the Swiderians, like the Solutreans before them, saw birds, and swans in particular, as symbols of a sky world reached via the Cygnus constellation (a belief probably going back to a time when Cygnus marked the celestial pole, ca. 16,500–13,000 BC).

Interestingly, a large number of bird bones, including those of the swan, have been recovered from the Mesolithic cemetery of Oleni Ostrov (Reindeer Island) on Lake Onega. Their deliberate placement alongside human burials has been compared with the shamanic practices of the indigenous Sámi population, who utilize bird and animal bones in rituals and see the spirit of the bird as associated with otherworldly journeys.[15] Also, as we saw in chapter 10, the swan replaces the stork in the Baltic countries as the bringer

of newborn babies into the world, another intimation that the swan was associated with the soul's passage to and from the sky world.

Also of value is an examination of the beliefs and practices of those who much later occupied Swiderian territories in Central Europe. For instance, in the first millennium BC a collective of fierce tribal nations known as the Dacians, or Getae, inhabited the region between the Carpathian Mountains and the Black Sea, which was known as Dacia. They honored the "spirit wolf " and saw themselves as "wolf people."[16]

The Dacians venerated the wolf as "lord of the animals" and utilized its supernatural power against all they saw as evil, in which role it became their "guardian warrior."[17] In fact, the Dacians' bond with the lupine influence was so strong that they were apparently able to transform themselves into wolves to become werewolves, a connection with Romania and more specifically Transylvania and the Carpathian Mountains, all too familiar to Western popular

culture. According to the Romanian historian Mircea Eliade (1907–1986), the Dacians conducted carefully orchestrated rituals featuring wolf pelts and psychoactive mushrooms in order to undergo "a total psychological transformation into wolves," the origin most likely of lycanthropy, the belief that certain people can, quite literally, become wolves.[18]

Although the Dacians thrived a full nine thousand years *after* the Swiderians hunted the same territories, there is a distant echo of what could be a memory of a distant cataclysm in the Dacians' use of the Draco, or Drago, battle standard. Its description as a wolf 's head with the tail of a serpent and its proposed identification as a comet[19] are too close to the Fenris Wolf 's role in Ragnarök for this to be a simple coincidence. Were the Geto-Dacians unconsciously recalling the manner in which the world was brought to its knees by a comet likened to a heavenly wolf with a serpent's tail? If so, did they inherit these ideas from indigenous peoples whose own

ancestors inhabited the Carpathian Mountains as far back as Paleolithic times?

HUNTING WITH WOLVES

What we do know is that the Paleolithic hunters of Central and Eastern Europe actually began to work alongside wolves, training the animals to accompany them on hunting expeditions. Modern scholarship says that this act of cooperation between human and beast cannot be seen as simply a matter of taming friendly wolves to turn them into man's best friend. Instead, it should be viewed as the adoption of "a new technology," a new "weapon,"[20] which, like the bow and arrow, would have increased the efficiency of the hunter during the chase. Yet from this taming of the wolf the relationship between human and beast emerged, and there is evidence for this even among campsites belonging to the Swiderian hunters.[*921]

Perhaps the Swiderians thus felt it necessary to quite literally take on the mantle of the wolf to ensure both the success of the chase and the safety of the herd against predators. Then, when the comet terrorized the planet in the guise of a sky wolf or sky fox, they played an active part in attempting to counter the supernatural creature's baleful influence to prevent the sky pole from toppling and the world from coming to an end.

Might some memory of this supernatural sky creature have passed from the post-Swiderian cultures of northeast Europe into the myths and legends of their descendants in Scandinavia? Was a representation of this cosmic trickster, identified in Norse myth as the Fenris Wolf, carried aloft by the Geto-Dacians in the form of the Draco battle standard, and was it this knowledge that the Swiderians took with them all the way to Göbekli Tepe? If so, what motivated members of this Post-Solutrean culture to journey to such distant lands, and how exactly did they come to so strongly influence the

peoples of southeast Anatolia? The answer, as we see next, seems to be the exploitation of minerals, in particular obsidian.

22

OBSIDIAN OBSESSION

Not only were the Swiderians an advanced hunting society with a unique stone-tool technology, but they also established sophisticated mining operations, some of the only accepted examples anywhere in the world during the Paleolithic age. At various locations within the Świętokrzyskie (Holy Cross) Mountains of central Poland they extracted "exotic" forms of flint, as well as hematite, used as ochre. In addition to becoming efficient miners, the Swiderians established long-distance trading networks to export high-quality stone tools as well as the "pre-form" cores to make new ones. Yet in addition to flint and ochre, one other mineral coveted by the Swiderians was the

black volcanic glass known as obsidian.

Obsidian is a natural glass, usually black or gray, created when volcanic lava solidifies very quickly, without allowing any time for a crystalline matrix to form. Throughout the Middle and Upper Paleolithic ages, obsidian was a highly prized commodity all around the world. It was used by prehistoric cultures in Africa, Asia, the Americas, Australia, and Europe. The Solutreans also used obsidian to create their unique projectile points.[*101]

In Europe, there are only a handful of obsidian sources. Two can be found on small volcanic islands forming part of the Sicilian archipelago off the south coast of Italy. Another is located on a tiny island off the west coast of Italy, with a further source on the island of Sardinia. There is also an important ancient source on the Greek Cycladic island of Melos (or Milos), with another on the volcanic Greek island of Gyali, close to the southwest coast of Turkey.[*11] The only other sources in mainland Europe are located in the

Carpathian Mountains, the “land of obsidian,”[2] within the Tokaj and Zemplén Mountains, which straddle the border between, respectively, northeast Hungary and southeast Slovakia (see figure 22.1).[3†12]

Volga R.
Vistula R.
Carpathian 1
Zemplen Mts
Slovakia
Swiętokrzyskie Mountains
Carpathian 3
Vihorlat-Gutin Mts
Ukraine
Carpathian 2
Tokaj-Presov Mts
Hungary
Volga R.
Baksan, Northern
Caucasus
Caspian
Sea
CRIMEA
Danube R.
Black Sea
Gobustan
Various Sites,
Southern
Caucasus
Palmarola
Monti Arci, Sardinia
Bingol Dag
Suphan Dag
Nemrut Dag
L. Urmia
L. Van
Isola Lipari
Acigöl
Zawi Chemi Shanidar
Nenezi Dag
ZAGROS MTS
Zarzi Cave
Hasan Dag
Gollu Dag
Göbekli Tepe
Pantelleria
Franchthi Cave
Gyali
Melos
Mediterranean Sea

Figure 22.1. Map of obsidian sources in Europe and southwest Asia, along with sites mentioned in connection with the distribution of obsidian in the same regions.

THE FRANCHTHI CAVE

The obsidian trade was big business in the Upper Paleolithic, with examples from the island of Melos reaching an occupational site known as the Franchthi Cave in the Greek Peloponnese around 13,000 BC.[4] This tells us that even at this early age, obsidian was being transported across the Aegean Sea from Melos to the Greek mainland, a minimum distance of 62 miles (100 kilometers).

Maritime trading on this scale can only have come under the control of an elite group, most probably a band of complex hunter-gatherers exporting obsidian across vast distances, initially by sea, and then by land. Professor Catherine Perlès, a prehistorian with the

University of Paris, argues that the Melos obsidian trade was in the hands of "specialists," who had the ability to navigate a familiar sea route and knew exactly where to find the raw material on the island.[5]

Melos obsidian might well have been transported as far as the Balkans in Neolithic times,[6] confirming its incredible importance throughout Europe. For the Swiderians too it would seem to have held a special place in their stone kit. One survey of exotic materials found at late Paleolithic sites in the Carpathians showed that out of twenty Swiderian centers examined, *all* contained items made of obsidian.[7] The only other contemporary Carpathian people that would seem to have taken a noticeable fancy to obsidian were the Swiderians' neighbors in Hungary, the Epigravettians (i.e., late Gravettians), with a large number of items made from the volcanic glass being found in their settlement sites as well.[8]

LETHAL WEAPON

The Swiderians used obsidian to create super-sharp tanged points, such as the one found at a site in Wolodz, Subcarpathia, Poland.[9] Being fashioned out of obsidian would have made these arrowheads among the most lethal weapons in the world. So sharp is obsidian that surgeons today use scalpel blades tipped with the black volcanic glass to make near-perfect incisions during operations.

Experts in Stone Age tool production often cite the story of Don Crabtree, one of the people responsible for the rebirth of stone knapping in the 1960s and 1970s.[10] He apparently insisted that during an operation surgeons use obsidian blades that he himself had made. Incredibly, obsidian slices through tissue with such efficiency that it enables healing to take place easily. Metal blades, in contrast, make micro-rips in body tissue that can take much longer to heal.

CROW-FLINT FIRE

It might not have been just the sharpness of obsidian that appealed to the Swiderians, or indeed their neighbors, the Epigravettians. We cannot say exactly how the peoples of the Upper Paleolithic viewed obsidian on a subtle level, but the fact that it was found on the slopes of volcanoes, some of which might still have been active, tells us that it could have been associated with the element of fire.

Indeed, Hungarians living in the Carpathian Basin would use obsidian—picked up at prehistoric settlement sites—to kindle fire. They referred to it as *varjúkova,* "crow-flint,"[11] as well as *isten nyila,* "thunder bolts" (or "godly arrowheads"),[12] associating it with the god of thunder and lightning. They even described obsidian as *lebkövek,* "meteorite-like stones," in the belief that these shiny gray or black pieces of rock came from the sky.[13]

OBSIDIAN RELIGION

In Mesoamerican tradition obsidian was said to be blood that had congealed and gone black. Both the Aztecs and Maya used obsidian to create sacrificial knives, as well as blades and implements for autosacrifice; that is, bloodletting through self-inflicted incisions.

Scottish folklorist Lewis Spence (1874–1955) wrote in *The Magic and Mysteries of Mexico* (1922) that the Mesoamerican fixation with obsidian—what he called the "obsidian religion"—emerged from an epoch of human history when prehistoric hunters used obsidian weapons to hunt deer:

> The deer was slain by the obsidian weapon, which, therefore, came to be regarded as the magical weapon, that by which food was procured [by the prehistoric hunters of Mexico]. In the course of time it assumed a sacred significance, the hunting-gods themselves came to wield it, and it [obsidian] was thought

of as coming from the stars or the heavens where the gods dwelt.[14]

Even though Mexico lies thousands of miles away from the Carpathian Mountains, can we envisage the existence of similar beliefs in the magical potency of obsidian among the Upper Paleolithic peoples of Central and Eastern Europe? Did the Swiderians see obsidian as a magical weapon, linked integrally with their role as reindeer hunters?

THE SEARCH FOR NEW SOURCES

In all likelihood, the Swiderians' fascination with obsidian could suggest they had some kind of control over its collection and distribution in the Carpathian Mountains, the "land of obsidian," prior to any kind of forced migration to north and northeast Europe

caused either by the Younger Dryas Boundary impact event, ca. 10,900 BC, or the thirteen-hundred-year mini ice age that followed it. Not only was obsidian to be found in the Caucasus Mountains, which the Swiderians reached as early as the eleventh millennium BC, but as we see next, it was the sources in and around the Armenian Highlands that become crucial to making the connection between the Swiderians and the power elite thought to be behind the construction of Göbekli Tepe.

23

THE BINGÖL MASTERS

In 2008 it was determined that obsidian tools found at Göbekli Tepe derive from three primary sources—one of them being Göllü Dağ in central Anatolia, where there are several major sources of obsidian, with the other two coming from locations near Bingöl Mountain.[1] This is a north-south aligned massif with twin peaks located some 30 miles (50 kilometers) south of the city of Erzurum in the Armenian Highlands of eastern Anatolia.

A separate survey completed in 2012 determined that another source of the raw material used to fashion many of the obsidian tools and blades found at Göbekli Tepe was Nemrut Dağ, an extinct

volcano close to Lake Van, Turkey's largest inland sea, which lies to the southeast of the Armenian Highlands.[2] This latest discovery has led to speculation that Göbekli Tepe might have been a cosmopolitan center, a kind of Neolithic Mecca or Jerusalem for people coming from central Anatolia, some 280 miles (450 kilometers) away, and from the Bingöl/Lake Van area, which lies around 200 miles (320 kilometers) to the northeast.[3]

Supporting evidence for the cosmopolitan center theory includes the countless flint tools found scattered about Göbekli Tepe's artificial mound, which are hardly likely to have been dropped by the builders. They are everywhere; you cannot help but tread on them. The sheer quantity suggests they are offerings left by visitors across an extended period of time.

Clearly, Göbekli Tepe *was* a center of pilgrimage. However, the presence here of obsidian tools from central Anatolia and the Bingöl/Lake Van area might well have other implications. As we

have seen in Mexico, Central Europe, and Greece, obsidian was a prestige item, one endowed with great magical properties, including the ability to produce fire. Its presence at Göbekli Tepe tells us two things: first, that it might have been employed in rituals due to its special qualities, and, second, there must have been lines of communication between Göbekli Tepe and the obsidian sources in the Bingöl/Lake Van area. This connection with Bingöl Mountain in particular was most obviously through proto-Neolithic centers such as Hallan Çemi in the foothills of the eastern Taurus Mountains, which dates to ca. 10,250–9600 BC, and Çayönü, ca. 8650–7350 BC, both of which acted as clearinghouses for obsidian reaching southeast Anatolia from the Armenian Highlands.

THE EMERGENCE OF HALLAN ÇEMI

Hallan Çemi exhibited a level of cultural sophistication that easily

matched anything going on in the Levant at this time. Although the people here were hunters and foragers, eating wild game (mostly sheep, goats, red deer, foxes, and turtles), they would appear to have domesticated the pig, the earliest evidence of this form of animal husbandry anywhere in the world.

The discovery of a substantial number of stone querns, used to grind seeds, has led some prehistorians to suggest that the inhabitants of Hallan Çemi were engaged in protoagriculture, or certainly the exploitation of wild cereals. However, very few cereal seeds have been found at the site, casting doubts on this theory. In fact, all the indications are that the main food here, in addition to game meat, consisted of wild lentils, bitter vetch (a type of pea), and nuts. These included pistachios and wild almonds, which had first to be roasted before consumption to remove their toxicity. Evidence of pistachio and almond consumption has also been found at Göbekli Tepe.

Excavators at Hallan Çemi worked frantically to explore the site from 1991 to 1994 in advance of its disappearance beneath the rising waters of the nearby Batman River, following the construction of a nearby dam. Before its final submergence they were able to uncover two semisubterranean, circular structures of great significance. Each one was around 20 feet (6 meters) in diameter, with walls faced with sandstone ashlars, as well as stone benches, plastered floors, and central hearths. Archaeologists found inside them a large number of prestige items, including pieces of copper ore and obsidian tools, along with evidence of food preparation, most likely for ceremonial feasts cooked on the hearths.

One of the structures contained a massive auroch's skull, which had hung at its northern end, indicating that the building was almost certainly used for cultic purposes. The discovery of this bucranium supports the theory that the north was the preferred direction of orientation of proto-Neolithic cult buildings even before the

construction of much more complex structures at both Göbekli Tepe and Çayönü.

Indeed, there is a good case for Hallan Çemi having some direct bearing on what came later at Göbekli Tepe, as does the basic design and carved art of other cult centers in the region, such as Jerf el-Ahmar in North Syria and Qermez Dere in the Jezirah Desert of northern Iraq (see chapter 1).

Hallan Çemi, where almost half the stone tools found were made of obsidian, is 75 miles (120 kilometers) south-southwest of Bingöl Mountain and just under 140 miles (225 kilometers) away from Göbekli Tepe. To date, Hallan Çemi is the closest known proto-Neolithic site to Bingöl, and the sheer amount of obsidian found here has prompted prehistorians to suggest that trade networks must have existed across the region. If so, then Hallan Çemi was very likely a main distribution center, the raw obsidian arriving here from workshops much closer to the mountain.

EUROPEAN TAKEOVER

These realizations take us into interesting territories, for if the trade in obsidian was indeed regulated by some kind of elite group, is it possible that Swiderian peoples entered eastern Anatolia from the north during the Younger Dryas period and assumed control of the regional obsidian trade, introducing new forms of tool manufacture, such as the pressure flaking technique? Curiously, this is the exact same time that the local culture, the Zarzian, vanish from the scene, having thrived in the region for as much as nine thousand years.

The Zarzians are a very compelling group. Not only were they the founders of Hallan Çemi, but evidence suggests they also domesticated dogs.[4] In addition to this, they were one of the first cultures in the Middle East to employ the use of bows and arrows, which they utilized to hunt red deer, onager (or wild ass), cattle, sheep, and wild goats. They kept on the move, living mainly in temporary campsites, and most important of all, they had access to

major obsidian sources in the Armenian Highlands.

Obsidian from the Bingöl sources has been found at various Zarzian camps as far south as the Zagros Mountains, including the cave of Zarzi (the culture's type site), near Sulaymaniah in Iraqi Kurdistan, and the Zawi Chemi Shanidar settlement site, which overlooks the Greater Zab River in northern Iraq. It was here during the 1950s that American archaeologists Ralph and Rose Solecki discovered the wings of seventeen large predatory birds, mostly vultures, along with the skulls of at least fifteen goats and wild sheep (see chapter 9). Although this ritual deposit is assigned to the proto-Neolithic community that occupied the site, chances are it represents a continuation of beliefs and practices that had been prevalent among the Zarzian peoples, whose legacy lived on among the proto-Neolithic populations of southeast Anatolia and northern Iraq. In other words, the Zarzians were most likely carriers of the tradition that included the utilization of the vulture in shamanic

practices, something that later appears at cult centers such as Göbekli Tepe and Nevalı Çori. This is despite the fact that the Swiderians held specific knowledge regarding bird-and canine-related shamanism derived, at least in part, from both their suspected Solutrean background *and* their likely contact with the descendants of the Kostenki-Streletskaya culture of the Russian steppes and plain, whom they would have encountered on their journey to eastern Anatolia. Yet their beliefs and practices do not appear to have included the use of the vulture as a primary symbol of birth, death, and rebirth. That seems to have come from the Zarzian peoples, who occupied the region before their arrival.

As to their origin, British archaeologist James Mellaart felt that the Zarzians had started their journey on the Russian steppes, then moved gradually southward into the Caucasian Mountains and Armenian Highlands, before eventually reaching the Zagros Mountains of northern Iraq and northwest Iran.[5] Yet this was a

migration that had started as early as 19,000 BC, as much as nine thousand years before the Swiderians would appear to have traveled exactly the same route to reach eastern Anatolia during the Younger Dryas period.

So did the Swiderian hunters overrun Zarzian camps, decimating the inhabitants? Certainly, there is compelling evidence that some kind of power struggle occurred around this time in the Zarzian territories of Gobustan in Azerbaijan, right where the eastern termination of the Caucasus Mountains meets the Caspian Sea.

THE GOBUSTAN WARRIORS

Rock art in the Gobustan (or Kobystan) National Park, located 40 miles (64 kilometers) southwest of the Azerbaijani capital of Baku, shows warriors with bows and arrows slung across their backs (see figure 23.1). Some figures appear to be wearing fringed waistbands

and even animal loincloths with the tails hanging between their legs, similar to those seen on the anthropomorphic twin pillars in Göbekli Tepe’s Enclosure D.

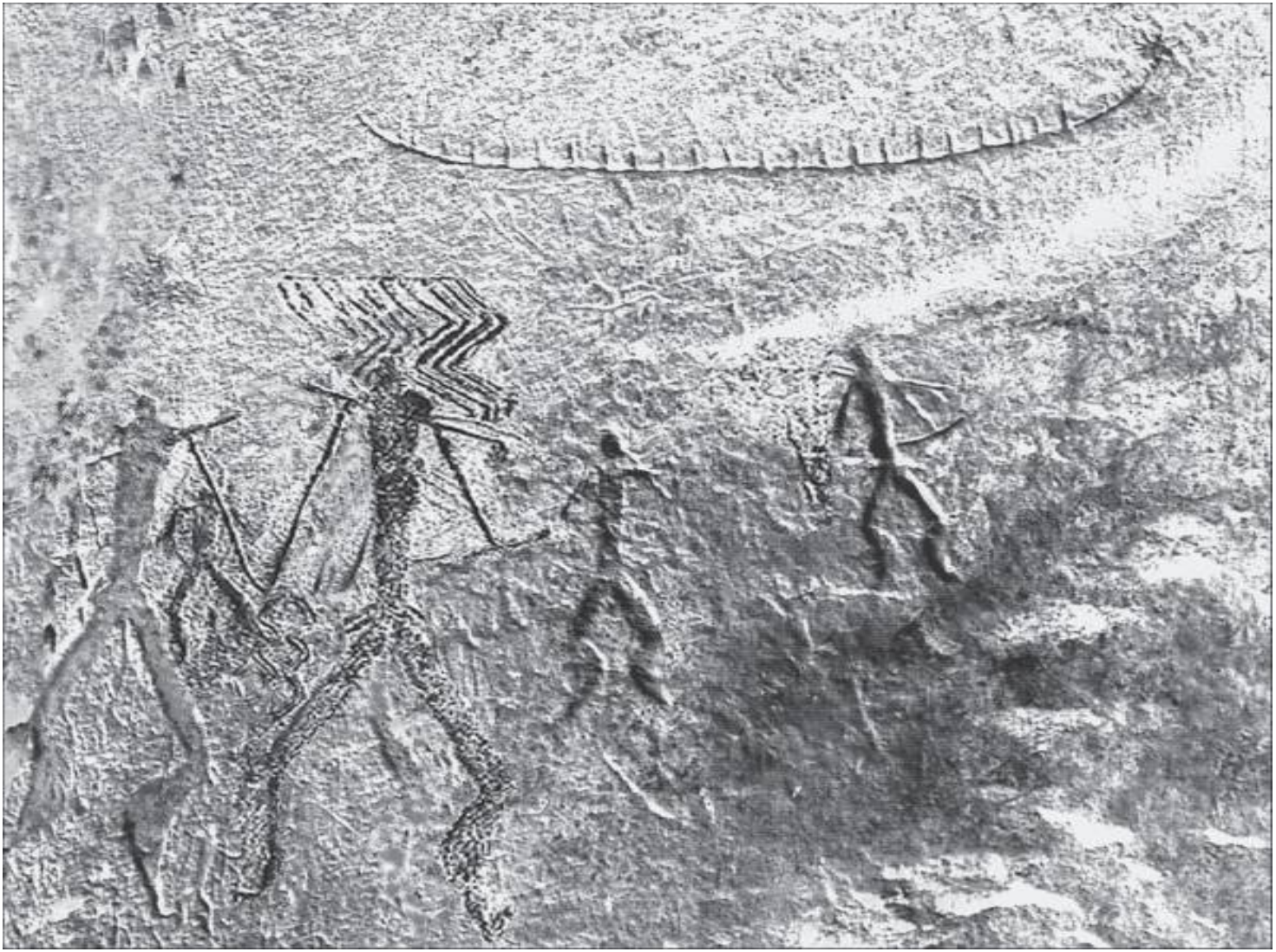

Figure 23.1. Rock art from Gobustan, Azerbaijan, close to the west coast of the Caspian Sea, showing warriors wielding bows and arrows. Mesolithic period, ca. eleventh to tenth millennium BC. The boat in the upper register is thought to have been added at a later date.

The lifelike manner in which the warriors are drawn, with smaller figures behind them, gives the impression of arrival—as if they are arriving from somewhere else in the ancient world. This seems emphasized by the fact that in the background of some of the engraved panels are high-prowed boats of a type common to the Neolithic rock art of Egypt's Eastern Desert and the Bronze Age rock art of Scandinavia. So much do these vessels resemble those of later cultures that prehistorians suggest that, whereas the Gobustan warriors are "early Mesolithic age at the latest,"[6] thus ca. 9600–9000 BC, the vessels were added later, most probably during the

Bronze Age.

Mary Settegast, the author of *Plato Prehistorian,* argues that the Gobustan rock art shows the arrival of incoming warriors, most likely bow-and-arrow-wielding reindeer hunters from Europe.[7] So are we looking at Swiderians seizing control of Zarzian territories? Whoever these warriors represent, their presence would not seem to have been greeted cordially, for some of the engraved panels show open conflict between two separate groups of individuals.

Even if the Gobustan rock art does show Swiderian hunters coming up against their Zarzian counterparts, there is no reason to assume that one decimated the other. Perhaps after some initial skirmishes, the two factions came to some kind of understanding regarding the exploitation of the region's rich mineral resources, including the all-important obsidian. In doing so, it is possible that the Zarzians amalgamated with the incoming European hunters to become the driving force behind the emergence of the proto-

Neolithic world at key settlements like Hallan Çemi in the Eastern Taurus Mountains. As mentioned earlier, Hallan Çemi acted as a workshop and clearinghouse for obsidian coming from Bingöl Mountain and Lake Van, and so its Zarzian vulture shamans might well have had some hand in the rise of early Neolithic cult centers in the *triangle d'or* such as Göbekli Tepe, Çayönü, and Nevalı Çori.

DISTANT COUSINS

If the Zarzians did come originally from the Russian steppes, as James Mellaart suspected, sometime around ca. 19,000 BC, the chances are they were related to the highly advanced Kostenki-Streletskaya culture, which disappears around exactly the same time. So if the Solutreans and their proposed successors, the Swiderians, really were related to the Kostenki-Streletskaya culture (as was proposed by V. Gordon Childe, see chapter 21), then it

means that the Zarzians were in fact distant cousins of the Swiderians, a factor that might just have allowed them to find some common ground. Both used bows and arrows, and both might well have domesticated dogs and/or wolves, while the Kostenki-Streletskaya culture is thought to have held a special interest in the fox, one of the primary totemic animals seen at Göbekli Tepe.

For example, a male burial uncovered at Sungir in Russia in 1956 (designated Sungir 1) had a number of perforated arctic fox teeth on his cranium when uncovered, suggesting they were sewn into a cap of some sort. Another burial of a boy aged around thirteen (Sungir 2), interred in a shallow grave head-to-head with an adolescent female (Sungir 3), was found to have around 250 drilled arctic fox teeth around his waist. These probably came from a decorated belt, similar to those seen on the central pillars in Göbekli Tepe's Enclosure D.

Burials at Kostenki itself have also been found to contain unusual

amounts of teeth and bones of the arctic fox. This includes the 150 fox teeth found wrapped around the head of a child, aged about six to seven years old, uncovered at a site known as Kostenki 15. Covering the burial was a huge mammoth scapula (shoulder blade), a feature common also among the contemporary, and unquestionably related, Pavlovian culture of Moravia. Today Moravia is part of the Czech Republic, which includes the sites of Brünn (modern Brno) and PÅ™edmost, where evidence of the Brünn-type human population was reported in the nineteenth century.

Among the Pavlovians—their name deriving from Pavlov, a village situated in the Pavlov Hills, around 22 miles (35 kilometers) from the city of Brno—the arctic fox also features heavily among burials. At a site named Dolní VÄ›stonice one child burial contained twenty-seven arctic fox teeth, while a triple burial made up of two men, with a woman in between them, revealed that both

males had been wearing headdresses of arctic fox teeth when interred. Within the mass grave uncovered at PÅ™edmost in 1894 (see chapter 20), excavators came across large amounts of wolf and fox remains, which seemed to line the perimeter of the pit. Among the remains were a number of unperforated arctic fox canines as well as various wolf skulls. Most pertinently, a woman, aged around forty, discovered at Dolní VÄ›stonice site 1, and known popularly as “the shamaness,” was found to be holding five unperforated fox incisors in her right hand and various fox bones in her left hand.

Although the use of wolf and arctic fox remains as items of personal adornment among the Eastern Gravettians, ca. thirty-two thousand to twenty-one thousand years ago, might easily be attributed to the large-scale capture of these carnivores for their meat and pelts, the presence in the graves of unperforated fox teeth hints at the importance of this animal on a cosmological level. Arguably the arctic fox, and the wolf also, was seen as an

otherworldly creature that needed to be appeased by the newly dead on their journey into the afterlife. Such ideas, if realistic, might easily have been inherited by the descendants of the Eastern Gravettians, including the Swiderians, who came to occupy the same territories during the Younger Dryas period.

Should this quite fantastic scenario prove realistic, then it seems likely that incoming Swiderian groups entered eastern Anatolia and assumed control of the obsidian trade, giving them direct access to settlement sites not just in the Eastern Taurus range and Zagros Mountains, but also in southeast Anatolia, much closer to Göbekli Tepe. Now they were in a position to introduce their own religious ideologies to the local inhabitants, which would seem to have included new ways to counter the baleful actions of the cosmic trickster in its guise as the sky wolf or sky fox.

Because the center of the Armenian obsidian trade was Bingöl Mountain, there is every chance that this is one of the locations the

Swiderian hunters settled so that they could exploit their newly acquired sources of exotic materials, including the all-important obsidian find sites. If this is correct, then we should find evidence of their presence in this region, and this, as we see next, is exactly what we do find.

24

WOLF STONE MOUNTAIN

In the religion of Zoroastrianism, a native form of which flourished in historical Armenia before the spread of Christianity in the fourth century, the wolf was an animal of Ahriman, the evil principle, who engages in a constant struggle with Ohrmazd (also known as Ahura Mazda), the creator of the universe. The Bundahishn, one of the holy books of the Zoroastrian faith, speaks of how Ahriman planned to create the wolf species as "disembodied, unseen evil spirits." Yet Ohrmazd got wind of Ahriman's plan and created the wolf himself, along with the elephant and the lion, which were all made creatures of the evil principle.

Ormuzd showed what he had done to Ahriman, who being pleased, "attached the evil spirits to these forms saying, 'Ohrmazd did what I was going to do.'"[1] Elsewhere, Ahriman is cited as the progenitor of the "wolf species," the leader of whom is the lion,[2] a predator interchangeable with the wolf in the Zoroastrian tradition.

There is a reason for citing these facts, for in historical Armenia, the region we know today as eastern Turkey (the modern Republic of Armenia lies immediately north of here), there once existed a mountain called Gaylaxaz-ut, which means "abounding in *gaylaxaz,*" or "wolf 's stone" (from *gayl,* "wolf ").[3] Usually this refers to flint, the principal material used during the Stone Age to make tools and weapons. Yet *gaylaxaz* can also mean obsidian,[4] even though in Armenian tradition this black volcanic glass is known also as *satani elung,* "Satan's nail,"[5] or perhaps "Satan's claw."[*13]

SERVANTS OF SATAN

Previously, Gaylaxaz-ut had been called Paxray,[6] which in the Armenian language means "hind, deer, stag,"[7] with the deer being a creature synonymous in local folk tradition with both Satan and the wolf.[8] Aristakes Lastivertc'i, an eleventh-century Armenian cleric and historian, relates an archaic story that speaks of how on this mountain a "village" was established named Xač (pronounced something like "hack"), which means "holy cross." This was destroyed, he said, by the "servants of the Satan,"[9] who afterward returned "to their snake-dwelling lairs,"[10] located elsewhere on the mountain.

Trying to get to the bottom of this strange story, Armenian linguist Hrach K. Martirosyan wondered whether the mountain Gaylaxaz-ut might be Baghir Dağ,[11] a peak at the end of a mountain chain to the west of Bingöl Mountain. On its eastern side is the

ominously named Shaitan Dağ, “Satan’s Mountain,” leading Martirosyan to ask:

> Bearing in mind that the mountain of Paxray = Gaylaxaz-ut is said to be dwelled by “servants of the Satan” [in “snake-dwelling lairs”], one may assume that the “devilish fame/nature” of the mountain is conditioned by the abundance of *gaylaxaz*-stones as is seen in the name of the mountain and is also reflected in its earlier name Paxray, if this indeed is identic with *paxray* “hind, deer.”[12]

In other words, the name Gaylaxaz-ut alludes, most probably, to a mountain where “*gaylaxaz*-stones,” that is, flint or obsidian, is found, and that the “servants of the Satan” are in fact reflections of the mountain’s inhabitants. Although Martirosyan identifies this location with Baghir Dağ,[13] there are no notable flint or obsidian sources nearby. More likely is that Gaylaxaz-ut, which quite

literally means Wolf Stone Mountain, is Bingöl Mountain, around 45 miles (72 kilometers) east of Shaitan Dağ. This, as we saw in chapter 23, has been the region's primary source of obsidian since Paleolithic times.

Confirmation that Gaylaxaz-ut is Bingöl Mountain comes from its earlier name of Paxray, recorded also as Paxir, Parxar, and Parxaray.[14] According to the Roman naturalist and philosopher Pliny the Elder (AD 23–79), the beginning of the Euphrates on Monte Aba (an ancient name for Bingöl Mountain) was called the Pyxirates,[15] which almost certainly derives from the same root as Paxray, suggesting that Bingöl Mountain really is Gaylaxaz-ut, Wolf Stone Mountain.

That obsidian was known in Armenia as wolf's stone implies, quite clearly, that the creature was associated in some manner with this black volcanic glass. Might the wolves not have been animals originally, but groups or individuals who identified themselves with

the wolf and prized this black volcanic glass? Did the memory of these "wolves" degenerate over time until they became nothing more than the "servants of the Satan," minions of the Zoroastrian evil principle Ahriman, who lived in "snake-dwelling lairs" on Wolf Stone Mountain?

LAND OF THE PERI

That mythical beings associated both with obsidian and the wolf might once have inhabited the region is affirmed by the fact that one of the rivers that takes its rise on Bingöl Mountain is the Peri Şu, which means "river of the Peri," with Peri being "one of a large group of beautiful, fairy-like beings of Persian mythology."[16] Peri Şu is the river's name in the local Kurdish language, although to the region's Armenian population it is the Gail, or Kyle, from *gayl,* meaning "wolf."[17] Linking the wolf still further with Bingöl is a

narrow gorge through which the fledgling river passes after leaving the mountain, which is called in Turkish Kurt-Duzi, meaning "wolf (*kurt*) plain (*duzi*)."[18]

So how then did a river named Gail, or wolf, come to be called Peri Şu by the region's Kurdish inhabitants, and did this information have any obvious bearing on Bingöl's long association with obsidian?

Kurdish folklore asserts that the mountains and valleys around the Peri Şu were once the haunt of the Peri, the offspring of fallen angels in Persian myth and legend. They are said to have been tall, strong, beautiful, "super human beings that could cohabit with mortal kind."[*1419] It was even believed that certain communities of Kurds, particularly those that included pale-looking females, were the descendants of Peri that had mated with mortal kind. [20] According to a Kurd who was born and raised in a rural village close to the obsidian route between Bingöl and Diyarbakır, the Peri

were linked to the local obsidian trade in stories once told by the most elderly members of the community.[21] How exactly, unfortunately, has now been lost.

Yet the fact that the Peri Şu, or Gail River, rises on Bingöl Mountain links these various traditions with mythical individuals who might well have been identified not only with the Peri of Kurdish folklore, but also with both the wolf and obsidian. It is even possible that we have here a dim recollection of the arrival in the region of Swiderian peoples from central and eastern Europe.

If all this is correct, then how would these European hunters, whose totem animals included the wolf and reindeer, convince the indigenous peoples of southeast Anatolia to embark on the construction of monumental architecture unlike anything ever seen before in the ancient world? It is time now to examine just how exactly the hunting magic of the Swiderians might have gone on to influence the strange world that emerged at Göbekli Tepe in the

aftermath of the Younger Dryas mini ice age ca. 9600–9500 BC.

25

SAVIORS OF THE WORLD

Polish anthropologist Maria Czaplicka (1884–1921) made a study of the Koryak reindeer herders of Siberia's Kamchatka Krai, which is in the extreme northeast of Russia (a krai is a federal subject, or political division, of Russia). One ceremony she recorded involved the slaughter of a wolf and then the killing of a reindeer. The latter was decapitated, and its head and body placed alongside that of the slain wolf on a raised platform. The rite was a sacrifice to Gicholan, "The-One-on-High," the Koryak supreme being, upon whom they called to prevent the wolf from attacking the herd. A feast was afterward prepared and eaten, at which "the wolf is fed"; that is, its

spirit was appeased. Czaplicka goes on:

> The night is spent without sleep, in beating the drum, and dancing to entertain the wolf, lest his relatives come and take revenge. Beating the drum and addressing themselves to the wolf, the people say, "Be well! (Nimeleu jatvanvota!)," and addressing The-One-on-High, they say, "Be good, do not make the wolf bad!"[1]

Yet in answer as to whether this ritual was done to ward off wolves, the Koryak insisted that the animal was not dangerous in its visible state, especially as the northern wolf generally avoids human contact. Czaplicka said it was dangerous only in its "invisible, anthropomorphic form"; that is, as a werewolf, a half-human, half-wolf. With this in mind, she noted that in Koryak tradition:

> The wolf is a rich reindeer-owner and the powerful master of

> the tundra . . . [and] avenges [himself] particularly on those that hunt [wolves]. The Reindeer Koryak, who have special reason to fear the wolf on account of their herds, regard this animal as a powerful shaman and an evil spirit.[2]

Thus for the Koryak the wolf was both a "powerful shaman and an evil spirit," a force to be reckoned with on a supernatural level.

WOLF-STICK FESTIVAL

In another ritual celebration practiced by the Koryak, called the Wolf-stick Festival (Elhogi Çayönüin), a wolf was killed, skinned, and decapitated. Moving across to a hearth the participants would then place a pointed stick in the ground, to which they would tie an arrow. Alternatively, the arrow was driven into the earth, with its point sticking upward. A man would then adorn himself in the wolf

’s skin and walk in circles around the hearth to the beat of a drum played by someone standing nearby. When questioned as to why they conducted this ritual, the Koryak would simply shrug their shoulders and say: “Our forefathers did [it] this way.”[3]

THE SHAMAN’S POLE

Czaplicka was mystified as to why during the Wolf-stick Festival the Koryak stuck a stick in the ground with an arrow tied to it or used an arrow instead. Yet an explanation is actually quite simple, for it cannot be coincidence that shamanistic practices in Siberia, and many other parts of the world, involve the erection of a stick or pole that represents the axis mundi, the axis of the earth.

The shaman’s pole, which can even be the central support of a skin-covered tent, then becomes the means by which the shaman gains entry to the sky world, either by ascending it in astral form

and/or by actually *climbing* the pole, like some weird circus act in a big top. As Czaplicka herself pointed out in connection with the cosmological views of the Chukchi, a Siberian tribe whose territories border those of the Koryak:

> A hole, under the pole-star, forms a passage from one world to the other, and through this hole shamans and spirits pass from one to another of the worlds.[4]

Such beliefs and practices are likely to have existed in Paleolithic times, and if this is correct, then there is no reason they cannot have survived into the modern era in remote parts of Siberia. The existence of rituals such as the Wolf-stick Festival of the Koryak demonstrates the absolute necessity of a tribal group in countering the malefic intentions of their enemies; not here, but in the spirit world, where they can be confronted head-on by the shaman, who might well take on the mantle of the wolf to deal directly with a

feared and respected rival or enemy.

OCCULT BATTLE

These are psychological processes most assuredly, but it is as well to recall that during the Second World War British witches and occultists—most famously Dion Fortune (1890–1946), who lived at Glastonbury at the time—became entangled in what they saw as a magical battle of life and death in order to counteract the threat of Nazi Germany to British freedom. Those taking part conducted regular rituals, meditations, and psychic battles to ensure an Allied victory. These individuals believed that what they were doing was very real indeed, and no amount of skepticism would have convinced them otherwise. It is extremely likely that something similar was going on in the aftermath of the Younger Dryas Boundary impact event involving European reindeer hunters and

wolf shamans countering the baleful influence of the cosmic trickster in the form of the wolf or fox.

Did the Paleolithic peoples eventually claim victory over the forces of the sky wolf, or sky fox, in a manner echoed in the outcome of the Scandinavian account of Ragnarök, the Twilight of the Gods? Did their claims, handed down from one generation to the next, have any bearing on the story of how the god Tíw, or Tyr, sacrificed his right arm in order that the Fenris Wolf might be bound forever, saving the lives not just of the remaining Æsir, or Asa gods, but also the fledgling strains of humanity? Remember, this was seen as a compassionate act of self-sacrifice that gained Tíw the epithet "leavings of the wolf."

Not only was Tíw considered a divine protector of the North Star or celestial pole, but his symbol, the T-rune Tiwaz, is the outline of an arrow, and, as we saw in chapter 16, a representation of the "vault of heaven held up by the universal column,"[5] as well as the

Irminsul, or "world-column of the Saxons that terminates in the pole star."[6] The symbolism is thus the same as the arrow and pole used in the Koryak Wolf-stick Festival, with all of it being done to counter the trickster wolf and ensure the future stability of the world.

STRANGE CUSTOMS OF THE SÁMI

Further evidence of this surmise comes from the Sámi, the shamanic-based tribal culture and, until fairly recently, reindeer herders who have existed in Finland, northern Scandinavia, and the Kola Peninsula of Russia since Mesolithic times (see figure 25.1 on p. 211). According to noted Swedish ethnologist Uno Harva (1882–1949), the Sámi practiced a "strange custom" whereby they made sacrifices to a sky god "so the sky or the world would not fall down."[7] For this they erected a forked tree, or tall pole, on the top of

which they placed an iron nail, symbolizing the "world pillar," next to which an altar was created so that the god "could support and keep the world, that it would not grow old and fall from its former position."[8] Harva compared the Sámi's sky pole with the Irminsul of the Saxons, linking it back to the Tiwaz rune, which was known both to the Scandinavians and the Germanic peoples.[9]

According to an eighteenth-century missionary named Jens Kildal (1683–1767), the Norwegian Sámi believed in a high god called Maylmen Radien, in whose honor a world pillar or axis mundi called Maylmen Stytto was erected and "smeared with the blood of a sacrificial reindeer oxen."[10]

Here we have clear evidence of shamanic rituals taking place among the Sámi to preserve the stability of the sky pole, or world pillar (the Maylmen Stytto was thought to connect with the celestial pole). This was done in order that it might "not grow old and fall from its former position" or that "the sky or the world would not fall

down”; that is, so that it would not be destroyed, either through neglect or, might we say, through the intrusion of some kind of supernatural agency, such as a sky wolf or sky fox[*15] (the reindeer, wolf, and fox are key animals depicted on Sámi shaman drums, alongside a central cross variously described as the world tree [Saiva Moura], the world pillar [Maylmen Stytto], and even the Cross of Christ).

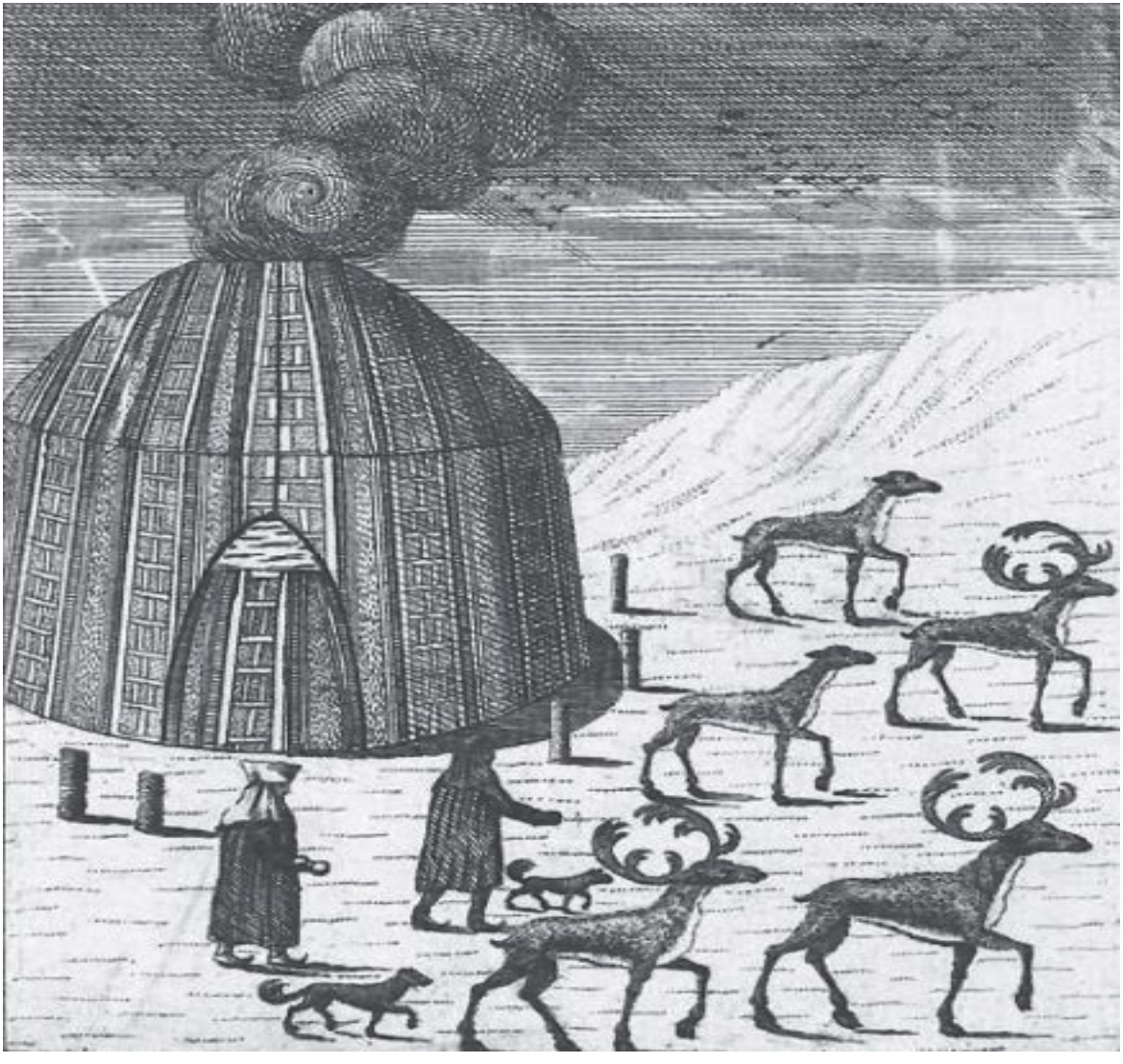

Figure 25.1. Antique line drawing showing Sámi reindeer herders.

FINNO-UGRIC ORIGINS

The significant point about the Sámi is that they belong to an ethnic group that forms part of the Finno-Ugric language family. Not only is there a relationship between the Finno-Ugric language and both Armenian and Hungarian, but there is evidence also that the Sámi inherited traditions from a post-Swiderian culture responsible for the spread of the Finno-Ugric group of languages into Scandinavia, Estonia, and Finland.[11]

Thus there exists some small chance that the beliefs and practices of the Sámi owe some debt to those practiced by the Swiderian reindeer hunters, including, we can only assume, shamanic rites to preserve the stability of the sky pole so that the world does not come to an end.

With all this in mind, can we go on to imagine Swiderian groups reaching the Armenian Highlands in the wake of the catastrophic events that would appear to have affected the world in the eleventh millennium BC and claiming that their hunting magic and their understanding of the sky wolf or sky fox, had, quite literally, brought humankind back from the brink of destruction? Did they offer to reveal how the hunter-gatherers of southeast Anatolia could themselves stabilize the world pillar and counter the baleful influence of the cosmic trickster so that "the sky or the world would not fall down"?

Such speculation might seem crazy, but we have to imagine ourselves in the position of the hunter-gatherers of southeast Anatolia at the end of the Paleolithic age and attempt to understand why they might have embarked on mammoth building projects such as Göbekli Tepe. If the large enclosures, built ca. 9500–8900 BC, are not the end product of hundreds, if not thousands, of years of

gradual evolution, then it is possible they were inspired not only by the fear of a further cataclysm taking place but also by new ideas carried into the region by outsiders. As we have seen, by far the best candidates for this role are the Swiderians, who would seem to have been carrying traditions inherited from their likely forebears, the Solutreans and Kestenki-Streletskaya culture of the Russian Plain, in particular a knowledge of cosmic geography and shamanistic practices involving the concept of the sky pole used to reach a sky world existing in the area of the Cygnus region.

FOX, NOT WOLF?

One question remains before we can move on: If Fenris is a wolf, and the European reindeer hunters arrived in Anatolia claiming an association with this animal, why don't we see the wolf depicted more at Göbekli Tepe? The answer is that the wolf *is* represented

among the carved art at Göbekli Tepe. It is very likely the identity of at least three “predators” or “quadrupeds” represented by 3-D statues found at the site, which are today on display at the Şanlıurfa archaeological museum. That said, it is the fox that predominates among the carved art seen in the enclosures, especially on the inner faces of the central pillars. It was this realization, along with the large number of faunal remains belonging to the red fox found at the site, that prompted archaeozoologist Joris Peters and Klaus Schmidt to conclude that “a specific worship of foxes may be reflected here.”[12]

The reason behind this noticeable switch from wolf to fox, both of which were forms of the cosmic trickster and the star Alcor in Ursa Major, is easily explained. Whereas the wolf was important to the reindeer hunters of the East European Plain, the fox appears to have played a cosmological role among the Eastern Gravettian peoples of both Central Europe and the Russian Plain. The fox was

also important among the Natufian communities of the Levant. Here the bones and teeth of the red fox have often been identified among the faunal remains found at occupation sites.[13]

It was arguably for similar reasons that the fox and wolf were interchangeable in their role as cosmic trickster, since the animals meant different things to different cultures in different localities. In ancient Egyptian tradition, for example, the trickster god is Seth, whose animistic form is the *fenekh,* or desert fox, while for the Dogon of Mali in West Africa the trickster is Ogo, the pale fox.

The cosmic trickster, in all its forms, whether as the wolf or fox (or, indeed, the dog, dragon, lion, or any other type of animal) has the potential to quite literally bring about the death of the world through the collapse of the sky pole that holds up the heavens. The crucial knowledge of how to prevent this from happening was, quite possibly, the all-important remedy for the catastrophobia rife among the hunter-gatherers of southeast Anatolia in the wake of the

Younger Dryas Boundary impact event.

This then was the knowledge very likely made available to the Epipaleolithic peoples of southeast Anatolia some twelve to thirteen thousand years ago. Those who offered this solution were, most probably, members of a Swiderian ruling elite—hunters, warriors, tool specialists, and shamans—whose journey probably begins as far west as Poland's Vistula River and the obsidian sources of the Carpathian Mountains and ends with their entry into eastern Anatolia sometime during the Younger Dryas mini ice age, perhaps around 10,500 BC or slightly later. They are the face of the Hooded Ones, whose own great ancestors are most likely immortalized in the twelvefold rings of T-shaped pillars, not just within the large enclosures at Göbekli Tepe but also at the various other Pre-Pottery Neolithic sites throughout the *triangle d'or*.

Yet we still need to better understand how exactly the incoming groups of Swiderians were able to convince the Epipaleolithic

hunter-gatherers of southeast Anatolia to come together to create the first truly megalithic architecture in human history. How did this happen? It is a matter we address next.

26

STRANGE-LOOKING PEOPLE

Can we imagine the sense of fear and uncertainty that must have existed in the minds of the Epipaleolithic peoples who lived in the vicinity of Göbekli Tepe during the Younger Dryas mini ice age, ca. 10,900–9600 BC? The golden age once spoken about by the elders was now little more than a utopic dream. Since the great fire from the sky and the time of perpetual darkness and constant rain, when the land had sunk beneath the waters, the world had been an entirely different place—cold, bleak, dry, and almost devoid of the herd animals that had provided life and sustenance to so many.

It almost seemed as if the animal spirits that had addressed their

every need had now deserted them, perhaps through their misdeeds in the years leading up to this terrible change in the world. What is more, there was no assurance that these great catastrophes would not happen again and again, until finally nothing more was left, only the darkness that prevailed before time began.

Then one day a group of tall, strange-looking people of striking appearance, with elongated heads, long faces, high cheekbones, strong jaws, and prominent brow bridges due to their ancestry as Neanderthal-human hybrids, enter the settlement. Perhaps they wear long, hooded garments made of linen, flax, or hide, as well as belts decorated with strange symbols, leather leggings, and boots made out of animal skin (a reconstruction by graphic artist Russell M. Hossain is offered in figure 26.1). They are clearly hunters, with bows and arrows slung over their backs and items of personal adornment gained from the chase. They have necklaces of wolf or fox teeth; strings of beads made from ivory, bone, shell, antler, and

stone; as well as insignia of office that hang like medallions around their necks. Alongside them are others, peoples of the region, identified as post-Zarzian shamans, warriors, and tradesmen.

Figure 26.1. 3-D digital sculpts by artist Russell M. Hossain depicting the Hooded Ones—the Swiderian power elite behind the creation of Göbekli Tepe. Their physical traits are derived from anatomical evidence of the Brünn population and the Sungir burials of Russia, coupled with a knowledge of Swiderian physiognomy, which suggests Neanderthal-human hybridization.

Leaders of the group will have addressed representatives of the community, showing them examples of exotic materials such as obsidian from Bingöl and Lake Van and flint from farther afield. They might have offered to supply these and other valuable commodities, and then, after gaining the community's trust, the hooded strangers will have revealed the true purpose of their mission. Their sky magic had successfully combated the baleful influences of the canine trickster, who had attempted to destroy the world at the time of the great fire from the sky. This knowledge they

would now pass on at a price. However, to successfully bind the cosmic trickster and ensure the future stability of the sky pole that supported the heavens, the community would have to give up their hunting lifestyles and learn to work together to put into practice this powerful magic.

COMMUNITY NETWORKING

The chances are that this incoming group, of Swiderian descent, visited other Epipaleolithic communities as well, offering exotic materials to their inhabitants while at the same time spreading their potent message and showing their control and influence over the cosmic trickster, perhaps by predicting the appearance of short-period comets. Eventually the Hooded Ones gained control of each and every one of the settlements they entered. When simple exchanges did not work, open conflict might have ensued, although

very likely the strangers set existing allies against confrontational groups or tribes to quell any unrest.

This then was very likely the beginning of a type of regional supremacy instigated by the incoming power elite to bring about the building projects that would eventually lead to the creation of major cult centers such as Göbekli Tepe. These stone sanctuaries would function as axes mundi, terrestrial turning points of the heavens, their central pillars acting as gateways or portals to a perceived sky world existing in the direction of the constellation of Cygnus. From these enclosures rites of birth, death, and rebirth would be enacted and the baleful influence of comets countered by shamans.

THE WALLS OF JERICHO

How exactly the ruling elite might have convinced the indigenous peoples to create monumental architecture on such a grand scale

remains a mystery. Fear is the most obvious answer—fear that it would all happen again if they did *not* create these monuments in exactly the fashion prescribed. Yet as Klaus Schmidt is at pains to point out, nothing like Göbekli Tepe existed anywhere else in the world at this time. That said, monumental architecture *was* being built contemporary to the construction of Göbekli Tepe 420 miles (675 kilometers) away at Jericho, in what is today the Palestinian territories.

A Natufian site existed at Jericho during the Younger Dryas period, but it was not until the arrival of a Pre-Pottery Neolithic A culture that the place was transformed into a major town complex. Very quickly the inhabitants felt the need to surround the 10-acre (4 hectare) settlement with a stone wall 10 feet (3 meters) thick and 13 feet (4 meters) high, which extended around the entire occupational mound for a distance of nearly half a mile (800 meters).

In addition to the great wall, the Jericho inhabitants constructed

an enormous stone tower 33 feet (10 meters) in diameter and 28 feet (8.5 meters) high, accessed through a west-facing doorway that connected with a stone staircase of twenty-two steps.

As well as the almighty stone tower and perimeter wall, a gigantic ditch was cut out of the limestone bedrock around the outside of the settlement. This was 9 feet deep (2.75 meters), 27 feet wide (8 meters), and more than half a mile (over 800 meters) long, with one prehistorian describing it, aptly, as "a considerable feat in the absence of metal tools."[1]

Clearly, something major was occurring at Jericho. The inhabitants seemed eager to keep something out, and it was not simply wild animals or the elements. An aggressor lurked out there somewhere, who was perceived as a potential threat to the well-being and lifestyle of the Jericho population, which numbered in the hundreds.

The existence of sites such as Jericho tells us that the capability to

supersize monuments and structures *was* present among the Pre-Pottery Neolithic peoples of the Fertile Crescent at this time. Yet clearly, before the construction of Göbekli Tepe and Jericho, the motivation to create large-scale stone buildings for specific magico-religious purposes was simply not present. Something then changed, and all the indications are that the hunter-gatherers of southeast Anatolia and the Levantine corridor were responding to events happening in their world, and in the opinion of the author that was the Younger Dryas Boundary impact event and the incredible state of fear it left in the world's human population in its aftermath. However, even then it had taken the intrusion of a powerful elite of European descent to inspire the creation of monumental architecture with the intent of curbing wide-scale catastrophobia once and for all.

SCHMIDT AND THE SWIDERIANS

As controversial as these theories might seem, even Klaus Schmidt has had his eye on the Swiderians as being in some way instrumental in what was going on in southeast Anatolia at the commencement of the Pre-Pottery Neolithic age. Not only does he acknowledge the similarity between the Natufian gazelle hunters and the "reindeer hunters of the North,"[2] that is, those in Europe, and admit that "perhaps there was some kind of connection or communication between the societies of Turkey and those around the Black Sea and the Crimea,"[3] but in a paper written for the journal *Neo-lithics* in 2002, he even names the Swiderians[4] when he writes:

> The late Paleolithic Swiderian reindeer hunters of eastern Europe had a similar hunting strategy [to the Pre-Pottery Neolithic peoples of the Upper Euphrates] using the seasonal wandering of reindeer and their crossing of big rivers such as

the Vistula (Weichsel).[5]

Schmidt obviously recognizes something of the European hunting tradition in the Pre-Pottery Neolithic world that existed in the lead-up to the construction of Göbekli Tepe and other religious centers in southeast Anatolia during the tenth millennium BC. He singles out the Swiderians as an example of these hunting strategies, when he could have mentioned the Hamburgian-Ahrenburgian cultures of North Germany, the Brommian-Lyngby cultures of Denmark and Scandinavia, or indeed any one of a number of other Paleolithic hunting traditions that thrived in Europe toward the end of the Upper Paleolithic age. Why? Was it that he had just read an article on the Swiderian culture and wanted simply to use them as an example of this hunting strategy, or does he too have a sense of their presence at Göbekli Tepe?

The greatest clue is in the German archaeologist's suggestion that

“perhaps there was some kind of connection or communication between the societies of Turkey and those around the Black Sea and the Crimea.”[6] When he said these words to osteoarchaeologist and TV presenter Dr. Alice Roberts, he almost certainly had in mind the incursions of the Polish Swiderian tradition into the Crimean Highlands, immediately above the Black Sea. A simple boat journey along its eastern coast, or a gradual migration overland through the Caucasus Mountains and the Armenian Highlands, would have brought these European hunters directly into contact with the Epipaleolithic peoples of southeast Anatolia, and Schmidt knows this very well. However, I suspect that until now he has found nothing concrete at Göbekli Tepe that might help confirm these surmises, despite the fact that worked flints have been found that are more-orless *identical* to Swiderian tanged points.

THE END OF GÖBEKLI TEPE

The world of Göbekli Tepe remains truly bizarre, and so far we have only been able to scratch the surface of what was really going on here nearly twelve thousand years ago. Having started with grand structures featuring monoliths 18 feet (5.5 meters) high, the Göbekli builders ended up settling for bathroom-size rooms, with standing stones no more than a few feet in height and communal benches like something you might find in a family-size Jacuzzi.

It seems clear that whatever incentive there had been to remain loyal to a particular style and design gradually diminished as the centuries rolled by. It is almost as if the Göbekli builders, although still committed to following an established tradition, which included the erection of anthropomorphic T-shaped pillars, were now downsizing in their choice of architectural styles. By the end they were simply going through the motions, without the original motivation being there any more.

It has been suggested that the entire complex at Göbekli Tepe

was buried hurriedly around 8000 BC, as if there was some urgency involved. It has even been speculated that the large enclosures were covered over to protect them from another cataclysm, either a comet strike or some kind of plasma-induced event, brought about by a coronal mass ejection from the sun.[7]

As attractive as such disaster scenarios might seem, there is at present nothing that has been discovered at Göbekli Tepe that might support such claims. The site's final decommissioning involved the remaining sanctuaries, cult buildings, shrines, and other structures being buried beneath thousands of tons of imported earth, quarry chippings, and refuse matter. Yet even then, very occasionally, the heads of stones would be exposed by soil erosion and tilling of the land. The rest, however, remained encased within the tell's swollen belly for a full ten thousand years until Klaus Schmidt realized the site's incredible importance in 1994. We owe him a great debt for bringing back to life this unimaginable stone complex that reveals to

us the mind-set of our ancestors during an age of uncertainty and change.

Yet we cannot end the story here, for even after the final abandonment of Göbekli Tepe its legacy lived on, and there is every reason to believe that the role its founders, *and maintainers,* played in the instigation of the Neolithic revolution was preserved in the myths and legends of the cultures that thrived in these same regions during much later times.

Some of these ancient accounts are still with us today, and it is time now to see how exactly they address the strange world that existed in southeast Anatolia and the Armenian Highlands during the formative years of the Neolithic era. As we shall see, they seem to preserve dim echoes of the Younger Dryas Boundary impact event and the existence of the Hooded Ones—the Swiderian elite whose memory is encapsulated in the rings of T-shaped pillars and twin central monoliths at Göbekli Tepe.

For the next part of our journey the author would like to ask the reader to excuse him as he now switches from a third-person narrative to, where necessary, a first-person delivery that much better fits the quest of discovery that befell him in the wake of an extraordinary sequence of events that will culminate with the finding of Eden itself.

PART FIVE

Convergence

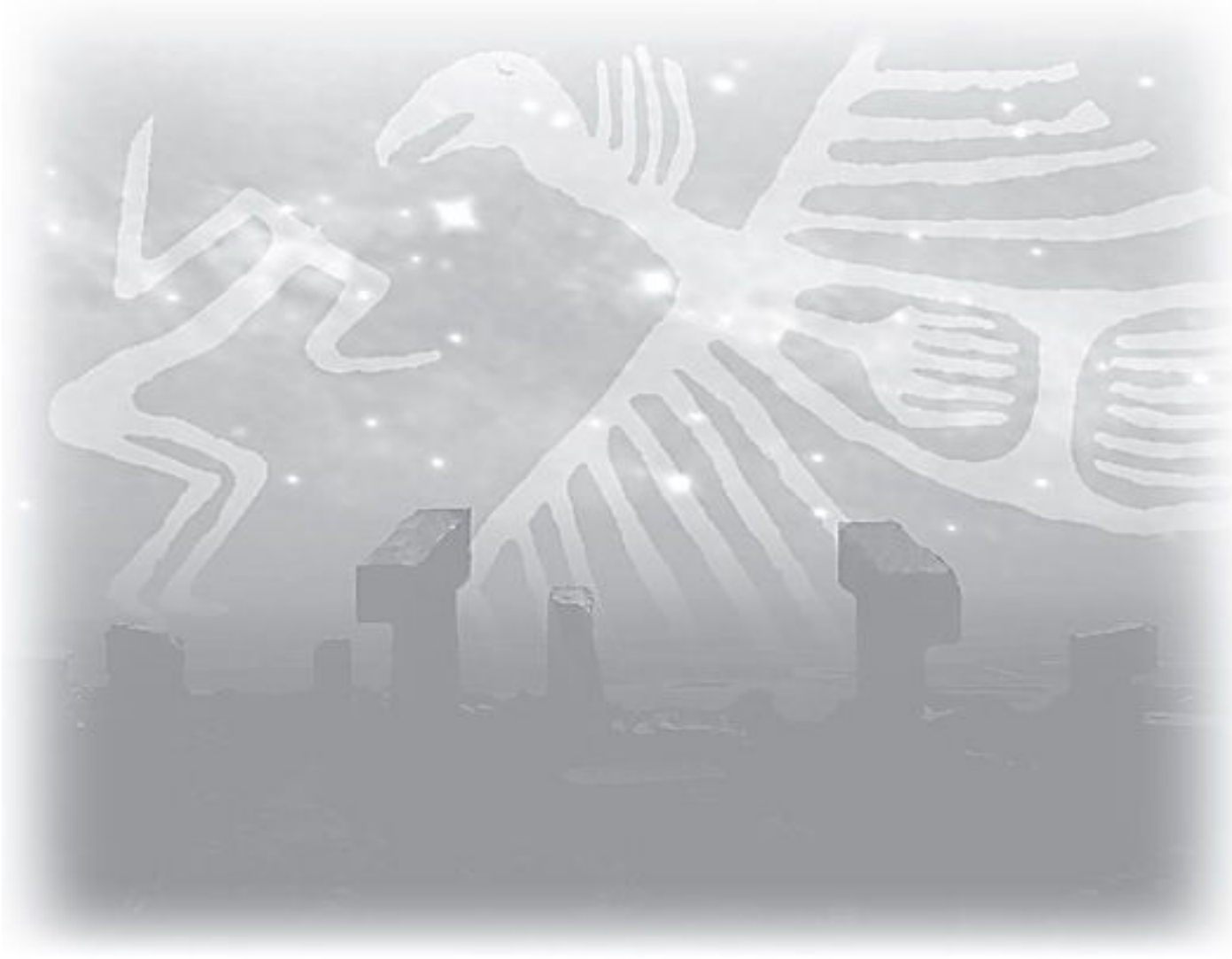

27

IN THE GARDEN OF EDEN

The overwhelming aroma of incense hung heavy in the air of the church's darkened interior. Low chanting, almost like a murmuring, filled the open space, where lamps burned, a few candles flickered, and the soft light pouring in through the high windows revealed a strange but compelling sight.

Illuminated on the cold stone floor, close to the center of this archaic house of God, was a group of Armenian monks, dressed from head to foot in thick, dark garments. They were the source of the melancholic chanting that continued unabated, like some primal tone, essential to the success of

their ritual actions. It was unlike any singing ever heard before, even in the strange, secluded monasteries of Mount Athos in Greece. Their combined voices made the whole place seem like a slowly building powerhouse of divine energy.

The monks were engaged in a religious ceremony, yet one without any congregation. It seemed to involve the elevation of an object high above their heads, as if offering it up for God to acknowledge its presence here in this monastery. It was an act that had been performed for countless generations to celebrate the gift of eternal life, given to our First Parents in the Garden of Eden, but taken away from them at the time of the Fall.

For these monks believed that their monastery was located on the very spot where the terrestrial Paradise could once be found. It was an unerring conviction that, although they could never have realized it themselves, was linked integrally with the location, just a couple of hundred miles away, of the hidden world that would one day be uncovered at Göbekli Tepe, the

site of the oldest temple in the world.

It was an unprompted dream I awoke from on Wednesday, April 20, 2011, triggered no doubt by the fact that I had just agreed with the publisher to write a book on the story of Göbekli Tepe and its impact on myth, religion, and the origins of civilization. I had already submitted a detailed synopsis and chapter breakdown and knew pretty well what I was going to write.

Yet now I sensed that something was missing, a major piece of the jigsaw that my vivid dream suggested I would find if I looked in the right places. Somewhere in eastern Turkey, not far from the huge inland sea named Lake Van, a couple of hundred miles east of Göbekli Tepe, was, I felt, a church and monastery where the monks believed that the landscape thereabouts was the actual Garden of Eden. These were thoughts now going through my mind, even

though twenty years of research into the origins of the Genesis account of the Fall and its geographical relationship to eastern Turkey, for books such as *From the Ashes of Angels* (1996) and *Gods of Eden* (1998), had failed to uncover anything even remotely like this tradition.

TEMPLE IN EDEN

There seemed only one thing to do, and this was for me to reexamine the evidence that had led me to conclude that eastern Turkey, the former Greater Armenia, or Armenia Major, was the true site of the Garden of Eden, and to see if I could turn up any new leads that might throw further light on this puzzling mystery. This seemed especially important to do, as in 2009 there had been reports that Professor Klaus Schmidt had told British journalist Sean Thomas (writing under the pseudonym Tom Knox) that "Göbekli

Tepe was not the Garden of Eden: it is a temple in Eden."[1]

Although Klaus Schmidt told me in September 2012 that Sean Thomas had misquoted him (the German archaeologist had actually said that Göbekli Tepe was an Eden-*like* place, not "a temple in Eden"), the story became a news sensation, with headlines such as "Do These Mysterious Stones Mark the Site of the Garden of Eden?"[2] appearing worldwide. The German archaeologist obviously played down the matter, and eventually it did all die down. (I actually apologized to Schmidt as it was me who'd given Sean Thomas instructions on how to get out there, after he became interested in Göbekli Tepe through reading material I'd written on the subject.)

So if Göbekli Tepe was not the Garden of Eden, where was it really located, and how did the Genesis story of Adam and Eve and the Fall fit into the emergence of the Pre-Pottery Neolithic world of southeast Anatolia?

THE EXISTENCE OF PARADISE

It was really not until medieval times that people started looking for the Garden of Eden. Prior to this time it was considered a paradisiacal realm created by God for the benefit of our First Parents, Adam and Eve, who had lived in a state of perpetual bliss and happiness, not knowing death, pain, or hunger. Yet when they committed the original sin by eating of the Tree of Knowledge of Good and Evil, and knew immediately that they were naked, God removed Paradise from the reach not only of our First Parents, but also of humanity as a whole. Never again would humans gaze upon the garden until the Final Judgment, when all righteous souls would be reunited with God in the heavenly Paradise. In other words, there was no point looking for Eden as it had no material presence in the mundane world. In fact, so detached from the physical world was it considered to be that some medieval theologians and church leaders thought that God had removed it to the vicinity of the Moon.[3]

Even if Paradise *had* existed in a material sense, there was no way it was accessible to humankind. It existed as a place beyond physical existence, almost like a parallel world, guarded by angels called cherubim, whose flaming swords protected its entrances with an impenetrable wall of fire. This was the manner in which Paradise was portrayed on medieval maps of the world—as a walled garden surrounded by fire, existing just beyond the eastern limits of the Eurasian landmass. Adam and Eve, the Serpent of Temptation, the Tree of Good and Evil, and the cherubim with flaming swords would all be present, as if to remind the onlooker where humanity might now be if the original sin had not been committed.

Those church leaders or theologians who *did* propose that the Garden of Eden might once have had a physical existence would be informed that if this were the case, then it would have been destroyed in the Great Flood. According to the Genesis account, this all-encompassing deluge engulfed the entire earth, right to the

highest mountaintops. Only Noah and his family survived by taking to the ark and eventually finding the sole piece of land that God had set aside to remain above water, and it was from here that the world began anew.

THE GREAT REFORM

These were the generally accepted views that the Church of Rome held regarding the existence of Paradise, and very few scholars or church leaders dared challenge these opinions for fear of being branded as heretics. It was not until the religious reforms of the sixteenth century and the birth of Lutheranism and Protestantism that attitudes began to change regarding the concept of Paradise. This was helped by the discovery of the American continent, which confirmed that the known world was not surrounded by an expanse of water, beyond which there was nothing, a realization that led

eventually to the abandonment of the long-held belief that the world was flat. The earth was a globe, and every part of it could be mapped and explored without fear of falling off into an abyss that existed beyond God's creation. So everything in the world became more tangible and fixed, and even the inspired word of God transmitted through the prophet Moses to create the Pentateuch, the first five books of the Old Testament, became subject to question for the first time.

Church leaders, travelers, and cartographers began now to find firm geographical clues in the Bible that revealed the true location of the Garden of Eden, which many now concluded had existed in the Bible lands themselves. According to the book of Genesis, as well as various apocryphal and pseudepigraphical works of Jewish, Christian, and Muslim origin, the Garden of Eden was watered by a single stream that took its rise from a spring or fountain that emerged from the base of the Tree of Life. After exiting the garden,

the stream then split into four heads that became the sources of four great rivers (see figure 27.1), each of which are named and described in chapter two of the book of Genesis (I shall quote from *Young's Literal Translation of the Bible,* which exactly reproduces the original Jewish and Greek text, so that nothing is lost in translation):

> And a river is going out from Eden to water the garden, and from thence it is parted, and hath become four chief [rivers]; the name of the one [is] Pison, it [is] that which is surrounding the whole land of the Havilah where the gold [is], and the gold of that land [is] good, there [in Havilah, is] the bdolach and the shoham stone; and the name of the second river [is] Gibon [or Gihon], it [is] that which is surrounding the whole land of Cush; and the name of the third river [is] Hiddekel, it [is] that which is going east of Asshur; and the fourth river is Phrat. (Gen. 2:10–14)[4]

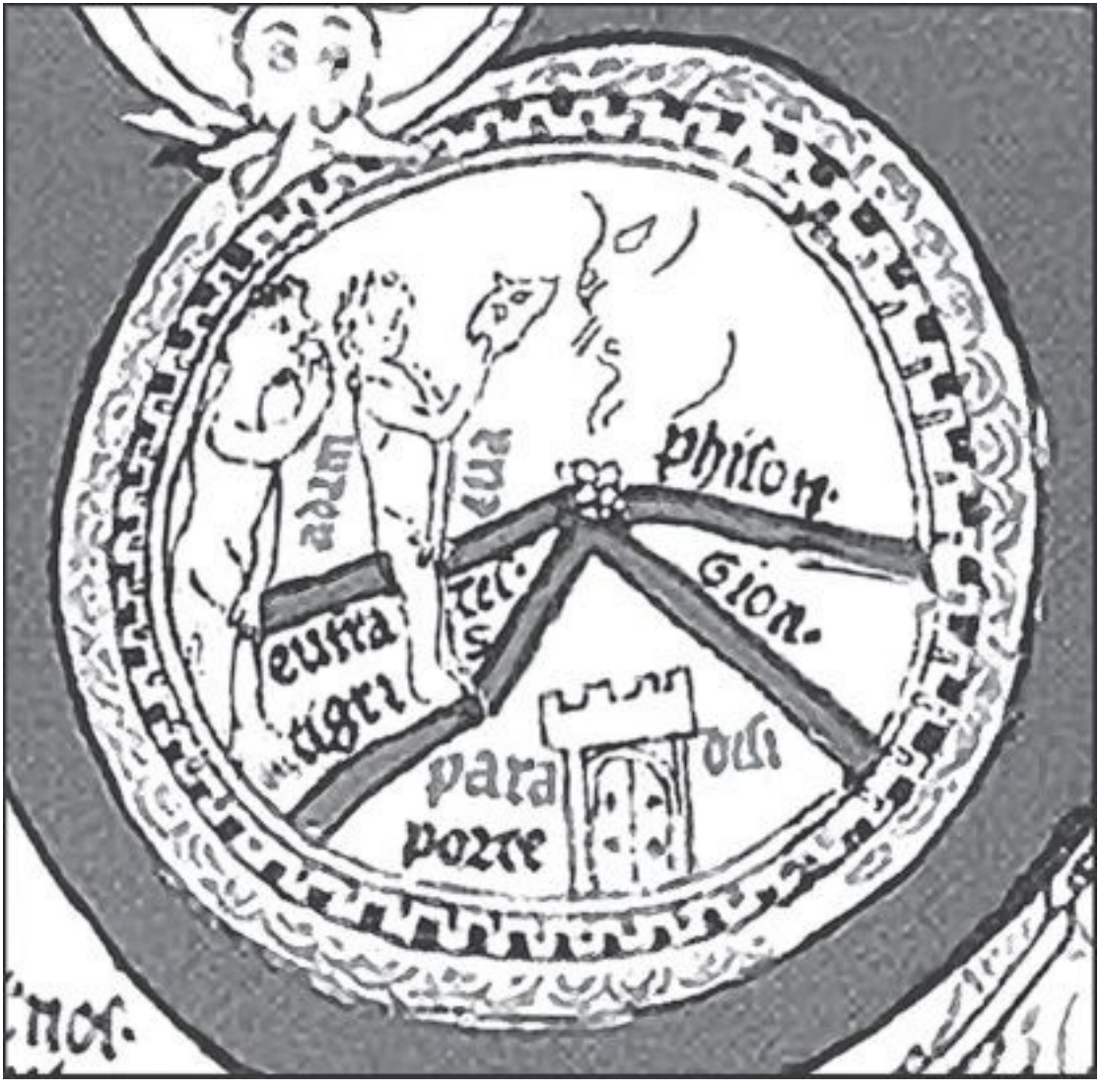
phison.
gion.
tigri
para
pozte

Figure 27.1. Adam and Eve in the terrestrial Paradise, from the Hereford Mappa mundi (Map of the World), ca. 1300 AD . Note the four rivers of Paradise, each one named, which emerge from a fountain of four heads positioned in front of the Tree of Knowledge of Good and Evil, complete with the Serpent of Temptation.

Identifying these four rivers has always been key to locating the terrestrial Paradise, and two of them are easily found. The last one mentioned, the Phrat (Kurdish Firat, Armenian Aratsani, Greek and Roman Arsanias), is the Euphrates, the longest river in Western Asia. It has two main branches, the Kara Şu, or Western Euphrates, and the Murad Şu, or Eastern Euphrates, which rise, respectively, to the north and northwest of Lake Van in the Armenian Highlands. They then snake their way through southeast Turkey and merge together before passing into northern Syria and entering the Mesopotamia Plain in what is today Iraq. Just before emptying into

the Persian Gulf, the Euphrates joins the Tigris River.

There can be little question that the Euphrates was one of the four rivers of Paradise, and this information alone should always have been enough to establish the geographical position of Eden as being somewhere along its course. Yet we find again and again that this was often not the case, with the Garden of Eden being placed not just in the Bible lands but also in every other part of the ancient and new world. Ceylon, the Americas, equatorial Africa, Australia, and even the North Pole have all been proposed as the setting for the terrestrial Paradise, based on arguments that seem more related to personal theories and the beauty of the place than to the facts presented in the Genesis account.

THE HIDDEKEL

Another river of Paradise easy to identify is the Hiddekel, which

flows to the “east of Asshur”; that is, Assyria, in what is today northern Iraq. This is unquestionably the River Tigris (from the Persian *tigra,* meaning “arrow”), originally called the Hiddekel (from the Akkadian *id Idikla,* “the river of Idikla”), which does indeed flow through the eastern parts of the ancient kingdom of Assyria. The river, which takes its rise northeast of the city of Diyarbakır, immediately south of the main sources of the Euphrates, is fed by a series of tributaries that rise in the Eastern Taurus Mountains of eastern Turkey.

The Tigris then leaves Turkey and flows southeastward through Iraq, parallel with the Euphrates on its western side. The two rivers bend toward each other in the vicinity of Baghdad, close to the site of the ancient city of Babylon. Yet instead of coming together they run parallel for a few miles before parting again, only to merge finally into one giant estuary that empties into the Persian Gulf.

So if both the Euphrates and the Tigris form two of the four rivers

of Paradise, this should confirm that the Garden of Eden was either where they take their rise in the Eastern Taurus Mountains and Armenian Highlands or where they come together in southern Iraq; no other possible location should even be considered based on the evidence provided by the book of Genesis. Indeed, the matter can be pinned down still further by pointing out that the Garden of Eden was situated at the *source* of the four rivers, meaning that the terrestrial Paradise can only have been located in historical Armenia, modern eastern Turkey. Where exactly is provided by the identities of the remaining two rivers.

GIHON AND THE LAND OF CUSH

Identifying the Gibon or, more commonly, the Gihon, another of the rivers of Paradise, is slightly more of a challenge, although the fact that it is said to flow "around the whole land of Cush" is a major

clue. Usually, the land of Cush is identified with an ancient kingdom of this name in Ethiopia, the reason the word *Ethiopia* appears instead of *Cush* in the King James Bible. It is also why the Gihon is identified with the River Nile, which rises in Ethiopia and was called the Geion by the Coptic Christians of Egypt.[5]

Yet these identifications are fundamentally wrong, and very misleading too. Cush, or Kush, is more likely to be a kingdom named in Assyrian inscriptions as Kusu. It was the land of a people called the Kusai, who lived "in the celebrated hill country to the north of Syria, whence came the Kusai breed of horses."[6] Indeed, it was apparently from Kusu that the Assyrians obtained their horses.[7]

English Assyriologist George Smith (1840–1876), in *The Chaldean Account of Genesis* (1876), notes that in the book of Genesis the father of Nimrod, the builder of the Tower of Babel, is given as Cush, and that this too might be an allusion to the land of Kusu.[8] Nimrod is a legendary figure of Armenian folk history said

to have cast the patriarch Abraham into a fiery furnace because he would not bow down to pagan idols. This is supposed to have taken place in the ancient city of Edessa, modern Şanlıurfa, celebrated as the birthplace of Abraham. It is also, as we have seen, just 8 miles (13 kilometers) away from Göbekli Tepe, a connection that should not be forgotten. If Kusu was north of Assyria, then it must have been located somewhere in the vicinity of Lake Van and the Armenian Highlands.

Historical Armenia was overrun by the Turkish Ottoman Empire in the mid-fifteenth century, and although it kept its cultural, religious, and geographical identity until the twentieth century, the entire country was wiped off the face of the map following the Armenian Genocide of 1915. In antiquity, however, it was a kingdom in its own right, with the separate kingdom of Armenia Minor to its west. Today the modern Republic of Armenia, the former Soviet Armenia, is the only remaining part of Greater

Armenia (or Armenia Major), with the rest of "historical Armenia" now being simply the eastern provinces of Turkey.

Back in the first millennium BC, at the height of the Assyrian Empire, the kingdom of Armenia was famous for its horses. The Greek geographer Strabo reported that it was very good for "horse pasturing" and that "Nesaean horses," favored by the Persian kings, were bred there.[9] Moreover, Strabo recorded that every year the Persian king was sent by way of a tribute from Armenia twenty thousand foals.[10] He noted also that: "The passion for riding and the care of horses characterize the Thessalians, and are common to Armenians and Medes."[11] The Medes were the inhabitants of Media, a kingdom located on the southern shores of the Caspian Sea, northeast of Armenia, in what is today Azerbaijan and northwest Iran.

So the land of Kusu, where Kusai horses came from, was almost certainly a reference to the Armenian Highlands, which makes

sense, for the Gihon River has long been identified with the Araxes (the modern Aras) River. Along with a major branch of the Western Euphrates, the Araxes takes its rise on Bingöl Mountain, the center of the obsidian trade, located some 30 miles (48 kilometers) south of the city of Erzurum. It then flows eastward, past the base of Mount Ararat, joining eventually another great river called the Kur before emptying finally into the Caspian Sea. Its mouth is near Baku, the capital and largest city of Azerbaijan, ancient Media, close to Gobustan, the site of the incredible rock art described in chapter 23.

Where exactly the name Gihon came from is unclear, although during the Arab invasion of the Caucasus in the eighth century the river was known as the Gaihun,[12] with nineteenth-century Persian dictionaries referring to the Araxes as the Jichon-Aras.[13] Moreover, American theologian and educationist John McClintock (1814–1870) recorded in his multivolume biblical encyclopedia that the

Gihon "to this day bears the same name among the Arabs. This [i.e., the Araxes] is a large river in Armenia Major, which takes its rise from a number of sources in Mount Abus (the present Bin-Gol), nearly in the centre of the space between the east and west branches of the Euphrates."[14]

Strangely, not only was the Araxes identified with the Gihon by Dutch philologist and scholar Hadrian Reland (1676–1718) more than three hundred years ago, but he also proposed that the land of Cush, through which it passed, was "the country of the Cussaei of the ancients,"[15] a perceptive observation that is almost certainly correct.

So from the evidence provided so far we can be pretty certain that if one specific location *is* being identified as the site of the terrestrial Paradise then it is the Armenian Highlands, where the Euphrates and Araxes take their rise, with the source of the Tigris just a short distance to the south.

IN SEARCH OF THE PISON

The final river of Paradise, called the Pison, or Pishon, is a little more tricky to identify, so the clues offered by the book of Genesis are worth examining a second time: “the name of the one [is] Pison, it [is] that which is surrounding the whole land of the Havilah where the gold [is], and the gold of that land [is] good, there [is] the bdolach and the shoham stone.”

To begin with, the land of Havilah is completely unknown, although Havilah as a personal name also appears in the book of Genesis, where it is cited, like Nimrod, as being a son of Cush (Gen. 10:9). If these names are, as seems possible, references both to kingdoms and their founders, then the fact that Cush is synonymous with the land of Kusu, an ancient name for Armenia, suggests that this is where we should look for the Pison River.

Adding weight to this conclusion is the fact that Armenia was well known for its gold, as is recorded by Strabo, who in the section of his *Geography* on Armenia speaks of the gold mines of "Syspiritis and Caballa, to where Menon was sent by Alexander with soldiers, and he was led up to them by the natives."[16] Dutch chemist and science historian Robert James Forbes proposed that the mines of "Syspiritis and Caballa" were on the Black Sea near Batumi in southwest Georgia, the site of Colchis, legendary land of the Golden Fleece.[17]

It is an interesting theory. However, the site of Caballa is completely lost to us. Syspiritis, on the other hand, is a little more easy to track down, for although some classical scholars like to see its gold mines as existing somewhere in the vicinity of the ancient city of Erzurum, north of Bingöl Mountain, Syspiritis was most likely close to Adiabenê.[18] This is a former kingdom and Assyrian

city (the modern Arbil, or Erbil) located between the Upper Zab and Lower Zab rivers of northern Iraq, which flow down from the direction of the Thospites, or Arsene Lake,[19] ancient names for Lake Van, and merge eventually with the Tigris River. Interesting in this respect is the fact that Robert Forbes mentions that "other deposits [of gold] known are south of Lake Van,"[20] doubly confirming that Syspiritis is to be looked for here, and not farther north.[21]

SEAT ON THE RIVER OF EDEN

This information becomes a major clue to the identity of the last river of Paradise, for the ancient Assyrian Church, also known as the Nestorian Church, recognized the Greater Zab as the River Pison. This information comes from the seat of their patriarch and head bishop, or Catholicos, located from the seventeenth century

until the Assyrian Genocide of 1915 at Kotchanes (modern Konak) in the Hakkari. This is a remote region in the foothills of the Zagros Mountains in the southeast corner of Turkey, close to the borders with Iraq and Iran. Here the patriarch would sign off his letters "from my cell on the River of the Garden of Eden."[22]

Valuable clues like this should not be taken lightly, as the Assyrian Church was one of the oldest forms of Christianity existing in the region, being founded as early as the first century.[23] This seems to affirm that the land of Havilah, through which the Pison flowed, was an area defined by the course of the Greater Zab, which embraces the Turkish provinces of Van and Hakkari, as well as the Iraqi governorate of Arbil.

The "bdolach" that we are told was found in the land of Havilah can easily be identified as a resinous exudation produced by shrubs of the *Astragalus* genus, called gum tragacanth or astragalus manna.[24] This was collected in the Mush, Erzurum, and Lake Van

districts of Greater Armenia[25] and then transported to the city of Mosul, close to where the Greater Zab joins the Tigris.[26] However, the province most commonly associated with the *Astragalus* shrub is the Hakkari,[27] the suspected heartland of the land of Havilah.

As for the shoham stone mentioned in the Genesis account, this is probably a reference either to onyx (its usual identity), which is found in the Ararat district of Armenia, or to obsidian, which was very often confused with onyx in ancient times. Having made all these statements, there is one further tradition regarding the identity of the Pison that, due to its compelling yet conflicting implications, is best left until chapter 29.

RELAND'S CHOICE

The Genesis account of the Garden of Eden indicates, very clearly, that if it *did* exist as a physical location, then it was to be found

somewhere in the vicinity of Lake Van and the Armenian Highlands, where the sources of the four rivers of Paradise take their course (see figure 27.2). It is a conclusion that anyone can achieve, simply by following the clues on offer, and it was something that Dutch scholar Hadrian Reland worked out at the beginning of the eighteenth century.[28] However, having identified the Euphrates, Tigris, and Araxes as three of the rivers of Paradise, he chose to correlate the final one, the Pison, with the Phasis, a river mentioned in ancient Greek sources, which is usually associated with the Rion, or Rioni, which rises in Georgia and empties into the Black Sea.

Figure 27.2. Map of southwest Asia showing the most likely

candidates for the four rivers of Paradise: the Euphrates (Phrat), Tigris (Hiddekel), Araxes (Gihon), and Greater Zab (Pison). The modern trend in identifying the Pison with the Uizhun River of Iran is rife with problems due to its great distance from the sources of the other three rivers.

Choosing the Phasis as the Pison pulls the imaginary epicenter for the terrestrial Paradise much farther north, toward the northern extremes of the Armenian Highlands, whereas identifying the Pison with the Greater Zab places the epicenter much farther south, close to the northern edge of the plain of Mush, which separates the Armenian Highlands from the Eastern Taurus Mountains to the south (see figure 27.3).

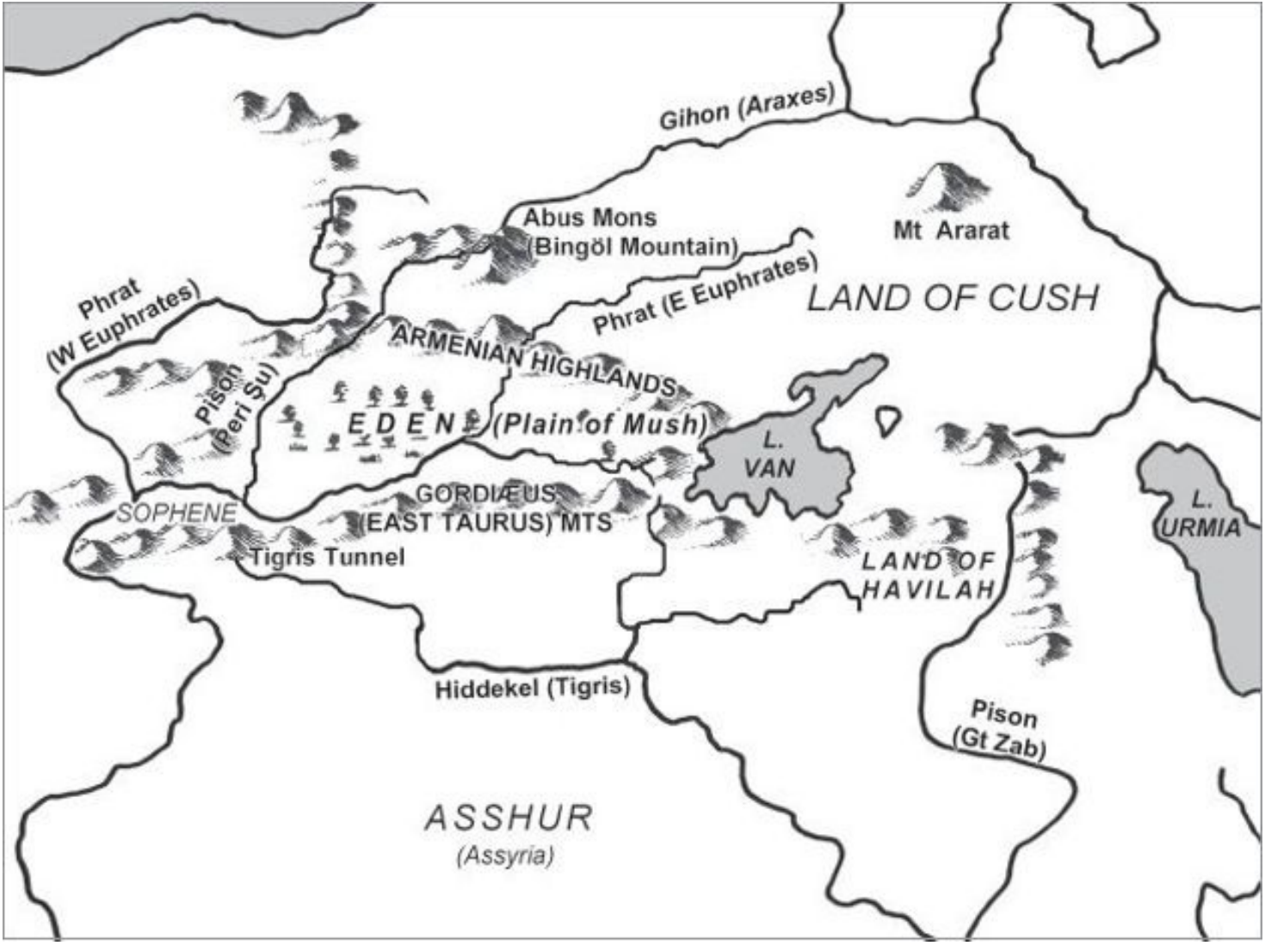
Gihon (Araxes)
Abus Mons
(Bingöl Mountain)
Mt Ararat
Phrat
(W Euphrates)
Phrat (E Euphrates)
LAND OF CUSH
ARMENIAN HIGHLANDS
Pison
(Peri Su)
EDEN
(Plain of Mush)
L.
VAN
SOPHENE
GORDIÆUS
(EAST TAURUS) MTS
Tigris Tunnel
L.
URMIA
LAND OF
HAVILAH
Hiddekel (Tigris)
Pison
(Gt Zab)
ASSHUR
(Assyria)

Figure 27.3. Map showing sources of the four rivers of Paradise with their epicenter in the vicinity of the Mush Plain in eastern Turkey. Note the locations of the land of Cush, through which the Gihon flowed, and the land of Havilah, associated with the Pison River. Note also the Peri Şu, or Gail ("Wolf") River, which in Armenian tradition is identified with the Pison (see chapter 29).

Was this where I would find the Armenian monastery where, according to my dream, the monks believed they served God in the Garden of Eden itself? As we shall see next, the Mush Plain becomes one of the most likely candidates for the site of the terrestrial Paradise, information that, although available long ago, has not stopped theologians and scholars from locating Eden everywhere but where the four rivers of Paradise take their rise.

28

THE FOUNTAIN OF PARADISE

The book of Genesis's description of the four rivers of Paradise indicates very strongly that the Garden of Eden was located in historical Armenia, modern-day eastern Turkey, with the epicenter being somewhere in the vicinity of the enigmatic plain of Mush, a vast expanse of congealed lava, created across tens of thousands of years by the outpouring of the various volcanoes that surround it. After crumbling to dust, the lava was transformed into a rich soil that has made Mush one of the most fertile regions in eastern Turkey, noted in the past for its wheat and tobacco. Vineyards were also once numerous, with a fair wine apparently being produced.[1]

THE PLAIN OF MUSH

The plain itself lies at a height of just over 4,100 feet (1,250 meters) above sea level and is approximately 40 miles (64 kilometers) in length from east to west and 10 miles (16 kilometers) broad. Visible at its eastern end is the extinct volcano Nemrut Dağ (Mount Nimrod), which takes the form of a gigantic caldera half a mile (800 meters) in diameter, within which is an enormous crescent-shaped lake. Obsidian from Nemrut Dağ has been found at Göbekli Tepe.

The Murad Şu, or Eastern Euphrates, cuts right across the plain, dividing it in two, before vanishing into a narrow gorge at its western end. This creates a pass through the Eastern Taurus Mountains, along which the somewhat hazardous road to Diyarbakır winds its way. This was the old obsidian route from Bingöl and Lake Van to the various proto-Neolithic and Pre-Pottery Neolithic centers, such as Hallan Çemi, Çayönü, Nevalı Çori, and, of course, Göbekli Tepe.

Another gorge at the plain's southeast corner forms a pass through the Eastern Taurus range, providing access to the university city of Bitlis (ancient Baghesh) and Lake Van while another pass, carved out by the Murad Şu, opens the way north toward Bingöl, both the town and the mountain, beyond which is the old Armenian city of Karin, modern-day Erzurum.

MONASTIC FOUNDATIONS

Some miles to the northwest of the town of Mush, the capital of the province of the same name, are the remains of Surb Karapet, or more correctly Surb Hovhannes Karapet Vank, the Monastery of Saint John the Baptist. Before its destruction at the time of the Armenian Genocide in 1915, it was a major place of pilgrimage, with Christians coming here from all over Armenia to venerate holy relics belonging to John the Baptist. According to tradition,

Armenia's great crusading churchman Gregory the Illuminator built the monastery on the site of important pagan temples destroyed by him and his army at the beginning of the fourth century. Today, Surb Karapet, which from old pictures looks more like a fairy-tale castle than a monastery, is little more than a few pathetic walls in the middle of a bustling Kurdish village, which has long since lost interest in its rich Armenian heritage.

Apparently, several monasteries were once to be found on the plain of Mush, which formed part of a royal kingdom called Taron, or Turuberan, where Armenian Christianity had its beginnings even before the arrival of Gregory the Illuminator in the fourth century.[2] I could find information about just one other notable monastic ruin in the area, and this was Surb Arakelots (Holy Apostles), located in a mountain valley southeast of the town of Mush. However, an examination of what was known about Surb Karapet and Surb Arakelots, or, indeed, any of the other monasteries that once existed

in the region, did not in any way feel similar to what I had seen and experienced in my dream.

THE TREE OF LIFE

Yet the more I recalled the strange ceremony taking place inside the gloomy church interior, the more I became convinced not only that the Eden monastery existed, but that the monks there had been elevating an object of great spiritual value. It had been removed from a plain, wooden box that acted as a reliquary (a relic holder). As to the nature of the relic, this seemed to be a blackened piece of wood, like a short, round section of a tree branch, some 2.5 inches (6 centimeters) in diameter and 7 to 8 inches (18 to 20 centimeters) in length.

Initially, I thought the monks might have identified this relic as a piece of the Tree of Knowledge of Good and Evil, which the

Genesis account tells us was to be found in the Garden of Eden. However, this did not sit right with me, and very quickly I realized that I had this wrong. The relic was in fact thought to be a fragment of the Tree of Life, the *other* tree in the Garden of Eden. That felt absolutely right, especially as I had seen it being elevated during a ritual that seemed to celebrate life itself.

The monks, I suspected, believed that simply possessing this holy relic invoked a sense of the eternal life that Adam and Eve experienced before their expulsion from the Garden of Eden. The couple's existence was sustained through their proximity to the Tree of Life, which, situated within the garden, was seen as a powerhouse of divine energy that transcended the normal laws of nature. Yet without the benefits of the Tree of Life, Adam and Eve, along with all their descendants, were doomed to suffer mortality in all its ugly ways, a just punishment for committing the original sin, or so the book of Genesis tells us.

That the monks of the monastery drew some kind of spiritual power from what they saw as a fragment of the Tree of Life made absolute sense. Combining the religious potency of this relic with the fact that the monastery was thought to have existed in the Garden of Eden would only have increased their faith in what they believed they were achieving here in this spiritual powerhouse. No wonder I could so vividly recall this archaic ritual that must have taken place before the assumed destruction of the monastery at the time of the Armenian Genocide.

I sensed strongly that the monastery in question existed somewhere in the vicinity of the plain of Mush. It was a perfect setting for the Garden of Eden, especially as high mountains surround it on all sides and from these come streams that feed all four rivers of Paradise.

FINDING OTHER EDENS

Despite this information, the most often quoted solution regarding the whereabouts of the Garden of Eden stems from the somewhat puzzling conclusion, first proposed by influential French theologian and pastor John Calvin (1509–1564), that the terrestrial Paradise was located in the vicinity of Basrah, in southern Iraq. Here the Euphrates and Tigris rivers were once thought to have come together and then parted again to form all four rivers of Paradise. The fact of the matter is that although these two great rivers do indeed converge here to form the Shatt al-Arab waterway, into which flows Iran's Karun River (which some take to be the Gihon[3]), this hardly fits the evidence offered for the location of the Garden of Eden in the book of Genesis.

Others have suggested that the four "heads" of the rivers of Paradise refer to their mouths, meaning that we should be looking for the Garden of Eden where the Euphrates and Tigris empty into the Persian Gulf. This has prompted all sorts of complicated

theories involving now-vanished rivers, with the most persuasive being that the Pison once ran through Arabia's Wadi al-Rummah, emptying into the Persian Gulf close to the Shatt al-Arab waterway.[4] As far-fetched as these claims might seem, they remain the most popular theories regarding the true site of the Garden of Eden.[5]

More incredible still is the view that the holy city of Jerusalem is the terrestrial Paradise, based on a few brief references in the Old Testament comparing the city to the Garden of Eden, along with a Jewish legend that speaks of Jerusalem as the center of the world.[6] Once again, this is not simply the belief of lay people, but the opinion of theologians and historians, even though Jerusalem is located nowhere near *any* of the easily identifiable rivers of Paradise.

These theories have been put forth despite the fact that Armenian scholars have for many years attempted to convince the outside

world that the terrestrial Paradise was located in their historical homeland. Their arguments go unnoticed because they are usually written in Russian Armenian, which very few non-Armenians can read. Even when their work *is* published in English, something is lost in translation, resulting in very few people taking it seriously.[7]

THE REVEREND MARMADUKE CARVER

Yet, as we have seen, Westerners do occasionally conclude that the area around the *sources* of the four rivers of Paradise constitutes the most likely site of the Garden of Eden. Dutch scholar Hadrian Reland worked this out at the beginning of the eighteenth century, although he was certainly not the first to do so. One of the earliest individuals to come to the same conclusion was the rather grandly named Marmaduke Carver (d. 1665), a former rector of Harthill in South Yorkshire. His fascinating work on the subject, entitled *A*

Discourse of the Terrestrial Paradise, Aiming at a More Probable Discovery of the True Situation of That Happy Place of Our First Parents Habitation, was published posthumously in 1666, one year after his death.

Having learned that the Reverend Marmaduke Carver had identified the site of the Garden of Eden as Armenia Major, I decided to find out more about the churchman's life and theories, so went in search of him and his book, beginning with his former parish of Harthill, near Sheffield. Yet here, in the local parish church, I found no mention of him, other than his name entered in a long list of rectors from medieval times to the present day.

One thing I did manage to establish was that toward the end of his life Carver had spent much of his time in the city of York, just 60 miles (97 kilometers) from Harthill. Here he had become chaplain to Sir Thomas Osborne (afterward Duke of Leeds), high sheriff of the county, delivering sermons in York Minster, the city's

famous cathedral. More significantly, I found that on his death in August 1665 Carver's body had been laid to rest in the south aisle of the cathedral choir.

So after leaving Harthill, I traveled to York Minster, hoping to find some evidence of Carver's gravesite. Yet no evidence of his interment remains today, not even the wall plaque that marked the spot. This was obviously a great disappointment, so after sitting down briefly in the choir area to meditate on what I should do next, I made the decision to visit the York Minster Library, located within the cathedral grounds. Here I was finally able to find out a little more about the fate of Marmaduke Carver's memorial plaque. Originally it had borne an inscription in Latin, written by James Torre, an early historian of the minster, but this had been destroyed during restoration work in 1736. It was subsequently replaced with a new plaque, its inscription now in English. This, however, along with the site of Carver's grave, has since been lost due to

subsequent restoration work in the south aisle. Mercifully, both versions of the inscription have been preserved.[*168] As you can see, it is a fitting epitaph to the churchman's life and work, in particular his search for the terrestrial Paradise:

> Reader, if you love piety, if you know how to value learning, you should know what a treasure lies under this stone, Marmaduke Carver, formerly rector of the Church of Harthill, but very well versed in . . . chronology and geography, an accomplished linguist, a fine speaker—the man, to wit, who . . . pointed out to the world the true place of the terrestrial paradise, (yet in death) made of the object of his admonitions, the celestial (paradise) which he recommended to the praise of his hearers to attain which we are filled with great longing. He was translated on this day of August 1665.[9]

During his stay in York, Carver had apparently spent much of his

time conducting research for his book in the cathedral library, which is the largest of its kind in the country. It has a collection of around 120,000 volumes, 25,000 of which were printed before 1801, including 115 incunabula (tracts printed before 1501).

So it seemed only fitting that I should find that York Minster Library has two of the only remaining copies of Carver's book in the country. Some cunning persuasion helped overturn the librarian's decision not to allow me to view the title at such short notice, so I sat down ready to read what I hoped would provide me with some valuable insights regarding the true whereabouts of the Garden of Eden. I was not to be disappointed.

THE GREAT FIRE OF LONDON

The small, leather-bound book placed before me on the reading desk felt very special indeed. It was printed in April 1666 by James

Flesher of London and sold by one Samuel Thomson “at the Bishop’s head in St. Paul’s Church-yard” (see figure 28.1). Now, it is important to conjure a vision of the time, for 1666 was the year of the Great Fire of London, which burned from the second to the fifth of September and started in a bakery in Pudding Lane. This is just over 1,000 yards (1 kilometer) away from Saint Paul’s Cathedral, where Samuel Thomson had his bookshop at the sign of the Bishop’s Head (probably located in the inn’s thoroughfare). So unless this copy of Carver’s book had sold in the months leading up to the fire, it must have been among the stock salvaged after the fire had swept through Saint Paul’s churchyard, razing the old cathedral to the ground. I almost expected the book to exude a residual aroma of smoke and fire as I began to digest Carver’s findings on the true location of the terrestrial Paradise.

A DISCOURSE OF THE Terrestrial Paradise,

AIMING

At a more probable DISCOVERY

OF

The true SITUATION of that happy place of our First Parents Habitation.

By *MARMADUKE CARVER*, Rector of *Harthill* in the County of *York*.

Nescio quâ natale solum dulcedine cunctos
Ducit, & immemores non sinit esse sui. Ovid.

Ζήτησον Παράδεισον—— Orac. Magic.

LONDON,
Printed by *James Flesher*, and are to be sold by *Samuel Thomson*, at the Bishop's head in St. *Paul*'s Church-yard, 1666.

Figure 28.1. The cover of A Discourse of the Terrestrial Paradise, by the Reverend Marmaduke Carver, published in London, England, in 1666. It was arguably the first book to build a solid case for the terrestrial Paradise being located in historical Armenia.

A MERE UTOPIA

The tract's opening address, dedicated to Gilbert Sheldon, the archbishop of Canterbury, makes it clear that the author has written the book in an attempt to dispel antiscriptorial thinking, begun in earnest by Martin Luther (1483–1546), which asserted that the Garden of Eden was "a mere *Utopia,* a Fiction of a place that never was, to the manifest and designed undermining of the Authority and Veracity of the Holy Text."[10] After this, in a long forward, Carver makes his case against the current most popular theory on the location of the terrestrial Paradise, that it was located where the

Tigris and Euphrates rivers converge in Lower Mesopotamia, a view held, he says, not only by Calvinist reformers, but also by some Papist, or Catholic, scholars.[11]

Having successfully rebutted this theory, Carver proceeds, in a sound, scholarly manner, to build a case for Eden being located in Armenia Major, now part of eastern Turkey. Significantly, he explores ancient evidence suggesting that the Euphrates, Tigris, and Araxes rivers all derive from the same source.[12] This, he says, was a single "fountain" in the "forests of Armenia,"[13] situated in the vicinity of a lake known anciently as Thonitis, or Thospites,[14] called also Arianias, or Arsissa,[15] all names usually associated with Lake Van.

Carver cites the belief of various classical writers, including Strabo[16] and Pliny,[17] that some kind of proto-river, the true source of the Tigris, emerged from a primordial fountain, then discharged into the Thospites, or Lake Van, its waters so rapid, so powerful,

that they did not mix with those of the "nitrous lake." The proto-Tigris then reemerged beyond the lake's southwest corner and sank down into a subterranean cave, only to reappear on the south side of the Eastern Taurus Mountains in the former Armenian province of Sophene, north of Diyarbakır. This then becomes the open source of the Tigris, which is known today as the Tigris Tunnel, or Birkleyn, from the Arabic *birqat al-'ayn,* "source of the river."

Carver believed it was this primordial fountain, the true source of the Tigris, that brought forth the four rivers of Paradise.[18] With this in mind, he concludes his scholarly discourse by proposing that the site of Eden, or "Heden" as he marks it on the accompanying map (see figure 28.2), was to be found between Sophene "and the fountains of Tigris, in the midst whereof, and upon the bank of the river, stood the *Tree of Life*. . . . Just about which place . . . we see . . . the nitrous Lake Thospites."[19]

CHERUBIM WITH THE FLAMING SWORDS

Carver points out that after the proto-Tigris passes through the Thospites, it was said by the classical writers to reemerge in the region of Mount Niphates.[20] This is the ancient name for Nemrut Dağ, the volcanic caldera situated just beyond Van's western shoreline. Having concluded that the Fountain of Paradise lay between here and Sophene, or immediately south of the plain of Mush, he proposes that the cherubim, which God set up to guard the Tree of Life with flaming swords turning every way, were in fact the "flashings issuing out of some Lakes."[21]

This is a very clever solution. Such "flashings" might easily describe the volcanic activity attached to Nemrut Dağ, which has erupted periodically since ancient times, the last time being in 1891, when the summit started "vomiting forth flames and lava," destroying the villages at the base of the mountain.[22]

On this same matter, the Reverend W. A. Wigram and Sir Edgar T. A. Wigram in their book *The Cradle of Mankind,* published in 1914 following their celebrated travels in Kurdistan (eastern Turkey, northern Syria, northeast Iraq, and western Iran), observed:

> It is held by many commentators that the site of the Garden of Eden was near modern Van and Bitlis, round about the headwaters of the Euphrates, the Tigris, the Araxes, and the Zab. If so, then the Garden of Eden now lies buried beneath the lava of these volcanoes; and where could we find fitter antitypes of the Cherubim with the flaming swords?[23]

It is unlikely that the Wigrams were aware of Carver's work when they wrote their book. However, their statements suggesting that the volcanoes, as natural boundaries to the Garden of Eden, were themselves the cherubim wielding the flaming swords echo Carver's thoughts completely.

And if the Garden of Eden is not encased in volcanic lava, then it could equally have been drowned, for one old Armenian legend asserts that it lies "at the bottom of Lake Van," where it has been since the time of the Great Flood.[24] This conclusion reflects the medieval belief that even if a terrestrial Paradise *had* once existed, then it would surely have been destroyed at the time of the Flood, which covered everything to the height of the highest mountains.

CARVER'S MAP OF PARADISE

Turning next to Marmaduke Carver's detailed, though rather fantastic, map of Greater Armenia (see figure 28.2), we see the terrestrial Paradise marked under the Latin legend *Heden regio quae et anthe* (Eden region and caves). These words are sandwiched between the Thospites, or Lake Van, in the east, and Sophene in the west. Indeed, the inscription appears in the vicinity of the Eastern

Taurus Mountains, which lie immediately beneath the plain of Mush, with *eden* deriving most probably from the Akkadian word *edinu* (Sumerian *eden*), meaning "plain" or "steppe."[25] Having said this, a recent academic trend sees *eden* as stemming from the West Semitic root *'dn,* meaning "to enrich, make abundant,"[26] which remains possible, although less likely.

MOUNT ABUS

Passing across Thospites Lake on Carver's map are two parallel lines that run north-south, representing the proto-Tigris flowing unaffected through its waters. They continue as dotted lines beyond the lake's northern shores, indicating that this is the incoming subterranean river alluded to in the writings of classical writers, such as Strabo and Pliny, and that at its source was the primordial foundation from which all four rivers of Paradise took their course.

Geographically, the lines originate from between a line of mountains, one of which is marked with the legend "Abus Mons."

Abus Mons, or Mount Abus, also spelled Monte Abas,[27] or Aba,[28] is mentioned in the works of both Pliny[29] and Strabo, the latter of whom writes that from its summit "flow both the Euphrates and the Araxes, the former towards the west and the latter towards the east."[30] This can only be a reference to Bingöl Mountain, of which it is said: "The Araxes rises near Erzurum (Turkey) in the Bingöl Dağ region: there is only a low divide separating it from the headwaters of the Euphrates river."[31] We should recall that Bingöl was the center of the obsidian trade in the Armenian Highlands in the proto-Neolithic age and can also be identified with Gaylaxaz-ut, or Paxray, the Wolf Stone Mountain of Armenian folklore (see chapter 24).

Figure 28.2. Section from Marmaduke Carver's A Discourse of the

Terrestrial Paradise showing “Heden,” or Eden, between Lake Van (the Thospites, in the center) and the ancient kingdom of Sophene. Note the proto-Tigris coming down from the north, close to Abus Mons (Bingöl Mountain), and flowing uninterrupted through the lake.

THE SOURCE OF MANY RIVERS

Dutch scholar of Semitic studies Martijn Theodoor Houtsma (1851–1943), in the *Encyclopaedia of Islam,* made it even clearer in 1927, when he wrote: “No fewer than six important water-courses rise in this erosion [i.e., Bingöl Mountain’s innumerable glacial pools], in which Armenian tradition for this reason places the site of the biblical Paradise.”[32] These “water-courses” are broken down in the following manner: in the northwest is the source of the Araxes, in the west is the Tuzla Şu, which becomes a major branch of the

Western, or Northern, Euphrates, and the Bingöl (or Peri) Şu, which, as we saw in chapter 24, was known to the native Armenian population as the Gail, or "Wolf," River. It too rises on the west side of Bingöl Mountain, then heads off in the direction of Baghir and Shaitan Dağ. In the southwest part of the massif rises the Gönük Şu; in the south, the Çabughar Şu; and in the east and northeast, the Khınis Şu. The last four mentioned rivers, including the Peri Şu, all join the Eastern, or Southern, Euphrates.

What was it that led the Reverend Marmaduke Carver to conclude that the primordial fountain that gave rise to the four rivers of Paradise existed in the same mountain range as Abus Mons, in other words Bingöl Mountain? Was he aware of Strabo's reference to Abus Mons as the source of both the Euphrates and Araxes?[33] It is possible, although if this were the case then surely he would have mentioned it. More likely is that it was quite simply an intuitive decision based on whatever evidence he had in hand when he came

to write his fascinating book.

Strangely, Carver does not identify the Gihon with the Araxes, nor does he associate the Greater Zab with the Pison. Instead, he sees major waterways that split away from the Tigris and Euphrates as evidence for the existence of these other two rivers. The Pison, for instance, he has entering neighboring Persia and linking, eventually, to the Indus, one of the longest rivers in Asia. Yet this vagueness should not detract from Carver's remarkable insights into the geographical location of the Garden of Eden, and we are by no means finished with his findings quite yet.

I felt the need now to focus my efforts more toward Bingöl Mountain, the Abus Mons of antiquity, in an attempt to better understand why Carver believed that here somewhere was the primordial fountain of life, and why the Dutch scholar Martijn Houtsma concluded that this was "the site of the biblical Paradise."

29

THE WORLD'S SUMMIT

Bingöl is a Turkish place-name that means "a thousand (*bin*) lakes or springs (*göl*)," an allusion to the many mountain streams that take their rise from the glacial lakes that grace its summit. In the Armenian language, Bingöl Mountain is known as Biurakn, which means "a million (*bir, byur*) eyes (*akn*)," a reference, once again, to the countless springs, or "eyes," that take their rise on its summit (although see chapter 33 for a clearer interpretation of this Armenian name).

Bingöl is mentioned also in Armenian texts under the more enigmatic name of Mount Srmantz, or Srmanç[1] (again, see chapter

33 for a discussion of the meaning of this name), described as Katar Erkri, the Summit of the Earth,[2] or the World's Summit,[3] or, indeed, the Top of the World, from which flowed the "four rivers to the four corners of the world."[4] Bingöl was also a "place of the gods,"[5] the habitation of mythical beings identified, almost certainly, with the Peri of Kurdish and Persian folklore (the region's population until the early twentieth century were mainly Armenians, Kurds, Turks, Yezidi, and Kızılbaş [Alevi], the last two being ethno-religious groups quite separate from the others mentioned here).

Very probably, the Judeo-Christian belief in the four rivers of Paradise flowing out of the Garden of Eden (see figure 29.1, for instance) is simply a variation of the cosmic mountain theme preserved in connection with Bingöl Mountain by the Armenian inhabitants of the region. It was probably for this reason that Martijn Houtsma, in 1927, noted that Armenians considered it "the site of the biblical Paradise,"[6] which, if correct, should be extended

southward to include the plain of Mush, the proposed site of the Garden of Eden itself.

MER NOIRE
ARMENIE
Mont Ararat
où s'arrêta l'Arche de Noé
Phase de Xenophon
Phase des Modernes
Euphrate de Xenophon
Euphrate des Modernes
Phase d'Herodote
Phase
EDEN
où étoit
LE
PARADIS
TERRESTRE
Phison R.
Tigre de Xenophon
Tigre des Modernes
Pays d'HEVILATH
frere d'Ophir
et fils de Jectan
Antioche
Harran
ARAM
MESOPOTAMIE
ASSYRIE
Ninive
Tigre R.
MÉDIE
Ecbatane

Figure 29.1. Section of a map of the Middle East by French cartographer and geographer Philippe Buache (1700–1773), published in 1783. Eden is shown to the west of Lake Van, placing it in the vicinity of the Mush Plain and Armenian Highlands. Confusingly, the identities of the Pison and Gihon rivers are transposed: the Araxes is shown as the Pison (written "Phison"), while the Greater Zab becomes the Gihon (written "Gehon").

Having said this, we know that the Genesis account of the earthly Paradise describes real rivers, three of which—the Tigris, Euphrates, and Araxes—were considered to take their rise from the same primordial fountain that existed somewhere in the vicinity of the Bingöl massif. Only one of the rivers, the Pison, remains somewhat of an enigma, even though the Assyrian Church, as we saw in chapter 27, identifies it with the Greater Zab, which rises in the mountains southeast of Lake Van.

THE PISON RIVER—NEW EVIDENCE

Having said this, compelling evidence suggests that the Pison was also once seen to take its rise on Bingöl Mountain and is to be identified with the Peri Şu, or Gail River. This flows initially westward before turning south to merge, eventually, with the Eastern Euphrates just north of the ancient fortress town of Kharput, thought to be Carcathiocerta, the lost capital of Sophene.

This connection between the Pison River and the Peri Şu is recorded in a book written in 1870 by German cartographers Wilhelm Strecker and Heinrich Kiepert.[7] It examines the geography of the *Anabasis,* a seven-volume work penned by Greek professional soldier and writer Xenophon (ca. 430–354 BC). He marched with the ten thousand Greek mercenaries hired by Cyrus the Younger, who sought to wrest the throne of Persia from his brother, the king, Artaxerxes II.[8] The route of the Ten Thousand, as they are known, to and from the Battle of Cunaxa on the banks of

the Euphrates, some 45 miles (72 kilometers) north of Babylon, took them through Colchis (modern Georgia), Armenia, and Mesopotamia. The identity of the rivers, towns, and cities Xenophon describes encountering on this two-way journey has been the subject of debate among scholars for hundreds of years.

The Ten Thousand are known to have marched through the foothills of the Bingöl massif, and discussing the sights they might have encountered Streker and Kiepert make the following observation:

> The native people spoken to on my trips to Armenia Major, call this river [i.e., the Peri Şu] Phison, and see it as a river of Paradise, [which they say] lies on Bingöl Mountain.[1] That this is not an arbitrary adoption of modern times is proved by the ancient Armenian writer who indicates the existence of a Castell Phison in Sophene, probably identical with the area

between the two Euphrates.[9]

The superscript number 1 after the word "Mountain" in the original text refers the reader to the base of the page. Here we read that although the inhabitants of the region assert the Peri Şu to be the "Phison," the authors have been unable to verify this claim among the works of the Armenian writers.[10]

This is a shame. Yet we are still left with the tantalizing possibility that the Peri Şu *is* the Pison, even though this new information is unlikely to constitute a major challenge to the Greater Zab's claim to being the self-same river. As stated in chapter 27, the word of the ancient Assyrian Church should not be taken lightly, especially as the Armenian Church seems to have a tendency to move around holy places (the case of the ark's Place of Descent being a prime example—see chapter 30).

Having said this, the fact that the Armenian population of

Armenia Major *believed* that the Peri Şu was the Pison now links the sources of *all four* rivers of Paradise with the area around Bingöl Mountain, which, we should not forget, was known in Armenian tradition as Katar Erkri, the Summit of the Earth, its waters carrying the "four rivers to the four corners of the world."*1711

FOUNTAIN OF LIFE

Quite independent of Judeo-Christian tradition, Muslim Kurds revere Bingöl Mountain as the site of another heavenly, paradisiacal fountain of great renown. Here is to be found Ma'ul Hayat, the Fountain of Life, the waters of which can rejuvenate youth and provide everlasting life.[12]

According to popular legend, Alexander the Great (called in Persian Iskender and in Turkish Zülkarneyn, meaning "the Horned One" or "the Two-horned," a reference to the ram horns on his

helmet) traveled to “the land of darkness,” beyond the setting sun, in search of the Fountain of Life, which was said to exist “in the north, beneath the Pole Star.”[13] His guide and vizier on the journey was the mysterious al-Khidr, a wise man; however, when they came to a fork in the road, both men went in different directions. Only al-Khidr ended up finding the Fountain of Life and drinking from its waters (or eating a fish that swims in the fountain in another version; see figure 29.2). Even though al-Khidr waited for Alexander to catch up, the fountain disappeared as he approached. Al-Khidr also then vanished, having been granted immortality by Allah.

Although the Persian and Turkish accounts of Alexander’s journey do not mention Bingöl by name, local Kurdish folklore does. Its version of the story tells how Alexander, with deep wounds and pains in his body, went in search of the Ab’i Hayat, the Waters of Life, which he found in the vicinity of Bingöl Mountain (named

Jabal-i-çur). Here he either drinks or bathes in its waters, an act that cures his ailments. In honor of this miracle Alexander chooses a spot on a nearby river and builds a castle called Çapakçur,[14] this being the old name for the town of Bingöl, which lies a short distance from the mountain.

Figure 29.2. Al-Khidr (Turkish Hızır), the Green One, who gains immortality at the Ma'ul Hayat, *the Fountain of Life*, thought to be located in the vicinity of Bingöl Mountain.

AL-KHIDR, THE GREEN ONE

Al-Khidr, called in Turkish Hızır, means the "Green One." He features in the Holy Qur'an,[15] as well as in Persian literature and various non-Islamic sources, as a mysterious figure, an ever-youthful "servant of Allah" who appears at the right moment to avert a disaster or rectify a fatalistic situation. There are many accounts of people who encounter a bearded holy figure only to find afterward that it was al-Khidr. He is a saint and a holy man, as well as the spiritual head of the Sufi movement, the so-called *qutb,* the intermediary between Allah and humankind. He is also identified with Saint George and shares the same feast date as him, which is

April 23. Some even see the presence of al-Khidr in the proliferation of carved foliate heads, or Green Men, in Norman churches and cathedrals.[16]

THE CULT OF ENKI

Al-Khidr himself was originally, most probably, a deity belonging to Mesopotamian myth and legend. Very likely he is linked with Enki, the Sumerian god of creation, water, and intelligence, known in the Akkadian and Babylonian language as Ea. In art Enki is generally shown as a human figure wearing a horned helmet with streams of water emerging from his shoulders, like twin fountains (see figure 29.3). Within the flow fish swim upstream, like salmon trying to reach the source of a river. These twin streams represent the Tigris and Euphrates,[17] over which Enki presided as god of Eridu, an ancient Mesopotamian city located on the shores of the

Shatt al-Arab waterway, where the two rivers come together before emptying into the Persian Gulf. However, there is no reason why Enki should not also have been connected with the *sources* of these mighty rivers.

Figure 29.3. The Sumerian Anunnaki god Enki (Akkadian Ea, Armenian Haya), with the twin streams of the Euphrates and Tigris emerging from his shoulders.

In Sumero-Akkadian mythology the Tigris and Euphrates were said to take their rise from a primordial water source, a subterranean lake that was the source of all "sweet water" called the Abzu (also written Apsu), which came under the patronage of Enki.

In his Semitic form as Ea, Enki was venerated in Urartu, the ancient kingdom that thrived between the Eastern Taurus Mountains and the Armenian Highlands during the last quarter of the second millennium BC and the first half of the first millennium BC, under the name Haya or Hayya.[18] His importance at that time is preserved in Armenia's Persian name, which is Hayastan, and also in its original Urartian name, which is Hayasa.[19] Even today the Armenian term for "Republic of Armenia" is Hayastani

Hanrapetutiun. This indicates very strongly that this region, which includes Bingöl Mountain, was formerly associated with the cult of Haya, or Ea, the patron of the Tigris and Euphrates rivers, which, as we have seen, emerge as twin streams from his shoulders.

In Armenian folklore Haya was transformed into the culture hero Hayk,[20] who was said to have slain Bel, a Titan and king of Babylon synonymous with the biblical character Nimrod. Tradition asserts that before the battle Hayk visited Bingöl Mountain and here immersed his sword in the icy waters of one of its glacial lakes in order to sharpen it.[21] After Hayk had killed Bel on the shores of Lake Van, the Titan's body was apparently buried on the summit of nearby Nemrut Dağ, which is named in honor of Nimrod.

DILMUN—GARDEN OF THE GODS

Enki, Ea, or Haya, was associated with a mythical location called

Dilmun, a kind of garden of creation, inhabited by him and his wife in an act that initiated "a sinless age of complete happiness," where animals lived in peace and harmony, humans had no rivals, and the god Enlil "in one tongue gave praise."[22] It was also a pure, clean, bright "abode of the immortals," where death, disease, and sorrow were unknown,[23] and some mortals were given "life like a god."[24] One text describes Dilmun as a place "where the raven did not croak and wolves and lion did not devour their prey."[25]

Even though Dilmun was a name given by the Sumerians to the island of Bahrain in the Persian Gulf, originally it was a mountainous region that overlooked the Mesopotamia Basin. One text speaks of "the mountain of Dilmun. The place where the sun rises."[26]

Some texts refer to Dilmun as the "land of Cedars," and Mehrdad Izady, professor of Near East studies at New York University, has successfully shown that this is a reference not to distant Lebanon,

the country normally celebrated for its cedar forests, but to the Upper Zagros Mountains as far north as Lake Van.[27] Cedar forests grew here in abundance until the end of the Neolithic era, when they were cut down and used by the Sumerians and Akkadians to build their towns and cities, which thrived down on the Iraqi plain.

THE DIMLI KURDS

The Bundahishn, the holy book of the Zoroastrians, actually locates a place called Dilamân "at the headwaters of the Tigris,"[28] while the archives of the Assyrian Church, located in the ancient city of Arbil in northern Iraq, refer to Beth Dailômâye, the "land of the Daylamites" as existing in the same region.[29] The Daylamites were a Kurdish tribal dynasty whose original homeland was Daylamân, or Dilamân, a region of the Armenian Highlands,[30] where their modern descendants, the Dimila, or Dimli, Kurds live today. Their

actual territory extends from the city of Erzincan and the province of Tunceli in the west, across to the Murad Şu, or Eastern Euphrates, in the east.

It is an area that includes Bingöl and the northern parts of the plain of Mush, making it clear that the geographical location of the terrestrial Paradise appears to be synonymous with the Mesopotamian concept of Dilmun; the two most likely deriving from the same culture that once saw the region as the location of the Abzu, the primordial water source that fed every river, lake, and sea in the ancient world.

The Dimli Kurds are a distinct ethnic community with very few connections to the Muslim Kurds of the region. They have their own language, called Zâzâ or Gurani, and belong to a very ancient religion called Alevi (also known as Kızılbaş, meaning "red heads," a reference to their distinctive red headgear). Although considered to have been introduced to eastern Turkey from southwest Iran,

Alevism probably contains religious elements deriving from the beliefs and practices of the Arevordi, or Arewordik, the "children of the sun,"[31] who are classed as a type of Armenian Zoroastrian.[32] They practiced exposure of the dead on rooftops (i.e., excarnation) and entered subterranean "pits" for their rites—practices reminiscent of the early Neolithic peoples who lived in this same region thousands of years earlier.[33]

THE FOUNTAIN OF HIZIR

More significantly, the Alevi revere Hızır (pronounced *his-sheer*), the Turkish form of al-Khidr, whose most sacred shrine is Hızır Çeşmesi, the Fountain of Hızır, a mountain spring with accompanying fountain that emerges from the base of a tree in the foothills northwest of Bingöl Mountain, close to the town of Varto (ancient Gimgim). Alevi come from all over Turkey to venerate

Hızır at this shrine. They take water from the fountain, which is believed to have rejuvenating properties, and spend the night in a small, unassuming building next door in order to experience dreams of the saint. This practice, known as dream incubation, is an extremely ancient means of communication with supernatural forces, and to find that it still occurs at the base of Bingöl Mountain is quite extraordinary.

Whether the Fountain of Hızır is considered to be the original Ma'ul Hayat, Fountain of Life, or the Ab'i Hayat, Waters of Life, is unclear, although the connection is indisputable. Clearly, this holy spring cannot have been the actual source of the rivers of Paradise, because each river rises from a different location on the mountain's summit. Perhaps some kind of primordial fountain, as imagined by the Reverend Marmaduke Carver, was thought to exist within the mountain itself. Perhaps this was seen to feed the glacial lakes that are the true source of the many rivers and streams that take their rise

on the mountain, accounting for the name Bingöl, which, as we have seen, means “a Thousand Lakes”; that is, boundless sources of water.

Was this also the origin of the concept of the Abzu, the primordial water source of Mesopotamian mythology presided over by Enki, who lived with his wife in the paradisiacal realm of Dilmun? Was the Alevi shrine of Hızır Çeşmesi, the Fountain of Hızır, some distant echo of these beliefs, which we can only assume sprang from this very region many thousands of years ago?

The fountain’s current genius loci, certainly among the Alevi, is Hızır, a figure that can almost certainly be identified with Haya, the Armenian form of Enki or Ea, guardian of the Abzu. Might the Alevi, as the descendants of the Daylamân, or Dilamân, hold some special knowledge regarding the former existence in their midst of Dilmun? As we see next, this paradisiacal realm was synonymous with another location in Mesopotamian myth and legend, this being

the Duku mound, birthplace of the Anunnaki gods.

30

RISE OF THE ANUNNAKI

Klaus Schmidt may have regretted talking to British journalist Sean Thomas, who would later write that the German archaeologist claimed that Göbekli Tepe was a "temple in Eden." It has not, however, stopped Schmidt from speculating about the effect the site might have had on the civilizations that flourished on the Mesopotamia Plain from around 3000 BC onward.

In his book *Göbekli Tepe: A Stone Age Sanctuary in South-eastern Anatolia,* published in its English language version for the first time in 2012, Schmidt speculates that the Göbekli builders may have derived from a shamanic society and that the T-shaped pillars

perhaps represent their great ancestors. Much later, the memories of these powerful individuals were transformed into stories relating to deities called the Anunna gods of heaven (an) and earth (ki), known also as the Anunnaki.

According to the myths and legends of the Sumerians and Akkadians—the peoples that thrived down on the Mesopotamian Plain during the third millennium BC—the birthplace and abode of the Anunnaki was the Duku, a Sumerian word meaning "holy mound." Here was created the first sheep and grain, which were then given by the gods Enki and Enlil to humankind, who lived down below. This is very clearly an allusion to the origins of animal husbandry and agriculture, which, as we have seen, took place in the *triangle d'or* at the time of the Neolithic evolution. As Klaus Schmidt puts it himself:

> Can these arguments be connected, is it possible that behind Göbekli Tepe there hides Mount Du-ku, and are the

anthropomorphous pillars of Göbekli Tepe—suddenly surprisingly real—the ancient Anuna Gods?[1]

Incredibly, these same ideas regarding the origins of the Anunnaki being a memory of the prime movers behind the Neolithic revolution in southeast Anatolia were put forward by the current author in his book *From the Ashes of Angels,* published in 1996, and written as Schmidt was surveying the mountaintop sanctuary of Göbekli Tepe for the first time. That the German archaeologist now also believes the catalyzing events of the Neolithic revolution might well be preserved in the accounts of the Duku mound and the Anunnaki giving humankind the rudiments of civilization is highly significant. Consequently, it is essential to ascertain the foundation point of these mythological traditions, and to find out whether they really do relate to Göbekli Tepe and its enigmatic T-shaped pillars.

Although in the Sumerian language Duku means "holy (*ku*)

mound (*dul*)," the equivalent of *dul* in Akkadian is *tillu,* cognate with the Arab *tell,* that is, an occupational mound, very like Göbekli Tepe itself.[2] In fact, Mesopotamian scholar Jeremy Black thinks it likely that as a mythological concept the Duku was seen as a prototype of the many tells found scattered across the Mesopotamian Plain, many of which would already have been abandoned, even by the commencement of the Sumerian and Akkadian civilizations in the third millennium BC.[3]

Just a riffle through the dirt and soil of any occupational mound very quickly produces potsherds, worked flints, and even human remains, which might easily have been seen as material evidence of the former presence on earth of the gods. The existence of these tells is most likely the root behind not only the Duku mound of Sumerian mythology but also the primeval mounds featured in the myths and legends of other ancient civilizations, where they are seen as the first built structures to occupy the earth (those that

feature in ancient Egyptian texts as the foundation points of pharaonic civilization being prime examples). The Duku was therefore a primeval mound, the place of origin of the earliest ancestor gods, built where earth and heaven come together. These ancestor gods were so old that when eventually superceded by later deities, they were seen to have withdrawn into a nebulous world existing within the mound itself, which thereafter acted as a conduit into this netherworld, known as the *Kur*.[4]

The holy mound thus became an entrance to the Kur, a word meaning also "foreign land" and "mountain." Indeed, some scholars see the word *kur* as the origin of "kurd," the name given to the foreign inhabitants of the north, from which we derive the term Kurds and Kurdistan.[5] Yet having said this the Duku also came to be identified, like Dilmun, with the "Mountain of the Spring," from which the sun emerged each morning.[6] This association comes from the fact that, like the sun-god in ancient Egyptian tradition who was

thought to pass through the *Duat,* or underworld, from sunset to sunrise, the sun-god in Mesopotamian tradition similarly passed through the Kur, or netherworld, to emerge from a cavelike opening in the Duku mound. Thus the Kur, as both the mountainous land of foreigners and the realm of the dead, came to be associated with the land of darkness, in other words the north, the only direction that the sun does not reach in the Northern Hemisphere.

Although ancient Mesopotamian cities often possessed their own representations of the Duku mound, somewhere out in the mythological world was the original one, where the genesis of the Anunnaki gods took place. So was Schmidt correct to identify the Duku with Göbekli Tepe?

MOUNTAIN OF THE GODS

Ancient texts tell us the Duku mound existed as part of a much

larger hill or mountain called Kharsag (or *hursagËœ*), known as Kharsag-gal-kurkura, “great mountain of all lands.”[7] It acted as a support on which the heavens rested and around which the stars revolved in an unerring fashion, showing it to be a cosmic mountain or world mountain.

Although Kharsag, like the Duku mound, is sometimes described as the Mountain of the East,[8] an allusion to the direction of the rising sun, it is also occasionally situated in the north,[9] the direction of the Eastern Taurus Mountains and the Armenian Highlands. So where exactly was Kharsag, if indeed it was a physical location?

THE NIPPUR FOUNDATION CYLINDER

One Sumero-Akkadian inscription, dating to around 2600 BC and found on a terra-cotta cylinder deposited in the foundations of the “Mountain House” (E-kur) of the god Enlil in the city of Nippur in

southern Iraq, speaks of Kharsag in direct association with the Tigris and Euphrates rivers:

> *The holy Tigris, the holy Euphrates,*
> *The holy scepter of Enlil*
> *Establish Kharsag;*
> *They give abundance.*
> *His scepter protects (?);*
> *[to] its lord, a prayer . . .*
> *the sprouts of the land.*[10]

Unless this is a reference to the *mouths* of the Tigris and Euphrates, it implies that the two great rivers were seen to sprout forth from Kharsag, the Mountain of the World. That Kharsag might be an actual mountain to the north or northeast of Mesopotamia has long been realized, although most usually it is identified with Mount Ararat,[11] a sacred mountain in eastern Turkey of paramount

importance to Christian tradition.

It was here, we are told, that Noah's ark came to rest after the Great Flood, although this, as we shall see, is a complete misnomer. The original Genesis account says only that the ark came to rest "on [the] mountains of Ararat (Gen. 8:4)," a reference to the kingdom of Ararat. This is the Hebrew name for Urartu, which appears in Assyrian and Babylonian literature for the first time around the thirteenth century BC. At its height Urartu stretched from the Eastern Taurus Mountains in the south all the way to the Caucasus Mountains in the north, with its main heartland being in the region of the Armenian Highlands and Lake Van. Never does the Bible allude directly to Mount Ararat. Yet this has not stopped overzealous clergy members, theologians, and scholars identifying the so-called Place of Descent, where Noah's ark made landfall, with the tallest mountain in Armenia, which is Mount Massis, popularly known today as Mount Ararat.

MOUNT AL-JUDI

Mount Massis is unquestionably a mountain very sacred in Armenian tradition, and evidence of human activity here goes back to prehistoric times. Yet nothing before the fifth century AD associates it with the story of Noah's ark. Indeed, the inhabitants of the region point out another mountain as the true Place of Descent. This is Mount al-Judi, the modern Cudi Dağ, close to the Turkish-Syrian border. At the foot of the mountain is the town of Cizre, which tradition asserts is the site of Thamanin, the settlement established by Noah and his family after leaving the ark.

Mount al-Judi is the Place of Descent recognized by Babylonian Jews, Christians of the Assyrian Church, Muslims (as stated in the Holy Qur'an's Sura 11:44), Yezidis (a Kurdish angel-worshipping religion), and "Chaldeans,"[12] a reference to the peoples of Northern Mesopotamia. This same mountain is asserted to be the landing place of Noah's ark by Berossus (a Babylonian historian, ca. 250

BC) and Abydenus (a Greek historian, ca. 200 BC), who stated that inhabitants thereabouts "scraped the pitch off the planks as a rarity, and carried it about them for an amulet," while "the wood of the vessel (was used) against many diseases with wonderful success."[13]

According to English Orientalist George Sale (1697–1736), who made an English translation of the Holy Qur'an published in 1734, relics of the ark were "seen here in the time of Epiphanius [a famous church leader who lived at the end of fourth century AD], if we may believe him; and we are told the [Byzantine] emperor Heraclius [who ruled AD 610–641] went from the town of Thamanin up to the mountain al Jûdi, and saw the place of the ark."[14]

Sale mentions also that there was once an ancient monastery on the summit of Mount al-Judi, which was destroyed by lightning in AD 776. After this time, belief that the mountain was the Place of Descent declined, its place taken by Mount Massis, called by the

Turks Agri Dağ and by the Christians Mount Ararat.[15]

THE SWITCH TO MOUNT MASSIS

The Armenian Church was directly responsible for transferring the Place of Descent from Mount al-Judi to the more northerly Mount Massis,[16] a holy mountain under the jurisdiction of the Mother See of Holy Echmiadzin, a church and monastery located in Vagharshapat, near the city of Erivan, or Yerevan, the capital of the Republic of Armenia (see figure 30.1). As the seat of the Catholicos, or head of the Armenian Church, Holy Echmiadzin is to the Armenians what the Vatican is to the Catholic Church. When viewed from Echmiadzin, Mount Massis seems to rise up from the surrounding plain to dominate the southern skyline.

The change in location of the Place of Descent from Mount al-Judi to Mount Massis was almost certainly political and occurred

following the ruling of the Council of Ephesus in 431, which banned the ancient Assyrian Church from the Orthodox Catholic Church because of its unorthodox views on Christ's dualist nature. At the time Mount al-Judi was under the jurisdiction of the Assyrian Church, the Armenian Church's southern rival, so a switch of interest away from Mount al-Judi to Mount Massis was deemed appropriate, as the Armenians did not want the Assyrians to have control of this important place of pilgrimage.

Yet before this time the Armenian Church was, seemingly, happy to accept Mount al-Judi as the site of the Place of Descent. This is brought out in an Armenian chronicle known as the *Epic Histories,* attributed to an Armenian historian named Faustus of Byzantium, who lived in the fifth century. The book chronicles the visit of Jacob (or James), the second bishop of Nisibis in Northern Mesopotamia, to Mount al-Judi. Here the "Armenian saint," who was born at the end of the third century, is said to have found the "wood of Noah's

Ark."[17]

Today, only Christians believe that Mount Ararat is the site where Noah's ark came to rest. Yet the sheer potency of this belief remains so strong that it has inspired a number of high-profile attempts to locate the remains of the ark on the slopes of Mount Ararat. All of these expeditions have either come to nothing or resulted in clandestine video footage of the alleged remains of a petrified boat, which becomes impossible to verify.

The reason for diverting from the main theme of the chapter to cite these facts is that the Christian belief in the power of Mount Ararat has over the past three hundred years seriously clouded scholarly judgment regarding the geographical placement of legendary locations connected with either Northern Mesopotamia or the Armenian Highlands. For instance, it was almost certainly the Christian obsession with Mount Ararat that led to its being identified with Kharsag.[18] Yet no major rivers take their rise there,

especially not the Tigris and Euphrates mentioned in the inscription recorded on the Nippur foundation cylinder.

Since it was anciently believed that the Tigris and Euphrates stemmed from the same source, it is more likely that Kharsag should be identified with the Bingöl massif, which is located around 150 miles (240 kilometers) west-southwest of Mount Ararat. Just as the Armenians saw Bingöl Mountain as the Place of the Gods, the Sumero-Akkadians saw Kharsag as "where the gods were born"[19] or "where the gods had their seat,"[20] an allusion to the presence thereabouts of the Duku mound, which, as we have seen, was very likely envisaged as a tell, an abandoned occupational mound, dating back to the age of the gods.

ERIVAN

Figure 30.1. Old print of Mount Ararat as seen from Erivan, modern Yerevan, the Republic of Armenia's capital and largest city.

Interestingly, some accounts of the Duku mound speak of something called the Ancient City,[21] which was believed to have been built right on top of it, underneath which was the Abzu.[22] Although scholars consider that this account relates to the ancient city of Eridu, which was under the patronage of Enki and had its own representation of both the Duku mound and Abzu, chances are that the concept of the Ancient City relates to a built structure existing on the original Duku—one that was seen to sink down into the hill when its ancestor gods withdrew into the mound.

THE NIPPUR FOUNDATION CYLINDER

In the 1980s British historical writer and geologist Christian

O'Brien (1914–2001) made a careful study of the Nippur foundation cylinder (correctly entitled the Barton Cylinder, after George A. Barton [1859–1942], the Canadian clergyman and professor of Semitic languages who first translated its text). He concluded that its inscription alluded to some kind of settlement of the Anunnaki existing in Kharsag, which he interpreted as meaning "principal fenced enclosure" or "lofty fenced enclosure."[23] It was a conviction reinforced by the fact that the Akkadian word *edin,* meaning "plain," "plateau," or "steppe," is twice used in connection with this highland "settlement."[24] Was this the "Ancient City" existing on top of the Duku mound?

Among the Anunnaki named in the Nippur foundation cylinder is the great lord Enlil, along with Enki, whom we have already met; Utu, or Ugmash, the sun god; Anu, whose name means "heaven"; and Enlil's (usually Enki's) consort, Ninkharsag, a name that translates as "Lady of the Sacred Mountain." Significantly, she

appears also under the Akkadian name Šir (the equivalent of the Sumerian Muš, pronounced *mush*),[25] meaning "Serpent," and is given the epithet Bê-lit, meaning "Divine Lady."[26] Even though Mesopotamian scholar George A. Barton assumed that Šir was a "serpent goddess" venerated in the city of Nippur,[27] O'Brien interpreted her name as meaning "Serpent Lady"[28] and identified her as one of the Anunnaki living in Kharsag.

CULT OF THE SNAKE

It is curious that Ninkharsag, also called Šir (or Muš), the wife of Enlil or Enki, is seen as one of the Anunnaki living at Kharsag, for a cult of the snake is known to have thrived on the plain of Mush (which in Turkish is written Muş). A medieval translation of a work by the fourth-century Armenian abbot Zenob Glak says that snake worship was introduced to the kingdom of Taron, the ancient name

of Mush, by "Hindoos," who arrived from the east in 149 BC.[29] They built cities and temples here that were destroyed by Gregory the Illuminator during his crusade against the pagans at the beginning of the fourth century AD. Apparently, the temples were located at Ashtishat, close to the road between Mush and Bingöl Mountain, where afterward Surb Karapet, the Monastery of Saint John the Baptist, was built.

This story suggests that Mush derives its name from the Sumerian Muš, the Akkadian Šir (pronounced *shir*), both meaning "snake" (even though in Armenian popular tradition Mush, as the word *mshush,* means "fog," a name deriving from a story in which the Armenian goddess Anahita raised a mist so that her daughter Astghik, goddess of love and beauty, could bathe without any mortal setting eyes on her nakedness). If so, then the ancient snake cult known to have existed at Ashtishat (the principal seat of the goddess Astghik, whose symbol was the *vishap,* a word meaning

“snake” or “dragon”) probably predates the arrival of the “Hindoos” and most likely relates to a time when the region was under the control of one of the Mesopotamian civilizations. If so, then this has profound implications for the identification of Kharsag with Bingöl Mountain, and the Garden of Eden with the Mush Plain, for in his book *The Genius of the Few,* Christian O’Brien argues that the account of Kharsag preserved in the Nippur foundation cylinder was perhaps the origin of the Genesis account of the terrestrial Paradise:

> The parallels between this epic account and the Hebraic record at the Garden of Eden are highly convincing. Not only is “Eden” twice mentioned, but the reference to the “Serpent Lady”, as an epithet for Ninkharsag . . . [is] clear confirmation of the scientific nature of the work carried out by the equivalent Serpents in the Hebrew account.[30]

We shall meet with those Serpents of Hebrew tradition shortly,

but for the moment it is important to explore O'Brien's conclusions regarding Kharsag's identification as the original Garden of Eden. He located this mountain settlement of the Anunnaki not at Bingöl Mountain in the Armenian Highlands but at Mount Hermon (modern Jabal al-Shaykh, "Mountain of the Chief "), which forms part of the Anti-Lebanon range and straddles the border between Syria and Lebanon, extending as far south as the Israeli-occupied Golan Heights.

NO CEDAR FORESTS

O'Brien identified Mount Hermon with Kharsag primarily because the text associates it with cedar forests. So even though the Sumero-Akkadians located their world mountain in the north, northeast, or even the east of what is today Iraq, O'Brien chose to place it in the extreme west, the direction of Lebanon's celebrated cedar forests,

because, in his opinion, there were no cedar forests in the Zagros Mountains. Yet as we have seen, cedar forests existed in abundance throughout the Zagros Mountains at the start of the Sumerian and Akkadian civilizations. So thorough, however, was their extermination that much later scribes interpreted references to cedar forests in ancient texts as alluding to Lebanon in the far west. This was simply because the scribes were not aware that cedar forests had once existed in the mountains to the north and northeast of their kingdoms. As a consequence, some versions of the famous *Epic of Gilgamesh* have its hero embarking on his quest for the plant of immortality and ending up in the vicinity of Lake Van and the Armenian Highlands, while others have Gilgamesh in Lebanon, traveling as far as Mount Hermon.[31]

If Kharsag is to be geographically placed anywhere, then it is going to be in the direction of the Eastern Taurus Mountains and Armenian Highlands, close to Lake Van. What is more, if Kharsag

really was established where the Tigris and Euphrates sprouted forth, as the Nippur foundation cylinder suggests, this locates it in the vicinity of the Bingöl massif, making it the true "place of the gods," in both Armenian and Mesopotamian tradition. Here too was the site of the terrestrial Paradise, which O'Brien was almost certainly right to identify with Kharsag, and thus the Duku mound, where the Anunnaki lived and were first created.

Whether or not Göbekli Tepe can claim some credit as the original inspiration behind the Duku mound, as Klaus Schmidt surmises, remains to be seen. Undoubtedly, it would have had some influence on the development of the various myths featuring the Duku mound, just in the same manner that the story of the first sheep and grain created on the Duku mound and given by the Anunnaki to humankind is an abstract memory of the introduction of animal husbandry and sedentary farming in the *triangle d'or.* Having said this, the vision of the Duku as an abandoned tell

situated in a hilly or mountainous environment, on which was built the "Ancient City," fits Göbekli Tepe perfectly. So in summary we can say that the concept of the Duku—as handed down across the millennia, until it became a feature in the cosmological world of the Sumerians, Akkadians, and later Babylonians and Assyrians—most likely constituted an amalgam of sites that included Göbekli Tepe in the *triangle d'or,* and another now lost site in the vicinity of Bingöl Mountain in the Armenian Highlands.

So who exactly were the Anunnaki, and what were they doing in the terrestrial Paradise, where in biblical tradition Adam and Eve are placed after being created by God? As we see next, in Mesopotamian tradition it was not God, but the Anunnaki who were responsible for the creation of the first humans.

31

THE MAKING OF HUMANKIND

As to who the Anunnaki might have been, we shall learn soon enough, and as to what they were doing in the terrestrial Paradise, the answer is clear—Kharsag, Eden, and Dilmun, as geologist and writer Christian O'Brien suspected, are all one and the same, and in Mesopotamian tradition it was here that the Anunnaki are said to have "made" humankind.

One story in particular talks about mythical beings called the Igigi being burdened with labor by their masters, the Anunnaki, and rebelling, only to be replaced by human beings.[1] The account appears in the myth of Atrahasis, the Assyrian flood hero, where we

find the Igigi being told to dig a watercourse in a paradise seen in terms of a garden.[2] The environment is actually very similar to the setting imagined by Christian O'Brien in his own translation of the Nippur foundation cylinder.

THE CREATION OF MAN

After "3600 years" of digging out the Tigris and Euphrates river beds to create water channels, seen as "the lifelines of the land,"[3] the Igigi decide they are not going to suffer this toil any longer and so rebel against the Anunnaki, who are under the leadership of Ellil (the Old Babylonian and Assyrian form of Enlil).[4] Apparently, they set fire to their tools and lay siege to Ekur, Ellil's mountain house, where the other Anunnaki are also to be found. On learning why exactly the Igigi are up in arms, the Anunnaki council decides to make the first humans in order to carry out all further manual work

on behalf of the gods.

The humans are created by the Anunnaki through the intervention of "far-sighted Enki" and some of the other Anunnaki.[5] To achieve this, the god Illawela "who had intelligence" (the god Kingu in other accounts) is sacrificed, and the Anunnaki immerse themselves in his blood to purify themselves.[6] Enki then provides clay to the womb goddess Nintu, also called Mami, who calls upon more womb goddesses to start molding together the blood of the god to create the first human beings "to bear the yoke . . . to bear the load of the gods." From the god's flesh a ghost comes into existence, so that the slain god might never be forgotten.[7]

In another version of the Mesopotamian creation myth, the first man is said to have been Adapa, a name reminiscent of Adam, the first man of Hebrew myth, who is modeled from clay that is the color of blood.[8] In this instance it is not only Enki who provides clay for the creation of the first humans, but also his wife

Ninkharsag, who is synonymous with Nintu and Mami. Together they mold together the blood and clay to create the likeness of the human form.

Ninkharsag, we must remember, is one and the same as the wise snake goddess Šir, or Muš, of the Nippur foundation cylinder, meaning that in Mesopotamian myth a goddess identified as a snake is involved in the creation of the first human beings. George A. Barton, the original translator of the Nippur foundation cylinder, sensed the biblical connection with this story when he wrote: "She [Muš] was very wise. Her counsels strengthen the wise divinity of Anu [the god of heaven], a statement which reveals a point of view similar to that of Genesis 3,"[9] a reference, very clearly, to Eve's role as the progenitor of humankind in the Genesis story.

EVE, THE GIVER OF LIFE

Strangely, in Aramaic, the West Semitic language used in the Bible lands during the first millennium BC, the word for Eve (חַוָּה, *chava* or *hava*) is more or less identical to the word for snake (חוה).[10] In Arabic also the name Eve, *hawwa,* means "snake," although it can also mean "giver of life." Life, Eve, and the Serpent of Temptation are ultimately bound together, reflections of each other, and if this is the case then the fact that Eve bears correspondences with the goddess Ninkharsag, Muš, or Šir, the wife of Enki, is significant. Could Eve simply be a Hebrew form of this snake goddess who was responsible for the creation of humanity, the same way that in biblical tradition Eve is considered to be the First Mother of humankind?

If so, then it strengthens still further the case for the Mush Plain being the Garden of Eden and Bingöl Mountain being not only Kharsag, and the Duku mound, where the Anunnaki lived and were created, but also the true "place of the gods" in Armenian tradition.

Perhaps as both Klaus Schmidt and the current author surmise, the Anunnaki are to be seen as the instigators of the Neolithic revolution, whose memory is immortalized in the T-shaped pillars found in the various large enclosures at Göbekli Tepe. As we have seen, there is every chance that these divine ancestors are a memory of Swiderian groups who entered eastern Anatolia sometime during the Younger Dryas mini ice age, ca. 10,900–9600 BC, and went on to catalyze the Neolithic revolution in the *triangle d'or.*

Yet there remains a stratum of activity concerned with this transformation of humanity from simple hunter and forager to animal herder and agricultural laborer that needs addressing, and this is the memory of the founders of civilization contained in the forgotten, fringe, and often heretical literature of the Judaic world. Here the mythical beings that provide humanity with the rudiments of civilization are named as *'îrîn,* "Watchers." As we see next, their story is told in the book of Enoch, one of the strangest yet most

compelling holy books ever written.

32

THE COMING OF THE WATCHERS

While researching the myths and legends of Bingöl Mountain I became intrigued by its ancient name of Srmantz, or Srmanç, which appears occasionally in old Armenian texts without explanation.[1] In Greek, I found it written Σερμάντου (Sermantou),[2] which I asked writer and journalist Jonathan Bright, a colleague from Greece, to investigate on my behalf. He possesses a sound understanding of the origins of the Greek language and stood a good chance of identifying the root components behind this curious place-name. Without knowing anything about my findings concerning Bingöl Mountain, he felt compelled to respond in the following manner:

> I cannot avoid noticing the resemblance of the word [Σερμάντου (Sermantou)] with the Enochian 'Ερμώμ' (Sherman-tu/Shermon-/Hermon-/Hermom. . .), where the 200 watchers have supposedly descended, so although Mt Hermon is identified as the one standing at the borders between Syria, Lebanon and Israel (Golan Heights), one cannot help but wonder . . .[3]

One cannot help but wonder, indeed. Mount Hermon does indeed feature in "Enochian" texts, such as the enigmatic book of Enoch. This is a pseudepigraphical (falsely attributed) work of immense age, the oldest fragments of which have been identified among the Dead Sea Scrolls, which in their earliest form date to the third century BC.

One of the book of Enoch's internal texts, known to scholars as the book of the Watchers, tells the story of the *'îrîn,* a name given to

angels in certain Hebrew works of early manufacture and meaning something like “those who are awake” or “those who watch” (in Greek, ἐγρήγοροι [egrêgoroi]; in Latin and Slavic, Grigori; and in English, Watchers).*18 It is said that two hundred of their number came together in an assembly on top of a mountain and swore an oath of loyalty before descending to the plains below. Here they took mortal wives and revealed to them the secret arts of heaven. For this they became outcasts, rebels, and reprobates—the first fallen angels, a crime for which they were rounded up, incarcerated by the heavenly angels, and forced to watch the slaughter of their giant offspring, the Nephilim, a word that means “those who have fallen” or the “fallen ones.”

FIRSTS FOR HUMANITY

The secret arts and sciences of heaven revealed to humanity by the

rebel Watchers, as I first noted in *From the Ashes of Angels,* correspond with a number of firsts for humanity in the centuries and millennia after the initial Neolithic revolution. This we can see beginning with the construction of Göbekli Tepe in the mid-tenth millennium BC and continuing in one form or another across the Near East and Middle East for the next four thousand years.

In addition to the earliest expression of animal domestication and agriculture, the earliest use of beaten and smelted metal took place in the Near East, as did the earliest manufacture of linen fabric, the first brewing of beer and fermenting of wine. Some of the earliest creation of figurines using fired pottery occurred in this region, as did the first known construction of stone buildings for both secular and religious purposes.

This very same epoch saw the first use of stone drills, arguably made of flint, to penetrate large, polished beads made from semiprecious stone, such as quartz, agate, and carnelian, to create

beautiful necklaces. At the same time, we find the first use of green malachite powder for cosmetic purposes. Interestingly, the Watchers were accused of teaching women how to beautify themselves, just as they are said to have introduced humanity to working with metal,[4] something that took place for the first time at Çayönü in southeast Anatolia.

THE SONS OF GOD

So who were the Watchers, and how do they fit into the bigger picture? Bible scholars are convinced that the book of Enoch and other similar examples of Enochian literature derive from a few brief passages in Genesis 6, which speak of how the *bene ha-Elohim,* the "Sons of God," who are synonymous with the Watchers, came upon the "daughters of men" and, finding them fair, lay with them to produce *gibborim,* "giants," generally interpreted

as alluding to the Nephilim. However, this is the original account:

> The fallen ones [Nephilim] were in the earth in those days, and even afterwards when sons of God [bene ha-Elohim] come in unto daughters of men, and they have borne to them—they [are] the heroes, who, from of old, [are] the men of name [gibborim]. (Gen. 6:4).

Clearly, the Nephilim were actually already existent when the Sons of God, that is, the Watchers, took mortal wives, and there is good reason to suggest that the Watchers and Nephilim are simply different names for the same antediluvian population that thrived in the Bible lands prior to the Flood of Noah. Yet to think that these meager lines should have inspired the story of the Watchers in the book of Enoch seems unlikely. More plausible is that it was the other way around: the few lines in the book of Genesis are interpolations, later insertions, based on quite separate source

material, most likely some variation of the Watchers story.

After reading the book of Enoch, I became convinced that these Watchers, or "fallen ones," like the Anunnaki of Sumero-Akkadian tradition, were very powerful human individuals who lived during some distant age of humankind. They were advanced enough to give us the rudiments of civilization, recalled in the manner in which the fallen angels revealed to mortal kind the forbidden arts and sciences of heaven. What is more, their sexual liaisons with the "daughters of men" expressed their quite obvious human nature, as well as their ability to cocreate in order to produce flesh and blood offspring that resembled both themselves and their mortal wives.

VISAGE LIKE A VIPER

Yet these rebel Watchers, or fallen angels, bore no recognizable wings. In Enochian literature they are described only as tall in

stature, with long, white hair, pale skin, ruddy complexions, and mesmeric eyes that quite literally shine like the sun.[5] One crucial passage in a fragmentary text known as the Testament of Amram likens the visage of one Watcher to that of a "viper," suggesting a long, narrow face of apparent serpentine appearance.[6]

At other times, the Nephilim, as the offspring of the Watchers, are called Awwim, "Serpents,"[7] while in one instance a Nephilim is described as the "son of the serpent named Tabâ'et,"[8] with Tabâ'et being one of the rebel Watchers. A Watcher named Gâdreêl is even cited as the serpent that "led astray Eve,"[9] implying that the serpent of Eden was in fact a Watcher, or fallen angel. More crucially these strange beings are occasionally described as flying like birds,[10] or they are described as wearing iridescent dark cloaks,[11] or garments with "the appearance of feathers"[12] (see figure 32.1). Very clearly it suggests the Watchers are in fact quite human shamans, or some kind of ruling elite, and not simply heavenly beings that have

become flesh and blood in order to lie with mortal women.

As we have seen, vultures feature heavily in the early Neolithic art of central and eastern Anatolia, often in humanized form, where they seem to be associated with the passage of the soul into the sky world, a path taken also by the shaman after entering trancelike states. It is likely that to achieve these astral journeys the shaman put on the paraphernalia of the vulture, like the articulated wings found at Zawi Chemi Shanidar in the Zagros Mountains of northern Iraq, a site more or less contemporary with Göbekli Tepe.

HUMAN ANGELS

Is it possible that the memory of how a shamanic or ruling elite seen as responsible for humanity's sudden leap forward at the beginning of the Neolithic age has been preserved in Judaic literature as the story of the Watchers and Nephilim? Were these fallen angels

remembered in Mesopotamian myth as the Anunnaki, the gods of heaven and earth, that “fashioned” the first humans from blood and clay, and later revealed to us the rudiments of civilization?

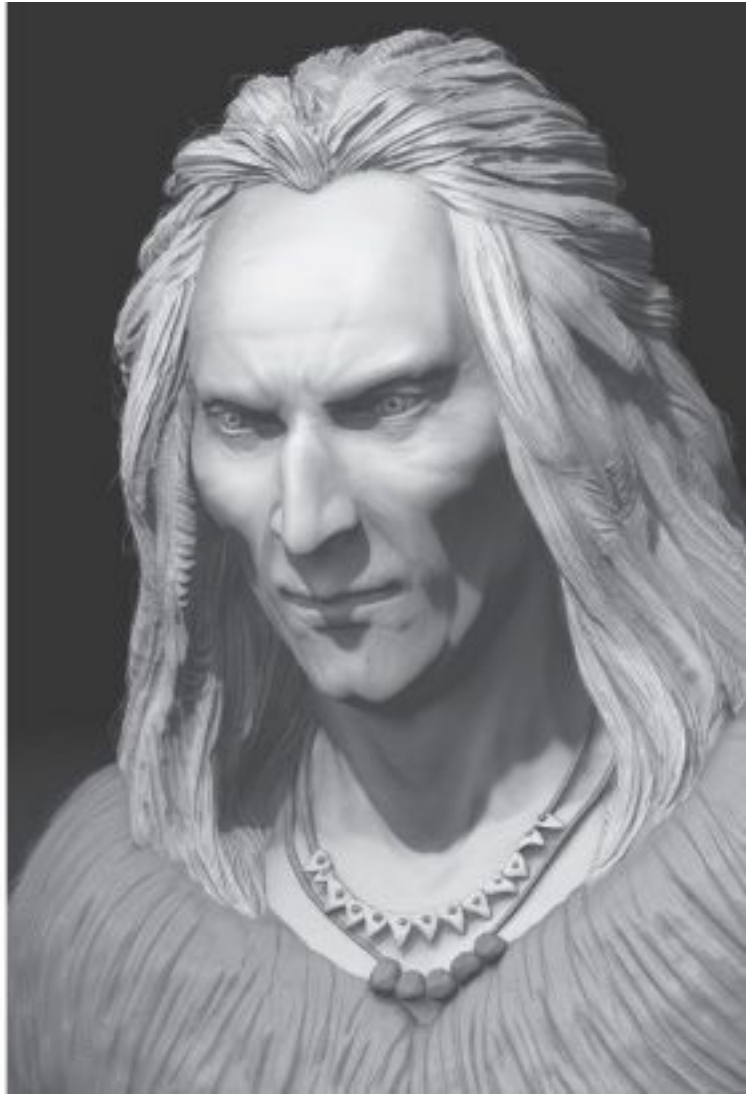

Figure 32.1. Left, artist Billie Walker John's conception of a Watcher based on descriptions given in Enochian material, and, right, a 3-D sculpt by graphic artist Russell M. Hossain of a Watcher based on Billie Walker John's 1995 illustration.

Once again we find that Klaus Schmidt has had something interesting to say on the subject. Having separately speculated on the myths of the Anunnaki being some distant memory of the divine ancestors portrayed as the T-shaped pillars at Göbekli Tepe, in an interview given to the *Turkish Times* in 2006 he spoke of the stones as representing the "watchman [*sic*] of the period."[13] Watchmen is simply another form of the name Watcher and actually appears in the book of Enoch ("And I related before them all the visions that I had seen in my sleep, and commenced to speak those words of justice and to upbraid the watchmen of heaven"[14]).

Whether Schmidt had in mind the Watchers of the book of Enoch

when he said these words is not clear; either way, it is an interesting admission and one that does make complete sense. For instance, Christian O'Brien, in *The Genius of the Few,* not only identifies the Anunnaki with the Watchers but concludes that the Anunnaki's highland settlement of Kharsag was one and the same as the earthly abode of the Watchers described in the book of Enoch.[15] These, it must be said, were incredibly forward-thinking ideas for 1985, when his book was published, particularly as the most popular theory at the time was that the Watchers and Anunnaki were ancient astronauts who came here in rocket ships two hundred thousand years ago and created human beings as slave labor to mine South African gold, which was then taken off planet.

These fanciful notions continue to prosper today. However, at least now we have a realistic alternative that with the discovery of Göbekli Tepe is becoming acceptable even among the academic community, thanks to the very bold stance taken on the subject by

scholars such as Professor Klaus Schmidt. He recognizes that stories and legends preserved in ancient texts relating to mythical beings, accredited with being the founders of civilization, could well reflect a memory of the prime movers behind the initiation of the Neolithic revolution.

So if the Watchers were, in fact, not heavenly angels but human beings, then where exactly was their earthly abode? Where was the Mountain of Assembly on which the two hundred rebels swore allegiance before descending on to the plains below and taking mortal wives? As we shall see next, it was certainly not where the book of Enoch tells us, but much farther north in a mythical realm known as the Land of Darkness.

33

MOUNTAIN OF THE WATCHERS

There is a general belief that the events portrayed in the book of Enoch, if they do have geographical correspondences in the real world, must have occurred in the vicinity of Mount Hermon, where the Watchers are said to have made their pact before descending on to the plains below. Indeed, some of the place-names featured in the text can be found in the foothills around the mountain, which lies on the northern border of Israel in the Anti-Lebanon range. There is no denying that the stories acted out in the book of Enoch are *meant* to be seen as having occurred in the Promised Land of the Israelites, occupied in the wake of Abraham and his family's departure from

the city of Harran.

More likely, however, is that the setting for the events featured in the book of Enoch was eastern Anatolia, historical Armenia, where almost all the stories contained in the book of Genesis prior to the age of Abraham are played out. Not only is it the suspected setting for the fall of Adam and Eve in the Garden of Eden, but it is also where Noah's ark came to rest; where Abraham was brought up in Ur of the Chaldees (which was most likely Şanlıurfa, and not a city in southern Iraq, as is generally believed today); where Enoch built the first city (identified with Şanlıurfa—see chapter 34); and where Nimrod, the builder of the Tower of Babel, came up against Abraham and was later defeated by the Armenian cultural hero Hayk.

All of these biblical characters supposedly lived their lives in this region—their shrines and monuments still revered today. So if eastern Turkey *is* the geographical setting for the stories of the book

of Genesis, then this is where we should start looking for the home of the Watchers and Nephilim, and not the area around Mount Hermon in the Levant.

ARMON NOT HERMON?

Although such an assumption might seem ludicrous to some, there is confirmation of this surmise in the book of Enoch itself. Whereas in some extant copies Mount Hermon is cited as the mountain where the rebel Watchers assemble to swear allegiance, in others it is called Armon, which introduces an entirely different ball game. For instance, the translation of the book of Enoch by German scholar Andrew Gottlier Hoffman reads:

> Their [i.e., the rebel Watchers'] whole number was two hundred, who descended in the days of Jared, upon the top of

> Mount Armon. Therefore they called the mountain Armon, because they had sworn upon it, and bound themselves by mutual execrations.[1]

Now, it could be argued that *Armon* is simply a corruption of *Hermon,* but this was not the conclusion of John Baty, who made an English translation of Hoffman's German language edition of the book of Enoch, published in 1836. He was sure that using the name Mount Armon for the Watchers' Mountain of Assembly revealed its true geographical significance, for Armon, the name "the evil angels called that mount . . . in Hebrew signifies both the top of a mountain, and the residence of a famous chief,"[2] adding that "the land of Armenia received its name from Armen, the third of the leaders of the evil angels, who taught the signs of the earth."[3] This, he felt, confirmed the origin of the name, for "the land of Armenia is in Hebrew the land of Ararat, and mount Ararat of the Armenians

has been clearly shewn to be the mount on which the angels swore, the top of which was called Armon."[4]

MOUNT ARARAT AGAIN

So here Baty not only locates Armon in Armenia but identifies it also with Mount Ararat, the tallest mountain of the region, which, as we have seen, is taken by Christians to be the landing place of Noah's ark. Yet as outlined in chapter 30, much older traditions, accepted by Babylonian Jews, Muslims, and Assyrian Christians, as well as indigenous Kurds belonging to various ethnoreligious groups, identify the ark's Place of Descent as Mount al-Judi, the modern Cudi Dağ, near the town of Cizre in southeast Turkey.

This absolute conviction in Mount Ararat's role as the resting place of Noah's ark has allowed it to be identified with all manner of legendary mountains thought to be located in this region. Any

story relating to a nonspecific holy mountain in either Northern Mesopotamia or Armenia is automatically assumed to refer to Mount Ararat, simply because it is seen as the sole piece of land that God set aside to become the place of renewal of humanity following the receding of the waters at the time of the Flood. In the eyes of the Christian faith, no other holy mountain even comes close to the religious significance played by Mount Ararat in the emergence of humankind.

So much did Ararat become a sponge for myths and traditions attached to the mountains of Armenia that Abus Mons, or Mount Abus, modern Bingöl Mountain, the acknowledged source of the Euphrates and Araxes rivers, has been assumed to be Mount Ararat. This is despite the rather obvious fact that the sources of the Euphrates and Araxes do not take their rise on this mountain. The closest source of the Euphrates to Mount Ararat is 50 miles (80 kilometers) away, while the Araxes flows only through its foothills,

having taken its course some 150 miles (240 kilometers) to the west on Bingöl Mountain, the true site of Abus Mons.

So absurd did this situation become that some maps of Armenia show a mountain in the approximate geographical position of Bingöl, from which emerge the Euphrates and Araxes rivers. However, instead of its being labeled Bingöl, or even Abus Mons, it is named Mount Ararat! (See figure 33.1 on p. 282.) This general confusion even led, as late as 1907, to the Araxes being cited as "rising in Mt. Ararat,"[5] when clearly its source is on Bingöl Mountain.

Figure 33.1. Section of a map of Armenia by French cartographer Alain Manesson Mallet (1630–1706), published in 1683. It misnames Bingöl Mountain, the clear source of the Euphrates and Araxes rivers, as Mount Ararat.

MOUNTAIN-LAND OF THE MINYAS

Bearing all this in mind, Baty's assertion that the book of Enoch's Mount Armon has been ably identified as Mount Ararat is completely groundless. Despite this, he was probably right to link this mythical location, where the Watchers swear their allegiance, with Armenia. In the book of Enoch, Armen, the root of the name Armenia, is the name of one of the rebel Watchers. He is said to have "taught the signs of the earth,"[6] this being a form of divination whereby the perturbations of the heavens are reflected also on earth, and vice versa, the rudiments, of course, of astrology.

The name of this Watcher derives most probably from another mythical figure named Armen, who is considered to be the legendary founder of Armenia. Quite possibly, the inclusion of Armen's name in the book of Enoch relates to an Armenian location mentioned by classical writers under the name Armon,[7] or Armona,[8] a corruption of Har-minni, that is, Mount Minni (with

variations such as Minyas and Minyadis).[9] In this form it is found in the Bible's book of Jeremiah, which reads:

> *Lift ye up an ensign in the land,*
> *Blow a trumpet among nations,*
> *Sanctify against it nations,*
> *Summon against it the kingdoms*
> *of Ararat, Minni, and Ashkenaz.*[10]

Here the Armenian kingdoms of Ararat and Ashkenaz are clearly separate to that of Minni, so where exactly was it to be found? English lexicographer William Smith (1813–1893) in his celebrated *Bible Dictionary,* published in 1884, states on the matter: "[In the Bible] MINNI only occurs in Jeremiah (51:27). It is probably identical with the district Minyas, in the upper valley of the Murad-su branch of the Euphrates."[11]

The Murad Şu, or Eastern Euphrates, flows westward through the Armenian Highlands and gradually turns south below the town of Varto before finally entering the plain of Mush. This places Minyas, or Minni, in the vicinity of the town of Varto, immediately south of the Bingöl massif, implying, if correct, that Har-minni, or Mount Minni, was most likely Bingöl Mountain itself.

HEAVENLY MOUNTAIN

German theologian Christian Abraham Wahl (1829–1901), whose biblical lexicons were published in the early nineteenth century, translated the name Har-Minni as meaning:

> "Heavenly Mountain, the mountain whose top reaches to heaven, meaning Ararat; for *mino* in Zend, and *myno, myny* in Parsee, signify heaven, heavenly. And hence the ancients

called the whole province of Ararat, Minyas."[12]

Once again a biblical scholar is beguiled by the magnetic draw of Mount Ararat, for as Jeremiah as well as Latin and Greek scholar William Smith make clear, the kingdom of Minni was *not* Ararat. Har-minni was thus another mountain, and although its exact location cannot be verified with absolute certainly, the fact that Ararat's main rival Bingöl was once called Mingöl[13] seems a little beyond coincidence.

Since the Turkish root *bin,* "a thousand," coupled with *göl,* "lake," provides Bingöl's normal translation of "a thousand lakes" or "a thousand springs," it means that the root *min,* as in Mingöl, is either a corruption of *bin* or it relates to something else. Wahl's second option seems more likely, as the name Bingöl Dağ is unattested before the writings of Jean-Baptiste Tavernier (1605–1689), a French diamond merchant and traveler who visited the

region in the second half of the seventeenth century.[14]

Perhaps as the German theologian Christian Wahl proposes, the name Har-minni (i.e., Mingöl) derives from a time when Armenia was under the control of the Persian Empire, which was between the sixth century BC and the time of Alexander the Great in the fourth century BC, and again from AD 301 until the sixth century AD. Thus the word root *min* derives most probably from *mino,* which in the language of the Persian Zoroastrian holy books known as the Avesta means "heaven" or "heavenly." It is a conclusion supported by the fact that in Persian *minú* means "azure heaven,"[15] while in Hindustani or Urdú, a language that includes many Persian words, *míná* means "heaven,"[16] while *mínú* means "paradise."[17] Thus in Persian, Mingöl probably means something like "lake of heaven" or even "waters of paradise."[18]

All this tells us very firmly that the mountain named Armon, or Har-mini, upon which the rebel Watchers assembled and swore an

oath of allegiance before descending on to the plain below, was located in Armenia, and not in the Levant, and is most probably Bingöl Mountain, the center of the Armenian obsidian trade during the age of Göbekli Tepe (see figure 33.2).

THE MOUNTAIN OF GOD

There is yet more evidence that the setting for the book of Enoch was the Armenian Highlands and not Mount Hermon in the Anti-Lebanon range. Polish-born Orientalist and scholar Edward Lipinski (b. 1930), who specializes in biblical and ancient Near Eastern studies, conducted a major investigation into the origins of the Mountain of God, the place where the Canaanite god El was said to dwell. Even in biblical times, this was deemed to be Mount Hermon, although Lipinksi found compelling evidence that it was originally located much farther north, in the kingdom of Armenia.

The first thing that the Belgium-based scholar observed was that the name of El's abode was *g' r-ll,* the "mountain of the night."[19] This is derived from the fact that its recesses were "toward the meeting place of the assembly" in the north where the sun never reaches, the Land of Darkness, as viewed from the perspective of the southerly placed Mesopotamian Plain, home of the Sumerians, Akkadians, and later Babylonians and Assyrians.[20] Lipinski was able to draw parallels between the name of El's abode and the Sumerian place of God known as kur-suh-ha, "the dark mountain," as well as "the mountain of darkness" in the Jewish Talmud, which contains teachings and lore relating to the contents of the Torah, the first five books of the Old Testament.[21] The Talmud speaks also about a place called Gehenna, a kind of Jewish underworld, lying "behind the land of darkness," somewhere in the Armenian Highlands.[22]

Tahoskuri
Sakmansour
Kars
Arzi
Arzroum
Karaleukala
Hasankalu
Mingali Dag
Mamerwan
Arzingam
Kanas
Khorien
Sahan Dag
Hakkian
TURUBERAN
Malazkerd
Palon
Tergil
Moush
Kilsh
Akhlat
Argish
Ftak
Tadivan
LAKE OF VAN

Figure 33.2. Section of a map of Armenia by Scottish cartographer John Tomson (ca. 1777–1840), published in Edinburgh in 1814. Here Bingöl Mountain is called Minguli Dağ, which derives from the Turkish for mountain (dağ) and the Persian minjul, meaning "lake of heaven" or "waters of paradise."

BENEATH THE POLE STAR

This was also where, Lipinski realized, Alexander the Great must have come seeking immortality in "the land of darkness,"[23] which was said to exist "in the north, beneath the Pole Star."[24] According to the story, Alexander reached "'the way of the Armenians' country, where is the source of the Euphrates and of the Tigris,' [here] he entered the wonderland, traversed the land of darkness, proceeded up to the country of the blessed ones, where 'the sun does not shine,' and, without knowing it, he reached the spring of

life,"[25] located, as we have seen, on Bingöl Mountain. This story, Lipinski points out, was known as early as the third century BC, because the Greek philosopher and teacher Teles of Megara in ca. 240 BC says that humans want "as Alexander to become immortal."[26]

ENOCH IN PARADISE

All this was just a prelude for Lipinski's investigation of the locations described in the book of Enoch, for he instantly recognized the same mythical locations cited here. At the beginning of the story, Enoch journeys to Paradise in the company of two angels, or Watchers, and comes "to a dark place and to a mountain, the point of whose summit reached to heaven."[27] Here he saw "the mountains of the darkness of winter and the place whence the waters of the entire deep flow," and "the mouths [i.e., sources] of all

the rivers of the earth and the mouth of the deep."[28] Additionally, after having "passed above a land of darkness," Enoch "came next to the Paradise of righteousness,"[29] which Lipinski says, "has to be identified with the high mountain of God"[30]; that is, the aforementioned abode of El, who is a form of the Hebrew god Yahweh. This "Paradise of righteousness" is, of course, the Garden of Eden or terrestrial Paradise of the Genesis account, for here, we are told, "the throne of God was fixed where the Tree of Life was."[31]

TIGRIS TUNNEL

From this Lipsinki concluded that the entrance to the Land of Darkness, beyond which was the Mountain of God, was reached through "a gate of darkness, whose geographical origin is likely to be looked for in the tunnel at the source of the Western Tigris."[32]

This, of course, was the Reverend Marmaduke Carver's western corner of his proposed terrestrial Paradise, its eastern corner being Lake Van, with its apex in the mountain range that included Abus Mons; that is, Bingöl Mountain.

The Tigris Tunnel, through which the river passes, was originally about a mile long (1.5 kilometers) and ran all the way through the mountain, although today it has been shortened due to landfalls at its northern end. Yet thousands of years ago this mysterious passage, which is in part a deep gorge, was seen as a symbolic gateway from the world of the living to a realm of myth and legend, a wonderland, beyond which was Paradise itself.

THE MOUNT OF ASSEMBLY

It would be impossible to do full justice to Lipinski's incredible contribution to this subject (for instance, he shows that the Tigris

Tunnel features in the *Epic of Gilgamesh* as the long tunnel through which the Mesopotamian hero, on his quest to discover the plant of immortality, passes to reach the Land of the Ever Living, situated in a region of perpetual darkness).[33] However, I'll let him give you his conclusions on the presence in Armenia of the mountain abode of the god El.

Talking about the Old Testament's book of Isaiah, where the king boldly proclaims: "Above the stars of El I will exalt my throne, and I will sit down upon the Mount of Assembly, in the recesses of the north (Is. 14:13)," Lipinski writes:

> The recesses of the north are here the high mountains of Urartu [the Armenian highlands], where the divine assembly, presided by El, was believed to gather. . . . In the light of these mythological allusions to the abode of the gods in the mountains of Armenia, the only explicit mention of El's abode

at the sources of the Euphrates acquires new dimensions.[34]

In other words, as he says himself: "El's abode . . . *is not to be looked for near Mount Hermon [in the Levant], but midst the mountains of Armenia* [current author's emphasis],"[35] near the sources of the Euphrates.

BABYLONIAN MAP OF THE WORLD

Strengthening the case still further for the Mountain of Assembly of the rebel Watchers existing somewhere in the vicinity of the Armenian Highlands is the oldest known map of the ancient world. Dating from the sixth century BC, it is contained on a Babylonian clay tablet found during the nineteenth century at the ancient city of Sippur in southern Iraq and is currently on display in the British Museum (BM 92687).[36] (See figure 33.3.)

The map shows a large central disk, representing the known world, beyond which is a circular band labeled *mar-ra-tum,* which means "ocean," this being the primordial waters that were thought to exist beyond the world landmass. Various triangles extend from the "ocean," like the rays of a star, each representing a *nagû,* or "region," either a mythical realm or distant land. Smaller circles positioned just inside the perimeter of the disk indicate real geographical locations as observed from the perspective of Babylon, which is marked as a large rectangle just above the center of the map.

Running through the landmass are parallel lines representing the Euphrates River, which begins at the top of the circular landmass within a semicircle labeled *šá-du-ú,* meaning "mountain," a reference to the northerly placed Eastern Taurus range. This identification is confirmed by the presence just below and to the right of the semicircle labeled *ur,* "city," next to which is the word

Urartu, the ancient kingdom that embraced territories from the Eastern Taurus Mountains north to the Armenian Highlands (the land of Ararat of the Bible) and beyond to the Caucasus Mountains. Just below this, to the south, is another small circle labeled ^{kur}aš+šur^{ki}, "Assyria," which, like Urartu, is correctly placed.

Yet it is what lies outside of the semicircle marked "Mountain" that is of interest here, for the triangle extending away from the primordial ocean bears the name BÀG.GU.LA, meaning "great wall," accompanying which is the legend "6 leagues in between where the sun is not seen."[37] Its location, in the north, corresponds perfectly to the direction of Lake Van and the plain of Mush, suggesting that the "great wall" is in fact a seemingly impenetrable wall of mountains, either the Armenian Highlands or perhaps even the more northerly Caucasus Mountains, which do indeed form a virtually impenetrable barrier stretching from the Black Sea in the west to the Caspian Sea in the east.

That the sun does not shine here shows it to be, as Mesopotamian scholar Wayne Horowitz surmises, a "region of perpetual darkness" in the extreme north. Like Lipinski, he thinks it likely this is the same wonderland encountered by the hero Gilgamesh on his journeys and mentioned also in literary traditions concerning the travels of the celebrated king of Akkad, Sargon the Great, who ruled ca. 2334–2279 BC.[38] Almost certainly this distant *nagû,* or region, was thought to be accessed, as Lipinski also realized, through the fabled Tigris Tunnel, which acted as a kind of passage or gateway from the material world in the south to the otherworldly realm of darkness existing beyond the Eastern Taurus Mountains. Here was the abode or "throne" of God, the Garden of Righteousness, and the paradisiacal realm visited by Enoch in the company of angels.

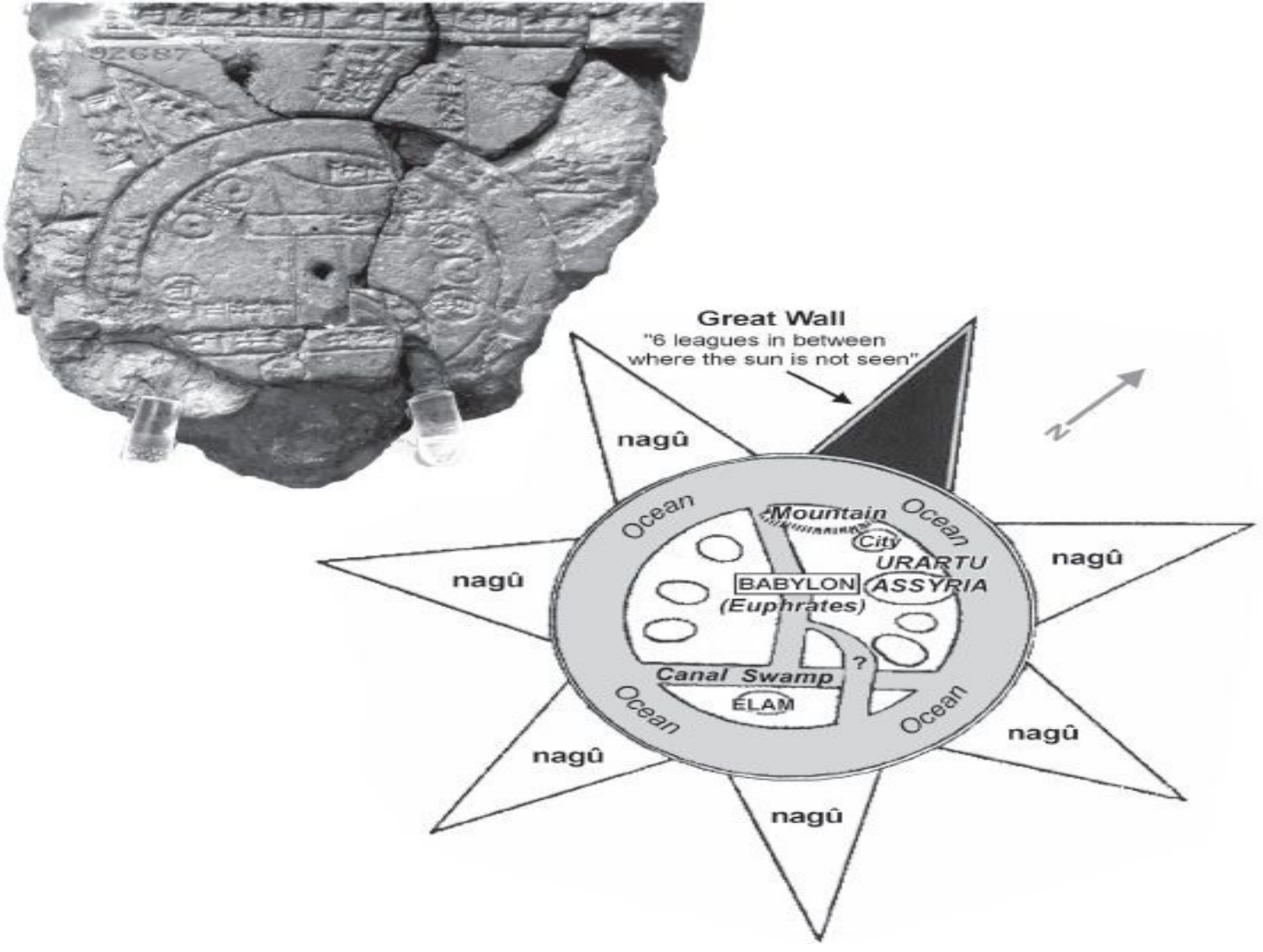
Great Wall
"6 leagues in between
where the sun is not seen"
N
nagû
nagû
nagû
nagû
nagû
nagû
Ocean
Ocean
Ocean
Ocean
Mountain
City
URARTU
ASSYRIA
BABYLON
(Euphrates)
?
Canal Swamp
ELAM

Figure 33.3. Left, Babylonian world map in the form of a clay tablet, now in the possession of the British Museum (BM 92687), and right, the translation of key terms used on this map. Note the northerly placed "Mountain," most likely the Eastern Taurus range, beyond which is the nagû, or "region" (triangle shown in black), labeled "Great Wall," indicating either the Armenian Highlands or the more northerly Caucasus Mountains. As the legend states, this was "where the sun is not seen"; that is, the Land of Darkness, the location of both the Mountain of Assembly of the Watchers and Kharsag, the mountain home of the Anunnaki gods.

GOD'S PROMISED LAND

All this compelling evidence brings us to one powerful conclusion —that the original earthly abode of the Watchers was not Mount

Hermon in the Levant, but a place much farther north, in the Armenian Highlands, with Bingöl Mountain being the most obvious candidate. As the Armenian world-mountain, it bore the title Katar Erkri, "Summit of the Earth," and was seen as the abode of the gods, who were most likely the role models for the Anunnaki of Mesopotamian myth and legend, as well as the Watchers of the book of Enoch.

As Greek writer Jonathan Bright intimated in connection with Bingöl's Armenian name Srmantz, or Srmanç, written in Greek Σερμάάντου (Sermantou), perhaps we have here the original form of the name Hermon, the Mountain of the Watchers. It is a surmise strengthened in the knowledge that Srmantz, or Sermantou, which can also be written Sermantz, is a place-name derived from the Armenian root *serm,* meaning "seed," as in the offspring of a progenitor, and the suffix *antz,* which means either "place of " or "abounding in."

When applied to Bingöl Mountain, Sermantz reflects its role as a place from which the "seeds" of life sprang forth. Interestingly, the Armenian word *serm* is connected with the word root *her,* or *herm,* used in the old Armenian language (known as *Grabar*) to denote the word "father," through its association with another word, *hayr,* or *hai'r,* which means the root of a hair.*19 This word association is crucial, for it backs up Jonathan Bright's suggestion that Sermantz reflects the name Hermon, for in Armenian, Hermontz or Hermanz means "place of the father," or place of the progenitor of the seed of life, exactly the same as Sermantz.

So both Sermantz and its variation Hermontz not only help explain Bingöl's classical name of Abus Mons, which means "Mountain (Latin *mons*) of the Father *(*Aramaic and Greek *abba*)," but they also make better sense of the mountain's most common Armenian name Biurakn. This, as we saw in chapter 29, means "a million (*bir, byur*) eyes (*akn*)," with "eyes" here meaning sources,

most obviously the countless springs that take their rise on the mountain's summit. However, Armenian correspondent Gagik Avagyan has informed the author that there is a much deeper meaning behind the name Biurakn that expresses the idea of the mountain being the root, source, or fount of life itself. He says that this same sentiment is conveyed in the mountain's suspected Persian name, Mingöl, which means "heavenly waters" or the "waters of paradise," with Paradise or Heaven being the source of all life on earth.

Apparently, Armenians from all over the country would arrive at Bingöl Mountain every spring to give thanks to Anahita, the Armenian goddess of fertility, for the sprouting forth of new seeds (*serm*) following the harsh winter months. Many of them would remain camped in its foothills until summer.

So in the context of Bingöl's role as the source of the four rivers of Paradise in Judeo-Christian myth and legend, we can now see

that in Armenian tradition this concept related to the mountain being the place of beginning, the place of original creation, the garden of God himself. He was the "father" who brought forth the "seed" of all life, which was then, symbolically, carried toward the four directions by the rivers themselves. How exactly Bingöl gained this wondrous association is today lost. Most probably it is connected with the fact that the mountain was the center of the region's obsidian trade during the age of Göbekli Tepe and that it was from here that the forerunners of the Göbekli builders, identified as incoming Swiderian groups, emerged as the ruling elite sometime around 10,500 BC. It was the memory of their deeds that were mythologized into the stories of the Anunnaki—who dwelt in Duku, Kharsag, or Dilmun—and the Watchers, the human angels, who descended from Mount Hermon to take mortal wives and reveal the forbidden arts of heaven. That the Armenian Highlands were also once known as Yerkir Nayiri, "Land of (the) Watchers,"[39] supports

this theory.

Curiously, the name Anunnaki itself might also be of Armenian origin, for in the old Grabar language (which bears some comparisons to Akkadian) its root components break down as *anun,* "name"; *ak,* "root, beginning, river root, seed"; and *e,* "the,"[40] which when put together makes "the name is the beginning," *an allusion most assuredly to the genesis of the gods themselves.* Yet just what was the role of the Watchers at Göbekli Tepe? Could it really be said that the Watchers, or, indeed, the Anunnaki, are immortalized in the dozens of anthropomorphic pillars being uncovered there today?

34

WALKING WITH SERPENTS

So exactly who were the Watchers of the book of Enoch? Their recorded appearance as being extremely tall, like "trees," with long white hair, pale skin, ruddy complexions, eyes that seem to shine like the sun, and visages with the appearance of vipers, conjures a strange creature indeed, and one that has all the hallmarks of an albino. So were the Watchers albinos? It is a compelling theory, although there is a far easier explanation.

Such distinctive traits might simply be exaggerated descriptions of the Swiderian population, whose suspected presence in eastern Anatolia in the aftermath of the Younger Dryas Boundary impact

event might well have catalyzed the creation of Göbekli Tepe and the later accounts of mythical beings such as the Watchers and Anunnaki. As we saw in chapter 20, Swiderian communities certainly included "tall . . . long-headed, [and] thin faced" individuals,[1] while among the post-Swiderian groups of Central Russia and the Baltic region were people of increased height with elongated (hyper-dolichocephalic) skulls and narrow faces.[2]

Additionally, Swiderians would also seem to have carried the distinctive physiognomy of the Brünn population. They too possessed heads that were long and narrow, plus they bore traits that marked them as likely Neanderthal-human hybrids, most obviously prominent brow ridges.[3] Similar traits were identified in the Swiderian-linked Kebeliai skull, found in Lithuania in 1948, suggesting that among the Swiderian groups entering eastern Anatolia were strange-looking people indeed.

In fact, the unique physiological features of the Brünn population

derived, most probably, from prolonged contact with Neanderthal communities, either in Central Europe or at places like Kostenki and Sungir in Central Russia (the first settlement sites at Kostenki go back at least 40,000 years, arguably even earlier). It is even possible that cross-contact between the different human species began much further away, in the Altai region of Siberia, where anatomically modern humans shared the world with Neanderthals, as well as other types of extinct human types, before their final disappearance sometime around thirty to forty thousand years ago.

All this tells us that when the Swiderians entered eastern Anatolia their striking physical appearance might have contrasted greatly with that of the local Epipaleolithic population. Did this lead, eventually, through consistent storytelling, to gross exaggerations that have made the Watchers into superhuman albinos the size of trees? If so, then we can understand also how the the Swiderians' elongated heads led to their being represented not only as abstract

statues with T-shaped heads at Göbekli Tepe but also as human angels with visages like vipers in myths and legends. Was it a memory that across the millennia became so abstract that eventually they became Awwim, quite literally walking "serpents"?[4] It is a staggering possibility. What is more, compelling evidence now suggests that the peoples of the Near East preserved an abstract memory of the existence of a serpent-faced elite for thousands of years after the construction of Göbekli Tepe.

THE MYSTERY OF TELL ARPACHIYAH

Following the Pre-Pottery Neolithic age came the Pottery Neolithic, which in eastern Anatolia and Northern Mesopotamia was represented by the Halaf culture, ca. 6000–5000 BC, and the Ubaid people, ca. 5000–4100 BC, both of whom probably influenced the emergence of the Sumerian and Akkadian civilizations down on the

Mesopotamia Plain. At a Halaf and later Ubaid site known as Tell Arpachiyah, situated in the Khabur Valley, just outside the city of Mosul in northern Iraq, Max Mallowan and John Cruikshank Rose of the British School of Archaeology in Iraq, in the company of writer Agatha Christie, made an amazing discovery. They uncovered evidence of an advanced village setting with cobbled streets, rectangular buildings, and round buildings with domed ceilings like the tholoi tombs of Mycenaean Greece.[5]

Mallowan and his team also unearthed a number of burials, many in poor condition. Thirteen skulls, however, were better preserved, and these were examined by anthropologists Theya Molleson and Stuart Campbell.[6] Six were found to be artificially deformed, in that they had been deliberately elongated to create an extended cranium. This must have been done when the individuals were still in their infancy using a combination of boards and linen wrappings. These findings had earlier been predicted by Max Mallowan and fellow

archaeologist Hilda Linford, who in 1969 wrote:

> We appear to be confronted with long heads, and there are certain pro nounced facial and other characteristics which . . . would have made them exceptionally easy to recognize.[7]

What seemed important about these deformed skulls is that some of their unique features were not artificial but natural. In other words, the deformation had merely accentuated what was already there. It was a realization that led Molleson and Campbell to conclude that "several of the individuals (including some without deformations) were related to each other,"[8] in that they formed part of an extended caste, or family group. Moreover, because the site covered the transition phase from Halaf to Ubaid, ca. 5200–4500 BC, and the characteristics were present in remains belonging to both cultures, there was evidence of a direct genetic descent from one culture to the other across an extended period of time.

Molleson and Campbell went on to state that this type of deliberate cranial deformation within a specific group of people "has considerable potential for elitism."[9] In conclusion, they wrote that head accentuation among the Halaf and later Ubaid peoples was done to "demarcate a particular elite group, either social or functional," who were of "close genetic relationship" and as such were part of a hereditary group that was "closely inbred."[10]

Furthermore, Molleson and Campbell speculated that the "shapes of the head may have had some meaning,"[11] adding, incredibly, that these individuals were perhaps recalled in the fired clay figurines found in various Ubaid cemeteries, which have snakelike heads (see plate 32).[12] In addition to this, they wrote that a number of small ceramic heads with elongated cranial features and strange coffee-bean eyes dating from the Halaf period were also most likely

representations of this elite group (see figure 34.1).[13]

Figure 34.1. Heads of serpent-like statues from ancient Mesopotamia in the British Museum. Their extended heads and

coffee-bean eyes indicate that they are abstract representations of the long-headed elite known to have existed among the Ubaid and Halaf cultures, ca. 6000–4100 BC.

CULT OF THE SNAKE

So who exactly were these long-headed individuals, who would seem to have been members of a genetically related group seen as snake-headed in appearance? The greatest clue comes not from the ancient world, but from Central America. Among the Maya of Mexico's Yucatan Peninsula, a hereditary line of priests called the *chane,* or "serpents," would deliberately deform the heads of their infants to give them what was known as a *polcan*—an elongated serpent-like head. Doing this made the child eligible for a hereditary priesthood known as the People of the Serpent, who perpetuated the cult of the rattlesnake.[14] They honored Itzamna, or Zamna, a form

of Ahau Can, the “Lordly Serpent,” a great wisdom bringer and legendary founder of the chane priesthood.

Had something similar been occurring at Tell Arpachiyah in northern Iraq—a hereditary group, arguably an elite caste, that deliberately elongated the heads of their children so that when they came of age they were demarked as special among the communities in which they moved? Was this done to honor or celebrate a divine ancestor, or a specific group of ancestors, believed to have possessed very similar serpentine features? Did they represent these divine ancestors as snake-headed figurines of the type found in Ubaid graves?

More pertinently, were these human serpents the Watchers of the book of Enoch, who were believed to have had long, serpentlike faces—*visages like vipers,* as the Testament of Amram so aptly puts it? Was their memory confused with the envisaged Fall in the terrestrial Paradise, through the serpent’s temptation of Adam and

Eve? Remember, the book of Enoch tells us that the Watcher named Gâdreêl was the serpent that "led astray Eve."[15]

ELITE RITUAL CENTER

No further information is available concerning the genetic background of the skulls found at Tell Arpachiyah, which is now thought to have been an "elite ritual center."[16] Yet it is worth considering whether the elite family group or caste that deformed the heads of their children among the Halaf and later Ubaid peoples might not have been descendants of Swiderian groups who entered eastern Anatolia from the north some four thousand to five thousand years before the foundation of Tell Arpachiyah around 5200 BC.

Intriguingly, overwhelming evidence indicates that the Halaf culture controlled the Lake Van and Bingöl obsidian trade,[17] distributing the black volcanic glass throughout the Near East from

a series of centers in eastern Turkey, northern Syria, and northern Iraq, *including* Tell Arpachiyah.[18] In other words, the elite group here might have seen itself as the direct successors of the walking serpents that had controlled the obsidian trade in the distant past. Perhaps the Halaf even saw themselves as their lineal descendants, the reason they chose to accentuate their cranial features to make their children look more serpentlike in appearance. If this is true, then clearly by this time the European hunters' connections with totems such as the wolf and reindeer had long since been superseded by those of the serpent and vulture, two of the most familiar creatures associated with the beliefs and practices of the Pre-Pottery Neolithic world (it is interesting to note that in Aztec mythology, the serpent is linked directly with obsidian, and obsidian knives in particular).

The strange dark garments or cloaks of feathers worn by the Watchers were most likely the ritual paraphernalia of a shaman,

arguably one associated with the vulture. This probably led eventually to claims that these individuals were bird people[19] or that they bore wings, something that was added to the description of angels as late as the fourth century AD.

Not only were the book of Enoch's Watchers seen as walking serpents, but the Anunnaki also were said to have had distinct serpentine qualities. For instance, Christian O'Brien points out that Ninkharsag, the wife of Enlil in the Nippur foundation cylinder, bears the epithet "Serpent Lady," while Enlil himself is described as the "Splendid Serpent of the shining eyes."[20] Remember, it is the Anunnaki that Klaus Schmidt proposes are perhaps represented by the T-shaped pillars at Göbekli Tepe. So are these anthropomorphic pillars representations of the Watchers as well?

CITY OF ENOCH

It would be wrong to identify the long-headed, hood-wearing anthromorphs represented by the stone pillars at Göbekli Tepe as *actual* Watchers, or indeed Anunnaki, simply because both derive from quite separate branches of human development that reached their zenith many thousands of years after the world that emerged in the *triangle d'or* sometime around the end of the Younger Dryas mini ice age, ca. 9600 BC. Having said this, the indirect connections between Göbekli Tepe and these human angels cannot be ignored. For instance, one Syrian chronicler wrote that the city of Şanlıurfa, ancient Edessa, was founded by "Orhay son of Hewya," the "Serpent,"[21] a clear allusion to the Watchers of the book of Enoch. Remember, Göbekli Tepe is just 8 miles (13 kilometers) away from the center of Şanlıurfa, where a Pre-Pottery Neolithic settlement dating to 9000 BC was investigated in 1997 following the discovery in Yeni Yol Street of a life-size human statue with obsidian disks for eyes (see chapter 4).[22] This was discovered in the same area of

the city where Nimrod is said to have built his fortress and Abraham was born in a cave, the latter being the reason the whole area is considered sacred in Muslim tradition.

Strengthening the link between Enoch and Şanlıurfa still further is the fact that Bar Hebraeus (1226–1286), a historical chronicler and bishop of the Syrian Church, wrote that the prophet Enoch founded the city of Edessa, that is, Urfa or Orfa (even though, in fairness, he attributes the same role to Nimrod elsewhere in his writings).[23] This is interesting, as Enoch was said to have been visited in his dream-vision by two Watchers, who took him on a tour of the Seven Heavens, one of which contained the abode of the angels, while in another was the Garden of Righteousness. As we have seen, the geographical setting for the patriarch's amazing journey would appear to have been the Eastern Taurus Mountains and Armenian Highlands. So was Enoch's place of departure on this great adventure Şanlıurfa?

THE PERI AND CIN

We should also not forget that the Kurds of eastern Turkey preserve stories and traditions regarding mythical beings that inhabited this region in prehistoric times. They are the Peri—tall, strong, beautiful, "super human beings," whose fay-looking descendants were still thought to inhabit remote mountain villages as late as the twentieth century. As with the relationship between the Anunnaki and the Igigi, the Peri are said to have worked in concert with other beings of mythical origin called in Kurdish the Cin; that is, the Jinn of Persian folklore; the expression "Cin u Peri" being used to express the dual powers of these mythical creatures.

It was believed that King Solomon made the Cin go to work for him and that they "did what an ordinary human being could not do."[24] Both the Peri and Cin were able to carry heavy objects, build great monuments, and perform other grand feats, and it was put to me by my Kurdish contact, Hakan Dalkus, who was brought up in a

small village in the foothills of the Eastern Taurus Mountains, that "maybe Göbekli Tepe was built by them. Or some people then or later believed so. It makes such a place sacred too. While for us Genies, [that is, Cin] mostly stand for bad characters to be feared, Peri is the opposite."[25]

In his book *The Fairy Mythology* (revised edition, 1850), celebrated Irish mythologist and historian Thomas Keightley (1789–1872) states that the Jinn, the Persian name for the Cin, "were created and occupied the earth several thousand years before Adam,"[26] whose death is usually said to have occurred five thousand, five years before the time of Christ (see chapter 35). So if the Cin or Jinn are in some cases the memory of a human culture that thrived in the Armenian Highlands in prehistoric times, then it suggests they entered the scene around the same time that Swiderian groups might well have arrived in the same territories during the Younger Dryas mini ice age, ca. 10,900–9600 BC. One of the

leaders of the Jinn was Azâzêl,[27] a fallen angel, who was also a leader of the rebel Watchers, according to the book of Enoch, showing that traditions regarding the Watchers probably derive from the same origins as those of the Peri and Cin.[28]

Clearly, it was not Peri or Cin who built Göbekli Tepe, but human beings. However, there is an outside chance that, in their archaic stories about the Peri and Cin, the Kurds may have preserved the memory of incoming peoples of strange appearance who inspired the building of monuments and sacred places. The manner in which the Peri were able to cohabit with mortal kind is also reminiscent of the way the Watchers took mortal wives, who gave birth to giant offspring that resembled their Watcher fathers in appearance, being large bodied with pale and ruddied skin, just like the faylike descendants of the Peri.[29]

EGYPTIAN INFLUENCE?

So were the Nephilim and Sons of God of Genesis 6, along with the Watchers of the book of Enoch, really the memory of a Swiderian elite whose original homeland included the Carpathian Mountains of Central Europe? It is a persuasive theory, although we cannot dismiss the possibility that the Hooded Ones were made up of individuals from more than one ethnological background, with some reaching southeast Anatolia from other parts of the ancient world. We have already seen how the post-Zarzian peoples of the Eastern Taurus Mountains and Zagros Mountains might have provided the expertise to help create cult centers such as Hallan Çemi and even Göbekli Tepe, suggesting that the structures themselves were in fact the product of indigenous cultures, under the control of a power elite of Swiderian origin.

Yet other cultures from farther afield might also have been involved in the creation process. For instance, if Nilotic peoples

from Egypt, Sudan, and even the Sahara were trading with the Natufian peoples, as seems likely from a number of disparate pieces of evidence now emerging from Epipaleolithic sites in the Levant corridor,[*20] then it remains distinctly possible that groups or individuals from the Nile Valley might have had a hand in the emergence of Göbekli Tepe.

These are possibilities that cannot be ruled out at this time. Yet what seems more certain is that the Swiderians, who would have reached eastern Anatolia during the Younger Dryas period, carried with them some semblance of the beliefs, practices, and ideologies that had earlier thrived among the Solutrean peoples of southwest and central Europe. They were also, very likely, carriers of magical traditions derived from the Kostenki-Streletskaya culture, whose descendants they would have encountered as they crossed the Russian steppes on their way to the Caucasus Mountains and Armenian Highlands. The Kostenki-Streletskaya peoples' own

successors most probably included the Zarzians, who had followed a very similar route as the Swiderians, southward from the Russian steppes to eastern Anatolia, as much as ten thousand years earlier. All of these influences are interconnected and came to bear, eventually, on the construction of Göbekli Tepe, ca. 9500–8000 BC.

Our journey is almost over. Yet I still needed to make the link between Göbekli Tepe and the presence some two hundred miles (320 kilometers) away of the Garden of Eden. How did one affect the other when they existed in separate millennia, many thousands of years apart? Those living either in biblical times or much later during the formative years of Christianity cannot have known of Göbekli Tepe, even if they *did* recognize Armenia as the genesis point of human civilization. So what linked all these disparate elements together? The answer for me came with the confirmation of a dream.

PART SIX

Completion

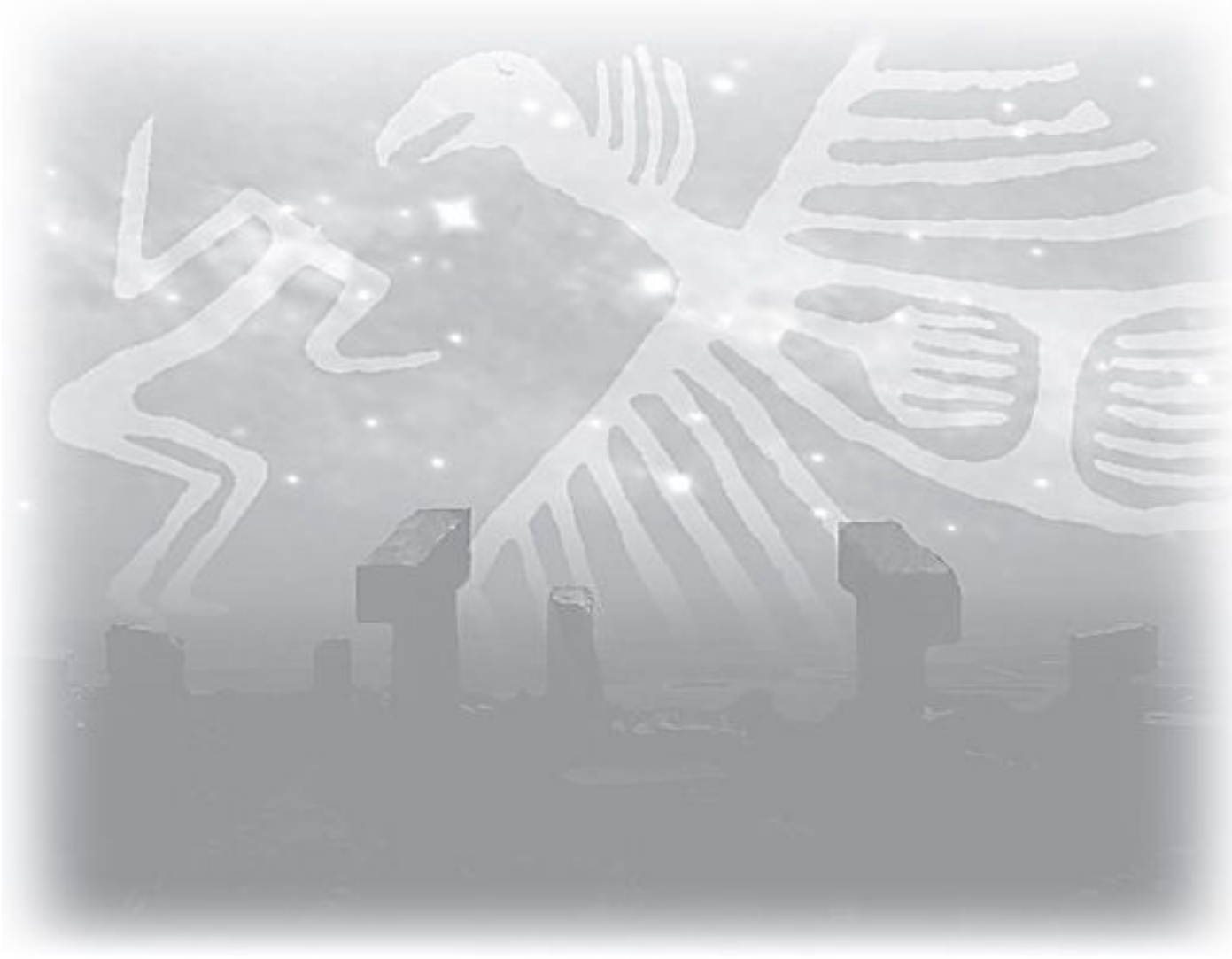

35

A QUIET CORNER OF EDEN

Thursday, March 1, 2012. Finally, after nearly eleven months of searching, I had found the monastery of my dream, the one in which the monks were celebrating life itself through the elevation of a holy relic thought to be a fragment of the Tree of Life. Called Yeghrdut (or Yeghrduti), the monastery was located 13.5 miles (21.5 kilometers) west of the town of Mush, in the foothills of the Eastern Taurus Mountains, overlooking the plain of Mush and the Murad Şu, or Eastern Euphrates.

EDEN-LIKE WOODLAND

Evidence of the existence of this monastery, destroyed during the Armenian Genocide of 1915, had utterly eluded me until now, even though I had consulted ample books on the history of Taron, the ancient Armenian kingdom that embraced the plain of Mush. Yet of all places, it was on Wikipedia that I first found reference to Yeghrdut. It had its own entry, and under the subheading "Legends," the following lines almost jumped off the page at me:

> According to popular belief, the Kingdom of Armenia has an Eden-like woodland named Yeghrdut in the Taron district, west of the Muş Valley. It is believed that old men who come there from Muş valley and spend some time in that corner of unearthly beauty would become twenty years younger.[1]

This "Eden-like" woodland called Yeghrdut, where local men

would come to be rejuvenated, sounded very much like the claims attached to the Fountain of Life (Ma'ul Hayat) or Waters of Life (Ab'i Hayat), identified in Kurdish folklore as being in the vicinity of Bingöl Mountain, 35 miles (56 kilometers) north of this area. Was this Armenian account simply an echo of these same legends, or could Yeghrdut relate to the presence in the region of the terrestrial Paradise? Clearly, Eden-*like* did not mean Eden itself, although I had a hunch there was far more going on here.

THE DISCIPLE THADDEUS

That day I searched online and found two webpages on Yeghrdut's history and legendary background written in Russian-Armenian.[2] What they contained simply stunned me and changed everything I thought I knew about Armenia's place in the story of the Garden of Eden. Apparently, the fourth-century Armenian churchman Zenob

Glak, who wrote a history of Taron, recorded a quite fantastic story regarding the origins of the Yeghrdut monastery. It begins with the well-established account of how in AD 29 Thaddeus, one of the seventy (or seventy-two) disciples of Christ, traveled to the city of Edessa (modern Şanlıurfa) in Northern Mesopotamia at the behest of its king, Abgar, who wished to be cured of a serious skin malady.

According to early Christian legend, the king, having heard of miracles being performed by Jesus, sent out a request for this wonder worker to cure him of his illness. In response, the disciple Thomas dispatched Thaddeus of Edessa, who had earlier traveled from his homeland in Northern Mesopotamia to Judea, where he'd been baptized by John the Baptist in the River Jordan, and then, following the Baptist's death at the hands of King Herod, had become a follower of Jesus.

So when Jesus was still alive, according to the story, Thaddeus (also known as Addai) arrived in Edessa, his native city, carrying

with him a handkerchief that Jesus is alleged to have wiped across his face, leaving behind a facelike impression. It was the power of this holy relic, known as the Image of Edessa, or the Mandylion, that is said to have cured Abgar of his malady.

The account goes on to state that Thaddeus afterward baptized King Abgar, who thus became the first monarch to adopt the Christian faith. As for Thaddeus, he apparently remained in Northern Mesopotamia preaching the word of God, and then in either AD 43 or AD 45 entered the neighboring kingdom of Armenia. Here he came upon a "woodland" called Yeghrdut, where he deposited a number of highly significant holy relics brought out of the Holy Land. Other variations of this tradition have Thaddeus being accompanied on his journey by the apostle Bartholomew.[3]

Fast forward to the fourth century, and the writer Zenob Glak now has the celebrated Armenian churchman Gregory the Illuminator being led by God to retrieve the holy relics left behind

by Thaddeus three centuries earlier. Thereafter a monastery is founded on the spot in order to house them.[4]

The relics found by Gregory at Yeghrdut apparently included a small finger of Mary Magdalene, items belonging to Joseph of Arimathea, and bones from the right arm of John the Baptist,[5] hence the monastery's dedication to the saint.[6] Gregory also discovered a bottle, or container (Armenian *shish*), in which was preserved a remnant of the perfumed oil (known as the Myron, Muron, or Chrism) that had anointed "prophets and apostles"[7] and had been used by Thaddeus to help restore King Abgar's health and vitality following his miracle cure after coming into contact with the Image of Edessa. For this reason the monastery bore the alternative name of Shishyugho, which means "of the oil bottle,"[8] or Shuyugho, "young branch of the (oil) tree."[9]

EDEN AND THE TREE OF LIFE

In Christian tradition such relics, if considered “genuine,” would be deemed highly significant. However, for me they paled into insignificance when compared with what else Thaddeus supposedly deposited at Yeghrdut, for according to Armenian tradition he came bearing a fragment of the “Tree of Life” (Armenian Կենաց ծառի), which after its discovery became a key focus of veneration at the monastery.[10]

More incredibly, I discovered that Yeghrdut was believed to have been located not just in an “Eden-like woodland,” but in “a corner” or “one corner” of “Eden” (Armenian եդեմային), which can also mean the “Garden of Eden.” This, the Armenian source states, “was in Taron Province, south of the Mush plain (Armenian դաւտից).” It goes on to say that “The place was called Yeghrdut, and here the elderly man would travel to become younger by twenty years.”[11]

As soon as I read these words, my stomach churned, and I knew inside that this was the monastery I had glimpsed in dream the previous year. Both the reference to the presence there of a piece of the Tree of Life and the monks' belief that their monastery stood in some quiet corner of the Garden of Eden seemed to confirm this fact. It was the same place I'd seen, smelt, and experienced, both in sleep and then afterward when recording my thoughts in diary form.

Yet double-checking what exactly a fragment of the Tree of Life actually means in Armenian Church tradition made me realize that the holy relic at Yeghrdut was slightly more complicated than I had first imagined, for it is also described as the "Stick of Life" (Armenian կենաց փայտով),[12] or a "piece of the Wood or Timber of (the Tree of) Life (Armenian Կենաց փայտի մի մասնիկը)."[13] It is a term that derives from a gradually evolving legend that has its inception in the first century AD and revolves around what happened to Adam and Eve following their expulsion

from Paradise.

After departing the Garden of Eden, the couple settle down somewhere on its fringes, and here they raise two sons, Cain, a crop grower, and Abel, a shepherd. As the book of Genesis tells us, Cain kills Abel, creating the first murder and death in human history. As a consequence, Cain is cast out and lives the rest of his life in the enigmatically named land of Nod, while Adam and Eve's third son, Seth, is born. He becomes Adam's rightful successor and the inheritor of his heavenly wisdom and knowledge.

THE OIL OF MERCY

So far, this is the basic story in the book of Genesis. However, Jewish and later Christian works compiled between the third century AD and medieval times—containing what scholars refer to as Primary Adam Literature—continue where the Bible account

leaves off. The most well-known of these are the Latin *Vita Adae et Evae* ("Life of Adam and Eve") and the Greek *Apocalypsis Mosis* ("Apocalypse or Revelation of Moses"). Both these texts, and others like them, relate the story of how when Adam was on his deathbed he asks his son Seth to approach the gates of Paradise and beseech God to part with a little of the "Oil of Mercy" that flows from the Tree of Life, in order that this might sustain his life. Obeying his father, Seth departs for Paradise in the company of Eve and implores God to give him some of the oil from the "tree of his mercy" in order that he might anoint his sick father (see figure 35.1).

After some time, an angel appears (usually this is Michael, although not always). He refuses their request, saying that the Oil of Mercy is reserved for the final days, adding that in five and a half thousand years a savior will come who will be baptized in the River Jordan. Thereafter he will "anoint from the oil of mercy all that

believe in Him. And the oil of mercy shall be for generation to generation for those who are ready to be born again of water and the Holy Spirit to life eternal. Then the most beloved Son of God, Christ, descending on earth shall lead thy father Adam to Paradise to the tree of mercy"[14]; that is, the Tree of Life (see figure 35.2).

HOLY ANOINTING OIL

In other words, the text prophesized that, following his baptism in the River Jordan at the hands of John the Baptist, Jesus would somehow become the vessel of the Oil of Mercy, which would be spread by the Holy Spirit. The Armenian Church believes that this power was given originally to Moses, who was instructed by God to make something called the holy anointing oil (Ex. 30:22–33). This was afterward used to anoint many generations of Old Testament prophets, and eventually it found its way into the hands of John the

Baptist. Following his death it was given to Mary Magdalene, who used it to anoint Jesus's feet before his entry into Jerusalem prior to his arrest and crucifixion. He is said to have blessed it, after which time the oil was used to anoint apostles. Thaddeus of Edessa then carried the oil's container to Edessa, where the anointing oil was used to restore King Abgar's health and vitality. Thereafter the disciple continued his journey and buried the shish bottle "in Daron under an evergreen tree."[15]

The "Daron" mentioned here is an alternative rendering of "Taron," the plain of Mush, with the location of the "evergreen tree" being Yeghrdut (the Tree of Life was anciently considered to be an olive tree, which is an evergreen[16]). There is nothing about Jesus anointing the apostles in the New Testament—this is considered to have been bestowed on all 120 disciples of Christ by the Holy Spirit on the Day of Pentecost in Jerusalem.[17] However, the Yeghrdut legend states that the holy anointing oil deposited

there by Thaddeus had been used to anoint “prophets and apostles.”[18]

Figure 35.1. Section of the Death of Adam by Italian artist Piero Della Francesca (1416–1492), from a painted fresco in the Basilica of San Francesco in Arezzo, Italy. It shows Adam, on his death bed, telling Eve and Seth, who stands to her right, to go and ask the angel that guards the entrance to the Garden of Eden for some of the Oil of Mercy that oozes from the Tree of Life. In the background Seth is seen making this request to the angel Michael.

Figure 35.2. American lithograph of the Tree of Life in the terrestrial Paradise by the Currier and Ives company (1857–1907).Figure 35.2. American lithograph of the Tree of Life in the terrestrial Paradise by the Currier and Ives company (1857–1907).

THE ANGEL'S GIFT

In the story contained in the Latin *Vita Adae et Evae,* composed sometime between the third and seventh century using earlier source material, Seth and Eve depart from the Garden empty-handed. However, in alternative, and arguably later, accounts the angel gives Seth seeds or saplings from the Tree of Life to take away with him.[19] He and Eve then return to Adam, revealing what the angel said and what has been given to them. Thereafter Adam dies, and his body is laid to rest with the help of angels.

Prior to Adam's final interment, Eve and Seth place the seeds

from the Tree of Life in his mouth, or alternatively, they plant the saplings over the position of Adam's skull (the accounts vary). These grow into either a single tree or three trees that wrap around each other to become one. Eventually the tree is cut down and the timber utilized for a number of quite fantastic purposes. It is used to fashion the rod of Moses. It becomes a beam in King Solomon's Temple, or it is used to make a bridge, over which the Queen of Sheba passes. As this happens, she realizes the sanctity of the wood and demands that it be taken up and placed inside Solomon's Temple as a sacred relic.

THE TRUE AND LIVING CROSS

Afterward, the Holy Wood, or Holy Timber, of Life, as it is called in the Western Church, finds its way into a carpenter's shop, where it is used to fashion the Cross of Calvary, known in medieval

tradition as the Holy Rood. After Christ's crucifixion on Golgotha, the cross is buried nearby. Here also is Adam's skull, concealed during a much earlier age either by Shem, Noah's son and heir, and/or by Melchizedek, the first king of Salem; that is, Jerusalem. The blood trickling down the cross from Christ's body reaches Adam's skull, finally bringing redemption to Adam for causing the original sin. The symbolism between the burial of Adam's skull and Golgotha, which means the Place of the Skull, is purposeful. It is for this reason that we see a skull at the foot of the cross in Crucifixion scenes, and also on crucifixes.

Accordingly, the elderly Empress Helena, mother of Constantine the Great, the first Roman emperor to adopt and legalize Christianity, visits Jerusalem in AD 327 or AD 328 and is led by miraculous means to discover the remains of the Cross of Calvary beneath a Roman temple of Venus now occupying Golgotha Hill. As fragments of the holy cross are found to constantly sprout forth

new green shoots (due to the wood originating from the earthly Tree of Life), it becomes known as the True and Living Cross. It is because of this regenerative power that fragments of the True Cross are thought to have the power to restore life in a sickly person.

Clearly, the fragment of the Tree of Life possessed by the Yeghrdut monastery must have come from a separate branch to the one used to create the Cross of Calvary, as this piece is said to have reached Armenia in either AD 43 or AD 45, a mere decade after the Crucifixion and nearly three centuries before the Empress Helena discovered the Cross of Calvary. The only other thing I could discover was that Yeghrdut's precious holy relic was kept in a reliquary box (see chapter 39) and, I could only assume, was brought out and elevated during special ceremonies in the absolute conviction that here was a true fragment of the Tree of Life in the Garden of Eden.

Yet there was more to this story than simply the existence at

Yeghrdut of the Tree of Life fragment and the vessel containing the holy anointing oil, for after the foundation of the monastery in the fourth century, the monks would manufacture their own Myron, or holy anointing oil, always mixing it in the bottle that had contained the original oil created by Moses. This was done so that the new anointing oil would forever contain the essence of the original holy anointing oil used to bless "prophets and apostles." Apparently, Yeghrdut's sacred oil would be transported to the Mother See of Holy Echmiadzin in Vagharshapat, Armenia, where it was used in the inauguration of the Catholicos, the head of the Armenian Church.[20]

Naturally, I wanted to know more about Yeghrdut and its monks who, I felt sure, played heavily on their illustrious heritage and location on the edge of Eden itself. It was incredible to think that this monastery had thrived in the foothills of the Eastern Taurus Mountains just 170 miles (274 kilometers) away from Göbekli

Tepe, a true site of the genesis of civilization.

Yet what was Yeghrdut's connection with Göbekli Tepe, and, more pressingly, where was this monastery? It did not appear on any detailed maps of Taron, and unless its location was found, there could be no absolute confirmation that this was the place of my dream.

36

THE RED CHURCH

I needed to know where exactly the Yeghrdut monastery was located, so I attempted to use the geographic coordinates provided by Wikipedia to find the site. Yet wherever engineer Rodney Hale and I looked on Google Earth, nothing could be seen (the coordinates were later found to be wrong). All I knew was that Yeghrdut lay somewhere in the vicinity of a village called Kızılağaç (or Kızılhaç, pronounced *kiz-a-large*), a part Turkish, part Kurdish name meaning "red cross," a sure sign that a Christian edifice lay nearby.

The break came at the end of March 2012, when I learned from

my Kurdish contact, Hakan Dalkus, who had managed to contact the person running the Kızılağaç Facebook page, that in nearby mountains were Armenian ruins called Dera Sor, Kurdish for “Red Church.” It took further three-way correspondence to pin down the geographical location of Dera Sor. Then on Friday, April 6, 2012, appropriately Good Friday in the Western calendar, I saw for the first time on Google Earth an enormous rectilinear structure on a forested mountain ledge 2.25 miles (3.6 kilometers) south-southeast of Kızılağaç and 1.5 miles (2.5 kilometers) west-southwest of the village of Suluca (located at the coordinates of 38°45'1.37"N, 41°20'24.69"E).

The ruins appeared to consist of an outer shell around 70 yards (64 meters) in length and just over 40 yards (37 meters) in width. From what I could make out from the shadows cast by the remaining sections of the wall, they remained fairly high in places. The foundation of a second structure in the southeast quadrant of

the perimeter wall was also just visible, its axis skewed slightly more toward north (see figure 36.1).

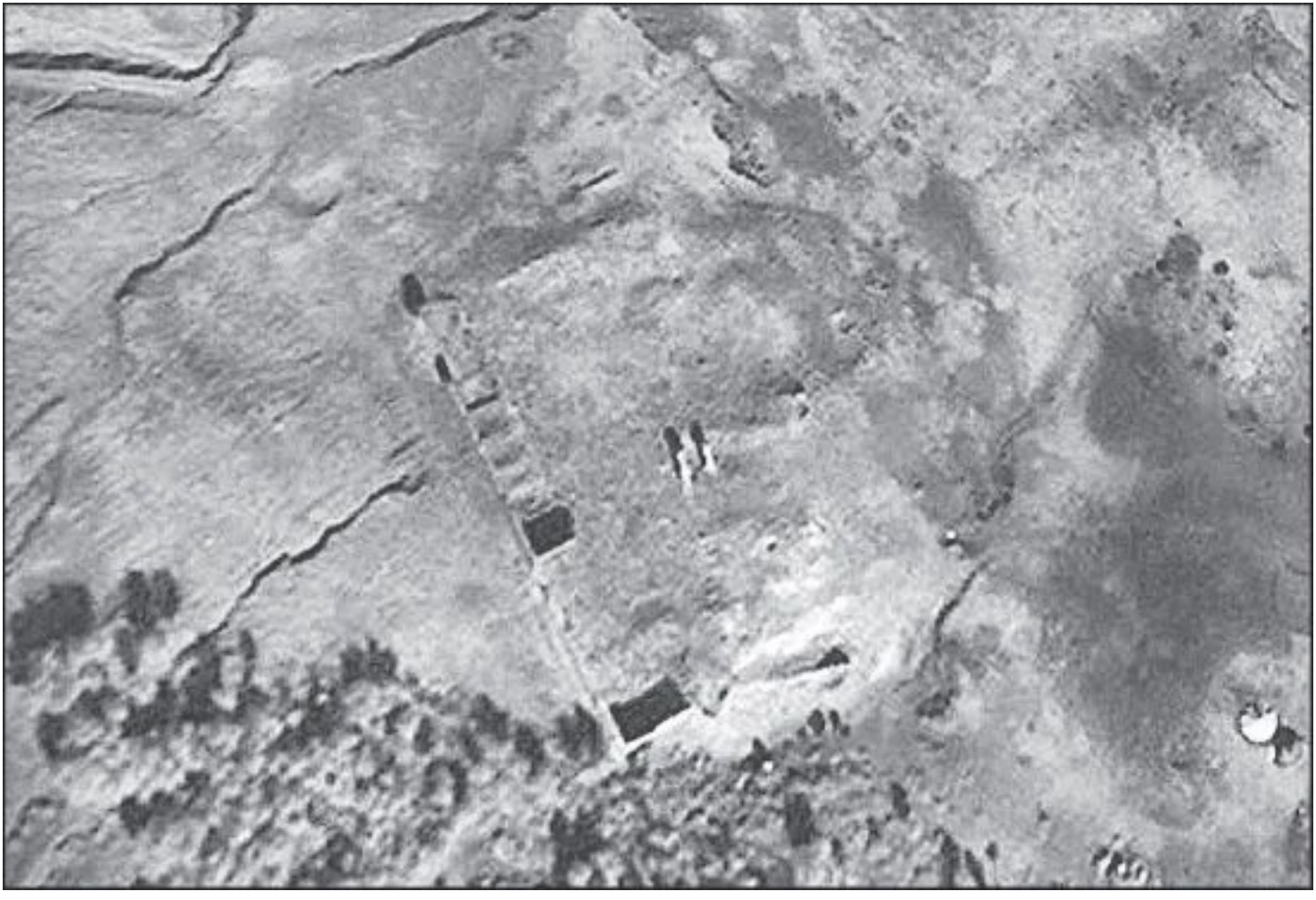

Figure 36.1. Google Earth image of Dera Sor, located on the

northern slopes of the Eastern Taurus Mountains, overlooking the Mush Plain. Does it mark the site of the Garden of Eden? Courtesy of DigitalGlobe 2013.

Immediately outside Dera Sor's exterior walls were traces of other rectilinear features, showing that this had to have been a monastery of some considerable size, situated in the northern foothills of the Eastern Taurus Mountains, overlooking the plain of Mush and Murad Şu or Eastern Euphrates River. Looking at the site, I got a strong sense of seclusion, isolation, and deliberate remoteness. Unlike monasteries such as Surb Karapet and Surb Arakelots elsewhere in the Mush district, this one cannot have received many visitors, unless it was for a very good reason indeed.

Although I was able to confirm that the Google Earth ruins were those of Dera Sor, the Red Church, I had no way of knowing whether they belonged to the Yeghrdut monastery. Further correspondence between my Kurdish contact and the man from

Kızılağaç drew a complete blank. No one seemed to know anything about Yeghrdut or its history.

I tried synching the geographical position of the Red Church with some old maps of Armenia, one of which had the word "Arkhavank," meaning "King's Monastery" (probably a reference to Jesus as King of the Jews), in the approximate same position, while another actually had a small diamond marking the position of Yeghrdut. They correlated pretty well, suggesting that Dera Sor, Arkhavank, and Yeghrdut were all one and the same.

STRANGE DECREE

Something else pretty curious was then discovered about Yeghrdut by a researcher colleague named Janet Morris. On my behalf, she had been studying and, where necessary, translating accounts of European travelers who had crossed the plain of Mush over the past

four hundred years. One such person, she found, was the French geographer Vital-Casimir Cuinet (1833–1896), who was sent to eastern Turkey to survey and count the Ottoman Armenian population. He made a very curious statement following a visit to the Yeghrdut monastery:

> On the opposite side of the plain, at the summit of a picturesque hill, covered with a thick wood and whose view extends a long way over an agreeable country, is found a convent under the decollation of St John the Baptist. Its construction as that of Mar-Johanna goes back to high antiquity. Amongst other precious titles, this convent holds a firman of the fourth Caliph Rachedi, Ali, son-in-law and first cousin of Mohammed, who accorded certain autonomous privileges falling into disuse over the course of time.[1]

That Ali (AD 601–661), the son-in-law and cousin of the Prophet

Muhammad, seen as the first imam in the Shia Muslim faith, signed a firman, or religious decree, on behalf of Yeghrdut begs the question of what might have been behind this decision. Clearly, Ali cannot have spent his time issuing and signing religious decrees for every Christian edifice the Arab armies came across as they conquered large parts of Asia, Africa, and Europe, so why was this monastery singled out for special attention?

In the year 15 AH (*anno Hegirae;* i.e., after the foundation point of the Islamic faith, thus AD 637), the Commander of the Faithful, Caliph Umar ibn al-Khattab, issued a written decree acknowledging the due rights of all non-Muslim sects, including Christians. This was done to protect churches and monasteries in general. Yet the one issued for Yeghrdut seems entirely different and suggests that, like Saint Catherine's Monastery in the Sinai, which was issued a firman by Muhammad himself, it was believed to contain important holy relics. Somebody wanted whatever it contained preserved and

not destroyed by the first marauders who came along looking for the spoils of battle. It hinted that Yeghrdut's claim to house holy relics belonging to Jesus, Mary Magdalene, John the Baptist, and Joseph of Arimathea was known at the time of the Arab-Muslim invasion of Armenia in the seventh century. (Much later I discovered a second reference to Yeghrdut's firman, which states that it was signed not just by Ali, but also by the Prophet Muhammad himself.[2] If nothing else, it tells us that Yeghrdut once held a religious status equal to that of Saint Catherine's monastery in the Sinai, which makes it a highly important place indeed.)

ONLINE APPEAL

I was getting frustrated. I really needed to know whether Dera Sor, the Red Church, was Yeghrdut, the Eden monastery of my dream, so I posted a message on an online forum called AniOnline that

addresses matters relating to Armenian architecture in the Lake Van area. I asked for confirmation of the monastery's exact geographical coordinates and anything else anyone might come up with, citing exactly what I knew already.[3]

As I waited for a response, my Kurdish correspondent, Hakan, returned with more information on Dera Sor from the Facebook contact in Kızılağaç:

> It is easy to reach the Red Church from Suluca and Kızılağaç. Walls and two arches stand. . . . They say Red Church was a monastery. Monks, priests and sisters etc. were educated there. It was a very rich monastery. Farmers of the surrounding lands were giving 50 percent of their crops to the monastery. No other info.[4]

A few days later, Raffi Kojian, the mediator of the AniOnline forum, posted a few lines on the Yeghrdut monastery paraphrased

from a Russian-Armenian dictionary of Armenian architecture:

> From the monastery the following were visible: Aradzani and Meghraget [both rivers], S. Karapet Monastery, a few villages [and mountains, viz.], Byurakn [Bingöl], Nemrut [Dağ], Gurgur, Sipan [Suphan Dağ], and in the further distance, the gray top of Massis [Mount Ararat]. That last one seems like a stretch, but that's what it says.[5]

Rodney Hale used Google Earth to check whether each mountain peak—Bingöl Dağ, Nemrut Dağ, Suphan Dağ, and Agri Dağ (Mount Ararat or Mount Massis)—was indeed visible from Dera Sor. Sure enough, if one were to stand on the mountain ridge immediately above the monastery ruins, all the peaks mentioned would have been visible on a particularly fine day.

Two days later, Raffi Kojian again posted on his forum. He said he now had in his possession a lengthy entry on Yeghrdut taken

from a Russian-Armenian encyclopedia on the churches and monasteries of the Taron Province, published in 1953. He had uploaded the opening lines to the Yeghrdut webpage on Armeniapedia, the online database for Armenian church architecture, which were now available to read.[6] Clicking the link, I found the following:

> Located four to five hours west of Mush, in front of S. Garabed/Karapet Monastery, in "Yegherits" region (*yergir*), on Sim Mountain (*Sim ler*) or on Black Mountain (*Sev sar*), on the south side of Yeprad/Yeprat River [i.e., the Murad Şu or Eastern Euphrates]. The location of the monastery is unmatched. On four sides are cold springs and forest. The air is pure, but cold. The view is indescribable. Almost all of Mush's plain is flat like a floor, its green worked fields open up before your eyes.[7]

This place sounded incredible, situated at a near perfect location to perpetuate the belief that it was founded in some quiet corner of Eden itself. I later discovered that four springs surrounded the monastery, one on each side, beyond which lay forests containing oak, hazel, and cedar trees.[8]

HOLY TREE AND SACRED SPRING

The contact at Kızılağaç was shown this entry on Yeghrdut and confirmed that this was indeed the topographical description of Dera Sor, adding that one spring in particular flowed from beneath the shade of an ancient walnut tree. Indeed, there was no other tree quite like it in the whole of Mush Province (walnut trees are considered sacred in Kurdish tradition). People came here from all over the district to drink the waters of the spring in the belief that it could cure ailments and maladies, and rejuvenate the body by as

much as twenty years.[9] This was, it seemed, the latest incarnation of the "evergreen tree" beneath which Thaddeus supposedly deposited the various holy relics in the first century AD.

Clearly this was an important holy shrine and one that was venerated extensively in the past by Christians and Muslim Kurds alike. It almost seemed as if, with the presence at Yeghrdut of a piece of the Tree of Life, together with the bottle that contained the sacred Myron, or holy anointing oil, the monks might have seen this evergreen tree and sacred spring as earthly representations of the Tree of Life with its spring that watered the Garden of Eden. Indeed, the stream that takes its rise from the spring beneath the monastery's holy tree, which bears the name Kilise Şu, "Church Stream," flows into the Eastern Euphrates, making it a source of one of the four rivers of Paradise.

DERA SOR IS YEGHRDUT!

That same day, Thursday, April 12, 2012, a member of the AniOnline forum posted the geographical coordinates of Yeghrdut, which were those of Dera Sor, the Red Church. The two were the same. The person in question said he had walked the hills from Mush to the location and could confirm that it is identical to the topographical description of Yeghrdut. In response, Raffi, the mediator of the forum, added a Google Earth link to Yeghrdut's entry on Armeniapedia, which now clicked through to the site of Dera Sor.[10]

There could no longer be any doubt—Dera Sor was Yeghrdut, which for me now became the absolute site of the Eden monastery first glimpsed in dream almost exactly one year earlier. To say I was elated is an understatement, for it almost seemed as if something I had created in my mind had now taken root in reality. Yeghrdut was certainly real, and with its fragment of the Tree of Life, the bottle containing the holy Myron, the "evergreen tree" with its sacred

spring, and, of course, its “indescribable” setting, it was everything one could hope for in a monastery located in Paradise itself. Yet still more research was required to truly understand the site’s greater importance to this gradually emerging picture.

SIM MOUNTAIN

Something in the opening lines of the Yeghrdut entry in the Russian-Armenian encyclopedia on churches and monasteries of the Taron Province then caught my attention. It was the statement regarding the monastery being located on Sim Mountain (*Sim ler*) or Black Mountain (*Sev sar*). The latter is a quite common name for hills and mountains in the region, usually under the Turkish word for black, which is *kara.* However, Sim Mountain needed further investigation, as it seemed somehow familiar. So I checked the history and topography of Taron and found something very

interesting indeed.

Movses Khorenatsi, the father of Armenian history, who lived in the fifth century AD, wrote extensively on the region's mythological past, in particular the life and exploits of Armenian cultural heroes thought to be descended from Noah (Armenians themselves believe they are descended from Noah[11]). For instance, Hayk, the conqueror of King Bel, or Nimrod, is said to have been the great-great-great grandson of Japheth, the son of Noah. Shem, Noah's chosen heir, is also connected with Armenia's legends, and according to Movses, after the ark came to rest, Shem departed with his sons and came upon a mountain, which he afterward named Sim (or Simsar, which means Mount Sim).[12]

According to Movses, Noah, having departed from the ark, established a dwelling for himself and his family (afterward named Thamanin, the modern Cizre in southeast Turkey), while Shem continued northwestward with his sons, and that

> coming to a plain in the high mountains, he stopped by a river and named the mountain Sim after his own name. He gave this region to his youngest son Tarpan [the Armenian word for ark is *Tapan*]. . . . Tarpan remained with his sons and daughters in the region given to him by his father and called it Taron and later Taruperan after his own name.[13]

Taron, or Taruperan, was, as we have already seen, the name of an ancient Armenian kingdom embracing the plain of Mush, implying, quite clearly, that Mount Sim overlooked the plain, which, of course, it does. Thus Yeghrdut was founded either on or very close to the spot where Shem and his sons are supposed to have set up camp after leaving the ark. As Movses Khorenatsi's home village was nearby Chorene, immediately south of Yeghrdut, it seems unlikely that the monks of the monastery would *not* have been aware of this clearly local tradition featuring Shem, the son of Noah.

Movses Khorenatsi's geographical positioning of Mount Sim and the wanderings of Noah and his family also make it clear that Mount Ararat is *not* the Place of Descent, the site where Noah's ark came to rest after the Flood. Shem is said to have traveled "northwest" to reach Sim Mountain in the kingdom of Taron (see figure 36.2), which fits perfectly with the ancient belief that the ark went aground on Mount al-Judi, the modern Cudi Dağ in southeast Turkey. In other words, the story as preserved in Movses's fifth-century history of Armenia was written with Mount al-Judi in mind as the Place of Descent, and *not* Mount Ararat, which lies some distance to the east-northeast of Sim Mountain.

ARMENIA
TURKEY
Araxes R
Mount Ararat
Place of Descent in Christian tradition
Bingol Mountain
DILMUN
Surb Karapet
TARON
Mush
L Van
Yeghrdut
Sim Mountain
L Urmia
Shem's journey to Mt Sim
Tigris R
Euphrates R
Göbekli Tepe
Cudi Dağ/ Mount Judi
Cizre (Thamanin)
Original place of Descent
Gt Zab R
SYRIA
Abu Hureyra

Figure 36.2. Map of eastern Turkey showing the candidates for the Place of Descent in Noahic tradition. Note also the route taken by Noah's son Shem from the Place of Descent to Sim Mountain, said to overlook the kingdom of Taron, that is, the plain of Mush.

All these Armenian traditions indicate that the plain of Mush and the surrounding mountain ranges were seen as important to the events portrayed in the generations between Adam and Abraham, although what they did not do was give credence to the belief that here also was the terrestrial Paradise. What I needed was better confirmation that Armenia, and in particular the area under discussion, was once believed to have been the site of Eden, something that Movses Khorenatsi worryingly makes no mention of in his history of Armenia.

As we see next, that confirmation is provided by the Reverend Marmaduke Carver, who in his fabulous work *A Discourse of the Terrestrial Paradise,* published in 1666, did so much to show that

the area between Thospites Lake (Lake Van), the Tigris Tunnel in Sophene, and Bingöl Mountain in the Armenian Highlands was the true site of the terrestrial Paradise.

37

THE SECRETS OF ADAM

The Reverend Marmaduke Carver wished also to find absolute confirmation that the southern part of Armenia Major, modern eastern Turkey, was the authentic site of the Garden of Eden. Writing in *A Discourse of the Terrestrial Paradise,* he notes: "Tradition successfully continued in these parts [i.e., after the Flood], that hereabout was the place of Adam's Paradise,"[1] adding:

> The Author that affirms this is Methodius. . . . Now this ancient Author *(in lib. Revel.)* speaking of the death of Seth, and the secession of his posterity from the posterity of Cain, hath

> among other things this remarkable passage: *Mortuo* Seth *separavit se Cognatio ejus à sobole* Caini, *redierúntque ad natale solum. Nam & Pater corum vivens prohibuerat nè miscerentur. Et habitavit Cognatio* Seth *in* Cordan *monte, Paradiso terrestri proximo.*[2]

The Latin text translates as: "[After the death of Adam] Seth separated from the issue of Cain and returned to his native country, for his father had forbidden their lives to mix. And Seth lived with his kin on Mount Cordan, next to the terrestrial Paradise."

Having cited Methodius's words, Carver notes: "If the terrestrial paradise were near the Mount Cordan, and that Mount Cordan or Gordiæus stood in the same place where Ptolemy hath set it; then we may rest secured, that the happy seat of our First Parents Habitation was at or about the very place that we have described."[3]

THE REVELATIONS OF METHODIUS

Very pertinent words indeed, so who was Methodius and where was Mount Cordan, or Gordiæus? Methodius of Olympus was a theologian and prolific writer of the early fourth century (he died ca. AD 311). The quotation cited by Carver, or variations of it, is from a work accredited to Methodius entitled the *Apocalypse* or *Revelations* (*Revelatio*). It contains a commentary on the book of Genesis and an account of the coming of the Antichrist and the inevitable end of the world. However, there is a problem, as there is no record of Methodius ever having written such a book. Moreover, it is quite clear from its contents that the *Apocalypse* was written in response to the Arab invasion of Asia Minor in the second half of the seventh century AD, three hundred years after Methodius's death. In other words, its author was most likely a Christian writer of the seventh century who wanted to bolster the tract's value by accrediting it to Methodius.

Exactly who penned this pseudepigraphical, or falsely attributed, work is unclear (the author is now referred to as Pseudo-Methodius), although what *is* important is that it was written originally in Syriac, the language of Northern Mesopotamia, meaning that it could well have originated from somewhere close to the city of Edessa, modern Şanlıurfa. This seems certain, as just a year or two after its initial circulation, modified versions, known today as the *Edessene Apocalypse,* were being produced in the area, quite possibly in one of the monasteries locally.[4]

WHERE IS *CORDAN MONTE?*

Which version of the *Apocalypse* the Reverend Marmaduke Carver consulted for his book is not cited. Most likely it was a volume in the York Minster Library, where the churchman did much of his research for *A Discourse of the Terrestrial Paradise.* Yet if we

accept Carver's translation as authentic (and I have certainly found a Latin version of the *Apocalypse* with a date of 1593 that contains these exact same lines[5]), it implies that in the late seventh century an accomplished theological writer, living close to Edessa and the site of Göbekli Tepe, possessed knowledge implying that Seth, his father Adam, his mother Eve, and their extended family group inhabited "Cordan monte," or Mount Cordan. Even more significant is his conviction that this mountain was situated *proximo,* or "next," to the terrestrial Paradise; that is, the Garden of Eden.

Carver assumed that "Cordan monte" was a reference to the Gordiæus Mountains (also written Gordyene or Corduene), which, he says, the Greco-Roman geographer Ptolemy (AD 90–168) located in the district of Armenia Major. Apparently, Ptolemy saw them as at "the same latitude with the springs of the Tigris: Strabo joins them with Mount Taurus."[6] Today, this mountain range is identified with the Kardu Mountains, which are farther south and

include Mount al-Judi, the traditional resting place of the ark. Yet the classical writers located the Gordiæus Mountains north of here, in the Eastern Taurus range, which borders the plain of Mush on its southern side.

So this fixed the mythical world of Adam, Eve, Seth, and their extended family firmly within reach not just of the source of the Tigris, but also Sim Mountain, where Shem and his sons settled, and the Yeghrdut monastery was founded in the fourth century AD. Is this where Adam and Eve came to rest after being expelled from the Garden of Righteousness, somewhere in the vicinity of Yeghrdut, where afterward Shem established his own home? Interestingly, it was Shem who Noah sent to retrieve Adam's skull from its place of burial in order that it might be brought on to the ark,[7] even though the bodies of Eve, Seth, and all the other early patriarchs were left in situ. Apparently, the site of Adam's burial was the "Cave of Treasures," located on a "Holy Mountain"[8] that was said to

overlook the site of the original Garden of Eden.[9] Did this cave exist somewhere near Yeghrdut, and could it be found today?

Of course, the historical validity of any such material is at best questionable, and yet there is no denying that the power of belief in a fictional mythos can be just as real as if not more real than, a tangible, mundane reality. Moreover, mythical data can encode within it kernels of truth that can manifest in the real world, and so nothing should be ignored or dismissed out of hand without due consideration.

THE SEED OF SETH

So to suddenly find that Adam and Eve's homeland after their expulsion from the Garden of Eden was somewhere in the vicinity of the Eastern Taurus Mountains was very compelling indeed. Moreover, the introduction of Seth to the story was also highly

significant, as it was the "seed of Seth," or Seth's descendants, who were to inherit God's kingdom after the death of Adam. This belief is derived from a passage in Genesis 4:25, which reads:

> And Adam again knoweth his wife, and she beareth a son, and calleth his name Seth, "for God hath appointed for me another seed instead of Abel:" for Cain had slain him.

The words "another seed" is interpreted as meaning that through Seth, the third son of Adam, God created a new branch of humanity that some Jews and early Christians believed was the only truly righteous tribe of God. Everybody else was descended of Cain, Seth's evil brother, and was thus wicked by descent.

Many Gnostic sects that thrived in the first five centuries of the Christian era saw Seth as the first of three manifestations of Christ himself. The others would seem to have been Shem, the son of Noah, and Jesus Christ himself. Indeed, the heavenly Seth was seen

to have manifested in this world through the incarnation of Jesus, the two being synonymous with each other.

THE NAG HAMMADI LIBRARY

Gnostic followers of Seth, or Sethites as they were known, flourished among religious sects and secret groups that thrived in regions such as Palestine, Syria, Asia Minor, Egypt, and Armenia. They had their own gospels, or scriptures, many of which were found together inside a cave near Nag Hammadi in Middle Egypt in 1945. What became known as the Nag Hammadi library is the most important collection of Gnostic and Sethite texts ever studied. One theory is that the codices may have belonged to a local Coptic monastery and were buried following Bishop Athanasius's condemnation of the use of non-canonical holy books, that is, those not officially recognized by the Roman Church, in AD 367.

Among the Sethian titles in the Nag Hammadi collection are the *Three Steles of Seth, Zostrianos* (some see Zostrianos as a manifestation of Zoroaster, the divine leader of the Zoroastrians), the *Second Treatise of the Great Seth,* the *Paraphrase of Shem* (or Seth), *Allogenes,* the *Trimorphic Prottenoia,* and *Melchizedek.* These Gnostic gospels have some very interesting things to say about Seth, who is occasionally confused or identified with Shem,[10] the son of Noah. For instance, it is suggested that before his death, Adam transmitted to Seth certain matters concerning everything from the divine or angelic nature of humankind to the movement of the stars and heavenly bodies, and the knowledge of a coming catastrophe involving fire and water. These "secrets of Adam" are said to have been recorded before being hidden away until humanity was ready to receive them. Some of these secrets were to be revealed, periodically, through the appearance of four Phosters, that is, revealers or illuminators, who would incarnate for this express

purpose,[11] while others would remain hidden until the right time for their discovery.

THE PILLARS OF SETH

What intrigued me most about this tradition is that Seth apparently inscribed the secrets of Adam on pillars or wrote them down on stone tablets, called steles, which were then deposited somewhere in the ancient world, usually either on or within a mountain cave of some description. For instance, the Jewish writer Flavius Josephus (AD 37–100), in his book *The Antiquities of the Jews,* talks about Seth leaving behind children, who "inhabited the same country without dissensions, and in a happy condition." They were "the inventors of that peculiar sort of wisdom which is concerned with the heavenly bodies, and their order." He goes on to write:

> And that their inventions might not be lost before they were sufficiently known, upon Adam's prediction that the world was to be destroyed at one time by the force of fire, and at another time by the violence and quantity of water, they made two pillars, the one of brick, the other of stone: they inscribed their discoveries on them both, that in case the pillar of brick should be destroyed by the flood, the pillar of stone might remain, and exhibit those discoveries to mankind; and also inform them that there was another pillar of brick erected by them. Now this remains in the land of Siriad to this day.[12]

Here the secrets of Adam are inscribed on pillars, one of brick, the other of stone, which are erected to preserve this knowledge beyond the coming cataclysm involving both a conflagration and deluge. So where exactly is Siriad (also written Seiris or Sirian), the named location of the inscribed pillars?

THE LAND OF SIRIAD

Because of the confusion between Seth, the son of Adam, and Seth, the brother of Osiris in Egyptian mythology, it has long been assumed that Siriad means Egypt. Here the inhabitants venerated the bright star Sirius, a similar sounding name to Siriad, while the pillars of Seth themselves were identified with the Great Pyramid and its neighbor, the Second Pyramid. This was a surmise assumed by the scholarly world following the publication in 1737 of a very popular translation of Josephus's works by English theologian, historian, and mathematician William Whiston (1667–1752).[13] Although Whiston did not believe that the pillars of Seth could have survived the conflagration and Flood, he did identify the land of Siriad as Egypt.[14]

Yet this connection with Egypt is a misnomer, for even if Seth *did* somehow become associated with the Great Pyramid, we know that Adam's son "lived," as Pseudo-Methodius tells us, somewhere

in Armenia, which, following the carving up of the Greek Empire after the death of Alexander the Great in 323 BC, came under the control of the Syrian Seleucid Empire. Even with the dissolution of the empire in 190 BC, two Seleucid satraps, or governors, revolted and assumed control of Armenia Major and Armenia Minor (or Lesser Armenia), located west of the Euphrates River, and proclaimed themselves kings. Hellenic Greek practices and customs continued to thrive in Armenia and Northern Mesopotamia with all its Syrian influences. What is more, Edessa's kings, who were mostly called Abgar or Manu, kept their links with Syriac culture and tradition, and retained Syrian as the main written language.

There is really nothing to link the pillars of Seth with Egypt, and all the indications are that Siriad is a straightforward reference to Syria. In fact, before William Whiston's translation of Josephus's works, earlier translators did not hesitate to link Siriad with Syria. D. Eduardi Bernardi, for instance, in a translation of Josephus

published at Oxford in 1687, discusses whether Siriad means Syriac in origin or belonging to Syria.[15]

Elsewhere there is additional evidence that Seth was depositing the "secrets of Adam" closer to home. For instance, at the end of the Latin *Vita Adae et Evae,* the "Life of Adam and Eve," following Adam's death Eve instructs their children to write on tablets of stone and clay everything they have learned both from her and their father. During the coming cataclysm, that which is written on stone will survive the Flood, while that which is written on clay will survive the conflagration. The implication is that Seth then conceals the tablets in the same vicinity; in other words, somewhere close to the terrestrial Paradise.[16]

THE ROCK OF TRUTH

The *Apocalypse of Adam,* one of the Gnostic texts included in the

Nag Hammadi library, contains the revelation that “Adam taught his son Seth in the seven hundredth year.” Here Adam tells Seth to record all of his and Eve’s experiences in the Garden of Paradise (see figure 37.1). This is to include the revelations conveyed to them by three angelic informants regarding the future adventures of the elect, that is, the seed of Seth, along with knowledge of the imminent cataclysm of fire and flood, and details of the coming savior, who is Seth himself. Collectively, this wisdom is described as the “hidden knowledge of Adam.” The reader is told also that a special revelation is to be written “on a high mountain, upon a rock of truth.”[17]

Figure 37.1. *Eve at the Fountain,* by English visionary painter John Martin (1789–1854), one of twenty illustrations done in mezzotint

for the 1827 edition of John Milton's Paradise Lost.

Even though the whereabouts of the land of Siriad, or Seiris, is nowhere given in the Gnostic gospels, Adam's secret writings are repeatedly said to be hidden in a holy mountain. The work known as the *Allogenes,* for instance, proclaims: "Write down [the things that I Allogenes, a name of Seth] shall [tell] you and of which I shall remind you for the sake of those who will be worthy after you. And you will leave this book upon a mountain and you will adjure the guardian 'Come, O Dreadful One.'"[18]

THE GOSPEL OF THE EGYPTIANS

Then in *The Gospel of the Egyptians,* also from the Nag Hammadi library, we read:

> This is the book which the great Seth wrote, and placed in high

> mountains on which the sun has not risen, nor is it possible. And since the days of the prophets, and the apostles, and the preachers, the name has not at all risen upon their hearts, nor is it possible. And ear has not heard it.
>
> The great Seth wrote this book with letters in one hundred and thirty years. He placed it in the mountain that is called Charaxio, in order that, at the end of the times and the eras . . . it may come forth and reveal this incorruptible, holy race of the great savior, and those who dwell with them in love.[19]

These words are greatly enigmatic, for they speak of a book concealed "in" a mountain, the location of which, and even the name thereof, has not been uttered since the time of Seth. Yet then, as if pronounced as part of some magical spell, the name of the mountain is finally revealed: *Charaxio.* But where is Charaxio? Was this the true hiding place of the secrets of Adam?

THE SEARCH FOR CHARAXIO

Charaxio is said to be located "where the sun has not risen, nor is it possible," a clear allusion to the Land of Darkness, the otherworldly realm in the extreme north associated with Alexander the Great's quest to find the Fountain of Life and Gilgamesh's search to find the plant of immortality. It was here too that the god El had his abode and the two hundred rebel Watchers made the decision to descend to the plains below and take mortal wives. As Belgium-based Near Eastern scholar Edward Lipinski determined, the Land of Darkness existed beyond the virtually impenetrable barrier created by the Eastern Taurus Mountains in Armenia Major.

Guy G. Stroumsa, a Gnostic scholar with the Hebrew University, Jerusalem, and Oxford University, England, has made a study of the mysterious mountain called Charaxio. He says that various attempts have been made to find its location. However, because Charaxio appears under this name only in *The Gospel of the Egyptians,* it has

proved near impossible to trace. This said, the abbreviated form, Charax, *does* appear in antiquity.[20] John Lemprière's *Bibliotheca Classica: A Classical Dictionary,* published in 1788, reveals just one entry under this name, which is "a town in Armenia."[21]

That Charaxio might have been situated in Armenia makes sense of the fact that it was said to exist where the sun doesn't shine; that is, in the Land of Darkness, in the far north. Stroumsa himself took note of this, comparing Charaxio's description with "the dark regions mentioned in 1 *Enoch* 78:3"[22]; that is, the book of Enoch, which, as we have seen, can be linked with the Land of Darkness beyond the Tigris Tunnel. Realizing this, Stroumsa alludes to traditions regarding the prophet Enoch being handed books from his forefathers Adam and Seth, which he says were concealed on Mount Ararat in Armenia, so that they might remain safe during the coming deluge.[23]

MOUNT SIR

Pushing the matter still further, Stroumsa notes that "the link between Seiris (the land of the sons of Seth and the place of the Steles) and Mount Ararat" finds expression in another Gnostic text called *The Hypostatis of the Archons,* which is also found in the Nag Hammadi library. He continues: "Noah is asked by the demiurge (the creator of the physical world) to set the ark upon Mount Sir. . . . In some milieus, the mountain could have been given the name of the land in which the books were written Σειρ(ις)"[24]; that is, Seir(is).

So Guy Stroumsa proposes that Charaxio, Seiris, and Mount Sir (Seir) are all one and the same or that they are conflated forms of an original mountain of Seth, which he identifies as Mount Ararat, since this would have been the safest place for something to have been hidden with foresight of the coming conflagration and deluge. This is, in my opinion, smart thinking, yet once again we are back to

Mount Ararat sucking up every legend and tradition that comes along, simply because of the Christian fixation with its being the Place of Descent of Noah's ark. Just one Gnostic work actually mentions Mount Ararat by name, this being the *Pistis Sophia* contained in the Askew Codex, a fifth-century parchment manuscript of Coptic origin now in the British Library. Yet it speaks only of Jesus in his spiritual form causing the patriarch Enoch to write the so-called Books of Yeu (or Jeu) when in Paradise, and then getting him to deposit them for safekeeping "in the rock Ararad," where a heavenly ruler is appointed to watch over them during the coming flood.[25] It does not mention Adam or Seth, and certainly makes no direct reference to Charaxio, Seiris, or Mount Sir.

So I looked again for any elucidation on the place-name Charaxio and found something very interesting indeed. I discovered that the Araxes River, which was also known by the abbreviated form of

Arax, was itself once called the Charax,[26] making sense of John Lemprière's entry in his *Bibliotheca Classica* regarding a town called Charax in Armenia. Since we know that the Araxes takes its rise on Bingöl Mountain, the Abus Mons of antiquity, there has to be a good chance that it is also Charaxio, which with the *–io* suffix gives it the meaning "belonging to Charax"; that is, the Araxes River.

Charaxio's identification with Bingöl Mountain is strengthened by the words of Stroumsa himself, who concludes for perfectly good reasons that Charaxio, Seiris, and Mount Sir are all synonymous with Bingöl's main rival, Mount Ararat. Take Mount Ararat out of the picture and you are still left with his firm conviction that somewhere in Armenia Major is the real Charaxio. So was Bingöl Mountain really where Seth concealed the secrets of Adam on pillars or steles in order that they might be revealed in the final days? It is interesting that John Lemprière's entry for Abus

Mons reads "a mountain in Syria, where the Euphrates rises."[27] It confirms that in classical times this region of Armenia Major was still classed as Syria, the ancient land of Siriad or Seiris, where Josephus tells us that Seth concealed his pillars of knowledge and his descendants continued to live after this time. Yet what about Mount Sir—where was that located?

MONS VICTORIALIS

A tract entitled *Opus Imperfectum in Matthaeum,* a commentary on the Gospel of Matthew, which circulated among a Christian sect known as the Arians during the fifth century, alludes to a lost book or books of Seth. It states that once a year a group of twelve scholars would climb a mountain called Mons Victorialis, the "Victorious Mountain" or "Mountain of Victory," on which were abundant "fountains" and beautiful trees, and here they would enter

a cave and examine an original work written by Seth.[28]

An eighth-century Syriac text known as the "Revelation of the Magi"[29] contains the same basic story, although here the twelve scholars are twelve Magi, who are both kings and "wise men,"[30] descendants of Seth,[31] who live in the land of Shir (i.e., Sir or Seiris).[32] The book takes the form of commandments given by Adam to Seth, who records them in written form. It speaks of a sign that will herald the birth of a god in human form, with that sign being a star in the likeness of a small child.[33]

Every year the Magi would purify themselves in a spring and then ascend the Mountain of Victory and pray in silence before entering the cave, which is identified as the Cave of Treasures of the Hidden Mysteries.[34] (See figure 37.2.) Here Adam and Eve had lived, just beyond the Garden of Eden, and after their deaths it had become the home of Seth, his family, and their descendants.

This same settlement of the antediluvian patriarchs, as we have already seen, was said by Pseudo-Methodius to have been located near Mount Cordan, in the Eastern Taurus range, close to the Yeghrdut monastery and the plain of Mush.

Inside the cave the Magi consulted the books of Seth containing the secrets of Adam and watched for the prophesied sign before returning to their kingdoms to instruct those of their people who wished to learn of the "hidden mysteries." The whole process was repeated across many generations, and when one of the twelve died, either a son or a close relative would replace him.[35]

The text alludes also to a book of revelations written by Seth, which states that Adam had originally seen the sign, the original star child, hanging over the Tree of Life in the Garden of Eden, but that it had disappeared when he committed the first sin.[36] The "Revelation of the Magi" then reveals how a star appears in the sky, before entering the cave, inviting the Magi to do the same. Inside

they find not a star, but the likeness of a small child, who introduces himself as the Son of God. The wise men are instructed to follow the star so that they might worship him in human form. They are then led in a quite fantastic manner first to Jerusalem and then to Bethlehem, where the star enters a cave and becomes the infant Jesus, at which point the story reverts to the account of the Nativity as told in the gospel of Matthew (2:1–12). Eventually, the Magi return to the land of Shir, and in time the apostle Judas Thomas arrives to convert the people through "mighty deeds"[37]; and here he now baptizes and anoints the Magi.

Figure 37.2. Twelfth-century representation of Adam and Eve inside the Cave of Treasures, located within Mons Victorialis, the Mountain of Victory. Here lived the "children of Seth" until the time of the Flood. Its discovery will reveal the books of Seth containing the secrets of Adam.

Although there have been attempts to identify the land of Shir with locations as far away as northeast Iran and even China,[38] it was likely located in the vicinity of the Cave of Treasures and, of course, the Garden of Eden. What is more, the Mountain of Victory, or Mons Victorialis, features in the sixth century Syriac text entitled the book of the Cave of Treasures as a name of the "Mountain of God" on which Adam, Eve, and their extended family—the "children of Seth"—live prior to the time of the Flood. These "children" constitute the entire line of early patriarchs and their families, from Seth right down to Noah.[39] Enoch is there also,

ministering unto God inside the cave and burying his father, Jared, all this coming before his celebrated translation to Paradise in the company of angels (see figure 37.3). According to the book of the Cave of Treasures, at the time of the Flood, Shem, the son of Noah, returns to the cave to retrieve the body of Adam, which is then taken aboard the ark—the bodies of the other patriarchs being left behind in the cave.[40]

So was the land of Shir to be found somewhere in the vicinity of the plain of Mush, the most obvious site of the Garden of Eden? Was it to be identified with Sim Mountain, where Shem is said to have established a settlement after leaving the ark and where Thaddeus deposited the holy relics beneath Yeghrdut's evergreen tree in the first century AD? Remember, the alternative form of the Sumerian word for *snake,* muš, which might well be the root behind the Mush place-name, is šir, pronounced *shir* in the Akkadian language. Was the ancient Armenian kingdom of Taron, which

included the plain of Mush, once known as the land of Šir, or Shir; that is, the land of the snake? This has to remain a very distinct possibility indeed.

If not in the vicinity of Yeghrdut, was the Mountain of Victory synonymous with Bingöl Mountain and Abus Mons, the best candidate by far for Charaxio, the mountain where *The Gospel of the Egyptians* tells us Seth hid his holy book, or books, containing the secrets of Adam? Is this where the Cave of Treasures will be found? Both sites, Yeghrdut and Bingöl, which are visible from each other, might easily have played some dual role in the construction of the Jewish, Gnostic, and later Christian myths concerning the true location not only of the original Garden of Eden but also where Adam and Eve's descendants, the "children of Seth," are said to have lived on the "holy mountain" of God. No other geographical region makes sense of all of these disparate stories, showing us quite clearly that in Judeo-Christian tradition this was

where the events of the book of Genesis were played out, no more than a couple of hundred miles away from Göbekli Tepe.

So what exactly are the secrets of Adam? Can we go on to determine what Seth actually recorded, either in book form or in stone? As we see next, Adam's secrets might well turn out to contain forbidden knowledge regarding the angelic origins of humankind.

Figure 37.3. The patriarch Enoch is translated to Paradise after being anointed by the angel Michael and becoming like an angel himself.

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AS ANGELS OURSELVES

What exactly are the secrets of Adam? What might they pertain to, and what relevance has any of this to Göbekli Tepe and the Yeghrdut monastery located in some quiet corner of the terrestrial Paradise? The first clue is *The Gospel of the Egyptians,* which tells of the creation of the Sethians. They, we are told, constitute "earthly counterparts of a heavenly church of angelic beings, the prototypical Sethians."[1] Moreover, we learn that when the book or stele that Seth placed in the mountain Charaxio is found, "it will identify the true race of Seth."[2]

There is little question that this "true race of Seth" is to be seen as

the incarnated souls of the aforementioned "angelic beings, the prototypical Sethians," meaning that the secrets of Adam supposedly reveal the angelic nature of humankind.

LIKE THE ANGELS

What exactly does this mean? How can humans become like angels, especially if the rebel Watchers of the book of Enoch represent, arguably, a memory of the real prime movers behind the genesis of civilization? The key is that the angels were said to have inhabited Paradise itself and so benefited, like Adam and Eve before the Fall, from the presence of the Tree of Life, which conveys eternal life to whoever or whatever is in its presence.

Before the Fall, according to Gnostic tradition, Adam and Eve had spiritual bodies, "like the angels,"[3] but after their expulsion, their bodies grew more and more dense and languid until they were

no more than "coats of skin."[4] Only with the "sweet odour of light," the perfumed oil from the Tree of Life, would they ever be able to regain their original divine body.[5]

Not only does any fragment from the Tree of Life remain "true and living," a concept reflected in Yeghrdut's holy tree being "evergreen," but the Oil of Mercy from the Tree of Life is said to bestow eternal light and life through the sacred process of anointing. Indeed, early Christian tradition asserted that Jesus was himself anointed with oil from the Holy Wood of the Tree of Life before incarnation in order that he might become Christ,[6] a word taken from the Greek Χριςτός (Christos), meaning "the Anointed One."

As I already knew, the Tree of Life was anciently believed to have been an olive tree,[7] an evergreen that gave forth a fragrance or perfume,[8] a belief connected with the story contained in the book of Enoch in which Enoch, on his visit to Paradise in the company of two angels, is anointed with an oil fragranced by myrrh:

> And God said to Michael: "Approach and remove Enoch's earthly garments! Anoint him with My blessed oil and dress him with garments of My glory! Michael did what God told him; he anointed me and dressed me. The appearance of the oil was greater than a great light and its lubricant was like blessed dew, and its fragrance was like myrrh shining like the sun's rays. I looked at myself and saw that I was like one of His glorious ones and there was no obvious difference.[9]

So the removal of Enoch's physical garments and his anointing with perfumed oil have the purpose of taking away the patriarch's earthly skin and replacing it with divine garments that are symbolic of his transformation from a mortal person into an angelic being. This is the prerequisite for his permanent translation to Paradise, the story told in the book of Genesis.[10] Yet it is also a reference to the spiritual bodies, or "garments of light," that Adam bore before the Fall. So through this anointing process Enoch becomes as Adam

was in Paradise, a person restored to his original state of divine glory, no different from the angels themselves.

THE HOLY MYRON

The perfumed oil used by the angel or Watcher named Michael to anoint Enoch can be compared with the Myron (or Muron), also known as the Chrism, used even today to anoint the Catholicos during his inauguration as spiritual head of the Armenian Church. It is obtained by mixing together pure olive oil with some forty or so herbs and spices, including myrrh, which is then exposed to the surviving essence of the original holy anointing oil made by Moses under Yahweh's instruction and brought to Yeghrdut in Taron by Thaddeus in the first century.

The Myron is considered to convey wisdom through the Holy Spirit or divine light of God since it bore the similitude of the

heavenly Oil of Mercy from the Tree of Life. This is brought out in teachings attributed to Saint Peter, the founder of the Church of Rome, which state that one day Christians will be able to receive oil that comes directly from the Tree of Life and not simply from some created imitation: "If the oil blended by men had such power, think how great is the oil that was extracted by God himself from a branch of the tree of life."[11]

Very similar ideas are behind the anointing not just of church leaders worldwide but also of kings and queens. At a coronation, it is the anointing of the candidate that conveys kingship, *not* the crowning; the placement of the crown is merely a visible sign of the monarch's authority to rule in the eyes of God and of his or her newfound divinity.

From this it might be assumed that the secrets of Adam, written down by Seth, contain the manner in which we, as mortal humans, are able to regain our spiritual bodies of light lost at the time of the

Fall. To do this and become as angels ourselves, we have to be anointed by the perfumed oil that bears the similitude of the Oil of Mercy from the Tree of Life. Within the influence of this divinely prescribed substitute for the Oil of Mercy, immortality is assured.

Clearly, this is a religious concept, utilized today by Jewish and Christian nations around the world. It might seem also to have little, if anything, to do with the discovery 170 miles (274 kilometers) from Yeghrdut of Göbekli Tepe. Yet empowerment and otherworldly transformation through the use of specific types of wood, and the oils and resins extracted from them, is something that might well have had its origins in the early Neolithic world of southeast Anatolia.

The discovery at Göbekli Tepe of burnt almond wood and spent almond shells[12] among the fill covering its sanctuaries indicates that almond oil was almost certainly known here. Its use could easily have been the origin behind much later anointing traditions that

existed among the civilizations of ancient Mesopotamia and the Semitic peoples of the Levant (hence its association with biblical tradition). Interestingly, the rod of Aaron, Moses's brother, is said to have "bloomed blossoms, which spreading the leaves, were formed into almonds" (Num. 17:8), while the seven-branched candle of the Jews known as the menorah represents both an almond tree and the Tree of Life. The two are synonymous,[13] even though elsewhere the Tree of Life, as we have seen, is said to be an olive tree.

LINKS TO YEGHRDUT

In view of all this, the fact that Thaddeus travels all the way from Judea via Edessa to Yeghrdut to deposit both a fragment of the Tree of Life and the bottle containing the essence of the perfumed oil that Yahweh had instructed Moses to make has incredible implications. It suggests that the disciple was taking them to somewhere already

connected with traditions associated with the Oil of Mercy and Tree of Life. This he recognized through the presence there of an earthly representation of the Tree of Life in the form of Yeghrdut's own evergreen tree, from beneath which flowed a source of the Euphrates, one of the four rivers of Paradise. It tells us also that Yeghrdut was considered the true foundation point of the Armenian Church, the Myron bottle and fragment of the Tree of Life being its symbols of divine authority over counter claims of supremacy from rival monastic foundations.

Of course, it might easily be argued that the Armenian Church made up the entire story of Thaddeus's visit to Yeghrdut and his concealment there of the holy relics. Yet if this were the case, why connect the legend with Yeghrdut and not Surb Karapet, Taron's showcase monastery on the opposite side of the plain of Mush? Why attribute this extraordinary tradition to Yeghrdut when Surb Karapet would have been a much better option, especially as it was

founded around important relics of John the Baptist? Alternatively, why not connect the story to the Mother See of Holy Echmiadzin at Vagharshapat, Armenia's great spiritual center located within sight of Mount Ararat, where eventually Yeghrdut's sacred container was moved so that the holy Myron might continue to be manufactured there?

Everything points toward a long-held tradition suggesting that Yeghrdut's evergreen tree was seen to mark the site of the terrestrial Tree of Life, planted by Seth either within or upon the skull of Adam, the first man. If correct, then close by was the Cave of Treasures, where Adam and the early patriarchs lived and were buried after the time of the Fall, and the book or books containing the secrets of Adam lay hidden within the Mountain of Victory, located in the land of Shir, or Seir.

In Gnostic tradition, Seth incarnates to save his "seed" on three occasions: first as Seth, the man; second as Shem, the son of Noah;

and finally as Jesus Christ (his lives as Seth and Jesus both linking him with traditions concerning the Oil of Mercy). A. F. J. Klijn in his important work *Seth in Jewish, Christian and Gnostic Literature* (1977) says that the "race of Seth" may have been a historical phenomena "which existed until the flood or [they were] a group which was to be saved at the end of time."[14] Yet as much as these ideas regarding the books, steles, or pillars of Seth are bound up in Jewish, Christian, and Gnostic millennialism, can they really be linked to the discoveries being made today at Göbekli Tepe?

THE CHILDREN OF SETH

An ancient Jewish religious work known as the book of Jubilees, which, like the book of Enoch, has been found among the Dead Sea Scrolls, talks about Cainan, the son of Arphaxad, or Arpachshad, who found "a writing which the ancestors engraved on stone,"

reminding us of the pillars or steles on which Seth wrote the secrets of Adam. These writings contained "the teaching of the Watchers by which they used to observe the omens of the sun and moon and stars within all the signs of heaven."[15]

It was this same starry wisdom that became the foundation of the beliefs of the Chaldeans; that is, the Sabaean star-worshippers of Harran, the ten-thousand-year-old city located on the plain beneath the gaze of Göbekli Tepe (see the Prologue for the full story). Arphaxad, Cainan's father, is said to have been the progenitor of the Chaldeans of Harran.[16] His name, Arphaxad, is a conflation of the place-name "Ur of the Chaldees,"[17] Abraham's birthplace in nearby Şanlıurfa, showing the firm connection between these early biblical characters and the *triangle d'or,* the birthplace of the Neolithic revolution. Completing the picture is the fact that Arphaxad's father was Shem, the son of Noah, whose settlement at Simsar, or Sim Mountain, in the Eastern Taurus range overlooking the plain of

Mush, is today occupied by the Yeghrdut monastery.

Interestingly, the Sabaeans, the pagan inhabitants of Harran, were said to have been "worshippers of fire called Magi" and claimed to be keepers of the mysterious "book of Seth," because their founder was one "Sabius, a son of Seth."[18] Moreover, they asserted that "we acknowledge the religion of Seth, Idris (Enoch) and Noah."[19] So could the original book or books of Seth have been carved stone pillars, like those being uncovered today at nearby Göbekli Tepe? Were the twelve Magi that perpetually guarded the book or books of Seth an echo, however slight, of the rings of twelve anthropomorphic pillars erected at Göbekli Tepe some 11,500 years ago? Could these rings of stone reflect much later traditions regarding the "children of Seth" preserving the secrets of Adam in written form? If so, then who or what might the twin central pillars have come to represent in Jewish, Christian, and Gnostic tradition?

Too much speculation here would be foolish, although the fact

that Gnostic writings emphasize that Cain and Abel, the twin sons of Adam, each had twin sisters is intriguing and reminds us of the belief that twins always grew inside the womb during pregnancy. Moreover, that Seth was born as Abel's replacement sets up a twinlike relationship between Cain and Seth, reflected in the stories regarding our descendancy either from the "sons of Cain" or the "seed of Seth"; that is, the Sethites. The central pillars at Göbekli Tepe are perhaps allusions to this twin tradition, although whether they can be seen in terms of the twin offspring of Adam, the first man, who in Gnostic teachings was overshadowed by his own celestial twin, is another matter altogether.

So in addition to revealing humanity's dual origins, angelic and mortal, do Göbekli Tepe's T-shaped pillars reflect an understanding of Adam's "astrological knowledge" which might have included information regarding the appearance of short-period comets? One brilliant-minded person once wrote that the secrets of Adam, handed

down to Seth and Enoch, might have been "the knowledge of months, years and periods of comets that the remote generations had acquired—and the hope grew into faith that no such or similar destruction would come any more to decimate mankind."[20]

That person was Russian-Jewish psychiatrist Immanuel Velikovsky (1895–1979), one of the greatest catastrophe theorists of the twentieth century. He realized that, in all likelihood, any such secret information *had* to relate not just to the conflagration and deluge itself but also to how to ensure that such catastrophes never again trouble our world.

Out there somewhere, in some lonely spot on Bingöl Mountain (in its likely role as Charaxio), or maybe in the vicinity of the Yeghrdut monastery (as a potential location of the Cave of Treasures), are perhaps the true secrets of Adam. Inscribed on standing pillars or on steles, similar to those seen today at Göbekli Tepe, they await discovery and interpretation. They might reveal

how we, as mortal humans, can restore our bodies of light, lost at the time of the Fall, and be as angels ourselves; in other words, become as one with our incorporeal selves left behind during the process of incarnation on this earthly plane. They might also provide confirmation that the world was once brought to its knees by a comet impact and that only afterward did the genesis of civilization begin here in eastern Anatolia, the true location of the Garden of Eden.

A TRIP TO TURKEY

There was only one thing left for me to do, and this was to go to Turkey, where I would visit the ruins of the Yeghrdut monastery and get out to Bingöl Mountain somehow. I needed to find out what I could about these places and inquire locally into any folklore, myths, and legends that might help bring alive their geomythic

reality. From there I would journey to Göbekli Tepe, where I hoped to interview Professor Klaus Schmidt.

I knew the region pretty well from my years of research, having visited Göbekli Tepe, Çayönü, Harran, and Karahan Tepe back in 2004. However, I saw one slight problem looming on the horizon like a dark cloud, and this was the fact that the mountains around Mush, including Bingöl Dağ and the Eastern Taurus Mountains beyond Yeghrdut, were currently the front line for the Kurdish uprising headed by the PKK, the Kurdistan Workers Party. They have been fighting for Kurdish independent rule and an autonomous Turkish Kurdistan for the past thirty-five years. Although most of the offensives against them by the Turkish army and secret police are today concentrated in the mountainous region close to the border with Iraqi Kurdistan, I was shocked to find that there had been recent military operations against the PKK in the area of Zengok (modern Yörecik), a village just 7 miles (11 kilometers) from the

Yeghrdut monastery ruins, and even on a mountain named Kozma Dağ, immediately to the south of Dera Sor.

As the date of my departure for Turkey grew nearer, the matter did begin to worry me, yet there was very little I could do. Nothing, not even my better judgment, was going to stop me from getting out to Yeghrdut, which, however you look at it, was first introduced to my world though a simple, though quite profound dream.

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THE RETURN TO EDEN

Monday, September 10, 2012. After a night spent in a dismal hotel on the outskirts of Istanbul, I journeyed on to eastern Turkey. From the small airport at Mush, a taxi took me to the hotel, which lay on the edge of town. Close by was the road out to the villages of Kızılağaç and Suluca, near to which I would find Dera Sor, the ruins of the Yeghrdut monastery.

The next morning, over breakfast, I was able to appreciate exactly where I was for the first time. Through the hotel's panoramic windows I could see the plain of Mush stretching away in every direction, beyond which was a seemingly impenetrable wall of

mountains, reminding me of the seven mountains that encircle the Garden of Righteousness, according to the book of Enoch.[1] Only toward the east did they seem to lower slightly, and here I thought I could make out the summit of Nemrut Dağ, the extinct volcano on the western shores of Lake Van.

THE TAXI RIDE

With breakfast over I waited in the lobby as the hotel owner made various phone calls. These resulted in a taxi driver arriving just after ten, although the guide-interpreter situation was not good, apparently. For two hours I drank sweet black tea and waited, until finally two guys turned up, both quite young, one of whom said he was usually paid the going rate as an interpreter for the European Union, which worried me slightly due to the potential expense. The other was his friend, who also spoke good English. Very quickly we

were in the taxi on our way out to Suluca.

No one had heard of Dera Sor, or Yeghrdut, which seemed bizarre. I was telling them about a sacred site, an ancient ruin of substantial size with a fascinating history spanning nearly two thousand years, yet nobody knew a thing about it. If it had not been for the images I had brought along that showed Dera Sor on Google Earth, my new friends might not have believed it even existed.

As the taxi left the outskirts of town, I followed the route closely to ensure we were going in the right direction, but the driver knew Suluca, and very soon we were on a side road leading toward the foothills of the Eastern Taurus Mountains and a cluster of prefabricated buildings. We stopped to ask the way to Dera Sor, and an old man pointed immediately toward the heavily forested mountain slope behind him. So at least the ruins still existed and were known to the villagers of Suluca.

The elderly man climbed into the taxi and guided us to the start of

an unmade track that marked the beginning of a very bumpy ride in a vehicle that was scarcely suitable for such a journey. As we climbed higher and higher, generally with the steep hillside to our left, we rose above the surrounding landscape, which stretched away to the north, and for the first time I got a glimpse of the Murad Şu, or Eastern Euphrates, winding its way across the plain of Mush.

PKK SITUATION

I did inquire about the situation with the PKK locally and was informed that the mountains were under rebel control, so much so that Turkish forces did not even venture into the area unless it was part of an official military offensive. I asked also about the chances of getting to Bingöl Mountain and was told that this area was currently an active front line and thus a no-go zone to visitors like me. This was a massive disappointment, but for the moment my

principal goal was to get to Yeghrdut.

After driving for around fifteen to twenty minutes, we leveled out but still faced the prospect of an even higher climb to the east of our position. The taxi driver seemed lost, the guide and his friend didn't know what to do, and no one was around to ask for directions. My map seemed useless, so the only option left was to stand on a high spot and just look for any sign of ruins.

It was the guide's friend who first spotted Dera Sor. Over on a ridge, about half a mile away, was what appeared to be a long, red wall on a flat ridge. That had to be it, and without further ado we were back in the taxi trying to reach the spot. The path seemed strewn with potholes, so we left the vehicle in the capable hands of the guide's friend and continued on foot in the baking hot sun.

The track lifted up over an incline, beyond which on the left was a ridge of pine trees. I was struck immediately by the extreme redness of the earth, created no doubt by sandstone with a heavy

iron oxide content that had long since crumbled to dust. To the right the ground sloped away toward the plain below. Scrub and a few clumps of trees grew here and there, but generally the land seemed parched and dry.

THE DERA SOR COMMUNITY

Coming into view now was a group of large, wigwamlike tents, some covered with white tarpaulin, others with tree branches. There were also circular pens full of turkeys and plenty of goats running loose around the whole camp. People were already emerging to see what all the commotion was about. I felt that the sight of an Englishman in desert suit, straw trilby hat, and black-framed glasses was not the norm for these people. Coming out to meet us were women wearing brightly colored hijab headscarves, several small children, three young men in their late teens, and a tall, thin, elderly

gentleman with large moustache, gray jacket, and traditional Turkish fez, a black one that had seen better days. He was quite clearly the leader of the small community, which numbered fifteen to twenty individuals.

These people were seasonal pastoralists, who live out on the mountainside during the summer months, then retire to more urban environments when the cold weather sets in around November. From then on until March or April, the whole region can be covered from top to bottom in thick snow, making life very difficult indeed.

Our guide greeted the fez-wearing man and his family, and conversations ensued regarding the purpose of our visit. The subject of the ruins was discussed, and from the nods and points toward a large earthen ridge of debris immediately west of the settlement, above which I could see the tops of red-stone walls, I realized that there was no obvious problem with our being here. Yet before going any further I asked the elderly man about the monastery's sacred

tree and holy spring. Did he know where these were?

A VISIT TO THE SPRING

Exchanges between the guide and the leader resulted in our moving out into parched scrubland between the camp and the ruins. Not 40 yards (37 meters) from where we had stood was the spring, close to the base of the north-facing hill slope. From its sunken entrance, marked by an arch of large, flat stones, the leader removed a mesh of tree branches bound together with nails, and put there to prevent animals from contaminating the water. With this I sought permission to climb inside the cramped space, created by a rounded roof of stonework overlaid with earth.

I wanted to get some pictures and drink a little water, which I now saw came up into a small pool before trickling away beneath the earth. Farther down the hill the water flow reemerged from a

metal pipe, creating the beginnings of the Kilise Şu stream, which flows into the Eastern Euphrates. I was now at a source of one of the four rivers of Paradise.

Despite Yeghrdut's location on the edge of Paradise, I was dismayed to see plastic cups and containers, as well as cooking utensils and half-buried dustbin liners, strewn about inside the hollow. It was clear that the spring was no longer seen as sacred, a fact confirmed through conversations with the fez-wearing man.

THE HOLY TREE

I asked next to see the old walnut tree, which had been renowned throughout the entire province as a place of healing (see figure 39.1 on p. 346). Our hosts nodded, ushering us on another 20 yards (18 meters) to a dusty patch of ground. Here they pointed toward the remains of an old tree stump still in situ, with a girth of around 5

feet (1.5 meters). Clearly, this was not the original evergreen tree that had stood on the spot in Thaddeus's day, but it was certainly a potent symbol of its former presence here.

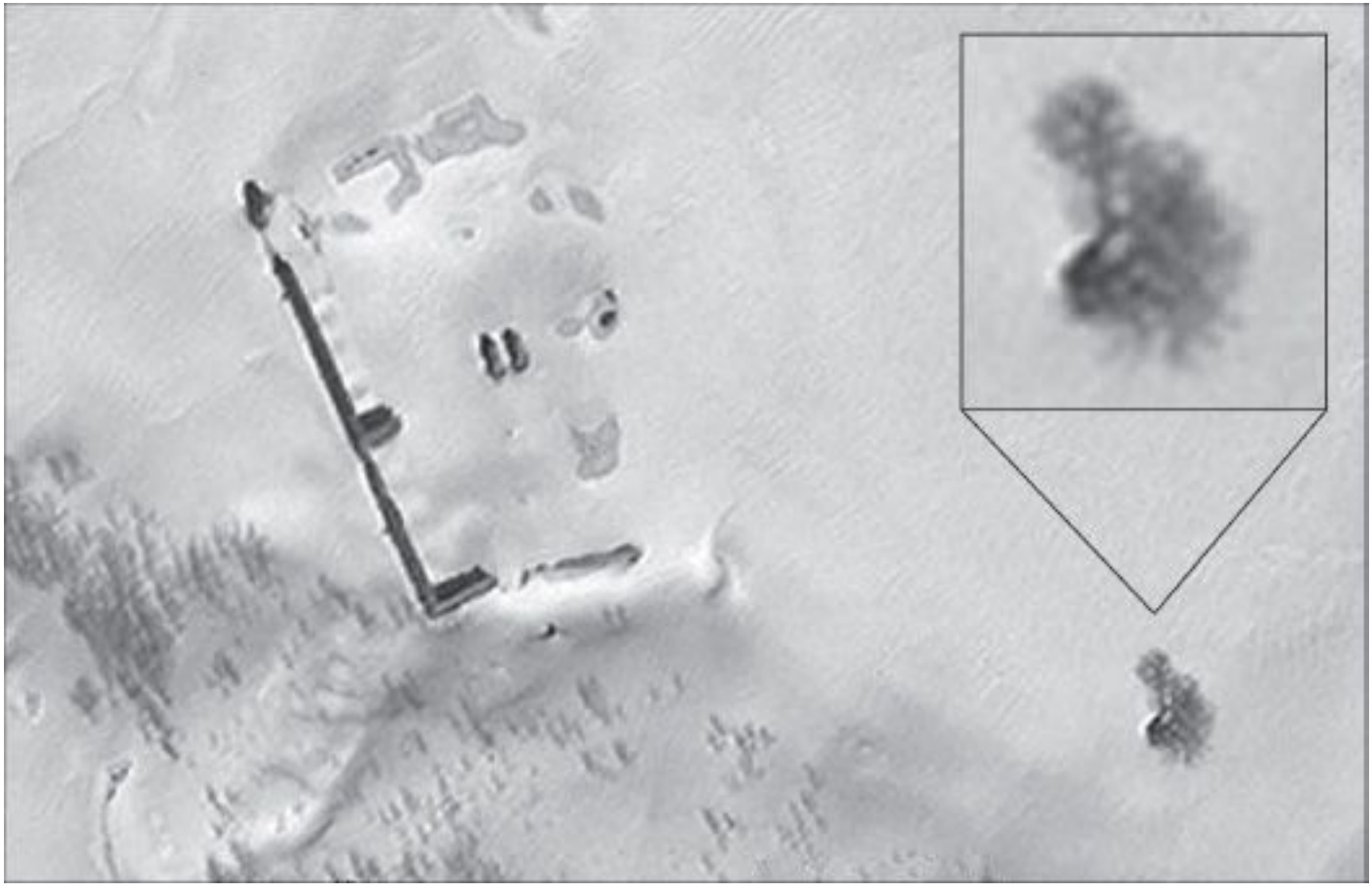

Figure 39.1. Dera Sor, the ruins of the Yeghrdut monastery, in snow, from a Google Earth image taken on April 1, 2009. Note the

walnut tree, the final incarnation of the "evergreen tree," under which the disciple Thaddeus apparently deposited a piece of the Tree of Life and the container that held the essence of holy oil used to anoint "prophets and apostles." Courtesy of DigitalGlobe 2013.

When I inquired about what had happened to the tree, I was told that it had fallen down around two years earlier, and that two trucks were needed to carry away all the timber. Hearing this made me incredibly sad and a little annoyed that the tree had not been better preserved, especially given that it reflected nearly two thousand years of history at the site.

According to what I had found out over the past few months,[2] the evergreen tree under which Thaddeus had concealed the holy relics was said to have survived to the present day, an unlikely claim particularly after examining the pitiful remains of the walnut tree. According to tradition, an eagle had nested at the summit of the

original tree. A flowing stream emerged from beneath its trunk, and a stone wall, with an altar at one end, had protected its roots. Women and young ladies in particular would come here not just to rest beneath its shade but also to take water from the stream to cure ailments. They would take away any small part of the tree they could find—leaves, bark, twigs, and so forth, which would be placed inside their clothes, against the body, to relieve pain. Apparently, any greenery removed from the tree was the ultimate healing aid, with the ability to retain its healing potency forever.[3]

I learned also that the fragment of the Tree of Life deposited at Yeghrdut by Thaddeus was the subject of a quite extraordinary legend.[4] One day a shepherd visiting the monastery saw the simple box containing the relic and decided to steal it, thinking that its contents might be worth money. He got home and decided to take a look at what was inside. Yet on seeing that it contained a piece of wood, the man panicked and threw the box on the fire. No sooner

had he done this than flames burst forth from the hearth and consumed the entire house, sending the shepherd running for his life.

Prompted by the fire, the great eagle that guarded the holy tree then swooped down and snatched up the box with its precious contents, neither of which had been damaged in any way. The bird took them back to its nest and thereafter became their constant guardian, never letting anyone with ill intent near them.

EAGLE ON THE WORLD TREE

This legend, which seems like something out of a book of Turkish folktales, was believed fervently by the monks of the monastery and is included in the entry for Yeghrdut in the aforementioned encyclopedia of monasteries and churches of the Taron Province.[5] Whatever its reality, the story oozes mythological symbolism. The

eagle sitting atop the tree guarding a piece of the Tree of Life is suggestive of the world tree Yggdrasil in Norse tradition, which also has an eagle nesting on its summit.

The similarity between the name Yeghrdut and Yggdrasil is probably coincidental, although it has not stopped people from drawing comparisons between *yggdr,* one possible root behind the name Yeghrdut, and Yggdrasil, and also between Hızır, or al-Khidr, a guardian of the Waters of Life, and Odin, the god who hangs on the Norse world tree to gain the knowledge of the runic alphabet.[6] Interestingly, compelling evidence indicates that the origins of some Norse mythology, and perhaps even the roots of the Scandinavian people, are to be looked for in the region around Lake Van. World-renowned explorer Thor Heyerdahl (1914–2002) was working on these theories shortly before his death.[7] The exact derivation of the word *Yeghrdut* still remains unclear, as it is not a proper Armenian word, although it does seem to relate to Armenian word roots

meaning "king," "flower," and "willow,"[8] or, as I had already established, *shuyugho,* the "young branch of the (oil tree)."[9]

The eagle itself was the symbol of the ancient kingdom of Taron, which was established in the fourth century AD by an Armenian dynasty of kings called the Mamikonians, whose emblem was the double-headed eagle. This connection between Taron and the eagle might easily have stemmed from the existence of a pagan god in the form of an eagle that was venerated in Armenia Major during former ages. The association between the eagle of Yeghrdut and the holy tree, however, might well stem from a source much closer to the root of the mystery.

THE WOOD THAT CUTS

There are many different variations of the story of how the Holy Wood or Holy Timber of Life used to create the Cross of Calvary,

which originated in some manner from the Tree of Life. One version has Adam being given a branch upon his departure from the Garden of Eden; in another it is handed to Seth in the form of seeds or saplings; and in still another a bird known as the roc, a gigantic, mythical eagle of Arabic tradition, picks up "a piece of wood from one of the trees in the garden."[10] This mythical bird carries the branch to Jerusalem and there drops it onto a huge, upside-down copper cauldron, beneath which is the bird's young. They are being held captive by King Solomon, who has snatched them away from their mother after searching for guidance from God as to how he might go about finishing the temple begun by his father, David.

The weight of the wood smashes the cauldron, releasing the bird's young. Thereafter, Solomon realizes that the wood left by the roc can miraculously cut stone blocks, enabling the king to complete the temple. Following a long story involving King Solomon and the Queen of Sheba, the Holy Wood finds its way to

the carpenter's shop, where, as in the more traditional story, it is fashioned into the cross on which Christ is crucified.[11]

The important part of this story is that this piece of wood taken from "one of the trees in the garden," an allusion unquestionably to the Tree of Life, is linked with an eaglelike bird, just as it is in the Yeghrdut legend. This lends support to the belief that the monastery had in its possession a fragment of the Holy Wood of Life thought to derive from the Tree of Life itself.

THE RUINS EXPLORED

After asking for and getting a few small fragments of the remaining tree trunk (as well as a walnut shell, confirming it as the holy tree mentioned in the correspondence with the contact from Kızılağaç), we now moved on to the goal of the expedition—the monastery itself. Walking about 40 yards (37 meters) we now climbed a huge

pile of rubble and debris and saw spread out before us the ruins in all their glory. The raised mound marked the position of the structure's eastern wall, while similar piles of rubble marked the location of the north and south walls. However, in the west, the remaining wall, made up of a thick base of rust-red bricks and an upper level of lighter-colored gray stone, was substantial, being as much as 15 feet (4.5 meters) in height, with a large breach toward its northern end.

In all, the west wall was around 70 yards (64 meters) in length, with a returning wall at its southern end, which quickly reduces down to ground level. Walking up to the remaining wall, I noticed a series of linear foundations jutting out at right angles, which I suspected marked the position of small cells, most likely living quarters for the monks. It is incredible to think that this immense structure was, apparently, two stories high and almost equal in size to the more famous monastery of Surb Karapet, located in the

foothills of the Armenian Highlands on the opposite side of the plain of Mush (indeed, the monasteries, both dedicated to Saint John the Baptist, would each have been visible to the other).

FINDING THE CHURCHES

The only other architectural features that remain standing at the monastery site are two beautiful stones arches, around 12 feet (3.7 meters) high, one positioned directly in front of the other (see figure 39.2 on p. 350). These are oriented east-northeast (at approximately 20 degrees north of east) and once formed the northern entrance into a large building located in the southeast quadrant of the monastery. All around the arches are piles of rubble and debris, reducing their interior height, although it is still possible to pass beneath them fairly comfortably.

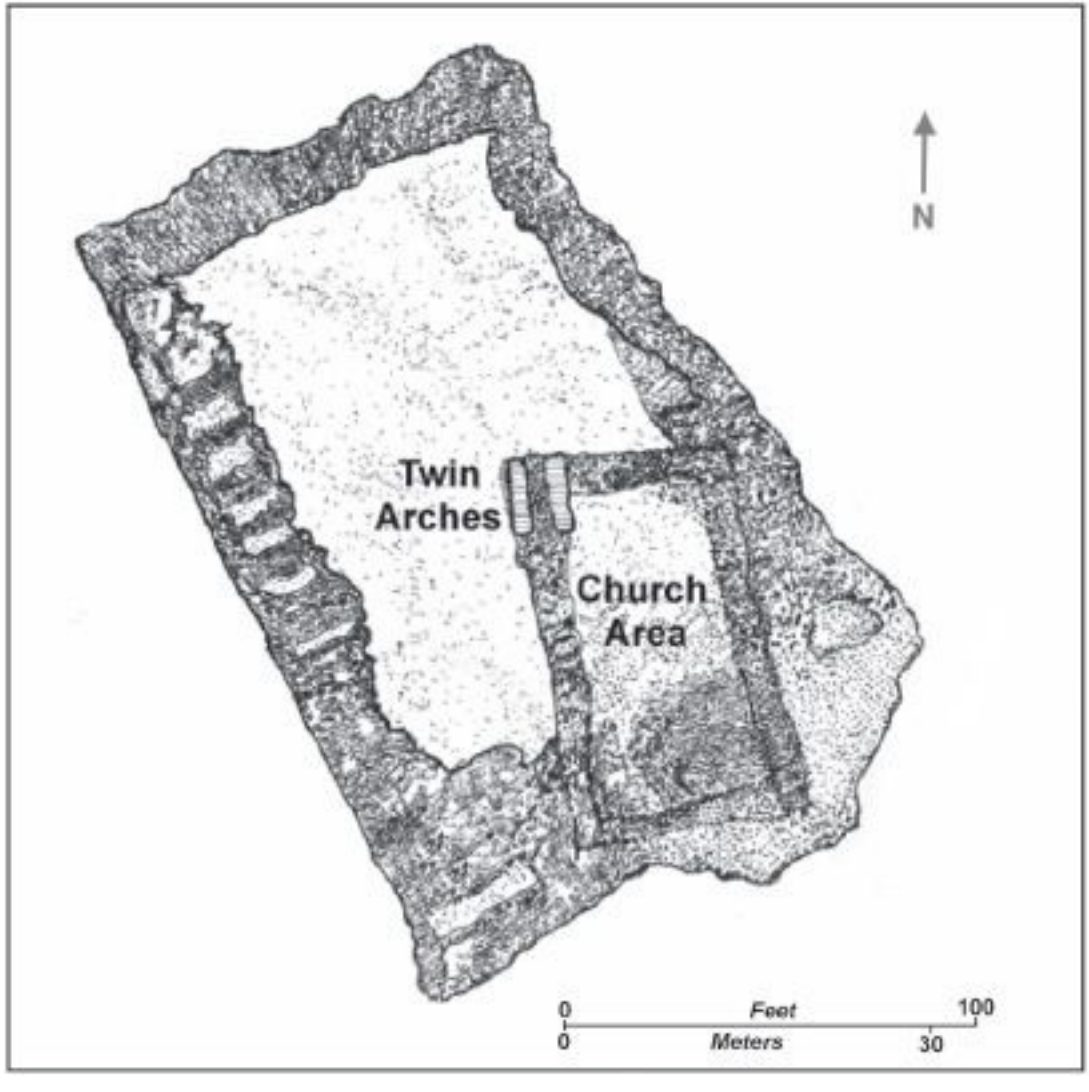
N
Twin
Arches
Church
Area
0
Feet
100
0
Meters
30

Figure 39.2. Plan of Dera Sor, the ruins of the Yeghrdut monastery, drawn by the author following his return from the site in September 2012. Note the different alignment of the building structure contained within the southeast quadrant of the perimeter wall, suggesting that it might belong to a different age.

The identity of the ruins attached to the twin arches has been impossible to establish with any degree of certainty, as no surviving photographs or plans of the monastery have been found.[12] Present somewhere in the monastery's southeast quadrant was a large, domed church dedicated to the Mother of God. Attached to it was a chapel of Saint John the Baptist in which was a martyrium where the saint's relics were kept. Here too was another chapel dedicated to Gregory the Illuminator, located beyond the church's northwest corner. Its position was marked by an imposing bell tower, under which was a walkway into the main church, the walls of which were constructed of stone in three different colors—black, yellow, and

reddish brown. Apparently, the bell tower collapsed during an earthquake in 1866, a portent perhaps of the imminent destruction of the monastery and the disappearance of its monks at the time of the Armenian Genocide of 1915. Exactly what happened here at Yeghrdut may never be known, but it is unlikely to have been pleasant, and as for the fate of the monastery's precious relics, no one can say. Those Armenians who remain today in Mush have adopted a radical form of Islam, so it is unlikely that any real answers will be forthcoming any time soon.

I was pretty sure that the bell tower was located somewhere in the vicinity of the stone arches; indeed, they might easily have formed its support columns, under which one passed to enter the main church. In my dream the monks had conducted the strange ritual involving the elevation of the fragment of the Tree of Life at the center of the church. So I now stood the closest I was going to get to that very spot, which was a strange sensation, especially after

traveling nearly 2,200 miles (3,500 kilometers) to be there.

SPECTACULAR VIEWS

As I moved across to the piles of debris marking the north wall, I realized just how spectacular the view was from this elevated position; to say it was impressive would be an understatement. The monastery, as I knew only too well, looked out across the plain of Mush and the Eastern Euphrates, beyond which were the foothills and peaks of the Armenian Highlands. Yet the monastery itself is sheltered beneath hilly slopes to the southeast, south, and west, which would have afforded it some degree of protection from the elements during the long, harsh winters.

For an hour or so, I followed the course of the perimeter wall, obtaining photos, getting video footage, and taking in the ambience, always with one of our hosts by my side. Scattered everywhere were

potsherds of all shapes and sizes, which I could see embraced a time frame from medieval times right down to the modern day. However, I was not concerned with ceramics on this occasion. I wanted to find evidence that the site had been occupied prior to the arrival of Christianity in the fourth century. Yet, in all honesty, I found nothing of interest, even though there was every possibility that a settlement from a former age could have occupied a position higher up the hill, closer to its summit perhaps.

One legend fervently believed by the monks of Yeghrdut tells how near "a small workshop" somewhere beyond the monastery, a concealed copy of the "Old Testament" was found. It was apparently seen as a gift of the eagle, presumably the one that lived in the holy evergreen tree.[13] The implication of this chance discovery is that the book belonged to an age that antedated the monastery, implying that the site was important even before the arrival of Gregory the Illuminator in the fourth century.

IS THIS EDEN?

It was very difficult to take in the setting during this one brief visit. My sense, however, was that the monastery had been deliberately left to fall into decay. The site had been neglected, this was clear, and no one really seemed interested in its history or preservation. It was difficult to come to terms with the fact that until 1915 Yeghrdut had been a thriving monastery, as well as a tranquil place of healing for Armenians and Kurds alike. Men and women came here not just to cure ailments but also to rejuvenate both body and soul. There was a natural vitality about this site, which people believed was channeled through the holy tree and spring, the reason they took away leaves, twigs, and bark, not to mention the holy water itself.

All that is now gone. All that remains is the tranquillity of the site and its extraordinary setting, which is simply outstanding. This was the sight the monks of Yeghrdut woke up to every morning, making it easy to understand why they might have believed this was some

quiet corner on the edge of Eden itself.

THE RED EARTH OF ADAM

The monks also cannot have failed to notice the absolute redness of the earth, especially the hill slope to the southeast of the monastery. It would have reminded them that the first-century Jewish scholar Flavius Josephus wrote that Adam was created out of red clay:

> That God took dust from the ground, and formed man, and inserted in him a spirit and a soul. This man was called Adam, which in the Hebrew tongue signifies one that is red, because he was formed out of red earth, compounded together; for of that kind is virgin and true earth.[14]

Another tradition said that after Adam's death, he was buried by

angels “in the spot where God found the dust” to fashion his body.[15] So if the monks did see the red earth surrounding the monastery as significant (and it is rarely glimpsed anywhere else in the area), then it might well have strengthened the conviction that their monastery existed close to the site where Adam and Eve lived after their expulsion from Paradise, and where afterward their son Seth and his descendants continued to live right down to the time of the flood.

A RESPITE

After completing our visit to the ruins, the elderly man and his wife opened up their home to us. Inside the large, conical tent, its opening directed toward the plain below, we sat down on a bed of brightly patterned kilim rugs that overlaid a bed of flat stone slabs. Placed in front of us was an enormous silver platter containing glasses of sweet tea and bowls of local food, including yogurt,

Turkish flat bread, and salad. The kindness of these people was overwhelming, particularly as they did not know me, our guide, or the taxi driver, who were all afforded the same degree of hospitality.

I then learned something important from the fez-wearing man. He told me that somewhere on the hill slope, immediately behind the monastery's west wall, there was once a large cave opening. Yet it had vanished after the "rich" Armenian monks had stuffed it full of "gold" prior to their rapid departure. Local people had attempted to find the cave entrance in order to reach the "gold," but so far all efforts had come to nothing.

I found the story difficult to believe, first, because there was no sign of any cave existing today (I checked afterward), and, second, the fervent belief that Armenian monks were so rich that they simply could not carry away all their cumbersome gold treasure was quite simply fantasy. The only thing it did do was remind me of the legends regarding the Cave of Treasures, where Adam, Eve, Seth,

and their family had lived and where they were supposedly buried upon their deaths. Was the role model for the Cave of Treasures around here somewhere, if not close to the monastery, then in the foothills of the mountains immediately to the south of Yeghrdut? Was it there that the secrets of Adam, inscribed either on steles or pillars, would one day be found? Or was it north of the plain of Mush, somewhere in the vicinity of Bingöl Mountain? There were no hard and fast answers, and for now the matter would have to rest there.

One other piece of information I picked up was that around fifteen years before, workmen had arrived one day and broken down whole sections of the monastery's remaining walls, with the resulting piles of rubble being carried away in waiting trucks. Hearing this instantly made me concerned about the fate of the remaining ruins, which are not protected in any manner, and so could, presumably, be destroyed at any time.

Shortly after that it was time to leave. A thunderstorm was close by, and once it hit, any resulting flash floods could make driving back down the mountainside treacherous. So as the taxi now began to make its descent, I watched awestruck as a rolling gray cloud came in from the west and seemed to follow the course of the Euphrates, sending out lightning flashes that struck the plain of Mush and even the waters of the river itself. No wonder the Semitic peoples of Syria and Canaan came to believe that the abode of the god El was to be found in this otherworldly Land of Darkness.

AN UNEXPECTED JOURNEY

That night and the next day I recorded my thoughts and impressions about the trip to the monastery. There was a sense that I had achieved what I had come here to do, but I wanted to go back one more time, and this I managed to do on Wednesday, September 12,

with the same taxi driver, although this time with a new guide, a social worker named Idris, who spoke perfect English. He knew every village, large and small, on the plain of Mush, as he visits them as part of his day-to-day job. We shared a mutual passion for keeping alive the rich cultural heritage of the region and so very quickly became friends.

The following day Idris asked if I would like to accompany him the next day to a village called Muska, not far from Bingöl Mountain. He had friends there who were Alevi and thought this might be an ideal opportunity for me to speak with them about their beliefs and practices. Even though I was due to leave Mush early the morning after that, this was too good an opportunity to miss, so I said yes.

I asked Idris about the situation regarding access to Bingöl Mountain, as I understood it was a virtual no-go area because of the recent army offensives. He said we would be fine and that if we did

encounter any PKK units in the hills, he knew what to say (Kurdish sympathy among the local population runs very high indeed). With that, I accepted finally that I might get to glimpse Bingöl Mountain, at least from a distance, which is something I had almost abandoned any thought of achieving on this journey of discovery.

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A TRIP TO PARADISE

Friday, September 14, 2012. The drive by *dolmus* (a Turkish minibus) from Mush to the Alevi town of Varto, in the foothills of the Armenian Highlands, was breathtaking. After leaving the great plain, the road follows the course of the Eastern Euphrates, which runs alongside the road for part of the way. Once that had veered away toward the east, the vehicle climbed ever higher until, finally, we entered Varto itself. The town is a bustling hive of activity even in the baking hot sun, and having left behind the dolmus, we journeyed on foot until we reached a local hospital, where Idris picked up a car for us to complete the journey (it belonged to a work

colleague).

After departing Varto, we moved into a beautiful green landscape, utterly different from the dusty, volcanic earth that proliferates on the plain of Mush, and very soon my eyes became focused on something I never expected to see on this journey—the summit of Bingöl Mountain looming up ahead. Seeing it as a single mountain is in fact inaccurate, for Bingöl is in reality a north-south oriented ridge, or massif, with two separate peaks, linked by a saddleback indentation.

MOUNTAIN LION

Unbelievably, the car journey took us right alongside the mountain, which was on our right-hand side at a distance of no more than 4–5 miles (6.5–8 kilometers). What I saw transfixed me, for the twin peaks give the mountain's elevated summit the likeness of a large

feline, most obviously a lion, its protruding head, shoulders, and forelegs made up of the northern peak, with the saddleback indentation and southern peak creating the creature's body, hind legs, and tail (see plate 31). The whole thing looks as if it is emerging from the mountain's rocky surface in order to rise into the sky. The form is unmistakable and cannot have been missed by those who inhabited the region in the past. Of course, not everyone is going to interpret this rock simulacrum as a lion, although the likeness is striking enough for it to have impressed some people along the way, including perhaps the Armenians who would come here each spring to venerate Anahita, the goddess of fertility and the waters of life. She is depicted in Persian religious art as a shining being standing on a lion.

PEOPLE OF TRUTH

A lion sitting astride a world mountain, guarding the axis mundi or world pillar as Bingöl Mountain appears to do in Armenian myth and legend, reminded me also of a similar leonine beast featured in the creation myth of a Kurdish religion named Ahl-e Haqq, which means "People of Truth." Although this ethnoreligious group, known also as the Yâresân, exists mostly in Iraqi Kurdistan and northwest Iran, some still remain in remote parts of eastern Turkey. According to them, a charismatic leader named Sultan Sahak founded the Ahl-e Haqq religion during the fourteenth century, although beyond that their origins remain obscure.

As part of the Yâresân creation myth, the divine essence, called Khavankar, brings into existence the seven Haftan, or archangels, and two of them, Ruchiyar and Ayvat (or Yar), become a cow and lion, respectively. The divine essence then creates a fish in the primordial waters and places a large white stone on its back. The cow then steps on the white stone, and the lion stands on the back of

the cow. The divine essence places the earth on the horn of the cow, and on the head of the lion he places the “Supreme Sphere”; that is, the vault of heaven.[1]

The relationship of the fish, cow, and lion expresses a three-tiered universe, with a watery abyss in the lower world, a material existence in the middle world, and a cosmic realm in the upper world, all of them linked via an imaginary line of ascent.

COSMIC LION

Elsewhere in Yâresân myth the lion is the avatar of Ali, the son-in-law and cousin of Muhammad,[2] just as he is in the beliefs of the Alevi, who probably share similar traditions. The Alevi see Ali as the first of the twelve imams, or spiritual leaders, and depict him as a lion surrounded by twelve stars. This echoes the lion-headed figure named Zurvan Akarana featured in the religion of Zurvanism,

a form of Zoroastrianism once practiced in Armenia. He is the *kosmokrator,* or controller of the revolution of time, symbolized by the seven planets and the twelve signs of the zodiac. Clearly, throughout the region the lion was seen as some kind of cosmic being associated with the stability of the world pillar that links the world mountain with the celestial pole, the turning point of the heavens.

The significance of the lion to the Alevi faith was brought home to me later that day when, on leaving Muska, I saw a large feline carved in relief on the wall of a single-story house. Is it possible that the lion simulacrum is linked with Bingöl's role as Katar Erkri, the "Summit of the Earth"?[3] In China, a peak called Kulkun (in the modern Bayan Kat Mountains) was known as "King of Mountains, the summit of the earth, the supporter of heaven and the axis which touches the pole."[4] Similar legends, I suspect, were once attached to Bingöl Mountain.

ARRIVAL AT MUSKA

What I had learned the night before about our destination seemed almost unbelievable. Muska, where Idris's friends live, is the site of Hızır Çeşmesi, the Fountain of Hızır (the Alevi form of al-Khidr), with its accompanying dream incubation house. Although Muska is the generally used name of the village, which has a population of around 120 people, its modern Turkish name is Beşikkaya Köyü. However, this name is rarely used by the local population, since it was imposed on the village by Turkish authorities as part of a concerted attempt to rid the region of any kind of unwanted cultural ethnicity. I was hoping we could visit the fountain, which from the few pictures I had managed to view online, looked absolutely idyllic, with the spring water emerging from the base of an old gnarled tree.

The very last of the scattering of houses making up the village ceased as we now entered a small enclosed valley, beyond which to

the east and north were mountain slopes, part of a northern extension of the Bingöl massif. I looked out on the landscape below, which seemed abundantly rich in green trees, lush meadows, and beautiful mountain streams. It was unimaginable the difference between here and the more arid conditions on the plain of Mush.

Getting out of the car, I saw instantly several pieces of obsidian just lying about on the track. I picked up a few examples as we began a walk across what appeared to be an extended garden area. Here we navigated the outpouring of a mountain brook that ran down from a plush green environment up ahead. No one was about as, with the sound of trickling water all around us, we entered a sheltered canopy of trees at the base of the mountain valley. I recognized it immediately as the Fountain of Hızır, which seemed absolutely bizarre, as our actual destination was a property immediately beyond it on slightly higher ground. This all seemed a little weird—Idris's friends just happening to live next to one of the

most holy sites in Alevi tradition.

FOUNTAIN OF HIZIR

Before me now stood an eight-sided column, painted canary yellow, with a spout on each facade, from which came mountain water of the purest kind. This really was a fountain and not a well, with the water somehow being projected through the column by the action of gravity. The structure was not old—fifty to seventy years at the most—although the site was as old as the hills themselves. There were inscriptions in black on the column, but none offered any real words of wisdom. One read “Hızır Çesmesi hepimizindir cevreyi temiz tutalim,” which means “Fountain of Khidr is for everyone, let’s keep the environment clean”! It was advice clearly taken, because the entire site was still as nature intended, although the childish graffiti scrawled into the fountain seemed unnecessary.

The source of the spring was beneath an overhanging tree close by. Off to our left some 20 feet (6 meters) away, and sheltered by overhanging branches, was the building used for dream incubation. It was simple and unassuming, and for some reason it reminded me of a waiting room on a railway station (sans the bad smells, of course).

At the fountain, Idris and I sampled the water, which tasted good. It was much needed, and just maybe it would have some beneficial effect on our health. I took time to take in the ambience of the place, realizing that I had been led, almost by chance, to somewhere quite special indeed.

To say that this site was scenic would be to do it an injustice, for the sunlight glinting off the sparkling waters seemed almost to bring alive the sheer abundance of life that prospered here. Trees, plants, and flowers seemed to grow with an almost enchanting beauty. It was as if this place was imbibed with the spirit of life itself, making

me wonder whether this really was the Ma'ul Hayat, the Fountain of Life, where al-Khidr, the genius loci of the site, was given immortality, or the Ab'i Hayat, the Waters of Life, where Alexander the Great achieved immortality himself following a quest that had brought him right here to Bingöl Mountain.

FISH FARM

Just beyond the Fountain of Hızır is, rather surprisingly, a prefabricated factory unit, which, it must be pointed out, blends in pretty well with the environment. Between it and the Fountain of Hızır is a cluster of industrial-sized pools, for I learned that Idris's friends run a commercial fish farm, a strange site perpetuation echoing the manner in which al-Khidr achieves immortality by catching and eating a fish swimming about in the Fountain of Immortality.

Slightly uphill of both the factory unit and the Fountain of Hızır was our final destination—an unassuming cottage, in the garden of which introductions were quickly made. Welcoming us was the owner of the house, a tall, thin, bearded man in his sixties, who at this point I had no idea was a renowned Alevi poet and musician named Hıdır Çelik. Youths also were present, apprentices at the fish farm and relatives perhaps of Hıdır. A couple of men from the community greeted us, as did Hıdır's daughter, Gülüzar, who seemed to be in her twenties.

She and a female friend started to prepare salad for a meal, as black tea was served, and one of the youths now reappeared with a whole bag of fresh fish and started cooking them on a grill supported above an open fire. Gülüzar washed cutlery and glasses in the mountain brook, which actually ran through the garden, making it clear that this was their main source of water. Neither Hıdır, his daughter, nor anyone else present other than Idris spoke English, so

all conversations were in Turkish or Kurdish. At suitable moments, I took my leave to gaze down at the Fountain of Hızır not 50 yards (46 meters) away. I watched a shepherd herding his flock of sheep along the edge of the mountain slope and went across to the outdoor bathroom positioned on a nearby hill ridge, providing me with an opportunity to refine my collection of obsidian pieces, disgorged by Bingöl Mountain when it was still an active volcano.

Were pieces of obsidian like this instrumental in instigating the construction of places like Göbekli Tepe, and through it initiating the Neolithic revolution? The earliest known mirrors are highly polished disks of obsidian found at Çatal Höyük in southern-central Anatolia, and also at Aşıklı Höyük, a ten-thousand-year-old town complex discovered in the 1960s near Aksaray in central Turkey. I thought it fitting therefore that among the forbidden arts of heaven that Azâzêl, one of the leaders of the Watchers, is said to have revealed to humankind was “the fabrication of mirrors, and the

workmanship of bracelets and ornaments."[5]

An obsidian bracelet, more than nine thousand years old, discovered at Aşıklı Höyük during the 1990s, is deemed so unique that it was given special attention by researchers from the Institut Français d'Etudes Anatoliennes in Istanbul and the Laboratoire de Tribologie et Dynamique des Systèmes in Lyon, France.[6] They determined that it was made using highly specialized manufacturing techniques and is almost perfectly regular in shape. Additionally, they found that the symmetry of the central annular ridge is within a degree of accuracy, while the mirrorlike surface of the bracelet would have required "the use of complex polishing techniques capable of obtaining a nanometer-scale surface quality worthy of today's telescope lenses."[7]

Could the technique of producing finely polished obsidian mirrors and bracelets have been introduced to the early Neolithic world of central and eastern Anatolia by Swiderian master

craftsmen, remembered in myth and legend as the Watchers and Anunnaki, as well as the Peri of Persian and Kurdish folklore? Were some of these individuals in fact Neanderthal human-hybrids of striking appearance, whose original homeland was the Russian Plain, or even the Carpathian Mountains of Central Europe? It did seem possible.

POETRY READING

Following food and a tour of the fish farm, Idris and I were given copies of the Alevi poet's book of poems, written partly in Turkish and partly in Zâzâ, the native language of the Alevi, who are mostly Dimli Kurds.[8] There were calls for Hıdır to read a poem or two, which he did in his native tongue. His words sounded emotive and meaningful.

After more tea, it was time to leave, and with the car dropped off

safely in Varto, there were just moments to spare before the final dolmus departed for Mush. We never did encounter the PKK on our travels, and no one seemed in any way concerned that elsewhere in Bingöl Province, as well as in other parts of eastern Turkey, a very real war was being waged every day, with it rarely even getting a mention in the international media.

The following morning I left Mush for Göbekli Tepe, traveling purposely by coach in order to experience the nail-biting journey through the Eastern Taurus Mountains on the old obsidian route, first to Diyarbakır and then on to Şanlıurfa, where I planned to stay for the final three days of the trip. We passed close to the source of the Tigris River, as well as the site of Çayönü, and also Nevalı Çori, submerged by the floodwaters caused by the opening of the Atatürk Dam in 1992. We also passed within reach of Karaca Dağ, the source of so many strains of modern wheat, pinpointing this region —the heart of the *triangle d'or*—as the true foundation point for the

emergence of agriculture in the Near East. All of these important marks on the pages of history are just a stone's throw away from the road between Mush and Göbekli Tepe.

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GÖBEKLI TEPE REVISITED

I first visited Göbekli Tepe back in 2004. Back then many of the enclosures were either only partially excavated or they were enclosed in temporary structures with corrugated roofs. At the time, I had the whole place to myself and encountered only the man who owns the pastureland thereabouts, and who is acknowledged as the "discoverer" of the site. His name is Şeymus Yıldız, and in the 1980s he kept coming across fragments of carved stone when tilling the fields, which he simply picked up and placed on boundary walls. He did report these finds to the archaeological museum in Şanlıurfa, but no one ever came to inspect them until the German

archaeologist Dr. Klaus Schmidt turned up at the site in 1994.

Today, nearly all the pillars in the large enclosures are fully exposed, while new structures are being unearthed to the west and northwest of the main group of sanctuaries. There are too many mysteries oozing from every corner of this enigmatic archaeological site to do it justice in one book, although I knew this was what I would be attempting to do upon my return to the United Kingdom.

After hanging around the site long enough, I did finally manage to get an impromptu interview with Klaus Schmidt, who was very forthcoming on a number of different subjects. He told me, for instance, that he does not discount the possibility that some of the enclosures might have been built with celestial or astronomical considerations in mind. Yet he admits it is not his “favorite theory” regarding the purpose of the sanctuaries.

UNFINISHED MONOLITH

On the second day, I was able to walk out to the unfinished monolith, located on a northwest extension of the mountain ridge, a quarter of a mile (400 meters) away from the main enclosures. For the journey I was accompanied by one of Klaus Schmidt's archaeological colleagues (name withheld at his request), with whom I was able to discuss many aspects of the discoveries at the site.

The partly hewn pillar—bigger than anything seen in the enclosures so far—has major fracture lines across its surface, suggesting that the Göbekli builders broke it even before they had a chance to remove it from the bedrock. Most probably they moved on to another site elsewhere on the plateau and began carving out a new stone there. When a finished pillar *was* finally freed from the bedrock it would leave behind a gaping hole. Within this, my archaeological friend informed me, a fierce fire would be kindled to

burn the thousands of limestone chips that would inevitably result from fashioning a pillar of this size. These would then be pulverized to make the fill necessary to create the beautifully finished terrazzo floors seen in some of the sanctuaries.

The bigger question left in my mind, however, was why supersize everything at the site, especially when no one before had even attempted to create stone sanctuaries on this scale. Only the great stone wall and tower at Jericho *might* be contemporaneous with the earliest building phases of Göbekli Tepe. Further back in time we have only the carved stone blocks fashioned by the Solutrean peoples to create rock friezes within the caves of southwest Europe.

So why the sudden change in policy at places like Göbekli Tepe in southeast Anatolia during the tenth millennium BC? My archaeological friend suggested that Göbekli Tepe was the culmination of a natural evolution in building construction across a period of thousands of years, which was also the opinion of his

mentor, Klaus Schmidt. I thought differently, citing fear as the greatest motivation—fear that something bad would happen if you *didn't* do it. He did consider the possibility before deciding to differ with me on this point.

JUTTING HEADLAND

After the archaeologist's departure, I spent some time in the baking heat walking out to the tip of a narrow headland that juts toward the northeast of the main east-west aligned mountain ridge. Although purely natural, I had a sense that this promontory might have played some role in the beliefs and practices of the Göbekli builders.

The closer I got to the end of the headland, the more the flint tools that litter the bellylike tepe almost disappear. Either this place was completely left unoccupied or it was reserved for special occasions. Large, rectilinear blocks that had fractured away from the

limestone bedrock had clearly been removed to leave a flat, rectangular enclosure that faced roughly north toward the direction of Karaca Dağ and, of course, the stars of the northern night sky. Here the Göbekli builders could have watched Cygnus rise and set and the Milky Way's Great Rift form an entrance to the sky world. There was little question that this place possessed an ancient sanctity even more primeval than the large enclosures on the top of the ridge, which, as the crow flies, are about a third of a mile (550 meters) away from this location.

The only other evidence of human activity I saw was what appeared to be a small fragment of a stone bowl, most likely from the Pre-Pottery Neolithic age. It would remain undisturbed until such time as the archaeologists turned their attention to this strange place, which, I sensed, was not going to be any time soon. It would take decades to excavate the many enclosures still to be uncovered beneath the artificial mound, and that was always going to be their

primary focus of attention.

NEW LION PILLAR

As I returned to the occupational mound, I passed the square grid of 30-foot (9 meter) trenches opened to the northwest of the main enclosures and caught sight of a new discovery sticking out of the ground. It was another major pillar that, even with its T-shaped termination missing, stands an impressive 7 feet (2 meters) in height. On its western face is the carved relief of a leaping lion (see plate 20), occupying the same position as the foxes on the central pillars in the enclosures forming part of the main group. Next to nothing is known about the enclosure that once surrounded the pillar, although presumably this great monolith stood proud as part of a pair at the center of the structure. That the carved lion appears on its western face, directed toward the entrant approaching from

the south, implies that this is the eastern pillar, its western neighbor probably still awaiting discovery somewhere beneath the compact soil and rock debris forming the surface of the mound.

MIGHTY LION

Seeing this mighty lion, which was just about to be encased in wood to protect it against potential vandalism and the harsh winter ahead, made me recall the lion simulacrum crowning the summit of Bingöl Mountain and the lion of Ali, sacred to the Alevi and Yâresân. Did this carved lion on the side of a Göbekli pillar symbolize the kosmokrator, the guardian of the world pillar and keeper of cosmic time, like the lion-headed cosmic being called Zurvan Akarana in the branch of Zoroastrianism known as Zurvanism? Or was it yet another form of the cosmic trickster, a creature of Ahriman, the dark principle in Zoroastrianism, just like the wolf and fox? In ancient

Egypt, the goddess Hathor, in her guise as the lioness-headed Sekhmet, rained down fire on the earth and nearly destroyed humankind when the sun god Re deemed that humankind had become "too old," a memory perhaps of the terrifying destruction that accompanied the Younger Dryas comet impact of 10,900 BC. Was this same leonine destructress depicted on the newly uncovered pillar at Göbekli Tepe, or was it simply a creature encountered upon entering the sky world, perhaps a proto-form of the Mesopotamian sky panther ^{MUL}UD. KA.DUH.A, made up of stars belonging to Cygnus and the neighboring constellation of Cepheus (as described in chapter 8)? It is too early to say, especially since each new pillar or porthole stone uncovered raises even more questions about this extraordinary place.

To confirm that the carving on the newly uncovered pillar was really a lion and not some other species of quadruped, I pointed to the stone and called out, "azlan?" The two men, who were probably

about 30 yards (27 meters) away, stopped what they were doing, waved, and shouted back, “azlan,” which is Turkish for “lion.”

I felt I was done at Göbekli Tepe. I could do no more here for the time being. Yet before leaving I vowed to come back to this place whenever time and money would permit, for it was clear that discoveries were being made all the time and that I could always expect to learn something new whenever I returned to this sanctuary on the edge of Eden itself.

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A LOSS OF INNOCENCE

The following afternoon I departed for London, reaching home some twenty-four hours later. The world for me soon returned to normal, but I could not get out of my mind one persisting image no matter what I did, even at the local gym that week. As I lay on a bench, using a chest machine, the hardest possible rap music was pumping out of the speakers, alienating me from the activities taking place in the room and somehow allowing my mind to escape this unnerving madness.

I was back in Hıdır Çelik's garden in Muska, the noise of the nearby Fountain of Hızır and the network of tiny brooks that passed

through this paradise still audible in my ear. Golden sunlight sparkled off the running water as it trickled gently over a trail of pebbles, some of them undoubtedly pieces of polished obsidian ejected in some former age by Bingöl Mountain itself.

We had finished eating the fresh fish, cooked by the youth on an open fire, and Hıdır's daughter, Gülüzar, now gathered water from the mountain stream running through the garden. These people, all Alevi by birth, seemed completely at peace living their lives on a mountainside, only rarely coming into contact with the pressures and tensions of the outside world. They are relatively free of the stresses and strains that come with a modern, urban existence like the one most of us are doomed to suffer during our lives.

Without even trying, these people experience a harmony with nature that allows them a purity of heart, and a certain sense of grace, that almost seems reflected in the fecundity of everything that grows in and around the garden. From the trees overhanging the

sacred Fountain of Hızır to the bright green fields and meadows that fill the local landscape, and even the abundance of fish that thrive here in the thousands, everything appears utterly awash with life and vitality.

A SENSE OF GUILT

I imagined that this was the same innocence, the same purity of heart, that must have prevailed in the Garden of Eden before the serpent beguiled Adam and Eve into partaking of the fruit of the Tree of Knowledge of God and Evil. Instantly, their innocence vanished as their eyes were opened to the fact that they were naked. I am sure they must have noticed before that they wore no clothes, the difference being that now they felt a sense of shame and guilt over this innocent act, and so covered themselves up. This was something they did, according to some accounts, by using fig leaves

picked from the same tree that the couple had eaten from, implying that the Tree of Knowledge of Good and Evil was a fig tree,[1] just like the one that graces the summit of Göbekli Tepe today.

DEATH OF AN IDYLLIC WORLD

Adam and Eve, as our First Parents, are merely metaphors for humanity as it existed before we woke up to our "nakedness." Before this time we had lived in a state of innocence and grace that was taken away from us, and ever since that time we have been made to suffer and toil, not only in body, but also in spirit. The eternal golden age of hunting and foraging, when people were free to experience life on their own terms, would appear to have been halted by a cataclysm, arguably the proposed comet impact of 10,900 BC, and this changed everything. From these ashes arose people who wanted to tell us that thinking for ourselves and making

decisions based on our own vision of life were essentially wrong, immoral even, and that whenever we have such thoughts we should feel guilt and shame, exactly what happened to Adam and Eve in the Garden of Eden. It was a form of social conditioning imposed on our ancestors by those who assumed control over the way the future would now be shaped in the wake of the Neolithic revolution.

The greatest clue in this transition from a state of innocence to one of mental entrapment is in the fact that after being expelled from Paradise, Adam and Eve are condemned to forever till the land, for as Yahweh makes clear to Adam:

> *Cursed is the ground for your sake;*
> *In toil you shall eat of it*
> *All the days of your life . . .*
> *In the sweat of your face you shall eat bread*
> *Till you return to the ground.*[2]

In other words, humankind began to live by the process of subsistence agriculture, something that could only be done if everyone worked side by side with a more-or-less hive mentality under the control of taskmasters. No longer could we have the free lives of hunters, to do exactly what we wanted, when we wanted. People had now to exist day in, day out under regulated, and often confined, working environments. From such communities, which must have supplied the quarry men, stone masons, knappers, carvers, butchers, and construction workers for the creation of places like Göbekli Tepe, came much larger agricultural centers, leading eventually to Neolithic town complexes such as Çatal Höyük and Aşıklı Höyük in central Turkey. Founded around the same time that Göbekli Tepe was finally abandoned, ca. 8000 BC, Aşıklı Höyük was made up of a tight network of residential dwellings, workshops, and claustrophobic streets, no wider than alleyways, where beautiful obsidian mirrors, bracelets, and necklaces were manufactured.

TRAUMA AND INJURIES

Exactly what the work ethics might have been at Aşıklı Höyük is quite another matter. Skeletal remains show that men lived until they were fifty-five to fifty-seven years of age, while women lived only to the age of twenty to twenty-five years.[3] Severe trauma and injuries to the shoulders and spine indicate that these women carried heavy loads during their lives or were bending over or kneeling constantly, perhaps in front of a saddle quern used to make cereal grain. The skeletal remains of the men, on the other hand, show signs of joint disease and trauma of the type that might be expected from constant heavy labor, such as wood logging, construction work, and tilling the land.

Clearly, living in the first industrial age, where everyone had to have a home and be fed equally, took its toll on the population in a manner that might raise the question of who exactly was in charge at Aşıklı Höyük. Curiously, one ancient tradition asserts that the

forbidden fruit consumed by Adam and Eve that brought about the misery of the original sin was "an ear of wheat,"[4] emphasizing once again that the introduction of widescale sedentary farming was at the root of humanity's loss of innocence.

> *In the sweat of your face you shall eat bread*
> *Till you return to the ground.*

No longer were we now just individuals, thinking and making decisions for ourselves on behalf of our families and friends. Others now told us how to think, what to do, when to get up, when to eat, and when we could go to sleep. Since that time, we have been unable to break free from the fear that something bad will happen if we deviate from this path, and ultimately there is very little we can do to escape this torment. Those who do try to break free of their psychological shackles are often vilified or persecuted as blasphemers, heretics, dropouts, or just plain lunatics.

BACK TO EDEN

Various religious groups and communities throughout history have realized that the return to Paradise, and the freedom of thought that it brings, is through a simple innocence and purity of heart, just as it was with our First Parents before the time of the Fall. It is actually a good philosophy, and the strange thing is that some of the most successful of these communities had their inception in the same geographical region as that identified in this book as the true site of the Garden of Eden. They include the Cathars, or Albigensians, who in the twelfth and thirteenth centuries advocated a return to a simple purity in places such as Italy and France. That was, of course, until they were annihilated in the Albigensian Crusade, a mass genocide of atrocious proportions orchestrated by the Church of Rome.

The doctrine of the Cathars derived from the Bogomils, who thrived in Eastern Europe during the tenth and eleventh centuries AD. Their communities grew from exiled Christians of a semi-

Gnostic nature who arrived here from the foothills of the Armenian Highlands, north of Lake Van. Known as the Paulicians, they owed at least some of their ideas to the Arevordi, the Children of the Sun, who, although broadly classed as Armenian Zoroastrians, followed a simple faith in complete harmony with nature.[5] Unbelievably, surviving elements of all these faiths, whether Christian, Zoroastrian, or pagan, were absorbed into the indigenous religions of the Kurds, most notably the Alevi.[6]

A RETURN TO THE SOURCE

So even though I was unable to communicate directly with the Alevi I met, their message got through loud and clear. Finding Eden, ultimately, is not about putting pins in maps and saying, “This is it—I have found Paradise.” It is about an inner journey—it is about returning to the source of human experience and

understanding exactly who we were before someone, somewhere, conditioned us to feel guilt and shame for the first time—shame about who we are as individuals, how we should act and behave, and what we should do with our lives. This is not a declaration of anarchy or a license to do what you want. It is a call for us to try to regain some small sense of the innocence and purity of heart that prevailed in the past, and I glimpsed just for a moment among the Alevi people who still occupy the Garden of Eden today, for their world seems a happier place than ours.

APPENDIX

USEFUL DATES

The following is a list of useful dates relating to topics discussed in this book. Many of the dates are generalizations and should not be seen as absolute.

41,000 BC	Cro-Magnons arrive in Europe
40,000 BC	Earliest known settlement sites at Kostenki, Central Russia
30,000 BC	Kostenki-Streletskaya culture established at sites on the Russian steppes and plain, including Kostenki and Sungir
30,000 BC	The Venus and the Sorcerer panel created at Chauvet, France
30,000 BC	Sungir burials take place
23,000 BC	Brünn type appears in Central Europe
23,000 BC	Solutrean tradition established in Europe

20,000 BC	Last Glacial Maximum (LGM)
19,000 BC	Kostenki-Streletskaya culture culminates
19,000 BC	Zarzian culture appears in the Caucasus and Zagros regions
18,000 BC	Solutreans arrive in North America?
17,000 BC	Solutrean rock frieze created at the Roc-de-Sers shelter, France
16,500 BC	Deneb in Cygnus becomes Pole Star
16,500 BC	Shaft Scene created at Lascaux, France (radiocarbon date)
14,500 BC	Delta Cygni becomes Pole Star
14,500 BC	Solutrean tradition disappears
13,000 BC	Vega in Lyra becomes Pole Star
13,000 BC	End of the last Ice Age
11,300 BC	Clovis culture appears in North America
11,000 BC	Vega ceases to be Pole Star
11,000 BC	Swiderian culture appears in Central Europe
10,900 BC	Younger Dryas Boundary impact event (proposed date)
10,900 BC	Younger Dryas mini ice age begins
10,500 BC	Swiderian culture enters eastern Anatolia?
10,500 BC	Zarzian culture disappears
10,500 BC	Gobustan rock art, Azerbaijan (earliest possible date)

10,250 BC	Hallan Çemi founded in Eastern Taurus Mountains
9600 BC	Younger Dryas period ends
9500 BC	Age of oldest known enclosures at Göbekli Tepe
8630 BC	Çayönü founded in southeast Anatolia
8500 BC	Nevalı Çori founded in southeast Anatolia
8000 BC	Göbekli Tepe abandoned
8000 BC	Aşıklı Höyük founded in central Anatolia
7500 BC	Çatal Höyük founded in southern central Anatolia
6000 BC	Halaf culture appears
5000 BC	Ubaid culture appears
2900 BC	Sumerian civilization founded
2600 BC	Foundation cylinder deposited at Nippur in southern Iraq containing the story of the Anunnaki and their Kharsag/ Eden settlement
2300 BC	Assyrian civilization founded
2150 BC	Abraham departs from Harran, according to biblical chronology
1894 BC	Babylonian civilization founded
200 BC	Book of Enoch/Dead Sea Scrolls constructed
ca. AD 29	The disciple Thaddeus journeys to Edessa to cure King Abgar
ca. AD 43/45	Thaddeus conceals relics at Yeghrdut in the Armenian kingdom of Taron

	(the modern plain of Mush)
3rd century	"Life of Adam and Eve" appears, based on much older material of Jewish origin
4th century	Yeghrdut monastery founded
post 367	Gnostic library concealed at Nag Hammadi, Egypt, containing various Sethian texts
5th century	Cave of Treasures stories begin circulation
5th century	Mount Ararat elevated as official resting place of Noah's ark by the Armenian Church
1666	The Reverend Marmaduke Carver *A Discourse of the Terrestrial Paradise* published, demonstrating that the terrestrial Paradise was in Armenia Major
1821	First English translation of the book of Enoch published
1883	Ignatius Donnelly's *Ragnarök: The Age of Fire and Gravel* published, demonstrating that a comet impacted with the earth toward the end of the glacial age
1891	Skulls of the Brünn type discovered at Brünn, Czech Republic
1894	More evidence of the Brünn type discovered at PÅ™edmost, Czech Republic
1918	Nippur foundation cylinder published, with English translation by George A. Barton

1940	Lascaux Caves discovered
1945	Nag Hammadi library discovered
1947	Dead Sea Scrolls discovered
1948	Swiderian cranium found at Kebeliai, near Priekulė in Lithuania, identified as belonging to Neanderthal-human hybrid
1956	Sungir burials discovered in Vladimir, Russia
1963	Peter Benedict of the University of Chicago surveys Göbekli Tepe, cataloguing it as site V52/1
1985	Christian and Barbara Joy O'Brien's *The Genius of the Few* published, containing a new interpretation of the Nippur foundation cylinder, and suggesting that Eden and Kharsag were one and the same
1994	Chauvet Cave discovered
1994	Professor Klaus Schmidt visits Göbekli Tepe for the first time
1995	First digging campaign begins at Göbekli Tepe
1996	The author's book *From the Ashes of Angels* published, proposing that the stories of the Watchers and Anunnaki are a memory of the shamanic elite responsible for the Neolithic revolution in southeast Anatolia
2000	Göbekli Tepe's discovery announced to the world

FOOTNOTES

*1. I would like to thank Richard Ward for his suggestion that the birds represent dodos.

*2. To read more about Franz Gnaedinger's identification of Chauvet's Venus and the Sorcerer panel as the Summer Triangle go to www.seshat.ch/home/homepage.htm, and follow the links for Chauvet.

*3. Dates based on an altitude of 2 degrees including refraction and calculated using Stellarium planetarium software.

*4. Dates based on an extinction altitude of Deneb at 2 degrees including refraction using Stellarium planetarium software.

*5. On the subject of which enclosure uncovered at Göbekli

Tepe is the oldest, lead archaeologist Professor Klaus Schmidt is in no doubt—it is Enclosure C (personal conversation September 16, 2012). His reasoning is that Enclosure D's outer perimeter wall abuts that of Enclosure C. Yet a counterargument against Enclosure C being older is easily made. If C was constructed after the latter, then it is possible that D's preexisting boundary wall was reconstructed in order to allow the completion of C's own perimeter wall.

*6. Circular porthole stones associated with megalithic monuments exist at the following locations in Western Europe: England (the Tolven Stone in Cornwall and Devils Ring and Finger in Shropshire); Ireland (Cloch-a-Phoill in Ardristan, Co. Carlow); Germany (Züschen in Hesse and Altendorf, Degernau and Schwörstadt in Baden-Württemberg); France (Guiry-en-Vexin in Île-de-France and Trie-Chateau in Picardie/Oise); Spain (Antequera in Andalusia); Belgium (Lüttich and Weris);

Switzerland (Courgenay in Jura), and in South Tyrol (Bozen and Riffian in Austria, and Gratsch in Italy).

†7. Examples of dolmens or chambered tombs in southwest Asia can be found in Syria (Ala Safat, Amman, and Tsil) and Jordan (’Ain Dakkar). Here in the Near East they are ascribed dates ranging from the Chalcolithic age, ca. 5000 BC, down to the Early Bronze Age, ca. 3200 BC.

*8. Rimutė Rimantienė (b. 1920) was a friend and colleague of Lithuanian-born anthropologist Marija Gimbutas (see chapter 20).

*9. In the suspected Swiderian level at the Epipaleolithic site of Erbiceni, near the city of Iasi in Romania, evidence of canine domestication has been found.

*10. Obsidian bifaces were found at Laugerie-Haute in France's Vézère Valley in the Dordogne.

*11. Obsidian sources also exist in Iceland and, possibly, in the Balkans.

†12. A further source of Carpathian obsidian exists in Ukraine, within the Vihorlat-Gutin Mountains, much farther to the east.

*13. This name for obsidian is cited on various Internet sites with the following words: "Ancient people called Obsidian 'Satan's claws' fragments." This sounds so similar to "Satan's nail" that it has to be the same.

*14. For instance, my Kurdish contact, Hakan Dalkus, says: "Unlike Genie, the Peri are not our religious beliefs. We, Kurds, believe the Peri were human beings who really lived. I

also think they were a beautiful race" (February 10, 2012). He adds: "When I was a kid, my grandmother and some other women from old generation told us many stories of Cin (Genie) and Peri. Those women hardly left the village in all their lives, they could not speak Turkish. They had no influence of the outer world. So their stories wholly reflected old beliefs. I vaguely remember those stories now but I certainly remember that the Peri were human beings. Some kind of super human beings. Human beings could marry the Peri and have kids from them. . . . My knowledge of our old stories is only confined to the region around my village. My village has a proved history of at least 13 thousand years old. On Bingöl road. I read that the region around my village was a center of obsidian trade" (February 28, 2012).

*15. Intriguingly, the Sámi once played a board game called tablo, whereby one person plays as the wolf or fox and the

other as the hunter. Players moved around their pieces, with the hunter attempting "to corner the predator before he or she 'eats' all the hunter's pieces." See "Sami," Countries and Their Cultures, www.everyculture.com/wc/Norway-to-Russia/Sami.html#b#ixzz2J0bfenar.

*16. James Torre's original Latin inscription is as follows: "*Lector si Pietatis amator, si Doctrinae estimator, scias quantus sub hoc lapide thesaurus situs est, Marmaducus Carver, Ecclesiae Hartilluncis Rector, C(h)ronologiae et Geographiae scientissimus, Linguarum peritus, concionando prepotens; hic scilicet, qui cum scriptis ad invidiam usque, verum terrestris paradisi locum orbi monstrasset, ad coelestem quem predicando Auditoribus commendaverat, cujus adeunti ingenti desiderio tenebatur moriendo translatus est, die Aug. 1665.*"

*17. In 1989 Egyptologist David Rohl, in his book *Legend,* identified the Pison with the Uizhun River in Iran (the modern Qezel Uzun). Yet realistically this is untenable, as the Uizhun takes its course a full 250 miles (400 kilometers) southeast of Lake Van. Why have the sources of three of the rivers close together, only for the fourth one to be so far away? It just doesn't make sense, especially given that the heads of the four rivers are said to emerge from a single stream that waters the Garden of Eden.

*18. Many thanks to Jonathan Bright for clarifying the Greek variations of the name for Watcher.

*19. Many thanks to Gagik Avagyan for all facts regarding the etymology and meaning of Bingol's Armenian place-names, which were gleaned from correspondence in May–June 2013.

*20. The Natufians probably imported figs from Egypt (see Kislev, Hartmann, and Bar-Yosef, “Early Domesticated Fig in the Jordan Valley,” 1372–74), while the presence of cultivated grain seeds in early Natufian settlements argues for a connection with the peoples of the Nile Valley during this time. In addition to this, shellfish from the Nile Valley were found at the Natufian site of Ain Mallaha in the Jordan Valley.

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3. Budge, *The Chronography of Gregory Abû' l Faraj, the Son of Aaron, the Hebrew Physician, Commonly Known as Bar Hebraeus,* vol. I, 7.

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5. Yardimci, *Mezopotamya'ya açilan kapi Harran,* 362–64.

6. Book of Jubilees, 8:1–4.

7. Josephus, "The Antiquities of the Jews," bk. I, ch. vi, verse 4.

8. Hommel, *The Ancient Hebrew Tradition,* 292–97.

9. Segal, *Edessa,* p. 2 n. 2.

10. Ibid., p. 2 n. 4, 106.

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2. Schmidt, "The 2003 Campaign at Göbekli Tepe (Southeastern Turkey)," 5.

3. Benedict, "Survey Work in Southeastern Anatolia," 150–91.

4. Schirmer, "Some Aspects of Building at the 'Aceramic-neolithic' Settlement of Çayönü Tepesi," 378.

5. Cauvin, *The Birth of the Gods and the Origins of Agriculture,* 172–73.

6. Schirmer, "Some Aspects of Building at the 'Aceramic-neolithic' Settlement of Çayönü Tepesi," 382.

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10. Cauvin, *Birth of the Gods,* 91.

11. See Lewis-Williams and Pearce, *Inside the Neolithic Mind;* Hancock, *Supernatural*.

12. Schmidt, “Göbekli Tepe, Southeastern Turkey,” 46.

13. Ibid.

14. Ibid.

15. Schmidt, “Göbekli Tepe—the Stone Age Sanctuaries,” p. 241, n. 1.

1. Schmidt, *Göbekli Tepe,* 216. This is the 2012 English language edition of the book *Sie bauten die ersten Tempel: Das rätselhafte Heiligtum der Steinzeitjäger,* published in 2006. All references will be taken from the English edition. See also Collins, *The Cygnus Mystery,* 209–14, which explores the possibility of psychoactive substances, mushrooms in particular, being used at Göbekli Tepe.

2. Harner, "Common Themes in South American Indian Yagé Experiences," 160–64.

3. Ibid., 162, 164.

4. Mann, "The Birth of Religion," 48.

5. Schmidt, "Göbekli Tepe, Southeastern Turkey," 51.

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15. Peters and Schmidt, “Animals in the Symbolic World,”

179–218.

16. Schmidt, “Göbekli Tepe, Southeastern Turkey,” 48.

17. Heun, Schäfer-Pregl, Klawan, et al., “Site of Einkorn Wheat Domestication Identified by DNA Fingerprinting,” 1312–14.

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11. Izady, *The Kurds,* 23.

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2. Personal communication with Kelly Delaney Stacy and Amadeus Diamond in March 2013.

3. Ibid.

4. Baldwin Spencer, *Across Australia,* 402–3.

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Agriculture, 123–25.

CHAPTER 5. GATEWAY TO HEAVEN

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CHAPTER 35. A QUIET CORNER OF EDEN

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106.

15. Wintermute, trans., *Old Testament Pseudepigrapha,* "Book of Jubilees," 8, 1.4.

16. Josephus, "The Antiquities of the Jews," bk. 1, ch. vi, verse 4.

17. Hommel, *The Ancient Hebrew Tradition,* 292–97.

18. Heckford, *A Succinct Account of All the Religions,* 316.

19. al-Kisa'i, quoted in Green, *The City of the Moon God,* 13.

20. Immanuel Velikovsky, "A Hebrew Cosmogony," Immanuel Velikovsky Archive, www.varchive.org/ce/hebcos.htm (accessed January 16, 2014).

CHAPTER 39. THE RETURN TO EDEN

1. Charles, trans., *The Book of Enoch or 1 Enoch,* 1 En. 32:1–2.

2. Oskian, *Die Klöster von Taron-Turuberan,* s.v. "Yeghrduti."

3. Ibid.

4. Ibid.

5. Ibid.

6. See "The Sage's Guild: Historical Discussion" and the post dated March 17, 2011, from "Ancalimon," http://forums.taleworlds.com/index.php?topic=147199.340;wap2 (accessed January 16, 2014).

7. The theory was outlined in two books—Heyerdahl, *Ingen grenser,* and Heyerdahl and Lilliestrøm, *Jakten på Odin*—and criticized at the time by Norwegian academics. See "Jakten på Odin," Wikipedia,

http://en.wikipedia.org/wiki/Jakten_på_Odin (accessed January 16, 2014).

8. Personal communication between the author and Raffi Kojian of AniOnline on January 29, 2012. See also Armenian Dictionary of Roots at http://nayiri.com/imagedDictionaryBrowser.jsp?dictionaryId=7&query=%D4%B5%D5%B2%D6%80%D5%A4 (accessed January 16, 2014).

9. I want to thank Gagik Avagyan for the interpretation of this word.

10. Rappoport, *Mediæval Legends of Christ,* 230.

11. Ibid., 231.

12. Oskian, *Die Klöster von Taron-Turuberan,* cites various Armenian and Soviet-Armenian references to Yeghrdut.

Should anyone wish to track these down, I would be happy to supply details.

13. Oskian, *Die Klöster von Taron-Turuberan,* s.v. "Yeghrduti."

14. Josephus, "Antiquities," bk 1, ch. 1, verse 2.

15. Charles, ed., *Apocrypha and Pseudepigrapha,* 40:6.

CHAPTER 40. A TRIP TO PARADISE

1. Hamzeh'ee, *The Yaresan,* 263.

2. Ibid., 268.

3. Hewsen and Shirakats'i, *The Geography of Ananias of Širak,* 59, 63.

4. Nuttall, *The Fundamental Principles of Old and New World*

Civilizations, 287–88.

5. Laurence, trans., *Book of Enoch the Prophet,* 1 En. 8:1.

6. "Turkey: Oldest Obsidian Bracelet Reveals Amazing Craftsmen's Skills in the Eighth Millennium BC," CNRS News Release, Paris, December 6, 2012, www2.cnrs.fr/en/1941.htm (accessed January 16, 2014).

7. Ibid.

8. See Başi, *Gula Xizirî*.

CHAPTER 42. A LOSS OF INNOCENCE

1. Charles, ed., *Apocrypha and Pseudepigrapha,* "Apocalypse of Moses," 20: 4–5.

2. Genesis 3:17, 19, New King James Version.

3. Esin and Harmankaya, “Aşıklı,” 115–32.

4. Sale, *The Koran,* p. 7. n. c, cf.

5. See Conybeare, *The Key of Truth,* and Russell, *Zoroastrianism in Armenia,* 516–27.

6. See, for instance, “Ishikism” for the relationship between the Paulicians, the Bogomils, and the Alevi, Wikipedia, http://en.wikipedia.org/wiki/Ishikism (accessed January 16, 2014).

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Library of Congress Cataloging-in-Publication Data

Collins, Andrew, 1957–

Göbekli Tepe: genesis of the gods : the Temple of the Watchers and the discovery of Eden / Andrew Collins.

pages cm

Includes bibliographical references and index.

print ISBN: 978-1-59143-142-8

ebook ISBN: 978-1-59143-835-9

1. Göbekli Tepe Site (Turkey) 2. Excavations (Archaeology)—Turkey—Sanliurfa Region. 3. Neolithic period—Turkey—Sanliurfa Region. 4. Sanliurfa Region (Turkey)— Antiquities. 5. Sacred space—Turkey—Sanliurfa Region. 6. Eden. 7. Legends—Turkey—Sanliurfa Region. 8. Sanliurfa Region (Turkey)—Description and travel. I. Title. II. Title: Göbekli Tepe.

DS156.G59C65 2014

939.4'2—dc23

2013046261

To send correspondence to the author of this book, mail a first-class letter to the author c/o Inner Traditions r Bear & Company, One Park Street, Rochester, VT 05767, and we will forward the communication, or contact the author directly at **www.andrewcollins.com**.

To Those Who Struggle for Freedom,
In the Garden of Eden,
Past and Present

And to the memory of
Filip Coppens
(1971–2012)

and

Colin Wilson
(1931–2013)

Friends and Genuine Seekers of the Truth

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The Temple of the Watchers and the Discovery of Eden

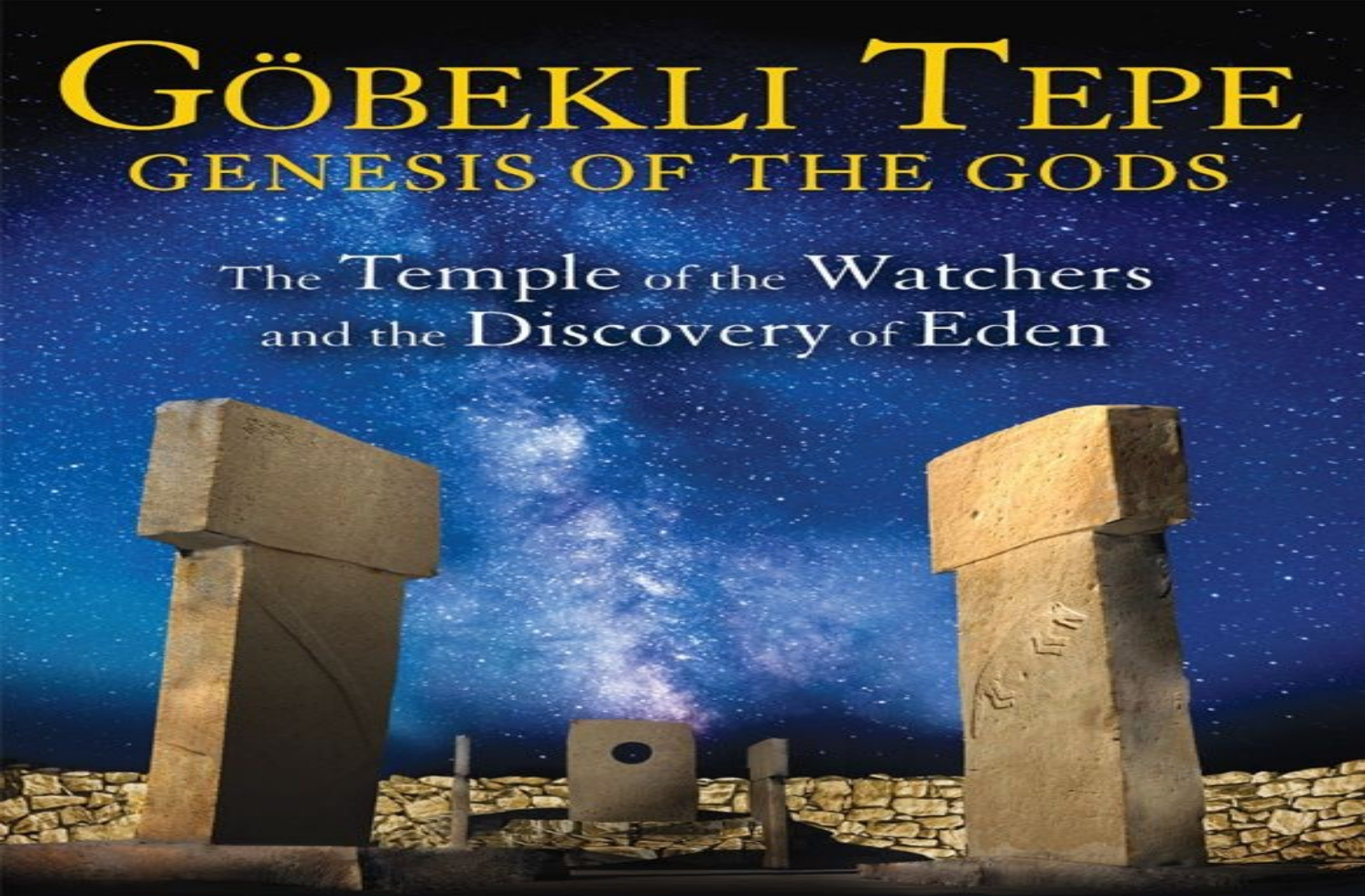

ANDREW COLLINS

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GÖBEKLI TEPE
GENESIS OF THE GODS

The Temple of the Watchers and the Discovery of Eden

ANDREW COLLINS

Bear & Company
Rochester, Vermont • Toronto, Canada

To Those Who Struggle for Freedom,
In the Garden of Eden,
Past and Present

And to the memory of
Filip Coppens
(1971–2012)

and

Colin Wilson
(1931–2013)

Friends and Genuine Seekers of the Truth

ACKNOWLEDGMENTS

First, I would like to thank those who have been involved in providing visionary thoughts and information that helped inspire the creation of this current work. They include Richard Ward, David Southwell, Debbie Cartwright, Bernard G., Graham Phillips, and Catja de Lorenzo. I would also like to express my gratitude to Rodney and Joan Hale, for their indelible help in making sure my life continues; Storm Constantine and Jim Hibbert, for putting up with me in their home for over a month; Graham Hancock and Santha Faiia, for the wonderful introduction, and their precious time and help; and Greg and Lora Little, for their constant friendship and support.

In addition to this, I would like to thank Jonathan Bright, for his exchanges on the Greek language; Alberto Forgione, for the cover

illustration; Idris Gurkin, for his friendship and kind help as a translator and guide in Turkey; Gülüzar and Hıdır Çelik, for their hospitality in Paradise; Catherine Hale, for her line editing and suggestions; Barbara Hand Clow, for the use of her brilliant term *catastrophobia;* J. L. Katzman of Aggsbach's Paleolithic Blog, for permission to use pictures; Suna Köse, for her invaluable help in finding me local contacts in eastern Turkey; Janet Morris, for her archive research into the more obscure topics under discussion here; Raffi Kojian, of the AniOnline forum, Gagik Avagyan, and Sunny Keshishian Ross, for their Armenian language translations and advice; Russell M. Hossain, for his wonderful 3-D sculpts; Professor Klaus Schmidt, for agreeing to answer my questions and permitting me to explore Göbekli Tepe; Dr. Harald Hauptmann, for his help regarding the excavations at Nevalı Çori; and Michael Tazzar, for his research discussions.

I would also like to extend a big thank-you to all the others who

have helped me during the writing of this book, including Eileen Buchanan, Yvan Cartwright, Adam Crowl, Hakan Dalkus, Amadeus Diamond, Kelly Delaney Stacy, Adriano Forgione, Dawn Forgione, Stephen Gawtry, Richard D. Kingston, Peter Knight, Ian Lawton, Yuri Leitch, Chris Nemmo, Hugh Newman, Chris Ogilvie Herald, Khanna Omarkhali, Graham Phillips, Nigel Skinner-Simpson, Alby Stone, Geoff Stray, Alan Todd, Paul Weston and Rachel Blake, Leon and Lisa Flower, Pino Morelli and Roberta Formoso, Matt Kyd and Renny Djunaedi, Brent and Joan Raynes, Mark and Michelle Rosney, Buster and Abigail Todd, Bob Trubshaw and Judi Holliday, Caroline Wise and Michael Staley, Philippe and Domenique Ullens, John Wilding and Esther Smith, and staff at the Henge Shop, Avebury. Finally, I want to say a massive thank you to Olatundji Akpo-Sani, Kelly Bowen, Kevin Dougherty, Jon Graham, John Hays, Erica B. Robinson, Peri Swan, Jessie Wimett, Chanc VanWinkle Orzell and all the team at Inner Traditions/Bear & Company for being so patient with me over the past couple of years.

It is very much appreciated.

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NOTE ON DATING SYSTEM USED

The long-held dating system of BC (before Christ) and AD (*anno Domini,* "in the year of the Lord") is used in preference to more modern forms, such as BCE (before the common era) and CE (of the common era). Occasionally BP (before the present) and KYA (thousand years ago) are used when expressing events of the past. All dates provided by the process of radiocarbon dating are recalibrated unless otherwise stated.

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INTRODUCTION

By Graham Hancock

The new millennium promised much—the rising of Atlantis, the Second Coming of Christ, and the discovery of the Hall of Records in Egypt. Yet those of a New Age persuasion who had waited patiently for this all-important date were to be sadly disappointed. Even so, an archaeological discovery brought to the world's attention for the first time in 2000[1] is now poised to make up for any sense of anticlimax that might have accompanied the millennial nonevent.

I speak of Göbekli Tepe, a megalithic complex of incredible beauty and importance located close to the ancient city of Şanlıurfa

in southeast Turkey. Here, quietly, since 1995, a series of stone enclosures of immense sophistication, each containing T-shaped pillars up to 18 feet (5.5 meters) tall and weighing as much as 16.5 US tons (15 metric tonnes), is being uncovered on a mountain platform close to the western termination of the Anti-Taurus range.

Carved into the faces of the dozens of stone pillars and freestanding monoliths uncovered so far is a virtual menagerie of strange creatures that populated the world when these mysterious monuments were constructed between twelve thousand and ten thousand years ago. Foxes, wolves, lions, snakes, aurochs, hyena, ibex, and boars are seen alongside insects, arachnids, and various species of bird, including crane, vulture, flamingo, and a flightless bird with the likeness of a dodo.

The quality and style of Göbekli Tepe's strange carved art are at once breathtaking and mesmeric, a fact made even more incredible in the knowledge that we are told the complex was built by simple

hunter-gatherer communities that thrived in an age before the emergence of subsistence agriculture and animal husbandry.

NEOLITHIC REVOLUTION

Professor Klaus Schmidt, the forward-thinking German archaeologist in charge of excavations at Göbekli Tepe, now believes that the Neolithic revolution came about as a result of the creation of megalithic complexes of this kind across southeast Turkey, which forms part of what archaeologists refer to as the *triangle d'or,* or golden triangle. Schmidt proposes that the many hundreds of people involved in the construction and maintenance of the enclosures at Göbekli Tepe would quickly have depleted locally available food resources.

Add to this the thousands of "pilgrims" who would descend on the site for clan gatherings and other forms of ceremonial activity,

and it is clear that another, more plentiful supply of food was required—one that could be provided year in year out, ad infinitum. Hence, subsistence agriculture rapidly emerged in the form of the domestication of wild species of wheat and rye. This required the hunter-gatherers of the region to become settled farmers and pastoralists living in more permanent environments, which gradually emerged as the first towns and villages of the Neolithic age.

Evidence of this transition from hunter-gatherer to settled farmer in southeast Turkey comes from the discovery by geneticists that sixty-eight modern strains of wheat derive from a form of wild wheat called einkorn that thrives to this day on the slopes of an extinct volcano named Karaca Dağ, which lies some 50 miles (80 kilometers) to the northeast of Göbekli Tepe.

All this was occurring in the Near East as much as two thousand years before the flowering of the first major city complexes at

places such as Çatal Höyük and Aşıklı Höyük in what is today central Turkey. They emerged as part of the rapid expansion of the Neolithic revolution, which after embracing the Central Anatolian Plain very quickly reached Eastern Europe. The revolution moved southward also into the Levant, where forms of protoagriculture already existed, and eastward into Iran, Central Asia, and eventually India and Pakistan, home of the Indus Valley civilization. Schmidt is in no doubt that Göbekli Tepe was one of the key points of origin of the Neolithic revolution, meaning that for our present civilization at least this is where history begins.

GÖBEKLI TEPE IN CONTEXT

Before going any further, it is important to place Göbekli Tepe in context with what is known about the emergence of the civilized world. Its earliest enclosures, which are by far the most

sophisticated, existed as much as seven thousand years before the construction of Stonehenge in southern England, built around 3000 BC. Yet having said this, mounting evidence indicates that the Stonehenge we see today, with its familiar sarsen trilithons, Heel Stone alignment toward the midsummer sunrise, and bluestone horseshoe of standing stones, is simply the final phase of an evolution that began with the creation of a Mesolithic complex as early as 8000 BC. Who was responsible for this proto-Stonehenge thousands of years before the arrival on British shores of the first Neolithic farmers remains a mystery. Whatever the answer, the fact that this early date of construction coincides with the final abandonment of Göbekli Tepe must raise a few eyebrows and suggests there might have been a much greater communication network between prehistoric cultures than is currently accepted by scholars.

EGYPT'S FIRST TIME

Göbekli Tepe is also a full seven thousand years older than the conventional dates attributed to the construction of the Great Pyramid and its neighbors on Egypt's famous plateau at Giza. Even if we accept these monuments as the product of Egypt's pharaonic age, the evidence presented both by me and my colleague Robert Bauval in a number of our books suggests very strongly that much earlier structures must have existed in the Nile Valley during a mythical age referred to by the dynastic Egyptians as Zep Tepi, the First Time. It is a time when the gods themselves—Osiris, Isis, Seth, Horus, Thoth, and others—are said to have walked the earth.

An obvious marker of this age of the gods is the Great Sphinx, the leonine monument that sits on the eastern edge of the plateau at Giza—its gaze fixed toward the eastern horizon, where the sun rises at the time of the equinoxes.

During the mid-1990s convincing evidence was put forward by

Boston geologist Dr. Robert Schoch and his colleague John Anthony West to suggest that the Sphinx is not the product of the Fourth Dynasty, when pharaohs such as Khufu, Khafre, and Menkaure built the surrounding pyramid complexes, but dates to a much earlier epoch of humankind. It might even be possible that this timeless monument was originally created to gaze at its celestial counterpart, the constellation of Leo, when that noble asterism last housed the equinoctial sun between the eleventh millennium BC and the ninth millennium BC.

Such a realization, if verified, would make the Sphinx pretty much contemporary with Göbekli Tepe, which lies at a distance of around 700 miles (1,100 kilometers) from Egypt's Nile Valley.

LION PILLAR BUILDING

It is therefore a matter of great interest that there are striking

carvings of advancing lions on the inner faces of twin pillars in an east-west aligned enclosure at Göbekli Tepe dated to the ninth millennium BC. Called the "Lion Pillars Building," the structure's leonine pillars form a gateway at its eastern end, their advancing beasts appearing to rear out of the equinoctial horizon.

As Andrew Collins points out elsewhere,[2] there is every possibility that to the Göbekli builders this leonine art not only signified the blood-red might of the sun (like the lion-headed goddesses of ancient Egypt), but also the influence of the constellation of Leo, the celestial lion, as it rose in the predawn light of the spring equinox.

So the same inspiration behind the construction of the Great Sphinx might also have been present at Göbekli Tepe, leading us to ask whether there is a real connection between these two distant places. If so, was the emergence of high culture in both the Nile Valley and southeast Turkey related in some manner to the creation

of proto-Stonehenge by an unknown culture that thrived during the very same epoch? Were all these sites, and many more besides, once connected in some unfathomable manner?

FORGOTTEN CIVILIZATION

In books such as *Fingerprints of the Gods* (1995), *Heaven's Mirror* (1998, authored with my wife, Santha Faiia), and the sequel to *Fingerprints of the Gods,* which I am writing for publication in 2015, I make the case for a global civilization, possessing immense technical sophistication and a profound understanding of our place in the cosmos, that thrived in an age before a terrible cataclysm brought the world to its knees soon after the end of the last ice age.

More than ever before, science is piecing together exactly what occurred during this global catastrophe, which is now firmly dated to ca. 10,900–10,800 BC. It is a moment in time known to

paleoclimatologists as the Younger Dryas horizon, which defines the boundary between the Pleistocene geological epoch and the Holocene, which we still live in today.

It was a time also when the glaciers that had covered much of the Northern Hemisphere during the Ice Age began rapidly to readvance, for the Younger Dryas is the name given to a mini ice age that gripped the world for a period of around thirteen hundred years, from approximately 10,900 BC onward, and ended abruptly around the time the first major enclosures were under construction at Göbekli Tepe, ca. 9600–9500 BC.

It seems certain, now, that the cause of this worldwide catastrophe was a large comet that fragmented into thousands of pieces as it entered the upper atmosphere. Each fragment rained down on the earth, causing unimaginable detonations that pulverized vast swathes of land across the planet. Not only did this terrible cataclysm trigger the onset of the Younger Dryas mini ice

age and with it the extinction of the Pleistocene megafauna, including the mammoth, mastodon, toxodon, great camel, and great sloth, but it also devastated the world's human population. The worst hit areas were on the American continent. Here the impact blasts, each one as powerful as a small atomic bomb, were more widespread than anywhere else.

CATASTROPHOBIA

Andrew, in this groundbreaking book, proposes that Göbekli Tepe was built as a response to the aftermath of this global cataclysm. The earliest enclosures were created, he postulates, by a hunter-gatherer populace still in fear of another comet impact, even though several hundred years had elapsed since the final reverberations of this catastrophic event.

Each structure, with its beautifully carved stones, was built with

the specific purpose of preserving cosmic order through shamanic interactions with the unseen world. This was achieved using an idealized cosmology, envisaged as a sky pole, or umbilicus, linking earth and heaven. In this way the hunter-gatherers, under the instruction of a ruling elite, were able to maintain the status quo of the cosmos and prevent further attacks on the sky pole, the axis of heaven, from a cosmic trickster in the guise of a supernatural fox or wolf.

It was this absolute fear of another cosmic catastrophe, something that visionary writer Barbara Hand Clow refers to so aptly as *catastrophobia,* that caused the hunter-gatherers of southeast Turkey to suddenly start supersizing their cult buildings into the beautiful megalithic structures we see today.

It was also this obsession with preventing another cataclysm that was responsible, at least in part, for the collective amnesia that has allowed us to filter out and reject the existence of the proposed

global civilization that thrived in the epoch immediately prior to the Younger Dryas Boundary impact event, as scientists call it today.

Yet some expression of the complex cosmology existing during this former golden age is almost certainly locked into the design, proportion, and carved art at Göbekli Tepe. It thus becomes a virtual Noah's ark in stone, bridging the gap between a former age of enlightenment and the emergence down on the Mesopotamia Plain of some of the oldest known civilizations of this current world age, most obviously those of Sumer, Akkad, Assyria, and Babylon.

ABODE OF THE GODS

The mythologies of these great civilizations speak clearly of wisdom bringers and creator gods responsible for the formation of the earliest towns, cities, canals, walled enclosures, and irrigation channels—and even of humankind. Named as the Anunnaki, these

anthropomorphic, or humanlike, gods are said to have emerged from a primeval mound called Duku, situated on a cosmic mountain named Kharsag, beneath which was the world of mortal human beings.

Klaus Schmidt believes that Göbekli Tepe had a direct impact on the myths and legends regarding the Anunnaki, and that the site could be the role model for the original Duku mound. Indeed, he goes further, as Andrew points out in this book, by hinting at a connection between Göbekli Tepe and biblical traditions concerning the Garden of Eden, and perhaps even the very human angels of Hebrew mythological tradition known as the Watchers.

CULT OF THE VULTURE

A deep look at the description of the Watchers and their offspring, the Nephilim, in ancient Jewish texts such as the book of Enoch

makes it clear that these mythical creatures were not incorporeal angels, but flesh and blood human beings with very distinct shamanistic qualities. They are occasionally said to wear dark, iridescent cloaks, or feather coats, and on occasion they take flight like birds, echoing the presence among the earliest proto-Neolithic communities of the Near East of a cult of death and rebirth focused on scavenger birds such as the vulture.

As Andrew points out, at Göbekli Tepe, as well as at the nine-thousandyear-old Neolithic city of Çatal Höyük in southern-central Turkey, there are abstract representations of vultures with articulated legs. Either they are shamans adorned as birds or bird spirits with anthropomorphic features.

Were these shamans of the early Neolithic age role models for the Watchers of Enochian tradition? Are the Watchers a vague memory of those behind the construction of proto-Neolithic complexes, amongst them Göbekli Tepe in southeast Turkey? Did the Watchers

really introduce this current world age to forbidden knowledge carried over from a global civilization that once thrived in an antediluvian world?

FROM THE ASHES OF ANGELS

These are questions we are only now beginning to ask for the first time. Yet they were asked as far back as 1996 by Andrew Collins in his groundbreaking book *From the Ashes of Angels.* What is more, there is little question that Andrew was one of the first writers to realize the greater significance of Göbekli Tepe, bringing it to the attention of the mysteries community as early as 2004. It is for this reason that his book *Göbekli Tepe: Genesis of the Gods* is such a masterwork, for it is the culmination of nearly twenty years of Andrew's original research into the origins of the Neolithic revolution and its relationship to Hebrew traditions concerning the

location of the Garden of Eden and the human truth behind the Watchers of the book of Enoch.

In a testimonial written to accompany the publication of *From the Ashes of Angels,* I said that Andrew had "put important new facts before the public concerning the mysterious origins of human civilization." I stand by this statement and add only that with his vast knowledge of the subject under discussion, there is no one better suited to reveal Göbekli Tepe's place in history today.

Graham Hancock, born in Edinburgh, Scotland, is a British writer and journalist. His books, including *Fingerprints of the Gods, The Sign and The Seal,* and *Heaven's Mirror,* have sold more than five million copies worldwide and have been translated into twenty-seven languages. His public lectures, radio, and television appearances have allowed his ideas to reach a vast audience,

identifying him as an unconventional thinker who raises controversial questions about humanity's past.

Also see the Notes and Bibliography of this book for further references related to the material in this introduction

PROLOGUE

IN QUEST OF ANGELS

September 16, 2013. Ever since kindergarten I have had a strange fascination with angels. Back then I was forced to endure Sunday school on a regular basis, and what I heard about Moses parting the Red Sea or Jesus feeding the five thousand with just a few loaves and fishes intrigued me. I loved hearing about miracles. Yet the lessons were always long and dreary. I wished only to be in the park, kicking about a soccer ball with my dad and brother.

Then one day my Sunday school teacher, a rather stern-faced woman, related how the Old Testament prophet Abraham received

into his presence three angels. They sat with him beneath the shade of a tree, where they talked and ate food together.

I knew about angels, those with radiant bodies and beautiful wings, but what the teacher was implying seemed at odds with this ethereal view. Not only did angels seem to function in this world, but they could also be tangibly real. What's more, people could talk to them and perhaps even become their friends. This was an incredible revelation to me.

Abraham's meeting with the angels was not lingered on, causing me to raise my hand and ask: "Please miss, what are angels?" To which I was told: "They are messengers of God."

I needed to know more, so I asked the teacher to elaborate further. She just looked at me and said, slowly and decisively: "There is nothing to be explained—they are the angels of God."

For her, the existence of angels seemed arbitrary, so my curiosity bore no meaning or relevance. Yet clearly it mattered to me.

It was a moment in my life I shall never forget. Somehow it fired my interest in angels as corporeal creatures and was one of the reasons I was here in southeast Turkey, making my way through sun-baked, dusty streets looking for answers. All around me were market vendors plying their wares, stalls brimming with ripe melons, trays of tomatoes, and all manner of household goods sold at very competitive prices.

Amid the incessant din, I gazed up at an age-old stone archway, the only opening through a more or less intact wall of some considerable size. Beyond it, as far as the eye could see, were the ruins of an ancient city razed to the ground by the Mongol hoards in 1271. Known as Carrhae to the Romans, this sprawling Mesopotamian metropolis—a commercial center at the crossroads of several key trading routes—is better known by the name Harran.

All that remains of the ancient city today are a scattering of walls; a massive stone arch marking the entrance to the now-vanished

Great Mosque; a ruined castle, built in the early Islamic period on the site of a pagan temple dedicated to the Mesopotamian moon god Sin; and a colossal stone structure, rising to a height of 110 feet (33 meters) and known locally as the Astronomical Tower. Although it too once formed part of the Great Mosque—or Paradise Mosque, as it was more correctly known—legend asserts that the Harranites, the inhabitants of Harran, were keen astronomers who used the tower's summit to observe and record the movement of the stars.

Although the Harranites acknowledged the faith of Islam following the Arab conquest, many belonged to an altogether different faith—one that came to be known as Sabaeanism. These curious people worshipped the sun, moon, and planets, which they honored in temples built specifically for this purpose. In addition to this, they saw the Pole Star, and the northern night sky in general, as the direction of the Primal Cause, of God himself, a fact celebrated each year in a grand festival known as the Mystery of the North.

This fascination with the Pole Star was a belief shared by other religious sects of the region including the Ismaili Brethren of Purity, the Mandaeans of Iraq and Iran, and the angel-worshipping Yezidi, all of whom owe at least some part of their existence to the Sabaeans of Harran.

In addition to being star worshippers, the Harranites are said to have collated the sacred writings of Greco-Roman Egypt attributed to Hermes Trismegistus, the Thrice Great Hermes. Following the destruction of Harran in the thirteenth century, this important corpus of religious literature known as the Hermetica was carried into Europe, where, some one and a half centuries later, it became the spiritual backbone to the Italian Renaissance and, with it, a revival of all things Egyptian.

Yet before even the Sabaeans flourished in Harran, the city was connected with the earliest events of the Bible. Here the prophet Abraham and his family stayed prior to their departure to Canaan,

God's Promised Land. Local tradition asserts that the prophet hailed from the nearby city of Şanlıurfa, the original "Ur of the Chaldees." So strong is this belief that even today thousands of Kurdish Muslims arrive in the city, anciently known as Orfa, Orhay, or Edessa, in order to visit a cave shrine said to be the birthplace of the great prophet.

According to medieval belief, Abraham arrived at Harran and at once set about converting the local population to his monotheistic faith. Yet the Harranites claimed their teachings were older, having derived from Seth, the son of Adam, and Enoch, a later antediluvian patriarch. Some of the Harranites did convert to Abraham's faith and departed with him to Canaan. Those who did not are said to have remained in the neighborhood of Harran, declaring that "we acknowledge the religion of Seth, Idris (Enoch) and Noah."[1]

So much did the inhabitants of Harran honor Abraham's presence in the city that a temple was set up to him and his father, Terah,

which apparently stood 2 parsangs (around 7 miles, or 11 kilometers) southeast of the city, close to the border with Syria.[2] Abraham was the perceived father of the Jewish people, and his descendants were responsible for bringing together the source material for the book of Genesis, the first book of the Old Testament, traditionally ascribed to Moses the Lawgiver.

Everywhere around Harran are sites associated with stories from the book of Genesis. On Cudi Dağ (Mount al-Judi), in the mountains to the east of Harran, Noah's ark is said to have made first landfall after the waters of the Great Flood receded. Here too Noah established his first post-Flood settlement, leaving his son Shem to continue his journey into the Eastern Taurus Mountains, where also Seth, the son of Adam, lived after his father and mother's expulsion from the Garden of Eden (see chapters 35 and 37). Even Harran itself, where Abraham dwelled with his family, had more ancient biblical connections, as tradition insists that

Cainan, a grandson of Shem, founded the city. He was the originator of Chaldaism, the knowledge of the stars as practiced by the Sabaeans of Harran.[3]

More significantly, the book of Genesis records that the primordial Garden where Adam and Eve, the First Couple, existed in a state of innocence and bliss before the time of the Fall was located at the source of the four rivers of Paradise, two of which can easily be identified as the Tigris and Euphrates (see chapter 27). They take their rise in the mountains to the northeast of Harran. Here somewhere lies the original Garden of Eden, tended over by the angels of God, returning me to the pressing questions that had preoccupied my childhood: Who or what are angels? Where did they come from, and did they have some kind of earthly tangibility?

As I climbed Harran's giant occupational mound, which rises above the ruined city, and stared out toward the mesmeric Astronomical Tower, I felt I was getting closer to some real

answers. For even as the first Bible stories were being played out across the region, Harran was already extremely old. Archaeological fieldwork has shown that its earliest inhabitants occupied the site as much as eight thousand years ago,[4] having arrived here from another occupational mound, located just 6 miles (10 kilometers) away, which dates back an incredible ten thousand years.[5]

Known as Tell Idris, the very name of this prehistoric mound reveals its association not just with the earliest events of the Bible but also with the angelic beings said to have guarded the Garden of Eden. For Idris is the Arabic name for the antediluvian patriarch Enoch, the great-grandfather of Noah. He is accredited with the authorship of one of the strangest and most mystifying religious texts ever written.

Called the book of Enoch, it recounts how Enoch, while resting in his bed one night, is approached by two strange beings of angelic appearance. Named Watchers (Hebrew *'îrîn*), they ask him to

accompany them on a tour of the Seven Heavens, one of which includes the Garden of Righteousness, where the four rivers of Paradise take their rise, while another leads to the abode of the angels.

When in the Watchers' heavenly settlement, Enoch is shown a prison in which a whole group of these angelic beings are incarcerated. On asking what crime they have committed, the patriarch is informed that two hundred of their number disobeyed the laws of heaven by descending among mortal kind and taking wives for themselves. As a consequence, these women gave birth to giant offspring called Nephilim (a Hebrew word meaning "those who fell" or the "fallen ones").

More significantly, the book of Enoch relates how the rebel Watchers, who are described as extremely tall (like "trees"), with pale and ruddy skin, powerful eyes, white hair, and long, viper-like faces (see chapter 32), are said to have taught their mortal wives the

arts and sciences of heaven. For this heinous crime they were rounded up and incarcerated.

Although these stories are understandably dismissed as allegorical fantasy by theologians and Bible scholars alike, there is an air about them that tells of a forgotten event in humanity's distant past—one connected integrally with Harran and the surrounding region, for it was here that the Neolithic revolution began.

On the upper reaches of the Euphrates and Tigris rivers, in the region that is today made up of eastern Turkey, northern Syria, northern Iraq, and northwest Iran, animal husbandry occurred for the first time, as did the domestication of wild cereals and the first metalworking and smelting. Here too some of the earliest baked and fired statuettes were produced, along with the construction of rectilinear and curvilinear buildings, some incorporating decorated standing stones and steles. With them came the first construction of terrazzo mortar floors, the first evidence for brewing beer, and

perhaps even the first use of grapes to produce wine.

In the same region, as early as 8000 BC, diamond-hard stone drills were employed to pierce holes through large oval beads of carnelian and agate to produce beautiful necklaces, and green malachite powder was first used as a cosmetic to beautify the eyes.

Among the forbidden arts of heaven that the Watchers are said to have gifted mortal kind are the use of metals and metalworking, and the means for women to beautify themselves. They are also said to have provided the first polished mirrors, an interesting fact, as the earliest known mirrors, made of the black volcanic glass obsidian, were manufactured at early Neolithic sites in central Turkey, such as Çatal Höyük and Aşıklı Höyük.

Is it possible that some memory of the prime movers or driving elite behind this great transition in technology and innovation is recalled in the stories of the Watchers providing mortal kind with the rudiments of civilization? Is this what these human angels are—

instigators of the Neolithic revolution?

Here at Harran are further clues to this baffling mystery. From the summit of its occupational mound the eye is drawn beyond the Astronomical Tower to the low ridge of mountains that dominates the northern horizon. Amid those peaks and in full sight of the Sabaean city is an archaeological site of incredible importance to world history.

Known as Göbekli Tepe, its existence, and the work currently being carried out there by a dedicated team of specialists, might one day help answer the pressing questions that have haunted me since childhood. Here, on a hilly ridge close to the southernmost limits of the Anti-Taurus Mountains, is the oldest acknowledged monumental architecture anywhere in the world. It takes the form of a series of circular and rectangular stone sanctuaries constructed as early as 9500 BC by an advanced group of hunter-gatherers who might well have been responsible for catalyzing the genesis of civilization in a

manner echoing the very human-like activities of the Watchers in the book of Enoch.

Who were the builders of Göbekli Tepe, and what motivated them to construct such extraordinary monuments so soon after the end of the last ice age? What part of the ancient world did they come from, and what did they look like? Is it possible that a memory of their existence was preserved by the peoples of the region and later carried by the descendants of Abraham into the Holy Land, where it inspired the stories of angels trafficking with humankind preserved in religious texts such as the book of Enoch and book of Genesis?

Remarkably, an ancient Hebrew work known as the book of Jubilees, which also tells the story of the Watchers, relates how Cainan, the legendary founder of Harran, uncovered an inscription carved on a stone stela. When translated it was found to contain the antediluvian science of astrology as taught by the Watchers.[6] This

knowledge went on to form the basis of the beliefs of the Chaldeans; that is, the pagans of Harran, whose progenitor is said to have been Cainan's father, Arphaxad, the son of Shem and grandson of Noah.[7] The name Arphaxad simply means "Ur of the Chaldees,"[8] taking us back to the site of Abraham's birthplace in nearby Şanlıurfa.

Was the stone stela found by Cainan and said to reveal the astrological knowledge of the Watchers a reference to the beautifully carved T-shaped pillars found at nearby Göbekli Tepe, some of which, as we see in part two of this book, seem to reflect a profound knowledge of the starry heavens during the epoch of their construction? Was this the true source of the Harranites' starry wisdom, adopted from their forerunners, who inhabited Tell Idris and other similar early Neolithic settlements on the Harran Plain as much as ten thousand years ago?

Further linking the Harran region with the Watchers is the belief

that the city of Şanlıurfa, where a settlement site belonging to the same culture responsible for Göbekli Tepe was uncovered near Abraham's birthplace during the 1990s, was founded either by the patriarch Enoch[9] or by "Orhay son of Hewya," with *hewya* meaning "serpent."[10] Almost certainly, this serpentine founder of the city is an allusion to the Watchers, who are themselves occasionally described as Serpents (see chapter 34). Was it here, in Şanlıurfa, that Enoch met with the two Watchers who took him on a tour of the Seven Heavens, a mountainous realm that included the Garden of Righteousness?

What exactly was the Garden of Eden, where Adam and Eve are said to have lived in a state of perpetual bliss before the time of the Fall? Was this the true home of the Watchers of the book of Enoch? Could its discovery hold the key to understanding the origins behind humankind's contact with angels during some former age? Did it exist at Göbekli Tepe or somewhere else—in the mountains to the

northeast, perhaps, where the four rivers of Paradise take their rise?

Only by understanding the mysteries of Göbekli Tepe would any real answers be forthcoming, and so it is here that our quest must begin, starting with its rediscovery in 1994 by a brilliant-minded German archaeologist, to whom we owe its existence today.

I will ask the reader to bear with me now as I switch from a first person to a third person narrative in order to determine who built Göbekli Tepe, and why. My personal quest is resumed in part four, when a powerful dream initiates a fresh search for the source of the terrestrial Paradise.

It is an intellectual adventure that will culminate not only in the discovery of Eden but also in the realization that the true meaning behind humanity's fall from grace, in the wake of the Neolithic revolution, is integrally bound up with the secret writings of Seth, the son of Adam. These forgotten books of Seth, glimpses of which can be found in Gnostic literature, tell us that in order to truly return

to Paradise and partake of the immortality offered by the Tree of Life, we must first become like angels ourselves, as once we were in the Garden of Eden.

PART ONE

Construction

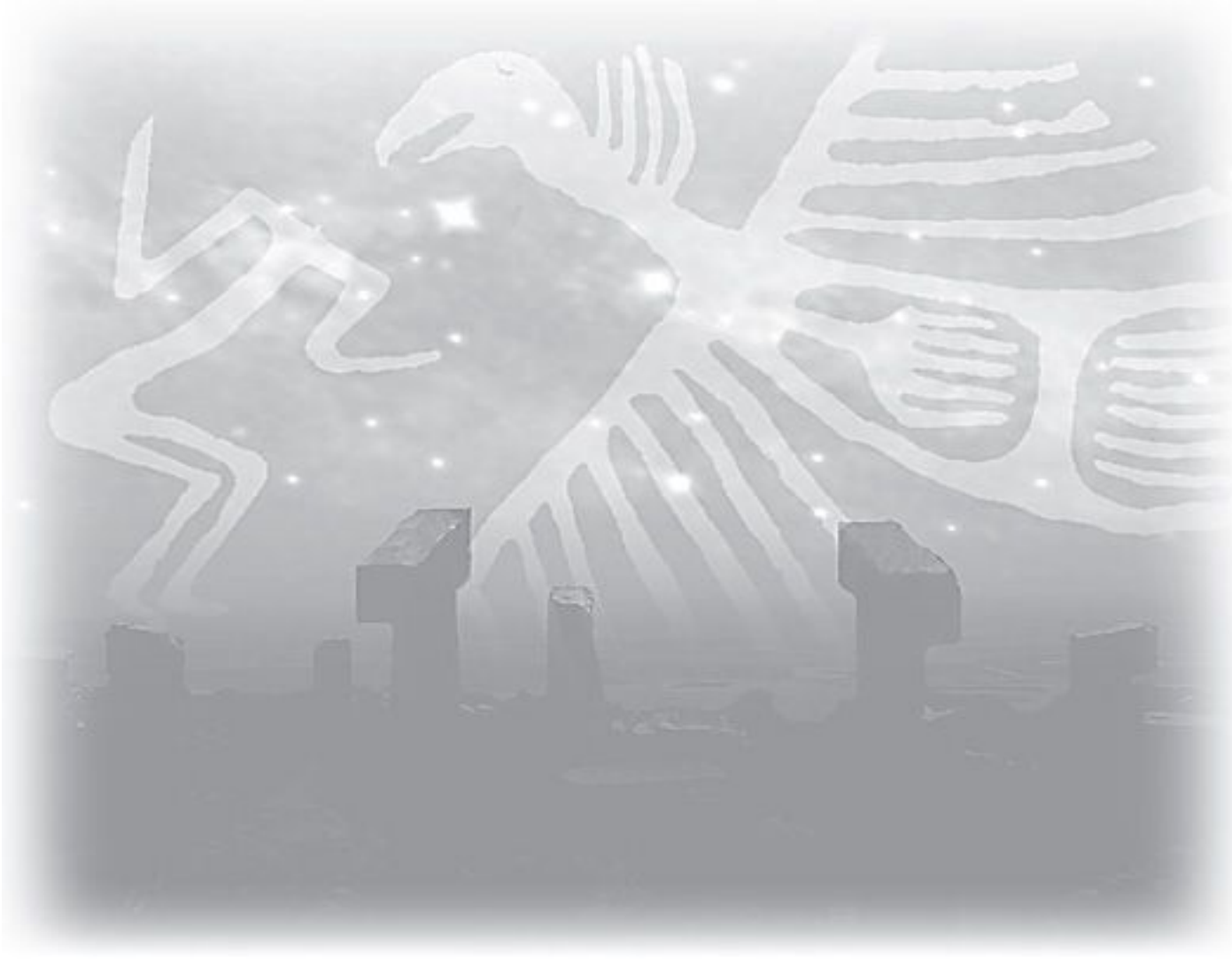

1

A LIFETIME'S WORK

One day in October 1994 Professor Klaus Schmidt, an archaeologist working with the German Archaeological Institute and the University of Heidelberg, made the trek out to a bleak limestone plateau, situated close to the southernmost limits of the Anti-Taurus Mountains, just 8 miles (13 kilometers) northeast of the Turkish city of Şanlıurfa. It was a decision that would change his life forever and alter the very way we perceive the rise of civilization in the ancient world.

Schmidt's intention was to inspect a large artificial mound composed of earth and rock debris, which sits on a mountain ridge

that rises to a height of just under half a mile (780 meters) above sea level. Stretching away toward the south lay the Harran Plain, where the patriarch Abraham is said to have set out on his journey to the Promised Land some seven thousand years *after* the incredible events that gave rise to the almost alien world that awaited discovery here at Göbekli Tepe, the "hill of the navel."[1]

SITE V52/1

Schmidt knew that as early as 1963 a joint team from the universities of Istanbul and Chicago had visited the site and identified a number of "knolls," or rises, that cover an area of some 3.5 acres (1.44 hectares)—a figure extended to 22 acres (9 hectares) following a geomagnetic survey of the site in 2003.[2]

The 1963 expedition noted that immediately west of Göbekli Tepe's rounded summit prehistoric stone tools lay strewn across a

wide area. They belonged to an age when the inhabitants of southeast Anatolia (modern-day Turkey) were making the transition from hunter-gatherers to settled pastoralists and farmers.

The survey team also recorded the presence at Göbekli Tepe (documented as site V52/1) of cut and dressed slabs of limestone bearing evidence of carved relief. Team member Peter Benedict, an anthropologist with the University of Chicago, concluded the fragments came from a lost Byzantine cemetery. It was a decision influenced perhaps by the fact that the local Kurdish community consider the *tepe* or *tell*—these being, respectively, the Turkish and Arabic words for a large artificial mound created by human occupation—as sacred, using it themselves as a cemetery for their dead. At its summit, modern graves lie within a walled enclosure clustered around a single fig-mulberry tree, a sight clearly visible to anyone approaching the mountain from the plain below.

Göbekli Tepe was not investigated further, with the entire matter being confined to a single report published in 1980.[3] Instead, the joint Istanbul-Chicago team concentrated their efforts on excavating an important early Neolithic site at Çayönü Tepesi, located 4 miles (6 kilometers) southwest of the town of Ergani, northwest of the city of Diyarbakır. Having thrived, in the main, between ca. 8630 BC and 6820 BC, Çayönü is noted for the discovery there of a series of rectangular buildings with distinctive "grill-plan" subfloors composed of low, parallel walls of stone, possibly to allow air to pass freely beneath the main flooring. Here too was found some of the earliest evidence for the use of copper, beaten into shape, not smelted, along with evidence of animal husbandry in the form of pig domestication and the earliest known use of linen fabric, a piece being found still wrapped around an antler.

The site's lead excavators, American archaeologist and

anthropologist Robert J. Braidwood (1907–2003) and Turkish academic Dr. Halet Çambel, also came across other examples of advanced building design and technical achievement at Çayönü. In addition to the grill-plan floors, one structure, dubbed the Flagstone Building, was found to possess a floor of polished limestone slabs up to 6.5 feet (2 meters) in length. Two tall stone pillars stood in the center of the room, with rows of orthostats (stone posts) set up against the interior walls.[4]

Another structure, known as the Terrazzo Building, bore a slightly different, although no less impressive, style of flooring. It consisted of a 16-inch (40 centimeter)-thick setting of terrazzo, a hard, polished surface made from burnt and crushed lime and clay, stained red with a substance called ochre. Into this, two parallel rows of white pebbles had been inserted to create a linear design of simple beauty. Orthostats again lined the interior walls, while a pair of standing stones, like those in the Flagstone Building, had been set

up in the middle of the room.

Prior to the discovery of Çayönü, the use of orthostats had been found in just a few rare instances. For instance, at a proto-Neolithic site in northern Iraq named Qermez Dere, located on a south-facing mountain slope overlooking a vast desert expanse known as the Jezirah, stone pillars, their tops carved into the likeness of human shoulders and arms, were found to have stood at the center of two circular buildings with plaster floors. Both structures provided dates in the region of the early tenth millennium BC.[5]

SANGUINE DISCOVERIES

In one of the enclosures at Çayönü archaeologists discovered, both in the walls and beneath the floor, human skulls belonging to around seventy individuals. In one pit excavators came across large numbers of disarticulated human bones, most of them long bones,

which, along with the skulls, suggested the presence of no less than 450 individuals. What fate had befallen them, and under what circumstances, remains unclear.

Unsurprisingly, this apparent mortuary structure, which had a round apse at its northern end, became known as the Skull Building, although it was what excavators found on an enormous cut and polished stone slab, 1.1 U.S. tons (about 1 metric tonne) in weight and set up like an altar table, that most disturbed them. On its surface were clear traces of blood from aurochs (an extinct species of wild cattle) *and* humans, in the form of crystals and hemoglobin.[6] Equally disturbing was the discovery next to the stone slab of a vicious-looking flint knife, like something out of an Aztec temple.

Some pressing questions arise regarding the presence of human blood inside Çayönü's cult buildings. Was it the result of human sacrifice or autosacrifice, personal blood-letting like that practiced in pre-Columbian times among Mesoamerican civilizations such as

the Aztec and Maya? Perhaps the matter is best left alone until a much clearer picture emerges of what was really going on here. Yet whatever the answer, it would seem that, during the early Neolithic age, beauty, sophistication, and advances in technology and architectural design went hand in hand with dark, sanguine activities, just as they would thousands of years later among the peoples of Central and South America.

NEOLITHIZATION

For those who study the prehistory of the Near East, the transitional age between the hunter-gatherers of the late Paleolithic age and the later Neolithic farmers and herders is styled the Pre-Pottery Neolithic, a term devised by British archaeologist Dame Kathleen Kenyon (1906–1978) following her extensive excavations at Jericho in the 1950s. It is a term used much in this book, although in its

formative stage this era is described as the proto-Neolithic period, while in Europe this same epoch is called the Mesolithic age (see figure 1.1 on p. 22).

The Pre-Pottery (i.e., preceramic) Neolithic age is split into two separate phases—A and B. The Pre-Pottery Neolithic A (PPNA) is generally seen to have occurred between ca. 9500 BC and 8500 BC, with the Pre-Pottery Neolithic B (PPNB) taking place between ca. 8700 BC and 6000 BC.[7] This marked the appearance of subsistence agriculture; that is, the domestication of plants and cereals, as well as the growing of crops on a large scale. Thereafter came the Pottery Neolithic, ca. 6400–4500 BC, when "neolithization" really began. It was an age not just of fired pottery but also of the rapid spread of agriculture from Western Asia into other parts of the ancient world, such as Europe, Central Asia, and the Indus Valley of India and Pakistan.

ARCHAEOLOGICAL MINEFIELD

Professor Klaus Schmidt was mainly concerned with the Pre-Pottery Neolithic on his first visit to Göbekli Tepe. He understood full well why the Joint Istanbul-Chicago Prehistoric Survey Team had focused their attentions on Çayönü instead of better investigating Göbekli Tepe, for, as he said himself: “Time was not ripe to recognize the real importance of this site . . . [so] Göbekli Tepe passed into oblivion, and it seems quite clear that no archaeologist returned to the site until the author’s visit in 1994.”[8]

Years BC	Geological Period	Suggested Dates	Cultures	Suggested Dates	Zagros/Iraq	Suggested Dates	Anatolia	Suggested dates
19,000								
	Last Glacial Maxim	18,500-17,000 BC	Middle Epi-Paleolithic	18,500-14,500 BC				
18,000					Zarzian	18,000-11,000 BC		
17,000								
16,000								
15,000								
			Late Epi-Paleolithic	14,500-9500 BC				
14,000								
13,000								
	Allerød interstadial	12,600-10,600 BC	Natufian	12,500-9500 BC				
12,000								
							Abu Hureyra	11,340-5500 BC
11,000	Younger Dryas	10,900-9600 BC						
							Hallan Çemi	10,250-9600 BC
10,000							Qermez Dere	10,050-9650 BC
	Holocene	9500 BC-present	Pre-Pottery Neolithic A	9500-8500 BC			Göbekli Tepe	9500-8000 BC
9000							Çayönü	8800-7000 BC
			Pre-Pottery Neolithic B	8700-6000 BC			Nevalı Çori	8500-7000 BC
8000							Aşıklı Höyük	8000-7400 BC
							Çatal Höyük	7500-5700 BC
7000								
			Pottery Neolithic	6400-4500 BC				
6000					Halaf	6000-5000 BC		
					Ubaid		Tell Arpachiyah	5200-4500 BC
5000								
			Chalcolithic	4500-3300 BC		5000-4100 BC		
4000					Uruk	4100-2900 BC		
3000			Bronze Age	3300-1200 BC	Sumer	2900-1940 BC		
					Akkad	2334-2154 BC		
2000					Assyria	2300-605 BC		
					Babylon	1894-331 BC		
1000								

Figure 1.1. Chart showing dates of the Near Eastern cultures, civilizations, and paleoclimatological ages mentioned in this book.

Thankfully, Schmidt *did* make the decision to visit Göbekli Tepe and see for himself what the site had to offer, and it took him very little time to realize that beneath the huge artificial mound of reddish brown earth and compacted stone chippings, a Pre-Pottery Neolithic complex of immense significance awaited discovery.

Schmidt also realized that the carved stone fragments scattered about Göbekli Tepe were more than simply funerary slabs belonging to some lost Byzantine cemetery. They closely resembled pillars unearthed at another Pre-Pottery Neolithic site, named Nevalı Çori[9] (see figure 1.2), located on a hill slope overlooking a branch of the Euphrates River, halfway between Şanlıurfa and Diyarbakır, some 30 miles (48 kilometers) north-northeast of Göbekli Tepe. He knew this because he had worked at the site under the auspices of

fellow German archaeologist Dr. Harald Hauptmann from 1983 through to 1992, when the rising waters of the Euphrates submerged Nevalı Çori following the construction of the Atatürk Dam.

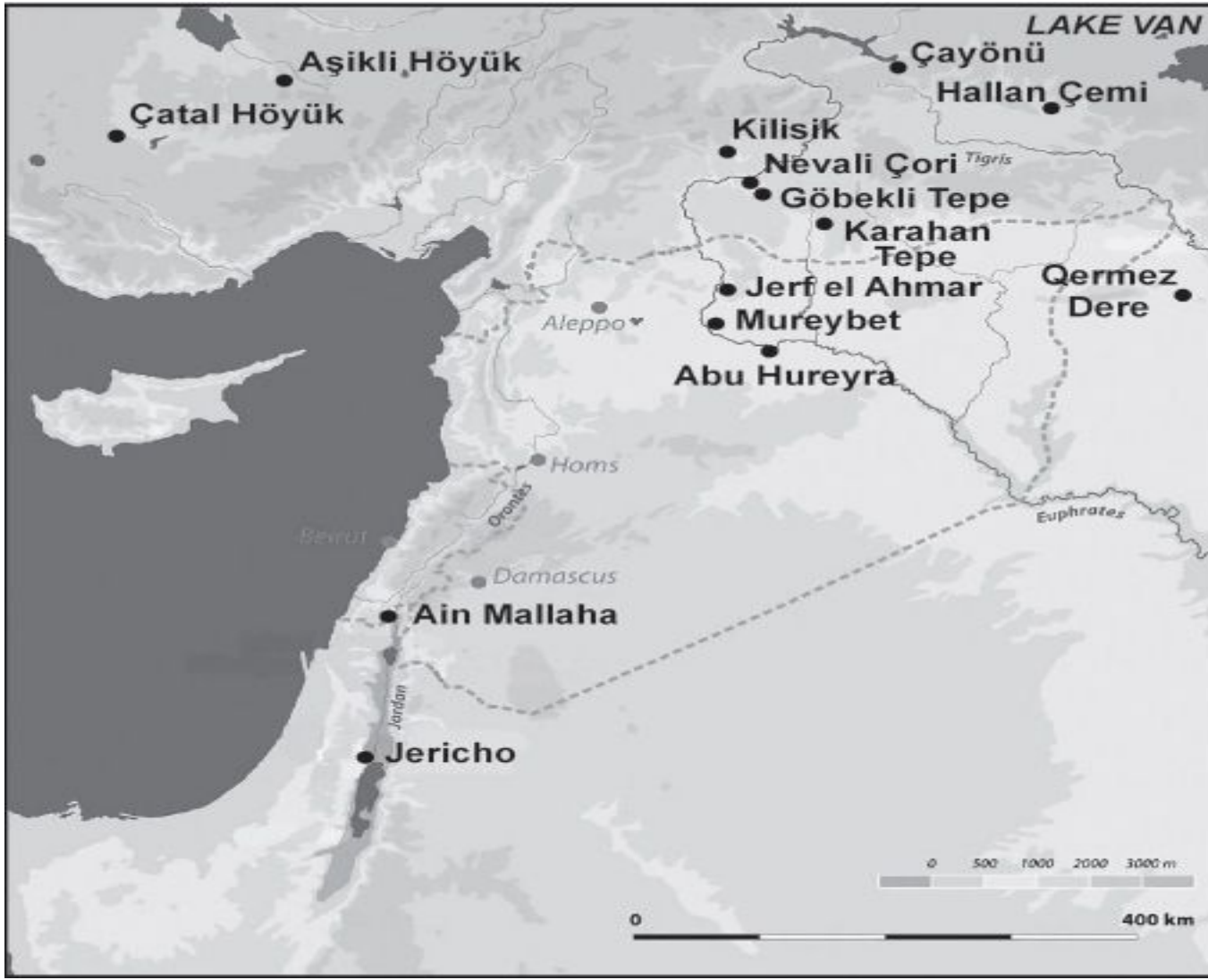
LAKE VAN
Çayönü
Hallan Çemi
Aşikli Höyük
Çatal Höyük
Kilisik
Nevali Çori
Tigris
Göbekli Tepe
Karahan Tepe
Jerf el Ahmar
Qermez Dere
Aleppo
Mureybet
Abu Hureyra
Homs
Orontes
Euphrates
Beirut
Damascus
Ain Mallaha
Jordan
Jericho
0 500 1000 2000 3000 m
0
400 km

Figure 1.2. Map showing Pre-Pottery Neolithic sites in southwest Asia mentioned in this book.

THE CULT BUILDING

Nevalı Çori was found to consist of a series of rectangular buildings clustered together to form a village settlement, which thrived between 8500 BC and 7600 BC; that is, from the end of the PPNA into the PPNB period. Among the structures uncovered by Hauptmann and his team was one much grander than the rest. Its rear wall backed up to the hill slope, while its interior walls, made of quarry stone, included a communal benchlike feature. This was divided into sections by equally spaced stone pillars, each with a T-shaped or inverted L-like termination. During one of its earliest building phases, designated Level II and dating to ca. 8400–8000 BC, twelve standing pillars had stood within its walls (two on each

side and one in each corner), with the number increasing to thirteen during the next phase, designated Level III, ca. 8000 BC (see figure 1.3). Like its counterpart at Çayönü, Nevalı Çori's megalithic structure possessed a terrazzo floor of burnt lime cement, beneath which was a subfloor of huge stone slabs.

During the Level II building phase, a squared-off niche was constructed into the rear wall of the cult building. Here excavators found an elongated carved head with its face missing. Nicknamed the "skinhead," it is roughly life size and looks like an egg with ears. On its reverse is a highly unusual *sikha,* a long ponytail that resembles a wriggling snake with its head shaped like a mushroom cap. The "skinhead" originated, most probably, from a full-size statue, which having become detached from its body, had been hidden away within the building's north wall.

THE GREAT MONOLITH

The item placed within the building's terrazzo floor, however, was what most compelled the excavators, for standing in the center of the room were the remains of a tall, rectangular pillar bearing an uncanny likeness to the black obsidian monolith that appeared among the apelike creatures at the beginning of Stanley Kubrick's movie adaptation of Arthur C. Clarke's *2001: A Space Odyssey* (figure 1.4).

Figure 1.3. Nevalı Çori's cult building, showing cutaways for Levels II and III, ca. 8400–8000 BC.

Figure 1.4. Nevalı Çori's cult building, showing the surviving central monolith still in situ.

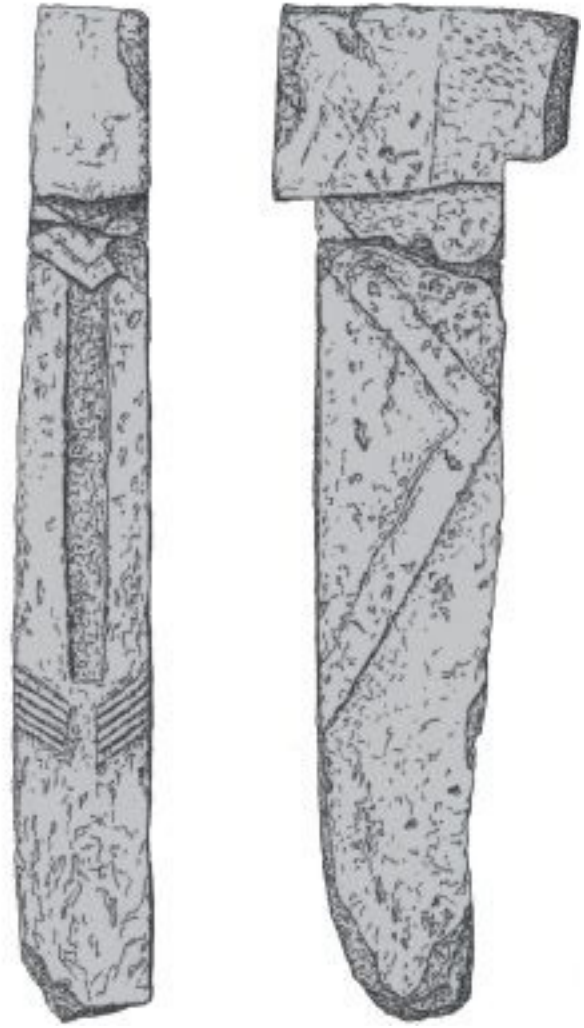

Figure 1.5. One of the stone pillars from Nevalı Çori. Note the stylized arms, hands, stole, and neck pendant.

The pillar, originally 10 feet (3 meters) high, had been carved to represent an abstract human form. In relief across its two widest faces were thin arms, bent at the elbow, with hands and fingers curling around to its front, narrow edge (see figure 1.5 schematic). Anthropomorphic shaping had previously been noted among the remains of the twelve to thirteen standing pillars that had been erected within the building's four walls, but that displayed on the central pillar was far more accomplished. Above the figure's hands were two parallel grooves, or chiseled vertical lines, clearly meant to represent the double hem of a woven garment, open to the waist, which some have seen as a scarflike stole, similar to that worn by a Catholic priest.

A broken fragment of the same pillar lay nearby. Its base matched the top of the standing remnant, although its upper end was so

damaged that no semblance of the individual's head could be discerned. In spite of this, it was clear from the presence of the other stone pillars in the walls that this much larger monolith would once have had a T-shaped termination, creating a hammerlike head. As such, it constituted one of the world's oldest known 3-D representations of the human form.

A hole in the terrazzo floor close to the standing pillar showed that a second monolith must have stood parallel to it, although any trace of its presence had long since disappeared. Like the stone pillars in the walls, the twin pillars perhaps functioned as roof supports, although this is by no means certain. Twin sets of standing pillars had been found in the Flagstone Building and Terrazzo Building at Çayönü. Yet here it was the stone slabs' wider faces, and not one of their narrow sides, that had greeted the entrant approaching from the south.

A PERSONAL DIVINITY

So who or what did the twin pillars represent? Archaeologists at the time suggested they symbolized a "personal divinity."[10] This might have been so, but it did not explain why there were two monoliths side by side or why they faced out toward the cult building's southwesterly placed entrance (the building was found to be oriented almost exactly northeast to southwest). Perhaps the pillars were positioned to greet the entrant, like twin *genii loci* (spirits of the place) guarding the enclosure's inner sanctum. Very likely this presumed liminal, or sacred, area signified an otherworldly environment that existed beyond the mundane world. Indeed, it probably reflected the presence of a parallel realm, a supernatural world, accessible either in death or through the attainment of deathlike trances and other forms of altered states of consciousness, with the aim being to communicate with power animals, great ancestors, and mythical beings.[11]

Klaus Schmidt had all this in mind as he examined the various carved fragments of "large-scale sculptures"[12] found scattered about Göbekli Tepe. Quickly, he realized that "the entire area had been used for the construction of megalithic architecture, not just a specific part of it."[13] He saw its function as ritual in nature.[14] Indeed, Göbekli Tepe's building structures would, he felt, reflect the same cultic influences as those at Çayönü and Nevalı Çori.

Having seen enough, Schmidt came to a frightening conclusion. If he did not turn around and walk away now, he would be there for the rest of his life. As fate would have it, he decided to stay and commit himself to excavating the site fully, and we can be thankful for Schmidt's decision, as it was afterward discovered that the entire hillside was about to become an open quarry to supply rock for the construction of the new Gaziantep to Mardin highway, a decision that was reversed only when the importance of the archaeological

site became known.[15] So we can be pretty sure that without the intervention of this quick-thinking German archaeologist, the world might never have gazed upon the oldest stone temple in the world.

2

MONUMENTAL ARCHITECTURE

Under the joint auspices of the German Archaeological Institute and the Archaeological Museum at Şanlıurfa, Dr. Klaus Schmidt started work at Göbekli Tepe in 1995. Very soon his team, made up of undergraduates from German and Turkish universities, as well as fifty local workers of Kurdish, Turkish, and Arab ethnicity, began making remarkable discoveries. Beneath the mound's topsoil his team came across stone pillars set vertically into the ground. Each one was found to have a T-shaped head like those uncovered at Nevalı Çori.

Two principal structures were investigated between 1995 and

1997 at Göbekli Tepe. One—uncovered immediately west of the solitary fig-mulberry tree with its tiny walled cemetery of modern graves—was a rectangular enclosure that became known as the Lion Pillar Building because of the discovery at its eastern end of twin pillars with carved reliefs of leaping lions on their inner faces (see plate 17). The other was called the Snake Pillar Building.

SNAKE PILLAR BUILDING

The Snake Pillar Building was located beneath the southern slope of the occupational mound, some 50 feet (15 meters) lower in depth than the Lion Pillar Building. Designated Enclosure A, it sits on the mountain's limestone bedrock, suggesting its extreme age. Excavators found it to contain five T-shaped pillars standing about an arm's length apart from one another. As at Nevalı Çori, they were set within quarry stone walls with stepped benches, a thin

layer of clay mortar between each block.

Two pillars stood parallel to each other, with another two placed on the same alignment outside of them; a fifth, south of the central pillars, stood within the perimeter wall, one of its narrow edges facing toward the center of the room (a sixth pillar was found just outside the interior walls). The inner pair of stones acted as a gateway into a round apse containing a hemispherical stone bench, constructed at the rectangular structure's northwest end; a similar apse had previously been recorded in connection with Çayönü's Skull Building. As was the case with Nevalı Çori's cult building and Çayönü's Terrazzo Building, Enclosure A possessed a perfectly level terrazzo floor that covered the underlying bedrock.

Like the pillars in the Lion Temple Building, those in Enclosure A turned out to be revelations in prehistoric art. Pillar 1, the first to be exposed, bore on its front narrow face five slithering snakes, their heads pointing downward. One of the stone's wide surfaces

displayed more snakes interwoven to form a mesh-like pattern of diamonds, collectively forming a snakeskin pattern (see figure 2.1).

Pillar 2 bore reliefs of an auroch, a leaping fox, and a wading bird, most likely a crane (see plate 4). At the top of the pillar's front narrow edge, just beneath the overhang of the hammer-shaped head, was a small bucranium (ox skull) in high relief. It faced outward toward the viewer, and its whereabouts on the figure made an interpretation easy. Anthropomorphic pillars found at Nevalı Çori had been found to possess a V-shaped relief, like a neck collar, in exactly the same place. In other words, the bucranium was, most likely, a carved pendant or emblem of office, worn around the "neck" of the figure.

CULT OF THE SNAKE

Pillars 3 and 4 were without relief, while Pillar 5 bore yet another

representation of a snake. This strong presence of serpentine imagery on the carved stones at Göbekli Tepe begged the question of just what this creature might have symbolized to the peoples of the Pre-Pottery Neolithic age.

Universally, snakes are seen as symbols of supernatural power, divine energy, otherworldly knowledge, male and female sexuality, and, because they shed their skin, metaphysical transformation. The snake also represents the active spirit of medicines, the reason it is today a universal symbol of the medical profession through its association with the cult of Asclepius, the Greek god of medicine and healing. Moreover, the snake is associated not just with beneficial medicines, but also with those that bring forth hallucinations and even death. In Christian legend, for instance, poison offered to John the Evangelist in a laced chalice of wine was made to slither away as a black snake moments before the apostle was about to drink it.

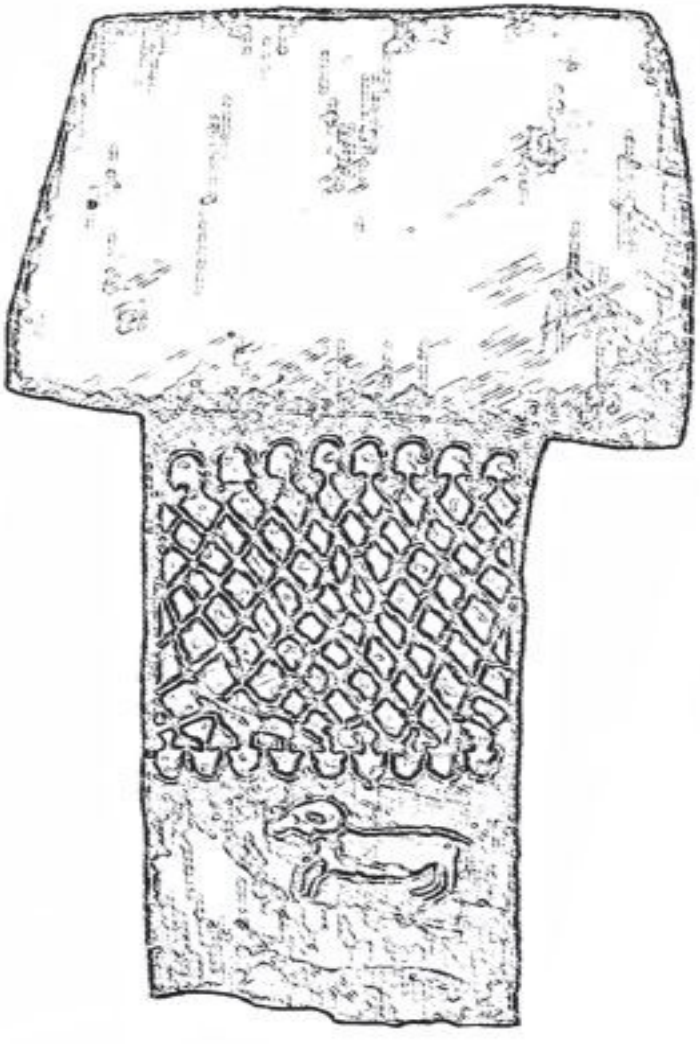

Figure 2.1. Snakes seen on Göbekli Tepe's Pillar 1 in Enclosure A.

Are the snakes carved on the pillars at Göbekli Tepe meant to symbolize the visionary effects of psychotropic (mind-altering) or soporific (sleep-inducing) drugs? It seems likely, for as Schmidt writes himself, several large basalt bowls found at the site were perhaps used in the preparation of medicines or drugs.[1]

Visionary snakes are the most common creatures glimpsed by shamans and initiates during ecstatic or altered states of consciousness induced by mind-altering substances, which among the indigenous peoples of the Amazonian rainforest is most commonly the sacred brew called yagé or ayahuasca, known as the "vine of the soul."[2] These serpentine creatures are seen as the active spirit of the drug and can even communicate with the shaman or initiate.

More pertinent to the decorative art at Göbekli Tepe is that during

yagé or ayahuasca sessions, visionary snakes appear in such profusion that on occasion they have been seen to wrap themselves enmass around either the experiencer or nearby houseposts,[3] creating an effect that cannot be unlike the mesh or net of snakes represented on Enclosure A's Pillar 1 and found also on other standing stones uncovered at the site (see figure 2.2). So is this what the snake imagery at Göbekli Tepe shows, rare glimpses of the visionary world experienced by the shaman? Whatever the answer, the presence of so many snakes in Enclosure A was enough to convince Schmidt to christen it the Snake Pillar Building.

ENCLOSURE B EXPOSED

In 1998 and 1999 a new series of trenches, 29.5 feet (9 meters) square, was opened at Göbekli Tepe. One, dug immediately north of the Snake Pillar Building, revealed the presence of a slightly larger

structure, which became known as Enclosure B. This was found to be ovoid, measuring roughly 23 feet (7 meters) by 28.5 feet (8.7 meters), with no less than nine T-shaped pillars—seven placed within its temenos (that is, boundary) wall and two set parallel to each other in the center of a terrazzo floor—like those that had originally stood in Nevalı Çori's cult building. Schmidt remarked that it was like the "T-shapes," as he calls the anthropomorphic pillars, were gathered for "a meeting or dance."[4]

Pillar 6 displayed carved reliefs of a reptile and snake, while those set up in the center of the room (9 and 10) both bore T-shaped terminations and exquisitely carved leaping foxes on their inner faces. The creatures' animated stance made them appear as if they were jumping across the monolith, perhaps toward the entrant who would approach from the south, exactly in keeping with the cult buildings at Çayönü, which also had entrances in the south.

Figure 2.2. Left, poison escapes from the chalice of wine about to be drunk by John the Evangelist in the form of snakes, from a mosaic on the wall of the church of Saint John the Evangelist, New Ferry, Merseyside, England. Right, snakes on the front of Göbekli Tepe's Pillar 31 in Enclosure D. Do they represent the active spirit of medicines and poisons, or do they refer more particularly to visionary experiences induced through the use of psychoactive substances?

NEW TEMPLES DISCOVERED

Work began around the same time on another structure of much greater size, which became known as Enclosure C. Once again, T-shaped pillars were soon exposed, and these too were set radially within stone walls containing the now familiar stone benches. One monolith, designated Pillar 12, was found to bear a carved relief on

its T-shaped head, the first to do so. It showed five birds, either waders or a flightless species, amid a backdrop of V-shaped lines that were perhaps meant to represent water ripples. On the same pillar's shaft was a "threatening boar"[5] shown above a leaping fox. In front of the stone a portable sculpture of a boar was uncovered. Freestanding art of this kind, including carved human heads, are often found to be fragments of much larger pieces of sculpture, such as carved stone totem poles or life-size statues.

Soon after the discovery of Enclosure C, another massive building structure, Enclosure D, was uncovered immediately to its northwest. This would prove to be one of the oldest and most mysterious monuments ever uncovered in the ancient world. Both enclosures, C and D, are described in full within subsequent chapters.

DELIBERATE BURIAL

What started to become apparent to Schmidt's team, as it removed the vast amounts of fill that covered the various building structures beneath the tell at Göbekli Tepe, is that each one had been *deliberately* buried beneath an ever-expanding mound.[6] It was almost as if the idea of creating the bellylike tell, or tepe, was part of an original grand design, with each new enclosure playing some role in its greater purpose, a gradually evolving process that had taken some fifteen hundred years to complete. This ritual act of "killing," or decommissioning, each enclosure before the construction of a new one to take its place would seem to have occurred in stages until around 8000 BC, when the remaining structures were covered over and the site finally abandoned.[7]

For Schmidt and his team the burial of the enclosures was an immense bugbear, as it meant they were not easily able to determine the construction dates of the various monuments uncovered. Despite this problem, Schmidt was able to ascertain from the different types

of flint tool found within the fill that the *earliest* phases of building activity uncovered at Göbekli Tepe belonged to the epoch known as Pre-Pottery Neolithic A, which began around 9500 BC.[8]

THE YOUNGER DRYAS MINI ICE AGE

It is a date that coincides pretty well with the culmination of a mini ice age, or prolonged cold spell, known as the Younger Dryas. This had enveloped much of the Northern Hemisphere for around thirteen hundred hundred years, ca. 10,900–9600 BC, bringing with it a pronounced dip in temperature as well as a sustained drought that severely altered the plant and animal life throughout what is known as the Fertile Crescent. This is the arclike region of verdant river valleys, steppes, and plains that stretches clockwise from Palestine and Israel, through the Levantine corridor of Lebanon, into the Middle Euphrates Basin of northern Syria, then across into

what is known as Northern Mesopotamia, a region that embraces southeast Anatolia, before entering the Mesopotamian Plain, or what is today the country of Iraq.

The Younger Dryas period followed a two-thousand-year episode of global warming known as the Allerød interstadial. This in turn had brought to a close the last ice age proper, which had been with us for approximately ninety-five thousand years, reaching its last glacial maximum around twenty to twenty-two thousand years ago (an interstadial is a period when temperatures rise and glaciers go on the retreat).

With the cessation of the mini ice age, or big chill, ca. 9600 BC, the temperatures rose, bringing about a blossoming of new flora and fauna (in geological terms this point in history marks the transition from the Pleistocene age to the Holocene, which we are still in today). It was an ideal environment for new growth that led to the emergence of agriculture on the Middle Euphrates and farther south

within the Levantine corridor. It was also around this time, Schmidt believes, that hunter-gatherers from across the region came together to create the extraordinary stone structures being uncovered today at Göbekli Tepe, which he is sure were not domestic in nature.

No evidence of fires, hearths, cooking areas, or any other signs of habitation have been found in or around the enclosures at Göbekli Tepe that might indicate the permanent presence here of a large community. Human remains *have* been found, plenty of them, although these are either retrieved from the fill covering the enclosures or are found concealed in walls or benches. Exactly what they are doing here remains unclear.

A LIFE OF BEER

One more anomaly at Göbekli Tepe is that the nearest water source is 3 miles (5 kilometers) away, meaning that any drinking water has

to be carried to the site. This lack of a constant water supply seems illogical, especially given that the construction of the monuments would have required the presence of a labor force involving hundreds of workers and their families, all of whom would have needed to be fed on a daily basis. The only explanation is that the workers lived in settlements nearby and climbed the mountain with sufficient supplies to last them for the duration of their stay.

This said, there is a strong possibility that a form of beer made from wild wheat was on the menu at Göbekli Tepe. Large stone vats unearthed by Schmidt's team have been linked with beer production (see figure 2.3).[9] Whether the beer was brewed for reasons of necessity or for some ritual function remains to be seen, although as an intoxicating beverage it *is* likely to have possessed an otherworldly significance. The term *ale,* used today for beer, originally meant any kind of alcoholic drink made using wheat grain. The word could well derive from the Indo-European root *alu,*

which has definite connotations of shifting realities and altered states of consciousness through its presence in key words such as *hallucinate* and *hallucination*.[10]

CUP MARKS FOR CARRION BIRDS

Another peculiar mystery at Göbekli Tepe is the presence on the exposed bedrock to the southwest of the main enclosures of large cuplike holes, up to 6 inches (15 centimeters) in width and depth (see figure 2.4). There are dozens of them everywhere. Similar cup marks are to be seen on top of some of the standing pillars, while clusters of them are found also at other Pre-Pottery Neolithic sites across the region.

On asking Klaus Schmidt what he thought these cup marks represented in September 2012, he shrugged his shoulders and said they are found everywhere, often in the company of carved rings

marks, like those in Britain. Yet clearly they did once have a function, and the most obvious solution is that they were receptacles for something, either liquid—blood, beer, milk, or water perhaps—or, more likely, some type of food such as meat. Because they almost always seem to be carved in elevated positions, it appears possible that whatever they contained were offerings to carrion birds such as vultures, crows, or ravens, which might well have played some kind of symbolic function in the rituals taking place inside the sanctuaries (a large number of bones belonging to both the crow and raven have been found within the fill at Göbekli Tepe[11]).

Figure 2.3. Minor enclosure at Göbekli Tepe, dating to ca. 8500–8000 BC, showing a stone container thought to have held beer.

Figure 2.4. Examples of the incised cup marks found on exposed bedrock in the vicinity of Göbekli Tepe's Enclosure E.

Scavenger birds such as vultures play an important role in the

Neolithic cult of the dead (see chapter 9), and so gaining their favor in a divinatory manner might well have been important to the success of a ritual. In other words, if the birds came down and took away the meat, it was a good omen, and if they didn't, then the opposite would be the case.

Interestingly enough, divination has been proposed as an explanation for the presence of similar cup marks found on exposed rock surfaces in the area of Mount Ararat in eastern Anatolia. Armenian prehistorians speculate that although the true purpose of the cup marks has now been lost, they were probably "used by oracles during fortune telling," a very credible explanation indeed, which sits well with their possible function at Göbekli Tepe.[12]

ENGINEERING CONUNDRUM

The standing pillars found in the various enclosures at Göbekli Tepe

are regularly between 6.5 and 10 feet (2 and 3 meters) in size and are thought to weigh between 5.5 and 16.5 U.S. tons apiece (5 and 15 metric tonnes). Even more of an enigma is that sitting in a quarry a quarter of a mile (400 meters) away from the occupational mound is an unfinished T-shaped monolith some 22.9 feet (7 meters) in length and 9.8 feet (3 meters) broad, with an estimated weight of approximately 55 U.S. tons (50 metric tonnes).[13] As Schmidt asked back in 2001:

> How could the manpower be amassed at the mound to move such pillars? It seems obvious that only organized meetings of several groups of hunter-gatherers from the territories around Göbekli Tepe would be able to provide the capabilities for such an undertaking, meetings rooted in a ritual background.[14]

As Schmidt admits, the construction of huge megalithic architecture is not thought to have begun until many thousand years

later at places such as Egypt and Stonehenge in England. Never before had the archaeological community conceived of such feats of monumental engineering going on even before the wide-scale appearance of agriculture. From the faunal (animal) remains retrieved from the fill covering Göbekli Tepe's occupational mound, it would seem that the main food source was wild game such as gazelles, red deer, wild boar, aurochs, and wild sheep,[15] supplemented with copious amounts of almonds and pistachios.

NEOLITHIC REVOLUTION

In Schmidt's opinion: "Hunter-gatherers living at Göbekli Tepe for an extended time would have caused a serious over-exploitation of the local natural resources."[16] For him the coming together of so many people led to the domestication of wild species of cereals and other plants in order to feed those present both here and at other

similar sites across southeast Anatolia, causing what Australian archaeologist and philologist V. Gordon Childe (1892–1957) long ago christened the Neolithic revolution.

Yet Childe saw it the other way around—the rapid spread of agriculture at the beginning of the Neolithic, and the more settled lifestyle it brought with it—gave people time to invent new technologies and to think about the mysteries of life, leading to the construction of the first temples, an act that led to the creation of cities and civilizations. Now we know Childe was wrong. It was the temples that came first, with agriculture created in their wake to satisfy the needs of so many people engaged in the construction and maintenance of such mammoth building projects.

THE ORIGINS OF AGRICULTURE

Such a theory makes sense of another puzzling enigma that

prehistorians are still trying to fully understand. Genetic research into the origins of cereal production has determined that no less than sixty-eight modern strains of wheat, used by us today to make bread, beer, pasta, and other products, can be traced back to a variety of wild einkorn that grows on the slopes of Karaca Dağ (pronounced *ka-rag-a dar*), a volcanic mountain just 50 miles (80 kilometers) northeast of Göbekli Tepe.[17] This means that wheat might well have been domesticated for the first time only a short distance away from the site of humanity's earliest known example of monumental architecture.

Over an extensive period of time einkorn was gradually domesticated through selective cultivation to create a much stronger variety whereby the kernels remained on the plants, instead of falling to the ground. This enabled a higher wheat yield through the heads being able to ripen better before harvesting took place.

Was it possible that the domestication of wheat occurred in

southeast Anatolia in response to the sheer need to feed so many groups of hunter-gatherers either laboring away on site or visiting Göbekli Tepe as part of some huge sociomagical gathering? “Their idea, to meet again and again at a specific place,” Schmidt argues, “seems to be a basic factor of the origins of neolithization.”[18] Here then, really, is where the revolution began—the revolution in becoming Neolithic, in becoming farmers tilling the fields, herding animals, and living more communal lifestyles. It was a turning point in human existence that quite literally paved the way for the rise of civilization, which had its beginnings in what was happening at Göbekli Tepe some 11,500 years ago.

3

FROZEN IN STONE

A large number of the T-shaped pillars seen in the various enclosures at Göbekli Tepe show beautiful carvings of strange, eerie, and often terrifying creatures of the natural world. Those most frequently represented are, in order, snakes, leaping foxes, wild boars, and cranes. Others seen include aurochs, gazelles, lions, wild sheep, lizards, scorpions, spiders, and ants (with at least one bear and a hyena identified as well). Various species of bird are also found, including flamingos, vultures, ibises, and flightless birds. In addition to this, excavators have found a number of 3-D statues that include boars, aurochs, and at least three teeth-bearing predators,

most likely wolves. These can be seen today in Şanlıurfa's museum of archaeology.

Too many species are represented by the carved art to easily assess what exactly they all mean or why there are so many creatures portrayed together, and perhaps this is a clue to their greater purpose. It is almost as if they constitute a snapshot of the abundance of life that existed when the monuments were constructed shortly after the end of the last Ice Age. Yet for the most part these are not friendly creatures by any stretch of the imagination: they bite, gore, claw, sting, tear apart, and generally kill whatever gets in their way. They are not the kind of animals you would want to be locked inside a claustrophobic room with, without any means of escape.

None of the animals shown on the stone pillars at Göbekli Tepe are nice cuddly creatures, even though some of them, such as the auroch, wild boar, wild sheep, and even the wolf, would afterward

become domesticated. Clearly, this was meant to be the case, suggesting that someone, an entrant or initiate, finding him- or herself inside an enclosure, would immediately be presented with a terrifying visual spectacle illuminated either by natural light or by torches of some kind. It was an assault on the senses that would have induced not a state of peace and calmness, but one of fear and alertness, something that must have been all too familiar to the hunter-gatherer, whose whole life was centered around the struggle for survival on a day-to-day basis.

Yet such mental assaults were perhaps not simply for focusing the mind on the dangers of the hunt, especially as by this time people were beginning to settle into more communal lifestyles away from the immediate concerns of the chase. There was clearly something else going on here, something that plunges us into the realm of deep-seated, instinctual psychological states.

For example, when we look at the magnificent accomplishment

of the Paleolithic artists that entered the deepest caves of northern Spain and southern France to execute their work toward the end of the last ice age, ca. 30,000–9500 BC, a sense of immense beauty and tranquility is conveyed. This is in complete contrast to the overall sense of fear and anxiety that exudes from the more chilling art of Göbekli Tepe. This, simply from its manner of execution, has more in common with the visual art of the pre-Columbian civilizations of Central and South America than it does the majestic cave paintings of southwest Europe. It is an impression that only deepens the more we examine the various enclosures at Göbekli Tepe.

ENCLOSURE C

Of all the structures so far uncovered at Göbekli Tepe, by far the most complex is Enclosure C, which, like Enclosure B, is ovoid in

appearance, being roughly 75 feet (23 meters) by 60 feet (18 meters) in size. It consists of two concentric walls of stone (the inner one being built after the structure's original construction[1]), each containing various pillars, most of them T-shaped.

At the center of the enclosure two enormous twin monoliths once stood. Only their stumps remain in situ, with a large fragment of the western monolith (Pillar 37) being reerected in 2009 under the leadership of German architect and engineering consultant Eduard Knoll. Similar to the central pillars in Enclosure B, a leaping fox appears on its inner face, the animal's gaze once again directed southward. Estimates suggest that originally Enclosure C's twin pillars would have stood around 16 feet (5 meters) in height. Yet unlike those of Enclosure B, these examples have not been set within a terrazzo floor. Instead, they are slotted into rectangular grooves cut into raised, steplike pedestals sculpted out of the bedrock.

A large area of smoothed bedrock, elliptical in shape, complete with a pair of rock-cut pedestals that also contain rectangular slots, had earlier been found on level ground 160 yards (146 meters) west-southwest of Göbekli Tepe's main group of structures. Yet here, in what has become known as Enclosure E, or the *Felsentempel* (German for "rock temple"), no clear evidence of any standing pillars or surrounding structure survives today. This said, it is clear that Enclosure E is of the same general age as Enclosure C.

Adjacent to Enclosure C's western central monolith is one of the most remarkable T-shaped stones discovered so far at the site. Running down the front narrow edge of Pillar 27 is a 3-D predator, a famished quadruped, with a long bushy tail and emaciated body. Its snarling jaws, complete with carved lines signifying whiskers, reveal a mouth full of razor-sharp teeth. That such a feat of artistic expression was carried out eleven thousand years ago by simple hunter-gatherers seems almost alien, although achieve it they did.

As to the identity of this predator, Schmidt believes it is a feline, a lion most probably. Yet the shape of its body, the large incised teeth, and the long bushy tail make a case for its being a canine of some description.

A DOUBLE RING OF STONES

The exact number of standing pillars Enclosure C's outer ring once possessed is now lost, with just eight remaining in place. Its inner ring probably contained twelve T-shaped pillars, with eleven surviving today. The area between the two concentric walls into which the stones were set created a circular walkway, although there was no direct means of access from here into the central enclosure where the twin monoliths were located. So how might entry have been achieved? The answer is that either a porthole stone once existed within the wall of the inner ring (several such stones,

some decorated with carved figures, have been found at the site), or the entrant had to quite literally climb inside, perhaps using ropes or a ladder. This is suggested by the presence of a steplike feature on the south side of the enclosure between two pillars, forming what appears to be an entranceway of some kind (see plate 7).

Another possibility is that there was once an overhead entry point within a covered roof. Certainly, there are angled slots and grooves on the upper surfaces of some of the stones making up Enclosure C's inner circle, which could easily have been cut to help support an overhead structure. Yet whether a roof of this sort was an original feature or one added at some later point remains unclear. Archaeologist Ted Banning of the University of Toronto has proposed that the T-shaped pillars at Göbekli Tepe were primarily roof supports and the enclosures themselves domestic houses,[2] a view not shared by Schmidt and his colleagues.

THE DROMOS

Enclosure C's circular walkway, between the outer and inner temenos walls, was entered from the south through a north-south-aligned stone passage measuring 25 feet (7.5 meters) in length. Schmidt calls it the *dromos,* after an ancient Greek word meaning *avenue* or *entranceway,* because of its likeness to the passageways attached to the beehive-shaped *tholoi* tombs of Mycenaean Greece.

At the southern end of the dromos a curious U-shaped stone portal, or inverse arch, was set up as an entranceway. The upright terminations of its two "arms" were carved into the likeness of strange, crouching quadrupeds that face outward; that is, away from each other. The identity of these twin guardians, only one of which remains roughly in situ today, is another puzzle (see plate 8). Schmidt calls this U-shaped doorway the "Lion's Gate,"[3] perhaps because of the twin lions carved in stone above the Lion's Gate entrance at the Mycenaean city of Mycenae in southern Greece.

Beyond the U-shaped entrance to the dromos, Schmidt's team has uncovered a stone stairway of eight steps constructed to navigate a noticeable dip or "depression" in the bedrock (see figure 3.1).[4] It is an incredible feat of ingenuity and constitutes one of the oldest staircases to be found anywhere in the world. Its presence here at Göbekli Tepe confirms both that an ascent was required to enter the enclosure and that the south was the direction of approach for the visitor.

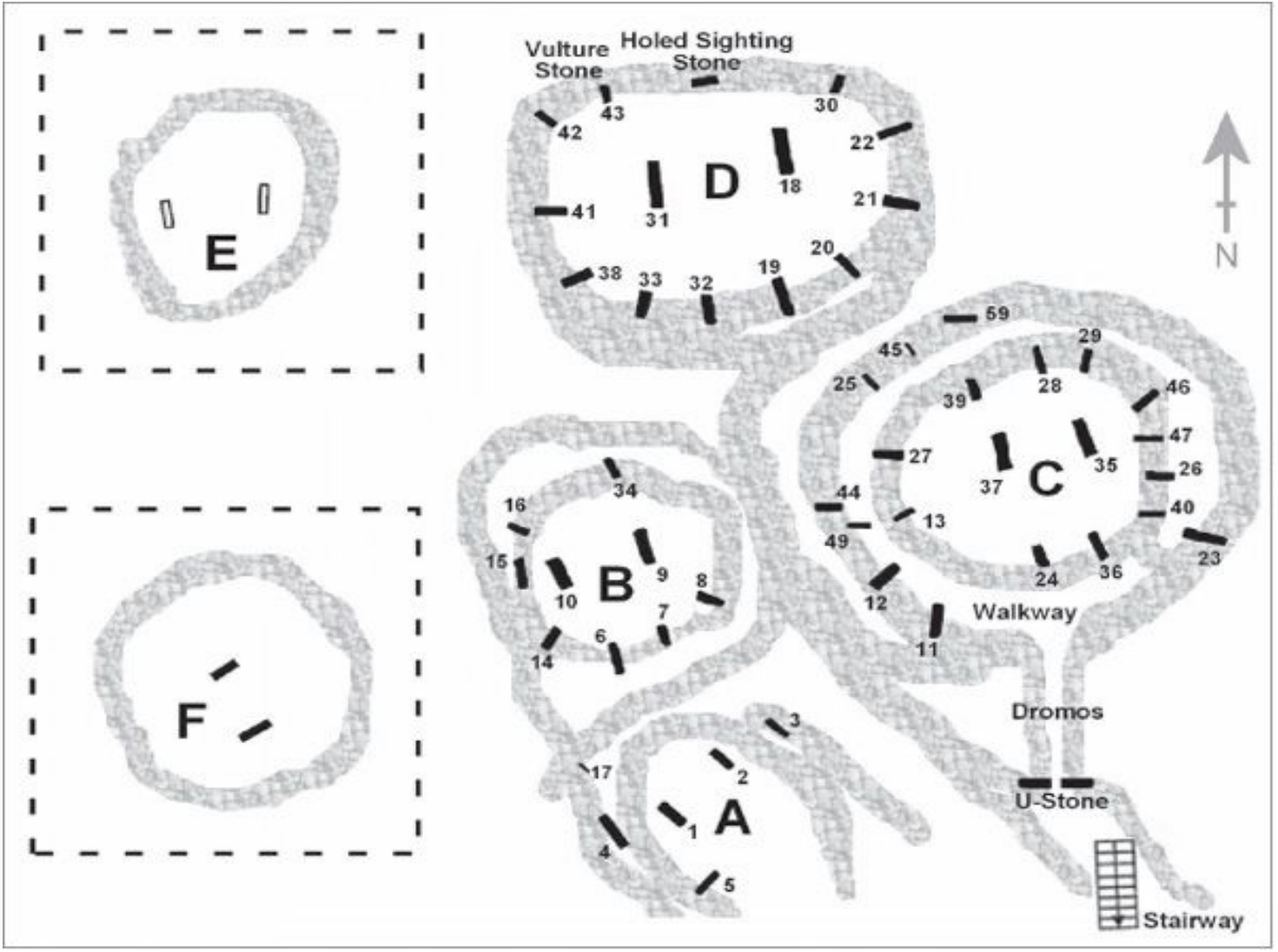
Vulture Stone
Holed Sighting Stone
D
E
F
B
C
A
Walkway
Dromos
U-Stone
Stairway
N

Figure 3.1. Plan of Göbekli Tepe showing the main enclosures uncovered so far.

ENCLOSURE D

Abutting Enclosure C to the northwest is Enclosure D, the most accomplished of all the structures at Göbekli Tepe. Once again it is ovoid, measuring approximately 60 feet (18 meters) by 47.5 feet (14.5 meters), and would originally have contained a ring of twelve T-shaped pillars (just eleven remain today). Its length-to-breath ratio is almost exactly 5:4, which, strangely enough, is identical to that of Enclosure B *and* Enclosure C, something that is unlikely to be coincidence. (The ovoid outline in the bedrock of the now vanished Enclosure E, located slightly west of the main group of structures, suggests that it too possessed a 5:4 size ratio.) It is a realization we return to in chapter 5.

Two enormous twin monoliths stand at the center of Enclosure D. Although slightly bent by the weight of the soil and debris bearing down on them, they remain intact today. Each one—with a height of around 18 feet (5.5 meters) and weighing as much as 16.5 U.S. tons apiece (15 metric tonnes)—was found to have been slotted into rectangular pedestals carved out of the bedrock, like those in Enclosure C. Yet bizarrely these slots are no more than 4–6 inches (10–15 centimeters) deep, which would have left the pillars particularly unstable.

Such a decision to erect the pillars in this manner is unlikely to have been a design fault, as it seems so out of character with the sophisticated style of building construction employed at Göbekli Tepe. The only logical explanation is to assume that in addition to being slotted firmly into the bedrock pedestals, the central pillars were held in place by wooden support frames (as they are today), which perhaps formed part of a roof.

MYSTERY OF THE FLIGHTLESS BIRDS

The carved decoration on Enclosure D's eastern central pillar (Pillar 18) is quite extraordinary. Starting with the rock-cut pedestal supporting the monolith, we see a line of seven strange birds spread out along its south-facing edge (see plate 16). The peculiar shape of their heads and beaks give them the appearance of baby dinosaurs! However, the creatures' plump bodies, without any obvious wings, reveal them to be flightless birds that sit on their haunches, their legs stretched out in front of them. So what species do they represent? An examination of known flightless birds from the past right down to the present day suggests they could be dodos (see figure 3.2).[*1]

No other bird type known to have existed in the tenth millennium BC even comes close to matching what we see at Göbekli Tepe, and to ignore this conclusion would be to miss an opportunity to better understand the geographical world of the Göbekli builders. This is

not to say they visited the island of Mauritius in the Indian Ocean, where the dodo was hunted to extinction by the first Europeans to reach the island, only that somewhere on their travels the Göbekli builders might have encountered a similar bird that is today extinct.

As to why birds of this type are represented at Göbekli Tepe we can only speculate. Perhaps the fact that they are flightless is the clue. Since they can’t fly away, they are rooted to the ground, just like the bedrock pedestals on which they’re carved, implying therefore that the birds symbolize permanence and a point of foundation.

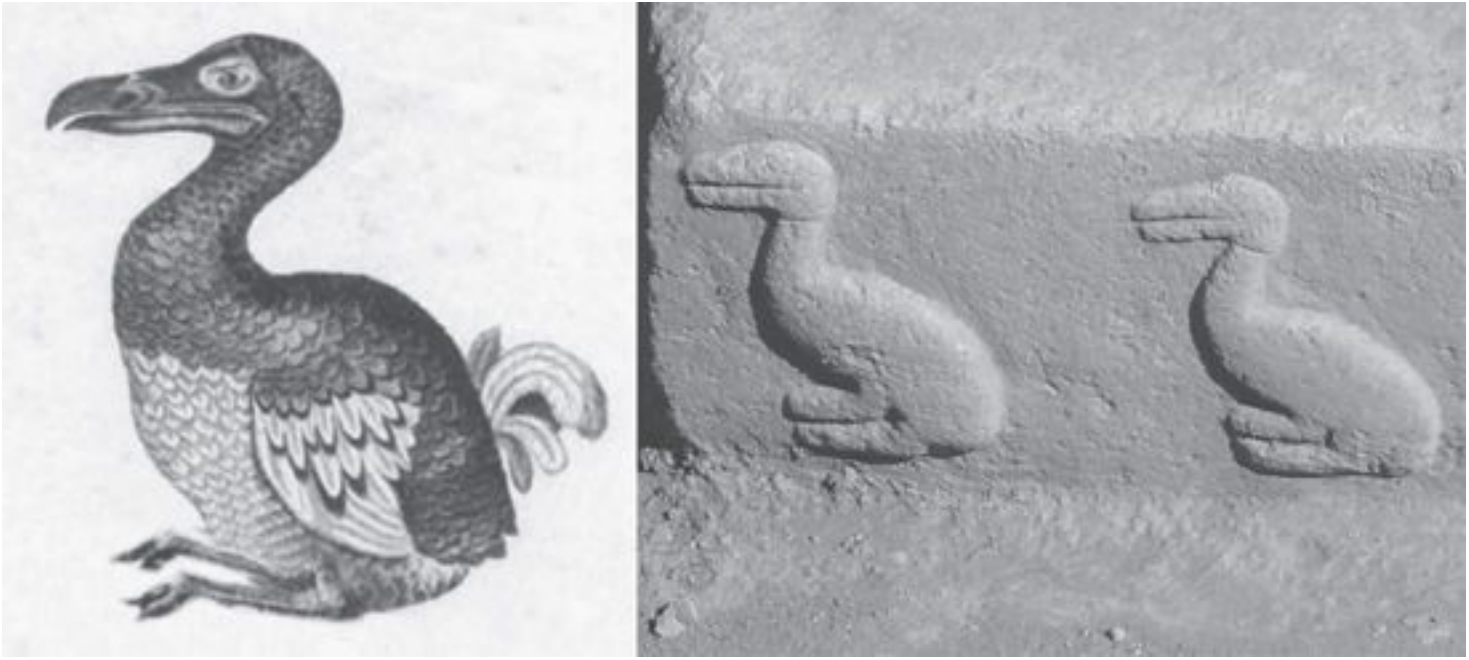

Figure 3.2. Left, seated dodo bird and, right, two of the seven flightless birds seen on the pedestal of Göbekli Tepe's Pillar 18 in Enclosure D.

LATER PHASES OF BUILDING ACTIVITY

Various smaller enclosures and cell-like rooms, uncovered to the north and west of the main group of buildings at Göbekli Tepe, were found to have been constructed during a slightly later building phase, ca. 9000–8000 BC. This seems certain, since they are positioned as much as 50 feet (15 meters) higher than the other enclosures constructed on the bedrock below. In other words, these much younger structures were built long after the older structures had been buried (at least in part) below the gradually emerging tell. Like their forerunners, these rooms contain T-shaped pillars, communal benches, and stone-lined walls, invariably rectangular in design. Yet in size and quality they are often greatly inferior. In some cases, they are the size of bathrooms, with their stones no more than 3.2 to 5 feet (1 to 1.5 meters) in height. Some of the pillars are T-shaped, with clearly carved anthropomorphic features like their predecessors, while others are left unadorned. Clearly the later Göbekli builders were downsizing in architectural style and artistic design, while at the same time retaining some elements of

the earlier enclosures.

Around 8000 BC the remaining structures at Göbekli Tepe were covered with fill and abandoned completely, this unique style of architecture continuing only at a handful of other Pre-Pottery Neolithic sites in the region, including Çayönü and Nevalı Çori, which we have already explored; Hamzan Tepe,[5] Sefer Tepe,[6] and Taşlı Tepe,[7] all near Şanlıurfa; and Karahan Tepe.[8] This last mentioned site, set within the Tektek Mountains some 40 miles (64 kilometers) east of Şanlıurfa, has yet to be fully excavated, even though in size it could easily match that of Göbekli Tepe (it was investigated by the present author in 2004, who noted carved stone fragments, exposed heads of T-shaped pillars, a stone row, and countless flint tools scattered across a very wide area indeed). At a place named Kilisik, close to the town of Adıyaman, around 53 miles (85 kilometers) north of Nevalı Çori, a mini T-shaped figure in the form of a small stone statue was found in 1965,[9] leading

prehistorians to consider that another early Neolithic site awaits discovery here (see chapter 10 for more on this remarkable statue). At a place named Kilisik, a village close to the Kahta river in Adıyaman province, in the foothills of the Anti-Taurus Mountains, some 46.5 miles (75 kilometers) north-northwest of Göbekli Tepe, a mini T-shaped figure in the form of a small stone statue was found in 1965,[9] leading prehistorians to consider that another early Neolithic site awaits discovery here (see chapter 10 for more on this remarkable stature).

TRIANGLE D'OR

All of these sites, where T-shaped pillars and portable statues have been found, lie within a very small area no more than 150 miles (240 kilometers) in diameter, with its center close to Karaca Dağ, where the genetic origins of modern wheat have been traced to a

variety of wild einkorn growing on its lower slopes. This area of southeast Anatolia, where neolithization began, has been christened the *triangle d'or,* the "golden triangle," due to the key role it played in kick-starting the Neolithic revolution.[10]

It is a grand title, the *triangle d'or,* but it does seem to express the sheer genius of inspiration that led to the emergence of sites such as Göbekli Tepe, with their unique architecture, which seems almost alien to the modern world. Yet where did this genius of inspiration come from? Dr. Mehrdad R. Izady, professor of Near East studies at New York University, wrote in 1992 (two years before Klaus Schmidt first visited Göbekli Tepe) that at the beginning of the Neolithic age the peoples of southeast Anatolia "went through an unexplained stage of accelerated technological evolution, prompted by yet uncertain forces."[11] What exactly were these as "yet uncertain forces"? Were they material or divine? Were they human or something else altogether? All we can say is that something quite

extraordinary happened in the *triangle d'or* some twelve thousand years ago, and the key to understanding this mystery might well await discovery among the T-shaped pillars and carved art of Göbekli Tepe.

To date, seven major structures (Enclosures A, B, C, D, E, and F, as well as the Lion Pillar Building) have been explored at Göbekli Tepe. Yet the geomagnetic survey undertaken in 2003 suggests that this constitutes just a small fraction of what lies buried beneath the occupational mound (Schmidt estimates there might be as many as fifteen more enclosures still to be uncovered, providing a total of some 200 standing pillars[12]). As can be imagined, with two digging campaigns a year (April to May and September to November), Klaus Schmidt's multinational team is constantly discovering new structures and monuments.

Very gradually our fragmented picture of what went on here as much as twelve thousand years ago will slowly take shape. Trying

to unravel its mysteries too soon is rife with problems, although simply stepping aside and allowing the archaeological evidence to speak for itself is to miss an opportunity to get inside the minds of the Göbekli builders and truly know what motivated them to give up their hunter-gatherer lifestyle to create monumental architecture on a scale never before seen in the world. Why exactly did they do this? Why create the earliest known megalithic monuments anywhere in the world? One possible clue is the strange carved symbolism on the stones that includes quite specific glyphs or ideograms, which, as we see next, might well reveal the Göbekli builders' fascination with the heavens.

4

STRANGE GLYPHS AND IDEOGRAMS

The eastern central pillar (Pillar 18) in Göbekli Tepe's Enclosure D sports a wide belt on which are a sequence of abstract glyphs, or ideograms, which are likely to have had some symbolic meaning to the Pre-Pottery Neolithic world of the tenth millennium BC. One, looking like a thin letter C, is seen sometimes turned toward the left and at other times toward the right. Another glyph, resembling the letter H, is found both in an upright position and rotated 90 degrees (see figure 4.1 and plate 11 and plate13). It appears in the same sequence as the C-shaped glyphs, and both seem to work in concert with each other.

On the “front” of the T-shape’s belt the H symbol appears no less than five times, two upright and three on their side. In addition to these glyphs is another, slightly larger ideogram that appears in the position of the figure’s belt buckle, below which a fox-pelt loincloth appears in high relief (both are explored in chapter 12).

THE H GLYPH

How might we interpret these strange ideograms in use among the Göbekli builders so soon after the end of the last Ice Age? Let’s start with the H glyph. Searching the archives of prehistoric symbolism throws up very little. They could be shields made of animal hide, as examples in prehistoric art do occasionally resemble the letter H. Yet if so, why do they appear so many times on the same pillar? Also apparent is that the H character resembles two letter Ts joined stem to stem. It is an association that might not be

without meaning, especially in view of the general appearance of the T-shaped pillars at Göbekli Tepe and the presence of the twin monoliths at the center of the enclosures. If so, then what might this mirrored double T actually represent?

Figure 4.1. Mid-section of Göbekli Tepe's Pillar 18 in Enclosure D showing the figure's wide belt decorated with C- and H-shaped glyphs.

Is it possible that the H glyph conveys the connection between two perfectly mirrored worlds, states, or existences linked by a conceived bridge or tunnel, represented by the crossbar between the two "columns"? If this is the case, it really does not matter whether the glyph is depicted upright or rotated 90 degrees; the meaning would always be the same.

SHAMANIC POT STANDS

Some idea of how indigenous cultures have portrayed the relationship between the two worlds, and the transition between the two, can be found in the design of ritual pot stands used by the

Desana shamans of Colombia. Taking the shape of an hourglass, that is, two cones point to point, they are made from spiraling canes bound together in such a manner as to leave a central hole connecting the two cones, which, when looked at from either end, have the appearance of a hole-like entrance through a spiraling vortex or whirlpool (see figure 4.2). Yet "when seen in profile, as an hourglass, the object can be interpreted as a cosmic model, the two cones connected by a circular 'door', an image that leads to others such as 'birth', 'rebirth', the passage from one 'dimension' (*turî*) to another while under the influence of a narcotic, and to similar shamanistic images. . . . In sum, the hourglass shape contains a great amount of shamanistic imagery concerned with cosmic structures and with transformative processes."[1]

These are the words of anthropologist Gerardo Reichel-Dolmatoff (1912–1994), who conducted an extensive study of the beliefs and practices of shamanic-based cultures of the Amazon

rainforest. He saw the hourglass-shaped pot stand of the Desana as symbolic of the connection between the two worlds, the hole created between the two cones being the point of entrance and exit between the two dimensions of existence. This bears out the interpretation of Göbekli Tepe's H glyph as being a mirrored symbol of movement between two worlds, whether across space or time. If so, then it is likely that the accompanying C glyph also has some kind of transformative role. It would not be unreasonable to see the twin C shape as the slim crescents of the old and new moon, which when shown together, face to face, signify the transition period between one lunar cycle and the next.

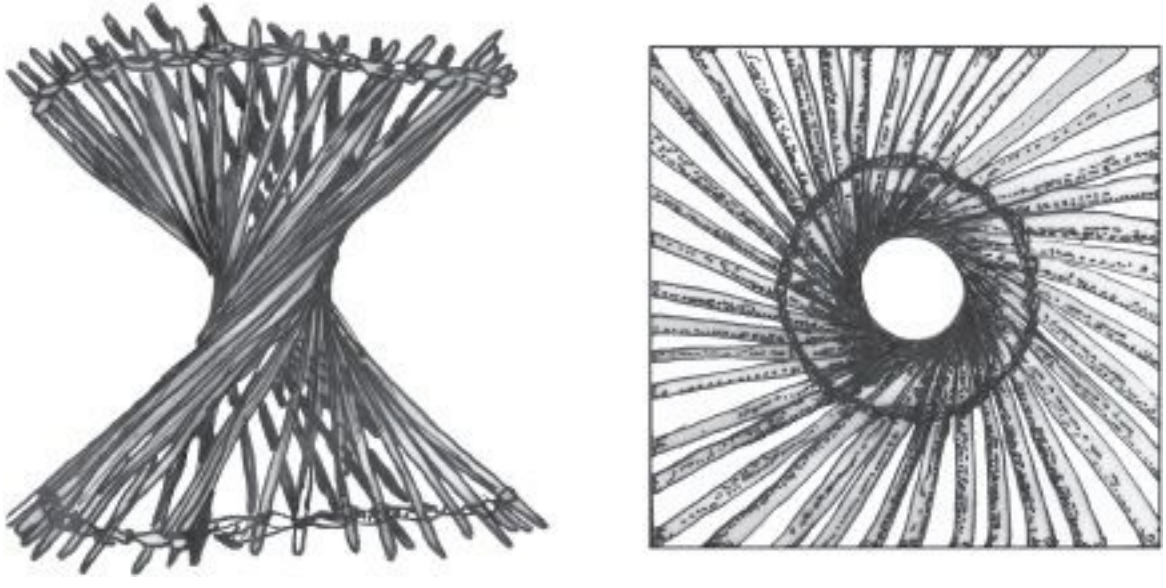

Figure 4.2. Desana shaman's ritual pot stand from the side and looking down through its hollow interior (after Gerardo Reichel-Dolmatoff).

AUSTRALIAN ABORIGINAL ART

Another possible interpretation of the C-shaped glyph can be found

among the symbolic art of the aboriginal peoples of Australia. Here the C-shape ideogram depicts a bird's-eye view of a seated man or woman, the arms of the symbol representing those of the individual.[2] When two Cs are shown together, face to face, this denotes two people sitting opposite each other.[3] Occasionally there will be a bar shown between them, signifying a small, benchlike mound constructed for special ceremonies and said to symbolize a mound of creation associated with a primeval snake.[4]

A photograph in British anthropologist Sir Walter Baldwin Spencer's book *Across Australia* (1912) of a Worgaia medicine man from Central Australia, who was himself "a great maker of medicine men,"[5] shows the double C ideogram, with a bar in between, painted on his chest. It is nearly *identical* to one that appears on the chest of a T-shaped pillar at Göbekli Tepe (see figure 4.3 on p. 54),[6] the only difference being that here the horizontal line forms the connecting bar of the H symbol earlier described.

EMBLEMS OF OFFICE

Like other major pillars at Göbekli Tepe, Enclosure D's central monoliths have carved symbols upon their "neck," just below their T-shaped heads. On the eastern pillar two are seen, the uppermost being the same H-shaped glyph found on the belt. This particular example is upright with a small, hollowed-out oval shape within its crossbar (here the symbol looks like two matchstick men holding hands, which lends credence to the idea that the C-ideogram might sometimes mean a seated man or woman, just as it does in Australian aboriginal art). Immediately beneath the H shape is a well-defined, horizontal crescent, its horns turned upward. Cupped within its concave form is a wide-banded circle with a deeply incised hole at its center. A thin, V-shaped "collar" or "chain" is visible either side of the two glyphs (see figure 4.4 on p. 56), making it clear that these symbols are emblems of office worn around the neck, perhaps denoting the individual's status or identity.

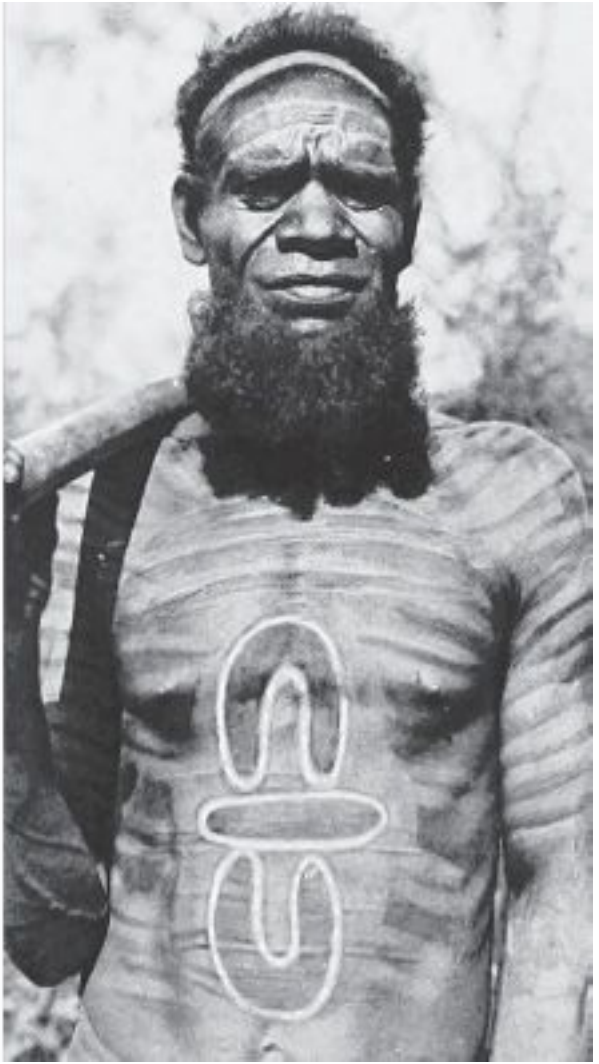

Figure 4.3. Left, double C and H symbol on the chest of Pillar 28 in Göbekli Tepe's Enclosure C. Right, Worgaia medicine man from Central Australia with the same symbol on his body.

Confirming the use of collars or chains by the elite of the Pre-Pottery Neolithic is a life-size statue of a man, 5 feet 9 inches (1.8 meters) in height, found at Şanlıurfa, just 8 miles (13 kilometers) from Göbekli Tepe (see plate 23). Located today in the city's archaeological museum, the figure was discovered in 1993 on Yeni Yol Street in Balıklıgöl, the oldest part of the city, where a Pre-Pottery Neolithic A settlement was investigated in 1997.[7] It is here also in Balıklıgöl that the prophet Abraham is said to have been born within a cave shrine renowned throughout the Muslim world as an important place of pilgrimage. The statue, which has black obsidian disks for eyes, a prominent nose, arms that end in hands clasped over the genitalia, and a conelike lower half where the legs should be, dates to around 9000 BC. The fact that it also sports a

double V-shaped collar in high relief is evidence that the neck emblems on the T-shaped pillars at Göbekli Tepe are most likely pendants or medallions attached to a chain or collar of office.

THE EYE AND THE CRESCENT

Although it is conceivable that the crescent on the neck of the eastern central pillar in Enclosure D signifies the moon, the carved circle with the hole in its center is more difficult to understand (see figure 4.4 on p. 56). Perhaps it is a representation of an eye, as similar circles with hollow middles act as eyes on the 3-D carving of the snarling predator seen on the front face of Enclosure C's Pillar 27. The likeness is too close for this to be simply coincidence. So if the circle *is* an eye, then the slim crescent that cups it must form the lower eyelid.

In ancient Egypt the eye was the symbol of the sun god Re (or

Ra), while the title Eye of Re was given to various leonine goddesses including Sekhmet, Tefnut, and Bastet, showing the clear relationship between the sun and the all-seeing eye.

THE WESTERN CENTRAL PILLAR

Enclosure D's other central pillar (Pillar 31), positioned to the west of the one just described, also sports a belt and buckle, although in this instance both are almost featureless (other than a small bovine scratched into the belt on its eastern side). Like its neighbor, the T-shape sports a fox-pelt loincloth, while around its "neck" is a small bucranium, or ox head, worn as a pendant or emblem of office. French prehistorian Jacques Cauvin saw the bull in early Neolithic symbolism as representative of male domination over nature.[8] This might well be so. Yet if the combined circle and crescent symbol on the neck of the eastern pillar does represent the sun, then there has

to be a distinct possibility that the bucranium on its western neighbor represents the moon, the twin pillars displaying some kind of dual, solar-lunar polarity.

Figure 4.4. H, eye, and crescent symbol together on the neck of the eastern central pillar (Pillar 18) in Göbekli Tepe's Enclosure D.

That bucrania perhaps symbolized the crescent moon in the Upper Paleolithic is shown by the Venus of Laussel, a carved stone relief of a naked full-bodied woman, 17.5 inches (45 centimeters) in height and carved into a block of limestone. Dating to ca. 27,000–20,000 BC, she was discovered in 1911 at the entrance to a rock shelter at Laussel in the Dordogne region of southwestern France. In her right hand she holds a bison's horn on which are inscribed thirteen vertical notches, interpreted by some prehistorians as symbolizing the thirteen-month lunar cycle.

Should these speculations prove valid, it implies that some of the glyphs displayed on the T-shaped pillars at Göbekli Tepe have distinct spatial, temporal, and celestial values. The C and H ideograms, along with the eye symbol and bucranium, all suggest as

much. So are the anthropomorphic pillars personifications of higher intelligences—some kind of *divine company* that reflects these otherworldly influences? We now begin to explore the true function of Göbekli Tepe's quite extraordinary monumental architecture.

PART TWO

Cosmos

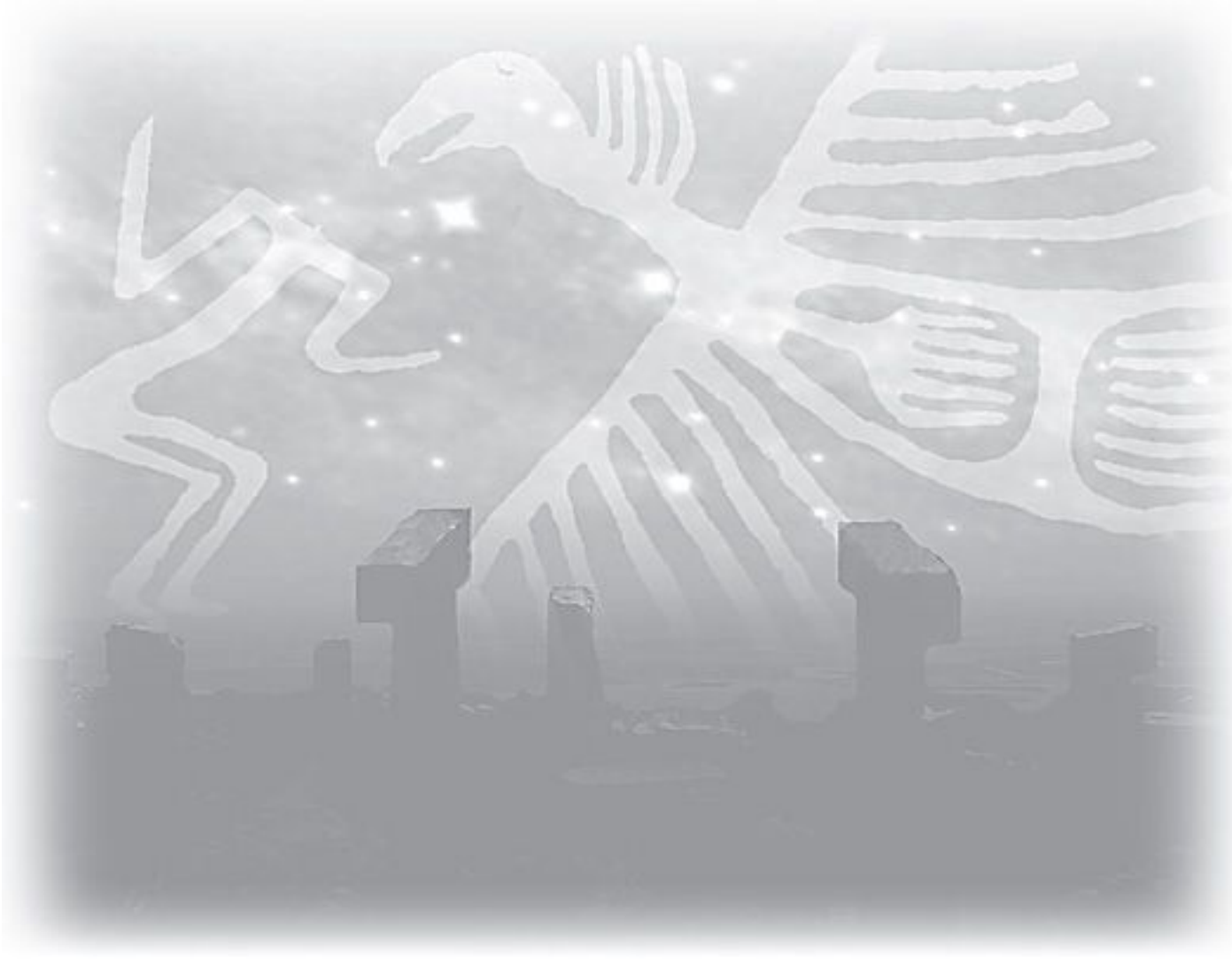

5

GATEWAY TO HEAVEN

It is impossible today to assess the exact number of stones in each of the main enclosures uncovered at Göbekli Tepe. There were certainly twelve stones in Enclosure D's main circle. Eight remain in Enclosure C's outer wall and eleven within its inner ring, with the likelihood of a twelfth having once existed. Seven are known from Enclosure B (not counting the two central pillars), while Enclosure A is so different in style that guessing its original design becomes difficult. Enclosure F is so small, and from such a later date, that it is unlikely to have been built with the exact same motivations as its predecessors; ditto the Lion Pillar Building on the summit of the

mound.

Having said this, it does appear that a twelvefold division of stones did once exist in Enclosures C and D, arguably Göbekli Tepe's oldest and most accomplished structures uncovered so far, while twelve T-shaped pillars are known to have existed in the walls of Nevalı Çori's Level II cult building, the number increasing to thirteen during its next building phase, Level III, ca. 8000 BC. (The level system runs from the oldest layer, Level I, ca. 8500 BC, to the most recent occupational layers, Levels III–V, ca. 8000–7600 BC.)

That the earliest enclosures at Göbekli Tepe might originally have had twelve T-shaped pillars within their elliptical walls raises the question of whether this number had any significance to the hunter-gatherers who created these strange structures over eleven thousand years ago. Was it simply by chance that twelve stones were chosen for the purpose, or might there be some deeper meaning behind the use of this myth-laden number?

A CLOCKWISE MOTION

A clue to this mystery lies in the fact that at least half of the standing pillars in Enclosures C and D have reliefs both on their shafts *and* on their T-shaped "heads." Yet the head decoration appears only on the right-hand "faces" of the figures, *never on their left sides.*[1] If these facial carvings had to be viewed in any kind of order or sequence, then it implies the entrant would have had to perambulate the enclosures in a clockwise motion. Doing so in a counterclockwise direction would have meant not being able to see any of the cranial reliefs.

Of course, this could all just be coincidence or a simple case of design preference on the part of the Göbekli builders. However, a preferred navigation of the sacred enclosures in a clockwise fashion, along with the possible celestial nature of the glyphs on key pillars in Enclosures C and D, does hint at some kind of synchronization with the motion of the celestial bodies—the sun, moon, and planets

—which all rise in the east and move around to the south before setting in the west.

This clockwise, or *sunwise,* movement is seen in the shadow cast by a vertical pole or sundial gnomon. For this reason, the hands of the first analog clocks were set to move "with the sun"; that is, *clockwise,* and not counterclockwise, or *anticlockwise,* something that was seen as against the natural order of the universe.

THE SUN'S PATH

These realizations invoke compelling thoughts. The ecliptic, the sun's course through the heavens, is divided into twelve divisions, or "months," a consensus reached long ago based on the placement along its circular course of twelve key constellations, which each rise with the sun across one complete calendar year. Each remains visible in this role for a period of around thirty days, or one month,

before giving way to the next constellation in line, the whole process occurring twelve times in all before the first constellation returns to the predawn sky.

These zodiacal constellations provide us with a twelvefold division both of the solar year and the vault of heaven, with the combined twelve 30-degree sections making up a 360-degree circle. Thus in this manner both time and space are intrinsically bound together in recurring cycles, which through the passage of the seasons and the movement of the planets control the destiny of humankind, this being the root of astrology.

The problem here is that the creation of the zodiac, along with the twelvefold division of the ecliptic and the establishment of the zodiacal houses, is thought to have taken place only around three thousand years ago, with all its different elements coming together finally in the Greek zodiac, which evolved into its current form during the first millennium BC. Despite this, a twelvefold division

of the heavens *did* exist before this time. For example, as early as 2400 BC the Indus Valley civilization divided the celestial horizon into twelve parts.[2] Excavations at Lothal in India between 1955 and 1960 revealed knowledge among the inhabitants of an eight- and twelvefold division of the horizon and sky. They utilized a thick, ringlike instrument made of shell, which divided the horizon into 360 degrees—all this coming some fifteen hundred years before the Greeks "invented" the zodiac.[3]

COSMIC HARMONY

The twelvefold division of the enclosures at Göbekli Tepe suggests a basic knowledge of cosmic geography in the design and layout of its monumental architecture. If correct, then the apparent 5:4 size ratio of Enclosures B, C, D, and E, which are all ovoid, suggests not only a basic understanding of cosmic harmony and proportion but

also an interest in the interaction between different time cycles, most obviously those relating to the earth's eccentricity, its axial tilt, and the precession of the earth's orbit against the starry background (see chapter 7 for more on the Göbekli builders' apparent interest in precession). Although many of these cosmic notions were not fully recognized until fairly recent times, there is some hint that they were known at least in principle during the age of Pythagoras and Plato.[4]

So the next most obvious question would be to ask whether the carved art at Göbekli Tepe confirms its builders' interest in a twelvefold division of the night sky. The answer, unfortunately, is frustratingly disappointing, for although certain zoomorphs found carved on the T-shape pillars *do* resemble the signs of the zodiac (such as scorpions, rams, goats, bulls, birds, and lions), there are too many other creatures featured to make any realistic comparisons with existing zodiac forms.

Despite such drawbacks, some kind of astronomical or celestial motivation behind the construction of the various enclosures at Göbekli Tepe cannot be ruled out. If this is the case, then the T-shaped pillars found within the walls of its sacred enclosures might well act as symbolic markers representing the twelvefold segmentation of the heavens and the twelvefold division of the year. Yet what does this tell us about the true function of these monuments?

CENTER OF THE WORLD

With the rings of T-shaped stones acting as the divisional markers of a symbolic clock face, the main enclosures' pivotal axis would have been their twin central pillars. In cosmological terms these constitute the site's *axis mundi,* or "axis of the earth," a concept familiar to shamanic societies worldwide. This was a symbolic axis

or world pillar—symbolized usually by a rope, pole, or tree trunk and often associated with a "world mountain" or "cosmic mountain"—seen to link the center of the earth with the rotation of the starry canopy via the celestial pole and marked in the night sky by the Pole Star. Each different tribe, culture, or territory had its own axis mundi, while shamanic cultures often had movable axis mundi represented by poles erected for this express purpose. Indeed, an axis mundi would often be the pole inside a communal tent, the smoke hole at the top of the structure acting as the entrance to a sky world thought to exist beyond the physical world.

The concept of an axis mundi is most easily understood through its place in Greek cosmological architecture, for here it was marked permanently by an *omphalos,* a word meaning "navel." These were bullet-shaped or conical stones of varying sizes set up in the inner sanctums of chief sanctuaries to signify the center of the physical world (very much like the *Shiva-lingam* of Hindu tradition, a navel-

like stone set up in a temple's most holy place, usually a darkened crypt immediately beneath the main building).

According to Greek mythology the site of the original omphalos was determined when the sky god Zeus let fly two eagles, one from either "end" of the earth. Where they came together would be the absolute center of the world, which, in the version of the story handed down to us, turns out to be Delphi (omphali existed in other Greek kingdoms as well). Here the omphalos was said to allow direct access to the realm of the gods, a fact borne out by its supposed placement in the temple's *adyton,* or Pythia, where a priestess, known as the Oracle, would deliver prophecies after breathing vapors rising from a chasm in the rock.

Although the origin of the term *omphalos* has been lost, it is very likely linked to the idea that it was connected to the so-called cosmic axis, or turning point of the heavens, by an invisible umbilical cord. This was a concept based on the belief that the earth,

as the offspring of the greater universe, was nourished in a fetal state within some kind of cosmic womb, seen in terms of the starry vault of heaven.

PLACE OF THE PLACENTA

Is it possible that the elliptical shape of the large enclosures at Göbekli Tepe, with their 5:4 size ratios, symbolizes the womb chamber, within which is the ovoid placenta that nourishes a prenatal child during pregnancy via the umbilical cord? Completing the picture would have been the site's occupational mound, constructed around the enclosures to represent a belly swollen by pregnancy. It is a theme expressed, of course, in the name Göbekli Tepe, which, as we saw in chapter 1, means in Turkish "navel-like (*göbekli*) hill (*tepe*)."

There is no way of knowing exactly when Göbekli Tepe gained

its current name, although the chances are it replaced an earlier one meaning exactly the same thing, a process that might have been going on since the site's final abandonment around 8000 BC. Evidence of this comes from the fact that the Kurdish name for the tell, which local people see even today as sacred, is Gire Navoke, which means "hill (*gire*) of the swollen belly (*navoke*)," with an emphasis on fertilization and pregnancy (Armenians, who formerly occupied eastern Turkey when it was part of Armenia Major, call Göbekli Tepe *Portasar,* meaning the "hill of the navel." However, no historical evidence exists to show that this name was used prior to news of the site's discovery in the year 2000.)

Possibly significant in this respect is that in the language of the Sumerians, who thrived on the Mesopotamia Plain from ca. 2900 BC to 1940 BC, the word for *placenta, ùš,* is more or less identical to that used for *blood* and *death* (*úš*), as well as the word for *base* or *foundation place* (*uš*), as in a place to set up the central pole for a

tent.[5] Such a term might easily have applied to Göbekli Tepe, where the "pole" in question was represented by the enclosures' twin central pillars.

In various indigenous cultures and civilizations the placenta was, and still is, considered a very sacred object, the disposal of which was of great importance not just to the future of the postnatal child, but also to the well-being of the family. Among the Acholi tribe of Uganda and the Sudan, for instance, placentas are buried in a spirit house made of stone at the center of a lineage shrine known as the *abila*.[6] In Eastern Asia, Japan in particular, the placenta is buried with great dignity, often beneath a tree (another symbol of the sky pole). The site is thereafter venerated as a sacred place, with the placentas of emperors becoming the subject of annual festivals relating to the fecundity of the land and the prosperity of the people.[7]

TEMPLE OF THE TWINS

Placentas, when featured in ancient myth and ritual, are often associated with the theme of twins, a matter that may well have some bearing on the presence of the twin pillars at the center of the enclosures at Göbekli Tepe. For example, among the Baganda tribe of Uganda the placenta and umbilical cord of the king are considered the source of his "twin" (*mulongo*), which is seen as the ghost or spirit of the placenta.[8] During the monarch's life it is kept under constant watch in a specially built Temple of the Twin, and at the first sight of the lunar crescent each month it is brought into the king's presence for a special ceremony. Once the ceremony is complete, the "twin" is "exposed in the doorway of the temple for the moon to shine upon it, and also anointed with butter."[9] This exposure to the light of the moon takes place also on a second night, before the "twin" is hidden away for another month.

After the king's death the "twin," that is, the placenta and

umbilical cord, is buried in the temple, along with his jaw, which thereafter functions as a point of communication with the dead monarch's spirit, the relics being brought out on special occasions for oracular purposes.[10] At the same time a new Temple of the Twin is created for the next king, with the whole process being repeated (rather like the periodic construction of new enclosures at Göbekli Tepe).

Even in ancient Egypt the placenta formed the twin of the king, quite literally the seat of his soul double or alter ego. As in Baganda tradition, it was retained and carefully protected throughout his life and, following his death, was most probably buried in a special room, where it served as his *ka,* or double. To the ancient Egyptians the royal placenta was seen as a divinity in its own right, its cult attested as early as the late Predynastic period, ca. 3250–3050 BC.[11]

More disturbingly, it is reported that in addition to placing placentas in the abila cult shrine, the Acholi tribe of Africa is said to

have buried alive twins placed in jars at the same spot.[12] Whatever the reality of this macabre act, it further emphasizes the connection between twins and the placenta, which derives in the main from the primordial belief that when a child is born, his twin, symbolized by the placenta, is the one who dies, and thus becomes a spirit double of the living person. In this knowledge, it was considered that during pregnancy the womb *always* contains twins, each with his or her own soul and destiny.

The association between twins and the placenta is expressed also in the creation myth of the Dogon of Mali, in West Africa, where a double placenta forms inside the cosmic egg of Amma, the creator god, each one attached to a pair of twins.[13] A Dogon pictogram showing the double placenta inside Amma's egg closely resembles the elliptical appearance of the sanctuaries at Göbekli Tepe (see figure 5.1). More incredibly, vertical strokes drawn to represent the two sets of twins inside the egg eerily echo the placement and

orientation of the twin pillars at the center of the enclosures.

TWIN PORTALS TO THE SKY WORLD

This information makes it highly likely that similar themes might have featured among the beliefs and practices of the Göbekli builders. If so, then the twin sets of pillars in the various enclosures at Göbekli Tepe could well signify human twins, either twins that exist in the womb during pregnancy or twins that are seen to have reentered some kind of symbolic womb in death (something that every entrant might have been seen to do when he or she entered the enclosures for shamanic purposes). Indeed, if the central pillars do symbolize twins, one representing the human soul, the other signifying the soul double, or ghost, then this practice might be related to a belief expressed by the Karo Batak peoples of Sumatra, which asserts that of the twin souls, a person's *true* soul is that of

the placenta, which was probably seen as “the seat of the transferable soul.”[14] In other words, in order to enter and navigate the spirit world, shamans or initiates had first to transfer the consciousness from their physical body to that of their twin; namely, the placenta soul. Thus the twin central pillars at Göbekli Tepe might have enforced a similar belief in the minds of entrants standing between them.

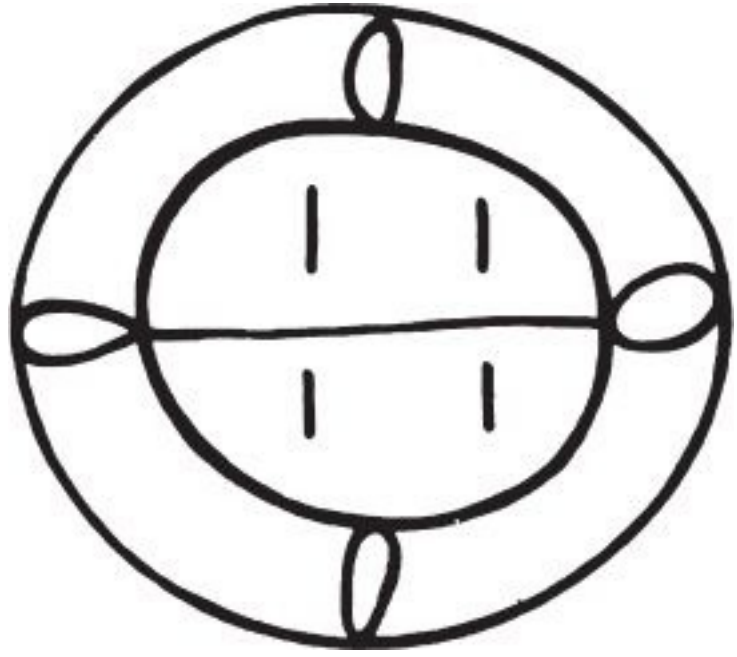

Figure 5.1. Dogon pictogram showing the two sets of twins inside the double placenta within Amma's egg. Note how the vertical lines, representing the twins, eerily echo the twin central pillars in the enclosures at Göbekli Tepe.

Allied to this belief is the fact that the twin pillars at Göbekli

Tepe most probably signified portals or gateways; that is, entranceways into the conceived axis mundi that would have transferred you instantly to the sky world (hollows in tree trunks are often seen to serve this function among shamanic-based societies). An instantaneous dimension shift of this sort would have been achieved through the use of one or more shamanic processes, including ecstatic dancing, ritual drumming, long-term sensory deprivation, and, of course, the ingestion of psychotropic or soporific substances (something suggested at Göbekli Tepe, as we have seen, through the profusion of snakes in its carved art and also by the presence of large basalt bowls used perhaps in the preparation of drugs and medicine). All of these methods would have enabled the mind to, quite literally, jump between worlds without any kind of delay involving regular space or time.

So where exactly was the sky world of the shaman during the age of Göbekli Tepe? In an attempt to answer this question, we must

examine the deepest, most profound, cave art of Ice Age Europe.

6

WINDOW ON ANOTHER WORLD

If the hermetic axiom of "as above, so below" were to be applied to the construction of Göbekli Tepe in the tenth millennium BC, then it would suggest that ritual activity taking place within its enclosures was reflected in some manner in the heavens, and vice versa. Going beyond the imagined portal created by the twin pillars standing at the center of the structures is likely to have projected the shaman or initiate into some part of the night sky, but where exactly?

Some idea might be gleaned from the Ice Age cave artists of the late Paleolithic age. Although much of the beautiful imagery seen in the caves suggests a clear interface between the physical world and

the perceived supernatural realms existing beyond human consciousness, certain painted panels are now thought to convey abstract celestial themes as well.[1] Three examples can be cited in this respect, and in each case the panels or friezes are positioned in the direction of the area of sky where the relevant stars were to be seen during the epoch in question.

THE LASCAUX SHAFT SCENE

The first example is the famous Shaft Scene from Lascaux Caves near Montignac in France's Dordogne region. Located in a pit 16 feet (4.9 meters) deep, which could only be accessed using a rope (the remains of which have been found), the scene is composed of a set of images that have mystified paleontologists since the chance discovery of the cave complex by four teenagers in 1940.

From right to left, the painted fresco—which is approximately ten

feet (three meters) across—shows a wounded bison, a birdman, a bird on a pole, and a rhinoceros (see figure 6.1 on p. 70, although the rhino is not shown here). Black loops drawn beneath the bison's belly indicate the release of its entrails, perhaps by the barbed spear seen cutting across its body at an acute angle. Either that or it has been gored by the rhinoceros, which appears to be walking away from the scene. Facing the bison is a male human figure, who either has the head of a bird or wears a bird mask. He leans backward in a most awkward position and has an erect penis, a stance that could indicate he is a bird shaman experiencing an ecstatic trance state (the ingestion of psychotropic substances often causes male erection).

Confirming the significance of the figure's avian features is the presence just below his feet of a bird on a pole, its head and beak resembling those of the birdman. Off to the left is the rhinoceros, whose role is debatable; he could have gored the bison, or he might

simply be associated with the birdman's blatant display of virility (rhino horn, being phallic in appearance, is valued in some cultures as an aphrodisiac). Next to the creature's upraised tail are six black dots drawn in pairs, the meaning of which is unclear.

The panel's awkward positioning at the bottom of a deep shaft, along with the fact that it shows the only human figure in the entire cave complex, indicates that it held some special significance to the Upper Paleolithic peoples who entered Lascaux and decorated its corridors and halls with a whole menagerie of Ice Age animals.

THE SUMMER TRIANGLE

Many scholars have attempted to understand Lascaux's Shaft Scene, although no consensus regarding its meaning has ever been reached. However, in 2000 German scholar Dr. Michael Rappenglück of the University of Munich came up with a truly inspired interpretation of

the painted panel. He argues that the entire scene is an abstract map of an area of sky featuring a group of three bright stars known collectively as the Summer Triangle, these being Altair in Aquila, Vega in Lyra, and Deneb, the brightest star in the constellation of Cygnus, the celestial bird or swan, known also as the Northern Cross.[2] At the time the Shaft Scene was created, ca. 16,500–15,000 BC, Deneb acted as the Pole Star, as it was the closest star to the celestial pole, the turning point of the heavens.

Figure 6.1. The Shaft Scene inside the pit at Lascaux in southern

France. Solutrean period, ca. 16,500–15,000 BC.

Today Polaris, a star in the constellation of Ursa Minor, the Little Bear, marks the position of the celestial pole in the northern night sky. Yet over time, the Pole Star changes due to the effects of precession—the slow wobble of the earth across a cycle of approximately twenty-six thousand years. During the pyramid age, Thuban, a minor star in the constellation of Draco, the celestial dragon, held the position of Pole Star. Going back further, Vega in Lyra was Pole Star from around 13,000 BC to 11,000 BC. Before that the pole had been marked by Delta Cygni, one of the wing stars of Cygnus. It gained the role from its neighbor Deneb, which was Pole Star from around 16,500 BC until ca. 14,500 BC.

That Deneb was Pole Star when the Shaft Scene was created makes sense of its connection with the Summer Triangle, especially as Cygnus is universally seen as a celestial bird. In other words, the bird shown on the pole at Lascaux is Cygnus marking the celestial

pole, with the pole itself representing the vertical axis, or sky pole, which turns the heavens and holds up the sky. As to the birdman, he might well signify a shaman who has attained a trance state and ascended the sky pole in the guise of a bird associated in some manner with astral flight and, of course, the Cygnus asterism, or star group. Moreover, the Shaft Scene is located on a north-facing wall, which corresponds to the direction of the Summer Triangle during this distant epoch. It is almost as if the panel is an imaginary window onto the celestial world it portrays.

This theory suggests that the area of sky in question held a special place in the beliefs and practices of the Ice Age peoples responsible for executing the cave art. Such practices, which perhaps involved a ritual descent into the shaft using the rope provided, very likely acted as a symbolic means of shifting from one level of reality to another. In this way the Paleolithic shamans or initiates could commune with perceived supernatural intelligences in a sky world

thought to exist beyond the celestial pole.

On its own, the directing of Lascaux's Shaft Scene toward the stars its panel represents might seem like a happy coincidence. However, elsewhere in the Lascaux Caves other murals have been identified as abstract representations of known asterisms. For instance, Rappenglück and others see the head, horns, and upper torso of a bull in the Salle des Taureaux, or Hall of the Bulls, as a representation of the constellation of Taurus, the bull, with a grouping of six to seven dots next to it being seen as the nearby star cluster known as the Pleiades.[3] As with the Shaft Scene, the animals on the wall of the Salle des Taureaux face toward where the stars in question would have been visible during the epoch in question.

THE VENUS AND THE SORCERER

A third example of the relationship between Ice Age cave art and

celestial themes can be found in the Chauvet Cave of southern France, which overlooks an ancient gorge through which the Ardèche River once flowed. Discovered as recently as 1994, its painted galleries, full of breathtaking friezes showing a variety of Ice Age animals, are among the oldest so far discovered, having been executed by Paleolithic cave artists around thirty-two thousand years ago. Of special interest here is the fact that in the Salle du Fond, or End Chamber, located in the deepest part of the complex, a remarkable piece of wall decoration can be found. Called the Venus and the Sorcerer, it appears on a vertically hanging cone of limestone (a form of stalactite) that comes to within 3 feet 6 inches (1 meter) of the cave floor.

The Venus in question is an abstract torso, hips, vulva, and legs of a full-bodied woman, arguably one of the oldest known two-dimensional representations of the female form in existence; it is also the only human figure to be seen anywhere in the caves. The

Sorcerer is a young bison, its head overlying the woman's belly or womb, its left front leg doubling as her left leg, indicating a special relationship between the two figures. Completing the scene is the head and upper body of a large feline, perhaps a panther or lion, which extends above and to the left of the woman's body as if the former is emerging from the latter (see figure 6.2).

The strange image is unique, without anything else quite like it in the entire cave complex, and would seem to have been a central focus of the cave artists' ritual activity. Thus any suggestion that the panel might depict abstract representations of celestial objects should be taken seriously, especially when we find that it could well reflect the same region of sky as Lascaux's Shaft Scene.

THE GREAT RIFT

Swiss researcher Franz Gnaedinger has proposed that the woman's

torso and genitalia represent the Summer Triangle, within which the young bison's head and shoulders are perfectly framed.[*2] This is an inspiring theory, although a more positive identification would be to suggest that the woman's vulva and scissorlike legs represent the area of the Milky Way known as the Great Rift (also known as the Dark Rift, Cygnus Rift, and Great Cleft), which is framed *within* the Summer Triangle (see figure 6.3 on p. 74). This is a dark band of stellar dust and debris in line with the galactic plane that causes the Milky Way to appear to split into two separate streams in the region of the Cygnus constellation. As a dark band it continues to where the ecliptic, the path of the sun, crosses the Milky Way in the region of the stars of Sagittarius and Scorpius, or Scorpio, the celestial scorpion. Here one "leg" of the Milky Way peters out as the other expands in width and continues into the southern sky.

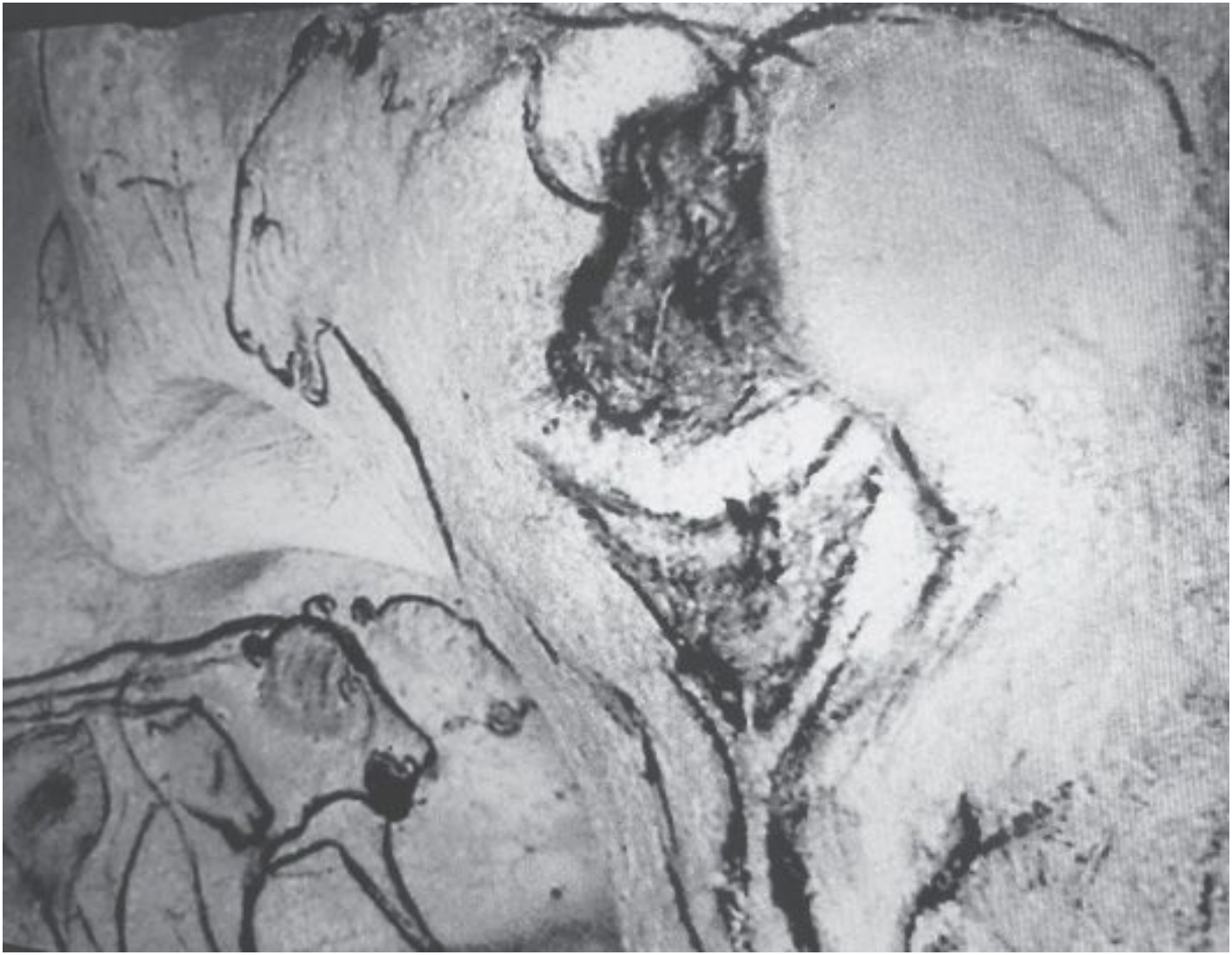

Figure 6.2. The Venus and the Sorcerer panel inside the Chauvet Cave. Note how the woman and bull share the same leg, while the large feline seems to emerge from the scene.

If Chauvet's Venus figure really is an expression of the Milky Way, then the head of the young bison might be viewed as emerging from the Great Rift like a newborn child. As alien as such a concept might seem, there are 3-D representations and murals showing women, goddesses perhaps, giving birth to bull calves at Çatal Höyük, the Neolithic city on the Konya Plain in southern central Turkey, which dates to ca. 7500–5700 BC (see figure 6.4).

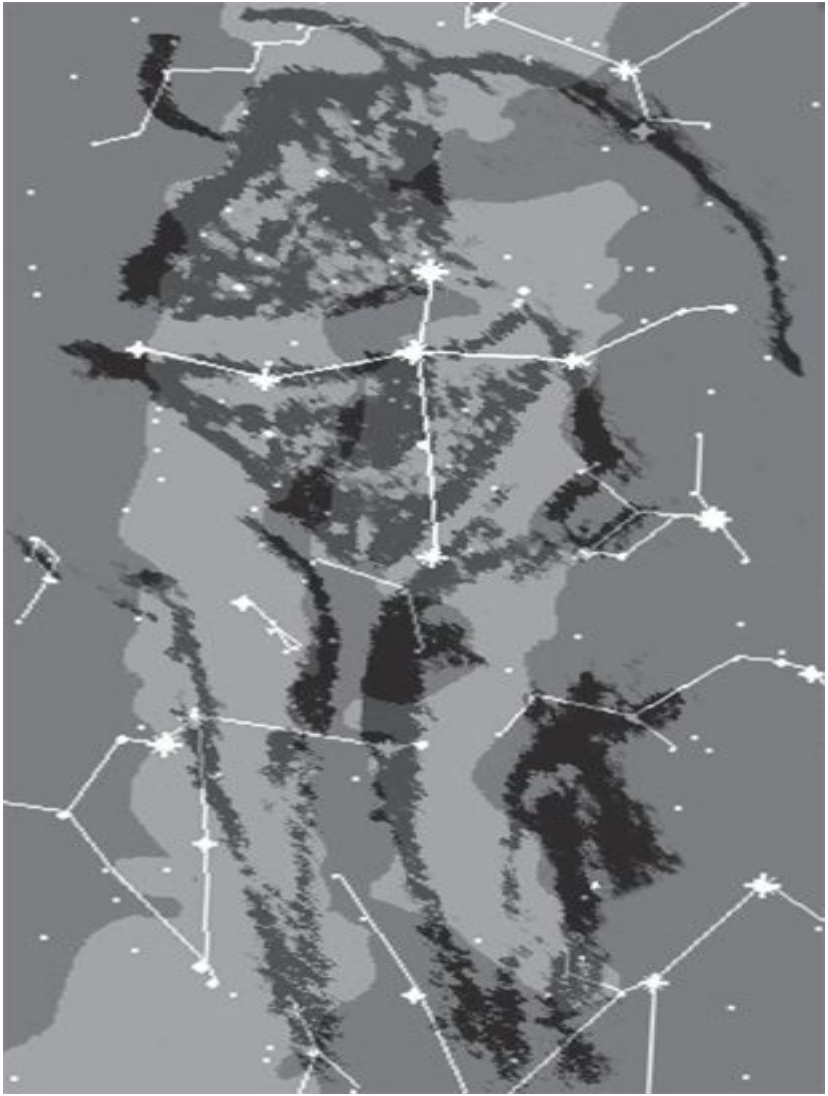

Figure 6.3. The Venus and the Sorcerer from the Chauvet Cave overlaid on the Milky Way, showing that the woman's legs form the twin streams of the Great Rift, while the head of the bull calf in her womb area corresponds to the position of the stars of Cygnus and Cepheus.

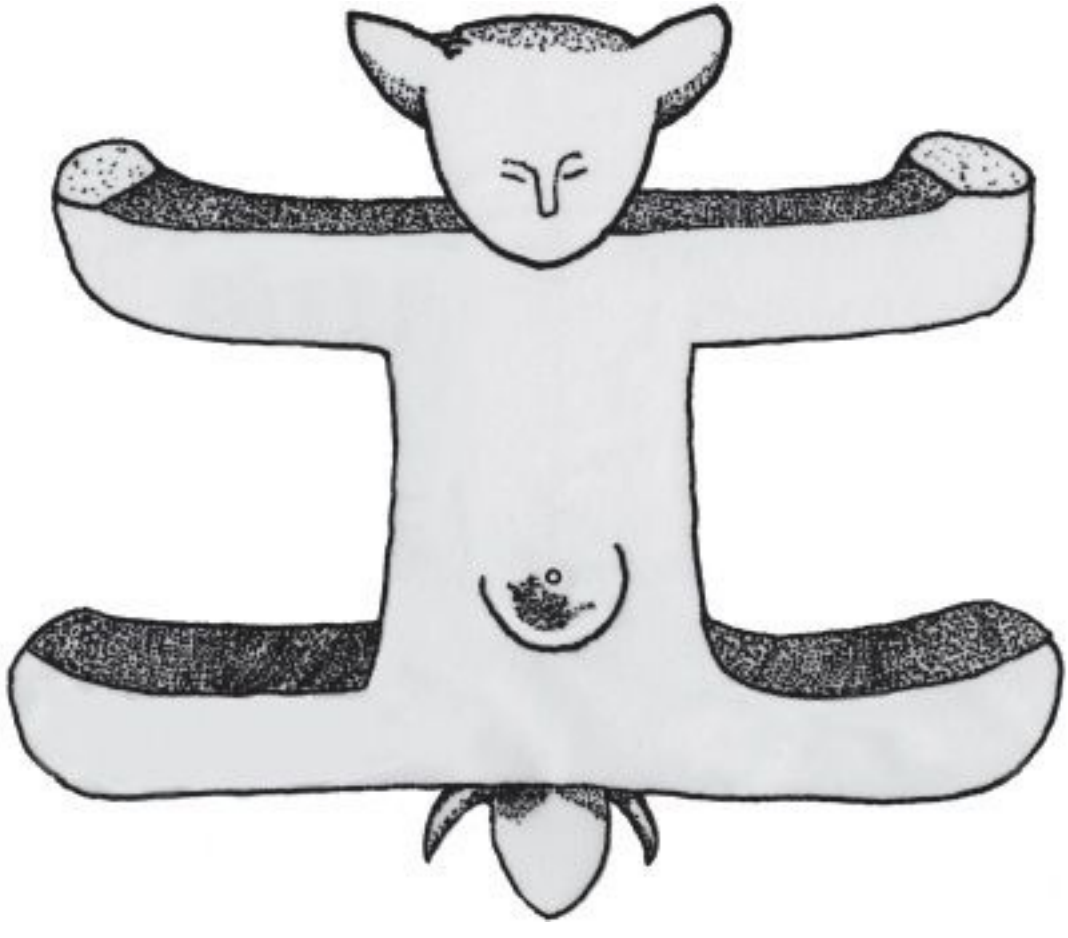

Figure 6.4. Three-dimensional panel showing a leopard-headed woman giving birth to a bull calf, from the Neolithic city of Çatal

Höyük, ca. 7500–5700 BC.

In addition to forming the outline of a bird in flight, the arrangement of the Cygnus stars resemble the frontal view of a bovine head, complete with extended horns. It is a realization that probably inspired both the Chauvet Cave's Venus and Sorcerer panel and the ancient Egyptian belief that the sun is reborn each morning in the form of a bull calf, which emerges from between the twin streams of the Milky Way's Great Rift.[4]

Yet if Chauvet's Venus is an abstract representation of the Milky Way in the region of the Great Rift, and the bull calf signifies the Cygnus stars, what does the large feline represent? Its position immediately above the other figures gives the impression that it is either responsible for or connected with what is displayed, suggesting that it too is a representation of something to be seen in the heavens. Universally, large felines, such as panthers, jaguars,

pumas, and lions, have been seen as personifications, and even controlling intelligences, of the night sky. Is it possible that the example at Chauvet plays a similar role? Could it be seen as the "father," or progenitor, of the bull calf, with the Venus as its mother—the feline, bull, and woman having some kind of symbiotic relationship?

As with the proposed astronomical frescoes at Lascaux, the Venus and Sorcerer panel at Chauvet is located at the extreme northern end of the cave complex at a position suggesting that it too acted as a symbolic window onto the section of sky represented by the images in question. If this surmise is correct, it could suggest that the Ice Age artists that executed this extraordinary cave art some thirty-two thousand years ago possessed, like those at Lascaux, a highly complex understanding of the night sky that we are only now beginning to comprehend.

CAVE SCENES TO CULT SHRINES

All this is very interesting and might well be correct. Yet linking Ice Age cave art with the design of sacred enclosures created at Göbekli Tepe in southeast Anatolia thousands of years later might seem presumptuous. It is a fact, however, that in the early Neolithic, stalagmites and stalactites were removed from cave interiors and carried back to Çatal Höyük, where they were placed in cult shrines alongside statuettes, bucrania, vulture beaks, and painted frescoes of extraordinary beauty and sophistication. So many fragments from caves were found there that British archaeologist James Mellaart, who excavated the site in the 1960s, proposed that the shrines at Çatal Höyük might have been the realm of chthonic deities; that is, gods of the underworld.[5]

B. C. Dietrich, Ph.D., author of *The Origins of Greek Religion,* went further by suggesting that the ritual activities practiced in Çatal Höyük's cult shrines had formerly been celebrated in primordial

cave settings, adding that: “Though the locality of the cult may have changed, its form did not relax its curious hold on the mind of the worshipper who, over many generations, retained the aniconic stalagmite as an image of his goddess.”[6] This, of course, resonates with the manner in which the limestone cone in the Chauvet Cave was utilized in the creation of the Venus and Sorcerer panel.

If the sacred enclosures at Göbekli Tepe *do* reflect an interest in the celestial heavens, was it just a symbolic gesture, without any kind of real accuracy, or was there true precision involved in their construction? We examine now the evidence presented by the T-shaped pillars, which reveal a recurring pattern that will leave the reader in little doubt that they were once turned toward something very specific in the night sky.

7

TURNED TOWARD THE STARS

In the knowledge that megalithic monuments worldwide have been found to possess alignments toward celestial bodies, such as the sun, moon, and stars, it seems reasonable to look for something similar at Göbekli Tepe, with the most obvious candidates for orientation being the various sets of twin pillars at the center of the different enclosures. These could have acted as astronomical markers, especially as at the time of their construction a clear view of the local horizon would have been visible in all directions from their elevated positions.

Even a cursory glance at the positioning of the different sets of

twin pillars in the main enclosures shows them to be aligned roughly north-south. This suggests they are unlikely to have targeted the sun, moon, or planets, which all rise in the east and set in the west. Clearly, if their orientations mean anything, then the enclosures must have been built to target a star or stellar object that either rose or set close to the imaginary north-south meridian line that divides the sky in two and crosses directly overhead.

ANGLES OF ORIENTATION

Establishing the precise orientations of the enclosures' central pillars was put to chartered engineer Rodney Hale, who for the past fifteen years has made a detailed study of stellar alignments at prehistoric and sacred sites around the world. He examined Göbekli Tepe's detailed survey plan and determined that the central pillars in Enclosures B, C, D, and E (the Felsentempel, or rock temple,

located to the west of the main group) all seemed to be aligned just west of north, and, equally, just east of south, in the following manner:

Enclosure B 337°/157°
Enclosure C 345°/165°
Enclosure D 353°/173°
Enclosure E 350°/170°

The twin pillars marking the entrance to an apse-like feature at the northern end of Enclosure A were turned much farther west. Indeed, they are oriented 312 degrees/132 degrees, just 3 degrees off northwest-southeast, suggesting that whatever it was they were oriented toward had little to do with the primary alignments of the larger enclosures.

The slight differences in the mean azimuths of the central pillars in Enclosures B, C, D, and E is telling, as it suggests that each set

targeted a star or stellar object that was very gradually shifting its position against the local horizon as a result of precession (see figure 7.1). Thus the enclosures were aligned to a celestial object that either set each night on the north-northwestern horizon or, equally, rose each night on the south-southeast horizon.

AN ORION CORRELATION?

Among the southern star groups and constellations looked at by Hale were the Hyades, Taurus, the Pleiades, and Orion (more specifically its three "belt" stars), all of which have been claimed to match the orientations of the twin pillars in the various enclosures at Göbekli Tepe during the epoch of their construction.[1] Out of these, just one candidate emerged as perhaps playing some role at Göbekli Tepe, and this was Orion, the celestial hunter.

Rodney Hale charted the risings of Orion's principal stars

between 9500 BC and 8000 BC, then matched this information against the window of opportunity created by the orientations of the central pillars in the various enclosures at Göbekli Tepe.[*3] However, the results were disappointing. Although potential alignments existed between Enclosure B and the Orion belt stars between 9000 BC and 8600 BC, the mean azimuths of the central pillars in Enclosures C, D, and E did not target the rising of *any* of Orion's belt stars between 9500 BC and 8000 BC. The constellation's other key stars—Betelgeuse, Bellatrix, Saiph, and Rigel—fared even worse, making it highly unlikely that Orion was involved in the orientation of Göbekli Tepe's principal enclosures.

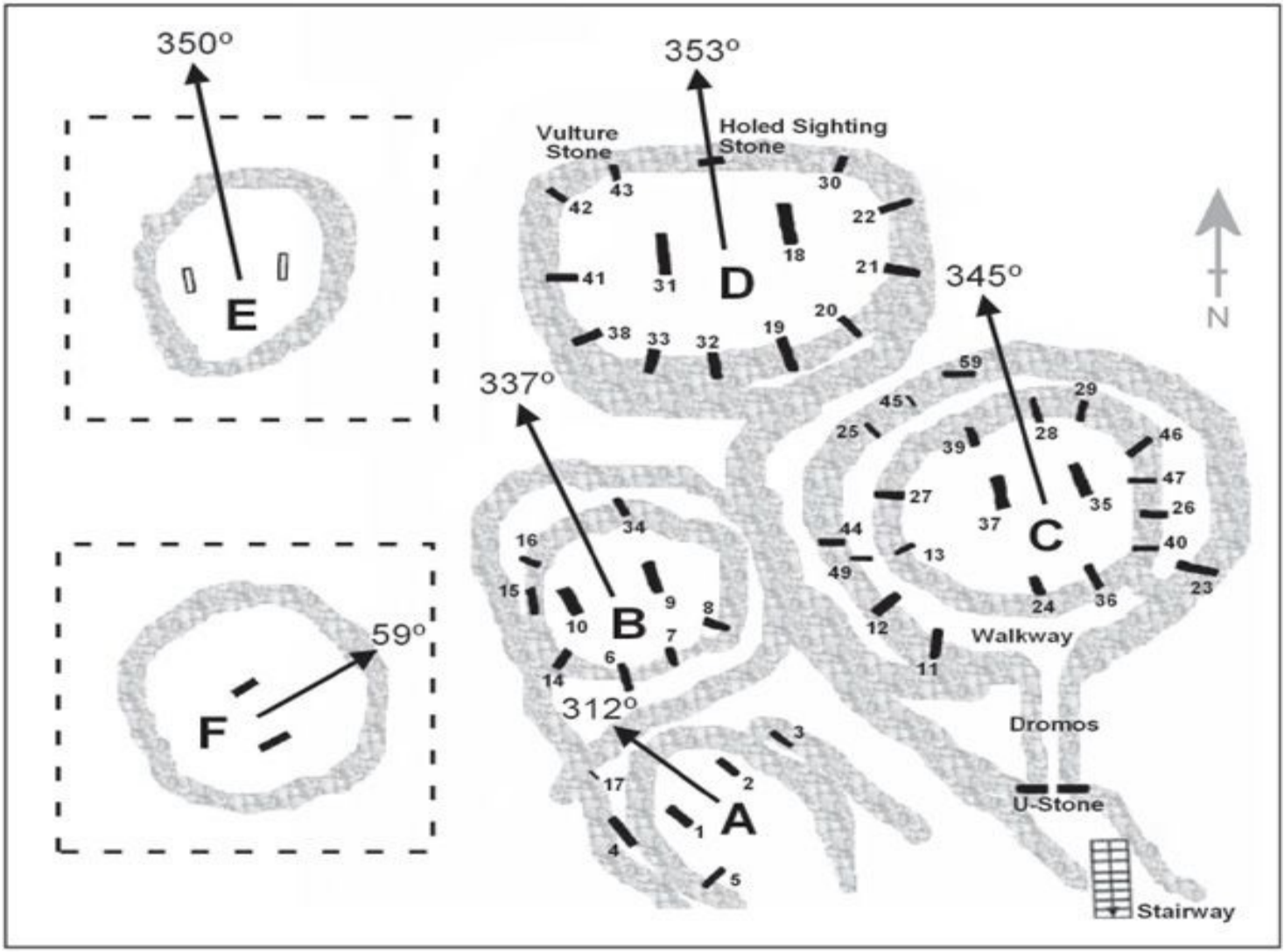
350°
E
353°
Vulture Stone
Holed Sighting Stone
D
345°
N
337°
B
C
59°
F
312°
A
Walkway
Dromos
U-Stone
Stairway

Figure 7.1. The main enclosures at Göbekli Tepe showing the mean alignments of their central pillars.

ALIGNED TO SIRIUS?

Giulio Magli, a professor of mathematical physics at the Politecnico of Milan, also dismisses Orion's role in the alignment of the twin pillars at Göbekli Tepe. To accept such a hypothesis, he says, would mean reducing the age of the mountaintop sanctuaries by as much as a thousand years, something that goes against all dating evidence emerging from the site at this time.[2]

Instead, Magli proposes that the mean azimuths of the twin pillars in Enclosures B, C, and D were aligned to the rising of the star Sirius, which made its reappearance in the night skies from the latitude of Göbekli Tepe sometime around 9500 BC.[3] For a period of around fifty-five hundred years prior to this time it had been

missing from the skies due to the effects of precession. Magli surmises that the hunter-gatherers of the region might have created the temples at Göbekli Tepe to honor the appearance of this new "guest" star in the night sky.

Magli's theory was put to the test by Rodney Hale. He calculated, by recognized methods, that in the epoch of Göbekli Tepe's construction, ca. 9500–8900 BC, Sirius, which only just rose above the southern horizon at this time, would have been so dim due to the effects of atmospheric absorption and aerosol pollution that it is unlikely to have impressed the region's hunter-gatherers.[4] Moreover, the meager arc the star made as it crossed the southern horizon was so brief that in just twenty minutes it would have shifted its horizontal position a full 3 degrees, making it a difficult and highly unrealistic stellar target to use for such a purpose.[5]

In conclusion, it seems totally improbable that the Paleolithic peoples of southeast Anatolia gave up their free lives as hunters to

worship such an insignificant star. Clearly, if astronomical phenomena really did inspire these people's building motivations, then it did not involve either the stars of Orion or the lone star Sirius.

NORTH OR SOUTH?

In fact, there is a fundamental problem in even assuming that the main enclosures at Göbekli Tepe are oriented south, for although the humanlike features of the central monoliths are all turned this direction, there is no reason to conclude that their gaze is fixed toward the southern skyline. More likely, they greet the entrant approaching from the south in the same manner that statues in churches face the worshipper approaching the high altar. Church altars are located in the east, as this is the direction of heaven in Christian tradition, and also because churches were often aligned

toward the position where the sun rises on the feast day of its patron saint. Just because Jesus, Saint Michael, or the Virgin Mary faces *away* from the high altar does not mean their gaze is fixed toward the western skyline.

In Göbekli Tepe's case, if its enclosures did have a high altar or holy of holies, then it would have been in the north, the direction of darkness, where the sun never rises. It is also the direction of the celestial pole, the turning point of the heavens. In southeast and eastern Anatolia, northerly orientations of early Neolithic cult buildings have been noted at Çayönü, Nevalı Çori, and Hallan Çemi in the eastern Taurus Mountains (see chapter 23). It thus seems likely that Göbekli Tepe's enclosures are oriented toward the north, and not the south.

Concluding that Göbekli Tepe's central pillars face south without taking into account the significance that the north plays in Anatolia's early Neolithic tradition would be very foolish indeed.

What is more, the Sabaeans, the pagan star worshippers of the ancient city of Harran—the ruins of which are overlooked by Göbekli Tepe—each year celebrated the Mystery of the North, since this was deemed the direction of the primal cause and the source of life itself.[6] As we saw in the prologue, the earliest inhabitants of the city, who thrived a full ten thousand years ago, were very likely the direct descendants of the Göbekli builders.

Similar beliefs of the north being the original *qibla,* or direction of prayer, were held by other ethno-religious groups of the region, including the angel-worshipping Yezidi, the Mandaeans of Iraq and Iran, and an Ismaili sect known as the Brethren of Purity.[7] All of them most likely inherited aspects of their beliefs and practices from much earlier cultures with roots in the Neolithic age. With these thoughts in mind, Hale now turned his attention to the northern sky to identify any possible stellar targets there.

TARGET REVEALED

Just one star emerged as a potential candidate, and this was Deneb, the brightest star in the constellation of Cygnus, the celestial bird. Before 9500 BC Deneb was circumpolar, in that it never set, although after this time, through the effects of precession, it started to set each night on the north-northwestern horizon. As the centuries rolled by, the star's point of extinction moved ever westward in a manner that, as we see below, not only makes sense of the mean azimuths of the various sets of twin pillars at Göbekli Tepe but also offers realistic construction dates for the enclosures in question.

Enclosure D @ 353° = 9400 BC[*4]
Enclosure E @ 350° = 9290 BC
Enclosure C @ 345° = 8980 BC
Enclosure B @ 337° = 8235 BC

These dates should not be seen as absolute, as we have no idea as to what level of accuracy the Göbekli builders employed in their building construction. Even a small error in the positioning of the central pillars could alter the proposed alignment toward a stellar object by as much as a hundred years. Having said this, the construction dates of the various pairs of central pillars—suggested by their alignment to Deneb—correlate pretty well with available radiocarbon dates obtained from key enclosures.

ENCLOSURE DATES

For instance, loam taken from wall plaster found in Göbekli Tepe's Enclosure D has provided a radiocarbon age of 9745–9314 BC,[8] which corresponds perfectly with a date of ca. 9400 BC defined by the alignment of its twin pillars toward Deneb at this time. Interestingly, bone samples taken from Enclosure B have provided a

radiocarbon age of 8306–8236 BC,[9] which coincides with a suggested construction date of ca. 8235 BC implied by its twin pillars' alignment toward Deneb. Having said this, radiocarbon specialist Oliver Dietrich of the German Archaeological Institute believes these burials could have been made long after the construction of the enclosure, so no more can be said on the matter until better dating evidence becomes available.[10] Other radiocarbon dates have been obtained from organic materials found within the fill used to cover the major enclosures, and these range from the late tenth to the late ninth millennium BC, the time of the site's final abandonment.[11]

Clearly, the possibility that the central pillars in Göbekli Tepe's main enclosures were aligned to reflect the precessional shift of a single astronomical target across an extended period of time is borne out by the astronomical data presented by Rodney Hale. What is more, there is evidence that cult buildings at other Pre-Pottery

Neolithic sites in southeast Anatolia might also have reflected an interest in the star Deneb. For instance, the Flagstone Building, Skull Building, and Terrazzo Building at Çayönü are also aligned north-northwest with entrances in their southern walls (see figure 7.2 on p. 84). Hale checked their orientations, based on available plans, and established that they reflect alignments toward the setting of Deneb between ca. 8825 BC and 7950 BC—shown in the following table[12]—dates that accord well with recent revisions of Çayönü's age based on radiocarbon evidence obtained during the 1960s.[13]

Structure	Azimuth	Deneb Setting Date
Flagstone Building	345.35°	8810 BC
Skull Building	345.86°	8825 BC
Terrazzo Building	336.20°	7950 BC

CELESTIAL MARKERS

Coming to Göbekli Tepe's Enclosure E, the Felsentempel, where all the pillars have been removed and only the slots within the stone pedestals remain, we find that the orientation of its twin pillars targeted the setting of Deneb at a date of ca. 9290 BC, some 110 years later than those of Enclosure D (see figure 7.3 on p. 84). This said, the fact that Enclosure E's standing pillars have been removed makes it impossible to verify whether it really was aligned north toward Deneb. We are, however, on much firmer ground with Enclosure C.

According to Hale's calculations, Enclosure C's central pillars targeted the setting of Deneb around 8980 BC, suggesting that this was the time frame of their construction (no radiocarbon dates are available at present for this structure).[*5] Yet the rectangular slots cut out of the bedrock pedestals to support Enclosure C's twin monoliths are aligned slightly more toward north than the pillars

themselves. They are askew only by about a degree, although the difference between the stones and their slots is noticeable. This might indicate that the pillars target Deneb at a date slightly later than the construction of the slots, which could reflect the position of the star at an earlier date. If so, then quite possibly the enclosure is older than the 8980 BC date suggested by the proposed astronomical alignment of its twin pillars, perhaps by as much as a century or so. It is even possible that the monoliths were repositioned when it was realized they no longer synched with the setting of Deneb. So around 8980 BC they were turned very slightly to reflect the star's new setting position. If this theory is correct, then it is possible that the Göbekli builders were familiar with the effects of precession, which shifts a star against the local horizon at a rate of around one degree every seventy-two years.

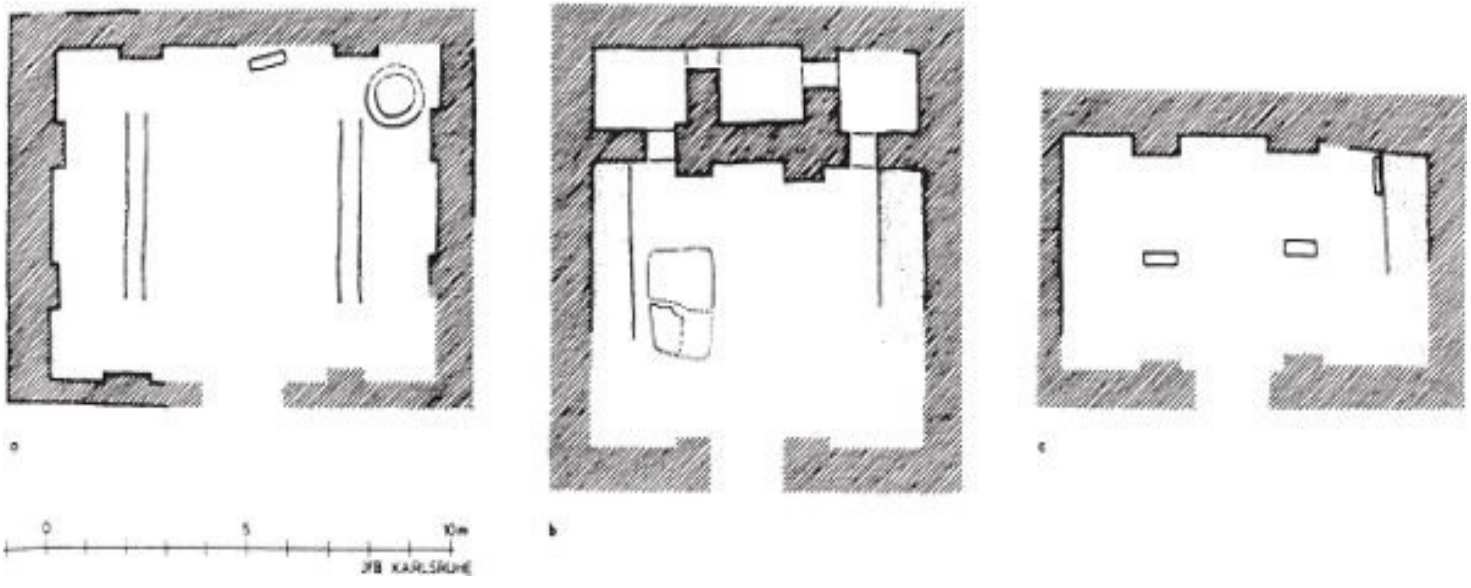

Figure 7.2. The three cult buildings at Çayönü—the Terrazzo Building, Skull Building, and Flagstone Building. All are oriented north-northwest with entrances in the south.

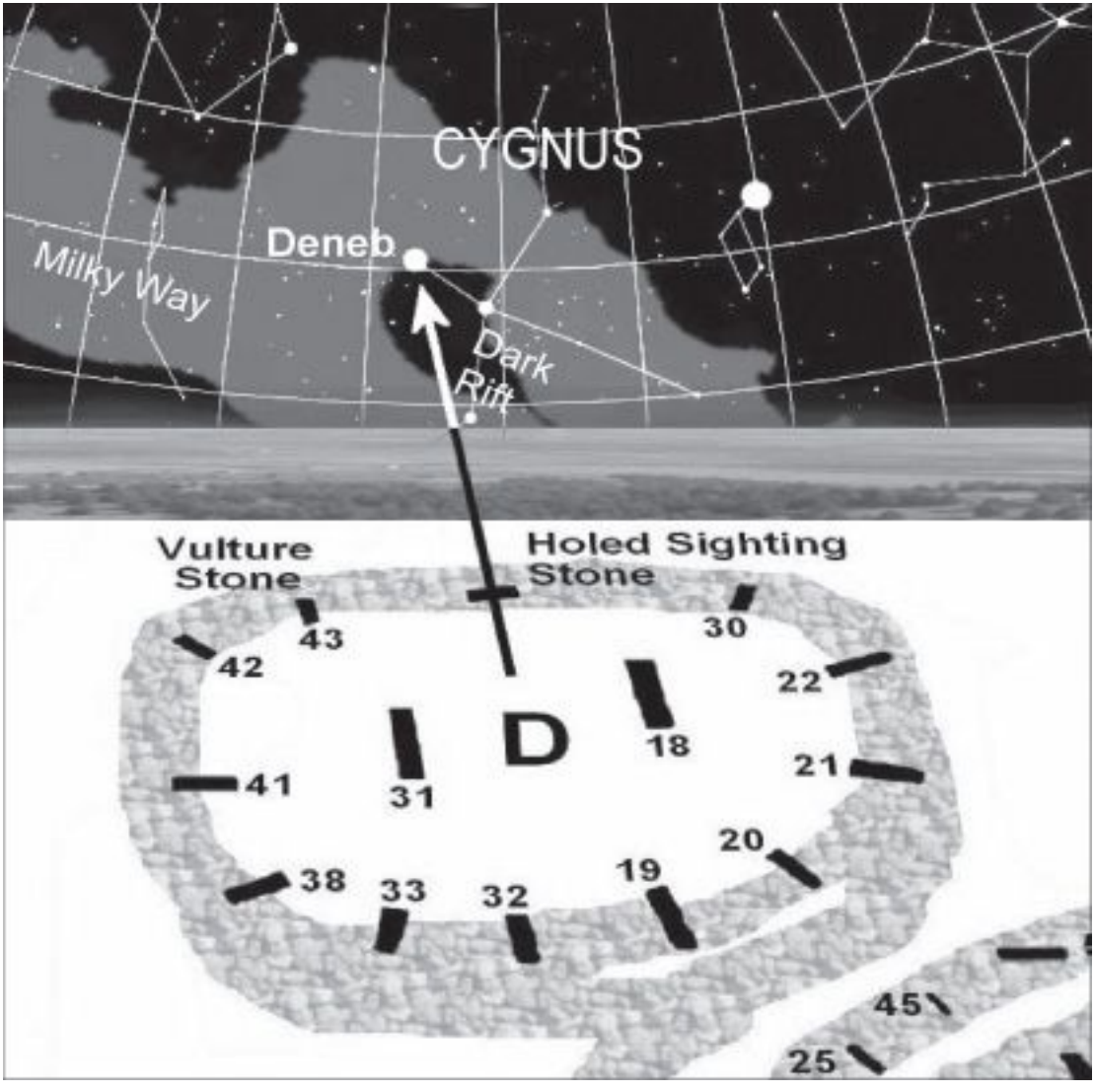
CYGNUS
Deneb
Milky Way
Dark Rift
Vulture Stone
Holed Sighting Stone
D
43
42
41
38
33
32
31
30
22
21
20
19
18
45
25

Figure 7.3. The alignment of Enclosure D's central pillars toward the star Deneb in Cygnus and the opening of the Milky Way's Great Rift, ca. 9400 BC.

SIGHTING STONE DISCOVERY

Further evidence of Göbekli Tepe's proposed astronomical alignments comes from Enclosure D. A stone pillar standing around 5 feet (1.5 meters) in height has recently been found in its north-northwestern perimeter wall, exactly behind and in line with its central pillars (see figure 10.3 on p. 109). The stone is rectangular, and unlike the rings of radially oriented pillars found in the main enclosures, it has one of its wider faces turned toward the center of the structure. The significance of this stone is that it has a hole some 9 to 10 inches (23–25 centimeters) in diameter bored through it horizontally at a height of around 3 feet (1 meter) off the ground.

Covering the stone is a series of curved lines, which flow in pairs and converge just beneath the hole before trailing off toward the stone's right-hand corner. Very likely they are a naïve representation of the human torso complete with legs bent at the knees (see chapter 10).

If the enclosure's twin pillars were indeed oriented toward Deneb, then a person, a shaman perhaps, would have been able to look through the stone's sighting hole to see Deneb setting on the north-northwestern horizon, a quite magnificent sight that cannot have happened by chance alone. Clearly, this is powerful evidence that the enclosure really was directed toward this star during the epoch of its construction.

A similar holed stone exists in Enclosure C, which is also located within the north-northwest section of the temenos wall (see figure 10.1 on p. 106). Designated Pillar 59, it has been turned over onto its eastern side and is fractured across its hole, with the top section

now missing. The diameter of the hole is very slightly larger than the one in the corresponding stone in Enclosure D, measuring 11 to 12 inches (28–30.5 centimeters). This is also the approximate width of the stone through which the hole has been bored.

The holed stone in Enclosure C remains only partly exposed. It leans forward so that no indication of whether it bears any carved relief, like its partner in Enclosure D, can yet be determined. What does seem clear is that when in its original position, Pillar 59 would have stood exactly behind and in line with Enclosure C's twin central pillars. This means that it too could have been used to observe the setting of Deneb when standing between the twin pillars during the epoch of its construction (bearing in mind that a second, inner ring of stones was added *after* the original construction of the outer circle, according to Klaus Schmidt.[14] Its construction would quite possibly have obscured the line of vision from the twin central pillars to the holed stone).

SOUL HOLES

So what exactly are these holed stones that once stood in the same positions in Enclosures C and D? The answer almost certainly is that they are *seelenloch,* a German word meaning "soul hole" (*seelenlocher,* "soul holes," in plural). Across Europe[*6] and also in southwest Asia[†7] megalithic structures, such as dolmens, passage graves, and chambered tombs, often incorporate upright entrance stones into which circular holes have been bored. These holes are usually between 10 and 16 inches (25–41 centimeters) in diameter, which makes them too small for an adult to pass through. This has led to speculation that they must have served some kind of symbolic function.

Prehistorians have suggested that the holes in dolmens might have allowed offerings of food to be made to the dead following their initial interment. This is at least possible. Yet more often than

not, holed entrances to megalithic structures are interpreted as seelenloch, holes that are believed to allow the spirit or soul of the deceased to exit the tomb. (Even Klaus Schmidt has suggested that fragmented stone rings found at Göbekli Tepe during the earliest surveys of the site might have functioned as seelenloch.[15] This, however, was long before the discovery of the aforementioned holed stones in Enclosures C and D.)

Holes were also bored into the shoulders or sides of cremation urns in Roman Europe,[16] and also in the Ararat Valley of eastern Anatolia during the Bronze Age,[17] apparently with similar purposes in mind. In places such as the Austrian Tyrol the concept of the seelenloch persisted until the twentieth century. Here, circular "doors" were built into the walls of houses, which were opened only when a person died in the house, the purpose being to allow the soul of the deceased to leave its earthly surroundings and depart for the afterlife.[18]

CAUCASIAN DOLMENS

By far the greatest concentration of dolmens with façades or entrance stones, into which holes have been bored, are to be found in the Caucasus region of Abkhazia and southern Russia, on the northeast coast of the Black Sea. Here as many as three thousand structures of this kind have been noted, many of which have never been properly recorded. Those that have been investigated produce radiocarbon dates and artifacts suggesting a construction date during the Bronze Age, ca. 3000–2000 BC.[19]

Many of the dolmens have paved-stone enclosures with tememos walls that incorporate the porthole stone. The similarity in design between these megalithic enclosures in the Caucasus and Göbekli Tepe's Enclosures C and D, with their own holed stones forming part of the temenos wall, is uncanny and must surely form part of a similar tradition.

Many of the Caucasian dolmens have carved reliefs around their

portholes. Often this shows twin pillars or supports capped with a trilithon (like those at Stonehenge), creating the image of a gateway or doorway, similar to the torii entrance gates to Japanese Shinto shrines. These carved gateways are curiously reminiscent of the twin pillars standing at the center of the enclosures at Göbekli Tepe.

It thus seems likely that the holed stones in Göbekli Tepe's Enclosures C and D functioned as seelenloch. If correct, then whether this rite of passage through the stone's bored hole related to souls of the deceased leaving the enclosure or unborn souls entering this world is a matter of debate discussed in chapter 10. More obviously, the seelenloch enabled the soul or spirit of the shaman to exit the structure.

PASSAGE OF THE SOUL

While in an ecstatic or altered state of consciousness a shaman

imagines him-or herself entering a hole or tunnel that allows access to otherworldly environments, either in the lower world (underworld) or upper world (sky world). Often these holes, particularly those leading to the lower world, are reached through the visualization of physical holes such as water holes, holes in tree trunks, circular depressions in rocks, entrances to caves, or holes carved in polished circular stones, similar to the jade *bi* or *pi* disks of Chinese folk tradition.[20] These are thought to symbolize the starry vault, with the hole in the center representing the access point to heaven.[21] Siberian shamans often wear on their coats disks with holes, which are usually made of iron. They bear names such as *künjeta* ("sun") and *oibon künga* ("hole-in-the-ice sun") and correspond with invisible holes (*oibone*) in the shaman's body used in spirit communication.[22]

This then is what the porthole stones in Göbekli Tepe's Enclosures C and D most likely signified—points of exit for the

shaman's soul on journeys to the sky world, accessed via the star Deneb in Cygnus. Yet why was this particular area of the sky of such interest to the shamans of the early Neolithic? The answer seems to lie in the fact that Deneb cannot take *all* the credit for causing the Göbekli builders to align the various sets of twin pillars toward the north-northwest. For Deneb's role as a stellar marker is in fact secondary to the Milky Way's Great Rift, which, as we find out next, was once seen as an entrance to the sky world.

8

THE PATH OF SOULS;

The orientation of the central pillars in Göbekli Tepe's main enclosures toward both Deneb and the Milky Way's Great Rift is by no means unique. All around the globe ancient cultures and societies saw this area of the heavens as an entrance to the sky world. It was considered a place of the gods, a land of the ancestors, and the source of creation in the universe.

For instance, the ancient Maya of Central America pictured Xibalba, their underworld, as accessible from a sky road known as *ri b'e xib'alb'a,* the Black Road, identified as the Milky Way's Great Rift.[1] Its actual entrance or location was represented by cave

and mouth imagery, often accompanied by a symbol known as the Cross Bands glyph. This has the appearance of a letter X inside a square frame and has been identified with the Cygnus stars in their guise as a celestial cross, made up of five specific stars.[2] The actual road to Xibalba (a word meaning "place of fear") is shown as a caiman crocodile, its long jaws the twin streams created by the Great Rift, with its head, eyes, and gullet located in the vicinity of the Cygnus region (see figure 8.1 on p. 90).

In Mayan mythology the solar god One Hunahpu was reborn from the mouth of the caiman. The sun god was perhaps imagined as being carried along the length of the creature's open jaws to the place where the ecliptic, the sun's path, crosses the Milky Way in the vicinity of the stars of Sagittarius and Scorpius.[3] This is a point corresponding, visually at least, with the nuclear bulge in the galactic plane that marks the center of the Milky Way galaxy. The sun god reached this point of rebirth at the moment of sunrise on the

winter solstice.

Figure 8.1. Left, caiman crocodile overlaid on the Milky Way's Great Rift, as conceived by the Maya of Central America. Right, the

Milky Way's Great Rift on its own for comparison.

The Olmec of Mexico, whom the Maya might well have seen as spiritual forebears, created grotesque stone offering tables with the likeness of the head and jaws of a monstrous jaguar. From the creature's open mouth (some see it as a cave entrance) a deity identified as a were-jaguar—half human, half jaguar—is seen emerging. Although next to nothing is known about Olmec cosmology, it probably involved mythological ideas similar to those of the Maya.

As the Cross Bands glyph appears on these offering tables, usually either between the teeth of the monster or on the headdress worn by the were-jaguar, it is likely the Olmec also had some concept of the sun god being reborn from the Milky Way's Great Rift, seen as the cavelike mouth of a hideous sky monster.

CLEAVING OPEN THE PORTALS

The Maya manufactured enormous ceremonial ax heads in jade that take the form of abstract were-jaguars, the lips on their human faces downturned in a peculiar and highly exaggerated manner (see figure 8.2). Across the top of the head, going from front to back, is a furrow or cleft, which has a deeply significant meaning, for on the were-jaguar's breech cloth the Cross Bands glyph appears, like the Union Jack emblazoned on a belt buckle. According to the label accompanying the British Museum's own were-jaguar hand ax:

> The crossed bands glyph incised on the breech cloth signifies an entrance or opening. . . . These symbols (i.e., the glyph and the cleft on the top of the head) proclaim the axe's magical power to cleave open the portals into the spirit world.

As that "spirit world" was almost certainly Xibalba, it confirms

that the Cross Bands glyph symbolizes its "entrance or opening," which, as we have seen, was marked by the constellation of Cygnus, the Northern Cross. Even the cleft is evidence of this connection, for the Great Rift is known also as the Great Cleft, as it appears to cleave the Milky Way in two, a symbolic act carried out in Mayan tradition by the jade ax in its celestial guise.

Figure 8.2. Left, Olmec altar at La Venta, in Mexico's Tabasco state, showing a figure emerging from the cave-like mouth of the were-jaguar. Note the Cross Bands glyph between the creature's fangs. Right, Mayan ax in jade fashioned into the likeness of the were-jaguar. Note the cross bands glyph on the belt buckle area of the breeches and the cleft on the top of the head.

THE DENEB PORTAL

Similar ideas regarding a spirit world existing beyond the opening to the Great Rift are held even today by a number of Native American tribes, whose star myths are thought to have a common origin among the Mississippi mound-building cultures, forming what is known as the Southeastern Ceremonial Complex, which thrived ca. AD 1200–1650.[4] The most consistent story that emerges from their beliefs and practices tells of how in death the soul departs

to the west, a journey that takes three to four days to complete. When finally it reaches the edge of the Earth's disk, the soul waits for the right moment to make a leap of faith to enter the Milky Way, the so-called Path of Souls, via a star portal, knowing that the consequences of failing this difficult jump will mean being lost forever in the lower world.

The portal is marked by a celestial hand, its fingers pointing downward and made up of stars belonging to the Orion constellation, the three belt stars marking the severed wrist. It is a symbol found again and again in the iconography of the Southeastern Ceremonial Complex and dates back to the Hopewell mound builders of Ohio, who thrived some two thousand years ago.

The actual portal is the stellar object Messier 42, a small, fuzzy nebula located in Orion's "sword." Here the soul joins the Milky Way and travels south and then north until it reaches a fork on the path identified with the twin arms of the Great Rift. Its longer arm,

the one bridging the two halves of the Milky Way, is envisioned as a log spanning a celestial river that the soul must cross to reach the sky world.

Yet before the soul can cross the log bridge it has to encounter its guardian, most usually a "forked-eye raptor," a supernatural eagle known as the "Brain Smasher," identified with the star Deneb. Only by receiving the right judgment can the soul avoid Brain Smasher and pass over the log and enter the afterlife. If the judgment is not favorable, the soul is forced to take the Great Rift's shorter, severed arm, which leads only to oblivion. Clearly, the raptor is Cygnus in its role as the celestial bird, its forked eye the Milky Way's Great Rift (see figure 8.3).

STORM DEMON WITH OPEN MOUTH

How exactly the Göbekli builders might have viewed the starry

existence beyond the Great Rift is now lost. Yet some idea of their understanding of cosmic geography can be gleaned from the star lore recorded in cuneiform script by the astronomer-priests of the civilizations that thrived on the Mesopotamia Plain in what is today Iraq.

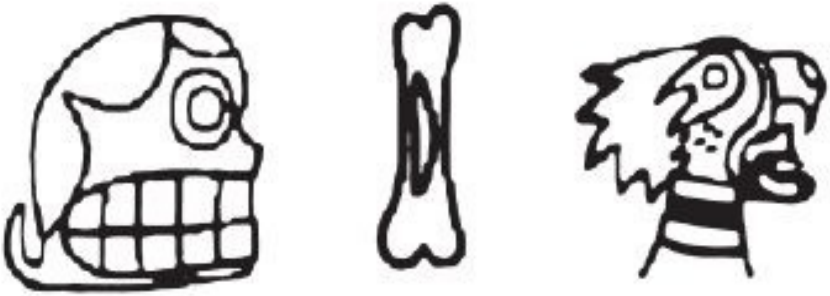

Top: Skull and Bone represent the life soul and free soul. The Raptor is the guardian of the place where the Milky Way splits into two tracks. It is a bird based on the Cygnus constellation. The "forked eye" of the raptor represents the split at the Milky Way. Right: Copper object from Moundville—the hole in the "eye in the hand" is the portal M42. The soul then moves up to the Milky Way and encounters the split creating the Dark Rift. The top circle, often represented as a "Cross," is the star Deneb, the final destination of the soul.

Figure 8.3. Native American symbols from artifacts found at mound sites. Note the raptor, which represents Cygnus, and the eye in the hand, representing Orion, above which is a circle that represents the bright star Deneb in Cygnus (after Greg Little).

Babylonian texts, which contain source material that goes back to the third millennium BC, catalogue dozens of stellar objects, either stars or asterisms, a few of which, such as the Scorpion (Scorpius), the Goat-headed Fish (Capricorn), and the Lion (Leo), are recognizable from their equivalents in the Greek zodiac. The stars of Cygnus would seem to have been combined with others from the neighboring constellation of Cepheus (located immediately above Deneb in astronomical terms) to create a huge griffinlike creature with the head and body of a panther (*nimru* in Akkadian) and the wings, back feet, and tail of an eagle. Its name was ^{MUL}UD.KA.DUH.A, which means "constellation (MUL) of the

storm-demon with an open mouth," and it was seen as the place of reception of dead souls.[5]

With the head of the panther in Cygnus[6] and its tail in Cepheus (making it perfectly synchronized with the Milky Way), it becomes clear that in Babylonian star lore the entrance to the realm of the dead was through the mouth or gullet of ^{MUL}UD.KA.DUH.A, which corresponds to the opening of the Great Rift. This, of course, is similar to the Olmec and Mayan conception of the entrance to the underworld being through the mouth of a gruesome monster, either a jaguar or caiman. For this reason, it seems certain that the Babylonians, and presumably their forebears the Sumerians and Akkadians, saw the entrance to the netherworld, or realm of the dead, as synonymous with the Great Rift.

VENERATION OF THE POLE STAR

From the evidence presented here, it seems likely that the Pre-Pottery Neolithic peoples of southeast Anatolia considered Deneb the visible marker for the opening into a sky world accessed via the Milky Way's Great Rift. Why exactly this particular area of the sky became so important to the mind-set of the Pre-Pottery Neolithic world of southeast Anatolia lies in the fact that there was no Pole Star when Göbekli Tepe was constructed, ca. 9500–8000 BC. In other words, the celestial pole was not marked by any bright stellar object in the night sky. Thus it seems reasonable to suggest that the Göbekli builders adhered to much earlier Paleolithic traditions regarding the location of the sky world that reached back to a time when Deneb was Pole Star, ca. 16,500–14,500 BC. It was, of course, during this epoch that the Lascaux Shaft Scene was created by Paleolithic cave artists. This shows the bird on the pole, perhaps signifying the ascent of the bird-headed shaman (depicted next to it) into a sky world accessed through the celestial pole, marked at that time by Cygnus in the form of a bird.

SHIFTING POLE STARS

Is it really possible that the people of Göbekli Tepe followed a tradition that was more than five thousand years old? As already mentioned, the effects of precession caused the celestial pole to shift away from Cygnus around 13,000 BC. Thereafter it entered the constellation of Lyra, causing its bright star Vega to become Pole Star, ca. 13,000–11,000 BC. So why had the sky watchers of this age not switched their allegiance from Cygnus to Vega? The answer is that some Paleolithic cultures probably did start seeing Vega as the point of entry to the sky world. However, others almost certainly remained loyal to Cygnus, and Deneb in particular, simply because it synchronized with the start of the Milky Way's Great Rift, which was already considered the rightful entrance to the sky world. Visually, the star Vega lies well away from both the Great Rift *and* the Milky Way, explaining why the star might not have attained the same significance as Deneb.

So not only did Vega lose its importance around 11,000 BC, but veneration of Deneb and the Great Rift as the true entrance to the sky world was almost certainly on the increase again, a situation that probably existed when the main enclosures at Göbekli Tepe were under construction in the tenth millennium BC. It thus makes sense that the builders of these monuments, the oldest known star temples anywhere in the world, chose to align them to the opening of the Great Rift, the most obvious point of entry into the sky world at that time.

Yet as we shall see next, the method by which the soul made its journey to and from the sky world was by using Cygnus's most primordial totem, the celestial bird, which we find represented quite spectacularly in the carved art at Göbekli Tepe.

9

CULT OF THE VULTURE

At Çatal Höyük, the 9,500-year-old Neolithic city in southern central Anatolia, the dead were portrayed in art as headless matchstick men, often seen in the company of vultures. These are carrion or scavenger birds associated with the process of excarnation, the deliberate defleshing of human carcasses, which often took place on wooden mortuary towers, the remaining bones being afterward collected for what is known as a secondary, or disarticulated, burial.

Excarnation is certainly considered to have taken place during the Neolithic age and might even have occurred at Göbekli Tepe,

according to Klaus Schmidt. He compares its large enclosures to the Towers of Silence that feature in the funerary practices of the religion known as Zoroastrianism,[1] which thrived in Iran, Armenia, and later India (under the name Parsism) until comparatively recent times. Here the dead were placed at the top of round stone towers, the Towers of Silence, away from a community. The vultures would swoop down and pick the carcasses clean, after which the remaining bones were allowed to calcine in the hot sun before being collected for final burial.

Although such practices are rare today, they do continue under the name sky burials among some remote Tibetan Buddhist communities in the Himalayas. Eyewitness reports show that first the vultures swoop down to devour the carcasses, then the ravens, hawks, and crows arrive to finish the job, almost as if this honor among birds might be the true origin of the term *pecking order*.

Excarnation almost certainly occurred at Çatal Höyük, where it is

depicted on at least one painted fresco (see figure 9.1). This shows two wooden towers, accessed by a staircase, at the base of which are two figures, guardians perhaps of the charnel area. On top of the right-hand tower vultures attack a headless matchstick man, which is very likely an abstract symbol used to represent a dead body. The head was considered the seat of the soul, and because the soul has departed the body, it is portrayed as headless; that is, soulless. The missing head is seen in outline on top of the left-hand tower, where two vultures appear to be taking the head, or soul, under their wings.

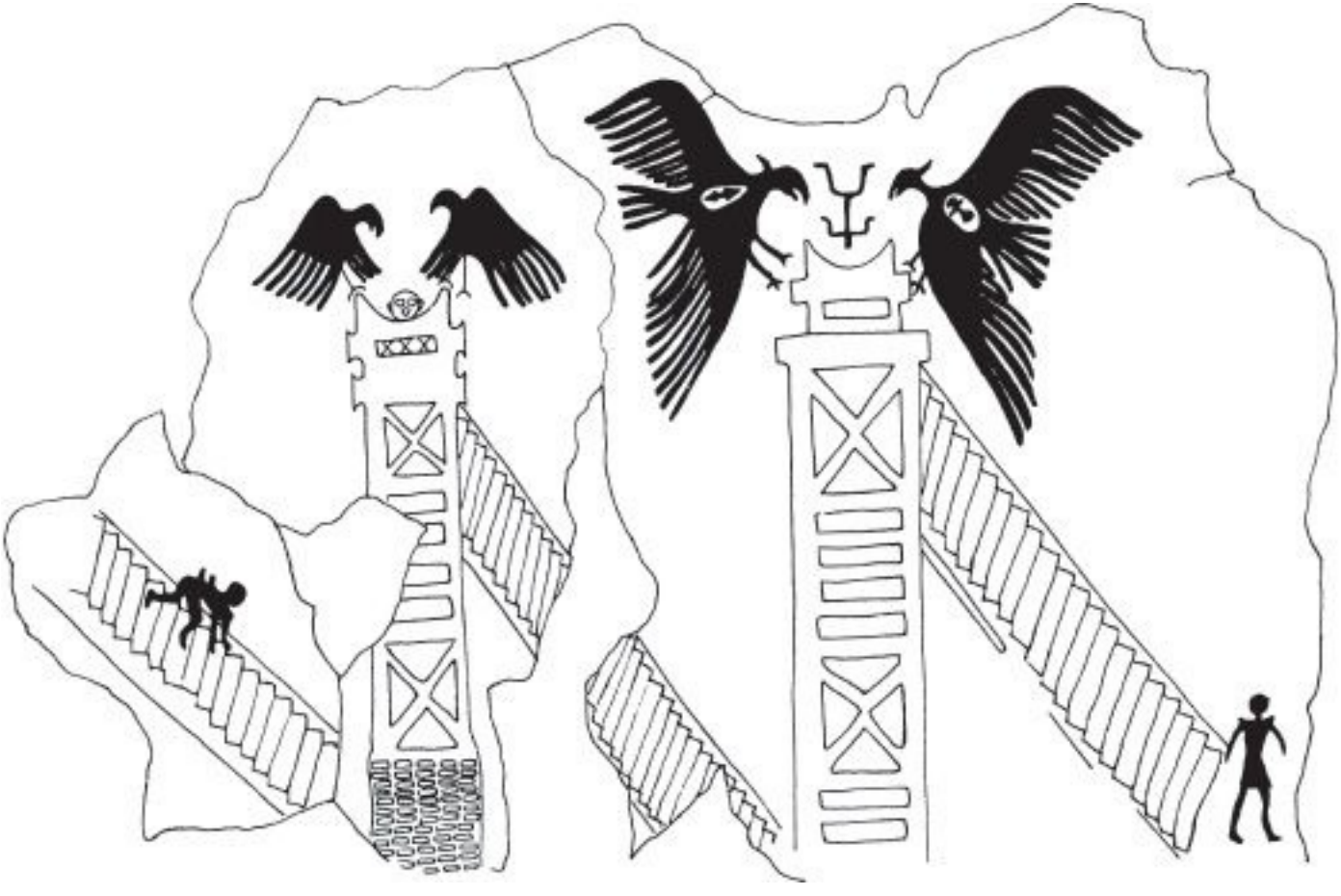

Figure 9.1. Excarnation towers from a reconstructed panel found at the Neolithic city of Çatal Höyük, dating to 7500–5700 BC (after

James Mellaart). Note the soul of the deceased depicted as a head, with its denuded body shown as a headless matchstick man.

PSYCHOPOMP

The painting is meant to convey the idea that, even though the human carcass might suffer the unsightly (although very efficient) act of excarnation, the spirits of the vultures accompany the soul into the afterlife. Each bird is thus acting as a *psychopomp,* an ancient Greek word meaning "soul carrier," used to describe a supernatural being or creature whose role was to assist a newly deceased soul reach the next world.

British archaeologist James Mellaart recorded that all panels connected with death and rebirth at Çatal Höyük were located on either the north or east walls of cult shrines.[2] East is clearly the direction of rebirth, symbolized by the appearance of the sun each

morning, leaving the north as the direction of the netherworld, the realm of darkness and the dead. Indeed, some of the most prominent vulture imagery featuring matchstick men at Çatal Höyük was placed on the north walls of cult shrines.

Not only is the north the only place where, in the Northern Hemisphere, the sun never reaches, it is also the direction of the Milky Way's Great Rift, the stars of Cygnus, and, of course, the celestial pole. Was it in this direction, toward the perceived entrance to the sky world, that the vultures were thought to carry or accompany the soul into the afterlife?

Although Cygnus is most often represented in Eurasian star lore as a swan, evidence indicates it was once seen on the Euphrates as *Vultur cadens,* the "falling vulture,"[3] even though this is a title more commonly associated with the nearby constellation of Lyra.

GÖBEKLI'S VULTURE STONE

Representations of vultures were found among the ruins of the cult building at Nevalı Çori. Here Harald Hauptmann and his team uncovered a stone totem pole on which human heads and vultures are shown together, as well as a beautifully executed sculpture of a vulture that would not look out of place in a modern art gallery. Yet strangely this beautiful piece of art was being used as fill within the wall of the cult building, indicating that it belonged to an earlier phase of building activity, probably ca. 8500–8400 BC.

Vultures are also to be seen among the carved art at Göbekli Tepe, most obviously on Pillar 43. Located in the north-northwestern section of Enclosure D, it stands immediately west of the holed stone that would have allowed a person crouching between the twin pillars to observe the setting of Deneb during the epoch in question.

On Pillar 43's western face are three vultures, one of which is a

juvenile. Also visible is a scorpion and two long-necked wader birds—flamingos perhaps—and between them and the head of the adult vulture in the upper register is a line of small squares, abutted on each side by a series of V-shapes, possibly signifying the flow of water.

Other strange features are depicted at the top of the stone. Three rectangular forms appear in a line with linked loops that make them resemble handbags. Next to each is a small creature, which in order, from left to right, can be identified as a long-legged bird (a wader perhaps), a quadruped (seemingly a feline), and an amphibian (possibly a frog or toad). An interpretation of this scene is problematic, although the handbags, or "man bags," as some people are calling them, are most likely animal pens or houses, situated on what could be the edge of a river, upon which is a trackway (the lines of squares) underneath which flows water (the accompanying V-shapes).

This, however, is not why Pillar 43 has been singled out as important. It is the vulture positioned at the end of the line of small squares that draws the eye (see figure 9.2 on p. 100). It stands up, with its wings articulated in a manner resembling human arms. It also has bent knees and bizarre flat feet, in the shape of oversized clowns' shoes, indicating that this is very likely a shaman in the guise of a vulture or a bird spirit with anthropomorphic features. Similar vultures with articulated legs are depicted on the walls of shrines at Çatal Höyük, and these too are interpreted either as anthropomorphs or as shamans adorned in the manner of vultures.[4]

HEAD LIKE A BALL

Just above the vulture's right wing is a carved circle, like a ball or sun disk. Klaus Schmidt interprets this "ball" as a human head, and this is almost certainly what it is, for on the back of another vulture

lower down the register is a headless, or soulless, figure, just like the examples found in association with the vultures and excarnation towers at Çatal Höyük. And we can be sure that this "ball" *does* represent a human head as similar balls are seen in the prehistoric rock art of the region, where their context makes it clear they represent human souls.[5] As Anatolian prehistoric rock art expert Muvaffak Uyanik explains:

Figure 9.2. Göbekli Tepe's Vulture Stone (Pillar 43). Note the scorpion on the shaft, the headless human figure with erect penis on the neck of the vulture-like bird at the base of the shaft, and the ball above the right wing of the vulture in the upper register.

> In the Mesolithic age [i.e., in the epoch of the Göbekli builders], it was realized that man had a soul, apart from his body and, as it was accepted that the soul inhabited the head, only the skull of the human body was buried. We also know that the human soul was symbolized as a circle and that this symbol was later used, in a traditional manner, on tomb-stones without inscriptions.[6]

So the headless figure represents not only the human skeleton but also a dead man whose soul has departed in the form of a ball-like head that is now under the charge of the vulture, which is itself

arguably a bird spirit with human attributes, a were-vulture, if you like. Clearly, Göbekli Tepe's Pillar 43—the Vulture Stone, as we shall call it—conveys in symbolic form the release of the soul into the care of the vulture in its role as psychopomp, or soul carrier, on its journey into the afterlife (Schmidt's suggestion[7] that the vulture is playing with a human head as part of some macabre game is simply inadequate to explain what is going on here).

VULTURE WINGS

Evidence of vulture-related shamanism has been found also at other sites across the region. For instance, during the 1950s at an open-air settlement called Zawi Chemi Shanidar, which overlooks the Greater Zab River in the Zagros Mountains of northern Iraq, American archaeologists Ralph and Rose Solecki discovered the wings of seventeen large predatory birds, along with the skulls of at

least fifteen goats and wild sheep.

Among the species of bird represented by the bones, many of them still articulated, were the bearded vulture (*Gypaetus barbatus*) and griffon vulture (*Gyps fulvus*), as well as various species of eagle. They were found positioned by the wall of a stone structure, which probably served a cultic function.[8] The excavators were in no doubt that the wings had been severed from the birds at the point of death and worn as part of a ritualistic costume.[9] In other words, shamans utilized these wings as "ritual paraphernalia"[10] in order to adopt the guise of the vulture in its role as a primary symbol of the cult of the dead.

The wings were radiocarbon dated to 8870 BC (+/- 300 years),[11] although modern forms of recalibration (due to recent reassessments of the amount of carbon-14 present in organic matter during former ages) means they probably date to the end of the Younger Dryas period, ca. 9600 BC[12]; that is, shortly before the construction of the

large enclosures at Göbekli Tepe, which as the crow flies is about 280 miles (450 kilometers) west of Zawi Chemi Shanidar.

STAR MAP IN STONE

If Göbekli Tepe's Vulture Stone *does* show a human soul being accompanied into the afterlife by a psychopomp in the likeness of a vulture, then there has to be a chance that its rich imagery contains themes of a celestial nature. Scholars working in the field of archaeoastronomy have been quick to point out that the scorpion shown at the base of the shaft could signify the constellation Scorpius.[13] Certainly, in Babylonian astronomical texts such as those found on the Mul-Apin tablets, the stars of Scorpius are identified with a constellation named Scorpion (^{MUL}GIR.TAB).[14]

In the cosmological art of the Maya in Central America, a scorpion is often shown at the base of the world tree (see figure

9.3), a symbol interpreted by some scholars as the Milky Way standing erect on the horizon. This has led to the scorpion being identified with the constellation Scorpius, which lies immediately beneath the Milky Way's Great Rift.[15] Thus it is conceivable that there existed a universal identification of the stars of Scorpius with the symbol of a scorpion that originated in the Paleolithic age, the reason it appears on Göbekli Tepe's Vulture Stone, carved ca. 9500–9000 BC.

CYGNUS AS A VULTURE

If Pillar 43's scorpion *does* represent the Scorpius constellation and is thus symbolizing the point of crossing between the ecliptic and the Milky Way's Great Rift, then the vulture with articulated wings and clownlike feet at the top of the stone completes the cosmic picture. Its wings, head, neck, and body have a familiar ring to

them, for they form a near perfect outline of the Cygnus constellation, with the vulture's head in the position of Deneb and its outstretched wings matching those of its celestial counterpart as it appeared 11,500 years ago (see figure 9.4). This identification with Cygnus, first noted by Professor Vachagan Vahradyan of the Russian-Armenian (Slavonic) University,[16] is remarkable and unlikely to be coincidence.

Thus the abstract imagery on Pillar 43, with its headless matchstick man next to the scorpion, and the ball-like head above the left wing of the vulture, probably shows the transmigration of the soul from its terrestrial environment, signified by the stars of Scorpius at the base of the Milky Way's Great Rift, to its final destination in the region of the Cygnus constellation at the top of the Great Rift.

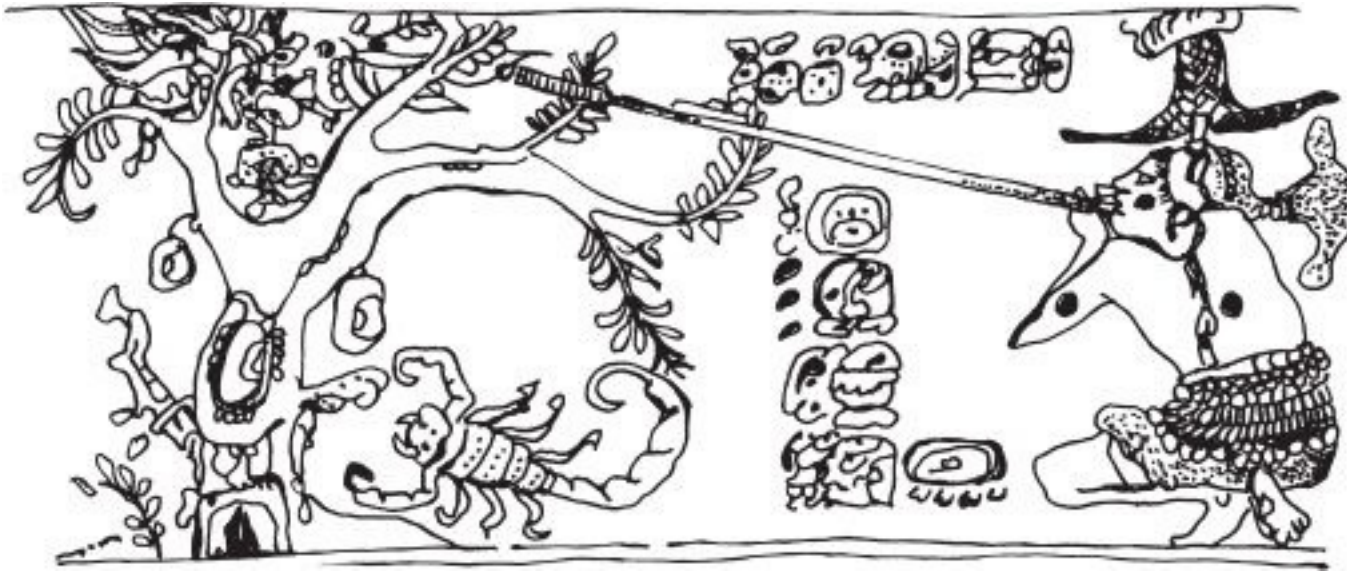

Figure 9.3. Mayan cosmic tree, symbol of the Milky Way, with a scorpion by its base perhaps signifying the constellation Scorpius.

CYGNUS

Figure 9.4. Göbekli Tepe's Vulture Stone (Pillar 43) with the Cygnus constellation overlaid.

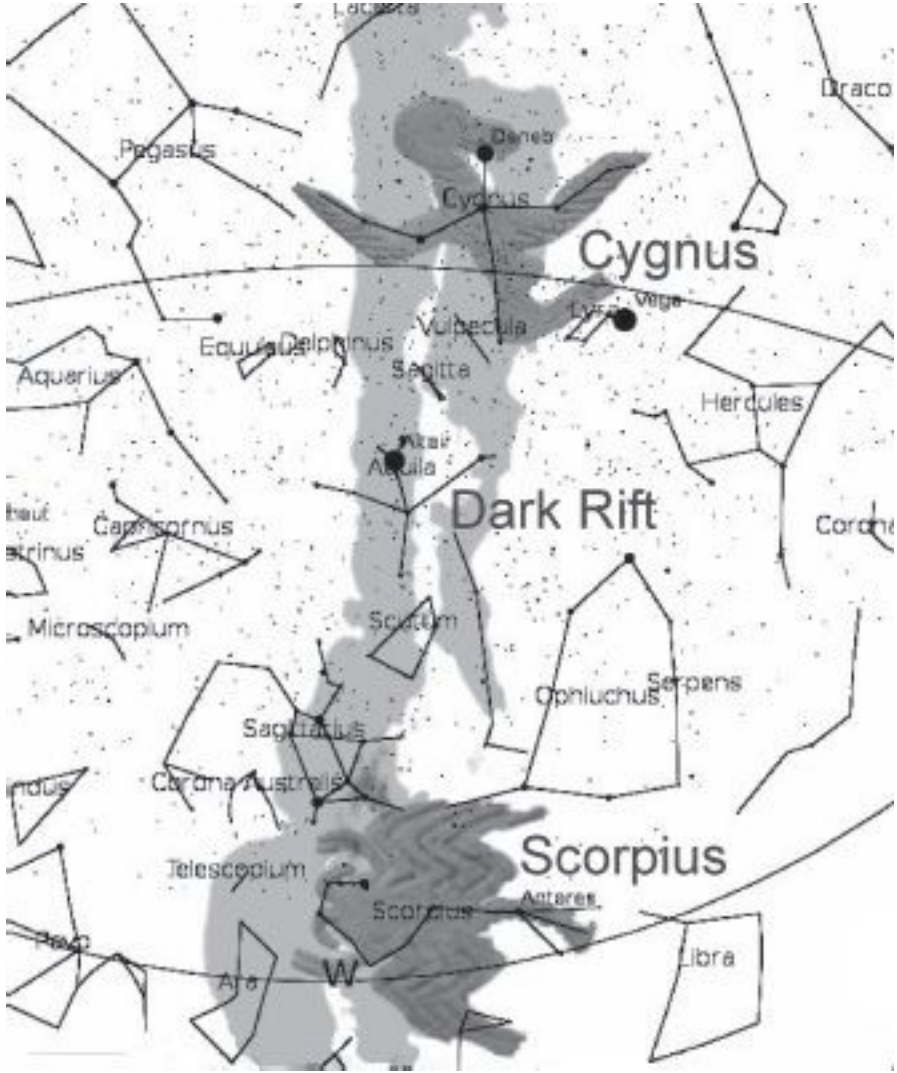
Draco
Pegasus
Deneb
Cygnus
Cygnus
Vega
Lyra
Vulpecula
Delphinus
Equuleus
Sagitta
Aquarius
Hercules
Altair
Aquila
Dark Rift
Capricornus
Microscopium
Scutum
Ophiuchus
Serpens
Sagittarius
Corona Australis
Scorpius
Telescopium
Scorpius
Antares
Libra
Ara
W

Figure 9.5. The Milky Way's Great Rift overlaid with the scorpion and vulture from Göbekli Tepe's Vulture Stone (Pillar 43), showing their match with, respectively, the stars of Scorpius when just above the western horizon and, at the same time, Cygnus (the vulture) as it crosses the meridian high in the sky.

Absolute confirmation of this pictorial journey into the afterlife comes from the fact that in 9500 BC, when Scorpius came into view on the western horizon shortly after sunset, the Milky Way's Great Rift would have stretched upward into the night sky to highlight Cygnus as it crossed the meridian on its upper transit at an elevation of approximately 70 degrees. It is almost certainly this relationship between the two constellations that is depicted on Göbekli Tepe's Vulture Stone, especially as the pillar's clown-footed vulture and scorpion are in similar positions to their celestial counterparts (see figure 9.5).

The fact that Enclosure D's Vulture Stone is also in the north-

northwest, next to the holed stone and on the same basic alignment as its twin pillars, is another potential clue as to its astronomical function, in particular its connection with Cygnus and the Milky Way's Great Rift. Yet how exactly did the Göbekli builders envision the sky world, which seems to have been intrinsically linked to the symbol of the vulture? The greatest clue comes from the holed stone, which, as we have seen, probably acted as a seelenloch, or soul hole, through which the soul had to pass in order to reach its otherworldly destination.

10

COSMIC BIRTH STONE

If the twin monoliths at the center of Göbekli Tepe's Enclosure D *were* once oriented toward the setting of Deneb in the epoch of their construction, then, as we have seen, a person standing or crouching between them would have been able to view this astronomical spectacle through a holed stone located immediately east of the Vulture Stone. It would have been a similar case in Enclosure C, where the entrant would also have been able to witness the setting of Deneb through the aperture of a holed stone (Pillar 59) when positioned between the twin central pillars.

It is time now to better understand the purpose of these holed

stones, focusing our attentions on the example in Enclosure D, which remains in situ. It has carved parallel lines that curve around the hole to form what appear to be naïve renderings of human legs bent at the knee. After coming together beneath the hole the “legs” trail off toward the bottom right-hand corner of the stone, leaving a parallel opening between the knee and the presumed ankles. That the twin sets of parallel lines represent legs, and not something else, is confirmed by the fact that the lower left-hand edge noticeably bulges as if to signify the person’s right-hand buttock (see figure 10.1).

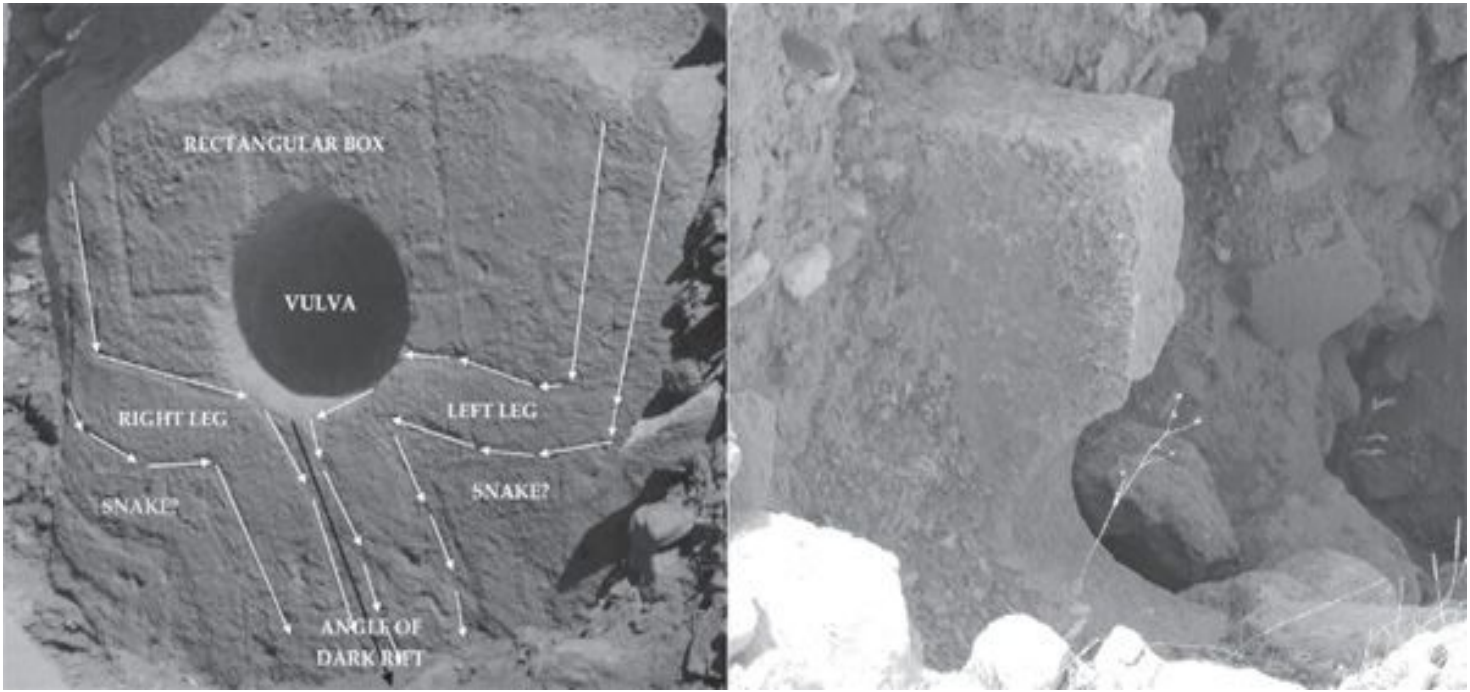

Figure 10.1. Left, decorated holed stone in the north wall of Göbekli Tepe's Enclosure D. Note the lines flowing around the hole, suggestive of an abstract female form. Right, the broken holed stone in a similar position in Enclosure C.

THE KILISIK STATUE

If the incised lines on the sighting stone do show a pair of legs bent at the knees, then the large hole directly above them can only signify one thing—the person's, or should I say the woman's, vulva. A similar hole is seen on the mini T-shaped statue found in 1965 at Kilisik, a village in Adıyaman province, some 46.5 miles (75 kilometers) north-northwest of Göbekli Tepe.[1] In addition to having arms and hands, like the T-shaped pillars at Göbekli Tepe and Nevalı Çori, the statue has an additional line that rises at an angle on both its wide faces to meet the hands on the front narrow face. It seems clear that the figure is lifting up its garment to expose its belly and genitalia (see figure 10.2).

Strangely, the belly or womb area of the statue is sculpted into a much smaller human form represented by a crude head, body, and arms, executed in a style reminiscent of a macabre stone totem pole unearthed at Göbekli Tepe and now in Şanlıurfa's archaeological

museum. This too shows smaller human forms in the position of the womb or stomach of a much larger standing figure (see plate 24).

The small figure on the Kilisik statue very likely represents a fetus inside a woman's womb, the large incised hole immediately beneath the belly emphasizing not just the position of the vulva but also the birth canal. That a very similar, although much larger hole, has been bored through Enclosure D's potential sighting stone, which is itself surrounded by incised lines arguably signifying the legs of a woman, suggests this hole is also an exaggerated vulva (presumably the holed stone at the same position in Enclosure C played a similar role).

Figure 10.2. Stone statue of a T-shaped figure found in 1965 at Kilisik in Adıyaman province, some 46.5 miles (75 kilometers) from Göbekli Tepe. Note the hole forming the figure's vulva and the small human figure carved into the stomach area.

This means that when in 9400 BC the setting of Deneb aligned with the hole in the sighting stone in Enclosure D, the star's presence would have been framed within the abstract woman's vulva. Clearly, this carefully executed synchronization between star and stone was created to mark the moment of alignment with the opening of the Milky Way's Great Rift in its role as the suspected entrance to the sky world, where souls departed to in death and, presumably, emerged from at birth. We can go further, for the angle made by the woman's lower legs, as they trail off toward the right-hand corner of the stone, is similar to the angle of the Milky Way and Great Rift when the star Deneb is at approximately 45 degrees

in elevation. In other words, the manner of placement of the woman's legs seems to emphasize that her vulva marks the entrance to the Great Rift (see figure 10.3).

So if the abstract female form seen on the holed stone in Enclosure D symbolizes the Cosmic Mother, is the purpose of the synchronization between star and stone to indicate that she is about to give birth? Should this surmise prove correct, there can be little doubt that this was a highly symbolic act seen to take place both in a material sense within the womblike enclosure, *and* in a celestial form, with the cosmic child imagined as emerging into life from the opening of the Great Rift (exactly like the rebirth of the solar god One Hunahpu in Mayan myth and legend). In this manner, the cosmic child would have been seen to come forth from Cygnus, then descend the Great Rift to the "ground"; that is, the horizon, where the ecliptic, the sun's path, crossed the Milky Way in the vicinity of the stars of Sagittarius and Scorpius.

COSMIC BIRTH

Almost exactly what we see represented in abstract form on the sighting stone in Göbekli Tepe's Enclosure D is found also on the Venus and Sorcerer panel inside France's Chauvet Cave, which, as we have seen, was created by Upper Paleolithic cave artists some thirty-two thousand years ago. Here too the abstract legs of the "Venus" seem to signify the twin streams of the Milky Way on either side of the Great Rift, with the head of a young bovine overlaid upon the position of the womb (see figure 6.3 below). In this context, the bucranium likely represents the Cygnus constellation in its role as the head of a bull calf, which in prehistoric times was seen as an abstract symbol of the female womb or uterus, complete with its hornlike fallopian tubes (see figure 10.4 on p. 110). The uncanny resemblance between the two is something our ancestors would appear to have realized at a very early stage in human development,[2] making the bucranium, and the

bull calf in general, primary symbols of birth and death in the Neolithic age.

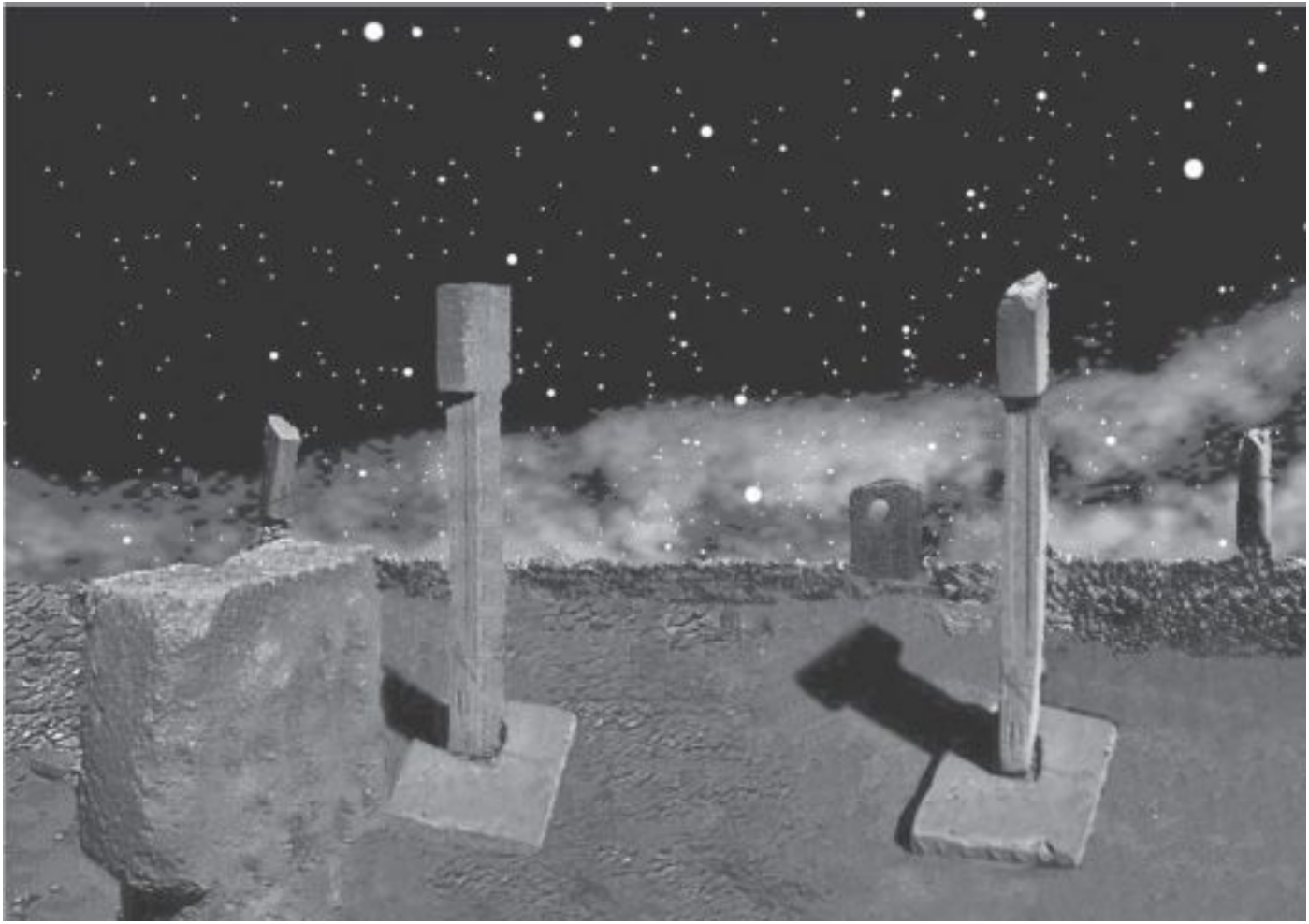

Figure 10.3. Göbekli Tepe's Enclosure D, showing the location of

the holed sighting stone in its perimeter wall. Note the Milky Way's Great Rift on the horizon.

We are reminded also of the 3-D frescoes from Çatal Höyük showing bulls being born from between the legs of divine females (who have the heads of leopards), and the ancient Egyptian belief that the goddess Hathor, in her role as the Milky Way, gave birth each morning to the sun god in the form of a bull calf. The cult of Hathor was virtually synonymous with that of Nut, the sky goddess, who was herself a personification of the Milky Way, her womb and vulva occupied by the stars of Cygnus (see figure 10.5 on p. 110).[3]

Nut was the mother of Osiris, the god of death and resurrection, and also of Re, the sun-god, who was reborn each morning from between her loins. In death, the pharaoh would assume the identity of Osiris and reenter the womb of his mother, Nut, in order to reach an afterlife among the stars. In other words, as the resurrected god

Osiris the deceased would return from whence he or she had come originally, which was the Milky Way's Great Rift in the vicinity of the Cygnus constellation.

Figure 10.4. Left, womb or uterus, complete with fallopian tubes. Center, the stars of Cygnus overlaid on a bovine head. Right, an abstract uterus design from the Pazyryk culture of Siberia, from approximately the sixth to third century BC.

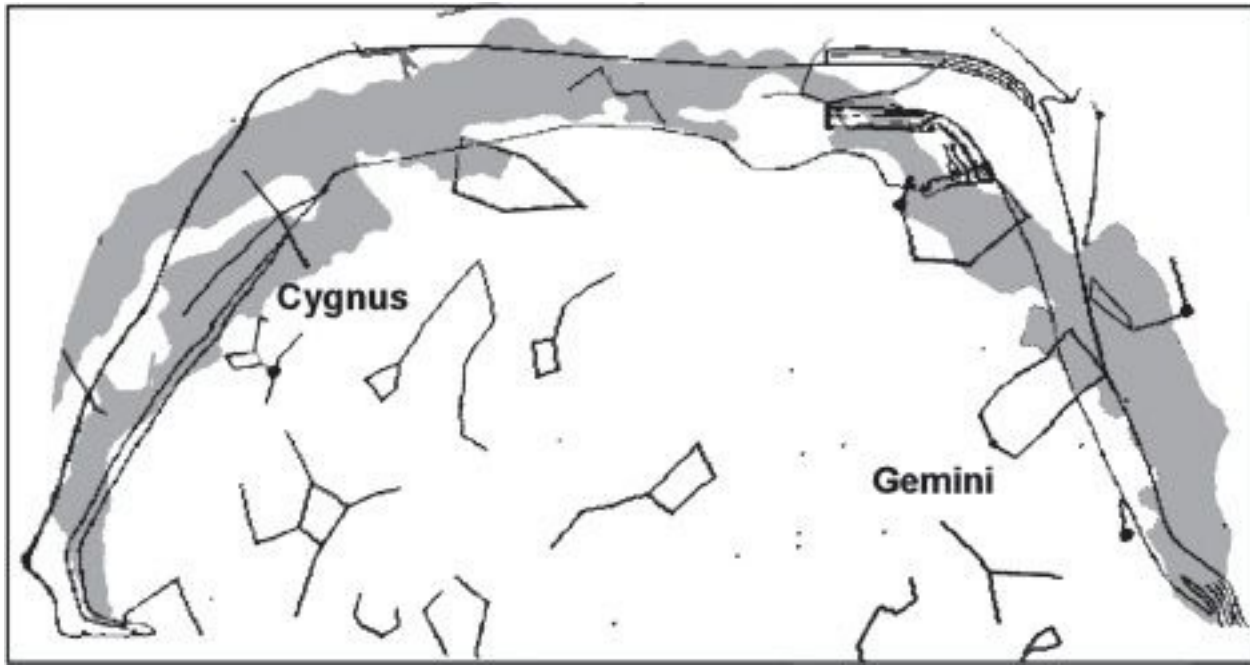

Figure 10.5. Ancient Egyptian sky goddess Nut in her role as a personification of the Milky Way, with the stars of Cygnus marking her womb and vulva, and the Great Rift signifying the gap between her legs (after R. A. Wells).

BIRTH CHAMBER

How exactly the entrants to Göbekli Tepe's Enclosure D, or indeed its neighbor, Enclosure C, might have celebrated the act of cosmic birth is open to speculation. Perhaps the new soul was believed to emerge from the opening of the Great Rift and then in some unimaginable manner enter a pregnant woman waiting between the enclosure's twin pillars. A ritual act like this might have taken place either at the point of conception, sometime during pregnancy, or, perhaps, shortly before birth. It might even be that some births actually took place between the enclosure's central pillars, mimicking exactly what the incised lines on the holed stone were attempting to convey.

So not only were the enclosures at Göbekli Tepe built to honor the departure of the soul in the company of the vulture in its role as psychopomp (remember, the Vulture Stone is next to Enclosure D's holed stone or Cosmic Birth Stone, as we shall call it), but they

were also designed to bring forth new life. Presumably souls entering the world would be accompanied by a psycho-pomp in the guise of a bird, most probably the vulture, which in some painted panels uncovered at Çatal Höyük is shown with an oval inside its back containing a human baby. Today, in many parts of Europe and Asia newborn babies are accompanied into the world by the stork. Yet in the Baltic (and seemingly in Siberia[4]) a white swan replaces the stork.[5] Clearly, in these areas of the globe, the swan or stork plays the same role as the vulture once did in the Near East.

In Egyptian and Hindu myth, a primordial goose or swan brought forth the universe with its call, although in many countries the swan was said to have laid the egg that either formed the universe or became the sun (such as Tündér Ilona, the Hungarian fairy goddess, who "when she was changed into the shape of a swan" laid an egg in the sky that became the sun[6]). This once again ties in with the belief that cosmic creation takes place in the vicinity of the Cygnus

constellation and Great Rift, resulting in the rebirth of the sun each day.

COSMOLOGICAL BELIEFS

Everything points toward Enclosure C and Enclosure D's holed stones being not just confirmation of Deneb's place in the mind-set of the Göbekli builders but also of the site's role as a place where the rites of birth, death, and rebirth were celebrated both in its carved art and within the architectural design of its larger enclosures, which formed symbolic wombs complete with twin souls and axes mundi.

The Göbekli builders would appear to have used the holed stones as seelenloch to enter an otherworldly environment associated with both the act of cosmic birth and the creation of human souls, which came forth from there prior to childbirth and returned there in death.

During their ecstatic and altered states of consciousness, shamans at Göbekli Tepe perhaps believed they were to become as fetuses in order to reenter the cosmic womb, the source of primordial creation, an act integrally associated with the star Deneb and the Milky Way's Great Rift.

Further confirmation of the holed stones' function as symbolic vulva is found in the work of scholars attempting to understand the cosmic design of megalithic dolmens, which, as we know, often have circular holes in their entrance façades. The burials found inside them are often placed in fetal positions ready for new life, leading to theories that the stone structures are symbolic wombs or uteri, their portholes representing the vulva, prompting one expert on the origins of Judaism and Islam to observe that whosoever "enters or leaves a dolmen [through the hole "drilled with enormous effort"] does this in the posture of a child at delivery through the vagina. The burial-dolmen itself is therefore symbolically a

uterus."[7]

These are incredible revelations that entirely alter our current perceptions of the mind-set of those behind the creation of the Pre-Pottery Neolithic world in southeast Anatolia. Yet as we see in part three, such cosmological thinking pales into insignificance when compared with other major factors that might well have been behind the creation of Göbekli Tepe's main enclosures. For it seems likely that monumental architecture on this scale was built in response to something terrible that had happened in the world.

PART THREE

Catastrophobia

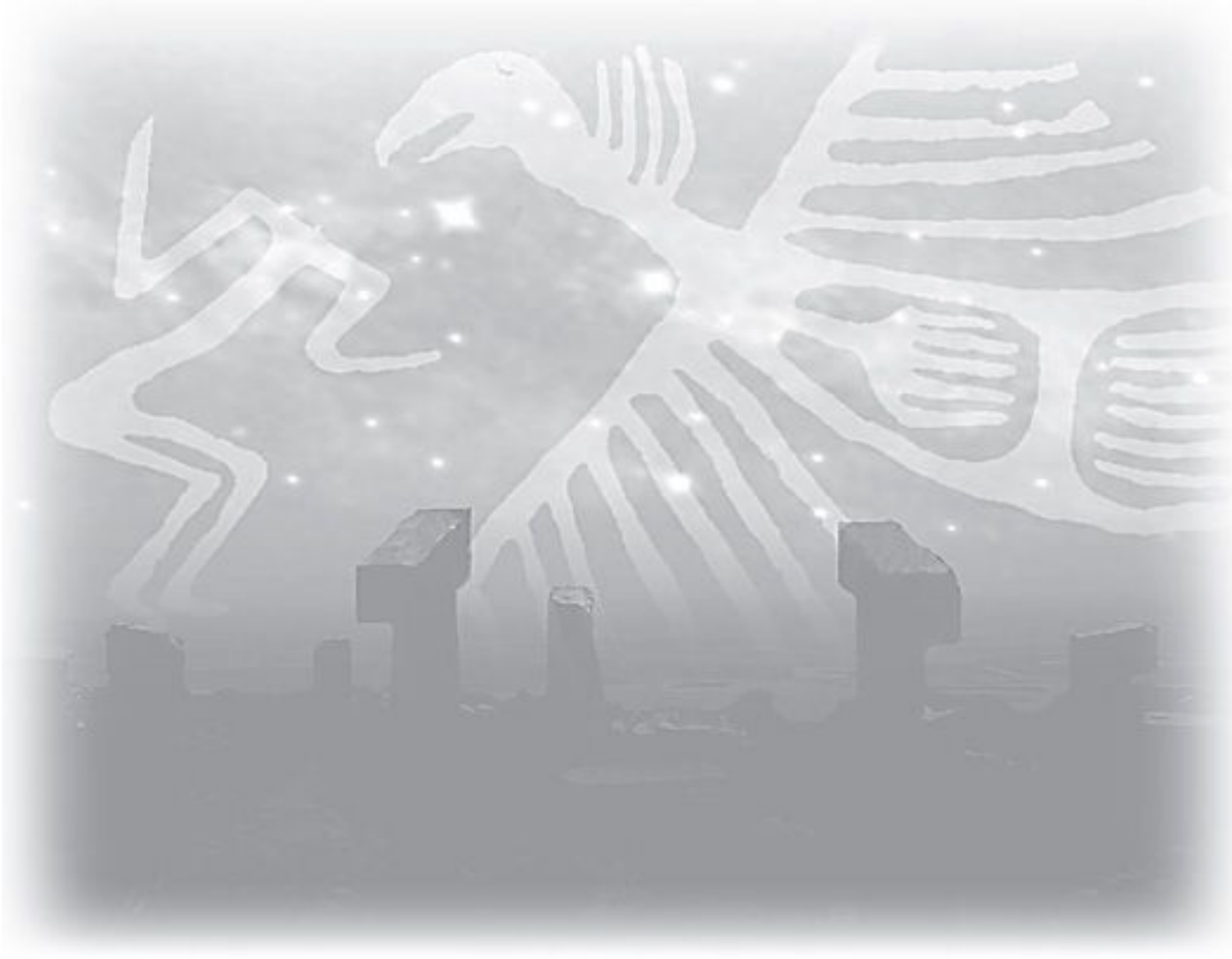

11

THE HOODED ONES

Up to twelve T-shaped pillars stood in rings within Göbekli Tepe's large enclosures, all with their faceless gaze focused toward the central monoliths, as if they formed part of some kind of otherworldly gathering of a secret society. For when we come to ask why the human form is being portrayed with T-shaped terminations both here and at other Pre-Pottery Neolithic sites across the region, with the best answer being that they represent individuals with heads that are long and narrow (hyper-dolichocephalic) who also wear cowls, or hoods, that extend to the rear, as if they might cradle a full head of hair.

It is a conclusion strengthened in the knowledge that the life-size statue of a male uncovered during urban development on Yeni Yol Street in Şanlıurfa's Balıklıgöl district in 1993, has a regular face and head, as do the various portable statues found at Göbekli Tepe and Nevalı Çori. So the sculptors of the Pre-Pottery Neolithic world knew very well how to create perfect representations of the human form with all its intricacies. Clearly then, the T-shaped pillars are abstract representations of those remembered as having once *looked* this way, their blank expressions confirming their otherworldliness, or transcendental nature.

Figure 11.1. An example of hooded figures in a circle, like the T-shaped pillars at Göbekli Tepe. Here three men perform a type of dance around a piper. Cyprian limestone carving. Phoenician in origin, date unknown.

THE MINI T-SHAPED STATUE

That the T-shaped pillars show long-headed individuals wearing cowls seems confirmed by the mini T-shaped statue found in 1965 close to the village of Kilisik, some 46.5 miles (75 kilometers) north-northwest of Göbekli Tepe. It appears to be wearing a large hood extended at the rear by the peculiar shape of the skull; indeed, even the start of the hood can be seen as a straight line that divides the rear half of the head from the projecting face (see figure 10.2).

Why exactly these figures are depicted with elongated heads is a matter we return to later in this book. Yet why wear hoods or cowls

in the first place? Perhaps it was the prevailing climatic conditions, or the fact that these individuals needed to protect their skin from the sun's rays. More likely is that the cowls convey some idea of status among the communities in which they moved, a fact suggesting the presence of elitism; in other words, a clear division between the Göbekli builders, made up of quarry men, stone masons, flint knappers, hunters, and butchers and those who controlled and managed the construction work going on at the site.

Having said this, it seems unlikely that the T-shapes reflect the presence of individuals living when the main enclosures at Göbekli Tepe were constructed around 9500–8900 BC. Like saints and divinities represented as carved art in churches, or the statues of gods and heroes in classical temples, the T-shapes at Göbekli Tepe are perhaps reflections of something that has been. Something that had to be remembered, celebrated, and not forgotten.

We cannot know what might have been going at Göbekli Tepe

when the large enclosures were under construction, nor whether the genesis of the T-shaped pillars happened here or elsewhere. It *is* possible, as Schmidt believes, that complex structures like Enclosures C and D were the pinnacle of a long period of development at the site going back many thousands of years. On the other hand, the construction of the monumental enclosures might just as easily have been inspired by a significant event. Perhaps the arrival in southeast Anatolia of representatives from another culture—individuals who helped galvanize the local hunter-gathering population into embarking on this mammoth building project.

A SUDDEN CHANGE IN LIFESTYLE

Is this what really happened in southeast Anatolia sometime either during or directly after the Younger Dryas mini ice age, ca. 10,900–9600 BC? Did some great change occur in the world of the local

hunter-gatherers that culminated in the construction of the large enclosures at Göbekli Tepe under the guidance of some kind of "power elite,"[1] as Schmidt refers to them?

Hunter-gatherers would work together in small bands to fulfill their primary functions in life, with these being hunting wild game, foraging for various types of food, and ensuring the well-being and safety of their extended family group. They created temporary settlements that they occupied only at certain times of the year; for the rest of the time the hunters followed the migrational routes of herd animals. They relied on these animals for food; clothes; fat for balms, fires, and lamps; bone, horn, and antler for weapons, tools, and items of personal adornment; and sinew (thin shredded fibers of muscle tendons) for use as cordage, binding points on arrow shafts, and as a backing material on bows.

Epipaleolithic (that is, transitional Paleolithic) hunters used established campsites and work stations, kitted out with basic

facilities, before moving on to the next site, and the next site, and so forth, until eventually they returned to their original place of departure. This was their cycle of life, and it would have remained so had neolithization not gotten in the way.

There can have been no obvious advantage in hundreds, if not thousands, of people (Klaus Schmidt believes that between five hundred and a thousand individuals were employed in building construction at Göbekli Tepe at any one time[2]) putting aside their free existence as hunters and foragers and coming together to create monumental architecture on such a grand scale. Something must have spurred the regional population into abandoning their old lives and adopting a completely different way of living, and from the presence in the enclosures of the massive T-shaped pillars, that "something" would appear to have been whoever, or whatever, they represented.

Did the T-shapes represent the memory of powerful individuals,

great ancestors perhaps, of those who built Göbekli Tepe?

MESSIANIC MESSAGE

If so, then who exactly were these influential figures—the Hooded Ones, as we shall call them until their likely identity is revealed? Did they come as messianic figures, bringing some sort of message—one that was so clear it could not be ignored? Was it believed that something bad would happen to the local hunter-gatherers, their families, and the world around them if this message were to be ignored?

As much as these ideas might seem at odds with our understanding of the Paleolithic mindset, they will begin to make sense of the evidence being uncovered right now at Göbekli Tepe. This can be seen in the fact that the continuous building of sacred enclosures in the same basic style, albeit in a gradually *declining*

fashion, across a period of nearly fifteen hundred years, ca. 9500–8000 BC, argues for the presence at the site of a very rigid belief system attached to the erection of the T-shaped pillars. It implies also a strength of conviction that might be compared to the manner in which Christians, adhering to ancient traditions, have steadfastly built churches in the same basic style across a very similar period of time.

The same can be said for the religious houses of other major religions, with the motivation behind these strictly-adhered-to dogmas always being the words, deeds, and legacy of prophets, saints, and messianic figures. Had something similar been going on at Göbekli Tepe or more particularly in the world that existed immediately prior to the construction of its large enclosures?

If the Hooded Ones did exist, then what might have been their powerful message, and where did they come from? To even start to answer these questions we need to return to the strange symbolism

of the T-shaped pillars, in particular those that stand proud in the center of Enclosure D, arguably the most accomplished structure uncovered so far.

12

THE FOX'S TAIL

The imposing central pillars in Göbekli Tepe's Enclosure D both sport wide belts, at the front of which, beneath a centrally placed belt buckle, fox-pelt loincloths have been carved, the animal's hind legs and long, bushy tail extending down to knee level (see plate 13). Further emphasizing the eastern monolith's vulpine character is the presence on its inner face of a leaping fox, something present also on the central pillars of Enclosures B, the eastern central pillar in Enclosure A, and the western central pillar in Enclosure C.

These images of the fox, along with the high level of faunal remains belonging to the red fox (*Vulpes vulpes*) found at Göbekli

Tepe, led archaeozoologist Joris Peters, writing with Klaus Schmidt, to conclude that the interest in this canine creature went beyond any domestic usage and was connected in some way with the "exploitation of its pelt and/or the utilization of fox teeth for ornamental purposes."[1] That this statement was made even *before* the discovery of the fox-pelt loincloths carved on the front narrow faces of Enclosure D's central pillars means that what Peters and Schmidt go on to say in the same paper should not be ignored, for in their opinion "a specific worship of foxes may be reflected here."[2]

That leaping foxes appear also on the central pillars in the large enclosures at Göbekli Tepe suggests that the entrant passing between them would have encountered this vulpine creature upon accessing the otherworldly environment reached through the enclosures' inner recesses. So why foxes, especially as they are usually seen in indigenous mythologies as cosmic tricksters, evil twins of the true creator god, responsible only for chaos and

disarray in the universe?

BELT BUCKLE CLUE

Was the fox the chosen animal totem of the Hooded Ones, the faceless individuals portrayed by the T-shaped pillars? If the answer is yes, then what does it mean? The key is the strange belt buckle immediately above the fox-pelt loincloth on the enclosure's eastern pillar (Pillar 18). A similar belt buckle is seen on the western pillar (Pillar 31), although here it is left unadorned, in the same way that the figure's belt, in complete contrast to the one worn by its eastern counterpart, is completely devoid of any glyphs or ideograms.

Only on the eastern pillar does the belt buckle reveal something very significant indeed. It shows a glyph composed of a thick letter U that cups within its concave form a large circle from which emerge three prongs that stand upward (see figure 12.1 and plate

13). That this emblem is worn centrally, on a belt festooned with strange ideograms, suggests that it has a very specific function. If so, then what might this have been?

THREE-TAILED COMET

Having examined the belt buckle glyph at some length, it is the author's opinion that it represents the principal components of a comet. The circle is its head, or nucleus, and the U-shape is the bow shock that bends around the leading edge of the nucleus and trails away as the halo. The upright prongs denote three separate tails, with multiple tails being a common feature of comets (see figure 12.2).

That the comet's "tails" on the belt buckle stand upward also makes sense, for these are often seen to trail into the night sky as the comet reaches perihelion. This is its final approach and slingshot

orbit around the sun. As this takes place the solar magnetic fields cause the gaseous particles of the comet to point away from the sun, so when the comet is seen in the sky, either in the predawn light (before perihelion) or, alternatively, just after sunset (following perihelion), its tail or tails point upward from the horizon, creating an unforgettable sight (see figure 12.3).

Figure 12.1. The belt on Enclosure D's eastern central pillar (Pillar 18) showing its belt buckle device and fox-pelt loincloth.

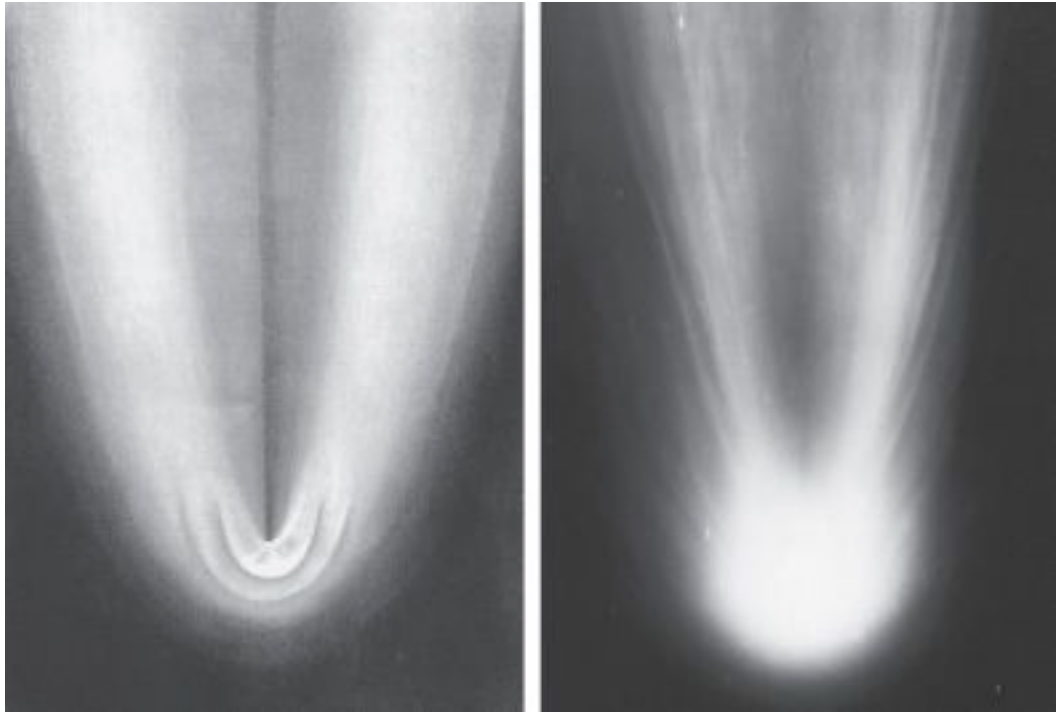

Figure 12.2. Left, comet showing the bow shock around its leading edge and, right, Halley's Comet in 1910. Both resemble elements of

Pillar 18's belt buckle.

Figure 12.3. The Great Comet of 1861 showing its triple tail.

The idea that the belt buckle glyph shows a comet is strengthened by its similarity to three-tailed comets seen in an ancient Chinese silk text. The Mawangdui cometary atlas (also known as the *Book of Silk*), created ca. 300–200 BC and named after the Han Dynasty mound tomb in which it was discovered in the 1970s, lists, in all, twenty-nine different cometary forms and the disasters associated with them. In figure 12.4, we see that in more than one example there is a striking resemblance to the Göbekli Tepe belt buckle design, especially as the comets are drawn with their tails pointing upward.[3]

MARK OF THE COMET

Yet even assuming that the belt buckle glyph *does* show a comet, could this not simply be a personal device without any connection to the function of Göbekli Tepe? This appears unlikely, as the pillar

is festooned with ideograms of a probable celestial nature. The belt's C and H glyphs would appear to have cosmological values, as does the carved eye held within a slim crescent worn around the "neck" of the T-shaped monolith. In addition to this, it does seem as if Enclosure D's eastern central pillar has a greater function than its western neighbor, almost as if one twin is alive, while the other functions as a ghost or echo of the other.

Figure 12.4. The Chinese Mawangdui atlas (or Book of Silk) from ca. 300– 200 BC, showing the entry for the various different types of comet, some resembling the belt buckle on Göbekli Tepe's pillar.

Regardless of these facts Pillar 18's belt buckle is simply not enough to demonstrate that comets held some special importance at

Göbekli Tepe. There is, however, another tantalizing link between the symbol of the comet and Enclosure D—this being the fox-pelt loincloths seen beneath the belt buckle on both monoliths. Universally the fox, *and the fox tail in particular,* has been seen as a metaphor for comets, due to the hairlike appearance of their long tails. Even in British heraldry the device known as the comet or blazing star is drawn to resemble the fox's tail (see figure 12.5 on p. 124). It is for this reason that comets have occasionally been personified as having clear vulpine and—as we shall see—canine (doglike) and lupine (wolflike) qualities of a dark, foreboding nature.

COMETARY CANINES

Chinese myths and legends, for instance, speak of mountain demons called *t' ien-kou* (*tengu* in Japanese), "heavenly dogs." Folk

tradition asserts that these supernatural creatures derive their name from comets or meteors falling to earth, for it is said they resemble the tails of dogs or foxes. One account speaks of t'ien-kou as:

Figure 12.5. Medieval heraldic device known as the comet or blazing star with its distinctive "fox tail."

> a huge dog with a tail of fire like a comet. Its home was in the heavens, but it sustained itself by descending to earth every night and seeking out human children to eat. If it could not catch any children it would attack a human adult and consume his liver.[4]

It is this dreaded fear of comets, seen in terms of malevolent supernatural creatures in canine form, that brings us to a fascinating account recorded by a Spanish Jesuit priest who journeyed through northern Mexico in 1607–1608. While staying in the town of Parras in the state of Coahuila, Andrés Pérez de Ribas (1576–1655) witnessed the priests of the local tribe, perhaps the Tlaxcalan Indians, conduct a powerful and somewhat macabre ceremony to ward off the baleful influence of a comet (almost certainly it was Halley's Comet, which made an appearance in 1607). According to him:

> The end of the comet (some of them said) was in the form of plumage: others said it had the form of an animal's tail. For this reason some came with feathers on their heads, and others with a lion's or fox's tail, each of them mimicking the animal he represented. In the middle of the plaza there was a great bonfire into which they threw their baskets [containing dead animals] along with everything in them. They did this in order to burn up and sacrifice these things, so they would rise up as smoke to the comet. As a result, the comet would have some food during those days and would therefore do them no harm.[5]

Although this strange ceremony to negate the influence of a comet took place on another continent nearly ten thousand years after the abandonment of Göbekli Tepe, the very specific use of fox (and lion) tails not just to represent the comet but also to connect with its supernatural nature, cannot be ignored. This form of sympathetic magic was the domain of the priest or shaman, and

there can be little question that very similar ceremonies took place on other continents in past ages.

That the twin central pillars of Göbekli Tepe's Enclosure D both display fox tails, while the eastern example additionally possesses a belt buckle that might well show the symbol of a comet, begs the question of whether the Göbekli builders might in some way have been concerned by the influence and presence of comets in our skies. Moreover, because the comet symbolism only appears in full on one of the central pillars, was this particular figure seen to have a special dominion over comets, an ability connected with the proposed message or doctrine introduced to the hunter-gatherers of southeast Anatolia in the epoch immediately prior to the construction of the first stone enclosures at Göbekli Tepe?

I PREDICT A COMET

Is it possible that this imposing stone figure at the center of Enclosure D, whoever or whatever it represents, was seen to have delivered the means by which the Epipaleolithic peoples of southeast Anatolia, with the help of his shamanicbased elite, could combat the baleful influence of comets? That the hunter-gatherers of southeast Anatolia so readily gave up their nomadic lifestyles to build monumental architecture in an unprecedented manner argues persuasively that this incoming elite must have had some kind of hold or influence over the people. Perhaps they claimed they had direct contact with the supernatural creature behind the manifestation of comets. If so, then such claims would have needed to be backed up with some convincing displays of proof for the hunter-gatherers to have so readily abandoned their old ways. So what might this have been?

One realistic answer is that, like the ancient Chinese astrologers behind the creation of the Mawangdui atlas ca. 300–200 BC, the

incoming elite had a very real knowledge of comets, which might have included information on periodic comets, those that make their return within one to two human generations. A perfect example is Halley's Comet, which makes its return every seventy-five to seventy-six years (its last appearances were in 1910 and 1986). Indeed, even though the gravitational influence of the solar system's larger planets, such as Saturn and Jupiter, means that the orbit of a short-period comet can fluctuate somewhat, it *is* possible that its reappearance might have been calculated to some degree of accuracy in just a few centuries of observation.

It is not known whether Halley's Comet graced our skies in the tenth or eleventh millennium BC, although some sources do suggest that it has been in its current orbit for between sixteen thousand and two hundred thousand years.[6] So the likelihood of Göbekli Tepe's founding elite being able to calculate the return of a short-period comet was therefore pretty high. If they *were* able to do this, then

using this valuable information to their advantage might have been enough to convince the hunter-gathering communities that they had real influence over these fearful celestial objects.

Such ideas might help explain why Enclosure D's twin central monoliths wear fox-pelt loincloths, why leaping foxes are present on the inner faces of key central pillars at Göbekli Tepe, and why Joris Peters and Klaus Schmidt considered that "a specific worship of foxes may be reflected here." These thoughts also perhaps have some bearing on why the large enclosures seem to incorporate symbolism of a clearly celestial and cyclic nature.

Is it possible that the enclosures embody a belief, offered by the Hooded Ones and, through them, their lineal descendants (responsible perhaps for the continued construction and management of Göbekli Tepe), that by synchronizing the enclosures with cosmic time cycles it would help provide the builders with enough information to control the influence of comets on a

supernatural level? Was it these communities' absolute fear and loathing of comets that motivated them to abandon their old lifestyles to build monumental architecture on such a dramatic scale? More pertinently, how did any of this relate to the apparent alignment of the main enclosures at Göbekli Tepe toward the Milky Way's Great Rift, marked out in the heavens by the star Deneb? These are matters that must be addressed next.

13

COSMIC TRICKSTER

It was the Greek Neoplatonist and celebrated philosopher Proclus of Athens (412–485 AD) who warned that "the fox star nibbles continuously at the thong of the yoke which holds together heaven and Earth,"[1] with German folklore adding that when the fox succeeds, the world will come to an end.[2] Proclus was referring here to the faint binary star Alcor, which in Babylonian star lore was known as ^{MUL}KA.A, the Fox Star.[3] In astronomical terms Alcor is located next to a much brighter quadruple system of binary stars, collectively known under the name Mizar. Together Alcor and Mizar make up the kink in the "handle" of the Plough, or Big

Dipper, which forms part of the constellation of Ursa Major, the Great Bear (see figure 13.1).

Some semblance of Alcor's mythical origin is revealed in Greek star lore, which tells how the star was once part of the Pleiades, or Seven Sisters, the cluster of seven stars located in the proximity of Taurus, the Bull. According to the Greek writer Hyginus (or one of his pupils writing under his name), a Pleiade named Elektra was so distraught at seeing the death of her descendant, King Dardanus, during the fall of Troy, that she withdrew her light and took flight as a "hair star," a comet, and became Alopex, the Fox, called by the Arabs Al Suha (the "forgotten" or "neglected one"), all names for Alcor.[4]

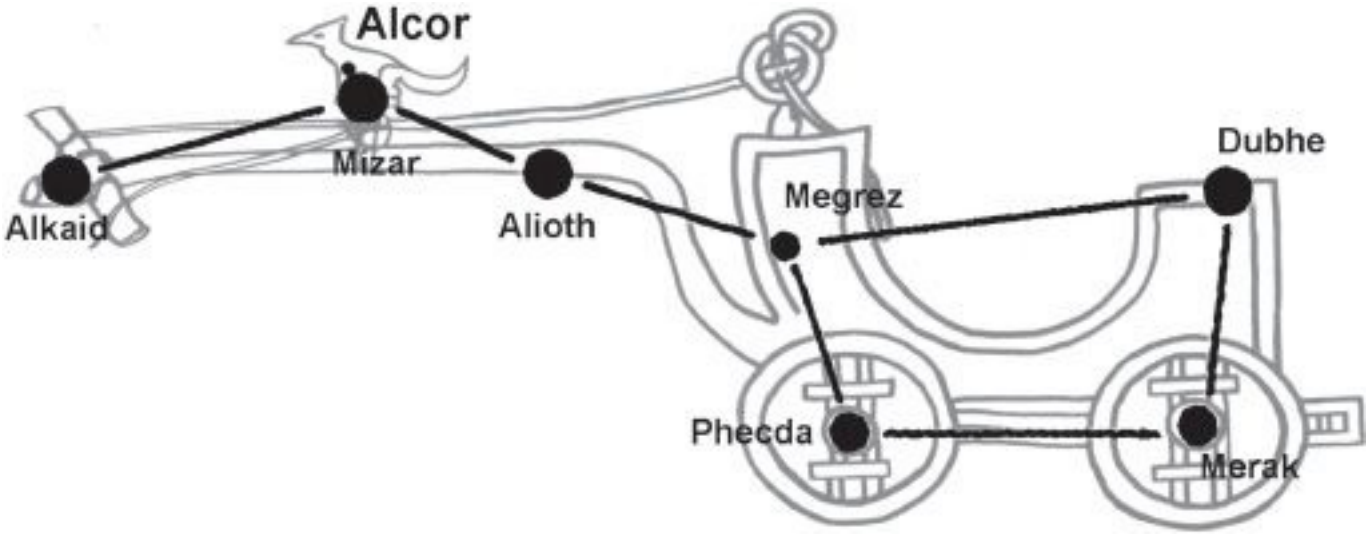

Figure 13.1. The stars of Ursa Major, or the Big Dipper, as the ancient asterism known as the Wain, with Alcor in its role as the Fox Star (after Gavin White).

TURNING THE HEAVENS

Even though there are no astronomical explanations behind these puzzling myths featuring the star Alcor, they do reinforce the

connection between the fox, as a symbol of the cosmic trickster, and the destruction of the world caused by the intrusion of a comet, or comets in plural. Why should this have been so? The answer seems to lie in the fact that the seven main stars of Ursa Major, which includes the Alcor/Mizar combination, were once universally seen as the plow, yoke, mill, handle, wain, or mechanism that quite literally turned the sky pole or world pillar holding up the heavens. This belief came about because the stars of Ursa Major are seen to revolve around the celestial pole in an unerring fashion, a role played by the constellation in every human age, despite the fact that none of its stars ever occupy the position of Pole Star.

Proclus's warning about the Fox Star nibbling "continuously at the thong of the yoke which holds together heaven and Earth" is an allusion to the fox attempting to sabotage the universe's turning mechanism, which, of course, was seen to have its terrestrial point of origin wherever an axis mundi was established on the ground.

The fox, if allowed to carry out its mischievous deeds, would eventually bring about the collapse of the imagined sky pole, and with it would follow the end, not just of the world but also of time itself. The fact that Alcor, or Alopex, the Fox Star, was additionally seen as a comet inbound from the Pleiades is revealing indeed and conjures the idea that as a "hair star" it might have been seen as responsible for this perceived cosmic catastrophe.

Fox, star, comet, pole, destruction. These are the key elements in this puzzling enigma of ancient Greek star lore, which might easily have had its origins in ancient Mesopotamia, among one of the great civilizations that rose up on the banks of the Tigris and Euphrates rivers around 3000 BC. Indeed, it is just possible that certain aspects of this seemingly naïve vision of the cosmos might reflect something of the proposed strategy adopted by the Epipaleolithic hunter-gatherers of southeast Anatolia prior to the construction of Göbekli Tepe. Interestingly, Professor Klaus Schmidt compares the

leaping foxes carved on the twin central pillars in the various enclosures at Göbekli Tepe with Reynard the Fox, a trickster of French folklore,[5] as well as with the Mesopotamian Fox Star Alcor, which he says belonged to Enlil, the highest god of the Sumerian pantheon, who was patron also of the ancient city of Nipper in Lower Iraq.[6]

MAN VERSUS DEVIL

So if the Fox Star Alcor appears on the inner faces of key central pillars Göbekli Tepe, why are they aligned toward Cygnus, and not Ursa Major? The answer seems to lie in the fact that there was once a close interrelationship between the Fox Star and the power and influence of Cygnus in its role as guardian of the celestial pole.

It is a relationship brought out in a complex Romanian sky myth that begins with the formation of the earth and heavens and leads

into a search by humankind to find the creator. For the journey "the Man" gathers together various tools, objects, and creatures, which are identified with different constellations of the night sky. Among the items taken on the journey are "the Great Cross of the church" and "the Fountain of the Crossroads," identified, respectively, as Cygnus and the constellation's bright star Deneb,[7] the crossroads being a metaphor for both the axis mundi and the corresponding cosmic axis in the sky.

Thereafter, the Man sets off on his voyage and eventually reaches "the middle of the Sky's road," with the "Sky's road" being the Milky Way.[8] Here the Man encounters "He Who Will Be Killed By The Cross." This is the Devil, identified as the Fox Star, Alcor, whom the Man fights and eventually defeats.[9] The story implies that in Christian times the mischievous sky fox was transformed into the Devil himself.

RESTORING COSMIC ORDER

What takes place during the cosmic battle between the Man, as the bearer of the Cross, and the Devil, as the Fox Star, seems to relate to the former regaining control of "the cosmic world axis or world tree of other myths,"[10] after the Devil sends the heavens spinning out of control. Thus the story implies that the Devil, that is, Alcor, is "killed" or stopped by the Man wielding the Cross, which is Cygnus in its role as guardian of the "cosmic world axis."

This restoration of cosmic order is achieved, however, only after chaos and mayhem have taken place, for we are told that once the "brave Man" began fighting with the Devil, their battle "created a great storm beneath the Sky, called by us on Earth 'the rabid wind.'"[11] There are no indications of what this "great storm" or "rabid wind" might have been, although it clearly implies some sort of mass upheaval in the heavens, which either affected the earth or was witnessed from the ground.

It seems feasible that this Romanian sky myth reflects the role played at Göbekli Tepe by Cygnus, and Deneb in particular. The leaping foxes on the pillars, along with the fox-pelt loincloths on the central monoliths of Enclosure D, certainly suggest there was some connection between the Fox Star Alcor as the cosmic trickster and the area of sky toward which the pillars were directed, in other words the Cygnus star Deneb. These precision alignments toward the perceived opening to the upper world enabled the shaman or astral traveler immediate access to the sky realms. Beyond here, in otherworldly terms, would have been a world inhabited by a whole host of strange creatures. They would have been seen to roam freely within this sky world and could thus be encountered during vision quests or shamanic journeys made during altered states of consciousness. Many of these sky creatures, denoted by stars and star groups spread out along the Milky Way, are almost certainly represented in carved relief on the T-shaped pillars at Göbekli Tepe.

Yet for these people living in southeast Anatolia during the tenth millennium BC one of the greatest considered threats to the stability of the sky pole or cosmic axis was, it seems, the fox, who as the cosmic trickster had the ability to create chaos and mayhem—activities that could lead to the collapse of the sky pole and the destruction of the world. It is almost certainly for this reason that the fox appears on the inner faces of the pillars at Göbekli Tepe, which Schmidt was probably correct to identify with the Fox Star Alcor. Very likely the foxes shown within the bent arms of the anthropomorphic figures represented by the twin pillars—particularly those in Enclosure D, who wear the fox felt loincloths—are displaying absolute control over the trickster influence of the sky fox, whose astronomical form is the Fox Star, Alcor.

In the Romanian sky myth quoted above, the shaking of the heavens is all that results from the Man battling against the Fox Star Alcor in its form as the Christian Devil. However, this perceived

threat from the heavens multiplies exponentially when we realize that it is not just the fox that can cause comets to bring about world destruction but also the wolf, a much more dangerous creature by far.

14

FROM A FOX TO A WOLF

In the star lore of Estonia, on the Baltic coast of Northern Europe, we again encounter Alcor, the Fox Star, although now its zoomorphic form has changed to that of the wolf (*bar* in Estonian). As the Wolf Star it stands alongside the Ox, or Bull, identified with the nearby star Mizar.[1] Once again they constitute the kink of the "handle" of the Big Dipper, or Plough, which in Estonia is known as the Great Wain (that is, a cart or wagon).

Slovenian star lore tells the story of Saint Martin, who uses the Great Wain (Ursa Major) to carry a great pile of logs.[2] Along comes the mischievous Wolf (Alcor), who proceeds to kill the Ox (Mizar)

and break the vehicle's shaft. The saint repairs the Wain and, as punishment, harnesses the Wolf to the Ox in order to make the animal take the load. Yet the Wolf does nothing more than pull the cart backward.

THE CESSATION OF COSMIC TIME

Once more the star Alcor, here in the guise of the Wolf, is seen to interfere with the turning mechanism of the heavens, symbolized in this instance by the shaft of the Wain. Not only this, but he also disrupts the natural order of the heavens by dragging the wagon backward, an allusion to the collapse or reversal of time. Clearly, in European star lore the figure of the sky wolf was interchangeable with that of the sky fox.

The harnessing of the Wolf (Alcor) by Saint Martin is simply a variation of the Romanian sky myth in which the Man defeats the

Devil to restore cosmic order. Clearly, the wolf, the fox, and the Devil play nearly identical roles in this myth cycle, with the human intercession being necessary to prevent any kind of catastrophe taking place (the role played by the shaman at Göbekli Tepe).

Saint Martin's feast day is November 11, when swans and geese are roasted and eaten across Europe. The date corresponds also to the return of migrating swans and geese from their breeding grounds in the north. Indeed, the idea of swans and geese carrying souls to and from a northerly placed "heaven" played a major role in European folklore until fairly recent times, the connection with Cygnus in its capacity as the entrance to the sky world being the obvious next step.[3] Thus if Saint Martin might be seen as a Christian patron of the Cygnus constellation, then his role in the Slovenian sky myth makes complete sense. Like the Man in the Romanian story, he is the guiding intelligence of the Cygnus constellation in its struggle against the cosmic trickster symbolized

by the star Alcor in Ursa Major. More incredibly, these beliefs almost certainly go back to a time when the constellation of Ursa Major revolved around either Deneb or Delta Cygni in their role as pole stars, ca. 16,500–13,000 BC.

Yet even if this unprecedented vision of the beliefs and practices of those who inspired the construction of Göbekli Tepe in the tenth millennium BC is correct, why go to all this trouble in order to avert the baleful influence of comets? What was the real motivation behind all this work and effort, which must have completely changed the lifestyles of the hunter-gatherers of the region? Why did anyone at the end of the Upper Paleolithic age live in fear that a sky fox, or indeed a sky wolf, might disrupt the turning mechanism of the heavens and in so doing bring about the destruction of the world?

The answer would seem to be that in the minds of the Göbekli builders, there was a genuine fear that if they did *not* do everything

in their power to curtail this perceived threat from the sky, then something bad would happen. Whatever that “something” was, it was so deeply entrenched in the collective psyche of the peoples of southeast Anatolia that they were willing to abandon their old lifestyles and adopt new ones in order to deal with the problem.

Accepting such a scenario only makes sense if there had already been a terrifying incident involving the sky fox or sky wolf—one that had brought chaos to the world during some former age of humankind. As we see next, a search through the folklore, myths, and legends of the ancient world tells us that just such a catastrophe might well have taken place in fairly recent geological history.

15

TWILIGHT OF THE GODS

It was the American congressman, popular writer, and amateur scientist Ignatius Donnelly (1831–1901), most remembered for his best-selling work *Atlantis: The Antediluvian World* (1882), who first publicly explored the possibility that a comet impact caused untold devastation on earth during some former geological age. More significantly, he thought that humans living at this time might well have preserved a memory of this catastrophic event that was passed down through countless generations in the form of myths and legends.

Donnelly's theories on a comet impact in recent geological

history became the subject of a book entitled *Ragnarök: The Age of Fire and Gravel,* published in 1883, just one year after *Atlantis: The Antediluvian World*. It contains myths, legends, stories, and traditions from around the world that preserve chilling accounts of something immensely bad that happened in our skies, involving the sun, moon, and intruding celestial phenomena. As a result the earth is decimated by an all-encompassing conflagration, accompanied by noxious clouds, an extended period of darkness, and a subsequent deluge, responsible for putting out the fires *and* drowning humankind. Invariably, just a few righteous people survive, either by boarding a vessel or by hiding in a cave. Very often the world is repopulated either by a single family or a couple, usually a brother and sister, who become the progenitors of a new group of humans. Some accounts even speak of the survivors erecting great temples as a direct response to what has happened.

THE EDDAS

One source of material utilized by Donnelly to outline the actions of what he saw as a rogue comet, or cluster of comets, that brought destruction to the world, was that preserved by the peoples of Scandinavia and Iceland. Two primary sources are cited—the *Prose Edda* and *Poetic Edda* (known also as the *Younger Edda* and *Elder Edda*)—both recorded in their present form by Christian scholars during the medieval period. The *Prose Edda,* attributed to Snorri Sturluson, who lived ca. 1178–1241, derives from an Icelandic text known as the *Codex Upsaliensis,* which dates to the early 1300s, while the *Poetic Edda* is found in a thirteenth-century manuscript, written in Icelandic and known as the *Codex Regius.*

Both Eddas feature a much prophesized event that acted as the climax to the age of the gods, who are known as the Æsir, or Asa. This catastrophic event is referred to as Ragnarök, an Old Icelandic word meaning "doom or destruction of the gods; the last day, the

end of the gods."[1] Another variation of the name, Ragnarøkkr, means "twilight of the gods" or "world's end."[2] Put simply, it is the Norse version of Armageddon, a fatalistic judgment, where key gods actually die fighting hellish monsters that rise up intent on bringing about the end of the world.

So important was the account of Ragnarök to Donnelly's mounting evidence for a comet impact in some former age of humankind that it provided him with the title for his book. As there is today overwhelming scientific evidence to confirm his forward-thinking conclusions (see chapter 17), it seems appropriate to allow the U.S. congressman's often poignant comments to set the scene as we review the account of Ragnarök as given in the *Prose Edda,* Donnelly's own source for the events described in his book, cited here using the English translation by American author, professor, and diplomat Rasmus Björn Anderson (1846–1936).[3]

THE DEVOURING OF THE SUN AND MOON

The twilight of the gods began, according to the Scandinavian account, after the human race had become foul murderers, perjurers, and sinners, shedding each other's blood. Humanity's descent into depravity is a common theme in catastrophe myths that generally stress that divine intervention was necessary to purge the world of a wicked or evil strain of humanity.

Thus the scene is set for the coming destruction, and shortly afterward a terrible sight is seen in the skies—the wolf named Sköll opens its jaws and eats the sun. "That is, the Comet strikes the sun, or approaches so close to it that it seems to do so,"[4] was how Donnelly put it.

The Edda tells us next how another wolf named Hati Hróðvitnisson (his first name means "he who hates, enemy"[5]) devours the moon: "and this, too, will cause great mischief. Then

the stars shall be hurled from the heavens, and the earth shall be shaken so violently that trees will be torn up by the roots, the tottering mountains will tumble headlong from their foundations, and all bonds and fetters will be shivered to pieces."[6]

These words Donnelly saw as describing the appearance of a second comet, its blazing debris now falling to earth, causing absolute devastation.[7] There is a hint here also of the loosening of the bonds that hold up the sky pole, or world pillar, preventing the world from falling apart.

After this the monster known as the Fenris Wolf, the offspring of the trickster god Loki, breaks free of his shackles, which had held him firm up to this time (see figure 15.1 on below), prompting Donnelly to comment: "This, we shall see, is the name of one of the comets."[8] Fenris himself is the father of Sköll and Hati, wolves that pursue and devour the sun and moon.

THE MIDGARD SERPENT

The account of Ragnarök continues: "The sea rushes over the earth, for the Midgard-serpent writhes in giant rage, and seeks to gain the land."[9] This is a mythical snake that curls around the base of the world tree, known as Yggdrasil, which unites heaven, earth (Midgard), and underworld. The Midgard Serpent is for Donnelly "the name of another comet; it strives to reach the earth; its proximity disturbs the oceans."[10] However, once again we can see here the actions of a terrible monster intent on destroying the physical world by bringing about the downfall of Yggdrasil, the Norse form of the world pillar.

We are told next that the "Fenris-wolf advances and opens his enormous mouth; the lower jaw reaches to the earth and the upper one to heaven, and he would open it still wider had he room to do so. Fire flashes from his eyes and nostrils. The Midgard-serpent, placing himself by the side of the Fenris-wolf, vomits forth floods

of poison, which fill the air and the waters.”[11]

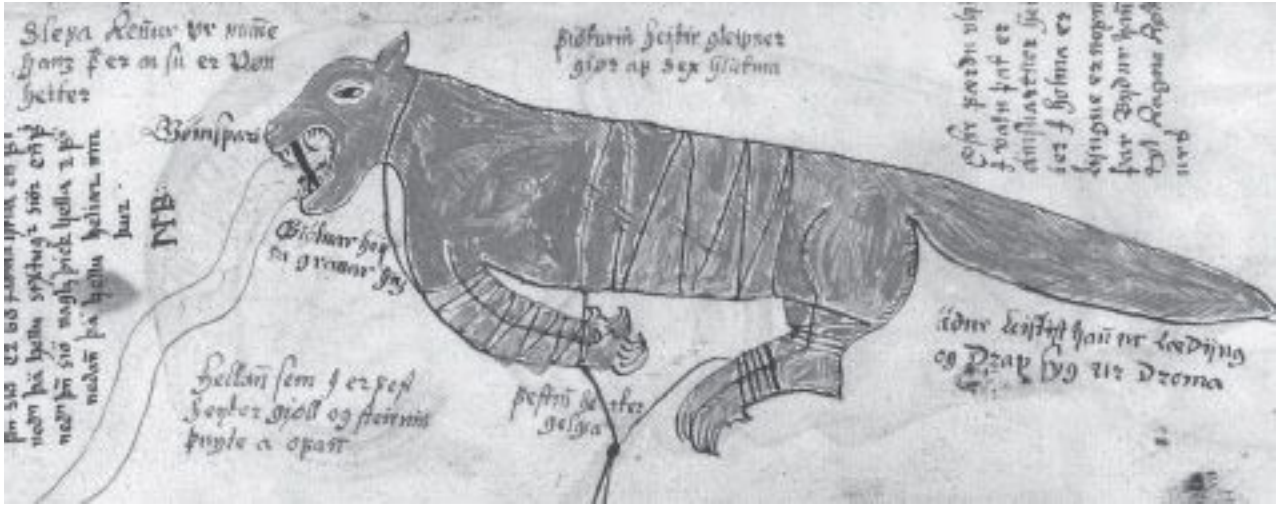

Figure 15.1. The Fenris Wolf bound with magical cord, from a seventeenth-century Icelandic manuscript in the possession of the Árni Magnússon Institute in Iceland. Note the Van River emerging from the creature’s mouth.

These then, the Fenris Wolf and the Midgard Serpent, are to be seen as the two principal comets of destruction, side by side,

Donnelly suggested, “like Biela’s two fragments, and they give out poison—the carbureted-hydrogen gas revealed by the spectroscope.”[12]

Biela was the name given to a short-period comet first recorded in 1772 and observed again in 1805. It was not, however, recognized as being the same object until 1822, when Wilhelm von Biela, an army officer from Vienna, finally identified it as a periodic comet with an orbit of just 6.6 years. During its appearance in 1852 the comet split in two, prompting Donnelly’s comment about the two comet fragments moving together.

Biela’s comet was never seen again, and presumably it has now broken up into undetectable pieces that periodically fall to earth as harmless meteors whenever the earth passes through the orbit of its remaining fragments. Illustrations of the comet after its breakup into two separate fragments make for a very ominous picture indeed (see figure 15.2), helping us to understand the dread that the appearance

of such celestial bodies might have instilled in the peoples of former ages.

After this time the *Prose Edda* states that "Surt rides first, and before and behind him flames burning fire. His sword outshines the sun itself. Bifrost (the rainbow), as they ride over it, breaks to pieces."[13] Surt is said to have been a fire giant, although for Donnelly it is the "blazing nucleus of the comet,"[14] with swords being common metaphors for comets. For example, an illustration of comet types in Johannes Hevelius's *Cometographia,* published in 1668, shows them as swords and daggers of various shapes and sizes (see figure 15.3 on p. 140).

Figure 15.2. Biela's comet in 1846, soon after it split in two.

THE MONSTROUS REGIMENT

The *Prose Edda* account reveals next how the monstrous regiment "direct their course to the battle-field called Vigrid. Thither repair

also the Fenris-wolf and the Midgard-serpent, and Loki with all the followers of Hel, and Hrym with all the frost-giants."[15]

For Donnelly this implied that "all these evil forces, the comets, the fire, the devil, and death, have taken possession of the great plain, the heart of the civilized land. The scene is located in this spot, because probably it was from this spot the legends were afterward dispersed to all the world."[16]

This is an interesting statement since it supposes that somewhere in the ancient world there existed a heartland, a place where all these great tragedies were played out and witnessed by those who survived this tumultuous ordeal.

BATTLE OF LIGHT AND DARKNESS

It is after this time that the gods, as the defenders of the world, begin to fight back and start to win the day against the hellish

terrors, although not without casualties on their own side. Heimdal, the guardian of Bifrost Bridge, blows the Gjallarhorn, which had been hidden beneath Yggdrasil. It awakens the gods, allowing the battle of Ragnarök to commence. The sky god Odin takes flight to Mimir's Well, a sacred pool at the foot of Yggdrasil. Here lurks the head of his friend Mimir, which he asks to grant him advice. After that we are told the "ash Yggdrasil begins to quiver, nor is there anything in heaven or on earth that does not fear and tremble in that terrible hour."[17] It is a hint once more that the world pillar is being shaken, tilted even, by the events transpiring both on the ground and in the air.

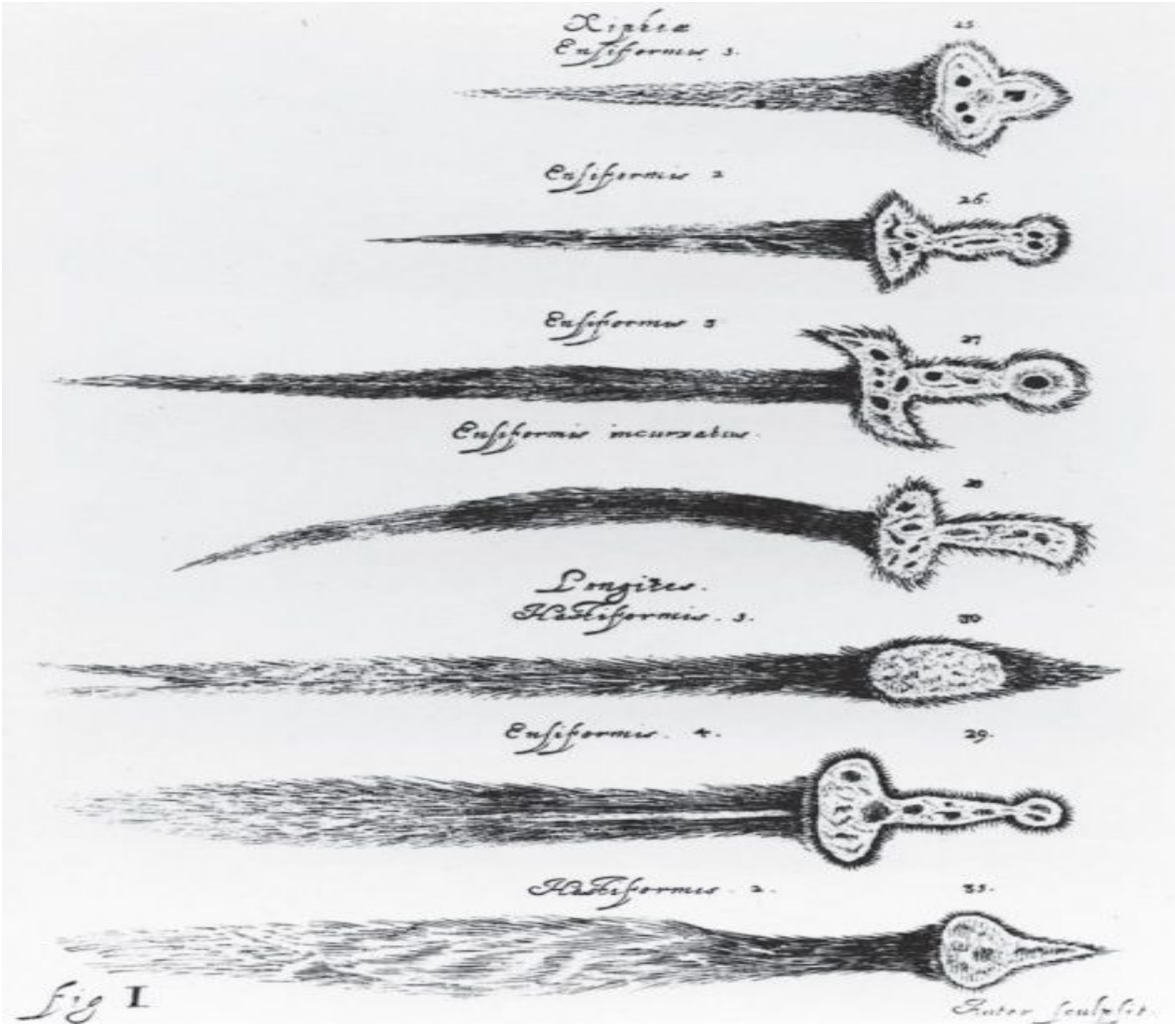
Xiphia
Ensiformis 3.
25
Ensiformis 2
26.
Ensiformis 3
27
Ensiformis incurvatus
28
Longiores.
Hastiformis. 3.
30
Ensiformis. 4.
29.
Hastiformis. 2.
31.
Fig I
Autor sculpsit

Figure 15.3. A page from Johannes Hevelius's Cometographia of 1668 showing comets as daggers and swords.

Thereafter, the gods enter Vigrid and engage in battle: "That day the dog Garm, that had been chained in the Gnipa-cave, breaks loose. He is the most fearful monster of all, and attacks Tyr, and they kill each other."[18] At the same time, the god Thor is able to slay the Midgard Serpent but dies as a consequence of the poisonous venom the monster breathes on him. Inevitably, Donnelly saw Garm, described as a bloodstained hound that guards "Hel's gate," as alluding to yet another comet fragment.[19] Its appearance marks the entry of a fourth canid into the Ragnarök story.

THE EARTH SINKS

At this point in the battle Odin takes on the Fenris Wolf but is

swallowed by the monster, which he himself had helped to rear (is this "because Odin had a connection with wolves?" asks one commentator[20]). On seeing the death of his father, Odin's son Víðarr rushes at the beast and, wearing a magic boot prepared specially for the confrontation, stamps his foot into the Fenris Wolf 's mouth and holds open its lower jaw. He then uses brute force to pull up on the beast's jaw, an action that brings about its instant demise (see figure 15.4).

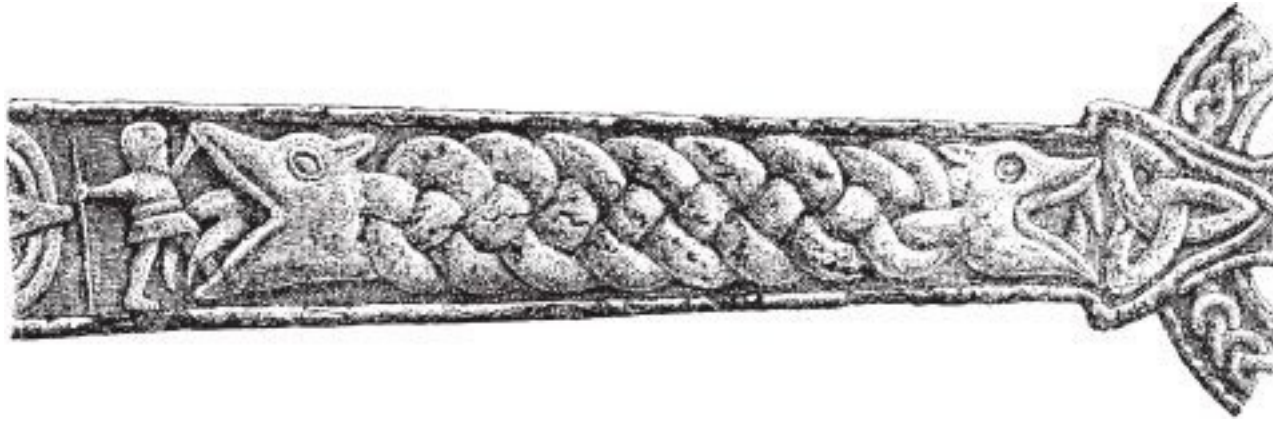

Figure 15.4. Shaft of the Gosforth Cross in Cumbria, England,

showing Odin's son Víðarr killing the Fenris Wolf. Note its knotted serpentine tail.

The Fenris Wolf 's father, Loki, comes up against the god Heimdal, and they kill each other, at which: "Surt flings fire and flame over the world. Smoke wreathes up around the all-nourishing tree (Yggdrasil), the high names play against the heavens, and earth consumed sinks down beneath the sea."[21] Once more, this is a clear sign of some kind of global conflagration, as well as an all-encompassing deluge that begins to engulf the earth, making it appear as if it is sinking beneath the waves.

THE FIMBUL-WINTER

Just in these few lines we see telltale signs of the aftermath of a major cataclysm that is set to decimate the earth and everything

upon it, a surmise affirmed by the fact that the *Prose Edda* speaks also of the world being plunged into an age of ice:

> The growing depravity and strife in the world proclaim the approach of this great event. First there is a winter called Fimbul-winter, during which snow will fall from the four corners of the world; the frosts will be very severe, the winds piercing, the weather tempestuous, and the sun will impart no gladness. Three such winters shall pass away without being tempered.[22]

Donnelly easily recognized these words as describing the onset of a glacial age, following the impact of the comets. This great freeze, which seems to come on quickly, does eventually begin to thaw, as the clouds of darkness disappear and a new sun and moon are born. The floods recede also, leading to a complete renewal of nature.

Thereafter emerge the sole human survivors:

> During the conflagration caused by Surt's fire, a woman by name Lif (life) and a man named Lifthraser lie concealed in Hodmimer's forest. The dew of the dawn serves them for food, and so great a race shall spring from them that their descendants shall soon spread over the whole earth."[23]

Donnelly suggested that it was from a cave that Lif and Lifthraser emerged because caves feature worldwide in the regeneration of humankind in the wake of catastrophes, while the reference to them giving birth to a great "race" implies that, in Scandinavian tradition at least, the current human population derives from these two individuals. Others survive the cataclysm as well, including Víðarr and Vale, the sons of Odin, and Mode and Magne, the sons of Thor. Yet these are not mortal beings like Lif and Lifthraser. They are offspring of the Æsir, who are destined to dwell on the plains of Ida, where stands the world tree, Yggdrasil, alongside Mimir's Well and Asgard, the home of the gods.

DONNELLY'S DATES

From what we read here, it does seem possible that the Eddas, like very similar myths and legends from around the world, contain echoes of a devastating catastrophe that engulfed the world during some distant epoch. Donnelly envisaged this sequence of events beginning around thirty thousand years ago, at the height of the last ice age, and culminating around eleven thousand to eight thousand years ago.[24] As we shall see, his later dates correspond pretty well with the proposed timescale of cosmic catastrophes now believed to have taken place globally toward the end of the last ice age, triggered by a major impact event around 10,900 BC (see chapter 17).

Donnelly was convinced that a comet, or indeed a series of comets, was responsible for these cataclysms, and once again he was bang on the money, as we shall see soon enough. His proposal that these global killers were portrayed in ancient myths and legends

as supernatural creatures of the earth and sky also seems to be right, a theory advanced since that time by a number of different catastrophists, who have each put a unique spin on the subject.

NUCLEAR WINTER

In the Ragnarök account, various monsters are cited as being responsible for destruction in this world, including the Midgard Serpent, the fire giant Surt, and at least four canids, three of them wolves. Two of the wolves are accused of having swallowed the sun and moon, and this quite possibly describes the temporary disappearance of the heavenly bodies that would inevitably follow a catastrophe of this scale. A comet or asteroid impacting the earth would create unimaginable clouds of smoke, dust, and microparticles of various kinds that would be thrust into the upper atmosphere, creating what is known as a nuclear winter, a total

blackout of available light. This debris, which would probably remain airborne for some considerable length of time, would be joined by a thick layer of toxic ash produced by the intense firestorms that would engulf entire regions of the planet in the days, weeks, and months after the initial event.

To our ancestors this period of absolute darkness might have led them to assume that the sky wolves, in other words, the comet fragments, had quite literally devoured the sun and moon. Clearly, the lack of any sunlight heating up the planet would have resulted in an immediate drop in temperature, helping to trigger the onset of an ice age in a matter of days. Indeed, it would have happened in a manner quite similar to that portrayed in Roland Emmerich's disaster movie *The Day After Tomorrow* (2004). Although fiction, this film adequately shows what would happen under such severe weather conditions and how quickly our world would be turned on its head by an initial catastrophe of global consequences.

The effect of all this would have been to bring humankind to its knees as it strived to survive from day to day, all this being "caused" by the intrusion into their midst of perceived supernatural creatures, including deathly serpents and terrifying sky wolves that could quite literally swallow the sun and moon whole.

It must have been an unimaginably frightening time to live in. Never would this dreadful age be forgotten; nor should it be forgotten. As Donnelly so aptly put it:

> What else can mankind think of, or dream of, or talk of for the next thousand years but this awful, this unparalleled calamity through which the race has passed?
>
> A long-subsequent but most ancient and cultivated people, whose memory has, for us, almost faded from the earth, will thereafter embalm the great drama in legends, myths, prayers, poems, and sagas; fragments of which are found to-day

dispersed through all literatures in all lands.[25]

The peoples of Northern Europe almost certainly preserved their memory of this "unparalleled calamity" in their accounts of Ragnarök. Its existence helps strengthen the case for canids—wolves, hounds, and foxes—being seen by our ancestors not just as dangerous cosmic tricksters with the power to bring about death and destruction but also as outright enemies of the world pillar, or sky pole, that connects this world with both the underworld and sky world. Yet as we see next, these myths existed not only in "legends, myths, prayers, poems, and sagas"[26] handed down from some forgotten age. They lingered on in fragmentary sky lore that once again reveals the great threat that the sky wolves were seen to pose in destabilizing everything that we have ever held dear in this world.

16

THE WOLF PROGENY

The dual relationship between order and chaos in the heavens is highlighted in the "magnificent song of Eirek," ca. 950 AD, which has the Norse god Odin say: "Evermore the wolf, the grey one, gazes on the throne of the gods," an allusion to the Pole Star, which in Anglo-Saxon tradition was the "divine seat where the north star Tir (or Tyr) . . . 'never flinches.'"[1]

There is a strange echo of this scenario in the Scandinavian story of Ragnarök. The main battle is most often described with Odin coming up against Loki's son, the Fenris Wolf, and losing his life, and then how Odin's son Víðarr is finally able to kill the demonic

creature. However, less attention is paid to the story of the Germanic, Old English, and Norse war god named Tíw, Týr, or Tir. He is willing to sacrifice his life to ensure the safety of humankind by placing his arm in the Fenris Wolf ’s jaws after the gods had asked the beast to try on various fetters, or shackles, to test his strength against them, the real purpose being to trick Fenris into bondage so that he could never wreak havoc in the world (see figure 16.1).

Fenris was easily able to break free of two sets of fetter, the second one twice as strong as the first. Yet he becomes suspicious when he sees the next fetter, which seems to be little more than a silk ribbon. So to make sure this is not a ruse, Fenris asks one of the gods to step forward and put his arm in his mouth. Tíw agrees to do so, after which the wolf is bound.

Figure 16.1. Helmet plate die from Torslunda on Oland in Sweden showing the Norse god Tíw binding the Fenris Wolf, seventh century AD .

Of course, it *is* a trick, as the silk ribbon has been forged by dark elves from six different magical substances, which when combined make an utterly unbreakable fetter. Once the Fenris Wolf realizes he has been tricked, he bites off Tíw's right arm.

Although simply a tale, it is a story containing much deeper symbolism relating to the stability of the world, and in particular the world pillar. In the Norse magical alphabet known as the runes, Tíw is represented by the T-rune named Tiwaz. It is composed of an upright pole at the top of which are two downward turned lines that show the rune to be an arrow. The Tiwaz rune is popularly considered to be a representation of the "vault of heaven held up by the universal column,"[2] as well as the Irminsul, the "world column"

of the Saxons, that "has its heavenly termination in the pole star."[3] (See figure 16.2.)

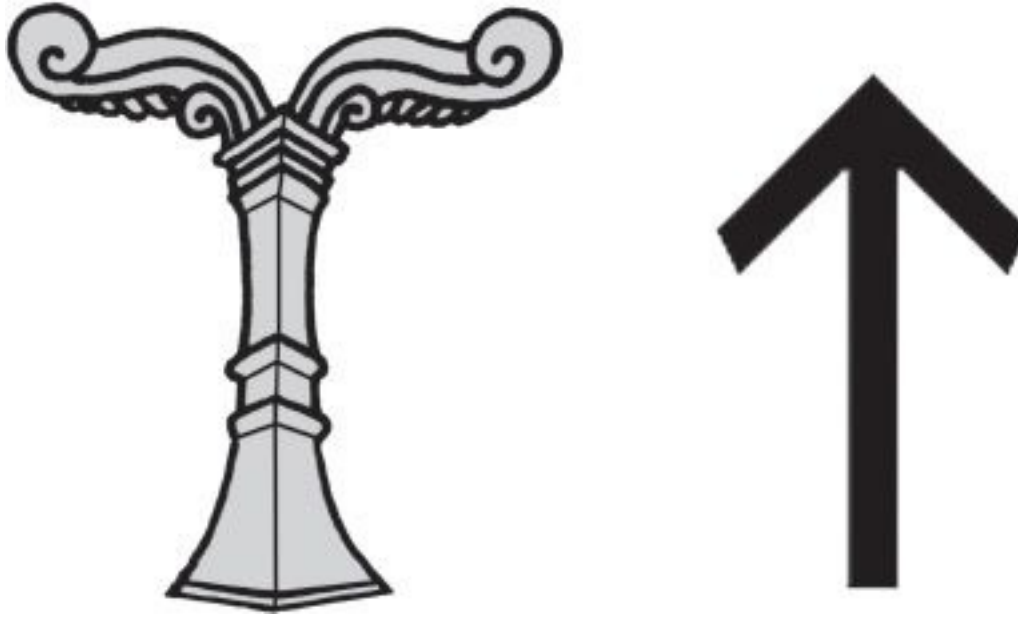

Figure 16.2. Left, the German world pillar known as the Irminsul and, right, the Tiwaz rune, showing its likeness to the world pillar.

This identification fits well with Tíw's role as personification of

the North Star, suggesting that originally he was the genius loci, or guardian spirit, of the axis mundi, protecting it against attacks by adversaries such as the Fenris Wolf. Even though Tíw is killed by the helldog Garm in the *Prose Edda* rendition of Ragnarök, in the *Poetic Edda* this act is never fulfilled—Tíw's earlier sacrifice for his warriors and humanity permitting him the title "Leavings of the Wolf "[4]; in other words, the one that the wolf left alone, that is, didn't kill.

SAVIOR OF THE WORLD

Tíw was a very early sky god. His name is thought to derive from the same route as *deus,* or *dei,* meaning "god,"[5] although he is also the "hanged" god. This suggests he is to be seen as some kind of savior who fought and won the battle against the cosmic trickster in the guise of a supernatural wolf, when it attacked the world pillar

and almost brought about the destruction of not only the Æsir gods, but also humankind, an abstract memory, seemingly, of a very real comet impact event in some former age.

In Nordic folklore the twin streams formed by the Milky Way's Great Rift, in the vicinity of Cygnus, have been identified as the "two streams of saliva" that fall from the Fenris Wolf 's jaws, one named Wil, the other called Wan, or Van, known also as "Hell's stream" or the "road of the dead"[6] (see figure 15.1 on p. 138). Fenris's alternative name, Vanargandr, actually means monster guardian of the River Van,[7] so there is tantalizing evidence that the wolf was linked in some manner with the Milky Way's Great Rift, and through this to the celestial pole and axis mundi, from which the monster was finally able to break free of his bonds to wreak havoc in the world.

BLACK DOG

And the Fenris Wolf was not the only supernatural canid of European folklore to have been perceived as a threat to the stability of the world pillar. Ukrainian sky lore relates how the constellation of Ursa Major, which includes the seven stars making up the Plough or Big Dipper, is a team of horses tethered to a harness and that "every night a black dog tries to bite through the harness, in order to destroy the world, but he does not achieve his disastrous aim: at dawn, when he runs to drink from a spring, the harness renews itself."[8] Since the Big Dipper circles around the celestial pole, the horses tethered to the sky pole are the method by which the heavens turn. The "black dog" is, of course, the cosmic trickster attempting to break the horses free in order to collapse the sky pole and bring about the destruction of the world.

Variations of the Ukrainian sky myth say that the black dog was bound in chains beside the constellation of Ursa Minor, the Little

Bear, which is the location of the current Pole Star, Polaris. Here the animal attempts to gnaw through its shackles, and when this occurs the world will end,[9] a clear comparison with the actions of the Fenris Wolf in Norse sky lore.

THE ETERNAL STRUGGLE

In a similar vein, Russian philologist Dr. Vyacheslav Ivanov wrote that the eternal struggle against the dragon in Slavonic folklore derives from a much older tradition in which heroic blacksmiths were able to bind and chain "a terrible dog." Ivanov goes on to say that "over the whole territory of Eurasia, this mythological complex is associated . . . with the Great Bear . . . (and) with a star near it as a dog which is dangerous for the Universe."[10]

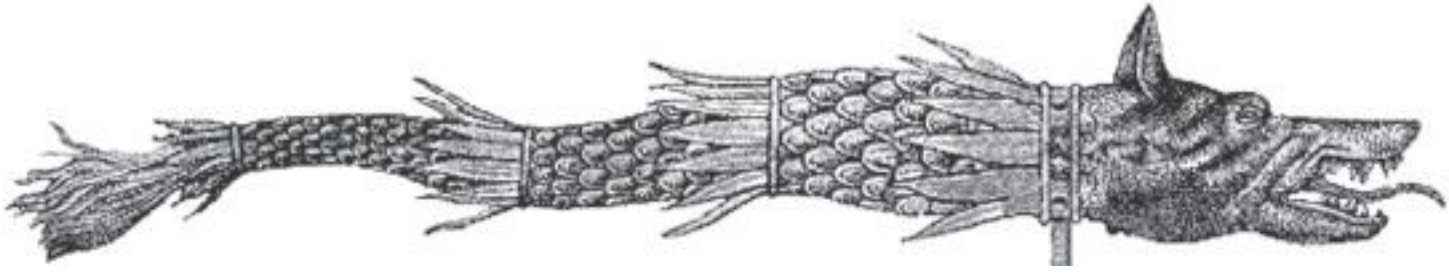

Figure 16.3. Dacian battle standard known as the Draco, or Drago. Note its cometlike tail.

Although it's not stated which star "near" Ursa Major the infernal dog is to be identified with, almost certainly it is Alcor, the Fox Star, or Wolf Star. It is a conclusion confirmed by the fact that this canine "is dangerous for the Universe" and has the ability to bring about the destruction of everything. As sky monsters, the wolf and dragon are essentially one and the same, as is shown by the battle standard of the Dacians, the pre-Roman peoples of Romania. With a wolf 's head and serpent-like tail, it is called the Draco, or Drago, the dragon, and has been identified as a possible representation of a

comet (see figure 16.3).[11]

TEUTONIC MYTHOLOGY

The great philologist and mythologist Jacob Grimm (1785–1863) in his multivolume work *Teutonic Mythology* discusses the role of the supernatural canid in catastrophe folklore. He saw the Fenris Wolf as quite simply the trickster god Loki "in a second birth . . . (although now) in the shape of a wolf."[12]

Grimm cites also an old Scottish story about "the tayl of the wolfe and the warldis end,"[13] a reference to the world falling apart following the appearance of a wolf 's tail, which we can be pretty sure is a metaphor for a comet. Grimm wrote that much fuller stories of how a great wolf or dog had brought destruction to the world must once have existed "all over Germany, and beyond it," adding that, "we still say, when baneful and perilous disturbances

arise, ‘the devil is broke loose,’ while in the North they would say *‘Loki* er or böndum (Loki is out of control).’”[14]

Grimm quotes other examples of catastrophe-based folklore and folk beliefs among the peoples of medieval Europe. They include a popular French song about King Henry IV that “expresses the far end of the future as the time when the wolf ’s teeth shall get at the moon”[15]; in other words, the wolf will cause it to be extinguished, bringing about the world’s end. All these stories seem to be fragmented memories of a terrible cataclysm, coupled with an unerring fear that one day it could all happen again.

THE BUNDAHISHN

That these examples of canine cosmic tricksters, manifesting in the skies as planet killers such as comets and asteroids, come from Europe and not Anatolia need not concern us, for similar

cosmological themes exist in sky lore much closer to Göbekli Tepe. The Bundahishn, a sacred text of Zoroastrianism, a religious doctrine that once thrived in Iran, India, and Armenia, contains its own graphic account of a Ragnarök-style scenario, which includes the following somewhat enigmatic lines: "As Gokihar falls in the celestial sphere from a moon-beam on to earth, the distress of the earth becomes such-like as that of a sheep when a wolf falls upon it."[16]

Gokihar is generally translated as "meteor,"[17] that is, an incoming comet fragment, asteroid, or bolide of some sort, while the name itself has been interpreted as meaning "wolf progeny."[18] The double allusion in this statement to the wolf is significant, and one can envisage, and even feel, the force of the assumed impact, here likened to the manner that a sheep's legs bend and collapse when pounced on by a wolf.

That Gokihar's appearance heralds some kind of apocalyptic

event seems confirmed in the verse that follows: "Afterward, the fire and halo melt the metal of [the archangel] Shatvairo, in the hills and mountains, and it [the molten metal] remains on this earth like a river."[19] If the impact of a comet fragment or asteroid *is* implied, then the presence afterward of firestorms and rivers of molten "metal" caused by the eruption of volcanoes would be inevitable.

After the destruction of the seven evil spirits under the rule of the evil principle, named Ahriman, Gokihar "burns the serpent in the melted metal, and the stench and pollution which were in hell are burned in that metal, and it (hell) becomes quite pure."[20]

Once again these are indications that Gokihar, the "wolf progeny," is involved directly with apocalyptic events described in the Bundahishn, and although they focus on a day of reckoning for both the gods and humanity, there is a sense of them forming part of a repeating cycle. In other words, the Bundahishn describes a replay of events that have already taken place. Christians in countries

where the Norse myths remained strong associated the events of Ragnarök with the coming Day of Judgment, described in the book of Revelation; in other words, they saw them as events to come, not events that had occurred during some previous age.

Gokihar ably takes the place of the Fenris Wolf in the Norse myths, although in the Bundahishn there is a strange twist—the comet, or bolide, personified as a supernatural wolf, actually becomes a cleansing agent, clearing away the wicked in order to make the world "immortal forever and everlasting."[21]

It is a disturbing account of a past that is to be repeated in the future, and if all this is true, then the cataclysm that Donnelly envisaged as having taken place in some former epoch of humankind must have been so powerful, so all encompassing, that it affected not just a few isolated communities here and there, but human populations all over the world. What then was this event, and how did it come to affect the mind-set of the Epipaleolithic

peoples that occupied southeast Anatolia in the age immediately prior to the construction of Göbekli Tepe?

As we see next, those who lived in the Near East at this time might have had every reason to be suffering from catastrophobia (as publisher, visionary, and mysteries writer Barbara Hand Clow so aptly put it in her book of the same name[22]), for the great cataclysm did not pass them by. Instead, it engulfed them in a quite terrifying manner that the scientific world is only now piecing together for the first time.

17

A DARK DAY IN SYRIA

Tell Abu Hureyra is an archaeological site of great importance on the Middle Euphrates of northern Syria. It was occupied from the late Epipaleolithic age, ca. 11,340 BC, to the Neolithic age, ca. 5500 BC, although today it lies beneath the waters of Lake Assad, created in 1973 following the completion of the Tabqa Dam.

Investigation of Abu Hureyra began in 1972 under the leadership of Andrew Moore from the University of Oxford. Yet as the rising waters began to lap around the base of the tell during the second digging season, the excavation changed into a frantic salvage operation as the British archaeologist's team desperately attempted

to understand the significance of the occupational mound before its final submergence.

THE BIG CHILL

Even after the first season's expedition it was clear that Abu Hureyra was a quite extraordinary site that would reveal much about the transition from the age of the hunter-gatherer to the establishment of settled farming communities across the Near East. The second year of excavation, along with the subsequent work continued both in Syria and at various foreign universities, enabled Moore to get a pretty good picture of what had been going on at the site at the end of the Paleolithic age. He concluded that the first people to occupy the region arrived as the climate warmed during the Allerød interstadial, which heralded the end of the last ice age, around 13,000 BC.

In the two thousand years that followed there was a population boom throughout the Fertile Crescent, and it was during this new golden age that Abu Hureyra was established. Its inhabitants—who belonged to the Natufian culture, which inhabited the Levant region, ca. 12,900–9500 BC—lived mainly by hunting, fishing, and cultivating lentils and wild cereals, such as einkorn, emmer, and rye.

With the onset of the big chill, known as the Younger Dryas, around 10,900 BC, there was a sudden and unexpected disruption to migratory animals across the region. One animal that all but disappeared from the Fertile Crescent was the Persian gazelle, which until that time had formed a major part of the diet of the hunter-gatherers at Abu Hureyra.

Adding to the problems of the Epipaleolithic hunter-gatherers was the disappearance of forageable foods, such as wild grain and pistachio nuts, almost certainly caused by the rapid climate change, which had brought with it a severe drought, revealed by an analysis

of plant remains recovered from Abu Hureyra. In the end, its inhabitants were left with no alternative but to seek warmer climes. It was the same throughout the Fertile Crescent, Natufian settlements being abandoned to the elements, their distinctive style of living vanishing completely.

The mini ice age lasted for approximately 1,300 years. After its cessation around 9600 BC, just before the creation of the first large enclosures at Göbekli Tepe, the temperatures began to rise again. A new community was established at Abu Hureyra, which built mud brick houses on the site of earlier dwellings. The inhabitants, now classed as members of the Pre-Pottery Neolithic A culture, used much fatter grain seeds for cultivation, making this perhaps one of the oldest sites where the domestication of cereal crops is thought to have occurred.[1]

MICROSPHERULES AND SLOS

Theories about Tell Abu Hureyra and its role in the birth of agriculture at the point of transition from the Epipaleolithic age to the earliest Neolithic farming communities remain controversial. Yet none of the scholars attempting to understand the evolution of the site, and its place in the emergence of the PrePottery Neolithic world, can have been prepared for what an eighteen-member international team of researchers, including James Kennett, professor of earth science at the University of California, found after examining sediment materials removed from the site during Moore's excavations in 1972 and 1973.

Soil taken from a depth of 11.8 feet (3.6 meters) below the surface revealed, quite astonishingly, that it contained large quantities of almost nano-sized magnetic and glass balls known as *microspherules,* along with something called *SLOs,* short for "siliceous scoria-like objects." These are microscopic glassy particles up to a quarter of an inch (roughly 6.5 millimeters) in size

that are highly porous and *vesiculated,* which means they are full of small sacs created by gas bubbles. In appearance the SLOs resemble *scoria,* the name given to jagged rock fragments ejected from volcanoes.

What is so remarkable about SLOs is that they form only under incredibly high temperatures, in the range of 3,100 to 3,600 degrees Fahrenheit (1,700 to 1,980 degrees Celsius),[2] which, believe it or not, is the boiling point of quartz, a form of silica. This, in its molten form, is one of the main constituents of SLOs, which can appear dark brown, green, white, or black. The extraordinary heat needed to create these glassy objects rules out their manufacture by either human activity or volcanic action—or by any other natural process connected with the earth itself.

Also discounted was the possibility that the tiny glass objects were produced in space, then fell to earth as micrometeors. Results show that 90 percent of the microspherules and SLOs are composed

of elements not only distinct from cosmic material, but also closely match the geochemistry of the rocks and sediment in the area of their recovery, clearly indicating their *terrestrial* origin.

MELT PRODUCTS

The microspherules and SLOs are also geochemically and morphologically comparable with each other; in other words, they derive from the same or very similar source materials. More significantly, they both show evidence of "high-energy interparticle collisions" of the sort that occur inside impact plumes.[3] Both are also comparable with *melt products,* tiny objects of molten glass, found at Meteor Crater, Arizona, the site of an impact event around fifty thousand years ago, and also at tektite-strewn fields in Australasia (*tektites* are glassy objects created from a mixture of terrestrial and extraterrestrial matter ejected during impacts).

More disturbingly, the SLOs found at Abu Hureyra and two other sites in the United States (Blackville, South Carolina, and Melrose, Pennsylvania) resemble "high-temperature materials"[4] found at the Trinity site, which forms part of the Alamogordo Bombing Range, New Mexico, following the detonation there of the first atomic bomb in 1945. Apparently, the thermal blast melted 0.5–1 inch (1–2.5 centimeters) of the desert floor for a radius of approximately 500 feet (150 meters) and left puddles of melted silica glass objects across a wide area.

MULTIPLE IMPACTORS

Nature herself creates such unbelievably high temperatures only during lightning strikes. Under such conditions microspherules and SLOs can result, although when this occurs, the lateral spread of glassy objects is only around 60 inches (1.5 meters); none generally

reach beyond this point. However, the SLOs discovered at Abu Hureyra indicate a minimum spread of 14.5 feet (4.5 meters), ruling out lightning as their cause.

All this supports the slightly disturbing conclusion that the microspherules and SLOs found at Abu Hureyra were the product of an unimaginable impact plume or fireball cloud. Moreover, the fact that similar microparticles were discovered at three of the eighteen sites where evidence of an impact event was found by the team tells us there must have been "multiple impactors," air blasts caused by a fragmenting comet or asteroid, most likely the former.[5] Most significant to this debate are the final words in the published paper containing the findings of the international team:

> Because these three sites in North America and the Middle East [i.e., Syria, where SLOs were found] are separated by 1,000–10,000 km, we propose that there were three or more

> major impact/airburst epicenters for the YDB [Younger Dryas Boundary] impact event. If so, the much higher concentration of SLOs at Abu Hureyra suggests that the effects on that settlement and its inhabitants would have been severe.[6]

The Younger Dryas Boundary (or YDB) impact event is the name given to this proposed comet collision with Earth, which is believed to have occurred around 10,900 BC. This date marks the "boundary" or "horizon" between the Allerød interstadial and the Younger Dryas mini ice age. The glass microspherules and SLOs found at Abu Hureyra were located at this Younger Dryas Boundary, immediately beneath an organic-rich layer referred to as the "black mat," which, the report claims, has been found at a number of sites in North and South America, Europe, and now Syria.

TOO CLOSE FOR COMFORT

We can only imagine how the Epipaleolithic hunter-gatherers of Abu Hureyra felt around 12,900 years ago, gazing out of their subsurface round houses and seeing one or more blinding balls of fire crossing the open sky (like the meteor caught so spectacularly on film as it passed over Russia's Chelyabinsk region in February 2013) before exploding shortly before impact with the ground and as a result causing thunderous explosions, unlike anything ever imagined before in the lives of these people. Moments later, everything—livestock, buildings, and people—are hit by a shock wave of soaring heat and wind that peppers everything in its path with microscopic glassy objects, like the discharge of a hundred thousand shotguns all fired at once.

This is just a glimpse of what might have happened at one location on the Euphrates River, but other Natufian settlements in the Levant and elsewhere could also have been affected by the

Younger Dryas impact event. Indeed, we have no real idea just how widespread the proposed devastation might have been, with the only clue being the Usselo horizon. This is a "charcoalrich layer" measuring 8 inches (20 centimeters) in thickness that has been detected at the Allerød–Younger Dryas Boundary at sites in the Netherlands, France, Germany, Belgium, Belarus, Poland, India, South Africa, Egypt, and Australia.[7]

This strange black layer has been found to contain magnetic grains, microspherules, iridium (an element commonly found in cosmic impactors), and nanodiamonds,[8] that is, pure carbon, all of which supports the conclusion that the Usselo horizon is the result of multiple impact events that sent ash, soot, and other debris high into the atmosphere. This mixture would eventually have fallen back to earth to create the Usselo horizon, which now becomes a telltale marker for the effects of the impact event around 12,900 years ago.

In addition to the evidence presented here, other scientific teams have uncovered similar evidence of microspherules at the Younger Dryas Boundary in Venezuela, South America, and various other parts of the world.[9] It is thus clear that something very major did go down at this time and that it involved a series of bolides, most likely fragments of a comet that perhaps broke up during its slingshot orbit of the sun. The inhabitants on Earth would have seen all this—the arrival of the comet, or comets, in the sky, its reappearance and fragmentation, along with the incoming waves of fireballs and the terrifying air blasts as the fragments reached the lower atmosphere, causing maximum devastation on the earth itself.

KILL, CHILL, ILL, AND NOW GRILL!

The effects of the Younger Dryas Boundary impact event would have been felt on every continent, although the true extent of the

damage can only be guessed at today. What we do know is that it coincided with the disappearance of the Ice Age megafauna, such as mammoths, mastodons, giant ground sloths, dire wolves, and saber-toothed tigers. All of these animals existed in abundance until the end of the Allerød interglacial, then vanished with the onset of the Younger Dryas mini ice age. How exactly they disappeared remains a complete mystery, with three main theories being proposed: they died through overhunting (the overkill theory); they died because of the sudden change in temperature at the beginning of the mini ice age (the overchill theory); or they suffered some kind of mass epidemic, which wiped out whole species (the overill theory). Recently, a fourth contender has entered the debate, this being the over-grill theory, which proposes that they were decimated in the wildfires caused by the comet impact.

None of these theories—kill, chill, ill, or grill—is ever going to account for the extinction of so many different Ice Age animals, and

indeed there is a good chance that all four scenarios played some role in their demise.

Also around the same time North America's Paleo-Indians, represented by the Clovis culture, abruptly disappear from the archaeological record. With the knowledge that some of the larger fragments of the disintegrating comet are thought to have impacted with the Laurentide Ice Sheet—which had covered hundreds of thousands of square miles of North America for much of the last glacial age—causing the ice to vaporize and fall back to earth as acid rain, it becomes increasingly likely that the Clovis population might have been greatly reduced by the events of the Younger Dryas Boundary impact event.[10]

That some kind of cataclysm really did occur at the Allerød–Younger Dryas Boundary seems inescapable, both from the evidence presented by science today,[11] and from the wealth of catastrophe myths preserved in ancient texts and by indigenous

societies worldwide. All of this tells us very clearly that something terrible happened in the world around this time, and very likely these legends refer, at least in part, to the same catastrophic event. Most likely a disintegrating comet was the culprit, although we cannot discount other possibilities, such as an asteroid or meteor impact, or a close supernova event. What *is* important, however, is its impact on the mind-set of the peoples existing in the Euphrates Basin at the termination of the Paleolithic age, for there is compelling evidence that a memory of this devastating cataclysm lingered on in the minds of the Göbekli builders themselves.

18

AFTERMATH

One of the major problems for farmers in southeast Turkey is that the landscape is littered with basalt boulders of all shapes and sizes, making it difficult to plow or sow a piece of land unless the rocks are first moved to the edge of the field. Since many of these boulders can be anything between several hundred pounds and a couple of tons apiece, this can often be a near impossible task.

The sources of these boulders are local volcanoes, which are known to have erupted in fairly recent geological history. Exactly when this might have been differs from volcano to volcano, although some kind of pattern might eventually emerge. One such

volcano is Karajeddah Dağ, part of the Karaca Dağ massif, which lies between the cities of Diyarbakır in the east and Şanlıurfa to the west. It is Karaca Dağ, we should recall, that geneticists have identified as the point of origin of sixty-eight modern strains of wheat, suggesting that it was here, in the heart of the *triangle d'or,* that the Neolithic revolution had its inception.

A BEDOUIN CATASTROPHE MYTH

With this information in mind, it is interesting to find that Karajeddah Dağ is the setting for a highly significant folktale preserved by Bedouin tribespeople, who inhabit the area even to this day. The tale, told to the author in 2004 by a Bedouin driver as they came within sight of the mountain,[1] speaks of how once, long ago, when humankind first began to till the land, a dragon with seven heads lived in a hole.

One day, the tillers' plows revealed the monster's lair, making the creature extremely angry. It emerged into the light and began torching the forests with its fiery breath until all the trees had been razed to the ground. Fearing for their lives, the people called upon Allah to stop this misery. This he did by carrying the monster up through the seven heavens until it reached the highest one, and here the dragon exploded with a great burst of fire, scattering rocks across the entire region.

SEVEN-TAILED COMET

Even though this story exists to help explain the countless boulders ejected by the now-extinct volcano, elements within it hint at a meaning on a much deeper level. The aerial detonation of the great dragon in the seventh heaven smacks of the sudden entry into the atmosphere of a fiery bolide, a comet perhaps. The seven heads of

the dragon suggest that the comet might have fragmented into seven pieces or that it had multiple tails. In 1907 Comet Daniel appeared in our skies with seven tails, leading one astronomer to refer to it as "this awesome, seven-tailed monster."[2] That the seven-headed dragon of the story torched the forests with its fiery breath until all the trees had been razed to the ground is another clear sign that this was more than simply the action of a volcano.

If this Bedouin folktale does recall some memory of the Younger Dryas Boundary impact event, as well as an eruption of Karajeddah triggered at the same time, then this is very important indeed, especially as the mountain, although a full 50 miles (80 kilometers) away from Göbekli Tepe, is just about visible on the northeast horizon. Even more significant, however, is the reference in the story to the first tillers of the land disturbing the lair of the fiery dragon, resulting in it wreaking havoc on the world. Does this allude to the first people to begin cereal cultivation in the *triangle*

d'or at the beginning of the Neolithic age? The fact that this tilling of the land was said to have *triggered* these catastrophic events need not worry us, as after thirteen thousand years confusion as to what happened in which order is understandable.

Behind this archaic story is one final piece of useful information. The folktale tells us that it was the tillers' actions that caused the release of the dragon. In other words, the inhabitants of the region, whose descendants we know became the first farmers, blamed themselves for the destruction it caused. If correct, then we can better understand why the Epipaleolithic hunter-gatherers of southeast Anatolia so feared a repeat of these events, for in their minds it was their actions that had caused the original catastrophe, in which case it could all happen again if they were not careful, the definition perhaps of Barbara Hand Clow's catastrophobia. No wonder these people might have accepted the offer of an incoming elite to rid them of this constant fear, a decision that led, eventually,

to the construction of Göbekli Tepe.

PROFESSOR SCHMIDT'S OPINIONS

Whether there is a connection between Göbekli Tepe and the Younger Dryas Boundary impact event is something the author put to Professor Klaus Schmidt during an impromptu interview in September 2012. His immediate response was an emphatic "no, no connection." It was, however, pointed out to him that there was now firm evidence that the Natufian settlement at Tell Abu Hureyra on the Middle Euphrates, just 100 miles (160 kilometers) away, might have been an impact zone, and that in the opinion of the scientists who made this discovery, "the effects on that settlement and its inhabitants would have been severe."[3]

Schmidt's dismissal of the subject is, however, understandable. Even if the proposed impact event of 10,900 BC really did occur in

the manner described, then this was a full 1,400 years before the construction of the oldest known enclosures at Göbekli Tepe, ca. 9500 BC. Surely, the hunter-gatherers of the region would have forgotten what had happened so many centuries after this supposed catastrophe took place.

This is a valid point, although scientific evidence indicates that something catastrophic continued to happen in the world for many hundreds of years after the commencement of the Younger Dryas cold spell. Drilled cores taken from the Greenland ice sheet reveal that ammonium levels in the atmosphere, arguably caused by the spread of wildfires, rose suddenly around 12,900 years ago, coincident to the proposed impact event, and then remained high for hundreds of years afterward.[4] They then spiked again around 12,340 years ago, that is 10,340 BC, suggesting that something else occurred at this time, prompting Dr. Richard Firestone of Lawrence Berkeley National Laboratory of Nuclear Science and his coauthors

in their book *The Cycle of Cosmic Catastrophes* to comment, "We think that [10,340 BC] may be the date of one of the impacts."[5]

In other words, we could be looking at another major impact on or around 10,340 BC, which brought to a climax a sequence of events that had been happening on and off since the initial impact some five centuries earlier. Firestone and his team propose that at least part of the ammonium content in the Greenland ice cores came from a disintegrating comet, the rest from the wildfires it caused.

In addition to the massive spike in ammonium corresponding to a date of 12,340 years ago detected in the Greenland ice cores, the levels of nitrate they contain also peaked at exactly the same date—12,340 BP. Nitrate is another chemical produced by wildfires, although when the levels shoot up for both ammonium and nitrate together, it could mean that the fires in question were burning fiercely, as opposed to smoldering after the event.[6]

Compounding the mystery still further is the fact that another

chemical, oxalate, also spikes in the Greenland ice core samples for the date 12,340 BP, and this too is associated with wildfires. Apparently this peak is the highest on record for the entire four hundred thousand years covered by the ice cores.[7] The importance of these findings is made clear by Firestone and his coauthors when they write, "The researchers tested a lot of ice, and they did not find any event as severe as that one, which spanned about four ice-age cycles. We think that it was no ordinary fire; it was a cosmic one."[8]

Whether a comet *was* responsible for the wildfires raging some 12,340 years ago remains a matter of speculation, although the ice core samples make it clear that the world was not at all stable at that time. Remember too that this is a full 560 years after the proposed Younger Dryas impact event of 12,900 years ago, and just 850 years, arguably less, before the construction of the first large enclosures at Göbekli Tepe.

A REMEDY FOR CATASTROPHOBIA

Mammoth building projects like Göbekli Tepe were initiated, most probably, after the inhabitants of southeast Anatolia came into contact with other parties, most likely displaced peoples from some other part of the ancient world. They perhaps brought with them a virtual messianic message explaining how they had the power to put an end to the prevailing state of fear. We have called them the Hooded Ones and suspect that it is their memory, and the memory of their own great ancestors, embodied in the T-shaped pillars erected at Göbekli Tepe. Most likely, this power elite was shamanic in nature and believed it had some special relationship with either the fox or the wolf, a connection that gave them control over the sky fox or sky wolf responsible for bringing destruction to the world.

It is time now to examine the archaeological record in the hope of identifying this incoming group who would appear to have had such a big impact on the Epipaleolithic peoples of southeast Anatolia.

Where did they come from, and how were they so easily able to convince communities of hunters to give up their free lives to build huge stone monuments, the oldest known astronomically aligned temples anywhere in the world? The answers, as we shall see in part four, might well lie on a different continent together, with that continent being Europe.

PART FOUR

Contact

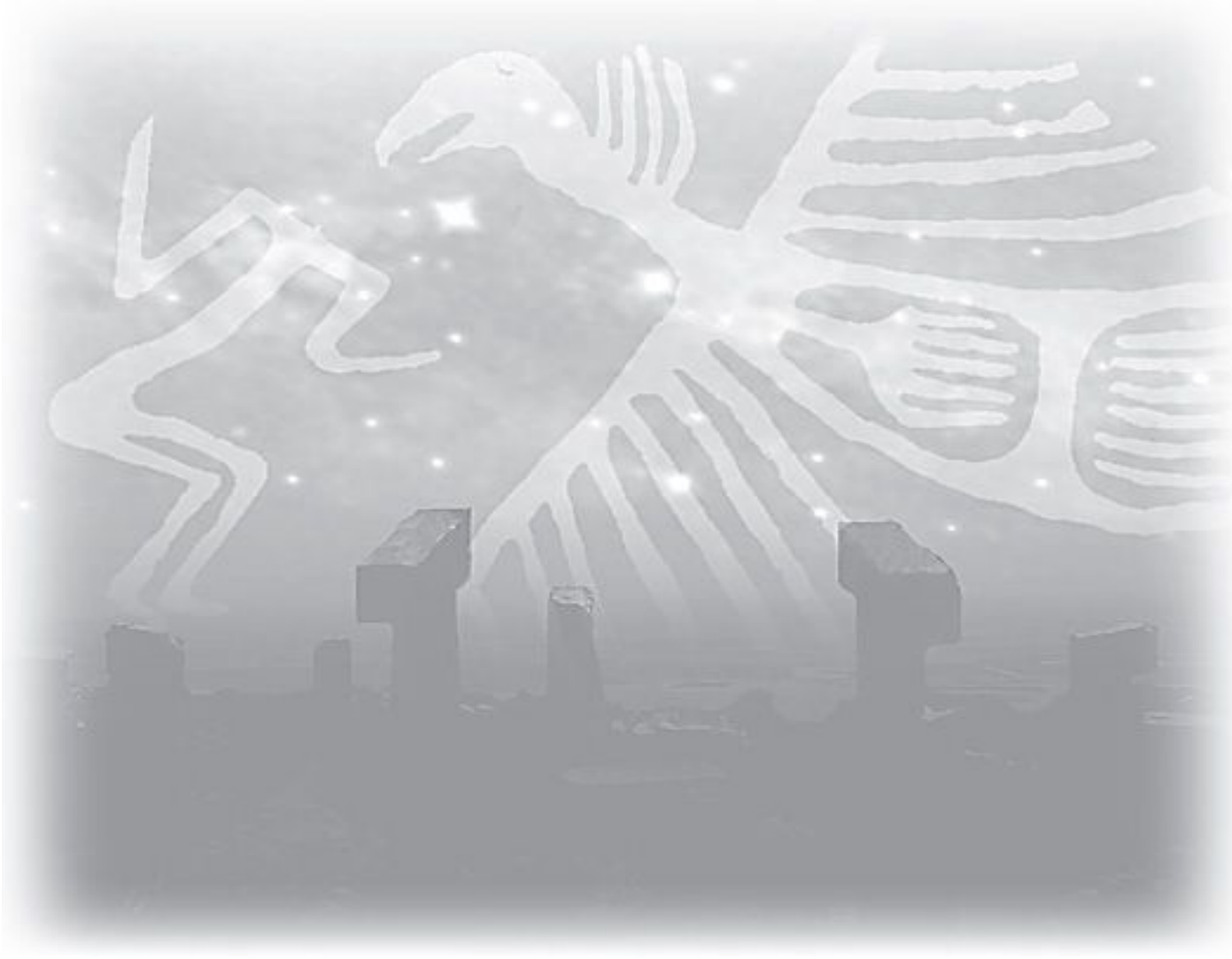

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THE REINDEER HUNTERS

Dr. Alice Roberts is a British anatomist, anthropologist, and osteoarchaeologist (bone specialist), as well as an author and TV presenter. In her book *The Incredible Human Journey* (2009), written to accompany a BBC documentary series of the same name, she visited Göbekli Tepe and chatted at some length with lead archaeologist Professor Klaus Schmidt. During the interview Roberts made a poignant observation, based on a sound knowledge of ancient stone tool technologies. She noted that the toolkit in use at Göbekli Tepe "was similar to some of the tanged point cultures of Central Europe, in the late Paleolithic and Mesolithic."[1]

In response, Schmidt suggested that "perhaps there was some kind of connection or communication between the societies of Turkey and those around the Black Sea and the Crimea,"[2] noting also a similarity between the style of game hunting in southeast Anatolia in the epoch of Göbekli Tepe's construction and the "reindeer hunters of the North."[3] Yet as if, immediately, to distance himself from any proposed connection between Europe and Göbekli Tepe, Schmidt pointed out that there is nothing "even vaguely like it in Europe . . . until well into the Neolithic."[4]

TANGED POINT CULTURES

This is true; there is absolutely nothing to compare with Göbekli Tepe anywhere in Europe or, indeed, anywhere else in the ancient world until much later, when megalithic architecture begins in earnest at places such as Malta, Sardinia, Brittany, Ireland, and, of

course, Britain. Yet that doesn't rule out the tantalizing possibility that the Göbekli builders came in contact with peoples from Europe, and from what Dr. Roberts and Klaus Schmidt were both implying, perhaps we should be looking toward the "tanged point cultures" and "reindeer hunters of the North" for some answers.

In the late Upper Paleolithic age reindeer hunters who occupied the forests and plains of Northern Europe, often operating on the sandy terrains of loess left behind by the melting glaciers, started different hunting strategies because their perennial prize, the reindeer herds, were abandoning their old territories and moving ever northward and northeastward. The animals undertook these continual migrations so that they could remain within the forests and tundra (land with small trees and plants) essential for their continued survival. Even with the onset of the Younger Dryas mini ice age, ca. 10,900 BC, the reindeer kept moving, even though the worsening weather conditions were forcing human populations to

migrate ever southward.

As part of their change in strategy, the reindeer hunters at the termination of the Upper Paleolithic age, which in Europe quickly transformed into the Mesolithic age, adopted the use of a very specific type of weapon, usually made of flint and known as the tanged point. This is a type of arrowhead, either shaped like a willow leaf or geometric (that is, triangular) in form. These points have distinctive “shoulders,” or “tangs,” delicately chipped away from the base so that they could more easily be hafted onto an arrow shaft. Sometimes the points have only one tang, or shoulder, while at other times they have two. Clearly, the use of the bow and arrow gave Paleolithic hunters the advantage not only during the chase but also over human enemies.

THE CASE OF MARY SETTEGAST

So could there have been some kind of contact between these reindeer hunters of the North European Plain and the Epipaleolithic peoples of southeast Anatolia in the lead up to the construction of the first large enclosures at Göbekli Tepe? The answer is almost certainly yes. In 1987 a fascinating book entitled *Plato Prehistorian,* by archaeological writer Mary Settegast, attempted to paint a picture of the turmoil that might have existed in Europe in the aftermath of a global catastrophe at the end of the last ice age. Settegast linked this event with the account given by the Greek philosopher Plato in his works *Timaeus* and *Critias,* written around 350 BC. He, of course, describes the destruction of a mythical island empire called Atlantis that was said to have existed beyond the Pillars of Hercules, out in the Atlantic Ocean.

According to Plato the main island of Atlantis sank beneath the waves around 9500 BC following a day and night of earthquakes and floods, sent by the sky god Zeus to punish the Atlanteans for

having become too haughty and arrogant. Prior to this time they had made incursions into the Mediterranean and attacked major city-ports as far east as Italy's Tyrrhenian Sea, then under the control of the Athenians.

Plato's account of Atlantis might well be based on some kind of historical reality, although the wars between the Atlanteans and the Athenians are much more difficult to prove, especially given that Athens and its inhabitants, the Athenians, did not exist in 9500 BC. For this reason, some of Settegast's proposals are quite obviously biased toward accepting the validity of Plato's account. That said, the evidence she presents for bloodshed and turmoil in Europe at the end of the Ice Age is stunning.[5]

THE SWIDERIAN CULTURE

Crucially, Settegast recognized that during the Younger Dryas

period, ca. 10,900–9600 BC, major migrations were taking place all over Europe, seemingly in the aftermath of the proposed cataclysm. Among those on the move was a specific group of reindeer hunters known as the Swiderians. They began pushing farther and farther eastward and southward until they were quite literally knocking on Anatolia's door.

Mary Settegast realized that as they moved across Europe at the onset of the Younger Dryas cold spell, the Swiderians left behind a noticeable trail of finely carved tanged points. It stretched all the way from the Carpathian Mountains of Central Europe right across to the Crimean Mountains, located on a peninsula immediately west of the Sea of Azov, a northerly extension of the Black Sea, in what is today Ukraine. She noted also that around this same time strikingly similar tanged points started to appear at Epipaleolithic and proto-Neolithic sites in the Near East, something that is unlikely to be a simple coincidence.[6]

DENMARK
SWEDEN
ESTONIA
LITHUANIA
Volga R.
RUSSIAN FEDERATION
POLAND
BELARUS
Vistula R.
Oder R.
GERMANY
Świętokrzyskie Mountains
Don R.
Volga R.
SLOVAKIA
Dneiper R.
Carpathian Mountains
UKRAINE
HUNGARY
ROMANIA
GEORGIA
Caspian Sea
CRIMEA
Caucasus Mountains
Danube R.
Black Sea
ARMENIAN HIGHLANDS
L. Van
L. Urmia
TURKEY
Göbekli Tepe
Mediterranean Sea

Figure 19.1. Map showing the eastern migration of tanged, or shouldered, points, most likely arrowheads, belonging to the Swiderian culture, which emerged ca. 11,000 BC.

To better argue her case, Settegast included in her book a map that shows the trail of Swiderian points across Europe,[7] a version of which is included here (see figure 19.1). Her compelling evidence prompted the question of what exactly these Paleolithic hunters were doing crossing Eastern Europe so boldly, with the standard explanation being that they were following the flight of the reindeer herds, but as Settegast herself noted, many of their campsites show very little evidence of the spoils of the chase,[8] so clearly something else was going on in their lives. So who exactly were the Swiderians, and how do they fit into the gradually emerging picture painted so far in this book?

THE SWIDERIAN LANDSCAPE

The Swiderians take their name from an occupational "type" site where their unique style of stone tool technology was first recognized. This is Świdry Wielkie in Otwock, near Warsaw in Poland, which now forms one of the thousands of campsites, work stations, and settlement sites that the culture created across a vast territory, stretching from Poland in the west across to Belarus, Lithuania, Latvia, Estonia, Moldova, and Ukraine. They make their presence known for the first time at the beginning of the Younger Dryas period, occupying the forests, steppes, and glacial loess of the East European Plain, and settling on major rivers including the Vistula, Oder, and Warta in the west, and the Dnieper, Volga, Oka, and Don in the east.[9] In addition to this, they are known to have occupied the northern and eastern foothills of the Carpathian Mountains,[10] which embrace Slovakia, Poland, Hungary, Ukraine, and Romania (which is made up of the former kingdoms of

Transylvania, Wallachia, and western Moldavia).

The culture's principal calling cards, so to speak, were their distinctive tanged points, along with their exquisitely finished leaf-shaped points. Prehistorians propose that the Swiderians were an offshoot of one of the preexisting reindeer-hunting traditions of Northern Europe, either the Hamburgian-Ahrenburgian cultures of North Germany or, more likely, the Brommian-Lyngby cultures of Denmark and the Scandinavia Peninsula (together they form what is known as the Tanged Point Technocomplex). Yet as we see next, the Swiderians had ancient roots that mark them out as more successful than their contemporaries. They would seem also to have had a great motivation and drive that has allowed them to be credited with the foundation of various subgroups that were instrumental in the establishment of European culture and language on a number of different levels. It is a long road from Central Europe to Anatolia, but it is one we must now take to create a better

picture of why exactly the Swiderians are so crucial to the story of Göbekli Tepe and the rise of civilization in the ancient world.

20

SWIDERIAN DAWN

The effect the Younger Dryas Boundary impact event of 10,900 BC might have had on Europe remains unclear. Yet evidence of its aftermath can be found at sites across the continent as the Usselo horizon, the 8-inch (20-centimeter) charcoal-rich layer lying between soils signifying the termination of the Allerød interstadial and the commencement of the Younger Dryas mini ice age, ca. 10,900 BC.[1] Listed among the countries in Europe where this black layer has been found are the Netherlands, France, Germany, and Belgium, as well as known Swiderian territories such as Belarus and, as we shall see now, Poland.

THE WITÓW PEOPLE

At the beginning of the 1960s, archaeologists working on a site at Witów, near Łęczyca, in the Polish province of Łódź, were puzzled to find "a charcoal layer in late-glacial dune, comparable to [the] Usselo-layer."[2] This layer was found to contain flint artifacts "forming a hitherto unknown assemblage,"[3] while in the sand immediately above this black mat, archaeologists came across stone implements belonging to the "middle Swiderian industry,"[4] showing that the Swiderian reindeer hunters were here at this time.

In addition to the flint implements, archaeologists found at Witów four large ovoid "huts," all aligned east-west. Each one contained various finds, including a noticeable amount of hematite, which is a highly magnetic, iron-based mineral, usually rust red in color. It is crushed to make a pigment called ochre, used in rock art and human decoration, such as tattoos and body paint.

Radiocarbon analyses for the charcoal layer provided dates in the region of 10,820±160 BP, or 8820 BC. However, when these tests took place it was not realized that recalibration is necessary to bring raw radiocarbon dates in line with the true trend of carbon-14 release from organic materials, so when this is applied the charcoal layer offers dates in the range of 11,000–10,500 BC, well within the proposed time frame of the Younger Dryas Boundary impact event of ca. 10,900 BC.

SWIDERIANS IN CRIMEA

The stone tools found inside the huts at Witów in Poland were initially quite a mystery to archaeologists, leading them to announce the discovery of a previously unknown culture.[5] What they did notice, however, were similarities between the assemblage's curved-back knives and blade segments with examples found over

850 miles (1,400 kilometers) away in the Shan Koba cave in Crimea.[6] These are now recognized as belonging to a Crimean Swiderian culture, responsible also for the manufacture of Swiderian points found at other sites in the Crimean Highlands, immediately north of the Black Sea.[7]

Here in a rock shelter known as Syuren 2, tanged blades have been unearthed "with direct analogies to the Polish Swiderian."[8] In other words, they are more or less identical to those found at the culture's mostly open air sites in their original heartland of Poland and the Carpathian Mountains. More crucially, the examples found in the Syuren 2 rock shelter are so similar to the real thing that two Russian prehistorians were led to conclude that a "direct migration of a group of Swiderian population in the Crimea is not excluded."[9] In other words, the Swiderian peoples who inhabited these caves might well have been the immediate descendants of reindeer hunters who had arrived in this region from Poland.

If these migrations really did take place, then it is unbelievable evidence of the sheer endurance and willpower of these people, who crossed the entire length of Eastern Europe to end up on the Black Sea. What is more, there is tentative evidence that they did not stop their journey there. In 1959 Russian prehistorian Aleksandr Formozov saw evidence of stone tools of the Swiderian-European style as far east as the Caucasus Mountains of Georgia,[10] which stretch between the Black Sea in the west and the Caspian Sea in the east. If correct, then this brings the reindeer hunters within striking distance of the Armenian Highlands, just a couple of hundred miles away from Göbekli Tepe.

TANGED POINTS IN THE NEAR EAST

Supporting the idea that the Swiderians reached even beyond the Caucasus Mountains is, as Mary Settegast realized, the fact that a

great many tanged points strikingly similar to those manufactured in Europe have been found at Epipaleolithic and early Neolithic sites across the Near East. Indeed, if they had been found on European soil, archaeologists would have had no qualms in identifying them as belonging to one or another of the North European reindeer-hunting traditions.

Clearly, there are certain differences in style. Sometimes the tang is trapezoid in shape, or with a slight barb. Alternatively, notches are made on either side of the blade, making it easier to haft onto an arrow shaft. Despite these variations, there are enough similarities to suggest that the Swiderian reindeer hunters were somewhere in the background. Indeed, leaf-shaped tanged points that easily compare with those created as part of the Swiderian tradition have been found at Göbekli Tepe (see figure 20.1 on p. 174).[11] This opens up the possibility that the European reindeer hunters, or at least their direct descendants, really were present in southeast

Anatolia and might well have influenced the development of its earliest Neolithic cultures, something they certainly did in other parts of the ancient world.

POST-SWIDERIAN CULTURES

Having established many hundreds of settlement sites as far east as the Don and Upper Volga rivers of Central Russia, Swiderian groups spread into new territories, where they created post-Swiderian cultures, such as the Kunda and Butovo, which thrived between the middle of the tenth millennium and the end of the seventh millennium BC in Estonia, Belarus, Latvia, and northwest Russia.[12] Here they adopted an advanced toolmaking technique known as surface pressure flaking, a process so unique that when discovered at a Mesolithic site in north or northeast Europe it is seen as clear evidence of a Swiderian presence there.

Pressure flaking is a process whereby a bone tool or antler is used to trim a biface (an implement shaped on both faces) by very carefully applying pressure to its edges in order to prize off rows of tiny flakes. This produces equally spaced, concave troughs, each one generally overlapping the next in line, which can reach as far as the center of the implement, giving it a perfect geometric finish.

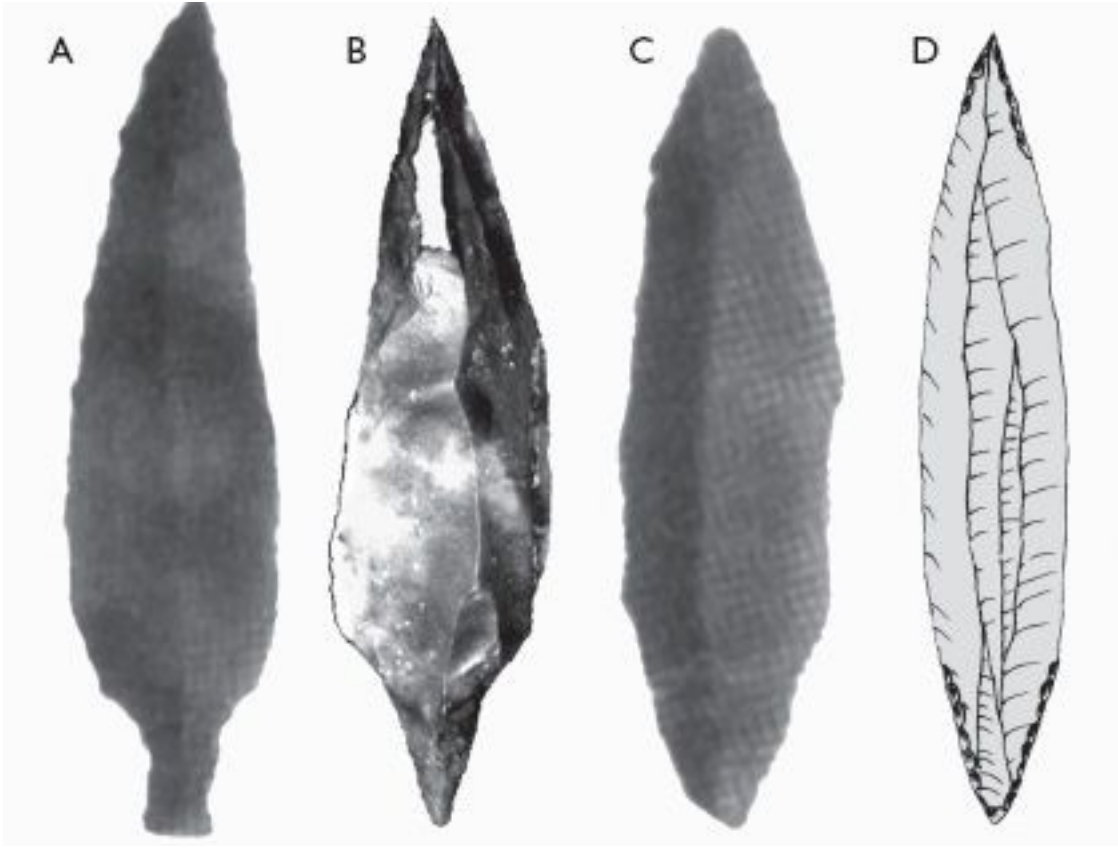

Figure 20.1. Comparison of tanged points found in the fill at Göbekli Tepe (A and C) against two examples (B and D) from the Swiderian culture.

Although stone tools dating back seventy-five thousand years found at the Blombos Cave in South Africa show evidence of having been finished using pressure flaking, it is a technique not usually associated with European cultures at the end of the Paleolithic age. This said, pressure flaking was being used in eastern Anatolia to process obsidian (see chapter 22) during the Pre-Pottery Neolithic B period, ca. 8700 BC and 6000 BC, and was present at the Neolithic city of Çatal Höyük by 7000 BC.[13]

FINNO-UGRIC PEOPLES

There is firm evidence also that post-Swiderian groups entered Finland and established key settlements during the ninth millennium BC. Here their traditions are associated with the country's Finno-Ugric speaking peoples, including the Sámi, a shamanic-based, reindeer-herding culture that exists to this day.[14] Additionally,

newly discovered settlement sites in Norway, dating to roughly the same age as those in neighboring Finland, have revealed evidence of a blade technology identified as post-Swiderian in nature.[15] Similar tools have been found at a Mesolithic site in Lapland, northern Sweden, dated to ca. 6600 BC.[16] What is more, extraordinarily accomplished stone tools finished using pressure flaking techniques were manufactured during the late Neolithic/early Bronze Age, ca. 3000–2500 BC, in parts of Scandinavia (Denmark in particular), and this can be put down to the presence of technologically advanced cultures deriving from the post-Swiderian tradition.

All this implies that some of the earliest influences on Finnish, Scandinavian, and Baltic ethnicity, culture, stone technology, and, very likely, mythology might well have originated with the Swiderian reindeer hunters, whose original homeland was the forests, steppes, and river valleys of Central and Eastern Europe.

Yet who exactly were the Swiderians? Where did they come from, and what did they look like?

HUMAN HYBRIDS

Anatomically speaking, the Swiderians have been described as "tall . . . long-headed, [and] thin faced."[17] It is something confirmed by noted Lithuanian anthropologist Marija Gimbutas (1921–1994), who in 1956 detailed the discovery eight years earlier, in 1948, of a partial cranium, minus its lower jaw, at Kebeliai, near Priekulė in Lithuania. Dating to the end of the Paleolithic age, when Swiderian settlements occupied the area, it is said to have been "massive, dolichocephalic [that is, long headed], with strong proclivity [inclination] of the forehead, prominent and massive brow ridges and a narrow forehead." In her opinion the strange skull "was *sapiens,* but had Neanderthaloid elements, in other words, [it] was a

Neanderthal-*sapiens* hybrid."[18] Gimbutas spoke also of a "closely related" cranium dating again to the end of the last glacial age, this one discovered on the Skhodnia River, northwest of Moscow,[19] where Swiderian groups are known to have existed at this time.

A third skull of interest, attributed to the post-Swiderian Kunda culture and found in a pit paved with stones at Kirsna in the district of Marijampolė in southern Lithuania, Gimbutas describes as "hyperdolichocephic [that is, extremely long headed] . . . narrow faced, high-orbited," and resembling the "Brünn skull of central Europe."[20]

The "Brünn skull" mentioned refers to one of a number of examples, all very similar, unearthed in 1891 at Brünn (modern Brno), the capital of Moravia in what is today the Czech Republic. Here human remains dating back as much as twenty-five thousand years were found that had a slightly different physiognomy to the pre-existing Cro-Magnon population that had entered Europe from

Africa around forty-three thousand years ago.[21] Whereas the Cro-Magnon were broad-faced, large-headed individuals, the Brünn skulls displayed "extreme elongation and dolichocephaly,"[22] that is, their craniums were long and narrow. They also had strong chins, high cheekbones, low, wide-set eye orbits, and, like the Kebeliai example, prominent brow ridges.[23]

Similar skulls from the same human population were unearthed three years later in 1894 at PÅ™edmost (modernly spelt Predmostí), also in the Czech Republic. Fourteen complete skeletons and the remains of six others had been placed in a tight circle within a pit, their bodies contracted into a squatting position and surrounded by a bank of stones. The size of the limbs of these individuals indicated that they were of "large stature."[24] The finds at PÅ™edmost led anthropologists of the period to start referring to this unknown human type as "Brünn-PÅ™edmost man" and even *Homo pÅ™edmostensis*.[25]

Speculation mounted in the early twentieth century that the Brünn population of the Upper Paleolithic age were in fact "Neanderthaloids," either Neanderthal-human hybrids and/or the remnants of an intermediary stage between the two species,[26] ideas that almost certainly influenced the observations made by Marija Gimbutas in 1956 regarding the strange physiognomy of the Kebeliai skull.

It is thus possible that the Swiderians of Central and Eastern Europe were directly related to the Brünn population and that both either evolved from or contained within their communities Neanderthal-human hybrids of quite striking appearance, having elongated heads, long faces, high foreheads, prominent brow ridges (a specific Neanderthal trait), high cheekbones, large jaws (a Cro-Magnon trait), and an increased height. It was a physiognomy inherited by post-Swiderian cultures, such as the Kunda, who are elsewhere described as tall with elongated skulls and narrow

faces.[27]

That the Swiderians might have been related to the Brünn population that appeared in Central Europe sometime around twenty-five thousand years ago is an extraordinary realization. Yet it is a conclusion strengthened in the knowledge that the Swiderians might well have inherited one of the most accomplished and mysterious traditions of the Upper Paleolithic age—that of the Solutrean, a matter we explore next.

Plate 1. The fig-mulberry tree that stands on the summit of Göbekli Tepe in southeast Turkey. This place has long been sacred to the native Kurds of the region, as seen from the presence here of a small cemetery.

Plate 2. View of Göbekli Tepe from the northwest, showing the main group of sanctuaries built more than eleven thousand years

ago. The two giant monoliths in the foreground belong to Enclosure D, the most sophisticated structure uncovered to date.

Plate 3. Archaeologists survey the bedrock impression left by the former presence there of the Felsentempel (German for “rock

temple”), otherwise known as Enclosure E.

Plate 4. Pillars belonging to Göbekli Tepe’s Enclosure A, the first structure to be uncovered, during the 1995–96 digging seasons.

Visible in the center is Pillar 2, showing an auroch, a leaping fox, and a wading bird, most likely a crane.

Plate 5. Göbekli Tepe's Enclosure B, which lies immediately to the north of Enclosure A. The two T-shaped pillars to the right stand at its center, each one with a leaping fox on its inner face. Do they represent the cosmic trickster?

Plate 6. The leaping fox on the inner face of Enclosure B's Pillar 10. Note the graffito boar carved immediately beneath it.

Plate 7. Göbekli Tepe's Enclosure C from the north. Note the

remains of its twin central pillars (the eastern one encased in wood), as well as the twin standing stones acting as its southern entranceway.

Plate 8. One arm of the U-shaped portal, dubbed the “Lion’s Gate,” that marked the entrance into the long corridor, or dromos, that enabled access to Enclosure C. The strange quadruped that caps its termination is thought to be a feline of some sort.

Plate 9. Pillar 37, the western of the two great monoliths that stand at the center of Enclosure C. Like the twin pillars in Enclosure B, it

has a leaping fox carved on its inner face. This animal faces south, toward the entrant who walks between the twin monoliths in order to access the sky world.

Plate 10. The author surveys Göbekli Tepe's unfinished monolith, partly hewn out of the bedrock around a quarter of a mile (400 meters) from the main enclosures. It is as much as 22 feet (6.9 meters) in length and 6.5 feet (2 meters) broad, with an estimated weight of 50 metric tonnes (approximately 55 U.S. tons).

Plate 11. Decoration on the right-hand side of the waist belt on Pillar 18, the eastern central monolith in Enclosure D. It shows a combination of C and H glyphs.

Plate 12. Pillars 31 and 18, the central monoliths of Enclosure D. Note the long arm of the eastern pillar, which seems to be almost holding the fox. See also the way that the T-shaped head is tilted toward those who approach from the south.

Plate 13. Pillar 18's belt buckle, with its three-tailed comet design, surrounded by a group of H-shaped ideograms. Note also the fox-pelt loincloth hanging directly beneath the belt buckle.

Plate 14. The twin pillars at the center of Enclosure D. Note the holed stone centrally positioned behind the monoliths, which might well have targeted the bright star Deneb in Cygnus as it set on the horizon around 9400 BC.

Plate 15. The holed sighting stone at the rear of Enclosure D. Note the lines suggestive of the legs and buttocks of the female form, which if correct makes the hole a representation of the vulva.

Plate 16. The seven flightless birds, identified as dodos, carved into the southern face of the bedrock pedestal holding up Enclosure D's Pillar 18.

Plate 17. One of the roaring lions carved on the inner faces of the

twin pillars marking the eastern end of Göbekli Tepe's Lion Pillar Building. Built ca. 8500–8000 BC and aligned east-west, its advancing felines could well represent both the might of the sun and the constellation of Leo, the celestial lion.

Plate 18. Göbekli Tepe's Lion Pillar Building, located at the

summit of the occupational mound some 50 feet (15 meters) higher than the site's main enclosures, suggesting that it was constructed as much as 1,000 to 1,500 years after these earlier structures.

Plate 19. The author, left, with Professor Klaus Schmidt, who has been excavating Göbekli Tepe on behalf of the Museum of Şanlıurfa

and the German Archaeological Institute since 1995.

Plate 20. One of the most recent pillars to be uncovered at Göbekli

Tepe. It was discovered during excavations in the northwest section of the occupational mound and could well be eleven thousand years old. It shows a south-facing lion on what is presumably the inner face of a central pillar in a previously unexplored enclosure.

Plate 21. Göbekli Tepe's Enclosure F, built probably ca. 8500–8000 BC. Notice how reduced in size the sanctuaries have become by this time. Some of them are no bigger than a bathroom, with stones no more than 5 feet (1.5 meters) in height.

Plate 22. Strange carved head found among the fill that covered the

enclosures at Göbekli Tepe, now in the Museum of Şanlıurfa. Its teeth show it to be a predator, most likely a wolf.

Plate 23. Life-size human statue dating to around 9000 BC. It was discovered in 1993 within the Balıklıgöl district of Şanlıurfa, the oldest part of the city, and is now in the archaeological museum. Tradition asserts that Şanlıurfa, ancient Edessa or Orhay, was founded either by the prophet Enoch or by “Orhay son of Hewya”; that is, the “Serpent,” a clear allusion to the Watchers of the book of Enoch.

Plate 24. Carved stone totem pole discovered in one of the minor structures at Göbekli Tepe, and now in the Museum of Şanlıurfa. Its damaged head is that of an animal, while its body is of a human. A smaller human figure emerges from its stomach, and from the womb area of the second figure comes a child that holds in its hands a vessel of some sort. Twin snakes rise up on either side, possibly as guardians of the child. This is one of the strangest pieces found so far and shows the virtually alien mindset of the Göbekli builders.

Plate 25. Left, a Solutrean laurel-leaf spearhead, 13 inches (33 centimeters) long and around twenty thousand years old, on display at the British Museum. Right, Swiderian tanged point made of chocolate flint, eleven thousand to twelve thousand years old. Not to

scale. Were the Swiderian hunters of Central and Eastern Europe, as successors of the Solutrean tradition, instrumental in the rise of Göbekli Tepe around the end of the Younger Dryas period, ca. 9600 BC?

Plate 26. Medieval painted wooden panel in All Saints Church,

Kempston, Bedfordshire, UK. It shows the removal of Adam and Eve from the Garden of Eden and the angel who wields the flaming sword. Note the serpent crawling on the ground and the Mountain of God behind Adam, both in the left-hand scene.

Plate 27. Tenth-century encaustic painting from Saint Catherine's Monastery in Egypt's Sinai Peninsula, showing, left, the disciple Thaddeus, and, right, the disciple curing Abgar, king of Edessa, using a handkerchief that Jesus wiped across his face. Thaddeus continued his journey, reaching Armenia in AD 43/45. At Yeghrdut, near Mush in historical Armenia (eastern Turkey), he is said to have deposited a piece of the Tree of Life, as well as other important holy relics.

Plate 28. The remains of the Yeghrdut monastery, now known as Dera Sor (the Red Church), on the northern slopes of the Eastern

Taurus Mountains of eastern Turkey. It was here that Thaddeus apparently deposited his precious cache of holy relics.

Plate 29. The west wall of Dera Sor, the ruins of the Yeghrdut

monastery, said to have been located in the Garden of Eden itself. Muslims and Christians alike came here to sit beneath its holy tree and partake of its sacred waters to rejuvenate their bodies by as much as twenty years.

Plate 30. The view from Dera Sor, the ruins of the Yeghrdut monastery in eastern Turkey, looking out over the plain of Mush, through which flows the Euphrates River. Is this the true site of the Garden of Eden as described in the book of Genesis?

Plate 31. Bingöl Mountain in the Armenian Highlands of eastern Turkey, the source of the Araxes and Euphrates rivers. Evidence

suggests it is the true site of the Mountain of Assembly of the Watchers, as well as Kharsag, the home of the Anunnaki in Sumerian tradition. It can be identified also with Charaxio, the mountain in which Seth concealed the secrets of Adam, according to Sethian Gnostic tradition.

Plate 32. Two examples of snake-headed statues, found in graves belonging to the Ubaid culture, which thrived in Mesopotamia ca. 5000–4100 BC. They are now thought to be representations of a

long-headed elite group that controlled the Bingöl/Lake Van obsidian trade during the earlier Halaf period, ca. 6000–5000 BC. Did this elite group model itself on a memory of those responsible for the construction of Göbekli Tepe?

Plate 33. The Alevi holy site of Hızır Çeşmesi (the Fountain of Hızır), at Muska (modern Beşikkaya Köyü) in the northern foothills of the Bingöl massif in eastern Turkey. Is this the original Ab'i Hayat, the Waters of Life, where Alexander the Great is said to have gained immortality upon reaching Bingöl? The building on the right is a dream incubation house, where people come to spend the night and dream of Hızır, the Turkish form of al-Khidr, the Green One.

Plate 34. View from Muska looking south toward the western foothills of the Bingöl massif. Is this the original location of

Dilmun, the paradisiacal realm of the Anunnaki gods of ancient Sumer, as well as the site of the terrestrial Paradise in Judeo-Christian tradition?

21

THE SOLUTREAN CONNECTION

The Solutreans are the key to the emergence of high culture across Central and Western Europe during the Upper Paleolithic age. Their campsites, work stations, and cave sites date to between 25,000 and 16,500 years ago and span from England (especially East Anglia) in the north, to northern Spain, Portugal, and France in the south. Like the Swiderians much later, the Solutreans mastered the use of surface pressure flaking to create highly unique willow-leaf-shaped projectile points and much larger, laurel-leaf-shaped lance heads, which share similarities to the Swiderians' own leaflike points. Moreover, like the Swiderians, the Solutreans—who were

themselves reindeer hunters—fashioned shouldered (i.e., tanged) points, with either one or two shoulders (see figure 21.1 on p. 178) and thus almost certainly used bows and arrows.

So thin and so finely worked are the Solutreans' laurel-leaf lance heads, which can be up to 14 inches (36 centimeters) in length, translucent, and just a quarter of an inch (0.6 centimeter) thick (see plate 25), that Sharon McKern, an anthropological consultant, writing with her husband, Dr. Thomas McKern, professor of anthropology at the University of Kansas, was moved to observe: "This delicately flaked tool technique is the most aesthetic—and the most mysterious—known from prehistoric times."[1] The fact that a number of these unique blades have been found in groups within caches and are regularly made of nonlocal, exotic materials (including chalcedony, jasper, and quartz crystal) has led to speculation that they were not used for any practical purpose but instead served some ritual or symbolic function.

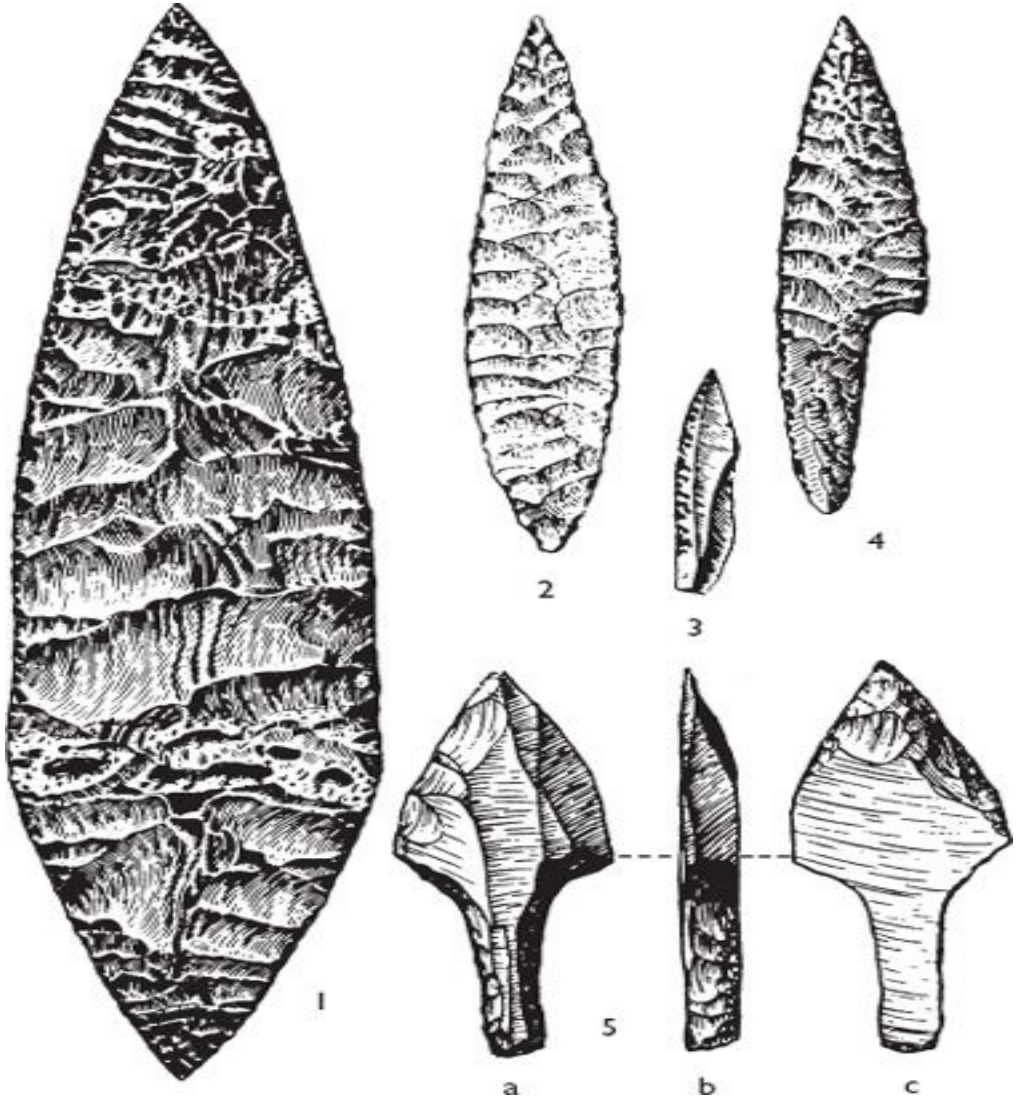
1
2
3
4
5
a
b
c

Figure 21.1. A selection of finely worked Solutrean points, ca. 20,000– 14,500 BC, many finished using the pressure flaking technique.

RIMUTÈ RIMANTIENÈ'S COMMENTS

So what exactly is the connection between the Solutreans and the later Swiderians? In 1996 Lithuanian archaeologist Rimutè Rimantienè proposed grouping together the various North European cultures that thrived in the Upper Paleolithic under a single umbrella term—the Baltic Magdalenian, or the "Group of Baltic Magdalenian cultures," because they all display signs of having a common origin.[2] Just one culture was to be excluded from the list, and this was the Swiderian, "where the relations with the Solutrean are outstanding, though also indirect."[3]

Rimantienè recognized the remarkable similarities between the

stone tool technologies of the two cultures and felt the need to put this in writing, even though making such a connection was clearly anathema in the scholarly community in which she moved.[*8] The problem is simple—the Swiderian culture does not enter the scene until the beginning of the Younger Dryas period, ca. 10,900 BC. This is thirty-five hundred years *after* the Solutreans disappear from the pages of European history to make way for the Magdalenians, an altogether different culture whose principal legacy is the beautiful Ice Age cave art of southwest Europe.

As to the fate of the Solutreans, no one really knows, although some prehistorians propose that they departed for the North European Plain when the reindeer herds migrated northward at the end of the last ice age. If so, then they might easily have formed the core of much later reindeer-hunting traditions, in particular the Brommian-Lyngby cultures of Denmark and the Scandinavian Peninsula. Certainly, laurel-leaf points and shouldered points,

identical to those of the Solutreans, have been found in the south and west of Sweden and Norway,[4] suggesting strongly that this is where the Solutreans came looking for the reindeer herds. Here their descendants would have remained until the onset of the Younger Dryas mini ice age, when with the worsening climate they were forced southward into Central Europe, paving the way for the emergence of the Swiderian tradition in places such as Poland, Slovakia, and the foothills of the Carpathian Mountains.

ANCIENT MARINERS

All this is quite plausible, although there is now mounting evidence to suggest that the Solutreans also took to the high seas and ended up in North America, having navigated the southern limits of the sea ice that clogged large areas of the North Atlantic Ocean some twenty thousand years ago.[5]

In North America, beyond the Laurentide Ice Sheet, which reached as far south as Missouri and the Ohio River Basin, the Solutrean hunters became the forerunners of the Clovis culture, producing laurel-leaf-shaped blades very similar to those manufactured in Western Europe. It was a tradition continued in the production of the exquisite Clovis points, manufactured using the pressure flaking technique by the Clovis people, who thrived in many parts of North America around the same time as the emergence of the Swiderian culture some thirteen thousand years ago. Yet unlike the Clovis culture that flourished for just five hundred to seven hundred years before disappearing during the Younger Dryas period, the Swiderians continued to thrive, creating all manner of post-Swiderian cultures, which, as we have seen, went on to occupy large areas of north and northeast Europe during Mesolithic times.

THE BRÜNN CONTROVERSY

Strengthening the connection between the Solutrean and Swiderian traditions still further is the fact that the two cultures might once have shared the same territories and the same physiognomy. It has long been known that a stone tool industry identical to that of the early Solutrean existed in Germany and the modern Czech Republic, and even further east in Hungary and Poland.[6]

Anthropologists of the early twentieth century became convinced that the Solutreans derived not from Cro-Magnons but from the Brünn peoples, who emerged onto the scene in places such as Hungary and the Czech Republic around twenty-five thousand years ago, where they formed part of the much larger, and far older, Eastern Gravettian culture. This connection was no idle speculation either, for quite distinctive Solutrean tools and laurel-leaf blades were found in association with human remains of the Brünn type at two separate sites, one of them being PÅ™edmost in the Czech

Republic, leading Princeton paleontologist and geologist Henry Fairfield Osborn (1857–1935) to observe: “There is no question that the human remains [found at PÅ™edmost] belong to the middle Solutrean stage.”[7] It was a link that seemed confirmed with the discovery in the late nineteenth century of skulls similar to those of the Brünn type at Solutré, west of Mâcon in France’s Saône-et-Loire region,[8] which, as the name suggests, was the original “type-site” of the Solutrean tradition.

Yet when, in the second half of the twentieth century, typological thinking regarding the racial origins of humankind became unfashionable, if not downright distasteful, any proposed connections between the Brünn type and the Solutrean tradition were dropped. Not only did this leave the Solutreans without any definitive physical characteristics, but any notion that the Solutreans of Western Europe were related to the Solutreans of Central Europe was abandoned. Indeed, those of Central Europe were stripped

completely of their Solutrean status and reclassified as a separate culture that evolved quite independently of the Solutreans of Western Europe.

Despite this awkward and somewhat strange reclassification process, it remains possible that the Solutrean tradition really is tied in with the sudden appearance in Central Europe of the Brünn population around twenty-five thousand years ago. Having said this, modern anthropological thinking has the Solutreans enter southwest Europe from Africa where, it has been suggested, they formed part of a Saharan culture known as the Aterian, which employed the use of strikingly similar toolmaking techniques. Yet equally likely is that the Solutreans and the human population of Central Europe categorized as the Brünn type came from the east, not the south.

Paleolithic stone tool expert Bruce Bradley, Ph.D., of the University of Exeter, and his colleagues have proposed that the Solutreans' highly sophisticated stone technology originated among

the peoples who occupied a region stretching from the cold forest steppes north and northeast of the Black Sea as far north as the central Russian Plain. Here between ca. 30,000 BC and 19,000 BC thrived an advanced culture known as the Kostenki-Streletskaya, which formed part of the much larger Eastern Gravettian tradition and produced stone tools and projectile points with close parallels to those manufactured by the Solutreans in both central and southwest Europe.[9]

These Ice Age peoples of the Russian steppes and plain inhabited a series of settlement sites, including Kostenki, the culture's principal type-site, on the west bank of the Don River, and Sungir on the Klyazma River. At this last site, located on the outskirts of the city of Vladimir, some 110 miles (177 kilometers) east-northeast of Moscow, three extraordinary human burials were uncovered in 1956. Each was adorned with thousands of ivory beads, which had been attached to tailored garments of immense sophistication.

Radiocarbon evidence shows that the burials took place as early as 30,000 BC.[10] One of the skulls, Sungir 1,[11] bears similarities to some of the skulls found at the PÅ™edmost site in the Czech Republic, in particular an example known as PÅ™edmost 3. With its prominent brow ridge and pronounced jaw, it bears distinct characteristics of not only the Brünn population that entered Central Europe around twenty-five thousand years ago and perhaps kickstarted the Solutrean culture, but also the Neanderthal-human hybrid skulls found in Russia and Lithuania (see chapter 20), which might well have belonged to individuals stemming from the Swiderian culture. It is a supposition supported by the observations of one of the twentieth century's greatest prehistorians, V. Gordon Childe. In his book *The Prehistory of European Society,* published in 1958, he writes:

> In Western and Central Europe the "Solutrean" seems a brief episode that exercised no recognizable influence on subsequent

> developments. In Eastern Europe on the contrary Solutrean techniques were applied at times to the later East Gravettian (Kostienki) flint-work and survived locally even in the Mesolithic Swiderian industry."[12]

Childe recognized the close similarity between the "flint-work" of all three traditions and believed that the Swiderians and Solutreans derived their characteristic toolmaking capabilities from the Kostenki-Streletskaya culture of Central Russia. In other words, their true point of origin was not to be looked for in Central Europe, but much further east, on the Russian Plain, where highly advanced peoples, almost certainly related to the Brünn population, existed at places like Kostenki and Sungir as much as thirty-two thousand years ago.

Thus it is exciting to think that the legacy of these technologically advanced societies of the Upper Paleolithic might have had some

influence on the events that led eventually to the construction of Göbekli Tepe during the tenth millennium BC. It is a surmise strengthened in the knowledge that one of the *only* known uses of carved stone blocks prior to the Neolithic age was among the Solutrean cave artists of southwest Europe.

SOLUTREAN STONE FRIEZES

In the collapsed rock shelter of Roc-de-Sers, located in France's Poitou-Charente region, in the southwest of the country, archaeologists in the 1920s uncovered a series of huge limestone blocks, their front faces covered with deeply carved bas-reliefs of Ice Age animals and human forms. Ibexes, deer, bison, and boars are represented, as are reindeer and horses. All come together to form part of a multipiece rock frieze originally positioned in a semicircle on a natural ledge located at the rear of the shelter. In

addition to this, lumps of manganese used to create a black pigment for painting were also found at Roc-de-Sers, suggesting that its elaborate rock frieze was originally painted in some manner. This incredible stone art, thought to be around nineteen thousand years old, has been firmly identified as belonging to the Solutrean occupation of the shelter, even though it would not look out of place among the gothic architecture of Chartres Cathedral or Notre Dame de Paris (see figure 21.2).

Two more carved stone blocks were found at the Fourneau du Diable rock shelter in France's Dordogne region, and these have also been identified as belonging to the Solutrean tradition. In addition to this, archaeologists found within the Solutrean layers in the Cueva del Parpalló rock shelter, situated on the slopes of Montdúber Mountain in Valencia, Spain, literally thousands of painted stone slabs.

Figure 21.2. Carved stone block from the Roc-de-Sers shelter in France's Poitou-Charente region, showing a horse (on the left), and bull, its head recarved as a boar. Solutrean period, ca. 17,000 BC.

Although direct evidence of ritual activity, and even burials, is sadly lacking when it comes to the Solutreans, it is proposed that the "placement of engraved blocks at some sites, the accumulation of

painted slabs at Parpalló, and even the abundance of elaborate worked stone points at a number of sites all reflect some type of ceremonial or ritual activities."[13] In other words, the unique rock friezes found at Solutrean sites might well have had a magico-religious function similar to that of the decorated T-shaped pillars at Göbekli Tepe.

PURSUED BY A BULL

One block is of particular significance at Roc-de-Sers. It shows a human figure, a male it seems, with a pudding-basin haircut and slightly bent legs (see figure 21.3). He appears to be either baiting or escaping from a pursuer in the form of a huge musk ox, its three-dimensional head lowered in readiness to charge. The clear relationship between this human form and an aggressive bovine has led to comparisons with the Shaft Scene in the Lascaux Caves. This,

as we shall recall, shows a reclining birdman being confronted by a wounded bison.

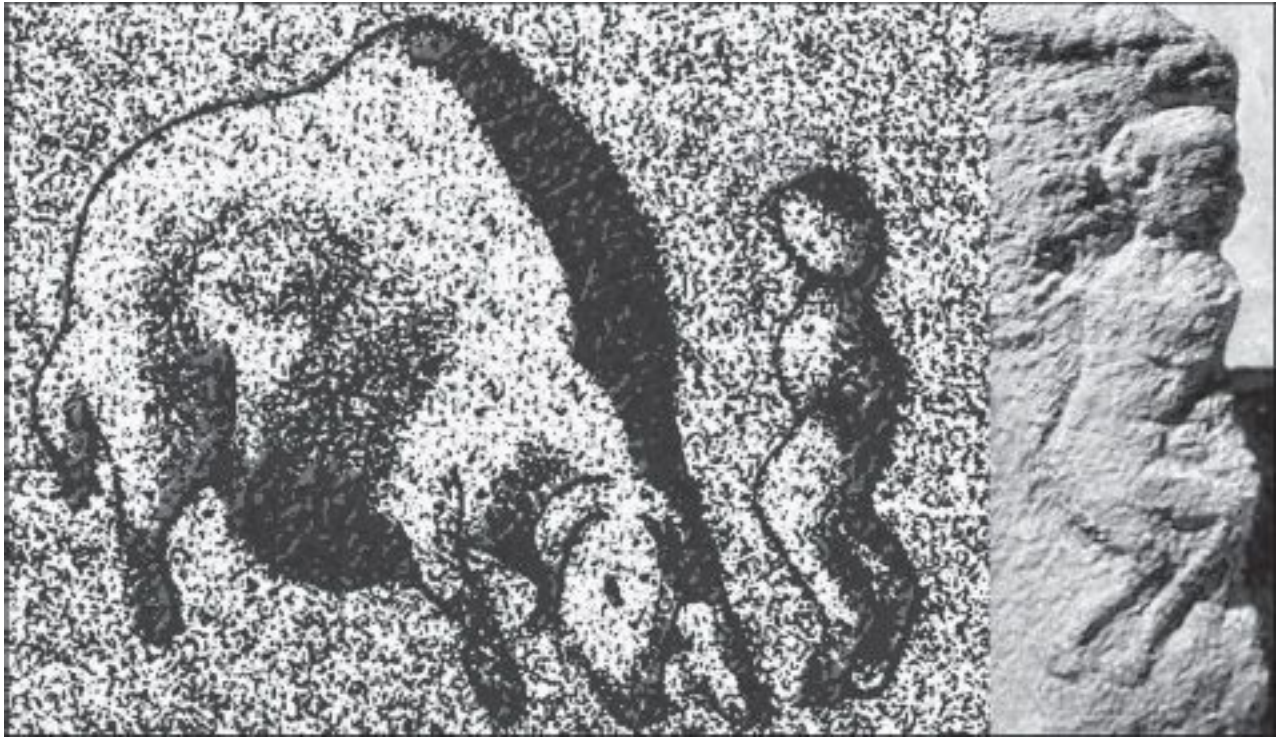

Figure 21.3. Left, drawing showing a musk ox pursuing a human figure from the rock frieze found at Roc-de-Sers. Right, the

aforementioned human figure as seen on the rock frieze. Solutrean period, ca. 17,000 BC.

Yet the connection with Lascaux goes deeper, for stylistic and dating evidence indicates that its famous Shaft Scene was executed not by Magdalenian cave artists, as most prehistorians assume, but by Solutreans who entered the well shaft as early as 16,500 BC.[14]

SOLUTREAN BIRD CULT?

More incredibly, the only other human figure depicted among the stone blocks forming the frieze at Roc-de-Sers appears to be wearing a bird mask. It is carved on the very same block as the aforementioned musk ox and figure with pudding-basin haircut. This mask-wearing figure, which also has slightly bent legs, might well have an erect phallus, like the birdman in Lascaux's Shaft

Scene (see figure 21.4 on p. 186 to judge for yourself). Clearly, bird totemism, perhaps involving ecstatic states and mask-wearing rituals, could have been important to the Solutrean peoples of southwest Europe.

This conclusion is strengthened by the presence in various caves decorated during the Solutrean period of a strange abstract symbol known as the aviform. This is a long, thick, horizontal line, with downward-turned lines at each end and a vertical extension, either up or down, at its center.

Aviform means "birdlike," and there is no denying the birdlike appearance of these devices, which are found so often that they might well be a sign of recognition among a particular Solutrean grouping or subculture. Yet if these *are* birds, then their downturned outer wings suggest they have adopted a gliding position, usually seen when birds are kept aloft by thermals generated by columns of warm air (see figure 21.5). It is a method of flight used particularly

by raptors, vultures, seagulls, and storks, as well as by smaller birds such as swallows and swifts. Thus the aviform could represent either astral flight or the soul of the shaman in the form of a bird.

THE SKY PEOPLE

Maybe it was believed that a mask-wearing shaman could project his or her soul into a soaring bird to observe the herd animals below, providing vital information in advance of the chase. In this manner, high-flying birds taking advantage of warm air thermals might themselves have been identified as shamans that had adopted an avian form. If correct, then with the existence of the birdmen at Lascaux and Roc-de-Sers, we could be looking at evidence among the Solutreans of a semiorganized cult of the bird, which might easily have become associated not just with the sky but also with an imagined sky pole linked to the cosmic axis, something that seems

depicted in the Lascaux Shaft Scene. Perhaps the Solutreans were the original sky people, with the aviform a visible sign of their sky-based religion.

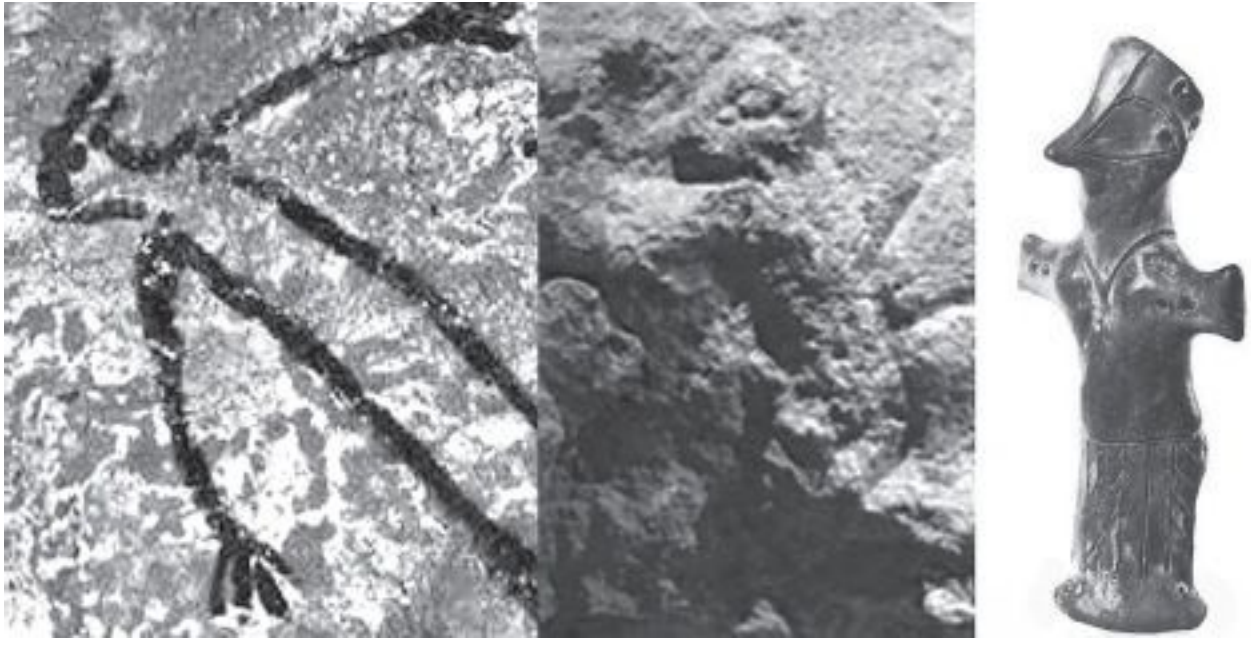

Figure 21.4. Comparison of different bird-headed figures: left, the birdman from the Lascaux Shaft Scene, Solutrean period, ca.

16,500–15,000 BC; center, birdman from the rock frieze at Roc-de-Sers, Solutrean period, ca. 17,000 BC; and, right, ceramic bird goddess from the Vinča culture of southeast Europe, ca. 5500–4500 BC.

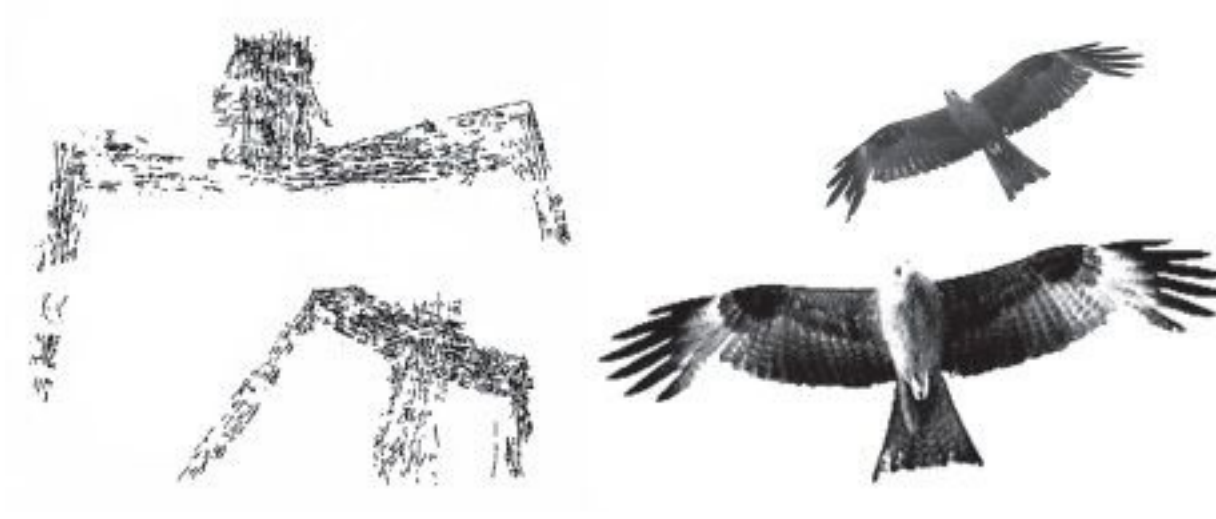

Figure 21.5. Left, two examples of Solutrean aviform signs from the Grotte du Placard rock shelter in France's Poitou-Charente region, ca. 18,000 BC, and, right, a silhouetted kite gliding in flight for

comparison.

That the Lascaux Shaft Scene might be the handiwork of Solutrean artists is incredibly important, for it could suggest they were carriers of the tradition that identified Cygnus as a celestial bird, with its bright star Deneb marking the entrance to a sky world reached through the Milky Way's Great Rift. Remember, Deneb occupied the position of Pole Star from ca. 16,500 BC to 14,500 BC, precisely when Solutrean cave artists created the Lascaux Shaft Scene.

Thus it becomes possible that Solutrean knowledge regarding the execution of stone friezes in cave sanctuaries, along with their profound understanding of cosmic geography, bird totemism, and avian shamanism, might well have found its way to southeast Anatolia via the Swiderians. This enabled much earlier traditions, which all had their roots in the Kostenki-Streletskaya culture of the Russian Plain, to flower once more with the construction of the

large sanctuaries at Göbekli Tepe, an event that undoubtedly helped catalyze not just the Neolithic revolution but also the rise of civilization.

SWANS AND WOLVES

Despite their compelling links to the Solutreans, the religious ideologies of the Swiderians have been more difficult to ascertain. The ancient rock art of the Russian Republic of Karelia, which borders Finland to the west, does, however, throw some light on the matter. Close to the shores of Lake Onega—where in 1936 a nine thousand-year-old cemetery was found and identified as belonging to the post-Swiderian Kunda culture—exposed rock surfaces are covered in carved petroglyphs, many of which belong to the Mesolithic age. Some show swans with exaggerated necks, like long poles. Others show swans sitting on top of poles that are being

climbed by a small human figure. As at Lascaux, the poles almost certainly symbolize axes mundi, while the human figures are perhaps the souls of shaman travelling between the physical world and sky world. This suggests that the Swiderians, like the Solutreans before them, saw birds, and swans in particular, as symbols of a sky world reached via the Cygnus constellation (a belief probably going back to a time when Cygnus marked the celestial pole, ca. 16,500–13,000 BC).

Interestingly, a large number of bird bones, including those of the swan, have been recovered from the Mesolithic cemetery of Oleni Ostrov (Reindeer Island) on Lake Onega. Their deliberate placement alongside human burials has been compared with the shamanic practices of the indigenous Sámi population, who utilize bird and animal bones in rituals and see the spirit of the bird as associated with otherworldly journeys.[15] Also, as we saw in chapter 10, the swan replaces the stork in the Baltic countries as the bringer

of newborn babies into the world, another intimation that the swan was associated with the soul's passage to and from the sky world.

Also of value is an examination of the beliefs and practices of those who much later occupied Swiderian territories in Central Europe. For instance, in the first millennium BC a collective of fierce tribal nations known as the Dacians, or Getae, inhabited the region between the Carpathian Mountains and the Black Sea, which was known as Dacia. They honored the "spirit wolf " and saw themselves as "wolf people."[16]

The Dacians venerated the wolf as "lord of the animals" and utilized its supernatural power against all they saw as evil, in which role it became their "guardian warrior."[17] In fact, the Dacians' bond with the lupine influence was so strong that they were apparently able to transform themselves into wolves to become werewolves, a connection with Romania and more specifically Transylvania and the Carpathian Mountains, all too familiar to Western popular

culture. According to the Romanian historian Mircea Eliade (1907–1986), the Dacians conducted carefully orchestrated rituals featuring wolf pelts and psychoactive mushrooms in order to undergo "a total psychological transformation into wolves," the origin most likely of lycanthropy, the belief that certain people can, quite literally, become wolves.[18]

Although the Dacians thrived a full nine thousand years *after* the Swiderians hunted the same territories, there is a distant echo of what could be a memory of a distant cataclysm in the Dacians' use of the Draco, or Drago, battle standard. Its description as a wolf 's head with the tail of a serpent and its proposed identification as a comet[19] are too close to the Fenris Wolf 's role in Ragnarök for this to be a simple coincidence. Were the Geto-Dacians unconsciously recalling the manner in which the world was brought to its knees by a comet likened to a heavenly wolf with a serpent's tail? If so, did they inherit these ideas from indigenous peoples whose own

ancestors inhabited the Carpathian Mountains as far back as Paleolithic times?

HUNTING WITH WOLVES

What we do know is that the Paleolithic hunters of Central and Eastern Europe actually began to work alongside wolves, training the animals to accompany them on hunting expeditions. Modern scholarship says that this act of cooperation between human and beast cannot be seen as simply a matter of taming friendly wolves to turn them into man's best friend. Instead, it should be viewed as the adoption of "a new technology," a new "weapon,"[20] which, like the bow and arrow, would have increased the efficiency of the hunter during the chase. Yet from this taming of the wolf the relationship between human and beast emerged, and there is evidence for this even among campsites belonging to the Swiderian hunters.[*921]

Perhaps the Swiderians thus felt it necessary to quite literally take on the mantle of the wolf to ensure both the success of the chase and the safety of the herd against predators. Then, when the comet terrorized the planet in the guise of a sky wolf or sky fox, they played an active part in attempting to counter the supernatural creature's baleful influence to prevent the sky pole from toppling and the world from coming to an end.

Might some memory of this supernatural sky creature have passed from the post-Swiderian cultures of northeast Europe into the myths and legends of their descendants in Scandinavia? Was a representation of this cosmic trickster, identified in Norse myth as the Fenris Wolf, carried aloft by the Geto-Dacians in the form of the Draco battle standard, and was it this knowledge that the Swiderians took with them all the way to Göbekli Tepe? If so, what motivated members of this Post-Solutrean culture to journey to such distant lands, and how exactly did they come to so strongly influence the

peoples of southeast Anatolia? The answer, as we see next, seems to be the exploitation of minerals, in particular obsidian.

22

OBSIDIAN OBSESSION

Not only were the Swiderians an advanced hunting society with a unique stone-tool technology, but they also established sophisticated mining operations, some of the only accepted examples anywhere in the world during the Paleolithic age. At various locations within the Świętokrzyskie (Holy Cross) Mountains of central Poland they extracted "exotic" forms of flint, as well as hematite, used as ochre. In addition to becoming efficient miners, the Swiderians established long-distance trading networks to export high-quality stone tools as well as the "pre-form" cores to make new ones. Yet in addition to flint and ochre, one other mineral coveted by the Swiderians was the

black volcanic glass known as obsidian.

Obsidian is a natural glass, usually black or gray, created when volcanic lava solidifies very quickly, without allowing any time for a crystalline matrix to form. Throughout the Middle and Upper Paleolithic ages, obsidian was a highly prized commodity all around the world. It was used by prehistoric cultures in Africa, Asia, the Americas, Australia, and Europe. The Solutreans also used obsidian to create their unique projectile points.[*101]

In Europe, there are only a handful of obsidian sources. Two can be found on small volcanic islands forming part of the Sicilian archipelago off the south coast of Italy. Another is located on a tiny island off the west coast of Italy, with a further source on the island of Sardinia. There is also an important ancient source on the Greek Cycladic island of Melos (or Milos), with another on the volcanic Greek island of Gyali, close to the southwest coast of Turkey.[*11] The only other sources in mainland Europe are located in the

Carpathian Mountains, the “land of obsidian,”[2] within the Tokaj and Zemplén Mountains, which straddle the border between, respectively, northeast Hungary and southeast Slovakia (see figure 22.1).[3†12]

Volga R.
Vistula R.
Carpathian 1
Zemplen Mts
Slovakia
Swiętokrzyskie Mountains
Carpathian 3
Vihorlat-Gutin Mts
Ukraine
Carpathian 2
Tokaj-Presov Mts
Hungary
Volga R.
Baksan, Northern
Caucasus
Caspian
Sea
CRIMEA
Danube R.
Black Sea
Gobustan
Various Sites,
Southern
Caucasus
Palmarola
Monti Arci, Sardinia
Bingol Dag
Suphan Dag
Nemrut Dag
L. Urmia
L. Van
Isola Lipari
Acigöl
Zawi Chemi Shanidar
Nenezi Dag
ZAGROS MTS
Zarzi Cave
Hasan Dag
Gollu Dag
Göbekli Tepe
Pantelleria
Franchthi Cave
Gyali
Melos
Mediterranean Sea

Figure 22.1. Map of obsidian sources in Europe and southwest Asia, along with sites mentioned in connection with the distribution of obsidian in the same regions.

THE FRANCHTHI CAVE

The obsidian trade was big business in the Upper Paleolithic, with examples from the island of Melos reaching an occupational site known as the Franchthi Cave in the Greek Peloponnese around 13,000 BC.[4] This tells us that even at this early age, obsidian was being transported across the Aegean Sea from Melos to the Greek mainland, a minimum distance of 62 miles (100 kilometers).

Maritime trading on this scale can only have come under the control of an elite group, most probably a band of complex hunter-gatherers exporting obsidian across vast distances, initially by sea, and then by land. Professor Catherine Perlès, a prehistorian with the

University of Paris, argues that the Melos obsidian trade was in the hands of "specialists," who had the ability to navigate a familiar sea route and knew exactly where to find the raw material on the island.[5]

Melos obsidian might well have been transported as far as the Balkans in Neolithic times,[6] confirming its incredible importance throughout Europe. For the Swiderians too it would seem to have held a special place in their stone kit. One survey of exotic materials found at late Paleolithic sites in the Carpathians showed that out of twenty Swiderian centers examined, *all* contained items made of obsidian.[7] The only other contemporary Carpathian people that would seem to have taken a noticeable fancy to obsidian were the Swiderians' neighbors in Hungary, the Epigravettians (i.e., late Gravettians), with a large number of items made from the volcanic glass being found in their settlement sites as well.[8]

LETHAL WEAPON

The Swiderians used obsidian to create super-sharp tanged points, such as the one found at a site in Wolodz, Subcarpathia, Poland.[9] Being fashioned out of obsidian would have made these arrowheads among the most lethal weapons in the world. So sharp is obsidian that surgeons today use scalpel blades tipped with the black volcanic glass to make near-perfect incisions during operations.

Experts in Stone Age tool production often cite the story of Don Crabtree, one of the people responsible for the rebirth of stone knapping in the 1960s and 1970s.[10] He apparently insisted that during an operation surgeons use obsidian blades that he himself had made. Incredibly, obsidian slices through tissue with such efficiency that it enables healing to take place easily. Metal blades, in contrast, make micro-rips in body tissue that can take much longer to heal.

CROW-FLINT FIRE

It might not have been just the sharpness of obsidian that appealed to the Swiderians, or indeed their neighbors, the Epigravettians. We cannot say exactly how the peoples of the Upper Paleolithic viewed obsidian on a subtle level, but the fact that it was found on the slopes of volcanoes, some of which might still have been active, tells us that it could have been associated with the element of fire.

Indeed, Hungarians living in the Carpathian Basin would use obsidian—picked up at prehistoric settlement sites—to kindle fire. They referred to it as *varjúkova,* "crow-flint,"[11] as well as *isten nyila,* "thunder bolts" (or "godly arrowheads"),[12] associating it with the god of thunder and lightning. They even described obsidian as *lebkövek,* "meteorite-like stones," in the belief that these shiny gray or black pieces of rock came from the sky.[13]

OBSIDIAN RELIGION

In Mesoamerican tradition obsidian was said to be blood that had congealed and gone black. Both the Aztecs and Maya used obsidian to create sacrificial knives, as well as blades and implements for autosacrifice; that is, bloodletting through self-inflicted incisions.

Scottish folklorist Lewis Spence (1874–1955) wrote in *The Magic and Mysteries of Mexico* (1922) that the Mesoamerican fixation with obsidian—what he called the "obsidian religion"—emerged from an epoch of human history when prehistoric hunters used obsidian weapons to hunt deer:

> The deer was slain by the obsidian weapon, which, therefore, came to be regarded as the magical weapon, that by which food was procured [by the prehistoric hunters of Mexico]. In the course of time it assumed a sacred significance, the hunting-gods themselves came to wield it, and it [obsidian] was thought

of as coming from the stars or the heavens where the gods dwelt.[14]

Even though Mexico lies thousands of miles away from the Carpathian Mountains, can we envisage the existence of similar beliefs in the magical potency of obsidian among the Upper Paleolithic peoples of Central and Eastern Europe? Did the Swiderians see obsidian as a magical weapon, linked integrally with their role as reindeer hunters?

THE SEARCH FOR NEW SOURCES

In all likelihood, the Swiderians' fascination with obsidian could suggest they had some kind of control over its collection and distribution in the Carpathian Mountains, the "land of obsidian," prior to any kind of forced migration to north and northeast Europe

caused either by the Younger Dryas Boundary impact event, ca. 10,900 BC, or the thirteen-hundred-year mini ice age that followed it. Not only was obsidian to be found in the Caucasus Mountains, which the Swiderians reached as early as the eleventh millennium BC, but as we see next, it was the sources in and around the Armenian Highlands that become crucial to making the connection between the Swiderians and the power elite thought to be behind the construction of Göbekli Tepe.

23

THE BINGÖL MASTERS

In 2008 it was determined that obsidian tools found at Göbekli Tepe derive from three primary sources—one of them being Göllü Dağ in central Anatolia, where there are several major sources of obsidian, with the other two coming from locations near Bingöl Mountain.[1] This is a north-south aligned massif with twin peaks located some 30 miles (50 kilometers) south of the city of Erzurum in the Armenian Highlands of eastern Anatolia.

A separate survey completed in 2012 determined that another source of the raw material used to fashion many of the obsidian tools and blades found at Göbekli Tepe was Nemrut Dağ, an extinct

volcano close to Lake Van, Turkey's largest inland sea, which lies to the southeast of the Armenian Highlands.[2] This latest discovery has led to speculation that Göbekli Tepe might have been a cosmopolitan center, a kind of Neolithic Mecca or Jerusalem for people coming from central Anatolia, some 280 miles (450 kilometers) away, and from the Bingöl/Lake Van area, which lies around 200 miles (320 kilometers) to the northeast.[3]

Supporting evidence for the cosmopolitan center theory includes the countless flint tools found scattered about Göbekli Tepe's artificial mound, which are hardly likely to have been dropped by the builders. They are everywhere; you cannot help but tread on them. The sheer quantity suggests they are offerings left by visitors across an extended period of time.

Clearly, Göbekli Tepe *was* a center of pilgrimage. However, the presence here of obsidian tools from central Anatolia and the Bingöl/Lake Van area might well have other implications. As we

have seen in Mexico, Central Europe, and Greece, obsidian was a prestige item, one endowed with great magical properties, including the ability to produce fire. Its presence at Göbekli Tepe tells us two things: first, that it might have been employed in rituals due to its special qualities, and, second, there must have been lines of communication between Göbekli Tepe and the obsidian sources in the Bingöl/Lake Van area. This connection with Bingöl Mountain in particular was most obviously through proto-Neolithic centers such as Hallan Çemi in the foothills of the eastern Taurus Mountains, which dates to ca. 10,250–9600 BC, and Çayönü, ca. 8650–7350 BC, both of which acted as clearinghouses for obsidian reaching southeast Anatolia from the Armenian Highlands.

THE EMERGENCE OF HALLAN ÇEMI

Hallan Çemi exhibited a level of cultural sophistication that easily

matched anything going on in the Levant at this time. Although the people here were hunters and foragers, eating wild game (mostly sheep, goats, red deer, foxes, and turtles), they would appear to have domesticated the pig, the earliest evidence of this form of animal husbandry anywhere in the world.

The discovery of a substantial number of stone querns, used to grind seeds, has led some prehistorians to suggest that the inhabitants of Hallan Çemi were engaged in protoagriculture, or certainly the exploitation of wild cereals. However, very few cereal seeds have been found at the site, casting doubts on this theory. In fact, all the indications are that the main food here, in addition to game meat, consisted of wild lentils, bitter vetch (a type of pea), and nuts. These included pistachios and wild almonds, which had first to be roasted before consumption to remove their toxicity. Evidence of pistachio and almond consumption has also been found at Göbekli Tepe.

Excavators at Hallan Çemi worked frantically to explore the site from 1991 to 1994 in advance of its disappearance beneath the rising waters of the nearby Batman River, following the construction of a nearby dam. Before its final submergence they were able to uncover two semisubterranean, circular structures of great significance. Each one was around 20 feet (6 meters) in diameter, with walls faced with sandstone ashlars, as well as stone benches, plastered floors, and central hearths. Archaeologists found inside them a large number of prestige items, including pieces of copper ore and obsidian tools, along with evidence of food preparation, most likely for ceremonial feasts cooked on the hearths.

One of the structures contained a massive auroch's skull, which had hung at its northern end, indicating that the building was almost certainly used for cultic purposes. The discovery of this bucranium supports the theory that the north was the preferred direction of orientation of proto-Neolithic cult buildings even before the

construction of much more complex structures at both Göbekli Tepe and Çayönü.

Indeed, there is a good case for Hallan Çemi having some direct bearing on what came later at Göbekli Tepe, as does the basic design and carved art of other cult centers in the region, such as Jerf el-Ahmar in North Syria and Qermez Dere in the Jezirah Desert of northern Iraq (see chapter 1).

Hallan Çemi, where almost half the stone tools found were made of obsidian, is 75 miles (120 kilometers) south-southwest of Bingöl Mountain and just under 140 miles (225 kilometers) away from Göbekli Tepe. To date, Hallan Çemi is the closest known proto-Neolithic site to Bingöl, and the sheer amount of obsidian found here has prompted prehistorians to suggest that trade networks must have existed across the region. If so, then Hallan Çemi was very likely a main distribution center, the raw obsidian arriving here from workshops much closer to the mountain.

EUROPEAN TAKEOVER

These realizations take us into interesting territories, for if the trade in obsidian was indeed regulated by some kind of elite group, is it possible that Swiderian peoples entered eastern Anatolia from the north during the Younger Dryas period and assumed control of the regional obsidian trade, introducing new forms of tool manufacture, such as the pressure flaking technique? Curiously, this is the exact same time that the local culture, the Zarzian, vanish from the scene, having thrived in the region for as much as nine thousand years.

The Zarzians are a very compelling group. Not only were they the founders of Hallan Çemi, but evidence suggests they also domesticated dogs.[4] In addition to this, they were one of the first cultures in the Middle East to employ the use of bows and arrows, which they utilized to hunt red deer, onager (or wild ass), cattle, sheep, and wild goats. They kept on the move, living mainly in temporary campsites, and most important of all, they had access to

major obsidian sources in the Armenian Highlands.

Obsidian from the Bingöl sources has been found at various Zarzian camps as far south as the Zagros Mountains, including the cave of Zarzi (the culture's type site), near Sulaymaniah in Iraqi Kurdistan, and the Zawi Chemi Shanidar settlement site, which overlooks the Greater Zab River in northern Iraq. It was here during the 1950s that American archaeologists Ralph and Rose Solecki discovered the wings of seventeen large predatory birds, mostly vultures, along with the skulls of at least fifteen goats and wild sheep (see chapter 9). Although this ritual deposit is assigned to the proto-Neolithic community that occupied the site, chances are it represents a continuation of beliefs and practices that had been prevalent among the Zarzian peoples, whose legacy lived on among the proto-Neolithic populations of southeast Anatolia and northern Iraq. In other words, the Zarzians were most likely carriers of the tradition that included the utilization of the vulture in shamanic

practices, something that later appears at cult centers such as Göbekli Tepe and Nevalı Çori. This is despite the fact that the Swiderians held specific knowledge regarding bird-and canine-related shamanism derived, at least in part, from both their suspected Solutrean background *and* their likely contact with the descendants of the Kostenki-Streletskaya culture of the Russian steppes and plain, whom they would have encountered on their journey to eastern Anatolia. Yet their beliefs and practices do not appear to have included the use of the vulture as a primary symbol of birth, death, and rebirth. That seems to have come from the Zarzian peoples, who occupied the region before their arrival.

As to their origin, British archaeologist James Mellaart felt that the Zarzians had started their journey on the Russian steppes, then moved gradually southward into the Caucasian Mountains and Armenian Highlands, before eventually reaching the Zagros Mountains of northern Iraq and northwest Iran.[5] Yet this was a

migration that had started as early as 19,000 BC, as much as nine thousand years before the Swiderians would appear to have traveled exactly the same route to reach eastern Anatolia during the Younger Dryas period.

So did the Swiderian hunters overrun Zarzian camps, decimating the inhabitants? Certainly, there is compelling evidence that some kind of power struggle occurred around this time in the Zarzian territories of Gobustan in Azerbaijan, right where the eastern termination of the Caucasus Mountains meets the Caspian Sea.

THE GOBUSTAN WARRIORS

Rock art in the Gobustan (or Kobystan) National Park, located 40 miles (64 kilometers) southwest of the Azerbaijani capital of Baku, shows warriors with bows and arrows slung across their backs (see figure 23.1). Some figures appear to be wearing fringed waistbands

and even animal loincloths with the tails hanging between their legs, similar to those seen on the anthropomorphic twin pillars in Göbekli Tepe’s Enclosure D.

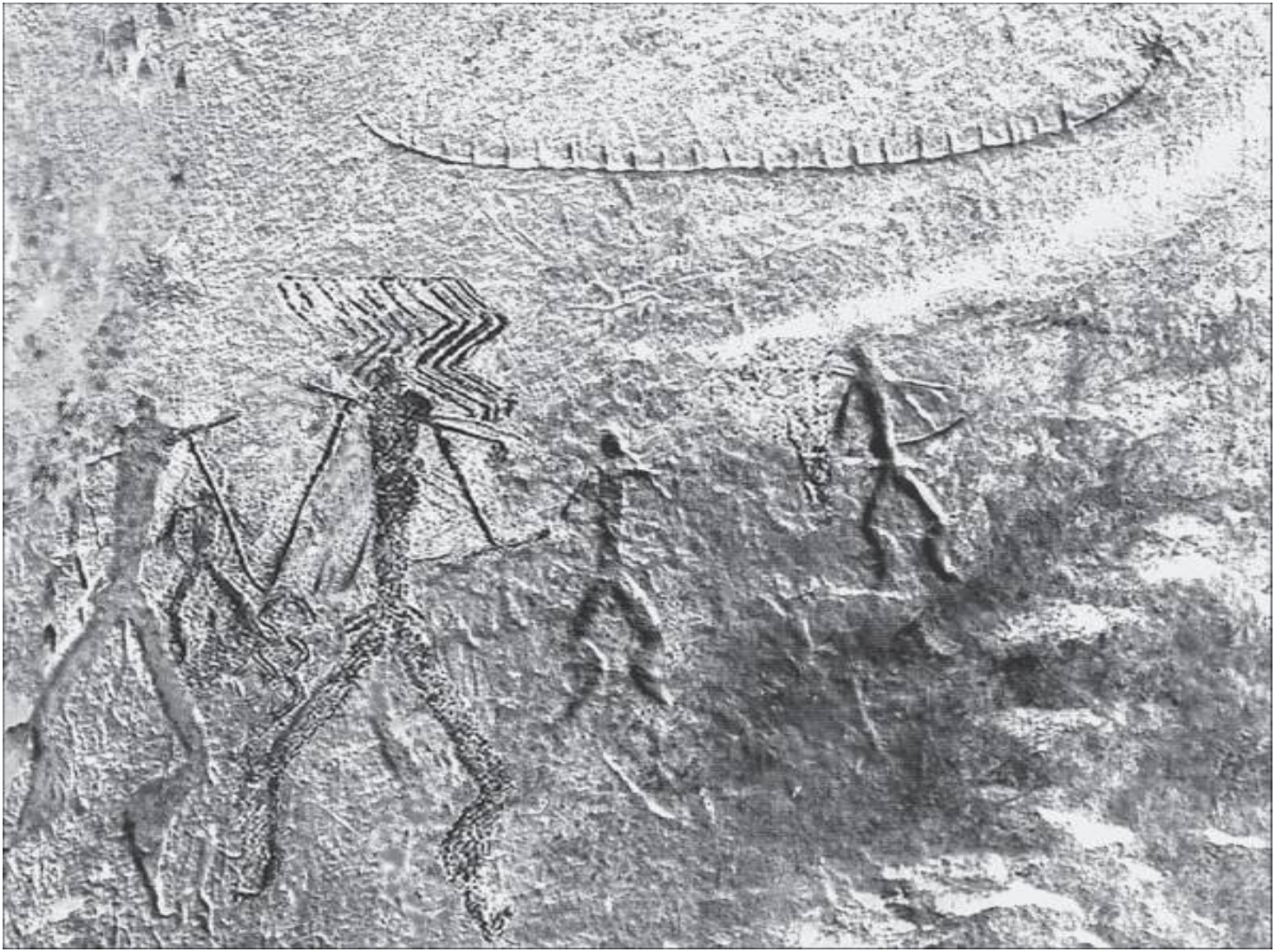

Figure 23.1. Rock art from Gobustan, Azerbaijan, close to the west coast of the Caspian Sea, showing warriors wielding bows and arrows. Mesolithic period, ca. eleventh to tenth millennium BC. The boat in the upper register is thought to have been added at a later date.

The lifelike manner in which the warriors are drawn, with smaller figures behind them, gives the impression of arrival—as if they are arriving from somewhere else in the ancient world. This seems emphasized by the fact that in the background of some of the engraved panels are high-prowed boats of a type common to the Neolithic rock art of Egypt's Eastern Desert and the Bronze Age rock art of Scandinavia. So much do these vessels resemble those of later cultures that prehistorians suggest that, whereas the Gobustan warriors are "early Mesolithic age at the latest,"[6] thus ca. 9600–9000 BC, the vessels were added later, most probably during the

Bronze Age.

Mary Settegast, the author of *Plato Prehistorian,* argues that the Gobustan rock art shows the arrival of incoming warriors, most likely bow-and-arrow-wielding reindeer hunters from Europe.[7] So are we looking at Swiderians seizing control of Zarzian territories? Whoever these warriors represent, their presence would not seem to have been greeted cordially, for some of the engraved panels show open conflict between two separate groups of individuals.

Even if the Gobustan rock art does show Swiderian hunters coming up against their Zarzian counterparts, there is no reason to assume that one decimated the other. Perhaps after some initial skirmishes, the two factions came to some kind of understanding regarding the exploitation of the region's rich mineral resources, including the all-important obsidian. In doing so, it is possible that the Zarzians amalgamated with the incoming European hunters to become the driving force behind the emergence of the proto-

Neolithic world at key settlements like Hallan Çemi in the Eastern Taurus Mountains. As mentioned earlier, Hallan Çemi acted as a workshop and clearinghouse for obsidian coming from Bingöl Mountain and Lake Van, and so its Zarzian vulture shamans might well have had some hand in the rise of early Neolithic cult centers in the *triangle d'or* such as Göbekli Tepe, Çayönü, and Nevalı Çori.

DISTANT COUSINS

If the Zarzians did come originally from the Russian steppes, as James Mellaart suspected, sometime around ca. 19,000 BC, the chances are they were related to the highly advanced Kostenki-Streletskaya culture, which disappears around exactly the same time. So if the Solutreans and their proposed successors, the Swiderians, really were related to the Kostenki-Streletskaya culture (as was proposed by V. Gordon Childe, see chapter 21), then it

means that the Zarzians were in fact distant cousins of the Swiderians, a factor that might just have allowed them to find some common ground. Both used bows and arrows, and both might well have domesticated dogs and/or wolves, while the Kostenki-Streletskaya culture is thought to have held a special interest in the fox, one of the primary totemic animals seen at Göbekli Tepe.

For example, a male burial uncovered at Sungir in Russia in 1956 (designated Sungir 1) had a number of perforated arctic fox teeth on his cranium when uncovered, suggesting they were sewn into a cap of some sort. Another burial of a boy aged around thirteen (Sungir 2), interred in a shallow grave head-to-head with an adolescent female (Sungir 3), was found to have around 250 drilled arctic fox teeth around his waist. These probably came from a decorated belt, similar to those seen on the central pillars in Göbekli Tepe's Enclosure D.

Burials at Kostenki itself have also been found to contain unusual

amounts of teeth and bones of the arctic fox. This includes the 150 fox teeth found wrapped around the head of a child, aged about six to seven years old, uncovered at a site known as Kostenki 15. Covering the burial was a huge mammoth scapula (shoulder blade), a feature common also among the contemporary, and unquestionably related, Pavlovian culture of Moravia. Today Moravia is part of the Czech Republic, which includes the sites of Brünn (modern Brno) and PÅ™edmost, where evidence of the Brünn-type human population was reported in the nineteenth century.

Among the Pavlovians—their name deriving from Pavlov, a village situated in the Pavlov Hills, around 22 miles (35 kilometers) from the city of Brno—the arctic fox also features heavily among burials. At a site named Dolní VÄ›stonice one child burial contained twenty-seven arctic fox teeth, while a triple burial made up of two men, with a woman in between them, revealed that both

males had been wearing headdresses of arctic fox teeth when interred. Within the mass grave uncovered at PÅ™edmost in 1894 (see chapter 20), excavators came across large amounts of wolf and fox remains, which seemed to line the perimeter of the pit. Among the remains were a number of unperforated arctic fox canines as well as various wolf skulls. Most pertinently, a woman, aged around forty, discovered at Dolní VÄ›stonice site 1, and known popularly as “the shamaness,” was found to be holding five unperforated fox incisors in her right hand and various fox bones in her left hand.

Although the use of wolf and arctic fox remains as items of personal adornment among the Eastern Gravettians, ca. thirty-two thousand to twenty-one thousand years ago, might easily be attributed to the large-scale capture of these carnivores for their meat and pelts, the presence in the graves of unperforated fox teeth hints at the importance of this animal on a cosmological level. Arguably the arctic fox, and the wolf also, was seen as an

otherworldly creature that needed to be appeased by the newly dead on their journey into the afterlife. Such ideas, if realistic, might easily have been inherited by the descendants of the Eastern Gravettians, including the Swiderians, who came to occupy the same territories during the Younger Dryas period.

Should this quite fantastic scenario prove realistic, then it seems likely that incoming Swiderian groups entered eastern Anatolia and assumed control of the obsidian trade, giving them direct access to settlement sites not just in the Eastern Taurus range and Zagros Mountains, but also in southeast Anatolia, much closer to Göbekli Tepe. Now they were in a position to introduce their own religious ideologies to the local inhabitants, which would seem to have included new ways to counter the baleful actions of the cosmic trickster in its guise as the sky wolf or sky fox.

Because the center of the Armenian obsidian trade was Bingöl Mountain, there is every chance that this is one of the locations the

Swiderian hunters settled so that they could exploit their newly acquired sources of exotic materials, including the all-important obsidian find sites. If this is correct, then we should find evidence of their presence in this region, and this, as we see next, is exactly what we do find.

24

WOLF STONE MOUNTAIN

In the religion of Zoroastrianism, a native form of which flourished in historical Armenia before the spread of Christianity in the fourth century, the wolf was an animal of Ahriman, the evil principle, who engages in a constant struggle with Ohrmazd (also known as Ahura Mazda), the creator of the universe. The Bundahishn, one of the holy books of the Zoroastrian faith, speaks of how Ahriman planned to create the wolf species as "disembodied, unseen evil spirits." Yet Ohrmazd got wind of Ahriman's plan and created the wolf himself, along with the elephant and the lion, which were all made creatures of the evil principle.

Ormuzd showed what he had done to Ahriman, who being pleased, "attached the evil spirits to these forms saying, 'Ohrmazd did what I was going to do.'"[1] Elsewhere, Ahriman is cited as the progenitor of the "wolf species," the leader of whom is the lion,[2] a predator interchangeable with the wolf in the Zoroastrian tradition.

There is a reason for citing these facts, for in historical Armenia, the region we know today as eastern Turkey (the modern Republic of Armenia lies immediately north of here), there once existed a mountain called Gaylaxaz-ut, which means "abounding in *gaylaxaz,*" or "wolf 's stone" (from *gayl,* "wolf ").[3] Usually this refers to flint, the principal material used during the Stone Age to make tools and weapons. Yet *gaylaxaz* can also mean obsidian,[4] even though in Armenian tradition this black volcanic glass is known also as *satani elung,* "Satan's nail,"[5] or perhaps "Satan's claw."[*13]

SERVANTS OF SATAN

Previously, Gaylaxaz-ut had been called Paxray,[6] which in the Armenian language means "hind, deer, stag,"[7] with the deer being a creature synonymous in local folk tradition with both Satan and the wolf.[8] Aristakes Lastivertc'i, an eleventh-century Armenian cleric and historian, relates an archaic story that speaks of how on this mountain a "village" was established named Xač (pronounced something like "hack"), which means "holy cross." This was destroyed, he said, by the "servants of the Satan,"[9] who afterward returned "to their snake-dwelling lairs,"[10] located elsewhere on the mountain.

Trying to get to the bottom of this strange story, Armenian linguist Hrach K. Martirosyan wondered whether the mountain Gaylaxaz-ut might be Baghir Dağ,[11] a peak at the end of a mountain chain to the west of Bingöl Mountain. On its eastern side is the

ominously named Shaitan Dağ, “Satan’s Mountain,” leading Martirosyan to ask:

> Bearing in mind that the mountain of Paxray = Gaylaxaz-ut is said to be dwelled by “servants of the Satan” [in “snake-dwelling lairs”], one may assume that the “devilish fame/nature” of the mountain is conditioned by the abundance of *gaylaxaz*-stones as is seen in the name of the mountain and is also reflected in its earlier name Paxray, if this indeed is identic with *paxray* “hind, deer.”[12]

In other words, the name Gaylaxaz-ut alludes, most probably, to a mountain where “*gaylaxaz*-stones,” that is, flint or obsidian, is found, and that the “servants of the Satan” are in fact reflections of the mountain’s inhabitants. Although Martirosyan identifies this location with Baghir Dağ,[13] there are no notable flint or obsidian sources nearby. More likely is that Gaylaxaz-ut, which quite

literally means Wolf Stone Mountain, is Bingöl Mountain, around 45 miles (72 kilometers) east of Shaitan Dağ. This, as we saw in chapter 23, has been the region's primary source of obsidian since Paleolithic times.

Confirmation that Gaylaxaz-ut is Bingöl Mountain comes from its earlier name of Paxray, recorded also as Paxir, Parxar, and Parxaray.[14] According to the Roman naturalist and philosopher Pliny the Elder (AD 23–79), the beginning of the Euphrates on Monte Aba (an ancient name for Bingöl Mountain) was called the Pyxirates,[15] which almost certainly derives from the same root as Paxray, suggesting that Bingöl Mountain really is Gaylaxaz-ut, Wolf Stone Mountain.

That obsidian was known in Armenia as wolf's stone implies, quite clearly, that the creature was associated in some manner with this black volcanic glass. Might the wolves not have been animals originally, but groups or individuals who identified themselves with

the wolf and prized this black volcanic glass? Did the memory of these "wolves" degenerate over time until they became nothing more than the "servants of the Satan," minions of the Zoroastrian evil principle Ahriman, who lived in "snake-dwelling lairs" on Wolf Stone Mountain?

LAND OF THE PERI

That mythical beings associated both with obsidian and the wolf might once have inhabited the region is affirmed by the fact that one of the rivers that takes its rise on Bingöl Mountain is the Peri Şu, which means "river of the Peri," with Peri being "one of a large group of beautiful, fairy-like beings of Persian mythology."[16] Peri Şu is the river's name in the local Kurdish language, although to the region's Armenian population it is the Gail, or Kyle, from *gayl,* meaning "wolf."[17] Linking the wolf still further with Bingöl is a

narrow gorge through which the fledgling river passes after leaving the mountain, which is called in Turkish Kurt-Duzi, meaning "wolf (*kurt*) plain (*duzi*)."[18]

So how then did a river named Gail, or wolf, come to be called Peri Şu by the region's Kurdish inhabitants, and did this information have any obvious bearing on Bingöl's long association with obsidian?

Kurdish folklore asserts that the mountains and valleys around the Peri Şu were once the haunt of the Peri, the offspring of fallen angels in Persian myth and legend. They are said to have been tall, strong, beautiful, "super human beings that could cohabit with mortal kind."[*1419] It was even believed that certain communities of Kurds, particularly those that included pale-looking females, were the descendants of Peri that had mated with mortal kind. [20] According to a Kurd who was born and raised in a rural village close to the obsidian route between Bingöl and Diyarbakır, the Peri

were linked to the local obsidian trade in stories once told by the most elderly members of the community.[21] How exactly, unfortunately, has now been lost.

Yet the fact that the Peri Şu, or Gail River, rises on Bingöl Mountain links these various traditions with mythical individuals who might well have been identified not only with the Peri of Kurdish folklore, but also with both the wolf and obsidian. It is even possible that we have here a dim recollection of the arrival in the region of Swiderian peoples from central and eastern Europe.

If all this is correct, then how would these European hunters, whose totem animals included the wolf and reindeer, convince the indigenous peoples of southeast Anatolia to embark on the construction of monumental architecture unlike anything ever seen before in the ancient world? It is time now to examine just how exactly the hunting magic of the Swiderians might have gone on to influence the strange world that emerged at Göbekli Tepe in the

aftermath of the Younger Dryas mini ice age ca. 9600–9500 BC.

25

SAVIORS OF THE WORLD

Polish anthropologist Maria Czaplicka (1884–1921) made a study of the Koryak reindeer herders of Siberia's Kamchatka Krai, which is in the extreme northeast of Russia (a krai is a federal subject, or political division, of Russia). One ceremony she recorded involved the slaughter of a wolf and then the killing of a reindeer. The latter was decapitated, and its head and body placed alongside that of the slain wolf on a raised platform. The rite was a sacrifice to Gicholan, "The-One-on-High," the Koryak supreme being, upon whom they called to prevent the wolf from attacking the herd. A feast was afterward prepared and eaten, at which "the wolf is fed"; that is, its

spirit was appeased. Czaplicka goes on:

> The night is spent without sleep, in beating the drum, and dancing to entertain the wolf, lest his relatives come and take revenge. Beating the drum and addressing themselves to the wolf, the people say, "Be well! (Nimeleu jatvanvota!)," and addressing The-One-on-High, they say, "Be good, do not make the wolf bad!"[1]

Yet in answer as to whether this ritual was done to ward off wolves, the Koryak insisted that the animal was not dangerous in its visible state, especially as the northern wolf generally avoids human contact. Czaplicka said it was dangerous only in its "invisible, anthropomorphic form"; that is, as a werewolf, a half-human, half-wolf. With this in mind, she noted that in Koryak tradition:

> The wolf is a rich reindeer-owner and the powerful master of

> the tundra . . . [and] avenges [himself] particularly on those that hunt [wolves]. The Reindeer Koryak, who have special reason to fear the wolf on account of their herds, regard this animal as a powerful shaman and an evil spirit.[2]

Thus for the Koryak the wolf was both a "powerful shaman and an evil spirit," a force to be reckoned with on a supernatural level.

WOLF-STICK FESTIVAL

In another ritual celebration practiced by the Koryak, called the Wolf-stick Festival (Elhogi Çayönüin), a wolf was killed, skinned, and decapitated. Moving across to a hearth the participants would then place a pointed stick in the ground, to which they would tie an arrow. Alternatively, the arrow was driven into the earth, with its point sticking upward. A man would then adorn himself in the wolf

’s skin and walk in circles around the hearth to the beat of a drum played by someone standing nearby. When questioned as to why they conducted this ritual, the Koryak would simply shrug their shoulders and say: “Our forefathers did [it] this way.”[3]

THE SHAMAN’S POLE

Czaplicka was mystified as to why during the Wolf-stick Festival the Koryak stuck a stick in the ground with an arrow tied to it or used an arrow instead. Yet an explanation is actually quite simple, for it cannot be coincidence that shamanistic practices in Siberia, and many other parts of the world, involve the erection of a stick or pole that represents the axis mundi, the axis of the earth.

The shaman’s pole, which can even be the central support of a skin-covered tent, then becomes the means by which the shaman gains entry to the sky world, either by ascending it in astral form

and/or by actually *climbing* the pole, like some weird circus act in a big top. As Czaplicka herself pointed out in connection with the cosmological views of the Chukchi, a Siberian tribe whose territories border those of the Koryak:

> A hole, under the pole-star, forms a passage from one world to the other, and through this hole shamans and spirits pass from one to another of the worlds.[4]

Such beliefs and practices are likely to have existed in Paleolithic times, and if this is correct, then there is no reason they cannot have survived into the modern era in remote parts of Siberia. The existence of rituals such as the Wolf-stick Festival of the Koryak demonstrates the absolute necessity of a tribal group in countering the malefic intentions of their enemies; not here, but in the spirit world, where they can be confronted head-on by the shaman, who might well take on the mantle of the wolf to deal directly with a

feared and respected rival or enemy.

OCCULT BATTLE

These are psychological processes most assuredly, but it is as well to recall that during the Second World War British witches and occultists—most famously Dion Fortune (1890–1946), who lived at Glastonbury at the time—became entangled in what they saw as a magical battle of life and death in order to counteract the threat of Nazi Germany to British freedom. Those taking part conducted regular rituals, meditations, and psychic battles to ensure an Allied victory. These individuals believed that what they were doing was very real indeed, and no amount of skepticism would have convinced them otherwise. It is extremely likely that something similar was going on in the aftermath of the Younger Dryas Boundary impact event involving European reindeer hunters and

wolf shamans countering the baleful influence of the cosmic trickster in the form of the wolf or fox.

Did the Paleolithic peoples eventually claim victory over the forces of the sky wolf, or sky fox, in a manner echoed in the outcome of the Scandinavian account of Ragnarök, the Twilight of the Gods? Did their claims, handed down from one generation to the next, have any bearing on the story of how the god Tíw, or Tyr, sacrificed his right arm in order that the Fenris Wolf might be bound forever, saving the lives not just of the remaining Æsir, or Asa gods, but also the fledgling strains of humanity? Remember, this was seen as a compassionate act of self-sacrifice that gained Tíw the epithet "leavings of the wolf."

Not only was Tíw considered a divine protector of the North Star or celestial pole, but his symbol, the T-rune Tiwaz, is the outline of an arrow, and, as we saw in chapter 16, a representation of the "vault of heaven held up by the universal column,"[5] as well as the

Irminsul, or "world-column of the Saxons that terminates in the pole star."[6] The symbolism is thus the same as the arrow and pole used in the Koryak Wolf-stick Festival, with all of it being done to counter the trickster wolf and ensure the future stability of the world.

STRANGE CUSTOMS OF THE SÁMI

Further evidence of this surmise comes from the Sámi, the shamanic-based tribal culture and, until fairly recently, reindeer herders who have existed in Finland, northern Scandinavia, and the Kola Peninsula of Russia since Mesolithic times (see figure 25.1 on p. 211). According to noted Swedish ethnologist Uno Harva (1882–1949), the Sámi practiced a "strange custom" whereby they made sacrifices to a sky god "so the sky or the world would not fall down."[7] For this they erected a forked tree, or tall pole, on the top of

which they placed an iron nail, symbolizing the "world pillar," next to which an altar was created so that the god "could support and keep the world, that it would not grow old and fall from its former position."[8] Harva compared the Sámi's sky pole with the Irminsul of the Saxons, linking it back to the Tiwaz rune, which was known both to the Scandinavians and the Germanic peoples.[9]

According to an eighteenth-century missionary named Jens Kildal (1683–1767), the Norwegian Sámi believed in a high god called Maylmen Radien, in whose honor a world pillar or axis mundi called Maylmen Stytto was erected and "smeared with the blood of a sacrificial reindeer oxen."[10]

Here we have clear evidence of shamanic rituals taking place among the Sámi to preserve the stability of the sky pole, or world pillar (the Maylmen Stytto was thought to connect with the celestial pole). This was done in order that it might "not grow old and fall from its former position" or that "the sky or the world would not fall

down”; that is, so that it would not be destroyed, either through neglect or, might we say, through the intrusion of some kind of supernatural agency, such as a sky wolf or sky fox[*15] (the reindeer, wolf, and fox are key animals depicted on Sámi shaman drums, alongside a central cross variously described as the world tree [Saiva Moura], the world pillar [Maylmen Stytto], and even the Cross of Christ).

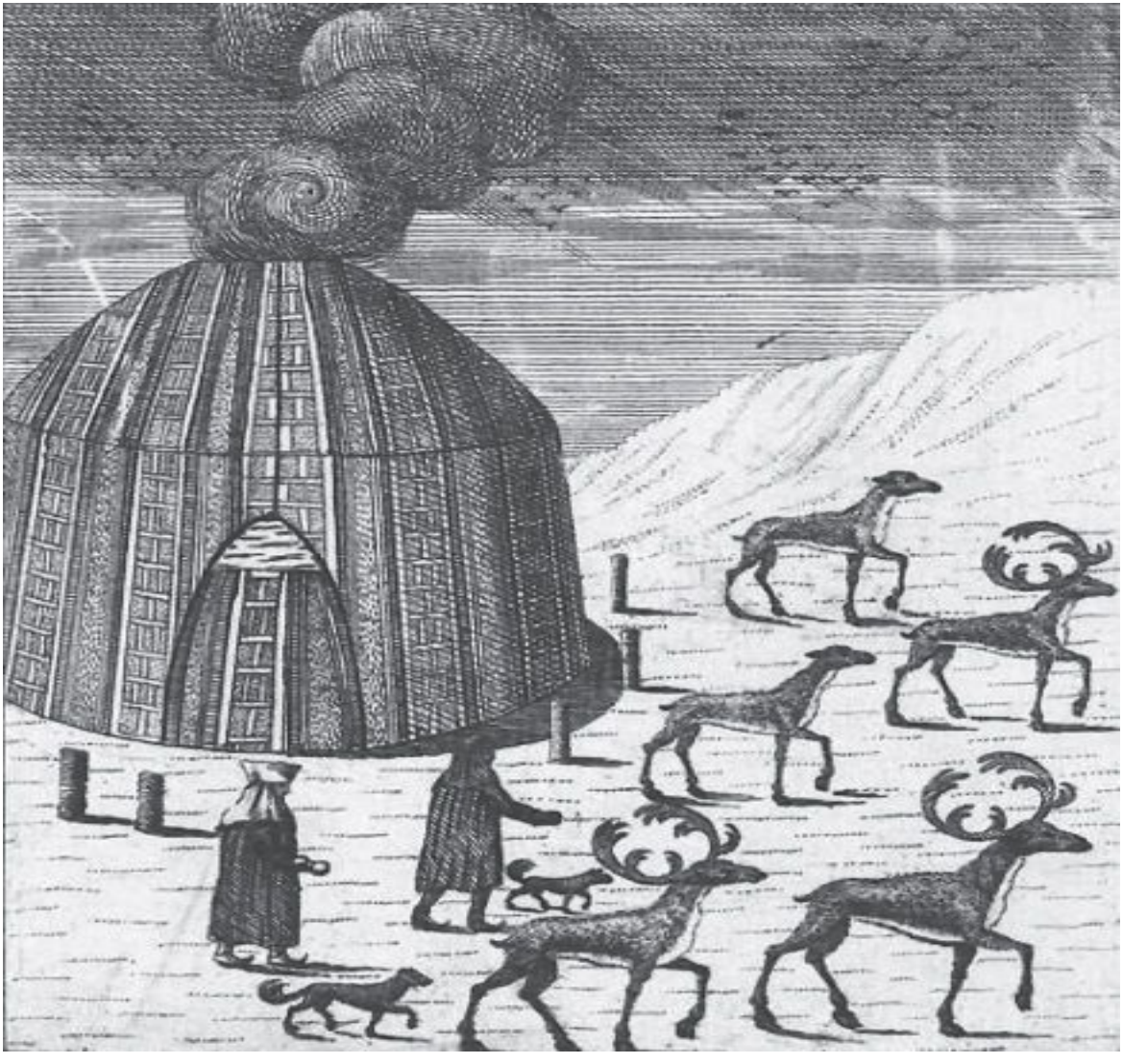

Figure 25.1. Antique line drawing showing Sámi reindeer herders.

FINNO-UGRIC ORIGINS

The significant point about the Sámi is that they belong to an ethnic group that forms part of the Finno-Ugric language family. Not only is there a relationship between the Finno-Ugric language and both Armenian and Hungarian, but there is evidence also that the Sámi inherited traditions from a post-Swiderian culture responsible for the spread of the Finno-Ugric group of languages into Scandinavia, Estonia, and Finland.[11]

Thus there exists some small chance that the beliefs and practices of the Sámi owe some debt to those practiced by the Swiderian reindeer hunters, including, we can only assume, shamanic rites to preserve the stability of the sky pole so that the world does not come to an end.

With all this in mind, can we go on to imagine Swiderian groups reaching the Armenian Highlands in the wake of the catastrophic events that would appear to have affected the world in the eleventh millennium BC and claiming that their hunting magic and their understanding of the sky wolf or sky fox, had, quite literally, brought humankind back from the brink of destruction? Did they offer to reveal how the hunter-gatherers of southeast Anatolia could themselves stabilize the world pillar and counter the baleful influence of the cosmic trickster so that "the sky or the world would not fall down"?

Such speculation might seem crazy, but we have to imagine ourselves in the position of the hunter-gatherers of southeast Anatolia at the end of the Paleolithic age and attempt to understand why they might have embarked on mammoth building projects such as Göbekli Tepe. If the large enclosures, built ca. 9500–8900 BC, are not the end product of hundreds, if not thousands, of years of

gradual evolution, then it is possible they were inspired not only by the fear of a further cataclysm taking place but also by new ideas carried into the region by outsiders. As we have seen, by far the best candidates for this role are the Swiderians, who would seem to have been carrying traditions inherited from their likely forebears, the Solutreans and Kestenki-Streletskaya culture of the Russian Plain, in particular a knowledge of cosmic geography and shamanistic practices involving the concept of the sky pole used to reach a sky world existing in the area of the Cygnus region.

FOX, NOT WOLF?

One question remains before we can move on: If Fenris is a wolf, and the European reindeer hunters arrived in Anatolia claiming an association with this animal, why don't we see the wolf depicted more at Göbekli Tepe? The answer is that the wolf *is* represented

among the carved art at Göbekli Tepe. It is very likely the identity of at least three “predators” or “quadrupeds” represented by 3-D statues found at the site, which are today on display at the Şanlıurfa archaeological museum. That said, it is the fox that predominates among the carved art seen in the enclosures, especially on the inner faces of the central pillars. It was this realization, along with the large number of faunal remains belonging to the red fox found at the site, that prompted archaeozoologist Joris Peters and Klaus Schmidt to conclude that “a specific worship of foxes may be reflected here.”[12]

The reason behind this noticeable switch from wolf to fox, both of which were forms of the cosmic trickster and the star Alcor in Ursa Major, is easily explained. Whereas the wolf was important to the reindeer hunters of the East European Plain, the fox appears to have played a cosmological role among the Eastern Gravettian peoples of both Central Europe and the Russian Plain. The fox was

also important among the Natufian communities of the Levant. Here the bones and teeth of the red fox have often been identified among the faunal remains found at occupation sites.[13]

It was arguably for similar reasons that the fox and wolf were interchangeable in their role as cosmic trickster, since the animals meant different things to different cultures in different localities. In ancient Egyptian tradition, for example, the trickster god is Seth, whose animistic form is the *fenekh,* or desert fox, while for the Dogon of Mali in West Africa the trickster is Ogo, the pale fox.

The cosmic trickster, in all its forms, whether as the wolf or fox (or, indeed, the dog, dragon, lion, or any other type of animal) has the potential to quite literally bring about the death of the world through the collapse of the sky pole that holds up the heavens. The crucial knowledge of how to prevent this from happening was, quite possibly, the all-important remedy for the catastrophobia rife among the hunter-gatherers of southeast Anatolia in the wake of the

Younger Dryas Boundary impact event.

This then was the knowledge very likely made available to the Epipaleolithic peoples of southeast Anatolia some twelve to thirteen thousand years ago. Those who offered this solution were, most probably, members of a Swiderian ruling elite—hunters, warriors, tool specialists, and shamans—whose journey probably begins as far west as Poland's Vistula River and the obsidian sources of the Carpathian Mountains and ends with their entry into eastern Anatolia sometime during the Younger Dryas mini ice age, perhaps around 10,500 BC or slightly later. They are the face of the Hooded Ones, whose own great ancestors are most likely immortalized in the twelvefold rings of T-shaped pillars, not just within the large enclosures at Göbekli Tepe but also at the various other Pre-Pottery Neolithic sites throughout the *triangle d'or*.

Yet we still need to better understand how exactly the incoming groups of Swiderians were able to convince the Epipaleolithic

hunter-gatherers of southeast Anatolia to come together to create the first truly megalithic architecture in human history. How did this happen? It is a matter we address next.

26

STRANGE-LOOKING PEOPLE

Can we imagine the sense of fear and uncertainty that must have existed in the minds of the Epipaleolithic peoples who lived in the vicinity of Göbekli Tepe during the Younger Dryas mini ice age, ca. 10,900–9600 BC? The golden age once spoken about by the elders was now little more than a utopic dream. Since the great fire from the sky and the time of perpetual darkness and constant rain, when the land had sunk beneath the waters, the world had been an entirely different place—cold, bleak, dry, and almost devoid of the herd animals that had provided life and sustenance to so many.

It almost seemed as if the animal spirits that had addressed their

every need had now deserted them, perhaps through their misdeeds in the years leading up to this terrible change in the world. What is more, there was no assurance that these great catastrophes would not happen again and again, until finally nothing more was left, only the darkness that prevailed before time began.

Then one day a group of tall, strange-looking people of striking appearance, with elongated heads, long faces, high cheekbones, strong jaws, and prominent brow bridges due to their ancestry as Neanderthal-human hybrids, enter the settlement. Perhaps they wear long, hooded garments made of linen, flax, or hide, as well as belts decorated with strange symbols, leather leggings, and boots made out of animal skin (a reconstruction by graphic artist Russell M. Hossain is offered in figure 26.1). They are clearly hunters, with bows and arrows slung over their backs and items of personal adornment gained from the chase. They have necklaces of wolf or fox teeth; strings of beads made from ivory, bone, shell, antler, and

stone; as well as insignia of office that hang like medallions around their necks. Alongside them are others, peoples of the region, identified as post-Zarzian shamans, warriors, and tradesmen.

Figure 26.1. 3-D digital sculpts by artist Russell M. Hossain depicting the Hooded Ones—the Swiderian power elite behind the creation of Göbekli Tepe. Their physical traits are derived from anatomical evidence of the Brünn population and the Sungir burials of Russia, coupled with a knowledge of Swiderian physiognomy, which suggests Neanderthal-human hybridization.

Leaders of the group will have addressed representatives of the community, showing them examples of exotic materials such as obsidian from Bingöl and Lake Van and flint from farther afield. They might have offered to supply these and other valuable commodities, and then, after gaining the community's trust, the hooded strangers will have revealed the true purpose of their mission. Their sky magic had successfully combated the baleful influences of the canine trickster, who had attempted to destroy the world at the time of the great fire from the sky. This knowledge they

would now pass on at a price. However, to successfully bind the cosmic trickster and ensure the future stability of the sky pole that supported the heavens, the community would have to give up their hunting lifestyles and learn to work together to put into practice this powerful magic.

COMMUNITY NETWORKING

The chances are that this incoming group, of Swiderian descent, visited other Epipaleolithic communities as well, offering exotic materials to their inhabitants while at the same time spreading their potent message and showing their control and influence over the cosmic trickster, perhaps by predicting the appearance of short-period comets. Eventually the Hooded Ones gained control of each and every one of the settlements they entered. When simple exchanges did not work, open conflict might have ensued, although

very likely the strangers set existing allies against confrontational groups or tribes to quell any unrest.

This then was very likely the beginning of a type of regional supremacy instigated by the incoming power elite to bring about the building projects that would eventually lead to the creation of major cult centers such as Göbekli Tepe. These stone sanctuaries would function as axes mundi, terrestrial turning points of the heavens, their central pillars acting as gateways or portals to a perceived sky world existing in the direction of the constellation of Cygnus. From these enclosures rites of birth, death, and rebirth would be enacted and the baleful influence of comets countered by shamans.

THE WALLS OF JERICHO

How exactly the ruling elite might have convinced the indigenous peoples to create monumental architecture on such a grand scale

remains a mystery. Fear is the most obvious answer—fear that it would all happen again if they did *not* create these monuments in exactly the fashion prescribed. Yet as Klaus Schmidt is at pains to point out, nothing like Göbekli Tepe existed anywhere else in the world at this time. That said, monumental architecture *was* being built contemporary to the construction of Göbekli Tepe 420 miles (675 kilometers) away at Jericho, in what is today the Palestinian territories.

A Natufian site existed at Jericho during the Younger Dryas period, but it was not until the arrival of a Pre-Pottery Neolithic A culture that the place was transformed into a major town complex. Very quickly the inhabitants felt the need to surround the 10-acre (4 hectare) settlement with a stone wall 10 feet (3 meters) thick and 13 feet (4 meters) high, which extended around the entire occupational mound for a distance of nearly half a mile (800 meters).

In addition to the great wall, the Jericho inhabitants constructed

an enormous stone tower 33 feet (10 meters) in diameter and 28 feet (8.5 meters) high, accessed through a west-facing doorway that connected with a stone staircase of twenty-two steps.

As well as the almighty stone tower and perimeter wall, a gigantic ditch was cut out of the limestone bedrock around the outside of the settlement. This was 9 feet deep (2.75 meters), 27 feet wide (8 meters), and more than half a mile (over 800 meters) long, with one prehistorian describing it, aptly, as "a considerable feat in the absence of metal tools."[1]

Clearly, something major was occurring at Jericho. The inhabitants seemed eager to keep something out, and it was not simply wild animals or the elements. An aggressor lurked out there somewhere, who was perceived as a potential threat to the well-being and lifestyle of the Jericho population, which numbered in the hundreds.

The existence of sites such as Jericho tells us that the capability to

supersize monuments and structures *was* present among the Pre-Pottery Neolithic peoples of the Fertile Crescent at this time. Yet clearly, before the construction of Göbekli Tepe and Jericho, the motivation to create large-scale stone buildings for specific magico-religious purposes was simply not present. Something then changed, and all the indications are that the hunter-gatherers of southeast Anatolia and the Levantine corridor were responding to events happening in their world, and in the opinion of the author that was the Younger Dryas Boundary impact event and the incredible state of fear it left in the world's human population in its aftermath. However, even then it had taken the intrusion of a powerful elite of European descent to inspire the creation of monumental architecture with the intent of curbing wide-scale catastrophobia once and for all.

SCHMIDT AND THE SWIDERIANS

As controversial as these theories might seem, even Klaus Schmidt has had his eye on the Swiderians as being in some way instrumental in what was going on in southeast Anatolia at the commencement of the Pre-Pottery Neolithic age. Not only does he acknowledge the similarity between the Natufian gazelle hunters and the "reindeer hunters of the North,"[2] that is, those in Europe, and admit that "perhaps there was some kind of connection or communication between the societies of Turkey and those around the Black Sea and the Crimea,"[3] but in a paper written for the journal *Neo-lithics* in 2002, he even names the Swiderians[4] when he writes:

> The late Paleolithic Swiderian reindeer hunters of eastern Europe had a similar hunting strategy [to the Pre-Pottery Neolithic peoples of the Upper Euphrates] using the seasonal wandering of reindeer and their crossing of big rivers such as

the Vistula (Weichsel).[5]

Schmidt obviously recognizes something of the European hunting tradition in the Pre-Pottery Neolithic world that existed in the lead-up to the construction of Göbekli Tepe and other religious centers in southeast Anatolia during the tenth millennium BC. He singles out the Swiderians as an example of these hunting strategies, when he could have mentioned the Hamburgian-Ahrenburgian cultures of North Germany, the Brommian-Lyngby cultures of Denmark and Scandinavia, or indeed any one of a number of other Paleolithic hunting traditions that thrived in Europe toward the end of the Upper Paleolithic age. Why? Was it that he had just read an article on the Swiderian culture and wanted simply to use them as an example of this hunting strategy, or does he too have a sense of their presence at Göbekli Tepe?

The greatest clue is in the German archaeologist's suggestion that

“perhaps there was some kind of connection or communication between the societies of Turkey and those around the Black Sea and the Crimea.”[6] When he said these words to osteoarchaeologist and TV presenter Dr. Alice Roberts, he almost certainly had in mind the incursions of the Polish Swiderian tradition into the Crimean Highlands, immediately above the Black Sea. A simple boat journey along its eastern coast, or a gradual migration overland through the Caucasus Mountains and the Armenian Highlands, would have brought these European hunters directly into contact with the Epipaleolithic peoples of southeast Anatolia, and Schmidt knows this very well. However, I suspect that until now he has found nothing concrete at Göbekli Tepe that might help confirm these surmises, despite the fact that worked flints have been found that are more-orless *identical* to Swiderian tanged points.

THE END OF GÖBEKLI TEPE

The world of Göbekli Tepe remains truly bizarre, and so far we have only been able to scratch the surface of what was really going on here nearly twelve thousand years ago. Having started with grand structures featuring monoliths 18 feet (5.5 meters) high, the Göbekli builders ended up settling for bathroom-size rooms, with standing stones no more than a few feet in height and communal benches like something you might find in a family-size Jacuzzi.

It seems clear that whatever incentive there had been to remain loyal to a particular style and design gradually diminished as the centuries rolled by. It is almost as if the Göbekli builders, although still committed to following an established tradition, which included the erection of anthropomorphic T-shaped pillars, were now downsizing in their choice of architectural styles. By the end they were simply going through the motions, without the original motivation being there any more.

It has been suggested that the entire complex at Göbekli Tepe

was buried hurriedly around 8000 BC, as if there was some urgency involved. It has even been speculated that the large enclosures were covered over to protect them from another cataclysm, either a comet strike or some kind of plasma-induced event, brought about by a coronal mass ejection from the sun.[7]

As attractive as such disaster scenarios might seem, there is at present nothing that has been discovered at Göbekli Tepe that might support such claims. The site's final decommissioning involved the remaining sanctuaries, cult buildings, shrines, and other structures being buried beneath thousands of tons of imported earth, quarry chippings, and refuse matter. Yet even then, very occasionally, the heads of stones would be exposed by soil erosion and tilling of the land. The rest, however, remained encased within the tell's swollen belly for a full ten thousand years until Klaus Schmidt realized the site's incredible importance in 1994. We owe him a great debt for bringing back to life this unimaginable stone complex that reveals to

us the mind-set of our ancestors during an age of uncertainty and change.

Yet we cannot end the story here, for even after the final abandonment of Göbekli Tepe its legacy lived on, and there is every reason to believe that the role its founders, *and maintainers,* played in the instigation of the Neolithic revolution was preserved in the myths and legends of the cultures that thrived in these same regions during much later times.

Some of these ancient accounts are still with us today, and it is time now to see how exactly they address the strange world that existed in southeast Anatolia and the Armenian Highlands during the formative years of the Neolithic era. As we shall see, they seem to preserve dim echoes of the Younger Dryas Boundary impact event and the existence of the Hooded Ones—the Swiderian elite whose memory is encapsulated in the rings of T-shaped pillars and twin central monoliths at Göbekli Tepe.

For the next part of our journey the author would like to ask the reader to excuse him as he now switches from a third-person narrative to, where necessary, a first-person delivery that much better fits the quest of discovery that befell him in the wake of an extraordinary sequence of events that will culminate with the finding of Eden itself.

PART FIVE

Convergence

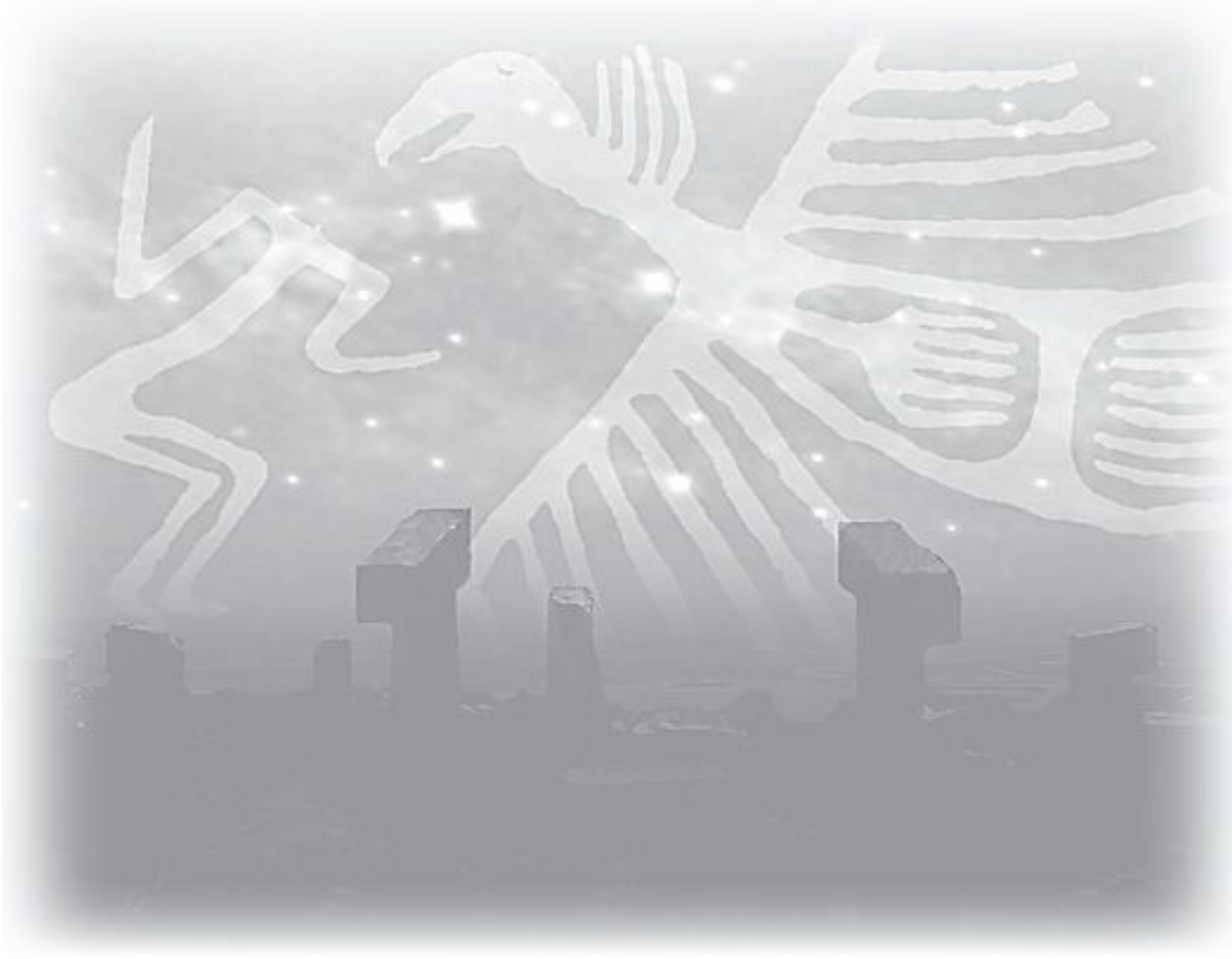

27

IN THE GARDEN OF EDEN

The overwhelming aroma of incense hung heavy in the air of the church's darkened interior. Low chanting, almost like a murmuring, filled the open space, where lamps burned, a few candles flickered, and the soft light pouring in through the high windows revealed a strange but compelling sight.

Illuminated on the cold stone floor, close to the center of this archaic house of God, was a group of Armenian monks, dressed from head to foot in thick, dark garments. They were the source of the melancholic chanting that continued unabated, like some primal tone, essential to the success of

their ritual actions. It was unlike any singing ever heard before, even in the strange, secluded monasteries of Mount Athos in Greece. Their combined voices made the whole place seem like a slowly building powerhouse of divine energy.

The monks were engaged in a religious ceremony, yet one without any congregation. It seemed to involve the elevation of an object high above their heads, as if offering it up for God to acknowledge its presence here in this monastery. It was an act that had been performed for countless generations to celebrate the gift of eternal life, given to our First Parents in the Garden of Eden, but taken away from them at the time of the Fall.

For these monks believed that their monastery was located on the very spot where the terrestrial Paradise could once be found. It was an unerring conviction that, although they could never have realized it themselves, was linked integrally with the location, just a couple of hundred miles away, of the hidden world that would one day be uncovered at Göbekli Tepe, the

site of the oldest temple in the world.

It was an unprompted dream I awoke from on Wednesday, April 20, 2011, triggered no doubt by the fact that I had just agreed with the publisher to write a book on the story of Göbekli Tepe and its impact on myth, religion, and the origins of civilization. I had already submitted a detailed synopsis and chapter breakdown and knew pretty well what I was going to write.

Yet now I sensed that something was missing, a major piece of the jigsaw that my vivid dream suggested I would find if I looked in the right places. Somewhere in eastern Turkey, not far from the huge inland sea named Lake Van, a couple of hundred miles east of Göbekli Tepe, was, I felt, a church and monastery where the monks believed that the landscape thereabouts was the actual Garden of Eden. These were thoughts now going through my mind, even

though twenty years of research into the origins of the Genesis account of the Fall and its geographical relationship to eastern Turkey, for books such as *From the Ashes of Angels* (1996) and *Gods of Eden* (1998), had failed to uncover anything even remotely like this tradition.

TEMPLE IN EDEN

There seemed only one thing to do, and this was for me to reexamine the evidence that had led me to conclude that eastern Turkey, the former Greater Armenia, or Armenia Major, was the true site of the Garden of Eden, and to see if I could turn up any new leads that might throw further light on this puzzling mystery. This seemed especially important to do, as in 2009 there had been reports that Professor Klaus Schmidt had told British journalist Sean Thomas (writing under the pseudonym Tom Knox) that "Göbekli

Tepe was not the Garden of Eden: it is a temple in Eden."[1]

Although Klaus Schmidt told me in September 2012 that Sean Thomas had misquoted him (the German archaeologist had actually said that Göbekli Tepe was an Eden-*like* place, not "a temple in Eden"), the story became a news sensation, with headlines such as "Do These Mysterious Stones Mark the Site of the Garden of Eden?"[2] appearing worldwide. The German archaeologist obviously played down the matter, and eventually it did all die down. (I actually apologized to Schmidt as it was me who'd given Sean Thomas instructions on how to get out there, after he became interested in Göbekli Tepe through reading material I'd written on the subject.)

So if Göbekli Tepe was not the Garden of Eden, where was it really located, and how did the Genesis story of Adam and Eve and the Fall fit into the emergence of the Pre-Pottery Neolithic world of southeast Anatolia?

THE EXISTENCE OF PARADISE

It was really not until medieval times that people started looking for the Garden of Eden. Prior to this time it was considered a paradisiacal realm created by God for the benefit of our First Parents, Adam and Eve, who had lived in a state of perpetual bliss and happiness, not knowing death, pain, or hunger. Yet when they committed the original sin by eating of the Tree of Knowledge of Good and Evil, and knew immediately that they were naked, God removed Paradise from the reach not only of our First Parents, but also of humanity as a whole. Never again would humans gaze upon the garden until the Final Judgment, when all righteous souls would be reunited with God in the heavenly Paradise. In other words, there was no point looking for Eden as it had no material presence in the mundane world. In fact, so detached from the physical world was it considered to be that some medieval theologians and church leaders thought that God had removed it to the vicinity of the Moon.[3]

Even if Paradise *had* existed in a material sense, there was no way it was accessible to humankind. It existed as a place beyond physical existence, almost like a parallel world, guarded by angels called cherubim, whose flaming swords protected its entrances with an impenetrable wall of fire. This was the manner in which Paradise was portrayed on medieval maps of the world—as a walled garden surrounded by fire, existing just beyond the eastern limits of the Eurasian landmass. Adam and Eve, the Serpent of Temptation, the Tree of Good and Evil, and the cherubim with flaming swords would all be present, as if to remind the onlooker where humanity might now be if the original sin had not been committed.

Those church leaders or theologians who *did* propose that the Garden of Eden might once have had a physical existence would be informed that if this were the case, then it would have been destroyed in the Great Flood. According to the Genesis account, this all-encompassing deluge engulfed the entire earth, right to the

highest mountaintops. Only Noah and his family survived by taking to the ark and eventually finding the sole piece of land that God had set aside to remain above water, and it was from here that the world began anew.

THE GREAT REFORM

These were the generally accepted views that the Church of Rome held regarding the existence of Paradise, and very few scholars or church leaders dared challenge these opinions for fear of being branded as heretics. It was not until the religious reforms of the sixteenth century and the birth of Lutheranism and Protestantism that attitudes began to change regarding the concept of Paradise. This was helped by the discovery of the American continent, which confirmed that the known world was not surrounded by an expanse of water, beyond which there was nothing, a realization that led

eventually to the abandonment of the long-held belief that the world was flat. The earth was a globe, and every part of it could be mapped and explored without fear of falling off into an abyss that existed beyond God's creation. So everything in the world became more tangible and fixed, and even the inspired word of God transmitted through the prophet Moses to create the Pentateuch, the first five books of the Old Testament, became subject to question for the first time.

Church leaders, travelers, and cartographers began now to find firm geographical clues in the Bible that revealed the true location of the Garden of Eden, which many now concluded had existed in the Bible lands themselves. According to the book of Genesis, as well as various apocryphal and pseudepigraphical works of Jewish, Christian, and Muslim origin, the Garden of Eden was watered by a single stream that took its rise from a spring or fountain that emerged from the base of the Tree of Life. After exiting the garden,

the stream then split into four heads that became the sources of four great rivers (see figure 27.1), each of which are named and described in chapter two of the book of Genesis (I shall quote from *Young's Literal Translation of the Bible,* which exactly reproduces the original Jewish and Greek text, so that nothing is lost in translation):

> And a river is going out from Eden to water the garden, and from thence it is parted, and hath become four chief [rivers]; the name of the one [is] Pison, it [is] that which is surrounding the whole land of the Havilah where the gold [is], and the gold of that land [is] good, there [in Havilah, is] the bdolach and the shoham stone; and the name of the second river [is] Gibon [or Gihon], it [is] that which is surrounding the whole land of Cush; and the name of the third river [is] Hiddekel, it [is] that which is going east of Asshur; and the fourth river is Phrat. (Gen. 2:10–14)[4]

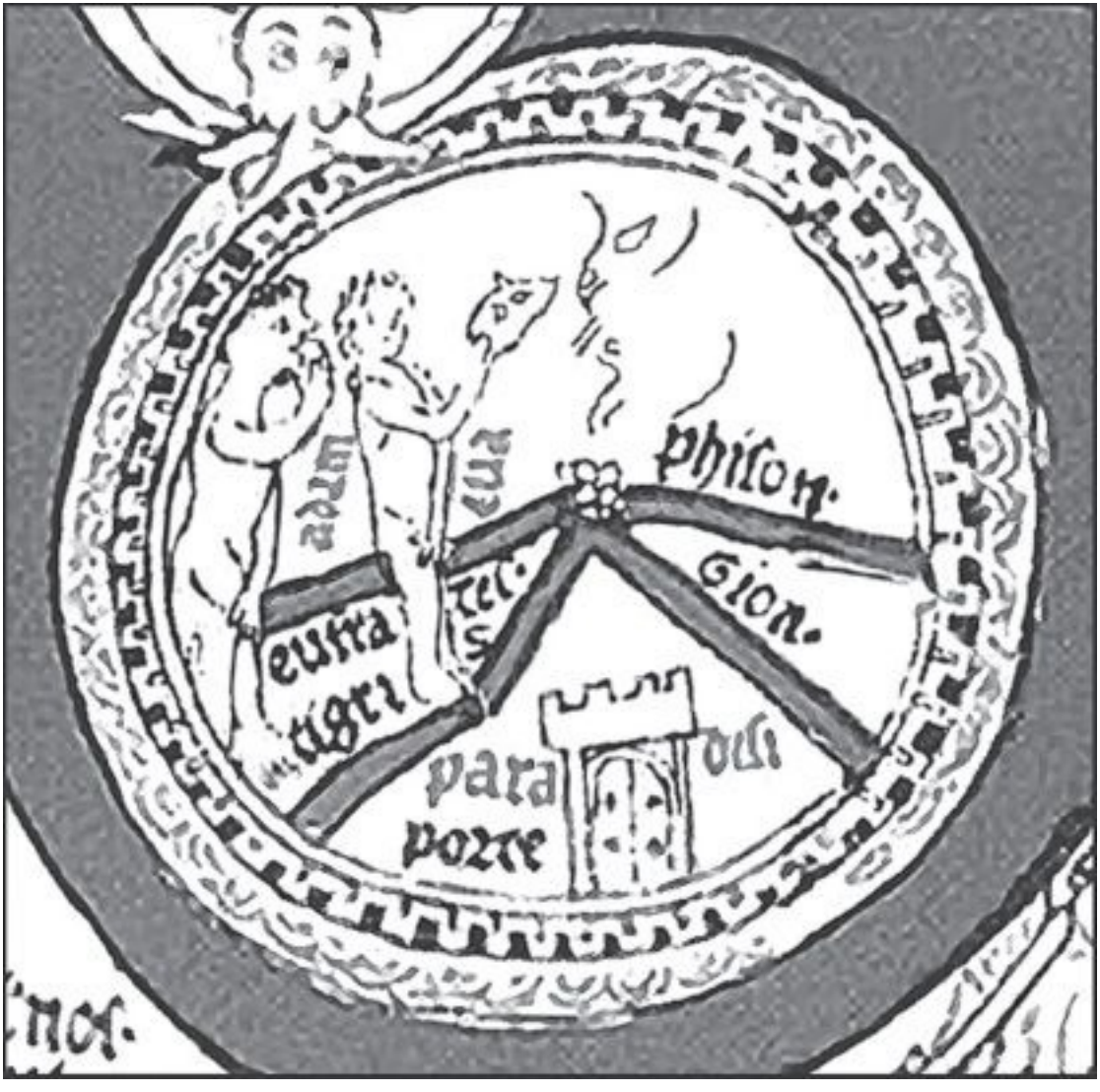
phison.
gion.
tigri
para
pozte

Figure 27.1. Adam and Eve in the terrestrial Paradise, from the Hereford Mappa mundi (Map of the World), ca. 1300 AD . Note the four rivers of Paradise, each one named, which emerge from a fountain of four heads positioned in front of the Tree of Knowledge of Good and Evil, complete with the Serpent of Temptation.

Identifying these four rivers has always been key to locating the terrestrial Paradise, and two of them are easily found. The last one mentioned, the Phrat (Kurdish Firat, Armenian Aratsani, Greek and Roman Arsanias), is the Euphrates, the longest river in Western Asia. It has two main branches, the Kara Şu, or Western Euphrates, and the Murad Şu, or Eastern Euphrates, which rise, respectively, to the north and northwest of Lake Van in the Armenian Highlands. They then snake their way through southeast Turkey and merge together before passing into northern Syria and entering the Mesopotamia Plain in what is today Iraq. Just before emptying into

the Persian Gulf, the Euphrates joins the Tigris River.

There can be little question that the Euphrates was one of the four rivers of Paradise, and this information alone should always have been enough to establish the geographical position of Eden as being somewhere along its course. Yet we find again and again that this was often not the case, with the Garden of Eden being placed not just in the Bible lands but also in every other part of the ancient and new world. Ceylon, the Americas, equatorial Africa, Australia, and even the North Pole have all been proposed as the setting for the terrestrial Paradise, based on arguments that seem more related to personal theories and the beauty of the place than to the facts presented in the Genesis account.

THE HIDDEKEL

Another river of Paradise easy to identify is the Hiddekel, which

flows to the “east of Asshur”; that is, Assyria, in what is today northern Iraq. This is unquestionably the River Tigris (from the Persian *tigra,* meaning “arrow”), originally called the Hiddekel (from the Akkadian *id Idikla,* “the river of Idikla”), which does indeed flow through the eastern parts of the ancient kingdom of Assyria. The river, which takes its rise northeast of the city of Diyarbakır, immediately south of the main sources of the Euphrates, is fed by a series of tributaries that rise in the Eastern Taurus Mountains of eastern Turkey.

The Tigris then leaves Turkey and flows southeastward through Iraq, parallel with the Euphrates on its western side. The two rivers bend toward each other in the vicinity of Baghdad, close to the site of the ancient city of Babylon. Yet instead of coming together they run parallel for a few miles before parting again, only to merge finally into one giant estuary that empties into the Persian Gulf.

So if both the Euphrates and the Tigris form two of the four rivers

of Paradise, this should confirm that the Garden of Eden was either where they take their rise in the Eastern Taurus Mountains and Armenian Highlands or where they come together in southern Iraq; no other possible location should even be considered based on the evidence provided by the book of Genesis. Indeed, the matter can be pinned down still further by pointing out that the Garden of Eden was situated at the *source* of the four rivers, meaning that the terrestrial Paradise can only have been located in historical Armenia, modern eastern Turkey. Where exactly is provided by the identities of the remaining two rivers.

GIHON AND THE LAND OF CUSH

Identifying the Gibon or, more commonly, the Gihon, another of the rivers of Paradise, is slightly more of a challenge, although the fact that it is said to flow "around the whole land of Cush" is a major

clue. Usually, the land of Cush is identified with an ancient kingdom of this name in Ethiopia, the reason the word *Ethiopia* appears instead of *Cush* in the King James Bible. It is also why the Gihon is identified with the River Nile, which rises in Ethiopia and was called the Geion by the Coptic Christians of Egypt.[5]

Yet these identifications are fundamentally wrong, and very misleading too. Cush, or Kush, is more likely to be a kingdom named in Assyrian inscriptions as Kusu. It was the land of a people called the Kusai, who lived "in the celebrated hill country to the north of Syria, whence came the Kusai breed of horses."[6] Indeed, it was apparently from Kusu that the Assyrians obtained their horses.[7]

English Assyriologist George Smith (1840–1876), in *The Chaldean Account of Genesis* (1876), notes that in the book of Genesis the father of Nimrod, the builder of the Tower of Babel, is given as Cush, and that this too might be an allusion to the land of Kusu.[8] Nimrod is a legendary figure of Armenian folk history said

to have cast the patriarch Abraham into a fiery furnace because he would not bow down to pagan idols. This is supposed to have taken place in the ancient city of Edessa, modern Şanlıurfa, celebrated as the birthplace of Abraham. It is also, as we have seen, just 8 miles (13 kilometers) away from Göbekli Tepe, a connection that should not be forgotten. If Kusu was north of Assyria, then it must have been located somewhere in the vicinity of Lake Van and the Armenian Highlands.

Historical Armenia was overrun by the Turkish Ottoman Empire in the mid-fifteenth century, and although it kept its cultural, religious, and geographical identity until the twentieth century, the entire country was wiped off the face of the map following the Armenian Genocide of 1915. In antiquity, however, it was a kingdom in its own right, with the separate kingdom of Armenia Minor to its west. Today the modern Republic of Armenia, the former Soviet Armenia, is the only remaining part of Greater

Armenia (or Armenia Major), with the rest of "historical Armenia" now being simply the eastern provinces of Turkey.

Back in the first millennium BC, at the height of the Assyrian Empire, the kingdom of Armenia was famous for its horses. The Greek geographer Strabo reported that it was very good for "horse pasturing" and that "Nesaean horses," favored by the Persian kings, were bred there.[9] Moreover, Strabo recorded that every year the Persian king was sent by way of a tribute from Armenia twenty thousand foals.[10] He noted also that: "The passion for riding and the care of horses characterize the Thessalians, and are common to Armenians and Medes."[11] The Medes were the inhabitants of Media, a kingdom located on the southern shores of the Caspian Sea, northeast of Armenia, in what is today Azerbaijan and northwest Iran.

So the land of Kusu, where Kusai horses came from, was almost certainly a reference to the Armenian Highlands, which makes

sense, for the Gihon River has long been identified with the Araxes (the modern Aras) River. Along with a major branch of the Western Euphrates, the Araxes takes its rise on Bingöl Mountain, the center of the obsidian trade, located some 30 miles (48 kilometers) south of the city of Erzurum. It then flows eastward, past the base of Mount Ararat, joining eventually another great river called the Kur before emptying finally into the Caspian Sea. Its mouth is near Baku, the capital and largest city of Azerbaijan, ancient Media, close to Gobustan, the site of the incredible rock art described in chapter 23.

Where exactly the name Gihon came from is unclear, although during the Arab invasion of the Caucasus in the eighth century the river was known as the Gaihun,[12] with nineteenth-century Persian dictionaries referring to the Araxes as the Jichon-Aras.[13] Moreover, American theologian and educationist John McClintock (1814–1870) recorded in his multivolume biblical encyclopedia that the

Gihon "to this day bears the same name among the Arabs. This [i.e., the Araxes] is a large river in Armenia Major, which takes its rise from a number of sources in Mount Abus (the present Bin-Gol), nearly in the centre of the space between the east and west branches of the Euphrates."[14]

Strangely, not only was the Araxes identified with the Gihon by Dutch philologist and scholar Hadrian Reland (1676–1718) more than three hundred years ago, but he also proposed that the land of Cush, through which it passed, was "the country of the Cussaei of the ancients,"[15] a perceptive observation that is almost certainly correct.

So from the evidence provided so far we can be pretty certain that if one specific location *is* being identified as the site of the terrestrial Paradise then it is the Armenian Highlands, where the Euphrates and Araxes take their rise, with the source of the Tigris just a short distance to the south.

IN SEARCH OF THE PISON

The final river of Paradise, called the Pison, or Pishon, is a little more tricky to identify, so the clues offered by the book of Genesis are worth examining a second time: “the name of the one [is] Pison, it [is] that which is surrounding the whole land of the Havilah where the gold [is], and the gold of that land [is] good, there [is] the bdolach and the shoham stone.”

To begin with, the land of Havilah is completely unknown, although Havilah as a personal name also appears in the book of Genesis, where it is cited, like Nimrod, as being a son of Cush (Gen. 10:9). If these names are, as seems possible, references both to kingdoms and their founders, then the fact that Cush is synonymous with the land of Kusu, an ancient name for Armenia, suggests that this is where we should look for the Pison River.

Adding weight to this conclusion is the fact that Armenia was well known for its gold, as is recorded by Strabo, who in the section of his *Geography* on Armenia speaks of the gold mines of "Syspiritis and Caballa, to where Menon was sent by Alexander with soldiers, and he was led up to them by the natives."[16] Dutch chemist and science historian Robert James Forbes proposed that the mines of "Syspiritis and Caballa" were on the Black Sea near Batumi in southwest Georgia, the site of Colchis, legendary land of the Golden Fleece.[17]

It is an interesting theory. However, the site of Caballa is completely lost to us. Syspiritis, on the other hand, is a little more easy to track down, for although some classical scholars like to see its gold mines as existing somewhere in the vicinity of the ancient city of Erzurum, north of Bingöl Mountain, Syspiritis was most likely close to Adiabenê.[18] This is a former kingdom and Assyrian

city (the modern Arbil, or Erbil) located between the Upper Zab and Lower Zab rivers of northern Iraq, which flow down from the direction of the Thospites, or Arsene Lake,[19] ancient names for Lake Van, and merge eventually with the Tigris River. Interesting in this respect is the fact that Robert Forbes mentions that "other deposits [of gold] known are south of Lake Van,"[20] doubly confirming that Syspiritis is to be looked for here, and not farther north.[21]

SEAT ON THE RIVER OF EDEN

This information becomes a major clue to the identity of the last river of Paradise, for the ancient Assyrian Church, also known as the Nestorian Church, recognized the Greater Zab as the River Pison. This information comes from the seat of their patriarch and head bishop, or Catholicos, located from the seventeenth century

until the Assyrian Genocide of 1915 at Kotchanes (modern Konak) in the Hakkari. This is a remote region in the foothills of the Zagros Mountains in the southeast corner of Turkey, close to the borders with Iraq and Iran. Here the patriarch would sign off his letters "from my cell on the River of the Garden of Eden."[22]

Valuable clues like this should not be taken lightly, as the Assyrian Church was one of the oldest forms of Christianity existing in the region, being founded as early as the first century.[23] This seems to affirm that the land of Havilah, through which the Pison flowed, was an area defined by the course of the Greater Zab, which embraces the Turkish provinces of Van and Hakkari, as well as the Iraqi governorate of Arbil.

The "bdolach" that we are told was found in the land of Havilah can easily be identified as a resinous exudation produced by shrubs of the *Astragalus* genus, called gum tragacanth or astragalus manna.[24] This was collected in the Mush, Erzurum, and Lake Van

districts of Greater Armenia[25] and then transported to the city of Mosul, close to where the Greater Zab joins the Tigris.[26] However, the province most commonly associated with the *Astragalus* shrub is the Hakkari,[27] the suspected heartland of the land of Havilah.

As for the shoham stone mentioned in the Genesis account, this is probably a reference either to onyx (its usual identity), which is found in the Ararat district of Armenia, or to obsidian, which was very often confused with onyx in ancient times. Having made all these statements, there is one further tradition regarding the identity of the Pison that, due to its compelling yet conflicting implications, is best left until chapter 29.

RELAND'S CHOICE

The Genesis account of the Garden of Eden indicates, very clearly, that if it *did* exist as a physical location, then it was to be found

somewhere in the vicinity of Lake Van and the Armenian Highlands, where the sources of the four rivers of Paradise take their course (see figure 27.2). It is a conclusion that anyone can achieve, simply by following the clues on offer, and it was something that Dutch scholar Hadrian Reland worked out at the beginning of the eighteenth century.[28] However, having identified the Euphrates, Tigris, and Araxes as three of the rivers of Paradise, he chose to correlate the final one, the Pison, with the Phasis, a river mentioned in ancient Greek sources, which is usually associated with the Rion, or Rioni, which rises in Georgia and empties into the Black Sea.

Figure 27.2. Map of southwest Asia showing the most likely

candidates for the four rivers of Paradise: the Euphrates (Phrat), Tigris (Hiddekel), Araxes (Gihon), and Greater Zab (Pison). The modern trend in identifying the Pison with the Uizhun River of Iran is rife with problems due to its great distance from the sources of the other three rivers.

Choosing the Phasis as the Pison pulls the imaginary epicenter for the terrestrial Paradise much farther north, toward the northern extremes of the Armenian Highlands, whereas identifying the Pison with the Greater Zab places the epicenter much farther south, close to the northern edge of the plain of Mush, which separates the Armenian Highlands from the Eastern Taurus Mountains to the south (see figure 27.3).

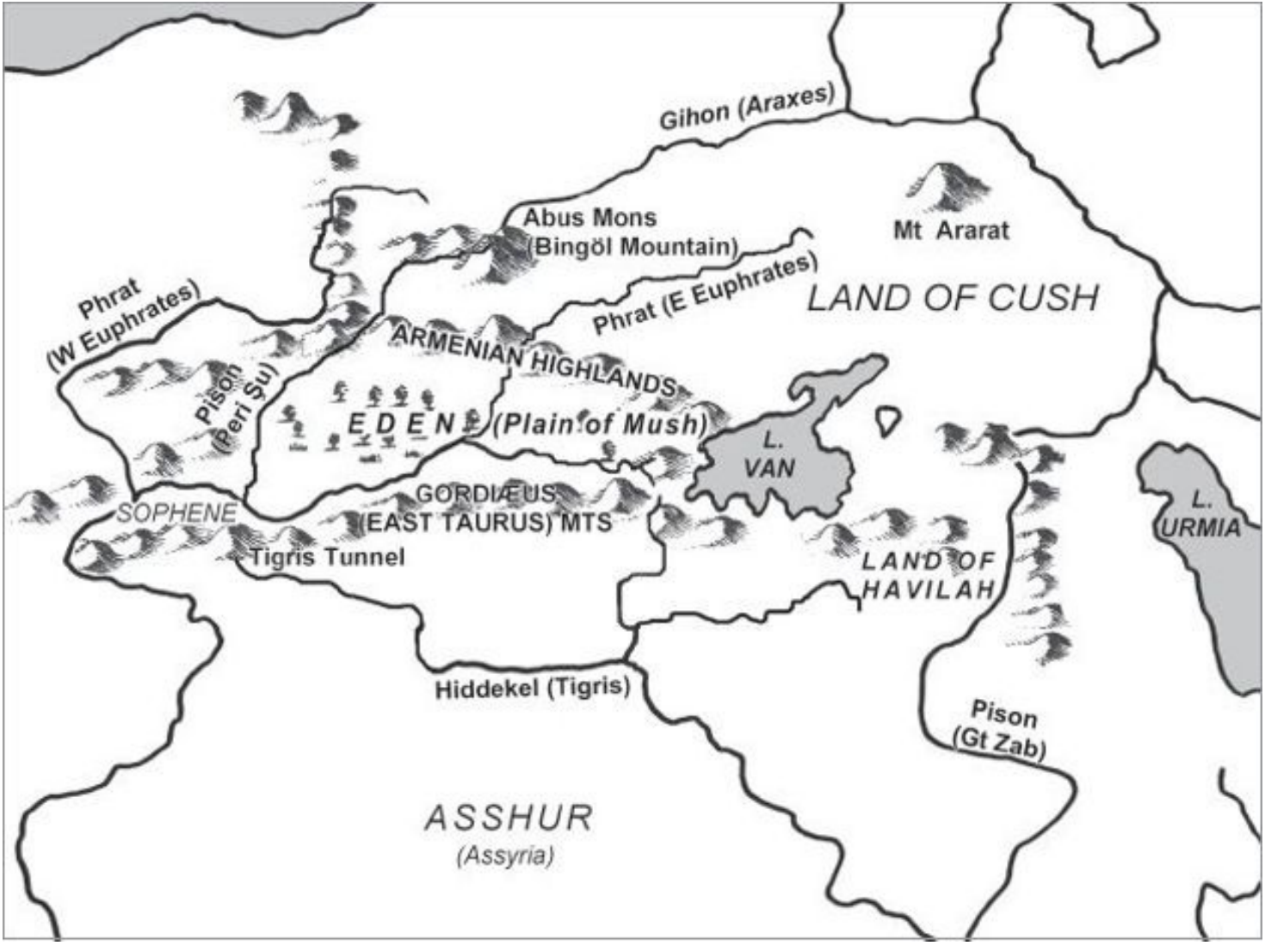
Gihon (Araxes)
Abus Mons
(Bingöl Mountain)
Mt Ararat
Phrat
(W Euphrates)
Phrat (E Euphrates)
LAND OF CUSH
ARMENIAN HIGHLANDS
Pison
(Peri Su)
EDEN
(Plain of Mush)
L.
VAN
SOPHENE
GORDIÆUS
(EAST TAURUS) MTS
Tigris Tunnel
L.
URMIA
LAND OF
HAVILAH
Hiddekel (Tigris)
Pison
(Gt Zab)
ASSHUR
(Assyria)

Figure 27.3. Map showing sources of the four rivers of Paradise with their epicenter in the vicinity of the Mush Plain in eastern Turkey. Note the locations of the land of Cush, through which the Gihon flowed, and the land of Havilah, associated with the Pison River. Note also the Peri Şu, or Gail ("Wolf") River, which in Armenian tradition is identified with the Pison (see chapter 29).

Was this where I would find the Armenian monastery where, according to my dream, the monks believed they served God in the Garden of Eden itself? As we shall see next, the Mush Plain becomes one of the most likely candidates for the site of the terrestrial Paradise, information that, although available long ago, has not stopped theologians and scholars from locating Eden everywhere but where the four rivers of Paradise take their rise.

28

THE FOUNTAIN OF PARADISE

The book of Genesis's description of the four rivers of Paradise indicates very strongly that the Garden of Eden was located in historical Armenia, modern-day eastern Turkey, with the epicenter being somewhere in the vicinity of the enigmatic plain of Mush, a vast expanse of congealed lava, created across tens of thousands of years by the outpouring of the various volcanoes that surround it. After crumbling to dust, the lava was transformed into a rich soil that has made Mush one of the most fertile regions in eastern Turkey, noted in the past for its wheat and tobacco. Vineyards were also once numerous, with a fair wine apparently being produced.[1]

THE PLAIN OF MUSH

The plain itself lies at a height of just over 4,100 feet (1,250 meters) above sea level and is approximately 40 miles (64 kilometers) in length from east to west and 10 miles (16 kilometers) broad. Visible at its eastern end is the extinct volcano Nemrut Dağ (Mount Nimrod), which takes the form of a gigantic caldera half a mile (800 meters) in diameter, within which is an enormous crescent-shaped lake. Obsidian from Nemrut Dağ has been found at Göbekli Tepe.

The Murad Şu, or Eastern Euphrates, cuts right across the plain, dividing it in two, before vanishing into a narrow gorge at its western end. This creates a pass through the Eastern Taurus Mountains, along which the somewhat hazardous road to Diyarbakır winds its way. This was the old obsidian route from Bingöl and Lake Van to the various proto-Neolithic and Pre-Pottery Neolithic centers, such as Hallan Çemi, Çayönü, Nevalı Çori, and, of course, Göbekli Tepe.

Another gorge at the plain's southeast corner forms a pass through the Eastern Taurus range, providing access to the university city of Bitlis (ancient Baghesh) and Lake Van while another pass, carved out by the Murad Şu, opens the way north toward Bingöl, both the town and the mountain, beyond which is the old Armenian city of Karin, modern-day Erzurum.

MONASTIC FOUNDATIONS

Some miles to the northwest of the town of Mush, the capital of the province of the same name, are the remains of Surb Karapet, or more correctly Surb Hovhannes Karapet Vank, the Monastery of Saint John the Baptist. Before its destruction at the time of the Armenian Genocide in 1915, it was a major place of pilgrimage, with Christians coming here from all over Armenia to venerate holy relics belonging to John the Baptist. According to tradition,

Armenia's great crusading churchman Gregory the Illuminator built the monastery on the site of important pagan temples destroyed by him and his army at the beginning of the fourth century. Today, Surb Karapet, which from old pictures looks more like a fairy-tale castle than a monastery, is little more than a few pathetic walls in the middle of a bustling Kurdish village, which has long since lost interest in its rich Armenian heritage.

Apparently, several monasteries were once to be found on the plain of Mush, which formed part of a royal kingdom called Taron, or Turuberan, where Armenian Christianity had its beginnings even before the arrival of Gregory the Illuminator in the fourth century.[2] I could find information about just one other notable monastic ruin in the area, and this was Surb Arakelots (Holy Apostles), located in a mountain valley southeast of the town of Mush. However, an examination of what was known about Surb Karapet and Surb Arakelots, or, indeed, any of the other monasteries that once existed

in the region, did not in any way feel similar to what I had seen and experienced in my dream.

THE TREE OF LIFE

Yet the more I recalled the strange ceremony taking place inside the gloomy church interior, the more I became convinced not only that the Eden monastery existed, but that the monks there had been elevating an object of great spiritual value. It had been removed from a plain, wooden box that acted as a reliquary (a relic holder). As to the nature of the relic, this seemed to be a blackened piece of wood, like a short, round section of a tree branch, some 2.5 inches (6 centimeters) in diameter and 7 to 8 inches (18 to 20 centimeters) in length.

Initially, I thought the monks might have identified this relic as a piece of the Tree of Knowledge of Good and Evil, which the

Genesis account tells us was to be found in the Garden of Eden. However, this did not sit right with me, and very quickly I realized that I had this wrong. The relic was in fact thought to be a fragment of the Tree of Life, the *other* tree in the Garden of Eden. That felt absolutely right, especially as I had seen it being elevated during a ritual that seemed to celebrate life itself.

The monks, I suspected, believed that simply possessing this holy relic invoked a sense of the eternal life that Adam and Eve experienced before their expulsion from the Garden of Eden. The couple's existence was sustained through their proximity to the Tree of Life, which, situated within the garden, was seen as a powerhouse of divine energy that transcended the normal laws of nature. Yet without the benefits of the Tree of Life, Adam and Eve, along with all their descendants, were doomed to suffer mortality in all its ugly ways, a just punishment for committing the original sin, or so the book of Genesis tells us.

That the monks of the monastery drew some kind of spiritual power from what they saw as a fragment of the Tree of Life made absolute sense. Combining the religious potency of this relic with the fact that the monastery was thought to have existed in the Garden of Eden would only have increased their faith in what they believed they were achieving here in this spiritual powerhouse. No wonder I could so vividly recall this archaic ritual that must have taken place before the assumed destruction of the monastery at the time of the Armenian Genocide.

I sensed strongly that the monastery in question existed somewhere in the vicinity of the plain of Mush. It was a perfect setting for the Garden of Eden, especially as high mountains surround it on all sides and from these come streams that feed all four rivers of Paradise.

FINDING OTHER EDENS

Despite this information, the most often quoted solution regarding the whereabouts of the Garden of Eden stems from the somewhat puzzling conclusion, first proposed by influential French theologian and pastor John Calvin (1509–1564), that the terrestrial Paradise was located in the vicinity of Basrah, in southern Iraq. Here the Euphrates and Tigris rivers were once thought to have come together and then parted again to form all four rivers of Paradise. The fact of the matter is that although these two great rivers do indeed converge here to form the Shatt al-Arab waterway, into which flows Iran's Karun River (which some take to be the Gihon[3]), this hardly fits the evidence offered for the location of the Garden of Eden in the book of Genesis.

Others have suggested that the four "heads" of the rivers of Paradise refer to their mouths, meaning that we should be looking for the Garden of Eden where the Euphrates and Tigris empty into the Persian Gulf. This has prompted all sorts of complicated

theories involving now-vanished rivers, with the most persuasive being that the Pison once ran through Arabia's Wadi al-Rummah, emptying into the Persian Gulf close to the Shatt al-Arab waterway.[4] As far-fetched as these claims might seem, they remain the most popular theories regarding the true site of the Garden of Eden.[5]

More incredible still is the view that the holy city of Jerusalem is the terrestrial Paradise, based on a few brief references in the Old Testament comparing the city to the Garden of Eden, along with a Jewish legend that speaks of Jerusalem as the center of the world.[6] Once again, this is not simply the belief of lay people, but the opinion of theologians and historians, even though Jerusalem is located nowhere near *any* of the easily identifiable rivers of Paradise.

These theories have been put forth despite the fact that Armenian scholars have for many years attempted to convince the outside

world that the terrestrial Paradise was located in their historical homeland. Their arguments go unnoticed because they are usually written in Russian Armenian, which very few non-Armenians can read. Even when their work *is* published in English, something is lost in translation, resulting in very few people taking it seriously.[7]

THE REVEREND MARMADUKE CARVER

Yet, as we have seen, Westerners do occasionally conclude that the area around the *sources* of the four rivers of Paradise constitutes the most likely site of the Garden of Eden. Dutch scholar Hadrian Reland worked this out at the beginning of the eighteenth century, although he was certainly not the first to do so. One of the earliest individuals to come to the same conclusion was the rather grandly named Marmaduke Carver (d. 1665), a former rector of Harthill in South Yorkshire. His fascinating work on the subject, entitled *A*

Discourse of the Terrestrial Paradise, Aiming at a More Probable Discovery of the True Situation of That Happy Place of Our First Parents Habitation, was published posthumously in 1666, one year after his death.

Having learned that the Reverend Marmaduke Carver had identified the site of the Garden of Eden as Armenia Major, I decided to find out more about the churchman's life and theories, so went in search of him and his book, beginning with his former parish of Harthill, near Sheffield. Yet here, in the local parish church, I found no mention of him, other than his name entered in a long list of rectors from medieval times to the present day.

One thing I did manage to establish was that toward the end of his life Carver had spent much of his time in the city of York, just 60 miles (97 kilometers) from Harthill. Here he had become chaplain to Sir Thomas Osborne (afterward Duke of Leeds), high sheriff of the county, delivering sermons in York Minster, the city's

famous cathedral. More significantly, I found that on his death in August 1665 Carver's body had been laid to rest in the south aisle of the cathedral choir.

So after leaving Harthill, I traveled to York Minster, hoping to find some evidence of Carver's gravesite. Yet no evidence of his interment remains today, not even the wall plaque that marked the spot. This was obviously a great disappointment, so after sitting down briefly in the choir area to meditate on what I should do next, I made the decision to visit the York Minster Library, located within the cathedral grounds. Here I was finally able to find out a little more about the fate of Marmaduke Carver's memorial plaque. Originally it had borne an inscription in Latin, written by James Torre, an early historian of the minster, but this had been destroyed during restoration work in 1736. It was subsequently replaced with a new plaque, its inscription now in English. This, however, along with the site of Carver's grave, has since been lost due to

subsequent restoration work in the south aisle. Mercifully, both versions of the inscription have been preserved.[*168] As you can see, it is a fitting epitaph to the churchman's life and work, in particular his search for the terrestrial Paradise:

> Reader, if you love piety, if you know how to value learning, you should know what a treasure lies under this stone, Marmaduke Carver, formerly rector of the Church of Harthill, but very well versed in . . . chronology and geography, an accomplished linguist, a fine speaker—the man, to wit, who . . . pointed out to the world the true place of the terrestrial paradise, (yet in death) made of the object of his admonitions, the celestial (paradise) which he recommended to the praise of his hearers to attain which we are filled with great longing. He was translated on this day of August 1665.[9]

During his stay in York, Carver had apparently spent much of his

time conducting research for his book in the cathedral library, which is the largest of its kind in the country. It has a collection of around 120,000 volumes, 25,000 of which were printed before 1801, including 115 incunabula (tracts printed before 1501).

So it seemed only fitting that I should find that York Minster Library has two of the only remaining copies of Carver's book in the country. Some cunning persuasion helped overturn the librarian's decision not to allow me to view the title at such short notice, so I sat down ready to read what I hoped would provide me with some valuable insights regarding the true whereabouts of the Garden of Eden. I was not to be disappointed.

THE GREAT FIRE OF LONDON

The small, leather-bound book placed before me on the reading desk felt very special indeed. It was printed in April 1666 by James

Flesher of London and sold by one Samuel Thomson “at the Bishop’s head in St. Paul’s Church-yard” (see figure 28.1). Now, it is important to conjure a vision of the time, for 1666 was the year of the Great Fire of London, which burned from the second to the fifth of September and started in a bakery in Pudding Lane. This is just over 1,000 yards (1 kilometer) away from Saint Paul’s Cathedral, where Samuel Thomson had his bookshop at the sign of the Bishop’s Head (probably located in the inn’s thoroughfare). So unless this copy of Carver’s book had sold in the months leading up to the fire, it must have been among the stock salvaged after the fire had swept through Saint Paul’s churchyard, razing the old cathedral to the ground. I almost expected the book to exude a residual aroma of smoke and fire as I began to digest Carver’s findings on the true location of the terrestrial Paradise.

A DISCOURSE OF THE Terrestrial Paradise,

AIMING

At a more probable DISCOVERY

OF

The true SITUATION of that happy place of our First Parents Habitation.

By *MARMADUKE CARVER*, Rector of *Harthill* in the County of *York*.

Nescio quâ natale solum dulcedine cunctos
Ducit, & immemores non sinit esse sui. Ovid.

Ζήτησον Παράδεισον—— Orac. Magic.

LONDON,
Printed by *James Flesher*, and are to be sold by *Samuel Thomson*, at the Bishop's head in St. *Paul*'s Church-yard, 1666.

Figure 28.1. The cover of A Discourse of the Terrestrial Paradise, by the Reverend Marmaduke Carver, published in London, England, in 1666. It was arguably the first book to build a solid case for the terrestrial Paradise being located in historical Armenia.

A MERE UTOPIA

The tract's opening address, dedicated to Gilbert Sheldon, the archbishop of Canterbury, makes it clear that the author has written the book in an attempt to dispel antiscriptorial thinking, begun in earnest by Martin Luther (1483–1546), which asserted that the Garden of Eden was "a mere *Utopia,* a Fiction of a place that never was, to the manifest and designed undermining of the Authority and Veracity of the Holy Text."[10] After this, in a long forward, Carver makes his case against the current most popular theory on the location of the terrestrial Paradise, that it was located where the

Tigris and Euphrates rivers converge in Lower Mesopotamia, a view held, he says, not only by Calvinist reformers, but also by some Papist, or Catholic, scholars.[11]

Having successfully rebutted this theory, Carver proceeds, in a sound, scholarly manner, to build a case for Eden being located in Armenia Major, now part of eastern Turkey. Significantly, he explores ancient evidence suggesting that the Euphrates, Tigris, and Araxes rivers all derive from the same source.[12] This, he says, was a single "fountain" in the "forests of Armenia,"[13] situated in the vicinity of a lake known anciently as Thonitis, or Thospites,[14] called also Arianias, or Arsissa,[15] all names usually associated with Lake Van.

Carver cites the belief of various classical writers, including Strabo[16] and Pliny,[17] that some kind of proto-river, the true source of the Tigris, emerged from a primordial fountain, then discharged into the Thospites, or Lake Van, its waters so rapid, so powerful,

that they did not mix with those of the "nitrous lake." The proto-Tigris then reemerged beyond the lake's southwest corner and sank down into a subterranean cave, only to reappear on the south side of the Eastern Taurus Mountains in the former Armenian province of Sophene, north of Diyarbakır. This then becomes the open source of the Tigris, which is known today as the Tigris Tunnel, or Birkleyn, from the Arabic *birqat al-'ayn,* "source of the river."

Carver believed it was this primordial fountain, the true source of the Tigris, that brought forth the four rivers of Paradise.[18] With this in mind, he concludes his scholarly discourse by proposing that the site of Eden, or "Heden" as he marks it on the accompanying map (see figure 28.2), was to be found between Sophene "and the fountains of Tigris, in the midst whereof, and upon the bank of the river, stood the *Tree of Life*. . . . Just about which place . . . we see . . . the nitrous Lake Thospites."[19]

CHERUBIM WITH THE FLAMING SWORDS

Carver points out that after the proto-Tigris passes through the Thospites, it was said by the classical writers to reemerge in the region of Mount Niphates.[20] This is the ancient name for Nemrut Dağ, the volcanic caldera situated just beyond Van's western shoreline. Having concluded that the Fountain of Paradise lay between here and Sophene, or immediately south of the plain of Mush, he proposes that the cherubim, which God set up to guard the Tree of Life with flaming swords turning every way, were in fact the "flashings issuing out of some Lakes."[21]

This is a very clever solution. Such "flashings" might easily describe the volcanic activity attached to Nemrut Dağ, which has erupted periodically since ancient times, the last time being in 1891, when the summit started "vomiting forth flames and lava," destroying the villages at the base of the mountain.[22]

On this same matter, the Reverend W. A. Wigram and Sir Edgar T. A. Wigram in their book *The Cradle of Mankind,* published in 1914 following their celebrated travels in Kurdistan (eastern Turkey, northern Syria, northeast Iraq, and western Iran), observed:

> It is held by many commentators that the site of the Garden of Eden was near modern Van and Bitlis, round about the headwaters of the Euphrates, the Tigris, the Araxes, and the Zab. If so, then the Garden of Eden now lies buried beneath the lava of these volcanoes; and where could we find fitter antitypes of the Cherubim with the flaming swords?[23]

It is unlikely that the Wigrams were aware of Carver's work when they wrote their book. However, their statements suggesting that the volcanoes, as natural boundaries to the Garden of Eden, were themselves the cherubim wielding the flaming swords echo Carver's thoughts completely.

And if the Garden of Eden is not encased in volcanic lava, then it could equally have been drowned, for one old Armenian legend asserts that it lies "at the bottom of Lake Van," where it has been since the time of the Great Flood.[24] This conclusion reflects the medieval belief that even if a terrestrial Paradise *had* once existed, then it would surely have been destroyed at the time of the Flood, which covered everything to the height of the highest mountains.

CARVER'S MAP OF PARADISE

Turning next to Marmaduke Carver's detailed, though rather fantastic, map of Greater Armenia (see figure 28.2), we see the terrestrial Paradise marked under the Latin legend *Heden regio quae et anthe* (Eden region and caves). These words are sandwiched between the Thospites, or Lake Van, in the east, and Sophene in the west. Indeed, the inscription appears in the vicinity of the Eastern

Taurus Mountains, which lie immediately beneath the plain of Mush, with *eden* deriving most probably from the Akkadian word *edinu* (Sumerian *eden*), meaning "plain" or "steppe."[25] Having said this, a recent academic trend sees *eden* as stemming from the West Semitic root *'dn,* meaning "to enrich, make abundant,"[26] which remains possible, although less likely.

MOUNT ABUS

Passing across Thospites Lake on Carver's map are two parallel lines that run north-south, representing the proto-Tigris flowing unaffected through its waters. They continue as dotted lines beyond the lake's northern shores, indicating that this is the incoming subterranean river alluded to in the writings of classical writers, such as Strabo and Pliny, and that at its source was the primordial foundation from which all four rivers of Paradise took their course.

Geographically, the lines originate from between a line of mountains, one of which is marked with the legend "Abus Mons."

Abus Mons, or Mount Abus, also spelled Monte Abas,[27] or Aba,[28] is mentioned in the works of both Pliny[29] and Strabo, the latter of whom writes that from its summit "flow both the Euphrates and the Araxes, the former towards the west and the latter towards the east."[30] This can only be a reference to Bingöl Mountain, of which it is said: "The Araxes rises near Erzurum (Turkey) in the Bingöl Dağ region: there is only a low divide separating it from the headwaters of the Euphrates river."[31] We should recall that Bingöl was the center of the obsidian trade in the Armenian Highlands in the proto-Neolithic age and can also be identified with Gaylaxaz-ut, or Paxray, the Wolf Stone Mountain of Armenian folklore (see chapter 24).

Figure 28.2. Section from Marmaduke Carver's A Discourse of the

Terrestrial Paradise showing “Heden,” or Eden, between Lake Van (the Thospites, in the center) and the ancient kingdom of Sophene. Note the proto-Tigris coming down from the north, close to Abus Mons (Bingöl Mountain), and flowing uninterrupted through the lake.

THE SOURCE OF MANY RIVERS

Dutch scholar of Semitic studies Martijn Theodoor Houtsma (1851–1943), in the *Encyclopaedia of Islam,* made it even clearer in 1927, when he wrote: “No fewer than six important water-courses rise in this erosion [i.e., Bingöl Mountain’s innumerable glacial pools], in which Armenian tradition for this reason places the site of the biblical Paradise.”[32] These “water-courses” are broken down in the following manner: in the northwest is the source of the Araxes, in the west is the Tuzla Şu, which becomes a major branch of the

Western, or Northern, Euphrates, and the Bingöl (or Peri) Şu, which, as we saw in chapter 24, was known to the native Armenian population as the Gail, or "Wolf," River. It too rises on the west side of Bingöl Mountain, then heads off in the direction of Baghir and Shaitan Dağ. In the southwest part of the massif rises the Gönük Şu; in the south, the Çabughar Şu; and in the east and northeast, the Khınis Şu. The last four mentioned rivers, including the Peri Şu, all join the Eastern, or Southern, Euphrates.

What was it that led the Reverend Marmaduke Carver to conclude that the primordial fountain that gave rise to the four rivers of Paradise existed in the same mountain range as Abus Mons, in other words Bingöl Mountain? Was he aware of Strabo's reference to Abus Mons as the source of both the Euphrates and Araxes?[33] It is possible, although if this were the case then surely he would have mentioned it. More likely is that it was quite simply an intuitive decision based on whatever evidence he had in hand when he came

to write his fascinating book.

Strangely, Carver does not identify the Gihon with the Araxes, nor does he associate the Greater Zab with the Pison. Instead, he sees major waterways that split away from the Tigris and Euphrates as evidence for the existence of these other two rivers. The Pison, for instance, he has entering neighboring Persia and linking, eventually, to the Indus, one of the longest rivers in Asia. Yet this vagueness should not detract from Carver's remarkable insights into the geographical location of the Garden of Eden, and we are by no means finished with his findings quite yet.

I felt the need now to focus my efforts more toward Bingöl Mountain, the Abus Mons of antiquity, in an attempt to better understand why Carver believed that here somewhere was the primordial fountain of life, and why the Dutch scholar Martijn Houtsma concluded that this was "the site of the biblical Paradise."

29

THE WORLD'S SUMMIT

Bingöl is a Turkish place-name that means "a thousand (*bin*) lakes or springs (*göl*)," an allusion to the many mountain streams that take their rise from the glacial lakes that grace its summit. In the Armenian language, Bingöl Mountain is known as Biurakn, which means "a million (*bir, byur*) eyes (*akn*)," a reference, once again, to the countless springs, or "eyes," that take their rise on its summit (although see chapter 33 for a clearer interpretation of this Armenian name).

Bingöl is mentioned also in Armenian texts under the more enigmatic name of Mount Srmantz, or Srmanç[1] (again, see chapter

33 for a discussion of the meaning of this name), described as Katar Erkri, the Summit of the Earth,[2] or the World's Summit,[3] or, indeed, the Top of the World, from which flowed the "four rivers to the four corners of the world."[4] Bingöl was also a "place of the gods,"[5] the habitation of mythical beings identified, almost certainly, with the Peri of Kurdish and Persian folklore (the region's population until the early twentieth century were mainly Armenians, Kurds, Turks, Yezidi, and Kızılbaş [Alevi], the last two being ethno-religious groups quite separate from the others mentioned here).

Very probably, the Judeo-Christian belief in the four rivers of Paradise flowing out of the Garden of Eden (see figure 29.1, for instance) is simply a variation of the cosmic mountain theme preserved in connection with Bingöl Mountain by the Armenian inhabitants of the region. It was probably for this reason that Martijn Houtsma, in 1927, noted that Armenians considered it "the site of the biblical Paradise,"[6] which, if correct, should be extended

southward to include the plain of Mush, the proposed site of the Garden of Eden itself.

MER NOIRE
ARMENIE
Mont Ararat
où s'arrêta l'Arche de Noé
Phase de Xenophon
Phase des Modernes
Euphrate de Xenophon
Euphrate des Modernes
Phase d'Herodote
Phase
EDEN
où étoit
LE
PARADIS
TERRESTRE
Phison R.
Tigre de Xenophon
Tigre des Modernes
Pays d'HEVILATH
frere d'Ophir
et fils de Jectan
Antioche
Harran
ARAM
MESOPOTAMIE
ASSYRIE
Ninive
Tigre R.
MÉDIE
Ecbatane

Figure 29.1. Section of a map of the Middle East by French cartographer and geographer Philippe Buache (1700–1773), published in 1783. Eden is shown to the west of Lake Van, placing it in the vicinity of the Mush Plain and Armenian Highlands. Confusingly, the identities of the Pison and Gihon rivers are transposed: the Araxes is shown as the Pison (written "Phison"), while the Greater Zab becomes the Gihon (written "Gehon").

Having said this, we know that the Genesis account of the earthly Paradise describes real rivers, three of which—the Tigris, Euphrates, and Araxes—were considered to take their rise from the same primordial fountain that existed somewhere in the vicinity of the Bingöl massif. Only one of the rivers, the Pison, remains somewhat of an enigma, even though the Assyrian Church, as we saw in chapter 27, identifies it with the Greater Zab, which rises in the mountains southeast of Lake Van.

THE PISON RIVER—NEW EVIDENCE

Having said this, compelling evidence suggests that the Pison was also once seen to take its rise on Bingöl Mountain and is to be identified with the Peri Şu, or Gail River. This flows initially westward before turning south to merge, eventually, with the Eastern Euphrates just north of the ancient fortress town of Kharput, thought to be Carcathiocerta, the lost capital of Sophene.

This connection between the Pison River and the Peri Şu is recorded in a book written in 1870 by German cartographers Wilhelm Strecker and Heinrich Kiepert.[7] It examines the geography of the *Anabasis,* a seven-volume work penned by Greek professional soldier and writer Xenophon (ca. 430–354 BC). He marched with the ten thousand Greek mercenaries hired by Cyrus the Younger, who sought to wrest the throne of Persia from his brother, the king, Artaxerxes II.[8] The route of the Ten Thousand, as they are known, to and from the Battle of Cunaxa on the banks of

the Euphrates, some 45 miles (72 kilometers) north of Babylon, took them through Colchis (modern Georgia), Armenia, and Mesopotamia. The identity of the rivers, towns, and cities Xenophon describes encountering on this two-way journey has been the subject of debate among scholars for hundreds of years.

The Ten Thousand are known to have marched through the foothills of the Bingöl massif, and discussing the sights they might have encountered Streker and Kiepert make the following observation:

> The native people spoken to on my trips to Armenia Major, call this river [i.e., the Peri Şu] Phison, and see it as a river of Paradise, [which they say] lies on Bingöl Mountain.[1] That this is not an arbitrary adoption of modern times is proved by the ancient Armenian writer who indicates the existence of a Castell Phison in Sophene, probably identical with the area

between the two Euphrates.[9]

The superscript number 1 after the word "Mountain" in the original text refers the reader to the base of the page. Here we read that although the inhabitants of the region assert the Peri Şu to be the "Phison," the authors have been unable to verify this claim among the works of the Armenian writers.[10]

This is a shame. Yet we are still left with the tantalizing possibility that the Peri Şu *is* the Pison, even though this new information is unlikely to constitute a major challenge to the Greater Zab's claim to being the self-same river. As stated in chapter 27, the word of the ancient Assyrian Church should not be taken lightly, especially as the Armenian Church seems to have a tendency to move around holy places (the case of the ark's Place of Descent being a prime example—see chapter 30).

Having said this, the fact that the Armenian population of

Armenia Major *believed* that the Peri Şu was the Pison now links the sources of *all four* rivers of Paradise with the area around Bingöl Mountain, which, we should not forget, was known in Armenian tradition as Katar Erkri, the Summit of the Earth, its waters carrying the "four rivers to the four corners of the world."*1711

FOUNTAIN OF LIFE

Quite independent of Judeo-Christian tradition, Muslim Kurds revere Bingöl Mountain as the site of another heavenly, paradisiacal fountain of great renown. Here is to be found Ma'ul Hayat, the Fountain of Life, the waters of which can rejuvenate youth and provide everlasting life.[12]

According to popular legend, Alexander the Great (called in Persian Iskender and in Turkish Zülkarneyn, meaning "the Horned One" or "the Two-horned," a reference to the ram horns on his

helmet) traveled to “the land of darkness,” beyond the setting sun, in search of the Fountain of Life, which was said to exist “in the north, beneath the Pole Star.”[13] His guide and vizier on the journey was the mysterious al-Khidr, a wise man; however, when they came to a fork in the road, both men went in different directions. Only al-Khidr ended up finding the Fountain of Life and drinking from its waters (or eating a fish that swims in the fountain in another version; see figure 29.2). Even though al-Khidr waited for Alexander to catch up, the fountain disappeared as he approached. Al-Khidr also then vanished, having been granted immortality by Allah.

Although the Persian and Turkish accounts of Alexander’s journey do not mention Bingöl by name, local Kurdish folklore does. Its version of the story tells how Alexander, with deep wounds and pains in his body, went in search of the Ab’i Hayat, the Waters of Life, which he found in the vicinity of Bingöl Mountain (named

Jabal-i-çur). Here he either drinks or bathes in its waters, an act that cures his ailments. In honor of this miracle Alexander chooses a spot on a nearby river and builds a castle called Çapakçur,[14] this being the old name for the town of Bingöl, which lies a short distance from the mountain.

Figure 29.2. Al-Khidr (Turkish Hızır), the Green One, who gains immortality at the Ma'ul Hayat, *the Fountain of Life*, thought to be located in the vicinity of Bingöl Mountain.

AL-KHIDR, THE GREEN ONE

Al-Khidr, called in Turkish Hızır, means the "Green One." He features in the Holy Qur'an,[15] as well as in Persian literature and various non-Islamic sources, as a mysterious figure, an ever-youthful "servant of Allah" who appears at the right moment to avert a disaster or rectify a fatalistic situation. There are many accounts of people who encounter a bearded holy figure only to find afterward that it was al-Khidr. He is a saint and a holy man, as well as the spiritual head of the Sufi movement, the so-called *qutb,* the intermediary between Allah and humankind. He is also identified with Saint George and shares the same feast date as him, which is

April 23. Some even see the presence of al-Khidr in the proliferation of carved foliate heads, or Green Men, in Norman churches and cathedrals.[16]

THE CULT OF ENKI

Al-Khidr himself was originally, most probably, a deity belonging to Mesopotamian myth and legend. Very likely he is linked with Enki, the Sumerian god of creation, water, and intelligence, known in the Akkadian and Babylonian language as Ea. In art Enki is generally shown as a human figure wearing a horned helmet with streams of water emerging from his shoulders, like twin fountains (see figure 29.3). Within the flow fish swim upstream, like salmon trying to reach the source of a river. These twin streams represent the Tigris and Euphrates,[17] over which Enki presided as god of Eridu, an ancient Mesopotamian city located on the shores of the

Shatt al-Arab waterway, where the two rivers come together before emptying into the Persian Gulf. However, there is no reason why Enki should not also have been connected with the *sources* of these mighty rivers.

Figure 29.3. The Sumerian Anunnaki god Enki (Akkadian Ea, Armenian Haya), with the twin streams of the Euphrates and Tigris emerging from his shoulders.

In Sumero-Akkadian mythology the Tigris and Euphrates were said to take their rise from a primordial water source, a subterranean lake that was the source of all "sweet water" called the Abzu (also written Apsu), which came under the patronage of Enki.

In his Semitic form as Ea, Enki was venerated in Urartu, the ancient kingdom that thrived between the Eastern Taurus Mountains and the Armenian Highlands during the last quarter of the second millennium BC and the first half of the first millennium BC, under the name Haya or Hayya.[18] His importance at that time is preserved in Armenia's Persian name, which is Hayastan, and also in its original Urartian name, which is Hayasa.[19] Even today the Armenian term for "Republic of Armenia" is Hayastani

Hanrapetutiun. This indicates very strongly that this region, which includes Bingöl Mountain, was formerly associated with the cult of Haya, or Ea, the patron of the Tigris and Euphrates rivers, which, as we have seen, emerge as twin streams from his shoulders.

In Armenian folklore Haya was transformed into the culture hero Hayk,[20] who was said to have slain Bel, a Titan and king of Babylon synonymous with the biblical character Nimrod. Tradition asserts that before the battle Hayk visited Bingöl Mountain and here immersed his sword in the icy waters of one of its glacial lakes in order to sharpen it.[21] After Hayk had killed Bel on the shores of Lake Van, the Titan's body was apparently buried on the summit of nearby Nemrut Dağ, which is named in honor of Nimrod.

DILMUN—GARDEN OF THE GODS

Enki, Ea, or Haya, was associated with a mythical location called

Dilmun, a kind of garden of creation, inhabited by him and his wife in an act that initiated "a sinless age of complete happiness," where animals lived in peace and harmony, humans had no rivals, and the god Enlil "in one tongue gave praise."[22] It was also a pure, clean, bright "abode of the immortals," where death, disease, and sorrow were unknown,[23] and some mortals were given "life like a god."[24] One text describes Dilmun as a place "where the raven did not croak and wolves and lion did not devour their prey."[25]

Even though Dilmun was a name given by the Sumerians to the island of Bahrain in the Persian Gulf, originally it was a mountainous region that overlooked the Mesopotamia Basin. One text speaks of "the mountain of Dilmun. The place where the sun rises."[26]

Some texts refer to Dilmun as the "land of Cedars," and Mehrdad Izady, professor of Near East studies at New York University, has successfully shown that this is a reference not to distant Lebanon,

the country normally celebrated for its cedar forests, but to the Upper Zagros Mountains as far north as Lake Van.[27] Cedar forests grew here in abundance until the end of the Neolithic era, when they were cut down and used by the Sumerians and Akkadians to build their towns and cities, which thrived down on the Iraqi plain.

THE DIMLI KURDS

The Bundahishn, the holy book of the Zoroastrians, actually locates a place called Dilamân "at the headwaters of the Tigris,"[28] while the archives of the Assyrian Church, located in the ancient city of Arbil in northern Iraq, refer to Beth Dailômâye, the "land of the Daylamites" as existing in the same region.[29] The Daylamites were a Kurdish tribal dynasty whose original homeland was Daylamân, or Dilamân, a region of the Armenian Highlands,[30] where their modern descendants, the Dimila, or Dimli, Kurds live today. Their

actual territory extends from the city of Erzincan and the province of Tunceli in the west, across to the Murad Şu, or Eastern Euphrates, in the east.

It is an area that includes Bingöl and the northern parts of the plain of Mush, making it clear that the geographical location of the terrestrial Paradise appears to be synonymous with the Mesopotamian concept of Dilmun; the two most likely deriving from the same culture that once saw the region as the location of the Abzu, the primordial water source that fed every river, lake, and sea in the ancient world.

The Dimli Kurds are a distinct ethnic community with very few connections to the Muslim Kurds of the region. They have their own language, called Zâzâ or Gurani, and belong to a very ancient religion called Alevi (also known as Kızılbaş, meaning "red heads," a reference to their distinctive red headgear). Although considered to have been introduced to eastern Turkey from southwest Iran,

Alevism probably contains religious elements deriving from the beliefs and practices of the Arevordi, or Arewordik, the "children of the sun,"[31] who are classed as a type of Armenian Zoroastrian.[32] They practiced exposure of the dead on rooftops (i.e., excarnation) and entered subterranean "pits" for their rites—practices reminiscent of the early Neolithic peoples who lived in this same region thousands of years earlier.[33]

THE FOUNTAIN OF HIZIR

More significantly, the Alevi revere Hızır (pronounced *his-sheer*), the Turkish form of al-Khidr, whose most sacred shrine is Hızır Çeşmesi, the Fountain of Hızır, a mountain spring with accompanying fountain that emerges from the base of a tree in the foothills northwest of Bingöl Mountain, close to the town of Varto (ancient Gimgim). Alevi come from all over Turkey to venerate

Hızır at this shrine. They take water from the fountain, which is believed to have rejuvenating properties, and spend the night in a small, unassuming building next door in order to experience dreams of the saint. This practice, known as dream incubation, is an extremely ancient means of communication with supernatural forces, and to find that it still occurs at the base of Bingöl Mountain is quite extraordinary.

Whether the Fountain of Hızır is considered to be the original Ma'ul Hayat, Fountain of Life, or the Ab'i Hayat, Waters of Life, is unclear, although the connection is indisputable. Clearly, this holy spring cannot have been the actual source of the rivers of Paradise, because each river rises from a different location on the mountain's summit. Perhaps some kind of primordial fountain, as imagined by the Reverend Marmaduke Carver, was thought to exist within the mountain itself. Perhaps this was seen to feed the glacial lakes that are the true source of the many rivers and streams that take their rise

on the mountain, accounting for the name Bingöl, which, as we have seen, means “a Thousand Lakes”; that is, boundless sources of water.

Was this also the origin of the concept of the Abzu, the primordial water source of Mesopotamian mythology presided over by Enki, who lived with his wife in the paradisiacal realm of Dilmun? Was the Alevi shrine of Hızır Çeşmesi, the Fountain of Hızır, some distant echo of these beliefs, which we can only assume sprang from this very region many thousands of years ago?

The fountain’s current genius loci, certainly among the Alevi, is Hızır, a figure that can almost certainly be identified with Haya, the Armenian form of Enki or Ea, guardian of the Abzu. Might the Alevi, as the descendants of the Daylamân, or Dilamân, hold some special knowledge regarding the former existence in their midst of Dilmun? As we see next, this paradisiacal realm was synonymous with another location in Mesopotamian myth and legend, this being

the Duku mound, birthplace of the Anunnaki gods.

30

RISE OF THE ANUNNAKI

Klaus Schmidt may have regretted talking to British journalist Sean Thomas, who would later write that the German archaeologist claimed that Göbekli Tepe was a "temple in Eden." It has not, however, stopped Schmidt from speculating about the effect the site might have had on the civilizations that flourished on the Mesopotamia Plain from around 3000 BC onward.

In his book *Göbekli Tepe: A Stone Age Sanctuary in South-eastern Anatolia,* published in its English language version for the first time in 2012, Schmidt speculates that the Göbekli builders may have derived from a shamanic society and that the T-shaped pillars

perhaps represent their great ancestors. Much later, the memories of these powerful individuals were transformed into stories relating to deities called the Anunna gods of heaven (an) and earth (ki), known also as the Anunnaki.

According to the myths and legends of the Sumerians and Akkadians—the peoples that thrived down on the Mesopotamian Plain during the third millennium BC—the birthplace and abode of the Anunnaki was the Duku, a Sumerian word meaning "holy mound." Here was created the first sheep and grain, which were then given by the gods Enki and Enlil to humankind, who lived down below. This is very clearly an allusion to the origins of animal husbandry and agriculture, which, as we have seen, took place in the *triangle d'or* at the time of the Neolithic evolution. As Klaus Schmidt puts it himself:

> Can these arguments be connected, is it possible that behind Göbekli Tepe there hides Mount Du-ku, and are the

anthropomorphous pillars of Göbekli Tepe—suddenly surprisingly real—the ancient Anuna Gods?[1]

Incredibly, these same ideas regarding the origins of the Anunnaki being a memory of the prime movers behind the Neolithic revolution in southeast Anatolia were put forward by the current author in his book *From the Ashes of Angels,* published in 1996, and written as Schmidt was surveying the mountaintop sanctuary of Göbekli Tepe for the first time. That the German archaeologist now also believes the catalyzing events of the Neolithic revolution might well be preserved in the accounts of the Duku mound and the Anunnaki giving humankind the rudiments of civilization is highly significant. Consequently, it is essential to ascertain the foundation point of these mythological traditions, and to find out whether they really do relate to Göbekli Tepe and its enigmatic T-shaped pillars.

Although in the Sumerian language Duku means "holy (*ku*)

mound (*dul*)," the equivalent of *dul* in Akkadian is *tillu,* cognate with the Arab *tell,* that is, an occupational mound, very like Göbekli Tepe itself.[2] In fact, Mesopotamian scholar Jeremy Black thinks it likely that as a mythological concept the Duku was seen as a prototype of the many tells found scattered across the Mesopotamian Plain, many of which would already have been abandoned, even by the commencement of the Sumerian and Akkadian civilizations in the third millennium BC.[3]

Just a riffle through the dirt and soil of any occupational mound very quickly produces potsherds, worked flints, and even human remains, which might easily have been seen as material evidence of the former presence on earth of the gods. The existence of these tells is most likely the root behind not only the Duku mound of Sumerian mythology but also the primeval mounds featured in the myths and legends of other ancient civilizations, where they are seen as the first built structures to occupy the earth (those that

feature in ancient Egyptian texts as the foundation points of pharaonic civilization being prime examples). The Duku was therefore a primeval mound, the place of origin of the earliest ancestor gods, built where earth and heaven come together. These ancestor gods were so old that when eventually superceded by later deities, they were seen to have withdrawn into a nebulous world existing within the mound itself, which thereafter acted as a conduit into this netherworld, known as the *Kur*.[4]

The holy mound thus became an entrance to the Kur, a word meaning also "foreign land" and "mountain." Indeed, some scholars see the word *kur* as the origin of "kurd," the name given to the foreign inhabitants of the north, from which we derive the term Kurds and Kurdistan.[5] Yet having said this the Duku also came to be identified, like Dilmun, with the "Mountain of the Spring," from which the sun emerged each morning.[6] This association comes from the fact that, like the sun-god in ancient Egyptian tradition who was

thought to pass through the *Duat,* or underworld, from sunset to sunrise, the sun-god in Mesopotamian tradition similarly passed through the Kur, or netherworld, to emerge from a cavelike opening in the Duku mound. Thus the Kur, as both the mountainous land of foreigners and the realm of the dead, came to be associated with the land of darkness, in other words the north, the only direction that the sun does not reach in the Northern Hemisphere.

Although ancient Mesopotamian cities often possessed their own representations of the Duku mound, somewhere out in the mythological world was the original one, where the genesis of the Anunnaki gods took place. So was Schmidt correct to identify the Duku with Göbekli Tepe?

MOUNTAIN OF THE GODS

Ancient texts tell us the Duku mound existed as part of a much

larger hill or mountain called Kharsag (or *hursagËœ*), known as Kharsag-gal-kurkura, “great mountain of all lands.”[7] It acted as a support on which the heavens rested and around which the stars revolved in an unerring fashion, showing it to be a cosmic mountain or world mountain.

Although Kharsag, like the Duku mound, is sometimes described as the Mountain of the East,[8] an allusion to the direction of the rising sun, it is also occasionally situated in the north,[9] the direction of the Eastern Taurus Mountains and the Armenian Highlands. So where exactly was Kharsag, if indeed it was a physical location?

THE NIPPUR FOUNDATION CYLINDER

One Sumero-Akkadian inscription, dating to around 2600 BC and found on a terra-cotta cylinder deposited in the foundations of the “Mountain House” (E-kur) of the god Enlil in the city of Nippur in

southern Iraq, speaks of Kharsag in direct association with the Tigris and Euphrates rivers:

> *The holy Tigris, the holy Euphrates,*
> *The holy scepter of Enlil*
> *Establish Kharsag;*
> *They give abundance.*
> *His scepter protects (?);*
> *[to] its lord, a prayer . . .*
> *the sprouts of the land.*[10]

Unless this is a reference to the *mouths* of the Tigris and Euphrates, it implies that the two great rivers were seen to sprout forth from Kharsag, the Mountain of the World. That Kharsag might be an actual mountain to the north or northeast of Mesopotamia has long been realized, although most usually it is identified with Mount Ararat,[11] a sacred mountain in eastern Turkey of paramount

importance to Christian tradition.

It was here, we are told, that Noah's ark came to rest after the Great Flood, although this, as we shall see, is a complete misnomer. The original Genesis account says only that the ark came to rest "on [the] mountains of Ararat (Gen. 8:4)," a reference to the kingdom of Ararat. This is the Hebrew name for Urartu, which appears in Assyrian and Babylonian literature for the first time around the thirteenth century BC. At its height Urartu stretched from the Eastern Taurus Mountains in the south all the way to the Caucasus Mountains in the north, with its main heartland being in the region of the Armenian Highlands and Lake Van. Never does the Bible allude directly to Mount Ararat. Yet this has not stopped overzealous clergy members, theologians, and scholars identifying the so-called Place of Descent, where Noah's ark made landfall, with the tallest mountain in Armenia, which is Mount Massis, popularly known today as Mount Ararat.

MOUNT AL-JUDI

Mount Massis is unquestionably a mountain very sacred in Armenian tradition, and evidence of human activity here goes back to prehistoric times. Yet nothing before the fifth century AD associates it with the story of Noah's ark. Indeed, the inhabitants of the region point out another mountain as the true Place of Descent. This is Mount al-Judi, the modern Cudi Dağ, close to the Turkish-Syrian border. At the foot of the mountain is the town of Cizre, which tradition asserts is the site of Thamanin, the settlement established by Noah and his family after leaving the ark.

Mount al-Judi is the Place of Descent recognized by Babylonian Jews, Christians of the Assyrian Church, Muslims (as stated in the Holy Qur'an's Sura 11:44), Yezidis (a Kurdish angel-worshipping religion), and "Chaldeans,"[12] a reference to the peoples of Northern Mesopotamia. This same mountain is asserted to be the landing place of Noah's ark by Berossus (a Babylonian historian, ca. 250

BC) and Abydenus (a Greek historian, ca. 200 BC), who stated that inhabitants thereabouts "scraped the pitch off the planks as a rarity, and carried it about them for an amulet," while "the wood of the vessel (was used) against many diseases with wonderful success."[13]

According to English Orientalist George Sale (1697–1736), who made an English translation of the Holy Qur'an published in 1734, relics of the ark were "seen here in the time of Epiphanius [a famous church leader who lived at the end of fourth century AD], if we may believe him; and we are told the [Byzantine] emperor Heraclius [who ruled AD 610–641] went from the town of Thamanin up to the mountain al Jûdi, and saw the place of the ark."[14]

Sale mentions also that there was once an ancient monastery on the summit of Mount al-Judi, which was destroyed by lightning in AD 776. After this time, belief that the mountain was the Place of Descent declined, its place taken by Mount Massis, called by the

Turks Agri Dağ and by the Christians Mount Ararat.[15]

THE SWITCH TO MOUNT MASSIS

The Armenian Church was directly responsible for transferring the Place of Descent from Mount al-Judi to the more northerly Mount Massis,[16] a holy mountain under the jurisdiction of the Mother See of Holy Echmiadzin, a church and monastery located in Vagharshapat, near the city of Erivan, or Yerevan, the capital of the Republic of Armenia (see figure 30.1). As the seat of the Catholicos, or head of the Armenian Church, Holy Echmiadzin is to the Armenians what the Vatican is to the Catholic Church. When viewed from Echmiadzin, Mount Massis seems to rise up from the surrounding plain to dominate the southern skyline.

The change in location of the Place of Descent from Mount al-Judi to Mount Massis was almost certainly political and occurred

following the ruling of the Council of Ephesus in 431, which banned the ancient Assyrian Church from the Orthodox Catholic Church because of its unorthodox views on Christ's dualist nature. At the time Mount al-Judi was under the jurisdiction of the Assyrian Church, the Armenian Church's southern rival, so a switch of interest away from Mount al-Judi to Mount Massis was deemed appropriate, as the Armenians did not want the Assyrians to have control of this important place of pilgrimage.

Yet before this time the Armenian Church was, seemingly, happy to accept Mount al-Judi as the site of the Place of Descent. This is brought out in an Armenian chronicle known as the *Epic Histories,* attributed to an Armenian historian named Faustus of Byzantium, who lived in the fifth century. The book chronicles the visit of Jacob (or James), the second bishop of Nisibis in Northern Mesopotamia, to Mount al-Judi. Here the "Armenian saint," who was born at the end of the third century, is said to have found the "wood of Noah's

Ark."[17]

Today, only Christians believe that Mount Ararat is the site where Noah's ark came to rest. Yet the sheer potency of this belief remains so strong that it has inspired a number of high-profile attempts to locate the remains of the ark on the slopes of Mount Ararat. All of these expeditions have either come to nothing or resulted in clandestine video footage of the alleged remains of a petrified boat, which becomes impossible to verify.

The reason for diverting from the main theme of the chapter to cite these facts is that the Christian belief in the power of Mount Ararat has over the past three hundred years seriously clouded scholarly judgment regarding the geographical placement of legendary locations connected with either Northern Mesopotamia or the Armenian Highlands. For instance, it was almost certainly the Christian obsession with Mount Ararat that led to its being identified with Kharsag.[18] Yet no major rivers take their rise there,

especially not the Tigris and Euphrates mentioned in the inscription recorded on the Nippur foundation cylinder.

Since it was anciently believed that the Tigris and Euphrates stemmed from the same source, it is more likely that Kharsag should be identified with the Bingöl massif, which is located around 150 miles (240 kilometers) west-southwest of Mount Ararat. Just as the Armenians saw Bingöl Mountain as the Place of the Gods, the Sumero-Akkadians saw Kharsag as "where the gods were born"[19] or "where the gods had their seat,"[20] an allusion to the presence thereabouts of the Duku mound, which, as we have seen, was very likely envisaged as a tell, an abandoned occupational mound, dating back to the age of the gods.

ERIVAN

Figure 30.1. Old print of Mount Ararat as seen from Erivan, modern Yerevan, the Republic of Armenia's capital and largest city.

Interestingly, some accounts of the Duku mound speak of something called the Ancient City,[21] which was believed to have been built right on top of it, underneath which was the Abzu.[22] Although scholars consider that this account relates to the ancient city of Eridu, which was under the patronage of Enki and had its own representation of both the Duku mound and Abzu, chances are that the concept of the Ancient City relates to a built structure existing on the original Duku—one that was seen to sink down into the hill when its ancestor gods withdrew into the mound.

THE NIPPUR FOUNDATION CYLINDER

In the 1980s British historical writer and geologist Christian

O'Brien (1914–2001) made a careful study of the Nippur foundation cylinder (correctly entitled the Barton Cylinder, after George A. Barton [1859–1942], the Canadian clergyman and professor of Semitic languages who first translated its text). He concluded that its inscription alluded to some kind of settlement of the Anunnaki existing in Kharsag, which he interpreted as meaning "principal fenced enclosure" or "lofty fenced enclosure."[23] It was a conviction reinforced by the fact that the Akkadian word *edin,* meaning "plain," "plateau," or "steppe," is twice used in connection with this highland "settlement."[24] Was this the "Ancient City" existing on top of the Duku mound?

Among the Anunnaki named in the Nippur foundation cylinder is the great lord Enlil, along with Enki, whom we have already met; Utu, or Ugmash, the sun god; Anu, whose name means "heaven"; and Enlil's (usually Enki's) consort, Ninkharsag, a name that translates as "Lady of the Sacred Mountain." Significantly, she

appears also under the Akkadian name Šir (the equivalent of the Sumerian Muš, pronounced *mush*),[25] meaning "Serpent," and is given the epithet Bê-lit, meaning "Divine Lady."[26] Even though Mesopotamian scholar George A. Barton assumed that Šir was a "serpent goddess" venerated in the city of Nippur,[27] O'Brien interpreted her name as meaning "Serpent Lady"[28] and identified her as one of the Anunnaki living in Kharsag.

CULT OF THE SNAKE

It is curious that Ninkharsag, also called Šir (or Muš), the wife of Enlil or Enki, is seen as one of the Anunnaki living at Kharsag, for a cult of the snake is known to have thrived on the plain of Mush (which in Turkish is written Muş). A medieval translation of a work by the fourth-century Armenian abbot Zenob Glak says that snake worship was introduced to the kingdom of Taron, the ancient name

of Mush, by "Hindoos," who arrived from the east in 149 BC.[29] They built cities and temples here that were destroyed by Gregory the Illuminator during his crusade against the pagans at the beginning of the fourth century AD. Apparently, the temples were located at Ashtishat, close to the road between Mush and Bingöl Mountain, where afterward Surb Karapet, the Monastery of Saint John the Baptist, was built.

This story suggests that Mush derives its name from the Sumerian Muš, the Akkadian Šir (pronounced *shir*), both meaning "snake" (even though in Armenian popular tradition Mush, as the word *mshush,* means "fog," a name deriving from a story in which the Armenian goddess Anahita raised a mist so that her daughter Astghik, goddess of love and beauty, could bathe without any mortal setting eyes on her nakedness). If so, then the ancient snake cult known to have existed at Ashtishat (the principal seat of the goddess Astghik, whose symbol was the *vishap,* a word meaning

“snake” or “dragon”) probably predates the arrival of the “Hindoos” and most likely relates to a time when the region was under the control of one of the Mesopotamian civilizations. If so, then this has profound implications for the identification of Kharsag with Bingöl Mountain, and the Garden of Eden with the Mush Plain, for in his book *The Genius of the Few,* Christian O’Brien argues that the account of Kharsag preserved in the Nippur foundation cylinder was perhaps the origin of the Genesis account of the terrestrial Paradise:

> The parallels between this epic account and the Hebraic record at the Garden of Eden are highly convincing. Not only is “Eden” twice mentioned, but the reference to the “Serpent Lady”, as an epithet for Ninkharsag . . . [is] clear confirmation of the scientific nature of the work carried out by the equivalent Serpents in the Hebrew account.[30]

We shall meet with those Serpents of Hebrew tradition shortly,

but for the moment it is important to explore O'Brien's conclusions regarding Kharsag's identification as the original Garden of Eden. He located this mountain settlement of the Anunnaki not at Bingöl Mountain in the Armenian Highlands but at Mount Hermon (modern Jabal al-Shaykh, "Mountain of the Chief "), which forms part of the Anti-Lebanon range and straddles the border between Syria and Lebanon, extending as far south as the Israeli-occupied Golan Heights.

NO CEDAR FORESTS

O'Brien identified Mount Hermon with Kharsag primarily because the text associates it with cedar forests. So even though the Sumero-Akkadians located their world mountain in the north, northeast, or even the east of what is today Iraq, O'Brien chose to place it in the extreme west, the direction of Lebanon's celebrated cedar forests,

because, in his opinion, there were no cedar forests in the Zagros Mountains. Yet as we have seen, cedar forests existed in abundance throughout the Zagros Mountains at the start of the Sumerian and Akkadian civilizations. So thorough, however, was their extermination that much later scribes interpreted references to cedar forests in ancient texts as alluding to Lebanon in the far west. This was simply because the scribes were not aware that cedar forests had once existed in the mountains to the north and northeast of their kingdoms. As a consequence, some versions of the famous *Epic of Gilgamesh* have its hero embarking on his quest for the plant of immortality and ending up in the vicinity of Lake Van and the Armenian Highlands, while others have Gilgamesh in Lebanon, traveling as far as Mount Hermon.[31]

If Kharsag is to be geographically placed anywhere, then it is going to be in the direction of the Eastern Taurus Mountains and Armenian Highlands, close to Lake Van. What is more, if Kharsag

really was established where the Tigris and Euphrates sprouted forth, as the Nippur foundation cylinder suggests, this locates it in the vicinity of the Bingöl massif, making it the true "place of the gods," in both Armenian and Mesopotamian tradition. Here too was the site of the terrestrial Paradise, which O'Brien was almost certainly right to identify with Kharsag, and thus the Duku mound, where the Anunnaki lived and were first created.

Whether or not Göbekli Tepe can claim some credit as the original inspiration behind the Duku mound, as Klaus Schmidt surmises, remains to be seen. Undoubtedly, it would have had some influence on the development of the various myths featuring the Duku mound, just in the same manner that the story of the first sheep and grain created on the Duku mound and given by the Anunnaki to humankind is an abstract memory of the introduction of animal husbandry and sedentary farming in the *triangle d'or.* Having said this, the vision of the Duku as an abandoned tell

situated in a hilly or mountainous environment, on which was built the "Ancient City," fits Göbekli Tepe perfectly. So in summary we can say that the concept of the Duku—as handed down across the millennia, until it became a feature in the cosmological world of the Sumerians, Akkadians, and later Babylonians and Assyrians—most likely constituted an amalgam of sites that included Göbekli Tepe in the *triangle d'or,* and another now lost site in the vicinity of Bingöl Mountain in the Armenian Highlands.

So who exactly were the Anunnaki, and what were they doing in the terrestrial Paradise, where in biblical tradition Adam and Eve are placed after being created by God? As we see next, in Mesopotamian tradition it was not God, but the Anunnaki who were responsible for the creation of the first humans.

31

THE MAKING OF HUMANKIND

As to who the Anunnaki might have been, we shall learn soon enough, and as to what they were doing in the terrestrial Paradise, the answer is clear—Kharsag, Eden, and Dilmun, as geologist and writer Christian O'Brien suspected, are all one and the same, and in Mesopotamian tradition it was here that the Anunnaki are said to have "made" humankind.

One story in particular talks about mythical beings called the Igigi being burdened with labor by their masters, the Anunnaki, and rebelling, only to be replaced by human beings.[1] The account appears in the myth of Atrahasis, the Assyrian flood hero, where we

find the Igigi being told to dig a watercourse in a paradise seen in terms of a garden.[2] The environment is actually very similar to the setting imagined by Christian O'Brien in his own translation of the Nippur foundation cylinder.

THE CREATION OF MAN

After "3600 years" of digging out the Tigris and Euphrates river beds to create water channels, seen as "the lifelines of the land,"[3] the Igigi decide they are not going to suffer this toil any longer and so rebel against the Anunnaki, who are under the leadership of Ellil (the Old Babylonian and Assyrian form of Enlil).[4] Apparently, they set fire to their tools and lay siege to Ekur, Ellil's mountain house, where the other Anunnaki are also to be found. On learning why exactly the Igigi are up in arms, the Anunnaki council decides to make the first humans in order to carry out all further manual work

on behalf of the gods.

The humans are created by the Anunnaki through the intervention of "far-sighted Enki" and some of the other Anunnaki.[5] To achieve this, the god Illawela "who had intelligence" (the god Kingu in other accounts) is sacrificed, and the Anunnaki immerse themselves in his blood to purify themselves.[6] Enki then provides clay to the womb goddess Nintu, also called Mami, who calls upon more womb goddesses to start molding together the blood of the god to create the first human beings "to bear the yoke . . . to bear the load of the gods." From the god's flesh a ghost comes into existence, so that the slain god might never be forgotten.[7]

In another version of the Mesopotamian creation myth, the first man is said to have been Adapa, a name reminiscent of Adam, the first man of Hebrew myth, who is modeled from clay that is the color of blood.[8] In this instance it is not only Enki who provides clay for the creation of the first humans, but also his wife

Ninkharsag, who is synonymous with Nintu and Mami. Together they mold together the blood and clay to create the likeness of the human form.

Ninkharsag, we must remember, is one and the same as the wise snake goddess Šir, or Muš, of the Nippur foundation cylinder, meaning that in Mesopotamian myth a goddess identified as a snake is involved in the creation of the first human beings. George A. Barton, the original translator of the Nippur foundation cylinder, sensed the biblical connection with this story when he wrote: "She [Muš] was very wise. Her counsels strengthen the wise divinity of Anu [the god of heaven], a statement which reveals a point of view similar to that of Genesis 3,"[9] a reference, very clearly, to Eve's role as the progenitor of humankind in the Genesis story.

EVE, THE GIVER OF LIFE

Strangely, in Aramaic, the West Semitic language used in the Bible lands during the first millennium BC, the word for Eve (חַוָּה, *chava* or *hava*) is more or less identical to the word for snake (חוה).[10] In Arabic also the name Eve, *hawwa,* means "snake," although it can also mean "giver of life." Life, Eve, and the Serpent of Temptation are ultimately bound together, reflections of each other, and if this is the case then the fact that Eve bears correspondences with the goddess Ninkharsag, Muš, or Šir, the wife of Enki, is significant. Could Eve simply be a Hebrew form of this snake goddess who was responsible for the creation of humanity, the same way that in biblical tradition Eve is considered to be the First Mother of humankind?

If so, then it strengthens still further the case for the Mush Plain being the Garden of Eden and Bingöl Mountain being not only Kharsag, and the Duku mound, where the Anunnaki lived and were created, but also the true "place of the gods" in Armenian tradition.

Perhaps as both Klaus Schmidt and the current author surmise, the Anunnaki are to be seen as the instigators of the Neolithic revolution, whose memory is immortalized in the T-shaped pillars found in the various large enclosures at Göbekli Tepe. As we have seen, there is every chance that these divine ancestors are a memory of Swiderian groups who entered eastern Anatolia sometime during the Younger Dryas mini ice age, ca. 10,900–9600 BC, and went on to catalyze the Neolithic revolution in the *triangle d'or.*

Yet there remains a stratum of activity concerned with this transformation of humanity from simple hunter and forager to animal herder and agricultural laborer that needs addressing, and this is the memory of the founders of civilization contained in the forgotten, fringe, and often heretical literature of the Judaic world. Here the mythical beings that provide humanity with the rudiments of civilization are named as *'îrîn,* "Watchers." As we see next, their story is told in the book of Enoch, one of the strangest yet most

compelling holy books ever written.

32

THE COMING OF THE WATCHERS

While researching the myths and legends of Bingöl Mountain I became intrigued by its ancient name of Srmantz, or Srmanç, which appears occasionally in old Armenian texts without explanation.[1] In Greek, I found it written Σερμάντου (Sermantou),[2] which I asked writer and journalist Jonathan Bright, a colleague from Greece, to investigate on my behalf. He possesses a sound understanding of the origins of the Greek language and stood a good chance of identifying the root components behind this curious place-name. Without knowing anything about my findings concerning Bingöl Mountain, he felt compelled to respond in the following manner:

> I cannot avoid noticing the resemblance of the word [Σερμάντου (Sermantou)] with the Enochian 'Ερμώμ' (Sherman-tu/Shermon-/Hermon-/Hermom. . .), where the 200 watchers have supposedly descended, so although Mt Hermon is identified as the one standing at the borders between Syria, Lebanon and Israel (Golan Heights), one cannot help but wonder . . .[3]

One cannot help but wonder, indeed. Mount Hermon does indeed feature in "Enochian" texts, such as the enigmatic book of Enoch. This is a pseudepigraphical (falsely attributed) work of immense age, the oldest fragments of which have been identified among the Dead Sea Scrolls, which in their earliest form date to the third century BC.

One of the book of Enoch's internal texts, known to scholars as the book of the Watchers, tells the story of the *'îrîn,* a name given to

angels in certain Hebrew works of early manufacture and meaning something like “those who are awake” or “those who watch” (in Greek, ἐγρήγοροι [egrêgoroi]; in Latin and Slavic, Grigori; and in English, Watchers).*18 It is said that two hundred of their number came together in an assembly on top of a mountain and swore an oath of loyalty before descending to the plains below. Here they took mortal wives and revealed to them the secret arts of heaven. For this they became outcasts, rebels, and reprobates—the first fallen angels, a crime for which they were rounded up, incarcerated by the heavenly angels, and forced to watch the slaughter of their giant offspring, the Nephilim, a word that means “those who have fallen” or the “fallen ones.”

FIRSTS FOR HUMANITY

The secret arts and sciences of heaven revealed to humanity by the

rebel Watchers, as I first noted in *From the Ashes of Angels,* correspond with a number of firsts for humanity in the centuries and millennia after the initial Neolithic revolution. This we can see beginning with the construction of Göbekli Tepe in the mid-tenth millennium BC and continuing in one form or another across the Near East and Middle East for the next four thousand years.

In addition to the earliest expression of animal domestication and agriculture, the earliest use of beaten and smelted metal took place in the Near East, as did the earliest manufacture of linen fabric, the first brewing of beer and fermenting of wine. Some of the earliest creation of figurines using fired pottery occurred in this region, as did the first known construction of stone buildings for both secular and religious purposes.

This very same epoch saw the first use of stone drills, arguably made of flint, to penetrate large, polished beads made from semiprecious stone, such as quartz, agate, and carnelian, to create

beautiful necklaces. At the same time, we find the first use of green malachite powder for cosmetic purposes. Interestingly, the Watchers were accused of teaching women how to beautify themselves, just as they are said to have introduced humanity to working with metal,[4] something that took place for the first time at Çayönü in southeast Anatolia.

THE SONS OF GOD

So who were the Watchers, and how do they fit into the bigger picture? Bible scholars are convinced that the book of Enoch and other similar examples of Enochian literature derive from a few brief passages in Genesis 6, which speak of how the *bene ha-Elohim,* the "Sons of God," who are synonymous with the Watchers, came upon the "daughters of men" and, finding them fair, lay with them to produce *gibborim,* "giants," generally interpreted

as alluding to the Nephilim. However, this is the original account:

> The fallen ones [Nephilim] were in the earth in those days, and even afterwards when sons of God [bene ha-Elohim] come in unto daughters of men, and they have borne to them—they [are] the heroes, who, from of old, [are] the men of name [gibborim]. (Gen. 6:4).

Clearly, the Nephilim were actually already existent when the Sons of God, that is, the Watchers, took mortal wives, and there is good reason to suggest that the Watchers and Nephilim are simply different names for the same antediluvian population that thrived in the Bible lands prior to the Flood of Noah. Yet to think that these meager lines should have inspired the story of the Watchers in the book of Enoch seems unlikely. More plausible is that it was the other way around: the few lines in the book of Genesis are interpolations, later insertions, based on quite separate source

material, most likely some variation of the Watchers story.

After reading the book of Enoch, I became convinced that these Watchers, or "fallen ones," like the Anunnaki of Sumero-Akkadian tradition, were very powerful human individuals who lived during some distant age of humankind. They were advanced enough to give us the rudiments of civilization, recalled in the manner in which the fallen angels revealed to mortal kind the forbidden arts and sciences of heaven. What is more, their sexual liaisons with the "daughters of men" expressed their quite obvious human nature, as well as their ability to cocreate in order to produce flesh and blood offspring that resembled both themselves and their mortal wives.

VISAGE LIKE A VIPER

Yet these rebel Watchers, or fallen angels, bore no recognizable wings. In Enochian literature they are described only as tall in

stature, with long, white hair, pale skin, ruddy complexions, and mesmeric eyes that quite literally shine like the sun.[5] One crucial passage in a fragmentary text known as the Testament of Amram likens the visage of one Watcher to that of a "viper," suggesting a long, narrow face of apparent serpentine appearance.[6]

At other times, the Nephilim, as the offspring of the Watchers, are called Awwim, "Serpents,"[7] while in one instance a Nephilim is described as the "son of the serpent named Tabâ'et,"[8] with Tabâ'et being one of the rebel Watchers. A Watcher named Gâdreêl is even cited as the serpent that "led astray Eve,"[9] implying that the serpent of Eden was in fact a Watcher, or fallen angel. More crucially these strange beings are occasionally described as flying like birds,[10] or they are described as wearing iridescent dark cloaks,[11] or garments with "the appearance of feathers"[12] (see figure 32.1). Very clearly it suggests the Watchers are in fact quite human shamans, or some kind of ruling elite, and not simply heavenly beings that have

become flesh and blood in order to lie with mortal women.

As we have seen, vultures feature heavily in the early Neolithic art of central and eastern Anatolia, often in humanized form, where they seem to be associated with the passage of the soul into the sky world, a path taken also by the shaman after entering trancelike states. It is likely that to achieve these astral journeys the shaman put on the paraphernalia of the vulture, like the articulated wings found at Zawi Chemi Shanidar in the Zagros Mountains of northern Iraq, a site more or less contemporary with Göbekli Tepe.

HUMAN ANGELS

Is it possible that the memory of how a shamanic or ruling elite seen as responsible for humanity's sudden leap forward at the beginning of the Neolithic age has been preserved in Judaic literature as the story of the Watchers and Nephilim? Were these fallen angels

remembered in Mesopotamian myth as the Anunnaki, the gods of heaven and earth, that “fashioned” the first humans from blood and clay, and later revealed to us the rudiments of civilization?

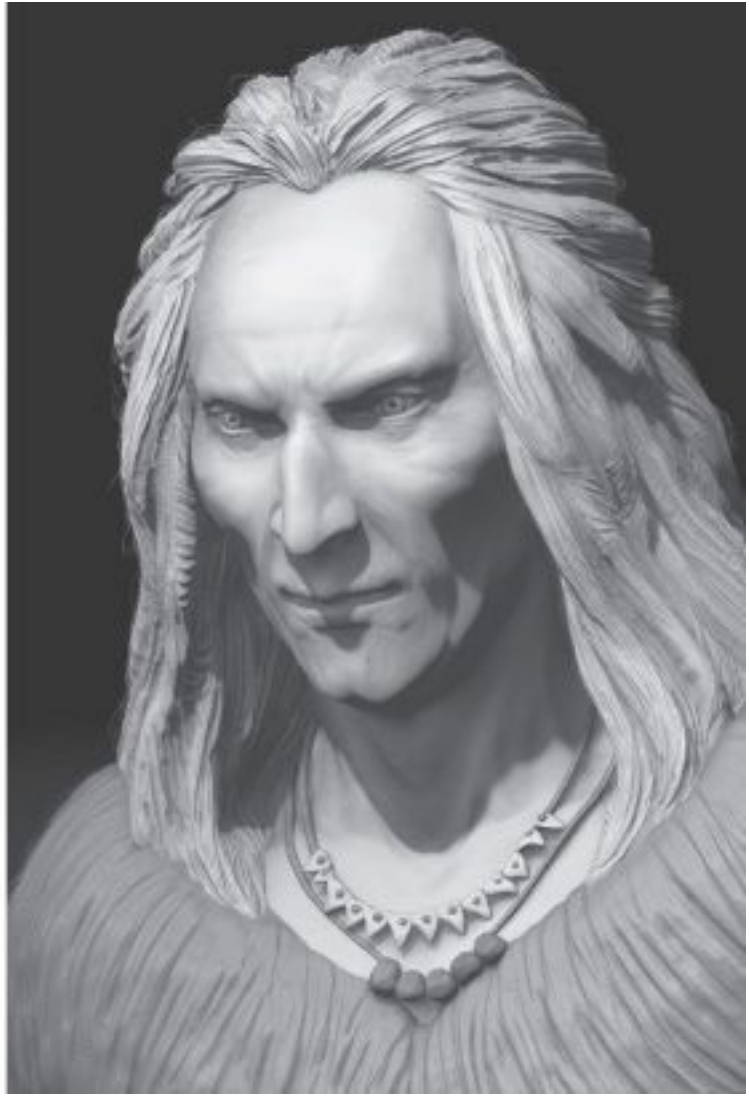

Figure 32.1. Left, artist Billie Walker John's conception of a Watcher based on descriptions given in Enochian material, and, right, a 3-D sculpt by graphic artist Russell M. Hossain of a Watcher based on Billie Walker John's 1995 illustration.

Once again we find that Klaus Schmidt has had something interesting to say on the subject. Having separately speculated on the myths of the Anunnaki being some distant memory of the divine ancestors portrayed as the T-shaped pillars at Göbekli Tepe, in an interview given to the *Turkish Times* in 2006 he spoke of the stones as representing the "watchman [*sic*] of the period."[13] Watchmen is simply another form of the name Watcher and actually appears in the book of Enoch ("And I related before them all the visions that I had seen in my sleep, and commenced to speak those words of justice and to upbraid the watchmen of heaven"[14]).

Whether Schmidt had in mind the Watchers of the book of Enoch

when he said these words is not clear; either way, it is an interesting admission and one that does make complete sense. For instance, Christian O'Brien, in *The Genius of the Few,* not only identifies the Anunnaki with the Watchers but concludes that the Anunnaki's highland settlement of Kharsag was one and the same as the earthly abode of the Watchers described in the book of Enoch.[15] These, it must be said, were incredibly forward-thinking ideas for 1985, when his book was published, particularly as the most popular theory at the time was that the Watchers and Anunnaki were ancient astronauts who came here in rocket ships two hundred thousand years ago and created human beings as slave labor to mine South African gold, which was then taken off planet.

These fanciful notions continue to prosper today. However, at least now we have a realistic alternative that with the discovery of Göbekli Tepe is becoming acceptable even among the academic community, thanks to the very bold stance taken on the subject by

scholars such as Professor Klaus Schmidt. He recognizes that stories and legends preserved in ancient texts relating to mythical beings, accredited with being the founders of civilization, could well reflect a memory of the prime movers behind the initiation of the Neolithic revolution.

So if the Watchers were, in fact, not heavenly angels but human beings, then where exactly was their earthly abode? Where was the Mountain of Assembly on which the two hundred rebels swore allegiance before descending on to the plains below and taking mortal wives? As we shall see next, it was certainly not where the book of Enoch tells us, but much farther north in a mythical realm known as the Land of Darkness.

33

MOUNTAIN OF THE WATCHERS

There is a general belief that the events portrayed in the book of Enoch, if they do have geographical correspondences in the real world, must have occurred in the vicinity of Mount Hermon, where the Watchers are said to have made their pact before descending on to the plains below. Indeed, some of the place-names featured in the text can be found in the foothills around the mountain, which lies on the northern border of Israel in the Anti-Lebanon range. There is no denying that the stories acted out in the book of Enoch are *meant* to be seen as having occurred in the Promised Land of the Israelites, occupied in the wake of Abraham and his family's departure from

the city of Harran.

More likely, however, is that the setting for the events featured in the book of Enoch was eastern Anatolia, historical Armenia, where almost all the stories contained in the book of Genesis prior to the age of Abraham are played out. Not only is it the suspected setting for the fall of Adam and Eve in the Garden of Eden, but it is also where Noah's ark came to rest; where Abraham was brought up in Ur of the Chaldees (which was most likely Şanlıurfa, and not a city in southern Iraq, as is generally believed today); where Enoch built the first city (identified with Şanlıurfa—see chapter 34); and where Nimrod, the builder of the Tower of Babel, came up against Abraham and was later defeated by the Armenian cultural hero Hayk.

All of these biblical characters supposedly lived their lives in this region—their shrines and monuments still revered today. So if eastern Turkey *is* the geographical setting for the stories of the book

of Genesis, then this is where we should start looking for the home of the Watchers and Nephilim, and not the area around Mount Hermon in the Levant.

ARMON NOT HERMON?

Although such an assumption might seem ludicrous to some, there is confirmation of this surmise in the book of Enoch itself. Whereas in some extant copies Mount Hermon is cited as the mountain where the rebel Watchers assemble to swear allegiance, in others it is called Armon, which introduces an entirely different ball game. For instance, the translation of the book of Enoch by German scholar Andrew Gottlier Hoffman reads:

> Their [i.e., the rebel Watchers'] whole number was two hundred, who descended in the days of Jared, upon the top of

> Mount Armon. Therefore they called the mountain Armon, because they had sworn upon it, and bound themselves by mutual execrations.[1]

Now, it could be argued that *Armon* is simply a corruption of *Hermon,* but this was not the conclusion of John Baty, who made an English translation of Hoffman's German language edition of the book of Enoch, published in 1836. He was sure that using the name Mount Armon for the Watchers' Mountain of Assembly revealed its true geographical significance, for Armon, the name "the evil angels called that mount . . . in Hebrew signifies both the top of a mountain, and the residence of a famous chief,"[2] adding that "the land of Armenia received its name from Armen, the third of the leaders of the evil angels, who taught the signs of the earth."[3] This, he felt, confirmed the origin of the name, for "the land of Armenia is in Hebrew the land of Ararat, and mount Ararat of the Armenians

has been clearly shewn to be the mount on which the angels swore, the top of which was called Armon."[4]

MOUNT ARARAT AGAIN

So here Baty not only locates Armon in Armenia but identifies it also with Mount Ararat, the tallest mountain of the region, which, as we have seen, is taken by Christians to be the landing place of Noah's ark. Yet as outlined in chapter 30, much older traditions, accepted by Babylonian Jews, Muslims, and Assyrian Christians, as well as indigenous Kurds belonging to various ethnoreligious groups, identify the ark's Place of Descent as Mount al-Judi, the modern Cudi Dağ, near the town of Cizre in southeast Turkey.

This absolute conviction in Mount Ararat's role as the resting place of Noah's ark has allowed it to be identified with all manner of legendary mountains thought to be located in this region. Any

story relating to a nonspecific holy mountain in either Northern Mesopotamia or Armenia is automatically assumed to refer to Mount Ararat, simply because it is seen as the sole piece of land that God set aside to become the place of renewal of humanity following the receding of the waters at the time of the Flood. In the eyes of the Christian faith, no other holy mountain even comes close to the religious significance played by Mount Ararat in the emergence of humankind.

So much did Ararat become a sponge for myths and traditions attached to the mountains of Armenia that Abus Mons, or Mount Abus, modern Bingöl Mountain, the acknowledged source of the Euphrates and Araxes rivers, has been assumed to be Mount Ararat. This is despite the rather obvious fact that the sources of the Euphrates and Araxes do not take their rise on this mountain. The closest source of the Euphrates to Mount Ararat is 50 miles (80 kilometers) away, while the Araxes flows only through its foothills,

having taken its course some 150 miles (240 kilometers) to the west on Bingöl Mountain, the true site of Abus Mons.

So absurd did this situation become that some maps of Armenia show a mountain in the approximate geographical position of Bingöl, from which emerge the Euphrates and Araxes rivers. However, instead of its being labeled Bingöl, or even Abus Mons, it is named Mount Ararat! (See figure 33.1 on p. 282.) This general confusion even led, as late as 1907, to the Araxes being cited as "rising in Mt. Ararat,"[5] when clearly its source is on Bingöl Mountain.

Figure 33.1. Section of a map of Armenia by French cartographer Alain Manesson Mallet (1630–1706), published in 1683. It misnames Bingöl Mountain, the clear source of the Euphrates and Araxes rivers, as Mount Ararat.

MOUNTAIN-LAND OF THE MINYAS

Bearing all this in mind, Baty's assertion that the book of Enoch's Mount Armon has been ably identified as Mount Ararat is completely groundless. Despite this, he was probably right to link this mythical location, where the Watchers swear their allegiance, with Armenia. In the book of Enoch, Armen, the root of the name Armenia, is the name of one of the rebel Watchers. He is said to have "taught the signs of the earth,"[6] this being a form of divination whereby the perturbations of the heavens are reflected also on earth, and vice versa, the rudiments, of course, of astrology.

The name of this Watcher derives most probably from another mythical figure named Armen, who is considered to be the legendary founder of Armenia. Quite possibly, the inclusion of Armen's name in the book of Enoch relates to an Armenian location mentioned by classical writers under the name Armon,[7] or Armona,[8] a corruption of Har-minni, that is, Mount Minni (with

variations such as Minyas and Minyadis).[9] In this form it is found in the Bible's book of Jeremiah, which reads:

> *Lift ye up an ensign in the land,*
> *Blow a trumpet among nations,*
> *Sanctify against it nations,*
> *Summon against it the kingdoms*
> *of Ararat, Minni, and Ashkenaz.*[10]

Here the Armenian kingdoms of Ararat and Ashkenaz are clearly separate to that of Minni, so where exactly was it to be found? English lexicographer William Smith (1813–1893) in his celebrated *Bible Dictionary,* published in 1884, states on the matter: "[In the Bible] MINNI only occurs in Jeremiah (51:27). It is probably identical with the district Minyas, in the upper valley of the Murad-su branch of the Euphrates."[11]

The Murad Şu, or Eastern Euphrates, flows westward through the Armenian Highlands and gradually turns south below the town of Varto before finally entering the plain of Mush. This places Minyas, or Minni, in the vicinity of the town of Varto, immediately south of the Bingöl massif, implying, if correct, that Har-minni, or Mount Minni, was most likely Bingöl Mountain itself.

HEAVENLY MOUNTAIN

German theologian Christian Abraham Wahl (1829–1901), whose biblical lexicons were published in the early nineteenth century, translated the name Har-Minni as meaning:

> "Heavenly Mountain, the mountain whose top reaches to heaven, meaning Ararat; for *mino* in Zend, and *myno, myny* in Parsee, signify heaven, heavenly. And hence the ancients

called the whole province of Ararat, Minyas."[12]

Once again a biblical scholar is beguiled by the magnetic draw of Mount Ararat, for as Jeremiah as well as Latin and Greek scholar William Smith make clear, the kingdom of Minni was *not* Ararat. Har-minni was thus another mountain, and although its exact location cannot be verified with absolute certainly, the fact that Ararat's main rival Bingöl was once called Mingöl[13] seems a little beyond coincidence.

Since the Turkish root *bin,* "a thousand," coupled with *göl,* "lake," provides Bingöl's normal translation of "a thousand lakes" or "a thousand springs," it means that the root *min,* as in Mingöl, is either a corruption of *bin* or it relates to something else. Wahl's second option seems more likely, as the name Bingöl Dağ is unattested before the writings of Jean-Baptiste Tavernier (1605–1689), a French diamond merchant and traveler who visited the

region in the second half of the seventeenth century.[14]

Perhaps as the German theologian Christian Wahl proposes, the name Har-minni (i.e., Mingöl) derives from a time when Armenia was under the control of the Persian Empire, which was between the sixth century BC and the time of Alexander the Great in the fourth century BC, and again from AD 301 until the sixth century AD. Thus the word root *min* derives most probably from *mino,* which in the language of the Persian Zoroastrian holy books known as the Avesta means "heaven" or "heavenly." It is a conclusion supported by the fact that in Persian *minú* means "azure heaven,"[15] while in Hindustani or Urdú, a language that includes many Persian words, *míná* means "heaven,"[16] while *mínú* means "paradise."[17] Thus in Persian, Mingöl probably means something like "lake of heaven" or even "waters of paradise."[18]

All this tells us very firmly that the mountain named Armon, or Har-mini, upon which the rebel Watchers assembled and swore an

oath of allegiance before descending on to the plain below, was located in Armenia, and not in the Levant, and is most probably Bingöl Mountain, the center of the Armenian obsidian trade during the age of Göbekli Tepe (see figure 33.2).

THE MOUNTAIN OF GOD

There is yet more evidence that the setting for the book of Enoch was the Armenian Highlands and not Mount Hermon in the Anti-Lebanon range. Polish-born Orientalist and scholar Edward Lipinski (b. 1930), who specializes in biblical and ancient Near Eastern studies, conducted a major investigation into the origins of the Mountain of God, the place where the Canaanite god El was said to dwell. Even in biblical times, this was deemed to be Mount Hermon, although Lipinksi found compelling evidence that it was originally located much farther north, in the kingdom of Armenia.

The first thing that the Belgium-based scholar observed was that the name of El's abode was *g' r-ll,* the "mountain of the night."[19] This is derived from the fact that its recesses were "toward the meeting place of the assembly" in the north where the sun never reaches, the Land of Darkness, as viewed from the perspective of the southerly placed Mesopotamian Plain, home of the Sumerians, Akkadians, and later Babylonians and Assyrians.[20] Lipinski was able to draw parallels between the name of El's abode and the Sumerian place of God known as kur-suh-ha, "the dark mountain," as well as "the mountain of darkness" in the Jewish Talmud, which contains teachings and lore relating to the contents of the Torah, the first five books of the Old Testament.[21] The Talmud speaks also about a place called Gehenna, a kind of Jewish underworld, lying "behind the land of darkness," somewhere in the Armenian Highlands.[22]

Tahoskuri
Sakmansour
Kars
Arzi
Arzroum
Karaleukala
Hasankalu
Mingali Dag
Mamerwan
Arzingam
Kanas
Khorien
Sahan Dag
Hakkian
TURUBERAN
Malazkerd
Palon
Tergil
Moush
Kilsh
Akhlat
Argish
Ftak
Tadivan
LAKE OF VAN

Figure 33.2. Section of a map of Armenia by Scottish cartographer John Tomson (ca. 1777–1840), published in Edinburgh in 1814. Here Bingöl Mountain is called Minguli Dağ, which derives from the Turkish for mountain (dağ) and the Persian minjul, meaning "lake of heaven" or "waters of paradise."

BENEATH THE POLE STAR

This was also where, Lipinski realized, Alexander the Great must have come seeking immortality in "the land of darkness,"[23] which was said to exist "in the north, beneath the Pole Star."[24] According to the story, Alexander reached "'the way of the Armenians' country, where is the source of the Euphrates and of the Tigris,' [here] he entered the wonderland, traversed the land of darkness, proceeded up to the country of the blessed ones, where 'the sun does not shine,' and, without knowing it, he reached the spring of

life,"[25] located, as we have seen, on Bingöl Mountain. This story, Lipinski points out, was known as early as the third century BC, because the Greek philosopher and teacher Teles of Megara in ca. 240 BC says that humans want "as Alexander to become immortal."[26]

ENOCH IN PARADISE

All this was just a prelude for Lipinski's investigation of the locations described in the book of Enoch, for he instantly recognized the same mythical locations cited here. At the beginning of the story, Enoch journeys to Paradise in the company of two angels, or Watchers, and comes "to a dark place and to a mountain, the point of whose summit reached to heaven."[27] Here he saw "the mountains of the darkness of winter and the place whence the waters of the entire deep flow," and "the mouths [i.e., sources] of all

the rivers of the earth and the mouth of the deep."[28] Additionally, after having "passed above a land of darkness," Enoch "came next to the Paradise of righteousness,"[29] which Lipinski says, "has to be identified with the high mountain of God"[30]; that is, the aforementioned abode of El, who is a form of the Hebrew god Yahweh. This "Paradise of righteousness" is, of course, the Garden of Eden or terrestrial Paradise of the Genesis account, for here, we are told, "the throne of God was fixed where the Tree of Life was."[31]

TIGRIS TUNNEL

From this Lipsinki concluded that the entrance to the Land of Darkness, beyond which was the Mountain of God, was reached through "a gate of darkness, whose geographical origin is likely to be looked for in the tunnel at the source of the Western Tigris."[32]

This, of course, was the Reverend Marmaduke Carver's western corner of his proposed terrestrial Paradise, its eastern corner being Lake Van, with its apex in the mountain range that included Abus Mons; that is, Bingöl Mountain.

The Tigris Tunnel, through which the river passes, was originally about a mile long (1.5 kilometers) and ran all the way through the mountain, although today it has been shortened due to landfalls at its northern end. Yet thousands of years ago this mysterious passage, which is in part a deep gorge, was seen as a symbolic gateway from the world of the living to a realm of myth and legend, a wonderland, beyond which was Paradise itself.

THE MOUNT OF ASSEMBLY

It would be impossible to do full justice to Lipinski's incredible contribution to this subject (for instance, he shows that the Tigris

Tunnel features in the *Epic of Gilgamesh* as the long tunnel through which the Mesopotamian hero, on his quest to discover the plant of immortality, passes to reach the Land of the Ever Living, situated in a region of perpetual darkness).[33] However, I'll let him give you his conclusions on the presence in Armenia of the mountain abode of the god El.

Talking about the Old Testament's book of Isaiah, where the king boldly proclaims: "Above the stars of El I will exalt my throne, and I will sit down upon the Mount of Assembly, in the recesses of the north (Is. 14:13)," Lipinski writes:

> The recesses of the north are here the high mountains of Urartu [the Armenian highlands], where the divine assembly, presided by El, was believed to gather. . . . In the light of these mythological allusions to the abode of the gods in the mountains of Armenia, the only explicit mention of El's abode

at the sources of the Euphrates acquires new dimensions.[34]

In other words, as he says himself: "El's abode . . . *is not to be looked for near Mount Hermon [in the Levant], but midst the mountains of Armenia* [current author's emphasis],"[35] near the sources of the Euphrates.

BABYLONIAN MAP OF THE WORLD

Strengthening the case still further for the Mountain of Assembly of the rebel Watchers existing somewhere in the vicinity of the Armenian Highlands is the oldest known map of the ancient world. Dating from the sixth century BC, it is contained on a Babylonian clay tablet found during the nineteenth century at the ancient city of Sippur in southern Iraq and is currently on display in the British Museum (BM 92687).[36] (See figure 33.3.)

The map shows a large central disk, representing the known world, beyond which is a circular band labeled *mar-ra-tum,* which means "ocean," this being the primordial waters that were thought to exist beyond the world landmass. Various triangles extend from the "ocean," like the rays of a star, each representing a *nagû,* or "region," either a mythical realm or distant land. Smaller circles positioned just inside the perimeter of the disk indicate real geographical locations as observed from the perspective of Babylon, which is marked as a large rectangle just above the center of the map.

Running through the landmass are parallel lines representing the Euphrates River, which begins at the top of the circular landmass within a semicircle labeled *šá-du-ú,* meaning "mountain," a reference to the northerly placed Eastern Taurus range. This identification is confirmed by the presence just below and to the right of the semicircle labeled *ur,* "city," next to which is the word

Urartu, the ancient kingdom that embraced territories from the Eastern Taurus Mountains north to the Armenian Highlands (the land of Ararat of the Bible) and beyond to the Caucasus Mountains. Just below this, to the south, is another small circle labeled ^{kur}aš+šur^{ki}, "Assyria," which, like Urartu, is correctly placed.

Yet it is what lies outside of the semicircle marked "Mountain" that is of interest here, for the triangle extending away from the primordial ocean bears the name BÀG.GU.LA, meaning "great wall," accompanying which is the legend "6 leagues in between where the sun is not seen."[37] Its location, in the north, corresponds perfectly to the direction of Lake Van and the plain of Mush, suggesting that the "great wall" is in fact a seemingly impenetrable wall of mountains, either the Armenian Highlands or perhaps even the more northerly Caucasus Mountains, which do indeed form a virtually impenetrable barrier stretching from the Black Sea in the west to the Caspian Sea in the east.

That the sun does not shine here shows it to be, as Mesopotamian scholar Wayne Horowitz surmises, a "region of perpetual darkness" in the extreme north. Like Lipinski, he thinks it likely this is the same wonderland encountered by the hero Gilgamesh on his journeys and mentioned also in literary traditions concerning the travels of the celebrated king of Akkad, Sargon the Great, who ruled ca. 2334–2279 BC.[38] Almost certainly this distant *nagû,* or region, was thought to be accessed, as Lipinski also realized, through the fabled Tigris Tunnel, which acted as a kind of passage or gateway from the material world in the south to the otherworldly realm of darkness existing beyond the Eastern Taurus Mountains. Here was the abode or "throne" of God, the Garden of Righteousness, and the paradisiacal realm visited by Enoch in the company of angels.

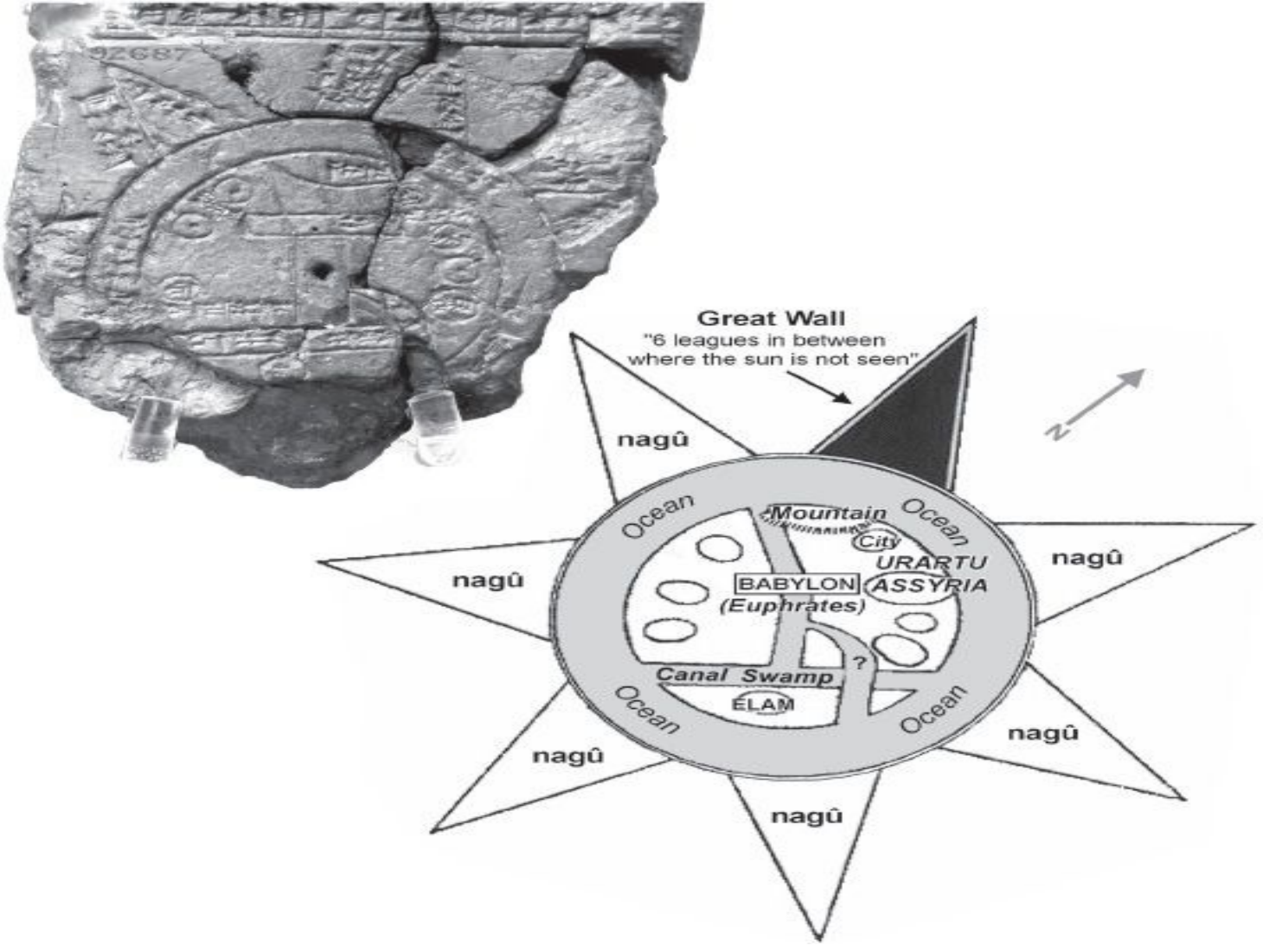
Great Wall
"6 leagues in between
where the sun is not seen"
N
nagû
nagû
nagû
nagû
nagû
nagû
Ocean
Ocean
Ocean
Ocean
Mountain
City
URARTU
ASSYRIA
BABYLON
(Euphrates)
?
Canal Swamp
ELAM

Figure 33.3. Left, Babylonian world map in the form of a clay tablet, now in the possession of the British Museum (BM 92687), and right, the translation of key terms used on this map. Note the northerly placed "Mountain," most likely the Eastern Taurus range, beyond which is the nagû, or "region" (triangle shown in black), labeled "Great Wall," indicating either the Armenian Highlands or the more northerly Caucasus Mountains. As the legend states, this was "where the sun is not seen"; that is, the Land of Darkness, the location of both the Mountain of Assembly of the Watchers and Kharsag, the mountain home of the Anunnaki gods.

GOD'S PROMISED LAND

All this compelling evidence brings us to one powerful conclusion —that the original earthly abode of the Watchers was not Mount

Hermon in the Levant, but a place much farther north, in the Armenian Highlands, with Bingöl Mountain being the most obvious candidate. As the Armenian world-mountain, it bore the title Katar Erkri, "Summit of the Earth," and was seen as the abode of the gods, who were most likely the role models for the Anunnaki of Mesopotamian myth and legend, as well as the Watchers of the book of Enoch.

As Greek writer Jonathan Bright intimated in connection with Bingöl's Armenian name Srmantz, or Srmanç, written in Greek Σερμάάντου (Sermantou), perhaps we have here the original form of the name Hermon, the Mountain of the Watchers. It is a surmise strengthened in the knowledge that Srmantz, or Sermantou, which can also be written Sermantz, is a place-name derived from the Armenian root *serm,* meaning "seed," as in the offspring of a progenitor, and the suffix *antz,* which means either "place of " or "abounding in."

When applied to Bingöl Mountain, Sermantz reflects its role as a place from which the "seeds" of life sprang forth. Interestingly, the Armenian word *serm* is connected with the word root *her,* or *herm,* used in the old Armenian language (known as *Grabar*) to denote the word "father," through its association with another word, *hayr,* or *hai'r,* which means the root of a hair.*19 This word association is crucial, for it backs up Jonathan Bright's suggestion that Sermantz reflects the name Hermon, for in Armenian, Hermontz or Hermanz means "place of the father," or place of the progenitor of the seed of life, exactly the same as Sermantz.

So both Sermantz and its variation Hermontz not only help explain Bingöl's classical name of Abus Mons, which means "Mountain (Latin *mons*) of the Father *(*Aramaic and Greek *abba*)," but they also make better sense of the mountain's most common Armenian name Biurakn. This, as we saw in chapter 29, means "a million (*bir, byur*) eyes (*akn*)," with "eyes" here meaning sources,

most obviously the countless springs that take their rise on the mountain's summit. However, Armenian correspondent Gagik Avagyan has informed the author that there is a much deeper meaning behind the name Biurakn that expresses the idea of the mountain being the root, source, or fount of life itself. He says that this same sentiment is conveyed in the mountain's suspected Persian name, Mingöl, which means "heavenly waters" or the "waters of paradise," with Paradise or Heaven being the source of all life on earth.

Apparently, Armenians from all over the country would arrive at Bingöl Mountain every spring to give thanks to Anahita, the Armenian goddess of fertility, for the sprouting forth of new seeds (*serm*) following the harsh winter months. Many of them would remain camped in its foothills until summer.

So in the context of Bingöl's role as the source of the four rivers of Paradise in Judeo-Christian myth and legend, we can now see

that in Armenian tradition this concept related to the mountain being the place of beginning, the place of original creation, the garden of God himself. He was the "father" who brought forth the "seed" of all life, which was then, symbolically, carried toward the four directions by the rivers themselves. How exactly Bingöl gained this wondrous association is today lost. Most probably it is connected with the fact that the mountain was the center of the region's obsidian trade during the age of Göbekli Tepe and that it was from here that the forerunners of the Göbekli builders, identified as incoming Swiderian groups, emerged as the ruling elite sometime around 10,500 BC. It was the memory of their deeds that were mythologized into the stories of the Anunnaki—who dwelt in Duku, Kharsag, or Dilmun—and the Watchers, the human angels, who descended from Mount Hermon to take mortal wives and reveal the forbidden arts of heaven. That the Armenian Highlands were also once known as Yerkir Nayiri, "Land of (the) Watchers,"[39] supports

this theory.

Curiously, the name Anunnaki itself might also be of Armenian origin, for in the old Grabar language (which bears some comparisons to Akkadian) its root components break down as *anun,* "name"; *ak,* "root, beginning, river root, seed"; and *e,* "the,"[40] which when put together makes "the name is the beginning," *an allusion most assuredly to the genesis of the gods themselves.* Yet just what was the role of the Watchers at Göbekli Tepe? Could it really be said that the Watchers, or, indeed, the Anunnaki, are immortalized in the dozens of anthropomorphic pillars being uncovered there today?

34

WALKING WITH SERPENTS

So exactly who were the Watchers of the book of Enoch? Their recorded appearance as being extremely tall, like "trees," with long white hair, pale skin, ruddy complexions, eyes that seem to shine like the sun, and visages with the appearance of vipers, conjures a strange creature indeed, and one that has all the hallmarks of an albino. So were the Watchers albinos? It is a compelling theory, although there is a far easier explanation.

Such distinctive traits might simply be exaggerated descriptions of the Swiderian population, whose suspected presence in eastern Anatolia in the aftermath of the Younger Dryas Boundary impact

event might well have catalyzed the creation of Göbekli Tepe and the later accounts of mythical beings such as the Watchers and Anunnaki. As we saw in chapter 20, Swiderian communities certainly included "tall . . . long-headed, [and] thin faced" individuals,[1] while among the post-Swiderian groups of Central Russia and the Baltic region were people of increased height with elongated (hyper-dolichocephalic) skulls and narrow faces.[2]

Additionally, Swiderians would also seem to have carried the distinctive physiognomy of the Brünn population. They too possessed heads that were long and narrow, plus they bore traits that marked them as likely Neanderthal-human hybrids, most obviously prominent brow ridges.[3] Similar traits were identified in the Swiderian-linked Kebeliai skull, found in Lithuania in 1948, suggesting that among the Swiderian groups entering eastern Anatolia were strange-looking people indeed.

In fact, the unique physiological features of the Brünn population

derived, most probably, from prolonged contact with Neanderthal communities, either in Central Europe or at places like Kostenki and Sungir in Central Russia (the first settlement sites at Kostenki go back at least 40,000 years, arguably even earlier). It is even possible that cross-contact between the different human species began much further away, in the Altai region of Siberia, where anatomically modern humans shared the world with Neanderthals, as well as other types of extinct human types, before their final disappearance sometime around thirty to forty thousand years ago.

All this tells us that when the Swiderians entered eastern Anatolia their striking physical appearance might have contrasted greatly with that of the local Epipaleolithic population. Did this lead, eventually, through consistent storytelling, to gross exaggerations that have made the Watchers into superhuman albinos the size of trees? If so, then we can understand also how the the Swiderians' elongated heads led to their being represented not only as abstract

statues with T-shaped heads at Göbekli Tepe but also as human angels with visages like vipers in myths and legends. Was it a memory that across the millennia became so abstract that eventually they became Awwim, quite literally walking "serpents"?[4] It is a staggering possibility. What is more, compelling evidence now suggests that the peoples of the Near East preserved an abstract memory of the existence of a serpent-faced elite for thousands of years after the construction of Göbekli Tepe.

THE MYSTERY OF TELL ARPACHIYAH

Following the Pre-Pottery Neolithic age came the Pottery Neolithic, which in eastern Anatolia and Northern Mesopotamia was represented by the Halaf culture, ca. 6000–5000 BC, and the Ubaid people, ca. 5000–4100 BC, both of whom probably influenced the emergence of the Sumerian and Akkadian civilizations down on the

Mesopotamia Plain. At a Halaf and later Ubaid site known as Tell Arpachiyah, situated in the Khabur Valley, just outside the city of Mosul in northern Iraq, Max Mallowan and John Cruikshank Rose of the British School of Archaeology in Iraq, in the company of writer Agatha Christie, made an amazing discovery. They uncovered evidence of an advanced village setting with cobbled streets, rectangular buildings, and round buildings with domed ceilings like the tholoi tombs of Mycenaean Greece.[5]

Mallowan and his team also unearthed a number of burials, many in poor condition. Thirteen skulls, however, were better preserved, and these were examined by anthropologists Theya Molleson and Stuart Campbell.[6] Six were found to be artificially deformed, in that they had been deliberately elongated to create an extended cranium. This must have been done when the individuals were still in their infancy using a combination of boards and linen wrappings. These findings had earlier been predicted by Max Mallowan and fellow

archaeologist Hilda Linford, who in 1969 wrote:

> We appear to be confronted with long heads, and there are certain pro nounced facial and other characteristics which . . . would have made them exceptionally easy to recognize.[7]

What seemed important about these deformed skulls is that some of their unique features were not artificial but natural. In other words, the deformation had merely accentuated what was already there. It was a realization that led Molleson and Campbell to conclude that "several of the individuals (including some without deformations) were related to each other,"[8] in that they formed part of an extended caste, or family group. Moreover, because the site covered the transition phase from Halaf to Ubaid, ca. 5200–4500 BC, and the characteristics were present in remains belonging to both cultures, there was evidence of a direct genetic descent from one culture to the other across an extended period of time.

Molleson and Campbell went on to state that this type of deliberate cranial deformation within a specific group of people "has considerable potential for elitism."[9] In conclusion, they wrote that head accentuation among the Halaf and later Ubaid peoples was done to "demarcate a particular elite group, either social or functional," who were of "close genetic relationship" and as such were part of a hereditary group that was "closely inbred."[10]

Furthermore, Molleson and Campbell speculated that the "shapes of the head may have had some meaning,"[11] adding, incredibly, that these individuals were perhaps recalled in the fired clay figurines found in various Ubaid cemeteries, which have snakelike heads (see plate 32).[12] In addition to this, they wrote that a number of small ceramic heads with elongated cranial features and strange coffee-bean eyes dating from the Halaf period were also most likely

representations of this elite group (see figure 34.1).[13]

Figure 34.1. Heads of serpent-like statues from ancient Mesopotamia in the British Museum. Their extended heads and

coffee-bean eyes indicate that they are abstract representations of the long-headed elite known to have existed among the Ubaid and Halaf cultures, ca. 6000–4100 BC.

CULT OF THE SNAKE

So who exactly were these long-headed individuals, who would seem to have been members of a genetically related group seen as snake-headed in appearance? The greatest clue comes not from the ancient world, but from Central America. Among the Maya of Mexico's Yucatan Peninsula, a hereditary line of priests called the *chane,* or "serpents," would deliberately deform the heads of their infants to give them what was known as a *polcan*—an elongated serpent-like head. Doing this made the child eligible for a hereditary priesthood known as the People of the Serpent, who perpetuated the cult of the rattlesnake.[14] They honored Itzamna, or Zamna, a form

of Ahau Can, the “Lordly Serpent,” a great wisdom bringer and legendary founder of the chane priesthood.

Had something similar been occurring at Tell Arpachiyah in northern Iraq—a hereditary group, arguably an elite caste, that deliberately elongated the heads of their children so that when they came of age they were demarked as special among the communities in which they moved? Was this done to honor or celebrate a divine ancestor, or a specific group of ancestors, believed to have possessed very similar serpentine features? Did they represent these divine ancestors as snake-headed figurines of the type found in Ubaid graves?

More pertinently, were these human serpents the Watchers of the book of Enoch, who were believed to have had long, serpentlike faces—*visages like vipers,* as the Testament of Amram so aptly puts it? Was their memory confused with the envisaged Fall in the terrestrial Paradise, through the serpent’s temptation of Adam and

Eve? Remember, the book of Enoch tells us that the Watcher named Gâdreêl was the serpent that "led astray Eve."[15]

ELITE RITUAL CENTER

No further information is available concerning the genetic background of the skulls found at Tell Arpachiyah, which is now thought to have been an "elite ritual center."[16] Yet it is worth considering whether the elite family group or caste that deformed the heads of their children among the Halaf and later Ubaid peoples might not have been descendants of Swiderian groups who entered eastern Anatolia from the north some four thousand to five thousand years before the foundation of Tell Arpachiyah around 5200 BC.

Intriguingly, overwhelming evidence indicates that the Halaf culture controlled the Lake Van and Bingöl obsidian trade,[17] distributing the black volcanic glass throughout the Near East from

a series of centers in eastern Turkey, northern Syria, and northern Iraq, *including* Tell Arpachiyah.[18] In other words, the elite group here might have seen itself as the direct successors of the walking serpents that had controlled the obsidian trade in the distant past. Perhaps the Halaf even saw themselves as their lineal descendants, the reason they chose to accentuate their cranial features to make their children look more serpentlike in appearance. If this is true, then clearly by this time the European hunters' connections with totems such as the wolf and reindeer had long since been superseded by those of the serpent and vulture, two of the most familiar creatures associated with the beliefs and practices of the Pre-Pottery Neolithic world (it is interesting to note that in Aztec mythology, the serpent is linked directly with obsidian, and obsidian knives in particular).

The strange dark garments or cloaks of feathers worn by the Watchers were most likely the ritual paraphernalia of a shaman,

arguably one associated with the vulture. This probably led eventually to claims that these individuals were bird people[19] or that they bore wings, something that was added to the description of angels as late as the fourth century AD.

Not only were the book of Enoch's Watchers seen as walking serpents, but the Anunnaki also were said to have had distinct serpentine qualities. For instance, Christian O'Brien points out that Ninkharsag, the wife of Enlil in the Nippur foundation cylinder, bears the epithet "Serpent Lady," while Enlil himself is described as the "Splendid Serpent of the shining eyes."[20] Remember, it is the Anunnaki that Klaus Schmidt proposes are perhaps represented by the T-shaped pillars at Göbekli Tepe. So are these anthropomorphic pillars representations of the Watchers as well?

CITY OF ENOCH

It would be wrong to identify the long-headed, hood-wearing anthromorphs represented by the stone pillars at Göbekli Tepe as *actual* Watchers, or indeed Anunnaki, simply because both derive from quite separate branches of human development that reached their zenith many thousands of years after the world that emerged in the *triangle d'or* sometime around the end of the Younger Dryas mini ice age, ca. 9600 BC. Having said this, the indirect connections between Göbekli Tepe and these human angels cannot be ignored. For instance, one Syrian chronicler wrote that the city of Şanlıurfa, ancient Edessa, was founded by "Orhay son of Hewya," the "Serpent,"[21] a clear allusion to the Watchers of the book of Enoch. Remember, Göbekli Tepe is just 8 miles (13 kilometers) away from the center of Şanlıurfa, where a Pre-Pottery Neolithic settlement dating to 9000 BC was investigated in 1997 following the discovery in Yeni Yol Street of a life-size human statue with obsidian disks for eyes (see chapter 4).[22] This was discovered in the same area of

the city where Nimrod is said to have built his fortress and Abraham was born in a cave, the latter being the reason the whole area is considered sacred in Muslim tradition.

Strengthening the link between Enoch and Şanlıurfa still further is the fact that Bar Hebraeus (1226–1286), a historical chronicler and bishop of the Syrian Church, wrote that the prophet Enoch founded the city of Edessa, that is, Urfa or Orfa (even though, in fairness, he attributes the same role to Nimrod elsewhere in his writings).[23] This is interesting, as Enoch was said to have been visited in his dream-vision by two Watchers, who took him on a tour of the Seven Heavens, one of which contained the abode of the angels, while in another was the Garden of Righteousness. As we have seen, the geographical setting for the patriarch's amazing journey would appear to have been the Eastern Taurus Mountains and Armenian Highlands. So was Enoch's place of departure on this great adventure Şanlıurfa?

THE PERI AND CIN

We should also not forget that the Kurds of eastern Turkey preserve stories and traditions regarding mythical beings that inhabited this region in prehistoric times. They are the Peri—tall, strong, beautiful, "super human beings," whose fay-looking descendants were still thought to inhabit remote mountain villages as late as the twentieth century. As with the relationship between the Anunnaki and the Igigi, the Peri are said to have worked in concert with other beings of mythical origin called in Kurdish the Cin; that is, the Jinn of Persian folklore; the expression "Cin u Peri" being used to express the dual powers of these mythical creatures.

It was believed that King Solomon made the Cin go to work for him and that they "did what an ordinary human being could not do."[24] Both the Peri and Cin were able to carry heavy objects, build great monuments, and perform other grand feats, and it was put to me by my Kurdish contact, Hakan Dalkus, who was brought up in a

small village in the foothills of the Eastern Taurus Mountains, that "maybe Göbekli Tepe was built by them. Or some people then or later believed so. It makes such a place sacred too. While for us Genies, [that is, Cin] mostly stand for bad characters to be feared, Peri is the opposite."[25]

In his book *The Fairy Mythology* (revised edition, 1850), celebrated Irish mythologist and historian Thomas Keightley (1789–1872) states that the Jinn, the Persian name for the Cin, "were created and occupied the earth several thousand years before Adam,"[26] whose death is usually said to have occurred five thousand, five years before the time of Christ (see chapter 35). So if the Cin or Jinn are in some cases the memory of a human culture that thrived in the Armenian Highlands in prehistoric times, then it suggests they entered the scene around the same time that Swiderian groups might well have arrived in the same territories during the Younger Dryas mini ice age, ca. 10,900–9600 BC. One of the

leaders of the Jinn was Azâzêl,[27] a fallen angel, who was also a leader of the rebel Watchers, according to the book of Enoch, showing that traditions regarding the Watchers probably derive from the same origins as those of the Peri and Cin.[28]

Clearly, it was not Peri or Cin who built Göbekli Tepe, but human beings. However, there is an outside chance that, in their archaic stories about the Peri and Cin, the Kurds may have preserved the memory of incoming peoples of strange appearance who inspired the building of monuments and sacred places. The manner in which the Peri were able to cohabit with mortal kind is also reminiscent of the way the Watchers took mortal wives, who gave birth to giant offspring that resembled their Watcher fathers in appearance, being large bodied with pale and ruddied skin, just like the faylike descendants of the Peri.[29]

EGYPTIAN INFLUENCE?

So were the Nephilim and Sons of God of Genesis 6, along with the Watchers of the book of Enoch, really the memory of a Swiderian elite whose original homeland included the Carpathian Mountains of Central Europe? It is a persuasive theory, although we cannot dismiss the possibility that the Hooded Ones were made up of individuals from more than one ethnological background, with some reaching southeast Anatolia from other parts of the ancient world. We have already seen how the post-Zarzian peoples of the Eastern Taurus Mountains and Zagros Mountains might have provided the expertise to help create cult centers such as Hallan Çemi and even Göbekli Tepe, suggesting that the structures themselves were in fact the product of indigenous cultures, under the control of a power elite of Swiderian origin.

Yet other cultures from farther afield might also have been involved in the creation process. For instance, if Nilotic peoples

from Egypt, Sudan, and even the Sahara were trading with the Natufian peoples, as seems likely from a number of disparate pieces of evidence now emerging from Epipaleolithic sites in the Levant corridor,[*20] then it remains distinctly possible that groups or individuals from the Nile Valley might have had a hand in the emergence of Göbekli Tepe.

These are possibilities that cannot be ruled out at this time. Yet what seems more certain is that the Swiderians, who would have reached eastern Anatolia during the Younger Dryas period, carried with them some semblance of the beliefs, practices, and ideologies that had earlier thrived among the Solutrean peoples of southwest and central Europe. They were also, very likely, carriers of magical traditions derived from the Kostenki-Streletskaya culture, whose descendants they would have encountered as they crossed the Russian steppes on their way to the Caucasus Mountains and Armenian Highlands. The Kostenki-Streletskaya peoples' own

successors most probably included the Zarzians, who had followed a very similar route as the Swiderians, southward from the Russian steppes to eastern Anatolia, as much as ten thousand years earlier. All of these influences are interconnected and came to bear, eventually, on the construction of Göbekli Tepe, ca. 9500–8000 BC.

Our journey is almost over. Yet I still needed to make the link between Göbekli Tepe and the presence some two hundred miles (320 kilometers) away of the Garden of Eden. How did one affect the other when they existed in separate millennia, many thousands of years apart? Those living either in biblical times or much later during the formative years of Christianity cannot have known of Göbekli Tepe, even if they *did* recognize Armenia as the genesis point of human civilization. So what linked all these disparate elements together? The answer for me came with the confirmation of a dream.

PART SIX

Completion

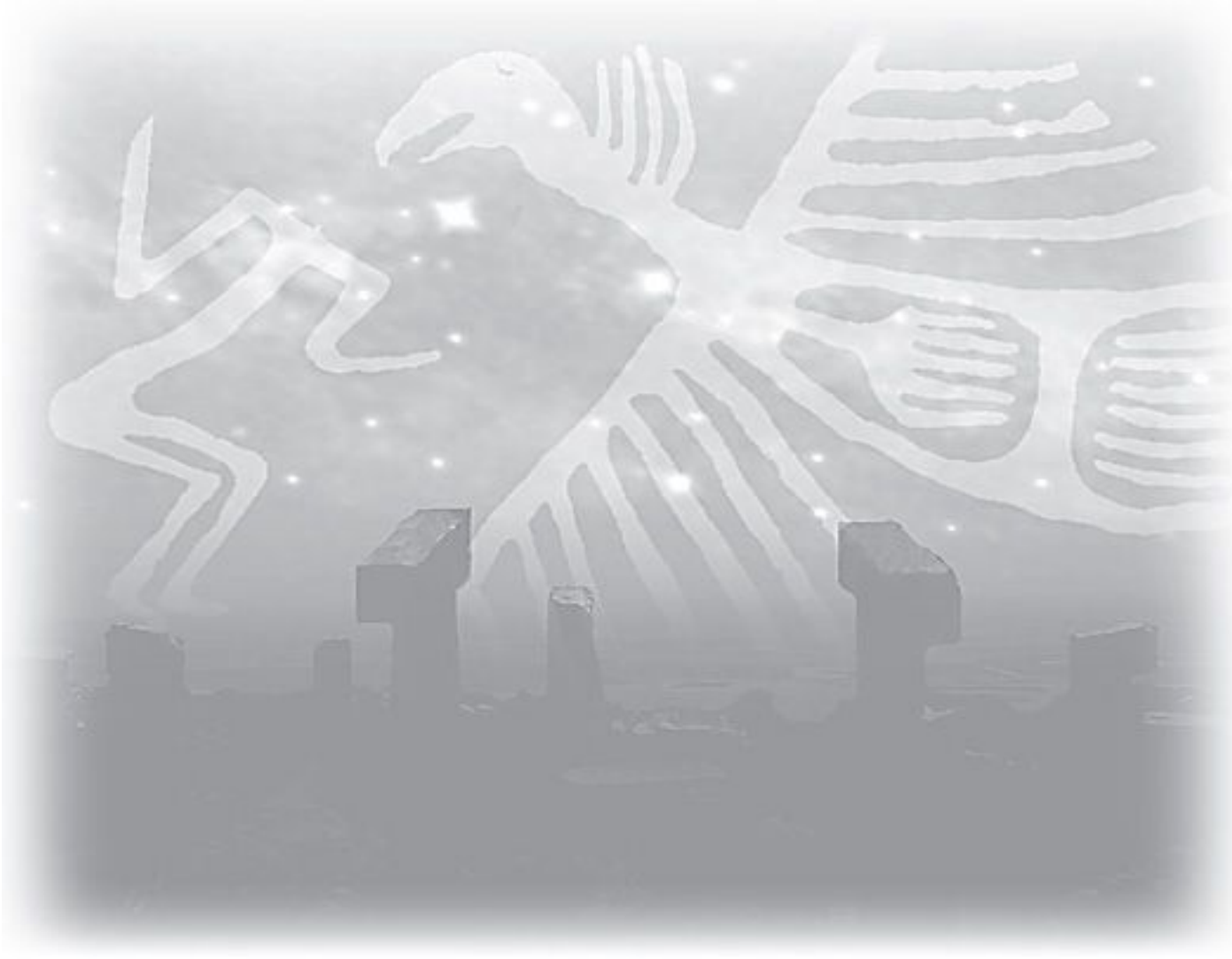

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A QUIET CORNER OF EDEN

Thursday, March 1, 2012. Finally, after nearly eleven months of searching, I had found the monastery of my dream, the one in which the monks were celebrating life itself through the elevation of a holy relic thought to be a fragment of the Tree of Life. Called Yeghrdut (or Yeghrduti), the monastery was located 13.5 miles (21.5 kilometers) west of the town of Mush, in the foothills of the Eastern Taurus Mountains, overlooking the plain of Mush and the Murad Şu, or Eastern Euphrates.

EDEN-LIKE WOODLAND

Evidence of the existence of this monastery, destroyed during the Armenian Genocide of 1915, had utterly eluded me until now, even though I had consulted ample books on the history of Taron, the ancient Armenian kingdom that embraced the plain of Mush. Yet of all places, it was on Wikipedia that I first found reference to Yeghrdut. It had its own entry, and under the subheading "Legends," the following lines almost jumped off the page at me:

> According to popular belief, the Kingdom of Armenia has an Eden-like woodland named Yeghrdut in the Taron district, west of the Muş Valley. It is believed that old men who come there from Muş valley and spend some time in that corner of unearthly beauty would become twenty years younger.[1]

This "Eden-like" woodland called Yeghrdut, where local men

would come to be rejuvenated, sounded very much like the claims attached to the Fountain of Life (Ma'ul Hayat) or Waters of Life (Ab'i Hayat), identified in Kurdish folklore as being in the vicinity of Bingöl Mountain, 35 miles (56 kilometers) north of this area. Was this Armenian account simply an echo of these same legends, or could Yeghrdut relate to the presence in the region of the terrestrial Paradise? Clearly, Eden-*like* did not mean Eden itself, although I had a hunch there was far more going on here.

THE DISCIPLE THADDEUS

That day I searched online and found two webpages on Yeghrdut's history and legendary background written in Russian-Armenian.[2] What they contained simply stunned me and changed everything I thought I knew about Armenia's place in the story of the Garden of Eden. Apparently, the fourth-century Armenian churchman Zenob

Glak, who wrote a history of Taron, recorded a quite fantastic story regarding the origins of the Yeghrdut monastery. It begins with the well-established account of how in AD 29 Thaddeus, one of the seventy (or seventy-two) disciples of Christ, traveled to the city of Edessa (modern Şanlıurfa) in Northern Mesopotamia at the behest of its king, Abgar, who wished to be cured of a serious skin malady.

According to early Christian legend, the king, having heard of miracles being performed by Jesus, sent out a request for this wonder worker to cure him of his illness. In response, the disciple Thomas dispatched Thaddeus of Edessa, who had earlier traveled from his homeland in Northern Mesopotamia to Judea, where he'd been baptized by John the Baptist in the River Jordan, and then, following the Baptist's death at the hands of King Herod, had become a follower of Jesus.

So when Jesus was still alive, according to the story, Thaddeus (also known as Addai) arrived in Edessa, his native city, carrying

with him a handkerchief that Jesus is alleged to have wiped across his face, leaving behind a facelike impression. It was the power of this holy relic, known as the Image of Edessa, or the Mandylion, that is said to have cured Abgar of his malady.

The account goes on to state that Thaddeus afterward baptized King Abgar, who thus became the first monarch to adopt the Christian faith. As for Thaddeus, he apparently remained in Northern Mesopotamia preaching the word of God, and then in either AD 43 or AD 45 entered the neighboring kingdom of Armenia. Here he came upon a "woodland" called Yeghrdut, where he deposited a number of highly significant holy relics brought out of the Holy Land. Other variations of this tradition have Thaddeus being accompanied on his journey by the apostle Bartholomew.[3]

Fast forward to the fourth century, and the writer Zenob Glak now has the celebrated Armenian churchman Gregory the Illuminator being led by God to retrieve the holy relics left behind

by Thaddeus three centuries earlier. Thereafter a monastery is founded on the spot in order to house them.[4]

The relics found by Gregory at Yeghrdut apparently included a small finger of Mary Magdalene, items belonging to Joseph of Arimathea, and bones from the right arm of John the Baptist,[5] hence the monastery's dedication to the saint.[6] Gregory also discovered a bottle, or container (Armenian *shish*), in which was preserved a remnant of the perfumed oil (known as the Myron, Muron, or Chrism) that had anointed "prophets and apostles"[7] and had been used by Thaddeus to help restore King Abgar's health and vitality following his miracle cure after coming into contact with the Image of Edessa. For this reason the monastery bore the alternative name of Shishyugho, which means "of the oil bottle,"[8] or Shuyugho, "young branch of the (oil) tree."[9]

EDEN AND THE TREE OF LIFE

In Christian tradition such relics, if considered “genuine,” would be deemed highly significant. However, for me they paled into insignificance when compared with what else Thaddeus supposedly deposited at Yeghrdut, for according to Armenian tradition he came bearing a fragment of the “Tree of Life” (Armenian Կենաց ծառի), which after its discovery became a key focus of veneration at the monastery.[10]

More incredibly, I discovered that Yeghrdut was believed to have been located not just in an “Eden-like woodland,” but in “a corner” or “one corner” of “Eden” (Armenian եդեմային), which can also mean the “Garden of Eden.” This, the Armenian source states, “was in Taron Province, south of the Mush plain (Armenian դաւտից).” It goes on to say that “The place was called Yeghrdut, and here the elderly man would travel to become younger by twenty years.”[11]

As soon as I read these words, my stomach churned, and I knew inside that this was the monastery I had glimpsed in dream the previous year. Both the reference to the presence there of a piece of the Tree of Life and the monks' belief that their monastery stood in some quiet corner of the Garden of Eden seemed to confirm this fact. It was the same place I'd seen, smelt, and experienced, both in sleep and then afterward when recording my thoughts in diary form.

Yet double-checking what exactly a fragment of the Tree of Life actually means in Armenian Church tradition made me realize that the holy relic at Yeghrdut was slightly more complicated than I had first imagined, for it is also described as the "Stick of Life" (Armenian կենաց փայտով),[12] or a "piece of the Wood or Timber of (the Tree of) Life (Armenian Կենաց փայտի մի մասնիկը)."[13] It is a term that derives from a gradually evolving legend that has its inception in the first century AD and revolves around what happened to Adam and Eve following their expulsion

from Paradise.

After departing the Garden of Eden, the couple settle down somewhere on its fringes, and here they raise two sons, Cain, a crop grower, and Abel, a shepherd. As the book of Genesis tells us, Cain kills Abel, creating the first murder and death in human history. As a consequence, Cain is cast out and lives the rest of his life in the enigmatically named land of Nod, while Adam and Eve's third son, Seth, is born. He becomes Adam's rightful successor and the inheritor of his heavenly wisdom and knowledge.

THE OIL OF MERCY

So far, this is the basic story in the book of Genesis. However, Jewish and later Christian works compiled between the third century AD and medieval times—containing what scholars refer to as Primary Adam Literature—continue where the Bible account

leaves off. The most well-known of these are the Latin *Vita Adae et Evae* ("Life of Adam and Eve") and the Greek *Apocalypsis Mosis* ("Apocalypse or Revelation of Moses"). Both these texts, and others like them, relate the story of how when Adam was on his deathbed he asks his son Seth to approach the gates of Paradise and beseech God to part with a little of the "Oil of Mercy" that flows from the Tree of Life, in order that this might sustain his life. Obeying his father, Seth departs for Paradise in the company of Eve and implores God to give him some of the oil from the "tree of his mercy" in order that he might anoint his sick father (see figure 35.1).

After some time, an angel appears (usually this is Michael, although not always). He refuses their request, saying that the Oil of Mercy is reserved for the final days, adding that in five and a half thousand years a savior will come who will be baptized in the River Jordan. Thereafter he will "anoint from the oil of mercy all that

believe in Him. And the oil of mercy shall be for generation to generation for those who are ready to be born again of water and the Holy Spirit to life eternal. Then the most beloved Son of God, Christ, descending on earth shall lead thy father Adam to Paradise to the tree of mercy"[14]; that is, the Tree of Life (see figure 35.2).

HOLY ANOINTING OIL

In other words, the text prophesized that, following his baptism in the River Jordan at the hands of John the Baptist, Jesus would somehow become the vessel of the Oil of Mercy, which would be spread by the Holy Spirit. The Armenian Church believes that this power was given originally to Moses, who was instructed by God to make something called the holy anointing oil (Ex. 30:22–33). This was afterward used to anoint many generations of Old Testament prophets, and eventually it found its way into the hands of John the

Baptist. Following his death it was given to Mary Magdalene, who used it to anoint Jesus's feet before his entry into Jerusalem prior to his arrest and crucifixion. He is said to have blessed it, after which time the oil was used to anoint apostles. Thaddeus of Edessa then carried the oil's container to Edessa, where the anointing oil was used to restore King Abgar's health and vitality. Thereafter the disciple continued his journey and buried the shish bottle "in Daron under an evergreen tree."[15]

The "Daron" mentioned here is an alternative rendering of "Taron," the plain of Mush, with the location of the "evergreen tree" being Yeghrdut (the Tree of Life was anciently considered to be an olive tree, which is an evergreen[16]). There is nothing about Jesus anointing the apostles in the New Testament—this is considered to have been bestowed on all 120 disciples of Christ by the Holy Spirit on the Day of Pentecost in Jerusalem.[17] However, the Yeghrdut legend states that the holy anointing oil deposited

there by Thaddeus had been used to anoint “prophets and apostles.”[18]

Figure 35.1. Section of the Death of Adam by Italian artist Piero Della Francesca (1416–1492), from a painted fresco in the Basilica of San Francesco in Arezzo, Italy. It shows Adam, on his death bed, telling Eve and Seth, who stands to her right, to go and ask the angel that guards the entrance to the Garden of Eden for some of the Oil of Mercy that oozes from the Tree of Life. In the background Seth is seen making this request to the angel Michael.

Figure 35.2. American lithograph of the Tree of Life in the terrestrial Paradise by the Currier and Ives company (1857–1907).Figure 35.2. American lithograph of the Tree of Life in the terrestrial Paradise by the Currier and Ives company (1857–1907).

THE ANGEL'S GIFT

In the story contained in the Latin *Vita Adae et Evae,* composed sometime between the third and seventh century using earlier source material, Seth and Eve depart from the Garden empty-handed. However, in alternative, and arguably later, accounts the angel gives Seth seeds or saplings from the Tree of Life to take away with him.[19] He and Eve then return to Adam, revealing what the angel said and what has been given to them. Thereafter Adam dies, and his body is laid to rest with the help of angels.

Prior to Adam's final interment, Eve and Seth place the seeds

from the Tree of Life in his mouth, or alternatively, they plant the saplings over the position of Adam's skull (the accounts vary). These grow into either a single tree or three trees that wrap around each other to become one. Eventually the tree is cut down and the timber utilized for a number of quite fantastic purposes. It is used to fashion the rod of Moses. It becomes a beam in King Solomon's Temple, or it is used to make a bridge, over which the Queen of Sheba passes. As this happens, she realizes the sanctity of the wood and demands that it be taken up and placed inside Solomon's Temple as a sacred relic.

THE TRUE AND LIVING CROSS

Afterward, the Holy Wood, or Holy Timber, of Life, as it is called in the Western Church, finds its way into a carpenter's shop, where it is used to fashion the Cross of Calvary, known in medieval

tradition as the Holy Rood. After Christ's crucifixion on Golgotha, the cross is buried nearby. Here also is Adam's skull, concealed during a much earlier age either by Shem, Noah's son and heir, and/or by Melchizedek, the first king of Salem; that is, Jerusalem. The blood trickling down the cross from Christ's body reaches Adam's skull, finally bringing redemption to Adam for causing the original sin. The symbolism between the burial of Adam's skull and Golgotha, which means the Place of the Skull, is purposeful. It is for this reason that we see a skull at the foot of the cross in Crucifixion scenes, and also on crucifixes.

Accordingly, the elderly Empress Helena, mother of Constantine the Great, the first Roman emperor to adopt and legalize Christianity, visits Jerusalem in AD 327 or AD 328 and is led by miraculous means to discover the remains of the Cross of Calvary beneath a Roman temple of Venus now occupying Golgotha Hill. As fragments of the holy cross are found to constantly sprout forth

new green shoots (due to the wood originating from the earthly Tree of Life), it becomes known as the True and Living Cross. It is because of this regenerative power that fragments of the True Cross are thought to have the power to restore life in a sickly person.

Clearly, the fragment of the Tree of Life possessed by the Yeghrdut monastery must have come from a separate branch to the one used to create the Cross of Calvary, as this piece is said to have reached Armenia in either AD 43 or AD 45, a mere decade after the Crucifixion and nearly three centuries before the Empress Helena discovered the Cross of Calvary. The only other thing I could discover was that Yeghrdut's precious holy relic was kept in a reliquary box (see chapter 39) and, I could only assume, was brought out and elevated during special ceremonies in the absolute conviction that here was a true fragment of the Tree of Life in the Garden of Eden.

Yet there was more to this story than simply the existence at

Yeghrdut of the Tree of Life fragment and the vessel containing the holy anointing oil, for after the foundation of the monastery in the fourth century, the monks would manufacture their own Myron, or holy anointing oil, always mixing it in the bottle that had contained the original oil created by Moses. This was done so that the new anointing oil would forever contain the essence of the original holy anointing oil used to bless "prophets and apostles." Apparently, Yeghrdut's sacred oil would be transported to the Mother See of Holy Echmiadzin in Vagharshapat, Armenia, where it was used in the inauguration of the Catholicos, the head of the Armenian Church.[20]

Naturally, I wanted to know more about Yeghrdut and its monks who, I felt sure, played heavily on their illustrious heritage and location on the edge of Eden itself. It was incredible to think that this monastery had thrived in the foothills of the Eastern Taurus Mountains just 170 miles (274 kilometers) away from Göbekli

Tepe, a true site of the genesis of civilization.

Yet what was Yeghrdut's connection with Göbekli Tepe, and, more pressingly, where was this monastery? It did not appear on any detailed maps of Taron, and unless its location was found, there could be no absolute confirmation that this was the place of my dream.

36

THE RED CHURCH

I needed to know where exactly the Yeghrdut monastery was located, so I attempted to use the geographic coordinates provided by Wikipedia to find the site. Yet wherever engineer Rodney Hale and I looked on Google Earth, nothing could be seen (the coordinates were later found to be wrong). All I knew was that Yeghrdut lay somewhere in the vicinity of a village called Kızılağaç (or Kızılhaç, pronounced *kiz-a-large*), a part Turkish, part Kurdish name meaning "red cross," a sure sign that a Christian edifice lay nearby.

The break came at the end of March 2012, when I learned from

my Kurdish contact, Hakan Dalkus, who had managed to contact the person running the Kızılağaç Facebook page, that in nearby mountains were Armenian ruins called Dera Sor, Kurdish for “Red Church.” It took further three-way correspondence to pin down the geographical location of Dera Sor. Then on Friday, April 6, 2012, appropriately Good Friday in the Western calendar, I saw for the first time on Google Earth an enormous rectilinear structure on a forested mountain ledge 2.25 miles (3.6 kilometers) south-southeast of Kızılağaç and 1.5 miles (2.5 kilometers) west-southwest of the village of Suluca (located at the coordinates of 38°45'1.37"N, 41°20'24.69"E).

The ruins appeared to consist of an outer shell around 70 yards (64 meters) in length and just over 40 yards (37 meters) in width. From what I could make out from the shadows cast by the remaining sections of the wall, they remained fairly high in places. The foundation of a second structure in the southeast quadrant of

the perimeter wall was also just visible, its axis skewed slightly more toward north (see figure 36.1).

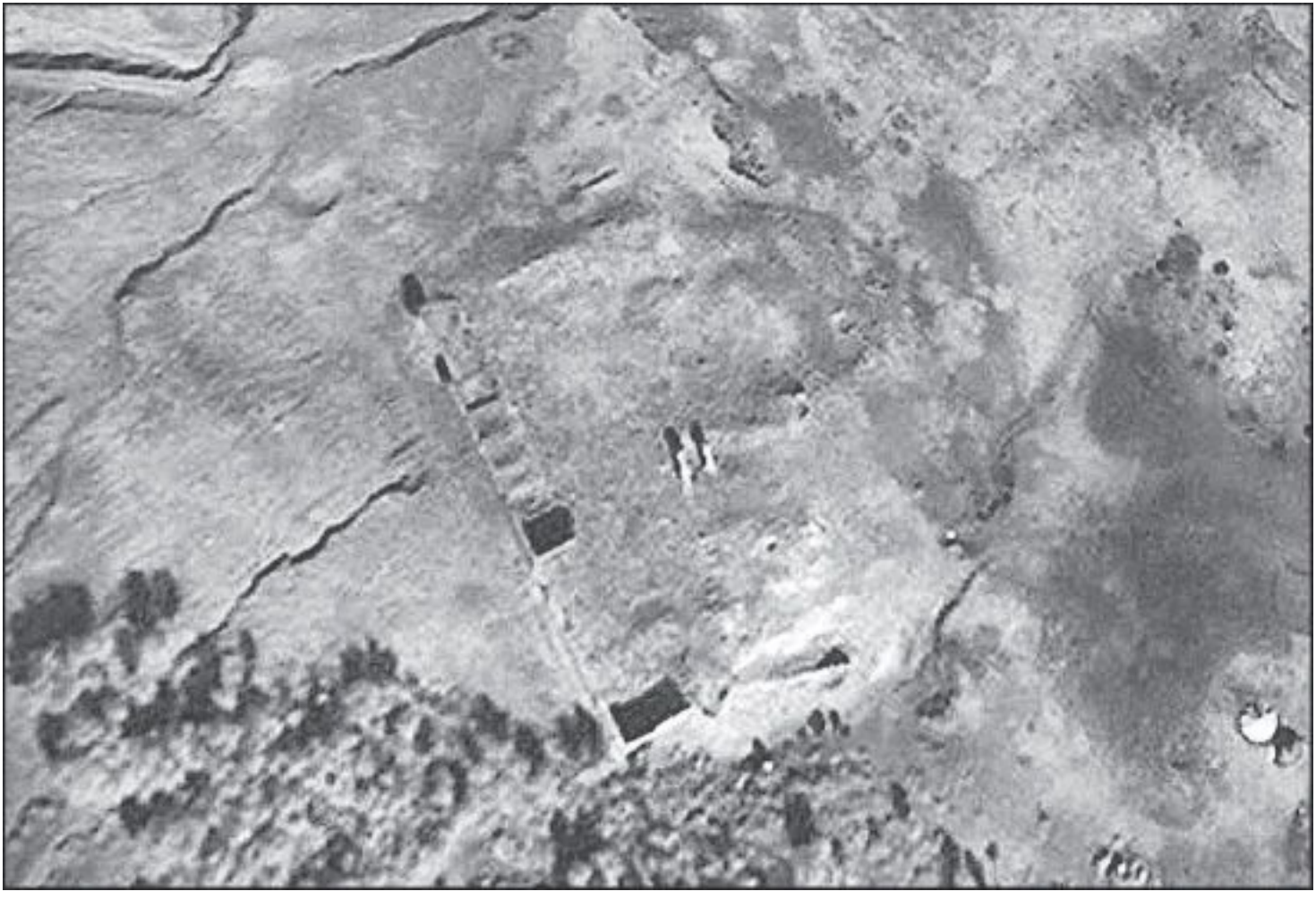

Figure 36.1. Google Earth image of Dera Sor, located on the

northern slopes of the Eastern Taurus Mountains, overlooking the Mush Plain. Does it mark the site of the Garden of Eden? Courtesy of DigitalGlobe 2013.

Immediately outside Dera Sor's exterior walls were traces of other rectilinear features, showing that this had to have been a monastery of some considerable size, situated in the northern foothills of the Eastern Taurus Mountains, overlooking the plain of Mush and Murad Şu or Eastern Euphrates River. Looking at the site, I got a strong sense of seclusion, isolation, and deliberate remoteness. Unlike monasteries such as Surb Karapet and Surb Arakelots elsewhere in the Mush district, this one cannot have received many visitors, unless it was for a very good reason indeed.

Although I was able to confirm that the Google Earth ruins were those of Dera Sor, the Red Church, I had no way of knowing whether they belonged to the Yeghrdut monastery. Further correspondence between my Kurdish contact and the man from

Kızılağaç drew a complete blank. No one seemed to know anything about Yeghrdut or its history.

I tried synching the geographical position of the Red Church with some old maps of Armenia, one of which had the word "Arkhavank," meaning "King's Monastery" (probably a reference to Jesus as King of the Jews), in the approximate same position, while another actually had a small diamond marking the position of Yeghrdut. They correlated pretty well, suggesting that Dera Sor, Arkhavank, and Yeghrdut were all one and the same.

STRANGE DECREE

Something else pretty curious was then discovered about Yeghrdut by a researcher colleague named Janet Morris. On my behalf, she had been studying and, where necessary, translating accounts of European travelers who had crossed the plain of Mush over the past

four hundred years. One such person, she found, was the French geographer Vital-Casimir Cuinet (1833–1896), who was sent to eastern Turkey to survey and count the Ottoman Armenian population. He made a very curious statement following a visit to the Yeghrdut monastery:

> On the opposite side of the plain, at the summit of a picturesque hill, covered with a thick wood and whose view extends a long way over an agreeable country, is found a convent under the decollation of St John the Baptist. Its construction as that of Mar-Johanna goes back to high antiquity. Amongst other precious titles, this convent holds a firman of the fourth Caliph Rachedi, Ali, son-in-law and first cousin of Mohammed, who accorded certain autonomous privileges falling into disuse over the course of time.[1]

That Ali (AD 601–661), the son-in-law and cousin of the Prophet

Muhammad, seen as the first imam in the Shia Muslim faith, signed a firman, or religious decree, on behalf of Yeghrdut begs the question of what might have been behind this decision. Clearly, Ali cannot have spent his time issuing and signing religious decrees for every Christian edifice the Arab armies came across as they conquered large parts of Asia, Africa, and Europe, so why was this monastery singled out for special attention?

In the year 15 AH (*anno Hegirae;* i.e., after the foundation point of the Islamic faith, thus AD 637), the Commander of the Faithful, Caliph Umar ibn al-Khattab, issued a written decree acknowledging the due rights of all non-Muslim sects, including Christians. This was done to protect churches and monasteries in general. Yet the one issued for Yeghrdut seems entirely different and suggests that, like Saint Catherine's Monastery in the Sinai, which was issued a firman by Muhammad himself, it was believed to contain important holy relics. Somebody wanted whatever it contained preserved and

not destroyed by the first marauders who came along looking for the spoils of battle. It hinted that Yeghrdut's claim to house holy relics belonging to Jesus, Mary Magdalene, John the Baptist, and Joseph of Arimathea was known at the time of the Arab-Muslim invasion of Armenia in the seventh century. (Much later I discovered a second reference to Yeghrdut's firman, which states that it was signed not just by Ali, but also by the Prophet Muhammad himself.[2] If nothing else, it tells us that Yeghrdut once held a religious status equal to that of Saint Catherine's monastery in the Sinai, which makes it a highly important place indeed.)

ONLINE APPEAL

I was getting frustrated. I really needed to know whether Dera Sor, the Red Church, was Yeghrdut, the Eden monastery of my dream, so I posted a message on an online forum called AniOnline that

addresses matters relating to Armenian architecture in the Lake Van area. I asked for confirmation of the monastery's exact geographical coordinates and anything else anyone might come up with, citing exactly what I knew already.[3]

As I waited for a response, my Kurdish correspondent, Hakan, returned with more information on Dera Sor from the Facebook contact in Kızılağaç:

> It is easy to reach the Red Church from Suluca and Kızılağaç. Walls and two arches stand. . . . They say Red Church was a monastery. Monks, priests and sisters etc. were educated there. It was a very rich monastery. Farmers of the surrounding lands were giving 50 percent of their crops to the monastery. No other info.[4]

A few days later, Raffi Kojian, the mediator of the AniOnline forum, posted a few lines on the Yeghrdut monastery paraphrased

from a Russian-Armenian dictionary of Armenian architecture:

> From the monastery the following were visible: Aradzani and Meghraget [both rivers], S. Karapet Monastery, a few villages [and mountains, viz.], Byurakn [Bingöl], Nemrut [Dağ], Gurgur, Sipan [Suphan Dağ], and in the further distance, the gray top of Massis [Mount Ararat]. That last one seems like a stretch, but that's what it says.[5]

Rodney Hale used Google Earth to check whether each mountain peak—Bingöl Dağ, Nemrut Dağ, Suphan Dağ, and Agri Dağ (Mount Ararat or Mount Massis)—was indeed visible from Dera Sor. Sure enough, if one were to stand on the mountain ridge immediately above the monastery ruins, all the peaks mentioned would have been visible on a particularly fine day.

Two days later, Raffi Kojian again posted on his forum. He said he now had in his possession a lengthy entry on Yeghrdut taken

from a Russian-Armenian encyclopedia on the churches and monasteries of the Taron Province, published in 1953. He had uploaded the opening lines to the Yeghrdut webpage on Armeniapedia, the online database for Armenian church architecture, which were now available to read.[6] Clicking the link, I found the following:

> Located four to five hours west of Mush, in front of S. Garabed/Karapet Monastery, in "Yegherits" region (*yergir*), on Sim Mountain (*Sim ler*) or on Black Mountain (*Sev sar*), on the south side of Yeprad/Yeprat River [i.e., the Murad Şu or Eastern Euphrates]. The location of the monastery is unmatched. On four sides are cold springs and forest. The air is pure, but cold. The view is indescribable. Almost all of Mush's plain is flat like a floor, its green worked fields open up before your eyes.[7]

This place sounded incredible, situated at a near perfect location to perpetuate the belief that it was founded in some quiet corner of Eden itself. I later discovered that four springs surrounded the monastery, one on each side, beyond which lay forests containing oak, hazel, and cedar trees.[8]

HOLY TREE AND SACRED SPRING

The contact at Kızılağaç was shown this entry on Yeghrdut and confirmed that this was indeed the topographical description of Dera Sor, adding that one spring in particular flowed from beneath the shade of an ancient walnut tree. Indeed, there was no other tree quite like it in the whole of Mush Province (walnut trees are considered sacred in Kurdish tradition). People came here from all over the district to drink the waters of the spring in the belief that it could cure ailments and maladies, and rejuvenate the body by as

much as twenty years.[9] This was, it seemed, the latest incarnation of the "evergreen tree" beneath which Thaddeus supposedly deposited the various holy relics in the first century AD.

Clearly this was an important holy shrine and one that was venerated extensively in the past by Christians and Muslim Kurds alike. It almost seemed as if, with the presence at Yeghrdut of a piece of the Tree of Life, together with the bottle that contained the sacred Myron, or holy anointing oil, the monks might have seen this evergreen tree and sacred spring as earthly representations of the Tree of Life with its spring that watered the Garden of Eden. Indeed, the stream that takes its rise from the spring beneath the monastery's holy tree, which bears the name Kilise Şu, "Church Stream," flows into the Eastern Euphrates, making it a source of one of the four rivers of Paradise.

DERA SOR IS YEGHRDUT!

That same day, Thursday, April 12, 2012, a member of the AniOnline forum posted the geographical coordinates of Yeghrdut, which were those of Dera Sor, the Red Church. The two were the same. The person in question said he had walked the hills from Mush to the location and could confirm that it is identical to the topographical description of Yeghrdut. In response, Raffi, the mediator of the forum, added a Google Earth link to Yeghrdut's entry on Armeniapedia, which now clicked through to the site of Dera Sor.[10]

There could no longer be any doubt—Dera Sor was Yeghrdut, which for me now became the absolute site of the Eden monastery first glimpsed in dream almost exactly one year earlier. To say I was elated is an understatement, for it almost seemed as if something I had created in my mind had now taken root in reality. Yeghrdut was certainly real, and with its fragment of the Tree of Life, the bottle containing the holy Myron, the "evergreen tree" with its sacred

spring, and, of course, its “indescribable” setting, it was everything one could hope for in a monastery located in Paradise itself. Yet still more research was required to truly understand the site’s greater importance to this gradually emerging picture.

SIM MOUNTAIN

Something in the opening lines of the Yeghrdut entry in the Russian-Armenian encyclopedia on churches and monasteries of the Taron Province then caught my attention. It was the statement regarding the monastery being located on Sim Mountain (*Sim ler*) or Black Mountain (*Sev sar*). The latter is a quite common name for hills and mountains in the region, usually under the Turkish word for black, which is *kara.* However, Sim Mountain needed further investigation, as it seemed somehow familiar. So I checked the history and topography of Taron and found something very

interesting indeed.

Movses Khorenatsi, the father of Armenian history, who lived in the fifth century AD, wrote extensively on the region's mythological past, in particular the life and exploits of Armenian cultural heroes thought to be descended from Noah (Armenians themselves believe they are descended from Noah[11]). For instance, Hayk, the conqueror of King Bel, or Nimrod, is said to have been the great-great-great grandson of Japheth, the son of Noah. Shem, Noah's chosen heir, is also connected with Armenia's legends, and according to Movses, after the ark came to rest, Shem departed with his sons and came upon a mountain, which he afterward named Sim (or Simsar, which means Mount Sim).[12]

According to Movses, Noah, having departed from the ark, established a dwelling for himself and his family (afterward named Thamanin, the modern Cizre in southeast Turkey), while Shem continued northwestward with his sons, and that

> coming to a plain in the high mountains, he stopped by a river and named the mountain Sim after his own name. He gave this region to his youngest son Tarpan [the Armenian word for ark is *Tapan*]. . . . Tarpan remained with his sons and daughters in the region given to him by his father and called it Taron and later Taruperan after his own name.[13]

Taron, or Taruperan, was, as we have already seen, the name of an ancient Armenian kingdom embracing the plain of Mush, implying, quite clearly, that Mount Sim overlooked the plain, which, of course, it does. Thus Yeghrdut was founded either on or very close to the spot where Shem and his sons are supposed to have set up camp after leaving the ark. As Movses Khorenatsi's home village was nearby Chorene, immediately south of Yeghrdut, it seems unlikely that the monks of the monastery would *not* have been aware of this clearly local tradition featuring Shem, the son of Noah.

Movses Khorenatsi's geographical positioning of Mount Sim and the wanderings of Noah and his family also make it clear that Mount Ararat is *not* the Place of Descent, the site where Noah's ark came to rest after the Flood. Shem is said to have traveled "northwest" to reach Sim Mountain in the kingdom of Taron (see figure 36.2), which fits perfectly with the ancient belief that the ark went aground on Mount al-Judi, the modern Cudi Dağ in southeast Turkey. In other words, the story as preserved in Movses's fifth-century history of Armenia was written with Mount al-Judi in mind as the Place of Descent, and *not* Mount Ararat, which lies some distance to the east-northeast of Sim Mountain.

ARMENIA
TURKEY
Araxes R
Mount Ararat
Place of Descent in Christian tradition
Bingol Mountain
DILMUN
Surb Karapet
TARON
Mush
L Van
Yeghrdut
Sim Mountain
L Urmia
Shem's journey to Mt Sim
Tigris R
Euphrates R
Göbekli Tepe
Cudi Dağ/ Mount Judi
Cizre (Thamanin)
Original place of Descent
Gt Zab R
SYRIA
Abu Hureyra

Figure 36.2. Map of eastern Turkey showing the candidates for the Place of Descent in Noahic tradition. Note also the route taken by Noah's son Shem from the Place of Descent to Sim Mountain, said to overlook the kingdom of Taron, that is, the plain of Mush.

All these Armenian traditions indicate that the plain of Mush and the surrounding mountain ranges were seen as important to the events portrayed in the generations between Adam and Abraham, although what they did not do was give credence to the belief that here also was the terrestrial Paradise. What I needed was better confirmation that Armenia, and in particular the area under discussion, was once believed to have been the site of Eden, something that Movses Khorenatsi worryingly makes no mention of in his history of Armenia.

As we see next, that confirmation is provided by the Reverend Marmaduke Carver, who in his fabulous work *A Discourse of the Terrestrial Paradise,* published in 1666, did so much to show that

the area between Thospites Lake (Lake Van), the Tigris Tunnel in Sophene, and Bingöl Mountain in the Armenian Highlands was the true site of the terrestrial Paradise.

37

THE SECRETS OF ADAM

The Reverend Marmaduke Carver wished also to find absolute confirmation that the southern part of Armenia Major, modern eastern Turkey, was the authentic site of the Garden of Eden. Writing in *A Discourse of the Terrestrial Paradise,* he notes: "Tradition successfully continued in these parts [i.e., after the Flood], that hereabout was the place of Adam's Paradise,"[1] adding:

> The Author that affirms this is Methodius. . . . Now this ancient Author *(in lib. Revel.)* speaking of the death of Seth, and the secession of his posterity from the posterity of Cain, hath

> among other things this remarkable passage: *Mortuo* Seth *separavit se Cognatio ejus à sobole* Caini, *redierúntque ad natale solum. Nam & Pater corum vivens prohibuerat nè miscerentur. Et habitavit Cognatio* Seth *in* Cordan *monte, Paradiso terrestri proximo.*[2]

The Latin text translates as: "[After the death of Adam] Seth separated from the issue of Cain and returned to his native country, for his father had forbidden their lives to mix. And Seth lived with his kin on Mount Cordan, next to the terrestrial Paradise."

Having cited Methodius's words, Carver notes: "If the terrestrial paradise were near the Mount Cordan, and that Mount Cordan or Gordiæus stood in the same place where Ptolemy hath set it; then we may rest secured, that the happy seat of our First Parents Habitation was at or about the very place that we have described."[3]

THE REVELATIONS OF METHODIUS

Very pertinent words indeed, so who was Methodius and where was Mount Cordan, or Gordiæus? Methodius of Olympus was a theologian and prolific writer of the early fourth century (he died ca. AD 311). The quotation cited by Carver, or variations of it, is from a work accredited to Methodius entitled the *Apocalypse* or *Revelations* (*Revelatio*). It contains a commentary on the book of Genesis and an account of the coming of the Antichrist and the inevitable end of the world. However, there is a problem, as there is no record of Methodius ever having written such a book. Moreover, it is quite clear from its contents that the *Apocalypse* was written in response to the Arab invasion of Asia Minor in the second half of the seventh century AD, three hundred years after Methodius's death. In other words, its author was most likely a Christian writer of the seventh century who wanted to bolster the tract's value by accrediting it to Methodius.

Exactly who penned this pseudepigraphical, or falsely attributed, work is unclear (the author is now referred to as Pseudo-Methodius), although what *is* important is that it was written originally in Syriac, the language of Northern Mesopotamia, meaning that it could well have originated from somewhere close to the city of Edessa, modern Şanlıurfa. This seems certain, as just a year or two after its initial circulation, modified versions, known today as the *Edessene Apocalypse,* were being produced in the area, quite possibly in one of the monasteries locally.[4]

WHERE IS *CORDAN MONTE?*

Which version of the *Apocalypse* the Reverend Marmaduke Carver consulted for his book is not cited. Most likely it was a volume in the York Minster Library, where the churchman did much of his research for *A Discourse of the Terrestrial Paradise.* Yet if we

accept Carver's translation as authentic (and I have certainly found a Latin version of the *Apocalypse* with a date of 1593 that contains these exact same lines[5]), it implies that in the late seventh century an accomplished theological writer, living close to Edessa and the site of Göbekli Tepe, possessed knowledge implying that Seth, his father Adam, his mother Eve, and their extended family group inhabited "Cordan monte," or Mount Cordan. Even more significant is his conviction that this mountain was situated *proximo,* or "next," to the terrestrial Paradise; that is, the Garden of Eden.

Carver assumed that "Cordan monte" was a reference to the Gordiæus Mountains (also written Gordyene or Corduene), which, he says, the Greco-Roman geographer Ptolemy (AD 90–168) located in the district of Armenia Major. Apparently, Ptolemy saw them as at "the same latitude with the springs of the Tigris: Strabo joins them with Mount Taurus."[6] Today, this mountain range is identified with the Kardu Mountains, which are farther south and

include Mount al-Judi, the traditional resting place of the ark. Yet the classical writers located the Gordiæus Mountains north of here, in the Eastern Taurus range, which borders the plain of Mush on its southern side.

So this fixed the mythical world of Adam, Eve, Seth, and their extended family firmly within reach not just of the source of the Tigris, but also Sim Mountain, where Shem and his sons settled, and the Yeghrdut monastery was founded in the fourth century AD. Is this where Adam and Eve came to rest after being expelled from the Garden of Righteousness, somewhere in the vicinity of Yeghrdut, where afterward Shem established his own home? Interestingly, it was Shem who Noah sent to retrieve Adam's skull from its place of burial in order that it might be brought on to the ark,[7] even though the bodies of Eve, Seth, and all the other early patriarchs were left in situ. Apparently, the site of Adam's burial was the "Cave of Treasures," located on a "Holy Mountain"[8] that was said to

overlook the site of the original Garden of Eden.[9] Did this cave exist somewhere near Yeghrdut, and could it be found today?

Of course, the historical validity of any such material is at best questionable, and yet there is no denying that the power of belief in a fictional mythos can be just as real as if not more real than, a tangible, mundane reality. Moreover, mythical data can encode within it kernels of truth that can manifest in the real world, and so nothing should be ignored or dismissed out of hand without due consideration.

THE SEED OF SETH

So to suddenly find that Adam and Eve's homeland after their expulsion from the Garden of Eden was somewhere in the vicinity of the Eastern Taurus Mountains was very compelling indeed. Moreover, the introduction of Seth to the story was also highly

significant, as it was the "seed of Seth," or Seth's descendants, who were to inherit God's kingdom after the death of Adam. This belief is derived from a passage in Genesis 4:25, which reads:

> And Adam again knoweth his wife, and she beareth a son, and calleth his name Seth, "for God hath appointed for me another seed instead of Abel:" for Cain had slain him.

The words "another seed" is interpreted as meaning that through Seth, the third son of Adam, God created a new branch of humanity that some Jews and early Christians believed was the only truly righteous tribe of God. Everybody else was descended of Cain, Seth's evil brother, and was thus wicked by descent.

Many Gnostic sects that thrived in the first five centuries of the Christian era saw Seth as the first of three manifestations of Christ himself. The others would seem to have been Shem, the son of Noah, and Jesus Christ himself. Indeed, the heavenly Seth was seen

to have manifested in this world through the incarnation of Jesus, the two being synonymous with each other.

THE NAG HAMMADI LIBRARY

Gnostic followers of Seth, or Sethites as they were known, flourished among religious sects and secret groups that thrived in regions such as Palestine, Syria, Asia Minor, Egypt, and Armenia. They had their own gospels, or scriptures, many of which were found together inside a cave near Nag Hammadi in Middle Egypt in 1945. What became known as the Nag Hammadi library is the most important collection of Gnostic and Sethite texts ever studied. One theory is that the codices may have belonged to a local Coptic monastery and were buried following Bishop Athanasius's condemnation of the use of non-canonical holy books, that is, those not officially recognized by the Roman Church, in AD 367.

Among the Sethian titles in the Nag Hammadi collection are the *Three Steles of Seth, Zostrianos* (some see Zostrianos as a manifestation of Zoroaster, the divine leader of the Zoroastrians), the *Second Treatise of the Great Seth,* the *Paraphrase of Shem* (or Seth), *Allogenes,* the *Trimorphic Prottenoia,* and *Melchizedek.* These Gnostic gospels have some very interesting things to say about Seth, who is occasionally confused or identified with Shem,[10] the son of Noah. For instance, it is suggested that before his death, Adam transmitted to Seth certain matters concerning everything from the divine or angelic nature of humankind to the movement of the stars and heavenly bodies, and the knowledge of a coming catastrophe involving fire and water. These "secrets of Adam" are said to have been recorded before being hidden away until humanity was ready to receive them. Some of these secrets were to be revealed, periodically, through the appearance of four Phosters, that is, revealers or illuminators, who would incarnate for this express

purpose,[11] while others would remain hidden until the right time for their discovery.

THE PILLARS OF SETH

What intrigued me most about this tradition is that Seth apparently inscribed the secrets of Adam on pillars or wrote them down on stone tablets, called steles, which were then deposited somewhere in the ancient world, usually either on or within a mountain cave of some description. For instance, the Jewish writer Flavius Josephus (AD 37–100), in his book *The Antiquities of the Jews,* talks about Seth leaving behind children, who "inhabited the same country without dissensions, and in a happy condition." They were "the inventors of that peculiar sort of wisdom which is concerned with the heavenly bodies, and their order." He goes on to write:

> And that their inventions might not be lost before they were sufficiently known, upon Adam's prediction that the world was to be destroyed at one time by the force of fire, and at another time by the violence and quantity of water, they made two pillars, the one of brick, the other of stone: they inscribed their discoveries on them both, that in case the pillar of brick should be destroyed by the flood, the pillar of stone might remain, and exhibit those discoveries to mankind; and also inform them that there was another pillar of brick erected by them. Now this remains in the land of Siriad to this day.[12]

Here the secrets of Adam are inscribed on pillars, one of brick, the other of stone, which are erected to preserve this knowledge beyond the coming cataclysm involving both a conflagration and deluge. So where exactly is Siriad (also written Seiris or Sirian), the named location of the inscribed pillars?

THE LAND OF SIRIAD

Because of the confusion between Seth, the son of Adam, and Seth, the brother of Osiris in Egyptian mythology, it has long been assumed that Siriad means Egypt. Here the inhabitants venerated the bright star Sirius, a similar sounding name to Siriad, while the pillars of Seth themselves were identified with the Great Pyramid and its neighbor, the Second Pyramid. This was a surmise assumed by the scholarly world following the publication in 1737 of a very popular translation of Josephus's works by English theologian, historian, and mathematician William Whiston (1667–1752).[13] Although Whiston did not believe that the pillars of Seth could have survived the conflagration and Flood, he did identify the land of Siriad as Egypt.[14]

Yet this connection with Egypt is a misnomer, for even if Seth *did* somehow become associated with the Great Pyramid, we know that Adam's son "lived," as Pseudo-Methodius tells us, somewhere

in Armenia, which, following the carving up of the Greek Empire after the death of Alexander the Great in 323 BC, came under the control of the Syrian Seleucid Empire. Even with the dissolution of the empire in 190 BC, two Seleucid satraps, or governors, revolted and assumed control of Armenia Major and Armenia Minor (or Lesser Armenia), located west of the Euphrates River, and proclaimed themselves kings. Hellenic Greek practices and customs continued to thrive in Armenia and Northern Mesopotamia with all its Syrian influences. What is more, Edessa's kings, who were mostly called Abgar or Manu, kept their links with Syriac culture and tradition, and retained Syrian as the main written language.

There is really nothing to link the pillars of Seth with Egypt, and all the indications are that Siriad is a straightforward reference to Syria. In fact, before William Whiston's translation of Josephus's works, earlier translators did not hesitate to link Siriad with Syria. D. Eduardi Bernardi, for instance, in a translation of Josephus

published at Oxford in 1687, discusses whether Siriad means Syriac in origin or belonging to Syria.[15]

Elsewhere there is additional evidence that Seth was depositing the "secrets of Adam" closer to home. For instance, at the end of the Latin *Vita Adae et Evae,* the "Life of Adam and Eve," following Adam's death Eve instructs their children to write on tablets of stone and clay everything they have learned both from her and their father. During the coming cataclysm, that which is written on stone will survive the Flood, while that which is written on clay will survive the conflagration. The implication is that Seth then conceals the tablets in the same vicinity; in other words, somewhere close to the terrestrial Paradise.[16]

THE ROCK OF TRUTH

The *Apocalypse of Adam,* one of the Gnostic texts included in the

Nag Hammadi library, contains the revelation that “Adam taught his son Seth in the seven hundredth year.” Here Adam tells Seth to record all of his and Eve’s experiences in the Garden of Paradise (see figure 37.1). This is to include the revelations conveyed to them by three angelic informants regarding the future adventures of the elect, that is, the seed of Seth, along with knowledge of the imminent cataclysm of fire and flood, and details of the coming savior, who is Seth himself. Collectively, this wisdom is described as the “hidden knowledge of Adam.” The reader is told also that a special revelation is to be written “on a high mountain, upon a rock of truth.”[17]

Figure 37.1. *Eve at the Fountain,* by English visionary painter John Martin (1789–1854), one of twenty illustrations done in mezzotint

for the 1827 edition of John Milton's Paradise Lost.

Even though the whereabouts of the land of Siriad, or Seiris, is nowhere given in the Gnostic gospels, Adam's secret writings are repeatedly said to be hidden in a holy mountain. The work known as the *Allogenes,* for instance, proclaims: "Write down [the things that I Allogenes, a name of Seth] shall [tell] you and of which I shall remind you for the sake of those who will be worthy after you. And you will leave this book upon a mountain and you will adjure the guardian 'Come, O Dreadful One.'"[18]

THE GOSPEL OF THE EGYPTIANS

Then in *The Gospel of the Egyptians,* also from the Nag Hammadi library, we read:

> This is the book which the great Seth wrote, and placed in high

> mountains on which the sun has not risen, nor is it possible. And since the days of the prophets, and the apostles, and the preachers, the name has not at all risen upon their hearts, nor is it possible. And ear has not heard it.
>
> The great Seth wrote this book with letters in one hundred and thirty years. He placed it in the mountain that is called Charaxio, in order that, at the end of the times and the eras . . . it may come forth and reveal this incorruptible, holy race of the great savior, and those who dwell with them in love.[19]

These words are greatly enigmatic, for they speak of a book concealed "in" a mountain, the location of which, and even the name thereof, has not been uttered since the time of Seth. Yet then, as if pronounced as part of some magical spell, the name of the mountain is finally revealed: *Charaxio.* But where is Charaxio? Was this the true hiding place of the secrets of Adam?

THE SEARCH FOR CHARAXIO

Charaxio is said to be located "where the sun has not risen, nor is it possible," a clear allusion to the Land of Darkness, the otherworldly realm in the extreme north associated with Alexander the Great's quest to find the Fountain of Life and Gilgamesh's search to find the plant of immortality. It was here too that the god El had his abode and the two hundred rebel Watchers made the decision to descend to the plains below and take mortal wives. As Belgium-based Near Eastern scholar Edward Lipinski determined, the Land of Darkness existed beyond the virtually impenetrable barrier created by the Eastern Taurus Mountains in Armenia Major.

Guy G. Stroumsa, a Gnostic scholar with the Hebrew University, Jerusalem, and Oxford University, England, has made a study of the mysterious mountain called Charaxio. He says that various attempts have been made to find its location. However, because Charaxio appears under this name only in *The Gospel of the Egyptians,* it has

proved near impossible to trace. This said, the abbreviated form, Charax, *does* appear in antiquity.[20] John Lemprière's *Bibliotheca Classica: A Classical Dictionary,* published in 1788, reveals just one entry under this name, which is "a town in Armenia."[21]

That Charaxio might have been situated in Armenia makes sense of the fact that it was said to exist where the sun doesn't shine; that is, in the Land of Darkness, in the far north. Stroumsa himself took note of this, comparing Charaxio's description with "the dark regions mentioned in 1 *Enoch* 78:3"[22]; that is, the book of Enoch, which, as we have seen, can be linked with the Land of Darkness beyond the Tigris Tunnel. Realizing this, Stroumsa alludes to traditions regarding the prophet Enoch being handed books from his forefathers Adam and Seth, which he says were concealed on Mount Ararat in Armenia, so that they might remain safe during the coming deluge.[23]

MOUNT SIR

Pushing the matter still further, Stroumsa notes that "the link between Seiris (the land of the sons of Seth and the place of the Steles) and Mount Ararat" finds expression in another Gnostic text called *The Hypostatis of the Archons,* which is also found in the Nag Hammadi library. He continues: "Noah is asked by the demiurge (the creator of the physical world) to set the ark upon Mount Sir. . . . In some milieus, the mountain could have been given the name of the land in which the books were written Σειρ(ις)"[24]; that is, Seir(is).

So Guy Stroumsa proposes that Charaxio, Seiris, and Mount Sir (Seir) are all one and the same or that they are conflated forms of an original mountain of Seth, which he identifies as Mount Ararat, since this would have been the safest place for something to have been hidden with foresight of the coming conflagration and deluge. This is, in my opinion, smart thinking, yet once again we are back to

Mount Ararat sucking up every legend and tradition that comes along, simply because of the Christian fixation with its being the Place of Descent of Noah's ark. Just one Gnostic work actually mentions Mount Ararat by name, this being the *Pistis Sophia* contained in the Askew Codex, a fifth-century parchment manuscript of Coptic origin now in the British Library. Yet it speaks only of Jesus in his spiritual form causing the patriarch Enoch to write the so-called Books of Yeu (or Jeu) when in Paradise, and then getting him to deposit them for safekeeping "in the rock Ararad," where a heavenly ruler is appointed to watch over them during the coming flood.[25] It does not mention Adam or Seth, and certainly makes no direct reference to Charaxio, Seiris, or Mount Sir.

So I looked again for any elucidation on the place-name Charaxio and found something very interesting indeed. I discovered that the Araxes River, which was also known by the abbreviated form of

Arax, was itself once called the Charax,[26] making sense of John Lemprière's entry in his *Bibliotheca Classica* regarding a town called Charax in Armenia. Since we know that the Araxes takes its rise on Bingöl Mountain, the Abus Mons of antiquity, there has to be a good chance that it is also Charaxio, which with the *–io* suffix gives it the meaning "belonging to Charax"; that is, the Araxes River.

Charaxio's identification with Bingöl Mountain is strengthened by the words of Stroumsa himself, who concludes for perfectly good reasons that Charaxio, Seiris, and Mount Sir are all synonymous with Bingöl's main rival, Mount Ararat. Take Mount Ararat out of the picture and you are still left with his firm conviction that somewhere in Armenia Major is the real Charaxio. So was Bingöl Mountain really where Seth concealed the secrets of Adam on pillars or steles in order that they might be revealed in the final days? It is interesting that John Lemprière's entry for Abus

Mons reads "a mountain in Syria, where the Euphrates rises."[27] It confirms that in classical times this region of Armenia Major was still classed as Syria, the ancient land of Siriad or Seiris, where Josephus tells us that Seth concealed his pillars of knowledge and his descendants continued to live after this time. Yet what about Mount Sir—where was that located?

MONS VICTORIALIS

A tract entitled *Opus Imperfectum in Matthaeum,* a commentary on the Gospel of Matthew, which circulated among a Christian sect known as the Arians during the fifth century, alludes to a lost book or books of Seth. It states that once a year a group of twelve scholars would climb a mountain called Mons Victorialis, the "Victorious Mountain" or "Mountain of Victory," on which were abundant "fountains" and beautiful trees, and here they would enter

a cave and examine an original work written by Seth.[28]

An eighth-century Syriac text known as the "Revelation of the Magi"[29] contains the same basic story, although here the twelve scholars are twelve Magi, who are both kings and "wise men,"[30] descendants of Seth,[31] who live in the land of Shir (i.e., Sir or Seiris).[32] The book takes the form of commandments given by Adam to Seth, who records them in written form. It speaks of a sign that will herald the birth of a god in human form, with that sign being a star in the likeness of a small child.[33]

Every year the Magi would purify themselves in a spring and then ascend the Mountain of Victory and pray in silence before entering the cave, which is identified as the Cave of Treasures of the Hidden Mysteries.[34] (See figure 37.2.) Here Adam and Eve had lived, just beyond the Garden of Eden, and after their deaths it had become the home of Seth, his family, and their descendants.

This same settlement of the antediluvian patriarchs, as we have already seen, was said by Pseudo-Methodius to have been located near Mount Cordan, in the Eastern Taurus range, close to the Yeghrdut monastery and the plain of Mush.

Inside the cave the Magi consulted the books of Seth containing the secrets of Adam and watched for the prophesied sign before returning to their kingdoms to instruct those of their people who wished to learn of the "hidden mysteries." The whole process was repeated across many generations, and when one of the twelve died, either a son or a close relative would replace him.[35]

The text alludes also to a book of revelations written by Seth, which states that Adam had originally seen the sign, the original star child, hanging over the Tree of Life in the Garden of Eden, but that it had disappeared when he committed the first sin.[36] The "Revelation of the Magi" then reveals how a star appears in the sky, before entering the cave, inviting the Magi to do the same. Inside

they find not a star, but the likeness of a small child, who introduces himself as the Son of God. The wise men are instructed to follow the star so that they might worship him in human form. They are then led in a quite fantastic manner first to Jerusalem and then to Bethlehem, where the star enters a cave and becomes the infant Jesus, at which point the story reverts to the account of the Nativity as told in the gospel of Matthew (2:1–12). Eventually, the Magi return to the land of Shir, and in time the apostle Judas Thomas arrives to convert the people through "mighty deeds"[37]; and here he now baptizes and anoints the Magi.

Figure 37.2. Twelfth-century representation of Adam and Eve inside the Cave of Treasures, located within Mons Victorialis, the Mountain of Victory. Here lived the "children of Seth" until the time of the Flood. Its discovery will reveal the books of Seth containing the secrets of Adam.

Although there have been attempts to identify the land of Shir with locations as far away as northeast Iran and even China,[38] it was likely located in the vicinity of the Cave of Treasures and, of course, the Garden of Eden. What is more, the Mountain of Victory, or Mons Victorialis, features in the sixth century Syriac text entitled the book of the Cave of Treasures as a name of the "Mountain of God" on which Adam, Eve, and their extended family—the "children of Seth"—live prior to the time of the Flood. These "children" constitute the entire line of early patriarchs and their families, from Seth right down to Noah.[39] Enoch is there also,

ministering unto God inside the cave and burying his father, Jared, all this coming before his celebrated translation to Paradise in the company of angels (see figure 37.3). According to the book of the Cave of Treasures, at the time of the Flood, Shem, the son of Noah, returns to the cave to retrieve the body of Adam, which is then taken aboard the ark—the bodies of the other patriarchs being left behind in the cave.[40]

So was the land of Shir to be found somewhere in the vicinity of the plain of Mush, the most obvious site of the Garden of Eden? Was it to be identified with Sim Mountain, where Shem is said to have established a settlement after leaving the ark and where Thaddeus deposited the holy relics beneath Yeghrdut's evergreen tree in the first century AD? Remember, the alternative form of the Sumerian word for *snake,* muš, which might well be the root behind the Mush place-name, is šir, pronounced *shir* in the Akkadian language. Was the ancient Armenian kingdom of Taron, which

included the plain of Mush, once known as the land of Šir, or Shir; that is, the land of the snake? This has to remain a very distinct possibility indeed.

If not in the vicinity of Yeghrdut, was the Mountain of Victory synonymous with Bingöl Mountain and Abus Mons, the best candidate by far for Charaxio, the mountain where *The Gospel of the Egyptians* tells us Seth hid his holy book, or books, containing the secrets of Adam? Is this where the Cave of Treasures will be found? Both sites, Yeghrdut and Bingöl, which are visible from each other, might easily have played some dual role in the construction of the Jewish, Gnostic, and later Christian myths concerning the true location not only of the original Garden of Eden but also where Adam and Eve's descendants, the "children of Seth," are said to have lived on the "holy mountain" of God. No other geographical region makes sense of all of these disparate stories, showing us quite clearly that in Judeo-Christian tradition this was

where the events of the book of Genesis were played out, no more than a couple of hundred miles away from Göbekli Tepe.

So what exactly are the secrets of Adam? Can we go on to determine what Seth actually recorded, either in book form or in stone? As we see next, Adam's secrets might well turn out to contain forbidden knowledge regarding the angelic origins of humankind.

Figure 37.3. The patriarch Enoch is translated to Paradise after being anointed by the angel Michael and becoming like an angel himself.

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AS ANGELS OURSELVES

What exactly are the secrets of Adam? What might they pertain to, and what relevance has any of this to Göbekli Tepe and the Yeghrdut monastery located in some quiet corner of the terrestrial Paradise? The first clue is *The Gospel of the Egyptians,* which tells of the creation of the Sethians. They, we are told, constitute "earthly counterparts of a heavenly church of angelic beings, the prototypical Sethians."[1] Moreover, we learn that when the book or stele that Seth placed in the mountain Charaxio is found, "it will identify the true race of Seth."[2]

There is little question that this "true race of Seth" is to be seen as

the incarnated souls of the aforementioned "angelic beings, the prototypical Sethians," meaning that the secrets of Adam supposedly reveal the angelic nature of humankind.

LIKE THE ANGELS

What exactly does this mean? How can humans become like angels, especially if the rebel Watchers of the book of Enoch represent, arguably, a memory of the real prime movers behind the genesis of civilization? The key is that the angels were said to have inhabited Paradise itself and so benefited, like Adam and Eve before the Fall, from the presence of the Tree of Life, which conveys eternal life to whoever or whatever is in its presence.

Before the Fall, according to Gnostic tradition, Adam and Eve had spiritual bodies, "like the angels,"[3] but after their expulsion, their bodies grew more and more dense and languid until they were

no more than "coats of skin."[4] Only with the "sweet odour of light," the perfumed oil from the Tree of Life, would they ever be able to regain their original divine body.[5]

Not only does any fragment from the Tree of Life remain "true and living," a concept reflected in Yeghrdut's holy tree being "evergreen," but the Oil of Mercy from the Tree of Life is said to bestow eternal light and life through the sacred process of anointing. Indeed, early Christian tradition asserted that Jesus was himself anointed with oil from the Holy Wood of the Tree of Life before incarnation in order that he might become Christ,[6] a word taken from the Greek Χριςτός (Christos), meaning "the Anointed One."

As I already knew, the Tree of Life was anciently believed to have been an olive tree,[7] an evergreen that gave forth a fragrance or perfume,[8] a belief connected with the story contained in the book of Enoch in which Enoch, on his visit to Paradise in the company of two angels, is anointed with an oil fragranced by myrrh:

> And God said to Michael: "Approach and remove Enoch's earthly garments! Anoint him with My blessed oil and dress him with garments of My glory! Michael did what God told him; he anointed me and dressed me. The appearance of the oil was greater than a great light and its lubricant was like blessed dew, and its fragrance was like myrrh shining like the sun's rays. I looked at myself and saw that I was like one of His glorious ones and there was no obvious difference.[9]

So the removal of Enoch's physical garments and his anointing with perfumed oil have the purpose of taking away the patriarch's earthly skin and replacing it with divine garments that are symbolic of his transformation from a mortal person into an angelic being. This is the prerequisite for his permanent translation to Paradise, the story told in the book of Genesis.[10] Yet it is also a reference to the spiritual bodies, or "garments of light," that Adam bore before the Fall. So through this anointing process Enoch becomes as Adam

was in Paradise, a person restored to his original state of divine glory, no different from the angels themselves.

THE HOLY MYRON

The perfumed oil used by the angel or Watcher named Michael to anoint Enoch can be compared with the Myron (or Muron), also known as the Chrism, used even today to anoint the Catholicos during his inauguration as spiritual head of the Armenian Church. It is obtained by mixing together pure olive oil with some forty or so herbs and spices, including myrrh, which is then exposed to the surviving essence of the original holy anointing oil made by Moses under Yahweh's instruction and brought to Yeghrdut in Taron by Thaddeus in the first century.

The Myron is considered to convey wisdom through the Holy Spirit or divine light of God since it bore the similitude of the

heavenly Oil of Mercy from the Tree of Life. This is brought out in teachings attributed to Saint Peter, the founder of the Church of Rome, which state that one day Christians will be able to receive oil that comes directly from the Tree of Life and not simply from some created imitation: "If the oil blended by men had such power, think how great is the oil that was extracted by God himself from a branch of the tree of life."[11]

Very similar ideas are behind the anointing not just of church leaders worldwide but also of kings and queens. At a coronation, it is the anointing of the candidate that conveys kingship, *not* the crowning; the placement of the crown is merely a visible sign of the monarch's authority to rule in the eyes of God and of his or her newfound divinity.

From this it might be assumed that the secrets of Adam, written down by Seth, contain the manner in which we, as mortal humans, are able to regain our spiritual bodies of light lost at the time of the

Fall. To do this and become as angels ourselves, we have to be anointed by the perfumed oil that bears the similitude of the Oil of Mercy from the Tree of Life. Within the influence of this divinely prescribed substitute for the Oil of Mercy, immortality is assured.

Clearly, this is a religious concept, utilized today by Jewish and Christian nations around the world. It might seem also to have little, if anything, to do with the discovery 170 miles (274 kilometers) from Yeghrdut of Göbekli Tepe. Yet empowerment and otherworldly transformation through the use of specific types of wood, and the oils and resins extracted from them, is something that might well have had its origins in the early Neolithic world of southeast Anatolia.

The discovery at Göbekli Tepe of burnt almond wood and spent almond shells[12] among the fill covering its sanctuaries indicates that almond oil was almost certainly known here. Its use could easily have been the origin behind much later anointing traditions that

existed among the civilizations of ancient Mesopotamia and the Semitic peoples of the Levant (hence its association with biblical tradition). Interestingly, the rod of Aaron, Moses's brother, is said to have "bloomed blossoms, which spreading the leaves, were formed into almonds" (Num. 17:8), while the seven-branched candle of the Jews known as the menorah represents both an almond tree and the Tree of Life. The two are synonymous,[13] even though elsewhere the Tree of Life, as we have seen, is said to be an olive tree.

LINKS TO YEGHRDUT

In view of all this, the fact that Thaddeus travels all the way from Judea via Edessa to Yeghrdut to deposit both a fragment of the Tree of Life and the bottle containing the essence of the perfumed oil that Yahweh had instructed Moses to make has incredible implications. It suggests that the disciple was taking them to somewhere already

connected with traditions associated with the Oil of Mercy and Tree of Life. This he recognized through the presence there of an earthly representation of the Tree of Life in the form of Yeghrdut's own evergreen tree, from beneath which flowed a source of the Euphrates, one of the four rivers of Paradise. It tells us also that Yeghrdut was considered the true foundation point of the Armenian Church, the Myron bottle and fragment of the Tree of Life being its symbols of divine authority over counter claims of supremacy from rival monastic foundations.

Of course, it might easily be argued that the Armenian Church made up the entire story of Thaddeus's visit to Yeghrdut and his concealment there of the holy relics. Yet if this were the case, why connect the legend with Yeghrdut and not Surb Karapet, Taron's showcase monastery on the opposite side of the plain of Mush? Why attribute this extraordinary tradition to Yeghrdut when Surb Karapet would have been a much better option, especially as it was

founded around important relics of John the Baptist? Alternatively, why not connect the story to the Mother See of Holy Echmiadzin at Vagharshapat, Armenia's great spiritual center located within sight of Mount Ararat, where eventually Yeghrdut's sacred container was moved so that the holy Myron might continue to be manufactured there?

Everything points toward a long-held tradition suggesting that Yeghrdut's evergreen tree was seen to mark the site of the terrestrial Tree of Life, planted by Seth either within or upon the skull of Adam, the first man. If correct, then close by was the Cave of Treasures, where Adam and the early patriarchs lived and were buried after the time of the Fall, and the book or books containing the secrets of Adam lay hidden within the Mountain of Victory, located in the land of Shir, or Seir.

In Gnostic tradition, Seth incarnates to save his "seed" on three occasions: first as Seth, the man; second as Shem, the son of Noah;

and finally as Jesus Christ (his lives as Seth and Jesus both linking him with traditions concerning the Oil of Mercy). A. F. J. Klijn in his important work *Seth in Jewish, Christian and Gnostic Literature* (1977) says that the "race of Seth" may have been a historical phenomena "which existed until the flood or [they were] a group which was to be saved at the end of time."[14] Yet as much as these ideas regarding the books, steles, or pillars of Seth are bound up in Jewish, Christian, and Gnostic millennialism, can they really be linked to the discoveries being made today at Göbekli Tepe?

THE CHILDREN OF SETH

An ancient Jewish religious work known as the book of Jubilees, which, like the book of Enoch, has been found among the Dead Sea Scrolls, talks about Cainan, the son of Arphaxad, or Arpachshad, who found "a writing which the ancestors engraved on stone,"

reminding us of the pillars or steles on which Seth wrote the secrets of Adam. These writings contained "the teaching of the Watchers by which they used to observe the omens of the sun and moon and stars within all the signs of heaven."[15]

It was this same starry wisdom that became the foundation of the beliefs of the Chaldeans; that is, the Sabaean star-worshippers of Harran, the ten-thousand-year-old city located on the plain beneath the gaze of Göbekli Tepe (see the Prologue for the full story). Arphaxad, Cainan's father, is said to have been the progenitor of the Chaldeans of Harran.[16] His name, Arphaxad, is a conflation of the place-name "Ur of the Chaldees,"[17] Abraham's birthplace in nearby Şanlıurfa, showing the firm connection between these early biblical characters and the *triangle d'or,* the birthplace of the Neolithic revolution. Completing the picture is the fact that Arphaxad's father was Shem, the son of Noah, whose settlement at Simsar, or Sim Mountain, in the Eastern Taurus range overlooking the plain of

Mush, is today occupied by the Yeghrdut monastery.

Interestingly, the Sabaeans, the pagan inhabitants of Harran, were said to have been "worshippers of fire called Magi" and claimed to be keepers of the mysterious "book of Seth," because their founder was one "Sabius, a son of Seth."[18] Moreover, they asserted that "we acknowledge the religion of Seth, Idris (Enoch) and Noah."[19] So could the original book or books of Seth have been carved stone pillars, like those being uncovered today at nearby Göbekli Tepe? Were the twelve Magi that perpetually guarded the book or books of Seth an echo, however slight, of the rings of twelve anthropomorphic pillars erected at Göbekli Tepe some 11,500 years ago? Could these rings of stone reflect much later traditions regarding the "children of Seth" preserving the secrets of Adam in written form? If so, then who or what might the twin central pillars have come to represent in Jewish, Christian, and Gnostic tradition?

Too much speculation here would be foolish, although the fact

that Gnostic writings emphasize that Cain and Abel, the twin sons of Adam, each had twin sisters is intriguing and reminds us of the belief that twins always grew inside the womb during pregnancy. Moreover, that Seth was born as Abel's replacement sets up a twinlike relationship between Cain and Seth, reflected in the stories regarding our descendancy either from the "sons of Cain" or the "seed of Seth"; that is, the Sethites. The central pillars at Göbekli Tepe are perhaps allusions to this twin tradition, although whether they can be seen in terms of the twin offspring of Adam, the first man, who in Gnostic teachings was overshadowed by his own celestial twin, is another matter altogether.

So in addition to revealing humanity's dual origins, angelic and mortal, do Göbekli Tepe's T-shaped pillars reflect an understanding of Adam's "astrological knowledge" which might have included information regarding the appearance of short-period comets? One brilliant-minded person once wrote that the secrets of Adam, handed

down to Seth and Enoch, might have been "the knowledge of months, years and periods of comets that the remote generations had acquired—and the hope grew into faith that no such or similar destruction would come any more to decimate mankind."[20]

That person was Russian-Jewish psychiatrist Immanuel Velikovsky (1895–1979), one of the greatest catastrophe theorists of the twentieth century. He realized that, in all likelihood, any such secret information *had* to relate not just to the conflagration and deluge itself but also to how to ensure that such catastrophes never again trouble our world.

Out there somewhere, in some lonely spot on Bingöl Mountain (in its likely role as Charaxio), or maybe in the vicinity of the Yeghrdut monastery (as a potential location of the Cave of Treasures), are perhaps the true secrets of Adam. Inscribed on standing pillars or on steles, similar to those seen today at Göbekli Tepe, they await discovery and interpretation. They might reveal

how we, as mortal humans, can restore our bodies of light, lost at the time of the Fall, and be as angels ourselves; in other words, become as one with our incorporeal selves left behind during the process of incarnation on this earthly plane. They might also provide confirmation that the world was once brought to its knees by a comet impact and that only afterward did the genesis of civilization begin here in eastern Anatolia, the true location of the Garden of Eden.

A TRIP TO TURKEY

There was only one thing left for me to do, and this was to go to Turkey, where I would visit the ruins of the Yeghrdut monastery and get out to Bingöl Mountain somehow. I needed to find out what I could about these places and inquire locally into any folklore, myths, and legends that might help bring alive their geomythic

reality. From there I would journey to Göbekli Tepe, where I hoped to interview Professor Klaus Schmidt.

I knew the region pretty well from my years of research, having visited Göbekli Tepe, Çayönü, Harran, and Karahan Tepe back in 2004. However, I saw one slight problem looming on the horizon like a dark cloud, and this was the fact that the mountains around Mush, including Bingöl Dağ and the Eastern Taurus Mountains beyond Yeghrdut, were currently the front line for the Kurdish uprising headed by the PKK, the Kurdistan Workers Party. They have been fighting for Kurdish independent rule and an autonomous Turkish Kurdistan for the past thirty-five years. Although most of the offensives against them by the Turkish army and secret police are today concentrated in the mountainous region close to the border with Iraqi Kurdistan, I was shocked to find that there had been recent military operations against the PKK in the area of Zengok (modern Yörecik), a village just 7 miles (11 kilometers) from the

Yeghrdut monastery ruins, and even on a mountain named Kozma Dağ, immediately to the south of Dera Sor.

As the date of my departure for Turkey grew nearer, the matter did begin to worry me, yet there was very little I could do. Nothing, not even my better judgment, was going to stop me from getting out to Yeghrdut, which, however you look at it, was first introduced to my world though a simple, though quite profound dream.

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THE RETURN TO EDEN

Monday, September 10, 2012. After a night spent in a dismal hotel on the outskirts of Istanbul, I journeyed on to eastern Turkey. From the small airport at Mush, a taxi took me to the hotel, which lay on the edge of town. Close by was the road out to the villages of Kızılağaç and Suluca, near to which I would find Dera Sor, the ruins of the Yeghrdut monastery.

The next morning, over breakfast, I was able to appreciate exactly where I was for the first time. Through the hotel's panoramic windows I could see the plain of Mush stretching away in every direction, beyond which was a seemingly impenetrable wall of

mountains, reminding me of the seven mountains that encircle the Garden of Righteousness, according to the book of Enoch.[1] Only toward the east did they seem to lower slightly, and here I thought I could make out the summit of Nemrut Dağ, the extinct volcano on the western shores of Lake Van.

THE TAXI RIDE

With breakfast over I waited in the lobby as the hotel owner made various phone calls. These resulted in a taxi driver arriving just after ten, although the guide-interpreter situation was not good, apparently. For two hours I drank sweet black tea and waited, until finally two guys turned up, both quite young, one of whom said he was usually paid the going rate as an interpreter for the European Union, which worried me slightly due to the potential expense. The other was his friend, who also spoke good English. Very quickly we

were in the taxi on our way out to Suluca.

No one had heard of Dera Sor, or Yeghrdut, which seemed bizarre. I was telling them about a sacred site, an ancient ruin of substantial size with a fascinating history spanning nearly two thousand years, yet nobody knew a thing about it. If it had not been for the images I had brought along that showed Dera Sor on Google Earth, my new friends might not have believed it even existed.

As the taxi left the outskirts of town, I followed the route closely to ensure we were going in the right direction, but the driver knew Suluca, and very soon we were on a side road leading toward the foothills of the Eastern Taurus Mountains and a cluster of prefabricated buildings. We stopped to ask the way to Dera Sor, and an old man pointed immediately toward the heavily forested mountain slope behind him. So at least the ruins still existed and were known to the villagers of Suluca.

The elderly man climbed into the taxi and guided us to the start of

an unmade track that marked the beginning of a very bumpy ride in a vehicle that was scarcely suitable for such a journey. As we climbed higher and higher, generally with the steep hillside to our left, we rose above the surrounding landscape, which stretched away to the north, and for the first time I got a glimpse of the Murad Şu, or Eastern Euphrates, winding its way across the plain of Mush.

PKK SITUATION

I did inquire about the situation with the PKK locally and was informed that the mountains were under rebel control, so much so that Turkish forces did not even venture into the area unless it was part of an official military offensive. I asked also about the chances of getting to Bingöl Mountain and was told that this area was currently an active front line and thus a no-go zone to visitors like me. This was a massive disappointment, but for the moment my

principal goal was to get to Yeghrdut.

After driving for around fifteen to twenty minutes, we leveled out but still faced the prospect of an even higher climb to the east of our position. The taxi driver seemed lost, the guide and his friend didn't know what to do, and no one was around to ask for directions. My map seemed useless, so the only option left was to stand on a high spot and just look for any sign of ruins.

It was the guide's friend who first spotted Dera Sor. Over on a ridge, about half a mile away, was what appeared to be a long, red wall on a flat ridge. That had to be it, and without further ado we were back in the taxi trying to reach the spot. The path seemed strewn with potholes, so we left the vehicle in the capable hands of the guide's friend and continued on foot in the baking hot sun.

The track lifted up over an incline, beyond which on the left was a ridge of pine trees. I was struck immediately by the extreme redness of the earth, created no doubt by sandstone with a heavy

iron oxide content that had long since crumbled to dust. To the right the ground sloped away toward the plain below. Scrub and a few clumps of trees grew here and there, but generally the land seemed parched and dry.

THE DERA SOR COMMUNITY

Coming into view now was a group of large, wigwamlike tents, some covered with white tarpaulin, others with tree branches. There were also circular pens full of turkeys and plenty of goats running loose around the whole camp. People were already emerging to see what all the commotion was about. I felt that the sight of an Englishman in desert suit, straw trilby hat, and black-framed glasses was not the norm for these people. Coming out to meet us were women wearing brightly colored hijab headscarves, several small children, three young men in their late teens, and a tall, thin, elderly

gentleman with large moustache, gray jacket, and traditional Turkish fez, a black one that had seen better days. He was quite clearly the leader of the small community, which numbered fifteen to twenty individuals.

These people were seasonal pastoralists, who live out on the mountainside during the summer months, then retire to more urban environments when the cold weather sets in around November. From then on until March or April, the whole region can be covered from top to bottom in thick snow, making life very difficult indeed.

Our guide greeted the fez-wearing man and his family, and conversations ensued regarding the purpose of our visit. The subject of the ruins was discussed, and from the nods and points toward a large earthen ridge of debris immediately west of the settlement, above which I could see the tops of red-stone walls, I realized that there was no obvious problem with our being here. Yet before going any further I asked the elderly man about the monastery's sacred

tree and holy spring. Did he know where these were?

A VISIT TO THE SPRING

Exchanges between the guide and the leader resulted in our moving out into parched scrubland between the camp and the ruins. Not 40 yards (37 meters) from where we had stood was the spring, close to the base of the north-facing hill slope. From its sunken entrance, marked by an arch of large, flat stones, the leader removed a mesh of tree branches bound together with nails, and put there to prevent animals from contaminating the water. With this I sought permission to climb inside the cramped space, created by a rounded roof of stonework overlaid with earth.

I wanted to get some pictures and drink a little water, which I now saw came up into a small pool before trickling away beneath the earth. Farther down the hill the water flow reemerged from a

metal pipe, creating the beginnings of the Kilise Şu stream, which flows into the Eastern Euphrates. I was now at a source of one of the four rivers of Paradise.

Despite Yeghrdut's location on the edge of Paradise, I was dismayed to see plastic cups and containers, as well as cooking utensils and half-buried dustbin liners, strewn about inside the hollow. It was clear that the spring was no longer seen as sacred, a fact confirmed through conversations with the fez-wearing man.

THE HOLY TREE

I asked next to see the old walnut tree, which had been renowned throughout the entire province as a place of healing (see figure 39.1 on p. 346). Our hosts nodded, ushering us on another 20 yards (18 meters) to a dusty patch of ground. Here they pointed toward the remains of an old tree stump still in situ, with a girth of around 5

feet (1.5 meters). Clearly, this was not the original evergreen tree that had stood on the spot in Thaddeus's day, but it was certainly a potent symbol of its former presence here.

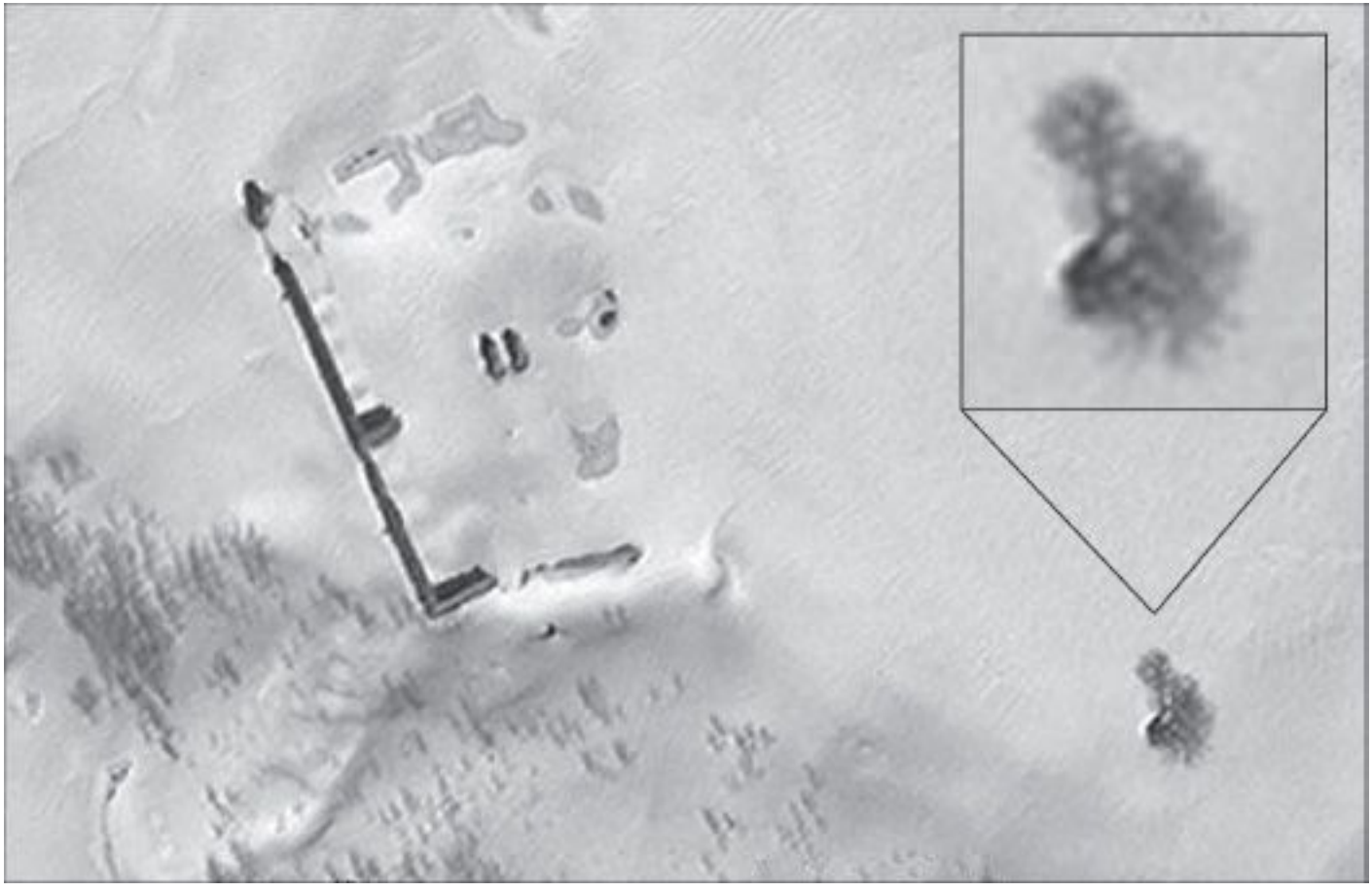

Figure 39.1. Dera Sor, the ruins of the Yeghrdut monastery, in snow, from a Google Earth image taken on April 1, 2009. Note the

walnut tree, the final incarnation of the "evergreen tree," under which the disciple Thaddeus apparently deposited a piece of the Tree of Life and the container that held the essence of holy oil used to anoint "prophets and apostles." Courtesy of DigitalGlobe 2013.

When I inquired about what had happened to the tree, I was told that it had fallen down around two years earlier, and that two trucks were needed to carry away all the timber. Hearing this made me incredibly sad and a little annoyed that the tree had not been better preserved, especially given that it reflected nearly two thousand years of history at the site.

According to what I had found out over the past few months,[2] the evergreen tree under which Thaddeus had concealed the holy relics was said to have survived to the present day, an unlikely claim particularly after examining the pitiful remains of the walnut tree. According to tradition, an eagle had nested at the summit of the

original tree. A flowing stream emerged from beneath its trunk, and a stone wall, with an altar at one end, had protected its roots. Women and young ladies in particular would come here not just to rest beneath its shade but also to take water from the stream to cure ailments. They would take away any small part of the tree they could find—leaves, bark, twigs, and so forth, which would be placed inside their clothes, against the body, to relieve pain. Apparently, any greenery removed from the tree was the ultimate healing aid, with the ability to retain its healing potency forever.[3]

I learned also that the fragment of the Tree of Life deposited at Yeghrdut by Thaddeus was the subject of a quite extraordinary legend.[4] One day a shepherd visiting the monastery saw the simple box containing the relic and decided to steal it, thinking that its contents might be worth money. He got home and decided to take a look at what was inside. Yet on seeing that it contained a piece of wood, the man panicked and threw the box on the fire. No sooner

had he done this than flames burst forth from the hearth and consumed the entire house, sending the shepherd running for his life.

Prompted by the fire, the great eagle that guarded the holy tree then swooped down and snatched up the box with its precious contents, neither of which had been damaged in any way. The bird took them back to its nest and thereafter became their constant guardian, never letting anyone with ill intent near them.

EAGLE ON THE WORLD TREE

This legend, which seems like something out of a book of Turkish folktales, was believed fervently by the monks of the monastery and is included in the entry for Yeghrdut in the aforementioned encyclopedia of monasteries and churches of the Taron Province.[5] Whatever its reality, the story oozes mythological symbolism. The

eagle sitting atop the tree guarding a piece of the Tree of Life is suggestive of the world tree Yggdrasil in Norse tradition, which also has an eagle nesting on its summit.

The similarity between the name Yeghrdut and Yggdrasil is probably coincidental, although it has not stopped people from drawing comparisons between *yggdr,* one possible root behind the name Yeghrdut, and Yggdrasil, and also between Hızır, or al-Khidr, a guardian of the Waters of Life, and Odin, the god who hangs on the Norse world tree to gain the knowledge of the runic alphabet.[6] Interestingly, compelling evidence indicates that the origins of some Norse mythology, and perhaps even the roots of the Scandinavian people, are to be looked for in the region around Lake Van. World-renowned explorer Thor Heyerdahl (1914–2002) was working on these theories shortly before his death.[7] The exact derivation of the word *Yeghrdut* still remains unclear, as it is not a proper Armenian word, although it does seem to relate to Armenian word roots

meaning "king," "flower," and "willow,"[8] or, as I had already established, *shuyugho,* the "young branch of the (oil tree)."[9]

The eagle itself was the symbol of the ancient kingdom of Taron, which was established in the fourth century AD by an Armenian dynasty of kings called the Mamikonians, whose emblem was the double-headed eagle. This connection between Taron and the eagle might easily have stemmed from the existence of a pagan god in the form of an eagle that was venerated in Armenia Major during former ages. The association between the eagle of Yeghrdut and the holy tree, however, might well stem from a source much closer to the root of the mystery.

THE WOOD THAT CUTS

There are many different variations of the story of how the Holy Wood or Holy Timber of Life used to create the Cross of Calvary,

which originated in some manner from the Tree of Life. One version has Adam being given a branch upon his departure from the Garden of Eden; in another it is handed to Seth in the form of seeds or saplings; and in still another a bird known as the roc, a gigantic, mythical eagle of Arabic tradition, picks up "a piece of wood from one of the trees in the garden."[10] This mythical bird carries the branch to Jerusalem and there drops it onto a huge, upside-down copper cauldron, beneath which is the bird's young. They are being held captive by King Solomon, who has snatched them away from their mother after searching for guidance from God as to how he might go about finishing the temple begun by his father, David.

The weight of the wood smashes the cauldron, releasing the bird's young. Thereafter, Solomon realizes that the wood left by the roc can miraculously cut stone blocks, enabling the king to complete the temple. Following a long story involving King Solomon and the Queen of Sheba, the Holy Wood finds its way to

the carpenter's shop, where, as in the more traditional story, it is fashioned into the cross on which Christ is crucified.[11]

The important part of this story is that this piece of wood taken from "one of the trees in the garden," an allusion unquestionably to the Tree of Life, is linked with an eaglelike bird, just as it is in the Yeghrdut legend. This lends support to the belief that the monastery had in its possession a fragment of the Holy Wood of Life thought to derive from the Tree of Life itself.

THE RUINS EXPLORED

After asking for and getting a few small fragments of the remaining tree trunk (as well as a walnut shell, confirming it as the holy tree mentioned in the correspondence with the contact from Kızılağaç), we now moved on to the goal of the expedition—the monastery itself. Walking about 40 yards (37 meters) we now climbed a huge

pile of rubble and debris and saw spread out before us the ruins in all their glory. The raised mound marked the position of the structure's eastern wall, while similar piles of rubble marked the location of the north and south walls. However, in the west, the remaining wall, made up of a thick base of rust-red bricks and an upper level of lighter-colored gray stone, was substantial, being as much as 15 feet (4.5 meters) in height, with a large breach toward its northern end.

In all, the west wall was around 70 yards (64 meters) in length, with a returning wall at its southern end, which quickly reduces down to ground level. Walking up to the remaining wall, I noticed a series of linear foundations jutting out at right angles, which I suspected marked the position of small cells, most likely living quarters for the monks. It is incredible to think that this immense structure was, apparently, two stories high and almost equal in size to the more famous monastery of Surb Karapet, located in the

foothills of the Armenian Highlands on the opposite side of the plain of Mush (indeed, the monasteries, both dedicated to Saint John the Baptist, would each have been visible to the other).

FINDING THE CHURCHES

The only other architectural features that remain standing at the monastery site are two beautiful stones arches, around 12 feet (3.7 meters) high, one positioned directly in front of the other (see figure 39.2 on p. 350). These are oriented east-northeast (at approximately 20 degrees north of east) and once formed the northern entrance into a large building located in the southeast quadrant of the monastery. All around the arches are piles of rubble and debris, reducing their interior height, although it is still possible to pass beneath them fairly comfortably.

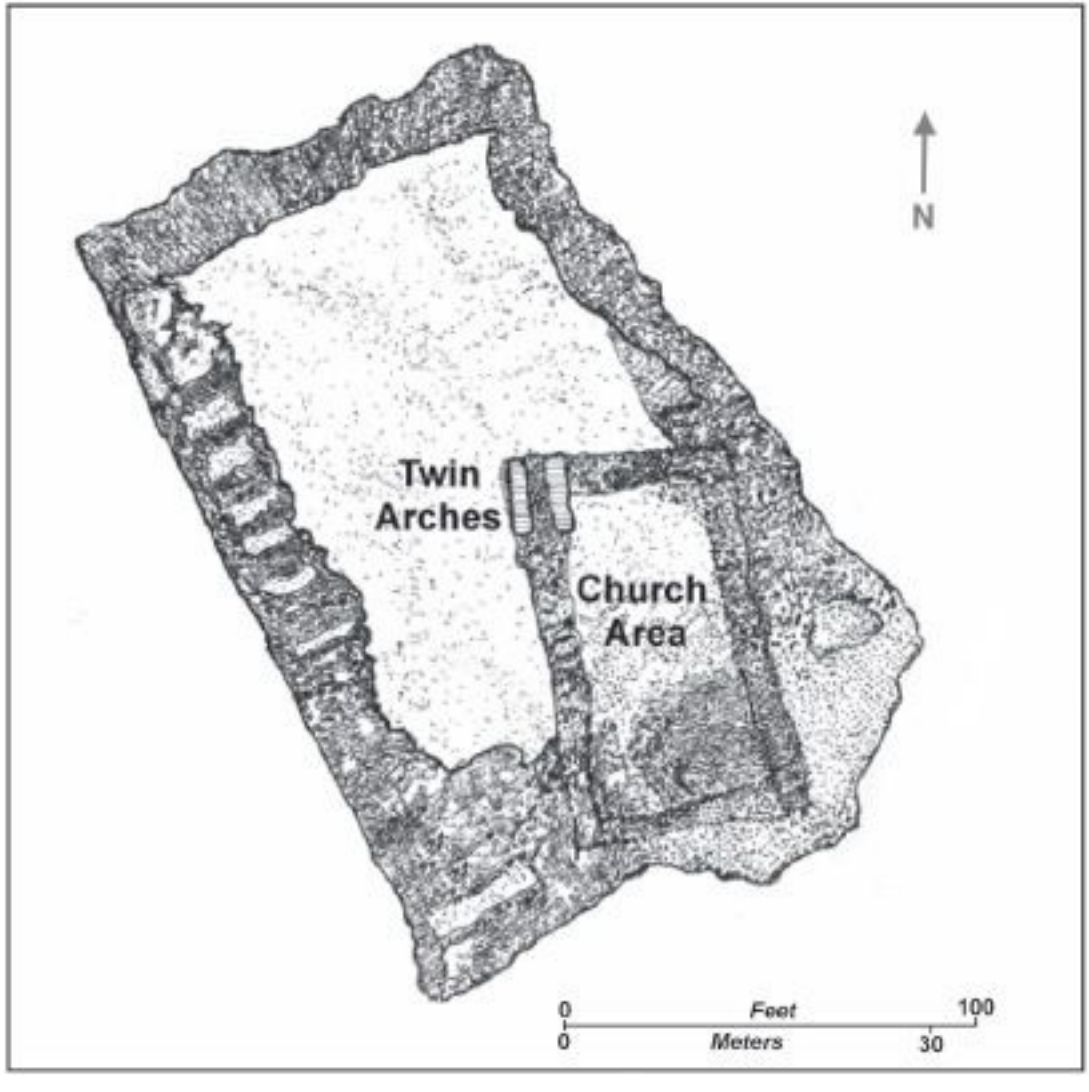
N
Twin
Arches
Church
Area
0
Feet
100
0
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30

Figure 39.2. Plan of Dera Sor, the ruins of the Yeghrdut monastery, drawn by the author following his return from the site in September 2012. Note the different alignment of the building structure contained within the southeast quadrant of the perimeter wall, suggesting that it might belong to a different age.

The identity of the ruins attached to the twin arches has been impossible to establish with any degree of certainty, as no surviving photographs or plans of the monastery have been found.[12] Present somewhere in the monastery's southeast quadrant was a large, domed church dedicated to the Mother of God. Attached to it was a chapel of Saint John the Baptist in which was a martyrium where the saint's relics were kept. Here too was another chapel dedicated to Gregory the Illuminator, located beyond the church's northwest corner. Its position was marked by an imposing bell tower, under which was a walkway into the main church, the walls of which were constructed of stone in three different colors—black, yellow, and

reddish brown. Apparently, the bell tower collapsed during an earthquake in 1866, a portent perhaps of the imminent destruction of the monastery and the disappearance of its monks at the time of the Armenian Genocide of 1915. Exactly what happened here at Yeghrdut may never be known, but it is unlikely to have been pleasant, and as for the fate of the monastery's precious relics, no one can say. Those Armenians who remain today in Mush have adopted a radical form of Islam, so it is unlikely that any real answers will be forthcoming any time soon.

I was pretty sure that the bell tower was located somewhere in the vicinity of the stone arches; indeed, they might easily have formed its support columns, under which one passed to enter the main church. In my dream the monks had conducted the strange ritual involving the elevation of the fragment of the Tree of Life at the center of the church. So I now stood the closest I was going to get to that very spot, which was a strange sensation, especially after

traveling nearly 2,200 miles (3,500 kilometers) to be there.

SPECTACULAR VIEWS

As I moved across to the piles of debris marking the north wall, I realized just how spectacular the view was from this elevated position; to say it was impressive would be an understatement. The monastery, as I knew only too well, looked out across the plain of Mush and the Eastern Euphrates, beyond which were the foothills and peaks of the Armenian Highlands. Yet the monastery itself is sheltered beneath hilly slopes to the southeast, south, and west, which would have afforded it some degree of protection from the elements during the long, harsh winters.

For an hour or so, I followed the course of the perimeter wall, obtaining photos, getting video footage, and taking in the ambience, always with one of our hosts by my side. Scattered everywhere were

potsherds of all shapes and sizes, which I could see embraced a time frame from medieval times right down to the modern day. However, I was not concerned with ceramics on this occasion. I wanted to find evidence that the site had been occupied prior to the arrival of Christianity in the fourth century. Yet, in all honesty, I found nothing of interest, even though there was every possibility that a settlement from a former age could have occupied a position higher up the hill, closer to its summit perhaps.

One legend fervently believed by the monks of Yeghrdut tells how near "a small workshop" somewhere beyond the monastery, a concealed copy of the "Old Testament" was found. It was apparently seen as a gift of the eagle, presumably the one that lived in the holy evergreen tree.[13] The implication of this chance discovery is that the book belonged to an age that antedated the monastery, implying that the site was important even before the arrival of Gregory the Illuminator in the fourth century.

IS THIS EDEN?

It was very difficult to take in the setting during this one brief visit. My sense, however, was that the monastery had been deliberately left to fall into decay. The site had been neglected, this was clear, and no one really seemed interested in its history or preservation. It was difficult to come to terms with the fact that until 1915 Yeghrdut had been a thriving monastery, as well as a tranquil place of healing for Armenians and Kurds alike. Men and women came here not just to cure ailments but also to rejuvenate both body and soul. There was a natural vitality about this site, which people believed was channeled through the holy tree and spring, the reason they took away leaves, twigs, and bark, not to mention the holy water itself.

All that is now gone. All that remains is the tranquillity of the site and its extraordinary setting, which is simply outstanding. This was the sight the monks of Yeghrdut woke up to every morning, making it easy to understand why they might have believed this was some

quiet corner on the edge of Eden itself.

THE RED EARTH OF ADAM

The monks also cannot have failed to notice the absolute redness of the earth, especially the hill slope to the southeast of the monastery. It would have reminded them that the first-century Jewish scholar Flavius Josephus wrote that Adam was created out of red clay:

> That God took dust from the ground, and formed man, and inserted in him a spirit and a soul. This man was called Adam, which in the Hebrew tongue signifies one that is red, because he was formed out of red earth, compounded together; for of that kind is virgin and true earth.[14]

Another tradition said that after Adam's death, he was buried by

angels “in the spot where God found the dust” to fashion his body.[15] So if the monks did see the red earth surrounding the monastery as significant (and it is rarely glimpsed anywhere else in the area), then it might well have strengthened the conviction that their monastery existed close to the site where Adam and Eve lived after their expulsion from Paradise, and where afterward their son Seth and his descendants continued to live right down to the time of the flood.

A RESPITE

After completing our visit to the ruins, the elderly man and his wife opened up their home to us. Inside the large, conical tent, its opening directed toward the plain below, we sat down on a bed of brightly patterned kilim rugs that overlaid a bed of flat stone slabs. Placed in front of us was an enormous silver platter containing glasses of sweet tea and bowls of local food, including yogurt,

Turkish flat bread, and salad. The kindness of these people was overwhelming, particularly as they did not know me, our guide, or the taxi driver, who were all afforded the same degree of hospitality.

I then learned something important from the fez-wearing man. He told me that somewhere on the hill slope, immediately behind the monastery's west wall, there was once a large cave opening. Yet it had vanished after the "rich" Armenian monks had stuffed it full of "gold" prior to their rapid departure. Local people had attempted to find the cave entrance in order to reach the "gold," but so far all efforts had come to nothing.

I found the story difficult to believe, first, because there was no sign of any cave existing today (I checked afterward), and, second, the fervent belief that Armenian monks were so rich that they simply could not carry away all their cumbersome gold treasure was quite simply fantasy. The only thing it did do was remind me of the legends regarding the Cave of Treasures, where Adam, Eve, Seth,

and their family had lived and where they were supposedly buried upon their deaths. Was the role model for the Cave of Treasures around here somewhere, if not close to the monastery, then in the foothills of the mountains immediately to the south of Yeghrdut? Was it there that the secrets of Adam, inscribed either on steles or pillars, would one day be found? Or was it north of the plain of Mush, somewhere in the vicinity of Bingöl Mountain? There were no hard and fast answers, and for now the matter would have to rest there.

One other piece of information I picked up was that around fifteen years before, workmen had arrived one day and broken down whole sections of the monastery's remaining walls, with the resulting piles of rubble being carried away in waiting trucks. Hearing this instantly made me concerned about the fate of the remaining ruins, which are not protected in any manner, and so could, presumably, be destroyed at any time.

Shortly after that it was time to leave. A thunderstorm was close by, and once it hit, any resulting flash floods could make driving back down the mountainside treacherous. So as the taxi now began to make its descent, I watched awestruck as a rolling gray cloud came in from the west and seemed to follow the course of the Euphrates, sending out lightning flashes that struck the plain of Mush and even the waters of the river itself. No wonder the Semitic peoples of Syria and Canaan came to believe that the abode of the god El was to be found in this otherworldly Land of Darkness.

AN UNEXPECTED JOURNEY

That night and the next day I recorded my thoughts and impressions about the trip to the monastery. There was a sense that I had achieved what I had come here to do, but I wanted to go back one more time, and this I managed to do on Wednesday, September 12,

with the same taxi driver, although this time with a new guide, a social worker named Idris, who spoke perfect English. He knew every village, large and small, on the plain of Mush, as he visits them as part of his day-to-day job. We shared a mutual passion for keeping alive the rich cultural heritage of the region and so very quickly became friends.

The following day Idris asked if I would like to accompany him the next day to a village called Muska, not far from Bingöl Mountain. He had friends there who were Alevi and thought this might be an ideal opportunity for me to speak with them about their beliefs and practices. Even though I was due to leave Mush early the morning after that, this was too good an opportunity to miss, so I said yes.

I asked Idris about the situation regarding access to Bingöl Mountain, as I understood it was a virtual no-go area because of the recent army offensives. He said we would be fine and that if we did

encounter any PKK units in the hills, he knew what to say (Kurdish sympathy among the local population runs very high indeed). With that, I accepted finally that I might get to glimpse Bingöl Mountain, at least from a distance, which is something I had almost abandoned any thought of achieving on this journey of discovery.

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A TRIP TO PARADISE

Friday, September 14, 2012. The drive by *dolmus* (a Turkish minibus) from Mush to the Alevi town of Varto, in the foothills of the Armenian Highlands, was breathtaking. After leaving the great plain, the road follows the course of the Eastern Euphrates, which runs alongside the road for part of the way. Once that had veered away toward the east, the vehicle climbed ever higher until, finally, we entered Varto itself. The town is a bustling hive of activity even in the baking hot sun, and having left behind the dolmus, we journeyed on foot until we reached a local hospital, where Idris picked up a car for us to complete the journey (it belonged to a work

colleague).

After departing Varto, we moved into a beautiful green landscape, utterly different from the dusty, volcanic earth that proliferates on the plain of Mush, and very soon my eyes became focused on something I never expected to see on this journey—the summit of Bingöl Mountain looming up ahead. Seeing it as a single mountain is in fact inaccurate, for Bingöl is in reality a north-south oriented ridge, or massif, with two separate peaks, linked by a saddleback indentation.

MOUNTAIN LION

Unbelievably, the car journey took us right alongside the mountain, which was on our right-hand side at a distance of no more than 4–5 miles (6.5–8 kilometers). What I saw transfixed me, for the twin peaks give the mountain's elevated summit the likeness of a large

feline, most obviously a lion, its protruding head, shoulders, and forelegs made up of the northern peak, with the saddleback indentation and southern peak creating the creature's body, hind legs, and tail (see plate 31). The whole thing looks as if it is emerging from the mountain's rocky surface in order to rise into the sky. The form is unmistakable and cannot have been missed by those who inhabited the region in the past. Of course, not everyone is going to interpret this rock simulacrum as a lion, although the likeness is striking enough for it to have impressed some people along the way, including perhaps the Armenians who would come here each spring to venerate Anahita, the goddess of fertility and the waters of life. She is depicted in Persian religious art as a shining being standing on a lion.

PEOPLE OF TRUTH

A lion sitting astride a world mountain, guarding the axis mundi or world pillar as Bingöl Mountain appears to do in Armenian myth and legend, reminded me also of a similar leonine beast featured in the creation myth of a Kurdish religion named Ahl-e Haqq, which means "People of Truth." Although this ethnoreligious group, known also as the Yâresân, exists mostly in Iraqi Kurdistan and northwest Iran, some still remain in remote parts of eastern Turkey. According to them, a charismatic leader named Sultan Sahak founded the Ahl-e Haqq religion during the fourteenth century, although beyond that their origins remain obscure.

As part of the Yâresân creation myth, the divine essence, called Khavankar, brings into existence the seven Haftan, or archangels, and two of them, Ruchiyar and Ayvat (or Yar), become a cow and lion, respectively. The divine essence then creates a fish in the primordial waters and places a large white stone on its back. The cow then steps on the white stone, and the lion stands on the back of

the cow. The divine essence places the earth on the horn of the cow, and on the head of the lion he places the “Supreme Sphere”; that is, the vault of heaven.[1]

The relationship of the fish, cow, and lion expresses a three-tiered universe, with a watery abyss in the lower world, a material existence in the middle world, and a cosmic realm in the upper world, all of them linked via an imaginary line of ascent.

COSMIC LION

Elsewhere in Yâresân myth the lion is the avatar of Ali, the son-in-law and cousin of Muhammad,[2] just as he is in the beliefs of the Alevi, who probably share similar traditions. The Alevi see Ali as the first of the twelve imams, or spiritual leaders, and depict him as a lion surrounded by twelve stars. This echoes the lion-headed figure named Zurvan Akarana featured in the religion of Zurvanism,

a form of Zoroastrianism once practiced in Armenia. He is the *kosmokrator,* or controller of the revolution of time, symbolized by the seven planets and the twelve signs of the zodiac. Clearly, throughout the region the lion was seen as some kind of cosmic being associated with the stability of the world pillar that links the world mountain with the celestial pole, the turning point of the heavens.

The significance of the lion to the Alevi faith was brought home to me later that day when, on leaving Muska, I saw a large feline carved in relief on the wall of a single-story house. Is it possible that the lion simulacrum is linked with Bingöl's role as Katar Erkri, the "Summit of the Earth"?[3] In China, a peak called Kulkun (in the modern Bayan Kat Mountains) was known as "King of Mountains, the summit of the earth, the supporter of heaven and the axis which touches the pole."[4] Similar legends, I suspect, were once attached to Bingöl Mountain.

ARRIVAL AT MUSKA

What I had learned the night before about our destination seemed almost unbelievable. Muska, where Idris's friends live, is the site of Hızır Çeşmesi, the Fountain of Hızır (the Alevi form of al-Khidr), with its accompanying dream incubation house. Although Muska is the generally used name of the village, which has a population of around 120 people, its modern Turkish name is Beşikkaya Köyü. However, this name is rarely used by the local population, since it was imposed on the village by Turkish authorities as part of a concerted attempt to rid the region of any kind of unwanted cultural ethnicity. I was hoping we could visit the fountain, which from the few pictures I had managed to view online, looked absolutely idyllic, with the spring water emerging from the base of an old gnarled tree.

The very last of the scattering of houses making up the village ceased as we now entered a small enclosed valley, beyond which to

the east and north were mountain slopes, part of a northern extension of the Bingöl massif. I looked out on the landscape below, which seemed abundantly rich in green trees, lush meadows, and beautiful mountain streams. It was unimaginable the difference between here and the more arid conditions on the plain of Mush.

Getting out of the car, I saw instantly several pieces of obsidian just lying about on the track. I picked up a few examples as we began a walk across what appeared to be an extended garden area. Here we navigated the outpouring of a mountain brook that ran down from a plush green environment up ahead. No one was about as, with the sound of trickling water all around us, we entered a sheltered canopy of trees at the base of the mountain valley. I recognized it immediately as the Fountain of Hızır, which seemed absolutely bizarre, as our actual destination was a property immediately beyond it on slightly higher ground. This all seemed a little weird—Idris's friends just happening to live next to one of the

most holy sites in Alevi tradition.

FOUNTAIN OF HIZIR

Before me now stood an eight-sided column, painted canary yellow, with a spout on each facade, from which came mountain water of the purest kind. This really was a fountain and not a well, with the water somehow being projected through the column by the action of gravity. The structure was not old—fifty to seventy years at the most—although the site was as old as the hills themselves. There were inscriptions in black on the column, but none offered any real words of wisdom. One read “Hızır Çesmesi hepimizindir cevreyi temiz tutalim,” which means “Fountain of Khidr is for everyone, let’s keep the environment clean”! It was advice clearly taken, because the entire site was still as nature intended, although the childish graffiti scrawled into the fountain seemed unnecessary.

The source of the spring was beneath an overhanging tree close by. Off to our left some 20 feet (6 meters) away, and sheltered by overhanging branches, was the building used for dream incubation. It was simple and unassuming, and for some reason it reminded me of a waiting room on a railway station (sans the bad smells, of course).

At the fountain, Idris and I sampled the water, which tasted good. It was much needed, and just maybe it would have some beneficial effect on our health. I took time to take in the ambience of the place, realizing that I had been led, almost by chance, to somewhere quite special indeed.

To say that this site was scenic would be to do it an injustice, for the sunlight glinting off the sparkling waters seemed almost to bring alive the sheer abundance of life that prospered here. Trees, plants, and flowers seemed to grow with an almost enchanting beauty. It was as if this place was imbibed with the spirit of life itself, making

me wonder whether this really was the Ma'ul Hayat, the Fountain of Life, where al-Khidr, the genius loci of the site, was given immortality, or the Ab'i Hayat, the Waters of Life, where Alexander the Great achieved immortality himself following a quest that had brought him right here to Bingöl Mountain.

FISH FARM

Just beyond the Fountain of Hızır is, rather surprisingly, a prefabricated factory unit, which, it must be pointed out, blends in pretty well with the environment. Between it and the Fountain of Hızır is a cluster of industrial-sized pools, for I learned that Idris's friends run a commercial fish farm, a strange site perpetuation echoing the manner in which al-Khidr achieves immortality by catching and eating a fish swimming about in the Fountain of Immortality.

Slightly uphill of both the factory unit and the Fountain of Hızır was our final destination—an unassuming cottage, in the garden of which introductions were quickly made. Welcoming us was the owner of the house, a tall, thin, bearded man in his sixties, who at this point I had no idea was a renowned Alevi poet and musician named Hıdır Çelik. Youths also were present, apprentices at the fish farm and relatives perhaps of Hıdır. A couple of men from the community greeted us, as did Hıdır's daughter, Gülüzar, who seemed to be in her twenties.

She and a female friend started to prepare salad for a meal, as black tea was served, and one of the youths now reappeared with a whole bag of fresh fish and started cooking them on a grill supported above an open fire. Gülüzar washed cutlery and glasses in the mountain brook, which actually ran through the garden, making it clear that this was their main source of water. Neither Hıdır, his daughter, nor anyone else present other than Idris spoke English, so

all conversations were in Turkish or Kurdish. At suitable moments, I took my leave to gaze down at the Fountain of Hızır not 50 yards (46 meters) away. I watched a shepherd herding his flock of sheep along the edge of the mountain slope and went across to the outdoor bathroom positioned on a nearby hill ridge, providing me with an opportunity to refine my collection of obsidian pieces, disgorged by Bingöl Mountain when it was still an active volcano.

Were pieces of obsidian like this instrumental in instigating the construction of places like Göbekli Tepe, and through it initiating the Neolithic revolution? The earliest known mirrors are highly polished disks of obsidian found at Çatal Höyük in southern-central Anatolia, and also at Aşıklı Höyük, a ten-thousand-year-old town complex discovered in the 1960s near Aksaray in central Turkey. I thought it fitting therefore that among the forbidden arts of heaven that Azâzêl, one of the leaders of the Watchers, is said to have revealed to humankind was “the fabrication of mirrors, and the

workmanship of bracelets and ornaments."[5]

An obsidian bracelet, more than nine thousand years old, discovered at Aşıklı Höyük during the 1990s, is deemed so unique that it was given special attention by researchers from the Institut Français d'Etudes Anatoliennes in Istanbul and the Laboratoire de Tribologie et Dynamique des Systèmes in Lyon, France.[6] They determined that it was made using highly specialized manufacturing techniques and is almost perfectly regular in shape. Additionally, they found that the symmetry of the central annular ridge is within a degree of accuracy, while the mirrorlike surface of the bracelet would have required "the use of complex polishing techniques capable of obtaining a nanometer-scale surface quality worthy of today's telescope lenses."[7]

Could the technique of producing finely polished obsidian mirrors and bracelets have been introduced to the early Neolithic world of central and eastern Anatolia by Swiderian master

craftsmen, remembered in myth and legend as the Watchers and Anunnaki, as well as the Peri of Persian and Kurdish folklore? Were some of these individuals in fact Neanderthal human-hybrids of striking appearance, whose original homeland was the Russian Plain, or even the Carpathian Mountains of Central Europe? It did seem possible.

POETRY READING

Following food and a tour of the fish farm, Idris and I were given copies of the Alevi poet's book of poems, written partly in Turkish and partly in Zâzâ, the native language of the Alevi, who are mostly Dimli Kurds.[8] There were calls for Hıdır to read a poem or two, which he did in his native tongue. His words sounded emotive and meaningful.

After more tea, it was time to leave, and with the car dropped off

safely in Varto, there were just moments to spare before the final dolmus departed for Mush. We never did encounter the PKK on our travels, and no one seemed in any way concerned that elsewhere in Bingöl Province, as well as in other parts of eastern Turkey, a very real war was being waged every day, with it rarely even getting a mention in the international media.

The following morning I left Mush for Göbekli Tepe, traveling purposely by coach in order to experience the nail-biting journey through the Eastern Taurus Mountains on the old obsidian route, first to Diyarbakır and then on to Şanlıurfa, where I planned to stay for the final three days of the trip. We passed close to the source of the Tigris River, as well as the site of Çayönü, and also Nevalı Çori, submerged by the floodwaters caused by the opening of the Atatürk Dam in 1992. We also passed within reach of Karaca Dağ, the source of so many strains of modern wheat, pinpointing this region —the heart of the *triangle d'or*—as the true foundation point for the

emergence of agriculture in the Near East. All of these important marks on the pages of history are just a stone's throw away from the road between Mush and Göbekli Tepe.

41

GÖBEKLI TEPE REVISITED

I first visited Göbekli Tepe back in 2004. Back then many of the enclosures were either only partially excavated or they were enclosed in temporary structures with corrugated roofs. At the time, I had the whole place to myself and encountered only the man who owns the pastureland thereabouts, and who is acknowledged as the "discoverer" of the site. His name is Şeymus Yıldız, and in the 1980s he kept coming across fragments of carved stone when tilling the fields, which he simply picked up and placed on boundary walls. He did report these finds to the archaeological museum in Şanlıurfa, but no one ever came to inspect them until the German

archaeologist Dr. Klaus Schmidt turned up at the site in 1994.

Today, nearly all the pillars in the large enclosures are fully exposed, while new structures are being unearthed to the west and northwest of the main group of sanctuaries. There are too many mysteries oozing from every corner of this enigmatic archaeological site to do it justice in one book, although I knew this was what I would be attempting to do upon my return to the United Kingdom.

After hanging around the site long enough, I did finally manage to get an impromptu interview with Klaus Schmidt, who was very forthcoming on a number of different subjects. He told me, for instance, that he does not discount the possibility that some of the enclosures might have been built with celestial or astronomical considerations in mind. Yet he admits it is not his “favorite theory” regarding the purpose of the sanctuaries.

UNFINISHED MONOLITH

On the second day, I was able to walk out to the unfinished monolith, located on a northwest extension of the mountain ridge, a quarter of a mile (400 meters) away from the main enclosures. For the journey I was accompanied by one of Klaus Schmidt's archaeological colleagues (name withheld at his request), with whom I was able to discuss many aspects of the discoveries at the site.

The partly hewn pillar—bigger than anything seen in the enclosures so far—has major fracture lines across its surface, suggesting that the Göbekli builders broke it even before they had a chance to remove it from the bedrock. Most probably they moved on to another site elsewhere on the plateau and began carving out a new stone there. When a finished pillar *was* finally freed from the bedrock it would leave behind a gaping hole. Within this, my archaeological friend informed me, a fierce fire would be kindled to

burn the thousands of limestone chips that would inevitably result from fashioning a pillar of this size. These would then be pulverized to make the fill necessary to create the beautifully finished terrazzo floors seen in some of the sanctuaries.

The bigger question left in my mind, however, was why supersize everything at the site, especially when no one before had even attempted to create stone sanctuaries on this scale. Only the great stone wall and tower at Jericho *might* be contemporaneous with the earliest building phases of Göbekli Tepe. Further back in time we have only the carved stone blocks fashioned by the Solutrean peoples to create rock friezes within the caves of southwest Europe.

So why the sudden change in policy at places like Göbekli Tepe in southeast Anatolia during the tenth millennium BC? My archaeological friend suggested that Göbekli Tepe was the culmination of a natural evolution in building construction across a period of thousands of years, which was also the opinion of his

mentor, Klaus Schmidt. I thought differently, citing fear as the greatest motivation—fear that something bad would happen if you *didn't* do it. He did consider the possibility before deciding to differ with me on this point.

JUTTING HEADLAND

After the archaeologist's departure, I spent some time in the baking heat walking out to the tip of a narrow headland that juts toward the northeast of the main east-west aligned mountain ridge. Although purely natural, I had a sense that this promontory might have played some role in the beliefs and practices of the Göbekli builders.

The closer I got to the end of the headland, the more the flint tools that litter the bellylike tepe almost disappear. Either this place was completely left unoccupied or it was reserved for special occasions. Large, rectilinear blocks that had fractured away from the

limestone bedrock had clearly been removed to leave a flat, rectangular enclosure that faced roughly north toward the direction of Karaca Dağ and, of course, the stars of the northern night sky. Here the Göbekli builders could have watched Cygnus rise and set and the Milky Way's Great Rift form an entrance to the sky world. There was little question that this place possessed an ancient sanctity even more primeval than the large enclosures on the top of the ridge, which, as the crow flies, are about a third of a mile (550 meters) away from this location.

The only other evidence of human activity I saw was what appeared to be a small fragment of a stone bowl, most likely from the Pre-Pottery Neolithic age. It would remain undisturbed until such time as the archaeologists turned their attention to this strange place, which, I sensed, was not going to be any time soon. It would take decades to excavate the many enclosures still to be uncovered beneath the artificial mound, and that was always going to be their

primary focus of attention.

NEW LION PILLAR

As I returned to the occupational mound, I passed the square grid of 30-foot (9 meter) trenches opened to the northwest of the main enclosures and caught sight of a new discovery sticking out of the ground. It was another major pillar that, even with its T-shaped termination missing, stands an impressive 7 feet (2 meters) in height. On its western face is the carved relief of a leaping lion (see plate 20), occupying the same position as the foxes on the central pillars in the enclosures forming part of the main group. Next to nothing is known about the enclosure that once surrounded the pillar, although presumably this great monolith stood proud as part of a pair at the center of the structure. That the carved lion appears on its western face, directed toward the entrant approaching from

the south, implies that this is the eastern pillar, its western neighbor probably still awaiting discovery somewhere beneath the compact soil and rock debris forming the surface of the mound.

MIGHTY LION

Seeing this mighty lion, which was just about to be encased in wood to protect it against potential vandalism and the harsh winter ahead, made me recall the lion simulacrum crowning the summit of Bingöl Mountain and the lion of Ali, sacred to the Alevi and Yâresân. Did this carved lion on the side of a Göbekli pillar symbolize the kosmokrator, the guardian of the world pillar and keeper of cosmic time, like the lion-headed cosmic being called Zurvan Akarana in the branch of Zoroastrianism known as Zurvanism? Or was it yet another form of the cosmic trickster, a creature of Ahriman, the dark principle in Zoroastrianism, just like the wolf and fox? In ancient

Egypt, the goddess Hathor, in her guise as the lioness-headed Sekhmet, rained down fire on the earth and nearly destroyed humankind when the sun god Re deemed that humankind had become "too old," a memory perhaps of the terrifying destruction that accompanied the Younger Dryas comet impact of 10,900 BC. Was this same leonine destructress depicted on the newly uncovered pillar at Göbekli Tepe, or was it simply a creature encountered upon entering the sky world, perhaps a proto-form of the Mesopotamian sky panther ^{MUL}UD. KA.DUH.A, made up of stars belonging to Cygnus and the neighboring constellation of Cepheus (as described in chapter 8)? It is too early to say, especially since each new pillar or porthole stone uncovered raises even more questions about this extraordinary place.

To confirm that the carving on the newly uncovered pillar was really a lion and not some other species of quadruped, I pointed to the stone and called out, "azlan?" The two men, who were probably

about 30 yards (27 meters) away, stopped what they were doing, waved, and shouted back, “azlan,” which is Turkish for “lion.”

I felt I was done at Göbekli Tepe. I could do no more here for the time being. Yet before leaving I vowed to come back to this place whenever time and money would permit, for it was clear that discoveries were being made all the time and that I could always expect to learn something new whenever I returned to this sanctuary on the edge of Eden itself.

42

A LOSS OF INNOCENCE

The following afternoon I departed for London, reaching home some twenty-four hours later. The world for me soon returned to normal, but I could not get out of my mind one persisting image no matter what I did, even at the local gym that week. As I lay on a bench, using a chest machine, the hardest possible rap music was pumping out of the speakers, alienating me from the activities taking place in the room and somehow allowing my mind to escape this unnerving madness.

I was back in Hıdır Çelik's garden in Muska, the noise of the nearby Fountain of Hızır and the network of tiny brooks that passed

through this paradise still audible in my ear. Golden sunlight sparkled off the running water as it trickled gently over a trail of pebbles, some of them undoubtedly pieces of polished obsidian ejected in some former age by Bingöl Mountain itself.

We had finished eating the fresh fish, cooked by the youth on an open fire, and Hıdır's daughter, Gülüzar, now gathered water from the mountain stream running through the garden. These people, all Alevi by birth, seemed completely at peace living their lives on a mountainside, only rarely coming into contact with the pressures and tensions of the outside world. They are relatively free of the stresses and strains that come with a modern, urban existence like the one most of us are doomed to suffer during our lives.

Without even trying, these people experience a harmony with nature that allows them a purity of heart, and a certain sense of grace, that almost seems reflected in the fecundity of everything that grows in and around the garden. From the trees overhanging the

sacred Fountain of Hızır to the bright green fields and meadows that fill the local landscape, and even the abundance of fish that thrive here in the thousands, everything appears utterly awash with life and vitality.

A SENSE OF GUILT

I imagined that this was the same innocence, the same purity of heart, that must have prevailed in the Garden of Eden before the serpent beguiled Adam and Eve into partaking of the fruit of the Tree of Knowledge of God and Evil. Instantly, their innocence vanished as their eyes were opened to the fact that they were naked. I am sure they must have noticed before that they wore no clothes, the difference being that now they felt a sense of shame and guilt over this innocent act, and so covered themselves up. This was something they did, according to some accounts, by using fig leaves

picked from the same tree that the couple had eaten from, implying that the Tree of Knowledge of Good and Evil was a fig tree,[1] just like the one that graces the summit of Göbekli Tepe today.

DEATH OF AN IDYLLIC WORLD

Adam and Eve, as our First Parents, are merely metaphors for humanity as it existed before we woke up to our "nakedness." Before this time we had lived in a state of innocence and grace that was taken away from us, and ever since that time we have been made to suffer and toil, not only in body, but also in spirit. The eternal golden age of hunting and foraging, when people were free to experience life on their own terms, would appear to have been halted by a cataclysm, arguably the proposed comet impact of 10,900 BC, and this changed everything. From these ashes arose people who wanted to tell us that thinking for ourselves and making

decisions based on our own vision of life were essentially wrong, immoral even, and that whenever we have such thoughts we should feel guilt and shame, exactly what happened to Adam and Eve in the Garden of Eden. It was a form of social conditioning imposed on our ancestors by those who assumed control over the way the future would now be shaped in the wake of the Neolithic revolution.

The greatest clue in this transition from a state of innocence to one of mental entrapment is in the fact that after being expelled from Paradise, Adam and Eve are condemned to forever till the land, for as Yahweh makes clear to Adam:

> *Cursed is the ground for your sake;*
> *In toil you shall eat of it*
> *All the days of your life . . .*
> *In the sweat of your face you shall eat bread*
> *Till you return to the ground.*[2]

In other words, humankind began to live by the process of subsistence agriculture, something that could only be done if everyone worked side by side with a more-or-less hive mentality under the control of taskmasters. No longer could we have the free lives of hunters, to do exactly what we wanted, when we wanted. People had now to exist day in, day out under regulated, and often confined, working environments. From such communities, which must have supplied the quarry men, stone masons, knappers, carvers, butchers, and construction workers for the creation of places like Göbekli Tepe, came much larger agricultural centers, leading eventually to Neolithic town complexes such as Çatal Höyük and Aşıklı Höyük in central Turkey. Founded around the same time that Göbekli Tepe was finally abandoned, ca. 8000 BC, Aşıklı Höyük was made up of a tight network of residential dwellings, workshops, and claustrophobic streets, no wider than alleyways, where beautiful obsidian mirrors, bracelets, and necklaces were manufactured.

TRAUMA AND INJURIES

Exactly what the work ethics might have been at Aşıklı Höyük is quite another matter. Skeletal remains show that men lived until they were fifty-five to fifty-seven years of age, while women lived only to the age of twenty to twenty-five years.[3] Severe trauma and injuries to the shoulders and spine indicate that these women carried heavy loads during their lives or were bending over or kneeling constantly, perhaps in front of a saddle quern used to make cereal grain. The skeletal remains of the men, on the other hand, show signs of joint disease and trauma of the type that might be expected from constant heavy labor, such as wood logging, construction work, and tilling the land.

Clearly, living in the first industrial age, where everyone had to have a home and be fed equally, took its toll on the population in a manner that might raise the question of who exactly was in charge at Aşıklı Höyük. Curiously, one ancient tradition asserts that the

forbidden fruit consumed by Adam and Eve that brought about the misery of the original sin was "an ear of wheat,"[4] emphasizing once again that the introduction of widescale sedentary farming was at the root of humanity's loss of innocence.

> *In the sweat of your face you shall eat bread*
> *Till you return to the ground.*

No longer were we now just individuals, thinking and making decisions for ourselves on behalf of our families and friends. Others now told us how to think, what to do, when to get up, when to eat, and when we could go to sleep. Since that time, we have been unable to break free from the fear that something bad will happen if we deviate from this path, and ultimately there is very little we can do to escape this torment. Those who do try to break free of their psychological shackles are often vilified or persecuted as blasphemers, heretics, dropouts, or just plain lunatics.

BACK TO EDEN

Various religious groups and communities throughout history have realized that the return to Paradise, and the freedom of thought that it brings, is through a simple innocence and purity of heart, just as it was with our First Parents before the time of the Fall. It is actually a good philosophy, and the strange thing is that some of the most successful of these communities had their inception in the same geographical region as that identified in this book as the true site of the Garden of Eden. They include the Cathars, or Albigensians, who in the twelfth and thirteenth centuries advocated a return to a simple purity in places such as Italy and France. That was, of course, until they were annihilated in the Albigensian Crusade, a mass genocide of atrocious proportions orchestrated by the Church of Rome.

The doctrine of the Cathars derived from the Bogomils, who thrived in Eastern Europe during the tenth and eleventh centuries AD. Their communities grew from exiled Christians of a semi-

Gnostic nature who arrived here from the foothills of the Armenian Highlands, north of Lake Van. Known as the Paulicians, they owed at least some of their ideas to the Arevordi, the Children of the Sun, who, although broadly classed as Armenian Zoroastrians, followed a simple faith in complete harmony with nature.[5] Unbelievably, surviving elements of all these faiths, whether Christian, Zoroastrian, or pagan, were absorbed into the indigenous religions of the Kurds, most notably the Alevi.[6]

A RETURN TO THE SOURCE

So even though I was unable to communicate directly with the Alevi I met, their message got through loud and clear. Finding Eden, ultimately, is not about putting pins in maps and saying, “This is it—I have found Paradise.” It is about an inner journey—it is about returning to the source of human experience and

understanding exactly who we were before someone, somewhere, conditioned us to feel guilt and shame for the first time—shame about who we are as individuals, how we should act and behave, and what we should do with our lives. This is not a declaration of anarchy or a license to do what you want. It is a call for us to try to regain some small sense of the innocence and purity of heart that prevailed in the past, and I glimpsed just for a moment among the Alevi people who still occupy the Garden of Eden today, for their world seems a happier place than ours.

APPENDIX

USEFUL DATES

The following is a list of useful dates relating to topics discussed in this book. Many of the dates are generalizations and should not be seen as absolute.

41,000 BC	Cro-Magnons arrive in Europe
40,000 BC	Earliest known settlement sites at Kostenki, Central Russia
30,000 BC	Kostenki-Streletskaya culture established at sites on the Russian steppes and plain, including Kostenki and Sungir
30,000 BC	The Venus and the Sorcerer panel created at Chauvet, France
30,000 BC	Sungir burials take place
23,000 BC	Brünn type appears in Central Europe
23,000 BC	Solutrean tradition established in Europe

20,000 BC	Last Glacial Maximum (LGM)
19,000 BC	Kostenki-Streletskaya culture culminates
19,000 BC	Zarzian culture appears in the Caucasus and Zagros regions
18,000 BC	Solutreans arrive in North America?
17,000 BC	Solutrean rock frieze created at the Roc-de-Sers shelter, France
16,500 BC	Deneb in Cygnus becomes Pole Star
16,500 BC	Shaft Scene created at Lascaux, France (radiocarbon date)
14,500 BC	Delta Cygni becomes Pole Star
14,500 BC	Solutrean tradition disappears
13,000 BC	Vega in Lyra becomes Pole Star
13,000 BC	End of the last Ice Age
11,300 BC	Clovis culture appears in North America
11,000 BC	Vega ceases to be Pole Star
11,000 BC	Swiderian culture appears in Central Europe
10,900 BC	Younger Dryas Boundary impact event (proposed date)
10,900 BC	Younger Dryas mini ice age begins
10,500 BC	Swiderian culture enters eastern Anatolia?
10,500 BC	Zarzian culture disappears
10,500 BC	Gobustan rock art, Azerbaijan (earliest possible date)

10,250 BC	Hallan Çemi founded in Eastern Taurus Mountains
9600 BC	Younger Dryas period ends
9500 BC	Age of oldest known enclosures at Göbekli Tepe
8630 BC	Çayönü founded in southeast Anatolia
8500 BC	Nevalı Çori founded in southeast Anatolia
8000 BC	Göbekli Tepe abandoned
8000 BC	Aşıklı Höyük founded in central Anatolia
7500 BC	Çatal Höyük founded in southern central Anatolia
6000 BC	Halaf culture appears
5000 BC	Ubaid culture appears
2900 BC	Sumerian civilization founded
2600 BC	Foundation cylinder deposited at Nippur in southern Iraq containing the story of the Anunnaki and their Kharsag/ Eden settlement
2300 BC	Assyrian civilization founded
2150 BC	Abraham departs from Harran, according to biblical chronology
1894 BC	Babylonian civilization founded
200 BC	Book of Enoch/Dead Sea Scrolls constructed
ca. AD 29	The disciple Thaddeus journeys to Edessa to cure King Abgar
ca. AD 43/45	Thaddeus conceals relics at Yeghrdut in the Armenian kingdom of Taron

	(the modern plain of Mush)
3rd century	"Life of Adam and Eve" appears, based on much older material of Jewish origin
4th century	Yeghrdut monastery founded
post 367	Gnostic library concealed at Nag Hammadi, Egypt, containing various Sethian texts
5th century	Cave of Treasures stories begin circulation
5th century	Mount Ararat elevated as official resting place of Noah's ark by the Armenian Church
1666	The Reverend Marmaduke Carver *A Discourse of the Terrestrial Paradise* published, demonstrating that the terrestrial Paradise was in Armenia Major
1821	First English translation of the book of Enoch published
1883	Ignatius Donnelly's *Ragnarök: The Age of Fire and Gravel* published, demonstrating that a comet impacted with the earth toward the end of the glacial age
1891	Skulls of the Brünn type discovered at Brünn, Czech Republic
1894	More evidence of the Brünn type discovered at PÅ™edmost, Czech Republic
1918	Nippur foundation cylinder published, with English translation by George A. Barton

1940	Lascaux Caves discovered
1945	Nag Hammadi library discovered
1947	Dead Sea Scrolls discovered
1948	Swiderian cranium found at Kebeliai, near Priekulė in Lithuania, identified as belonging to Neanderthal-human hybrid
1956	Sungir burials discovered in Vladimir, Russia
1963	Peter Benedict of the University of Chicago surveys Göbekli Tepe, cataloguing it as site V52/1
1985	Christian and Barbara Joy O'Brien's *The Genius of the Few* published, containing a new interpretation of the Nippur foundation cylinder, and suggesting that Eden and Kharsag were one and the same
1994	Chauvet Cave discovered
1994	Professor Klaus Schmidt visits Göbekli Tepe for the first time
1995	First digging campaign begins at Göbekli Tepe
1996	The author's book *From the Ashes of Angels* published, proposing that the stories of the Watchers and Anunnaki are a memory of the shamanic elite responsible for the Neolithic revolution in southeast Anatolia
2000	Göbekli Tepe's discovery announced to the world

FOOTNOTES

*1. I would like to thank Richard Ward for his suggestion that the birds represent dodos.

*2. To read more about Franz Gnaedinger's identification of Chauvet's Venus and the Sorcerer panel as the Summer Triangle go to www.seshat.ch/home/homepage.htm, and follow the links for Chauvet.

*3. Dates based on an altitude of 2 degrees including refraction and calculated using Stellarium planetarium software.

*4. Dates based on an extinction altitude of Deneb at 2 degrees including refraction using Stellarium planetarium software.

*5. On the subject of which enclosure uncovered at Göbekli

Tepe is the oldest, lead archaeologist Professor Klaus Schmidt is in no doubt—it is Enclosure C (personal conversation September 16, 2012). His reasoning is that Enclosure D's outer perimeter wall abuts that of Enclosure C. Yet a counterargument against Enclosure C being older is easily made. If C was constructed after the latter, then it is possible that D's preexisting boundary wall was reconstructed in order to allow the completion of C's own perimeter wall.

*6. Circular porthole stones associated with megalithic monuments exist at the following locations in Western Europe: England (the Tolven Stone in Cornwall and Devils Ring and Finger in Shropshire); Ireland (Cloch-a-Phoill in Ardristan, Co. Carlow); Germany (Züschen in Hesse and Altendorf, Degernau and Schwörstadt in Baden-Württemberg); France (Guiry-en-Vexin in Île-de-France and Trie-Chateau in Picardie/Oise); Spain (Antequera in Andalusia); Belgium (Lüttich and Weris);

Switzerland (Courgenay in Jura), and in South Tyrol (Bozen and Riffian in Austria, and Gratsch in Italy).

†7. Examples of dolmens or chambered tombs in southwest Asia can be found in Syria (Ala Safat, Amman, and Tsil) and Jordan (’Ain Dakkar). Here in the Near East they are ascribed dates ranging from the Chalcolithic age, ca. 5000 BC, down to the Early Bronze Age, ca. 3200 BC.

*8. Rimutė Rimantienė (b. 1920) was a friend and colleague of Lithuanian-born anthropologist Marija Gimbutas (see chapter 20).

*9. In the suspected Swiderian level at the Epipaleolithic site of Erbiceni, near the city of Iasi in Romania, evidence of canine domestication has been found.

*10. Obsidian bifaces were found at Laugerie-Haute in France's Vézère Valley in the Dordogne.

*11. Obsidian sources also exist in Iceland and, possibly, in the Balkans.

†12. A further source of Carpathian obsidian exists in Ukraine, within the Vihorlat-Gutin Mountains, much farther to the east.

*13. This name for obsidian is cited on various Internet sites with the following words: "Ancient people called Obsidian 'Satan's claws' fragments." This sounds so similar to "Satan's nail" that it has to be the same.

*14. For instance, my Kurdish contact, Hakan Dalkus, says: "Unlike Genie, the Peri are not our religious beliefs. We, Kurds, believe the Peri were human beings who really lived. I

also think they were a beautiful race" (February 10, 2012). He adds: "When I was a kid, my grandmother and some other women from old generation told us many stories of Cin (Genie) and Peri. Those women hardly left the village in all their lives, they could not speak Turkish. They had no influence of the outer world. So their stories wholly reflected old beliefs. I vaguely remember those stories now but I certainly remember that the Peri were human beings. Some kind of super human beings. Human beings could marry the Peri and have kids from them. . . . My knowledge of our old stories is only confined to the region around my village. My village has a proved history of at least 13 thousand years old. On Bingöl road. I read that the region around my village was a center of obsidian trade" (February 28, 2012).

*15. Intriguingly, the Sámi once played a board game called tablo, whereby one person plays as the wolf or fox and the

other as the hunter. Players moved around their pieces, with the hunter attempting "to corner the predator before he or she 'eats' all the hunter's pieces." See "Sami," Countries and Their Cultures, www.everyculture.com/wc/Norway-to-Russia/Sami.html#b#ixzz2J0bfenar.

*16. James Torre's original Latin inscription is as follows: "*Lector si Pietatis amator, si Doctrinae estimator, scias quantus sub hoc lapide thesaurus situs est, Marmaducus Carver, Ecclesiae Hartilluncis Rector, C(h)ronologiae et Geographiae scientissimus, Linguarum peritus, concionando prepotens; hic scilicet, qui cum scriptis ad invidiam usque, verum terrestris paradisi locum orbi monstrasset, ad coelestem quem predicando Auditoribus commendaverat, cujus adeunti ingenti desiderio tenebatur moriendo translatus est, die Aug. 1665.*"

*17. In 1989 Egyptologist David Rohl, in his book *Legend,* identified the Pison with the Uizhun River in Iran (the modern Qezel Uzun). Yet realistically this is untenable, as the Uizhun takes its course a full 250 miles (400 kilometers) southeast of Lake Van. Why have the sources of three of the rivers close together, only for the fourth one to be so far away? It just doesn't make sense, especially given that the heads of the four rivers are said to emerge from a single stream that waters the Garden of Eden.

*18. Many thanks to Jonathan Bright for clarifying the Greek variations of the name for Watcher.

*19. Many thanks to Gagik Avagyan for all facts regarding the etymology and meaning of Bingol's Armenian place-names, which were gleaned from correspondence in May–June 2013.

*20. The Natufians probably imported figs from Egypt (see Kislev, Hartmann, and Bar-Yosef, “Early Domesticated Fig in the Jordan Valley,” 1372–74), while the presence of cultivated grain seeds in early Natufian settlements argues for a connection with the peoples of the Nile Valley during this time. In addition to this, shellfish from the Nile Valley were found at the Natufian site of Ain Mallaha in the Jordan Valley.

ENDNOTES

INTRODUCTION

1. Michael Zick, "Der älteste Tempel der Welt," *bild der wissenschaft* 8 (2000): 60–66.

2. Collins, Andrew, "Göbekli Tepe and the Rebirth of Sirius," 2013, www.andrewcollins.com/page/articles/Gobekli_Sirius.htm (accessed January 13, 2014).

PROLOGUE. IN QUEST OF ANGELS

1. Green, *The City of the Moon God,* 13, quoting Muhammad Ibn Abd Allah al-Kisa'i, *The Tales of the Prophets of Al-Kisa' i*.

2. Lloyd and Brice, "Harran," 90–91.

3. Budge, *The Chronography of Gregory Abû' l Faraj, the Son of Aaron, the Hebrew Physician, Commonly Known as Bar Hebraeus,* vol. I, 7.

4. See Lloyd and Brice, "Harran," 77–111. They report on surface finds at Harran, including distinctive ceramic ware belonging to the Halaf culture.

5. Yardimci, *Mezopotamya'ya açilan kapi Harran,* 362–64.

6. Book of Jubilees, 8:1–4.

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17. This tradition is inferred in the Western Church by the words of Acts 1:12–17.

18. Madatyan, "Srbaluys myuron." See also "Yeghrtud Monastery," Armeniapedia, www.armeniapedia.org/index.php?title=Yeghrtud_Monastery (accessed January 17, 2014).

19. For all the different variations of the story see Quinn, *The Quest of Seth for the Oil of Life,* and Rappoport, *Mediæval Legends of Christ,* 210–34.

20. Hasratyan, "Yeghrduti Monastery," http://archive.is/0TQs (accessed January 16, 2014).

CHAPTER 36. THE RED CHURCH

1. Cuinet, *Turquie d'Asie Géographie Administrative,* 584.

2. Oskian, *Die Klöster von Taron-Turuberan,* s.v. "Yeghrduti," 91–129.

3. See my post on VirtualAni dated April 4, 2012, and all responses, under the main heading "Yeghrdut monastery," www.network54.com/Forum/146256/message/1333496514/Yeg (accessed January 16, 2014).

4. Personal communication between Hakan Dalkus and the author dated April 8, 2012.

5. Raffi Kojian, "The Info I Have," VirtualAni, April 10, 2012, www.network54.com/Forum/146256/message/1334065482/The (accessed January 16, 2014).

6. "Yeghrtud Monastery," Armeniapedia, www.armeniapedia.org/index.php?title=Yeghrtud_Monastery (accessed January 16, 2014).

7. Oskian, *Die Klöster von Taron-Turuberan,* s.v. "Yeghrduti."

8. Ibid.

9. Murad Hasratyan, *Christian Armenia Encyclopedia,* s.v. "Yeghrduti Monastery," Yerevan, http://archive.is/0TQs (accessed January 16, 2014).

10. "Yeghrtud Monastery," Armeniapedia, www.armeniapedia.org/index.php?title=Yeghrtud_Monastery (accessed January 16, 2014).

11. The Armenians claim descent from Togarmah, the third son of Gomer, and grandson of Japheth, one of the sons of Noah. See "Togarmah," Wikipedia, http://en.wikipedia.org/wiki/Togarmah (accessed January 16, 2014).

12. Khorenatsi, *History of the Armenians,* 80.

13. Ibid. See also "Haik," TourArmenia, www.tacentral.com/mythology.asp?story_no=6 (accessed January 17, 2014).

CHAPTER 37. THE SECRETS OF ADAM

1. Carver, *A Discourse of the Terrestrial Paradise,* 165.

2. Ibid., 166.

3. Ibid., 167.

4. Reinink, "East Assyrian Historiography in Response to the Rise in Islam," 88.

5. Pererii Valentini, *Commentariorvm et Disputationum in Genesim,* 6.

6. MacBean and Johnson, *Dictionary of Ancient Geography,* s.v. "Gordene" and "Gordiaei Montes," cf. Ptolemy, London,

1773.

7. Malan, *The Book of Adam and Eve,* III, 5–6, 147–51.

8. Budge, *Book of the Cave of Treasures;* Ri, *La Caverne des Trésors;* and Malan, *Book of Adam and Eve,* III, iv, 146–47.

9. Malan, *Book of Adam and Eve,* III, vii, 151–53.

10. Klijn, *Seth in Jewish, Christian and Gnostic Literature,* 88.

11. Logan, *Gnostic Truth and Christian Heresy,* 90.

12. Josephus, "The Antiquities of the Jews," I, ii, 3.

13. Whiston, *The Works of Flavius Josephus*.

14. See footnote accompanying Josephus, "Antiquities," I, ii, 3.

15. Josephus, *Historiarum de Bello Judaico, Liber Primus, et Pars Secondi, Quibus, Ea summatim continentur quæ Josephus susius prosequitur postremis novem Antiquitatum libris,* 13.

16. Charles, ed., *Apocrypha and Pseudepigrapha of the Old Testament,* vol. 2, "Vita Adae et Evae," 51:1–3.

17. MacRae, trans., "Apocalypse of Adam."

18. Turner and Wintermute, trans., "Allogenes."

19. Böhlig and Wisse, trans., "Gospel of the Egyptians."

20. Stroumsa, *Another Seed,* 115.

21. Lemprière, *Bibliotheca Classica,* s.v. "Charax," 143a.

22. Stroumsa, *Another Seed,* 116.

23. Ibid.

24. Ibid., cf. Layton, trans., "The Hypostasis of the Archons," 92.

25. Mead, *Pistis Sophia,* ch. 134, p. 292. For the dating of the Askew MS (BL Additional 5114) containing the *Pistis Sophia*

text see Ibid., xxvi, and Legge, *Forerunners and Rivals of Christianity,* vol. 2, 134, 194.

26. Gürtler and Pearson, *Criticorum Sacrorum sive Lectissimarum in Sacro-Sancta Biblia Utriusque Foederis Annotationum atrus Tractatuum Theologico-Philologicorum Supplementum,* 175–76. See also Josephus, *Historiarum de Bello Judaico,* IV, 31.

27. Lemprière, *Bibliotheca Classica,* s.v. "Abas."

28. Widengren, *Die Religionen Irans,* cf. *Opus imperfectum in Matthaeum, Hom. bk. II,* ch. 56.

29. The text for the "Revelation of the Magi," otherwise known as the "Chronicle of Zuqnin," is taken from "The Sages and the Star-child," trans. by Landau.

30. "Revelation of the Magi," 2:3.

31. Ibid., 3:3–4

32. Ibid., 2:4.

33. Ibid., 4:2–10.

34. Ibid., 5:8.

35. Ibid., 5:9–10.

36. Ibid., 6:2–3.

37. Ibid., 29:1.

38. For a good summary, see Landau, “The Sages and the Star-child,” 83.

39. Ri, trans., *La Caverne des Trésors,* “Book of the Cave of Treasures,” 14:1.

40. Budge, *Book of the Cave of Treasures,* and Ri, *La Caverne des Trésors,* various references.

CHAPTER 38. AS ANGELS OURSELVES

1. Mills, *Mercer Dictionary of the Bible,* s.v. "Gospel of the Egyptians."

2. Ibid.

3. Mead, "An Anonymous System from Irenæus," in *Fragments of a Forgotten Faith,* 189.

4. Ibid.

5. Ibid.

6. *Clementine Recognitions,* 1.45, quoted in Margaret Barker, "The Holy Anointing Oil," www.margaretbarker.com/Papers/TheHolyAnointingOil.pdf (accessed January 16, 2014).

7. Isenberg, trans. "Gospel of Philip," ch. 71, 73. For a fuller

account of the subject see Barker, “Holy Anointing Oil.”

8. 4 Ezra 2:12.

9. 2 En. 22:8–10, in Florentina Badalanova Geller, *2 (Slavonic Apocalypse of) Enoch: Text and Context,* Max Planck Institute for the History of Science, www.mpiwg-berlin.mpg.de/Preprints/P410.PDF (accessed January 16, 2014).

10. Gen. 5:24. See also Heb. 11:5.

11. *Clementine Recognitions* 1.46, quoted in Barker, “Holy Anointing Oil.”

12. Neef, “Overlooking the Steppe-Forest,” 13–15.

13. Yardin, *Tree of Light,* 40.

14. Klijn, *Seth in Jewish, Christian and Gnostic Literature,*

106.

15. Wintermute, trans., *Old Testament Pseudepigrapha,* "Book of Jubilees," 8, 1.4.

16. Josephus, "The Antiquities of the Jews," bk. 1, ch. vi, verse 4.

17. Hommel, *The Ancient Hebrew Tradition,* 292–97.

18. Heckford, *A Succinct Account of All the Religions,* 316.

19. al-Kisa'i, quoted in Green, *The City of the Moon God,* 13.

20. Immanuel Velikovsky, "A Hebrew Cosmogony," Immanuel Velikovsky Archive, www.varchive.org/ce/hebcos.htm (accessed January 16, 2014).

CHAPTER 39. THE RETURN TO EDEN

1. Charles, trans., *The Book of Enoch or 1 Enoch,* 1 En. 32:1–2.

2. Oskian, *Die Klöster von Taron-Turuberan,* s.v. "Yeghrduti."

3. Ibid.

4. Ibid.

5. Ibid.

6. See "The Sage's Guild: Historical Discussion" and the post dated March 17, 2011, from "Ancalimon," http://forums.taleworlds.com/index.php?topic=147199.340;wap2 (accessed January 16, 2014).

7. The theory was outlined in two books—Heyerdahl, *Ingen grenser,* and Heyerdahl and Lilliestrøm, *Jakten på Odin*—and criticized at the time by Norwegian academics. See "Jakten på Odin," Wikipedia,

http://en.wikipedia.org/wiki/Jakten_på_Odin (accessed January 16, 2014).

8. Personal communication between the author and Raffi Kojian of AniOnline on January 29, 2012. See also Armenian Dictionary of Roots at http://nayiri.com/imagedDictionaryBrowser.jsp?dictionaryId=7&query=%D4%B5%D5%B2%D6%80%D5%A4 (accessed January 16, 2014).

9. I want to thank Gagik Avagyan for the interpretation of this word.

10. Rappoport, *Mediæval Legends of Christ,* 230.

11. Ibid., 231.

12. Oskian, *Die Klöster von Taron-Turuberan,* cites various Armenian and Soviet-Armenian references to Yeghrdut.

Should anyone wish to track these down, I would be happy to supply details.

13. Oskian, *Die Klöster von Taron-Turuberan,* s.v. "Yeghrduti."

14. Josephus, "Antiquities," bk 1, ch. 1, verse 2.

15. Charles, ed., *Apocrypha and Pseudepigrapha,* 40:6.

CHAPTER 40. A TRIP TO PARADISE

1. Hamzeh'ee, *The Yaresan,* 263.

2. Ibid., 268.

3. Hewsen and Shirakats'i, *The Geography of Ananias of Širak,* 59, 63.

4. Nuttall, *The Fundamental Principles of Old and New World*

Civilizations, 287–88.

5. Laurence, trans., *Book of Enoch the Prophet,* 1 En. 8:1.

6. "Turkey: Oldest Obsidian Bracelet Reveals Amazing Craftsmen's Skills in the Eighth Millennium BC," CNRS News Release, Paris, December 6, 2012, www2.cnrs.fr/en/1941.htm (accessed January 16, 2014).

7. Ibid.

8. See Başi, *Gula Xizirî*.

CHAPTER 42. A LOSS OF INNOCENCE

1. Charles, ed., *Apocrypha and Pseudepigrapha,* "Apocalypse of Moses," 20: 4–5.

2. Genesis 3:17, 19, New King James Version.

3. Esin and Harmankaya, “Aşıklı,” 115–32.

4. Sale, *The Koran,* p. 7. n. c, cf.

5. See Conybeare, *The Key of Truth,* and Russell, *Zoroastrianism in Armenia,* 516–27.

6. See, for instance, “Ishikism” for the relationship between the Paulicians, the Bogomils, and the Alevi, Wikipedia, http://en.wikipedia.org/wiki/Ishikism (accessed January 16, 2014).

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Library of Congress Cataloging-in-Publication Data

Collins, Andrew, 1957–

Göbekli Tepe: genesis of the gods : the Temple of the Watchers and the discovery of Eden / Andrew Collins.

pages cm

Includes bibliographical references and index.

print ISBN: 978-1-59143-142-8

ebook ISBN: 978-1-59143-835-9

1. Göbekli Tepe Site (Turkey) 2. Excavations (Archaeology)—Turkey—Sanliurfa Region. 3. Neolithic period—Turkey—Sanliurfa Region. 4. Sanliurfa Region (Turkey)— Antiquities. 5. Sacred space—Turkey—Sanliurfa Region. 6. Eden. 7. Legends—Turkey—Sanliurfa Region. 8. Sanliurfa Region (Turkey)—Description and travel. I. Title. II. Title: Göbekli Tepe.

DS156.G59C65 2014

939.4'2—dc23

2013046261

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To Those Who Struggle for Freedom,
In the Garden of Eden,
Past and Present

And to the memory of
Filip Coppens
(1971–2012)

and

Colin Wilson
(1931–2013)

Friends and Genuine Seekers of the Truth

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Electronic edition produced by

Antrik ExPress

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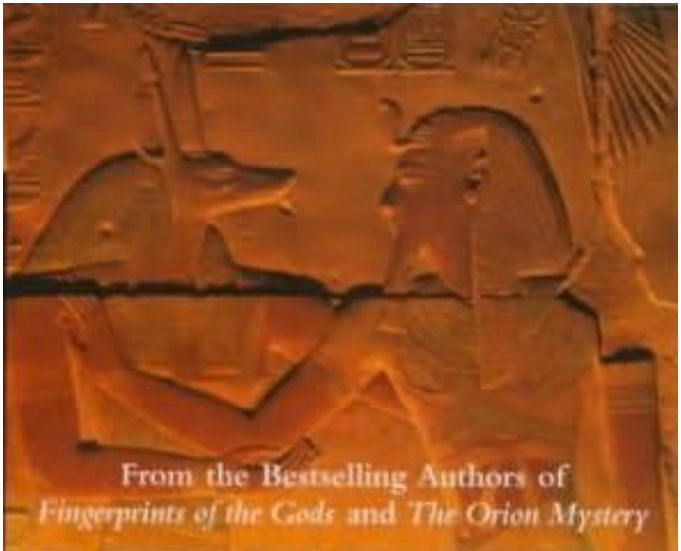

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A Quest for the Hidden Legacy of Mankind

Graham Hancock
Robert Bauval

Three Rivers
Press New York

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Published by Three Rivers Press, 201 East 50th Street,
New York, New York 10022. Member of the Crown Publishing Group.

Originally published in Great Britain by William Heinemann Ltd.,
and in the United States by Crown Publishers, Inc., in 1996.

Random House, Inc.
New York, Toronto, London, Sydney, Auckland
http://www.randomhouse.com/

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Printed in the United States of America

Diagrams by Robert G. Bauval and R. J. Cook
Photographs 2, 3, 4, 5, 6, 8, 9, 10, 17, 18, 19, 20, 22,
24, 25, 26, 27, 28, 30, 31, and 32 by Santha Faiia.
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Library of Congress Cataloging-in-Publication
Data is available upon request.

ISBN 0-517-88852-1

10 9 8 7 6 5 4 3 2 1

First Paperback Edition

To the memory of my father Gaston Bauval,
who rests in the land of Egypt.

Robert G. Bauval

To my friend, John Anthony West, for his twenty years of courageous work to prove the geological antiquity of the Sphinx, and for the vast implications of the evidence that he has put before the public. ‘The truth is great and mighty,’ as the ancient texts say. ‘It hath never been broken since the time of Osiris.’

Graham Hancock

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Acknowledgements

Robert G. Bauval:

Foremost, a special thanks to the readers. In the last two years I have received hundreds of letters of encouragement and good-will and it's sure nice to know you're all out there sharing in this common quest for truth.

I am immensely grateful for the patience and understanding of my wife Michele, and my two children, Candice and Jonathan.

Particular gratitude goes to the following relatives, friends and colleagues for their support: John Anthony West, Chris Dunn, Bill Cote, Roel Oostra, Joseph and Sherry Jahoda, Joseph and Laura Schor, Niven Sinclair, Marion Krause-Jach, Princess Madeleine of Bentheim, James Macaulay, Robert Makenty, Linda and Max Bauval, Jean Paul and Pauline Bauval, my mother Yvonne Bauval, Geoffrey and Thérèse Gauci, Patrick and Judy Gauci, Denis and

Verena Seisun, Colin Wilson, Mohamed and Amin El Walili, Julia Simpson, Sahar Talaat, Professor Karl-Klaus Dittel and his wife Renate, Hani Monsef, Mark Ford, Peter Zuuring, Richard Thompson, Adrian Ashford, Dave Goode, Okasha El Daly, Mohamad Razek, Heike Nahsen, Ilga Korte, Gundula Schulz El Dowy, Antoine Boutros, Professor Jean Kerisel, Roy Baker, Murry Hope, William Horsman and Charlotte Ames.

I would like to convey my warm thanks to Bill Hamilton and Sara Fisher of A.M. Heath & Co., Ltd., for putting up with my pleonastic ways, Tom Weldon and all the staff at William Heinemann Ltd., Peter St. Ginna and Brian Belfiglio at Crown Publishing Inc., Melanie Walz and Doris Janhsen at Paul List Verlag, Udo Rennert of Wiesbaden, and Moheb Goneid and all the staff at the Movenpick-Jolie Ville at Giza.

Finally, I want to pay tribute to the engineer and my friend Rudolf Gantenbrink for opening the way for all of us with his bold and daring exploration in the Great Pyramid.

Robert G. Bauval,
Buckinghamshire, February 1996

Graham Hancock:

Special thanks and love to Santha, my wife and partner, my best and dearest friend. Love and appreciation to our children: Gabrielle, Leila, Luke, Ravi, Sean and Shanti. Special thanks also to my parents, Donald and Muriel Hancock, who have given me so much, and for the help, advice and adventurous spirit of my uncle, James Macaulay. Many of the individuals named in Robert's acknowledgements likewise deserve my thanks: they know who they are. In addition I take this opportunity to send my personal good wishes to Richard Hoagland, Lew Jenkins, Peter Marshall, and Ed Ponist.

Graham Hancock,
Devon, February 1996

Part I

Enigmas

Chapter 1

Horizon Dweller

'There is scarcely a person in the civilized world who is unfamiliar with the form and features of the great man-headed lion that guards the eastern approach to the Giza pyramids.'

Ahmed Fakhry, *The Pyramids,* 1961

A gigantic statue, with lion body and the head of a man, gazes east from Egypt along the thirtieth parallel. It is a monolith, carved out of the limestone bedrock of the Giza plateau, two hundred and forty feet long, thirty-eight feet wide across the shoulders, and sixty-six feet high. It is worn down and eroded, battered, fissured and collapsing. Yet nothing else that has reached us from antiquity even remotely matches its power and grandeur, its majesty and its mystery, or its sombre and hypnotic watchfulness.

It is the Great Sphinx.

Once it was believed to be an eternal God.

Then amnesia ensnared it and it fell into an enchanted sleep.

Ages passed: thousands of years. Climates changed. Cultures changed. Religions changed. Languages changed. Even the positions of the stars in the skies changed. But still the statue endured, brooding and numinous, wrapped in silence.

Often sand engulfed it. At widely separated intervals a benevolent ruler would arrange to have it cleared. There were those who attempted to restore it, covering parts of its rock-hewn body with blocks of masonry. For a long period it was painted red.

By Islamic times the desert had buried it up to its neck and it had been given a new, or perhaps a very old, name: 'Near to one of the Pyramids,' reported Abdel-Latif in the twelfth century, 'is a colossal head emerging from the ground. It is called Abul-Hol.' And in the fourteenth century El-Makrizi wrote of a man named Saim-ed-Dahr who 'wanted to remedy some of the religious errors and he went to

the Pyramids and disfigured the face of Abul-Hol, which has remained in that state from that time until now. From the time of this disfigurement, also, the sand has invaded the cultivated land of Giza, and the people attribute this to the disfigurement of Abul-Hol.'

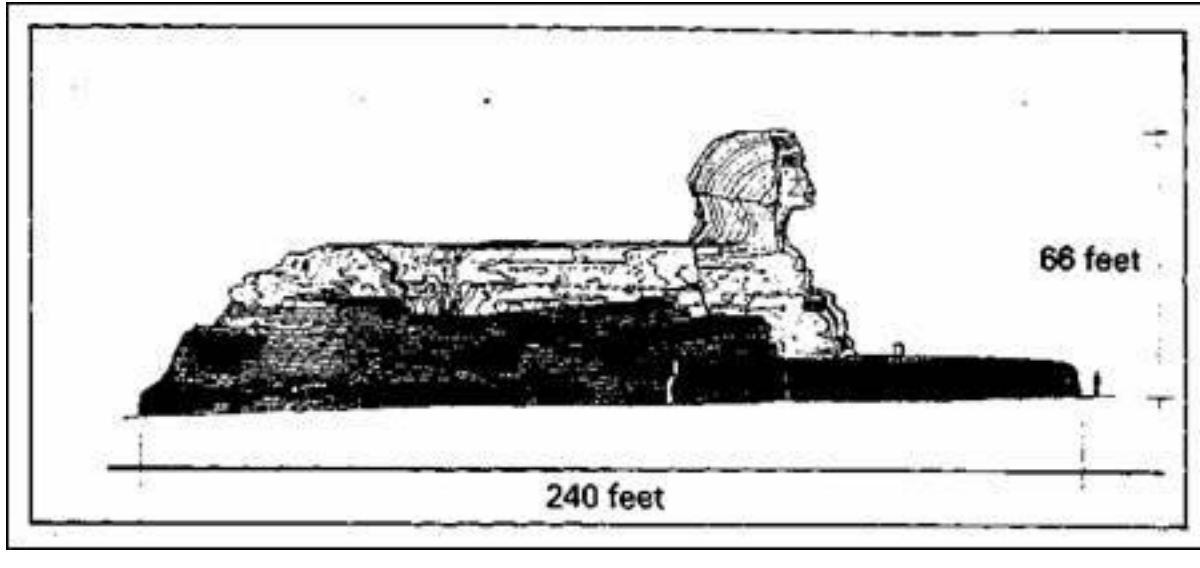

1. Profile of the Great Sphinx from the south showing restoration blocks along the paws and flanks and extensive weathering on the core limestone body.

Enduring memories

Abul-Hol, the Arabic name for the Great Sphinx of Egypt, is supposed by most translators to mean 'Father of Terror'.

An alternative etymology, however, has been proposed by the Egyptologist Selim Hassan. During the extensive excavations that he undertook on the Giza plateau in the 1930s and '40s he uncovered evidence that a colony of foreigners—'Cananites'—had resided in this part of Lower Egypt in the early second millennium bc. They were from the sacred city of Harran (located in the south of modern Turkey near its border with Syria) and they may perhaps have been pilgrims. At any rate artefacts and commemorative stelae prove that they lived in the immediate vicinity of the Sphinx—worshipping it as a god under the name *Hwl*.[1]

In the Ancient Egyptian language, *bw* means 'place'. Hassan therefore reasonably proposes that Abul-Hol, 'is simply a corruption of *bw Hwl*, "the Place of *Hwl*", and does not at all mean "Father of

Terror", as is generally supposed'.[2]

When speaking of the Sphinx, the Ancient Egyptians frequently made use of the Harranian derivation *Hwl,* but they also knew it by many other names: *Hu*,[3] for example, and *Hor-em-Akhet*—which means 'Horus in the Horizon'.[4] In addition, for reasons that have never been fully understood, the Sphinx was often referred to as *Seshep-ankh Atum*, 'the living image of *Atum*,[5] after *Atum-Re* the self-created sun-god, the first and original deity of the ancient Egyptian pantheon. Indeed, the very name 'Sphinx' that has haunted the collective subconscious of the Western world since Classical times, turns out to be no more than a corruption—through Greek—of *Sheshep-ankh.*

In this way, with subtlety, a number of very archaic ideas, once held by the ancient Egyptians, have survived for thousands of years.[6] Would we not be foolish, therefore, to ignore entirely the lingering tradition that associates the Sphinx with a great and terrible riddle?

Stillness and silence

Crouching in the massive horseshoe-shaped trench of bedrock out of which it was carved, the statue looks old: a fierce and raddled towering monster, higher than a six-storey building and as long as a city block. Its flanks are lean, deeply scalloped by erosion. Its paws, now covered with modern repair bricks, are substantially worn away. Its neck has been clumsily shorn up with a cement collar intended to keep its grizzled head in place. Its face, too, is bruised and battered, and yet it somehow seems serene and ageless, unpredictably portraying different moods and expressions at different times and seasons, coming alive with patterns of light and shadow cast by scudding clouds at dawn.

Wearing the elegant *nemes* head-dress of an Egyptian Pharaoh, it gazes patiently into the east, as though waiting for something—waiting and watching, lost in its 'stillness and silence' (in the words of the Roman naturalist Pliny), and targeting for ever the equinoctial

rising point of the sun.

How long has it stood here inspecting the horizon?

Whose image does it portray?

What is its function?

In our search for answers to these questions we have found ourselves drawn into strange and unexpected areas of research. Like souls on the way of the dead, we have had to pass through the dark kingdom of the ancient Egyptian afterworld, to navigate its narrow corridors, flooded passageways and hidden chambers, and to confront the fiends and demons lurking there. Using computer simulations we have journeyed back in time to stand beneath skies more than 12,000 years old, and watched Orion cross the meridian at dawn as Leo rose resplendent in the east. We have immersed ourselves in archaic rebirth texts and myths and scriptures and found amongst them the veiled remnants of a remarkable ‘astronomical language’ that can, without too much difficulty, be read and understood today.

Through clues expressed in this language we believe that we are able to identify with certainty who and what the Sphinx really is. Moreover, as we shall see in Parts III and IV, this identification appears to open a window on a forgotten episode in human history when the waters of a great deluge were ebbing and men sought to transform themselves into gods. In our opinion the stakes are high. Indeed we think it possible that the Sphinx and the three great Pyramids may offer knowledge of the genesis of civilization itself. Our immediate aim in Parts I and II, therefore, is to undertake a complete re-evaluation of all these titanic monuments, of the scholarship that has surrounded them during the past century or so, and of their numerous neglected, geodetic and geological and astronomical qualities.

Once these factors are taken into account a new Rosetta Stone begins to emerge, expressed in architecture and time, in allegories and symbols, and in specific astronomical directions and co-ordinates that tell the seeker where to look and what he might hope

to find.

Meanwhile the Great Sphinx waits patiently.

Keeper of secrets.

Guardian of mysteries.

Chapter 2

The Riddle of the Sphinx

'*Sphinx*, mythological creature with a lion's body and human head ... The earliest and most famous example in art is the colossal recumbent Sphinx at Giza, Egypt, dating from the reign of King Khafre (4th dynasty, *c*.2575-2465 bc). This is known to be a portrait statue of the King ...'

Encyclopaedia Britannica

There is a belief that the Great Sphinx of Giza was fashioned during that period of Egyptian history classified as the 'Old Kingdom' on the orders of the Fourth Dynasty Pharaoh named Khafre whom the Greeks later knew as Chephren and who reigned from 2520-2494 bc. This is the orthodox historical view and readers will find it reported in all standard Egyptological texts, in all encyclopaedias, in archaeological journals and in popular scientific

literature. In these same sources it is also repeatedly stated as fact that the features of the Sphinx were carved to represent Khafre himself—in other words, its face is his face.

Thus, for example, Dr. I. E. S. Edwards, a world-renowned expert on the monuments of the Giza necropolis, tells us that although the face of the Sphinx has been 'severely mutilated': 'it still gives the impression of being a portrait of Khafre and not merely a formalised representation of the king.'[7]

In a similar vein Ahmed Fakhry, professor of ancient history at Cairo University, informs us that: 'as it was first conceived, the Sphinx symbolised the king, and its face was carved in Khafre's likeness.'[8]

The only problem—at any rate without access to a time machine—is that none of us, not even distinguished Egyptologists, is really in a position to say whether or not the Sphinx is a portrait or likeness of Khafre. Since the Pharaoh's body has never been found we have nothing to go on except surviving statues (which might or

might not have closely resembled the king himself). The best known of these statues, an almost unsurpassable masterpiece of the sculptor's art carved out of a single piece of black diorite, now reposes in one of the ground-floor rooms of the Cairo Museum. It is to this beautiful and majestic representation that the scholars make reference when they tell us—with such confidence—that the Sphinx was fashioned in Khafre's likeness.

This confidence was particularly apparent in an article in the prestigious *National Geographic* magazine which appeared in the US in April 1991, and a similar one that appeared in Britain in the *Cambridge Archaeological Journal* in April 1992.[9] The articles were written by Professor Mark Lehner, of Chicago University's Oriental Institute, who used 'photogrammetric data and computer graphics' to 'prove' that the face of the great Sphinx was that of Khafre:

> Zahi Hawass, Director General of the Giza Pyramids, invited me to join his excavation [around the Sphinx] in 1978. During the next four years I led a project to map the Sphinx in detail for the first time. We produced front and side views with

photogrammetry, a technique using stereoscopic photography ... Computers have taken the records further. Maps were digitized to make a 3-D wireframe model; some 2.6 million surface points were plotted to put 'skin' on the skeleton view. We have constructed images of the Sphinx as it may have looked thousands of years ago. To create the face, I tried matching views of other sphinxes and pharaohs to our model. With the face of Khafre, the Sphinx came alive ...[10]

It all sounds technically very impressive and persuasive. After all, who in their right mind is going to argue with '2.6 million surface points' based on 'stereoscopic photography' and 'photogrammetry'?

Behind the technical jargon, however, the truth is rather less awe-inspiring. A close reading shows that all that Lehner did in order to 'reconstruct' the face of the Sphinx was to prepare a computerized three-dimensional wireframe skeleton on which he then superimposed the face of Khafre. This is admitted in the *National Geographic* article, which reproduces a photograph of the diorite statue of Khafre above the following caption: 'The author [Lehner] used this face for the computer reconstruction of the Sphinx.'[11]

So what Mark Lehner really did was to *remodel the* face of the Sphinx on a computer according to his own preferences—in much the same way that some ancient Egyptians had probably done several times before him on the face of the statue itself. The present features of the Sphinx, in other words, are no more likely to be those of Khafre than they are to be those of a number of other Pharaohs—Thutmosis IV, for example, or Amenhotep, or Ramesses II (who is last known, as Lehner admits, to have 'extensively reworked' the monument at around 1279 bc).[12] The simple, honest truth is that during the thousands of years of the Sphinx's existence, often with only its head protruding above the sand, almost anyone could have worked on its face at almost any time. Moreover, Lehner's own photogrammetric study has thrown up at least one piece of evidence which is highly suggestive of major recarving: the Sphinx's head, he writes, is 'too small' in proportion to the body. He tells us that this is because it is an early prototype of the later very popular (and always proportionate) sphinx form, and

speculates that 'the Fourth Dynasty Egyptians may not [yet] have worked out the canon of proportions between the royal head with the *nemes* headdress on the lion body'.[13] He does not consider the equally valid and more intriguing possibility that the head was once much larger—and perhaps even leonine, and that it was reduced in size by recarving.

Probably relevant in this regard is an additional observation that Lehner has made: 'a subtle discrepancy' exists 'between the axis of the head [of the Sphinx] and that of the facial features'[14]—the head being orientated perfectly to due east, and the features swivelled somewhat to the north of east.

Once again this is an error that is consistent with the recarving of a much older and heavily eroded statue. And it is consistent, too, as we shall see later in this chapter, with new geological evidence concerning the Sphinx's antiquity. Setting these matters aside for the moment, however, it seems clear that the mere fact that Mark Lehner is able to graft an image of Khafre onto the battered visage

of the Sphinx by means of the 'ARL (Advanced Research Logic) Computer and the AutoCAD (release 10) graphics application',[15] proves nothing more than that with good computer graphics you can make anyone's face look like anyone else's face. 'The same computer technique,' in the words of one outspoken critic, 'could be used to "prove" the Sphinx was really Elvis Presley ...'[16]

It was partly in an attempt to resolve this impasse that a group of independent researchers took the unusual step of bringing a detective to Egypt in 1993. The detective in question was Lieutenant Frank Domingo, a senior forensic artist with the New York Police Department, who has been preparing 'identikit' portraits of suspects for more than twenty years. As a man who knows and works with faces every day of his professional life, he was commissioned to make a detailed study of the points of similarity and difference between the Sphinx and the Khafre statue. Months later, after returning to his lab in New York where he undertook careful comparisons of hundreds of photographs of the

two works, Domingo reported:

After reviewing my various drawings, schematics and measurements, my final conclusion concurs with my initial reaction, i.e. that the two works represent two separate individuals. The proportions in the frontal view, and especially the angles and facial protrusion in the lateral views convinced me that the Sphinx is not Khafre ...'[17]

So on the one hand we have a top forsenic expert, Frank Domingo, telling us that the Sphinx's face does not represent Khafre's face. And on the other we have Mark Lehner, the Egyptologist computer buff, saying that only with Khafre's face does the Sphinx 'come alive'.

Undatable, anonymous

Why is there room for such widely varying opinions concerning the world's best known and most intensively studied ancient monument?

In 1992, in two different forums, Mark Lehner made somewhat

contradictory statements which hint at the answer to this question:

1. At the annual meeting of the American Association for the Advancement of Science he said: 'There is no direct way to date the Sphinx itself because the Sphinx is carved right out of natural rock.'[18]

2. In the *Cambridge Archaeological Journal* he wrote: 'Although we are certain that the Sphinx dates to the Fourth Dynasty, we are confronted by a complete absence of Old Kingdom texts which mention it.'[19]

To deal with the first point first, it is a simple matter of fact that no objective test presently exists for the accurate dating of rock-hewn monuments.[20] Many people are under the erroneous impression that the radio-carbon technique could be used, but this is not so: it is only applicable to organic materials (in which it measures the quantity of the isotope Carbon-14 that has decayed since the death of the organism in question). Since the Sphinx is

made of carved rock it cannot be dated by this method.

This brings us to the second point. Stone monuments *can* be dated with reasonable accuracy if there are contemporary texts which refer to their construction. Ideally, in the case of the Sphinx, what one would require would be an inscription carved during the Fourth Dynasty and directly attributing the monument to Khafre. As Mark Lehner admits, however, no contemporary text referring to the Sphinx has ever been found.

In all honesty, therefore, what confronts us at Giza is an entirely anonymous monument, carved out of undatable rock, about which, as the forthright Egyptologist Selim Hassan wrote in 1949, 'no definite facts are known'.[21]

One syllable

Why, therefore, do Mark Lehner and other influential modern scholars continue to link the Sphinx to Khafre and to insist that 'The

Old Kingdom Fourth Dynasty date for [its] origin ... is no longer an issue'[22]?

One reason is a single syllable carved on the granite stela which stands between the monument's front paws and which has been taken as proof that Khafre built the Sphinx. The stela, which is not contemporary with the Sphinx itself, commemorates heroic efforts by the Pharaoh Thutmosis IV (1401-1391 bc) to clear the Sphinx completely of encroaching sand and describes the lion-bodied statue as the embodiment of 'a great magical power that existed in this place from the beginning of all time'.[23] The inscription also contains, in line 13, the first syllable—*Khaf*—of the name Khafre. The presence of that syllable, in the words of Sir E. A. Wallis Budge, is: 'very important for it proves that ... the priests of Heliopolis who advised Thutmosis to undertake the work of clearing away the sand from the Sphinx believed that it was fashioned by Khafre ...'[24]

But does the syllable *Khaf* really prove so much?

When the stela was excavated by the Genoese adventurer Gian Battista Caviglia in 1817, line 13—which has now entirely flaked away—was already badly damaged. We know of its existence because, not long after the excavation, the British philologist Thomas Young, a leading expert in the decipherment of ancient Egyptian hieroglyphs, was able to make a facsimile of the inscription. For line 13 his translation reads as follows: '... which we bring for him: oxen ... and all young vegetables; and we shall give praise to Wenofer ... Khaf ... the statue made for Atum-Hor-em-Akhet. ...'[25]

On the assumption that Khaf was Khafre's name, Young added the syllable *Re* between square brackets to show that a lacuna had been filled in.[26] In 1905, however, when the American Egyptologist James Henry Breasted studied Young's facsimile he concluded that a mistake had been made: 'This mention of King Khafre has been understood to indicate that the Sphinx was the work of this king—a conclusion which does not follow; [the

facsimile of] Young has no trace of a cartouche ...'[27]

In all the inscriptions of ancient Egypt, from the beginning to the end of Pharaonic civilization, the names of kings were always inscribed inside oval-shaped signs or enclosures known as 'cartouches'. It is therefore extremely difficult to understand how on the granite stela between the paws of the Sphinx the name of as powerful a king as Khafre—or indeed of any other king—could have been written without its pre-required cartouche.

Besides, even if the syllable Khaf was intended to refer to Khafre, its presence does not necessarily imply that he *built* the Sphinx. It is equally possible that he was being commemorated for some other service. For example, like many Pharaohs after him (Ramesses II, Thutmosis IV, Ahmoses I, etc., etc.[28])—and perhaps like many before him too—is it not possible that Khafre was a *restorer* of the Sphinx?

As it happens, this perfectly logical deduction and others like it were favoured by a number of the leading scholars who pioneered

the discipline of Egyptology at around the end of the nineteenth century. Gaston Maspero, for example, Director of the Department of Antiquities at the Cairo Museum, an acclaimed philologist of his time, wrote in 1900:

> The stela of the Sphinx bears, on line 13, the [name] of Khafre in the middle of a gap ... There, I believe, is an indication of [a renovation and clearance] of the Sphinx carried out under this prince, and consequently the more or less certain proof that the Sphinx was already covered with sand during the time of his predecessors ...[29]

This view is supported by the text of another roughly contemporary stela, the so-called 'Inventory Stela'—also found at Giza but arbitrarily assumed by the majority of modern Egyptologists to be a work of fiction—which states that Khufu saw the Sphinx. Since Khufu, the supposed builder of the Great Pyramid, was Khafre's predecessor, the obvious implication is that Khafre could not have built the Sphinx.[30] Encouraged by this testimony, Maspero at one point went so far as to propose that the Sphinx could have existed since the times of the 'Followers of

Horus', a lineage of pre-dynastic, semi-divine beings whose members were believed by the ancient Egyptians to have ruled for thousands of years before the 'historical' Pharaohs.[31] Later in his career, however, the French Egyptologist modified his opinion to conform with the general consensus and stated that the Sphinx 'probably represents Khafre himself'.[32]

That Maspero should have felt compelled to recant his heretical views on the Sphinx tells us more about the power of peer pressure within Egyptology than it does about the quality of evidence concerning the antiquity and attribution of the monument itself. Indeed, the evidence underpinning the prevailing consensus is extremely slim, resting not so much on 'facts' as on the *interpretation* that certain authorities have chosen at one time or another to give to particular and usually highly ambiguous data—in this case the solitary syllable of Khafre's name on the Thutmosis stela.

Very few senior members of the profession have been as honest

about such matters as Selim Hassan. In his classic 1949 study of the Sphinx, from which we have already quoted, he issued this pertinent warning:

> Excepting for the mutilated line on the granite stela of Thothmosis IV, which proves nothing, there is not a single ancient inscription which connects the Sphinx with Khafre. So sound as it may appear, we must treat this evidence as circumstantial until such a time as a lucky turn of the spade will reveal to the world definite reference to the erection of this statue ...[33]

Context

Since Hassan wrote there has been no such 'lucky turn of the spade'. Nevertheless the conventional wisdom that the Sphinx was built by Khafre, *circa* 2500 bc, remains so strong and so all-pervasive that one assumes there must be something else behind it other than the disputed resemblance to the statue of Khafre in the Cairo Museum and the contradictory opinions of scholars

concerning a half-ruined stela.

According to Mark Lehner, there is indeed something else—a kind of magic bullet which he clearly regards as powerful enough to kill any niggling doubts and questions. Today the Director of the Koch-Ludwig Giza Plateau Project, and former Director of the now completed Giza Mapping Project, Lehner is recognized as a world expert on the Sphinx. Whenever he fires his magic bullet at the occasional 'heretics' who have suggested that the monument might be a lot older than 2500 bc, therefore, he does so from a position of great influence and authority.

The name of his magic bullet is context and, at the 1992 annual meeting of the American Association for the Advancement of Science, where he was selected as the official spokesman of Egyptology to put the orthodox point of view in a debate on the true age of the Sphinx, he made extensive use of this 'bullet':

> The Sphinx does not sit out alone in the desert totally up for grabs as to 'how old is the Sphinx?'. The Sphinx is surrounded by a vast architectural context which includes the Pyramid of Khufu [better known as the Great Pyramid], the Pyramid of Khafre ['the

second Pyramid'] and the Pyramid of Menkaure,[34] pharaohs of the Fourth Dynasty. Each pyramid has a long causeway running from a Mortuary Temple on its eastern side, down to the level of the Nile flood-plain, where a Valley Temple served as an entrance to the pyramid complex ...

Officials and relatives of the pharaohs built their tombs in cemeteries east and west of the Khufu Pyramid, and southeast of the pyramids of Khafre and Menkaure respectively. Digging at Giza for nearly two centuries, archaeologists have retrieved an abundance of material [dating to the Fourth Dynasty]. Hundreds of tombs have yielded the mortal remains and artifacts of people who composed the state administration of the Pyramid Age ... We are discovering evidence of the working class and everyday life of the society that built the Sphinx and pyramids ... We have evidence of the ruins of an ancient city spread out along the valley for the entire length of the Giza Plateau. All this is part of the archaeological context of the Sphinx ...[35]

Lehner goes on to say that there are several specific reasons why this context persuades him that 'the Sphinx belongs to Khafre's Pyramid complex':

The south side of the Sphinx ditch forms the northern edge of the Khafre causeway as it runs past the Sphinx and enters Khafre's Valley Temple. A drainage channel runs along the northern side of the causeway and opens into the upper south-west corner of the Sphinx ditch, suggesting the ancient quarrymen formed the ditch after the Khafre causeway was

built. Otherwise they would not have had the drain empty into the ditch. Khafre's Valley Temple sits on the same terrace as the Sphinx Temple. The fronts and backs of the Temples are nearly aligned, and the walls of both are built in the same style ...[36]

The evidence for the two Temples, the causeway and the second Pyramid all being part of one architectural unit with the Sphinx is indeed compelling. But using this evidence to support the conclusion that Khafre built the Sphinx is rather less so. What it ignores is the possibility that the entire 'unit' could have been built long before Khafre's time by as yet unidentified predecessors and then *reused*—perhaps even extensively restored—during the Fourth Dynasty.

It is this possibility—not precluded by any inscriptions and not ruled out by any objective dating techniques—that has made the Sphinx the subject of an increasingly virulent controversy during the 1990s ...

Water erosion

The origins of this controversy go back to the late 1970s when John Anthony West, an independent American researcher, was studying the obscure and difficult writings of the brilliant French mathematician and symbolist R. A. Schwaller de Lubicz. Schwaller is best known for his works on the Luxor Temple, but in his more general text, *Sacred Science* (first published in 1961), he commented on the archaeological implications of certain climatic conditions and floods that last afflicted Egypt more than 12,000 years ago:

> A great civilization must have preceded the vast movements of water that passed over Egypt, which leads us to assume that the Sphinx already existed, sculptured in the rock of the west cliff at Giza that Sphinx whose leonine body, except for the head shows indisputable signs of aquatic erosion.[37]

Schwaller's simple observation, which nobody appeared to have taken any notice of before, obviously challenged the Egyptological consensus attributing the Sphinx to Khafre and to the epoch of 2500 bc. What West immediately realized on reading this passage,

however, was that, through geology, Schwaller had also offered a way 'virtually to prove the existence of another, and perhaps greater civilization antedating dynastic Egypt—and all other known civilizations—by millennia':[38]

> If the single fact of the water erosion of the Sphinx could be confirmed, it would in itself overthrow all accepted chronologies of the history of civilization; it would force a drastic re-evaluation of the assumptions of 'progress'—the assumption upon which the whole of modern education is based. It would be difficult to find a single, simple question with graver implications ...[39]

Not floodwaters

West is right about the implications. If the weathering patterns on the Sphinx can be proved to have been caused by water—and not by wind or sand as Egyptologists maintain—then there is indeed a very serious problem with established chronologies. In order to understand why, we need only remind ourselves that Egypt's

climate has not always been as bone dry as it is today and that the erosion patterns to which West and Schwaller are drawing our attention are unique to the 'architectural unit' that Lehner and others define as the 'context' of the Sphinx. From their common weathering features—which are not shared by the other monuments of the Giza necropolis—it is obvious that the structures making up this unit were all built in the same epoch.

But when was that epoch?

West's initial opinion was that:

> There can be no objection in principle to the water-erosion of the Sphinx, since it is agreed that in the past, Egypt suffered radical climatic changes and periodic inundations—by the sea and (in the not so remote past) by tremendous Nile floods. The latter are thought to correspond to the melting of the ice from the last Ice Age. Current thinking puts this date at around 15,000 bc, but periodic great Nile floods are believed to have taken place subsequent to this date. The last of these floods is dated around 10,000 bc. It follows, therefore, that if the great Sphinx has been eroded by water, it must have been constructed prior to the flood or floods responsible for the erosion ...[40]

The logic is indeed sound 'in principle'. In practice, however, as

West was later to admit, ‘flood or floods’ could not have been responsible for the peculiar kind of erosion seen on the Sphinx:

> The problem is that the Sphinx is deeply weathered up to its neck. This necessitates 60-foot floods (at a minimum) over the whole of the Nile Valley. It was difficult to imagine floods of this magnitude. Worse, if the theory was correct, the inner limestone core-blocks of the so-called Mortuary Temple at the end of the causeway leading from the Sphinx had also been weathered by water, and this meant floods reaching to the base of the Pyramids—another hundred feet or so of flood waters ...[41]

Floodwaters, then, could not have eroded the Sphinx. So what had?

Rainfall

In 1989 John West approached Professor Robert Schoch of Boston University. A highly respected geologist, stratigrapher and paleontologist, Schoch’s speciality is the weathering of soft rocks very much like the limestone of the Giza plateau. Clearly, says

West, he was a man who ‘had exactly the kind of expertise needed to confirm or rebut the theory once and for all’.[42]

Schoch was at first sceptical of the idea of a much older Sphinx but changed his mind after making an initial visit to the site in 1990. Although he was unable to gain access to the Sphinx enclosure he could see enough from the tourist viewing platform to confirm that the monument did indeed appear to have been weathered by water. It was also obvious to him that the agency of this weathering had not been floods but ‘precipitation’.

‘In other words’, West explains, ‘rainwater was responsible for weathering the Sphinx, not floods ... Precipitation-induced weathering took care of the problem in a single stroke. The sources I was using for reference talked about these floods in conjunction with long periods of rains, but it hadn’t occurred to me, as a non-geologist, that the rains, rather than the periodic floods, were the actual weathering agent ...’[43]

As we have noted, Schoch got no closer to the Sphinx on his 1990

visit than the tourist viewing platform. At this stage, therefore, his endorsement of West's theory could only be provisional.

Why had the geologist from Boston not been allowed inside the Sphinx enclosure?

The reason was that since 1978 only a handful of Egyptologists had been granted that privilege, with all public access closed off by the Egyptian authorities and a high fence built around the site.

With the support of the Dean of Boston University, Schoch now submitted a formal proposal to the Egyptian Antiquities Organization, requesting permission to carry out a proper geological study of the erosion of the Sphinx.

A rude interruption

It took a long time, but because of his eminent institutional backing, Schoch's proposal was eventually approved by the EAO, creating a brilliant opportunity to get to the bottom of the Sphinx

controversy once and for all. John West immediately set about putting together a broadly based scientific team, including a professional geophysicist, Dr. Thomas L. Dobecki, from the highly respected Houston consulting firm of McBride-Ratcliff & Associates.[44] There were also to be others who joined 'unofficially': an architect and photographer; two further geologists; an oceanographer and a personal friend of John West's, film-producer Boris Said.[45] Through Said, West had arranged to 'record the ongoing work in a video documentary which would have wide public appeal':[46]

> Since we could expect nothing but opposition from academic Egyptologists and archaeologists a way had to be found to get the theory to the public, if and when Schoch decided the evidence warranted full geological support. Otherwise it would simply be buried, possibly for good ...[47]

As a way of getting the theory of an ancient rainfall-eroded Sphinx to the public, West's film could hardly have been more successful. When it was first screened on NBC television in the

United States in the autumn of 1993 it was watched by 33 million people.

But that is another story. Back in the Sphinx enclosure the first interesting result came from Dobecki, who had conducted seismographic tests around the Sphinx. The sophisticated equipment that he had brought with him picked up numerous indications of 'anomalies and cavities in the bedrock between the paws and along the sides of the Sphinx'.[48] One of these cavities he described as:

> a fairly large feature; it's about nine metres by twelve metres in dimension, and buried less than five metres in depth. Now the regular shape of this—rectangular—is inconsistent with naturally occurring cavities ... So there's some suggestion that this could be man-made.[49]

With legal access to the enclosure, West recalls, Schoch, too:

> was swiftly dropping conditionals ... The deeply weathered Sphinx and its ditch wall, and the relatively unweathered or clearly wind-weathered Old Kingdom tombs to the south (dating from around Khafre's period) were cut from the same member of rock. In Schoch's view it was therefore geologically impossible to ascribe these structures to the same time period. Our scientists were agreed. Only water, specifically precipitation, could produce

the weathering we were observing ...[50]

It was at this crucial moment, while the members of the team were putting together the first independent geological profile of the Sphinx, that Dr. Zahi Hawass; the Egyptian Antiquities Organization's Director-General of the Giza Pyramids, fell upon them, suddenly and unexpectedly, like the proverbial ton of bricks.

The team had obtained their permission from Dr. Ibrahim Bakr, then the President of the Egyptian Antiquities Organization. What they had not known, however, was that relations between Bakr and Hawass were frosty. Neither had they reckoned with Hawass's energy and ego. Fuming that he had been bypassed by his superior, he accused the Americans of tampering with the monuments:

> I have found out that their work is carried out by installing endoscopes in the Sphinx's body and shooting films for all phases of the work in a propaganda ... but not in a scientific manner. I therefore suspended the work of this unscientific mission and made a report which was presented to the permanent commission who rejected the mission's work in future ...[51]

This was putting it mildly. Far from ‘suspending’ their work, Hawass had virtually thrown the American team off the site. His intervention had come too late, however, to prevent them from gathering the essential geological data that they needed.

When did it rain?

Back in Boston, Schoch got down to work at his laboratory. The results were conclusive and a few months later he was ready to stick his neck out. Indeed to John West’s delight he was now prepared fully to endorse the notion of a rain-eroded Sphinx—with all its immense historical implications.

Schoch’s case, in brief—which has the full support of palaeo-climatologists—rests on the fact that heavy rainfall of the kind required to cause the characteristic erosion patterns on the Sphinx had stopped falling on Egypt thousands of years before the epoch of 2500 bc in which Egyptologists say that the Sphinx was built. The

geological evidence therefore suggests that a *very conservative* estimate of the true construction date of the Sphinx would be somewhere between '7000 to 5000 bc minimum'.[52]

In 7000 to 5000 bc—according to Egyptologists—the Nile valley was populated only by primitive neolithic hunter-gatherers whose 'toolkits' were limited to sharpened flintstones and pieces of stick. If Schoch is right, therefore, then it follows that the Sphinx and its neighbouring temples (which are built out of hundreds of 200-ton limestone blocks) must be the work of an as yet unidentified advanced civilization of antiquity.

The Egyptological reaction?

'That's ridiculous', scoffed Peter Lecovara, assistant curator of the Egyptian Department in Boston's Museum of Fine Arts. 'Thousands of scholars working for hundreds of years have studied this problem and the chronology is pretty much worked out. There are no big surprises in store for us ...'[53]

Other 'experts' were equally dismissive. According to Carol

Redmont, for example, an archaeologist at the University of California's Berkeley campus: 'There is no way this could be true. The people of that region would not have had the technology, the governing institutions or even the will to build such a structure thousands of years before Khafre's reign.'[54]

And the redoubtable Zahi Hawass, who had tried to nip the geological research in the bud in the first place, had this to say about the Schoch-West team and their unorthodox conclusions concerning the antiquity of the Sphinx:

> American hallucinations! West is an amateur. There is absolutely no scientific base for any of this. We have older monuments in the same area. They definitely weren't built by men from space or Atlantis. It's nonsense and we won't allow our monuments to be exploited for personal enrichment. The Sphinx is the soul of Egypt'.[55]

John West was not in the least bit surprised by the rhetoric. In his long and lonely quest to mount a proper investigation into the age of the anonymous Sphinx many such brickbats had been thrown at him before. This time, with Schoch's heavyweight support—and

the massive exposure of the whole matter on NBC television—he felt vindicated at last. Furthermore it was clear that the Egyptologists were rattled by the intrusion of an empirical science like geology into their normally cosy and exclusive academic territory.

West, however, wanted to take the matter a good deal further than Schoch was prepared to go and felt that the geologist had been too conservative and lenient in his 'minimum' estimate of 7000 to 5000 bc for the age of the Sphinx: 'Here Schoch and I disagree, or rather interpret the same data somewhat differently. Schoch very deliberately takes the most conservative view allowed by the data ... However I remain convinced that the Sphinx must predate the break-up of the last Ice Age ...'[56]

In practice this means any time before 15,000 bc—a hunch that West says is based on the complete lack of evidence of a high culture in Egypt in 7000 to 5000 bc. 'If the Sphinx was as recent as 7000-5000 bc,' he argues, 'I think we probably would have other

Egyptian evidence of the civilization that carved it.'[57] Since there is no such evidence, West reasons that the civilization responsible for the Sphinx and its neighbouring temples must have disappeared long before 7000-5000 bc: 'The missing other evidence is, perhaps, buried deeper than anyone has looked and/or in places no one has yet explored—along the banks of the ancient Nile perhaps, which is miles from the present Nile, or even at the bottom of the Mediterranean, which was dry during the last Ice Age ...'[58]

Despite their 'friendly disagreement' as to whether the erosion of the Sphinx indicated a date of 7000 to 5000 bc, or a much more remote period, Schoch and West decided to present an abstract of their research at Giza to the Geological Society of America. They were encouraged by the response. Several hundred geologists agreed with the logic of their contentions and dozens offered practical help and advice to further the investigation.[59]

Even more refreshing was the reaction from the international media. After the GSA meeting articles appeared in dozens of

newspapers, and the issue of the Sphinx's age was widely covered by television and radio. 'We were over the fifty-yard line and heading downfield,' recalls West.[60]

As for the matter of his difference of opinion with Schoch about the dating of the monument, he honestly concedes that 'only further research will resolve the question'.[61]

Jury still out

Since 1993 the Egyptian government, on the advice of Western Egyptologists, has not permitted any further geological research or seismic investigations to be undertaken around the Sphinx. This is surprising in view of the momentous implications of Schoch's findings and all the more surprising because his original evidence has not yet been convincingly challenged in any forum. On the contrary, as the years have gone by, the Boston geologist has withstood the rigours of scientific peer review, several times

successfully defending his contention that the distinctive weathering visible on the Sphinx, and on the walls of its enclosure—a combination of deep vertical fissures and rolling, undulating, horizontal coves—is ‘a classic, textbook example of what happens to a limestone structure when you have rain beating down on it for thousands of years ...[62] When set in the context of our knowledge of ancient climates at Giza, he adds, this represents abundant evidence ‘that the Great Sphinx predates its traditional attribution of *circa* 2500 bc ... I’m just following the science where it leads me, and it leads me to conclude that the Sphinx was built much earlier than previously thought.’[63]

Of course it cannot be said that Robert Schoch has *proved* that the monument dates back to the epoch of 7000 to 5000 bc. Nor has John West *proved* the even earlier date that he favours. But then again neither has orthodox Egyptology *proved* that the Sphinx belongs to Khafre and to the epoch of 2500 bc.

In other words, by any rational and reasonable criteria, the jury is

still out on the true attribution and antiquity of this extraordinary monument.

The riddle of the Sphinx is still unsolved. And as we see in the next chapter, it is a riddle that encompasses the entire Giza necropolis.

Chapter 3

Mystery Piled upon Mystery

'It is said that the stone [used in the construction of the Pyramids of Giza] was conveyed over a great distance ... and that the construction was effected by means of mounds ... The most remarkable thing is that, though the constructions were on such a great scale and the country round about them consists of nothing but sand, not a trace remains either of any mound or of the dressing of the stones, so that they do not have the appearance of being the slow handiwork of men but look like a sudden creation, as though they had been made by some god and set down bodily in the surrounding sand.'

Diodorus Siculus, *Book I,* first century bc

The Giza necropolis, site of the Great Sphinx and the three great Pyramids of Egypt, is, by any standards, an extraordinary architectural and archaeological puzzle. This is not only because of the many remarkable physical and engineering characteristics of the principal Pyramids and temples, but also because all of these

monuments are essentially uninscribed and anonymous. Like the Sphinx, therefore, they are difficult to date by objective means. Like the Sphinx, too, their attribution to specific Pharaohs by Egyptologists is necessarily based upon a somewhat arbitrary interpretation of contextual clues.

The three great Pyramids, for example, are conventionally assigned as the tombs of Khufu, Khafre and Menkaure—three Pharaohs of the Fourth Dynasty. Yet no Pharaoh's body has ever been found in any of these monuments and while there are some so-called 'quarry marks'—crudely daubed graffiti—in cavities above the roof of the 'King's Chamber' in the Great Pyramid, these writings, as we shall see in Part II, are not particularly helpful in confirming the orthodox identification with Khufu. There are no other texts of any kind in the Great Pyramid, or in the Pyramids attributed to Khafre and Menkaure. The three small 'satellite' Pyramids lined up along the eastern face of the Great Pyramid, and the three other satellite Pyramids lying near the south-western edge

of the site, are similarly bereft of inscriptions. Some Fourth Dynasty artefacts were found inside these six ‘satellite’ structures but there is no guarantee that these artefacts are contemporary with the monuments.

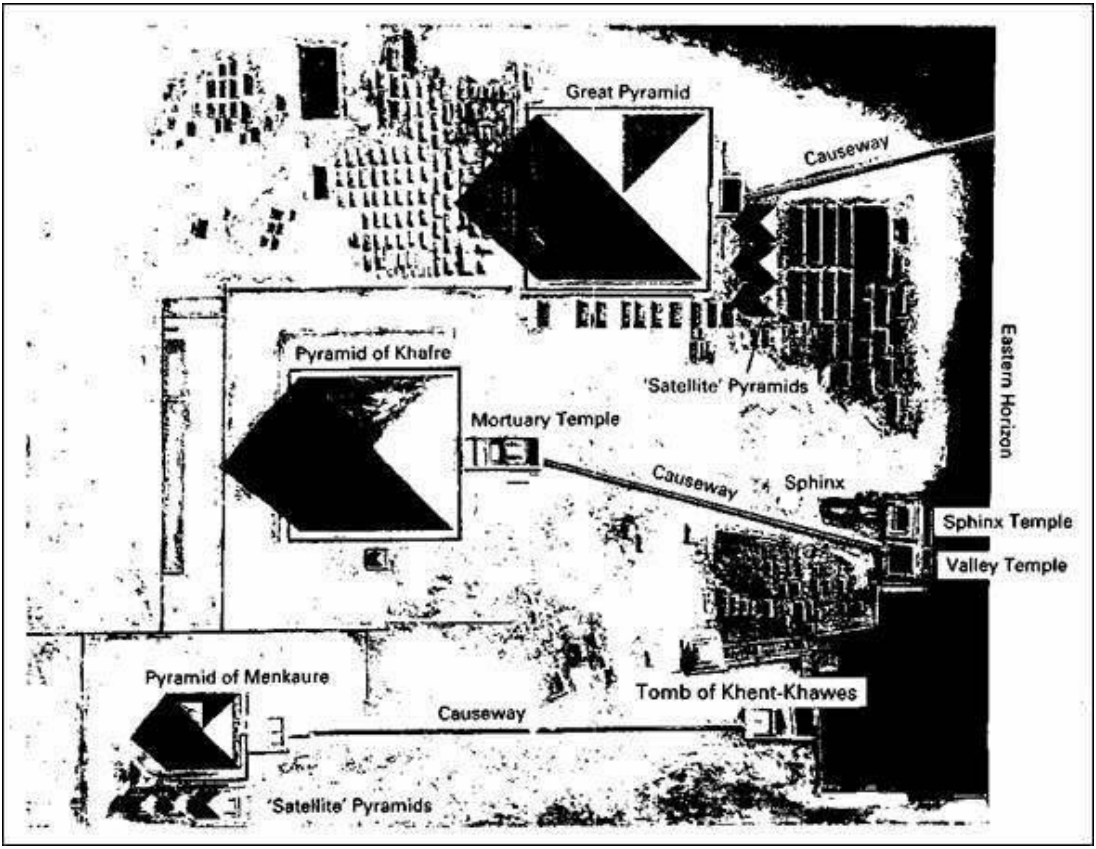
Great Pyramid
Causeway
Pyramid of Khafre
'Satellite' Pyramids
Mortuary Temple
Causeway
Sphinx
Eastern Horizon
Sphinx Temple
Valley Temple
Pyramid of Menkaure
Tomb of Khent-Khawes
Causeway
'Satellite' Pyramids

2. Overhead view of the principal monuments of the Giza necropolis.

The same problem applies to the statues of Khafre and Menkaure that were found in the latter's 'Mortuary' Temple and the former's 'Valley' Temple. These statues are the only evidence supporting the attribution of these otherwise anonymous and uninscribed edifices to the two Pharaohs in question. In all logic, however, they only suggest that attribution. They certainly do not confirm it. Khafre and Menkaure, in other words, *might* have built the temples. But it is also possible that they took over preexisting structures which they had inherited from an earlier time, and that they adapted, renovated and furnished these structures with their own statues in order to suit their own purposes. After all, we do not attribute the building of London's Trafalgar Square to Nelson just because his statue stands there. By the same token Egyptologists could be going too far when they attribute the building of the Valley Temple to Khafre on the basis of his statue found there.

Indeed, this is an observation that is true for the Giza necropolis as

a whole. The undoubted connection that it has with the Fourth Dynasty is not in dispute, but the precise nature of this connection remains unproven. To be sure, there are huge quantities of unmistakable and heavily inscribed Fourth Dynasty *mastaba* tombs lying east and west of the Great Pyramid and west of the Sphinx, but the contention that the Pyramids themselves are 'tombs and tombs only' is guesswork. It could be the case, as has happened elsewhere in the world, that an ancient and sacred site designed and built for one purpose was subsequently taken over and reused for another rather different purpose. We might imagine, for example, that the Pyramids and the other principal monuments surrounding them were originally intended to fulfil purely ritual, ceremonial and religious functions and that the practice of burying the dead there—principally Fourth Dynasty queens and nobles judging by the identifiable remains that have survived—was a later adaptation effected by people who were unconnected to the genesis of the site but who sought to be interred in a place that was imbued with

ancient prestige and sanctity. A Western analogy is the practice of burying the remains of particularly favoured individuals under the flagstones of medieval cathedrals—a practice that continues to this day, but that does not lead us to conclude that these cathedrals are tombs or even that they were built primarily for the purposes of burial.

Impossible engineering

Approaching Giza from the east, through the modern Arab village of Nazlet-el-Sammam, one comes first to the Great Sphinx —which rears its grizzled head above an ugly bus-park and a crowd of tourist shops and cafés. Fortunately the ground has been cleared for a distance of about two hundred metres in front of the monument, giving an open view of the enormous and unusual architectural complex that has surrounded it since time immemorial.

This complex consists of the so-called ‘Sphinx Temple’ and the

‘Valley Temple of Khafre’, the former lying immediately to the east of the Sphinx, and directly overlooked by it, the latter lying a little to the south of the Sphinx Temple, separated from it by a narrow corridor but in direct alignment—a bit like two chunky, detached houses standing side by side.

The layout of these monuments, and the relationship that both of them have to the Sphinx and its enclosure, are best appreciated from the plans and photographs reproduced herewith. The Valley Temple is the larger of the two, being almost square and measuring approximately 130 feet along each side; the Sphinx Temple is more pronouncedly rhomboidal with side lengths of about 100 feet.

Originally around 40 feet high, both monuments are built out of massive limestone core-blocks and both were at one time fitted with inner and outer casings of granite. These casings and much of the core masonry have been removed from the Sphinx Temple, leaving it in a very dilapidated state. By contrast the Valley Temple is still largely intact. Both monuments are roofless, lacking their original

ceiling beams. In the case of the Valley Temple, however, sixteen original interior columns and architraves remain in place in the T-shaped central hall, creating graceful patterns of light and shadow.

The unifying features of these ancient and anonymous structures are the stark, undecorated austerity of the building style, and the use throughout of ponderous megaliths—many of which are estimated to weigh in the range of 200 tons apiece.[64] There are no *small* blocks here at all: every single piece of stone is enormous—the least of them weighing more than 50 tons—and it is difficult to understand how such monsters could have been lifted and manoeuvred into place by the ancient Egyptians. Indeed, even today, contractors using the latest construction technology would face formidable challenges if they were commissioned to produce exact replicas of the Sphinx Temple and the Valley Temple.

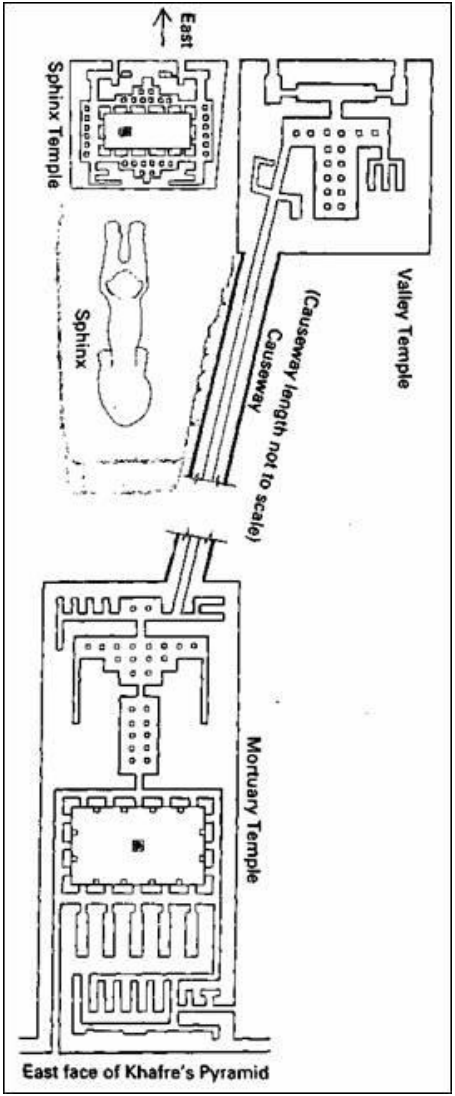
East
Sphinx Temple
Valley Temple
Sphinx
(Causeway length not to scale)
Causeway
Mortuary Temple
East face of Khafre's Pyramid

3. The Great Sphinx and the architectural complex that surrounds it: Sphinx Temple, Valley Temple, Causeway (foreshortened and not to scale) and Mortuary Temple.

The problems are manifold but stem mainly from the extremely large size of the blocks—which can be envisaged in terms of their dimensions and weight as a series of diesel locomotive engines stacked one on top of the other. Such loads simply cannot be hoisted by the typical tower and hydraulic cranes that we are familiar with from building sites in our cities. These cranes, which are pieces of advanced technology, can generally 'pick' a maximum load of 20 tons at what is called 'minimum span'—i.e. at the closest distance to the tower along the 'boom' or 'arm' of the crane. The longer the span the smaller the load and at 'maximum span' the limit is around 5 tons.

Loads exceeding 50 tons require special cranes. Furthermore, there are few cranes in the world today that would be capable of picking 200-ton blocks of quarried limestone. Such cranes would

normally have to be of the ‘bridge’ or ‘gantry’ type, often seen in factories and at major industrial ports where they are used to move large pieces of equipment and machinery such as bulldozers, military tanks, or steel shipping containers. Built with structural steel members and powered with massive electric motors, the majority of these cranes have a load limit of under 100 tons. In short, a commission to put together a temple out of 200-ton blocks would be a most unusual and very taxing job, even for modern heavy-load and crane specialists.

In the United States there are presently only two land-based cranes of the ‘counterweight and boom’ type able to handle loads in the 200-ton range. Recently one was brought in to a Long Island construction site to lift a 200-ton boiler into a factory. The crane has a boom 220 feet long (at one end of which is 160-ton concrete counterweight which keeps it from tipping over). A crew of 20 men had to work for six weeks to prepare the ground before the boiler could be lifted.[65]

The biggest technical challenge of building a replica of the Valley Temple would be the need to lift *hundreds* of such weights and to do so within the physical limitations of the Giza site. In order to overcome that challenge the ideal crane would have to be of the gantry or bridge type, made *mobile* by being mounted on steel tracks—which would have to be set up within, or around, the confined area of the temple structure itself.

Not surprisingly, when the crane engineer responsible for lifting the 200-ton boiler on Long Island was shown photographs and given technical details concerning the blocks of the Valley Temple—and asked whether he thought that he could hoist similar blocks into place with his crane—he replied:

> I'm looking at what you're showing me here, and looking at the distances involved. I don't know if we would be able to pick the 200-ton blocks from the positions that I see available to us ... In my business we pick heavy loads, and we look to see how heavy loads were picked by other people before us. And seeing how they moved these heavy blocks, 200-ton blocks, thousands and thousands of years ago, I have no idea how they did this job. It's a mystery and it'll probably always be a mystery to me, and maybe to everybody. [66]

How, why, when?

Mystery or not, the Valley Temple and the Sphinx Temple stand at Giza as mute testimony to the fact that certain builders in antiquity did know how to pick 200-ton loads, and did have the technical wherewithal to do the job. Furthermore, although it is reasonably certain that they did not do it with gantry or any other such cranes, we are in darkness as to how they did do it. Confronted by such questions Egyptologists tend to speak in vague and general terms of 'earth ramps' and 'unlimited manpower'.[67] Engineers, however are required to be more specific and to address themselves to the issues of the precise kinds of ramps that would have been required—up which such big blocks could have been dragged—and the precise numbers of men that would have been needed to drag them.

No detailed technical studies have ever been undertaken at Giza concerning the logistics of building the Sphinx and Valley Temples.

The Pyramids, however—which Egyptologists also believe were built with ramps—have been studied quite closely by a number of highly qualified architects and engineers.[68] What these studies have indicated is that the maximum feasible gradient for a construction ramp up which heavy loads could be hauled by men on foot is 1 in 10.[69] In the case of the Great Pyramid, which originally reached a height of 481 feet, this would have called for a ramp 4800 feet long and almost three times as massive as the Pyramid itself.[70]

Of course, such a problem does not apply where the Sphinx Temple and the Valley Temple are concerned because their original constructed height was much lower than that of the Pyramids and they therefore could have been approached by relatively short 1-in-10 ramps. The fearsome mass and weight of the many 200-ton blocks found in these temples, however, rules out the use of *any* ramp made of materials less stable than the limestone ashlars of the temples themselves.[71]

Let us assume, then, that solid stone ramps were used and then

later dismantled and cleared away. The question now becomes: how many men would be required to haul hundreds of 200-ton blocks up such ramps? To get this problem into perspective it is helpful to realize that a block of 200 tons represents a load roughly equivalent to 300 family-sized automobiles (each with an average weight of three-quarters of a ton).

Again, we do not have a technical study on the Sphinx and Valley Temples to refer to. Fortunately, however, a relevant study has been undertaken at the Great Pyramid where the French master engineer Jean Leherou Kerisel, a consultant for the building of the Cairo Metro, worked out the logistics of hauling into place the 70-ton blocks that were used in the construction of the so-called King's Chamber. According to his calculations the job could just about have been done—although with enormous difficulty—with teams of 600 men arranged in ranks across a very wide ramp buttressed against one face of the Pyramid.[72] From this it follows that teams 1800 men strong would have been required to haul the Valley

Temple blocks. But could 1800 men have been effectively harnessed to such dense and relatively compact loads (the maximum dimensions of each block are 30 feet by 10 feet by 12 feet)? And more to the point, since the temple walls do not exceed 130 feet along each side, how likely is it that such large teams could have been organized to work efficiently—or at all—in the limited space available? Assuming a minimum of three feet of horizontal space per man, each rank of haulers could not have contained more than fifty men. To make up the total of 1800 men needed to move a 200-ton block, therefore, would have called for no less than thirty-six ranks of men pulling in unison, to be harnessed to each block.

The potential complications that might have arisen are mind-boggling. Even assuming they could all have been overcome, however, the next question that presents itself is perhaps the most intriguing of all.

Why?

Why bother?

Why specify temples built out of unwieldy 200-ton blocks when it would have been much easier, much more feasible and just as aesthetically pleasing, to use smaller blocks of say two or three tons each?

There are really only two answers. Either the people who designed these hulking edifices had knowledge of some technique that made it *easy* for them to quarry, manipulate and position enormous pieces of stone, or their way of thinking was utterly different from our own —in which case their motives and priorities are unlikely to be fathomable in terms of normal cross-cultural comparisons.

We also need to ask *when* the work was done.

As noted earlier, the Sphinx Temple and the Valley Temple are both anonymous monuments. And although it is certain that use was made of the latter for Khafre's funerary rituals, there is no proof that he built it. On the contrary, if Professor Robert Schoch's geological evidence is correct, then it is quite certain that Khafre did *not* build either of these structures. This is so because the Sphinx itself was

made by hewing a deep horseshoe-shaped trench out of the bedrock of the Giza plateau, leaving a central core which was then carved into shape, and because geologists have been able to prove that the limestone megaliths used in both temples came from the trench and were thus quarried at the same time as the Sphinx.[73] It therefore follows, if the Sphinx is indeed thousands of years older than Egyptologists think it is, that the temples must also be thousands of years older.

What we may be looking at here are the fingerprints of highly sophisticated and perhaps even technological people capable of awe-inspiring architectural and engineering feats at a time when no civilization of any kind is supposed to have existed anywhere on earth.

Supportive of this possibility is the fact that the megaliths of the temples demonstrate precisely the same apparent precipitation-induced weathering features as the Sphinx itself. And it is of interest to note that the surviving granite casing blocks seem to have been

carved on their inner faces to fit over the limestone core-blocks *at a time when these were already heavily marked by erosion.* Since the granite casing has the look of other Old Kingdom Egyptian architecture (while the limestone core-blocks do not) this may be taken as further evidence of the theory that an ancient, revered and much-eroded structure was restored and renovated by the Old Kingdom Pharaohs. Robert Schoch certainly favours this view. 'I remain convinced,' comments the Boston University geology professor, 'that the backs of the Old Kingdom granite facing stones were carved to match or complement the earlier weathering features seen on the surfaces of the core limestone blocks of the temples.'[74]

Memorials mighty

The famous black diorite statue of Khafre that now stands in the Cairo Museum was found upside down in a twenty-foot deep pit in the floor of the antechamber that leads into the Valley Temple's T-

shaped central hall. Walking through this hall, hemmed in by immensely strong and thick limestone and granite walls, the visitor will eventually come to a high, narrow passageway on the north-western side of the structure. This passage leads out of the rear of the temple, along the southern side of the Sphinx trench—where it overlooks the Sphinx—and thence joins with the massive 'causeway' that runs for more than 1000 feet up the slope of the Giza plateau linking the Valley Temple to the Mortuary Temple and thence to the eastern face of the second Pyramid.

The causeways—one for each of the three Pyramids—are important features of the Giza necropolis, though all have fallen into an advanced state of disrepair. Some 20 feet wide, and varying in length from quarter of a mile up to half a mile, they each originally linked a Mortuary Temple to a Valley Temple. Today, however, the only relatively intact complex is that attributed to Khafre described above. In the case of the third Pyramid, the Valley Temple is now completely gone but the megalithic ruins of the Mortuary Temple

are still in place. In the case of the Great Pyramid the only remaining part of the Mortuary Temple is its basalt floor, while the ruins of the Valley Temple—if any survive—are buried under the village of Nazlet-el-Sammam.

The three causeways, like the Mortuary and Valley Temples, are fashioned out of huge blocks of limestone. Indeed all of these prodigious structures are clearly 'of a piece' from a design point of view and seem to have been the work of builders who thought like gods or giants. There is about them an overwhelming, weary, aching sense of antiquity and it is certainly not hard to imagine that they might be the leavings of a lost civilization. In this regard we are reminded of *The Sacred Sermon,* a 'Hermetic' text of Egyptian origin that speaks with awe of lordly men 'devoted to the growth of wisdom' who lived 'before the Flood' and whose civilization was destroyed: 'And there shall be memorials mighty of their handiworks upon the earth, leaving dim trace behind when cycles are renewed ...'[75]

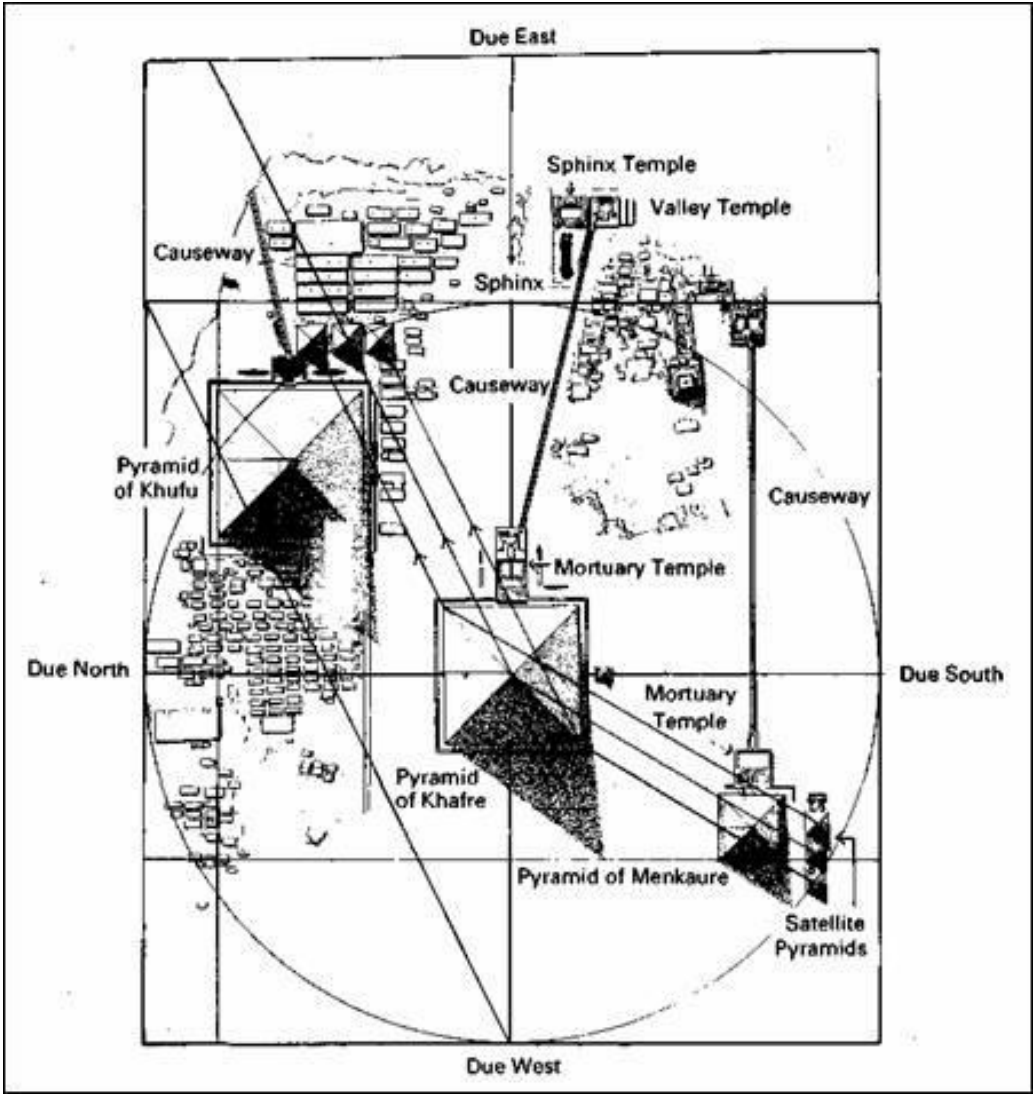
Due East
Sphinx Temple
Valley Temple
Causeway
Sphinx
Causeway
Pyramid of Khufu
Causeway
Mortuary Temple
Due North
Due South
Mortuary Temple
Pyramid of Khafre
Pyramid of Menkaure
Satellite Pyramids
Due West

4. The artificial 'Horizon of Giza'.

There is another feature of the causeways, of intense interest to us, which we shall explore in detail in Parts III and IV—their orientation. The causeway of the Third Pyramid, like the gaze of the Sphinx, is targeted due east. The causeway of the second Pyramid points 14 degrees south of due east. The causeway of the Great Pyramid points 14 degrees north of due east. The arrangement is precise, geometrical, obviously deliberate, with each significant structure bearing a designed relationship to every other structure—and the whole contained within a large, circular artificial 'horizon' that is apparently centred on the apex of the second Pyramid with its rim lying just to the west of the rump of the Sphinx.

Orthodox Egyptological opinion concerning the causeways is that they were ceremonial roads. Notwithstanding the fact that they are technological masterpieces which could only have been built with an enormous expense of ingenuity and effort at the direction of skilled surveyors and architects, the assumption is that they were

used *just once* for the funerary journey of the Pharaoh's corpse from Valley Temple to Mortuary Temple where his final embalming rituals took place.

Perhaps so. As we shall show in Parts III and IV, however, there are features of these causeways which suggest that they may have been used many times by many different Pharaohs and that they have their technical and symbolic origins in events that occurred long before the dawn of the historical civilization of Egypt.

Not purely symbolic boats

In the 1850s Sir Richard Francis Burton, the British explorer and adventurer, visited Egypt and the Pyramids of Giza. He noted some odd 'rhomboidal depressions' lying parallel to the eastern side of the Great Pyramid, close to the end of its causeway, and made sketches of them which are now kept in the British Museum.[76] Some years later, in 1881, Sir William Flinders Petrie, the 'Father of

British Egyptology', also saw these strange depressions but simply referred to them as 'trenches' and did not bother to have them cleared.[77]

In 1893, buried in pits near a relatively obscure pyramid on another site, the famous French Egyptologist de Morgan discovered six large wooden boats, but little was made of this. In 1901 another French Egyptologist, Chassinat, discovered a 'rhomboidal pit' near the pyramid of Djedefra at Abu Roash. After noting that it very much resembled the pits at Giza near the Great Pyramid, he wrote: 'their purpose is unknown, as is the case here.'[78]

Ancient Egyptian funerary texts are strewn with references to boats—notably the various solar and divine vessels on which the deceased hoped to voyage in the cosmic afterlife (the 'boat of millions of years' for example, the 'bark of Osiris', and the 'bark of Ra'). Carvings, drawings and paintings of such 'boats' and 'barks', with their characteristic high prows and sterns, adorn the walls of many an ancient tomb in Egypt and their symbolic and religious

functions were understood well before the close of the nineteenth century. Nevertheless it was only when the German archaeologist Ludwig Borchardt excavated an obvious and unmistakable boat made of bricks near the sun-temple and pyramids at Abusir, that it was recognized that the mysterious 'rhomboidal pits' were in fact boats—or at any rate representations of boats, or graves for boats.

Since Borchardt's time, several other boat pits have been found—by Selim Hassan in 1933, for example, and by Walter Emery in 1937. Finally, in 1954, Kamal el-Mallakh discovered something quite breathtaking—a partially disassembled cedarwood boat, more than 143 feet long, buried in a pit on the south side of the Great Pyramid. Much more recently another vessel of similar dimensions has been located in an adjacent pit. As yet unexcavated, it is apparently to be studied by a Japanese consortium.

The fact that Egyptologists took a long time to notice that there were large boats buried at Giza does not necessarily mean that their analysis of the function of these boats is completely wrong. The

idea is that the majestic vessels were intended in some ‘primitive’, ‘magical’, ‘superstitious’, ‘half-savage’ way to serve as symbolic vehicles on which the souls of dead Pharaohs could sail into Heaven. This interpretation is consistent with the ancient Egyptian funerary texts and there can be little doubt that the boats—‘solar boats’ as the Egyptologists call them—were indeed intended to play a part in symbolic celestial journeys. As we shall see in Parts III and IV, however, it is possible that the precise nature and purpose of those journeys may have been much more complex and significant than has hitherto been recognized.

Meanwhile, standing in front of the ‘solar boat’ excavated from beside the south face of the Great Pyramid in 1954 it is hard not to note the marks of wear and tear on the keel and gangplank and the numerous other clear signs that this elegant cedarwood vessel, with its high curving prow and stern, was sailed many times on water.[79]

If it was purely symbolic, why was it used?

And why was it necessary to have such an elaborate and

technically accomplished[80] craft for symbolic purposes? Wouldn't a symbolic vessel—such as the brick boats and boat 'graves' found at other Pyramids—have done just as well?

The Pyramids

The dominant features of the Giza necropolis are, of course, its three great Pyramids—those conventionally attributed to Khufu, Khafre and Menkaure. In a sense they are what the entire, vast enterprise proclaims itself to be all about, what the causeways lead towards, what the 'solar boats' are buried beside. Sprawling diagonally across the meridian axis of the site, it is they, above all else, that the geometrical 'Horizon of Giza' appears to have been designed to circumscribe. Nothing about them is accidental: their original constructed heights, their angles of slope, the measurement of their perimeters, even the pattern in which they are carefully laid out on the ground—all of these things are purposive and laden with

meaning.

Because we have described the Pyramids in such detail in other publications[81]—where we have also looked in depth into many of their technical and engineering puzzles—we will not trouble the reader with superfluous details here. Some basic statistics and a few points of analysis are, however, unavoidable at this stage.

The Great Pyramid was originally 481.3949 feet in height (now reduced to just a little over 450 feet) and its four sides each measure some 755 feet in length at the base. The second Pyramid was originally slightly lower—with a designed height of 471 feet—and has sides measuring just under 708 feet in length. The third Pyramid stands some 215 feet tall and has a side length at the base of 356 feet.

When they were built the second Pyramid and the Great Pyramid were both entirely covered in limestone facing blocks, several courses of which still adhere to the upper levels of the former. The Great Pyramid, by contrast, is today almost completely bereft of its

casing. We know from historical accounts, however, that it was once clad from bottom to top with smoothly-polished Tura limestone which was shaken loose by a powerful earthquake that devastated the Cairo area in ad 1301. The newly exposed core masonry was then used for some years as a crude local quarry to rebuild the shattered mosques and palaces of Cairo.

All the Arab commentators prior to the fourteenth century tell us that the Great Pyramid's casing was a marvel of architecture that caused the edifice to glow brilliantly under the Egyptian sun. It consisted of an estimated 22 acres of 8-foot-thick blocks, each weighing in the region of 16 tons, 'so subtly jointed that one would have said that it was a single slab from top to bottom'.[82] A few surviving sections can still be seen today at the base of the monument. When they were studied in 1881 by Sir W. M. Flinders Petrie, he noted with astonishment that 'the mean thickness of the joints is 0.020 of an inch; and, therefore, the mean variation of the cutting of the stone from a straight line and from a true square is but

0.01 of an inch on a length of 75 inches up the face, an amount of accuracy equal to the most modern opticians' straight-edges of such a length.'

Another detail that Petrie found very difficult to explain was that the blocks had been carefully and precisely cemented together: 'To merely place such stones in exact contact at the sides would be careful work, but to do so with cement in the joint seems almost impossible ...'[83]

Also 'almost impossible', since the mathematical value *pi* (3.14) is not supposed to have been calculated by any civilization until the Greeks stumbled upon it in the third century bc,[84] is the fact the designed height of the Great Pyramid—481.3949 feet—bears the same relationship to its base perimeter (3023.16 feet) as does the circumference of any circle to its radius. This relationship is 2*pi* (i.e. 481.3949 feet x 2 x 3.14 = 3023.16 feet).

Equally 'impossible'—at any rate for a people like the ancient Egyptians who are supposed to have known nothing about the true

shape and size of our planet—is the relationship, in a scale of 1:43,200, that exists between the dimensions of the Pyramid and the dimensions of the earth. Setting aside for the moment the question of whether we are dealing with coincidence here, it is a simple fact, verifiable on any pocket calculator, that if you take the monument's original height (481.3949 feet) and multiply it by 43,200 you get a quotient of 3938.685 miles. This is an underestimate by just 11 miles of the true figure for the polar radius of the earth (3949 miles) worked out by the best modern methods. Likewise, if you take the monument's perimeter at the base (3023.16 feet) and multiply this figure by 43,200 then you get 24,734.94 miles—a result that is within 170 miles of the true equatorial circumference of the earth (24,902 miles). Moreover, although 170 miles sounds quite a lot, it amounts, in relation to the earth's total circumference, to a minus-error of only three quarters of a single per cent.

High precision

Such fine errors are within the general margins of tolerance found at the Great Pyramid. Indeed, although it has a footprint of over 13 acres, and consists of some six and a half million tons of limestone and granite blocks, the sheer mass and size of this monster of monuments are not its most impressive characteristics. More astounding by far is the incredible high-tech precision that is built into every aspect of its design.

Before going into the details, let us consider the implications of very fine precision in very large monuments.

An analogy with the simple wrist-watch helps. If you are after an accuracy of, say, a few seconds per week, then an ordinary quartz watch costing fifty dollars or less will do the trick. If you want accuracy to within a fraction of a second per year, however, then the quartz watch will no longer serve and you will have to turn to something of the order of an atomic clock.

A similar situation applies in the construction industry. If you are building a brick wall that is to appear straight within plus or minus 1

degree per 100 metres and the whole roughly directed due north, then any good bricklayer should be able to meet your specification. However, if your requirement is for a wall that is straight within 1 arc minute per 100 metres and directed *exactly* due north, then you are going to need a laser theodolite, an ordnance survey map accurate to 10 metres, and a highly qualified team of professionals including an expert setting-out engineer, an astronomer, a surveyor, several master-masons and a week or so to ensure that the precision you are aiming for has in fact been achieved.

Such 'atomic clock' precision was achieved by the builders of the Great Pyramid more than 4500 years ago. This is not a matter of historical speculation, or of theory, but of plain, measurable facts.

For example the earth's equatorial circumference of 24,902 miles works out at around 132 million feet, with the result that a degree of latitude at the equator is equivalent to approximately 366,600 feet (i.e. 132 million feet divided by 360 degrees). Each degree is divided into 60 arc minutes, which means that 1 arc minute

represents just over 6100 feet on the earth's surface, and each arc minute is then further subdivided into 60 arc seconds—with the result that 1 arc second is equivalent to a distance of about 101 feet. This system of measuring by degrees is not a modern convention but rather an *inheritance* of scientific thinking, connected to 'base 60' mathematics, that dates back to the remotest antiquity.[85] Nobody knows where, or when, it originated.[86] It seems, however, to have been employed in the geodetic and astronomical calculations that were used to locate the Great Pyramid—for the monument is positioned barely a mile to the south of latitude 30, i.e. almost exactly one third of the way between the equator and the north pole.[87]

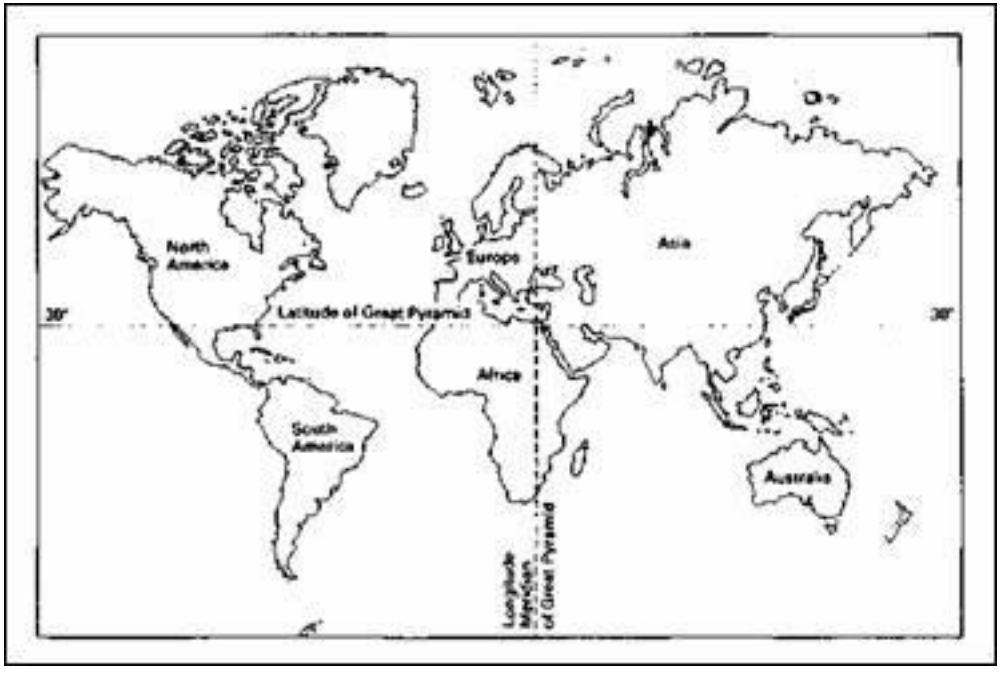

5. Geodetic location of the Great Pyramid of Giza on latitude 30 degrees north (one third of the way between the equator and the north pole) and at the centre of the world's habitable landmasses.

It is unlikely that this choice of location could have come about by chance. Moreover, because no suitable site for such a massive structure exists a mile or so to the north, it would be inadvisable to assume that the fractional offset from the thirtieth parallel could

have been caused by a surveying error on the part of the Pyramid builders.

This offset amounts to 1 arc minute and 9 arc seconds—since the Pyramid's true latitude is 29 degrees 58' 51". Interestingly, however, as a former Astronomer Royal of Scotland has observed:

> 'If the original designer had wished that men should see with their bodily, rather than their mental eyes, the pole of the sky from the foot of the Great Pyramid, at an altitude before them of 30 degrees, he would have had to take account of the refraction of the atmosphere; and that would have necessitated the building standing not at latitude 30 degrees, but at latitude 29 degrees 58' 22".'[88]

In other words the monument turns out to be situated less than half an arc minute to the north of *astronomical* latitude 30 degrees, uncorrected for atmospheric refraction. Any 'error' involved is thus reduced to less than half of one-sixtieth of one degree—a hair's breadth in terms of the earth's circumference as a whole.

The same obsessive concern with accuracy is found in the orderly evenness of the Pyramid's base:[89]

Length of West side:	755 feet 9.1551 inches
Length of North side:	755 feet 4.9818 inches
Length of East side:	755 feet 10.4937 inches
Length of South side:	756 feet 0.9739 inches

The variation between the longest and shortest sides is therefore less than 8 inches—about one tenth of 1 per cent—quite an amazing feat when we consider that we are measuring a distance of over 9000 inches carpeted with thousands of huge limestone blocks weighing several tons each.

There is no sign that the ancient Pyramid builders were in any way daunted by the task of maintaining such fastidious standards of symmetry on such a grand scale. On the contrary, as though willingly seeking out additional technical challenges, they went on to equip the monument with corners set at almost perfect right-angles. The variation from 90 degrees is just 0 degrees 00’ 02” at the north-west corner, 0 degrees 03’ 02” at the north-east corner, 0

degrees 03’ 33” at the south-east corner, and 0 degrees 00’ 33” at the south-west corner.[90]

This, it must be conceded, is not just ‘atomic clock’ accuracy but the Rolex, BMW, Mercedes Benz, Rolls-Royce and IBM of building engineering all rolled into one.

And there is more.

It is fairly well known that the Pyramid was aligned by its architects to the cardinal points (with its north face directed north, its east face directed east, etc., etc.). Less well known is just how eerily exact is the *precision* of these alignments—with the average deviation from true being only a little over 3 arc minutes (i.e. about 5 per cent of a single degree).[91]

Why such meticulousness?

Why such rigour?

Why should even the most megalomaniacal of Pharaohs have cared whether his massive ‘tomb’ was aligned within 3 arc minutes of true north—or indeed within a whole degree of true north? To the

naked-eye observer it is virtually impossible to determine such a deviation. Indeed most of us could not spot a misalignment within 3 whole degrees (180 arc minutes), let alone within 3 arc minutes (and some people have trouble telling the general direction of north at all). So the question has to be asked: what was all this incredible precision for? Why did the builders burden themselves with so much extra work and difficulty when the effects of their additional labours would not be visible to the naked eye anyway?

They must, one assumes, have had a powerful motive to create what is truly a miracle of the surveyor's art.

And what makes this miracle all the more remarkable is the fact that it was not performed on a perfectly flat area of ground, as one might expect, but with a massive natural mound, or hill, left exactly in the middle of the site on which the Great Pyramid was being erected. Estimated to be almost 30 feet high—as tall as a two-storey house—and positioned dead centre over the base area (of which it occupies approximately 70 per cent), this primeval mound was

skilfully incorporated into the lower courses of the growing edifice. No doubt its presence has contributed down the epochs to the structure's legendary stability. It is extremely difficult, however, to understand how the ancient surveyors were able to square the base of the Pyramid in its early and most important stages with the mound so solidly in the way (squaring the base normally involves taking repeated diagonal measurements across the corners).[92] All that we can say for sure is that the base *is* square and that the monument *is* locked into the cardinal axes of our planet with great care and precision.

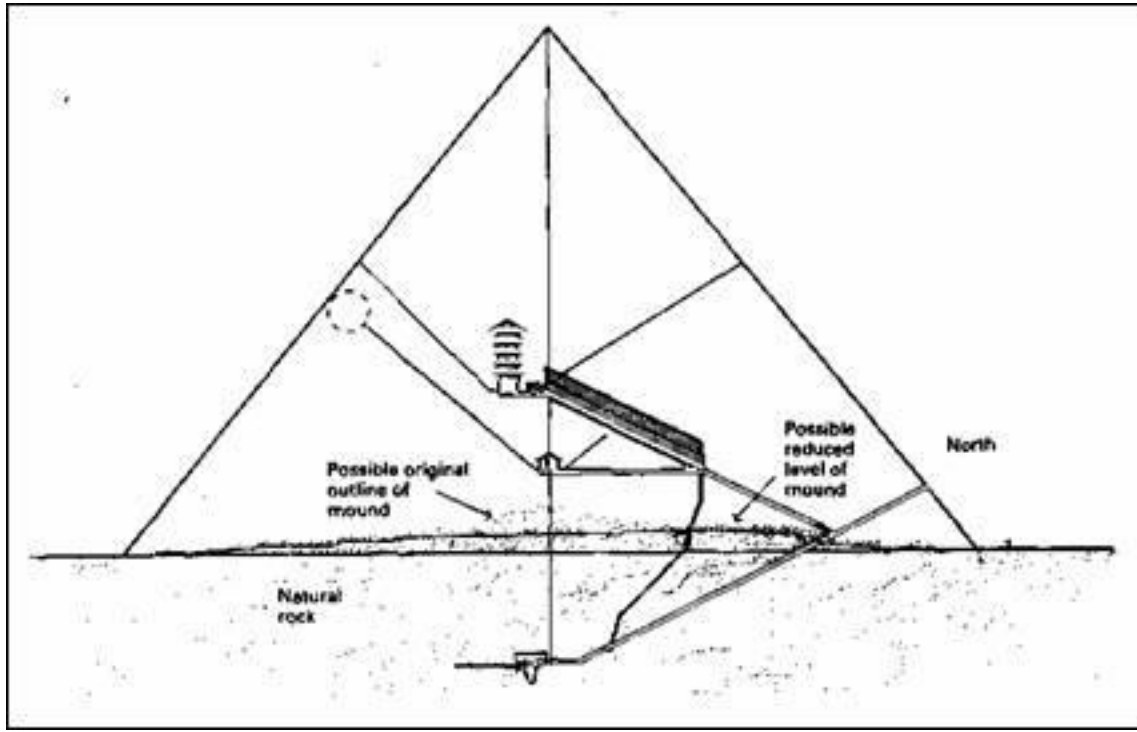

6. Cross-section of the Great Pyramid of Egypt showing the natural mound of bedrock that is known to be built into its lower courses.

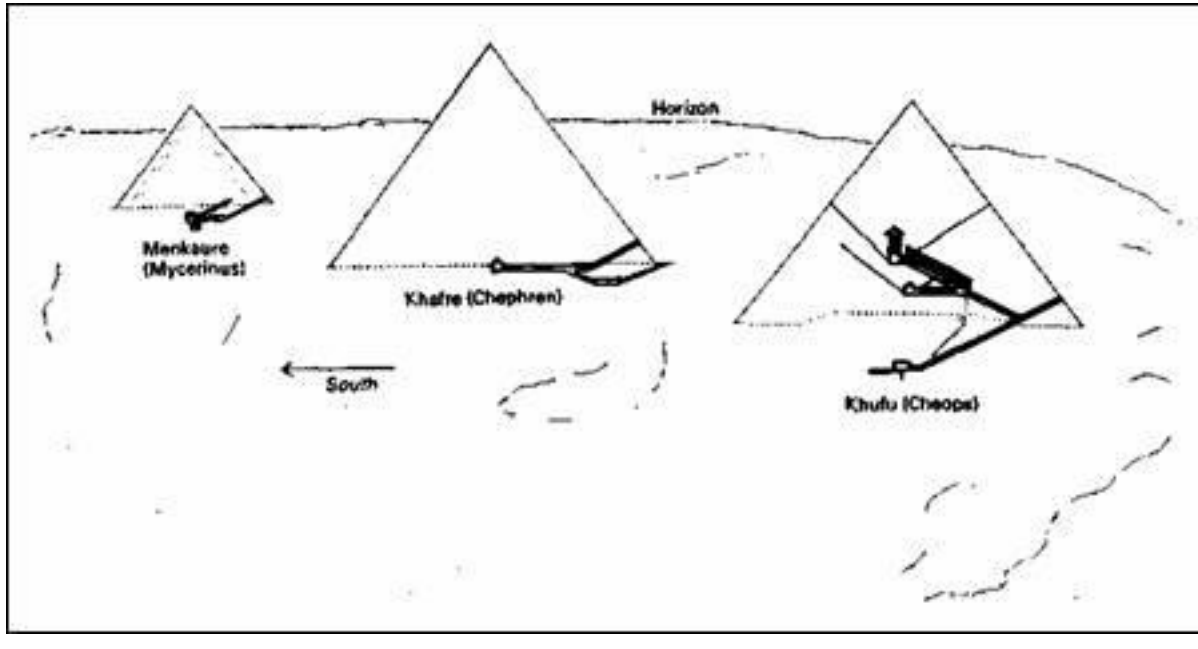

7. Internal corridors and passageways of the three Pyramids of Giza.

Chambers and passageways

The second and third Pyramids have relatively simple internal chambers and passageway systems—the former having one

principal chamber just below ground level, positioned centrally under the apex of the monument, the latter having three main chambers, cut a little more deeply into the bedrock but again positioned centrally under the apex of the monument. The entrances to both Pyramids are in their north faces and take the form of cramped passageways sloping downwards at an angle of 26 degrees, before levelling off to join horizontal corridors under the monument.

The internal structure of the Great Pyramid, by contrast, is much more complex, with an elaborate arrangement of passageways and galleries—sloping up and down again at 26 degrees—and with three principal internal chambers. Of these latter only one, the 'Subterranean Chamber', is below ground level. The other two—the so-called 'Queen's Chamber' and 'King's Chamber'—are both located in the heart of the monument's superstructure at substantial altitudes above the ground.

The layout of these internal features is best appreciated from the

diagram printed on page 45. Chief amongst them, surmounted only by Davison's Chamber (and above that by the four so-called 'relieving chambers' which contain the 'quarry marks' mentioned earlier) is the—rectangular red-granite room, now famous as the 'King's Chamber'. It proved to be completely devoid of either treasures or inscriptions, or the body of a king, when it was first entered by Calif Al Mamoun in the ninth century ad. Measuring 34 feet 4 inches in length, 17 feet 2 inches in width, and 19 feet 1 inch in height it is located about 150 feet vertically above the base of the Pyramid. Its many mysteries are too well known to require further elucidation here (and, besides, have been described in some detail in our earlier publications[93]).

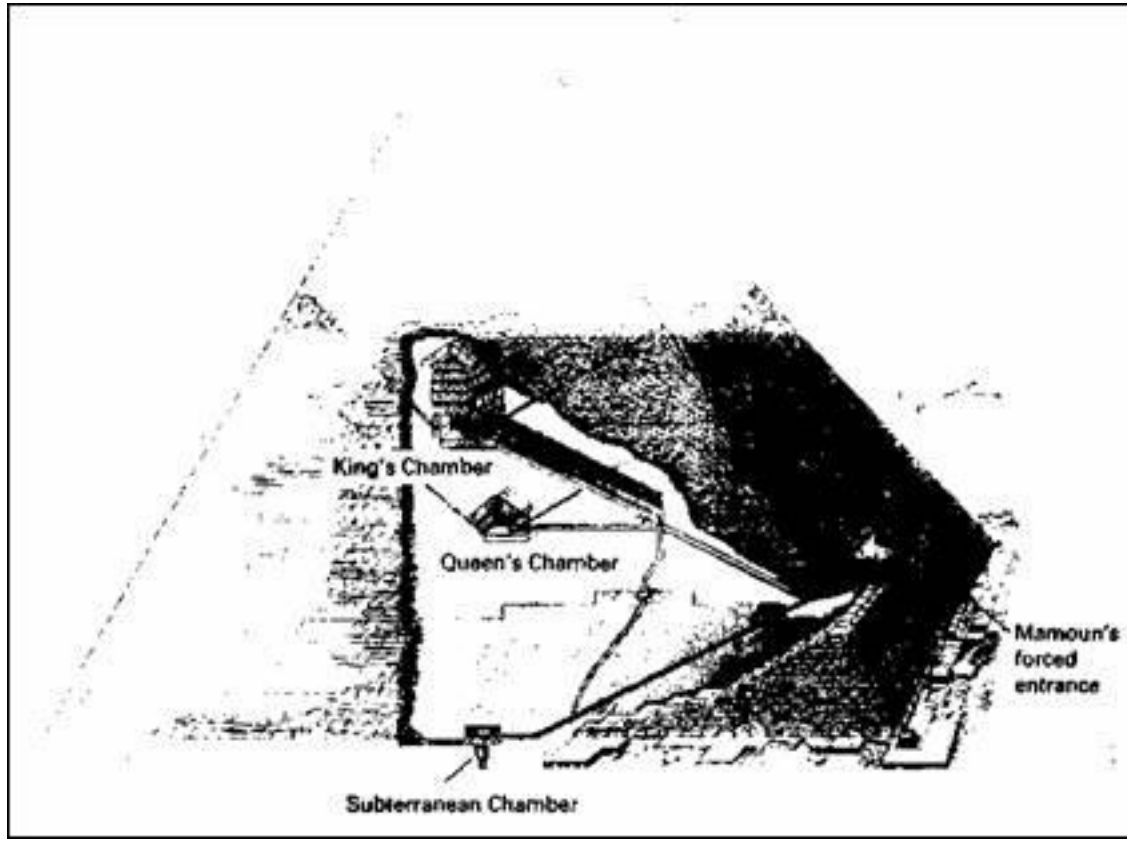

8. Principal internal features of the Great Pyramid. The entrance in the north face known as 'Mamoun's Hole' was forced by Arab explorers in the ninth century ad. At this time the exterior facing blocks of the Pyramid were still intact, hiding the true entrance from sight.

Connecting the King's Chamber to the lower levels of the monument is the Grand Gallery, one of 'the most celebrated architectural works which have survived from the Old Kingdom'.[94] Sloping downwards at an angle of 26 degrees, it is an astonishing corbel-vaulted hall fully 153 feet in length and 7 feet in width at floor level. Its lofty ceiling, 28 feet above the visitor's head, is just visible in the electric lighting with which the Pyramid has been equipped in modern times.

At the base of the Grand Gallery a horizontal passage, 3 feet 9 inches high and 127 feet long, runs due south into the 'Queen's Chamber'. Again found empty by Mamoun, this is a smaller room than the King's Chamber, measuring 18 feet 10 inches from east to west and 17 feet 2 inches from north to south. Reaching a height of 20 feet 5 inches, the ceiling is gabled (whereas it is flat in the King's Chamber) and there is a large corbelled niche of unknown function just south of the centre line in the east wall.

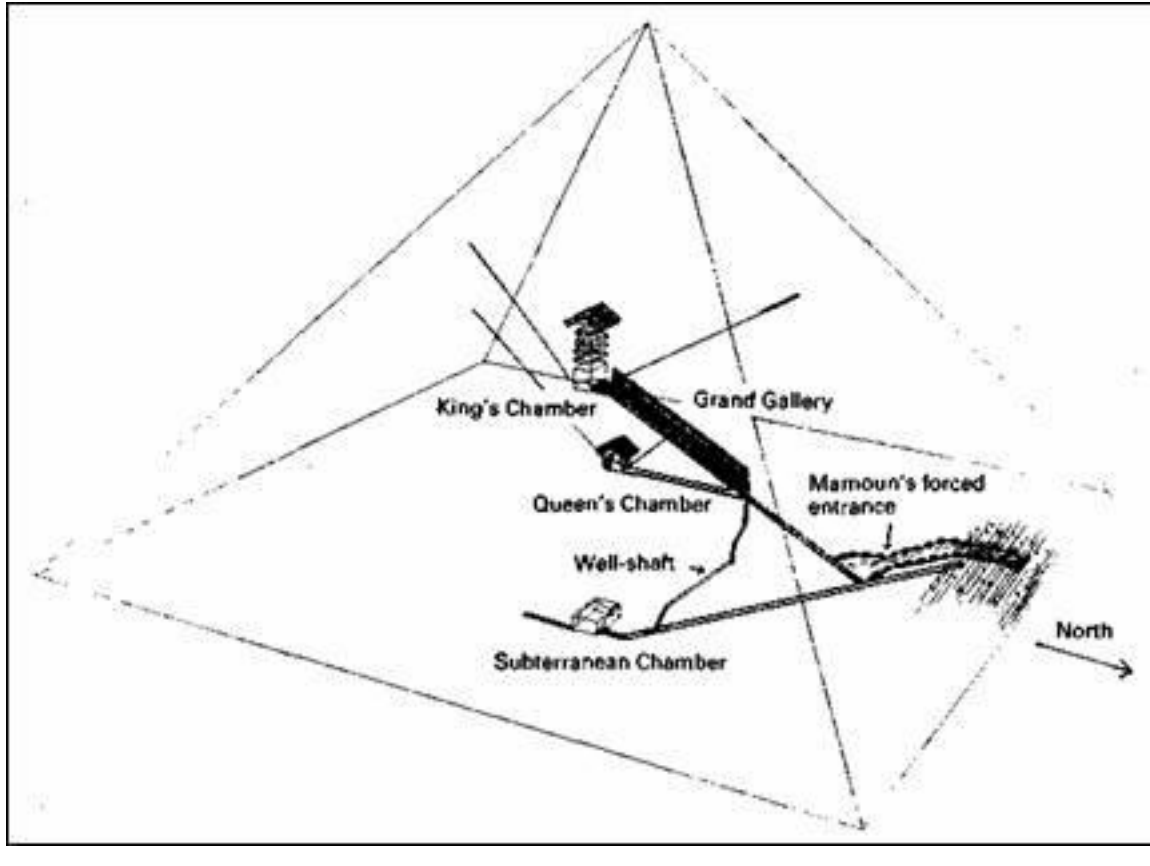

9. Detail of the corridors, chambers and shafts of the Great Pyramid.

Returning along the horizontal passageway to its junction with the base of the Grand Gallery the visitor will note, behind a modern

iron grille, the narrow and uninviting mouth of the 'Well-Shaft'—a near vertical tunnel, often less than 3 feet in diameter, that eventually joins up with the Descending Corridor, almost 100 feet below ground level. How the tunnelers, encysted in solid rock, were able to home in so accurately on their target remains a mystery. Mysterious, too, is the true function of all these odd systems of interconnecting 'ducts' which lead busily hither and thither inside the body of the monument, like the circuits of some great machine.

Sloping downwards from the Grand Gallery, and extending it in the direction of the ground at the continuing angle of 26 degrees, is another corridor. Known (from the point of view of those entering the Pyramid) as the Ascending Corridor, it measures 3 feet 11 inches high by 3 feet 5 inches wide and has a total length of just under 129 feet. Leaving the Pyramid, the visitor is obliged to ape-walk uncomfortably down the Ascending Corridor until the point where it joins up with 'Mamoun's Hole'—the tunnel that the Arabs cut for their forced entry in the ninth century—on the western side

of two hulking red-granite ‘plugging blocks’ which mask the junction with the Descending Corridor. At the bottom of this 350-foot-long corridor, off limits to all but *bona fide* Egyptologists (and those willing to bribe the increasingly hard-pressed and demoralized Inspectors and *ghafirs* responsible for the day-to-day administration of Giza) is a truly remarkable feature—the Subterranean Chamber that nestles in solid bedrock more than 100 feet below the surface of the plateau (and almost 600 feet below the Pyramid’s lofty summit platform).

Inner space

The first thing that the intrepid visitor should do, after gaining access to the Descending Corridor, is to climb up it a few feet in the direction of the Pyramid’s true entrance. Now covered with an iron grille, this entrance is located in the monument’s north face, nine courses above and 24 feet to the east of ‘Mamoun’s Hole’ (through

which all members of the public enter the Pyramid today).

Here, at the point in the ceiling of the Descending Corridor where the mouth of the Ascending Corridor was hewn upwards, it is possible to inspect the bottom end of the lowermost of the two plugging blocks. It is as firmly jammed in place today as it was when Mamoun's diggers first encountered it in the ninth century, and it is easy to understand why its presence there encouraged them to tunnel round it into the softer limestone, seeking a way past the obstacle and into the upper reaches of whatever lay beyond.

Perhaps this was exactly what the Pyramid builders had 'programmed' those early explorers to do. After all, if you see that a huge chunk of granite has been hauled into place to block what is obviously an upwards-sloping corridor, then it is only human nature to try to get into that corridor—which Mamoun's men did.

More than a thousand years later, tourists and archaeologists still follow the trail that those pioneering Arabs blazed around the plugging blocks into the main north-south axis of the Pyramid's

system of passageways. And though there have been all manner of hackings and tunnellings in search of further passageways (in the floors and walls of the King's and Queen's Chambers, for example), the plugs at the base of the Ascending Corridor have never subsequently been disturbed.

This is an understandable oversight if one is satisfied that the sole function of these plugs was to block the Ascending Corridor in a north-south direction. Why, however, has no one ever tried to find out if anything lies behind their *eastern* aspect?[95] As well as having the same height and width as the Ascending Corridor, thus filling it completely, each of the plugs is about four feet in length—and thus easily long enough to conceal the entrance to a second and completely separate passageway system branching off at right angles towards the east.

There is certainly room for such a second system inside the Great Pyramid—and for much else besides. Indeed it has been calculated that as many as 3700 fully constructed chambers, each the size of

the existing King's Chamber could be accommodated within the monument's vast 'inner space' of 8.5 million cubic feet.[96]

The stones of darkness and the shadow of death

Having examined the plugging blocks, the visitor is faced by a long climb down the full 350-foot length of the Descending Corridor, initially through masonry and thence into bedrock. As the journey proceeds, the rays of sunlight penetrating the barred entrance to the north grow progressively weaker and one has the sense of dropping like a deep-sea diver into the dark depths of a midnight-black ocean.

The corridor, which every intuition proclaims to be a remotely ancient, prehistoric feature, is 3 feet 11 inches high by 3 feet 6 inches wide and may originally have been cut into the 30-foot-tall rocky mound that occupied this site millennia before the Pyramid was built. It is unsettling, therefore, to discover that it is machine-

age straight from top to bottom. According to Flinders Petrie, the variation along the whole passage 'is under 1/4 inch in the sides and 3/10 inch on the roof'.[97] In addition there is one segment of the corridor, 150 feet in length, where 'the average error of straightness is only one fiftieth of an inch, an amazingly minute amount.'[98]

With hunched back, the visitor continues down this long, straight corridor sloping due south into the bedrock of the Giza plateau at the now familiar angle of 26 degrees. As ever greater depths are plumbed it is hard not to grow increasingly conscious of the tremendous mass of limestone that is piled above and of the heavy, dusty, unfresh fug of the subterranean air—like the exhalation of some cyclopean beast. Looking back apprehensively towards the entrance, one notices that the penetrating light has been reduced to a glimmering star-burst, high up and far away. And it is normal, at this point, to feel a concomitant glimmer of apprehension, a slight tug of anxiety at the extent of one's separation from the world above.

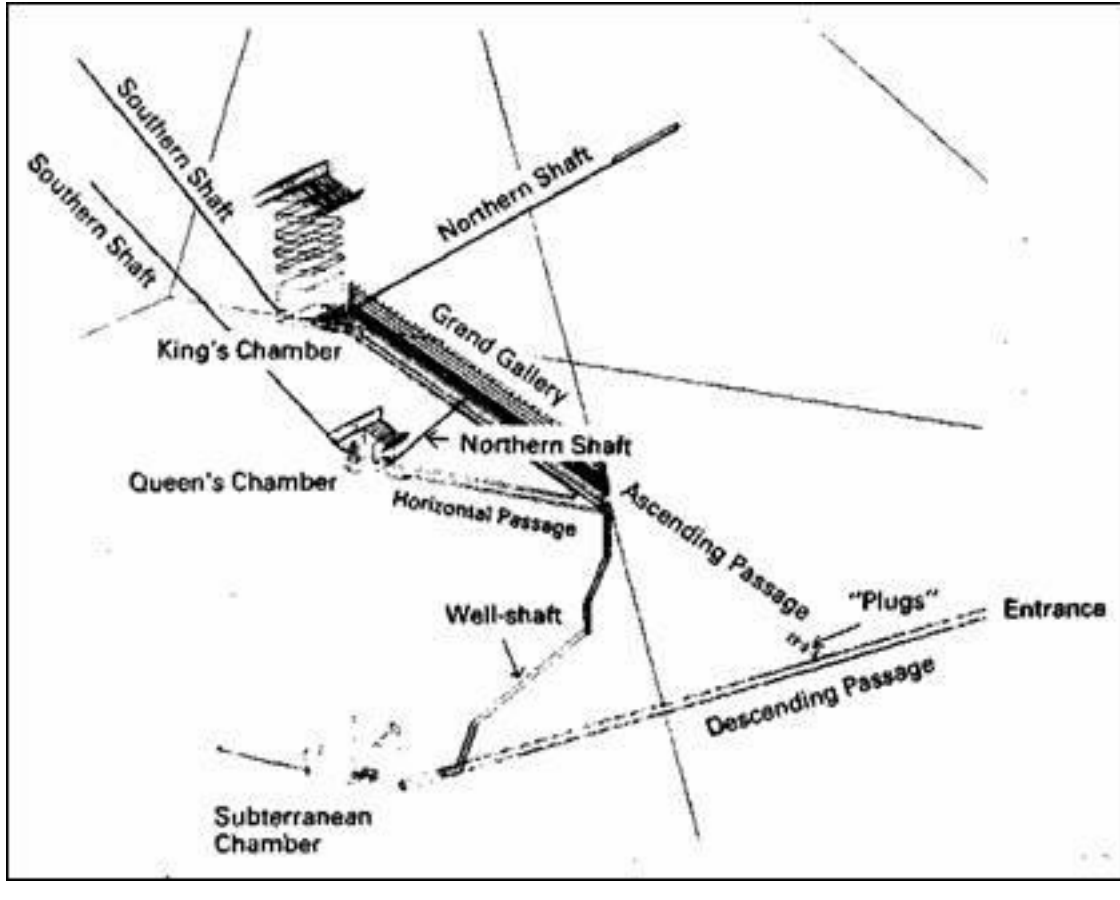

10. The complex internal design of the Great Pyramid. It is possible that many other passageways and chambers remain to be discovered within the gigantic

monument.

On the west side of the corridor, quite near the bottom, is an alcove, again covered by an iron grille, that gives access to the vertical Well-Shaft and thence to the Grand Gallery and the upper chambers. Soon afterwards the 20-degree descending slope levels off into a low horizontal passageway, running 29 feet from north to south, through which the visitor is obliged to crawl on all fours. Near the end of this passageway, again on the west side, is another alcove, 6 feet long and 3 feet deep, that has been roughly hewn out of the bedrock and that ends in a blind, unfinished wall. Then, after a further 4 feet of crawling, the horizontal passageway opens at a height of about 2 feet above floor level into the Subterranean Chamber.

Were it not for a single low-wattage electric bulb installed in modern times, the visitor would now be in complete darkness. The light that the bulb casts has a greenish, sepulchral hue, and what it reveals is a most peculiar room, considerably larger than the King's

Chamber, measuring 46 feet along its east-west axis, and 27 feet 1 inch from north to south, but with a maximum height of just 11 feet 6 inches.[99] In the approximate centre of the floor, on the east side, is a railing surrounding a square pit reaching a depth of about 10 feet, and beyond that, penetrating the south wall, is a second horizontal corridor, 2 feet 4 inches square, running due south into the bedrock for a further 53 feet and terminating in a blank wall. Looking to the right, one notes that the floor of the western side of the Chamber rises up into a kind of chest-high platform. This has been irregularly trenched, creating four parallel 'fins' of limestone running east to west, almost touching the relatively flat roof at some points but with a clearance of up to six feet in others.

All these strange features conspire to create an oppressive, claustrophobic atmosphere in the room that reminds the visitor of how far beneath the ground he has burrowed, and of how inescapably he could be entombed here if there were to be any serious collapse of the millions of tons of limestone above his head.

Very interesting developments

Egyptological opinion concerning the Subterranean Chamber may be summarized as follows: (1) it is not a prehistoric feature, but was built at the same time as the Pyramid (i.e. around 2500 bc); (2) it was initially intended to be the burial place of Khufu; (3) then the Pharaoh and his architects changed their minds, stopped work on it, and turned their attentions to the main body of the Pyramid—where they built first the Queen's Chamber (also later 'abandoned' according to this theory) and then finally the King's Chamber.[100]

If the Egyptologists are right then the excavation and removal of more than 2000 tons of solid rock in order to create the Descending Corridor—rock that first had to be mined and then hauled to the surface from increasingly greater depths through that cramped, unventilated, 26-degree channel—would all have been undertaken in vain. Vain, too, would have been the hewing out of the Subterranean Chamber itself, and also of its further shafts and pits.

Indeed the whole enterprise would, in retrospect, have been entirely pointless if the end result had merely been to leave, at a depth of more than 100 feet below the Giza plateau, an unfinished, rough-walled, low-ceilinged crypt—'resembling a quarry'[101]—for which nobody would ever have any use.

This obviously defies common sense. An alternative scenario does exist, however, which has stimulated the curiosity of a number of investigators during the last two centuries. According to this scenario the Chamber was deliberately left unfinished so as to hoodwink treasure hunters into *believing* that it had been abandoned and thus convince them of the pointlessness of further explorations there—a pretty effective means of keeping casual intruders away from any other cavities or concealed passageways that might be connected to it.

With such suspicions in mind, the Italian explorer Giovanni Battista Caviglia and the British adventurer Colonel Howard Vyse both felt inspired (between 1830 and 1837) to drill holes into the

bottom of the pit at the centre of the Subterranean Chamber. They extended its original depth of 10 feet by a further 35 feet (now largely filled in).

More recently the French archaeologist, André Pochan, has drawn attention to a curious passage from the Greek historian Herodotus who visited Egypt in the fifth century bc and spent much time interviewing priests and other learned men there. Herodotus reports that he was told quite specifically of the existence of 'underground chambers on the hill on which the Pyramids stand ... These chambers King Cheops [Khufu] made as burial chambers for himself in a kind of island, bringing in a channel from the Nile ....'[102]

Pochan has calculated that if there really is a chamber fed by Nile water under the Pyramid, then it would have to be at a great depth—at least 90 feet below the pit. Likewise the Danish architect Hubert Paulsen has argued on the basis of geometry that the most probable place for any further chamber to be found in the Great Pyramid is

underneath the pit[103]—a view that is also supported by the calculations of the British geometer Robin Cook.[104]

It is a French engineer, however, Professor Jean Kerisel, who has most vigorously pursued the quest for concealed subterranean chambers. The current President of the Association France-Egypte, he was in the pit with his assistants on 12 October 1992 when a major earthquake occurred, demolishing large parts of Cairo. This experience, he stated later, gave the researchers 'a few very unpleasant moments some 35 metres under the plateau'.[105]

Happily, the Subterranean Chamber did not collapse and Kerisel and his team were able to finish their work. This involved the use of two nondestructive techniques: ground-penetrating radar and microgravimetry. The results were inconclusive in the chamber itself but extremely promising in the horizontal passageway that connects it to the end of the Descending Corridor. In Kerisel's own words: 'a structure was detected under the floor of the passageway, which could be a corridor oriented SSE-NNW whose ceiling is at

the depth that the Descending Corridor would have reached had it been prolonged.'[106]

Nor was this all. A second very clear anomaly, a 'mass defect' as Kerisel calls it, 'was detected on the western side of the passageway six metres before the chamber entrance. According to our calculations, this anomaly corresponds to a vertical shaft at least five metres deep with a section of about 1.40 x 1.40 metres very close to the western wall of the passageway.[107]

In short, what Kerisel believes he has identified off the Subterranean Chamber's entrance corridor is something that looks very much like a completely separate passageway system, terminating in a vertical shaft. His instruments may have misled him, or, as he himself admits, he may merely have picked up the traces of 'a large volume of limestone dissolved by the action of underground water—in other words a deep cave'.[108] Alternatively, however, if the 'mass defect' turns out to be a man-made feature, as he strongly suspects, then 'it may lead to very interesting

developments'.[109]

Labyrinth

It should be obvious that a civilization that could build *up* to the height of the Great Pyramid's summit platform, that could create giant stone statues more than 240 feet long, and that could lift the 200-ton blocks of the Valley and Mortuary Temples into place (forming intricate jigsaw-puzzle patterns at heights of 40 feet and more above the ground) would not have experienced any insurmountable difficulty in building *down* as well. On the contrary, such a civilization could, if it had so wished, have hewn out underground complexes of immense size, connected to one another by labyrinths of tunnels.

The possibility therefore cannot be ruled out that the Subterranean Chamber under the Great Pyramid could be just one of many such deeply buried features. Indeed, as the reader will recall, the

seismological work carried out at Giza in the early 1990s by the American geophysicist Thomas Dobecki did indicate the presence of a large and apparently man-made hypogeum in the bedrock beneath the Sphinx. Ultimately only further excavations and research can shed further light on these matters. Meanwhile, however, there is a great deal of evidence from all parts of the necropolis which suggests that the creation of ambitious rock-hewn structures—both above and below the ground—was, indeed, part of the standard repertoire of the Pyramid builders. They also quite frequently chose to mingle rock-hewn and built-up structures—as in the case of the tomb of Khent-Khawes, a supposed Queen of Menkaure, which consists of a natural outcropping sculpted in pyramidial form surmounted by a curious sarcophagus-shaped temple.

A more spectacular and conspicuous mixture of rock-hewn and built-up features occurs at the Pyramid of Khafre. It stands on an artificially levelled 12-acre platform cut bodily out of the plateau—

which slopes steeply from north-west to south-east at this point (i.e. it is higher in the west and lower in the east). In consequence the north and west sides of the Pyramid are enclosed within a trench that decreases steadily in height from about 20 feet at the north-west corner to about 10 feet at the southwest corner—and to zero at the north-east and south-east corners. The lower courses of the Pyramid itself on the north and west sides are contoured out of the central mound of bedrock that the builders left in place after hollowing out the trench. On the east and south sides, however, the slope of the plateau falls below the level chosen for the base of the Pyramid. The builders solved this problem by bringing thousands of enormous filling blocks to the site—average weight about 100 tons each—to create an unshakable horizontal foundation. They then went on to lay the first few courses of the monument on the eastern and southern sides using the same unwieldy megaliths. Thereafter they reverted to smaller blocks and in consequence a clear demarcation line is visible between the two types of construction. Like some of

the characteristics of the Sphinx and Valley Temples referred to earlier, this demarcation gives the impression not just of different building techniques but actually of two distinctly different *stages* of building separated by an unknown interval of time.

The mystery of the shafts

There is one other anomalous feature of the Giza necropolis which we have not yet mentioned but with which we shall close this chapter as it leads us on to the next stage of our investigation. This feature is confined to the Great Pyramid and is unique in ancient Egyptian architecture. It takes the form of four narrow shafts—usually described by Egyptologists as 'ventilation channels'—two of which emanate respectively from the northern and southern walls of the King's Chamber and the other two from the northern and southern walls of the Queen's Chamber.

The four shafts have an average cross-section of 23 x 22 cm. and

lengths that vary from about 24 metres (northern shaft of the Queen's Chamber) to about 65 metres (northern shaft of the King's Chamber). They are all inclined to the horizontal plane of the Pyramid and their angles of slope vary from 32 degrees 28 minutes (northern shaft of the King's Chamber) to 45 degrees 14 minutes (southern shaft of the King's Chamber). The shafts were constructed in a step-by-step manner as the Pyramid rose in height (i.e. they were not drilled through the masonry as some have supposed) and they reveal the use of very complex and sophisticated engineering and levelling techniques.

It has been suggested that the reason for their inclination was to find the 'shortest route' to the outside of the Pyramid and this has been taken to imply that the ancient builders wanted to 'save' work and time. However, such geometrical logic goes very much against *engineering logic*—for the simple reason that building shafts on an incline would not save time or work at all. Quite the contrary: no construction engineer or builder could possibly agree that the

‘shortest route’ is the best route in this case—even though it may seem so to those looking only at the geometry. The truth, as Egyptian architect Dr. Alexander Badawy first noted in the 1960s, is that to build inclined shafts rather than to have simple horizontal channels leading to the outside of the Pyramid would create many difficulties—and especially so when we consider the high precision and rigid consistency of the inclinations.[110]

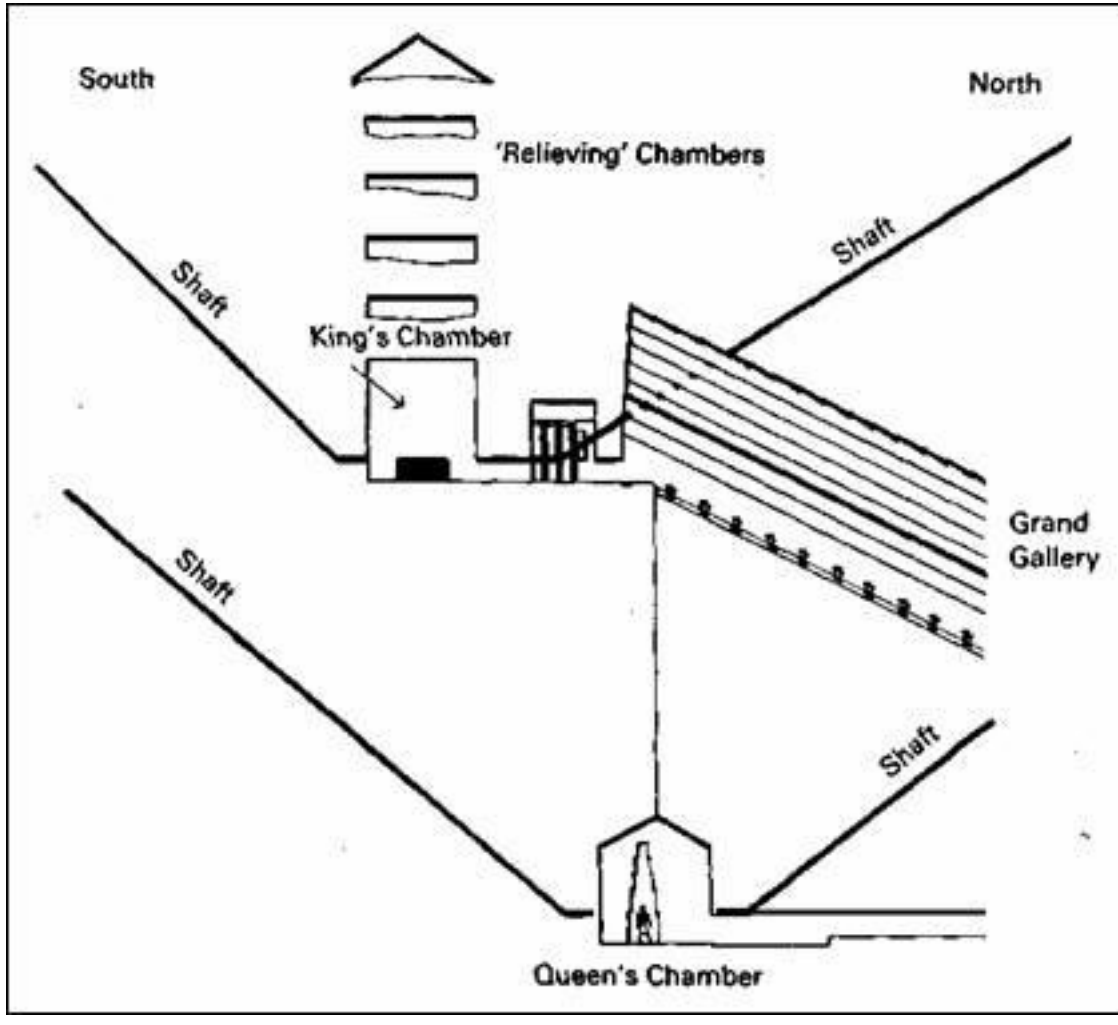

11. The King's and Queen's Chambers and their four shafts. Note that the shafts

of the Queen's Chamber were not originally cut through into the chamber but stopped short several inches from the inner walls. The shafts were opened in 1872 by the British engineer Waynman Dixon.

To build inclined shafts rather than horizontal ones entails five tedious operations. First, the base course must be prepared; this calls for the shaping of special blocks with their upper faces sloping to serve as the 'floor' of each shaft. Secondly, more special blocks have to be prepared with U-shaped inner faces to form the profile, i.e., the 'walls' and 'ceilings' of the shafts. Thirdly, yet more special blocks have to be cut with their undersides inclined in order to cover the sides of the shafts. Fourthly, the tops of the shafts must be covered with other special blocks with sloping undersides. Fifthly, the main masonry courses of the Pyramid have to be integrated with these special design features along the entire lengths of the shafts.

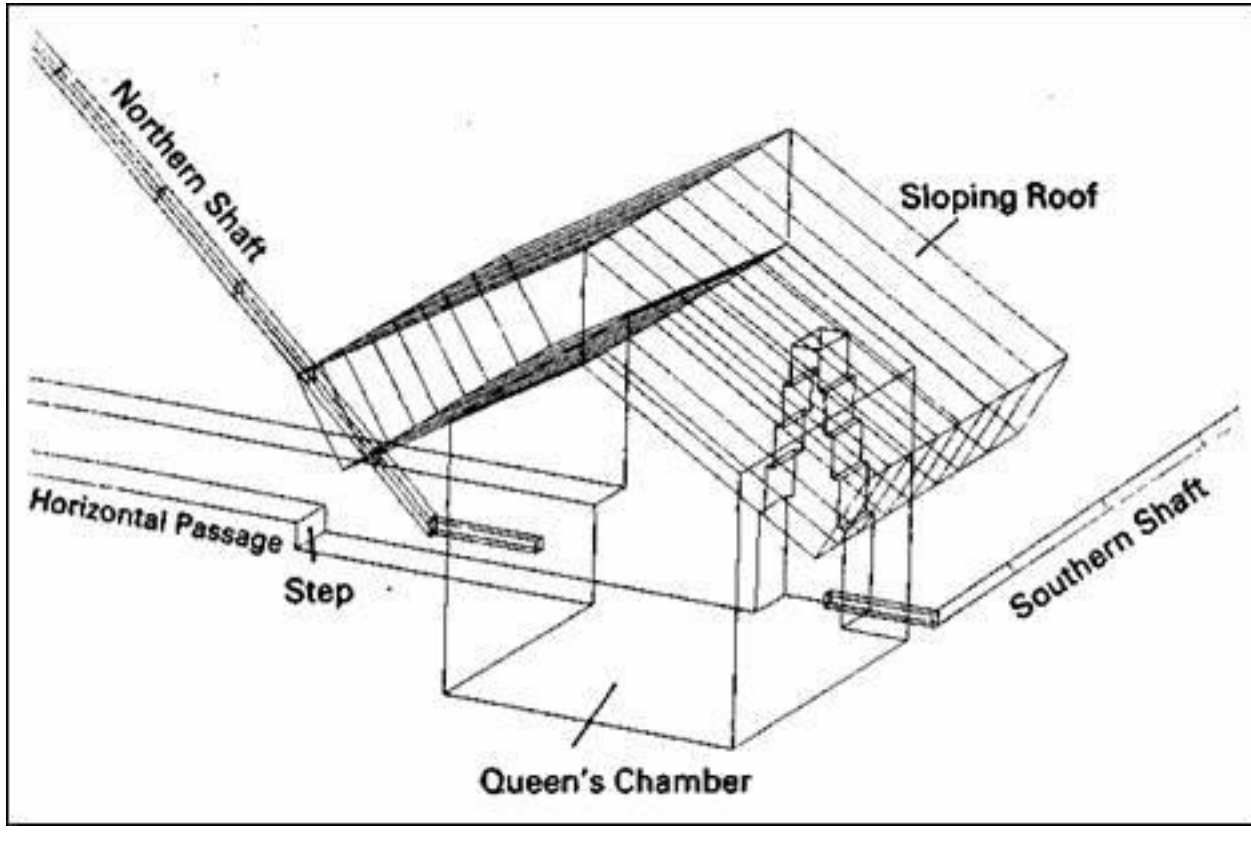

12. Details of the Queen's Chamber and its shafts.

If ventilation was really the objective then the question that must be asked is this: why opt for such complications and difficulties

when an effective flow of air could have been provided for the chambers in a much simpler way? From an engineer's point of view the obvious solution would have been to leave a masonry joint open —say 20 cm.—running horizontally from the top of each chamber right to the outside of the monument. In this case no special cutting of blocks would have been necessary, nor indeed any tedious alignments or levelling work.

In other words the 'shortest route' is not by any means the best route for the practical purposes of ventilation and, besides, it should be obvious that the Pyramid builders were not interested in time/energy-saving schemes—otherwise they would not have favoured such gigantic, multimillion-ton monuments in the first place. It therefore follows that we are unlikely to be rewarded in seeking an explanation for the precise north-south alignments of these steeply inclined shafts in terms of a time/energy-saving rationale based on quaint geometrical figures.

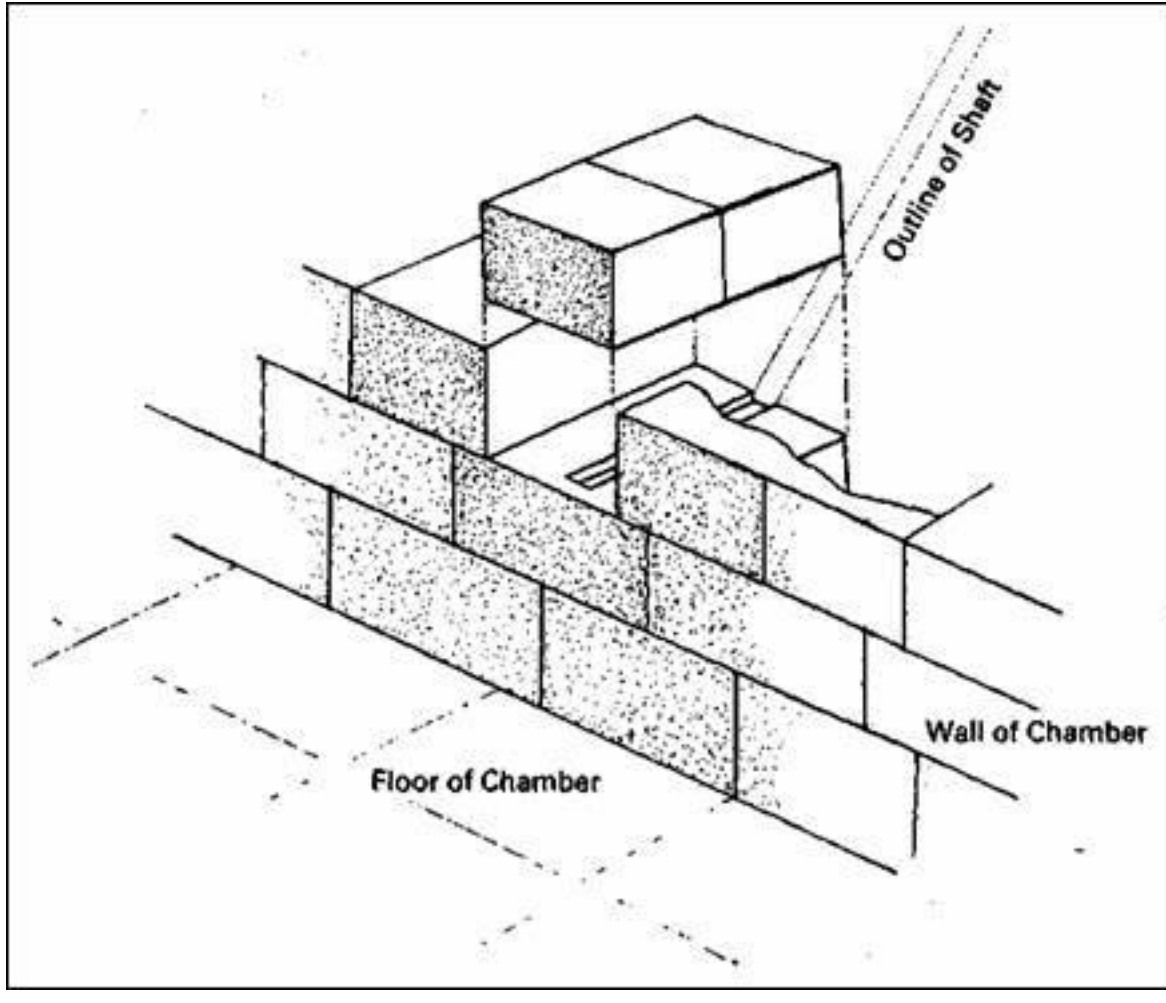

13. Queen's Chamber wall and shaft mouth.

Any doubt over this issue can be resolved by a close study of the shafts of the Queen's Chamber. Unlike the King's Chamber shafts, those in the Queen's Chamber (a) do not exit on the outside of the monument and (b) were not originally cut through the Chamber's limestone walls. Instead the builders left the last five inches intact in the last block over the mouth of each of the shafts—thus rendering them invisible and inaccessible to any casual intruder. With the help of a steel chisel, they were finally discovered in 1872 by the British engineer Waynman Dixon, a Freemason whose curiosity had been aroused by the shafts in the King's Chamber and who decided to look for similar features in the Queen's Chamber.

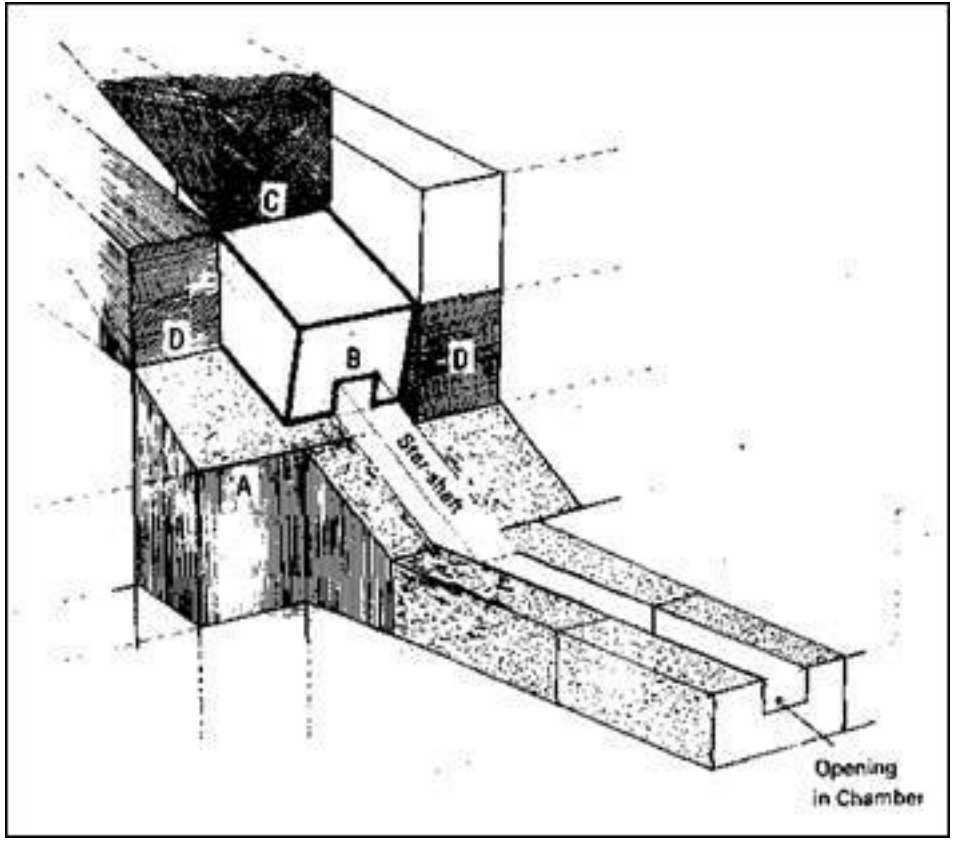

14. Construction details of the Great Pyramid's shafts. At least four different kinds of blocks (A, B, C and D), continuing the full length of the shafts, were required for the successful completion of these mysterious features of the Pyramid. The engineering problems would have been immense. The notion that the primary purpose of the shafts was for ventilation is disproved by the fact that the Queen's

Chamber shafts were originally closed at both ends and by the complexity of the design—which would not have been necessary if simple ventilation had been the objective.

In later chapters we will be considering the implications of Dixon's 1872 discovery, and the follow-up to it. The point that we wish to make here, however, is the obvious one that shafts which were originally closed at both ends could not possibly have been used, or intended, for ventilation. They must, therefore, have had some higher purpose—one that was thought by the builders to justify the enormous care, skill and effort involved in constructing them.

As we shall see, that 'higher purpose' can now be identified with certainty.

Chapter 4

Stars and Time

‘The various apparent movements of the heavenly bodies which are produced by the rotation and revolution of the earth, and the effects of precession, were familiar to the Egyptians ... They carefully studied what they saw, and put their knowledge together in the most convenient fashion, associating it with their strange imaginings and their system of worship ...’

J. Norman Lockyer, The Dawn Of Astronomy, 1894

It is humbling and awe-inspiring to stand at dawn between the paws of the Great Sphinx of Egypt and to look up as the rising sun illuminates its face. The colossal statue *seems* ancient—almost as old, one might imagine, as time itself. And, as we saw in Chapter 2, a mounting body of geological evidence suggests that it *is* ancient—vastly older than the 4500 years allocated to it by Egyptologists and

perhaps dating back as far as the last Ice Age when no civilization capable of fashioning such a monument is supposed to have existed.

Such notions are of course controversial and hotly disputed. Moreover, as should be obvious by now, geology is incapable of providing us with a precise chronology and is particularly limited by the present state of our knowledge of palaeo-climatology. Indeed, the most we can say, on the sole basis of the monument's erosion patterns, is that it does appear to have been carved at a much earlier date than Egyptologists believe but that its antiquity could range anywhere between 15,000 bc and 5000 bc.

There is, however, another science which, provided one essential precondition is fulfilled, can provide a much more accurate dating—to within a few decades—of uninscribed ancient stone monuments. This is the science of archaeoastronomy. The precondition upon which it depends for its successful functioning is that the monuments studied should have been accurately aligned to the stars or to the rising points of the sun by their builders.

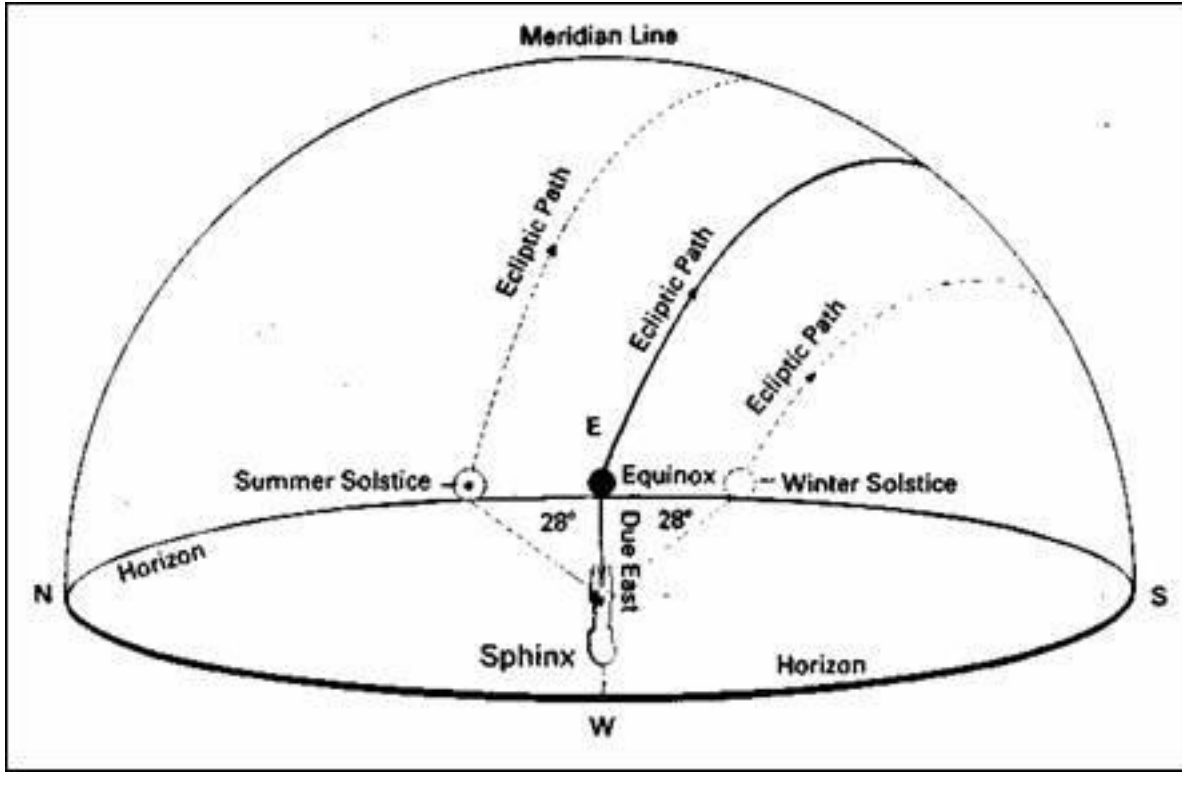

15. On the summer solstice at the latitude of Giza the sun rises 28 degrees north of east, on the winter solstice it rises 28 degrees south of east and on the equinoxes it rises due east. The Great Sphinx of Giza is an astronomical monument orientated perfectly towards due east and thus serves as a superb equinoctial marker or 'pointer'.

The Great Sphinx fulfils this precondition. It lies exactly along the east-west axis of the Giza necropolis with its patient and eternal gaze set perfectly towards due east. It is, therefore, a superb ‘equinoctial marker’: its eyes target the exact position of sunrise at dawn on the spring equinox.

To clarify matters a little, astronomers speak of four ‘cardinal moments’ in the year: the summer solstice—the longest day in the northern hemisphere—when the earth’s north pole points most directly at the sun, the winter solstice, the shortest day, when the pole points most directly away from the sun, and the spring and autumn equinoxes when the earth lies broadside-on to the sun and when night and day are of equal length.

On the summer solstice at the latitude of Giza, the sun rises about 28 degrees north of east. On the winter solstice it rises about 28 degrees south of east. By contrast, the main characteristic of the equinoxes (here and everywhere else around the globe) is that the sun always rises *due east* providing a sure and accurate geodetic

reference to one of the cardinal directions.

It is towards this reference point, with high precision, that the gaze of the Sphinx is set—not by accident, but by design, and as part of a vast, archaic astronomical plan of uncanny accuracy and intelligence.

Observatory

Thousands of years ago, under the clear skies of a younger world, Egypt's Giza plateau must have been the ultimate observatory. From the high ground half a mile to the west of the Sphinx on which the three principal Pyramids stand, there would have been a faultless 360-degree view around an enormous circular horizon—a prospect that would have invited observations of the rising and setting points of the sun throughout the year, and also of the rising and setting points of the stars. It is certain, furthermore, whatever the other functions of the necropolis, that it was indeed

used for practical and precise observational astronomy of the kind developed by navigators to pinpoint the positions of ships on the open ocean. Like the ability to keep strictly to a chosen course, the fabulous accuracy with which the principal monuments of Giza are aligned to true north, south, east and west could not have been achieved by any other science.[111]

Details of these alignments have already been given in Chapter 3. It is therefore sufficient here to remind ourselves that the Great Pyramid stands at a point on the earth's surface exactly one third of the way between the equator and the north pole (i.e. astride latitude 30) and that its 'meridional' (i.e. north-south) axis is aligned to within three-sixtieths of a single degree of true north-south. It is a small but significant point that this alignment is more accurate than that of the Meridian Building at the Greenwich Observatory in London—which is offset by an error of nine-sixtieths of a degree. In our opinion, such precision constitutes a 'fact' which archaeologists and Egyptologists have never seriously considered, i.e. that the

Great Pyramid, with its 13-acre footprint and six million tons of mass, could *only* have been surveyed and set out by master astronomers.[112]

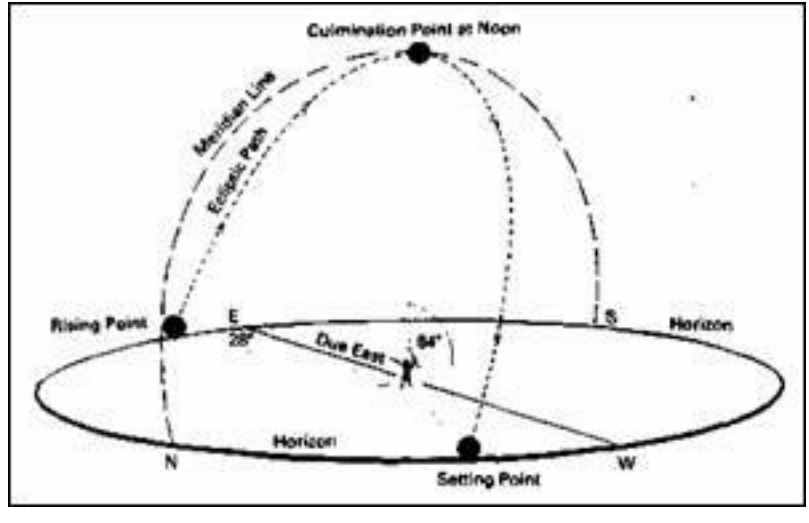

16. The trajectory of the sun on the summer solstice, with its culmination point (highest altitude) being attained at meridian transit.

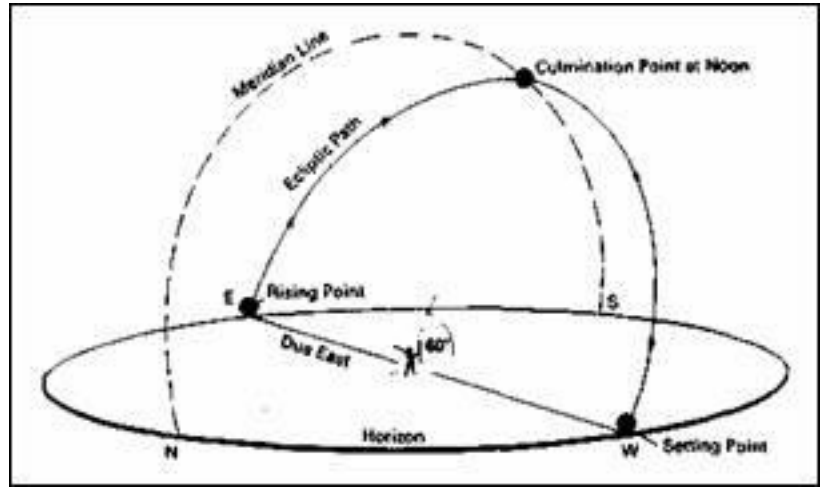

17. The trajectory of the sun on the equinox.

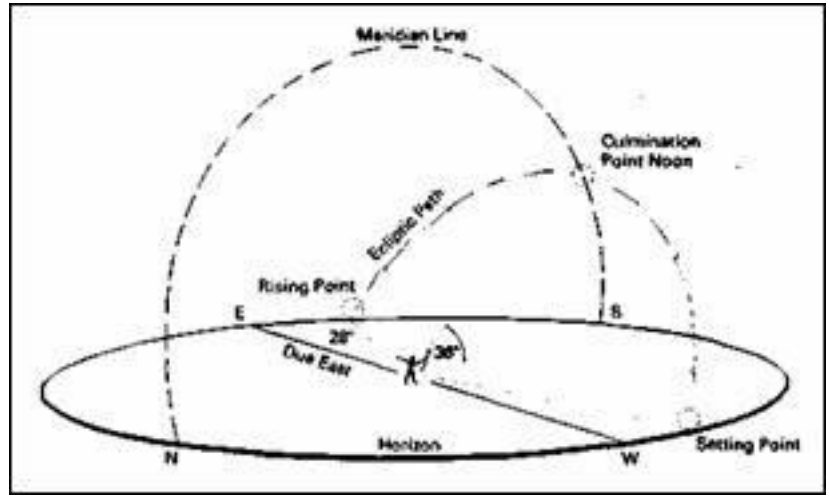

18. The trajectory of the sun on the winter solstice.

It is our conviction that this 'astronomical factor' deserves to be given much greater prominence than it has hitherto been accorded by Egyptologists. Moreover, thanks to the recent development of sophisticated star-mapping computer programs, it is possible for us to simulate the skies over Giza in any epoch during the past 30,000 years and thus to recreate the celestial environment in which the Pyramid builders worked.

Standing as it were beneath those ancient skies, initiated by microchip into the cosmic secret of the changing positions of the stars, certain features of the key monuments—features that are of no significance from the purely archaeological or Egyptological perspective—begin to take on a peculiar meaning.

Targeting Stars

Let us begin with the four mysterious shafts emanating from the

King's and Queen's Chambers of the Great Pyramid, the engineering aspects of which we considered at the end of the previous chapter. As we have seen, two of these shafts are aligned perfectly to due north and the other two perfectly to due south. They thus target, at varying altitudes, what astronomers refer to as the 'meridian'—an imaginary line 'dividing the sky' that is best envisaged as a hoop connecting the north and south poles and passing directly over the observer's head. It is as they cross this imaginary line ('transit the meridian') that the stars (and also the sun, moon and planets) are said to 'culminate'—that is, reach their maximum altitude above the horizon.

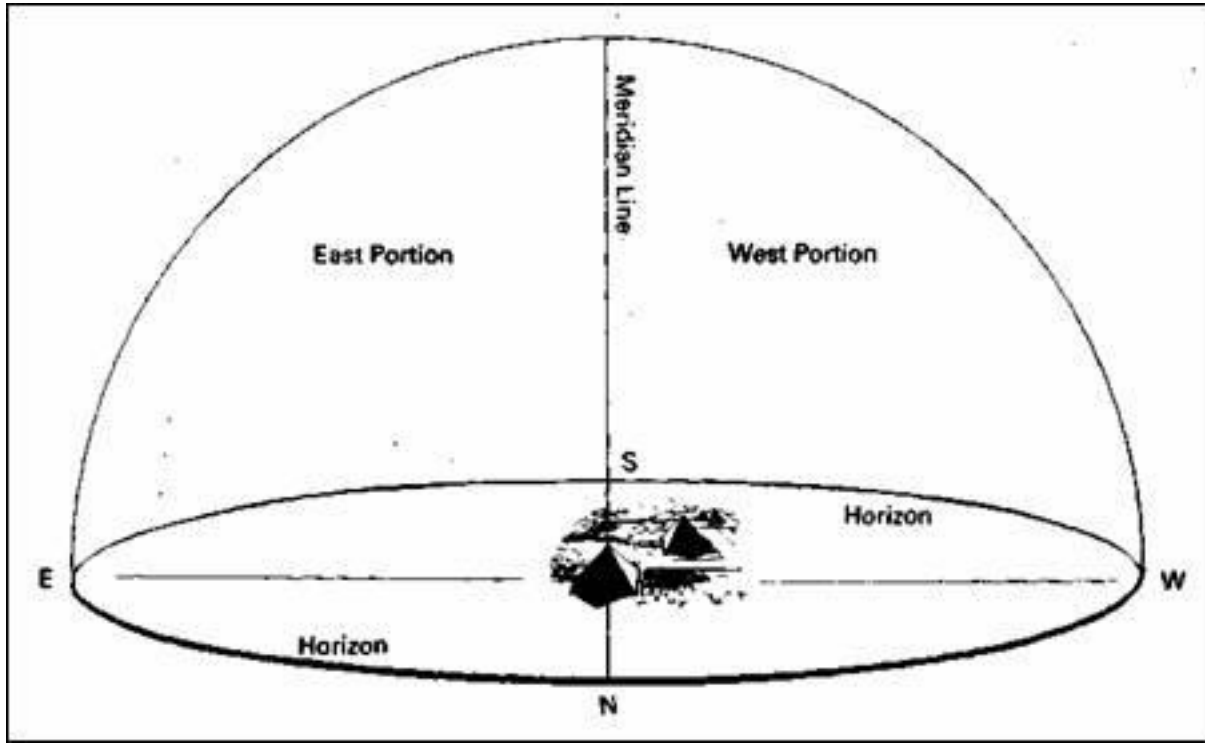

19. The horizon of Giza and the meridian of the Great Pyramid.

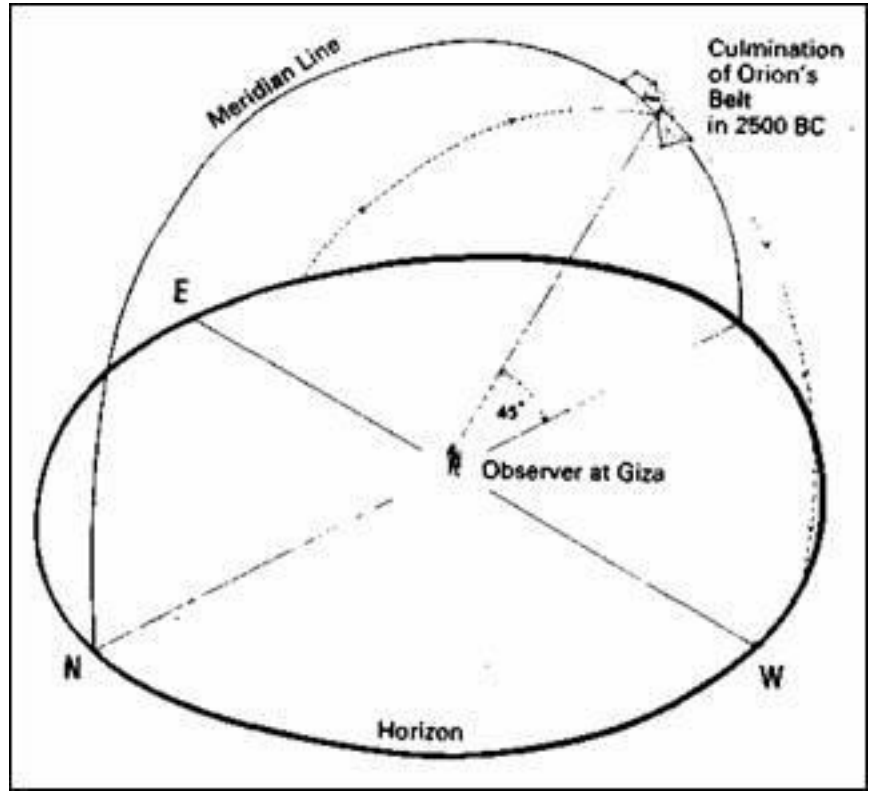

20. Culmination (meridian-transit) of Orion's belt *circa* 2500 bc. In this epoch the belt stars crossed the meridian at altitude 45 degrees, targeted by the southern shaft of the King's Chamber.

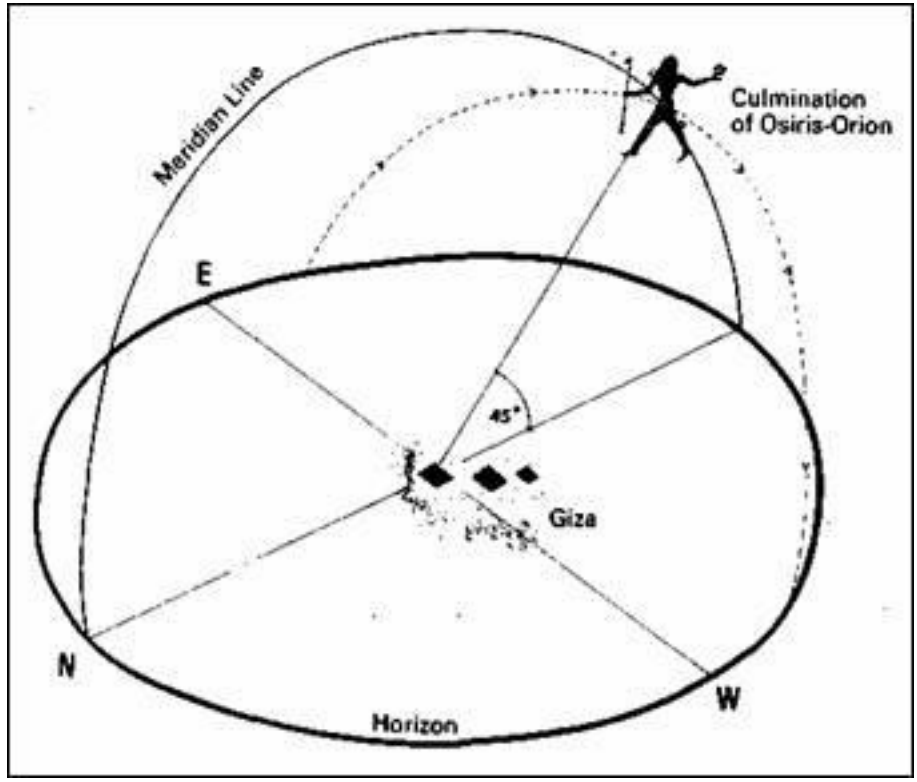

21. For the ancient Egyptians the constellation of Orion, and particularly its three prominent belt stars, were strongly associated with Osiris, the god of resurrection and rebirth.

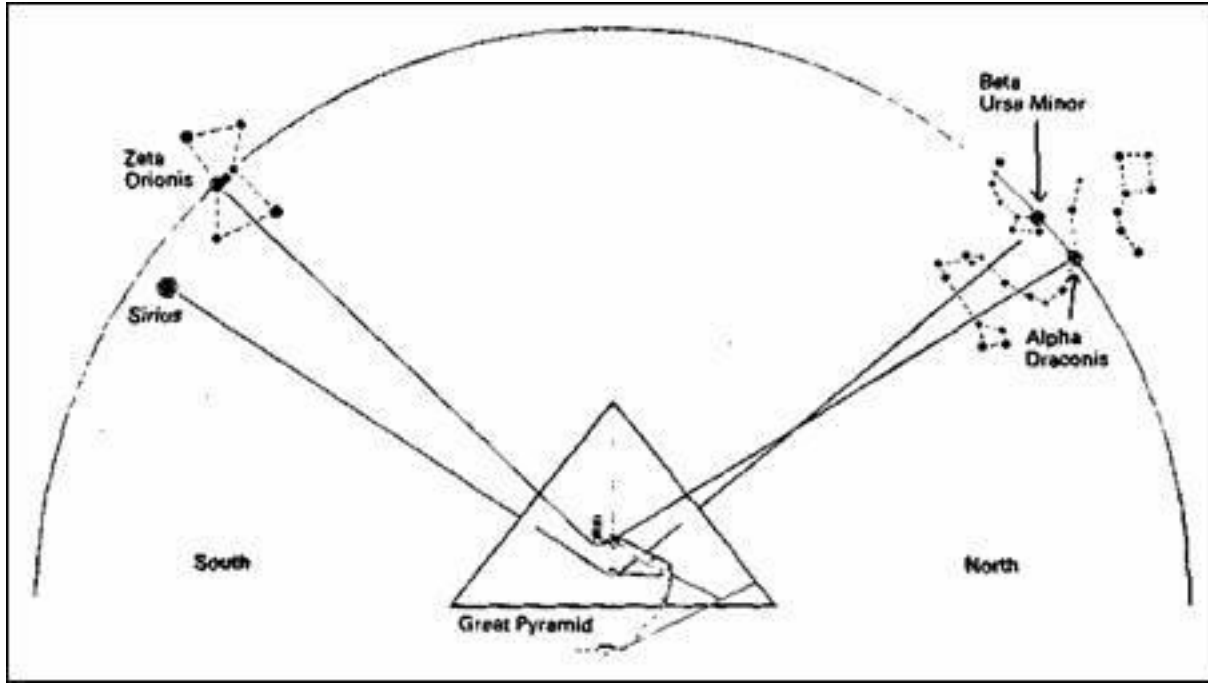

22. The stellar alignments of the Great Pyramid's four shafts in the epoch of 2500 bc.

The Great Pyramid has numerous features which leave us without any doubt that its designers paid careful attention to the stars and tracked their transit at the meridian. The mouth of the original entrance corridor, for example, targets the meridian with the

precision of the barrel of an artillery piece. All the internal passageways, too, run perfectly north-south, thus making the whole monument, as many astronomers have noted, an obvious 'meridional instrument'.[113] Most conclusive of all, however, is the fine accuracy of the four shafts. Recent investigations have established beyond any shadow of doubt that in *circa* 2500 bc—the era recognized by Egyptologists as the 'Pyramid Age'—each one of these shafts targeted a special star as it culminated at the meridian:

From the Queen's Chamber, the northern shaft is angled at 39 degrees and was aimed at the star *Kochab* (Beta Ursa Minor) in the constellation of the Little Bear—a star associated by the ancients with 'cosmic regeneration' and the immortality of the soul. The southern shaft, on the other hand, which is angled at 39 degrees 30', was aimed at the bright star *Sirius* (Alpha Canis Major) in the constellation of the Great Dog. This star the ancients associated with the goddess Isis, cosmic mother of the kings of Egypt.[114]

From the King's Chamber, the northern shaft is angled at 32 degrees 28' and was aimed at the ancient Pole star, *Thuban* (Alpha Draconis) in the constellation of the Dragon—associated by the Pharaohs with notions of 'cosmic pregnancy and gestation'. The southern shaft, which is angled at 45 degrees 14', was aimed at *Al Nitak* (Zeta Orionis), the brightest (and also the lowest) of the three stars of Orion's belt—which the ancient

Egyptians identified with Osiris, their high god of resurrection and rebirth and the legendary bringer of civilization to the Nile Valley in a remote epoch referred to as *Zep Tepi,* the 'First Time'.[115]

Because we can reconstruct the ancient skies over Giza with modern computers we can demonstrate the spot-on alignments of the four shafts to the four stars *circa* 2500 bc. What the same computers also show us is that these alignments were rare and fleeting, only valid for a century or so, before the continuous gradual change effected in stellar altitudes by the passage of time altered the positions at which the stars transited the meridian.

This phenomenon, the result of a slow and stately wobble in the axis of the earth, is known technically as precession. Over a cycle of 25,920 years it causes the infinitely-extended north pole of our planet's spin axis to trace out a great circle in the heavens. The main astronomical effects of this motion are:

1. an equally slow and stately change in the celestial north pole—which sometimes coincides with a 'pole star' (and sometimes

with empty space) as it progresses eternally around its 25,920-year cycle;

2. changes in the altitude of all stars above the horizon as they cross the observer's meridian at any given latitude;

3. changes in the constellations against the background of which the sun rises due east at dawn on the spring equinox (naturally precession also changes the constellations that mark the autumnal equinox—and the winter and summer solstices as well).

The *rate* of precessional change is constant and predictable for each of these key astronomical effects and can be calculated backwards and forwards in time across the entire star-field. This means, for example, that if we were to observe a specific bright star —say *Al Nitak* in Orion's belt—from a given place today, and if we were to record its altitude at the meridian, then provided such a record was to be found and understood thousands of years hence it

could be used to determine the epoch or ‘time’ when the original observation was made.

The same logic can be applied to the four meridional shafts emanating from the King’s and Queen’s Chambers. Their alignments at 2500 bc—on four stars that were of ritual importance within the ‘Osiris cycle’ of beliefs—cannot possibly have been accidental. On the contrary, it is obvious that we are confronted here by the products of a conscious and careful design. This in turn makes it equally obvious that the Great Pyramid must have some extremely strong connection with the epoch of 2500 bc—the approximate date at which all orthodox Egyptologists and archaeologists in fact believe it to have been built.

In short, the four star-shafts serve as precise time-markers by which, in theory at least, we should be able once and for all to confirm the date for the construction of the last-surviving wonder of the ancient world. This would be highly desirable since, in the absence of other objective means of dating the monument,

controversy continues to linger over its exact age. However, the archaeoastronomical picture is rather more complicated than it seems.

The Companions of Osiris

The complication arises from the strong correlation, first demonstrated in *The Orion Mystery,* between the three belt stars of the Orion constellation and the ground-plan of the three Pyramids of Giza. An overhead view shows that the Great Pyramid and the second Pyramid stretch out along a diagonal running 45 degrees to the south and west of the former's eastern face. The third Pyramid, however, is offset somewhat to the east of this line. The resulting pattern mimics the sky where the three stars of Orion's belt also stretch out along a 'faulty' diagonal. The first two stars (*AI Nitak* and *Al Nilam*) are in direct alignment, like the first and second Pyramids, and the third star (*Mintaka*) lies offset somewhat to the

east of the axis formed by the other two.[116]

The visual correlation, once observed, is obvious and striking on its own. Additional confirmation of its symbolic significance, however, is provided by the Milky Way, which the ancient Egyptians regarded as a kind of 'Celestial Nile' and which was spoken of in archaic funerary texts as the 'Winding Waterway'.[117] In the heavenly vault the belt stars of Orion lie to the west of the Milky Way, as though overlooking its banks; on the ground the Pyramids stand perched above the west bank of the Nile.[118]

Faced by such symmetry, and by such a complex pattern of interlocking architectural and religious ideas, it is hard to resist the conclusion that the Pyramids of Giza represent a successful attempt to build Orion's belt on the ground. This makes all the more sense when we recall the firm identification of the Orion constellation with the high god Osiris.

But bearing in mind the changes induced by the phenomenon of precession we must also ask: 'Orion's belt *when?'* 'Orion's belt in

what epoch?'

A perfect match

From the evidence of the shafts we have seen how the Great Pyramid is 'precessionally anchored' to Orion's belt in 2500 bc (because in this epoch the southern shaft of the King's Chamber targeted the meridian-transit of *Al Nitak,* the Great Pyramid's celestial counterpart). If we set our precessional computer to reconstruct the ancient skies over Giza, however, turn our attention to the pattern formed on the ground by all three of the Pyramids in 2500 bc, simulate the nightly passage of the belt stars across the roof of the celestial sphere and bring them to rest at the point of *Al Nitak*'s meridian-transit (45 degrees above the southern horizon, where it is targeted by the King's Chamber shaft), it becomes apparent that something is not quite right.

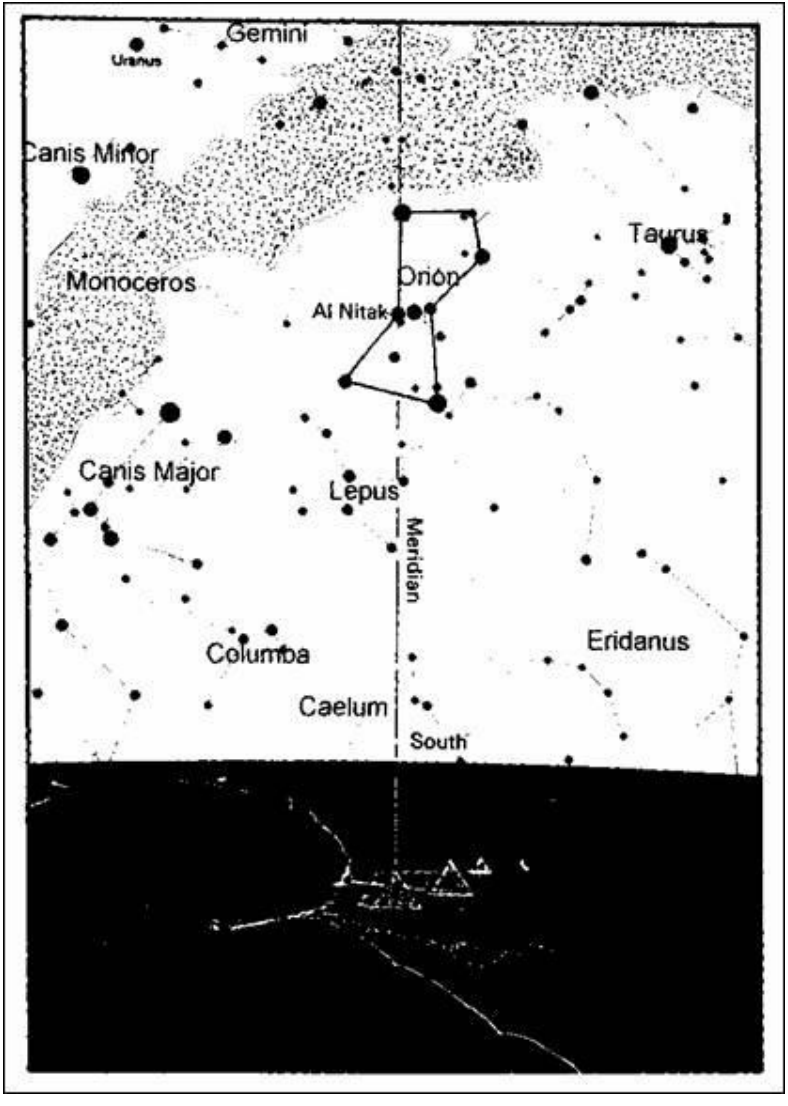
Gemini
Uranus
Canis Minor
Taurus
Monoceros
Orion
Al Nitak
Canis Major
Lepus
Meridian
Eridanus
Columba
Caelum
South

23. Orion's belt crossing the meridian of the Great Pyramid in 2500 bc with the star *Al Nitak,* the Great Pyramid's celestial counterpart, in perfect alignment with the southern shaft of the King's Chamber at an altitude of 45 degrees. However, note how the belt stars and the Milky Way appear out of kilter and askew in relation to the ground plan of the three Pyramids and the Nile. The sky-ground images are, of course, similar, but there is a sense that the sky image needs somehow to be 'twisted' in an anti-clockwise direction to get the perfect match. This can only be achieved by going back in time—by looking at the sky above Giza in a far earlier epoch ...

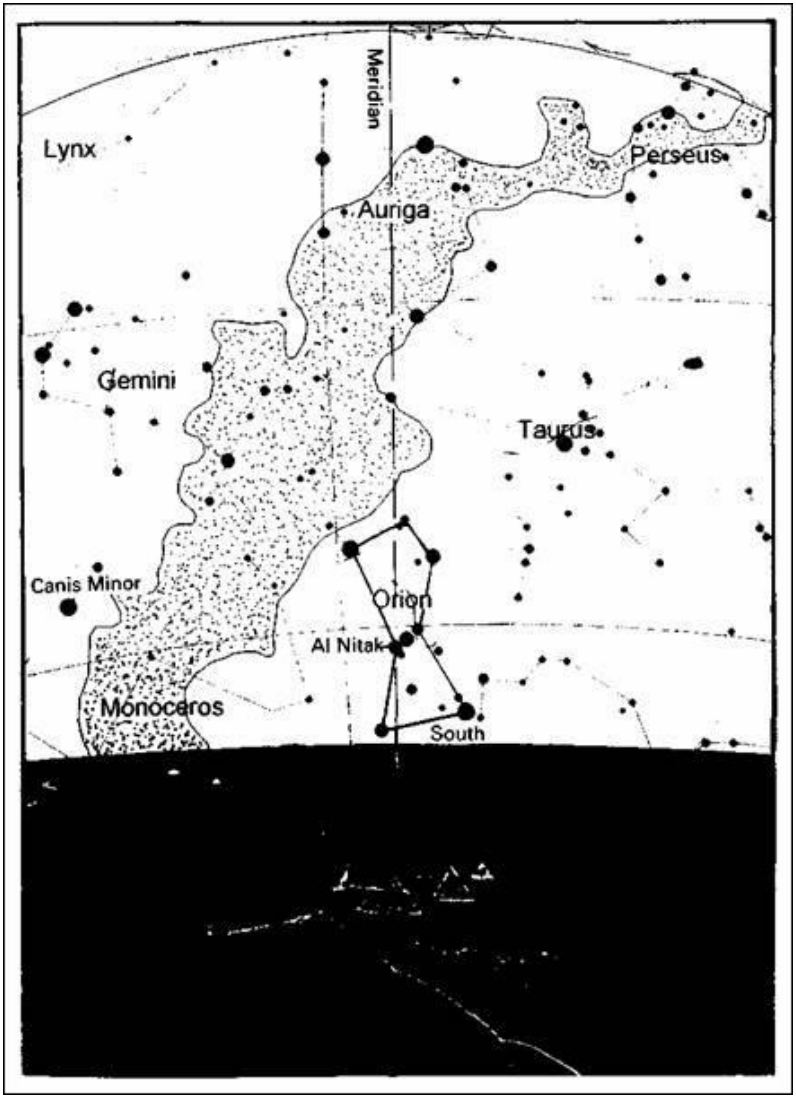
Meridian
Lynx
Perseus
Auriga
Gemini
Taurus
Canis Minor
Orion
Al Nitak
Monoceros
South

24. The perfect match of sky-ground images is achieved in 10,500 bc when the pattern of the Milky Way and of the three stars of Orion's belt at meridian transit is precisely matched by the course of the Nile and the pattern of the three great Pyramids on the ground.

We should expect to see a perfect meridian-to-meridian alignment at this point. Instead we notice that the dominant axis of the three stars and the Milky Way lies tilted conspicuously askew relative to the dominant axis of the three Pyramids and the Nile. These latter, of course, are fixed in their places. What is required, therefore, in order to achieve the 'ideal' sky-ground arrangement, is somehow to 'rotate' the heavens in an anticlockwise direction.

The vast cosmic engine of the earth's axial wobble offers us a mechanism by which this can be done: we need only instruct our computer to track the precessionally induced movements of the stars backwards in time.

As it does so, millennium by millennium, we observe that the orientation of Orion's belt at culmination is slowly rotating anti-clockwise and thus approaching ever closer to our desired meridian-

to-meridian match. It is not until 10,500 bc, however—8000 years *before* the 'Pyramid Age'—that the perfect correlation is finally achieved with the Nile mirroring the Milky Way and with the three Pyramids and the belt stars identically disposed in relation to the meridian.[119]

Rising stars

There is a feature of this 10,500 bc correlation which suggests strongly that coincidence is not involved. The pattern that is frozen into monumental architecture in the form of the Pyramids marks *a very significant moment* in the 25,920-year precessional cycle of the three stars of Orion's belt—one that is unlikely to have been randomly selected by the Pyramid builders.

To get a clear grasp of what is involved here let us call up a computer simulation of the skies over Giza in our own epoch, *circa* ad 2000. Looking due south we note that *Al Nitak* crosses the

meridian at an altitude of 58 degrees 06’ above the horizon. This, as it happens, is within 8 minutes of the highest altitude that this star will attain in its precessional cycle, i.e. 58 degrees 14’ (to be reached at around ad 2500).[120]

Let us now project our simulation backwards in time and recreate the sky as we would see it if we were standing in the same position at around 10,500 bc—i.e. just under 13,000 years, or half a precessional cycle, earlier. In this remote epoch we discover that *Al Nitak* crosses the meridian at an altitude of only 9 degrees 20’ above the horizon.[121]

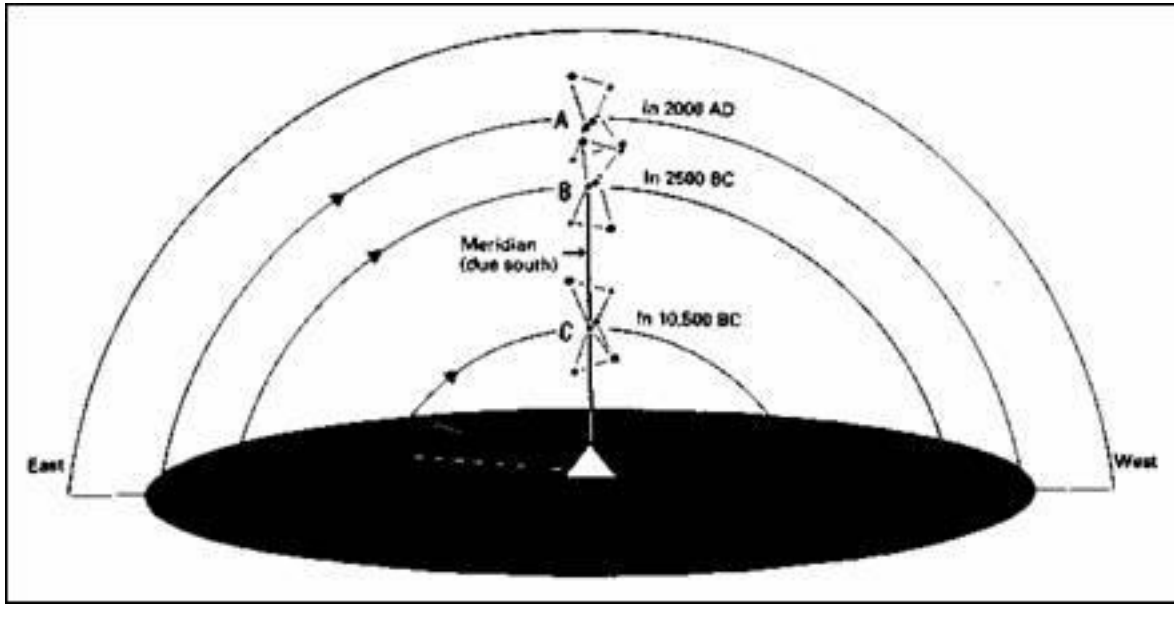

25. By mimicking the sky pattern of Orion's belt in 10,500 bc the three great Pyramids of Giza mark a very significant moment in the 20,000-year precessional cycle of these stars—the lowest point in their slide up and down the meridian, when (as seen from the latitude of Giza) they culminated at an altitude of 9 degrees 20 minutes above the horizon (C). In 2500 bc they culminated at altitude 45 degrees (B). In our own epoch, 2000 ad (A) they are approaching the highest altitude that they will attain in their precessional cycle—58 degrees 06 minutes above the horizon at meridian transit.

It will never fall lower, the epoch of 10,500 bc marks the nadir of

the star's precessionally induced slide up and down the meridian (just as the epoch of AD 2500 marks its zenith). Like a slowly moving lever in a narrow vertical slot, it takes 12,960 years to descend from top to bottom, and a further 12,960 years to ascend from bottom to top again.[122]

By exactly mimicking the disposition of the belt stars in the sky in 10,500 bc the layout of the Pyramids on the ground thus not only signifies a specific epoch but also rather precisely and surgically marks the *beginning* of a precessional half-cycle.

Lion on the ground, lion in the sky

As was pointed out in *Fingerprints, of the Gods,* the same role is played by the Great Sphinx—which gazes directly at the equinoctial rising point of the sun in any and every epoch, past, present and future, for ever.

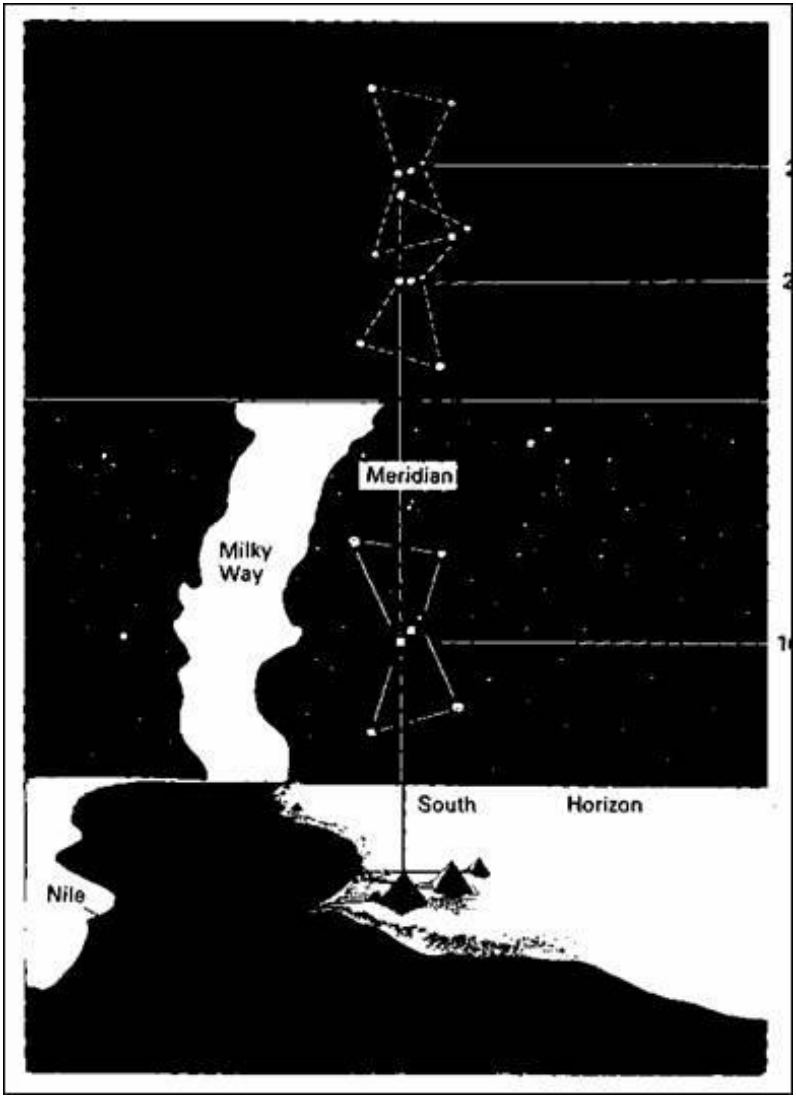
Meridian
Milky
Way
South
Horizon
Nile

26. Artist's impression showing the precessional cycle of Orion's belt up and down the meridian. The pattern of the stars in 10,500 bc marks the beginning, or 'First Time', of the cycle. It is this pattern that is reproduced on the ground by the three great Pyramids of Giza.

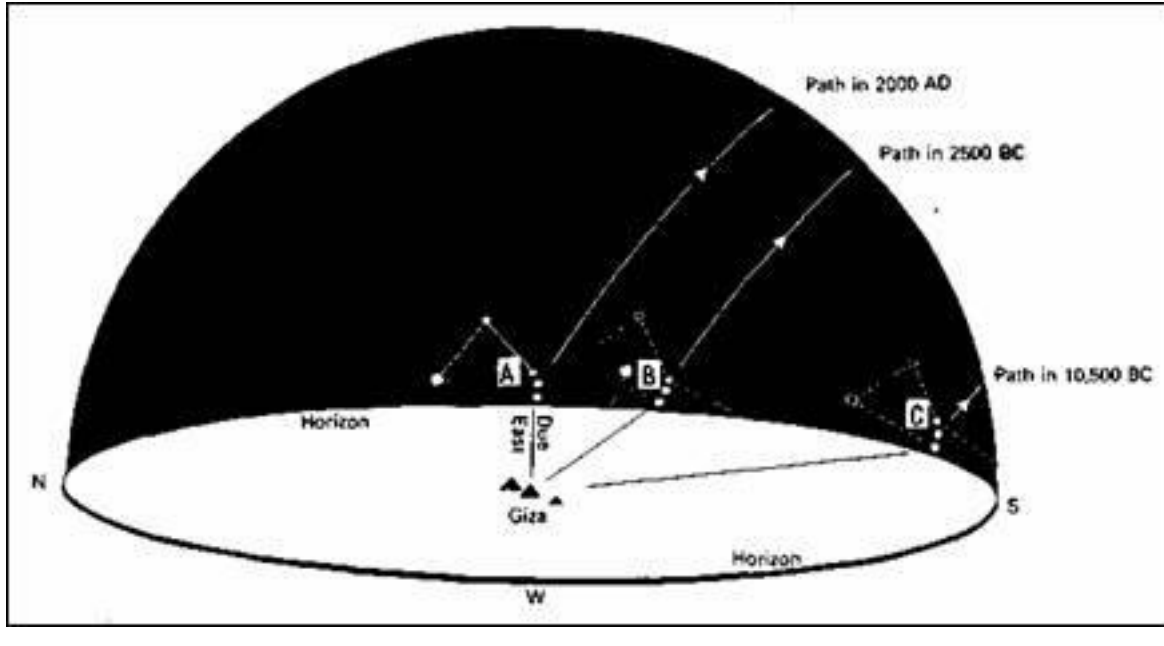

27. The rising points and trajectory of Orion's belt in (A) 2000 ad, (B) 2500 bc, (C) 10,500 bc.

This orientation provides us with an astronomical basis for dating

the monument because it is known that the attention of astronomers in ancient times was particularly focused on the zodiacal constellation—considered to define the astrological 'Age'—that rose just ahead of the sun in the eastern sky at dawn on the spring equinox.[123] The same phenomenon of the earth's axial precession that affects the altitude of stars at the meridian also affects these famous constellations—Leo, Cancer, Gemini, Taurus, Aries, Pisces, Aquarius, etc., etc—the co-ordinates of which, in relation to the rising point of the equinoctial sun, undergo slow but continuous precessionally induced changes. The result is a hard-to-observe astronomical phenomenon, known as the precession of the equinoxes, which manifests as a gradual circulation of the equinoctial point around all twelve 'houses' of the zodiac. In the words of historians of science Giorgio de Santillana and Hertha von Dechend, whose essay *Hamlet's Mill* is a ground-breaking study of archaic precessional mythology:

> The constellation that rose in the east just before the sun (that is, rose heliacally)

marked the ‘place’ where the sun rested ... It was known as the sun’s ‘carrier’, and as the main ‘pillar’ of the sky. ... The sun’s position among the constellations at the vernal [spring] equinox was the pointer that indicated the ‘hours’ of the precessional cycle—very long hours indeed, the equinoctial sun occupying each zodiacal constellation for just under 2200 years.[124]

In our own epoch the sun on the spring equinox rises against the stellar background of the constellation of Pisces, as it has done for approximately the last 2000 years. The ‘Age of Pisces’, however, is now approaching its end and the vernal sun will soon pass out of the sector of the Fishes and begin to rise against the new background of Aquarius. To be precise, it takes exactly 2160 years for the equinoctial point to pass completely through one constellation or ‘house’ of the zodiac.

With this process in mind, let us now reverse Santillana and von Dechend’s ‘precessional clock’. Passing back through the Age of Pisces (and the Age of Aries that preceded it) we find that in the epoch of 2500 bc, when the Sphinx is conventionally assumed to have been built, it was the constellation of Taurus that housed the

sun on the spring equinox.

It is here that the crux of the problem lies. To state the case briefly:

1. The Sphinx, as we have seen, is an equinoctial marker—or 'pointer'.

2. On a site that is as profoundly *astronomical* as Giza one would naturally expect an equinoctial monument dating from the 'Age of Taurus' either to have been built in the shape of a bull, or at any rate to symbolize a bull. The Sphinx, however, is emphatically *leonine* in form.

3. It is a simple fact of precession that one must go back to the 'Age of Leo' beginning at around 10,500 bc, in order to obtain the 'correct' sky-ground symbolism. This, as it turns out, is the only epoch in which the due-east-facing Sphinx would have manifested exactly the right symbolic alignment on exactly the right day—watching the vernal sun rising in the dawn sky

against the background of his own celestial counterpart.[125]

To clarify this latter notion, let us return to our computer simulation of the skies over Giza in 10,500 bc, instructing the program to recreate the positions of the sun and stars just before dawn on the spring equinox in that epoch. And let us set our direction of view due east in line with the gaze of the Sphinx. Indeed, with the aid of a little virtual reality and poetic license, let us imagine that we are standing between the paws of the Sphinx itself at that date—a date that we already know accords rather well with the *geology* of the monument.

What we would see, occupying the portion of the sky into which the sun is about to rise, would be the splendid zodiacal constellation of Leo—a constellation that very strongly resembles its namesake the lion and thus also the leonine Sphinx.

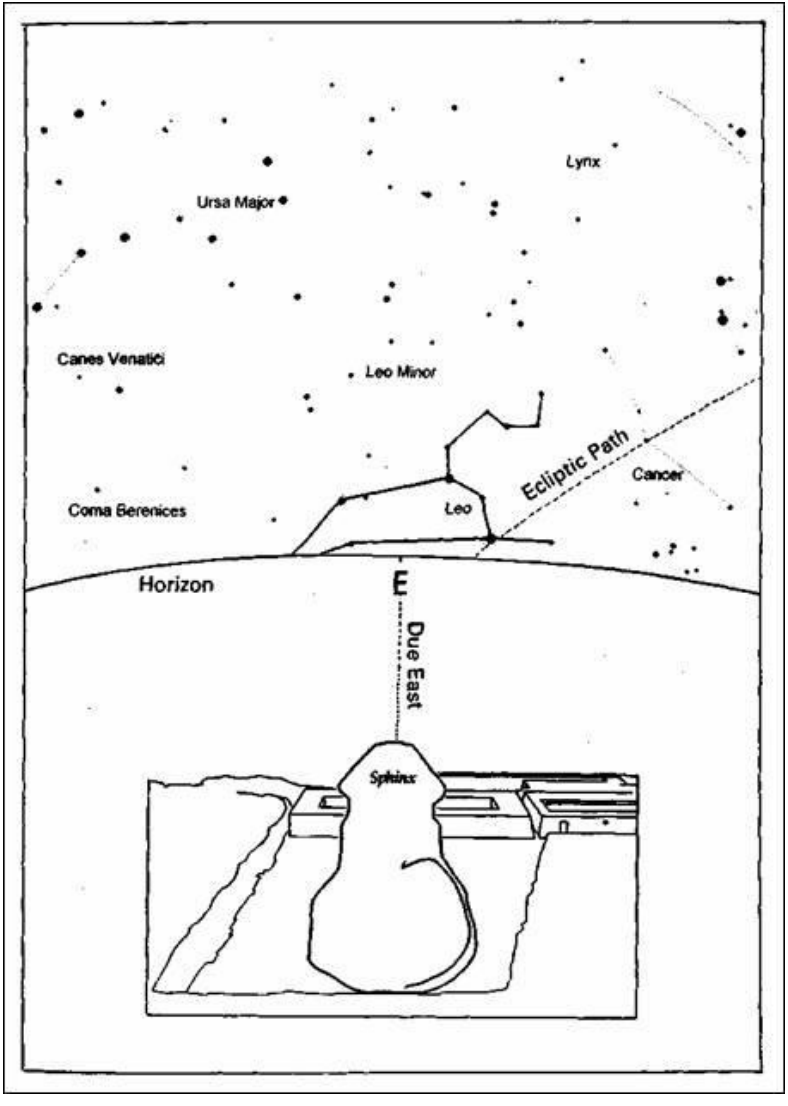
Lynx
Ursa Major
Canes Venatici
Leo Minor
Ecliptic Path
Cancer
Coma Berenices
Leo
Horizon
E
Due East
Sphinx

28. In the pre-dawn on the vernal equinox in 10,500 bc, with the sun some 12 degrees below the horizon, the Great Sphinx would have gazed directly at his own celestial counterpart, the constellation of Leo—which experienced what astronomers call its heliacal rising at this moment.

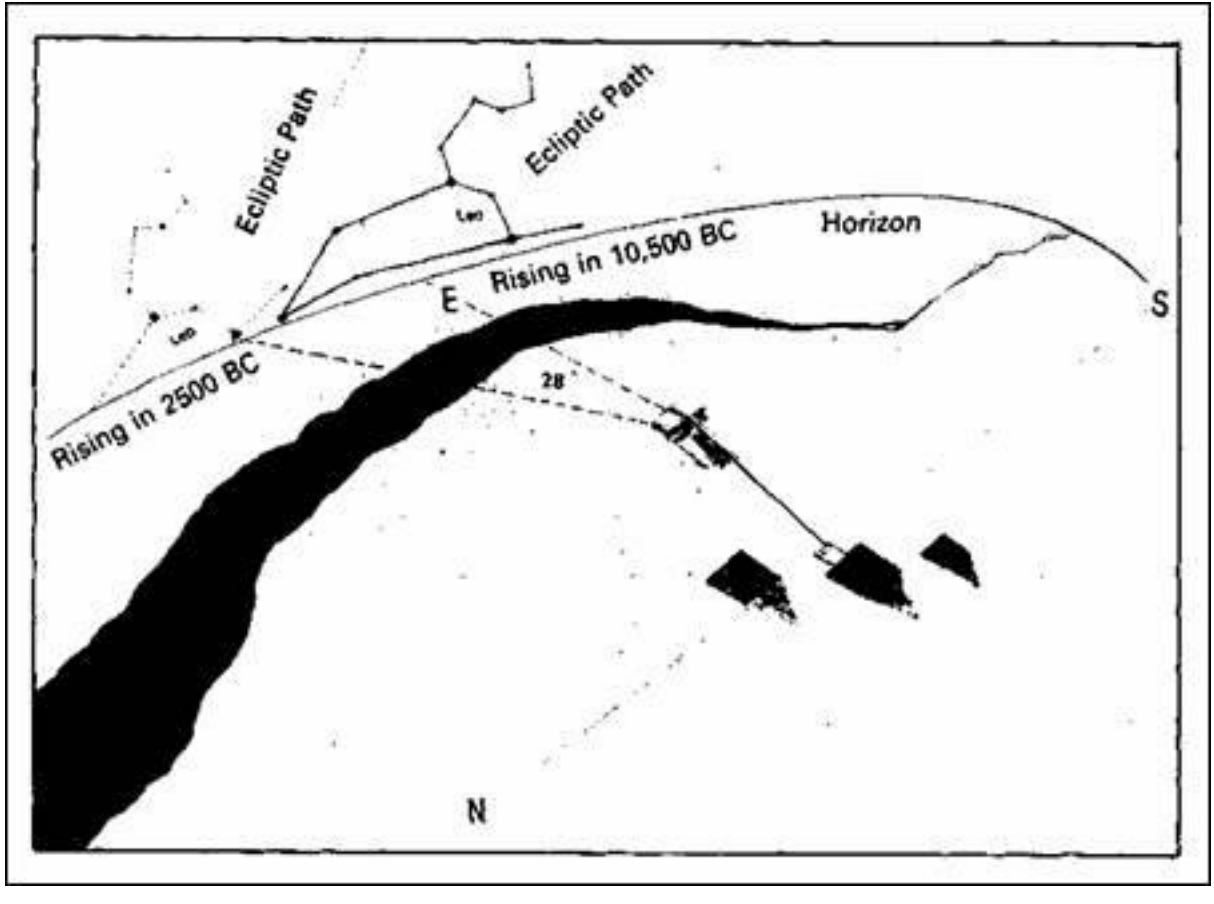

29. Superimposed images of the rising of Leo in 2500 bc, when the Great Sphinx is presumed by archaeologists to have been built, and in 10,500 bc. It is only in this latter epoch that the perfect sky-ground correlation is attained, at the heliacal rising of Leo, when the Sphinx would have gazed directly at his own celestial counterpart in

the pre-dawn.

The minutes pass. The sky begins to lighten. Then, at the exact moment at which the top of the solar disc breaks over the horizon directly ahead of us we make a 90-degree right turn—so that we are now looking due south. There, culminating at the meridian at altitude 9 degrees 20’, we observe the three stars of Orion’s belt forming a pattern in the sky that is identical to the ground plan of the Giza Pyramids.

The question reduces to this: is it a coincidence, or more than a coincidence, that the Giza necropolis as it has reached us today out of the darkness of antiquity is still dominated by a huge equinoctial lion statue at the east of its ‘horizon’ and by three gigantic Pyramids disposed about its meridian in the distinctive manner of the three stars of Orion’s belt in 10,500 bc?

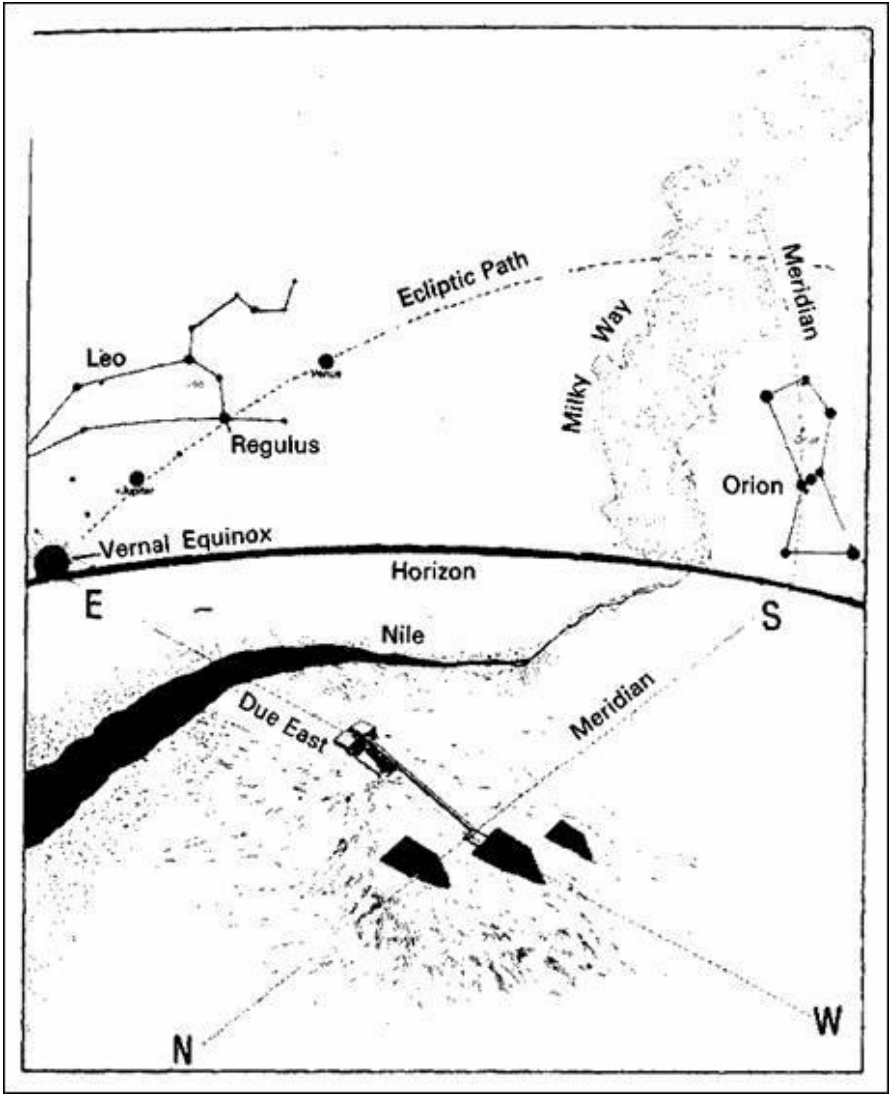
Ecliptic Path
Meridian
Milky Way
Leo
Regulus
Orion
Vernal Equinox
Horizon
E
S
Nile
Due East
Meridian
N
W

30. The moment of sunrise on the vernal equinox in 10,500 bc. *At* the exact moment that the top of the solar disc broke over the horizon due east in direct alignment with the gaze of the Sphinx the three stars of Orion's belt culminated at the meridian in the pattern that is mimicked on the ground by the three great Pyramids. Sphinx and Pyramids thus appear to 'work together' as an architectural representation of this unique celestial conjunction.

And is it also a coincidence that the monuments in this amazing astronomical theme park manage to *work together*—almost as though geared like the cog-wheels of a clock—to *tell the same 'time'?*

Throughout the ancient world the moment of sunrise, and its conjunction with other celestial events, was always considered to be of great importance.[126] At the spring equinox in 10,500 bc, as should by now be obvious, a particularly spectacular and statistically improbable conjunction took place—a conjunction involving the moment of sunrise, the constellation of Leo and the meridian transit of the three stars of Orion's belt. It is this unique celestial conjunction (which furthermore marks the *beginning* of the

‘Age of Leo’ and the *beginning* of the upwards precessional cycle of the belt stars) that the Great Sphinx and the three Pyramids of Giza appear to model.

But why should the ancients have sought to create a simulacrum of the skies on the ground at Giza?

Or, to put the question another way, why should they have sought to bring down to earth an image of the heavens?

Motive in the texts

There exists an ancient body of writings, compiled in Greek in the Egyptian city of Alexandria in the early centuries of the Christian era, in which sky-ground dualisms form a predominant theme, linked in numerous convoluted ways to the issue of the resurrection and immortality of the soul. These writings, the ‘Hermetic Texts’, were believed to have been the work of the ancient Egyptian wisdom god Thoth (known to the Greeks as

Hermes), who in one representative passage makes the following remarks to his disciple Asclepius: 'Do you not know, Asclepius, that Egypt is an image of heaven? Or, so to speak more exactly, in Egypt all the operations of the powers which rule and work in heaven have been transferred down to earth below?'[127] The purpose to which these powers were harnessed, in the Hermetic view, was to facilitate the initiate's quest for immortality.

Curiously, precisely such a quest for precisely such a goal—'a life of millions of years'—is spelled out in ancient Egyptian funerary texts which supposedly pre-date the Hermetic writings by thousands of years. In one of these texts, *Shat Ent Am Duat*—the *Book of What is in the Duat*—we find what appears to be an explicit instruction to the initiate to build a replica on the ground of a special area of the sky known as the 'hidden circle of the Duat': 'Whosoever shall make an exact copy of these forms ... and shall know it, shall be a spirit and well equipped both in heaven and earth, unfailingly, and regularly and eternally.'[128]

Elsewhere in the same text we hear again of 'the hidden Circle in the *Duat* ... in the body of Nut [the sky]': 'Whosoever shall make a copy thereof ... it shall act as a magical protector for him both in heaven and upon earth.'[129]

We suspect that the ideas expressed in such utterances may hint at the true motive for the construction of the huge astronomical monuments of the Giza necropolis and may help us to find a coherent explanation for their precise alignments to the cardinal directions of the sky, their unique 'star shafts', and their intense celestial symbolism. At any rate, as we shall demonstrate in Parts III and IV, it is a fact that the *Duat* sky-region described in the ancient Egyptian texts was dominated by the constellations of Orion and Leo—both of which appear to have been 'imaged' on the ground at Giza (with the former additionally targeted by the southern shaft of the King's Chamber in the Great Pyramid)—and by the star Sirius, which was targeted by the southern shaft of the Queen's Chamber. We also note in passing that the internal corridor, passageway and

chamber systems of the Pyramids very closely resemble surviving vignettes (painted on Eighteenth Dynasty tomb walls) of various regions of the *Duat.* Of particular interest in this regard is the mysterious 'Kingdom of Sokar' in the 'Fifth Division of the *Duat* in which 'travellers upon the way of the holy country ... enter into the hidden place of the *Duat*.'[130]

As we shall also see in Parts III and IV, there are the repeated references in the *Book of What is in the Duat,* and in numerous other funerary and rebirth texts, to *Zep Tepi,* the 'First Time'—the remote epoch when the gods were believed to have come to earth and established their kingdom in Egypt.[131] Those gods included Thoth-Hermes, the 'Thrice-Great' master of wisdom, the goddess Isis whose celestial counterpart was the star Sirius, and Osiris, the 'once and future king', who was killed, revenged by his son Horus, and then reborn to live for ever as the 'Lord of the *Duat*'.[132]

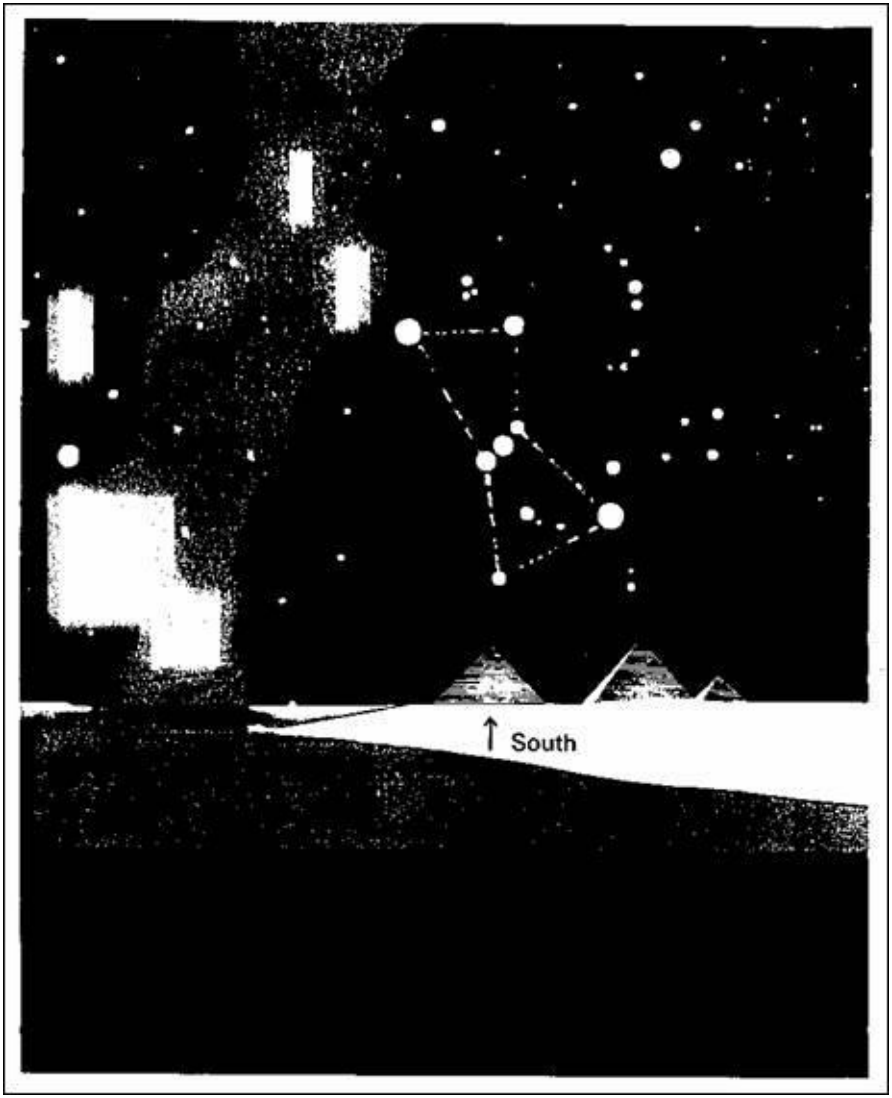
South

31. Artist's impression of the 'First Time' of Orion-Osiris.

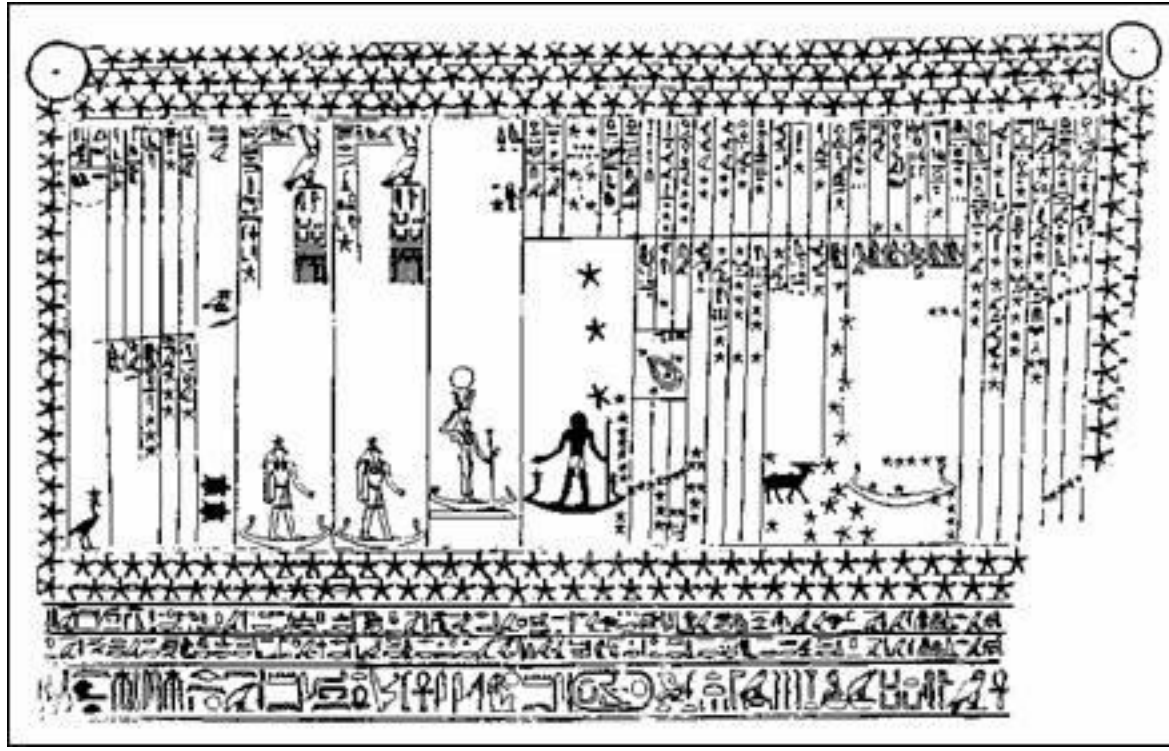

32. The celestial counterpart of Osiris was Orion, a constellation that the ancient Egyptians knew as *Sah,* the 'Far Strider', and depicted (as in the central register of this vignette from the tomb of an ancient Egyptian architect named Senmut) by means of the three characteristic belt stars.

The celestial counterpart of Osiris was Orion—a constellation that the ancient Egyptians knew as *Sah,* the 'Far-Strider' and most frequently depicted by means of the three characterstic belt stars. And since Osiris was said to have ruled in the 'First Time' we wonder whether this could be the reason why the three great Pyramids of Giza depict the three stars of Orion's belt as they looked 12,500 years ago at what might reasonably be defined as their astronomical 'First Time'—i.e. at the beginning of their current upwards precessional cycle?

An even bigger question, upon which much of our investigation hinges, concerns the identification of the Sphinx with the constellation of Leo—and specifically with the constellation of Leo when it marked the spring equinox in 10,500 bc. In Parts III and IV we will follow astronomical clues, laid out in the ancient Egyptian texts, which strongly support this identification and which offer intriguing hints as to its implications.

Fundamental questions

If the monuments of the Giza necropolis were of no significance in the human story then problems in the study and interpretation of these monuments would be of no significance either. But this site could hardly be more significant. Indeed, there is a sense in which it has always been with us. It is a marker of our history—a memorial to the genesis of our civilization—and it may still have vital information to give us about ourselves. More than any other ancient place, in other words, Giza raises, and might possibly answer, all the old, fundamental questions: who we are, where we came from, perhaps even where we are going. For these reasons we can hardly afford to be indifferent to the Great Sphinx and the three great Pyramids. For these reasons the quality of research that has been carried out around them—and that has defined and explained them—really does matter.

As we shall see in Part II this research has become strangely

tangled up with an ancient tradition of quest for hidden chambers and lost records at Giza ...

Part II

Seekers

Chapter 5

The Case of the Psychic, the Scholar and the Sphinx

'There has been one systematic search, a sort of direct shot at finding the Hall of Records, when the Edgar Cayce Foundation funded SRI International ...'

Dr. Mark Lehner, Edgar Cayce Foundation and ARE Magazine *Venture Inward,* 1985

There is a tradition which asserts that the Giza monuments stand as a last and grand memorial to a highly advanced antediluvian civilization that was destroyed by a 'Great Flood'. This tradition also holds that somewhere at Giza, either beneath the Great Sphinx or within the Great Pyramid itself, is concealed a 'Hall of Records' in which is preserved the entire knowledge and wisdom of the lost civilization.

Such ideas may be of very archaic origin[133] and have continued throughout history to inspire investigations at Giza. In the fourth century ad, for example, the Roman Ammianus Marcellinus directed treasure-hunters to search for 'certain underground galleries in the Pyramids', constructed as repositories for scrolls and books of past ages and intended 'to prevent the ancient wisdom from being lost in the Flood.'[134]

Likewise, many of the Arab chroniclers from about the ninth century ad onwards seem to have had access to a common source of information which caused them to agree that the Great Pyramid was built 'before the Flood' as a repository for scientific knowledge. Caliph Al Mamoun, who forced a tunnel into the northern face of the monument in ad 820, did so out of a conviction that he was entering a relic from antediluvian times which had been charged by its maker with the secrets of 'all profound science', which could 'convey knowledge of both history and astronomy',[135] and which would be found to contain 'a secret chamber with maps and

terrestrial spheres'.[136]

In a similar vein, a number of ancient Egyptian inscriptions and papyri make tantalizing statements about hidden chambers—the Chamber of Archives, the Hall of Records, etc., etc.—which have been interpreted as references to a hypogeum beneath or close by the Sphinx.[137] And Coptic legends report that 'there exists a single subterranean chamber under the Sphinx with entrances to all three Pyramids ... Each entrance is guarded by statues of amazing abilities.'[138]

In modern times, ideas such as these have been kept very much alive in the doctrines of speculative Freemasonry[139] and in the teachings of esoteric schools like the AMORC Rosicrucians of California and the Theosophical Society of London and Madras. In addition, from the 1920s to the 1940s, almost identical notions were expressed with curious vehemence by the American psychic Edgar Cayce, known to some as the 'Sleeping Prophet'.

Since an examination of 'psychic intuitions' would take us far

beyond the intended scope of this book we shall offer no opinions on the merits or the sources of Cayce's information. What we do find relevant to our investigation, however, is that his pronouncements concerning a supposed Atlantean 'Hall of Records' at Giza have quietly spawned a multimillion-dollar New Age industry that has embroiled itself deeply with mainstream Egyptological research into the Pyramids and the Sphinx.

We first learned about this unexpected involvement—unexpected because psychics and Egyptologists are normally about as hard to mix as chickens and polecats—when reviewing the numerous studies and excavations undertaken at Giza by the American Egyptologist, Mark Lehner. As the reader will recall from Part I, Professor Lehner has gone on record several times during the 1990s to oppose the theory of a 12,500-year-old Sphinx—and any notion of a Hall of Records beneath it. During the 1970s and 1980s, however, he was directly involved with the followers of Edgar Cayce and with their distinctive beliefs about the secrets and

mysteries of Giza.

Trancing the Hall of Records

The management of the Edgar Cayce 'industry' is largely entrusted to a corporation known as the Edgar Cayce Foundation (ECF), and to the affiliated Association for Research and Enlightenment (ARE), both of which are headquartered in the US coastal town of Virginia Beach. The first impression that most visitors get on arrival here is of a sort of medical clinic or retirement home located with a calming view of the ocean in mind. The windows of the principal building, which are made of opaque glass, are a little disconcerting. But reassurance is provided by a large black-and-white sign, visible from the parking lot, which reads:

A.R.E.
EDGAR CAYCE FOUNDATION

Atlantic University Visitor Center
School of Massage
Bookstore

Edgar Cayce was born in Hopkinsville in Kentucky in 1877. At the age of twenty he suffered from a speech impediment. After fruitless attempts to have it diagnosed by local doctors, he discovered that he could put himself into a deep trance and somehow diagnose the disorder and dictate a remedy. Cayce was urged to try his technique on others—with results that were so spectacularly successful that within months he had gained an immense reputation as a 'healer' with the gift of inner vision. All sorts of desperate people flocked to Virginia Beach to be diagnosed by the 'Sleeping Prophet'.

In his trances Cayce would also give psychic 'readings' to his enthusiastic followers—readings that were taken down in shorthand by a secretary.[140] Cayce would always claim to have absolutely no

recollection of what happened during these trances, but the 'readings' show that he frequently spoke to his followers about their 'past lives' in a remote epoch—the epoch of 'Atlantis', before and after the terrible deluge which supposedly destroyed that fabled continent. Altogether some 700 of Cayce's 'life readings'—now available on CD-ROM—expound in one way or another on the so-called 'Atlantean' story which begins with 'humankind's arrival on earth some ten million years ago, and ends with the sinking of the last remnants of Atlantis [prior to] 10,000 bc'.[141]

The essential message of these readings is that a number of 'Atlanteans' escaped the destruction of their continent and somehow reached the Nile Valley in Egypt in the eleventh millennium bc. Cayce himself claimed to be the reincarnation of their high priest Ra-Ta. According to Dr. Douglas G. Richards, director and researcher at the Atlantic University (which is part of the Edgar Cayce Foundation): 'many who received life readings [from Cayce] were said to have been associated with him in this past life' in

prehistoric Egypt.[142]

One of the most persistent accounts given by Edgar Cayce during his deep trances concerned:

> References and clues [which] indicate Egypt as a repository for records—records of Atlantis and ancient Egypt during the time of Ra-Ta, which may some day be found. They also mention again and again tombs and pyramids yet to be uncovered in Egypt, and give specific dates for the building of the Great Pyramid.[143]

The chronology that Cayce gave for this latter enterprise was '10,490 to 10,390 bc'.[144] He also stated: '... some 10,500 [years] before the coming of the Christ ... there was first that attempt to restore and add to that which had been begun and what is called the Sphinx ...' Also at around 10,500 bc the Cayce readings state that a vast underground repository was established containing a library of wisdom from the lost civilization of Atlantis: 'This in position lies, as the sun rises from the waters, the line of shadow (or light) falls between the paws of the Sphinx ... Between, then, the Sphinx and the river ...'[145] In another reading Cayce gave even more specific

directions: ‘There is a chamber or passage from the right forepaw [of the Sphinx] to this entrance of the record chamber ...’[146]

According to the readings, the Hall of Records is to be rediscovered and re-entered when ‘the time has been fulfilled’—which, Cayce suggested, would be at or just before the close of the twentieth century, perhaps in 1998.[147] The readings allude frequently to the Old and New Testaments of the Bible, contain numerous references to Jesus, and depict the rediscovery of the Hall of Records as being linked in some way to a series of events that will prelude the ‘Second Coming’ of Christ.[148]

The Scholar

The corporate history of the Association for Research and Enlightenment (ARE) begins in 1931, when the management of the newly founded institute was entrusted to Edgar Cayce’s eldest son,

Hugh Lynn Cayce—who had just majored in psychology. His first task was to provide a repository for his father's growing library of psychic 'readings', a sort of modern 'Hall of Records' in Virginia Beach. This task was eventually completed after Edgar Cayce's death in 1945. Meanwhile the ARE continued to expand and today has flourished into a multimillion-dollar organization with over 40,000 members world-wide. Unsurprisingly, however, despite a diversity of interests, its major thrust continues to be to prove the validity of the Edgar Cayce readings. What this involves in practice is a concerted attempt to find the so-called 'Hall of Records' of Atlantis which, as we have seen, is believed to have been preserved at Giza since 10,500 bc under the Sphinx and which, as the prophet said, would be opened before the year 2000. As two of Cayce's own children recently confirmed:

> Over twenty years ago the ECF began to lay the groundwork for what would later become actual field work in Egypt. The specific areas of interest were the Sphinx, the Great Pyramid, and the immediate surrounding area known as the Giza plateau. The driving force for this research was Hugh Lynn Cayce. Motivated by his father's psychic

readings, as well as a personal interest in archaeology, he turned his energies and enthusiasm to initiating solid archaeological research that might validate them ...[149]

In 1973 Hugh Lynn managed to round up a group of sponsors who were ready to finance a long-term strategy in Egypt. First and foremost this entailed providing an 'academic scholarship ... plus a small stipend' to a 'gifted individual' who could become a respected Egyptologist and gain the confidence of the leading lights of this stern profession.[150]

The 'gifted individual' chosen to receive the stipend was Mark Lehner,[151] until 1995 a Professor of Egyptology at the University of Chicago's world-famous Oriental Institute. Often referred to in Edgar Cayce literature as 'the scholar', it appears that some time in 1973 Lehner was earmarked by Hugh Lynn Cayce for a mission in Egypt which was envisaged as follows:

The scholar could complete a degree in Cairo and gain first-hand experience and make contacts in his field. For the ECF [Edgar Cayce Foundation], such support could create a realistic perspective on research efforts in Egypt, produce contacts, and lead eventually to research involvement in this area. Although the scholar would be

independent of the ECF, his presence in Egypt would serve as an effective liaison or channel for the ECF to develop long-term involvement there.[152]

Lehner arrived in Cairo in the fall of 1973 and studied at the American University near Al Tahrir Square—from whence he graduated in 1975 with high honours:

After graduation the Edgar Cayce Foundation supported him as a research fellow for several years in the department of anthropology. During this time, the student not only continued his academic studies, but also made contacts with people and organizations well known for their research. These contacts made it possible for the ECF to sponsor—directly in some cases, and partially in others—actual field research.[153]

Proof under the paws

In 1974 Lehner published a book, *The Egyptian Heritage,* which is copyrighted to the Edgar Cayce Foundation and which bears the subtitle 'Based on the Edgar Cayce Readings'. Its prime objective is to substantiate Cayce's statements about the supposed 'Atlantean

connection' in the prehistory of Egypt and the 'Hall of Records' established at Giza in 10,500 bc:

According to the [Edgar Cayce} readings, it is a legacy which will soon be rediscovered, and will bear profound determinations—not only for the history of dynastic Egypt, but for the entire physical and spiritual epic of our evolution on this planet, and for the years yet to pass.[154]

In *The Egyptian Heritage* Lehner also informs us that:

There are 1159 Edgar Cayce readings which contain references and information on the Ra-Ta period in Egypt. The story presented here has been culled from approximately 300 of these readings ... In presenting correlative Egyptological data I will attempt to demonstrate that there are good empirical reasons for believing that the Ra-Ta story is, in fact, rooted in truth. Of course, the final confirmation lies beneath the paws of the Sphinx at Giza ...[155]

Anomalies

Naturally the prime area of interest of the ECF/ARE in terms of 'actual field research' was—and remains—scanning, drilling and

excavation in the vicinity of the Sphinx where the Cayce readings say that the 'Hall of Records' is located.

In 1973-4, while Mark Lehner was still a student at the American University in Cairo, the first in a series of serious pioneering projects was launched, using ground-penetrating radar and other high-tech remote sensing equipment to locate 'anomalies' under the bedrock beneath the Sphinx. These projects were channelled through well-established academic institutions—the Ain Shams University in Cairo and the prestigious Stanford Research Institute (SRI) in the USA.[156]

In 1977 the US National Science Foundation funded a project at Giza again involving the SRI. This time use was made of several new techniques such as resistivity measurements (from metal rods driven into the rock across which an electric current was passed), magnetometry, and also the latest aerial photography and thermal infrared image-enhancing techniques. According to the SRI team's official report: 'Several anomalies were observed as a result of our

resistivity survey at the Sphinx ... Behind the rear paws (north-west end) we ran two traverses. Both traverses indicate an anomaly that could possibly be due to a tunnel aligned north-west to south-east ...'[157]

Two other 'anomalies' were noted, deep in the bedrock 'in front of the paws of the Sphinx'.[158]

According to ECF/ARE historians the 1973-4 and 1977 projects 'paved the way for work ... that would succeed in discovering hidden chambers'.[159] Exactly how and where is not made clear. At any rate in 1978 the ECF/ARE collaborated with the SRI and provided funds (to the tune of about US$50,000[160]) for a more detailed survey of the Sphinx enclosure and the nearby Sphinx Temple. The survey was recorded in the SRI's own records as 'The Sphinx Exploration Project'. It entailed an extensive resistivity scan of the entire floor of the Sphinx and Sphinx Temple enclosures. Should any 'anomalies' be found, it was agreed that the SRI was to confirm them with acoustic sounding techniques. The next step was

to have holes cut into the bedrock with precision drills through which borescope cameras could then be inserted.

Several anomalies beneath the bedrock were indeed identified and inspected in this way but proved to be just natural cavities.

A falling out

Also in 1978, US drilling experts from a company called Recovery Systems International (RSI) arrived at Giza with a telescopic diesel-powered drill and official permits, under the direction of an American named Kent Wakefield, to bore a number of holes deep beneath the Sphinx.[161] There was more of a connection between the SRI and the RSI than the anagram formed by their initials. Recovery Systems International, like the Edgar Cayce Foundation, apparently funded some of the SRI's programme at Giza, and made use of the SRI's resistivity readings to guide the placement of their drill holes. According to Mark Lehner, who was

there at the time, Recovery Systems International was probably organized 'just for this project'.[162]

The equipment for RSI's work was air-freighted to Egypt and brought to the site where it was positioned in the Sphinx Temple, directly in front of the paws of the Sphinx itself. One hole was bored, uneventfully. A second hole was then drilled. Mark Lehner and Kent Wakefield examined this hole with a borescope and saw only 'Swiss-cheese-like solution cavities' which form naturally in limestone. The solid bottom of the hole was tapped with a plumb-bob by Lehner who concluded that there was nothing unusual about it.[163]

Immediately afterwards the project was stopped. According to Mark Lehner this abrupt halt was 'due to lack of time [and] funds'.[164] Also it seems that Recovery Systems International 'did not appreciate at all the Cayce component of the project' and that this eventually led to a 'serious falling out between RSI and SRI'.[165]

Granite structures

Shortly after this episode, in 1979, as we shall see in further detail below, Mark Lehner got involved with the American Research Center in Egypt (ARCE for short)—which is the officially registered American Egyptological mission in Egypt.[166] At about the same time, Zahi Hawass, today the Director-General of the Giza Pyramids, was supervising excavations 165 feet to the east of the Sphinx Temple and hit bedrock at a depth of only six feet. A few months later, however—in 1980—Egyptian irrigation specialists checking for groundwater drilled in the same area, less than 100 feet away from the Hawass dig, and were able to go down more than 50 feet without impediment before their drill-bit suddenly collided with something hard and massive. After freeing the drill, much to their surprise, they found that they had brought to the surface a large lump of Aswan granite.[167]

No granite occurs naturally anywhere in the Nile Delta area where

Giza is located, and Aswan—the source of all the granite used by the ancients at Giza—is located 500 miles to the south. The discovery of what appears to be a substantial granite obstacle—or perhaps several obstacles—50 feet below ground level in the vicinity of the Sphinx is therefore intriguing to say the least.

Adding to the intrigue were further discoveries that the SRI made around the Sphinx in 1982 as a result of yet another project financed by the Edgar Cayce Foundation.[168] Mark Lehner, who was once again present throughout, described what the SRI did as follows:

> They brought a very powerful acoustical sounder, which is a long pencil-shaped thing. They put it down a drill hole. This is called Immersion Downhole Acoustics. You have to be in water. So they put it down into the water table and it sent out sound waves in all directions. Then they put down a listener, like a stethoscope, and you get a signal on an oscilloscope if sound waves are coming through; if they're not, you don't. You discover fissures this way—on one side of the fissure there's no signal and on the other side there is.
>
> They put the sounder underneath the paw [of the Sphinx] and always got a good, clear signal—there's no underground cavity blocking it. And they put it along the paw between the elbow and that box on the side, around the outside of the box and into the corner, and there was always a good signal.

But, at my prompting, they put it on the bedrock floor inside the box—and it was dead three places where they put it down, as though there is some kind of opening or empty space underneath that was blocking the signal. That was the very last day of the SRI project, and they never checked that out.[169]

Since 1982, we were surprised to learn, almost no further research has been officially authorized to investigate the numerous tantalizing hints of deeply buried structures and chambers in the vicinity of the Sphinx. The single exception was Thomas Dobecki's seismic work in the early 1990s. As reported in Part I, this resulted in the discovery of what appears to be a large, rectangular chamber beneath the forepaws of the Sphinx. Dobecki's investigations were part of the wider geological survey of the Sphinx led by Professor Robert Schoch of Boston University—a survey, as the reader will recall, that was brought abruptly to a halt in 1993 by Dr. Zahi Hawass of the Egyptian Antiquities Organization.

The mapping surveys

The American Research Center in Egypt (ARCE) has several times received ECF-ARE financing for its programme of investigations at Giza.[170] In 1979, for example, a proposal was made to the ARCE for a full-scale mapping survey involving the Great Sphinx and its enclosure in which use would be made of modern photogrammetric techniques to record every detail, crack, fissure, contour and outline of the monument. When the survey went ahead, Mark Lehner was appointed as its Field Director. Funders were the Edgar Cayce Foundation, the Chase National Bank of Egypt and the Franzhein Synergy group.[171]

Mark Lehner completed the mapping survey in 1983 and by 1984 his reputation was sealed as America's leading expert on the Sphinx. He was then appointed Director of the newly established and much more extensive and ambitious Giza Mapping Project, again under the auspices of the ARCE, and with some funding—again—coming from the Edgar Cayce Foundation and ARE. The major financial contributors were the Yale Endowment for

Egyptology, General Dynamics, the multimillionaire David Koch, and a Los Angeles real-estate tycoon named Bruce Ludwig.[172] More recently the Giza Mapping Project has been superseded by the Giza Plateau Project which also numbers David Koch and Bruce Ludwig amongst its funders and which is also directed by Mark Lehner.[173]

Pulling away

When, exactly, Professor Lehner began to pull away from the influence of the Edgar Cayce Foundation and cross over into the mainstream of professional Egyptology and its orthodoxy is not especially clear. However, some light may be shed on the matter by an interview that he gave in August 1984 to Robert Smith, editor of the ARE magazine *Venture Inward.* The interview was published in two parts in the January-February issues of 1985. Asked about his work at Giza, Lehner explained:

The history of my involvement began in 1972 when I went on an ARE tour. We stopped in Egypt for a week and I went out to the Giza plateau with a group, and then I went out to the Giza Pyramids again by myself and sat for awhile in the King's Chamber of the Great Pyramid. I wandered around the cemeteries that are outside the Pyramid, and something plugged into me about this place. I vowed that I would be back in a year, and so I was. I went back to study at the American University in Cairo. During that year before returning to Cairo, I enthusiastically researched the Cayce readings on Egypt and put together the book, *The Egyptian Heritage.* The readings describe not only a civilization in Egypt in 10,500 bc, but also, preceding that, the lost civilization of Atlantis, which was in its final days, according to the Cayce information, when the Sphinx and the Pyramids were built ...[174]

Lehner then explained how he had come to realize that 'there's a great disparity between the dating of the monuments by professional scholars and that given in the Cayce readings'. He added that for him investigating the Sphinx was 'just a focus of a general metaphysical and spiritual quest'. This had led him to work, he elaborated, 'with the bedrock realities [and] ground truth'—realities that had made him bracket all his expectations and ideas and 'just deal with what the site has to offer'.[175]

In *Venture Inward* magazine of May-June 1986, Robert Smith published an illuminating report about a meeting that took place at the Edgar Cayce Foundation attended by Mark Lehner, Charles Thomas Cayce (President of the ARE), James C. Windsor (President of the Edgar Cayce Foundation), Edgar Evans Cayce, and other ARE officials. On the agenda was the evaluation of future ECF/ARE activities at Giza. Setbacks and mounting scientific evidence against the Cayce prophesies had caused some to question whether it was still worthwhile funding projects there. Ironically, much of the adverse evidence was being turned up by Lehner's research.[176] Robert Smith recounts the discussion that took place:

'What do we do next?' asked Edgar Evans Cayce, the younger son of Edgar Cayce and a member of the Board of Trustees.

'Should we drill more holes?' asked Charles Thomas Cayce, president of the ARE, and grandson of Edgar Cayce.

Neither has given up the search for Ra-Ta. Lehner, the young archaeologist who has led the search at Giza for the past decade, wants to press on with it too.

'You are not as optimistic now about the prospects of vindicating some of the things

that were said about this area in the readings,' noted James C. Windsor, President of the Edgar Cayce Foundation. 'Do you have any interest in the Hall of Records? Is it worth looking for?'

'Oh, absolutely,' replied Lehner. 'I think it is, but not in as tangible a way as I used to think.'[177]

Lehner went on to explain at length why various archaeological and scientific tests had frustrated his hopes that the Cayce readings might be linked to a suitably 'tangible' reality. 'Why then continue the search?' wondered Robert Smith.

'I have a sort of gut feeling that something is under the Sphinx and that something is out there at the pyramids in the way of a mystery,' said Lehner. 'I like to think of it as something kind of pulsating.'[178]

During the meeting at the Edgar Cayce Foundation, Charles Thomas Cayce reportedly asked Lehner whether it would be possible to drill holes at regular intervals in order to locate underground passages near the Sphinx, but Lehner felt that the Egyptians would 'balk' at this idea. He suggested in passing,

however, that a certain American oil company official, who at that time was apparently working for an American museum might be interested in using his 'crack geophysical prospecting team' for explorations beneath the Sphinx.[179]

Since making these statements and proposals—because, he says, of what the site has taught him—Lehner has veered further and further away from the Edgar Cayce influence. Today he repudiates any notion of an earlier civilisation in 10,500 bc. Indeed, so complete does his conversion appear to have been that in a recent denunication of John West's geological theories concerning the Sphinx he felt compelled to state: 'I believe we have a professional responsibility to respond to notions—like those of Cayce and West—that would rob the Egyptians of their own heritage by assigning the origins and genius of Nile Valley civilization to some long-lost agent like Atlantis.'[180]

Lehner does not attempt to deny his own former involvement with the Edgar Cayce Foundation, or with ideas about Atlantis, but seeks

instead to find ways to reconcile the origins of his former interests in 'mystical interpretations of the Pyramids and the Sphinx' with his present hardcore commitment to 'bedrock realities'. Lehner compares his situation to that of Sir W. M. Flinders Petrie, who had come to Egypt in the 1880s 'to test the mystical "pyramid inch" against the stone of Khufu's pyramid'—and found the 'pyramid inch' wanting.[181] Petrie, as we shall see in the next chapter, had followed in the footsteps of his father, William, and the notorious Astronomer Royal of Scotland, Piazzi Smyth—both of whom passionately believed that the Great Pyramid had been built under divine inspiration by the Israelites during their bondage in Egypt.[182]

Lunch with Mr. Cayce

In May 1994 we flew to New York and made our way by car to Virginia Beach in Norfolk, Virginia, where the headquarters of the

Edgar Cayce Foundation, and its partner organization the Association for Research and Enlightenment, are located. We wanted to explore the unexpected connections that this organization had at one time enjoyed with Mark Lehner, and were curious to know how—if at all—the Egyptian Antiquities Organization and Zahi Hawass, Lehner's colleague at Giza, fitted into all this.

Mutual friends arranged a meeting for us with the current President of the ARE and the Edgar Cayce Foundation, Mr. Charles Thomas Cayce, the grandson of Edgar Cayce. We were also to meet two prominent ARE members who, we were informed, had contributed to various projects at Giza in the 1970s and 1980s and to the more recent geological investigations carried out by John West and Robert Schoch.

The venue was the Edgar Cayce Foundation and ARE headquarters on Atlantic Avenue. There we were greeted by cheerful and friendly staff. It was a normal busy day and we saw visitors of all ages browsing in the well-stocked library and

bookshop and making their way to various lectures and meditation classes. The general atmosphere was a bit like that of the campus of a small university or college.

We were taken for lunch by Mr. Cayce at the nearby Ramada Oceanfront Hotel. There we were joined by the two senior ARE members who had come from New York and Washington to meet us. The discussion at the table ranged widely and included what seemed to be a completely open and honest review of the ARE's various initiatives at Giza over the previous two decades. Everyone seemed to know Mark Lehner well, and both the man from Washington and the man from New York also spoke of Zahi Hawass in extremely personal and friendly terms.

At this point we could not avoid bringing up the matter of John West's recent sensational NBC television documentary, *Mystery of the Sphinx* which, as we saw in Part I, Lehner had treated with disfavour and which had also provoked the following vigorous rebuttal from Zahi Hawass:

> The film indicates an attempt by these pretenders to prove that the age of the Sphinx dates back to fifteen thousand years ... [and that] the builders of the Sphinx, and consequently the Pyramids and other great antiquities, were not the ancient Egyptians but other people of higher culture and education that came from the 'Atlantis' continent after its destruction and put beneath the Sphinx the scientific records of the lost continent! It is evident that this John West represents nothing but a continuation of the cultural invasion of Egypt's civilization. Before him was Edgar Cayce in Virginia who pretended he lived in Atlantis fifteen thousand years ago and then fled to Egypt with the records which he buried near the Sphinx before the destruction of the continent! ...[183]

Presented late in 1993 by the Hollywood actor Charlton Heston, *Mystery of the Sphinx* had been partially financed by the ECF/ARE and their supporters, and had very strongly endorsed the view that the Sphinx, and a number of the other monuments on the Giza necropolis, must date back to at least the eleventh millennium bc.[184] As we reported in Part I, it was this same documentary that had also broken the news of Thomas Dobecki's seismic surveys around the Sphinx and his discovery of a large rectangular chamber buried deep in the bedrock beneath its front paws. This, of course, had suggested to the ECF/ARE that there could be a connection with

Cayce's 'Hall of Records'. As Charlton Heston remarked in his commentary: 'the unexpected cavity detected by the seismograph was located precisely where Edgar Cayce said it would be—under the front paws of the Sphinx.'[185]

We asked Charles Cayce and his two colleagues how they felt about Hawass's angry and dismissive reaction to the film and his talk of 'pretenders'.

The ARE men simply smiled and shrugged their shoulders. They were very confident, they informed us, that everything was working for the best: no matter what anybody said or did, the truth about Giza was going to emerge and the 'Hall of Records' was going to be discovered, just as Edgar Cayce had prophesied.[186] On this note we parted company.

Correspondence

On 15 October 1995, Mark Lehner wrote us a five-page letter in

response to a draft of this chapter that we had asked him to review.[187] In the same letter he informed us that he had recently resigned from Chicago University's Oriental Institute to 'devote more time to research and writing'. He also notified us that he intended to publish a book on 'New Age beliefs and Ancient Egypt' which, he said, would expound, in greater detail than we have done here, on his involvement with work funded by the Edgar Cayce Foundation.[188]

Our correspondence with Lehner was care of the Harvard Semitic Museum in the state of Massachusetts. As we write these words his colleague in Egypt, Dr. Zahi Hawass, is supervising the excavation of a newly discovered 'Old Kingdom' temple complex with underground tunnels immediately to the south-east of the Great Sphinx of Giza.[189] Interviewed in December 1995 for a possible television documentary concerning the mysteries of the Sphinx, Hawass led the film crew into a tunnel beneath the Sphinx itself. 'Really,' he said, 'even Indiana Jones will never dream to be here. Can you believe it? We are now inside the Sphinx in this tunnel.

This tunnel has been never opened before. No one really knows what's inside this tunnel. But we are going to open it for the first time.'

POSTSCRIPT: Further correspondence with Mark Lehner, giving his comments on this chapter, is reproduced in Appendix 3.

Chapter 6

The Case of the Iron Plate, the Freemasons, the Relics and the Shafts

'I am more than convinced of the ... existence of a passage and probably a chamber (in the Great Pyramid) containing possibly the records of the ancient founders ...'

John Dixon. Letter to Piazzi Smyth dated 25 November 1871, commenting on the Queen's Chamber in the Great Pyramid

'Deep inside the Great Pyramid lies a dead end [in the southern shaft of the Queen's Chamber]. Rudolf Gantenbrink could explore beyond it, but no one will let him.'

Sunday Telegraph, London, 1 January 1995

Perhaps the most exotic researcher ever to have pronounced on the mysteries of the Pyramids was Charles Piazzi Smyth, a nineteenth-century Astronomer Royal of Scotland. Like Edgar Cayce, he believed the Great Pyramid to be somehow linked to

Biblical prophecies concerning the 'Second Coming' of Christ. And like Edgar Cayce, too, his name turns up most unexpectedly in connection with recent remarkable discoveries at Giza.[190]

We will see why, later in this chapter. Meanwhile, as many readers will recall from the international news coverage it received at the time, high hopes were raised in March 1993 of a possible hidden chamber deep within the Great Pyramid. Rudolf Gantenbrink, a Munich-based German engineer, had used a tiny, hi-tech robot camera to explore the long narrow shafts emanating from the northern and southern walls of the Queen's Chamber and, at the end of the southern shaft (the one targeted on the star Sirius) had discovered a small portcullis door complete with copper handles. Immediately after the find was made, Dr. Zahi Hawass enthused to a German television team 'in my opinion this is THE discovery in Egypt' and expressed the hope that 'records' on papyrus scrolls to do with the 'religion' of the builders and maybe the 'stars', might be stashed away behind the tantalizing door.[191] Similar hopes were

also raised in *The Times* of London which, in addition, noted a curious link with Edgar Cayce and the 'Hall of Records':

> SECRET PASSAGE POSES PYRAMID MYSTERY: In the 1940s Edgar Cayce, the American clairvoyant, prophesied the discovery, in the last quarter of the 20th century and somewhere near the Sphinx, of a hidden chamber containing the historical records of Atlantis. Whether recent discoveries in the Great Pyramid of Cheops [Khufu] have anything to do with that is far from certain, but the discovery of a small door at the end of a long, hitherto unexplored, 8-inch square shaft has set many speculating about what, if anything, might lie behind it ...'[192]

As we write these words, more than three years after Rudolf Gantenbrink made his amazing discovery, no further exploration has been permitted inside the southern shaft of the Queen's Chamber and the mysterious portcullis door remains unopened. During this period we note that Dr. Zahi Hawass (rather like his friend Mark Lehner over the issue of 10,500 bc) has executed a radical volte-face. Gone are the eulogies and the great expectations and he now asserts: 'I think this is not a door and nothing is behind it ...'[193]

Double standard

The story of the Great Pyramid's shafts, and the oddly contradictory Egyptological responses to whatever is discovered in them—or whatever new ideas are proposed concerning them—goes back to the late 1830s when the British explorer Colonel Howard Vyse 'sat down before the Great Pyramid as at a fortress to be besieged'. This comment, from one of his contemporaries, alludes to Vyse's renowned use of dynamite to 'explore' the Great Pyramid. [194] It might have been more appropriate, though less polite, to say that he confronted the last surviving wonder of the ancient world as though it were a woman to be raped. Nevertheless, the fact remains that during a hectic season of explorations and intrusive excavations (1836-7), Vyse and his team did manage to make what looked like two extremely important discoveries:

1. A section of flat iron plate, about one eighth of an inch thick, a foot long and four inches wide, extracted from the masonry of

the southern face of the Pyramid at the exit point of the southern shaft of the King's Chamber (the shaft targeted on Orion's belt).

2. 'Quarry marks' daubed inside the so-called relieving chambers above the King's Chamber. These hieroglyphs are the first and only 'inscriptions' ever found inside the Great Pyramid. They take the form of loosely scrawled graffiti and include the name of Khufu, the Fourth Dynasty Pharaoh whom Egyptologists suppose to have been the builder of the monument.

The second find—the appearance of Khufu's name—has been repeatedly hailed by Egyptologists during the past 160 years as proof positive that the otherwise anonymous Pyramid was indeed built by the Pharaoh Khufu. The first—the iron plate—has been dismissed as a fraud and the plate itself now lies in a narrow drawer in the British Museum, as ignored and forgotten as the skull of Piltdown Man.[195]

Suppose, however, that the Egyptologists have got things the wrong way round?

Suppose that it is the 'quarry marks' that are forged and the iron plate that is genuine?

In this case the tidy and well-worked-out chronology of the evolution of Egyptian society, which appears in all the standard textbooks, would be shown to rest on frighteningly insecure foundations, the attribution of the Great Pyramid to Khufu would revert to undocumented speculation, and the orthodox date of the Iron Age in Egypt—placed by Egyptologists as being not earlier than 650 bc[196]—would have to be pushed back almost 2000 years.

We have argued elsewhere, and at length, that the quarry marks inside the Great Pyramid could have been forged—and specifically that Howard Vyse, who had spent £10,000 on his 1836-7 excavations (a princely sum in those days) had both the motive and the opportunity to forge them.[197] Briefly:

1. It is notable that the marks were only discovered in the four 'relieving chambers' opened by Vyse himself, and not in the chamber immediately below these (and immediately above the

ceiling of the King's Chamber) which had been opened by a previous explorer, Nathaniel Davison, in 1765. It is also notable that Vyse's diary entry for the day on which he first opened and accessed the lowest of 'his' four chambers (i.e. the one above Davison's Chamber) reports a thorough examination but makes no mention whatsoever of any hieroglyphs prominently daubed on the walls in red paint. On the very next day, however, when Vyse returned to the chamber with witnesses, the hieroglyphs were suddenly there—almost as though they had been painted overnight.[198]

2. As one of Vyse's critics has perceptively pointed out, 'the perspective and angles at which the inscriptions were made shows that they were painted not by the quarry masons before the blocks were moved, but rather by someone working in the cramped quarters of the [relieving] chambers after the blocks had been placed in the Pyramid. Instructions for locating blocks in a construction project [which is what the quarry marks

purport to be] serve no purpose after the fact has been accomplished. Clearly they were added by someone else and not by the builders themselves.'[199]

3. There are horrendous 'orthographic' problems with the hieroglyphs. These problems were first pointed out in the nineteenth century by Samuel Birch, a British Museum expert on the ancient Egyptian language. Although nobody either then or now has paid any attention to his comments, he made the important observation that the styles of writing expressed in the 'quarry marks' are a strange anomalistic hotchpotch of different eras. Some of the cursive forms and titles used in these supposedly Fourth Dynasty inscriptions are found nowhere else in Egypt until the Middle Kingdom, about 1000 years later (when they become plentiful). Others are unknown until the Twenty-sixth Dynasty (664-525 bc). Perhaps most telling of all, however, is the use of certain words and phrases in a completely unique and zany way that occurs nowhere else in the entire

sprawling corpus of writings that has come down to us from ancient Egyptian times. To give an example, the hieroglyph for 'good, gracious' appears where the number 18 is meant.[200]

4. There are difficulties with the name Khufu itself as it is given in the quarry marks. It contains a mistake (a dot surrounded by a circle instead of a simple filled-in circle) that—like the usage of the 'good, gracious' hieroglyph—is repeated on no other ancient Egyptian inscription. Interestingly, however, this same mistake in the writing out of the name Khufu occurs in the only two source books on hieroglyphs that would have been available to Vyse in 1837: Leon de Laborde's *Voyage de l'Arabie Petree* and Sir John Gardner Wilkinson's *Materia Hieroglyphica*.[201]

5. Last but not least, even if the quarry marks were not forged by Vyse, what do they really prove? Isn't attributing the Great Pyramid to Khufu on the basis of a few lines of graffiti a bit like handing over the keys of the Empire State building to a man

named ‘Kilroy’ just because his name was found spray-painted on the walls of the lift?

We are frankly puzzled that such questions are never asked and, in general, that Egyptologists are so ready to accept the quarry marks as ‘proof of Khufu’s ownership of the Pyramid. Their own credulity on such matters is of course their business. Nevertheless we think that it verges on intellectual chicanery for the same dubious attribution to be regurgitated again and again, in all the standard texts, without any cautionary notes about the many problems, anachronisms and inconsistencies that cast doubt on the authenticity and significance of Vyse’s ‘discovery’.[202]

Strangely, however, his other ‘discovery’, which Egyptologists today unhesitatingly write off as a forgery, gives every indication of being genuine—and highly significant. This was the discovery of a flat iron plate embedded in the masonry of the Pyramid’s southern face.

The iron plate affair

As we have seen, the two main chambers in the superstructure of the Great Pyramid—the King's Chamber and the Queen's Chamber—are each equipped with two long, narrow shafts which bore deep into the solid masonry, one directed northward and the other to the south. Those emanating from the King's Chamber cut right through to the outside. Those emanating from the Queen's Chamber stop somewhere within the core of the monument.

The existence of the King's Chamber shafts was first recorded by Dr. John Greaves, a British astronomer, in 1636. It was not until 1837, however, that they were investigated thoroughly—by Colonel Howard Vyse with the assistance of two civil engineers, John Perring and James Mash. Another member of Vyse's team was Mr. J. R. Hill, an obscure Englishman living in Cairo, who in May of 1837 was put in charge of clearing the mouth of the southern shaft (which emerges at the 102nd course of masonry on the south face of

the Pyramid). In accord with Vyse's methods elsewhere, Hill was instructed to use explosives and was thus responsible for the ugly vertical scar which may be seen to this day running up the centre of the south side of the Great Pyramid.

On Friday, 26 May 1837, after a couple of days of blasting and clearing, Hill discovered the flat iron plate mentioned above. Vyse was soon afterwards to trumpet it in his monumental opus, *Operations Carried on at the Pyramids of Gizeh* as 'the oldest piece of wrought iron known',[203] but Hill at the time was content to write up the discovery in the proper, sober manner:

> This is to certify that the piece of iron found by me near the mouth of the air-passage [shaft], in the southern side of the Great Pyramid at Gizeh, on Friday, May 20th, was taken out by me from an inner joint, after having removed by blasting the two outer tiers of the stones of the present surface of the Pyramid; and that no joint or opening of any sort was connected with the above mentioned joint, by which the iron could have been placed in it after the original building of the Pyramid. I also shewed the exact spot to Mr. Perring, on Saturday, June 24th.[204]

John Perring, a civil engineer, thus examined the exact spot of

the find. With him was James Mash, also a civil engineer, and both were 'of the opinion that the iron must have been left in the joint during the building of the Pyramid, and that it could not have been inserted afterwards'.[205] Ultimately Vyse sent the mysterious artefact, together with the certifications of Hill, Perring and Mash, to the British Museum. There, from the outset, the general feeling was that it could not be a genuine piece, because wrought iron was unknown in the Pyramid Age, and that it must therefore have been 'introduced' in much more recent times.

In 1881 the plate was re-examined by Sir W. M. Flinders Petrie who found it difficult, for a variety of cogent reasons, to agree with this analysis:

> Though some doubt has been thrown on the piece, merely from its rarity, [he noted] yet the vouchers for it are very precise; and it has a cast of a nummulite [fossilized marine protozoa] on the rust of it, proving it to have been buried for ages beside a block of nummulitic limestone, and therefore to be certainly ancient. No reasonable doubt can therefore exist about its being a really genuine piece ...[206]

Despite this forceful opinion from one of the oddball giants of

Egyptology in the late Victorian Age, the profession as a whole has been unable to cope with the idea of a piece of wrought iron being contemporary with the Great Pyramid. Such a notion goes completely against the grain of every preconception that Egyptologists internalize throughout their careers concerning the ways in which civilizations evolve and develop.

Scientific analysis

Because of these preoccupations, no further investigations of any significance were undertaken into the iron plate for another 108 years and it was not until 1989 that a fragment from it was at last subjected to rigorous optical and chemical tests. The scientists responsible for the work were Dr. M. P. Jones, Senior Tutor in the Mineral Resources Engineering Department at Imperial College, London, and his colleague Dr. Sayed El Gayer, a lecturer in the Faculty of Petroleum and Mining at Egypt's Suez University, who

gained his Ph.D. in extraction metallurgy at the University of Aston in Birmingham.[207]

They began their study by checking on the nickel content of the iron plate. Their reason for doing this was to exclude the faint possibility that it might have been manufactured from meteoritic iron (i.e. iron from fallen meteorites—a material that is known, very rarely, to have been used during the Pyramid Age). Ready-made meteoritic iron of this sort, however, is always extremely easy to identify because it invariably contains a significant proportion of nickel—typically seven per cent or more.[208] On the basis of their first test Jones and El Gayer noted: 'The iron plate from Giza is clearly not of meteoritic origin, since it contains only a trace of nickel.' The metal, therefore, was man-made. But how had it been made?

Further tests proved that it had been smelted at a temperature between 1000 and 1100 degrees centigrade. These tests also picked up the odd fact that there were 'traces of gold on one face of the

iron plate'.[209] Perhaps, Jones and El Gayer speculated, it might originally have been 'gold-plated, and this gold may be an indication that this artefact ... was held in great esteem when it was produced'.[210]

Finally, when was it produced?

After completing an extremely careful and detailed study, the two metallurgists reported as follows: 'It is concluded, on the basis of the present investigation, that the iron plate is very ancient. Furthermore, the metallurgical evidence supports the archaeological evidence which suggests that the plate was incorporated within the Pyramid at the time that structure was being built.'[211]

When Jones and El Gayer submitted their findings to the British Museum, they were in for quite a surprise. Instead of being excited, officials fobbed them off: 'The structure of the iron plate is unusual,' conceded Paul Craddock and Janet Lang. 'We are not sure of the significance or origin of this structure but it is not necessarily indicative of great age.'[212]

The British Museum's view

Because the iron plate appeared to have been removed originally from within or near the mouth of the King's Chamber's 'Orion' shaft it was of great interest to us. We decided to take a look at it. Through Dr. A. J. Spencer, Assistant Curator of the Egyptian Antiquities Department at the British Museum, we arranged a viewing on 7 November 1993. We were permitted to handle the plate and were intrigued by its unusual weight and texture. We could also hardly fail to notice that under its surface patina the internal metal possessed a brilliant shine—which was revealed at the point where the fragment had been cleanly sliced off for El Gayer's and Jones's analysis. Dr. Spencer repeated the British Museum's official line—that the plate was not old but had been introduced, probably deliberately, in Vyse's time—and that El Gayer and Jones's conclusions were 'highly dubious'.[213]

How and why could the conclusions of such eminent metallurgists

be deemed ‘highly dubious’, we asked?

Dr. Spencer had no answer and Dr. Craddock, whom we spoke to on the phone, did not wish to elaborate.

A few days later we called Dr. M. P. Jones and heard from him how he and Dr. El Gayer had examined the plate in the laboratories at Imperial College London in 1989. Dr. Jones is now retired and lives in Wales. When we asked him what he thought of the British Museum’s view of his conclusions he was, understandably, rather irritated. He insisted that the iron plate was ‘very old’ and, like us, he felt—since there were two opposing views—that the best way to resolve this matter would be further testing in an independent laboratory.

After all, the implications of man-made iron in 2500 bc are tremendous. And this isn’t just a matter of redating the so-called Iron Age. Perhaps in a way more intriguing are the questions raised as to the *function* that an iron plate might have had, inside the southern shaft of the main chamber in the Great Pyramid, many

thousands of years ago. Could there be a relationship between this plate and the stone portcullis door with copper ‘handles’ that Rudolf Gantenbrink had so recently discovered at the end of the southern shaft of the Queen’s Chamber—a shaft directed to ‘Sirius-Isis’, the consort of ‘Orion-Osiris’?

In their 1989 report, El Gayer and Jones noted that the plate was probably a fragment coming from a larger piece which might originally have composed a square plate that would have fitted, like a sort of ‘gate’, neatly over the mouth of the shaft.

Stargate

In later chapters we will make detailed reference to the so-called ‘Pyramid Texts’ of ancient Egypt. These texts take the form of extensive funerary and rebirth inscriptions carved on the tomb walls of certain Fifth—and Sixth-Dynasty pyramids at Saqqara, about ten miles south of Giza. Egyptologists agree that much if not all of the

content of the inscriptions predates the Pyramid Age.[214] It is thus unsettling to discover in these ancient scriptures, supposedly the work of neolithic farmers who had hardly even begun to master copper, that there are abundant references to iron.

The name given to it is *B'ja*—'the divine metal'—and we always encounter it in distinctive contexts related in one way or another to astronomy, to the stars and to the gods.[215] For example *B'ja* is frequently mentioned in the texts in connection with the 'four sons of Horus'—presumably related in some way to strange beings called the *Shemsu Hor,* the 'Followers of Horus' and 'Transfigured Ones', whom we shall also be discussing in later chapters. At any rate, these very mysterious 'sons of Horus' seem to have been made of iron or to have had iron fingers: 'Your children's children together have raised you up, namely [the four sons of Horus] ... your mouth is split open with their iron fingers ...'[216]

Iron is also mentioned in the texts as being necessary for the construction of a bizarre instrument called a *Meshtyw.* Very much

resembling a carpenter's adze or cutting tool, this was a ceremonial device which was used to 'strike open the mouth' of the deceased Pharaoh's mummified and embalmed corpse—an indispensable ritual if the Pharaoh's soul were to be re-awakened to eternal life amidst the cycles of the stars.

In the Pyramid Texts we thus find a high priest making this cryptic statement:

> Your mouth is in good order for I split open your mouth for you ... O king, I open your mouth for you with the adze of iron of *Upuaut,* I split open your mouth for you with the adze of iron which split open the mouths of the gods ... Horus has split open the mouth of this king with that wherewith he split open the mouth of his father, with that wherewith he split open the mouth of Osiris ...[217]

From such utterances, and many more like them, it is clear that iron was somehow seen by the composers of the Pyramid Texts as being imperative in the rituals aimed at ensuring new life—cosmic and stellar life—to the dead king. More importantly the above verse also connects the metal and its uses to the ancient prototype of all such rituals by means of which Osiris himself, Egypt's 'Once and

Future King', died and was then restored to immortal life as Lord of the sky-region of Orion. This region, as we shall see in Part III, was known as the *Duat*. In it all the Pharaohs of Egypt hoped that they would reside eternally after their own deaths:

The gate of the earth is open for you ... may a stairway to the *Duat* be set up for you to the place where Orion is ...[218]

O king ... the sky conceives you with Orion ... the sky has borne you with Orion ... [219]

O king, be a soul like a living star ...[220]

The gate of the earth-god is open ... may you remove yourself to the sky and sit upon your iron throne ...[221]

The aperture of the sky window is opened for you ...[222]

The doors of iron which are in the starry sky are thrown open for me, and I go through them ...[223]

What seems to be envisaged here, taken literally and reduced to the basic common denominators running through all the above

utterances, appears to be nothing less than an iron ‘stargate’ intended to admit Osiris, and all the dynasties of dead kings after him, into the celestial realms of the belt of Orion. But if the Pyramid Texts are describing a stargate then they are also describing a timegate—for they express no doubt that by passing through the iron-doored portals of the sky the soul of the deceased will attain a life of millions of years, navigating eternity in the vessels of the gods. Naturally, therefore, by virtue of its original position at or near the end of the southern shaft of the King’s Chamber, we are tempted to wonder whether the neglected iron plate in the British Museum might have been connected with such amazingly sophisticated concepts and beliefs about immortality and about the ability of ‘the equipped spirit’ to gain a complete mastery over death and time.

We wonder, too, what might have been the function of other mysterious objects that were discovered in the shafts of the Queen’s Chamber when these were first opened in 1872 by Waynman

Dixon, an enterprising engineer from Newcastle-upon-Tyne.

Unknown dark distance

Unlike the King's Chamber shafts, those in the Queen's Chamber (a) do not exit on the outside of the monument and (b) were not originally cut through the chamber's limestone walls. Instead the builders left the last five inches intact in the last block over the mouth of each of the shafts—thus rendering them invisible and inaccessible to any casual intruder.

The reader will recall the mention of Charles Piazzi Smyth and his prophetic theories about the Great Pyramid at the start of this chapter. In the early 1860s, when he was formulating these theories, he befriended a certain William Petrie, an engineer, whose son, W. M. Flinders Petrie, was later to be universally acclaimed as the founder of the academic discipline of Egyptology.[224]

William Petrie was amongst the first 'Pyramidologists' of the

Victorian Age to give strong support to Piazzi Smyth's notion that the Great Pyramid might be some sort of prophetic monument to Mankind encoding a Messianic blueprint designed to serve as an advance-warning mechanism for the 'Second Coming' of Christ.[225] 'There had been a time', wrote Professor Hermann Bruck and Dr. Mary Bruck in their authoritative biography of the Astronomer Royal, 'when Flinders Petrie and his father had wholeheartedly concurred with most of Piazzi Smyth's ideas.'[226] Indeed as these two eminent astronomers and authors point out, the young Flinders Petrie set out to Egypt in 1880 on his famous study of the Great Pyramid precisely because he wanted to 'continue Piazzi Smyth's work'.[227]

Returning now to the shafts in the Queen's Chamber, we were interested to learn that their discoverer, the engineer Waynman Dixon—together with his brother John—had also maintained very close ties with Piazzi Smyth. Indeed, it had been through the Astronomer Royal's direct influence that the Dixons were able to

explore the Great Pyramid in 1872 and discover the previously concealed entrances to the northern and southern star-shafts in the Queen's Chamber.[228]

Waynman Dixon's curiosity had been aroused by the shafts in the King's Chamber which provoked him to look for similar features in the Queen's Chamber. This search, which took place some time early in 1872, was undertaken with the full knowledge of Piazzi Smyth, who later described the whole matter in his book. The story goes that after noticing a crack in the southern wall of the Queen's Chamber—roughly where he thought that he might find shafts—Waynman Dixon set his 'carpenter and man-of-all-work', a certain Bill Grundy 'to jump a hole with a hammer and steel chisel at that place. So to work the faithful fellow went, and with a will which soon began to make a way into the soft stone at this point when lo! after a comparatively very few strokes, flop went the chisel right through into something or other.'[229]

The 'something or other' Bill Grundy's chisel had reached turned

out to be ‘a rectangular, horizontal, tubular channel, about 9 inches by 8 inches in transverse breadth and height, going back 7 feet into the wall, and then rising at an angle into an unknown dark distance ...’[230]

This was the southern shaft.

Next, measuring off a similar position on the north wall, Waynman Dixon ‘set the invaluable Bill Grundy to work there with his hammer and steel chisel; and again, after a very little labour, flop went the said chisel through into somewhere; which somewhere was presently found to be a horizontal pipe or channel of transverse proportions like the other, and, at a distance within the masonry of 7 feet, rising at a similar angle, but in the opposite direction, and trending indefinitely far ...’[231]

Together with his brother John, Waynman Dixon made efforts to probe both the northern and southern shafts—using a jointed rod, something like a chimney-sweep’s rod, for this purpose.[232] Late-nineteenth-century technology was not up to the job and a segment

of the rod became wedged in the northern shaft, where it still remains.[233] Before this happened, however, the Dixons found three small relics in the shafts.

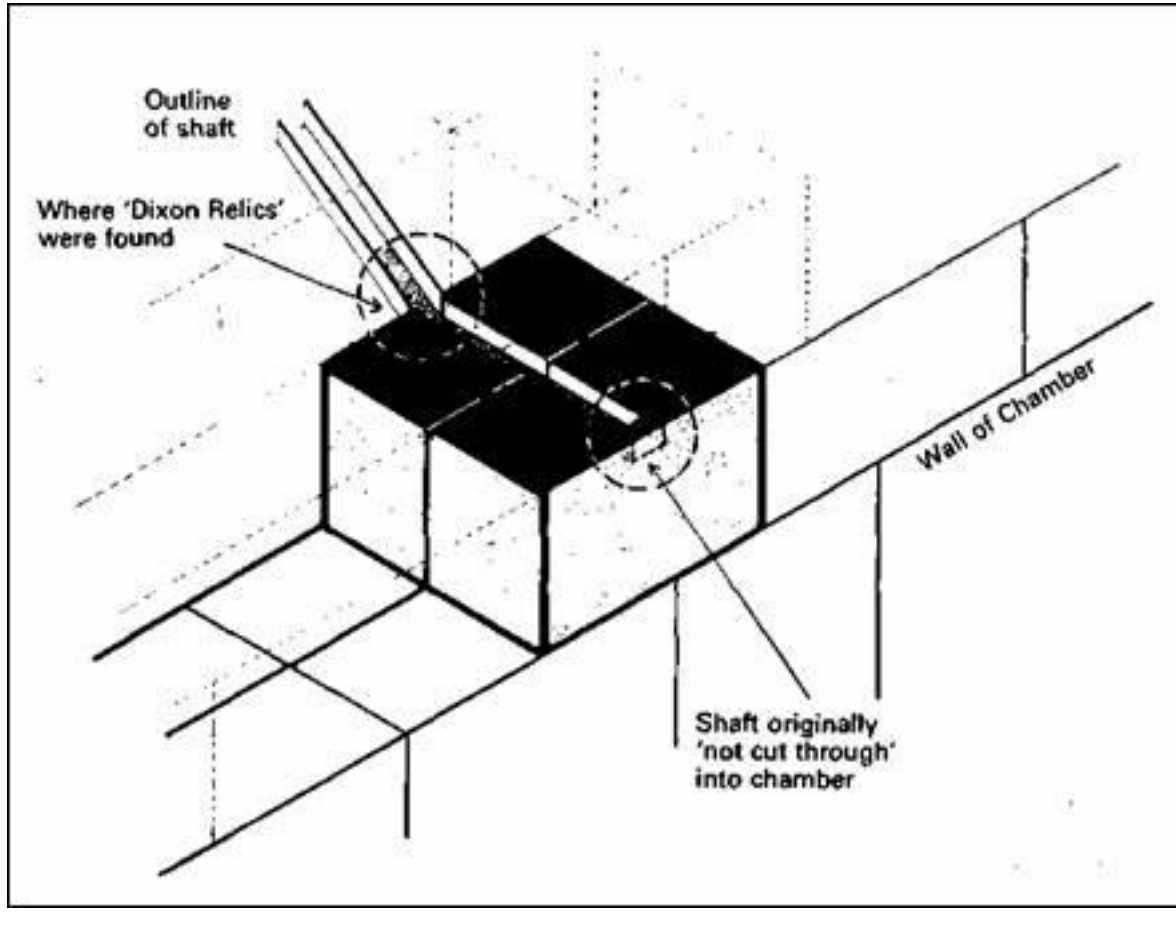

33. Detail of Queen's Chamber shaft.

These objects—a rough stone sphere, a small two-pronged hook

made out of some form of metal, and a fine piece of cedar wood some 12 centimetres long with strange notches cut into it[234]—were exported from Egypt in the summer of 1872 and arrived safely in England a few weeks later.[235] During the next year or so they were commented upon in books, and even illustrated in scientific and popular magazines such as *Nature* and the *London Graphic*.[236] Before the turn of the century, however, they had disappeared.[237]

Links

A curious series of links exists involving all of the following:

- the discovery of the Queen's Chamber shafts with their constituent relics;
- the formation of the Egyptian Exploration Society (the EES, British Egyptology's most prestigious organization);

- the foundation, at University College, London, of Egyptology's most prestigious Chair;
- British Freemasonry.

In 1872, whilst the Dixon brothers were exploring the Great Pyramid, a well-known Freemason and parliamentarian, Sir James Alexander, proposed a motion to bring to Britain the incorrectly named 'Cleopatra's Needle'—a 200-ton obelisk of Pharaoh Thutmosis III which had originally been erected some 3500 years ago in the sacred city of Heliopolis.[238] Funding for the project came from the personal fortune of another Freemason, the eminent British dermatologist, Sir Erasmus Wilson,[239] and Sir James Alexander recommended that the civil engineer John Dixon—also a Freemason—should be engaged to collect the obelisk from Egypt. On this basis Sir Erasmus Wilson promptly recruited John Dixon—and also his brother, Waynman, who was then living in Egypt.[240]

A few years later the same Erasmus Wilson was responsible for

the creation of the Egyptian Exploration Society (the EES) and served as its first president.[241] Then in 1883, Wilson and the Victorian author Amelia Edwards co-founded the important Chair in Egyptology at University College London—and it was through Wilson's personal recommendation that the young Flinders Petrie became the first scholar to occupy it.[242]

Perhaps all such connections are nothing more than quaint coincidences. If so, then it is probably also a coincidence that in the seventeenth century the founder of the Ashmolean Museum in Oxford, one of the most prestigious of today's Egyptological research centres (which holds the coveted 'Petrie Chair'), was none other than Elias Ashmole—the first man ever, according to Masonic historians, to be openly initiated on British soil into the hitherto secret society of Freemasonry.[243]

We have no evidence that the Brotherhood is still a significant influence in Egyptology today. Our researches into the pedigree of this insular discipline, however, did, in a rather oblique way, lead to

the rediscovery of two of the three missing ‘Dixon’ relics.

The British Museum and the missing cigar box

These three items are the *only relics ever to have been found inside the Great Pyramid.* Moreover the *place* in which they were found, i.e. the star-shafts of the Queen’s Chamber, links them directly to one of the key aspects of our own research. In the summer of 1993, therefore, 121 years after they had been discovered, we resolved to try to find out what had happened to them.

Going back through press reports, and the private diaries of the figures involved, we found out that John and Waynman Dixon had brought the relics to England in a cigar box. We also learned, as noted earlier, that the Dixons had been involved in bringing to England Cleopatra’s Needle. The obelisk was erected on the Thames Embankment, where it stands to this day. John Dixon was

at the inauguration ceremony and was on record as having buried ‘a large cigar box, contents unknown’ beneath the pedestal of the monument.[244]

The logic looked persuasive. John Dixon brought the relics to England in a cigar box. John Dixon brought Cleopatra’s Needle to England. And John Dixon buried a cigar box beneath Cleopatra’s Needle. Around that time the relics disappeared. The strong Masonic link in this affair called to mind a well-known practice in operative and speculative Freemasonry which involves certain rituals when placing the corner-stones of Masonic monuments and edifices. This practice suggested the possibility that the relics from the Great Pyramid could have been hidden under Cleopatra’s Needle along with the other Masonic paraphernalia and memorabilia known to have been installed there.[245]

At any rate, the relics did genuinely seem to have disappeared and the experts whom we consulted at the British Museum said they had no idea where they could have gone to. We also consulted Professor

I. E. S. Edwards, the Museum's former Keeper of Egyptian Antiquities (1954-74) and a former vice-president of the EES. Edwards is Britain's foremost authority on Giza and the author of a definitive text, *The Pyramids of Egypt,* first published in 1946 and reprinted virtually every year since then. In all editions of this book we found that he had mentioned Waynman Dixon and reported how the shafts in the Queen's Chamber were discovered, but had made absolutely no reference to the relics. This, he told us, was because he had no recollection of them and therefore, of course, no idea concerning what their ultimate fate might have been.

Like ourselves, however, Professor Edwards knew of the link between Flinders Petrie, Piazzi Smyth and the Dixons, and knew that Petrie's exploration of the Great Pyramid had immediately followed that of the Dixons.

Oddly enough, Petrie, too, makes no mention of the relics in his own famous book *Pyramids and Temples of Gizeh*—though he does speak of the Dixons and the shafts. But could he have referred to

them elsewhere in his voluminous publications? Edwards suggested that we ask Petrie's biographer, the Egyptologist Mrs. Margaret Hackford-Jones, to research the matter in Petrie's diaries and private papers. If he had made any mention of the Dixon relics then she would definitely be able to find it. But a thorough search by Mrs. Hackford-Jones brought no results.[246]

In the absence of viable alternatives, therefore, we wondered whether it might not be worth looking to see whether the three curious objects might not still be in Dixon's cigar box underneath Cleopatra's Needle.

The story was picked up by the *Independent,* a British national newspaper, on 6 December 1993. Interviewed in the report, Professor Edwards stated categorically that neither he nor anyone else he knew had heard of these relics before.[247] We were therefore taken by surprise on 13 December 1993—only a week after the article containing Edwards's quote was published—when Dr. Vivian Davies, the Keeper of Egyptian Antiquities at the British

Museum, casually announced in a letter to the *Independent* that the relics, still in the cigar box, were in his Department's keep.[248]

So why had his Department not admitted to having them before?

'I think there has been a lot of misunderstanding about this whole business,' soothed a Museum PR spokesman a few days later. 'We didn't say we did not have them, we said we were not aware of having them.'[249]

After doing some more digging we discovered what had happened. The relics (or rather two of them because the only carbon-datable item, the piece of wood, was missing) had not been placed under Cleopatra's Needle as we had at first conjectured. Instead they had remained in the hands of the Dixon family for exactly a hundred years. Then, in 1972, Dixon's great-granddaughter had taken them along to the British Museum and had generously donated them to the Egyptian Antiquities Department. Their receipt was recorded in the meticulous hand of the Keeper himself—Dr. I. E. S. Edwards.[250] Thereafter the relics seemed

simply to have been forgotten and only resurfaced in December 1993 because an Egyptologist named Dr. Peter Shore happened to read the *Independent's* story about our search for them. Now retired in Liverpool, Shore had been Edwards's assistant in 1972. He remembered the arrival of the relics at the British Museum and now promptly notified the relevant authorities that they had a potentially embarrassing incident on their hands.

We naturally wondered how it was possible that mysterious relics recovered from unexplored shafts inside the Great Pyramid of Egypt could have been treated with such indifference by professional Egyptologists. To be completely honest we found it very difficult to accept that they really could just have been forgotten for twenty-one years by the British Museum's Egyptian Antiquities Department. What we could not understand at all, however, was how they could have stayed forgotten during most of 1993 after a robot had explored the very same shafts and found a much publicized closed 'door' deep within one of them. Indeed more than two weeks before

the article in the *Independent* came out, Rudolf Gantenbrink, the discoverer of the ‘door’, had visited London and given a full lecture at the British Museum to a large group of Egyptologists—including Professor Edwards, Dr. Vivian Davies and many others who knew of our search for the ‘Dixon’ relics. During the lecture, Gantenbrink showed and explained detailed video footage, taken by his robot, of the interior of the Queen’s Chamber shafts—i.e. the shafts in which the relics had been found. As well as the ‘door’ at the end of the southern shaft, the footage also clearly showed, still lying on the floor of the *northern* shaft, but at higher levels than the Dixons had been able to reach, at least two distinct objects—a metallic hook, and an apparent baton of wood.[251]

In the next chapter we shall take a look at Gantenbrink’s exploration, and at the events that led up to and followed it.

Chapter 7

The Case of the Robot, the Germans and the Door

'*Upuaut,* a wolf deity ... He was chiefly revered for his role as Opener of the Ways to the Underworld, showing the dead souls the path through that dark realm ...'

Veronica Ions, *Egyptian Mythology,* 1982

The introduction of a robot-camera into the narrow mouth of the southern shaft of the Queen's Chamber in March 1993, and the subsequent spectacular discovery of a closed portcullis 'door' 200 feet along that shaft, are not events that occurred in a vacuum. On the contrary, although mainstream Egyptologists profess little interest in the Queen's Chamber (which they generally regard as an 'unfinished', 'abandoned' and unimportant feature of the Great Pyramid), quite a lot of activity had taken place around it during the

previous decade.

In 1986, for example, two French architects, Gilles Dormion and Jean-Patrice Goidin, somehow managed to obtain a scientific licence to conduct a spectacular exploration inside the Great Pyramid. Dormion and Goidin had persuaded certain senior officials at the Egyptian Antiquities Organization that a 'hidden chamber' could lie behind the west wall of the horizontal corridor leading to the Queen's Chamber. In a rare move, the EAO gave permission for the drilling of a series of small holes to test the theory. Apparently some evidence was found of a large 'cavity' which was filled with unusually fine sand—nothing more—but this was enough to send the world media into a frenzy and to turn Dormion and Goidin into hot media properties for a while. Egyptologists fumed on the quiet. The project was eventually stopped and Dormion and Goidin were never to resume their work in the Great Pyramid.[252]

The same thing happened again in 1988 when a Japanese scientific team from Waseda University took up the challenge. They

were led by Professor Sakuji Yoshimura. This time the Japanese used ‘non-destructive techniques’ based on a high-tech system of electromagnetic waves and radar equipment. They, too, detected the existence of a ‘cavity’ off the Queen’s Chamber passageway, some three metres under the floor and, as it turned out, very close to where the French had drilled. They also detected a large cavity behind the north-west wall of the Queen’s Chamber itself, and a ‘tunnel’ outside and to the south of the Pyramid which appeared to run underneath the monument. Before any further exploration or drilling could be done, the Egyptian authorities intervened and halted the project. Yoshimura and his team were never to return to complete their work in the Queen’s Chamber.[253]

It seems odd, despite all the buzz concerning hidden chambers in the vicinity of the Queen’s Chamber, that nobody should have taken a closer look into the Queen’s Chamber’s mysterious and hitherto unexplored shafts. Disappearing as they do, one northwards and the other southwards, into the bowels of the monument, one would have

thought that somebody would have had the gumption to investigate them (using video-camera reconnaissance instead of all these unsatisfactory and inconclusive drillings and radar scanning probes). Indeed, as we have argued elsewhere, there is much about their construction and design that could almost have been deliberately contrived to stimulate and invite such investigations. [254] Throughout the 1980s, however, the consensus of senior Egyptologists was that the shafts, like the Queen's Chamber itself, were 'abandoned' features of the Great Pyramid. No doubt it was the power of this consensus, and the built-in reluctance to challenge it, that discouraged individual Egyptologists from interesting themselves in the shafts. After all, what would be the point of exploring obscure parts of the Pyramid that everyone knew had been 'abandoned' during construction.

As a non-Egyptologist, the German robotics engineer Rudolf Gantenbrink did not suffer from such inhibitions. Early in 1991 he submitted a proposal for the videoscopic examination of the shafts

to the German Archaeological Institute in Cairo.

Planning an adventure

Gantenbrink's story, as he reported it to us in many hours of documented conversations, goes back to August 1990 when the Egyptian Antiquities Organization commissioned the German Archaeological Institute in Cairo to install a ventilation system inside the Great Pyramid. This project would mainly involve the 'cleaning' of the two shafts of the King's Chamber which (unlike those in the Queen's Chamber) emerge on the outside faces of the pyramid and thus could be of some conceivable use for ventilation. After cleaning, powerful electric fans would be installed in their mouths to boost the natural air-flow through them.

A few months after accepting the EAO's commission for the ventilation project Rainer Stadelmann, the Director of the German Archaeological Institute, received Rudolf Gantenbrink's proposal

for the exploration of the Queen's Chamber shafts using a high-tech miniature robot. This proposal, a copy of which Gantenbrink has kindly supplied to us, is entitled *Videoscopische Untersuchung der sog. Luftkanale der Cheopspyramide* (Videoscopic Investigation of the so-called Air Shafts in the Pyramid of Cheops).[255]

The proposal outlines Gantenbrink's plans to build a special robot equipped with two powerful lamps and a 'CCD Farbvideokamera' with a special fixed-focus lens giving a full go-degrees angle of vision. The specifications of the robot would include a powerful electric motor in order for it to be able to tackle the steep slopes of the shafts. The video camera and the motor would be controlled from a console and monitor unit stationed inside the chamber and linked to the robot by electric cables. Caterpillar tracks would be fixed above and below the robot's chassis and adjusted with two sets of powerful hydrolic-suspension units in order to ensure a good grip on the ceiling and floor of the shafts.

There is nothing in the *Videoscopische* study about ventilation.

What it describes is unambiguously an exploration into the uncharted regions of the Great Pyramid, an adventure in the Queen's Chamber shafts—a 'robot's journey into the past'.[256] Nevertheless the next move was logical enough: Stadelmann passed over the EAO's 'ventilation' scheme to Rudolf Gantenbrink.

Nor did Gantenbrink object. He had intended, in any case, to examine the King's Chamber shafts at some point during his project and saw no difficulty in fitting these shafts with the electric fans called for by the ventilation scheme. Indeed the idea of getting involved in ventilating the Pyramid as well as exploring it rather appealed to him since it added a 'conservation and restoration' element to his work.

Diversion and delay

As planned, however, Gantenbrink began with the exploration of the Queen's Chamber shafts. Assigned by the German

Archaeological Institute to assist Gantenbrink, and to serve as the Institute's official representative on site, was Uli Kapp (who, coincidentally, had also assisted Mark Lehner on the ARCE Sphinx Project in 1979-80).[257] The start date was February 1992 and the decision was made to tackle the southern shaft first[258]—the very shaft in which, in March 1993, the 'door' would be discovered.

The initial exploration of the shaft was not as simple as Gantenbrink had supposed. He had to adapt to the rather oppressive conditions within the Queen's Chamber and found that manoeuvring the sturdy little robot inside the confined space of the narrow and steeply sloping shaft was difficult and extremely slow work. By mid-May 1992, however, he had made considerable progress, penetrating to a depth of 70 feet. Furthermore, as he peered curiously into his monitor screen, he could see the shaft disappearing into the deep, dark distance beyond. Where did it lead to? Was it really 'abandoned' as the majority of Egyptologists maintained,[259] or did it serve some yet unknown and greater

function? Hitherto Egyptologists had theorized that this shaft would not be more than 30 feet long but now Gantenbrink had proved them wrong. What could possibly lie ahead?

The desire to continue was irresistible. But at this nail-biting stage he was called to attend to the secondary ingredient of his project—the 'ventilation' of the Great Pyramid using the shafts of the King's Chamber.

Since these extend from the Chamber's northern and southern walls right through to the outside of the Pyramid, Gantenbrink was able to investigate them with a much simpler device than that required for the Queen's Chamber shafts. This device he named *Upuaut I.* Resembling a crude, miniature sledge, and mounted with a video camera, it could be hauled up and down the shafts by means of cables with pulleys at both ends.

Upuaut I could only look at the King's Chamber shafts—where it found little of interest. The cleaning job was done in a quainter manner. Gantenbrink made use of an old axle from the wreck of an

abandoned truck in the nearby village of Nazlet-el-Sammam, which he attached to a cable and yanked up and down the shafts to push out the debris and sand that had piled up inside them. This done he arranged for sponsors to supply and install electric fans and then informed the German Archaeological Institute that he would now prepare for the continuation of his exploration of the much more promising and mysterious 'blind-ended' shafts of the Queen's Chamber.

Upuant II

Gantenbrink enthusiastically proposed to Stadelmann that he would develop an even more powerful robot, to be named *Upuaut II,* in order to launch the final assault on the cramped and inaccessible shafts. This new machine would be specially designed to overcome the difficulties encountered by its predecessor (the prototype robot, used in early 1992, now discarded and jocularly

named ‘the father of *Upuaut*’) in the first attempt to explore these shafts. *Upuaut II*, Gantenbrink had decided, would be smaller, smarter, and much stronger. He opted to design it from scratch and to this end brought together a team of engineering and electronic experts, mostly volunteers, in a special laboratory in Munich. What they were to come up with during the course of the next year was a marvel of the space age. The body of the robot was made of a particularly light but robust aluminum used in aircraft components. A sophisticated laser was included which could probe any small and inaccessible regions within the shaft. Hundreds of electronic components were used to form the electronic ‘brain’ and guidance system of the robot. Specially designed motors and gears were fitted to the front and rear of the main body, and steel struts were added for extra stability. Even hydraulic high-pressure pistons were included, capable of generating a thrust of 200 kilograms to ensure that the robot could brace itself tightly within the shaft. A new camera unit was also designed that could swivel not only

horizontally but also vertically to catch every conceivable angle of view. Two powerful high-intensity bulbs, fitted on each side of the camera, would illuminate the way ahead. Finally a special eight-wheel drive system—four gripping the floor and four gripping the roof of the shaft—would ensure that the robot could reach its final destination.

Problems with permits

During the latter part of 1992 and the early part of 1993, while *Upuaut II* was being designed and built in Munich, Rudolf Gantenbrink arranged for a television crew to come with him to Egypt to film his forthcoming exploration of the Queen's Chamber shafts. When he and the crew (including the film-maker Jochen Breitenstein and an assistant, Dirk Brakebusch) arrived in Cairo on 6 March 1993, however, the exploration and filming were delayed by something that at first appeared to be only a minor administrative

problem: the German Archaeological Institute had not yet obtained the necessary filming permits from the Egyptian Antiquities Organization. When no permits were forthcoming, Gantenbrink reports that first Dr. Stadelmann and then he himself approached Zahi Hawass, the EAO's Director-General of the Giza Pyramids, who granted 'verbal permission' for the filming to go ahead.[260]

Accordingly, the exploration began.

Discovery

Mid-March 1993 was a crucial period for Rudolf Gantenbrink in his work inside the Great Pyramid—all the more crucial because: (a) the whole operation had cost him a great deal of money (including $250,000 in research-and-development costs for the robot alone); (b) it was being filmed at personal expense for a commercial documentary and (c) a deadline for the completion of the film had been set for the last week of March.

It was at around this time, says Gantenbrink, that Stadelmann recalled Uli Kapp and withdrew the official support that the German Archaeological Institute had previously accorded to the exploration of the shafts.

Perhaps other men would have stopped and gone meekly home at this point. Gantenbrink is far from meek. Feeling that he was on the verge of a breakthrough, he decided that he was going to forge on—with or without Stadelmann's support.

The crucial figure was now Zahi Hawass, whose personal authority on the site provided the whole 'official' sanction and backing for Gantenbrink's work. However, Hawass's undocumented 'verbal permission' actually counted for a great deal on the Giza plateau. Indeed it was as good as a signed and sealed mandate to the lowly *ghafirs* guarding the entrance to the Great Pyramid and was taken at face value not only by Gantenbrink and his team but also by a young inspector from the EAO, Muhammad Shahy, who had been assigned to work with the Germans.[261]

So Gantenbrink reasoned that he would still be able to go in and out and work undisturbed in the Queen's Chamber. This he successfully did, making rapid progress with the robot in the exploration of both the northern and the southern shafts.

Early on the morning of 21 March 1993, just before starting the day's work as usual, he paid a visit to Zahi Hawass at his office on the Giza plateau. There, to his consternation, he learned that the Director of the Giza Pyramids had been suspended from his post on account of an unrelated scandal concerning a missing Fourth-Dynasty statue.[262] (Hawass was not to be reinstated as Director of the Giza Pyramids until April 1994.)

This unexpected turn of events could not have come at a more vital moment—for by 21 March 1993 *Upuaut II* was deep inside the southern shaft of the Queen's Chamber and was, in Gantenbrink's opinion, very close to whatever lay at the end. The exploration, however, was to go on. Destiny had fixed an amazing rendezvous for Gantenbrink on the next day, 22 March, coincidentally the

spring equinox.

With him in the Queen's Chamber on that fateful day were Jochen Breitenstein, Dirk Brakebusch and Muhammad Shahy.[263] By 10 a.m. Gantenbrink had managed to manoeuvre *Upuaut II* a distance of 170 feet up the shaft. At about 180 feet a sharp settlement in the floor of the shaft created a dangerous obstacle that threatened to halt progress but that was eventually surmounted. Then, barely an hour later, at 11:05 a.m., after crawling a total distance of 200 feet into the shaft, the floor and walls became smooth and polished and the robot suddenly—and one might almost say 'in the nick of time'—reached the end of its journey.

As the first images of the 'door' with its peculiar metal fittings appeared on the small television monitor in the Queen's Chamber, Rudolf Gantenbrink immediately realised the massive implications of his find. This was archaeological history in the making[264]—an exciting and significant new discovery inside the world's most famous and most mysterious ancient monument. And it was

interesting to note that under the lower western corner of the ‘door’ there was a little gap beneath which the red laser spot projected by *Upuaut* was seen to disappear. The urge to look under the ‘door’ and see whatever might lie beyond it must have been almost unbearable. The gap, however, was far too small for *Upuaut’s* camera to be able to peer into. A fibre-optic lens would need to be added if that was to be done, but rigging it would take days, perhaps even weeks, to organize.

After the initial excitement had died down, Gantenbrink’s first instinct was to make doubly certain that the unique video images that he had been looking at on the screen had been properly recorded. Once he was satisfied that the recordings were excellent, he and his team packed the tapes, together with the rest of their gear, and returned to their base at the Movenpick Hotel.

For several days after 22 March nothing happened, with no official announcement of any kind being made to the press by the German Archaeological Institute. The reason, it seems, was that Dr.

Stadelmann could not make up his mind as to what form, exactly, such an announcement should take. During this hiatus, Gantenbrink and the film crew decided to return to Munich. They naturally took along all their equipment, including the twenty-eight videotapes shot during the exploration. A few days later, at the beginning of April 1993, Gantenbrink sent us a copy of the tape showing the discovery of the 'door'.

We passed this tape on to the British media.

Much ado, then nothing

The first major story appeared on the front page of the London *Independent* on 16 April 1993:

> Archaeologists have discovered the entrance to a previously unknown chamber within the largest of Egypt's Pyramids. Some evidence suggests it might contain the royal treasures of the Pharaoh Cheops [Khufu], for whom the Great Pyramid was built 4500 years ago. The contents of the chamber are almost certainly intact. The entrance is at the end of a sloping passage 65 metres long but only eight inches (20 cm.) wide and eight

inches high ... According to the Belgian Egyptologist Robert Bauval, the passage points directly at the Dog star Sirius, held by the ancient Egyptians to be the incarnation of the goddess Isis. Other small passages in the Pyramid appear to point to other heavenly bodies —the Belt of Orion and the star Alpha Draconis, which at the time was in the area now occupied by the Pole Star ...

The reaction to the *Independent's* front-page splash was electrifying. Dozens of reporters from all over the world wanted to interview Gantenbrink within hours and that same evening Britain's Channel 4 TV News covered the story in depth. Dr. I. E. S. Edwards made a rare appearance in this report and created something of a sensation by telling millions of excited viewers that 'a statue of the king gazing towards the constellation of Orion' might be found behind the mysterious 'door'. 'But it's a wild guess—we have no precedents,' he was quick to add.

But wild guess or not, and still with no clear statement emanating from Cairo, the international media had a field day:

'PYRAMID MAY HOLD PHARAOH'S SECRETS' ran the front page of *The Age* in Melbourne; 'SECRET CHAMBER MAY

SOLVE PYRAMID RIDDLE' shouted *The Times* in London; 'NOUVEAU MYSTERE DANS LA PYRAMIDE' *Le Monde* announced excitedly in Paris; 'PYRAMID MYSTERY' reported the *Los Angeles Times;* 'VIVE LA TECHNIQUE: PORTE POUR KHEOPS!' cried *Le Matin* in Switzerland.[265]

It was almost as though the cult of the Pyramid had suddenly come to life again. At any rate the story continued to run for many more weeks in dozens of regional newspapers and several international magazines.[266] Everyone, it seemed, wanted to know what was behind the little 'door', and why the Pyramid's shafts were directed towards the stars ...

The first official riposte came from the German Archaeological Institute, through Reuters in Germany, on 16 April 1993. Mrs. Christine Egorov, Stadelmann's secretary—here presented as the *Institutsprecherin*—firmly pronounced that the very idea of a possible chamber at the end of the shaft was nonsense. The Queen's Chamber's 'air-channels', she explained, did not head in the

direction of anything at all and the purpose of Gantenbrink's robot had been solely 'to measure the humidity of the Pyramid'.[267]

Soon afterwards, a second report went out on the Reuters wire, this time quoting Dr. Stadelmann: 'I don't know how this story happened but I can tell you this is very annoying,' he fumed. 'There is surely no other chamber ... there is no room behind the stone.'[268]

Political games

In the years that followed Gantenbrink made repeated efforts to get his exploration of the Queen's Chamber shafts restarted, arguing that there was no need to speculate as to whether or not the 'door' was really a door, or whether there might or might not be a chamber concealed behind it:

> I take an absolutely neutral position. It is a scientific process, and there is no need whatsoever to answer questions with speculation when questions could be answered much more easily by continuing the research ... We have a device (ultrasonic) that would

discover if there is a cavity behind the slab. It's nonsensical to make theories when we have the tools to discover the facts.'[269]

One of the main problems that Gantenbrink faced was that he did not belong to the Egyptological profession but was regarded by the leading academics at Giza as a hired technician—which meant, by definition, that his views were assumed to have no merit. He explained how, after discovering the slab-door in March 1993, he had been all but ignored and the find handled with indifference: 'I was scheduled to meet the Minister of Culture about the discovery, but it never happened. A press conference was scheduled. It never happened.'[270]

In late 1994, Gantenbrink announced in Paris that he was willing to supply the robot to the Egyptians and even train an Egyptian technician at his own expense so that the exploration could resume, but a few weeks later he was politely rebuffed by the EAO's Chairman, Dr. Nur El Din: 'Thank you for your offer to train the Egyptian technician [Nur El Din had written] ... unfortunately we

are very busy for the time being, therefore we will postpone the matter.'[271]

'The search for truth', Gantenbrink commented in January 1995, 'is too important to be ruined by a silly political game. My only hope is that they will soon reach the same conclusions.'[272]

Breakfast with Gantenbrink

On 19 February 1995 we arrived in Egypt and the next morning had breakfast with Rudolf Gantenbrink at the Movenpick Hotel in Giza.

He had been in Egypt for most of the previous week, still trying to obtain permission to resume his exploration of the Queen's Chamber shafts, and was returning to Munich later that morning. During his visit, he told us, he had finally managed to have a face-to-face meeting with Dr. Nur El Din.

'What was the response?' we asked.

Gantenbrink shrugged his shoulders: ‘Encouraging.’ But he looked less than encouraged.

We then asked if he had been back inside the Queen’s Chamber on this visit.

‘No,’ he replied, ‘I prefer not to go there.’

He could not bear the thought, he told us, of returning to the site of his great discovery without his robot, purposelessly, like a tourist. ‘I will go back in the Queen’s Chamber with *Upuaut* and complete the exploration of the shafts,’ he said proudly, ‘or I won’t go back there at all.’

Select groups

That same month—February 1995—one of the most prosperous and active members of the Association for Research and Enlightenment spoke to us by telephone from the United States about plans that were in hand for furthering the quest for the Hall of

Records at the Giza necropolis:

> The next three years are going to be super years ... We sort of have '96 set up for our little expedition to the Sphinx—with underground radar. 1996 was when Zahi said we'd be able to go. We'll do more ground-scanning and most of all we're going to get to love and understand the people around us, and the various groups, and work with them ... and I figure that by '98 we'll hit something.[273]

We learnt in the same conversation that the same individual had been keeping a close watch on events surrounding the hidden door in the Great Pyramid during the two years since Rudolf Gantenbrink's project had ground to a halt. He claimed to have been informed that the Egyptian authorities would soon make an attempt to reach the door with their own robot in order to insert a fibre-optic camera beneath it and to see whatever lies beyond. Our informant also said that he had been invited by 'Zahi' to be amongst the select group of witnesses present inside the Pyramid when this moment eventually comes: 'He promised me a one-month's advance notice before they do anything ... Something's definitely going to happen. He's not sure when. He had delays—I think with the robot—but

they'll get it done ...'[274]

But what exactly will get done? By whom? With what motive? How certain is it that the public will be properly informed about any further discoveries that might be made? And how reliable and comprehensive are the orthodox Egyptological interpretations of such discoveries likely to be?

One thing at any rate seems certain: Rudolf Gantenbrink, whose inventiveness and daring led to the original discovery of the door at the end of the Queen's Chamber's mysterious southern shaft, is unlikely to be present. In September 1995 it was reported to us that the Egyptian Antiquities Organization had issued notification to the German authorities advising that they did not wish to pursue the exploration in the Great Pyramid.[275]

Burial

After reviewing the scholarly goings on concerning the possible

geological antiquity of the Sphinx and the 'anomalies' located in the bedrock beneath it, the case of the iron plate in the southern shaft of the King's Chamber, and the case of the relics found in the shafts of the Queen's Chamber, we are frankly not surprised by the case of Gantenbrink's 'door'. Here, too, orthodox academics have participated in the burial of research that promises new insights into the Giza monuments and—more than three years after the discovery—the 'door' still remained unopened.

We have no opinion as to whether or not it might lead to a 'Hall of Records'—'records' on papyrus scrolls to do with the 'religion' of the builders as Zahi Hawass speculated in 1993 during his year of absence from his post as Director of the Giza Pyramids.[276] Our own research has convinced us, however, that the shaft in which Rudolf Gantenbrink made his remarkable discovery is linked to an archaic system of beliefs and rituals that envisaged the monuments of the Giza necropolis as an 'image of heaven'.

In Parts III and IV we will attempt to decode this image and learn

its meaning.

Part III

Duality

Chapter 8

The Clues of Duality

'Newton ... was the last of the magicians ... Why do I call him a magician? Because he looked at the whole universe and all that is in it as a riddle, as a secret that could be read by applying pure thought to certain evidence, certain mystic clues which God had laid about the world to allow a sort of philosopher's treasure hunt to the esoteric brotherhood. He believed that these clues were to be found partly in the heavens ... partly in certain papers and traditions handed down by the bretheren ... By pure thought, by concentration of mind, the riddle, he believed, would be revealed to the initiate ...'

John Maynard Keynes, The Royal Society, Newton Tercentenary Celebrations, 1947

We saw in Parts I and II how the astronomical character of the architecture of the Sphinx and of the Giza Pyramids has failed to interest Egyptologists and has not been taken into account in their analysis of the function and significance of the monuments. This, in our view, has resulted in a number of serious misinterpretations of

the available evidence—perhaps the most flagrant examples of which, at the level of physical exploration and research, have been the chronic neglect of the four astronomically aligned shafts of the Great Pyramid and the long and shocking period of inactivity over the matter of the 'door' in the southern shaft of the Queen's Chamber.

We hinted at the end of Part I that the logic of all these shafts, and of the ground-plan and symbolism of the Pyramids and the Sphinx, appears to be connected to certain very powerful religious and cosmological ideas set out in ancient Egyptian funerary and rebirth texts and in the so-called 'Hermetic' writings. These express the philosophy 'as above, so below' and advocate the drawing down to earth of cosmic powers as an essential step in Mankind's quest for knowledge of the divine and immortality of the soul: 'And I, said Hermes, will make Mankind intelligent, I will confer wisdom on them, and make known to them the truth. I will never cease to benefit thereby the life of mortal men; and then will I benefit each

one of them, when the force of nature working in him is in accord with the movement of the stars above.'[277]

In the following chapters we will offer evidence to suggest that the extraordinary monuments of the Giza necropolis are part of a grand and long-forgotten scheme to initiate certain select individuals, the most recent of whom were the Pharaohs of Egypt, into an esoteric cosmic wisdom linking earth to heaven by means of which they sincerely expected to transcend the limits of death:

> All the world which lies below has been set in order and filled with contents by the things which are placed above; for the things below have not the power to set in order the world above. The weaker mysteries must yield to the stronger; and the system of things on high is stronger than the things below.[278]

> Thy protector is the Star-God ... thy soul passeth on ... thy body is equipped with power ... The doors of the hidden land are opened before thee ... Osiris, conqueror of millions of years, cometh unto thee ...[279]

Cosmic environment

The world view of the ancient Egyptians, which they appear to have inherited intact and fully formed at the very beginning of their historical civilization some 5000 years ago, was profoundly dualistic and cosmological. The foundation of Pharaonic theocracy, the unification of the 'Two Lands' of Upper and Lower Egypt into one kingdom, the notions that they had of their own past and ancestry, their laws and calendrical measures, the architecture of their temples and pyramid complexes, and even the land of Egypt itself and the Nile—all these were cosmological concepts to them. Indeed, they saw their cosmic environment (the sky, the Milky Way, the sun and the stars, the moon and the planets, and all their cycles) as being bound together in perfect duality with their earthly environment (their land and the Nile, their living king and his ancestors, and the cycles of the seasons and epochs).

We suspect that the history of ancient Egypt, to the extent that it was written down *at all* in papyri and tablets and inscriptions, was frequently expressed in a kind of 'cosmic code' ritualistically and

symbolically linked—like the Pyramids themselves—to the ever-changing patterns of the sky. From this it follows that we must look to the sky, just as the Egyptians did, if we wish to understand the ideas that they were trying to communicate in their (on the face of things) extremely strange and problematic religious writings. These writings include mysterious and archaic texts aimed at guiding the afterlife journey of the deceased, such as the *Book of the Dead* (which the ancient Egyptians knew as *Per-Ém-Hru,* the Book of 'Coming Forth By Day'), the *Book of Two Ways,* the *Book of Gates,* the *Book of What is in the Duat* and the *Coffin Texts.* Oldest and most enigmatic of all these funerary and rebirth documents however, are the so-called *Pyramid Texts* which began to be copied and compiled from older sources in the second half of the third millennium bc. These remarkable records have come down to us in the form of lavish hieroglyphic inscriptions on the tomb walls of a number of Fifth—and Sixth-Dynasty pyramids at Saqqara, some ten miles to the south of the Giza necropolis, and offer us a hitherto

neglected key by means of which the secrets of the great Pyramids and the Sphinx can be unlocked.

Astronomical essence

All the above-named documents, and many more, have been translated into modern languages during the past hundred years, and all have been studied by scholars—the majority of whom would not dispute that they incorporate a complex network of astronomical references, symbols, allegories and allusions.[280] Only a handful of researchers, however, have considered the possibility that these astronomical characteristics could constitute the *essence* of the texts. In this group the late Giorgio de Santillana and Hertha von Dechend, whose study, *Hamlet's Mill,* we encountered in Chapter 4, have commented on the manner in which the soul of the deceased Pharaoh was thought of as having travelled through the skies:

> ... well-equipped ... with his Pyramid Text or Coffin Text, which represented his

indispensable timetable and contained the ordained addresses of every celestial individual he was expected to meet. The Pharaoh relied upon his particular text as the less distinguished dead relied upon his copy of chapters from the *Book of the Dead,* and he was prepared to change shape into the ... semblance of whatever celestial 'station' must be passed, and to recite the fitting formulae to overcome hostile beings ...[281]

Santillana and von Dechend also comment, somewhat witheringly, on the hopeless inadequacy of many of the translations that scholars work with today—translations which treat the astronomical aspects of the texts as though they are of no particular relevance:

So the elaborate instructions in the *Book of the Dead,* referring to the soul's celestial voyage, translate into 'mystical' talk, and must be treated as holy mumbo jumbo. But then, modern translators believe so firmly in their own invention, according to which the underworld has to be looked for in the interior of our globe—instead of in the sky—that even 370 specific astronomical terms would not cause them to stumble.[282]

The problem identified here is, we will demonstrate, a large and multi-faceted one which has led scholarly analysis of the texts into a blind alley through a complete and conspicuous neglect of: (a) the

most important religious concept of the ancient Egyptians; (b) the most vital feature of their land and sky and (c) the most fundamental element of their spiritual and cosmological beliefs.

Otherworld

In the earliest religious writings that have survived from ancient Egypt a powerful symbolic terminology is used to describe the cosmic 'world of the dead' and its features. This world is referred to as the *Duat*[283]—a concept that is routinely translated by modern Egyptologists as 'the Underworld' (or sometimes as the 'Netherworld').[284] In the Pyramid Texts, however, the *Duat* is clearly a location in the starry sky—as many distinguished Egyptologists of earlier generations such as Selim Hassan, Sir E. A. Wallis Budge and Kurt Sethe were undoubtedly aware.[285] Yet even these pioneers failed to get to grips with the full implications

and characteristics of the concept because they lacked familiarity with astronomy.

For example, in his analysis of the various ways in which the word *Duat* was inscribed in hieroglyphic characters throughout the whole span of Egyptian history, Selim Hassan makes the following comment: 'If we consider the evidence afforded by the meaning of its name during the Old Kingdom [the Pyramid Age], we shall see that the original *Duat,* the future Underworld, was localized in the sky.'[286] He then cites the view of Kurt Sethe that 'the *Duat* could be either the red glow of twilight which precedes the dawn (i.e. the "false dawn") or the spacious region in the east of the sky where this glow appears ...'[287]

Hassan goes on to quote from line 151 of the Pyramid Texts: 'Orion has been enveloped by the *Duat;* while he who lives in the Horizon (i.e. Re [the sun-god]) purifies himself; Sothis [Sirius] has been enveloped by the *Duat* ... in the embrace of [their] father Atum.'

In Hassan's opinion: 'This clearly shows how, as the sun rises and purifies himself in the Horizon, the stars Orion and Sothis [Sirius], with whom the King is identified, are enveloped by the *Duat.* This is a true observation of nature, and it really appears as though the stars are swallowed up each morning in the increasing glow of the dawn. Perhaps the determinative of the word *Duat,* the star within a circle, illustrates the idea of this enveloping of the star. When on his way to join the stars, the dead king must first pass by (or through) the *Duat* which will serve to guide him in the right direction. Thus we see in Utterance 610 [of the Pyramid Texts]: "The *Duat* guides your feet to the Dwelling-place of Orion ... The *Duat* guides your hand to the Dwelling-place of Orion." ...'[288]

Stars rising with the sun

Hassan's assessment of the celestial landscape of the *Duat* is only accurate in as much as he realizes that it is in the east, that the

moment of observation is the pre-dawn (which he calls 'false dawn', and that the constellation of Orion (Osiris), the star Sirius (Isis), the sun (Re), and some other cosmic feature representing 'Atum' (the 'Father' of the Gods), are all to be found in the *Duat.* Because he is not conversant with basic celestial mechanics, however, and because he fails to set the relevant lines from the Pyramid Texts in the context of their time and their place, he then goes on to make a serious error of interpretation which has subsequently been compounded by numerous other astronomically illiterate scholars:

1. The time the Pyramid Texts were compiled was the epoch of 2800 bc to 2300 bc approximately.[289]

2. The place of observation of the sky was just south of modern Cairo in the so-called 'Memphite necropolis' (named after *Men-nefer,* later 'Memphis', the first historically recognized capital of ancient Egypt), where stand the great Pyramids of Giza (and also lesser Old Kingdom pyramids such as those at Abu Roash,

Abusir, Saqqara, Dahshur and Meidum).[290]

3. The error that Hassan makes is his assumption that the stars in question—i.e. Orion and Sirius—are swallowed up ‘each morning’ in the ‘increasing glow of the dawn.’

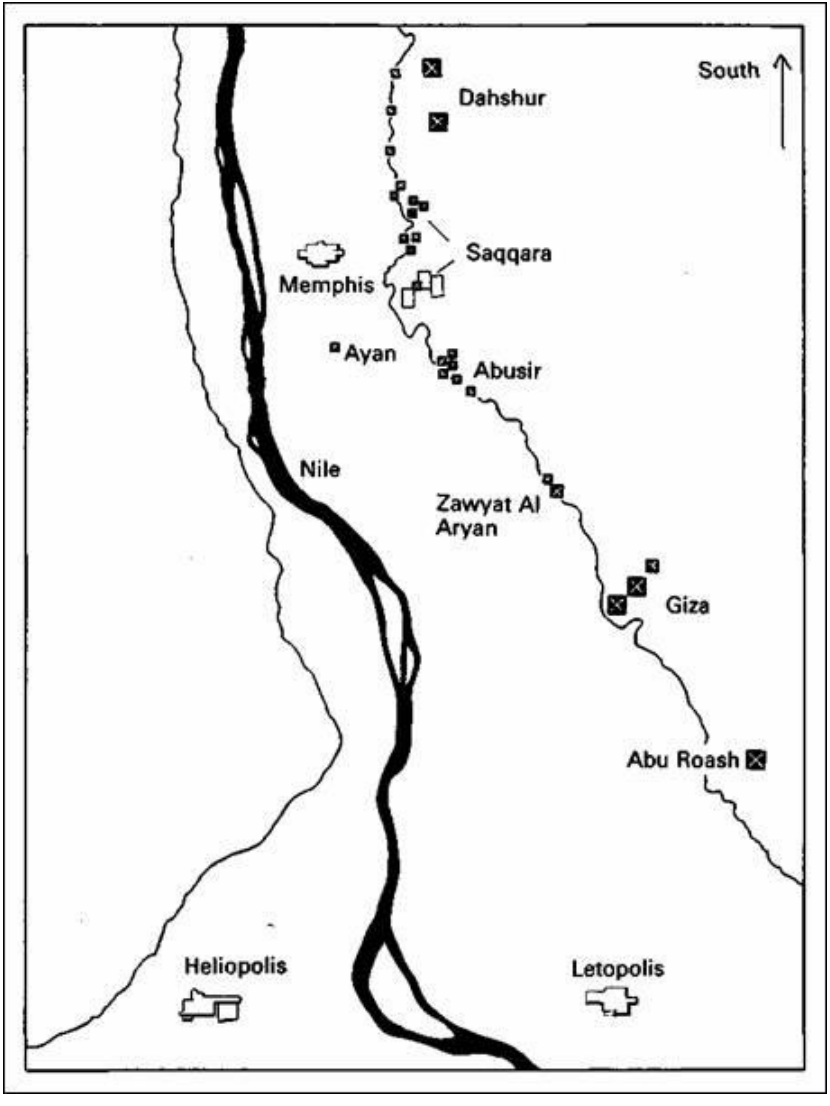
South
Dahshur
Saqqara
Memphis
Ayan
Abusir
Nile
Zawyat Al
Aryan
Giza
Abu Roash
Heliopolis
Letopolis

34. The 'Memphite necropolis'—Pyramid fields from Abu Roash to Dahshur.

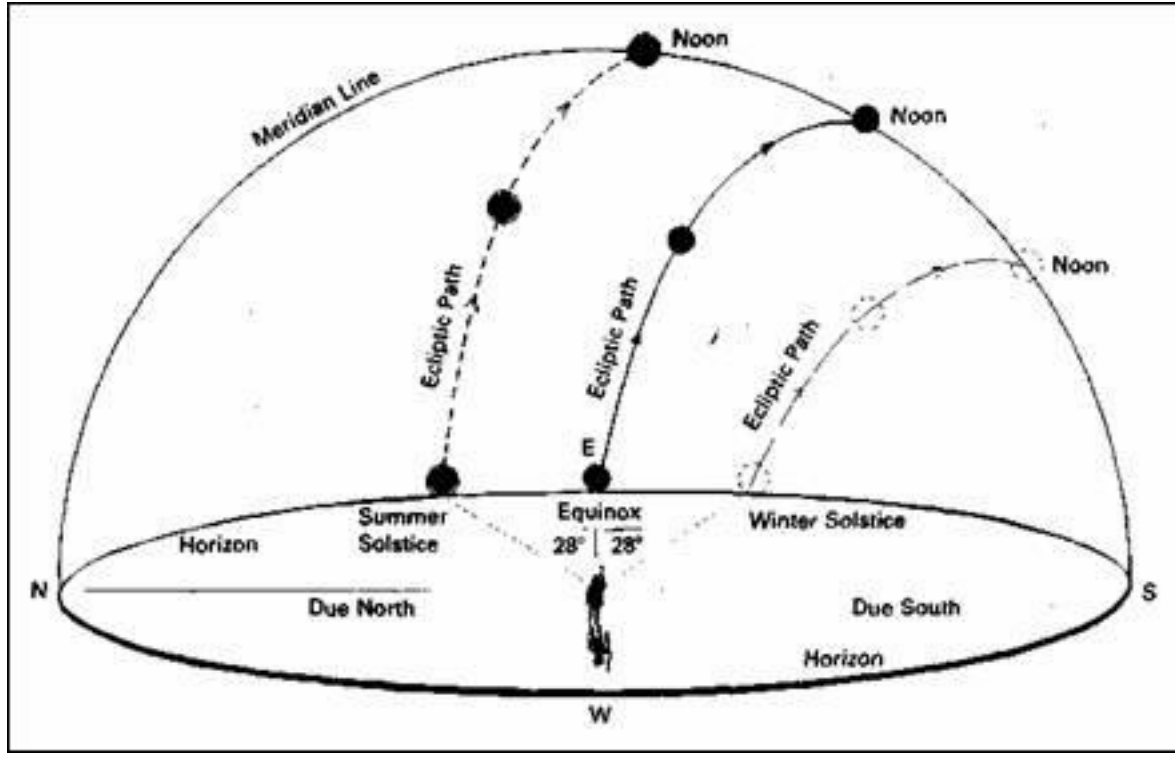

35. Rising points of the sun at the solstices and equinoxes as observed from the Memphite necropolis. In the epoch of 2500 bc—the 'Pyramid Age'—the *Duat* was observed and considered to be active only at the time of the summer solstice when the stars of Orion and Sirius rose heliacally (i.e. just ahead of the sun) at dawn.

In fact there is only one time of the year when this 'swallowing-up' occurs—a time that slowly alters down the epochs because of the earth's precessional motion. The long and the short of it is that in the Pyramid Age the specific phenomena described in the texts, and addressed by Hassan (phenomena known technically as the 'heliacal risings' of Orion and Sirius, i.e. the risings of these stars just ahead of the sun at dawn) could only have been observed at around midsummer—i.e. *at the summer solstice*.[291] The *Duat,* in other words, was considered by the ancient Egyptians to be active *only* at the time of the summer solstice when Orion and Sirius rose heliacally and not, as Hassan suggests, throughout the year.

With these facts in mind, let us attempt to reinterpret the cosmic *Duat,* this time placing it in its proper astronomical context.

Cosmic river

One of the most salient features of the *Duat,* as it is described in

the ancient Egyptian texts, is its relationship to a great cosmic 'river' called the 'Winding Waterway'. Several studies have confirmed beyond any serious doubt that the 'Winding Waterway' was the magical band of light meandering across the sky that we know as the 'Milky Way'.[292] It is also evident that the ancient priest-astronomers who compiled the Pyramid Texts identified the terrestrial counterpart of this 'Winding Waterway' in the sky as the River Nile and its yearly flood, the 'Great Inundation', which also happened to coincide with the summer solstice:[293]

> The Winding Waterway is flooded, the Fields of Rushes are filled with water, and I am ferried over thereon to yonder eastern side of the Sky, the place where the gods fashioned me ... [Orion's] sister is Sothis [Sirius] ...[294]

> I have come to my waterways which are in the bank of the Flood of the Great Inundation, to the place of contentment ... which is in the Horizon ...[295]

> May you lift me and raise me to the Winding Waterway, may you set me among the gods, the Imperishable stars ...[296]

As Sir E. A. Wallis Budge rightly observed: 'the Egyptians ...

from the earliest times ... depicted to themselves a material heaven [the *Duat*] ... on the banks of a Heavenly Nile, whereon they built cities.'[297] And similarly the philologist Raymond Faulkner, who translated the Pyramid Texts and much of the other religious literature of ancient Egypt into English, could not avoid making the obvious correlations between the 'celestial river', the 'Winding Waterway' and the Milky Way.[298]

Kingdom of Osiris in the sky

The stars of Orion and Sirius are located on the right bank of the Milky Way, which—at the summer solstice in the Pyramid Age—would have appeared as a vertical 'cosmic river' in the pre-dawn in the east.

To the ancient Egyptians, therefore, the *Duat* could not possibly have been seen merely as some vague, blank, rose-tinted region somewhere over the eastern horizon. On the contrary, it clearly had

an extremely specific address in the sky—the ‘Dwelling Place’ of ‘Orion and Sirius’ on the banks of the ‘celestial Nile’:

Be firm O Osiris-King [Orion] on the underside of the sky with the Beautiful Star [Sirius] upon the bend of the Winding Waterway ...[299]

Betake yourself to the Waterway ... May a stairway to the *Duat* be set for you to the place where Orion is ...[300]

O King, you are this Great Star, the companion of Orion, who traverses the sky with Orion, who navigates [in] the *Duat* with Osiris ...’[301]

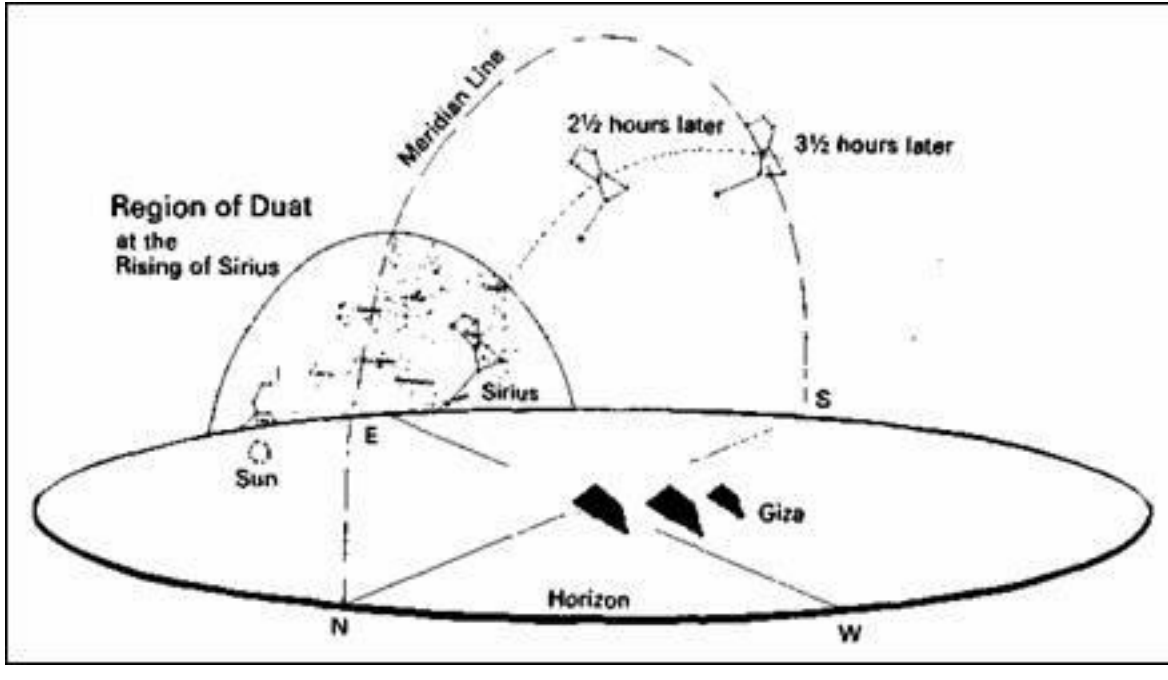

36. The sky region of the *Duat* with the stars of Orion and Sirius rising heliacally just ahead of the sun at dawn on the summer solstice. It was at this time of the year, and at this moment only, that the *Duat* was considered to be 'active'. Note that the Milky Way at this same moment appeared as a vertical 'cosmic river' in the east. Also shown is the trajectory of the Orion stars after their dawn rising until their culmination at the meridian.

With this starry landscape in mind, we can begin to conjure up a

fairly detailed image of the *Duat,* the 'Kingdom of Osiris' in the sky —a distinct pattern of stars, at a specific celestial location, that comes complete with its own 'cosmic Nile'.

But when was this cosmic kingdom 'founded'?

'First Time'

In their most profound and beautiful religious texts, as we noted in Part I, the ancient Egyptians spoke of 'the time of the gods', *Zep Tepi* (literally the 'First Time') with the unshakeable conviction that there had indeed been such an epoch. In other words, they believed that *Zep Tepi* had been an actual, historical event. In line with their prevailing dualism they also believed that it had been projected and 'recorded' in the catalogue of the starry sky. Indeed it was a story that was re-enacted endlessly in the cosmic setting by the cyclical displays of the celestial orbs and the constellations.

What they had in mind, in other words, was a kind of cosmic

‘passion play’, expressed in the language of allegorical astronomy, in which each main character was identified with a specific celestial body. Re was the sun, Osiris was Orion, Isis was the star Sirius, Thoth was the moon—and so on and so forth. Nor was the drama only confined to the celestial realms; on the contrary, as one might expect in dualistic ancient Egypt, it was also re-enacted on the ground, amidst the cosmic ambiance of the astronomical Pyramids of Giza, where the events of the ‘First Time’ were commemorated for millennia in secret rituals and liturgies.[302]

Very little is known about these liturgies, or about the myths they expressed. As the Egyptologist R. T. Rundle Clark explains:

> The creation of the myths was founded on certain principles. These are strange and, as yet, only partially understood. The most important element seems to have been as follows:
>
> (a) The basic principles of life, nature and society were determined by the gods long ago, before the establishment of kingship. This epoch—*Zep Tepi*—‘the First Time’—stretched from the first stirring of the High God in the Primeval Waters to the settling of Horus upon the throne and the redemption of Osiris. All proper myths relate events or manifestations of this epoch.

(b) Anything whose existence or authority had to be justified or explained must be referred to the 'First Time'. This was true for natural phenomena, rituals, royal insignia, the plans of temples, magical or medical formulae, the hieroglyphic system of writing, the calendar—the whole paraphernalia of the civilization ...[303]

Rundle Clark has also recognized that Egyptian art 'is nearly all symbolism', that 'the architectural arrangements and decoration were a kind of mythical landscape' worked down to the last detail, and that everything had a meaning:

The shrine [tomb or pyramid complex] of the god [the king], for instance, was the 'Horizon', the land of glorious light beyond the dawn horizon where the gods dwelt. The Temple was an image of the universe as it now existed and, at the same time, the land on which it stood was the Primeval Mound which arose from the waters of the Primeval Ocean at Creation ... At the close of the daily temple service, the priests raised a small figure of *Maat* (the goddess of Law and Order) in front of the divine image. This act was meant to assert that Tightness and order had been re-established, but it was also a repetition of an event that took place at the beginning of the world ... of some mythical happening in the time of the gods ...[304]

Golden Age and the entry of evil

In later chapters we shall be returning to take a closer look at this 'First Time' of the gods. Here, however, it is sufficient to note that *Zep Tepi* was regarded as a mysterious and wonderful golden age that had immediately followed Creation. Furthermore, in the minds of the ancient Egyptians at least, this golden age had not occurred in some hard-to-find never-never land like the Biblical 'Garden of Eden' but in a familiar and unmistakably real physical and historical setting. Indeed it was their emphatic belief that the huge triangular region just south of the apex of the Nile Delta encompassing Heliopolis, Memphis and Giza was the actual geographical location of the events of the 'First Time'—a real 'Garden of Eden', in short, with real geographical features and places. It was here, amidst this sacred landscape, that the gods of the 'First Time' were said in the texts to have established their earthly kingdom.[305]

And what was the cultural character of that Kingdom? Rundle Clark gives the best summary:

... all that was good or efficacious was established on the principles laid down in the 'First Time'—which was, therefore, a golden age of absolute perfection—'before rage or clamour or strife or uproar had come about'. No death, disease or disaster occurred in this blissful epoch, known variously as 'the time of Re', 'the time of Osiris', or 'the time of Horus' ...[306]

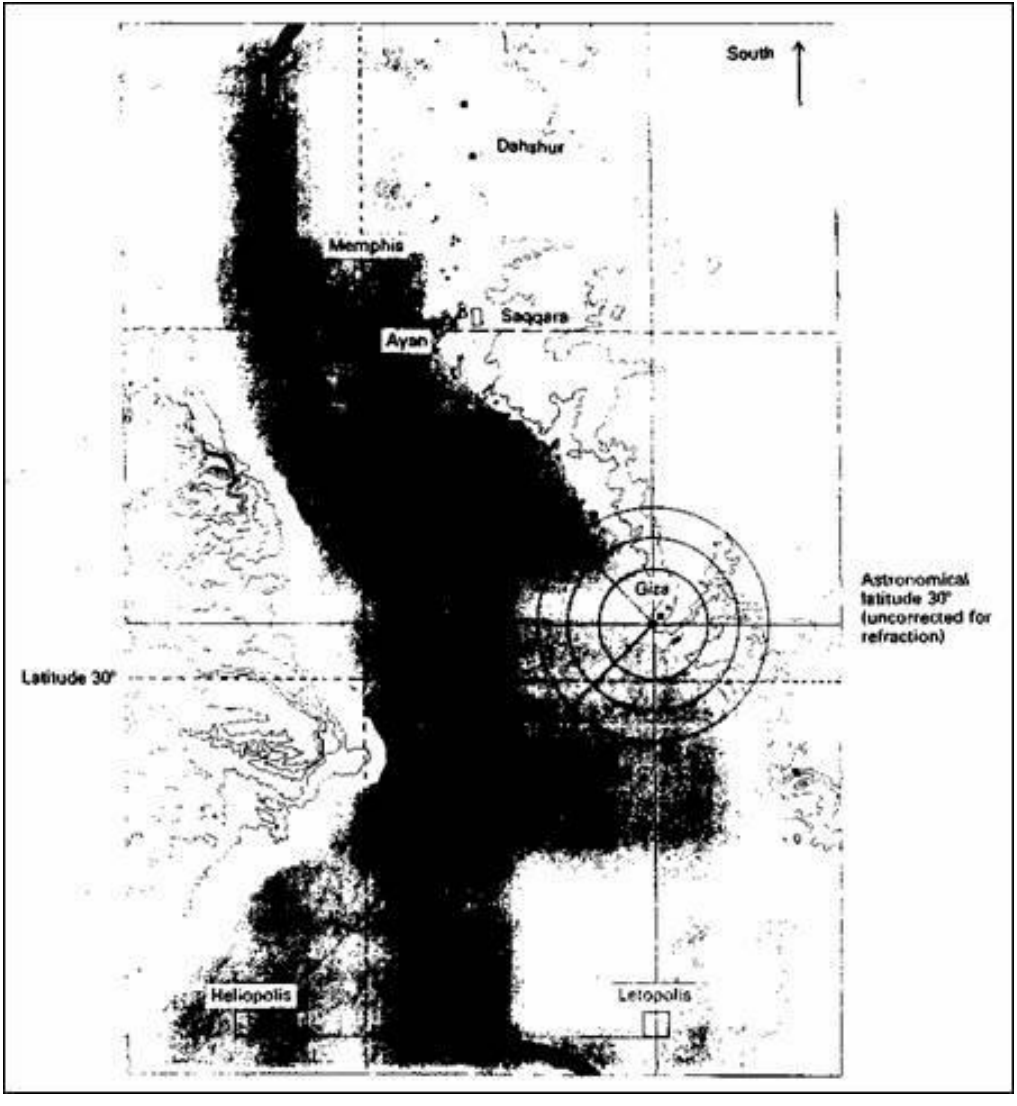
South
Dahshur
Memphis
Saqqara
Ayan
Giza
Astronomical latitude 30° (uncorrected for refraction)
Latitude 30°
Heliopolis
Letopolis

37. The huge triangular region just south of the apex of the Nile Delta encompassing Heliopolis, Memphis and Giza was regarded by the ancient Egyptians as the actual geographical location of the events of the 'First Time'—a sort of geodetic 'Garden of Eden' focused on astronomical latitude 30 degrees north.

The gods Osiris and Horus, together with Re (in his composite form as Re-Atum, the 'Father' of the gods) were regarded by the ancient Egyptians as the supreme expressions and exemplars of the 'blissful epoch of the "First Time" '.[307]

Osiris they remembered in particular for having been the first to sit on the throne of this divine Kingdom, which he ruled jointly with his consort Isis.[308] The golden age of plenty over which the royal couple presided (during which agriculture and animal husbandry were taught to humans and laws and religious doctrines were set for them) was however brought to an abrupt and violent halt when Osiris was murdered by his brother, Seth. Left without child, Isis brought the dead Osiris back to life for long enough to receive his seed. As a result of this union she, in due course, gave birth to

Horus whose destiny it was to wrangle back the 'kingdom of Osiris' from the clutches of his evil uncle Seth.

Shabaka texts

In all its essential elements this is, of course, the story that we know as Hamlet (which has a far older pedigree than the Shakespeare play[309]), and it is also, in its most recent Hollywood manifestation, the story of the *Lion King* (brother murders brother, bereaved son of the murder victim takes revenge on his uncle and sets the Kingdom to rights).

The original Egyptian version of the story—the so-called 'Memphite Theology'—is found in texts inscribed on a monument known as the 'Shabaka Stone', now in the British Museum.[310] Here we read how, after a great quarrel between Horus and Seth (in which Horus lost an eye and Seth a testicle) Geb, the earth-god (the father of Osiris and Isis), summoned the Great Council of the Gods

—the nine-member 'Ennead' of Heliopolis—and with them passed judgement between Horus and Seth:

Geb, lord of the gods, commanded the Nine Gods to gather to him. He judged between Horus and Seth; he ended their quarrel. He made Seth king of Upper Egypt, up to the place in which he was born, which is Su. And Geb made Horus king of Lower Egypt, up to the place in which his father [Osiris] was drowned[311] which is 'Division-of-the-Two-Lands'. Thus Horus stood over one region, and Seth stood over one region. They made peace over the Two Lands at Ayan. That was the division of the Two Lands ...[312]

Let us note in passing that Ayan is not a mythical place but was an actual, physical location in ancient Egypt immediately to the north of Memphis, the Early Dynastic capital city.[313] The judgement that was made here was later changed, as the Shabaka Texts go on to tell us:

Then it seemed wrong to Geb that the portion of Horus was like the portion of Seth. So Geb gave to Horus his [Seth's] inheritance, for he [Horus] is the son of his first born [Osiris] ...

Then Horus stood over the two lands. He is the uniter of the Two Lands, proclaimed in the great name: *Ta-tenen,* 'South-of-his-Wall', 'Lord of Eternity'... He is Horus, who

arose as King of Upper and Lower Egypt, who united the Two Lands in the [District] of the Wall [Memphis], the place where the Two Lands were united ...[314]

Treasure trail

What we have in this amazing story is a sort of treasure trail of clues as to how the ancient Egyptians themselves saw the mythical-historical transfer of the 'deeds' or keys of the 'Kingdom of Osiris' to Horus by the Great Ennead and Geb.

It seems clear, for example, that this momentous event was thought to have taken place at Ayan, immediately to the north of Memphis, i.e. about 10 miles or so south of modern Cairo.[315]

And as for the dead Osiris, the Shabaka Texts tell us how the god was taken and buried 'in the land of Sokar':

This is the land ... the burial [place] of Osiris in the House of Sokar ... Horus speaks to Isis and [her sister] Nepthys: 'Hurry, grasp him ...' Isis and Nepthys speak to Osiris: 'We come, we take you ...' They heeded in time and brought him to land. He entered the hidden portals in the glory of the Lords of Eternity. Thus Osiris came into the Earth, at the Royal

Fortress, to the north of the land to which he had come. And his son Horus as king of Upper Egypt, arose as king of Lower Egypt in the embrace of his father Osiris ...[316]

Where, what, and whose was the 'land of Sokar'?

It turns out to have been an epithet used by the ancient Egyptians to describe the extensive 'Memphite necropolis' incorporating the Pyramid-field of Giza. According to Sir E. A. Wallis Budge, for example: 'The dominions of Sokar were situated in the deserts round about Memphis and were supposed to cover a large extent of territory.'[317] I. E. S. Edwards tells us that the name 'Sokar' was that of 'the god of the Memphite necropolis'—a predynastic deity of the dead—and that 'by Pyramid times Osiris had become identified with Sokar'.[318] R. T. Rundle Clark then further complicates the picture by speaking of 'Rostau, the modern Giza, the burial place of Memphis and the home of a form of Osiris known as Sokar'.[319]

What confronts us, therefore, appears to be a linked sequence of ideas involving Osiris, Sokar, the 'land of Sokar' (identified with the Memphite necropolis), and now 'Rostau', the ancient Egyptian

name for the Pyramid-field at Giza—a name that is in fact carved in hieroglyphs on the granite stela, which we encountered in Part I, that stands to this day between the paws of the Great Sphinx.[320] That same stela also describes Giza in more general terms as 'the Splendid Place of the "First Time" ' and speaks of the Sphinx as standing beside 'the House of Sokar'.[321]

So the clues on the treasure trail, as well as Osiris, Sokar, the land of Sokar and Rostau-Giza, now also include the 'House of Sokar' and lead us back towards *Zep Tepi,* the 'First Time'.

Bearing all this in mind, let us return for a final look at the Memphite theology as it is expressed in the Shabaka Texts.

We find Horus firmly in possession of the earthly 'Kingdom of Osiris' (which had of course been founded in the 'First Time') and we find the body of Osiris himself safely installed in 'the House of Sokar'.[322] Under these ideal conditions, according to the texts, the spiritualized form of Osiris was freed to depart to the sky—and to a specific location in the sky that we have already identified: 'the

place where Orion is'.[323] There it was held that he had established the *Duat*—the cosmic 'Otherworld' on the right bank of the Milky Way—as a sort of celestial 'Kingdom of Osiris' for the Dead.[324]

Sphinx god

Selim Hassan actually calls the *Duat* 'the Kingdom of Osiris' and shows how 'Osiris is styled "Lord of the *Duat*" and the Osiris-King [i.e. the deceased Pharaoh] "a companion of Orion" ...'[325] He then provides a piece of incidental information which adds to our trail of clues when he points out, on the basis of careful textual analysis, that the *Duat* appears in some way to be linked to Rostau.[326]

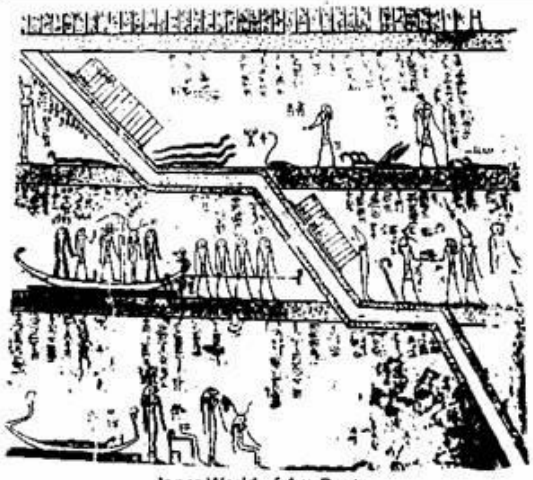

Inner World of Am-Duat

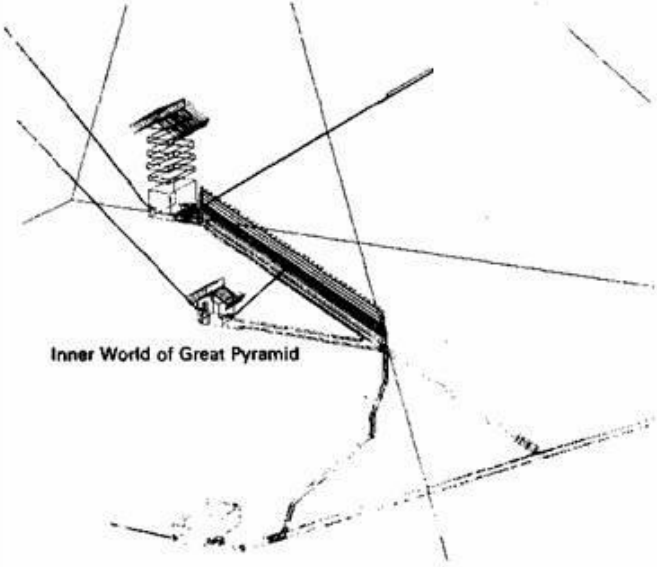

Inner World of Great Pyramid

38. The passageways, chambers and corridors of the 'land of Sokar' in the Fifth Division of the *Duat* as depicted on tomb walls bear a close resemblance to the passageways, chambers and corridors of the Great Pyramid. Could one of the functions of the Pyramid have been to serve as a kind of 'model' or simulation of the afterworld in which initiates underwent trials and ordeals?

Like other commentators, Hassan acknowledges that 'the name of Rostau is applied to the Giza necropolis'.[327] But he also, at various points, defines Rostau as 'the Kingdom of Osiris in the tomb',[328] and as 'the Memphite Underworld'—i.e. the Memphite *Duat*.[329] In this context he examines the so-called twelve 'Divisions' (or 'Hours') of the *Book of What is in the Duat* and shows that references to the 'land of Sokar' appear in this text. Indeed, to be a little more specific, he draws our attention to a most intriguing fact. The land of Sokar occupies the Fifth Division of the *Duat*[330] and: 'The centre of the Fifth Division [is] called Rostau.'[331]

So Egyptologists do not dispute that we have a Rostau on the ground in the form of the Pyramid-field at Giza and a Rostau in the

sky in the form of the Fifth Division of the *Duat*—a place, as the reader will recall, that was not seen as an 'Underworld' by the ancient Egyptians but rather as a specific celestial location in Orion.

Furthermore, as we noted in passing in Part I, the passageways, chambers and corridors of the land of Sokar—amply portrayed on tomb walls in surviving depictions of the Fifth Division of the *Duat*—uncannily resemble the passageways, chambers and corridors of the Great Pyramid of Giza. Indeed the resemblance is so close that it is permissible to wonder whether one of the functions of the Pyramid may have been to serve as a kind of model or 'simulation' of the afterworld in which initiates underwent trials and ordeals intended to prepare them intellectually and spiritually for the terrifying experiences and judgements that the soul was believed to confront after death.

Here, perhaps, was the testing ground for the ancient Egyptian 'science of immortality' elaborated in every utterance and vignette of the principal funerary and rebirth texts—the purpose of which

was to facilitate the journey of the soul through the daunting traps and pitfalls of the *Duat*.

Additional food for thought in this regard is provided by Selim Hassan who does not neglect to mention that one of the distinguishing features of the Fifth Division of the *Duat* is the presence there of a giant 'double-lion' Sphinx-god named Aker, who seemingly protects the 'Kingdom of Sokar'.[332] Hassan also points out that 'above Aker in this scene is a large Pyramid'.[333] He says that this symbolism, when put in 'conjunction with Aker in Sphinx form and the name of Rostau', suggests that 'the Fifth Division was originally a [complete] version of the *Duat* and had its geographical counterpart in the Giza necropolis'.[334]

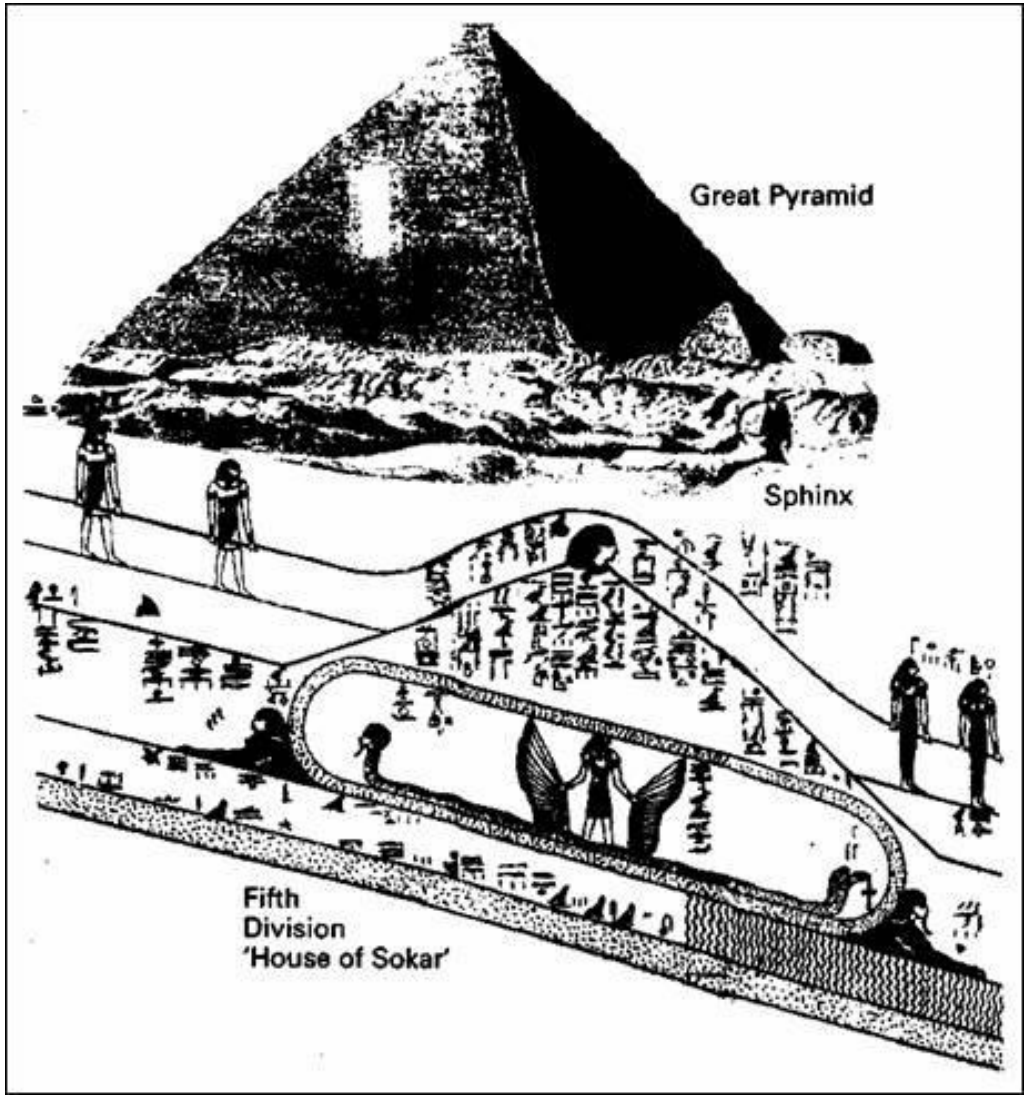
Great Pyramid
Sphinx
Fifth
Division
'House of Sokar'

39. The Fifth Division of the *Duat* features a gigantic 'double-lion' Sphinx-god and a large Pyramid. Compare this symbolic imagery with the Great Sphinx and Great Pyramid seen in profile from the south-east.

In support of this idea, Hassan then refers us to another of the ancient Egyptian funerary texts, the so-called *Book of Two Ways,* where mention is made of 'the Highland of Aker, which is the Dwelling Place of Osiris' and also of 'Osiris who is in the Highland of Aker'.[335] Hassan suggests that 'highland of Aker' may be a reference to the Giza plateau, 'where is the earthly Rostau'.[336] Exactly the same idea occurred to the American Egyptologist Mark Lehner in his 1974 pamphlet, *The Egyptian Heritage*.[337] Here, after completing a study of Rostau, he wrote: 'it is tempting to see the lion figures of Aker as a representation of the Sphinx at Giza.'[338]

Roads of Rostau

The *Book of Two Ways* is a text that was copied onto the floors and sides of coffins over a 250-year span (2050-1800 bc) during the Middle Kingdom. According to the archaeo-astronomer Jane B. Sellers it was designed 'to aid the soul of the deceased to pass along the roads to Rostau, the Gate in the necropolis which gives access to the "Passages of the Netherworld" ...'[339]

The related Coffin Texts (2134-1783 bc) shed further light on the matter when they state:

> I have passed over the paths of Rostau, whether on water or on land, and these are the paths of Osiris, they are [also] in the limit of the sky ...[340]
>
> I am Osiris; I have come to Rostau to know the secrets of the *Duat* ...[341]
>
> I shall not be turned back at the gates of the *Duat;* I ascend to the sky with Orion ... I am one who collects his efflux in front of Rostau ...[342]

As Sellers points out, many ancient Egyptian texts insist 'that the topography of Rostau, though in the sky, is on water and on land.'[343] She also proposes that 'the paths by way of water' could

have been in that area of the sky that 'we know as the Milky Way'.[344] This idea seems highly plausible when we remember that the 'cosmic address' of the *Duat* is the 'Kingdom of Osiris in Orion' on the right bank of the Milky Way. The logic of ancient Egyptian duality therefore suggests that 'the paths by way of land' should be found at the earthly Rostau.

The earthly Rostau is the Giza necropolis,[345] site of the three Pyramids and the Sphinx—so with all this talk of sky-ground dualities it would be almost perverse to ignore the four narrow 'star-shafts' which emanate skywards from the King's and Queen's Chambers inside the Great Pyramid.

The reader will recall that the southern shaft of the King's Chamber was directed at around 2500 bc to the centre of the constellation of Orion—i.e. to Orion's belt at its 'culmination' or 'meridian transit' 45 degrees above the horizon. Strangely, at the crucial observational moment in the predawn on the summer solstice—crucial, at any rate, to the ancient Egyptians of the

Pyramid Age—computer simulations indicate that Orion was seen *not* at the meridian but in the south-east, i.e. far to the left of the point in the sky targeted by the southern shaft of the King's Chamber.

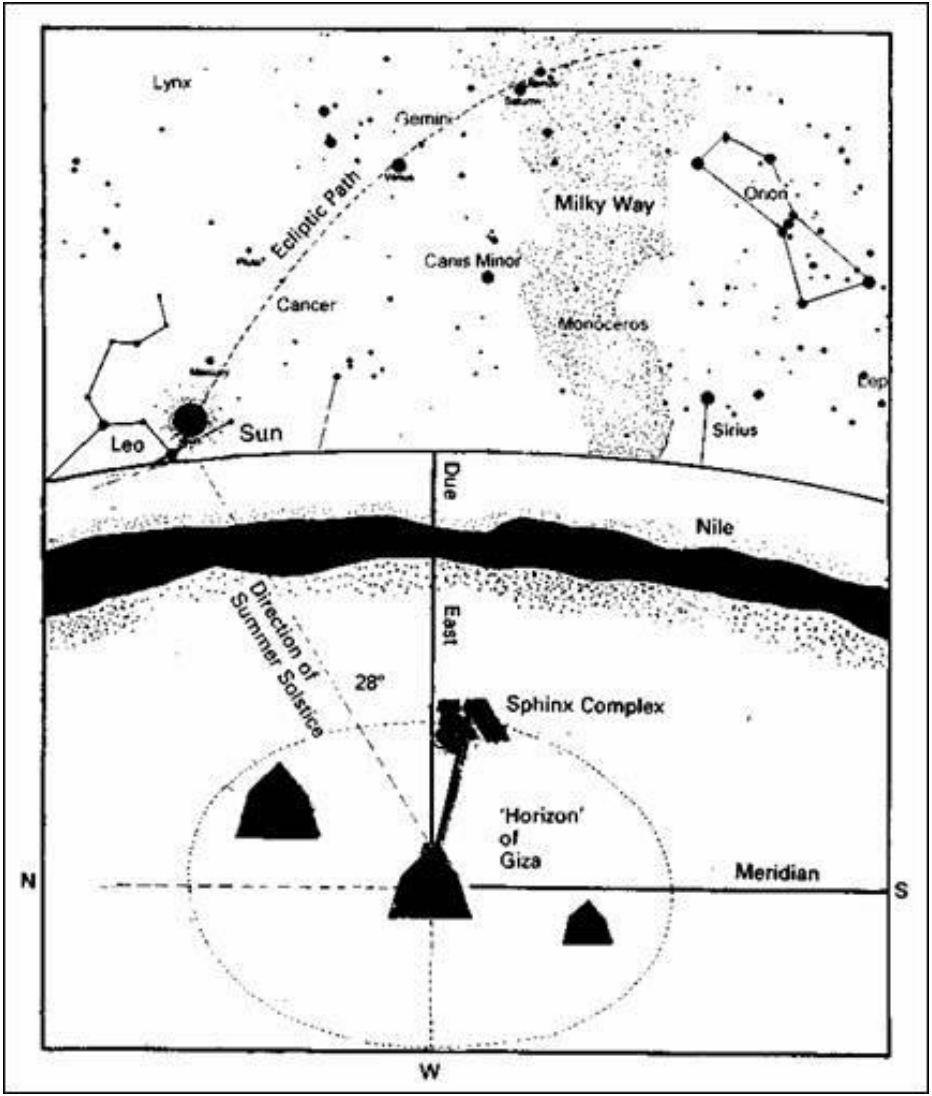
Lynx
Gemini
Ecliptic Path
Milky Way
Orion
Canis Minor
Cancer
Monoceros
Leo
Sun
Sirius
Due
Nile
East
Direction of Summer Solstice
28°
Sphinx Complex
'Horizon' of Giza
Meridian
N
S
W

40. Summer solstice in the epoch of 2500 bc: the *Duat* region. Note that Orion's belt at this crucial observational moment was *nut* at the meridian but in the south-east and thus far to the left of the point in the sky targeted by the southern shaft of the King's Chamber. The sky seems somehow out of kilter and one has the uncomfortable feeling that the belt stars need to be drawn round to the south, and specifically to the meridian, so that they can interlock with the shaft that targets them.

Looking at the simulation, everything seems out of kilter—dislocated—and one has the uncomfortable feeling that the stars of Orion's belt need somehow to be drawn round to the south, and specifically to the meridian, so that they can interlock with the shaft that targets them.

We suspect that for the ancient Egyptians this curious and unsettling 'dislocation' of the sky served as the stimulus for an esoteric journey which was undertaken on the ground by the Pharaohs themselves following celestial clues.

As we shall see in subsequent chapters their quest may have been for something of immense importance. But in order to understand

why, we must first find out who the Sphinx is.

Chapter 9

The Sphinx and its Horizons

'The Sphinx has a Genesis, and that was the lion ...'

Egyptologist Selim Hassan, *The Sphinx,* Cairo 1949

'[The constellation of] Leo resembles the animal after which it is named. A right triangle of stars outline the back legs ... the front of the constellation, like a giant backward question mark, defines the head, mane, and front legs. At the base of the question mark is Regulus, the heart of the lion ...'

Nancy Hathaway, *Friendly Guide to the Universe,* NY 1994

Even a casual review of the religious texts of the ancient Egyptians leaves no doubt that they regarded their earthly environment as a sacred landscape which they had inherited from the gods. It was their absolute conviction that in the remote golden age called the 'First Time' Osiris had established a sort of 'cosmic

kingdom' in the Memphite region which had been passed on to his son Horus and thence through him, down the cycles of the epochs, to subsequent generations of human 'Horus-Kings'—i.e. to the living Pharaohs of Egypt.

We have seen that the essence of this sacred 'Kingdom of Osiris' was the peculiar dualism with which it was connected to an area of the sky known as the *Duat,* close to Orion and Sirius on the western side of the Milky Way. We have also seen how the centre of the *Duat* was called Rostau and how Rostau, too, existed in both cosmic and terrestrial realms: in the heavens it was characterized by the three stars of Orion's belt and on earth by the three great Pyramids of Giza. Last but not least, we have seen how the ancient Egyptians of the Pyramid Age particularly observed the *Duat* as it lay along the eastern horizon in the pre-dawn at the time of the summer solstice.

The important word here is 'horizon'. It will prove to be the key to the mystery of who—or what—the Great Sphinx really represents.

Celestial reflections

With the aid of computer simulations, and a little imagination, let us journey to the epoch of 2500 bc, when the Pyramid Texts were compiled, and set our location at Heliopolis on the observatory platform of the astronomer priests. The time of year is the summer solstice, the moment of observation is the pre-dawn, and we are looking in the general direction of the eastern horizon. This means that we have our backs turned to the Giza Pyramids which lie across the Nile some twelve miles to our west.

Looking east also means that we are looking at the *Duat.* And as our computer reconstructs the skies our eyes are drawn to that region of the *Duat* known as Rostau which manifests the celestial counterparts of the three great Pyramids—the three stars of Orion's belt glimmering in the pre-dawn.

Having registered this image we set our direction towards the west, towards the Pyramids. The bodies of the distant monuments

are still cloaked in darkness but the first hint of the rising sun lights up their capstones with an astral glimmer ...

So we can see that there is a sense in which the Giza necropolis is itself a kind of 'horizon'—i.e. that its three pyramids form a reflection in the west of the three 'stars of Rostau' that observers in 2500 bc would have seen on the eastern horizon of Heliopolis in the pre-dawn at the summer solstice. Perhaps this is precisely what was meant by an otherwise cryptic inscription on the granite stela between the paws of the Sphinx which speaks of Giza not only as the 'Splendid Place of the "First Time" ' as we have seen, but also as the 'Horizon of Heliopolis in the West'.[346]

Astronomer-priests

When the Pyramid Texts were compiled in the epoch of 2500 bc, the religious centre of the Pharaonic state was at Heliopolis—the 'City of the Sun', called *On* or *Innu* by the ancients, which now lies

completely buried under the Al Matareya suburb of modern Cairo.[347] Heliopolis was the earliest cult centre of the sun-god *Re* in his form as *Atum,* the 'Father of the Gods'. The Heliopolitan priests were high initiates in the mysteries of the heavens and their dominant occupation was the observation and recording of the various motions of the sun and the moon, the planets and the stars.[348]

Much leads us to conclude that they benefited from a vast heritage of experience based on such observations, accumulated over enormously long periods of time. At any rate, the ancient Greek and Roman scholars—who were at least two millennia closer to the ancient Egyptians than we are today—were constantly in awe at the high knowledge and wisdom of the Heliopolitan and Memphite priests and especially of their astronomical science.

For example, as early as the fifth century bc, Herodotus (the so-called 'Father of History') displayed great reverence for the priests of Egypt and attributed to them the discovery of the solar year and

the invention of the twelve signs of the zodiac—which he says the Greeks later borrowed. 'In my opinion,' he wrote, 'their method of calculation is better than that of the Greeks.'[349]

In the fourth century bc the learned Aristotle—who was tutor to Alexander the Great—similarly recognized that the Egyptians were advanced astronomers 'whose observations have been kept for very many years past, and from whom much of our evidence about particular stars is derived'.[350]

Plato, too, relates how the Egyptian priests observed the stars 'for 10,000 years or, so to speak, for an infinite time'.[351] Likewise Diodorus of Sicily, who visited Egypt in 60 bc, insisted that 'the disposition of the stars as well as their movements have always been the subject of careful observations among the Egyptians' and that 'they have preserved to this day records concerning each of these stars over an incredible number of years ...[352]

Perhaps most significantly of all, the Lycian Neoplatonist, Proclus, who studied at Alexandria in the fifth century ad,

confirmed that it was not the Greeks but the Egyptians who discovered the phenomenon of Precession: 'Let those, who believe in observations, cause the stars to move around the poles of the zodiac by one degree in one hundred years [meaning the Precession rate] towards the east, as Ptolemy and Hipparchus did before him know ... that the Egyptians had already taught Plato about the movement of the fixed stars ...'[353]

Modern historians and Egyptologists, who are unanimous in the view that the Egyptians were poor astronomers,[354] choose to discount such statements as frivolous outcries by misinformed Greeks and Romans. These same scholars all do accept, however, that the priestly centre at Heliopolis was already remotely ancient at the dawn of the Pyramid Age and that it had been sacred since time immemorial to the supreme deity named Atum, the 'Self-Created'.[355]

So who or what exactly was Atum?

Living image of Atum

Addressing the first annual meeting of the prestigious Egypt Exploration Fund on 3 July 1883, the eminent Swiss Egyptologist Edouard Naville had this to say about Atum: 'there can be no doubt that the lion or the sphinx is a form of Atum ...'[356]

Naville went on to cite what he considered as sufficient evidence for such a conclusion:

> I will cite only one proof, this is the deity Nefer-Atum. This deity can be represented with the head of a lion ... normally he has a human form, and wears on his head a lotus from which emerge two straight plumes. Sometimes the two emblems [lion and human] are united and between the head of the lion and the plume there is the bird [hawk] of Horus. [357]

Though initially a confusing element, we shall see that the hawk symbolism of Horus crops up frequently in connection with this mystery and gradually begins to take its place in the overall pattern that will emerge. Meanwhile, much else confirms that Atum, the primordial creator god, was regarded by the ancient Egyptians as

being primarily leonine or sphinx-like in form.

In the Pyramid Texts, for example, we frequently encounter the designation *Rwty,* normally translated as the 'double-lion'[358] because the hieroglyphic sign shows two lions either side by side or one above the other.[359] It is generally accepted, however, that a finer meaning for the term is 'the creature who has the form of a lion' or 'he who resembles the lion', and that the significance of the double-lion hieroglyph is that it emphasizes the dual and cosmic nature of *Rwty*.[360] The Egyptologist Le Page Renouf wrote that *Rwty* represents 'a single god with a lion's face or form'.[361] And for Selim Hassan '*Rwty* was a god in the form of a lion'. In Hassan's view the choice of the double-lion hieroglyph was very probably linked in some way to the fact that: 'sphinxes are always found in pairs when guarding temple door-ways, and the function *of Rwty* is also that of a guardian.'[362]

Moreover, in line 2032 of the Pyramid Texts, as Hassan points out: 'it is said of the King: "He is taken to *Rwty* and presented to

Atum" ... [and] in the so-called *Book of the Dead* ... it says (Ch. 3, line 1): "O Atum, who appears as master of the lake, who shines as *Rwty*" ...'[363]

Indeed, there are many such places in the texts where *Rwty* and Atum are linked. One typical passage states: 'O Atum, spiritualize me in the presence *of Rwty* ...'[364] And elsewhere we read: 'Lift up this king's double to the god, lead him to *Rwty,* cause him to mount up to Atum ... The King's rank is high in the Mansion of *Rwty*.'[365]

Such syncretism with *Rwty* strongly supports a 'lion-like' or 'sphinx-like' appearance for Atum. We should therefore not be surprised to discover that in ancient Egyptian religious art Atum is often depicted as a sphinx wearing the characteristic headgear of this god—a tall crown with a plume and lotus.[366] From such depictions many leading Egyptologists have concluded that the Great Sphinx at Giza, though allegedly bearing the face of Khafre, may also have been regarded as an image of Atum.[367] Indeed, as we saw in Part I, one of the most enduring of the many titles by

which the Sphinx was known to the ancient Egyptians was *Sheshep-ankh Atum* (literally 'living image of Atum')[368]—so we need be in little doubt about this identification.

Atum, Re and Horakhti

Despite all of Atum's well-known Lion-Sphinx characteristics, modern Egyptologists have a tendency to ignore his intense leonine symbolism when discussing his cosmic attributes. More often than not they confine themselves to dishing out certain vague generalities to the effect that Atum was the 'sun-god and creator of the universe', and that his name: '... carries the idea of "totality" in the sense of an ultimate and unalterable state of perfection. Atum is frequently called "The Lord of Heliopolis", the major centre of sun worship. The presence of another solar deity on this site, Re, leads to a coalescence of the two gods into *Re-Atum* ...'[369]

Egyptologist Rosalie David informs us that at the opening of the

Pyramid Age 'the god Re [or Ra] had taken over the cult of an earlier god Atum ... [thus] *Re-Atum* was now worshipped as the creator of the world according to the Heliopolitan theology, and his priests sought to distinguish his various characteristics'.[370]

One of these important characteristics, Davies adds, was Re's manifestation as *'Re-Horakhti'*.[371] Since the literal meaning of *Horakhti* is "Horus-of-the-Horizon",[372] it would seem that what we are to envisage in this latest piece of ancient Egyptian syncretism is a coalescence of the sun's disc with such a deity. Furthermore, as astronomers and astrologers are well aware, the disc of the sun does, in fact, 'coalesce' with (or 'enter the house' of) certain star groups—the twelve constellations of the zodiac—at regular intervals throughout the year. So it is reasonable to wonder whether 'Horus-of-the-Horizon' i.e. Horakhti, could in fact be one of these zodiacal constellations.

The Egyptologist Hermann Kees also gave consideration to the subjects of Heliopolis and Horakhti. In the light of what is about to

follow, his remarks are extremely relevant: 'The particular worship peculiar to Heliopolis was that of the stars. From the worship of the stars evolved the worship of Re in the form of 'Horus-of-the-Horizon ...'[373]

We suggest that this conclusion is in the main correct, though not quite in the manner Kees saw it. We believe that it was not merely from a general 'worship of the stars' but rather from an ancient stellar image—that of a specific zodiacal constellation—that the composite deity *Re-Horakhti* was derived.

Horakhti is represented in ancient Egyptian reliefs as a man with a hawk's head, on top of which rests the solar disc.[374] In this way both the god Horus (symbolized by the hawk) and the sun in the 'horizon' are identified with the Pharaoh-King—regarded as the living embodiment of Horus.[375] The Orientalist Lewis Spence noted additionally that the lion 'was identified to the solar deities, with the sun-god Horus [and] Re'.[376] Frequently, too, we find composite lion-hawk representations of the King in ancient

depictions. For example, there is a relief from the sun-temple of Pharaoh Sahure at Abusir (Fifth Dynasty, *circa* 2350 bc) which shows the King as a winged lion and also as a lion with a hawk's head.[377]

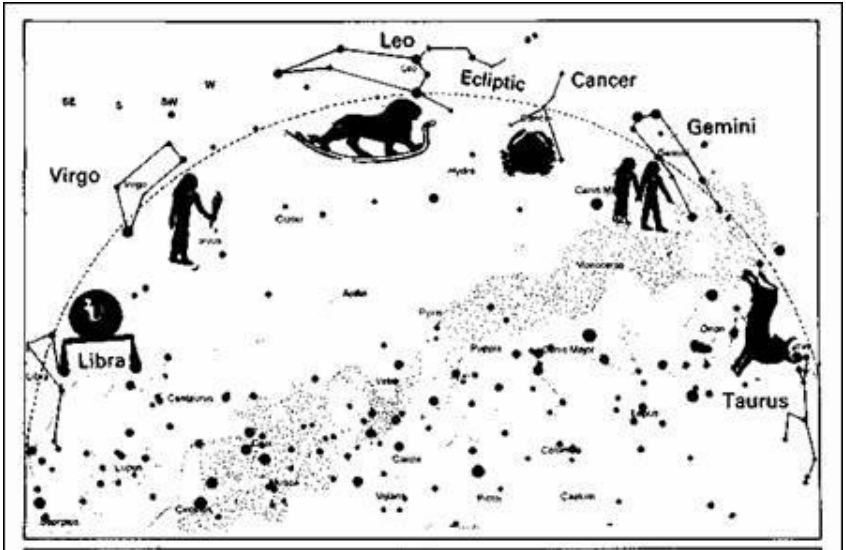
Leo
Ecliptic
Cancer
Gemini
Virgo
Libra
Taurus

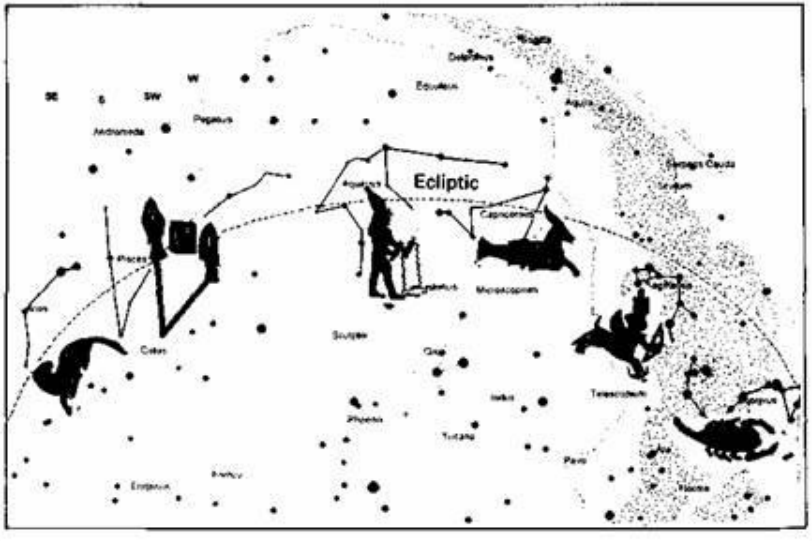
Ecliptic

41. The path of the sun (the ecliptic) passing through the twelve zodiacal constellations as they are depicted in the famous Denderah Zodiac from Upper Egypt. The sun's disc 'coalesces' with (and is said to be 'housed by') each of these constellations, one after the other, month by month, during the course of the solar year.

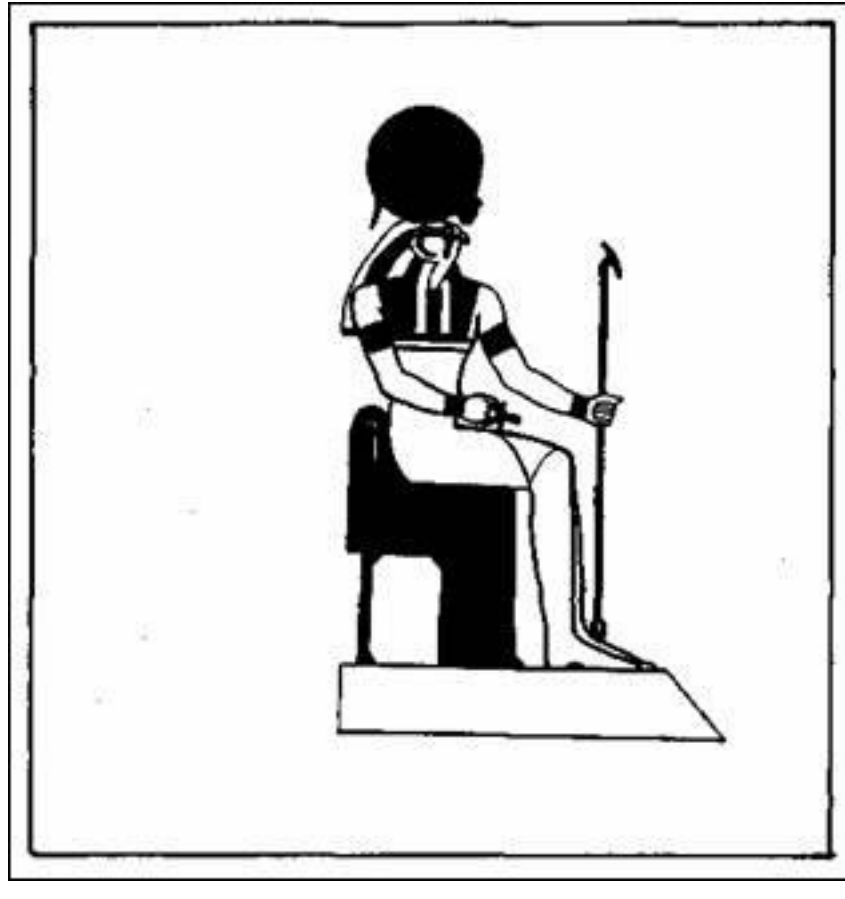

42. Horakhti, 'Horus-of-the-Horizon', was frequently depicted in ancient Egyptian reliefs as a man with a hawk's head on top of which rests the solar disc.

In summary, therefore, we seem to be looking at the various

symbolic expressions of a lengthy process: in prehistoric times a primordial god, Atum, whose form was the lion or the Sphinx, was worshipped by the Heliopolitan priests; then, in the Pyramid Age, Atum was 'coalesced' with Re, whose form was the sun's disc, and finally with Hawk-headed Horakhti—Horus-of-the-Horizon—symbolizing the Horus-King.

The result was the syncretized deity *Atum-Re-Horakhti* whose combined symbolism originated from the leonine or Sphinx-like image of Atum. Somehow this composite or 'coalesced' image was then made manifest in the 'Horizon' in the early Pyramid Age.

In that epoch, as the reader will recall, the focus of the astronomer-priests was on the summer solstice, when the *Duat* was active in the eastern sky. In what zodiacal sign, seen on the eastern horizon, did this all important 'coalescence' take place?

Horus, Dweller-in-the-Horizon

When Edouard Naville was excavating certain New Kingdom remains in Egypt's delta region north of Cairo in 1882-3, he was struck by the fact that a large number of the monuments he uncovered were dedicated to a composite deity he called '*Atum-Harmarchis'*. Associated with these monuments there would always be a *naos,* or sanctuary, containing 'a sphinx with a human head' which Naville states was 'a well-known form of the god Harmarchis'.[378]

We are by now familiar with Atum. But who is this 'Harmarchis'? Naville noted that in addition to his Sphinx form he was often represented as 'a god with a hawk's head, or as a hawk with a solar disc'—symbols with which we are also familiar—and that *'Atum-Harmarchis* was the god of Heliopolis, the most ancient city of Egypt'.[379]

'Harmarchis' is a Graecianized rendering of the ancient Egyptian name, *Hor-em-Akhet,* which means 'Horus-in-the-Horizon' or 'Horus-Dweller-in-the-Horizon'.[380] In other words, as should be

obvious by now, it is a concept that is extremely close to Horakhti, or 'Horus-*of*-the Horizon'—as close, at any rate, as the nuance between 'of on the one hand and 'in' on the other ...

Both deities are called horizon-dwellers. Both are sometimes depicted as a man with the head of a hawk. Both have a solar disc on their heads.[381] Indeed there is no real difference between them at all except, as we shall see, in the nature of the 'Horizon' in which they are said to dwell.

There is one other thing about Hor-em-Akhet and Horakhti, however, that we need to take account of first. The names of these curiously composite and syncretized lion-hawk-solar deities were both frequently, directly and interchangeably applied to the Great Sphinx at Giza.

The 'Two Horizons' of Heliopolis

The earliest surviving references to Hor-em-Akhet date from the

New Kingdom, *circa* 1440 bc, and are found on a limestone stela of Pharaoh Amenhotep II, the builder of a small temple that can still be seen on the north side of the Sphinx enclosure. On the stela Amenhotep makes reference to the 'Pyramids of Hor-em-Akhet' which Selim Hassan takes as a sign, 'that he considered the Sphinx to be older than the Pyramids'.[382] Hassan also notes that the stela specifically names the Great Sphinx both as Hor-em-Akhet and as Horakhti.[383]

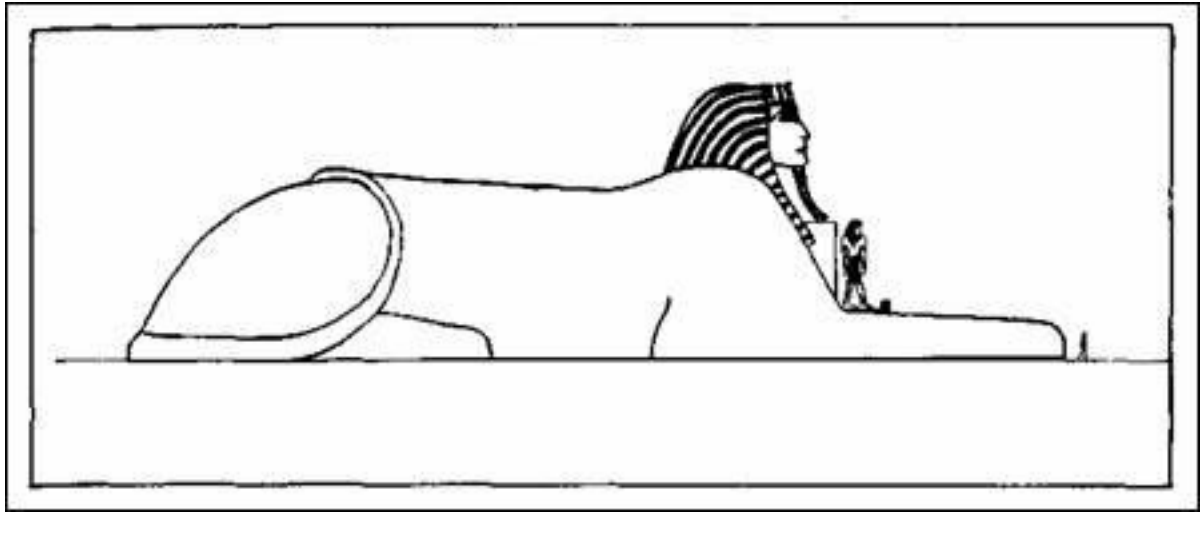

43. Artist's impression of 'reconstructed' Sphinx showing south profile.

In a similar vein, in line 9 of its inscription, the granite stela of Thutmosis IV—which stands between the paws of the Sphinx—refers to the Sphinx itself as '*Hor-em-Akhet-Khepri-Re-Atum'* and subsequently, in line 13, as '*Atum-Hor-em-Akhet'*,[384] but also refers to Thutmosis as the 'Protector of Horakhti'.[385] And it is on this same stela, as the reader will recall, that Giza is described as 'the "Horizon" [*Akhet*] of Heliopolis in the West'—i.e. as a 'reflection' in the West of what viewers in Heliopolis would have seen on their eastern horizon in the pre-dawn of the summer solstice.

It may also be of relevance that the son of Thutmosis IV, Amenhotep III, is remembered in ancient Egyptian annals as having built a temple in honour of Re-Horakhti, and that Amenhotep's son, the notorious and enigmatic Pharaoh Akhenaten, raised a great obelisk at Luxor in honour of Re-Hor-em-Akhet.[386] Akhenaten was also to name his famous solar-city *Akhet Aten,* the 'Horizon of

the sun disc'.[387] And as Selim Hassan points out the *Aten* or sun disc was frequently identified by the ancient Egyptians with the image of the Sphinx.[388] Last but not least, when Akhenaten ascended the throne of Egypt he chose as his most prominent epithet the impressive title of 'High priest of Re-Horakhti'.[389]

It is therefore legitimate to inquire into what exactly is meant by the term 'Horizon' (*Akhet*) in the names Hor-em-Akhet and Horakhti. Are these twin beings known as Horus-in-the-Horizon and Horus-of-the-Horizon to be associated with the celestial horizon —where sky meets land? Or are they to be associated with the 'Horizon' of Heliopolis in the West, i.e. the Giza necropolis?

Or is it not more likely that the texts are prompting us to consider two 'horizons' at the same time?

Interestingly, Egyptologists often translate the names Hor-em-Akhet and Horakhti as meaning 'Horus-of-the-Two-Horizons'. Sir E. A. Wallis Budge, for example, identifies Re-Horakhti to Re-Harmarchis [Hor-em-Akhet] and translates both names as 'Ra +

Horus-of-the-Two-Horizons'.[390] Likewise the orientalist Lewis Spence writes: 'Horus-of-the-Two-Horizons, the Harmarchis [Hor-em-Akhet] of the Greeks, was one of chief forms of the sun-god ... thus we find Harmarchis worshipped principally at Heliopolis ... his best-known monument is the famous Sphinx, near the Pyramids of Giza.'[391]

So if Hor-em-Akhet is the Great Sphinx in the *western* 'Horizon of Giza', then should we not look for Horakhti, his 'twin', in the eastern horizon of the sky?

These are questions that we shall continue to pursue. Meanwhile, as Egyptologist Ahmed Fakhry confirms, the various stelae that we have reviewed, and numerous other inscriptions, leave no doubt that the Pharaohs of ancient Egypt knew and worshipped the Sphinx (and obviously, too, his celestial counterpart) under the names Hor-em-Akhet and Horakhti.[392] Fakhry also points out something else of relevance: both names are 'appropriate' since 'the ancient necropolis [of Giza] was called *Akhet Khufu,* the "Horizon" of

Khufu'.[393]

Strange silence

Because the earliest surviving texts containing the term Hor-em-Akhet date from the New Kingdom, it is the present consensus of scholars that the ancient Egyptians of the Old Kingdom never spoke of the Sphinx. According to Jaromir Malek of Oxford University, for example: 'Old Kingdom sources are strangely and surprisingly silent about the Great Sphinx of Giza. It was only some 1000 years after the Sphinx had been made ... that it was mentioned ...'[394]

Could this really be so? How could the Old Kingdom Egyptians, having taken the trouble to construct the huge Giza necropolis and the rest of the Memphite monuments, fail to make any mention of the Great Sphinx?

One possibility which deserves to be taken seriously is that they did not mention it because they did not build it—but rather *inherited*

it from a far earlier epoch. Even on this scenario, however, it strains credulity to suppose, in all their prolific texts, carved on the walls of nine royal Pyramids of the Fifth and Sixth Dynasties, that they would not make a single reference to so magnificent a statue occupying so crucial a site.

The other possibility which has to be considered, therefore, is that Egyptologists could somehow have *failed to recognize* the name given to the Sphinx in the Pyramid Texts.

There is one very obvious contender.

As we have seen, the Sphinx in the New Kingdom was known not only as Hor-em-Akhet but also as Horakhti. And although the name Hor-em-Akhet definitely does *not* appear in the Pyramid Texts it is a simple fact that the name Horakhti does, many times over. Indeed these archaic scriptures contain hundreds of direct mentions of Horakhti, 'Horus-of-the-Horizon',[395] all of which refer, as scholars agree, 'to the god rising in the east at dawn'.[396] What they have never suspected is the possibility that they may be confronted here

by the ancient Egyptian dualistic way of referring to an earthly counterpart by means of its celestial twin.

Searching for Horakhti

'The doors of the sky are thrown open for Horakhti,' states one typical passage in the Pyramid Texts, 'the doors of the sky are thrown open at dawn for Horus of the East ...'[397] Elsewhere, in line 928, we read: 'go to ... Horakhti at the horizon ... I go up on this eastern side of the sky ...'[398]

Virtually unnoticed by Egyptologists, who write off all such utterances as 'mystical mumbo-jumbo', the Pyramid Texts also provide us with some extremely important astronomical clues when they tell us, again and again, that the dawn rising of Horakhti in the east coincides with the time and place 'where the gods were born'. For example:

The Winding Waterway is flooded, the Fields of Rushes are filled, that I may be ferried over to the eastern side of the sky, to the place where the gods were born, and I was born there with them, as Horus, as the Horizon Dweller [Horakhti] ...[399]

... go to ... Horakhti at the horizon ... on the eastern side of the sky where the gods are born.[400]

... the birth of the gods before you [Horus] in the five epagomenal days ...[401]

Making use of the proper astronomical key, let us try to decode this alleged 'mystical mumbo-jumbo':

1. The 'place where the gods [i.e. the stars] are born' is a specific direction as to where we are to observe Horakhti: the eastern horizon—where all heavenly bodies rise.

2. The time of year at which we are to make our observations is also clearly specified: the so-called 'five epagomenal days', or five 'days upon the year'. To understand this reference we need only remember that the ancient Egyptian calendar was based on 360 days plus five extra or intercalcary days which they called

‘the days upon the year’ (*epagomenae* in Greek). During these five days five *Neters* or gods were said to have been born, two of whom—Osiris and Isis—were identified by the ancient Egyptians with the constellation of Orion and the star Sirius (also called Sothis).

3. Last but not least the Pyramid Texts also specify the time of day at which the sky is to be observed—clearly dawn, since this was when the birth of the gods was said to have occurred:

Behold Osiris has come as Orion ... the dawn-light bears you with Orion ... your third is Sothis [Sirius] ...’[402]

Sothis [Sirius] is swallowed up [i.e. fades in the dawn] by the *Duat,* pure and living in the Horizon.[403]

The reed-floats of the sky are brought down to me ... that I may go up on them to Horakhti at the horizon. I go up on this eastern side of the sky where the gods are born, and I am born as Horus, as ‘Him of the Horizon’ ... Sothis is my [companion] ...[404]

The sky is clear [is lighting up], Sothis lives ...[405]

It is Sothis ... who prepares yearly sustenance for you in her name of 'Year' ...[406]

Geographical and cosmological context

The day on which Sothis-Sirius, after a period of invisibility, was first seen rising with the sun at dawn (i.e. the event referred to by astronomers as the 'heliacal rising' of this star) was taken by the ancient Egyptians as the cosmic marker for the beginning of their New Year.

Furthermore it is certain from the passages quoted above, and from many other references in the Pyramid Texts, that the dawn rising of Sothis-Sirius coincided with the rising of 'Horakhti'. This is an important piece of astronomical information which helps us to identify who Horakhti is—or rather which celestial figure he represents.

We also know from historical records and from computer reconstructions that two major events—one celestial and the other

terrestrial—coincided with the heliacal rising of Sirius during the Pyramid Age (*circa* 2500 bc). The celestial event was the summer solstice. And the terrestrial event, as the reader will recall from the previous chapter, was the start of the Nile's annual flood—the 'Great Inundation' that brought fertility to the land.[407]

Once this geographical and cosmological context is fully taken into account we can see exactly what it is that the compilers of the Pyramid Texts were transposing from the ground to the sky when they tell us that the appearance of Horakhti at dawn coincided in their epoch with the start of the 'great flood':

> The Winding Waterway is flooded, that I may be ferried thereon to the horizon, to Horakhti ... Re has taken me to himself, to the sky, to the eastern side of the sky, as this Horus, as the Dweller in the *Duat,* as this star which illumines the sky [which] is my sister Sothis ...[408]

> This is Horus who came forth from the Nile ...[409]

> They row Horus, they row Horus in the procession of Horus on the Great Flood. The doors of the sky are opened, the doors of the firmament are thrown open for Horus of the

East at dawn ...[410]

Also passage 1172 speaks of ‘the Great Flood which is in the sky’ in the region of the *Duat.*

So, to summarize, far from being ‘mumbo-jumbo’, the Pyramid Texts go to great lengths to make it clear that during the epoch of their compilation, *circa* 2500 bc, the rising of Horakhti at dawn coincided with the summer solstice, and with the season of the inundation, at the moment when the *Duat*—the celestial Kingdom of Osiris-Orion—occupied the eastern portion of the sky. We can also deduce from the texts that Re, i.e. the sun’s disc, was seen somehow to merge or to unite—or ‘coalesce’—with Horakhti at the same time. This is made amply clear by the following reading: ‘Re has taken me to himself to the eastern side of the sky as this Horus, as the “Dweller in the *Duat*”.’[411]

In other words, what we need to look for in order to identify Horakhti with certainty is an astronomical conjunction during the summer solstice in the Pyramid Age when both the sun and some

other significant celestial body would have been seen to occupy the same specific place on the eastern horizon.

As we shall see in the next chapter, computer simulations provide us with the means to search for such a conjunction. They also enable us to relive the drama of the Horus-Kings of ancient Egypt as they participated in an extraordinary ritual, physically re-enacting celestial events observed by the astronomer priests of Heliopolis on their eastern horizon and reflected in the artificial western 'Horizon' of Heliopolis, i.e. amongst the vast and eternal monuments of the Giza necropolis.

Chapter 10

The Quest of the Horus-King

'Egypt ... considered life to be everlasting and denied the reality of death ... Pharaoh was not mortal but a god. This was the fundamental concept of Egyptian kingship, that Pharaoh was of divine essence, a god incarnated ... It is wrong to speak of the deification of Pharaoh. His divinity was not proclaimed at a certain moment in a manner comparable to the *concretatio* of the dead emperor by the Roman senate. His coronation was not an apotheosis but an epiphany.'

Henri Frankfort, *Kingship and the Gods,* 1948

'The figure of Osiris is not exclusively at home in mythology ... Each king, at death, becomes Osiris, just as each king, in life, appears "on the throne of Horus"; each king *is* Horus ... The question whether Osiris and Horus are ... gods or kings is, for the Egyptian, meaningless. These gods are the late king and his successor; these kings are those gods ...'

Henri Frankfort, *Kingship and the Gods,* 1948

The whole force, the impetus and the very *raison d'être* of the

Pharaonic state was to provide all the required ceremonial settings that would enable the Horus-King to undertake a sort of supernatural quest—a journey back in time into the earthly and cosmic realms of his 'father' Osiris. Indeed this was the supreme quest in a Pharaoh's lifetime and at its end lay the ultimate Holy Grail in the form of the astral body of Osiris which the king could encounter only after overcoming many dangers, difficulties and ordeals and after passing through many miracles and terrors. Once in the presence of Osiris the questor would beseech him to 'rise again' and bestow immortality not only on himself, but on the whole land of Egypt. This great ritual had to be performed by each successive Horus-King, (perhaps even each year) at a specific time preluding the 'rising of Orion'.

Child of the Sun, son of Osiris

In his brilliant study on the Osirian cosmic myth,[412] the late

professor of Egyptology at Manchester University, R. T. Rundle Clark, wrote that: 'The king was the mediator between the community and the source of divine power, obtaining it through the ritual and regularizing it through his government. In Egypt there were two sources of power—in the sky and in the tomb with the ancestors. The first location made the king the child of the Sun God; the second location made him Horus, the son of Osiris ...'[413]

Let us reiterate this important dualistic quality of the Horus-King —'the child of the Sun God and the son of Osiris'—for in it lies the true mystery of the great Osirian and Horian rituals of the Pyramid Age. The potential powers of nature within the 'dead' Osiris remained 'inert, asleep or listless, and completely passive' until the Horus-King was able to undertake a 'journey' to the *Duat* and 'visit his father' and 'open his mouth', i.e. bring him back to life.[414] This final and supreme act of filial devotion would then release all the forces of nature which would in turn bring forth the flooding of the Nile and the growth of vegetation—the forces, in short, that would

fertilize and regenerate Egypt. In Rundle Clark's words: 'Theologically, the result of Horus's ministration is that Osiris can "send out his soul" or "set himself in motion" ... The time of Orion in the southern sky after the time of its invisibility is the sign for the beginning of a new season of growth, the revival of nature in all aspects. Osiris has been transformed into a "living soul" ...'[415]

Sir E. A. Wallis Budge also explains how, from its earliest beginnings, the Pharaonic state was entirely committed to provide the correct ceremonial setting for each successive Horus-King to be able to perform the 'journey' into the *Duat* to visit the twofold realm of Osiris in the 'horizon':

> [The Egyptians] spared no pains in performing the works which they thought would help themselves and their dead to put on immortality and to arrive in the dominions of him who was 'the King of eternity and the lord of everlastingness'. Every tradition which existed concerning the ceremonies that were performed on behalf of the dead Osiris by Horus and his 'sons' and 'followers', *at some period which even so far back as the IVth Dynasty ... was extremely remote,* was carefully preserved and faithfully imitated under succeeding dynasties ... The formulae which were declared to have been recited during the performance of such ceremonies were written down and copied for scores of generations

...'[416]

The whole emphasis on the King's person, therefore, was that he was seen as the link between the two *Duals,* one in the sky and the other on land, both meant to contain the 'Kingdom of Osiris' as it was in the original 'First Time'. The great 'journeys' of Horus thus took place both in the sky and on the ground and ran, as it were, in parallel. This is how the drama seems to have been conceived:

1. In the sky the Horus-King was the 'son of the Sun' and had to follow the path of the sun disc, cross the 'cosmic river' on the Solar-bark and reach the Gateway that lead into the sky-*Duat* of his 'father Osiris' in the eastern horizon.[417] He then had to travel on one of the 'roads' to Rostau, the centre of the *Duat,* where (then and now) are to be found the three stars of Orion's belt.

2. On the ground the Horus-King was the bodily 'son of Osiris' and had to follow the earthly path, cross the Nile on the solar

boat and reach the Gateway (the great Sphinx) that led into the earth-*Duat* of his 'father Osiris' in the western 'horizon', i.e. the necropolis of Giza. He then had to travel on one of the 'roads' to Rostau, the centre of the *Duat,* where (then and now) are to be found the three great Pyramids of Giza.

In both these 'journeys' the Horus-King somehow had to be able to pass through a sort of 'time gateway' which permitted him to enter the twofold *Duat* realms of Osiris—i.e. Rostau-Giza—as they were remembered from the mythical golden age of the gods:

> [The council says to Horus]: Indeed this journey of yours ... is as when [the first] Horus went to his father Osiris so that he might be a spirit thereby, that he might be a soul thereby ...[418]

> Indeed this journey of yours, indeed these journeys of yours [sky and land] are the journeys of [the first] Horus in search of his father Osiris ...[419]

From such references it is quite obvious that the events catalogued in the sky and on the land in the 'twofold funeral regions of Osiris' are somehow set or 'frozen' far back in the past in 'the

time of the gods', the time of Osiris and Horus—i.e. *Zep Tepi,* the 'First Time'.

Also obvious, as we have seen in previous chapters, is the way in which the twofold funeral regions of Osiris are said to reflect each other at the time of the heliacal rising of Sirius, the 'star of Isis', the sister-wife of Osiris and mother of Horus—an astronomical event which we know coincided in the early Pyramid Age with the appearance of the rising sun at the summer solstice (known as the 'birth of Re').[420] It was at this propitious moment that the Horus-King set out on his quest for the regeneration of Egypt by participating in a grand rebirth ritual simultaneously as the 'son of Osiris' and the 'son of Re'.

As the 'son of Osiris' he emerged from 'the womb of Isis', i.e. the star Sirius,[421] at dawn on the summer solstice, i.e. the day of the 'Birth of Re'. It was then—and there—both at the sky-horizon and on the earth 'horizon' that the Horus-King was meant to find himself in front of the Gateway to Rostau. Guarding that Gateway

on the earth-horizon' (i.e. at Giza) he would encounter the gigantic figure of a lion—the Great Sphinx. And guarding that Gateway in the sky-horizon his celestial counterpart would find ... what?

As usual, once we understand their profoundly astronomical nature, the Pyramid Texts provide us with all the necessary co-ordinates to answer this question. It is simply a matter of realizing that the 'weird' symbolic language used in the texts—far from being mumbo-jumbo—is in fact a precise scientific terminology dressed up in the liturgical clothing of a cosmic drama.[422]

Seventy days from Horakhti

It is well known, and not a matter of controversy even amongst Egyptologists,[423] that the whole emphasis of the ancient Egyptian rebirth cult was on the seventy days of 'invisibility' which Sirius, the star of Isis, endured each year. These seventy days were seen as a cosmic preparation for astral rebirth and, not surprisingly, they

were matched to the period of embalming in the mummification rituals of the dead.[424] The culmination and crescendo of this seventy-day period came with the first dawn reappearance, or rising, of Sirius which, as the reader will recall, occurred at around the time of the summer solstice during the Pyramid Age. This was when the astronomer-priests of Heliopolis observed what is technically known as the heliacal rising of Sirius in the east.[425]

Since it was believed that all the potential powers of nature needed to cause the 'rebirth' of the cosmic Horus-King were building up in the 'womb' of the goddess Isis during these crucial seventy days, we can suppose that the beginning of the period marked the beginning of the 'journey' of Horus into the 'underworld'—when the *Duat* was locked, as it were, below the horizon and thus directly 'underneath' the Giza necropolis.

From this it follows that we are invited to find out where the Horus-King's celestial counterpart—i.e. the disc of the sun—stood in the sky some seventy days prior to the heliacal rising of Sirius.

The Pyramid Texts again give us the clue. They specify that at this time the Horus-solar-King was to be found on the banks of the Milky Way just about to board the solar bark.[426] Remembering that the astronomical observations in the texts were made during the middle of the third millennium bc, let us try to decode this imagery using computer simulations.

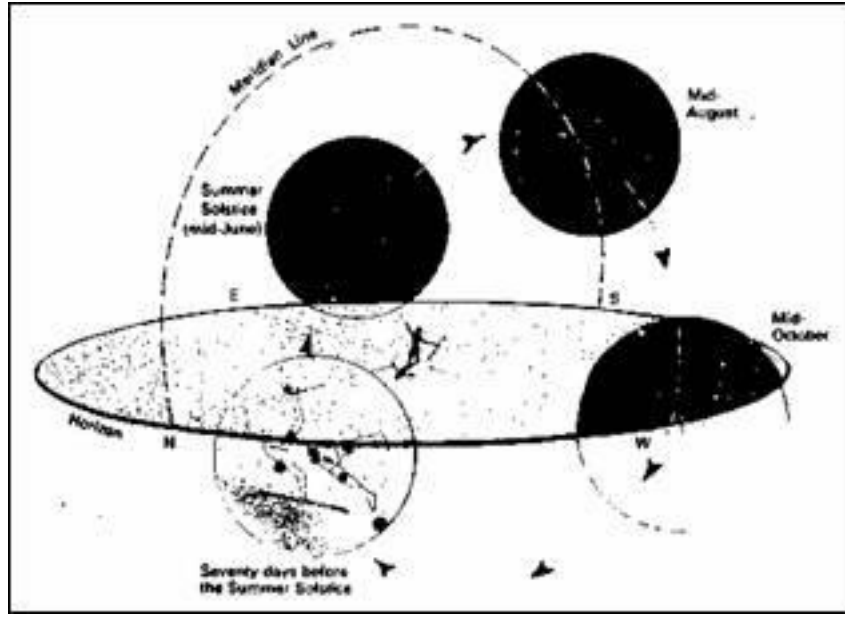

44. Position of the *Duat* sky-region at dawn at various times of the year in the epoch of 2500 bc, the Pyramid Age. The *Duat* was considered to become active only at the summer solstice in mid-June when the stars of Orion and Sirius rose heliacally. Some 70 days prior to this crucial observational moment the *Duat* was 'locked' below the horizon and thus, in a sense, directly 'underneath' the Giza necropolis.

We know, of course, that the 'path' of the sun (which astronomers call the ecliptic) passes through twelve distinct constellations in the course of a complete year—the constellations of the zodiac. *Circa* 2500 bc, therefore, let us see where the sun would have been along the ecliptic path some seventy days before the heliacal rising of Sirius. It would, we discover, have been near the head of Taurus (the Hyades) and poised on the right bank of the Milky Way.[427]

In the ritual or drama performed by the king, is it not possible that this celestial event was the source of the imagery of the cosmic Horus about to 'board' a cosmic 'bark' with the sun-god in order to cross a waterway (the 'Winding Waterway', i.e. the Milky Way):[428]

The king embarks with Re on this great bark of his, he navigates in it to the horizon

with him ...[429]

The king shall go aboard the bark like Re on the banks of the Winding Waterway ... [430]

The Winding Waterway is flooded ... you cross thereon to the horizon, to the place where the gods were born ... your sister [companion] is Sothis ...[431]

May you cross the Winding Waterway ... may you fall in the eastern side of the sky, may you sit in the ... horizon ...[432]

He [Horus] goes aboard the bark like Re at the banks of the Winding Waterway ... [433]

As we wind the ancient skies a little forward in time on our computer we discover that twenty-five days after being stationed near the Hyades-Taurus on the right bank of the cosmic river the sun has indeed 'crossed' the Milky Way and is now 'sailing' eastwards along the ecliptic path in the direction of the great zodiacal constellation of Leo—seen as a huge 'crouching lion' in the sky. We are now just a little over six weeks away from the summer solstice:

The reed-floats of the sky are set down for me that I may cross on them to the horizon, to Horakhti ... to yonder eastern side of the sky ... Summons is made to me by Re ... as Horus, as the Horizon Dweller ...[434]

The doors of the sky are thrown open for Horakhti ... the doors ‘of the sky are thrown open at dawn for Horus of the East ...[435]

... go to ... Horakhti at the horizon ... on the eastern side of the sky where the gods are born.[436]

Following this extremely clear and specific instruction to ‘go to Horakhti’ at the horizon (there to meet the sunrise) we continue our eastward journey along the ecliptic path with a sense that we are rapidly converging upon a vital ‘station’ in the quest of the Horus-King.

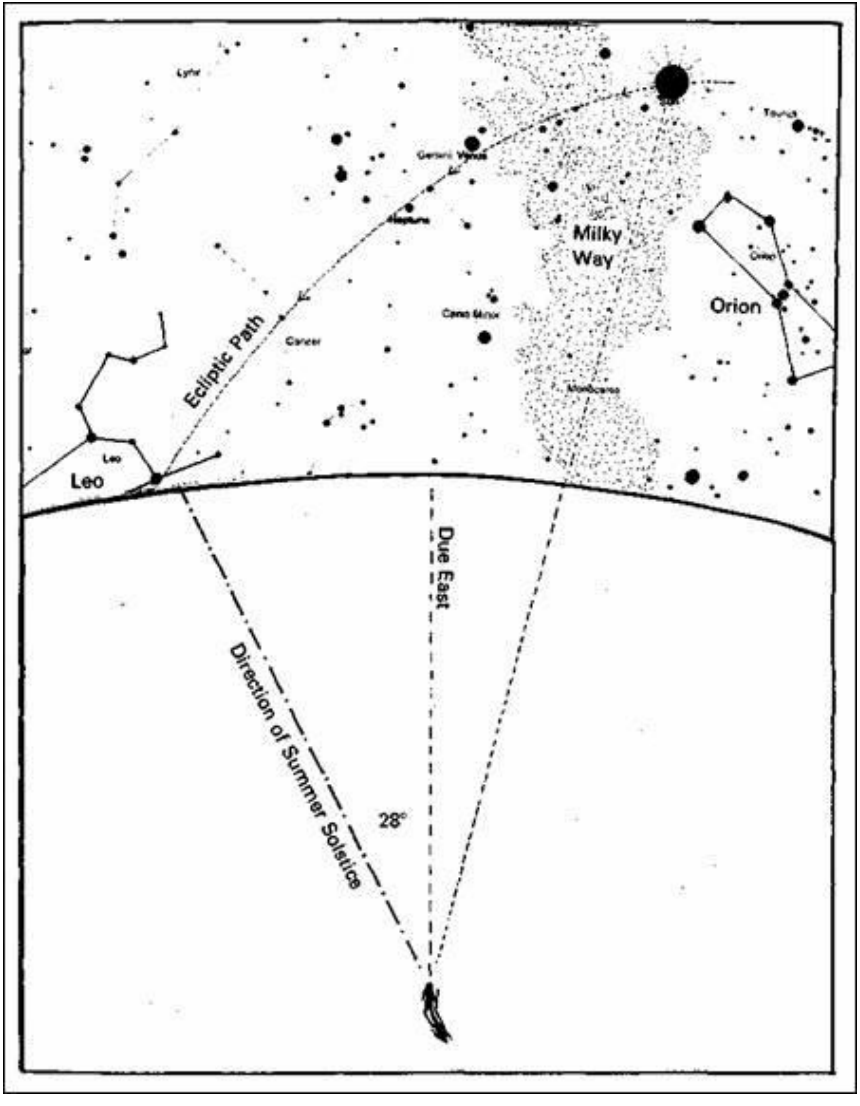
Lyra
Taurus
Gemini
Milky
Way
Orion
Canis Minor
Ecliptic Path
Cancer
Leo
Leo
Due East
Direction of Summer Solstice
28°

45. Epoch of 2500 bc, the Pyramid Age, seventy days before the summer solstice: an initiate tracking the journey of the 'solar' Horus, the disc of the sun, from its station on the right 'bank' of the Milky Way.

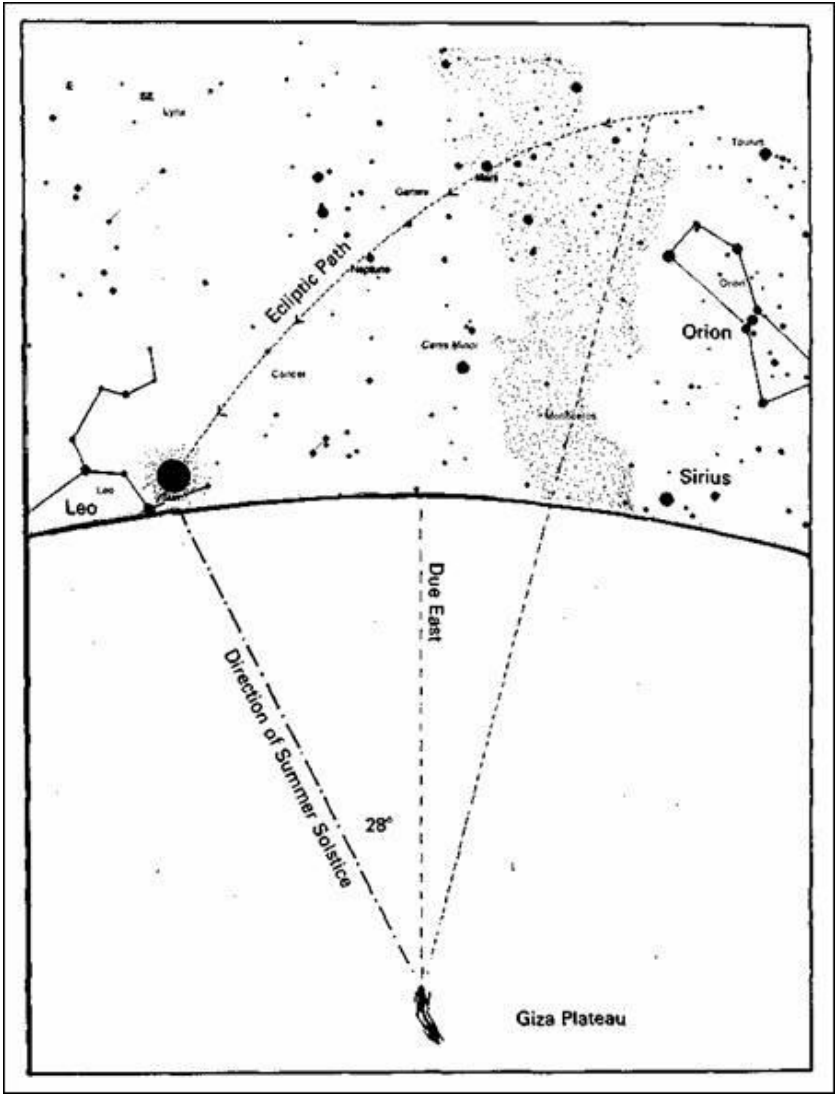
Ecliptic Path
Orion
Sirius
Leo
Due East
Direction of Summer Solstice
28°
Giza Plateau

46. Epoch of 2500 bc, the Pyramid Age: an initiate tracking the journey of the 'solar' Horus, the disc of the sun, to its conjunction with Regulus, the heart-star of Leo, at dawn on the summer solstice. The ritual leaves no room for doubt that the enigmatic figure of Horakhti, so frequently referred to in the Pyramid Texts, is none other than the constellation of Leo.

The weeks pass in seconds on our computer screen and when we at last 'reach the eastern side of the sky'—at the horizon, at the highly significant moment when 'the gods are born', i.e. at the exact time of rising of the star Sirius—we see that a very powerful celestial conjunction has occurred: the sun (which is now at the summer solstice point) stands exactly between the 'paws' of Leo.[437] The solar disc is positioned near the breast of the cosmic lion where it seems to merge with the bright star Regulus—the 'star of Kings'.[438]

The great celestial 'journey' performed by the cosmic Horus-King along the ecliptic path therefore turns out to lead quite unambiguously to one very specific place in the heavenly landscape: between the 'paws' of Leo and right in front of its

‘breast’.

The implications are obvious.

The enigmatic figure of Horakhti, whose identity we have been attempting to establish, can be none other than the constellation of Leo—the giant cosmic lion, or sphinx, who stands at the gates of the sky-*Duat and* who assumes the name of ‘Horus-of-the-Horizon’.

Let us now transpose the Horus-King to the land and follow his journey to the earthly ‘Horus-in-the-Horizon’—by whom, of course, we mean Hor-em-Akhet, the Great Sphinx in the ‘horizon’ of Giza.

The High Road and the Low Road

The Horus-King stands on the east bank of the Nile, near the royal residence.[439] After completing certain rituals he boards a great ‘solar boat’[440]—perhaps the very boat that was found in 1954 buried in a pit near the south face of the Great Pyramid—and is taken to the west bank of the river in the valley beneath the Giza

plateau. He disembarks, makes his way up to the Temple of the Sphinx, and walks between the paws of the great statue to stand in front of its breast.

He is now at the Gateway to Rostau[441] and about to enter the Fifth Division of the *Duat*—the holy of holies of the Osirian afterworld Kingdom. Moreover, he is presented with a choice of 'two ways' or 'roads' to reach Rostau: one which is on 'land' and the other in 'water'.[442]

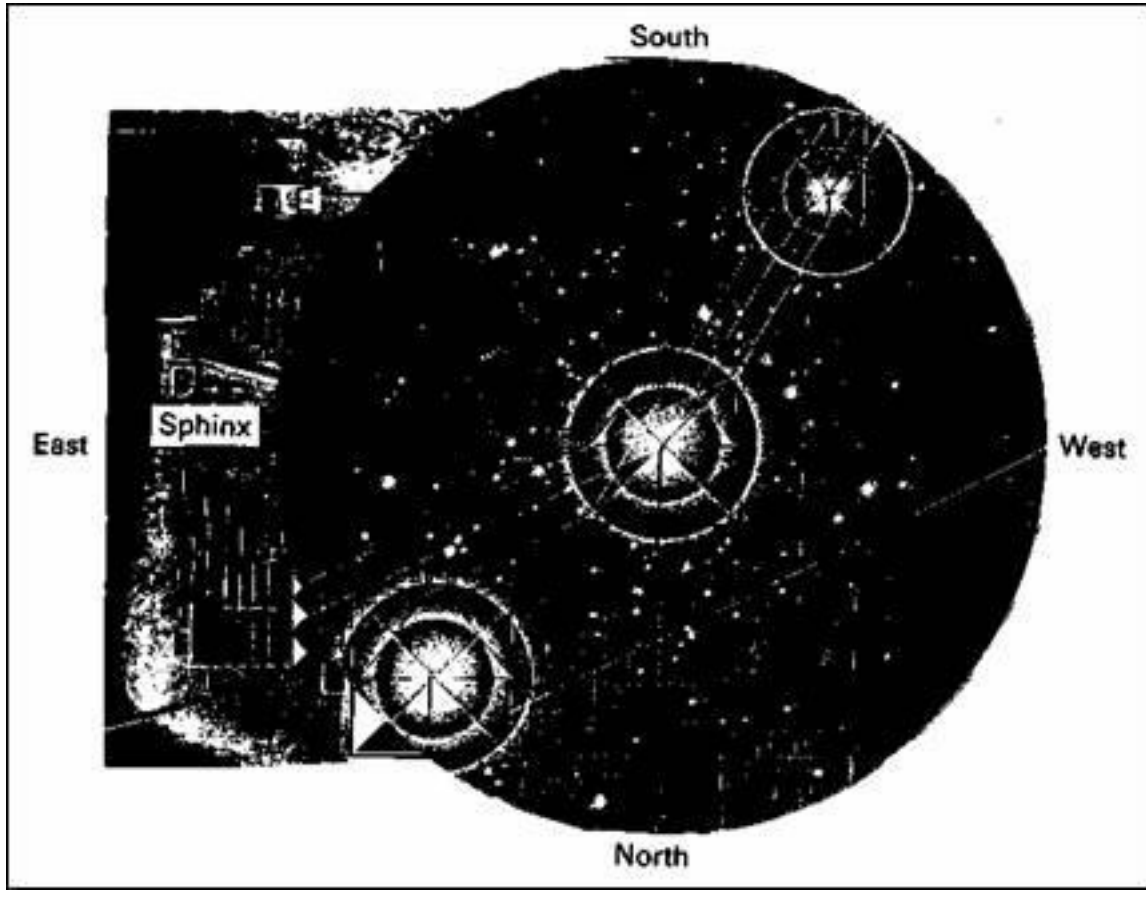

47. The 'astral' Kingdom of Osiris in Rostau. Artist's impression of the correlation of the three Giza Pyramids and the three stars of Orion's belt in *Zep Tepi,* the 'First Time'.

The eminent German philologist, Adolf Erman, explains:

Whoever enters the realms of the dead by the sacred place of Rostau has, as we learn from a map of the Hereafter, two routes open to him, which would lead him to the land of the blessed, one by water, the other by land. Both are zigzag, and a traveller cannot change from one to the other, for between them lies a sea of fire ... Also before entering upon either of these routes there is a gate of fire to be passed ...[443]

Having made his choice, the Horus-King demands to be taken to see 'his father' Osiris in his astral form. A mediator or priest reports to Osiris and states:

It is not I who asks that he may see you in this form of yours which has come into being for you; O Osiris, someone asks that he may see you in this form of yours which has come into being for you; it is your son who asks ... it is Horus who asks that he may see you in this form ... a loving son ...[444]

48. Artist's impression of the original Horus leading the way for the Horus-King initiate into the place where the 'Seat' of Osiris is to be found in the astral Pyramid of final initiation.

Horus then declares to the council of the gods:

The sky quivers, the earth shakes before me, for I am a magician, I possess magic. I have come that I may glorify Orion, that I may set Osiris at the head ...[445]

I have come to you, my father, I have come to you, Osiris ...[446]

Next, in a most telling manner, the council of the gods issues the following instruction:

O Horus, the King [your father] is Osiris, this Pyramid of the King is Osiris, this construction of his is Osiris; betake yourself to it ...[447]

And further light may be shed on the identity of the Osiris-Pyramid by a passage from the *Book of What is in the Duat* which speaks of a mysterious 'district' in the *Duat:* 'which is 440 cubits in length and 440 cubits in breadth'.[448] Can it be a coincidence, since the Egyptian royal cubit is equivalent to 20.6 inches and 440 cubits therefore amounts to just over 755 feet, that the dimensions given are identical to those of the Great Pyramid's square base?[449]

At any rate, after passing through more ordeals and adventures, the questing Horus-King finally reaches Osiris-Orion and finds him listless in the tenebrous underworld of his Pyramid. At this vital juncture, the questor's role is to bid his 'father Osiris' to awake and

be reborn—i.e., in dualistic astronomical terms, to rise anew in the east at dawn as Orion: 'Awake for Horus! ... Raise yourself! ... The gates of the *Duat* are opened for you ... Spiritualize yourself ... May a stairway to the *Duat* be set up for you to the place where Orion is ...'[450]

Where, then, near or under the Sphinx can we find the 'two ways' or the 'two roads' of Rostau?

And why should the Horus-King be made to choose between them?

Subterranean world

One of the ancient names of the Giza necropolis, as we have seen, was *Akhet Khufu—Kherit-Neter-Akhet-Khufu* in full, usually rendered into English as 'the necropolis of the Horizon of Khufu'. In his dictionary of ancient Egyptian hieroglyphs, Sir E. A. Wallis Budge translates the word *Kherit-Neter* as 'cemetery, necropolis'.

[451] Selim Hassan, however, points out that *Kherit-Neter* can have the alternative meaning of 'under, or belonging to a God'.[452] And Budge adds that *Kherit* can also mean 'estate' and that the root of the word, i.e. *Kher,* can mean 'under something', 'the lower part' or 'downwards'.[453]

In addition, as Hassan also reminds us, *Kherit* 'may be applied to the Underworld [*Duat*], perhaps as a lingering memory of the conception of Rostau as the Kingdom of Osiris in the tomb'.[454] Could such nuances imply more than a lingering memory? In other words, is it not possible, as we have already suggested in Part I, that under the necropolis-'horizon' of Giza there could be an 'estate' of some kind—perhaps a network of subterranean chambers and passageways?

In his *Handbook of Egyptian Religion,* the German Egyptologist Adolf Erman wrote that: 'the celebrated shrine Rostau, the gates of the ways, led directly to the underworld. It is possible that part of this shrine has survived in the so-called Temple of the Sphinx

...'[455]

Furthermore, commenting on the word 'Rostau', R. O. Faulkner, the translator of the Pyramid Texts, says that this is also 'the term for a ramp or slide for moving the sarcophagus into a tomb, transferred to a region of the beyond'.[456] Dr. I. E. S. Edwards, on the other hand, says that the causeway which links a pyramid complex with its valley temple 'was called "place of the haul" or "entrance of the haul" (Rostau) because it was the way along which sledges bearing the body of the dead king and his personal possessions would be hauled at his funeral'.[457]

Linking the Valley Temple near the Sphinx with the central Pyramid on the Giza plateau, as the reader will recall, are the remains of an enormous causeway. Might not this causeway or 'road' be one of the 'ways' to the heartland of Rostau described in the ancient texts? Such causeways—though now in all cases fallen into ruin—were originally rectangular tunnels roofed over with limestone slabs and decorated with star-spangled ceilings.[458] It is

easy to see how symbolism of this kind would have been be appropriate in the context of the Horus-King's cosmic quest to find the astral form of Osiris.

The causeway of the Sphinx runs to the immediate south of the monument at about the level of its shoulder and thence slopes gently upwards in a westerly direction towards the great 'Mortuary Temple' that stands outside the east face of the central Pyramid of Giza. Being in every sense 'dry', it makes sense to consider this causeway as being the 'road by land' to Rostau.

But where might the other 'road' be located—the 'way through water'? There may be an important clue in the *Book of What is in the Duat.* In this eerie text there is a depiction of the hermetically sealed chamber of the 'Kingdom of Sokar'—Sokar-Osiris—which is also the Fifth Division of the *Duat.* The depiction shows a tunnel filled with water passing *under the paws* of a large Sphinx (see page 148). The tunnel slopes gently upwards leading, finally, to the Sixth Division.

Interestingly enough, as we saw in Part I, geologists working around the Great Sphinx in the early 1990s identified a large rectangular chamber and other 'anomalies' in the bedrock directly beneath the monument's paws. Interestingly, too, it is well known that far below the Sphinx is an underground watertable which has been constantly replenished since times immemorial by capillary action from the Nile.[459]

Tunnel

Dr. Jean Kerisel, the eminent French engineer whose work in the Subterranean Chamber of the Great Pyramid we are already familiar with,[460] has recently taken the geological evidence further by suggesting that the Sphinx may stand over the entrance to a 700-metre-long tunnel leading to the Great Pyramid—a tunnel that was once filled or partially filled with water.[461]

Could such a tunnel be the other 'way' that the Horus-King had to take to 'see the astral form of his Father', i.e. Orion? The fact that inside the King's Chamber of the Great Pyramid is, indeed, a star-shaft pointed directly at Orion's belt—the 'Rostau' in the sky—adds cogency to notions of some sort of underground access route that might have been used by initiates to journey in secret from the Sphinx to the inner passages and chambers of the Pyramid.

Furthermore, in the Pyramid Texts we often hear of a 'Causeway of Happiness' which is in the 'North of the Field of Offerings'. And in the following passage the Horus-King seems to be standing at the entrance of such a 'causeway' at exactly the time Sirius is performing its heliacal rising, i.e. 'Heralding the New Year' 70 days after the sun's crossing of the Milky Way:

> I am the herald of the Year, O Osiris, I have come on business of your father Geb [the earth-god] ... I speak to you, I have made you enduring. 'Causeway of Happiness' is the name of this causeway north of the Field of Offerings. Stand Up, Osiris, and commend me to those who are in charge of the 'Causeway of Happiness' north of the Field of Offerings just as you commended Horus to Isis on that day on which you made her pregnant ...[462]

The ‘Field of Offerings’ had a celestial location in the *Duat* somewhere near Orion.[463] Dualistic logic therefore suggests that its earthly counterpart must have been a place where ‘offerings’ were made by the Horus-King when he was about to enter the Giza necropolis. With this in mind, it is surely of relevance that many of the New Kingdom sphinx stelae found at Giza, including the granite stela of Thutmosis IV that stands between the paws of the Sphinx itself, do in fact show the Horus-Kings making offerings in a temple in front of the monument.[464] Furthermore, as the text quoted above makes clear, the ‘Causeway of Happiness’ ran to the north of the ‘Field of Offerings’. An underground ‘causeway’ running north-west from the temple of the Sphinx would lead to the Great Pyramid.

So could Kerisel’s bold hypothesis be right?[465] Could such an underground system exist at Giza?

These are questions that we shall return to in Part IV. Meanwhile what are we to make of the mention of Isis and her pregnancy that also appears in the above text?

In *The Orion Mystery* it has been shown that the Great Pyramid's so-called Queen's Chamber could have been used for a symbolic 'copulation' or 'seeding' ritual involving the person of the Horus-King on the one hand and the goddess Isis in her astral form (i.e. the star Sirius) on the other. In terms of sky-ground dualism the two might have been thought of as being 'connected' through the Chamber's southern star-shaft, which was targeted on the meridian-transit of Sirius in the Pyramid Age.[466] This hypothesis is strengthened by the fact that such a copulation ritual is found clearly depicted in the Pyramid Texts and that the moment when Osiris supposedly made Isis 'pregnant' is specified as being when Sirius crossed the meridian at dawn.[467] The texts also state of Osiris-

Orion: ‘Your sister Isis comes to you rejoicing for love of you. You have placed her on your phallus and your seed issues in her, she being ready as “Sothis” [Sirius] ...’[468]

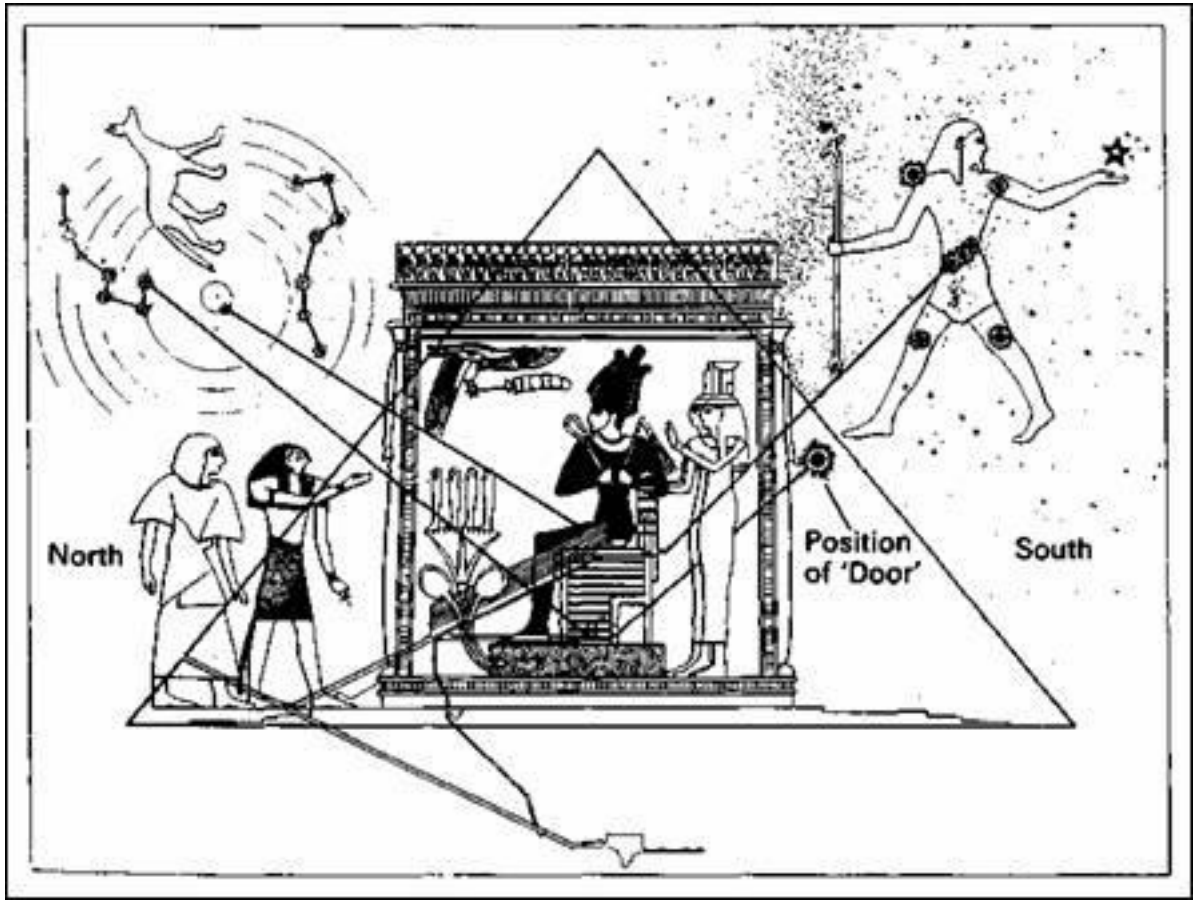

49. Artist's impression of the 'cosmic' Great Pyramid superimposing the star Sirius over the position of the 'gate' in the Sirius star-shaft.

Was the Horus-King, then, somehow meant to find his way under

and into the Great Pyramid and thence to its upper chambers with their star-shafts?

And what might really be the significance of Rudolf Gantenbrink's recent discovery, which we have considered at length in Part II, of a mysterious 'gate' or 'doorway' deep inside one of those shafts—the very shaft that targeted the meridian-transit of Sirius in the Pyramid Age?

Last but not least, is it a coincidence that the ancient Egyptian word *sba,* 'star', also carries the meanings 'gate', 'folding door' and 'great door of heaven'?[469]

Again, these are matters on which we shall have to postpone further conjecture until Part IV. Meanwhile let us return to the quest to unite sky and ground—thus winning the Grail of immortality—in which all the Horus-Kings of ancient Egypt participated.

The Splendid Place of the 'First Time'

We left the cosmic Horus-King standing in the sky with the solar disc between the ‘paws’ of the celestial lion, the constellation of Leo—on the spot marked by the star Regulus.

In the Pyramid Age Regulus rose at approximately 28 degrees north of due east.[470] It is from this spot therefore that the Horus-King in the sky must somehow travel—on one of the ‘roads’ to Rostau—to reach Orion’s belt.

Now we transpose again to the Horus-King in his earthly form at Giza, standing between the paws of the great Sphinx.

It is the moment of dawn on the summer solstice in the epoch of 2500 bc, with Leo rising at 28 degrees north of due east, and we immediately notice that something is wrong with the sky-ground pattern.

The Sphinx gazes due east, i.e. he does not gaze at Leo, his celestial counterpart.

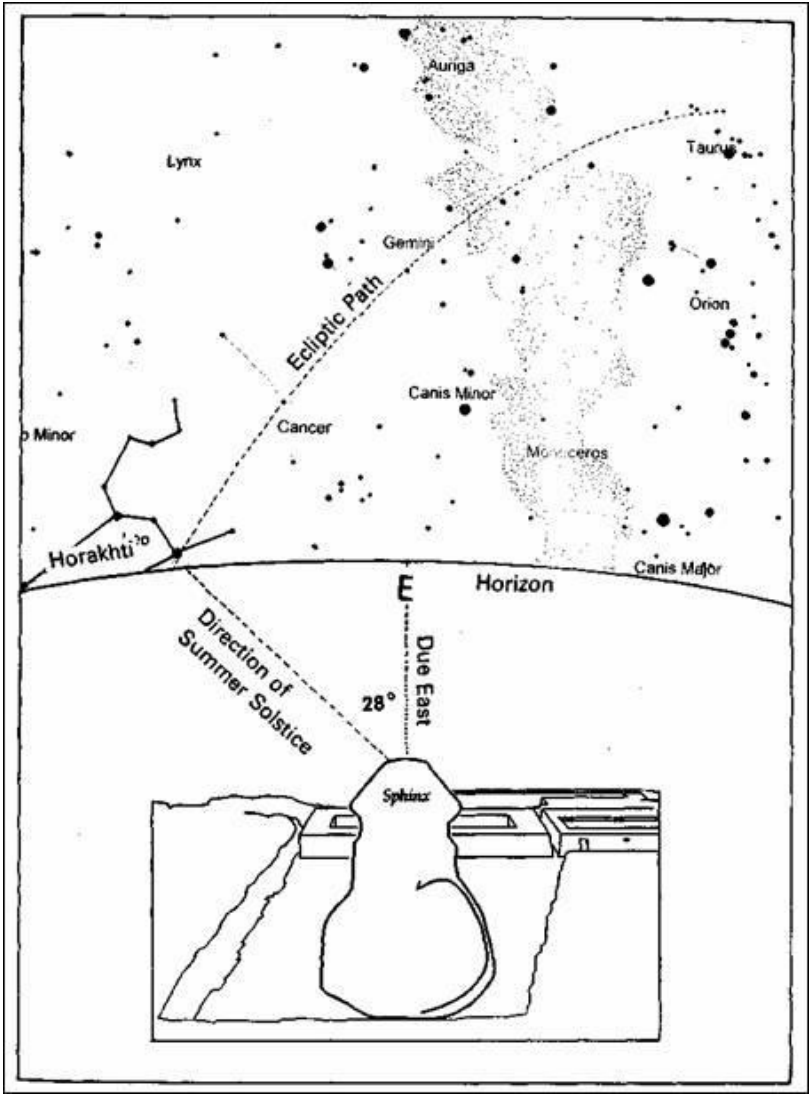
Auriga
Lynx
Taurus
Gemini
Orion
Ecliptic Path
Canis Minor
Cancer
Horakhti
Canis Major
E
Horizon
Direction of Summer Solstice
Due East
28°
Sphinx

50. Epoch of 2500 bc, the Pyramid Age: the rising of Leo at the summer solstice. Note that in this epoch the gaze of Hor-em-Akhet, 'Horus-in-the-Horizon'—i.e. the Great Sphinx—is not in alignment with Horakhti, 'Horus-of-the-Horizon', i.e. the constellation of Leo. The reader will recall that this same sense of a curious 'dislocation' of the sky-ground images at the summer solstice in 2500 bc also applies to the three great Pyramids and the three stars of Orion's belt.

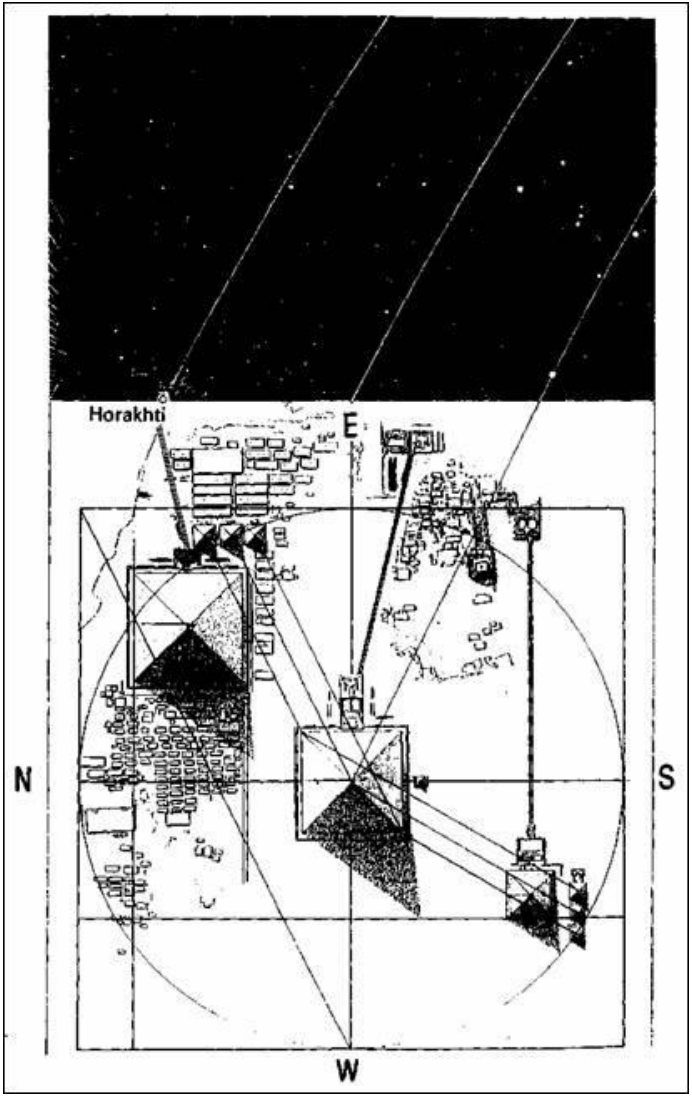
Horakhti
E
N
S
W

51. Summer solstice in the epoch of 2500 bc. Artist's impression of the *Duat* region as viewed from the Horizon of Giza.

And the causeway connecting the central Pyramid to the Sphinx complex is directed 14 degrees *south* of due east—i.e. far to the right of the spot where the cosmic Horus-King is supposedly at his station between the paws of Leo and ready to travel to Rostau.

So why is the sky-image in the 'wrong place' on the eastern horizon? Or to express the problem the right way round, and in the correct dualistic terminology, why is Hor-em-Akhet, Horus-in-the-Horizon—i.e. the Great Sphinx—not in alignment with Horakhti, Horus-of-the-Horizon, i.e. the constellation of Leo? Why, too, is the causeway of the Sphinx not directed to the rising sun so as to 'link-up' the Horus-King with his cosmic solar counterpart?

There is, it seems, a curious 'dislocation' between the ground and the sky at the summer solstice in the epoch of 2500 bc. Moreover, as the reader will recall from Chapter 8, this sense of the entire arrangement being out of kilter is not confined to the Sphinx and

Leo in that epoch but involves the three great Pyramids of Giza as well.

It may be the case that the solution to the riddle has all along been staring us in the face. Inscribed on the granite stela that the Sphinx holds between its own heavily eroded paws—a stela that was placed there in honour of Thutmosis IV, a mighty Horus-King of Egypt—we read the following impressive royal titulary:

> The Majesty of Horus, Mighty Bull Begetting Radiance, Favourite of the Two Goddesses, Enduring in Kingship like Atum, Golden Horus, Mighty of Sword, Repelling the Nine Bows, King of Upper and Lower Egypt, Son of Re, Thutmosis ... given life, stability, satisfaction ... for ever. Live the Good God, Son of Atum, Protector of Horakhti, Living Image of the All-Lord, Sovereign ..., beautiful of Face like His Father, who came forth equipped with the form of Horus upon him ... Son of Atum, of his body, Thutmosis ... Heir of Horus Upon His Throne ...[471]

Does this sound like a man who did not have a clue, as some Egyptologists suggest,[472] as to what the great Sphinx and the other monuments of Giza really represented? Surely not. So what, then, did the majestic Horus-King declare this sacred domain to be?

In one simple, powerful phrase, as the reader will recall, he stated that it was ‘The Splendid Place of the “First Time” ’.[473]

Is it not likely, when he uttered these words, that Thutmosis, ‘Heir of Horus Upon His Throne’, was repeating what every Horus-King before him had declared the Giza plateau to be?

52. Artist's impression of 'reconstructed' Sphinx showing the statue of a Horus-King, which is known to have once stood between its paws, gazing at the celestial counterpart of the 'Splendid Place of the First Time' in the eastern horizon.

Is it not likely that he called it 'The Splendid Place of the "First Time" ' because that is exactly what it was remembered to be in traditions that had been handed down from remotest, almost incomprehensible, antiquity?

Could this be why the sky of 2500 bc seems to be so badly out of kilter, somehow skewed and twisted, i.e. 'in the wrong place'? Could it be not so much in the wrong place as *at the wrong time?*

Should we set our computer to search for another time that might match the monuments to the sky, a time long before Thutmosis, long before Khafre and Khufu, the 'time' when Osiris established his kingdom on earth—in other words, the 'First Time'?

When was the 'First Time'?

Part IV

Map

Chapter 11

The Unseen Academy

'The Egyptians believed that in the beginning their land was ruled by a dynasty of great gods, of whom Horus, the son of Isis and Osiris, was the last. He was succeeded by a dynasty of semi-divine beings known as the "followers of Horus", who, in turn, gave place to the historical kings of Egypt.'

Selim Hassan, *The Sphinx,* Cairo, 1949

When was the 'genesis' of civilization in Egypt? When did 'history' begin?

According to T. G. H. James, formerly Keeper of Egyptian Antiquities at the British Museum, and a representative voice of orthodox opinion on these matters: 'The first truly historical period is that which begins with the invention of writing and it is generally known as the Dynastic Period. It is a period extending from about

3100 bc to 332 bc and it derives its name from the thirty-one dynasties into which the successive kings of Egypt were divided in a scheme preserved in the work of Manetho, a priestly historian who lived during the [third century bc]. The unlettered cultures which flourished in Egypt before the beginning of the Dynastic Period, and which exhibit some of the characteristics which mark the earliest phases of Egyptian culture in the Dynastic Period, are known as Predynastic ... Such traces of human life as are found in the Nile Valley dating from before the Predynastic Period are usually described in the terms used for European Prehistory—Palaeolithic, Mesolithic and Neolithic.'[474]

So there we have it. Egyptian history—and civilization with it—began at around 3100 bc. Before that there were merely 'unlettered cultures' (admittedly with some 'civilized' characteristics), which were in turn preceded by 'Stone Age' savages ('Palaeolithic' means literally 'Old Stone Age').

The way James puts it, the whole picture seems very clear-cut,

orderly and precise. He really makes it sound as though all the facts are now in hand concerning the Predynastic Egyptians and their forebears, and that nothing more remains to be discovered about any of them.

Such anodyne notions of the past are widespread amongst Egyptologists who again and again in their textbooks, and also in mass-market publications like *National Geographic* and Time-Life's misleadingly named *Lost Civilizations* series, convey the comforting impression that the prehistory of Egypt is well understood, organized, categorized and safely put in its place (James even refers us to one specific place in the British Museum where particular enlightenment apparently awaits us: the 'Sixth Egyptian Room' with its definitive display of 'primitive tools made by the Palaeolithic inhabitants of Egypt').[475] Likewise, on the other side of the Atlantic as we saw in Part I, Dr. Peter Lecovara, Curator of the Museum of Fine Arts in Boston, assures us that 'thousands of Egyptologists working for hundreds of years have

studied this problem [the prehistory of Egypt] and the chronology is pretty much worked out. There is no big surprise in store for us.'[476]

But is everything really as orderly and as well worked out as the 'experts' say? And can we really be so sure that there is 'no big surprise in store for us'?

In our view Lecovara, James, and the many other scholars who share their opinions, would do well to remember the advice of the late Labib Habachi, formerly the Egyptian government's Chief Inspector of Antiquities, who warned in 1984 that 'Egyptology is a field in which chance discovery may disprove an established theory'.[477] In the light of this possibility, Habachi's suggestion was that Egyptologists should avoid making 'unqualified statements' and be honest enough to 'salt their comments with "probably" and "perhaps".'[478]

Certainly a little more 'probably' and 'perhaps' would be in order where the Predynastic and earlier periods of Egyptian history are

concerned. Far from the impression conveyed to the public, the truth, as some scholars are prepared to admit, is that 'The state of knowledge of Egyptian prehistory in the late twentieth century is still fragmentary'.[479]

These are the words of Nicholas Grimal, Professor of Egyptology at the Sorbonne University in Paris, who also concedes:

> It has been clear since the Second World War not only that 'prehistory' before the Pharaohs was expanding on a hitherto unsuspected scale, but also that it appeared to be so diverse and self-contained that it was difficult to regard it simply as a 'preparatory' stage for the Dynastic Period ...[480]

The prevailing Egyptological consensus (to which Grimal in this respect at least is an exception) is unable to offer any coherent theory which explains these 'diverse' and 'self-contained' characteristics of Egyptian prehistory, or that account for the very serious problems of apparent non-continuity between the Predynastic and the Dynastic Periods. The ancient Egyptians themselves, however, passed down records to us which may contain

the answer to the whole mystery. These records provide detailed information concerning a period that extends back many thousands of years *before* the sudden emergence of the Pharaonic state in the epoch of 3000 bc.

The only problem is that no one is prepared to take these records seriously. Could this be because they conflict with the modern scholarly consensus on Egyptian chronology? Readers must make up their own minds but, as we shall see below, elements of the same records which *do* conform to the current theory *are* accepted and taken seriously by Egyptologists.

Three eras

As T. G. H. James tells us in his remarks quoted earlier, modern study of ancient Egyptian chronology is largely based on Manetho's *History of Egypt.* The respected Professor Walter Emery puts things much the same way when he reports that the writings of Manetho

are of 'immense importance and form the framework on which Egyptian history has been built'.[481]

One of the reasons that Manetho's system is so durable and remains in use by Egyptologists today is that it has again and again proved itself to be accurate. He is known to have based it on 'much older documents, or king-lists, to which, as a learned priest he had access'.[482] Furthermore a number of documents in this category—notably the Palermo Stone, the Turin Papyrus and the Abydos King-List—have been found and translated. In the words of the late Professor Michael Hoffman, a leading expert on Egypt before the Pharaohs: 'Archaeologists and Egyptologists have discovered five such lists which, despite some discrepancies, support Manetho in general.'[483]

Looking at all the surviving sources, it is clear that *three distinct eras of kingship* were remembered:

- The first era was when the *Neteru,* ('*Neters'* or 'Gods') ruled the land of Egypt—an epoch that culminated with the kingship of

Horus, the son of Osiris and Isis.

- Then came the era of the 'Followers of Horus', the *Shemsu Hor,* (also known by numerous other titles and epithets) which took the divine Horian lineage across the ages and up to a human Pharaoh named Menes (also known as Narmer or 'King Scorpion'), the legendary 'Unifier of the Two Lands of Upper and Lower Egypt'.
- After Menes came the so-called 'Dynastic' Kings, whose names are individually catalogued in the king-lists.

Egyptologists place the reign of Menes in *circa* 3000 bc and regard him as the first 'historical' king of 'Dynastic' Egypt.[484] They concede that a few Predynastic 'chieftains' must have preceded him in both the north and south of the country but they emphatically reject any suggestion that the '*Neters*' and the 'Followers of Horus' catalogued in the king-lists (and referred to with some prominence by Manetho) could have been historical individuals. On the contrary, the consensus view is that the *Neters,*

being ‘Gods’, are obvious religious fictions and that the *Shemsu Hor* are to be regarded as nothing more than ‘mythical kings’ who ruled in an equally ‘mythical kingdom’.

So, scholars accept as history only the bits of Manetho and the surviving king-lists that fit their theory—i.e. the records of the Dynastic Period from Menes on—and devalue all references in those same records to earlier and more mysterious times.

Writing in the *Cambridge Ancient History,* for example, Professor T. E. Peet groups together all the ancient Egyptian sources concerning the chronology of the ‘Gods’ and the ‘Followers of Horus’ and then dismisses the entire corpus of material with the following throwaway remark: ‘From the historical point of view there is little to be made of this.’[485]

Likewise, in *Kingship and the Gods,* his detailed study of the Pharaonic state, the eminent Henri Frankfort, Professor of Preclassical Antiquity at the University of London, had this to say about the ‘Followers of Horus’:

... it appears that 'Followers of Horus' is a vague designation for the kings of a distant past ... but it would seem unwise to treat the term as primarily of a historical nature. For each king became at death one of the corporation of 'transfigured spirits' ... [and] merged with that nebulous spiritual force which had supported the living rulers and descendents of the Throne of Horus since time immemorial.[486]

High initiates

We feel obliged to point out that this was not at all how the ancient Egyptians viewed their own history. For them there was never any question of mythical epochs or 'nebulous spiritual forces' lurking in the distant past. For them, to state matters plainly, the 'Followers of Horus', and the geographical landscape in which they had 'ruled', were unquestionable realities to which they were directly and inseverably connected. Indeed, if one takes the Egyptian accounts and traditions seriously what the 'Followers of Horus' begin to sound like is a lineage of real, although 'unnamed' individuals whose function and duty, as Henri Frankfort himself

suggested, was to provide the 'spiritual force' behind the monarchy (though by no means in a 'vague' or 'nebulous' manner). The Egyptians' own accounts also invite the conclusion that the role of these 'Followers' may have been to carry down the ages a body of extraordinary knowledge harking back to the even more mysterious 'time of the *Neteru'*—i.e. the 'Gods'.

From available primary sources, in other words, the overall picture that emerges is that the 'Followers of Horus' may not have been 'kings' in the usual sense of the word but rather immensely powerful and enlightened individuals—high initiates who were carefully selected by an élite academy that established itself at the sacred site of Heliopolis-Giza thousands of years before history began. There is much to suggest, too, that the ancient Egyptian texts are right and that Pharaonic civilization may indeed have owed its unique spark of genius to just such a 'brotherhood' linked to just such an archaic and élite academy.

So who might the *Shemsu Hor* really have been? And what were

they ‘following’?

Following the Way of Horus

Heliopolis—ancient *On* or *Innu*—was the oldest organized religious centre in Egypt and most probably in the world. Situated some 12 miles northeast of the Giza plateau, and already hoary with age at the dawn of the Pharaonic epoch, it is identified by tradition as the source of the secrets of astral immortality which the Pyramid builders claimed to have inherited. Indeed the title of the High Priest of Heliopolis, as Professor I. E. S. Edwards has recently demonstrated, was ‘Chief of the Astronomers’, and the regalia of this notable was a ceremonial robe spangled with five-pointed stars. [487]

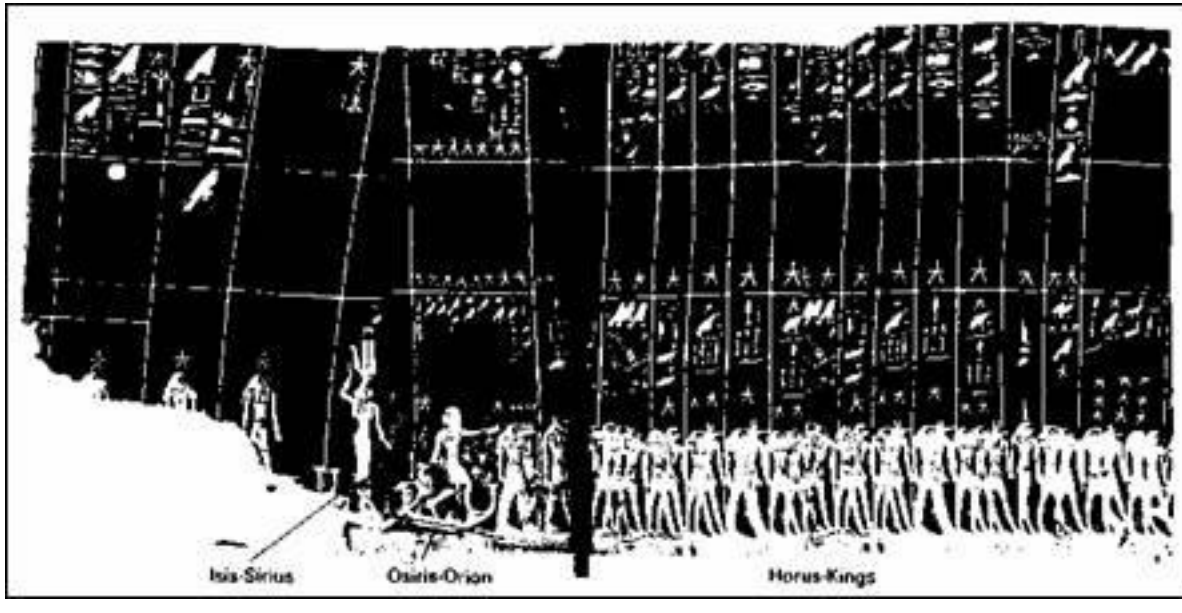

53. Osiris-Orion showing the way to his 'Followers', the Horus-Kings, who are the custodians of his dual kingdom in the *Duat.*

As we have already hinted in Part III, the dominant concerns of the elitist, 'scientific' priests of Heliopolis were with recording the motions of the stars, measuring and commemorating the passage of time, and peering into the mysteries of the epochs. It has long been known, too, that they carefully studied the cycle of the sun in its

perceived yearly circuit along the zodiacal path. And more recently, compelling evidence has emerged that they also followed the far longer cosmic cycle of the 'Great Year'—namely the precessional 'drift' of the stars caused by the earth's axial 'wobble'. The reader will recall that this vast cycle of 25,920 years was measured by the slow rotation of the twelve zodiacal constellations in relation to the point of sunrise on the vernal equinox—in short, the 'precession of the equinoxes' in which a succession of astrological 'Ages', each 2160 years in duration, was believed to have begun to unfold after a kind of spiritual and cultural 'Big Bang' known as *Zep Tepi*—the 'First Time' of the Gods.

To observe and accurately measure the rate of the precession of the equinoxes is a feat that could only have been achieved by scientifically minded, intellectually advanced and highly organized people with a long tradition of precise observational astronomy. Similarly, the building of the three great Pyramids of Giza was not the work of technological primitives only recently emerged from the

Stone Age. On the contrary, as historians of science Giorgio de Santillana and Hertha von Dechend have pointed out, such accomplishments 'should be a cogent reason for concluding that serious and intelligent men were at work behind the stage, men who were bound to have used a technical terminology'.[488]

We shall argue that 'serious and intelligent men'—and apparently women too—were indeed at work behind the stage of prehistory in Egypt and propose that one of the many names by which they were known was the 'Followers of Horus'. We propose, too, that their purpose, to which their generations adhered for thousands of years with the rigour of a messianic cult, may have been to bring to fruition a great cosmic blueprint. And we have evidence that the slow unfolding and implementation of this plan somehow entailed tracking two observable 'ways' taken by the celestial bodies across the ages—'ways' which are both consequences of the earth's axial precession:

- First the 'way' of the stars: these appear to 'drift' in the sense that

their place and day of rising at the horizon changes, accompanied by corresponding changes in their altitude at the meridian.

- Secondly the 'way' of the sun, which also appears to 'drift'—in this case 'westwards' along the ecliptic path so that the 'pointer' of the vernal equinox appears to 'sweep' slowly through each one of the twelve zodiacal signs every 2160 years.

In the coded astronomical language of the ancients of Heliopolis, we will argue that the notion of following the sun's westward drift through the zodiac translates as 'Following the Way of Horus (the sun) across the ages'. And we will show that the 'Followers of Horus' are most likely to have acquired their enigmatic title because it described precisely what they did and stood for. They were, we suspect, astrologers and astronomers *par excellence* who had been following and recording the position of the vernal point across the ages from the epoch of the 'First Time' to the epoch of the historical kings of Egypt.

Last but not least, we also propose as a hypothesis for further

testing that at a well-defined and predetermined historical moment ‘written in the stars’ the ‘Followers of Horus’ may have taken steps to mobilize the native inhabitants of Egypt, unite them into a theocratic state and harness their energies to the further fulfilment of a cosmic blueprint in which the great Pyramids on the west bank of the Nile were to play a pivotal role ...

Chapter 12

Sages and 'Followers'

'The introduction to the first Edfu cosmological record discloses the tradition that the contents of these records were the "words of the Sages". We are told that this sacred book was believed to be a "Copy of the writings which Thoth made according to the words of the Sages" ...'

E. A. E. Reymond, *The Mythical Origin of the Egyptian Temple,* 1969

It is a convention amongst modern scholars that myths do not count as historical evidence—and, as we saw in the last chapter, this convention is particularly strongly adhered to by Egyptologists.

Yet there are several well-known cases in archaeology where myths that have been dismissed as 'unhistorical' were later proved to have been entirely accurate. One example concerns the world-famous Troy of Homer's *Iliad* (a great prose-poem compiled from

earlier oral sources *circa* 800 bc). Until not long ago most scholars were convinced that Troy was a 'mythical city'—i.e. entirely a figment of Homer's fertile imagination. In 1871, however, the 'buccaneer' German explorer Heinrich Schliemann proved orthodox opinion wrong when he followed geographical clues contained in the *Iliad* and discovered Troy in western Turkey near the Dardanelles (the ancient Hellespont)—exactly where Homer had said it was located. Schliemann and two other intrepid researchers, the Greek scholar Kalokairinos and the British archaeologist Sir Arthur Evans, then went on to cap this achievement by following up myths concerning the great 'Minoan' civilization that was said to have existed on the island of Crete. These myths, too, were dismissed as unhistorical by orthodox opinion but were vindicated when Schliemann and his team excavated the remains of a highly advanced culture now firmly identified as that of the 'Minoans'.[489]

Similarly, in the Indian subcontinent, the great body of ancient Sanskrit scriptures known as the Rig-Veda contains repeated

references to a high civilization, living in fortified cities, that had preceded the Aryan invasions more than 4000 years ago. Again these references were universally dismissed as 'mythical'—until, that is, the ruins of the great 'Indus Valley' cities such as Harappa and Moenjodaro began to be unearthed in the twentieth century and proved to date back as far as 2500 bc.[490]

In short, the record shows that whole cities and civilizations which were once classified as mythical (and therefore of no historical interest) have a habit again and again of suddenly materializing from the mists of obscurity and becoming historical realities.

Could the same thing be about to happen in Egypt?

Guardians of records

Amongst other peoples such as the Romans and the Greeks, who were considerably closer to ancient Egypt than we are, it was held to be axiomatic that the Pharaohs and their priests were the

guardians of accurate records concerning certain highly significant events that had taken place long, long ago. Indeed these records were actually seen and studied, at the sacred city of Heliopolis, by such distinguished visitors as Herodotus (fifth century bc), the Greek lawmaker Solon (640-560 bc) and his fellow countryman the scientist Pythagoras (sixth century bc).[491] From their reports derived the Greek impression of Egypt reported by Plato:[492]

> We Greeks are in reality children compared with this people with traditions ten times older. And as nothing of precious remembrance of the past would long survive in our country, Egypt has recorded and kept eternally the wisdom of the old times. The walls of its temples are covered with inscriptions and the priests have always under their own eyes that divine heritage ... The generations continue to transmit to successive generations these sacred things unchanged: songs, dances, rhythms, rituals, music, paintings, all coming from time immemorial when gods governed the earth in the dawn of civilization.[493]

We have already made frequent mention of *Zep Tepi,* the supposedly mythical 'First Time' of the Gods—a remote epoch with which the ancient Egyptians associated the origins of their civilization. And in the last chapter we noted that Manetho's fabled

History, and a number of inscriptions known as king-lists, also refer back to distant golden ages when the gods, and then subsequently the mysterious 'Followers of Horus', ruled in the Nile Valley. Before immersing ourselves in the next chapter in the truly immense chronology of which all the lists speak, our objective here, as Plato prompts, is to take a look at the 'walls of temples'—specifically at the so-called 'Building Texts' (*circa* 200 bc) inscribed on the walls of the Temple of Edfu that stands in Upper Egypt midway between Luxor and Aswan. These texts, which contain a series of extraordinary references to the 'First Time', are accepted by scholars as the only surviving fragments of a much more ancient, much larger, and much more coherent body of cosmogonical literature—now long lost—that once incorporated a complete 'mythical history' of Egypt, of its gods and of the temples built to honour them.[494] In the texts, the 'Followers of Horus' are equated and merged with other 'mythical' beings, sometimes seemingly divine, sometimes human, who are always portrayed as the bringers

and preservers of knowledge down the ages—as an élite brotherhood dedicated to the transmission of wisdom and to the quest for resurrection and rebirth ...

Memories of the dawn

The Temple of Edfu in its present form was erected over a two hundred-year period between 237 bc and 57 bc but incorporates parts of much earlier structures dating back to the Pyramid Age (for example portions of the inner and outer western enclosure wall). Moreover, like all major temples, it was built 'on hallowed ground' and there attaches to it a recollection of vast antiquity and of momentous antecedents.[495]

Thus, on the face of things, the Building Texts appear to be nothing more than a history of the Edfu Temple itself, together with descriptions of its rooms and halls and of their ritual purpose and significance.[496] A closer look, however, as E. A. E. Reymond of

Manchester University has demonstrated, reveals a subtext which hints:

> at the existence of certain mythological events ... where the foundation, building and bringing to life of the historical temple [of Edfu] is interpreted as happening in a mythical age. The historical temple is interpreted as the work of the gods themselves, and as an entity of a mythical nature. This ... seems to indicate a belief in a historical temple that was a direct continuation, projection, and reflexion of a mythical temple that came into existence at the beginning of the world ...[497]

Needless to say the 'beginning of the world' is a synonym in the Edfu Texts for the 'First Time', also known as the 'Early Primeval Age'. In this epoch, we learn, the 'words of the Sages' were copied down by the wisdom-god Thoth into a book that codified the locations of certain 'sacred mounds' along the Nile. The title of this lost book, according to the texts, was *Specifications of the Mounds of the Early Primaeval Age,* and it was believed to have contained records not only of all the lesser 'Mounds', or temples, but also of the Great Primeval Mound itself, the place where time had supposedly begun.[498]

Several points of interest arise:

1. The 'Great Primeval Mound' has recently been associated by Professor I. E. S. Edwards with the natural outcropping of rock that is known to lie under the Great Pyramid of Egypt and to have been incorporated into its lower courses of masonry.[499] This analysis appears to reinforce the connections that we have already established in Part I between the Giza necropolis and the 'First Time'.

2. The 'Sages' referred to in the Edfu Building Texts were seven in number. Their special role was as 'the only divine beings who knew how the temples and sacred places were to be created'. And it was they who initiated construction work at the Great Primeval Mound. This work, in which Thoth also participated, involved the setting out and erection of the original 'mythical' temple of the 'First Time'.[500]

3. Also constructed under the direction of the 'Seven Sages' was

an edifice specified as *hwt-ntr,* 'the mansion of the god': ' "Speedy of construction", men called it by name. The sanctuary is within it, "Great Seat" by name, and all its chapels are according to the norm.'[501]

4. When all these works were complete 'the magical protection (*swr mdw*) of that site was made by the Sages'.[502]

5. In the whole corpus of ancient Egyptian writings, the Edfu Building Texts preserve the only references to the 'Seven Sages' that have survived to the present day. Egyptologists have therefore paid little attention to the identity of these beings beyond conceding that that they appear to have played a part in 'a much wider and more general theory concerning the origin of sacred domains and their temples'.[503] In our opinion, however, there is something notable about the context in which the Texts describe the Sages. This context is marked by a preponderance of 'Flood' imagery in which the 'primeval waters' (out of which

the Great Primeval Mound emerged) are depicted as gradually receding.[504] We are reminded of Noah's mountain-top on which the Ark settled after the Biblical Deluge, and of the 'Seven Sages' (*Apkallu*) of ancient Babylonian tradition who were said to have 'lived before the Flood' and to have built the walls of the sacred city of Uruk.[505] Likewise is it an accident that in Indian tradition 'Seven Sages' (*Rishis*) are remembered to have survived the Flood, their purpose being to preserve and pass down to future generations the wisdom of the antediluvian world?[506]

In all cases the Sages appear as the enlightened survivors of a cataclysm that wiped the earth clean, who then set about making a fresh start at the dawn of a new age—which, in ancient Egypt, was referred to as the 'First Time'. As Reymond confirms in her masterly study of the Edfu Texts:

the first era known by our principal sources was *a period which started from what existed in the past.* The general tone of the record seems to convey the view that an ancient

world, after having been constituted, was destroyed, and as a dead world it came to be the basis of a new period of creation which at first was the re-creation and resurrection of what once had existed in the past.[507]

Wisdom and knowledge

According to the Edfu Texts the Seven Sages and the other gods came originally from an island,[508] the 'Homeland of the Primeval Ones'.[509] As noted above, the texts are adamant that the agency that destroyed this island was a flood. They also tell us that it came to its end suddenly[510] and that the majority of its 'divine inhabitants' were drowned.[511] Arriving in Egypt, those few who survived then became 'the Builder Gods, who fashioned in the primeval time, the Lords of Light ... the Ghosts, the Ancestors ... who raised the seed for gods and men ... the Senior Ones who came into being at the beginning, who illumined this land when they came forth unitedly ...'[512]

It was not believed that these remarkable beings were immortal. On the contrary, after they had completed their tasks they died and their children took their places and performed funerary rites on their behalf.[513] In this way, just like the 'Followers of Horus', the generations of the 'Builder Gods', or 'Sages', or 'Ghosts' or 'Lords of Light' described in the Edfu Texts could constantly renew themselves—thus passing down to the future traditions and wisdoms stemming from a previous epoch of the earth. Indeed, the similarities between the 'Senior Ones' of Edfu and the *Shemsu Hor* of Heliopolitan tradition are so marked it is hard to escape the conclusion that both epithets, and the numerous others that exist, are all descriptions of the same shadowy brotherhood.

This impression is strengthened by the constant references in the Edfu Texts to the '*wisdom* of the Sages' (wisdom being one of the defining characteristics of the 'Followers of Horus') and the repeated emphasis that their special gift was *knowledge*—including, but not limited to, the knowledge of architecture.[514] Likewise it is

noteworthy that the Sages are said to have specified the plans and designs that were to be used for all future temples—a role frequently accorded in other contexts to the 'Followers of Horus'. For example, the temple of Dendera (a little to the north of Edfu) is inscribed with Building Texts of its own which state that the 'great plan' followed by its architects was 'recorded in ancient writings handed down from the "Followers of Horus" '.[515]

Heliopolitan origins

The earliest-surviving references to the 'Followers of Horus' occur in the Pyramid Texts. It is therefore unlikely to be an accident that the notion in the Edfu Texts of the Great Primeval Mound emerging from the waters of a universal deluge coincides exactly with imagery that has also been preserved in the *Pyramid Texts* in which, as E. A. E. Reymond summarizes: 'The Earth in its earliest shape was pictured as a mound which emerged from the primeval

water. This mound itself was then considered as a divine being, and as the original terrestrial configuration on which the creator, Atum, dwelt.'[516]

As is well known, the compilation of the Pyramid Texts was undertaken by the priests of Heliopolis.[517] It may therefore be of relevance that ancient Egyptian traditions attribute the founding of Heliopolis to the 'Followers of Horus'—in a period long before the beginning of Dynastic times—and that there is an Egyptian papyrus, now in the Berlin Museum, which clearly suggests that Heliopolis in some way 'existed before the earth was created'.[518] Once again, this interlinks closely with a central proposition of the Edfu Texts, namely that the 'new world' created by the Sages after the Flood was conceived of and designed by its makers as 'the resurrection of the former world of the gods.'[519]

There are other links too. For example what Reymond calls 'the manifestation of the resurrection of the first holy world' took the form in the Edfu Texts of an upright column or rod, 'the Perch' on

which a great bird, the Divine Falcon, rested.[520] In Heliopolis there stood a pillar (indeed *Innu,* the Egyptian name for Heliopolis, actually means 'pillar'[521]) on which it was believed that another 'Divine' bird—the *Bennu,* or phoenix—periodically rested.[522] And interestingly the hieroglyph for Heliopolis—a column surmounted by a cross above (or beside) a circle divided into eight parts[523]—is virtually identical to a hieroglyph depicting the Edfu 'Perch' that is reproduced by Flinders Petrie in his *Royal Tombs of the Earliest Dynasties*.[524]

For all these reasons, and many others, Reymond concludes that 'the Edfu documentary sources offer ... one argument more in favour of the theory that the ritual of the Egyptian temple was Heliopolitan in origin ... We are of the opinion that the Edfu records preserve the memory of a Predynastic religious centre which once existed near to Memphis, which the Egyptians looked on as the homeland of the Egyptian temple.'[525]

What better candidate is there for that 'Predynastic religious

centre near to Memphis'—that 'homeland' of the Egyptian temple—than the sacred city of Heliopolis and its associated Pyramids and other structures on the Giza plateau? Moreover, as the reader will recall, the Giza/Heliopolis complex lies to the north of ancient Memphis. In this light a well-known text on the inner face of the enclosure wall of the temple at Edfu takes on a special meaning, for it tells us that the temple was built 'at the dictates of the Ancestors' according to what was written in a certain 'book' which had 'descended from the sky to the north of Memphis'.[526]

There is of course a sense in which the cosmic monuments of Giza could themselves be said to be a kind of 'book' written in stone and 'descended from the sky'—for, as we now know, the three great Pyramids are the terrestrial counterparts of the three stars of Orion's belt and the Sphinx draws down to earth the regal image of Leo, the celestial lion.

Cycle of the phoenix

The Primeval Mound, identified with the Great Pyramid and with the natural mound of rock that is incorporated into the foundations of that monument, is envisaged in the Pyramid Texts as a place at once of birth and death, and also as a place of rebirth.[527] These ideas fit well with the ancient Egyptian rituals for 'awakening Osiris' and attaining astral immortality—and with the quest of the Horus-King—that we have described in earlier chapters. They also accord with the sense that the texts convey of a cyclical rhythm at work in the universe as the vast 'Mill' of the zodiac grinds out the destiny of world ages.

In Heliopolitan theology, all these processes were grouped together, summarized and expressed in a single image—the *Bennu* bird, the legendary Phoenix which at certain widely separated intervals 'fashioned a nest of aromatic boughs and spices, set it on fire and was consumed in the flames. From the pyre miraculously sprang a new phoenix, which, after embalming its father's ashes in an egg of myrrh, flew with the ashes to Heliopolis where it

deposited them in the altar of the Egyptian sun-god, Re. A variant of the story made the dying phoenix fly to Heliopolis and immolate itself in the altar fire, from which the young phoenix then rose ... The Egyptians associated the phoenix with immortality.'[528]

Sources vary as to the period of the *Bennu's* return, but in his authoritative study on the subject R. T. Rundle Clark mentions the figure of 12,954 years.[529] Let us note that this figure accords very closely with a half-cycle of precession (where the full cycle, as we have seen, is 25,920 years). As such, 'the return of the phoenix' could be expressed in astronomical terms either as a slow 'sweep' of the vernal point through six houses of the zodiac—for example from the beginning of Leo to the beginning of Aquarius—or, at the meridian, as the number of years required for a star to move between its minimum and maximum altitudes above the horizon.

When considering such co-ordinates in the sky, we are immediately reminded of the Giza necropolis—of how the gaze of the Great Sphinx targets the vernal point on the eastern horizon, and

of how the star-shafts of the Great Pyramid lock in to the meridian with machine-age accuracy. Moreover it can hardly be an accident that the capstone or pyramidion placed on top of all pyramids was known in the ancient Egyptian language as the *Benben* and was considered to be a symbol of the *Bennu* bird (and thus also of rebirth and immortality).[530] These capstones were replicas of the original *Benben* stone—perhaps a conical, 'orientated' meteorite[531]—which was said to have 'fallen from heaven' and which was kept in Heliopolis, perched atop a pillar in a Temple called the 'Mansion of the Phoenix'.[532]

Is it not apparent, therefore, that we are confronted here by a tightly knit complex of interwoven ideas, all additionally complicated by masses of Egyptian dualism, in which stone stands for bird, and bird for stone,[533] and both together speak of rebirth and of the 'eternal return'?

The capstone is of course missing from the summit of the Great Pyramid at Giza. And the *Benben* of Heliopolis was already long

lost to history by the time of the Greeks ...[534]

Will these treasures, too, sooner or later 'return'?

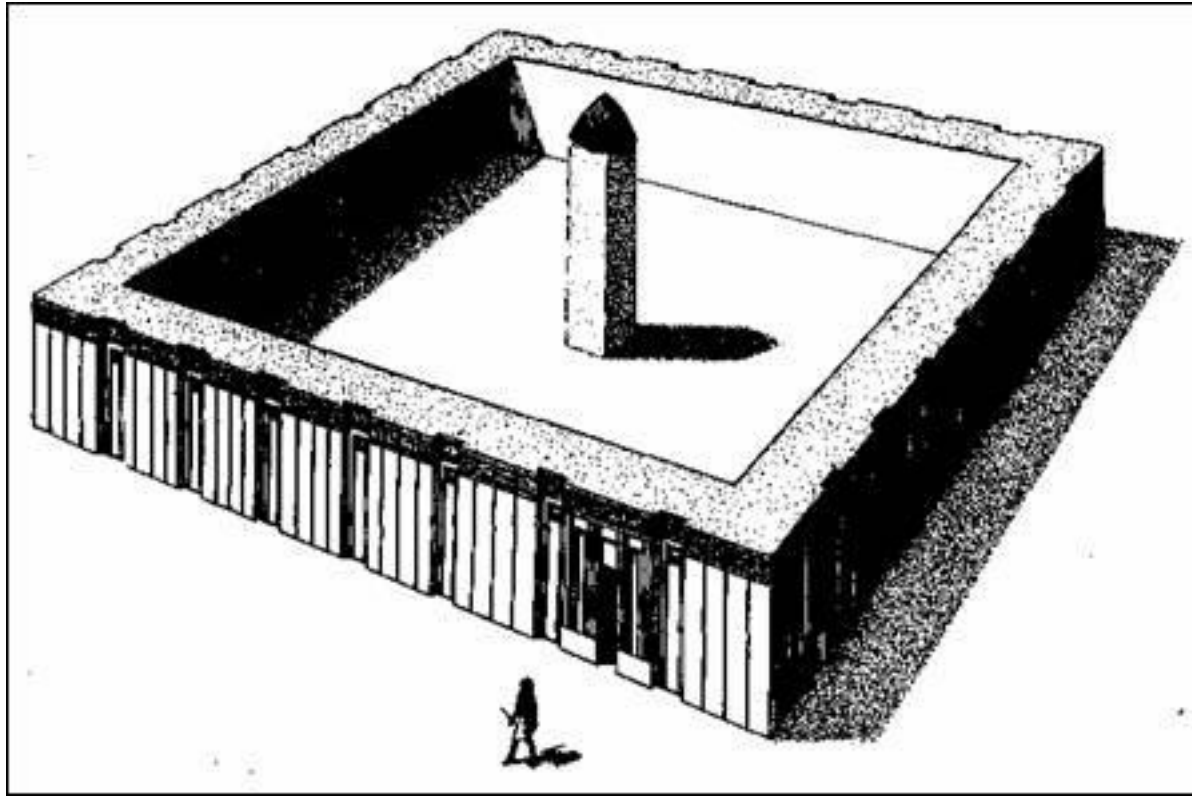

54. Artist's impression of the 'Mansion of the Phoenix' in Heliopolis with its

original pillar and pyramid-shaped *Benben* stone.

Ancestor gods

'Underlying all Egyptian speculation', as R. T. Rundle Clark has observed, 'is the belief that time is composed of recurrent cycles which are divinely appointed ...'[535] There is furthermore a governing moment amongst all these cycles and epochs—the 'genesis event' that the Egyptians called *Zep Tepi,* the 'First Time'.

Zep means 'Time', *Tepi* means 'First'.

But *Tepi* also has other connotations. For example, it is the word for 'the foremost point of a ship' and it can likewise be interpreted as 'the first day of a period of time'. Moreover, according to the astute analysis of Robert K. G. Temple: 'The basic meaning of the word *Tep* is "mouth" ... and even more fundamentally the "beginning or commencement of anything".'[536]

Perhaps because of this persistent connection with the beginning

of things, *Tepi* can also mean 'ancestors'. And the *Tepi-aui-qerr-en-pet* were 'the ancestor-gods of the circle of the sky'.[537] Also in the Pyramid Texts *Tepi-aui* is one of the many titles by which the ancestral deities of the 'early primeval age' were known—the gods and Sages, or 'Followers of Horus', who were supposedly there, at the dawn of civilization, when the phoenix alighted atop the pillar at Heliopolis, uttering a great cry and setting in motion the 'time' of our present epoch of the world ...

Curiously, the hieroglyphic sign used to determine the *Tepi-aui* is the body of a large, slouching lion, with only the paws, breast and head shown. And we find a similar device being used as the determinative for a very similar class of beings called the *Akeru,* described in Wallis Budge's *Hieroglyphic Dictionary* as a group of gods said to be the ancestors of Re.[538]

The reader will recall from earlier chapters that one of the distinguishing features of the Fifth Division of the *Duat* is the presence there of a giant double-lion Sphinx-god named *Aker* whom

Egyptologist Mark Lehner suggests may be ‘a representation of the Sphinx at Giza’.[539] Since it is from *Aker* that the *Akeru* derive their name, it is natural that the hieroglyphs should depict them either in the form of slouching lions, or of two lions back to back, or of a double-headed lion.[540]

So the texts seem to invite us to attach leonine characteristics to the ‘men or gods of olden times’, to the ‘Ancestors’, and to the Sages. But they also invite something else when, as we shall see in the next chapter, they link the whole concept of ancestral dynasties of gods and spirits with another closely related word, *Akhu,* meaning, variously, the ‘Shining Ones’, the ‘Star People’ or the ‘Venerables’. In this way they will lead us back to the trail of the ‘Followers of Horus’ and to the notion that for thousands of years—spanning both the prehistoric and the historic periods—the members of a hidden academy may have been at work behind the scenes in Egypt, observing the stars with scientific rigour and manipulating men and events according to a celestial timetable ...

Chapter 13

Following the Stars

'The disposition of the stars as well as their movements have always been the subject of careful observation among the Egyptians ... they have preserved to this day records concerning each of these stars over an incredible number of years, this study having been zealously preserved among them from ancient times.'

Diodorus Siculus, *Book V,* first century bc

It should be clear by now that the ancient Egyptians had very distinct ideas about the length and scope of their history, and that they set the 'First Time', the 'genesis event' for their civilization, far back in what the Edfu Building Texts call the 'Early Primeval Age'. Just how long ago that event actually took place is not an issue that will be easily resolved because the surviving texts—the king-lists, the very few fragments of Manetho's *History* that have

been preserved, and certain travellers' tales—are mostly incomplete and at times mutually contradictory. Moreover we are obliged to cut our way through a luxuriant jungle of diverse terminologies—Sages, Ancestors, Spirits of the Dead, the 'Followers of Horus', etc., etc.—which further complicates the problem of trying to arrive at a coherent picture. Nevertheless, let us see what we can glean from these ancient sources. Let us try to put the jigsaw puzzle together ...

Shining ones

Amongst the very few king-lists that have survived to the present day, the so-called 'Turin Papyrus' reaches particularly deeply into the dark abyss of the past. Regrettably, more than half of the contents of this fragile document from the second millennium bc have been lost because of the gross incompetence with which it was handled by scholars when it was transferred (in a biscuit tin) from the collection of the King of Sardinia to its present home in the

Museum of Turin.[541] The remaining fragments, however, offer occasional tantalising glimpses of an astonishing chronology.

Of the greatest importance amongst these fragments is a badly damaged vertical register in which the names and reigns of ten *Neteru* or 'Gods' were originally given. Although in most cases the durations of these reigns are now illegible or completely broken away, it is possible to read the figure of 3126 years ascribed to the rule of the wisdom-god Thoth and the figure of 300 years ascribed to Horus, the last fully 'divine' king of Egypt.[542] Immediately afterwards comes a second vertical register devoted to the 'Followers of Horus'—the *Shemsu Hor*—the most prominent of that general class of beings variously called 'Ancestors', or 'Sages' or 'Ghosts' or 'Spirits' whom the Egyptians remembered as having bridged the gap between the time of the gods and the time of Menes (the supposed first king of the first historical Dynasty *circa* 3000 bc).[543] Again much of the register is missing, but its last two lines, which seem to represent a summing-up, are of particular interest:

'*The Akhu, Shemsu Hor,* 13,420 years; Reigns before the *Shemsu Hor,* 23,200 years; Total 36,620 years.'[544]

The plural word *'Akhu'* is normally translated as 'Venerables'.[545] Yet, as we hinted at the end of the last chapter, a close examination of the full range of meanings that the ancient Egyptians attached to it suggests that another and far more intriguing possibility exists—one that is concealed by so generalized an epithet. To be specific, the hieroglyphs for *Akhu* can also mean 'Transfigured Beings', 'Shining Ones', 'Shining Beings' or 'Astral Spirits'—understandably identified by some linguists with the stars.[546] And there are other shades of meaning, too, that cry out to be taken into account. For example in Sir E. A. Wallis Budge's authoritative *Hieroglyphic Dictionary* the following additional definitions are provided for *Akhu:* 'to be bright', 'to be excellent', or 'to be wise' and 'instructed'.[547] And Budge further informs us that the word was frequently associated with 'those who recite formulae'.[548]

Such data, we suggest, calls for a rethink of the title 'Venerables'

as applied to the 'Followers of Horus' in the Turin Papyrus.[549] Rather than merely being 'venerable', is it not possible that what was meant to be conveyed by the word *Akhu* in this context was a picture of vastly enlightened and learned people, apparently with some connection to or interest in the stars—in short an élite of highly initiated astronomer-philosophers?

In support of this notion is the fact that the 'Followers of Horus' were frequently linked in the ancient texts to another equally enlightened and 'shining' class of ancestral beings called the 'Souls of Pe' and the 'Souls of Nekhen'.[550] Now Pe and Nekhen were actual geographical locations in Egypt—the former in the north and the latter in the south.[551] Interestingly enough, however, as Professor Henri Frankfort has confirmed, the 'Souls' of both these places were also frequently grouped collectively under yet another title, the 'Souls of *Heliopolis*',[552] who were said 'to assist the King's ascent to heaven, a function commonly performed by the Souls of Nekhen and Pe ... A relief depicting this function shows the

Souls of Pe and Nekhen in the act, while the text calls them the "Souls of Heliopolis".'[553]

It is generally accepted that the term 'Soul'—*Ba*—as used by the ancient Egyptians had stellar attributes connected to the notion of eternal life in the *Duat* to which all the historical Pharaohs aspired. Moreover, as Frankfort rightly points out, the Pyramid Texts do indeed define the dominant role of the 'Souls' of Pe and Nekhen—and thus the 'Souls' of Heliopolis—as being to ensure that when a Pharaoh died he would be 'equipped' to ascend to the sky and find his way into the cosmic Kingdom of Osiris.[554] This in turn coincides with what we know of the Sages of Edfu and the 'Followers of Horus', both of whom, as we have seen, may be identified with a single and originally *Heliopolitan* 'brotherhood' of temple-makers whose function was to prepare and initiate the generations of the Horus-Kings in order to bring about the 'resurrection' of what was remembered as 'the former world of the gods'.[555]

Legacy

The notion that some form of invisible college could have established itself at Heliopolis thousands of years before the Pharaohs, and could have been the initiating force behind the creation and unfolding of ancient Egyptian civilization, helps to explain one of the greatest mysteries confronted by Egyptology—namely the extremely sudden, indeed dramatic, manner in which Pharaonic culture 'took off' in the early third millennium bc. The independent researcher John Anthony West, whose breakthrough work on the geology of the Sphinx we reported in Part I, formulates the problem especially well:

> Every aspect of Egyptian knowledge seems to have been complete at the very beginning. The sciences, artistic and architectural techniques and the hieroglyphic system show virtually no signs of a period of 'development'; indeed, many of the achievements of the earliest dynasties were never surpassed or even equalled later on. This astonishing fact is readily admitted by orthodox Egyptologists, but the magnitude of the mystery it poses is skilfully understated, while its many implications go unmentioned.

How does a complex civilization spring full-blown into being? Look at a 1905 automobile and compare it to a modern one. There is no mistaking the process of 'development'. But in Egypt there are no parallels. Everything is right there at the start.

The answer to the mystery is of course obvious, but because it is repellent to the prevailing cast of modern thinking, it is seldom seriously considered. Egyptian civilization was not a 'development', it was a legacy.[556]

Might not the preservers of that legacy, who eventually bequeathed it to the Pharaohs at the beginning of the Dynastic Period, have been those revered and secretive individuals—the 'Followers of Horus', the Sages, the Senior Ones—whose memory haunts the most archaic traditions of Egypt like a persistent ghost?

Gods and heroes

In addition to the Turin Papyrus other chronological records support the notion of an immensely ancient 'academy' at work behind the scenes in Egypt. Amongst these, the most influential

were compiled, as we saw earlier, by Manetho (literally, 'Truth of Thoth'), who lived in the third century bc and who 'rose to be high priest in the temple at Heliopolis'.[557] There he wrote his now lost *History of Egypt* which later commentators tell us was divided up into three volumes dealing, respectively, with 'the Gods, the Demigods, the Spirits of the Dead and the mortal Kings who ruled Egypt'.[558]

The 'Gods' it seems, ruled for 13,900 years. After them 'the Demigods and Spirits of the Dead'—epithets for the 'Followers of Horus'—ruled for a further 11,025 years.[559] Then began the reign of the mortal kings, which Manetho divided into the thirty-one dynasties still used and accepted by scholars today.

Other fragments from Manetho's *History* also suggest that important and powerful beings were present in Egypt long before the dawn of its historical period under the rule of Menes. For example Fragment 3, preserved in the works of George Syncellus, speaks of 'six dynasties or six gods who ... reigned for 11,985

years'.[560] And in a number of sources Manetho is said to have given the figure of 36,525 years for the entire duration of the civilization of Egypt from the time of the gods down to the end of the last dynasty of mortal kings.[561]

A rather different total of around 23,000 years has been handed down to us by the Greek historian Diodorus Siculus who visited Egypt in the first century bc and spoke there with priests and chroniclers. According to the stories he was told: 'At first Gods and Heroes ruled Egypt for a little less than 18,000 years ... Mortals have been kings of their country, they say, for a little less than 5000 years.'[562]

Time bridge

An overview of all the available chronologies in context of other related documents such as the Pyramid Texts and the Edfu Building

Texts leaves two distinct impressions. Despite the conflicts and confusions over the precise numbers of years involved, and despite the endless proliferation of names and titles and honorifics and epithets:

- It is clear that the ancient Egyptians thought in terms of very long periods of time and would never have accepted the Egyptological view that their civilization 'began' with the First Dynasty of Pharaohs.
- It is clear that they were aware of an 'influence' at work in their history—a continuous, unbroken influence that had extended over many thousands of years and that was wielded by an élite group of divine and semi-divine beings, often associated with leonine symbolism, who were called variously 'Gods and Heroes', the 'Spirits of the Dead', the 'Souls', the 'Sages', the 'Shining Ones', the 'Ancestors', the 'Ancestor-Gods of the Circle of the Sky', the 'Followers of Horus', etc., etc.

It is clear, in other words, that the ancient Egyptians envisaged a kind of ‘time bridge’, linking the world of men to the world of the gods, today to yesterday and ‘now’ to the ‘First Time’. It is clear, too that responsibility for maintaining this ‘bridge’ was attributed to the ‘Followers of Horus’ (by this and many other names). And it is clear that the ‘Followers’ were remembered as having carried down intact the traditions and secrets of the gods—always preserving them, permitting not a single change—until finally sharing them with the first dynasties of Egypt’s mortal kings.

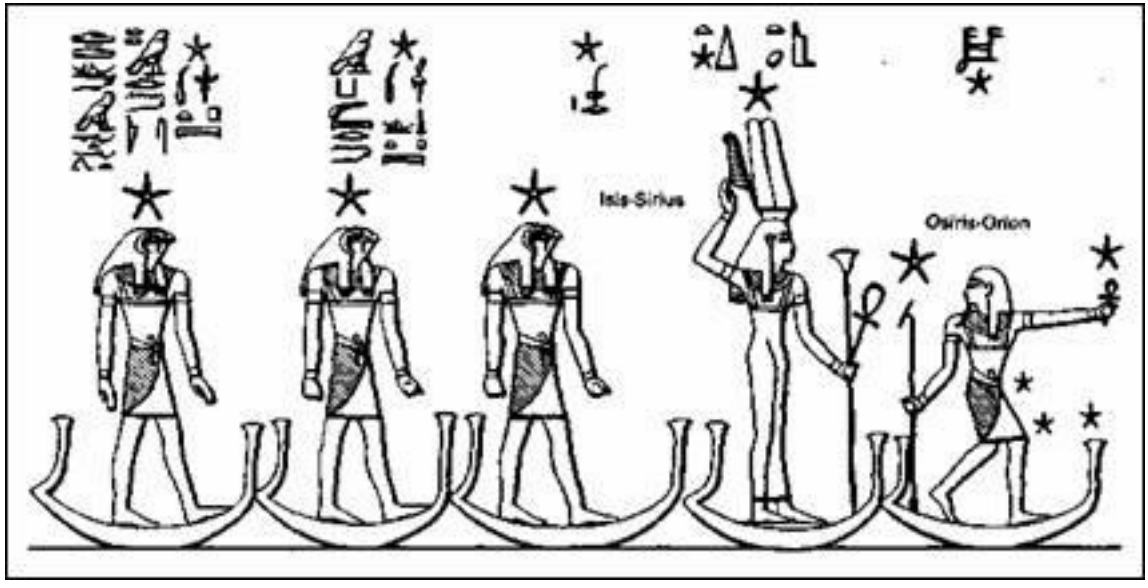

55. It is clear that the ancient Egyptians were aware of an 'influence' at work in their history—a continuous, unbroken influence that extended over many thousands of years and that was wielded by an élite group of divine and semi-divine beings.

Following the vernal point

The etymology of the ancient Egyptian term *Shemsu Hor,* 'Followers of Horus', was studied by the Alsatian scholar R. A.

Schwaller de Lubicz who concluded: ‘The term *Shemsu Hor* ... literally means ... “those who follow the path of Horus”, that is, the “Horian way”, also called the solar way ... These Followers of Horus bear with them a knowledge of “divine origin” and unify the country with it ...’[563]

The ‘solar way’ or ‘path of Horus’ is, of course, the ecliptic—that imaginary way or path in the sky on which the sun appears to travel through the twelve signs of the zodiac. As we saw in earlier chapters, the *direction* of the sun’s ‘journey’ during the course of the solar year is Aquariusà Piscesà Ariesà Taurusà Geminià Cancerà Leo, etc., etc. The reader will recall, however, that there is also another, more ponderous motion, the precession of the earth’s axis, which gradually rotates the ‘ruling’ constellation against the background of which the sun is seen to rise at dawn on the vernal equinox. This great cycle, or ‘Great Year’, takes 25,920 solar years to complete, with the vernal point spending 2,160 years in each of the twelve zodiacal constellations. The direction of motion is Leoà

Cancerà Geminià Taurusà Ariesà Piscesà Aquarius, etc., etc., i.e. the reverse of the route pursued by the sun during the course of the solar year.

We suggest that the 'Followers of Horus' *followed*—in a very precise, astronomical sense—not only the annual path of the sun, eastwards through the zodiac, but also, for thousands of years, the vernal point's relentless precessional drift westwards through the same twelve constellations. We also suggest that this shadowy brotherhood, whose members were said to have carried the 'knowledge of divine origin' (which they would later use to 'unify the country'), may have interrelated on an extremely selective basis with the more primitive inhabitants of the Nile Valley in the prehistoric and Predynastic periods, interbreeding with chosen women and recruiting new generations from amongst the brightest and the best of their offspring—but leaving little or no trace of their presence in the archaeological record. We suggest, too, that around the beginning of the third millennium bc something happened in the

cosmic order of the night sky—something long preordained and expected by their astronomers—that caused the ‘Followers’ to launch their grand attempt to initiate and ‘unify’ the historical civilization of Egypt. Last but not least, we suggest that whoever they really may have been, it was the ‘Followers’—the Sages, the Builder Gods—who provided this nascent civilization with the injection of advanced technical knowledge, engineering, architectural and organizing skills necessary for the completion of the vast celestial ‘temple’ that we know today as the Giza necropolis ...

In the next chapters we will test some of these hypotheses.

Chapter 14

Space-Time Co-ordinates

‘The mind has lost its cutting edge, we hardly understand the ancients.’

Gregoire de Tours, sixth century ad

In astronomical terms the ‘vernal point’ is the ‘address’ that the sun occupies on the spring equinox—its particular position on that particular day against the background of the zodiacal constellations that encircle the ecliptic (i.e. the perceived ‘path’ of the sun). As a result of a cosmic coincidence these twelve prominent constellations are distributed in the heavens in the plane of the ecliptic (i.e. in the plane of the earth’s orbit around the sun) and, furthermore, are spaced out more or less evenly around it. The vernal point, however, is not fixed. Because of the phenomenon of precession, as we have

seen in earlier chapters, it gradually sweeps around the whole ‘dial’ of the zodiac at a precise and predictable rate.

Between 3000 bc and 2500 bc, the epoch in which Egypt appears to have received the sudden spark of genius that initiated the most brilliant achievements of the Pyramid Age, the vernal point was stationed on the immediate right (i.e. ‘west’) bank of the Milky Way, drifting almost imperceptibly slowly past the small group of stars, known as the Hyades, which form the head of Taurus[564]—the Bull of the Sky.

What this means is that the vernal point had arrived in that region of the sky dominated by the adjacent constellations of Taurus and Orion, and particularly by the three stars of Orion’s belt. Moreover, as we have seen in Part I, the three great Pyramids of Giza—which stand on the west bank of the Nile—were designed to serve as terrestrial models, or ‘doubles’ of those three stars.

Now here is the interesting thing. If we regard the Giza Pyramids (in relation to the Nile) as part of a scaled-down ‘map’ of the right

bank of the Milky Way, then we would need to extend that 'map' some 20 miles to the south in order to arrive at the point on the ground where the Hyades-Taurus should be represented. How likely is it to be an accident that two enormous Pyramids—the so-called 'Bent' and 'Red' Pyramids of Dahshur—are found at this spot? And how likely is it to be an accident, as was demonstrated in *The Orion Mystery,* that the site plan of these monuments, i.e. their pattern on the ground, correlates very precisely with the pattern in the sky of the two most prominent stars in the Hyades?[565]

We suggest none of this is accidental, that the 'celestial signal' which 'sparked off the incredible Pyramid-building programme of Egypt's Fourth Dynasty was provided by the precessional drift of the vernal point into the Hyades-Taurus region, and that the 'Hyades Pyramids' of Dahshur were therefore naturally built first.

Such a theory provides a motive for the vast enterprise of Fourth-Dynasty Pyramid construction (involving some 25 million tons of stone blocks—more than 75 per cent of all the stone that was

quarried and shaped into Pyramids during the Pyramid Age).[566] In addition, it accords fully with archaeological evidence which suggests that the two superb Pyramids at Dahshur were built by Sneferu (2572-2551 bc), the founder of the Fourth Dynasty and the father of Khufu. In other words the Bent and the Red Pyramids were indeed built *before* any of the great Pyramids of Giza[567]—which is exactly what one would expect if the drift of the vernal point into the Hyades-Taurus was the trigger that set the whole enterprise in motion.

And there is something else.

Journey in time

The Hyades-Taurus region, together with its terrestrial analogue, is identified in the Pyramid Texts as the starting point for the Horus-King's 'quest'—i.e. that great dualistic journey, enacted both in the sky and on the ground, that we described in Part III. As the reader

will recall, the texts specifically and unambiguously instruct Horus in his solar form, i.e. the sun's disc, to position himself at this starting point and thence to 'go to Horakhti', i.e. to voyage eastwards towards the constellation of Leo. And we have seen how the sun actually does this, sailing along the ecliptic path during the solar year in the direction Taurusà Geminià Cancerà Leo.

This order of the constellations therefore appears to define 'forward' movement in time and, at one level, the identifiable astronomical events described in the texts do indeed unfold in the 'normal' forward direction of the solar year (after being stationed near Taurus, and then crossing the Milky Way, the sun reaches Leo later in the year—i.e. *later in time*). Moreover this same 'normal' forward motion also appears to be mirrored in the ritual performed by the Horus-King on the ground: i.e. *after* crossing the river Nile it is inevitable that the initiate will arrive at the breast of the Great Sphinx somewhat later in time.

But in the Pyramid Texts, and in the arrangement of the Giza

monuments—as in so much else that has come down to us from ancient Egypt—everything may not be quite what it seems. An awareness of the effects of precession on the part of the 'Followers of Horus' (and the later priests of Heliopolis) would have included an intense focus on the stellar background at the vernal equinox and an understanding that the sun's 'journey' towards Horakhti-Leo, *as calibrated at this 'governing moment ' of the year,* would by definition have been a journey *backwards* in time through a succession of 'world-ages'—i.e. from the Age of Taurus, *circa* 3000 bc (when the sun on the vernal equinox rose against the stellar background of the constellation of Taurus) to the Age of Leo, *circa* 10,500 bc, when the sun on the vernal equinox rose against the background of the celestial lion.

So when we read in the Pyramid Texts that the 'Followers of Horus' are urging the Horus-King to travel from Taurus to Leo it is possible that they may have had in mind something rather complex and clever. It is possible, in other words, that as well as offering the

sun's annual path through the constellations as a kind of 'treasure trail' for the initiate to follow on his way to the breast of the Sphinx, they may also have offered him knowledge of its slow *reverse motion at the vernal equinox*—perhaps as his cue to embark on a different kind of journey, *against the flow of precession* and back to the 'First Time'.

This is more than speculation. As we saw at the end of Part III, the Horus-King's journey to the breast of the Sphinx was undertaken *at the summer solstice* during the Pyramid Age (because in that epoch it was at the summer solstice that the great conjunction of the sun with Horakhti-Leo occurred). We also saw, however, that the initiate who had correctly followed the 'treasure trail' set out in the texts, and who had reached the Sphinx in the pre-dawn on the summer solstice, would immediately have become aware of a curious 'dislocation' between sky and ground. He would have noticed, in particular, that the Sphinx gazed due east but that his celestial counterpart—Horakhti-Leo—was rising at a point on the

horizon located some 28 degrees north of due east. He would also have noticed that the three great Pyramids of Giza precisely straddled the meridian but that their terrestrial counterparts, the three stars of Orion's belt, hung low in the south-eastern portion of the pre-dawn sky, far to the left of the meridian.

Given the profoundly astronomical character of his religious frame of reference he might well have felt a numinous urge to 'put sky and ground together again'—i.e., so to arrange matters that the Sphinx would be gazing *directly* at Leo in the pre-dawn, whilst, at the same moment, the three stars of Orion's belt would straddle the meridian in the precise pattern 'specified' by the meridional layout of the Pyramids. If that could somehow be brought about then the monuments would truly represent 'an image of heaven'[568]—as the old Hermetic doctrines teach—and the land of Egypt 'which once was holy, a land which loved the gods and wherein alone the gods deigned to sojourn on earth', might once again become, as it was before, 'the teacher of Mankind'.[569]

But how could the Horus-King hope to unite sky and ground?

The only way would be if he were equipped to use precession—presumably just as an intellectual tool—to *travel backwards in time.*

For as the reader will recall there *was* a time when a unique celestial conjunction involving the moment of sunrise, the constellation of Leo, and the meridian-transit of the three stars of Orion's belt, did indeed occur. That time, of course, was near the beginning of the Age of Leo, at around 10,500 bc,[570] some 8000 years prior to the Pyramid Age.

Becoming equipped

The Utterances conventionally numbered 471, 472 and 473 in the ancient Egyptian Pyramid Texts contain information of an extraordinary nature. In view of the importance of this information, we set it out in full below:

> I am the essence of a god, the son of a god, the messenger of a god, [says the Horus-

King]. The Followers of Horus cleanse me, they bathe me, they dry me, they recite for me the Spell [formula] for Him who is on the Right Way, they recite for me the Spell of Him who Ascends, and I ascend to the sky.

I will go aboard this Bark of Re [the Solar Bark]... Every god will rejoice at meeting me as they rejoice at meeting Re [the sun] when he ascends from the eastern side of the sky in peace, in peace.

The sky quivers, the earth quakes before me, for I am a magician, I possess magic ... I have come that I may glorify Orion, that I may set Osiris at the head, that I may set the gods upon their thrones.

O Mahaf, Bull of the gods [Taurus-Hyades], bring me this [solar bark] and set me on yonder side ... The reed-floats of the sky are set down for me by the day-bark that I [the solar Horus-King] may go up on them to Re at the Horizon. The reed floats of the sky are brought down to me by the night bark that I may go up on them to Horakhti at the horizon. I go up on the eastern side of the sky where the gods are born, and I am born as Horus, as Him of the Horizon ... I have found the *Akhus* with their mouths equipped ...

'Who are you?' say they [the *Akhus*], with their mouths equipped.

'I am an *Akhu* with my mouth equipped.'

'How has this happened to you,' say they, the *Akhus* with their mouths equipped, 'that you have come to this place more noble than any place?'

'I have come to this place more noble than any place because: The reed-floats of the

sky were set down for Re [the sun disc and the emblem of the Horus-King] that Re might cross [the Milky Way] on them to Horakhti at the Horizon ...'[571]

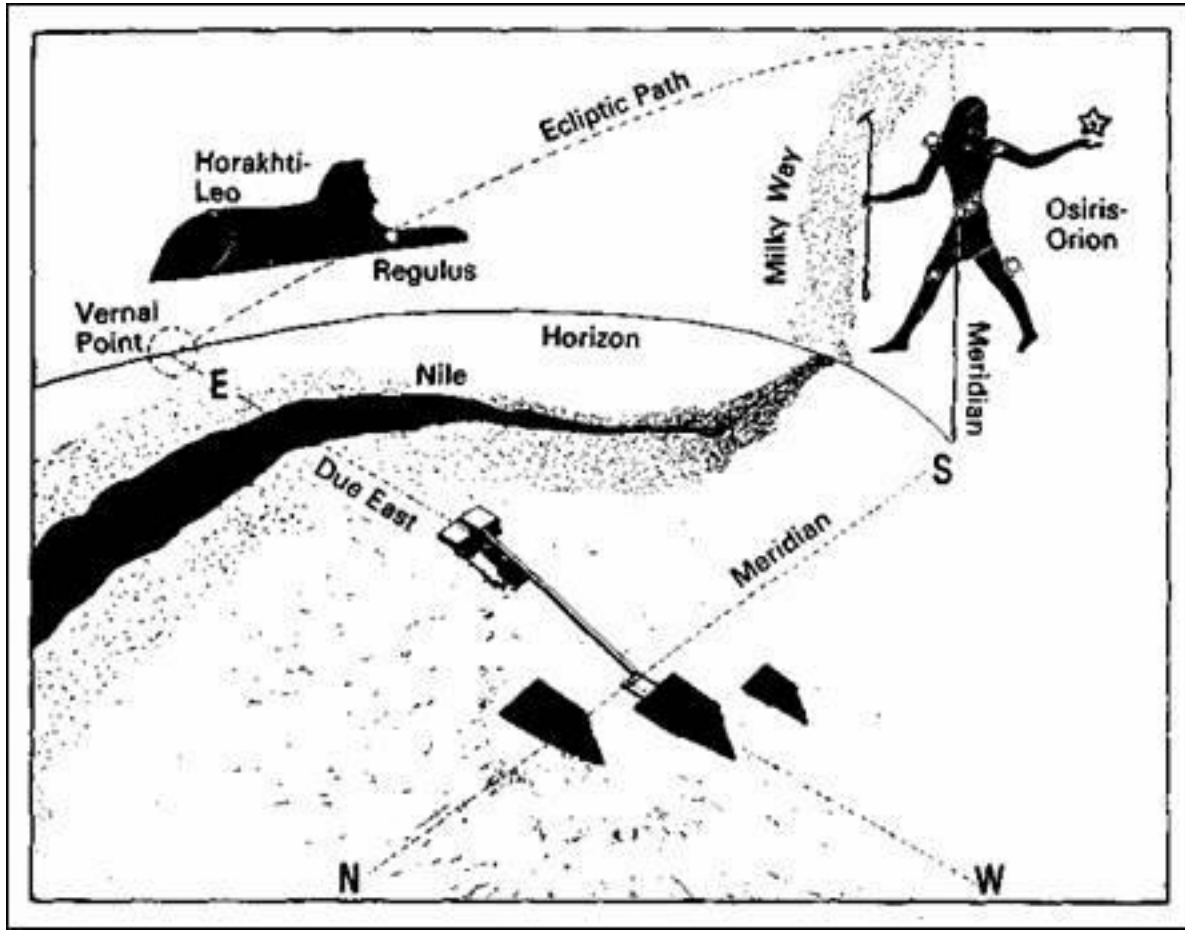

56. Artist's impression of the unique celestial conjunction that occurred at sunrise on the vernal equinox in the epoch of 10,500 bc.

These Utterances appear to describe an important part of the Horus-King's initiatory journey—an ordeal of questions and answers based on astronomical science wrapped up in esoteric symbols. The inquisitors are the 'Followers of Horus', also known as the *Akhus* (the 'Venerables', the 'Shining Ones', the 'Transfigured Spirits', etc., etc.). Moreover, as we would expect, the Horus-King's cosmic journey begins in the Taurus-Hyades region of the sky, on the right bank of the Milky Way. and proceeds along the ecliptic path to end at Leo i.e. 'Horakhti', at the horizon. Here, at 'this place more noble than any place', the *Akhus* greet him—indeed he claims to have become *an Akhu* himself—and give him the final instructions or directions that he will need to complete his quest.

What we have to consider is the possibility that these final instructions might somehow have 'equipped' the Horus-King to make the necessary journey back in time, to the 'First Time', and into the cosmic Kingdom of Osiris when sky and ground were

united in perfect harmony.

Unification

As the reader will recall from the previous chapter, the 'Followers of Horus' were said to have possessed 'a knowledge of divine origin' that was to be used to 'unify the country'. It is therefore presumably of relevance that large numbers of ancient Egyptian inscriptions and papyri make reference to an event known as 'the Uniting of the Two Lands'—an event that is eloquently related in the so-called Shabaka Texts (the 'Memphite Theology') which we have reviewed in Part III.

It is the scholarly consensus that the 'Unification of the Two Lands' was a political and economic 'federation' between southern and northern Egypt, resulting from the military conquest of the latter by the former, which supposedly occurred at around the year 3000 bc.[572] This conquest, as T. G. H. James informs us, 'was

effected by a King known to history as Menes. No contemporary monument bears a royal name that can with certainty be read as Menes, but he is generally identified with King Narmer who is shown wearing both the red and white crowns [respectively of northern and southern Egypt] on a great palette [now in the Cairo Museum]. With the unification of the Kingdoms begins the historic period of Egypt.'[573]

Also sometimes referred to as 'King Scorpion' (after a symbol that appears on an archaic mace-head) we have already met Menes-Narmer.[574] We have noted, too, the strange Egyptological double standard by which he is accorded the status of a genuine historical figure whilst his predecessors—mentioned with equal prominence in the king-lists and Manetho—are dismissed as 'mythical beings'.

Indeed, Egyptologists speak with such immense confidence of 'the political consolidation of Egypt around 3000 bc' and of the 'unification under Narmer'[575] that one would suppose they were in possession of bundles upon bundles of ancient treaties, land deeds

and historical records. The truth, however, as James half admits, is that nothing is known for sure about the supposed first Pharaoh of the First Dynasty. On the contrary, the whole of what we read about him, including his identification with 'Narmer', is scholarly speculation based on idiosyncratic interpretations of certain scenes—some of which depict battles—that are carved on the so-called 'Narmer Palette' and on certain votive mace-heads from Hierakonpolis (an ancient religious capital in southern Egypt).[576]

In short, Egyptology's case that 'the Unification of the Two Lands' refers to the political unification of northern and southern Egypt under Menes rests on three completely uninscribed artefacts which are carved with scenes that *might* bear such an interpretation—but that could also be interpreted in many other ways. These curious artefacts tell us precious little about Menes-Narmer himself,[577] let alone what his political and territorial aspirations—or those of anybody else—might have been *circa* 3000 bc in Egypt. Semi-legendary or semi-historical, Narmer (or Menes or 'King

Scorpion'—take your pick) is thus the quintessential 'King Arthur' of Egyptology. And so, too, is his supposed 'Unification of Egypt'—which is also veiled in semi-mythical, semi-historical confusion, very much like the confederation of King Arthur's Round Table.[578]

Moreover the conclusion that Menes-Narmer was the first ruler to have been involved in the 'Unification of the Two Lands' clashes rudely with the beliefs of the ancient Egyptians themselves. Their records and traditions make it clear that there had been earlier 'Unifications' in the 'Time of the Gods'—all going back to the original Kingdom of Osiris, the 'Kingdom of the "First Time" ' which was torn asunder by Seth and then unified once again by Horus.

We do not think that this talk of 'Unification' was ever entirely to do with events that happened on the ground. Although we do not dispute that some form of political unification did indeed take place at around 3000 bc, we suspect that in dualistic Egypt a wider

understanding of the whole issue will not be possible unless *events in the sky* are taken into account as well. Building on earlier work done by Egyptologist and archaeoastronomer Jane B. Sellers,[579] we suggest that the original notion of 'Unification'—to which all later attempts to 'Unify the Two Lands' were directly related—had something to do with the precessional drift of the stars ...

High and far-off times

In her landmark study *The Death of Gods in Ancient Egypt* Sellers sets out persuasive astronomical and textual evidence to show that the prehistoric Egyptians—at least as far back as 7300 bc—had observed and tracked the slow precessionally induced changes that constantly relocate the cosmic 'address' of the constellation of Orion. And she argues that, although political unity was credited to Menes, there was a much older notion of the 'Unification' based not on events on earth but those observed in the

sky ...[580] Indeed, she goes so far as to claim that Menes merely brought to fruition a very ancient and archetypal vision of cosmic duality which so perfectly harmonized with the mentality of the ancient Egyptians 'as to appear both inevitable and perennial': 'A dual monarchy united under the rule of one was a form that came from the mists of distant antiquity. It was a form that had been created for gods in the heavens, and how inevitable it was that an imitation of the cosmic order should prevail for men on earth.'[581]

Sellers supports her case by drawing on the late Henri Frankfort's studies of ancient Egyptian kingship. Like her, the former Professor of Preclassical Antiquity at the University of London was firmly of the opinion that it was 'possible to view the unification of Egypt, not as the ephemeral outcome of conflicting ambitions, but as the revelation of a predestined order'.[582] And he was further convinced that 'the dual monarchy centred round Memphis realized a divine plan', that the social and state order established by Menes-Narmer was presented 'as part of the cosmic order',[583] and that

Menes-Narmer, in establishing himself as sole ruler of Upper and Lower Egypt, was performing 'an act in harmony with the Egyptian tendency to understand the world in dualistic terms, "a series of pairs of contrasts balanced in unchanging equilibrium" ...'[584]

What Sellers was able to add to this, as a result of her own powerful insights into ancient Egyptian cosmology and observational astronomy, was the notion that events taking place on the ground were somehow directly conditioned by observations of the sky—and also that what was observed in the sky was described more or less accurately in certain 'myths':

> I am postulating the creation of specific myths to deal with distressing alterations in the sky, followed by an artificial duality, or symmetry, imposed, not just on the deities, but on geographical centres of worship, and this duality remained a constant in Egyptian affairs throughout its history. It was harking back to a wonderful Golden Age, now lost, an age when the skies had had a magnificent balance, and the religion had been fresh and new ...'[585]

The Golden Age to which Sellers is referring is, of course, *Zep Tepi,* the 'First Time'. And the 'distressing alterations in the sky'

which she believes that certain myths were created to explain were caused by the phenomenon of precession—specifically the precessional drift of the great constellation of Orion away from the station that it had occupied at the 'First Time'.[586]

These are daring and dangerous steps for an otherwise orthodox Egyptologist to have taken. Nevertheless, as we shall see in the next chapters, Sellers could be wrong in understanding the myths—by which she means principally the Pyramid Texts and the Memphite Theology—merely as accounts fabricated by superstitious priests to 'explain' precessional drift. The possibility needs to be confronted square on that elements of these ancient traditions, and the monuments and rituals that are so inextricably linked to them, could have been deliberately contrived as vehicles to carry an elaborate and ingenious 'message' from a past epoch otherwise long forgotten to a specific epoch in the future—from the 'First Time' to an astronomically defined 'Last Time'[587]—perhaps even to the very epoch in which we ourselves live today. Perhaps both epochs thus

linked together are susceptible to accurate dating and decoding if only the right key can be found. And perhaps we may yet be able to read and understand the great cosmic blueprint that the 'Followers of Horus' sought to implement ...

Who knows what might result?

There might even come, to quote the words of Giorgio de Santillana, 'some kind of "Renaissance" out of the hopelessly condemned and trampled past, when certain ideas come to life again ... We should not deprive our grandchildren of a last chance at the heritage of the highest and farthest-off times.'[588]

Chapter 15

When the Sky Joined the Earth

'My Kingdom is not of this world. ...'

John 18:36

'Great is the Cosmic Order, for it has not changed since the time of Osiris, who put it there ...'

Ptahotep, a high priest of the Pyramid Age

According to the Creation narrative of the ancient Egyptians, Nut, the Sky-goddess, and Geb, the earth-god, joined in sexual union, but were then rudely separated by the intervention of Shu, the god of air, atmosphere and dryness. Nevertheless the union did produce offspring in the form of Isis and Osiris, Nepthys and Seth. And in due course, as we have seen, Osiris became the ruler of the

idealized ‘Kingdom of the “First Time” ’, was murdered by Seth, experienced resurrection, and then finally ascended into the heavens where he established the cosmic ‘Kingdom’ of the *Duat.* The reader will remember that a crucial role in effecting his ‘astral rebirth’ was played by Horus, his son by the widow Isis, the archetype for all the historical Horus-Kings of ancient Egypt—who revenged himself on Seth and later reunified the divided Kingdom.

It can thus be said that a kind of cosmic blueprint to establish—or reestablish—a unified ‘Kingdom of Osiris’ on earth had been devised from the outset by the ‘gods’ and thus long before the advent of ‘historical’ kingship by Menes-Narmer at the beginning of the third millennium bc.

Separation

In the Shabaka Texts (which express the Memphite Theology) we read that the defeat of Seth by Horus was followed by a

convocation of the gods, under the leadership of Geb, who sat in judgement over the two 'contenders'. Initially each one was given authority to rule over his own area: 'These are the words of Geb to Horus [of the north] and Seth [of the south]: "I have separated you"—Lower and Upper Egypt ... Then Horus stood over one region and Seth stood over one region ...'[589]

Later, however, as the reader will recall from Part III, Geb 'gave to Horus [Seth's] inheritance': 'Then Horus stood over the land. He is the uniter of this land ... He is Horus who arose as king of Upper and Lower Egypt, who united the Two Lands in [the region of Memphis],—the "place" where the Two Lands were united ...'[590]

The curious phrase 'I have separated you' which Geb uttered, is symbolic of the 'separation' that he, too, had endured from his consort the sky-goddess, Nut. With this in mind, should we not consider the possibility that the notions of 'Upper Egypt' and 'Lower Egypt'—though obviously relating at one level to the geographical south and north of the earthly country—might also at

another level have been intended to suggest *ground and sky?*

Doubles

There is much in the Memphite Theology which supports the proposition that the areas which were traditionally regarded as the southern and northern sacred regions of Osiris—Abydos and Memphis—were not only meant to be considered in terrestrial terms but also in cosmic terms.

In particular, a metaphor is relayed around the imagery of the huge 'body' of Osiris 'drifting' with the waters of the Nile from his southern shrine at Abydos to reach his northern shrine in the 'land of Sokar'—i.e. the Memphite necropolis in general and in particular the Giza plateau where, in the form of the three great Pyramids, we suspect that the 'body' of Osiris lies outstretched upon the sand to the present day ...

At any rate, this same basic imagery of Osiris lying on the western

bank of the Nile near Memphis also crops up in the Pyramid Texts, which add a further clue: 'They [Isis and Nepthys] have found Osiris ... "when his name became Sokar" ...'[591] The term 'when his name became Sokar' does clearly seem to imply that the 'body' of Osiris merged with the land of Sokar i.e. the Memphite necropolis, and that his image—i.e. the 'astral' image of the Orion region of the sky—was somehow grafted onto it. The impression that this 'image' must have something to do with the Pyramids of Giza is then confirmed elsewhere in the Pyramid Texts. In the following passage, for example, the Horus-King addresses the 'Lower Sky' to which he 'will descend to the place where the gods are' and utters this powerful and cryptic declaration:

> If I come with my *ka* [double], open your arms to me; the mouths of the gods will be opened and will request that I ascend to the sky, and I will ascend.
>
> A boon which Geb (earth) and Atum grant: that this *Pyramid* and *Temple* be installed for me and for my double, and that this *Pyramid* and *Temple* be enclosed for me and for my double ...
>
> As for anyone who shall lay a finger on this *Pyramid* and this *Temple* which belong to

me and to my double, he will have laid a finger on the Mansion [Kingdom]... which is in the sky ...[592]

It is beyond the scope of this book to present a detailed treatise on the concept of the *ka*—the 'double', the astral or spiritual essence of a person or thing—and of its role in ancient Egyptian funerary beliefs. Much confusion has been generated around this important subject.[593] At the very least, however, it is certain that what confronts us in the *ka* is yet another example of the prevailing dualism in Egyptian thought. Moreover its use in context of the utterance quoted above reminds us that the 'image' of Osiris 'when his name became Sokar'—i.e. the Memphite Pyramid necropolis—should at all times be considered as having a cosmic or celestial 'double'. And it should be obvious, too, that this 'double' can only be the Osirian Kingdom in the *Duat*—which the Pyramid Texts declare to be 'the Place Where Orion Is'. Indeed as Margaret Bunson notes in her *Encyclopaedia of Ancient Egypt:* '*Kas* ... served as guardians of places ... Osiris was always called the *ka* of the

Pyramids ...'[594]

Other passages from the Pyramid Texts support this general analysis:

O Horus, this King is Osiris, this Pyramid of the king is Osiris, this construction of his is Osiris, betake yourself to it ...[595]

Awake [Osiris] for Horus ... spiritualize yourself [i.e. become an astral being] ... May a stairway to the sky be set up for you to the Place Where Orion Is ...[596]

Live, be alive, be young ... beside Orion in the sky ...[597]

O Osiris-King, you are this great star, the companion of Orion, who traverses the sky with Orion, who 'sails' in the *Duat* with Osiris ...[598]

Link-up

Strangely, despite the obvious sky-ground dualism and profoundly astronomical 'flavour' of the Texts, no scholar other than Jane B. Sellers[599] has ever given serious consideration to the

possibility that references to the 'Unification' of the 'Upper' and 'Lower' Kingdoms of Osiris might have something to do with astronomy. Indeed the only Egyptologist even to get close to such an unorthodox way of thinking was Selim Hassan when he observed: 'the Egyptians held the idea of the existence of more than one sky, possibly superimposed ... Certain lines in the Pyramid Texts strongly suggest that "Upper" and "Lower" Egypt each had its own particular sky ... i.e. the two skies in opposition to the Two Lands of Upper and Lower Egypt.'[600]

In his monumental study of ancient Egyptian cosmology, Hassan also drew attention to an intriguing papyrus, now kept at the Louvre Museum in Paris,[601] which suggests that the 'Two Skies' in question were considered as being 'one for the earth and the other for the *Duat*'.[602] 'These plural skies', wrote Hassan, 'were superimposed one above the other.'[603]

Pursuing such lines of thought, we were to discover that similar ideas are depicted in the Coffin Texts. There reference is made to

the ‘Upper’ and ‘Lower’ landscapes which are said to be bound to the ‘Two Horizons’—one in the east (the sky) and one in the west (the earth i.e. the Memphite necropolis[604]): ‘Open! O Sky and Earth, O eastern and western Horizons, open you chapels of Upper and Lower Egypt ...’[605]

The language of all these texts is exotic, laden with the dualistic thinking that lay at the heart of ancient Egyptian society and that may have been the engine of its greatest achievements. In the Pyramid Age, as we have seen, the gigantic ‘image’ of Osiris appears to have been physically *defined* on the ground with the creation of the ‘Lower’ landscape of the Memphite Pyramids—a development referred to in the Pyramid Texts by means of the obvious metaphor ‘When his name became Sokar’. Likewise, it should come as no surprise that the gigantic celestial ‘image’ of Osiris in the sky is referred to in the same texts by means of the same metaphorical device, i.e. ‘When his name became Orion’: ‘Horus comes, Thoth appears ... They raise Osiris from upon his

side and make him stand up ... when there came into being this his name of Orion, long of leg and lengthy of stride, who presides over “Upper” Egypt ... Raise yourself, O Osiris ... the sky is given to you, the earth is given to you ...’[606] Selim Hassan, again almost but not quite getting the point, comments as follows: ‘this line shows that Osiris was given the dominion of heaven and earth.’[607]

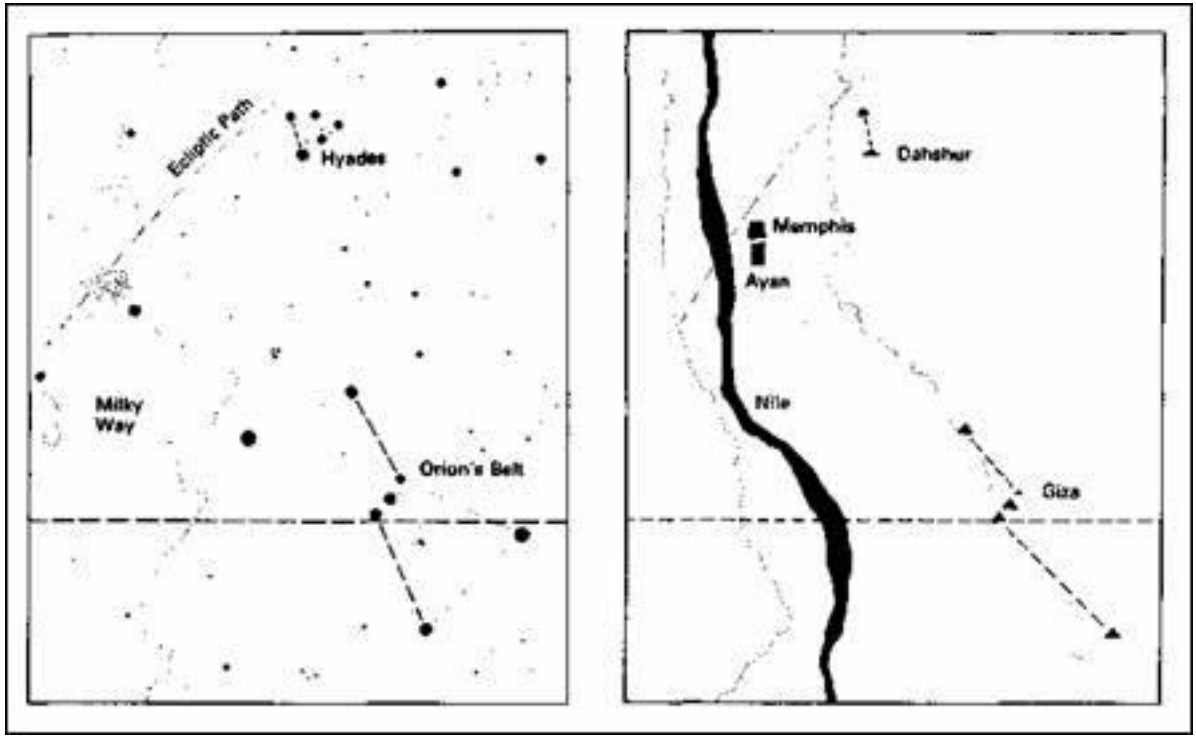

57. (Left) The sky-*Duat* of Osiris 'in his name of Orion'. (Right) The ground-*Duat* of Osiris 'in his name of Sokar'.

Yet clearly there is more to say. These 'dominions' were by no means vague and general but were defined in the sky by the pattern of Orion's stars, and were defined on the ground—in the land of

‘Sokar’ (i.e. the Memphite necropolis)—by the pattern of the Pyramids.

We wonder whether the first major ‘station’ of the quest-journey of the Horus-King, reached after he had been prompted to ‘find the astral body of Osiris’, might not have been the initiate’s dawning awareness that the body in question was a *duality* that could only be approached by linking Orion with the pattern of the Great Pyramids in the Memphite necropolis.

Riding the vernal point

The reader will remember that the starting point of the Horus-King’s ‘journey in the sky’ was when the sun’s position along the zodiac (during the solar year) was close to the Hyades, at the ‘head’ of the constellation of Taurus, standing, as it were, on the banks of the Milky Way.

If we now transpose this sky image to the ground then the Horus-

King would have to place himself near the 'Bent' and the 'Red' Pyramids of Dahshur some 20 miles south of Giza (but nevertheless still very much part of the extensive Memphite necropolis). As we saw in the last chapter, the trigger for the construction of these two Fourth-Dynasty monuments appears to have been the slow precessional drift of the vernal point into the Hyades-Taurus region of the sky in the third millennium bc. Indeed it is more than possible that by building those Pyramids (which map the two brightest stars in the Hyades) Pharaoh Sneferu (2575-2551 bc) was deliberately laying down a marker for the position of the vernal point in his epoch.

If he was doing that, as all the evidence seems to suggest, then it is probable that such a highly initiated Horus-King would also have known that by metaphorically 'boarding' the solar bark *at the spring equinox,* and crossing the Milky Way, he would effectively be 'sailing back in time'—against the flow of precession—riding the vernal point towards the distant constellation of Leo.

But why, then, all this parallel emphasis in the texts on Orion-Osiris moving from somewhere in the distant 'south' to his final resting place in the Memphite necropolis?

Secret spell

We suspect that for thousands of years before the Pyramid Age, hundreds of generations of Heliopolitan astronomer-priests had kept the constellation of Orion continuously under observation, paying particular attention to its place of meridian-transit—i.e. the altitude above the horizon at which it crossed the celestial meridian. We think that careful records were kept, perhaps written, perhaps orally encoded in the ancient 'mythological' language of precessional astronomy.[608] And we suppose that note was taken of Orion's slow precessional drift—the effect of which was that *the constellation would have seemed to be slowly drifting northwards along the west 'bank' of the Milky Way.*

It is our hypothesis that the mythical image of the vast body of Osiris slowly being carried to the north, i.e. ‘drifting’ on the waters of the Nile, is a specific piece of astronomical terminology coined to describe the long-term changes being effected by precession in Orion’s celestial ‘address’. In the Memphite Theology, as the reader will recall, this drift was depicted as having commenced in the south, symbolically called Abydos (in archaeological terms the most southerly ‘shrine’ of Osiris), and to have carried the ‘body’ of the dead god to a point in the north symbolically called Sokar, i.e. the Memphite necropolis (the most northerly ‘shrine’ of Osiris). As we saw in Part III, the Shabaka Texts tell us that when he reached this point:

> Osiris was drowned in his water. Isis and Nepthys looked out, beheld him, and attended to him. Horus quickly commanded Isis and Nepthys to grasp Osiris and prevent his [submerging]. They heeded in time and brought him to land. [. He entered the hidden portals in the glory of the Lords of Eternity. Thus Osiris came into the earth at the Royal Fortress [Memphis], to the north of the land to which he had come [Abydos].[609]

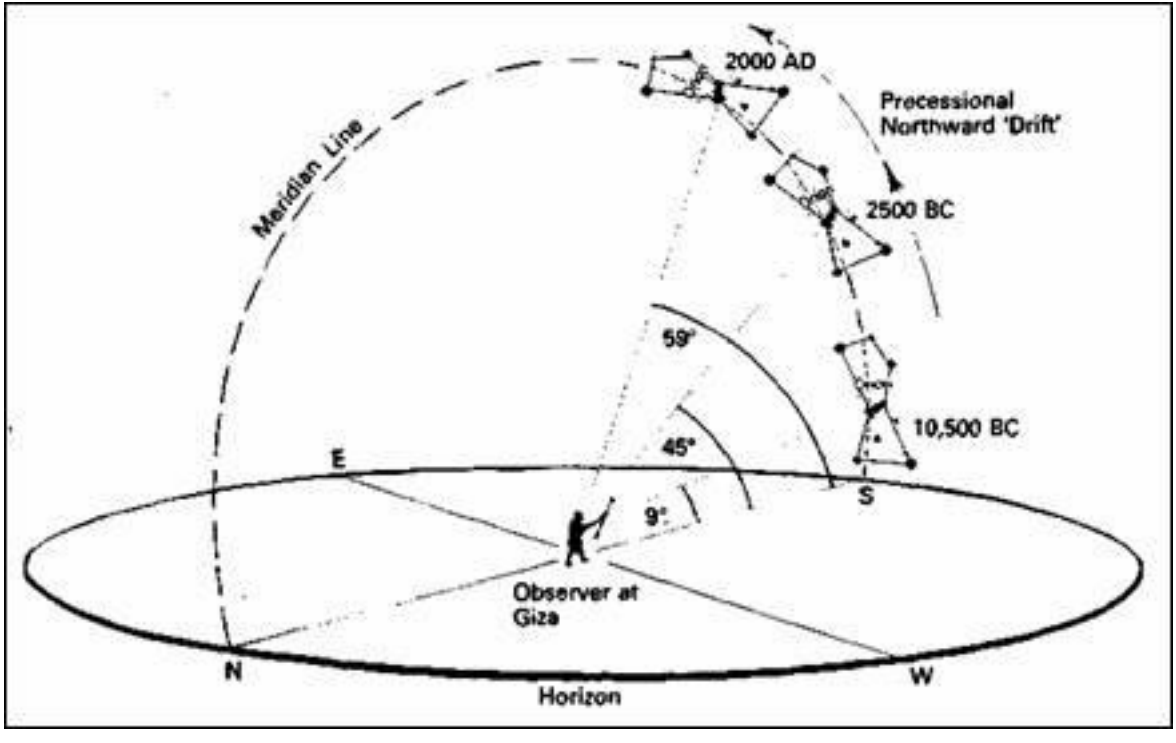

58. The effect of Orion's slow precessional slide up the meridian between 10,500 bc and 2500 bc is that the constellation would literally have appeared to be 'drifting' very slowly northwards along the course of the Milky Way.

In the light of what we now know it is hard to imagine that the reference to Osiris coming 'into the earth' (or down to earth?) could signify anything other than the *physical construction* of the 'body of

Osiris on the ground' on the west banks of the Nile—in the form of the great Pyramid-fields of the sprawling Memphite necropolis. Since Osiris is Orion the desire to achieve such an effect would more than adequately explain why the three Pyramids of Giza should have been arranged in the pattern of the three stars of Orion's belt. Moreover, since we know that the stated goal of the Horus-King's quest was not only to find the astral 'body' of Osiris but to find it as it was in the 'First Time', we should not be surprised by the fact that the Pyramids, as we saw in Part I, are set out on the ground in the pattern that they made at the beginning (i.e. 'southernmost point') of that constellation's upward (i.e. 'northerly') precessional half-cycle.

So we wonder whether it is possible that the quest of the Horus-King might have had as its ultimate objective *the acquisition of knowledge concerning the 'First Time'*—perhaps even the acquisition of specific knowledge *from* that remote epoch when the gods had walked the earth?

Several passages in the Pyramid Texts invite such speculation. For example, we are told that the Horus-King must 'travel upstream'—i.e. must push against the natural drift of 'time'—in order to reach Orion-Osiris in his proper 'First Time' setting:

> Betake yourself to the Waterway, fare upstream [south], travel about Abydos in this spirit-form of yours which the gods command to belong to you; may a stairway [road] to the *Duat* be set up for you to the Place Where Orion Is ...[610]

> They have found Osiris ... 'When his name became Sokar' [Memphite necropolis] ... Wake up [Osiris] for Horus ... raise yourself ... fare southward [upstream] to the lake, cross over the sea [sky], for you are he who stands untiring in the midst of Abydos ...[611]

> Betake yourself to the Waterway, fare upstream ... traverse Abydos. The celestial portal to the Horizon is open to you ... may you remove yourself to the sky, for the roads of the celestial expanses which lead up to Horus are cleaned for you ... for you have traversed the Winding Waterway [Milky Way] which is in the north of the sky as a star crossing the sea which is beneath the sky. The *Duat* has grasped your hand at the Place Where Orion Is ...[612]

Likewise there is a striking passage in the Coffin Texts which refers to some secret 'spell' or formula to allow the deceased to use

the ‘path of Rostau’ on the land and in the sky (i.e. the path to the Giza necropolis on land and to Orion’s belt in the sky) in order to ‘go down to any sky he wishes to go down to’:

> I have passed on the path of Rostau, whether on water or on land, and these are the paths of Osiris [Orion], they are in the limit of the sky. As for him who knows the spell [formula] for going down into them, he himself is a god in the suite of Thoth [meaning he is as wise as Thoth, ‘the controller of the stars’[613]] [and] he will go down to any sky he wishes to go down to ...[614]

Special numbers

We suspect that the phrase to ‘go down to any sky’ suggests an awareness—and recording—of precessionally induced changes in the positions of the stars over long periods of time. And we also note its implication that if the chosen initiate was equipped with the correct numerical spell then he would be able to work out—and visualize—the correct positions of the stars in any epoch of his

choosing, past or future.

Once again Sellers stands out amongst Egyptologists for being the first to have entertained such apparently outlandish notions. ‘It is possible’, she writes, ‘that early man encoded in his myths special numbers; numbers that seemed to reveal to initiates an amazing knowledge of the movement of the celestial spheres.’[615]

Such numbers, she argues, appear to have been derived from a sustained, scientific study of the cycle of precession and a measurement of its rate and, puzzlingly, turn out to be extremely ‘close to the calculations made with today’s sophisticated procedures’. Intriguingly, too, there is evidence not only ‘that these calculations were made, and conclusions drawn’, but also that ‘they were transmitted to others by secret encoding that was accessible only to an élite few’:[616] In short, Sellers concludes, ‘ancient man calculated a special number that he believed would bring this threatening cycle [of precession] back to its starting point ...’[617]

The ‘special number’ to which Sellers is referring to is 25,920

(and multiples and divisions of it) and thus represents the duration, in solar years, of a full precessional cycle or 'Great Year'.[618] She shows how it can be derived from a variety of simple combinations of other numbers—5, 12, 36, 72, 360, 432, 2160, etc., etc.—all of which are in turn derived from precise observations of precession. *Most crucially of all, she shows that this peculiar sequence of numbers occurs in the ancient Egyptian myth of Osiris* where, notably '72 conspirators' are said to have been involved with Seth in the murder of the God-King.[619]

As was shown in *Fingerprints of the Gods,* the sun's perceived motion through the signs of the zodiac at the vernal equinox proceeds at the rate of one degree every seventy-two years. From this it follows that a movement of the vernal point through 30 degrees will take 2160 years to complete, 60 degrees will take 4320 years, and a full 360-degree cycle will require 25,920 years.[620]

Curiously enough, as the reader will recall from Part I, the Great Pyramid itself incorporates a record of these precessional numbers

—since its key dimensions (its height and the perimeter of its base) appear to have been designed as a mathematical model of the earth's polar radius and equatorial circumference on a scale of 1:43,200. The number 43,200 is, of course, exactly 600 times 72. What we have in this remarkable monument, therefore, is not just a scale model of a hemisphere of the earth but also one in which the scale involved incorporates a 'special number' derived from one of the key planetary motions of the earth itself—i.e. the rate of its axial precession.

In short it seems that secret knowledge is indeed available in the myth of Osiris and in the dimensions of the Great Pyramid. With this secret knowledge, if we wanted to fix a specific date—say 1008 years in the future—and communicate it to other initiates, then we could do so with the 'special number' 14 (72 x 14 = 1008). We would also have to specify the 'zero point' from which they were to make their calculations—i.e. the present epoch—and this might be done with some kind of symbolic or mathematical marker to

indicate where the vernal point presently is, i.e. moving out of Pisces and into Aquarius.

A similar exercise could likewise be carried out in reverse. By following the 'eastwards' direction along the ecliptic path we can 'find' (calculate, work out) where the vernal point was at any epoch in the past. Thus if today we wished to use the precessional code to direct attention towards the Pyramid Age we would need to confide to other initiates the 'special number' of 62.5 (72 x 62.5 = 4500 years ago = approximately 2500 bc). Again, we could rule out any ambiguity as to the zero date from which the calculations were to be made if we could find a way to indicate the present position of the vernal point.

We have seen that this is what Sneferu appears to have done with the two Pyramids at Dahshur, which map the two sides of the head of the celestial bull—the 'address' of the vernal point in his epoch. And in a sense, though with a great deal more specificity and precision, this could also be exactly what the builders of the Great

Pyramid were doing when they deliberately targeted the southern shafts of the King's and Queen's Chambers on the meridian-transits of such significant stars as Orion and Sirius in the epoch of 2500 bc. To be clear about this, it seems to us well worth investigating the possibility that by setting up such obvious and precise 'time markers' they were trying to provide an unambiguous *zero point*—*circa* 2500 bc—for calculations that could only be undertaken by initiates steeped in the mysteries of precession, who were equipped by their training to draw out the hidden portents concealed in certain 'special numbers'.

We note in passing that if the Horus-King could have been provided with the 'special number' 111.111, and had used it in the way described above, it would have led him back to (72 x 111.111 years =) 7,999.99 years before the specified 'ground zero', i.e. to almost exactly 8000 years before 2500 bc—in short, to 10,500 bc.

We know this seems like wishful numerology of the worst sort—i.e. 'factoring in' an arbitrary value to a set of calculations so as to

procure spurious ‘corroboration’ for a specific desired date (in this case the date of 10,500 bc, twelve and a half thousand years before the present, that we have already highlighted in Chapter 3 in connection with the Sphinx and the Pyramids of Giza). The problem, however, is that the number 111.111 may well *not* be an arbitrary value. At any rate, it has long been recognized that the main numerical factor in the design of the Great Pyramid, and indeed of the Giza necropolis as a whole, is the prime number 11—a prime number being one that is only divisible by itself to produce the whole number 1. Thus 11 divided by 11, i.e. the ratio 11:11, produces the whole number 1 (while 11 divided by anything else, i.e. any other ratio, would, of necessity, generate a fraction).

What is intriguing is the way that the architecture of the Great Pyramid responds to the number 11 when it is divided, or multiplied, by other whole numbers. The reader will recall, for example, that its side length of just over 755 feet is equivalent to 440 Egyptian royal cubits—i.e. 11 times 40 cubits.[621] In addition,

its height-to-base ratio is 7:11.[622] The slope ratio of its sides is 14:11 (tan 51 degrees 50').[623] And the slope ratio of the southern shaft of the King's Chamber—the shaft that was targeted on Orion's belt in 2500 bc—is 11:11 (tan 45 degrees).[624]

Arguably, therefore, the ratio 11:11, which integrates with our 'special number' 111.111, could be considered as a sort of mathematical key, or 'stargate' to Orion's belt. Moreover, as we shall see, a movement of 111.111 degrees 'backwards along the ecliptic from 'ground-zero' at the Hyades-Taurus, the head of the celestial bull, would place the vernal point 'underneath' the cosmic lion.

Is it not precisely such a location, underneath the Great Sphinx, that the Horus-King is urged to investigate as he stands between its paws 'with his mouth equipped' and faces the questions of the *Akhus* whose initiations have led him this far? Indeed, does it not seem probable that the 'quest-journey' devised by the 'Followers of Horus' was carefully structured so as to sharpen the mind of the

initiate by requiring him to piece together all the clues himself until he finally arrived at the realization that somewhere underneath the Great Sphinx of Giza was something (written or pictorial records, artefacts, maps, astronomical charts) that touched on 'the knowledge of a divine origin', that was of immense importance, and that had been concealed there since the 'First Time'?

In considering such questions, we are reminded of the Hermetic doctrines which transmit a tradition of the wisdom god Thoth who was said to have 'succeeded in understanding the mysteries of the heavens [and to have] revealed them by inscribing them in sacred books which he then hid here on earth, intending that they should be searched for by future generations but found only by the fully worthy'.[625] Do the 'sacred books of Thoth', or their equivalent, still lie in the bedrock beneath the Great Sphinx of Giza, and do the 'fully worthy' still seek them there?

Seekers after truth

Other questions, too, have been raised implicitly and explicitly in the foregoing chapters:

1. Were the Great Sphinx and the great Pyramids of Giza designed to serve as parts of an immense three-dimensional 'model' of the sky of the 'First Time'?

2. Could other features of the necropolis also be part of this model?

3. If so, then has enough survived for us to compare the model with computer simulations of the skies above Giza in previous epochs and thus arrive at an accurate archaeoastronomical *dating* for the 'First Time', i.e. for the true 'genesis' of the extraordinary civilization of Egypt?

4. By looking at simulations of the ancient skies would we not, to use the language of the Egyptian funerary texts, be 'going down to any sky we wished to go down to'?

5. Is it an accident that so many of these texts have survived for

thousands of years, or could their compilers have *intended* them to survive and carefully designed them in such a way that human nature would ensure their copying and recopying down the ages (a process that has been promiscuously resumed in the last century and a half, since the decipherment of the ancient Egyptian hieroglyphs, with the Coffin Texts, the Pyramid Texts, the Book of the Dead, etc., etc., now translated and reprinted in dozens of modern languages and editions—and even available on CD-ROM)?

6. In other words, is it not possible in our readings of the texts, and in our analysis of the rituals to which they were linked, that we have stumbled upon a *message* of primordial antiquity that was composed not just for the Pyramid Age, and not just for the Horus-Kings of ancient Egypt, but for all 'seekers after the truth'—from any culture, in any epoch—who might be 'equipped' to put texts and monuments together and to view the skies of former times?

Chapter 16

Message in a Bottle?

'We have reached this fascinating point in our evolution ... we have reached the time when we know we can talk to each other across the distances between the stars ...'

Dr. John Billingham, NASA Ames Research Center, 1995

Together with the ancient texts and rituals that are linked to them, could the vast monuments of the Giza necropolis have been designed to transmit *a message* from one culture to another—a message not across space, but across time?

Egyptologists reply to such questions by rolling their eyes and hooting derisively. Indeed they would not *be* 'Egyptologists' (or at any rate they could not long remain within that profession) if they reacted with anything other than scorn and disbelief to suggestions that the necropolis might be more than a cemetery, that the Great

Sphinx might significantly predate the epoch of 2500 bc, and that the Pyramids might not be just ‘royal tombs’. By the same token, no self-respecting Egyptologist would be prepared to consider, even for a moment, the outlandish possibility that some sort of mysterious ‘message’ might have been encoded into the monuments.

So whom should we turn to for advice when confronted by what we suspect may be a message from a civilization so far distant from us in time as to be almost unknowable?

Anti-cipher

The only scientists actively working on such problems today are those involved in the Search for Extraterrestrial Intelligence—SETI for short. They endlessly sweep the heavens for messages from distant civilizations and they have therefore naturally had to give some thought to what might happen if they ever did identify such a message. According to Dr. Philip Morisson of the Massachusetts

Institute of Technology:

> To begin with we would know very little about it. If we received it we would not understand what we're getting. But we would have an unmistakable signal, full of structure, full of challenge. The best people would try to decode it, and it will be easy to do because those who have constructed it would have made it easy to decode, otherwise there's no point. This is anti-cryptography: 'I want to make a message for you, who never got in touch with any symbols of mine, no key no clue, nevertheless you'll be able to read it ...' I would have to fill it full of clues and unmistakable clever devices ...[626]

In his book, *Cosmos,* Professor Carl Sagan of Cornell University makes much the same point—and does so, curiously enough, with reference to the ancient Egyptian hieroglyphic system. He explains that the 'Egyptian hieroglyphics are, in significant part, a simple substitution cipher. But not every hieroglyph is a letter or syllable. Some are pictographs ...' When it came to translation, this 'mix of letters and pictographs caused some grief for interpreters ...' In the early nineteenth century, however, a breakthrough was made by the French scholar Champollion who deciphered the famous 'Rosetta Stone', a slab of black basalt bearing identical inscriptions in

Egyptian hieroglyphics and in Greek. Since Champollion could read the Greek, all he needed was some kind of 'key' to relate specific hieroglyphs to specific Greek words or letters. This key was provided by the constant repetition in the Greek text of the name of Pharaoh Ptolemy V and an equal number of repetitions in the Egyptian text of a distinctive oblong enclosure—known as a cartouche—containing a repeated group of hieroglyphs. As Sagan comments:

> The cartouches were the key ... almost as though the Pharaohs of Egypt had circled their own names to make the going easier for Egyptologists two thousand years in the future ... What a joy it must have been [for Champollion] to open this one-way communication channel with another civilization, to permit a culture that had been mute for millennia to speak of its history, magic, medicine, religion, politics and philosophy. [627]

Professor Sagan then offers a comparison that is highly apposite to our present inquiry. 'Today,' he says:

> we are again seeking messages from an ancient and exotic civilization, this time hidden from us not only in time, but in space. If we should receive a radio message from an extraterrestrial civilization, how could it possibly be understood? Extraterrestrial

intelligence will be *elegant, complex, internally consistent and utterly alien.* Extraterrestrials would, of course, wish to make a message sent to us as comprehensible as possible. But how could they? Is there in any sense an interstellar Rosetta Stone? We believe there is a common language that all technical civilizations, no matter how different, must have. That common language is science and mathematics. The laws of Nature are the same everywhere.[628]

It seems to us that if there is indeed a very ancient 'message' at Giza then it is likely to be expressed in the language of science and mathematics that Sagan identifies—and for the same reason. Moreover, given its need to continue 'transmitting' coherently across thousands of years (and chasms of cultural change), we think that the composer of such a message would be likely to make use of the Precession of the Equinoxes, the one particular 'law of Nature' that can be said to govern, and measure—and identify—long periods of terrestrial time.

Durable vehicles

The Pyramids and the Great Sphinx at Giza are, above all else, as elegant, as complex, as internally consistent and as utterly 'alien' as the extraterrestrial intelligence that Sagan envisages (alien in the sense of the tremendous, almost superhuman scale of these structures and of their uncanny—and in our terms apparently unnecessary—precision).

Moreover, returning briefly to Dr. Philip Morisson's remarks quoted earlier, we think that the Giza necropolis also qualifies rather well for the description 'packed full of clues and unmistakable clever devices'.[629] Indeed, it seems to us that a truly astonishing quantum of ingenuity was invested by the Pyramid builders to ensure that the four fundamental aspects of an 'unmistakable' message were thoroughly elaborated here:

1. the creation of durable, unequivocal markers which could serve as beacons to inflame the curiosity and engage the intelligence of future generations of seekers;
2. the use of the 'common language' of precessional astronomy;

3. the use of precessional co-ordinates to signal specific time-referents linking past to present and present to future;

4. Cunningly concealed store-rooms, or 'Halls of Records' that could only be found and entered by those who were fully initiated in the 'silent language' and thus could read and follow its clues.

In addition, though the monuments are enabled to 'speak' from the moment that their astronomical context is understood, we have also to consider the amazing profusion of funerary texts that have come down to us from all periods of Egyptian history—all apparently emanating from the same very few common sources.[630] As we have seen, these texts operate like 'software' to the monuments' 'hardware', charting the route that the Horus-King (and all other future seekers) must follow.

We recall a remark made by Giorgio de Santillana and Hertha von Dechend in *Hamlet's Mill* to the effect that the great strength of

myths as vehicles for specific technical information is that they are capable of transmitting that information independently of the knowledge of individual story-tellers.[631] In other words as long as a myth continues to be told true, it will also continue to transmit any higher message that may be concealed within its structure—even if neither the teller nor the hearer understands that message.

So, too, we suspect, with the ancient Egyptian funerary texts. We would be surprised if the owners of many of the coffins and tomb walls onto which they were copied had even the faintest inkling that specific astronomical observations and directions were being duplicated at their expense. What motivated them was precisely what the texts offered—the lure of immortal life. Yet by taking that lure did they not in fact guarantee a kind of immortality for the texts themselves? Did they not ensure that so many faithful copies would be made that some at least would be bound to survive for many thousands of years?

We think that there were always people who understood the true

‘science of immortality’ connected to the texts, and who were able to read the astronomical allegories in which deeper secrets, not granted to the common herd, lay concealed. We presume that these people were once called the ‘Followers of Horus’, that they operated as an invisible college behind the scenes in Egyptian prehistory and history, that their primary cult centre was at Giza-Heliopolis, and that they were responsible for the initiation of kings and the realization of blueprints. We also think that the timetables they worked to—and almost everything of significance that they did—was in one way or another written in the stars.

Hints and memories

The powerfully astronomical character of the Giza necropolis, although ignored by Egyptologists, has been recognized by open-minded and intuitive researchers throughout history. The Hermetic Neoplatonists of Alexandria, for example, appear to have been

acutely sensitive to the possibility of a 'message' and were quick to discern the strong astral qualities of the textual material and the monuments.[632] The scholar Proclus (fifth century ad) also acknowledged that the Great Pyramid was astronomically designed —and with certain specific stars in mind. Indeed, in his commentary on Plato's *Timaeus* (which deals with the story of the lost civilization of 'Atlantis'), Proclus reported strangely that 'the Great Pyramid was used as an observation for Sirius'.[633]

Vague memories of an astronomically constructed 'message' at Giza appear to have filtered down to the Middle Ages. At any rate the Arab chroniclers in this period spoke of the Great Pyramid as 'a temple to the stars' and frequently connected it to the Biblical 'Flood' which they dated to *circa* 10,300 bc.[634] Also of relevance is a report written by the Arab geographer Yakut al Hamawi (eleventh century ad) to the effect that the star-worshippers of Harran, the Sabians (whose 'holy books' were supposedly the writings of Thoth-Hermes) came at that time on special pilgrimages

to the Pyramids at Giza.[635] It has also been pointed out that the very name of the Sabians—in Arabic *Sa'Ba*—almost certainly derived from the ancient Egyptian word for star, i.e. *Sba*.[636] And the reader will recall from Part I that as far back as the early second millennium bc—i.e. almost *three thousand years* before Yakut al Hamawi left us his report connecting the Sabians to the Pyramids—pilgrims from Harran are known to have visited the Sphinx which they worshipped as a god under the name *Hwl*.[637]

In the seventeenth century, the British mathematician Sir Isaac Newton became deeply interested in the Great Pyramid and wrote a dissertation on its mathematical and geodetic qualities based on data that had been gathered at Giza by Dr. John Greaves, the Savillian Professor of Astronomy at Oxford.[638] Later, in 1865 the Astronomer Royal of Scotland, Charles Piazzi Smyth, launched an investigation into the Great Pyramid which he was convinced was an instrument of prophecy that incorporated a Messianic 'message'. It was Piazzi Smyth who first accurately measured and

demonstrated the intense polar and meridional alignments of the monument, the precision of which he assigned to sightings of the ancient Pole star, Alpha Draconis.[639]

In the first half of the twentieth century, a succession of eminent astronomers—such as Richard Proctor, Eugene Antoniadi, Jean Baptiste Biot and Norman Lockyer—made persistent attempts to draw attention to the astronomical qualities of the Giza monuments. Their efforts, however, had little impact on professional Egyptologists who by this time felt that they had got the whole intellectual business of the necropolis 'wrapped up' (it was a cemetery), did not understand astronomy at all (and claimed that the ancient Egyptians didn't either), and routinely ganged up to debunk, deride or simply ignore any astronomical 'theories' which diverged from their consensus.

Despite this hostile intellectual climate, we are of the opinion at the end of our own research that the big question is no longer *whether* the monuments of Giza were designed to express key

astronomical and mathematical principles, but *why*.

Once again, the clue may lie in the narrow star-shafts of the Great Pyramid.

The language of the stars

The first major breakthrough in understanding the function of the Great Pyramid's shafts was made in the summer of 1963 by the American astronomer Virginia Trimble and the Egyptologist-architect, Dr. Alexander Badawy. It came about because they decided to follow up Badawy's 'hunch' that the shafts might not be 'ventilation channels' as Egyptologists supposed,[640] but might instead prove to have a symbolic function related to the astral rituals of the Pyramid builders. Virginia Trimble was able to buttress her colleague's intuition by showing that the shafts from the King's Chamber had pointed, in the epoch of 2500 bc, to major star systems that were of crucial importance to the Pyramid builders. As

readers will recall from Part I, the northern shaft had been targeted on Alpha Draconis—the Pole Star in the Pyramid Age—and the southern shaft had been targeted on Orion's belt.[641]

Today Virginia Trimble is a senior professor of astronomy at UCLA and the University of Maryland and is also the Vice-President of the American Astronomical Society. Her views, as well as being enlightened by a comprehensive grasp of astronomy, accord fully with common sense:

> Which constellations the Egyptians saw in the sky is still something of a mystery ... but they had one constellation that was an erect standing man, Osiris, the god. And the one constellation that looks like a standing man to everyone is Orion, and the identification between a deceased Pharaoh and the god Osiris made Orion immediately a candidate for a shaft whose sole purpose was to enable the soul of the Pharaoh to communicate between earth and sky ...[642]

When we met Virginia Trimble we immediately realized we were in the presence of an acute and formidable thinker. Alexander Badawy had passed away in the late 1980s yet she remained undaunted. She had concluded that the shafts were astronomically

aligned, she said, and that they had an astronomical function, because logic and evidence dictated that this was the case.

Trimble's views have won general acceptance amongst senior astronomers. To give one recent example, Dr. Mary Bruck of Edinburgh, writing in *the Journal of the British Astronomical Association* in 1995, had this to say about the shafts: 'Their alignments are ... compatible with the hypothesis that they indicate the culmination of certain important stars around the 25th century bc ... The addition of a Sirius shaft [southern shaft of the Queen's Chamber] to the Orion one strongly supports the claim that they have an astronomical significance.'[643]

Thought-tools

We suggest that one of the major objectives of the unseen academy, whose members were known as the 'Followers of Horus', was to 'fix' the epoch of 2500 bc (i.e. 4500 years before the present)

by using the Great Pyramid, its precisely angled shafts, and the stars of Orion's belt. We suggest that they envisaged those stars rather like the gauge of a gigantic sliding scale set across the south meridian. Once this 'thought-tool' was in place all they needed to do in order to determine a date either in the past or in the future was mentally to 'slide' the belt up or down the meridian from the 'zero point' targeted by the southern shaft of the King's Chamber.

We also suggest that a second and somewhat similar 'thought-tool' was attached to the ecliptic (the apparent annual path of the sun through the twelve constellations of the zodiac). Here the gauge was the vernal point. By mentally sliding it to the left (east) or to the right (west) of a 'fixed' marker on the ecliptic the 'Followers of Horus' would once again have been able to determine and denominate either a past date or a date in the future ...

In our own epoch, *circa* ad 2000, the vernal point is poised to enter the sign or 'Age' of Aquarius. For a little over 2000 years it has been passing through Pisces (160 bc to ad 2000) and before that

it was in Aries (2320 bc to 160 bc). In the Pyramid Age the vernal point slowly swept through Taurus (4480 bc to 2320 bc). Going further back we reach the 'Ages' of Gemini (6640 bc to 4480 bc) and then Cancer (8800 bc to 6640 bc). After six 'Great Months' we reach the Age of Leo (10,960 bc to 8800 bc).

Now imagine that we find an ancient document at Giza which states that it was composed when the vernal point was in the sign of the Ram—i.e. when the sun on the spring equinox rose against the stellar background of the constellation of Aries. Armed with this information all that we can do is *roughly* bracket the document's date as being somewhere between 2320 bc and 160 bc, What we need in order to arrive at a more precise chronology is some means to 'fine-tune' the vernal point. It is here that the specific utility of the sliding scale at the meridian becomes apparent because if the ancient document not only stated which zodiacal sign housed the vernal point but also advised that the lowest star of Orion's belt crossed the meridian at an altitude of 50 degrees above the horizon

then we would be able, using precession, to calculate with great accuracy that the date in question must be very near 1400 bc.[644]

The Pyramid Age occurred when the vernal point was in Taurus and, as we have seen, the fine-tuning permitted by the 45-degree angle of the Great Pyramid's 'Orion shaft' draws particular attention to the date of 2500 bc. With this date, 4500 years before the present, we can use precession to calculate the exact position of the vernal point—which, as the reader will recall, was near the head of the Hyades-Taurus at that time, close to the right (i.e. west) bank of the Milky Way.

The reader will also not have forgotten that this is the 'address' given in the Pyramid Texts as the starting point for the cosmic journey of the solar Horus-King. It is here that he receives his instructions to board the solar-bark and 'sail' across the Milky Way towards the 'horizon' to meet up with Horakhti. His direction of travel is, therefore, eastwards, i.e. to the left of the vernal point. In terms of the chronology of the 'Great Year' of precession (as

distinct from the solar year), this means that the Horus-King is now poised to travel back in time towards the age of Leo-Horakhti and to a specific spot on the ecliptic path—'The Splendid Place of the "First Time" ' ... 'the place more noble than any place'.[645]

But where is that place? How is the Horus-King (initiate, seeker) to find it in the 2160-year, 30-degree swathe that the constellation of Leo occupies on the ecliptic?

The answer is that he would have to use the gauge of Orion's belt at the meridian to fine-tune the exact place of the vernal point and hence also to arrive at an exact date. In his mind's eye he would have to slide the belt 'down' the meridian to its 'First Time' and then see how far to the east that operation had 'pushed' the vernal point along the ecliptic.

Wherever that place was would be the celestial destination that the 'Followers of Horus' were urging him to reach.

And it would, of course, have its counterpart on the ground at Giza, in the vicinity of the lion-bodied Sphinx.

Chapter 17

The Place of the 'First Time'

'Know that we would be universal scientists if it were given to us to inhabit the sacred land of Egypt ...'

Manetho, Egyptian high priest, third century bc

'I have come to this place more noble than any place ...'

Pyramid Texts

The epoch of the 'First Time', *Zep Tepi,* was frequently referred to as the 'First Time of Horus', the 'First Time of Re' and the 'First Time of Osiris'.[646] The implication of this terminology is that the position of the (vernal) sun along the ecliptic path, which denoted the 'First Time', was also seen to be marked—perhaps 'controlled' would be a better word—by the position of Osiris-Orion at the

meridian.

As we have seen, the ancient brotherhood of astronomer-priests who designed the Great Pyramid, and who were later responsible for the compilation of the Pyramid Texts, were well aware of Orion's slow precessional drift 'upwards'—'northwards' in the allegorical language of the texts—when the constellation was sighted at the meridian over long periods of time. They also knew that they were 'fixing' a specific location to which the 'body of the god' had drifted (and a specific date in time—2500 bc in our calendar) when they targeted the meridian at 45 degrees with the southern shaft of the King's Chamber. They knew, in other words, that the belt stars would rise to higher altitudes above the horizon (i.e. drift further 'north') in future epochs and, conversely, that they had been at lower altitudes (i.e. 'further south') in previous epochs. The reader will recall from Chapter 1 that the lowest ('southernmost') point in the entire precessional cycle of Orion's belt—the 'First Time of Osiris' in allegorical terms—occurred in

10,500 bc. Most mysteriously, it is the precise disposition of these stars in the sky at that date that is frozen on the ground in the form of the three great Pyramids of Giza.

It was the mystery of this perfect meridian-to-meridian match, together with the equinoctial alignment of the lion-bodied Sphinx (and the vast antiquity of that monument as indicated by geology) that provoked us to undertake the present investigation. For while we did not dispute the orthodox Egyptological dating of the Pyramids to the epoch of 2500 bc, we had a strong intuition that their layout in the image of Orion's belt some 8000 years earlier was most unlikely to have come about by chance.

We are now satisfied that chance was not involved. After factoring-in the data preserved in the vast storehouses of ancient Egyptian funerary 'software', it seems to us obvious that what was created—or rather *completed*—at Giza in 2500 bc was an entirely deliberate work of sky-ground dualism. It was a model (on a lavish scale intended to do justice to its cosmic original) of the 'kingdom'

established by Osiris in the sky-*Duat* in the remote epoch 'when his name became Orion'—i.e. in his 'First Time'. It was also, for all time, the 'Kingdom of Osiris' on the ground—'when his name became Sokar' (in the lower *Duat,* i.e. the Memphite necropolis).

It may have been the case that the ground-plan of the three great Pyramids was *physically established* in 10,500 bc—perhaps in the form of low platforms. Or it may have been that precise astronomical records from that epoch were preserved and handed down to the astronomer-priests of Heliopolis by the 'Followers of Horus'. Either way, we are still reasonably certain that the Pyramids themselves were largely built in 2500 bc when Egyptologists say they were. We are also sure, however, that the site was already vastly ancient by then and had been the domain of the 'Followers'—the Sages, the 'Senior Ones'—for the previous 8000 years.

We think the evidence suggests a continuous transmission of advanced scientific and engineering knowledge over that huge gulf

of time, and thus the continuous presence in Egypt, from the Palaeolithic into the Dynastic Period, of highly enlightened and sophisticated individuals—those shadowy *Akhus* said in the texts to have possessed ‘a knowledge of divine origin’.

Fine-tuning Leo

The basis for this conjecture, above and beyond the astronomical alignments of the Giza necropolis, is the geological condition of the Sphinx which we have described in Part I. To state matters briefly: *the signs of intense precipitation-induced weathering visible to this day on the great monument itself, and on the rock-hewn trench surrounding it, are consistent with an age of more than 12,000 years.*

The genesis date indicated by astronomy for the site as a whole is 10,500 bc. That is what the *layout* of the Pyramids says, even if they themselves are younger. And that, too, as we saw in Chapter 3, is

what is proclaimed by the due-east orientation of the Sphinx. Its astronomical and leonine symbolism does not make any sense unless it was built as an equinoctial marker for the Age of Leo.

But *when,* exactly, in the Age of Leo? The constellation spans 30 degrees along the ecliptic and housed the sun on the vernal equinox from 10,960 bc to 8800 bc—a period of 2160 years. So when in that period?

There is no way to answer this question on the basis of the alignments of the Sphinx alone, or on the basis of what one may deduce from its alignments and its geology viewed together. What is needed is precisely what the 'Followers of Horus' provided us with—a thought-tool with which to fine-tune the date. That thought-tool is the sliding scale of Orion's belt and the date that it fine-tunes for the Great Sphinx is 10,500 bc.

But it also does something else. As the scale 'slides' down the meridian it also 'pushes' the vernal point steadily eastwards along the ecliptic, bringing it to rest in 10,500 bc (the 'bottom of the

scale') *at a specific stellar address that can be identified by precessional calculations.*

In terms of the sky-ground dualism of the initiatory quest of the Horus-King, it is obvious that the vernal point's 'stellar address' in 10,500 bc—i.e. its precise whereabouts on the ecliptic within the constellation of Leo—is likely to have a terrestrial analogue. Once we know what's what with the sky, in other words, we should know where to look on the ground.

And would it be entirely unreasonable to suppose that what we would find there, if we had calculated *exactly* where to look, might turn out to be a physical entrance into that mythical 'place more noble than any place', the 'Splendid Place of the "First Time" '?

Setting stars

As though to reward such conjectures, like a one-armed bandit coughing up the jackpot, all the bells and lights of the Giza

necropolis start ringing and flashing at once when the sliding scale of Orion's belt is pushed down to its 'First Time' in 10,500 bc.

We already know from Chapter 3 that what the principal monuments seem to model is an unusual astronomical conjunction that occurred at the spring equinox in that distant epoch. Not only did the Great Sphinx gaze at his own celestial counterpart in the sky but also the moment of sunrise (at the point on the horizon targeted by the Sphinx's gaze) coincided, to the second, with the meridian-transit of Orion's belt (which is what the three Pyramids model).

If these were the only correspondences they would already be too detailed to be attributed to coincidence. But there is a great deal more. For example, immediately south of the third and smallest of the three great Pyramids is a group of three 'satellite' pyramids. Egyptologists generally refer to them as the 'tombs' of queens of the Pharaoh Menkaure. Since they contain no inscriptions, nor the slightest trace of human remains or funerary equipment, such an attribution can never be anything more than a matter of opinion.

However these ‘satellite’ pyramids do have an unambiguous astronomical alignment: they form a row running east-west—the equinox sunrise-sunset direction.

The British geometrician and pyramid researcher, Robin Cook, has recently shown that these three satellite pyramids bear a designed relationship to the Giza necropolis as a whole.[647] They appear to be located on the boundary of a circle, or artificial ‘horizon’, the focus of which is the Pyramid of Khafre and the circumference of which envelops the whole necropolis. An angle of 27 degrees west of south[648]—corresponding to an azimuth of 207 degrees[649]—seems to be defined by a straight line extending from the meridian axis of the Pyramid of Khafre to these three ‘satellite’ pyramids of Menkaure.[650] In general the satellites give the impression of being ‘reduced models’ of the three Great Pyramids. What is notably different however, is that the latter lie at an angle of 45 degrees to the meridian, while the former run from east to west at right-angles to the meridian. This apparent architectural anomaly,

together with their curious location at azimuth 207 degrees on the artificial ‘horizon’ of Giza, begs an obvious question: are we again looking at datable sky event frozen in architecture?

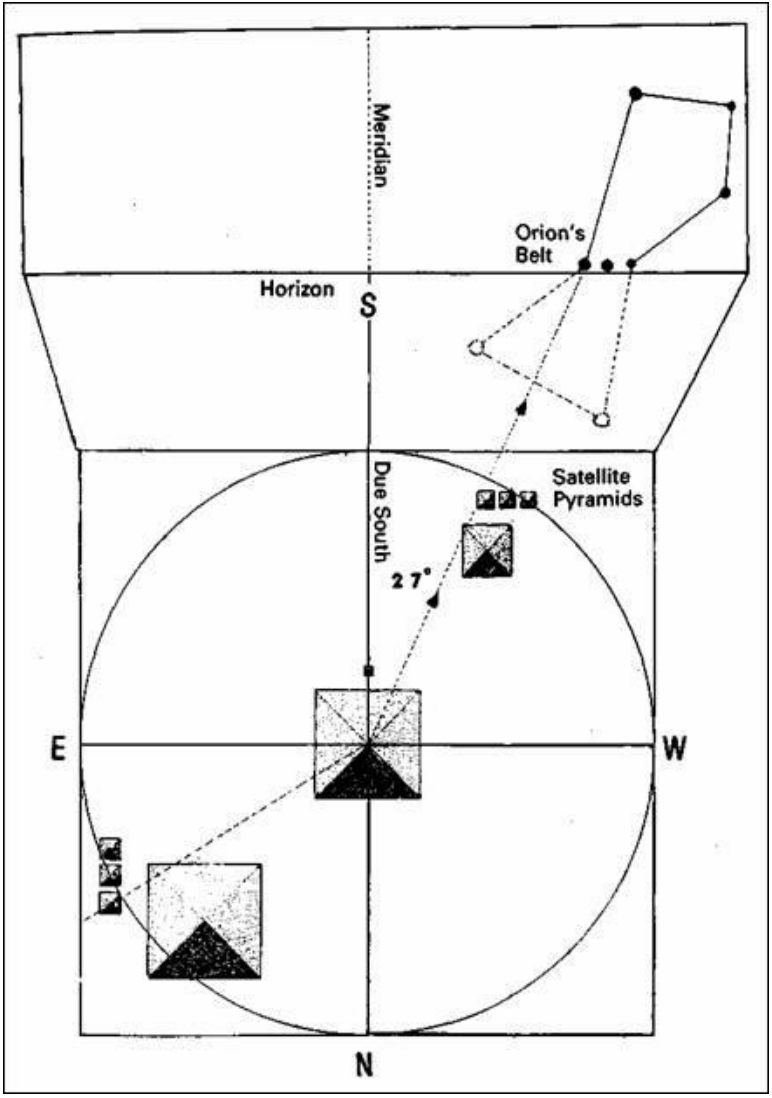
Meridian
Orion's
Belt
Horizon
S
Due South
Satellite
Pyramids
27°
E
W
N

59. Epoch of 10,500 bc: setting of the three stars of Orion's belt in line with the three satellite Pyramids on the southern rim of the Horizon of Giza.

The computer confirms that we are. In 10,500 bc, on the real horizon of Giza, the lowest of the three stars of Orion's belt, *Al Nitak,* set at 27 degrees west of south—i.e. at azimuth 207 degrees. Moreover, the belt stars at that moment would have formed an axis running east-west—the alignment that is mimicked by the three satellite pyramids.

Sirius

Another bit of the 10,500 bc 'jackpot of correspondences' concerns the star Sirius, which symbolizes the very heart of the ancient Egyptian mystery.

All stars, including our own sun (and our solar system with it) move through space. Because of the vast distances involved, however (hundreds and often thousands of light-years), this 'proper

motion' registers barely perceptible effects on the *positions in the sky* of the majority of stars as viewed from earth. Where these stars are concerned the only significant factor is precession (which, as we know, is a perceived 'motion' that is actually caused by a wobble on the axis of the earth).

Sirius is one of the major exceptions to this rule. As many readers will be aware, it is the brightest star in the sky. It is also one of the *nearest* stars to earth, being only 8.4 light-years away. Because of this proximity it registers a very large 'proper motion' in space relative to our own solar system—large enough to bring about observable changes in its celestial address, *over and above those caused by precession,* within just a few thousand years.

To be specific about this, the proper motion of Sirius is estimated to be in the range of 1.21 arc-seconds per year (about 1 degree every 3000 years). This means that for an epoch as far back as 10,500 bc, the change in its celestial co-ordinates resulting from proper motion could exceed 3 full degrees of arc, i.e. about six times the apparent

diameter of the moon.[651]

Once this rapid and noticeable rate of movement is taken into account alongside the effects of precession, computer simulations indicate a rather intriguing state of affairs. Calculations show that when Sirius reached its 'First Time'—i.e. its lowest altitude above the horizon—viewers at the latitude of Giza (30 degrees north) would have seen it resting exactly on the horizon. Moreover it was from this latitude, *and this latitude only,* that such a conjunction of star and horizon could be witnessed. The implication is that a special co-relationship exists between the latitude of Giza and the star Sirius at its 'First Time'.[652]

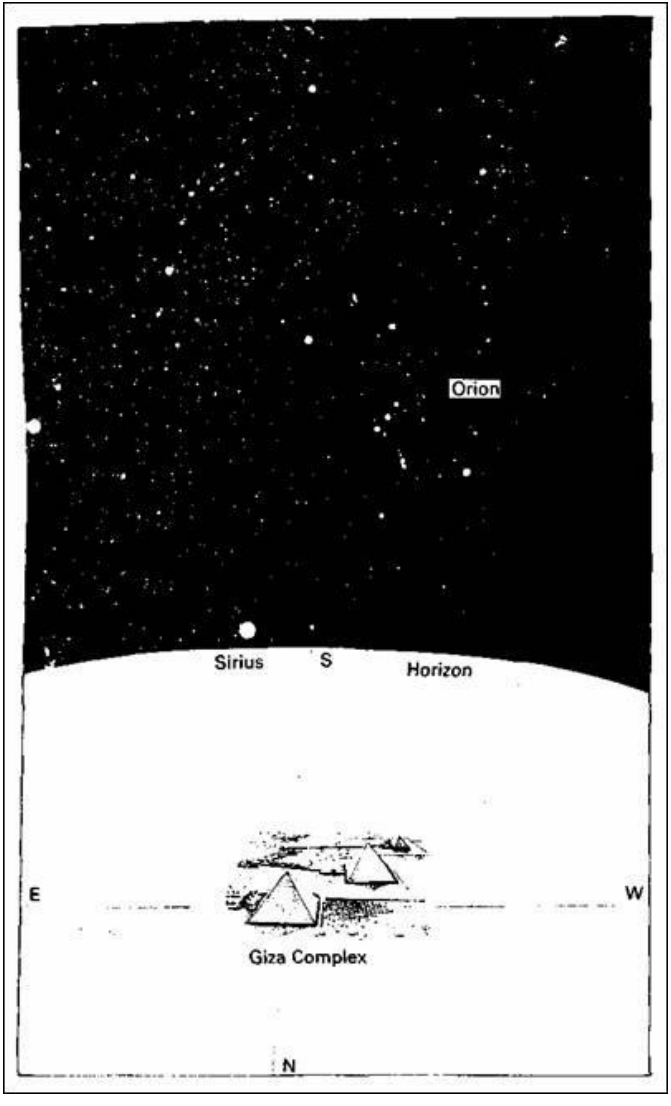
Orion
Sirius
S
Horizon
E
W
Giza Complex
N

60. Artist's impression of the 'First Time' of Sirius, in the epoch of 10,500 bc, when the bright star of Isis would have been seen to be resting exactly on the horizon.

Because of its large proper motion there is uncertainty over when exactly the 'First Time' of Sirius would have occurred. There is no doubt, however, that it would have been somewhere between 11,500 and 10,500 bc.[653] We wonder, therefore, whether the decision to establish the sacred site of Giza at 30 degrees north latitude could have been connected to this 'First Time' of Sirius? And we recall that in 1993 Rudolf Gantenbrink's robot camera discovered a mysterious 'door' inside the Great Pyramid, more than 200 feet along the narrow southern shaft of the Queen's Chamber.[654] The shaft in which the 'door' was found was, of course, targeted on the meridian-transit of Sirius in 2500 bc.

Cross-quarter causeways

Amongst the strangest and most unaccountable features of the Giza necropolis are the massive causeways that link each of the three great Pyramids with the Nile Valley below. Today only fragments of their floorings remain, but as late as the fifth century bc at least one causeway, that of the Great Pyramid, was still almost intact. We know this because it was seen and described by the Greek historian Herodotus (484-420 bc)—who reflected that its construction almost matched, in engineering prowess and architectural splendour, that of the Great Pyramid itself.[655]

Recent archaeological research has confirmed that the information provided by Herodotus is correct. Moreover, we now know that the roofs of the causeways were spangled on their undersides with patterns of stars[656]—highly appropriate symbolism if, as we believe is the case, these grand and curious corridors were designed to serve as *Viae Sacrae*—ceremonial 'roadways' which initiates would follow on their way to the 'Pyramid-stars' of Rostau-Giza.[657]

The causeway from the Third Pyramid (the Pyramid of Menkaure) is directed due-east,[658] like the gaze of the Sphinx, and thus conforms to the general north-south and east-west grid structure of the Giza necropolis. By contrast the two causeways linked to the other two Pyramids definitely do *not* conform to that grid structure. As a result of the work of geometrician John Legon, who has undertaken a detailed analysis of the site-plans and grids provided by modern Egyptologists (such as Selim Hassan, Reisner, Holscher, Ricke and Lauer), we now know that this anomalous nonconformity nevertheless incorporates its own strict symmetry: 'while the causeway of the Third Pyramid is aligned due east-west, the causeways of the Second and Great Pyramids both have a bearing of 14 degrees—the former to the south and the latter to the north of due east.'[659]

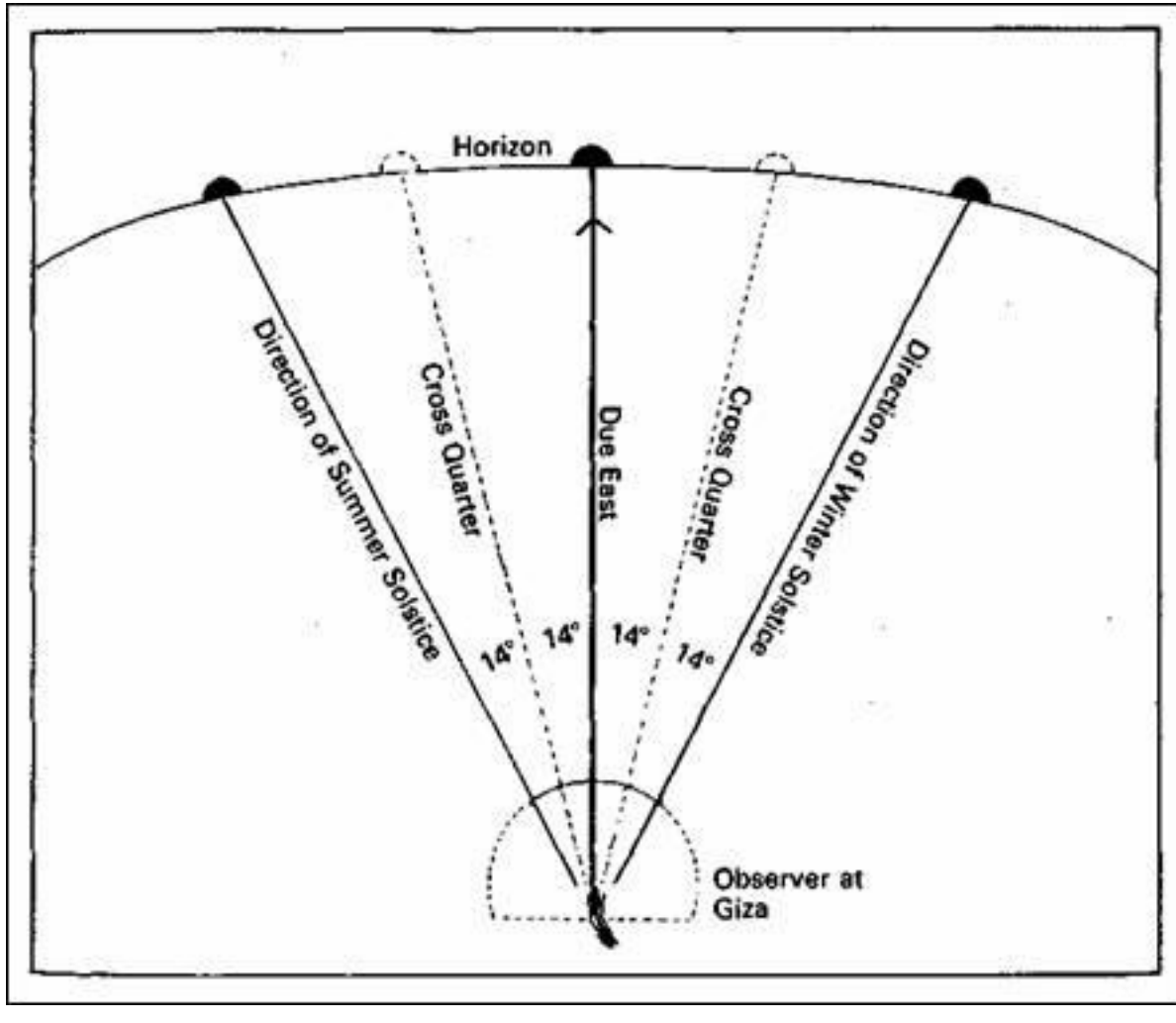

61. The course of the sun throughout the year as viewed from the latitude of

Giza. A full range of 56 degrees is defined between summer solstice at 28 degrees north of east and winter solstice at 28 degrees south of east (with the equinox, of course, at due east). The 'cross-quarter' sunrises therefore occur at 14 degrees north of east and 14 degrees south of east respectively, thus dividing the sun's range along the horizon into four equal parts.

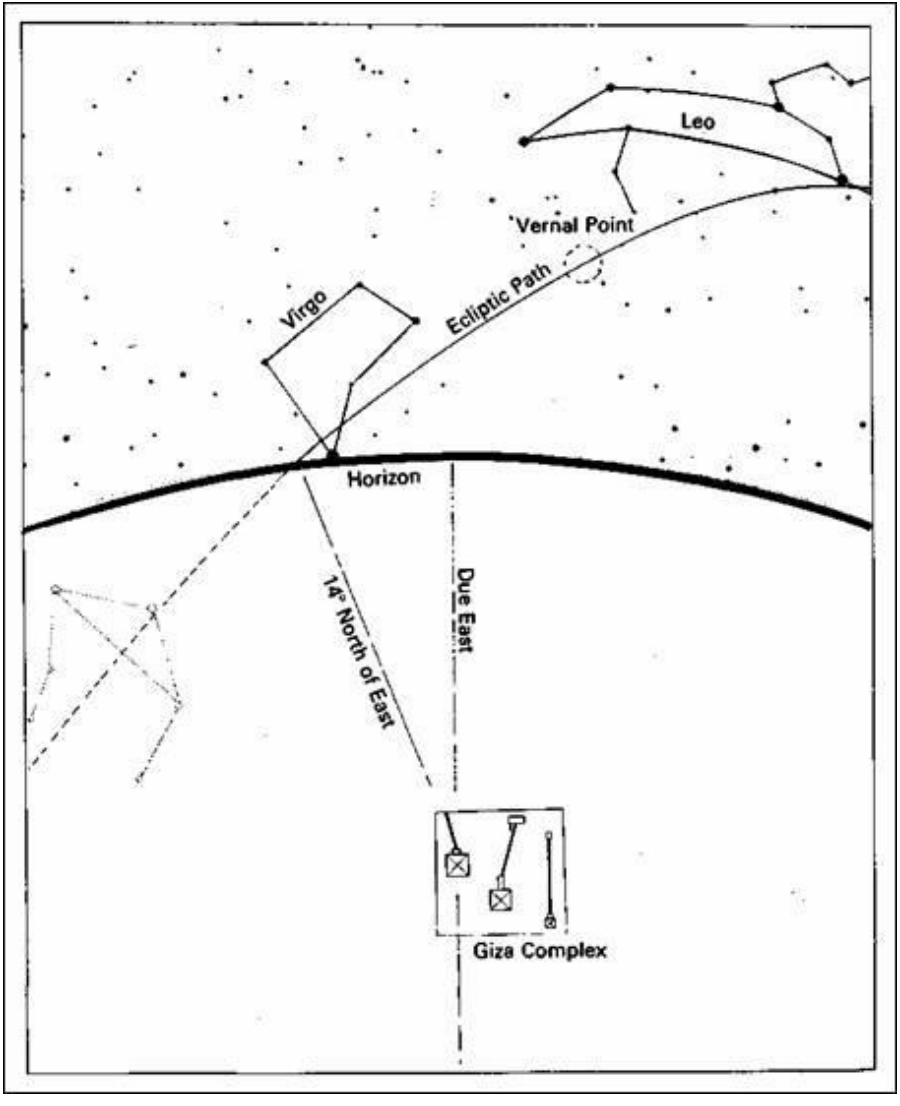
Leo
Vernal Point
Ecliptic Path
Virgo
Horizon
14° North of East
Due East
Giza Complex

62. The Khufu causeway runs 14 degrees north of east in perfect alignment with the cross-quarter sunrise that falls between the spring equinox and the summer solstice (and thus also, on the sun's 'return journey', between the summer solstice and the autumn equinox).

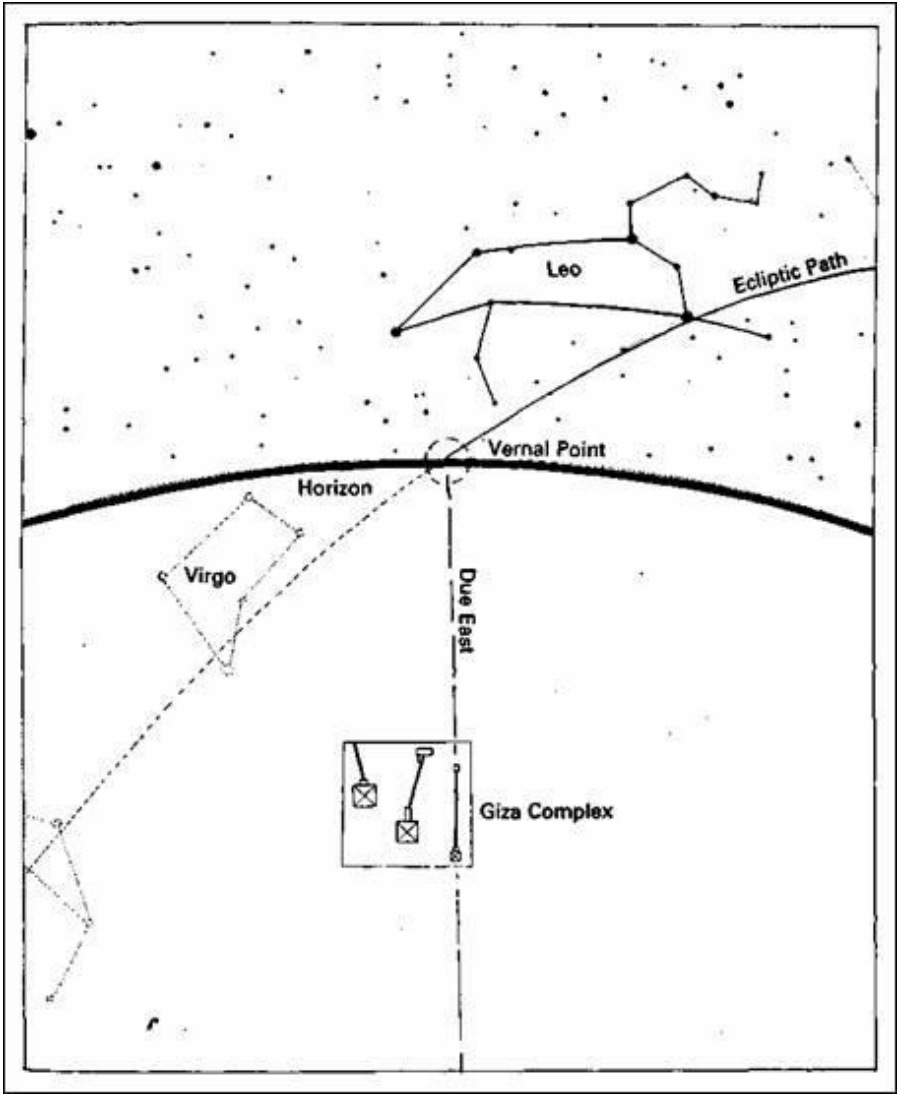
Leo
Ecliptic Path
Vernal Point
Horizon
Virgo
Due East
Giza Complex

63. The Menkaure causeway runs due east in perfect alignment with sunrise on the spring equinox and on the autumn equinox.

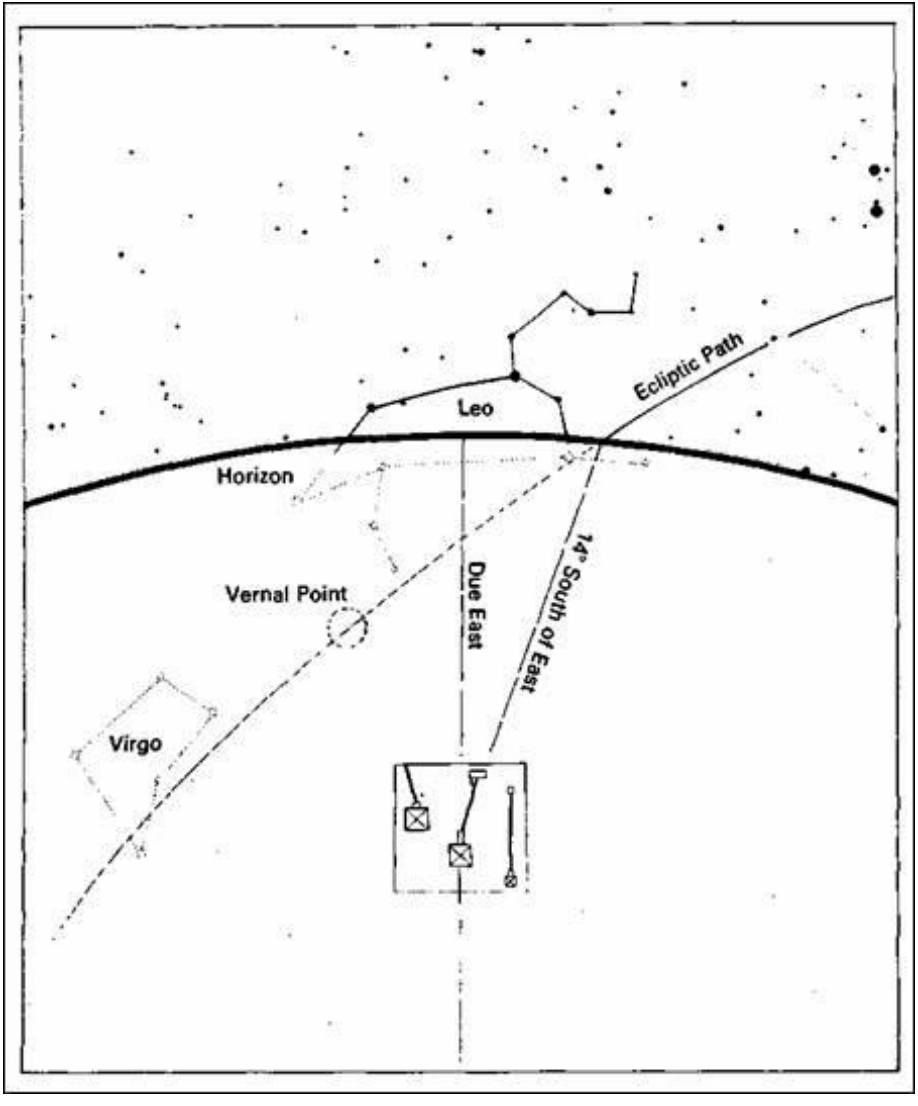
Ecliptic Path
Leo
Horizon
Vernal Point
Due East
14° South of East
Virgo

64. The Khafre causeway runs 14 degrees south of east in perfect alignment with the cross-quarter sunrise that falls between the winter solstice and the spring equinox (and thus also, on the sun's 'return journey', between the autumn equinox and the winter solstice).

Legon has also provided conclusive evidence that the design of the Khufu and Khafre causeways is in fact integrated with the geometry of the Giza complex as a whole—and not merely with that of the individual Pyramids themselves. Furthermore, far from being conditioned by the *topography* of the site (as had previously been supposed) the direction of these causeways (14 degrees north and south of east respectively) shows every sign of being part of a 'unified plan' whose 'hidden purpose' and impetus 'possibly resided with the priests of Heliopolis'.[660]

But what 'hidden purpose' could dictate the decision to direct one causeway due east, another 14 degrees south of due east, and a third 14 degrees north of due east?

When sunrise is observed conscientiously throughout the course of the year from the latitude of Giza, the answer to this question

becomes obvious. Here, as everywhere else on the planet, the sun rises due east—in line with the Menkaure causeway (and the gaze of the Sphinx)—on the spring equinox. What is unique about the latitude of Giza, as we have noted several times previously, is that on the summer solstice (the longest day of the year) the sun rises 28 degrees to the north of due east whilst on the winter solstice (the shortest day) it rises 28 degrees to the south of due east. This gives a full variation of 56 degrees and it is a simple matter of fact that what astronomers refer to as the 'cross-quarters' of this variation, i.e. the sunrise-points located exactly half way between each equinox and solstice, are at *14 degrees north of due east and 14 degrees south of due east respectively.* In short the three causeways signal and bracket the equinox with two gigantic 'arrows' pointed at the cross-quarter sunrises and a third arrow (the Menkaure causeway) pointed at the equinox sunrise itself. In this fashion the sun's range throughout the year along the eastern horizon is architecturally divided into four equal segments each with a range of 14 degrees—

i.e. into its astronomical ‘cross-quarters’.

Now a focus on the cross-quarter days, together with the equinoxes and solstices, is an extremely well-documented phenomenon amongst many ancient astronomically minded peoples (dictating the alignment of their temples and the dates of their most important festivals).[661] It is therefore not surprising to find such a focus expressed in the architecture of the Giza necropolis. Neither should we be surprised by the *accuracy* with which the causeways define the cross-quarters since all the other alignments of the necropolis were achieved with equally high precision.

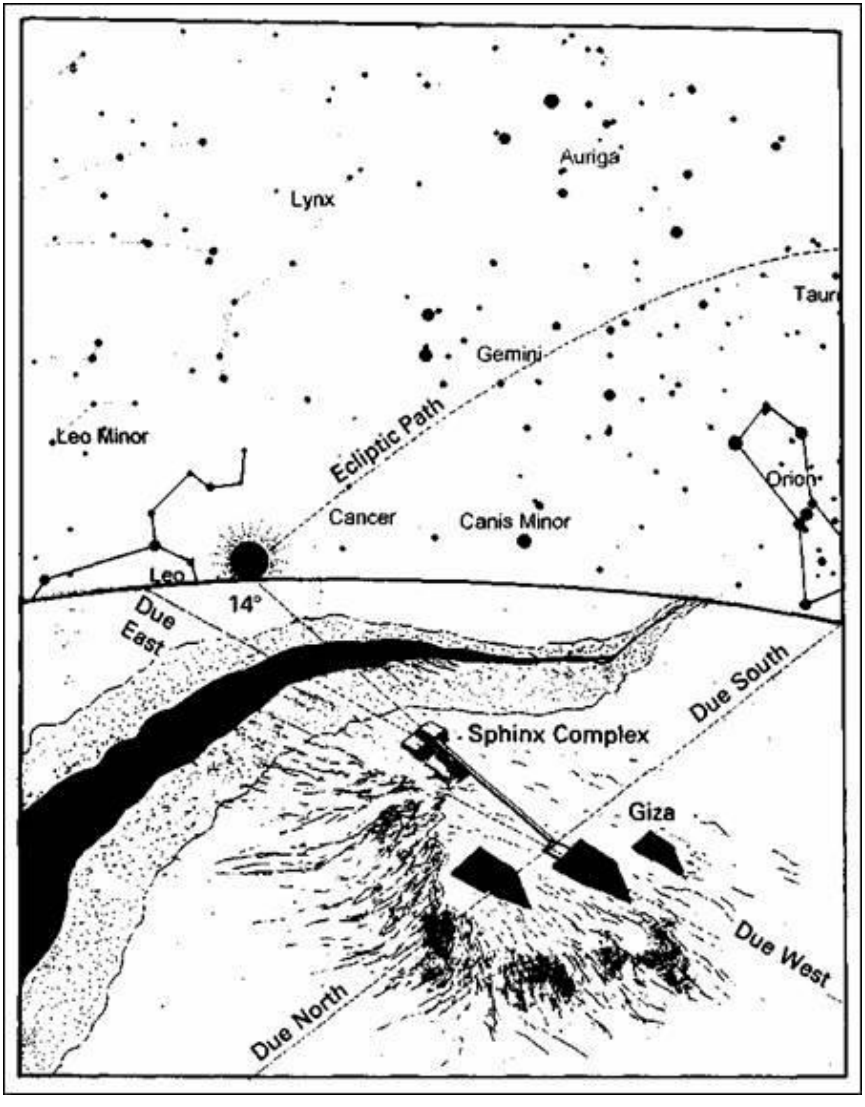
Auriga
Lynx
Taur
Gemini
Leo Minor
Ecliptic Path
Orion
Cancer
Canis Minor
Leo
14°
Due East
Due South
Sphinx Complex
Giza
Due West
Due North

65. Epoch of 10,500 bc: the rising of Leo on the cross-quarter sunrise between the winter solstice and the spring equinox. This sunrise occurs at 14 degrees south of east, the point on the horizon targeted by the Khafre causeway.

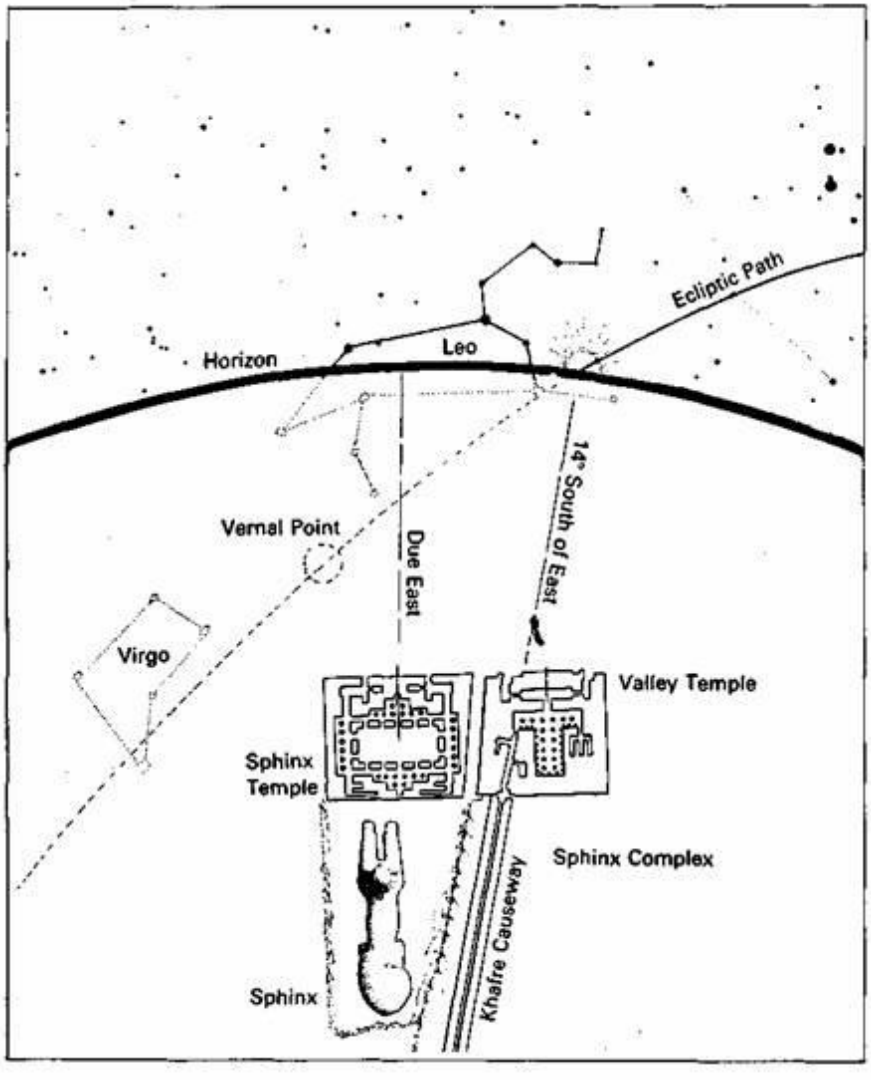
Ecliptic Path
Horizon
Leo
14° South of East
Vernal Point
Due East
Virgo
Valley Temple
Sphinx
Temple
Sphinx Complex
Khafre Causeway
Sphinx

66. Epoch of 10,500 bc: gaze of the Sphinx on the cross-quarter sunrise between the winter solstice and the spring equinox. Note the profile of the constellation of Leo with only its head, back and shoulders protruding above the sky-horizon and compare with the profile of the Sphinx, as viewed from the south.

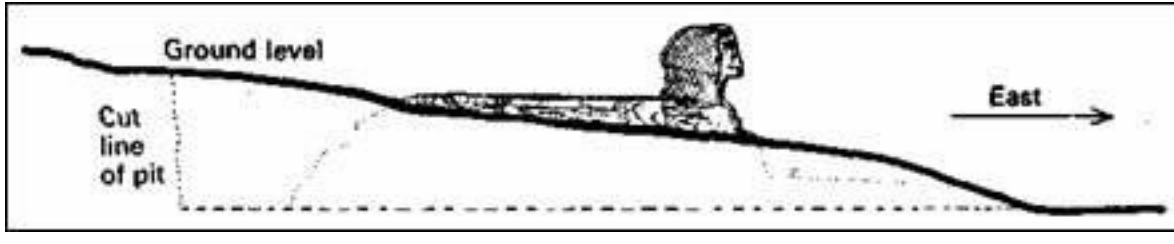

67. The Great Sphinx in the 'ground-horizon' of Giza, with only its massive head, back and shoulders protruding into view above ground level. Once again the images in the sky and on the ground 'lock' at 10,500 bc.

There is one feature of the layout, however, that is truly exceptional and remarkable.

Computer reconstructions of the ancient skies reveal that if we could travel back in time to the cross-quarter day that fell between the winter solstice and the vernal equinox in 10,500 bc, and position ourselves at the 'top', i.e. the western end, of the Khafre causeway gazing along it towards the edge of the 'Horizon' of Giza, then we

would witness the following celestial events at dawn:

1. The sun would rise at 14 degrees south of east in direct alignment with the causeway;[662]
2. Immediately to the left of this point would be the great constellation of Leo-Horakhti, with only its massive head and shoulders protruding above the horizon line (*it would, in other words, appear to be partially sunk, or 'buried' in the 'Horizon of the Sky').*

Now let us look down from the sky to the ground. Following the southeasterly direction of the causeway from the same viewpoint we note that it sinks down with the general slope of the Giza plateau and passes just to the south of the southern edge of the Sphinx enclosure. The Sphinx itself—Hor-em-Akhet—stands *partially sunk, or 'buried'* in that enclosure (and thus in the 'Horizon of Giza') with only its massive head and shoulders protruding out of the groundline.

Once again the images of sky and ground match perfectly at 10,500 bc and in no other epoch ...

Treasure map

We said earlier that in the architectural-astronomical system of the Pyramid builders the position of the vernal point along the ecliptic which denoted the 'Splendid Place of the "First Time" ' was considered to be 'controlled' by the position of Osiris-Orion at the meridian: 'slide' Orion's belt up from its location at 2500 bc and the vernal point is 'pushed' westwards around the ecliptic (and forward in time) in the direction Taurusà Ariesà Piscesà Aquarius; 'slide' it down and the vernal point is pushed 'east', i.e. back in time, in the direction Taurusà Geminià Cancerà Leo. So in 10,500 bc, with the belt stars fully 'slid down' to their lowest possible altitude above the horizon, how far around the ecliptic has the vernal point been 'pushed? We know it is in Leo. But where in Leo?

Computer simulations show that it lay exactly 111.111 degrees east of the station that it had occupied at 2500 bc. Then it had been at the head of the Hyades-Taurus close to the right bank of the Milky Way; 8000 years earlier it lay *directly under the rear paws of the constellation of Leo.*

As we have hinted, this is a location that is likely to have a terrestrial 'double'. The three stars of Orion's belt have their terrestrial doubles in the form of the three Great Pyramids. The constellation of Leo-Horakhti has its terrestrial double in the form of Hor-em-Akhet, i.e. the Great Sphinx. The 'Horizon of the Sky' has its terrestrial double in the form of the 'Horizon of Giza'. And the Great Sphinx crouches literally *within* this 'Horizon'.

It was to the breast of the Great Sphinx, at the summer solstice in the Pyramid Age, that the quest of the Horus-King led. There he encountered the *Akhus:*

> 'How has this happened to you', say they, the *Akhus* with their mouths equipped, 'that you have come to this place more noble than any place?'

‘I have come ... because the reed floats of the sky were set down for Re [the sun-disc and cosmic ‘double’ of the Horus-King] that Re might cross [the Milky Way] on them to Horakhti at the Horizon’ ...[663]

In other words, the Horus-King has successfully understood and used the clues provided in the ritual. He has noted and followed the path of the sun during the solar year from its starting point—designated in the texts as being beside the Hyades-Taurus, i.e. the ‘Bull of the Sky’—and thence across the Milky Way until the moment of its conjunction with Regulus, the heart-star of Leo. He has then taken this celestial treasure map, transposed its co-ordinates to the ground, made his way across the River Nile and ascended to the Giza plateau, coming eventually to the breast of the Sphinx.

We think that he received there the necessary clues or instructions to find the entrance to the terrestrial *Duat,* to the ‘Kingdom of Osiris’ on the ground—in short to the ‘Splendid Place of the “First Time” ’ where he would have to go in order to complete his quest.

And we suggest that these clues were designed to encourage him to *track the vernal point,* just as we have done, to the location that it would have occupied in 10,500 bc when Orion's belt had reached the lowest point in its precessional cycle.

In other words it is our hypothesis that the Giza monuments, the past, present and future skies that lie above them, and the ancient funerary texts that interlink them, convey the lineaments of a message. In attempting to read this message we have done no more than follow the initiation 'journey' of the Horus-Kings of Egypt. And like the ancient Horus-Kings we, too, have arrived at a most intriguing crossroad. The trail of initiation has guided us, directed us and finally lured us to stand in front of the Great Sphinx and, like Oedipus, to confront the ultimate riddles: 'Where did we come from?' 'Where are we to go to?'

The gaze of the Sphinx urges us to see through the shadowy veil and seek the 'First Time'. But, having done that, it also provokes us to ask whether there might not in fact be something at Giza,

something physical, that would give form to the site's strange aura of vast and exceptional antiquity.

We remember a passage from the Coffin Texts which invites us to consider the possibility that some great 'secret' of Osiris may remain hidden within or beneath the monuments of Rostau-Giza in a 'sealed' container: 'This is the sealed thing, which is in darkness, with fire about it, which contains the efflux of Osiris, and it is put in Rostau. It has been hidden since it fell from him, and it is what came down from him onto the desert of sand; it means that what belonged to him was put in Rostau ...'[664]

What can it be that was put in Rostau?

What hidden thing with fire about it?

And where in darkness does it lie?

If we look at our computer simulation of the skies over Giza in 10,500 bc the answer appears to be staring us in the face. In that year, in the predawn on the spring equinox, the constellation of Leo could be seen rising slowly in the east. By around 5 a.m. it was fully

risen, exactly straddling due east—a lion in the sky, with its belly resting on the horizon. At the same moment, the sun—marking the vernal point—lay some 12 degrees beneath its rear paws.

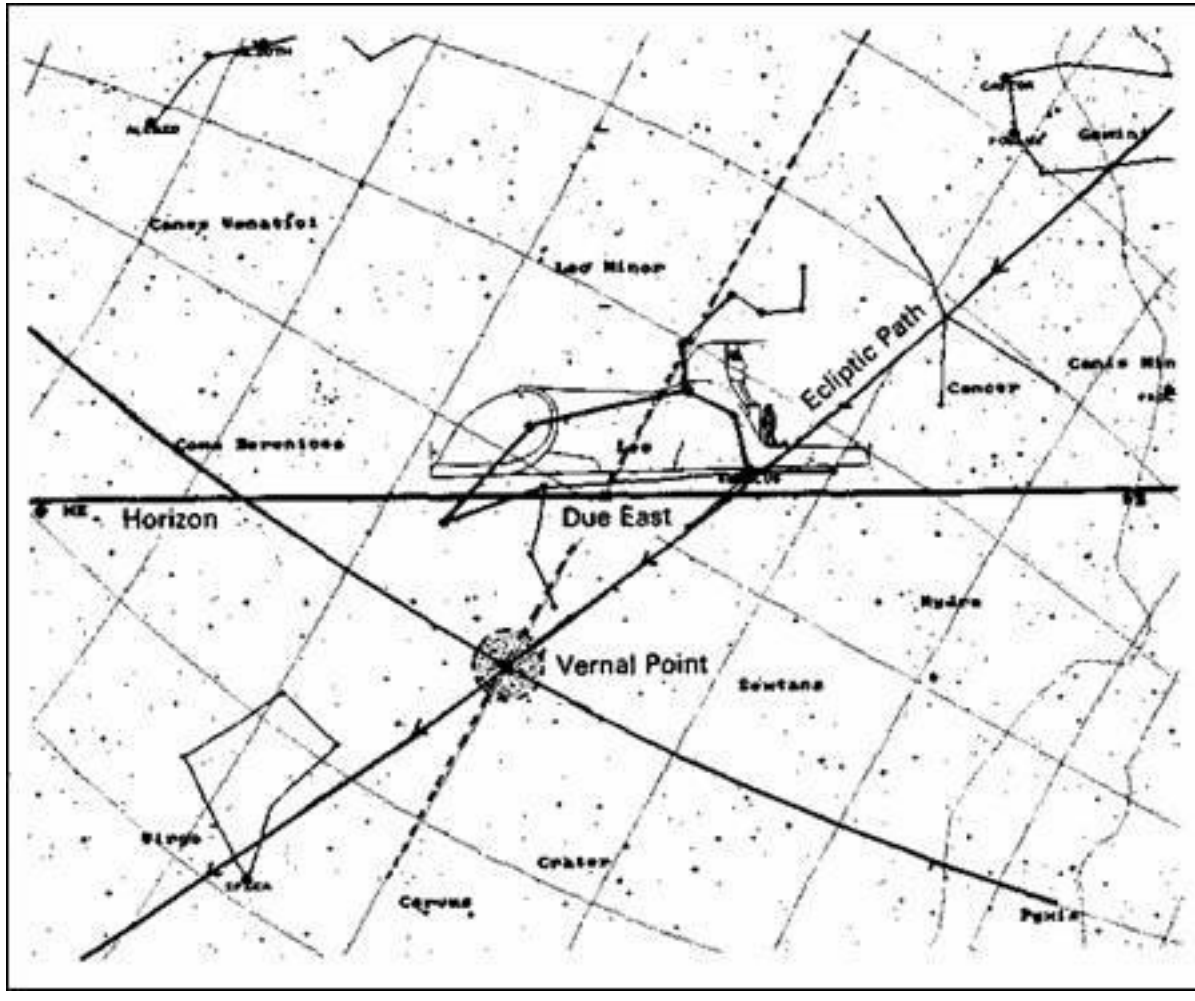

68. The Horus-King's treasure map: the heliacal rising of Leo on the spring

equinox in 10,500 bc. The sun, marking the vernal point, lies below the horizon, some 12 degrees beneath the constellation's rear paws. When this image is transposed to the ground, the logic of the Horus-King's quest suggests the possibility of a hidden chamber deep in the bedrock of the Giza plateau, approximately too feet beneath the rear paws of the Sphinx.

When we translate this sky-image onto the ground, in the form of a colossal, leonine, equinoctial monument with its belly resting on the bedrock of the real physical environment of the 'Horizon of Giza', we do indeed find ourselves looking at the Horus-King's treasure map. It is a map, not buried in the earth but cunningly concealed in time, where 'X' almost literally 'marks a spot' directly under the rear paws of the Great Sphinx of Egypt at a depth, we would guess, of about 100 feet.

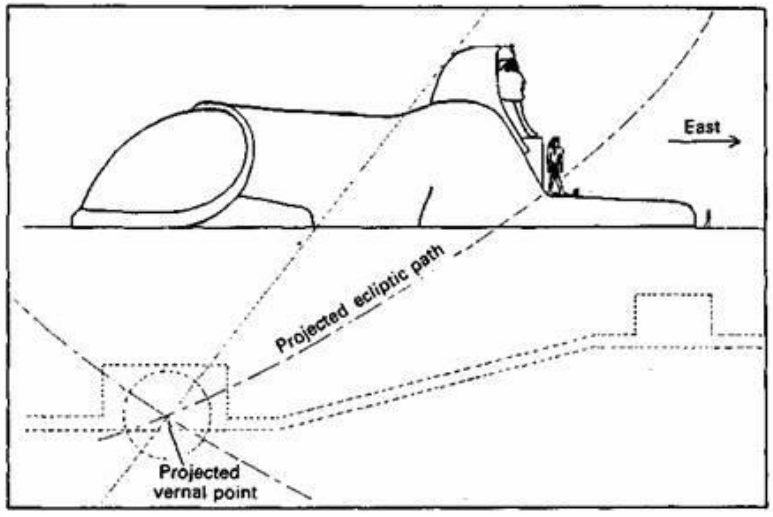
East
Projected ecliptic path
Projected
vernal point

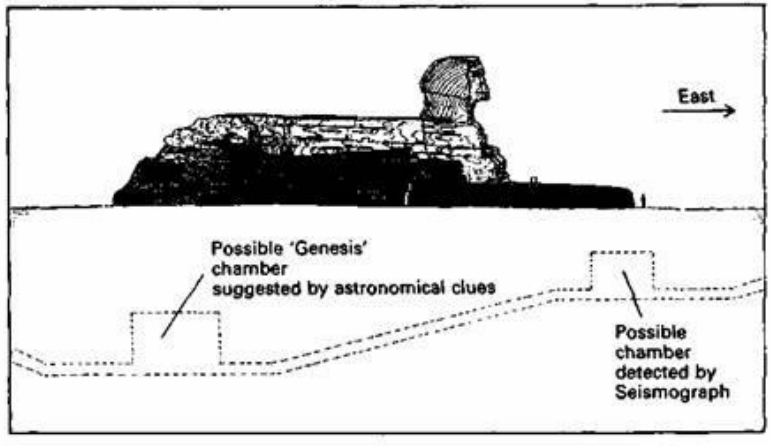
East
Possible 'Genesis'
chamber
suggested by astronomical clues
Possible
chamber
detected by
Seismograph

69. Possible locations of an underground system of passageways and chambers beneath the Great Sphinx suggested by astronomical correlations and by seismographic tests (see Part I of the present work).

If we have read the message of the 'Followers of Horus' right, then there is something of momentous importance there, waiting to be found—by seismic surveys, by drilling and excavations, in short by a rediscovery and exploration of the hidden corridors and chambers of the earthly 'Kingdom of Osiris'.

It could be the ultimate prize.

Conclusion

Return to the Beginning

'I stand before the masters who witnessed the genesis, who were the authors of their own forms, who walked the dark, circuitous passages of their own becoming ... I stand before the masters who witnessed the transformation of the body of a man into the body in spirit, who were witnesses to resurrection when the corpse of Osiris entered the mountain and the soul of Osiris walked out shining ... when he came forth from death, a shining thing, his face white with heat ... I stand before the masters who know the histories of the dead, who decide which tales to hear again, who judge the books of lives as either full or empty, who are themselves authors of truth. And they are Isis and Osiris, the divine intelligences. And when the story is written and the end is good and the soul of a man is perfected, with a shout they lift him into heaven ...'

Ancient Egyptian Book of the Dead (Normandi Ellis translation)

The dictionary tells us that, separately from its modern usage, the word 'glamour' has a traditional meaning roughly equivalent to

‘magic spell’ or ‘charm’, and is the Old Scottish variant of: ‘grammar ... hence a magic spell, because occult practices were popularly associated with learning.’

Is it possible that men and women of great wisdom and learning cast a ‘glamour’ over the Giza necropolis at some point in the distant past? Were they the possessors of as yet unguessed-at secrets that they wished to hide here? And did they succeed in concealing those secrets almost in plain view? For thousands of years, in other words, has the ancient Egyptian royal cemetery at Giza veiled the presence of something else—something of vastly greater significance for the story of Mankind?

One thing we are sure of is that unlike the hundreds of Fourth-Dynasty *mastaba* tombs to the west of the Sphinx and clustered around the three great Pyramids, the Pyramids themselves were never designed to serve primarily as burial places. We do not rule out the possibility that the Pharaohs Khufu, Khafre and Menkaure may at one time have been buried within them—although there is

no evidence for this—but we are now satisfied that the transcendent effort and skill that went into the construction of these awe-inspiring monuments was motivated by a higher purpose.

We think that purpose was connected to the quest for eternal life wrapped up in a complete religious and spiritual system that the ancient Egyptians inherited from unknown predecessors and that they later codified in their eerie and other-worldly funerary and rebirth texts. We suggest, in short, that it was the goal of immortality, not just for one Pharaoh but for many, that the corridors and passages and hidden chambers and concealed gates and doorways of the Giza complex were ultimately designed to serve. Depicted in the *Book of What is in the Duat* as being filled with monsters, these narrow, claustrophobic, terrifying places, hemmed in on all sides by sheer stone walls, were in our view conceived as the ultimate testing ground for initiates. Here they would be forced to face and overcome their most horrible and debilitating fears. Here they would pass through unimaginable

ordeals of the spirit and the mind. Here they would learn esoteric wisdom through acts of concentrated intelligence and will. Here they would be prepared, through practice and experience, for the moment of physical death and for the nightmares that would follow it, so that these transitions would not confuse or paralyse them—as they might other, unprepared, souls—and so that they might become 'equipped spirits' able to move as they wished through heaven and earth, 'unfailingly, and regularly and eternally'.[665]

Such was the lofty goal of the Horus-King's quest and the ancient Egyptians clearly believed that in order to attain it the initiate would have to participate in the discovery, the unveiling, the *revelation,* of something of momentous importance—something that would bestow wisdom, and knowledge of the 'First Time', and of the mysteries of the cosmos, and of Osiris, the Once and Future King.

We are therefore reminded of a Hermetic Text, written in Greek but compiled in Alexandria in Egypt some 2000 years ago, that is known as the *Kore Kosmu* (or *Virgin of the World*).[666] Like other

such writings, this text speaks of Thoth, the ancient Egyptian wisdom-god, but refers to him by his Greek name, Hermes:

> Such was all-knowing Hermes, who saw all things, and seeing understood, and understanding had the power both to disclose and to give explanation. For what he knew, he graved on stone; yet though he graved them onto stone he hid them mostly ... The sacred symbols of the cosmic elements [he] hid away hard by the secrets of Osiris ... keeping sure silence, that every younger age of cosmic time might seek for them.[667]

The text then tells us that before he 'returned to Heaven' Hermes invoked a spell on the secret writings and knowledge that he had hidden:

> O holy books, who have been made by my immortal hands, by incorruption's magic spells ... free from decay throughout eternity remain, and incorrupt from time. Become unseeable, unfindable, for every one whose foot shall tread the plains of this land, until Old Heaven doth bring forth meet instruments for you ...[668]

What instruments might lead to the recovery of 'unseeable and unfindable' secrets concealed at Giza?

Our research has persuaded us that a scientific language of precessional time and allegorical astronomy was deliberately

expressed in the principal monuments there and in the texts that relate to them. From quite an early stage in our investigation, we hoped that this language might shed new light on the enigmatic civilization of Egypt. We did not at first suspect, however, that it would also turn out to encode specific celestial coordinates or that these would transpose onto the ground in the form of an arcane 'treasure map', directing the attention of seekers to a precise location in the bedrock deep beneath the Sphinx.

Nor did we suspect, until we met them, that others such as the Edgar Cayce Foundation and the Stanford Research Institute—see Part II—might already be looking there.

Osiris breathes

Throughout this investigation we have tried to stick to the facts, even when the facts have been very strange.

When we say that the Sphinx, the three Great Pyramids, the

causeways and other associated monuments of the Giza necropolis form a huge astronomical diagram we are simply reporting a fact. When we say that this diagram depicts the skies above Giza in 10,500 bc we are reporting a fact. When we say that the Sphinx bears erosion marks which indicate that it was carved before the Sahara became a desert we are reporting a fact. When we say that the ancient Egyptians attributed their civilization to 'the gods' and to the 'Followers of Horus' we are reporting facts. When we say that these divine and human civilizers were remembered as having come to the Nile Valley in *Zep Tepi*—the 'First Time'—we are reporting a fact. When we say that the ancient Egyptian records tell us this 'First Time' was an epoch in the remote past, thousands of years before the era of the Pharaohs, we are reporting a fact.

Our civilization has had the scientific wherewithal to get to grips with the many problems of the Giza necropolis for less than two centuries, and it is only in the last two decades that computer technology has made it possible for us to reconstruct the ancient

skies and see the patterns and conjunctions that unfolded there. During this period access to the site, and knowledge about it, has been monopolized by members of the archaeological and Egyptological professions who have agreed amongst themselves as to the origin, and age, and function of the monuments. New evidence which does not support this scholarly consensus, and which might actively undermine it, has again and again been overlooked, or sidelined, and sometimes even deliberately concealed from the public. This, we assume, is why everything to do with the shafts of the Great Pyramid—their stellar alignments, the iron plate, the relics, and the discovery of the 'door'—has met with such peculiar and inappropriate responses from Egyptologists and archaeologists. And we assume that it explains, too, why the same scholars have paid such scant attention to the solid case that geologists have made for the vast antiquity of the Sphinx.[669]

The Giza monuments are a legacy for Mankind, preserved almost intact over thousands of years, and, outside the privileged circles of

Egyptology and archaeology, there is today a broad-based expectation that they might be about to reveal a remarkable secret. That expectation may or may not prove to be correct. Nevertheless in an intellectual culture polarized by public anticipation and orthodox reaction, we feel it is only wise that future explorations at the necropolis should be conducted with complete 'transparency' and accountability. In particular the opening of the 'door' inside the southern shaft of the Queen's Chamber, the videoscopic examination of the northern shaft, and any further remote-sensing and drilling surveys conducted around the Sphinx, should be carried out under the scrutiny of the international mass media and should not again be subjected to bizarre and inexplicable delays.

We cannot predict what new discoveries will be made by such research, or even whether any new discoveries will be made. However, after completing our own archaeoastronomical investigation, and following the quest of the Horus-King, we are left with an enhanced sense of the tremendous mystery of this amazing

site—a sense that its true story has only just begun to be told. Looking at the awe-inspiring scale and precision of the monuments we feel, too, that the purpose of the ancient master-builders was sublime, and that they did indeed find a way to initiate those who would come after—thousands of years in the future—by making use of the universal language of the stars.

They found a way to send a message across the ages in a code so simple and so self-explanatory that it might rightly be described as an anti-cipher.

Perhaps the time has come to listen to that clear, compelling signal that beckons to us out of the darkness of prehistory. Perhaps the time has come to seek the buried treasure of our forgotten genesis and destiny:

> Stars fade like memory the instant before dawn. Low in the east the sun appears, golden as an opening eye. That which can be named must exist. That which is named can be written. That which is written shall be remembered. That which is remembered lives. In the land of Egypt Osiris breathes ...[670]

Appendix 1

The Scales of the World

‘We three kings of Orion are;
Bearing gifts we traverse afar;
Field and fountain,
Moor and mountain,
Following yonder star.
Oh! Star of wonder, Star of might,
Star with royal beauty bright!
Westward leading,
Still proceeding,
Guide us to thy perfect light.
HE is the King of Glory.’

In her thesis on the astronomical content of ancient Egyptian funerary texts, Jane B. Sellers observes that Spell 17 of the *Book of the Dead,* which is drawn from extremely ancient sources, alludes in

cosmic terms to the 'unification' or joining of the 'Two Lands':[671] 'Horus, son of Osiris and Isis ... was made ruler in the place of his father, Osiris, on that day the Two Lands were united. It means the union of the Two Lands at the burial of Osiris ...'[672]

Following this statement, Spell 17 also makes specific reference to the 'sun-god' and how he was not obstructed by the celestial river but rather 'passed on, having bathed in the Winding Waterway'.[673]

Sellers notes the conclusion of Yale astronomer-Egyptologist Virginia Lee Davis that the 'Winding Waterway' of the Pyramid Texts is to be equated with the Milky Way and that this feature of the sky 'divides' the cosmic landscape into two halves.[674] She then adds: 'I have contended that the joining of the two lands is a joining of sky to earth.'[675]

In fact, both Sellers and Davis arrive at the same conclusion, namely that the 'divider' of the celestial landscape is the Milky Way, and that which crosses it from one side to the other is the sun. Sellers also observes that the point of 'crossing' of the ecliptic path

is near the V-shaped Hyades-Taurus constellation.[676]

If we seek to be precise about these matters we will discover that the point of crossing is in fact a little further east along the ecliptic path, marking a spot on the western shore of the Milky Way where today is found the M1 nebula, also known as the Crab Nebula.[677]

Sellers, oddly, does not pursue the logical sequence of events in Spell 17, namely that the sun continues along its journey, reaches the 'other side' (i.e. the eastern side) of the Milky Way, and thence heads towards the constellation of Leo. Indeed, Spell 17 bids the solar 'Horus', i.e. the sun-disc, to 'run, run to this' location: 'How well built is your House, O Atum, how well founded is your mansion, O Double Lion ...'

Atum or Atum-Re, as was shown in *The Orion Mystery,* was originally venerated as a 'pillar' in Heliopolis which, as many researchers have concluded, was also seen as his 'phallus'.[678] A somewhat similar 'pillar', the so-called Djed pillar, was also associated with Osiris.[679] Bearing this in mind, Spell 17 makes a

most telling statement: ‘As for the Lion whose mouth is bright and whose head is shining, he is the Phallus of Osiris. Otherwise said, he is the Phallus of Re ...’[680]

Earlier in Spell 17 we are specifically informed that Atum is:

> ... in his sun-disc. Otherwise said he is Re when he rises in the eastern horizon of the sky.
>
> To me belongs yesterday, I know tomorrow.
>
> What does it mean? As for yesterday, that is Osiris. As for tomorrow, that is Re in which the foes of the Lord Of All were destroyed and Horus was made to rule. Otherwise said: That is the day of the ‘We remain’ festival, when the burial of Osiris was ordered by his father Re.
>
> The Battle-Ground of the gods was made in accordance with my command.
>
> What does it mean? It is the West. It was made for the souls of the gods in accordance with the command of Osiris, Lord of the Western Desert. Otherwise said: It means that this is the West, to which Re made every god descend and he fought for the Two [Lands] for it.
>
> I know that Great God who is in it.
>
> Who is he? It is Osiris ...[681]

From this text we can see that a special ‘land of the gods’ was

envisaged as having been established in the Western Desert at the time of the burial of Osiris—that is in the far-off epoch of the First Time. This was also the day on which Horus united the Two Lands and inherited this ‘battle ground’ or ‘land of the gods’.

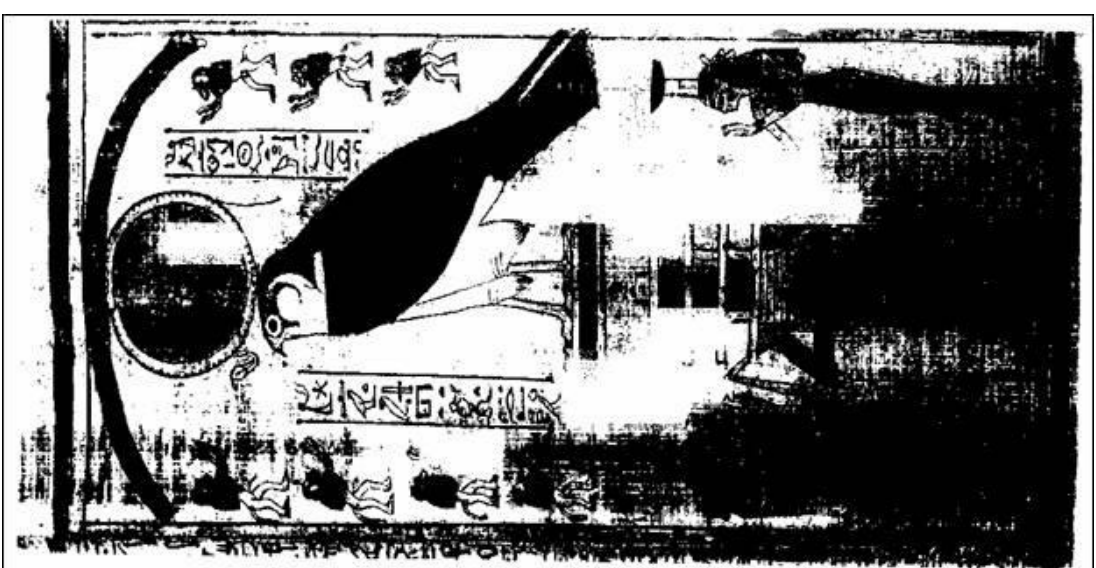

70. The Djed pillar of Osiris, flanked by Isis and Nepthys. Above it is the symbol of" the Horian sun-god, probably marking the meridian-transit of the solar disc.

We have seen in earlier chapters how the Memphite Theology in the Shabaka Texts nominates the area in which these 'unification' events took place as Ayan near Memphis.[682] Oddly, the process of 'the Unification of the Two Lands' is also referred to in these same sources as 'the Balance of the Two Lands, in which Upper and Lower Egypt have been weighed ...'[683]

In the present work we have brought forward additional evidence in support of Sellers's contention that the 'Two Lands' in question were indeed 'sky' and 'earth' and we have also shown that very specific parts of the sky and earth were meant—i.e. the 'Orion-Leo-Taurus' sky-region and the 'Giza-Heliopolis-Memphis' earth-region.

But how could these two sky-to-earth regions be 'balanced' and 'weighed'?

A state of perfect order

The point of 'balance' is defined on the ground as: '... Ayan, that was the division of the Two Lands ... in the name of the "White Wall" [Memphis] ...'[684]

We have seen how this terrestrial location corresponds to a point in the sky along the ecliptic path marking the spot on the western shore of the Milky Way where the M1 Crab Nebula is located.

A closer look at the Memphite Theology, however, reveals that while Ayan is envisaged as the pivot or 'balance point' of the Two Lands, the actual process of 'weighing' is described as taking place somewhere else—specifically in 'the land ... [of the] burial of Osiris in the House of Sokar ...'[685]

Since we have already demonstrated that 'the land of the House of Sokar' was Rostau, i.e. the Giza necropolis, we can conclude—by a simple transposition of sky-ground terminology—that the 'weighing' or 'balancing' of the land was somehow done at Giza,

and most likely beside or within the Great Pyramid, the original ‘House’ of Sokar-Osiris.[686]

But why should the Great Pyramid have been seen as an ‘instrument’ by which the ‘Two Lands’—sky and ground—could be ‘balanced’ at a specific spot, i.e. at Ayan-Memphis?

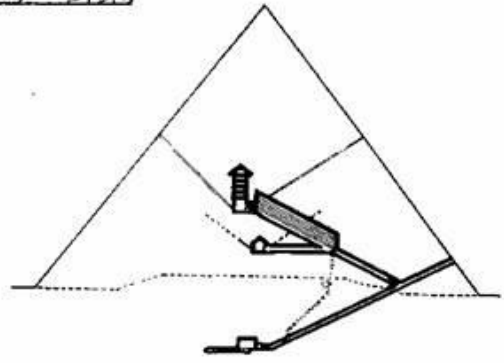

Great Pyramid, looking west

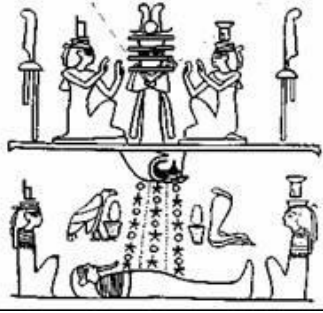

Osirian Djed pillar looking west with 'revivification' scene below. Compare this to the schematic system of the Great Pyramid. (Source: Papyrus of Pa-di-amon, *circa* 1000 BC).

71. Sun-boat on the back of the double-lion hieroglyph for Aker. [Top] is a scene of revivification, showing the solar path from east to west. Note the hawk's head beneath the solar disk at the meridian.

We must remind ourselves that the chronology and context of the 'unification' events was set way back in the cosmic landscape of the 'First Time'. Let us, therefore, transfer the imagery that now confronts us back to the epoch 10,500 bc, and see how the supposed 'perfect balance' was achieved at the cosmic 'Ayan', i.e. at the location, marked by the M1 Crab Nebula that we have already identified on the ecliptic path.

The three great Pyramids of Giza, of course, become Orion's belt at the meridian—with the Great Pyramid itself being represented by its specific celestial counterpart, *Al Nitak,* the lowest of the three belt stars.

The diagram reproduced on page 283 [#74] shows Orion's belt with *Al Nitak* at the meridian in 10,500 bc. At this precise moment, as we saw in Chapter 17, the vernal-equinox point lay due east, just

below Leo. Meanwhile the ‘opposed’ autumnal equinox point lay precisely due west (just below Aquarius). In short, this was a time when the ‘Two Skies’—one on each side of the Milky Way—were in perfect balance, perfectly divided, just as the texts describe.

Much suggests that the ‘Followers of Horus’ envisaged the ecliptic path of the sun arching like the huge beam of a scale across the visible sky. One end of this beam was marked by Leo at the vernal-equinox point, and the other by Aquarius at the autumnal-equinox point. So, when *Al Nitak* came to rest at the celestial meridian on the vernal equinox in 10,500 bc the sky could rightly be said to have been in a state of perfect order.

Maat

Cosmic Order, in the symbolic terminology of the ancient Egyptians, was known as *Maat.* The same word also means ‘justice’ and ‘law’—for example the justice that was exercised by the

‘council of gods’ of Heliopolis when they judged in favour of Horus, after his conflict with Seth, and passed on to him the legacy of the Osirian throne.

The ancient Egyptian religious texts transmit details of one of the high rituals of the Osirian liturgy—the ‘weighing of the soul’ of the dead in the Great Judgement Hall of Osiris. This is a sort of archetypal ‘Judgement of Solomon’, with the weighing being done on the Great Scales *of Maat.*

The Papyrus of Ani in the British Museum provides us with a particularly vivid depiction of the Great Judgement Hall, and also of the Great Scales of *Maat.* These latter have a name—*Mekhaat*[687]—which means in other contexts ‘the balance of the Earth’.[688]

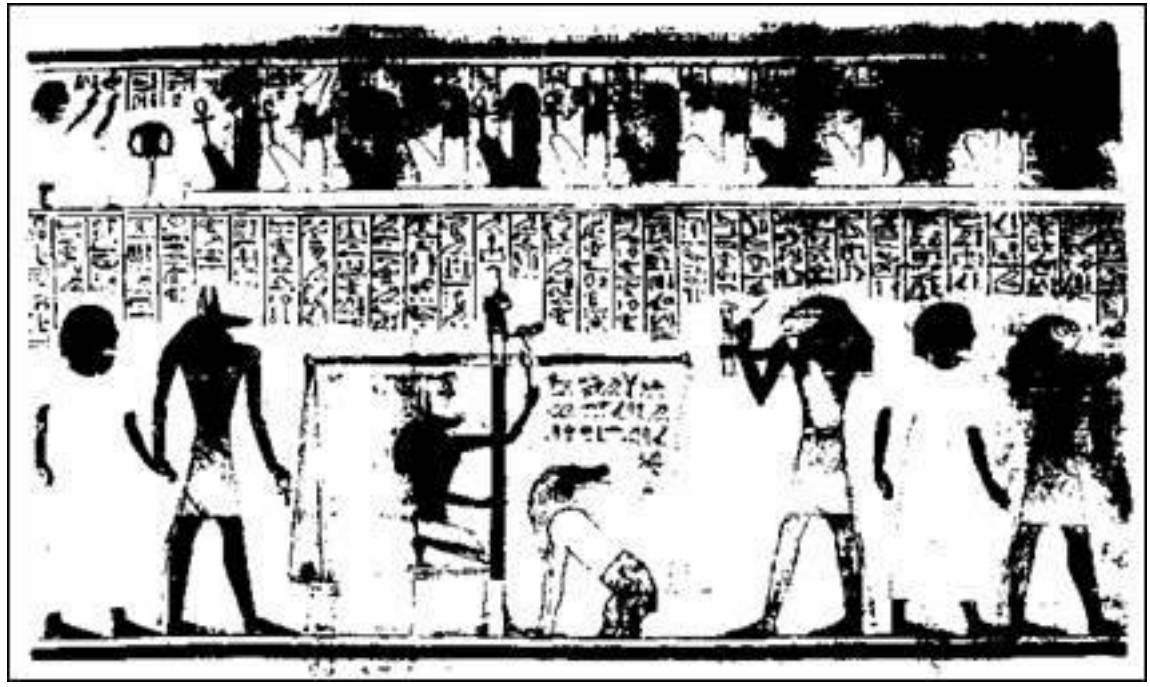

72. The Scales of *Maat*. (Source: British Museum papyrus 9901-3).

The hieroglyphic determinative sign for the verb 'to weigh' shows a triangle, or builder's 'square', with a plumb-bob suspended from the apex[689]—a sign which can also mean to 'balance the earth'.[690] The triangle distinctly recalls the profile or cross-section of a pyramid.

As we have seen in Part II of this book, a curious stone sphere, a length of wooden rod, and a bronze hook were found inside the Great Pyramid in 1872, sealed since the time of the construction of the monument in the shafts of the Queen's Chamber. Mr. Henry Williams Chisholm, the Head of the Standards Department of the Board of Trade in London, carefully examined these relics in the year of their discovery and concluded that the sphere was most probably a standard weight and that the rod and hook might also have had functions connected with weighing and measuring. He published these conclusions in the prestigious journal, *Nature,* on 26 December 1872.

Similar views were held by the Astronomer Royal of Scotland, Charles Piazzi Smyth, who also examined the relics in 1872.[691]

And a certain Mr. E. H. Pringle suggested in a letter to *Nature* that the stone sphere could have been a 'mason's plumb-bob' and that the 'bronze hook and the cedar rod may have formed part of the same tool'.[692]

A ‘plumb-bob’ of some sort must have been used to align the slopes of the shafts. And we have also seen how a ‘plumb-bob’ was used in the hieroglyphic sign meaning ‘weighing’ and, by extension, ‘the balance’.

Perhaps the Great Pyramid—the terrestrial counterpart of the star *Al Nitak*—was seen as a weighing device or ‘instrument’ playing its part in some as yet unexplained attempt to restore the ‘balance’ or cosmic order of the world, i.e. *Maat,* as it was in the ‘First Time’. Let us consider this possibility.

Juggling for balance

We saw in Chapter 3 that the Great Pyramid functions as a mathematical scale model of the northern hemisphere of the earth on a scale of 1:43,200.[693] By transposition and extension, therefore, it should be obvious that the monument can also serve as an architectural and mathematical representation of the northern

hemisphere of the *sky*.[694]

Now if we look at a cross-section of the Great Pyramid, we notice that each of its two sets of 'star-shafts'—i.e. the northern and the southern in the King's and Queen's Chambers respectively—are theoretically intended to emerge at the same heights on the north and south faces of the monument. They appear to hang out like gigantic arms balancing, as it were, the whole geometrical scheme of the Pyramid. But there is something curious about the position of the two chambers from which these shafts emanate. The Queen's Chamber lies along the centre-line of the Pyramid. The King's Chamber, on the other hand, is offset somewhat to the south of the centre-line—almost as though the 'counterweight' on a huge set of scales had been slid to the left in order to achieve 'balance'.

The consequences of this curious architectural anomaly are as follows:

1. Queen's Chamber: the 'designed' average angle of the two shafts is 38 degrees 08', thus forming a right angle with the

faces of the pyramid (51 degrees 52’ + 38 degrees 08’ = 90 degrees).[695]

2. King’s Chamber: the ‘designed’ angle of the southern shaft is 45 degrees 00’ and that of the northern shaft is 32 degrees 30’. This counteracts the effects of the offset of the chamber and restores the ‘balance’ of the general geometrical design.

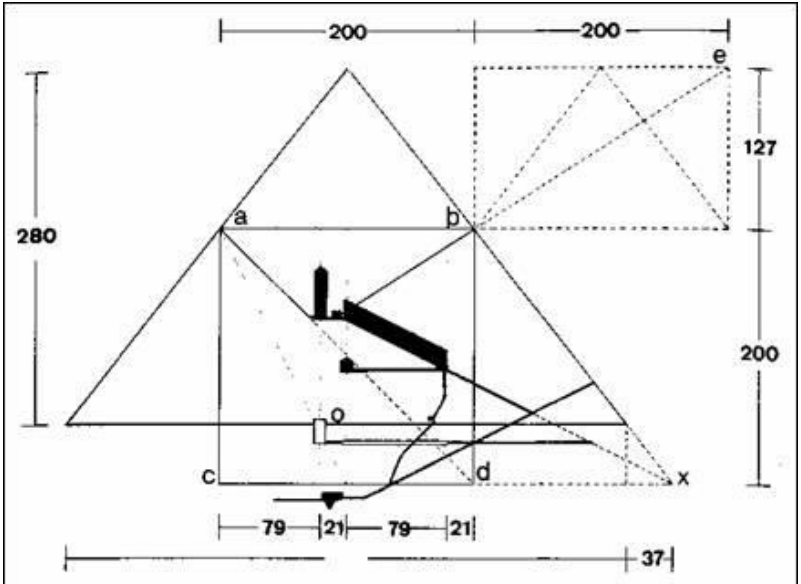
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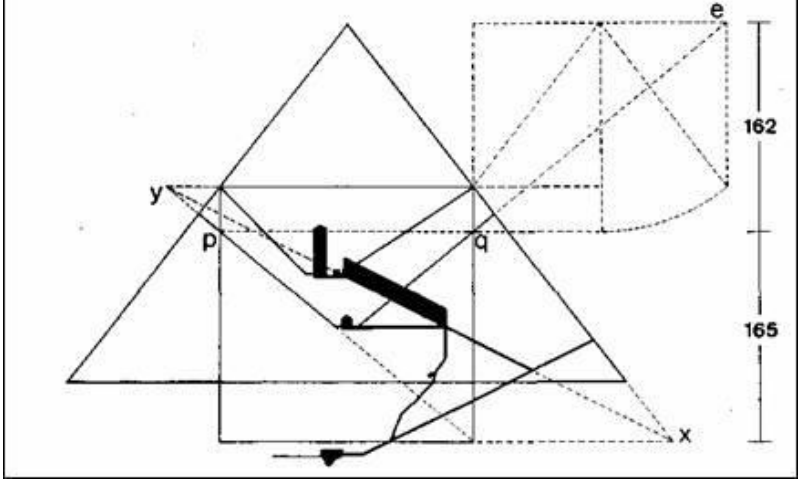
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73. Cross-sections of the Great Pyramid showing the 'balancing' of the monument with the star-shafts.

The altitude of *Al Nitak* at the meridian in 2500 bc was 45 degrees—in line with the southern shaft of the King's Chamber. The reader will recall that the vernal point in this epoch was just over the Hyades-Taurus, whose terrestrial counterpart we have identified as the region of the Dahshur Pyramids.[696]

But let us see in what epoch *Al Nitak* would have crossed the meridian at 38 degrees 08' altitude—i.e. in alignment with the southern shaft of the *Queen's* Chamber?

Precessional calculations show that such an alignment would have occurred in *circa* 3850 bc—a date that is extremely close to that favoured by many earlier Egyptologists for the epoch of the 'Unification' which was supposedly sealed at Ayan-Memphis.[697] It is therefore surely of interest to note that in 3850 bc the vernal point was positioned near the M1 Crab Nebula, the spot on the celestial landscape—and along the ecliptic path—that we have identified as

the sky-counterpart of Ayan-Memphis.

Three Wise Men

In 10,500 bc the star *Al Nitak* in the belt of Orion was at the lowest altitude of its precessional cycle and Leo housed the vernal-equinox point. In our own epoch—the epoch of ad 2000—the other extreme of the curious 'balancing mechanism' of Giza is about to be reached: *Al Nitak* today stands within a few arc seconds of the highest altitude that it will attain in its precessional cycle and the vernal point is about to drift into the constellation of Aquarius. Between the 'First Time' and the 'Last Time', in other words, the skies have reversed themselves—literally flipped left to right—with Aquarius now marking the vernal equinox and Leo marking the autumnal equinox.

We wonder whether it is possible that the sages of Heliopolis, working at the dawn of history, could somehow have created an

archetypal ‘device’, a device designed to trigger off messianic events across the ‘Ages’—the Pyramid Age when the vernal point was in Taurus, for example, the Christic Age in Pisces,[698] and perhaps even a ‘New Age’ in Aquarius?

We note in this connection that in *circa* 330 bc, when the vernal point was beginning its precessional drift into the ‘Age of Pisces’, the altitude of *Al Nitak* (viewed from the latitude of Giza) was 51 degrees 52’—the angle of slope of the Great Pyramid. At this time the conquests of Alexander the Great (356-323 bc), and the resulting merger of the Eastern and Western worlds, triggered great expectations of a messianic ‘Return’ in the East. First at Alexandria, then across the Levant, a general agitation began, as if triggered by some prophetic ‘device’, which culminated in the great messianic events of Christianity.[699]

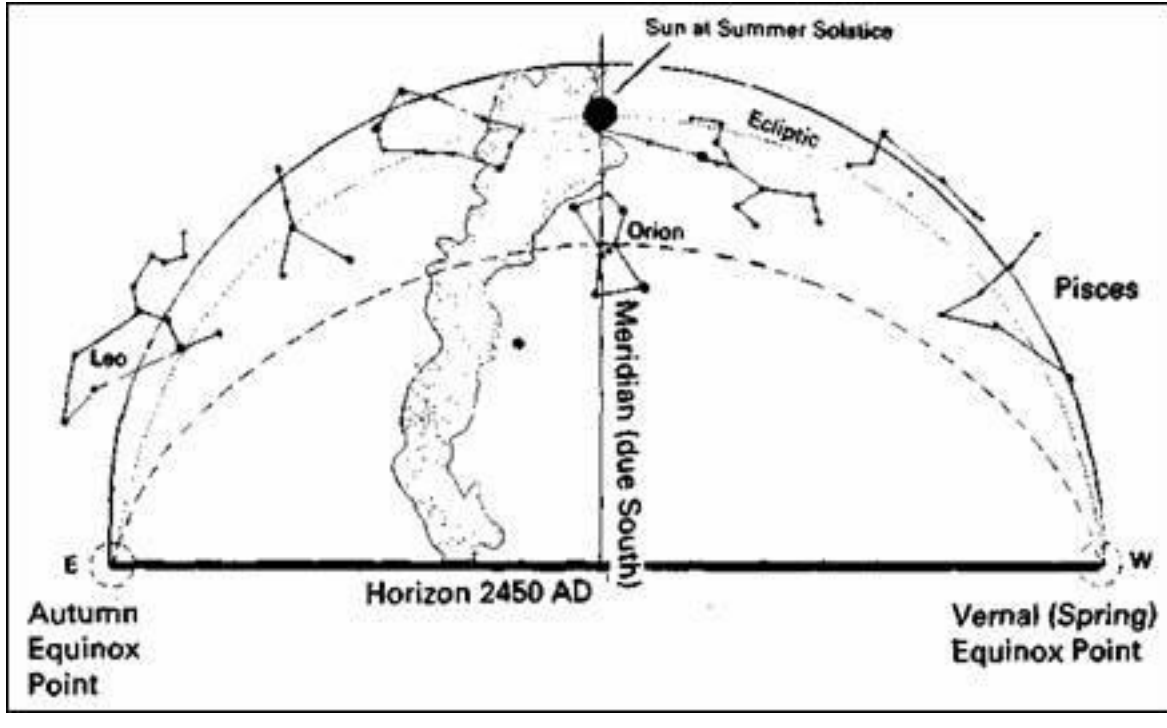

74a. The sky as will be seen in 2450 ad at the 'Last Time' of Orion. Note the vernal (spring) equinox in the west.

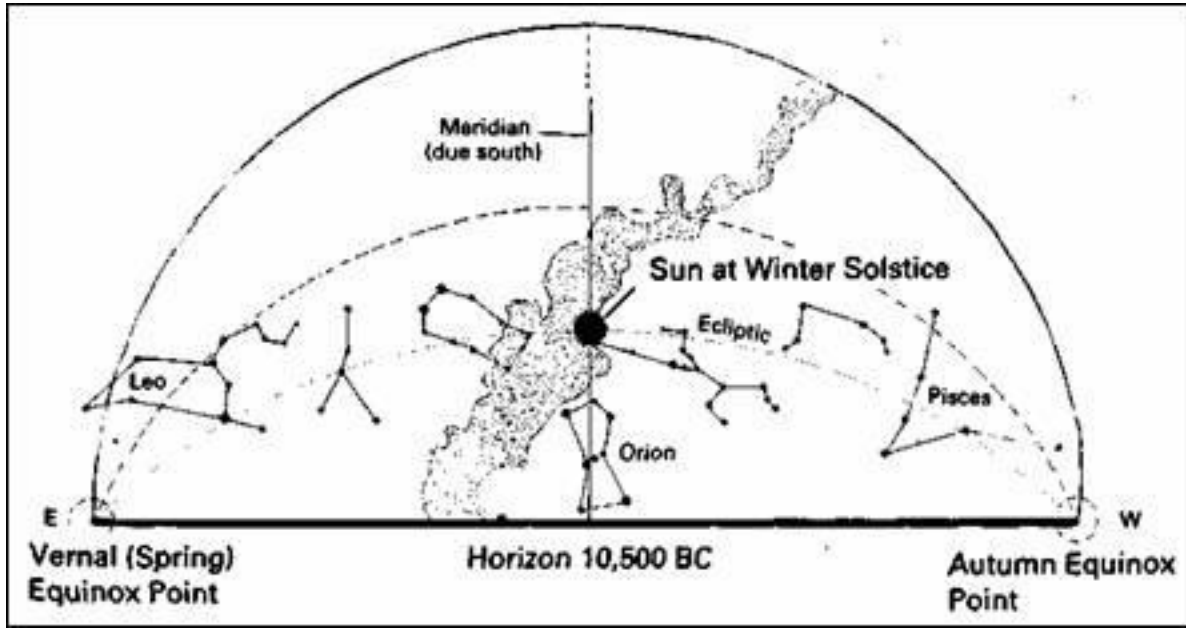

74b. The sky as was seen in 10,500 bc at the 'First Time' of Orion. Note the vernal (spring) equinox to the east.

The three stars of Orion's belt are depicted in the folklore of many countries as the heraldic 'Three Wise Men', or 'Kings', or 'Magi' from the East, who feature in the Christic nativity story.[700] Interestingly, as we saw in Part I, the star-worshipping Sabians of Harran—archetypal Magi—appear to have performed annual

pilgrimages to Giza from at least as far back as the second millennium bc until as late as the eleventh century ad.[701] Interestingly, too, as seen from Harran—which is east of Bethlehem and at a higher latitude than Giza—the belt *star Al Nitak* would have culminated at the meridian at 51 degrees 52' in 4 bc, the generally accepted birth year of Christ. In that year also the 'birth star' Sirius would have risen and been brightly visible in the east as the sun set at dusk.[702]

Is there something—some ancient tradition, veiled, but still very much alive, that is subtly carrying blueprints and plans across the ages aimed at generating messianic fervour, and changing the course of history, at certain crucial moments which are 'written in the stars'?

And is such a moment now approaching?

Is the 'device' about to reactivate itself?

We shall return to these questions in our next book.

Appendix 2

Correspondence with Mark Lehner Concerning Chapter 5

The Egyptologist Mark Lehner was sent the first draft of Chapter 5 of this book, a chapter that largely concerns himself. His comments and corrections were taken into account, and the draft was rewritten in the form that is published herewith. When Dr. Lehner was sent the revised draft he wrote us the following letter making further comments which we agreed to reproduce in full as an Appendix. Our own reply to Dr. Lehner's letter is also appended.

From: Mark Lehner
To: Mr. Robert G. Bauval and Mr. Graham Hancock
November 16, 1995

Dear Graham and Robert,

Thank you for your letter of 12 November 1995 and for the second draft of your Chapter 5, 'The Case of the Psychic, the Scholar And the Sphinx'(!). It appears to be much more accurate than the first draft concerning the events of which I was a part.

I have the following observations to make and corrections to suggest (again open to the public):

p. 86: 'his pronouncements ... spawned multi-million dollar industry ... embroiled ... with mainstream Egyptological research ... first learned about ... when reviewing ... Mark Lehner.'

Do you mean to convey that Cayce alone (without theosophy, anthroposophy, freemasonry, astrology, sacred metrology, channeling, UFO aficionados, and Shirley MacClaine) spawned a

multi-million dollar industry that fed directly into my involvement with Egyptology? That would be a little absurd.

p. 92: 'The equipment for RSI's work ... Immediately afterwards the project was stopped.'

This is still not quite right. The drilling equipment was tested and used elsewhere, for example, west of the Second Pyramid, before it was brought down for the two holes in the Sphinx Temple. The project was not stopped immediately afterwards. RSI/SRI drilled two more holes in the southeast corner of the floor of the Sphinx and under the south forepaw of the Sphinx. Then the project kind of fizzled to an end because of the falling out between RSI and SRI and, as I remember, because the SRI team had been in Egypt for a couple of months or more and had other work.

p. 92: 'did not appreciate ... led to ... falling out between RSI

and SRI.'

As I recall, although RSI did not appreciate particularly the Cayce involvement, the falling out between RSI and SRI was over fiduciary issues. Why don't you contact SRI and ask them?

p. 93: 'Adding to the intrigue ... yet another project financed by the Edgar Cayce Foundation.'

You do want to hang on to that intrigue! No, this was not yet another project. The down-hole immersion acoustical sounding was done in the last days of SRI's fieldwork at the Sphinx in 1978, not 1982, not another project. I do not have, at present, a copy of this *Venture Inward* but if it says this is another project in 1982, it is wrong. All that I describe in the quote you excerpted happened the last few days of the 1978 project.

p. 93: 'a survey, as the reader will recall, ... abrupt halt ... Antiquities Organization.'

You seem inclined to see 'abrupt halts'. You should not cite me to verify this point because I was not at these events, but my impression is that Schoch, West, and Dobecki were not thwarted in their first season of work at the Sphinx. Permission for such work is granted or denied by a large committee of the Supreme Council for Antiquities (formerly Egyptian Antiquities Organization).

p. 94: 'Pulling Away. When, exactly, Professor Lehner began to pull away from the influence of the Edgar Cayce Foundation and crossed over into the mainstream of professional Egyptology and its orthodoxy is not especially clear.'

Are you suggesting, based on your own understanding of how

belief systems operate, that there are definite lines where ‘now you believe’ and ‘now you don’t’? You seem particularly interested in this question. The way you frame it reminds me of the US Congressional hearings on the Watergate cover-up conspiracy: ‘What did the President know, and when did he know it?’ ‘What did Lehner believe, and when did he not believe it?!’

Let me offer some biography to use if you so choose.

I already had doubts when I went to Egypt in 1973, since Cayce’s ancient history did not agree much with anthropology courses I took at the University of North Dakota. But as I indicated in my last letter, I did indeed have hopes that evidence could be found of past events bearing some agreement with Cayce’s story.

During my two years at the American University in Cairo I majored in anthropology, and took my first courses in Egyptian archaeology and prehistory. I also spent most of my free time at Giza, and I visited other ancient sites and archaeological projects. I did not find ‘footprints of the gods’. By becoming acquainted with a

vast amount of previous archaeological research with which the Cayce community and like-minded Egypt-enthusiasts are only minimally familiar, I found the 'footprints' of people—their tool marks, names, family relationships, skeletons, and material culture.

In 1974 I read social psychologist Leon Festinger's work on 'cognitive dissonance', in particular his book, *When Prophecy Fails.* Festinger deals with people reacting to conflict between a *revealed* belief system and empirically derived information, that is, physical evidence. In his work, I recognized many attributes of the Cayce worldview, my own belief, and my growing doubts.

When I returned to Virginia Beach I would outline in lectures and conversations the real achaeological evidence surrounding the Sphinx and the Pyramids and its conflict with the Cayce picture of Egypt. I spoke to my good friends and supporters, like Hugh Lynn and Joseph Jahoda (are your two unnamed ARE men supposed to remain as mysterious as 'The Scholar'?), about my doubts, and how the Cayce community and belief system fits many aspects discussed

by Festinger and other social scientists.

In these talks I began to suggest to the Cayce community that they look at the Egypt/Atlantis story as a myth in the sense that Joseph Campbell popularized, or that Carl Jung drew upon in his psychology of archetypes. Although the myth is not *literally true,* it may in some way be literarily *true.* The Cayce 'readings' themselves say, in their own way, that the inner world of symbols and archetypes is more 'real' than the particulars of the physical world. I compared Cayce's Hall of Records to the Wizard of Oz. Yes, we all want the 'sound and fury' and powerful wizardry to be real, without having to pay attention to the little man behind the curtain (ourselves). In archaeology, many dilettantes and New Agers want to be on the trail of a lost civilization, aliens, yes, 'the gods', without having to pay attention to the real people behind time's curtain and without having to deal with the difficult subject matter upon which so-called 'orthodox' scholars base their views.

(An aside: So a John West can blast Egyptologists for suppressing

the sacred science inherent in Egyptian culture without being able to read Egyptian language—a little like saying one knows Shakespeare's real meaning without reading English. Another pyramid theorist said, in an animated dinner conversation, 'Where's the evidence? The pyramid stands out there with no evidence of how the ancient Egyptians could have built it.' I ticked off four Egyptological titles—all in English—devoted to ancient Egyptian tools, technology, stone building, and materials and industries. Although he had published a widely acclaimed book with a new theory on the pyramids, he admitted to not having read a single one of these basic works. It would be so much more fun and challenging if such theorists did actually read and absorb such primary sources, and then launched the dialogue.)

These ideas were on my mind as I joined my first 'mainstream' excavation in 1976. They are reflected in my statement that the Hall of Records is worth looking for, but not in a tangible way. You know, like the Holy Grail.

In 1977-78 I had the opportunity not only to work with the SRI project at Giza, but also to work with Zahi Hawass in excavations of ancient deposits neglected by earlier archaeologists in the northeast corner of the Sphinx floor—just beside the north forepaw, and on the floor of the Sphinx Temple. We recovered pottery, parts of stone tools, and other material directly on the floor, filling deep crevasses and nooks and crannies—material in contexts that only make sense as left by the Old Kingdom Sphinx and pyramid builders.

Such findings, and the negative results of the SRI project, sealed it for me. That is, I knew there was an extremely low probability that Cayce's story of Egypt and the Giza monuments (and his ancient 'history' involving Atlantis, etc.) reflected real events.

My interest in the Cayce-like genre of literature as having anything to do with the archaeological record was gone, although I am still interested in this genre as a social and literary phenomenon. My encounters with bedrock reality were far more fascinating. I was excited by the process of reconstructing the past from empirical

evidence. I put aside my interest in the dynamics of beliefs, and in general questions of philosophy and religion, as I spent the next decade doing archaeological fieldwork for projects at various places in Egypt. At Giza, my interest and research was no longer premised on Cayce or any similar point of view. In 1982 I carried out the research and writing for an Egyptological monograph on the tomb of Hetepheres (published in 1985 by the German Archaeological Institute). Cayce ideas had nothing to do with this work.

Meanwhile Hugh Lynn Cayce (until he died), Charles Thomas Cayce and other members of the Cayce community remained very close friends. Some (but not all) were still interested in contributing to research at Giza. Their support of the Pyramids Radiocarbon Dating Project was a way to do something useful for the archaeology of the pyramids, as well as to *test* their ideas about the origin and date of the Great Pyramid and Sphinx.

I remember a very personal moment in 1983 when I was working for an expedition at Abydos, the cult center of Osiris in Upper

Egypt. The tombs of Egypt's earliest pharaohs were sunk into a spur of low desert far to the west of the cultivation, near the base of the great cleft in the high cliffs, probably seen by the ancients as symbolizing the entrance to the Netherworld. Many centuries later, one of the tombs of a real man who ruled as one of the First Dynasty kings was outfitted as the Tomb of Osiris. Over subsequent centuries hundreds of pilgrims left pottery offerings, resulting in mounds of millions of shards that masked the site, prompting its Arabic name, Umm el-Qa-ab, 'Mother of Pots'. One evening near sunset I walked from the dig house to Umm el-Qa-ab. I stood on the mounds above these tombs and wondered if the ancient pilgrims really believed the god Osiris himself was buried here, and if 'those who sit near the temple' (as a Zen proverb would say)—the local priests—knew they had simply outfitted one of the First Dynasty tombs of a pharaoh to 'symbolize' the burial of Osiris. I thought of my own pilgrimage that brought me to Egypt in the first place, and the myth of the Hall of Records. I realized that this was part of a

world view that had moved far away from me, like a chunk of ice that had separated from a continent and was now melting in a distant sea.

Sorry to be so long-winded. But Graham, I agree with your statement in your last letter that readers should be in possession of the facts to evaluate the opinions of academic authorities.

Sincerely,

Mark Lehner

PS Details: It probably does not matter much for a popular readership, but the difference between an Assistant Professor—my title at the Oriental Institute—and Professor is significant in the tenure-track world. I resigned my fulltime post, but I am still a Visiting Assistant Professor at the University of Chicago and Oriental Institute, I return every other year to teach.

cc: Bruce Ludwig
Douglas Rawls

To: Mark Lehner
From: Graham Hancock

8 December 1995

Dear Mark,

Thank you for your further letter of 16 November 1995 in response to our revised draft of Chapter 5. We greatly appreciate your openness.

If you have no objections, we propose to publish the revised draft of Chapter 5 as you have seen it and to publish your 16

November 1995 letter in full as an appendix to our book. We consider this to be a fair and reasonable way to present the whole matter to the public. If we don't hear back from you in the next couple of weeks we will assume this is OK with you.

Merry Christmas and a happy New Year!

Warm best wishes,

Graham Hancock

PS We remember one Egyptological title (not four) that you 'ticked off' during a certain 'animated dinner conversation'. The one title was Clarke and Engelbach's *Ancient Egyptian Construction and Architecture.* We've both read it since and weren't overly impressed. Robert Bauval, as you know, is a construction engineer by training and spent twenty years actually

building enormous buildings in the Middle East. In my opinion—Clarke and Engelbach notwithstanding—this gives him a rather good basis from which to engage in ‘fun and challenging’ dialogue about the construction logistics of the Great Pyramid. There’s no substitute for real experience no matter how many ‘primary sources’ we ‘read and absorb’. (And by the way, in what sense are Clarke and Engelbach a primary source? Were they present when the Pyramid was built? Did they build it?)

Appendix 3

Harnessing Time with the Stars: The Hermetic Axiom 'As Above So Below' and the Horizon of Giza

An observer at Giza, as anywhere else on the globe where the horizontal view is not obstructed, will perceive the landscape as a huge circle whose edge is the horizon with himself at the centre—hence the term 'Horizon' used by the ancients when referring to the Giza necropolis. Making apparent contact with the horizon is the *celestial landscape,* the latter perceived as a huge circular dome or hemisphere.

The 'below', earth-landscape, is steadfast. The 'above', sky-landscape, however, appears to rotate in perpetual motion around an imaginary axis which passes through the two poles of the earth and

extends to the ‘celestial poles’ in the sky. The apparent rotation of the sky makes the celestial orbs—the stars, the sun, the moon and the planets—rise in the east, culminate at the meridian (an imaginary loop running due north-south directly over the observer’s head) and set in the west.

Observations of sunrise through the year will fix four distinct points, sometimes called the colures, on the ecliptic path of the sun around the twelve zodiacal constellations. These are the two equinoxes (spring and autumn), and the two solstices (summer and winter). Today these take place in the following zodiacal signs:

1. Spring equinox (21 March) with the sun in Pisces.
2. Summer solstice (21 June) with the sun in Taurus.
3. Autumn equinox (22 September) with the sun in Virgo.
4. Winter solstice (21 December) with the sun in Sagittarius.

The table below shows in which zodiacal signs the four ‘colures’ fell for a variety of different epochs:

S. Equinox	Leo	Gemini	Taurus	Aries	Aquarius
S. Solstice	Scorpio	Virgo	Leo	Cancer	Taurus
A. Equinox	Aquarius	Sagittarius	Scorpio	Libra	Leo
W. Solstice	Taurus	Pisces	Aquarius	Capricorn	Scorpio

Strictly speaking, the term ‘colures’ denotes the two great circles of the celestial sphere which are at right angles to each other, pass through the poles and intersect the two equinox points and the two solstice points respectively.

The diurnal or daily apparent motion of the sun is from east to west. The annual or yearly apparent motion is much slower from west to east against the background of the starry landscape through

a path known as the ecliptic, or zodiacal circle (containing the twelve zodiacal signs). Also because of the phenomenon of the precession of the equinoxes, the four points on the colures (the two equinoxes and the two solstices) will appear to drift westwards at the very slow rate of 50.3 arc-seconds per year (a full circuit in approximately 25, 920 years).

These apparent cyclical motions of the sky are, of course, caused not by the sky itself moving but by the earth's own spin on its axis in one day, its orbital revolution around the sun in one year, and its slow wobble-like motion in one Great Year (of 25,920 'solar' years). As we have already said, the most noticeable effect of the latter is that the four points on the colures which mark the two equinoxes and the two solstices on the ecliptic, will drift in clockwise direction along the great ecliptic or 'zodiacal' circle.

Every day there is a moment when these four points on the colures find themselves in precise alignment with the four cardinal points of the terrestrial globe defined by the directions due east, due south,

due west and due north on the circle of the horizon. This is when it can be said that the sky and earth are a ‘reflection’ of each other. In archaic terminology, this is when the ‘Hermetic’ axiom of ‘as above so below’ can be most faithfully expressed.

At this exact moment the colure containing the two solstice points will be looping above the head of the observer from north to south, and thus becomes the prime meridian of the observer. The colure which contains the two equinox points will loop from east to west and will intersect the horizon at due east to due west, and thus define the parallel of the observer. Again, using archaic terminology, this is when the observer is at the ‘centre of the visible universe’.

A simple yet quite precise way of knowing when this idealistic ‘as above so below’ conjunction takes place is to make use of a bright star that sits on the colure containing the two solstice points. The choice of a bright star on the colure as near to the winter solstice point as possible, will permit the observer to lock the sky in the

most favourable condition possible: the precise moment of the rising of the vernal (spring) point in the east. This is simply achieved by waiting for the star in question to transit the south meridian. When this happens, the winter solstice point is due south, and all the other colures lock to the remaining cardinal directions.

The effect of the precession of the vernal point, however, will cause the chosen star to change position with time. After a century or so the star can no longer be used.

The Great Pyramid is often said to be perfectly set to the four cardinal points. What seems more likely, as we shall see, is that it is set perfectly to the four colure points when they transit the cardinal directions. The setting-out of the Pyramid, therefore, is not merely directional but also, and perhaps more especially, dependent on 'time'.

In 1934 the French astronomer E.M. Antoniadi correctly noted that the 'astronomical character of the pyramids (of Giza) is established by the following facts:

1. They are almost exactly, and intentionally, on the thirtieth parallel of the latitude North.
2. They are marvellously orientated on the cardinal points.
3. Their inclined passageways were, with their closing, colossal meridian instruments, by far the largest ever constructed.'[703]

These confirmed facts, and also the fact that the Great Pyramid is a near-perfect mathematical model of the celestial dome or hemisphere, make this monument a material and earthly representation of the sky-landscape. When linked to a specific star, however, the element of 'time' is introduced into the equation.

We recall that the ancient builders fixed the main north-south axis of the Great Pyramid to the south meridian transit of the bright star Alnitak, the lowest of the three stars in Orion's belt. We also recall that the general layout of the three Pyramids of Giza is at 45 degrees to the meridian axis and that this peculiarity, in turn, is reflected in the sky-image of the three stars in Orion's belt as they appeared in

c. 10,500 bc. This was no arbitrary date, however, because it denoted the lowest point or 'First Time' in the precessional cycle of Orion. To the ancients, Orion was 'Osiris', and the latter, too, had a 'First Time' or genesis.

Computer reconstructions of the ancient skies of 10,500 bc show that the star Alnitak was located precisely on the colure containing the two solstice points, and nearer to the winter solstice. If an observer was there to 'lock' the perfect 'as above so below' condition in 10,500 bc, the image of the sky containing the star Alnitak would convert into a 'hologram' on the ground precisely in the manner we find at Giza today. That such a perfect sky-to-earth correlation cannot be the result of some incredible 'coincidence' is confirmed by the equinoctial rising of Leo, which took place in precisely the same epoch of 10,500 bc and precisely when the star Alnitak transited the south meridian. This brought the vernal (spring) equinox point in perfect alignment with the Great Sphinx, the terrestrial counterpart of the image of Leo. The conclusion thus

seems inevitable: the ancients appear to have established a global prime-meridian at Giza locked into the time frame of 10,500 bc.

All this implies, however, that the ancients were somehow attempting to 'navigate' not only in distance ('space') but also in 'time'. What did they have in mind? How can 'time' be navigated?

Hypothetically at least, a time-related apparatus locked into the colures of 10,500 bc would present the 'reincarnated' Horus-King with a subliminal landscape or 'magical theatre', at the height of his extensive initiation, to work out intuitively how far in time his 'soul' had travelled from its point of genesis. In Parts III and IV of this book we have shown how the Horus-King may have used the phenomenon of the precession of the equinoxes to perform such a task by inducing his mind to undertake a journey or quest to find his 'ancestors' using the subliminal architectural setting or 'cosmic ambiance' of Giza as some sort of 'star-memory' device. Today we use a computer to re-create the ancient skies on a television monitor. We are suggesting that the Horus-King initiate could perform this

task intuitively with the ‘computer’ of his mind and the ‘monitor’ of his inner perception. This conclusion does not present a problem to us. We have found that by fully familiarizing ourselves with the apparent motions of the skies and by constantly reconstructing ancient skies with the aid of computers, images, coordinates and epochs subliminally enter the mind and become logged in the memory. We have discovered for ourselves that these ‘files’ are easily retrieved at will without the mechanistic aid of the computer. Hypothetically then, with such ‘star-memory’ logged in the mind, should we suddenly find ourselves flung into a future ‘time zone’, say ad 6000, we could relatively easily ‘work out’ how far ahead in time we had moved.

By extension of such rhetoric, therefore, it could be said that the function of the Giza blueprint is to provide a virtually indestructible ‘holographic’ apparatus for the use of ‘reincarnated’ or ‘reborn’ entities of the Horian lineage in order to induce ‘remembrance’ of a ‘divine’ genetic origin in Egypt in the time-frame of 10,500 bc. The

ultimate function, however, appears to have been to perpetuate the 'immortality' of their souls into 'time'—in short, the ultimate *gnostic* experience entailing the release of the spiritual part of the living entity from its material, inert, part. To put it in other terms, 'living' man is the result of a holographic union between matter and spirit. It would very much appear that the 'Followers of Horus' understood the cosmic mechanism to somehow re-separate the two.

Such questions, we are well aware, lead us into the misty realm of metaphysics, extrasensory perception and psychic thinking from which we have tried to steer clear. Nonetheless, we must respond to our intuitive feeling that a form of metaphysical thinking very much like this was used by those mysterious 'Followers of Horus' who set their initiatory and 'astronomical' academy at Heliopolis—and whose genius resulted in the construction of the amazing 'holographic' star/stone (spirit/matter) apparatus of Giza. All references in the ancient texts to this mysterious brotherhood suggest that we are dealing not with 'priests' but with high adepts

who fully understood the working of the human psyche and the subliminal techniques needed to evoke ‘remote memory’ through deep-felt inner perceptions of ‘time’. The esoteric teachings and initiations into such cosmic mysteries using the skies are certainly not prosaic ones, as Egyptologists maintain, to develop and refine calendrical systems for ‘land irrigation’ and ‘religious ceremonies’, but far more subtle: somehow to reach and harness the extrasensory capabilities of the human mind in order to link up to the invisible and immaterial, yet very perceptible, ‘flux of time’.

The questions, for those looking for ‘scientific’ explanations, can be formulated in another way: Do we humans carry ‘remote memory files’ locked in our genes? And if so, can it not be possible that such ‘files’ could be retrieved by using the correct subliminal keys?

More provocative still: is our ‘consciousness’ umbilically linked to ‘time’ such that it merely passes through biological matter, ourselves, like a thread passing through pearls and stones?

It has long been appreciated by students of intellectual history that monumental architecture and archetypal images can serve as powerful subliminal devices to evoke dormant 'memory' in the minds of those who are made receptive through initiation. The murals and panels of gothic cathedrals or the painted ceilings such as those in the Sistine Chapel are but obvious examples of such powerful mind-games—aptly called 'silent poetry' by the fourth-century bc poet, Simonides of Ceos. These ancient memory-aids, and the techniques refined for using them, which are loosely termed 'mnemotechnics' today, were the subject of a major thesis by Dame Frances A. Yates in 1966 entitled *The Art of Memory.* In this book Yates shows that powerful cerebral techniques were taught in ancient Greece which were rooted in the so-called 'Egyptian hermetic tradition'.[704] Recently, the author Murry Hope, in a thesis entitled *Time the Ultimate Energy,* tackled the complex subject of 'time travel' as a form of energy, and suggested that pre-dynastic Egyptian adepts may have understood and harnessed 'time' through

a yet-to-be discovered ability to break away from the confines of biological ‘time’ and into another mental realm of time-perception. Murry Hope termed this realm ‘Outer Time’. Likewise, in another recent study, *From Atlantis to the Sphinx,* the author and philosopher Colin Wilson boldly proposes that the ancients may have cultivated powerful extrasensory capabilities through ‘a different knowledge system’ based on intuitive thinking (as opposed to rationalistic or ‘solar’ thinking) in order to enter higher states of consciousness. Such higher consciousness might have been the key into altered perceptions of ‘time’.

That such untapped abilities to perceive dilated time-fields might be an intrinsic part of human mental machinery was very seriously investigated by one of America’s most prestigious scientific foundations, the Stanford Research Institute in California—better known as SRI International. In 1972 SRI International was recruited as main consultant for the so-called remote viewing programmes run by the CIA and other government agencies including the US

navy, the US army and the US Defense Intelligence Agency (DIA). These programmes were managed by a highly respected physicist, Dr. Hal Puthoff, who sought out and employed renowned psychics (called 'remote viewers' in SRI jargon) to 'locate' enemy military targets and installations using extrasensory capabilities.

The reader will recall that SRI International (which has been described as 'America's second largest think-tank') was also, in 1973, involved in high-tech archaeological projects in Egypt and, at least on one occasion, worked in participation with the Edgar Cayce Foundation (ECF) in a series of remote sensing projects at Giza (see Chapter 5).

Many 'remote viewers' involved in the remote viewing programmes, such as the psychic Ingo Swann and Nel Riley, the latter a sergeant in the US army, openly claimed to have the inner abilities to undertake a form of 'time travel' into any remote locations on the globe. Such claims are in many ways reminiscent of those made by the Edgar Cayce adepts who maintain that, when in

an altered state of consciousness such as deep trance or hypnosis, they can ‘remember’ past lives, i.e. ‘time travel’ mentally to remote locations. Cayce himself, who is dubbed America’s best-known medium and psychic, claimed to have had a previous life in Egypt in 10,500 bc—a claim which at one time, as we have seen in Chapter 5, was considered worthy of investigation by Egyptologist Mark Lehner in the early 1970s within the framework of his scientific research at Giza.

Appendix 4

Carbon-dating the Great Pyramid: Implications of a little-known Study

The evidence presented in this book concerning the origins and antiquity of the monuments of the Giza necropolis suggests that the genesis and original planning and layout of the site may be dated, using the tools of modern computer-aided archaeoastronomy, to the epoch of 10,500 bc. We have also argued, on the basis of a combination of geological, architectural and archaeoastronomical indicators, that the Great Sphinx, its associated megalithic 'temples', and at least the lower courses of the so-called 'Pyramid of Khafre', may in fact have been built at that exceedingly remote date.

It is important to note that we do not date the construction of the

Great Pyramid to 10,500 bc. On the contrary, we point out that its internal astronomical alignments—the star-shafts of the King's and Queen's Chambers—are consistent with a *completion* date during ancient Egypt's 'Old Kingdom', somewhere around 2500 bc. Such a date should, in itself, be uncontroversial since it in no way contradicts the scholarly consensus that the monument was built by Khufu, the second Pharaoh of the Fourth Dynasty, who ruled from 2551-2528 bc.[705] What places our theory in sharp contradiction to the orthodox view, however, is our suggestion that the mysterious structures of the Giza necropolis may all be the result of an enormously long-drawn-out period of architectural elaboration and development—a period that had its genesis in 10,500 bc, that came to an end with the completion of the Great Pyramid come 8000 years later in 2500 bc, and that was guided throughout by a unified master-plan.

According to orthodox Egyptologists, the Great Pyramid is the result of only just over 100 years of architectural development,

beginning with the construction of the step-pyramid of Zoser at Saqqara not earlier than 2630 bc, passing through a number of 'experimental' models of true Pyramids (one at Meidum and at two Dashour, all attributed to Khufu's father Sneferu) and leading inexorably to the technological mastery of the Great Pyramid not earlier than 2551 bc (the date of Khufu's own ascension to the throne). An evolutionary 'sequence' in pyramid-construction thus lies at the heart of the orthodox Egyptological theory—a sequence in which the Great Pyramid is seen as having evolved from (and thus having been preceded by) the four earlier pyramids.[706]

But suppose those four pyramids were proved to be not earlier but *later* structures? Suppose, for example, that objective and unambiguous archaeological evidence were to emerge—say, reliable carbon-dated samples—which indicated that work on the Great Pyramid had in fact begun some 1300 years *before* the birth of Khufu and that the monument had stood substantially complete some 300 years before his accession to the throne? Such evidence, if

it existed, would render obsolete the orthodox Egyptological theory about the origins, function and dating of the Great Pyramid since it would destroy the Saqqaraà Meidumà Dashourà Giza 'sequence' by making the technologically-advanced Great Pyramid far older than its supposed oldest 'ancestor', the far more rudimentary step-pyramid of Zoser. With the sequence no longer valid, it would then be even more difficult than it, is at present for scholars to explain the immense architectural competence and precision of the Great Pyramid (since it defies reason to suppose that such advanced and sophisticated work could have been undertaken by builders with no prior knowledge of monumental architecture).

Curiously, objective evidence *does* exist which casts serious doubt on the orthodox archaeological sequence. This evidence was procured and published in 1986 by the Pyramids Carbon-dating Project, directed by Mark Lehner (and referred to in passing in his correspondence with us, see Appendix III above). With funding from the Edgar Cayce Foundation, Lehner collected fifteen samples

of ancient mortar from the masonry of the Great Pyramid. These samples of mortar were chosen because they contained fragments of organic material which, unlike natural stone, would be susceptible to carbon-dating. Two of the samples were tested in the Radiocarbon Laboratory of the Southern Methodist University in Dallas Texas and the other thirteen were taken to laboratories in Zurich, Switzerland, for dating by the more sophisticated accelerator method. According to proper procedure, the results were then calibrated and confirmed with respect to tree-ring samples.[707]

The outcome was surprising. As Mark Lehner commented at the time:

> The dates run from 3809 bc to 2869 bc. So generally the dates are ... significantly earlier than the best Egyptological date for Khufu ... In short, the radiocarbon dates, depending on which sample you note, suggest that the Egyptological chronology is anything from 200 to 1200 years off. You can look at this almost like a bell curve, and when you cut it down the middle you can summarize the results by saying our dates are 400 to 450 years too early for the Old Kingdom Pyramids, especially those of the Fourth Dynasty ... Now this is really radical ... I mean it'll make a big stink. The Giza pyramid is 400 years older than Egyptologists believe.[708]

Despite Lehner's insistence that the carbon-dating was conducted according to rigorous scientific procedures[709] (enough, normally, to qualify these dates for full acceptance by scholars) it is a strange fact that almost no 'stink' at all has been caused by his study. On the contrary, its implications have been and continue to be universally ignored by Egyptologists and have not been widely published or considered in either the academic or the popular press. We are at a loss to explain this apparent failure of scholarship and are equally unable to understand why there has been no move to extract and carbon-date further samples of the Great Pyramid's mortar in order to test Lehner's potentially revolutionary results.

What has to be considered, however, is the unsettling possibility that some kind of pattern may underlie these strange oversights.

As we reported in Chapter 6, a piece of wood that had been sealed inside the shafts of the Queen's Chamber since completion of construction work on that room, was amongst the unique collection of relics brought out of the Great Pyramid in 1872 by the British

engineer Waynman Dixon. The other two 'Dixon relics'—the small metal hook and the stone sphere—have been located after having been 'misplaced' by the British Museum for a very long while. The whereabouts of the piece of wood, however, is today unknown.[710]

This is very frustrating. Being organic, wood can be accurately carbon-dated. Since this particular piece of wood is known to have been sealed inside the Pyramid at the time of construction of the monument, radiocarbon results from it could, theoretically, confirm the date when that construction took place.

A missing piece of wood cannot be tested. Fortunately, however, as we also reported in Chapter 6, it is probable that another such piece of wood is still *in situ* at some depth inside the northern shaft of the Queen's Chamber. This piece was clearly visible in film, taken by Rudolf Gantenbrink's robot-camera *Upuaut,* that was shown to a gathering of senior Egyptologists at the British Museum on 22 November 1993.[711]

We are informed that it would be a relatively simple and

inexpensive task to extract the piece of wood from the northern shaft. More than two and a half years after that screening at the British Museum, however, no attempt has been made to take advantage of this opportunity. The piece of wood still sits there, its age unknown, and Rudolf Gantenbrink, as we saw in Chapter 6, has not been permitted to complete his exploration of the shafts.

Appendix 5

The Door Inside the Great Pyramid;
Tunnels and Chambers
Under the Great Sphinx

Further developments

Since the first English-language edition of this book went to press in February 1996 there have been a number of significant developments concerning the opening of the door in the Great Pyramid at the end of the southern shaft of the Queen's Chamber (see in particular Chapter 7) and the search for tunnels and chambers under the Great Sphinx (see in particular Chapter 2 and Chapter 5). We anticipate that there will be further developments—

quite possibly of major historical significance—which we will cover in a future book. It is our intention, meanwhile, to monitor this 'running story' and to update our readers in a series of appendices that will be published in future editions of *The Message of the Sphinx*.

The update presented herewith covers the period from March to end-August 1996.

The Great Pyramid

At the end of 1995, as reported in Chapter 6 and Chapter 7, the position of the Egyptian Antiquities Organization regarding the 'door' at the end of the southern shaft of the Queen's Chamber was apparently one of official disinterest. The reader will recall that Dr. Nur El Din, Chairman of the EAO (now renamed the Supreme Council of Antiquities) had declined Rudolf Gantenbrink's offer to donate the robot to the Egyptian government and to train an

Egyptian technician to operate it: ‘Thank you for your offer to train the Egyptian technician ... Unfortunately we are very busy for the time being, therefore we will postpone the matter ...[712] Similarly Dr. Zahi Hawass had declared: ‘I do not think this is a door and nothing is behind it.’[713]

In March 1996, however, Dr. Hawass changed his mind, declaring in the *Egyptian Gazette* that Gantenbrink’s find was of huge interest and that the door would be opened in September 1996 by a multinational team led by the Egyptian geologist (and NASA consultant) Dr. Farouk El Baz. Rudolf Gantenbrink would not be involved and ‘another robot’—not *Upuaut*—would be used to explore the shaft. Participating in the exploration would be a ‘Canadian’ contingent.[714]

The Canadian element, ‘Amtex’, is headed by Peter Zuuring, a wealthy Dutch-Canadian businessman, who told us that he had shown the Egyptians how the door could be opened ‘relatively inexpensively ... We’re working with Spar Aerospace to design a

miniature arm with tools that could first tap the door, knock it and try to lever things a little bit to see if there's anything loose. But I think ultimately we'll go straight through.'

In two conversations, Souring told us that he thought it unlikely that the project could start as early as September 1996: the following year, he said, 1997, was far more likely. The objective, which might take some time, was to raise the huge sum of ten million dollars to promote a staged 'live opening' of the door on international television networks. 'I'm working with a private guy who is a personal friend of Hawass and we are absolutely going to drum this thing to death. Whatever the event we are going to stage, it will be televised live.'[715]

The Great Sphinx

In 1993-4 (see Chapter 2 and Chapter 5) Dr. Zahi Hawass appeared to be adamantly opposed to the notion that the Sphinx

might be far older than ancient Egypt—and thus the work of a lost civilization. The reader will recall that the EAO official was particularly incensed by the NBC television film, *The Mystery of the Sphinx,* that was made about the work of John Anthony West. In addition Hawass had been personally responsible for expelling John West and his research team from the Sphinx enclosure. The team included the geologist Robert Schoch, a Professor at Boston University, and the seismologist Thomas Dobecki (who was to identify a large rectangular chamber concealed in the bedrock at a depth of about twenty feet beneath the front paws of the Sphinx).

The NBC documentary linked the Sphinx to Atlantis and suggested that the chamber that Thomas Dobecki's seismograph had detected beneath its paws might contain some sort of 'time capsule' of Atlantean wisdom and history. Hawass called these claims: 'American hallucinations. West is an amateur. There is absolutely no scientific base for any of this. We have older monuments in the same area. They definitely weren't built by men from Atlantis. It's

nonsense and we won't allow our monuments to be exploited for personal enrichment. The Sphinx is the soul of Egypt.'[716]

An article in the Egyptian press responding to the NBC film quoted Dr. Hawass on his further reasons for expelling John West and his team from the Sphinx enclosure: 'I have found that their work is carried out by installing endoscopes in the Sphinx's body and shooting films for all phases of the work in a propaganda ... but not in a scientific manner. I therefore suspended the work of this unscientific mission and made a report which was presented to the permanent commission who rejected the mission's work in the future.'[717]

The NBC film was produced by Boris Said (see Chapter 2) and partially financed by investments from members of the Association for Research and Enlightenment (ARE). Headquartered in Virginia Beach in the United States (see Chapter 5), the ARE is a multimillion dollar organization that exists to promulgate the teachings and prophecies of the American psychic Edgar Cayce,

who died in 1945. Prominent amongst Cayce's pronouncements were many statements—some of which were reported in the NBC film—to the effect that the Sphinx had been built in 10,500 bc by the survivors of Atlantis who had concealed beneath it a 'Hall of Records' containing all the wisdom of their lost civilization and the true history of the human race. Cayce prophesied that this Hall of Records would be rediscovered and opened between 1996 and 1998. He connected the opening to the second coming of Christ and asserted that the contents of the Hall would not be shared with the general public until many years after it had first been entered by 'three who would make of the perfect way of life.'[718]

In 1995 John West and Professor Robert Schoch of Boston University (in cooperation with the prestigious Princeton Engineering Anomalies Research Laboratory, better known as PEAR) put in an application to the Egyptian authorities to resume their research. Their application was ignored.

At the end of March 1996 the Egyptian authorities granted a one-

year license to a new team to conduct surveys around the Sphinx and the Giza necropolis using seismic equipment and ground-penetrating radar. This team, which claimed academic sponsorship from Florida State University (and reportedly involved the participation of four geologists from that university), was largely financed, through the Schor Foundation of New York, by Dr. Joseph Schor, an American multimillionaire. Dr. Schor is a life-member of the ARE and was one of the two ARE members who met us at Virginia Beach with Charles Thomas Cayce in May 1994 (see Chapter 5). Later that month he wrote to us of his great personal interest in corroborating 'the Cayce records which indicated that the culture which led to the building of the Pyramids dates from 10,500 bc.' He also stated his wish 'to further delineate that civilization.'[719]

On 11 April 1996, when we informed Joseph Schor that we intended to write about these matters in the London *Daily Mail,* he threatened us with a libel action and stated: 'We do not work for the

Edgar Cayce group ... The major purpose of the Schor Foundation and the Florida State University is to aid in the preservation and restoration of the Pyramids and Sphinx. In addition we are surveying the underground of the Giza Plateau to find faults and chasms that might collapse. This will increase the safety of the plateau because chasms and faults can be collapsed or roped off for the protection of tourists and plateau personnel.'[720]

On 14 April 1996 Dr. Zahi Hawass gave a rather different account, mentioning hidden tunnels around the Pyramids and the Sphinx. He made no mention of the question of public safety but hinted that 'excavation of the tunnels would reveal many clues regarding the establishment of the Giza pyramids.'[721]

Nor did that question appear to be the main thrust of a short video, *Secret Chamber,* in which Dr. Hawass took part. Filmed on location in Cairo in November and December 1995, the video was produced and written by Boris Said and, according to him, financed to the tune of one hundred thousand dollars by Joseph Schor. In this video,

as we reported at the end of Chapter 5, Dr. Hawass is shown scrambling into a tunnel under the Sphinx. When he reaches the bottom he turns to face the camera and whispers to the viewer: 'Even Indiana Jones will never dream to be here. Can you believe it? We are now inside the Sphinx, in this tunnel. This tunnel has never been opened before. No one really knows what's inside this tunnel but we are going to open it for the first time.'[722]

The narrator of the video drives home an interesting point: 'Edgar Cayce, America's famous "Sleeping Prophet", predicted that a chamber would be discovered beneath the Sphinx—a chamber containing the recorded history of human civilization. For the first time ever we'll show you what lies beneath this great statue—a chamber which will be opened, live, for our television cameras.'[723]

In July 1996, after worldwide protest over the activities of the Schor Foundation and Florida State University at the Sphinx, Dr. Hawass claimed on South African radio that he had halted the project: 'I found that their work is not following the correct steps ...

I wrote a letter to them saying that they cannot do work again because they are not really following the correct work.'[724]

That same month, however, rumors began to circulate that the team had identified nine further tunnels or chambers under the Giza Plateau. In all of them, apparently, their remote-sensing equipment had identified objects made of metal.

By the end of August 1996, despite Hawass's statement, team members still appeared confident that their project would go ahead and Boris Said was reputed to be negotiating with major television networks in the United States for an exclusive documentary on the Sphinx.

The Edgar Cayce legacy

As we saw in Chapter 5, Edgar Cayce (known in America as the 'Sleeping Prophet' because he gave his psychic 'readings' in a trance-like state) believed himself to be a reincarnated priest called

Ra-Ta, a survivor of Atlantis who had settled in Egypt in 10,500 bc. Throughout the 1930s, until his death in 1945, he used the contacts made through his 'readings' to 'pick up players'—artists, bankers, businessmen, university professors and even politicians—who were all convinced that in their 'past lives' they too had played a role in the unfolding drama of Atlantis.[725]

One of these players, perhaps the most active the ARE would know, was Cayce's eldest son, Hugh Lynn (1907-1983), a graduate of Harvard University who took over the management of the newly founded ARE in 1931 when he was just twenty-four years old. With youthful enthusiasm, he vowed that one day an 'ARE sponsored expedition' to Giza would vindicate his father's prophecies concerning the Hall of Records.[726]

Perhaps Hugh Lynn had been inspired by the so-called 'Baraize Expedition' to the Sphinx which was already well underway in 1930 when the ARE was founded. Led by the then Director of the Egyptian Antiquities Department, a French archaeologist named

Emile Baraize, this expedition stripped off the ancient skin of 'repair blocks' from the lower parts of the body of the Sphinx. While removing some of the blocks from the rump of the statue, Baraize came across the entrance to a tunnel. Then, for some extraordinary reason, he resealed the mouth of the tunnel with rock and cement and never reported the matter. With Baraize at the time was a young Arab boy called Mohamad Abdel Mawgud—whose descendants still live at Giza.[727]

The Baraize expedition ran from 1926 to 1936. But it was not until 1972 that Hugh Lynn Cayce, by then in his sixties, finally set in motion the plan that he had long ago conceived for getting the ARE into mainstream archaeology at Giza. His first move was to recruit a 'college dropout named Mark Lehner' (the ARE President thought he recognized the young man from a past life), and then arrange for him to take a post-graduate degree at the American University in Cairo. Today the Visiting Professor of Egyptology at the University of Chicago's prestigious Oriental Institute, we saw in Chapter 5

how Lehner became the ARE's 'man' at Giza, participating during the 1970s and 1980s in almost every important project undertaken around the Pyramids and the Sphinx.

Despite a number of setbacks experienced by the ARE as a result of these projects, an official biography reports that Hugh Lynn Cayce 'had no sense of defeat ... He would stay with the search as long as it took, building alliances with other groups and individuals. One of the latter was the Egyptian Chief Inspector at Giza, Hawass, who he had met through Lehner in 1975. In 1980, Hawass accommodated the ARE by conducting an excavation in front of the Sphinx temple ...'[728]

In October 1980 Mark Lehner made contact with Mohamad Abdel Mawgud, the 'young Arab boy' (by now in his sixties) who had seen Emile Baraize seal up the tunnel under the Sphinx in 1926. Together with Ahmed Al Fayed, Abdel Mawgud's son, Lehner was permitted by Zahi Hawass to remove the seal and enter the tunnel. But again, apparently, nothing was found. The tunnel reached a

‘dead end’ in the bedrock underneath the Sphinx.[729]

Soon afterwards Ahmed Al Fayed went to settle in Virginia Beach and in due course joined the staff of the ARE. Hawass also traveled to the United States at about this time to expand his formal education in Egyptology. As Hugh Lynn Cayce’s biographer reports: ‘If Zahi Hawass was to advance within the [Egyptian] government to further his own career and open doors for Hugh Lynn’s project, he could do it best on the wings of higher education at an American Ivy League college.’ Just before he died Hugh Lynn Cayce was to explain how: ‘I got him [Zahi Hawass] a scholarship at the University of Pennsylvania in Egyptology, to get his Ph.D. I got the scholarship through an ARE person who happens to be on the Fulbright scholarship board. He [Hawass] had aided Mark [Lehner] to work on the Sphinx and I am very appreciative.’[730]

Interviewed on South African radio in July 1996 Hawass responded to an earlier interview given by ourselves in which we had mentioned his apparent connections with the Edgar Cayce

Foundation. He accused us of lying, stated that we were merely claiming these things to make ourselves famous, and insisted that he discredited Edgar Cayce, adding emphatically: 'The Edgar Cayce theory is wrong.' The interviewer (John Robbie of Radio 702, Johannesburg) then read out on the air the passage quoted above from Hugh Lynn Cayce's biography in which the former ARE President claims to have been instrumental in obtaining a Fulbright scholarship for Hawass. Hawass replied: 'That's not true. I met him, I lectured to the Edgar Cayce Foundation many times. He was such a nice man. I never believed his theories. He never supported a fellowship for me to study outside at all. He just once attended a dinner that I invited him to in Cairo with one of the Fulbrights ... but he did not support any study. The Egyptian government supported my studies for five years and the Fulbright supported my studies at the University of Pennsylvania for two years. It had no support from such an organization like that.'

Hawass was then asked about *Secret Chamber,* the short video

referred to above made by Boris Said in November and December 1995 and financed by Joseph Schor. The interviewer pointed out that this video makes positive reference to Edgar Cayce and his prophecies and includes an appearance by Zahi Hawass in which the Egyptian official stated that a tunnel under the Sphinx is about to be opened. 'How come you're involved with that?' asked the interviewer.

Hawass: This is not true! I'm a public figure and I get interviews every day! Every day if you come to my office you will see almost three TVs from all over the world. I ... my interviews always explain my discoveries. This video is talking about the tunnel that I found inside the Sphinx based on my work. It is not by the work that is done here, it's by Florida University. It is not by Cayce or anything! And we found even that Florida University are not following the scientist's steps therefore I wrote a letter two months ago that those type ... even the universities, the universities are not following the exact steps that they supposed to do.

Interviewer: It seems a coincidence ... it seems a coincidence, Dr. Zahi, that the Cayce prophecy talks about tunnels under the Sphinx. You've discredited it. You've banned various researchers according to *The Message of the Sphinx*—people like John West who are trying to do work on this theory—and now you seem to be taking it over yourself. Is that true?

Hawass: No! I'm not taking over myself.. . If there is evidence, actual evidence from an institution, to tell us there is something under the Sphinx we'll excavate it. But all of it is just hallucination! We cannot run after hallucinations at all.

Interviewer: But in that video, where you are actually filmed in a tunnel under the Sphinx, you indicated that this might lead to something very, very exciting ... I saw that myself, Zahi!

Hawass: If I did found ... I told you! I excavated this tunnel. And I did excavate it and I'm excavating it. If it leads to something important, we'll announce it. You know what I'm saying? I'm not denying that ... Maybe it will lead to something exciting.

The interviewer asked Dr. Hawass why he had not taken legal action against us, the authors of *The Message of the Sphinx,* 'because they make some serious accusations against you.' Hawass replied: 'You know, if I make legal action against them I will make them famous. But I will never, err, make them famous.'[731]

On 15 August 1996, in an interview with the *Egyptian Gazette* in Cairo, Dr. Hawass made an oddly similar remark concerning the Japanese team from Waseda University, led by Professor Sakuji Yoshimura, who in 1988 had used advanced technology to identify a hidden chamber inside the Great Pyramid and another beneath the

left forepaw of the Great Sphinx. ‘I believe these teams were not serious enough,’ stated Dr. Hawass, ‘and their equipment was not well tooled. The members of these teams were merely interested in acquiring fame.’[732]

Mars and Giza:

Strange connections and synchronicity

In our research we have stumbled across a tangled web of clues, connections and overlapping interests appearing to suggest that American scientists with links to NASA may have quietly involved themselves, since at least the 1970s, in covert ‘expeditions’ to unveil the secrets of the great pyramids and the Great Sphinx of Giza. The story, oddly enough, appears to be running in parallel with research stemming from the existence of curious pyramidial structures (and a gigantic Sphinx-like ‘Face’) that were

photographed on Mars by NASA spacecraft during the 1970s.

In 1971 NASA's Mariner 9 probe took the first ever photographs of strange 'pyramid' structures on Mars on a region of the planet known to astronomers as Elysium. Dr. James Hurtak, a graduate in remote sensing technology (and an acquaintance of Mark Lehner's) was one of the earliest researchers to show interest in the Elysium 'pyramids'—which were officially dismissed by NASA as 'tricks of light'. In 1975, despite NASA's apparent indifference, Hurtak predicted that further finds of similar structures, including a Sphinx-like monument, would be made on Mars and that they would all prove to be connected in a great cosmic blueprint to the Giza monuments in Egypt.[733]

Hurtak is an active campaigner against the secrecy of the United States military and related agencies with regard to UFO 'cover-ups' and other similar issues. He also claims to have had close links with researchers at California's prestigious Stanford Research Institute, America's second largest scientific think-tank (which has an annual

budget from the United States government of over three hundred million dollars). The SRI's projects have included the 'Remote Viewing Program' (started in 1972), funded by the CIA as an intelligence-gathering exercise, which recruited top psychics to 'remote view' enemy military installations and other sites.

In 1973, as we saw in Chapter 5, the Egyptian Antiquities Organization (EAO) granted an official license to the SRI, permitting it to conduct surveys around the Great Sphinx at Giza using ground-penetrating radar and seismographs. The local sponsor of this project was Cairo's *Ain Shams* University. We recall that in the same year Hugh Lynn Cayce sent Mark Lehner to the American University in Cairo with funds raised by ARE members.

In 1976 a second NASA probe, Viking I, went into Mars orbit. In the region known as Cydonia it photographed several more pyramidial structures (including the five-sided 'D&M Pyramid') and the famous 'Face'. Complete with its distinctive Sphinx-like headdress, this latter feature has been calculated from the NASA

images to be 1.6 miles in length from crown to chin, 1.2 miles wide, and just under 2,600 feet high. NASA has argued officially that it is nothing more than a small mountain, naturally weathered. But how many mountains have their left and right sides so intricately similar? Image analysts say that the 'bilateral symmetry' of the Face, mimicking a natural, almost human appearance, is most unlikely to have come about by chance. And this impression is confirmed by other characteristics that have subsequently been identified under computer enhancement. These include 'teeth' in the mouth, bilaterally crossed lines above the eyes, and regular lateral stripes in the headpiece—suggestive, to some researchers at least, of the *nemes* headdress of ancient Egyptian pharaohs.[734]

Back in Egypt in 1977, a year after the Viking images had first reached the Earth, Mark Lehner made contact with NASA's Dr. Lambert T. Dolphin, leader of the Stanford Research Institute project at the Sphinx. The reader will recall from Chapter 5 that Lehner was by then already well acquainted with Zahi Hawass.

Later in 1977 Lambert Dolphin traveled to Virginia Beach to negotiate funding from the Edgar Cayce organization for a proposed new SRI project at Giza. The purpose of this project was to use the latest remote sensing technology to search for hidden chambers around and under the Sphinx—with Lehner again 'participating as the Edgar Cayce Foundation's "man in Cairo".' Several underground 'cavities' were detected by this Sphinx Exploration Project.

In 1978 Mark Lehner proposed a project on the Sphinx to the American Research Centre in Egypt. The project, again partially financed by the Edgar Cayce group, was approved and went ahead with Lehner as its Field Director. Soon afterwards a United States registered company called Recovery Systems International (RSI) appeared on the scene. As we saw in Chapter 5, it undertook core drillings in front of the Sphinx to investigate the promising underground cavities previously pinpointed by SRI.

In 1983 Hugh Lynn Cayce died and the management of the Edgar

Cayce group was handed to his son, Charles Thomas Cayce. In the same year 'The Independent Mars Project' was set up in the United States by Richard Hoagland, a former NASA consultant, and Lambert Dolphin. Meanwhile in 1987 Dr. Zahi Hawass completed his education in the United States and returned to Egypt to be appointed as the EAO's Director-General of the Giza Plateau.

In March 1996 Dr. Hawass announced that the Egyptian scientist Farouk El Baz (whose name, meaning Hawk, translates into ancient Egyptian as Horus) had been chosen to lead a team to open the secret door inside the Great Pyramid at the end of the southern shaft of the Queen's Chamber. The reader will recall that Amtex, the Canadian company participating in the project, claim to be 'working with Spar Aerospace' to devise a tool to open or 'go straight through' the door. Spar Aerospace are better known for manufacturing hydraulic arms used in NASA Space Shuttles. As we noted at the beginning of this appendix, Dr. El Baz, a graduate of Cairo's *Ain Shams* university, is a NASA consultant. He has been

involved for many years with studies of geological formations on the Moon and on Mars and he is a one-time personal friend of astronauts Buzz Aldrin and Neil Armstrong. It was El Baz, nicknamed the King by his NASA colleagues, who in 1969 chose the spot for the Apollo 11 Moon landing. El Baz is the founder of the Centre of Remote Sensing at Boston University and presently serves as its Director.[735]

Also in March 1996 the EAO granted a one-year renewable license for the project at die Sphinx—see above—financed by Joseph Schor. Project members include Boris Said, Thomas Dobecki, and four senior geologists from Florida State University, who began work with a million dollars worth of ground-penetrating radar and seismic equipment at their disposal. It was reported to us that team members had consulted with Dr. James Hurtak and Richard Hoagland in August 1996.

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Press, 1991.

[1] Selim Hassan, *Excavations at Giza,* Government Press, Cairo, 1946, Vol. VI, Part I, pp. 34-5

[2] Ibid.

[3] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* Dover Publications Inc., New York, 1978, Vol. I, p. 469.

[4] Selim Hassan, *The Sphinx: Its History in the Light of Recent Excavations,* Government Press, Cairo, 1949, p. 76. See also Veronica Seton-Williams and Peter Stock, *Blue Guide Egypt,* A. & C. Black, London, 1988, p. 432.

[5] Zahi Hawass and Mark Lehner, 'The Sphinx: Who Built It and Why', *Archaeology,* September-October 1994, p. 34. See also E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., Vol. II, p. 752.

[6] We have many surprising survivals from the ancient Egyptian language in the English language. For example the small species of greyhound that we know as the 'Whippet' derives its name from the ancient Egyptian canine deity *Upuaut,* the 'Opener of the Ways'. Normandi Ellis in her excellent *Awakening Osiris,* Phanes Press, Grand Rapids, 1988, cites other examples: *'armen/*arm; *heku* (magic utterance)/hex; *neb* (spiralling force of the universe)/nebulous; *Satis* (goddess of the flood, or meaning enough)/satisfy; *aor* (magic light)/aura'.

[7] I. E. S. Edwards, *The Pyramids of Egypt,* Pelican Books, London, 1949, p. 106.

[8] Ahmed Fakhry, *The Pyramids,* University of Chicago Press, Chicago, 1969, p. 159.

[9] Mark Lehner, 'Computer Rebuilds the Ancient Sphinx', *National Geographic* Vol. 179, No. 4, April 1991; Mark Lehner, 'Reconstructing the Sphinx', *Cambridge Archaeological Journal,* Vol. 1, No. 1, April 1992.

[10] *National Geographic,* April 1991, op. cit.

[11] Ibid.

[12] Ibid.

[13] *Cambridge Archaeological Journal,* op. cit., pp. 10 and 11.

[14] Ibid., p. 9.

[15] Ibid., p. 20.

[16] John Anthony West, *Serpent in the Sky: The High Wisdom of Ancient Egypt,* Quest Books, Wheaton, 111, 1993, p. 231.

[17] Ibid., p. 232.

[18] American Association for the Advancement of Science, Chicago, 7 February 1992, debate: 'How Old is the Sphinx?'

[19] *Cambridge Archaeological Journal,* op. cit., p. 6.

[20] For a fuller discussion of the dating issue see Graham Hancock, *Fingerprints of*

the Gods, William Heinemann Ltd., London, 1995, and Crown Publishers, New York, 1995, p. 51.

[21] Hassan, *The Sphinx,* op. cit., p. 75.

[22] *Cambridge Archaeological Journal,* op. cit., p. 6

[23] E. A. Wallis Budge, 'Stela of the Sphinx' *in A History of Egypt,* London, 1902, Vol. IV, p. 80ff.

[24] Ibid., pp. 85-6.

[25] James Henry Breasted, *Ancient Records of Egypt,* Histories and Mysteries of Man Ltd., London, 1988, Volume II, p. 324.

[26] Ibid.

[27] Ibid.

[28] *National Geographic,* April 1991, op. cit.

[29] Gaston Maspero, *The Passing of Empires,* New York, 1900.

[30] James Henry Breasted, *Ancient Records,* op. cit., Vol. I, pp. 83-5.

[31] Gaston Maspero, *The Dawn of Civilization,* SPCK, London, 1894, p. 247.

[32] Gaston Maspero, *A Manual of Egyptian Archaeology,* p. 74.

[33] Hassan, *The Sphinx,* op. cit., p. 91.

[34] American Association for the Advancement of Science, 1992, debate 'How Old is the Sphinx?', op. cit.

[35] *Archaeology,* September-October 1994, op. cit., pp. 32-3.

[36] Ibid., p. 34.

[37] R. A. Schwaller de Lubicz, *Sacred Science,* Inner Traditions International, Rochester Vt., 1988, p. 96.

[38] John Anthony West, *Serpent,* op. cit., pp. 1-2.

[39] Ibid., p. 186.

[40] Ibid., p. 187.

[41] Ibid., p. 226.

[42] Ibid., p. 225.

[43] Ibid., p. 226.

[44] Ibid., p. 227.

[45] Ibid.

[46] Ibid.

[47] Ibid., pp. 226-7.

[48] Ibid., p. 228.

[49] Interviewed in NBC television documentary *Mystery of the Sphinx,* 1993.

[50] John Anthony West, *Serpent,* op. cit., p. 227.

[51] Quoted in *An Akhbar El Yom,* 8 January 1994.

[52] John Anthony West, *Serpent,* op. cit., p. 229.

[53] *Boston Globe,* 23 October 1991.

[54] *Los Angeles Times,* 23 October 1991.

[55] John Anthony West, *Serpent,* op. cit., p. 229.

[56] Ibid.

[57] Ibid.

[58] Ibid.

[59] Ibid., p. 229.

[60] Ibid., p. 230.

[61] Ibid., p. 229.

[62] *Mystery of the Sphinx,* op. cit.

[63] Ibid., and *KMT,* Vol. V, No. 2, Summer 1994, p. 7.

[64] For block weights see I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 215; John Anthony West, *Serpent,* op. cit., p. 242; John Anthony West, *The Traveller's Key to Ancient Egypt,* Harrap Columbus, London, 1989, pp. 143-5; *Mystery of the Sphinx,* op. cit.; Dr. Joseph Davidovits and Margie Morris, *The Pyramids: An Enigma Solved,* Dorset Press, New York, 1988, p. 51.

[65] *Mystery of the Sphinx,* op. cit.

[66] Interviewed in ibid.

[67] See for example I. E. S. Edwards, *Pyramids of Egypt* op. cit., p. 220; John Baines and Jaromir Malek, *Atlas of Ancient Egypt,* Time-Life Books, 1990, pp. 138-9.

[68] The most thorough study is provided in Peter Hodges (Julian Keable ed.), *How the Pyramids Were Built,* Element Books, 1989.

[69] Ibid., p. 11.

[70] Ibid., pp. 11-13.

[71] Ibid., p. 13.

[72] Jean Kerisel, a prominent soils engineer in France and also President of the Franco-Egyptian Society, did an extensive study on the hauling of large blocks using human labour and wooden sledges. Kerisel kindly made this study—*Lu Grande Pyramide et ses Derniers Secrets*—available to us prior to its publication (due 1996). The basis of his calculation is that the pressure on the soil cannot exceed 1.5 tons/sq.m. for ramps made of compacted soil (probably covered with stone slabs) with slopes not exceeding 8 per cent. The friction coefficient has been calculated at 15 per cent using soaked lime as the lubricant. Kerisel noted that a greater pressure than 1.5 tons would cause the lubricant to seep away and thus the friction coefficient would increase, making hauling even more difficult. The average speed has been worked out to be 0.3 metres/second with a 13-kilogram traction force produced by each man. Thus the hauling of a 70-ton block would require (70,000 X 0.15 X 1/13=) 807 men and would take some 9.25 hours for a ramp of one kilometre. Kerisel worked out that if the traction was much higher than 13 kg/man—

even for a short period of time—the result would be serious back injuries. Thus, assuming at least 1 clear metre distance between each standing man, 807 men in 6 rows would need a ramp space of 134.5 metres long and 6 metres wide. The problem, of course, is greatly increased for blocks of 200 tons within the confined working conditions of the Sphinx and Valley Temples—a task almost impossible to imagine with such primitive techniques.

[73] Robert Schoch's evidence presented in *Mystery of the Sphinx,* op. cit.

[74] *KMT* Vol. V, op. cit., p. 7.

[75] *The Sacred Sermon* (Hermetica, *Libellus III*), translated by G. R. S. Mead in *Thrice Great Hermes: Studies in Hellenistic Theosophy and Gnosis,* Samuel Weiser Inc., North Beach, Maine, 1992, Book II, p. 51.

[76] British Museum Manuscript 25, 619, pp. 15-19.

[77] W. M. Flinders Petrie, *The Pyramids and Temples of Gizeh,* Histories and Mysteries of Man Ltd., London, 1990, pp. 50-1.

[78] Chassinat, *Monuments et Mémoires,* Fondation Piot, Volume XXV, p. 57.

[79] Thor Heyerdahl, *The Ra Expeditions,* Book Club Associates, London, 1972, p. 15.

[80] Ibid., pp. 15-17.

[81] Graham Hancock, *Fingerprints of the Gods,* op. cit. Robert Bauval and Adrian Gilbert, *The Orion Mystery,* William Heinemann Ltd., London, 1994.

[82] Gaston Maspero, *The Dawn of Civilization,* op. cit., pp. 366-7. See also Peter

Tompkins, *Secrets of the Great Pyramid,* Harper & Row, New York and London, 1978, p. 17 and W. M. Flinders Petrie, *Pyramids and Temples,* op. cit., p. 13.

[83] W. M. Flinders Petrie, *Pyramids and Temples,* op. cit., p. 13.

[84] The supposed discoverer was Archimedes.

[85] For further discussion see *Fingerprints of the Gods,* op. cit., Chapter 48.

[86] Ibid.

[87] Piazzi Smyth, *The Great Pyramid,* Bell Publishing Co., New York, 1990, pp. 79-80.

[88] Ibid., p. 80.

[89] J. H. Cole, Paper No. 39, 'The Determination of the Exact Size and Orientation of the Great Pyramid of Giza', *Survey of Egypt,* Cairo, 1925. See also I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 87.

[90] Ibid.

[91] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 208.

[92] See discussion in Flinders Petrie, *Pyramids and Temples* op. cit., pp. 83-4.

[93] See *Fingerprints of the Gods,* op. cit., pp. 330-8, *The Orion Mystery,* op. cit., pp. 41-5.

[94] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 93.

[95] We are grateful to James Macaulay for this suggestion.

[96] Joseph R. Jochmans, *The Hall of Records,* unpublished manuscript, 1985, p. 175. See also Hodges, *Horn the Pyramids Were Built,* op. cit., p. 122.

[97] Flinders Petrie, *Pyramids and Temples,* op. cit., p. 19.

[98] Ibid.

[99] Vyse and Perrings figures quoted in Edwards, *The Pyramids of Egypt,* op. cit., p. 88.

[100] Ibid., pp. 88-96.

[101] Ibid., p. 88.

[102] Herodotus, *The History,* David Grene trans., University of Chicago Press, 1988, 2:124, pp. 185-6.

[103] Cited in Jochmans, *The Hall of Records*, op. cit., pp. 176-7.

[104] R. Cook, *The Pyramids of Giza,* Seven Islands, Glastonbury, 1992, p. 52.

[105] Jean Kerisel, 'The Pyramid of Cheops: Further Research' (October and December 1992), extract from his paper in the *Revue Française d'Egyptologie*, 1993, p. 4.

[106] Ibid, p. 6.

[107] Ibid.

[108] Ibid, p. 7.

[109] Personal communication.

[110] A. Badawy, 'The Stellar Destiny of the Pharaoh and the so-called Air Shafts in Cheops' Pyramid', *Mitt. Inst. Orient, zu Berlin,* Band 10, 1964, pp. 189-206.

[111] See, for example, I. E. S. Edwards, *The Pyramids of Egypt* op. cit., pp. 209-10.

[112] For further discussion see *The Orion Mystery,* op. cit.

[113] For example, see E. M. Antoniadi, *L'Astronomie Egyptienne,* Paris, 1934, p. 119.

[114] See *The Orion Mystery,* op. cit., pp. 97-104.

[115] Ibid.

[116] Ibid., pages 105-37.

[117] Ibid.

[118] Ibid.

[119] Ibid., pp. 179-96.

[120] See *The Orion Mystery,* op. cit., p. 192.

[121] Using the rigorous formula of precession corrected for nutation, aberration of starlight, proper motion (from the most recent Yale Bright Star Catalog) and parallax, gives *circa* 10,500 bc as the epoch that Orion's belt reached its lowest altitude (9 degrees 25' measured at the south meridian, i.e. declination 50 degrees 35').

[122] Giving a full precessional cycle of 25,920 years.

[123] For a detailed discussion see Giorgio de Santillana and Hertha von Dechend,

Hamlet's Mill, Godine, Boston, 1977.

[124] Ibid., p. 59.

[125] See *Fingerprints of the Gods,* op. cit., pp. 454-8.

[126] For a discussion see J. Norman Lockyer, *The Dawn of Astronomy,* MIT Press, 1973, pp. 60-1ff.

[127] From *Hermetica,* Sir Walter Scott trans., Shambhala, Boston, 1993, *Asclepius III*:24b, p. 341.

[128] From the eleventh division of the *Duat,* in the 'Book of What is in the Duat', Sir E. A. Wallis Budge trans., in *The Egyptian Heaven and Hell,* Martin Hopkinson & Co, London, 1925, p. 240.

[129] Ibid., the twelfth division of the *Duat,* p. 258.

[130] Ibid., p. 70.

[131] For a discussion see *The Orion Mystery,* op. cit., pp. 179-84; *Fingerprints of the Gods,* op. cit., p. 380ff.

[132] Ibid. See also E. A. Wallis Budge, *The Gods of the Egyptians,* Dover Publications Inc., New York, 1969.

[133] The tradition that important 'records' were brought to Egypt 'after the flood' i.e. after 10,000 bc, goes back to at least the third century bc. It is found, for example, in *The Book of Sothis* (commented upon by the Byzantine historian Georgios Synecellus who lived in the ninth century ad) and which some scholars attribute to the Egyptian scribe,

Manetho (See Garth Fowden, *The Egyptian Hermes,* Princeton University Press, New Jersey 1993, pp. 29-33). The idea is also planted in the *Kore Kosmou* (Excerpt XXIII of the Hermetic writings) of the first and second century ad (See *Hermetica,* op. cit., p. 461). In the *Kore Kosmou* (section 8) the goddess Isis claims that Thoth deposited in a secret place the 'sacred books' which contained 'the secret things of Osiris ... these holy symbols of the cosmic elements' and then cast a spell that these books shall remain 'unseen and undiscovered by all men who shall go to and fro on the plains of this land until the time when Heaven, grown old, shall beget organisms [i.e. humans] worthy of you ...'

[134] 2 Andrew Tomas, *From Atlantis to Discovery,* Robert Hale, London 1972, p. 109.

[135] Ibn Abd Alhokim and the Arab Manuscripts of Ibn Khurradhbih and Lohfat, cited by Joseph R. Jochmans, *The Hall of Records,* unpublished manuscript, 1985, p. 174. See also John Greaves, *Pyramidographia,* 1646, translation from the Arabic of Ibn Alhokim.

[136] Peter Tompkins, *Secrets of the Great Pyramid,* Allen Lane, 1972, p. 6.

[137] The famous Westcar Papyrus in the (east) Berlin Museum suggests that a secret chamber or chambers were concealed in the 'horizon' of Cheops—i.e. the alleged builder of the Great Pyramid (See *The Orion Mystery,* op. cit., Appendix 3). The term 'Horizon', however, could mean either the Great Pyramid itself or the whole necropolis of Giza, thus including the Sphinx. Spell 1080 of the Coffin Texts (*c.* 2000 bc) speaks of a secret 'sealed thing' belonging to Osiris of Rostau (Giza) and spell 1087 suggests that it was 'writing material' linked to Heliopolis (Djedu, the 'Pillar City'), and hidden somewhere in the

desert sands.

[138] These Coptic traditions were recorded by the Arab chroniclers Al Qodai, Al Masudi and Al Maqrizi, cited in Jochmans, *The Hall of Records,* op. cit., p. 210.

[139] The so-called 'Old Charges' of Freemasonry speak of a certain Hermenes (obviously Hermes, i.e. Thoth) who preserved the 'crafts' by carving their knowledge on sacred pillars or obelisks (see Fred L. Pick and G. Norman Knight, *The Pocket History of Freemasonry,* Frederick Muller Ltd., London 1983, p. 32). It is generally accepted that much of the 'Egyptian' esoteric strain in Freemasonry, Rosicrucianism and, to a certain extent, the Theosophists, comes from the so-called Hermetic Tradition that developed in Europe in the late Italian Renaissance but drew its source from the Greek and Coptic texts known as the Hermetic writings (see Frances A. Yates, *Giordano Bruno and the Hermetic Tradition,* University of Chicago Press, Chicago 1991; also *The Rosicrucian Enlightenment,* Ark Paperbacks, London 1986, p. 212).

[140] Harmon Hartzell Bro, *Edgar Cayce: A Seer Out Of Season,* Signet Books, New York 1990, pp. 43-4. Cayce's life-long secretary was Gladys Davis, described as 'an attractive honey-blonde', whom Cayce believed to be his 'reincarnated' daughter, Iso, from Atlantean times (Ibid., p. 245).

[141] Edgar Evans Cayce, Gail Cayce Schwartzer and Douglas G. Richards, *Mysteries of Atlantis Revisited: Edgar Cayce's Wisdom for the New Age,* Harper & Row,. San Francisco 1988, p. xxi.

[142] Ibid. p. 119. We have had the pleasure of meeting with the author, Douglas G. Richards, in July 1995 at the Edgar Cayce Foundation in Virginia Beach.

[143] Ibid. p. 120.

[144] Edgar Cayce 'Reading' on the Great Pyramid No. 5748-6. This 'reading' was given at his home on Arctic Crescent, Virginia Beach, Va., on 1 July 1932 at 4.10 p.m. EST.

[145] 'Reading' 378-16. See Mark Lehner, *The Egyptian Heritage: Based on the Edgar Cayce Readings,* A.R.E. Press, Virginia Beach 1974, p. 99.

[146] 'Reading' No. 5748-6. *The Egyptian Heritage,* op. cit., p. 119.

[147] 'Reading' No. 294-151. See Thomas Sugrue, *There is a River: The story of Edgar Cayce,* A.R.E. Press, Virginia Beach, 1988, p. 393. See also Harmon Hartzell Bro, *A Seer Out Of Season,* op. cit., p. 247.

[148] Mark Lehner, *The Egyptian Heritage,* op. cit., p. 92. See also Harmon Hartzell Bro, *A Seer Out Of Season,* op. cit., p. 133.

[149] Edgar Evans Cayce, etc., *Mysteries of Atlantis,* op. cit., p. 121.

[150] Ibid, p. 131.

[151] Confirmed by Douglas G. Richards, in a documented conversation by telephone in September 1995 (Richards is co-author with Edgar Evans Cayce and Gail Cayce Schwartzer of *Mysteries of Atlantis Revisited,* op. cit.). When we questioned Mark Lehner directly on this matter he replied in writing (pp. 1-2 of letter dated 15 October 1995): 'I believe I probably am the "scholar" in question. It was never expected that the outcome of the ECF's support of my Year Abroad at The American University in Cairo would be that I

would become a "respected Egyptologist". ARE-affiliated people supported my stint in Egypt because Hugh Lynn Cayce asked them to. Neither he nor I were sure where it would lead. I think Hugh Lynn helped me to go to Egypt because we both had some sense of destiny about it in line with the common New Age notion that it was "meant to be".'

[152] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 131. In his letter of 15 October 1995 Mark Lehner commented on our draft text, which was supplied to him without footnotes: 'I do not know the reference for your note [20] but I suspect that rather than a prospectus written before I went to Egypt as a student at AUC, this summary was written in hindsight several years later than 1973.'

[153] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 132.

[154] Mark Lehner, *The Egyptian Heritage,* op. cit., back cover text.

[155] Ibid., p. v.

[156] In his letter to us of 15 October 1995 Mark Lehner commented as follows: 'Neither I nor the Edgar Cayce Foundation had anything to do with the first two seasons of the SRI programme at the pyramids and elsewhere in Egypt. This is not clear in your text. The SRI "Science and Archaeology" Project picked up the work of Alvarez who used cosmic rays (before I arrived in Egypt) to analyze the Second Pyramid for undiscovered chambers. I met the SRI team in 1977 about the time they did preliminary resistivity measurements on the Sphinx. SRI was in the business of looking for hidden chambers at Giza well before I or the Edgar Cayce Foundation met up with them.'

[157] L. T. Dolphin, E. Moussa et. al., 'Applications of Modern Sensing Techniques

to Egyptology', Menlo Park, Calif, SRI International, September 1977.

[158] Ibid. See also Zahi Hawass 'Update' to Sir W. M. Flinders Petrie's *The Pyramids and Temples of Gizeh,* Histories and Mysteries of Man Ltd., London 1990, p. 102.

[159] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 132.

[160] Mark Lehner's letter to us of 15 October 1995, p. 3.

[161] Cited in Jochmans, *The Hall of Records,* op. cit., p. 22ia. Confirmed in documented telephone conversation with project financier, 16 February 1995. Confirmed also by Mark Lehner in his letter to us dated 15 October 1995, p. 3.

[162] Mark Lehner's letter to us, 15 October 1995, p. 3.

[163] Ibid.

[164] Ibid.

[165] Ibid.

[166] See also Part I of the present work for further details of Mark Lehner's ARCE project on the Sphinx.

[167] Edgar Evans Cayce, etc., *Mysteries,* op. cit., pp. 142-3. The discovery of the granite was also confirmed to us by Mark Lehner in his letter, op. cit., p. 4.

[168] *Venture Inward,* May-June 1986, p. 57.

[169] Ibid.

[170] See American Research Center in Egypt (ARCE) Newsletter No. 112, Fall 1980, p. 20 ('The American Research Center Gratefully acknowledges the support of the Edgar Cayce Foundation for the work of the Sphinx Project'). See also ARCE Newsletter No. 131, 1985, p. 44 (Mark Lehner of the ARCE wrote: 'We would like to acknowledge the financial sponsorship of ... Bruce Ludwig of TRW Realty in Los Angeles ... the Edgar Cayce Foundation ... Joseph and Ursula Jahoda of Astron Corporation in Falls Church, Va., ... Matthew McCauley of McCauley Music in Los Angeles ...'). Mr. Zahi Hawass, University of Pennsylvania, is specifically acknowledged as advisor and assistant to the project 'and we look forward to continued collaboration'. The Edgar Cayce Foundation also funded (with US$17,000) a project at Giza in 1983-4, which involved an attempt to apply Carbon-14 dating to the mortar (which contains certain organic compounds) used in the Great Pyramid. This project was arranged by Mark Lehner through the ARCE's director, Dr. Robert J. Wenke. We have met Joseph Jahoda several times at the Edgar Cayce Foundation in Virginia Beach in 1994-5 (see below), and also Matthew McCauley once at the Movenpick Hotel in Giza, Cairo, with Dr. Mark Lehner in March 1995 while researching this book.

[171] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 138.

[172] *Smithsonian,* vol. XVII, No. I, April 1986. In his letter to us, op. cit., pp. 4-5, Mark Lehner commented: 'By the time I started the Mapping Project, Cayce support of my work was phasing out. I stopped accepting their support after the Pyramids Radiocarbon Project [see footnote 38 above and 44 below for fuller details] because my interests and theirs were becoming too divergent. I would have to check the date of their last contribution, but if they did contribute to the mapping project it was a very minimal

percentage of total financial support. The primary financial sponsors have been the Yale Endowment for Egyptology, Bruce Ludwig and David Koch. Koch and Ludwig have supported the excavations that we started in 1988.'

[173] *Archaeology,* op. cit., Sept-Oct 1994, p. 41.

[174] The ARE Magazine, *Venture Inward,* 'The Search for Ra-Ta', by A. Robert Smith, January-February 1985, p. 7.

[175] Ibid., p. 6.

[176] The Edgar Cayce Foundation had commissioned and funded a Carbon-14 dating project of the Giza monuments directed by Mark Lehner in 1983-4. Apparently small charcoal samples were extracted from the ancient mortar in the core's joints. The results gave a wide range of dates for the Great Pyramid—between 3809 bc to 2853 bc—which is a few centuries earlier than the *c*. 2600 bc date assigned by Egyptologists, but very far from the 10,500 bc date given in the Cayce Readings. Although many doubts have been raised concerning the validity of the results (see *Venture Inward* issues May-June 1986 and November-December 1986), this, and other archaeological evidence Mark Lehner came across at Giza, appears to have undermined his beliefs in Cayce's readings. For further details of the carbon-dating see Appendix 5.

[177] *Venture Inward,* May-June 1986, p. 56.

[178] Ibid., p. 57.

[179] Ibid.

[180] *KMT Magazine,* Spring issue 1995, p. 4.

[181] Ibid. In his letter to us, op. cit., p. 5, Lehner elaborated: 'I am happy that my professional work developed out of a more personal quest—call it what you will, philosophical, spiritual, ethical. Rather than look only for agreement with notions I had already conceived before coming to Giza—that is, what I wanted to be true—I looked for ways to test these and, later, other ideas about ancient Egyptian cultural development. I found few resemblances between the physical evidence and Cayce-derived ideas of an earlier civilization at Giza. But I did find the pyramids to be very human monuments. Because there is such an abundance of evidence of real people and an Egyptian society building the Sphinx and the Pyramids, it seems culturally chauvinistic to ascribe these monuments to a different, conveniently lost, civilization on the basis of "revealed" information and ambiguous patterns. My work is still part of a lifelong quest for meaning. I would not change the path that led me to Giza even if I could.'

[182] Charles Piazzi Smyth, *Our Inheritance in the Great Pyramid,* W. Isbister, London 1880 edition (reprinted recently by Bell Publishing Co., New York 1990 under the title *The Great Pyramid).* For the connection of the Petries with Piazzi Smyth, see H. A. Bruck and Mary Bruck, *The Peripatetic Astronomer: The Life of Charles Piazzi Smyth,* Adam Hilger, Bristol 1988, pp. 28, 123-6, 133-6. It seems William Matthew Flinders Petrie's father, William, almost married the daughter of Piazzi Smyth, Henrietta. She was to marry eventually, however, Professor Baden-Powell (the father of the founder of the Boy Scouts). William Petrie was later introduced by Mrs. Piazzi Smyth to Anne Flinders, whom he married—hence the name Flinders Petrie. 'So Mrs. (Piazzi) Smyth,' wrote Flinders Petrie, 'was the agent by whom scouting and Egyptian archaeology took their present form' (see *Seventy Years in Archaeology,* Sampson Low, Marston & Co. Ltd.,

London, 1931, p. 4).

[183] *Al Akhbar Al Yom* weekly of 8 January 1994, front page article entitled 'Stealing of Egypt's Civilization'. Translation by Fouad Nemah of the official Egyptian Translation Bureau.

[184] *Mystery of the Sphinx* was a Magic Eye North Towers Production (Executive Producer: Boris Said; Producer: Robert Watts; Directed by Bill Cote of BC Video NY).

[185] Ibid.

[186] Mark Lehner's letter, op. cit., p. 5: 'Yes, this sounds like the fine people of the Cayce community, some of the nicest and most positive individuals I have known.'

[187] As a result of receiving this letter, which clarified many points, we were pleased to revise the present chapter extensively into the form that appears herewith.

[188] Mark Lehner's letter, op. cit., p. 1.

[189] CNN News reports October 1995; Middle East News Agency (MENA) 25 October 1995. At time of writing (November 1995) Zahi Hawass is the Director of the Giza necropolis for Egypt's Supreme Council of Antiquities and thus has overall responsibility for all excavations taking place on the site.

[190] Robert Bauval and Adrian Gilbert, *The Orion Mystery,* op. cit., Mandarin paperback edition, 1995, epilogue pp. 237-50. Also discussed recently in *Amateur Astronomy and Earth Sciences,* 'Operation Dixon' issue 1, November 1995 (Chief Editor: Dave Goode).

[191] Interviewed by film maker and producer Jochen Breitenstein in Los Angeles in April 1993. Footage shown on Sat. 1, Spiegel Reportage, 15 August 1995 (*Gantenbrinks Reise in das Reich der Pharaonen).*

[192] *The Times,* London, 28 January 1995, p. 18. Article by Simon Seligman.

[193] Sat. 1, Spiegel Reportage, op. cit., 15 August 1995.

[194] Peter Tompkins, *Secrets of the Great Pyramid,* op. cit., p. 61.

[195] Where, after some difficulty, we were able to arrange to view it on 7 November 1995.

[196] Bernd Scheel, *Egyptian Metalworking and Tools,* Shire Egyptology, Bucks, 1989, p. 17. For a more detailed discussion see A. Lucas, *Ancient Egyptian Materials and Industries,* Histories & Mysteries of Man Ltd., London 1989, pp. 235-43.

[197] A very interesting discussion is found in Zecharia Sitchin, *The Stairway to Heaven,* Avon Books, New York, 1980, pp. 253-79.

[198] Joseph R. Jochmans, *The Hall of Records,* op. cit., pp. 194-5.

[199] Ibid., p. 195.

[200] See Zecharia Sitchin, *The Stairway to Heaven,* op. cit., p. 266.

[201] Ibid., pp. 266, 271-2, 274.

[202] I. E. S. Edwards, *The Pyramids of Egypt,* Pelican Books, London, 1949, pp. 95-6.

[203] Colonel Howard Vyse, *Operations carried out at the Pyramids of Gizeh: With an account of a Voyage into Upper Egypt and Appendix,* James Fraser of Regent Street, London 1837, vol. 1, p. 275.

[204] Ibid., p. 276.

[205] Ibid.

[206] W. M. Flinders Petrie's *The Pyramids and Temples of Gizeh,* Leadenhall Press, London, 1883 edition, pp. 212-13.

[207] El Sayed El Gayer and M. P. Jones, 'Metallurgical Investigation of an Iron Plate found in 1837 in the Great Pyramid at Gizeh, Egypt' *in Journal of the Metallurgy Society,* Vol. XXIII (1989) pp. 75-83.

[208] Ibid. See also Robert G. Bauval, 'Investigation on the origin of the Benben Stone: was it an iron meteorite?' in *Discussions in Egyptology* Vol. XIV, 1989, pp. 5-17.

[209] El Sayed El Gayer and M. P. Jones, op. cit., p. 82.

[210] Ibid.

[211] Ibid.

[212] Ibid., p. 123 (letter to the editor of JHMS titled 'Comment on the Iron Plate from Gizeh paper').

[213] Letter to Robert Bauval dated 2 November 1993, ref. EA/AJS/JAC.

[214] *The Orion Mystery* op. cit., Chapter 3.

[215] Ibid., Heinemann edition 1994, pp. 204-11. See also a very interesting publication by Sydney Aufrere, *L'Univers Mineral dans la pensee Egyptienne,* Institut Français D'Archéologie Orientale du Caire, pp. 433-41.

[216] *The Ancient Egyptian Pyramid Texts,* R. O. Faulkner trans., Oxford University Press, 1969, lines 1983-4.

[217] Ibid., lines 11-13.

[218] Ibid., lines 1713-17.

[219] Ibid., lines 820-2.

[220] Ibid., line 904.

[221] Ibid., lines 1014-16.

[222] Ibid., line 852.

[223] Ibid., line 907.

[224] Dr. Zahi Hawass calls him 'the father of modern Egyptology' (see Zahi Hawass 'Update' to Sir W. M. Flinders Petrie's *The Pyramids and Temples of Gizeh,* op. cit., p. 98; see also Jean Vercoutter, *The Search fur Ancient Egypt,* Thames & Hudson, London 1992, pp. 152-5). A good account of Petrie's involvement with the Great Pyramid is given in Peter Tompkins, *Secrets of the Great Pyramid,* op. cit., pp. 96-107.

[225] Charles Piazzi Smyth, *Our Inheritance in the Great Pyramid,* op. cit., pp. 535-634.

[226] H. A. Bruck and Mary Bruck, *The Peripatetic Astronomer,* op. cit., p. 229.

[227] Ibid., p. 38.

[228] *The Orion Mystery,* op. cit., Heinemann edition, 1994, epilogue. Also see Charles Piazzi Smyth, *Our Inheritance,* op. cit., pp. 427-31.

[229] Charles Piazzi Smyth, *Our Inheritance,* op. cit., pp. 427-31.

[230] Ibid.

[231] Ibid.

[232] No one knew of this attempt by the Dixons to probe the shafts with an iron rod until Rudolf Gantenbrink, in early 1992, explored the northern shaft of the Queen's Chamber with a robot mounted with a mini-video camera. The rod still lies there, inside the shaft, at about 8 metres from the entrance and runs to the 'corner', some 24 metres up the shaft. Gantenbrink could not take his robot round the corner but he managed to see, with the video camera, that it runs for a further two metres or so and then turns sharply back on track. What lies at the end is still unknown.

[233] The Dixons, who were iron structural contractors from Newcastle, were building a bridge across the Nile near Cairo. The iron rod they used seems to have been purpose made to probe the shaft. It was cut in lengths of approximately 12 feet then assembled together with sleeve-joints as the rod was pushed within the shaft. It seems to have been stuck at the upper end, forcing the Dixons to abandon it.

[234] *Nature,* 26 December 1872, p. 147.

[235] Letter from John Dixon to Piazzi Smyth dated 23 November 1872.

[236] *The Graphic,* 7 December 1872, p. 530. Also *Nature,* 26 December 1872 p. 146. Piazzi Smyth mentions these relics, and describes how they were found, in his book, *Our Inheritance,* op. cit., and also refers to the articles in *The Graphic* and in *Nature* in the 1874 edition of his book, pp. 155 and 364.

[237] The last mention before they re-emerged in 1993, as far as we know, was in a letter written by a certain Mr. E. H. Pringle dated 20 June 1873 (see *Nature* of 31 July 1873, p. 263). It is possible, however, that some other publication mentioned them in more recent times.

[238] Aubrey Noakes, *Cleopatra's Needles,* H. F. & G. Witherby Ltd., London, 1962, p. 16.

[239] Ibid., pp. 26-7.

[240] Ibid., p. 26. See also Martin Short, *Inside the Brotherhood,* Grafton Books, London, 1989, p. 119.

[241] R. M. Hadley, 'The Life and Works of Sir Erasmus Wilson (1809-1884)' in *Medical History* journal, Vol. III, 1959, pp. 215-47.

[242] Ibid., p. 238.

[243] Fred L. Pick and G. Norman Knight, *The Pocket History of Freemasonry,* Muller, 1977, pp. 44-5. See also Frances A. Yates, *The Rosicrucian Enlightenment,* op. cit., pp. 193-205.

[244] *Illustrated London News,* 21 September 1878, p. 286.

[245] *Independent,* London, 6 December 1993. See also Martin Short, *Inside the Brotherhood,* op. cit., p. 120.

[246] Letter to Robert Bauval dated 28 October 1993.

[247] *Independent,* 6 December 1993, p. 3.

[248] *Independent,* 13 December 1993.

[249] *Beaconsfield Advertiser* ('Row erupts over "missing" relics') 12 January 1994, p. 3.

[250] Telephone conversation with Dr. I. E. S. Edwards.

[251] The video films were shown at the British Museum by R. Gantenbrink on 22 November 1993. Also shown on Sat. 1, Spiegel Reportage, op. cit., on 15 August 1995.

[252] J. P. Goidin and G. Dormion, *Kheops: Nouvelle Enquête,* Editions Recherche sur les Civilisations, Paris, 1986. See also Jean Vercoutter, *The Search for Ancient Egypt,* op. cit., p. 195.

[253] Jean Vercoutter, op. cit.

[254] For a more detailed discussion see *Fingerprints of the Gods,* op. cit., pp. 320-3. The shafts were concealed yet, in a curious manner, their position was obvious once a logical correlation was made with those in the King's Chamber above—as Waynman Dixon finally did in 1872 (see I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1982 edition, p. 123). Once the openings were found, then natural curiosity would urge a deeper

probe into the shafts. Dixon, in fact, frantically probed inside these shafts with metal rods in the hope of finding relics or a 'chamber', but his technology was not yet sufficiently developed to 'see' what he was doing.

[255] Presented to the German Archaeological Institute in Cairo and dated March 1991.

[256] This was the original title given to the documentary made by Rudolf Gantenbrink which was broadcast on the A & E channel in the USA (title changed to *The Great Pyramid)* on 8 January 1995. A shortened version was broadcast in Germany on Sat. 1 on 15 August 1995.

[257] *Smithsonian,* Vol. XVII, No. I, April 1986. Uli Kapp also assisted Mark Lehner in the Giza Mapping Project in 1985 (ARCE Newsletter 131, 1985, p. 44).

[258] Documented information provided to authors.

[259] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 123.

[260] Documented information provided to authors.

[261] A curious letter was mailed by the inspector Muhammad Shahy to Rudolf Gantenbrink dated 5 August 1993—i.e. five months after the discovery. Shahy (better transliterated as Sheeha) wrote: 'I'm in troubles now because of your project ... I shall face questioning soon.' The young inspector was also worried that he could not write a report on this project because 'there is no reference here' (this letter was shown to the authors by R. Gantenbrink). We have been unable to make contact with Mr. Muhammad Shahy.

[262] The statue went missing on the 19 January 1993, when it was supposed to be

displayed to President Mubarak and his guest, Libya's President, Muammar Gaddafi, on a table near the Sphinx. It may have been stolen by the same smuggling gang that was rounded up in March 1995 (see *The Times* of London 12 and 13 March 1995).

[263] Documented information from R. Gantenbrink and Jochen Breitenstein.

[264] Gantenbrink has, in fact, entered the history books. His name is found in I. E. S. Edwards, *The Great Pyramid,* op. cit., 1993 edition, p. 151 and also in various education manuals on the Great Pyramid. Should a major find be made when the 'door' is opened—even though, as now seems likely, not by him—it will be entirely because of his efforts and bold imagination.

[265] All articles appeared between 17 and 19 April 1993.

[266] Several major international journals (*Stern, Der Spiegel,* etc.) also published articles and pictorials.

[267] Not published in the press but mentioned in *Ancient Skies* magazine No. 3/1993, 17. Jahrgang, p. 4.

[268] Reuters wire, Cairo 16 April 1993.

[269] *Sunday Telegraph*, 1 January 1995.

[270] Ibid.

[271] Ibid.

[272] Ibid.

[273] Documented conversation with the authors.

[274] Ibid.

[275] Reported to us by R. Gantenbrink in September 1995.

[276] Sat. 1, Spiegel Reportage, 15 August 1995. See also *Los Angeles Times,* 30 August 1993.

[277] *Kore Kosmou* (Excerpt XXIII-29) in *Hermetica,* op. cit. p. 473.

[278] Ibid, p. 457.

[279] From the Second Division of the *Book of What is in the Duat,* E. A. Wallis Budge trans., *The Egyptian Heaven and Hell,* Martin Hopkinson & Co. Ltd., London, 1925, Vol. 1, page 41. See also Third Division, ibid., p. 56.

[280] *The Orion Mystery,* op. cit., 1994 edition, Chapter 4. There are thousands of references to 'stars' 'star-souls', 'the sun-god', 'the sky', 'the Milky Way' etc., that make the Pyramid Texts obvious candidates for a proper astronomical investigation into their content and hidden meaning. The intense concept of 'time'—especially the 'time' of the 'sky gods' and of a cosmic 'Creation'—that is found in these texts strongly suggests that the science of precession is also an important factor to apply on such an esoteric literature. The best translation is given by R. O. Faulkner, *The Ancient Egyptian Pyramid Texts,* OUP, 1969.

[281] Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill,* op. cit., p. 132.

[282] Ibid, p. 373.

[283] For a useful discussion on the *Duat,* see Selim Hassan, *Excavations at Giza,* op.

cit., Cairo, 1946, pp. 276-319.

[284] A great deal of confusion has resulted from a failure to understand that the *Duat* is a fixed location in the sky (obviously encompassing Orion, Canis Major, Taurus and Leo) which has its counterpart on the land and, as the case may be, underneath the land. Access to it was deemed possible by either ascending to the sky or by going underground.

[285] Selim Hassan, *Excavations at Giza,* op. cit., p. 277. See also *The Orion Mystery,* op. cit., p. 76.

[286] *Excavations at Giza,* op. cit., p. 277.

[287] Ibid., pp. 277-8.

[288] Ibid, p. 279.

[289] Although their actual composition may long pre-date the third millennium bc. See *The Orion Mystery,* op. cit., pp. 69-70.

[290] Observation stations may have been spread in a sort of 'triangle' extending from Heliopolis, Memphis and Giza. It seems likely that this whole region was somehow considered the original 'land of the gods', with its epicentre at Giza.

[291] The conjunction of summer solstice sunrise, the rising of Sirius and the start of the flood occurred in 3400 bc and throughout the early Pyramid Age, when the Pyramid Texts were most certainly compiled.

[292] *The Orion Mystery,* op. cit., pp. 119-24.

[293] The Milky Way appeared rising due east at the summer solstice pre-dawn along

with Orion and Sirius in the third millennium bc.

[294] *Pyramid Texts,* op. cit., lines 343-57.

[295] Ibid., line 508 and Utterance 317.

[296] Ibid., line 1760.

[297] E. A. Wallis Budge, *The Egyptian Book of the Dead,* Dover Publications Inc., New York, 1967, p. cxxiii.

[298] R. O. Faulkner, *The Book of the Dead,* British Museum Publications, London 1972, p. 90. Also see R. O. Faulkner 'The King & the Star-Religion in the Pyramid Texts' *in Journal of Near Eastern Studies,* 1966, Vol. XXV, p. 154 footnote 7. Dr. Virginia Lee Davis also makes the link between the Milky Way and the 'Winding Waterway' in *Archaeoastronomy,* Vol. IX, JHA xvi, 1985, p. 102. The archeoastronomer and Egyptologist, Jane B. Sellers, also arrives at the same conclusion as V. L. Davis (J. B. Sellers, *The Death of Gods in Ancient Egypt,* Penguin Books, London, 1992, p. 97).

[299] *Pyramid Texts,* op. cit., line 2061.

[300] Ibid., line 1717.

[301] Ibid., line 882.

[302] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* Thames & Hudson, London, 1978, pp. 263-5. Clark explains how the Pharaoh's role was to re-enact and commemorate events that were believed to have happened in a blissful golden age called 'Tep Zepi' [*Zep Tepi*].

[303] Ibid.

[304] Ibid p. 27.

[305] *Pyramid Texts,* op. cit., Utterance 600. Here the 'pyramids' are also placed amidst the landscape of 'Creation' at the first sunrise of the world.

[306] R. T. Rundle Clark, *Myth and Symbol,* op. cit., page 264.

[307] Ibid.

[308] Henri Frankfort, *Kingship and the Gods,* The University of Chicago Press, 1978, pp. 24-35.

[309] *Hamlet's Mill,* op. cit., pp. 86-7.

[310] British Museum No. 498. The Shabaka Stone is fixed on the south wall of the ground floor of the 'Egyptian' wing. It measures some 135 x 92 cm. (approx. 4 x 3 feet) and is badly damaged at the centre—apparently due to it being used as a grinding millstone before its discovery by archaeologists. It contains 62 columns of hieroglyphic inscriptions. Miriam Lichtheim, who gives a full translation, wrote that 'the language is archaic and resembles that of the Pyramid Texts' (Miriam Lichtheim, *Ancient Egyptian Literature* Vol. 1: The Old and Middle Kingdoms, University of California Press, Los Angeles, 1975, pp. 3-57).

[311] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 52. A variation to Osiris's death is that he was killed by his brother, Seth, and his body cut into fourteen pieces.

[312] Ibid. Ayan must have been a sacred location immediately north of the city walls of Memphis. It is the present-day location of the village of Mit Rahin.

[313] Where Ayan existed there remain, today, the vestiges of a ruined Graeco-Roman fort which must have been built in the Egyptian style (as the broken columns which still can be seen there attest) and which, curiously enough, is known by the locals as the 'prison of Joseph' (the Biblical patriarch who was kept in the 'round tower' by Pharaoh—see Genesis 39:21). It can be reached along the narrow canal road opposite and north of the Memphis Museum.

[314] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 53.

[315] About 15 kilometres south of the outskirts of the Maadi suburbs of Cairo.

[316] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 53.

[317] E. A. Wallis Budge, *The Egyptian Heaven and Hell,* op. cit., Vol. III, p. 131.

[318] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, p. 10.

[319] R. T. Rundle Clark, *Myth and Symbol,* op. cit., p. 108.

[320] James H. Breasted, *Ancient Records of Egypt,* Part II, Histories & Mysteries of Man Ltd., London, 1988, pp. 320-4.

[321] Ibid., p. 323. On line 7 of the stela.

[322] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 53.

[323] *Pyramid Texts,* op. cit., line 1717.

[324] *Orion Mystery,* op. cit, 1994 edition, pp. 116-19.

[325] Selim Hassan, *Excavations at Giza,* op. cit., pp. 278, 285.

[326] Ibid., p. 265.

[327] Ibid.

[328] Ibid., pp. 302, 315.

[329] Ibid., p. 338.

[330] Ibid., p. 265.

[331] Ibid.

[332] Ibid., p. 263.

[333] Ibid., p. 265.

[334] Ibid.

[335] Ibid.

[336] Ibid.

[337] Mark Lehner, *The Egyptian Heritage,* op. cit.

[338] Ibid, p. 119.

[339] J. B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., p. 164.

[340] R. O. Faulkner, *The Ancient Egyptian Coffin Texts,* Aris & Phillips Ltd., Wiltshire, Vol. III, p. 132, Spell 1035.

[341] Ibid. Vol. I, p. 190, Spell 241.

[342] Ibid. Vol. I, p. 185, Spell 236.

[343] J. B. Sellers, *The Death of Gods,* op. cit., pp. 164-5.

[344] Ibid.

[345] *The Orion Mystery,* op. cit., 1994 edition, pp. 116-9.

[346] James H. Breasted, *Ancient Records,* op. cit., Part II, pp. 320-4.

[347] *Innu* means 'pillar' thus Heliopolis was, quite literally, the 'City of the Pillar'. All that can be seen there today is an obelisk of Sesostris I (12th Dynasty *c.* 1880 bc) and a few remains of a temple.

[348] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, pp. 284-6.

[349] Herodotus, *The Histories,* Book II, 2-8. See Penguin Classics translation, 1972, p. 130.

[350] Aristotle, *De Caelo,* II, 12, 2923. See translation in R. A. Schwaller de Lubicz, *Sacred Science,* Inner Traditions International, New York 1982, p. 280.

[351] E. M. Antoniadi, *L'Astronomie Egyptienne,* Paris, 1934, pp. 3-4.

[352] *Diodorus of Sicily,* The Library of History, Book V, 57 and Book I, 81.

[353] Proclus Diadochus, *Commentaries on the Timaeus,* IV. See translation in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 286.

[354] *The Orion Mystery,* op. cit., pp. 182-4, 287 note 7.

[355] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., pp. 38-9.

[356] Edouard Naville, 'Le nom du Sphinx dans le livre des morts' in *Sphinx,* Vol. V, 188, p. 193.

[357] Edouard Naville, 'Le Sphinx IIP in *Sphinx,* Vol. XXI, 1924, p. 13.

[358] Ibid., p. 12.

[359] Ibid.

[360] Ibid.

[361] Edouard Naville, 'Le nom du Sphinx dans le livre des morts', op. cit., p. 195.

[362] Selim Hassan, *The Sphinx: Its History in the Light of Recent Excavations,* Government Press, Cairo, 1949, p. 129.

[363] Ibid.

[364] A spell from the ancient Egyptian *Book of the Dead,* op. cit.

[365] *Pyramid Texts,* op. cit., lines 2081-6.

[366] Selim Hassan, *The Sphinx,* op. cit., p. 70, fig. 13. See Also E. Naville in 'Sphinx III', op. cit., p. 19.

[367] Zahi Hawass and Mark Lehner 'The Sphinx: Who built it, and why?' in *Archaeology,* September-October 1994, p. 34.

[368] Ibid.

[369] George Hart, *A Dictionary of Egyptian Gods and Goddesses,* Routledge & Kegan Paul, London, 1988, p. 46.

[370] Rosalie David, *Ancient Egyptian Religion, Beliefs and Practices,* Routledge & Kegan Paul, London, 1982, p. 46.

[371] Ibid.

[372] George Hart, *Dictionary of Egyptian Gods and Goddesses,* op. cit., p. 94. Hart also says that 'the element "Akhti" can be a dual form of the noun "Akhet", "Horizon"; there may be a play on words when the king is said to be given power over the "Two Horizons" (i.e. east and west) as Horakhti'.

[373] Quote from Jane B. Sellers, *The Death of Gods,* op. cit., p. 89. For further details, see Hermann Kees, *Ancient Egypt: A Cultural Topography,* University of Chicago Press, 1977.

[374] Often sitting down on a throne, holding the royal staff.

[375] George Hart, *Dictionary,* op. cit., p. 94.

[376] Lewis Spence, *Egypt,* Bracken Books, Myths & Legends Series, London 1986, p. 291.

[377] Selim Hassan, *The Sphinx,* op. cit., p. 94.

[378] Egypt Exploration Society Report, First General Meeting, 1883, p. 8.

[379] Ibid.

[380] Ahmed Fakhry, *The Pyramids,* University of Chicago Press, 1961, p. 164. See *Pyramid Texts,* op. cit., lines 1085, 926. See also E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* Dover Publications Inc., New York, 1978, Vol. I, p. 500b.

[381] Selim Hassan, *Excavations at Giza,* op. cit., figs. 18, 39, 40, 41, 46, 66.

[382] Selim Hassan, *The Sphinx,* op. cit., p. 76.

[383] Ibid.

[384] James H. Breasted, *Ancient Records,* op. cit., Part II, pp. 320-4.

[385] Ibid.

[386] Lewis Spence, *Egypt,* op. cit., p. 158.

[387] Ibid.

[388] Selim Hassan, *The Sphinx,* op. cit., p. 104.

[389] Lewis Spence, *Egypt,* op. cit., p. 157.

[390] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. I, pp. 418b, 500b, 501b.

[391] Lewis Spence, *Egypt,* op. cit., p. 84.

[392] Ahmed Fakhry, *The Pyramids,* op. cit., p. 164.

[393] Ibid.

[394] J. Malek, *In the Shadow of the Pyramids,* Orbis, London 1986, p. 10.

[395] *Pyramid Texts,* op. cit., p. 323.

[396] George Hart, *Dictionary of Egyptian Gods and Goddesses,* op. cit., p. 88.

[397] *Pyramid Texts,* op. cit., lines 525-7.

[398] Ibid., lines 928-9.

[399] Ibid., lines 352-3.

[400] Ibid., lines 928-9.

[401] Ibid., line 1961.

[402] Ibid., line 820.

[403] Ibid., line 151.

[404] Ibid., lines 927-30.

[405] Ibid., line 458.

[406] Ibid., line 965.

[407] E. C. Krupp, *In Search of Ancient Astronomies,* Chatto & Windus, 1980, pp. 186-90. Krupp wrote: 'The Nile, with its annual flooding, made civilisation possible in Egypt ... even more compelling was the fact that the heliacally rising Sirius (the dawn rising) and the rising of the Nile coincided, approximately, with the summer solstice.' Interestingly, *Pyramid Texts* lines 1131 and 1172 speak of the 'Great Flood' which is in the sky as seen in the east of the sky at dawn. This matches the actual celestial picture in *c.*

2800-2500 bc, when the Milky Way would rise due east on the pre-dawn of the summer solstice.

[408] *Pyramid Texts,* lines 360-3.

[409] Ibid., line 2047.

[410] Ibid., lines 1131-2.

[411] Ibid., line 362.

[412] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit.

[413] Ibid., p. 121.

[414] Ibid., pp. 121-2.

[415] Ibid., p. 122.

[416] E. A. Wallis Budge, *The Literature of Funeral Offerings,* Kegan Paul Ltd., London, 1909, p. 2.

[417] *Pyramid Texts,* op. cit., lines 1703, 1710-20.

[418] Ibid., line 1730.

[419] Ibid., line 1860.

[420] R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 175.

[421] *Pyramid Texts,* op. cit., line 632. See also *The Orion Mystery,* op. cit., pp. 132, 136.

[422] *The Orion Mystery,* op. cit., pp. 220-5.

[423] O. Neugebauer and R. Parker, *Egyptian Astronomical Texts,* Brown University Press, Lund Humphries, London, 1964, Vol. I, p. 70. For a summarized discussion see *The Orion Mystery,* op. cit., Appendix 4.

[424] Ibid.

[425] Ibid. The first rising of a star after a prolonged period of invisibility is at dawn, about one hour before sunrise. Sirius has its heliacal rising today in early August. In *c.* 3000 bc this occurred in late June. The 'shift' from a fixed point such as the summer solstice is about seven days every millennium. See R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 175.

[426] *Pyramid Texts,* op. cit., Utterances 606, 609.

[427] The ecliptic passes a few degrees north of the Hyades and thus just 'west' or on the 'right' bank of the Milky Way as viewed at the meridian. In *c.* 2500 bc the vernal point would have been located there.

[428] Dr. Virginia Lee Davis seems to be convinced about this in *Archaeoastronomy,* Vol. IX, JHA xvi, 1985, p. 102. So is the archeoastronomer and Egyptologist, Jane B. Sellers, in *Death of Gods,* op. cit., p. 97.

[429] *Pyramid Texts,* op. cit., line 2172.

[430] Ibid., line 2045.

[431] Ibid., lines 1704-7.

[432] Ibid., line 1541.

[433] Ibid., line 1345.

[434] Ibid., lines 343-6.

[435] Ibid., lines 525-7.

[436] Ibid., lines 928-9.

[437] Among all modern Egyptologists it is only Schwaller de Lubicz, as far as we know, who realized the immense implications of the stellar-solar conjunction in Leo during the Pyramid Age—a conjunction that could hardly have gone unnoticed by the ancients since it occurred not only at the summer solstice but also at the heliacal rising of Sirius. Lubicz wrote: 'It is significant also that tradition had already related the heliacal rising of Sirius with the beginning of the Nile's flooding and with the constellation of Leo; indeed since the foundation of the calendar to the beginning of our era, in Egypt the sun was always situated in the constellation of Leo at the date of the heliacal rising of Leo' (*Sacred Science,* op. cit., p. 176). The tradition which Schwaller is alluding to is also confirmed by several Greek and Roman chroniclers who passed through Egypt in ancient times. Harpollon, for example, who visited Egypt in the fifth century, commented that: 'Lions were a symbol of the inundation in consequence of the Nile rising more abundantly when the sun was in Leo. Those who anciently presided over sacred works made the waterspouts and passages of fountains in the form of lions ...' (Harpollon Book I, 21). The same is stated by Plutarch, who came to Egypt in the first century ad. Plutarch is distinguished for being the only scholar in antiquity to have compiled a full coherent account of the Osiris

and Isis myth. He held a high position as a magistrate in Boeotia and also belonged to the priesthood of Delphi. In about ad 50 he compiled his celebrated *De hide et Osiride (On his and Osiris)* after consulting Egyptian priests in Egypt, who also told him of the astral rituals of the summer solstice: 'Of the stars, the Egyptians think that Sirius, the Dog Star, is the star of Isis, because it is the bringer of water [i.e. the Nile's flood]. They also hold the lion in honour, and they adorn the doorways of their shrines with gaping lions' heads, because the Nile overflows "when for the first time the Sun comes in conjunction with [the constellation] of Leo" ...' (see quote in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 91).

[438] Richard H. Allen, *Star Names: Their Lore and Meaning,* Dover Publications Inc., New York, 1963, pp. 255-6. It is the brightest star in Leo, a constellation known as the 'Domicilium Solis' ('House of the Sun'). Allen makes this curious comment but gives no reference: 'The great androsphinx [of Giza] is said to have been sculptured with Leo's body and the head of the adjacent Virgo ...' (ibid., p. 253).

[439] Memphis.

[440] For a full discussion on the 'solar boats' see Selim Hassan, *Excavations at Giza,* op. cit., pp. 1-156. There are various boat 'pits' at Giza, two of which contained actual boats (one fully assembled in a museum south of the Great Pyramid). Rudolf Gantenbrink has remarked that the size (and shape) of the Grand Gallery in the Great Pyramid would be an ideal store for such a boat.

[441] Probably somewhere within the Sphinx Temple. This idea was, in fact, suggested by the German Egyptologist, Adolf Erman, who wrote: 'Ro-setau, the gate of the

ways, led direct to the underworld. It is possible that part of this shrine has survived in the so-called temple of the Sphinx ...' (*A Handbook of Egyptian Religion,* Archibald Constable & Co. Ltd., 1907, p. 15).

[442] R. O. Faulkner, *The Ancient Egyptian Coffin Texts,* op. cit., Vol. III, p. 132, Spell 1035.

[443] Ibid., p. 109.

[444] *Pyramid Texts,* op. cit., lines 1128-34.

[445] Ibid., lines 924-5.

[446] Ibid., line 1328.

[447] Ibid., line 1657.

[448] Seventh Division, *Book of What is in the Duat,* E. A. Wallis Budge trans., *Egyptian Heaven and Hell,* op. cit., Vol. I, p. 143.

[449] Robin Cook, *The Pyramids of Giza,* op. cit., p. 42.

[450] *Pyramid Texts,* op. cit., lines 1710-18.

[451] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. I, p. 580a.

[452] Selim Hassan, *Excavations at Giza,* op. cit., p. 184.

[453] E. A. Wallis Budge, *Dictionary,* op. cit., Vol. I, p. 579b.

[454] Selim Hassan, *Excavations at Giza,* op. cit., p. 184.

[455] Adolf Erman, *A Handbook of Egyptian Religion,* op. cit., 1907, p. 15.

[456] *Coffin Texts,* op. cit., Vol. III, p. 134.

[457] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, p. 286.

[458] The causeway of the Pyramid of Unas at Saqqara has a small part of the original roof on the ceiling of which are carved five-pointed stars. The ceiling was painted blue and the stars probably gold or yellow.

[459] Jean Kerisel (*La Grande Pyramide et ses Derniers Secrets,* scheduled for publication 1996) discusses this matter at length. The table is about 10 metres below the floor-level of the Sphinx enclosure.

[460] Kerisel appeared on the BBC documentary, *The Great Pyramid: Gateway to the Stars,* shown on 6 February 1994.

[461] Jean Kerisel, *La Grande Pyramide,* op. cit., pp. 196-8.

[462] *Pyramid Texts,* op. cit., lines 1195-9.

[463] The 'Herald of the Year' mentioned in *the Pyramid Texts* implies the star Sirius which follows Orion. The latter, by necessity, must be near the 'Field of Offerings'.

[464] See fig. 11 in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 97. See also various diagrams of so-called 'Sphinx stelae' shown in Selim Hassan, *The Sphinx,* op. cit.

[465] Kerisel has recently obtained a scientific licence from the Egyptian Antiquities Department to explore the subterranean chamber of the Great Pyramid and test a hunch

he's had for many years that somewhere under the chamber is an access to a hidden chamber itself connected, perhaps, by tunnel with the valley or even the Sphinx area. In July 1995 Kerisel managed to use a high-precision drill to make tiny boreholes into the wall of the horizontal passageway that leads to the chamber but so far nothing has been found.

[466] Robert Bauval, 'The Seeding of the star-gods: A fertility ritual inside Cheops's Pyramid?' in *Discussions In Egyptology,* Vol. XVI, 1990, pp. 21-9.

[467] *The Orion Mystery,* op. cit., p. 221. The 'ritual' was graphically recreated in the BBC documentary *The Great Pyramid: Gateway to the Stars,* shown in February and September 1994.

[468] *Pyramid Texts,* op. cit., line 632.

[469] E. A. Wallis Budge, *Dictionary,* op. cit., Vol. II, p. 654b.

[470] *Smithsonian Contributions to Astrophysics,* Vol. X, No. 2, 5000 and 10,000 Year Star Catalogs, by Gerald S. Hawkins and Shoshana K. Rosenthal, Washington, DC, 1967, p. 154. For 2500 bc the declination for Regulus is given as +24.1 degrees. Thus for latitude 30 degrees the rising point would be very close to 28 degrees. The sun's declination at the summer solstice in *c.* 2500 bc was very near this point, at 23.98 degrees. Since the apparent angular width of the sun is about 0.5 degrees, both Regulus and the sun would have occupied the same 'place' in the eastern horizon at the summer solstice in *c.* 2500 bc.

[471] James H. Breasted, *Ancient Records,* op. cit., Part II, pp. 321-2.

[472] 'Egyptians of the New Kingdom were ... in the dark concerning it [the Sphinx] and it is extremely doubtful if there ever was a single person living in Egypt at this period, who knew as much of the true history of the Sphinx as we do to-day ...' (Selim Hassan, *The Sphinx,* op. cit., p. 75).

[473] James H. Breasted, *Ancient Records,* op. cit., Part II, p. 323.

[474] T. G. H. James, *An Introduction to Ancient Egypt,* British Museum Publications Ltd., 1987, p. 37.

[475] Ibid., p. 38.

[476] *Boston Globe,* op. cit., 23 October 1991.

[477] Labib Habachi, *The Obelisks of Egypt,* The American University Press, Cairo, 1988, p. 40.

[478] Ibid.

[479] Nicholas Grimal, *A History of Ancient Egypt,* Blackwell, Oxford, 1992, p. 12.

[480] Ibid.

[481] W. B. Emery, *Archaic Egypt,* Penguin, London, 1987, p. 23.

[482] Michael A. Hoffman, *Egypt Before the Pharaohs,* Michael O'Mara Books Ltd., London, 1991, p. 12.

[483] Ibid.

[484] W. B. Emery, *Archaic Egypt,* op. cit., p. 32ff.

[485] *Cambridge Ancient History,* Volume I, p. 250.

[486] Henri Frankfort, *Kingship and the Gods,* University of Chicago Press, 1978, p. 90.

[487] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, p. 286: 'The high priest of the centre of the sun cult at Heliopolis bore the title "Chief of the Astronomers" and was represented wearing a mantle adorned with stars.'

[488] Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill,* op. cit., p. 58.

[489] See for example C. W. Ceram, *Gods, Graves and Scholars,* Book Club Associates, London, 1971, p. 26ff.

[490] See Sarva Daman Singh, *Ancient Indian Warfare,* Motilal Banarsidass, Delhi, 1989, p. 7ff.

[491] Labib Habachi, *The Obelisks of Egypt,* op. cit., p. 39.

[492] Ibid.

[493] Cited in ibid., pp. 39-40.

[494] For a detailed discussion see E. A. E. Reymond, *The Mythical Origin of the Egyptian Temple,* Manchester University Press, Barnes and Noble Inc., New York, 1969.

[495] John Anthony West, *Traveller's Key to Ancient Egypt,* op. cit., p. 412.

[496] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 4.

[497] Ibid.

[498] Ibid., p. 8ff.

[499] Letter to Robert Bauval dated 27 January 1993: 'I believe it [the mound] represented the primaeval mound on which life first appeared.'

[500] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., pp. 28, 39, 46, 48, etc., etc.

[501] Ibid., p. 42.

[502] Ibid., p. 41.

[503] Ibid., p. 44.

[504] Ibid., pp. 27 and 31.

[505] Jeremy Black and Anthony Green, *Gods, Demons and Symbols of Ancient Mesopotamia,* British Museum Press, London, 1992, pp. 163-4.

[506] Donald A. Mackenzie, *Myths and Legends of India,* The Mystic Press, London, 1987, p. 141ff; Veronica Ions, *Indian Mythology,* Hamlyn, London, 1983, pp. 120-1.

[507] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., pp. 106-7.

[508] Ibid., p. 55.

[509] Ibid., p. 90.

[510] Ibid., p. 113.

[511] Ibid., pp. 109 and 127.

[512] Ibid., p. 77.

[513] Ibid., p. 112.

[514] Ibid., p. 273.

[515] Cited in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., pp. 103-4. See also Henri Frankfort, *Kingship and the Gods,* op. cit., p. 90.

[516] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 59.

[517] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., p. 37.

[518] *P. dem Berlin,* 13603. For the ancient traditions asserting that Heliopolis was originally founded in remote pre-Dynastic times see J. Norman Lockyer, *The Dawn of Astronomy,* op. cit., p. 74.

[519] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 122.

[520] Ibid , pp. 121-2.

[521] Margaret Bunson, *The Encyclopaedia of Ancient Egypt,* New York, Oxford, 1991, p. 110.

[522] Ibid., p. 45.

[523] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. II, p. 958.

[524] Flinders Petrie, *Royal Tombs* II, Pl.v,3, cited in E. A. E Reymond, *Mythical Origin of the Egyptian Temple,* p. 136.

[525] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 257. See also p. 262.

[526] Ibid., p. 262.

[527] Ibid., p. 114; see also R. T. Rundle Clark, *Myth and Symbol,* op. cit., p. 37ff.

[528] *Encyclopaedia Britannica,* 9:393.

[529] *The Orion Mystery,* op. cit., p. 188.

[530] Ibid., p. 17.

[531] Ibid., pp. 203-4.

[532] Ibid., p. 17.

[533] R. T. Rundle Clark, *The Legend of the Phoenix,* University of Birmingham Press, 1949, p. 17.

[534] *The Orion Mystery,* op. cit., p. 212ff.

[535] R. T. Rundle Clark, *Myth and Symbol,* op. cit., p. 246.

[536] Robert K. G. Temple, *The Sirius Mystery,* Destiny Books, Rochester, Vt., 1987, p. 186.

[537] E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., Vol. II, pp. 828-32.

[538] Ibid., Vol. I, p. 11b.

[539] Mark Lehner, *The Egyptian Heritage,* op. cit., p. 119.

[540] E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., p. 11b.

[541] See for example W. B. Emery, *Archaic Egypt,* op. cit., p. 22.

[542] *Manetho,* W. G. Waddell trans., Heinemann, London, 1940, p. 3, note 1.

[543] R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 86; Lucy Lamy, *Egyptian Mysteries,* Thames & Hudson, London, 1986, pp. 68-9; Jane B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., p. 94.

[544] *Sacred Science,* op. cit., p. 86.

[545] Ibid.

[546] Jane B. Sellers, *The Death of Gods,* op. cit., p. 94.

[547] E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., Vol. I, pp. 22-3.

[548] Ibid.

[549] *Sacred Science,* op. cit.

[550] Henri Frankfort, *Kingship and the Gods,* op. cit., p. 93.

[551] Later known as Buto and Hierakonpolis respectively.

[552] Frankfort, *Kingship,* op. cit., p. 94.

[553] Ibid.

[554] *The Ancient Egyptian Pyramid Texts,* R. O. Faulkner, trans., op. cit., lines 478 and 1717, pp. 94 and 253 respectively; Frankfort, *Kingship,* op. cit., pp. 93-5; R. T. Rundle

Clark, *Myth and Symbol,* op. cit., pp. 122-3.

[555] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 122.

[556] John Anthony West, *Serpent in the Sky,* op. cit., p. 1.

[557] *Manetho,* op. cit., p. xi.

[558] Ibid, p. 3.

[559] Ibid, p. 5.

[560] Ibid, p. 15.

[561] Ibid, p. 227.

[562] *Diodorus Siculus,* C. H. Oldfather trans. Harvard University Press, 1989, Vol. I, p. 157.

[563] R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 111.

[564] Skyglobe 3.6.

[565] *The Orion Mystery,* op. cit, p. 140ff.

[566] *The Orion Mystery,* op. cit, pp. 29 and 281, note 1. Details are as follows: Sneferu, about 9 million tons (two Pyramids at Dahshur) plus three Giza Pyramids (about 15 million tons) plus Abu Roash and Zawayat Al Aryan (about 1 million tons) = 25 million tons, i.e. about 75 per cent of the total volume of 'Pyramid Age' Pyramids (estimated at around 30 million tons).

[567] See for example Ahmed Fakhry, *The Pyramids,* op. cit.

[568] *Hermetica,* op. cit, *Asclepius III*, 24b, p. 341.

[569] Ibid, 25, p. 343.

[570] See in particular Chapter 4.

[571] *Pyramid Texts,* op. cit. Utterances 471-3, pp. 160-1.

[572] T. G. H. James, *Introduction to Ancient Egypt,* op. cit, p. 41.

[573] Ibid.

[574] See discussion in W. B. Emery, *Archaic Egypt,* op. cit, p. 42ff.

[575] *The Age of the God Kings,* Time-Life, 1987, p. 56ff.

[576] See discussion in W. B. Emery, *Archaic Egypt,* op. cit, p. 42ff.

[577] Even his name is put into doubt. According to Dr. Jaromir Malek, for example, the name of Menes 'could be completely fictitious and based on a word-play which was misunderstood as a royal name by the later compilers of king-lists' (Jaromir Malek, *In the Shadow of the Pyramids,* Orbis, London, 1986, p. 29). As for his other name, Narmer, this, too, is plagued with confusion and doubt. On the so-called votive mace-heads and palettes found at Hierakonpolis there is shown the image of a chieftain or 'king' and on the front of his face are shown certain hieroglyphic signs, in some cases forming the syllables 'Nar-Mer' and in others showing a scorpion. This has led Egyptologists to conclude that the Menes of the king-lists is this Narmer or 'King Scorpion' (ibid., pp. 28-9). To overcome the obvious confusion of having this presumed 'last king of Predynastic Egypt' bearing three names, Egyptologists have arrived at the unsatisfactory conclusion that the name

‘King Scorpion’ on the votive mace-head ‘is almost certainly wrong’ and that it must be regarded as some sort of ‘large ceremonial image’. Consequently ‘if King “Scorpion” is thus refuted,’ proposed Dr. Malek, then ‘the likeliest candidate for identification with the figure on the mace-head is Narmer’ (ibid., p. 29).

[578] W. A. Fairservis Jr., ‘A Revised View of the Narmer Palette’, in *Journal of the American Research Center in Egypt,* XXVIII, 1991, pp. 1-20.

[579] Jane B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., pp. 93-4.

[580] Ibid., p. 90.

[581] Ibid., p. 94.

[582] Henri Frankfort, *Kingship and the Gods,* op. cit., pp. 18-19.

[583] Ibid., p. 33.

[584] Ibid., p. vi.

[585] Sellers, *Death of Gods,* op. cit., p. 93.

[586] Ibid., pp. 93ff, 115ff and 192ff. Having determined that the ancient Egyptians made use of the phenomenon of precession, Sellers then focused, to the exclusion of all else, on the idea that the ancients were tracking the heliacal rising of Orion at the spring equinox. With this in mind she based all her observations in the eastern horizon at the time of the spring equinox. This led her to make precessional calculations which bracketed the ‘Golden Age’ between 7300 bc and 6700 bc, the two epochs marking the beginning and end of Orion’s heliacal rising with the spring equinox (e.g. pp. 28 and 43). Although the

core of her thesis that the key to the ancient mystery is to be found in the tracking of Orion's precessional drift is spot on, her conclusion that the measurements are to be made at the rising in the east of Orion at the spring equinox is a curious error of judgement. For what is most surprising about Sellers's analytical approach is that, while she correctly puts all the emphasis of her thesis on Orion and its precessional drift, she makes absolutely no reference to the most obvious astronomical 'Orion marker' in ancient Egypt: the 'Orion' star-shaft in the Great Pyramid. Indeed, Sellers completely ignores the Pyramids or any other structure in Egypt, and instead centres her attention only on the textual material. The fact is that the Pyramid builders and the compilers of the Pyramid Texts were not tracking Orion in the eastern horizon but high in the southern skies, at the meridian.

[587] Precessional calculations show that we live in the astronomical 'Last Time' of Orion, with the belt stars in our epoch approaching the highest altitude at the meridian that they will ever attain in their precessional cycle.

[588] Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill,* op. cit., p. 11.

[589] Miriam Lichtheim, *Ancient Egyptian Literature,* Vol. I: The Old and Middle Kingdoms, p. 52.

[590] Ibid., pp. 52-3.

[591] *Pyramid Texts,* op. cit., lines 1256-7, p. 200.

[592] Ibid., 1278, p. 202.

[593] For a brief review see Bunson, *The Encyclopaedia of Ancient Egypt,* op. cit., p. 130.

[594] Ibid.

[595] *Pyramid Texts,* op. cit., 1657, p. 247.

[596] Ibid., Utterance 610, p. 253.

[597] Ibid., lines 2180-1, p. 305.

[598] Ibid., lines 882-3, p. 155.

[599] Sellers, *Death of Gods,* op. cit., pp. 90-3.

[600] Selim Hassan, *Excavations at Giza,* op. cit., pp. 194ff.

[601] Pap. Louvre 3292.

[602] Ibid., and see *Excavations at Giza,* op. cit., p. 194.

[603] *Excavations at Giza,* op. cit., p. 195.

[604] The following point made by E. A. E. Reymond in *The Mythical Origin of the Egyptian Temple,* op. cit., p. 57, is of obvious relevance. Referring to the content of Papyrus dem. Berlin 13603 he notes: 'Heliopolis was regarded as the centre of creation. The primordial aspect of Heliopolis is not described; however, there is a clear allusion to the theory according to which Heliopolis existed before the Earth was created. From the primaeval Heliopolis, so it is explained in our text, the Earth-God created the Earth, which received the name *Mn-nfr,* Memphis.'

[605] *The Ancient Egyptian Coffin Texts,* R. O. Faulkner trans., Aris & Phillips, Warminster, Vol. III, Spell 1065.

[606] *Pyramid Texts,* op. cit., Utterance 477, p. 164.

[607] Hassan, *Excavations at Giza,* op. cit., p. 198.

[608] It is this 'language'—a great, archaic, world-wide system—that is the principal focus of Giorgio de Santillana's and Hertha von Dechend's ground-breaking study *Hamlet's Mill,* op. cit.

[609] Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. I, pp. 55-6.

[610] *Pyramid Texts,* op. cit., lines 1716-17, p. 253.

[611] Ibid., lines 1256-61, p. 200.

[612] Ibid., 798-803, p. 144.

[613] See, for example, Lewis Spence, *Ancient Egyptian Myths and Legends,* Dover Publications, New York, 1990, p. 106.

[614] *Coffin Texts,* op. cit., Spell 1035, Vol. III, p. 132. Interestingly, the Spell directly links the acquisition of knowledge concerning past and former skies to the desired attainment of immortal life and existence: 'As for him who does not know this spell, he shall be taken into the infliction of the dead ... as one who is non-existent ...'

[615] Sellers, *Death of Gods,* op. cit., p. 192.

[616] Ibid., p. 193.

[617] Ibid.

[618] For a fuller discussion see *Fingerprints of the Gods,* op. cit., pp. 256ff.

[619] Ibid., and see Sellers, *Death of Gods,* op. cit., p. 193.

[620] Ibid., and see Sellers, *Death of Gods,* op. cit., pp. 192-209.

[621] As pointed out in Chapter 10, the Egyptian royal cubit measures 20.6 inches.

[622] Mary Bruck, 'Can the Great Pyramid be Astronomically Dated?', *m Journal of the British Astronomical Association,* 105,4, 1995, p. 163.

[623] Ibid., p. 164.

[624] Ibid., p. 163.

[625] Garth Fowden, *The Egyptian Hermes,* Cambridge University Press, 1987, p. 33. The reference is to the *Hermetica,* op. cit., the *Kore Kosmu,* 5 and 6, pp. 459-61.

[626] Interviewed in *The Search for Extraterrestrial Life,* Discovery Channel, June

[627] Carl Sagan, *Cosmos,* Book Club Associates, London, 1980, p. 296.

[628] Ibid.

[629] Indeed, what we appear to be looking at here is a veritable 'Hermetic language' making use of architecture and astronomy.

[630] Of which the earliest surviving are the Pyramid Texts *circa* 2300 bc. Egyptologists accept, however that these texts are themselves transcripts (or translations?) of even earlier texts that are now lost to history, and that the scribes who initially wrote them down in Egyptian hieroglyphs often did not understand the words they were copying. According to E. A. Wallis Budge, for example: 'Several passages bear evidence that the

scribes—who drafted the copies from which the cutters of the inscriptions worked did not understand what they were writing ... The general impression is that the priests who drafted the copies made extracts from several compositions of different ages and having different contents ...' In consequence, Budge concludes: 'The Pyramid Texts are full of difficulties of every kind. The exact meanings of a large number of words found in them are unknown ... the construction of the sentence often baffles all attempts to translate it, and when it contains wholly unknown words it becomes an unsolved riddle.' See E. A. Wallis Budge, *From Fetish to God in Ancient Egypt,* Dover Publications, New York, 1988, pp. 321-2.

[631] *Hamlet's Mill,* op. cit., p. 312.

[632] Proclus was a Neoplatonist who studied at Alexandria. His keen interest in the astronomy of the Great Pyramid, described in his *Commentaries on the Timaeus,* shows that scholars of the time, many of whom were Neoplatonists, understood the monument to be related to the stars. Proclus's ideas formed the basis of the nineteenth-century astronomer Richard Proctor's thesis, *The Great Pyramid: Observatory, Tomb and Temple* (published by Chatto & Windus, London, 1883), who argued that the Grand Gallery was used as a sighting device for the stars.

[633] James Bonwick, *Pyramids: Facts and Fancies,* Kegan Paul, 1877, p. 169.

[634] William R. Fix, *Pyramid Odyssey,* Mercury Media Inc., Urbana, Va., 1978, pp. 52-3. The Copts apparently took the 'traditional' date for the Biblical Flood as 10,000 bc.

[635] In the geographical dictionary *Mo'gam-el-Buldan,* cited in Hassan, *Excavations at Giza,* op. cit., p. 45.

[636] Ibid.

[637] Ibid., p. 34. Hassan notes that an alternative name for the Sphinx, apparently bestowed upon it by these incomers, was *Hwron.*

[638] See Peter Tompkins, *Secrets of the Great Pyramid,* op. cit., pp. 30-1.

[639] Piazzi Smyth, *The Great Pyramid,* op. cit., page 368ff.

[640] Alexander Badawy, 'The Stellar Destiny of the Pharaoh', op. cit.; Virginia Trimble, 'Astronomical Investigations concerning the so-called Air Shafts of Cheops Pyramid', in *Mitt. Inst. Orient, zu Berlin* Band 10, pp. 183-7.

[641] And see *The Orion Mystery,* op. cit.

[642] Interviewed on Arts and Entertainment Channel, 8 January 1995.

[643] Mary Bruck, 'Can the Great Pyramid be Astronomically Dated?', op. cit., pp. 164 and 162.

[644] Skyglobe 3.6.

[645] *Pyramid Texts,* op. cit., line 932, p. 161.

[646] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., p. 264.

[647] Robin Cook, *The Pyramids of Giza,* op. cit., p. 60.

[648] Plus or minus 1 degree.

[649] Plus or minus 1 degree.

[650] Derived geometrically from scaled plan of Giza.

[651] Sirius has a proper motion of 1.21 arc seconds per year. For 13,000 years this would give 4.36 degrees of motion. But the motion is oblique to the meridian, giving some 3 degrees decrease in declination.

[652] Calculations using the rigorous formula for precession corrected for nutation, aberration of starlight, proper motion (from the most recent Yale Bright Star Catalogue) and parallax was done by astronomer Adrian Ashford in August 1995. In *circa* 11,850 bc Sirius would theoretically be at the lowest point in its cycle, with a declination of -60 degrees, thus just on the south horizon. In 10,500 bc it would have had a declination of nearly -59 degrees, thus shining brightly approximately 1 degree over the south horizon as seen from Giza.

[653] Ibid.

[654] See Part II of the present work for a discussion.

[655] Herodotus, *The History,* op. cit., II:124, p. 185. See also I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1982 edition, p. 147.

[656] Surviving examples of star-spangled causeway ceilings can be seen at the Pyramid of Unas (Fifth Dynasty) at Saqqara.

[657] Many passages in the *Pyramid Texts,* op. cit., speak of 'roads' to the stars and to the sky where the deceased will become a god. For example, Utterance 6673, line 1943: 'You have your tomb O King, which belongs to [Osiris] ... He opens for you the doors of the sky, he throws open for you the doors of the firmament, he makes a road for you that

you may ascend by means of it into the company of the gods ...'

[658] John Legon, 'The Giza Ground Plan and Sphinx' in *Discussions in Egyptology* 14, 1989, p. 55.

[659] Ibid. Although the bearing of the Khafre causeway at 14 degrees south of east is not in dispute, there has been some disagreement amongst scholars over the direction of the Khufu causeway—most traces of which have been long ago obliterated. Some authorities believe it proceeded straight on the 14-degree bearing it takes from the Mortuary Temple of the Great Pyramid, others believe that it started with this bearing and then changed direction, before reaching the Valley Temple of the Great Pyramid. To give some indication of the range of opinion on this matter see George Goyon, *Le Secret des Batisseurs des Grandes Pyramides: Kheops,* Pygmalion, Gerard Watelet, Paris, 1990, p. 140: 'contrary to what some have long believed, the direction [of the Khufu causeway] stays uniform and does not change direction in the valley below.' Zahi Hawass in *The Pyramids of Ancient Egypt,* The Carnegie Series on Egypt, Pennsylvania, 1990, p. 22, also shows a straight causeway on the 14-degree bearing, but points out on page 18: 'scholars disagree over the exact course of the causeway, but it led to Khufu's Valley Temple, the ruins of which lie under the present-day village of Nazlet-el-Sammam.'

[660] John Legon, *The Giza Ground Plan,* op. cit., p. 60.

[661] For a general discussion, see Richard Heinberg, *Celebrate the Solstice,* Quest Books, Wheaton, 111, 1993, pp. 11-14.

[662] We note with interest that this 'cross-quarter' alignment appears to have been of major importance at Heliopolis. In *The Dawn of Astronomy,* op. cit., p. 77, the British

astronomer J. Norman Lockyer, who was able to survey the site of ancient Heliopolis before it was obscured by the modern suburb that now covers it, noted in passing that the principal mound on the site had a bearing of 14 degrees south of east—i.e. the identical bearing to the Khafre causeway. Lockyer also reminds us of ancient Egyptian traditions that Heliopolis was founded by the *Shemsu Hor,* the 'Followers of Horus', long before the beginning of Dynastic history (ibid., p. 74).

[663] *Pyramid Texts,* op. cit., Utterances 471-3, pp. 160-2.

[664] *Coffin Texts,* op. cit., Spell 1080, Vol. III, p. 147.

[665] From the Eleventh Division of the *Duat,* '*The Book of What is in the Duat'*, E. A. Wallis Budge trans., in *The Egyptian Heaven and Hell,* op. cit., p. 240.

[666] Translated as 'The Virgin of the World' by G. R. S. Mead in *Thrice Great Hermes: Studies in Hellenistic Theosophy and Gnosis,* op. cit., Book III, p. 59ff. Translated by Sir Walter Scott as the *Kore Kosmu* in *Hermetica,* op. cit., p. 457ff.

[667] 'The Virgin of the World', G. R. S. Mead trans., pp. 60-1.

[668] Ibid., p. 61.

[669] See Part I of the present work.

[670] The quotation is from the Normandi Ellis's translation of the *Ancient Egyptian Book of the Dead, Awakening Osiris,* Phanes Press, Grand Rapids, MI, 1988, p. 43, and is drawn from Chapter XV of the *Ancient Egyptian Book of the Dead,* Papyrus of Ani.

[671] J. B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., p. 157-9.

[672] R. O. Faulkner, *The Book of the Dead,* op. cit., p. 49.

[673] Ibid.

[674] J. B. Sellers, *The Death of Gods,* op. cit., p. 97.

[675] Ibid., p. 159.

[676] Ibid., p. 97.

[677] The M1 Crab Nebula is the remnant of a great supernova explosion which occurred in *c.* 4500 bc, roughly when the vernal point occupied this specific place in the sky. However, the supernova was about 5500 light-years away and its light only started reaching our planet in *c.* ad 1000. It was recorded by the Chinese and, apparently, by the North American Indians. No one seems to have recorded it in Europe or the Middle East, which is very odd, since Christians, at that time, fervently awaited a 'sign' from heaven to announce the 'Second Coming' of Christ.

[678] *The Orion Mystery,* op. cit., p. 200. See also Robert G. Bauval 'Investigation on the origin of the Benben Stone: was it an iron meteorite?' in *Discussions in Egyptology,* Vol. XIV, 1989, pp. 5-17.

[679] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., p. 235.

[680] R. O. Faulkner, *The Book of the Dead,* op. cit., Spell 17.

[681] Ibid.

[682] See also Miriam Lichtheim, *Ancient Egyptian Literature;* op. cit., Vol. I, p. 53.

[683] Ibid.

[684] Ibid. The 'White Wall' probably refers to the Tura limestone walls of the royal palace and the boundary wall of Memphis.

[685] Ibid., p. 54.

[686] Most Egyptologists would contest this point, but we feel that the evidence is overwhelming in favour of a direct cultic connection between Osiris and the Great Pyramid. An interesting article touching upon this idea can be read in Steuart Campbell, 'The Origin and Purpose of the Pyramids' in the *New Humanist,* December 1990 issue, pp. 3-4, who wrote that 'the Great Pyramid might have been intended as a dwelling place for the spirit of Osiris'. The French Antiquarian and Freemason, Alexandre Lenoir (see 'A dissertation on the Pyramids of Egypt' in FMR No. 39, 1989) was also to claim that 'all considered it [the Great Pyramid] may be the tomb of Osiris'.

[687] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. I, p. 285b.

[688] Ibid.

[689] Ibid., Vol. II, pp. 6i4b, 6223, 688a.

[690] Ibid., p. 6143.

[691] Charles Piazzi Smyth, *Our Inheritance in the Great Pyramid,* Bell edition, 1990, p. 429.

[692] *Nature,* 31 July 1873.

[693] The reader will also recall that 43,200 is 20 x 2160, the 'special' number denoting a precessional or zodiacal age. See Chapter 3 of the present work.

[694] This pertinent point was raised very recently by the eminent astronomer, Dr. Mary Bruck: 'Can the Great Pyramid be astronomically dated?' in *The Journal of the British Astronomical Society,* 105, 4, 1995, pp. 161-4.

[695] 25 See J. Legon, 'The air-shafts in the Great Pyramid' in *Discussions in Egyptology* 27, 1993, pp. 33-44. See Robin Cook, 'The stellar geometry of the Great Pyramid' in *Discussions in Egyptology* 29, 1994, pp. 29-36. Rudolf Gantenbrink, who remeasured the angles of the shafts recently, gave a higher 'adjusted' value of 39.6 degrees for the southern shaft of the Queen's Chamber. None the less, the 'designed' intention to have the shafts come out at the same level very much seems to be the case for the Great Pyramid.

[696] *The Orion Mystery,* op. cit., pp. 222-3.

[697] Ibid., p. 34.

[698] Hence the 'Fish' symbol amongst the early Christians, denoting the 'new age' of Christianity marked by the vernal equinox in Pisces. The vernal point is now poised to enter the new age of Aquarius.

[699] When Alexander the Great liberated Egypt from Persian rule, he was hailed by the Egyptian priests as a divine hero and the returned 'son of Ammon'—and by his Macedonian followers as 'son of Zeus'. Both titles stand, of course, for 'son of god'. After his death a 'cult of Alexander' was established in Alexandria which spread with almost

messianic fervour across the Fertile Crescent. For the three centuries preluding the Christian era, Alexander (who had died at the age of thirty-three in 323 bc) was the archetype of the conquering martyred 'hero-king' and 'son of god' of quasi-solar pedigree who had unified the known world on the basis of a divine blueprint or mission. It was thus that, in the closing years of the last century bc, the whole Roman world, sickened by the endless civil and foreign wars, placed much hope for the return of a 'saviour-king' modelled on Alexander who would unite the empire and usher in a new golden age. This hope was very much pinned on Augustus Caesar (Octavian) by the Roman poet Virgil in *c.* 42 bc in his famous *Eclogues* ('see how Olympian Caesar's star has climbed the sky, the star to gladden all our corn with grain ... your children's children will enjoy the fruits ...'). In 12 bc Augustus Caesar was declared head of the Roman (thus 'world') religion and given the title of Pontifex Maximus—a title later to denote the Catholic pontiffs or 'Popes' of Rome. Ironically, in 4 bc—the assumed year that Christ was born—Augustus adopted Tiberius (second Emperor of Rome who ruled from ad 14 to ad 37, thus in the ministry of Jesus) and declared him his heir. Yet by the most unexpected twist of fate Virgil's prophecy was eventually to be fulfilled not by 'Divine Augustus' but by a Jewish 'saviour-king', the Christos or Christ, fostered four centuries later by Rome itself under the rule of Constantine the Great (see Ian Wilson, *Jesus, the Evidence,* Pan Books, London, 1984, pp. 134-44). It may well be that Virgil's 'star of Caesar' influenced the unknown author of the gospel of Matthew ('We have seen his star and come to pay him homage ...' Matthew 2:1-9) who used the astral prophesy for the birth of Jesus. Not unexpectedly, many of the great Italian Hermetic philosophers of the late Renaissance (Bruno, Pico della Mirandola, Campanella, etc.) often presented Virgil as a 'Gentile prophet' of Christianity and the 'Egyptian' Hermes Trismegistos (i.e. the Egyptian god Thoth) in par with the Old

Testament prophet Moses (see Frances A. Yates, *Giordano Bruno,* op. cit.). Many of these Hermetic 'Cabala' philosophers adamantly believed that the 'Egyptian' astral magic as found in the ancient texts was the agency or 'device' for great world-changing events (ibid, et al.). It can be thus argued that in the first century of our era the scene was set in the collective subconscious by astrologer-prophets of old to bring about a messianic event. In our next book, we will explore how such powerful 'Hermetic devices' were activated throughout the ages and also, as the case may be, may be about to be galvanized in present times.

[700] Richard H. Allen, *Star Names,* op. cit., p. 316.

[701] Selim Hassan, *Excavations at Giza,* op. cit., p. 45.

[702] Worked on Skyglobe 3.6.

[703] E.M. Antoniadi, *L'Astronomie Egyptienne.* Paris, 1934, p. 119.

[704] Frances A. Yates, *The Art Of Memory,* University of Chicago Press, 1966.

[705] E.g. John Baines and Jaromir Malek, *Atlas of Ancient Egypt,* Time-Life Books, 1990, p. 36, 156ff.

[706] Ibid. See also Ahmed Fakry, *The Pyramids,* University of Chicago Press, 1969, and Kurt Mendelssohn, *The Riddle of the Pyramids,* Thames and Hudson, London, 1986.

[707] *Venture Inward,* Virginia Beach, May-June 1906, p. 13.

[708] Ibid.

[709] Ibid., p. 12-14.

[710] See Chapter 6 for fuller details concerning the Dixon relics.

[711] Those present included Dr. Vivian Davies, Keeper of Egyptian Antiquities at the British Museum, and Dr. I. E. S. Edwards, author of the standard text *The Pyramids of Egypt.*

[712] *Sunday Telegraph*, 1 January 1995.

[713] Sat 1, Spiegel Reportage, 15 August 1995.

[714] *Egyptian Gazette,* 31 March 1996.

[715] Documented conversations with Peter Zuuring.

[716] *Serpent,* op. cit., p. 229.

[717] *Al Akhbar El Yom,* 8 January 1994.

[718] Edgar Cayce Reading Ref. No. 3976-15, in Earth Changes circulating file, Edgar Cayce Foundation, 1993, p. 38.

[719] Schor's May 94 letter.

[720] See *Daily Mail,* London, 2 and 3 May 1996.

[721] *Egyptian Gazette,* 14 April 1996.

[722] *Secret Chamber,* Magical Eye Productions, 1996.

[723] Ibid.

[724] Hawass interview, John Robbie Show.

[725] Harmon Hartzell Bro, *A Seer out of Season: The Life of Edgar Cayce,* Signet Books, 1990, p. 242.

[726] Quote from a senior ARE researcher in a letter to Charles I. Cayce dated 12 June 1996.

[727] *Venture Inward,* Jan/Feb 1985, Vol. 6, p. 9.

[728] A. R. Smith, *Hugh Lynn Cayce: About My Father's Business,* Donning Co., Norfolk, Virginia, 1988, p. 249.

[729] *Venture Inward,* op. cit.

[730] A. R. Smith, op. cit., p. 250.

[731] John Robbie Show, Radio 702 Johannesburg, 17 July 1996.

[732] *Egyptian Gazette,* Cairo, 15 August 1996.

[733] Dr. James Hurtak, *The Keys of Enoch,* California, 1976. See also the video *UFO: Evidence of the Use of Extraterrestrial Technology,* Labyrinth Media, UK.

[734] Richard C. Hoagland, *The Monuments of Mars,* North Atlantic Books, Berkeley, California, 1992, p. 363. See also Plates 38 and 39.

[735] *Omni Magazine,* 'Interview with Farouk El Baz', 1990, p. 75.

LOST KNOWLEDGE OF THE ANCIENTS

A Graham Hancock Reader

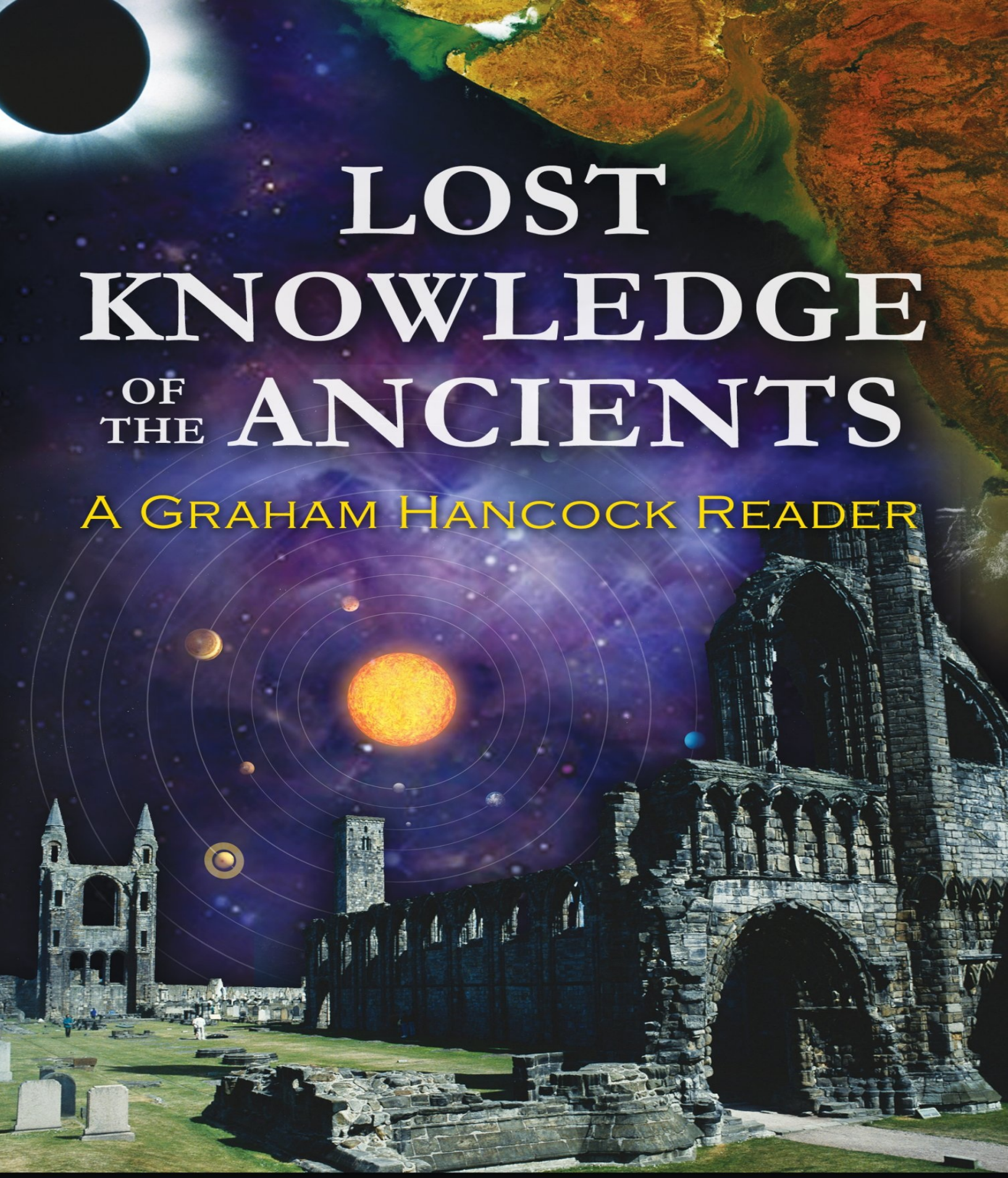

Edited by Glenn Kreisberg

With contributions by Graham Hancock, Robert Bauval, Mark Booth, Richard Hoagland, Robert Schoch, John Anthony West, and others

LOST KNOWLEDGE of the ANCIENTS

A Graham Hancock Reader

Edited by Glenn Kreisberg

Bear & Company
Rochester, Vermont • Toronto, Canada

I would like to dedicate this work to my wife, Stephanie, son, Jason, and daughter, Sophie, and thank them for offering their support, love, and encouragement in our search, as a family, for new truths.

LOST KNOWLEDGE of the ANCIENTS

"These accounts of 'lost' or anomalous knowledge are building blocks of an alternative universe, and, taken altogether, they reveal something of the deep structure of this alternative universe. They also show that this universe made up of anomalies may be more real than the everyday, commonsensical one!"

MARK BOOTH, AUTHOR OF

THE SECRET HISTORY OF THE WORLD

Acknowledgments

I came to the idea for this compilation with the cooperation of author/researcher Graham Hancock and the contributors to his online forum at www.Graham-Hancock.com. This volume can be considered a select offering from the many dozens of excellent articles and essays on the site that speak to the search for lost knowledge and the knowledge of the great astronomical cycles of our existence.

I would like to thank and acknowledge the kind friendship and support of Graham Hancock, John Anthony West, Robert Schoch, and Walter Cruttenden of the Binary Research Institute (BRI), and all of the contributing authors who cooperated in putting this work together. Together, we offer these essays with a commitment to the principles of embracing the pursuit of knowledge and truth through rigorous, open-minded research, discovery, and critical analysis.

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INTRODUCTION

On the Search for Lost Knowledge

GLENN KREISBERG

A revolution is underway in our world, fostered by decades of research and well documented evidence from illustrious scholars such as Robert Bauval, Graham Hancock, John Anthony West, and Robert Schoch (sometimes affectionately referred to as the "four horsemen"). This collection of essays adds to those voices and, when taken as a whole, provides astounding, yet compelling proof of an approaching shift in our perspective regarding human origins and the roots of civilization. Long-standing paradigms are beginning to crumble and realign to this new order of thinking.

This "thought revolution" represents a direct challenge to an orthodox, mainstream academic establishment that continues to try to debunk sound evidence and theories that have not only stood the test of time but that have already attained accepted status in the court of public opinion. Of course, orthodoxy resists and fights change by its very nature. Acceptance by this establishment would require a shift in perception regarding the knowledge that mankind possessed in remote epochs.

Why lost knowledge? Because much of the research, evidence, and theories presented in this collection are not currently included in mainstream, traditional academic curriculums. Nor are they seriously pursued at universities or published in scholastic textbooks and journals, although that is slowly changing. The battle to have them included and accepted has stirred controversy worldwide for decades, in some cases prompting attacks by academia against those involved in this fight.

Lost Knowledge of the Ancients offers the reader a selection of well researched and thought provoking articles and essays covering alternative science and history. We have tried to stay within the broad theme of lost knowledge and cycles of time, while exploring nontraditional theories and perspectives that challenge long-standing assumptions. The diverse offerings of these prolific authors and researchers present a unique snapshot of some of the latest findings in cutting-edge scientific and historical research, while exploring new theories and fresh challenges to existing ones.

By recognizing that many modern discoveries are actually rediscoveries of lost

knowledge from past civilizations, the essays in this collection aim to contextualize, within the bigger picture of human knowledge, the achievements and events giving rise to a fundamental understanding of where our present time fits into the past and the future; into the cycle of human existence.

These essays also connect the dots, so to speak, for readers who will discover that the whole picture adds up to more than the sum of its parts. Through these writings, readers will realize that many of these authors, scientists, and researchers suggest that there is a cycle of time and consciousness that profoundly affects the way we look at history. Each article in this collection articulates something that builds on the overall theme.

For example, Dr. Schoch looks at possible higher states of consciousness (telepathy, clairvoyance, and so on) in a past age, not just because he is interested in the paranormal, but also because it adds to and builds upon his earlier work. He finds that these phenomena have real scientific support that buttresses the ancient stories of a pre-Babel era when mankind communicated at a higher level, allowing such things as building great structures long before there was any form of written language (heretofore considered a prerequisite to “civilization”). Edward F. Malkowski, in his essay, looks deeply at the wisdom and cosmology of ancient Egypt and finds a parallel to modern string theory and quantum physics, which wouldn’t be considered possible under the linear paradigm of history.

So, as the paradigms of science and history shift (virtually on a daily basis), this committed breed of scientific researcher endeavors to break new ground and report on remarkable discoveries and astonishing new theories and discoveries in the fields of science, history, philosophy, and religion. Committed to standards of scientific methodology, this collection brings to the inquisitive reader the most relevant, insightful, and startling scientific and historical information published in our world today.

These authors rarely write outside their fields. In fact, some of them may not even fully realize how their work fits into the bigger picture—but by fitting all the pieces together, we now have enough knowledge and evidence to tentatively confirm that what the ancients themselves told us is real: Time really does move in a cycle, and the myths related to this cycle reveal both a long-lost Golden Age, and a new one that approaches!

We begin with an article by Dr. Robert Schoch, a geologist and full-time faculty member at Boston University since 1984, who is best known for his controversial redating of the Sphinx from 2500 BCE to at least 5000 BCE (and perhaps even much earlier), based on sound geologic evidence. Entering another field, Dr. Schoch writes on examining evidence and research surrounding parapsychology and “supernatural”

phenomena, shedding new light on the process of evaluating such research and evidence.

Author/researcher Edward F. Malkowski writes about the connection between the ancient Egyptian mystery school and today's new science philosophy, showing that "new" revelations actually shadow ancient insights.

Explaining and expanding his Orion Correlation Theory, researcher/author Robert Bauval demonstrates how a "Cosmic Egypt," ghosted in the geography of the Nile Valley, reflects the cyclical changes in the sky landscape caused by the precession of the equinoxes. Bauval shows how this influence over the evolution of temple building, for over three thousand years and over a thousand miles, was administered by astronomer/priests of the highest order.

Author Mark Booth uncovers the hidden truths behind the esoteric knowledge held and passed down by secret societies throughout history, and in doing so opens our eyes to a new way of looking at the history of the world.

Famed rebel Egyptologist John Anthony West takes on the "Church of Progress" and calls to task the "mainstream" archaeological community in his open letter to the editors of *Archaeology* magazine.

Secret societies also form the basis for Richard C. Hoagland and Mike Bara's fascinating research into the possibility of an ancient race once inhabiting Mars. Hoagland claims that NASA is covering up evidence found on both the moon and Mars that proves a highly advanced, yet ancient, civilization once existed and may hold the key to the lost history of the human race.

Walter Cruttenden, founder of the Binary Research Institute (an archeoastronomy think tank), explores what Plato described as the "Great Year," a 25,000+ year cycle based on the precession of the equinoxes, which may account for the rise and fall of civilization as well as human consciousness. Cruttenden shows how the "myth" associated with the precession cycle pervaded all ancient cultures.

Continuing on the theme of a grand cycle of time, researcher Scott Creighton offers a convincing new theory accounting for the ground plan at Giza, Egypt, linking it to a warning of cosmic destruction encoded into a precessional calendar wheel clearly laid out among the temples, monuments, and pyramids of the Giza Plateau.

Researcher Andrew Collins postulates that a cosmic burst of energy from a relatively nearby star during Paleolithic times may have boosted human consciousness and kick-started human religion and creativity by affecting changes in our evolution.

Speculating that the ancients may have known much more than they are given credit for, I examine the evidence that may prove that our ancestors had knowledge and perhaps use of the electromagnetic spectrum in ancient times.

Badrinaryan Badrinaryan, chief geologist for the National Institute for Ocean Technology in India, takes us to the floor of the Gulf of Khambhat, off India's northwest coast. Evidence from side-scan sonar images and artifacts brought up from the murky depths helps build the case for a new cradle of ancient civilization and offers us a glimpse of what the oceans are likely to give up to archaeological explorers during the next century.

Author Gary A. David reveals a remarkable correlation between the stars of the constellation Orion and the Anasazi ground constructions in the southwest United States, not unlike the correlation found in Egypt. These careful astronomers meticulously laid out both winter and summer solstice sunset and sunrise alignments as part of a "ley" energy system covering their territory from southern Colorado through Arizona, to the mouth of the Colorado River.

Italian naval engineer Flavio Barbiero makes the case for the possibility of instantaneous shift of the poles; a cataclysmic event that may have occurred in relatively recent times, destroying a once flourishing civilization whose ruins, providing evidence of the shift, now lie buried under the ice sheets of Antarctica.

And last, Graham Hancock offers us startling new evidence about those who first peopled the Americas and where and when they came from.

In all, it's a fascinating collection of articles and essays meant to widen our perspective, expand our horizons of knowledge, and speak to the mysteries that drive the human heart and mind to explore and discover new truths about the human condition we all share.

At present, it's being reported around the world that former NASA astronaut Dr. Edgar Mitchell, who flew the *Apollo 14* mission and was the sixth human to walk on the moon, announced that the United States government has been covering up a sixty-year-old incident involving human contact with intelligent extraterrestrial aliens. Dr. Mitchell holds doctorates of science in astronautics and aeronautics and worked at NASA for decades. He claims his report is based on inside information and years of firsthand evidence. This can't be easily disputed, nor can it be dismissed out of hand—yet it fails to gain any real traction as a credible news story in today's world.

NASA, the "official establishment," issued a response disagreeing with Dr. Mitchell's "opinion." NASA did not acknowledge that Dr. Mitchell was not expressing an opinion, he was relating a fact. Along with many of the contributors to this book, he may be proven right over time, simply by the facts they've stated. Fifty, one hundred, five hundred, or a thousand years from now, when historians are writing the history of our present time, they will no doubt acknowledge the few visionary researchers and writers who got it right and worked to bring forbidden knowledge and new insights to the attention of the world.

O N E

Thoughts on Parapsychology and Paranormal Phenomena

HAS CONVENTIONAL SCIENCE MISSED SOMETHING PROFOUND?

ROBERT M. SCHOCH, PH.D.

Many of you reading this piece may know me from my work on the Great Sphinx, the Great Pyramid, and other ancient monuments, as discussed in various articles, documentary videos, and the books that I have written. As such, I am commonly asked how my studies in parapsychology relate, if at all, to my studies of ancient monuments. Even though I am a geologist, and my initial concern is in dating various ancient structures, I can't help but wonder why they were built, especially given the enormous efforts that must have gone into their construction.

The "why" behind the monuments, more often than not, apparently included motivating factors such as religious beliefs and practices, initiation rites, and rituals, which in many cases seemed to have an ostensible paranormal aspect, whether it was clairvoyance, divination, or manifestations of higher levels of consciousness. The temples and tombs of ancient Egypt, Mexico, and Peru seem to cry out "paranormal." So, was it all a mixture of ancient myth, superstition, and downright fraud on the part of many a seer, seeress, priest, and priestess, or could there have been something to it? Were the ancient structures used, at least in part, to alter consciousness, and possibly enhance paranormal phenomena?

In all honesty, I have always been highly skeptical of any alleged paranormal phenomena. However, my concept of skepticism is not the same as dismissal, and in my studies of ancient, indigenous, and traditional cultures, alleged paranormal phenomena kept making an appearance. When Logan Yonavjak, a former Boston University student of mine, encouraged me to delve deeply into the serious

parapsychological literature, I found the topic both fascinating and enlightening. The immediately tangible result of our research was the book we wrote together entitled *The Parapsychology Revolution*, in which we included selections from fourteen seminal papers, dating from 1886 through 2007, by major figures in the field, as well as a hundred pages of our own commentary. For me, however, the real result of my immersion into parapsychology was a new appreciation for human potentiality and the connections we share with all of life and ultimately, perhaps, with the cosmos.

Are Paranormal Phenomena real?

People often ask me if I "believe" in the paranormal. Let me just say that after looking at the hard evidence, and sifting out the fraud and bunk, I have come to conclude that there definitely is something to such phenomena as telepathy and psychokinesis.

Most people who have seriously studied the subject conclude that telepathy (mind to mind interaction) is the best-supported class of paranormal phenomena. There is strong laboratory evidence for telepathy, such as classic card-calling experiments, as well as many more sophisticated tests of telepathy, clairvoyance, and remote viewing. There is also a large and compelling body of evidence from spontaneous cases supporting the reality of telepathy. For instance, crisis apparitions, veridical hallucinations, or "ghosts" are well known, as documented in the classic two-volume scientific monograph of rigorously authenticated events produced by the Society for Psychical Research titled *Phantasms of the Living*.

The evidence for psychokinesis is also strong, including micro-psychokinesis studies using random event generators and similar devices. Examples of this evidence include the work done by the Princeton Engineering Anomalies Research (PEAR) labs over more than a quarter of a century, and the carefully studied incidents of macro-psychokinesis associated with genuine spontaneous poltergeist cases. Another line of compelling evidence for the reality of paranormal phenomena is the study of presentiments or "presponses," essentially a form of short-term precognition as measured by physiological parameters (heart rate, electrodermal activity, and so forth). Numerous replicated experiments have demonstrated the physiological responses of individuals to, for instance, disturbing photographs a second or two before they are actually viewed by the person. According to conventional science, this should not be possible.

As a natural scientist, I expect genuine phenomena (be they psychic and paranormal, or more conventional phenomena) to exhibit patterns and share elements in common, and this is just what has been found in spontaneous cases of the paranormal. Even when viewed cross-culturally, such commonalities persist.

Perhaps even more compelling for me is the work of various modern researchers that has demonstrated a weak but persistent correlation between low levels of geomagnetic activity on planet Earth and cases of apparent spontaneous telepathy (based on records going back to the latter half of the nineteenth century). This, in my opinion, is a very strong argument supporting the contention that there is something genuine to the concept of telepathy. It suggests that spontaneous telepathic phenomena are real and natural and, as might be expected of natural phenomena, that their manifestation is influenced by other natural parameters.

Alternatively, are we to hypothesize that hundreds of hoaxers over nearly a century and a half have conspired to fake telepathic incidents in identical correlation with geomagnetic activity? This latter hypothesis strikes me as rather far-fetched, if not downright ludicrous. It has also been found that incidents of the paranormal correlate with local sidereal time (which relates to the position of the horizon at any particular point on Earth relative to the center of our galaxy).

Note that a correlation between geomagnetic activity and spontaneous telepathy does not necessarily imply that the “telepathic signal” is magnetic or electrical in nature. The human brain is influenced by magnetic and electric fields, and whatever may be the carrier of the telepathic signal, the transmission, reception, and manifestation of the message by the brain could be hampered or enhanced by differences in the magnetic and electric fields that the brain is subjected to.

For many people, a phenomenon is not “real” unless it can be duplicated in a laboratory setting under controlled conditions. Being a natural scientist and field geologist, I have never agreed with this contention. After all, can we create a genuine volcanic eruption in the laboratory or even on command in the field? Until about two centuries ago, the scientific community routinely rejected the concept of rocks falling from the sky (meteorites). Still, attempting to induce, capture, observe, and experiment with apparent telepathy under controlled conditions is a worthy endeavor. Unfortunately, however, it is fraught with problems to this day, and though numerous experiments have tested positive for apparent telepathy, others have had negative results, and replication is a persistent problem. The bottom line is that we really do not know exactly what parameters or variables make for good telepathic transfer (or the elicitation of other types of paranormal phenomena), much less how to control for them.

There are major issues that remain unresolved concerning paranormal and psychic phenomena. We don’t fully understand what conditions are best to elicit paranormal phenomena, and thus these phenomena are not easily replicated on command (such as in a laboratory setting). There is often a very low signal to noise ratio when it comes to psychic phenomena; there is no single physical theory to account for paranormal

phenomena; and there is the issue of fraud and charlatans. Fraud is a very real and persistent problem in the field of psychical research, and one of the reasons to undertake large statistical studies of average people (as opposed to so-called psychic superstars) and search for the regularities and patterns one would expect among any genuine natural phenomena.

Also, paranormal studies have extended to animals (and in some cases, even plants). One of the strengths of nonhuman studies is that it is highly improbable that animals will cheat and lie. It can also be noted that many "powerful mediums" who appear to have genuine paranormal abilities also apparently have low moral values and will cheat and commit fraud (perhaps unconsciously) at times, especially when their genuine paranormal powers fail. This is a pattern that has been noted over and over among parapsychologists working with human subjects.

The Human and Cosmic Psyche

Speculations on Precessional Ages, the Yuga Cycle, and the Mental Abilities of Ancient Peoples

Many cultures and societies have traditions that hold that history is cyclical, which is expressed in numerous ways. For example, the classical notion of Gold, Silver, Bronze, and Iron Ages; the sequence of the twelve zodiacal precessional ages that make up the Great Year; or the yuga cycle of Hindu philosophy. What, I have to ask myself, if there is some truth to such cycles? Has human consciousness, perhaps expressed in terms of different mental (and paranormal) abilities and priorities, varied with such cycles? If so, can we discern evidence of such changes in the historical and prehistoric record? Initially I was highly skeptical that there could be any reality to "world ages," but as I study the data, I'm not so sure.

The evidence of the ancient monuments, combined with the mythology[*1] clearly indicates that a knowledge of the precessional cycle[†2] was well known throughout the ancient world as far back as five thousand years ago, and maybe much earlier. Accounts in the Judeo-Christian Bible, motifs of Egyptian art and architecture, and themes found among Greco-Roman myths (to name just a few examples) reflect precessional changes.

We are now in the end of the Age of Pisces, the age that began some two thousand years ago, not merely coincidentally with the birth of a new religion (Christianity) that adopted the fish (Pisces) as one of its earliest symbols. Soon we will enter the much-ballyhooed Age of Aquarius. Working back in time prior to the Age of Pisces, we have the Ages of Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio,

Sagittarius, and Capricorn, and then an earlier Age of Aquarius (and the entire cycle repeats again, and again, and again).

Hindu tradition has the yuga cycle, consisting of Satya Yuga (also known as the Krita Yuga; roughly a Golden Age), Treta Yuga (Silver Age), Dwapara (Dvapara) Yuga (Bronze Age), and Kali Yuga (Iron Age). (Note that these ages in the Hindu system vary in length among themselves.) In the late nineteenth century, Swami Sri Yukteswar Giri suggested that one entire yuga cycle takes approximately 24,000 years (descending from the Satya Yuga down to the Kali Yuga, and thence ascending through the yugas to another Satya Yuga, a pattern which repeats over and over) and is tied to the precessional cycle, which, in turn, is due to our sun revolving around another star. According to Sri Yukteswar, Earth left the last Kali Yuga circa 1699 CE, and we are thus currently in the first centuries of a Dwapara Yuga. Furthermore, he also asserted that Earth is subjected to varying magnetic fields and other influences and energies as it travels through space, affecting the mental attributes of those who inhabit the planet.

Approximately 15,000 years ago, Earth was at the beginning of the precessional Age of Virgo (using the Western classical system, and depending on the exact point used to separate the Age of Virgo from the preceding Age of Libra). Using Sri Yukteswar's dating of the yugas, 15,000 years ago Earth was in the Satya Yuga ("Golden Age"). What was happening 15,000 years ago on Earth? It was the end of the last ice age, but that did not mean the entire planet was covered in ice—many areas were still temperate to tropical. Our ancestors, modern humans (*Homo sapiens*) inhabited the planet, but we were not alone in terms of human and humanlike species.

The diminutive species *Homo floresiensis* lived in what is now modern Indonesia. An adult *H. floresiensis* stood about three and a half feet tall and had a brain only the size of a modern chimpanzee brain (not much larger than one-fourth the size of the modern human brain on average). Yet, despite their small brains overall, there is evidence that the portion of the brain associated with self-awareness is approximately the same size in *H. floresiensis* as in *H. sapiens*. Self-awareness, it can be argued, is an attribute that one would expect both in the Golden Age of the Satya Yuga and the precessional Age of Virgo since Virgo, ruled by Mercury, is associated with mental activity.

Fifteen thousand years ago in southern Africa lived another species, technically known as *Homo capensis*, so-named in 1918 on the basis of a partial skull (note that there is disagreement as to whether or not these forms represent a species distinct from us). More commonly they are referred to as the Boskop people or Boskops. Though their bodies were about the same size as those of modern humans, Boskops had huge heads with brains 25 to 35 percent larger than those of modern humans. In

their book *Big Brain: The Origins and Future of Human Intelligence*, neuroscientists Gary Lynch and Richard Granger argue that Boskops were in fact more intelligent than modern humans. Increased brain activity and enhanced levels of consciousness (perhaps expressed in manifestations that we would deem as paranormal) may have characterized the Boskops; this would seem to fit well with both the Satya Yuga and the Age of Virgo. Is this just coincidence? Or is this correlation significant?

Science and Paranormal Phenomena

A popular approach to possible paranormal phenomena is to simply dismiss such things as impossible—impossible either in an absolute sense, or as being of such a "low probability" as to be unworthy of consideration. For example, Sean Carroll, senior research associate in physics at the California Institute of Technology, posted a diatribe against parapsychologists and the very idea of studying possible paranormal phenomena on his blog at *Discover* magazine's "Cosmic Variance" site. The core of his argument is as follows: "The main point here is that, while there are certainly many things that modern science does not understand, there are also many things that it *does* understand, and those things simply do not allow for telekinesis, telepathy, etc. Which is not to say that we can *prove* those things aren't real. We can't, but that is a completely worthless statement, as science never proves anything; that's simply not how science works. Rather, it accumulates empirical evidence for or against various hypotheses." [Italics in the original.]

I'm classically trained in the sciences, and I understand where Carroll is coming from philosophically when he states that "science never proves anything" (and I agree that, epistemologically, at a deep level, proof is not the domain of science). However, Carroll contradicts himself when he states: "The crucial concept here is that, in the modern framework of fundamental physics, not only do we know certain things, but we have a very precise understanding of the *limits of our reliable knowledge*. We understand, in other words, that while surprises will undoubtedly arise (as scientists, that's what we all hope for), there are certain classes of experiments that are guaranteed not to give exciting results—essentially because the same or equivalent experiments have already been performed." [Italics in the original.]

Here Carroll is clearly, and for all practical purposes, arguing that certain things have been "proven" when he asserts that "we know certain things." This strikes me as a modern version of the famous (and famously wrong) 1894 pronouncement made by Albert A. Michelson (later to become a Nobel laureate in physics), quoted in an article in *Natural History* by Neil deGrasse Tyson titled "The Beginning of Science": "The more important fundamental laws and facts of physical science have all been

discovered, and these are now so firmly established that the possibility of their ever being supplanted in consequence of new discoveries is exceedingly remote. . . . Future discoveries must be looked for in the sixth place of decimals."

Michelson made this statement before the elucidation of X-rays and the structure of the atom, and before the discovery of radioactivity and the development of quantum physics and relativity theory. Despite his scientific brilliance, Michelson did not prove himself a very good diviner of the future.

Returning to the quotation from Sean Carroll, he states: "The main point here is that, while there are certainly many things that modern science does not understand, there are also many things that it *does* understand, and those things simply do not allow for telekinesis, telepathy, etc."

If in place of "telekinesis, telepathy," we substitute "continental drift," I could easily imagine this statement being made in the early twentieth century. The very concept of moving continents was lambasted from some quarters, despite the strong evidence in support of the theory, because it was deemed "impossible" and utterly "inconceivable" based on the science of the time that continents could move. There was no known mechanism, until, that is, the development of plate tectonic theory. (Yes, as a geologist, I am aware of the various criticisms and possible shortcomings of tectonic theory, but that is not the point or issue here.)

In analyzing further the selected quotations from Sean Carroll, we see that they actually expose the weaknesses of like-minded individuals who insist that science in its modern Western guise should have the last word or, to put it another way, be the final arbiter of truth (even if only a provisional truth). Again, the Carroll quotation is: "The main point here is that, while there are certainly many things that modern science does not understand, there are also many things that it *does* understand, and those things simply do not allow for phenomena such as telekinesis, telepathy, etc. Which is not to say that we can *prove* those things aren't real. We can't, but that is a completely worthless statement, as science never proves anything; that's simply not how science works. Rather, it accumulates empirical evidence for or against various hypotheses."

To say that something is "worthless" is a value judgment, and in an ultimate sense, one can argue, value judgments are outside of the realm of science and dependent on an emotional investment and context, among other factors. I would argue that the fact that "science never proves anything" is quite valuable as it precludes the "sleight-of-hand" dismissal of the very possibility of any supposed paranormal phenomena ever being genuine.

As far as empirical evidence is concerned, for many people this is the heart of the issue when it comes to alleged paranormal phenomena. Exactly what is evidence? Are

anecdotal case studies evidence? Is it appropriate to pick and choose what we consider evidence and dismiss, as “nonevidence,” case histories and studies that do not suit our biases? Is it legitimate for certain critics and debunkers to reject as evidence experiments carried out by particular laboratories, which give positive results for telepathy (with good controls, and taking all possible precautions against possible fraud)? Yet these same critics and debunkers will hail as “solid evidence” against the telepathic hypothesis similar experiments in a comparable lab, which give negative results (whatever “comparable” is in such cases, given how poorly we understand the aspects that influence paranormal phenomena).

In fact, what is and is not “empirical evidence” is not a black and white matter, either in parapsychology or in many other scientific disciplines. Rather evidence, any evidence, is a matter of degree and also carries a subjective and value-based component. The criteria that make for convincing evidence on the part of one person are not necessarily the same as the criteria for another person. Precluding obvious fraud and the like, there is no single magical scientific way to “objectively” determine the ultimate value of any particular alleged evidence. Science, any science, is not quite as “objective” as some would assert.

T W O

Quantum Philosophy and the Ancient Mystery School

TODAY'S NEW SCIENCE PHILOSOPHY—OLD OR NEW?

EDWARD F. MALKOWSKI

Responsible for the microelectronic technology that brought us the cell phone, the computer, and the Internet, quantum physics has proven to be history's most successful scientific theory. Quantum physics is also the source of a new understanding of the world around us.

Although the founding principles of quantum physics were developed in the 1920s and 1930s, it wasn't until the 1970s that its influence seeped into our cultural worldview. In 1975, with the endorsement from one of quantum physics' founding theorists, Nobel laureate Werner Heisenberg, Fritjof Capra explored the similarities between quantum physics and the Eastern mystical tradition in *The Tao of Physics*. Another landmark book was published four years later, Gary Zukav's *The Dancing Wu Li Masters: An Overview of the New Physics*. With these books, and many others that followed, a new worldview started to emerge, embracing the interconnectedness between man and nature.

Everything is connected through a universal field of virtual particles, and we are all part of a single living system. What this new worldview suggests is that physical form as biological consciousness is a local expression of a universal phenomenon commonly referred to as "consciousness." The cycle of life and the evolution of form are natural processes that create a framework for experience where consciousness is a fundamental aspect of reality just as much as the spatial dimensions. Consciousness, once thought to be only the product of brain chemistry, is now viewed as the eternal driving force for all that exists, that manifests itself through physical form in order to experience.

Although Mind is very much an enigmatic and highly debatable concept, this new

worldview also suggests that the individual's mind is a process of this universal drive to experience, as opposed to being a separate entity. Erwin Schrödinger, another founding theorist of quantum physics, and also a Nobel laureate, views this question of one Mind and many minds as an arithmetical problem. For Schrödinger, our perception is scientifically indescribable, because the mind itself is that world picture. Thus, the individual mind is identical to the whole "Mind," and therefore cannot be contained in it as a part of it. This creates a problem, because there are a multitude of individuals experiencing consciousness, but there is only one world.

One answer to this paradox is that each of us experiences a unique world, which Schrödinger summarily dismisses. There is only one other alternative. The multiplicity of minds is only apparent; in truth there is only a single Mind. Such a concept brings with it complex ramifications for the definition and nature of knowledge.

Secret Wisdom—Sacred Science

You might think that since quantum physics is a relatively new branch of science, this burgeoning "new science" philosophy is also new. It is not. These new insights into nature and reality are very old but have been masked by modern attempts to characterize the ancient Egyptian culture and religion as primitive. The concepts of mind and consciousness, as well as reincarnation and evolution, were expressed long ago in what historians have labeled the "ancient mystery school"—what Schwaller de Lubicz termed "sacred science." Although shrouded by the secrecy of the temple and rites of initiation, ancient Egyptian schools taught this secret wisdom through myth and symbolism, an approach that leads to an understanding of the world that is virtually identical to today's new science philosophy.

In fact, the sacred science of the ancient Egyptians, best described as a philosophy of nature's principles, inspired the Hebrews, the Greeks, the Romans, and the Christians, which led to the emergence of what we call Western civilization—but for us, thousands of years later, the founding knowledge of our civilization is all but lost. However, there have always been people who have handed down the secret wisdom and the sacred science of the ancient Egyptians: Kabbalists, Hermeticists, Gnostics, Sufis, Buddhists, and Alchemists. It is secret only in the sense that this wisdom must be understood through esotericism and symbol, and it's sacred only in the sense that scientific investigation inevitably leads to an understanding of Man, Divinity, and a unique knowledge of "Self."

Leaving behind modern biases and looking deep into ancient Egypt's civilization, there can be found a brilliance and understanding that rivals our knowledge today.

Their “gods” were of a different order than our Western concept of God. They were not “gods” at all, but principles of nature that represented concepts like digestion and respiration. They also represented intangible qualities found in mankind, such as knowledge and personality. This ancient view of nature has been mistaken as religious and cultlike, but is, in fact, technical and philosophical.

For example, the king’s diadem, with its serpent and vulture, symbolized the principles of life and form. The serpent represented the concept of the Source for all that exists and its manifestation as the cosmos; and the vulture, man’s spiritual immortality. Like a spirit, the vulture, soaring high in the sky, escapes this world to an existence beyond the bounds of Earth. Thus, the pharaoh’s diadem symbolized man’s kingship in a cosmic sense and the mystery of life’s essence, where the mystery is the reality of Cause and Effect. This mystery, which defines the human experience, is abstract, but operates through the concrete court of three dimensions to create another abstraction—what we experience as consciousness and self-perception.

How the ancient Egyptians developed such a refined philosophy is a mystery in itself. Scholars such as Samuel Mercer, who translated Saqqara’s Pyramid Texts during the 1950s, have noted that the tenets of this philosophy appear to have emerged fully-fledged nearly five thousand years ago, without historical precedent. It is ironic that ancient Egypt’s technical capabilities—so ambitious, so precise—also appear to have emerged, fully-fledged, without precedent. Although we shouldn’t be surprised, since the development of a sophisticated philosophy does not occur without sophisticated technology.

Such insight into ancient Egypt’s earliest traditions moistens the seeds of doubt for history’s linear model of man and civilization— particularly so when today’s emerging “new science” philosophy parallels concepts described long ago in Ramses’ Temple of AmunMut-Khonsu, so meticulously described by Schwaller de Lubicz in his two volume work *The Temple of Man*.

In 1937, alchemist and Hermetic philosopher René A. Schwaller de Lubicz was drawn to Egypt by an inscription at the tomb of Ramses where the pharaoh was depicted as the side of a right (3:4:5) triangle. For Schwaller de Lubicz, this meant that the ancient Egyptians understood geometry’s Pythagorean theorem long before Pythagoras was born. Intrigued, he moved to Luxor and studied ancient Egypt’s art and architecture for thirteen years, concluding that the temple architecture was a deliberate exercise in proportion. The temple, in its detail, described the nature of man as a science, a philosophy that Schwaller de Lubicz termed the “Anthropocosm” or “Man Cosmos.”

Philosophy of the Anthropocosm

The question of who we are and why we are here will likely remain the ultimate mystery. Intuitively, however, this mystery can be understood upon the realization that our existence as a conscious biological form can be traced to cosmic events, and that the prerequisites for our existence can be traced to a universal state. Our Earth is dependent on the sun and the solar system in which it is gravitationally trapped; which is dependent on the Milky Way galaxy, in which it is gravitationally trapped; which is also held in place by other forces including, but not limited to, our neighboring galaxies. Any interruption in this line of cosmic dependency would likely result in the cessation of our existence. Thus, it can be said that the cosmos is the true nature of man, and form is the sole means of its expression.

Although it seems as though we are insignificantly small compared to the rest of the universe, there is a single truth to our existence that cannot be denied and that lends credence to the abstract nature of man—the reality of the observer. We observe and perceive an ordered, yet dynamic, arrangement of energy that we naturally translate into sight, sound, smell, taste, and touch. To take away the measures of this reality means reality's destruction, which suggests that the universe was never concrete in the first place. We only perceive that it is. Therefore, like Plato in his cave, we can conclude that the concreteness and form in which we live are really only the knowledge of such things. Einstein agreed implicitly in one of his famous statements: "Reality is an illusion, albeit a very persistent one."

The most interesting question is, where does our ability to observe and perceive come from? According to physicists, it comes from an event called "state vector collapse" where all possible states of the system (the universe) collapse into a single observed state.

During the 1920s, while Heisenberg and Bohr were further developing quantum theory, they realized that a new viewpoint had to be created to achieve a proper understanding of the quantum world. The classical view of a discrete world would simply not work. To accomplish this, they embraced the idea that the world is fundamentally not a collection of discrete objects, but an indistinct, unified world of energy where, at times, discrete objects are perceived. Heisenberg developed his wave matrix theory, and Schrödinger his wave mechanics, to explain their insights. Although slightly different in their approach, these two theories offered a more accurate description of the atomic structure than did classical physics.

What their theories state is that all matter exists as a wave structure that we cannot directly see. What we do see is the localization of the wave structure with its release of energy, which is a simple way to explain state vector collapse. The energy released

is what physicists call a photon (a particle of light). We perceive the released energy as a particle, even though it is really a wave. This occurs for us because that is how the human brain works.

Without state vector collapse there would be no perception of separation, no form to experience and, consequently, no expression. The cosmos would remain in an undefined state of absoluteness, a potential of all cosmic possibilities.

All matter that makes up the cosmos is actually configured energy that now exists as a result of stellar nucleosynthesis and supernova. Carbon, nitrogen, oxygen, and other heavy elements—the building blocks of life—were created as a result of large stars collapsing under their own weight and then exploding with tremendous heat, spreading newly created elements into empty space to form interstellar clouds. New research suggests that even amino acids, important for protein synthesis, were formed in interstellar clouds. Thus, scientists argue that since the elements that make up our bodies are the results of a cosmic process, then we are made from stardust and are literally children of the stars.

The Big Bang origin of the universe has been the model of choice for cosmologists for many decades now, but it has always been a scientific paradox. Our known laws of physics are not valid until after the moment of the Big Bang. So, how do we arrive at a universe that we experience, which sprang from nothing? Perhaps the Big Bang is only a perspective to explain the current body of scientific data, and does not accurately represent actual events. As is all of nature, perhaps the universe is cyclical and oscillates between the never-ending destruction and creation of galaxies. No one really knows.

However, what we do know and can be certain of is our conscious experience. It is the one thing all six billion of us can agree upon, and the key to understanding nature. According to the Anthropocosm theory, consciousness creates a venue in order to experience, and does so through the unique quantification of its qualities. This cosmic and anthropic “new science” understanding of man puts forth the same principles that were built into the architecture of Luxor’s Temple of Amun-Mut-Khonsu.

The temple was not about the piety of a man, but our solar legacy as the philosophical “Divine Man” portrayed in the great statues of Ramses—the birth of the sun. The temple was (and is) a form of communication, a lesson, and at its core its builders’ philosophy is carved in stone. Amun, Mut, and Khonsu were not “gods” in the Western religious sense, but principles that form and explain the nature of mankind as coherently as such an abstract subject can be explained.

The definition of man and the story of the human experience were built into the temple architecture. Physically, the temple describes the structure of man, from the importance of the femur in the creation of blood cells, to the role of the pineal gland

in the brain. Spiritually, the temple conveys life's cosmic drama and man's spiritual immortality. Amun was the "Hidden One" or the "Invisible One," best described today as the Western concept of God, omnipotent and omnipresent, or, from a scientific viewpoint, the energy field that pervades all that exists. From the ancient Egyptian point of view, Amun was self-created, the creative power and source for all that exists. Mut, which means "mother," was Amun's cosmic wife and the mother of the "Son" Khonsu, who represented the king.

However, the kingship of Khonsu was not a physical kingship but refers to a cosmic (or spiritual) ruler made flesh through the principles of nature. Thus, Khonsu the King represents the essence of mankind—the archetypal "Man"—and essence of all who ever lived, is alive now, and will live in the future. Khonsu, by being associated with Re and Thoth, represented the essence of life's energy and man's wisdom and knowledge, where mankind is a consequence of the universe's evolution culminating in the physical endowment of the universe's self-perception. In myth, Khonsu was a lover of games, but was also the principle of healing, conception, and childbirth. Literally, he was "the king's placenta."

Just as the ancient Uroboros—the circular serpent biting its tail—symbolizes cyclicality, through our modern scientific endeavors we have come full circle in understanding ourselves. No one knows for sure in what culture or at what time the Uroboros was first fashioned as a symbol, but it is one of mankind's most ancient ones.

Plato tells us in the *Timaeus* that since nothing outside of the serpent existed, it was self-sufficient. Movement was right for his spherical structure, so he was made to move in a circular manner. Thus, as a result of his own limitations, he revolves in a circle, and from this motion the universe was created. From Egypt's Ptolemaic period, the artist who drew the "Chrysopoeia [gold making] of Cleopatra" wrote within the circular serpent: The All Is One. Thus, the serpent is the ancient Egyptian symbol depicting self-creation and the source of life: "It slays, weds, and impregnates itself," writes Erich Neumann in *The Origin and History of Consciousness*. "It is man and woman, beginning and conceiving, devouring and giving birth, active and passive, above and below, at once."

For the ancient Egyptians, the Uroboros—the serpent—represents the creative principle of the cosmos, as well as the cosmos itself. Since the serpent's form is singular, without appendages, but has a forked tongue and forked penis, its form is an apt symbol of creation's initial movement from an undifferentiated state into a world of multiplicity; a movement from one to two. Schwaller refers to this as the "Primordial Scission."

The Uroboros, however, is not just an ancient mythical symbol, nor is it the

fabricated imagery of the primitive mind. Rather, it is man's identification with the seamless, eternal state of oneness whose essence is a deep memory of an origin that words cannot explain and has to be understood through esotericism. As such, the Uroboros' esotericism is as valid today as it was at the dawn of man.

The Spiritual Technology of Ancient Egypt

The Western worldview has a long history of separating the physical from the conceptual; the scientific from the religious. So together, spirituality and technology appear contradictory. This contradiction, however, is based on a naïve and exoteric view of "spirit" and "technology."

Spirit is not some immeasurable, metaphysical thing. Rather, Spirit is the driving force behind the human experience, the quest for knowledge, and the building power of civilization that can be measured by achievement. Technology is mankind's application of knowledge into industry that provides for the civilization's well being. Technology, which is the application of science into civil practicalities, is also the building power of civilization.

Even though technology's final product is most evident, it is the spirit of man that turns ideas into concepts, and concepts into knowledge, which through engineering brilliance, turns science into technology and makes life more efficient and comfortable. Every product ever made began with someone's inspiration and creativity. So, spirit and technology are really different aspects of the same human endeavor.

The desire to know inspires us, and the ever-increasing level of knowledge and technology has allowed us to reach new levels in understanding our state of existence—but what might have inspired the ancient Egyptians? Schwaller de Lubicz believed that ancient Egypt was the legacy of a technical civilization of which there is no history or knowledge in today's world, a civilization for which spirit and technology were integrated into a worldview that embraced life's mystery. For me, it is this technical and spiritual legacy that is so evident in the art and culture of ancient Egypt.

The spiritual technology of ancient Egypt expounds upon the works of Schwaller de Lubicz and tells the untold story behind the birth of the Western religious tradition. The Egyptian Mysteries, as they were called, inspired greatness in men who instilled the concept of the Anthropocosm into our own sacred literature, and it is the same philosophical understanding of nature that is at the forefront of today's "new science"; whether symbolized by the Uroboros or Schrödinger's wave equation, human consciousness exists as a local manifestation of a self-perceiving universe.

T H R E E

The Egypt Code

IS THE KEY TO EGYPT'S PAST REFLECTED IN THE STARS ABOVE GIZA?

ROBERT BAUVAL

What are Egypt’s Old Kingdom pyramids for? What possible purpose could they have had? Why do they have low protracted tunnels, and long narrow shafts that seem to lead nowhere, and corridors, galleries, and chambers that are often stark and empty? Why were the pyramids astronomically aligned to the stars? Why are they scattered in clusters along a forty-kilometer strip of desert? And, more intriguingly, why are some devoid of texts while others have their walls fully covered with inscriptions that speak of the sun and stars, and of a strange religious cosmology in a celestial landscape that is reminiscent of Egypt itself?

Until very recently, the standard theory offered by Egyptologists was that the pyramids were tombs, large sepulchers created principally to house the body of dead kings. As for their elaborate internal systems of tunnels, shafts, corridors, and chambers, these were intended mainly to confuse and outsmart tomb robbers, while their astronomical alignments were either meaningless or just a fluke. Amazingly, such views went mostly unchallenged for nearly two centuries, this in spite of the maddening detail that no bodies of kings (not a skeleton or skull or even a bone splinter) were ever found inside a pyramid or, for that matter, outside it.

More maddening still, no one had an explanation why, if they were “tombs,” these pyramids were not placed into a single well-defined cemetery but instead were scattered in small clusters in a vast desert plain west of the strange, River Nile–like volcanic islands in a sea of sand. Yet, oddly enough, the clues that suggested a much higher purpose than just “tombs” were plentiful, and always there for all to see and evaluate—and these clues screamed of a connection with the stars. For example:

The base of each pyramid was aligned to the astronomical directions using star alignments.

The largest of the pyramids contained “air shafts” oriented toward important star systems such as Orion, Sirius, and the circumpolar constellations (viz. the Pyramid of Khufu at Giza).

Pyramids were given “star” names or names implicit of stars (“The Pyramid of Djedefre is a Sehedu star”; “Nebka is a star”; “Horus is the star at the head of the sky,” and so forth).

Pyramids had ceilings of chambers decorated with five-pointed stars (viz. the Step Pyramid and Fifth and Sixth Dynasty pyramids at Saqqara).

Pyramids contained writings carved on the inside walls that spoke of a star religion and the destiny of a king in a starry world called the Duat, which contained Orion and other constellations (viz. the Fifth and Sixth Dynasty pyramids at Saqqara).

It is therefore somewhat odd, not to say perverse, that with so many “stellar” connections, there has not been a single Egyptologist who was compelled enough to consider a stellar “function” for the pyramids. And because this important matter was left unbridled for so long, it was not surprising that untrained researchers, dilettantes, cranks, and charlatans dished out theories that ranged from the derisory to the completely insane. Pyramids were built by the lost civilization of Atlantis; they were built by a lost technology using levitation; they were power plants; they were electromagnetic receivers for interstellar communications; they were built by aliens; they were built by the Jews while in captivity in Egypt; the Great Pyramid was designed to contain detailed information of world history and future in every inch of its plan; it was a Bible in stone.

So when I burst on the scene in 1994 with my first book, *The Orion Mystery*, showing that the pattern of the three Giza pyramids and their position relative to the Nile mirrored the pattern of the three stars of Orion’s Belt and their position relative to the Milky Way, the subject was so much soiled and degraded that any new theory that mentioned the “stars” or “astronomy” was immediately met with a barrage of academic indifference (at best), or vociferous opposition. The reaction was even more violent because my theory had received the (albeit cautious) backing of one of the world’s most eminent and most respected Egyptologists, Sir I. E. S. Edwards, who had gallantly and boldly stuck his neck out on my behalf by appearing on the 1994 BBC2 documentary *The Great Pyramid—Gateway to the Stars*, in support of some of my ideas.

This brought him the wrath of his peers, but it nonetheless twisted their arms and forced some to grudgingly review my theory. However, in the years that followed, and especially after Edwards' death in 1996, I was derided and pilloried by a cabal of Egyptologists and other "experts" seemingly determined to "debunk" the Orion Correlation Theory, as my hypothesis was now being called. All this academic onslaught was most daunting and distressing, but I firmly held my ground, for I knew that I had not only generated massive interest and support in the general public and the international media but that the theory I had proposed neatly dovetailed into the context of Egypt's Pyramid Age and provided the "missing link" to an otherwise baffling mystery. Even the most entrenched skeptic could not easily dismiss the Orion-Giza correlation as "coincidence."

Fourteen long years have now passed since the publication of *The Orion Mystery*. Meanwhile, the book has been published in more than twenty languages and there have been dozens of television documentaries fully or partially-based on the Orion Correlation Theory (viz. Britain's BBC2 and Channel 4; America's ABC, NBC, and FOX; Europe and America's Discovery Channel and History Channel; Italy's RAI 3; Germany's ZDF and ARD; France's ARTE and TF3; South Africa's SABC and M-net TV; Holland's AVRO TV; Australia's Channel 7; Egypt's NILE-TV and many more other channels in the Far East and Middle East).

Two more documentaries were aired with National Geographic television, both entitled *Unsolved Mysteries of the Pyramids* (where my theories were critically reviewed), and another, *Egypt Decoded*, made for Italy's RAI 2 and Holland's AVRO fully based on *The Egypt Code*. Slowly but surely, the Orion Correlation Theory has crept like a thief in the night into mainstream Egyptology and the new discipline of archeoastronomy. And even though it is given much lip and criticism, it is very obvious that it has touched the proverbial nerve of academia.

To be fair, not all academics were prone to dismiss *The Orion Mystery*. Some very eminent Egyptologists, such as Dr. Jaromir Malek of the Griffith Institute and the American Egyptologist Dr. Ed Meltzer kept an open mind just as the late Sir I. E. S. Edwards had. More refreshingly, the theory received cautious support from the astronomical community, particularly from Professor Archie Roy of Glasgow University, Professor Mary Brück of Edinburgh University, Professor Giulio Magli of Politecnico di Milano, Professor Percy Seymour of Plymouth University, and Professor Chandra Wikramasinghe of Cardiff University. And even though these high-ranking astronomers maintained a healthy skepticism, they nonetheless found the theory intriguing and deserving of careful consideration and further research.

Also in the course of the years, a crack began to appear in the Egyptological academic armor when Dr. Jaromir Malek (who had reviewed my theory in 1994 in the

Oxford journal *Discussions in Egyptology*) declared himself favorable to the possibility that the apparent illogical scattering of pyramids in the Memphite necropolis (a 24.8 mile [40 kilometer] long desert strip west of the Nile near Cairo) may, after all, have had more to do with "religious, astronomical, or similar" considerations than with purely practical considerations such as the topography and geology of the land. Similar views began to be heard in Egyptology, especially from the American Egyptologist Mark Lehner, the Czech Egyptologist Miroslav Verner, and the British Egyptologist David Jeffreys.

It was, however, the archaeoastronomer Anthony Aveni, a professor of astronomy and anthropology at Colgate University, who, in my view, would come the closest in providing an overall picture of what may have been in the minds of the ancient architects who designed and planned such mysterious monuments (not only in Egypt but in other parts of the ancient world). He wrote that, "In order to understand what ancient people thought about the world around them, we must begin by witnessing phenomena through their eyes. A knowledge of each particular culture is necessary, but learning what the sky contains and how each entity moves is also indispensable . . . strange but true: Whole cities, kingdoms, and empires were founded based on observations and interpretations of natural events that pass undetected under our noses and above our heads."

Dr. Aveni was referring to the Maya and Inca civilizations when he made the above statement—but he may as well have been talking about Egypt's Old Kingdom, for I am now even more convinced that such a statement holds truer for the sacred cities, pyramids, and temples built by the ancient Egyptians along the 621.4 miles (1,000 kilometers) of the Nile Valley during their three thousand years of civilization. And this, in a nutshell, is what I set out to prove in *The Egypt Code*.

By the year 2000, I was ready to put the findings of my investigation into book form. To this end I presented a synopsis to my editor at Random House in London, who promptly commissioned the project. By early 2004, I had a first draft ready. The final draft, however, was completed in Egypt. In February 2005, I rented a fully furnished apartment with a direct view over the Giza pyramids. Being here gave me the unique opportunity to refine the book with a hands-on approach to the pyramids in Lower Egypt and the great temples of Upper Egypt, and to verify and test the various ideas of my thesis. Imbued with the enchantment and magic of these ancient sites I have, I believe, succeeded, in more ways than one, in bringing the sky-ground correlation theory I started two decades ago to its natural conclusion.

In *The Egypt Code*, I have made use of primary sources whenever available, and relied only on scholarly research published in peer-reviewed journals or in textbooks by renowned Egyptologists and other scholars. My readers should expect no less from

me. Culling my data from all of these sources, I have come to this conclusion: The ancient Egyptian theocracy was regulated by a cosmic order called Ma'at, which was none other than the order of the sky: the observable, precise, and predictable cycles of the sun, the moon, and the stars. I have also concluded that this Cosmic Order was fervently believed to influence the material world below, especially the all-important annual flooding of the Nile, for nothing more fascinated, awed, and *frightened* the ancient Egyptians than the Nile's flood, which began in late June and ended in late September. This was the annual miracle that rejuvenated the crops and all other life in Egypt, or brought famine and pestilence if the waters failed to rise.

This double-edged sword that hung perpetually over Egypt compelled the Nile dwellers to seek magical means to ensure a good flood. Early in their development they came to observe that the stars of Orion and Sirius would disappear underneath the western horizon after sunset in late March and remain for a protracted period (about three months) in the "underworld" before reemerging on the eastern horizon at dawn in late June *just when the waters of the Nile began to rise*. During this crucial period of the stars' sojourn in the "underworld," the astronomer-priests also noted that the sun traveled from a point on the ecliptic just below the bright cluster of the Pleiades (marking the vernal point) to a spot farther along the ecliptic just below the chest of the celestial lion, Leo (marking the summer solstice), that bracketed the constellation of Orion and Sirius.

The idea began to enter their minds that when the Sun God journeyed through that special part of the sky—the Duat, as it was called—he performed a magical ritual, a sort of "stations of the cross," that would bring about the "rebirth" of the stars as well as the "rebirth" of the Nile when, in late June, the star Sirius would reappear at dawn on the eastern horizon. This event happened to also fall on the day of the summer solstice, when the sun would reach its maximal northerly declination, and was for good reason taken as New Year's Day and called (among other things) the "Birth of Ra," the Sun God.

A mythology and sky-religion developed around this cosmic and Nilotic theme and, more intriguingly, an ambitious plan was gradually hatched around 2800 BCE to "bring down," in the literal sense, the Cosmic Order so that the pharaoh, the son of Ra on Earth, could undertake the same magical journey in an earthly Duat and thus secure for Egypt a "good" flood (recall the Hermetic dictum: *As above, so below*). To this end, a massive pan-generational project was put into action that would involve building clusters of "star"-pyramids at predetermined sites to represent Orion and the Pleiades, as well as the building of great "sun"-temples set on both sides of the Nile to define the part of the ecliptic along which the Sun God traveled through the Duat from vernal equinox to summer solstice, set on both sides of the Milky Way.

My new theory doesn’t stop there—I was also able to determine that the slow cyclical changes witnessed in the sky landscape caused by precession and by the peculiarities of the Egyptian civil calendar over the three thousand years of the pharaonic civilization are reflected in the changes witnessed on the ground all along the 621.4 miles (1,000 kilometers) of the Nile Valley in the evolution of temples throughout the same three thousand years. In other words, *The Egypt Code* proposes, no less, to prove that there exists a sort of “cosmic Egypt” ghosted in the geography of the Nile Valley stretching from north to south that was once literally regulated and administered by astronomer-priests headed by a sun-king; that this cosmic Egypt lasted for over three millennia, and that it can still be discerned in the layout of the pyramids and temples that remain today.

My thesis is entirely verifiable, testable, and ultimately falsifiable if need be. Indeed, I happily welcome Egyptologists and other scholars and researchers in the field of Egyptian archaeology and history to step up to the debate.

F O U R

Alternative History and Esoteric Philosophy

TWO PORTALS INTO THE SAME WORLD?

MARK BOOTH

Something that often surprises me about the opponents of alternative history is how readily they stoop to intellectual dishonesty. Typically the "scientifically correct," as I like to think of them, present themselves as high-minded defenders of intellectual rigor. They then go right ahead and attribute to others claims that they have never made, just so they can rubbish them!

The 1999 BBC2 *Horizon* documentary about Graham Hancock and Robert Bauval, "Atlantis Reborn," was a shining example of this—cut, dried, and well documented in the adjudication of the Broadcasting Standards Commission. Maybe it's a kind of tribute? If the scientifically correct were sure of their ground, perhaps they wouldn't feel the need to behave so shiftily?

Yet they do, and more's the pity on several deep and important levels, as alternative history often touches on what the existentialist theologian Paul Tillich called "the ultimate questions"—where we come from, who we are, and what the meaning of life might be. Of course, ideally, these questions should inspire a wholehearted desire to discover the truth. We should be passionately interested, yet scrupulously disinterested, setting aside all partisan affiliations, even the desire to be right, because the answers we give to those ultimate questions determines the very way we choose to live our lives.

Exactly how *does* alternative history bear on the ultimate questions? I think that this is best explained using an example that is central to alternative history. If the Sphinx dates back deep into what's conventionally called the Stone Age—in other words if it is many thousands of years older than conventional, academic history allows—then it follows that we are not who we thought we were. Our history has different patterns than the accepted ones.

This question of the age of the Sphinx is also an example of a curious feature of the human condition as a whole, a feature that is quite remarkable, but often overlooked: *When it comes to issues like these, we find ourselves dealing with minute fragments of evidence that admit of many different interpretations, sometimes even contradictory ones.*

It seems to me that when it comes to the great questions of history, and to the great questions of life and death that are tied up with them, the evidence is often not so overwhelming that it imposes an answer on us. *We often have great latitude when we choose what to believe*.

Perhaps we can then choose what we want to believe?

Important, then, to be aware of which part of ourselves is doing the choosing, that we do not choose unconsciously, but instead bring our full intellect to bear. Is it the part that really wants to know the truth that is doing the choosing? Or is it the partisan, egotistical side that wants to be right or to be on the winning side?

The fact that we are in a position to consider the ultimate questions in a relaxed and tolerant way, and without trying to tear each other's throats out, the fact that a wonderful forum like Graham Hancock's website exists, is at least in part due to the work of secret societies—in particular, the secret societies that lay behind the Royal Society, and therefore the great scientific and industrial revolutions of the eighteenth and nineteenth centuries. These secret societies created protected spaces (sometimes called lodges) where freethinking, disinterested intellectual enquiry could take place.

In these spaces, people like Isaac Newton, Robert Boyle, Robert Hooke, and Bruce Harvey were not only able to discover and define gravity, formulate the law of thermodynamics that paved the way for the internal combustion engine, invent the microscope, and uncover the workings of the circulatory system, they were also able to pursue their interest in alchemy and other arcane subjects. When an outsider questioned Newton about his interest in astrology, he is reported to have replied, "Sir, I have studied it, you have not." Newton also believed that we live in a world dense with secret codes—in the laws of nature, in books like the Bible, and in ancient monuments like the ones on the Giza Plateau. They were put there, he believed, to help draw our intelligence out of us.

The initiates of the secret societies had realized that you get two very different sets of results if you look at the world as objectively as possibly and then, on other occasions, as subjectively as possible. This realization brought great material benefits to the world, but it also opened up many strange realms of thought. . . .

It was brooding on these sorts of things, especially the dates of the monuments on the Giza Plateau, that led me to think that I might have a contribution to make as a

writer. In my day job, I was editing and publishing (at different times) not only Graham and Robert, but also Robert Lomas and Christopher Knight, Robert Temple, David Rohl, and Michael Baigent. In my spare time, I had also developed an interest in esoteric philosophy, in Theosophy (with a big as well as a small "t"), in the Rosicrucians, and in their modern representatives, the Anthroposophists. I used to delight in finding obscure and weird old books about the esoteric and mystical in secondhand bookshops—for example, the works of magi like Paracelsus and Jacob Böhme.

It struck me that, although as far as I knew none of these alternative historians were—at that stage, at any rate—much interested in esoteric philosophy, many of their discoveries were confirming its tenets, regarding, for example, the claims that the Sphinx and the Great Pyramid are much older than conventional history allows, or related claims regarding the historical reality of Atlantis and the Flood.

If new evidence was being unearthed that suggested that extremely important traditions like these have some basis in historical reality, the question naturally arises: what other traditional esoteric information about history might also be true? So I planned to try to weave together, into one narrative, historical lore from different esoteric traditions from around the world. To achieve one narrative thread, I decided to focus on what they had in common—discarding what are sometimes called "cultural accidentals"—and also to focus, where possible, on traditions that chime in with the latest discoveries of alternative history.

I very quickly realized that if this history was to be in one volume, rather than spreading across many, many volumes, it could not incorporate debate as to whether its claims—the arguments for and against the Sphinx being some twelve thousand years old, for example—are true. This would have to be a "take it or leave it" history. If readers wanted to follow up on the pros and cons of these debates, they'd have to turn to the works referenced at the back. (In the case of the Sphinx, these would be books by Graham and Robert, John Anthony West, Robert Temple, and Schwaller de Lubicz.)

After a while, I began to formulate a theory on what these esoteric traditions had in common: they all describe the ways that the supernatural works in the world. Gods, angels, and spirits may have different names in different places and at different times, but, according to secret teachings everywhere, the patterns they help make, and the shapes they give to our lives are the same. Therefore, my resulting book, *The Secret History of the World*, describes patterns that wouldn't be there if materialistic science accounted for everything.

These patterns in history are perhaps deeper than the laws of economics, the effects of climate change, and the conventional, materialistic view of politics that

interests modern, academic historians. In other words, I show history operating according to what I call (after the poet Rainer Maria Rilke) the Deeper Laws. Then, at the end of the book I invite readers to look at their own lives to see if they can't find these same Deeper Laws operating there.

In the book, I tried to weave together different mystical traditions about our beginnings and endings and great turning points in between into one epic imaginative vision. My aim was to see if this imaginative vision formed a coherent, cogent whole that might be set against the scientific materialist one. I couldn't think of anyone who had tried to do this since Milton, and he had done it in very different circumstances, when scientific materialism was beginning to roll back the idealism that had been the universal philosophy up to that point. Madly, I asked myself if it were possible to create an imaginative vision that would be a sort of mirror image to Milton's—written at a time when scientific materialism seems to many to be beginning to fray and look a bit thin at the edges.

The world is a much more mysterious place than we have been brought up to believe. There are other ways of knowing than the one we have been taught. The priests and artists of the Egyptian and Hindu temples knew of and understood the function of the pineal gland thousands of years before it was "discovered" by German and English anatomists (more or less simultaneously) in 1866.[*3] Robert Temple has shown that the Egyptian priests knew that Sirius is a three-star system, something only confirmed by French astronomers using radio telescopes in the second half of the twentieth century.

According to Rudolf Steiner—the founder of Anthroposophy—knowledge of the evolution of the species from marine life to amphibian to land animal to anatomically modern human was encoded thousands of years ago in the imagery of the constellations. Jonathan Swift was deeply immersed in esoteric philosophy. In *Gulliver's Travels*, he predicted the existence and orbital periods of the moons of Mars. A hundred years later, when astronomers first observed these moons using the latest telescopes, they named them Phobos and Deimos—fear and terror—so awestruck were they by Swift's evident supernatural powers.

How did these guys know? Where did their "powers" come from? Is there something going on we don't fully understand?

Again, the intellectual establishment would like us to see a very clear distinction between modern scientific endeavor and the occult, seen as primitive and superstitious—but as I demonstrate, the line is not always clear.

We've already touched on Newton, Boyle, Hooke, and Harvey. Newton's rival in devising the calculus, Gottfried Leibniz, made his advances while studying the Kabbalah. Paracelsus, the great Swiss magus, a great practical alchemist sometimes

credited with inventing the principles that lie behind homeopathy, has also been called the father of modern experimental medicine. Emanuel Swedenborg, the most famous psychic and esoteric teacher of his day, also discovered the cerebral cortex and engineered the largest dry dock in the world. Perhaps significantly, Charles Darwin formulated his theory of evolution shortly after his friend Friedrich Max Müller had made the first translations into a European language. Sigmund Freud was very interested in the Kabbalah as a boy, and his model of the mind—super ego, ego, and id—can be seen as a materialistic version of the Kabbalistic one.

Carl Jung based his account of what he called the Seven Great Archetypes of the Collective Unconscious on the spirits of the planets as they have always been understood in esoteric lore. Thomas Edison, the inventor of the phonograph (and so, in a sense, the godfather of all recorded sound) and Alexander Graham Bell, the inventor of the telephone, made their discoveries while researching the spirit worlds. Edison tried to make a radio that would tune into the spirit worlds. Even television was invented as a result of scientists trying to capture psychic influences on gases fluctuating in front of a cathode ray tube.

Scientists from Newton to Tesla to Einstein have also talked about their great discoveries coming to them suddenly in a dream or in a vision. Einstein even compared the process to “the three degrees of initiation” of the ancients. I was fascinated to hear from Graham Hancock that Francis Crick cracked the code of the double helix and launched modern genetic medicine while he was on an LSD trip.

The reality is that we all perceive things in altered states of consciousness—in dreams, visions, prayerful states, meditations, perhaps under the influence of drugs, and when we’re struck by hunches and premonitions. The key question is: *Are any of the things we perceive in these altered states real, or are they all delusions*? In other words: *Do altered states bring other ways of knowing?*

Only a fool would deny that science has brought untold benefits to the world. (And I don’t mean “fool” in an interesting esoteric way, I mean just plain stupid.) Science has made our lives safer, easier, more comfortable, longer, and given us more spare time for enjoying ourselves, for art and speculation. However, these benefits have come at a cost.

We have been enabled to make scientific leaps forward because we have been so focused on the material world. We have constructed a practical, commonsensical form of consciousness for ourselves that is great for tying our shoelaces in the morning, navigating our way around our mechanical world in our cars and planes, and fending for ourselves and our families.

Yet other, more subjective forms of consciousness, other ways of knowing, have been squeezed out, devalued, and discarded. Esoteric philosophy is the systematic

cultivation of these other ways of knowing. It is also the richest tradition of thinking about “the ultimate questions.” The more I researched my history, the more I discovered just how many of the great men and women of history were steeped in it. I began to wonder if it might even be the case that every intelligent person checks it out at some time or other.

In the late nineteenth century, writing of the totality of reality as consisting of “the playground of numberless Universes incessantly manifesting and disappearing,” Madame Blavatsky prophesied some of the leaps forward that science would make in the twentieth century. Although many leading scientists in the twenty-first century postulate possible universes and multiple dimensions, I suspect most of us live—in terms of our everyday, unconsidered worldview—in a solid, commonsense sort of universe with just one dimension. There, causality is still a matter of atom knocking against atom like billiard balls—with entirely predictable results.

This leads, I believe, to two closely related and very common logical fallacies. These fallacies are typical of scientific correctness. One is to believe that if an event can be shown to have one cause, no other causes of it are possible. So an example relevant to my work would be to believe that because thunder and lightning can now be explained in terms of clashing blocks of air and electricity, this proves that they cannot be the result of the anger of a god.

Another example that relates to a common present-day belief would be that if you could capture a pigeon shedding a feather on CCTV just before you walked into view, then you would know that the pigeon is the cause of your sighting of the feather, not that an angel is trying to send you a message.

The reality we are more likely to recognize if we don’t have an antispiritual ax to grind is that we commonly accept that simple events have infinite networks of causes behind them, and so that, in these examples, there is nothing contrary to logic about supposing that both the mechanical and spiritual explanations may be true at the same time.

One might call this fallacy—with a little ironic nod to the law of excluded middle—the “law of excluded cause.”

Closely related to this fallacy is another one to do with the interpretation of texts: if it can be shown that, for example, biblical or mythological stories such as the conquest of the Promised Land, the voyage of Jason and the Argonauts, or the siege of Troy are descriptions of astronomical events or alchemical processes, they cannot be true descriptions of historical events.

That simply does not follow. To borrow Alvin Plantinga’s tools of analysis, there are many possible universes in which both these interpretations are true.[*4] Indeed, in

the esoteric universe of my book, *all* true descriptions of events on this planet are also true descriptions of astronomical events.

One of the aims of my book was to give consciousness a slight nudge away from the billiard ball view to something more multidimensional, more in tune with the reality of interpenetrating realms.

Interpenetrating realms are also reflected in the *form* of some esoteric literature. I'm sure that anyone reading this will be familiar with Kabbalistic number mysticism and the idea that there are other texts encoded within the Hebrew scriptures. A Cambridge-based statistician came to me recently with some texts he had derived using "skip codes," which he had then translated from Hebrew into English. These texts were a bit fragmentary, as if the skip code weren't 100 percent accurate, but in subject matter and form they were somewhat like the Psalms.

It seems to me entirely possible that this kind of research will eventually yield entire other books encoded within the books of the Hebrew scriptures—and the question that naturally arises is will these other books have further books encoded in them, and so on to infinitude?

To write books with other books encoded within them would seem to require supernatural intelligence. Yet great initiates, including Rabelais and his contemporary at Montpellier University, Nostradamus, as well as Shakespeare, are sometimes said to have written in what is called the Green Language—a language that reflects different orders of reality in its different layers of meaning.

I leave you with one last possibility—could we all be thinking, speaking, and writing the Green Language all the time? Could the only difference between us and the great initiates be that we do it unconsciously?

A senior publisher I know—a rather down-to-earth and worldly fellow, I don't think he'd mind me saying—started to read *The Secret History of the World*, saying that he wasn't sure if he could take it seriously; wasn't even sure he was *meant* to take it seriously. In fact, he may have used the phrase "apparently barmy!" However, by the end he said that he had started to see life from a slightly different angle, to notice connections. A senior publicist of a rather more spiritual inclination, who began to read it at the same time, started to experience some mild, supernatural phenomena. The last I heard, the two of them were planning a trip together to the British Museum to stand in front of the Lohan—a statue alluded to in my book, which seems to have mysterious properties.

I can't claim my book offers initiation. As I explain, I am not an initiate myself—but feedback like this reminds me how much help I have had writing this book, and that much of the imagery that flows through the narrative was devised (by minds far

more intelligent than mine) to work at a below-conscious level.

The Dawkins tendency has pretty much had its own way recently. I believe that nothing will turn the tide of materialism except real, lived spiritual experience. When you've had that, you don't believe—as Jung said, you *know*. And that, as I try to show in my writing, is what the esoteric teaching of the secret societies has always offered.

F I V E

An Open Letter to the Editors of *Archaeology*

TAKING TRADITIONALISTS TO TASK

JOHN ANTHONY WEST

Re: *Atlantis and Beyond*

The Lure of Bogus Archaeology
(Or: "The Anupadeshi Strike Back")
A Special Section in *Archaeology*, May/June 2003

Gentlemen (and scholars),

An acknowledgment:

I am delighted to learn that our 1993 NBC special *Mystery of the Sphinx* (based upon geological investigations carried out by me and my geologist colleague Dr. Robert M. Schoch of Boston University) has been awarded top honors in your "Worst of Television Archaeology" list. The show "Argues that the Sphinx is thousands of years older than currently believed and includes comparisons of the Sphinx with the Face on Mars (since shown to be wholly natural . . .)."

Short of having my books singled out and condemned by an official George W. Bush presidential decree, I could not feel more flattered. I regret only that you have no physical equivalent of an Oscar or Tony to go with it. It sure would look good on my old oak filing cabinet, right next to the Emmy I won for "Best Research" for *Mystery of the Sphinx*, which, by the way, was also one of four nominated for "Best Documentary of 1993." Anyway, I think that extraordinary disparity in public opinion a healthy sign, don't you—proof that democracy is still with us, alive and well, despite appearances to the contrary? Would you be kind enough to send me a parchment diploma, a little printed certificate . . . something, anything to hang on the wall to prove that our show won?

The Special Section

"Why do people so desperately want to believe in Atlantis-style tales?" moans *Archaeology* editor Peter Young, unable to comprehend why people are turned away from the "real" archaeology featured in his magazine. Bogus archaeology expert Garrett Fagan, assistant professor of classics and author of the epic, bestselling, modern day scholarly classic *Bathing in Public in the Roman World* explains,

There is little doubt that presenting science (and archaeology) on television is a difficult business. The slow pace of change in scientific thinking, the habitual lack of consensus among academics about details, and the often complex nature of the arguments involved place pressures on producers. . . . The unspectacular and painstaking nature of the discipline does not make for particularly spectacular television. For how long will viewers sit through scenes of dirt-sifting through knee-high ruins?

That may sound plausible, but it is claptrap. Interest in archaeology is no more dependent upon sifting through dirt than interest in baseball is dependent upon spring training or bat manufacture. Like baseball fans, archaeology fans revel in the game—which in this case is not dirt-sifting, but uncovering and interpreting the past. It is the significance and the relevance of those discoveries that generate interest. The key word here is "significance."

The audience will sit through plenty of "dirt-sifting" if the stakes are high and valid. Your prizewinning selection for "Worst Television Archaeology" had its obligatory patina of network glitz, but most of that show was devoted to a complex scientific geological argument. The audience was riveted, and still is. It is not that "people want so desperately to believe in Atlantis-style tales," it is that they are smart enough to recognize the comic triviality of your petty discipline. Again, Fagan inadvertently supplies the clue (just about everything Fagan supplies is inadvertent). Those heated arguments over "detail" (the Big Picture is agreed upon by the "experts"; only "details" remain) appeal to nobody but yourselves. The archaeologically uninitiated cannot be made to warm to furious debates over how many asps killed Cleopatra (*Serpent in the Sky*, p. 9)—especially when profound mysteries, self-evident to all acquainted with the problems involved, go unexplored, their very existence left doggedly unsifted by archaeological consensus.

We do *not* know how the pyramids were built, we do *not* know why they were built (there is *no* evidence, none, that the pyramids of Giza and Dahshur ever served as tombs, though other pyramids did. They may have been tombs, but there is *no* evidence that they were—got it? Science is supposed to be based upon evidence, not

inference). We do *not* know how the two-hundred-ton blocks of the Sphinx and Valley temples and the paving blocks surrounding the Pyramid of Khafre were moved and put into place, and so on. People are not as stupid or gullible as you think they are. They don't buy your version of the Big Picture. It's as simple as that. Unfortunately, they also aren't very discriminating. They tend not to distinguish between, say, an Erich von Däniken and an R. A. Schwaller de Lubicz—but then, neither do you.

To understand your unsolvable PR and image problems and the public's stubborn refusal to accept your word as Gospel, all you have to do is reflect upon what you wrote in your own special section—and, more important, what you didn't write. *Mystery of the Sphinx* wins your "First Worst Prize," and yet, in all those pages devoted to the wholesale denigration (and often misrepresentation) of the work of Graham Hancock, Robert Bauval, and everyone else who dares challenge the Sacred Archaeological Status Quo, there is no response to the geology—the water-weathering to the Great Sphinx—precisely that which qualifies it for Worst Place honors. Not a word. How odd! But there is a good reason for it.

Because you have no response, that's why. And it is that (so far) irrefutable geology that justifies and legitimizes the entire search for alternatives—from carefully developed and sound mathematical and astronomical theories down to von Däniken and the wilder shores of alien intervention. Until you find a way to disprove the geology, the search itself is neither "bogus" nor "pseudo," though some of the material cited as evidence may well fit those categories. . . . Curious note: If an archaeologist is disproved on some significant detail (say that, given enough is through dirt, it is established that Cleopatra committed suicide using just one asp after all), multiple asp proponents will be called "mistaken" and "wrong," but if those outside the archaeological Vatican make a no more egregious mistake, they are practicing bogus or pseudo science.

To bring *Archaeology* readers up to date on the geology—since developments in this ongoing investigation somehow do not find their way into your pages—here is a brief update. Our geological evidence was presented first at the annual meeting of the Geological Society of America (GSA) in 1991; further compelling evidence was presented at the GSA meeting in 2000, both times with the overwhelming support of attending geologists—and shrieks of outrage from archaeologists and Egyptologists.

Over the intervening years a handful of opposing geologists, most with a stake in academic archaeology or Egyptology, have offered mutually exclusive alternative theories to account for that weathering ranging from demonstrably just plain wrong (K. Lal Gauri) to certifiably inept and inane (James "Wet Sand" Harrell's theory). All have been easily, systematically, and conclusively dismantled and rebutted point by point. Meanwhile, two English geologists, Colin Reader and David Coxill,

independent of each other and of ourselves, have studied the matter on site and support the theory (precipitation-induced weathering) unconditionally, categorically necessitating rethinking the dating of the Sphinx, and along with it pretty much everything archaeologists accept as dogma regarding very ancient history.

The actual dating remains a matter of debate, so the extent of that rethinking process cannot be determined at this point with certainty—but that it must be radical is apparent to all but yourselves. Which is one reason why a quarter of a billion people (rough estimate) have seen *Mystery of the Sphinx* and been won over by it. It is often bought by teachers (sometimes with their own money) to show to students from grade school up through college level; it has considerable support among academics and scientists across a spectrum of disciplines not in danger of caving in from the implications of a vastly older Sphinx. (Threatened by evidence as revolutionary as this in their own fields, they'd probably react as you do, but that is not the issue here.)

It is even taken seriously by a handful of credentialed Egyptologists and archaeologists, who mostly keep quiet about it, not wanting to subject themselves to the predictable academic auto-da-fé they know will be their lot if their interest is revealed. It is, however, discussed briefly (but taken seriously) by Egyptologist Edmund Meltzer in his essay on the history of Egyptology in (that encyclopedia of New Age pseudoscholarship) *The Oxford Encyclopedia of Ancient Egypt*, edited by Donald Redford. Closet New Age flakes show up in the strangest places, don't they?

While our geological evidence does not in itself prove the existence of a physical Atlantis (we never said it did), it goes a long way toward proving the existence of *an* "Atlantis," a highly developed civilization capable of moving around two-hundred-ton blocks of stone at a time when civilization is not supposed to have existed at all. In other words, it scuttles the historical context of your entire discipline. Yet there's not one word about the geology in your pages of carefully orchestrated debunkery masquerading as scholarship.

Strange omission! Yet hardly unique. Your fourth-place "Best of Television Archaeology" entry, "'Atlantis Reborn Again' (Systematic Dismantling of Graham Hancock's Proposition About His 'Lost Civilization')" resorts to the same chicanery. In that television equivalent of *Archaeology's* hatchet job, there is also no mention of the geology of the Sphinx. A long filmed interview with Schoch on the subject was carefully edited down to a brief appearance in which he gives his negative opinion on the underwater Yonaguni formations. (This striking site, with its remarkable geometric angular ledges and walls is believed, by Hancock and others, to be man-made, or at least man-doctored. If so, it would be the "smoking gun" testifying to the "lost civilization" we are looking for. Schoch and I are 99 percent convinced that it is wholly natural—but it is always wise to leave that 1 percent open. As they say in the

ads for the New York State Lottery, “Hey! You never know.”) So Schoch’s opinion was good enough to refute Yonaguni, but not good enough to support the water-weathering to the Sphinx. There’s no mention of that.

In a court of law, that’s called “withholding evidence,” and it’s a crime. If academic malpractice were a crime (not a bad idea!), a lot of archaeologists wouldn’t be walking around on the loose. Chris Hale, the producer of “Atlantis Reborn Again,” largely escaped the consequences of withholding evidence. As unprincipled as you, but less maladroit, he had the wit not to hand out a “First Worst Prize.” And it is difficult to prove “intent” when the evidence is totally excluded—but you, in your debunking zeal, could not resist calling attention to the geology by bestowing the prize and then conveniently failing to discuss what qualifies it for the honor.

Presumably you thought no one would notice? Now they will. Thanks to the Internet hundreds of thousands, maybe millions will notice.

The Reason Why

But while this reveals the modus operandi of your scholarship, it does not really account for the attraction to alternative views that motivates the special section. That attraction is actually justified by Fagan, even as he discounts it. “Pseudo-archaeology fans,” he sneers, “get attracted to all sorts of odd notions. Their ancient civilizations are better than ours, more peaceful, more spiritually attuned.”

Now this is a curious, wholly subjective statement coming from a self-proclaimed scientist supposedly devoted to objective truth, and it merits dissection (or, more accurately, trisection). “Better” is not an “odd notion.” It is a judgment call. Me? I would prefer to live in a world without hydrogen bombs and traffic jams, a world where you can drink the water. On the other hand, even I would rather go to a twenty-first century dentist than a Twenty-First Dynasty dentist. On balance, I’d say ancient was “better,” but it depends entirely upon how one’s values are weighted. Fagan has every right to disagree—which, in turn, I might call an “odd notion.”

“More peaceful?” Well, since the world has never been less peaceful than it is at present, this does not seem such an “odd notion” either, especially if you go back far enough. Old Kingdom Egypt was most assuredly more peaceful than anything around today. That is demonstrable.

“More spiritually attuned?” Here, inadvertently as always, Fagan has stumbled upon the core of the matter. That ancient civilizations were more spiritually inclined and directed (I’ll get to “attuned”) is undeniable. A civilization may be judged infallibly by what it does with its collective creative energy. (You do not have to be a Christian or even religious to recognize the truth of “Ye shall know them by their fruits”—Matthew 7:16.)

We put the bulk of our creative energies into shopping malls, weapons of mass destruction, Hollywood and television trash, bobble-head dolls, and Disneyland, with a dollop left over for clever but emotionally bereft science and technology—most of it destructive and/or frivolous, a small percentage of it undeniably beneficial. Egypt (and all other ancient peoples, to a greater or lesser extent) put their creative energies into temples, tombs, and pyramids, all designed to facilitate the quest for immortality. This is a "fact" that should be apparent even to archaeologists—but does it qualify for "spiritual attunement?" I'd say yes. All you have to do is go to Egypt and experience it for yourself. It is self-evident . . . to all but the emotionally defective and spiritually dyslexic. Still, it's a judgment call. It has nothing to do with "science"; not our science, at any rate. Yet that it should qualify as an "odd notion" in the Fagan lexicon is revealing.

To our Church of Progress (materialist, rationalist, Darwinian), "spiritual" is a synonym for "superstitious," and "spiritually attuned" is therefore meaningless. There can be no attunement if there is no spirit. So why use that particular word? Why not grant the ancients their demonstrable ancient preoccupation with superstition, and leave the pseudo-archaeologists to theirs? After all, we are not threatening your biological survival—the only "value" permissible in your one-dimensional Darwinian cosmos (though that, too, is purely subjective; I won't go into that here). Yet it is deemed dangerous. Pseudo-archaeology must be contested, stamped out. Why?

My old Japanese *sensei* put a finger on it. He used to counsel, in his broken but pungent English, *"You want happy in klazy world? No talk moonbeam to blind man; no talk music to deaf man; and never, not ever you talk sex to eunuch. Him just get angry, sometime violent."*

This accounts for all that contumely and vituperation, the misrepresentation and deliberate neglect of real evidence; the rant, cant, and intolerant yap of the Defenders of the Archaeological Faith on the "Hall of Ma'at" website so heartily endorsed by Karen M. Romey in her contribution to the special section (characterized by "Ma'at" contributor Paul Heinrich as response "in a polite and understandable fashion").

Like academic dogs in the manger, you would deny others access to that which you are incapable of digesting yourselves. Spiritual attunement cannot be acknowledged. The ancients could not possibly have had knowledge or faculties you do not have. Everything must be kept locked up nice and safe in your little Darwinian box just in case someone pries open the lid and finds the Emperor's new clothes inside.

It's your loss—but, if you're actually interested in understanding why vast numbers of people refuse to accept your establishment expertise, this is why. Your special section will change nothing. It is an exercise in flawlessly sustained futility.

You also don’t have your facts straight. A discipline exulting in minute detail (compare to Fagan) should be scrupulous in such matters. The Mars material you deride in *Mystery of the Sphinx* was never shown on TV. It was not part of the original NBC special, but was instead an addition to the expanded home video version. And I make it absolutely clear in that version that I am not endorsing either the Face or (especially) its putative relation to Egypt, but rather, consider the evidence supporting the notion provocative enough to merit inclusion. The Face, by the way, has NOT been “shown to be completely natural”; though NASA, the space equivalent of orthodox archaeologists, declares it so. There are a number of astronomers, geologists, physicists, and imaging experts, no less qualified than those at NASA, who do not accept that declaration. Since this is not our field, we happily leave that particular question open.

JOHN ANTHONY WEST

S I X

Dark Mission

THE SECRET HISTORY OF NASA

RICHARD C. HOAGLAND

My name is Richard C. Hoagland. I was a National Aeronautics and Space Administration (NASA) consultant to the Goddard Spaceflight Center in the post-*Apollo* era, and science advisor to Walter Cronkite and CBS News Special Events, advising CBS on the science of the NASA missions to the moon and Mars during the *Apollo* Program. I currently run the Enterprise Mission, an independent NASA watchdog and research group, which is attempting to figure out how much of what NASA has found in the solar system over the past fifty years has actually been silently filed out of sight as classified material, and therefore remains totally unknown to the American people.

My friend and colleague Mike Bara and I attempt the impossible in our book *Dark Mission: The Secret History of NASA*. We describe, and then carefully document, exactly what's been going on with NASA in terms of that classified data and information. It is not an easy task.

The predisposition of most Americans—even after the *Challenger* and *Columbia* disasters and a host of other "missing" spacecraft—is to place NASA somewhere on par with Mother Teresa in terms of public confidence and credibility. This is, in major part, due to the average American's (to say nothing of the media's) inability to figure out a reason why NASA—ostensibly a purely scientific agency—would actually lie. NASA is, after all, holding high the beacon of our last true heroes, the astronauts.

However, even a hint that NASA—or, more precisely, its leadership—has been carrying out any kind of hidden agenda for over fifty years is met with disbelief at best. The vast majority of NASA's nearly 18,000 full-time employees are, in our analysis, innocent of the wrongdoing of the few that we are going to describe. The truth is that NASA was born in a lie, and has gone to extraordinary lengths to conceal

the facts of its occult origins and its sensational discoveries on the moon and Mars.

Few people are aware that NASA was formed as a national defense agency adjunct empowered to keep information classified and secret from the public at large. Even fewer people are aware of the hard evidence that secret brotherhoods quietly dominate NASA, with policies far more aligned with ancient religious and occult mystery schools than the facade of rational science the government agency has successfully promoted to the world for almost fifty years.

Why was the Bush administration intent on returning to the moon as quickly as possible? What are the reasons for the current "space race" with China, Russia, and even India?

To even begin to fully appreciate what NASA has been quite consciously, deliberately, and methodically concealing from the American people and the world for all these years, you have to begin with NASA's turbulent past—specifically, an account of its origins in the increasingly dangerous geopolitical environment that Americans were thrust into in the wake of World War II.

The governmental institution known as NASA is a department of the executive branch, ultimately answerable solely to the president of the United States, an agency created through the National Aeronautics and Space Act of 1958. According to that act, NASA is, ostensibly, "a *civilian* agency exercising control over aeronautical and space activities sponsored by the United States." [Italics added.]

However, contrary to common public and media perception that NASA is an open, strictly civilian scientific institution is the legal fact that the space agency was quietly founded as a direct adjunct to the Department of Defense, tasked with specifically assisting the national security of the United States in the midst of a deepening Cold War with its major geopolitical adversary, the Soviet Union. It says so right in the original NASA Charter: "Sec. 305 . . . (i) *The [National Aeronautics and Space] Administration shall be considered a defense agency of the United States for the purpose of Chapter 17, Title 35 of the United States Code. . . .*" [Italics added.]

In another section of the act, this seldom-discussed *defense* responsibility—the ultimate undercutting of NASA's continuing public facade as a strictly civilian, scientific agency—is blatantly spelled out: *"Sec. 205 . . . (d) No [NASA] information which has been classified for reasons of national security shall be included in any report made under this section [of the act]. . . .*" [Italics added.]

Clearly, from this and the other security provisions incorporated in the act, what the Congress, the press, and the American taxpayers get to see of NASA's ultimate activities—including untouched images and data regarding what's *really* on the moon, on Mars or anywhere else across the solar system—is totally dependent on whether

the president of the United States (and/or his legal surrogates in the Department of Defense and the "intelligence community") has already secretly classified that data. This is directly contrary to everything we've been led to believe regarding NASA for over fifty years now.

After NASA was formed, almost before the ink was dry on the bill that brought it into being (which, among many other detailed objectives, called for "the establishment of long-range studies of the potential benefits to be gained from, the opportunities for, and the problems involved in the use of aeronautical and space activities for peaceful and scientific purposes"), NASA commissioned a formal "futures study" into the projected effects on American society of its many planned activities (including covert ones).

Carried out as a formal NASA contract to the Brookings Institution—a well-known Washington, D.C.–based think tank—the 1959 study was officially titled "Proposed Studies on the Implications of Peaceful Space Activities for Human Affairs." The results of this multidisciplinary investigation were officially submitted to the administrator of NASA in late 1960 and (after the Kennedy administration was elected) to Congress in April 1961.

One area of unusual interest covered in the report—easily overlooked amid mountains of interminable statistics and analyses—was a quiet assessment of the near-certainty of a NASA discovery of intelligent extraterrestrial life: "*While face-to-face meetings with it [extra-terrestrial life] will not occur within the next twenty years (unless its technology is more advanced than ours, qualifying it to visit Earth), artifacts left at some point in time by these life-forms might possibly be discovered through our [NASA's] space activities on the moon, Mars, or Venus.*" [Italics added.]

This quietly inserted subsection of Brookings is revealing on many levels, and it forms the documented basis of our case—that the NASA "you thought you knew" doesn't actually exist, and that NASA has been deliberately concealing and classifying its most significant discoveries because of "national security" rationales.

Brookings officially affirmed NASA's expectations that the agency would fly to nearby planets in the solar system, and would thus be physically capable, for the first time, of confronting "extraterrestrials" *right in their backyard*.

Did any skeptics even know that this official document existed before we made it public in 1996? Beginning in the mid-1960s with unmanned spacecraft, NASA actually discovered its projected extraterrestrial artifacts—but the agency never got around to telling the rest of us!

NASA would clandestinely confirm with these earliest robotic probes, and then proceed to cover up, the first awesome remains of an extraordinary, solar-system-

wide, ancient technological civilization on the moon—precisely as Brookings had predicted. Four years later, the *Apollo* Program would come to full fruition, and the lunar astronauts themselves would personally witness and extensively document, with tens of thousands of high quality photographs, from both lunar orbit and the surface, extraordinary "glasslike" structures on the moon! The *Apollo* crews would not only bring back rocks to NASA laboratories, but actual *samples* of the ancient technologies they found—for highly classified efforts at "back engineering."

At this point, a skeptic might well ask how we can be presenting valid, official NASA images of suppressed ruins and technology if the agency has spent so much time and energy over the past forty years covering them up. The answer is that after two generations, leaked images—displaying stunning details of ancient lunar structures arching overhead, as well as key alien artifacts that have been brought back—have also suddenly begun appearing on the Internet, on official NASA websites!

A small cadre of loyal NASA employees was witness to what actually went on, and agreed at that time to keep the secret in the interest of national security. Some of these NASA employees, apparently, have finally "seen the light"—that this continued deception, no matter what the legal rationale or national security implications, was fundamentally extra-Constitutional. Because of these true NASA heroes, real space history is about to officially begin, again.

Based on our analysis as presented in this book, it is also our opinion that NASA's entire lunar exploration program—culminating with the incredibly successful manned *Apollo* Project—was carefully conceived, from the beginning, as a kind of "alien reconnaissance" followed by an "alien artifacts retrieval" program.

Again, the intention to do just that was blatantly laid out in Brookings. We now believe that this is the reason President John F. Kennedy—reported to be "totally disinterested in space"—was quietly convinced to announce his historic decision to "send men to the moon . . . and return them safely to the Earth . . . within a decade" in May of 1961. This was widely believed, then and now, to be Kennedy's effort to demonstrate to the world the superiority of the American system, as opposed to Soviet communism. However, at the United Nations on September 20, 1963, the president suddenly issued a public invitation to the Soviets only two years into the *Apollo* "race" to the moon: an offer of a "cooperative, joint U.S./ USSR lunar expedition."

Of course, if there were a "hidden agenda" to *Apollo*, this move would have revealed that the prime objective was not to beat the Soviet Union, but to covertly find and return samples of the incredibly advanced lunar technology that had been waiting on the moon for eons . . . and then to share them with the Soviets! Curiously enough, a mere two months following Kennedy's startling UN proposition, the president was killed.

The enthusiastic architects of the continuing NASA Brookings cover-up, in part, are the same heroes we have been encouraged to worship as some of the leading pioneers of our technological era. Their names are synonymous with America's achievements in space science and rocket engineering. In many cases, they are also men with secret pasts—Germans, Egyptians, Englishmen, and Americans, men at the very fringes of rational thought and conventional wisdom. These literal "fringe elements," then, are divided into three main groups inside the agency, as best as we can tell at present. For the purposes of this volume, we shall call them the "Magicians," the "Masons," and the "Nazis"—and deal with each group separately.

Each "sect" is led by prominent individuals, and supported by lesser-known players. Each has stamped their own agenda on our space program, in indelible but traceable ways. And each, remarkably, is dominated by a secret or "occult" doctrine that is far more closely aligned with "ancient religion and mysticism" than it is with the rational science and cool empiricism these men promote to the general public as NASA's overriding mantra.

Using commercially available celestial mechanics/astronomical software—programs like the popular "Red Shift" series (which uses the official JPL ephemeris as its database)—we have been able to establish a pattern of behavior on NASA's part that points to something as truly inexplicable as it is exotic: a bizarre internal obsession by the agency with three "gods" and "goddesses," reaching across the millennia directly from ancient Egypt—Isis, Osiris, and Horus.

It is these same three Egyptian gods (whose mythic story has been documented by many Egyptologists and authors) that are also key to understanding the history of the Masonic Order. It is this same mythology that is also at the heart of the belief systems of the NASA Magicians and Nazis as well. This ritual Egyptian symbolism, secretly practiced by NASA throughout these past five decades, publicly shows up only in its repeated, blatant choices of simple mission patch designs.

For instance, if one looks at the official patch for the *Apollo* Program, armed with our preceding "heads-up" regarding the bizarre NASA focus on all things "Egyptian," it becomes elemental to match the "A" (for "Apollo") as an actual stand-in for "Asar"—the Egyptian designation for "Osiris." This successful decoding of the hidden Egyptian meaning of the Apollo patch is redundantly confirmed—because "Asar/Osiris" is none other than the familiar Greek constellation of "Orion"—which is, of course, the background stellar constellation on the patch itself.

These continuing, inexplicable "secret society" manipulations inside NASA—not only of its personnel, but also of its major policies—have been going on since its Congressional formation, and all with this inexplicable "Egyptian focus." The evidence that NASA is "something other than the benevolent civilian science

institution it pretends to be" is as overwhelming now as it is disturbing. In the years following JFK's assassination, when *Apollo* finally became an engineering reality, only nine successful *Apollo* missions to and from the moon were carried out; only six of those were actually lunar landings.

Then (apparently), a critical number and type of lunar artifacts were successfully identified, and returned to Earth by the *Apollo* crews—at which point the entire *Apollo* Program was abruptly terminated with *Apollo 17*. In our model, it was this successful completion of *Apollo's* secret mission and agenda, and not Congressional budget cuts, that was the real reason for the abrupt cessation of America's historic journeys to the moon, and the primary reason no one has gone near the lunar surface for over thirty years.

All of which made the sudden announcement by President George W. Bush of a new White House/NASA program "to return to the moon by 2020," made at NASA headquarters on January 14, 2004, so incredibly intriguing. What did the Bush administration know, thirty years after the termination of *Apollo*, regarding what was waiting on the moon for human beings to return to? And was this why this administration mounted an *Apollo*-style program "on steroids"—as NASA administrator Mike Griffin, specifically appointed by President Bush to head the new lunar return program—wryly termed it?

Was NASA's sudden interest in returning to the moon actually an effort to beat a host of other countries with the same goal? Countries that independently, suddenly announced their plans to go to the moon—countries like China, India, Japan, and Russia, and even the European Space Agency? Is this the start of a second space race, a race not for mere propaganda victories this time, but a much more important race, among a much wider field of players, for sole access to the scientific secrets the set of surviving lunar structures surveyed by *Apollo* must inevitably contain—which, to those who successfully decode what they discover this time, could mean the ultimate domination of the Earth?

It was just a few years after the start of the *Apollo* missions that even more extraordinary solar system ruins were first observed on Mars—beginning with images and other instrumented scans sent back by NASA's first Mars orbiter, the unmanned *Mariner 9* spacecraft, in late 1971.

This earliest robotic confirmation that there was also something "anomalous" on Mars paved the way for far more extensive observations when the first *Viking* orbiters and landers arrived half a decade later. The critical thing here is that, in direct contradiction to everything the press and the American people were being led to believe that NASA stood for—program transparency, open scientific inquiry, freedom of publication—the agency quietly and methodically covered up the most astonishing

wonders it had found.

Many of NASA's consulting sociologists and anthropologists to Brookings (like Dr. Margaret Mead, whom I had the privilege of actually working with, in later years, at New York's Hayden Planetarium) had been warning NASA, even as Brookings was being researched and assembled, of "the enormous potential for social instability" if the existence of bona fide extraterrestrials—or even ruins they left behind—was officially revealed in the socially repressive and heavily religious environment of the late 1950s.

With those first Lunar Orbiter images taken of the moon, *everything*—the reality of ruins, their extraordinary scale, their obvious presence on more than one world in the solar system, how their builders vanished—was suddenly all too real. There *had* been a powerful, enormously encompassing, extraordinary solarsystem-wide civilization that had simply disappeared, only to be rediscovered by NASA's primitive initial probes. A civilization that, it would turn out later, had been wiped out through a series of all-encompassing, solar-system-wide cataclysms.

The most disturbing part of Brookings to policy makers, however—even before these shattering discoveries were verified—was its thinly-veiled, authoritative warnings regarding what could happen to our civilization if NASA's 1950s-style "ET predictions" were confirmed:

"Anthropological files contain many examples of societies, sure of their place in the universe, which have disintegrated when they had to associate with previously unfamiliar societies espousing different ideas and different life ways; others that survived such an experience usually did so by paying the price of changes in values and attitudes and behavior. . . . The literal *disintegration of society*— simply from knowing that 'we're not alone.'" [Italics added.]

The Brookings discussion of the implications of such a crucial discovery also encompassed a critical second-level problem: What to do if the agency, at some point in the future, actually made such a momentous, world-changing confirmation of extraterrestrial intelligence next door? Or even of their surviving ruins and artifacts?

NASA's discussion of these problems before they occurred—and the draconian measures it was seriously considering—is revealing: "*Studies might help to provide programs for meeting and adjusting to the implications of such a discovery. Questions one might wish to answer by such studies would include: How might such information, under what circumstances, be presented to or withheld from the public, for what ends? What might be the role of the discovering scientists and other decision makers regarding release of the fact of discovery?*" [Italics added.]

Following the political tumult and excitement of the first successful *Apollo* lunar

landings, the White House and NASA dramatically changed the direction of the entire space program—under the excuse of a lack of public interest and insufficient funding. The agency quickly dropped any pretense of following up on the *Apollo* Program with permanent bases on the moon, as well as indefinitely postponing all discussion and plans for going on to Mars.

Instead, under the now-proven lie of developing an economical, reliable, reusable space transportation system, and a "worldclass" space research laboratory for it to resupply—the space shuttle and the International Space Station—NASA collaborated with the White House in a fateful set of decisions in the early 1970s that would consign American astronauts to endlessly circle the Earth for decades, while the moon—with stunning ruins and bits and pieces of a miraculous, preserved technology orbiting just a quarter of a million miles away—was totally ignored.

On February 15, 2001, FOX aired a widely advertised show titled *Conspiracy Theory: Did We Land on the Moon*? With this program, FOX removed the last weak link in NASA's ongoing, forty-year-old chain of overlapping cover-ups. It is our assertion that this "moon hoax" tale was carefully constructed as an elegant piece of professional disinformation—as a desperately required distraction from the *real* lunar conspiracy documented here, which was beginning to seriously unravel as early as 1996. I can personally testify that I was a firsthand witness to the true beginnings of "the moon hoax" far, far earlier than the 2001 FOX special—back in 1969, and in the heart of NASA itself!

The occasion was the unforgettable *Apollo* summer of Neil Armstrong and Buzz Aldrin's epic journey to the moon—the amazing July landing of *Apollo 11*. I, of course, had been deeply immersed in all aspects of our CBS coverage of the upcoming *Apollo 11* mission for months, as official science advisor to CBS News Special Events and chief correspondent Walter Cronkite.

For the actual flight of *Apollo 11*, I was assigned (at my own request) to the Downey, California, facility of the prime contractor for the *Apollo* Command/Service Module, North American Rockwell. I was there to personally oversee construction and special effects use of my pet project for our nonstop CBS coverage of "Lunar Landing Day"—a "walk-through solar system" constructed by North American Rockwell technicians specifically for myself and CBS in a huge, drafty aircraft hanger. It was in this miniature, re-created version of the solar system that I had successfully proposed that Walter Cronkite interview, via satellite, key engineers, project managers, and "special guests"—those who had built the *Apollo* spacecraft at North American or who had special knowledge in the realm of history and space—to comment on the historic legacy of the *Apollo 11* flight.

One luminary I was proud to bring before the cameras, to chat with Walter in New

York regarding the extraordinary nature of events occurring that historic night, was Robert A. Heinlein, the dean of American science fiction. Decades earlier, Bob had cowritten the screenplay for *Destination Moon*, one of the first technically accurate film depictions of the lunar journey then unfolding on live television before a billion people all over planet Earth. As the successful author of a pioneering series of "juvenile" science fiction novels that, for the first time, introduced *realistic* space travel and engineering concepts to an entire generation of future NASA scientists and engineers, Heinlein had, almost single-handedly, "inspired the workforce" for the entire space program.

I must admit, I had a certain smug satisfaction that night, watching Bob Heinlein stroll through "the solar system," emphatically predicting to Walter and literally the world, via satellite, that "henceforth, this night—July 20, 1969—will be known as 'the Beginning of the True History of Mankind.'"

After the heady events of that unforgettable thirty-two hours—the landing; the eerie extravehicular activity (EVA), complete with ghostly television shots "live from the moon"; and then, after the crew had slept for a few hours for the first time on the moon, the successful liftoff of the *Eagle Lunar Module* and rendezvous with the *Command Module Columbia*, still in lunar orbit—CBS moved our unit up the street, to the Jet Propulsion Laboratory (JPL) in Pasadena. There we would cover the remainder of the flight, arriving at JPL right after the three *Apollo 11* astronauts blasted home toward Earth and their "splashdown" in the South Pacific three days later.

The reason was that NASA had another mission under way during the "Epic Journey of *Apollo 11*"—a flyby of two unmanned Mariner spacecraft past Mars, for only the second time in NASA's history.

With only one CBS Special Events Unit in California, to cover *all* of NASA's space activities on the West Coast in those years, it was up to our small group in Los Angeles—a producer, a correspondent, a couple of camera guys, maybe a couple of technicians, a makeup person, and me—to overlap our continuing coverage of *Apollo 11*, now originating from the Theodore von Kármán Auditorium at JPL, with new commentary covering the second unmanned NASA mission to do a flyby of Mars in history.

Mariner 6 was to cruise past Mars on July 31—recording television images, making spectral scans, conducting remote atmospheric measurements—just ten days after the *Columbia* left lunar orbit, heading for the Pacific Ocean. Our arrival at JPL on the afternoon of July 22, in preparation for this *Mariner 6* flyby, was heady stuff for a twenty-three-year-old network science consultant, as this was my first "in-person" tour to cover an actual live mission.

The circumstances of my first flyby live from JPL are etched indelibly in my brain, if for no other reason than it was the moment when television lightning struck. One morning our executive producer, Bob Wussler, suddenly decided to put *me* on the air across the entire CBS television network to explain the upcoming Mariner flyby to the nation! How could one ever forget their first professional network television appearance—and their first official network commentary for a NASA mission flying by Mars, no less? But for the life of me, I can't remember a thing I said that morning. I do remember that I literally had to borrow a sport coat and tie from one of the floor crew for my first appearance on network television.

And, I vividly remember a bizarre scene that happened only a couple of days before at JPL, as we arrived.

It was controlled bedlam. Close to a thousand print reporters, television correspondents, technicians, special VIPs, as well as half the staff at JPL itself, were all attempting to register for the limited seating in the (relatively) small von Kármán Auditorium, which had been the scene for all live network coverage of JPL's previous extravaganzas ever, since Explorer 1 had been placed in orbit by a U.S. Army/JPL team one January night in 1958.

This warm July afternoon only eleven years later, it seemed that everyone was in a mad scramble—simultaneously—to register at the lobby desks specifically set up for members of the press, trying to grab the limited number of press kits on the mission, and then nail down a seat in the auditorium beyond.

It was at this point, as I was drifting around von Kármán, trying to spot where the CBS anchor desk was positioned, that I noticed something strange. Even to my untrained eye, it looked out of place: a man, wearing jeans and a long, light-colored raincoat (it was typical Los Angeles weather outside—so, why the coat?). This man, wearing one of those floppy "great coats" that cowpunchers used to wear in old Westerns, complete with a dark leather bag slung over one shoulder, was slowly, methodically, placing "something" on each chair in von Kármán.

As he got closer, I suddenly realized that he was accompanied by a more conventionally dressed representative from JPL itself—coatless, in white shirt and black tie—the second figure was, in fact, none other than the head of the JPL press office, Frank Bristow. In the midst of all the commotion, why was Bristow—again, the head of the JPL press office—*personally* squiring this very out-of-place individual around the auditorium?

Then, as if that wasn't mystery enough, Bristow began moving "great coat guy" back out to the cramped pressroom area beyond the glassed-in foyer of the auditorium. There, in an office where space correspondents like Walter Sullivan (*New York Times*), Frank Pearlman (*San Francisco Chronicle*), Jules Bergmann (ABC), and

Bill Stout (our local guy from CBS) hung out, and wrote their leads and copy after each formal press briefing held in von Kármán itself, a handful of reporters were now being introduced, again by Bristow, to “great coat guy.” Why was the official head of the JPL press office doing this?

I soon had my answer.

As Bristow watched approvingly, his “guest” proceeded to hand each available reporter a copy of whatever he’d been putting on the seats back in the auditorium.

As I opened up the handout, something yellow and silvery fell on the tile floor. It was a shiny American flag, maybe four inches lengthwise, made of aluminized mylar. I turned to the couple of mimeographed pages and began to read—and couldn’t believe my eyes.

The date was July 22, 1969. The three *Apollo 11* astronauts, Neil Armstrong, Buzz Aldrin, and Mike Collins—two of whom had just successfully walked on “the frigging moon” and wouldn’t splash down in the South Pacific for two more days—were still halfway between Earth and the “Sea of Tranquillity.” Yet here, someone with an obvious “in” to JPL was handing out a mimeographed broadsheet to all the *real* reporters . . . claiming “NASA has just faked the entire *Apollo 11* Lunar Landing . . . on a soundstage in Nevada!”

And, if that wasn’t weird enough, this individual was being *personally* escorted around von Kármán by none other than the head of the JPL press office himself! I did what I saw the other veterans do: I casually threw the two pages in the trash and tucked the shiny flag into my notebook . . . but the seed had been planted.

Looking back, based on all our hard-won knowledge of what is really “out there” in the solar system, and experiencing the outrageous lengths NASA will go to keep “the secret,” I can now put the pieces together.

This was an official Op—Bristow’s job was to make sure that all the national reporters covering NASA at least saw what was handed out that afternoon, complete with shiny flag to act as a mnemonic device to trigger the memory of what was in the pamphlet long after it was history. Sooner or later, a percentage of those who read it that afternoon at JPL would write it up—as a quirky angle on the far-too-dry official tale of *Apollo 11*.

In this way, it would become a naturally reproducing meme—“a unit of cultural information, such as a cultural practice or idea, that is transmitted verbally or by repeated action from one mind to another”—which is exactly what NASA apparently intended to plant at JPL that afternoon, deliberately to “infect” American culture with the story that “the moon landing was all a fake!”

Was this all some far seeing “back-up plan” if, in some point in the future, it

started to emerge why the astronauts had *really* gone to the moon?

FOX, the “fair and balanced” network, activated the meme in 2001 with the *Did We Land on the Moon?* special. There, waiting in the wings, was a neatly packaged thirty-year-old “conspiracy theory” perfectly gift-wrapped for those finally beginning to “disbelieve” in NASA. An officially concocted “inoculation” against troublemakers who would one day place before many of those same national reporters a set of embarrassing official *Apollo* photographs, asking the crucial question: “What did NASA *really* find during its *Apollo* missions to the moon?”

S E V E N

History and Celestial Time

DOES PRECESSION CAUSE THE RISE AND FALL OF CIVILIZATION?

WALTER CRUTTENDEN

Discoveries like the ancient Greek Antikythera Device (1,500 years before the invention of precision geared devices), the Baghdad Batteries (two thousand years before Volta "invented" the battery), or dental and brain surgery artifacts found in ancient Pakistan (eight thousand years out of historical sequence) appear "anomalous" within our current paradigm of history. However, they are not unexpected according to the ancient cyclical view.

Giorgio de Santillana, a former professor of the history of science at MIT, tells us that most ancient cultures believed consciousness and history were not linear but cyclical, meaning they would rise and fall over long periods of time. In his landmark work *Hamlet's Mill*, Giorgio de Santillana and coauthor Hertha von Dechend showed that the myth and folklore of over thirty ancient cultures around the world spoke of a vast cycle of time with alternating Dark and Golden Ages that move with the precession of the equinox. Plato called this the Great Year.

Although the idea of a great cycle timed by the slow precession of the equinox was common to multiple cultures before the Christian era, most of us were taught that this is just a fairy tale—there was no Golden Age. However, an increasing body of new astronomical and archaeological evidence suggests that the cycle may have a basis in fact. More important, understanding the cycle might provide insight into where society is headed at this time and why consciousness may be expanding at an exponential rate. Understanding the cause of precession is key to understanding the cycle.

The standard theory of precession says it is principally the moon's gravity acting upon the oblate Earth that must be the cause of the Earth's changing orientation to

inertial space, otherwise known as the “precession of the equinox.” However, ancient sources say that the observable of an equinox slowly moving or “precessing” through the twelve constellations of the zodiac is simply due to the motion of the solar system through space (changing our viewpoint from Earth). At the Binary Research Institute, we have modeled a moving solar system and found that it does indeed better produce the precession observable (the sun’s motion relative to the fixed stars as seen from Earth), and resolves a number of solar system anomalies such as the uneven distribution of angular momentum within the solar system and the variable rate of precession.

Beyond the technical considerations, a moving solar system might provide a logical reason why we have a Great Year with alternating Dark and Golden Ages. That is, if the solar system carrying the Earth actually moves in a huge orbit, subjecting the Earth to the electromagnetic (EM) spectrum of another star or EM source along the way, we could expect that this would affect our magnetosphere, ionosphere, and—indirectly—all life, in a pattern commensurate with that orbit. Just as the Earth’s smaller diurnal and annual motions produce the cycles of day and night and the seasons (both due to the Earth’s changing position in relation to the electromagnetic spectrum of the sun), so might the larger celestial motion be expected to produce a cycle that affects life and consciousness on a grand scale.

The hypothesis for how consciousness would be affected in such a celestial cycle builds on the work of Dr. Valerie Hunt, former professor of physiology at UCLA. In a number of studies, she has found that changes in the ambient electromagnetic field (which surrounds us all the time) can dramatically affect human cognition and performance. In short, consciousness is affected by immersion in electromagnetic fields. Consequently, the concept behind the Great Year or cyclical model of history, consistent with myth and folklore, is based on the sun’s motion through space, subjecting the Earth to waxing and waning stellar fields (all stars are huge generators of electromagnetic spectrum), resulting in the legendary rise and fall of the ages over great epochs of time.

We looked at some of the ancient myths about rising and falling ages tied to the precession cycle, explored current precession anomalies, outlined a dynamic solar system model that better explains the precession observable, and suggested a hypothesis for how a change in proximity to stellar-generated electromagnetic fields might be the mechanism that induces cyclical changes on Earth. We would here like to use this model as a guide to better understand where we have been in terms of consciousness and ancient civilizations in the past, and more important, where we are going in the future. As Graham Hancock stated, this “new—or very old—approach to the greatest problems of human history” could be a “key to the mystery of the ages.”

Historical Perspective

Current theories of history generally ignore myth and folklore and do not consider any macro-external influences on consciousness. For the most part, modern historical theory teaches us that consciousness or history moves in a linear pattern from primitive to modern with few exceptions. Some of its tenets include:

Mankind evolved out of Africa.

People were hunter-gatherers until about five thousand years ago.

Tribes first banded together for protection from other warring parties.

Written communication must precede any large engineered structures or populous civilizations.

The problem with this widely accepted paradigm is that it is not consistent with the evolving interpretation of recently discovered ancient cultures and anomalous artifacts. In the last hundred years, major discoveries have been made in Mesopotamia, the Indus Valley, the Asian plains, South American sites, and in many other regions that break the rules of historical theory and push back the time of advanced human development. Specifically, they show that ancient man was far more proficient and civilized nearly five thousand years ago than he was during the more recent Dark Ages of just a thousand years ago.

In Caral, an ancient complex on the west coast of Peru, we find six pyramids that are carbon-dated to be 4,700 years old, a date contemporaneous with the Egyptian pyramids and rivaling the time of the first major structures found in the so-called cradle of civilization in Mesopotamia. However, Caral is an ocean away from the "cradle," and we find no evidence of any writing or weaponry, two of the so-called necessities of civilization. At the same time, we do find beautiful musical instruments, astronomically aligned structures, and evidence of commerce with distant lands. Clearly, such sites defy the standard historical paradigm—but what is stranger still is that so many of these civilizations seemed to decline en masse.

In ancient Mesopotamia; Pakistan; Jiroft, Iran; and adjacent lands, we see knowledge of astronomy, geometry, advanced building techniques, sophisticated plumbing and water systems, incredible art, dyes and fabrics, surgery, medicine, and many other refinements of a civilized culture that seemed to arise from nowhere, yet were completely lost over the next few thousand years. By the time of the worldwide Dark Ages, every one of these civilizations had turned to nomadic ways of life, or to

dust. Near the depths of the downturn, there were ruins and little else to be found. And in some areas where larger populations still remained, such as throughout parts of Europe, poverty and disease were often rampant, and the ability to read, write, or duplicate any of the earlier engineering or scientific feats had essentially disappeared. What happened?

While records of this period are still very spotty, the archaeological evidence indicates consciousness, reflected as human ingenuity and capability, was greatly diminished. We just seemed to have lost the ability to do the things we used to do. Ironically, this is just what many ancient cultures predicted. The world's foremost Assyrianologist, Stefan Maul, shed light on this phenomenon in his Stanford Presidential Lecture when he told us that the Akkadians knew they lived in a declining era; they revered the past and tried to hang on to it, but at the same time lamented and predicted the Dark Ages that would follow. His etymological studies of cuneiform tablets show that the ancient words for "past" have now become our words for "future," whereas their words for the "future" have now become our words for the "past." It is almost as if mankind orients his motion through time depending on whether he is in an ascending or descending age.

We find this principle of waxing and waning periods of time depicted in numerous bas-reliefs found in ancient Mithraic temples. The famed Tauroctany (or bull-slaying) scene is often surrounded by two boys, Cautes and Cautopetes. One holds a torch up on one side of the zodiac, indicating it is a time of light, the other holds a torch down on the other side of the zodiac, indicating it is a time of darkness. As the accompanying chart will show, these time periods correspond with the Vedic description of when the Earth goes through periods of rising and falling consciousness.

Jared Diamond, the well-known historian anthropologist and author of *Guns, Germs, and Steel*, makes a good case that it is primarily local geographic and environmental advantages on the planet Earth that determine which group of humans succeeds or fails versus another. Those that have the steel, guns, and bad germs win. While this helps explain many regional differences of the last few thousand years, it does not address the macro trends that seemed to have affected all cultures (including China and the Americas) as they slipped into the last worldwide Dark Age.

The cyclical or Great Year model overlays and augments Jared Diamond's observations, giving a reason for the widespread downturn. It suggests that it is not just the geography and environment of man on Earth that determines his relative success but it is also the geography and environment of the Earth in space that affects mankind on a vast scale. Just as small celestial motions affect life over the short-term, so do large celestial motions affect us over the long-term.

Understanding that consciousness may indeed rise and fall with the motions of the heavens gives meaning to ancient myth and folklore and puts anomalous artifacts such as the Antikythera Device into an historical context that makes sense. It speaks to why so many ancient cultures might have been fascinated with the stars, and it provides us with a workable paradigm in which to understand history. It could also help us identify the forces that propelled the Renaissance, and that may be accelerating consciousness in the current era. Myth and folklore, the scientific language of yore, provide a colorful look at consciousness throughout the different ages.

Character of the Ages

The Greek historian Hesiod tells us of the wonderful nature of the last Golden Age, when "peace and plenty" abounded. Hopi myths tell us of cities on the bottom of the sea. Typically ancient peoples broke the great cycle into an ascending and descending phase, each with four periods. For example, the Vedic or Hindu culture tells us that when the autumnal equinox moves from Virgo to Aires, we go through the ascending Kali, Dwapara, Treta, and Satya (Golden Age) Yugas before slowly declining in reverse order as the equinox completes its journey. The Greeks and other early Mediterranean civilizations used similar periods and labeled them the Iron, Bronze, Silver, and Golden Ages. More distant cultures, such as the Maya or Hopi, used still other names, such as "worlds" or "suns," and labeled them "fourth or fifth" to identify the recent epochs.

A relatively modern proponent of the cyclical system was the Sanskrit sage Swami Sri Yukteswar, author of *The Holy Science*. He taught that the position of our solar system relative to another star now indicates that we are in recent transition from the lowest material age, the Kali Yuga, into the electrical or atomic age, the Dwapara Yuga. In this period, it is said that we begin to see the world as more transparent as we move from an awareness of self as a physical body in a strictly physical universe, to an awareness that we are something more, living in a universe filled with subtle forces and energies.

The technological discoveries of the laws of gravity, electricity, and magnetism, just in the last few hundred years, give this idea credence—and the trend is accelerating. In the last century it has even been discovered that physical matter is not really solid at all. We have found that it is made of molecules, and that these are in turn made of atoms, which are themselves constituted of 99.9 percent empty space. The little bit of matter that does exist in the heart of the proton and neutron is now thought to be principally vibrating energy, at least according to the latest version of string theory. Indeed, reality is looking more and more ethereal, just as the hoary

Vedas predicted.

Ages beyond the present are difficult to grasp, because a lesser consciousness cannot behold a greater consciousness any more than a cup of water cannot hold the ocean—so we tend to extrapolate the past material view of things when envisioning the future. Yet the Oriental teachings about cycles indicate that this is just a passing phase. They say the real trend is toward a godlike state where the physical is but a manifestation of something from the other world. And so it seems when we read Greek mythology or pages of Vedic scripture.

The Silver Age or Treta Yuga, the third age (from the bottom) is the Greek "age of the demigods," or, to the yogis of India, the age of divine magnetism and the mind. While this is a difficult concept to grasp, consider the story of Babel.

Supposedly, before Babel (pre–3100 BCE in the last descending Treta Yuga) humanity spoke with one tongue and communed freely with nature. The Hebrew scriptures tell us that mankind began to build "towers," and then languages were "confused" and people could no longer understand one another (Genesis 11:1–9). In the standard theory of history this story makes no sense, but in the cyclical model it has great meaning. It would have occurred around the time of the first tower buildings in ancient Mesopotamia, probably between 3500 BCE and 3000 BCE.

This is precisely around the time (3100 BCE) when, according to Sri Yukteswar, the world declined from the descending Treta Yuga into the descending Dwapara Yuga, a time when clairvoyance and telepathy were lost. We learn from Paramahansa Yogananda, another proponent of the yuga cycle and the famed author of *Autobiography of a Yogi*, that this time will come again in the year 4100 CE, when we pass from the ascending Dwapara and into the ascending Treta Yuga. He tells us that at this time there will once again be a "common knowledge of telepathy and clairvoyance." Perhaps then we will better understand the meaning of the ancient myths.

The Treta Yuga is said to be the age of levitation, telepathy, a time of the shamans and wizards of old, when tremendous psychic and mental abilities were common, truly an "age of the demigods." We've all heard stories about the mythical powers of the saints and sages who had these gifts. Now seen as rare, the majority of people don't take these reports seriously or realize that we, too, might have this same latent ability in a higher state of consciousness. Yet, this is exactly what the ancients told us. In fact, Christ was quoting the far more ancient Hebrew scriptures when, in the depths of the last Dark Age, he said, "Is it not written in your law, I said, Ye are gods?" He himself embodied this consciousness when he said, "He that believeth on me, the works that I do shall he do also."

The final stage in the cycle of time is the Golden Age or Satya Yuga. It is

considered the highest time on Earth. If the Treta or Silver Age is inconceivable to us today, then the Golden Age must sound like a myth or a dream. The Greeks called it the “age of the gods,” and the myth and folklore of the Vedas and ancient Egypt hint that this was a time when gods literally walked the Earth, and most of mankind lived in perfect harmony with nature and the heavens. While there now remains very little physical evidence of this long-ago period, we do find that virtually every ancient megalithic construction prior to the year 1500 BCE seems to be oriented toward some astronomical or cardinal point. Going back further, there are signs that multiple structures may have been aligned to mirror constellations or the larger heavens.

The Golden Age is said to be a time when we could perceive and communicate with astral or causal realms, and directly know God without the intermediacy of any religion. Again, this sounds like little more than a fairy tale given our current state of consciousness, but it is a theme common to ancient peoples who spoke and wrote of the long-lost higher ages.

Predictive Value

Admittedly, the higher ages sound incredible, but we hope to show evidence at the next Conference on Precession and Ancient Knowledge (CPAK), and through future papers, books, and films, that the cycle has a basis in fact, driven by the solar system’s motion through space. Just as the seasons of the year, caused by the Earth’s orbit around the sun, can be forecast in time (through calendars and various astronomical means), so can the seasons of the Great Year be calculated by the slow precession of the equinox.

The cyclical model is not only precisely measurable (by monitoring the annual change in the precession rate, now about 50.29 arc seconds per year) but I believe that it has predictive value. There are many changes we can expect over the next few decades to few thousand years as we progress through the Great Year. Research into these changes is based on cross-interpretations of myth and folklore, extrapolation of trends, and interviews with futurists. During the current transition from the Kali Yuga (of gross material consciousness) to the early Dwapara Yuga (where an awareness of energy and finer forces will be dominant), we are manifesting our heightened awareness and increasing ingenuity through an endless array of technology that allows us to annihilate the barriers of time and space. We can now fly just about anywhere on the globe within the time it takes the planet to make one spin on its axis. Likewise, we can instantly communicate with someone on the other side of the Earth and send them a picture or video of almost any event, real time. All these things were not only impossible but also unthinkable just a hundred years ago.

Underlying this trend, there is actually a greater concern for nature. We will see, more and more, a return to living in tune with Mother Earth—and it will be facilitated by greater understanding and thinner technology. As technology becomes something hidden in the background, we can expect some amazing changes. For example, while we currently still need antennas to transmit communications (and soon power) or silicon to compute or store information, even these may be outmoded in the future.

Physicist John Dering (a CPAK regular) has speculated that given the trend of computer power, sometime in the not too distant future we will develop interface devices that allow us to pick up the waveforms captured by trees or the antennae of bugs, and we may be able to tap into and decipher all the information (waveforms) that have ever passed by a rock or any inanimate object in the landscape. Could it be that our ancient ancestors better understood the subtle qualities of stone?

Another CPAK author, John Burke, has already shown that ancient cultures had a tremendous knowledge of electromagnetism as evidenced by the outer stones at Avebury, where he has demonstrated that all of the standing stones' magnetic poles are identically aligned. He has also shown that some Indian shamans in the American West can find areas of high electrostatic charge or geophysical discontinuities just by feel. They use these areas for healing purposes. Contemplating these ideas gives new meaning to the stories of our ancient ancestors. Understanding their wisdom may be the key to understanding our future.

E I G H T

The Orion Key

UNLOCKING THE MYSTERY OF GIZA

SCOTT CREIGHTON

Upsetting the Apple Cart

It has long been the view of mainstream Egyptologists that the siting of each of the main pyramid structures at Giza was determined purely upon the wishes of the pharaoh and the practicalities and logistics of a particular site. It is further held that the King's decision for the siting of his pyramid gave little or no consideration to structures that had gone before or that would come after. Each pyramid at Giza—so the conventional view asserts—was effectively constructed as a discreet royal funerary complex by each successive pharaoh, and was done so without reference to any long-term master site plan. In short, we are told that the pyramids at Giza were constructed as "singularities" and that there existed no grand architectural scheme; no grand plan.

This conventional view of the pyramids at Giza runs contrary to the work of Robert Bauval who, in 1994—in partnership with Adrian Gilbert—published *The Orion Mystery*, his first book, which presented the radical hypothesis that the pyramids at Giza were constructed as symbolic representations of the three Belt stars of the constellation of Orion. By advocating such a hypothesis, Bauval was invoking the almost heretical notion that each of the pyramids at Giza were constructed as component parts of a long-term project; a multigenerational master plan that involved the Belt stars of the constellation of Orion.

It is unsurprising that in making such a bold hypothesis, Bauval quickly incurred the wrath of the academic establisment. With a few notable exceptions, Egyptologists remained largely unconvinced of Bauval's proposal, dismissing much of the cultural

evidence he presented from the ancient Egyptian writings known as the Pyramid Texts, which provided considerable textual support to his work. The Egyptologists demanded that Bauval present conclusive evidence in support of his Orion hypothesis before they would even remotely consider overturning more than a century of Egyptological consensus that staunchly regarded the Giza pyramids as three discreet royal funerary complexes built entirely independently of each other.

Robert Bauval, however, remains steadfast in his view. Almost fifteen years after publishing *The Orion Mystery*, I met with Bauval in the shadow of the Great Pyramid and asked him his opinion concerning a very obvious anomaly at Giza. “If Khufu was the first pharaoh of the Fourth Dynasty to build at Giza,” I put it to him, “why, then, didn’t Khufu construct his Great Pyramid on the prestigious, high ground in the center of the plateau?”

Bauval turned to me with his characteristic enigmatic smile, and replied, “Because, Scott—there was a plan.”

In *Keeper of Genesis/Message of the Sphinx*, the authors show how this “grand plan” may also have included the Great Sphinx at Giza, which they hypothesize might have been designed as a reflection of the lion constellation of Leo in the eastern sky circa 10,500 BCE. It seems that the designers of the Great Sphinx may have used the constellation of Leo as the underlying template for the design of this most recondite of all Giza structures. On this basis, might it not then be possible that the designers may have used the Orion’s Belt stars not simply to lay the pyramids on the ground in a near identical pattern to the Belt stars, but to *also* use the Belt stars as the underlying template from which to generate the *actual dimensions*—the base shape—of all three main Giza pyramids?

It hardly needs to be stated, but if it can be demonstrated that the Orion’s Belt stars can indeed be used to simply and easily generate three bases whose dimensions proportionally match those of all three main Giza pyramids, then this would provide strong circumstantial evidence in support of Bauval’s Orion hypothesis.

Yet can this be done? Is it possible that the three Orion’s Belt stars can—when applying a very simple geometrical technique—be used to produce three bases that perfectly match the bases of the three Great Pyramids at Giza? We will shortly investigate this idea, but for the moment let us consider some further “anomalies” that exist at Giza, for which there exist no convincing conventional answers.

Anomalies Abound

As already mentioned, if the final resting place of the pharaoh was simply a matter of

his own personal choice, then we have to ask ourselves why Khufu should have chosen to locate his Great Pyramid at the very edge of the northeast corner of the Giza Plateau. On the surface, this would not seem a particularly odd choice. Looking closer, however, we find that the high, dominant ground lies in the *center* of the plateau where Khafre's Pyramid stands. Not only is this central area the commanding ground on the plateau, but it also benefits from having a "natural causeway" that runs from the area of the Sphinx up to the east face of Khafre's Pyramid. Even today, Egyptologists refer to this area as the "gateway to Giza."

Why then, we ask, would Khufu choose to construct a quite monumental *artificial causeway* deep into the valley, when a natural causeway *already existed* up to the high, commanding ground of the plateau and which—had Khufu utilized it for himself—would have considerably eased the construction burden of his funerary complex?

Furthermore, by failing to claim for himself the highest ground on the plateau, Khufu would have been fully aware that he was leaving the door open for some future pharaoh to trump his own achievement by potentially building a higher pyramid in that area, which, as matters transpired, is precisely what happened—Khafre's Pyramid appears larger than the Great Pyramid due to it having been built on the central high ground of the plateau.

The ancient Egyptians were—first and foremost—very practical builders. For Khufu to have decided against building his pyramid in the most *practical and prestigious* location on the plateau defies logic, and is entirely inconsistent and anomalous. Why would Khufu risk having the magnificence of his own grand structure eclipsed by leaving the Giza door wide open for a future pharaoh to come along and surpass his own achievement? It makes no sense.

And why did Khafre—the builder of the second Giza pyramid—decide to return to Giza when his predecessor, Djedefre, did not build at Giza like his father, Khufu, but instead opted to build his pyramid at Abu Rawash? Indeed, Khafre was the first king of the Fourth Dynasty to "co-locate" at the site of another pharaoh (Khufu). Why did Khafre (and indeed, Menkaure) decide to build at Giza where—from a religious perspective—it would have seemed more consistent to have co-located with Djedefre (the first king of the emerging solar cult to have the name of the sun god Re incorporated into the royal cartouche) at Abu Rawash?

And finally, we have Menkaure's Pyramid—the smallest of the three Great Pyramids at Giza. Once again it defies basic human instinct that Menkaure would have wished to locate his own infinitely smaller structure in the shadow of the Great Pyramid and Khafre's Pyramid, where its relatively diminutive stature would only have been exacerbated by its close proximity to its two illustrious neighbors. Had

Menkaure sited his own structure at a virgin site, he could have avoided the ignoble fate that assuredly awaited his pyramid by deciding to build at Giza. Why would Menkaure commit to Giza in the full knowledge that the pyramid he planned to build there would forever suffer the ignominy of having failed to meet the high standards set by his predecessors? Again, it makes little sense.

Another very obvious anomaly pertains to the two sets of three smaller satellite pyramids known as the "Queen's Pyramids." Three of these structures run in a north/south line to the east of Khufu's Pyramid, whilst the other set of three run in an east/west line just south of Menkaure's Pyramid.

Khafre's Pyramid has no queen's pyramids at all. Why would this be when it is known that Khafre actually had *five* wives? Five queens, and yet not a single queen's pyramid is located at Khafre's Pyramid! There seems no consistency, no logic to this anomaly.

Of course, all of these anomalies, contradictions, and motives are simply and easily explained by the prior existence of a grand, overall plan; a *strict* plan that the ancient Egyptians of the Fourth Dynasty—beginning with Khufu—felt compelled, indeed "duty-bound," to implement on the ground at Giza.

From a purely logistical point of view, it would make sense to build Khufu's Pyramid first, since to commence the plan by building on the central high ground of the plateau would have presented a considerable obstruction to later construction. Building *had* to begin in the northeast of the plateau to accommodate the logistics of building the structures that would come later in the plan. Given this constraint, Khufu—being the first to build at Giza—had little choice but to build his pyramid on the lower ground in the northeast of the plateau. However, had there been no master plan for later structures, Khufu would undoubtedly have taken full advantage of the prestigious high ground for his own pyramid. Khufu's peculiar actions tell us that his "hands were tied"—he was constrained by the demands and logistics of a *greater plan*; a plan he was seemingly powerless to influence.

In Search of the Master Key

Whether the pyramids at Giza were constructed as "singularities" or as part of some greater scheme, it is not unreasonable to surmise that the builders would have followed plans of some kind. Alas, no plans of any kind have ever been recovered.

However, even in the absence of any actual plans, it may still be possible to uncover the blueprint the ancient builders may have used to lay out and define the dimensions of the Giza monuments—and we can perhaps achieve this by reverse-

engineering the geometry of the in situ structures. The logic is simple—if the Giza pyramids were constructed as part of some overall "master plan," then it naturally follows that there would exist some guiding principle common to all three pyramids. Finding this "key" would hopefully lead to the underlying design imperative—the blueprint—and show that the pyramids were not simply placed in random fashion on the whim of three successive pharaohs.

Over the years, the Internet has spawned a veritable plethora of geometrical-mathematical offerings that attempt to seek the answer to the question of how the three main Giza pyramid base dimensions were arrived at and how the other satellite pyramids were placed. So far, however, none of these offerings provides a complete, cohesive solution to this particular question. The master "key" to the Giza blueprint remains frustratingly elusive.

It was stated in the opening to this article that Robert Bauval has long argued that the three main Giza pyramids were built and laid out on the ground at Giza as symbolic representations of the three Belt stars of the Orion constellation—not a perfect centerto-center correlation, but very close. Assuming, then, that Bauval's hypothesis is correct, could it then be possible that the Orion's Belt stars might reveal to us other aspects of the Giza pyramid design? Might it be possible that the Belt stars could have been used to define the actual geometrical base dimensions of the three main Giza pyramids? In short—could the Orion's Belt stars be the elusive design "key"; the underlying Giza design imperative sought by so many for so long?

Well, let's see.

The Orion "Geo-Stellar Fingerprint"

Any three non-linear points (in this case the three stars of Orion's Belt) can be used to generate three square bases, simply and easily, using a technique that has come to be known as "geo-stellar fingerprinting." Orion's Belt stars can be used to produce their very own "geo-stellar fingerprint."

The dimensions of the three main pyramids at Giza are shown to proportionally agree with the three bases produced by the Orion Geo-Stellar Fingerprint—a clear connection between the Orion's Belt stars and the pyramids at Giza. Furthermore, what we also find is that three lines can be passed through each of the three main pyramids of the Geo-Stellar Fingerprint that allow us to also place the Queen's Pyramids of Menkaure and Khufu.

It seems somewhat ironic that the mathematical "solution" to the Giza layout sought by so many over so many years was sought by some individuals to *disprove*

Bauval's Orion hypothesis, and yet what we now find is that the Orion's Belt stars actually held the key to the mathematical design solution—the *Giza blueprint*—that these individuals had been so keen to discover.

Yet the Orion influence at Giza does not end there. There is more—much more.

Whilst the Orion Geo-Stellar Fingerprint presents highly compelling evidence on its own of a direct (mathematical) connection between the three Giza pyramids and the Orion's Belt stars, independent corroboration of such an association is desirable to further strengthen the hypothesis. If it could be shown that *other* pyramid structures at Giza *also* have a demonstrable connection with the Orion's Belt stars (with the obvious placement of these structures within the Orion Geo-Stellar Fingerprint) then this would provide the independent corroboration required to prove the Orion-Giza hypothesis—if not conclusively, then certainly beyond any reasonable doubt.

Queens of Precession

It would seem that such independent corroboration can be found in the relative placement of the two sets of three "Queen's Pyramids" on the plateau.

Before presenting this corroborating evidence of an Orion association with the two sets of Queen's Pyramids, it is important to first take a moment here to understand the astronomical phenomenon referred to by astronomers as "precession."

Most of us are familiar with the Earth's daily (diurnal) rotation of twenty-four hours. We are also familiar with its second motion, its annual 365-day rotation (orbit) around the sun. The Earth, however, possesses a *third*, much less perceptible motion known as "precession."

When we look at the night sky, we observe the stars slowly rotating in a continual east to west direction. Over some 13,000 years, however, the stars in our night sky actually slowly drift in a west to east (retrograde) direction before stopping and then, over a further 13,000 years, drift slowly back to their point of origin—like the swing of a clock's pendulum. The conventional view of this "precessional drift" is that it occurs as a result of a very slow wobble of the Earth as it rotates around its axis.

The end result of this "precessional drift" is to slowly shift the rising and setting points of stars on the horizon over a long period of time—approximately one degree of precessional drift occurs every seventy-two years. One beneficial aspect of this precessional drift is that it can be utilized as a mechanism for "recording" time, for marking important dates. For example, by aligning two stone obelisks with a setting star precisely due south (180 degrees), we are effectively marking that specific moment (date) in time. Over the passing years and decades, the target star continues

its slow drift along the horizon, leaving the alignment with the obelisks far behind. The obelisks no longer align with the target star on the horizon but now serve as a "marker"—an astronomical record—of when the alignment was made with the target star.

By then observing where the target star sets (or rises) today—for example, at 192 degrees—we can then extrapolate that it has drifted some 10 degrees from its original obelisk alignment of 180 degrees which, in turn, tells us that the alignment was created approximately 720 years in the past, since seventy-two years equals approximately one degree of precessional drift.

Similarly, when we now consider the pyramid structures at Giza, we find a very clear and unequivocal alignment of those structures with the Orion's Belt stars as they appeared on the southwest *horizon* circa 10,500 BCE. Specifically, this alignment involves the smallest of the three Great Pyramids—the Pyramid of Menkaure—and its stellar counterpart, the belt star Mintaka in Orion's Belt. Mintaka is the "target" star through which the Pyramid of Menkaure (our "obelisk") is aligned.

Circa 10,500 BCE, the star Mintaka set close to the southwest horizon 212 degrees azimuth (212 degrees clockwise from due north). When considering the Giza pyramids, we find that the alignment from the apex of Khafre's Pyramid through the apex of Menkaure's Pyramid is also 212 degrees azimuth.

At the very same moment, the three Queen's Pyramids of Menkaure are placed in a horizontal line close to the southwest horizon, thereby mimicking the arrangement of the three Belt stars which are similarly arranged at that precise moment before setting on the southwest horizon.

Significantly, this alignment with Menkaure/Mintaka and the Menkaure Queens with the three Belt stars occurs at a very unique moment in the precessional "pendulum swing" of the Orion's Belt stars. This quite unique moment—marked by the 212 degrees Menkaure/Mintaka alignment and corroborated by the arrangement of Menkaure's Queen's Pyramids—is the very moment the Belt stars stop and reverse their precessional direction to begin their long 13,000 year journey back to their point of origin. This unique moment, circa 10,500 BCE is known as the precessional *minimum* culmination. After another 13,000 years drifting in the opposite direction, the Belt stars will reach their precessional *maximum* culmination, circa 2500 CE, and so the precessional pendulum swing of the Belt stars continues—forever.

There is yet more evidence to present regarding this quite extraordinary relationship between the Giza pyramids and the Orion's Belt stars. As already mentioned, the Belt stars swing across the sky like a clock's pendulum, moving imperceptibly slowly between minimum and maximum precessional culminations. We have already observed how the Menkaure Queens have been placed as "markers" to

indicate the precessional minimum culmination of the Orion's Belt stars when these stars were aligned in horizontal fashion close to the southwest horizon. This then begs the obvious question—how and where will the Belt stars be aligned when rising at their precessional *maximum* culmination on the future date of circa 2500 CE?

Consulting astronomical software, we find that the Belt stars will rise at maximum culmination on the eastern horizon rotated 90 degrees (perpendicular) to the stars setting at minimum culmination. Astonishingly, this is precisely the arrangement we find that the other three Queen's Pyramids beside Khufu's Great Pyramid have been placed in.

It is also worth noting that in considering the Queen's Pyramids as "precessional markers," this might help explain the curious absence of any queen's pyramids of Khafre, a pharaoh who reputedly had five queens. Since only the precessional max and min culminations need be demonstrated (there is little need to mark any intermediate point), thus the mysterious absence of Khafre's queen's pyramids is simply and logically explained.

In conclusion, the two sets of Queen's Pyramids at Giza demonstrate the precessional minimum (setting) and maximum (rising) culminations of the Orion's Belt stars, a process that takes some 13,000 years just to complete one half-cycle. That such astronomical information is exhibited to us in plain view at Giza is truly extraordinary, and provides strong corroboration to the Orion Geo-Stellar Fingerprint, which—as we have seen—defines the base dimensions of the three main pyramids at Giza. So, in three distinct sets of structures at Giza, the constellation of Orion is clearly and unequivocally implicated, thus providing corroboration to the Orion Geo-Stellar Fingerprint.

Yet the Orion-Giza story isn't quite over yet—there's more.

One of the main points of contention that opponents of the Orion-Giza hypothesis leveled at Bauval's work was the fact that the Belt stars do not present a perfect, center-to-center correlation with the three Giza pyramid centers. The error, however, is very small and, indeed, it would seem that this minor error was quite *intentional.* We can deduce this from the fact that the Giza pyramids match the Orion Geo-Stellar Fingerprint so accurately. Such an accurate match could only have been created from having made a near perfect observation and recording of the belt star asterism.

Furthermore, when we place the Belt stars over the pyramid centers, we find that the center star (Alnilam) is slightly offset from its pyramid center. However, when we circumscribe the pyramids precisely within a tight circle using the three most extreme pyramid corners to define the circle's circumference, we find that the center of this Great Giza Circle (GGC) lies almost perfectly on the center of Alnilam.

It seems, then, that the ancient designers of Giza measured and placed the belt star asterism with high accuracy on the ground at Giza, but for some reason decided to place Khafre's Pyramid slightly offset from the Alnilam/GGC center.

Intriguingly, independent researchers Scott Sacharczyk and Rob Miller have found that the offset between Khafre center and the center of the Great Giza Circle measures precisely 44 by 14 cubits, which represents an approximation of *pi:* 44/14 (or reduced to 22/7) = 3.14285714, thus presenting the possibility that the G2 offset was deliberately created to encode the pi formula and, by extension, the Great Giza Circle.

Khafre's Pyramid has two entrances, a unique feature that scholars such as Miroslav Verner, Amelia Edwards (1831–1892), Ahmed Fakhry (1905–1973), and Vito Maragioglio and Celeste Rinaldi (per their 1963–1975 study) have regarded as perhaps indicating that the location of Khafre's Pyramid was changed from an earlier planned location, which would have placed it slightly further north and east of where it presently stands. This view agrees with the findings of the Orion Geo-Stellar Fingerprint and the center of the Great Giza Circle.

To summarize, through the arrangement and dimensions of the various structures at Giza we are presented with multiple pieces of quite diverse evidence, all pointing to a clear connection of the Giza pyramids with the Belt stars of the Orion constellation. With this mathematical and astronomical evidence—together with the mass of cultural evidence previously cited by Bauval, Gilbert, and Hancock supporting such a correlation—for Egyptologists to continue to reject that such an association was fully intended by the ancient designers must surely now be considered an untenable position.

A sufficient body of evidence now exists to allow us to safely conclude that the structures at Giza were constructed with reference to a master plan. The evidence presented here in support of this view may not *conclusively* prove an Orion-Giza association, but it is probably fair to say that if it is weight of evidence that counts, then we must consider that the Orion-Giza association now has sufficient evidence to allow us to consider the hypothesis as proven *beyond reasonable doubt*.

The Giza "Clock of Ages"

In acceptance of the Orion association with the Giza pyramids, what remains now is to consider the "why" question: Why did the ancient designers expend so much blood, sweat, and tears to create this great astronomical clock, indicating the past date of circa 10,500 BCE and the future date of circa 2500 CE? Why are the ancient designers indicating this 13,000-year half-cycle of time in a series of monuments that

could easily have been built to survive such a lengthy period of time—and more? And is it perhaps significant that around 10,500 BCE—the first date indicated in the astronomical clock—the last ice age came to an abrupt and somewhat dramatic end with all manner of animal and plant species becoming extinct at that time? What event could have occurred on the Earth to bring about such dire global consequences?

Whatever inspired the design and later construction of this quite monumental astronomical “Clock of Ages” at Giza, it seems evidently clear that it must have been of vital importance. The two sets of Queen’s Pyramids at Giza present the Belt stars of Orion aligned in two different ways, indicating two different dates: a horizontal alignment (minimum culmination indicating circa 10,500 BCE) and a perpendicular alignment (maximum culmination indicating circa 2500 CE). Our civilization ignores the dates indicated to us with these two alignments—these Orion “signs”—at our peril.

N I N E

The Cygnus Mystery

HAVE COSMIC RAYS AFFECTED HUMAN EVOLUTION?

ANDREW COLLINS

Did cosmic rays have a hand in effecting shifts in human evolution, from Paleolithic times through to the modern day? Has this helped determine not only our physique and behavior but also our creativity and consciousness? These are wild notions, yet they are suddenly beginning to appeal to mainstream scientists and astronomers. Indeed, as long ago as 1973, American astronomer and science writer Carl Sagan wrote in his book *The Cosmic Connection* that human evolution was the result of incoming cosmic rays from some distant neutron star, demonstrating how we are right to think of ourselves as part of a greater whole at one with the cosmos.

Yet is this correct? Is Charles Darwin's theory that evolution is caused merely through survival of the fittest, and the process of natural selection, somehow flawed? The idea of cosmic radiation reaching Earth from deep space has fascinated the scientific world since its discovery, following a series of balloon ascents by Austrian physicist Victor F. Hess (1883–1964) in 1912. Then, when in the late 1920s American geneticist H. J. Muller (1890–1967) discovered that radiation (he used X-rays and later radium) was a mutagen through his work with *Drosophila* fruit flies, the subject of whether or not high-energy cosmic rays might cause changes in human DNA was voiced for the first time. Muller himself twice wrote about the subject, concluding on each occasion that the normal background fluctuation in cosmic rays reaching Earth was inadequate to explain spontaneous mutations in life forms, whatever their type. Muller was not wrong. Yet had he been privy to modern scientific data, which now confirms that at certain times in the Earth's history the solar system has been bombarded with high levels of cosmic rays, he might have thought again.

Records from the Ice

When so-called primary cosmic rays hit the upper atmosphere, almost all of them break up when they collide with nuclei of oxygen and nitrogen, the process producing a plethora of charged secondary particles. Many disintegrate in milliseconds, but others form isotopes that are preserved in everything from lake sediments to stalagmites and, more crucially, the layers of ice that accumulate each year to great depth in the Arctic and Antarctic regions.

One such isotope is Beryllium-10 (Be-10), which can be extracted from ice cores and measured to provide an accurate indication of cosmic ray activity in the upper atmosphere. It shows that over the past 100,000 years, there have been three periods when the cosmic ray flux has increased dramatically. The first was around circa 60,000 to 70,000 years ago, the second occurred approximately circa 35,000 to 40,000 years ago, and the third and last peak began around 16,000 to 17,000 years ago, and continued until around 14,000 years ago. Each spike lasted for a period of approximately 2,000 years. Similar results have been determined from a stalagmite removed from a submerged blue hole in the Bahamas. An examination of its Beryllium-10 content indicates that at various points between 45,000 and 11,000 years ago, the Earth was bombarded by twice the amount of cosmic radiation that we get today.

Where’s the Cosmic Source?

The first question we must ask is where this influx of cosmic radiation might have come from. Was it really a neutron star, as Carl Sagan suggested, or could it have been another astronomical source out there in deep space? Alternatively, was there some other, more prosaic solution to this enigma? The more or less regular gaps between the spikes of Beryllium-10 activity noted in the ice cores might well indicate some kind of cyclic force in action, most obviously that of the sun. Cosmic rays are known to be partially deflected by the solar magnetic field that stretches far out into the heart of the solar system, making the rate of Beryllium-10 production in the upper atmosphere dependent on the strength of the solar field, which is itself connected with sunspot activity.

In addition to this, the sun’s long-term climate cycles of 100,000, 41,000, and 23,000 years, first noted by Serbian geophysicist Milutin Milanković (1879–1958), must also affect the production of Beryllium-10 for similar reasons, such as the influence of the solar field upon the Earth’s upper atmosphere. This said, there might easily have been other factors behind the sudden increase in cosmic rays hitting the

Earth, the most catastrophic being a supernova, the death of a star as it expels the last of its nuclear fuel and collapses to form a high-mass compact object, most usually a white dwarf, black hole, or neutron star.

Supernovas are thought to produce enormous bursts of cosmic rays and gamma rays, which are sent careening across space at virtually the speed of light. If such an event occurred close enough to our own solar system, then the Earth would be showered by deadly radiation. This would damage the ozone layer, causing not only many more rays to reach the surface of the planet, but also the onset of high levels of UV radiation from the sun. More conservatively, catastrophists suggest that cosmic rays from a close supernova would dramatically increase cloud formation, preventing the sun from penetrating through the atmosphere, thus bringing about a sudden ice age.

Whatever the consequences of a close supernova, life on Earth would suffer mass extinctions. As terrifying a scenario as this might seem, it was the favored theory for the sudden disappearance of the dinosaurs some 65 million years ago until the discovery in 1980 of the Chicxulub impact crater in Mexico's Yucatan peninsula. This helped confirm the alternative theory that a super-sized asteroid or comet had been responsible for their extinction. Indeed, the supernova solution had been the choice of Carl Sagan and his coauthor Dr. I. S. Shklovskii, the famous Soviet astrophysicist and radio astronomer, in a book entitled *Intelligence in the Universe*, published in 1966. In fact, one wonders whether Sagan's unique view that cosmic rays have accelerated human evolution actually stemmed from his obvious fascination with the extinction of the dinosaurs.

Yet the powerful idea of a close supernova wreaking devastation on Earth during some past geological age lingers, with some catastrophists believing that it could have brought about mass extinctions during other geological epochs, for instance at the close of the Jurassic Age some 145 million years ago, as well as at the culmination of the Pleistocene Age, which coincided with the end of the last ice age some 12,000 years ago. And such scientific speculation is where it starts getting interesting, for when the high levels of Beryllium-10 were first noted in the ice cores at the beginning of the 1990s, scientists from the Cosmic Ray Council of the Soviet Academy of Sciences, working alongside a team from the University of Arizona, speculated that those around 35–40,000 years ago probably resulted from a supernova explosion.

To back up their dramatic claims, the joint Soviet-American team cited the presence of an immense formation of glowing clouds of gaseous debris—the remnants of an unimaginable supernova explosion around 150 light-years away (that's just 900 million, million miles from here) in the northern constellation of Cygnus. Had this remnant of a supernova explosion—known to astronomers as the Cygnus

Veil, or Veil Nebula—been responsible for showering the Earth with cosmic rays for anything up to 2,000 years some 35,000 to 40,000 years ago? Did it bring about dramatic climatic changes and bursts of radiation that evolved humanity into what we are today?

The Emergence of Man

For whatever reason, the worldwide press coverage that resulted from this dramatic announcement of a close supernova decimating the Earth some 35,000 years ago came to nothing. Yet, thankfully, there was one person who did take notice—British anthropological writer Denis Montgomery. Having lived in Africa for many years, where anatomically modern humans emerged for the first time around 200,000 years ago, he became intrigued as to why sudden jumps in evolution occur. Was it purely spontaneous, through chemical changes in the body, or were there other exterior factors at play, such as environmental and climatic changes, nutritional variety, interbreeding, or even simple competitiveness?

Although there is ample evidence that our earliest ancestors migrated from Africa, most probably in search of new food resources, as early as 70,000 to 80,000 years ago, only tiny glimpses exist of what we were capable of achieving at this time. For instance, around 80,000 years ago, the peoples of the Republic of the Congo were making barbed bone hooks for fishing, while a community that inhabited a large cave at a place called Blombos on the southern coast of South Africa would seem to have fashioned the earliest known examples of expressive art.

These take the form of incised pieces of red ochre, showing recurring cross-hatch designs, as well as perforated snail shell beads, once strung on a cord and worn either as a necklace or a bracelet. All of these invaluable objects are thought to be approximately 75,000 years old. Then there is the recently discovered archaeological evidence from a remote mountain cave in Botswana sacred to the indigenous San bushmen. This shows that ritual activity has been occurring here in a similar manner for anything up to 70,000 years, around the time when the first migrations out of Africa are thought to have occurred. Strangely, this was also when the ice core samples tell us that there was a dramatic increase in cosmic radiation hitting the Earth, the first of three major bursts in the past 100,000 years.

Age of the Artist

Yet aside from this clear evidence of human creativity and imagination 70,000 to

80,000 years ago, it was not until the start of the Upper Paleolithic Age around 40,000 years ago that something quite dramatic started to take place. At a time coincident to when *Homo sapiens* first entered a Europe dominated by his Neanderthal cousins, there is clear evidence for the sudden emergence of a complex life style, the earliest known to humankind. It involved religious expression and practices, including detailed funerary rites, as well as magnificent new forms of art, such as the carving of animals, birds, and humans in bone and stone. It also involved, crucially, the manifestation of highly sophisticated cave art, such as the extraordinary painted galleries discovered as recently as 1994 at Chauvet in France's Ardèche region.

Occupied as early as 30,000 to 32,000 years ago, it contains images and sculptures of whole menageries of wild animals, including horses, rhinos, lions, mammoths, and bison. Alongside these are perhaps the oldest known representations of the human form anywhere in the world. These are represented by painted torsos and legs of a large-bodied woman, typical of later "Venuses" found either in statue form or as high relief in other caves, and an accompanying bison-headed figure labeled the Sorcerer, both of which are to be seen in the deepest part of the cave system.

Rapidly, hundreds of caves across western Europe became full of accomplished art forms, a tradition which lingered until approximately 17,000 years ago, when a renewed interest in sacred painting deep underground suddenly developed. This trend finally ended around 12,000 years ago when the Upper Paleolithic Age climaxed coincident to the cessation of the last ice age.

What Denis Montgomery wondered was whether, in addition to other environmental, climatic, and human factors, the increase in cosmic rays approximately 35,000 years ago (perhaps from the assumed supernova explosion which caused the creation of the Cygnus Veil) acted as a mutagen to effect sudden changes in the brain's neurological processes. This, in turn, might have brought about the enlightened age of the cave artist in western Europe. It could also explain why the Neanderthal peoples suddenly became extinct around this time, perhaps as a result of too much competition from their competitive new neighbors, the *Homo sapiens*.

Montgomery's unique ideas were privately published, and, inevitably, largely ignored by the scholarly community. Adding to his problems was the realization by astronomers during the mid-1990s that the Cygnus Veil, the nebula at the center of what Montgomery came to call the "Cygnus event," was found to be not 150 light-years away from Earth, as had previously been thought, but much further away, probably around 1,800 light-years' distance from here. At this greater distance, any supernova would have been little more than a bright light source in the northern sky, lasting for a period of several days before gradually dying away.

Doubly damning were recalculations concerning the age of the supernova event,

which now appears to have occurred as recently as 5,000 to 8,000 years ago (even though some astronomers still reckon it took place much earlier, perhaps 10,000 to 15,000 years ago). Thus there was no way that the Cygnus Veil could have been responsible for the high levels of cosmic rays reaching Earth's atmosphere prior to the emergence of the first European cave artists some 32,000 years ago. So where did they come from?

Enter the Meinel Group

It would not be until 2005 that this same cosmological conundrum would again be tackled, this time by an academic think tank from Nevada. At the conference of the Theoretical Archeological Group (TAG) in Sheffield, England, held in December of that year, Dr. Aden Meinel—professor emeritus of the College of Optical Sciences at the University of Arizona and distinguished veteran of NASA's Jet Propulsion Laboratory, who in the 1980s was responsible for the launch of space telescopes such as the Hubble—told a packed audience of archaeologists and students that the high levels of Beryllium-10 in the Greenland and Antarctica ice cores indicated that cosmic rays were responsible for germ-line mutations in both animals and human life around 35,000 to 40,000 years ago. This, he reported, had been the reason for the emergence of Cro-Magnon man in western Europe, and the sudden disappearance of the Neanderthals at the same time.

In addition to this, Meinel revealed that he and his colleagues had been able to use the ice core evidence to determine the approximate astronomical coordinates for the source of the cosmic rays. They had pinpointed an area of the sky in the northern hemisphere, coincident to the constellation of Draco. Here they searched for a possible source of cosmic rays and settled on a planetary nebula (a mass of glowing gas and cloud) known as the Cat's Eye. This, Meinel's group proposed, was the remnants of a galactic binary system consisting of a super giant and a once-active black hole that had spewed out jets of plasma, superheated ionized gas, along its line of axis at close to the speed of light. These, he said, had penetrated thousands of light-years of space to reach the Earth around 35,000 to 40,000 years ago, causing the changes in evolution witnessed at this time.

It was a bold theory. Unfortunately, astrophysicists are unanimous in their opinion that the Cat's Eye nebula does not contain (and never has contained) a black hole able to produce cosmic rays that might reach the solar system. However, the Meinel group are sticking to their guns, and remain convinced that the Cat's Eye nebula is the source of the cosmic rays that they believe affected human evolution in Paleolithic times. Yet tellingly, before being beguiled by the beauty of the Cat's Eye nebula, the

Meinel group had originally determined the direction of the cosmic ray activity detected in the ice core samples as coming not from Draco, *but from neighboring Cygnus, the constellation of the swan.* So had they got it wrong? Were the cosmic rays coming, as Denis Montgomery had surmised, from somewhere in Cygnus after all?

The Oldest Constellation

This is where I enter the frame. My own independent research into the emergence of primitive societies, with their unique cosmologies and religion, had revealed an inordinate interest in one particular constellation—Cygnus, the celestial bird or swan, better known today as the Northern Cross. Indeed, it features as one of the oldest known artistic representations of a constellation anywhere in the world, for it is seen on the walls of the famous Lascaux cave in southern France, which is known to have first been occupied around 17,000 years ago. Here it appears in a fresco found in the cave's deepest part, known as the well shaft, as a bird-man falling into a trance next to a charging bison and a bird on a pole. This is likely meant to represent the so-called sky-pole of the shaman used universally to enter the sky-world via a cosmic axis, located in the vicinity of the north celestial pole, or Pole Star. From around 16,000 to 13,000 BCE, this was located amid the stars of Cygnus, which even by this time would appear to have been seen as a sky-bird of some sort.

Fig. 9.1. The well scene in the cave of Lascaux in France's Dordogne region. Located in the deepest part of the caves, the fresco dates from around 15,000 BCE and seems to show Cygnus as a bird on a pole and a bird-man falling into a trance. Image provided courtesy of Andrew Collins.

Cygnus was also very likely the inspiration behind the appearance of the Venus and Sorcerer fresco in France's Chauvet Cave, where the woman's legs and thighs might well signify an abstract representation of the region of the Milky Way known as the Dark Rift, which opens out in the Cygnus region. Throughout the ages this region of the sky, close to where the ecliptic, the path of the sun, crosses the Milky Way, has been viewed as the vulva and womb of a sky-goddess, or Cosmic Mother, who gives

birth to the sun. Sometimes the Cygnus stars are even seen to be attached to the Earth via a kind of invisible umbilical cord, showing it as a nourisher of life.

Cygnus also appears as a bird in Church Hole cave in Derbyshire's Creswell Crags alongside cave art dated to 12,800 years ago. A 12,000-year-old stone temple—the oldest anywhere in the world—at Göbekli Tepe in southeast Turkey seems aligned to this same constellation. It is the same story with ancient stone and earthen structures worldwide—from the bird effigy mounds of North America to the Olmec centers of Mexico, the Incan sacred city of Cuzco, the Egyptian Pyramids of Giza, the Hindu temples of India, to the Irish and British megalithic stone complexes of Newgrange and Avebury—all of which seem to reflect an age-old interest in Cygnus.

Fig. 9.2. The Pre-pottery Neolithic cult centre of Göbekli Tepe near Urfa in southeast Turkey, constructed around 12,000 years ago. Did its shamanic elite inherit ideas relating to flashes of light caused by cosmic rays from the Paleolithic cave artists of Western Europe? Image provided courtesy of Andrew Collins.

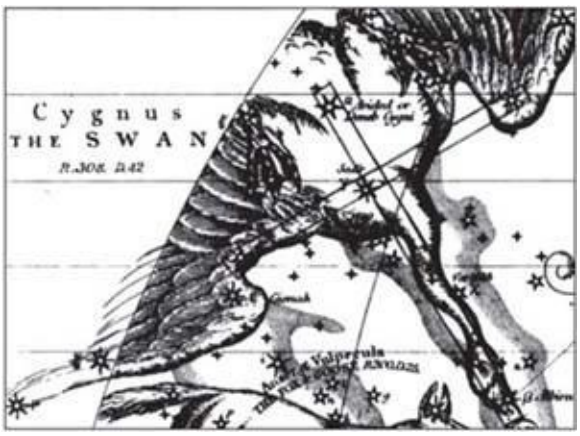

Fig. 9.3. The Cygnus constellation, shown as both a swan in flight and Cross of Christ. Author's collection.

Putting aside more obvious astronomical reasons why our ancestors might have favored this particular constellation in their religious beliefs and practices, I searched for other reasons why it was depicted deep underground by the cave artists of the

Upper Paleolithic Age. In the knowledge that the work of South African anthropologist and rock art specialist David Lewis-Williams had determined that much prehistoric cave art was inspired by shamans in mind-altered states, I wondered whether the stars of Cygnus had come to be associated with religious experiences deep underground, where their most sacred cave art was executed.

Children of the Swan

I searched for answers and found that in the early to mid-1980s, underground particle detectors in different parts of the world began detecting incoming cosmic rays from deep space. Since they came in cycles of exactly 4.79 hours, the source was easily determined, for this same cycle had already been recorded in connection with other forms of electromagnetic radiation inbound from an object called Cygnus X-3, located some 37,000 light-years away in the heart of the Cygnus constellation. So inexplicable were these peculiar, neutrally charged, strongly interacting particles, resonating at some of the highest energies ever detected, that they were quickly dubbed “cygnons,” later changed to “cygnets,” meaning “children of the swan.” This amazing data led to controversial claims that Cygnus X-3 was the first identified cosmic particle accelerator in the galaxy.

Cygnus X-3 is a binary system composed of a dying Wolf-Rayet star that feeds a close proximity neutron star (or, some suggest, a black hole or strange quark star) producing streams of superheated plasma (ionized gas). This ejecta is shot out at relativistic speeds, very close to the speed of light, along its line of axis, causing jets of debris that reach out into the local stellar medium for tens of light-years of distance. These unimaginable beams, like cosmic searchlights, are held together by magnetic sheaths that produce powerful particle acceleration in a variety of frequency ranges, including X-rays, infrared, radio waves, and gamma rays. This is not uncommon in so-called compact stars, like black holes or neutron stars, but in 2000, astrophysicists announced that Cygnus X-3 might well be the galaxy’s first blazar, a term used when one of a deep space object’s twin plasma jets is aligned toward our solar system (in other words, it is pointing straight at us). Other blazars have been identified outside of the galaxy, but this is the first time that one has been suspected to exist in our own backyard, so to speak.

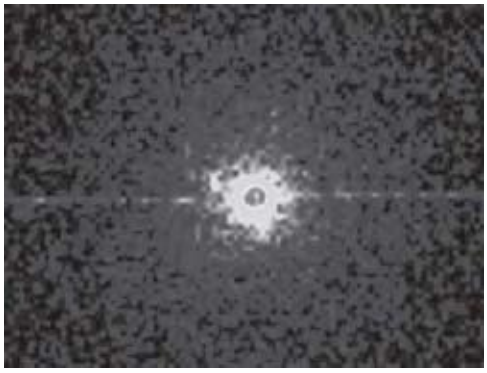

Fig. 9.4. Cygnus X-3 as photographed by the Chandra X-ray platform in 2000. Is this the source of cosmic rays influencing life on Earth? Image provided courtesy of NASA/SRON/MPE.

What this means is that we are looking straight down the barrel of the most dangerous cosmic cannon in the galaxy, and have been, according to astrophysicists, for anything up to 700,000 years. The significance of this is that the ejecta produced by such jets could easily be responsible for increased levels of cosmic rays reaching the Earth. This includes Cygnus X-3's unique cygnet particles that, being neutrally charged, reach the Earth directly from source, and are able to penetrate deep underground, which is something that cosmic rays are usually unable to do, since they are positively charged and break up before they reach the surface of the planet (neutrinos, which are negatively charged cosmic particles with almost no mass, pass through the Earth all the time without affecting anything). More important, recent findings by Japanese and Chinese scientists using data from a facility in Tibet have shown that there is, even today, a huge excess of high energy cosmic rays coming from a point in the Cygnus constellation close to the astronomical coordinates of Cygnus X-3.

Fig. 9.5. NASA reconstruction of Cygnus X-3, showing its two components—one a compact object, either a black hole or neutron star, with accretion disc and twin

relativistic jets, and the other a large Wolf Rayet star. Although over 30,000 light-years away, can its actions affect life on Earth? Image provided courtesy of Walt Feimer, NASA/Goddard Space Flight Center.

Fig. 9.6. Suspected black hole M87 as photographed by Hubble. Notice the relativistic jet spewing out superheated plasma at close to the speed of light. Is one of Cygnus X-3's relativistic jets aimed straight at the Earth? Image provided courtesy of NASA and The Hubble Heritage Team (STScI/ AURA).

Seeing the Light

This staggering scenario might well explain why our ancestors came to recognize the celestial swan as so important to their religious mind-set, since there is every reason to conclude that ancient shamans who achieved altered states of consciousness in deep cave settings, most obviously using hallucinogens, somehow became aware of the effect Cygnus was having on their lives. This might seem impossible. However, there is every chance that they would have been able to see the disintegration underground of cygnet particles, through a process known as Cherenkov radiation, which allows decaying cosmic rays to be seen as ghostly flashes of white or blue-white light as they pass through the aqueous part of the eye.

Astronauts first discovered this phenomenon in 1968 when they were aboard the *Apollo 11* spacecraft. As they tried to get off to sleep, they reported seeing "flashes and streaks" before their eyes (scientifically known as "phosphenes"). This occurred with their eyes open or closed, something that recurred during future space missions, prompting a series of onboard experiments that proved that they were being caused by cosmic rays passing through the hull of the space vessel.

Like looking into the Universe

Hungarian-born Cornelius A. Tobias (1918–2000), a founding member of Lawrence Berkeley National Laboratory's Donner Laboratory and an expert on space biology, had earlier predicted the level of cosmic radiation that future astronauts would be exposed to, and even described its potential effects. More significantly, he predicted that they would also see flashes of light before their eyes. To test his hypothesis, he devised a unique, but very dangerous, experiment. He decided to expose himself to subatomic particles produced by UC Berkeley's Bevalac particle accelerator, which has been described as a veritable cosmic ray factory.

Part of its function is to rip away electrons from heavy elements including iron, and then focus the nuclei into a beam of particles, which are then accelerated to virtually the speed of light, like the relativistic jets produced by compact objects such as black holes and neutron stars. Tobias quite literally stuck his head in the flow of the particles and observed something almost unique on Earth. "You see visual flashes," he recalled, shortly before his death in 2000. "It is an exhilarating sensation. It is as though you are looking into the universe itself." Tobias repeated the experiment, even introducing his colleagues to the experience, until the tests were finally discontinued on health grounds.

Although it is suspected that these subatomic particles pass through the aqueous part of the eye, more recent research by Livio Narici of the National Institute for Nuclear Physics in Rome has suggested that some cosmic rays might hit the brain directly, causing not only the sensation of light flashes but also other seemingly external effects such as odd smells. Narici believes that phosphenes can be created when the particles hit the visual cortex, along with the olfactory bulb (causing smells) and possibly even the central nervous system. If so, then they could pose a potential health hazard to astronauts on future space missions, especially if phosphenes, or indeed other forms of sensory phenomena, occur at crucial moments such as when maneuvering vehicles to land. Narici has now been granted permission to conduct experiments with astronauts onboard the International Space Station (ISS) under the project name of ALTEA.

A helmet-shaped multisensor device will be worn by volunteers for an hour at a time to monitor the passage of incoming cosmic rays. At the same time, the astronauts will log when they see light flashes or trails. Hopefully, the two will coincide, telling Narici and his team where exactly the particles are hitting.

Under normal circumstances, we do not see cosmic rays down here on Earth, since we rarely experience total darkness. Moreover, the vast majority of cosmic rays hitting the Earth are broken up in the upper atmosphere, and fall as showers of

harmless secondary particles. Even if we were to experience total darkness at ground level, so many other forms of environmental radiation, whether natural or industrially produced, might additionally cause phosphenes, meaning that any produced specifically by incoming cosmic rays would be lost in the process.

Virtually all forms of environmental radiation are shielded out deep underground. This is the reason why particle detectors and accelerators are located deep underground in mines, or off the side of tunnels inside mountains. Only here can they be sheltered from extraneous radiation, including stray cosmic rays penetrating the overhead rock. This, then, is what makes the cygnets from Cygnus X-3 so unique. Only strong, neutral particles of this kind are able to penetrate depths of hundreds of feet, before finally breaking up to cause secondary particles known as muons. It is for this reason alone that they were first detected by underground facilities, which at the time were attempting to witness the decay of a subatomic particle known as the proton. They included the Soudan underground mine facility in Minnesota and the NUSEX experiment in the Mont Blanc facility in southern France.

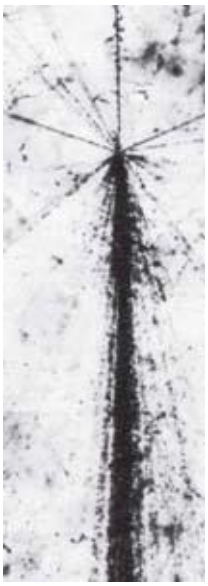

Fig. 9.7. A micrograph showing a cosmic ray impact. Image provided courtesy of Andrew Collins.

Thus a shaman in the total darkness of a deep cave setting would be troubled only by incoming cosmic rays from just a very few deep space sources, the most likely being Cygnus X-3 (although some facilities have detected a weaker cosmic particle inbound from a source designated Hercules X-1). Intriguingly, I have spoken to a woman whose father worked in the Soudan underground mine before the particle detection facility was built at the beginning of the 1980s. She claims that he would experience unaccountable flashes of light in the total darkness. I have heard similar stories from those who have spent long periods inside deep caves and mines in

Britain, including the Cheddar Caves in southern England and an abandoned slate mine beneath a mountain at Dinas, West Wales. All report unaccountable flashes of light in such environments. Even though geologically produced radiation, such as radon gas, might account for the production of some phosphenes underground, there is every chance that some are the result of incoming cosmic rays.

Closer to God

Is this, then, what our Paleolithic ancestors also experienced deep underground—flashes of light caused by the passage of cosmic rays inbound from sources such as Cygnus X-3? Would they have interpreted such experiences in a religious context? I think the answer is going to be yes. On the isolated peninsular of Mount Athos in southern Greece, ascetic monks adhering to a form of religious devotion known as hesychasm, also called omphaloscopy, or "navel-gazing," have for centuries repaired to the darkness of caves on the mountain to witness the divine light and glory of God, which is compared with that experienced by the disciples on Mount Tabor at the time of the Transfiguration of Jesus. It is a process that involves a period of deep meditation and contemplation that can last for several days, perhaps even longer. Yet eventually, I have been told firsthand, they witness flashes of light, which are interpreted as the Light of God. When this occurs it is often accompanied by visions of Jesus, the Virgin Mary, and the Christian saints—the whole process is said to bring them closer to God.

No one knows the origins of hesychasm, although it is thought to have been introduced to Mount Athos, its principal center, from Cappadocia in eastern Turkey, the home of the earliest Christian Fathers, and some of the most austere Christian ascetics. Such religious practices most probably came originally from shamanically based notions that had their genesis among the earliest Neolithic communities of central and eastern Turkey, including the city of Çatal Hüyük near Konya and, before that, the Pre-Pottery Neolithic cult centers of Göbekli Tepe, circa 10,000 BCE, and Nevali Cori, circa 8400 BCE.

Although apparently unconnected to the term omphaloscopy (which is a derisory term), it should be pointed out that the navel (the Greek *omphalos*) is a primary symbol of the axis mundi, the axis of the Earth, thought to be linked via an invisible sky-pole or umbilical cord to a cosmic axis located in the vicinity of the North Star. Curiously, the name Göbekli Tepe means in Turkish the "hill of the navel," suggesting that it was once thought to be an axis mundi in its own right.

Feels Like Heaven

I believe it highly probable that the mental discipline of “seeing the light,” or in other words, witnessing flashes of light in deep cave settings, is something that was first experienced by Paleolithic shamans, in Europe especially. It was then inherited by the shamanic elite responsible for the construction of subsurface cult centers built by the earliest Neolithic peoples. The idea of spending time in the darkness of cavelike environments was, I suspect, a key element in their beliefs and practices. Such ideas brought with them the vision of a communion with otherworldly influences that, as space biology expert Cornelius Tobias commented in connection with his own experiences of seeing the light, made you feel like “looking into the universe itself.”

What we also know is that flashes of light produced in deep cave settings by cosmic rays coming from Cygnus X-3 will have increased and decreased in accordance with the presence overhead of the Cygnus stars, enabling the Paleolithic shamans to eventually synchronize their chthonic beliefs and practices with its cosmic ray cycle, and thus identify this astronomical region as the source of origin of their visionary experiences.

Moreover, the appearance of seemingly objective flashes in the eyes might additionally have been taken, as is the case of the hesychasts of Mount Athos, as manifestations of some kind of primal cause, triggering more complex connections with what might have been conceived of as a divine being. This scenario might well have led our ancestors to learn what science is confirming today—that life came from the stars. Indeed, the theory of panspermia, literally “life everywhere,” proposes that the most primitive forms of life probably arrived on this planet having hitched a ride either on a comet, meteor, or asteroid. In many ways, it is the origin of the belief that we come from heaven, and will return there in death.

In Europe, it was the swan that was said to carry the souls of the dead into the next world, which was located in the north, the direction in which swans migrated to their breeding grounds each spring. In the Baltic region it was the swan that took the place of the stork in bringing babies *into* the world. It is very likely, for these reasons, that the stars of Cygnus, an ever-present northern constellation, became associated with migratory birds such as the swan. However, in regions where the swan was absent, other avians took its place.

For instance, it is clear that in the Near East, the bird of Cygnus was originally the vulture, which in early Neolithic practices at places such as Çatal Hüyük was involved in the excarnation process of denuding bodies and then, as a psychopomp (the Greek word for “soul carrier”), accompanied the soul of the deceased into the afterlife.

Cosmic Mother

In my opinion, this communion with the great unknown in deep cave settings led the ancients to celebrate the idea that we are star-stuff by teaching that the sun was periodically reborn from between the thighs of the Cosmic Mother, symbolized by the Milky Way's Great Rift which begins in the Cygnus constellation (something that might indeed be depicted in the Paleolithic Chauvet Cave in southern France). Moreover, I feel sure that at least a proportion of the cosmic rays that arguably caused mutagenic changes in DNA during Paleolithic times came from the direction of Cygnus, the location searched originally by both anthropological writer Denis Montgomery and ex-NASA scientist and astronomer Aden Meinel for a source of cosmic rays hitting the Earth.

Such an intrusion into human consciousness from a deep space object in the Cygnus region might well explain why the cosmic bird has been at the heart of religious beliefs and practices since Paleolithic times. Worldwide, there is a tradition concerning a sky-bird that either lays a cosmic egg that then becomes the universe, or gives forth a honk, or call, that brings the universe into manifestation. It is present in India, Egypt, and even in the Pacific South Seas, and in each instance the bird is said to be represented by the stars of Cygnus.

When in 1973 Carl Sagan wrote that cosmic rays were responsible for changes in human evolution, he boldly asserted that their source was most probably a distant neutron star. Today there can be little doubt that the neutron star in question is Cygnus X-3—the galaxy's first blazar, as well as the best candidate by far for at least a proportion of the cosmic radiation responsible for the acceleration of human evolution at a time when we were just beginning to emerge as modern human beings. Yet more disturbing is the fact that Cygnus X-3 is out there now, its cosmic gun barrel trained toward the solar system, ever ready to release volleys of cosmic debris and other types of electromagnetic radiation in our direction. Astrophysicists studying Cygnus X-3 are waiting for what they describe as the "next big bang"—showers of cosmic particles on a level never seen before, and when this happens, who knows, it might well signal the commencement of the next upgrade in human evolution.

T E N

Electromagnetism and the Ancients

DID ANCIENT HUMANS HAVE KNOWLEDGE OF THE ELECTROMAGNETIC SPECTRUM?

GLENN KREISBERG

It’s been suggested, at various times, that ancient humans had knowledge and use of unseen powers, forces, and energy fields. Could these unseen forces and fields consist of electromagnetic frequency waves and particle fields that make up the electromagnetic spectrum? This is not a simple question to answer.

What evidence exists, and what kind of evidence may come to light, to support such a claim? There is no question that, as it has always existed, the electromagnetic spectrum is a naturally occurring part of our environment, comprised of a continuous sequence of electromagnetic energy arranged according to wavelength or frequency, as generated by particle motion (vibrations) and pulses created from many sources. There is also no doubt that many ancient cultures had a connection with nature and natural forces that was fundamental and could only be described as intimate and profound in ways we moderns can merely attempt to comprehend.

This article will examine some of what evidence (and possible evidence) exists that suggests ancient knowledge of the electromagnetic spectrum, examine its scientific foundation and whether it can be used to form a hypothesis and, hopefully, be applied to solving this mystery.

From ancient times to today, humans have demonstrated an inherent curiosity and the desire to understand mysterious and odd phenomena, signs, and images. For the vanished cultures of Egypt, Sumer, and other early civilizations, and actually for the entire lapsed time of humankind, there remain many unsolved and unsettled images, messages, texts, tablets, artifacts, inscriptions, engravings, schemes, and phenomena that suggest a connection to unseen forces.

As modern society explores the mysterious meanings of certain universal cultural myths and symbols, so, too, may have humans from earlier civilizations, who repeated and venerated various motifs throughout time and traditions. The origin and meaning of these mysterious symbols may, in fact, have remained unknown even to the ancient cultures that utilized them, the ancients knowing only that certain signs and symbols were important clues to even more ancient lost knowledge and powers.

It has been noted by many that the designs and motifs of ancient architecture often reflect—and in many ways try to mimic—the patterns, signs, and signals found to occur naturally in our environment. Most significant, for the purposes of this report, are the many variations of the basic waveforms, be it sine wave, sawtooth wave, box wave, or the endless variety of spirals and waveforms that adorn ancient cave walls, temples, and structures, and that appear in architecture, scrolls, tablets, and inscriptions throughout the ancient world.

Southeastern Native American cultures dating back 20,000 to 25,000 years extensively used waveform symbols for ornamentation on nearly all handmade items and wares, such as pottery and textiles. The variety is nearly endless. As I have mentioned, the electromagnetic spectrum exists naturally, occurring as a part of our natural environment. And again, acknowledging the ancients' intimacy and interdependency with nature, it would not be surprising if they possessed some knowledge of this naturally occurring "tool."

The ancient cultures of this world are known to have identified and utilized the forces of nature to their benefit, including water, fire, wind, and sound. Are we to believe that mankind is only now, in the past century, exploiting the waves and frequencies of the electromagnetic spectrum for the first time? I'm not so sure. And perhaps more important, if ancient cultures did possess this knowledge, where did it come from, and how was it processed?

A thorough examination of this subject must begin with tracking the breakthroughs and discoveries that have occurred throughout history and that have led to the concepts and principles that make up modern electromagnetic theory.

Fig. 10.1. Mayan Pyramid of Kukulkan at Chichén Itzá has a sawtooth waveform built into its architecture. Photograph courtesy of SacredSites.com.

Electromagnetic radiation has been around since the birth of the universe; light is its most familiar form. Electric and magnetic fields are part of the spectrum of electromagnetic radiation, which extends from static electric and magnetic fields, through radio frequency and infrared radiation, to X-rays.

From written history it appears that many of the concepts now familiar in electromagnetic theory were explored and developed during a time when many modern high-tech investigative and detection tools and methods did not exist.

But is it possible that the ability to manipulate the particles and waves of the electromagnetic spectrum was discovered and developed even earlier than written history suggests? Could it be that many of the symbols, images, architectures, and myths of ancient cultures are representations reflecting the possession of such knowledge?

Observing what he believes to be power plant plans on ancient tapestry, and microprocessor design in Egyptian temple layout, Slovakian researcher Dr. Pavel Smutny has written, “Maybe it is unusual and surprising, but in ornaments on old carpets are woven-in schemes, and principle plans of advanced technologies, which come from vanished cultures and thousands-year-old civilizations. These residues are probably the last ones which can help revive forgotten, very sophisticated technologies and methods for exploitation of natural electrostatic energy sources.”[*5]

On the Egyptian temples, Smutny continues, “If we see plans for the Valley temple at [the] Sphinx, or of the mortuary temple at Chaphre’s Pyramid, or the mortuary temple at Menkaure Pyramid, or also of Osereion from Abydos, to a person familiar with the basics of computer techniques, or even better to [a] person experienced with construction of microwave circuits in bands above one gigahertz (GHz), he will tell you that these plans are schemes of PCBs (boards for electronic circuits).”

Fig. 10.2. Photograph showing Neolithic “ lobe” construction of the Temple of Mnajdra on Malta. Photograph courtesy of SacredSites.com.

Smutny further notes, “These plans look like schemes of electronic circuits working on quite high frequencies above 1 GHz, with use of so-called components with distributed (spread) parameters. These components are of such sort, that the top

conductive layer is formed to various shapes, which work as inductors, capacitors, resistors, filters, resonators, or have similar functions. Advantages of so produced circuits are very good functions and low losses on high frequencies. Not so different from classical electronic circuits with use of discrete components as began to be produced in the 1980s, in at that time superior high frequency devices."

If, as Smutny suggests, these tapestry patterns and temple layouts are representations of fragmentary remnants from long-lost science, what could have been the original source, other than a previously existing technologically advanced civilization? Of course more evidence is needed before any solid conclusions can be drawn.

Turning his attention to the ancient temples of Malta, Smutny explains, "complexes were used probably as generators of high frequency acoustic waves. Purposes were (maybe) to arrange a communication channel among various islands."*6

Legends abound in Malta of sirens (acoustically) tempting or deafening seafarers. Sirens were persons, possibly the best singers with the strongest voices, namely obese or thick women, such as some modern opera stars. Many statues of just such women have been discovered everywhere on Malta, including in temples, standing on pedestals, and in the middle of complexes. Smutny speculates, "their singing modulated low frequency signals, which were generated on opposite ends of temples (in windows and in doors) simply with a bell, or with vibrating metal plates, or even with a strong wind drafted through a wall opening."

To support his theory, Smutny points to the massive blocks used for construction of the complexes, noting that they are a very good resonant material. Smutny suggests a reconstruction experiment to prove functionality of the megalithic complexes, in which the roofs would be intact (buildings are currently without ceilings), and models made from concrete, or from stone in suitable scale. For testing, acoustical or ultrasound frequencies should be utilized, where wavelengths are diminished to scale.

As a radio frequency engineer, I find these possibilities fascinating, and while pondering them, I had a bit of a revelation: Namely, a bird's-eye view of the temple structure and configurations in Malta in many ways closely resembles an antenna propagation pattern, with its main beam lobe, side lobes, and nulls (between the lobes).

Fig. 10.3. The multichambered oval configuration of the Maltese temples allowed signals formed from groups of air particles, before output, to be amplified in a second parallel opposite oval spaces of the temple. This would be analogous with a resonator. Photograph courtesy of SacredSites.com.

There are an infinite variety of patterns that can be generated by antennas, depending on the beam width desired, distance between the antenna poles, and the frequency being transmitted. However, nearly all antenna patterns have similar characteristics, consisting of main beam lobe and side lobes, as well as nulls and back lobes.

I believe *lobe* was a word Graham Hancock specifically used in his book *Underworld: The Mysterious Origins of Civilization* to describe the temple structures on Malta. When Hancock mentioned the unusual acoustics he encountered in the Hypogeum on Malta, I began researching anything that referred to those acoustics or a similar effect.

In Joseph S. Ellul's 1988 publication *Malta's Prediluvian Culture at the Stone-Age Temples*, the author describes, "Before going into the entrance, just have a look at the lintel and at the long blocks lying alongside and on top of it. Most of them, including the lintel itself, which measures about nine feet square and eighteen inches thick, were scattered about in this courtyard. Almost all of these blocks had been thrown over into this yard for a distance of about twenty feet. The lintel fell on its right corner and was splintered in the fall." Interestingly, Ellul continues, "That lintel was found resting some thirty feet to the east of the doorway, lying on some rubbish and with one of the long horizontal slabs on top of it. It happened that the upper stone had certain acoustic characteristics and was positioned so as to be almost perfectly balanced, and whenever one hit it with another stone, it rang like a bell." That peculiarity earned it

the nickname of “The Bell of a ar Qim” but, during works carried out in the 1950s, these various blocks were put back in their present places on top of the front wall, and “The Bell of a ar Qim” was no more.

Odds are, of course, that this is all simply coincidence, but it poses the interesting question: Exactly what is the unique and specific temple design layout of a ar Qim based upon? What was the impetus and influence that dictated the architectural configuration so long ago?

I design digital wireless networks utilizing the electromagnetic spectrum, transmitters, receivers, modulators, and antenna. I also do propagation prediction modeling using powerful computer programs. The program creates a model showing how a location will perform using different antenna, elevation, azimuths, and power settings. Sites are chosen based on how well the location propagates a signal.

Again, when Hancock mentions in *Underworld* how the land gently dropped away for a great distance from a temple location, I couldn’t help think how ideal that is for signal propagation when designing sites that can transmit great distances. Is it possible that some ancient temple locations were chosen for similar reasons? If the temple location were part of some kind of communications network utilizing the electromagnetic spectrum, I’d say they were.

Is it possible that a correlation exists between the Maltese temple architecture and antenna propagation patterns? Perhaps, but much more research and investigation is needed before any firm conclusions can be drawn. Certainly it can be said that the temple layout seems to conform strikingly to the characteristics of antenna propagation patterns.

If a connection were proven to exist, what would be the implications? Certainly, a radical rethinking of the level of technological sophistication that may have existed in ancient civilization, not to mention the question of how this knowledge came to the builders of the Maltese temples.

Let’s assume, for a moment, that the ancient builders had knowledge and understanding of wave propagation. Perhaps early post-Flood cultures possessed the knowledge and understood the purpose of unseen forces but lacked the functionality. If it was known and handed down through generations that a universal force existed that could be controlled for the benefit of all humans, would not every effort be made, no matter how futile the attempt, to resurrect and re-create that functionality? This in itself could account for the existence of many megalithic structures, about the many aspects and purpose of which humankind has puzzled over since their very discoveries.

Another example of anomalous science, which includes a possible electromagnetic

spectrum connection, is the Celtic round towers of Ireland. These fascinating structures, the tallest measuring 111.5 feet (34 meters), once numbered over a hundred. Many still stand today, and dot the Irish landscape. Based on the fact that nearly every tower is at the site of a known Celtic church dating from the fifth to twelfth centuries CE, scholars have suggested that the most probable construction period was between the seventh and tenth centuries CE. Initially, each of the towers were freestanding structures, but later, other buildings, primarily churches and monastic foundations, were constructed around some of the towers.

In his book, *Irish Round Towers*, Lennox Barrow states,

It is remarkable how little the main dimensions vary. In the great majority of towers the circumference at the base lies between 45.9–55.8 feet (14–17 meters) and the thickness of the wall at the lowest point at which it can be measured varies from 2.9–4.6 feet (0.9–14 meters). Doorways, windows, story heights, and diameters also follow clearly defined patterns, and we may well conclude that most of the towers were the work of teams of builders who moved from one monastery to another using standard designs. Most doorways are raised 4.9–14.8 feet (1.5–4.5 meters) above the ground. This is usually explained as being for security, to enable the monks to take refuge inside the towers during times when Viking raiders or bandits were attacking the monasteries.

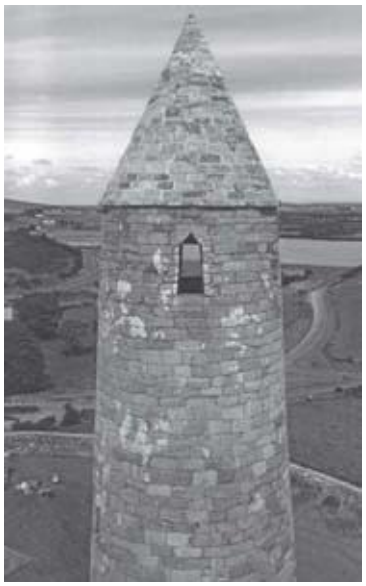

Fig. 10.4. View of Irish round tower with conical cap intact. Photograph courtesy of SacredSites.com.

There is probably some truth in this theory, but it has also been noted that it's possible that the stability of the tower had as much to do with the door heights as anything else. Basic physics dictates that the higher you could build before making an

opening in the wall, the stronger the base would be. Very often the towers were filled in, even as high as the doorways.

This idea that the round towers were erected and used primarily as watchtowers and places of protection is strongly debated by the American scientist Philip Callahan. In his book, *Ancient Mysteries, Modern Visions*, Callahan discusses research, which indicates that the round towers may have been designed, constructed, and utilized as huge resonant systems for collecting and storing yard-long wavelengths of magnetic and electromagnetic energy coming from the earth and skies.

Based on fascinating studies of the forms of insect antenna and their capacity to resonate to micrometer-long electromagnetic waves, Professor Callahan suggests that the Irish round towers (and similarly shaped religious structures throughout the ancient world) were human-made antennae, which collected and transmitted subtle magnetic radiation from the sun and passed it on to monks meditating in the tower and plants growing around the tower's base. The round towers were able to function in this way because of their form and also because of their materials of construction.

Of the sixty-five towers that remain as ruins, twenty-five were built of limestone, thirteen of iron-rich, red sandstone, and the rest of basalt, clay slate, or granite—all of these minerals having paramagnetic properties that can thus act as magnetic antennae and energy conductors. Callahan further states that the mysterious fact of various towers being filled with rubble for portions of their interiors was not random, but rather may have been a method of "tuning" the tower antenna so that it more precisely resonated with various specific frequencies.

Equally intriguing is that Callahan shows that the seemingly random geographical arrangement of the round towers throughout the Irish countryside actually mirrors the positions of the stars in the northern sky during the time of winter solstice.

Archaeological excavations at the bases of the towers have revealed that many towers were erected upon the tops of much older graves, and it is known that many of the tower sites were considered sacred places long before the arrival of Christianity in Ireland. These facts point to the likelihood that the ancient Irish, like the Egyptians, the Mayans, and many other archaic cultures, understood there to be an energetic resonance between specific terrestrial locations and different celestial bodies. All across the Irish countryside particular locations were chosen, precisely designed structures were erected to gather and store various energies, and a tradition of human spiritual use of the sites arose over the millennia. While many of the round towers are now crumbling and their antenna function may no longer be operative, many visitors feel that a field of energy still permeates the sites today.

In another article, *The Mysterious Round Towers of Ireland: Low Energy Radio in Nature*, from *The Explorer's Journal*, Callahan gives further details of his discoveries:

“Most books will tell you that the towers were places of refuge for the monks to hide from Vikings raiding Ireland. They were, no doubt, bell towers and lookouts for approaching raiders, but the speculations that monks escaped raiders, who no doubt knew how to smoke bees out of hives or climb the nine to fifteen feet to the door, borders on the ludicrous. Round towers are perfectly designed to be totally useless for hiding people or church treasures.”

Callahan continues, “Another strange thing about the towers is the dirt that fills the base below the high doors. Each door has a different level of dirt filling the base, as if they were ‘tuned’ like a pipe organ. I had long postulated that the towers were powerful amplifiers of radio resonance from the atmosphere generated by lightning flashes around the world.” Upon further investigation, Callahan concluded, “The round towers proved to be powerful amplifiers in the alpha brain wave region, 2 to 24 Hz, in the electrical anesthesia region, 1,000 to 3,000 Hz, and the electronic induction heating region, 5,000 Hz to 1,000 kHz. . . . It is fascinating that just above the surface of the ground to about two to four feet up there is a null of atmospheric frequencies that get stronger and stronger until at nine to fifteen feet above the surface they are extremely strong.”

Were Irish monks aware of these properties, and thus prompted to build their high doors? At every tower Callahan measured, there was a direct correlation between the height of the tower door and the strength of the waves. That the highly amplified waves occur in the meditative and electrical anesthesia portion of the electromagnetic spectrum is of utmost significance. In 1963, G. Walter researched brain EEG waves from 0.5 to 3 Hz (Delta region) and found anti-infectious effects.

It’s interesting to note that recent research, including experiments conducted at UCLA by professor Valery Hunt, has shown some positive effect of electromagnetic radiation fields. Subjects who were shielded from all electromagnetic fields reported experiencing a mental breakdown, their brain no longer able to function normally. Remove the electromagnetic shielding and “normal” brain function returns. When those subjects were exposed to intensified electromagnetic fields, they reported a profound feeling of well-being. Others exposed to electromagnetic fields under controlled conditions reported hallucinatory visions similar to those reportedly experienced by shamans or individuals in an altered state of consciousness, under the influence of mind-altering substances.

Additionally, research conducted in the 1980s by Dr. Michael Persinger at Laurentian University in Canada reported that subjects whose brains were bathed in low energy electromagnetic fields while wearing a modified helmet, which Persinger designed, experienced a profound, otherworldly presence during the research sessions. Over 80 percent of the subjects involved in the experiments reported experiencing the

effect while under the influence of the induced and enhanced electromagnetic field.

Perhaps also related to the Irish stone towers, are the many anomalous ancient stone structures, chambers, and circles found throughout New England. In the book *Celtic Mysteries of New England*, authors Phillip Imbrogno and Marianne Horrigan note and measure unexplained electromagnetic anomalies at stone chamber locations. The anomalies, described as “pulses,” seem to occur in a specific frequency range beginning at 16.5 MHz, with peak signal strength occurring at 1,675 MHz. The authors claim that this could be suggestive of a “doorway” or “portal” function of the chambers, with a burst of electromagnetic energy released whenever the door is opened or shut.

I would suggest that, as opposed to a “portal” or “doorway” opening to another dimension of time and space, it might be more likely that the chambers’ electromagnetic anomalies could indicate a communication channel or conduit for energy, opening for use in some way.

Lastly, it’s important to mention the groundbreaking work of research scientist John Burke, whose book *Seed of Knowledge, Stone of Plenty: Understanding the Lost Technology of the Ancient Megalith-Builders* documents how electromagnetic fields have a beneficial effect on crop yields when seeds have been exposed. Burke and his team tested electromagnetic hot spots at locations in the Midwest and in the northeast of the United States, including some of the stone chambers already mentioned. They located and mapped naturally occurring spikes in the Earth’s electromagnetic field; locations that in many cases had long ago been identified and marked as “sacred” by local indigenous shamans. What they found was that seeds they brought to these locations and left for a time period would produce more robust yields compared to a control group of seeds left in the lab.

Is it possible that the purpose for which many of the sacred sites and megalithic structures around the world were constructed was to receive or gather, process or focus, and transmit or distribute naturally occurring electromagnetic energy? Could ancient people have been aware of the medicinal and consciousness-raising properties of electromagnetic fields? There is much evidence to suggest that they were.

The Infant Field of Radio Archaeology

I would suggest a series of experiments, conducted to scientific method standards, to test and measure both the transmit and receive propagation properties of prehistoric sites that meet specific criteria. Such tests should utilize carrier wave transmitters and spectrum-scanning receivers and software, along with spectrometers, spectrum

analyzers, and oscilloscopes to determine if propagation properties are enhanced by the sacred site locations and/or site configuration and construction materials.

Someone once said that science is like a game of darts. The surface of the dartboard, albeit perhaps infinite, represents all the science there is to know. Each theory confirmed through experiment and scientific method represents a dart hitting its mark on the dartboard of science. While the surface of the board may have many darts in it, most of it, as of yet, remains untouched by a dart. And, of course, sometimes one dart thrown may knock out a previously thrown dart from its apparently secure location. In other words, there is still a great deal of true science yet to be discovered and confirmed, and perhaps some ideas that may need to be unlearned. Above all, the perspective with which we search is perhaps the key to what we discover.

An important lesson can be learned from the mechanism known as the Antikythera Device—discovered over a hundred years ago on the floor of the Mediterranean Sea, the device has been found by archaeologists to be two thousand years old. Because the device suggests that the ancient Greeks had the mechanical sophistication of eighteenth century Swiss watchmakers, historians and scholars have generally ignored it. Could this device be evidence that a period of technological devolution, as a general trend, took place over many thousands of years in fields such as mathematics, mapmaking, mechanics, and more? Can the same claim be made for wave and particle theory? Was much more known, much earlier on, than current evidence supports or the academic world is willing to accept?

Nothing less than a major shift in the approach to these mysteries needs to occur for a full debate and examination of the facts and theories to take place within the established academic community. The fact is that the Antikythera Device exists, as do many other anomalies of science. No, they don’t fit into the context of established history, but to fail to consider them as part of a larger picture that is far from complete does a great disservice to the pursuit of knowledge.

The ancients may have seen the electromagnetic forces of the universe as the single common denominator of nature, of all that exists in the physical as well as nonphysical world. If so, they would have seen the electromagnetic spectrum as the medium on which all existence records itself. Learning to manipulate and harness the properties of that field would be the ultimate power, the power of the gods.

From the first time a human tossed a pebble into a pond of water, the dynamics, properties, and laws of wave propagation were evident for him to examine and test. In air as in water, these properties follow many consistent traits: Greater power creates larger waves, and waves could easily be regulated and directed. Could it be that our ancestors understood the subtle properties of electromagnetic waves and particle

fields and even manipulated them, harnessing the power of nature and the power of the unseen spectrum? As if to give the game away, they placed clues for us to find. All of their rituals, their religions, cults, gods, demigods, the whole of their lives were linked to the cycles of the universe. And it is important to recognize that this is how the ancients understood the powers of the universe, through their gods. Perhaps they did not conceive of electromagnetic power as we do, but rather as god-given signs and signals, as the power of the gods, to be tapped into by humans.

E L E V E N

The Gulf of Khambhat

DOES THE CRADLE OF ANCIENT CIVILIZATION LIE OFF THE COAST OF INDIA?

S. BADRINARYAN

It was generally believed that well-organized civilizations could not have existed prior to 5500 BCE. Many were reluctant to accept the flood myths mentioned in many ancient religious writings. The recent discovery made in the Gulf of Khambhat, India, shocked many and made some sit up and watch with interest. It clearly established the existence of an ancient civilization that was submerged in the sea. The methodology adopted was novel and different, wherein advanced marine technologies and the most modern scientific applications of various disciplines were put to best use. The traditional but conservative archaeologists found it hard to accept that a major discovery could have been made by hitherto unapplied, unheard-of techniques. Some observed and understood the importance of the discovery and came out in open support.

Initially, when the side-scan sonar images of underwater structures were shown, some called it the magic of computer software. When hundreds of artifacts were collected and shown, traditional archaeologists opined that the artifacts could have been transported by using the ancient river! Detailed scientific studies were again undertaken to prove that the artifacts are in situ. The criticism has driven us to adopt most modern technologies and scientific methodologies available in the world, which have completely substantiated our findings, and the results were published as research papers in reputed international journals. Now several authors are quoting the Gulf of Khambhat work as a standard benchmark methodology for modern marine archaeological surveys and investigations. The discovery has clearly established the possibility of ancient civilizations that were submerged due to flooding by rising seawaters after the last ice age.

The oldest city-state civilization was thought to be Mesopotamia, dating to 5500 BCE. An extensive mature civilization also stood in the northwestern part of India adjoining Pakistan and Afghanistan. This is the well-known “Harappan” civilization, which lasted between 5300 and 2800 BCE. This includes major ruined cities like Mohenjo Daro, Harappa, and Dholavira, as well as villages, craft centers, campsites, river stations, fortified places, and ports. The cities had well-lined streets, arranged in straight lines, proper drainage, sanitary arrangements, and excellent water-conveying systems, including check dams for storing water. Usage of a variety of artifacts, metallic objects, many types of potteries, and the construction of huge structures could not have happened overnight. So there was obviously a major missing link between the ancient hunter-gatherer group of people and the “Harappan” civilization.

In India, there were many Paleolithic, Mesolithic, and Neolithic Stone Age cultures. But none of them have any remote resemblance to the type of civilization found in the Harappan sites. It is possible that the missing link between the two is either undercover or has been submerged due to major sea level rise caused by melting ice sheets. It is a well-established fact that during the last glacial maxima (ice age), the seas all over the world shrank; the sea level around 18,000 BCE was about 426.5 feet (130 meters) below the present-day sea level. So, it is logical to look for such submerged civilizations near areas surrounding the present-day Indian coastal areas, especially along the paleochannel of various rivers.

National Institute of Ocean Technology (NIOT), an undertaking of the Indian government, has been carrying out several multidisciplinary marine surveys along the Indian coastal areas for various purposes. During the course of a few geological surveys in Gujarat in the Gulf of Khambhat, NIOT came across river paleochannels in the sea. These were seen to be the extension of the present-day major rivers of the area.

In a similar marine survey, in a coastal research ship during 1999–2000 when the author was the chief scientist, several unusual frames of side-scan sonar images were encountered. These had square and rectangular features in an arranged geometric fashion, which are not expected in the marine domain. Such features are unlikely to be due to natural marine geological processes. This made the author suspect that human workmanship must have been involved. The surveys were followed up by the author in the following years, and a couple of paleochannels of old rivers were discovered in the middle of the Khambhat area under 65.6–131.2 foot (20–40 meter) water depths, at a distance of about 12.4 miles (20 kilometers) from the present-day coast.

The Gulf of Khambhat forms a funnel-shaped entrant of the Arabian Sea, sandwiched between mainland Gujarat and the Saurashtra peninsula in the west. This gulf is 83.9 miles (135 kilometers) long in a north-south direction, and is more than 62.1 miles

(100 kilometers) at its widest part. It is one of the roughest and most complicated seas of the world, and covers an area of about 1,158.3 square miles (3,000 square kilometers). Several major rivers, including the Narmada, Tapi, Sabarmathi, Mahi, and the Chathranji, drain into it. It has a macro-tidal range of 39.4 feet (12 meters), and the currents are up to eight knots. The sea is often subjected to severe winds resulting in very rough conditions.

This type of turbulence churns the seabed and produces enormous quantities of silt, making the seawater brownish and turbid, with the result that it is impervious to light rays. The combined effect of these conditions makes this part of the country unfit for diving and underwater operations, and makes underwater videography impossible. Hence, only instruments operated on the principle of sound, like sonar and magnetic equipment, could work here. This includes side-scan sonar, the sub-bottom profiler, and the multibeam ecosounder, apart from the marine magnetometer.

The term “sonar” stands for “sound navigation and ranging.” Sonar is a sensing strategy that measures features of an environment (or medium) by the way in which that environment transmits, reflects, and/or absorbs acoustic (sound) waves. The seabed is a little-understood environment due to its inaccessibility and resistance to large scale detailed analysis. Sonar represents a clear approach of looking at the seafloor.

Side-scan sonar uses sound waves to produce images of the seafloor. The hard areas reflect more energy and are seen as dark shades, whereas softer areas do not reflect energy as well and are represented by lighter shades. This “backscatter” is absent behind objects or features that rise above the seafloor, and are represented as white shadows in the sonar image. The dimensions of shadows are used to infer the size of the objects. The system used was a digital one, which provides high-resolution sonar images of the seafloor through advanced digital technology in the 100 and 400 kHz frequency. The unit is connected to a Differential Global Positioning System (DGPS) for the accurate position of the survey vessel and, in turn, that of the objects.

In these surveys it was the side-scan sonar that gave excellent results supported by other systems. Initially two major paleochannels of rivers were recognized. One was over a length of 5.7 miles (9.2 kilometers) and another over 5.6 miles (9 kilometers). When these were sampled, it was seen that just below a thin marine sediment cover of a few centimeters were river alluvium and pebbles typical of terrestrial river sediments, below which typical river conglomerates were observed at depth. Such evidence clearly indicated that the area presently under water was originally dry land, over which rivers were flowing. Due to different factors, they got submerged and now lie beneath the sea.

The sonar images showed regular geometric patterns in one paleochannel over a

length of 5.6 miles (9 kilometers) in the sea about 12.4 miles (20 kilometers) west of the Hazira coastal area. Associated with this on either side of the paleochannel, basementlike features in a grid pattern were observed at a water depth of 65.6–131.2 feet (20–40 meters). These resemble an urban habitation site; pitlike structures can be seen in the basement on the ocean floor. Another paleochannel over 5.7 miles (9.2 kilometers) was detected off the Suvali coastal area. Here, also, similar features were observed. In general, the basementlike features were located in a linear east-west direction on either side of the paleochannel. It is seen that these features are 16.4 by 13.1 feet (5 by 4 meters) on the eastern side, whereas the westernmost part had dimensions of 52.5 by 49.2 feet (16 by 15 meters). The habitation sites are all seen to be laid in a strict grid indicating a good sense of town planning by the ancients.

There was also evidence of water conducting systems, including canals. All these point to a properly planned township, with a high level of knowledge and practice by the ancients. The area in general is seen to be covered by sand waves, which occur above the seabed. Often these cover the dwelling, but even then the shapes could be made out. Apart from the regular sites of habitation, the side-scan sonar picked up images of several big structures. Some of these structures are as follows:

There is a rectangular 134.5 by 82 feet (41 by 25 meters) shaped depression, wherein one can see steps gradually going down to reach a depth of about 23 feet (7 meters). Surrounding this depression, there is a wall-like projection on all sites. One could observe an inlet and outlet and also a separate enclosure. This looks like a tank or bathing facility now occurring below 131.2 feet (40 meters) of seawater. It occurs near the western periphery of the town. It resembles the Great Bath that is found in the ruins of Mohenjo Daro and Harappa, where these also occur on the western side of the township. There are two divisions in the tank, which may represent separate enclosures for men and women or for socially higher and lower categories of people. There are two openings, probably for inlet and exit of water to keep the water in the tank fresh and clean.

In one of the structures one can observe a long, linear, prominent, and well-made basement measuring 656.2 by 147.6 feet (200 by 45 meters). It nestles on high ground, and steps approach the structure on the right corner. Inside the structure are several square-shaped, roomlike features that are 59 feet (18 meters) and higher, and that are surrounded by fortifications.

These structures resemble those of the Citadel area of Mohenjo Daro, Harappa, and Dholavira, where similar structures occur at the western extremity, again on high ground. The structure was likely an administrative building meant for supervising the civic activities of the township, or could have been a place of worship. Pieces of fossilized human and animal bones, as well as natural teeth, were recovered during

sampling on the eastern side of the Citadel.

The sonar image picked up a major, dilapidated structure measuring 623.4 by 278.9 feet (190 by 85 meters), with spaces separated by what look like collapsed walls. In front of the structure, on the bottom side, there are several rectangular, 8.2 to 11.5 by 19.7 feet (2.5–3.5 by 6 meters) basement structures resembling minor dwellings. These could have been ancient granaries for the township, probably with a dwelling place for the workers nearby. Some fossilized food grains had been collected in the neighboring areas. The granary is a regular feature in many of the Harappan sites.

There is also a basement of a buried settlement, and it measures 242.8 by 157.5 feet (74 by 48 meters). It has regular square, rectangular, and arch shapes. The darker portions are the elevated or standout features. These indicate that there are still some constructed portions partly standing up. A few square and rectangular-shaped basements are also visible to the north of the structure.

The main structure measures 131.2 by 62.3 feet (40 by 19 meters), with wall-like dark features rising to 6.6–9.8 feet (2–3 meters) above the seabed. A series of steplike features can be seen on the right side of the structure. To one corner of the main structure, a 36 by 23 feet (11 by 7 meters) rectangular depression that looks like a small tank or pond can also be observed.

Sub-bottom profiler surveys penetrate the seabed, instead of reflecting sound waves from it *a la* side-scan sonar. The waves travel beneath the seabed in different formations in different speeds, and the instrument collects the reflection data over selected frequencies. It provides good depth information on geological features, apart from delineating any suspected buried anthropogenic structures.

Standout features, which appear to be the basement and foundations of the structure were picked up below the 656.2 by 147.6 feet (200 by 45 meters), citadel-like structure. These features were picked up at regular intervals. It is observed that the foundations have been dug up to 16.4–19.7 feet (5–6 meters) in the soil, over which broad, columnlike features have been constructed, probably to help bear the load of the huge structure above.

Below the buried settlement of the 242.8 by 157.5 feet (74 by 48 meters) structure are man-made foundations like columns that can be clearly seen emerging from below the seabed, and occur as standout features. Here, the foundations have been dug up to 9.8–13.1 feet (3–4 meters) deep in the soil. This type of planning and construction by ancient peoples clearly reveals that they had a very good knowledge of civil and structural engineering, wherein broader and deeper foundations were provided for bigger and heavier structures, and thinner and shallower foundations for comparatively smaller structures. Likewise, almost all of the structures, including the

dwelling sites, indicate a good amount of planning and design, taking into consideration the structural aspects.

Magnetic surveys were carried out by deploying a high-resolution cesium vapor marine magnetometer. The survey was for observing magnetic signatures occurring as anomalies of subsurface magnetic bodies in the area. The instrument was capable of sensing up to 0.001 nT (nano-tesla) at 1 sample rate. The values were corrected for diurnal variation so as to remove the temporal variation in the Earth's magnetic field. The corrected magnetic field value is a result of the marine magnetic components; regional geological features are very deep-seated in origin and have depth persistence, whereas one should look for very shallow and near-seabed anomalies that do not extend in depth. Several shallow, near-surface anomalies were picked up, ranging in depth from 3.3 feet (1 meter) below surface to as much as 164 feet (50 meters).

The deep-seated anomalies are at least below 1,312.3 feet (400 meters) from the seabed surface. The near-surface anomalies are covered by top sediments in general, and are likely to be archaeological sites, to be examined and explored later. Due to these surveys, a vast area has now acquired importance for archaeological purposes—including areas that were not picked up earlier by side-scan images. These surveys therefore enhance the area of archaeological interest. This was obviously an extensive civilization, the remains and ruins of which have since been covered by shifting shoals, sand waves, and tectonism, which are very common features in the Gulf of Khambhat.

Even though a variety of objects and artifacts were collected in settlements, doubts were expressed by some persons as to whether these could have been transported by paleochannels and might, in fact, not be in situ. To clear up such doubts, detailed geochemical analyses were carried out. Ten geological soil samples and ten artifacts were chosen from the Gulf of Khambhat area. Since trace elements like titanium, hafnium, and thorium—as well as rare earth elements (REE)—are immobile, they preserve their signature without alteration, and hence reflect their primary petrogenic character. These twenty selected representative samples were analyzed using an ICP mass spectrometer.

The leaching of light rare earth elements and a prominent European anomaly suggests there is a one-to-one match between the archaeological material and Khambhat bed sediments. The ternary and binary plots of both the materials show the clustering of all samples in one place, indicating the samples are of the same host chemistry and are in situ. In other words, the archaeological materials are not transported, but are made from locally available material only.

To substantiate the findings, detailed sampling was carried out. Since the sea condition was very rough, and the water turbid and brown, sampling was carried out

in areas where side-scan images show excellent results. The samples were collected by utilizing a grab sampler, dredger, gravity corer, and vibro corer. Large numbers of samples were carefully collected, systematically numbered, and properly preserved. The artifacts collected included a variety of pottery pieces, Mesolithic stone tools, a few Paleolithic macro stone tools, beads made of semiprecious stones, brick pieces, hearth material, wattle and daub structure materials, corals, perfectly holed stones, fossilized human remains, and human teeth.

Three potsherd pieces were also unearthed. These are unfired and normally sun-dried, made of clay, and are of great antiquity. They display a crosslike object and some figurines. There is also a piece in the shape of a deer's head, and a well-turned ornamental piece with a straight hole in the center. How the ancients were able to make these in stone is still an enigma.

Four additional, important objects were unearthed. The first was a fossilized jawbone (mandible) with a natural tooth kept in front. The second object was part of a carbonized wooden log. This was obtained from the top stratigraphic column at a depth of about 30–40 centimeters below the seabed, and was sent for dating. Also unearthed were rolled objects and long linear beads that, when strung together, form a necklace. As well, linear beads made of stone were found, with holes in the middle.

A series of Microlithic tools were collected at various locations. Microlithic tools are generally characteristic of the Mesolithic period and are found between Paleolithic and Neolithic Stone Age periods. The characteristic features of Mesolithic tools are that, unlike the earlier Paleolithic stone tools, these are much smaller, normally between one to five centimeters in length, and are made of finely crafted semiprecious stones. These include quartz, chert, jasper, flint, chalcedony, agate, and corundum. About 248 such tools were collected by sampling. The tools included a baked blade with a serrated edge, point, point on flakes, lunate, scraper, cores with negative chipping, and a borer. The tools have both geometric and nongeometric forms.

The Mesolithic period of western India revealed the existence of their cultural phases, namely aceramic and ceramic. In general, the Mesolithic sites confirmed the existence of a ceramic phase in its later part, containing other materials besides potteries and Microlithic tools, like wattle and clay shreds for house construction and flooring. The Mesolithic sites are comparatively larger. Here the hunting and gathering way of life was replaced by organized food production. Holed stones that appeared in the late Paleolithic became prominent in the Mesolithic. These holed stones appear to have been used as weights in digging sticks and as net sinkers by the fishing folks. In general, a sedentary form of living heralded the beginning of other associated cultural artifacts like pottery, living in well-built houses like wattle and clay, or of sun-dried and fired bricks.

A variety of classic collections of Microlithic tools were made. These include a thumbnail scraper to skin the small animals, with an obliquely truncated fluted core made of red corundum apart from borers and points. Usage of corundum is something unique, as it is the second hardest material known after diamond (as per the Mohs scale of hardness). The red and blue transparent varieties of corundum are the gemstones ruby and sapphire. This is the first reported usage of corundum as a microlithic tool in India, and maybe in the world.

Other tools include a Microlithic blade made of chert and quartz for cutting purposes, a Microlithic side scraper, and a Microlithic tool point with a serrated edge. Apart from these, pieces of hearth material have been collected. These were used for firing and heating, and hence are very good for dating purposes. Pieces of lightweight, hollow circlelike materials have been collected in various places. These may be slag pieces from the extraction of metal; the ancients might have had some knowledge of metallurgy.

Pottery pieces of various types have been collected. These include a broken bowl, coarse red-ware, pottery pieces embedded in mud walls, slow-wheel-turned pottery pieces, pieces of jar lid, pottery pieces with some cord impression and a very ancient fragment of pottery, possibly amongst the oldest so far collected anywhere in the world.

Even though most of the artifacts are of the Mesolithic period, there were some Paleolithic tools that were much older. It shows that people have been living in the Khambhat area for quite some time. One example is the bifacial scraper, a very characteristic Upper Paleolithic stone tool made of chert. Similar stone tools were also present—but many of them, due to long submergence and rolling in the seabed, appear to have had their edges smoothed out.

A thorough examination of the macro and micro levels of soil in the Gulf of Khambhat brought to light a wealth of plant material typical of the land domain. Extensive studies are being carried out by a botany professor, and the studies may initiate a new branch in marine archaeology, perhaps called “marine archaeobotany.” So far, prominent plant species identified include palm, coconut, bamboo, and the areca plant. Many of them are fossilized.

All these were recognized under the microscope. The major wooden log, when taken out of the seabed, was very fresh, dark, and hard, and showed growth rings. Within a couple of days of exposure to the atmosphere, the wooden log shrank completely and developed cracks. It has given an important date to the area. This species has been tentatively identified as hardwood, much like rosewood. All these facts point to well-grown trees and foliage, with lots of good fresh water and a somewhat warm climate at the time of their growth in the area.

Hard dark alluvium and typical river conglomerate are found in the paleochannel below the seabed. They clearly indicate a freshwater alluvial environment. Several in situ pieces of alluvium and conglomerate have been collected. All these factors clearly establish that the paleochannels were originally well-flowing rivers in the land, which were subsequently submerged by the sea.

As some people have expressed doubts about the pottery pieces, a thorough scientific study was made involving the pottery pieces to establish their authenticity. To determine the properties of various materials, including pottery, many samples were subjected to X-ray diffraction (XRD) analysis. Since the materials that constitute pottery are clays, and a heterogeneous mixture of a variety of materials, these were analyzed accordingly. Every area has a special fingerprint pattern in the clay, which can be recognized under X-ray diffraction.

The above analysis was carried out in Deccan College, Pune, in the state of Maharashtra, India, by using an advanced instrument, the energy dispersive X-Ray fluorescence spectrometer that gave excellent results. The conclusion is that the pattern of pottery pieces corresponds very well with the locally available clay of the Gulf of Khambhat. The mineral patterns of habitational floor, wattle and daub, and land materials (alluvial deposit) are comparable. The patterns of fired clay, brick floor pieces, and vitrified clay compare very well.

All these indicate that they are genuine artifacts, made from locally available material, and are in situ. It fully confirms the presence of archaeological sites. The findings indicate that the pottery was produced locally with levigated clay, fired uniformly at about 700°C. From the presence of calcite in clay and pottery, arid to semi-arid environmental conditions prior to the submergence of the site could be deduced. Calcitized alluvial deposits indicate the existence of ancient rivers that once flowed in the submerged regions of the Gulf of Khambhat.

Dating of Samples: Most of the structures that were discovered in the Gulf of Khambhat had many similarities to the Citadel, Great Bath, and grid-iron pattern habitation site granary of the Harappan civilization. However, many of the artifacts and typology were very different and distinctive, and, with the presence of so many microtools, appeared to be much older than the Harappan. To establish the credibility and age of the civilization, it was essential to date different objects and artifacts to establish the period of the Khambhat civilization.

There are many different types of dating of archaeological artifacts—carbon dating, thermoluminescence, optically stimulated luminescence (OSL) dating, accelerator mass spectrometry (AMS) dating, dendrochronology archaeomagnetism, electron spin resonance dating, Potassium-Argon dating, and cation-ratio dating. In all, about twenty-three datable objects were selected, covering both of the

paleochannels. From the samples obtained from the marine archaeological sites, it was clear that the following methods would be most suitable, and a fairly accurate age determination can be obtained from them. These are ^{14}C radiocarbon dating, radiocarbon dating by accelerator mass spectrometer (AMS), thermoluminescence (TL), and optically stimulated luminescence.

Radiocarbon dating is a method for obtaining age estimates on organic material, and is effective from the present back to a maximum of 50,000 BCE. Radioactive carbon (^{14}C) is produced in the atmosphere and is absorbed by plants; the radioactive carbon enters the human and animal cycle when the plants are eaten by animals and human beings. The absorbing of ^{14}C is stopped when a living organism dies, and ^{14}C starts to disintegrate. How much ^{14}C is disintegrated and how much is left out can be measured, and the rate at which it disintegrates is known. From this the age of organic objects like trees, corals, human remains, and shells can be determined. For age determination tests, about 50–100 g of organic material is necessary.

In the AMS, a much smaller organic sample on the order of 1–2 milligrams is enough to calculate the age. This has several advantages over the regular ^{14}C method. The thermoluminescence (TL) method is mainly used for rocks, soil materials, pottery, and other materials that were fired. It is based on the principle that almost all natural minerals are thermoluminescent. Energy absorbed from ionizing radiation frees electrons, which are trapped. Later heating releases the trapped electrons, producing light. Measurement of the intensity of the light can be used to determine how much time has passed since the last time the object was heated. Natural radioactivity causes TL to build up, so that the older an object is, the more light is produced. Since a certain amount of heating (generally up to 350°C) is required, TL works best for ceramics, cooking hearths, fired bricks, fire cracked rocks, or fire treated minerals such as flint or chert.

OSL is similar to TL dating. The minerals in the sediment grains are sensitive to light; when exposed to light, the electrons vacate the sediment grains. This process is called recombination, or a clock-setting event. To detect the age, the comparison must be made between sediment grain with a known amount of added radiation and sediment grains that are acted upon naturally. This method is suitable for a variety of unheated sediments not older than 500,000 years. This includes silty and sandy sediments that are deposited by water.

The selected samples for various types of dating were sent to some reputed institutes in India, Oxford University in England, and to Hannover, Germany. Some samples were repeated in different institutes to get confirmation of the age. The results tallied very well. The datable objects were selected to represent both of the paleochannels. However, comparatively fewer datable samples were obtained from

the southern paleochannel. In the northern paleochannel, alluvial samples were collected at different depths to gain an idea about the age of alluvium, as well as the river. Of the twenty-three total samples that were dated, the ^{14}C method was followed in four samples, the TL method in six samples, and the OSL in thirteen samples.

The alluvium samples of the northern paleochannel were tested by Manipur University at the behest of NIOT. The top alluvium collected just below marine sediment was dated to around 3000 BCE, and a slightly lower alluvium gave an age of about 5000 BCE. A black alluvium that was somewhat semi-consolidated, and collected above the river conglomerate, gave an age of 19,000 BCE. Obviously the river has been flowing at least between 19,000 BCE, prior to glacial maxima, and up to 3000 BCE. This shows that the paleochannel in the north was active, and a riverine regime existed from at least about 19,000 BCE. As the area and the paleochannel to the south were proven to be a hydrocarbon-rich zone, several oil- and gas-producing wells and platforms have been put up along with Christmas trees, and several oil and gas pipelines are crisscrossing the area. Due to these factors, no further sampling beyond the preliminary one could be undertaken in view of the safety and restrictions in the oil production areas. The water depths of the alluvial samples collected in the northern paleochannel varied from 20 to 32 meters.

In the southern township or paleochannel area, six samples suitable for dating were identified. Of these, three are carbonized wooden samples, one was a sediment sample, one was a fired pottery piece, and one was hearth material. Samples from the same carbonized wood were sent to National Geophysical Research Institute, Hyderabad, India, and Geowissenschaftliche Gemeinschaftsaufgabe, Hannover, Germany, for carbon dating. This was the first sample (Location 21° 03.08' N; 72° 30.83' E) from near the southern paleochannel. This first gave a clue to the age and environment of the civilization. The calibrated age, as per NGRI, was 9580–9190 BCE and, as per Hannover Institute, was 9545–9490 BCE. It means that the age is about 9500 BCE, more than four thousand years older than the oldest city civilization of Mesopotamia and a forerunner to the Harappan civilization. But this occurred near the top of the stratigraphic column. Because of this, it was expected that at the lower levels the age would be much older, showing that the civilization could be a truly ancient one.

The wooden piece tested at Birpal Sani Institute at Lucknow, Uttar Pradesh, gave a calibrated age of 8450 BCE. However, two important artifacts were obtained in a nearby area at lower levels. These were a nice, thin pottery and a brownish to red hearth material. A local clay sediment was also chosen along with it. All three samples were analyzed in the Physical Research Laboratory, Ahmedabad, Gujarat State, using standard thermoluminescence-based pottery dating techniques. As

expected, the one of the pottery piece whose figure is given, gave a date of 13,000 ±1950 BCE. This is an important date.

Another pottery piece that was ill-fired, on OSL dating (Location 21° 12.54' N; 72° 30.370' E) by Oxford University gave an age of 16,840 ±2620 BCE. These are the oldest fired pottery pieces obtained so far in the world. Previous to this, Japanese pottery was the oldest known in the world. The “Jomon” pottery from the Fukui cave in Kyushu gave 12,000 BCE uncalibrated age. The pottery findings from Odai Yamamoto gave an uncalibrated age of 13,800–13,500 BCE. In the Gulf of Khambhat, attempts appear to have been made in experimental potterymaking. This is determined from the effects of fired clay (for making pottery), which gave the ages of 20,130 ±2170 BCE (Location 21° 13.720' N; 72° 26.190' E) and 16,600 ±1150 BCE (Location 21° 13.80' N; 72° 26.10' E) by OSL, as determined by the Oxford University dating lab. The well-fired three potteries in the northern paleochannel gave ages of 7506 ±785 BCE, 6097 ±611 BCE (both by Manipur University) and 4330 ±1330 BCE by Oxford University.

Apart from this sun-dried pottery, other pieces were collected in these areas. Three of the specimens were dated by OSL facility in Oxford. The results obtained are:

1. 31,270 ±2050 BCE
2. 25,700 ±2790 BCE
3. 24,590 ±2390 BCE

A black slipped dish, which was also sun dried, was dated in Oxford by OSL. This gave an age of 26,710 ±1950 BCE. The hearth material from the southern township (Location 21° 03.04' N; 72° 30.70' E) by TL dating from Physical Research Laboratory, Ahmedabad, gave an age of 10,000 ±1500 BCE, whereas the hearth material near the top in the northern township gave an age of 3530 ±330 BCE by OSL, at Oxford University. One of the charcoal pieces obtained on the northern side was tested by ^{14}C dating in BSIP, Lucknow. It gave the calibrated age of 3000 BCE. It tallies very well with the age of uppermost alluvium in the northern paleochannel.

The wattle and daub materials that were originally of wood and clay were seen to be burnt, but the structure of the wood was well preserved at places (being fossilized). These were tested by OSL at Oxford and by TL at Manipur from the same locations. OSL dating found it to be 5860 ±720 BCE, and TL dating determined it to be 5530 ±550 BCE. They appear to be a comparatively good match and they reflect the proper ages. They may represent the period at which these structures caught fire.

From this information it is quite clear that human activity is evident from about 31,000 BCE in what is now the Gulf of Khambhat, long before the glacial maxima at

18,000 BCE. The ancients were making potteries and getting them dried, initially in the sun. From about 20,000 BCE on, it is clear that the ancients were firing the clay to produce pottery. That means they knew how to make, maintain, and manage fire. They appear to have succeeded in making fired pottery from about 16,800 BCE. They knew the art of construction of towns and houses in neat straight lines, row after row, as picked up by side-scan sonar images (also the use of wattle and daub structures and rammed floor).

Both the northern and southern townships have continuous habitation sites interspersed with large structures in between, but good quality fired pottery makes its appearance from about 13,000 BCE on—in the southern township (we can call them metropolises), there appears to be organized activity in the form of community living, and a granary (where fossilized food grains were collected). To the south of this township, in the Gulf of Khambhat, side-scan sonar picked up a drowned dead coral colony about 1,312.3 feet (400 meters) long and 65.6 feet (20 meters) wide in water depths of about 131.2 feet (40 meters), substantiated later by sampling. It is a well-known fact that these corals live in hardly 6.6 to 9.8 feet (2–3 meters) water depth very near coastal areas. They require a clean environment and good sunlight.

Obviously, the southern metropolis appears to have been near a seacoast at a particular point of time, when the metropolis itself stood on dry land with a good free-flowing river, and was a major bustling city. The dating of coral colonies by drill core, like other places, will provide the date of the beginning of coral build-up in the area, and the top sample of coral will reveal the age at which it was drowned, giving a direct clue to the drowning of the southern metropolis. It is worthwhile to note that the datable objects, as found, only date up to 8450 BCE, based on the age of the carbonized wood.

The northern metropolis has well-made pottery pieces, wattle and daub, and so on from about 7506 BCE onward. This indicates well-organized city living. Hence it is possible that this metropolis sprang up after 8450 BCE, but long before 7506 BCE, perhaps after the submergence of the southern metropolis. The ancients appear to have shifted and founded the northern metropolis. However, the various earlier dates from sun-dried pots and other materials indicate that it was under constant habitation.

Evidence from Microlithic Tools

Apart from Paleolithic macro tools, several pieces of micro tools have been collected. Usage of such tools has been reported in America, Europe, and other places. In South America, especially Brazil, the presence of human beings is reported from 14,000 BCE and on, coinciding with big Pleistocene mammals. Research indicated that

between 17,000 and 7000 BCE, most coastal plains were lost due to sea level rise. Several Microlithic tools that were recovered are seen to occur from 10,970 BCE. But the Lagoa Santa people occupying these areas in Brazil suddenly disappeared between 8000 and 7000 BCE. In Europe, in France, Germany, Belgium, and other countries, the Microlithic tool period started around 11,800 BCE, taking back the age of the Mesolithic period. The Microlithic period spread to several areas and lasted up to the seventh millennium BCE.

In the Gulf of Khambhat, a variety of Microlithic tools have been obtained in continuation of late Paleolithic tools. The presence of highly evolved experimental pottery from 13,000 BCE, organized living, sedentary well-planned habitation, and advanced sanitary and town planning activities in the southern metropolis indicates that it had developed to be a established civilization from about 13,000 BCE. There was already evidence for the control of fire and the making of pottery from about 16,840 BCE and on. The southern metropolis has so far provided datable objects up to 8500 BCE.

The well-developed northern metropolis has dates of civilization from about 7506 BCE. One should take into consideration the ideas of Graham Hancock, who also postulated that several cultures in near-coastal areas have been flooded and submerged by rising sea levels caused by the melting of icecaps subsequent to the last ice age. The inundation maps prepared by Dr. Glen Milne of Durham University, England, clearly show that the Gulf of Khambhat area prior to 7600 BCE was mostly land, and after 6900 BCE it is mostly submerged. This type of rise in sea level is very much supported by the work of Dr. P. K. Banerjee, pertaining to the southeast coast of India, the work of Shahidul Islam and M. J. Tooley in the Bay of Bengal in Bangladesh and Sen and Banerjee’s work near Calcutta.

The area is highly prone to severe seismicity. In the past five hundred years, several earthquakes have shaken the area, including the major 8.0 magnitude Richter scale event on January 26, 2001. On January 16, 1819, an 8.3 magnitude event devastated several nearby areas. These quakes cause a lot of subsidence at some places, and elevation at other places.

In the Gulf of Khambhat itself, various surveys have picked up fault zones and earthquake-affected areas with throws up to as much as 98.4 feet (30 meters) (elevation and depression). The Gulf of Khambhat was formed by a major rift. To understand the phenomenon and paleoseismic activity, NIOT commissioned Dr. Rajendran of CESS, Trivandrum, to carry out paleoseismic studies in the area surrounding the Gulf of Khambhat. His path-breaking work of identifying paleoseismic events and dating them with OSL—and also dating nearby organic material—has given excellent evidence to support the findings. He detected the

presence of sand blow layers caused by old earthquakes as well as new ones. His work in peripheral land areas of the Gulf of Khambhat, like Kathana, Lotal, and Motibaur, gave evidence of major earthquakes in the Khambhat areas in the following periods:

1. 2780 ±150 BCE
2. 3983 ±150 BCE
3. 7540 ±130 BCE

Herein lies the evidence of the end of the Gulf of Khambhat civilization. In a major event at about 7600 BCE, the southern metropolis appears to have been collapsed by faulting, and sunk underwater. Because of this, the people appear to have proceeded north in the elevation higher than the sea level, and established the second or northern metropolis. This was also affected by faulting due to earthquakes around 4000 BCE, and was destroyed and submerged by an earthquake in 2780 BCE (±150 years). In this connection, it is worthwhile to point out three important aspects:

The folk songs (in local Kachchi dialogue) mention about four major towns of the ancient past. Three of these have been identified as Mohenjo Daro, Harappa, and Dholavira. (Obviously the fourth one, and the biggest and oldest of them all, is the Gulf of Khambhat metropolis.)

The second aspect is work by other agencies describing small-scale stone ruins near the Gulf of Kutch, at the present-day town of Dwarka, as the remains of the ancient, fabled city of Dwaraka—so aptly described as the abode of Lord Krishna, of *Mahabharata* fame. The city is said to have been completely transgressed by the sea, and this is vividly described by Arjuna, Krishna's main disciple in the *Mahabharata* epic.

The puzzling, incoherent aspect is the location of the city of Dwaraka. The temple we see today is hardly 900 years old. The area all around is dry, void of vegetation, and with brackish water. Krishna is supposed to have maintained a huge army of men, as well as animals such as elephants and horses. There are absolutely no trees or foliage or fresh water for a big army, so the location strikes a discordant note. But the submerged metropolis of the Gulf of Khambhat has strong, powerful flowing rivers, lots of trees and foliage, and a huge township of truly ancient times. So the metropolis in the Gulf of Khambhat could likely be the "Dwaraka City" of the *Mahabharata*.

The third aspect to consider is what happened when the first and second metropolis got submerged. It is interesting to note that there are about five hundred Harappan and pre-Harappan settlements in Gujarat, of which about 258 are on the peripheral areas of the Gulf of Khambhat. All of them are younger than the southern Gulf of

Khambhat metropolis. To the immediate west of the Gulf of Khambhat on the Saurashtra Coast is the well-known pre-Harappan and Harappan archaeological site of Padri. It has been established by the Deccan College researchers that the river Chatranji, which is now flowing east into the Gulf of Khambhat, originally flowed west, but was tilted toward the east by large-scale structural changes.

By connecting it to the southern paleochannel and extending it, it is seen to go to Prabhas Patan in the Arabian sea, a well-known pre-Harappan archaeological site mentioned in the *Mahabharata* epic. To the east, the paleochannel is seen to be an extension of the present-day Tapi River. Obviously the river was flowing right up to Prabhas Patan on the Arabian sea prior to the drifting and formation of the Gulf of Khambhat. It now falls into the Gulf of Khambhat instead of the Arabian sea. The ancients, after the catastrophe and submergence in the Gulf of Khambhat, appear to have spread out all over Gujarat and then to the surrounding areas to establish a continuing and evolving civilization of Harappan type.

So, from the foregoing it is very evident that the prehistoric civilization that matured and developed in the present-day Gulf of Khambhat was the forerunner and model of the subsequent advanced Harappan civilization known to history. This wonderful twin prehistoric metropolis of Khambhat lasted from about 13,000–3000 BCE, making it the most ancient and largest city not only in Asia but in the entire world. It is seen to be at least 7,500 years older than the oldest Mesopotamian city. However, strong evidence supports the presence of humans, from at least 31,000 BCE, who were evolving and developing, and who formed a great hitherto unknown civilization that was submerged by the flood, giving credence to local and global flood myths.

T W E L V E

The Orion Zone

ANCIENT STAR CITIES OF THE AMERICAN SOUTHWEST

GRAY A. DAVID

Orion of the High Desert

To watch Orion ascend from the eastern horizon and assume its dominant winter position at the meridian is a wondrous spectacle. Even more so, it is a startling epiphany to see this constellation rise out of the red dust of the high desert as a stellar configuration of Anasazi cities built between the mid-eleventh century and the end of the thirteenth century CE. The sky looks downward to find its image made manifest in the Earth, while the Earth gazes upward, reflecting on the unification of terrestrial and celestial.

Extending from the giant hand of Arizona's Black Mesa that juts down from the northeast, three great fingers of rock beckon. They are the three Hopi mesas, isolated upon this desolate but starkly beautiful landscape to which the Ancient Ones so long ago were led. Directing our attention to this "Center of the World," we clearly see the close correlation to Orion's Belt.

Mintaka, a double star and the first of the trinity to peek over the eastern horizon as the constellation rises, corresponds to Oraibi and Hotevilla on Third (or West) Mesa. The former village is the oldest continuously inhabited community on the continent, founded in the early twelfth century.

Approximately seven miles to the east, located at the base of Second (or Middle) Mesa, the village of Shungopavi (initially known as Masipa, a cognate of the Hopi underworld deity Masau'u) was reputedly the first to be established after the Bear Clan migrated into the region around the year 1100 CE. Its celestial correlative is

Alnilam, the middle star of the belt.

About seven miles farther east on First (or East) Mesa, the adjacent villages of Walpi, Sichomovi, and Hano (or Tewa)—the first of which was established prior to 1300 CE—correspond to the triple star Alnitak, rising as the last of the three stars of the belt.

Nearly due north of Third Mesa's Oraibi at a distance of just over fifty-six miles is Betatakin Ruin in Tsegi Canyon, while about four miles beyond is Keet Seel Ruin. Located in Navajo National Monument, both of these spectacular cliff dwellings were built during the mid-thirteenth century. Their sidereal counterpart is the double star Rigel, the left foot or knee of Orion. (We are conceptualizing Orion as viewed from the front.)

Due south of Oraibi at an equal distance of fifty-six miles is Homol'ovi Ruins State Park, a group of four Anasazi pueblos constructed between the mid-thirteenth and early fourteenth centuries. These represent the irregularly variable star Betelgeuse, the right shoulder of Orion.

Forty-seven miles southwest of Oraibi is the primary Sinagua ruin at Wupatki National Monument, surrounded by a few smaller ruins. ("Sinagua" is the archaeological term for a group culturally similar and contemporaneous to the Anasazi.) Built in the early twelfth century, their celestial counterpart is Bellatrix, a slightly variable star forming the left shoulder of Orion.

About fifty miles northeast of First Mesa's village of Walpi is the mouth of Canyon de Chelly and its eponymous national monument. In this and its side canyon, Canyon del Muerto, a number of Anasazi ruins dating from the mid-eleventh century are found. Saiph, the triple star forming the right foot or knee of Orion, corresponds to these ruins—primarily White House, Antelope House, and Mummy Cave.

Extending northwest from Wupatki/Bellatrix, Orion's left arm holds a shield over numerous smaller ruins in Grand Canyon National Park, including Tusayan near Desert View on the south rim. Reaching southward from Homol'ovi/Betelgeuse, Orion's right arm holds a nodule club above his head. This club stretches across Mogollon Rim (an escarpment that cuts east to west across northern Arizona) and down to the Hohokam ruins near modern-day Phoenix. (The "Hohokam" was an earlier group than the two previously mentioned. They used irrigated farming methods, rather than dry.)

The head of Orion is a small stellar triangle formed by Meissa at its apex and by Phi-1 and Phi-2 Orionis at its base. It correlates to the Sinagua ruins at Walnut Canyon National Monument, together with a few smaller ruins in the immediate region.

If we conceptualize Orion not as the rectangle but as a polygon of seven sides appended to another triangle, whose base rests on the constellation's shoulders, we see that the relative proportions of the terrestrial Orion coincide with amazing accuracy. The apparent distances between the stars as we see them in the constellation (as opposed to actual light-year distances), and the distances between these major Hopi villages or Anasazi/Sinagua ruin sites, are close enough to suggest that something more than mere coincidence is at work here.

For instance, four of the sides of the polygon—A, Betatakin to Oraibi; B, Oraibi to Wupatki; C, Wupatki to Walnut Canyon; and F, Walpi to Canyon de Chelly—are exactly proportional, while the remaining three sides—D, Walnut Canyon to Homol'ovi; E, Homol'ovi to Walpi; and G, Canyon de Chelly back to Betatakin—are slightly stretched in relation to the constellation—from between ten miles in the case of D and E and twelve miles in the case of G. (Please see figure 12.1)

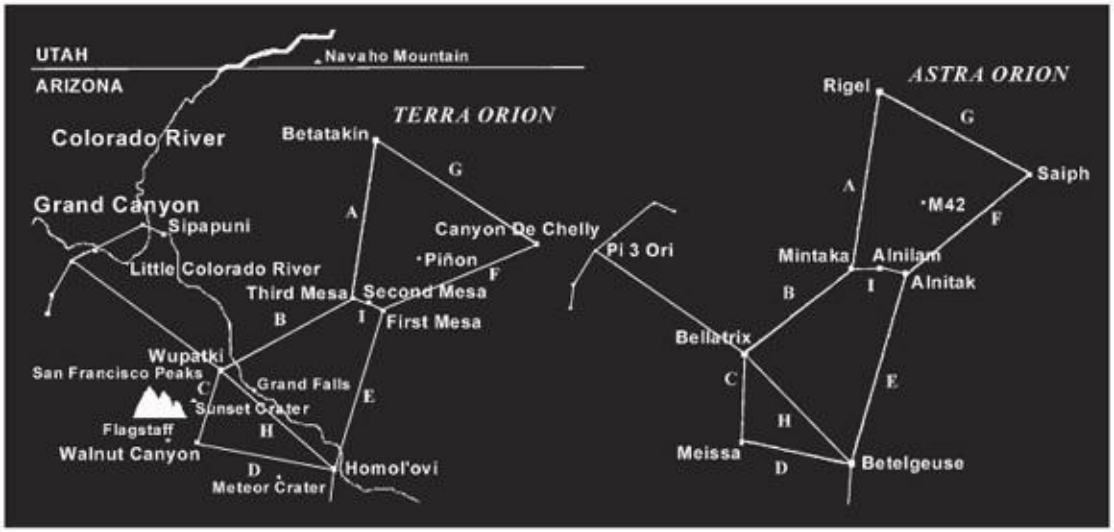

Fig. 12.1. Orion as a polygon of seven sides.

This variation could be due in part either to possible cartographic distortions of the contemporary sky chart in relation to the geographic map, or to ancient misperceptions of the proportions of the constellation vis-à-vis the landscape. Given the physical exigencies for building a village, such as springs or rivers (which are not prevalent in the desert anyway), this is a striking correlation, despite these small anomalies in the overall pattern.

As John Grigsby says in his discussion of the relationship between the temples of Angkor in Cambodia and the constellation Draco: "If this is a fluke then it's an amazing one. . . . There is allowance for human error in the transference of the constellation on to a map, and then the transference of the fallible map on to a difficult terrain over hundreds of square kilometers with no method of checking the progress

of the site from the air.”[7]

In this case we are not dealing with Hindu/Buddhist temples, but with multiple “star cities,” sometimes separated from each other by more than fifty miles. Furthermore, the “map” is actually represented on a number of stone tablets given to the Hopi at the beginning of their migrations. This geodetic configuration was influenced or even specifically determined by a divine presence—namely, Masau’u, god of death, the underworld, and the Earth plane.

Referring to the table below, we also notice the angular correspondences of Orion-on-the-Earth to Orion-in-the-Sky. Here, again, the visual reciprocity is startling enough to make us doubt that mere coincidence is responsible. Using the Bersoft Image Measurement software, however, we can correlate in degrees the precise angles of this pair of digital images seen in the diagram.

ANGLE	DEGREES	DIFFERENCE
AG Terra Orion	65.37	
AG Astra Orion	71.19	5.82
BC Terra Orion	132.6	
BC Astra Orion	130.77	1.83
CD Terra Orion	84.31	
CD Astra Orion	100.07	15.76
DE Terra Orion	97.79	
DE Astra Orion	95.65	2.14
FG Terra Orion	56.17	
FG Astra Orion	64.23	8.06

The closest correlation is between the left and right shoulders (BC and DE respectively) of the terrestrial and celestial Orions, with only about two degrees difference between the two pairs of angles. In addition, the left and right legs (AG and FG respectively) are within the limits of recognizable correspondence, with approximately 6–8 degrees of difference. The only angles that vary considerably are those that represent Orion’s head (CD), with over 15 degrees of difference between terra firma and the firmament. Given the whole polygonal configuration, however, this discrepancy is not enough to rule out a generally close correspondence between Orion Above and Orion Below.

Solstice Interrelationship of Villages

Another factor that precludes mere chance in this mirroring of sky and earth is the

angular positioning of the terrestrial Orion in relation to longitude. According to their cosmology, the Hopi place importance on intercardinal directions—that is, northwest, southwest, southeast, and northeast—rather than cardinal directions. The Anasazi could not, of course, make use of the compass, but relied instead upon solstice sunrise and sunset points on the horizon for orientation.

The Sun Chiefs (in Hopi, *tawa-mongwi*) still perform their observations of the eastern horizon at sunrise from the winter solstice on December 22 (azimuth 120 degrees) through the summer solstice on June 21 (azimuth 60 degrees), when the sun god Tawa is making his northward journey. On the other hand, they study the western horizon at sunset from June 21 (azimuth 300 degrees) through December 22 (azimuth 240 degrees), when Tawa travels south from the vicinity of what the Hopi call the Sipapuni to the San Francisco Peaks southwest of the Hopi mesas. (An azimuth is defined as the arc of the horizon measured in degrees clockwise from the true north point. The Sipapuni is the name for the Hopi entrance to the underworld in the Grand Canyon, located near the confluence of the Little Colorado River and the Colorado River. The San Francisco Peaks near the town of Flagstaff are the highest mountains in Arizona and are considered sacred to both the Hopi and the Navajo.)

A few days before and after each solstice, Tawa seems to stop—the term solstice literally meaning “the sun to stand still”—and rest in his winter or summer *Tawaki*, or “house.” In fact, the winter Soyal ceremony is performed in part to encourage the sun to reverse his direction and return to Hopiland instead of continuing southward and eventually disappearing altogether.

The key solstice points on the horizon that we designate by the azimuthal degrees of 60, 120, 240, and 300 degrees (only at this specific latitude, however) recur in the relative positioning of the Anasazi sky cities. For instance, if we stand on the edge of Third Mesa in the village of Oraibi on the winter solstice, we watch the sun set at exactly 240 degrees on the horizon, directly in line with the ruins of Wupatki almost fifty miles away. The sun disappears over Humphreys Peak, the highest mountain in Arizona, where the major shrine of the *katsinam* (also spelled *kachinas*, beneficent supernatural beings who act as spiritual messengers) is located.

Incidentally, if this line between Oraibi and the San Francisco Peaks is extended southwest, it intersects the small pueblo called King’s Ruin in Big Chino Valley, once a stop-off point on the major trade route from the Colorado River. If the line is extended still farther southwest, it intersects the mouth of Bill Williams River on the Colorado.

Inhabited from 1026 CE (or possibly earlier in light of the underlying pit house) to about 1300 CE, King’s Ruin has a thirteen-room foundation, twelve of which could have been two stories high. The 500 pieces of unworked shell found at the site

indicate substantial trade with the Pacific. Necklaces of turquoise, black shale, and red argillite were also found. One argillite necklace, consisting of 2,031 beads, stretched sixty-six inches long. Fifty-five graves were also discovered, containing sixty-six individuals, most of which were buried in the extended posture with heads oriented toward the east, awaiting Pahana's (or the White Brother's) return.

Fig. 12.2. Solstice lines of the Orion Zone.

If we stand at Wupatki during the summer solstice, we see the sun rise directly over Oraibi on Third Mesa at 60 degrees azimuth on the horizon. On that same day the sun sets at 300 degrees azimuth, to which the left arm of the terrestrial Orion points. In addition, from Oraibi the summer solstice sun sets 12 degrees north of the Sipapuni near the Colorado River, the "Place of Emergence" of the Hopi from the previous Third World (or era) to the current Fourth World.

If we perch on the edge of Canyon de Chelly, not looking downward into the canyon but instead southwest at the winter solstice sunset, the sun on the horizon appears about 5 degrees south of the First Mesa village of Walpi. This line, extended farther southwest beyond the horizon, intersects both Sunset Crater, a volcano that erupted in 1064 CE, and Humphreys Peak, elevation 12,633 feet.

Again, the reciprocal angular relationship between the two pueblo sites remains, so from Walpi during the summer solstice the sun appears to rise from Canyon de Chelly fifty miles away. A northeastward extension of this 65 degree line eventually reaches a point in New Mexico near Salmon Ruin and Aztec Ruin. Salmon Ruin near the San Juan River was occupied for a few generations after 1088 CE, then abandoned and reoccupied between 1225 CE and the late 1200s.

The pueblo contained between 600 and 750 rooms. It also had a tower kiva built on a platform twenty feet high that was made of rock imported from thirty miles away. Ten miles north of Salmon is Aztec Ruin (an obvious misnomer), located on the Animas River. During its peak development it contained about 500 rooms. Like the former, this latter site was originally inhabited in the early twelfth century by people of Chaco Canyon, and then re-inhabited from 1225 to 1300 CE by people of Mesa Verde. In addition, it has a restored Great Kiva.

A winter solstice sunrise line (120 degrees azimuth) drawn from Walpi past Wide Ruin traverses the Zuni Pueblo (the Zuni are a tribe closely related to the Hopi) and ends just south of El Morro National Monument. Inhabited from 1226 to 1276 CE, Wide Ruin (or Kin-Tiel) is located about fifty miles due south of Canyon de Chelly. It is an oval-shaped pueblo of 150–200 rooms with a number of kivas. Atsinna pueblo, located atop a high mesa at El Morro National Monument, was a mid-thirteenth century rectangular structure, part of which was three stories in height. It had 500 to 1,000 rooms and two kivas, one circular and the other square.

If during the winter solstice we stand at the rim of Tsegi Canyon (wherein the ruins of Betatakin and Keet Seel are located) and sight southeast along the edge of Black Mesa, we see the sun come up over Canyon de Chelly and Canyon del Muerto. The sun is in fact at 120 degrees azimuth on the horizon directly over Antelope House Ruin in the latter canyon. An extension of the same line into New Mexico intersects Casamero Ruin.

Constructed in the mid-eleventh century, Casamero Ruin was a small thirty-room pueblo. However, its Great Kiva, one of the largest in the Southwest, was seventy feet in diameter—even slightly more spacious than the better-known Casa Rinconada at Chaco Canyon about forty-five miles to the north.

From the same spot at Tsegi Canyon, also on the first day of winter, we see the sun set at 240 degrees azimuth over Grand Canyon more than eighty miles to the

southwest. From Tsegi, a summer solstice sunrise line of 60 degrees azimuth additionally intersects Hovenweep National Monument in southeastern Utah, well known for the archaeo-astronomical precision of its solstice and equinox markers. Again from Tsegi, a sunset line of 300 degrees azimuth crosses Bryce Canyon National Park and Paunsaugunt Plateau in southern Utah, where nearly 150 small Anasazi and Fremont ruins have been identified.

If we travel 112 miles almost due south of Tsegi Canyon to the ruins at Homol'ovi and look fifty miles to the northwest, the summer solstice sunset appears 8 degrees south of Wupatki. This line (designated as "H" in the table) running between Homol'ovi and Wupatki passes between Grand Falls (an impressive cataract along the Little Colorado River) and Roden Crater (a volcanic cinder cone that artist James Turrell has turned into an immense earth sculpture) to finally end at Tusayan Ruin on the south rim of the Grand Canyon.

Again, from the reciprocal village of Wupatki, the winter solstice sun rises 8 degrees north of Homol'ovi. This Wupatki-Homol'ovi line (128 degrees azimuth) extending southeast passes just south of Casa Malpais Ruin and ends less than ten miles south of Gila Cliff Dwellings in New Mexico. Located in the Mogollon Mountains of west-central New Mexico, Gila Cliff Dwellings National Monument is a ruin comprised of forty rooms in five separate caves located 150 feet above the canyon floor. The timbers of these structures have been tree-ring dated to the 1280s. The late Mogollon (or Mimbres) people are known for their exquisite black-on-white pottery, using realistic though stylized designs. The site was abandoned by 1400 CE.

From Homol'ovi, a winter solstice sunrise line (120 degrees azimuth) falls 7 degrees north of Casa Malpais and 3 degrees north of Raven Site Ruin, both north of the modern town of Springerville, Arizona. Casa Malpais is a thirteenth century Mogollon site of a hundred rooms with a square Great Kiva (one of the largest in the Southwest). It also has catacombs, ceremonial rooms, three winding stone stairways, and an astronomical observatory. Because of the nature of the artifacts found, such as crystals, ceremonial pipes, and soapstone fetish stands, it is thought to have been primarily a religious center.

Located nearly ninety miles southeast of Homol'ovi and about twelve miles north of the Casa Malpais, the Raven Site (privately owned by the White Mountain Archaeological Center) was occupied as early as 800–1450 CE, and had more than eight hundred rooms and two kivas.

From Homol'ovi during the winter solstice sundown (240 degrees azimuth), the sun passes directly through East and West Sunset Mountains, the gateway to the Mogollon Rim. This line from Homol'ovi proceeds past the early fourteenth century, thousand-room Chavez Pass Ruin on Anderson Mesa (known in Hopi as

Nuvakwewtaqa, “mesa wearing a snow belt”) and continues along the Palatkwapi Trail down to Verde Valley, ending near Clear Creek Ruin.

If the summer solstice sunrise line (60 degrees azimuth) is extended from Homol’ovi into New Mexico, it intersects the vicinity of Chaco Canyon, the largest and perhaps most impressive of all the Anasazi sites in the Southwest. In the overall astral-terrestrial pattern Chaco corresponds to Sirius, the brightest star in the heavens located in the constellation Canis Major.

In this schema, each village is connected to at least one other by a solstice sunrise or sunset point on the horizon. The interrelationship provided a psychological link between one’s own village and the people in one’s “sister” village miles away. Moreover, it reinforced that the divinely ordered coordinates of the various sky cities come down to earth. Not only had Masau’u/Orion spoken in a geodetic language that connected the Above with the Below, but Tawa/ Sun had also verified this configuration by his solar measurements along the curving rim of the *tutskwa*, or sacred earth.

Non-Solstice Lines, the Grand Chakra System, and the Hopi Winter Solstice Ceremony

In addition to the solstice alignments, a number of intriguing non-solstice lines exist to corroborate the pattern as a whole. As heretofore stated, an extension of the solstice line between Oraibi and Wupatki (the belt and left shoulder of the terrestrial Orion respectively) would ultimately end on the Colorado River at the point where a major trail east toward Anasazi territory began. Similarly, if the non-solstice line between Walpi and Homol’ovi (the belt and the right shoulder respectively) is extended, it intersects the wrist of the constellation and terminates within five miles of the important Hohokam ruin site and astronomical observatory of Casa Grande Ruins National Monument, near the Gila River 150 miles to the south.

We have also already discussed the extension of the Walpi-Canyon de Chelly solstice line (Orion’s right leg), ending up at the Salmon-Aztec ruins area. An extension of the Oraibi-Betatakin non-solstice line (Orion’s left leg) would bring us to Glen Canyon National Recreation Area, nearly fifty miles to the north. Ruefully, hundreds or perhaps even thousands of small Anasazi ruins were submerged by the construction of the Glen Canyon Dam in 1963, and the few that remain can only be reached by boat.

Another alignment of ancient pueblo sites forms the grand chakra system of Orion and indicates the direction that his spiritual energy flows. Drawing a line southwest

from Shungopavi/ Alnilam on Second Mesa, we pass less than five miles southeast of Roden Crater and Grand Falls, both mentioned above. Continuing southwest, the line runs by Ridge Ruin, through Winona Village, and into the forehead of Orion—namely, Walnut Canyon National Monument, a significant mid-twelfth century Sinagua ruin located in the foothills of the San Francisco Peaks.

Occupied from 1085–1207 CE, Ridge Ruin was a thirty-room pueblo with three kivas and a Maya-style ball court. It was also the site of the so-called Magician's Burial. Thought by Hopi elders to be of the Motswimi, or Warrior Society, this apparently important man was interred with twenty-five whole pottery vessels and over 600 other artifacts, including shell and stone jewelry, turquoise mosaics, woven baskets, wooden wands, arrow points, and a bead cap. Winona Village, which was occupied at the end of the eleventh century, contained about twenty pit houses and five surface storage rooms.

If the line is extended farther still, it intersects the red rock country of Sedona with its electromagnetic vortexes, passing the small but gorgeously located ruin and pictograph (rock painting) site of Palatki (or "Red House"), as well as the larger Honanki (or "Bear House"). In Verde Valley the newly energized vector directly transits Tuzigoot National Monument, a major thirteenth century Sinagua ruin of over a hundred rooms perched on a hilltop for the probable purpose of stellar observation.

This line traverses the Black Hills of Arizona and goes by the newly excavated Emilienne Ruin in Lonesome Valley, which had a foundation of twelve rooms, most of which could have been two stories high, plus eleven outlying one-room units. The line then intersects the Fitzmaurice Ruin, located upon a ridge on the south bank of Lynx Creek in Prescott Valley. The Fitzmaurice Ruin, occupied from 1140 to 1300 CE, had twenty-seven rooms in which were found beads, pendants, bracelets, and eighty-one amulets, including crystals, animal fetishes, obsidian nodules (so-called Apache Tears), and a curious six-faceted, truncated pyramid carved from jadeite and measuring one-and-a-half centimeters wide.

The line continues through the small Lynx Creek Ruin at the northern base of the Bradshaw Mountains, treks across the northern limits of the Sonoran desert, and passes near the geoglyphs on the Arizona/California border to ultimately reach a point just north of the Colorado River's mouth. Similar to the Nazca lines of Peru, these geoglyphs (also called intaglios) of human, animal, and star figures, some over a hundred feet long, were made by removing the darker, "desert-varnished" pebbles to expose the lighter soil beneath, as relayed by authors Jefferson Reid and Stephanie Whittlesey in *Archaeology of Ancient Arizona*.

According to the Mohave and Quechan tribes of the lower Colorado River region, the human figures represent the deity Mastamho, the creator of the Earth and all life.

Notice the similarity between the name of this god and that of the Hopi earth god Masau'u. These figures are thought to be between 450 and 2,000 years old.

The same line extended in the other direction from Shungopavi travels northeast across Black Mesa, passing just southeast of Four Corners to finally end up at the major Anasazi sites at Mesa Verde National Park in southwestern Colorado.

In this series of villages, we see a total of eleven both major and minor Anasazi or Sinagua ruins and one Hopi pueblo perfectly aligned over a distance of more than 275 miles within the framework of the tellurian Orion. The probability that these were randomly distributed is highly unlikely and increases the possibility that Masau'u (or some other divine agent) directed their positioning.

This "ley line" forms a grand chakra system that provides an inseparable link and a conduit of pranic earth energy flowing from the Hopi mesas to the evergreen forests of the San Francisco Peaks. More specifically, Walnut Canyon symbolizes the terrestrial Orion's third eye, or pineal gland, which is etymologically derived from the Latin word *pinus*, or "pine cone."

At this point we might ask: Why was the template of Orion placed on the Earth at the specific angle that we find it relative to longitude? The chakra line mentioned above, which runs in part from Shungopavi/Alnilam (the belt of Orion) to Walnut Canyon/ Meissa (the head of Orion), is 231 degrees azimuth in relation to Shungopavi. The direction of southwest is 225 degrees azimuth. The axis for the terrestrial Orion is thus within 6 degrees of northeast/ southwest.

Imagine we are standing at Shungopavi shortly after midnight on the winter solstice nine centuries ago—about the time when the Hopi mesas were first settled. Looking southwest, we find the middle star of Orion's Belt hovering directly above the *southwestern* horizon at an altitude of approximately 38 degrees. Specifically, at 1:15 a.m. on December 22, 1100 CE, Alnilam was at 231 degrees azimuth. In other words, as we gaze from the central star of the earthbound belt of Orion toward his head located in the foothills of the San Francisco Peaks where the sacred *katsinam* live, we see the celestial constellation precisely mirror the angle of the terrestrial configuration.

Also at 1:15 a.m. on this date, Bellatrix is at 240 degrees azimuth, and Meissa is at 242 degrees azimuth. Forty minutes later, Alnilam is at 240 degrees, the azimuthal degree at which the sun will set at 5:15 p.m. on this same day. Incidentally, at the winter solstice sunset time, Orion is just rising on the opposite horizon, thus emphasizing the pivotal relationship of Orion/Masau'u and the Sun/Tawa. All astronomical computations were performed with Skyglobe (made by the now-defunct KlassM Software).

But what is the significance of this precise time when the middle star in Orion's Belt is at 231 degrees? At the very moment we are watching this sidereal spectacle, "one of the most sacred ceremonies" of the Hopi, known as the Soyal, is also taking place in the kiva, or subterranean prayer chamber. Just past his meridian, Orion can be clearly seen through the hatchway overhead. This is the time "when Hotomkam [Orion's Belt] begins to hang down in the sky."

Now a powerful, barefooted figure descends the kiva ladder. White dots that resemble stars have been painted on his arms, legs, chest, and back. He carries a crook on which has been tied an ear of black corn—Masau'u's maize that signifies the Above. One account identifies him as Muy'ingwa, the germination deity related to Masau'u. Another calls him "Star Man," ostensibly because his headdress, made of four white corn leaves, represents a four-pointed star; perhaps Aldebaran in the Hyades.

This ritually transmuted person takes a hoop covered with buckskin and begins to dance. His "sun shield," fringed with red horsehair, is about a foot in diameter with a dozen or so eagle feathers tied to its circumference. Its lower hemisphere is painted blue, its upper right quadrant is red, and its upper left quadrant is yellow. Two horizontal black lines for the eyes and a small downward pointing triangle for the mouth are painted on the lower half of this striking face representing Tawa.

Alexander Stephen, who witnessed the rite at Walpi in 1891, remarked that the star priest stamps upon the *sipapu* (or a hole in the floor of the kiva that links it to the underworld) as a signal to start the most important portion of the ceremony. *This occurs just after 1:00 a.m.*, the time on this date in 1100 CE when Orion was at *231 degrees* azimuth.

As the dance rhythm crescendos, the "Star Man" begins to twirl the sun hoop very fast in clockwise rotation around the inter-cardinal points between two lines of singers—one at the north and the other at the south. By his "mad oscillations" (to use Alexander Stephen's phrase), the star priest is attempting to turn back the sun from its southward journey. "All these dances, songs, and spinning of the sun are timed by the changing positions of the three stars, Hotomkam, overhead. Now is the time this must be done, before the sun rises and takes up his journey."

If this were merely a solar ritual, we assume that it would take place at sunrise. On the contrary, the sidereal position of Orion must reflect the terrestrial positioning of the constellation, which occurs only after the former has passed its meridian, that is, "when Hotomkam begins to hang down in the sky." Prior to dawn, runners are sent out to the shrines of *both* Masau'u (Orion) and Tawa (the sun) to deposit *pahos* (or prayer feathers), offerings to the two gods whose complex interaction helps to assure the seasons' cyclic return, keeping the world in balance for yet another year.

Egyptian Parallels to the Arizona Orion

In their bestseller *The Orion Mystery*, Robert Bauval and Adrian Gilbert have propounded what is known as the Orion Correlation Theory. The coauthors have discovered an ancient "unified ground plan" in which the pyramids at Giza form the pattern of Orion's Belt. According to their entire configuration described just briefly here, the Great Pyramid (Khufu) represents Alnitak, the middle pyramid (Khafre) represents Alnilam, and the slightly offset smaller pyramid (Menkaure) represents Mintaka.

In addition, two ruined pyramids—one at Abu Rawash to the north and another at Zawiyat Al Aryan to the south—correlate to Saiph and Bellatrix respectively. Farther south, three pyramids at Abusir correspond to the triangular head of Orion. Bauval and Gilbert also believe that the pyramids at Dahshur—namely, the Red Pyramid and the Bent Pyramid—represent the Hyades stars of Aldebaran and Epsilon Taurus, respectively.

This schema furthermore correlates Letopolis, located due west across the Nile from Heliopolis, with Sirius, the most brilliant star in the sky. As coauthor Gilbert states in *Signs in the Sky:*

It was Bauval's contention that the part of the Milky Way which interested the Egyptians most was the region that runs from the star Sirius along the constellation of Orion on up toward Taurus. This region of the sky seemed to correspond, in the Egyptian mind at least, to the area of the Memphite necropolis, that is to say the span of Old Kingdom burial grounds stretching along the west bank of the Nile from Dashur to Giza and down to Abu Ruwash. At the centre of this area was Giza; this, he determined, was the earthly equivalent of Rostau (Mead's Rusta), the gateway to the Duat or underworld.

The region in Hopi cosmology corresponding to the Duat is called Tuwanasavi (literally, "Center of the World"), located at the three Hopi mesas. Similar to the ground-sky dualism of the three primary structures at the Giza necropolis, these natural "pyramids" closely reflect the Orion's Belt stars. In addition, the entry to the nether realms is known in Hopi as the Sipapuni, located in the Grand Canyon. This culturally sacrosanct area mirrors the left arm of Orion. Whereas the Egyptian Rostau is coextensive with the axis mundi of the Belt stars formed by the triad of pyramids, the Hopi gateway to the underworld in Grand Canyon is adjacent to the centerplace but still close enough to be archetypally resonant.

In a later book entitled *The Message of the Sphinx*, Robert Bauval and coauthor

Graham Hancock describe the cosmic journey of the Horus-King, or son of the sun, to the underworld: “He is now at the Gateway to Rostau and about to enter the Fifth Division [Hour] of the Duat—the holy of holies of the Osirian afterworld Kingdom. Moreover, he is presented with a choice of ‘two ways’ or ‘roads’ to reach Rostau: one which is on ‘land’ and the other in ‘water.’”

The discussion by Bauval, Gilbert, and Hancock of the Egyptian master plan is a great deal more complex than what is merely sketched out in this article. Their opus involves the precession of the equinoxes, star-targeted shafts in the Great Pyramid, and other topics that are not directly relevant to our discussion. However, this compelling work has challenged many orthodox ideas in Egyptology and spawned heated debates at both the amateur and professional levels.

We have been blessed with a wealth of Egyptian hieroglyphic texts, both on stone and on papyrus, from which we can reconstruct the Egyptian cosmology. Unless we consider petroglyphs more as a form of linguistic communication than as rock “art,” then the Hopi and their ancestors, on the other hand, had no written language; hence we must rely on their recently transcribed oral tradition. In this regard the *tawa-mongwi* (or “sun watcher”) Don Talayesva from Oraibi Village describes an interesting parallel to Rostau.

As a young man attending the Sherman School for Indians in Riverside, California, during the early years of the twentieth century, Talayesva became deathly ill and, in true shamanistic fashion, made a journey to the spirit world. After a long ordeal with many bizarre, hallucinatory visions, he reached the top of a high mesa and paused to look. The following is his account from his book *Sun Chief: An Autobiography of a Hopi Indian*.

Before me were two trails passing westward through the gap of the mountains. On the right was the rough narrow path, with the cactus and the coiled snakes, and filled with miserable Two-Hearts making very slow and painful progress. On the left was the fine, smooth highway with no person in sight, since everyone had sped along so swiftly. I took it, passed many ruins and deserted houses, reached the mountain, entered a narrow valley, and crossed through the gap to the other side. Soon I came to a great canyon where my journey seemed to end; and I stood there on the rim wondering what to do. Peering deep into the canyon, I saw something shiny winding its way like a silver thread on the bottom; and I thought that it must be the Little Colorado River. On the walls across the canyon were the houses of our ancestors with smoke rising from the chimneys and people sitting out on the roofs.

In this narrative, the dry, narrow road filled with cacti and rattlesnakes, where progress is measured at just one step per year, is contrasted with the easy, broad road

quickly leading to the canyon of the Little Colorado River. A few miles east of the confluence of this river and the Colorado River is the previously mentioned Sipapuni, the actual location of the Hopi “Place of Emergence” from the Third World to the Fourth World. Physically, it is a large travertine dome in the Grand Canyon to which annual pilgrimages are made to gather ritualistic salt.

In correlative terms, the Milky Way is conceptualized as the “watery road” of the Colorado River at the bottom of the Grand Canyon—that sacred source to which spirits of the dead return to exist in a universe parallel to the pueblo world they once knew. (In an alternate conception, this stellar highway traverses the evergreen forests of the San Francisco Peaks, upon whose summit a mythical kiva leading to the underworld is located.)

Talayesva’s account also includes such traditionally otherworldly motifs as the “Judgment Seat” on Mount Beautiful, which supports a great red stairway, at least in his vision. (This peak is actually located about eight miles west of Oraibi.) We furthermore hear of a confrontation with the Lord of Death, in this case a threatening version of Masau’u (the Hopi equivalent of Osiris), who chases after him.

Like the Egyptian journey to the Duat, the Hopi journey to Maski (literally, “House of Death”) has two roads—one on land and the other on water. In this context we must decide if the latter is really a code word for the sky. In the “double-speak” of the astral-terrestrial correlation theory, are these spirits in actuality ascending to the celestial river of the Milky Way? Is this, then, the purpose of the grand Orion schema? To draw a map on the Earth that points the way to the stars?

Returning to the subject of Orion projected upon the deserts of both Egypt and Arizona, we find both discrepancies and parallels. In terms of distinction, the Egyptian plan is on a much smaller scale than the one incorporating the Arizona stellar cities, using tens rather than hundreds of miles. Furthermore, in the Egyptian schema the bright stars of Betelgeuse and Rigel are perplexingly unaccounted for.

The Giza terrestrial Orion from head to foot is oriented southeast to northwest, while the Arizona Orion is oriented southwest to northeast. Of course, the pyramids are located west of the Nile River, while the Hopi mesas are located east of the “Nile of Arizona,” namely, the Colorado River.

We should also point out that Abusir is not in the correct location to match Orion’s head on the constellatory template. Bauval and Gilbert state that Abusir is “a kilometer or so southeast of Zawiyat al Aryan,” which is Bellatrix (Orion’s left shoulder). It is, in fact, about 3.7 miles (6 kilometers) southeast. In other words, Abusir is nearly four miles south-southeast of where it should be according to the Orion Correlation Theory. Unlike Bauval, Gilbert, and Hancock, I have not been to Egypt, but the consultation of any scale map will verify this statement.

Despite these few differences, the basic orientation of the Egyptian Orion is similar to that of the Arizona Orion—that is, south, the reverse of the celestial Orion. According to Dr. E. C. Krupp of the Griffith Observatory, this is one factor that invalidates the Orion Correlation Theory. His critique, however, is the result of a specific cultural bias in which an observer is looking down upon a map with north at the top and the south at the bottom.

Imagine, instead, that we are standing on top of the Great Pyramid—or, for that matter, at the southern tip of First Mesa in Arizona—and gazing southward just after midnight on the winter solstice. The other two pyramids, or mesas, would be stretching off to the southwest in a pattern that reflects the belt of Orion now achieving culmination in the southern sky. We can further imagine that if the upper portion of the terrestrial Orion were simply lifted perpendicular to the apparent plane of the earth while his feet were still planted in the same position—Abu Rawash and an undetermined site in the case of Egypt; Canyon de Chelly and Betatakin in the case of Arizona—then this positioning would perfectly mirror Orion as we see it in the sky.

When the Anasazi gazed into the heavens, they were not looking at an extension of the physical world the way we perceive it today. They were instead witnessing a manifestation of the spirit world. Much like the Egyptian Duat, the Hopi underworld encompasses both the vast reaches of the sky and the region beneath the surface of the earth. This fact is validated by the dichotomous existence of ancestor spirits who live in the subterranean realm, but who periodically return to their earthly villages as clouds bringing the blessing of rain.

Is it simply just another coincidence that the Hopi word *tu'at*, also spelled *tuu'awta*, meaning "hallucination" or "mystical vision," sounds so close to the Egyptian *Duat*—spelled by E. A. Wallis Budge, former director of antiquities at the British Museum, as *Tuat*, that seemingly illusory realm of the afterlife?

Even though the eastern and western domains ruled by Tawa (the sun) remain constant, the polar directions of north and south—controlled by the Elder and Younger Warrior Twins (sons of the sun), respectively—are reversed. Therefore, the right hand holding the nodule club is in the east and the left hand holding the shield is in the west, similar to the star chart. The head is, however, pointing roughly southward instead of northward. This inversion is completely consistent with Hopi cosmology, as the terrestrial configuration is conceptualized as a reversal of the spirit world, of which the sky is merely another dimension. (An alternate explanation for the change in directions is the possibility that the pole shift, which destroyed the Hopi's Second World, reversed the position of the constellation's mundane aspect.)

Gazing up at Orion on a midwinter night, we can imagine that *our* perspectives have switched. Suspended high above the land, we stare southwest toward the sacred

katsina peaks and the head of the celestial Masau'u suffused in the evergreen forests of the Milky Way. Ironically, it is here on the high desert of Arizona that we also intuit the truth of the hermetic maxim attributed to the Egyptian god Thoth (later known as Hermes Trismegistus): "As above, so below."

Let's briefly look at one more so-called coincidence: The word *zona*, as in the name Arizona, is particularly significant. From classical times onward, it has literally been defined as "The girdle [or Belt] of Orion."

T H I R T E E N

On the Possibility of Instantaneous Shifts of the Poles

HAS IT OCCURRED DURING HUMAN EXISTENCE?

FLAVIO BARBIERO

It is well known that the poles have often changed their position on the Earth's surface during past geological eras. The marks left by thick ice sheets in Africa and India, the residual magnetism in ancient rocks, the old coral reefs' and coal deposits' distribution and so on are compelling evidence that the poles have wandered from what is today's equator to the actual poles. According to geological data, this wandering should have happened in "jumps."

Scientists attribute it to the drift of continents and to the displacement of large quantities of materials, due to erosion and sedimentation processes, which in theory can provoke a very slow shift of the poles: a few centimeters per year at the most, but in hundreds of millions of years it can result in shifts of thousands of miles.

There is strong evidence, however, that this phenomenon could be much faster.

In his book *The Path of the Pole*, Charles Hapgood expresses the hypothesis that the poles have changed their position three times during the past 100,000 years. Between 50,000 and 12,000 years ago, at the end of Pleistocene, the North Pole was located somewhere around Hudson Bay in eastern Canada, and it moved to its current position in the twelfth millennium BCE.

They were eccentric with respect to the actual poles, suggesting a different position for them. To support his thesis, Hapgood presents an impressive quantity of evidence, which can be summarized as follows:

1. Between 50,000 and 12,000 years ago an impressive ice cap, more than two miles thick, spread from the Hudson Bay area southward, down to the latitude of New York, and westward to join, at its maximum extent, glaciers flowing down from the Rocky Mountains in Alaska. During the same period, northern Europe was covered by ice caps, which at their maximum extent reached the latitude of London and Berlin.

The quantity of water trapped in these ice sheets and in the glaciers scattered around the world was so large that the sea level was about 426.5 feet (130 meters) lower than today.

2. The current “scientific” explanation for the existence of these ice caps is that they were created by a cooler climate all over the world. But this theory is contradicted by the absence, during the ice age, of ice sheets in Siberia, which was actually populated, up to its northernmost regions, by one of the most impressive zoological communities of all time. Millions (more than 40 million, according to F. C. Hibben) of mammoths roamed Siberia and Alaska. Animals as large as this can be found today only in tropical regions, or in other areas where the supply of fodder is guaranteed year round.

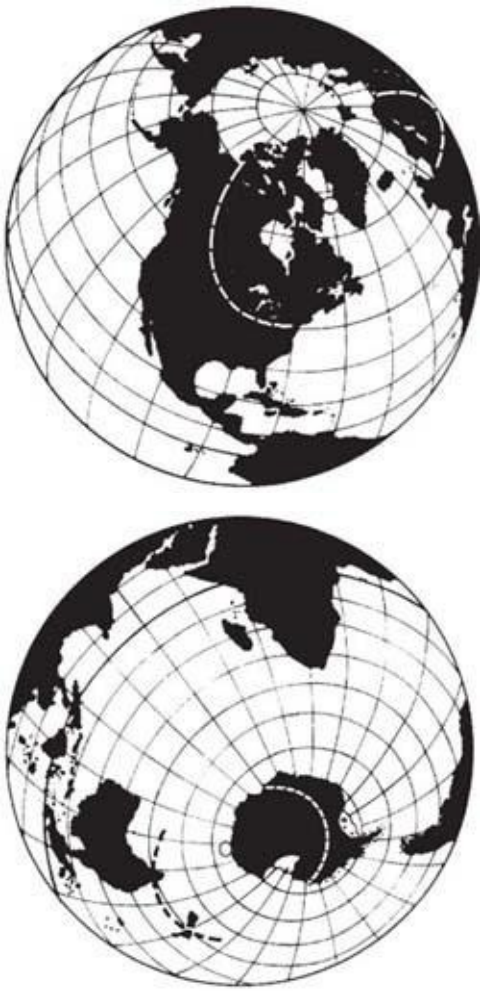

Fig. 13.1. An extension of the polar ice caps during the Pleistocene era.

Figs. 13.2. The Chauvet cave in southern France contains hundreds of animal paintings dating from Paleolithic times (ca. 31,000 BCE).

Fig. 13.3. The representation of humans in cave paintings was rare. More often than not, animals such as the reindeer, depicted here, were featured prominently.

Fig. 13.4. The mammoth illustrated in this cave painting from Chauvet cave in France apparently coexisted with a large number of many other types of fauna and mega fauna, both artic and tropical, leaving scholars puzzled about the climate of the time.

Fig. 13.5. In the cave paintings of Chauvet cave, predators such as the lion are often depicted alongside such animals as the rhino.

Fig. 13.6. The hyena and the leopard shared the same environment as camels, buffalo, giant beavers, and many other types of animals that existed during the Pleistocene era.

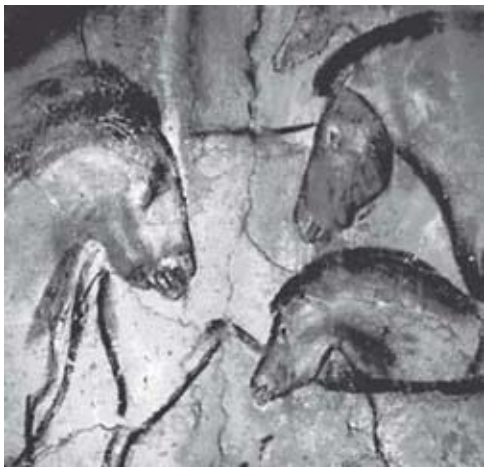

Fig. 13.7. Horses appear in the imagery of the the Chauvet cave, a series of chambers and vestibules all covered with masterworks breathtaking in their use of the sophisticated techniques of perspective and shading.

It is counterintuitive that during the ice age one of the largest zoological communities since the dinosaurs existed in those very areas that are today regarded, due to their extreme climatic conditions, as among the most hostile on Earth. With the mammoths there were dozens of other animal species, the majority of which are

extinct today. Of these species we have a great number of skeletons, complete animals that have been preserved in the permafrost, and many wonderful paintings in Paleolithic caves. The oldest among the latter is Chauvet Cave in France, parts of which were painted as early as 33,000 years ago. It contains paintings of breathtaking beauty.

The unknown artists have, with a few strokes, represented to perfection animals that at the time were living in the plains of central Europe (and at the same time in Siberia and Alaska)—but the beauty of the paintings makes the zoologist wonder in more ways than one. How could such a varied assembly of animals coexist? To what bizarre ecological environment could such motley fauna belong? We find the reindeer next to the rhinoceros; the mammoth, with its woolly mantle, near the hippopotamus; lions side by side with bears, leopards, and Przewalski's horses. There are also giant beavers and sloths, big-horned deer, camels, saber-tooth tigers, buffaloes, aurochs, and many other species.

These images represent an incredible mixture that leaves us puzzled and astonished. Arctic and tropical fauna together, on the same plain, in perfect balance with the environment! Such an extraordinarily varied and numerous animal community—the likes of which can be found nowhere on Earth today—seems to challenge current opinion on climatic conditions during the ice age. Moreover, this community suddenly disappeared when the ice age ended—exactly at the moment when, according to modern theories, climatic conditions were supposed to have become milder and more supportive of life.

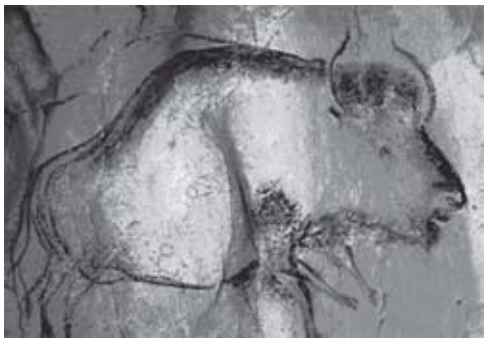

Fig. 13.8. Animals that symbolized strength, such as the buffalo rendered here, are featured frequently on the cave's walls.

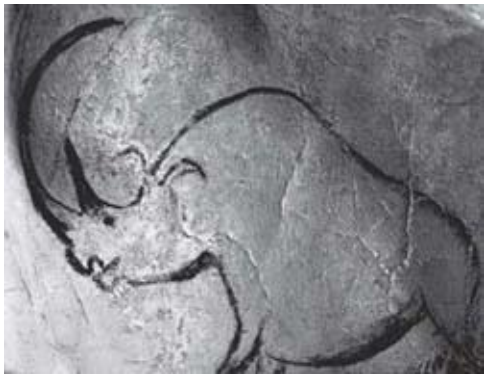

Fig. 13.9. The prehistoric artworks that are displayed in the cave are so sophisticated that specialists in ice age art initially assumed that the works were created in recent times.

Fig. 13.10. The ancient ibex was a wild goat with large, recurved horns. It was apparently revered by the ancient peoples who painted its image on the walls of the cave.

This mysterious, now-vanished fauna populated the Siberian islands well inside the Arctic Sea; their remnants can be found on islands located at only 621.4 miles (1,000 kilometers) from the North Pole, and rock engravings have been found in the same islands. This strongly suggests that in the late Pleistocene (a period during which the global climate was supposedly *much colder* than it is today, especially at the high latitudes), the Arctic Sea was in fact *much warmer* than it is today.

3. On the other side of the world, the climate was cooler in Australia and New Zealand, back then partially covered by large glaciers—but there is solid evidence that Antarctica, now completely covered by a thick layer of ice, must have been partially free of it at that time. Sediment cores, collected in the Weddell area, show that in the late Pleistocene large rivers must have flowed in this part of Antarctica. Again, is this not a strong suggestion that the climate of part of Antarctica must have been much milder during the ice age than it is even today—despite the intense global warming experienced in the past century?

A shift of the poles, occurring around 11,500 years ago, could explain completely and coherently the climatic situation before that date, and the situation that came into being after that date.

The hypothesis that the position of the poles—as well as the inclination of the terrestrial axis in relation to the ecliptic—might change first started to gain serious consideration during the nineteenth century. Some of the greatest scientists of the time, including J. C. Maxwell and Sir George Darwin (son of the famous Charles Darwin), considered this problem and decided that the stabilizing effect of the equatorial bulge was so great that no conceivable force could make the Earth shift on its axis except for a collision with another planet. They therefore dismissed the idea of any shift of the poles as impossible and, in fact, not worth discussing. Their influence has been so strong that to this day no one has seriously contemplated such a hypothesis again.

Hapgood also uncritically accepts the assumption that only a “planetary collision” is capable of displacing the axis of rotation. Therefore he proposes a theory that explains the shift of the poles as the result of the shift of the whole Earth’s crust. Based on the research of the Russian scientist V. V. Beloussov, he assumes that at a depth of approximately one hundred miles in the upper mantle there is a layer of liquid rock, which behaves as a bearing allowing the whole crust to “shift” when subjected to a displacing force. In Hapgood’s opinion, this force is provided by the centrifugal momentum of ice caps positioned eccentrically with respect to the poles. In this way the Earth would keep its axis of rotation unchanged, but the poles and the whole Earth’s surface would shift and change latitude.

The evidence proving that the poles were in different positions during the Pleistocene era is quite impressive, and this explains why Hapgood’s theory was approved by scientists of the caliber of Einstein and K. F. Mather. Yet it meets with so many difficulties that it appears highly controversial. Above all, it does not seem to be compatible with other geological theories that are widely accepted today, notably plate tectonics and continental drift.

Furthermore, the theory does not explain some of the key peculiarities of the climate changes of the late Pleistocene—most significantly the speed with which these changes appear to have taken place. According to Hapgood’s theory, it took the North Pole at least two thousand years to move from its previous position to the present. The evidence we have, however, supports a much faster climatic change. It was Hapgood himself who underlined a great amount of data proving the high speed at which the shift of the poles appears to have happened; yet the mechanism he proposes does not explain this speed.

It appears that we can completely and coherently explain what took place at the

end of the Pleistocene by admitting the possibility of a shift of the poles of the same magnitude Hapgood hypothesizes, but in a much shorter time: not more than a few days. This possibility is generally rejected because no convincing explanation for such a phenomenon has so far been brought forward. According to scientists, the only way to make a planet change its axis of rotation is by “adding” to it a mass comparable to its own. However, it is my view that at least one other way exists, one that has not yet been considered—that of “reshaping” its equatorial bulges around a different axis.

If Earth was a perfectly rigid and spherical body, a single man walking on its surface could make its poles shift. In fact, the stability of the Earth is provided only by its equatorial bulges, some 7.4 miles (12 kilometers) thick—very small with respect to the Earth’s radius. Move the equatorial bulges and the poles will move accordingly. Impossible? Not really, if you consider that two thirds of Earth’s surface is covered with water; every naval engineer knows that free liquid surfaces induce instability (experience shows that a simple tsunami is enough to make the poles shift by a measurable amount). Let’s see how this instability can result in a wide and permanent shift of the poles.

The Apollo Objects

Severe consequences can follow when the Earth is hit by a comet or an asteroid. We know for certain that this happened many times in the past and can happen again at any moment in the future.

If the Earth didn’t have oceans and atmosphere, its surface would be marked with huge numbers of craters, like the moon and Mercury. On our planet, instead, erosion and sedimentary processes very quickly erase the traces of collisions with asteroids, meteorites, and comets. Only where recent ice sheets have scraped the surface, thus uncovering the traces of ancient collisions, as in parts of Canada, is it possible to count the craters accurately. Based on this approach, G. W. Wetherill has estimated that in the last 600 million years our planet has been hit by at least 1,500 objects with a diameter larger than one kilometer each.

The majority of these collisions are caused by a class of celestial bodies that astronomers have named “Apollo objects,” a class of asteroids whose perihelion lies inside the orbit of the Earth. The first of these objects was discovered by Reinmuth on 1932 and named Apollo, which gave the name to the class. At present, more than one hundred Apollos of a diameter of at least one kilometer are known. The largest discovered so far, Hephaistos, has a diameter of 6.2 miles (10 kilometers). The total number of Apollo objects with a diameter of half a mile (one kilometer) or more is estimated to be between one and two thousand.

As the perihelion of the Apollos lies inside the orbit of the Earth, it follows that they periodically have the chance to collide with it. The probability of such an event is estimated at 5×10^{-9} per year per single Apollo. Therefore we have a probability of at least four collisions each million-year period with objects as large as one kilometer or more. As the size of the objects becomes smaller, this probability grows exponentially to reach one impact every few centuries for objects of 328.1 to 656.2 feet (100–200 meters) diameter.

The direct effects of a collision with an Apollo-like object are devastating. Author Tom Gehrels estimates that a half mile (one kilometer) wide object, colliding with the Earth at a speed of 12.4 miles (20 kilometer) per second, would liberate an energy equivalent to ten billion Hiroshima-type nuclear bombs.

How the Poles Can Shift

Scientists are trying to understand what the overall effect on the Earth of a collision with an Apollo object could be. The scenarios they have come up with so far look rather dire. After all, many believe that the extinction of the dinosaurs followed an impact with an asteroid. None of these scenarios, however, has taken into consideration the possibility that such an impact could also provoke an almost instantaneous shift of the poles. This is because, compared to the Earth, a one-kilometer-wide asteroid is like a tiny sphere of two millimeters next to a ball of 82 feet (25 meters). Its mass is absolutely negligible. The displacement of the poles directly due to it, if any, can be measured in the order of centimeters.

What can't be neglected, however, is the *torque* provoked by the impact. Due to the very high speed of the asteroid, the impulsive torque it delivers can be of sufficient magnitude to overcome, for an instant, the reaction torque developed by the Earth. The torque, in itself, lasts for too short a period to produce any measurable effect; yet I will argue that it can trigger a process that in the end results in a change of the axis of rotation.

Let's see how.

Earth is a gyro. A gyro subject to a disturbing force reacts with a movement called "precession." The precession phenomenon has been studied exhaustively—but, unfortunately, only for the case when the precession's rotation is much smaller than the gyro's main rotation, the only interesting case for technical applications. Scientists, therefore, are not familiar with the case in which the two rotational components have the same order of magnitude. This case is examined here in the appendix, where the behavior of a gyro subject to a disturbing torque of increasing

value is shown. It appears that when the torque reaches a critical value, equal to the maximum reaction torque that can be developed by the gyro, the latter changes its axis of rotation permanently. The new axis, which coincides with the previous precession's axis, is maintained even if the disturbing torque diminishes again, as long as its value is higher than zero. Only if and when the torque is completely null (or becomes negative), does the gyro recover its previous rotational axis.

The behavior of the Earth when subjected to a disturbing torque is obviously the same. In fact, the Earth has a movement of precession due to the disturbing torque exercised by the sun-moon gravitational attraction on the equatorial bulges. This torque is one million times smaller than the maximum reaction torque that can be developed by Earth. Simple calculations, however, allow us to establish that an object as small as a half-kilometer-wide asteroid, hitting the planet in the right spot and at the right angle, is capable of developing an impulsive torque of the same magnitude of the maximum Earth's reaction torque. In this case the Earth assumes, for a very short instant, a different axis of rotation.

If at the moment of the impact the force of the sun-moon gravitational attraction on the equatorial bulge has the same direction as the force developed by the impact, a shift of the poles will inevitably follow. Immediately after the impact, in fact, the torque should go down to zero, and the Earth should recover its previous rotational axis. But if the torque exerted by the sun-moon attraction has the same direction, the torque cannot be zeroed and therefore the Earth keeps "memory" of the impact and of its direction. This "memory" consists of an extremely small rotational component, with the same direction as that of the impact, on the order of one millionth of the normal rotation.

What is particular in this rotational component is that it is fixed with respect to the Earth. If the latter were a solid gyroscope, this situation would stay unchanged indefinitely. The planet, however, is not homogenous and rigid. First of all, it is covered by a thin layer of water, which reacts immediately to any change of motion. Second, even the "solid" outer shell is in reality plastic and can be easily "reshaped" by centrifugal forces.

Under the effect of this tiny rotational component, seawater begins to move toward a circle perpendicular to that rotation (the new equator). This is a very small effect, and if it were the only component, the resulting equatorial bulge would be of a few feet only. But as this happens, the value of the rotational component increases at the expense of the main rotation, therefore increasing the centrifugal force that makes more water move toward the new equator, thus increasing the force and so on. This process starts very slowly, but accelerates progressively, until the centrifugal force developed by this rotational component grows strong enough to induce deformations

of the Earth’s mantle.

From here on, the equatorial bulge is quickly “reshaped” around the new axis of rotation and Earth will soon be stable again, with a different axis of rotation and different poles.

This mechanism shows that the Earth’s poles, contrary to what has always been postulated, can make “jumps” in a matter of days (that is, almost instantaneously) of thousands of miles, due to the effects of forces at first sight negligible, such as the impact of a medium-size asteroid and the sun-moon gravitational attraction on the equatorial bulge, combined with the effects of water mobility and the plasticity of the crust.

Phenomena That Occur during a Shift of the Poles

Suppose that the Earth has been hit by an asteroid and that the conditions to trigger a shift of the poles have been met. On the basis of the adjustments necessary to reshape the equatorial bulge around the new axis of rotation, and the consequent reestablishment of the isostatic equilibrium of the crust, we can predict what kind of phenomena would happen on the surface.

Some areas of the Earth’s crust would be driven to move upward, others downward. The up and down movements necessary to reshape the bulge would be different from site to site. For a shift of 20 degrees, for example, the movements would be about 2,200 to 2,600 feet (700–800 meters) at the most. Very small, compared to the diameter of the Earth, but nonetheless of great consequence on the surface. We know that the mechanisms that maintain the isostatic equilibrium of the mantle are very effective; so there is no doubt that after a while the equilibrium would be reestablished around the new axis of rotation, with poles and equator in different positions.

It is important to evaluate how long it would take for this to happen. We know that the layers of the crust, when subjected to a force over a certain limit, break suddenly, causing an earthquake. In the situation we have hypothesized, only seawater would be displaced at the beginning, with a gradual increase of the speed of rotation around the new axis. When the rotational speed reaches a certain critical value, sudden adjustments of the mantle would begin to happen, and from that moment on the process would be sharply accelerated, and the reshaping of the bulge would be completed in a very short time.

How short? Weeks, days, or hours? Impossible to say. A simulation with a mathematical model should give reliable results. The process of reshaping the

equatorial bulge should follow a course of exponential type: after the initial sharp peak, it should decrease very quickly. Adjustment phenomena, however, are expected to continue for a long time, as the isostatic equilibrium is reestablished more and more accurately.

Obviously, readjustments of the equatorial bulge of that size cannot happen without causing extensive fractures of the crust, which would provoke earthquakes of tremendous magnitude predictably stronger than the most devastating known today. A sudden burst of volcanic activity in all areas subjected to strain is also expected.

The beginning of adjustments of the crust would start more than just earthquakes and volcanic activity. On the whole the oceans' water and the atmosphere follow the rotational movement of the Earth, but they are not tied to it—if the Earth should suddenly change the direction of its rotation, thanks to their inertia, they would keep up their previous motion at first, thus provoking a dreadful hurricane all over the continents, with violent winds and torrential rains. The continents would be swept by hurricane force winds, reaching speeds of hundreds of miles per hour. However, the attrition with the Earth's surface would soon force them to follow the new movement.

The water of the oceans would play a much greater destructive role. We must expect wide fluctuation of sea level in many parts of the world, predictably in the order of hundreds of yards.

The same reasoning applies where the center of Earth is concerned, consisting of a solid core, surrounded by a liquid layer of iron. This would at first continue in its motion, naturally undergoing strong attrition in the mantle boundary region that would create turbulence, which might have important effects. According to the latest theories, the liquid iron layer is the site of electrical currents, which are responsible for the Earth's magnetic field. This turbulence could provoke perturbation in the magnetic field that might even lead to an inversion of the magnetic poles.

An important element to evaluate the climatic conditions following a shift of the poles is the inclination (tilt) that the new axis of rotation will assume with respect to the ecliptic. This has a tremendous effect on the climate. According to the mechanism we have spelled out so far, the axis of rotation that the Earth would acquire at the moment of impact should depend on the direction of the hit. However, it is impossible to predict what the actual direction of the new axis would be once stabilized. It is certain that it would not be the same as the previous one, unless by fortuitous chance. Therefore, following a shift of the poles the course of the seasons would very likely be different.

For example, on the hypothesis that the axis of rotation is almost vertical with respect to the ecliptic, there would be an enormous growth of ice at high latitudes and altitudes, with subsequent lowering of sea level. On the other hand, the climate would

be much more stable than it is today, with very limited (or nonexistent) seasonal climatic differences and an uninterrupted growth of vegetation. This would bring about the disruption of today's climatic barriers, with subsequent spreading of tropical species toward northern regions and vice-versa. There would also be the maximum possible development of ecological communities.

This appears to be the situation that existed in the Pleistocene era, when imposing zoological communities thrived at the very edge of the ice caps and the phenomena that put an end to this situation appear to be the same as we have described.

The tenth millennium BCE appears to be critical under several aspects. It was precisely in that period that the Paleolithic cultures, which had thrived for more then thirty millennia, all of a sudden disappeared. And all over the world, both in land and at sea, most of a megafauna that thrived for more than 100,000 years declined to extinction.

The Pleistocene geological era came to an end, marked by a burst of volcanism and terrible earthquakes, witnessed by the collapse of the vaults in many European and American caves, and a dreadful hurricane all over the world. Even the magnetic field underwent serious challenges and nearly inverted—not to mention the climate, which from then on underwent a radical change.

Twelve thousand years have elapsed since then, a period that is only twice the length of the historical period. We are the direct descendants of men who managed to survive those cataclysms. Is it possible that the memory of events of that kind has been completely canceled in such a relatively short time? Myths and legends about an apocalyptic disaster, which marked the "beginning" of humankind—the "universal flood"—are common to almost all populations of the world. Some of those legends, starting from Plato's, report not only the same kind of phenomena we have described, but even the same date.

Is this only a mere coincidence, or are they referring to the phenomena that put an end to the Pleistocene era only 12,000 years ago? If we consider that a tiny asteroid can provoke an almost instantaneous shift of the poles, the second alternative definitely looks the most likely.

F O U R T E E N

Mysterious Strangers

NEW FINDINGS ABOUT THE FIRST AMERICANS

GRAHAM HANCOCK

I have consistently argued that the Americas were inhabited in prehistoric times by a variety of different ethnic groups—Negroid, Caucasoid, and Mongoloid. Such ideas have caused deep offense to some American Indians, who have long claimed to be the only "native" Americans, and also contradict academic teachings that hold that the New World remained uninhabited by humans until the end of the last ice age, and was then settled exclusively by Mongoloid nomads from Asia who crossed the Bering Strait about 12,000 years ago (when there was a land bridge between Siberia and Alaska) and made their way thence into all of North and South America—reaching the latter only about 9,000 years ago. Naturally, this teaching also holds that no Caucasoids or Negroids were present anywhere in the Americas prior to the coming of Columbus and the European conquest in the fifteenth and sixteenth centuries CE.

One of the historical mysteries that drew me into writing *Fingerprints* was the eloquent mythical and sculptural testimony concerning a time, long ago, when people who were definitely not American Indians inhabited the Americas. Both the god Viracocha, in South America, and the god Quetzalcoatl in Mexico were described as tall, white-skinned, and red-bearded—sometimes blue-eyed as well.

Fig. 14.1. An image of Viracocha. Provided courtesy of Santha Faiia at www.GrahamHancock.com.

Fig. 14.2. Caucasoid figure known as the "Walker" or La Venta. Provided courtesy of Santha Faiia at www.GrahamHancock.com.

At Monte Alban, near Oaxaca, and at La Venta, on the Gulf of Mexico (a site associated with the mysterious "Olmec" culture, supposedly the first and the oldest high civilization of Mesoamerica), ancient carved figures have been found that seem to depict such individuals. In the case of Monte Alban, these Caucasoid figures date back to about 600 BCE and, in the case of La Venta to about 1200 BCE—almost three thousand years before the European conquest.

Fig. 14.3. Caucasoid figure, Monte Alban. Provided courtesy of Santha Faiia at www.GrahamHancock.com.

More intriguing still, other sculptures, mostly in the form of carved megalithic heads, were also found at La Venta in the same archaeological strata as the Caucasoid figures. Once again, these sculptures, the so-called Olmec Heads, do not display the typical features of Native American Indians. This time they are unmistakably Negroid in appearance—depicting individuals who must have closely resembled modern Africans, Melanesians, or Australian Aborigines.

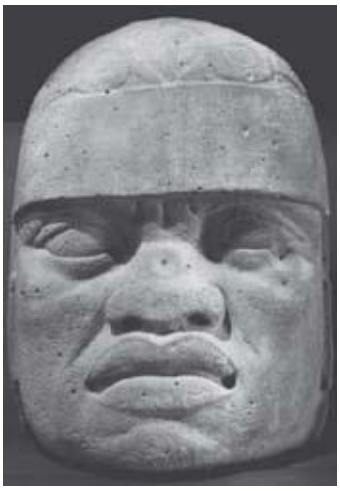

Fig. 14.4. Olmec Head, Monte Alban. Provided courtesy of Santha Faiia at www.GrahamHancock.com.

In *Fingerprints of the Gods* and *Heaven's Mirror*, I wrote at length about these anomalistic sculptures and the myths that accompany them. I argued that real people must have served as the models for both types and that they should therefore be taken seriously as historical testimony of the presence of Caucasoids and Negroids in the

New World more than three thousand years ago. This view was not accepted by a single orthodox scholar in 1995 when *Fingerprints* was first published. Since then, new evidence has come to light, which has obliged the experts to reconsider their position and step back from the dogma of exclusively Mongoloid settlement of the Americas. The first breakthroughs came in 1996 and 1997, as published in the *Washingon Post*, Final Edition, Tuesday, April 15, 1997.

Fig. 14.5. Olmec Head. Provided courtesy of Santha Faiia at www.Graham-Hancock.com.

Fig. 14.6. Olmec Head. Provided courtesy of Santha Faiia at www.Graham-Hancock.com.

Skeletons unearthed in several western states and as far east as Minnesota are challenging traditional views that the earliest Americans all resembled today's Asians. The skeletons' skulls bear features similar to those of Europeans, suggesting that Caucasoid people were among the earliest humans to migrate into the New World more than 9,000 years ago. Anthropologists have known of such bones for years, but did not fully appreciate their significance until re-appraising them over the last few

months. The new analyses were prompted by the discovery last summer of the newest addition to the body of evidence—the unusually complete skeleton of an apparently Caucasoid man who died about 9,300 years ago near what is now Kennewick, Washington. . . . The man's head and shoulders were mummified, preserving much of the skin in that area. . . . Those who examined [him at first thought that the bones] were the remains of a European settler [until radiocarbon revealed their great age]. "It's an exciting time, and I think we're going to see some real changes in the story about the peopling of North America," said Dennis Stanford, an authority at the Smithsonian Institution's National Museum of Natural History.

Not all scholars agree that Kennewick Man was a Caucasoid. But at the very least the discovery has raised significant doubts about the established model of the peopling of the Americas. Other discoveries have raised further doubts.

Similarities to Modern-Day Aborigines or Africans

In *Fingerprints of the Gods*, I described one of the colossal Olmec Heads of La Venta:

It was the head of an old man with a broad flat nose and thick lips. The lips were slightly parted, exposing strong, square teeth. The expression on the face suggested an ancient, patient wisdom, and the eyes seemed to gaze unafraid into eternity. . . . It would be impossible, I thought, for a sculptor to invent all the different combined characteristics of an authentic racial type. The portrayal of an authentic combination of racial characteristics therefore strongly implied that a human model had been used.

I walked around the great head a couple of times. It was 22 feet in circumference, weighed 19.8 tons, stood almost 8 feet high, had been carved out of solid basalt, and clearly displayed an authentic combination of racial characteristics. Indeed, like other pieces I had seen, it unmistakably and unambiguously showed a Negro. . . . My own view is that the Olmec Heads present us with physiologically accurate images of real individuals of Negroid stock. . . .

I returned to this mystery in my book *Heaven's Mirror*:

Orthodox historians do not accept the presence of any Africans in the New World prior to the time of Columbus and have tried to sidestep the implications of the obviously African features of the three-thousand-year-old Olmec Heads—sixteen of which have so far been found. It may at least be taken as a sign that there is no racism in archaeology that there are also supposed to have been no Caucasians in the New World before Columbus! Scholars have therefore predictably raised quibbles about the Quetzalcoatl myth of the tall bearded white man and have sought to dismiss any

suggestions that it might be reflected in the numerous reliefs of Caucasian faces that have been excavated in some of the oldest archaeological sites of Mexico. In the Olmec area, several were found in the same strata as the African heads and sometimes side by side with them, but images of Caucasians have also been excavated as far afield as Monte Alban in the south-west, a site dated to between 1000 and 600 BCE.

In 1996 and 1997 the discovery of Caucasian bones more than nine thousand years old in the Americas seems, quite suddenly, to have validated the Quetzalcoatl myth. It is therefore now legitimate to ask how long it may be before another lucky turn of the archaeologist's spade will uncover the bones of individuals who could have served as prototypes for the great Olmec Heads.

That "lucky turn of the archaeologist's spade" was not long in coming. On August 22, 1999, the *London Sunday Times* (and, a few days later, a BBC2 television documentary) reported the discovery in Brazil and Columbia of more than fifty skeletons and skulls of a Negroid people who had lived in South America about 12,000 years ago—about 3,000 years before the first known penetration of Mongoloid peoples into this region.

One particularly well-preserved example, the remains of a young girl whom scientists have nicknamed "Luzia," has been described as "the oldest human skeleton yet found on the American landmass." It has been studied by Walter Neves, professor of biological anthropology at the University of Sao Paolo, who states:

When we started seeing the results, it was amazing because we realized the statistics were not showing these people to be Mongoloid; they were showing that they were anything except Mongoloid. . . . They are similar to modern-day Aborigines or Africans and show no similarities at all with Mongoloids from east Asia and modern-day Indians.

The *Sunday Times* also quotes Richard Neave, a forensic artist with the University of Manchester, who has made a reconstruction of Luzia's face. "That," he comments, "is a Negroid face. The proportions of the face do not say anything about it being Mongoloid."

Up till now, as far as I know, no scholar has pointed out that the discoveries in Brazil and Columbia could offer an explanation for the Negroid features of the Olmec Heads. It's true that the Olmec sculptures were found in strata between three and four thousand years old—whereas the Brazilian and Columbian skeletons are much older than that. But this does not rule out a possible connection. At the very least, it is surely an intriguing coincidence (a) that pieces of monumental sculpture depicting Negroid individuals have come down to us from the prehistoric antiquity of the

Americas and (b) that a Negroid people, previously unidentified and unsuspected by historians, have now been scientifically proven to have inhabited the Americas around 12,000 years ago. Perhaps the “Olmec” Heads were not made by the “Olmecs” at all, but were inherited by them as heirlooms, handed down from an earlier time?

A Chinese Influence?

A footnote to this story, and a sign of the galloping collapse of consensus amongst orthodox scholars concerning the peopling of the Americas, is a row that began to simmer in academic circles in the late 1990s concerning possible cultural links between ancient Chinese and ancient American cultures—specifically the Olmec and the Shang. The main proponents of this view are Professor Mike Xu, who teaches in the foreign languages department at the University of Central Oklahoma in the United States, and Chen Hanping of China’s Historical Research Institute.

According to an article published in *U.S. News and World Report*, and to Internet postings, Xu believes that “the first complex culture in Mesoamerica may have come into existence with the help of a group of Chinese who fled across the seas as refugees at the end of the Shang dynasty. The Olmec civilization arose around 1200 BCE, which coincides with the time when King Wu of Zhou attacked and defeated King Zhou, the last Shang ruler, bringing his dynasty to a close.”

Xu is also reported to have “explosive” evidence in the form of archaic writings:

Over the past three years he has found some 150 glyphs on photographs of real specimens of Olmec pottery, jade artifacts, and sculptures. As well as himself leafing through dictionaries of ancient Chinese, he has also taken his drawings of these markings to be examined by mainland Chinese experts in ancient writing, and most have agreed that they closely resemble the characters used in Chinese oracle bone writings and bronze inscriptions. “At first these experts all tried to send me away, saying they could not give an opinion of foreign artifacts,” Mike Xu recalls. But after his repeated entreaties, they reluctantly took a look. The moment they saw his drawings, each of them asked: “Where in China were these inscriptions found?”

When they heard they came from America, they were all dumbstruck. “If these inscriptions had been found in excavations in China,” says Chen Hanping, a research associate at the mainland’s Historical Research Institute, “they would certainly be regarded as symbols of the pre-Quin-dynasty period.”

Reaction from other scholars has been almost universally hostile. This posting, from Constance Cook, associate professor of Chinese at Lehigh University, sums up

several key objections:

Some asked me to post my observations re: the script on the Olmec Celts identified by Chen, Hanping as Chinese in *U.S. News and World Report*. I have finally seen the article with the reproduction of the Olmec graphs and the section that Chen believed was similar to the oracle bone script of the Shang.

The graphs isolated by Chen are not Chinese. They bear some graphic similarity to some archaic Chinese graphs or parts of graphs but as single graphs equal nothing and do not have the equivalents he assigned to them. It is bogus.

Obviously, the graphs/glyphs pulled out by Chen should be considered within the context of the entire "inscription." This is impossible as the rest of the marks bear none but a few isolated similarities. In fact the Olmec "script" may not represent language at all, but like the Naxi and other urscripts, be more a code for storytelling than an actual transcription of language. The Shang oracle bone script, on the other hand, is very advanced and unquestionably qualifies as belonging to a writing system.

Finally, the "inscription" must be considered within the context of the sculptures. There is very little beyond the occasional face of human representation in Shang period art (some carved jade figures, but these are kneeling, often incised, and covered with animal décor, tattoos, and clothes). One famous bronze has a shaman-like figure in the mouth of an animal, but there is no similarity to the Olmec representations.

A point of correction: The *U.S. News and World Report* article claims that Chen is the foremost authority of only about twelve scholars worldwide who are trained in ancient script. First, Chen is a very minor scholar. Second, there are more than twelve scholars in the United States alone who can read Shang script, many many more in China and elsewhere.

Bulging Eyes and a Long, Curling Nose

I haven't the faintest idea whether Professor Cook and the other critics are right or whether Xu and Chen are onto something with their Shang-Olmec connection. Further open-minded research is required to settle the issue, but in the meantime I would like to draw attention to a small piece of evidence that Santha and I first became aware of when we visited the "Mysteries of Ancient China" exhibition at the British Museum in early January 1997 and, more recently, when we visited Beijing's History Museum in March 1999.

Fig. 14.7. Sanxingdui mask. Provided courtesy of Santha Faiia at www.Graham-Hancock.com.

Fig. 14.8. Mayan Chac mask, architectural feature. Provided courtesy of Santha Faiia at www.GrahamHancock.com.

We were intrigued by artifacts from the sacrificial pits at Sanxingdui in Sichuan province, including bronzes in the shape of human heads, fragments of gold, many jades, and a large number of elephant tusks; these artifacts were discovered in 1986 and are the work of a previously unidentified high civilization that flourished in Sichuan from around 1200 to 1000 BCE.

Of particular interest was an exhibit described as “Mask with ornamented forehead

and protruding pupils." It is one of three large masks that were found in Pit Two at Sanxingdui. According to the British Museum's commentary, found in *Mysteries of Ancient China:*

The most startling features are the pupils of the eyes, which project on stalks. . . . A further remarkable feature is the long upstanding projection rising from the nose of the mask. This projection is scroll-shaped, with an upright section coiled at the top and with a double loop at the bottom. . . . The combination of the large ears, the protruding eyes and the tall quill makes this face completely fantastic.

Is it a coincidence that almost exactly the same "fantastic" and "startling" features—bulging eyes and a long, curling projection to the nose—are found upon the Chac masks of the ancient Maya of Central America, the successors to the Olmecs? Chac masks were sometimes also incorporated as architectural features into Maya temples.

Figs. 14.9–10. Step pyramids, Xian, China. Provided courtesy of Santha Faiia at www.GrahamHancock.com.

Conspicuous Strangers

Perhaps such similarities are just coincidences—although personally I rather doubt it. Setting aside all other issues and anomalies, however (and there are many), I contend that the ancient Caucasoid and Negroid skeletons that have been found in the New World mean that there can no longer be any room for preconceived notions. The true

history of the peopling of the Americas is likely to turn out to be extraordinarily complex and attenuated, involving many different ethnic groups and cultures in many different epochs. It does not surprise me at all that the Chinese might have been here three thousand years ago, or the Phoenicians at about the same time—as others have suggested—or the remarkable Jomon culture of Japan, or the Egyptians, or—much later—the Vikings. I believe it to be very likely, indeed little short of a certainty, that all these peoples and several others as well must have independently "discovered" the Americas, in isolated individual cases, over and over again, from the very earliest times.

But how early?

If we keep on pushing this inquiry back into the past—back beyond the earliest-known historical civilizations—then what, ultimately, do we come to?

The possible Shang influence on Olmec writing and art takes us back 3,000 years, well within the bounds of recorded history. But Kennewick Man and Luzia take us back, respectively, 9,300 and 12,000 years, the latter date being some 7,000 years earlier than Sumer and Egypt—the earliest known historical civilizations—and smack in the middle of the end of the last ice age, when the Earth passed through a gigantic cataclysm and floods from the melting ice sheets scoured the globe.

Some scholars have expressed the view that Luzia's people could have come to South America from the Pacific and been related to Australian Aborigines. Certainly there is evidence that in ancient times the Aborigines possessed sophisticated sailing and navigational skills. So far, however, there is no historical theory that can explain the presence in the New World at such early dates not only of Negroid Aborigines but also of Caucasoids—let alone the fact that memories of these conspicuous strangers appear to have been preserved in myths and in sculptures as far afield as Bolivia and Mexico.

As well as being an intriguing human and archaeological mystery, therefore, what we now know about the first Americans represents a radical and robust challenge to orthodox scholarship.

I suspect that this story will run and run.

Footnotes

*1 Myths are not simply fairy tales or false stories, and in ancient times often encoded both pragmatic information and profound knowledge.

†2 The precessional cycle is comprised of the Age of Aries, the Age of Pisces, the Age of Aquarius, and so on, based in the West on the location of the sun among the zodiacal constellations on the vernal equinox.

*3 *The Parable of the Beast*, by John Bleibtreu, published by Paladin in 1976, chapter 2.

*4 Alvin Plantinga is one of the leading figures in the Anglo-American school of analytic philosophy. He is currently John A. O'Brien Professor of Philosophy at the University of Notre Dame.

*5 From *Microwave, Optics, Acoustics, and Ancient Egyptian Temples*, by Dr. Pavel Smutny. http://farshores.org/moae.htm.

*6 From *Acoustics in Temple Complexes on Malta's Islands*, by Dr. Pavel Smutny.

*7 Grigsby cited in *Heaven's Mirror: The Quest for the Lost Civilization* by Graham Hancock and Santha Faiia. New York: Crown Publishers, Inc., 1998, p. 127.

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Robert Bauval has researched and written extensively about the pyramids of Giza. His Orion Correlation Theory, in particular, has attracted enormous popular attention and support around the world, but has also stirred up a hornet's nest of animosity amongst Egyptologists and orthodox historians. Bauval's latest book, *The Egypt Code*, takes his groundbreaking work even further and provides us with stunning new insights into the mysteries of ancient Egyptian religion and civilization. For more information on Robert Bauval, please visit his website: www.robertbauval.co.uk.

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Scott Creighton is fascinated by the mysteries of the ancient world. Out of this fascination he has developed a series of extraordinary theories that challenge entrenched orthodox ideas of history, particularly those concerning the design and purpose of the pyramids at Giza. An ICT engineer by profession, he lives and works in Scotland.

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Gary A. David is an independent researcher and the author of *The Orion Zone: Ancient Star Cities of the American Southwest*. This work reveals how the constellation Orion provided the template by which the Anasazi (ancestral Hopi) navigated their migrations across the southwestern United States, migrations that took place over thousands of years.

Graham Hancock is the author of the major bestsellers *The Sign and the Seal, Fingerprints of the Gods, Keeper of Genesis, Heaven's Mirror*, and *Supernatural*. His books have sold more than five million copies worldwide and have been translated into twenty-seven languages. His public lectures and broadcasts have further established his reputation as an unconventional thinker who raises controversial questions about humanity's past.

Richard C. Hoagland has done more than any other researcher to draw attention to the devastating possibility that the ruins of ancient and unknown civilizations may lie on the surface of the planet Mars and on the moon. Although his views and his meticulous presentation of the evidence have been pilloried by many mainstream scientists, he has continued for many years to build up his case and put it before the public, drawing attention to what he believes are deeply disturbing cover-ups and misrepresentations of the facts by NASA (the U.S. National Aeronautics and Space Administration).

Glenn Kreisberg is a radio frequency engineer, writer, and researcher who currently serves as vice president of the New England Antiquities Research Association (www.NEARA.org). He has researched and published articles and interviews on subjects as diverse as electromagnetism and the ancients, historic bluestone quarrying in upstate New York, and lithic sites and alignments in northeast America. He is also

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Edward F. Malkowski has a lifelong interest in ancient history, with a special interest in philosophy, the rise of civilization, and the development of ancient religious beliefs. In the late 1990s he began investigating the possibility that the ancient biblical stories in Genesis were based on historical fact, which led to his first book *Sons of God—Daughters of Men*. Other books followed; they include *Before the Pharaohs, The Spiritual Technology of Ancient Egypt*, and his most recent work, *Ancient Egypt 39,000 BCE*.

Robert M. Schoch, who earned his Ph.D. in geology and geophysics at Yale University, has been a full-time faculty member of the College of General Studies at Boston University since 1984. He became world famous in the early 1990s for his work on the Great Sphinx, which demonstrated that the statue may be much older than the dynastic civilization of ancient Egypt. Schoch has authored, coauthored, and edited many books, including *Voices of the Rocks, Voyages of the Pyramid Builders, Pyramid Quest*, and *The Parapsychology Revolution*.

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Library of Congress Cataloging-in-Publication Data

Lost knowledge of the ancients : a Graham Hancock reader / edited by Glenn Kreisberg.

p.cm.

Summary: "Thinkers at the forefront in alternative theories on history, the origins of civilization, technology, and consciousness"—Provided by publisher.

Includes bibliographical references.

eISBN–13: 978-1-59143-967-7

1. Science and civilization. I. Hancock, Graham. II. Kreisberg, Glenn.

CB478.L67 2010

303.48'3—dc22

2010014856

Images 10.1 and 10.4 are provided courtesy of www.SacredSites.com.

Images 14.1 through 14.10 are provided courtesy of Santha Faiia at www.Graham-Hancock.com.

Additional images are reprinted from www.GrahamHancock.com unless otherwise noted.

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GRAHAM HANCOCK

MAGICIANS OF THE GODS

SEQUEL TO THE INTERNATIONAL BESTSELLING

FINGERPRINTS OF THE GODS

GRAHAM HANCOCK

Magicians of the Gods

The forgotten wisdom of earth's lost civilisation

CORONET

www.hodder.co.uk

First published in Great Britain in 2015 by Coronet
An imprint of Hodder & Stoughton
An Hachette UK company

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A CIP catalogue record for this title is available from the British Library

ISBN 978 1 444 77969 1

Hodder & Stoughton Ltd
Carmelite House
50 Victoria Embankment
London EC4Y 0DZ

www.hodder.co.uk

For Santha, my soul mate.

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Plate 41: **Daniel Lohmann** who was also the excavator of the column drum.
The astronomical interpretations of Pillar 43 at Gobekli Tepe, Plates 50 and 51, were rendered in graphic form by **Luke Hancock**.

Graphics credits:

Camron Wiltshire (www.sacredgeometryinternational.com): Figure numbers 1, 2, 3, 7, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 (with Randall Carlson), 20, 21, 22, 23, 24, 25, 26, 27, 32, 33, 34, 35, 36, 40, 41, 42, 43, 44, 45, 47, 48, 49, 51, 53 through 56 (with Afua Richardson), 57, 58, 59, 60, 61, 62, 63, 64, 65, 68, 69, 70, 71, 72.

Afua Richardson: Figure numbers 4, 8 (top row), 46 (with Luke Hancock), 50 (with Luke Hancock), 52, 53 through 56 (with Camron Wiltshire), 66 (with Luke Hancock).

Luke Hancock: Figure numbers 37, 38, 46 (with Afua Richardson), 50 (with Afua Richardson), 66 (with Afua Richardson), 67, 73.

Michael Mauldin: Figure numbers 6, 8 (lower row, right), 28, 29, 30.

Samuel Parker: Figure numbers 5, 8 (lower row, left)

Pon S. Purajatnika: Figure number 9.

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Acknowledgements

First and foremost my love and appreciation to the photographer Santha Faiia, who honoured me twenty years ago by becoming my wife. She had her own successful career long before she met me, but she kindly agreed to work with me. Santha took the majority of the photographs in this book, as in so many of my previous books, and has travelled with me every step of the way on the long journey from *Fingerprints of the Gods* to *Magicians of the Gods.* Thank you! Thanks also to our children Sean, Shanti, Ravi, Leila, Luke and Gabrielle. While I was writing *Magicians* our first grandchild, Nyla, was born and it is a delight to welcome her to our big, boisterous family. Thanks too to my mum Muriel Hancock, and to

my uncle James Macaulay, and I keep in my heart fond memories of my dad, Donald Hancock, who taught me so much and who passed away in 2003 after years of unstinting support for my work.

My brilliant literary agent Sonia Land has worked wonders and is everything a great agent should be. My UK editor Mark Booth and my US editor Peter Wolverton have both played hugely positive roles in nurturing *Magicians of the Gods* and putting it before the public in just the right way at just the right time.

The graphics team who created the maps, charts, drawings and diagrams for this book were Camron Wiltshire and Afua Richardson, with backup from Michael Maudlin and Samuel Parker. My son Luke Hancock also provided a number of diagrams. Each artist is acknowledged individually in the graphics credits but I want to thank them all collectively here for their dedication, talent, intelligence and hard work.

The late Professor Klaus Schmidt of the German Archaeological Institute went far above and beyond the call of duty when he

showed me around Gobekli Tepe in Turkey in 2013. As the discoverer and excavator, Klaus possessed unique knowledge of this very special site that he generously shared with me during three days of visits and on-the-spot interviews. I regret his passing but trust that his name will be remembered by history.

I made a research visit to Lebanon in 2014. My work there was greatly facilitated by the kindness, good will and logistical support on the ground given by my friends Ramzi Najjar and Samir and Sandra Jarmakani. Subsequent to the trip I benefitted enormously from extensive correspondence concerning Baalbek with archaeologist and architect Daniel Lohmann. He was patient and persuasive in his valiant efforts to persuade me of the merits of the mainstream analysis.

In Indonesia special thanks go to Danny Hilman Natawidjaja, the excavator of the extraordinarily ancient pyramid site of Gunung Padang. Thanks also to his colleagues Wisnu Ariestika and

Bambang Widoyko Suwargadi who joined us on an extensive field trip in Java, Sumatra, Flores and Sulawesi.

In the United States I am particularly grateful to Randall Carlson for his deep insights into catastrophist geology and for the knowledge he shared with me during our journey by road from Portland, Oregon, to Minneapolis, Minnesota, to study the effects on the land of the cataclysmic floods that afflicted this entire region at the end of the Ice Age. Thanks, too, to Bradley Young who accompanied us on the journey and did all the driving – a heroic effort!

I am grateful to Allen West, corresponding author amongst the large group of scientists investigating the Younger Dryas comet impact. I tell the story of their work at length in Chapters 3 through 6, and Allen was very helpful in ensuring that I got the facts right and in offering me further insights into the implications of the cataclysm.

Thanks also to Richard Takkou and Raymond Wiley for their sterling efforts as my research assistants at different stages of the project.

Many, many thanks to our dear friends Chris and Cathy Foyle for their solidarity and wise advice.

And last but not least, thanks to my loyal and supportive readers all around the world who have stuck with me for more than twenty years as I've pursued my quest for the lost civilization. *Magicians of the Gods* is the latest destination on that journey and while it is a new work I have inevitably, at a few points, had to revisit ground that I first explored in *Fingerprints of the Gods* and in my other books in order to place the new evidence I present here in its proper context.

Graham Hancock
Bath, England, September 2015

Introduction

Sand

A house raised on sand will always be in danger of collapse.

The evidence is mounting, though most of the later construction is of high quality, that the edifice of our past built by historians and archaeologists stands on defective and dangerously unsound foundations. An extinction-level cataclysm occurred on our planet between 12,800 and 11,600 years ago. This event was global in its consequences and it affected mankind profoundly. Because the scientific evidence that proves it happened has only emerged since 2007, and because its implications have not yet been taken into

account at all by historians and archaeologists, we are obliged to contemplate the possibility that everything we have been taught about the origins of civilization could be wrong.

In particular it must be considered as a reasonable hypothesis that worldwide myths of a golden age brought to an end by flood and fire are true, and that an entire episode of the human story was rubbed out in those 1,200 cataclysmic years between 12,800 and 11,600 years ago – an episode not of unsophisticated hunter-gatherers but of advanced civilization.

Did that civilization, if it existed at all, leave any traces that we might still be able to identify today, despite the passage of so much time? And, if so, does its loss have any real significance for us?

This book is an attempt to answer those questions.

Part I

Anomalies

Figure 1: Location of Gobekli Tepe and its regional setting

Chapter 1

‘There is so much mystery here …’

Göbekli Tepe is the oldest work of monumental architecture so far found anywhere in the world, or at any rate the oldest accepted as such by archaeologists.

And it’s *massive*.

Awesome, magnificent, numinous and overpowering are amongst the adjectives that dismally fail to do it justice. For the last couple of hours I’ve been wandering round the site with its excavator, Professor Klaus Schmidt, and my mind is frankly boggled.

‘How does it feel,’ I ask him, ‘to be the man who discovered the temple that’s rewriting history?’

A rubicund German archaeologist with a barrel chest and a grizzled beard, Schmidt is wearing faded jeans, a blue denim shirt with a streak of mud on the sleeve, and scuffed sandals on his bare, dirty feet. It’s September 2013, three months before his sixtieth birthday and although neither of us know it yet, he’ll be dead in less than a year.

As he ponders my question he wipes a bead of sweat from the glistening dome of his forehead. It’s not yet mid-morning but the sun is high here in Turkey’s Southeastern Anatolia region, the sky is cloudless and the ridge of the Taurus mountains on which we stand is baking hot. There’s no breeze, not even a hint or a breath of air, nor is there any shade to be had. In 2014 a roof will be erected to cover and protect the site but in 2013 only its foundations are in place so we’re standing exposed on a makeshift wooden walkway. Down below us in a series of semi-subterranean, more or less

circular, walled enclosures are the dozens of giant T-shaped megalithic pillars that Schmidt and his team from the German Archaeological Institute have brought to light here. Before they began their work the place had the appearance of a rounded hill – in fact 'Göbekli Tepe' means 'Hill of the Navel'[1] sometimes also translated as 'Potbelly Hill'[2] – but the excavations have removed most of that original profile.

'Of course we cannot say that Göbekli Tepe is a temple exactly,' Schmidt answers eventually, obviously choosing his words with care. 'Let us call it a hill sanctuary. And I do not claim that it is rewriting history. Rather I would say that it is adding an important chapter to existing history. We thought that the transition from hunter-gatherers to farmers was a slow, step-by-step process, but now we realise that it was a period when exciting monuments that we didn't expect were made.'[3]

‘And not just monuments,’ I prompt. ‘At the beginning the local people were hunter-gatherers and there was no sign of agriculture.’

‘No,’ Schmidt concedes, ‘none.’ He gestures expansively at the circles of pillars. ‘But the people who came to Göbekli Tepe, and who did all this work, *invented* agriculture! So we see a connection between what happened here and the later emergence of Neolithic societies dependent on farming.’

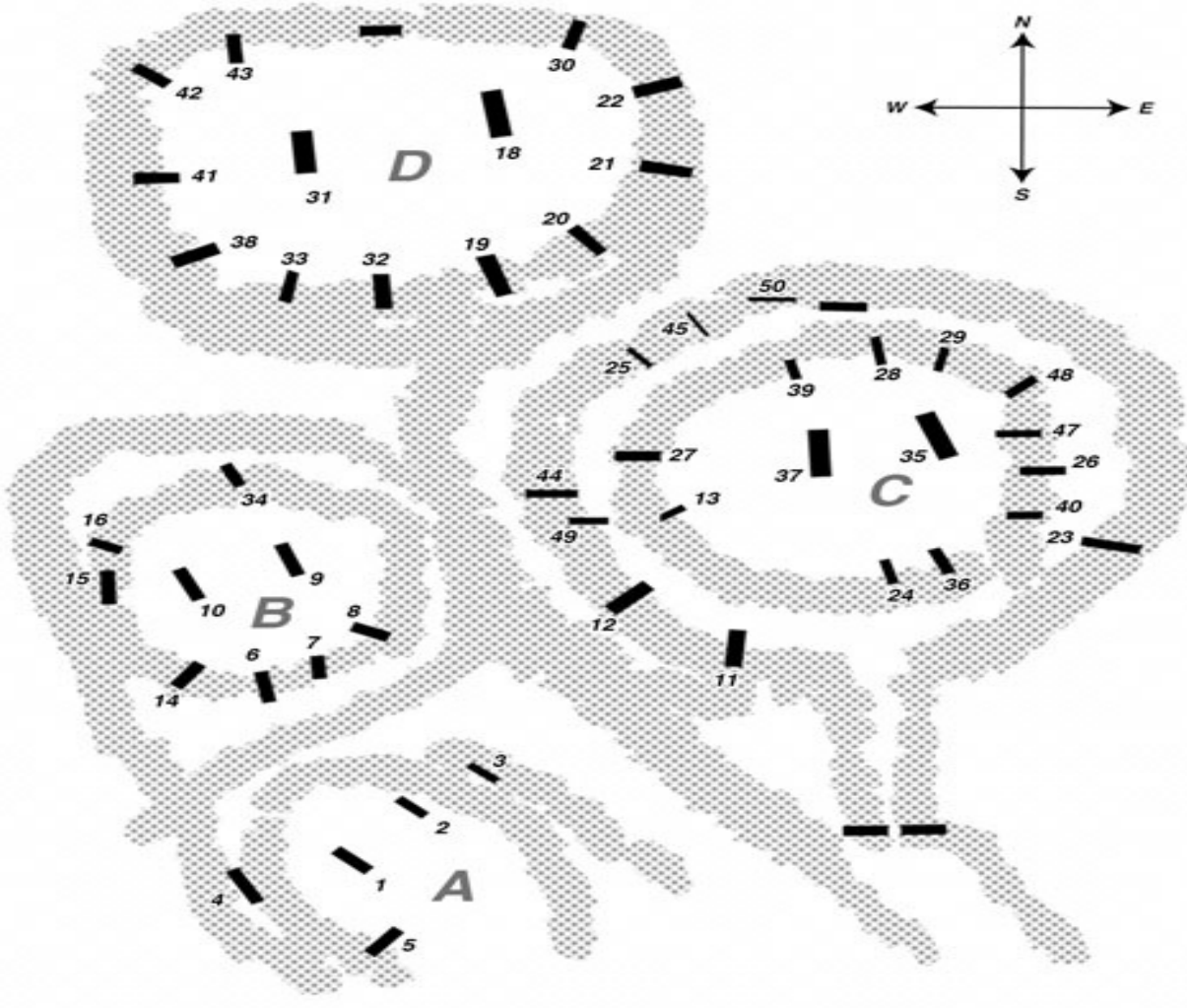
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Figure 2: The central group of excavated enclosures – A, B, C and D – at Gobekli Tepe. All the pillars have been numbered, for ease of reference, by the German Archaeological Institute.

My ears prick up at that word ‘invented’. I want to be sure I’m getting this right. ‘So,’ I emphasise, ‘you go so far as to say that the people who made Göbekli Tepe actually *invented* agriculture?’

‘Yes. Yes.’

‘Could you elaborate on that?’

‘Because in this region we have the early domesticates, both animals and plants. It’s done in this region. So they are the same people.’

‘And as far as you are concerned this is the first – the oldest – agriculture in the world?’

‘The first in the world. Yes.’

I sense that Schmidt is becoming impatient at the way I’m probing this point, but I have my reasons. The areas of Göbekli

Tepe that have been excavated so far are close to 12,000 years old which makes them (according to orthodox chronology) more than 6,000 years older than any other megalithic sites anywhere – sites like Gigantiga and Mnajdra in Malta, Stonehenge and Avebury in England, or the Pyramids of Giza in Egypt. Yet those sites all belong to that phase of the evolution of human civilization that archaeologists call the 'Neolithic' (the 'New Stone Age') when agriculture and the organization of society along structured, hierarchical lines were already well advanced, permitting the emergence of skilled specialists who had no need to produce their own food because they could be supported from the surpluses generated by farmers. Göbekli Tepe, by contrast, belongs to the very end of the 'Upper Paleolithic', the late 'Old Stone Age' when our ancestors are supposed to have been nomadic hunter-gatherers living in small, mobile bands and incapable of tasks requiring long-term planning, complex division of labour and high-level management skills.

Schmidt and I are standing at a point on the walkway that overlooks both Enclosure C and Enclosure D, where I've learned from my background research of an intriguing image carved on one of the pillars. I intend to ask the archaeologist's permission to climb down into Enclosure D so that I can take a closer look at this image, but I want to get his views about the origins of agriculture, and its relationship to the megalithic architecture, completely clear first. Enclosure C, the largest of the four main pits so far excavated, is dominated by two huge central pillars, both of which are broken. In their original state they would each have been more than 6 metres (20 feet) high and weighed around 20 tons. Inset into the wall around them stand a dozen other pillars. They're slightly smaller but still prodigious. The same goes for Enclosure D – again a ring of smaller pillars surrounding two towering central pillars, in this case both intact. Their T-shaped tops, angled slightly down to the front, have no features but are nonetheless eerily reminiscent of giant human heads – an impression that is reinforced by the faint outlines

of arms, crooked at the elbow, running down the flanks of the pillars and terminating in carefully carved human hands with long fingers.

'All this,' I say, 'the megaliths, the iconography, the general conception and layout of the site … to be honest it looks to be as big a project as a place like Stonehenge in England, yet Stonehenge is much younger. So how does what you've found at Göbekli Tepe fit in with your notion of a hunter-gatherer society?'

'It's much more organised than we expected,' Schmidt allows. 'What we can see here are hunter-gatherers who obviously had a division of labour because the work on the megaliths is specialist work, not for everybody. They were also able to transport these heavy stones and erect them, which means they must have had some engineering know-how, and again we didn't expect that for hunter-gatherers. It's the first architecture really, and it's architecture on a monumental scale.'

'So if I understand you correctly, Professor Schmidt, you are saying that we are standing at the place where both monumental

architecture and agriculture were invented.'

'Yes, that's right.'

'And yet you don't see anything really revolutionary in this? You see it as a process which you can fit comfortably into the existing frame of history?'

'Yes. Into existing history. But this process is much more exciting than we expected. Especially since what we have here at Göbekli Tepe belongs more to the world of the hunter-gatherers than to the farming societies. It's towards the end of the hunter-gatherers but not yet the beginning of the Neolithic.'

'It's a time of transition then. A cusp moment. And maybe more than that? What I'm getting from our conversation, and from what you've showed me of the site this morning, is the notion that Göbekli Tepe was a kind of prehistoric think-tank or a centre of innovation, perhaps under the control of some sort of resident elite. Are you okay with that?'

‘Yes, yes. It was a place where people came together. People were gathering here and it was undoubtedly a platform for the distribution of knowledge and innovation.’

‘Including knowledge of large-scale stone working and knowledge of agriculture. Would you dare to describe those who controlled the site and disseminated these ideas as a sort of priesthood?’

‘Whoever they were, they certainly were not practicing simple shamanism. They were a bit more like an institution. So, yes, they were on the road to becoming a priesthood.’

‘And since Göbekli Tepe was in unbroken use for well over a thousand years, would this be one continuous culture with its own institutions, with the same ideas and the same “priesthood” who continued to manage the site throughout that whole period?’

‘Yes. But the strange thing is that there was a clear collapse in the effort that was made as the centuries went by. The truly

monumental structures are in the older layers; in the younger layers they get smaller and there is a significant decline in quality.'

'So the oldest is the best?'

'Yes, the oldest is the best.'

'And you don't find that puzzling?'

Klaus Schmidt looks almost apologetic. 'Well, we hope that eventually we will discover even older layers and that there we will see the small beginnings that we expect but haven't yet found. Then we have this monumental phase, and later a decline again.'

It occurs to me that 'hope' is the operative word in what Professor Schmidt has just said. We are used to things starting out small and simple and then progressing – *evolving* – to become ever more complex and sophisticated, so this is naturally what we expect to find on archaeological sites. It upsets our carefully structured ideas of how civilizations should behave, how they should mature and develop, when we are confronted by a case like Göbekli Tepe

that starts out perfect at the beginning and then slowly *devolves* until it is just a pale shadow of its former self.

Nor is it so much the process of devolution that we object to. We know that civilizations can decay. Just look at the Roman Empire, or the British Empire for that matter.

No, the problem at Göbekli Tepe is the pristine, sudden appearance, like Athena springing full-grown and fully armed from the brow of Zeus, of what appears to be an already seasoned civilization so accomplished that it 'invents' both agriculture *and* monumental architecture at the apparent moment of its birth.

Archaeology can no more explain that than it can explain why the earliest monuments, art, sculptures, hieroglyphs, mathematics, medicine, astronomy and architecture of Ancient Egypt are perfect at the beginning without any traces of evolution from simple to sophisticated. And we might well ask of Göbekli Tepe, as my friend John Anthony West asks of Ancient Egypt:

> How does a complex civilization spring full-blown into being. Look at a 1905 automobile and compare it to a modern one. There is no mistaking the process of 'development'. But in Egypt there are no parallels. Everything is right there at the start.
>
> The answer to the mystery is of course obvious but, because it is repellent to the prevailing cast of modern thinking, it is seldom considered. Egyptian civilization was not a 'development', it was a legacy.[4]

Could this be the case, also, at Göbekli Tepe?

Klaus Schmidt has no time for ideas of a lost civilization that was the progenitor of all later known civilizations, so when I press him he reiterates his point that most of Göbekli Tepe remains unexcavated. 'As I said,' he growls, somewhat testily, 'I expect when we get to the earlier levels we will find evidence of evolution.'

He could be right. One of the stunning things about Göbekli Tepi, which had already been the subject of *eighteen years* of continuous excavation when Klaus Schmidt showed me round the site in 2013, is that so much of it still remains under the ground.

But how much?

‘It’s hard to say,’ Schmidt tells me. ‘We’ve done a geophysical survey – ground-penetrating radar – and from this we can see that at least sixteen further large enclosures remain to be excavated.’

‘Large enclosures?’ I ask. I point at the towering megaliths of Enclosure D. ‘Like this one?’

‘Yes, like this one. And sixteen is the minimum. In some areas our geophysical mapping did not give us complete results and we cannot really see inside, but we expect there are many more than sixteen. Maybe in reality it will turn out to be double that number. Maybe even as many as fifty.’

‘Fifty!’

‘Yes – fifty of the big enclosures, each enclosure with fourteen or more pillars. But, you know, it’s not our target to excavate everything. Just a little part, because excavation is destruction. We want to keep most of the site untouched.’

It dilates the imagination to reflect on the scale of the enterprise undertaken at Göbekli Tepe by the ancients. Not only are the circles of megalithic pillars already excavated here at least 6,000 years *older* than any other known megalithic sites anywhere in the world, but also, I now realise, Göbekli Tepe is *huge* – occupying an area that might eventually prove to be as much as thirty times larger than the fullest extent of a big site like Stonehenge, for example.

We are confronted, in other words, by vast, inexplicable antiquity, immense scale, and unknown purpose – and all of it seeming to unfold out of nowhere, with no obvious background or preparation, shrouded utterly in mystery.

Enclosures of the giants

I'm used to archaeologists making the sign of the evil eye and turning their backs on me when I show up at their excavations. But

Professor Schmidt is refreshingly different. Although he knows very well who I am, he permits me and my wife, the photographer Santha Faiia, to climb down into Enclosure D and explore it. All four of the main enclosures so far excavated at Göbekli Tepe are strictly off limits to the public and under the eye of watchful guards, but there's an image on one of the pillars in Enclosure D that I need to take a much closer look at than the walkway affords – indeed I can't even see it from the walkway – so Schmidt's generosity of spirit is welcome.

We enter the enclosure along a plank which leads to an as yet unexcavated two-metre high partition of rubble and earth separating the two main central pillars, one to the east and the other to the west. Quarried from the very hard crystalline limestone of the region, and polished to a flawlessly smooth finish, these colossal pillars glow mellow gold in the sun. I know from Professor Schmidt that they are about 5.5 metres (18 feet) tall and that each of them

weighs more than 15 tons.[5] Scrambling down onto the floor of the enclosure I note that they stand on stone plinths each about 20 centimetres (8 inches) high that have been carved directly out of the living bedrock. In a row along the front edge of the plinth under the eastern pillar, squatting back on their tails with no wings evident, seven seemingly flightless birds have been sculpted in high relief.

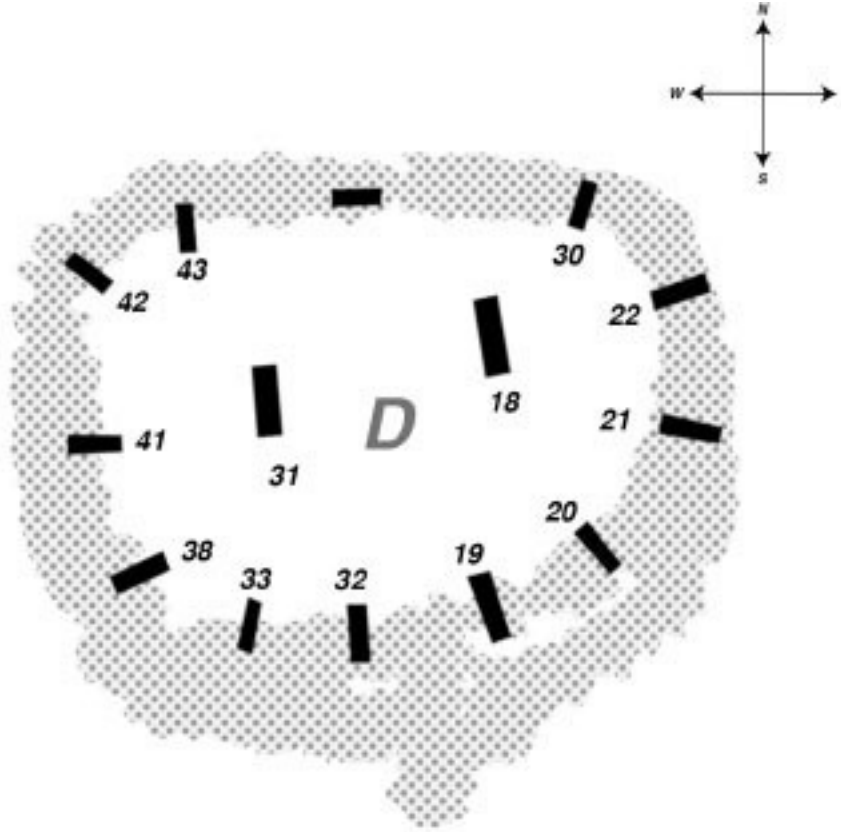

Figure 3: Layout of the pillars in Enclosure D at Gobekli Tepe. Pillar 43 is of the greatest interest.

With their stylised anthropomorphic appearance enhanced by their angled T-shaped ‘heads’ the central pillars loom over me like twin giants. Though they are not my primary target, I seize the opportunity to examine them closely.

Their front edges, representing their chests and bellies, are quite slim – only about twenty centimetres wide – while their flanks measure a bit over a metre (about 4 feet) from front to back. Both figures, as I’d noticed from the walkway, have arms carved in low-relief at their sides, crooked at the elbows and terminating in hands with long, thin fingers. These fingers wrap round the fronts of the pillars, almost meeting over their ‘bellies’.

Above the hands, covering their ‘chests’ are hints of an open-fronted garment. Just below the hands, both figures also wear a broad belt – again carved in low relief – decorated with a distinctive buckle. In both cases what appears to be part of an animal skin – thought by Schmidt to represent the hind legs and tail of a fox pelt[6]

– is shown hanging suspended from the buckle so that it covers the genital region.

Both figures also wear necklaces. In the case of the eastern figure the necklace is decorated with a crescent and disc motif and in the case of the western figure with a bull's head.

In addition both pillars stand on their pedestals in exactly the same peculiar way – not securely fixed but resting precariously in slots just 10 centimetres (4 inches) deep. Klaus Schmidt and his team have stabilised them with wooden props and I can only imagine that they must also have been held upright in a similar way in antiquity – unless, perhaps, there was a frame over the enclosure into which the heads of the figures were somehow fixed. Since the builders of Göbekli Tepe were clearly masters of fashioning, moving and positioning large megaliths, it is mysterious that they chose not to cut deeper slots in which the pillars could have been securely mounted. There must have been some purpose to this, but I cannot fathom it.

So much for the similarities between the two central pillars, but there are also differences. For example, the eastern figure has an almost life-sized depiction of a fox carved in high relief on its right flank so that it appears to be leaping forward from the crook of its elbow. And whereas the belt of the western pillar is undecorated other than by its buckle, the belt of the eastern pillar bears a number of intriguing adornments including a series of glyphs like the Roman letter 'C' and others like the Roman letter 'H'. As I study them I reflect that we cannot possibly know what these symbols meant to the people of Göbekli Tepi, from whom we are separated by a vast span of more than eleven thousand years. It is far-fetched to imagine that they had any kind of writing – let alone writing in the alphabet we use today! Nonetheless there is something strangely modern and purposive about the way these pictograms are used and displayed and it seems to me that they are more than merely decorative. Nothing else like them exists anywhere in the world of Upper Palaeolithic art, and the same is true of the animal and bird

figures. At this early period, such a combination of megaliths and sophisticated sculptures is utterly unique and unprecedented.

I move on to examine the dozen pillars disposed around the edges of the Enclosure D, which forms more of an ellipse than a strict circle, measuring approximately 20 metres (65 feet) from west to east and just over 14 metres (46 feet) from north to south. The surrounding pillars are generally about half the height of the central pair and for the most part are not free-standing but rather are embedded into the enclosure wall. Most, though not all, are T-shaped and most are richly decorated with images of birds, insects and animals as though the cargo of Noah's Ark has been turned to stone: foxes, gazelles, wild boars, numerous species of birds including several cranes with serpents at their feet, many more serpents both individually and in groups, a spider, a wild ass, wild cattle, a lion with its tail curving forward over its spine – and many more.

Making the most of our *laissez-passer*, I take my time but eventually, on the north-western side of the enclosure I come to the pillar I particularly want to see. For ease of reference Schmidt and his colleagues have numbered all the pillars at Göbekli Tepe and this is 'Pillar No. 43'. I know from my prior research that it has a large depiction of a scorpion carved in relief on its base; some have suggested it might be an image of the zodiacal constellation that we call Scorpio today.[7] However, to my great disappointment the figure is no longer visible. The archaeologists have covered it with rubble – to protect it from damage, Schmidt claims. I tell him of my interest in a possible astronomical connection but he scoffs at this – 'There are no astronomical figures here; the zodiac constellations were not recognised until Babylonian times, nine thousand years after Göbekli Tepe' – and he refuses point-blank to allow me to clear the heaped-up rubble away.

I'm about to get into an argument with him – there is in fact excellent evidence that the zodiac was codified long before Göbekli Tepe[8] – when I notice a group of other figures higher up the same pillar that have not been covered with rubble. These include a prominent depiction of a vulture with its wing outstretched in the manner of a human arm and with a solid disc poised over that arm-like wing as though being upheld or cradled by it. Another human characteristic of the vulture, quite dissimilar to any examples of this bird that I have ever seen in nature, is that it is portrayed with its 'knees' bent forward and with strangely elongated flat feet – a bit like some of the cartoon representations of the 'Penguin' character in the old Batman comics. It is, in other words, a therianthrope (from the Greek *therion*, meaning wild beast, and *anthropos*, meaning man), a hybrid creature – part human and part vulture.[9]

Above it are more of the H-shaped pictograms arranged in a row between a series of upright and inverted 'V' shapes. Again there is a

sense of some message, some communication here, that is impossible to interpret. Finally, at the top of the pillar, are depictions of what appear to be three large handbags – rectangular containers, at any rate, with curved handles. Separating them, positioned over the front of the handles in each case, are three figures – at the left a bird with long, human-like legs that mark it out almost certainly as another therianthrope, a quadruped with its tail arched forward over its body, and a salamander.

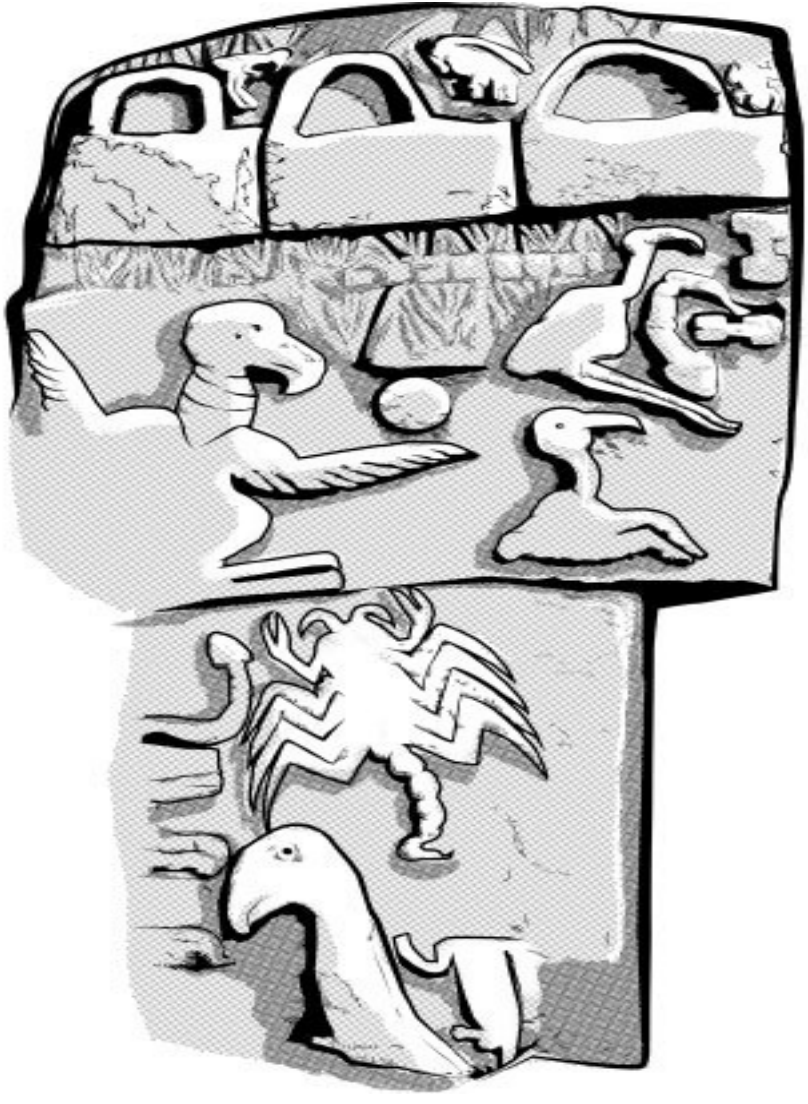

Figure 4: Pillar 43 in Enclosure D. The lower part of the pillar was covered by rubble at the time of my visit, but has been reconstructed here from earlier photographs (see Plate 7).

There is something hauntingly familiar about the whole ensemble, and I feel certain that I have seen it – or something very like it – somewhere before. The only problem is I can't remember where or what! I ask Santha to take detailed photographs of the pillar and when she is done Schmidt suggests that we accompany him to a different part of the site a few hundred metres to the north-west on the other side of the ridge where he and his team have an active excavation underway. It's just one of the dozens of buried enclosures with large pillars that they have identified with ground-penetrating radar, and the first of these that they are investigating.

Paradigms

As we walk I ask the Professor how and when he became involved with Göbekli Tepe. Ironically, given his firm views on the evolution

of architecture, it turns out that he got his big break because other archaeologists also had firm views on the same subject! In 1964 a joint team from the University of Chicago and the University of Istanbul visited the area with a specific brief to search out and discover Stone Age sites. However when they saw the top of a large T-shaped pillar sticking out of the ground, and the remains of other broken limestone pillars that had been ploughed up by local farmers lying nearby, they dismissed Göbekli Tepe as irrelevant to their interests and moved on elsewhere.

The reason?

The American and Turkish team had judged the workmanship on the pillars to be too fine – too advanced, too sophisticated – to have been produced by Stone Age hunter-gatherers. In their opinion, despite the presence of worked flints lying alongside the limestone fragments, Göbekli Tepe was nothing more than an abandoned medieval cemetery and therefore of no prehistoric interest whatsoever.

Their loss was to be Schmidt's gain. At the end of the 1980s and the beginning of the 1990s he had been involved in another project in Turkey – the excavation of an early Neolithic site called Nevali Cori which was soon to be flooded by the waters of the Ataturk Dam. There he and a team of archaeologists from the University of Heidelberg discovered, and rescued from the advancing floodwaters, a number of finely-worked T-shaped limestone pillars that were conclusively dated to between 8,000 and 9,000 years of age. Some had arms and hands carved in relief along their sides. 'So we recognised that this region had something about it that was different from other sites known from this period. Nevali Cori was our first hint of the existence of large-scale limestone sculptures during the transition from hunter-gatherer societies to early village farming communities.'

A little later, in 1994, Schmidt came across the report of the Turkish-American survey done thirty years earlier and stumbled upon a single paragraph that mentioned the presence of worked

flints alongside fragments of limestone pillars lying on the surface at Göbekli Tepe. ‘I was a young archaeologist,’ he explains, ‘I was looking for my own project, and I immediately realised that there could be something of significance here, perhaps even another site as important as Nevali Cori.’

‘Which your predecessors had missed, because flints and architectural pillars are not normally associated in the minds of archaeologists?’

I’m hoping he’ll get my hint that he, too, might be missing something at Göbekli Tepe because of the established paradigm, but he seems oblivious and replies, ‘Yes, exactly.’

I glance ahead. For the past few moments, as we’ve been walking and talking, we’ve approached a scene of intense activity. I hadn’t been aware of it from the four main enclosures because it had been concealed from us by the summit of the ridge, but now we’ve hiked north over the ridge line and are making our way down the other side into the new excavation, nominated as Enclosure H, that

Schmidt has opened at Göbekli Tepe.[10] Here five or six German archaeologists are busily at work, some scraping away layers of soil with trowels or pouring buckets of earth and stones through sieves, others directing the efforts of a team of thirty Turkish labourers. The focus is on a large rectangular cavity. Perhaps half the size of a football pitch, it's internally subdivided by knee-high walls of earth into a dozen or so smaller segments. From the floor of these, at several points, hulking limestone pillars protrude. Most are T-shaped but my eye is drawn to one that has a smooth curved top, marred only by a small broken segment, and upon which is carved a particularly fine figure of a male lion. Like the lions in Enclosure D, its long tail sweeps forward over its spine but the workmanship of this piece is of a higher order than anything I've seen so far today.

'That's a very substantial pillar,' I say to Schmidt. 'Can we take a look at it?'

He agrees and we pick our way through the excavations until we're just a couple of metres from the lion pillar. It's leaning at an angle against a remnant of the rubble of cobble-sized stones and earth that had clearly filled the entire enclosure before the archaeologists began work here. Right at the edge of this segment of the dig, the head of another pillar can be seen, while in the middle of the segment a deeper trench has been cut – to expose what I guess is the top third of the lion pillar – and this trench, too, is lined by the same rubble of cobbles and earth.

I ask Schmidt about the rubble. 'All those cobbles,' I say. 'How did they get there? They don't look like the result of natural sedimentation.'

'They're not,' he replies. He's looking, I think, a little smug. 'They were put there deliberately.'

'Deliberately?'

'Yes, by the makers of Göbekli Tepe. After the megaliths were put in place, and used for a period of unknown duration, every one

of the enclosures was deliberately and rapidly buried. For example Enclosure C is the oldest we have found so far. It appears that it was closed, filled in from top to bottom so that all the pillars were completely covered, before 'D', the next enclosure in the sequence, was made. This practice of deliberate infilling has been a great advantage to archaeology because it effectively sealed each of the enclosures and prevented the intrusion of later organic material thus allowing us to be absolutely certain about the dating.'

I'm thinking rapidly as Schmidt talks. The point he makes about dating is interesting, for at least three reasons.

First, the implication is that at megalithic sites around the world where this 'sealing' process *didn't* happen, the dates archaeologists have arrived at could be falsely young as a result of the intrusion of later organic materials (which, by the way, is the only kind of material that is subject to carbon dating; because of course you can't carbon date inorganic materials like stone). Theoretically this could mean that famous megalithic sites that were not deliberately buried

by their builders (the temples of Malta, for example, or the *taulas* of Menorca, or the stone circles of Avebury and Stonehenge in England) could turn out to be much older than we are presently taught.

Secondly, if the bulk of the dates at Göbekli Tepe are derived from organic materials in the fill – a fact that I'm later able to confirm from Schmidt's published papers[11] – then this tells us only about the age of the fill; the megalithic pillars themselves must be at least that old, but they could be older since they stood in place before being buried, for 'a period of unknown duration'.

Thirdly, and perhaps most important, *why* was the site infilled? What could possibly be the motive for going to all this trouble to create a series of spectacular megalithic circles only to end up deliberately burying them so thoroughly and so efficiently that more than 10,000 years would pass before they were found again?

The first thought that comes to my mind is … time capsule – that Göbekli Tepe was created to transmit a message of some kind to the future and buried so that its message could be kept intact and hidden for millennia. It's a thought that will return to haunt me many times as I continue my investigation, but another full year will pass before it comes to fruition, as we'll see in later chapters. Meanwhile, when I put the question to Klaus Schmidt he offers a completely different explanation for the deliberate burial of the circles of pillars.

'In my opinion this was their programme,' he says. 'They made the enclosures to be buried.'

'Made to be buried?' I'm intrigued. I'm waiting for him to say 'as a time capsule' but instead he replies, 'Like, for example, the megalithic cemeteries in Western Europe – huge constructions and then a mound on top.'

'But then they're for burial of bodies. Is there any evidence of burial of bodies here?'

‘We don’t have burials yet. We have some fragments of human bones mixed in with animal bones within the filling material but no burials at the moment. We expect we will find some soon.’

‘So you believe Göbekli Tepe was a necropolis?’

‘It still has to be proved. But that’s my hypothesis, yes.’

‘And those fragments of human bones you’ve found mixed with animal bones in infill. What do you make of those? Sacrifice? Cannibalism?’

‘I don’t think so. My guess is that those bones are evidence of some special treatment of the human body after death – perhaps deliberate excarnation. Such rites were practiced at a number of other known sites in this region that are of about the same age. For me the presence of human bones in the filling material strengthens the hypothesis that we will find primary burials somewhere at Göbekli Tepe, burials that were opened after some time for a continuation of very specific rituals performed with the dead.’[12]

‘What, then, was the function of the pillars?’

‘The T-shaped pillars are certainly anthropomorphic, yet often with animals depicted on them, perhaps telling us stories connected with the T-shaped beings. We cannot be sure, of course, but I think they represent divine beings.’

‘And even when they’re not T-shaped?’ I point to the lion pillar. ‘Like this one? It too has an animal depicted upon it.’

Schmidt shrugs. ‘We cannot know for sure. Perhaps we will never know. There is so much mystery here. We could excavate for fifty years and still not find all the answers. We are just at the beginning.’

‘But even so you do have some answers. You clearly have some ideas. This lion pillar, for example. Are you at least able to say how old it is?’

‘Honestly we don’t know. When we excavate beneath it we will hopefully find some organic material that we can carbon date. But until we do we can’t be sure.’

‘But what’s your impression from the style?’

Schmidt shrugs again before conceding, a little begrudgingly, ‘It looks similar to some of the pillars in Enclosure C.’

‘Which are the oldest?’

‘Yes – so something of that age.’

‘And that would be what exactly?’

‘Exactly 9600 BC, calibrated, is the earliest date we have.’

Radiocarbon years and calendar years drift further and further apart as time goes by because the amount of the radioactive isotope carbon-14 in the atmosphere and in all living, *organic*, things varies from epoch to epoch. Fortunately scientists have found ways – too complicated to go into at this point – to correct for such fluctuations. The process is called calibration so when Schmidt says ‘9600 BC calibrated’ he is giving me calendar years. What ‘9600 BC calibrated’ means in 2013 when I’m talking to him is therefore 9600 years plus the 2013 years that have elapsed since the time of Christ

– i.e. 11,613 years ago. I am writing this sentence in December 2014 and you might not read it until 2016, by which time that oldest date that Schmidt is referring to will work out at 11,616 years before the present.

You get the idea.

In other words, put simply, and in round numbers, the oldest parts of Göbekli Tepe to have been excavated so far are a little over 11,600 years old. And, despite all the cautions and qualifications he has expressed, what Schmidt is telling me is that in his informed opinion, on stylistic grounds, the lion-pillar we are looking at is likely to be at least as old as anything hitherto excavated at Göbekli Tepe.

Indeed, although he hasn't said so much – there's very little evidence one way or the other – the possibility has to be considered that it might even be *older*. After all, he's already admitted that the best work at Göbekli Tepe is the oldest. It's troubling, therefore, despite the hope he's expressed that further excavation will reveal

‘the small beginnings that we expect but haven’t yet found’, that this first piece of further excavation has in fact uncovered no such ‘small beginnings’. On the contrary what it has brought to light is a massive, superbly executed megalithic pillar, with a lion rampant carved upon it in exquisite high relief, that appears, at least on stylistic grounds, to be extremely old.

Perhaps, rather than Schmidt’s hoped-for ‘small beginnings’, further excavations will only uncover more of the same?

‘We know the end,’ the Professor tells me firmly. ‘The youngest layers at Göbekli Tepe date to 8200 BC. That’s when the site is abandoned forever. But we don’t know the beginning yet.’

‘Except that date of 9600 BC, 11,600 years ago, that you have from Enclosure C. That’s the beginning – at least as far as you’ve been able to establish it up to now?’

‘The beginning of the monumental phase, yes.’ There’s a glint in the Professor’s eye. ‘And you know, 9600 BC is an *important* date.

It isn't just a number. It's the end of the Ice Age. It's a global phenomenon. So since this goes in parallel—'

The date Schmidt is putting such emphasis on rings a sudden bell in my mind, relating to other research I've been doing, and I feel compelled to interrupt.

'9600 BC! That's not just the end of the Ice Age. It's the end of the Younger Dryas cold spell that starts in, what – 10,800 BC?'

'And ends in 9620 BC,' Schmidt continues, 'according to the ice cores from Greenland. So how likely is it to be an accident that the monumental phase at Göbekli Tepe starts in 9600 BC when the climate of the whole world has taken a sudden turn for the better and there's an explosion in nature and in possibilities?'

I can only agree. It doesn't seem likely that it's an accident at all. On the contrary, I feel certain there must be a connection. We'll explore that connection, and the mysterious cataclysmic period that

geologists call the Younger Dryas – and what those Greenland ice cores tell us – in Part II.

Meanwhile, back in 2013, I close my interview with Klaus Schmidt with some praise. And in December 2014, as I sit at my desk going through the transcript of the recording I made at Göbekli Tepe, and knowing that Klaus died of a massive, unexpected heart attack on 20 July 2014, I'm glad I did so. 'You're a very humble man,' I say. 'But the fact is you've discovered a site that has caused us all to rethink our ideas of the past. This is a remarkable thing and I believe that your name, as well as the name of Göbekli Tepe, will go down in history.'

The bringers of civilization

After leaving Göbekli Tepe in mid-September 2013, I make an extensive journey throughout the length and breadth of Turkey before I finally return home.

The lion pillar sticks in my mind, but what particularly haunts me is the scene on Pillar No. 43 in Enclosure D – the scene showing the vulture with its bent human-like knees, and its wing that so much resembles an arm, holding up a solid disc.

I download Santha's photographs onto my computer and call up that scene. It has many remarkable elements as well as the disc. Both wings of the vulture are shown, I now realise, the other stretched out behind its body. To the right of the vulture is a serpent. It has a large triangular head, as do all serpents depicted at Göbekli Tepe, and its body is coiled into a curve with its tail extending down towards an 'H'-shaped pictogram. The serpent is nestled close to another large bird – not a vulture but something more like an Ibis with a long, sickle-shaped beak. Between it and the vulture is yet another bird, again with a hooked beak, but smaller, with the look of a chick.

I turn my attention to the disc. I don't know what to make of it, but the obvious guess from its shape is that it's meant to represent

the sun.

There's something else that interests me more, however, if I can just put my finger on what it is – something evocative, something hauntingly familiar, about the imagery on this ancient pillar from Göbekli Tepe. Santha has shot hundreds of frames of it, from every possible angle, and obsessively I keep going through them, hoping for some clue. The vulture … the disc … and in the next register above the vulture, that weird row of bags, with their curved handles …

Bags.

Handbags.

Suddenly I get it. I go to the shelf in my library where I keep reference copies of my own books, pull out *Fingerprints of the Gods*, and start leafing through the photo sections. The first section deals with South America and what I'm looking for isn't there. But the second section is devoted to Mexico and, on the fifth page, I find it. It's image number 33 with the caption: 'Man in Serpent

sculpture from the Olmec site of La Venta'. It's Santha's photograph, taken way back in 1992 or 1993, of an impressive relief carved on a slab of solid granite measuring about 1.2 metres (4 feet) wide and 1.5 metres (5 feet) high. The relief features what is believed to be the earliest representation of the Central American deity whom the Maya (a later civilization than the Olmecs) would call *Kukulkan* or *Gucumatz*, and who was known by the even later Aztecs as *Quetzalcoatl*.[13] All three names mean 'Feathered Serpent' (sometimes translated as 'Plumed Serpent') and it is such a serpent, decorated with a prominent feathered crest on its head, that we see here. Its powerful body coils sinuously around the outer edge of the relief, cradling the figure of a man who is depicted in a seated position as though he is reaching for pedals with his feet. In his right hand he is holding what I described at the time as 'a small, bucket-shaped object'.[14]

Figure 5: ‘Man in Serpent’ sculpture – the earliest surviving representation of the Central American deity later known as Quetzalcoatl.

I return to Santha’s images from Enclosure D at Göbekli Tepe and am immediately able to confirm what I suspected. The three bags on the pillar closely resemble the ‘bucket-shaped’ object from La Venta in Mexico. The same curved handle is there in both cases and the profile of the ‘bags’ and of the ‘bucket’ – slightly wider at the bottom than at the top – is also very similar.

If that were all there was to it, this would surely be a coincidence. The ‘Man in Serpent’ relief from La Venta is thought by archaeologists to date to the period between the tenth and the sixth centuries BC[15] – about nine thousand years younger than the imagery from Göbekli Tepe – so how could there possibly be a connection?

That’s when I remember a second curious image I reproduced in *Fingerprints of the Gods*. I check the index for the name Oannes,

turn to Chapter Eleven, and find another figure of a man carrying a bag or bucket. I hadn't noticed the resemblance between it and 'Man in Serpent' before but it's obvious to me now. Although not absolutely identical, both bags have the same curved handle that is also depicted on the Göbekli Tepe pillar. Quickly I scan through the report I wrote twenty years earlier. Oannes was a civilizing hero revered by all the ancient cultures of Mesopotamia. He was said to have appeared there in the remotest antiquity and to have taught the inhabitants:

> the skills necessary for writing and for doing mathematics and for all sorts of knowledge: how to build cities, found temples … make laws … determine borders and divide land, also how to plant seeds and then to harvest their fruits and vegetables. In short [he] taught men all those things conducive to a civilised life. [16]

Figure 6: Oannes, a civilizing hero from before the flood, revered by all the ancient cultures of Mesopotamia. The reasons for his strange clothing or costume – he is often referred to as a 'fish-garbed figure' – are given in Chapter 8.

The fullest account we have of Oannes is found in surviving fragments of the works of a Babylonian priest called Berossos who wrote in the third century BC. Fortunately I have a translation of all the Berossos fragments in one volume in my library so I dig it out along with a few other sources on ancient Mesopotamian myths and traditions. It doesn't take me long to discover that Oannes did not do his work alone but was supposedly the leader of a group of beings known as the *Seven Apkallu* – the 'Seven Sages' – who were said to have lived 'before the flood' (a cataclysmic global deluge features prominently in many Mesopotamian traditions, including those of Sumer, Akkad, Assyria and Babylon). Alongside Oannes, these sages are portrayed as bringers of civilization who, in the most ancient past, gave humanity a moral code, arts, crafts and

agriculture and taught them architectural, building and engineering skills. [17]

That's a list, I can't help thinking, that includes all the skills supposedly 'invented' at Göbekli Tepe!

I call up a map on my computer screen and see that not only does southeastern Turkey adjoin Mesopotamia geographically but also that the two areas are linked in an even more intimate and direct way. Largely occupied today by the modern state of Iraq, the ancient name *Mesopotamia* means, literally, '[land] between rivers' – the rivers in question being the Tigris and the Euphrates, which reach the sea in the Persian Gulf, but which both have their headwaters in the same Taurus mountain range of southeastern Turkey where Göbekli Tepe is situated.

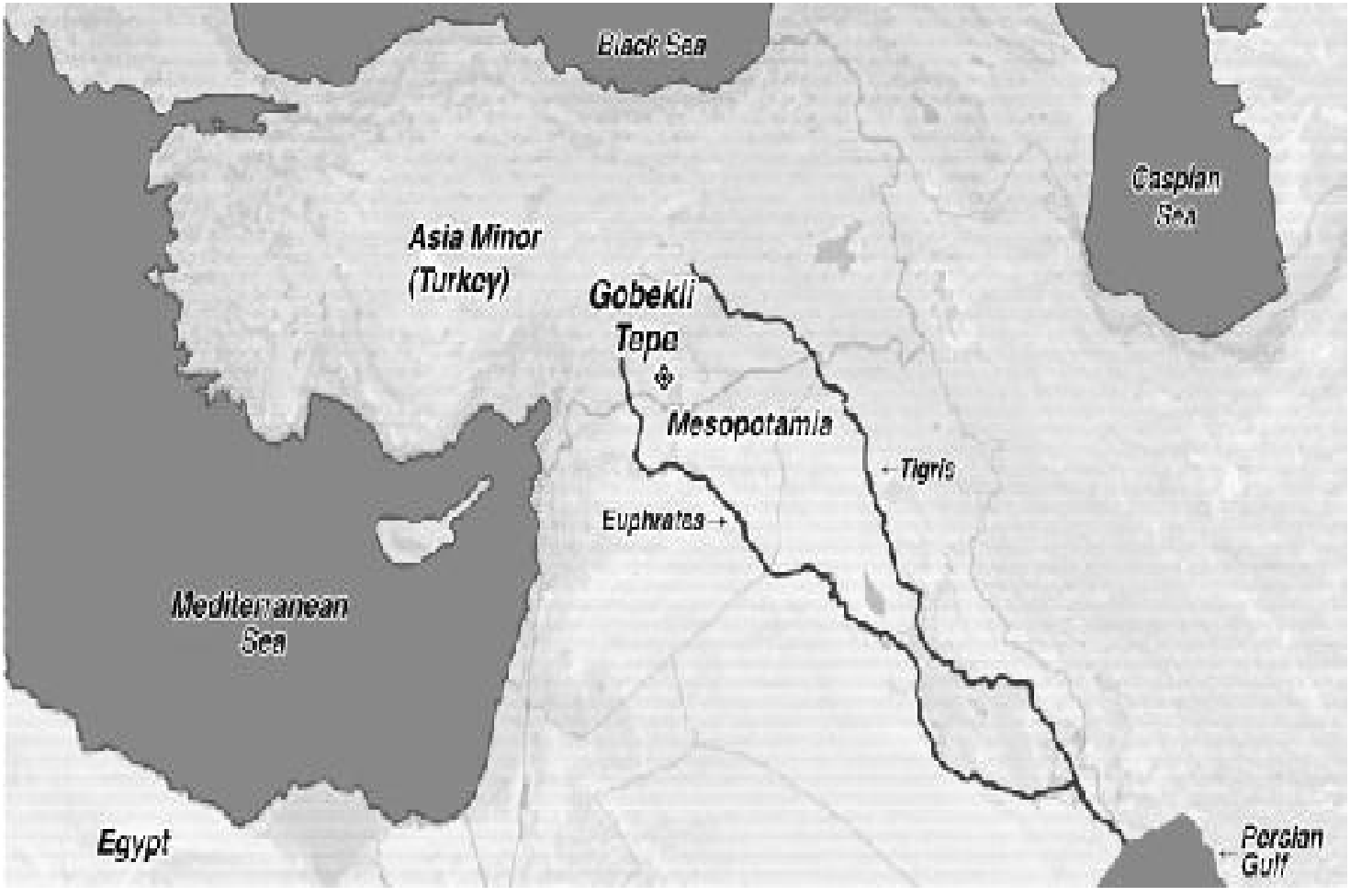

Figure 7: Location of Gobekli Tepe in relation to the headwaters of the Tigris and Euphrates rivers of Mesopotamia

While I'm online I run some searches for images of the Seven Sages. I don't get many hits at first, but the moment I change the search terms to 'Apkallu' and 'Seven Apkallu' I open a colossal archive of images from all over the internet, many of them reliefs from Assyria, a culture that thrived in Mesopotamia from approximately 2500 BC to about 600 BC. I add 'Assyrian Apkallu' to the search parameters and even more images flood my screen. Often they show bearded men holding bags or buckets which closely resemble those depicted on the Göbekli Tepe pillar and the one held by the Mexican 'Man in Serpent' figure. It's not just the curved handles of these containers, or their shape – where the resemblance is much closer than on the original Oannes relief I reproduced in *Fingerprints of the Gods*. Even more striking is the peculiar and distinctive way that the figures from both Mesopotamia and Mexico hold these containers with the fingers of the hands turned inwards and the thumb crooked forward over the handle.

There's something else as well. A good number of the images show not a man but a therianthrope – a birdman with a hooked beak exactly like the hooked beak of the therianthrope on the Göbekli Tepe pillar. What makes the resemblance even closer is that in the Mesopotamian reliefs the birdman is holding the container in one hand and a cone-shaped object in the other. The shape is a little different but a comparison with the disc cradled above the wing of the Göbekli Tepe birdman is hard to resist.

I can't prove anything yet. It could, of course, all be coincidence, or I could be imagining links that aren't there. But my curiosity is aroused by the similar containers on different continents and in different epochs and so I jot down a series of questions that can form the frame of a loose hypothesis for future testing. For instance, could these containers (whether they are bags or buckets) be the symbols of office of an initiatic brotherhood – far travelled and deeply ancient, with roots reaching back into the remotest prehistory? I feel that this possibility, extraordinary though it may

seem on the face of things, is worth looking into and is strengthened by the distinctive hand postures. Might these not have served the same sort of function as Masonic handshakes today – providing an instant means of identifying who is an ‘insider’ and who is not?

Figure 8: Representations of Oannes and the Apkallu in Mesopotamian art and sculpture where they are frequently depicted as composite fish-man or bird-man figures.

And what might have been the purpose of such a brotherhood?

Curiously enough, in both Mexico and Mesopotamia where myths and traditions have survived in connection with the imagery and symbolism, we are left in no doubt as to what the purpose was. Stated simply it was to teach, to guide and to spread the benefits of civilization.

This, after all, was the explicit function of Oannes and the Apkallu sages who taught the inhabitants of Mesopotamia 'how to plant seeds and then to harvest their fruits and vegetables' – agriculture in other words – and who also taught them architectural and engineering skills, notably the building of temples. If they needed to be taught these things then they must have had no knowledge of them before the arrival of the sages. They must, in other words, have been nomadic hunter-gatherers just as the

inhabitants of southeastern Turkey were until the sudden and surprising entry onto the world stage of Göbekli Tepe.

The same, it transpires, was believed to be the case with the ancient inhabitants of Mexico before the arrival of Quetzalcoatl, the Feathered Serpent, who came to teach them the benefits of settled agriculture and the skills necessary to build temples. Although this deity is frequently depicted as a serpent, he is more often shown in human form – the serpent being his symbol and his alter ego – and is usually described as 'a tall bearded white man'[18] … 'a mysterious person … a white man with a strong formation of body, broad forehead, large eyes and a flowing beard'.[19] Indeed, as Sylvanus Griswold Morley, the doyen of Mayan studies, concluded, the attributes and life history of Quetzalcoatl:

> are so human that it is not improbable that he may have been an actual historical character … the memory of whose benefactions lingered after his death, and whose personality was eventually deified.[20]

The same could very well be said of Oannes – and just like Oannes at the head of the Apkallu (likewise depicted as prominently bearded) it seems that Quetzalcoatl travelled with his own brotherhood of sages and magicians. We learn that they arrived in Mexico 'from across the sea in a boat that moved by itself without paddles',[21] and that Quetzalcoatl was regarded as having been 'the founder of cities, the framer of laws and the teacher of the calendar'.[22] The sixteenth century Spanish chronicler, Bernardino de Sahagun, who was fluent in the language of the Aztecs and took great care to record their ancient traditions accurately, tells us further that:

> Quetzalcoatl was a great civilizing agent who entered Mexico at the head of a band of strangers. He imported the arts into the country and especially fostered agriculture … He built spacious and elegant houses, and inculcated a type of religion which fostered peace.[23]

So, in summary, as well as a complex pattern of shared symbols and iconography, Quetzalcoatl and Oannes shared the same civilizing mission, which they delivered in widely separated regions of the world in an epoch that is always described as being very far back in time – remote, antediluvian and hoary with age.

Could it have been as far back as 9600 BC – the epoch of Göbekli Tepe where many of the same symbols are found and where, although we have no surviving legends, the signs of a civilizing mission in the form of the sudden appearance of agriculture and monumental architecture are everywhere to be seen?

The implications, should I ever be able to prove this hypothesis, are stunning. At the very least it would mean that some as yet unknown and unidentified people somewhere in the world, had already mastered all the arts and attributes of a high civilization more than twelve thousand years ago in the depths of the last Ice Age and had sent out emissaries around the world to spread the

benefits of their knowledge. Who might these shadowy emissaries have been, these sages, these 'Magicians of the Gods' as I was already beginning to think of them? And why was there this insistent connection to the date of 9600 BC?

For as Klaus Schmidt rightly pointed out as he showed me round Göbekli Tepe under the baking sun of the Taurus Mountains, 9600 BC is indeed 'an important date' – important not only because it marks the end of the Ice Age but for another, rather surprising reason as well.

The Greek lawmaker Solon visited Egypt in 600 BC and there he was told a very extraordinary story by the priests at the Temple of Sais in the Nile Delta – a story that was eventually handed down to his more famous descendant Plato, who in due course shared it with the world in his Dialogues of Timaeus and Critias.

It is, of course, the story of the great lost civilization called Atlantis swallowed up by flood and earthquake in a single terrible

day and night nine thousand years before the time of Solon.[24]

Or, in our calendar, in 9600 BC.

Chapter 2

The Mountain of Light

‘Everything we’ve been taught about the origins of civilization may be wrong,’ says Danny Hilman Natawidjaja, PhD, senior geologist with the Research Centre for Geotechnology at the Indonesian Institute of Sciences. ‘Old stories about Atlantis and other great lost civilizations of prehistory, long dismissed as myths by archaeologists, look set to be proved true.’

It’s December 2013. We’re in Cianjur Regency, about 900 metres (2,950 feet) above sea level and 70 kilometres (43 miles) west of the city of Bandung on the island of Java, Indonesia. I’m climbing with

Dr Natawidjaja up the steep slope of a 110 metre (360 feet) high step-pyramid set amidst a magical landscape of volcanoes, mountains and jungles interspersed with paddy fields and tea plantations.

Figure 9: Artist's impression of ancient Gunung Padang. (Courtesy of Pon S. Purajatnika)

In 1914, lying scattered amongst the dense trees and undergrowth that then covered the summit of the pyramid, ancient man-made

structures formed from blocks of columnar basalt were first shown to archaeologists. Local people held the site to be sacred and called it Gunung Padang, the name it still goes by today, often mistranslated as 'Mountain Field' by those unaware that the language of this area is not Indonesian but Sundanese – in which Gunung Padang means 'Mountain of Light', or 'Mountain of Enlightenment'. The structures were found to be arranged across five terraces with a combined area of about 150 metres (492 feet) long by 40 metres (131 feet) wide. The visiting archaeologists were told that the terraces had been used as a place of meditation and retreat since time immemorial – and again this remains true today.

However, neither the archaeologists, nor apparently the locals realised the pyramid was a pyramid. It was believed to be a natural hill, somewhat modified by human activity, until Natawidjaja and his team began a geophysical survey here in 2011 using ground-penetrating radar, electrical resistivity and seismic tomography. By then the summit had long since been cleared and the structures on

the terraces recognised as works of megalithic architecture. But no radiocarbon dating had yet been done and the age attributed to the site – about 1000 BC – was based on guesswork rather than on excavations.

The first scientific radiocarbon dating was done by Natawidjaja himself on organic materials in soils underlying the megaliths at or near the surface. The dates produced – around 500 to 1500 BC – were close enough to the archaeological guesswork to cause no controversy. But a surprise was in store as Natawidjaja and his team extended their investigation using tubular drills that brought up cores of earth and stone from much deeper levels.

First, the drill cores contained evidence – fragments of worked columnar basalt – that more man-made megalithic structures lay far beneath the surface. Secondly, the organic materials brought up in the drill cores began to yield older and older dates – 3000 BC to 5000 BC, then 9600 BC as the drills bit deeper, then around 11,000

BC, then 15,000 BC and finally, at depths of 27.5 metres (90 feet) and more, an astonishing sequence of dates of 20,000 BC to 22,000 BC and earlier.

'This was not at all what my colleagues in the world of archaeology expected or wanted to hear,' says Natawidjaja, a world-renowned expert in the geology of megathrust earthquakes who earned his PhD at Cal Tech in the United States and who, it becomes apparent, regards archaeology as a thoroughly unscientific discipline.

A truly cataclysmic period …

The problem is that those dates going back before 9600 BC take us deep into the last Ice Age, when Indonesia was not a series of islands as it is today but was part of a vast antediluvian Southeast Asian continent dubbed 'Sundaland' by geologists.

Sea level was 122 metres (400 feet) lower then. Huge ice caps 3.2 kilometres (2 miles) deep covered most of Europe and North America until the ice caps began to melt. Then all the water stored in them returned to the oceans and sea-level rose, submerging many parts of the world where humans had previously lived. Thus Britain was joined to Europe during the Ice Age (there was no English Channel or North Sea). Likewise there was no Red Sea, no Persian Gulf, Sri Lanka was joined to southern India, Siberia was joined to Alaska, Australia was joined to New Guinea – and so on and so forth. It was during this epoch of sea-level rise, sometimes slow and continuous, sometimes rapid and cataclysmic, that the Ice Age continent of Sundaland was submerged with only the Malaysian Peninsula and the Indonesian islands as we know them today high enough to remain above water.

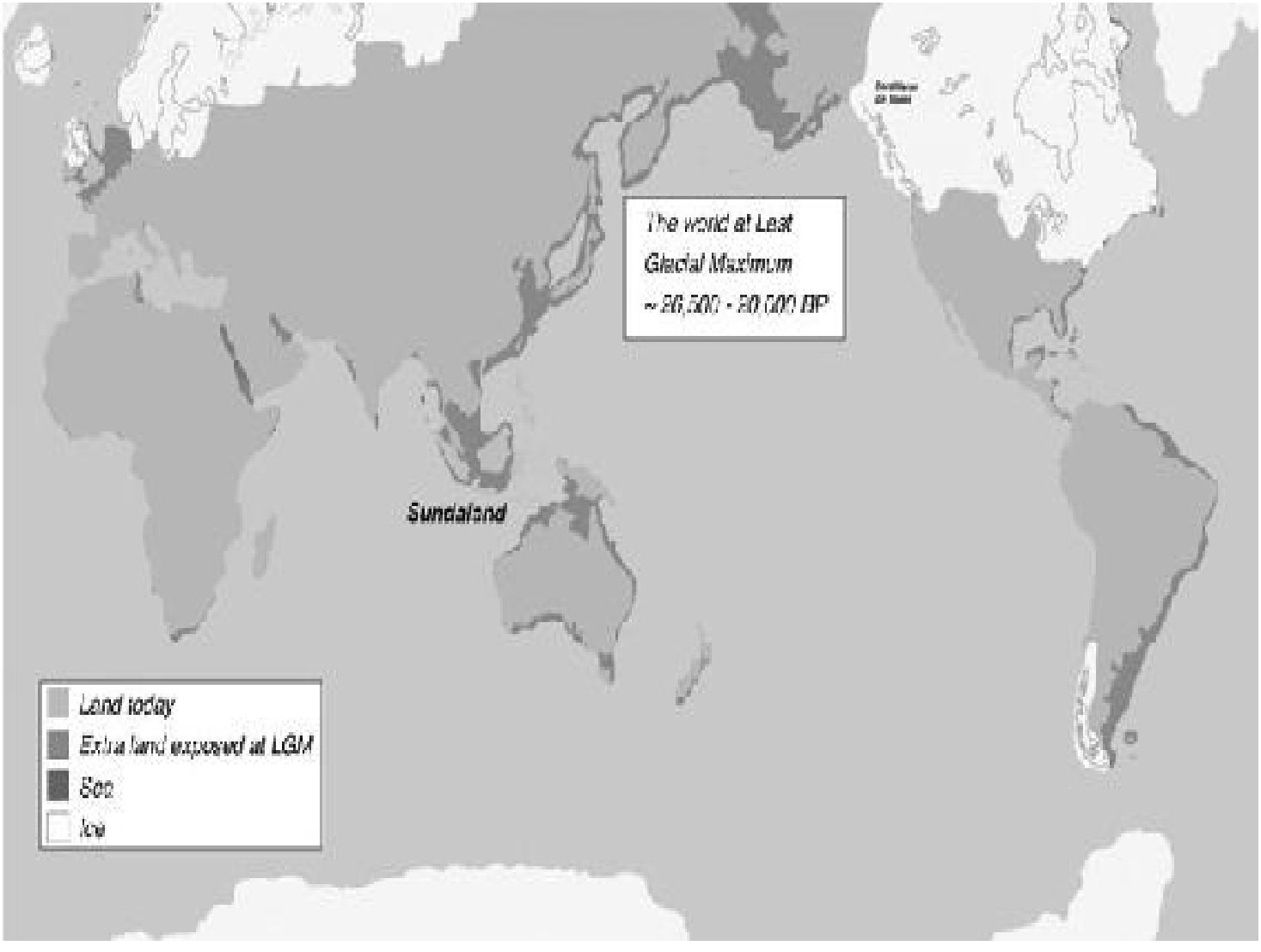
The world at Last
Glacial Maximum
~ 26,500 - 20,000 BP
Sundaland
Land today
Extra land exposed at LGM
Sea
Ice

Figure 10

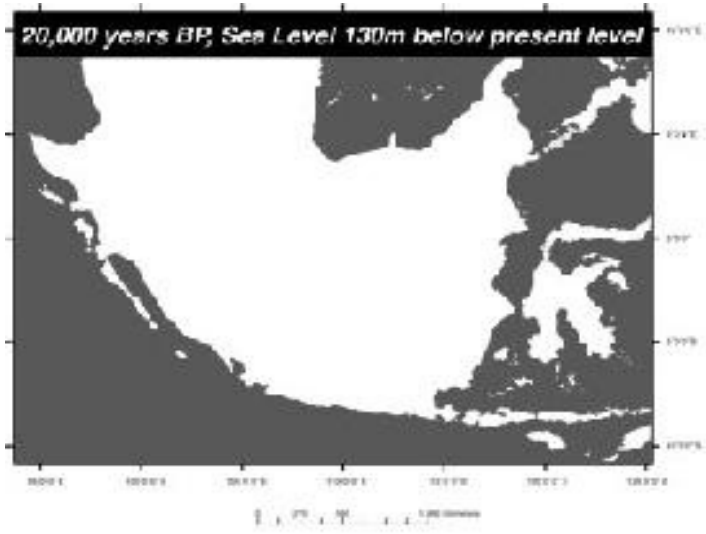
20,000 years BP, Sea Level 130m below present level

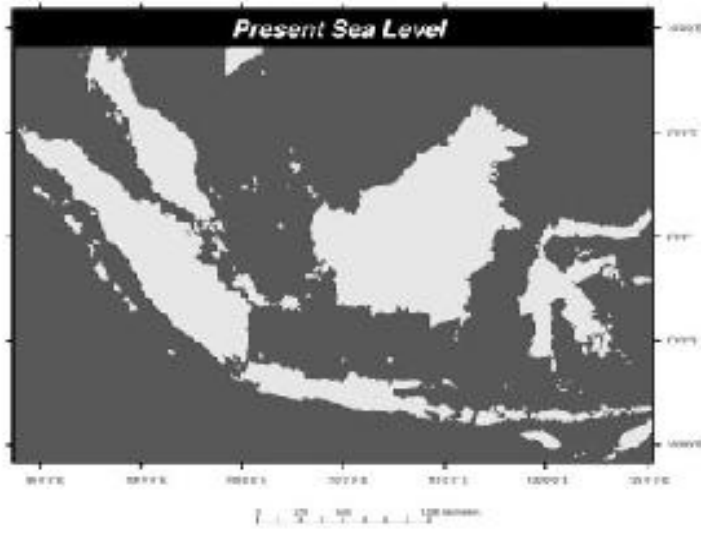
Present Sea Level

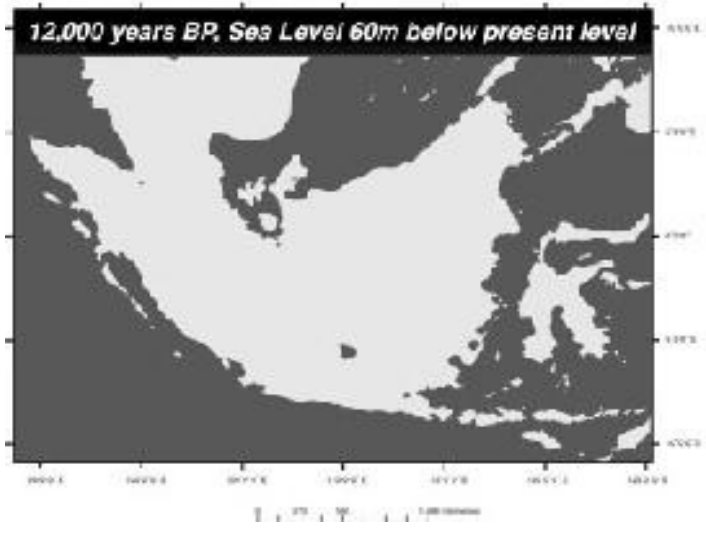
12,000 years BP, Sea Level 60m below present level

Figure 11: The flooding of Sundaland at the end of the last Ice Age.

As we saw in the last chapter, the established archaeological view of the state of human civilization until the end of the last Ice Age is that our ancestors were primitive hunter-gatherers, ignorant of agriculture and incapable of any architectural feats bigger than wigwams and bivouacs.

This is why Göbekli Tepe in southeastern Turkey is so significant – because it breaks that paradigm wide open and cries out for serious consideration of a possibility, previously relegated to the lunatic fringe, that civilization might be much older and more mysterious than we thought.[1] With the date of its foundation presently set at 9600 BC ('*exactly* 9600 BC' as Klaus Schmidt was at pains to point out to me), Göbekli Tepe also requires us to reopen the cold case of Atlantis which archaeologists have long ridiculed, pouring scorn and derision on anyone daring to utter the much reviled 'A' word. As noted at the end of the last chapter, the Greek

philosopher Plato, whose dialogues *Timaeus and Critias* contain the earliest surviving mention of the fabled sunken kingdom, sets the catastrophic destruction and submergence of Atlantis by floods and earthquakes at 9,000 years before the time of Solon[2] – i.e. at *exactly* 9600 BC. The Greeks could not have known of Göbekli Tepe (let alone that it was mysteriously founded at the very moment Atlantis was said to have died). Moreover they had no access to the Greenland ice cores dating the end of the Ice Age to 9620 BC, just twenty years before the foundation of Göbekli Tepe, nor to modern scientific knowledge about the rapidly rising sea levels (often accompanied by cataclysmic earthquakes as the weight of the melting ice caps was removed from the continental landmasses) that occurred in this period. With all this in mind, therefore, the date Plato gives is, to say the least, an uncanny coincidence.

In Danny Natawidjaja's view, however, it is no coincidence at all. His research at Gunung Padang has convinced him that Plato was

right about the existence of a high civilization in the depths of the last Ice Age – a civilization that was indeed brought to a cataclysmic end involving floods and earthquakes in an epoch of great global instability between 10,800 BC and 9600 BC.

This epoch, which geologists call the 'Younger Dryas' has long been recognised as mysterious and tumultuous. In 10,800 BC, when it began, the earth had been emerging from the Ice Age for roughly 10,000 years, global temperatures were rising steadily and the ice caps were melting. Then there was a sudden dramatic return to colder conditions – nearly as cold as at the peak of the Ice Age 21,000 years ago. This short, sharp deep freeze lasted for 1,200 years until 9600 BC when the warming trend resumed, global temperatures shot up again and the remaining ice caps melted very suddenly, dumping all the water they contained into the oceans.

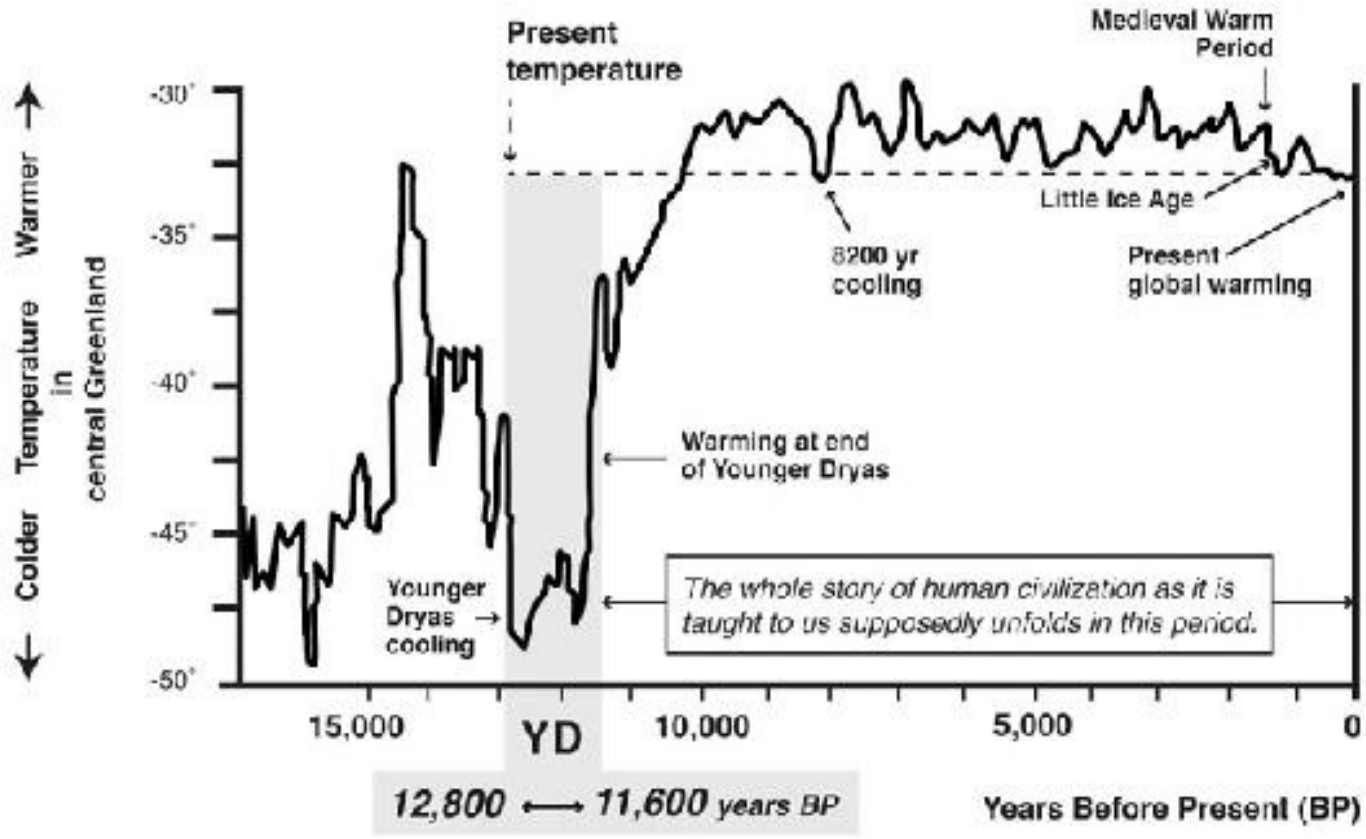
Present temperature
Medieval Warm Period
Little Ice Age
8200 yr cooling
Present global warming
Warming at end of Younger Dryas
Younger Dryas cooling
The whole story of human civilization as it is taught to us supposedly unfolds in this period.
Colder ← Temperature in central Greenland → Warmer
-30°
-35°
-40°
-45°
-50°
15,000
YD
10,000
5,000
0
12,800 ⟷ 11,600 years BP
Years Before Present (BP)

Figure 12: All of human history as it is presently taught to us follows the Younger Dryas – the mysterious cataclysmic period between 10,800 BC (around 12,800 years ago) and 9,600 BC (around 11,600 years ago).

'It is difficult,' Natawidjaja says, 'for us to imagine what life on earth must have been like during the Younger Dryas. It was a truly cataclysmic period of immense climate instability and terrible, indeed terrifying, global conditions. It's not surprising that many large animal species, such as the mammoths, went extinct during this precise time and of course it had huge effects on our ancestors – not just those 'primitive' hunter-gatherers the archaeologists speak of but also, I believe, a high civilization that was wiped from the historical record by the upheavals of the Younger Dryas.'

A controversial pyramid

What has brought Natawidjaja to this radical view is the evidence he and his team have uncovered at Gunung Padang. When their drill

cores began to yield very ancient carbon dates from organic materials embedded in clays filling the gaps between worked stones, they expanded their investigation using geophysical equipment – ground-penetrating radar, seismic tomography and electrical resistivity – to get a picture of what lay under the ground. The results were stunning, showing layers of massive construction using the same megalithic elements of columnar basalt that are found on the surface but with courses of huge basaltic rocks beneath them extending down to thirty metres (100 feet) and more beneath the surface. At those depths the carbon dates indicate that the megaliths were put in place more than 12,000 years ago and in some cases as far back as 24,000 years ago.

Columnar basalt does form naturally – the famous Giant's Causeway in Northern Ireland is an example – but at Gunung Padang it has been used as a building material and is laid out in a form never found in nature.

‘The geophysical evidence is unambiguous,’ Natawidjaja says. ‘Gunung Padang is not a natural hill but a man-made pyramid and the origins of construction here go back long before the end of the last Ice Age. Since the work is massive even at the deepest levels, and bears witness to the kinds of sophisticated construction skills that were deployed to build the pyramids of Egypt, or the largest megalithic sites of Europe, I can only conclude that we’re looking at the work of a lost civilization and a fairly advanced one.’

‘The archaeologists won’t like that,’ I point out.

‘They don’t!’ Natawidjaja agrees with a rueful smile. ‘I’ve already got myself into a lot of hot water with this. My case is a solid one, based on good scientific evidence, but it’s not an easy one. I’m up against deeply entrenched beliefs.’

The next step will be a full-scale archaeological excavation. ‘We have to excavate in order to interrogate our remote sensing data and our carbon dating sequences and either confirm or deny what we

believe we've found here,' says Natawidjaja, 'but unfortunately there's a lot of obstacles in our way.'

When I ask what he means by obstacles he replies that some senior Indonesian archaeologists are lobbying the government in Jakarta to prevent him from doing any further work at Gunung Padang on the grounds that they 'know' the site is less than three thousand years old and see no justification for disturbing it.

'I don't deny that the megaliths at the surface are less than three thousand years old,' Natawidjaja hastens to add, 'but I suggest they were put here because Gunung Padang has been recognised as a sacred place since time immemorial. It's the deepest layers of the structure at between 12,000 and more than 20,000 years old that are the most important. They have potentially revolutionary implications for our understanding of history and I think it's vital that we be allowed to investigate them properly.'

Atlantis

Happily, there was a decisive Presidential intervention during 2014 and I can now report that Danny (I'll use his first name henceforth as we have become friends) was given *carte blanche* to excavate the site. He and his team began work in August 2014, completing a short season there between August and October, but as the experience at Göbekli Tepe shows, painstaking, detailed archaeology is a slow process and they do not expect to reach the deepest layers until 2017 or 2018. As the first season neared its end, however, Danny emailed me an update:

> The research progress has been great. We have excavated three more spots right on top of the megalithic site in the past couple of weeks, which give more evidence and details about the buried structures. We have uncovered lots more stone artefacts from the excavations. The existence of the pyramid-like structure beneath the megalithic site is now loud and clear; even for non-specialists, it is not too difficult to understand if they come and see for themselves. We have found some kind of open hall buried by soil five to seven metres thick; however we have not yet got into the main chamber. We are now drilling to the suspected location

of the chamber (based on subsurface geophysic) in the middle of the megalithic site.[3]

Buried structures? Chambers? Ah, yes, I forgot to mention those. We'll go into the implications of all this in more detail in a later chapter, but in brief, the geophysical survey work that Danny and his team did between 2011 and 2013, deploying the latest technologies in electrical resistivity, seismic tomography, ground-penetrating radar and core drilling, revealed not only deeply buried massive constructions and very ancient carbon dates at Gunung Padang but also the presence of three further hidden and as yet unexcavated chambers, so rectilinear in form that they are most unlikely to be natural. The largest of these lies at a depth of between 21.3 and 27.4 metres (70 to 90 feet) and measures approximately 5.5 metres (18 feet) high, 13.7 metres (45 feet) long and 9.1 metres (30 feet) wide.

Could it be the fabled ‘Hall of Records’ of Atlantis? Danny has put his impeccable scientific credentials on the line with the controversial claim that it might be. Not only does he refuse to scoff at the idea of Atlantis but also he’s written a book arguing that Indonesia – or rather the huge areas of ancient ‘Sundaland’ that were drowned by rising sea levels at the end of the Ice Age – might actually *be* Atlantis.[4]

Danny and I made an extensive research trip around the whole of the Indonesian archipelago in June 2014 searching out megalithic sites off the beaten track that have never been properly studied by archaeologists. In Chapter Eighteen I’ll describe our findings, and how they relate to the Gunung Padang mystery, but meanwhile I want to report here on the opinion of Dr Robert Schoch, Professor of Geology at Boston University, who was with me in December 2013 when I first met Danny at Gunung Padang.[5]

The view of Professor Robert Schoch

Schoch is a renowned figure, indeed notorious, for the case he's made, based on strict geological evidence, that the Great Sphinx of Giza bears the unmistakable erosion patterns of thousands of years of heavy rainfall.[6] This means it has to be much older than 2500 BC (the orthodox date, when Egypt received no more rain than it does today) and must originally have been carved around the end of the Ice Age when the Nile valley was subjected to a long period of intense precipitation.

A tall, rangy, scholarly man with a full beard and a mop of unruly hair, Schoch was in his element at Gunung Padang carefully interrogating the results of the geophysical scans with Danny, collecting samples and minutely examining the site. Afterwards, when he'd returned to the US and had time to analyse the data, he wrote:

> The first important observation is that … Gunung Padang goes back to before the end of the last Ice Age, circa 9700 BC. Based on the evidence, I believe that

human use of the site began by circa 14,700 BC. Possibly the earliest use of the site goes back to 22,000 BC, or even earlier.

In my assessment, Layer Three, some 4 to 10 metres (13.1 to 32.8 feet) or so below the surface, includes the period of the very end of the last Ice Age, circa 10,000 to 9500 BC, when major climatic changes took place, with dramatic global warming, rising sea levels, torrential rains, increased earthquake and volcanic activity, widespread wildfires … and other catastrophes occurring across the surface of earth … There is evidence of collapsed structures in Layer Three, possibly the result of the tumultuous conditions at that time.

Visiting Gunung Padang, pondering the dates and evidence of collapse and rebuilding that may have occurred here, I could not help but think about another major site – representing very ancient civilization – that spans the end of the last Ice Age, namely Göbekli Tepe in southeastern Turkey … I also think of Egypt and my own work on re-dating the Great Sphinx. The extreme weathering and erosion seen on the proto-Sphinx (the head was re-carved and the monument reused during dynastic times), caused by torrential rains, could have been a result of the extreme climatic changes at the end of the last Ice Age.

Putting together the evidence of Gunung Padang with that derived from Göbekli Tepe, the Sphinx of Egypt, and other sites and lines of data from around the world, I believe we are coming closer to understanding the cataclysmic times and events at the end of the last Ice Age. Genuine civilizations of a sophisticated nature existed prior to circa 9700 BCE, which were devastated by the events that brought the last Ice Age to a close.[7]

Looking for the smoking gun …

At six thousand or more years older than the stone circles of Stonehenge, the megaliths of Göbekli Tepe, like the deeply buried megaliths of Gunung Padang, mean that the timeline of history taught in our schools and universities for the best part of the last hundred years can no longer stand. It is beginning to look as though civilization, as I argued in my controversial 1995 bestseller *Fingerprints of the Gods*, is indeed much older and much more mysterious than we thought.

In essence what I proposed in that book was that an advanced civilization had been wiped out and lost to history in a global cataclysm at the end of the last Ice Age. I suggested there were survivors who settled at various locations around the world and attempted to pass on their superior knowledge, including knowledge of agriculture and architecture, to hunter-gatherer peoples who had also survived the cataclysm. Indeed even today we have populations

of hunter-gatherers, in the Kalahari Desert, for instance, and in the Amazon jungle, who co-exist with our advanced technological culture – so we should not be surprised that equally disparate levels of civilization might have co-existed in the past.

What I could not do when I wrote *Fingerprint*s, because the data was not then available, was identify the exact nature of the cataclysm that had wiped out my hypothetical lost civilization. Instead I speculated on a number of possible causes, notably the radical 'earth crust displacement' theory of Professor Charles Hapgood which, though endorsed by Albert Einstein,[8] has since found little favour amongst geologists. This absence of a credible 'smoking gun' was one of the many aspects of my argument that was heavily criticised by archaeologists. Since 2007, however, a cascade of scientific evidence has come to light that has identified the smoking gun for me. It's all the more intriguing because it's the work of a large group of impressively credentialled mainstream

scientists, and because it does not rule out, indeed it in some ways reinforces, the case for massive crustal instability that I made in *Fingerprints of the Gods*.

We'll explore this new evidence, and its stunning implications, in the following chapters.

Part II

Comet

Chapter 3

A Wall of Green Water Destroying Everything in its Path …

Could certain ancient myths and traditions, judged to be of no historic value by scholars, in fact encode accurate recollections of an epoch when humanity experienced a crisis so devastating, so cataclysmic and so dislocating that we lost our memory of our true past? Consider this account from the Ojibwa, a Native American people:

> The star with the long, wide tail is going to destroy the world some day when it comes low again. That's the comet called Long-Tailed Heavenly Climbing Star. It came down here once, thousands of years ago. Just like the sun. It had radiation and burning heat in its tail.
>
> The comet burnt everything to the ground. There wasn't a thing left. Indian people were here before that happened, living on the earth. But things were wrong; a lot of people had abandoned the spiritual path. The holy spirit warned them a long time before the comet came. Medicine men told everyone to prepare. Things were wrong with nature on the earth … Then that comet went through here. It had a long, wide tail and it burnt up everything. It flew so low the tail scorched the earth … The comet made a different world. After that survival was hard work. The weather was colder than before …[1]

There are other interesting details in the various versions of this myth told amongst the Ojibwa and recorded by anthropologist Thor Conway. For example there is a reference to the comet killing off 'giant animals … You can find their bones today in the earth. It is said that the comet came down and spread his tail for miles and miles'.[2] At the time of this event, usually referred to as 'the first burning of the earth', we're told that the Ojibwa 'lived near the edge

of the Frozen Lands'.[3] It is also recorded that soon after the comet disaster 'the first flooding of the earth' occurred.[4]

Just as the Ojibwa tradition laments that 'things were wrong … people had abandoned the spiritual path', thus implicating human behaviour in the disaster that followed so, too, the Brule, one of the tribes of the Lakota Nation tell of a time, 'in the world before this one', when 'the People and animals turned to evil and forgot their connection to the Creator'. In response, the Creator resolved 'to destroy the world and start over'. He first warned a few good people to flee to the highest mountaintops, then sent down 'fierce Thunderbirds to wage a great battle against the other humans and the giant animals' (again, as in the Ojibwa myth, the Brule account speaks of animals of extraordinary size).[5]

> Finally, at the height of the battle, the Thunderbirds suddenly threw down their most powerful thunderbolts all at once. The fiery blast shook the entire world. Toppling mountain ranges and setting forests and prairies ablaze. The flames leapt up to the sky in all directions, sparing only the few People on the highest peaks …

> Even the rocks glowed red hot, and the giant animals and evil people burned up where they stood.

Now the Creator began to make the world anew:

> As the Creator chanted the song of creation it began to rain. The Creator sang louder and it rained harder until the rivers overflowed their banks and surged across the landscape. Finally the Creator stamped the Earth, and with a great quake the Earth split open, sending great torrents across the entire world until only a few mountain peaks stood above the flood, sheltering the few People who had survived … [After the flood subsided], as the People went out over the land they found the bleached bones of the giant animals buried in rock and mud … People still find them today in the Dakota Badlands.[6]

Of particular note, when we remember that a species of giant beaver became extinct in North America at the end of the Ice Age,[7] is a myth of the Passamaquoddy, Micmac and Malisee that speaks of a being called Glooscap, described as 'a spirit, a medicine man and a sorcerer', who created the first animals, amongst them the first beaver – a creature so large that when it built a dam it 'flooded the

country from horizon to horizon'. Glooscap tapped the beaver on its back and it shrank to its present size.[8]

The reference to a flood in this story is one amongst hundreds in the myths of the Native Americans. Many of them contain intriguing details of great relevance to new scientific information about events in North America at the end of the Ice Age that we will explore in the following pages. For example, the Cowichan of British Columbia recall a time in the remote past when their seers became greatly troubled on account of strange dreams which foretold destruction. One man said: 'I have dreamed a strange thing. I dreamed that such rain fell that we were all drowned.' Another said, 'I dreamed that the river rose and flooded the place, and we were all destroyed.' 'So did I,' chimed another. 'And I too.'[9]

The seers were disbelieved by their people but nonetheless resolved to build a huge raft of many canoes joined together. Not long after they were done the rain commenced. The drops were as

large as hailstones and so heavy that they killed the little babies. The river rose and all the valleys were covered. The seers, and those few of their friends who had believed them:

> took their families and placed them on the raft and took food and waited. By and by the raft rose with the water … At length the rain stopped, and they felt the waters going down, and their raft rested on the top of Cowichan Mountain … Then they saw the land, but what desolation met their eyes! How their hearts were wrung with anguish. It was indescribable.[10]

Unusually large hailstones feature in a Quillayute cataclysm myth:

> For days and days great storms blew. Rain and hail and then sleet and snow came down upon the land. The hailstones were so large that many of the people were killed … [The survivors] grew thin and weak from hunger. The hailstones had beaten down the ferns and the camas and the berries. Ice locked the rivers so that the men could not fish.[11]

The Pima, or 'River People', presently live in Arizona whence they migrated in remote antiquity from much further north. As is the case

with the Cowichan, a seer features in their cataclysm traditions – in this case a seer who was warned by a great eagle that a flood was coming. The eagle visited the seer four times and each time he ignored its warnings. ‘You’d better believe what I’m telling you,’ said the eagle. ‘The whole valley will be flooded. Everything will be destroyed.’ ‘You’re a liar,’ said the seer. ‘And you’re a seer who sees nothing,’ said the eagle:

> The bird flew away, and hardly had he gone when a tremendous thunderclap was heard, the loudest there has ever been … The sun remained hidden behind dark clouds, and there was only twilight, gray and misty. Then the earth trembled, and there came a great roar of something immense moving. The people saw a sheer green wall advancing toward them, filling the valley from one side to the other. At first they did not know what it was, and then they realised that it was a wall of green water. Destroying everything in its path, it came like a huge beast, a green monster, rushing upon them, foaming, hissing, in a cloud of spray. It engulfed the seer’s house and carried it away with the seer, who was never seen again. Then the water fell upon the villages, sweeping away homes, people, fields and trees. The flood swept the valley clean as with a broom. Then it rushed on beyond the valley to wreak havoc elsewhere.[12]

The Inuit of Alaska preserve a tradition of an earthquake, accompanied by a terrible flood that swept so rapidly over the earth that only a few people managed to escape in their canoes, or take refuge on the tops of the highest mountains.[13] The Luiseno of California also remember a flood that covered the mountains and destroyed most of mankind. Only those few who fled to the highest peaks were spared when all the rest of the world was inundated.[14] Similar flood myths were recorded amongst the Hurons.[15] And the Montagnais, who belong to the Algonquin family, relate how the god Michabo reconstructed the world after a great flood:

> Michabo was hunting with his pack of trained wolves one day when he saw the strangest sight: the wolves entered a lake and disappeared. He followed them into the water to fetch them, and as he did so the entire world flooded. Michabo then sent forth a raven to find some soil with which to make a new earth, but the bird returned unsuccessful in its quest. Then Michabo sent an otter to do the same thing, but again to no avail. Finally he sent the muskrat and she brought him back enough earth to begin the reconstruction of the world.[16]

Lynd's *History of the Dakotas*, written in the nineteenth century, preserves many indigenous traditions that would otherwise have been lost. These include an Iroquois myth that 'the sea and the waters had at one time infringed upon the land so that all human life was destroyed'. The Chickasaws asserted that the world had been destroyed by water, 'but that one family was saved and two animals of every kind'. The Lakota (Dakotas) also spoke of a time when there was no dry land and when all men disappeared from existence.[17]

Myths speaking to science

For years an often acrimonious debate has been underway amongst scholars regarding the peopling of the Americas. Who are the Native Americans, exactly? When did they first arrive in the New World? And by what route?

Whenever a resolution has begun to look possible, whenever some kind of consensus has been about to emerge, new information has been presented, by one side or the other, that calls for a rethink. What has never been in dispute, however, is that the ancestors of today's Native Americans were already in North America 12,800 years ago, when the mysterious cold event that geologists call the Younger Dryas began, and that they witnessed and hunted the megafauna that flourished during the Ice Age including the gigantic Columbia Mammoth, the somewhat smaller Wooly Mammoth, the giant beaver, short-faced bears, giant sloths, two species of tapirs, several species of peccaries and the fearsome American lion.

It's thought likely, therefore, that the references to very large animals in the myths cited above are not mere fantasies but preserve eye-witness accounts of some of the many genera of mega-mammals that were present in North America before the Younger Dryas began, but had passed into extinction by the time it ended 1,200 years later. The same goes for the floods that the myths

describe,[18] for geologists agree that North America was indeed subjected to episodes of cataclysmic flooding in the final millennia of the last Ice Age. What new research has called into question in the past decade, however, is whether the scale, extent and, most importantly, the *causes* of those floods have been properly understood. The mainstream view is copiously represented, and endlessly repeated in books and journals published since the 1960s, but in order to get to grips with a powerful alternative view that now poses a serious challenge to established theories, I made an extensive field trip across North America in September and October 2014 with catastrophist researcher Randall Carlson.[19]

Randall cannot be a reincarnation of J Harlen Bretz, because J Harlen Bretz (whose first name was J and who hated it when proofreaders tried to treat it like an initial) passed away on 3 February 1981, by which time Randall was already thirty years old. However in his passion for real fieldwork, for walking the walk

rather than just reading the literature, and in his dogged advocacy of a radical geological hypothesis concerning the cataclysmic floods that tore North America apart at the end of the Ice Age, Randall is in every meaningful sense the new J Harlen Bretz.

I will describe my travels with Randall, and the compelling evidence he presented me with, in the chapters that follow, but first, you may well be wondering, who was J Harlen Bretz?

Meet J Harlen Bretz

Here is Bretz, writing in 1928 after one of his field trips across Washington State in the Pacific Northwest of the US:

> No one with an eye for landforms can cross eastern Washington in daylight without encountering and being impressed by the 'scabland'. Like great scars marring the otherwise fair face of the plateau are these elongated tracts of bare, or nearly bare, black rock carved into mazes of buttes and canyons. Everybody on the plateau knows scabland. It interrupts the wheat lands, parcelling them out into hill tracts less than 40 acres to more than 40 square miles in extent. One can

> neither reach them nor depart from them without crossing some part of the ramifying scabland. Aside from affording a scanty pasturage, scabland is almost without value. The popular name is an expressive metaphor. The Scablands are wounds only partially healed – great wounds in the epidermis of soil with which Nature protects the underlying rock.
>
> With eyes only a few feet above the ground the observer today must travel back and forth repeatedly and must record his observations mentally, photographically, by sketch and by map before he can form anything approaching a complete picture. Yet long before the paper bearing these words has yellowed, the average observer, looking down from the air as he crosses the region, will see almost at a glance the picture here drawn by piecing together the ground-level observations of months of work. The region is unique: let the observer take the wings of the morning to the uttermost parts of the earth: he will nowhere find its likeness.[20]

By 1928 Bretz was an experienced and highly credentialled field geologist. Born in 1882, he'd started his career as a high school biology teacher in Seattle but spent most of his spare time exploring the geology of Puget Sound. Although he didn't have a geology degree at the time, he succeeded in getting several articles on his findings published in scientific journals.[21] In 1911 he enrolled at the

University of Chicago to pursue a doctorate in geology. He graduated *summa cum laude* in 1913 and immediately thereafter returned to Seattle where he accepted a position as assistant professor of geology at the University of Washington.[22] He had difficulties with the attitudes of other teaching staff there (he later described them as 'stick-in-the-muds'[23]) and by 1914 he was back at the University of Chicago, initially as an instructor but soon afterward as an assistant professor.[24]

The first field trip Bretz made to the Scablands of eastern Washington was in 1922. By this point, as a result of his earlier work, he was fully informed about the Ice Age in all its dimensions and more aware than most other geologists that immense ice sheets up to two miles deep, had covered North America for the best part of 100,000 years until the ice melted dramatically somewhere between 15,000 and 11,000 years ago. Thus when he saw huge numbers of erratics – giant boulders that didn't belong naturally in

the area but had clearly been brought in from elsewhere – he was inclined to assume that they might have travelled here in icebergs carried on some great glacial flood. This impression was strengthened when he explored Grand Coulee and Moses Coulee – gigantic channels gouged deeply in the earth – and visited the Quincy Basin at the southern end of Grand Coulee where he found the whole 600-square-mile depression filled up to a depth of 400 feet with small particles of basalt debris. He couldn't help but wonder, 'where had all the debris come from, and when?'[25] Again the answer that presented itself to him was a flood.

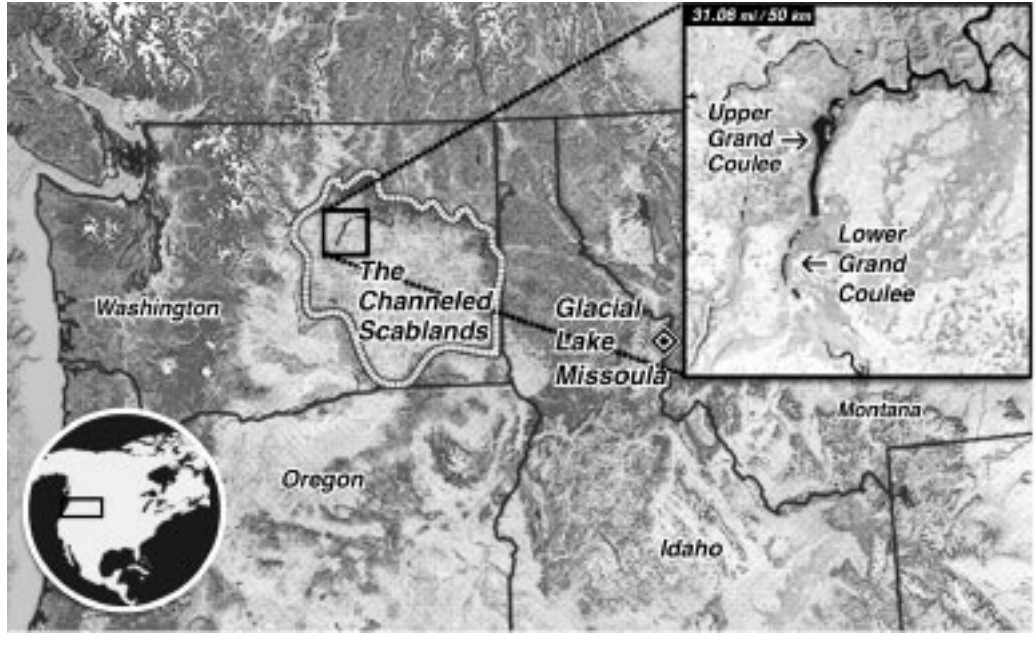

Figure 13

Bretz was back in the Scablands in 1923 for three months of exploration and it seems to have been during this field trip that his later views – namely that 'some spectacular hydrological event … had begun in this region, then abruptly stopped', really began to take shape.[26]

In the November–December 1923 issue of the *Journal of Geology* Bretz published a paper summarizing his findings. To understand the somewhat defensive tone of the paper it is important to keep in mind the prevailing geological doctrine of the time, the principle known as 'uniformitarianism'. This is the assumption that existing processes, *acting as at present*, are sufficient to account for all geological changes. Integral to it is the parallel assumption of gradualism, namely that 'the present is the key to the past' and that the rate of change observable today is an accurate guide to rates of change that prevailed in the past.

Such ideas, which had acquired the status of an unchallengeable truth by Bretz's day, had themselves arisen from the necessary – indeed essential – overthrow of the old religious belief in creationism and the notion that God whimsically intervened in the earth's history by ordaining cataclysms such as the Biblical Flood. In righteous opposition to these thoughts of supernatural creation and destruction, uniformitarianism seemed a profoundly rational

response that saw only the forces of nature at work upon the earth over periods of millions, or indeed billions of years.

> Mountains had not been built overnight, but had risen slowly, imperceptibly over time. Likewise had fantastic geological features such as the Grand Canyon been eroded by the flow of rivers over many millions of years.[27]

Bretz was an eminently rational man, and certainly no religious dogmatist, yet, as his biographer John Soennichsen notes, 'while hiking through the hot, dry, ragged world of the Scablands, everything he had seen pointed not to a slow, uniform change over time but to a catastrophe, a sudden release of colossal quantities of water that had quickly washed away the loessial topsoil and then carved deeply into the basalt rock beneath.'[28]

The problem was – where had all this water come from? It was well understood that at the margin of the north American ice sheets there must have been some melting – as one indeed sees at the edges of all glaciers today. But such melting could hardly explain

the magnitude of the erosive changes that were visible in the field. As Bretz noted in his 1923 paper:

> The writer confesses that during ten weeks of study of the region, each newly examined scabland tract reawakened a feeling of amazement that such huge streams could take origin from such small marginal tracts of an ice sheet, or that such an enormous amount of erosion, despite high gradients, could have resulted in the very brief times these streams existed. Not River Warren, nor the Chicago outlet, not the Mowhawk channel, nor even Niagara Falls and Gorge itself approach the proportions of some of these scabland tracts and their canyons. From one of these canyons alone [Upper Grand Coulee] 10 cubic miles of basalt was eroded by its glacial stream.[29]

Concluding the paper, and moving towards the profoundly heretical and anti-uniformitarian idea that would soon get him into a great deal of trouble, namely that *a single cataclysmic flood* unleashed in a very short period had been responsible for all the devastation he had witnessed, Bretz wrote:

> Fully 3,000 square miles of the Columbia plateau were swept by the glacial flood, and the loess and silt cover removed. More than 2,000 square miles of this area were left as bare, eroded, rock-cut channel floors, now the Scablands, and nearly 1,000 square miles carry gravel deposits derived from the eroded basalt. It *was* a debacle which swept the Columbia Plateau.[30]

In other words, as Bretz's biographer summarises, the geologist now believed that the features he had documented 'could only have been created by a flood of unimaginable proportions, possibly the largest flood in the history of the world'.[31]

The reaction of the geological establishment was one of stunned, embarrassed silence. To have strayed so far from the doctrine of uniformitarianism could only mean that Bretz must have gone mad. David Alt, Professor Emeritus of Geology at the University of Montana, describes one of the lectures that Bretz gave in which he expounded on the ideas in his 1923 paper:

> The geologists … were aghast in the same way that a roomful of physicists would be upon hearing a colleague explain how he had made a perpetual motion machine

> out of old popsicle sticks. Physicists had all learned very early of the futility of perpetual motion machines, and no properly educated geologist was supposed to traffic in catastrophes of any sort.[32]

Alt describes an old professor of his own undergraduate days who had been a student sitting in the audience when Bretz read his 1923 paper. It seems the professor did a hilarious impersonation of Bretz 'pounding on the podium with both fists and stomping on the floor as he used vivid language and gestures to convey his idea of a catastrophic flood to his horrified audience.'[33]

Quite apart from the theatricals, the geologists were shocked to hear Bretz invoke:

> a sudden catastrophe to explain the Scablands of eastern Washington. In their view this was a reversion to the unscientific thinking of some 125 years before. To this day, most geologists consider it nothing less than heresy to invoke a catastrophic explanation for a geologic event. So Bretz stepped off the edge of a very long limb when he suggested that a great flood had eroded the Scablands … [It made] him a pariah among geologists, an outcast from the politer precincts of society.[34]

The outcast did not give up, however. On the contrary, he doggedly continued with his research, bringing down ever more controversy on his head in the process but believing that facts, ultimately, would vindicate him.

The crunch came on 12 January 1927 when Bretz was ambushed by a lynch mob of his colleagues at a lecture he'd been invited to give to the Geological Society of Washington in the Cosmos Club, Washington DC. Bretz was by now calling 'his' flood the 'Spokane Flood' (after the town of Spokane) and liked to refer to the ice sheet from which it had emerged as the 'Spokane ice sheet' (neither term is used today but Bretz's Spokane ice sheet was, effectively the southern part of that great late Pleistocene ice sheet now known as the 'Cordilleran'). He believed that large parts of it must have melted with extraordinary rapidity, because 'the volume of water was very great, almost incredibly great … In spite of high gradients to draw it off, the pre-existing valleys first entered were inadequate

to carry it all, and the flood spread widely in a complicated group of anastomosing routes.’[35]

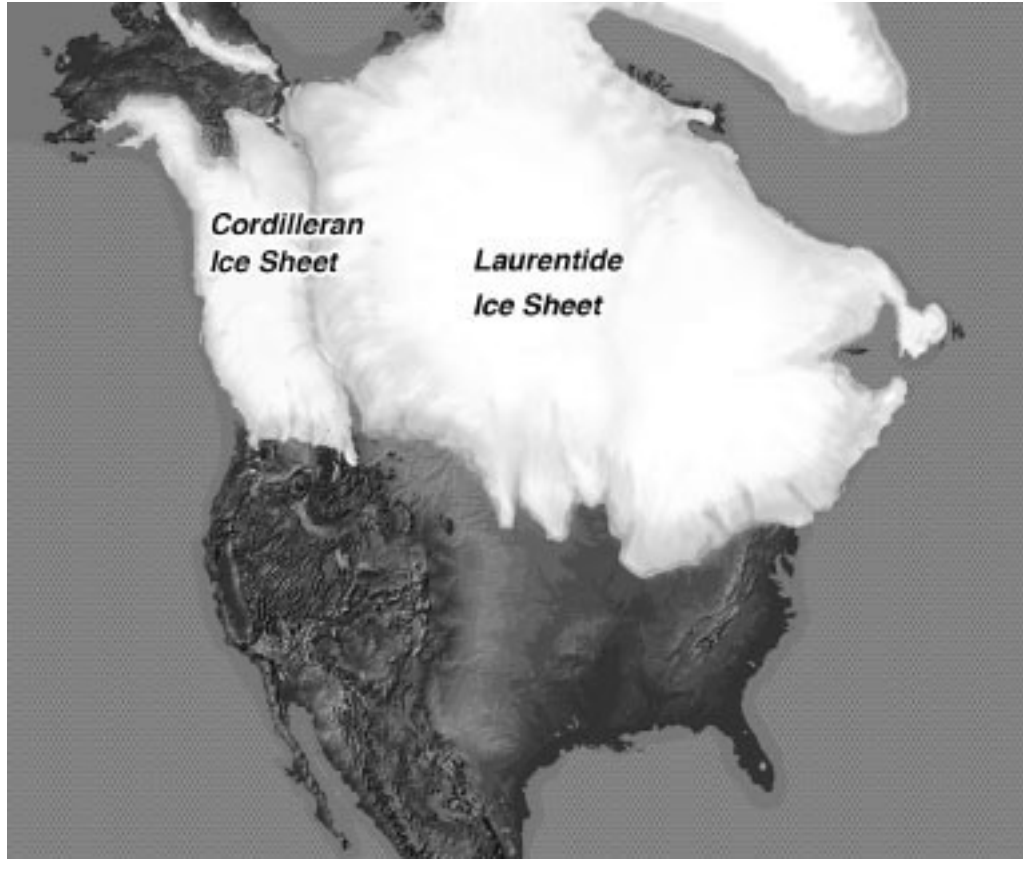

Figure 14: North America during the Ice Age.

W.C. Alden, then the Chief of Pleistocene Geology with the profoundly conservative US Geological Survey, objected to 'the idea that all the channels must have been developed simultaneously in a very short time' and took great offence at 'the tremendous amount of water' postulated by Bretz.[36] 'It seems to me impossible,' Alden protested, 'that such part of the great ice fields as would have drained across the Columbia Plateau could, under any conditions, have yielded so much water as is called for in so short a time.'[37] He admitted that he had never visited the Scablands himself but felt sure that a uniformitarian explanation was what was required: 'The problem would be easier if longer time and repeated floods could be allotted to do the work.'[38]

James Gilluly, well known as an apostle of geologic gradualism, dismissed the notion of a single cataclysmic flood with words like 'preposterous', 'incompetent', and 'wholly inadequate'.[39] He found

nothing in Bretz's evidence to exclude his own preferred solution, namely that multiple smaller floods had been involved and that these would have been 'of the order of magnitude of the present Columbia's, or at most a few times as large'.[40]

Likewise G.R. Mansfield doubted that 'so much work could be done on basalt in so short a time … The Scablands seem to me better explained as the effects of persistent ponding and overflow of marginal glacial waters, which changed their position or their places of outlet from time to time through a somewhat protracted period.'[41]

O.E. Meinzer was obliged to confess that 'the erosion features of the region are large and bizarre' but he, too, preferred a gradualist explanation: 'Before a theory that requires a seemingly impossible quantity of water is fully accepted, every effort should be made to account for the existing features without employing so violent an assumption … I believe the existing features can be explained by assuming normal stream work of the ancient Columbia River …'[42]

In summary, not a single voice was raised in support of Bretz and there was much patronizing dismissal of his 'outrageous hypothesis' of a single large flood. In particular, the massed geologists homed in on what they clearly believed was the fatal flaw in the case for a sudden and overwhelming cataclysm – namely that Bretz had failed to identify a convincing source for his floodwaters.

Bretz replied that he saw no logic in this, since lack of a documented source for the flood did not prove that there had been no flood. 'I believe that my interpretation of Channeled Scabland should stand or fail on the scabland phenomena themselves,' he argued.[43] He was, he said, as sensitive as anyone else to adverse criticism, and had 'no desire to invite attention simply by advocating extremely novel views.' Moreover, he himself had repeatedly been driven to doubt 'the verity of the Spokane Flood',[44] only to be forced 'by reconsideration of the field evidence, to use again the conception of enormous volume … These remarkable

records of running water on the Columbia Plateau, and in the valleys of the Snake and Columbia Rivers, cannot be interpreted in terms of ordinary river action and ordinary valley development … Enormous volume, existing for a very short time, alone will account for their existence.'[45]

It was this accumulation of compelling field evidence that Bretz asked to be considered – not by emotion, not by intuition, not by reference to received wisdom, but only by 'the established principles of the scientific method'.[46] 'Ideas without precedent,' he was to write later:

> are generally looked on with disfavour and men are shocked if their conceptions of an orderly world are challenged. A hypothesis earnestly defended begets emotional reaction which may cloud the protagonist's view, but if such hypotheses outrage prevailing modes of thought the view of antagonists may also become fogged.
>
> On the other hand, geology is plagued with extravagant ideas which spring from faulty observation and misinterpretation. They are worse than 'outrageous hypotheses', for they lead nowhere. The writer's Spokane Flood hypothesis may

> belong to the latter class, but it cannot be placed there unless errors of observation and direct inference are demonstrated.[47]

And this was the problem with all the criticisms of Bretz both before and after the Washington meeting. The geological establishment did not like what he had to say, it flew in the face of their gradualist reference frame, and they regarded it as a 'heresy that must be gently but firmly stamped out'.[48] In the final analysis, however, they could not disprove his science, only disapprove of it, which is a very different thing.

The heart of the matter remained Bretz's assertion that the ice cap had melted precipitously and his inability to propose a mechanism that could have brought about such melting. He himself, as noted, did not regard this as a significant stumbling block, but his critics did. Over the years, therefore, in attempts to appease them, he several times reluctantly, proposed two possible solutions. These were some sort of radical, short-lived climate change, on the one

hand or, on the other, an episode of volcanic activity beneath the ice cap. He admitted of the former, however, that 'no such climatic change is recorded elsewhere, and the rapidity demanded seems impossible', while of the latter, he observed that 'nothing has been found in the literature to suggest Pleistocene volcanism in the area which was drained across the Columbia Plateau.'[49]

Interestingly, by the time Bretz faced his hostile peers in Washington he was *already* aware of – but had dismissed – the very explanation for cataclysmic flooding that would much later be taken up by the geological establishment and open the door to the universal acceptance of his evidence that prevails today. In his outline for his January 1927 presentation he wrote: 'Both Mr Alden and Mr Pardee have suggested that I consider the sudden draining of a glacial lake to account for the flood … Mr Pardee [in a 1925 letter to Bretz] specifies Lake Missoula, which is the only one of any magnitude known in the region that might have functioned.'[50]

Eventually, in the 1940s, Bretz would indeed embrace a sudden draining of Glacial Lake Missoula as the source for his flood but the reason why he did *not* do so in 1927 is important and, as we shall see, of the greatest relevance to the evolving debate about what exactly happened in North America at the end of the Ice Age. In brief Bretz's view in 1927, as his biographer explains, was that the volume of Lake Missoula 'might not have been adequate to form the Scablands. "Twould run the flood for only 2 weeks," reads a handwritten comment by Bretz in this section of his outline.'[51]

In March 1930, Bretz published a brief abstract in the *Bulletin of the Geological Society of America*. The abstract was titled 'Lake Missoula and the Spokane Flood'. In it Bretz wrote that this lake had first been named and described by the geologist J.T. Pardee (whose letter on the subject he'd received in 1925), that it stood more than 4,000 feet above sea level and that it was at least 2,100 feet deep. Without going into any detail he noted that the lake had

been held in place by an ice dam and that 'seventy miles to the south-west, along the western arm of Purcell Trench and Spokane Valley, are the easternmost heads of the scabland channels. If a bursting of the dam occurred, water could escape only along this seventy-mile stretch.'[52]

By 1932 Bretz had warmed further to the idea that Lake Missoula could be the culprit behind his flood, although he felt that issues concerning the hypothetical ice dam and its proposed cataclysmic failure remained to be worked out.[53] At this point in his life, however, he seemed ready to move on and was to devote most of the next decade to other, completely different, geological puzzles. Then, in 1940, he was invited to speak on his Scablands theory at a meeting of the American Association for the Advancement of Science being held in Seattle. He declined the invitation, saying that his views and evidence were already in print, but the event turned out to be a seminal one. J.T. Pardee was there and presented a paper

on his work on Glacial Lake Missoula, making public for the first time his long-held conclusion that there had been a failure of an ice dam and that ‘the entire lake had drained catastrophically and, most likely, quite dramatically’.[54]

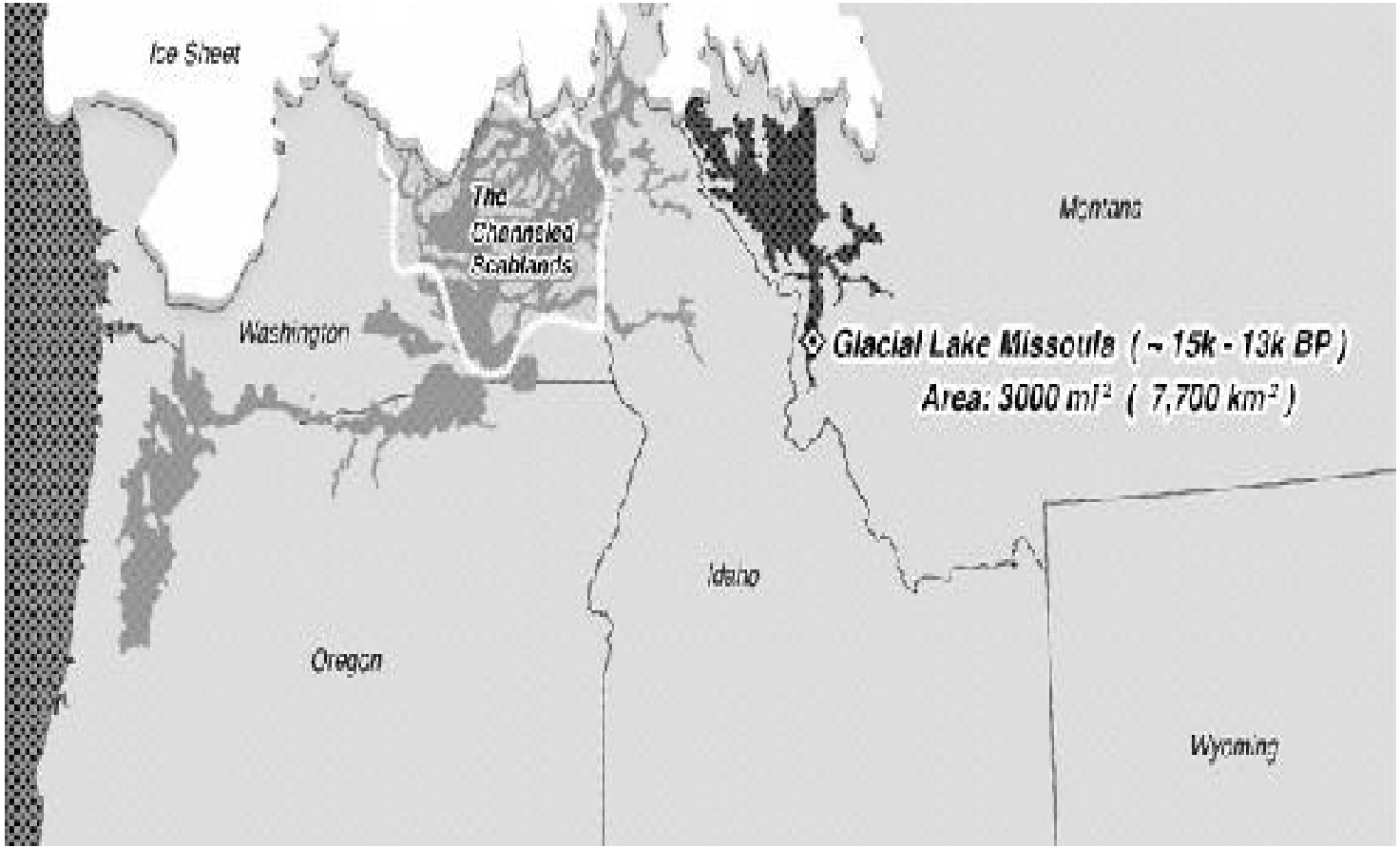
Ice Sheet
The
Channeled
Scablands
Montana
Washington
Glacial Lake Missoula (~ 15k - 13k BP)
Area: 3000 mi² (7,700 km²)
Idaho
Oregon
Wyoming

Figure 15

Curiously Pardee did not connect his Missoula findings to Bretz's own long-standing and well-known case about the creation of the Channeled Scablands by a catastrophic flood, but much later, Bretz would write: 'He never said, at least in print, anything about the final deposition of this vigorous discharge. I do believe, however, that he was generously leaving that to me.'[55]

In the process of making the most of what had been left to him, Bretz abandoned his single cataclysmic flood model in favour of one more palatable to his opponents. 'There were several floods,' he was eventually to write (in 1959). 'The theory is elastic enough to take care of that.' [56] In the same year, Bretz was presented with the Neil Milner Award in honour of his exceptional contributions to Earth Sciences.[57]

A few years later, in 1965, Bretz's transformation from pariah to poster boy seemed complete. The International Union for Quaternary Research organised a field trip to the Columbia Plateau

for many former critics of the catastrophic flood theory. The group traversed the full length of Grand Coulee, part of the Quincy Basin, and much of the Palouse-Snake scabland divide. At the end of the trip the participants, humbled by what they had seen, and satisfied as to the source of the flood-damage in Glacial Lake Missoula, sent Bretz a telegram of greetings and salutations. The telegram closed with the words: 'We are all now catastrophists.'[58]

'Be assured,' wrote Bretz, 'that after 30 years, and 30 papers in self-defence, and more than 30 people who vigorously denied my theory, it did my heart good like medicine.'[59]

The final accolade came in 1979 when Bretz, by then aged 96, received the Penrose Medal, the Geological Society of America's highest accolade. After this award, he told his son: 'All my enemies are dead, so I have no one to gloat over.'[60]

Bretz went on to his next great adventure, aged 98 years, on 3 February 1981.

Gradualism draws the teeth of Bretz's cataclysm

So … all seemed well. The evidence of a land scoured by cataclysmic deluge could not be denied. The timing had been set – perhaps not precisely, but at any rate somewhere in the last millennia of the Ice Age between 15,000 and 11,000 years ago. The source of the deluge had been tracked down to Glacial Lake Missoula. And the crunch-point of whether there had been just one gigantic flood – which Bretz's honed instincts as a field geologist had originally suggested – or multiple floods as his gradualist colleagues preferred, had been conceded with reference to the elasticity of his theory and an allowance of 'several' floods.

It becomes clear in later papers published by Bretz that he was willing to accept that up to eight floods had occurred.[61] This was, undoubtedly, a concession to gradualism – eight smaller floods politely spread out over a period of some thousands of years being more palatable to those of a uniformitarian persuasion (i.e. to most

geologists, then and now) than a single humungous event of great violence that occurred suddenly, did massive damage, and was over and done with in about three months. Nonetheless Bretz remained a catastrophist at heart. Victor R. Baker of the Department of Hydrology and Water Resources at the University of Arizona notes in his study, *The Spokane Flood Debates*, that while Bretz did indeed extensively modify his original hypothesis,

> there was a lingering suspicion that one was dealing with an unusual exception to a general rule. Bretz himself had claimed: 'The unique assemblage of forms … described … as the Channeled Scabland … records a unique episode in Pleistocene history … Special causes seem clearly indicated.'[62]

In other words, regardless of any concessions, what is referred to here are causes that were still unique and special enough to be described as catastrophic and that did not undermine the conclusion that 'it *was* a debacle which swept the Columbia plateau'.[63] It is surely significant that in his last published work, a note he wrote to

the Geological Society of America in 1979 accepting its highest accolade, the Penrose Medal, that Bretz took the opportunity to drive this point home. ‘Perhaps,’ he wrote:

> I can be credited with reviving and demystifying legendary catastrophism and challenging a too rigorous uniformitarianism.[64]

What Bretz the catastrophist and challenger of uniformitarianism could not have known, however was that once he had invited the vampire of gradualism through the door it would not be satisfied with the compromise that he had tried to strike, but would keep on remorselessly sucking the blood out of any notion that what had happened in the Channeled Scablands had been any sort of ‘debacle’ at all.

Thus, as the years have gone by and new generations of gradualist scholars have taken their places at universities around the world, the eight floods that were first allowed to modify Bretz’s single cataclysm have steadily increased in number – to a dozen,

then to more than twenty, then to thirty-five, then to 'about forty', and finally, in recent papers, to as many as ninety or more![65] 'The most current opinion,' summarises Vic Baker, 'is that there were about eighty floods that all occurred within a period of 2,500 years [roughly between 15,000 years ago and 12,000 years ago], possibly at regular intervals.'[66]

Eighty floods in 2,500 years works out at one flood approximately every thirty-one years – thus doing away with any need for a single exceptional cataclysm and accounting for the horrendous mess of the Channeled Scablands by the accumulated effects of a rather regular, predictable, essentially gradualist series of events. Better still, from the uniformitarian point of view, outburst floods from ice-dammed glacial lakes still occur today. They happen regularly in Iceland, for example, where they are called *jökulhlaups*, the term that has been adopted for them worldwide, and that I will continue to use here. Other locations

where they are common include the Himalayas, Antarctica, Northern Sweden, and North America. As Geology Professor David Alt points out, several glacially dammed lakes in Alaska and northern British Columbia are prone to episodes of very fast drainage. These events usually occur 'in summer when a fast snowmelt rapidly raises the level of the lake. The ice dam that held Glacial Lake Missoula probably floated and broke during the summer for the same reason.'[67]

In this way the uniformitarian doctrine that 'the present is the key to the past', and that the rate of change observable today is an accurate guide to rates of change that prevailed in the past, has quietly reasserted itself and Bretz's disturbing flood evidence has been explained away as nothing very much to worry about after all. The scholars have also rather cleverly contrived to have their cake and eat it: on the one hand giving Bretz a medal and proclaiming that they are 'all catastrophists now'; on the other quietly

transmuting Bretz's catastrophe into the sort of thing that one sees every summer in Alaska and British Columbia.

This is all very reassuring, of course, but suppose that Bretz's original insight was right and that what happened in North America at the end of the Ice Age really was a sudden, cataclysmic flood, something unprecedented and unmatched since?

Suppose it really was a debacle?

Back to Bretz

Randall Carlson is quite certain that it was indeed a debacle – one that unfolded on an almost unbelievable scale – and has spent the last twenty years trekking back and forth across the Channeled Scablands asking local geologists difficult questions that no one else seems to have considered and building a formidable case.

The sort of case, I suspect, that Bretz would be making if he were still with us and at the height of his powers.

I first met Randall in 2006. The North American Ice Age floods were amongst the subjects we discussed and I was startled to discover that he didn't accept the ice dam theory *at all*, and regarded Glacial Lake Missoula as a huge diversion – an easy solution that panders to uniformitarian prejudices and has led geologists away from the truth. In the years that followed we corresponded from time to time and occasionally bumped into each other at conferences where we were both speaking. I was enormously impressed by his depth of knowledge, by his field experience and by the intriguing new insights his research seemed to offer into the mysterious events that brought the Ice Age to an end. I found we shared a particular and growing interest in the Younger Dryas – that return to full glacial conditions that began suddenly 12,800 years ago, just when the world seemed to be warming up, and that ended equally suddenly 1,200 years later.

During this peculiar episode certain Stone Age hunter-gatherer peoples such as the 'Clovis' culture of North America vanished

from the archaeological record and there were mass extinctions of animal species – so clearly something unusual was going on – yet no uniformitarian or gradualist explanations have ever been offered. Moreover, although I didn't investigate it in my 1995 book *Fingerprints of the Gods*, I realised afterwards that the span of the Younger Dryas, from 12,800 years ago to 11,600 years ago, coincided exactly with the 'window' during which I had argued that an advanced civilization of prehistoric antiquity was obliterated from the face of the earth and lost from human memory.

Accordingly in my book *Underworld*, published in 2002, I was more attentive to the Younger Dryas problem. 'At around 13,000 years ago,' I noted:

> the long period of uninterrupted warming that the world had just passed through (and that had greatly intensified, according to some studies, between 15,000 years ago and 13,000 years ago[68]) was instantly brought to a halt – all at once, everywhere – by a global cold event known to palaeoclimatologists as the 'Younger Dryas' …[69] In many ways mysterious and unexplained, this was an

almost unbelievably fast climatic reversion – from conditions that are calculated to have been warmer and wetter than today's 13,000 years ago,[70] to conditions that were colder and drier than those at the last glacial maximum just a few hundred years later.[71]

From that moment, around 12,800 years ago, it was as though an enchantment of ice had gripped the earth. In many areas that had been approaching terminal meltdown full glacial conditions were restored with breathtaking rapidity and all the gains that had been made since the LGM [Last Glacial Maximum – around 21,000 years ago] were simply stripped away: 'Temperatures … fell back on the order of 8-15 degrees centigrade … with half this brutal decline possibly occurring within decades. The Polar Front in the North Atlantic redescended to the level of Cabo Finisterre in northwest Spain and glaciers readvanced in the high mountain chains. With respect to temperature the setback to full glacial conditions was nearly complete …'[72]

For human populations at the time, in many except the most accidentally favoured parts of the world, the sudden and inexplicable plunge into severe cold and aridity must have been devastating.[73]

The sense of mystery – and mortal danger to mankind – that clung about the Younger Dryas continued to intrigue me, encouraging me to read up on it and try to understand it better. I recall a number of

conversations and email exchanges with Randall after 2006 that focused on the subject and it became increasingly obvious to me that the Younger Dryas had been a global cataclysm in every meaningful sense of the term. It wasn't until 2013, however, when Randall made the case to me that North America, and particularly the Channeled Scablands, had stood at the epicentre of that cataclysm, that I decided it was time to see the evidence on the ground. On impulse I invited him to join me on a field trip. It took more than a year to find a time that worked for both our schedules but finally, in September 2014 I met Randall in Portland, Oregon, and we took off east and north into neighbouring Washington State to explore the Scablands in the big, red four-wheel drive we'd hired.

Chapter 4

Journey Through the Scablands

We're on a 2,500 mile (4,000 kilometre) road trip from Portland, Oregon to Minneapolis, Minnesota. The journey would be shorter if we took the direct route. But we're stopping and diverting into coulees and river valleys and around buttes and up the sides of mountains and across the Channeled Scablands immediately south of the vast Cordilleran and Laurentide ice caps that once covered much of North America. The objective is for me to get as full an understanding as possible of what happened here and by the fourth day, when we reach Dry Falls in the middle of the extraordinary

scar on the landscape called Grand Coulee, the picture is beginning to become clear.

The ground under our feet is ancient black basalt covered with a thin layer of topsoil. The basalt, extruded by volcanic eruptions between seventeen million and six million years ago, covers much of the Columbia Plateau and in some places is 2,000 metres (6,600 feet) thick.[1]

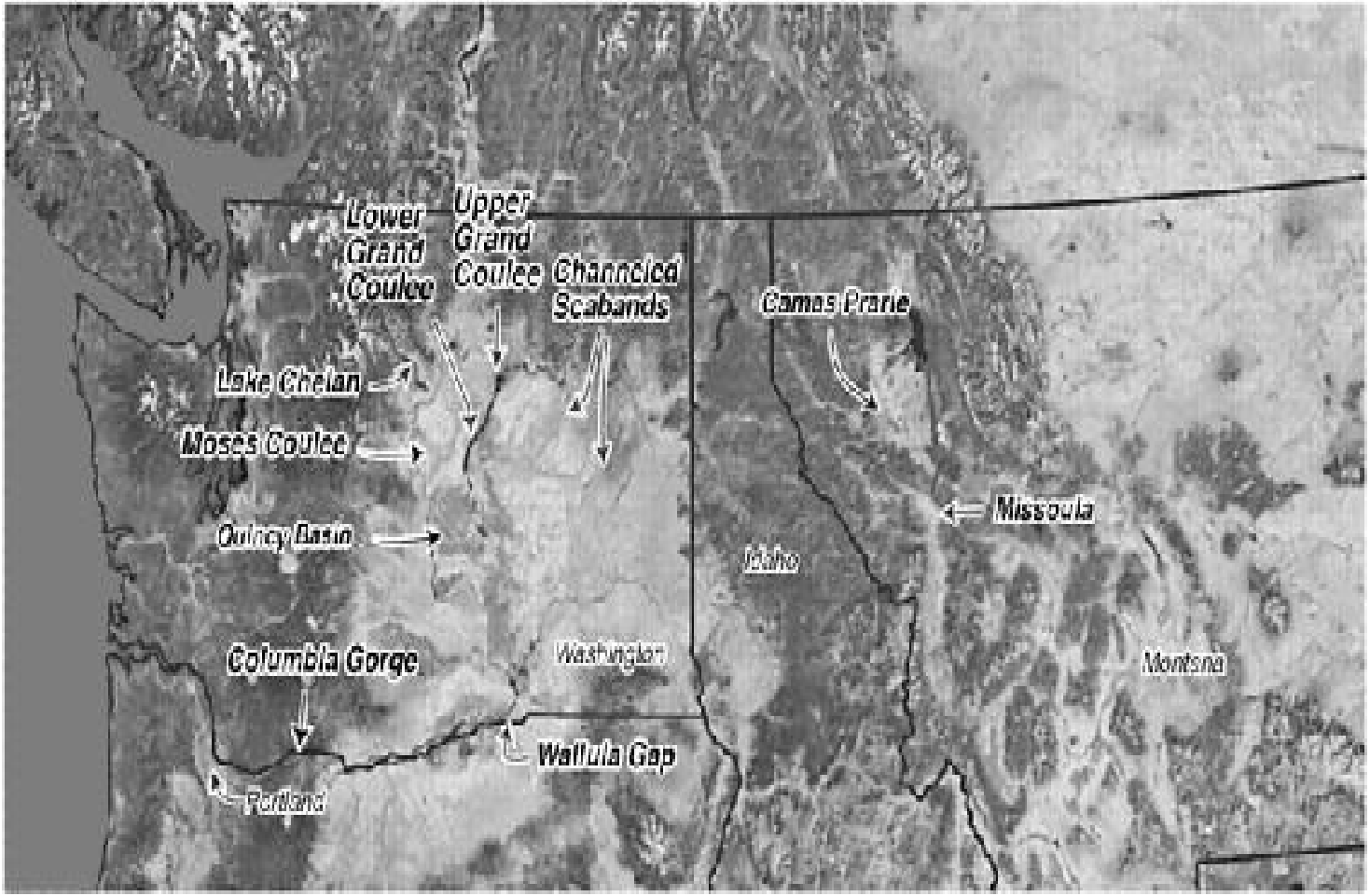
Lower Grand Coulee
Upper Grand Coulee
Channeled Scablands
Camas Prairie
Lake Chelan
Moses Coulee
Missoula
Quincy Basin
Idaho
Columbia Gorge
Washington
Montana
Wallula Gap
Portland

Figure 16

Not in Grand Coulee, though, because here it's as if some capricious force, perhaps even the hand of God himself, has seized a giant chisel with a blade miles wide, plunged it violently into the earth and gouged out a sheer-sided gash hundreds of feet deep and almost 60 miles (96 kilometres) long. The 'chisel', however, was not made of steel but of immense quantities of rushing, turbulent, debris-laden water that flowed for a few weeks only – the water of Bretz's flood. 'Grand Coulee,' he wrote, affords:

> the greatest example of canyon-cutting by glacial streams not alone for the Columbia Plateau, but for the world … A glacial river three miles in minimum width spilled southward here over the divide and down a steep monoclinal slope … The stream descended nearly 1,000 feet on a grade of approximately 10 degrees … Such a situation is unparalleled, even in this region of huge, suddenly initiated, high-gradient rivers … At least 10 cubic miles of basalt were excavated and removed.[2]

Bretz refers here only to the northern or Upper part of Grand Coulee.[3] But the same amount of basalt again was also excavated

from Lower Grand Coulee as ‘the stream’ rushed on. Making our way here today we paused in the Ephrata Erratics Fan, south of the southern end of Lower Grand Coulee to see where all that basalt excavated by the waters was dumped. It was a chaotic, jumbled, disturbing sight – disturbing because as far as the eye could see in all directions across the prairie lay scattered countless thousands – more likely millions – of jagged, broken basalt boulders, some about the size of a family car, some smaller – down to the size of a football – and many larger.

‘Everything was reduced to rubble,’ Randall Carlson explained to me, as we stood there in the midst of the Fan, ‘and that’s what you’re seeing. This rubble was part of the former world.’

‘The former world?’

‘Yes. The antediluvian world. And what’s lying here on the surface is just a fraction of what the flood flushed out of Grand Coulee. The rubble goes down deep. Hundreds of feet deep.’

From the Ephrata Fan we drove north on Washington State Route 17 into Lower Grand Coulee, it's sheer, forbidding basalt cliffs rearing up on either side of us, the grey rainclouds above reflected darkly in the chain of alkaline lakes – Soap Lake, Lenore Lake, Blue Lake and Park Lake – that lie ponded in its floor. Now we've reached Dry Falls at the head of Lower Grand Coulee and as we get out of the truck Randall reminds my wife Santha to bring her camera. 'You're going to see something cataclysmic here,' he announces with a mischievous grin.

Meet Randall Carlson

You may be too young to remember the 1977 TV series called *The Life and Times of Grizzly Adams*, but you can always Google it if you weren't here.

The eponymous hero, a tough woodsman played by actor Dan Haggerty, was a big, bluff, bearded sort of fellow and Randall

Carlson, by virtue of his enormous beard, his general appearance and his rough, gruff personal style, reminds me of him a lot. Randall lives in Atlanta, Georgia, now, but he spent most of his youth in rural Minnesota and his voice still carries the quirky undertones of Scandinavian and German that make the Minnesota accent so recognizable.

He grew up on the shores of Schmidt Lake, one of tens of thousands of small meltwater lakes spread across Minnesota and Wisconsin, and he used to go fishing there as a boy, perched on a huge boulder that he afterwards understood to be a glacial erratic – ‘a boulder quarried from bedrock and carried by an advancing glacier perhaps many hundreds of miles from its source to be deposited in a location far removed from its origin’.[4]

Today, half a century on from his boyhood, he says that the Midwestern landscapes of his youth have left an indelible imprint on his psyche:

> From these early experiences I entered into a sort of dialogue with the earth which continues unabated to this day. This dialogue has involved thousands of hours spent in the field, traversing and studying a wide variety of landscapes, along with thousands of hours in the study of various sciences related in one way or another to the goal of understanding this extraordinary planet upon which we are engaged in this ongoing human experience … It is a fearsomely dynamic planet, one that has undergone profound changes on a scale far exceeding anything within recent times. In fact I now realise that what we think of as history is merely the record of human events that have transpired since the last, great planetary catastrophe. I also understand that the imprint of these catastrophes is to be found all around us, in virtually every environment, and we are just beginning to be able to perceive and decipher the evidence.[5]

Randall makes his living as an architect and builder but his passion is geology.

Catastrophist geology.

And as those who have attended one of his lectures will attest, he knows more about it than pretty much anyone else you are ever likely to meet. He has gleaned his knowledge from a vast reading of the scientific literature and, as he says above, from thousands of

hours of fieldwork. To me this sort of in-depth on the ground learning, the miles walked through the wilderness, the years of dedicated library research, mean far more than any university degree. Randall is not a geologist and does not claim to be a geologist but his grasp of the subject is worth a dozen PhDs.

And right now we're standing on a sort of concrete pier with waist-high fencing, suspended out over the plunging horseshoe amphitheatre of Dry Falls. There's a chill wind blowing this late September day and Randall is about to give me a geology lesson …

Dry Falls

'Ever been to Niagara Falls?' Randall asks.[6]

I confess that I have not.

'But you've seen photographs? You have a sense of the place?'

'I suppose, so, yes …'

‘OK, so just a guess … Which is bigger?’ He indicates the vista that confronts us. ‘Dry Falls? Or Niagara?’

I’m thinking it’s a trick question. Randall being a Minnesotan, is of course compelled to ask trick questions. I look out at the natural amphitheatre. It’s a long way down. And a long way across. A couple of circular lakes of pooled rainwater, overgrown with reeds, decorate the base of the towering horseshoe of sheer cliffs confronting me – over which, it is absolutely obvious, huge quantities of water must once have flowed. I haven’t been to the Niagara Falls, which are 51 metres high, but I did spend a day of amazement at Victoria Falls in southern Africa, and they’re 108 metres high. The classic horseshoe shape of Niagara that you see in all the pictures is repeated at Victoria Falls. And here’s the same horseshoe shape in Washington State in the US, preserved in the dry fossil of an ancient cataract.

‘Dry Falls is bigger than Niagara,’ I say, sounding more confident than I feel.

‘Okay, good so far, but how *much* bigger?’

‘Twice as big,’ I hazard a guess.

‘Not bad,’ Randall says. ‘But actually Dry Falls is close to three times as high as Niagara and more than six times as wide.’ He points. ‘See how the cliffs are scalloped there?’

I do. The Dry Falls horseshoe is in fact two horseshoes side by side, one to the east, one to the west.

‘Well, Niagara would fit easily into just half of the eastern horseshoe and its rim would be almost two hundred and fifty feet beneath the rim of Dry Falls. Also – look there …’ Randall draws my attention to the eastern side of the horseshoe where there’s a gap and then a high, narrow fin of cliffs running south. ‘That’s Umatilla Rock,’ he says, indicating the fin. It would have been a kind of island at the peak of the flood. An underwater island.’

‘Underwater?’

‘Yes. When the flood came through here, the water was more than five hundred feet deep. It would have overtopped Umatilla

Rock, and the Falls themselves, and right here where we're standing, by, oh, a hundred, maybe a hundred and fifty feet.'

'So if I'd been able to stand here then …'

'Which you wouldn't have …'

'I know. I'd have been swept away, but just for the sake of argument, if I had been able to stand here, I take it I *wouldn't* have seen a sheer sheet of water bursting over the lip of the falls and crashing down hundreds of feet?'

'No, because that was happening far beneath the surface. What you would have seen at this point would have looked more like a whirling, churning slope in the torrent with some kind of abrupt bump or gradient in it than an actual waterfall, but all the work that a waterfall does on rock was still going on, under the surface …'

'What do you mean by work on the rock?'

'The water is coming through here in enormous quantities and horribly fast, running at up to seventy miles an hour according to some estimates, and you've got to realise that it isn't just water. It's

more like a slurry of thick mud, and there's whole forests torn up by their roots that are roiling around in it, and fleets of icebergs jostling on the surface, and down at the bottom there's a huge rumbling rubble of rocky debris, boulders like the ones we saw dumped all over the Ephrata Fan, and this whole mess is rushing and tumbling and plucking as it passes …'

'Plucking?'

'Yes, that's the best way to describe it. Like giant fingers plucking out blocks of the basalt bedrock, ripping them out, dragging them into the torrent and sweeping them downstream – that's how the erosive work is done.' Randall gestures again at the scalloped, horseshoe cliffs. 'But what we see from here is less than half the picture. If we were up in an airplane looking down we'd see another set of horseshoes even bigger than these ones off to the east, wrapping round beyond Umatilla Rock …'

'So with all that taken into account, what's the total extent of Dry Falls?'

‘About three and a half miles … That was where it had got to when the flood stopped. God only knows what it would have ended up looking like, or where it would have been today, if the flood had continued even for another couple of weeks …’

‘I don’t understand.’

‘The indications are that the flood only lasted a matter of weeks, and throughout that time the falls were constantly migrating northwards …’

‘Migrating?’

‘Yes, all falls migrate, at different rates depending on the amount and force of the water flowing over them. They pluck at the bedrock and constantly eat it away upstream. Take Niagara, for example. It’s retreated seven miles in the last twelve thousand years,[7] but that’s puny compared with what happened here, where the retreat was about thirty miles – the whole length of Lower Grand Coulee – in less than a month.’

‘So the rate of erosion was incredibly fast?’

‘Yes! Thousands of times faster than Niagara, because of the incredible amount and force of the water here. Dry Falls was the greatest waterfall that’s ever existed on planet earth.’

‘And all that water’s supposed to have come out of Glacial Lake Missoula?’

‘Well,’ says Randall. His beard juts out stubbornly. ‘That’s the theory.’

Erratic hunting

Randall doesn’t buy the gradualist theory that multiple emptyings of Lake Missoula through multiple breakings and remakings and breaking again of its ice-dam can account for the evidence on the ground. He doesn’t dispute that the glacial lake existed, or that there were outburst floods from it, but he’s convinced it was never anywhere near big enough to account for all the cataclysmic

features of the Channeled Scablands. Like J Harlen Bretz in the 1920s, he believes that one sudden, short-lived, totally exceptional flood of truly immense proportions was the real culprit.

On another day Randall takes me ‘erratic hunting’ to explain why. We pull off Interstate 97 onto the Waterville Plateau and drive across rugged, rolling country where occasional green and yellow fields intermingle with wilder moorland too poor ever to be farmed. Pretty soon we start seeing huge clusters, flocks, packs, crowds, of giant boulders all of ominous black basalt, all alien to this landscape and I know enough, now, to recognise them for what they are. As ice caps move and spread they snatch up, enchain and transport huge rocks that then remain locked within them until the ice melts and drops it load. What happened here – the place is actually called ‘Boulder Park’ and is recognised as a National Natural Landmark – was a different aspect of the same process. ‘When the Ice Age flood came pouring down over the Waterville Plateau,’ Randall explains:

> it was carrying thousands of icebergs with it – icebergs as big as oil-tankers with house-sized boulders frozen inside them. When they bumped up against hillsides [he points to a distant ridge with ranks of colossal boulders strewn across it] the icebergs grounded and stuck there. Eventually, after the flood had subsided, they melted out leaving the boulders where they sit to this day strewn all over the top of the plateau beyond the ridge and carpeting the hillside for twenty miles going north.'

'But that ridge must be what, eight hundred, maybe nine hundred feet above us,' I observe.

'Exactly! Which tells us that the water was at least that deep here. Or rather, not simply water but a sludge slurry, and as the flood starts to subside the slurry just gets thicker and thicker with sediment until it finally leaves the whole valley floor covered in sediment hundreds of feet thick and filled with embedded boulders. I mean, again, we are looking at the ruins and wreckage of a former world.'

We get back onto Interstate 97 heading south along the west bank of the majestic Columbia river and divert west on Alternate 97 towards Lake Chelan. Fifty miles long and never more than a mile and a half wide, lying in the bottom of a forested, steep-sided valley overshadowed by lofty mountains, Chelan has the look and feel of a grand Scottish loch. It is appropriate, therefore, that it also has traditions of a lake monster – a dragon, according to Native American legends – that ate up all the game, leaving the people starving. The Great Spirit was angered and decided to intervene. He descended from the sky:

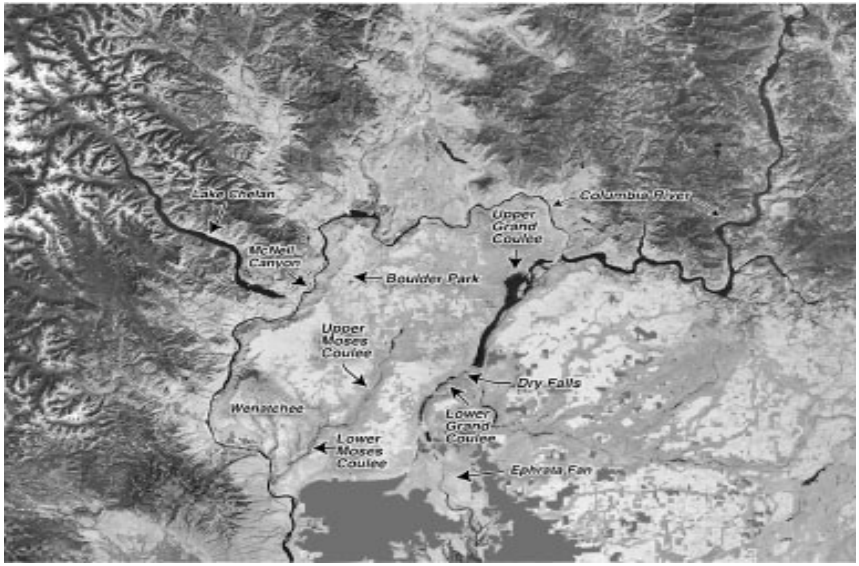

Figure 17

and struck the earth with his huge stone knife. All the world shook from his blow. A great cloud appeared over the plain. When the cloud went away, people saw that the land had changed. Huge mountain peaks rose on all sides of them. Among the mountains were canyons. Extending from the north-west to the south-east for a two days' journey was a very deep canyon. The Great Spirit threw the monster's body into this deep and long gorge. Then he poured much water into it and so formed the lake. Long afterward, Indians called it Chelan.[8]

Chelan means ‘Deep Water’ in the local Salish Indian language, and Lake Chelan is indeed 1,468 feet (453 metres) deep, making it the third deepest lake in the US and the twenty-sixth deepest in the world.[9] Some aspects of the myth, I note in passing, are evocative of earth changes at the end of the Ice Age. Mountains that had been hidden beneath the ice cap, and that therefore no one had seen before, did indeed appear when the ice melted. Canyons were indeed carved through the whole of the Columbia Plateau by the rushing waters of Bretz’s flood. And as we will see in the next chapter there may also be more than meets the eye to the huge stone knife from the sky striking the ground so hard that ‘the world shook’, and to that ominous cloud that appeared over the land. Likewise, the presence of an immense iceberg-rafted erratic above the town of Manson on Chelan’s north shore,[10] suggests that the notion of ‘much water’ being poured into the lake, in other words of a flood passing through here, may also be rooted in memories of

real events.

After passing more erratics scattered around the southern end of Lake Chelan,[11] we head back to Interstate 97, cross to the east bank of the Columbia River at Beebe Bridge, then go north to the mouth of McNeil Canyon where yet more boulder-strewn moorland awaits us. Numbering in their thousands, the erratics here are known locally as ‘haystack boulders’ because of their distinctive appearance, but the rounded profile they show from a distance gives way, close up, to a mass of jagged and splintered black basalt. Many of them are thought to weigh more than 10,000 tons, and as Randall and I examine them, I’m daunted by their great height and mass, and amazed at the power and energy of the floodwaters that brought them here.

We get back on Interstate 97 again and drive the forty miles south to the confluence of the Wenatchee and Columbia Rivers near the eastern foothills of the Cascade Mountains. Here Randall has a last

giant erratic to show me, this one weighing, he estimates, 18,000 tons. It stands high up on the side of a long, wide valley, looming over a modern housing development, hundreds of feet above the confluence of the rivers and the town of Wenatchee.

We scramble to the top of the erratic so we can look down on the rivers glistening far below. ‘Obviously,’ Randall explains, ‘the flood waters must have filled the whole valley from bottom to top so when the iceberg floated in it stranded right here then melted away and left this sitting on the ridge.’

‘And the flood itself? Where did it go next?’

‘The water coming down through here met the water coming out of Grand Coulee and Moses Coulee and many other scabland channels, and then it all together flowed down to Pasco Basin and Wallula Gap …’

Black rain

The next day finds us on top of a high bluff overlooking Wallula Gap. ‘So the water here rose up to roughly 1,200 feet above sea level,’ Randall says.[12] He consults his GPS, ‘and where we’re standing now is 1,150 feet above sea level, so the flood would have been fifty feet over our heads.’

‘And the water came from which direction?’

Randall points north: ‘It came roaring out of the Channeled Scablands. A mass of different flows converged here, and then passed on through, down the Columbia. So this was the gathering of the waters. Here’s where all of these great flood streams came together.’

I look out over the scene below, a drama of earth, and sky … and water.

The sky is grey, thunderous and filled with rain as it has been throughout our trip. The earth element begins with a very thick, powdery layer of soft dun-coloured dust called loess that lies

everywhere under our feet on the top of the bluff. But then the bluff plunges away in a steep tumbling fall down to the Columbia – which forms the water element – below. Across the stream, more than a mile wide here, the terrain rises again towards the east, not so sheer as on the west side where we're standing, still covered by that same thick layer of powdery loess and marked in addition by distinctive scabland topography, with cliffs plunging into valleys and a series of outcrops carved by the ancient floods – most prominently the two isolated basalt pillars known as the 'Twin Sisters' that stand directly opposite us.

'Those Twin Sisters,' Randall explains, 'are a remnant … Look there, immediately to the left of the Sisters you can see a shelf. That would have all been continuous … I believe that was the pre-flood valley floor … When the flood hit, it ripped through here and lowered the valley floor by about two hundred feet, based on the present depth of the river and the height of the Twin Sisters. Had the flood continued for a week longer the Twins would have been

washed away as well … They would have been about eight hundred feet underwater. And really, if you look across – there, way above the level of the Sisters – you'll see that uppermost outcrop of basalt, roughly at our level. That would have been the high water mark and everything below that was underwater at the peak of the flood – so what you're seeing over there in the scabland around the Sisters is that spectacular erosion of the basalt by the water, just ripping through here at sixty or seventy miles an hour because the back pressure would have been so great.'

'Fearsome and ferocious flows,' I hazard.

'Oh, my God, yes! Like an inland sea, except that it's moving …'

'And it's turbulent and it's angry …'

'And the turbulence is increasing massively as it comes up to this constriction at Wallula Gap. But when you look at the capacity of this valley, it would have had to have been a hell of a lot of water pouring in from the north to backflood to the extent that it did. The valley out of Lake Missoula is no bigger than this one and it's two

hundred miles north of here. So how could that water have spilled out of Lake Missoula, travelled two hundred miles to here, and not have attenuated to the degree that it would just pass through without ponding above the gap? But it did pond, massively and deeply as we can tell from the high water mark. And that, to me, is just incontrovertible evidence that there was more water pouring into this than could ever have been pouring out of Lake Missoula.'

'So,' I summarise, 'we have water twelve hundred feet deep which flows through here turbulently …'

'Very turbulently …'

'And then how long does it stay that deep?'

'The estimates are that it's probably one to three weeks, and then it begins to ebb away. Because … they call this hydraulic ponding. This was effectively a hydraulic dam in the sense that the water itself, forced through a constriction like Wallula Gap, becomes a kind of dam – and especially so since the water here was filled with massive icebergs. All throughout the flood pathway are erratics that

were carried by icebergs – all the way down into Eugene, Oregon … You gotta picture it. You've got a moving sea choked with thousands of icebergs …'

I'm getting the picture all right. 'Wild scene,' I say.

'Wild scene,' Randall agrees. 'All of these icebergs are jostling up against each other and getting jammed in the gap. And what that's going to do is cause the water level to rise still further until the pressure increases enough to push the whole mass down through the gap – then the water level drops until the next jam occurs. So I think what we're seeing is a pulsating hydrograph that every time it rises, it backfloods further up the valley, and then the water level drops and then it rises again.'

The next point I put to Randall, closely connected to the vision of the flooded hellworld that he's just conjured up, relates to the central enigma I wish to explore in the rest of this section, but which I have not yet placed before the reader. It concerns the growing body of evidence that 12,800 years ago a giant comet travelling on

an orbit that took it through the inner solar system broke up into multiple fragments, and that many of these fragments, some more than a mile (2.4 kilometres) in diameter, hit the earth. It is believed that North America was the epicentre of the resulting cataclysm with several of the largest impacts on the North American ice cap causing floods and tidal waves and throwing a vast cloud of dust into the upper atmosphere that enshrouded the earth, preventing the sun's rays from reaching the surface and thus initiating the sudden, mysterious global deep freeze that geologists call the Younger Dryas. We will go into the evidence for all this, and how it relates to 'Bretz's flood' – which might not, after all, have emerged from Lake Missoula – in the chapters that follow. But for now, please bear with me as I play out the rest of my conversation with Randall at Wallula Gap.

'And there's been a comet impact,' I say, 'so we're expecting that the sky is going to be bad too …'

'Oh, it's got to be …'

‘Dark …’ I think about it, then add: ‘Lots of *stuff* wafted up there by the impact.’

‘Stuff!’ Randall kicks a furrow in the soft dust with the toe of his hiking boot. ‘That’s what I think this six-foot layer of loess is. All over the flood areas you see this six, seven, eight-foot thick layer of loess – and clearly it rained down out of the atmosphere.’

‘Like the legends of Kon-Tiki Viracocha.’ I name the South American civilizing hero, white-skinned and bearded like Quetzalcoatl and the Apkallu sages described in Chapter One, who was said to have come to the Andes during a terrifying period, thousands of years in the past, ‘when the earth had been inundated by a great flood and plunged into darkness by the disappearance of the sun’.[13] (Exactly like Quetzalcoatl in Mexico, and the Apkallu sages in Mesopotamia, Viracocha’s civilizing mission in the Andes had been to bring laws and a moral code to the survivors of the

disaster, and to teach them the skills of agriculture, architecture and engineering.)

‘Ah yes,’ Randall muses. ‘The legends of Viracocha. Wasn’t there something there about a black rain?’

‘There was, absolutely. A thick, black rain. It’s pretty much universal to the flood myths I’ve studied …’

Randall kicks the loess again. ‘This stuff is puzzling you know. It has a kind of vertical structure. Most theories suggest that it’s windborne, but the vertical structure is inconsistent with that. I’m developing an idea that it’s actually both water and windborne, because I think that the final rainout after the comet hit the ice cap was essentially a rainout of mud. There would have been a huge injection of superheated water into the stratosphere – filthy, particle-laden water – which would have then spread rather like the debris cloud of a nuclear explosion and the end result would undoubtedly have been a very intense, and prolonged rainout.’

But did a comet hit the earth 12,800 years ago?

As we'll see in the next chapter, the evidence assembled by an international team of highly credentialled scientists is taking the comfortable world of gradualist, uniformitarian geology by storm.

Chapter 5

Nanodiamonds Are Forever

Continuing our journey east through the northern states of the US, after leaving Washington and driving across the Idaho panhandle, Randall made a point of showing me some of the spectacular features of Camas Prairie in western Montana. There, what look to the unpractised eye like a series of colossal dunes march in serried ranks across the flat yellow floor of an elliptical basin, twelve miles long and ten miles wide, in the midst of the Rocky Mountains. But the ‘dunes’, it turns out, are not dunes at all. Instead they are giant current ripples, some more than fifty feet high and three hundred

feet long, formed at the end of the Ice Age when Camas Prairie was part of the bed of Glacial Lake Missoula and lay under about 1,400 feet of water.[1] Geologists are agreed that the ripples were shaped by powerful currents set in motion when the lake drained catastrophically.[2]

‘And I don’t dispute it,’ Randall says, as we stand on a vantage point above the prairie. A largely deserted highway runs through the floor of the ancient basin, but now as a vehicle appears, providing scale, I see that it’s dwarfed to matchbox size by the ripples.

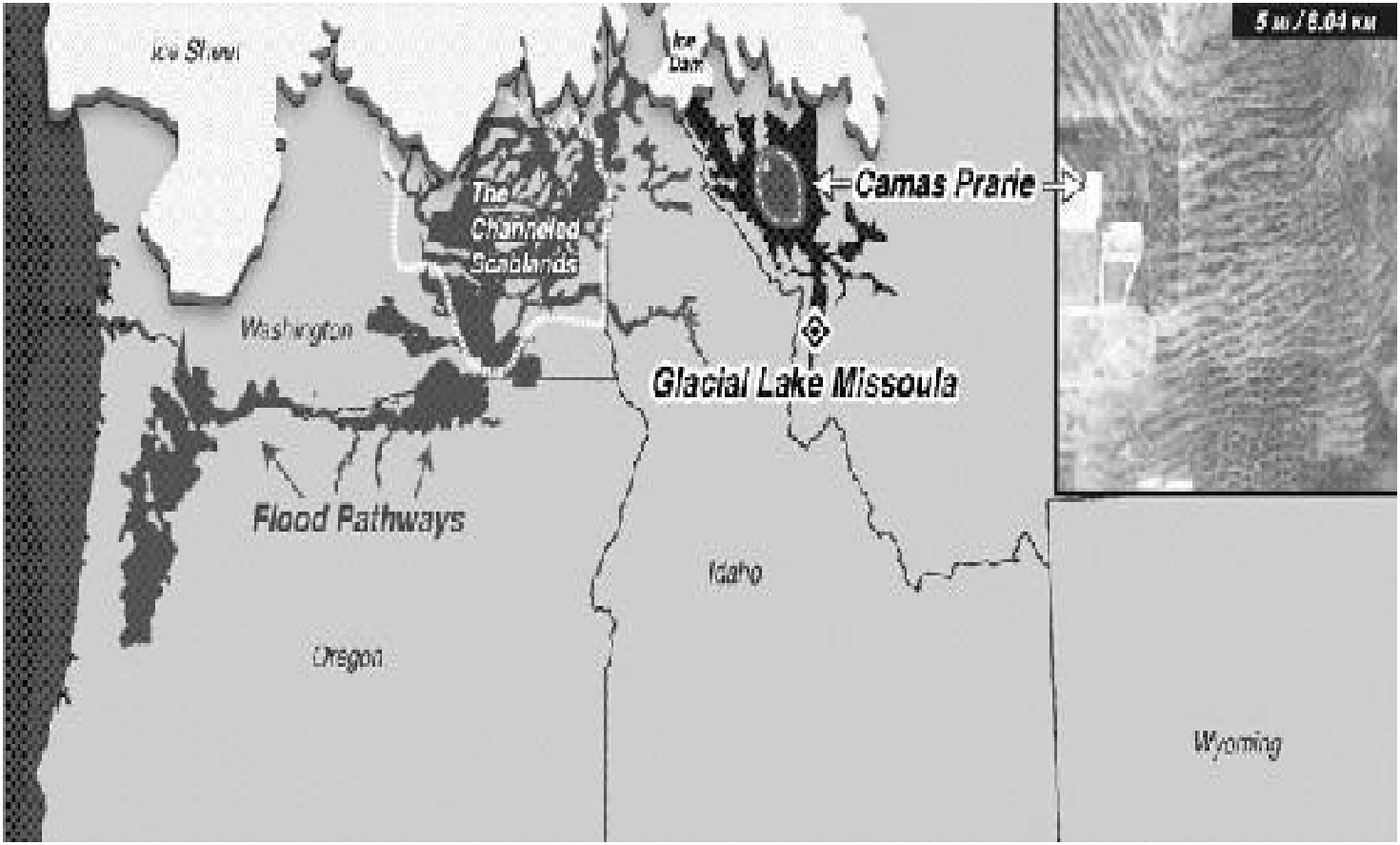
Ice Sheet
Ice Dam
The Channeled Scablands
Camas Prairie
5 mi / 8.04 km
Washington
Glacial Lake Missoula
Flood Pathways
Idaho
Oregon
Wyoming

Figure 18

‘So,’ I ask, ‘you have nothing against the existence of Lake Missoula as such? Or the notion that it did drain catastrophically?’

‘No, nothing at all. I have no doubt there were dozens of *jökulhlaups* out of Lake Missoula. Some were even pretty big. My point, though, is that none of them were of sufficient size to cause the spectacular flood damage that we’ve seen in the Channeled Scablands. That was done by an event orders of magnitude bigger than anything Lake Missoula could provide. So yes, the lake was dammed by ice in the Clark Fork valley, just as the gradualists maintain, and yes, that ice dam did break frequently over a period of a few thousand years, say from 15,000 years ago down to about 13,000 years ago. But the amount of water released in these periodic floods was minuscule, just a drop in the bucket compared to the final event – in which Lake Missoula was also involved, of course, but definitely not as the main culprit.’

‘And that final event had to do with the impact of our comet?’ (I’ve started calling it ‘ours’, but it’s usually referred to in the

scientific literature as the ‘Clovis comet’ or the ‘Younger Dryas Comet’.)

‘You bet,’ Randall replies. ‘But not just one impact. Multiple impacts. I’m guessing as many as four of the fragments – each of them maybe half a mile across, maybe bigger – hit the Cordilleran and Laurentide ice caps in a sort of scatter gun effect and caused just a *massive* amount of instantaneous melting. The meltwater was everywhere, in enormous quantities. Naturally some of it cascaded into Lake Missoula, filling it up suddenly and causing it to burst its ice dam, thus adding its contents to the much bigger floods that were already sweeping down from the north.’

‘So Lake Missoula was more of an innocent bystander, really, than the culprit.’

Randall chuckles. ‘Yes, that’s right. The lake was the innocent bystander that was in the way and that later got accused of the crime. But the comet was the culprit.’

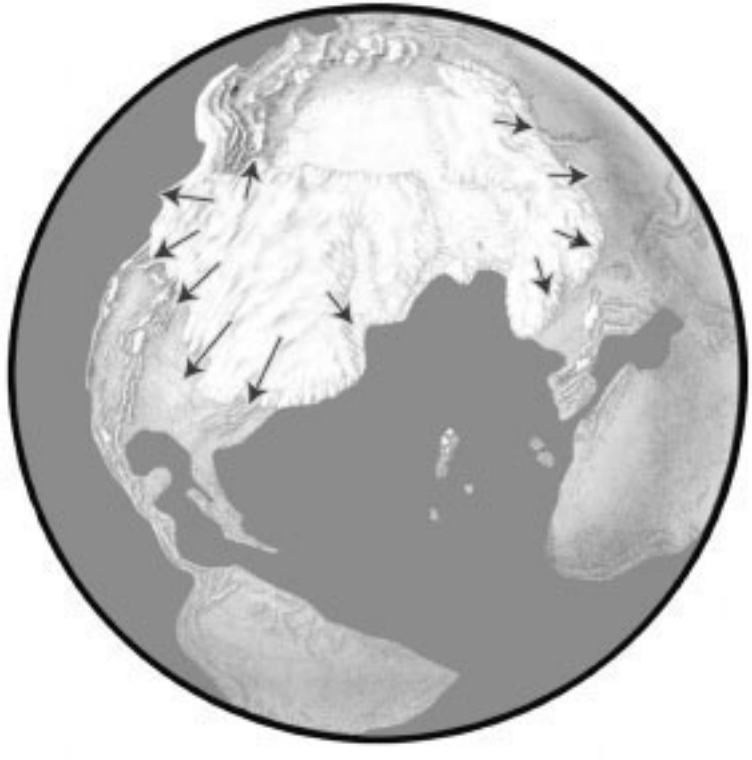

Laurentide and Cordilleran Ice Sheet
Meltwater Discharge Routes
Courtesy of Randall Carlson

Figure 19

Conspiracy corner

I'm no conspiracy theorist but I have a sneaking feeling – nothing more – that something a bit like a conspiracy is at work in science to prevent the proper consideration and wide public uptake of catastrophist ideas. I gave the example of J Harlen Bretz in Chapter Three. The frosty and deeply unpleasant reception initially given to his findings, the years that he spent in academic limbo afterwards, the repeated, persistent efforts made by a host of scholars to dismiss his evidence entirely, or, failing that, to account for it by gradualist means, and then at last, years later, when all that had failed and the notion of outburst floods from Glacial Lake Missoula had offered itself as a solution, the realization that he had been right all along. But *not* right, *not* right under any circumstances, *not* right in any imaginable universe, on the issue of the single cataclysmic 'debacle' that his instincts had originally led him to! If J Harlen Bretz was to be *right*, then it was necessary that he should be right in a politically correct way – in other words, in a way that could be redacted by

skilled uniformitarian spin-meisters to edit out any hint of lurking cosmic disaster!

Indeed, within the fantasy of such a conspiracy (I sincerely hope it is a fantasy!) the *jökulhlaups* idea is an exceptionally useful one. First of all, it provides what purports to be a wholesomely rational, sober and above all 'scientific' account of the tortured geological features witnessed by Bretz in the Scablands. Secondly, *jökulhlaups* happen every year in various parts of the world today, and thus do not violate the commandment that existing processes, *acting as at present*, must be held sufficient to account for all geological changes. Thirdly, present relevance can be assigned. The Ice Age floods need not be simply of scholarly interest; since *jökulhlaups* still occur in the twenty-first century, science can be brought to bear to anticipate and ameliorate their effects.

All of this might start to look like a very effective diversion from the truth, if the truth is that a cataclysm, a single, prodigious cataclysm, did occur at the end of the Ice Age …

And might furthermore recur.

What, in other words, if the Ojibwa prophecy is true?

What if the star with the long, wide tail is, indeed, ‘going to destroy the world some day when it comes low again’?

Would those who know this benefit from sharing their knowledge with others? Or might they think it served their interests better to keep quiet about the whole thing?

We’ll return to this in Chapter Nineteen. By comparison, the question we have to ask and answer first is much simpler.

Was the Younger Dryas cold event that began so suddenly and so mysteriously 12,800 years ago brought on by the effects of a large comet hitting the earth?

The evidence for the comet

‘The Younger Dryas (YD) impact hypothesis,’ as its proponents restated it in a keynote paper in *The Journal of Geology* in

September 2014, ‘proposes that a major cosmic impact event occurred at the Younger Dryas Boundary (YDB) 12,800 years ago.’[3] The paper, as we will see, presented a mass of new evidence in support of the hypothesis – in particular confirming and greatly extending earlier evidence of the copious presence of nanodiamonds in samples from the Younger Dryas Boundary layer taken in many different countries. Nanodiamonds are microscopic diamonds that form under rare conditions of great shock, pressure and heat, and are recognised as being amongst the characteristic fingerprints – ‘proxies’ in scientific language – of powerful impacts by comets or asteroids.[4]

By 2014 when the *Journal of Geology* paper was published, debate over whether or not a comet impact was involved in setting off the Younger Dryas had been raging for seven years. The first headline that caught my eye was in *New Scientist* magazine of 22 May 2007 and asked provocatively:

At that time, 2007, I was taking a break from the lost civilization mystery that had absorbed my energies, and been the subject of so many of my books, for so long. The *New Scientist* article tweaked my curiosity, however, because it referred to the exact epoch that I had focused on in my books. The article didn't speak of a lost civilization, but began with a reference to the so-called 'Clovis' culture of North America which, as we saw in Chapter Three, vanished from the archaeological record during the Younger Dryas between 12,800 and 11,600 years ago. 'The Clovis people,' the article observed:

> flourishing some 13,000 years ago, had a mastery of stone weaponry that stood them in good stead against the constant threat of large carnivores, such as American lions and giant short-faced bears. It's unlikely, however, that they thought death would come from the sky.
>
> According to results presented by a team of 25 researchers this week at the American Geophysical Union meeting in Acapulco, Mexico, that's where the

> Clovis people's doom came from. Citing several lines of evidence, the team suggests that a wayward comet hurtled into earth's atmosphere around 12,900 years ago [N.B. that date would later be revised downwards by a hundred years to 12,800 years ago], fractured into pieces and exploded in giant fireballs. Debris seems to have settled as far afield as Europe.[5]

As I read on, I learned that the team the article was referring to was composed of highly credentialled and eminently respectable mainstream scientists:

> Jim Kennett, an oceanographer at the University of California, Santa Barbara, and one of the team's three principal investigators, claims immense wildfires scorched North America in the aftermath, killing large populations of mammals and bringing an abrupt end to the Clovis culture. 'The entire continent was on fire,' he says.
>
> Lead team member Richard Firestone, a nuclear analytical chemist at the Lawrence Berkeley National Laboratory in California, says the evidence lies in a narrow 12,900-year-old carbon-rich layer of sediment found at eight well-dated Clovis-era sites and a peppering of sediment cores across North America, as well as one site in Belgium.[6]

Probed as to why no crater had yet been identified with this

hypothetical impact 12,900 years ago, a third team member, Arizona-based geophysicist Allen West, suggested that smaller, low-density parts of the comet would have exploded in the atmosphere, while larger fragments might have crashed into the two-mile deep ice cap that covered North America at that time. ‘Such craters,’ West observed, ‘would have been ice-walled and basically melted away at the end of the last ice age,’ leaving few traces.[7]

The article went on to explain that the sediment samples the team’s evidence focused on contained several different types of debris that could only have come from an extraterrestrial source, such as a comet or an asteroid. As well as nanodiamonds, the debris included tiny carbon spherules that form when molten droplets cool rapidly in air, and carbon molecules containing the rare isotope helium-3, far more abundant in the cosmos than on earth.[8]

> ‘You might find some other explanation for these individually,’ says Firestone, ‘but taken together, it’s pretty clear that there was an impact.’ The team says the agent of destruction was probably a comet, since the key sediment layer lacks both the high nickel and iridium levels characteristic of asteroid impacts.[9]

Last but not least, the *New Scientist* article confirmed, all the evidence pointed to North America as the epicentre of the disaster:

> Levels of the apparent extraterrestrial debris, for example, are highest at the Gainey archaeological site in Michigan, just beyond the southern reach of North America’s primary ice sheet 12,900 years ago. Moreover, levels decrease the further you go from Gainey, suggesting that the comet blew up largely over Canada …[10]

In other words, largely over the ice cap that covered the northern half of North America during the Ice Age – the source of all the meltwater that scarred and hacked the Scablands of Washington State in ‘Bretz’s flood’ (whether or not that meltwater came exclusively from Lake Missoula or gushed forth in far larger quantities than Lake Missoula, alone, could ever have held). Bretz

himself, as we've seen, was forced to abandon his own strong intuition that there had been a single, massive meltwater flood in favour of multiple flushings of limited amounts of meltwater out of Lake Missoula again and again over thousands of years.

The primary reason he embraced this theory, however, was not that he had become a convert to gradualism, but because he was never able to explain how a large enough area of the ice-cap to supply all the vast amounts of water needed for his flood could simply have melted all at once. He had proposed two possibilities – dramatic overnight global warming on the one hand, or volcanic activity under the ice cap on the other – but, as the reader will recall, he very quickly conceded there was no evidence for either. What Bretz did not consider, and *could not* consider – because the supporting evidence only began to come in a quarter of a century after his death – was the possibility that the ice cap could have undergone cataclysmic melting as a result of a comet impact.

If only Bretz had known …

A few months after the article appeared in *New Scientist*, the 'Clovis comet' team published a detailed paper on their findings. It appeared in the prestigious *Proceedings of the National Academy of Sciences* (*PNAS*) on 9 October 2007. Despite the sober setting, the headline was dramatic:

EVIDENCE FOR AN EXTRATERRESTRIAL IMPACT 12,900 YEARS AGO
THAT CONTRIBUTED TO THE MEGAFAUNAL EXTINCTIONS
AND THE YOUNGER DRYAS COOLING

A carbon-rich layer, summarised the team:

> dating to around 12,900 years ago, has been previously identified at Clovis-age sites across North America and appears contemporaneous with the abrupt onset of

> the Younger Dryas (YD) cooling. The *in situ* bones of extinct Pleistocene megafauna, along with Clovis tool assemblages, occur below this black layer but not within or above it. Causes for the extinctions, YD cooling, and termination of Clovis culture have long been controversial. In this paper, we provide evidence for an extraterrestrial (ET) impact event close to 12,900 years ago, which we hypothesise caused abrupt environmental changes that contributed to YD cooling, major ecological reorganization, broad-scale extinctions, and rapid human behavioural shifts at the end of the Clovis Period. Clovis-age sites in North America are overlain by a thin, discrete layer with varying peak abundances of (i) magnetic grains with iridium, (ii) magnetic microspherules, (iii) charcoal, (iv) soot, (v) carbon spherules, (vi) glass-like carbon containing nanodiamonds, and (vii) fullerenes with ET helium, all of which are evidence for an ET impact and associated biomass burning circa 12,900 years ago … We propose that one or more large, low-density ET objects exploded over northern North America, partially destabilizing the Laurentide Ice Sheet and triggering YD cooling. The shock wave, thermal pulse, and event-related environmental effects (e.g., extensive biomass burning and food limitations) contributed to megafaunal extinctions …[11]

Nor were the mammoths, mastodons, ground sloths, horses, camels, giant beaver and other megafauna alone. In total, it is particularly striking that no less than thirty-five *genera* of mammals (with each

genus consisting of several species) became extinct in North America between 12,900 and 11,600 years ago, i.e. precisely during the mysterious Younger Dryas cold event.[12] What was now emerging, therefore, was an explanation both for the sudden onset of the Younger Dryas itself and for the accompanying extinctions, and perhaps for much else besides – including the cataclysmic flooding that left its marks on the Channeled Scablands of Washington State.

This seemed all the more plausible when I learned that Firestone, Kennett and West's proposal for their comet was that it was a conglomeration of impactors including one that might have been as much as 4 kilometres (2.5 miles) in diameter.[13] Furthermore, that 4-kilometre object would itself have been just one amongst multiple fragments resulting from the earlier disintegration – while still in orbit – of a giant comet up to 100 kilometres or more in diameter.[14] Many of the fragments of the parent comet (including some of great

size as we'll see in Chapter Nineteen) remained in orbit. Those that hit the earth at the onset of the Younger Dryas underwent further explosive fragmentation (accompanied by powerful airbursts that would themselves have had cataclysmic effects), as they entered the atmosphere over Canada.

Nonetheless, the authors thought it likely that a number of large impactors, *up to 2 kilometres in diameter*, would have remained intact to collide with the ice-cap.[15] There, as West had earlier told *New Scientist*, any craters would have been transient, leaving few permanent traces on the ground after the ice had melted. 'Lasting evidence,' the *PNAS* paper added, 'may have been limited to enigmatic depressions or disturbances in the Canadian Shield, e.g. under the Great Lakes, or Hudson Bay.'[16]

Summarizing the damage, the authors envisaged:

> a devastating, high-temperature shock wave with extreme overpressure, followed by underpressure, resulting in intense winds travelling across North America at

> hundreds of kilometres an hour, accompanied by powerful, impact-generated vortices. In addition, whether single or multiple objects collided with the earth, a hot fireball would have immersed the region near the impacts … At greater distances the re-entry of high-speed, superheated ejecta would have induced extreme wildfires which would have decimated forests and grasslands, destroying the food supplies of herbivores and producing charcoal, soot, toxic fumes and ash.[17]

And how might all this have caused the dramatic cooling of the Younger Dryas? The authors offered many mechanisms operating together, amongst the most prominent of these being the huge plume of water vapour from the melted ice cap that would have been cast into the upper atmosphere, combined with immense quantities of dust and debris 'composed of the impactor, ice-sheet detritus, and the underlying crust' as well as the smoke and soot from continent-wide wildfires.[18] Taken in sum, it's quite easy to understand how so much lofted debris could, as the authors propose, 'have led to cooling by blockage of sunlight'; meanwhile the water vapour, smoke, soot and ice would have promoted the growth of

‘persistent cloudiness and noctilucent clouds, leading to reduced sunlight and surface cooling … [thus reducing] the solar insolation at high latitudes, increasing snow accumulation and causing further cooling in the feedback loop.’[19]

Severe and devastating enough in themselves, these factors nonetheless pale into insignificance when compared with the consequences of the hypothesised impacts on the ice cap:

> The largest potential effect would have been impact-related partial destabilization and/or melting of the ice sheet. In the short term this would have suddenly released meltwater and rafts of ice into the North Atlantic and Arctic Oceans, lowering ocean salinity with consequent surface cooling. The longer-term cooling effects would have resulted largely from the consequent weakening of thermohaline circulation in the northern Atlantic, sustaining YD cooling for [more than] 1,000 years until the feedback mechanisms restored ocean circulation.[20]

Impact-related partial destabilization and/or melting of the ice sheet! And on a scale capable of disrupting the circulation of the world’s oceans for more than a thousand years! This matter of thermohaline

circulation is an important one that requires explanation. We will return to it. But what most struck me in the paragraph quoted above was that the authors had only considered the consequences of the huge quantities of icebergs and meltwater dumped into the oceans north and east of the epicentre of their proposed comet impacts. They did not consider the effects of that gigantic icy flood on the lands lying immediately *south* of the ice cap – which most certainly would not have been spared.

Once again I found myself wondering how J Harlen Bretz might have reacted if information about a possible comet impact had been at his disposal during his lifetime. I cannot prove it, of course, but I think he would have been much less likely to be seduced by Lake Missoula gradualism and much more likely – now that a credible heat source had been provided – to stick to his catastrophist guns. A single, cataclysmic meltwater flood on a truly gigantic scale coming directly off the ice cap to scour the Scablands begins to look very

feasible indeed in the light of the case made by Firestone, West, Kennett and the large team of scientists working with them.

Meanwhile my own hypothesis of an advanced civilization of prehistoric antiquity obliterated from the face of the earth during the Younger Dryas 'window', is also strengthened by their work. For if their calculations are correct the explosive power of the Younger Dryas comet would have been of the order of *ten million megatons*.[21] That makes it two million times greater in its effects than the former USSR's *Tsar Bomba*, the largest nuclear weapon ever tested,[22] and a thousand times greater than the estimated explosive power (10,000 megatons) of all nuclear devices stockpiled in the world today.[23] A global disaster of such magnitude at exactly the time I suggested in *Fingerprints of the Gods* does not prove the existence of a lost civilization of the Ice Age but does at least provide us with a mechanism large enough – if such a

civilization did exist – to have obliterated it almost entirely from human memory.

The evidence continues to mount

Because it has such important ramifications for almost everything we think we know about the safety and security of the earth's cosmic environment, and about our own past, it is reasonable to ask how solid the Younger Dryas comet impact theory really is. Since 2007, when it was first proposed, how has it stood up to scientific scrutiny and what new evidence has been brought forward in support of it?

The answer is that it has stood the test of time well and benefitted from a steady accumulation of new evidence set out in the proper way in the scientific literature and subject to rigorous peer review. There is neither space nor need, here, to explore this extensive literature in depth, but to give the general picture I will list the dates

and titles of a few of the more important papers, with brief summaries of the conclusions and full references in the footnotes:

2008: *Wildfire and abrupt ecosystem disruption on California's Northern Channel Islands at the Allerod-Younger Dryas Boundary*. Evidence for ecosystem disruption at 13,000 to 12,900 years ago on these offshore islands is consistent with the Younger Dryas Boundary cosmic impact hypothesis.[24]

2009: *Shock-synthesised hexagonal diamonds in Younger Dryas Boundary sediments*. The presence of shock-synthesised hexagonal and other nanometre-sized diamonds in YDB sediments in association with soot and other wildfire indicators is consistent with a cosmic impact at 12,900 years ago, and the hypothesis that the earth crossed paths with a swarm of comets or carbonaceous chondrites producing airshocks and/or surface impacts that contributed to abrupt ecosystem disruption and megafaunal extinctions in North America.[25]

2010: *Discovery of a nanodiamond-rich layer in the Greenland ice sheet*. The presence of rounded nanodiamonds and lonsdaleite in Greenland ice suggests that a large cosmic impact occurred … The existence of this layer … appears consistent with the occurrence of a major impact event that correlates with the nanodiamond-rich YDB in North America at 12,900 years ago.[26]

2010: *Palaeolithic extinctions and the Taurid Complex*. Intersection with the debris of a large (50-100 km) short-period comet during the Upper Palaeolithic provides a satisfactory explanation for the catastrophe of celestial origin which has been postulated to have occurred around 12,900 years ago and which presaged a return to Ice Age conditions of about 1,300 years duration. The Taurid Complex appears to be the debris of this erstwhile comet; it includes about 19 of the brightest near-earth objects.[27] [N.B. The implications of this important paper by astronomer Bill Napier of the Centre for Astrobiology at the University of Cardiff, Wales, UK, will be considered in greater detail in Chapter Nineteen.]

2010: *Evidence for a Cosmogenic Origin of fired glaciofluvial beds in the Northwestern Andes: Correlation with Experimentally Heated Quartz and Feldspar*. Fired sediment, considered equivalent to the 'Black Mat' impact of 12,900 years ago has been located and analyzed in the Andes of Northwestern Venezuela. The 'Black Mat' refers to possible fallout from the Encke Comet airburst presumed to have occurred over the Laurentide Ice Sheet, the impact spreading ejecta over large portions of North America and Europe, making it an interhemispheric event of considerable magnitude … The presence of copious monazite in the carbonaceous coatings is considered part of the incoming ejecta, as it is not a common indicator mineral in the local lithology … The intergrowth of carbonaceous 'black mat' material with thermally disrupted and fragmented quartz and feldspar, a 'welded' patina of 100–400nm thickness, could only occur

with temperatures in excess of 900 degrees Centigrade, the event here interpreted to be of cosmogenic origin.[28]

2011: *Framboidal iron oxide: Chondrite-like material from the black mat, Murray Springs, Arizona*. At the end of the Pleistocene a Younger Dryas 'black mat' was deposited on top of the Pleistocene sediments in many parts of North America. A study of the magnetic fraction from the basal section of the black mat at Murray Springs, AZ, revealed the presence of amorphous iron-oxide framboids in a glassy iron-silica matrix. [Our] data suggest that the observed textures are … due … to a shock event that fractured and largely amorphised the grains … Therefore, we argue that these particles are the product of a hypervelocity impact event.[29]

2012: *Evidence from central Mexico supporting the Younger Dryas extraterrestrial impact hypothesis*. We report the discovery in Lake Cuitzeo in central Mexico of a black, carbon-rich lacustrine layer, containing nanodiamonds, microspherules, and other unusual materials that date to the early Younger Dryas … We … find the evidence cannot be explained by any known terrestrial mechanism. It is, however, consistent with the Younger Dryas boundary impact hypothesis postulating a major extraterrestrial impact involving multiple airbursts and/or ground impacts at 12,900 years ago.[30]

2012: *Very high-temperature impact melt products as evidence for cosmic airbursts and impacts 12,900 years ago*. We examined sediment sequences from

18 dated Younger Dryas boundary (YDB) sites across three continents … All sites display abundant microspherules in the YDB with none or few above and below. In addition, three sites … display vesicular, high-temperature siliceous scoria-like objects, or SLO's, that match the spherules geochemically … Our observations indicate that YDB objects are similar to material produced in nuclear airbursts, impact crater plumes and cosmic airbursts, and strongly support the hypothesis of multiple cosmic airbursts/impacts at 12,900 years ago. Data presented here require that thermal radiation from air shocks was sufficient to melt surface sediments at temperatures up to or greater than the boiling point of quartz (2,200 degrees centigrade).[31]

2013: *Large Pt anomaly in the Greenland ice core points to a cataclysm at the onset of Younger Dryas*. One explanation of the abrupt cooling episode known as the Younger Dryas (YD) is a cosmic impact or airburst at the YD boundary that triggered cooling and resulted in other calamities. We tested the YD impact hypothesis by analyzing ice samples from the Greenland Ice Sheet Project 2 (GISP2) ice core across the Bolling-Allerod/YD boundary for major and trace elements. We found a large platinum (Pt) anomaly at the YDB … Circumstantial evidence hints at an extraterrestrial source … [perhaps] a metal impactor with an unusual composition …[32]

2013: *New Evidence from a Black Mat Site in the Northern Andes Supporting a Cosmic Impact 12,800 years ago*. The spherules from Venezuela are

morphologically and compositionally identical to YDB spherules documented elsewhere … on three continents, North America, Europe and Asia, confirming the YDB magnetic spherule results of previous researchers. Their microstructural texturing indicates they formed from melting and rapid quenching … Thus the most likely origin of the spherules seems to be by cosmic impact/airburst 12,800 years ago with interhemispheric consequences. The site in Venezuela, along with one in Peru, are the two southernmost sites currently known to display evidence for the YDB impact event, and these sites represent the first evidence that the effects of the impact event extended into South America, even into the Southern Hemisphere.[33]

2014: *Nanodiamond-Rich Layer across Three Continents Consistent with Major Cosmic Impact at 12,800 Cal BP*. A major cosmic-impact event has been proposed at the onset of the Younger Dryas cooling episode at 12,800 years (plus or minus 150 years) before the present, forming the Younger Dryas Boundary (YDB) Layer distributed across up to 50 million square kilometres on four continents. In 24 dated stratigraphic sections in 10 countries of the Northern Hemisphere, the YDB layer contains a clearly-defined abundance peak in nanodiamonds (NDs), a major cosmic impact proxy … The large body of evidence now obtained about YDB NDs is strongly consistent with an origin by cosmic impact around 12,800 years ago and is inconsistent with formation of YDB ND by natural terrestrial processes, including wildfires, anthropogenesis,

and/or influx of cosmic dust.[34] [NB. This paper and its important implications will be discussed in more detail later in this chapter.]

Taking on the dogmatic uniformitarians

One would have thought, with such an impressive accumulation of evidence, that the Younger Dryas impact theory would, by now, be fully accepted and that researchers would have moved on to a broader consideration of the *implications* of such a recent and hitherto unsuspected global cataclysm for our understanding of the history of the earth and of our own species. However, we've already seen from the example of J Harlen Bretz how scientists wedded to the uniformitarian and gradualist reference frame react with extreme negative force to catastrophist theories.

Nor was Bretz an exception. Alfred Wegener, who first proposed the notion of continental drift – plate tectonics – was similarly pilloried, as, subsequently, were Luis and Walter Alvarez (the Chicxulub, 'K-T' impact), Steven J. Gould (punctuated

equilibrium), Victor Clube and Bill Napier (coherent catastrophism), and James Lovelock, Sherwood Rowland, Mario Molina and Lynn Margulis for their contributions to geophysiology and the Gaia theory. It should come as no surprise, therefore, that Richard Firestone, Allen West, James Kennett and others who have followed the evidence and stuck their necks out to suggest that a comet impact caused the Younger Dryas, have also come under sustained and bitter attack.

Indeed the triumphant crowing of critics who clearly believe they have done away, once and for all, with the heretical catastrophism of Firestone, West and Kennett, has filled the academic air several times in the past few years. On each occasion you can almost hear the collective sigh of relief as if to say 'thank God; we finally got those bastards'; but then a few months later comes the devastating and absolutely convincing refutation that forces the critics back to the drawing board. This is why eight years of sustained attacks have

only served to prove – again and again – that the science behind the theory of the Younger Dryas comet is good.

It's quite noticeable, reviewing the literature, that academics form themselves into gangs. The ringleaders in the 'anti-YD-comet' camp, whose names appear frequently at the top of critical articles, include Mark Boslough, a physicist on the technical staff of Sandia National Laboratories and Nicholas Pinter, a geology professor at Southern Illinois University. In 2012 they teamed up with half a dozen other scientists to publish a paper entitled 'Arguments and Evidence Against a Younger Dryas Impact Event'.[35] And a year earlier Pinter and some of the authors of the 2012 attack had joined forces to write a paper hubristically entitled 'The Younger Dryas Impact Hypothesis: A Requiem'.[36]

To paraphrase Mark Twain, reports of the death of the comet theory had been greatly exaggerated.

For example one of the key critiques made by Boslough et al in their 2012 article was that:

> Magnetic microspherule abundance results published by the impact proponents have not been reproducible by other workers. Analyses of the same YD site stratigraphy by Surovell et al [2009] could not replicate observations for two of the impact markers published by Firestone et al [2007]. The study by Surovell et al [2009] found no peaks of abundance unique to the YD time interval.[37]

But the impact proponents were later able to show that Boslough and his co-authors 'neglected to cite nine independent spherule studies on two continents that reported finding significant YDB [Younger Dryas Boundary] spherule abundances.'[38] More damning, though, was the fact that when other scientists repeated the analysis of Surovell et al, their findings did indeed support an impact. The scientists concluded that:

> the inability of Surovell et al to find YDB spherule peaks resulted from not adhering to the prescribed extraction protocol. For example, Surovell et al did not

> conduct any analyses using scanning electron microscopy, a necessary procedure clearly specified by Firestone et al.[39]

A separate independent study by Malcolm A. Le Compte et al noted that Surovell et al 'collected and analysed samples from seven YDB sites, purportedly using the same protocol as Firestone et al, but did not find a single spherule in YDB sediments at two previously reported sites.'[40] LeCompte et al set out to examine this discrepancy. After a thorough investigation of all the evidence their results cast the work of Surovell et al into an even deeper shadow:

> We conducted an independent blind investigation of two sites common to both studies, and a third site investigated only by Surovell et al. We found abundant YDB microspherules at all three widely separated sites consistent with the results of Firestone et al and conclude that the analytical protocol employed by Surovell et al deviated significantly from that of Firestone et al. Morphological and geochemical analysis of YDB spherules suggest they … formed from abrupt melting and quenching of terrestrial materials and … are consistent with … a previously proposed cosmic impact 12,900 years ago …[41]

Unsurprisingly, after all this, Pinter's 'requiem' for the Younger Dryas impact hypothesis turned out to have been premature:

> Pinter et al. claimed to have sampled the YDB layer at a location 'identical or nearly identical' with the location reported by Kennett et al, as part of three studies that reported finding no YDB spherules or nanodiamonds. However, the published Universal Transverse Mercator coordinates reveal that their purported continuous sequence is actually four discontinuous sections. These locations range in distance from the site investigated by Kennett et al by 7,000 m, 1,600 m, 165 m, and 30 m, clearly showing that they did not sample the YDB site of Kennett et al. Furthermore, this sampling strategy raises questions about whether Pinter et al sampled the YDB at all, and may explain why they were unable to find peaks in YDB magnetic spherules, carbon spherules, or nanodiamonds.[42]

In 2012–13, in an effort to limit the scope for poor or misleading scholarship to be cited as though it discredits their work – when in fact it does no such thing – Jim Kennett, Richard Firestone, Allen West and a formidable group of pro-impact scientists launched 'one of the most comprehensive investigations of spherules ever undertaken'.[43] The investigation focused on eighteen sites across

North America, Europe and the Middle East (the latter represented by Abu Hureyra in Syria), and conducted more than 700 analyses on spherules using energy dispersive X-ray spectroscopy for chemical analysis and scanning electron microscopy for surface microstructural characterization.

The results, published in *PNAS* on 4 June 2013, took advantage of recent advances in radiocarbon technology to refine the date of the Younger Dryas impact from 12,900 to 12,800 years ago[44] and enabled a much more detailed map of the YDB field to be drawn up, covering close to 50 million square kilometres of North, Central and South America, a large segment of the Atlantic Ocean, and most of Europe, North Africa and the Middle East. Calculations indicate that the impact deposited around *ten million tonnes of spherules* across this vast strewnfield.[45] Nor, was there any doubt in the researchers' minds that an impact had been at the heart of the matter:

> The analyses of 771 YDB objects presented in this paper strongly support a major cosmic impact at 12,800 years ago … Spherules … are (i) widespread at 18 sites on four continents; (ii) display large abundance peaks only at the YD onset at around 12,800 years ago; (iii) are rarely found above or below the YDB, indicating a rare event; and (iv) amount to an estimated 10 million tonnes of materials distributed across around 50 million square kilometres of several continents, thus precluding a small, local event.[46]

Despite the annoying ability of the Younger Dryas comet to keep on proving itself, and of its proponents to keep on refuting all attacks, Nicholas Pinter, lead author of the 2011 'Requiem' paper, felt moved in an interview with NBC News in September 2013 once again to attempt to cast the hypothesis into scientific limbo. 'My only comment,' he said, 'is that the pro-impact literature is, at this point, fringe science being promoted by a single journal.'[47]

A number of observers with no particular axe of their own to grind were puzzled by this remark. First of all, as *National Geographic* correspondent Robert Kunzig noted, it smacked a little of wishful thinking, even desperation, on Pinter's part. 'Some

opponents of the hypothesis,' wrote Kunzig, 'want so badly for it to go away that they have attempted to declare it dead.'[48] Secondly, the journal that Pinter accused of promoting fringe science was none other than the revered, utterly mainstream, and extensively peer-reviewed *Proceedings of the National Academy of Sciences (PNAS)*.[49] Thirdly, although a number of articles by Kennett, West, Firestone and their team have appeared in *PNAS*, it is simply not true to suggest that *PNAS* is promoting their cause. On the contrary, at the time Pinter blurted out his protest to NBC the critics of the YD comet hypothesis had published ten times in *PNAS*, whereas the proponents of the hypothesis had published there only eight times. Likewise Pinter's claim that the hypothesis is only being presented in a single journal could hardly be more wrong. By September 2013, in addition to their eight papers in *PNAS*, proponents had published no less than fifteen papers in thirteen other journals.[50]

The scholarly fight over the Younger Dryas impact hypothesis is far from over. At the time of writing, the most recent salvo fired by critics of the hypothesis was entitled 'Anthropogenic origin of siliceous scoria droplets from Pleistocene and Holocene archaeological sites in northern Syria'. Authored by P. Thy, G. Willcox, G.H. Barfod and D.Q. Fuller, it was published online on 16 December 2014 and in print in January 2015 in the *Journal of Archaeological Science*.[51] The essence of the argument in this paper is that siliceous scoria droplets (composed mostly of glass matrix and bubbles together with partially melted mineral grains) from Abu Hureyra in Syria – cited by pro-impact scientists as evidence for their case – were nothing to do with the comet but were instead a product of ancient buildings destroyed by house fires:

> We therefore conclude that melting of building earth in ancient settlements can occur during fires reaching modest temperatures. There is no evidence to suggest that siliceous scoria droplets result from very high temperature melting of soil and are the result of a cosmic event.[52]

‘For the Syria site the impact theory is out,’ boasted lead author Peter Thy in a press interview headlined ‘Study Casts Doubt on Mammoth-Killing Cosmic Impact’.[53] But once again it seems the bluster was premature. Allen West is listed as the corresponding author on the majority of scholarly papers published by the team of scientists working on the Younger Dryas impact, so I emailed him on 18 March 2015 to ask if he and his colleagues had any response to the critique by Thy et al. West replied as follows:

> We agree with Thy et al that hut fires can produce glass, but it does not follow, therefore, that *all* glass comes from hut fires, as they conclude. We have analysed natural glasses supplied by one of the authors of that study, and the 12,800-year-old glass from Syria is only superficially similar. Instead it matches known cosmic impact glass, as well as high-temperature atomic bomb glass.
>
> Most importantly, those authors did not discuss or look for the evidence of abundant high-temperature minerals presented in our previous papers on three sites on two continents (Pennsylvania, South Carolina and Syria) where we found suessite that melts at around 2,300 degrees Centigrade and corundum at around 1,800 degrees Centigrade. Now we have even stronger evidence from the Syrian site and are working on a new paper to be published this year. The 12,800-year-

old Syrian glass contains a range of minerals that melted at extraordinarily high temperatures. See the table below from our new paper:

Melted minerals	Formula	Est. melt T (°C)
Chromite	$(Fe)Cr_2O_4$	≈2265
Quartz	SiO_2	≈1720
Chert	impure SiO_2	≈1720
Magnetite	Fe_3O_4	≈1550
Native Fe	Fe	≈1530
Chlorapatite	$Ca_5(PO_4)_3Cl$	≈1530

Those temperatures are sufficient to melt steel. Furthermore the same glass-rich layer at the Syrian site contains large peaks in nanodiamonds, nickel and platinum. No building fire can duplicate that range of evidence – such fires can't produce

> nanodiamonds or platinum enrichments. All this evidence refutes the hypothesis of Thy et al that this glass was produced in low-temperature building fires.[54]

When the new paper by West and his colleagues is published later in 2015 (after this book has gone to press), I have no doubt that it will, effectively, refute the arguments of Thy et al – just as all previous attacks have been successfully refuted. But I also have no doubt that others, who for whatever reasons of their own are philosophically opposed to the notion of a cataclysm 12,800 years ago, will publish yet more so-called 'requiems' for the Younger Dryas impact hypothesis in the years ahead, even while the constant discovery of new evidence means that it continues to thrive and grow. As we've seen throughout this book, catastrophist ideas, no matter how thoroughly documented and persistently argued and presented they may be, are routinely and regularly brushed under the carpet by the uniformitarian establishment. Thus while he lacked nothing in persistence, or in the thoroughness of his documentation,

J Harlen Bretz faced years of discouragement before his ideas were welcomed by the mainstream.

Jim Kennett, Richard Firestone, Allen West and their colleagues have argued the catastrophist case for the Younger Dryas comet impact with equally commendable persistence and with equal mastery of documentation and they, too, have faced rejection and hostility. Two things are different in their case, however. First, this is the twenty-first century and we have the internet, which allows the very rapid sharing and proliferation of ideas. That was not the case when Bretz began his lonely struggle. Secondly, Kennett, Firestone and West seem to have a better understanding of the politics of science than Bretz did and have greatly strengthened their own hand by mobilizing support for their work from many colleagues. It is one thing to shout down and silence a lone wolf like Bretz. It is quite another to shout down and silence a large team of highly credentialled scientists from multiple disciplines and universities.

And the team is growing. As I complete this chapter in March 2015, I have before me on my desk the latest paper published by Firestone, Kennett and West. The paper, entitled 'Nanodiamond-Rich Layer across Three Continents Consistent with Major Cosmic Impact 12,800 Years Ago', appears in the September 2014 issue of *The Journal of Geology*. The lead author is Carles R. Kinzie of the Department of Chemistry, DePaul University, Chicago. Firestone, Kennett, West and twenty-two other leading scientists from prestigious universities and research institutes around the world are co-authors.[55] The gravity of the paper, of its authors and of the journal in which it appears, together with the further detailed refutations it contains of prior critiques,[56] combine to make a laughing stock of Nicholas Pinter's claim that the Younger Dryas comet hypothesis is 'fringe science'.

Indeed, the contrary is true – what is clearly happening is that an extraordinary hypothesis has again and again met the demand for

extraordinary evidence to support it and has begun to force its way through the staunchly-defended doors of the mainstream. It will not be an easy struggle; it never is. There will be setbacks as well as progress. But the 2013 paper on spherules and the 2014 paper on nanodiamonds contain a wealth of evidence that even the most hardened gradualists must find hard to dismiss entirely. As Wallace Broecker, a geochemist and climate scientist at Columbia University's Lamont-Doherty Earth Observatory recently begrudgingly admitted: 'Most people were trying to disprove this. Now they're going to have to realise there's some truth to it.'[57]

But there cannot be just 'some' truth to it. The Younger Dryas comet hypothesis is either right or wrong. My own assessment, having pored through more than seven years of research papers and having read every attack and refutation since the first public airing of the hypothesis in 2007, is that the case for the impact is a very strong one that grows stronger and more convincing every day. I

could give many further examples of the successful efforts by the proponents of the hypothesis to defend their ideas over the years, but rather than doing so here, I refer the interested reader to the sources given in the footnote.[58]

Meanwhile the September 2014 paper, summarizing the evidence presented, concludes:

> A cosmic impact event at the onset of the Younger Dryas cooling episode is the only hypothesis capable of explaining the simultaneous deposition of peak abundances in nanodiamonds, magnetic and glassy spherules, melt-glass, platinum and/or other proxies across at least four continents (approaching 50 million square kilometres). The evidence strongly supports a cosmic impact 12,800 years ago.[59]

Of particular note, adds James Kennett, is the fact that the glassy and metallic materials in the YDB layers could only have formed at temperatures in excess of 2,200 degrees Celsius and therefore could not have resulted from any alternative scenario other than a massive comet impact.[60]

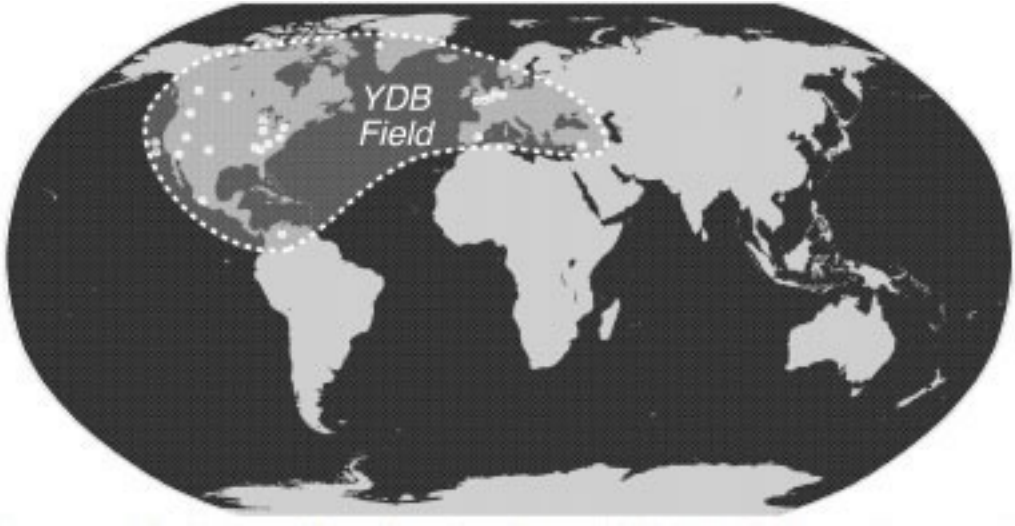

Figure 20: The Younger Dryas Boundary Strewnfield (after Wittke et. al., 2013 and Kinzie, Kennett et. al., 2014). The area enclosed by the dotted line defines the current known limits of the YDB field of cosmic-impact proxies spanning 50 million square kilometres.

The exact size of that impact remains to be resolved with further research. Until then, says Kennett, 'There is no known limit to the YDB strewnfield which currently covers more than 10 percent of the planet, indicating that the YDB event was a major cosmic

impact … The nanodiamond datum recognised in this study gives scientists a snapshot of a moment in time called an isochron.'[61]

Worldwide, to this day, scientists know of only two layers of sediment 'broadly distributed across several continents that exhibit coeval abundance peaks in a comprehensive assemblage of cosmic impact markers, including nanodiamonds, high-temperature quenched spherules, high-temperature melt-glass, carbon spherules, iridium and aciniform carbon'.[62] These layers are found at the Younger Dryas Boundary 12,800 years ago, and at the Cretaceous-Tertiary boundary 65 million years ago, when it has long been agreed that a gigantic cosmic impact in the Gulf of Mexico (in that case the impactor is thought to have been an asteroid some ten kilometres in diameter) caused the mass extinction of the dinosaurs.[63]

'The evidence we present settles the debate about the existence of abundant YDB nanodiamonds,' Kennett says. 'Our hypothesis

challenges some existing paradigms within several disciplines, including impact dynamics, archaeology, paleontology and paleoceanography/paleoclimatology, all affected by this relatively recent cosmic impact.'[64]

The point Kennett makes here has important implications for the study and understanding of our past. Archaeologists have been in the habit of regarding cosmic impacts, supposedly only occurring at multi-million year intervals, as largely irrelevant to the 200,000-year story of anatomically modern humans. When we believed that the last big impact had been the dinosaur-killing asteroid of 65 million years ago, there was obviously little point in trying to relate cosmic accidents on such an almost unimaginable scale in any way to the much shorter time-frame of 'history'. But the very real possibility confirmed by Kennett's study that a huge, earthshaking, extinction-level event occurred just 12,800 years ago, in our historical backyard, changes everything.

Chapter 6

Fingerprints of a Comet

The evidence from deposits of nanodiamonds, microspherules, high-temperature melt-glass and other 'ET-impact proxies' at the Younger Dryas Boundary points strongly towards a cataclysmic encounter between the earth and a large comet around 12,800 years ago. The point of entry would have been somewhere over Canada, by which time the comet might already have broken up into multiple fragments on its journey through space (as was the case with Comet Shoemaker-Levy 9 when its 'freight-train' of large fragments hit Jupiter with spectacular effect in 1994). It is equally

possible, however, that the break up of the Younger Dryas comet did not occur until after it had entered the earth's atmosphere. Either way, some of the fragments very soon exploded in the air, others, with diameters of up to two kilometres, smashed down at various points on the North American ice cap, yet others streaked on in a south-easterly direction across the Atlantic Ocean where further impacts followed on the European ice cap, and still others remained aloft until they reached the Middle East in the vicinity of Turkey, the Lebanon and Syria, where the final rain of impacts occurred.

Because the evidence for the comet is so new, and because the impact hypothesis is still disputed, almost no consideration has yet been given to the immediate effects of the multiple major impacts that are thought to have taken place on the North American ice cap. In all cases the ice itself, still more than two kilometres thick 12,800 years ago, would have absorbed most of the shock of the impact leaving very few lasting features on the ground. Even so, researchers have begun to home in on a number of possible craters.

One candidate is the so-called Charity Shoal feature in Lake Ontario. Consisting of a raised rim around a small circular basin approximately a kilometre in diameter and 19 metres deep, it was studied by a team of scientists led by Troy Holcombe, who concluded that it was likely to be of extraterrestrial impact origin and might have been created in the late Pleistocene around the time of the onset of the Younger Dryas.[1]

Similarly, the half-kilometre diameter, 10-metre deep, Bloody Creek Structure in southwestern Nova Scotia was identified as a possible impact crater by Ian Spooner, George Stevens and others in a 2009 paper in the journal *Meteoritics and Planetary Science*. They could not be confident as to its age, but noted that 'impact onto glacier ice during the waning stages of the Wisconsin Glaciation about 12,000 years ago may have resulted in dissipation of much impact energy into the ice, resulting in the present morphology of the Bloody Creek Structure.'[2]

A third candidate is the Corossol Crater in the Gulf of Saint Lawrence, Canada. Discovered by the Canadian Hydrographic Service during underwater mapping, Corossol is 4 kilometres in diameter, implying an impacting object with a diameter of up to half a kilometre. The crater presently lies in 40 to 185 metres of water and was originally thought to be very ancient, dating to some point after the middle Ordovician, about 470 million years ago.[3] Recent research, however, casts doubt on this chronology. For example, M.D. Higgins and his colleagues from the University of Quebec and the Geological Survey of Canada argued in a paper presented at the 42nd Lunar and Planetary Science Conference in March 2011 that:

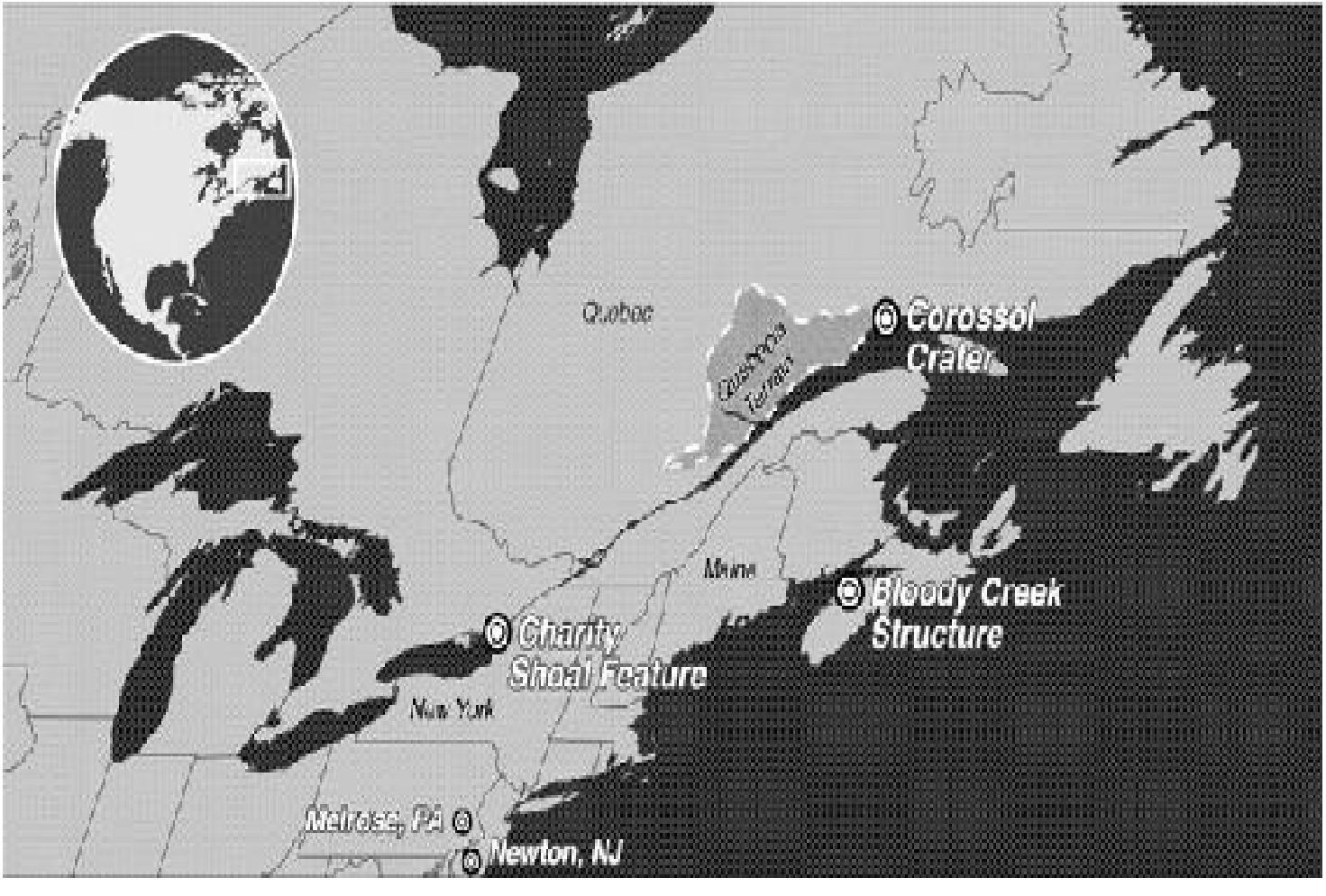
Quebec
Corossol Crater
Maine
Bloody Creek Structure
Charity Shoal Feature
New York
Melrose, PA
Newton, NJ

Figure 21

> The paucity of sediments in the crater might be taken to indicate that it is young. The minimum age was established using data from a 7 metre core taken in the central trough. Calibrated carbon-14 ages of shells in the sediments can be extrapolated to give an estimate of the age of the base of the sedimentary sequence of around 12,900 years ago … This is taken to be the youngest possible age of the impact.[4]

That 'youngest possible' age of 12,900 years is comfortably within the margin of error of 12,800 years plus or minus 150 years that is presently accepted for the Younger Dryas Boundary.[5] In other words if the findings of Higgins and his team are confirmed, Corossol could well be one of the hitherto 'missing' impact craters left by the Younger Dryas comet. Firm identification of such a crater would be jam on the cake for Firestone, Kennett, West and other pro-impact scientists, but as they have made clear many times, they do not *need* craters to prove their hypothesis, since prominent craters are not to be expected either from airbursts or from impacts on ice caps.

Nonetheless Charity Shoal, Bloody Creek and Corossol do not stand alone. A fourth possible impact site has been identified somewhat to the west of Corossol in an area known to geologists as the Quebecia Terrain. High concentrations of YDB microspherules found near the towns of Melrose in Pennsylvania and Newtonville in New Jersey were analysed by Wu, Sharma, LeCompte, Demitroff and Landis in a paper published in September 2013 in the *Proceedings of the National Academy of Sciences*. Their conclusion was that an impact on the Laurentide ice sheet penetrated to the bedrock of the Quebecia Terrain throwing ejecta high into the atmosphere. The ejecta included spherules in the range of 2 to 5 millimetres in diameter that were spread by the winds and rained down hundreds of miles away in the Melrose–Newtonville area. Significantly the spherules turned out on analysis to contain:

> minerals such as suessite that form at temperatures in excess of 2,000 degrees Centigrade. Gross texture, mineralogy, and age of the spherules appear consistent with their formation as ejecta from an impact 12,900 years ago … The rare earth

element patterns and Sr and Nd isotopes of the spherules indicate that their source lies in the Quebecia Terrain.[6]

'We have provided evidence for an impact on top of the ice sheet,' concluded study co-author Mukul Sharma. 'We have for the first time narrowed down the region where a Younger Dryas impact did take place, even though we have not yet found its crater.'[7]

Judging from the apparent north-west to south-east trajectory of the Younger Dryas comet,[8] the Charity Shoal feature in Lake Ontario, ejecta from Quebecia Terrain, the Corossol crater in the Gulf of Saint Lawrence, and the Bloody Creek structure in Nova Scotia might mark the impacts of the last large fragments to hit North America. But the even larger fragments – in the range of two kilometres in diameter that Firestone, Kennett and West envisage – would inevitably have hit the ice cap *earlier* in the trajectory and thus at points lying further to the north and west. It is to these hypothetical impacts on the western fringes of the Laurentide Ice

Cap, and on the Cordilleran Ice Cap, that we should look for the possible source of the meltwater for Bretz's flood.

Radical thinking

Although the notion of outburst floods from Glacial Lake Missoula has long been accepted by mainstream science as the source of the spectacular flood damage documented by Bretz, it is important to recognise that a number of senior, highly credentialled scientists continue to dissent from this view. Prominent amongst the dissenters is John Shaw, Professor of Earth Sciences at the University of Alberta in Canada. Shaw argues that the volume of water in Lake Missoula, estimated at around 2,000 cubic kilometres at its peak, is not sufficient to account for the field evidence. His own theory is that huge quantities of meltwater – of the order of 100,000 cubic kilometres – were impounded in a subglacial reservoir deep beneath the North American ice cap and he proposes

that the flood damage was caused by a single, massive release from this reservoir.[9]

Japanese researchers Goro Komatsu, Hideyaki Miyamoto, Kazumasa Itoh and Hiroyuki Tosaka have carried out extensive computer simulations of large-scale cataclysmic floods across the Scablands and agree with Shaw that Glacial Lake Missoula was not, on its own, anywhere near large enough to account for the flood damage:

> Even the whole draining of Lake Missoula cannot explain the field evidence of high water marks … The subglacial flooding from the north proposed by Shaw may provide an explanation for the increased volume of water required to explain the high water-mark evidence in the Channeled Scabland.[10]

Likewise Victor Baker, Professor of Hydrology and Water Resources at the University of Arizona, and Jim O'Connor of the US Geological Survey's Water Science Center, have expressed

concern about the 'case for periodic colossal *jökulhlaups*' out of Glacial Lake Missoula:

> In our view, anomalies still exist between some aspects of the field evidence and the conceptual models that have been advocated. The position that the 'scores-of-floods hypothesis completes Bretz's imaginative theory' (Waitt, 1985, p. 1286) may prematurely divert attention from some of the outstanding problems that remain in interpreting the spectacular features of the Channeled Scabland.[11]

In 1977 geologist C. Warren Hunt set out to conduct a detailed investigation into Bretz's flood. He did so because, like the scholars cited above, he was unconvinced by the theory – which had already assumed the status of unassailable fact by the mid-1970s – that all the water damage visible in the Scablands had been caused by outburst floods from Lake Missoula. Hunt's dissatisfaction stemmed from his own extensive knowledge of dams and how to design them to take best advantage of local geology. The bottom line, according to his calculations, was that the proposed ice dam on the Clark Fork

River, behind which Lake Missoula is supposed to have backed up, would have been, quite literally, *impossible*.

Let us first of all consider the statistics. According to the US Geological Survey, Glacial Lake Missoula at its highest level – the level it is presumed to have reached before the Clark Fork ice dam broke – covered an area of about 3,000 square miles and contained an estimated 500 cubic miles (2,084 cubic kilometres) of water. Its surface would have been at 4,150 feet above sea level, but the bottom terrain varied in altitude from point to point so the USGS calculates that the lake would have been about 950 feet deep at present day Missoula, 260 feet deep at Darby and around 1,100 feet deep near Polson. At the ice dam itself, however, a gradient in the underlying terrain meant the glacial lake would have been more than 2,000 feet deep (its deepest point – more than twice the depth of modern Lake Superior).[12]

While broadly concurring with the US Geological Survey's figures, C. Warren Hunt emphatically rejected 'the suggestion that ice might have dammed Clark Fork so as to impound water to a depth of 2,100 ft (640 metres) … When one considers,' he wrote:

> that modern engineering employs bedrock grouting for securing the footings of 500-ft (150-m) dams, it must surely strike any reader as virtually frivolous to suggest that chance emplacement of glacial ice might have dammed Clark Fork across a 7-mile (11-km) span lacking in intermediate abutments, and then retained water at four times the pressure of modern engineered concrete dams![13]

Hunt's incredulity at the notion of an ice dam more than 2,000 feet high and 7 miles long receives support from studies which argue that 'at a lake depth of approximately 200 metres (656 feet), the hydrostatic pressure exerted on the damming ice is sufficient to begin to force a hole through the ice. Once formed this hole will enlarge by frictional melt-widening, enabling the drainage of ice-dammed lake water to occur.'[14]

At more than thrice 200 metres in height, therefore, the hypothetical Clark Fork ice dam does, indeed, begin to look ‘impossible’.

Yet, as noted, Hunt accepted the USGS statistics. The surface of Lake Missoula certainly did at one point stand 4,150 feet above sea level and the lake therefore must indeed have reached around 2,100 feet deep in the Clark Fork Valley between the Bitteroot and Cabinet mountain ranges. That it did so is confirmed by an ancient strandline at that altitude, and other strandlines have been found at lower altitudes which clearly show many subsequent lower water levels after the high one.[15] Hunt’s solution, however, since he continued to regard the Clark Fork dam as a geological impossibility, was to propose that *a gigantic flood, thousands of feet deep*, must have washed over the entire region at the end of the Ice Age, in the process filling the various basins of Glacial Lake

Missoula up to the 4,150 foot level where the highest strandline is found and leaving the lower strandlines as it receded.[16]

As the source of his proposed region-wide flood, Hunt suggested that:

> tidal inundation brought on by some form of gravitational attraction from a celestial source, the nature of which is beyond the competence of the writer, must have resulted in a … tide … rising to 5,000 feet (1,600 metres) above present sea level … The waters were held there several weeks … during which there was much surging, partial floating of glaciers, and development of the highest beaches in 'Lake Missoula'. The tidal ebb and flood with successive lower beaches developing allowed sweeping of the canyons, removal of previous glacial deposits, fans and talus, scouring of the 'Scablands', ice-rafting, polishing of standing rock obstructions to tidal surge, aggradation of valley and 'by-pass' floors, and discharge of boulders into submarine deltas and fans. Lastly, a layer of silt was left in the wake of the tide, especially in the quieter waters of cul-de-sac estuaries.[17]

In other words, Hunt had very much gone 'back to Bretz' in proposing a single gigantic flood as the source of all the damage on

the Columbia Plateau. His 1977 notion that it was a tidal inundation of sea-water rushing up estuaries (and brought on by the gravitational attraction of some hypothetical celestial body)[18] is, however, untenable, and Hunt himself recognised this when he revisited the subject some years later in his 1990 book *Environment of Violence*. Conceding that 'the tidewater solution is weakened by the great distance to tidewater and the absence of a trail of evidence along the possible routes',[19] he sought out other possible sources of water in sufficiently vast quantities to inflict the damage to the landscape that he had observed in the field. In the process, he briefly considered John Shaw's theory of a subglacial reservoir of 100,000 cubic kilometres of meltwater, but asked some pertinent questions:

> How could such melting take place without a heat source such as the volcanic heat which precipitates Icelandic *jökulhlaups*? What climatic regimen would allow such melting in the first place? Why would the water not have lifted the periphery of the ice sheet and emerged without accumulating soon after it was produced by melting? What containment mechanism would allow accumulation of a great

> under-ice lake … beneath 3,000 metres of ice. And would not water beneath the maximum ice thickness tend to escape toward the lesser confining pressures under peripheral areas of the ice sheet? Is there any possible way such a huge under-ice chamber of water could accumulate?[20]

To cut a long story short, Hunt reasoned that there was not. Besides the 100,000 cubic kilometres that Shaw's theory offered was, in his opinion, insufficient. Almost ten times as much water would be needed to account for all the field evidence. With a tidal source, Glacial Lake Missoula and Shaw's under-ice reservoir all dismissed, therefore, Hunt found himself left with only one possible – though startlingly catastrophist – solution. Somehow, in some way, very rapid, cataclysmic melting of an immense area of the North American ice cap must have taken place. After doing the necessary calculations Hunt concluded that 840,000 cubic kilometres of ice, i.e. about ten per cent of the entire glaciated area, 'would have had to melt'.[21]

The reader will recall that Bretz originally envisaged something similar but was defeated by the inability of either radical global warming or sub-glacial volcanism (quite simply, neither happened) to account for the vast quantities of meltwater 'his' flood called for. In the end, as we saw, he settled for outburst floods from Glacial Lake Missoula as the answer. In 1990, Hunt faced the same dilemma – with the exception that he had already ruled out Lake Missoula – but showed himself to be an extraordinarily competent and prescient innovator when, without any preamble, he wrote:

> Earth heat cannot have melted continental ice to produce floodwaters in the volumes required … *A cometary heat source could have served the purpose.*[22] (Emphasis added).

To melt ten per cent of the North American ice cap, Hunt calculated that the kinetic energy of a half-kilometre diameter comet would be sufficient:

> A comet of the type that exploded above the Tunguska site in 1908 could have provided this heat. The great lake it might have created in the middle of the ice sheet would rapidly have tunnelled under the remaining glacier and emerged as catastrophic floods in many directions. *Cometary melting of the ice seems necessary to yield so much water in such a short time.*[23] (Emphasis added)

Anticipating the objection that no crater had been found, Hunt pointed out that the Tunguska event – an airburst – likewise left no crater or ejecta blanket. Furthermore, in the case of a hypothetical comet impact on the North American ice cap:

> all ejecta and cometary matter would likely have been swept away in the ensuing flood, coming to rest widely dispersed in the drift blanket far from its source. Thus diluted and mixed with other debris, direct evidence for either the exploded projectile or ejecta from the site could be difficult to recognise, if not lost to science permanently.[24]

Last but not least – and again the prescience is almost eerie! – Hunt noted that 'glass spherules if found in glacial debris could support the theory'.[25]

He could not have known then, writing a quarter of a century ago, that from 2007 onwards a team of leading scientists would champion the cause of comet impacts on the North American ice cap and, in the absence of obvious craters would derive much of their evidence from microspherules, fused glass and nanodiamonds.

How to change global climate in an instant

Hunt's suggestion was that a single relatively small half-kilometre diameter object would have packed sufficient kinetic energy to set off the melting of approximately one tenth of the North American ice cap, producing a cataclysmic flood. Twenty-five years on, the proponents of the Younger Dryas comet hypothesis, as we have seen, are proposing that 'multiple two-kilometre' objects may have impacted the ice cap.[26] If they are correct, the scale of the ensuing floods must have been almost unimaginably large. Nor would they have been confined only to the Channeled Scablands of the

Columbia plateau. The comet hypothesis envisages a rain of impacts right across the ice sheet from the Pacific to the Atlantic coasts of North America, so we should find evidence of flooding everywhere.

We do. The Columbia plateau displays flood-ravaged scablands but so too does the state of New Jersey much further to the east. The Columbia plateau is notable for its fields and hillsides strewn with huge ice-rafted erratics but so, too, is the state of New York. Indeed, perched on the bare rock surfaces of Manhattan's Central Park are many imposing erratic boulders, including diabase from the Palisades Sill along the Hudson River and shist from even further afield. Interestingly, too, just as the Columbia plateau has its coulees, so New York State has its Finger Lakes. These latter were long thought to have been carved by glaciers but their geomorphology closely parallels that of the coulees and some researchers now believe they were cut by glacial meltwater at

extreme pressures – a process linked by sediment evidence to ‘the collapse of continental ice sheets’.[27]

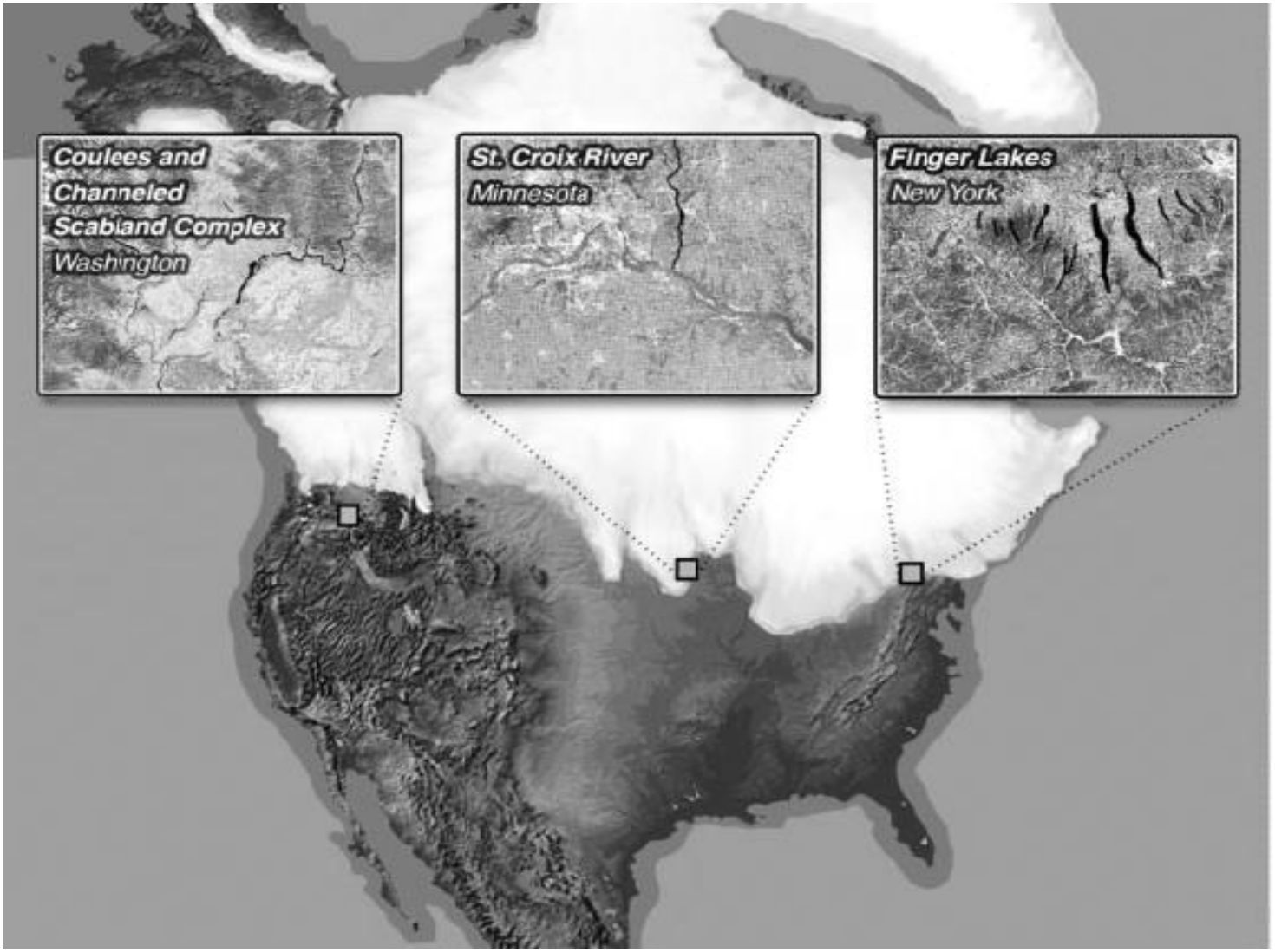
Coulees and
Channeled
Scabland Complex
Washington
St. Croix River
Minnesota
Finger Lakes
New York

Figure 22

Likewise in Minnesota, on the Saint Croix River where Randall Carlson and I finished our long road trip across North America, there is a spectacular array of more than eighty giant glacial potholes. One is 10 feet wide and 60 feet deep, making it the deepest explored pothole in the world. Others, as yet unexcavated, are even wider, suggesting the probability that they may be deeper as well. And all of them, without exception, were carved out by turbulent floods at the end of the Ice Age – floods emanating, Randall believes, from the superior lobe of the Laurentide ice cap.

'You could spend a lifetime,' he tells me, 'travelling this land and still not see it all. The effects of mega scale flood flows have been extensively documented in the eastern foothills of the Rocky Mountains in both Canada and the US, across the prairie states, in the vicinity of the Great Lakes, in Pennsylvania and western New York, and in New England. All the Canadian provinces preserve

large-scale evidence of gigantic water flows. All regions within or proximal to the area of the last great glaciation show the effects of intense, mega-scale floods.'

But the question that remains concerns the source of these floods.

Having been dragged kicking and screaming into conceding that flooding occurred at all, gradualist science, as we have seen, subsequently engaged in a love affair with Glacial Lake Missoula, elevating it and its epic *jökulhlaups* to serve as the sole explanation for all the astonishing diluvial features of the Channeled Scablands of the Columbia plateau. It is not surprising, therefore, that other Ice Age floods, wherever they are admitted to have occurred, are also attributed to *jökulhlaups* from glacial lakes.

More than that, it is the floodwaters from these glacial lakes – rather than anything so vulgarly catastrophist as a comet – that are presently regarded by mainstream science as the most likely cause of the Younger Dryas cold event. The giant Glacial Lake Agassiz, which lay across most of Manitoba, northwestern Ontario, northern

Minnesota, eastern North Dakota and Saskatchewan is particularly implicated. Around 13,000 years ago – i.e. immediately before the onset of the Younger Dryas – Lake Agassiz is thought to have covered an area as great as 440,000 square kilometres (170,000 square miles) when an ice dam broke and allowed a substantial fraction of its contents, perhaps as much as 9,500 cubic kilometres, to spill out along a flood path running through the Mackenzie River system in the Canadian Arctic coastal plain, and thence into the Arctic Ocean.[28] There the anticyclonic circulation of a current known as the Beaufort Gyre would have gradually moved it onwards into the subpolar North Atlantic in the Transpolar Drift:

> The slow release of meltwater south through Fram Strait provides a mechanism unique to the Arctic that is capable of turning a short duration, high-magnitude meltwater discharge into a significantly longer, more moderated and sustained meltwater rerouting event to the North Atlantic.[29]

What made matters worse, however, was that *at the same time* huge quantities of icy meltwater were also being dumped into the North Atlantic from the other glacial lakes and directly off the Laurentide ice sheet itself.[30] The combined effect, so the theory goes, disrupted ocean circulation to such an extent that it radically affected global climate:

> A great gush of cold freshwater derived from the melting Laurentide ice sheet swept across the surface of the North Atlantic. It prevented warm, salty water from the southern ocean flowing deep beneath the surface (the Gulf Stream) from rising to the surface. The normal overturning of the ocean water stopped. As a consequence the atmosphere over the ocean, which would normally have been warmed, remained cold and so, in consequence, did the air over Europe and North America.[31]

These are highly technical matters, with which we do not need to concern ourselves at too great length here. In brief, though, the Atlantic meridional overturning circulation, also known as the thermohaline circulation, is the great ocean conveyer belt[32] that not

only carries warm salty equatorial water to the surface and thence northwards where it eventually cools and sinks off the coasts of Greenland and Norway, but also carries the resultant cold North Atlantic deep water south, returning it slowly to the equator where it mixes with warmer water, rises again to the surface and thus continues the cycle:

> It transports large amounts of water, heat, salt, carbon, nutrients and other substances around the globe and connects the surface ocean and atmosphere with the huge reservoir of the deep sea. As such it is of critical importance to the global climate system.[33]

It was the shutting down of this delicately balanced, intricately interconnected, hugely complex, *critical* cycle, scientists agree, that caused the dramatic global cooling of the Younger Dryas. That the shutdown was the result of colossal meltwater floods out of glacial lakes, and directly off the Laurentide ice cap, is also agreed. A major puzzle, however, as S.J. Fiedel points out in a keynote paper

in the journal *Quaternary International*, is why this should have happened 12,800 years ago, rather than say 800 or 1,000 years earlier at the height of the warm phase – known as the Bølling–Allerød interstadial – that immediately preceded the Younger Dryas.[34] Intuitively one feels the meltwater floods should have been at their peak during the warming phase. In reality however it was only at the Bølling–Allerød/Younger Dryas Boundary that the meltwater releases occurred.

The solution to the mystery seems transparently obvious to Richard Firestone, Allen West, Jim Kennett and other proponents of the Younger Dryas impact hypothesis. Quite simply, there is no mystery! In their reckoning, the huge meltwater floods that so radically affected global climate were caused by multiple large fragments of a comet ripping through the earth's atmosphere and smashing down into the ice cap – not just one fragment of half a kilometre or so as envisaged by C. Warren Hunt, but as many as

eight fragments, and possibly more, including some that might have been as much as two kilometres in diameter.[35]

The colossal heat generated by such impacts, with a combined explosive power estimated as we have seen at ten million megatons, provides all the energy needed to set off a truly cataclysmic meltdown of huge sectors of the North American ice cap. The gigantic flood that would have followed, after scouring the land in its path, would indeed have entered the oceans as ‘a great gush of freshwater’ and provided the shock to the Atlantic meridional overturning circulation that kept global climate savagely cold for the next 1,200 years. The situation would have been worsened by the injection of dust and immense quantities of smoke into the upper atmosphere ‘blocking sunlight for an extended period of time’, which would, of course, have had the effect of lowering temperatures even further. Moreover:

> The impact event, followed by extensive fires and sudden climate change, likely contributed together to the rapid extinction of the megafauna and many other animals.[36]

The reader will recall that no less than thirty-five genera of North American mammals became extinct during the Younger Dryas.[37] We are therefore, by definition, looking for 'an extinction mechanism that is capable of wiping out up to thirty-five genera across a continent in a geologic instant'.[38] Nor is it just North America that we must consider – for most of the diverse megafauna of South America that had flourished before the Younger Dryas also suffered extinction by 12,000 years ago, i.e, before the Younger Dryas came to an end.[39]

Could it have been 'overkill' by human hunters? The question touches upon a contentious issue – namely when, in fact, and from where, did human beings first arrive in the Americas? Whatever the answer, it seems implausible that bands of nomadic hunter-gatherers

would have been either motivated, or ruthlessly efficient enough, to wipe out so many animals, including giants like the Columbian mammoth, in so short a time across two continents. Moreover there is much to suggest that human beings in the Americas themselves entered a period of deep distress during the Younger Dryas that would have further reduced their motivation and efficiency. Archaeological evidence from South America is limited, but in North America, this was the time when the Clovis culture, with its sophisticated stone weapons technology, abruptly vanished from the record. Indeed, all available indicators point to 'a significant decline and/or reorganization in human population during the early centuries of the Younger Dryas'.[40]

Once again, therefore, the only explanation that makes complete sense of the evidence is the comet-impact hypothesis of Firestone, Kennett, West and their large group of colleagues and co-authors.

In the light of their findings, which we have reviewed extensively in the preceding chapters, I propose the following:

1. There was indeed cataclysmic flooding in North America at the end of the Ice Age.
2. It was not primarily caused by outburst floods from glacial lakes but rather by the rapid, almost instantaneous, meltdown of a large area of the ice cap.
3. The heat source needed to initiate this meltdown came from the kinetic energy of a series of impacts from fragments of a giant comet that entered the earth's atmosphere over North America 12,800 years ago and bombarded the North American ice cap.
4. North America, while being the epicentre of the disaster was by no means the only region hit. Other fragments of the disintegrating comet, including some particularly large objects, appear to have smashed into the European ice cap.

In this connection it may be of relevance that recent high-resolution sonar scans of the English Channel, the floor of which was above water during the Ice Age, have revealed evidence of cataclysmic flooding there in the form of a 400-kilometre-long network of submerged and partially infilled valleys carved into the bedrock. ‘The data show a collection of landforms that, taken together, indicate a catastrophic flood origin,’ state the authors of a study published in *Nature*. The study specifically likens these now submerged landforms to ‘the Cheney–Palouse terrain of the Channeled Scabland of Washington, USA’. The authors state that they ‘cannot resolve the absolute timing of the flooding events’. They do conclude, however, that their study ‘provides the first direct evidence that a megaflood event was responsible for carving the English Channel valley network. Our observations are consistent with erosion by high-magnitude flows, as in the Channeled Scabland’.[41]

5. Altogether more than 50 million square kilometres of the earth's surface were affected by impacts and airbursts of fragments of the Younger Dryas comet, some large, some smaller, but all devastating in their effects, extending from North America, right across the Atlantic Ocean and across Europe with the final rain of fragments falling as far afield as the Middle East.
6. The combined effect of these multiple impacts, particularly the immense freshwater floods into the Arctic and Atlantic Oceans that followed, set off the Younger Dryas cooling event, itself a cataclysm on a truly global scale that resulted in the extinction of huge numbers of animal species and pressed humanity very hard.
7. The human costs of the disaster might not have been confined to the complete destruction of hunter-gatherer cultures, such as the 'Clovis' people of North America. The possibility must be considered that an advanced civilization,

now lost to history, might also have been obliterated.

Spring is coming

What is particularly striking is that the very radical climate changes at both the onset and the termination of the Younger Dryas were global and were accomplished within the span of a human generation.[42] Again the comet-impact hypothesis makes the best sense of this. The estimated combined explosive force of the impacts at ten million megatons would have lofted sufficient ejecta into the atmosphere 12,800 years ago to plunge the earth into a long, sustained twilight, akin to a nuclear winter – the 'time of darkness' that so many ancient myths speak of – capable of reducing solar radiation for more than 1,000 years. The dramatic warming that began 11,600 years ago would then be explained by the final dissipation of the ejecta cloud coupled with an end to the system-

wide inertia that had beset thermohaline circulation in the North Atlantic.[43]

Another possibility, not necessarily mutually contradictory with any of the above mechanisms, is that 11,600 years ago the earth interacted again with the debris stream of the same fragmenting comet that had caused the Younger Dryas to start 12,800 years ago. On the second occasion, however, analysis suggests that the primary impacts were not on land or onto ice but into the world's oceans throwing up vast plumes of water vapour and creating a 'greenhouse effect' that caused global warming rather than global cooling.[44]

According to renowned British astronomer Sir Fred Hoyle:

> The difference between a warm ocean and a cold one amounts to a 10-year supply of sunlight. Thus the warm conditions produced by a strong water vapour greenhouse must be maintained for at least a decade in order to produce the required transformation of the ocean, and this is just about the time for which water, suddenly thrown into the stratosphere, might be expected to persist there. The needed amount of water is so vast, 100 million million tons, that only one

> kind of causative event seems possible, the infall of a comet-sized object into a major ocean.[45]

More research certainly needs to be done to establish the exact mechanisms, in all their complexity, that brought about the sudden end of the Younger Dryas, but the effects on global climate are already well understood. The Greenland ice cores, those invaluable windows into the past, tell us that:

> temperatures rose in less than a decade at the climate transition marking the end of the Younger Dryas cold interval and the beginning of the warmer Holocene epoch at 11,600 years before the present.[46] In less than 20 years, the climate in the North Atlantic region turned into a milder and less stormy regime, as a consequence of a rapid retreat of sea-ice cover. A warming of 7 degrees Centigrade was completed in about 50 years.[47]

In exactly the same interval, in the subalpine belt of Western Europe, tree species that had never been present before, including *Laris, Pinus cembra* and *Betula*, suddenly began to proliferate.[48]

In Northwestern Montana, in the USA, glacial ice in Marias Pass had receded upvalley from the canyon mouth and the Sun River Glacier had completely vanished by 11,200 years ago.[49]

A thousand other examples could be cited, but the message is the same everywhere – from Tasmania to the Andes, from Turkey to Japan, from North America to Australia, from Peru to Egypt, winter had ended and a great global spring had begun. 'Such is the rebirth of the Cosmos,' as the Hermetic Texts proclaim. 'It is a making again of all things good, a holy and awe-inspiring restoration of all nature …'[50]

A rebirth?

A making again?

A restoration?

But of what? Who went before? What exactly was to be reborn?

We will consider these questions in the following chapters.

Part III

Sages

Chapter 7

The Fire Next Time

Three singularities occurred near the end of the last Ice Age, linked to the sudden onset and equally sudden termination of the mysterious epoch known as the Younger Dryas:

- Somewhere around 12,800 years ago, after more than two thousand years of uninterrupted global warming (and with a margin of error of plus or minus 150 years that is as close as the resolution of the data allows us to get to the actual moment), a flood of icy meltwater entered the North Atlantic

so suddenly and in such quantities that it disrupted ocean circulation. The source of the flood was the North American ice cap. Since the previous two millennia had witnessed continuous sea-level rise, the resolution of the data means there is no way of knowing exactly how much coastal land was swallowed up by this singular event. With so much new water that had previously been locked in ice abruptly added, however, we may surmise that a dramatic and instantaneous rise in sea-level did occur.[1]

- In the same geological instant that the meltwater flood was unleashed, global temperatures plummeted and the world's climate underwent a reversal from that balmy two-thousand-year-long 'summer' that had begun about 15,000 years ago (by 13,000 years ago, conditions are thought to have improved to such an extent that they were warmer and wetter than they are today) to a savage and icy global winter. Again the resolution of the data does not allow us to say

exactly how soon after the meltwater flood the deep-freeze began but, as we saw in the previous chapter, there is much to suggest that this radical reversal of temperatures was achieved within the span of a single human generation. In that same span the ice sheets that had everywhere been melting and in retreat began remorselessly to re-advance and sea-level rise ceased.

- Around 11,600 years ago, again with a margin of error of 150 years in either direction imposed by the data – but again apparently within a single generation – the freeze suddenly ended, global temperatures soared, and the remnant ice caps collapsed, shedding their residual water burden into the world's oceans which rose dramatically to close to today's level.

Our ancestors passed through these tumultuous changes and it is inconceivable that they would not have remarked upon them or

sought to speak about their experiences to one another. Their stories and eyewitness accounts, would, in turn, have become part of revered oral traditions and as such would have been passed down from generation to generation until they became hoary with age. As the reader will recall from Chapter Three, certain Native American 'myths' do, absolutely, seem to speak of events at the end of the last Ice Age. The terrible floods that scoured and ravaged the land are described in detail. But of even greater interest are the traditions of the 'star with the long wide tail' that 'came down here once, thousands of years ago', that 'burnt up everything' and that 'made a different world' in which 'the weather was colder than before'.

These traditions appear to memorialise the devastating effects of the comet impact that we can now date conclusively, within the understood margins of error, to around 12,800 years ago. We've seen how scientists Richard Firestone, Allen West, Jim Kennett and others believe the comet broke into multiple fragments, perhaps eight of which – some with diameters approaching two kilometres –

hit the North American ice cap generating huge amounts of heat and instantly transforming great masses of ice into the floods of meltwater that disrupted oceanic circulation and played a key role in bringing on the deep freeze of the Younger Dryas. The reader will also recall that other fragments of the giant comet are thought to have hit the Northern European ice cap and to have gone on to rain down on even more distant lands as far away as the Middle East. Thus, though the epicentre was in North America, it is not surprising that the Younger Dryas was a global event that affected peoples and cultures all around the world.

What is surprising is the remarkable consistency with which traditions from every part of the globe speak not only of cataclysmic events but also of very specific warnings given to certain selected 'wise', or 'good' or 'pure' humans in *advance* of the impending cataclysm. We saw several examples of such warnings in the Native American traditions reviewed in Chapter Three, but if we travel oceans and continents away from the epicentre of the impacts we

find similar accounts of warnings preserved in the Middle East at the furthest extent to which the effects of the comet have so far been documented. Note this does not mean that the ‘strewnfield’ of comet debris is confined to the 50 million square kilometres presently recognised. It simply means that samples of sediment from other regions have thus far not been assayed for nanodiamonds, magnetic and glassy spherules, melt-glass, platinum and other tell-tale proxies of impact.

Figure 23

Up to the limit of research so far done, however, the site furthest from North America that has produced firm evidence of the presence and effects of the Younger Dryas comet is an archaeological mound, or tell, called Abu Hureyra in Syria which

was excavated in 1974 just before completion of the Taqba Dam on the Euphrates River caused it to disappear forever beneath the advancing waters of Lake Assad. Sediment samples from the archaeological trenching of Abu Hureyra were removed and preserved before the site was flooded and it was the Younger Dryas Boundary layer of one of these samples (from Trench E, and dated to 12,800 years ago) that Firestone, West, Kennett and their team assayed in 2012. As we saw in Chapter Five, they found nanodiamonds, abundant cosmic impact spherules and melt-glass that could only have formed at temperatures in excess of 2,200 degrees Celsius suggesting that the site was 'near the centre of a high-energy air-burst/impact'.[2]

Abu Hureyra cannot be subjected to further direct archaeological investigation since it now lies under Lake Assad, but Firestone, Kennett and West believe the effects of the comet on 'that settlement and its inhabitants would have been severe'.[3] Of note is

the fact that the site lies close both to southeastern Turkey, where Göbekli Tepe is situated, and to the modern state of Iran – formerly Persia – where traditions of great antiquity have been preserved in the scriptures of Zoroastrianism, the pre-Islamic religion of ancient Persia.

‘The fatal winters are going to fall …’

Exactly how old Zoroastrianism is has not yet been satisfactorily established by scholars, since even the lifetime of its prophet Zarathustra (more usually known as Zoroaster) is uncertain. Indeed, as Columbia University’s authoritative *Encyclopedia Iranica* admits: ‘Controversy over Zarathustra’s date has been an embarrassment of long standing to Zoroastrian studies.’[4]

The Greek historians were amongst the first to address themselves to the matter. Plutarch, for example, tells us that Zoroaster ‘lived 5,000 years before the Trojan War’[5] (itself a matter

of uncertain historicity but generally put at around 1300 BC, thus 5,000 plus 1,300 = 6300 BC). A similar chronology is given by Diogenes Laertius who relates that Zoroaster lived '6,000 years before Xerxes' Greek campaign'[6] (i.e. around 6480 BC). More recent scholars have proposed dates as far apart as 1750 BC and '258 years before Alexander'[7] (i.e. around 588 BC). Whatever the truth of the matter, it is agreed that Zoroaster himself borrowed from much earlier traditions and that Zoroastrianism, therefore, like many other religions, has roots that extend very far back into prehistory.

In the Zoroastrian scriptures known as the Zend Avesta certain verses in particular are recognised as drawing on these very ancient oral traditions.[8] The verses speak of a primordial father figure called Yima, the first man, the first king and the founder of civilization and appear in the opening section of the Zend Avesta known as the Vendidad. There we read how the god Ahura Mazda created the first land, 'Airyana Vaejo, by the good river Daitya',[9] as a paradise

on earth and how ‘the fair Yima, the great shepherd … was the first mortal’ with whom Ahura Mazda chose to converse, instructing him to become a preacher.[10] Yima refused, at which the god set him a different task:

> Since thou wantest not to be the preacher and the bearer of my law, then make my world thrive, make my world increase; undertake thou to nourish, to rule and to watch over my world.[11]

To this Yima agreed at which the god presented him with a golden ring and a poniard – a long, tapered thrusting knife – inlaid with gold. Significantly, for we will see in Chapter Seventeen there are close parallels to this story as far away as the Andes mountains of South America, Yima then:

> pressed the earth with the golden ring and bored it with the poniard.[12]

By this act, we learn he ‘made the earth grow larger by one third than it was before’, a feat that over the course of thousands of years he repeated twice more – in the process eventually doubling the land area available for ‘the flocks and herds with men and dogs and birds’, who gathered unto him ‘at his will and wish, as many as he wished’.[13]

Anatomically modern humans like ourselves have existed, so far as we know, for a little less than two hundred thousand years (the earliest anatomically modern human skeleton acknowledged by science is from Ethiopia and dates to 196,000 years ago).[14] Within this time-span there has been only one period when those parts of the earth that are useful to humans increased dramatically in size and that was during the last Ice Age between 100,000 and 11,600 years ago. Indeed, previously submerged lands totalling 27 million square kilometres – equivalent to the area of Europe and China added together – were exposed by lowered sea-levels at the last

glacial maximum 21,000 years ago. While it is probably far-fetched to suppose that it is this very real increase of useful land – of which a great part was still above water at the beginning of the Younger Dryas 12,800 years ago – that is referred to in the Yima story, or that it has anything to do with the golden age that Yima's benign rule supposedly achieved in Airyana Vaejo,[15] it is interesting to note what happened next.

After another immense span of time, we read, Yima was summoned to 'a meeting place by the good river Daitya' where the god Ahura Mazda appeared to him bearing an ominous warning of sudden and catastrophic climate change:

> O fair Yima, upon the material world the fatal winters are going to fall, that shall bring the fierce, foul frost; upon the material world the fatal winters are going to fall that shall make snowflakes fall thick, even on the highest tops of mountains …
>
> Therefore make thee a Vara [a hypogeum, or underground enclosure] long as a riding ground on every side of the square, and thither bring the seeds of sheep and oxen, of men, of dogs, of birds, and of red blazing fires … Thither thou shalt bring

> the seeds of men and women of the greatest, best and finest kinds on this earth; thither shalt thou bring the seeds of every kind of cattle, of the greatest, best and finest kinds on this earth. Thither shalt thou bring the seeds of every kind of tree, of the greatest, best and finest kinds on this earth; thither shalt thou bring the seeds of every kind of fruit, the fullest of food and sweetest of odour. All those seeds shalt thou bring, two of every kind, to be kept inexhaustible there, so long as those men shall stay in the Vara. There shall be no humpbacked, none bulged forward there; no impotent, no lunatic … no leprous.[16]

So … you get the idea? This underground hideaway was to serve as a refuge from a terrible winter that was about to seize Airyana Vaejo – a winter at the onset of which, as the Bundahish, another Zoroastrian text, informs us:

> the evil spirit … sprang like a snake out of the sky down to the earth … He rushed in at noon, and thereby the sky was as shattered and frightened by him as a sheep by a wolf. He came onto the water which was arranged below the earth, and then the middle of this earth was pierced and entered by him … He rushed out upon the whole creation and he made the world quite as injured and dark at midday as though it were dark night.[17]

Studying these accounts I couldn't help but be reminded of the two millennia of warm, fine weather, which must indeed have seemed like a golden age, before the sudden lethal onset of the Younger Dryas 12,800 years ago. The Zoroastrian texts would not be far wrong in describing it as a 'fierce, foul frost' and as 'a fatal winter'. The 'evil spirit' to whom this affliction is attributed is Angra Mainyu, the agent of darkness, destruction, wickedness and chaos, who stands in opposition to and seeks to undermine and undo all the good works of Ahura Mazda – for Zoroastrianism is a profoundly dualistic religion in which human beings, and the choices we make for good or evil, are seen as the objects of an eternal competition, or contest, between the opposed forces of darkness and light.

And in this contest the darkness sometimes wins. Thus the Vendidad reminds us that although Airyana Vaejo was 'the first of the good lands and countries' created by Ahura Mazda, it could not resist the evil one:

> Thereupon came Angra Mainyu, who is all death, and he counter-created by his witchcraft the serpent in the river, and winter, a work of the demons … [Now] there are ten winter months there, two summer months, and these are cold for the waters, cold for the earth, cold for the trees. Winter falls there, with the worst of its plagues.[18]

In other translations the phrase 'the serpent in the river, and winter' is given as 'a great serpent and Winter' and, alternatively, as 'a mighty serpent and snow'.[19]

Again … you get the idea. The metaphor that is being repeatedly driven home here is that of the mighty serpent who springs from the sky down to the earth, who penetrates the earth, and who brings a prolonged winter upon the world so severe that it is 'dark' ('most turbid, opaque' according to some translations[20]) at midday, and even the fleeting summer months are too cold for human life. Once again, the whole scenario seems very accurately to describe the terrible conditions that would have afflicted the world after the Younger Dryas comet spread its trail of destruction across at least

50 million square kilometres, brought on ‘a vehement destroying frost’ and threw such quantities of dust into the upper atmosphere, together with smoke from the continent-wide wildfires sparked off by airbursts and superheated ejecta, that a turbid, opaque darkness would indeed have filled the skies, reflecting back the sun’s rays and perpetuating something very like a nuclear winter for centuries.

The Zoroastrian texts leave us in no doubt that these conditions posed a deadly threat to the future survival of civilization. It was for this reason that Ahura Mazda came to Yima with his warning and his instruction to build an underground shelter where some remnant of humanity could take refuge, keeping safe the seeds of all animals and plants, until the dire winter had passed and spring returned to the world. Moreover the account reveals very little that seems ‘mythical’, or that obviously derives from flights of religious fancy. Rather the whole thing has about it an atmosphere of hard-headed practical planning that adds a chilling note of veracity.

For example the admonition that deformed, impotent, lunatic and leprous people should be kept out of the Vara sounds a lot like eugenics, a distasteful policy to be sure, but one that might be implemented if the survival of the human race was at stake and there was limited space available in the refuge. For the same reasons it is not surprising that only the seeds of 'the greatest, best and finest' kinds of trees, fruits and vegetables, those that are 'fullest of food and sweetest of odour' are to be brought to the Vara. Why waste space on anything but the best?

Also although it is certain that a number of carefully selected people were to be admitted to the Vara, perhaps as caretakers and managers of the project, and as future breeding stock, the emphasis throughout is on seeds – which in the case of human beings would be sperm from the males and eggs from the females. So when we read that the Vara is to be constructed in three subterranean levels, each smaller than the one above, each with its own system of criss-crossing 'streets', it is legitimate to wonder whether some kind of

storage system, perhaps with ranks of shelves arranged in criss-crossing aisles might not really be what is meant here:

> In the largest part of the place thou shalt make nine streets, six in the middle part, three in the smallest. To the streets of the largest part thou shalt bring a thousand seeds of men and women; to the streets of the middle part, six hundred; to the streets of the smallest part, three hundred.[21]

If it seems fanciful to imagine that we might, in an almost high-tech sense, be looking at the specifications of a seed bank here, then how are we to assess other 'technological' aspects of the Vara – for example its lighting system? As well as making a door to the place, and sealing it up with the golden ring already given to him by Ahura Mazda, Yima is also to fashion 'a window, self-shining within'.[22] When Yima asks for clarification as to the nature of this 'self-shining' window Ahura Mazda tells him cryptically 'there are uncreated lights and created lights'. The former are the stars, the moon and the sun, which will not be seen from within the confines

of the Vara during the long winter, but the latter are 'artificial lights' which 'shine from below'.[23]

Yima did as he was instructed and completed the Vara which, thereafter, 'glowed with its own light'.[24] That accomplished, he then:

> made waters flow in a bed a mile long; there he settled birds, by the evergreen banks that bear never-failing food. There he established dwelling places, consisting of a house with a balcony, a courtyard and a gallery …[25]

There, too, we are reminded, in accord with the commands of the god,

> he brought the seeds of men and women … There he brought the seeds of every kind of tree [and] … every kind of fruit … All those seeds he brought, two of every kind, to be kept inexhaustible there, so long as those men shall stay in the Vara …[26]

Finally, we learn that:

> every fortieth year, to every couple two are born, a male and a female. And thus it is for every sort of cattle. And the men in the Vara, which Yima made, live the happiest life.[27]

Interestingly the translator explains, in a footnote drawn from various ancient learned commentaries on the text, that the human inhabitants of the Vara 'live there for 150 years; some say they never die'.[28] Moreover, and particularly intriguing, the births of offspring to every couple do not result from sexual union but 'from the seeds deposited in the Vara'.[29]

Other hints of a mysterious lost technology connected to Yima include a miraculous cup in which he could see everything that was happening anywhere in the world and a jewelled glass throne (sometimes described as 'a glass chariot') that was capable of flight.[30]

Flood and rain

As well as a climate catastrophe in the form of an overnight reversion to peak Ice Age cold, we also know that the Younger Dryas involved extensive global flooding as a large fraction of the North American ice cap melted and poured into the world ocean. It is therefore noteworthy that the Zoroastrian texts speak not only of the 'vehement, destroying frost' of a global winter but also of an associated flood accompanied by heavy precipitation, in which:

> Every single drop of rain became as big as a bowl and the water stood the height of a man over the whole of this earth.[31]

On the other side of the world and much closer to the North American epicentre of the cataclysm, the *Popol Vuh*, an original document of the ancient Quiche Maya of Guatemala, based on pre-conquest sources, also speaks of a flood and associates it with 'much hail, black rain and mist, and indescribable cold'.[32] It says, in a remarkable echo of the Zoroastrian tradition, that this was a period

when ‘it was cloudy and twilight all over the world … The faces of the sun and the moon were covered’.[33] Other Maya sources confirm that these strange and terrible phenomena were experienced by mankind ‘in the time of the ancients. The earth darkened … It happened that the sun was still bright and clear. Then, at midday, it got dark …’[34] Sunlight was not seen again ‘until the twenty-sixth year after the flood’.[35]

Returning to the Middle East, the famous account of the Hebrew patriarch Noah and the great Ark in which he rides out the flood, commands attention. It is obvious that there are many parallels with the story of Yima and his Vara. The Vara, after all, is a means of surviving a terrible and devastating winter which will destroy every living creature by enchaining the earth in a freezing trap of ice and snow. The Ark, likewise, is a means of surviving a terrible and devastating flood which will destroy every living creature by drowning the world in water. In both cases a deity – Ahura Mazda

in the case of the Zoroastrian tradition, the God Yahweh in the case of the Hebrew tradition – intervenes to give advance warning to a good and pure man to prepare for the coming cataclysm. In each case the essence of the project is to preserve the seeds, or the breeding pairs, of all life:

> And of every living thing of all flesh, two of every sort shalt thou bring into the Ark, to keep them alive with thee; they shall be male and female.
>
> Of fowls after their kind, and of cattle after their kind, of every creeping thing of the earth after his kind, two of every sort shall come unto thee, to keep them alive.[36]

Easily missed, but noteworthy, is the fact that Noah's Ark, like Yima's Vara, is to have a 'window', is to be closed with a 'door' and is to consist of three levels:

> A window shalt thou make to the Ark, and in a cubit shalt thou finish it above; and the door of the Ark shalt thou set in the side thereof; with lower, second, and third stories shalt thou make it.[37]

Last but not least, there are hints of a lost lighting technology in Noah's Ark that parallel the references to the 'artificial lights' in the Vara. In *The Legends of the Jews*, Louis Ginzberg's remarkable and comprehensive compilation of ancient stories and traditions connected to the Hebrew Bible, we read that the whole journey of the Ark, 'during the year of the flood', was conducted in darkness both by day and by night:

> All the time it lasted, the sun and the moon shed no light …[38]

However just like the 'self-shining window' of the Vara:

> The Ark was illuminated by a precious stone, the light of which was more brilliant by night than by day, so enabling Noah to distinguish between day and night.[39]

Underground cities

Noah's Ark, as is well known, is said to have ended its journey on the slopes of Mount Ararat, the symbolic heartland of ancient Armenia but now, as a result of wars in the early twentieth century, located within the modern state of Turkey. Turkey, in turn, shares a border with Iran – ancient Persia – from which the accounts of Yima's Vara come down to us.

Turkey
Gobekli Tepe
Central Taurus
South East Taurus
Abu Hureyra
Iraq
Syria
Egypt
Jordan

Figure 24

It is therefore intriguing that Turkey's Cappadocia region has a very large number of ancient underground structures hewn out of solid rock and usually, like the Vara, consisting of multiple levels stacked one above the other. These underground 'cities', as they are known, include the eerie and spectacular site of Derinkuyu, which I was able to visit in 2013. Lying beneath a modern town of the same name, eight of its levels are presently open to the public, although further levels remain closed off below and, astonishingly, a subterranean tunnel several kilometres in length connects it to another similar hypogeum at Kaymakli.

Entering Derinkuyu was like crossing some invisible barrier into an unexpected netherworld. One minute I was standing in bright sunshine; the next, after I had ducked into the cool, dank, dimly-lit system of tunnels and galleries (no self-shining windows now; only low wattage electric light), I felt I had been transported to a realm

carved out by mythical dwarves at the dawn of time. In places the tunnels are low and narrow so that one must stoop and walk in single file between walls stained and blackened with ancient smoke and overgrown here and there with green mould. At regular intervals, slid back into deep recesses, I passed hulking megalithic doors, shaped like millstones, 5 to 6 feet (1.5 to 1.8 metres) in diameter and weighing close to half a ton. These were clearly designed to be rolled out to block access. Stairways and steep ramps led down from level to level and, although all the levels were interconnected, the rolling stone doors could be used to isolate them from one another when needed.

I noticed a remarkable system of plunging, sheer-sided ventilation shafts connecting the deepest levels with the surface – and doing so to such good effect that the gusts of fresh air were still palpable 80 metres (260 feet) or more beneath the ground. In some places the passageway I was following would debouch into a junction where tunnels branched off in several directions and more

stairways led down to even lower levels. And here and there, now to one side of the passageway, now to the other, sometimes accessed by means of holes cut in the wall, sometimes through full-sized doorways, lay small low-ceilinged grottos in which even a few people sitting together would have felt cramped. But sometimes those doors would lead into interconnected networks of chambers and passages and sometimes they would open out suddenly into lofty halls and spacious rooms with barrel-vault ceilings looming high overhead, supported on monolithic columns hewn from the living rock.

The whole place, in short, is a complex and cunning labyrinth on an immense scale – a work of astonishing architectural complexity that would be impressive if it had been built above ground, but that is utterly breathtaking when one considers that it all had to be mined, chiselled, hammered, cut and gouged out of the volcanic bedrock. Later, studying a plan, I realised that this vast hypogeum, looking in cross-section like a gigantic rabbit warren and extending

over an area of more than 4 square kilometres,[40] lay underfoot wherever one went in the modern town of Derinkuyu, streets beneath streets, rooms beneath rooms, a secret antipodal city of unknown antiquity and of unknown purpose but certainly the product of immense ingenuity, determination and skill.

And Derinkuyu is just one of *two hundred* such subterranean complexes, each containing a minimum of two levels (with around forty containing three levels or more) that have been identified in Turkey in the area between Kayseri and Nevsehir.[41] Moreover, new discoveries are constantly being made. Derinkuyu itself was found in 1963 after builders renovating the cellar of a modern home broke through to an ancient passageway below. And most recently, in 2014, workers preparing the ground for a new housing project at Nevsehir, an hour's drive north of Derinkuyu, stumbled upon yet another unsuspected hypogeum. Archaeologists were called in and it was quickly realised that this one was bigger than any others so

far known. As Hasan Unver, Mayor of Nevsehir put it, Derinkuyu and Kaymakli are little more than 'kitchens' when compared to the newly-explored site. 'It is not a known underground city', added Mehmet Ergun Turan, head of Turkey's Housing Development Administration. 'Tunnel passages of seven kilometres are being discussed. Naturally, when the discovery was made, we stopped the construction we were planning to do in the area.'[42]

Several commentators immediately speculated that the newly discovered site might be '5,000 years old',[43] but there is no basis for this – or really for any date. All we can say for sure is that the earliest surviving historical mention of Turkey's underground cities is found in the *Anabapsis* of the Greek historian Xenophon written in the fourth century BC[44] – so they are older than that.

But the question is, how much older?

As the reader will recall from Chapter One, there is no objective way to date structures made entirely of rock. What archaeologists

look for, therefore, are organic materials that can be carbon dated. To be useful, however, these organic materials must be excavated from locations – under a megalith that has never been moved, for example, or in the original mortar in a joint between two stone blocks – that allow reasonable deductions to be made about the date the associated structural elements were put in place.

This is why the mysterious decision by the builders of Göbekli Tepe to *bury* the megalithic enclosures there has been so helpful to archaeology. Once buried they stayed buried and organic materials in the fill can thus be used to make valuable inferences about their age. In many other sites, by contrast, there is the possibility that the intrusion of later organic materials will give a falsely young date, and in some – the underground cities of Turkey being a prime example – no reliable dating can be done. This is because the sites were used, reused and indeed repurposed, many times down the ages by many different peoples, with organic materials being

introduced on every occasion, thus making it impossible to draw any inferences about the epoch of their original construction.

The general view of archaeologists is that the underground structures were originally developed in the seventh or eighth centuries BC by an Indo-European people called the Phrygians who lived in Cappadocia at the time. The theory is that the Phrygians began the project by widening and deepening natural caves and tunnels that already existed in the volcanic rock, making use of the spaces they created for storage and possibly as places of refuge from attackers.

By Roman times, with the Phrygians long gone, the inhabitants of the area were Greek-speaking Christians who further developed and expanded the underground caverns, rededicating some of the rooms as chapels and leaving inscriptions in Greek, some of which survive to this day. In the Byzantine era, from the eighth to the twelfth centuries AD, the Eastern Roman Empire was locked in wars with

newly Islamicised Arabs and the underground cities became places of refuge again – a function they continued to serve during the Mongol invasions of the fourteenth century AD. Later still, Greek Christians used the cities to escape persecution at the hands of Turkish Muslim rulers, and this practice continued into the twentieth century when the structures finally fell into disuse after the truce and population exchange between Greece and Turkey in 1923.[45]

With such a chequered history it is easy to see why the underground cities cannot be dated using objective archaeological techniques. Moreover the vast effort that went into their excavation out of solid rock, and their sophisticated ventilation systems, speak of powerful long-term motives far beyond the limited and temporary need for shelter from attackers. With this in mind let us consider a scenario in which the Phrygians, favoured for no good reason by archaeologists as the first makers of the cities, were

themselves just one of the many later cultures to make use of them. It is perfectly possible that this is the case and, if so, then it is also possible that these extraordinary underground structures might date back to a time long before the Phrygians – perhaps even as far back as the 'fatal winters' of the Younger Dryas that set in around 12,800 years ago.

There is no proof of this, of course. Nonetheless Turkish historian and archaeologist Omer Demir, author of *Cappadocia: Cradle of History*, is of the opinion that Derinkuyu does in fact date back to the Palaeolithic.[46] His argument is based partly on the notion that it already existed in Phrygian times,[47] partly on stylistic differences between the upper (older) levels and the lower (younger) levels[48] and partly on the fact that marks of the implements used to cut the rock have worn completely away in the upper levels but are still visible in the lower levels:

> It is necessary for a long period of time to pass for the chisel marks to disappear. This means that there was quite a time difference between the years of construction of the first stories and the last stories.[49]

Demir also suggests that the huge quantities of rock excavated to make the underground city – which are nowhere in evidence in the vicinity today – were dumped into local streams and carried off.[50] In one of these streams, the Sognali, at a distance of 26 kilometres (16 miles) from Derinkuyu, hand-axes, rock-chips and other Palaeolithic artefacts were found.[51]

The evidence is suggestive at best. I would not want to bet my life or my reputation on it! Nonetheless the scenario that sees Derinkuyu and the other underground cities constructed in the Upper Palaeolithic around 12,800 years ago at the onset of the Younger Dryas has the great merit of no longer leaving us casting about for a motive commensurate with the huge effort involved. We are informed of that motive quite explicitly in the story of Yima.

Stated simply, the cities are Varas, cut down into the depths of the earth as places of refuge from the horrors of the Younger Dryas, which were not limited to the 'vehement destroying frost' but – as we know from the cosmic impact spherules and melt-glass found in sediment samples at nearby Abu Hureyra – also included the terrifying threat of bombardment from the skies.

Like a snake out of the sky

It is close to certain, if our planet did indeed cross the path of a giant comet 12,800 years ago as Firestone, Kennett and West maintain, that the bombardment would *not* have been limited to the large fragments that came down during the first event. The comet's debris stream would have remained on an earth-crossing orbit and would, very likely have resulted in decades, perhaps even centuries, of subsequent bombardments – not on the same scale of intensity as the initial encounter, but nonetheless able to cause catastrophic

damage and to spread enough fear and dismay of the mighty 'serpent' lingering in the heavens to justify the construction of secure underground shelters.

Indeed, as we will see, the earth may *still* cross the debris stream of the giant Younger Dryas comet today and large, deadly objects, blacker than coal, invisible to our telescopes, may still be orbiting in that stream today. I'm reminded again of the Ojibwa prophecy reviewed in Chapter Three:

> The star with the long, wide tail is going to destroy the world some day when it comes low again. That's the comet called Long-Tailed Heavenly Climbing Star.

Is the Younger Dryas comet coming back? Could it be that it did not spend all its anger and destructive force with the fragments that hit the earth and caused the vehement destroying winter of the Younger Dryas 12,800 years ago?

Curiously the ancient Iranian traditions contain a prophecy also, for it is said that Yima will return, and will walk again amongst

men, when:

> the signs foreshadowing the last of days appear. Of these the worst will be a winter more terrible than any the world has seen before when it will rain and snow and hail for three long years.[52]

The fiery descent of more fragments of the comet could bring about such a winter, just as happened 12,800 years ago. And just as happened then, it would do so in part because the skies would be darkened by debris and smoke from the wildfires caused by airbursts and by the superheated ejecta from the impacts on land. These are grave matters, and we will return to them in Chapter Nineteen. But first we must consider the story of Noah, the Hebrew counterpart of Yima, carried by the waters of the flood – so we are told – to the slopes of Mount Ararat, just a few days' walk from Göbekli Tepe. The Noah story also contains a prophecy which is made manifest in the New Testament, 2 Peter 3: 3-7:

> By water the world of that time was deluged and destroyed. By the same word the present heavens and earth are reserved for fire, being kept for the day of judgment and destruction of ungodly men.

Or as the old song has it:

God gave Noah the rainbow sign: no more water, the fire next time.

Chapter 8

The Antediluvians

The Biblical story of the Deluge is too familiar to require extensive repetition here. The essential elements can be summarised as follows:

- A life-destroying global flood, sent by God to punish human wickedness.[1]
- A man (Noah) selected by God and given advance warning of the coming cataclysm so that he can build a survival ship (the Ark).[2]

- The preservation in the Ark of the seeds, or breeding pairs, of all forms of life, with a particular emphasis on human life (Noah and his wife together with their sons and their wives) and animal life ('of fowls after their kind', as we saw in the last chapter, 'and of cattle after their kind, of every creeping thing of the earth after his kind, two of every sort shall come unto thee, to keep them alive').[3]
- The Ark rides out the flood until the waters subside.[4]
- The Ark comes to rest 'on the mountains of Ararat'.[5]
- When the waters have 'dried up from the earth' God instructs Noah to leave the Ark with his family and to'bring out every kind of living creature that is with you – the birds, the animals, and all the creatures that move along the ground – so they can multiply on the earth and be fruitful and increase in number on it.'[6]
- Noah builds an altar on which he sacrifices some of the animals and birds that he has just saved from the flood. The

smell of the burnt offerings is pleasing to God.[7]

- The surviving humans and animals go forth and multiply 'and fill the earth' as they have been commanded.[8]

Mount Ararat rises to 5,137 metres (16,853 feet) and geologists assure us, on the basis of excellent science, that no part of it has ever been covered by oceanic floodwaters since it began to take shape as a mountain near the end of the early Miocene some sixteen million years ago. The presence of anatomically modern humans in the world, as we saw in the last chapter, cannot be traced back further than two hundred thousand years, and even the last common ancestor with the chimpanzee – a creature that was very far from being in any sense 'human' – takes us back barely six million years, so the notion of a boat with humans on board being washed up on Mount Ararat is a chronological impossibility.

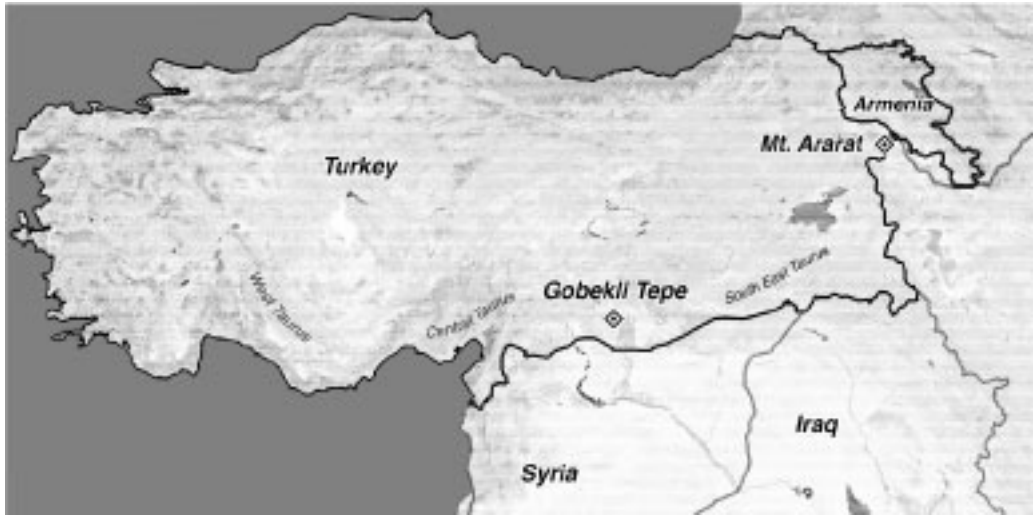

Figure 25

Nonetheless, it is intriguing that the story of the Deluge as given in the Old Testament makes specific and deliberate mention of 'the mountains of Ararat' (the 'Mount' does in fact have twin peaks) which, in Biblical times, were understood as being part of the 'Kingdom of Ararat',[9] the historic land of Urartu, conquered by the Assyrian King Shalmaneser in the late second millennium BC.[10] Due to the limited archaeology that has been undertaken in the region,

historians confess that 'the origins of Urartu must remain obscure',[11] but the earliest known settlements and the beginnings of agriculture in the region have been traced back to 'approximately 10,000 to 9000 BC'[12] – in other words to the period of Göbekli Tepe.

Moreover, this whole area, Mount Ararat and Göbekli Tepe very much included, formed the heartland of historic Armenia, the direct descendant of the Biblical Kingdom of Ararat whose inhabitants saw – and still today see – themselves as 'the Peoples of Ararat'.[13] Written in the fifth century AD, Moses Khorenatsi's influential *History of the Armenians* attributed the founding of the nation to the patriarch Haik, who, it was said, was the great-great-great-grandson of Noah himself and thus in the close lineage of the flood survivors who emerged from the Ark.[14] Indeed it is because of Haik that even in the twenty-first century Armenians still refer to themselves as Hai, and to their land as Haiastan.[15] They see it simply as a tragedy

of history that so much of this land, again including Göbekli Tepe and Mount Ararat, is now in the possession of the Republic of Turkey, following the Armenian genocide of 1915-23 in which more than one million ethnic Armenians are believed to have been killed by Turkish forces.[16]

Nationalistic feelings still run high in the communities of the Armenian diaspora scattered around the world and in the tiny rump of historic Armenia that forms the Armenian Republic today. These tensions have not left Göbekli Tepe untouched, and many Armenians are outraged that Turkey claims this uniquely important site as its own heritage as though the ancient Armenian connection did not even exist. A few minutes search on the internet using the keyword '*Portasar*', the former Armenian name of Göbekli Tepe, will confirm this. I'll give a single example here, a YouTube video entitled 'Turkey Presents Armenian Portasar as Turkish Göbekli

Tepe'.[17] Amongst the comments, fairly typical of the remarks made by many viewers, we read:

> This is the way I look at Portasar (Göbekli Tepe). These people deliberately buried a sacred temple. They did this in the anticipation of having it discovered many years in the future. They believed in reincarnation. Those people who built Portasar (Göbekli Tepe) are here among the Armenians. Their spirits have transcended into the Armenian people of today. When you pass on something in your family you want to make sure that it goes to only that family member and no one else. Portasar and those lands will be returned back to the Armenians in accordance with the laws of nature …[18]

In the same vein, though now entirely within the borders of Turkey, Mount Ararat remains a potent symbol of Armenian nationalism. A landscape of Mount Ararat, with the floodwaters receding and Noah's Ark at the summit, dominates the coat of arms of the Republic of Armenia while the mountain itself – so near and yet so far – looms over the Armenian capital city Yerevan, a haunting and ever present reminder that:

> The past is never dead. It's not even past.[19]

Thus there are many ways in which the story of Noah and his Ark, and of a world made anew after a terrible global cataclysm, is still a living force in the region of Göbekli Tepe, that mysterious sanctuary in the Taurus mountains where the great stone circles began to be put in place in 9600 BC – a date that marks the exact end of the long 'fatal winter' of the Younger Dryas. As Klaus Schmidt asked me rhetorically when I interviewed him at the site (see Chapter One):

> How likely is it to be an accident that the monumental phase at Göbekli Tepe starts in 9600 BC, when the climate of the whole world has taken a sudden turn for the better and there's an explosion in nature and in possibilities?

There's something else about that date too. Just as the beginning of the Younger Dryas in 10,800 BC was accompanied by huge global floods and an episode of rapidly rising sea levels, as icy meltwater

from the North American ice cap poured suddenly into the Atlantic Ocean,[20] so too a second global flood occurred around 9600 BC as the remnant ice caps in North America and northern Europe collapsed simultaneously amidst worldwide global warming. The late Cesare Emiliani, Professor in the Department of Geological Sciences at the University of Miami, carried out isotopic analysis of deep-sea sediments[21] that produced striking evidence of cataclysmic global flooding 'between 12,000 and 11,000 years ago'.[22]

So although the floods at the end of the Ice Age could never have carried Noah and his Ark thousands of feet above present sea level to the slopes of Mount Ararat, they were indeed global in their extent and would have had devastating consequences for humans living at that time. Mountainous regions such as the Ararat range would have been natural places of refuge – natural places to bring 'the seeds of all life' and to start again. Therefore, while the Noah story cannot be literally true in every detail, we must consider the

possibility that it is true in its essence, i.e. that it does record the construction of an 'Ark', in which seeds of useful plants and breeding pairs of animals were perhaps preserved by people who already knew agriculture and who possessed architectural skills, who survived the Flood, who migrated to the lands between Mount Ararat and Göbekli Tepe, and who subsequently disseminated agricultural and architectural knowledge to the indigenous hunter-gatherers of that region.

The sudden, and indeed completely unprecedented, appearance of giant stone circles at Göbekli Tepe, which surely could only have been conceived and implemented by people with extensive prior experience of megalithic architecture, and the simultaneous 'invention' of agriculture in the exact same locale, are, in my view, highly suggestive of this possibility. Then, too, there is the haunting sense that Göbekli Tepe itself constitutes a kind of 'Ark' frozen and memorialised in stone, for its iconography is not only all about animals but also – in a number of intriguing reliefs that show

women with exposed genitalia[23] and males with erect penises[24] – about human fertility. Imagery of the latter sort, including a figure that Karl Luckert, Professor of the History of Religions at Missouri State University, interprets as a classic 'Earth Mother',[25] call to mind God's command to Moses and his family to 'be fruitful and multiply and replenish the earth'.[26]

Meanwhile, where else but in Noah's Ark can we find a menagerie as eclectic as the one portrayed on the megaliths of Göbekli Tepe – a menagerie, as we saw in Chapter One, that includes spiders, scorpions and snakes ('every creeping thing of the earth'), birds and cattle ('fowls after their kind, and cattle after their kind'), and foxes, felines, goats, sheep, gazelles, boars, bears, etc, etc (in short – as Genesis 6: 20 has it, 'every kind of animal and every kind of creature')?

A final touch. Noah sacrificed some of the animals and birds that he had just saved from the Flood as an offering to God. At Göbekli

Tepe archaeologists have found the butchered bones of many of the animal species depicted on the megalithic pillars.[27]

Cities from before the Flood

It has long been recognised by scholars that the Biblical Flood narrative is not original to the Old Testament but was borrowed from a much earlier source, indeed a source dating back to the oldest true civilization so far acknowledged by archaeology – ancient Sumer in Mesopotamia, which arose in the fifth millennium BC, flourished during the fourth and third millennia BC, and survived into the second millennium BC.[28] The two earliest surviving written versions of this global flood 'myth' can be seen today at the University of Pennsylvania Museum of Archaeology and Anthropology,[29] and in the private Schøyen Collection in Norway.[30] Both are written in cuneiform characters in the Sumerian language

and both have come down to us as fragments rather than complete texts.

Of the two, however, it is the University of Pennsylvania tablet, found during excavations of the Sumerian city of Nippur[31] (located on the Euphrates 200 kilometres south of the modern city of Baghdad) that is the most complete, consisting of the lower third of what was once a six-column tablet of baked clay[32] and dated to the seventeenth century BC.[33] The Schøyen tablet, though less of it survives, is a little older (dated to the nineteenth to eighteenth centuries BC[34]), repeats some of the lines of the Pennsylvania fragment and adds a few new details not found elsewhere.[35]

Figure 26: Map of Ancient Sumer showing the antediluvian cities

What rare and precious things these little broken slabs of baked mud are! And what a tale they have to tell. When I first read that tale I was instantly intrigued, because it contains explicit references to the existence of five antediluvian cities which, we are informed, were swallowed up by the waters of the Flood.

The first thirty-seven lines of the University of Pennsylvania tablet are missing so we do not know how the story begins, but at

the point where we enter it the Flood is still far in the future.[36] We hear about the creation of human beings, animals and plants.[37] Then another break of thirty-seven lines occurs after which we find that we have jumped forward in time to an epoch of high civilization. We learn that in this epoch, before the Flood, 'kingship was lowered from heaven'.[38]

Then comes the reference to the foundation of Sumer's antediluvian cities by an unnamed ruler or a god:

> After the lofty crown and the throne of kingship had been lowered from heaven,
> He perfected the rites and the exalted divine laws …
> Founded the five cities … in pure places,
> Called their names, apportioned them as cult centres.

The first of these cities, Eridu …
The second Badtibira …
The third Larak …
The fourth Sippar …

The fifth Shuruppak …[39]

‘The preserver of the seed of mankind …’

When we rejoin the narrative after a third thirty-seven-line lacuna, the scene has changed bewilderingly. Although the Flood is still in the future, the foundation of the five antediluvian cities is now far in the past. It is apparent from the context that in the intervening period the cities’ inhabitants have behaved in such a way as to incur divine displeasure and that a convocation of the gods has been called to punish mankind with the terrible instrument of an earth-destroying flood. At the moment where we pick up the story again, a few of the gods are dissenting from this decision and expressing their unhappiness and dissatisfaction with it.[40]

Without preamble, a man called Zisudra is then introduced – the Sumerian archetype of the Biblical patriarch Noah. The text describes him as ‘a pious, god-fearing king’[41] and allows us to

understand that one of the gods has taken pity on him. The name of this god has not survived in the University of Pennsylvania tablet, but the Schøyen fragment gives us a clue when it reveals that Zisudra was not only a king but also a priest of the god Enki.[42] This god, of whom we will hear more later, tells Zisudra:

> Take my word, give ear to my instructions:
> A flood will sweep over the cult centres.
> To destroy the seed of mankind,
> Is the decision, the word of the assembly of gods.[43]

A text break of forty lines follows which scholars deduce, from the many later recensions of the same myth, 'must have continued with detailed instructions to Zisudra to build a giant boat and thus save himself from destruction'.[44]

When the story resumes, the cataclysm has already begun:

All the windstorms, exceedingly powerful, attacked as one,
At the same time the flood swept over the cult centres.
For seven days and seven nights the flood swept over the land,
And the huge boat was tossed about by the windstorms on the great waters.[45]

Throughout the cataclysm the skies remain dark. Then, on the eighth day, the sun breaks through the clouds, and the rains and raging storms cease. Opening the 'window' of his survival ship, Zisudra looks out over a world that has changed forever and sacrifices an ox and a sheep to the gods.[46]

An infuriating lacuna of thirty-nine lines follows, presumably telling us about the place where Zisudra makes landfall and the steps that he takes thereafter. When we pick up the story again, near the end of the text, we find him in the presence of the high gods of the Sumerian pantheon, *Anu* and *Enlil*, who have repented of their earlier decision to wipe mankind entirely from the face of the earth and are now so grateful to Zisudra for building his ark and surviving the Flood that they decide to make him immortal:

> Life like a god they gave him;
> Breath eternal like a god they brought down for him,
> … Zisudra the king,
> The preserver of the name of vegetation and of the seed of mankind.[47]

The final thirty-nine lines are missing.[48]

The Seven Sages

The late Professor Samuel Noah Kramer, one of the great authorities on ancient Sumer, observed that there are 'tantalizing obscurities and uncertainties' in this oldest surviving written version of the worldwide tradition of the Flood.[49] What there can be no doubt about at all, however, is that the tablet speaks of an urban civilization that existed before the Flood and provides us with the names of its sacred cities: Eridu, Badtibira, Larak, Sippar, Shuruppak. These cities, we are told quite specifically, were swallowed up in the deluge. Moreover, long after Sumer itself had

ceased to exist, rich traditions concerning the five cities, the antediluvian epoch, and the Flood survived in Mesopotamia, and were repeated by the cultures of Akkad, Assyria and Babylon that later rose to prominence, almost down to Christian times.[50] Indeed it is fair to say that the traditional history of this region, as it was told in antiquity, is very clearly divided into two different periods – before and after the Flood – and that both periods were regarded by the peoples of the region as absolutely factual and real.

Figure 27: The ancient empires of Mesopotamia rose to prominence at different periods of history but all maintained traditions of a global Flood that had all-but destroyed mankind in remote antiquity.

We saw in Chapter One how the Mesopotamian traditions not only preserved memories of antediluvian cities, but also of an antediluvian civilizing hero called Oannes, and the brotherhood of Seven Sages, the 'Seven Apkallu' who are said to have supported his civilizing mission. As the reader will recall, these sages are often depicted in the surviving art of the region as bearded men holding a peculiar kind of bag or bucket, but sometimes they are also shown as therianthropes, part bird and part human in form. As I dug deeper, going back and carefully rereading the accounts of the Babylonian priest Berossos that I had first touched upon when I was researching *Fingerprints of the Gods*, I was reminded that Oannes and the Apkallu sages were also sometimes depicted in a different therianthropic form, in this case part fish, part human. Each of them was paired as a 'counsellor' to an antediluvian King and they were

renowned for their wisdom in affairs of state and for their skills as architects, builders and engineers.[51]

Berossos compiled his *History* from the temple archives of Babylon (reputed to have contained 'public records' that had been preserved for 'over 150,000 years'[52]). He has passed on to us a description of Oannes as a 'monster', or a 'creature'. However, what Berossos has to say is surely more suggestive of a man wearing some sort of fish-costume – in short, some sort of disguise. The monster, Berossos tells us:

> had the whole body of a fish, but underneath and attached to the head of the fish there was another head, human, and joined to the tail of the fish, feet like those of a man, and it had a human voice … At the end of the day, this monster, Oannes, went back to the sea and spent the night. It was amphibious, able to live both on land and in the sea … Later, other monsters similar to Oannes appeared.[53]

Bearing in mind that the curious containers carried by Oannes and the Apkallu sages are also depicted on one of the megalithic pillars

at Göbekli Tepe (and, as we saw in Chapter One, as far afield as ancient Mexico as well) what are we to make of all this?

The mystery deepens when we follow the Mesopotamian traditions further. In summary, Oannes and the brotherhood of Apkallu sages are depicted as tutoring mankind for many thousands of years. It is during this long passage of time that the five antediluvian cities arise, the centres of a great civilization, and that kingship is 'lowered from heaven'. Prior to the first appearance of Oannes, Berossos says, the people of Mesopotamia 'lived in a lawless manner, like the beasts of the field'.[54]

Berossos wrote his *History* some time between 290 and 278 BC, but only fragments of it have come down to us, preserved as quotations and summaries in the works of other writers such as Syncellus and Eusebius. However, scholars recognise that what has been transmitted to us in this way does accurately reflect much more ancient Mesopotamian traditions inscribed on cuneiform

tablets going back to the very earliest times.[55] For example, the name Oannes, which has perhaps been distorted by the writers who passed it on to us, turns out to be derived from *Uannadapa* in cuneiform, often abbreviated simply to *Adapa* or to *U-Anna* – with the *Adapa* element originally being a title meaning (appropriately for a sage) 'Wise'.[56] It is said in the ancient Mesopotamian inscriptions that U-Anna 'accomplishes the plans of heaven and earth'.[57] Others of the group of antediluvian sages include *U-Anne-dugga* 'who is endowed with comprehensive understanding' and *An-Enlilda*, described as 'the conjurer of the city of Eridu'.[58]

Figure 28: Oannes and the brotherhood of Apkallu sages.

This last point – that the seven antediluvian sages were ‘conjurers’, ‘sorcerers’, ‘warlocks’, ‘magicians’ – is driven home repeatedly in the cuneiform texts.[59] But at the same time, associated with their magical abilities are obviously practical, technological or even scientific skills.[60] Thus they were masters of ‘the chemical

recipes',[61] they were medical doctors,[62] they were carpenters, stone cutters, metal workers and goldsmiths,[63] and they laid the foundations of cities.[64] Indeed, in later times, all crafts used in royal building and renovation projects were attributed to knowledge that had originated with the antediluvian sages.[65] As Amar Annus of the University of Tartu, Estonia, summarises in a detailed study:

> The period before the deluge was the one of revelation in the Mesopotamian mythology, when the basis of all later knowledge was laid down. The antediluvian sages were culture-heroes, who brought the arts of civilization to the land. During the time that follows this period, nothing new is invented, the original revelation is only transmitted and unfolded. Oannes and other sages taught all foundations of civilization to antediluvian humankind.[66]

The cuneiform tablets of ancient Mesopotamia also shed at least some light on the containers that the Apkallu sages are so often depicted as holding. They are referred to as *banduddu* – 'buckets',[67] and are presumed to have held 'holy water'.[68] Very often, too, as

the reader will recall from Chapter One, the sage holds in his other hand a cone-like object. These are referred to in the inscriptions as *mullilu* – meaning 'purifiers'.[69] In the same scenes the sages frequently appear in conjunction with a stylised tree or sometimes with the figure of a king, or sometimes both. No specific textual references to the tree have survived but the general assumption of scholars is that it must be a 'sacred tree' while many believe it represents 'the tree of life'[70] and that it symbolises 'both the divine world order and the king, who functioned as its earthly administrator'.[71] The conclusion therefore, is that we are looking at 'a magically protective rite, a benediction, an anointing':[72]

> By sprinkling the tree with holy water the sages imparted to it their own sanctity, upheld the cosmic harmony and thus ensured the correct functioning of the plans of heaven and earth.[73]

The Seven Apkallus were believed to have been created by Enki (Enki is his Sumerian name; the Akkadians called him Ea), revealed in the Schøyen tablet as Zisudra's patron, the great god of the subterranean freshwater ocean known as the Abzu.[74] Enki's particular attributes, in addition to his connection to this watery realm, were wisdom, magic, and the arts and crafts of civilization,[75] so it is appropriate that the sages would be amongst his creatures and that they would frequently be symbolised as fish. The form of the fish Apkallu, as one scholar notes:

Figure 29: Enki, the Sumerian god of wisdom and magic whose special responsibility was the subterranean freshwater ocean known as the Abzu. Because of this connection with the Abzu he was often depicted with streams of water bearing fishes flowing from his shoulders. The Akkadians called him Ea.

is linked with the secrets that dwell in the deep; and its never-closing, ever-watchful eyes lend it an omniscient sagacity.[76]

Thanks to the advice and teachings of these extraordinary sages, these magicians of the wisdom-god Enki, we learn from the cuneiform texts that human civilization achieved rapid technological and scientific advances and entered a phase of 'exceptional splendour and plenty, the golden age before the flood'.[77] All seemed to be for the best, in the best of all possible worlds. But as the millennia passed, mankind fell out of harmony with the universe and with the deities – and with one deity in particular, the great Enlil, described as 'the King, supreme lord, father and creator', and (perhaps giving more sense of his personality) as a 'raging storm'.[78] Although the sky god Anu was technically ranked first in the Sumerian pantheon, he was usually a rather remote, impotent figure. Enlil was his second in command but in fact responsible for most 'executive decisions'. Enki – nominated in some texts as Enlil's younger brother – was ranked third.[79]

The Sumerian flood story, as we have seen, has many gaps but other tablets, such as those containing the Epic of Gilgamesh, arguably the most famous of all surviving Mesopotamian texts, fill in the details and leave us in no doubt of Enlil's role:

> In those days the world teemed, the people multiplied, the world bellowed like a wild bull, and the great god was aroused by the clamour. Enlil heard the clamour and he said to the gods in council, 'The uproar of mankind is intolerable and sleep is no longer possible by reason of the babel.' So the gods agreed to exterminate mankind.[80]

Figure 30: The powerful Sumerian deity Enlil (seated, right). Often described as a 'raging storm', it was he who ordered the extermination of mankind by the agency of the Flood.

We know what happened next. The god Enki (in addition to the Schøyen tablet, other later texts also confirm it was he) intervened to warn Zisudra that the instrument of extermination, a great, life-

destroying flood, was about to be unleashed.[81] Berossos, who calls Zisudra 'Xisouthros', gives us the next chapter of the story:

> [Enki] appeared to Xisouthros in a dream and revealed that … mankind would be destroyed by a great flood. He then ordered him to bury together all the tablets, the first, the middle and the last, and hide them in Sippar, the city of the sun. Then he was to build a boat and board it with his family and his best friends. He was to provision it with food and drink and also take on board wild animals and birds and all four-footed animals. Then, when all was prepared, he was to make ready to sail … He did not stop working until the ship was built. Its length was five stades [3,000 feet or 914 metres] and its breadth two stades [1,200 feet or 366 metres]. He boarded the finished ship, equipped for everything as he had been commanded, with his wife, children and closest friends …[82]

The surviving fragments of Berossos do not tell us of the experience of the Flood, but the Epic of Gilgamesh does, putting the words into the mouth of Zisudra/Xisouthros himself:[83]

> For six days and nights the wind blew, torrent and tempest and flood overwhelmed the world, tempest and flood raged together like warring hosts. When the seventh day dawned the storm from the south subsided, the sea grew

calm, the flood was stilled. I looked at the face of the world and there was silence. The surface of the sea stretched as flat as a rooftop. All mankind had returned to clay … I opened a hatch and light fell on my face. Then I bowed low, I sat down and I wept, the tears streamed down my face, for on every side was a waste of water … Fourteen leagues distant there appeared a mountain, and there the boat grounded …[84]

Figure 31: The Sumerian Flood survivor and the Ark: ‘The surface of the sea stretched as flat as a rooftop. All mankind had returned to clay … Fourteen leagues distant there appeared a mountain, and there the boat grounded.’

Berossos again:

> Then Xisouthros knew that the earth had once again appeared … He disembarked, accompanied by his wife and daughter together with the steersman. He prostrated himself in worship of the earth and set up an altar and sacrificed to the gods. After this he disappeared together with those who had left the ship with him. Those who had remained on the ship and had not gone out with Xisouthros … searched for him and called out for him by name all about. But Xisouthros from then on was seen no more, and then the sound of a voice that came out of the air gave instruction that it was their duty to honour the gods and that Xisouthros, because of the great honour he had shown the gods, had gone to the dwelling place of the gods and that his wife and daughter and the steersman had enjoyed the same honour. The voice then instructed them to return to … the city of Sippar, to dig up the tablets that were buried there and to turn them over to mankind. The place where they had come to rest was in the land of Armenia.[85]

So, in summary, both the Biblical and Mesopotamian accounts agree that Armenia was the place of refuge for the survivors of the Flood. Berossos, however, adds some important details missing from the Old Testament story. These are, first, the reference to Sippar, which, as we've seen, was one of the five antediluvian cities

remembered in Sumerian traditions; secondly, the intriguing information that writings or archives from antediluvian times ('all the tablets, the first, the middle and the last') were buried at Sippar before the Flood struck; and thirdly that the survivors were to return to Sippar when the waters had receded in order to dig up the buried tablets and 'turn them over to mankind'.

What is envisaged here, therefore, is nothing less than a renewal of civilization after a global cataclysm – a renewal in which antediluvian knowledge was to be recovered and repromulgated. The Seven Sages, however, would no longer have any part to play in the spread of that knowledge. The cuneiform texts tell us that they had been sent back to the depths of the Abzu at the time of the Flood and ordered never to return.[86] Other sages 'of human descent' – though in one case described as being 'two-thirds Apkallu'[87] – would take their place, some continuity would be maintained and civilization would rise again. In due course, later kings would speak

of their link to the antediluvian world. In the late first millennium BC, Nebuchadnezzar I of Babylon described himself as a 'seed preserved from before the flood'[88] while Ashurbanipal, who ruled the central Mesopotamian empire of Assyria in the seventh century BC boasted: 'I learned the craft of Adapa, the sage, which is the secret knowledge … I am well acquainted with the signs of heaven and earth … I am enjoying the writings on stones from before the flood.'[89]

It is a curious mystery, as we shall see in the next chapter, that the exact same notions of the Seven Sages as the bringers of civilization in the remotest antiquity, and of the preservation and repromulgation of 'writings on stones from before the flood', turn up in the supposedly completely distinct and unrelated culture of Ancient Egypt.

Part IV

Resurrection

Chapter 9

Island of the Ka

The banks of the Nile are lush, lined with palms and green fields, but they are narrow, won from the surrounding deserts thanks only to the gift of fertility bestowed upon them by the eternal river. It's the same story all the way from Cairo to Aswan, where the High Dam has permanently changed the divine landscape of the pharaohs by creating Lake Nasser, one of the largest man-made bodies of water in the world, which continues south to cross the border with the Sudan. As the level of the lake rose during the 1960s many Ancient Egyptian sites, such as the Fortress of Buhen, were

submerged. Others such as world famous Abu Simbel, and the stunningly beautiful little Temple of Isis at Philae, were rescued by being moved block by block and re-erected on higher ground.

Others still were dismantled and shipped overseas – for example the Temple of Dendur, now in New York's Metropolitan Museum of Art, the Temple of Debod, now in the Parque del Oeste in Madrid, and the Temple of Taffeh, now in the Rijksmuseum Van Oudheden in Leiden, in the Netherlands. By such means, the sacred realm of the gods that continuously remade and remanifested itself in Egypt over untold thousands of years in antiquity can be said still to undergo resurrection and rebirth in far-off lands even today.

So it was, too, according to its own inscriptions, with the Temple of Horus at Edfu. Known as Behdet in ancient times (hence its patron, the falcon god Horus, is often referred to as Horus the Behdetite) Edfu stands on the west bank of the Nile 110 kilometres (68 miles) north of Aswan and was thus spared from flooding by Lake Nasser. The temple as we see it today, its golden sandstone

blocks radiant and graceful beneath the fierce sun of Upper Egypt, is relatively young, the whole complex having been completed during the Ptolemaic period in a series of stages between 237 BC and 57 BC.[1] In every meaningful sense, however, what confronts us here is merely the latest incarnation of much older temples that previously occupied this site dating at least to the Old Kingdom (2575-2134 BC)[2] – and perhaps far beyond.

Figure 32

Of the greatest interest, at any rate, is the temple's *idea* of itself expressed in the acres of enigmatic inscriptions that cover its walls.

These inscriptions, the so-called Edfu Building Texts, take us back to a very remote period called the 'Early Primeval Age of the Gods'[3] – and these gods, it transpires, were not originally Egyptian,[4] but lived on a sacred island, the 'Homeland of the Primeval Ones', in the midst of a great ocean.[5] Then, at some unspecified time in the past, a terrible disaster – a true cataclysm of flood and fire as we shall see – overtook this island, where 'the earliest mansions of the gods' had been founded,[6] destroying it utterly, inundating all its holy places and killing most of its divine inhabitants.[7] Some survived, however, and we are told that this remnant set sail in their ships (for the texts leave us in no doubt these gods of the early primeval age were navigators[8]) to 'wander' the world.[9]

Their purpose in doing so was nothing less than to recreate and revivify the essence of their lost homeland,[10] to bring about, in short:

> The resurrection of the former world of the gods …[11] The re-creation of a destroyed world.[12]

The general tone, as Egyptologist Eve Anne Elizabeth Reymond confirms in her masterful study of the Edfu Building Texts, conveys the view that 'an ancient world, having been constituted, was destroyed and as a dead world it came to be the basis of a new period of creation which at first was the re-creation and resurrection of what once had existed in the past.'[13]

Important in the evaluation of the texts is the realization that they were not *composed* in the historical temple. On the contrary, as Reymond informs us, the priests and scribes of Edfu merely *copied* what they regarded as the more important extracts from a vast archive of ancient documents that they had at their disposal.[14] By the fifth century AD the weight of Roman and Christian fanaticism had brought about the final collapse of Ancient Egyptian civilization.[15] Thereafter (with Islamic hatred of the past soon

making things even worse) care ceased to be taken of the temples which were used as storerooms, stables and homes by local people who no longer venerated the ancient gods. In 1837 the English explorer Howard Vyse visited Edfu and described the mess that he found inside:

> The temple itself, one of the most imposing in Egypt, affords a striking contrast to the miserable hovels, many of which are built upon it, and others on vast mounds of rubbish with which it is surrounded. The interior, covered with painted hieroglyphics, has been divided by earthen walls to form a magazine for corn, and beneath it are enormous substructions which I entered by a hole from an Arab house. They were full of dirt and filth of every description, but had been built in the most solid manner …[16]

Fortunate for us, then, when Edfu still thrived, that priests and scribes who could read the mysterious texts in the temple's library committed themselves to the project of selecting extracts and carving them deeply into the 'solid' and 'imposing' walls of the temple itself. In so doing, whether by accident or design, they

ensured that at least these fragments have survived to the present day, whereas the original source documents – looted, used as kindling, thrown into the Nile during the centuries of neglect and mistreatment – have long gone.

Inevitably, since they lack their original context, the fragments are often confusing and deeply tantalizing. Even so, they give us a glimpse into wonders and secrets of our past that the source documents – if only we had them! – might have revealed to us much more completely.

Atlantis in Egypt

The famed Greek philosopher Plato, who passed down to us the extraordinary story of Atlantis destroyed in a terrible cataclysm of flood and fire 9,000 years before the time of Solon – i.e. in 9600 BC in our calendar – is generally regarded by archaeologists as having made up the whole tale of the lost Ice Age civilization. The fallback

position, amongst those grudgingly willing to admit some veracity to the information conveyed in the *Timaeus* and *Critias*, is that Plato had perhaps based his account on a much more recent cataclysm centred on the Mediterranean – for example the eruption of Thera (Santorini) in the mid-second millennium BC. The notion of a global disaster more than 11,000 years ago, and particularly the heretical idea that it could have wiped out a high civilization of that epoch, is strenuously resisted and indeed ridiculed by the archaeological establishment because, of course, archaeologists claim to 'know' that there was not, and never under any circumstances could have been, a high civilization at that time.

They 'know' this not because of any hard evidence which absolutely rules out the existence of an Atlantis-type civilization in the Upper Paleolithic, but rather on the general principle that the result of less than two hundred years of 'scientific' archaeology is an agreed time-line for civilization that sees our ancestors moving

smoothly out of the Upper Palaeolithic, into the Neolithic (both, by definition, Stone Age cultures) at around 9600 BC, and thence onwards through the development and perfection of agriculture in the millennia that followed – a process that also witnessed the founding of some very large permanent settlements such as Catalhoyuk in Turkey around 7500 BC.

By about 4000 BC the increasing sophistication of economic and social structures, and growing organizational abilities, made possible the creation of the earliest megalithic sites (such as Gigantija on the Maltese island of Gozo, for example) while the first city states emerged around 3500 BC in Mesopotamia and the Indus Valley and soon afterwards in Egypt and on the other side of the world in Peru.[17] The Pyramids of Giza are megalithic monuments; so too the Great Sphinx. In the British Isles, Callanish in the Outer Hebrides and Avebury in southwest England, both dated to around 3000 BC, are the oldest examples of true megalithic sites. The

megalithic phase of Stonehenge is thought to have begun around 2400 BC and to have continued to around 1800 BC.

Within this well-worked-out and long-established chronology there is simply no room for any prehistoric civilization such as Atlantis, hence the wish of the mainstream to dismiss Plato's 'outlandish' story by any and every possible means. These means include ridicule of the supposed 'Egyptian' basis for the tale – specifically, of the claim, made in the *Timaeus*, that priests of Sais in the Delta said Atlantis, and its cruel fate, were described in 'sacred records'[18] in their Temple going back thousands of years before the established beginning of Egyptian civilization in the late fourth millennium BC.[19] To those wedded to the orthodox chronology, the very idea that the priests of Sais might have given Solon a true account of such 'impossible' records, which in due course reached Plato, seems preposterous – an obvious historical oxymoron which deserves only to be ignored. Furthermore the

claim is frequently made that there are no references to Atlantis anywhere in surviving Ancient Egyptian papyri and inscriptions.

Only one Egyptologist, the late Professor John Gwyn Griffiths of the University of Wales at Swansea (who passed away in 2004) had the courage to challenge the consensus. The challenge he presented, however, had nothing to do with the fundamental point of whether Atlantis existed and was destroyed in the tenth millennium BC, but rather with the lesser point of whether Plato, through his ancestor Solon, could indeed have been influenced by genuine Ancient Egyptian traditions.[20] Oddly enough for so learned a man, Griffiths seems to have known nothing of Edfu with its tempting account of a sacred island inhabited by 'gods' and destroyed by flood and fire in primeval times – an obvious prototype for Plato's Atlantis, as we shall see. The Professor's focus, instead, was on a papyrus, catalogued as P. Leningrad 1115 and now kept in Moscow, which contains an intriguing prose story known as the *Tale of the*

Shipwrecked Sailor. In this 'fairytale', dating to Egypt's Middle Kingdom between 2000 BC and 1700 BC, Griffiths – quite correctly in my view – did find convincing resemblances to Plato's account of Atlantis.

The eponymous 'shipwrecked sailor' in the papyrus tells us of a time when he made a voyage in a great ocean-going vessel that was struck by a giant wave:

> Then the ship died. Of those in it not one remained. I was cast on an island by the sea. I spent three days alone … Lying in the shelter of trees, I hugged the shade … Then I stretched my legs to discover what I might put in my mouth. I found figs and grapes there, all sorts of fine vegetables, sycamore figs … and cucumbers that were as if tended. Fish there were and fowl; there is nothing that was not there. I stuffed myself and put some down, because I had too much in my arms.[21]

The shipwrecked sailor cuts a fire drill, makes fire and gives a burnt offering to the gods:

> Then I heard a thundering noise … Trees splintered, the ground trembled. Uncovering my face, I found it was a snake that was coming. He was of thirty cubits [15 metres or 50 feet] … His body was overlaid with gold; his eyebrows were of real lapis lazuli … Then he took me in his mouth and carried me to the place where he lived, and set me down unhurt …[22]

The serpent questions the sailor on how he came to be on the island and on hearing his reply, tells him not to be afraid:

> It is a god who has let you live and brought you to this Island of the *Ka*. There is nothing that is not upon it; it is full of good things …

The name 'Island of the *Ka*' is 'curious' notes Miriam Lichtheim, the translator of the tale. She adds that the renowned Egyptologist Sir Alan Gardiner 'rendered it as "phantom island".'[23] It is beyond the scope of this book to present a detailed treatise on the concept of the *Ka* – the 'double', the astral or spiritual essence of a person or thing. It existed with the human being during his or her mortal life but was 'the superior power in the realms beyond the grave'.

Indeed, the term for death in the Ancient Egyptian language meant 'Going to one's *ka*', or 'Going to one's *ka* in the sky'.[24] The gods were also believed to have their *kas* and so, too, were the great monuments of Egypt. Of particular relevance here is that the high god Osiris, lord of the celestial afterlife kingdom known as the *Duat*, was always referred to as 'the *Ka* of the Pyramids' of Giza:[25]

> The *Ka* entered eternity before its human host, having served its function by walking at the human's side to urge kindness, quietude, honour and compassion. Throughout the life of the human, the *Ka* was the conscience, the guardian, the guide. After death, however, the *Ka* became supreme …[26]

With this in mind, Gardiner's suggestion that a 'phantom island' is implicated in the *Tale of the Shipwrecked Sailor*, makes sense. The sailor has set out in a boat from the physical realm of Middle Kingdom Egypt, but he has been cast ashore on 'the Island of the *Ka*', a ghost realm – a place that no longer exists in this world except in the form of its spiritual essence.

The same theme continues as the huge snake that rules the island tells the sailor his sad story:

> I was here with my brothers and there were children with them. In all we were seventy-five serpents, children and brothers without mentioning a little daughter whom I had obtained through prayer. Then a star fell, and they went up in flames through it. It so happened that I was not with them in the fire. I was not among them. I could have died for their sake when I found them as one heap of corpses.[27]

In due course a ship passes by and the sailor is rescued. The snake-king of the island sends him away with rich presents – myrrh, oils, laudanum, spices, 'perfume, eye-paint, giraffe's tails, great lumps of incense, elephant's tusks, greyhounds, monkeys, baboons, and all kinds of precious things'.[28] The sailor, filled with gratitude, wants to return with gifts from Egypt, but before he boards the ship the serpent takes him aside and tells him:

> When you have left this place, you will not see this island again; it will have become water.[29]

The comparisons with Plato's story of Atlantis that John Gwyn Griffiths draws relate primarily to the rich variety of plant and animal life, including the elephants said to be found on both islands. Here's Plato on Atlantis:

> There were a great number of elephants in the island; for as there was provision for all other sorts of animals, both for those which live in lakes and marshes and rivers, and also for those which live in mountains and on plains, so there was for the animal which is the largest and most voracious of all. Also whatever fragrant things there now are in the earth, whether roots, or herbage, or woods, or essences which distil from fruit and flower, grew and thrived in that land; also the fruit which admits of cultivation, both the dry sort, which is given us for nourishment and any other which we use for food – we call them all by the common name 'pulse' – and the fruits having a hard rind, affording drinks and meats and ointments … all these that sacred island which then beheld the light of the sun, brought forth fair and wondrous and in infinite abundance. With such blessings the earth freely furnished them …[30]

In addition there is the fact that Atlantis is a sacred island and so, too, of course, is the Island of the *Ka*, to which the shipwrecked

sailor has been brought by a god. The closest resemblance by far, however, is in the fate of Atlantis which was 'swallowed up by the sea and vanished',[31] just as the Island of the *Ka* would never be seen again because it had 'become water'.

Taking such elements into account Griffiths concludes that although Plato's story may 'not derive from Egypt *in toto*', it nonetheless, most certainly owes a 'conceptual debt to Egypt'.[32] His argument is well made, but if he had been familiar with the Edfu Building Texts he might, I think, have stated his case more strongly.

Bringing some threads together

We no longer have access to the sacred records once kept at the Temple of Sais in the Delta that Plato tells us contained the story of Atlantis. That temple, which Solon visited around 600 BC, was dedicated to the goddess Neith and was extremely ancient, dating

back at least as far as the First Dynasty, *circa* 3200 BC.[33] Unfortunately it had been completely destroyed by AD 1400, leaving only rubbish heaps and a few scattered blocks on the site that is today occupied by the village of Sa el Hagar.[34] At Edfu, on the other hand, although the original sacred records are also gone, the extracts preserved in the Building Texts do seem to tell essentially the same story that Solon heard and passed on to Plato and that Griffiths argues also reaches us, albeit in a more fragmentary and literary form, in the *Tale of the Shipwrecked Sailor*.

We've already seen that the Homeland of the Primeval Ones in the Edfu texts is described as a sacred island in the midst of a great ocean, so a comparison to the Island of the *Ka* in the *Tale of the Shipwrecked Sailor* is obvious at the level of the basic geographical setting. The resemblance goes deeper than this, however, since there are many passages in the Building Texts which make it clear that the first and original god who presided over the Homeland of the

Primeval Ones was 'a dead deity, the *Ka*'.[35] Indeed, we read that the island was also known as the 'Home of the *Ka*'[36] and that 'the *Ka* ruled therein'[37] – 'this *Ka* who dwelt among the reeds of the island'.[38] In other words, the Homeland of the Primeval Ones in the Edfu texts is nothing more nor less than the Island of the *Ka* and, to the extent that Griffiths is correct to see a prototype for Plato's Atlantis in the Island of the *Ka*, then the Homeland of the Primeval Ones is also a prototype.

What helps to firm up the comparison are certain details given in the Building Texts that do *not* appear in the *Tale of the Shipwrecked Sailor*. Of particular interest is a passage at Edfu in which we read of a circular, water-filled 'channel' surrounding the original sacred domain that lay at the heart of the island of the Primeval Ones – a ring of water that was intended to fortify and protect that domain.[39] In this there is, of course, a direct parallel to Atlantis, where the sacred domain on which stood the temple and palace of the god,

whom Plato names as 'Poseidon', was likewise surrounded by a ring of water, itself placed in the midst of further such concentric rings separated by rings of land, again with the purpose of fortification and protection.[40]

Other details are found in all three stories. For example, the striking parallel between the inundation of the island of Atlantis as Plato recounts it, and the inundation of the Island of the *Ka* in the *Tale of the Shipwrecked Sailor*, is eerily duplicated in the inundation of the Homeland of the Primeval Ones as described in the Edfu texts where we read of an upheaval:

> so violent that it destroyed the sacred land …[41] The primeval water … submerged the island … and the island became the tomb of the original divine inhabitants …[42] the Homeland ended in darkness beneath the primeval waters.[43]

Compare this with Plato who tells us of 'earthquakes and floods of extraordinary violence'[44] as a result of which:

> in a single terrible day and night … the island of Atlantis was … swallowed up by the sea and vanished.[45]

Intriguingly, Plato also hints at the immediate cause of the earthquakes and floods that destroyed Atlantis. In the *Timaeus*, as a prelude to his account of the lost civilization and its demise, he reports that the Egyptian priests from whom Solon received the story began by speaking of a *celestial cataclysm*:

> There have been and will be many different calamities to destroy mankind, the greatest of them being by fire and water, lesser ones by countless other means. Your own [i.e. the Greeks'] story of how Phaethon, child of the sun, harnessed his father's chariot, but was unable to guide it along his father's course and so burnt up things on earth and was himself destroyed by a thunderbolt, is a mythical version of the truth that there is at long intervals a variation in the course of the heavenly bodies and a consequent widespread destruction by fire of things on earth.[46]

In the *Tale of the Shipwrecked Sailor*, too, we find that a celestial cataclysm plays a part. As the reader will recall, the serpent king

speaks of the destruction of his race when ‘a star fell, and they went up in flames through it’. The same ominous agency turns up in the Edfu Building Texts where a serpent is again invoked, but with the significant twist that here it is not the sad and wise ruler of the island but rather the fatal ‘enemy’ of the island and its divine inhabitants.[47] To place what the Edfu texts have to say about this in a wider context, let us first revisit the Zoroastrian tradition of an ‘evil spirit’ that:

> sprang like a snake out of the sky down to the earth … He rushed in at noon, and thereby the sky was as shattered and frightened by him as a sheep by a wolf. He came onto the water which was arranged below the earth, and then the middle of this earth was pierced and entered by him … He rushed out upon the whole creation and he made the world quite as injured and dark at midday as though it were dark night.[48]

To my mind, as I argued in Chapter Seven, what we have here is ‘a mythical version of the truth’ – with the underlying truth being a cataclysmic encounter with a comet. Now let’s look at the relevant

passages from the Edfu Building Texts where a snake called the *nhp-wer*, the 'Great Leaping One', is described as 'the chief enemy of the god'.[49] It is his 'assault' that causes the Homeland of the Primeval Ones to be swallowed up by the sea, but first the feet of the deity of the island – the *Ka*, here explicitly described as the 'Earth God'[50] – are 'pierced, and the domain was split'.[51]

This, as Reymond comments:

> is a clear picture of a disaster … It destroyed the sacred land with the result that its divine inhabitants died. This interpretation accords with other parts of the first Edfu record which allude to the death of the 'Company' [a group of divine beings] and to the darkness that covered the primeval island.[52]

Multiple threads seem to come together here: Plato's variation in the course of heavenly bodies leading to widespread destruction on earth, the murderous falling star in the *Tale of the Shipwrecked Sailor*, the snake of Zoroastrian tradition that springs out of the sky, pierces the earth and makes the world dark, and the Great Leaping

Serpent of the Edfu texts whose assault pierces the feet of the Earth God, leads to death for the divine Company and cloaks the primeval island in darkness. I'm reminded, too, of the Ojibwa 'myth' reported in Chapter Three of the 'star with the long wide tail that came down here once, thousands of years ago' – a 'star' specifically recognised as a comet,[53] that caused 'the first flooding of the earth'.[54]

Comet and asteroid impacts not only cause floods but can also impose huge stresses on the crust of the earth resulting in increased earthquake and volcanic activity. How likely, therefore, is it to be an accident that Plato, who was at pains to preface his story with the 'thunderbolts' of Phaethon, implicated both earthquakes and floods in the demise of Atlantis and carefully dated the whole episode to 9,000 years before the time of Solon, i.e. 9600 BC? I suggest there's a real possibility that all these traditions are pointing to the same horrific epoch of prehistory.

This epoch, as I've argued in earlier chapters, is the Younger

Dryas which began cataclysmically 12,800 years ago and ended equally cataclysmically 11,600 years ago with large-scale floods – associated with the cascading collapse of the North American and northern European ice caps – occurring at both dates. The case for multiple impacts from a large, fragmented comet initiating the Younger Dryas is, I believe, a very strong one. In the light of the mythological evidence, the possibility must also be considered that it was further encounters with the orbiting debris stream of the same giant comet that brought the Younger Dryas to an end.

In the process, I suggest, as so many myths and traditions from all around the world maintain, an advanced civilization was lost to history.

Mystery of the Sound Eye

Archaeology is not wrong when it tells us that most of the world in the epoch of 12,800 to 11,600 years ago, was populated by hunter-

gatherers, locked in the Stone Age and lacking even the beginnings of agriculture. But Plato, to the eternal frustration of archaeologists, leaves us in no doubt that Atlantis was very different. In brief, it was a great and wonderful empire commanding a large navy of ocean-going ships that gave it the ability to project its power into Africa as far as Egypt, into Europe as far as Italy,[55] and onto the mainland of what Plato calls 'the whole opposite continent' – by which many believe he meant the Americas[56] – 'which surrounds what can truly be called the ocean'.[57] Atlantis was a fully-developed city-state, drawing its wealth from a mature and prosperous agricultural economy and boasting advanced metallurgy and sophisticated architectural and engineering works, all enhanced by an immense wealth of natural resources:

> With such blessings the earth freely furnished them; meanwhile they went on constructing their temples and palaces and harbours and docks. And they arranged the whole country in the following manner: First of all they bridged over the zones of sea which surrounded the ancient metropolis, making a road to and from the

royal palace … which they continued to ornament in successive generations … until they made the building a marvel to behold for size and for beauty.

And beginning from the sea they bored a canal of three hundred feet in width and one hundred feet in depth and fifty stadia in length, which they carried through to the outermost zone, making a passage from the sea up to this, which became a harbour, and leaving an opening sufficient to enable the largest vessels to find ingress. Moreover, they divided at the bridges the zones of land which parted the zones of sea, leaving room for a single trireme to pass out of one zone into another, and they covered over the channels so as to leave a way underneath for the ships; for the banks were raised considerably above the water.

Now the largest of the zones into which a passage was cut from the sea was three stadia in breadth, and the zone of land which came next of equal breadth; but the next two zones, the one of water, the other of land, were two stadia, and the one which surrounded the central island was a stadium only in width. The island in which the palace was situated had a diameter of five stadia. All this including the zones and the bridge, which was the sixth part of a stadium in width, they surrounded by a stone wall on every side, placing towers and gates on the bridges where the sea passed in.

The stone which was used in the work they quarried from underneath the centre island, and from underneath the zones, on the outer as well as the inner side. One kind was white, another black, and a third red, and as they quarried, they at the same time hollowed out double docks, having roofs formed out of the native rock. Some of their buildings were simple, but in others they put together different stones, varying the colour to please the eye, and to be a natural source of delight.

> The entire circuit of the wall, which went round the outermost zone, they covered with a coating of brass, and the circuit of the next wall they coated with tin, and the third, which encompassed the citadel, flashed with the red light of orichalcum.[58]

Nobody now knows exactly what metal the fabled orichalcum of Atlantis was, since Plato tells us that it survived in his day 'only in name',[59] but it adds to the aura of technological mastery that still surrounds the fabled lost civilization.

Seagoing navigation, advanced agriculture and large-scale architectural and engineering works are also amongst the notable characteristics of the Homeland of the Primeval Ones described in the Edfu texts. We have already seen how the ring system of canals is prefigured there but so too are the grand temples of Atlantis. We read, for example, of a chapel 'measuring 90 by 20 cubits' (approximately 45 by 10 metres or 150 by 35 feet):

> At its front was erected a large forecourt of 90 by 90 cubits … Then a hypostyle hall of 50 by 30 cubits was constructed … then another hall of 20 by 30 cubits and

> two consecutive halls, each 45 by 20 cubits were added at the front of the first hypostyle hall.[60]

An enclosure is described measuring 300 cubits (150 metres or 500 feet) from west to east and 400 cubits from north to south. Within it is a temple, the 'Mansion of the God' and within that a Holy of Holies measuring 90 cubits from east to west.[61]

We also read of a third enclosure on the same grand scale of 300 by 400 cubits. It too contains an inner sanctuary measuring 90 cubits from west to east and 20 cubits from north to south, subdivided into three rooms each of which was 30 cubits by 20 cubits.[62]

But the strongest hint of high technology in the Homeland of the Primeval Ones is given in one of the Edfu extracts that describes the cataclysmic demise of the island following the assault of the celestial 'snake' called 'the Great Leaping One' that 'pierces' the

Earth God and 'splits' the domain. Then we read – and it is most mysterious – that 'the Sound Eye fell'.[63]

'The mention of the Sound Eye … appears a little strange,' admits Reymond. But she explains, though the texts are obscure on the point, that it seems to be:

> the name of the centre of the light which illumined the island.[64]

We are, in short, to envisage some artificial system of illumination which lights up the primeval island of the gods. Beyond that:

> All that can be said, with due reserve, is that it looks as though there is an allusion to a disaster which caused the fall of the Sound Eye, with the result that complete darkness fell upon the domain of the Creator.[65]

The gods sailed …

What happened after the disaster that struck Atlantis? Were there survivors? If there were, what did they do with the advanced

knowledge that they possessed?

Plato's *Timaeus* and *Critias* provide no answers to these questions, but the Edfu Building Texts do, making it clear that there were survivors of the disaster that struck the Homeland of the Primeval Ones – 'companies of gods' who were already at sea when the sacred island was flooded. They sailed back to the former location of the island after the cataclysm but:

> saw only reeds on the surface of the water.[66]

There was a great deal of mud there also,[67] a scene reminiscent of Plato's description of the vicinity of Atlantis after the flood:

> the sea in that area is impassable to navigation, which is hindered by mud just below the surface, the remains of the sunken island.[68]

In the case of the Homeland of the Primeval Ones it seems that enough of the sunken island remained close to the surface for the

survivors to attempt to win some of it back from the sea – an endeavour referred to in the Edfu texts as the 'creation of the *pãy*-lands', where the term '*pãy*-land' clearly means lands reclaimed from the sea.[69] Thus we read how 'the *Shebtiw* recited sacred spells, the water gradually receded from the edge of the island, and the actual land of the *pãy*-land was brought out.'[70] The texts then describe:

> a process of … continuous creation by the emergence of a progressive series of plots of land … [71] The creation of these … sacred domains was, in fact, a resurrection and restoration of what had been in the past but had vanished …[72] At the end there appeared further *pãy*-lands which brought to a new life the former homeland.[73]

Nonetheless, despite these efforts, the fact remained that the cataclysm had so utterly devastated the primeval island that no amount of reclamation could restore it to its former glory. The only solution for the survivors, therefore, was to attempt to recreate it

elsewhere in regions that had not been as badly affected by the catastrophe. The result saw the beginning of a great project of which the world we live in today is the result. What the Edfu texts say, explains Reymond, is:

> that the gods left the original *pãy*-lands …[74] They … sailed to another part of the primeval world …[75] [and] journeyed through the … lands of the primeval age …[76] In any place in which they settled they founded new sacred domains.[77]

Their mission, in short, was to repromulgate the lost civilization and the lost religion of the days before the flood. As Reymond puts it, this 'second era of the primeval age' saw 'the development of the domains that survived in historical times.'[78]

Begin again like children

The Edfu texts make allusion to the *smd*, 'wandering', of the 'company of gods'[79] who initiated the civilizing project. Their leader was the Falcon Horus, after whom the temple at Edfu was much later dedicated, but present, also, was Thoth, the god of wisdom.[80] Accompanying Horus and Thoth were the *Shebtiw*, a group of deities charged with a specific responsibility for 'creation',[81] the 'Builder Gods' who accomplished 'the actual work of building',[82] and the 'Seven Sages'.[83] This is a matter of interest in the light of the Mesopotamian traditions of the Apkallus explored in Chapter Eight and it seems that something more than coincidence is involved.

The reader will recall that the Apkallus were often depicted as hybrid creatures, part bird of prey, part human in appearance. Similarly, the Seven Sages of the Edfu texts are described as primeval deities who were capable of assuming 'the form of falcons' and of 'resembling falcons'.[84]

Also exactly like the antediluvian Apkallus, the Seven Sages of the Edfu texts (who are not mentioned elsewhere in Ancient Egyptian inscriptions) were the magicians amongst the gods. They were seers who could foretell the future,[85] and they could *swr iht ti* – 'endue with power the substances of the earth'[86] – a process of creation 'by the word of the creators'[87] that, Reymond notes, 'has no equivalent'.[88] They were, in addition, believed to have the ability 'to magnify things', and thus to provide magical protection.[89] On this point, the best sense Reymond is able to make of what she describes as an 'unusually obscure' text, is that 'the protection was constituted by means of symbols. The magical power of protecting was conferred by a giving of names.'[90]

The Apkallus mingled their magic with practical skills – such as laying the foundations of cities and temples. Similarly, the Seven Sages of the Edfu texts also had their practical, architectural side and many passages testify to their involvement in the setting out and

construction of buildings and in the laying of foundations.[91] Moreover, the Egyptians believed that 'the ground plans of the historical temples were established according to what the Sages of the primeval age revealed to Thoth.'[92]

This hint of a special connection between the Sages and Thoth is, of course, a further parallel for, as we've seen, the Apkallus were linked to Enki, the Mesopotamian god of wisdom. In the Mesopotamian inscriptions, however, Enki is clearly superior to the Sages – indeed, he is their maker. But in the Edfu texts, strangely, it appears that the knowledge of the Sages is regarded as superior to that of the wisdom-god Thoth. Indeed, it was the tradition at Edfu that the original records and archives from which the texts were extracted were nothing less than 'the words of the Sages' given as dictation to Thoth, who had then consigned them to writing.[93] The texts further disclose that the Sages of the mythical age were believed to be 'the only divine beings who knew how the temples

and sacred places were created'[94] and were themselves the very *creators* of knowledge,[95] which thereafter could only be passed on but not invented anew. This finds parallels in the Mesopotamian notion that since the time of the antediluvian Apkallus nothing new had been invented – with the original revelation simply being retransmitted and unfolded in later epochs.

Without labouring the point further, therefore, it seems to me that the idea conveyed so strongly in the cuneiform inscriptions of ancient Mesopotamia of a project to recover and repromulgate antediluvian knowledge after a global cataclysm is, rather exactly, the same project that is set out in the Edfu Building Texts, which in turn bear uncanny and troubling resemblances to Plato's report of the destroyed Ice Age civilization of Atlantis.

More than that, the Edfu texts invite us to consider the possibility that the survivors of the lost civilization, thought of as 'gods' but manifestly human – albeit with mysterious 'powers' – set about

‘wandering’ the world after the flood. By happenstance it was only hunter-gatherer populations, the peoples of the mountains and the deserts – ‘the unlettered and the uncultured’, as Plato so eloquently put it in his *Timaeus* – who had been ‘spared the scourge of the deluge’.[96] But the civilisers entertained the desperate hope, if their mission would succeed, that mankind might not have to ‘begin again like children, in complete ignorance of what happened in early times’.[97]

The evidence of the Mesopotamian inscriptions, and of Göbekli Tepe to which we will return, is that the mountain lands of ancient Armenia and eastern Turkey were amongst the primal wildernesses to which the civilisers made their way after the flood. But the testimony of Edfu is that they also came to the Nile flowing in its fertile valley through the deserts of Egypt.

Moreover the Building Texts say very clearly which part of Egypt they came to first – and it was not Edfu, as we’ll see in the next

chapter.

Chapter 10

Monastery of the Seven Sages

In his *Timaeus*, we've seen how Plato speaks of events, described in Ancient Egyptian temple records, that took place 9,000 years before the time of Solon, i.e. in 9600 BC. Nor is the *Timaeus* the only place where Plato alludes to such vast antiquity. In his *Laws*, for example, he says of the Ancient Egyptians:

> If you examine their art on the spot, you will find that ten thousand years ago (and I'm not speaking loosely; I mean literally ten thousand), paintings and reliefs were produced that are no better and no worse than those of today.[1]

It's interesting how the Greek philosopher makes a point of this 'ten thousand years ago', emphasizing that he's not speaking loosely – that he really means it. But we live, supposedly, in a more scientific age with the benefit of objective dating techniques, so what are we to make of such a chronology?

Plato was born around 428 BC, so his reference to 'ten thousand years' ago translates to around 10,400 BC in our calendar, within a whisker of the date of 10,450 BC that I proposed in *Fingerprints of the Gods* for the remote epoch, *Zep Tepi* – 'the First Time' – when the Ancient Egyptians believed that the gods walked the earth and the civilization of the Nile Valley had its true beginnings.[2]

This date, based on findings that arose from research underlying *The Orion Mystery*, my friend Robert Bauval's ground-breaking 1994 study of the astronomical aspects of the world-famous pyramids of Giza in Egypt,[3] was developed further by the two of us in 1996 in our co-authored book *Keeper of Genesis* (titled *The*

Message of the Sphinx in the US).[4] In brief, the date arises from the extraordinarily precise layout of the principal monuments of the Giza plateau and the relationship of these monuments to certain stars in the sky. For full details I refer the reader to *Fingerprints of the Gods* and to *Keeper of Genesis*, where this issue is explored in depth, but the heart of the matter lies in the fact that the positions of the stars in the sky are not fixed and finite but change very gradually over a great cycle – known to astronomers as the precessional cycle – that unfolds in a period of 25,920 years.

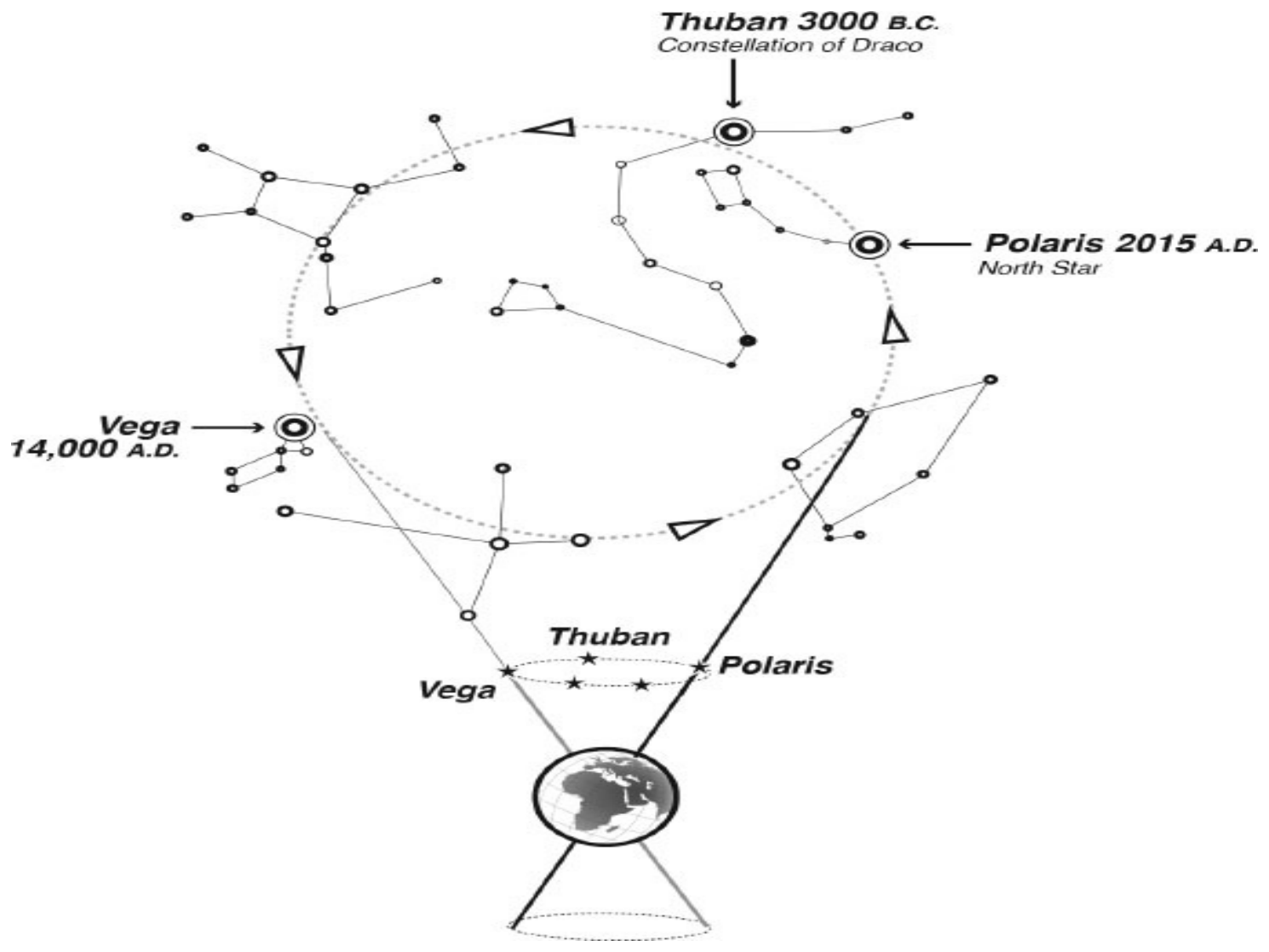
Thuban 3000 B.C.
Constellation of Draco
Polaris 2015 A.D.
North Star
Vega
14,000 A.D.
Thuban
Polaris
Vega

Figure 33: The effect of precession is to change the Pole Star over very long periods of time.

The cycle is the result of a motion of the earth itself, a slow circular wobble of the planet's axis of rotation unfolding at the rate of one degree every 72 years; since the earth is the viewing platform from which we observe the stars, these changes in orientation inevitably affect the positions and rising times of all stars as viewed from earth. Our Pole Star, for example, around which the remainder of the heavens appear to revolve, is simply the star at which the earth's extended axis, passing through the geographical north pole, points most directly. Presently it is Polaris (Alpha Ursae Minoris, in the constellation of the Little Bear), but the effect of precession is to change the Pole Star over very long periods of time. Thus around 3000 BC, just before the start of the Pyramid Age in Egypt, the Pole Star was Thuban (Alpha Draconis) in the constellation of Draco. At the time of the Greeks it was Beta Ursae Minoris. In AD 14,000 it

will be Vega.[5] Sometimes in this long cyclical journey the extended north pole of the earth will point at empty space and then there will be no useful ‘Pole Star’.

The most dramatic, and indeed beautiful and aesthetically pleasing effects of precession, however, are those observed at the horizon on the March equinox, when night and day are of equal length and when the sun rises perfectly due east against the background of the twelve constellations of the zodiac. The rate of change is the same as at the pole, i.e. just one degree every 72 years, so it cannot easily be observed – let alone measured – in a single human lifetime. But if yours is a culture that keeps careful records over very long periods, it will be noted that the zodiacal constellation that ‘houses’ the sun on that special day (marking the beginning of spring in the northern hemisphere) does, indeed, very slowly shift along the horizon until eventually, the next constellation takes its place.

Broadly speaking the sun spends 2,160 years 'in' each house of the zodiac (30 degrees × 72 years) and, since there are twelve zodiacal houses, the result is that 'the Great Year' – the full precessional cycle – unfolds in 12 × 2,160 years, i.e. 25,920 years, at which point the cycle is back at its starting point and a new Great Year begins. In the sun's annual path through the zodiac, spending approximately one month in each sign as all of us who check our horoscopes are aware, Aquarius is followed by Pisces, which in turn is followed by Aries, which is followed by Taurus, then Gemini, then Cancer, then Leo, etc, etc, etc. But the slow, majestic precessional course of the sun through the Great Year is a *backwards* motion that unfolds in exactly the opposite direction – thus Leo → Cancer → Gemini → Taurus → Aries → Pisces → Aquarius – with each 'month' being 2,160 years in length.

So, to give some specific examples, it is not an accident that the early Christians used the fish as their symbol, since the constellation of Pisces housed the sun on the spring equinox from the very

beginning of the Christian era until today. Nor is the famous song wrong to state that 'we live in the dawning of the Age of Aquarius', for the early twenty-first century does indeed stand in the astrological no-man's land near the end of the 'Age of Pisces' and on the threshold of the 'New Age' of Aquarius. Going back before the Age of Pisces we come to the age of Aries (2330 BC–170 BC) when, in Ancient Egypt, rams were the dominant symbolic motif (for example, the ram-headed sphinxes at the temple of Karnak in Luxor), and before that to the Age of Taurus (4490 BC–2330 BC) when the cult of the Apis Bull was initiated as early as the First Dynasty, or perhaps before.

Different astrologers and astronomers might choose to move the constellation boundaries a few degrees (and thus a century or two) in one direction or another, but the general schema is well understood and the dates given above stand as a good approximation to the facts. Moving back in time further, as it is easy

to do with modern computer programs that simulate ancient skies, we come eventually to the Age of Leo when the constellation of Leo, the lion, housed the sun on the spring equinox. This astrological age spans the period between 10,970 BC and 8810 BC – although, again, depending on where one sets the constellation boundaries, the dates might be pushed back or forward by a couple of centuries. What is clear, however, even with a little boundary juggling, is that the Age of Leo pretty much perfectly encloses the Younger Dryas (10,800 BC to 9600 BC), something that I was unaware of when I wrote *Fingerprints of the Gods*. And, of course, it was also the Age of Leo that I signalled in *Fingerprints* as the most likely candidate for the remote epoch that the Ancient Egyptians called *Zep Tepi*, the 'First Time'.

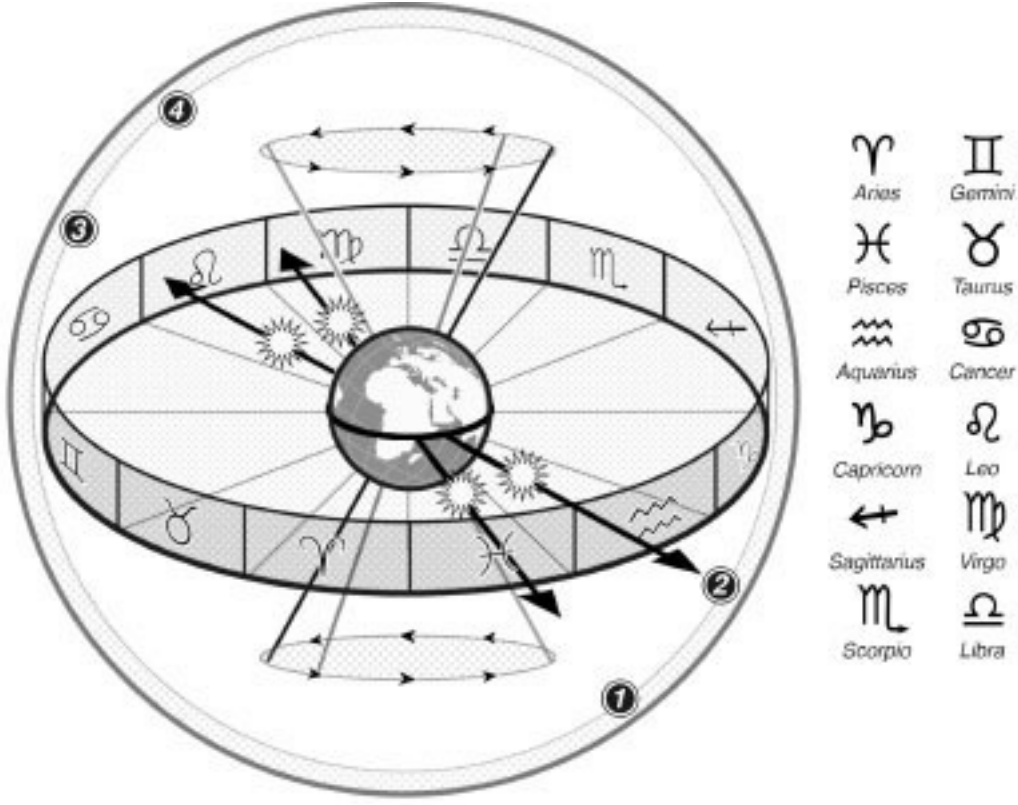

Figure 34: The sun has been in Pisces (1) at the spring equinox for the past 2,000 years, defining the astrological 'Age of Pisces', but will in due course shift into Aquarius (2) as a result of precession and the 'Age of Aquarius' will begin. At the same time the constellations marking the autumnal equinox will shift from Virgo (4) into Leo (3).

Again, I refer readers to *Fingerprints* and to *Keeper of Genesis*, and to my later book *Heaven's Mirror*,[6] for more detailed discussions of the astronomical facts, and of the ideas behind them. The essence of the argument, however, is that there was an ancient globally-distributed doctrine – 'as above so below' – that set out quite deliberately to create monuments on the ground that copied the patterns of certain significant constellations in the sky. Moreover, since the positions of all stars change slowly but continuously as a result of the precession, it is possible to use particular configurations of astronomically aligned monuments to deduce the dates that they represent – i.e. the dates when the stars were last in the positions depicted by the monuments on the ground.

The Giza plateau contains the world's most striking array of astronomically-aligned monuments and, for purposes of clarity, let me emphasise that these alignments have nothing to do with compass directions. The 'north' indicated by a compass is magnetic

north which can vary by 10 degrees or more from true north and wanders constantly because of magnetic changes in the earth's core. True north is the geographical north pole of the earth, in other words the pivot of our planet's axis of rotation; from it true south, east and west are derived. It is therefore significant that the gaze of the Great Sphinx is perfectly targeted on true east, while the three great pyramids are aligned with uncanny precision to true north and south – indeed, the error in the case of the Great Pyramid is just 3/60ths of a single degree.

What this tells us is that all these monuments were set out using astronomy, for it is not possible to achieve such precision by any other means. In other words, even if there were no additional astronomical characteristics present, we would have to say, on grounds of accuracy of alignment alone, that astronomers had been at work here. But in fact there are many other astronomical characteristics – not only in the monuments themselves but also in Ancient Egyptian scriptures such as the Pyramid Texts – and for

these, since I wish to avoid unnecessary repetition, I again refer the reader to my earlier books.

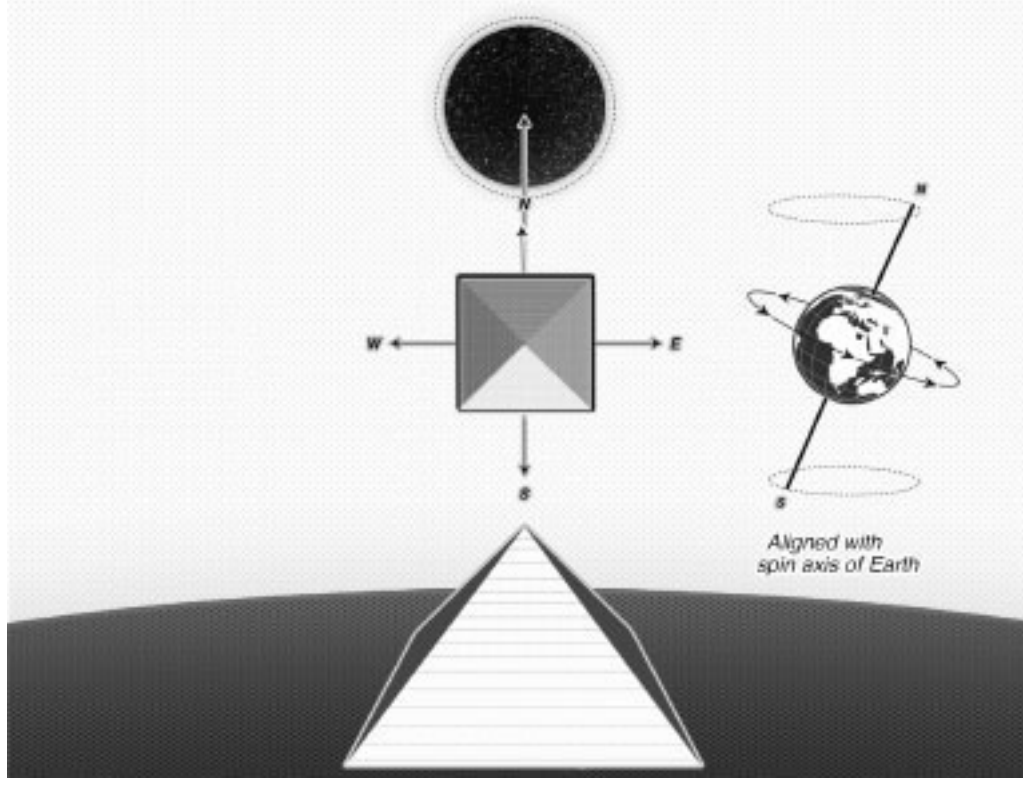

Figure 35: The alignment of the Great Pyramid is only 3/60th of a single degree off true north.

The heart of the matter, however, involves two constellations – the constellation of Leo, rising due east above the sun at dawn on the spring equinox in the epoch of 10,500 BC, and the constellation of Orion, which the Ancient Egyptians visualised as the celestial figure of the god Osiris, the deceased god-king who ruled over the afterlife kingdom known as the *Duat*. As we saw in Chapter Nine, Osiris was also believed in some way to be the *Ka* – the 'double', or spiritual essence – of the Pyramids of Giza.

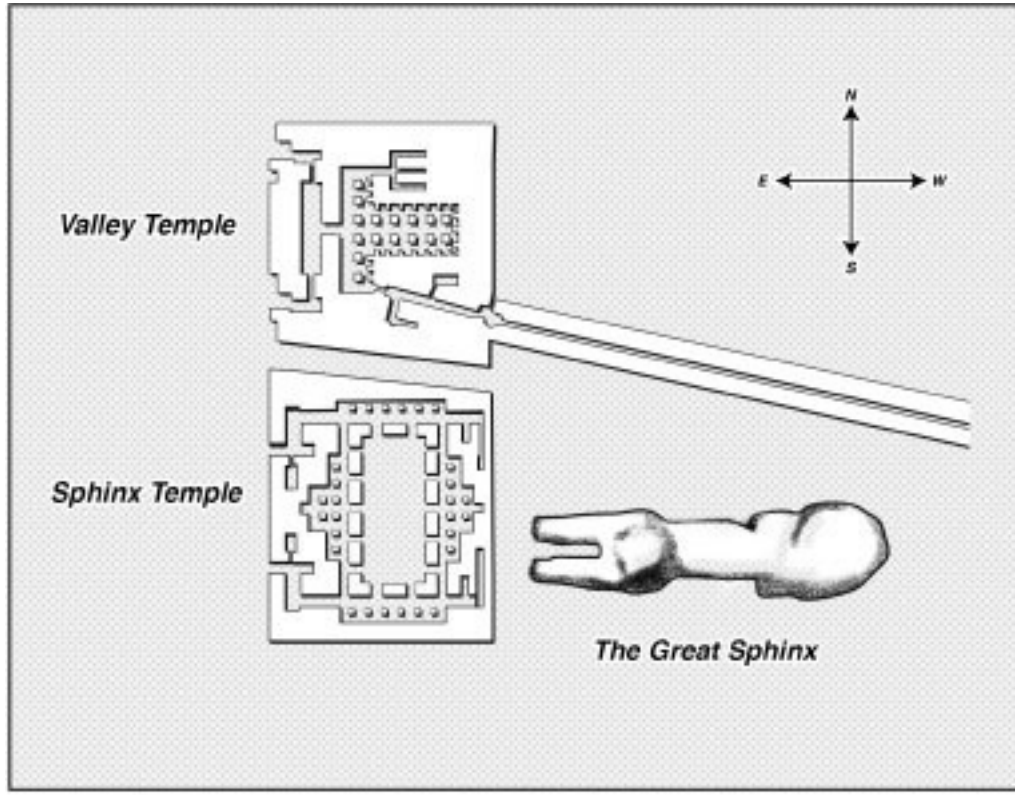

Figure 36: The gaze of the Great Sphinx is perfectly targeted on true east.

I will not vex the reader with lengthy substantiations of the assertions that follow since they are fully backed up, referenced and

documented in my earlier books, but an uncanny sky-ground 'lock' occurs at Giza in the epoch of 10,500 BC. I had opted for a date fifty years later – 10,450 BC – in *Fingerprints*, but such minor details are not really significant since the stellar changes are so slow, even within a single astrological age, that the same general configuration holds good for many centuries. Indeed, it is true to say that the Giza sky-ground lock stays in place throughout most, if not all, of the Younger Dryas from 10,800 BC down to 9600 BC.

Effectively, therefore, the epoch of the 'First Time', which I will continue, for ease of reference, to refer to as the epoch of 10,500 BC, *is* the epoch of the Younger Dryas. And while it was a time of freezing temperatures further north – particularly in North America and northern Europe – indications are that the climate in Egypt would have been much more comfortable and conducive and much wetter and more fertile than it is today. This is not to say that Egypt was entirely spared the cataclysms of the Younger Dryas – there

were powerful and destructive Nile floods as we shall see – but by comparison with many other parts of the world it would have stood out as an inviting refuge.

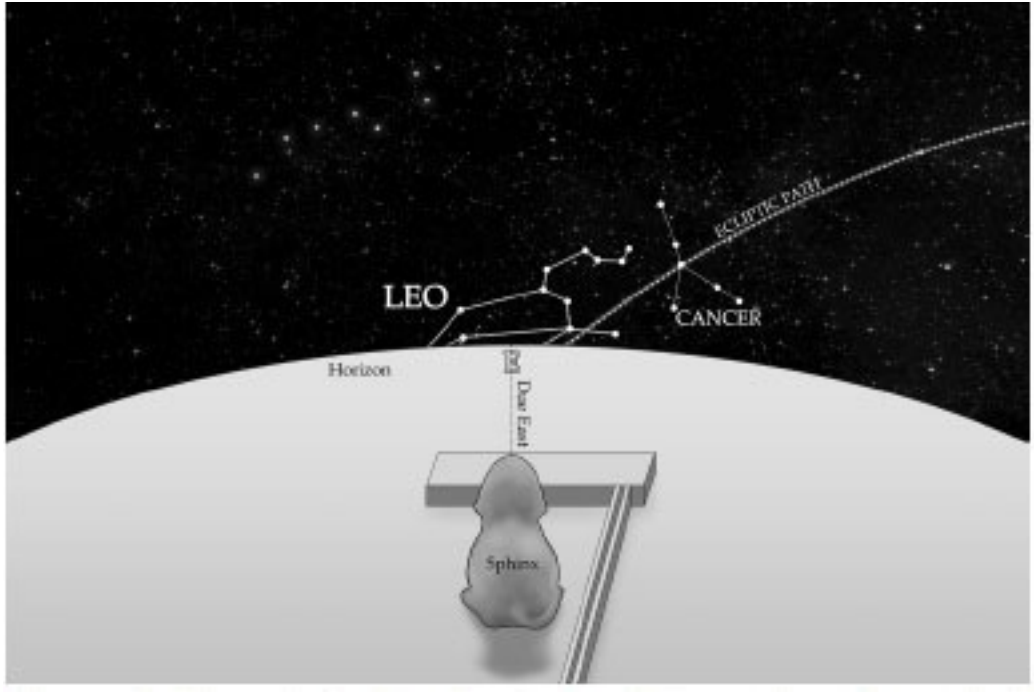

Figure 37: Looking east in the dawn, about an hour before sunrise on the morning of the spring equinox in the epoch of 10,500 BC, we see the constellation of Leo lying with its belly on the horizon, directly in line with the gaze of the Sphinx.

As above, so below … To return to the matter of the sky-ground lock at Giza in the epoch of 10,500 BC, let us consider first the lion-bodied (and very likely once lion-headed) monument, oriented perfectly due east, that we call the Great Sphinx. It looks not only at the rising sun on the spring equinox but also at the constellation that houses the sun on the equinox. Today, therefore, this monument gazes at the cusp between Pisces and Aquarius. At the time of the building of the Temple of Karnak it gazed at the constellation of Aries, and in the Old Kingdom, when the Sphinx was supposedly built, it gazed at the constellation of Taurus, the Bull – clearly not a perfect sky-ground match.

Indeed, only in one epoch in the last 25,920 years has the lion-bodied Sphinx looked out at its own celestial counterpart, the constellation of Leo, in the pre-dawn on the spring equinox, and that was in the epoch of 10,500 BC.

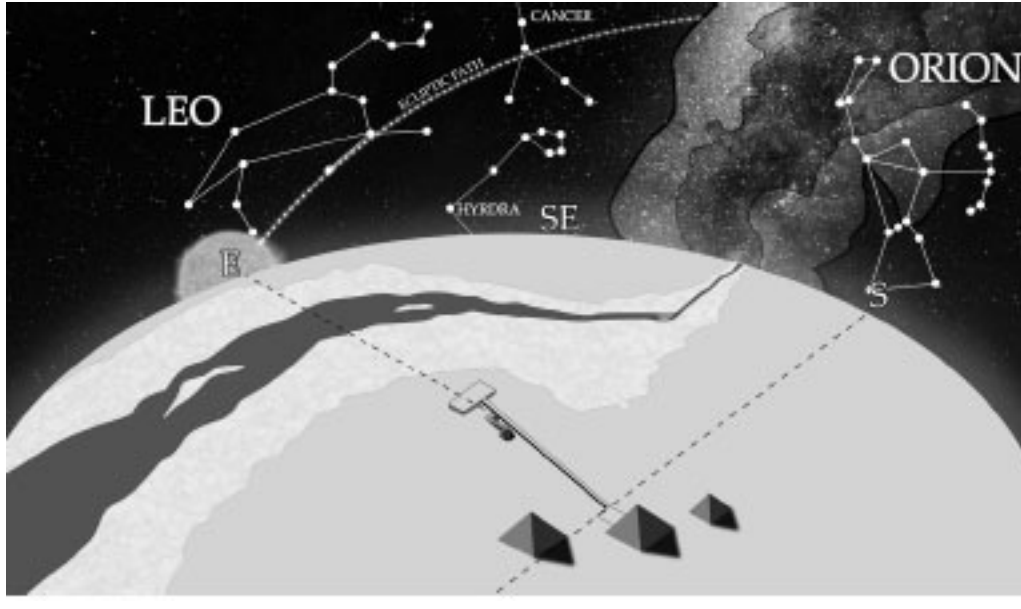

Figure 38: On the spring equinox in the epoch of 10,500 BC, at the exact moment that the sun bisected the horizon due east, the three belt stars of the constellation of Orion lay due south on the meridian – in a pattern that very precisely matches the pattern of the three Great Pyramids on the ground.

But there is more. In that same epoch, at the exact moment that the sun bisected the horizon due east, the three belt stars of the constellation of Orion lay due south on the meridian – and they did

so in a pattern that very precisely matches the pattern of the three Great Pyramids on the ground, thus making sublime sense of the image of Osiris/Orion as the *Ka*, or 'double', of the Pyramids.

After Robert Bauval presented the Orion correlation to a global readership in his 1994 book *The Orion Mystery*, and after the further work I did on the subject in *Fingerprints of the Gods*, and that Robert and I did together in *Keeper of Genesis*, the hypothesis came in for a great deal of criticism from the mainstream archaeoastronomer Ed Krupp of the Griffiths Observatory of Los Angeles.

Krupp claimed that the correlation was 'upside down', an argument of some sophistry based on the apparent curvature of the sky which means that the highest of the three stars of Orion's belt (matched, in the Orion correlation, by the southernmost of the three pyramids), is effectively the northernmost star. Refuting this, we were able to demonstrate that laying the pyramids out on the ground in the way that would satisfy Krupp might be technically 'correct'

in terms of modern astronomical conventions, but would not produce an immediately recognizable and visually pleasing similitude between what is seen in the sky and what is seen on the ground. If, on the other hand, one steers clear of twenty-first century astronomical conventions (in which north is 'up'), and simply models on the ground – rather as an artist or a sculptor would – what would have been seen in the sky at dawn on the spring equinox in the epoch of 10,500 BC, then the result is indeed a very good match, as Robert Bauval always claimed, between the three great pyramids and the three stars of Orion's Belt (see Appendix, *The Orion correlation is not upside down*, for further details).

Moreover, as noted above, the particularly striking feature of this match is its lock with the Sphinx/Leo. The point is worth re-emphasizing. Looking east in the predawn, about an hour before sunrise on the morning of the spring equinox in the epoch of 10,500 BC, we see the constellation of Leo lying with its belly on the

horizon, directly in line with the gaze of the Sphinx. There is an unmissable sky/ground correlation here – for the constellation of Leo, in profile as seen at this moment, does very closely resemble the profile of the leonine Sphinx.

The earth turns, the stars and the sun rise, light floods the sky, and in due course – after about an hour – the solar disc bisects the horizon precisely due east, again exactly in line with the gaze of the Sphinx. At the precise moment it does so, the three stars of Orion's belt fall into place centred due south over the meridian. This is confirmed absolutely by modern astronomical software and it would have been known absolutely by anyone with sophisticated knowledge of the motions of the heavens, should such a person have been present at Giza in the epoch of 10,500 BC. Indeed, one can almost feel the ponderous gears of the sky at work, like a huge clock: the hour hand is the Sphinx/Leo correlation and the minute hand is the pyramids/Orion's belt correlation, and both work

together to point unmistakably to the epoch of 10,500 BC. This is the epoch that I long ago suggested was the mysterious Ancient Egyptian 'First Time', but that I now understand was significant for the world-changing cataclysm of the Younger Dryas as well.

Dating with stars

The use of combinations of stars in the sky and large-scale constructions on the ground to point symbolically to significant moments in history was a practice widely pursued in antiquity, as extensively documented in my 1998 book *Heaven's Mirror*.[7] Indeed, examples of such sky-ground mirroring, once they are properly understood, frequently shed new light on archaeological inquiries. For example, in 2014 an ancient mound in the Republic of Macedonia was identified as man-made by archaeoacoustic analysis. The mound's dimensions are 85 metres × 45 metres, it is very precisely oriented north–south and at its summit, placed within

an oval ditch, a giant earthwork has been identified by researchers from the University of Trieste as a representation of the constellation of Cassiopeia, as it would have appeared from the site at dawn on 21 July 356 BC, the birthday of the famed Macedonian ruler Alexander the Great. 'Cassiopeia, lies directly to the north,' the researchers conclude:

> and stands vertically above the geoglyph in the sky's zenith, forming a perfect picture of the sky on the earth.[8]

Nor are such sky-ground endeavours confined to the ancient world. A relatively recent example is the Hoover Dam in the United States. There at the base of the towering Monument of Dedication with its black diorite pedestals supporting two colossal and imposing winged figures – themselves reminiscent of Mesopotamian and Ancient Egyptian deities – the sculptor Oscar Hansen created a spectacular terrazzo floor with an inbuilt star chart. Here's how the

US Department of the Interior's Bureau of Reclamation describes the artwork, and its purpose:

> The chart preserves for future generations the date on which President Franklin D. Roosevelt dedicated Hoover Dam, September 30, 1935 …
>
> In this celestial map, the bodies of the solar system are placed so exactly that those versed in astronomy could calculate the precession (progressively earlier occurrence) of the Pole Star for approximately the next 14,000 years. Conversely, future generations could look upon this monument and determine, if no other means were available, the exact date on which Hoover Dam was dedicated.[9]

Hansen, who explicitly compared the dam to the Great Pyramid as 'a monument to collective genius exerting itself in community efforts around a common need or ideal',[10] also incorporated the signs of the zodiac into his design.[11] Such elements, he said, were all put there as clues and pointers, so that 'in remote ages to come, intelligent people' would be able to discern 'the astronomical time of the dam's dedication.'[12]

It so happens that the Hoover Dam and its monumental sculptures were completed in the same year, 1935, but it is, of course, possible to use symbolic architecture and astronomical alignments to make a permanent statement about significant moments in the past *at any time*. A parallel might be the great Gothic cathedrals of Europe built in the twelfth and thirteenth centuries of our era but referring in every symbolic detail and in the sacred astronomy built into their stones and stained glass,[13] to much earlier periods – notably to the time of Christ and the time of the Old Testament patriarchs.

From a purely astronomical point of view, what can be said about the huge effort and endeavour of the Giza monuments is that the ground-plan of the pyramids and the Sphinx does speak clearly of the epoch of 10,500 BC. But as readers of my previous books will be aware, the monuments also include features, such as the four narrow shafts angled up through the body of the Great Pyramid, that target

significant stars in the epoch of 2500 BC when Egyptologists believe the pyramids were built.[14]

In other words *both* epochs are symbolised – 2500 BC by the shafts and 10,500 BC by the ground plan.

Long lived cult of the Sages

The hypothesis I derive from this is that Giza was one of several sites around the world – Göbekli Tepe was another – where survivors of a great prehistoric civilization that had been all-but destroyed in the global cataclysm at the onset of the Younger Dryas chose to settle, and where their sages set in motion a long-term plan to bring about 'the resurrection of the former world of the gods … The re-creation of the destroyed world'.[15] Perhaps they felt that their own civilization had made some terrible error, some ghastly mistake, that had brought down the punishment of the universe

upon them in the form of the Younger Dryas comet, and that it would therefore be impious or unwise to seek to refashion the destroyed world all at once and straight away. Indeed, perhaps it proved *impossible* for them to do so. Though its climate would have been attractive, at a time when much of the world was in the midst of a sudden deep freeze, the Nile Valley, like so many other places, did suffer cataclysmic events both at the beginning and at the end of the Younger Dryas. These events included episodes of extreme river floods, the so-called 'Wild Nile', that recurred several times in the epoch of 10,500 BC, with calmer and more predictable conditions not being restored until about 9000 BC.[16]

Located on higher ground, well above the valley floor, there is no evidence to suggest that Giza itself was ever scoured by those floods and it would, therefore, have been an obvious choice in Egypt for the survivors to have established a base and begun work on an architectural project, perhaps focused around certain natural

features of the plateau itself. Amongst these I would draw particular attention to the rocky hill more than thirty feet high – an excellent contender for the 'Great Primeval Mound' described in the Edfu texts, as we shall see – that would much later be incorporated into the core of the Great Pyramid.

I suggest that a shaft was cut down into this hill and deep into the bedrock beneath it to create the rectangular cavity that is now nominated as the Subterranean Chamber – which can still only be accessed today through that same 300-foot-long shaft (now known as 'the Descending Corridor') that dives deeply into the bowels of the earth at an angle of 26 degrees. In my view, it is probably only one of several underground features that were created at that time, with others – far more extensive – still awaiting discovery.

Likewise these visitors to primeval Giza of the epoch of 10,500 BC would also have found a crest or ridge of rock (the technical term for such a feature is a 'yardang'), protruding downslope that had

perhaps already been sculpted by the prevailing winds into something resembling the head of a lion. It faced east and overlooked the Nile Valley and it would, in due course, be extensively excavated and carved to form the Great Sphinx. It is likely that some substantial work was done in the epoch of 10,500 BC to free at least the front quarters of the core body of the Sphinx from its surrounding bedrock. But my view, unchanged since I wrote *Fingerprints of the Gods*, is that the majority of the work on this project, as on the pyramids themselves, was done later and finally completed in epoch of 2500 BC when the original leonine head of the Sphinx, perhaps heavily eroded, was recarved into the disproportionately-small human head that it still has today. My hypothesis, then and now, is that the same sacred 'cult', housed in something perhaps like a monastery, with a very small, even negligible, archaeological footprint – let us call it the Monastery of the Seven Sages – was involved in both major phases of the work

and in everything that happened at Giza in between. As I wrote in 1995, this hypothesis resolves the anomaly of the 'missing' 8,000 years between the two epochs:

> by supposing the star shafts [of the Great Pyramid] to be merely the later work of the same long-lived cult that originally laid out the Giza ground plan in 10,450 BC. Naturally the hypothesis also suggests that it was this same cult, towards the end of those 8,000 missing years, that provided the initiating spark for the sudden and 'fully formed' emergence of the literate and accomplished historical civilization of dynastic Egypt.[17]

Dating with light

Since the publication of *Fingerprints of the Gods* I have had many years to reflect on the mysteries of Giza. It remains my view that the role of the historical pharaohs of the Fourth Dynasty was to complete, and finally fulfil, a much more ancient plan first brought to Egypt in the epoch of 10,500 BC. As noted above, however, the subterranean elements of the Giza plateau, and the earliest work on

the Sphinx, may actually date back to the epoch of 10,500 BC. By virtue of the distinctive weathering patterns on that monument's flanks and on sections of the trench that surrounds it – highlighted in the analysis of geology professor Robert Schoch of Boston University – a proto-Sphinx does appear to have existed when heavy rains fell across Egypt at the end of the Ice Age,[18] perhaps even as early as the Wild Nile period.

I have long been convinced by the geological evidence that the Sphinx does in fact date back in some form to the epoch of 10,500 BC. But there is a grey area to do with events between 10,500 BC and 2500 BC and this concerns the megalithic temples of the plateau, particularly the Sphinx Temple (directly in front, i.e. to the east, of the Sphinx itself) and the Valley Temple which lies immediately south-east of the Sphinx, both of which are built for the most part of limestone blocks excavated from around the core body of the Sphinx, although in many cases the limestone blocks are surfaced

with a veneer of granite. The orthodox archaeological dating of these structures (both of their limestone and of their granite elements) is to the Old Kingdom – specifically to the Fourth Dynasty, approximately 2613 BC to 2494 BC[19] – i.e. to the epoch of 2500 BC.

When I wrote *Fingerprints of the Gods*, however, I was open to the possibility that they might date back to the epoch of 10,500 BC. I remain so, but in the light of recent evidence some careful consideration is required. This is the case because an advanced scientific technique known as surface luminescence dating (which measures light energy stored in stone) has been applied to these temples. This technique seems, on the face of things, to rule out rather conclusively any possibility that the temples were created in the form we see them now in the epoch of 10,500 BC.[20]

I say 'on the face of things' because there are certain problems with the new technique which mean that any conclusions drawn

from it must be carefully thought through. Most significantly, as the researchers themselves admit, surface luminescence dating relies upon the assumption that the sample being tested has not been exposed to sunlight since it was set into place in the building of which it is a part. Should there have been exposure to sunlight, even if 'just minutes' in duration – as would happen, for example, if any later reworking of the sampled area had been undertaken without cover of a roof – then 'the latent luminescence is released … setting the signal to zero or near zero', and thus yielding a date that reflects the most recent reworking rather than the original date at which the building was constructed.[21]

The Giza Surface Luminescence Dating study was conducted by nuclear physicist Professor Ioannis Liritzis and his colleague Asimina Vafiadou, both of the Laboratory of Archaeometry at the University of the Aegean. They reported their results in detail in 2015 in the *Journal of Cultural Heritage*.[22] Conclusive indications

that at least some of the structures they sampled had indeed been reworked, with their latent luminescence zeroed and the clock set ticking again at the time of the reworking, are provided by Sample No. 4 (Valley Temple limestone) and Sample No. 6 (Sphinx Temple granite). The former yielded a very young surface luminescence date of 1050 BC, plus or minus 540 years, while the latter yielded a surface luminescence date of 1190 BC, plus or minus 340 years.[23] These are, effectively, dates from Ancient Egypt's New Kingdom (Eighteenth Dynasty and later) and we have firm archaeological and epigraphic evidence that both the Sphinx Temple and the Valley Temple were already very ancient by New Kingdom times.

Since this is so, the other dates yielded by the study must also be regarded with caution and certainly cannot be taken as firm evidence of the date of construction of the temples – particularly in the case of Sample No. 3 (Valley Temple granite), and Samples No. 7 and 8 (both Sphinx Temple granite). These yielded surface

luminescence dates, respectively, of 3060 BC, plus or minus 470 years; 2740 BC, plus or minus 640 years; and 3100 BC, plus or minus 540 years.[24] These dates are *broadly* compatible with the Old Kingdom – although with some reservations which we will explore below – but they do not under any circumstance rule out a much more ancient date of construction for the limestone core masonry of the temples, since it has always been Robert Schoch's contention that:

> this granite sheathing was added in the Old Kingdom to repair and restore the earlier (much earlier – 'Sphinx Age') limestone temples.[25]

We are left, then, with only a single sample (Sample No. 5) which was taken from the original limestone core masonry of the Sphinx Temple. It yielded a surface luminescence date of 2220, plus or minus 220 years,[26] but really nothing very conclusive can be said about it or deduced from it since its location does not rule out the

possibility, as Schoch observed when I asked him to comment on these findings, that it 'may also have been exposed or reworked during repairs to the structure during the Old Kingdom.'[27]

In summary, the new study does not provide any evidence to confirm beyond doubt that the original limestone megalithic elements of the Sphinx and Valley Temples were built by the Fourth Dynasty Pharaoh Khafre, as archaeologists maintain. On the contrary, the only thing the study seems to demonstrate for sure is that these temples were reworked during the New Kingdom. More alarming for the mainstream chronology, the surface luminescence dating raises the possibility that the granite sheathing on the temples (with the exception of Sample No. 6 with its New Kingdom date) was not added in the Fourth Dynasty at all but many centuries earlier – indeed as early as 3380 BC at the extreme end of the dating range for Sample No. 7, as early as 3530 BC for Sample No. 3, and as early as 3640 BC for Sample No. 8.[28]

This potentially pushes what Robert Schoch has always regarded as restoration work on the Sphinx Temple (the adding of a granite veneer on top of much older and extensively eroded megalithic limestone blocks) far back into the pre-dynastic period, i.e. long before any large-scale construction is supposed to have been undertaken in Egypt. And needless to say if these temples were in need of such radical restoration in the pre-dynastic period then their core masonry is likely to be very ancient indeed, perhaps even going back as far as the epoch of 10,500 BC.

So much then for the Sphinx Temple and the Valley Temple, but what of the enigmatic pyramids that loom over them?

The researchers were not able to study the second pyramid at Giza, conventionally attributed (like the Sphinx and its temples) to Khafre. Nor did they investigate the Great Pyramid, attributed to Khufu. But they did test a single sample from the smallest of the three pyramids, which Egyptology attributes to Menkaure, the

Pharaoh who succeeded Khafre to the throne. Taken from the granite facing stones of the pyramid, and not from its core masonry, this sample produced yet another strikingly anomalous date – 3450 BC, plus or minus 950 years – when assayed for surface luminescence.[29] Only at the youngest end of the range (3450 minus 950 = 2500 BC) does this date approximate to the reign of Menkaure – although many authorities do not see that pharaoh taking the throne until 2490 BC,[30] and thus *after* 'his' pyramid was completed even at the most recent date offered by the surface luminescence spectrum. But what is more disturbing are the other possibilities raised by the dating, i.e. that the facing stones of the so-called 'Pyramid of Menkaure' could have been put in place as early as 3450 BC or even, perhaps, 950 years before that, i.e. in 4400 BC and thus deep in the pre-dynastic period almost two thousand years prior to the Old Kingdom.

More work needs to be done to settle all this. As I've said, I remain willing, for the moment, to accept the still prevailing mainstream view that dates the pyramids to the Old Kingdom. But what is in the process of emerging, I think, is recognition of the need for a more nuanced view of the whole site with strong indications from geology, from astronomy, and now from surface luminescence dating as well, that it can no longer be attributed exclusively to the epoch of 2500 BC, but rather appears to be the result of a series of developments over an immensely long time-frame going back more than 12,000 years. As Professor Ioannis Liritzis of the University of the Aegean, lead author of the surface luminescence study, concludes, parts of the site appear to have been reused and:

> it is a reasonable assumption that some of the structures were already present at Giza when the large-scale works of the Fourth Dynasty began.[31]

Nor is the question of the *age* of the site the only open one. Its *function*, too, is up for grabs. Egyptologists like to define the pyramids as 'tombs and tombs only', but as Professor Liritzis notes:

> The lack of contemporary human funerary remains from any Egyptian pyramid, and the obvious astronomical and geometric nature of the site, that prove their orientation was not by chance but inhere knowledge and star configuration patterns at the period of construction, imply that the 'pyramids as tombs' theory is no longer sufficient and a broader determination of age, function and re-use of both pyramids and Giza is required …[32]

'This book which descended from the sky …'

We've seen that there are many passages in the Edfu Building Texts which tell us that those amongst the 'gods' of the Early Primeval Age who survived the flood that destroyed their former Homeland set about 'wandering' the world with the purpose of establishing new sacred domains in suitable locations. One passage names a specific location that some of these 'gods' found their way to, the

first place they settled in Egypt. This turns out not to have been Edfu in Upper (southern) Egypt but rather the city that the Greeks later came to know as Heracleopolis,[33] which is located in Lower (northern) Egypt and which the Egyptians themselves named *Henen-nesut*, meaning 'the house of the royal child'. Archaeologists do not know when *Henen-nesut* was established, but a reference to it on the Palermo Stone (so-called because it is now kept in the Archaeological Museum of the city of Palermo in Italy) sheds some light on the matter. An ancient fragment of inscribed diorite, the Palermo Stone provides information (dismissed as 'mythological' by Egyptologists) of some 120 pre-dynastic kings said to have ruled in Egypt prior to 3000 BC. But it also gives details of the early Dynastic period which Egyptologists accept as 'historical'. An entry on the Stone dating to the reign of Den, the second King of the First Dynasty, suggests strongly that the origins of Heracleopolis/*Henen-nesut* go very far back into the pre-dynastic period.[34]

But *Henen-nesut* is just where the trail begins, because it turns out it was closely associated with the ancient religious centre of Memphis, *Inbu-Hedj* (later *Mn-nfr*), which stands about 60 miles (100 kilometres) further north and was, according to legend, established by Menes, the first king of the First Dynasty – although again its origins are likely to be far earlier. It is therefore of interest, as Eve Reymond, the translator of the Edfu Building Texts, observes, that:

> It is impossible to read the principal Edfu records and not be struck by the very pronounced Memphite background and tone that is still preserved in them.[35]

In her view the Edfu texts 'preserve the memory of a pre-dynastic religious centre which once existed near Memphis' – a centre which 'the Egyptians looked on as the homeland of the Egyptian temple'.[36] Note, she is not saying 'which once existed *in* Henen-nesut', nor even '*in* Memphis' itself, but rather '*near* Memphis'. In

short, the location is a bit of a mystery; Reymond supposes that archaeology has not yet identified it.[37] But wherever it was, it was believed to be a place carefully selected by the gods for the foundation of the first of the new generation of temples dedicated to the god Horus – the essential opening gambit in the long-term project to recreate the destroyed former world.[38] A text on the inner face of the enclosure wall at Edfu was recognised as an important clue by Reymond in her own search for the mystery location, since it tells us that the primordial Temple of Horus was:

> built at the dictates of the ancestors according to what was written in this book which descended from the sky to the north of Memphis.[39]

An extensive burial ground for the ancient kings of Memphis, known to Egyptologists as the 'Memphite Necropolis', rose to particular prominence during the Fourth Dynasty, 2613 BC to 2492 BC, when, according to orthodox chronology, both the Great

Pyramid and the Great Sphinx are supposed to have been built. The pyramid fields of Dhashur, Saqqara and Giza were all integral parts of the Necropolis – so in theory all might be candidates.[40] But at Giza, as we've seen, the Sphinx models the constellation of Leo in 10,500 BC, the three pyramids model the Belt of Orion in the same epoch, and the four shafts of the Great Pyramid lock on to specific stars in the later epoch of 2500 BC. Far more obviously than Dhashur and Saqqara, therefore, it seems to me that Giza absolutely merits description as 'book which descended from the sky' – a book written with the 'pen' of megalithic architecture in the 'script' of precession.

There is something else. The god Horus, for whom the primordial temple was built, is a complex figure who manifests in many different symbolic forms, notably the falcon; indeed, an imposing granite statue of Horus the Falcon stands in the forecourt at the Temple of Edfu to this day. Horus was likewise frequently depicted

as a man with the head of a falcon – a classic therianthrope in other words, like the Apkallu sages of Mesopotamia. But Horus had another prominent avatar and that was as a lion.[41] Moreover this Horus lion was sometimes depicted as a therianthrope with a human head and there is a specific inscription in the Edfu Temple which tells us that:

> Horus of Edfu transformed himself into a lion which had the face of a man …[42]

Mystery of the Sphinx

Given the connection that the Edfu texts draw with the Giza area, and with that mysterious 'book descended from the sky', it is therefore impossible to ignore the fact that the Ancient Egyptians closely identified Horus with the Great Sphinx of Giza. In this capacity the lion-bodied (and probably once lion-headed) Sphinx was known both as *Hor-em-Akhet* – 'Horus in the Horizon' – and

also as *Horakhti* which, with a subtle difference of emphasis, means 'Horus *of* the Horizon'.[43]

However, there is a very odd thing about the Sphinx. With the exception of Dr Rainer Stadelmann, who believes that it was the work of the Fourth Dynasty Pharaoh Khufu, all other modern Egyptologists are united in the opinion that the Sphinx was made by Khufu's son Khafre.[44] I use the word 'opinion' deliberately, because it is important to be clear at the outset that we are not dealing here with an established empirical 'fact' about the Sphinx, but rather with a received body of Egyptological conjecture which has gradually, through lack of opposition, begun to be treated as though it were a proven fact. 'As very often in our discipline, old and seemingly certain statements rest forever without further verification,' comments Dr Stadelmann,[45] who should know what he's talking about since he was Director of the German Archaeological Institute in Cairo from 1989 to 1998.

When we confine ourselves to the facts about the Sphinx rather than the opinions of Egyptologists, the first thing we discover is that no inscriptions have survived from the Old Kingdom which refer to this stupendous and imposing monument. Even the great Egyptologist Selim Hassan, who conducted extensive excavations at Giza in the 1930s, was therefore obliged to admit:

> As to the exact age of the Sphinx, and to whom we should attribute its erection, no definite facts are known, and we have not one single contemporary inscription to enlighten us on this point.[46]

Neither, for that matter, are there any inscriptions from the First Intermediate Period, or from the Middle Kingdom, or from the Second Intermediate Period. Indeed, it is not until we come to the New Kingdom, roughly 1550 BC onwards, supposedly about a thousand years *after* it was carved out of the bedrock of the Giza plateau, that the pharaohs of Ancient Egypt suddenly start talking about the Sphinx.

What Selim Hassan rightly describes as 'the earliest authentic opinion' is given by Amenhotep II (1427-1401 BC) who built a small temple that can still be seen today on the north side of the Sphinx enclosure.[47] There on a limestone stela, this New Kingdom pharaoh refers to the Sphinx under the names *Hor-em-Akhet* and *Horakhti*,[48] and also makes a direct reference to the Giza pyramids which – to the annoyance of Egyptologists – he does not ascribe to his Fourth Dynasty predecessors Khufu, Khafre and Menkaure, but rather nominates as 'the Pyramids of *Hor-em-akhet*'.[49] The clear implication is that in Amenhotep's time – far closer to the Fourth Dynasty than our own – there existed no historical archives, nor even any tradition, that linked the pyramids with the three pharaohs whom modern Egyptologists now insist were their builders. On the contrary, as Selim Hassan explains, the use of the epithet 'Pyramids of *Hor-em-Akhet*' suggests (since *Hor-em-Akhet* was one of the names by which the Sphinx was known) that Amenhotep:

> considered the Sphinx to be older than the Pyramids.[50]

Chronologically, the next inscription referring to the Sphinx occurs on the famous 'Dream Stela' of Thutmosis IV. The story goes that before he ascended to the throne the future pharaoh was out hunting one day around Giza where the Sphinx lay forgotten, buried up to its neck in sand. Thutmosis took a siesta in the shade of the giant head at which point:

> A vision of sleep seized him at the hour when the sun was in the zenith, and he found the majesty of this revered god speaking with his own mouth, as a father speaks with his son, saying: 'Behold thou me! See thou me my son Thutmosis! I am … Hor-em-Akhet … who will give thee my kingdom on earth' …[51]

However, there was a condition for, the Sphinx said, 'the sand of this desert upon which I am has reached me … My manner is as if I were ailing in my limbs … Thou shalt be to me a protector …'[52]

To cut a long story short, Thutmosis understood that if he were to clear the Sphinx of sand and restore it to its former glory he would

become pharaoh. Accordingly he did as he was instructed and, when the restoration was complete, and the throne was his as prophesied, he erected the Dream Stela in commemoration.

If you visit the site today you can still see the huge stela – it's nearly 12 feet high and more than 7 feet wide – standing between the paws of the Sphinx directly in front of the monument's chest, but much of the original inscription, from the thirteenth line onwards, has flaked away. In the 1830s, however, a cast was taken of it, at which time some – though unfortunately not all – of the thirteenth line was still intact. There the single syllable Khaf (no longer present today) was noted and from this, as the American Egyptologist James Henry Breasted comments in his authoritative translation of the stela, many have been inclined to conclude that the Sphinx was the work of Khafre. Such a conclusion, Breasted adds dryly, 'does not follow'. He points out that there is in fact 'no trace of a cartouche' (the oval sign that normally enclosed royal names) on the copies and casts of the stela that were made in the nineteenth

century – which suggests strongly that the syllable Khaf did not refer at all to the Fourth Dynasty Pharaoh Khafre.[53]

Moreover, as Selim Hassan later added, even if the cartouche had been there, we are not at liberty to conclude from the damaged line that Khafre made the Sphinx. At the most it would tell us that 'Thutmosis in some way connected the Sphinx with Khafre'.[54] Even Gaston Maspero, who was the Director of the Department of Antiquities at the Cairo Museum in the late nineteenth century, and who did believe the cartouche had once been present, saw no reason to deduce from such flimsy evidence that the Sphinx was Khafre's work. On the contrary, his preferred interpretation was that the purpose of Thutmosis in this part of the inscription was to recognise a former renovation and clearance of the Sphinx undertaken by Khafre. 'Consequently,' Maspero wrote, 'we have here almost certain proof that the Sphinx was already buried in sand in the time of Khufu [Khafre's father] and his predecessors.' [55]

Maspero would later change his view, grudgingly stating that the Sphinx 'probably represents Khafre himself'[56] and thus falling in line with the growing consensus amongst Egyptologists of the twentieth century. His initial opinion that the monument was older than Khafre, and indeed had been buried in sand in the time of Khufu, had in part been based on information contained in yet another stela, the so-called Inventory Stela, discovered at Giza in the 1850s by the French archaeologist, Auguste Mariette. The gist of the Inventory Stela, once also referred to as the Stela of Khufu's Daughter,[57] was that the Great Sphinx and the Valley Temple, as well as a number of other structures on the plateau, were already in existence long before Khufu came to the throne.[58]

What apparently 'debunked' it, however, and no doubt contributed to Maspero's change of mind, was firm evidence that the hieroglyphic writing system used in the inscription was not consistent with the style of the Fourth Dynasty, but belonged to a

much more recent period – Selim Hassan suggests the Twenty-sixth Dynasty.[59] This interesting little stela has therefore subsequently come to be regarded as a work of fiction, most likely fabricated by a group of priests who wished to magnify the name of the goddess Isis (who was popular in the Twenty-sixth Dynasty, 664-525 BC) and thus of no value in our attempts to determine what happened at Giza nearly 2000 years earlier in the Fourth Dynasty – or perhaps long before.

That is certainly how things look when viewed through the prism of 'Egyptologic' – i.e. that special form of reasoning, with a built-in double standard, deployed only by Egyptologists. According to Egyptologic, if evidence supports established theories then that evidence will be accepted. But if evidence undermines established theories, then that evidence must be rejected. Thus Egyptology uses *entirely* circumstantial and non-contemporary data to support its present claim that the Sphinx and its megalithic temples were the

work of the Pharaoh Khafre of the Fourth Dynasty (as we've seen, Selim Hassan admits that 'we have not one single contemporary inscription' to enlighten us as to the exact age of the Sphinx). So the dating of the monument to the Fourth Dynasty – something that Egyptologists tout as a 'fact', that is taught as such in universities and that is widely disseminated by the media – rests entirely on its 'context' (the nearby pyramids and megalithic temples) and on that single syllable Khaf, which was once present on the Eighteenth Dynasty Dream Stela.

The flimsy case of Egyptology

As to context, even if the pyramids were exclusively the work of the Fourth Dynasty – which is called into question, as we've seen, by the surface luminescence dating of the pyramid attributed to Menkaure – we could still not safely deduce that the Sphinx is also Fourth Dynasty work. Indeed, it could be the case that the pyramids

were built where they are precisely *because* the Sphinx was already there, bestowing an air of ancient sanctity on the site.

Neither do the megalithic temples really prove anything about the Sphinx since there is no evidence that unequivocally dates their own construction to the Fourth Dynasty. The most that can be said is that a black diorite statue of Khafre (now in the Cairo Museum) was found dumped upside down in a deep pit in the Valley Temple. However, this tells us only that Khafre at some point required his statue to be placed in the temple and that he therefore identified with the temple in some way, not that he built it.

Superficially more persuasive is the claim made by some Egyptologists that Khafre's name was found inscribed at the Valley Temple. On his 'Guardians' website, National Geographic Explorer in Residence Dr Zahi Hawass, the former Director of the Giza Plateau and Secretary General of Egypt's Supreme Council of Antiquities, has this to say about the Valley Temple:

> inscriptions in the building are around the entrance doorways; they list the King's names and titles, those of the goddess Bastet (north doorway) and those of Hathor (south doorway).[60]

Wikipedia, which is influential in shaping public perceptions of Giza, and which routinely labels non-mainstream approaches as 'pseudoscience', goes even further than Hawass when it says of the Valley Temple that:

> Blocks have been found showing the partial remains of an inscription with the Horus name of Khafre (*Weser-ib*).[61]

On closer examination, however, Wikipedia turns out to be misinformed. Stephen Quirke, Professor of Egyptian Archaeology at University College London, was kind enough to look into this for me when I raised it with him and in due course reported the results of his investigation. The partial inscription with the Horus name of Khafre does not in fact appear on blocks from the Valley Temple, but rather on blocks from an entirely different building at Giza.[62]

What, then, of Dr Hawass's statement about 'the King's names and titles'. It is clear, at any rate, what his source is because in the first (1947) edition of his classic study *The Pyramids of Egypt*, I.E.S. Edwards, formerly Keeper of Egyptian Antiquities at the British Museum, wrote several pages about the Valley Temple which, along with the rest of the Egyptological profession by this time, he identified as being the work of Khafre.[63] 'Around each doorway,' he stated:

> is a band of hieroglyphic inscription giving the name and titles of the King; no other inscriptions or reliefs occur anywhere else in the building.[64]

That would seem to settle the matter were it not for the fact that many years later, when Edwards produced the definitive final edition of his book, he revised the above passage with important information that he did not present in 1947. 'Around each doorway,' we now read:

> was carved a band of hieroglyphic inscriptions giving the name and titles of the King, *but only the last words 'Beloved [of the goddess] Bastet' and 'Beloved [of the goddess] Hathor' are preserved.* No other inscriptions occur anywhere else in the building.[65]

Needless to say the words 'Beloved of Bastet' and 'Beloved of Hathor' do not, in isolation like this, prove that Khafre was the King referred to as being the 'beloved' of these deities. They could apply to anybody and therefore cannot legitimately be used to support the claim that the Valley Temple was the work of Khafre.

Is there anything else to support that claim? The obscure and eyewateringly expensive *Encyclopaedia of the Archaeology of Ancient Egypt* contains an entry on the 'Khafre pyramid complex'. Written again by Zahi Hawass, the entry informs us that the Valley Temple:

> is identified with Khafre from inscriptions on granite casing blocks from the western end of the Valley Temple. Reliefs from this complex were discovered at

> el-Lisht, where they were used as fill for the pyramid of Amenemhat I (Twelfth Dynasty).[66]

Now this is really clutching at straws! Since they are miles away at el-Lisht, cannibalised as filler material for a later monarch's pyramid, the reality is that these blocks tell us nothing reliable at all about the Valley Temple. Perhaps they were taken from there, but then again, perhaps they came from somewhere else entirely.

Besides, nobody is claiming that any of the inscriptions were made on the limestone core masonry of the Valley Temple. All of them appear on 'granite casing blocks' and as we've seen, the granite casing blocks of the Valley Temple give every appearance of being a veneer that was applied long after the core limestone blocks were set in place – in some cases perhaps as early as 3640 BC and in others perhaps as late as 1190 BC. That Khafre may well have been one of several pharaohs who carried out restoration work on the Valley Temple during this long period, and that he

commemorated his good deeds with an official inscription and some statues of himself – perhaps at the same time as he also appears to have carried out a restoration project on the Sphinx – does not mean that he was the original builder either of the Sphinx or the Temple.

So we are left, then, with that single syllable Khaf on the Eighteenth Dynasty Dream Stela, which modern Egyptologists (unlike their nineteenth century predecessors) have eagerly grasped as 'proof' that Khafre built the Sphinx. Needless to say the Eighteenth Dynasty and the Fourth Dynasty are not contemporary with one another. Moreover, there is a strong case to be made that even the Eighteenth Dynasty attribution of the stela is questionable. Breasted, for example, points to 'errors and striking irregularities in orthography' and to a number of other 'suspicious peculiarities' leading him to conclude that the inscription was not in fact the work of Thutmosis IV but was a 'late restoration' dating to between the Twenty-first Dynasty and the Twenty-sixth (Saitic) Dynasty.[67]

In other words, it is quite possible that the Dream Stela is as young as the Inventory Stela. Yet 'Egyptologic' requires the shaky evidence of the Khaf syllable on the former to be accepted as proof that Khafre made the Sphinx, whereas the several clear statements on the latter that absolutely contradict the attribution to Khafre are rejected as 'preposterous fictions'.

Dynamite revelations

Here are some extracts from the text of the Inventory Stela. Note before reading that all the pharaohs of Egypt were regarded as incarnations of the god Horus[68] and the name Horus was therefore routinely included in their titles. Each King also had a 'Horus name', which in Khufu's case was Mezer:[69]

Figure 39: The Inventory Stela. The gist of the inscriptions, which Egyptologists reject, is that the Great Sphinx and the Valley Temple, as well as a number of other structures on the Giza plateau, were already in existence long before Khufu came to the throne.

> Live Horus, the Mezer, the King of Upper and Lower Egypt, Khufu, given life. He found the House of Isis, Mistress of the Pyramid, by the side of cavity of the Sphinx, on the north-west of the House of Osiris, Lord of Rostau … The plans of the Image of Hor-em-akhet were brought in order to bring to revision the sayings of the disposition of the Image … He restored the statue all covered in painting … He made to quarry the hind part of the nemes headdress, which was lacking, from gilded stone, and which had a length of about 7 ells (3.7 metres). He came to make a tour, in order to see the thunderbolt, which stands in the Place of the Sycamore, so named because of a great sycamore, whose branches were struck when the Lord of Heaven descended upon the place of Hor-em-akhet … The figure of this God, being cut in stone, is solid, and will exist to eternity, having always its face regarding the East.[70]

The language of the Inventory Stela is obscure, but Selim Hassan's analysis brings some clarity. 'If we could believe its inscriptions,' he writes:

> we should have to credit Khufu with having repaired the Sphinx, apparently after it had been damaged by a thunderbolt. As a matter of fact, there may be a grain of truth in this story, for the tail of the *nemes* headdress of the Sphinx is certainly missing, and it is not a part, which, by reason of its shape and position, could be easily broken off, except by a direct blow from some heavy object, delivered with

> terrific force. There is actually to be seen on the back of the Sphinx the scar of this breakage, and traces of the old mortar with which it was repaired. This scar measures about 4 metres which accords with the measurements recorded on the stela … Therefore, it is perhaps likely that the Sphinx was struck by lightning, but there is not a particle of evidence to show that this accident happened in the reign of Khufu.[71]

Neither, however, is there any evidence to prove that the 'accident' to the Sphinx did *not* happen in the reign of Khufu. All we have is the Egyptological bias that it could not have happened then, because the Sphinx is supposed to be the work of Khafre, undertaken after Khufu's death, and therefore – obviously – should not have existed in Khufu's time.

The same goes for the second dynamite revelation of the Inventory Stela, namely the mention of 'the House of Osiris, Lord of Rostau'.[72] We can gather the location of this structure because 'the cavity of the Sphinx' is said to lie on its 'north-west'[73] – which means, to put things the other way round, that 'the House of Osiris,

Lord of Rostau' is located immediately south-east of the Sphinx. The only structure which fits these co-ordinates is the Valley Temple which does indeed lie immediately south-east of the Sphinx. As with the references to the Sphinx itself, therefore, the testimony of the Inventory Stela is that the Valley Temple was not made by Khafre since it was already in existence in the time of his predecessor Khufu.

These, then, are the real reasons why the Inventory Stela has been rejected by Egyptologists as a preposterous fiction – rather, say, than as an inscription that preserves and transmits to a later age, using language and terminology suitable to that age, a much older but genuine tradition. Certainly the rejection cannot be because the Inventory Stela is not contemporary with the reign of Khufu, or because of its Twenty-sixth Dynasty 'orthography' – since such factors do not prevent Egyptologists from accepting the Dream Stela, which suffers from the same non-contemporaneity and the same 'striking irregularities in orthography'. In short, is it not

obvious that the Inventory Stela has been rejected and ignored, while the Dream Stela has been accepted and embraced, because the former blows the established theory of Egyptian history completely out of the water, while the latter can be conveniently 'spun' to support the established theory?

A bolt from heaven and an ancient archive

Quite apart from its implications of a much older Sphinx, there are two other aspects of the Inventory Stela that merit further investigation.

The first is the information that the Sphinx had been damaged by a 'thunderbolt'. Selim Hassan is willing to accept there might be some truth to that, but we cannot be sure that a thunderbolt means a lightning strike as he assumes. The thunderbolt in question is said in the inscription still to have been present for Khufu to 'see' when he made his 'tour'. This would not be the case with lightning, which

would leave damage but not a physical object that could be viewed. On the other hand a meteorite, after striking and damaging the Sphinx, would have been there, on the spot, for inspection by the King – and descending in fire from the sky amidst awesome noise, burning a great old tree in its passage, a meteorite might easily be described as a thunderbolt (indeed in a number of cultures that was exactly how meteorites were described).[74]

Equally intriguing is the Inventory Stela's statement that 'the plans of the Image of Hor-em-akhet' – i.e. of the Sphinx – were brought to the site by Khufu, presumably for reference purposes while the repair of the monument was undertaken. This very obviously implies the existence of an ancient 'archive' pertaining to Giza, perhaps a 'Hall of Records' reminiscent of the lost records in the temple library at Edfu from which we know the Building Texts were extracted.

These, as we've seen, were said to be the words of the Seven Sages, taken down in writing by no lesser personage than the wisdom god Thoth himself. Reymond even suggests that there may once have existed a *Sacred Book of the Early Primeval Age of the Gods*, in which the whole 'divine' plan in Egypt was set out.[75] And the indications are, she says, that this was linked to a second ancient book, *The Specifications of the Mounds of the Early Primeval Age*, which was believed to contain records not only of all the lesser 'mounds' and the temples that would ultimately be built upon them as part of the project to bring about the rebirth of the destroyed world of the 'gods', but also of the Great Primeval Mound itself.[76]

Unfortunately nothing more is known about either of these lost 'books' than the few very brief and tantalizing references to them at Edfu. Nonetheless, as I suggested earlier, there is every possibility that this Great Primeval Mound, where the time of the present age of the earth supposedly began, was the rocky hill at Giza around

which the Great Pyramid would in due course be built. There is, too, an extraordinary text, preserved on papyrus from Egypt's Middle Kingdom, which speaks of a search for 'the secret chambers of the sanctuary of Thoth' – secret chambers that Khufu wished to 'copy' for his temple.

A deep and ancient mystery that we'll explore in the next chapter lies concealed in these strange references.

Chapter 11

The Books of Thoth

A quick summary.

The Edfu Building Texts speak of the 'Homeland of the Primeval Ones' – an island, the location of which is never specified – that was destroyed by an 'enemy', described as a 'serpent', 'the Great Leaping One'. The 'serpent's' assault caused a flood that inundated this 'primeval world of the gods', killing the majority of its 'divine' inhabitants. A few of them, however, escaped the disaster and fled the scene in boats to wander the earth. Their purpose in so doing

was to identify suitable sites where they might set in motion a sacred design to bring about

> the resurrection of the former world of the gods … The re-creation of a destroyed world.

And all of these events took place in the 'early primeval age' – a very, very long time ago, so long ago that they would have passed beyond human remembering if great efforts had not been made to preserve them. 'In our temples,' the Egyptian priests of Sais reportedly told Solon:

> we have preserved from earliest times a written record of any great or splendid achievement or notable event which has come to our ears.[1]

This was the case, too, at Edfu where Reymond's detailed study reveals that a vast and extensive archive once existed, from which the extracts were taken that the priests carved into the temple walls and that thus still survive. It is by following the trail of clues in

these extracts, as we did in the last chapter, that we have arrived at the Great Sphinx, perhaps the very 'lion which had the face of a man' that Horus was said in the Edfu texts to have transformed himself into.

In this context, the reference in the Inventory Stela to Khufu having access to plans of the Sphinx, which he refers to when he 'restores the statue', is suggestive of the existence of an ancient archive of Giza – perhaps an archive dating back to the remote age when the site was founded by the 'gods' with distinctive astronomical characteristics that would later allow the whole complex to be described as a 'book which descended from the sky'. Does this 'book' refer to the constellation of Leo as it appeared at dawn on the spring equinox in the epoch of 10,500 BC – a constellation that 'descended from the sky' at Giza in the form of the Great Sphinx? And did the three belt stars of the constellation of

Orion as they looked in that distant epoch 'descend from the sky' at Giza in the form of the ground plans of the three great pyramids?

We've seen that the Sphinx, or at any rate large parts of it, could very well have been carved in the epoch of 10,500 BC. The pyramids were certainly *completed* much later, but it's my belief that they were built over pre-existing structures dating back to the time of the gods – gods whom the Edfu texts tell us quite explicitly were 'capable of uniting with the sky'.[2] These pre-existing structures would, of course, have been hidden when they were replaced by the pyramids,[3] amongst them the original natural hill that anchors the whole plan and which was later incorporated into the structure of the Great Pyramid.

Since the Edfu texts envisage the work of the gods as the re-creation in other lands of their lost world, and since the key feature of that lost homeland was 'a primeval temple that was erected on a low mound',[4] it becomes all the more likely they would have sought

to reproduce these features at Giza. At any rate, no lesser authority than Professor I.E.S. Edwards, formerly Keeper of Egyptian Antiquities at the British Museum, was of the view that the natural hill, now incorporated within the Great Pyramid, was indeed the Great Primeval Mound that is referred to so often in Ancient Egyptian texts[5] – a mound, we now understand, that drew its sanctity from its predecessor that had once stood in the lost world of the gods. That mound, Reymond tells us, formed 'the original nucleus of the world of the gods in the primeval age',[6] so it follows that the rocky mound at the heart of the Great Pyramid, and later the Great Pyramid itself, served the same function in the project to resurrect that lost world in Egypt.

The Inventory Stela is by no means the only testimony to the existence of ancient plans connected with that project. We've seen in the Edfu texts how these plans were part of an archive believed to have been set down in writing by the wisdom god Thoth 'according

to the words of the Sages',[7] so it is not surprising that the Ancient Egyptians of later times became obsessed with 'the books of Thoth', which they appear to have lost access to and which came to be regarded as the fount of all knowledge. A number of papyri have survived documenting searches for the books of Thoth, and these searches, not surprisingly, are always said to have taken place in the vicinity of Giza and the Memphite necropolis.

There is, for example, the story of Setnau-Khaem-Uast, a son of Rameses II, one of the great pharaohs of the thirteenth century BC. Informed that a 'book written by Thoth himself' lay concealed in an ancient tomb near Giza:

> Setnau went there with his brother and passed three days and nights seeking for the tomb … and on the third day they found it [and] … went down to the place where the book was. When the two brothers came into the tomb they found it to be brilliantly lit by the light which came forth from the book.[8]

There seems to be a hint of an ancient technology here, reminiscent of Yima's underground Vara, which 'glowed with its own light', or of the mysterious illumination of Noah's Ark, described in Chapter Seven. What sound like the artifices of a lost technology are also mentioned in Arab traditions concerning Giza. The Egyptian historian Ibn Abd El Hakem believed that the pyramids were built as places of safekeeping for antediluvian knowledge, prominently including archives of books containing:

> The profound sciences, and the names of drugs and their uses and hurts, and the science of astrology, and arithmetic and geometry and medicine … [and] everything that is and shall be from the beginning to the end of time …[9]

Hakem, who lived in the ninth century AD, could have known nothing of advanced metallurgy or plastics, yet he stated that amongst the treasures from the time before the flood that were hidden away in the bowels of the pyramids were:

> arms which did not rust, and glass which might be bent but not broken.[10]

He likewise described machines that guarded these antediluvian remnants including:

> an idol of black agate sitting upon a throne with a lance. His eyes were open and shining. When anyone looked upon him, he heard on one side of him a voice which took away his sense, so that he fell prostrate upon his face, and did not cease until he died.[11]

A second machine also took the form of a statue:

> He who looked towards it was drawn by the statue until he stuck to it, and could not be separated from it until such time as he died.[12]

Returning to the traditions of the Ancient Egyptians themselves, we have a text from the Westcar Papyrus, which dates to the Middle Kingdom, around 1650 BC, but was copied from an older document now lost.[13] The text makes reference to a 'building called

“Inventory”,’ located in the sacred city that the Ancient Egyptians knew as *Innu*, that the Bible calls *On*, and that the Greeks later made famous under the name of Heliopolis – the ‘City of the Sun’ – eleven miles north-east of Giza. According to the papyrus ‘a chest of flint’ was stored in Heliopolis containing a mysterious document that Pharaoh Khufu himself is reported to have ‘spent much time searching for’ – a document that recorded ‘the number of the secret chambers of the sanctuary of Thoth’ which Khufu wished ‘to copy for his temple’.[14]

What are we dealing with here?

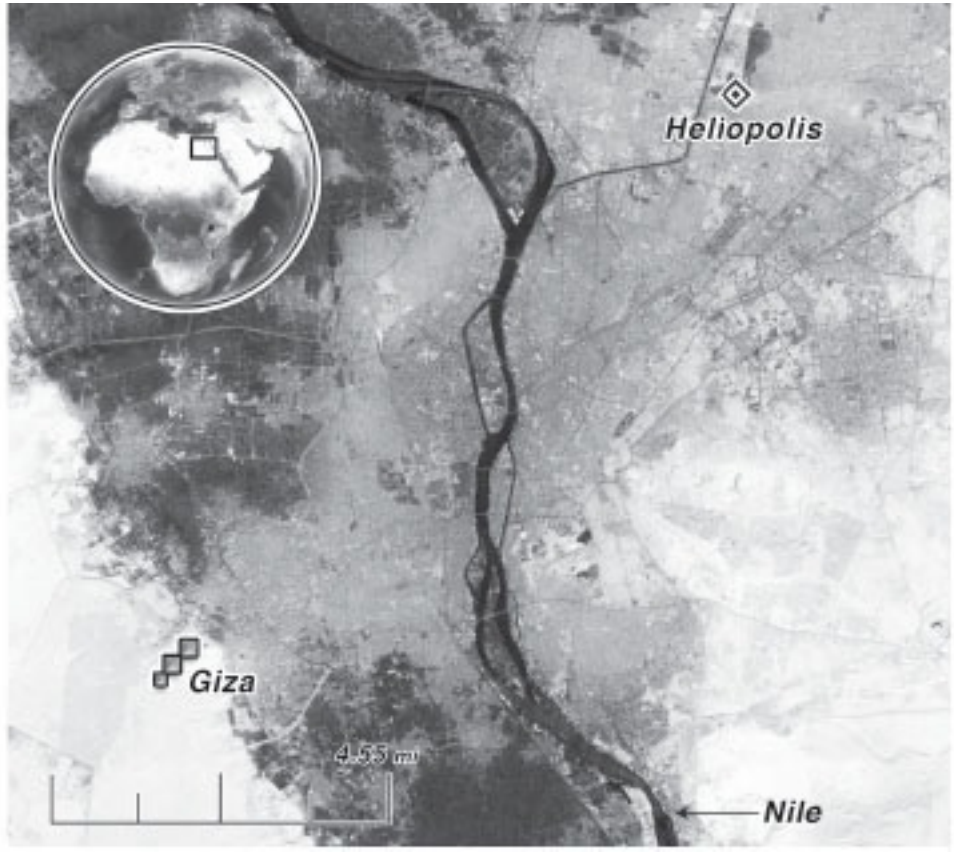

Figure 40: Heliopolis stands about eleven miles north-east of the pyramids of Giza. Other than an obelisk in what is now the Cairo suburb of El Matariya almost nothing remains today of the ancient 'City of the Sun'

I.E.S. Edwards points out that Heliopolis, the site of the 'Inventory Building', had been a centre of astronomical science closely connected to Giza since time immemorial, and that the title of the high priest of that city was 'Chief of the Astronomers'.[15] To this the Egyptologist F.W. Green adds that the 'Inventory Building' appears to have been a 'chart room' at Heliopolis 'or perhaps a "drawing room" where plans were made and stored.'[16] Similarly, Sir Alan H. Gardiner argues that 'the room in question must have been an archive' and that Khufu 'was seeking for details concerning the secret chambers of the primeval sanctuary of Thoth.'[17]

So once again we are confronted by a report that Khufu sought out and consulted ancient documents to guide his works at Giza – whether to restore the Sphinx to its original appearance, as we are told in the Inventory Stela, or to build his 'temple' in the correct way, incorporating an ancient design as the Westcar Papyrus suggests. Such traditions, in my view, further strengthen the notion

that whatever Khufu and the other pharaohs of the Fourth Dynasty were doing at Giza was more of the order of the fulfilment and completion of plans they had inherited from the time of the gods – antediluvian plans, in other words – than the implementation of some novel scheme of their own. They were, in short, playing their part in the resurrection of the former world of the gods. Moreover, the surface luminescence dating results reported in Chapter Ten, when taken together with the geological arguments about the age of the Sphinx and its temples, invite us to consider that this process had originated in the flood epoch of 10,500 BC, had then lain practically dormant for many millennia during which the ancient knowledge and archives were maintained by initiates in something like a monastery, and then got underway again perhaps as early as the fourth millennium BC with a gradual build-up to its completion and fulfilment in the epoch of 2500 BC.

The existence of such a college of initiates is signalled clearly in the Edfu texts which speak of the long-term mission of:

> the Builder Gods, who fashioned in the primeval time, the Lords of the Light … the Ghosts, the Ancestors … who raised the seed for gods and men … the Senior Ones who came into being at the beginning, who illumined this land when they came forth unitedly.[18]

The Edfu texts do not claim that these beings were immortal. After their deaths, we are told, the next generation 'came to their graves to perform the funerary rights on their behalf'[19] and then took their places. In this way, through an unbroken chain of initiation and transmission of knowledge, the 'Builder Gods', the 'Sages', the 'Ghosts', the 'Lords of the Light', the 'Shining Ones' described in the Edfu texts were able to renew themselves constantly, like the mythical phoenix – thus passing down to the future traditions and wisdoms stemming from a previous epoch of the earth.

Another name for these initiates, and an appropriate one given the importance of Horus at Edfu, was the *Shemsu Hor*, the 'Followers of Horus'.[20] Under this name they were particularly closely associated with Heliopolis/*Innu*, the sacred city where the records of the secret chambers of the sanctuary of Thoth were kept. The reader will recall that at Edfu it was the Seven Sages who specified the plans and designs that were to be used for all future temples throughout the length and breadth of Egypt, so it is interesting that at Dendera, a little to the north of Edfu, inscriptions tell us that the 'great plan' used by its architects was 'recorded in ancient writings handed down from the Followers of Horus'.[21] Identical in all respects to the 'Sages' and the 'Builder Gods' these Followers of Horus were said to have carried with them a 'knowledge of the divine origins' of Egypt[22] and of the divine purpose of this land, 'which once was holy and wherein, alone, in reward for her devotion, the gods deigned to sojourn upon earth'.[23]

Stones fallen from heaven

The nexus interlinking the Sages of the Edfu texts with Giza, Heliopolis, and the Followers of Horus offers a number of clues that will enable us to take this inquiry forward. Amongst these, of the first importance, is the fact that Heliopolis, an uninteresting suburb of Cairo today, was once the site of the Temple of the Phoenix – known in Ancient Egypt as the *Bennu* bird – that famous symbol of resurrection and rebirth.[24] In this temple, often referred to as the 'Mansion of the Phoenix', was kept a mysterious object, long since lost to history, a 'stone' called the *Benben* (a word closely linked etymologically to *Bennu*[25]) said to have fallen from heaven and depicted as the seed, the sperm, of Ra-Atum, the Father of the Gods. In the Ancient Egyptian language the determinative of the word Benben, as one expert explains:

> shows a tapering, somewhat conical shape for the Benben stone which became stylised for use in architecture as a small pyramid, the pyramidion; covered in gold foil it was held aloft by the long shaft of the obelisk and shone in the rays of the sun, whom the obelisks glorified.[26]

Likewise the capstone of every pyramid was also referred to as its Benben[27] – an example in excellent condition has survived from the pyramid of the Twelfth Dynasty Pharaoh Amenemhat III and can be seen in the Cairo Museum.

Numerous theories have been put forward as to where the concept of the Benben came from, but the most compelling, in my view, is the work of my friend and colleague Robert Bauval that first appeared in the scholarly journal *Discussions in Egyptology* in 1989 under the title 'Investigation on the Origins of the Benben Stone: Was it an Iron Meteorite?' Similar to many other cases of the worship of meteorites by ancient peoples, Robert argued:

> it is likely that the Benben stone once worshipped in the Mansion of the Phoenix was a meteorite. Its conical shape … is very suggestive of an oriented iron

> meteorite, possibly a mass within the 1-15 ton range. Such objects fallen from heaven were generally representative of 'fallen stars' and likely provided the Egyptian clergy with a tangible star object, a 'seed' of Ra-Atum.[28]

A linked possibility was considered by the Egyptologist R.T. Rundle Clark in 1949 in a paper entitled 'The Origin of the Phoenix' for the *University of Birmingham Historical Journal*. He drew attention to the earliest surviving mention of the Bennu bird, which is found in the *Pyramid Texts* (Old Kingdom, Fifth and Sixth Dynasties) and reads as follows:

> Thou [the god Ra-Atum is addressed] did shine upon the *Benben* Stone in the House of the *Bennu* bird in Heliopolis.[29]

But curiously, the Benben stone, always shown in later texts as a geometrical pyramidion,[30] is depicted in the Pyramid Texts as a rough stone with slightly curved sides. 'This is an important fact,' observed Rundle Clark, 'since it shows that the pyramids were not exact copies of the original benben stone in Heliopolis … One can

assume that the Benben stone became a pyramidion during the Old Empire, but whether influenced by the actual developed contour of the Fourth Dynasty pyramids cannot be determined.[31]

He went on to note something else that caught my attention:

> The form of the Benben stone in [the Pyramid Texts] is that of an omphalos or *betyl*, the umbilical stone which is so widespread in the early religion of Asia … It is a lesson of this text … that the Benben stone is a *betyl*-like object and that it is modified into a pyramidion by the Fourth Dynasty.[32]

What Rundle Clark did not appear to realise in his 1949 paper, and that strongly reinforces Robert Bauval's later argument, is that *betyls*, wherever they were worshipped, were nothing more nor less than *meteorites* – although often they were stony rather than iron meteorites. I had occasion to investigate this issue in some depth in the 1980s when I was researching my book *The Sign and The Seal* with specific reference to the two tablets of the Ten Commandments said to be contained within the Ark of the Covenant.[33]

Biblical scholar Menahem Haran, author of the authoritative *Temples and Temple Service in Ancient Israel*, argues persuasively that 'the Ark held not two tables of the law but … a meteorite from Mount Sinai.'[34] As such the ancient worship of the Ark and its contents fits in with a wider tradition, distributed across the whole of the Near and Middle East, of veneration of 'stones that fell from heaven'.[35]

An example that has survived into the modern world is the special reverence accorded by Muslims to the sacred Black Stone built into a corner of the wall of the *Ka'aba* in Mecca. Touched by every pilgrim making the *Haj* to the holy site, this stone was declared by the Prophet Muhammad to have fallen from heaven to earth where it was first given to Adam to absorb his sins after his expulsion from the Garden of Eden; later it was presented by the angel Gabriel to Abraham, the Hebrew Patriarch; finally it became

the cornerstone of the *Ka'aba* – the 'beating heart' of the Islamic world.[36]

Geologists attribute a meteoric origin to the Black Stone.[37] Likewise the *betyls* – sacred stones – that some pre-Islamic Arab tribes carried on their desert wanderings were meteorites, and a direct line of cultural transmission is recognised linking these *betyls* (which were often placed in portable shrines) with the Black Stone of the *Ka'aba* and with the stone 'tablets of the law' contained within the Ark. In Europe *betyls* were also known and were called *lapis betilis*, a name:

> stemming from Semitic origins and taken over at a late date by the Greeks and Romans for sacred stones that were assumed to possess a divine life, stones with a soul [that were used] for divers superstitions, for magic and for fortune-telling. They were meteoric stones fallen from the sky.[38]

With all this in mind, the special interest of Khufu in the 'thunderbolt' mentioned in the Inventory Stela takes on a new

significance. As the reader will recall, the inscription speaks of the 'Lord of Heaven' – an epithet for Ra-Atum – 'descending' on the Sphinx and inflicting the damage that Khufu would later repair according to the ancient 'plans' to which he had access. For such a thunderbolt to be merely a lightning strike, as Selim Hassan suggests, makes no sense since the Inventory Stela tells us very clearly that Khufu visited the site 'in order to *see* the thunderbolt'.

In short, an object that had fallen from the sky, and that could reasonably be described as the result of the Lord of Heaven 'descending' on the Sphinx, must still have been physically present there. A meteorite satisfies this context but it could not, of course have been *the* Benben kept at Heliopolis – for the Mansion of the Phoenix and the Benben already existed in Khufu's time.[39] The Pharaoh's eagerness to 'see the thunderbolt' does, however, testify to the special reverence that was accorded to this class of objects,

and it is natural to wonder what specific event that reverence goes back to – and how far it goes back.

Could it, for example, go back all the way to the time memorialised in the Edfu texts – the time when the island of the gods was destroyed in the cataclysmic flood caused by the assault of the 'enemy serpent', so evocatively described as the 'Great Leaping One'?

Before attempting to answer that question, let's consider the Benben stone, and the Bennu bird with which it is associated, a little more closely.

The flight of the Phoenix

R.T. Rundle Clark, who made an in-depth study of the Bennu–Phoenix, reports that the Ancient Egyptians believed in a 'vital essence' – *Hike* – that had been brought to their land:

> from a distant, magical source. The latter was 'the Isle of Fire' – the place of everlasting light beyond the limits of the world, where the gods were born or revived and whence they were sent into the world. The Phoenix is the chief messenger from this inaccessible land of divinity. A Coffin Text makes the victorious soul say: 'I came from the Isle of Fire, having filled my body with *Hike*, like that bird who [came and] filled the world with that which it had not known'.[40]

So the Phoenix came from far away, Rundle Clark concludes, 'bringing the message of light and life to a world wrapped in the helplessness of primeval night. Its flight is the width of the world, "over oceans, seas and rivers", to land at last in Heliopolis, the symbolic centre of the earth where it will announce a new age.'[41]

There is much in this summary that is evocative of the Edfu texts – the far-off island from which the gods are sent out, the return of the light after an episode of primeval darkness, and an arrival at Heliopolis where a new age is set in motion. Indeed the Phoenix might almost be said to symbolise the mission of those 'gods' who

fled their drowned homeland with a long-term plan to bring about the rebirth and renewal of the former world.

But the symbolic crossovers go deeper than this and become more complex. The Phoenix, remember, is closely associated not just with light but also with fire. Thus Lactantius writing in the fourth century AD tells us that the Phoenix:

> bathes in holy waters and feeds on living spray. After a thousand years … it builds a nest as a sepulchre, supplied with various rich juices and odours. As it sits on the nest its body grows hot enough to produce flames which in turn burn the body to ashes destined to produce a milky white worm; the latter falls asleep and then forms into an egg, eventually to sprout forth as a bird from the broken shell. After taking nourishment it rolls the ashes into a ball enclosed in myrrh and frankincense, which the new-born bird transports to an altar in the city of Heliopolis.[42]

This theme of fire and of regeneration and new life emerging from a fiery death, also crops up in ancient Iran where Yima built his Vara,

and where the Phoenix was called the *Simorgh*. As folklorist E.V.A. Kenealy explains, the accounts of the *Simorgh* decisively establish:

> that the death and revival of the Phoenix exhibit the successive destruction and reproduction of the world, which many believed to be effected by the agency of a fiery deluge.[43]

Different lengthy periods – 1000 years, 500 years, 540 years, 7006 years – are given for the life of the Phoenix before it dies in fire and then renews itself.[44] There is, however, a strong and very specific tradition, relayed, for example, by Solinus in the early third century AD, which sets the period of the Phoenix at what seems to be a completely arbitrary and bizarre number – 12,954 years.[45] But further investigation reveals that 'the period of the Phoenix's return was thought to correspond to the Great Year'[46] and the 'Great Year', we already know, is an ancient concept linked to the Precession of the Equinoxes with its twelve 'Great Months' (one for

the sun's passage through each house of the zodiac) of 2,160 years each – thus 12 × 2,160 = 25,920 years. That figure of 25,920 years is in turn, of course, very close to twice 12,954 years (2 × 12,954 = 25,908 years) – too close to be a coincidence, in my opinion, especially when we remember that Cicero in his *Hortensius* specifically linked the Great Year to the number 12,954.[47]

The figure of 540 years given in other sources for the period of the Phoenix also turns out to be derived from the Great Year as Giorgo de Santillana and Hertha von Dechend demonstrated in *Hamlet's Mill*, their masterly study of precessional knowledge transmitted through myth. As we saw in Chapter Ten, the heartbeat of the precessional cycle is the number 72 – the number of years required for one degree of precession. We then add 36 (half of 72) to the number 72 to get 108; next we half 108 to get 54 and, finally, multiply 54 by 10 to get 540. I went into all this in great detail in *Fingerprints of the Gods* twenty years ago and refer the reader to

that book for a full exposition of these precessional numbers,[48] which are found in ancient myths and traditions from all around the world and which Santillana and von Dechend long ago demonstrated are proof of advanced astronomical knowledge in the deepest antiquity – knowledge that they attributed to some as yet unidentified and 'almost unbelievable' ancestor civilization.[49]

What is particularly intriguing is how often ancient authorities connect the passage of the Great Year, which we now see to be linked to the period of the Phoenix, to a 'world conflagration' and a 'world flood' – not necessarily as the cause of those cataclysms, but as a timer that records and predicts them. [50] Confronted by such material, despite all the oddities and contradictions it has been weighed down with during the passage of several millennia, I am forcibly reminded of the Younger Dryas comet and the conflagration and global flood that it brought in its wake – the latter caused by the catastrophic collapse of large segments of the North

American and northern European ice caps as they were hit by multiple large fragments, the former caused by superheated ejecta setting off forest fires across the minimum 50 million square kilometres of the earth's surface that were directly affected.

What goes around comes around

Suppose you wished to pass a message to the future, and not just the near future but the very distant future? You would be unwise to entrust it to writing, because you could not be certain that any civilization 12,000 years from now would be able to decipher your script. Besides, even if the script could be deciphered, the written document on which you had placed your message might not survive the ravages of time. If you were really determined to be understood by some distant future generation, you might therefore do better to devise your message using gigantic architectural monuments that 'time itself would fear' – monuments like the pyramids and the

Great Sphinx of Giza – and to associate those monuments with a universal language such as the slow precessional changes in the sky that any astronomically literate culture would be able to read.

Ideally, also, your message should be a simple one.

We saw in Chapter Ten how the Giza-Heliopolis-Memphis area perfectly fits the bill as one of the new sacred domains that the Edfu texts tell us were established at various locations by the wandering 'companies' of gods seeking to bring about the resurrection of the former world destroyed in the flood. It is, moreover, a domain that fully justifies the description of 'a book descended from the sky'. And when we 'read' that book, written in the 'script' of precession with the 'pen' of megalithic architecture, it compels us to look at the *epoch* of 10,500 BC – not an exact date, because the precessional 'clock' gives indications that are too general to allow us to specify 'seconds' or even 'minutes', but quite definitely to the epoch of 10,500 BC, i.e. about 12,500 years ago. The same general

astronomical configurations that are symbolised on the ground by the great monuments of Giza would have held true for the best part of 500 years before 10,500 BC and for about 1000 years afterwards.

In other words, as we have seen, the ‘message’ of the monuments exactly encapsulates the cataclysmic episode of the Younger Dryas which began suddenly and shockingly with the impacts of multiple fragments of a giant comet around 10,800 BC, i.e. around 12,800 years ago, and which ended equally suddenly – we do not yet know why – around 9600 BC, i.e. around 11,600 years ago. The most likely explanation is that the earth interacted again in 9600 BC with the debris stream of the same fragmenting comet that had caused the Younger Dryas to start in 10,800 BC. On the second occasion, however, the effects of the impacts were global warming rather than global cooling.

With comets, as with the mythical Phoenix, what goes around comes around.

Since they are in orbit, they return to our skies at cyclic intervals – some as short at 3.3 years (like Comet Encke for example), some longer than 4,000 years (such as Comet Hale-Bopp), some even running into tens of thousands of years.

Like the mythical Phoenix, also, comets do literally undergo a process of 'renewal' – indeed 'rebirth' – on each appearance in our skies. This is because comet nuclei are usually inert and utterly dark while travelling through deep space, producing no characteristic glowing 'coma' and sparkling 'tail'. However, as a comet approaches the sun (and thus also the earth) the solar rays cause volatile materials buried in its interior to burst into boiling, seething activity, producing jets of gas – scientists call the process 'outgassing' – and shedding millions of tons of exceptionally fine dust and debris to form the coma and tail.

Last but not least, outgassing comets, like the Phoenix, do have the appearance of being consumed in flames. Moreover, the collision of large cometary fragments with the earth itself, as the

scientists studying the Younger Dryas impact event of 12,800 years ago have so graphically indicated, can be expected to result in conflagrations on a continent-wide scale followed, if impacts occur on ice sheets, by global flooding.

It is possible, indeed highly probable, that we are not yet done with the comet that changed the face of the earth between 10,800 BC and 9600 BC. To be quite clear, as we will see in Chapter Nineteen, some suspect that 'the return of the Phoenix' will take place in our own time – indeed by or before the year 2040 – and there is a danger that one of the objects in its debris stream may be as much as 30 kilometres in diameter. A collision with such a large cometary fragment would, at the very least, mean the end of civilization as we know it, and perhaps even the end of all human life on this planet. Its consequences would be orders of magnitude more devastating than the Younger Dryas impacts 12,800 years ago that left us as a

species with amnesia, obliged to begin again like children with no memory of what went before.

Or rather with *almost* no memory.

Because in our beginning again it seems we had the guidance, the leadership, the teachings, and the high wisdom of ‘the Sages’, ‘the Shining Ones’ – those ‘Magicians of the Gods’ – who had survived from antediluvian times and whose mission was to ensure that all was not after all lost. It doesn’t make sense that they would have gone to such great lengths to spell out the epoch of 10,500 BC at Giza just to say they were there. I suggest the science of their civilization was high enough for them to have understood exactly what had happened to the world and to predict when it would happen again.

I think, in short, that their purpose may have been to send us a message.

We will look more deeply into that message, and its implications, in later chapters, but first there is another trail of clues to follow, a trail that may lead us closer to the ‘Magicians’ and their ‘magic’.

Part V

Stones

Chapter 12

Baalbek

We land at Beirut's International Airport in the late evening of 9 July 2014. The airport is named after former Prime Minister Rafic Hariri, who was assassinated on 14 February 2005 when his motorcade drove past a Mitsubishi van parked outside the Saint George Hotel on the city's fashionable Mediterranean seafront – known as the Corniche. The van contained a young male suicide bomber (or so the very fragmentary DNA evidence suggests) and an estimated 1,800 kilos (about 4,000 pounds) of TNT. Twenty-three people, amongst them Hariri, several of his bodyguards, and his

close friend and former Minister of the Economy Bassel Fleihan, were killed. Those suspected of organizing the massacre include senior members of Hezbollah, the Shia militant and political group that controls the town of Baalbek in the Bekaa Valley, where there are certain intriguing ancient ruins that I'm determined to see on this research visit to Lebanon. Hezbollah itself blames Israel. In addition, some suspect that President Bashar al-Assad of Syria was directly involved.[1]

The Syrian border runs along the eastern edge of the Bekaa Valley and very close to Baalbek itself, which was hit by missiles in June 2013 and where there are repeated violent incidents.[2] With the horrendous Syrian civil war still in full swing, and huge numbers of refugees adding to the general state of chaos and instability, we've been advised to stay away. But I've wanted to see Baalbek for years and I feel all the more strongly drawn to the ruins there after what I've learnt researching Ancient Egypt.

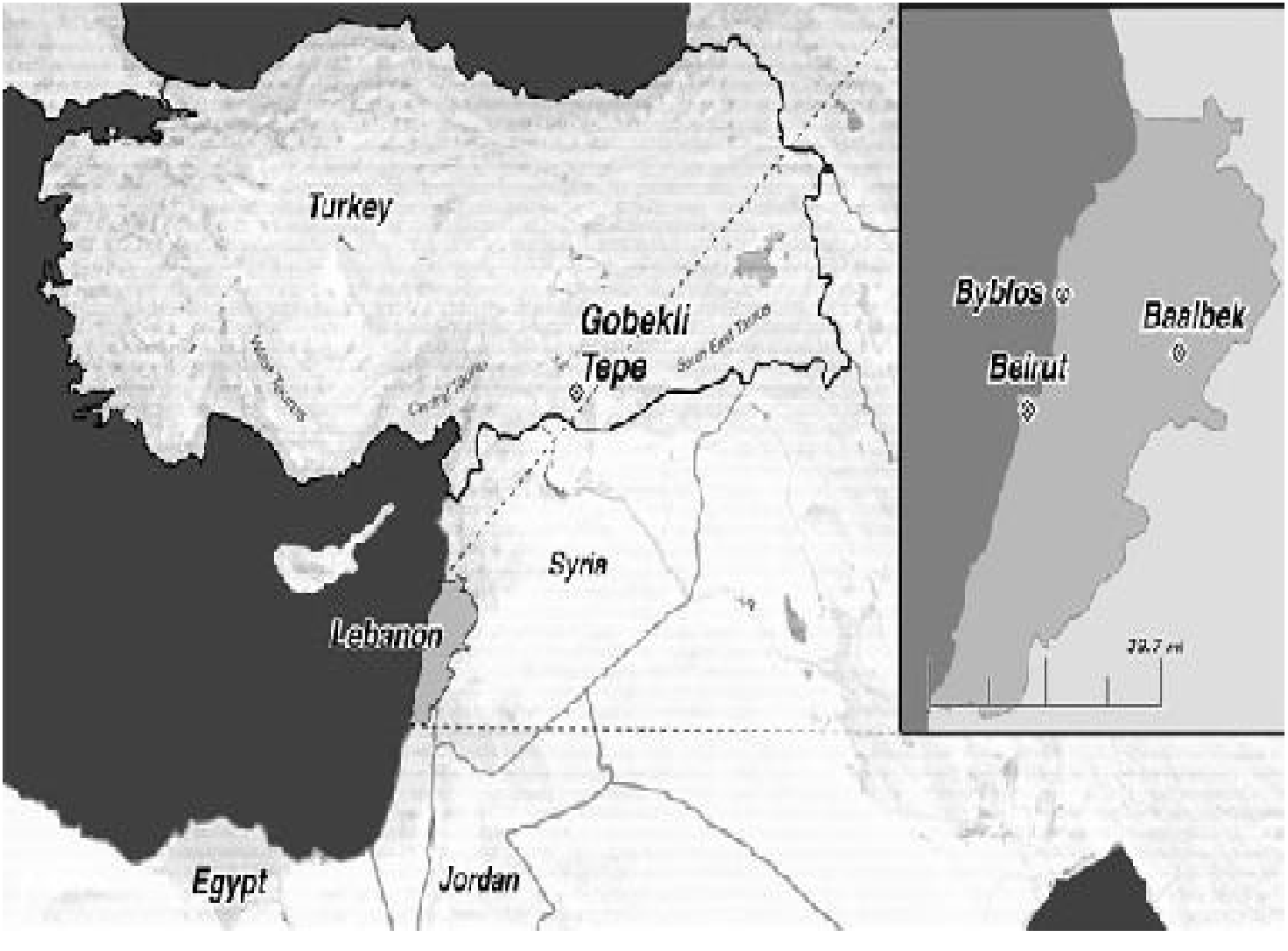
Turkey
Gobekli
Tepe
Syria
Lebanon
Egypt
Jordan
Byblos
Baalbek
Beirut

Figure 41: Lebanon in its regional context.

There are, you see, a number of puzzling connections and I have these very much in mind, having been re-reading my notes on the flight, as Santha and I step down out of the plane onto the tarmac and make our way into the terminal building. The night air is warm but a refreshing breeze blows in off the Mediterranean, and I find myself looking forward to whatever adventures lie ahead.

Our first encounter is with bureaucracy in the form of an immigration officer wearing a grey uniform over an open-necked shirt. He is young but he has a sallow, unhealthy complexion and an unshaved, suspicious look about him. Indeed, he is *extremely* suspicious, as he makes clear each time he glances up from my passport to glare at me before returning to his forensic examination of the pages. My passport contains 41 pages with space for visas and I travel frequently, so there are stamps from all over the world – Malaysia, Indonesia, Australia, South Africa, India, the United

States, Brazil, Bolivia, Peru, Egypt, the United Arab Emirates, Canada, Turkey … The young officer studies each stamp minutely, slowly leafing through the pages from front to back, glaring at me, returning to the investigation, glaring at me again. Then when he has reached the very last page, he repeats the procedure, this time leafing through from back to front.

I know what he's looking for – a visa stamp for Israel, the presence of which will allow him to deny me entry. He won't find one. Although my research has taken me to Israel several times, I'm always careful to get the entrance and exit stamps on a loose sheet of paper placed inside my passport, rather than on the passport itself. Besides, my last visit was in 1999 and I've changed my passport twice since then, so there's nothing to be in the least bit concerned about. Even so, I have to admit I feel uncomfortable at this intense, sustained scrutiny.

After going through the passport a third time, the officer gives me another hostile glare and asks: 'Why you come to our country?'

‘Tourist,’ I reply. I know from long experience that saying anything about researching a book can lead to all manner of additional problems and suspicions that are best avoided.

He raises a sceptical eyebrow. ‘Tourist?’

‘Yes. Tourist.’

‘And you see what, in our country?’

I’m ready for the question. ‘Beirut. The beautiful Corniche. I’ve heard there are some great restaurants. Then we’re going to Byblos and of course to Baalbek.’

The eyebrow shoots up again. ‘Baalbek?’

‘Yes, of course! Wouldn’t miss it for anything.’ This at least is true. ‘The temples. The big stones. I’ve heard it’s one of the wonders of the world.’

Suddenly a smile. ‘Wonderful, yes! I am from Baalbek. My home town.’ He stamps my passport with a flourish and scrawls something in handwriting over the visa. ‘Welcome to Lebanon,’ he says.

Now it's Santha's turn, but with the ice broken, the officer only flips through the pages of her passport once before stamping it and directing us onwards into the baggage hall.

Well of Souls

On the drive in from the airport to our hotel we pass the place where Rafic Hariri was assassinated. The damage was long ago cleared away, of course, everything seems very chic and despite the late hour there are still a great many people, mostly young, mostly fashionably dressed, promenading along the Corniche overlooking the glittering waters of the Mediterranean, in which the street lights and the stars are pleasingly reflected. Amidst such a scene, it's hard to imagine the violence this city has witnessed during the past forty years and my thoughts turn again to the reasons we've come here.

While I've been researching Egypt, and the hints of an ancient civilizing mission after a global cataclysm described in the Edfu

texts, I've found something odd that seems to suggest a possible link between the megalithic monuments of the Giza plateau and Lebanon.

A few thousand years ago Lebanon formed the northern sector of the land the Bible refers to as Canaan, which also included the region covered, roughly, by modern Israel, the Palestinian Territories, western Jordan and southwestern Syria. What interests me is that both in Israel and in Lebanon there are mysterious megalithic structures on a scale that not only rival those of Giza, but seem to express the same underlying purpose to create something that would last – sacred mounds, holy places, that would withstand the test of time and that would continue to be venerated down the ages, even if the religions and cultures associated with them changed.

The Temple Mount in Jerusalem is one such place. Both orthodox archaeology and Biblical testimony put the construction of the first great edifices there back to the almost mythical time of King

Solomon – that renowned magician amongst monarchs, who supposedly ruled in the tenth century BC. The structure known as Solomon's Temple, the 'First Temple' of the Jews, was destroyed by the Babylonians in 587 BC and rebuilt by Zerubbabel in the 520s BC.[3] A further ambitious restoration was undertaken by the Romanised Jewish monarch Herod the Great in the first century BC and completed around 20 BC.[4] Some ninety years after his death, Herod's Temple in its turn was destroyed by the Romans, along with much of the city of Jerusalem, in 70 AD.[5]

What survived was the immense trapezoidal platform, known today as the *Haram esh-Sharif*, where stand the Al Aqsa Mosque and the Dome of the Rock, the third and fourth most sacred places in Islam.[6] We need not concern ourselves here with the recent history of this place, or how it came to be in Muslim hands, but the Dome of the Rock is so called because within it lies an enormous megalith, known to the Jews as the *Shetiyah* (literally the

‘Foundation’). When the Temple of Solomon was erected over this exact spot in the tenth century BC, the *Shetiyah* formed the floor of the Holy of Holies and the Ark of the Covenant, that enigmatic object which I have investigated extensively in another book, stood upon it.[7]

The *Shetiyah* is not the only megalith in Jerusalem that dates back, potentially, to what the Edfu texts would call ‘the time of the gods’. Of course this huge natural rock has been in this place, at the summit of a primeval mound, rather similar to the natural hill now enclosed within the Great Pyramid of Giza, for an incalculable period. But at some point, perhaps at the date in the tenth century BC that archaeologists accept for Solomon’s Temple, perhaps later, perhaps much earlier, it was modified by human beings and there is now a hole cut through it which sheds a beam of light into the natural cave, also modified by human hands and evocatively known as the ‘Well of Souls’, that lies directly beneath it.

I've been in the Well of Souls several times. If it doesn't have the raw atmospheric power of the Subterranean Chamber beneath the Great Pyramid, it is only because local bad taste has allowed the Well to be tiled, carpeted, furnished and lit as a prayer room. But the way the great rock that covers it has been cut and shaped is highly reminiscent of patterns that are found on rock-hewn surfaces at Giza. My guess, in short, as at Giza with its underground chamber beneath a natural hill, is that the rock and the Well formed the original sacred shrine around which everything else on Jerusalem's Temple Mount was built.

What came next was a platform, solidly founded, of gigantic stones, to create the level, elevated surface upon which all later temples (and mosques) would be built. It is not my intention to explore the mysteries of Jerusalem here, but before moving on to Baalbek, the main focus of the present chapter, I will simply register surprise that the huge megalithic blocks which have been discovered in the so-called Hasmonean Tunnel lying to the north of,

and directly extending, the famous Wailing Wall – blocks weighing in some cases more than 500 tons[8] – have been so readily assumed to be Herod's work.

In the same way, the very similar gigantic megalithic blocks of Baalbek are assumed to be of relatively recent date – spanning the late first century BC to the second half of the first century AD – and to be the work of the Romans, with perhaps some early contribution by Herod himself.[9] But just as the history of the Giza plateau has been forced between narrow and restricting bounds so, too, with Baalbek. Parts of it may be much older than presently believed.

What led me to consider this possibility at all – indeed the entire reason I'm in Beirut in July 2014 and about to take a run over to the Bekaa Valley, Hezbollah and the Syrian border – is the weird connection that I've found linking Giza with ancient Canaan, and with the ancient Semitic people known in the Bible as the Canaanites.

The magician among the gods

Selim Hassan (1887-1961) was what a real Egyptologist should be – passionate, erudite, deeply versed in his subject and open-minded. He was also a hands-on excavator and, in the 1930s, carried out the most thorough and detailed investigation of just about every major structure on the Giza Plateau. In the process, while excavating the Sphinx enclosure, he came across evidence of a Canaanite presence at Giza – indeed a long-term Canaanite settlement – which, for some reason, had been particularly focused on the Sphinx and its megalithic temples. 'How these people came to settle in Egypt, and why and when they left, we have not, as yet, any written inscription to tell us,' Hassan admits.[10] That they were there from at least the Eighteenth Dynasty (1543 BC– 1292 BC) is well attested, but the possibility cannot be ruled out that their stay in Egypt dates back long before that time.

At any rate, numerous votive stele and other marks of respect to the Great Sphinx of Giza, inscribed and offered by members of this Canaanite community, have been found. We have seen already that the Sphinx was identified with the Egyptian god Horus, who could appear in many forms but most often as a falcon. Of interest, then, is the fact that the Sphinx in the Canaanite inscriptions is called *Hurna*, and sometimes *Hauron*. These are not Egyptian words at all, but instead are the names of a Canaanite falcon deity.[11] The reader will also recall from Chapter Ten that the Ancient Egyptians often called the Sphinx *Hor-em-Akhet* ('Horus in the Horizon'). It turns out that this name is directly linked with *Hurna* in a number of inscriptions, not only left by members of the Canaanite community that had settled near Giza, but also by the Ancient Egyptians themselves – for example, a plaque of Amenhotep II where the Pharaoh is referred to as 'beloved of *Hurna-Hor-em-Akhet*.'[12]

Selim Hassan comments on 'the assimilation of the names *Hurna* and *Hor-em-Akhet*' on Amenhotep's plaque, which succinctly confirms the use of 'the name of the god *Hurna* in Egypt and its association with *Hor-em-Akhet* and application to the Sphinx.'[13] Likewise a stela found at Giza reads: 'Adoration to *Hor-em-Akhet* in his name of *Hurna* … Thou art the only one who will exist till eternity, while all people die'.[14] And a second Giza stela represents *Hurna* in the form of a falcon beside an inscription which reads: 'O *Hurna-Hor-em-Akhet*, may he give favour and love …'[15] Christiane Zivie-Coche, Director of Religious Studies at the *Ecole pratique des hautes études* inParis, adds that the variant *Hauron* was also frequently used in the same way:

> *Hauron* was so closely associated with *Hor-em-Akhet*, name of the Great Sphinx of Giza … that one addressed him indifferently as *Hor-em-Akhet*, *Hauron*, or *Hauron-Hor-em-Akhet*.[16]

What really caught my attention, however, and put me on the plane to Beirut, was a further observation from Zivie-Coche. ‘An epithet on a Sphinx statuette,’ she reported:

> indicates that *Hauron* is originally from Lebanon.[17]

Intriguing, too, in light of the civilizing work of ‘Sages’ and ‘Magicians’, of which there are so many traces in the Edfu texts and in the Mesopotamian inscriptions, is a baked clay tablet from the ancient city of Ugarit on the Mediterranean coast of what is now Syria, a little to the north of Byblos in Lebanon. *Hauron* is the subject of the tablet and, exactly like the Apkallu Sages of Mesopotamia, he is portrayed as a ‘conjurer’[18] – indeed, notes Egyptologist Jacobus van Dijk, as:

> the magician among the gods …[19]

With further echoes of the Apkallu, *Hauron's* 'magic' consists of what sounds to the modern ear like advanced scientific knowledge, in this case providing anti-venom, extracted 'from among the shrubs of the tree of death'[20] that cured the victim of a deadly snakebite. The poison was neutralised, we read, so that it 'became weak' and 'flowed away like a stream'.[21]

And there is something else – something that points directly towards Baalbek with its mysterious megaliths – for not only was *Hauron/Hurna* worshipped at Giza and assimilated to the Sphinx and to the falcon Horus, but Baal, the Canaanite deity after whom Baalbek is named,[22] also had a cult in Egypt where he was associated with Set, the god of deserts and storms.[23]

Last but not least, there is the fact that Baalbek was renamed 'Heliopolis' – Greek for 'City of the Sun' – after Alexander the Great conquered the Levant and Syria in 332 BC.[24] The reader will recall from Chapter Eleven that *Innu*, the sacred city of the Ancient

Egyptians, where stood the Temple of the Phoenix attended by the priesthood of Giza, was also called 'Heliopolis' by the Greeks. They referred to it as such from at least the time of Herodotus in the fifth century BC,[25] and the Romans followed suit. Likewise Baalbek continued to be called 'Heliopolis' throughout Roman times.

Marching in Alexander's footsteps, Pompey annexed the Levant and Syria in 64 BC and Roman power here reached its height in the first and second centuries AD, when a statue of 'Jupiter the Most High and the Most Great of Heliopolis' stood in the courtyard of the great temple that the Romans built at Baalbek in honour of this god.[26] As well as its usual Roman attributes, the statue, which may be seen today in the Louvre Museum in Paris, displays a winged sun-disc on its chest – a possible reference, argues Friedrich Ragette, formerly Professor of Architecture at the American University of Beirut, 'to the god of Egyptian Heliopolis'.[27]

It was not until the Arab conquests in the seventh century AD that the original Canaanite name 'Baalbek' began to reappear in Levantine annals, and it was only then that the city's Graeco-Roman designation as 'Heliopolis' fell entirely out of use. [28]

Between Lebanon and Anti-Lebanon ranges

The morning after our late-night arrival in Beirut, Lebanese friends kindly join us at our hotel to drive us to Baalbek. Over coffee before we go, they tell us of our good fortune: there is a lull in the fighting in Syria, all is calm along the border, and they expect no trouble.

Seen in daylight the Lebanese capital is almost as charming and beautiful as it was at midnight. One hundred and twenty thousand people were killed in this country during the terrible and protracted civil war between 1975 and 1990, but the city which was the focus of so much of the fighting seems to have put that ghastly episode behind it. Most of the bullet holes, shrapnel and blast wounds in the

buildings have been repaired, there's a lot of new construction going on and the atmosphere is one of optimism and vigorous enterprise. Yes, there is sadness in the air – it's unavoidable after so much murder and mayhem – but the sense I get is of a nation recovering from its trauma, not wallowing in it, filled with bright, intelligent young people who are determined to move ahead.

Figure 42

The traffic is heavy as we wind our way up the steep foothills of the Lebanon Mountains to the east of the capital. It's only 86

kilometres (about 53 miles) to Baalbek but there are frequent military checkpoints, where we're filtered through chicanes and inspected by attentive, heavily-armed soldiers. Inevitably this slows us down. The views, however, get more and more spectacular with the Mediterranean gleaming behind us and the great, green, tree-strewn ridges of the Lebanon range rising ahead of us. The road wraps itself around multiple tight hairpin bends above vertiginous drops, the air becomes notably cooler and the landscape more barren. Then we're over the top through the Dahar el Baydar pass at an altitude of 1,556 metres (5,100 feet) and motoring down the other side with the broad, intensively cultivated sweep of the Bekaa Valley opening out below us. We pass the edge of the urban sprawl of Zahle, famous for its Ksara Winery, and pretty soon we're running through the Bekaa proper – although it is really a plateau rather than a valley since its average elevation is more than 1,000 metres (3,280 feet) above sea level.

Bounded on the west by the Lebanon Mountains over which we've just driven, and on the east by the Anti-Lebanon range, the Bekaa is watered by two historic rivers – the Litani and the Orontes. When the Romans colonised the region two thousand years ago, this fertile plateau was one of their breadbaskets, exporting grain to feed the empire. Today a more lucrative crop, though largely hidden from view, is cannabis. In the interests of keeping local farmers happy, the authorities generally turn a blind eye.

After another thirty or forty minutes of mainly level driving on a long, straight stretch of road with cultivated fields on either side, we enter the outskirts of Baalbek at the edge of the Anti-Lebanon foothills. It's a shabby town of shops, offices and dilapidated low-rise apartment blocks, many festooned with the Hezbollah flag featuring an upraised arm at the end of which is a hand clenched into a fist around an AK-47 assault rifle. Hand, arm and Kalashnikov emerge from a line of calligraphy spelling out Hezbollah's name – 'Party of God'. Other lettering states 'Then

surely the party of Allah are they that shall be triumphant' and, separately, 'the Islamic resistance in Lebanon'. The background colour of the flags is a strident yellow, while the logo and calligraphy are picked out in green.

Fashions and preferences in gods come and go, but the sacred landscape endures. On an eminence above the town we can clearly see the spectacular remains, the soaring columns, and the lofty pediments of the group of three Roman temples that bestowed such renown upon Baalbek in the ancient world. Dedicated, supposedly, to Jupiter, Bacchus and Venus, they were built on a scale larger and more imposing than almost any other Roman structures, including those in Rome itself. What really interests me, however, is the megalithic wall that surrounds the Temple of Jupiter on three sides, and in particular the three gigantic blocks, known as the Trilithon, that are embedded in it. Much that I've learned about the Trilithon in my prior research has led me to suspect that it may be older – far

older – and dedicated to a far more enigmatic purpose than anything the Romans built here.

Now's my chance to find out.

Centuries of darkness

The mid-morning sun is beating down out of an absolutely cloudless clear blue sky and I'm sitting on a big limestone block roughly in the middle of what was once the Temple of Jupiter. I say 'once' because there's very little of this towering edifice left standing now, other than the six immense columns that rear skywards about the width of a football field behind me – the last six out of the total of fifty-four that originally demarcated the exterior of the vast rectangular structure. This site is so enormous, the complex of temples so colossal and at the same time so ruined that I'm finding it difficult to get my bearings. Also, I have to confess, the long echoing booms of distant artillery, punctuated by the rapid,

stuttering coughs of heavy machine guns, and an occasional very loud explosion, are a little disconcerting.

OK, I think, deliberately shutting my ears to the sounds that are, almost certainly, only the Lebanese military doing some practice firing, let's figure out what we've got here. I glance over my shoulder and when I do I'm looking roughly south-east, through the six big columns which stand on the edge of the massive platform I'm in the midst of, across a sunken plaza, to the row of a dozen columns that line the northern perimeter of the smaller, but more intact and still very beautiful Temple of Bacchus, the Roman god of wine.

I'm not here to research or write about Roman architecture but still I'm impressed. Not only did the Romans have the sense of fun to dedicate a temple to wine and all its pleasures – reportedly joyous acts of sexual licence regularly took place within – but also, let's not beat around the bush here, these people really knew how to *build*! The columns themselves are extraordinary feats of megalithic

architecture, and the Romans seem to have had no difficulty in hauling the ponderous blocks of the pediment, each weighing tens of tons – and in some cases hundreds of tons – up to the top of them.

So let's be clear about this, right from the start, because there is so much ignorant baloney talked on the subject: the Romans were *incredibly* accomplished builders and they were absolutely capable of moving and placing monstrously huge and heavy blocks of stone. If there's an argument to be made for a lost civilization at Baalbek then it can't be based on the block weights, or on naïve, ill-informed notions about what the Romans could or couldn't do, because in the realm of building, the evidence all around me confirms they could do pretty much anything they chose to.

One of the things they frequently did was build their temples on pre-existing sacred sites. Their objective was not to obliterate the indigenous gods and religions (as the Spanish sought to do in Mexico, for example, when they installed churches on the site of

Aztec temples), but rather to associate the gods and religion of Rome in a positive way with what had gone before. The pre-Roman cults usually continued to flourish and the pre-Roman deities were honoured and absorbed in a rich, creative and endlessly proliferating syncretism. But for those doing archaeological forensic work to try to establish exactly who was responsible for what, and when, this practice of overbuilding inevitably presents some challenges – particularly so, as is the case at Baalbek, when other later cultures, and the ravages of time, have also continuously modified the site.

Towards the end of the Roman era bad things began to happen here. The turning point was Rome's conversion, under the Emperor Constantine (AD 306-37), to the new fanatical, exclusivist religion of Christianity. The militants of that faith focused their beady eyes first on the Temple of Venus, described by the Christian chronicler Eusebius as 'a school to learn sensual practices', where initiates indulged 'in all kinds of debauchery'.[29] Constantine gave orders

that the temple should be destroyed completely (in the event it wasn't).[30] Julian the Apostate (AD 361-3) detested Christianity and reinstated the old gods. Then Theodosius (AD 379-95) took the throne and the Christians were back in power with a vengeance. 'Constantine the Great contented himself with closing the temples,' reports the *Chronicon Paschale*:

> but Theodosius destroyed them. He transformed into a Christian Church the temple of Heliopolis, that of Baal-Helios, the Great Sun-Baal, the celebrated Trilithon.[31]

Some hundreds of years later the Islamic era began. Around AD 664 Baalbek was besieged and captured by a Muslim army that converted the Temple of Jupiter and the Temple of Bacchus, immediately south of it, into a single large fortress. Various factions then held Baalbek and continued to fortify it (indeed, to this day, it is often still referred to in Arabic as the *Kala'a*, meaning the

‘fortress’[32]). In the process, of course, the ancient temples suffered further destruction. In AD 902 the Karmates, a dissident Shia sect, besieged and captured Baalbek, slaughtering the defenders. The Fatimites seized it in AD 969. Four years later, a Moslem General named Zamithes arrived with a huge army and another devastating siege and massacre followed.[33]

A Greek Christian army set Baalbek on fire in 996; by 1100 it was in the hands of the Seljuk, Tadj Eddolat Toutoush. In 1134 it was besieged by Zinki, who ‘for three months hurled on its ramparts a storm of projectiles’ using ‘fourteen catapaults working day and night’.[34]

In 1158 Baalbek was struck by an earthquake of ‘unparalleled violence’ that ‘destroyed the fortress and the temples’. Noureddin, the son of Zinki ‘hastened to Baalbek to repair the damage which the earthquake had done to the ramparts.’[35]

In 1171 a force of captured European Crusaders who were being held prisoner in the fortress staged an uprising, in which they slaughtered the garrison and took possession of the citadel, but were soon slaughtered in their turn by a Muslim army that broke in through an underground passage. In 1176 the Crusaders were back. They attacked and pillaged Baalbek. Soon afterwards, in 1203 there was another massive earthquake that caused further extensive damage.[36]

In 1260 the Tartar Sultan, Holako, besieged Baalbek, captured it and destroyed it. 'Not even the fortifications were spared' – a folly that the Tartars came to regret when King Daher Bibars attacked them and expelled them. He gave orders that the fortress of Baalbek – which, let us not forget, was the site of the ancient temples – should immediately be rebuilt and its walls reconstructed. In 1318, however, nature took a hand again and a fearsome flood undermined the ramparts making several wide breaches. 'The water

rushed in with such force that it lifted a tower 12 metres square to a distance of 400 metres.'[37]

Next came the Turko–Mongol conqueror, Timur. In 1491, after capturing the citadel and subduing all resistance there, he gave it up 'to the rapacity of his soldiers who pillaged it ruthlessly'. By 1516, when Baalbek became part of the Ottoman empire, the fortress and its temples were 'completely ruined'.[38]

In this state they were seen by the English architect Robert Wood in 1751, whose detailed drawings of the site show nine of the original fifty-four columns of the Temple of Jupiter still intact. Then in 1759 another fearsome earthquake struck, leaving only the six standing columns that I now sit in front of as I mull over the tumultuous history of this ancient sacred place.[39]

The question I'm asking myself is this – after so many cycles of construction, destruction and rebuilding, how much can archaeology

really claim to *know* about the site? As Michael Alouf, the former Curator of Baalbek, confirms:

> Unfortunately this temple has suffered greatly through the ravages of time and the vandalism of the ignorant; its walls have been demolished, its columns overthrown and its foundations undermined. There only remain the six columns of the southern peristyle, four broken columns on their bases in the northern peristyle within the Arab fortifications, and the socles [plinths] of the peristyle of the façade. The Byzantine Emperors were the first who began to destroy the temple, using the building material thus obtained for the construction of [a] basilica. The Arabs followed their example, extracting from the walls and the foundations of the temple any blocks of stone likely to be useful in fortifying the weak spots of the ramparts.[40]

Undoubtedly the German Archaeological Institute, who have the concession for this site (as they have also for Göbekli Tepe in Turkey) are doing their best. In the process, however, they have revealed even more deeply confusing layers of complexity and have been obliged to overturn what was for a long while the mainstream consensus that the first builders at Baalbek were the Romans.[41] Far

from it! Indeed, under the place where I'm sitting now, which was in the midst of the area that once formed the *cella* – the inner chamber – of the Temple of Jupiter, are the remains of a far more ancient sacred mound. Such mounds are known as 'Tells' in this region, and archaeologists now admit that 'Tell Baalbek' goes back *at least* 10,000 years[42] – i.e. 8,000 or more years *before* the Romans arrived here! 'A long sequence of Neolithic settlement layers … most probably the Pre-Pottery Neolithic',[43] has been excavated, pushing the origins of Baalbek very close to the time when Göbekli Tepe flourished in nearby Turkey.

Megalithic wall north

The artillery fire is still going on in the background, but it's one of those noises you tune out after a while. I get up off the warm comfortable block I've been sitting on and make my way a few

dozen paces north, across what would have been the floor of the Temple of Jupiter, until I come to its northern edge (marked by a few broken columns, still upright on their plinths like the stubs of rotten teeth) set into a later – very makeshift and higgledy-piggledy – Arab fortification wall. Into the wall, at intervals, are built embrasures with loop holes through which defenders fired arrows down on their attackers. Peering north through one of these loopholes, I can just see the top of a truly massive row of megaliths perhaps (I'm guessing) 20 or 25 feet below me. I count nine of them and note that they're separated from the base of the wall in which the embrasure is set by a horizontal distance of – another rough guess – 35 feet. In the gap, which is overgrown with grass and bushes, are many fallen, broken, blocks of stone.

In order to get a better view of this strange megalithic wall I continue to walk westwards along the northern margin of the Temple of Jupiter, until I get to another part of the Arab fortifications that were later added onto it, the so-called 'Northwest

Tower'. I can step out onto this – there's a convenient terrace with a commanding view – and look back from it in an eastwards direction along the huge megaliths, set out in a row below me, and down into the overgrown grassy gap that separates them from the wall of the temple platform.

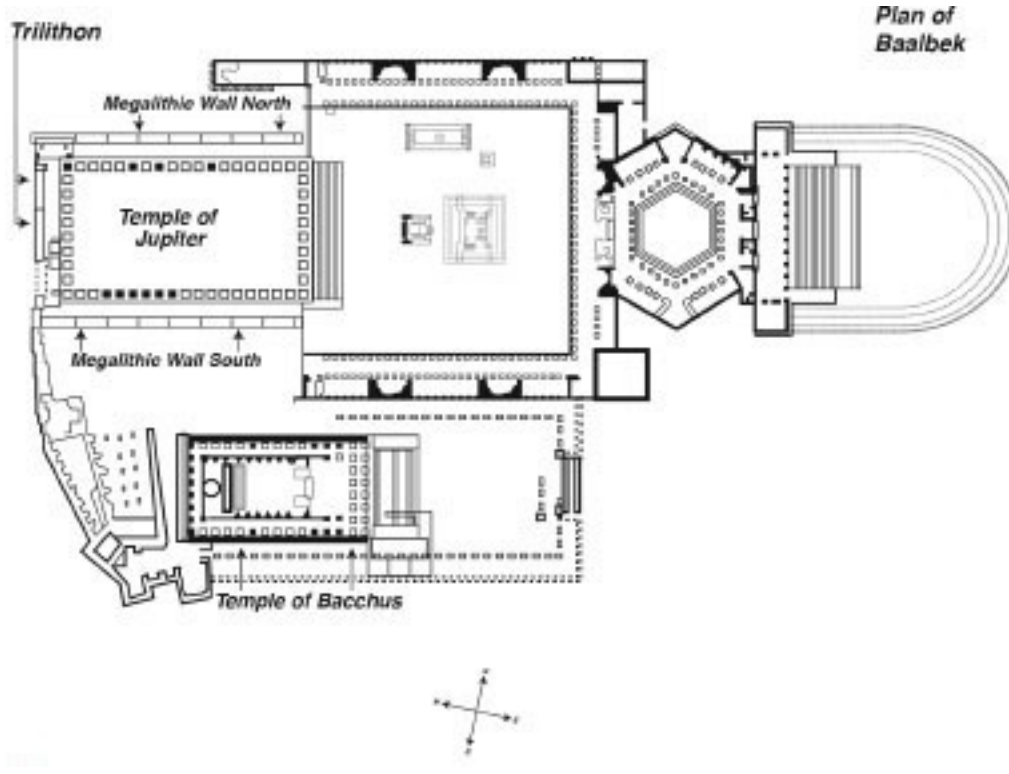

Figure 43

I'll not try to explain yet what those megaliths are. There are enough confusing factors already! But we'll return to them shortly when, hopefully, all will become clear. Meanwhile I exit the Arab

tower, walk back into the huge rectangular space it leads off, where the Temple of Jupiter once stood, and cross it heading east until I come to the steps that once led up to the temple's entrance. I descend the steps, then turn westwards again into the sunken plaza, bounded by the platform of the Temple of Jupiter to the north and by the Temple of Bacchus to the south.

The transmission of knowledge

Naturally I check out the wine god's sanctuary. It's beautiful, with a strong energy of its own, and I'm sure a lot of joy was celebrated here in antiquity. But there's a more serious side, too, hinting that the Romans were the recipients of a stream of ancient knowledge and symbolism with its origins in the remotest antiquity – a stream, though divided into many channels, that continues to flow to this day.

Freemasons who have studied the Temple of Bacchus point to a number of reliefs and designs here that are meaningful to them. For example, on the underside of a huge stone ceiling block, still balanced on the columns of the temple, appears the device known as the 'Seal of Solomon' – a six-pointed star inscribed within a circle. According to leading US Freemason Timothy Hogan, Grand Master of the Knights Templar Order, the figure in the centre of the star is depicted 'giving a sign that would be familiar to Entered Apprentices'. Another relief shows two figures 'sitting side by side and making gestures that would have meaning to a Fellowcraft in Freemasonry'.[44]

It's also noteworthy at the Temple of Bacchus, and indeed throughout Baalbek, how much evidence there is for the veneration of the god of wisdom whom the Romans called Mercury – the Greek Hermes – whom the Ancient Egyptians knew as Thoth and connected, as we saw in Chapter Nine, to the traditions of the Seven

Sages.[45] Another curious link is that the cult of Mercury in its earliest forms involved the use of *betyls*,[46] discussed in Chapter Eleven, which were originally 'stones fallen from heaven' – in other words, meteorites and thus often part of the debris stream of fragmenting comets. When we recall that the Black Stone of the *Ka'aba* in Mecca is said to be a meteorite, it's interesting that Baalbek in antiquity was the site of a famous oracle (the Roman Emperor Trajan reportedly held it in great esteem), and that it was 'a black stone which answered questions'.[47]

Some scholars believe the Temple of Bacchus was jointly dedicated to Mercury,[48] but since I'm not in Baalbek to explore Roman architecture I won't describe it further. It's the Temple of Jupiter, and its tangled prehistoric past that really interests me – particularly its relationship through the platform on which it stands with the earlier constructions going back to the time of Göbekli Tepe.

Again, sorting out the different phases is difficult and I'm determined not to be lured by the trap that so many 'alternative' historians have fallen into – namely to conclude, when we see huge megaliths, that super-advanced, even 'alien' technologies must have been involved in moving them and lifting them. As I've already said, I don't dispute that the Romans could and did move enormous blocks of stone when they wanted to. Indeed, the evidence for that is all around me in the space between the Temple of Bacchus and the Temple of Jupiter, where heaps of carved and engraved blocks from the fallen pediments of both structures lie scattered. They are, without question, Roman, some of them weigh in the range of 100 tons or more, one weighs 360 tons,[49] and all of them were raised almost 70 feet (21 metres) above the ground – the height of the columns on which they were perched.[50]

I walk north through these ruins, back towards the Temple of Jupiter, looking up now at its six remaining giant columns, each one

of them composed of three enormous blocks and each standing on a monolithic stone plinth almost 9 feet (2.7 metres) high.[51] You'd have to be a fool to argue that the Romans didn't make and raise up those columns, or the pediments above them, because it's completely obvious on stylistic grounds, and on the basis of comprehensive archaeological research, that they did.

However, as noted earlier, the Romans were themselves both the inheritors and the transmitters of sometimes extremely archaic traditions and it may not be an accident that the Temple of Jupiter originally boasted fifty-four columns. The reader will recall the phenomenon of precession discussed in Chapters Ten and Eleven, and the mystery of 'precessional numbers', encoded in ancient myths and traditions from all around the world, which Professors Giorgio de Santillana and Hertha von Dechend take as proof of advanced astronomical knowledge handed down from some as yet unidentified and 'almost unbelievable' ancestor civilization. It so

happens that 54 is one of the sequence of precessional numbers. It derives from 72, the number of years required for one degree of precessional motion. We then add 36 (half of 72) to 72 itself to get 108 and divide 108 by two to get 54. In their groundbreaking study *Hamlet's Mill*, Santillana and von Dechend point to the avenues of statues at Angkor in Cambodia, '108 per avenue, 54 on each side', as examples of deliberate precessional symbolism[52] – so why not the fifty-four columns of the Temple of Jupiter at Baalbek as well?

Megalithic wall south

My eye tracks down from the top of the six remaining columns past their huge plinths, to the wall of moderate quarter-ton blocks that they surmount (forming the southern edge of the Temple of Jupiter) and down again to the base of that wall which in turn is flanked by a row of nine colossal megaliths that are each about 32 feet long, 13 feet high and 10 feet wide (9.5 metres by 4 metres by 3 metres).[53]

These monster blocks weigh somewhere in the range of 400 tons each. A number of them, those furthest towards the west, have a nicely finished appearance, with the stone smoothed and polished and the upper half trimmed in to be narrower than the base. But others are rough, still showing the 'boss', the protective layer that masons leave on the surface to protect the ashlar from damage while it is being transported to the site.[54]

The quarry these blocks were brought from has been identified. It's about 800 metres (half a mile) to the south. I don't doubt that cutting and moving them would have been within the technical capacity of the Romans, the greatest and most ingenious builders of the historical antiquity. Still the question must be asked – are these blocks their work? Or someone else's? The question must be asked, because the nine blocks I'm looking at now are part of the same stupendous, megalithic wall to which belong the nine equally gigantic blocks I saw earlier on the north side of the complex. That

northern row of megaliths and this southern row of megaliths form the northern and southern 'arms' of a single gigantic 'U'-shaped wall that surrounds the Temple of Jupiter to the north, south and west with the base of the 'U' – in which is set the fabled Trilithon that I've come here to see – oriented west.

As usual with Baalbek, as though this were not complicated enough, there are further complications! These have been explored by Daniel Lohmann, an extremely thorough and really quite brilliant German architect and archaeologist, who has spent years excavating and closely examining this site and who, in February 2015, was gracious enough to engage in correspondence with me and to give me the benefit of his extensive knowledge. It's his opinion, which I'll go into in more depth in the next chapter, that the awe-inspiring U-shaped megalithic wall surrounding the Temple of Jupiter is one hundred per cent Roman.

His case is that it was part of what was intended to become an immense podium – let us follow the logic of his argument and call it

‘Podium 2’ – with which whoever commissioned the temple (and since there are *zero* contemporary records we don’t know who that was[55]) wished to surround his ‘megalomaniac’ masterpiece.[56] The upshot of Lohmann’s investigation is that within the U-shaped wall of Podium 2 are the remains of what he sees as an earlier building phase, which he refers to as ‘Podium 1’.[57] His investigations show the dimensions of Podium 1 to be 12 metres in height by 48 metres north to south, by 95 metres east to west, but, he admits, ‘the only certain clue’ to its age ‘is that it pre-dates the Julio Claudian temple’[58] (i.e. the Temple of Jupiter which was built in the main by the Julio-Claudian dynasty, spanning the reigns of the Emperors Augustus, Tiberius, Caligula, Claudius and Nero, 27 BC–AD 68). To cut a long story short, Lohmann argues that Podium 1 was the work of Herod the Great, the Roman client king who ruled Judea in the last decades of the first century BC. But there are no inscriptions or other documentary evidence that could settle the matter, so ‘the only

source of information is the well-preserved structure itself',[59] notably its stylistic features:

> such as the use of alternating rows of headers and stretchers, drafted-margin masonry and the reconstruction of the plan of this early structure. These elements reveal surprisingly close parallels to Herodian sanctuaries, and in particular the Temple at Jerusalem, not only in general appearance but in their precise proportions and measurements. These correspondences between the two building projects strongly suggest Herodian involvement … even though its precise nature remains to be determined.[60]

As we've seen, the Jerusalem Temple was destroyed by the Romans in AD 70, so Lohmann is obliged to base his argument on 'the only surviving part of the Temple, the gigantic trapezoidal platform of the *Haram-esh-Sharif*.'[61] Nonetheless, the detailed comparisons he offers do, indeed, make an excellent case for 'Herodian involvement' in Baalbek's Podium 1. What remains to be settled, however, is how *extensive* this involvement was. To be specific, although Lohmann concedes that 'Tell Baalbek … was continuously

inhabited since the pre-pottery Neolithic period'[62] – i.e. since the time of Göbekli Tepe – and although his whole argument is that the Julio-Claudian Emperors worked around Podium 1 at Baalbek when they started to build the massive and imposing U-shaped wall for Podium 2, he doesn't consider the possibility that there might have been a 'Podium 0', which Herod in turn overbuilt.

I can hardly blame him for that, since no mainstream archaeologist that I'm aware of is willing to consider the same possibility for Herod's restoration of the Jerusualem Temple – particularly with reference to the huge megalithic blocks, discussed earlier, that now stand exposed by the Hasmonean Tunnel. Nevertheless it's a possibility that shouldn't be ignored at Baalbek, especially in the light of what Lohmann himself describes as the 'great antiquity' of the site.[63]

And there's another possibility as well, which I intend to consider. It concerns the megalithic U-shaped wall that forms the

base and boundary of the feature Lohmann calls Podium 2. Suppose that U-shaped wall isn't Roman at all? Suppose it was already in place *before, not after*, Herod built Podium 1? Suppose, further, that the Tell that antedates Podium 1 by thousands of years was itself situated where it is because of the prior existence of the U-shaped megalithic wall? In other words, suppose the U-shaped wall with its immense megaliths was the very *first* work of architecture to be built on this site, perhaps enshrining some central feature, some primeval mound, in front of which the Tell later evolved over thousands of years, until the Herodian Temple was built on top of it, and then a little later overbuilt by the Temple of Jupiter?

Trilithon

Having climbed a stairway set against the side of a monstrously large block – the scale of everything here is truly epic! – I make my way along the top of the row of 13-feet high, 400-ton megaliths that

form the southern elevation of the U-shaped megalithic wall that Lohmann sees as part of the – never completed – Podium 2. I'm heading west now and I pass under the six standing columns, which seem less to loom than to take flight over me, so light and graceful do they appear despite their massive size. The wall they're perched on rises to about twice my height; its upper edge – where the columns stand – marks the level of the floor of the Temple of Jupiter, where I'd sat earlier. The space between the wall and the edge of the 10-feet wide megaliths I'm walking on is an obstacle-course of broken fragments of columns and ornate multi-ton chunks of the pediment they once supported.

At the end of the long row of megaliths I'm confronted by a warren of towers, archways and tumbledown, medieval Arab fortifications. I thread my way through these – it's all a bit bewildering! – climb a flight of stairs and take a right turn into a narrow alley at the western edge of the whole complex. I'm heading north now and the alley, which isn't wide enough for two people to

pass abreast, runs between the outer fortification wall on my left – part Roman, part Arab reconstruction – and a row of rough-hewn megalithic blocks on my right. I don't know what to make of these blocks but a few months later, in correspondence we eventually engage in, Lohmann will tell me that they're:

> part of a filling layer … that was intended to fill up space between the Herodian wall and the later megaliths which make up the exterior shell of the second, Julio-Claudian podium. They were intended to be invisible behind the shell, so they remained undressed, and with a rough surface.[64]

Whatever they are, these massive blocks are separated by little more than the width of my shoulders from the hybrid Roman wall extended by Arab fortifications to my left. The feeling is one of constriction, almost claustrophobia. After twenty paces, or so, however, the alley widens as the outer fortification wall, previously several courses thick suddenly reduces to a single course which, just ahead, has a large gap in it through which I peer down onto a grassy

border, some 35 or 40 feet below, edged by the modern fence that surrounds the whole of the Baalbek complex.

That's when I realise for sure – I'd been half expecting it, but I wasn't certain until this moment – that I'm standing on what I've come to Baalbek to see. It's just over 64 feet long, more than 14 feet high, nearly 12 feet wide and weighs more than 800 tons.[65]

It's the southernmost of the three famed megaliths of the Trilithon.

Chapter 13

And Then Came the Deluge …

I'd hoped, I'd expected, I was almost sure, that the course I'd charted through the ruins would lead me to the Trilithon, but still I feel a minor sense of triumph that my wanderings in the labyrinth have actually brought me to this very special place!

It's a good moment to take stock. That single course of outer fortification masonry to my west barely covers a quarter of the Trilithon's immense width. There's part of the drum of a fallen column lying just by the gap in the fortifications that overlooks the grassy border within the perimeter fence surrounding the ruins.

Pressed against the fortification wall this column covers approximately half the width of the huge megalith it rests on, the southernmost of the three in the Trilithon. All in all this is a sheltered spot, a quiet space, a little courtyard almost. Conveniently there's a loose block about the height of a stool for me to perch on, and what's more, since it's afternoon now, there's a patch of shade.

With a sigh of relief I sit down, haul out my notebook and compose my thoughts. I'm aware, as I do so, that my feet are placed not only on the Trilithon block, but also on something inscribed into it that effectively proves it is older than the Temple of Jupiter, though not how *much* older. The shade is working against me, the fifty years since it was first brought to light have not been kind to it, and honestly I can't see it. However, Professor Haroutune Kalayan, the engineer placed in charge of the restorations of Baalbek by the Lebanese Department of Antiquities, explains that back in the mid-1960s, 'In view of the scientific interest, Emir Maurice Chehab,

Director General of the Antiquity Department, decided to have the top of the Trilithon cleared …' When this was done:

> The south block … exposed a full-scale orthographic drawing of the pediment of the Temple of Jupiter. The drawing partly extends under Roman construction and partly it is hidden under an early period Arabic construction … This … discovery suggests that the Trilithon was already in place to serve as a trestle board for the dimensioning and ordering of the pediment blocks; that is, in the beginning of the second half of the first century AD. Further, it can be concluded that after the construction of the pediment, after the drawing had served its purpose, the constructional scheme above the level of the Trilithon [was] executed; this is why part of the drawings extend under the Roman constructions.[1]

So right here, at my feet, unfortunately invisible now without special lighting, is a convincing piece of evidence that a real mystery, not just one made up by alternative historians, surrounds the Trilithon. Obviously, since it was used for an architectural drawing of part of the Temple of Jupiter, as Kalayan admits, and particularly so since it was afterwards partially covered by Roman

construction, the only logical deduction is that it must be older than the temple.

We'll look further into the implications of this, but it should be noted right at the outset that Daniel Lohmann doesn't agree. Presenting a paper for the Proceedings of the Third International Congress on Constructional History, held in the German city of Cottbus, in May 2009, he argued:

> Kalayan suggested that this drawing proves the Trilithon to be older and already in place when the temple was built. Today, new indications show that this assumption is outdated, and that the Trilithon and temple were built synchronous. The upper surface of this block [the southernmost Trilithon block with the drawing on it] was practically used for a simultaneous construction, later simply to be covered by the next stone course.[2]

And in a follow-up paper in 2010, Lohmann expanded on his reasoning:

> The unfinished pre-Roman sanctuary construction [Podium 1] was incorporated into a master plan of monumentalisation. Apparently challenged by the already huge pre-Roman construction, the early imperial Jupiter sanctuary shows both an architectural megalomaniac design and construction technique in the first half of the first century AD. The most famous example may be the Trilithon forming the middle layer of the western temple podium … The podium can be considered as an attempt to hide the older, inconveniently shaped temple terrace behind a podium in fashionable Roman manner …[3]

I understand Lohmann's logic but I have a number of problems with it. First and foremost there is the very concept of a 'podium' that is being bandied around here. The dictionary defines 'podium' as:

> the masonry supporting a classical temple.[4]

Or, alternatively:

> a stereobate for a classical temple, especially one with perpendicular sides.[5]

A 'stereobate' in turn is defined as:

> the foundation or base upon which a building or the like is erected.[6]

Or, alternatively:

> the solid foundation forming the floor and substructure of a classical temple; crepidoma; podium.[7]

A ‘crepidoma’, likewise, is ‘the platform on which the superstructure of the building is erected.’[8]

What all these definitions hold in common is the notion that a podium is a structure on top of which a temple is built. But this is not the case with Lohmann’s Podium 2. It is not the ‘foundation or base’ upon which the Temple of Jupiter is erected, it is not the ‘solid foundation forming the floor’ of the Temple of Jupiter, and it is not ‘the masonry supporting’ the Temple of Jupiter. What the Temple of Jupiter in fact stands on, and is ‘supported’ by, as Lohmann himself makes clear, is the Herodian Podium 1. Lohmann’s Podium 2, it turns out, does not ‘support’ any part of the Temple of Jupiter.

It *surrounds* Podium 1 on three sides but it does not support it. It is, in other words, as I described it several times in Chapter Twelve, a U-shaped megalithic wall; but it is not a podium. If the Romans built it, as Lohmann believes, then they did not build it to serve any structural, load-bearing, podium-like purposes but purely for cosmetic reasons – 'as an attempt', to repeat his own words, 'to hide the older, inconveniently shaped temple terrace behind a podium in fashionable Roman manner.'

In response I can only repeat that 'podium' continues to be a misleading term, which does not describe what we actually see on the ground. If Lohmann's analysis of the pre-existing Herodian works is right, then we don't see evidence of the Romans hiding 'the older, inconveniently shaped temple terrace' behind a fashionable Roman 'podium'. Whatever plans they may have had for extension and development, which we cannot know and which there are no records of whatsoever, the evidence on the ground is limited to that massive U-shaped enclosure wall surrounding

Podium 1 on three sides but not supporting it – a profoundly megalithic wall, larger in every dimension than any other that the Romans are known to have built anywhere in the world.

A wall that doesn't even *look* Roman, incorporating blocks weighing more than 800 tons – the Trilithon – that would have required truly spectacular efforts to move and put into place.

I'm not saying that the Romans weren't equal to such efforts, or that 800 ton blocks were beyond the limits of their building technology. I don't know, and don't claim to know, the limits of their technology. What I'm saying is that it is quite unlike the practical, phlegmatic cast of mind of the Romans, which Lohmann recognises,[9] to go to such extreme lengths for purely cosmetic purposes. Surely, therefore, there is room to consider an alternative possibility, namely that the megalithic U-shaped wall was already in place long before – *perhaps even thousands of years before* – Podium 1 was built?

But in the very paper in which Kalayan asserts that the Trilithon predates the Temple of Jupiter he goes on to give another crucial piece of information that seems to pour cold water on speculation of this sort. Yes, the Trilithon is older than the superstructure of the Temple of Jupiter, but not much older, because:

> A part of a drum of a column similar in dimension to the columns of the Temple of Jupiter is used as a block in the foundation under the Trilithon. In the absence (to our knowledge) of a second monument with similar dimensions of columns in Baalbek, one can conclude that the drum was a discarded one and that the columns were already cut, or were in process of shaping when the foundations of the Trilithon had started.[10]

Is this the 'ugly little fact that destroys a beautiful theory'? Is my quest for a lost civilization at Baalbek fatally compromised by Kalayan's column drum? Might I just as well pack up and go home? You would think so from the sceptical literature on this subject, which endlessly regurgitates the paragraph quoted above as though it settles the matter once and for all, as though it proves beyond

reasonable doubt that the Trilithon is the work of the Romans – as though any further thought and questioning on the matter is spurious, pseudo-scientific hogwash.

Sceptical author and self-styled 'debunker of fringe science and revisionist history' Jason Colavito, for example, claims that 'archaeology and engineering can explain all the individual aspects of the Trilithon' and that there is therefore no need for an alternative perspective.[11] Rather than do the work to back up this assertion himself, however, he refers us to the 'wonderful' writings of another self-styled 'sceptic', physicist Aaron Adair.[12] Adair in turn simply rehashes Kalayan's arguments, placing heavy reliance on the column drum in the foundations, and on the architectural drawing on top of the southernmost Trilithon block, to conclude:

> we can be reasonably certain that the Trilithon stones were put into place contemporaneously with the construction of the Temple of Jupiter. So already, by having the Trilithon stones contemporaneous with the temple we have established the Roman provenance of the structure.[13]

It all sounds reasonable, wholesome and convincing. But actually, like so much else in the sceptical literature that is passed off as fact, it turns out, on close scrutiny, to be speculation, opinion, and bias masquerading as objectivity. That column drum, that Kalayan mentioned in passing, and that so many others have relied upon absolutely to reinforce established ideas about the chronology of the site, is much – *much!* – less than it seems.

Ironically, the central problem that I'm coming to here is illustrated by Adair himself in a black and white photograph of the western wall of the sanctuary (apparently taken from a *very* old postcard) that he reproduces with his article to support his argument – namely that there are blocks below the Trilithon, and that below these blocks, out of sight in the photo, is Kalayan's column drum. But what the photograph shows in the wall *above* the Trilithon is a section of a different Roman column drum that was redeployed by the Arabs during one of the many occasions when we know they repaired fortress Baalbek, after it had been attacked and pounded by

enemy catapults.[14] Moreover, as though to underline the impermanence of every redeployable feature in the walls of Baalbek, even that bit of column drum (which can also be seen in a photograph 'taken before the First World War' and reproduced in 1980 by Friedrich Ragette[15]) was removed in more recent restorations – as Santha Faiia's images from 2014 in the plates section show.

Indeed the Arabs regularly and routinely cannibalised, reused and repurposed Roman column drums and parts of column drums.[16] Moreover, as we saw in Chapter Twelve, and as Michael Alouf, a man who knew the ruins intimately for more than fifty years, confirms, the foundations of Baalbek were repeatedly *undermined* during the numerous sieges that the sanctuary suffered while it served as a fortress.[17] After the sieges the foundations were naturally repaired (otherwise whole sections of wall would have collapsed) and it is my view that this, rather than original Roman

construction, is the most plausible explanation for the column drum found in the foundations beneath the Trilithon. Why, after all, if the Romans made these foundations, as the orthodox theory requires us to accept, would they have suddenly used a column drum at this point, when they would surely have had plenty of regular blocks, specifically cut and dressed for the purpose, at their disposal?

It simply doesn't make sense. But Arab masons repairing an undermined foundation would have used whatever lay at hand and the centuries of warfare, earthquakes and other disasters that Baalbek suffered meant that there were enormous quantities of broken columns lying around, as there still are to this day. There is also another possibility, which is that the Romans did, in fact, put the column drum into the wall – but again as a repair, rather than as an act of original construction. If the megalithic wall was already very ancient when the Romans came on the scene, and if it was their intention to use it as a base for further construction, they would

undoubtedly have surveyed the foundations and repaired any sectors that the years had not been kind to.

I scrawl ‘FIND OUT MORE ABOUT THAT COLUMN DRUM’ across a page of my notebook. The matter isn’t closed yet – one way or the other – but the hypothesis that the Romans were *not* the original builders of the U-shaped megalithic wall of which the Trilithon is an integral part, continues to look viable to me, and worthy of further investigation.

It’s time to see the Trilithon from the outside. I leave my welcome patch of shade, poke around a little longer on the top of the giant blocks and then retrace my steps eastwards through the Temple of Jupiter complex. Eventually – it’s a long walk – I find my way back to the main entrance of the site, pass through the propylea and down the main stairs, turn right and follow the path that runs parallel to the southern exterior wall of the fortress the Arabs made of this place. The Temple of Venus comes into view a few hundred metres south-east of the main ruins. It’s beautiful, but

irrelevant to my purposes, so I ignore it and press on towards the south-west, passing two more Arab towers built into the fortification walls and eventually coming to a gateway in the fence through which I can see the Trilithon in the distance.

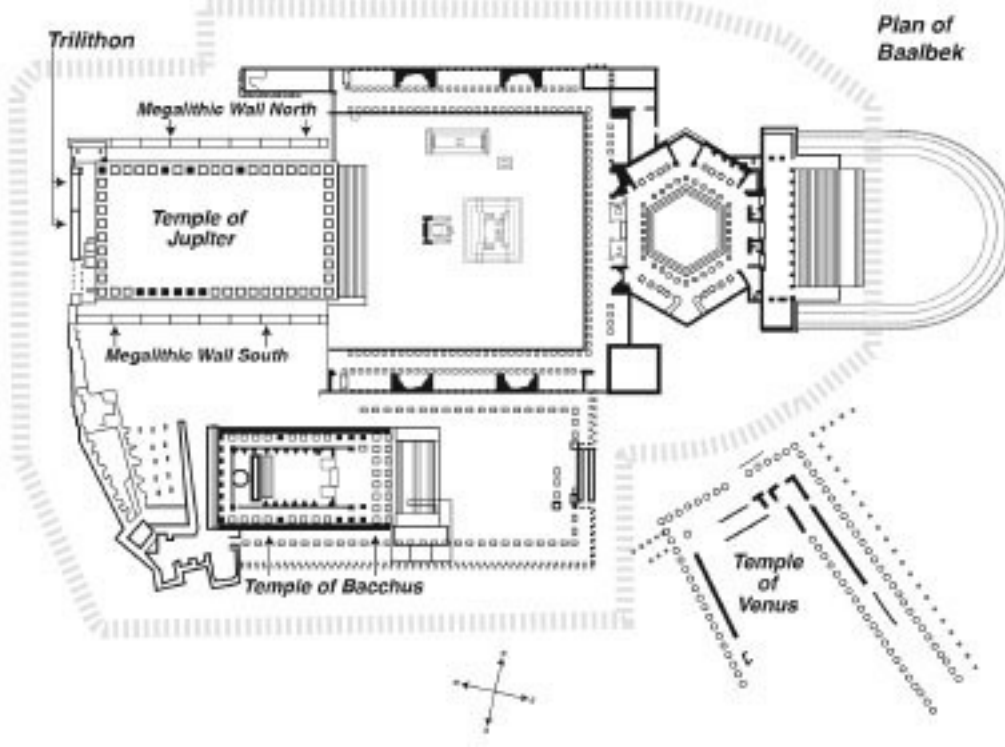

Figure 44

A guard is there. He makes a great show of keeping me out, but money changes hands, the gate is opened with a flourish, and I'm on my way through an orchard of shrivelled trees to get a better look at the three largest blocks ever used in any construction anywhere in the world …

'The highest pinnacle of power and science …'

In the nineteenth century David Urquhart, a learned Scotsman, travelled widely in Lebanon, eventually publishing his *History and Diary* in 1860. He never explained where he got the hint from, but it was his belief that Baalbek had played an important part in the secretive maritime empire of the Phoenicians, whose exploits started to be remarked upon by other cultures in the second millennium BC and who were descended from the original Canaanite

people of this region. Indeed the Phoenicians usually referred to themselves as Canaanites.[18] Renowned for their seafaring abilities, and especially for their uncanny – or perhaps one should say instead, precise and scientific – navigational skills, they established ports all around the coasts of the Mediterranean as far afield as Tunisia, Morocco, Spain, Italy, Turkey, Cyprus and Malta. Their heartland was in Lebanon, however, and their first city was Byblos, to the north of modern Beirut, with other important centres at Tyre and Sidon.

There is much that is mysterious about the Phoenicians, and they have often been reproached by frustrated researchers 'for having been so persistently silent about themselves and for having left no written history of their own. Everything we know about them comes from the annals of other races; they have only foreign advocates to plead their cause to posterity'.[19]

One of those foreign advocates was the Greek scholar Philo, who lived in Byblos in the first and second centuries AD – hence he is known as Philo of Byblos. His *Phoenician History* purported to be a translation of a book written by one Sanchuniathon, a Phoenician sage who had supposedly lived more than a thousand years earlier.[20] Sanchuniathon's writings have not come down to us in any other source. Moreover, like the works of the Babylonian priest Berossos, whom the reader will recall from earlier chapters, Philo's own *Phoenician History*, has also been lost. All that is left of it are fragments preserved as quotations and summaries by other authors – notably the fourth century Church Father Eusebius.[21]

In these fragments we read of the exploits of a 'god' identified with the Greek deity Ouranos, whose name means 'sky' or 'heaven' and who:

> invented *betyls* by devising stones endowed with life.[22]

There are a couple of points of interest here. First of all, obviously, we are back in the realm of *betyls*, those meteoritic 'stones fallen from heaven' that are so often part of the debris stream of fragmenting comets and that were treated as cult objects throughout the ancient Near East. If we look into the etymology of the word *betyl* we find that it means 'home of the god',[23] and the home of Ouranos is, of course, the sky, the right place for objects of meteoritic origin. Secondly, there is this curious reference to 'stones endowed with life' which, significantly, is given in some translations as 'stones that *moved* as having life'.[24] In this I couldn't help but be reminded of traditions from Ancient Egypt that spoke of huge stones being effortlessly moved around by 'magicians' using 'words of power'. For example, there is an account preserved on British Museum Papyrus No. 604 of the deeds of the magician Horus the Nubian, who:

> made a vault of stone 200 cubits long and 50 cubits wide rise above the head of Pharaoh and his nobles … When Pharaoh looked up at the sky he opened his mouth in a great cry, together with the people who were in the court.[25]

Since 200 cubits by 50 cubits equates to approximately 100 metres by 25 metres (328 feet by 82 feet) it is obvious that any magician who could raise such a massive block would have no difficulty raising the megaliths of the Trilithon, which are less than a quarter of that size. At any rate, this thought of the magicians of the gods brings us back, by a circuitous route, to David Urquhart who tells us in his *History and Diary* what it was that led him to Baalbek in the mid-nineteenth century:

> I was drawn thither by the *Betylia* [i.e. *betyls*], that mystery of the ancient writers … which I [believe] to have been Magnets used in the Phoenician vessels engaged in distant traffic, and which on the return of their fleets were conveyed in religious procession to the temple at Baalbek, to remain there until the fleets were again sent forth …[26]

Unfortunately Urquhart found no hints of the lost technology, 'the magical, magnetic stones'[27] he was looking for in Baalbek. 'Where is the temple that held the Betylia?' he asked. 'It has disappeared.' He deduced that 'it must have stood upon the platform and was probably pulled down', to make way for the Roman temples.[28] He therefore contented himself with an inquiry into the mysteries of the Trilithon and of an even larger cut-stone block that his local informants showed him lying abandoned in the quarry half a mile to the south of the ruins. These ruins, he noted, when you imagined them without the later temples 'now stuck on the top', were 'nothing but a quadrangular enclosure':[29]

> One can conceive the hewing out of enormous blocks for the statue of a king, the ornament of a palace, or the pomp of a temple, but here there is no such object; there is no conceivable object by which such an effort can be explained.[30]

This was one of a series of questions to which Urquhart could propose no answers of his own: first, why build with such huge

blocks (beside which 'Stonehenge is a nursery toy'); second, why build *here*, since Baalbek was not a great capital or a great port, but stood far inland; third, why was the work suddenly stopped, as evidenced by the block in the quarry and by the unfinished state of the U-shaped wall in which the Trilithon is set; and fourth, why was Baalbek unique?[31]

> This structure is alone; there is nothing upon earth in the remotest degree resembling it.[32]

That night Urquhart dined with the Emir of Balabek and asked him whom the huge U-shaped enclosure had been built by. The Emir replied in rather matter-of-fact tones that there had been three phases of construction. The megalithic work had been done at the command of two different rulers in the primeval period before the Flood:

> And then came the Deluge. After that it was repaired by Solomon.[33]

When he was on his way back to Beirut, Urquhart reflected on what the Emir had told him, concluding that it touched on a fundamental truth and that 'the stones of Baalbek had to be considered as some of those sturdy fellows who the Deluge could not sweep away'.[34] More than that, it seemed to him that:

> Before the Deluge the whole course of human society had been run … The builders of Baalbek must have been a people who had attained to the highest pinnacle of power and science; and this region must have been the centre of their domain.[35]

Noah, after all, had mastered the science to build the Ark:

> A vessel 450 feet long, 75 broad, and 45 deep … He therefore shared in the knowledge of these men of renown, and navigation must have attained in these antediluvian times to an extraordinary degree of perfection. For the building of the Ark we have only the authority of the Bible … The sceptic, on the other hand, who visits Baalbek, will cease to doubt that the men who could build into its walls stones of the weight of a three-decker with its guns on board, could construct a

> vessel of [such immense] dimensions. I assume that the Antediluvian origin of the one can no more be contested by the critic than that of the other by the believer. [36]

Today, and rightly so, sceptics question everything that smacks of credulous superstition and easy belief. The traditions that so excited Urqhuart, however, are pervasive. Noah himself is said to be buried in the area, having returned there after the Flood to live out the remainder of his days.[37] And according to Estfan El Douaihy, Maronite Patriarch of Lebanon from 1670 to 1704:

> Baalbek is the most ancient building in the world … It was … peopled with giants who were punished for their iniquities by the Flood.[38]

Other traditions implicate demons in the placing of the megaliths,[39] and an Arabic manuscript echoes the story Urquhart was told about an attempt to rebuild Baalbek after the Flood. In this account it was not Solomon but Nimrod, the great grandson of Noah, who sent giants to repair the damaged walls.[40]

Demons, giants, rollers, capstans, cranes … or aliens?

Looking up at the three massive blocks of the Trilithon, their bases more than 6 metres (20 feet) above ground level in Baalbek's western wall, I can understand why they were believed to be the work of demons or giants. There is, indeed, something supernatural – something seemingly *impossible* – about them. Their lengths are respectively 19.60 metres (64 feet 3 inches), 19.30 metres (63 feet 3 inches) and 19.10 metres (62 feet 8 inches) and they're all 4.34 metres (14 feet 3 inches) high and 3.65 metres (just a shade under 12 feet) wide.[41] They are fitted in place so precisely that it is impossible to insert even the edge of a razor blade into the joints.

'Go figure' is all I can say!

But if you want the orthodox take on the subject read Jean-Pierre Adam's 1977 paper, *A propos du trilithon de Baalbek: Le transport et la mise en oeuvre des megaliths*.[42] It's still the standard work of reference cited by all sceptics as though it proves their case, and it

sets out a proposal deploying rollers of cedar wood, on which we are to envisage the blocks being placed.[43] To pull the blocks over the rollers Adam first considers, then (for logistical reasons) rejects, the use of a herd of 800 oxen.[44]

Finally, reasoning that weakness of human muscle power can be overcome by technical ingenuity, he settles on multiple arrays of pulleys rigged up to six capstans, each worked by a team of 24 men making a total of just 144 men to transport the blocks of the Trilithon, one by one, from the quarry half a mile (800 metres away) to the construction site.[45] At the end of the journey, he calculates that 16 larger capstans, each worked by a team of 32 men (i.e. 512 men in total) would have been required to manoeuvre the blocks into their final position.[46] The reason for the increased number of capstans and men at the end of the operation is that the wooden rollers would have to be removed, since obviously they could not be left in place in the wall. This would greatly increase the friction

between the block and the surface over which it had to be dragged, but the deployment of some kind of lubricant would theoretically reduce the friction enough to avoid any need to lift the blocks – a problem that Adam believes the Romans would have preferred not to confront with blocks of this size.[47]

Friedrich Ragette has a slightly different orthodox solution to the challenge of moving and placing the megaliths of the Trilithon.[48] In his case it does involve lifting the blocks at the end of the procedure, which he suggests would have been done using multiple 'Lewis' devices (metal pieces fitted into specially cut holes in the stones above their centre of mass, attached to chains or ropes and lifted by cranes or winches):

> The 800-ton block of the Trilithon must have been moved into position by rollers. Then it had to be lifted slightly to allow the removal of the rollers before the tremendous load was lowered inch by inch. If we figure five tons lifting capacity per Lewis hole we would need 160 attachments to the stone.[49]

It is not my intention to offer a detailed critique here. I simply note in passing that there are some difficulties with Adam's and Ragette's proposals. Both, for example, rely on wooden rollers but calculations indicate that the stress of supporting the huge blocks would very quickly have crushed such rollers, even if they were cut from the strongest Lebanon cedar.[50] Likewise, capstans are all very well and certainly multiply the 'muscle power' that each man is able to exert, but there is a danger, which Adam recognises, that unless massively anchored to the ground, it would be the capstans rather than the blocks that moved.[51] Finally, every mason understands the principle of Lewis devices and how they work, but there is no sign on the Trilithon blocks of even a single Lewis hole, let alone of 160 on each of them.[52]

Both Adam and Ragette, and others who want to reassure us how unremarkable and unmysterious the whole achievement of the Trilithon is, like to preface their accounts with reference to large

megaliths that were moved using known technologies in historical times. For example a 25 metre (82 feet) tall Egyptian obelisk, weighing 320 tons, was brought to Rome in the first century AD by the Emperor Caligula. Transporting it from Egypt and across the Mediterranean in a specially built ship was, itself, an incredible feat of engineering, logistics and heavy lifting. Then, much later – in the sixteenth century – the same obelisk was moved from where it had stood since Caligula's time and re-erected in St Peter's Square on the orders of Pope Sixtus V.[53] Likewise in Russia in the late eighteenth century the 'Thunderstone', a 1,250 ton block of granite, the base for an equestrian statue of Peter the Great that still stands in the city of Saint Petersburg, was hauled seven kilometres overland on a special moveable track of bronze spheres.[54]

Mind you, it's one thing to drag a supersized megalith in a straight line over bronze ball-bearings, or to stand one up in the middle of a huge empty square, but it's quite another to build a

series of such megaliths into a wall that looks like a titan's Lego project.

Still … let's accept that it can be done, that similar things have been done, and of course – for the evidence is before our eyes – that it *was* done at Baalbek. The only question that matters, therefore, is whether it was the Romans who did it, or whether they, and the cultures that preceded them here going back 10,000 years or more, found the U-shaped megalithic wall already in place and fitted their own structures into its embrace.

That's what it looks like to me.

The solid foundation rising above the plain at Baalbek that Daniel Lohmann identifies as pre-Roman and calls Podium 1, *and on top of which the Temple of Jupiter was built*, sits nicely inside the U-shaped wall which embraces it on its south, west and northern sides. At no point does the wall *support* the Temple of Jupiter. It is an entirely separate, exterior, structure.

I walk several times along the western wall, gazing up in stupefaction at the awesome megaliths of the Trilithon, trying to get to grips with what they mean. Regardless of whether it was the Romans or some unknown, antediluvian culture who put them here, what I'd like to know is *why* they put them 20 feet up? Why did they stack them on top of courses of smaller blocks, when surely the logic would have been to put the largest, heaviest blocks at ground level and add the smaller, lighter blocks above them. Why create the huge additional engineering and lifting challenge of doing it the other way round?

I walk along the wall. I'm counting blocks and courses. First of all, working upwards from ground level, there are three courses of really quite small – let's say 1.5 metres high, quarter ton – ashlars. On top of these are six much bigger blocks, very nicely finished (although also very heavily eroded) with the upper half trimmed in to be narrower than the base. These six blocks, which are more or less identical to blocks in the south wall that I described earlier (see

Chapter Twelve), weigh about 400 tons each. Finally on top of them, come the three monster, 800-ton, blocks of the Trilithon.

I walk north now, to the corner of the west and the north walls. The northernmost block of the Trilithon doesn't extend right to the end of the west wall. There's a gap, filled up by an Arab defensive tower extending out from Podium 1 and built over the corner. But if I remove that tower in my mind's eye, then I can see what's going on, because on the other side of it is another huge row of megaliths forming the northern arm of the 'U' shaped wall – the row that I'd looked down on earlier from above (see Chapter Twelve); indeed the Arab defensive tower was the very one I stepped out on to get a proper view of this part of the megalithic wall, which is separated by a grassy gap 35 feet wide from the north wall of Podium 1.

I know archaeologists see the U-shaped wall as the base of the Temple of Jupiter's grandiose but unfinished Podium 2. Lohmann makes a very good case for it being exactly that. But I'm still bothered by its non-load-bearing, purely cosmetic function, if that's

the case, and I can't shake the feeling that it was a feature the Romans inherited from a much earlier time.

Where I do agree with the archaeologists, however, is that the even larger megaliths that I know are still in the quarry half a mile away, and that I'm going to take a look at as soon as I'm finished here, were definitely intended to sit on the top of the northern and southern arms of the U-shaped wall, thus raising them to the height that the western wall attained with the placement of the Trilithon. True, they are a bit longer and wider than the Trilithon blocks, but after trimming off the 'boss' left to protect them on their journey from the quarry they would match exactly, fitting like the pieces of a jigsaw puzzle. This remains the case, whether the Romans made the U-shaped wall as part of Podium 2 or whether it was the work of the architects and masons of a lost civilization of prehistoric antiquity.

And there's something else I agree with the archaeologists on.

Ideas put into circulation decades ago by 'ancient astronaut' enthusiasts, notably Zecharia Sitchin in his book *Stairway to Heaven*, first published in 1980 (and in other later volumes of his *Earth Chronicles* series), cannot possibly be right. Whatever Baalbek is, and for whatever reason megaliths of 800 tons and more were used here, and whoever it was who put those megaliths in place, they definitely did not do so in order to create 'a landing place for the aircraft of the gods'.[55] Sitchin's claim that the raised platform of Baalbek was 'intended to support some extremely heavy weight' and that the heavy weight in question was a 'rocket-like Flying Chamber',[56] could only have been made by a man who had no idea of the real appearance and layout of Baalbek itself, and could only be believed by others with no direct knowledge of the site.

The giant megalithic blocks of the Trilithon that seem to have convinced Sitchin the entire platform of Baalbek was megalithic all

turn out to be parts of the U-shaped wall that embraces the (only modestly sized) Podium 1. And while an alien might conceivably land his spacecraft on even so modest a podium (if there were no other structure there) he certainly would not want to land it on top of a wall. It follows, therefore, that to use the megalithic character of the U-shaped wall to claim that a podium – which it is not even connected to, and does not support – was an alien 'landing platform', designed to bear extremely heavy weights, where 'all landings and take offs of the Shuttlecraft had to be conducted'[57] is either ignorant, or disingenuous or both.

Besides, even if the whole of the Baalbek complex was megalithic – which is not at all the case – we must ask ourselves why technologically advanced aliens capable of crossing the solar system in their spaceships would need such a platform to land on in the first place? If they could hop from planet to planet as Sitchin asks us to believe, wouldn't their science be up to constructing

something a little more high-tech and fit for purpose than that? In short, isn't it obvious that Sitchin simply took 1970s NASA space technology as his template and projected it onto his imagined ancient astronauts?

I knew Zecharia Sitchin personally, had a few dinners with him in New York and once drove him from Stonehenge to London when he was on a visit to England. I liked him well enough, and I think he did some good research, but on Baalbek at least I have no doubt now – after exploring the site myself – that his whole 'landing platform' thesis is fundamentally flawed. This is not to say, however, that every idea set out in his books was equally compromised. The Mesopotamian cuneiform texts, which he could not read and translate as he claimed (his 'translations' were adapted and to some extent 'fictionalised' from the work of mainstream scholars) do in fact contain material of the greatest interest, and I think he was right to notice hints of high technology in them.

But were those technologies ‘alien’ or human? This is a question we’ll return to in Chapter Sixteen, when we’ll consider what is known about certain powerful beings referred to in Biblical and other ancient texts as ‘the Nephilim’ and ‘the Watchers’.

The biggest cut stone block in the world

‘I have found that archaeologists are seldom receptive to the notion of ancient astronauts,’ wrote Elif Batuman in an article about Baalbek in the *New Yorker* on 18 December 2014, ‘although one could argue that, when the archaeologists went looking for answers, all they managed to find was an even bigger and more mysterious block.’[58]

Indeed so! In June 2014, just a month before I arrived in Baalbek, the German Archaeological Institute made a stunning discovery in the quarries half a mile south of the Temple of Jupiter. There, it had long been known, lay two giant megaliths that are heavier, by a

significant margin, than any of the stones in the Trilithon. What no one had suspected, however, despite a century of rather intensive investigations around Baalbek, was that a third immense block lay buried and hidden from view under the sediment that has accumulated in the quarry over the millennia. The archaeologists chose not to announce their discovery to the world until late November 2014, but since they had excavated it in June, it lay there in full view when I first visited the quarry on 10 July and a local shopkeeper – who claimed that the discovery was in fact his and that the Germans had merely appropriated it – made a point of drawing it to my attention.

The quarry is in two parts, divided by a road, and in the first area you come to as you approach from the direction of the temples lies the famous 'Stone of the Pregnant Woman', also known as the 'Stone of the South', which has been decorating postcards from Baalbek for a hundred years and was known to travellers like David Urquhart long before that. It measures 21.50 metres (almost 71 feet)

in length, 4.20 metres (just under 14 feet) in height, and 4.30 metres (just over 14 feet) in width. It weighs 970 tons.[59] Across the road a second even bigger megalith, which had lain undiscovered since time immemorial, was unearthed in the 1990s. It measures 20.5 metres in length, 4.56 metres wide and 4.5 metres high; its weight has been calculated to be 1,242 tons.[60] But the megalith that was discovered in June 2014 has a mass greater than either of these, measuring 19.60 metres (64 feet 4 inches) long, 6 metres (19 feet 9 inches) wide, and 5.5 metres (18 feet) high, with an estimated weight of 1,650 tons.[61]

It was this newly excavated megalith, the single largest block of stone ever quarried in the ancient world, that the excited shopkeeper proudly pointed out to me during my visit. Its upper surface is less than two metres below the lower edge of the Stone of the Pregnant Woman, which it lies immediately beside and parallel to. And, like the Stone of the Pregnant Women, it is beautifully cut and shaped,

ready, after removal of the ‘boss’, to go straight into the U-shaped wall for which all three giant blocks were undoubtedly intended.

I spend some hours clambering around these weird, otherworldly blocks. I feel as though I’m mountaineering. The scale is so immense, and in a way so ‘alien’, that a curious detachment from everyday reality sets in and I lose all track of time. I note that the Stone of the Pregnant Women appears to have been sliced through at the base, where it emerges from the bedrock, with a clean straight cut. How was that done? And no matter where I stand – above, below, beside – I am dwarfed by this monstrous product of ancient and unknowable minds. The very thought that someone, in some distant epoch, could conceive of this, could cut it out and shape it entire and then, at the end, just leave it here, abandon it, forget about it, is incomprehensible to me. The closer I examine it, the more details I observe of the precision of the workmanship, of the scale of the enterprise, and of the will and imagination that went into its creation, the more certain I become that it and its fellows

here in the quarries, and the Trilithon, and the other giant megaliths of Baalbek, were not the work of the Romans.

I know how profoundly Daniel Lohmann disagrees! A few months later, in February 2015, he and I will correspond at some length over several days. He will graciously answer many questions and help me to understand some of the complexities of Baalbek that escaped me when I was there. He'll make an excellent case for the Roman provenance of the whole vast scheme. He will even send me a photograph of the column drum built into the foundations of the Trilithon wall and he'll write:

> In my recent work I located this column drum fragment, excavated it anew, and measured it millimetre precise to determine the drum diameter. I looked at the surface structure and masons dressing in comparison with the Jupiter temple columns and the lithology. All indications are exactly the same as the column drums of the Roman Jupiter temple. The fragment was neatly dressed at the edges to make a masonry ashlar out of it, and it received the beautifully sharply cut edges that all ashlars of the Roman Jupiter Temple phase have (including the megaliths).[62]

My reply:

First of all, to be absolutely clear, *I don't* dispute that this fragment is from a column drum of the Roman Jupiter Temple. Clearly it is. And *I don't* dispute the generally agreed dating of the columns of the Roman Jupiter Temple. But this fragment is a very important part of the (formidable!) edifice of logic you and your colleagues use to establish the chronology of the Trilithon, and that many others have relied upon when reporting that chronology. What I'd like to interrogate a little further, therefore, is your level of certainty that this column drum fragment was put there at the same time as the original construction of the western wall. It's nicely cut and shaped, I agree, but still it sticks out like a sore thumb (especially now I see it cleared in the photo you kindly sent me). It looks intrusive, odd and awkward – very different from the rest of the blocks in this course. In short I think the argument can be made that it is more likely to be a later repair of the wall than it is to be an integral part of the original wall. Lending some support to this argument is that we know the Arabs were constantly repairing the walls around the whole site, and sometimes using column drums to do so, so why shouldn't this be just one more of those repairs? *What is the absolutely compelling archaeological evidence that completely, effectively and once and for all rules this possibility out?* I'd be most grateful if you could address that specific point in your reply.[63]

Lohmann comes right back at me on this:

> The fragment is just one of the indications that shows the synchronicity of the megalith podium and the temple, which was not our result, but known to science for over one hundred years – and at latest since the excavations by the German team of 1900-1904. Yes, it sticks out. But no – not unlike the others. The builders of the temple were rather pragmatic: once the structure was to be hidden underneath the soil or behind something else, they didn't bother to flatten the surfaces or make it look nice … What was important first when building is that the ashlar was perfectly flattened on the top and bottom, and then the two sides, in order to create a solid and stable wall – and that was done on the column drum exactly in the same Roman manner as it was done on the blocks around it. If you look at the length of the fragment, and imagine a hole in the wall instead, the two smaller ashlars in the course above would fall, causing further instability for the structures above. Here, frictional connection/force closure (translations of *kraftschluss* from my dictionary – language barriers!) is needed, you can't just replace an ashlar in a row of 'stretchers'. Secondly, Arab repairs of Roman walls look a lot different: they used smaller blocks instead, and would never have been able to squeeze a block in so tightly … Medieval repairs never have such tight joints. It's a comparison of precision that makes an engineer like me 100% certain.[64]

After examining our own photographs of the Trilithon wall – Santha took a great many while we were there – I find myself unpersuaded by Lohmann's argument. First of all (see Plate 40), this column drum is not 'hidden underneath soil or behind something else'. It's in plain view in the lowest visible course of the wall, and it does stick out like a sore thumb. It's made of a distinctively different, much darker, stone and it has a very different 'look' from any neighbouring block. It is quite unique in fact. Secondly, as to the precision, I don't agree with Lohmann that the column drum cannot be an Arab repair. In Plates 42 and 43 the reader will find an example of another column drum which is certainly part of an Arab repair to the walls of Baalbek and its precision is as good as that on the column drum in the foundations. Another possibility I've considered – that it could be a Roman repair to a pre-Roman wall – also remains very much in play. If the lower block which this improvised block replaced had been badly damaged, and a decision had been made to remove it, the two small rectangular blocks above

it (the ones Lohmann said ‘would fall, causing further instability for the structures above’) would have had to be removed at the same time.

But the next course up is so set that none of the other blocks in it would have fallen, nor would any instability have been caused to the huge megalith in the course above that, which is supported on no less than five large horizontal blocks, three of which would be entirely unaffected by the removal of the two smaller blocks below, while the other two would have been held in place by ‘frictional connection’. Once the column drum had been cut to shape and put in place at ground level, the two smaller blocks could have been slid back into the wall above it, completing a very neat and effective repair.

There’s something else, a fundamental area of disagreement, concerning what I see as a U-shaped megalithic wall surrounding Podium 1, but that Lohmann sees as the first courses of Podium 2. He tells me that ‘aside from the size of the ashlars’ what I call a U-

shaped megalithic wall is ‘the bottom of a standard shape of a Roman temple podium after Augustus times.’ He asks me to take a look at the podium of the *Maison Carée* in Nimes,[65] and suggests that the Temple of Bacchus in Baalbek itself also has a similar podium.[66] He sends me links to photographs. ‘If you zoom in,’ he writes, ‘you can see the stones of the second layer above the bottom layer, corresponding to the Trilithon.’

My reply:

> You write that the megalithic podium for the Temple of Jupiter, though obviously on a very different scale, is the ‘standard shape of a Roman temple podium’ but I’m not sure I see that from the pix you linked to. I attach here one of ours from the Temple of Bacchus … (same angle as the one you sent[67]). It shows a podium with a single straight side (apart from the lip at top and bottom), whereas the podium of the Temple of Jupiter gives more of a stepped effect with the row of huge megalithic blocks, that according to our correspondence form part of the lowest layer of the Julio-Claudian Temple podium, stepped out very far from the sheer wall above them, on top of which stood the peristasis. I suppose the resemblance would be better if the megalithic layer had been completed and extended all the way up to the top of the wall, but the peristasis would still have

> been set back a few metres from the top, instead of pretty much flush with the top as it is in the Temple of Bacchus. In short, when I zoom in to the Temple of Bacchus podium I don't really see blocks, regardless of scale, that correspond with the Trilithon blocks. Am I missing something obvious here?[68]

I also ask: 'Have you found organic materials with good provenance anywhere in "Podium 2" and have you done carbon dating on these?'[69]

On the carbon dating Lohmann replies that 'unfortunately' none had been done:

> The history of constant change in the building, as well as deep excavation levels of the past 100 years have left no archaeological or organic material at all that would help us with this.[70]

In its own way this is quite a revelation to me, since it means – to deploy an appropriate metaphor – that the entire edifice of archaeological chronology for the so-called 'Julio-Claudian podium' – Podium 2 – of the Temple of Jupiter, rests on

foundations in which there is no scientific dating evidence whatsoever. This not to say that radiocarbon dates for archaeological sites are unproblematic! As we've seen in earlier chapters, they are often very problematic indeed – unless it can be demonstrated, as is the case at Göbekli Tepe, that the dated organic remains have been 'sealed' at a particular moment and there is no possibility of subsequent intrusion of later materials that might give a falsely young date.

But there are simply no carbon dates, problematic or not, for Podium 2. It follows, therefore, that the orthodox chronology of this incredibly interesting and peculiar structure is based entirely on stylistic factors – that certain styles of building can be associated with specific cultures and specific periods and that the 'style' seen in Podium 2 is entirely appropriate to the 'Julio-Claudian' epoch of Roman construction.

It's my view that the stylistic argument at Baalbek is nowhere near as clear-cut as it should be, given how much of our

understanding of the site depends on it. And in response to my question about the positioning of the peristasis (i.e. of the four-sided porch or hall of columns surrounding the *cella* – the inner building – of the temple), Lohmann admits there is a stylistic anomaly:

> yes, normally the peristasis would rest on the edge of the podium, as it does at the Bacchus temple. That would be following the Roman examples. (Mars-Ultor at the Roman Forum was a milestone building for that[71]). It is one of the oddities of Jupiter.[72]

On the other hand, Lohmann points out, temples do exist where the peristasis is set back in the way he envisages it would ultimately have been at Baalbek if Podium 2 had ever been completed – for example, the Bel temple in Palmyra, the temple of Zeus in Aizanoi, Turkey, and the colossal temple in Tarsos, Turkey. 'In my opinion,' he writes:

> this is due to the fact that both Bel temple, and Jupiter in Baalbek, were built onto older podia (Herodian in Baalbek, Hellenistic in Palmyra), and had to find a

> solution how to squeeze a first-century, latest-fashion Roman podium underneath the (even only slightly) older temple building. Baalbek's terrace was immensely high, so the podium needed to be colossal, and in Palmyra the peristasis was already standing, so the podium was erected at a distance.[73]

Further, Lohmann stands his ground on the issue of the shape of Podium 2 which, despite its incompleteness, he sees as being quite normal:

> a standard podium consists of a bottom profile (lip, as you call it), the 'shaft' or the vertical part (that's the trilithon layer in Baalbek …) and a top lip layer …[74]

He attaches an architectural diagram of the podium of Hosn Niha, another Roman temple in Lebanon, to make his point.[75] To my eye, however, it looks astonishingly *unlike* Podium 2 at Baalbek and the layer in it that he wants me to compare to the Trilithon is just 1.58 metres (5 feet 3 inches) high, whereas the Trilithon, as we've seen, is 4.34 metres (14 feet 3 inches) high.

As I've already noted, I think Daniel Lohmann makes a strong case, but nothing in our correspondence proves to me that the U-shaped megalithic wall (that surrounds, but that does not support, Podium 1 on which the Temple of Jupiter in fact stands) is the work of the Romans. He could be right. But he could also be wrong and, in context of all the other indications from around the world of a lost civilization, I think it wise to keep an open mind on Baalbek.

Finally, however, it's what I see in the quarry that convinces me of this, because we have to ask ourselves why three huge blocks in the range of 1,000 to 1,650 tons were left there at all.

The conventional answer is that the Romans, having quarried these exceptionally large blocks, found that they could not move them and simply abandoned them. But that explanation makes very little sense. If the argument that the Romans were responsible for the U-shaped megalithic wall is correct, then we know that they went on to build an extensive temple complex dedicated to Jupiter using smaller blocks of stone. Surely their first source for the

multiple smaller blocks they needed would have been the huge megaliths that, according to the argument of mainstream archaeology, they had discovered they could not move from the quarry? The Romans were practical people, who would not allow work that they had already so painstakingly done to go to waste. Rather than opening up fresh quarry faces, wouldn't they have used those massive, already almost completely quarried 1,000-ton-plus blocks and simply sliced them up into smaller, more moveable megaliths for the construction of the rest of the temple?

It's really puzzling that they didn't do so and therefore the fact that these gigantic, almost finished blocks remain in the quarry, and were never sliced up into smaller blocks and used in the general construction of the Temple of Jupiter, suggests to me very strongly that the Romans did not even know they were there – just as the German Archaeological Institute, despite a hundred years of excavations, didn't know until 2014 that a third massive block was there. In due course, I'm told, 'good new information about the

dating and practicalities of the quarry megaliths' may be forthcoming, but that information was not available at the time of writing.[76] I await it with interest, but also with some doubt as to whether it will settle anything or simply raise further questions.

We are a species with amnesia. The devastating comet impacts that set the Younger Dryas in train 12,800 years ago and that caused two episodes of global flooding, one at the beginning and one at the end of the Younger Dryas, made us forget so much. The recovery of memory from the fragments that remain is logistically difficult and psychologically painful – as the complexities and decades of disputes around Baalbek show. But messages still reach us from the deep and distant past in the words of the Sages, in the deeds of the magicians, and in the mighty memorials that they left behind to awaken us at the time of the Great Return.

Part VI

Stars

Chapter 14

The Gates of the Sun

Baalbek remains very much on my mind the next day as we drive the magnificent coastline around Jounieh Bay heading 38 kilometres north to Byblos, the ancient Phoenician port that claims, with some justification, to be the oldest continuously inhabited city in the world. Archaeologists have established that it was occupied as early as 8800 BC,[1] while Göbekli Tepe still functioned.[2] By 5000 BC, Byblos was a flourishing, stable settlement that has never since been without human population.[3] By 3000 BC, when it was known as

Gubla or Gebel, it had grown to become the key port and city of the ancient Canaanite coast.[4] It was the Greeks who later called it Byblos, when it served as the centre of a lucrative papyrus trade with Egypt (*bublos* is the Greek word for papyrus).[5] Likewise the reader will recall from Chapter Thirteen that 'Phoenician' was the Greek name for the Canaanites and that the Phoenicians referred to themselves as Canaanites. For simplicity's sake, I will continue to use the terms 'Phoenician' and 'Canaanite' interchangeably here and continue to refer to ancient Gubla/Gebel as Byblos.

As we pull into Byblos with its street cafés and palms and the bright Mediterranean lapping at its beautiful, crescent-shaped harbour, what's on my mind about Baalbek is a question. Why didn't the Romans choose to build the greatest and most spectacular temple in their entire empire in Rome itself? Or failing that, if for some reason they felt compelled to build the Temple of Jupiter in Lebanon, then why didn't they build it in a prestigious and

important entrepôt like Byblos? And if not in Byblos, then why not in another of the renowned Phoenician ports along the same coast such as Tyre or Sidon?

Why Baalbek for the Temple of Jupiter? That's the question. But there's no easy answer, because archaeologists and historians admit that not a single shred of evidence exists 'to tell us who commissioned, paid for, or designed any portion of the complex'.[6] We can therefore only speculate as to their motives. It is really rather surprising when you consider the scale of the enterprise that no Emperor, no general and no architect ever claimed credit for it, but the fact is that the temple remained peculiarly absent from the annals of the Romans and of all other peoples for many centuries after it was built.[7]

Not until Macrobius, who wrote in the fifth century AD (by which time Baalbek had long been Christianised) do we even get a reference to the god who was worshipped there.[8] It is almost as

though a spell of silence was cast over the place by the magicians of a former age and that the Romans fell under its glamour, allowing themselves to be bound by it, even as they raised up the huge columns and pediments of their own temples. In consequence, as architectural historian Dell Upton observes, 'ancient Baalbek is a figment of our imaginations'.[9] Even the site itself, as we see it now, is in a sense a work of fantasy, since so much of it:

> was reconstructed by a German archaeological mission in the early twentieth century and by French and Lebanese archaeologists in the 1930s, 1950s and 1960s. The rest we know from reconstruction drawings of the complex in a mythical state of completion.[10]

It is a continuation of this archaeological 'myth-making', I believe, that leads Daniel Lohmann to his paradoxical speculation that the builders of Roman Baalbek were 'megalomaniacs' even though they were, in fact, so self-effacing that they never sought to associate themselves by name with any of the 'giant strides towards

monumentality' that they took there.[11] The most gigantic of all these 'megalomaniac' strides, of course, if Lohmann is right, was the unfinished attempt to give the Temple of Jupiter a purely cosmetic, non-load-bearing podium, rising – had it ever been completed – to around 50 feet high (dwarfing any other Roman temple podium) and made up of blocks weighing hundreds of tons and, in the case of the Trilithon, close to a thousand tons. In Lohmann's reference frame, and the reference frame of every archaeologist for the past century, only megalomaniacs would contemplate such a task.

Since we're all speculating, however, I offer the alternative speculation that the Romans chose Baalbek for the Temple of Jupiter – that it was such a special place to them – precisely *because* the U-shaped wall that Lohmann thinks was the base of their 'megalomaniac' podium was already there, coming down from the time of the gods themselves and worthy of veneration in later ages

purely in order to honour those ancient gods, rather than to exalt the names and stoke the egos of those who honoured them.

Star worshippers

Overlooking the ruins of Phoenician and Roman temples, a castle from the Crusader period (twelfth century AD) is the dominant landmark in Byblos today. And interestingly this Crusader castle, reconstructed and repaired many times, has at least a dozen Roman column drums re-used as masonry blocks in its walls – a reminder that, in this region, you can never take any piece of architecture entirely at face value.

But the castle is a wonderful spot to get a sense of the old, indeed the truly ancient, city of Byblos, from which Phoenician seafarers once sailed out to all points of the known world and beyond – for the suggestion that the Phoenicians reached the Americas thousands of years before Columbus continues to be supported by intriguing

though fragmentary evidence.[12] There is also a mysterious connection with Ancient Egypt that goes far beyond the papyrus trade between these two ancient peoples.

This connection concerns the god Osiris, whose celestial image the Ancient Egyptians saw in the constellation of Orion. The father of Horus and the husband of Isis, the goddess of magic, Osiris was, according to tradition, a great king of primordial times, who offered the gifts of civilization to those who were willing to receive them.[13] After weaning the indigenous peoples of Egypt:

> from their miserable and barbarous manners, he taught them how to till the earth, and how to sow and reap crops, he formulated a code of laws for them, and made them worship the gods and perform service to them. He then left Egypt and travelled over the rest of the world teaching the various nations to do what his own subjects were doing. He forced no man to carry out his instructions, but by means of gentle persuasion and an appeal to their reason, he succeeded in inducing them to practice what he preached.[14]

The deeds of this great civilizing teacher as they are recorded in the Ancient Egyptian annals are, of course, reminiscent of the mission of those companies of gods, magicians and sages whom the Edfu Building Texts tell us 'wandered the earth' in their great ships after the flood that destroyed their homeland, seeking to bring about the resurrection of the antediluvian world. And the antagonist, Set, who appears in the Edfu tradition and is eventually defeated and subdued by Horus, also plays a key role in the Osiris cycle of myths. He plots against the god-king while he is away on his civilizing mission and on his return he contrives to murder him with the help, significantly, of seventy-two co-conspirators.[15] There is code here for, as the reader will recall, the number 72 is the heartbeat of the precessional cycle – the number of years required for one degree of precessional motion.

The body of Osiris, we are told, is placed in a sarcophagus by Set and the other conspirators and thrown in the Nile, whence the

current carries it north and out into the Mediterranean sea. The waves carried the box to the coast of Lebanon:

> and cast it up at Byblos, and as soon as it rested on the ground a large tree sprang up and, growing all around the box, enclosed it on every side. The King of Byblos marvelled at the size of this tree and had it cut down and caused a pillar for his palace to be made of that portion of the trunk which contained the box.[16]

Discovering the whereabouts of her husband's remains, Isis takes ship to Byblos, goes to the palace and contrives to have herself appointed as nursemaid to the children of the King. When unobserved she transforms into a swallow and flies round and round the pillar lamenting. Eventually she reveals her true identity and persuades the monarch to give her the pillar, from which she removes the sarcophagus containing the dead body of Osiris and returns with it to Egypt.[17]

What happens next is a long story, that we needn't go into here, but the upshot is the resurrection of Osiris in the heavens as the

constellation of Orion where, as a star god, he reigns over the afterlife kingdom, his consort Isis by his side in the form of the bright star Sirius (called Sopdu or Sept in the Ancient Egyptian language, often rendered in Greek as Sothis).[18] In one text, which makes these stellar identifications particularly clear, Isis speaks of Osiris as follows:

> Thy sacred image, Orion in heaven, rises and sets every day; I am Sothis following after him, and I will not forsake him.[19]

And in the Pyramid Texts we read, amongst many similar utterances, that 'Osiris has come as Orion'.[20] Multiple other references also identify deceased pharaohs of Egypt with Osiris and with the stars of Orion and Sirius, for example:

> O flesh of the King, do not decay … You shall reach the sky as Orion, your soul shall be as effective as Sothis …[21]

Likewise:

> O King, the sky conceives you with Orion, the dawn light bears you with Orion. He who lives, lives by the command of the gods, and you live. You will regularly ascend with Orion from the eastern region of the sky, you will regularly descend with Orion into the western region of the sky.[22]

From such texts, notes Egyptologist Selim Hassan:

> I think it cannot possibly be denied that, at one period in their history, the Egyptians believed that the souls of their Kings either mingled with the stars, or became a star … and this tradition never entirely died out. Moreover the association of the Giza Pyramids with the stellar cult was long maintained by tradition and those of Khufu and Khafre retained the reputation of being connected with star-worship as late as the Arab Period.[23]

In the same passage, Hassan then goes on to make an observation of the greatest relevance to my research. 'In the Geographical Dictionary, *Mo'gam-el-Buldan,* by Yakut el-Hamawi,' he writes, 'Vol. VIII, p. 457 (Cairo Edition)':

> it is said, after giving the dimensions of the two largest of the Giza Pyramids: 'To both of them the Sabians made their pilgrimage.' Now, of course, these Sabians were star-worshippers, and if I guess rightly they had derived their name from the Egyptian word *sba,* 'star'. The Sabians were followers of an ancient religion … worshippers of the hosts of Heaven, the heavenly bodies … Whatever the origin of their name may have been, the fact remains that they fully recognised the Pyramids of Khufu and Khafre as being monuments connected with the stellar cult, and revered them as places of pilgrimage.[24]

The connection Hassan makes here is a remarkable one, because the home city of the Sabians, since time immemorial, was Harran in southeastern Turkey,[25] within a few miles of Göbekli Tepe. Moreover, as well as being 'star-worshippers', these Sabians of Harran were followers of the 'Books of Thoth' – see Chapter Eleven – in which the Ancient Egyptian wisdom god had set down the 'words of the Sages'. Indeed in Islamic times (for hundreds of years after the revelation of the Koran to the Prophet Muhammad in the seventh century AD), the Sabians were able to win exemption from persecution at the hands of the Muslims by claiming not to be

pagans but a ‘people of the book’, distinguished, like the Christians and Jews, by their possession of a divinely revealed Scripture.[26] When asked to show their ‘book’ they produced a copy of the Hermetic texts – the Greek and Latin writings purporting to be dialogues between Thoth (the Hermes of the Greeks, the Mercury of the Romans) and various of his pupils.[27] It is noteworthy that Thoth, as well as being the god of wisdom, was also ‘Lord of the Moon’,[28] and that the major temple of Harran was dedicated to the moon god of their own pantheon, whose name was Sin.[29] Last but not least, Philo of Byblos tells us that Sanchuniathon, the source of his *Phoenician History*:

> carefully searched out the works of Taautos. He did this since he realised that Taautos was the first person under the sun who thought of the invention of writing and who began to compose records, thereby laying the foundation, as it were, of learning. The Egyptians call him Thouth and the Alexandrians Thoth, and the Greeks translated his name as Hermes.[30]

We stay a few hours longer in Byblos. Excavations of the ancient city lie all around the Crusader castle. There's a Roman colonnade, a small theatre, Phoenician ramparts, the remains, little more than foundations, of the Temple of Baalat-Gebel, circa 2800 BC and dedicated to the Phoenician patron goddess of Byblos, and the so-called L-shaped temple, circa 2600 BC – a sacred lake once separated the two edifices. On top of a podium a number of small, crude obelisks still stand – the 'Temple of the Obelisks', circa 1900 to 1600 BC. There are the remains of the royal necropolis of the Kings of Byblos, circa eighteenth century BC down to tenth century BC, but mingled in with all this, very close to it, is the Neolithic quarter, dating back to 5000 BC and beyond, where the inhabitants of Byblos first started to make floors of crushed limestone around 4500 BC.[31]

All these ruins and remains are jumbled together promiscuously, one on top of the other, around one another, century upon century,

millennium upon millennium, receding back into prehistory, very comprehensively picked clean by the archaeologists and left on show as tourist attractions. The site does not touch my heart and in the absence of Sanchuniathon's original text, in the absence even of Philo's *History*, other than in the fragments that have survived, I feel there's nothing more of use that I can do here.

It's time to move on.

Hill of pillars

It's a short flight from Beirut to Istanbul and from Istanbul it's only another short hop to the city of Şanllurfa, which Santha and I will use as our base for visiting Harran, the city of the mysterious 'star-worshipping' Sabians, and for a return visit to Göbekli Tepe. Our first target, however, is neither of these places. Instead we seek out an as yet unexcavated site which shows every indication of being as old as Göbekli Tepe and which appears to have been dedicated to

the same mysterious purpose. The name of this site, I've learned from my background research, is Karahan Tepe, but knowing its name is one thing; finding it is quite another.

It's baking hot in southeastern Turkey in July. Our driver speaks English so there's no problem communicating with him, and he in turn can communicate with others on our behalf, but nobody we pass as we drive through a landscape of irrigated fields and barren hills seems to have the faintest idea where Karahan Tepe is. Well, why should they, after all? It's just another hill and by all accounts it's in a fairly deserted spot. We do find it in the end, however, about 15 kilometres south of the main E90 highway and 65 kilometres east of Şanlıurfa. That's where we spot a little farmstead surrounded by low walls and poor fields at the end of a bumpy dirt track. The farmer points to a hill rising a few hundred metres to our north. It's on his land, he says, but we're welcome to take a look. He assigns his teenage son to show us how to drive our car as close as possible to the site, then we step out and go the rest of the way on

foot.

The *tepe* is a ridge of limestone running roughly north to south with steep slopes, covered in loose crumbly soil, overgrown with yellow grass on its eastern and western flanks. The top of the ridge is about 705 metres above sea level, but the climb from where we've parked is only another 50 metres and almost immediately we start seeing the characteristic T-shapes of the pillars we're familiar with from Göbekli Tepe. They are everywhere around the sides of the ridge, dozens of them, some organised in circles, others in what appear to be parallel rows, but all of them are quite deeply buried with only the distinctive tops of the 'T' protruding above the ground.

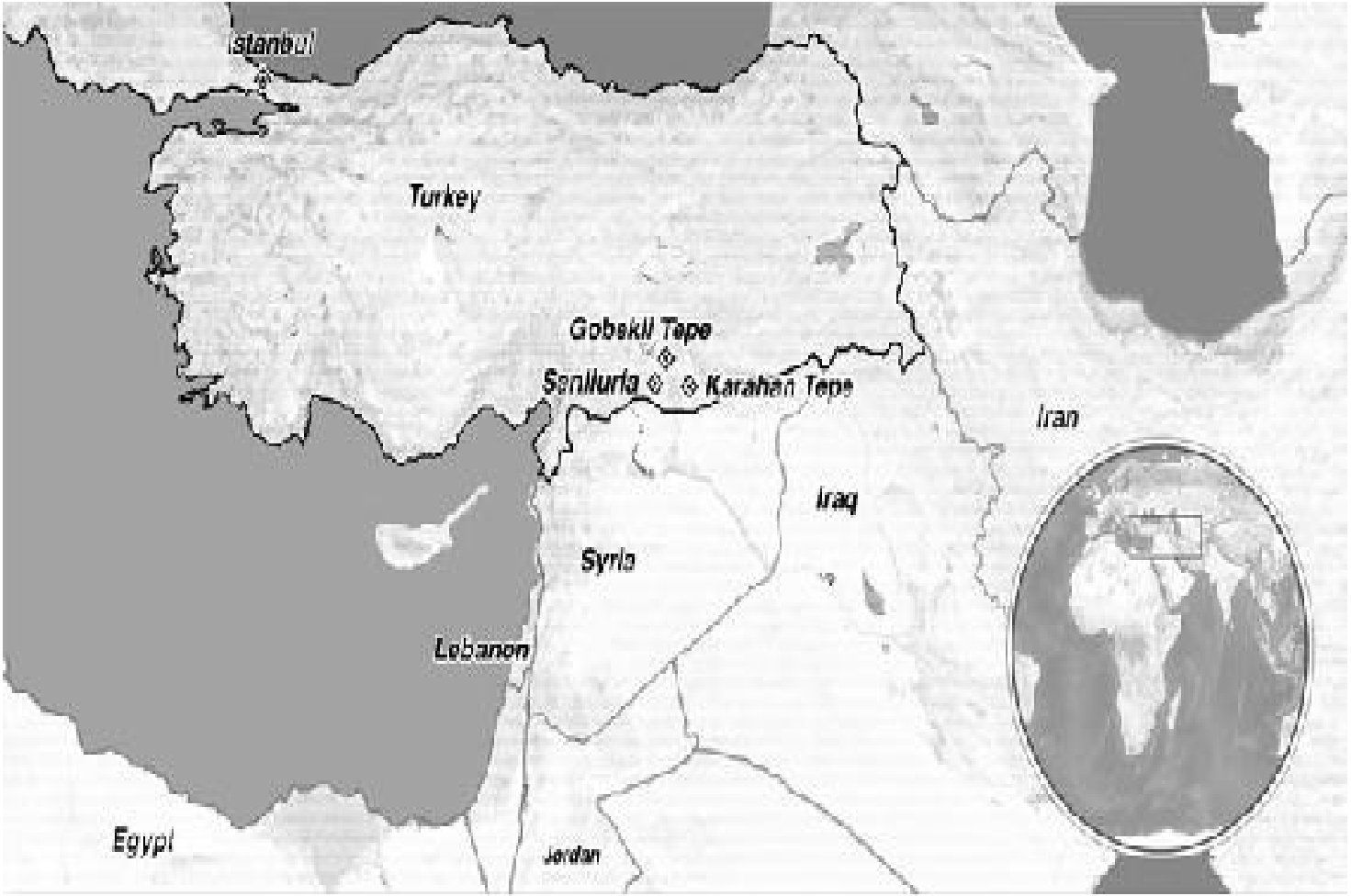
Istanbul
Turkey
Gobekli Tepe
Sanliurfa
Karahan Tepe
Iran
Iraq
Syria
Lebanon
Egypt
Jordan

Figure 45

Extraordinarily, other than confirming that Karahan Tepe is the same age as Göbekli Tepe, i.e. between 11,000 and 12,000 years old, and that it was abandoned at around the same time, i.e. around 10,200 years ago, after which it was never resettled,[32] almost no archaeology has been done on the site at all. Local people, on the other hand, have been busy here looking for treasure and their efforts have exposed and broken a number of the pillars, two with serpents carved on them exactly in the manner that serpents are depicted on the pillars of Göbekli Tepe.

Along the top of the ridge we find numerous semi-spherical depressions, like little craters, cut into the rock. Some have very clean, sharply-defined edges that are typically about 30 centimetres (1 foot) in diameter and up to 15 centimetres (6 inches) deep – although there are also smaller and larger cupules present. In most cases they are grouped into arrays of a dozen or more, sometimes in

rows, sometimes in circular or spiral patterns – but in such a random way that it is difficult to see the logic behind them.

As at Göbekli Tepe, it is clear that the quarrying of the pillars was done on site and we find a number of places where parallel grooves, marking out the shape of a pillar, have been cut into the bedrock of the ridge. There is one almost complete T-shaped pillar still in situ in the quarry that measures 4.5 metres (14 feet 10 inches) high, 1.5 metres (5 feet) wide and 80 centimetres (2 feet 7 inches) thick.[33] Looking from that to the forest of pillars with only their heads protruding above the flanks of the hill, I can't help but wonder what would be found here if a proper excavation was done. Göbekli Tepe has already rewritten the history of mankind and here is another Göbekli Tepe, pristine, practically untouched, and no one seems in the least bit interested. Indeed there is even a broken L-shaped fragment of a carefully cut block that once formed a complete square 'window' or 'porthole' – similar pieces have been found

intact at Göbekli Tepe – that has been used here as part of the hearth for some shepherd's fire and now sits blackened with smoke in a sheltered corner near the top of the ridge.

It's incomprehensible to me that a place as important as Karahan Tepe, with so much to teach us, could be so ignored and so disregarded. I have often said, as I did at the end of the last chapter, that we are a species with amnesia. I attribute our great forgetfulness of our own past, the blank pages in our memory, to the terrible cataclysms the earth passed through at the end of the Ice Age, but here at Karahan Tepe I'm reminded that our collective stupor is also often wilfully self-inflicted – as though we no longer care to know where we come from or who we really are.

Control of the past

The next day Santha and I go back to Göbekli Tepe. Klaus Schmidt is still alive at this point in July 2014, but he's away in Germany for

the summer and in just a few days' time he will die of a heart attack.

In his absence I want to take another look at the site. In particular, I'm hoping to arrange to be there at night, so that I can experience it under the open sky and get a sense of its relationship to the stars above as well as to the earth below. Instead, what I get is another forceful reminder of how we humans wilfully desecrate the precious gifts bequeathed to us by our ancestors.

Even in 2013 the archaeological vandalizing and defacing of the site was well advanced with a hideous raised walkway in place, but what has happened since our last visit is almost beyond words to describe. A massively ugly wooden roof now looms over the megalithic enclosures, entirely covering them, and hulking platforms loaded with tons of stones have been suspended beneath it to prevent the roof from blowing away in high winds. These platforms, together with the struts supporting the roof and the prominent 'no entry' signs scattered around, make it almost

impossible to see the megalithic pillars or to appreciate their profound, original beauty and spiritual power.

What the archaeologists have done – of course, they claim they did it to 'protect' the site – is a travesty, an abomination, a masterpiece of ugliness, and we, the global public, whose heritage Göbekli Tepe is, are left cheated and bereft. I simply cannot understand the minds that could have boxed in, caged and imprisoned Göbekli Tepe in this way. I cannot begin to imagine what they were thinking. And even if the roof is 'temporary' as is presently claimed – until, no doubt, a larger one is put in place – that is no excuse. Better no roof at all (the site has managed very well without one for nearly nineteen years since the first excavations began) than even five minutes of this vile 'temporary' horror.

Besides, I have grave doubts about how 'temporary' it will be. It has taken almost a year for the German Archaeological Institute to put the roof up (they were already working on it during our previous

visit in September 2013), a lot of money has been spent on it, and I fear we will not see it removed and replaced with something more aesthetically appropriate to the majesty and mystery of Göbekli Tepe for a very long while.

As to a night visit, and my plan to see the stars with the megaliths around me … What a joke! The roof has cut Göbekli Tepe off entirely from the cosmos. It feels almost like a deliberate, calculated act of disempowerment – as though someone amongst the powers that be suddenly woke up and realised how dangerous this ancient place has become to the established order of things and how subversive it potentially is to the system of mind control, very much including control of the past, that keeps modern society in order.

Ancient astronomers

That night back in our hotel I'm working on my laptop, going through a pile of research papers about Göbekli Tepe that I've

downloaded and brought with me. Most of them are from academic journals, but one is from my own website. Written by registered engineer and environmental geologist Paul Burley, I published it in March 2013 and haven't read it since. I recall at the time feeling it was important, but I can't immediately remember why. Göbekli Tepe wasn't as central to my concerns then as it is today. Now as I read through Burley's paper in the light of everything I've learned since March 2013, its central message, and exactly why it matters, hits me like a shot of adrenaline.

Klaus Schmidt's opposition to any form of astronomical connection at Göbekli Tepe, which I reported briefly in Chapter One, was based more on his own profound ignorance of astronomy and distaste for the subject, than anything else. In the teeth of this hostility from the lead archaeologist, however, a number of scientists have studied Göbekli Tepe to see if any of the enclosures, or the groups of pillars within them, reveal any obvious astronomical alignments. It is the unanimous testimony of all these

studies that Göbekli Tepe is *a profoundly astronomical site*, that its builders observed the stars closely, and that they were able to manifest these observations very successfully in the alignments of the structures on the ground.

I'll give a few examples here.

Dr Giulio Magli, Professor of Mathematical Physics at the Politecnico di Milano, is a leading Italian astrophysicist who has conducted archaeoastronomical studies of a number of ancient sites and monuments around the world. In 2013 he published a research paper on Göbekli Tepe based on precise computer simulations of changes in the sky brought about over long periods by precession[34] – a phenomenon that we have already explored. It is Magli's case that Sirius, the star the Ancient Egyptians identified with the goddess Isis, was an object of particular interest to the builders of Göbekli Tepe:

> Simulating the sky in the tenth millennium BC, it is possible to see that a quite spectacular phenomenon occurred at Göbekli Tepe in that period: the 'birth' of a 'new' star, and certainly not of an ordinary one, as it is the brightest star and the fourth most brilliant object of the sky: Sirius. Indeed precession, at the latitude of Göbekli Tepe, brought Sirius under the horizon in the years around 15,000 BC. After reaching the minimum, Sirius started to come closer to the horizon and it became visible again, very low and close to due south, towards 9300 BC.[35]

Thereafter, Magli goes on to demonstrate, the rising points of Sirius along the horizon, which also change very slowly as a result of precession, appear to have been 'tracked' at Göbekli Tepe by Enclosure D, Enclosure C and Enclosure B. The extrapolated mean azimuths of these enclosures, taken as the mid-lines between the two central monoliths in each case, align with the rising azimuth of Sirius in respectively 9100 BC, 8750 BC and 8300 BC.[36] 'The structures of Göbekli Tepe,' Magli concludes, 'were conceived to celebrate, and then follow in the course of the centuries, the appearance of a brilliant 'guest' star in the sky: Sirius.'[37]

Professor Robert Schoch of Boston University, though not an astronomer, also detected astronomical alignments at Göbekli Tepe, and in the same region of the sky highlighted by Magli. However, Schoch came to a different conclusion about what stellar objects might have interested the builders. 'This is a difficult question to answer,' he wrote, before going on to offer the following hypothesis:

> On the morning of the Vernal Equinox of circa 10,000 BCE, before the sun rose due east at Göbekli Tepe, the Pleiades, Taurus, and the top of Orion were in view in the direction indicated by the central stones of Enclosure D, with Orion's belt not far above the horizon as dawn broke (as seen from the best vantage points in the area). A similar scenario played out for the orientation of the central stones of Enclosure C in circa 9500 BCE and for Enclosure B in circa 9000 BCE. Enclosure A is oriented toward the Pleiades, Taurus, and Orion on the morning of the Vernal Equinox circa 8500 BCE, but due to precessional changes, the entire belt of Orion no longer rose above the horizon before dawn broke. By about 8150 BCE the belt of Orion remained below the horizon at dawn on the morning of the Vernal Equinox. These dates fit well the timeframe established for Göbekli Tepe on the basis of radiocarbon dating.[38]

Other non-astronomers, author Andrew Collins and chartered engineer Rodney Hale, looked in the opposite direction to Schoch and Magli, i.e. north instead of south, and found strong alignments with the setting of Deneb, the brightest star in the constellation of Cygnus. Again the alignments turn out to track the changes in the position of the star caused by precession.[39] The growing impression that the builders of Göbekli Tepe paid close attention to the stars and were fully aware of the effects of precessional motion on the celestial landscape, was confirmed in January 2015 in an article in the journal *Archaeological Discovery*, by Alessandro De Lorenzis and Vincenzo Orofino, both of the Department of Mathematics and Physics at the University of Salento, Italy. They concluded that Collins and Hale were correct and that, on the northern side of their orientations, 'the central pillars of the studied enclosures are in fact turned to face the setting of Deneb.'[40] Lorentis and Orofino refined the dates given by Collins and Hale, pushing them back by about

200 years, but agreed that subtle changes in the orientation of the enclosures were evidence of the tracking of pre-cession.[41]

Astrophysicist Juan Antonio Belmonte also looked at the astronomical characteristics of Göbekli Tepe. He noted that amongst the circular enclosures, 'there is one with nearly rectangular walls, which were almost perfectly aligned to the cardinal points.'[42] Needless to say such exact alignments, as at the Great Pyramid of Giza in Egypt, cannot have been achieved without the use of equally exact astronomical observations.

Belmonte also paid attention to the 'profuse decoration' of the T-pillars at Göbekli Tepe, concluding that these may represent:

> yet other astronomical observations, such as the crescent and the star, so common in later cultures of the Middle East … Then there are what could be interpreted as totemic representations of animals, which, if we may continue to speculate, could symbolise constellations such as Leo, Taurus and Scorpio.

This is the right moment to deal with Klaus Schmidt's argument (see Chapter One) that there couldn't possibly be any 'astronomical figures' at Göbekli Tepi, because 'the zodiac constellations were not recognised until Babylonian times, nine thousand years after Göbekli Tepe'. I didn't challenge him on this point when I interviewed him, because I was more interested in hearing his own views on Göbekli Tepe, rather than engaging him in a possibly acrimonious debate. Clearly, however, Belmonte, who knows his stuff, does not agree with the position taken by Schmidt.

Neither, for that matter does the Russian astronomer and historian of science Alexander Gurshtein, who traces the first recognition and naming of constellations – notably the Great Bear – to 20,000 BC,[43] and more detailed knowledge of the zodiac to the epoch of 5600 BC.[44]

German archaeoastronomer Michael Rappengluck pushes the origins of the zodiac even further back than that, however. He has

identified an accurate depiction of the zodiacal constellation of Taurus painted more than 17,000 years ago in the Hall of Bulls in Lascaux cave in France.[45]

Rappengluck points out that there are four key moments of the year, the spring equinox, the autumn equinox, the winter solstice and the summer solstice. We've seen already how the 'character' of a world age has long been thought to be governed by the zodiacal constellation that 'houses' the sun on the spring equinox, but other constellations also 'house' the other three prominent 'stations of the sun' at the autumn equinox, and at the summer and winter solstices, and when a shift of age takes place with one constellation giving way to another on the spring equinox, so the constellations governing the other three 'stations' also shift.

There is not space to go into the evidence in detail here, but the essence of Rappengluck's argument concerning Lascaux is that depicted there is the whole constellation of Taurus (in one of the

aurochs or ‘bull’ figures in the Hall of Bulls) and also above its shoulder, in a distinctive pattern of six dots, the six visible stars of the Pleiades, which form a highly recognizable element of Taurus. Moreover a date can be put on this depiction:

> The Pleiades in 15,300 BC were very near the point of the autumn equinox … The six stars in the ‘Salle des Taureaux’ therefore represent a striking and excellent heavenly marker for the beginning of autumn … The epoch calculated astronomically lies extraordinarily close to the … carbon-14 dating [for human activity in this part of the cave] corresponding to 15,300 BC.[46]

In other work Rappengluck provides further compelling evidence that our ancestors, at least as early as the epoch between 16,000 BC and 10,000 BC:

> recognised single and very complex star patterns, including the Milky Way, the Northern Crown in the cave of El Castillo (Spain), the Pleiades in the cave of Lascaux (France) and the main constellations of the sky at the same location.[47]

He also documents a rock panel in the cave of La Tete du Lion (France) that:

> shows the combination of a star pattern – Aldebaran in the Bull and the Pleiades – with a drawing of the moon's cycle above. This picture comes from the Solutrean epoch [ca 19,000 to 20,000 BC]. It shows not only a remarkable similarity with the representation in the Lascaux cave, but clearly connects the star pattern with part of the lunar cycle.[48]

Rappengluck's conclusion, and again I must cut a long story short, is that:

> hunter-gatherers of Palaeolithic epochs looked up to the starry sky and saw the open cluster of the Pleiades with the wandering moon and sun near or between the Golden Gate of the ecliptic, 21,000 years ago.[49]

The 'Golden Gate of the ecliptic' that Rappengluck refers to here was traditionally conceived of as that area of the heavens bounded by the Hyades and the Pleiades (both of which are star groups within the constellation of Taurus), between which, as though

through a great celestial 'gate', the ecliptic passes.[50] The 'ecliptic' is the technical term for the sun's perceived 'path' through the heavens. The implication, therefore, is that the path of the sun (and the moon[51]) against the background of the constellations of the zodiac was observed, depicted and understood in the Palaeolithic, perhaps as much as 10,000 years *before* Göbekli Tepe was built. For this reason Belmonte makes a point of citing Rappengluck's work, and indeed of showing a photo provided by Rappengluck of the Taurus figure in the Hall of Bulls at Lascaux,[52] when he makes his seemingly off the cuff remark that zodiacal constellations 'such as Leo, Taurus and Scorpio' might be the inspiration for the 'totemic' animals depicted at Göbekli Tepe.

For Belmonte, in summary, Göbekli Tepe offers evidence that:

> a completely unknown hunter-gatherer society more than 11,000 years ago sought to create monumental structures linked to the heavens. This series of sanctuaries, built presumably one after the other and even one upon another, may have been used for centuries, perhaps millennia, to chart the heavens. However, for reasons

> which are unknown, the constructors deliberately buried the structures, creating conditions which contributed to their excellent state of preservation despite their great antiquity.[53]

Certainly the indigenous inhabitants of the Göbekli Tepe area were hunter-gatherers – and completely unknown hunter-gatherers at that! But it has been my thesis throughout this book that their sudden venture into spectacular monumental architecture, closely followed by their equally spectacular 'invention' of agriculture, is very strange. Indeed it amounts to an almost inexplicable 'great leap forward' that cries out for a coherent explanation which archaeology has yet to provide. The hypothesis we are exploring here, and that I believe might explain these anomalies, is that the survivors of a lost civilization, who had already mastered agriculture and knew everything there was to know about building with megaliths, had settled amongst the hunter-gatherers of Göbekli Tepe following the Younger Dryas cataclysm and transferred some of their skills to them.

Now, in addition to megalithic architecture and agriculture we must take the evidence of astronomy into account. At first sight, while the work of Belmonte, Collins, Hale, Schoch, Magli and others confirms that competent astronomers must have been at work at Göbekli Tepe, we cannot say that the level of knowledge manifested in the alignments of the pillars and enclosures was necessarily that of a sophisticated 'civilization'. We've seen from the research done by Gurshtein and Rappengluck that careful observations of the sky, and identification of constellations we can still recognise today, can be traced back into the Neolithic and beyond that into the art of the painted caves of the Palaeolithic 20,000 or more years ago. So expressions of such knowledge at Göbekli Tepe need not surprise us unduly.

But suppose there was something else – something that hunter-gatherers, no matter how savvy, could not be expected to have known under any circumstances?

It is that elusive ‘something else’ that Paul Burley’s work brought home to me, like a shot of adrenaline, when I re-read his paper in my hotel room in Şanllurfa in July 2014.

Neolithic puzzle

Burley’s paper is entitled ‘Göbekli Tepe: Temples Communicating an Ancient Cosmic Geography’. He wrote it originally in June 2011, I met him at the Conference of Precession and Ancient Knowledge in Sedona, Arizona, in September that year, we exchanged a couple of emails during 2012, and in February 2013 he asked me to read his paper, which he said concerned ‘evidence of a zodiac on one of the pillars at Göbekli Tepe’. I read it, replied that I found it ‘very persuasive and interesting, with significant implications’ and told him I’d like to publish it on the Articles page of my website. Paul agreed and the article went live on 8 March 2013.[54] It’s still there, accessible through the URL provided in the note.

‘Significant implications’, I now realise as I read through the paper again in my hotel room in Şanlıurfa, was a huge understatement. But I didn’t make my first visit to Göbekli Tepe until September 2013 and by then, clearly, I’d forgotten the gist of Burley’s argument, which focuses almost exclusively on Enclosure D and on the very pillar, Pillar 43, that I’d been most interested in when I was there. My interest in it had been sparked by Belmonte’s suggestion that the relief carving of a scorpion near its base (which the reader will recall was hidden by rubble that Schmidt refused to allow me to move) might be a representation of the zodiacal constellation of Scorpio. So it was a lapse on my part not to have re-read Burley’s paper documenting ‘a zodiac’ on the same pillar before I travelled to the site. But we’re all human, we all make mistakes, we all forget things and despite acknowledging its ‘significant implications’ in our correspondence six months earlier, what Burley had discovered had slipped my mind entirely on my September 2013 visit.

Here's where he gets to his point:

One of the limestone pillars [in Enclosure D] includes a scene in bas relief on the upper portion of one of its sides. There is a bird with outstretched wings, two smaller birds, a scorpion, a snake, a circle, and a number of wavy lines and cord-like features. At first glance this lithified menagerie appears to be simply a hodgepodge of animals and geometrical designs randomly placed to fill in the broad side of the pillar.

The key to unlocking this early Neolithic puzzle is the circle situated at the centre of the scene. I am immediately reminded of the cosmic Father – the Sun. The next clues are the scorpion facing up toward the sun, and the large bird seemingly holding the sun upon its outstretched wing. In fact the sun figure appears to be located accurately on the ecliptic with respect to the familiar constellation of Scorpio, although the scorpion on the pillar occupies only the left portion, or head, of our modern conception of that constellation. As such the sun symbol is located as close to the galactic centre as it can be on the ecliptic as it crosses the galactic plane.

GALACTIC PLANE
OPHIUCHUS
SERPENS
DARK RIFT
SAGITTARIUS
SUN
ECLIPTIC
CORONA AUSTRALIS
SCORPIO
TELESCOPIUM
NORMA
ARA
TRIANGULUM AUSTRALE
GALACTIC PLANE
PAVO

Figure 46: The celestial imagery of Pillar 43.

Bear with me, and I'll explain all this. Meanwhile, let's continue with Burley's article because it's his next statement that really has me sitting up and paying attention:

> What's important here is *for some unknown reason the builders of Göbekli Tepe constructed a temple apparently highlighting a time 11,600 years in their future.* Yet this scene is intentional. The symbolism is clear and in keeping with many mythologies describing this very same event – occurring at the very time we live in today!

Burley then presents a graphic that 'illustrates the crossing of the galactic plane of the Milky Way near the centre of the galaxy, with several familiar constellations nearby'. A second graphic shows the same view with the addition of the ancient constellations represented on the pillar:

> Note that the outstretched wings, sun, bird legs and snake all appear to be oriented to emphasise the sun's path along the ecliptic … The similarity of the bas relief to

> the crossing of the ecliptic and galactic equator at the centre of the Milky Way is difficult to reject, supporting the possibility that humans recognised and documented the precession of the equinoxes thousands of years earlier than is generally accepted by scholars … Göbekli Tepe was built as a symbolic sphere communicating a very ancient understanding of world and cosmic geography. Why this knowledge was intentionally buried soon afterward remains a mystery.

I don't immediately understand everything that Burley is saying in all this, but I understand enough to get started on it and fortunately I have astronomy software – Stellarium – on my computer that can simulate the ancient skies taking account of precession. More importantly, the program can show me the sky of our own time and will allow me to scroll through it day by day, month by month, going forward or back as I wish, enlarging and inspecting any specific elements that I'm interested in. Most often I study ancient skies, not modern ones, but tonight it's our own time I need to take a look at.

Or, rather, not exactly our own time, July 2014 as I sit in front of my computer in Şanlıurfa, but a year and a half earlier, the winter

solstice, 21 December 2012 – the much hyped ‘end date’ (that passed with not so much as a whimper, let alone a bang) of the famous Mayan calendar.

Message on a pillar?

Here’s what I’m aware of already as I open Stellarium on my computer. When Paul Burley talks about the sun depicted on the Göbekli Tepe pillar being located ‘as close to the galactic centre as it can be on the ecliptic’, and when he also makes a point of telling me that Scorpio is involved, I know he can only be referring to one epoch – the epoch of the year 2000, give or take a maximum of about 40 years on either side (i.e. from 1960 to 2040). The great band of stars and clouds of interstellar dust arching across the sky that we call the Milky Way, and that is in fact our own home galaxy viewed edge on, is crossed by the ecliptic – i.e. the sun’s apparent path through the heavens – twice a year. One of these gigantic

interchanges is in the North between the constellations of Gemini and Taurus; in our epoch the sun stands here at the northern hemisphere's summer solstice, i.e. around 21 June. The second interchange is in the South between the constellations of Sagittarius and Scorpio, and in our epoch the sun stands here at the northern hemisphere's winter solstice, i.e. around 21 December.

The reader will recall that precession has the visual effect, as viewed from earth, of causing the constellations that 'house' the sun at the four key moments of the year – the two equinoxes and the two solstices – to shift very slowly around the belt of the zodiac, with the sun spending 2,160 years 'in' each zodiacal constellation at each key moment, before the whole system slips round far enough for the sun to have passed completely from one constellation into another. When this happens at the equinox, it happens at the other three 'stations' as well. Indeed, it is a good mental exercise to imagine a circle – which represents the ecliptic, i.e. the annual path of the sun – and to mark out at equal intervals around the circumference of this

circle the twelve constellations of the zodiac. Now place four spokes arranged in the form of a cross inside the circle. Where each of the four ends of the cross touch the edge of the circle, you have one of the key stations of the sun – the northern hemisphere's spring equinox (21 March), summer solstice (21 June), autumn equinox (21 September), and winter solstice (21 December). In our epoch, the zodiacal constellations housing the sun at these four stations are Pisces on the March equinox, Gemini on the June solstice, Virgo on the September equinox, and Sagittarius on the December solstice.

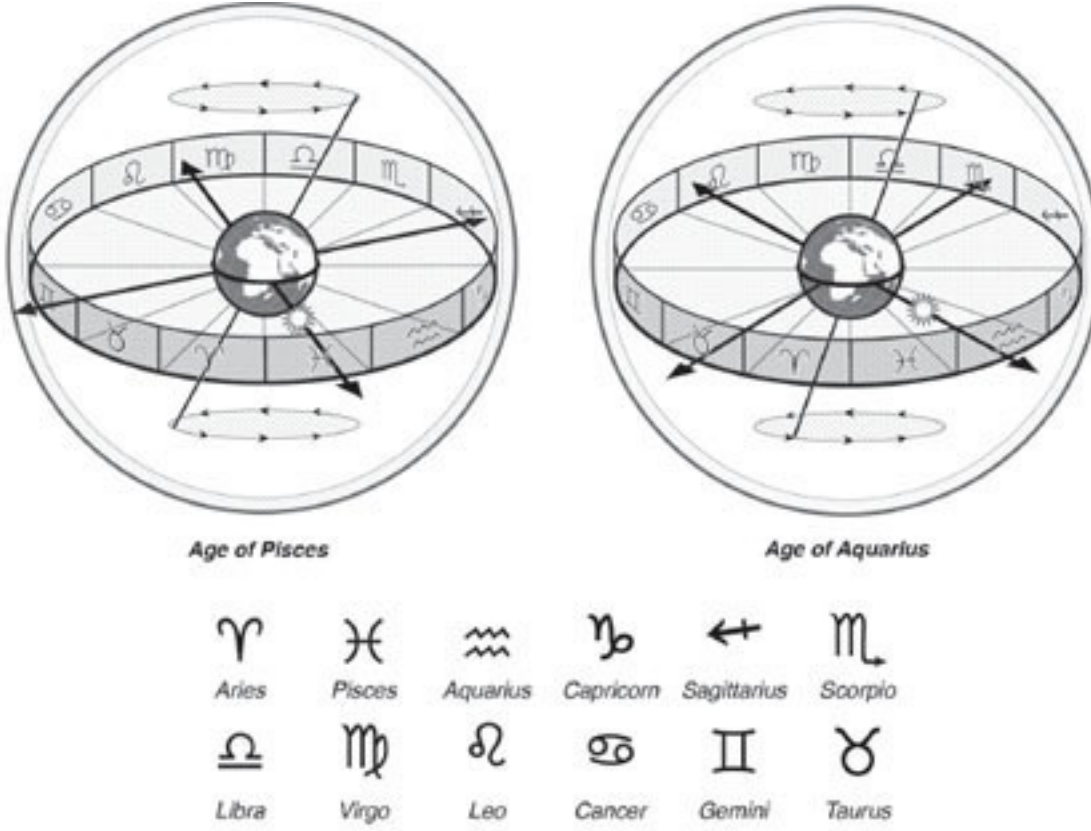

Figure 47: The precessional shift from the Age of Pisces into the Age of Aquarius. As the position of the sun against the background zodiacal constellations on the spring equinox shifts from Pisces into Aquarius, so the summer solstice will shift from Gemini into

Taurus, the autumn equinox from Virgo into Leo, and the winter solstice from Sagittarius into Scorpio.

However, precession has the effect of very slowly rotating the spokes of the cross. We are nearing the end of the 'Age of Pisces' now (i.e. of the 2,160 years when Pisces houses the sun on the March equinox) and the end of the spoke that was in Pisces will soon rotate into Aquarius (hence the song, 'we live in the dawning of the Age of Aquarius'). But because the cross is, if you like, welded together to form a single fixed unit, all its spokes must move together with the result that as the March equinox shifts from Pisces into Aquarius, so the June solstice will shift from Gemini into Taurus, the September equinox from Virgo into Leo, and the December solstice from Sagittarius into Scorpio.

I want to avoid undue complications as far as possible here, but let us now return to the Milky Way which, as we've seen, is crossed by the path of the sun twice a year. Remember that at each crossing point a pair of zodiacal constellations sits on either side of the Milky

Way, effectively forming the pillars of two celestial gates through which the 'road' of the Milky Way passes – Gemini and Taurus in the North (with the sun presently housed by Gemini at the June solstice) and Sagittarius and Scorpio in the South (with the sun presently housed by Sagittarius at the December solstice). *The relationship of these two pairs of zodiacal constellations to the Milky Way is not affected by precession and NEVER CHANGES.* Gemini and Taurus will always mark the northern 'gate' of the Milky Way and Sagittarius and Scorpio will always mark the southern 'gate' of the Milky Way.

Of the two, however, it is the Sagittarius–Scorpio gate that is the most important, because it so happens that the part of the Milky Way seen through this gate as we look up at the night sky forms the very centre and heart of our galaxy. Not only that, but because it is the galactic centre, in the midst of which, astronomers now believe, sits an immense black hole – 'a hyperdense object from which even

light cannot escape'[55] – there is a notable bulge in precisely this area. Last but not least, in the midst of this so-called 'nuclear bulge' is another absolutely distinctive feature that astronomers call the 'dark rift', which figures prominently in many ancient mythologies,[56] and which is created by a series of overlapping, non-luminous molecular dust clouds.

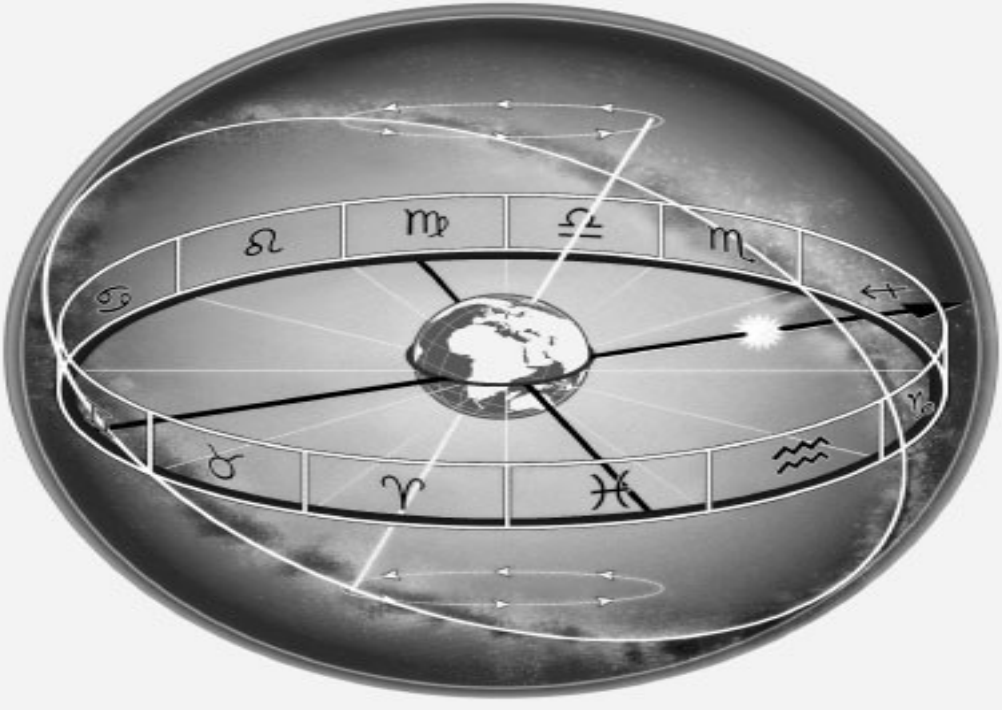

♈	♓	♒	♑	♐	♏
Aries	Pisces	Aquarius	Capricorn	Sagittarius	Scorpio
♎	♍	♌	♋	♊	♉
Libra	Virgo	Leo	Cancer	Gemini	Taurus

Figure 48: The celestial gateways: Sagittarius/Scorpio at right, with the sun presently housed by Sagittarius at the winter solstice; and Gemini/Taurus at left,with the sun presently housed by Gemini at the summer solstice.

As a result of precession, the December solstice sun is presently housed by Sagittarius and thus, as viewed from earth, 'targets' the galactic centre like the bead on the barrel of a rifle. The last time this grand celestial line-up of earth, December-solstice sun and the galactic centre occurred was a full precessional cycle of 25,920 years ago and the next time it will happen is a full precessional cycle of 25,920 years in the future. We live, in other words, in a very special, indeed rather unique, moment in terms of cosmic and astronomical symbolism. I will elaborate in the next chapter on the symbolic aspect, and why the December solstice matters in particular, but first it is important to make something else clear.

If, hypothetically, some ancient civilization wished to deploy its knowledge of the regular movements and changes in the heavens in

order to draw attention to a particular moment in the flow of time, a possibility that we have considered with the monuments of Giza, then the precessional world ages, while useful, are not really precise enough to spell out an exact date. After all, the broad configurations of each precessional age hold good for 2,160 years. If we want to be more specific than that, then we are going to need to find a celestial event in the period we wish to draw attention to which is (a) an artefact of precession and (b) occurs in a much narrower window than that of a full precessional world age of 2,160 years.

Such an event occurs in our time. It is the arrival of the sun at the December solstice in the southern gate of the Milky Way between Sagittarius and Scorpio, where it targets the galactic centre. There are certain imprecisions, mainly to do with the width of the sun's disc and over what period we can say it lines up exactly with the centre of the Milky Way when viewed from earth, but nonetheless, we are not talking about 2,160 years here. The exact targeting of the galactic centre occurs in a window that is no more than 80-years

wide and we will continue to be in that window for approximately another 25 years.

This creates an interesting situation with regard to the message of Pillar 43 at Göbekli Tepe, because if Paul Burley is right, the reliefs on that pillar use symbolic language to depict the December solstice sun at the southern gate of the Milky Way between Sagittarius and Scorpio.

In other words, those reliefs are speaking to our time.

They are speaking to us.

Chapter 15

The Place of Creation

As I sit in my hotel room in Şanllurfa in July 2014 spinning the skies on my computer screen, I'm coming more and more to the conclusion that Paul Burley has had a genius insight about the scene on Pillar 43 at Göbekli Tepe. Burley's language in his paper is careful – almost diffident. As we saw in Chapter Fourteen, he says that 'the sun figure appears to be located accurately on the ecliptic with respect to the familiar constellation of Scorpio'. He speaks of other 'familiar constellations' nearby. And he draws our attention to the large bird – the vulture – 'seemingly holding the sun upon an

outstretched wing'. He does not say which constellation he believes the vulture represents, but the graphics he includes to reinforce his argument leave no room for doubt that he regards it as an ancient representation of the constellation of Sagittarius.[1]

We've already seen that there is evidence for the identification of constellations going far back into the Ice Age, some of which were portrayed in those remote times in forms that are recognizable to us today. From the last chapter the reader will recall Michael Rappengluck's work on the zodiacal constellation of Taurus, depicted at Lascaux some 17,000 years ago as an aurochs (ancient species of wild cattle) with the six visible stars of the Pleiades on its shoulder.

Acknowledging such surprising continuities in the ways that some constellations are depicted does not mean that all the constellations we are familiar with now have always been depicted in the same way by all cultures at all periods of history. This is very

far from being the case. Constellations are subject to sometimes radical change depending on which imaginary figures different cultures choose to project upon the sky. For example, the Mesopotamian constellation of the Bull of Heaven and the modern constellation of Taurus share the Hyades cluster as the head, but in other respects are very different.[2] Likewise the Mesopotamian constellation of the Bow and Arrow is built from stars in the constellations that we call Argo and Canis Major, with the star Sirius as the tip of the arrow. The Chinese also have a Bow and Arrow constellation built from pretty much the same stars but the arrow is shorter, with Sirius forming not the tip but the target.[3]

Even when constellation boundaries remain the same from culture to culture, the ways in which those constellations are seen can be very different. Thus the Ancient Egyptians knew the constellation that we call the Great Bear, but represented it as the foreleg of a bull. They saw the Little Bear (Ursa Minor) as a jackal.

They depicted the zodiacal constellation of Cancer as a scarab beetle. The constellation of Draco, which we see as a dragon, was figured by the Ancient Egyptians as a hippopotamus with a crocodile on its back.[4]

There can therefore be no objection in principle to the suggestion that the constellation we call Sagittarius, 'the Archer' – and depict as a centaur man-horse hybrid holding a bow with arrow drawn – could have been seen by the builders of Göbekli Tepe as a vulture with outstretched wings.

I spend hours on Stellarium toggling back and forth between the sky of 9600 BC and the sky of our own epoch, focusing on the region between Sagittarius and Scorpio – the region Burley believes is depicted on Pillar 43 – and looking at the relationship of the sun to these background constellations.

The first thing that becomes clear to me is that a vulture with outstretched wings makes a *very good* figure of Sagittarius; indeed

it’s a much better, more intuitive and more obvious way to represent the central part of this constellation than the centaur/archer that we have inherited from the Mesopotamians and the Greeks. This central part of Sagittarius (minus the centaur’s legs and tail) happens to contain its brightest stars and forms an easily recognised asterism often called the ‘Teapot’ by astronomers today – because it does resemble a modern teapot with a handle, a pointed lid and a spout. The handle and spout elements, however, could equally effectively be drawn as the outstretched wings of a vulture, while the pointed ‘lid’ becomes the vulture’s neck and head. It is the outstretched wing in front of the vulture – the spout of the teapot – that Burley sees as ‘holding the sun’, represented by the prominent disc in the middle of the scene on Pillar 43.

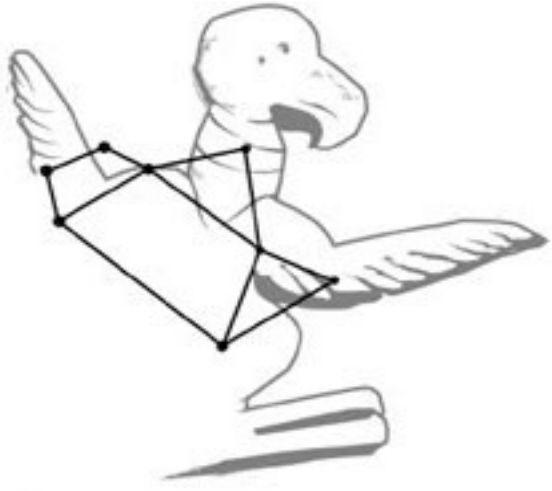

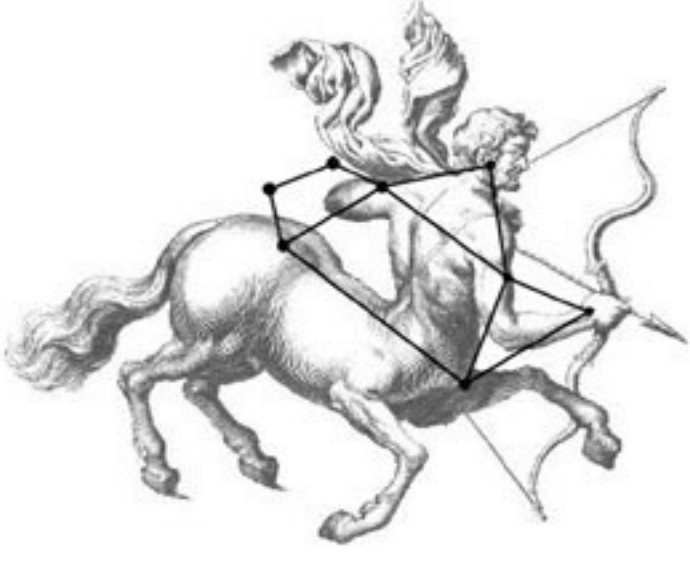

Figure 49: A vulture with outstretched wings makes a much better, more intuitive and more obvious way than an archer to represent the bright, central ‘Teapot’ asterism within the constellation of Sagittarius.

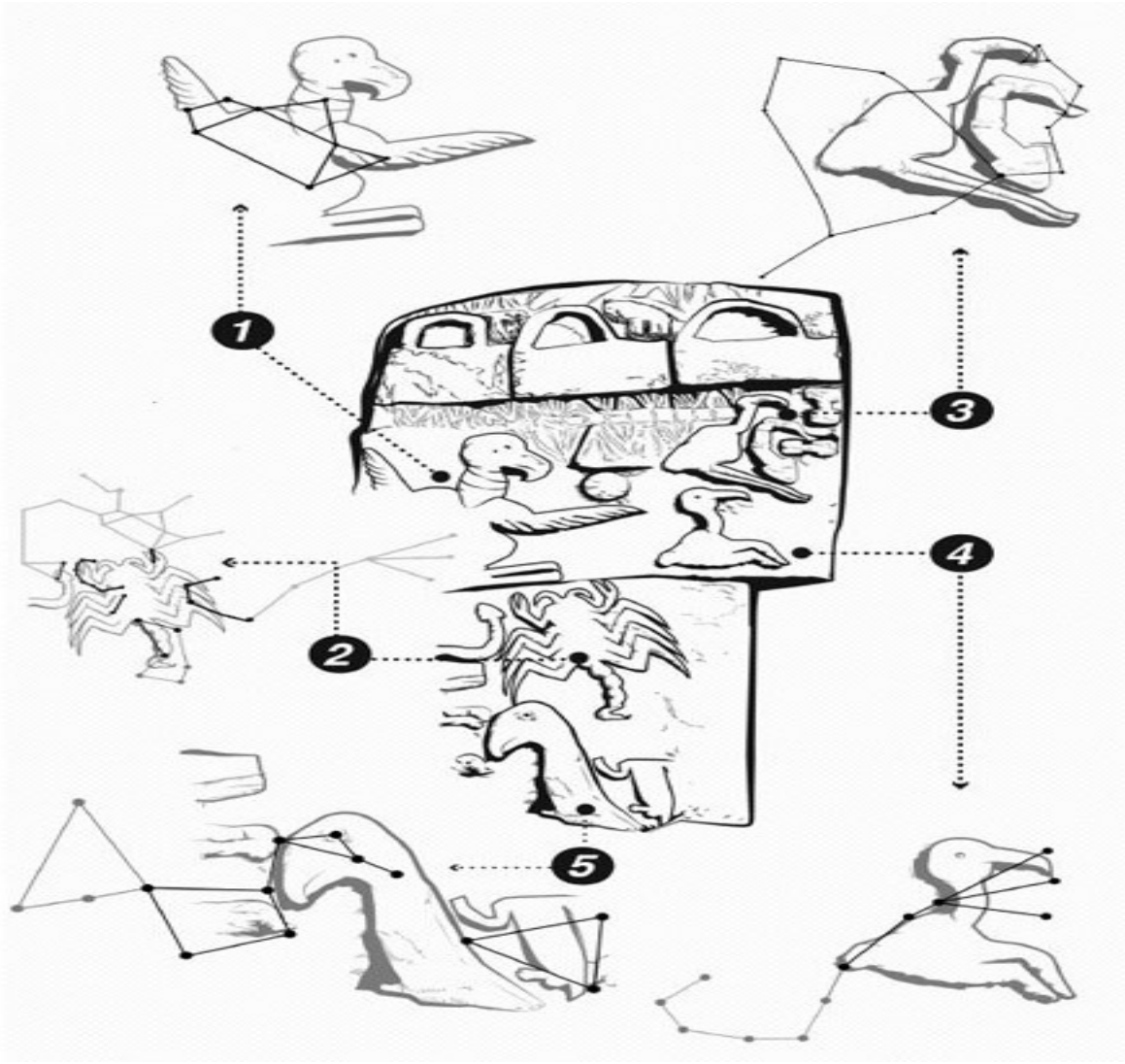
1
2
3
4
5

Figure 50: Sagittarius and neighbouring constellations as interpreted on Pillar 43.

But the vulture and the sun are only two aspects of the complex imagery of the pillar. Below and just a little to the right of the vulture is a scorpion. Above and to the right of the vulture is a second large bird with a long sickle-shaped beak, and nestled close to this bird is a serpent with a large triangular head and its body coiled into a curve. A third bird, again with a hooked beak, but smaller, with the look of a chick, is placed below these two figures – again to the right of the vulture, indeed immediately to the right of its extended front wing. Below the scorpion is the head and long neck of a fourth bird. Beside the scorpion, rearing up, is another serpent.

Part of the reason for my growing confidence in Burley's conclusion, though he makes little of it in his paper, is that these figures, with only minor adjustments, compare intriguingly with other constellations around the alleged Sagittarius/vulture figure.

First and foremost, there is the scorpion below and a little to the right of the vulture, which we've seen already has an obvious resemblance to Scorpio, the next constellation along the zodiac from Sagittarius. Its posture and positioning are wrong – we'll look more closely into the implications of this in a moment – but it's there and it is overlapped by the tail end of the constellation that we recognise as Scorpio today.

Secondly, there's the large bird above and to the right of the vulture with the curved body of a serpent nestled close to it. These two figures are in the correct position and the correct relationship to one another to match the constellation we call Ophiuchus, the serpent holder, and the serpent constellation, Serpens, that Ophiuchus holds.

Thirdly, immediately to the right of the extended front wing of the vulture there's that other bird, smaller, like a chick, with a hooked beak. I email Burley about this, and about the different position and orientation of the scorpion on the pillar and the modern

constellation of Scorpio, and we arrive, after some back and forth, at a solution. Constellation boundaries, as the reader will recall, are not necessarily drawn in the same place by all cultures at all periods and it's clear that there's been a shift over time in the constellation boundaries here. The chick on Pillar 43 appears to have formed a small constellation of its own in the minds of the Göbekli Tepe astronomers – a constellation that utilized some of the important stars today considered to be part of Scorpio. The chick's hooked beak is correctly positioned, and its body is the correct shape, to match the head and claws of Scorpio.[5]

Fourthly, beside the scorpion on Pillar 43 is a serpent and beneath the scorpion are the head and long neck of yet another bird, with a headless anthropomorphic figure positioned to its right. The serpent matches the tail of Sagittarius (as we've seen, the vulture appears to be composed from the central part of Sagittarius only – the Teapot – so this leaves the remainder of the constellation available to the

ancients for other uses). The best contenders for the bird, and for the peculiar little anthromorphic figure to its right are parts of the constellations we know today as Pavo and Triangulum Australe. The remainder of Pavo may be involved with further figures present on the pillar to the left of the bird.

As is the case with Sagittarius, elements of the modern constellation of Scorpio have been redeployed in the ancient constellations depicted on Pillar 43. Only the tail of our Scorpio is in the correct location to match the scorpion on Pillar 43 and its head faces to the right, whereas the head of the scorpion on the pillar faces to the left. The scorpion on the pillar is also below the vulture, whereas modern Scorpio is a very large constellation lying parallel and to the right of Sagittarius. I suggest the solution to this problem is that the scorpion on Pillar 43 is conjured from a combination of the tail of the modern constellation of Scorpio (right legs of the Pillar 43 scorpion), an unused part of the 'Teapot' asterism of Sagittarius (right claw of the Pillar 43 scorpion) and the

constellations that we know as Ara, Telescopium and Corona Australis (respectively the tail, left legs and left claw of the Pillar 43 scorpion). Meanwhile, as noted above, the claws and head of the modern constellation of Scorpio have been co-opted to form the chick with the hooked beak on Pillar 43.

This whole issue of the relationship between the modern constellations of Scorpio and Sagittarius and the scorpion and vulture figures depicted on Pillar 43 takes on a new level of significance when we remember that in some ancient astronomical figures Sagittarius is depicted not only as a centaur – a man-horse – but also as a man-horse hybrid with the tail of a scorpion, and sometimes simply as a man-scorpion hybrid.[6] On Babylonian *Kudurru* stones (often referred to as boundary stones, although it is likely that their function has been misunderstood[7]) a figure of a man-scorpion drawing a bow frequently appears that 'is universally identified with the archer Sagittarius'.[8] What further cements the

identification of Sagittarius with the vulture on Pillar 43 is that these man-scorpion figures from the Babylonian *Kudurru* stones are very often depicted with the legs and feet of birds.[9] Moreover, in some representations a second scorpion appears beneath the body – i.e. beneath the Teapot asterism – of Sagittarius,[10] reminiscent of the position of the scorpion on Pillar 43 (see Figures 50 and 51).

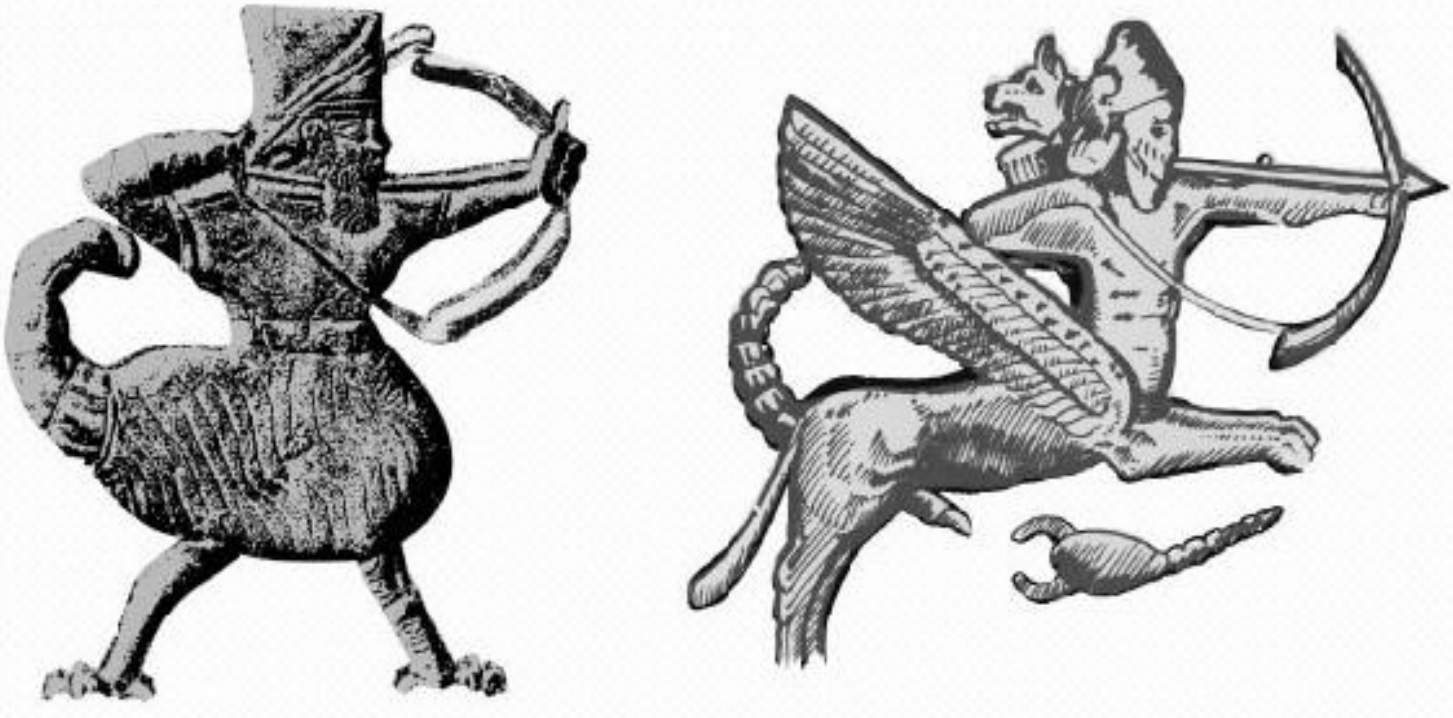

Figure 51: Man-scorpion Sagittarius figures from Bablylonian Kudurru stones (left) are frequently depicted with the legs and feet of birds, further strengthening the identification

of the vulture figure on Pillar 43 with Sagittarius. In other Mesopotamian representations (right) we see a second scorpion beneath the body of Sagittarius occupying a similar position to the scorpion on Pillar 43.

When all this is taken together it goes, in my opinion, far beyond anything that can be explained away as mere ‘coincidence’. The implication is that ideas of how certain constellations should be depicted that were expressed at Göbekli Tepe almost 12,000 years ago, including the notion that there should be a scorpion in this region of the heavens, were passed down, undergoing some changes in the process, but nonetheless surviving in recognizable form for millennia to find related expression in much later Babylonian astronomical iconography. But given the close connections with ancient Mesopotamia, its antediluvian cities, its Seven Sages and its flood survivors washed up in their Ark near Göbekli Tepe, we should perhaps not be too surprised.

Last but not least, there’s the mystery of the three ‘bags’ or ‘buckets’ in the upper register of Pillar 43, which caught my eye on

my first visit to Göbekli Tepe and which are discussed in Chapter One. As astronomer Giulio Magli has noticed, these:

> three ‘bags’ are pretty similar to the three ‘houses in the sky’ occurring in the much (very much!) later Babylonian *Kudurru* traditions.[11]

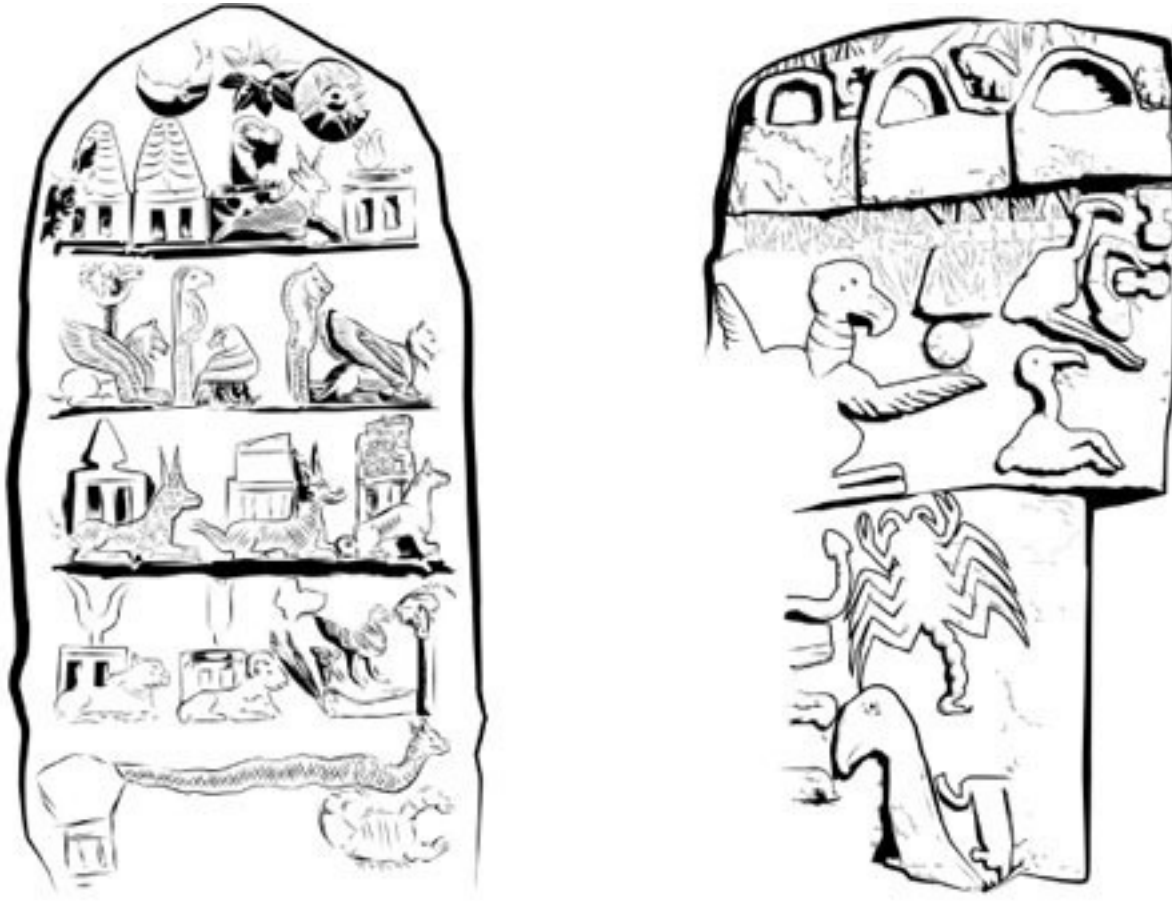

Figure 52: Astronomer Giulio Magli notes of Pillar 43 at Göbekli Tepe (right) that the ‘bags’ in the top register are similar to the ‘houses in the sky’ occurring on much later Babylonian pillars (left).

What Magli calls the ‘houses in the sky’ (again see accompanying illustrations) are the symbols of Mesopotamian deities, notably Enlil, who sent the Deluge to destroy mankind, and Enki, the god of wisdom who intervened to save us.[12] The reader will recall from Chapter Eight that it was Enki who warned the patriarch Zisudra of the coming cataclysm and urged him to build the great Ark that would ultimately bring the flood survivors to the region of Ararat so close to Göbekli Tepe. It’s hard to avoid the conclusion that all these shared themes in the iconography of Mesopotamia as late as the first millennium BC, and of Göbekli Tepe as early as the tenth millennium BC, have much older antediluvian origins in a lost civilization that was the progenitor of both – and perhaps of many other cultures around the world – and that took pains, through deliberately engineered myths and wisdom traditions, and through carefully structured teachings passed on from generation to

generation by initiated Sages, to ensure that its memory would not be lost forever from the earth.

The Maya

Late into the night, as I work through the whole scenario in my hotel room in Şanlurfa, my confidence in Burley's case continues to grow. Once all the surrounding context is taken into account, the vulture 'holding the sun' on its front wing really does look like the figure of an ancient constellation representing the Teapot asterism of the constellation of Sagittarius.

This then raises the next part of the puzzle: *when* does the vulture/Sagittarius 'hold the sun'? Burley makes clear that he believes the moment represented on Pillar 43 still lay far in the future when Göbekli Tepe was built – indeed 11,600 years in the future, i.e. in our own time, the epoch of 2012. And he comes to this

conclusion because it is only in our epoch, specifically in the 80-year window from 1960 to 2040, that the sun on 21 December, the winter solstice, not only sits over the outstretched front wing of the bird (i.e. over the spout of the 'teapot' in the modern conception of this asterism) but also targets the 'nuclear bulge' and the dark rift at the centre of the Milky Way galaxy. So, arguably, this is a very significant astronomical moment that is symbolised on Pillar 43.

Very significant indeed, as it turns out, because it is also this exact same 80-year window (where the year 2012 falls just a little after the midpoint) that is signalled in the famous – or perhaps it would now be better to say infamous – Mayan calendar. A great deal of nonsense was talked about that calendar, and particularly about the 21 December 2012 date, which many wrongly took to be something absolute and precise, when in reality it was always an 'indication date' and nothing more.

In getting to grips with this mystery, it is only the astronomy that counts – and naked-eye astronomy at that. We are not talking about

radio telescopes or astrophysics here. With regard to the naked-eye astronomy of the ancient Maya, the real scholars of this subject, amongst whom there is none more pre-eminent than John Major Jenkins, made valiant efforts – for a long while before 2012 – to teach us that what the end-date of the Mayan calendar was based on was in fact the once-in-26,000-years conjunction of the winter solstice sun with the centre of the galaxy, i.e. with the dark rift and nuclear bulge of the Milky Way. Because of the diameter of the sun and the limitations of naked-eye astronomy this conjunction cannot be pinned down to an exact year but is best considered, as I've indicated here, as a window 80-years wide spanning the period 1960-2040.

As an artefact of precession, the winter solstice sun was moving slowly and steadily towards its conjunction with the centre of the galaxy for thousands of years before 2012 – and in his books, going back at least as far as *Maya Cosmogenesis*, which he published in 1998, John Major Jenkins made this eminently clear. Diagrams that

he offered to his readers showed the journey of the winter solstice sun from 3000 BC, when it was 70 degrees away from the dark-rift crossing point in Sagittarius, through the time of Christ when it had halved the distance that remained for it to travel, to the epoch of 2012 (that 80-year window between 1960 and 2040) when it most closely conjuncts the dark rift, and onwards to AD 5000 when it will have moved 70 degrees past the dark rift.[13]

More than this, Jenkins meticulously documented *why* the conjunction of the winter solstice sun with the dark rift in the central bulge of the Milky Way was important in Mayan cosmology – because this was the region of the heavens that the Maya thought of as 'the place of creation' with the central bulge viewed as 'the womb or birthplace of the sky':

> The Maya understood this dense, bright bulge as a Cosmic Centre and Creation Place, a conclusion based solely on naked-eye observation that is, in fact, very true: the centre of our saucer-shaped galaxy lies within this bright and wide part of

> the Milky Way … that hyperdense region out of which the Milky Way and everything in it, including us, has poured.[14]

It is not my purpose here to go in depth into the whole enigma of the Mayan calendar, not least since I wrote about this subject at some length in *Fingerprints of the Gods*.[15] However, my understanding since the publication of *Fingerprints* in 1995 has moved on, and it is important to be clear that in signalling the decades around 2012 as the end of a great cycle, the Maya were not speaking of the end of the world, as such, but rather of the end of an age – 'a time of great transformation and world rebirth'[16] – that would be followed by the beginning of a new great cycle or world age. This, in the Mayan scheme of things, is the turbulent and dangerous time of transition we live in today. It is therefore strange, and indeed somewhat eerie, to find the solar and astronomical coordinates of the exact same 80-year window between 1960 and 2040 prophesied by the Maya to mark a turning point in human

history, carved in high relief on a 12,000-year-old pillar in Göbekli Tepe in far-off Turkey.

Eliminating the impossible

I want to be sure that I could be right to read some kind of prediction or prophecy for our age, some sort of notification, some sort of message sent specifically to us, in the reliefs on Pillar 43. Before even beginning to consider what that message might speak of, the first step is to confirm that Paul Burley's discovery is a solid one.

I'm already persuaded by his identification of Sagittarius with the vulture and of the disc held up by its wing with the sun. The general context of the surrounding constellations is also an excellent fit. Could it be, however, that the reliefs on the pillar do indeed depict the sun's conjunction with Sagittarius and the centre of the Milky

Way, but at some time other than the winter solstice in the years between 1960 and 2040?

Of course, the winter solstice alignment recurs once every 26,000 years, so in 24,000 BC the sun would have been seen in Sagittarius, targeting the centre of the galaxy exactly as it does today, and this rare alignment will happen again 26,000 years from now, i.e. in AD 28,000. It's not impossible that any hypothetical message could be to do with these remote dates.

It's intriguing, however, that there's another 'message', from a completely different culture – the ancient Maya – that uses the same system of coordinates and that is indeed focused, very exactly, on the years between 1960 and 2040.

Meanwhile at Göbekli Tepe there are also the other three key moments of the year to consider – the summer solstice and the two equinoxes. Was there any alignment through Sagittarius with the

centre of the galaxy at any of these three other ‘stations of the sun’ in the epoch of 9600 BC when Göbekli Tepe was built?

I know from my work on Ancient Egypt that the sun was in Leo on the spring equinox in 10,800 BC. Now a few moments on the computer confirm that this remained the case 1,200 years later; in 9600 BC the equinox sun was still in Leo and was thus at a point on its ecliptic path that was very far from any alignment with the centre of the galaxy. I feel quite safe, therefore, in ruling out the spring equinox, at least in that epoch.

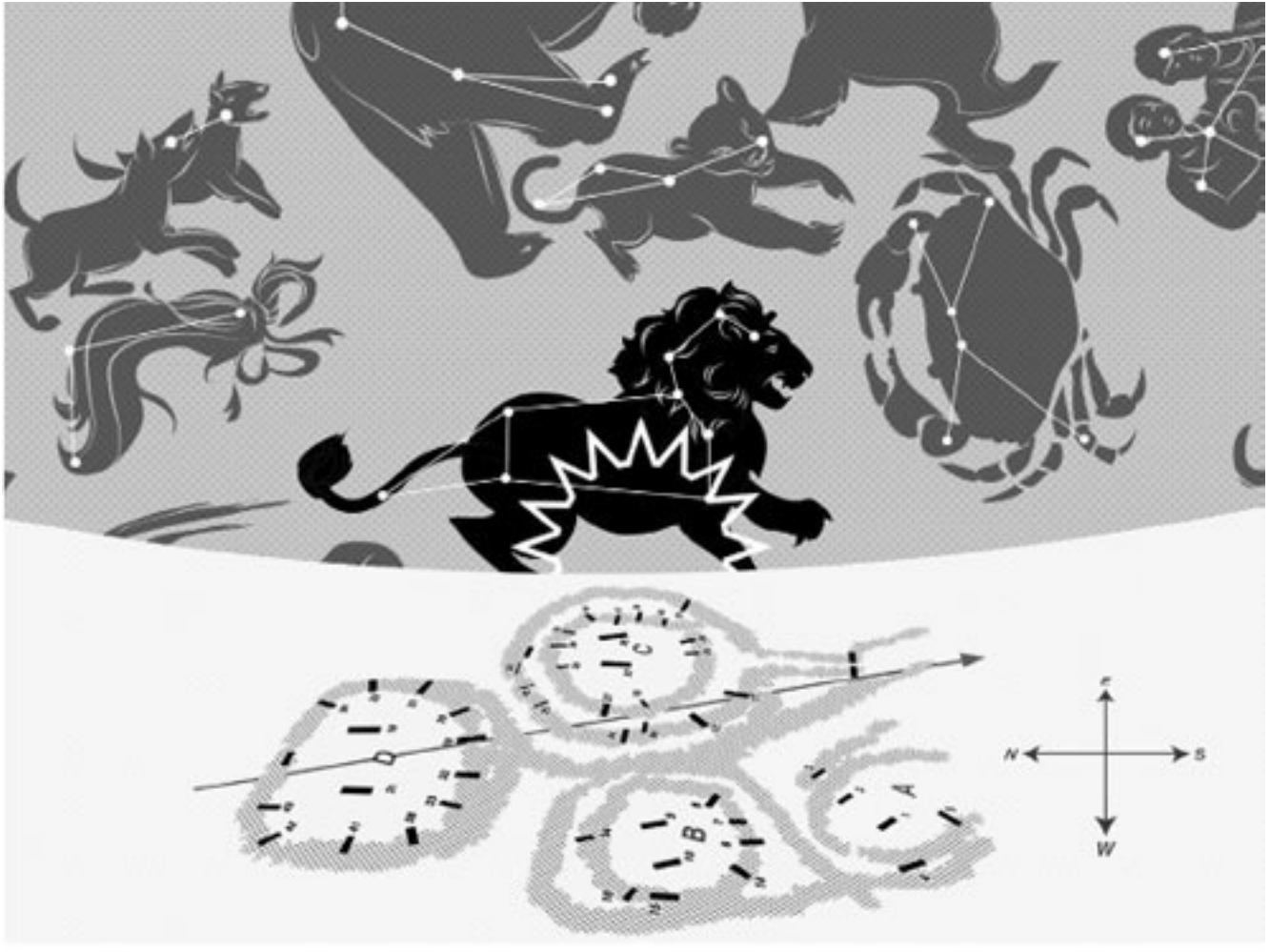

Figure 53: Spring equinox sunrise at Göbekli Tepe, 9600 BC

The same is also true for the autumn equinox in 9600 BC. Because the sun was then in the constellation of Aquarius, and again very far from alignment with the centre of the galaxy, I rule it out too.

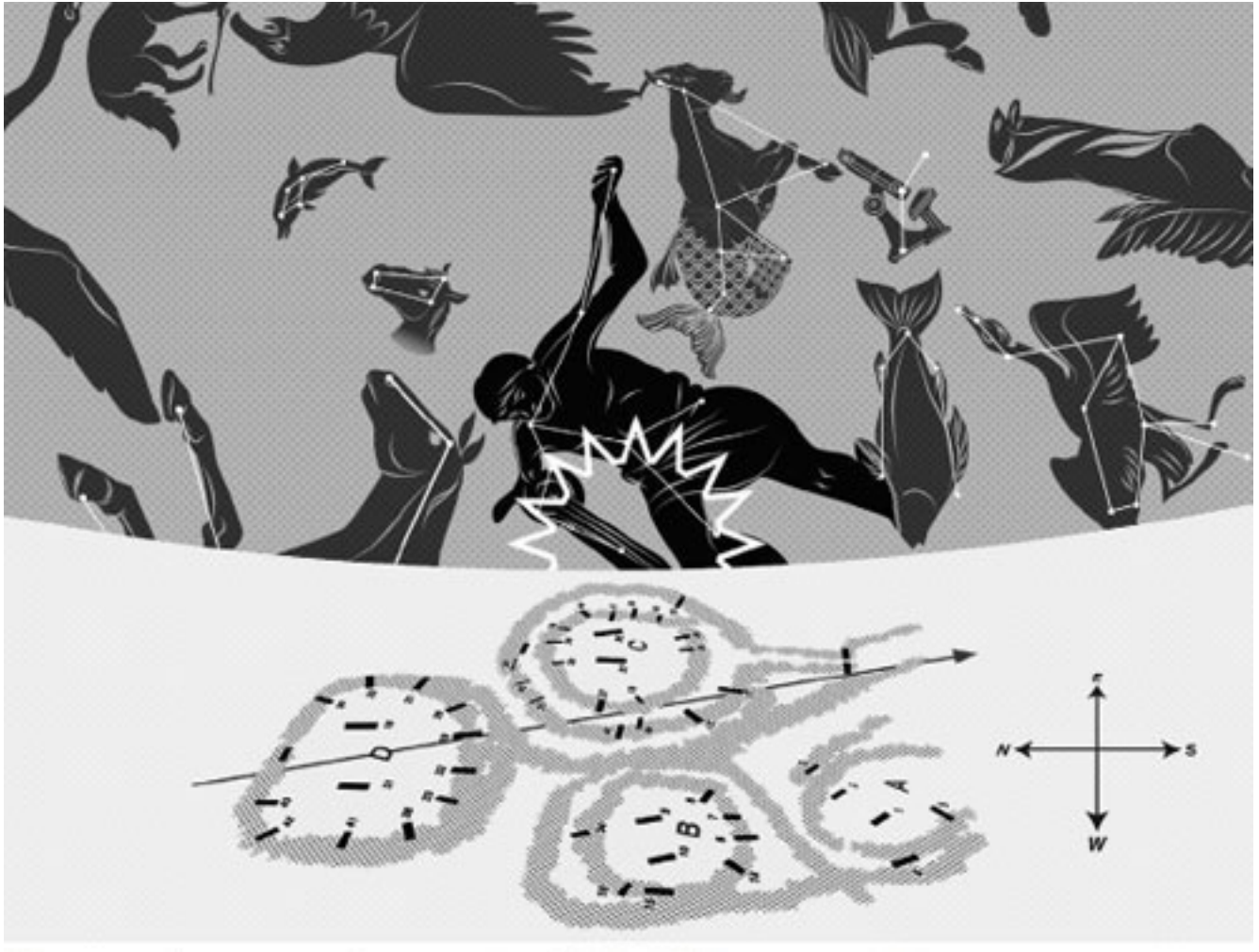

Figure 54: Autumn equinox sunrise at Göbekli Tepe, 9600 BC

Moreover, after reminding myself of the orientation of all the enclosures at Göbekli Tepe, it becomes clear that the equinoxes can be ruled out in *all* periods. This is the case because all of the four major enclosures, A, B, C and D – remember Pillar 43 is in Enclosure D – have a very definite *north-west to south-east* orientation.[17] None of them come anywhere near to due east where the equinox sun rises, or due west where the equinox sun sets. If the builders of Göbekli Tepe had wished to direct our attention to either of the equinoxes in a piece of symbolic art like Pillar 43, their very first step would have been to provide an obvious clue by aligning the site east to west. Since they did not do so, it is safe to assume that events at the equinoxes were not what they had in mind.

This leaves us with the solstices. The sun rises south of east and sets south of west on the winter solstice. On the summer solstice it rises north of east and sets north of west. In theory, therefore, sunrise alignments (south of east) on the winter solstice and sunset

alignments (north of west) on the summer solstice can be considered as relevant to the north-west to south-east orientation of Göbekli Tepe.

As we've seen, a winter solstice alignment involving the sun, Sagittarius, and the centre of the galaxy can be ruled out for 9600 BC, since that alignment only occurs in our own epoch, or in 24,000 BC or in AD 28,000. On the winter solstice in 9600 BC the sun was in Taurus and very far from alignment with the centre of the galaxy. A summer solstice sunrise alignment north of east can also be ruled out, not only in 9600 BC but in all epochs, given the site's distinct south-east to north-west orientation.

Figure 55: Winter solstice sunrise at Göbekli Tepe, 9600 BC

C
B
A
E
N
S
W

Figure 56: Summer solstice sunrise at Göbekli Tepe, 9600

By a process of deduction, therefore, we are left with only one possible alignment that might work in 9600 BC and this is to the summer solstice *sunset*, north of west, which presents no conflict to the general south-east to north-west orientation of Göbekli Tepe. Moreover, computer simulations show that on the summer solstice in the epoch of 9600 BC the sun was in the constellation of Scorpio and while it did not align with the centre of the galaxy (having moved past the dark rift and the nuclear bulge), it was still reasonably close to that target. As the reader will recall, Sagittarius and Scorpio straddle the dark rift and the nuclear bulge but it is in Sagittarius, not Scorpio, that the exact alignment with the centre of the galaxy occurs. Nonetheless, it seems reasonable to accept the summer solstice sunset, north of west, in the epoch of 9600 BC as a candidate for the scene depicted on Pillar 43. A relatively minor

error of draughtsmanship by the sculptor who carved the figures would, in theory, be enough to explain the discrepancy.

There is, however, a difficulty which Andrew Collins, his colleague Rodney Hale, and the mathematicians Alessandro de Lorenzis and Vincenzo Orofino all seem to have missed in their focus on possible alignments towards the north-west, specifically to the setting of the star Deneb in the constellation of Cygnus, reviewed in the last chapter. Deneb did indeed set north of west in the epoch of 9600 BC in alignment with the orientation of Enclosure D but this alignment, though accurate enough, was purely theoretical and could never in fact have been observed from Enclosure D, for the simple reason that Enclosure D is built into the side of the steep ridge of the Tepe that rises to the north of the main group of enclosures. No observation of the setting of Deneb would have been possible from Enclosure D and for the same reason no observation of the summer solstice sunset would have been

possible. The sun would have dropped out of sight behind the ridge for approximately twenty minutes before it actually set and in order to observe its setting, it would have been necessary to leave Enclosure D and climb the ridge.

For this reason, therefore, combined with the fact that the sun in Scorpio, while close, does not target the centre of the galaxy, a summer solstice sunset alignment must also be ruled out.

'When you have eliminated the impossible,' Arthur Conan Doyle's character Sherlock Holmes famously pronounced, then 'whatever remains, *however improbable*, must be the truth.' By a process of elimination we have seen that Göbekli Tepe cannot be inviting us to consider the equinoxes, and nor can it be inviting us to consider the summer solstice, even at the favourable moment of sunset. This leaves us only with the winter solstice with the sun in Sagittarius targeting the centre of the Milky Way galaxy, the definitive astronomical signature of the years between 1960 and 2040 in our own epoch – a signature that recurs only at 26,000-year

intervals. However improbable it may seem, therefore, we are obliged to consider the possibility that in 9600 BC the builders of Göbekli Tepe were already so advanced in their knowledge of the recondite phenomenon of precession that they were able to calculate its effects for thousands of years backward and forward in time in order to produce an accurate symbolic picture of the Sagittarius/winter solstice conjunction.

If this speculation is correct then it is appropriate to remind ourselves that two comparable scientific achievements of prehistoric antiquity have also survived the ages and come down to us in the same degree of completeness.

One is the Mayan calendar that envisaged a great cycle in the life of the world coming to an end in exactly the same 80-year period between 1960 and 2040. Moreover, it used exactly the same yardstick – the progress of the winter solstice sun towards alignment with the centre of our galaxy – to predict when the fateful

conjunction would occur and to define the cusp between the end of the old age and the beginning of the new.

The other is the grand astronomical geoglyph of Egypt's Giza plateau, inscribed on the west bank of the Nile in the forms of the Great Pyramids and the Great Sphinx. The reader will recall that these masterpieces of megalithic architecture deploy a deep knowledge of precession to offer us a picture of the sky on the spring equinox in 10,800 BC. Here, too, as we shall see in Chapter Nineteen, there are the distinctive characteristics of a message, a message sent across the ages and directed, quite specifically, at our time and at us.

In our search to discover what these messages might mean, perhaps the Sabians of Harran, those 'star-worshippers' whose city lies barely 25 miles from Göbekli Tepe, those followers of the wisdom god with their mysterious pilgrimages to the Pyramids of Giza, will be able to give us a clue.

Chapter 16

Written in the Stars

In Chapters Eight to Eleven we explored the secret tradition of the Sages, maintained in Egypt for thousands of years, perpetuating itself through recruitment and initiation down the ages. And we considered the possibility that these 'mystery teachers of heaven', these 'Followers of Horus' – these 'Magicians of the Gods' – played a key role, not once but many times, at crucial moments in Egyptian history, in moving that remarkable culture forward.

In Chapter Twelve we looked into the connection between the incredible megalithic site of Baalbek and an enigmatic group of

colonists from ancient Canaan who settled near Egypt's Giza plateau, where they made regular devotional offerings to the Great Sphinx, named by them variously as Hauron or Hurna after a Canaanite falcon deity.

In Chapter Fourteen we saw that another group, known as the Sabians and renowned as 'star-worshippers', came from even further away as pilgrims to the Pyramids of Giza. Their home city was Harran, located near Göbekli Tepe in what is now southeastern Turkey. There is no record of when these pilgrimages began but Harran had already been settled for thousands of years[1] when the earliest surviving written reference to it appears in an inscription dated to around 2000 BC.[2] What is remarkable is that Sabian pilgrimages to Giza were still taking place as late as AD 1228 when the Arab geographer Yakut el-Hamawi mentioned them in his *Mo'gam-el-Buldan* ('Dictionary of Countries'). As Egyptologist Selim Hassan notes in the passage quoted in Chapter Fourteen,

Hamawi's account shows that the Sabians 'fully recognised the Pyramids of Khufu and Khafre as being monuments connected with the stellar cult.'[3]

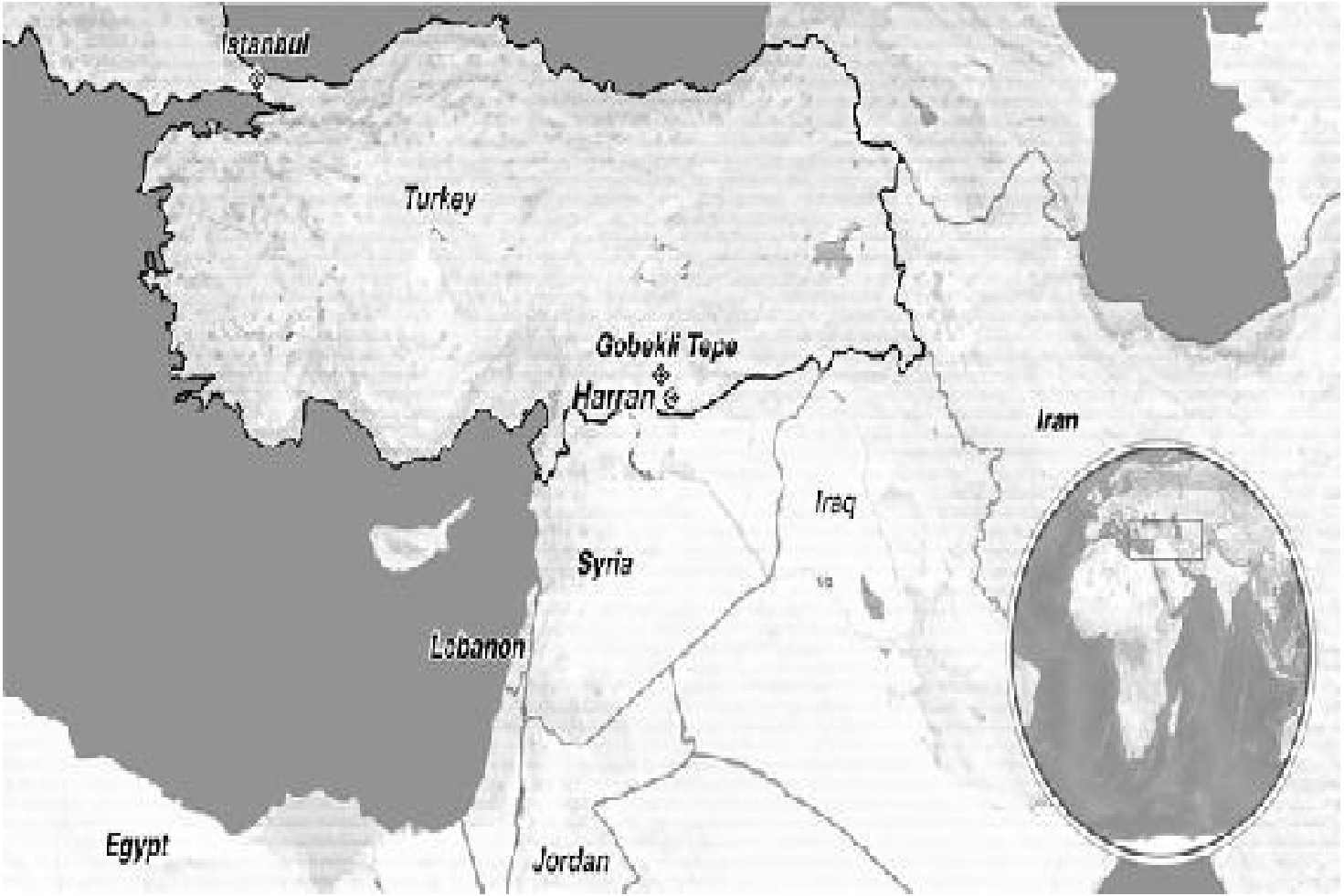
Istanbul
Turkey
Gobekli Tepe
Harran
Iran
Iraq
Syria
Lebanon
Egypt
Jordan

Figure 57

This may seem like a small point, and 'experts' on the Sabians have ignored it, but it proves the continuation of a hidden tradition. Ancient Egyptian religion and Ancient Egyptian culture ceased to exist hundreds of years before AD 1228 (the last known inscription in sacred hieroglyphs dates to AD 394), while Egyptologists did not rediscover the evidence of the stellar nature of the Pyramid 'cult' until the early 1900s.[4] There is, therefore, no way other than a hidden tradition that the Sabian 'star-worshippers' could have known the Pyramids were connected to the stars or could have been motivated to make them objects of pilgrimage.

Ah but Harran … Harran – the fabled city of the Sabians. What a lowly mess it is today. Fashioned from mud-brick, a few of the traditional beehive-shaped houses still survive, grouped together into a centre retailing trinkets for the amusement of tourists. The ramshackle modern town is located in the midst of a vast, desolate plain with the ridges of the Taurus mountains, blue and hazy,

looming 25 miles (40 kilometres) to the north. Göbekli Tepe stands on one of those ridges, and indeed the two sites are theoretically intervisible[5] – in other words, if your eyes were good enough, you could see Göbekli Tepe from Harran, and vice versa.

What would have made such a sighting easier, in antiquity, would have been a tall tower annexed to the temple that once stood here – a temple dedicated to *Su-En* (usually contracted to *Sin*), the Moon God of the Sabians.[6] After telling us that there were 'powerful images in this temple', the Greek Philosopher Libanius (AD 314-394), describes the tower, noting that 'from its top one could overlook the entire plain of Harran'.[7]

The Temple of the Moon God was already remotely ancient in the first millennium BC, when we know from inscriptions that several restorations were required. For example, repairs were carried out on it by the Assyrian King Shalamensar III (859-824 BC), and by Ashurbanipal (685-627 BC). Later, Nabonidus, who

ruled the Neo-Babylonian Empire from 556-539 BC, rebuilt the temple.[8] Like Thutmosis IV of Egypt, who restored the Great Sphinx of Giza (see Chapter Ten), Nabonidus was inspired by a dream to undertake this work.[9]

It is a remarkable thing that the 'pagan' religion of Harran survived for several hundred years into the Islamic era. This owed much to the acceptance of the Sabians as a 'people of the book' (the reader will recall from Chapter Fourteen that they successfully claimed Hermes as their prophet and offered a compilation of the Hermetic texts as their Scriptures). Thus when the Arab general Ibn Ghanam conquered Harran in the seventh century AD, he co-opted the site where stood the Temple of the Moon God, with its fabulous tower, for the construction of a Grand Mosque. It seems that the temple was destroyed to make way for the mosque, but that Ghanam offered the Sabians an alternative site in the city where they were permitted to build a new temple.[10] They continued to practise their

‘star-worship’ there, without significant disruption, until the eleventh century AD, when either in 1032, or in 1081 – accounts are conflicting – a new generation of Muslim rulers turned against them, suppressed their faith and destroyed their last temple.[11]

Two centuries later the Mongol invasions began and Harran was frequently the scene of fierce conflicts. In a succession of episodes in 1259, 1262 and 1271, the city’s Islamic places of worship were destroyed.[12] The Grand Mosque still lies in ruins today, but when we remember that the Temple of the Moon God once stood here under a lofty tower, it’s curious that the one almost intact architectural remnant, with a square base measuring only 4 metres (13 feet) on each side, stands more than 50 metres (164 feet) tall and overlooks the Harran plain, just as its Sabian predecessor did. No doubt it is merely a surviving minaret of Ibn-Ghanam’s Grand Mosque – the architecture is definitely Islamic. Still it is thought-provoking, to say the least, that local people refer to it to this day as

the ‘Astronomical Tower’, as though preserving an ancient memory of the time when their Sabian ancestors climbed the long-vanished spire of the Temple of the Moon God to observe the heavens.

The few archaeological expeditions mounted in Harran from the 1950s onwards, while finding a number of inscriptions relating to the Moon God, have as yet revealed no physical traces of the pre-Islamic temples.[13] A team from the Chicago Oriental Institute was about to start a major dig around the ruins of the Grand Mosque in 1986, but it seems that the Turkish authorities insisted on such restrictive practices that the project had to be abandoned.[14] Current excavations by Harran University and the Şanlıurfa Museum Directorate show little interest in recovery of substantive remains from the city’s pre-Islamic period.[15]

Thus far, based on the minimal archaeology done, datable artefacts from Harran itself go back to around 5000 BC,[16] though there is every possibility that older remains will be found with

further excavations. At a settlement mound called Asagi Yarimca, a few kilometres north-west of the city, characteristic Halaf monochrome wares dating to 6000 BC have been collected.[17] And six kilometres south of Harran, excavations since 2006 by Turkish archaeologist Nurettin Yardimci have established the existence of an even older permanent settlement dated to 8000 BC.[18]

Since 8000 BC – 10,000 years ago – marks the approximate epoch in which Göbekli Tepe was abandoned and the last of its stone circles deliberately buried, I was intrigued to learn that the site of Yardimci's excavations has been known since time immemorial as *Tell Idris* – i.e. 'the settlement mound of Idris'. This is interesting, because Idris, in the Koran, is the name of the Biblical prophet Enoch, the seventh of the ten patriarchs who lived in the times before the Flood.[19] To be specific, Enoch is the son of Jared, the father of Methuselah, the grandfather of Lamech, and the great-grandfather of Noah himself.[20] Moreover, Muslim traditions

associate Idris/Enoch with Hermes.[21] The Persian Islamic philosopher Abu Mashar (AD 787-886) expresses the matter as follows:

> The name Hermes is a title. Its first bearer, who lived before the Flood, was … he whom the Hebrews call Enoch, whose name in Arabic is Idris. The Harranians declare his prophethood.[22]

This antediluvian Enoch/Idris/Hermes, was a master of the sciences, 'especially astronomy'. In addition:

> He wrote many books, whose wisdom he preserved on the walls of Egyptian temples lest it be lost. It was he who constructed the pyramids.[23]

Abu Mashar's comments contain strong echoes of the Edfu Building Texts, also supposedly derived from lost antediluvian books and inscribed on the walls of the Temple of Horus to ensure that their message would not be lost. And the sense here that the pyramids are remotely ancient and were built by Hermes – that

‘master of astronomy’, the Egyptian Thoth, as the reader will recall – finds resonance with the tradition of the ‘number of the secret chambers of the sanctuary of Thoth’, reported in Chapter Eleven, which, in historic times, the Pharaoh Khufu wished to consult and copy in his own construction works at Giza.

Once again, confronted by such material, it doesn’t seem unreasonable to suppose that we may have stumbled across the traces of a project, set in motion by the survivors of a global flood cataclysm, to bring about ‘the resurrection of the former world of the gods’. Wherever this project took root, it seems to me, its essence was a *tradition,* passed down from generation to generation by initiated masters and thus theoretically capable of implementation in any place, and in any epoch, when the time was right.

With their ability to blend in and survive changing circumstances, with their knowledge of the astronomical qualities of the pyramids

preserved until as least as late as the thirteenth century AD, and with their very name, as Selim Hassan rightly recognised, derived from *Sba,* the Ancient Egyptian word for 'star',[24] the Sabians of Harran have all the hallmarks of carriers of the secret tradition.

Mystery of the Watchers

Apart from his genealogy in the line of patriarchs before Noah, and the enigmatic statements that he 'walked with God' and was mysteriously 'taken up' by God without experiencing death,[25] the canonical Bible has nothing else to tell us about Enoch. Happily much more information is available in several ancient non-canonical works – i.e. works that Biblical redactors for one reason or another chose not to include within the officially sanctioned scriptures. Of these the most famous by far is the Book of Enoch. Prior to the eighteenth century, scholars had believed it to be irretrievably lost. Composed long before the birth of Christ,[26] and considered to be

one of the most important pieces of Jewish mystical literature, it was only known from fragments and from references to it in other texts. All this changed, however, after polymath adventurer James Bruce of Kinnaird visited Ethiopia in the years 1770-72. Amongst other remarkable achievements there,[27] he procured and brought back to Britain several copies of the Book of Enoch that, in antiquity, had been translated into *Ge'ez*, the Ethiopic sacred language. These were the first complete copies ever to be seen in Europe.[28]

I note in passing that the Book of Enoch has always been of great significance to Freemasonry. Indeed, certain Masonic rituals – in curious resonance with Islamic traditions – identify Enoch with the Ancient Egyptian wisdom god Thoth and also with his Greek avatar Hermes.[29] An entry in the *Royal Masonic Cyclopaedia*, first published in 1877, tells us that Enoch was the inventor of writing, that 'he taught men the art of building', and that, before the Flood,

he ‘feared that the real secrets would be lost – to prevent which he concealed the Grand Secret, engraven on a white oriental porphyry stone, in the bowels of the earth.’[30] *The Cyclopaedia* contains its own hint of a secret tradition transmitted down the ages, when it further suggests that Enoch was himself a Freemason and that at the end of his days on earth ‘he delivered up the Grand Master’s office to Lamech’.[31]

The Book of Enoch is a very strange document, purporting, amongst many other elements, to be a vision of the future cataclysm of the Flood, and why it is to be unleashed upon the world. In a series of dreams,[32] Enoch receives advance notice of the warning that God will give to his descendant Noah that ‘a deluge is about to come upon the whole earth, and destroy all that is on it’.[33] This, of course, is familiar ground – merely a précis, or restatement, of what we can read in Genesis. So, too, is the passage that follows in which Enoch is given to understand that arrangements will be made for

Noah to escape so that 'his seed may be preserved for all the generations of the world'.[34]

What comes next is intriguing. Regardless of the fact that the express purpose of God's Deluge is to kill off most of mankind – apart, of course, from Noah and his descendants – there is talk of the need to:

> heal the earth which the angels have corrupted … that all the children of men may not perish through all the secret things which the Watchers have disclosed and have taught their sons.[35]

This is only the second mention of these mysterious 'Watchers' in the Book of Enoch. The first, a few pages earlier, tells us nothing about them except that they 'shall quake' at the prospect of the coming events.[36] So far we have no real clue as to who or what they are except that they have transgressed some divine law by teaching 'secret things' – apparently *dangerous* things – to humanity, and

that they (and most of the human race through the agency of the Deluge) are to be punished grievously because of this.

Certain names of the Watchers, or at any rate the leadership of the Watchers, are given – Azazel, Semjaza, Armen, Rumjal, Turel, Armaros, Danjal, Kokabel, and about a dozen more.[37] More specifically, we're told about the nature of the 'secret things' that they taught to mankind:

> And Azazel taught men to make swords and knives, and shields, and breastplates, and made known to them the metals of the earth, and the art of working them, and bracelets, and ornaments, and the use of antimony, and the beautifying of the eyelids, and all kinds of costly stones, and all colouring tinctures. And there arose much godlessness, and they committed fornication, and they were led astray, and became corrupt in all their ways. Semjaza taught enchantments, and root-cuttings, Armaros the resolving of enchantments, Baraquijal taught astrology, Kokabel the constellations, Ezequeel the knowledge of the clouds, Araquiel the signs of the earth, Shamsiel the signs of the sun, and Sariel the course of the moon …[38]

Next we begin to understand that the Watchers are divided into two mutually opposed groups, because we read that the leaders of one group summon Enoch – remember this is all happening to him while he is in a dreamlike, visionary state – to deliver a message to the leaders of the other group, named as 'the Watchers of the heaven'.[39] It seems these 'Watchers of the heaven' (sometimes also referred to as 'the heavenly Watchers'[40]) have 'defiled themselves with women, and have done as the children of the earth do, and have taken unto themselves wives'.[41] They have also 'wrought great destruction upon the earth'.[42] For this they are going to be punished in various deeply unpleasant and terrifying ways.[43]

Obedient and dutiful, Enoch sets off, bearing his heavy message of murder and mayhem from the Watchers to … the Watchers.

So what's going on here?

A more careful scan of the pages reveals the backstory:

> And it came to pass when the children of men had multiplied that in those days were born unto them beautiful and comely daughters. And the angels, the children of heaven, saw and lusted after them, and said to one another, 'Come, let us choose us wives from among the children of men and beget us children.' And Semjaza, who was their leader, said unto them: 'I fear ye will not indeed agree to do this deed, and I alone shall have to pay the penalty of a great sin.' And they all answered him and said: 'Let us all swear an oath, and all bind ourselves by mutual imprecations not to abandon this plan but to do this thing.' Then sware they all together and bound themselves by mutual imprecations upon it. And they were in all two hundred, who descended in the days of Jared on the summit of Mount Hermon …[44]

Now things are becoming clearer. 'Watchers' is a general term referring to angels. Amongst them are bad angels. They want to have sex and make babies with beautiful human women and while they're at it, as we can gather from passages quoted earlier, they're going to teach mankind a thing or two about metals, and the constellations and the course of the sun and the moon (or the ecliptic as this 'course' – this 'path' – is known to astronomers today). As the first step in implementing their plan these bad

Watchers descend upon Mount Hermon, which happens to be in ancient Canaan, now the Lebanon, and only 45 miles (73 kilometres) from Baalbek.

Meanwhile there are good angels, 'the Holy Angels who watch'[45] – amongst them Uriel, Raphael, Raguel, Michael, Saraquel, Gabriel and Remiel.[46] And it's these good Watcher angels who appear to Enoch in a dream and give him that message of death and destruction to take to the bad Watcher angels on Mount Hermon. He tells us specifically where he received this dream:

> I went off and sat down at the waters of Dan, to the south of the west of Hermon … I fell asleep and behold a dream came to me and visions fell down upon me and I saw visions of chastisement and a voice came bidding me to tell it to the sons of heaven and reprimand them. And when I awakened I came unto them …[47]

As I read these passages, set before the Flood, when the people of the Lebanon and ancient Turkey were still at the hunter-gatherer stage of development, it seems more and more obvious to me that

Enoch is a shamanic figure. And like all shamans, everywhere, in all times and places, he sets great store by visions – which in his case come in the form of dreams received 'in sleep'. What's interesting, however, is that when he wakes up from this visionary state, he's able to go to a real physical place on Mount Hermon where the bad Watchers are and talk to them face to face:

> 'And I recounted before them all the visions which I had seen in sleep, and I began to speak the words of righteousness, and to reprimand the heavenly Watchers.'[48]

Does this not suggest, rather strongly, that the bad Watchers are physical beings? I don't know what the good Watchers are, because they only appear to Enoch in his dreams. Quite possibly they are real at some level. Readers of my book *Supernatural*, which is about shamanism, will know my view that in altered states of consciousness (including dream states) the 'receiver wavelength' of the brain may be retuned allowing us to make contact with other

dimensions of reality.[49] But in Enoch's story the bad watchers must be real – real on the earthly plane of physical existence – because when he wakes up he's able to climb Mount Hermon and reprimand them.

We must also entertain the possibility that the bad Watchers – whoever or whatever they are – may not in fact be bad. All we can say is that they are judged to be bad and portrayed as bad in Enoch's dream-visions. One possibility that we should keep in mind, alongside the alternative possibility that the 'Book of Enoch' is just an ancient work of fantasy fiction, is that Enoch's encounters with the 'bad' Watchers really did happen and that he hated and resented them for changes they were seeking to introduce to the hunter-gatherer way of life of his people. In that case the reprimands he delivers to them, mediated through his subconscious as coming from the good Watchers, may simply express his own deeply entrenched views, the views of a bigoted old shaman who feels

threatened by change – even though he himself will later be transformed by his contacts with the Watchers.

There isn't space here to review the entire, bizarre, impenetrable, wildly suggestive text of the Book of Enoch. What I'm interested in is the much more specific possibility that the two hundred Watchers who 'descended' on Mount Hermon were indeed real beings, not phantasms. I'd like to understand more about what kind of beings they could have been. And I want to look at the picture Enoch paints of them, laden with hatred and resentment though it is, as bringing skills and sciences to our ancestors – skills and sciences which, ultimately, will also be revealed to him by the good Watchers, and with which his own name will come to be associated in legend and tradition.[50]

Mystery of the Nephilim

The Watchers begin their development project in quite small ways, teaching ‘charms and enchantments, and the cutting of roots’ to humans, and making them ‘acquainted with plants’.[51] This sounds fairly harmless; apart from a bit of ‘enchantment’, it’s not really above and beyond basic hunter-gatherer level skills. But pretty soon, as we saw earlier, our ancestors are being initiated into the secrets of metals, and how to make swords and knives, and how to study the heavens – and also how to beautify themselves with eye-makeup and jewellery.

In return (a bit like the GIs who allegedly bought favours from British women with gifts of nylon stockings, cigarettes and chewing gum during World War II),[52] the Watchers are getting sex – lots of sex! – and it seems this is what annoys Enoch the most. He speaks reprovingly, again and again, of the ‘fornication’ of the Watchers,[53] of their ‘lust’ for ‘beautiful and comely’ human women[54] who they

‘sleep with’,[55] ‘go into’[56] and ‘defile themselves’ with,[57] and to whom they reveal ‘all kinds of sins’.[58]

From such admonishments we may reasonably deduce a number of things about the Watchers, most particularly that they must be about the right size and shape, and equipped, moreover, with the necessary organs and impulses to want, to have, and to enjoy sex with human women. To me, the obvious conclusion from this is the Watchers are in fact human, or at any rate extremely closely related at the genetic level to anatomically modern human beings – close enough, indeed, to make human women pregnant and to have ‘children of fornication’[59] with them. These offspring are not sickly as one might expect from an even slightly mismatched genetic makeup. On the contrary, they thrive so vigorously that Enoch, or the ‘good’ angels speaking through him, want not only to destroy the Watchers but also to ‘destroy the children of the Watchers’.[60]

But there is something very odd about the hybrid offspring, at least if we take Enoch's word for it, because he tells us that when human women 'became pregnant' by the Watchers they gave birth to:

> great giants whose height was three thousand ells, who consumed all the acquisitions of men. And when men could no longer sustain them, the giants turned against them and devoured mankind.[61]

Three thousand ells is equivalent to 4,500 feet or 1,371 metres. Whatever the truth behind this account may be, therefore, it's obvious the angry old shaman is embellishing it fantastically here in his bid to discredit the Watchers. The prospect of human women giving birth to babies who would grow to more than a kilometre in height is patently absurd. Nonetheless, it brings us back to familiar Biblical territory again – indeed to one of the more notorious passages in the Book of Genesis which reads:

> And it came to pass, when men began to multiply on the face of the earth, and daughters were born unto them, that the sons of God saw the daughters of men that they were fair; and they took them wives of all which they chose. And the Lord said, 'My spirit shall not always strive with man, for that he also is flesh: yet his days shall be an hundred and twenty years.' *There were giants in the earth in those days; and also after that, when the sons of God came in unto the daughters of men, and they bare children to them, the same became mighty men which were of old, men of renown.*[62]

That's the King James Version (I've added the emphasis in the final lines), but other translations give the original word *Nephilim*, that the KJV translates as 'giants', and we read:

> The Nephilim were on the earth in those days – and also afterward – when the sons of God went to the daughters of humans, and had children by them. They were the heroes of old, men of renown.[63]

So now further clarity begins to emerge. A group of bad angels, 'Watchers of the heaven', have come to earth – 'descended', specifically, on Mount Hermon in Lebanon – transferred some

technology, mated with human females, and produced offspring who are in some way gigantic and are called Nephilim. Here's what we're told in the very next verses:

> The Lord saw how great the wickedness of the human race had become on the earth, and that every inclination of the thoughts of the human heart was only evil all the time. The Lord regretted that he had made human beings on the earth, and his heart was deeply troubled. So the Lord said, 'I will wipe from the face of the earth the human race I have created—and with them the animals, the birds and the creatures that move along the ground—for I regret that I have made them.' But Noah found favour in the eyes of the Lord.[64]

An amazing amount of credulous nonsense has proliferated around these verses in recent years on the internet, much of it deriving from the late Zecharia Sitchin's science-fiction novels, notably the *Earth Chronicles* series, which he successfully passed off to the public as serious factual studies. I've already touched in Chapter Thirteen on Sitchin's misrepresentation of Baalbek and while I'm not saying that everything he wrote was fiction – he did throw in some quite

valuable and interesting facts – his overall body of work is marred by enough blatant fabrications and fantasy to call for caution, rather than immediate, trusting acceptance, on the part of his readers.

His treatment of the subject of the Nephilim (he spells the word Nefilim, but this is not important) is a case in point. Claiming to be an expert in Biblical languages he asks:

> What then does the term *Nefilim* mean? Stemming from the Semitic root *NFL* ('to be cast down'), it means exactly what it says. It means *those who were cast down upon earth*![65]

The problem, however, as Michael S. Heiser, a genuine Biblical scholar and ancient Semitic languages expert, has conclusively demonstrated, is that:

> Sitchin assumes 'nephilim' comes from the Hebrew word 'naphal' which usually means 'to fall'. He then forces the meaning 'to come down' onto the word, creating his 'to come down from above' translation. In the form we find it in the Hebrew Bible, if the word *nephilim* came from Hebrew *naphal*, it would not be

> spelled as we find it. The form *nephilim* cannot mean 'fallen ones' (the spelling would then be *nephulim*). Likewise nephilim does not mean 'those who fall' or 'those who fall away' (that would be*nophelim*). The only way in Hebrew to get *nephilim* from *naphal* by the rules of Hebrew morphology (word formation) would be to presume a noun spelled *naphil* and then pluralise it. I say 'presume' since this noun does not exist in biblical Hebrew – unless one counts Genesis 6:4 and Numbers 13:33, the two occurrences of *nephilim* – but that would then be assuming what one is trying to prove! However, in Aramaic the noun *naphil(a)* does exist. It means 'giant', making it easy to see why the Septuagint (the ancient Greek translation of the Hebrew Bible) translated *nephilim* as *gigantes* ('giant').[66]

Heiser is plainly right about this because, as he points out, there is a later passage in the Old Testament, in Numbers 13 where the word Nephilim appears again. This is thousands of years after the Deluge, indeed in the historical period, surely not later than 1200 BC, when the Israelites first entered Canaan after the Exodus from Egypt. Advance scouts report to Moses:

> All the people we saw there are of great size. We saw the Nephilim there … We seemed like grasshoppers in our own eyes, and we looked the same to them.[67]

The context leaves no room for doubt that the Nephilim are people of ‘great size’, the references to them as ‘giants’ in the King James and other versions of the Bible therefore make complete sense, and the ‘translation’ that Sitchin gives is obviously bogus. Did he know it was bogus even as he retailed it in his books? There can be no certainty because, as Heiser goes on to prove, Sitchin’s grasp of Biblical languages was so weak that he was unable to distinguish Aramaic from Hebrew.[68] The notion that the Nephilim were beings who were ‘cast down from heaven’, or who ‘came down from heaven’, was deployed by Sitchin, Heiser believes, simply because it served his argument and allowed him to ‘make the *nephilim* sound like ancient astronauts’.[69]

Again the criticism is justified because Sitchin goes beyond what could be an innocent error to give further ‘translations’ of the word Nephilim that are even more self-serving and phoney. For example, he makes them ‘Gods of Heaven upon Earth’,[70] and, worse still,

‘the People of the Rocket Ships’[71] – an interpretation for which there is no possible justification in any ancient text but that allows him to speak, amongst other egregious and deceptive fictions, of ‘the Aeronautics and Space Administration of the Nefilim’.[72]

It is also important, while reviewing this material which has had such an impact on public perceptions of the past, to be clear that the Watchers, who are never mentioned at all in the Bible, but *are* said in the Book of Enoch to have descended from heaven, are quite distinct from the Nephilim. There is nothing in the Book of Enoch that says the Nephilim fell or were cast down or came down from heaven in any way. The most we may gather from the Book of Enoch is that the Nephilim are the progeny of the mating of Watchers and human women, but even this is complicated.

An authoritative English translation of the Ethiopic text brought back by Bruce was made by the Reverend R.H. Charles and first published in 1917.[73] It contains no mention of the Nephilim and

describes the Watcher-human offspring simply as 'giants'.[74] Likewise the word Nephilim does not appear in the 1979 translation of Professor Michael A. Knibb which, as well as the Ethiopic text, takes account of newly discovered Aramaic fragments from the Dead Sea Scrolls.[75] However, a more recent translation, by George W. Nickelsburg and James C. VanderKam, published in 2012, draws on further fragments not considered by Knibb and here, in Chapter 7, Verse 2, the word Nephilim appears twice, as follows:

> And they [human women] conceived from them [the Watchers] and bore to them great giants. And the giants begot Nephilim, and to the Nephilim were born Elioud. And they were growing in accordance with their greatness.[76]

The Nephilim do not appear again in the Nickelsburg and VanderKam translation. Nonetheless, the verse quoted above leaves no room for doubt: they are not to be considered as 'fallen' or 'cast down' or any such thing but as the progeny of Watcher-human mating. Nor is it the first generation, the 'great giants', who are

named as Nephilim. It is the second generation, i.e. the offspring of the giants, who are the Nephilim, and they in turn will produce offspring of their own – the 'Elioud'.

If nothing else these 'Elioud', about whom very little is known outside Jewish mystical traditions, are further evidence of the close genetic relationship between Watchers and humans – so close that they must really be classified as the same species. Generally when two different species breed, even when they are close enough to produce offspring – such as horses and donkeys for example – those offspring are themselves sterile. But unlike the sterile mules that result from horse-donkey matings, the Nephilim are clearly not sterile, since they themselves are able to go on to produce offspring, i.e. the Elioud.

The only reasonable conclusion, as I have already indicated, is that the Watchers must have been human beings – no doubt surrounded by some aura or glamour to do with their mastery of technology and the sciences, but no more and no less human than

the women they mated with – and that therefore their offspring were human too. Quite possibly they were of large stature. Quite possibly the epithet of 'giants' attached to them may also have had something to do with their intellectual abilities, which might have been seen to be superior. But they were human nonetheless and I see no good reason to conclude otherwise.

Meanwhile, because this is a subject around which much confusion swirls, it is necessary to reiterate that there is no suggestion either in Genesis or in Numbers – the only places they are mentioned in the Bible – that the Nephilim had 'fallen', even in the metaphorical sense of having sinned. On the contrary, far from being censured, they are described as 'mighty men of old', 'heroes', 'men of renown'. Genesis is unequivocal, as the reader can confirm from the passages cited earlier, that it is human wickedness, and the evil in human hearts, that causes God to send the Flood – a cataclysm that is survived not only by Noah's descendants, but by the Nephilim themselves who were still in Canaan, and still of great

stature as the Book of Numbers attests, when the Israelites came to take possession of the Promised Land.

Emissaries

After this brief excursion into the foundations of the Sitchin Nephilim cult, let us return to the Watchers, and who and what they might be.

Enoch's condemnation of them for 'fornicating' with human women finds its counterpart in Genesis where, though not named, they are clearly 'the sons of God' who 'saw the daughters of men that they were fair; and they took them wives of all which they chose.' Thereafter the story of exactly what happened is only preserved in Enoch, where we're led to understand that the Watchers:

> taught all unrighteousness on earth and revealed the eternal secrets which were preserved in heaven, which men were striving to learn.[77]

Turning now to another of the non-canonical scriptures, the Book of Jubilees, which purports to be a revelation given by God to Moses, we read of the Watchers again and in a context that brings us back to the Sabians and Harran. According both to the Islamic historian Al-Masudi, and the Christian chronicler Gregory Bar Hebraeus, Harran was originally founded by Cainan,[78] the great-grandson of Noah.[79] By definition, therefore, though early, Harran is a post-diluvian city. Cainan (sometimes the name is spelled Kainam) was the son of Arpachsad:

> And the son grew, and his father taught him writing, and he went to seek for himself a place where he might seize for himself a city. And he found a writing, which former generations had carved on the rock, and he read what was thereon, and he transcribed it and sinned owing to it, for it contained the teaching of the Watchers in accordance with which they used to observe the omens of the sun, moon and stars in all the signs of heaven.[80]

Here, then, is the origin of the star worship of the Sabians traced all the way back to the mysterious Watchers – whoever they were, whatever they were – who settled in the Near East in antediluvian times, taught our ancestors forbidden knowledge, broke some fundamental commandment by mating with human women and, as a result, were remembered as being responsible for the great global cataclysm of the Deluge.

Were these Watchers the emissaries of a lost civilization of the Ice Age? Perhaps a civilization as far ahead of the Upper Palaeolithic hunter-gatherers, who made up the majority of the population of the world at that time, as our own civilization is ahead of uncontacted tribes in the Amazon rainforest today? When I say 'ahead' I am, of course, not speaking of moral or spiritual values but simply of technology, skills and knowledge. Since such discrepancies still exist in the twenty-first century I see no reason in principle why they should not have existed in the remote epoch

before the great cataclysms of the Younger Dryas set in between 10,800 BC and 9600 BC.

To continue with this line of speculation, could it be that there was some sort of outreach *before* those cataclysms?

A very careful, considered, structured outreach programme, to observe, to study – in other words to *watch* – hunter-gatherer populations, but not to intermingle with them, not to enter into the complicated entanglements of sexual and family relationships with them, and above all not to transfer any technology to them?

One could imagine that a group of anthropologists and scientists sent off to study a previously uncontacted Amazon tribe today might be bound by similar strictures. But suppose some of them disagreed? Suppose some of them 'went native' – as used to be said of colonialists in the days of the British Empire who allowed themselves to get too close to indigenous populations they interacted with.

Is that perhaps what happened to the troop of two hundred 'Watchers' on Mount Hermon? Somewhere around 10,900 BC, did they break the commandments of their own culture and 'go native' amongst the hunter-gatherers of the Near East? And were the first chance encounters with the fragments of a giant comet a century later in 10,800 BC – encounters that devastated the world – somehow blamed upon their moral lapse?

And some final thoughts. Did their civilization survive, albeit in truncated, damaged, reduced form through the rigours of the Younger Dryas, until the second fateful encounter with the comet's debris stream in 9600 BC that ended the 'long fatal winter', but also led to the final sinking and destruction of 'the Homeland of the Primeval Ones'?

That 'island' realm, far-off in the ocean, that bears such striking resemblances to Plato's description of Atlantis.

Was it then that the last survivors of the once advanced and prosperous civilization set out to wander the world in ships to initiate their great design intended ultimately, perhaps after thousands of years, to bring about the resurrection of the former world of the gods?

And were Egypt, Baalbek, and Göbekli Tepe amongst the places these 'Magicians of the Gods' chose to settle in order to set their plan in motion – perhaps precisely because there had been outreach in these areas before the cataclysms and therefore their potential and the character of their inhabitants were known?

Was Harran part of the second stage of this plan, when the work of the last initiates at Göbekli Tepe was done and the time-capsule they had created there was buried to be rediscovered in a future age?

Buried in the bowels of the earth like that 'white porphyry stone' spoken of in the Masonic tradition cited earlier?

Or like the 'writing carved on rock' containing the teachings of the Watchers which Cainan found and transcribed at the time he

established Harran, bringing into his city knowledge of the omens of the sun, moon and stars and ‘all the signs in heaven’?

Knowledge of exactly the type that would be central to the mysterious star religion of the Sabians in the millennia to come …

Astronomy and earth measuring

Archaeoastronomer James Q. Jacobs has noticed something rather odd about Harran. The city’s latitude, 36.87 degrees north of the equator, appears to be non-random, since the figure is the same as that for the acute angle of a 3:4:5 right triangle[81] – i.e. a triangle which contains one 90 degree right angle and whose side lengths are in the ratio 3:4:5. In all such triangles – which form the basis for trigonometry and are thus fundamental to astronomy and geodesy – the other two angles are, with rounding, 53.13 degrees and 36.87 degrees.

Is it a coincidence that a 3:4:5 right triangle with the same internal angles exists inside the King's Chamber of the Great Pyramid of Egypt? The floor of this austere and uninscribed red granite room, in which no pharaoh was ever found entombed, forms a 2:1 rectangle, exactly 20 Egyptian royal cubits in length and 10 royal cubits in width (10.46 × 5.23 metres). The right triangle is formed with its shortest dimension (15 cubits) represented by the diagonal across the west wall from the lower south-west corner to the upper north-west corner; its median dimension (20 cubits) is drawn along the entire length of the floor on the south side of the chamber; its long dimension (25 cubits) is drawn from the upper north-west corner of the chamber to the lower south-east corner.[82]

These side lengths of 15 cubits, 20 cubits and 25 cubits can be expressed as the ratio 3:4:5 because if we allocate the value '3' to the length of 15 cubits then 20 cubits must naturally have a value of '4' and 25 cubits must have a value of '5'. All right-angled triangles

with side lengths in this special 3:4:5 ratio are called ‘Pythagorean’ – after Pythagoras, the Greek philosopher and mathematician of the sixth century BC, who was supposedly the first to discover that they share a unique characteristic. This is that the square of the short side (3 units × 3 units = 9 units), added to the square of the median side (4 units × 4 units = 16 units), together result in a figure equal to the square of the long side (5 units × 5 units = 25 units, i.e. the sum of 9 plus 16).[83] The real ‘secret magic’ of the triangle, however, as the Icelandic mathematician Einar Palsson has pointed out, is only revealed when the numbers are cubed.[84] Then we get:

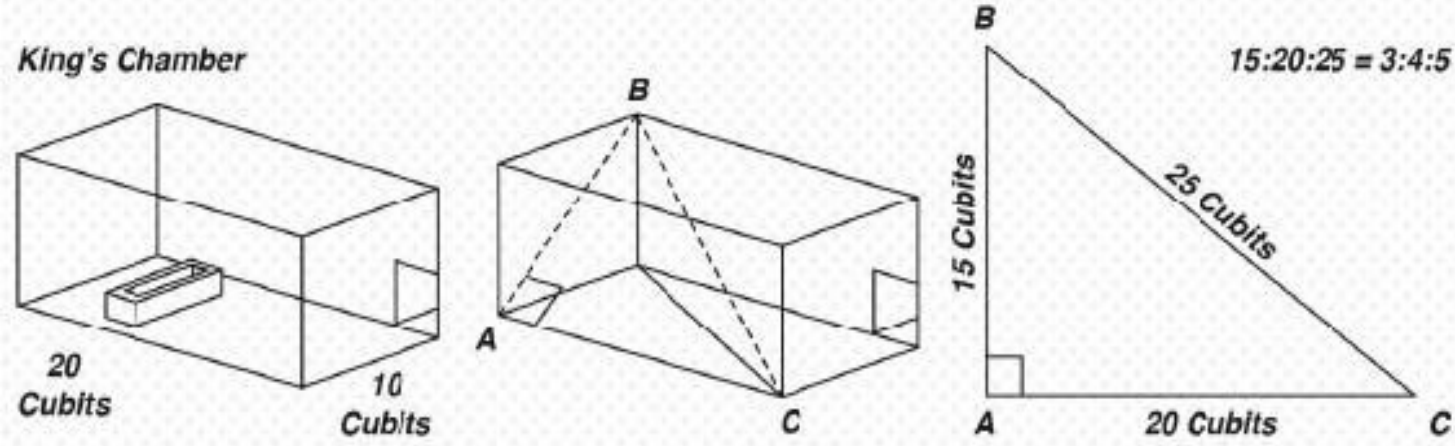

Figure 58: The 3:4:5 right triangle hidden within the King's Chamber of the Great Pyramid.

$$3 \times 3 \times 3 = 27$$
$$4 \times 4 \times 4 = 64$$
$$5 \times 5 \times 5 = 125$$

The total of 27 plus 64 plus 125 is 216, and as the reader will recall from earlier chapters, 216 is one of the sequence of numbers identified by historians of science Giorgio de Santillana and Hertha von Dechend as being derived from precise observations of the precession of the equinoxes, those long-term changes in the sky that unfold at the rate of one degree every 72 years. Numbers derived from this precessional sequence turn out to be encoded in ancient myths and monuments all around the world, tracing their origins back to what Santillana and von Dechend can only conclude was some 'almost unbelievable' ancestor civilization of prehistoric antiquity that 'first dared to understand the world as created according to number, measure and weight'.[85]

The heartbeat of the cycle, as we've seen, is 72 – the number of years required for the unfolding of one degree of precessional change. In observational terms a one degree shift over 72 years – effectively an entire human lifetime – is barely perceptible, being

roughly equivalent to the width of a forefinger held up towards the horizon. A 30 degree shift – through one entire zodiacal constellation, requiring 30 × 72 = 2,160 years to complete – is impossible to miss, but its progression could only be precisely recorded and noted by many generations of conscientious and accurate observers. A 60 degree shift, i.e. through two zodiacal constellations, takes 4,320 years (2,160 × 2 = 4,320), which is why a 360 degree shift (all 12 zodiacal constellations – 'the Great Year') requires a grand total of 25,920 years.

Within the 'precessional code' as Santillana and von Dechend showed conclusively, it is permissible to divide and multiply the 'heartbeat number' of 72 (the number of years required for one degree of precessional change). This is done in myths and monuments all around the world (for example at Angkor, in Cambodia, as we saw in Chapter Twelve, and at Borobudur, in Indonesia, as we will see in Chapter Eighteen). Thus 216 is 3 × 72 (or 2,160 divided by 10). Its derivation from the 3:4:5 triangle

inside the King's Chamber of the Great Pyramid is therefore most unlikely to be an accident and the relationship of all this to astronomy and geodesy – earth-measuring – is clear. This is further confirmed by the external dimensions of the Great Pyramid which, as I showed in *Fingerprints of the Gods*, encode the dimensions of our planet on the precessional scale of 1:43,200.[86]

Essentially, if you measure the height of the Great Pyramid and multiply it by 43,200 you get the polar radius of the earth and if you measure the base perimeter of the Great Pyramid and multiply by 43,200 you get the equatorial circumference of the earth. The fact that 43,200 is one of the sequence of precessional numbers identified by Santillana and von Dechend further reduces the likelihood of coincidence, and requires us to take seriously the proposition that we are indeed looking at part of the intellectual legacy of some 'almost unbelievable' ancestor civilization that had measured the earth and observed the changes in the stars with

scientific accuracy, long before what we understand as ‘history’ began.

So, to return to Harran, James Q. Jacobs’ discovery certainly suggests that the founders of this city made a deliberate geodetic choice when they set it at latitude 36.87 degrees north. What adds to this impression is that Jacobs has also found a geodetic relationship between Harran and the fabled Mesopotamian city of Ur with which it was known to have enjoyed a close relationship in antiquity:[87]

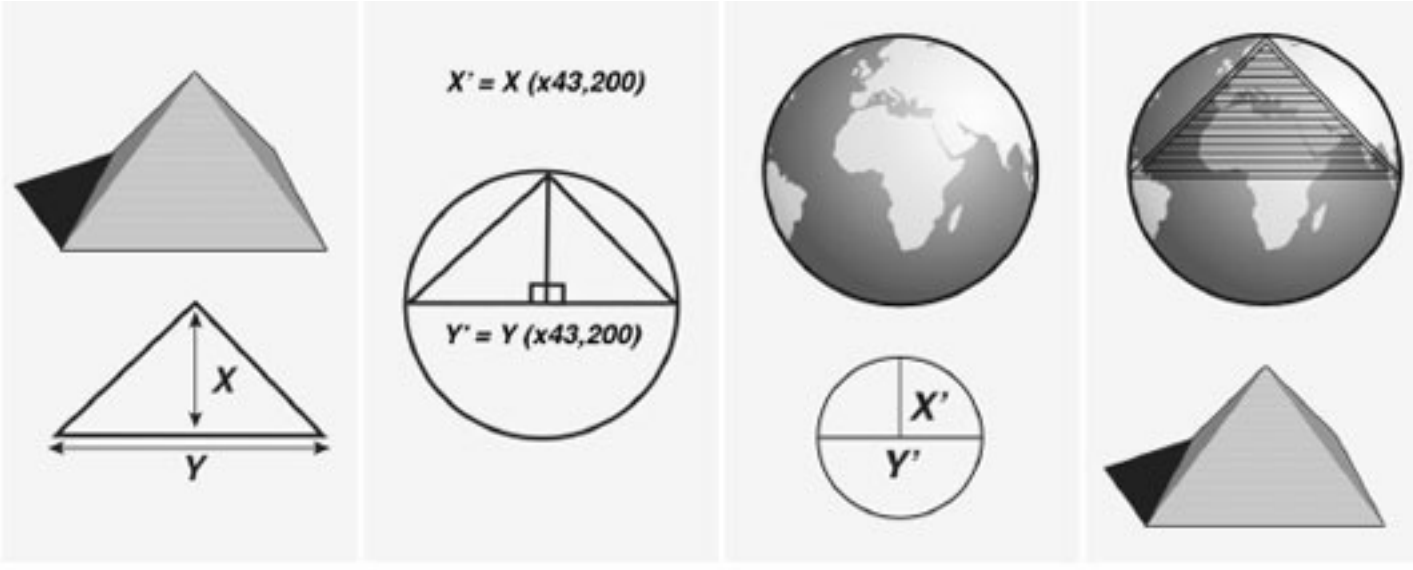

Figure 59: The Great Pyramid encodes the dimensions of our planet on the precessional scale of 1:43,200. The height of Great Pyramid multiplied by 43,200 gives us the polar radius of the earth and the base perimeter of the Great Pyramid multiplied by 43,200 give us the equatorial circumference of the earth with only minor errors in both cases.

The history/myth of Mesopotamia holds that Ur and Harran are two important, related Sumerian centres, both associated with the moon. I checked the [latitude of] the Ur ziggurat, at 30. 963 degrees. At first I did not notice colatitude equals 5/3 arctangent (atan). Colatitude is the distance to the nearest pole, a geodetic reference point. Latitude references the equator, the mid-poles plane perpendicular to the rotation axis. The local level plane at Harran intersects the rotation axis at a

> 4/3 atan angle, forming a 3:4:5 right triangle, as does latitude in relation to the equator and geodetic centre. Summarizing, colatitude at Harran equals 4/3 atan and at Ur 5/3 atan. Thus latitude at Harran equals 3/4 atan and at Ur 3/5 atan. Perhaps these 'idolators' were doing astronomy?[88]

I would go further and say *undoubtedly* the Sabian 'star-worshippers' of Harran were doing astronomy. And given the evidence we've reviewed in Chapters Fourteen and Fifteen for precise calculations of precession by the makers of Göbekli Tepe – so precise that they were able to create a symbolic picture of the winter solstice sky in our own epoch, 11,600 years in their future – I am not surprised by further evidence in this region of extremely ancient and extremely precise scientific astronomy and geodesy. This evidence goes far beyond the capabilities normally attributed to the historical civilization of Mesopotamia and because it draws back the veil, requiring us to look very deeply into prehistory, it again raises the spectre of a lost civilization.

Jacobs has noticed this and admits to being puzzled by it. His final discovery of relevance here concerns the geodetic relationship between Göbekli Tepe and Harran:

> The sites are apparently intervisible, just over 40 km apart. The difference in latitude from Harran to Göbekli Tepe equals precisely 1/1,000 of earth's circumference. This is where we enter a twilight zone in ancient astronomy. Of course the opposite metaphor – 'the dawn' of ancient astronomy – is the proper one regarding the implication. Göbekli Tepe features the oldest known room aligned north-south, evidence of astronomy in practice.
>
> Even non-archaeos understand stratification and deposition basics – deeper is older. Göbekli Tepe is 12,000 years old. Harran is equated … with Ur of Sumeria, the 'Civilised Land' and a 'cradle of civilization'. That cradle and astronomy is presumed to be 4,000 to 5,000 years old, not 12,000. Harran is located at 3/4 atan latitude, a fixed parameter, and Göbekli Tepe is at a specific latitude difference north. Because the fixed parameter must come first, the conundrum, of course, is that this precise 1/1,000 of circumference latitude difference is either a coincidence, or ancient astronomy just took a leap back to 12,000 years ago.[89]

My understanding is that Jacobs is no fan of alternative history and he has commented forthrightly on the amount of 'utterly

unbelievable pseudo-science' that is presently in circulation on the internet and in the media concerning Göbekli Tepe.[90] Kudos to him, therefore, for going where the genuine science takes him and keeping an open mind to the possibility that ancient astronomy and precise earth-measuring may indeed go back much further into the 'twilight zone' than mainstream archaeology has hitherto supposed.

The Magi of Harran

As Harran was in its beginning – a centre of the 'exact sciences' as Jacobs proposes[91] – so it continued to be throughout the millennia when the Sabians practised their 'star worship' here. As late as the ninth century AD, Al-Battani, better known in the west as Albategnius, arguably the most distinguished astronomer and mathematician of the Middle Ages, was born in Harran and went on

during a long and distinguished life[92] to record many remarkable scientific achievements.

Of particular note, combining both exact astronomy and exact geodesy, was his calculation of the greatest distance of the moon from the earth (since the moon's orbit is elliptical it has both a perigee, the point at which it is closest to the earth and an apogee, the point at which it is furthest away). Al-Battani's estimate of the moon's distance at apogee was within 0.6 per cent of the modern value.[93] He is also noted for his calculation of the length of the solar year at 365 days, 5 hours, 46 minutes and 24 seconds[94] – an error of only 2 minutes 22 seconds when compared with the figure produced by modern astronomers with the benefit of advanced technology.[95] Al-Battani catalogued 489 stars,[96] produced more accurate measurements of the sun's path than Copernicus would achieve 600 years later,[97] and gave important trigonometric formulae for right triangles,[98] a fact of the history of science that is perhaps

noteworthy in view of the relationship of Harran's latitude to right 3:4:5 triangles discussed above.

Al-Battani's full name, which includes a number of revealing epithets, was Abu Abdallah al-Battani Ibn Jabir Ibn Sinan al-Raqqi al-Harrani al-Sabi. The origin of the epithet 'al-Battani' itself is unknown, but is conjectured to refer to a street or district of Harran, his birth city – from whence 'al-Harrani' is of course also derived. 'Al-Raqqi' refers to the city of al-Raqqa, on the Euphrates river in Syria, where al-Battani spent much of his working life. Most interesting, however, is the epithet 'al-Sabi' which, according to the authoritative *Dictionary of Scientific Biography*, indicates that al-Battani's ancestors, if not he himself:

> had professed the religion of the Harranian Sabians in which a considerable amount of the ancient Mesopotamian astral theology and star lore appears to have been preserved and which, tolerated by the Muslim rulers, survived until the middle of the eleventh century. The fact that al-Battani's elder contemporary, the great mathematician and astronomer Thabit ibn Qurra hailed from the same region

> and still adhered to the Sabian religion, seems indicative of the keen interest in astronomy that characterised even this last phase of Mesopotamian star idolatry.[99]

Thabit ibn Qurra (AD 836-901, and also born in Harran), would have had little patience with loaded terms like 'star idolatry' which seek to place the 'paganism' of the Sabians on a lower level than the deadly, and often bigoted, narrow-minded and unscientific clerical monotheism of religions like Christianity, Judaism and Islam. Thabit was well aware that, underlying the ancient Sabian practices misunderstood by these young religions as 'star idolatry', were indeed exact sciences of great benefit to mankind, and thus he wrote:

> Who else have civilised the world, and built the cities, if not the nobles and kings of Paganism? Who else have set in order the harbours and rivers? And who else have taught the hidden wisdom? To whom else has the Deity revealed itself, given oracles, and told about the future, if not the famous men amongst the Pagans? The Pagans have made known all this. They have discovered the art of healing the soul; they have also made known the art of healing the body. They have filled the

> earth with settled forms of government, and with wisdom, which is the highest good. Without Paganism the world would be empty and miserable.[100]

To the above should be added that even this translation fails to do justice to what Thabit was attempting to convey here. The Syriac word *hanputho* that he used in his original text, and that is translated above as 'paganism' in fact means 'the pure religion'.[101] Its cognate in Arabic is the word *hanif*, which appears in the Koran referencing ancient pre-Islamic faiths that were regarded as pure and thus not to be persecuted.[102] Indeed the Sabians were accorded recognition by many leading thinkers in the early centuries of Islam as the archytypal *hanifs*[103] and this, together with their famous claim to be a 'people of the book', was amongst the reasons why they were left free for so long to practise the old ways.

We've already seen how the Sabians were allowed to build a new Temple of the Moon God, and to continue their religious rites, after the Arab General Ibn Ghanam conquered Harran in the seventh

century AD. This in itself is a sign of most unusual favour, since Islamic armies normally offered 'pagans' the choice of either conversion or death. Even more interesting, however, is the Sabians' encounter with the Abbasid Caliph Abu Jafar Abdullah al-Ma'mun, who passed through their city in AD 830 and reportedly quizzed them intensively on their religion.[104]

Remembering the Sabian pilgrimages to Giza, it is reasonable to wonder whether there is any connection with the fact that in AD 820, a decade before he visited Harran, it was Ma'mun who tunnelled into the Great Pyramid and opened its previously hidden passageways and chambers. Indeed, it is through 'Ma'mun's Hole' that visitors still enter the monument today.[105] Described by Gibbon as 'a prince of rare learning',[106] it seems Ma'mun's investigation was prompted by information he'd received about the Great Pyramid, specifically that it contained:

> a secret chamber with maps and tables of the celestial and terrestrial spheres.

> Although they were said to have been made in the remote past, they were supposed to be of great accuracy.[107]

Like his father Harun al-Rashid of Arabian nights fame, Ma'mun belonged to a line of learned and open-minded Caliphs. By the eleventh century, however, when the last Temple of the Moon God in Harran was finally destroyed, a new, more fundamentalist and far less tolerant faction had seized the reins of Islam and the suppression of 'the pure religion' of the Sabians began in earnest. We know they continued to make their pilgrimages to Giza until the thirteenth century, but after that they disappear from history and, while some scholars feel that elements of their faith survive amongst such sects as the Mandeans and the Yazidis of Iraq[108] (who themselves have been subjected to intense Islamic persecution in modern times), there seems to be no trace left of the Sabians today.

Except for one tantalizing and intriguing thought.

The sacred Book of the Sabians was the compilation of texts now known as the *Hermetica*,[109] a copy of which most mysteriously found its way into the hands of Leonardo de Pistoia, an agent of Cosimo de Medici, founder of the Medici political dynasty of Florence. It was 1460 and Pistoia was travelling in Macedonia at the time, but immediately returned to Florence with the treasure of ancient wisdom that he had acquired. With equal speed, Cosimo ordered his adopted son Marsilio Ficino to delay translation of the complete works of Plato, on which he had just begun, and to translate the Hermetica instead.[110] It was, as the late Dame Frances Yates, one of the world's leading experts on the Renaissance, has observed, 'an extraordinary situation'.[111]

Indeed so, particularly since there is much to suggest that it was this introduction of Hermetic ideas into fifteenth century Europe that kicked the Renaissance into high gear and gave birth to the modern world.[112]

Or was it, perhaps, not so much the birth of a new world as it was the rebirth – the 'resurrection' in the language of the Edfu texts – of the former world of the gods?

Signs of the hands

As we have seen, the Edfu texts speak of the Seven Sages, bringers of wisdom to mankind, teachers of science and magic. The Mesopotamian texts also speak of Seven Sages – the Apkallus – whose functions are identical to those of their Egyptian counterparts. We have explored all this in earlier chapters and need not repeat ourselves here. What I was unaware of, however, until I began to investigate the traditions of the Watchers in the Book of Enoch, the Book of Jubilees and elsewhere, is that scholars have discovered close links between the Watchers and the Apkallus.

For example, 'figurines of Apkallus were buried in boxes in the foundation deposits in Mesopotamian buildings in order to avert

evil … The term *massare*, Watchers, is used of these sets'.[113] Likewise the Apkallus were said to have taught antediluvian sciences to humanity and so, too, were the Watchers.[114] As one scholar concludes, however: 'The Jewish authors often inverted the Mesopotamian intellectual traditions with the intention of showing the superiority of their own cultural foundations. [Thus] … the antediluvian sages, the Mesopotamian Apkallus, were demonised as the "sons of God" and … appear as the Watchers … illegitimate teachers of humankind before the flood.'[115]

All in all, what this body of research reveals is a series of links between the Watchers and the Apkallus so close that they might reasonably be supposed to be two different names, or titles, for the same beings.[116] There is neither space nor need here to explore this material with all its multiple interconnections in any further detail, but I find it tempting to imagine that it might be these very beings –

these Watchers, these Sages – who are depicted on the tall megalithic pillars at Göbekli Tepe.

Notwithstanding their resemblance to the symbols of Mesopotamian deities (see Chapter Fifteen), the presence of the bag-like objects on the upper register of Pillar 43 in Enclosure D that I first drew attention to in Chapter One continues to intrigue me, since these objects are also so similar to the bags held in the hands of the Apkallu figures in many ancient depictions. And that similarity, as the reader will recall, is not confined to the Near East. In a sculpture from the Olmec site of La Venta, overlooking the Gulf of Mexico, a relief of Quetzalcoatl, the Feathered Serpent, the legendary bringer of civilization to the peoples of Central America, carries an identical bag.

Before leaving Turkey in July 2014 we make one more trip back to Göbekli Tepe. I can hardly bear to see it under its horrible, heavy wooden roof, which plunges all four of the main enclosures into a looming sepulchral gloom. But there's a particular reason why I

want to take a final look at Enclosure D, not this time at Pillar 43, but at the two central pillars with their crooked arms and their hands with long fingers that almost meet over their stone bellies.

When I'm satisfied I've seen enough we have our driver take us back in to Şanllurfa, to the main museum, where numerous artefacts from Göbekli Tepe, thought too precious to leave at the site, are on display. I've been here before, too, but there are a number of details I want to remind myself of.

I spend a long time in front of a mesmerizing sculpture of a human figure. It wasn't found at Göbekli Tepe, but was an accidental discovery made in the 1980s in Şanllurfa itself, in the heart of the old town where deep foundations were being dug for a car park. It has been dated to the Göbekli Tepe period – i.e. to around 9000 BC – and is 'on its way,' Klaus Schmidt has written, 'to become world famous as the oldest completely preserved life-sized statue of mankind.'[117]

Unlike the megalithic pillars at Göbekli Tepe where the ‘heads’ are stylised – resembling the upper crossbar of the letter ‘T’ – this figure has a fully formed human head and face with glittering black obsidian eyes, a pronounced chin that gives every impression of being bearded, a pectoral in the form of a large double ‘V’ carved in high relief across its chest, and its arms crooked in the manner of the Göbekli Tepe figures with the fingers almost meeting across the front of the belly.

I move on to the second piece I want to examine, the so-called ‘Totem Pole’. It’s even eerier than the first. Again it’s about normal human height but it is by no means entirely human. Instead it’s a complex hybrid with multiple different characteristics. The head is badly damaged, but the ears and eyes have been preserved and suggest a predator of some kind, perhaps a bear, or perhaps a lion or leopard. So it’s a therianthrope. Then large serpents wind up along the outside of its legs. They have oversized heads which project forward at about the level of the figure’s groin.

There are two sets of arms and hands that seem to belong to the figure itself. In the case of the upper pair, the arms are crooked in the usual Göbekli Tepe manner and the hands are brought together, with the fingers almost touching across the chest. Then there's a second pair of what seem to be forearms and hands only, with the fingers again coming together and almost touching across the belly roughly at the level of the navel.

Moving down, at about the level of the genitals, a small head and two further arms protrude outwards from the midline of the figure. Again there are those long-fingered hands almost meeting, but this time they appear to be playing a drum. Beside them, but just below them, there is the hint, much damaged, of a further pair of arms and hands.

Much about all this is familiar to me.

Very familiar.

Not from Göbekli Tepe, though, as we'll see in the next chapter, but from the far side of the world.

Part VII

Distance

Chapter 17

Mountain

It's October 2013 and I'm on the slopes above the city of Cuzco, in the high Andes of Peru exploring the incredible megalithic site of Sacsayhuaman with Jesus Gamarra, a descendant of the Incas. Gamarra is in his mid-seventies, more than ten years older than me, but you'd never guess it from looking at him. He's as nimble as a mountain goat, fully acclimatised to the altitude of 3,701 metres (12,142 feet), and fit as an Olympic athlete after years of clambering around the passes and trails of his homeland during a lifetime of research into the origins of Inca culture.

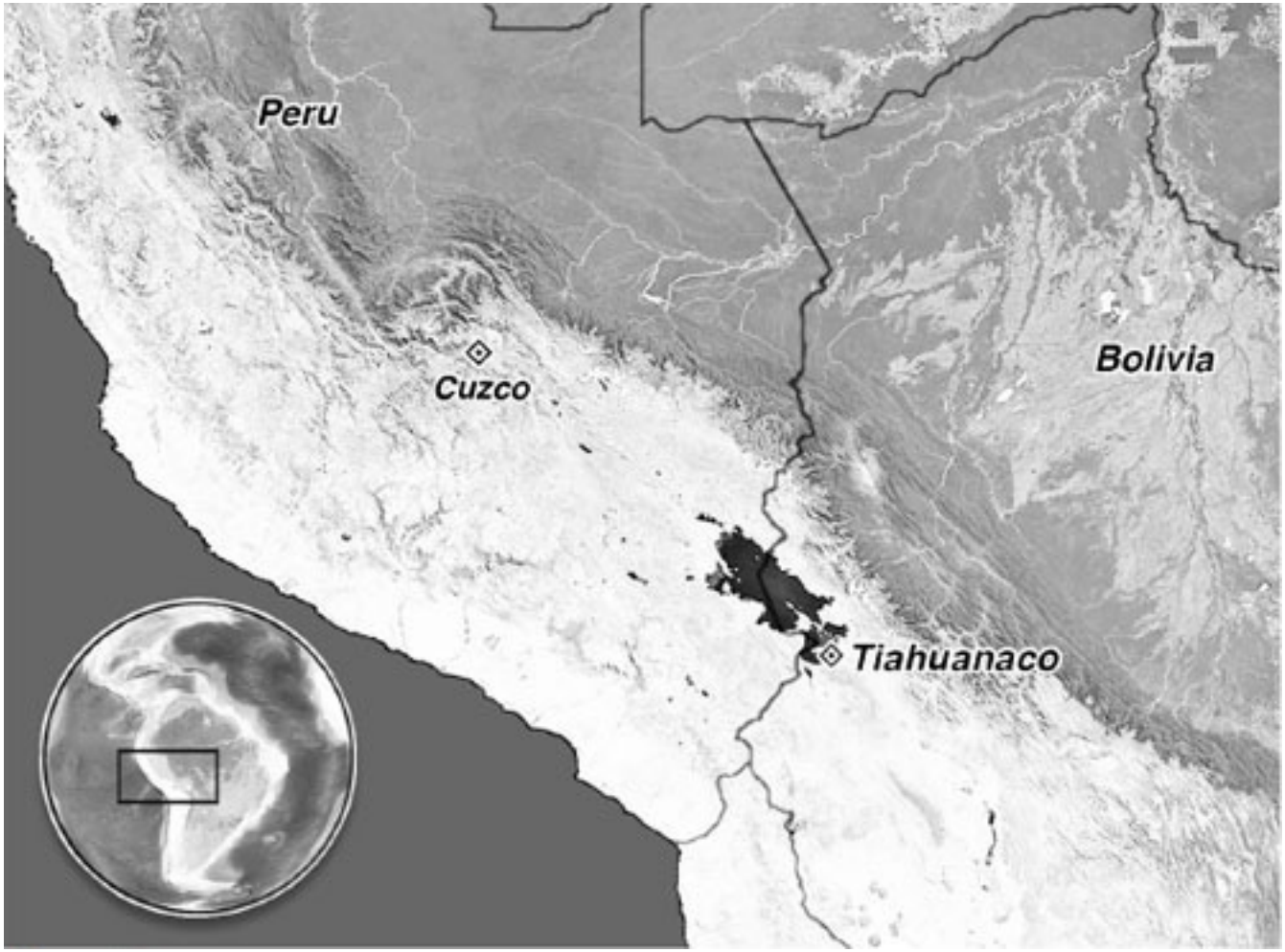

Figure 60

My first visit to Sacsayhuaman was in 1992, and I've been back many times since, always learning something new. In *Fingerprints of the Gods*, published in 1995, I expressed my scepticism of the orthodox theory that practically all of the great monuments of the Andes are the work of the Incas – whose empire was not much more than a century old at the start of the Spanish conquest of Peru in 1531. 'Since it was known that the Incas made extensive use of Sacsayhuaman,' I wrote in *Fingerprints*, 'I could easily understand why it had been assumed that they had built it. But there was no obvious or necessary connection between these two propositions. The Incas could just as well have found the structures already in place and moved into them.'[1] In *Heaven's Mirror* (1998) I further developed the argument that the gigantic megalithic and rock-hewn constructions of the Andes, which are by no means confined to Sacsayhuaman but are found all over the region, were *not* the work

of the Incas but of a much earlier, predecessor civilization long lost to history:

> In such an event it is not necessary to imagine a complete break in continuity between the hypothesised 'elder culture' and the Incas; on the contrary, the latter could have inherited some of the traditions and knowledge of the former and attempted, on a smaller scale, to mimic their cyclopean world.[2]

I didn't know Gamarra or his work when I wrote the passages quoted above. Now, as he shows me around Sacsayhuaman, carefully and painstakingly explaining everything he wants me to see, taking me to hidden nooks and corners of the site that I was completely unaware of before, he opens my eyes to all sorts of details that support and reinforce my earlier intuitions. More than that, he presents a solid archaeological case, originally worked out by his father Alfredo Gamarra, and greatly refined and extended by himself, that would, I feel, be worthy of serious consideration by mainstream scholars – if, that is, the mainstream were not so locked

in to the rigid preconception that all these monuments are just a few hundred years old and entirely the work of the Incas.[3]

It is notoriously difficult to know, with any useful level of certainty, the age of anonymous, uninscribed stone monuments. Carbon dating of associated organic materials is only useful when we can be absolutely certain that the materials being dated were deposited at the same time as the cutting and placing of the stone we are interested in. In the case of many megalithic structures this is impossible. Surface luminescence dating, which we saw in Chapter Ten has already produced some anomalous results at the Pyramid of Menkaure and at the Sphinx and Valley Temples of Giza, has not yet been widely taken up by the archaeological establishment and has never been applied to the monuments of the Andes. In the absence of useful objective tests, therefore, the next routine strategy is to look at architectural style and methods. Just as different styles of pottery can often provide reliable indications as to what culture in

what period made a particular piece, so too with architecture. The rule of thumb is that very different styles and approaches to the construction or creation of stone monuments, even if they stand side by side, are indicative of the involvement of different cultures working at different periods in the past.

Unfortunately this logical and reasonable technique of stylistic dating is not popular with archaeologists studying the monuments of the Andes – perhaps because, if they were to deploy it here, as they do elsewhere, they would be forced to question the established theory that the Incas made everything. Archaeology is a deeply conservative discipline and I have found that archaeologists, no matter where they are working, have a horror of questioning anything their predecessors and peers have already announced to be true. They run a very real risk of jeopardizing their careers if they do. In consequence they focus – perhaps to a large extent subconsciously – on evidence and arguments that don't upset the applecart. There might be room for some tinkering around the

edges, some refinement of orthodox ideas, but God forbid that anything should be discovered that might seriously undermine the established paradigm.

What Gamarra is showing me as we walk around Sacsayhuaman is that there are three distinctly different styles of architecture here – so different, indeed, that it is extremely difficult to understand why archaeologists insist they are all the work of the same Inca culture, and were all made during the century or so prior to the arrival of the Spanish. It is unnecessary to repeat the detailed descriptions of this site that I have given in my earlier books. In brief, however, Sacsayhuaman stands on a hillside above and overlooking the city of Cuzco and consists of a series of three parallel rows of walls, all about 6 metres (20 feet) high, constructed entirely of gigantic megaliths, some weighing in excess of 360 tons,[4] each wall offering a jagged, almost zig-zag profile, built into the side of a slope and arranged in step fashion one above the other. Past the uppermost

wall the slope continues to rise towards the south and is littered with the ruins of a number of much smaller buildings; one of these, right at the top, consisting of three concentric circles of nicely-cut blocks, preserved at foundation level only, must have been impressive when it was intact. Beyond it, a valley overgrown with trees and dense bushes slopes steeply down to the south with Cuzco nestling in its floor.

Turning northwards, a grassy plateau perhaps 100 metres wide extends from the base of the lowest of the three megalithic walls along its full length of some 400 metres. On the north side of the plateau, a natural rocky knoll of volcanic diorite rises, but it has been cut and shaped into intricate terrace and step formations. This is where Gamarra and I are now standing and he launches into an explanation.

Figure 61: Plan of Sacsayhuaman, zigzag megalithic walls to the south, shaped rocky knoll to the north.

‘This is “Hanan Pacha” work,’ he says, indicating the beautifully cut diorite terraces at our feet. ‘The first world. It was made thousands of years before the time of the Incas. They knew how to shape stone then.’ A mischievous grin. ‘They could do anything they wanted with it. Maybe it was easy for them.’ He stoops, beckons for me to look closely at the surface of the rock. ‘You see?’

I shrug. I’m puzzled. I’m not sure what he wants me to see.

‘No tool marks,’ he says. He gestures proudly at the whole carved, sculpted artefact, the whole gigantic work of art that the knoll has been transformed into. ‘No tool marks anywhere.’

‘So what did they do? Buff the tool marks off after they’d cut the stone?’

‘No,’ says Gamarra. ‘They didn’t need tools. They had another way. It was the same in the second world, too, which I call “Uran

Pacha”.’ He points to the looming megalithic walls opposite. There is some disagreement amongst the experts about exactly what kind of stone they are made from and where it was quarried. The consensus, although some green diorite porphyry and some andesite are also present, is that a very hard and dense form of local limestone was used for the megaliths themselves. Quarries at 15 kilometres distance and at 3 kilometres distance have been identified as sources for the limestone.[5]

We scramble down the side of the knoll and across the grassy plaza until we stand beneath the courses of hulking megaliths that have become the definitive image that Sacsayhuaman now projects to the world. As always when I’m here, my first sensation is of wonder. I feel small, diminished, pint-sized. It’s not just that the walls, and the blocks they’re built of, are big. They seem to have – dare I say it? – a personality of their own, and it is the personality of a slumbering giant.

What's spectacular about these walls, quite apart from their size, quite apart from the fact that there are at least a thousand individual blocks, is the breathtaking virtuoso feat that has been performed in joining them together. I mean, let's be serious here. When you are building a wall in which the smallest block you plan to use weighs a ton, while the majority weigh over 20 tons, where many weigh 100 tons, some weigh 200 tons and a few weigh more than 300 tons, you have already set yourself a formidable logistical challenge.

But then suppose, just for the hell of it, you decide to up the ante a little more and insist that these walls must be constructed in the form of huge three-dimensional jigsaw puzzles. Every block has to be a polygon with anywhere between six and a dozen sides, every polygon has to be different – no two alike – and they must all fit together with one another so tightly that you won't be able to get a razor blade between the joints.

I can't speak for the *back* of the blocks where they lock into other blocks behind them – again, presumably, multi-dimensionally – but

the patterns made along their weird cyclopean façades are already complicated enough without considering what's going on out of sight. It's obvious, gazing up in stupefied awe at the scale and complexity of the project, that this must have been an incredibly difficult thing to do! Whoever was responsible for Sacsayhuaman's megalithic phase can only have been top-class professionals with years of experience behind them and a very long tradition of distilled knowledge to draw upon. You can't conceive, and plan, and build something like this with only a century or two of trial and error behind you – as is supposed to be the case with the Incas. These megaliths of Sacsayhuaman are the mature work of grandmasters of stone.

Moreover, throughout the Andes, there is no evidence of apprentices learning how to do this, no early prototypes that are good but don't quite succeed. Other structures might not be on the scale of Sacsayhuaman (though many come close) but all of them, whether at Pisac, or Ollantaytambo or Machu Picchu, or at a score

of other sites, share the same level of complexity while embracing different challenges – such as extremely difficult locations very far from the quarries – that Sacsayhuaman does not have to overcome. All of them are masterworks from the beginning. All of them are perfect. It's almost as if, as Gamarra says, 'it was easy for them'.

I know he has a theory to explain this. The theory is that gravity was lower during his first two 'worlds' – the *Hanan Pacha* stage and the *Uran Pacha* stage – and that this made stone lighter and easier to manipulate. The lowered gravity is linked in his mind with the notion that the earth once made much closer orbits around the sun – an orbit of 225 days and an orbit of 260 days – before settling in to its present 365 day path.[6] He could be right; new science suggests that the orbits of the planets are not fixed and stable but can be subject to radical changes that, amongst other things, are capable of increasing the flux of comets into the inner solar system.[7]

However, this isn't the part of his theory I'm interested in. Where I feel he is solidly persuasive is in his observations of the anomalous character of the monuments of the Andes – observations that are based on fifty years of his own field work and sixty years of fieldwork by his father. The Gamarras have walked the walk and earned the right to speak out on this matter, and when they speak, though they themselves are of Inca descent, their message is absolutely clear – many of the great architectural works that are attributed to the Incas were not made by the Incas. There are traces of a lost civilization here. Indeed not just one lost civilization, but – if Gamarra's time-frame is correct – two.

'All the big blocks of Sacsayhuaman are from the Uran Pacha period,' he says. We're standing in a corner at a junction of a dozen or so of these incredible blocks. Gamarra highlights again the precision of their joints that look as though some modern machine tool has been at work, and the daunting complexity of the patterns they form. Then he draws my attention to something else. Several of

the blocks have weird circular hollows and shallow tracks with raised edges scalloped into their faces along with other peculiar, seemingly random, patterns. ‘No tool marks,’ he reiterates. ‘No chisels. No hammers.’

‘So how did they do it?’

‘Doesn’t it look,’ Gamarra asks, ‘like they worked with the stone when it was soft?’ He runs his hand along the curves and angles of a polygonal joint. ‘Like butter? So they could mould everything together?’

Suddenly all becomes clear. The strange shapes I’m seeing in the rock would be easy, indeed effortless, to create if these blocks were made of something of the consistency of room-temperature butter instead of cold, hard limestone. Then as well as moulding them together to create this massive jigsaw puzzle effect, the tip of a table-knife could be used to gouge out the shallow scallops and the back of a spoon would serve to make the hollows.

It's an attractive idea and I don't have to buy into Gamarra's theories about orbits and gravity in order to explore it further. There are other ways of explaining the patterns. For example, the technology of a lost civilization might have been up to the challenge of softening rock so that it could be worked like butter. Perhaps heat was involved? An intriguing study by the Institute of Tectonics and Geophysics of the Russian Academy of Sciences, working in cooperation with Peru's Ministry of Culture, produced evidence that the limestone of the Sacsayhuaman megaliths was at some point subjected to temperatures in excess of 900 degrees centigrade and possibly as high as 1100 degrees centigrade.

When the Russian researchers went to the quarries where the blocks are believed to have been cut, they found the natural limestone filled with tiny organic fossils. This is what you would expect, since limestone is a sedimentary rock that forms under ancient seas and consists largely of the remains of tiny shells and the micro-skeletons of other marine organisms. Strangely, when

samples from the Sacsayhuaman megaliths were assayed by the researchers they confirmed that the rock was indeed limestone of 'high density'.[8] However there were:

> no obvious fossils and organic remains in it, but only clearly visible fine-grained structure.[9]

Their conclusion was that the blocks had been subjected to intense heat between the time when they were quarried and the time when they were placed into the wall and that this heat was sufficient to reduce the fossils to indeterminate fine-grained structure:

> Of course we need more detailed researches and analysis in order to estimate the real reason for the thermal effects on the studied limestone … But the fact remains the fact – recrystallization of biogenic siliceous limestone into microcrystalline siliceous limestone. The result of this process we can see in the material forming the wall polygonal blocks of Sacsayhuaman. In normal nature conditions this process is absolutely impossible.[10]

'Some magic presided over its construction …'

Jesus Gamarra and I continue our exploration by climbing the stairways through the lines of the megalithic walls until we reach the slope above and can approach the dilapidated ruins littering the hilltop. ‘These,’ says Gamarra, indicating the ruins, ‘are examples of what was done in the Ukun Pacha period – the work of the Incas.’ Some of it, he makes clear, for example the structure of three concentric circles of walls, was very nicely done. The Incas called it Muyuc Marca, he tells me. It was a tower that once rose to over 30 metres in height and was built as an imperial residence for the Emperor – whose title was ‘the Inca’. Only later, and by extension, did the entire nation become ‘the Incas’.

Gamarra’s argument is that in buildings like Muyuc Marca we are looking at the finest results the Incas were capable of. Yet these results are so patently inferior to the megaliths – and so different – that they must obviously be accepted as the work of another culture.

Curiously, although such ideas are regarded as heresy by archaeologists today, this was not the case when the Andes first

came under serious scientific scrutiny in the late nineteenth and early twentieth centuries. For example, the great geographer Sir Clements Markham, who travelled extensively in Peru and wrote the classic study *The Incas of Peru*, states that 'the Incas knew nothing' of the origins of Sacsayhuaman:

> Garcilaso refers to towers, walls, and gates built by the Incas, and even gives the names of the architects; but these were later defences built within the great cyclopean fortress. The outer lines must be attributed to the megalithic age. There is nothing of the kind which can be compared to them in any other part of the world.[11]

The 'Garcilaso' mentioned by Markham is the chronicler Garcilaso Inca de la Vega, the son of a Spanish conquistador and an Inca princess, a heritage that gave him unique access to genuine Inca traditions, particularly since he was born and brought up in Cuzco and spoke Quechua, the language of the Incas, as his mother tongue. Had the megalithic elements of Sacsayhuaman been recent work,

done in the century before Garcilaso's birth, there should have been fresh and clear memories, even eye-witness accounts, of so magnificent an achievement. But Garcilaso reports nothing of the sort and instead can only offer magic as an explanation for what he describes as 'an even greater enigma than the seven wonders of the world'. Here is what he wrote about Sacsayhuaman in his *Royal Commentaries*:

> Its proportions are inconceivable when one has not actually seen it; and when one has looked at it closely and examined it attentively, they appear to be so extraordinary that it seems as though some magic had presided over its construction; that it must be the work of demons, instead of human beings … If we think, too, that this incredible work was accomplished without the help of a single machine, is it too much to say that it represents an even greater enigma than the seven wonders of the world? How can we explain the fact that these Peruvian Indians were able to split, carve, lift, carry, hoist and lower such enormous blocks of stone, which are more like pieces of a mountain than building stones, and that they accomplished this, as I said before, without the help of a single machine or instrument? An enigma such as this one cannot be easily solved without the help of magic.[12]

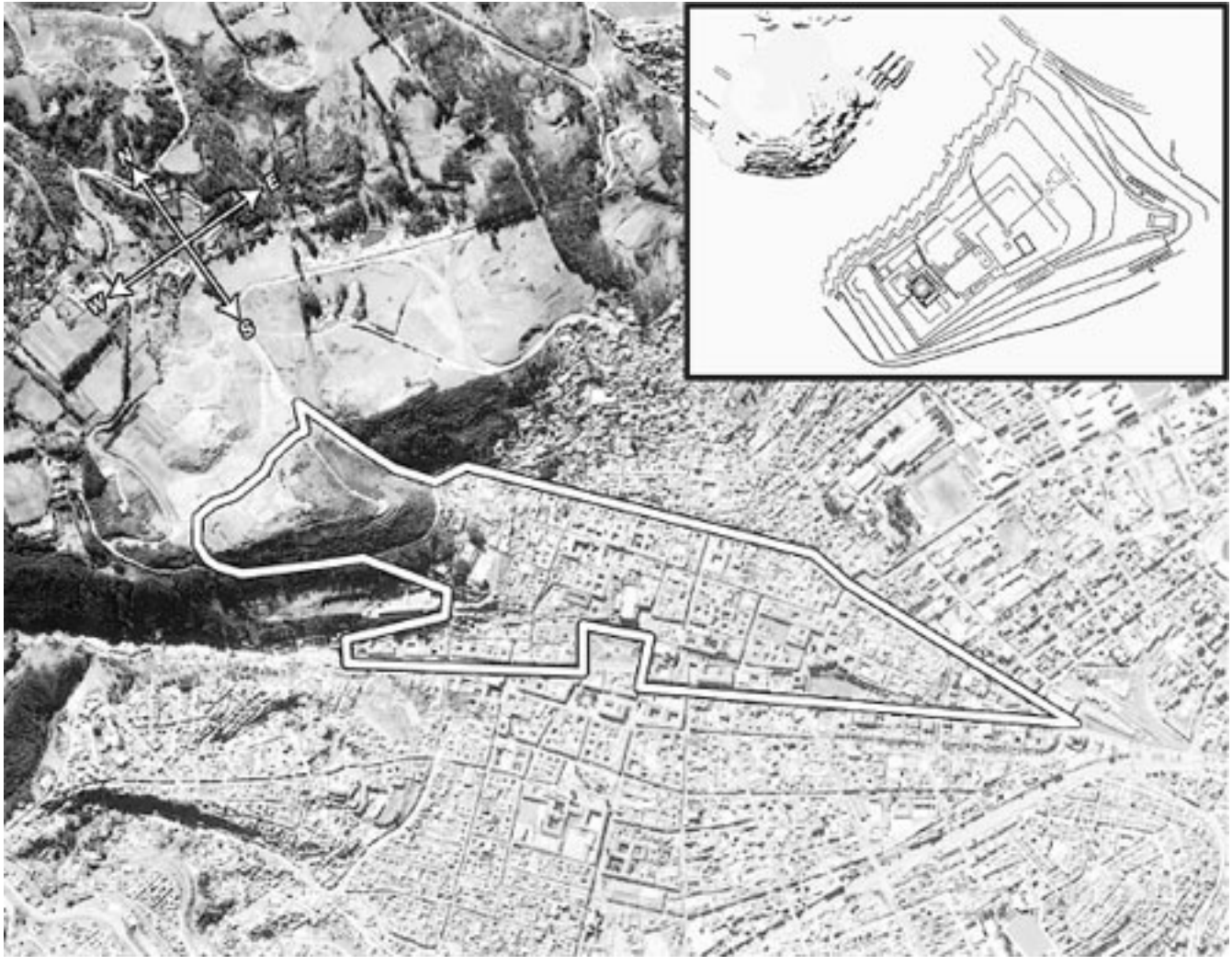
N
E
W
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Figure 62: The Cuzco-Sacsayhuaman ‘puma’.

Are we looking, yet again, at the handiwork of the Magicians of the Gods? Remembering that the great temple of Edfu in Upper Egypt was dedicated to the god Horus, who was sometimes depicted as a falcon and sometimes as a lion, it is intriguing to discover that the very name ‘Sacsayhuaman’ means Falcon (specifically ‘Satisfied Falcon’). Furthermore, it has long been recognised that Sacsayhuaman forms part of a large geoglyph, once visible from surrounding mountain peaks, in which it combines with the oldest quarters of Cuzco to form the shape of an immense feline – a puma, the closest creature in the Americas to an old world lion. The river Tullumayo (now diverted underground where it passes through the city) used to serve as the spine of this ancient lion. The torso was the spit of land between the Tullamayo to the east and the river Huatnay (now also underground) to the west. Sacsayhuaman is still recognizable as the head of the lion. The zigzag walls, that Jesus

Gamarra attributes to the second (*Uran Pacha*) episode of civilisation in the Andes, outline the upper side of its snout and muzzle, with the snout facing due west, the direction of the equinox sunset, just as the Great Sphinx of Giza faces due east, the direction of the equinox sunrise.[13]

There are traditions, supported by some modern excavations, of a network of tunnels under the Sphinx where mysterious treasures lie concealed.[14] There are virtually identical traditions – again supported by recent excavations – of a labyrinth of enormously long tunnels under the head of the Sacsayhuaman lion 'into which people descend to be lost forever, or to emerge, gibbering, mad, clutching items of treasure'.[15]

Before we leave Sacsayhuaman, Jesus Gamarra takes me to a very strange place a few hundred metres to the north-east of the megalithic walls, where a narrow stairway with a dozen steps appears to have been moulded – not cut – into the midst of a

massive boulder 20 feet high and as many wide. The stairway would only have been visible from above when it was made, but the boulder has been split into two parts – by an earthquake, Gamarra thinks – with one side standing upright and the other leaning away from it at an angle of about 40 degrees, thus exposing the steps which we approach from ground level. At the point where the lowest of the steps would originally have touched the earth, Gamarra shows me the entrance to what looks like a deep, dark hole, now filled up with slabs of rock. 'It's a tunnel,' he tells me. 'It goes under the ground all the way to Cuzco, but the government blocked the entrance to stop people exploring it.'

Civilizing mission

Over the next few days Jesus Gamarra shows me more of the evidence behind his theory. Indeed now that I've understood his reasoning, I can see examples everywhere.

In downtown Cuzco – the name of the city means ‘the navel of the earth’ in the Quechua language of the Incas[16] – he takes me to the ancient temple known as the Coricancha, which was converted into a cathedral after the Spanish conquest. The temple was used by the Incas, indeed it was central to their sacred life, but Gamarra does not believe that the Incas built it. In his view, though they undertook some repairs and added some minor constructions of their own, the bulk of the polished, precise, sharply angled grey granite stonework is from the *Uran Pacha* (‘second world’) period and thus predates the Incas by thousands of years. He’s reluctant to commit to a timescale, but suggests that the Coricancha was originally raised up ‘more than 20,000 years ago’ in order to venerate an even earlier *Hanan Pacha* (‘first world’) monolithic site – the original ‘uncovered navel stone’ from which the city derives its name.[17]

The Incas preserved a tradition, passed down to us by Garcilaso Inca de la Vega, concerning the foundation of Cuzco. It seems that

some sort of cataclysm had affected the world, some sort of disaster, and the inhabitants of the Andes had fallen into a very lowly state. Garcilaso was told by his own uncle, an Inca nobleman, that the people of that far-off time 'lived like wild beasts, with neither order nor religion, neither villages nor houses, neither fields nor clothing … They lived in grottoes and caves and, like wild game, fed upon grass and roots, wild fruits, and even human flesh … Seeing the condition they were in, our father the Sun was ashamed for them, and he decided to send one of his sons and one of his daughters from heaven to earth' to bring them the gifts of civilization and to teach them – 'to obey his laws and precepts … to build houses and assemble together in villages.'[18]

This royal couple – for, like Isis and Osiris in Egypt they were brother and sister as well as husband and wife – travelled the land carrying a golden rod given to them by the Sun God, who instructed them to plunge it into the earth at various points until they found a

place where it would disappear at one thrust and there they were to establish their court. Finally, 'the Inca and his bride entered into Cuzco valley. There [at a spot called *Cuzco Cara Urumi*, the Uncovered Navel Stone] they tried their rod and not only did it sink into the earth, but it disappeared entirely … Thus our imperial city came into existence.'[19]

There is an exact parallel here to the story of the Zoroastrian patriarch Yima, recounted in Chapter Seven, who was given a golden poniard by a god and who likewise plunged it into the earth as the founding act of a civilization.

And what a civilization it was that flowered in the Andes! Certainly the extraordinary accomplishment of the giant edifices of the Coricancha seems to suggest the application of more than ordinary skills and abilities. The huge granite blocks are so finely cut – Gamarra insists they were moulded into shape – that the towering inner chambers look more like the parts of some gigantic,

sophisticated machine than of a temple. Adding to this impression are the complicated series of grooves, channels, holes and niches indented into several of the blocks, giving them the appearance of printed circuit boards from which the circuitry has been removed, leaving only empty tracks.

After spending some hours inside the Coricancha, Gamarra takes me outside into the neighbouring Loreto Street which he promises will provide a particularly graphic demonstration of his arguments. It's a narrow alley bounded by high walls and in these walls, surmounted by sections of modern plasterwork, four distinctly different styles of stone masonry are visible. Of these, Gamarra says, two are Inca, *Ukun Pacha,* one is from the colonial period around the seventeenth or eighteenth century, and one dates back to the *Uran Pacha* period.

Along a large part of one side of the street there are granite blocks that are every bit as fine and beautifully fitted as those inside the Coricancha. Indeed, this section of the wall is the exterior

elevation of one of the Coricancha's large chambers, and therefore, according to Gamarra, is from the *Uran Pacha* period. The joints between the blocks are so thin, and yet so complex, with interlocking elements, that they do indeed seem moulded together. In addition – and he has previously shown me examples of this at Sacsayhuaman as well – there is a curious glassy sheen around the joints, which he believes is evidence of 'vitrification caused by exposure to intense heat'. He makes a convincing case that what we're looking at is different from the normal shine that passers-by might impart to the stone by rubbing and touching it over the centuries. Indeed the 'vitrified' elements – and I make no claim that this is what they are – form a clear skin over the underlying blocks that is particularly evident where areas have been damaged or broken.

Beside the courses of *Uran Pacha* blocks, though not rising to the same height, are others that look superficially similar but that, on closer examination, prove to be much more crudely made with

obvious tool marks, no glassy sheen and yawning gaps between some of the joints. ‘Good *Ukun Pacha* work,’ comments Gamarra. ‘Made by the Incas. They were doing their best to imitate the Uran Pacha style, but they couldn’t quite succeed and their efforts got poorer and poorer.’

He indicates four courses of irregular cobbles higher up with wide spaces between the joints filled by adobe. ‘Colonial period,’ he says.

Finally he takes me to the other side of the street to show me a long section of dry-stone wall. The cobbles have been subjected to a certain amount of shaping, but are clumsily and unevenly fitted together. There’s no adobe in the gaping joints. ‘Made by the Incas,’ says Gamarra.

‘And what’s the opinion of the archaeologists?’ I ask.

A grin. ‘They recognise the colonial work, but they’ve fooled themselves into believing that everything else was done by the Incas. They are so convinced there was no earlier, more advanced

civilization here, that they're blind to the huge differences between the *Uran Pacha* blocks and the Inca workmanship.'

'I suppose the fact that the Incas themselves sometimes attempted to imitate the *Uran Pacha* style – at least in that section over there – makes things more complicated?'

'More complicated, yes. But still they should be able to see. Such profound changes in the quality of workmanship, especially when examples like this are found all over the region, should give the hint that different cultures were involved.'

Sacred valley

If the focus around the Coricancha is the fine megalithic work that Gamarra associates with the *Uran Pacha* period, there are many other structures in the area that he sees as pure *Hanan Pacha* – the oldest phase of Andean civilization, where the work in stone is entirely monolithic. Several great outcrops of bedrock have been

completely refashioned into bizarre complexes of steps, terraces and alcoves. At Qenko, one such outcrop a little way beyond Sacsayhuaman, there are multiple snake-like grooves and channels winding their way down the sides of a mystic dome filled with caves, ledges, passageways and hidden niches. On the very top, again carved – or moulded – from the raw stone, is an oval protrusion surmounted by a stubby double prong. There are also the outlines of various animals – a puma, a condor, a llama – and yet more terraces and steps leading nowhere.

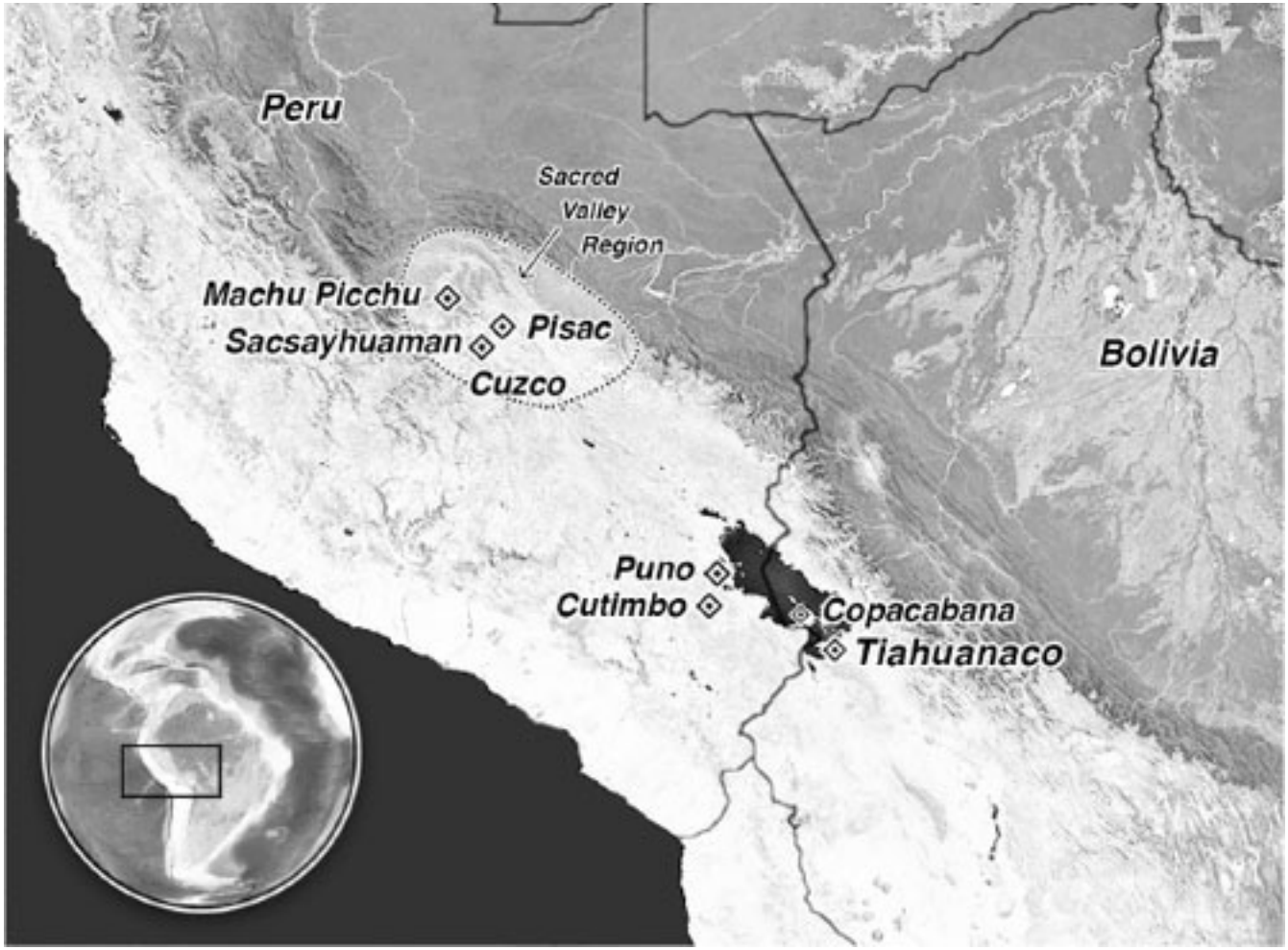
Peru
Sacred
Valley
Region
Machu Picchu
Pisac
Sacsayhuaman
Cuzco
Bolivia
Puno
Cutimbo
Copacabana
Tiahuanaco

Figure 63

We go on to another sculpted outcrop a hundred metres tall known locally as the Temple of the Moon. At the base of the mound there's a dark, mysterious, folded slit that leads within, along the edge of which, at about shoulder height, emerges the sinuous sculpted form of a serpent with a strange bulbous head. To the right of the entrance the rock takes distinctive shape as the head of an elephant, complete with trunk, eyes and ears. About the serpent there's no doubt, but is the elephant an example of what psychologists call *pareidolia* – the human tendency to see meaningful shapes and patterns that don't really exist? Or did some cunning artist in ancient times deliberately set out to sculpt the appearance of an elephant emerging from the rock? If the latter, than we have a problem with history, since the last species related to elephants that could be portrayed here – *Cuvieronius* – became extinct in South America at least six thousand years ago, while the Incas who are supposed to have made the Temple of the Moon date back less than a thousand years.

I'll have more to say about the serpent, and the 'elephant', later. Meanwhile, as I stoop down through the slit in the rock to enter the temple I notice another carved stone animal – a puma, this time, and somewhat damaged – at my feet.

Now I'm inside what feels like the womb of the mountain, and a soft velvety gloom envelops me. The cave is five metres wide with an organic, meandering feel to it, but to my left a couple of deep alcoves have been cut into the wall, while twenty metres ahead a shaft of brilliant, golden light finds its way in through some aperture in the rocky mound above and illuminates a stone plinth about a metre and a half high with two large steps. I climb up onto the plinth and sit there, my back resting against the living rock, deep in thought.

Gamarra says this place is from the most ancient *Hanan Pacha* epoch, that it has nothing to do with the Incas, and that it long predates the *Uran Pacha* period that was responsible for the megaliths of Sacsayhuaman and the stunning, high-precision

architecture of the Coricancha. Looking around, taking in the atmosphere, I'm more and more inclined to agree with him. The people who made this cave temple were not the same as those who made the Coricancha. It's not just different building styles that are involved in each of the different periods. It's a different ethic and a different spiritual heartbeat.

From the Temple of the Moon we go straight on to Pisac, a drive of eighteen kilometres along the edge of the Sacred Valley of the Vilcanota River. Its waters sparkle far below us, while all around the spectacular mountain country glows emerald, thanks to countless fertile terraces that the Incas undoubtedly did create and that provided their empire with vast agricultural wealth. The sheer magnitude of the task of organizing and building the thousands upon thousands of neat dry-stone walls that hem in these terraces – which are found in every viable spot throughout the length and breadth of the Andes – almost beggars belief. It's a comparable achievement to the architectural wonders. And so too are many

other aspects of Inca civilization – which I do not mean to diminish in any way with the suggestion that there might have been earlier cultures. Quite the contrary, I suspect part of the reason the Incas were so remarkable is that they were the inheritors of an incredible legacy of wisdom and knowledge from the past.

So it's in a setting of great natural beauty overlooking the Sacred Valley that we explore Pisac, a site less famous, but in many ways more spectacular than Machu Picchu, which lies another seventy kilometres to the north-west.

As at Machu Picchu, the centrepiece at Pisac, around which everything else seems focused, is an *Intihuatana* (the word means 'hitching post of the sun') – a massive outcrop of rock, shaped by human hands in what Gamarra calls the *Hanan Pacha* style, with a gnomon sticking up from its summit. Surrounding it, and in some cases moulded to its surface, are walls of beautifully shaped polygonal blocks in the later *Uran Pacha* style, which seem to have been designed to cradle and protect the *Intihuatana*. And around

them are *Ukun Pacha* – Inca – structures of simpler, cruder stonework.

'Each of these cultures,' Gamarra explains, 'venerated and respected the culture that went before. They expressed their feelings of respect by building over and around the work of their predecessors and by attempting to copy what they did. As I showed you in Loreto Street, the Incas sought to emulate the *Uran Pacha* style, but they didn't have the knowledge or the right conditions to do such a good job.'

By 'the right conditions' Gamarra means the lowered gravity and greater malleability of stone that he hypothesises in past epochs, but I don't need to embrace that to accept that his observations about the different building styles and their likely origination by different cultures make complete sense of what we're looking at.

I see many more examples of these three distinctive styles, sometimes with Gamarra to guide me, sometimes not. Machu Picchu itself, which I've written about at length in previous books,

is, of course, the archetypal *Hanan Pacha* site adopted and overbuilt by later cultures. Then there's a mysterious little cave overlooking a remote valley, through the floor of which passes the rail track connecting Cuzco to Machu Picchu.[20] It's quite a clamber three hundred metres up the almost sheer valley side and along a narrow track, but the end result is worth the effort. At the front of the cave (see Plate 60) a black andesite boulder has been sculpted – or moulded? – into a curious-looking shrine with a step-pyramid motif engraved upon it.

Treasure hunters have been here and dynamited the shrine, but enough of it survived the explosion to get a sense of how beautiful it must have been before it was attacked. In the same *Hanan Pacha* style, one wall of the cave appears to have been planed smooth and an alcove with absolutely precise straight edges, as though milled by a machine tool, has been cut into it. But on the other side, on my right as I look out of the cave, an Inca wall of rough stone mortared

together with adobe has been built, and into this wall – crudely done – six alcoves have been fashioned in an obvious attempt to mimic the high-precision rock-cut alcove on the left. The qualities and styles of workmanship are so completely different that it makes no sense, as is presently the case, to insist that both the rock-cut work and the crude wall were produced by the same culture. Gamarra's theory that a much older monument has been honoured and mimicked by the Incas better fits the evidence before my eyes.

Déjà vu

Heading out of Peru on our way to Bolivia, we stop in the town of Puno on the shores of Lake Titicaca, 3,812 metres (12,507 feet) above sea level and from there, the next day we drive 22 kilometres south to a dramatic mesa at an altitude of 4,023 metres (13,198 feet), on top of which is perched the archaeological site of Cutimbo. The main features of the site – several tall towers, some circular,

some square, and known collectively as *chullapas* – are visible from the road. They are thought to have been built as tombs for the nobility of a local Indian culture, the Lupakas, who were made vassals of the Incas in the period between AD 1470 and AD 1532.[21] Undoubtedly there were burials within the *chullapas* in that period,[22] but the possibility must be considered that these were intrusive and that the towers, made from fine polygonal blocks that have all the hallmarks of Jesus Gamarra's *Uran Pacha* style, are much older than their latest use.

I'm getting accustomed to the thin air of the Andes by now, but it's a long hike through yellow pampas grass up the side of the mesa under a burning morning sun. Once we get to the top, however, my fatigue vanishes when I start finding, and Santha starts photographing, really interesting imagery carved in high relief on the sides of a number of the towers and on scattered blocks lying at

random here and there, the result of more demolition efforts by treasure hunters.

It's this imagery, on the far side of the world, including that stone serpent in the Temple of the Moon, that a year later will suddenly come to mind in Şanllurfa Museum, as I study the collection of reliefs from Göbekli Tepe. I leave readers to form their own views from Plates 61-72, but the obvious parallels include the following:

> At Göbekli Tepe there is a creature, sculpted in high-relief, identified by Klaus Schmidt as a beast of prey with splayed claws and powerful shoulders, its tail bent to its left over its body. A very similar animal is seen at Cutimbo with the same splayed claws and the same powerful shoulders, while the tail instead of being bent to its left is bent to its right.
>
> At both Göbekli Tepe and Cutimbo, reliefs of salamanders and of serpents are found. The style of execution in all cases is very similar.
>
> At about the level of the genitals of the so-called 'Totem Pole' of Göbekli Tepe, a small head and two arms protrude. The head has a determined look, with prominent brows. The long fingers of the hands almost meet. The posture is that of a man leaning down through the stone and playing a drum. This is also the posture of two figures at Cutimbo, who emerge from a large convex block on one

of the circular towers. They have the same determined features and prominent brow ridges as the figure on the 'Totem Pole'.

The two serpents on the side of the 'Totem Pole' have peculiarly large heads, making them look almost like sperm. So, too, does the serpent that emerges from the dark narrow entrance of the Temple of the Moon above Cuzco.

Lions feature in the reliefs at Göbekli Tepe, pumas feature in the reliefs at Cutimbo and again the manner of representation is similar.

I don't know what to make of these similarities. Just coincidences? Very likely. Even so they go on.

City of Viracocha

It's quite a trial crossing the land border from Peru into Bolivia through a series of bureaucratic hurdles and long queues, but close by is the charmingly-named town of Copacabana and a comfortable hotel overlooking Lake Titicaca. If we had more time we'd visit the Islands of the Sun and Moon by boat from here; but we've been to them often before and they're not our target on this trip. It's

Tiahuanaco up on the Altiplano at 12,800 feet, near the south-eastern shore of the giant lake, that we're keen to get back to.

Orthodox archaeologists date Tiahuanaco to the period between 1580 BC and AD 724, but in both *Fingerprints of the Gods* and *Heaven's Mirror* I argued that it might ultimately prove to be many thousands of years older than that. Up to now less than two per cent of the site has been excavated and I think it likely that further excavations will force a change of the archaeological paradigm. It is perhaps a sign of things to come that on 27 March 2015 Bolivia's Tiahuanaco Archeological Research Center reported that a survey with ground-penetrating radar had revealed the existence of a complete 'buried pyramid' in a previously unexcavated area of the site, together with 'a number of underground anomalies' that are thought to be monoliths. A five-year plan of excavation to learn more about these mysterious structures has now been launched.[23]

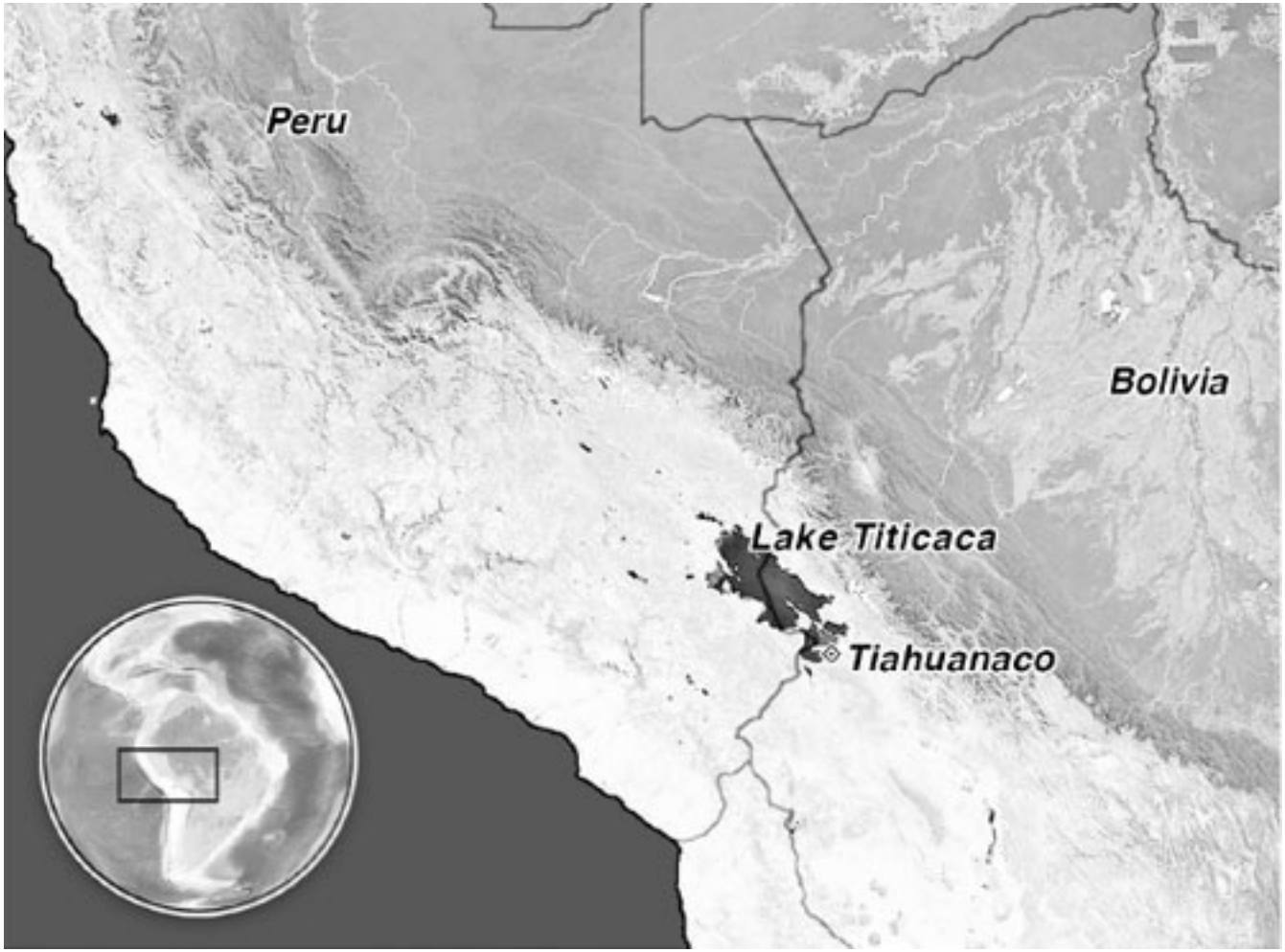

Figure 64

Since I've already described Tiahuanaco at length in my previous books, it seems superfluous to repeat those descriptions here. What's new for me on my October 2013 visit is a much closer look at the machine-age precision of the megaliths littered around the immense platform of the Puma Punku, and the truly intricate manner in which so much of the stone has been cut – moulded, I think Jesus Gamarra would say. As at the Coricancha, I come across several megaliths that resemble circuit boards stripped of their circuits. There are others with cross-shaped indentations that look as though they were part of some contraption – as though perhaps they were to receive the ends of metal axles, or connecting pieces that have long since oxidised or been carried off by looters.

Particularly striking, because I've missed them before on all previous visits, are a couple of rows of massive andesite blocks all identical, as though stamped out of some mould, and all shaped like the letter 'H'. The comparison with the 'H' motif at Göbekli Tepe,

on the belts of the pillars, for example, is irresistible even if it is just another coincidence (see Plates 75 and 76).

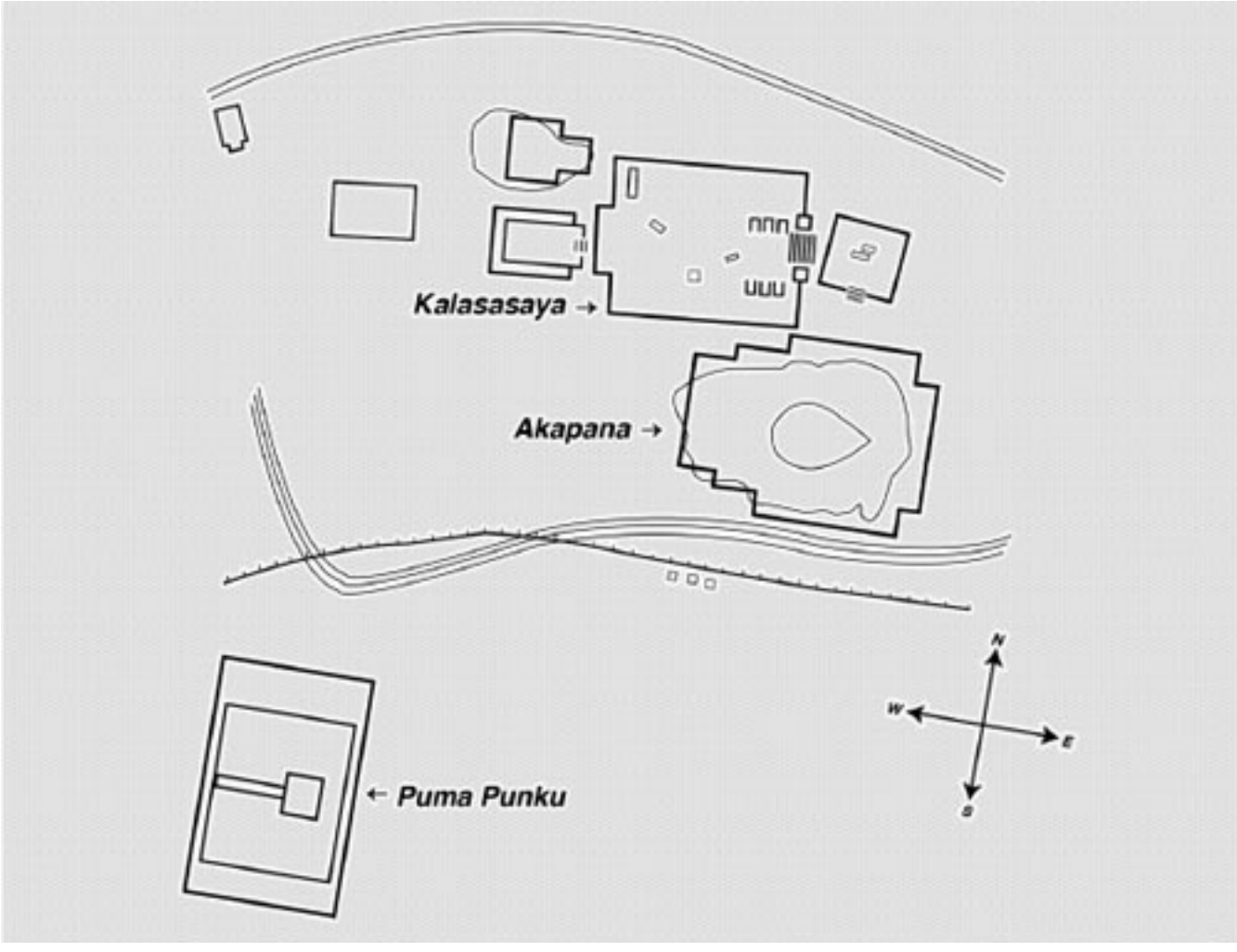

Figure 65: The principal structures of Tiahuanaco.

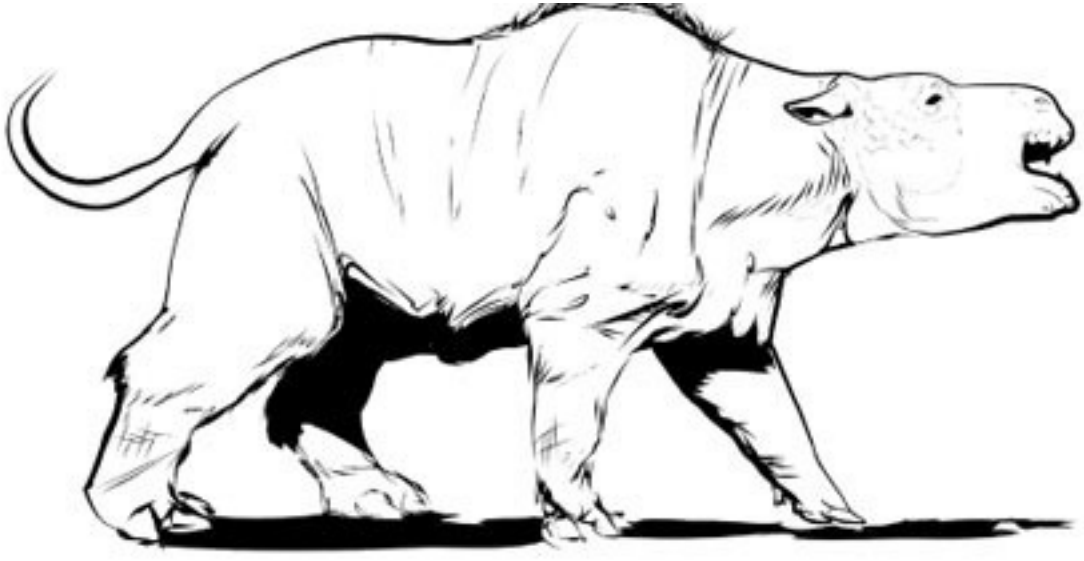

Figure 66: Above artist's impression of Toxodon. Below the imagery on the pillar in the semi-subterranean temple at Tiahuanaco (left, photograph; right, highlighted).

Then there's the pillar statue in the semi-subterranean temple at Tiahuanaco. Like the Totem Pole of Göbekli Tepe, it is anthropomorphic. Like the Totem Pole at Göbekli Tepe, it has serpents writhing up its side. Like the Totem Pole at Göbekli Tepe, the long fingers of its hands almost meet in front of its body. The face is human not animal, however, and it's heavily bearded. Nonetheless, the figure of an animal is carved on the side of its head and this animal resembles no known species more closely than it does Toxodon (see illustration above), a sort of New World rhino that went extinct during the cataclysms at the end of the Ice Age around 12,000 years ago. This isn't *pareidolia* – the figure is definitely there. So there's only one question – and it's difficult to answer: is this a depiction of Toxodon, or is it some creature of the artist's imagination?

I move on into the Kalasasaya, the huge open rectangle, bounded

by megalithic walls, that appears to have been the central ceremonial area of ancient Tiahuanaco. On the monolithic Gateway of the Sun is carved the image of another elephant with tusks and trunk, like the elephant sculpted into the living bedrock of the Temple of the Moon near Sacsayhuaman. This Tiahuanaco 'elephant' has been dismissed by critics as merely the heads of two condors side by side, but if that is the case, then the image on the matching – mirror – side of the Gateway is puzzling (see illustration below), since it definitely shows two condors side by side yet is different from the elephant relief.

If it was modelled from nature it doesn't have to be *that* old – *Cuvieronius*, as noted earlier, survived in South America until 6,000 years ago. On the other hand, most related mastodon species went extinct during the Younger Dryas between 12,800 and 11,600 years ago.

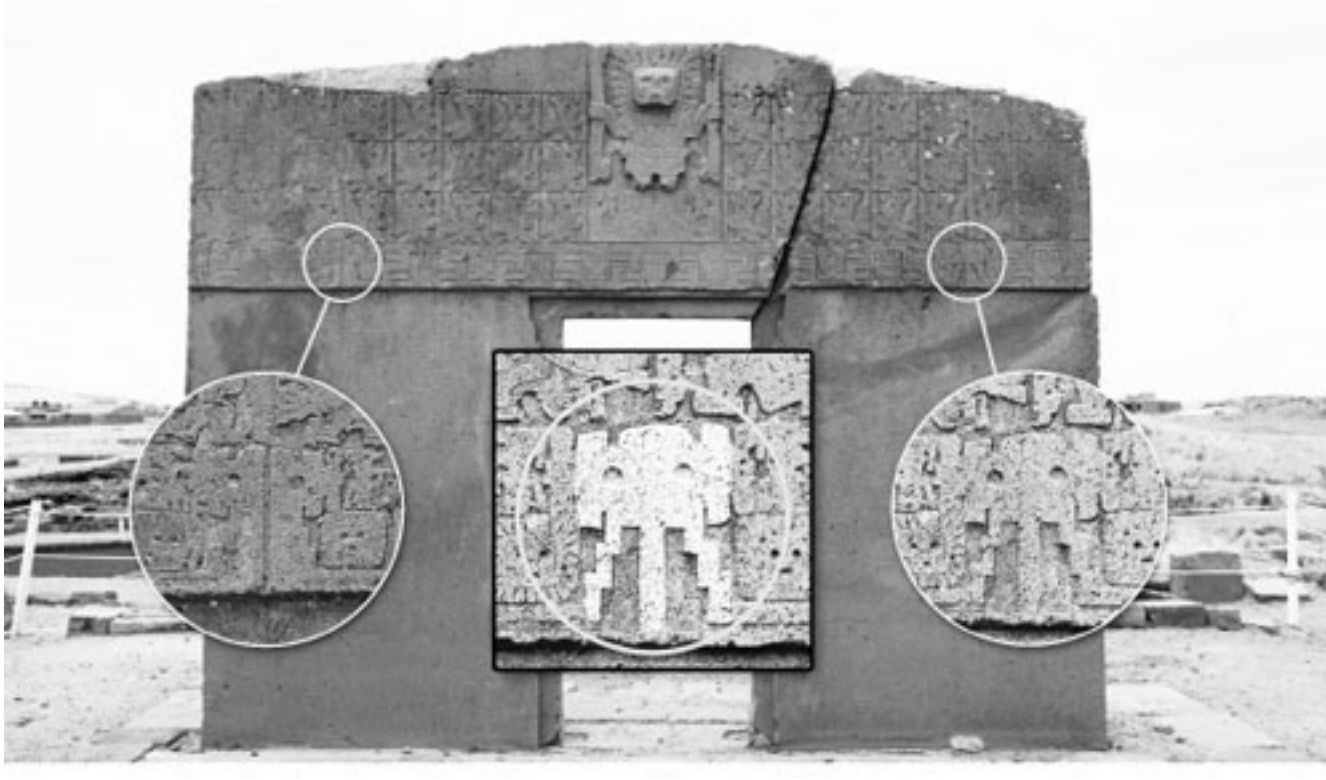

Figure 67: An elephant on the Gateway of the Sun? Or just two condors side by side?

The Kalaysasaya is a huge, largely empty, open space. But there are two statues here that I want to take another look at – the Ponce Monolith, named after Carlos Ponce Sanginés, the 'godfather' of

Bolivian archaeology, and *El Fraile* ('the Friar') a smaller, slightly different version done in the same general style.

What's striking about both of them are the hand positions, with the fingers almost meeting across the belly – virtually identical to the hand positions on the Göbekli Tepi pillars or on the Totem Pole. However, the Tiahuanaco figures, like the Mesopotamian Apkallus, carry objects in their hands – not a cone and a bucket but, as archaeologist and ethnobotanist Constantino Manuel Torres has demonstrated, snuff trays for the consumption of hallucinogenic DMT powders from the Amazon.[24]

It's a reminder, even up here in the cold, austere highlands of the Altiplano, that the Amazon with its riotous, exuberant life is not far away. When we are looking for the remnants of a lost civilization that once perhaps spanned the globe, it might not be the first place we would think of, but its dense jungles hide so much and recent clearances have revealed the remains of ancient cities, megaliths,

gigantic earthworks, and soils enriched by some mysterious process that keeps them fertile for thousands of years.[25]

What is also clear is that a legacy of high-level scientific skills, inherited from *somewhere*, was passed down through generation after generation of shamans. The making of a psychedelic, DMT-containing brew – Ayahuasca – from two jungle plants, neither of which is an orally active psychedelic in its own right, is an astonishing pharmacological achievement when we remember that there are 150,000 different species of plants and trees in the Amazon. Likewise a nerve poison like Curare, which has eleven different ingredients and which produces lethal fumes during preparation, is not something that can be dreamed up overnight, but requires the application of a thoroughly worked-out science.

Another point of interest about the Tiahuanaco monoliths is that their garments from the waist down are patterned in the form of fish scales. Here, too, is a parallel to the Apkallus – the bearded, 'fish-

garbed figures' who brought high civilization to Mesopotamia and whose mysteries we explored in earlier chapters. Nor is it as though bearded figures are missing from the repertoire of Tiahuanaco. Two have survived, and one on the pillar in the semi-subterranean temple has been identified since time immemorial with the great civilizing deity Kon-Tiki Viracocha, who I wrote about at length in my previous books and who is described in multiple myths and traditions as being white skinned and bearded. Garcilaso Inca de La Vega, who lived through the last years of the conquest and grew up in Cuzco, wrote that Viracocha:

> wore a thick beard – whereas the Indians are clean shaven – and his robe came down to the ground, while that of the Incas came only to their knees; this is why the Peruvian people called the Spanish 'Viracochas' the minute they saw them … The Indians had no difficulty believing that the Spaniards were all the sons of God …[26]

In other words, with their white skins and beards the Spanish fitted an ancient tribal memory, passed down from generation to generation, of civilizing heroes who had come to the Andes in remote prehistory and taught the people there the skills of agriculture, architecture and engineering.

And what about Kon-Tiki Viracocha himself? What happened to him?

It seems after a civilizing mission across the Americas:

> His travels took him to Manta (Ecuador) from where he crossed the Pacific Ocean, walking on the water.[27]

I am not going to repeat here the stories and traditions of Viracocha that I reported in my previous books, but he is the Osiris and the Quetzalcoatl of the Andes who comes in a time of darkness, after a great flood, bringing the gifts of civilization.

That he should leave eventually, and that he should do so by some high-tech means, 'walking on the water' across the Pacific

Ocean, is intriguing.

Let’s follow him and see where he might have gone …

Chapter 18

Ocean

According to the most ancient traditions of Mesopotamia, humanity was created at the 'navel of the earth', in *uzu* (flesh), *sar* (bond), *ki* (place, earth).[1] In the *Rig Veda*, the most ancient scripture of India, the universe was born and developed 'from a core, a central point'.[2] Bearing markings that Jesus Gamarra would instantly nominate as belonging to the oldest, *Hanan Pacha*, style of the Andes, the *Shetiyah* – Foundation Stone – of the Temple Mount in Jerusalem, now the 'rock' of the Dome of the Rock (see Chapter Twelve), is considered to be 'the centre of the earth'.[3] Indeed this notion that

there are certain primordial centres of creation from which all else grows is a global theme of ancient religion and mythology:

> The Most Holy One created the world like an embryo. As the embryo grows from the navel, so God began to create the world by the navel and from there it spread out in all directions.[4]

In the Greek myth of the universal Deluge, sent by Zeus to punish mankind for wickedness, the only survivors are Deucalion and Pyrrha. Their Ark comes to rest on Mount Parnassus, high above Delphi, a site regarded throughout classical antiquity as the 'navel of the earth'.[5] Just as Heliopolis in Egypt possessed the sacred Benben, a *betyl* stone fallen from heaven (see Chapter Eleven), so too Delphi possessed a *betyl*, nominated as its omphalos, or 'navel stone'. It was specifically identified in Greek mythology as the stone which had been fed to the monstrous time-god Kronos – who devoured his own children – in place of the infant Zeus. When Zeus grew to manhood, he took revenge on Kronos, 'driving him from

the sky to the very depths of the universe' after first – in imagery that calls to mind the debris stream of a comet – forcing him to vomit up the stone.[6] 'It landed in the exact centre of the world, in the shrine at Delphi.'[7]

We saw in the last chapter that the name of Cuzco, the megalithic city in the Peruvian Andes, means 'the navel of the earth'. More than 4,000 kilometres (2,500 miles) to the south-west, across the Pacific Ocean, the ancient name of Easter Island, *Te-Pito-O-Te-Henua* also means 'the navel of the earth'[8] – which in turn has affinities to the ancient name of Tiahuanaco, *Taypicala*, 'the stone at the centre'.[9] Indeed, on the edge of Easter Island's La Perouse Bay there is a mysterious spherical, carefully-tooled stone called *Te-Pito-Kura* – the 'golden navel stone' – which is regarded as the navel of the island itself.[10]

Traditions state that there was once a time when 'great magicians' used this stone to focus their *mana* power – literally

‘sorcery’ – to make the *Moai*, the famous megalithic statues of the island ‘walk’ from the quarry to the places where they were to be set up.[11] An almost identical notion is preserved amongst the indigenous Aymara of Bolivia, who have lived in the vicinity of Tiahuanaco since time immemorial. They state that the mysterious city with its own extraordinary megalithic statues was built by magic in a single night and that ‘the stones came down of their own accord, or at the sound of a trumpet, from the mountain quarries and took up their proper positions at the site.’[12]

Nor do the parallels stop there. Since the late 1940s, when Thor Heyerdahl undertook his Kon-Tiki expedition (named after Kon-Tiki Viracocha, the civilizing deity of Tiahuanaco, whom we met at the end of the last chapter), it has been noticed that there are similarities between the statues of Tiahuanaco and the Moai of Easter Island. For example, as we’ve seen, the figures of Viracocha at Tiahuanaco display prominent and pronounced beards (a sharp

contrast to the indigenous inhabitants of the Andes who are not able to grow strong beards) and there is no doubt that the prominent chins of the Easter Island figures are also meant to represent beards (Plates 78 and 79). As Heyerdahl commented:

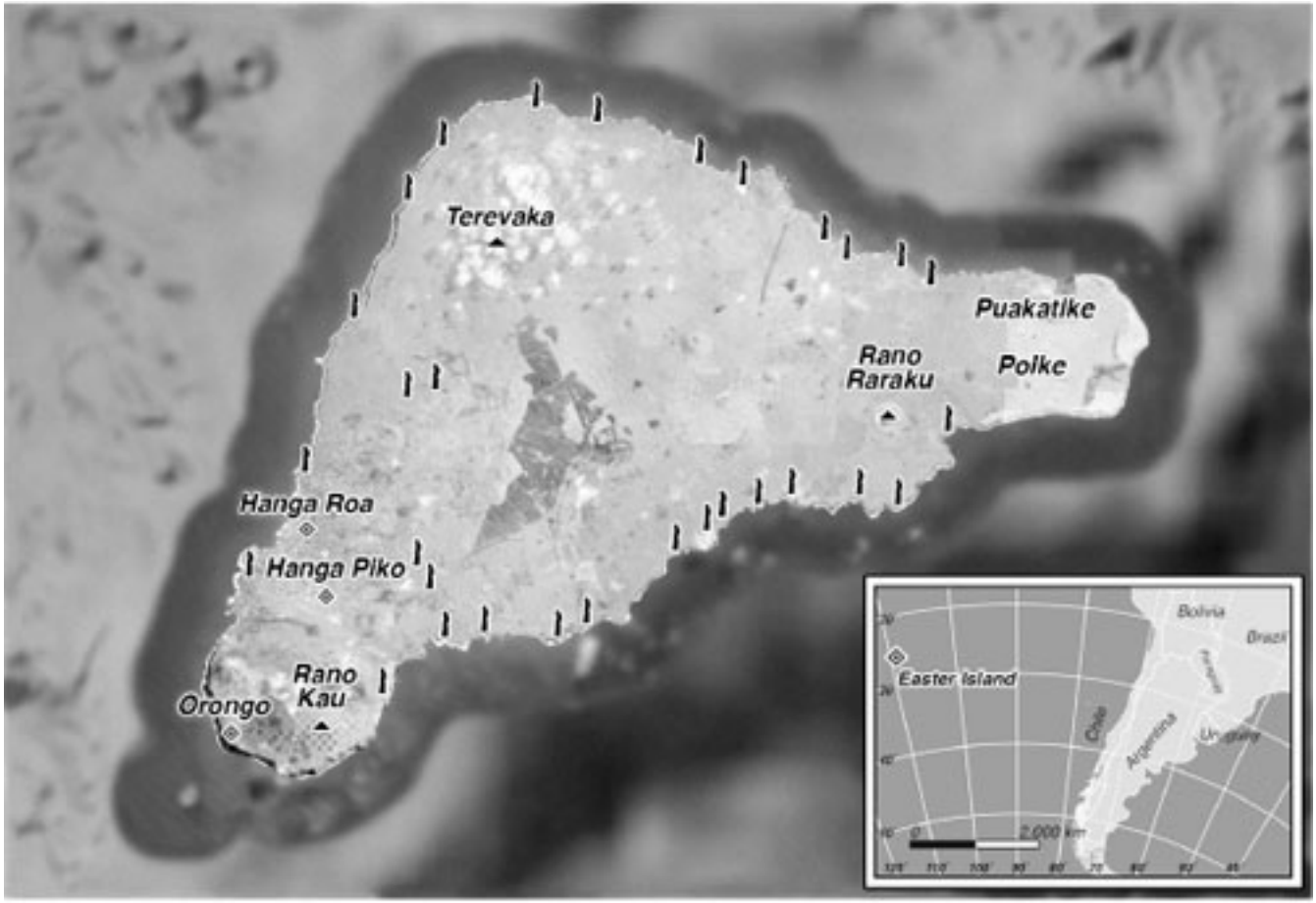

Figure 68: Easter Island and its region. (After Eric Gaba, Wikimedia Commons).

> The statues on Easter Island … had their chins carved pointed and projecting, because the sculptors themselves grew beards.[13]

The Norwegian adventurer was likewise struck by the way that the Easter Island figures and the Tiahuanaco figures have 'their hands laid in position on their stomachs'.[14] Both also wear distinctive broad belts. 'The sole decoration of the Easter Island figures,' he wrote:

> is a belt which was always carved round the figure's stomach. The same symbolic belt is to be found on every single statue in Kon-Tiki's ancient ruins by Lake Titicaca.[15]

Heyerdahl, who I had the privilege to know and who was a strong supporter of the lost civilization hypothesis,[16] did not have the opportunity to visit Göbekli Tepe before he passed away in 2002. Had he done so, however, I think he would have been struck by the resemblance between the hand positions depicted on the 'Totem

Pole' figure from Göbekli Tepe and the hand positions on the Viracocha pillar statue and on the Ponce and *El Fraile* monoliths at Tiahuanaco. I pointed these resemblances out in the last chapter, but there's more.

For example, the larger anthropomorphic pillars at Göbekli Tepe feature thick sculpted belts very similar to those seen on the Tiahuanaco and Easter Island figures. Also noteworthy are the hand positions seen on the larger Göbekli Tepe pillars, with long fingers placed forward and almost meeting across the belly. Identical hand positions are seen on the Easter Island Moai. Last but not least, just as Easter Island, Tiahuanaco and Cuzco share the odd concept of being 'navels of the earth', so too does Göbekli Tepe; whether expressed in Turkish, or in the Armenian language as *Portasar*, its very name means 'the hill of the navel'.[17]

If all these are coincidences then their profusion is rather extraordinary – unless, of course, the same Magicians of the Gods

who created and then buried the Göbekli Tepe time capsule at the end of the Younger Dryas some 11,600 years ago were also at work in Easter Island.

Unless, in other words, the Moai of Easter Island are older – much older – than archaeologists think they are …

A remnant of antediluvian lands?

Archaeologists believe that the oldest of the Easter Island Moai was made around AD 690 and the youngest about a thousand years later in AD 1650. This chronology is based on radiocarbon dating which also puts the earliest human settlement on the island at AD 318.[18] As we have seen, however, radiocarbon cannot date stone monuments directly. Inferences have to be made about the relationship between the organic materials that have been dated and the stone, and sometimes these inferences can be extremely misleading.

For example, it would be a mistake to conclude that the Ahu (platform) at Ahu Nau Nau on Anakena Bay is the same age as the seven Moai mounted on it. The platform is obviously the work of a later culture that must have re-erected the statues because, incorporated in the masonry of the platform itself, an ancient and heavily weathered Moai head has been reused as a construction block.

Likewise, if, for example, human beings had settled here during the Younger Dryas when sea level was much lower than it is today, and Easter Island was part of a chain of steep and narrow antediluvian islands as long as the Andes mountain range, then how much in the way of organic materials would they have left for archaeologists to carbon date? Perhaps the peak of the East Pacific Rise that we now know as Easter Island was not used for residential purposes at all, but kept exclusively for religious ceremonies in which the great monolithic statues played a part? Perhaps people came from other parts of the archipelago to attend those ceremonies

and then returned to their home islands – islands that are all now underwater?

This is conjecture, of course, pure speculation, but it is temptingly suggested by a legend of the Easter Islanders themselves concerning a supernatural being called Uoke who in remote times:

> travelled around the Pacific with a gigantic lever with which he pried up whole islands and tossed them into the sea where they vanished forever under the waves. After thus destroying many islands he came at length to the coast of *Te-Pito-O-Te-Henua*, then a much larger land than it is today. He began to lever up parts of it and cast them into the sea. Eventually he reached a place called Puko Pihipuhi … in the vicinity of Hanga Hoonu [La Perouse Bay, site of the 'golden navel stone']. Here the rocks of the island were too sturdy for Uoke's lever, and it was broken against them. He was unable to dispose of the last fragment, and this remained as the island we know today. Thus *Te-Pito-O-Te-Henua* continues to exist only through the accident of Uoke's broken lever.[19]

Legends also speak of a primeval Pacific homeland called 'Hiva' from which the first inhabitants of Easter Island came – a homeland that also fell victim to the 'mischief of Uoke's lever' and was

‘submerged under the sea’. What is particularly intriguing about all this, because of its resonance with the Seven Sages – the Apkallu – spoken of in Mesopotamian antediluvian traditions, and with the Seven Sages of the Edfu Building Texts, who sought out new lands in which to recreate the drowned and devastated world of the gods, is that Seven Sages – ‘kings sons, all initiated men’ – are also said to have been instrumental in the original settlement of Easter Island.[20] Exactly as was the case with the Apkallu, who laid the foundations of all the future temples of Mesopotamia, and with the Edfu Sages who travelled the length and breadth of Egypt establishing the sacred mounds on which all future pyramids and temples were to be built, the first task of the Seven Sages from Hiva after their arrival on Easter Island was ‘the construction of stone mounds’.[21]

Could there be anything to this? Is it possible that the Moai statues of Easter Island are the work of the survivors of a lost

civilization dating back to the Ice Age 12,000 or more years ago?

One possible hint comes from a discovery made by Dr Robert J. Menzies, Director of Ocean Research at the Duke University Marine Laboratory, Beaufort, North Carolina. In 1966 Menzies led a six-week oceanographic investigation of the Pacific off the coast of Peru and Ecuador in the waters of the Milne–Edwards Deep, a trench that drops off in places to almost 19,000 feet (5,791 metres). Dr Menzies' research vessel, the *Anton Bruun*, deployed underwater cameras that were state of the art at the time and about 55 miles west of Callao (the port of Lima, capital of Peru), at a depth of 6,000 feet in an area prone to marine subsidence, 'strange carved rock columns' were photographed on the sea bed:[22]

> Two upright columns, about two feet or more in diameter, were sighted extending five feet out of the mud. Two more had fallen down and were partially buried, and another angular squarish block was seen.[23]

‘We did not find structures like these anywhere else,’ commented Dr Menzies in an interview with *Science News*. ‘I have never seen anything like this before.’[24] The later official report of the cruise of the research vessel added that one of the columns bore markings that appeared to be ‘inscriptions’.[25]

So far as I have been able to establish Dr Menzies’ discovery, which hints at a real basis to the submerged land of Hiva, was never followed up. Meanwhile what of Easter Island itself, where the survivors are said to have settled in order to reconstitute their lost world? The science of geology has some clues for us to consider.

What lies beneath …

Professor Robert Schoch of Boston University, renowned for his geological redating of the Great Sphinx of Giza, does not easily or quickly bestow greater antiquity on monuments than is allowed by mainstream archaeology. Most often he goes with the orthodox

chronology but when he diverges, as he has with the Great Sphinx, and with Gunung Padang in Indonesia (see Chapter Two), it is only because he has first been persuaded by strong geological evidence that archaeology has overlooked.

This is the case with his analysis of the Moai statues of Easter Island. Here's his considered opinion after a research visit:

> I was particularly impressed by the varying degrees of weathering and erosion seen on the different moai, which could be telltale signs of major discrepancies in their ages. The levels of sedimentation around certain moai also impressed me. Some moai have been buried in up to an estimated six metres of sediment, or more, such that even though they are standing erect, only their chins and heads are above the current ground level. Such high levels of sedimentation could occur quickly, for instance if there were catastrophic landslides, mudflows, or possibly tsunamis washing over the island, but I could not find any such evidence (and landslides or tsunamis would tend to shift and knock over the tall statues). Rather, to my eye, the sedimentation around certain moai suggests a much more extreme antiquity than most conventional archaeologists and historians believe to be the case – or believe to be possible.[26]

Schoch adds that he has begun to collect evidence on typical weathering, erosion and sedimentation rates on Easter Island during the modern period since records began to be kept. ‘So far it seems that sedimentation over the past century has been on the whole relatively modest.’[27]

As usual, Schoch understates his case, which is best illustrated at Rano Raraku crater, an extinct volcanic caldera that served as the principal quarry from which the Easter Island Moai were extracted. The inner slopes of the caldera, leading down to a small, reed-fringed lake, are lined with an estimated 270 statues in various stages of completion. Some lie on their backs or sides, many are perfectly upright, others jut at various crazy angles out of the ground, and the overall impression is one of some extraordinary Surrealist show interrupted in mid-preparation and abandoned forever by the artist.

What it was all about, what it was all *for*, no one can honestly say, though there are many theories. Nonetheless, the setting is unmistakably geological and the statues are themselves first and foremost geological artefacts separated from the natural bedrock, yet still sufficiently in place to have remained part of their original setting. Mostly what you see, as you wander in bemused wonderment amongst them, are their serene, contemplative bearded faces, their long-eared heads, their shoulders, and parts of their upper torsos.

You could be forgiven for imagining that this is all there is to them – that they are set just a metre or so into the ground, sufficient to anchor them and no more. But Thor Heyerdahl, that indefatigable adventurer and explorer, proved this was not the case when he excavated a number of the Rano Raraku Moai in 1956 and again in 1987, discovering that, like icebergs, the larger part of their mass lies beneath the surface. Photographs from those excavations show statues that go down more than 9 metres (30 feet) beneath the

ground into a deep thick sediment of yellow clay.[28] Studying these images, it becomes immediately apparent that Schoch's argument has merit and that there is no way, in just a few hundred years (as noted earlier, archaeo-logists maintain that production of the Moai stopped as recently as 1650) that such a massive amount of sedimentation could have accumulated.

That would be the case even if Easter Island were part of a large, continuous landmass, where there was potential for wind and water to transport soils from one area and deposit them in another. But Easter Island as we know it today, though an enigma of giant proportions, is just a tiny dot on the map in the midst of the world's largest and deepest ocean. Not only is it situated more than 2,000 miles from the coast of South America, but it is also more than 2,000 miles from Tahiti, the next substantial group of islands.[29] With a total land area of just 63.2 square miles (163.6 square kilometres) it is therefore all the more inconceivable that Easter

Island itself could have contributed the 30-foot-deep sediment load seen around the Moai in Rano Raraku crater. Such a volume of sedimentation might, however, have been possible more than 12,000 years ago when sea-level was lower and, as we've seen, Easter Island was part of an extensive archipelago.

Here, too, could be the answer to another mystery identified by Schoch, which is the existence of a small number of Moai carved from basalt. The problem is that there are no deposits of basalt on Easter Island itself. Schoch speculates that:

> the 'lost basalt quarries' might be under sea level now because they are of extreme antiquity, and thus the basalt moai carved from them are extremely ancient. Sea levels have risen dramatically since the end of the last Ice Age, some ten thousand or more years ago, and if the basalt moai were quarried along the coast of Easter Island from areas since inundated by the sea, this could help to date the basalt moai and is immediately suggestive that they are thousands of years older than conventionally believed to be the case.[30]

The same solution – that Easter Island was once part of a much larger landmass – would also explain another, very different puzzle, namely the so-called Rongo Rongo script.[31] It is unprecedented in human history for a sophisticated fully developed writing system to be invented and put into use by a small, isolated island community. Yet Easter Island does have its own script, examples of which, mostly incised on wooden boards, copies of copies of copies of much older lost originals, were collected in the nineteenth century and have found their way into a number of museums around the world. None remain on Easter Island itself and even in the period when they were collected no native Easter Islanders were able to read them. To this day the script remains undeciphered – yet another of the many enigmas of this island of mystery.

The Sage of Bada Valley

It's 28 May 2014 and I'm thousands of miles from Easter Island in the middle of the Bada Valley of Central Sulawesi, in Indonesia, standing in front of a huge Moai-like figure carved from solid basalt and deeply embedded in a grassy field. What's striking about the statue, apart from its sheer size – the visible part, which slopes steeply over to its left, extends more than four metres (13 feet) out the ground – is the posture of its arms and hands. These are arranged in exactly the manner of the Easter Island Moai, and also of the Göbekli Tepe figures, with the arms crooked at the sides and the hands brought together across the front of the belly with the fingers almost meeting. The big difference is that this figure, known locally as *Watu Palindo*, 'The Wise Man',[32] shows off an erect penis and a pair of testicles between those extended fingers.

How old is the 'Wise Man'?

'Nobody knows,' admits Iksam Kailey, Curator of the Province Museum of Central Sulawesi, who has kindly accompanied me on

this sector of a long research journey through Indonesia, ‘archaeology is in its infancy in our island.’ Kailey himself is inclined to the view that the statue, and a dozen others like it here in Bada Valley, are at least 4,000 years old.[33] Other estimates vary between 5,000 years and less than 1,000 years,[34] but none are of the slightest value since no definitive archaeological dating has been done or can be done; the intrusion of organic materials from the different cultures that have lived and farmed this valley for millennia, several of which have at different periods dug up *Watu Palindo* looking for treasure, mean that we will never get to the truth. Artefacts from the not too far distant Besoa Valley have been carbon dated to 2,890 years ago,[35] but so what? That tells us nothing at all about the age of the Wise Man.

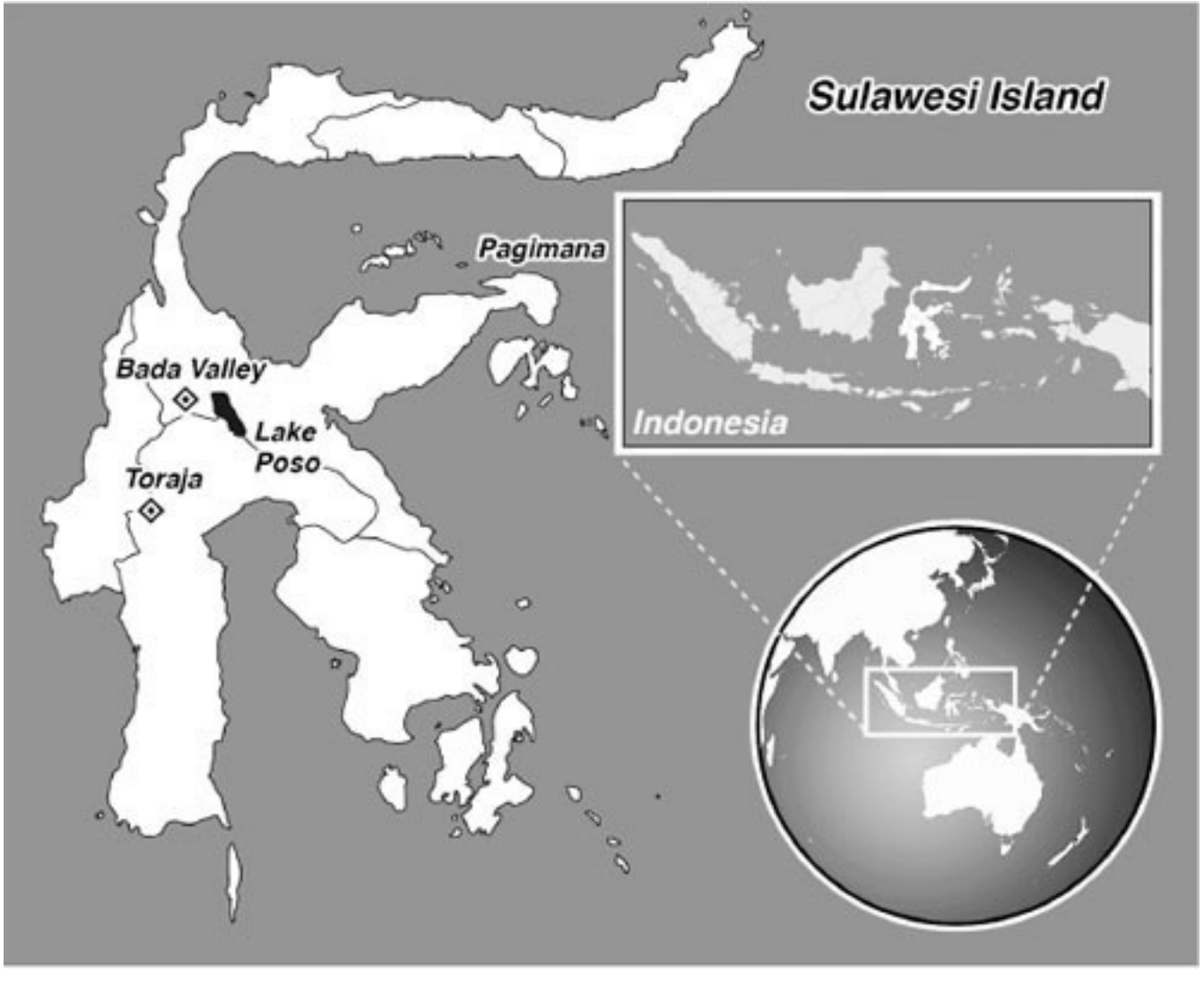
Sulawesi Island
Pagimana
Bada Valley
Lake
Poso
Toraja
Indonesia

Figure 69: The island of Sulawesi in its regional context.

Getting to Bada Valley is quite a trek. Santha and I are travelling with Danny Hilman Natawidjaja, the geologist who has brought the mysterious pyramid of Gunung Padang in West Java (see Chapter Two) to the attention of the world. Also accompanying us is Danny's friend and colleague Wisnu Ariastika, who has kindly looked after the logistics of our journey. We start off in Jakarta on 26 May and fly to Palu, the capital of the province of Central Sulawesi, where Iksam Kailey joins us on the morning of 27 May. Then we drive all day on an awesomely bad road through spectacular mountain country, reaching the town of Tentana on giant Lake Poso the same evening. The following day, 28 May, we drive an additional fifty kilometres to the village of Bomba in the heart of the Bada Valley, which, like so much of Indonesia, is stunningly beautiful, a broad flat plateau, surrounded by green mountains plumed by silver clouds that reflect magically off

gleaming rice fields. Reaching Bomba by mid-morning we check into a basic but comfortable guest house and go straight out megalith hunting.

There are, essentially, two kinds of megaliths in the valley, one being very large stone cisterns called *Kalamba*, precisely cut and hollowed out within and in some cases weighing more than a ton, the other being figures like *Watu Palindo* weighing up to twenty tons. For two days we tramp along the borders of waterlogged rice fields and on rough tracks through forests. At one point we come to a statue lying on its back in the midst of a clearing, staring up at the heavens, a little later we find another, also on its back, lying in the midst of a river. Both show the same hand and arm positions as *Watu Palindo*, the Sage. A third figure with weird, fish-like features is buried up to its neck in deep-water rice. A fourth stands lonely on a ridge gazing at a distant range of mountains.

The frustrating thing is that nothing – really nothing at all – is known about these megaliths. Who created them? When? Why? All

is mystery.

Hobbits, dragons and the Flood

From the Bada Valley we make a long road journey to Toraja in South Sulawesi – all journeys are long here; Sulawesi is the eleventh largest island in the world. We spend a couple of days in the area. There is an eerie cult of the dead, which involves digging up the bodies of the deceased once a year, dressing them in new clothes, combing their mouldering hair, tidying their coffins and reinterring them. Lifelike effigies of the deceased are also placed in rock-cut shrines high up in cliff faces and there are caves full of bones.

What we've come here to see are not the dead but megaliths. This being Toraja, however, the megaliths are all about the dead and, unlike in other parts of the world – and indeed other parts of Indonesia – they aren't relics of a remote and forgotten past, but

part of a living, active, fully functional cult. We visit Bori Parinding, a site dominated by a cluster of tall, needle-like menhirs that might be transplanted without difficulty to any one of a dozen locations in Europe and confidently dated to 5000 years old or more. Yet Bori Parinding is just two hundred years old.

The oldest megalith here was erected in 1817. Each one is a monument to a deceased Torajan notable and new menhirs are still quarried and put in place every year. Those cut from andesite are mined from a nearby deposit and shaped with hammers and metal chisels – a local elder shows me how it's done. Those cut from limestone, weighing in some cases an estimated 15 tons, are brought from a quarry five kilometres away by teams of hundreds of men working in shifts for more than a week, who haul the menhirs to the site on wooden rollers.

Indonesia, I'm beginning to realise, is a land where ancient traditions live on in fascinating ways and the connection to the remote past is ever present.

That's a realization that's brought home to me all the more strongly on our next stop, the island of Flores. We reach it by driving all day from Toraja to Makassar, where we catch a flight to Bali and thence, via Komodo, famous for its large predatory lizards known as 'Komodo Dragons', to Ende, the chief 'city' of Flores – a city with a population of just 60,000. In recent times, Flores has attracted fame for the discovery on the island of the remains of *Homo floresiensis*, an extinct species of human that stood, in adulthood, just 1.1 metres (3.5 feet tall) and has, accordingly, been dubbed 'the Hobbit'. I'll have more to say about these creatures later, but as I land at Ende after that stopover in Komodo I can't help reflecting that Indonesia is truly a mythical place – the only country in the world today where dragons and hobbits are not the stuff of fantasy but of science.

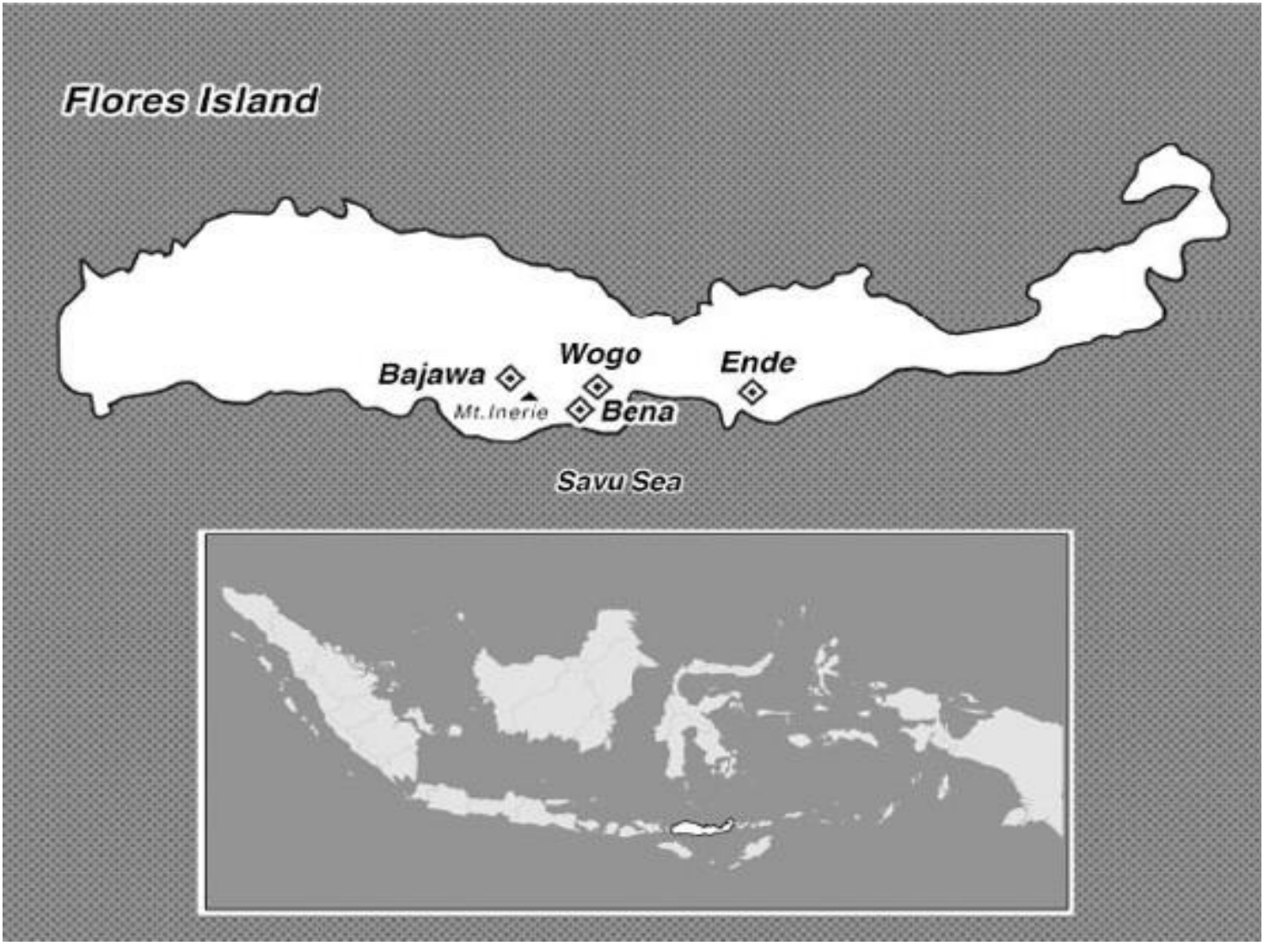
Flores Island
Bajawa
Wogo
Ende
Mt. Inerie
Bena
Savu Sea

Figure 70: The island of Flores in its regional context.

Flores is charming – far out on the edge of the world, simple, lacking in many modern conveniences, but with a sweet, gentle spirit. We base ourselves in the town of Bajawa, and in the couple of days we spend here, we visit a number of villages where the tidy bamboo and thatch houses are built upon and around extensive megalithic monuments.

In the village of Bena, about 16 kilometres from Bajawa, with distant glimpses of the Savu Sea and of Mount Inerie, we're shown around by Joseph, a venerable elder of 88 years. The village has two parallel rows of houses with the high, thatched roofs, triangular in cross section, that are characteristic of the area. The houses are separated by a long and wide public space filled with an incredible assortment of menhirs and dolmens which, as with the menhirs of Toraja, would not look out of place if they were excavated from Neolithic strata in Europe. Joseph tells us that the dolmens aren't

tombs (as is usually the case in Europe), but altars used by members of each of the different clans resident in the village. From time to time buffalo sacrifices are carried out on the altars in honour of deceased notables, and the megaliths have a function in aiding communication with the departed and in connecting the supernatural and earthly realms.

Such ideas don't syncretise well with Christianity, which is also a part of daily life here; indeed, at the far end of the village there is a shrine to the Virgin Mary. Joseph tells us that dolmens and menhirs were still being erected when he was a young man, but that this is no longer done and the tradition is dying out. When I ask him about the origins of the megalithic cult, however, he tells me a remarkable story.

'Our ancestors,' he says, 'came here in a ship around 12,000 years ago during a great flood.' Indeed it seems that the whole village is laid out in commemoration of that ship, which was propelled not by sails but by an 'engine'. Joseph shows me a

megalithic chamber, roughly in the middle of the village, that symbolises the place where the ‘engine house’ was located in the original ship. I ask him where all the megaliths come from and he tells me that they were brought from 20 kilometres away on the slopes of Mount Inerie and moved into position by special ‘powers’ possessed by the ancestors. He adds that ‘an American scholar, a certain Professor Smith’ has confirmed the story.

This mention of the name of a foreign researcher – whose identity and bona fides I was not subsequently able to establish – raises the nagging possibility in my mind that the whole tale might not be of indigenous origin at all, but might be an imported concoction, a fantasy even, which Joseph believes to be true. Certainly we were not told the same story in other megalithic villages of Flores. At Wogo Baru, for example, elders spoke of a ‘giant’ called Dhake, who was so huge that he had single-handedly carried the megaliths down from the slopes of Mount Inerie.

What all the accounts seem to have in common, however, is a whiff of wonder and magic.

Queen of the Southern Ocean

Leaving Flores, we fly from Ende via Denpasar in Bali to the city of Palembang in Sumatra, then make a two-day road journey from east to west across south Sumatra. Again our focus is megaliths, but most of what we see, in the form of large sculpted human and anthropomorphic figures, shows the influence of Hindu and Buddhist art and thus is certainly not prehistoric. It's only when we come to a coffee plantation in the mountains near the city of Pagar Alam that we find something really interesting – a series of gigantic megalithic subterranean chambers (see Plate 81), several of which are painted with swirling designs in striking colours of red ochre and black charcoal, amidst which animal figures can be discerned.

No dating work has been done on them, but similar chambers such as West Kennet Long Barrow in England or Gavrinis in Carnac, Brittany, are more than 5,000 years old, while the painted caves of France and Spain are even older, going back 33,000 years in the case of Chauvet, for example. The Sumatran paintings have much in common with those of southern Europe, being profoundly visionary, with characteristic ‘entoptic’ patterns indicating that the artists were shamans, who had experienced and were depicting visions seen in deeply altered states of consciousness, likely induced by psychedelic plants or fungi.[36]

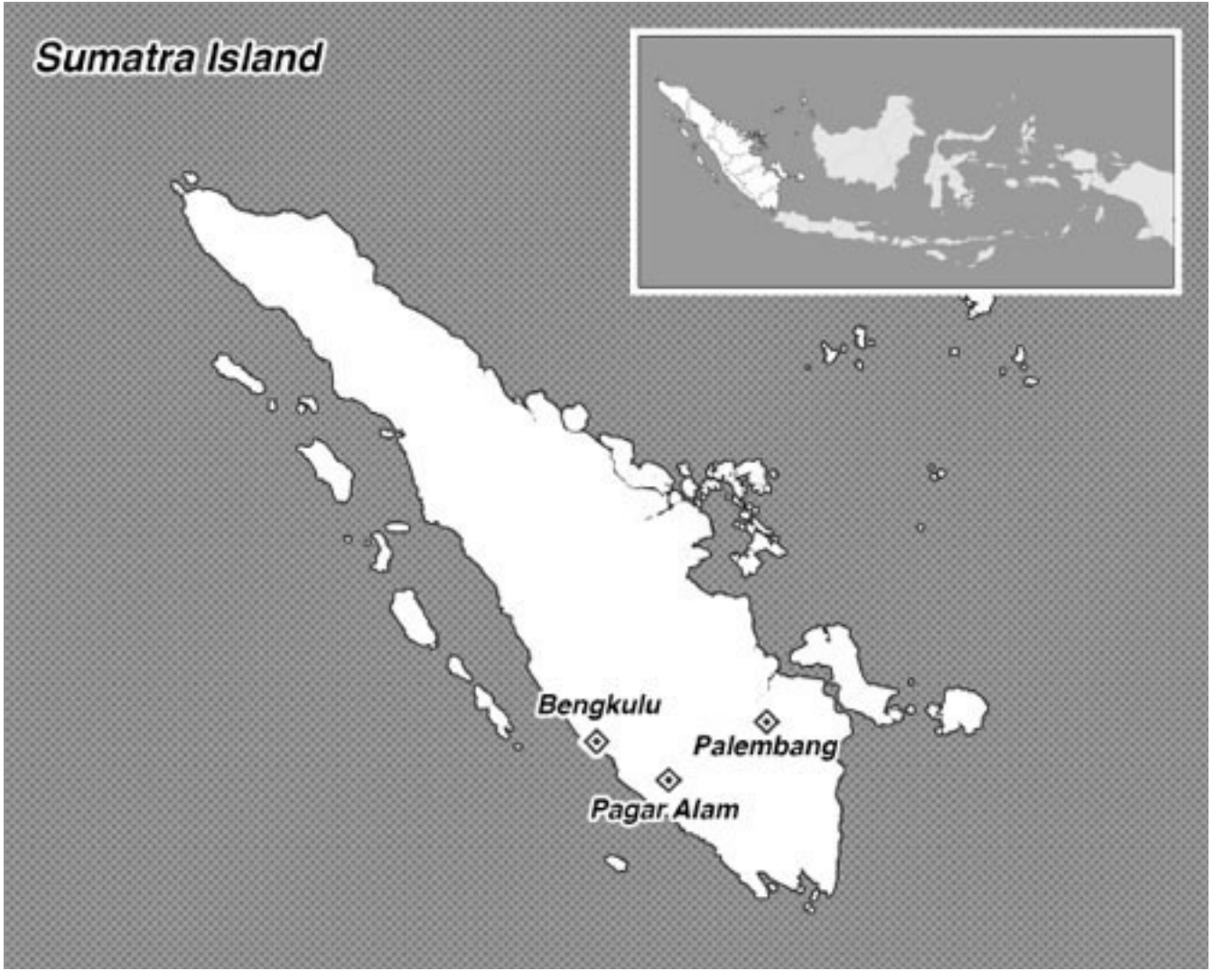
Sumatra Island
Bengkulu
Palembang
Pagar Alam

Figure 71: The island of Sumatra in its regional context.

We drive on to the city of Bengkulu and fly from there to Jakarta, the massive, sprawling Indonesian capital on the island of Java. Jakarta is like a giant octopus; once it has entangled you in the tentacles of its clogged roadways, it is extremely difficult to get free. Late the same evening, however, we eventually reach our next destination, Pelabuhan Ratu on the south-west coast of Java, facing the Indian Ocean. It's only an overnight stop – in the morning we'll be going to another megalithic site inland – but it turns out that Pelabuhan Ratu (which means 'Harbour of the Queen') is of interest in its own right. Indeed the Samudra Beach Hotel where we're staying has a room – room 308 – that no one is allowed to reserve because it's permanently set aside for the Queen of the Southern Ocean, a kind of sea fairy or goddess, who rules over a submerged city and occasionally appears on land to interact with mortal humans.

Obviously I'm interested in submerged cities, particularly submerged cities around the islands of Indonesia, which were all part of a giant continent, known to geologists as Sundaland, that was above water and connected to the rest of Southeast Asia until about 11,600 years ago. When sea levels rose cataclysmically at the end of the Younger Dryas, this region lost more habitable land, including a massive, low-lying plain, than almost anywhere else on earth.[37] Although it's close to midnight, I therefore insist on paying a visit to Room 308, which is fully decorated and furnished as a royal boudoir, complete with imaginative paintings of Njai Lara Kidul, the Queen of the Southern Ocean.

It's a romantic story and, who knows, there may be something to it. Certainly, no attempt to uncover the mysterious origins of human civilization can afford to ignore the rapid drowning of Sundaland, which was fertile and well watered with four major river-systems before it was flooded.[38] Indeed it's because of this, and because

much of the flooding occurred around 11,600 years ago, precisely the date that Plato gives for the submergence of Atlantis, that our travelling companion, geologist Danny Natawidjaja, believes Indonesia *is* Atlantis[39] and has made such efforts to investigate the extraordinary megalithic pyramid of Gunung Padang.

Java Island
Gunung
Padang
Cengkuk
Bandung
Pelubuhan
Ratu
Borobudur
Mount Lawu
Solo
Yogyakarta
Indonesia

Figure 72: The island of Java in its regional context.

Gunung Padang, which I first visited in December 2013 (described in Chapter Two) is 120 kilometres north of us, and we'll be going back there at the end of this trip. Before we do, however, there's one more site we want to see. It's called Tugu Gede, near the village of Cengkuk, 20 kilometres into the mountains north of Pelabuhan Ratu.

We set off in the morning on another of those precipitous and slightly alarming roads that Indonesia has so many of, but once again the trip is worth it. We go as far as the car can take us and then have a long walk, first through a village in the midst of banana plantations, and then into quite dense forest, coming eventually to a mystic glade where a massive central menhir, shaped at its sides, coming to a point like an obelisk, juts 3 metres straight up out of the earth. It is surrounded by a ring of smaller menhirs, some fallen, some still standing, and round about there are huge numbers of

further worked stones, many with patterns of cupules carved into them very similar to the cupules at Karahan Tepe in Turkey.

Tugu Gede has been the subject of some cursory excavations, but there appears to be no clear consensus on its antiquity. The megaliths themselves are accepted as prehistoric – 'thousands of years old', although exactly how many thousands no one seems to know – but there are also later occupation layers that have yielded up pottery and artefacts that are only a few hundred years old, and of course the site stands close to (and is impacted by) human settlements to this day. One of the most anomalous finds is a small statue. On no very good grounds, archaeologists suppose it to be a representation of the Hindu god Shiva, but it bears no resemblance to any images of Shiva that I've seen and – to my eye at least – looks much more like a crudely worked Ancient Egyptian figure with its crossed hands and distinctive headdress.

Mainstream archaeology does not believe that the Ancient Egyptians could have reached Indonesia, so this possibility has

never been considered. However, there is compelling evidence that long-distance oceanic voyages were undertaken from Egypt during Pharaonic times – for example, the presence in nine mummies dated between 1070 BC and AD 395 of cocaine and tobacco, both indigenous American plants not previously thought to have been present in the Old World before the time of Columbus.[40]

These findings by S. Balabanova, F. Parsche and W. Pirsig have been disputed by other scholars, who regard long-distance Ancient Egyptian sea voyages as *a priori* impossible. According to Egyptologist John Baines, for example: 'The idea that the Egyptians should have travelled to America is overall absurd … and I also don't know anyone who spends time doing research in these areas, because they're not perceived to be areas that have any real meaning for the subject.'[41] The way I see it, however, this comment by Baines is more indicative of a deep-seated problem within Egyptology itself, and within archaeology in general, than of a

problem in the factual findings of Balabanova et al. Archaeology is too much constrained by a rigid reference frame of what is possible and what is not, and tends to ignore, sidestep, or ridicule evidence that challenges that reference frame. This is equally true when it comes to the case for a lost civilization of the Ice Age, which again is dismissed on no good grounds other than that it is considered to be *a priori* impossible.

Meanwhile, since the validity of Balabanova's findings has subsequently been vindicated,[42] and therefore – we must assume – the Ancient Egyptians did indeed make voyages as far as the Americas, I see no good reason to ignore the possibility that they also made voyages in the other direction, eastwards towards Indonesia and beyond. Indeed, Ancient Egyptian hieroglyphic inscriptions – though once again disputed – have been found at a wilderness site near the town of Gosford, to the north of Sydney in eastern Australia. I have had the opportunity to study these glyphs

myself and do not agree with the mainstream view that they can easily be dismissed as twentieth-century hoaxes. On the contrary, a recent (October 2014) deciphering of the glyphs by hieroglyphics experts Mohamed Ibrahim and Yousef Abd'el Hakim Awyan concluded:

> Not only are the Gosford Glyphs legitimate, the scribes accurately used several ancient hieroglyphs and grammatical variations which, crucially, were not even documented in Egyptian hieroglyphic texts until 2012, immediately disproving all long-standing 'hoax' theories. The specific style of hieroglyphs used also provides a linguistic time-frame that places an Egyptian presence in Australia *at least* 2,500 years ago, while the translated text is even so detailed as to identify the ancient scribes, by name and occupation.[43]

I'm not claiming that the case is settled yet; the Gosford Glyphs may or may not be a hoax; much more work needs to be done to settle the matter. My point, however, is that the use by orthodox archaeologists of *a priori* assumptions about what happened in the past as a reason not to conduct wide-ranging investigations into

what actually did happen in the past is poor scholarship. In my view, therefore, rather than simply ruling out the possibility that the Ancient Egyptians might have reached not only the Americas, but also Indonesia and Australia, we should be asking ourselves why, and over what sort of time span, they might have made such voyages. In particular, I wonder if it is possible that the tradition of a drowned homeland of the gods somewhere in the east that is so strongly expressed in the Edfu Building Texts might be connected to this mystery.

To be specific, could Indonesia, once part of the mainland of Southeast Asia and broken up into more than 13,000 islands by cataclysmic sea-level rise at the end of the Ice Age – and perhaps particularly Java with its 45 active volcanoes – have been associated in the Ancient Egyptian mind with the 'Isle of Fire', which R.T. Rundle Clark describes as 'the mystic land of origin beyond the horizon[44]?'

The very same ‘Isle of Fire’, as we saw in Chapter Eleven, from which *Hike*, the vital, magical essence was brought by the Phoenix to Heliopolis, the symbolic centre and navel of the earth?[45]

The Isle of Fire with which Horus of Edfu was directly associated[46] and where Thoth, the Sage, the Lord of Wisdom, ‘made shrines for the gods and goddesses’?[47]

The dead hand of orthodox archaeology

The final leg of our 2014 Indonesia journey takes us back to Gunung Padang, the mysterious pyramid, for so long thought to be a natural hill, that geologist Danny Natawidjaja, through determined efforts, has brought to the attention of the world. I won’t describe it again, since I have already introduced it to the reader in Chapter Two.

We’ve seen how the megalithic site of columnar basalt visible on the uppermost terraces of Gunung Padang is simply the latest

episode in its long story and how Danny and his team used seismic tomography, ground-penetrating radar and other remote-sensing technologies to show that the man-made structures go down tens of metres beneath the surface. Core drilling into these buried structures was undertaken producing organic materials with impeccable provenance that yielded ever more ancient carbon dates extending back, ultimately to more than 22,000 years ago – before the end of the last Ice Age, when our ancestors are supposed (according to the orthodox archaeological model) to be have been nothing more than primitive hunter-gatherers, incapable of large-scale construction and engineering feats. Intriguingly, as I also reported in Chapter Two, the remote sensing equipment flagged up the presence deep within the pyramid of what appear to be three hidden chambers, so rectilinear in form that they are most unlikely to be natural. The largest of these lies at a depth of between 21.3 and 27.4 metres (70

to 90 feet) and measures approximately 5.5 metres (18 feet) high, 13.7 metres (45 feet) long and 9.1 metres (30 feet) wide.[48]

On our visit to Gunung Padang in early June 2014, excavations were still being held up by objections from archaeologists but by August, following a decisive intervention by Indonesia's then President Susilo Bambang Yudhoyono, Danny and his team were finally able to proceed for a first short season. Unfortunately, however, the work was halted very soon afterwards, in October 2014, when President Yudhoyono completed his second term of office and stepped down. His successor, President Joko Widodo, has thus far not shown the same level of interest in and enthusiasm for the project, perhaps because of objections from Bandung Archaeological Center Chief Desril Shanti, who launched a public attack on the Gunung Padang excavations in late September 2014, complaining that they did not follow the standard methods that are usually applied in archaeological projects. 'I've yet to go to the

site,' she said, 'but I can judge it from photographs. An archaeological excavation method shouldn't have been carried out in that way.'[49] She also objected that funding had been allocated to the work. This funding, she felt, should have gone to her own department.[50]

At the beginning of October 2014, as the reader will recall from Chapter Two, Danny had written to me enthusiastically as follows:

> The research progress has been being great. We have excavated three more spots right on top of the megalithic site in the past couple of weeks, which give more evidence and details about the buried structures. We have uncovered lots more stone artefacts from the excavations. The existence of the pyramid-like structure beneath the megalithic site is now loud and clear; even for non-specialists, it is not too difficult to understand if they come and see for themselves. We have found some kind of open hall buried by soil five to seven metres thick; however we have not yet got into the main chamber. We are now drilling to the suspected location of the chamber (based on subsurface geophysic) in the middle of the megalithic site.[51]

It was only a few days after Danny sent me that mail that the Presidency changed hands and the drilling and excavations were stopped. Nonetheless, the first, short, interrupted season did produce important results. As Danny confirmed in his correspondence with me, even the relatively young layer that was all they had time to excavate – the second artificial columnar rock-layer beneath the megalithic site visible on the surface – yielded a radiocarbon date of 5200 BC (i.e. 7,200 years ago, nearly 3,000 years older than the orthodox dating for the Pyramids of Giza in Egypt) and there are firm indications from the original remote sensing and core drilling work of much older layers below.[52] In short, it is now evident to all that Gunung Padang is vastly older than the 3,000 years that archaeologists had insisted upon for decades. Even the most hostile amongst them, therefore, have begun to reframe their assessment of the site and to refer to it as 'a gigantic terraced tomb, which was part of the biggest megalithic culture in the archipelago'.[53]

I stayed in touch with Danny during the writing of this book. On 14 January 2015 he emailed me to tell me the disappointing news that further fieldwork had not yet been authorised. ‘We are still waiting for the new government to take action on the continuity of the national team for Gunung Padang,’ he wrote. He was concerned, he added, about construction activities that had been undertaken at Gunung Padang in the interim ‘by Public Works, Tourism Department and others … They are conducted without a clear plan/design and consultation with us, so they are destroying the site.’ He remained optimistic, however, that he and his team would be allowed to continue with their excavations shortly. If so, he said, ‘by the end of 2015 I hope to know more about the second layer (the 7000 years-old constructions) and begin to understand about the third layer (pre-10,000 years ago).’[54]

On 10 March 2015, I heard from Danny again. Most unfortunately, he could only report that there had been no progress

at all since his mail of 14 January:

> The new Ministry of Culture has not activated the national team yet. We are still waiting and hoping the new Ministry will have a good attitude toward Gunung Padang research.[55]

Time will tell, but the auspices do not look good, and as *Magicians of the Gods* goes to press I fear that the dead hand of orthodox archaeology may once again have prevailed, in what almost appears to be a deliberate strategy to prevent us from learning the truth about our past. Below the layers dated to approximately 7,000 and 10,000 years ago are the even older strata of man-made constructions at Gunung Padang. These strata, as yet unexcavated, as yet unexplored, identified only by core-drilling and remote sensing equipment, go back before the cataclysmic episode of the Younger Dryas (12,800 years ago to 11,600 years ago) and deep into the last Ice Age, when the lost civilization still thrived – the lost civilization that we know only through myths and traditions, and

through the works of its survivors as they sought to recreate ‘the former world of the gods’.

Indonesia must rank amongst the most plausible candidates anywhere on earth for the heartland in which that civilization could have evolved and grown to maturity. In recognition of this, a number of serious researchers, including Danny Natawidjaja and Professor Arysio Santos, have presented evidence that Plato has been misunderstood over the location of Atlantis in the Atlantic Ocean.[56] All the clues, they say, really point east and place the lost civilization between the Indian and the Pacific Oceans – i.e. on the exact spot once occupied by the flooded Ice Age continent of Sundaland, of which the Indonesian islands are the surviving remnant. Mainstream archaeology remains strongly opposed to the notion of *any* lost civilization by *any* name, regardless of whether it is said to be located in the west or in the east. In my opinion, however, there’s already enough ancient ‘high strangeness’ around

Indonesia to raise question-marks over such thinking. A few examples:

- I've already mentioned *Homo floresiensis*, the 'Hobbit', quite possibly a completely different human species from our own[57] that survived for tens of thousands of years after our other evolutionary cousins the Neanderthals and the Denisovans had vanished from the earth. It's intriguing that the date of extinction of *Homo floresiensis* appears to have been around 12,000 years ago[58] – exactly in the apocalyptic Younger Dryas window.
- In its issue of 8 October 2014, the prestigious academic journal *Nature* reported, in a tone of astonishment, that elaborate, sophisticated cave paintings had been found on the Indonesian island of Sulawesi with a minimum age of 39,900 years, making this art as old, or older, than anything comparable ever found in Europe – previously considered to

be the exclusive home of such early, advanced symbolic behaviour.[59]

- And it was *Nature* again, in its issue of 12 February 2015, that reported the discovery on Java of geometric engravings 'generally interpreted as indicative of modern cognition and behaviour' yet dated to half a million years ago – which is 300,000 years older than the supposed first appearance of anatomically modern humans on our planet.[60]

If evidence like this that rewrites the human story has remained undiscovered in Indonesia until so recently, how much else is still to be found and why shouldn't the next turn of the archaeologists' spade reveal a hitherto unrecognised civilization? Given the vast loss of terrain suffered across this entire region as a result of more than 100 metres of sea-level rise at the end of the Ice Age, anything is possible. This is why Gunung Padang is so important. And most important of all, perhaps, is that huge chamber identified by ground-

penetrating radar and other remote sensing technologies lying deep within the pyramid between 70 and 90 feet beneath its apex.

Is it the Hall of Records of the lost civilization?

Once again, only time will tell …

Mountains of fire and ash

Gunung Padang wasn't quite the end of our June 2014 research trip. After re-exploring that amazing site, absorbing its ancient, mellow, slightly perplexing atmosphere and understanding again, even more clearly than before, why it is still to this day known as the Mountain of Light by local people who love and revere it, Santha and I travel back to Bandung, the regional capital. From there the following morning we catch a train for the seven hour journey to Yogyakarta in Central Java, where we mean to spend a few days around the fabled Buddhist temple of Borobudur.

The train journey is … charming, and the endless vistas it affords of rice fields and mountains and green trees everywhere bursting with life, and the friendly, busy people, are a delight. It's nightfall by the time we arrive in Yogyakarta, but the next morning we're up at 4 a.m. to drive to Punthuk Setumbu, a hillside looking down into the valley where Borobudur stands. The air's not cold – it's never seriously cold here – but it's fresh and there's a wide pool of darkness beneath us … expectant darkness, because that's where Borobudur is and will soon be lit up by the sun.

But the sun rises slowly, light seeping into the sky, gradually illuminating the thickly forested mountainside and the valley below, showing us the distant slopes of the towering twin volcanoes that also overlook Borobudur – Mount Merapi (literally 'Fire Mountain'), which is still active, and Mount Merbabu ('Mountain of Ash'), which is dormant. By around 5 a.m. the dense trees that carpet the valley floor begin to become visible, though shrouded in low-lying cloud, and soon afterwards a breath of wind stirs the mist,

giving us our first glimpse of the massive, jagged pyramidal form of Borobodur, crowned with a towering stupa that seems to reach for the heavens, a cosmic axis piercing the navel of the earth to connect sky and underworld. As the sun rises higher the mist swirls and expands, winding and curling amongst the trees, pooling in the deeper parts of the valley, but above it all Borobodur stands out clear, like some mythical island from the dawn of time.

We're impatient to visit it after this tantalizing invitation, but we have another plan for today and drive east out of Yogyakarta heading first for Surakata City (usually referred to by its residents as Solo) and then onwards further east to Mount Lawu, another massive, dormant volcano. The whole of Java, it seems, is straddled by these slumbering giants, whose outpourings in the past have blessed the island with essential nutrients, making its soils incredibly verdant, fertile and productive.

We wind our way up Lawu's precipitous slopes through green glittering tea plantations until at an altitude of 910 metres (2,990

feet), with the peak of the volcano still towering more than 2,000 metres above us, we reach the little hamlet where Danny Natawidjaja has recommended we take a look at Candi Sukuh, a rather odd and mysterious little temple. ‘It seems out of place in Indonesia,’ he told us. ‘It looks more like a Mayan step pyramid.’

This, it turns out, is absolutely correct. Sukuh, though smaller, is astonishingly similar in general appearance to the step-pyramid of Kukulkan/Quetzalcoatl at Chichen Itza in the Yucatan. Sukuh was built in the fifteenth century, just before the conversion of Indonesia from Hinduism and Buddhism to Islam. Why it was built, however, or why its style is so distinctive and unusual for Indonesia, remains a mystery to scholarship. The Kukulkan Pyramid, in its present incarnation – though it encloses an older structure – is thought to have been built between the ninth and twelfth centuries. Thousands of miles and hundreds of years therefore separate the two structures and the likelihood of any direct influence of one upon the other is slim. As I explore Sukuh, however – and it has a mystical air about

it enhanced by a late afternoon mist that wreathes the whole mountainside – I find myself wondering whether the similarities are pure accident, or whether they might not be better explained by the influence in both regions of the same remotely ancient common source.

The signal

Certainly such an influence is present at Borobudur, a pyramid-temple consisting of 1.6 million blocks of volcanic andesite,[61] constructed over a period of fifty years from the last quarter of the eighth to the first quarter of the ninth century AD.[62] There is no dedication inscription, indeed almost no inscriptions of any kind. [63] This is, however, undoubtedly a Buddhist monument – a fact of which one could hardly be in any doubt since its acres of exquisitely beautiful reliefs are devoted for the most part to stories from the life of Buddha. Within Buddhist thought it is to be regarded as:

> a cosmic mountain, a sacred replica of the universe designed to lead the pilgrim to the realization of full enlightenment, *sambodhi*, by which a Bodhisattva becomes a Buddha – the ultimate goal of Buddhism … The devotee follows a path to the top of this mountain, keeping his right shoulder to the monument. Subsequently his path brings him along the … many galleries that show panels with scenes in stone relief of which the Buddhist character has become clear and which have been recognised to represent the ancient Buddhist texts.[64]

On this clockwise perambulation of the monument, gradually working your way up from earth to sky, you pass 504 life-sized statues of the Buddha, of which 432 are found on the square stepped terraces with the remaining 72 on the three circular terraces at the summit surrounding the great central stupa. In addition, calculations of the correct pilgrim route through the four bas-relief galleries have shown that the direction of the path:

> as well as the number of times that each gallery must be walked, is determined by the bas-reliefs on each side of the gallery walkway. In order to 'read' the entire collection in the correct order, worshippers are compelled to complete a total of ten circuits around the galleries in the clockwise direction. In so doing, each

> worshipper passes by a Buddha image an additional 2,160 times before reaching the summit entranceway …[65]

The reader will realise immediately, as I did when I undertook my own perambulations of Borobudur, that with these numbers we are back once again in the mysteriously insistent and universal numerical code described in previous chapters. This code, as we've seen, is based on the hard to observe phenomenon of the precession of the equinoxes that unfolds at the rate of one degree every 72 years, that sees the equinoctial sun housed in turn by each constellation of the zodiac for 2,160 years and that is deployed to make the Great Pyramid of Giza a model of our planet on a scale of 1 to 43,200.

Its presence also at Baalbek, and at Göbekli Tepe, and now here at Borobudur, as well as in myths and traditions from all around the world, can only be explained by a remote common influence manifesting in all these places and forms – that 'almost

unbelievable' ancestor civilization identified by Giorgio de Santillana and Hertha von Dechend, that 'first dared to understand the world as created according to number, weight and measure'.[66]

It's my intuition, as I've suggested at several points throughout this book, that the lost civilization sought to send a signal to the future – indeed to us, today, in the twenty-first century – and that the carrier wave of this signal is the precessional code.

Two different means were used to ensure the signal's survival through time.

First, it was embedded in myths and legends and in mathematical and architectural precepts that would be passed on and renewed again and again by the different cultures that received them, thus boosting the signal and allowing it to remain intact for thousands of years. Even if those through whose hands and minds the signal passed no longer understood its meaning, the weight of sacred tradition, hoary with age, would ensure that they continued to

transmit it and would do their utmost to keep it free from interference.

Secondly, the signal was hard-wired into certain megalithic sites. Some were hidden in plain view like the Giza complex, which successive cultures continued to work on and perfect for thousands of years according to the 'divine' canon. Others were buried in the ground – time-capsules like Göbekli Tepe, and perhaps like that mysterious chamber deep beneath Gunung Padang – and primed for rediscovery when the time was right.

'There shall be memorials mighty of their handiworks upon the earth,' the Sacred Sermon of Hermes tells us, 'leaving dim trace behind when cycles are renewed.'[67]

According to G.R.S. Mead, the pioneer scholar in the field of Gnostic and Hermetic Studies, these lines are meant to turn our attention back towards the past:

> to a time when a mighty race, devoted to growth in wisdom, lived on earth and left great monuments of their wisdom in the work of their hands, dim traces of which were to be seen in the 'renewal of the times' …[68]

Mead finds in this an echo of the ancient conviction 'that there were alternate periods of destruction by fire and water, and of renewal':[69]

> In Egypt, the common belief … was that the last destruction had been by water and flood. Before this Flood … there had been a mighty race of Egyptians, the race of the first Hermes … Some dim traces of the mighty works of this bygone, wisdom loving civilization were still to be seen …[70]

And Mead adds, as few modern scholars would dare:

> I am, myself, strongly inclined to believe this tradition; and I have sometimes speculated on the possibility of there being buried beneath one or more of the pyramids the remains of some prehistoric buildings that have survived the Flood.[71]

There is more in the *Hermetica* that touches on this theme, and quite specifically a reminder of the 'Books of Thoth', of their creation by

Thoth-Hermes himself, and of their purpose:

> For what he knew, he graved on stone; yet though he graved them onto stone he hid them mostly, keeping sure silence though in speech, that every younger generation of cosmic time might seek for them.[72]

Depositing his books, the wisdom god uttered the following words, admitting in the process his own 'perishability' – and thus, perhaps, that he was no god but a mortal human being:

> Ye Holy Books, which have been written by my perishable hands, but have been anointed with the drug of imperishability … remain ye unseen and undiscovered by all men who shall go to and fro on the plains of this land, until the time when Heaven, grown old, shall beget organisms worthy of you …[73]

Mead provides no explanation of this strange word 'organisms' – sometimes also translated as 'instruments' – but in his own edition of the *Hermetica*, Sir Walter Scott does. 'After long ages,' he says,

it means that ‘there will be born men that are worthy to read the books of Hermes.’[74]

Has that time come?

Are we worthy, at last, to read those ‘books’ of lost wisdom hidden away before the Flood?

And, if so, what might they say?

Part VIII

Closure

Chapter 19

The Next Lost Civilization?

More than two thousand flood myths that have come down to us from the remote past are eerily consistent on many points, and on one in particular: the cataclysm was not a random accident, we are told; we brought it upon ourselves by our own behaviour.

Our arrogance and our cruelty towards one another, our noise and strife and the wickedness of our hearts, angered the gods. We ceased to nurture spirit. We ceased to love and tend the earth and no longer regarded the universe with reverent awe and wonder.

Dazzled by our own success, we forgot how to carry our prosperity with moderation.

So it was, Plato tells us, with the once generous and good citizens of Atlantis, who in former times possessed 'a certain greatness of mind, and treated the vagaries of fortune and one another with wisdom and forbearance', but who became swollen with overweening pride in their own achievements and fell into crass materialism, greed and violence:

> To the perceptive eye the depth of their degeneration was clear enough, but to those whose judgement of true happiness is defective they seemed, in their pursuit of unbridled ambition and power, to be at the height of their fame and fortune.[1]

If ever a society could be said to meet all the mythological criteria of the next lost civilization – a society that ticks *all* the boxes – is it not obvious that it is our own? Our pollution and neglect of the majestic garden of the earth, our rape of its resources, our abuse of the oceans and the rainforests, our fear, hatred and suspicion of one

another multiplied by a hundred bitter regional and sectarian conflicts, our consistent track record of standing by and doing nothing while millions suffer, our ignorant, narrow-minded racism, our exclusivist religions, our forgetfulness that we are all brothers and sisters, our bellicose chauvinism, the dreadful cruelties that we indulge in, in the name of nation, or faith, or simple greed, our obsessive, competitive, ego-driven production and consumption of material goods and the growing conviction of many, fuelled by the triumphs of materialist science, that matter is all there is – that there is no such thing as spirit, that we are just accidents of chemistry and biology – all these things, and many more, in mythological terms at least, do not look good for us.

Meanwhile, we have made ourselves the possessors of a technology so advanced that it seems almost like magic, even while we use it constantly in our daily lives. Computer science, the internet, aviation, television, telecommunications, space exploration, genetic engineering, nuclear weapons, nanotechnology,

transplant surgery … The list goes on and on, yet very few of us are able to understand how more than a tiny fraction of it works, and as it proliferates the human spirit withers and we engage in ‘all manner of reckless crimes, wars and robberies and frauds, and all things hostile to the nature of the soul’.[2]

Suppose for a moment that a cataclysm besets us, a cataclysm so vast that our complex, networked, highly specialised technological civilization collapses – collapses utterly beyond any hope of redemption. If such a scenario were to unfold it is likely that the meekest and most marginalised of the peoples who inhabit our world today – the hunter-gatherers of the Amazon jungle and the Kalahari desert, for example, who are used to making do with very little and whose survival skills are exemplary – would be the very ones most likely to make it through and therefore carry on the story of humanity in post-cataclysmic times.

How would their descendants remember us a thousand or ten thousand years from now? How, for example, might something that we regard as routine, like our ability to receive 24-hour rolling television news and hear sound and view images from all parts of the world, and even from outer space, be recollected in myth and tradition? Might it not be said wonderingly of us, as it was of 'the Forefathers' recalled in the *Popol Vuh*, the sacred book of the ancient Quiche Maya:

> They were endowed with intelligence; they saw and instantly they could see far, they succeeded in seeing, they succeeded in knowing all that there is in the world. When they looked, instantly they saw all around them, and they contemplated in turn the arch of heaven and the round face of the earth. The things hidden in the distance they saw all without first having to move; at once they saw the world, and so, too, from where they were, they saw it. Great was their wisdom; their sight reached to the forests, the lakes, the seas, the mountains and the valleys.[3]

Yet, in common with so many other memories that seem to hark back to an advanced lost civilization of prehistoric antiquity, we

learn that in due course the 'Forefathers' became arrogant and proud and overstepped their bounds so that the gods asked: 'Must they perchance be the equals of ourselves, their Makers? Let us check a little their desires, because it is not well what we see.'[4] Punishment swiftly followed:

> The Heart of Heaven blew mist into their eyes, which clouded their sight as when a mirror is breathed on. Their eyes were covered and they could see only what was close, only that was clear to them. In this way all the wisdom and all the knowledge of [the Forefathers] were destroyed.[5]

It is interesting to note the mechanisms used by the gods to keep our ancestors in their place, as described in the *Popol Vuh*:

> A flood was brought about by the Heart of Heaven … A heavy resin fell from the sky … The face of the earth was darkened and a black rain began to fall by day and by night …[6] The faces of the sun and the moon were covered …[7] There was much hail, black rain and mist and indescribable cold …[8]

All these phenomena very accurately reflect the complex nature of the cataclysm that afflicted the earth 12,800 years ago at the beginning of the Younger Dryas cold epoch when, as we saw from the mass of evidence presented in Part II, many scientists are now certain that the earth was struck by several large fragments of a disintegrating giant comet.

It is my opinion, indeed it is the reason I have written this book, that we need to pay attention to such accounts, and the universal details that unite them, whether they come down to us from Mexico, from Peru, from Easter Island, from Mesopotamia, from Ancient Egypt, from ancient Canaan or from Turkey. It is intriguing, for example, against the background of flood and cataclysm it describes, that the *Popol Vuh* makes mention of 'fish-men',[9] exactly like the Apkallu Sages of Mesopotamia ('who had the whole body of a fish, but underneath and attached to the head of the fish there was another head, human, and joined to the tail of the fish, feet like

those of a man').[10] Exactly like the Apkallu, too, these fish men reported in the traditions of the ancient Maya possessed magical powers and 'worked many miracles'.[11]

It is perhaps not surprising, therefore, that Quetzalcoatl, the Feathered Serpent, the civilization bringer who appears in the *Popol Vuh* under the name of Gucumatz,[12] should be represented, as we saw in Chapter One, by an ancient image from La Venta on the Gulf of Mexico in which he holds the exact same sort of bag or bucket that the Apkallu hold in the Mesopotamian reliefs and that is also figured on Pillar 43 at Göbekli Tepe in Turkey. La Venta was one of the centres of the mysterious early civilization of the Olmecs, who left behind sculptures of bearded men with features that do not look at all like those of native Americans, but resemble the bearded figures shown in the Mesopotamian Apkallu reliefs and in the statues of Kon-Tiki Viracocha at Tiahuanaco in Bolivia – again hinting at universal symbolism associated with a group of

individuals who sought to disseminate the gifts of civilization all around the world. Moreover, it is widely recognised that the extraordinary astronomical science for which the Maya are famed was part of a wider body of advanced knowledge that had been passed down to them by the Olmecs and that the Mayan calendar itself is probably best understood as one of these Olmec legacies.

As we saw in Chapter Fifteen, a great cycle of the Mayan calendar came to an end on 21 December 2012. It is an end date that was calculated to mark the once-in-26,000-year conjunction of the winter solstice sun and the centre of the Milky Way galaxy – a conjunction that is itself, because of the diameter of the sun and the limitations of naked-eye astronomy, not so much a precise moment in time as a window 80-years wide spanning the period 1960-2040. We saw, too, how Pillar 43 at Göbekli Tepe uses solar and constellation symbolism to depict the exact same window through which, as any astronomical software program will confirm, the winter solstice sun is still transiting today.

My intuition is that these devices, both the Mayan calendar and the Göbekli Tepe pillar, are an attempt, using the precessional code, to send a message to the future. I see the lineaments of that message also in the huge astronomical geoglyph formed by the Pyramids and the Great Sphinx of Giza. Using the same code, and their relationship to the constellations of Orion and Leo, these monuments draw our attention to the epoch of the Younger Dryas between 12,800 and 11,600 years ago and, through the symbolism of the return of the Phoenix, to the epoch that falls half a precessional cycle later, i.e. once again our own epoch (see Chapter Eleven).

The targeting here is not so precise as that afforded by the Göbekli Tepe pillar and the Mayan calendar, but then neither is the science by which the impacts that set off the Younger Dryas are dated to 12,800 years ago. The resolution of the carbon-14 evidence upon which scientists base this chronology means that a tolerance of plus or minus 150 years must be allowed. In other words, the

Younger Dryas comet – let us, for convenience, refer to it as 'the Phoenix' – could have struck the earth as late as 12,650 years ago (i.e. in 10,635 BC, since I am writing in AD 2015) or as early as 12,950 years ago (i.e. in 10,935 BC).

Bearing in mind that half a precessional cycle is 12,960 years (or 12,954 years in the peculiarly exact calculations of the return of the Phoenix reported by Solinus[13]), we are therefore being invited to consider a period that begins in just ten years from the time of writing, i.e. around AD 2025, and that cannot be considered to have passed safely until AD 2325 – i.e. until the full 12,960 years have elapsed after the latest possible date for 'the Phoenix' impacts. The Mayan calendar and Pillar 43 at Göbekli Tepe, however, refine the calculation, as we've seen. If I understand the message correctly, we're in the danger zone now and will be until 2040. I'm reminded of the Ojibwa tradition cited in Chapter Three:

> The star with the long, wide tail is going to destroy the world some day when it comes low again. That's the comet called Long-Tailed Heavenly Climbing Star. It came down here once, thousands of years ago. Just like the sun. It had radiation and burning heat in its tail.
>
> The comet burnt everything to the ground. There wasn't a thing left. Indian people were here before that happened, living on the earth. But things were wrong; a lot of people had abandoned the spiritual path. The holy spirit warned them a long time before the comet came. Medicine men told everyone to prepare.
>
> Things were wrong with nature on the earth … Then that comet went through here. It had a long, wide tail and it burnt up everything. It flew so low the tail scorched the earth … The comet made a different world. After that survival was hard work. The weather was colder than before …[14]

Does it sound like scaremongering to suggest that the comet remembered in this, and in so many other myths and traditions from all parts of the globe, might be about to stage its 'Great Return'.

Am I reading too much into recondite ancient monuments and calendars and into the fact that everywhere, universally, across all cultures, comets have always been regarded with fear and loathing and as omens of impending doom and destruction?[15]

I'm not sure what the right answer to these questions is. From a personal point of view, as a loving father and grandfather I would greatly prefer it if there was no such danger, yet at the same time, if there is danger, we would be foolish to bury our heads in the sand and pretend that there's nothing to worry about and no action we need to take. I'm therefore obliged to point out that the most recent science on this subject is in complete agreement with the ancient wisdom.

There is danger.

The house of history is built on sand

We are in the midst of a profound paradigm shift regarding how we view the evolution of human civilization. As noted at the end of Chapter Five, archaeologists have been in the habit of regarding cosmic impacts, supposedly only occurring at multi-million year intervals, as largely irrelevant to the 200,000-year story of

anatomically modern humans. When we believed that the last big impact had been the dinosaur-killing asteroid of 65 million years ago, there was obviously little point in trying to relate cosmic accidents on such an almost unimaginable scale in any way to the much shorter time-frame of 'history'. But the nightmare scenario raised by the group of scientists behind the Younger Dryas impact hypothesis, and supported by the mass of compelling evidence reviewed in Part II – namely that a huge, earthshaking, extinction-level event occurred just 12,800 years ago, in our historical backyard – changes everything …

First and foremost, it means the historical timeline taught as 'fact' in all our schools and institutions of higher learning, the slow painful steps from Palaeolithic to Neolithic, the development of agriculture, the rise of the first cities, and so on and so forth – in short, all the conclusions archaeology has come to about the origins of civilization – rest on false foundations. For by what word other than 'false' can the underpinnings of the existing historical

paradigm be described, when we now know that they were put in place without taking account of the single biggest cataclysm to hit the earth since the extinction of the dinosaurs? This cataclysm, moreover, unfolded in a very specific and very recent period, the Younger Dryas between 12,800 and 11,600 years ago, and was immediately followed by the first signs of the emergence of civilization at Göbekli Tepe in Turkey, and soon afterwards at many other points around the globe.

To recognise, as archaeologists now do, that these early experiments in civilised living all took place right *after* the Younger Dryas 'punctuation mark', yet to take no account of the massive worldwide trauma and destruction unleashed by the cosmic impacts that *caused* the Younger Dryas, is a real lapse of scholarship. What is worse, however, is the parallel failure to devote even a moment's consideration to the possibility that crucial chapters of the human story – perhaps even a great civilization of prehistoric antiquity – might have been erased from the historical record by those impacts

and by the floods, the black bituminous rain, the time of darkness and the indescribable cold that followed.

If our own civilization were to pass through a comparable cascade of giant impacts would we survive?

All the indications are that we would not and this is why, in my view, the growing recognition of the reality of the Younger Dryas comet lays a duty upon archaeologists to desist – *at the very least* – from pouring further scorn upon 'Atlantis', and other rumours of a lost Ice Age civilization that have come down to us from the past. Rather than doing everything in their power to dismiss, minimise, and ridicule the myths, the anomalous monuments, and the other tantalizing hints, traces and clues of a great forgotten episode of human history, the evidence of the comet impacts 12,800 years ago requires that a thorough investigation of these mysteries, drawing on the full resources of science, should be undertaken for the first time.

Agenda?

Great resistance will have to be overcome before such an investigation can be mounted – and for the same reasons that James Kennett, Allen West, Richard Firestone and the other leading researchers of the Younger Dryas impacts have faced resistance from their gradualist, 'uniformitarian' colleagues. As Kennett has observed, the Younger Dryas impact hypothesis challenges existing paradigms across a broad range of disciplines – not just archaeology, but also paleontology, paleoceanography, paleoclimatology and impact dynamics.[16]

Inevitably when one presents new evidence that treads on so many different toes, there is going to be opposition. Academic turf wars, however, are one thing; keeping us all in the dark about a real and present danger that threatens the human future, simply because recognizing the existence of that danger requires some scholars to abandon long-cherished positions, is quite another.

Yet this is precisely what seems to be involved in the ideological attacks, masquerading as genuine criticism, that have been made on the work of Kennett, West, Firestone and others – attacks, as we saw in Part II, that they have repeatedly and amply refuted, but that can be expected to continue so long as myopic territorialism prevails in science over the rational appraisal of disturbing and, in the case of the Younger Dryas comet, utterly convincing new evidence.

And there may be more to this than just an academic turf war – indeed something that much more closely resembles a conspiracy to hide unpalatable truths. As I was researching *Magicians of the Gods*, I exchanged a number of emails with Allen West, since I wanted to check facts and he's the team member listed as the corresponding author on most of the academic papers about the Younger Dryas impact. Our discussions became quite wide-ranging and at one point he wrote:

> I think your new book will open up the comet hypothesis to a much larger audience and that is very good for our planet, because this impact topic is not just interesting past history. The Younger Dryas impact was devastating, but much smaller ones could devastate a city, region, or country today, and they are much more frequent than publicly admitted by NASA and the ESA [European Space Agency], though there seems to be growing awareness.[17]

Picking up on this issue of the apparently deliberate suppression of information about impacts, and about the Younger Dryas impacts in particular, I emailed West as follows:

> Having seen the shoddy way catastrophist ideas have been treated again and again down the years, I suppose I should not be surprised by the concerted hostility of your critics, how they spin things, and their constant crowing about the latest 'requiem' for the comet theory – which turns out to be not a requiem at all but just propaganda basically! But still, I can't help feeling there is something odd about the way your critics seem almost deliberately to ignore crucial evidence that you have presented in order to generate headlines like 'study casts doubt on mammoth-killing impact' or to say things like 'for the Syria site the impact theory is out', when it isn't 'out' at all!
>
> Is it just that they desperately want the world to be a safe, predictable place and seek to fulfil their own wish by fudging the facts in their papers? Or is there some

other agenda at work?[18]

West's reply was intriguing:

> That certainly is one aspect. One critic complained to me that 'Well, if you are right, we will have to rewrite the textbooks!' As if that were a bad thing … [But], curiously, some of our most virulent critics are associated with NASA and the government. A NASA employee tells me that this attitude of opposition to impact threats is entrenched in NASA and is only now slowly beginning to change. When it became obvious to NASA decades ago that asteroids and comets are a serious threat, their employees were instructed by top government officials to downplay the risk. The government was concerned that the populace would 'panic' over space rocks and demand action, when NASA couldn't do anything about them and didn't want to admit it. Plus, trying to mitigate any impact hazards would have used up funding they wanted to put elsewhere.[19]

The dark traveller

As long ago as 1990, before any of the physical, geological evidence for the Younger Dryas comet impacts had been

discovered, astrophysicist Victor Clube and astronomer Bill Napier warned of the view:

> that treats the cosmos as a harmless backdrop to human affairs, a view which Academe now often regards as its business to uphold and to which Church and State are only too glad to subscribe.[20]

Such a view, in Clube and Napier's prescient 1990 opinion, was dangerous in that its effect was to 'place the human species a little higher than the ostrich, awaiting the fate of the dinosaur.'[21]

As can be seen from the reactions of some members of 'Academe' to the Younger Dryas impact hypothesis, this view, and what Clube and Napier call the 'great illusion of cosmic security'[22] that it engenders, are still powerful forces in the world today. Much more than the truth about our own past is at stake, however, for there is a chilling convergence between Clube and Napier's findings on the one hand, and the findings of Kennett, West and Firestone on

the other, as to what the Younger Dryas comet really means for humanity.

To understand the implications of this convergence properly it will be necessary to review some of the discoveries made by Clube, Napier and others in the 1980s and 1990s – discoveries, remember, that are completely independent of the later work of the Kennett/West/Firestone team on the Younger Dryas impacts. To cut a long story short, as I've already indicated in Chapter Eleven, the burden of these discoveries is that it is possible – indeed highly probable – that we are not yet done with the comet that changed the face of the earth between 12,800 years ago and 11,600 years ago. Clube and Napier's work, with important contributions also from the late Sir Fred Hoyle, and from mathematician and astronomer Professor Chandra Wickramasinghe, has raised the chilling possibility that the Younger Dryas comet was itself only a fragment of a much larger, giant comet – once perhaps as much as 100 kilometres in diameter – which entered the inner solar system about

30,000 years ago and was captured by the sun and flung into an earth-crossing orbit. It remained relatively intact for the next 10,000 years. Then around 20,000 years ago it underwent a massive 'fragmentation event' somewhere along its orbit that transformed it from a single deadly and potentially world-killing object into multiple objects grading down from 5 kilometres to 1 kilometre or less in diameter, each and every one of which would still, in its own right, be capable of causing a global cataclysm.[23]

The evidence is that it was several fragments on this scale that hit the earth 12,800 years ago, causing the Younger Dryas,[24] that we crossed the debris stream of the comet again 11,600 years ago with equally dramatic effects that ended the Younger Dryas,[25] and – finally – that *we can expect further encounters with the remaining fragments in the future*.[26] 'This unique complex of debris,' write Clube and Napier, 'is undoubtedly the greatest collision hazard facing the earth at the present time.'[27]

The Taurid meteor stream, so called because it produces showers of ‘shooting stars’ that look to observers on the ground as though they originate in the constellation of Taurus, is the most familiar and best-known product of the ongoing fragmentation of the original giant comet. The stream sprawls completely across the earth’s orbit – a distance of more than 300 million kilometres – cutting it in two places so that the planet must pass through it twice a year: in late June and early July (when the ‘shooting stars’ are not visible because they are encountered in daylight) and again from late October into November when a spectacular ‘Halloween firework’ display is put on.[28] Since the earth travels more than 2.5 million kilometres along its orbital path every day, and since each passage takes approximately twelve days, it is obvious that the Taurid stream is at least 30 million kilometres ‘wide’ or ‘thick’. Indeed, what the earth encounters during these two periods is best envisaged as a sort of ‘tube’ or ‘pipe’ of fragmented debris – a bit like a huge

doughnut. The geometrical term for such a shape is a ‘torus’.

‘Shooting stars’ are harmless – nothing more than tiny meteors burning up in the atmosphere – so why should we be in the least bit concerned about a meteor stream? In the case of the fifty or so distinct and separate meteor streams that have now been discovered by astronomers – the Leonids, the Perseids, the Andromedids, etc – the answer to this question is that in most cases there is probably no danger and nothing to fear. Since most of the particles that they contain are indeed tiny, they represent no threat to the earth.

But it is quite a different matter with the Taurids. As Clube, Napier, Hoyle and Wickramasinghe have demonstrated, the Taurid stream is filled to overflowing with other much more massive material, sometimes visible, sometimes shrouded in clouds of dust, and all of it flying through space at tremendous velocities and intersecting the earth’s orbit twice a year, regular as clockwork, year in year out. Amongst the massive, deadly members of the Taurid family are Comet Encke, which is estimated to have a diameter of

around five kilometres. But Comet Encke is not alone. According to Clube and Napier there are also:

> between one and two hundred asteroids of more than a kilometre diameter orbiting within the Taurid meteor stream. It seems clear that we are looking at the debris from the breakup of an extremely large object. The disintegration, or sequence of disintegrations, must have taken place within the last twenty or thirty thousand years, as otherwise the asteroids would have spread around the inner planetary system and be no longer recognizable as a stream.[29]

In addition to Comet Encke, there are at least two other comets in the stream – Rudnicki, also thought to be about five kilometres in diameter, and a mysterious object named Oljiato, which has a diameter of about 1.5 kilometres.[30] Initially believed to be an asteroid, this extremely dark, earth-crossing projectile sometimes shows signs, visible in the telescope, of volatility and outgassing and most astronomers now regard it as an inert comet that is in the process of waking up.[31] Comet Encke itself is known to have been inert for a long period, until it suddenly flared into life and was first

seen by astronomers in 1876.[32] It is now understood to alternate regularly, in extended cycles, between its inert and volatile states.

Clube and Napier's research had convinced them that an *as yet undetected companion* to Comet Encke is orbiting at the very heart of the Taurid meteor stream.[33] They believe that this object is of exceptional size, that it is a comet, and that like Encke and Oljiato it sometimes – for very long periods – shuts itself down. This happens when pitch-like tars that seethe up continuously from its interior during episodes of outgassing become so copious that they coat the entire outer surface of the nucleus in a thick, hardening shell and seal it off completely – perhaps for millennia.[34] On the outside all falls silent after the incandescent 'coma' and tail have faded away and the seemingly inert object tears silently through space at a speed of tens of kilometres per second. But, at the centre of the nucleus, activity continues, gradually building up pressure. Like an overheated boiler with no release valve, the comet eventually

explodes from within, breaking up into fragments that can become individual comets every one of which threatens the earth.

Calculations indicate that this presently invisible object at the heart of the Taurid stream might be as much as 30 kilometres in diameter.[35] Moreover, it is thought likely that other large fragments accompany it. According to Professor Emilio Spedicato of the University of Bergamo:

> Tentative orbital parameters which could lead to its observation are estimated. It is predicted that in the near future (around the year 2030) the earth will cross again that part of the torus that contains the fragments, an encounter that in the past has dramatically affected mankind.[36]

Rebirth

The year 2030 is, of course, exactly in the window of danger indicated by the Mayan calendar and Pillar 43 at Göbekli Tepe. The dinosaur-killing asteroid 65 million years ago was only 10

kilometres in diameter, yet it set off a global firestorm and changed the world forever. A collision with an object 30 kilometres in diameter would – at the very least – mean the end of civilization as we know it, and perhaps even the end of all human life on this planet. Its consequences, as noted in Chapter 11, would certainly be orders of magnitude greater than the Younger Dryas impacts 12,800 years ago that had a thousand times the combined explosive power of all the nuclear devices stockpiled in the world today and that left us as a species with amnesia, obliged to begin again like children with no memory of what went before.

However, it doesn't have to be like that. First and foremost, the universe might spare us. Imagine crossing that torus is a bit like crossing a six-lane freeway, on foot, wearing a blindfold. Luckily for you, however, there's not much heavy traffic on the road, so though you have to cross the freeway twice a year you usually don't bump into much. What makes some crossings more risky than others, however, is the fact that the big trucks and other heavy

traffic do have a tendency to cluster and bunch in places. Effectively what Clube and Napier have done with their calculations, backtracking the orbits of known objects in the Taurid 'freeway', is to issue a warning that now and for the coming decades, our crossings carry a greatly enhanced risk of a series of collisions with some very menacing 'heavy traffic'.

The evidence that just such a series of collisions occurred between 12,800 years ago and 11,600 years ago and that fragmentation of the progenitor giant comet that gave rise to all the Taurid objects was the cause, should, at the very least, focus our minds. No longer are we dealing with something that only happens at intervals of multiple millions of years, but rather with what appears to be *a cataclysmic process that is still unfolding* within the framework of historical time.

Even so, we need not give up hope, nor waste a single moment of our precious lives embracing gloom and doom. While I am convinced a civilization flourished during the Ice Age and had

mastered advanced sciences that seemed like magic to more primitive cultures, I do not believe that it followed our own particular path of technological development. That path has many negative consequences, but it equips us with abilities that the lost civilization clearly lacked – in particular, the ability to intervene in our immediate cosmic environment and to deflect or destroy asteroids and comets that threaten the very survival of humanity.

What it will take is the recognition that we are, after all, one species, one people, one family, and that rather than waste our energies on murderous feuds in the name of 'God', or 'country', or political ideology, or selfish greed, the time has come for love and harmony to displace fear and turmoil in every aspect of our lives, so that that we can secure the human future. If we are to do this, we will have to stop seeking out our own reflections in the mirror and learn to look up into the cosmos instead, we will have to banish hatred and suspicion and learn to pool our resources, our

intelligence and our talents in a grand effort for the redemption of mankind.

We will, in short, have to awaken to the full mystery of the magnificent gift of consciousness and realise we must not squander it an instant longer.

For this, too, was the promise of the Mayan calendar – that we who are alive today will find ourselves at the threshold of a new age of human consciousness. If we can bring that age to birth, with all it implies, then preventing the remaining fragments of the Younger Dryas comet from devastating the earth will be child's play and in the process we will have discovered, perhaps for the first time in more than 12,000 years, who we really are.

It is our choice.

It always has been.

Nothing stands in our way but ourselves.

Part IX

Dark Matter

Chapter 20

Origins in Amnesia

Sometimes we're offered clues about missing chapters in our own past from evidence of what has happened to other species. The recent sequencing of the cheetah genome is a case in point. Thanks to the work of a team of thirty-five scientists led by Pavel Dobrynin and Stephen O'Brien,[1] we now know that cheetahs were originally a North American animal, closely related to pumas, that migrated across the Bering Land Bridge into Siberia, thence into Asia, and ultimately into Africa, around 100,000 years ago.[2] This was near the

start of the last glacial period of the last Ice Age (the Pleistocene) when sea level was much lower than it is today.

Thousands of years then passed until ‘late in the Pleistocene epoch a global extinction event caused cheetah populations to crash’. As their numbers fell, the animals ‘resorted to inbreeding, barely escaping extinction’, a state of affairs that left distinct markers, indicative of a severe population bottleneck, in the cheetah genome. Dobrynin and O’Brien have established that this Late Pleistocene bottleneck occurred between 12,589 and 11,084 years ago[3] – dates, as readers of this book will realize, that substantially overlap those of the Younger Dryas cataclysm that unfolded between 12,800 and 11,600 years ago and that, I propose, all but wiped out an entire advanced human civilization from the archaeological record.

At the very least, as well as reminding us that humans were not the only victims of the Younger Dryas cataclysm, the tale of the

cheetah, an American animal now associated iconically with Africa, should cause us to avoid jumping to hasty conclusions about evolutionary origins.

Where humans are concerned, the conventional wisdom is that our ancestors attained anatomical modernity exclusively in Africa over a long, slow, evolutionary process that unfolded between six million years ago and approximately 200,000 years ago. The DNA evidence supporting this view is impressive, and remarkably complete, as we shall see.

In the case of the cheetah, the DNA evidence is equally impressive but its implications are exactly the opposite; cheetahs evolved in the Americas and much later migrated into Africa, which now affords – with the exception of a tiny population still reported to survive in Iran – their only refugium. This is not to suggest that the 'out of Africa' theory of *human* origins is wrong; on the contrary, in broad outline and in many of its details, it is obviously right. But it can, perhaps, serve as a reminder that there are nuances

in any evolutionary story and that the story we tell about ourselves is no exception.

Not so long ago the evolution of anatomically modern humans was told and taught as a relatively simple and straightforward story – in brief:

- Africa was the cradle of mankind.
- The last common ancestor of chimpanzees and of anatomically modern humans lived in Africa around 6 million years ago.
- The earliest evidence for the emergence of the genus *Homo* from the line of the great apes is in Africa, dated to around 2.8 million years ago.
- By around 1.9 million years ago a fully upright-walking, relatively large-brained species called *Homo erectus* had emerged, again in Africa (although some dissenting anthropologists believe the ancestors of *erectus* evolved in

Africa but that the actual emergence of the *erectus* species, with all its distinct characteristics, occurred outside Africa – most probably in Asia – with subsequent remigration into Africa).

- *Homo erectus* survived from 1.9 million years ago down to as recently as 70,000 years ago (with all the recent *erectus* finds being in Asia, not in Africa).
- A closely related species, *Homo heidelbergensis*, emerged in Africa around 700,000 years ago, leaving fossils with characteristics interpreted by some scholars as intermediary between *Homo erectus* and later anatomically modern humans (*Homo sapiens*).
- Neanderthals (*Homo neanderthalensis*) and anatomically modern humans both evolved from *Homo heidelbergensis*, with the evolution of the Neanderthals taking place in Eurasia after their ancestors had migrated out of Africa around 600,000 years ago, and the evolution of anatomically

modern humans taking place within Africa prior to their much later dispersal to other parts of the world.

- The Neanderthals became extinct between 40,000 and 30,000 years ago (although some evidence suggests the last Neanderthals may have lived on in southern Europe until as late as 24,000 years ago).
- Meanwhile the evolution of *Homo sapiens* continued in Africa, with the earliest anatomically modern human skeleton found in Ethiopia and dated to about 195,000 years ago.
- *Homo sapiens* remained largely (perhaps exclusively) in Africa for tens of thousands of years until migrations into Eurasia brought anatomically modern humans into contact with Neanderthals for the first time approximately 65,000 years ago, where they co-existed for many millennia (but did not interbreed).
- After the extinction of the Neanderthals, *Homo sapiens* was

left as the sole surviving human species on the planet.

On the above timeline, if we are to propose a lost prehistoric civilization of anatomically modern humans, then its date of emergence would be unlikely to be earlier than 195,000 years ago and probably some thousands (or even tens of thousands) of years later than that, giving time for the necessary social and technological sophistication to emerge.

But both the timeline, and the complexity of our ancestral story, are changing fast and the simple evolutionary tree that sees *heidelbergensis* evolving from *erectus*, and Neanderthals and anatomically modern humans evolving from *heidelbergensis*, can no longer stand. New discoveries have exposed hitherto unrecognized nuances in the story of our ancestry.

Thus, for example, recent research suggests that the Neanderthals are much older than 600,000 years and that the last common

ancestor of *Homo sapiens* and *Homo neanderthalensis* must have lived more than a million years ago.[4]

On the other side of the coin, the established notion that anatomically modern humans did not emerge from Africa to encounter the Neanderthals until about 65,000 years ago has also been overthrown by new discoveries. It is a testament to the incredible pace of progress in genetics that these discoveries come *not* from anatomically modern human remains but from Neanderthal remains – specifically a Neanderthal toe bone found in Denisova Cave in the Altai Mountains of Siberia. When the researchers sequenced the genome of the individual whose toe this was, they were stunned to find distinct traces of anatomically modern human DNA, inherited about 100,000 years ago.[5] 'It is the first genetic evidence of modern humans outside Africa,' summarized Sergei Castellano, a scientist at the Max Planck Institute for Evolutionary Anthropology and co-leader of the study.[6]

Moreover Neanderthals were not the only human species to dwell in Denisova Cave during the very long period that it was in use. Amongst the bones excavated there, scientists from Harvard Medical School and UCLA's Henry Samueli School of Engineering also confirmed the presence of another distinct human lineage, the so-called Denisovans who were neither anatomically modern, nor Neanderthals, but something other. Again genetic sequencing provides a level of clarity that former researchers could only dream of and we now know that Denisovans diverged from the human family tree about 500,000 years ago.[7]

Nor does the complexity end here. Thousands of miles from Denisova, at the Sima de los Huesos cave in Spain on the other side of the Eurasian landmass, human remains have been found containing mitochondrial DNA that is either Denisovan or virtually indistinguishable from Denisovan.[8] After further investigation, the researchers concluded that the fossils – which are around 430,000

years old[9] – were Neanderthals not Denisovans, although, puzzlingly, 'mitochondrial DNA recovered from one of the specimens shares the previously described relationship to Denisovan mitochondrial DNAs.'[10]

Reviewing the implications of these results, Chris Stringer, a palaeoanthropologist at the Natural History Museum in London, suggests that future research 'must refocus on fossils from 400,000 to 800,000 years ago to determine which ones might lie on ancestral lineages of Neanderthals, Denisovans and modern humans.'[11]

In other words, the more we learn, the less we realize we know about the mysterious origins of our own species! What is clear, however, and no longer controversial, is that the genome of most modern humans outside Africa bears extensive evidence of interbreeding with Neanderthals. In general, amongst modern Eurasians, between 1 and 4 per cent of the genome originated with

Neanderthals, whereas amongst the vast majority of modern Africans there is no contribution of Neanderthal DNA at all.[12]

The view amongst scientists now is that there were at least three separate episodes of interbreeding between Neanderthals and anatomically modern humans. The first involved the ancestors of all non-African modern humans, the second took place among the ancestors of East Asians and Europeans after an ancestral Melanesian group had branched off, and the third concerned the ancestors of East Asians only.[13]

Meanwhile there was also interbreeding between Denisovans and anatomically modern humans. Recently discovered human fossils from Longlin Cave and Red Deer Cave in south-west China raise an intriguing mystery. Falling into extinction as recently as 11,500 years ago[14] – a date that coincides with the cataclysmic end of the Younger Dryas – these so-called 'Red Deer People' were *not*

anatomically modern humans. Instead the fossils exhibit a range of 'primitive' features.

'Their skulls are anatomically unique,' reports lead researcher Darren Curnoe, an evolutionary biologist at the University of New South Wales. 'They look very different to all modern humans, whether alive today or in Africa 150,000 years ago.'[15]

Chris Stringer at the Natural History Museum in London proposes a solution – namely that the Red Deer People were a separate species, the result of an episode of interbreeding between anatomically modern humans and Denisovans.[16] Afterwards, Darren Curnoe suggests, they became isolated from other human populations and 'did not contribute genetically to people alive in East Asia today'.[17]

Further back there is DNA evidence of an earlier episode of Denisovan/Homo sapiens interbreeding – between 44,000 to 54,000 years ago[18] – and it is thought to be as a result of this encounter that

some modern human populations carry traces of Denisovan DNA.[19] Studies confirm that 'people from Papua New Guinea, Australia, and other parts of Oceania have the most Denisovan ancestry, between three per cent and six per cent of their genomes.'[20] Another hot spot for the survival of Denisovan DNA turns out to be South Asia. 'It's about ten per cent of what we see in the Oceanians,' explains population geneticist Sriram Sankararaman. Though small, this Denisovan contribution to South Asian DNA is still significantly larger than researchers had expected.[21] Denisovian ancestry is also found amongst East Asians, but at lower levels than amongst South Asians.[22]

Let us pause for a moment to consider the implications of all this. A glance at the map shows Denisova Cave to occupy a deeply landlocked location amongst the mountains of the Altai Russian Republic in southern Siberia, 400 kilometres south-east of

Novosibirsk, close to the borders of China, Kazakhstan and Mongolia, and several thousand kilometres from the nearest ocean.

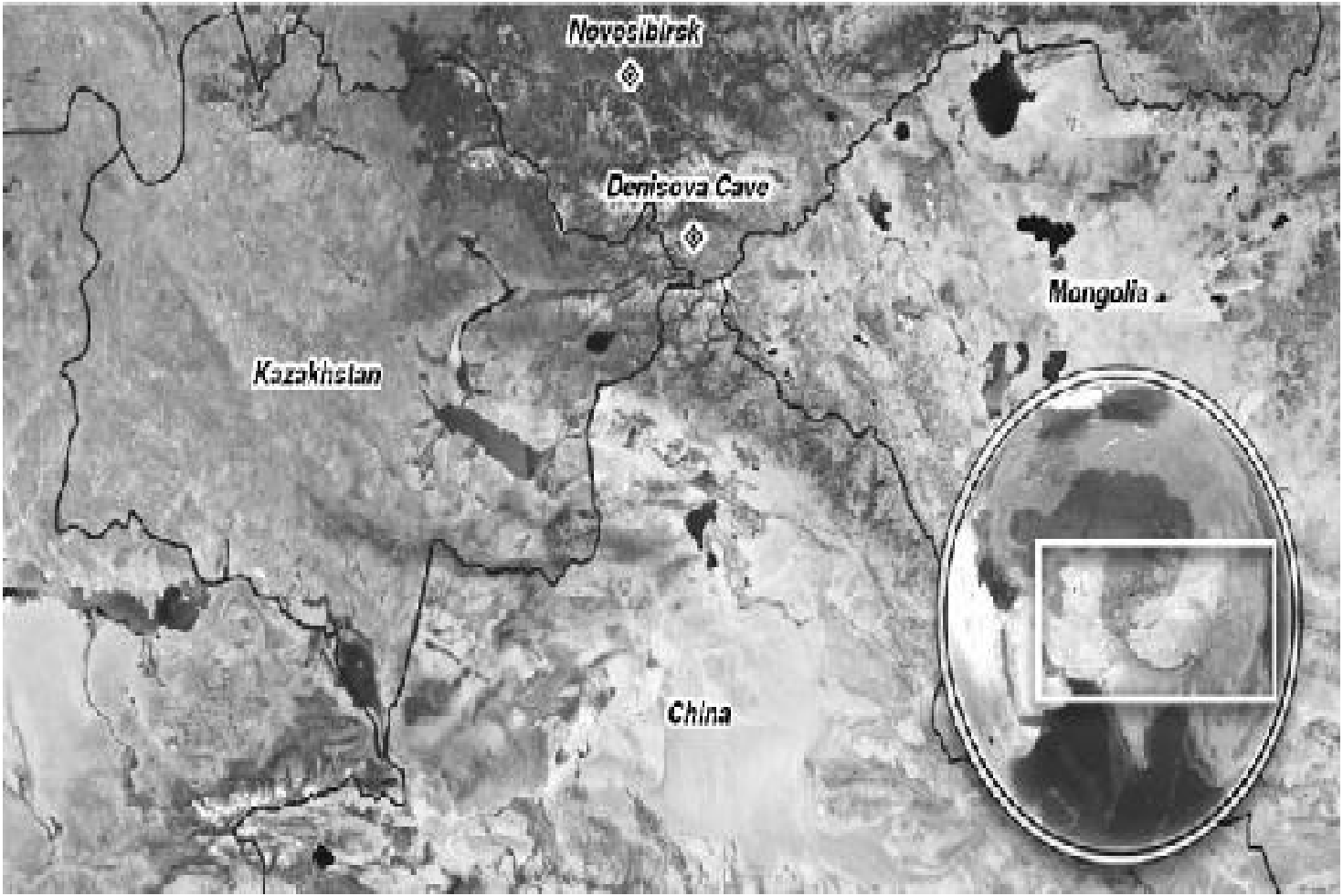

Figure 73: The deeply landlocked location of Denisova Cove.

The genetic studies reviewed above therefore present us with a series of puzzles.

First, geographically, one would expect to see a positive correlation between human populations with surviving Denisovan DNA and their proximity to Denisova Cave; i.e. the closer they are to Denisova the more Denisovan DNA they should have. This turns out *not* to be the case. On the contrary, as we've seen, East Asia is geographically closest to Denisova but East Asian populations have the smallest amount of Denisovan DNA, with the amount increasing significantly when we travel much further away to South Asia, and even more significantly – in the range of three to six per cent – in the case of the Aborigines of Australia and the indigenous inhabitants of Oceania.

Some scientists are puzzled by this, given the great distance between Denisova and Australia – thousands of kilometres overland, followed by a perilous, open ocean crossing. We must also consider the latest genetic evidence, published by researchers

from the Wellcome Trust Sanger Institute and their colleagues at La Trobe University in Melbourne, which confirms that the Aboriginal presence in Australia, with its Denisovan DNA, goes back at least 50,000 years.[23] Adding a further layer of complexity and mystery is the high percentage of Denisovan DNA amongst the island peoples of Oceania, again suggestive of significant seafaring and navigational achievements.

Could it be that we are looking in the wrong direction for the 'centre of Denisovan distribution'? Perhaps Denisova Cave was on the periphery, rather than at the heart, of the Denisovan world, and perhaps another location entirely makes better sense of the geographical spread of Denisovan DNA?

Before we consider this possibility, let us add one further ingredient to the mix – a recent study carried out by Russian geneticists drawing on 25,000 samples from 90 different nations.[24]

On the one hand, according to Valery Ilyinsky of the Institute of General Genetics in the Russian Academy of Sciences:

> The study confirms the theory that the Altai peoples [i.e. the people presently inhabiting the Altai Russian Republic in southern Siberia] are closely related to Native Americans … We now have clear proof, and it is useless to contest it.[25]

But on the other, as his colleague, leading Russian geneticist Oleg Balanovsky observes:

> Besides Siberian ancestors, some Native Americans showed a puzzling relation to the indigenous peoples of Australia and Melanesia in the Pacific Ocean … This is astounding because they are located in an almost opposite part on the planet.[26]

There is now no doubt, Balanovsky added, that humans had travelled to the Americas from the Altai by crossing the Bering Land Bridge that connected Siberia with Alaska during the last Ice Age, when sea level was hundreds of feet lower than it is today. Much less clear was 'whether migration from Australia and

Melanesia to the Americas was directly across the ocean, or by going up along the coast and via the Aleutian Islands.'[27]

The mystery turns out, once again, to implicate the Denisovans – for Denisovan DNA is found in relatively small quantities, in the range of 0.2 per cent, in most Native American populations.[28] Although there is almost no Denisovan DNA in modern European populations,[29] we do have a 'Denisovan connection' in the DNA of the ancient Europeans who inhabited Sima de los Huesos cave in Spain 430,000 years ago. It is also present in the DNA of modern South Asians and East Asians, in the DNA of modern Native Americans, and in the DNA of Melanesians and Aborigines, whose ancestors are thought to have reached Papua New Guinea and Australia 45,000 to 50,000 years ago.

The emerging orthodox explanation of the Melanesian/Aboriginal genetic evidence is that:

> Denisovans living in eastern Eurasia interbred with the modern human ancestors of Melanesians. When those humans crossed the ocean to reach Papua New Guinea around 45,000 years ago, they brought their Denisovan DNA over with them.[30]

According to this view, later migrations north-eastwards out of Eurasia across the Bering Land Bridge carried the same faint signal of Denisovan DNA into the Americas. An article published in *Science* magazine on 21 August 2015, of which Balanovsky was a co-author, concludes that around 23,000 years ago the 'First Americans', a single ancestral population from Siberia, took the initial steps that would lead to migration into the New World.[31]

'Aleutian Islanders, or some of their ancestors, may have migrated along the Pacific coast and mixed with native South Americans sometime after the original peopling of the Americas, bringing in the mysterious genetic signal,' suggests Rasmus Nielsen, a computational biologist at the University of California, Berkeley and another of the co-authors of the *Science* study.[32]

Complicating the picture, however, is new research, published in *Science* in April 2016, which indicates that after separating from the remainder of the population from which they emerged, the ancestors of the First Americans spent around 7,000 years 'genetically cut off from other groups of humans' – most likely, the researchers think, in Beringia – the Ice Age land bridge now submerged beneath the Bering Straits.[33] Then, approximately 16,000 years ago, 'the population boomed, with many different lineages suddenly branching off from one another.' The researchers propose that this represents the moment at which people were first able to move out of Beringia and into the Americas, where a host of new land and resources allowed the population to grow and to spread out rapidly.[34]

A further paper, published in the journal *Science Advances* on 13 May 2016, put the final nail in the coffin of the notion, stubbornly retained by the archaeological establishment for far too long, that

there were no humans present in North America before about 13,000 years ago. Despite many anomalous findings that contradicted its basic assumptions this so-called 'Clovis model' served the ruling paradigm for decades, closing minds to other potentially much more fruitful possibilities. In their *Science Advances* paper, however, Jessi J. Halligan, Michael R. Waters, Angeline Perotti and their co-authors presented irrefutable evidence documenting the presence of anatomically modern humans in Florida at least 15,500 years ago.[35]

Nor do the complications, and the ramifications, of the newly emerging paradigm for the peopling of the Americas stop here. Another impressive body of research was recently published in *Nature* by David Reich, professor of genetics at Harvard Medical School and his colleague Dr Pontus Skogland.[36] What they discovered, unnoticed by previous investigators, was 'a strange similarity' – far beyond the range of 0.2 per cent for Denisovan

DNA found in the majority of Native Americans – connecting certain isolated tribes in Brazil with indigenous peoples in Australia, New Guinea and the Andaman Islands.[37]

'That was an unexpected and somewhat confusing result,' said Reich. 'We spent a really long time trying to make this result go away and it just got stronger.'[38]

After analyzing publicly available genetic information from twenty-one Native American populations from Central and South America, Reich, Skogland and their colleagues also collected and analyzed DNA from nine additional populations in Brazil to make sure the link they saw hadn't arisen accidentally from the way in which the first set of genomes had been collected. The team then compared those genomes to the genomes of people from about two hundred non-American populations:[39]

> The link persisted. The Tupí-speaking Suruí and Karitiana and the Ge-speaking Xavante of the Amazon had a genetic ancestor more closely related to indigenous

> Australasians than to any other present-day population. This ancestor doesn't appear to have left measurable traces in other Native American groups in South, Central or North America.
>
> The genetic markers from this ancestor don't match any population known to have contributed ancestry to Native Americans, and the geographic pattern can't be explained by post-Columbian European, African or Polynesian mixture with Native Americans.[40]

The authors believe the ancestry is much older – perhaps as old as the First Americans.[41] In the ensuing millennia, however, it appears that the ancestral group has disappeared.

'We've done a lot of sampling in East Asia and nobody looks like this,' said Skoglund. 'It's an unknown group that doesn't exist anymore.'[42]

The team named the mysterious ancestor Population Y, after the Tupí word for ancestor, *Ypykuéra*. 'About two per cent of the ancestry of Amazonians today comes from this Australasian lineage that's not present in the same way elsewhere in the Americas,' said Reich.[43] Until further research, for which skeletal remains of an

individual from Population Y will be required, the hypothesis cannot be ruled out that Population Y was 'one hundred per cent Australasian'.[44] The first target for testing this hypothesis will be a specific group of ancient skeletons of Native Americans whose skulls have been described by a number of authorities as possessing Australasian features. The vast majority of such skeletons were found in Brazil.[45]

'We have a broad view of the deep origins of Native American ancestry,' concludes Reich, 'but within that diversity we know very little about the history of how those populations relate to each other.'[46]

Amidst all this, the Denisovan contribution to Native American DNA remains a thorny problem.[47] Despite growing indications to the contrary, the mainstream continues to hold to the view that the 'centre of Denisovan distribution' must have been somewhere on the Eurasian landmass, and indeed somewhere in the vicinity of

Denisova Cave. As we've seen, however, the traces of Denisovan DNA found around the world suggest strongly that the centre of distribution would be better sought elsewhere, much closer to Australia and Oceania where the survival of Denisovan DNA reaches its peak and whence the 'strange signal' noticed by Reich and his colleagues may have emanated directly, rather than in diluted form via Siberian migrants.

I suggest that the Sunda Shelf, of which only the Malaysian Peninsula and the islands of Indonesia remain above water today, is an excellent candidate. The reader will recall from Chapters Two and Eighteen that a vast landmass was exposed here by lowered sea levels during the Ice Age only to be completely submerged as the ice caps melted and sea levels rose in the upheavals that shook the Earth between 12,800 and 11,600 years ago. This pre-flood Sunda Shelf was fertile and well-watered and already offers us established connections to human diversity, reviewed in Chapter Eighteen, in the form of *Homo floresiensis*.

Often referred to as the ‘Hobbit’ because of its diminutive stature – just 1.1 metres (3.5 feet) tall – this little creature was nonetheless so closely related to anatomically modern humans at the genetic level that a number of scientists have proposed it was, effectively, *Homo sapiens* with dwarfism. Controversy persists over its date of extinction. As we saw in Chapter Eighteen, some evidence suggests the last ‘Hobbits’ may have lived on until about 12,000 years ago – during the apocalyptic Younger Dryas interlude. Research published in 2016, however, proposes a much earlier date of around 50,000 years ago for their extinction.[48]

Nor can the exposed Sunda Shelf be viewed in isolation. Even when it was at its most extensive there was always a sea crossing – the deep water of the Lombok Strait and a further ninety kilometres across the narrowed Timor Sea – before New Guinea and Australia could be accessed. The crossing opened the way to vast realms, for New Guinea and northern Australia were joined during the low sea

levels of the last Ice Age forming a continuous landmass that geologists refer to as Sahul.

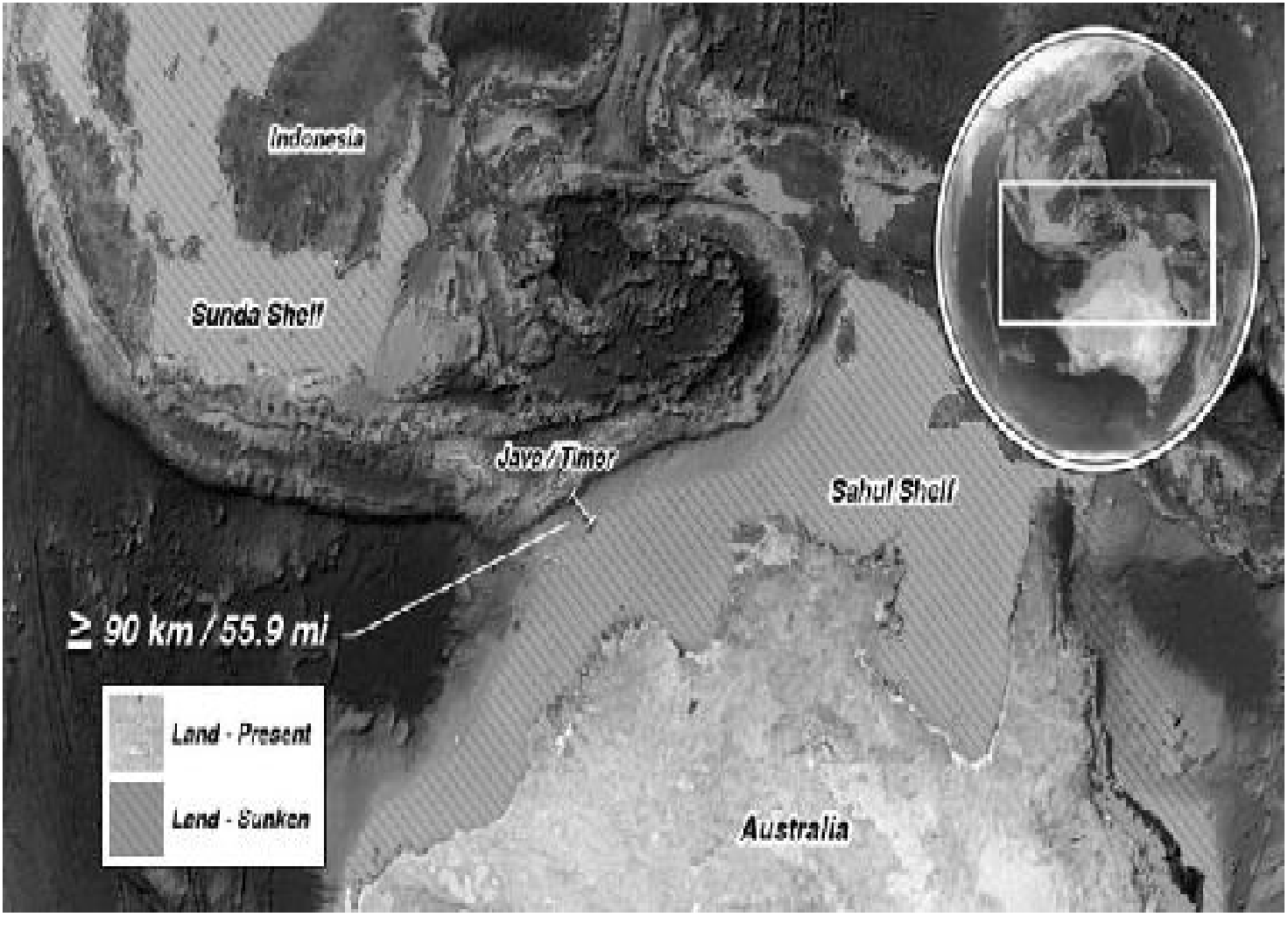
Indonesia
Sunda Shelf
Java / Timor
Sahul Shelf
≥ 90 km / 55.9 mi
Land - Present
Land - Sunken
Australia

Figure 74: The sea crossing from Sunda to Sahul.

The existence of a third significant antediluvian landmass has also been confirmed by sea-level studies to the west of Sahul and the Sunda Shelf where the coasts of the Indian subcontinent were greatly extended during the Ice Age. Of particular note is the fact that South India was joined to the island of Sri Lanka until the floods of 12,800 to 11,600 years ago and that the southern tip of India extended several hundred kilometres further south than it does today.[49]

Looking eastwards, beyond Sunda and Sahul, many of the islands of Oceania were likewise much larger during the lowered sea levels of the last Ice Age.[50]

All in all, therefore, we have a nexus of lost lands across the Indian Ocean and the Pacific upon which substantial chapters of the human story could have been written, but which are now submerged beneath the sea. The same is, of course, true around the shores of

the Mediterranean, in the North Sea, and in the Atlantic Ocean west of the European landmass. Could there be a connection to that mysterious trace of Denisovan DNA at Sima de los Huesos cave in Spain – a trace dating back 430,000 years, but showing distinct affiliations to DNA now found much further east amongst the aboriginal populations of South and East Asia, Australia, Oceania and the Americas?[51]

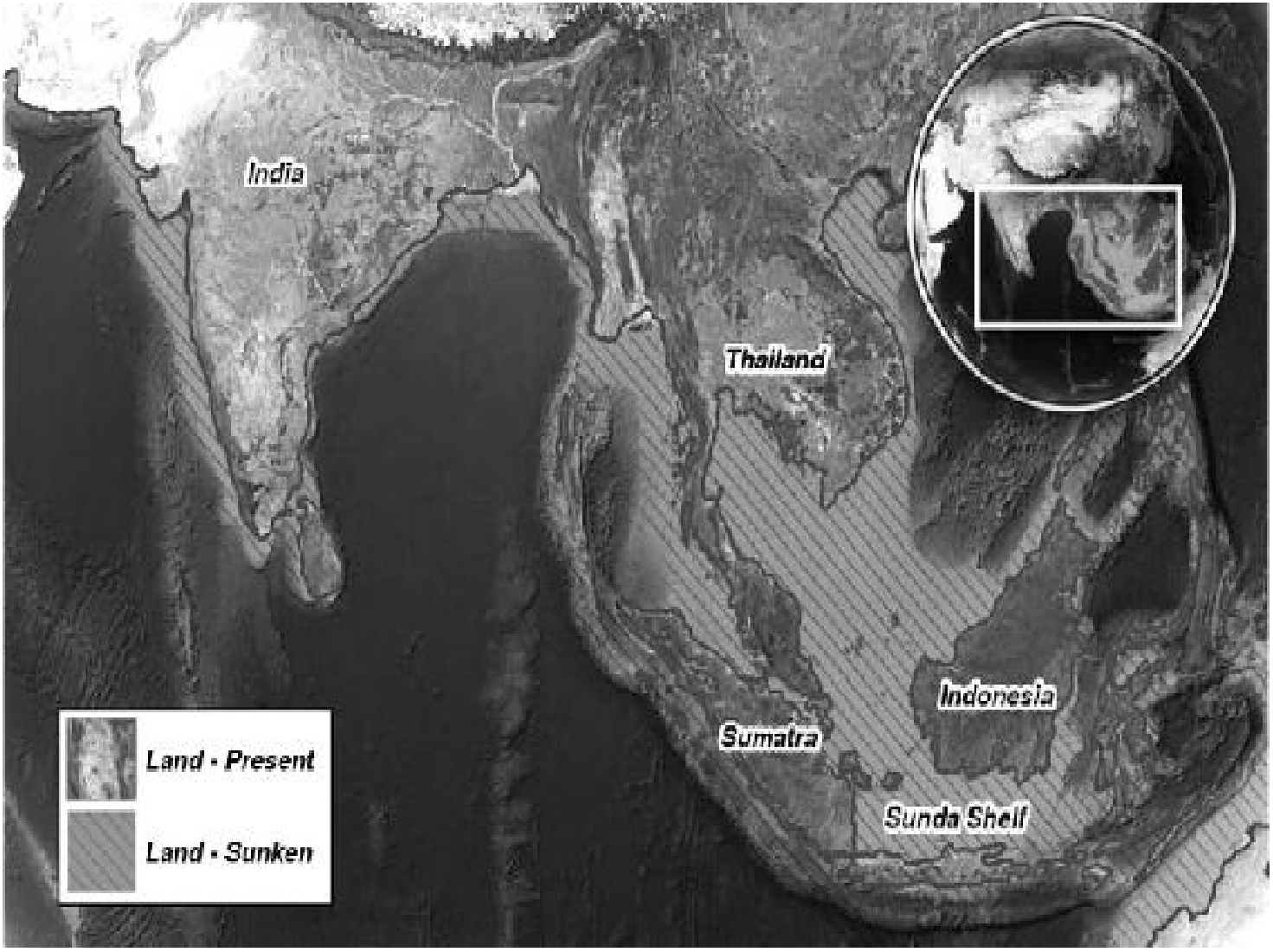
India
Thailand
Indonesia
Sumatra
Sunda Shelf
Land - Present
Land - Sunken

Figure 75: The lost lands of India and Southeast Asia, submerged at the end of the Ice Age.

A comprehensive new analysis of ancient European DNA, carried out by an international team of investigators and published in February 2016 in the journal *Current Biology*, documents such a connection and its survival *until just 14,500 years ago.*[52] This, as the reader will realize, was at the heart of the extended period of global warming that preceded the sudden climate reversal and deep freeze of the Younger Dryas.

The research was conducted by archaeogeneticist Cosimo Posth at the University of Tubingen in Germany. Posth extracted mitochondrial DNA from a range of skeletal remains recovered across Europe (from Spain to Russia) and dating from 30,000 to 7,000 years old.[53] Mitochondrial DNA is passed exclusively from mother to daughter, and has a known – very slow – mutation rate, with the result that two people from the same maternal stock share almost the same mitochondrial DNA, even if separated by

thousands of years.[54] Scientists are therefore able to use mitochondrial DNA to identify large genetic populations – 'clades' or lineages known as 'super haplogroups' – that share distant common ancestors.

'Basically, all modern humans outside of Africa, from Europe to the tip of South America, belong to these two super-haplogroups [labelled] M or N,' Posth explains.[55] In their turn, the M and N super-haplogroups are descended from an earlier haplogroup, ancestral to both. Labelled L3, it is thought to have evolved in East Africa, where its members began a process of extensive and vigorous migration at some point after about 70,000 years ago.[56] Molecular biologists have concluded that:

> The similarity of the age of L3 to its two non-African daughter haplogroups, M and N, suggests that the same process was likely responsible for both the L3 expansion in Eastern Africa and the dispersal of a small group of modern humans out of Africa to settle the rest of the world.[57]

Indeed so. The initial migrations do seem to have been within East Africa, and thence towards Central Africa,[58] but eventually, for unknown reasons, some people branched out decisively northwards and eastwards and left the continent. This was by no means the first 'out-of-Africa' migration of anatomically modern humans; there had been several earlier adventures, perhaps going back beyond 100,000 years ago, but they have left only fossils and no surviving lineages. It is also rather remarkable that out of the more than forty mtDNA lineages that were then present in Africa 'only two of the variants, (L3)M and (L3)N, gave rise to the entire wealth of mtDNA diversity outside of Africa.'[59]

Recent scientific detective work has revealed rather precisely *when* the progenitors of the N and M lineages, and thus the direct ancestors of all non-African people alive in the world today, began their epic migration:

> Dating the most recent common ancestor of each of the modern non-African mtDNA clades reveals their single, late, and rapid dispersal less than 55,000 years ago."[60]

Prior to Posth's research, it was known that only members of the N lineage survive up to the present day in Europe; conversely, the M lineage is entirely absent from Europe; and finally both the N and the M lineages are well represented in Asia, Australia, Oceania and the Americas.[61] For a long while this distinctive pattern led scholars to deduce that there must have been a prehistoric 'parting of the ways' following which some of the out-of-Africa migrants, exclusively belonging to the N lineage, split off from the rest and headed for Europe, where their descendants are now the sole inhabitants, while other members of both the N and the M lineages journeyed further afield and settled the rest of the inhabited areas of the world where their descendants live to this day.[62]

But the new findings overturn all this. What Posth and his team have proved is that members of the M haplogroup – sharing a common ancestor with modern-day M-haplotype carriers from as far afield as the Americas and Australia – were in fact *the dominant population in Europe* from the time of the arrival of anatomically modern humans until just 14,500 years ago, at which point the M lineage 'suddenly and mysteriously vanished' and was completely replaced by members of the N lineage.[63]

Posth speculates that the newer generation of Europeans had perhaps 'hailed from southern European refugia' that were connected to the rest of Europe when the ice caps receded during the warm spell around 14,500 years ago.[64] However this is speculation and until further evidence emerges:

> Exactly where these replacements came from is still a mystery.[65]

So in the millennia immediately before the Younger Dryas, and during the Younger Dryas itself, and immediately thereafter, we have not only the mystery of the intellectual and scientific origins of the Göbekli Tepe megalithic circles in Turkey, and of the Gunung Padang pyramid in Indonesia, but also a complex and deeply nuanced human background that is very far from being exclusively a story of anatomically modern humans. Just as physicists are pretty sure there is 'dark matter' in the universe, because gravitational anomalies that they have measured across the cosmos cannot be explained in any other way, so too the anomalies of our genetic background surely make more sense if something BIG but as yet unseen is missing from the picture.

It might therefore be a mistake to regard the various evolutionary 'dead-ends' sketched out here – the Neanderthals, the 'Hobbits' of Flores, the Red Deer People, the Denisovans, and perhaps others still to be identified – as simple 'savages' who contributed nothing to the archive of human achievement. At the very least, if the

hypothesis of a lost advanced civilization of the Ice Age is correct, then we must assume its sophisticated and technologically advanced citizens coexisted on earth, not only with anatomically modern hunter-gatherers (whose level of development may not have been so different from that of hunter-gatherers in the Kalahari Desert or the Amazon rainforest today), but also with members of the human line who had rather more 'primitive' features and appearance, but perhaps equally sophisticated minds.

Thus, for example, a study published in the journal *Quaternary Science Reviews* in 2016 concluded that the Neanderthal hunters in Upper Palaeolithic Europe were extremely efficient, benefitting from 'superb tactical planning' and 'using the landscape to disadvantage prey … Their prey's avoidance and flight behaviours were also exploited in the hunt …'[66]

Of a different order entirely, however, is a discovery of two pieces of beautifully crafted jewellery, suggesting that the

Denisovans were far more advanced than has hitherto been recognized and that we might have significantly underestimated their capacities. The discovery, made in 2015 by a team led by Dr Anatoly Derevyanko, director of the Russian Academy of Sciences' Institute of Archaeology and Ethnography, comes from within Denisova Cave itself, which, as we've seen, was used at different periods by Neanderthals, Denisovans and anatomically modern humans.

The two jewellery pieces – a ring carved from marble and a bracelet made from a polished green stone known as chlorite – are of a type previously only associated with the complex symbolic abilities and technological skill set of anatomically modern humans, so the first assumption was that the ring and bracelet must have been the work of the cave's later *Homo sapiens* occupants. Much to the surprise of the researchers, however, further investigation ruled out any possibility that anatomically modern humans had created these remarkable pieces. A Denisovan bone was found alongside the

items of jewellery and the soil in which they were embedded was dated with oxygen isotopic analysis to 40,000 years ago. Derevyanko in due course declared himself completely satisfied that the discovery was made deep within the cave's 'Denisovan layers [which] were uncontaminated by human activity from a later period.'[67]

Nor was this the only surprise. Further details of the marble ring have not yet been released by the Russian Academy of Sciences,[68] but the bracelet – of which two fragments have survived – is now on display in the city of Novosibirsk in the Museum of History and Culture of the Peoples of Siberia and the Far East.[69]

Irina Salnikova, Director of the Museum, is entranced by the bracelet:

> I love this find. The skills of its creator were perfect. Initially we thought that it was made by Neanderthals or modern humans, but it turned out that the master was Denisovan …[70]

Dr Anatoly Derevyanko shares her sense of awe:

> The bracelet is stunning – in bright sunlight it reflects the sun's rays, at night by the fire it casts a deep shade of green. It is unlikely it was used as an everyday jewellery piece. I believe this beautiful and very fragile bracelet was worn only for some exceptional moments.[71]

If these symbolic aspects of the bracelet were unexpected – from creatures hitherto considered 'primitive' – it was the technological details of the workmanship that provided the real shocker.

Writing in the Novosibirsk magazine, *Science First Hand*, Dr Derevyanko reported the find of 'the two fragments of the bracelet of a width of 2.7 centimetres and a thickness of 0.9 centimetres.' The estimated diameter of the find was 7 centimetres:

> Near one of the cracks was a drilled hole with a diameter of about 0.8 centimetres. Studying them, scientists found out that the speed of rotation of the drill was rather high, fluctuations minimal, and that there was applied drilling with an implement – technology that is common for more recent times.[72]

In short, concluded Dr Derevyanko, ‘the ancient master was skilled in techniques previously considered not characteristic for the Palaeolithic era.’[73]

Indeed so! Prior to the discovery of the bracelet, such advanced easel speed drilling was considered to be beyond the capacities of humanity until the so-called ‘Neolithic revolution’ that followed immediately after the end of the Younger Dryas. With the foundation of Göbekli Tepe – manifesting advanced architectural and astronomical skills at exactly that time – it is now increasingly obvious that the Neolithic ‘revolution’ was in reality a ‘rediscovery’ or ‘repromulgation’ of skills that must been developed elsewhere at a much earlier date; a transfer of technology, in other words, from a lost civilization of prehistoric antiquity.

Likewise that beautiful green chlorite bracelet should give us pause for thought. Mikhail Shunkov, Deputy Director of the Institute of Archaeology and Ethnography in Novosibirsk, is clear

on its most disturbing implication, namely that the Denisovans were *more advanced* than *Homo sapiens*:[74]

> Amazingly, the skill involved in making this adornment shows a level of technique at least thirty thousand years ahead of its time … What is incredible is that the craftsman who made the adornment seems to have used something similar to a modern drill.[75]

But are we really dealing with an 'out-of-place technological artefact' mysteriously stranded in the remote past? Or could it be that it only *appears* to be 'out of place' because we are a species with amnesia?

As the reader is well aware, it's my hypothesis that information of vital importance to our own story was deleted during the Younger Dryas cataclysms between 12,800 and 11,600 years ago – cataclysms that largely swept away, submerged or pulverized the evidence for a pre-existing advanced Ice Age civilization. We find ourselves now, haunted by returning memories, seeking to recover

some semblance of what was lost. Many are still in deep denial – with professional historians and archaeologists in the forefront of those who refuse to believe that we have forgotten anything significant at all. For the majority, however, the yawning holes in the official story are becoming all too obvious, and orthodox arrogance and stonewalling are being met with increasing impatience, frustration and disbelief.

Australia

Fortunately, changes are underway, perhaps not much yet in the attitudes and outlook of archaeologists and historians, but certainly amongst their colleagues who work in overlapping fields. Thus, for example, the orthodox view of our past has long held that myths of a global flood, of which more than two thousand have been preserved all around the world, have no basis in fact whatsoever. There was, to put the mainstream position concisely:

no worldwide flood but rather a long sequence of local events.[76]

While I have yet to encounter an archaeologist who is willing to question this dogma seriously, experts in other fields that impinge upon archaeology, certainly are. Thus, for example, Nicholas Reid, a linguist at Australia's University of New England specializing in Aboriginal Australian languages, and Patrick Nunn, Professor of Geography at the University of the Sunshine Coast, recently teamed up to investigate Aboriginal traditional stories – many of which were transcribed by early settlers before the tribes that told them succumbed to the genocide and cultural imperialism of the colonists. What the team found were eighteen authentic Aboriginal stories which, they claim, accurately describe geographical features that predate the spectacular rises of sea level at the end of the Ice Age.[77]

'It's quite gobsmacking to think that a story could be told for ten thousand years,'[78] comments Reid:

> It's almost unimaginable that people would transmit stories about things like islands that are currently underwater accurately across four hundred generations.[79]

Yet this is precisely the proposition that Reid and Nunn ended up validating. Their research makes a compelling case that 'endangered Indigenous languages can be repositories for factual knowledge across time depths far greater than previously imagined, forcing a rethink of the ways in which such traditions have been dismissed.'[80]

Here's some of the evidence behind that conclusion:

Port Phillip Bay

Numerous tribes described a time when the bay was mostly dry land. An 1859 report produced for the state government described tribal descendants recalling when the bay 'was a kangaroo ground … Plenty catch kangaroo and plenty catch opossum there'. The researchers determined that these stories recount a time when seas

were about 30 feet higher than today, suggesting that the stories are between 9,350 and 7,800 years old.

Kangaroo Island

The Ngarrindjeri people tell stories of a time when Kangaroo Island could be reached on foot. But then the seas rose and a group of women making the crossing were transformed ‘into rocks that now jut out of the water between the island and the mainland’. The last time Kangaroo Island could be reached on foot was when sea level was about 100 feet lower than today’s level, dating the story, the researchers calculate, to between 10,650 and 9,800 years ago.

Fitzroy Island

Stories by the original residents of Australia’s north-eastern coast tell of a time when the shoreline stretched so far out that it adjoined

the Great Barrier Reef. According to these stories, a river once entered the sea at what is now Fitzroy Island. These details, say the researchers, are eye-witness accounts of a time when sea level was more than 200 feet lower than it is today, 'placing the story's roots at as many as 12,600 years ago'.

Spencer Gulf

Spencer Gulf was once a flood-plain lined with freshwater lagoons, according to the stories told by the Narrangga people. The researchers confirm that the original eye-witness accounts upon which the stories are based may be as much as 12,450 years old.[81]

'How do we know that these stories are authentic?' say the researchers:

> We suggest that because they all say essentially the same thing, it is more likely that they are based on observation. All tell of the ocean rising over areas that had

> previously been dry. None tell stories running the other way – of seas falling to expose land.
>
> The huge distances separating the places from which the stories were collected – as well as their unique, local contexts – makes it unlikely that they derived from a common source that was invented.
>
> For such reasons, we regard the common element in these stories about sea level inundating coastal lowlands, sometimes creating islands, as based on observations of such an event and preserved through oral traditions.[82]

Above all, however, it is the close fit between the Aboriginal myths and the established facts of sea-level rise around Australia at the end of the Ice Age, that makes Reid and Nunn's work so compelling. I contend that the same integrity of ancient traditions and the same close fit are present with equal force in other so-called 'flood myths' around the world.

Many of these undoubtedly record events witnessed by people who were at the hunter-gatherer stage of development during the Ice Age, such as the Australian Aborigines. We should not forget, however, that the adoption of a hunter-gatherer lifestyle (as opposed

to an urban ‘civilized’ lifestyle) may, for some groups, have been the result of a primordial *choice* – a philosophy even – rather than mere necessity, and that amongst the Aborigines themselves there are hints of high science.

To recognize that this is so, says Professor Ray Norris of the Department of Indigenous Studies at Australia’s Macquarie University, requires us to overcome the innate prejudices of the bigoted paradigm that continued, as late as the 1920s, to allow Aboriginal Australians to be described officially as ‘a very primitive race of people’.[83] More recently, until just a generation ago, says Norris:

> Australian schoolkids were taught that Aboriginal people couldn’t count beyond five, wandered the desert scavenging for food, had no civilization, couldn’t navigate and peacefully acquiesced when Western Civilization rescued them in 1788.[84]

‘How did we get it so wrong?’ he adds, pointing out that before the coming of the colonists:

> land was carefully managed by Aboriginal people to maximize productivity. This resulted in fantastically fertile soils, now exploited and almost destroyed by intensive agriculture. In some cases, Aboriginal people had sophisticated number systems, knew bush medicine, and navigated using stars and oral maps to support flourishing trade routes across the country.
>
> They mounted fierce resistance to the British invaders, and sometimes won significant military victories …
>
> Only now are we starting to understand Aboriginal intellectual and scientific achievements.[85]

Amongst these achievements, Norris notes that the Yolngu people in north-eastern Arnhem Land in the Northern Territory:

> long recognized how the tides are linked to the phases of the moon. Back in the early seventeenth century, Italian scientist Galileo Galilei was still proclaiming, incorrectly, that the moon had nothing to do with tides.
>
> Some Aboriginal people had figured out how eclipses work, and knew how the planets moved differently from the stars. They used this knowledge to regulate the

> cycles of travel from one place to another, maximizing the availability of seasonal foods … In recent years, it has become clear that traditional Aboriginal people knew a great deal about the sky, knew the cycles of movements of the stars and the complex motions of the sun, moon and planets.
>
> There is even found a sort of 'Aboriginal Stonehenge', that points to the sunset on midsummer day and midwinter day. And I suspect that this is only the tip of the iceberg of Aboriginal astronomy … This 'ethno-science' is similar to modern science in many ways, but is couched in appropriate cultural terms, without expensive telescopes and particle accelerators.[86]

The Aboriginal Stonehenge that Professor Norris refers to is 50 metres in diameter and consists of more than 100 basalt megaliths laid out in an oval formation at Wurdi Youang (also known as the Mount Rothwell Archaeological Site) close to the town of Little River between Melbourne and Geelong. The detailed astronomical survey of Wurdi Youang carried out in 2012 by Norris and his colleagues strongly supports the hypothesis that:

> A series of outlier stones marks the position of the setting sun at the solstices and equinoxes. A statistical analysis shows that the likelihood of this occurring by

> chance is extremely low. Additionally, we find that the straight sides of the arrangement also indicate the solstices while the three prominent stones at the western apex of the arrangement, as viewed from the eastern apex, mark the point where the sun sets at equinox.[87]

With research advances made in Australia and elsewhere in the twenty-first century, it can no longer be seriously disputed that ancient hunter-gatherer peoples all around the world did possess sophisticated astronomical knowledge and used symbolic language, storytelling and 'myths' – often grievously misunderstood by scholars in the nineteenth and twentieth centuries – to express and deploy that knowledge. The context, however, is one of economic and social simplicity, an ascetic life from which the hubris of technological complexity has either been avoided altogether or burned away. By contrast, embedded in some of the myths that have come down to us from prehistoric antiquity, are memories that appear to document the former existence of a much more complex – and indeed fully technological – civilization.

We've already seen (Chapters One, Two and Eighteen) how the Atlantis story of a great empire-building urban culture destroyed in a global flood 11,600 years ago coincides remarkably with known facts of sea-level rise at the end of the Younger Dryas. I suggest that future research across the Pacific will ultimately confirm an equally close fit with the flood myths told in Easter Island of the lost land of Hiva and of how Easter Island itself was once much larger than it is today (see Chapter Eighteen). Moreover, it is intriguing in the light of what we now know of the inundation of the Sunda Shelf far to the west of Easter Island at the end of the Ice Age, that in the most ancient traditions Hiva is said to have been located … far to the west of Easter Island.[88]

Sundaland

Other than the quaint Javanese tradition of a submerged city ruled over by the 'Queen of the Southern Ocean', and the testimony of

Joseph, the elder of Bena village on the island of Flores who told me that his ancestors ‘came here in a ship around twelve thousand years ago during a great flood’, I’ve not devoted a great deal of space in this book to flood traditions from Indonesia and other areas of the Sunda Shelf that remain above water today. As we might expect, however, such traditions are numerous. For example, the reader will recall from Chapter Eighteen that I doubted the authenticity of the Flores tradition, with its technological overtones; I wondered if it had been inspired by recent encounters with Westerners. Since writing that passage, however, I have come across a compilation of authentic Indonesian flood myths collected more than a century ago, and amongst these is a tradition of the Nage people of central Flores, which indeed states that ‘Dooey, the forefather of their tribe, was saved in a ship from a great flood’.[89]

By no means all of the Indonesian flood myths involve a survival ship, however. With the mountain location of Gunung Padang in

mind, and the suggestion that the 'Hall of Records' of a lost civilization might lie concealed there, it is particularly notable that a frequent theme of these myths is a sudden rising of the oceans killing most of humanity, leaving only a few survivors who escape by making their way to mountainous areas too lofty to be inundated.[90]

Thus, for example, the Bataks of Sumatra say that 'when the earth grew old and dirty', the Creator, Debata:

> sent a great flood to destroy every living thing. The last human pair had taken refuge on the top of the highest mountain, and the waters of the deluge had already reached their knees, when the Lord of All repented of his resolution to make an end of mankind, so he took a clod of earth, kneaded it into shape, tied it to a thread and laid it on the rising flood, and the last pair stepped on it and were saved. As the descendants of the couple multiplied, the clod increased in size until it became the earth which we all inhabit to this day.[91]

The Alfoors of Ceram (now Seram) island between the Celebes and New Guinea, relate that after a great flood, 'which overwhelmed the

whole world', only the Mountain Noesakoe stood above the tide. 'Three persons survived on the top of the mountain, but the sea eagle brought them tidings of other mountain peaks that had emerged from the waters.'[92]

Likewise the inhabitants of Rotti (now Rote), a small island to the south-west of Timor, say that in former times, 'the sea flooded the earth, so that all men and animals were drowned … Only the peak of Lakimola in Bilba still rose solitary over the waves. On that mountain a man and his wife had taken refuge.'[93]

India

Looking west from the immense submerged landscapes of ancient Sunda and Sahul, the Indian subcontinent was also subject to catastrophic losses of land caused by rising sea levels at the end of the Ice Age. And in India, too – as in Easter Island, ancient Egypt and Mesopotamia – the flood tradition turns out to be intimately

connected to memories of seven civilizing heroes. In Easter Island, as the reader will recall, these were the seven 'initiated men', who set about the construction of 'stone mounds'. In the Edfu tradition of ancient Egypt they were the 'Seven Sages', whose first task, also, was to establish the sacred mounds on which all future pyramids and temples were to be built. In the Mesopotamian tradition they were likewise 'Seven Sages', the Apkallu – the bringers of the gifts of civilization. And in India they were the Seven Rishis (the word 'Rishi' translates pretty much exactly as 'Sage'), whose leader Manu, the Indian Noah, is said in some traditions to have undertaken a long period of meditation and austerities in 'a certain region of Malaya'.[94]

The reference may be to the Malaya mountains spoken of in the *Matsya Purana*, a Hindu sacred text, as being part of ancient Bharata – India. The southern end of the Western Ghats has been proposed as a location of these mythical mountains, but there is no

consensus, and the fact that there is also a Malaya mountain range in central Sri Lanka (where one of the ancient royal families adopted the title *Malayu Raja*) should give us cause for reflection – perhaps particularly so when we realize that the very name Malaya derives from the age-old Tamil Dravidian word *malai*, meaning hill.[95]

At least one respected modern scholar, geneticist Stephen Oppenheimer, suggests strongly that the account of Manu's long period of sequestration and initiation 'in a certain region of Malaya' should direct our attention much 'further to the East' than the Indian subcontinent and traces the origins of specific motifs within the myth to the region of 'South-East Asia and Australia' – in other words to Sunda and Sahul, which surrendered so much of their former land area to the cataclysmic floods at the end of the Ice Age.[96] It is also notable that the modern name Malaysia is derived from the Malay word *malaya* which in turn is derived from the

Tamil *malai*, and that *Malayadvipa* was the name used by ancient Indian traders for the Malaysian peninsula.[97]

I recounted the tradition of Manu, the Seven Rishis and their survival of the deluge extensively in my 2002 book *Underworld*, so it is unnecessary to repeat it here. Oppenheimer's view that the story 'does not have an Indo-European origin'[98] is certainly true also of specific Dravidian traditions of the flood told in south India concerning 'an antediluvian Tamil land stretching several hundred kilometres to the south of the present southern border at Cape Comorin.'[99] The name of this lost land, swallowed up by the sea in a series of distinct inundations separated by thousands of years, was Kumari Kandam.[100] Moreover the traditions leave us in no doubt that it was home to an advanced civilization with institutions of higher learning – effectively universities – known as Sangams, and with sophisticated science, literature and arts ushering in a golden

age of literary, artistic and musical creativity amongst the Dravidian peoples of the Ice Age.

N. Mahalingam, Chairman of the International Association of Tamil Studies, refers in the Proceedings of the Fifth International Conference of Tamil Studies to Dravidian traditions that implicate three distinct episodes of flooding in the destruction of Kumari Kandam:

> The first great deluge took place in 16,000 BC … The second one occurred in 14,058 BC when parts of Kumari Kandam went under the sea. The third one happened in 9564 BC when a large part of Kumari Kandam was submerged.[101]

The date for the third of these archaic floods, as readers will note, overlaps, give or take forty years, with Plato's date for the submersion of Atlantis circa 9600 BC.

This is quite a remarkable coincidence to say the least!

If Plato and the Indian scribes who set down the Kumari Kandam oral traditions in writing were pure 'fabulists' working

independently of any real knowledge or events, then isn't it much more likely that they would have selected *different* imaginary epochs in which to place their flood stories? Why didn't they opt for 20,000 or 30,000 years ago – or even 300,000 years ago, or three million years ago – instead of the tenth millennium BC? Why did they each separately settle upon a time frame that turns out to coincide so precisely with the radical collapse of the remnant ice sheets at the end of the Younger Dryas around 9600 BC, producing the globally catastrophic Meltwater Pulse 1-B?

I suggest that no coincidence is involved. Just as we are now beginning to understand that eye-witness accounts of Ice Age floods have been preserved for 12,000 years in Aboriginal traditions, so, too, with Kumari Kandam and Atlantis. The growing weight of evidence from all around the world testifies that these are not fanciful myths but haunting memories rising through the depths of our amnesia to the surface of modern human consciousness and

requiring us to question everything we have hitherto been taught about the origins of civilization.

It so happens that I have played a direct part in uncovering some of the key evidence that validates the ‘myth’ of Kumari Kandam. My role is already on the record in the hardback (2002) and paperback (2003) editions of my book *Underworld*.[102] I state this again for the record here since attempts now appear to be underway by mainstream academics to airbrush me out of the story entirely.

The story concerns the discovery and further exploration of deeply submerged ruins off the south-east coast of India in Tamil Nadu, specifically offshore the towns of Mahabalipuram and Poompuhar.

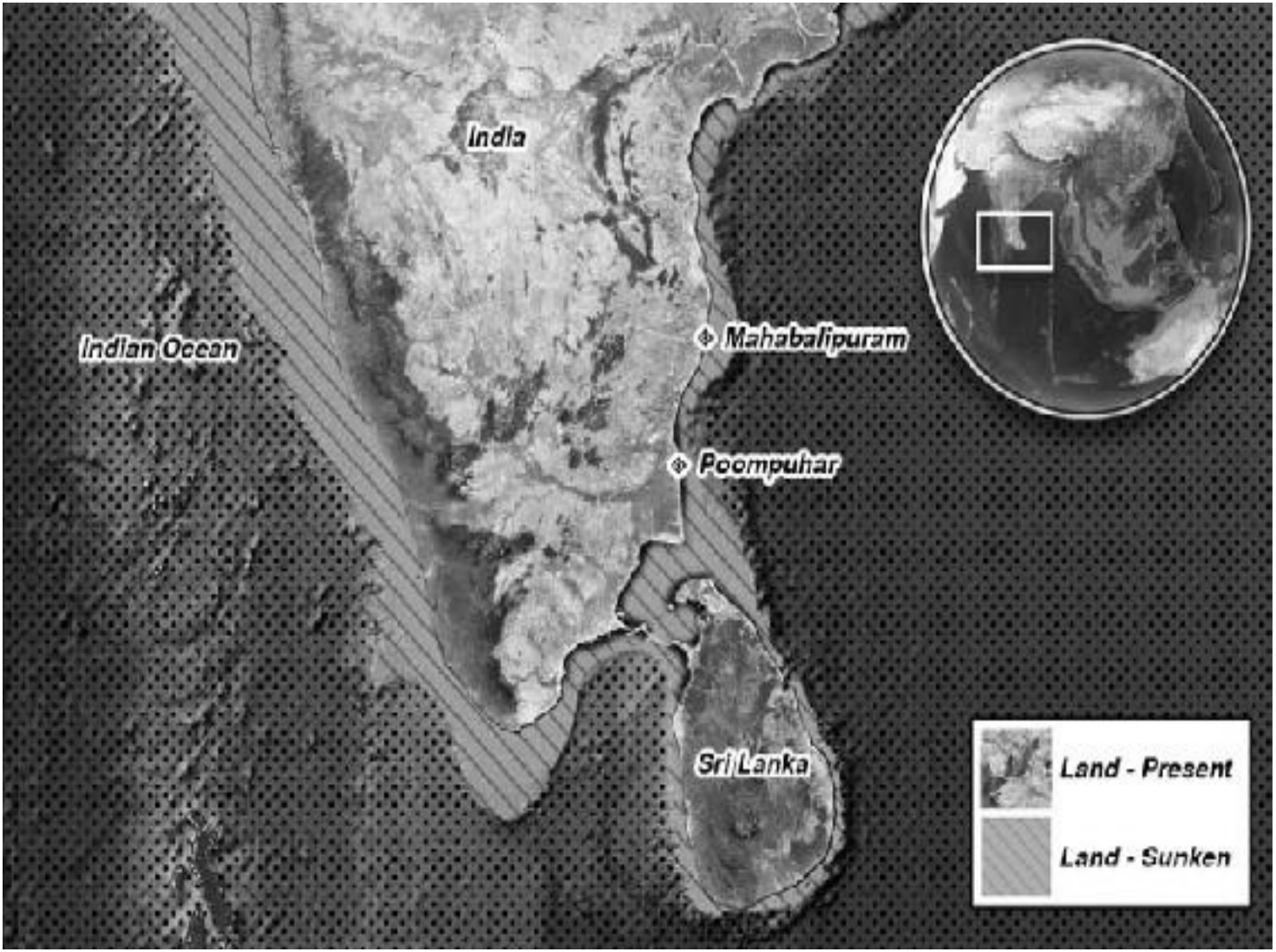
India
Indian Ocean
Mahabalipuram
Poompuhar
Sri Lanka
Land - Present
Land - Sunken

Figure 76: Numerous submerged ruins lie offshore of Mahabalipuram and Poompuhar.

In the case of Poompuhar the initial discovery was made in 1991 by archaeological divers from India's National Institute of Oceanography following a side-scan sonar survey that had revealed anomalous 'objects' on the seabed five kilometres out from the coast at a depth of 23 metres (75 feet). After dives on 16 and 19 March 1991, the NIO reported:

> There are actually three objects, the central one being oval-shaped with an opening on its northern side. Its longer axis is 20 metres. There is a clay deposit on the eastern flank beyond which another semicircular structure is seen. To the north-west of the central object one or more oval shaped objects are found.[103]

Finally on 23 March 1991, three divers were able to go down but only had sufficient air to study the central structure. The official report describes what they saw as follows:

> a horseshoe-shaped object, its height being one to two metres. A few stone blocks were found in the one-metre-wide arm. The distance between the two arms is 20 metres. Whether the object is a shrine or some other man-made structure now at 23 metres depth remains to be examined in the next field season.[104]

No work was done on the site in 1992, but in 1993 the NIO's marine archaeologists were back to take detailed measurements of the central 'horseshoe-shaped', or 'U-shaped' structure. In due course they reported on their findings as follows:

> The structure of U-shape was located at a water depth of 23 metres which is about 5 kilometres off shore. The total peripheral length of the object is 85 metres while the distance between the two arms is 13 metres and the maximum height is 2 metres. The height of the eastern arm is greater than that of the western arm. The centre of the object is covered with sediment but some patches of rock were noticed. Hand fanning showed that the central part of the object is rocky at a depth of 10–15 centimetres. Divers observed growth of thick marine organism on the structure, but in some sections a few courses of masonry were noted.[105]

Thereafter, until I became involved, no further work was done on this interesting man-made structure now 23 metres underwater off

the south-east coast of India. I decided that this was an unacceptable situation, so I visited the NIO at their headquarters in Goa in March 2000 determined to persuade them to reconsider. It turned out to be a matter of money. I therefore raised the necessary funds from Channel 4 Television (then in the initial stages of filming a documentary series based on my research for *Underworld*)[106] to pay the NIO what they needed to bring a team down to Poompuhar to re-dive the site with us. I welcomed the fact that whatever the NIO had to show me at Poompuhar would be documented properly for television. I was convinced that only by allowing the greatest number of people to see the U-shaped structure for themselves, and to make up their own minds about it, did it stand a chance of getting the attention it deserved from the archaeologists who had hitherto ignored it.

Moreover, the specific reason *why* it deserved more archaeological attention had become glaringly obvious to me as the

research for *Underworld* continued. I benefitted enormously from the advice and input of geologist and sea-level rise expert Dr Glenn Milne, then at the University of Durham in the UK. Charting the rising seas at the end of the Ice Age is complex scientific work, which must take account not only of sea-level rise itself but also of the relative vertical movements (isostacy) of land masses in specific regions.

So it is not simply a matter of a global 120 metres rise in sea level since the Ice Age; the phenomenon of isostacy means that every local area has its own sea-level rise curve. Milne and his team are the world's leading experts in such intricacies and agreed to provide me with their latest and most detailed data. I gave Milne the coordinates for the Poompuhar site at 23 metres depth and in due course he replied as follows:

> areas currently at 23 metres depth would have been submerged about 11,000 years before the present. This suggests that the structures you mention are 11,000 years

old or older![107]

Needless to say, a large man-made structure in India built more than 11,000 years ago rewrites history in the same way that 11,600-year-old Göbekli Tepe rewrites history. Until Göbekli Tepe, archaeologists taught that such architectural skills were not deployed by mankind *at all* during the Upper Palaeolithic. Now at Poompuhar we have a second architectural site of Göbekli Tepe age and, in addition, there is the close fit with the Kumari Kandam 'myth' according to which, as we've seen, the largest portion of the lost Tamil lands were submerged by the sea in 9564 BC, i.e., in Milne's words, '11,000 years old or older'.

With the funds in place, and permissions extracted from the labyrinthine Indian bureaucracy, we began our dives at Poompuhar in late February 2001. Since the reader can find the full account in *Underworld*, I will not repeat it here, but in summary the dives left

us and the NIO archaeologists in no doubt that we were dealing with a very ancient man-made structure.[108]

Meanwhile, since the early 1990s, I had been keeping my eye on the Tamil coastal town of Mahabalipuram, some 230 kilometres north of Poompuhar. As I reported in *Underworld*, there is both an *ancient tradition* of a submerged city here and *local fishermen's reports* of encounters with underwater structures upon which they repeatedly catch their nets.

The ancient tradition is incorporated in the name by which Mahabalipuram was known to mariners in antiquity – namely 'The Seven Pagodas'.

In one of the papers that I turned up in my research an English traveller, J. Goldingham, Esq., writing in 1798, had this to say about Mahabalipuram:

> The surf here breaks far out over, as the Brahmins inform you, the ruins of a city which was incredibly large and magnificent … A Brahmin, about fifty years of age, a native of the place, whom I have had an opportunity of conversing with

> since my arrival in Madras, informed me his grandfather had frequently mentioned having seen the gilt tops of five pagodas in the surf, no longer visible.[109]

An earlier traveller's report, from 1784, describes the main feature of Mahabalipuram as a 'rock, or rather hill of stone', out of which many of the monuments are carved. This outcropping, he says:

> is one of the principal marks for mariners as they approach the coast and to them the place is known by the name of 'Seven Pagodas', possibly because the summits of the rock have presented them with that idea as they passed: but it must be confessed that no aspect which the hill assumes seems at all to authorize this notion; and there are circumstances that would lead one to suspect that this name has arisen from some such number of Pagodas that formerly stood here and in time have been buried in the waves …[110]

The same author, William Chambers, then goes on to relate the more detailed oral tradition of Mahabalipuram – given to him by Brahmins of the town during visits that he made there in 1772 and 1776[111] – that prompted his suspicion of submerged structures.

According to this tradition, which is supported by certain passages in ancient Hindu scriptures,[112] the God Vishnu had deposed a corrupt and wicked Raja of these parts at some unknown date in the remote past and had replaced him on the throne with the gentle Prahlada, whose reign 'was a mild and virtuous one'.[113] Prahlada was succeeded by his son and then by his grandson Bali, said to have been the founder of the once magnificent city of Mahabalipuram (which, translated literally, means 'the city of the great Bali' or more likely 'the city of the giant Bali'[114]). Bali's dynasty continued with his son Banasura – also portrayed as a giant[115] – but during his reign, disaster struck:

> Aniruddha, the [grand]son of Krishna, came to his [Banasura's] court in disguise and seduced his daughter, which produced a war in the course of which Aniruddha was taken prisoner and brought to Mahabalipuram; upon which Krishna came in person … and laid siege to the place.[116]

Although the God Siva himself fought on the side of Banasura, they could not prevail. Krishna found a way to overthrow Siva, captured the city and forced Banasura into submission and lifelong fealty.[117]

An interval followed, after which another Raja, whose name was Malecheren, took the throne at Mahabalipuram. He encountered a being from the heavenly realms, who became his friend and agreed 'to carry him in disguise to see the court of the divine Indra', the court of the Gods themselves – a favour that had never before been granted to any mortal:[118]

The Raja returned from thence with new ideas of splendour and magnificence, which he immediately adopted in regulating his court and his retinue, and in beautifying his seat of government. By this means Mahabalipuram soon became celebrated beyond all the cities of the earth; and an account of its magnificence having been brought to the gods assembled at the court of Indra, their jealousy was so much excited at it that they sent orders to the God of the Sea

to let loose his billows and overflow a place that impiously pretended to vie in splendour with their celestial mansions. This command he obeyed, and the city was at once overflowed by that furious element, nor has it ever since been able to rear its head.[119]

What is particularly noteworthy about this myth is the fact that it was collected, written down and published in the eighteenth century. This was long before any of the ancient inscriptions of Mesopotamia could be read, yet the story of Mahabalipuram bears some striking resemblances to the flood myths of Mesopotamia. In the original Sumerian flood text cited in Chapter Eight, and in all later variants of it – including the Babylonian versions, the Old Testament account of the Flood of Noah and, for that matter, Plato's (supposedly unrelated) story of Atlantis[120] – the gods are angry with or jealous of mankind, exactly as they are said to have been in the Mahabalipuram myth. In all the other myths (with the exception of the Noah story) the gods meet in assembly – again as they are said

to have done at Mahabalipuram – before resolving to destroy upstart mankind by sending a flood. And in all the other myths, cities and cult centres are submerged by the flood:

> **Sumer**: All the windstorms, exceedingly powerful, attacked as one; at the same time the flood swept over the cult centres.
>
> **Mahabalipuram**: The God of the Sea … let loose his billows and … the city was at once overflowed by that furious element …

I made a research visit to Mahabalipuram in March 2000 with the specific intention of discovering whether local people were still aware of the old stories of a submerged city. My wife Santha, whose mother tongue is Tamil, helped to fast-track this inquiry and we quickly learned that the tradition is well known and universally believed to be true by the general public.

This in itself does not necessarily mean anything. Superstitions and follies abound amongst the people of every country. But many of our informants were hard-bitten professional fishermen, who for

the most part were clearly *not* relaying half-remembered folklore that they had heard from their grandfathers, but were speaking from direct personal experience. Indeed in Poompuhar and again in Mahabalipuram I met fishermen, who had nothing whatsoever to gain by deceiving me, who claimed to have seen with their own eyes what they described as ‘palaces’, or ‘temples’, or ‘walls’, or ‘roads’ underwater when diving down to free trapped anchors or nets.

An underwater ruin, if it is of any size, will function as an artificial reef attracting many different species of fish to the shelter and security that it provides – particularly in areas like south-east India where the sea bottom is largely flat and featureless. And since fishermen are in the business of catching fish, they naturally look out for places in the ocean where fish congregate for any reason. In this way they are often the first to find unsuspected underwater sites – and frequently may know of sites that archaeologists are unaware of.

At Mahabalipuram, in the little fishing village that lies in the curve of the bay a mile or so to the north of the town, Santha and I sat on the beach on a pile of drying nets with a large crowd gathering around us. Everybody in the village who might have an opinion or information to contribute was there, including all the fishermen – some of whom had been drinking palm toddy most of the afternoon and were in a boisterous and argumentative mood. What they were arguing about were their answers to the questions that Santha and I were asking and precisely who had seen what, where underwater – so we were happy to listen to their animated conversations and disagreements.

An elder with wrinkled, nut-brown eyes, and grey hair bleached white by long exposure to the sun and sea, spoke at length about a structure with columns that he had seen one day from his boat, when the water had been exceptionally clear. ‘There was a big fish,’ he told me. ‘A red fish. I watched it swimming towards some rocks. Then I realized that they were not rocks but a temple. The fish

disappeared into the temple, then it appeared again, and I saw that it was swimming in and out of a row of columns.'

'Are you certain it was a temple?' I asked

'Of course it was a temple,' my informant replied. He pointed to the pyramidial granite pagoda of the nearby rock-hewn Shore Temple of Mahabalipuram, thought to have been built by the Pallava dynasty circa AD 700–728. 'It looked like that.'

Several of the younger men had stories to tell about heroic, scary dives – lasting minutes, hearts thudding, their breath bursting in their lungs – to free fishing gear snagged on dark and treacherous underwater buildings. In one case, it seemed, a huge net had become so thoroughly entrapped on such a structure that the trawler which was towing it had been stopped abruptly. In the case of another underwater ruin, free-divers had seen a doorway leading into an internal room, but had been afraid to enter it.

One strange report was that certain of the ruins close to Mahabalipuram emit 'clanging' or 'booming' or musical sounds, if

the sea conditions are right: ‘It is like the sound of a great sheet of metal being struck.’

‘And what about further away,’ I asked. ‘If I were to take a boat south following the coast what would I find? Are the underwater structures mainly just here around Mahabalipuram or are they spread out?’

‘As far south as Rameswaran you may find ruins underwater,’ said one of the elders. ‘I have fished there. I have seen them.’

Others had not travelled so far but all agreed that within their experience there were submerged structures everywhere along the coast: ‘If you just go where the fish are, then you will find them.’

It took another two years to organize a diving expedition at Mahabalipuram and in the meantime, in March 2002, *Underworld* received its first publication in hardback. Accordingly our dives at Mahabalipuram didn’t make it into that edition. Fortuitously, however, in the spring of 2001, I had been approached by Colonel John Blashford-Snell of the UK-based Scientific Exploration

Society (SES). Over lunch at my home, Blashford-Snell asked me if any of the mysteries raised by the research for *Underworld* might make a worthwhile SES expedition. Naturally I suggested a quest for Mahabalipuram's supposedly 'mythical' flooded city.

On Blashford-Snell's request, I introduced the SES to the NIO and over the following two months nudged and cajoled the sometimes faltering communications of the two organizations until the plans for the expedition had been fully approved. Former Royal Marines officer Monty Halls, himself a diving instructor, was selected by the SES to lead the expedition, and twelve volunteer divers, mostly from Great Britain, put up the necessary funding.

Thus it was that in April 2002 I found myself once more in Mahabalipuram – this time supported by all the divers and expertise needed to test my hypothesis that the local flood myths might actually lead us to a city underwater. Naturally I feared the failure of such a public quest, whilst hoping that it would succeed. Yet even in my wildest dreams I could not have imagined how immediately

self-evident it would be, from the moment we got into the water, that following the clues in the myths and local traditions had indeed led to the discovery of a major archaeological site.

Again, since I gave a full and detailed description of our dives off Mahabalipuram in the 2003 paperback edition of *Underworld*, it is unnecessary to repeat that description here.[121] Suffice it to say that as I sank down through the murky waters on 3 April 2002 on my first dive there, and began to notice the huge walls snaking across the sea bed, I was struck – despite what the fishermen had told me – by the stark *differences* in architectural style between these looming submerged structures and the temples of the historical period, such as the Shore Temple, that I knew on land. The material was the same – local red granite – but in general the block sizes of the underwater structures were much bigger.

On later dives I was to discover that they included clusters of truly enormous megaliths, weighing up to four tons each, that

seemed to be the remains of colossal buildings torn apart by some powerful cataclysm – no doubt the very cataclysm that had flooded this place. Each gigantic cluster proved to lie at the centre and highest point of a large rectangle of ruins, and these rectangular areas were spaced out at quarter-mile intervals north and south, parallel to the shore.

I made a couple of dives with Santha, who was shooting underwater stills, and a couple of dives with Trevor Jenkins, the expedition's videographer. On one dive Trevor and I followed a superb, curved wall that ran unbroken for more than 16 metres. At another location I was able to expose the core masonry on a different length of wall, revealing fine jointing between the blocks.

On the very last dive, at a site we'd tagged as 'location 4', Trevor discovered what he thought might be a stone carving of a lion's head in profile lying on the seabed. I wasn't so sure; it was too damaged and shrouded in marine growth for me to be certain what it was, or even if it was man-made at all. While Trevor filmed it, I

tried to clear a section with my knife, but all I could establish was that it was of solid granite, about the radius of a car wheel, and roughly crescent-shaped. I couldn't make out individual features.

On our return to the UK, the SES issued the following press release on Monday 8 April 2002 inviting the media to attend a briefing in London on 10 April 2002:

> *The Scientific Exploration Society is proud to announce a major discovery of submerged ruins off the south-east coast of India and invite you to a Press Reception at 10.30 a.m. on Wednesday 10th April 2002, at the Nehru Centre, 8, South Audley Street, London W1K 1HF.*
>
> *Following a theory first proposed by bestselling author and television presenter Graham Hancock, a joint expedition of 25 divers from the Scientific Exploration Society (SES) and India's National Institute of Oceanography (NIO), led by Monty Halls and accompanied by Graham Hancock, have indeed discovered an extensive area with a series of structures that clearly show man-made attributes, at a depth of 5–7 metres offshore of Mahabalipuram in Tamil Nadu.*
>
> *The scale of the submerged ruins, covering several square miles and at distances of up to a mile from shore, ranks this as a major marine-archaeological discovery as spectacular as the ruined cities submerged off Alexandria in Egypt.*

This could prove the ancient myths of a huge city, so beautiful that the gods became jealous and sent a flood that swallowed it up entirely in a single day!

Come and listen to Graham Hancock, Monty Halls and view unique pictures/video.

So far so good, but on 9 April 2002, the day after the SES press release had been issued fully acknowledging my role, the NIO issued its own press release from which, surprisingly given my efforts, my name was entirely omitted.[122] More seriously, the NIO used the release to propose a completely unfounded notion about the age of the ruins:

> Based on what appears to be a Lion figure, of location 4, ruins are inferred to be part of a temple complex. The possible date of the ruins may be 1500–1200 years BP. Pallava dynasty, ruling the area during the period, has constructed many such rock-cut and structural temples in Mahabalipuram.[123]

I felt compelled to set the record straight and published the following statement on my website later that same day:

I have only two comments to make on the NIO press release, but both of them are grave.

1. Despite a friendship with the NIO stretching back over two years, I note that the NIO statement makes no mention of my instrumental role in bringing about these exciting discoveries off Mahabalipuram. I regret this oversight since there can be no doubt that I have earned the right to recognition in this discovery and that my input both in formulating the hypothesis of submerged ruins at Mahabalipuram, in putting that hypothesis forcefully before the public, and in the conception and implementation of an expedition to test that hypothesis, has been absolutely decisive.

   It is in black and white on pages 119–122 and pages 258–261 of my book *Underworld* (published by Michael Joseph/Penguin 7 February 2002), and in my Channel 4 Television Series *Flooded Kingdoms of the Ice Age* (broadcast 11, 18 and 25 February 2002), that I have long regarded Mahabalipuram, because of its flood myths and fishermen's sightings, as a very likely place in which discoveries of underwater structures could be made, and that I proposed that a diving expedition should be undertaken there.

   It is also absolutely a matter of record that it was I who subsequently took the initiative to bring together the Scientific Exploration Society (SES) and the NIO during 2001 so that the expedition could take place and that I expended considerable efforts putting the two groups in touch and nudging along their co-operation.

I think you will find if you remove Graham Hancock from the equation that another twenty or many more years might have elapsed before the marine archaeology division of the NIO would have dived at Mahabalipuram.

If you remove Graham Hancock from the equation, the SES and the NIO would not have been brought together and the SES would not even have been aware that there was a mystery to investigate at Mahabalipuram.

In other words, if you remove Graham Hancock from the equation it is a plain fact, and nothing more nor less than the truth, that neither the NIO nor the SES would have been diving at Mahabalipuram.

The discoveries that we have made might have been made later, or never at all. Such questions are entirely hypothetical, however. The fact is that the discovery has been made now and that my research, initiatives and efforts were instrumental in bringing it about. In any kind of moral or decent universe, in which credit is given where credit is due, I believe that I deserve some recognition for this. I ask nothing more than that.

2. My second comment on the statement concerns the unwisdom and unfortunate disregard of basic scientific procedure on the part of the NIO in speculating about a possible date of 1500 BP to 1200 BP for the submerged ruins. This speculation seems largely to be based on what is claimed to be a sculpture of a lion at location 4 – thought to be typical of the sculptural art of the Pallava dynasty. Unfortunately, however, neither of the two NIO marine archaeologists who were diving with us actually saw the alleged 'figure'. The only people who did were myself and my dive-buddy Trevor Jenkins. It was Trevor who first

spotted it. We then examined it together and Trevor shot video footage of it. All other comments on this lion figure are second-hand, based on viewings of Trevor's video footage only.

My own very much first-hand comment is that if the figure is indeed that of a lion, this by no means confirms a connection with the Pallavas – since lion sculptures are typical of whole swathes of Indian art and symbolism and cannot be regarded as a Pallava monopoly. More importantly, the so-called lion figure is by no means necessarily a lion figure at all. As noted above, I am one of only two divers who have seen it and handled it, and I suspect strongly that it is not a lion's head and perhaps not even part of a statue.

I had not voiced that suspicion before now because I thought the scientific community believed that weighty conclusions one way or another about possible archaeological discoveries should only be reached after much further research. But now I see that without doing any research at all, and without any marine archaeologists ever having examined the alleged 'figure', the NIO rushes in to suggest a possible date in its statement.

In my view the NIO should have refrained from such unwise premature speculation and simply left the issue of the dating of the site open for the vast amount of further research that does indeed need to be done before anything can be confirmed. As one who has often been accused of prematurely assigning older dates to archaeological sites on the basis of too flimsy evidence, I find it ironic that the NIO should assign a possible date of 1500–1200 BP to this site without any evidence at all. The NIO is not even at this stage aware of the sea-

> level curve for this part of the south-east Indian coast — surely a crucial factor in any attempt to date the site.[124]

It soon became clear that the NIO had absolutely no intention of following up on our Mahabalipuram discoveries and doing the real work necessary to establish the age and provenance of the site. Thus no further action was taken during 2003 and 2004 and I have no doubt that the extraordinary city lying underwater offshore of Mahabalipuram would have been allowed to lapse entirely from archaeological memory – like so many other discoveries that threaten the mainstream paradigm – were it not for the horrible tragedy of the 26 December 2004 'Boxing Day' tsunami during which, for about half an hour before the big wave came rolling in, the bay in front of Mahabalipuram was completely exposed by a sudden withdrawal of the sea, allowing thousands of eye-witnesses to get a brief glimpse of the submerged ruins.

After that it became impossible for the NIO to continue to pretend that there was nothing of significance underwater at Mahabalipuram (more often referred to these days with the alternative spelling of 'Mammalapuram') or to continue to hope that the whole thorny issue would just go away. Accordingly, from 2005 onwards the NIO and other Indian archaeological divers did again begin to pay attention to the site but they released very little information about it until 19 March 2016, when the *Times of India* was authorized to publish the following report:

> When the shoreline receded during the 2004 tsunami, tourists in Mamallapuram swore they saw a long row of granite boulders emerge from the sea, before it was swallowed again as the water hurtled forward. More than a decade later, a team of scientists and divers have uncovered what eye-witnesses saw on that fateful day – vestiges of an ancient port.
>
> In a discovery that could lead to more underwater explorations off the historic town of Mamallapuram, a group from National Institute of Oceanography (NIO) has found the remains of a port or ruins of one of the six shore temples which, according to legend, went under water. The ten-member team, comprising divers, geologists and archaeologists, found a 10-metre-long wall, a short flight of stairs,

> and chiselled stone blocks scattered on the seabed. They were found 800 metres from the shoreline at a depth of nearly 27 feet.
>
> Rajiv Nigam, head of the marine archaeology unit of NIO, said the divers found it difficult to identify many of the structures as they were covered with thick aquatic growth. 'Some of them are badly damaged due to strong underwater currents and swells. However, we could make out that they were part of a building complex,' said Nigam, who led the exploration from March 10–18.
>
> Archaeologists on board the vessel that bobbed around a 12 square kilometre area, where the remains were found, believe the structures could be around 1,100 to 1,500 years old.[125]

Note how effectively the archaeological airbrush has been at work! Now not only has my own role been deleted from the record of this discovery, but so too has the role of the SES. We are left, as a result, with a politically correct account of an important archaeological site, seemingly 'discovered' entirely by Indian archaeologists on their own initiative and merits with no help from outsiders to the profession.

Even the steadfast Tamil fishermen, who took us on board their little boats and straight out, with unerring accuracy, to each of the

submerged sites, have been edited out of the corrupt and incorrect record of the actual sequence of events that led to the discovery – a discovery, I remind the reader, that we made and reported a full fourteen years *before* the *Times of India* report! No wonder we are a species with amnesia if, in addition to the natural depredations of time, human beings themselves are constantly tinkering with the record in this way to support narrow sectarian political or ideological interests.

Even more egregious, however, is the other tendency evident in the editing of the official record – this time to do with the age of the site. As the reader will recall, the NIO insisted on no good grounds in 2002 that the submerged ruins likely dated to the period between 1,200 and 1,500 years ago. Now, in 2016, the *Times of India* uncritically repeats this sanitized version of 'facts' that have not yet been established, suggesting 'the structures could be around 1,100 to 1,500 years old'. Moreover, reference is made only to structures down to depths of 27 feet and less than a kilometre from shore,

making no mention of the other structures the fishermen spoke of at depths of up to 100 feet and more than five kilometres from shore.

What is interesting is the way that the historical Pallava dynasty – responsible for the construction of the rock-cut Shore Temple at Mahabalipuram and dating to 1,100 to 1,500 years ago – was already being invoked by the NIO in 2002 as likely being responsible for the construction of all the ruins that are now submerged. To explain this, as the March 2016 *Times of India* report goes on to make clear, the National Institute of Oceanography proposes 'soil erosion and tectonic movements' and gradual, recent sea-level rise at the rate of '1–2 millimetres per year'.[126]

In opting for this explanation, which avoids any challenge to the mainstream paradigm by urging us to believe that the structures now underwater off Mahabalipuram were built and submerged in the historical period, the NIO wilfully ignores the sea-level rise data

which rules out significant tectonic movements along this part of the south-east Indian coast during at least the last 5,000 years.[127] Significant soil erosion and sea-level rise during the same period can also be ruled out. As Dr Glenn Milne explains:

> The dominant process driving sea-level change [in the Mahabalipuram region] will have been due to the melting of the Late Pleistocene ice sheets. Looking at predictions from a computer model of this process suggests that the area where the structures exist would have been submerged around 6,000 years ago. Of course there is some uncertainty in the model predictions, and so there is a flexibility of roughly plus or minus one thousand years in this date.[128]

Prevailing archaeological opinion recognizes no culture in south India 6,000 years ago, or even 5,000 years ago, capable of building anything much – let alone a series of vast megalithic structures on the scale and extent that confronts us at Mahabalipuram. Therefore, rather than making wildly misleading and un-evidenced statements designed to support the belief that the submerged structures are less the 1,500 years old – and thus don't challenge the established

paradigm – it would serve the cause of truth better if efforts were instead expended to work out how long *before* the period of 5,000 to 6,000 years ago the structures had stood there when they were covered by the last discharges of melt-water from the Late Pleistocene ice sheets.

The Kumari Kandam 'myth', hitherto ignored by archaeology, provides us with a framework and some clear guidelines to pursue this investigation. Its implication of an advanced civilization in the Indian Ocean more than 11,000 years ago can no longer safely be ignored, just as we can no longer ignore the Atlantis 'myth', which highlights the identical epoch.

Such 'myths' are now the only memories left to us of the time before recorded history began. They are a precious collective heritage of mankind, for they offer us a route out of amnesia and open the hidden archive of our forgotten past.

Chapter 21

Starry Messengers

The journey of this book has necessarily had much to do with comets, but what we have not spoken of yet are the journeys that comets themselves must make in order to strike the Earth. Recent scientific discoveries concerning these journeys, and how and why they begin, may provide the missing piece of the puzzle that connects us to the forgotten wisdom – and warnings – of a lost civilization.

Let us reaffirm from the outset that it is indeed a comet that is proposed as the agent of global destruction in the Younger Dryas

cataclysm, *not* an asteroid. Moreover, whereas it used to be believed that the extinction of the dinosaurs around 65 or 66 million years ago was caused by an asteroid, powerful evidence now indicates that the culprit here, too, may in fact have been a comet.[1] Previously, based on the 180-kilometre diameter of the deeply buried Chicxulub crater (which straddles the Yucatán Peninsula and parts of the Gulf of Mexico), calculations had led researchers to conclude that the impactor was an asteroid with a diameter of about 10 kilometres. The new studies, however, reveal that much less space debris (notably of iridium and osmium) was generated by the impact than would be expected from a 10-kilometre asteroid.

'How do we get something that has enough energy to generate that size of crater, but has much less rocky material? That brings us to comets,' says lead researcher Jason Moore, a palaeoclimatologist at Dartmouth College.[2]

Comets travel *much faster* than asteroids, pack much more kinetic energy and therefore, size for size, are capable of doing much more damage.[3] But where do comets come from and how do they find themselves on potentially cataclysmic earth-crossing orbits? These questions, too, have been the focus of a great deal of new, cutting-edge science in recent years and what has been discovered appears – rather eerily – to interlock with the message of Pillar 43 at Göbekli Tepe that we attempted to decode in Chapter Fifteen.

The first clue that there might be a connection lies in a definite *periodicity* of impact events on Earth – a rhythm, a structure, a *pattern*, that emerges from close study of the crater record, data on mass extinctions of animal species, and other related evidence. That such a pattern exists has long been suspected, and various estimates of the intervals between episodes of bombardment have been offered.[4] The latest research, however, gives us much finer

resolution than was previously available on the exact nature of this pattern. The evidence suggests that:

> Objects from outer space hit the Earth on a regular basis, yielding periodic impacts separated by an interval of between 30 and 35 million years.[5]

Researching her important 2015 book *Dark Matter and the Dinosaurs*, from which the above quote is taken, astrophysicist Lisa Randall set out to discover, first, if this apparent periodicity is real – she concludes that it is – and, secondly, what causes it. In the process, as well as taking us through some complex astrophysics in a rather enthralling way, she shares with the reader a growing realization – emerging directly from her work – of what she calls 'the astounding interconnectedness of the universe'.[6]

With Matthew Reece, her research collaborator and colleague in the Department of Physics at Harvard University, Randall has been investigating comets and how from time to time they rain down

upon the inner Solar System from much more distant reaches of space. She is on conventional ground when she tells us that astronomers recognize two principal sources of comets – the Kuiper Belt and the Oort Cloud – and she builds upon the work of many other scientists when she reports:

> For periodic strikes to occur, a rapid change in the rate of disruptions to the Oort Cloud must occur at regular intervals. Furthermore, to match the available evidence, the period must be in the range of 30 to 35 million years. If even one of these criteria fails, a proposed explanation for periodic meteoroid strikes won't do.[7]

A note on the terminology Randall uses.

The Oort Cloud, still largely theoretical, but known to exist because of the objects – comets – that it periodically throws at us, is 'an enormous spherically-distributed "cloud" of icy planetesimals containing perhaps a trillion minor planets' and likely the source of all 'long period' comets (i.e. comets with an orbit longer than 200

years).[8] The Earth's distance from the Sun (149.6 million kilometres or 92.96 million miles) provides us with a unit of measure – 1 Astronomical Unit (AU). Neptune is 30 AU from the Sun. The Oort Cloud, by contrast, is much further away, extending from about 1,000 AU out to about 50,000 AU, i.e. a good fraction of the distance from the Sun to the nearest star.[9]

The other principal source of comets, the Kuiper Belt, is closer; its near edge lies just beyond the orbit of Neptune at a distance of about 30 AU and extends out to about 55 AU from the Sun. Unlike the Oort Cloud, which is thought to be spherical and surrounds the entire Solar System, the Kuiper Belt is more doughnut-shaped. It contains a large number of minor planets in a segment extending about 42–48 AU from the Sun. Beyond this 'classical Kuiper Belt', and overlapping it at points, lies the so-called 'Scattered Disk' extending to 100 AU or more. It is this Scattered Disk that

astronomers, Randall amongst them, believe is the source of short-period comets.[10]

Randall's case focuses on the distant Oort Cloud, where 'the weak gravitational binding energy' makes objects within the cloud especially 'vulnerable to small gravitational perturbations that can give rise to the comets we observe. Nudges can kick them out of their orbits into the inner Solar System giving rise to long-period comets', on trajectories that have the potential to collide catastrophically with the Earth.[11]

A final note on terminology before we can proceed. Randall rather confusingly uses 'meteoroid/s' throughout her book to refer to what she specifies at one point as 'big objects that hit the Earth' and more generally a few paragraphs later as 'an extraterrestrial object that enters the atmosphere or hits the Earth'. She concedes that 'this is a slight abuse of terminology [meteoroids is generally used to refer to objects of one metre diameter or less] in that the

term usually only refers to a smaller object. But in context it should be clear what I mean.'[12]

What she means in the indented passage quoted above (and again the point she makes here is based in science that has been well established over recent decades) is that two conditions have to be met if comets from the Oort Cloud are to be held responsible for the periodicity of impact events. First, a credible force must be identified that is capable of causing recurrent disruptions within the cloud, dislodging comets from previously distant orbits and causing them to fall in towards the inner Solar System. Secondly, the intervals between these episodes of disruption must be in the range of 30 to 35 million years.

As the reader will recall from Chapter Fourteen, it has long been understood that our entire Solar System moves in a roughly circular orbit around the super-massive black hole at the centre of our home galaxy, the Milky Way. This is a tremendously long orbit, with a

single circuit requiring an estimated 240 million years to complete. Moreover, though broadly in the plane of the galaxy (which we view edge-on every night when we observe the Milky Way arching overhead), this orbit of the Sun and the Solar System around the galactic centre incorporates another motion, somewhat like the characteristic progress of a dolphin through the sea – now leaping above the surface, now diving below.

In this case, however, the 'surface' is the galactic plane and the vertical oscillations of the Sun/Solar System through the mid-plane are calculated – a rough estimate only, done by astronomers at the beginning of the twenty-first century – to occur *approximately* every 32 million years.[13] This approximate figure falls comfortably within Randall's looser estimate of 30 to 35 million years and, as she points out, has led to suggestions from several astrophysicists 'that existing density variations that the Solar System encounters when passing through the galactic spiral arms or in crossing the

galactic plane could induce variations in the Oort Cloud perturbation rate.'[14]

Randall goes on, however, to show that 'the average density of gas in the spiral arms is not elevated enough to account for periodic impact enhancements.' Moreover the Solar System doesn't cross the arms often enough to explain the observed periodicity; indeed there have been fewer than four crossings in the last 250 million years, i.e. an average of one crossing every 62 or 63 million years.[15]

So could density variations within the galactic plane itself be responsible? New York University Professors Michael Rampino and Bruce Haggerty have made a case that they are, but as Randall points out, they fail to identify any mechanism that could explain why there should be sufficient density enhancement and hence increased gravitational pull in the mid-plane:

> The conclusion of all this research is that without any new ingredients, the Solar System's gravitational potential doesn't change dramatically enough over a short

> enough time frame to yield an observable difference in meteoroid strikes in which the rate at regular intervals would have demonstrated an observable spike that dominated over background rate. Although the Solar System crosses the galactic mid-plane on a periodic basis, comet showering due to conventional matter distribution is not particularly elevated at those times.[16]

Here, then, is the point where Randall comes in with her own proposal, worked out jointly, as noted earlier, with her Harvard colleague Matthew Reece. It is a radical proposal, for it suggests that a (relatively) 'thin disk of dense dark matter' provides sufficient tidal force to account successfully 'for both the period and time dependence of perturbations to the Oort Cloud.'[17] Randall and Reece argue that this disk occupies the mid-plane of the galaxy, that it exercises powerful gravitational effects that have not been considered in previous computations, that it takes about a million years for the Solar System to pass through it and that furthermore:

> a time period of up to a few million years might separate the initial triggering event from the actual meteoroid hit on Earth.[18]

They also argue that all previous attempts to explain these perturbations – including gravitational influences from nearby stars, or from giant molecular clouds, or from an as-yet-unseen large planet within our Solar System – have failed.[19]

Dance of the planets

Randall's *Dark Matter and the Dinosaurs* was published in late 2015. It's ironic, therefore, that in 2016 the notion that there might, despite her dismissal, be an as-yet-unseen large planet within our Solar System – referred to by some as 'Planet X' – enjoyed a scientific revival.

Leading the charge was Caltech astronomer Mike Brown, whose discovery of the dwarf planet Eris in 2005 ultimately led to the demotion of Pluto, formerly regarded as a full-fledged planet – the ninth in the Solar System – to the new 'dwarf planet' category. Along with his colleague Konstantin Batygin, Brown made the case

in a paper published in January 2016 for the existence of a real and very massive 'Planet Nine' lying out beyond the orbit of Pluto.[20] This planet (at time of writing) has not yet been observed, but its existence is inferred from the motions of observed objects in the Kuiper Belt which, says Batygin, provide us with the 'gravitational signature of a giant planet in the outer Solar System'.[21]

These 'Kuiper Belt Objects' (KBOs), often identified by a simple alpha-numeric code rather than a name, include 2012 VP113 discovered in 2014, the dwarf planet Sedna (provisionally designated 2003 VB12) and a number of other KBOs, namely 2010 GB174, 2002 VN112, 2013 RF98 and 2007 TG422. All share a distinctive characteristic – their closest approach to the sun (perihelion) lies in the plane of the Solar System, and they all move from south to north when crossing that plane. After conducting a close analysis, Batygin and Brown discovered that the long axes of

their orbits were physically aligned too, ‘as if something had nudged them to occupy the same region of space around the Sun.’[22]

The only reasonable conclusion, the researchers argue, is the presence of Planet Nine which, they calculate, must have ten times the mass of the Earth, and must occupy ‘a hugely elliptical orbit around the Sun, completing an orbit every 10,000 to 20,000 years and never getting closer than 200 times the Earth–Sun distance.’[23] This would be what is called an ‘anti-aligned orbit’ – namely an orbit in which the planet’s closest approach to the sun is 180 degrees across from the perihelion of all the other distant Kuiper Belt Objects.[24]

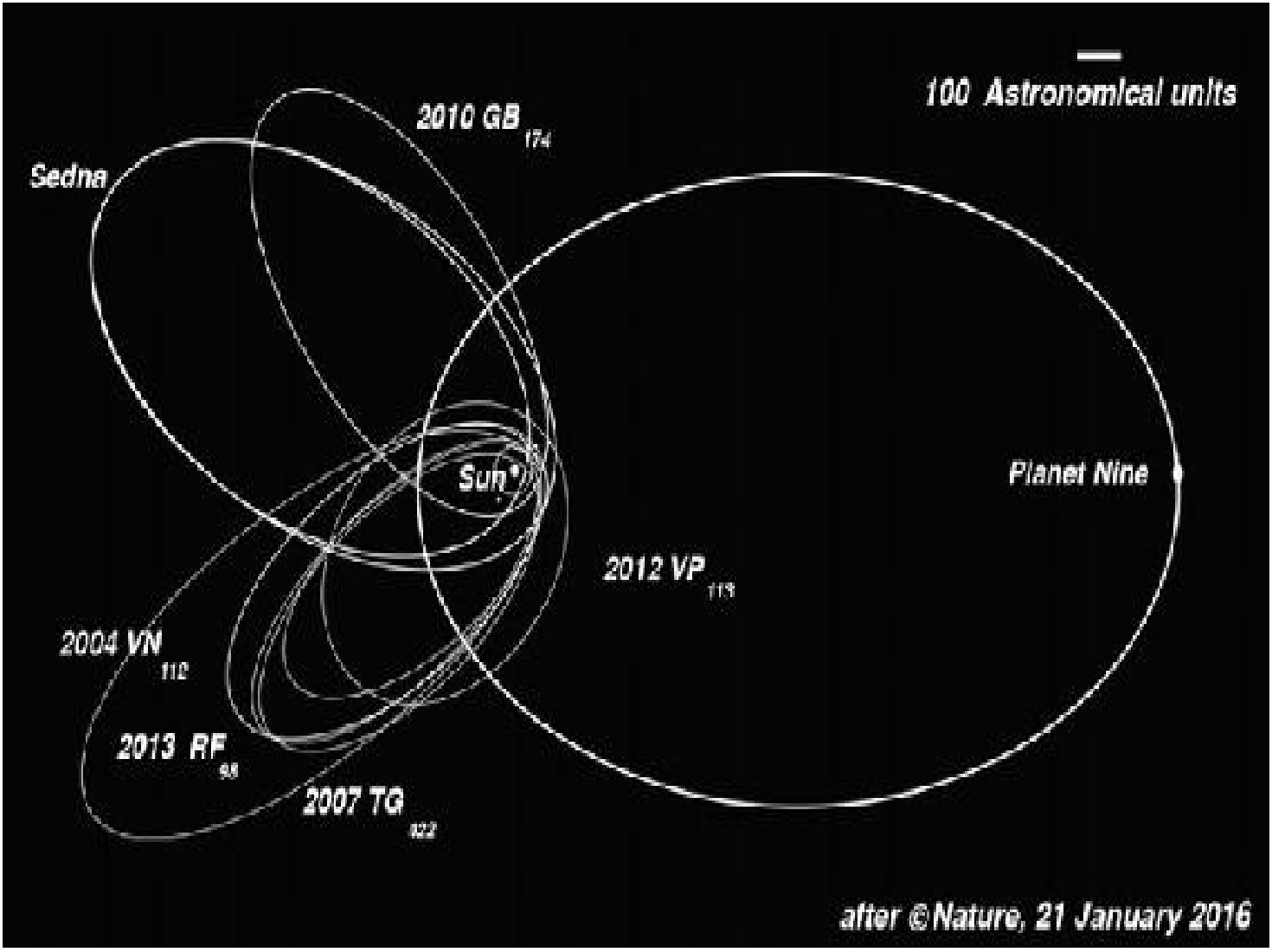
100 Astronomical units
2010 GB174
Sedna
Sun
Planet Nine
2012 VP113
2004 VN112
2013 RF98
2007 TG422
after © Nature, 21 January 2016

Figure 77: The case for Planet Nine.

Can Planet Nine be observed visually? Brown and Batygin point out that they have at present only a rough calculation of its orbit, not a precise location on its long and highly elliptical journey around the Sun. If the planet happens to be close to its perihelion, however, astronomers should be able to spot it in images captured by previous surveys. If it is in the most distant part of its orbit, the world's largest telescopes – such as the twin 10-metre telescopes at the W.M. Keck Observatory and the Subaru Telescope, all on Mauna Kea in Hawaii – will be needed to see it. If, however, Planet Nine is now located anywhere in-between, Brown says, then many telescopes have a shot at finding it.[25]

Until then Planet Nine remains hypothetical, even if Brown and Batygin's hypothesis seems like a strong one. This, however, did not stop a number of others from jumping on the Planet Nine bandwagon in 2016.

First and foremost were the followers of the late Zecharia Sitchin, several of whom triumphantly announced that Planet Nine must be Nibiru (also sometimes named Marduk) – the hypothetical 'Twelfth Planet' that Sitchin claimed to have found reference to in certain very ancient Sumerian reliefs and texts.

To be clear, Sitchin speaks of a Twelfth Planet because he asserts, while presenting no solid evidence to support his thesis and ignoring much that contradicts it,[26] that planets, moons and the Sun itself were not distinguished as separate types of objects by the Sumerians who referred to them all as 'planets'. Thus, he calculated (writing in 1976 before the demotion of Pluto to the new category of dwarf planet) that we must take account of the existing nine planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto). We must then add the Sun which brings us to ten, and the Earth's Moon making eleven, plus Nibiru/Marduk, which gives us Sitchin's total of twelve planets – the result, he wrote, of 'an

unstable Solar System' being invaded by 'a large, comet-like planet from outer space.'[27]

He further calculated that this 'large, comet-like planet from outer space' was captured in a highly elongated elliptical orbit around the Sun with each complete circuit of the orbit taking 3,600 years and passing through the inner Solar System as it approached its perihelion.[28] Last but not least, as many readers will be aware, Sitchin deemed Nibiru/Marduk to be an inhabited planet populated by advanced, very human-like sapient beings, whom he refers to variously as the *Anunnaki* (a Sumerian word) and, as we saw in Chapter Sixteen, the *Nephilim* (a Biblical word), and who, in his scenario, have been interfering with the human race, and involved in its evolution, since first visiting Earth in their 'fiery rockets'[29] some 445,000 years ago.[30]

There are a number of points to make here.

First, the terminology. Whether he refers to it as 'Nibiru' or 'Marduk', Sitchin is speaking of the same hypothetical planet and uses these names interchangeably. He simply asserts that Nibiru was its Sumerian name, whereas Marduk was its later Babylonian name[31] (although the Sumerian and Babylonian languages are unrelated, they were written in the same cuneiform script and shared a common Mesopotamian cultural heritage).

Secondly, it is a curious coincidence, to say the least, that 445,000 years ago (and indeed throughout their almost half a million years of involvement with the Earth) the technology of the Anunnaki/Nephilim should be 'fiery rocket ships' – precisely the technology deployed by NASA in the 1960s and 1970s when Sitchin was imagining his books. Is it not more likely that so ancient a space-faring race would have had technology quite different from NASA's in the 1960s and 1970s? And does this peculiar coincidence not suggest that rather than finding hidden

technological references in certain cuneiform texts, Sitchin was in fact projecting – and indeed imposing onto those texts – the space technology of the epoch in which he himself was writing?

Thirdly, the whole notion that Nibiru is a planet with a 3,600-year elliptical orbit that takes it out beyond Pluto at aphelion (furthest point from the Sun) and into the inner Solar System and near to the Earth at perihelion (closest point to the Sun) rests entirely on Sitchin's own idiosyncratic – I believe fictional – 'translations' of the texts he selected and his equally idiosyncratic interpretation of the reliefs on a single Sumerian cylinder seal. Neither his 'translations' nor his interpretation of the seal are accepted by linguistic experts who have spent their professional lives studying Sumerian and other ancient Mesopotamian languages written in the distinctive cuneiform script.

It will take me too far from my main focus here to get into this controversy, but for those who wish to know more, I highly recommend the critiques of Biblical scholar and ancient Semitic

languages expert Michael Heiser, whose thorough investigation of Sitchin's work we also touched upon in Chapter Sixteen. See in particular Heiser's detailed papers *The Myth of the 12th Planet: A Brief Analysis of Cylinder Seal VA 243* and *The Myth of a Sumerian 12th Planet 'Nibiru' According to the Cuneiform Sources*.[32]

Regardless of all this, or perhaps in many cases just oblivious to it, there was great excitement amongst the Sitchinites (as his followers sometimes refer to themselves) when Batygin and Brown's paper proposing the existence of Planet Nine was published in January 2016. After the initial hype, however, Sitchin's niece Janet, who has continued to run his website since his death in 2010, stated forthrightly, but with obvious disappointment: 'I don't think this is Nibiru.' She went on to add some spin to the announcement by means of which the newly proposed Ninth Planet could still be construed as supporting Sitchin's case. 'With an elliptical orbit of 10,000 or 20,000 of our years,' she continued:

> this planet may not be Nibiru, which has an orbit of about 3,600 of our years. However, this prediction of a likely additional planet in our Solar System is exciting news. Perhaps the search will lead us to either finding Nibiru, or perhaps we'll find that something has changed and impacted Nibiru's orbit since the last time it orbited Earth.[33]

She also reached out to her father Amnon Sitchin, who holds a PhD in Aeronautical and Mechanical engineering and was, she claims, 'the person who calculated the orbit of Nibiru for my uncle Zecharia.'[34] What Amnon tells her is puzzling. Indeed, taken at face value, it seems to contradict her uncle's whole case for Nibiru having a highly elliptical 3,600-year orbit – a case that is fundamental to virtually every other argument made in the *Earth Chronicle*s series. 'If Nibiru's orbit of 3,600 years was circular rather than elliptical,' Amnon is quoted as saying, 'it would have an orbit of about 10,000 years.'[35]

Plainly excited that Planet Nine might in this way be massaged into Nibiru after all, Janet writes:

> Yes, you heard that right. I don't know whether the Caltech astronomers based their estimated orbital period on a circular or elliptical orbit. However, this tidbit means that I should not dismiss this planet as being Nibiru based on this estimated orbital time frame.[36]

Are we witness here to the way in which wishful thinking can work to create fictional realities so powerful that the agenda of the fiction becomes the filter through which newly discovered facts must be interpreted? At least Janet admits she needs 'to learn more about planetary motion and astronomy to make any conclusions … I'm hoping that we can learn more and either find that this is Nibiru or that the search for this new planet helps us find Nibiru too.'[37]

Zecharia Sitchin was a talented researcher, who certainly understood planetary motion and had a good knowledge of astronomy. Writing of Nibiru/Marduk in 1976 in *The 12th Planet*, the first volume of the *Earth Chronicles* series, it is interesting to note that he offered its intrusion into our Solar System as 'an

explanation to yet another puzzle … the phenomenon of comets.'[38] He writes:

> The planets (with the exception of Pluto) orbit the Sun in the same general plane; the comets' orbits lie in many diverse planes. Most significant, while all the planets known to us circle the Sun in the same counter-clockwise direction, many comets move in the reverse direction. Astronomers are unable to say what force, what event, created the comets and threw them into their unusual orbits. Our answer: Marduk.[39]

Sitchin also claims specifically that Nibiru/Marduk was originally 'an invader from outside the Solar System'.[40]

Now here, if anything, is a nugget of lateral thinking that Sitchin's followers can cite, with justifiable pride, as an example of his prescience. Following Batygin and Brown's publication of their research on Planet Nine at the beginning of 2016 (forty-six years after the first publication of *The 12th Planet*), a team of scientists led by Alexander Mustill at the Lund Observatory in Sweden set out specifically to investigate the possibility that Planet Nine could have

been ‘stolen’ by the Sun from another star – that it could, indeed, be ‘an invader from outside the Solar System’.

They point out that the Sun was formed around five billion years ago in a cluster of other stars and that it once had hundreds, if not thousands, of stellar siblings, now long since dispersed around the galaxy. They conclude that if the hypothesized other star system ‘happened to have a wide-orbit planet, the likelihood it would be captured by the Sun is about fifty per cent.’[41]

So in this notion of a planetary invader into our Solar System, at least, Sitchin does seem to have been ahead of the game and onto something, even though it is a something that is NOT in any way supported by the cuneiform texts, despite his claims to the contrary. Kudos to him, also, for picking up on a possible connection between episodes of comet bombardment and a hypothetical additional large planet in our Solar System, for this, too, finds some resonance with very recent research. Sitchin’s insight in this latter respect, however,

draws upon the earlier work (not acknowledged in *The 12th Planet*) of the astronomer Percival Lowell, who devoted the last decade of his life (until he passed away in 1916) to the search for what he called 'Planet X', a hypothetical planet beyond Neptune which he reasoned must exist because of gravitational disturbances observed in the orbits of Uranus and Neptune.[42]

Other researchers who picked up on Lowell's work were Professor Daniel Whitmire and John J. Matese. Then at the Department of Physics in the University of Southwestern Louisiana, they wrote a letter to *Nature* (published in the issue of 3 January 1985), proposing that Planet X – if its existence could be confirmed – might prove to be the cause of periodic comet showers hitting the Earth and hence the associated periodicity in the record of craters and mass extinctions.[43] More specifically they proposed that:

> the cratering period is associated with the precession of the perihelion of Planet X caused by the perturbations of the outer planets. During the lifetime of the Solar

> System, Planet X will have swept out a gap in the comet disk [the Kuiper Belt] of width determined by its perihelion and aphelion distances. Assuming the planet's orbit has modest eccentricity and inclination to the planetary plane, then the perihelion (aphelion) will pass close to the inner (outer) gap edge twice during each 56-million-year precession period. The resulting shower of comets from either or both edges will be concentrated near the planetary plane thereby facilitating capture into short-period comet orbits.[44]

Since they based it on outdated estimate of 28 million years for the intervals between episodes of bombardment (as we have seen the more accurate figure is between 30 and 35 million years), Whitmire and Matese's 1985 letter to *Nature* was largely ignored in subsequent decades. Their case, however, was deservedly reopened in January 2016 in the light of Batygin and Brown's evidence for the existence of Planet Nine (which is, of course, Planet X by another name). Three months later, in April 2016, Whitmire – now at the Department of Mathematics at the University of Arkansas – published a paper in the *Monthly Notices of the Royal Astronomical*

Society with the self-explanatory title 'Periodic mass extinctions and the Planet X Model Reconsidered.' He concludes:

> With modest restrictions on inclination and eccentricity the Planet X model, as originally presented, is shown to be consistent with the regularity of the fossil extinction period … Recent observational and theoretical studies suggest that a trans-Neptunian planet is more plausible today than when the model was first proposed … The planet's perihelion and aphelion points pass through the ecliptic plane twice during each circulation period, triggering comet showers.[45]

While sticking to an outdated periodicity in the range of 28 million years,[46] Whitmire's Planet X model for fluxes of comets need not contradict Lisa Randall's model (where, as we've seen, the fluxes are attributed to encounters with a disk of dark matter in the mid-plane of the galaxy). Indeed the two theories are focused on two different populations of comets – the Kuiper Belt in Whitmire's case (to his credit he had hypothesized its existence before it was confirmed by observations)[47] and the much more distant Oort Cloud in Randall's model. Perhaps both are right? At any rate their efforts,

made possible by very recent technological advances, remind us that much that happens here on Earth will not be properly understood until we take into account what Randall calls 'the astounding interconnectedness of the universe' – because, as the ancients long ago knew:

> The forces do not work upward from below, but downward from above … All the world which lies below has been set in order and filled with contents by the things which are placed above … The sources of all earthly things are on high; those sources pour forth [their influences] upon us by fixed measure and weight; and there is nothing that has not come down from above.[48]

The recent scientific studies of comets confirm this ancient view. Events and phenomena in distant regions of the cosmos do indeed have direct consequences for us here on Earth. We are implicated in processes much grander and greater than ourselves and if we focus only on the 'below' while neglecting the 'above', we will prolong our ignorance of the true nature of things.

In this context I'm reminded again of the particular ancient focus on the mid-plane of our home galaxy – the Milky Way – that emerges from Paul Burley's study of the iconography of Pillar 43 at Göbekli Tepe. As the reader will recall from Chapters Fourteen and Fifteen, the distinctive figures carved in high relief on this 11,600-year-old pillar appear to be a stellar map that provides us with the Sun's position against the background of the zodiac on the winter solstice in our own epoch.

As we saw, two zodiacal constellations are involved – the constellations that today we call Sagittarius and Scorpio, which form the pillars of a symbolic 'gate' straddling the plane of the Milky Way, through which, as we look up at the night sky, the nuclear bulge at the very centre and heart of our galaxy is viewed. Indeed this symbolic gateway in the heavens, which was of the greatest importance in ancient cosmologies, opens *exactly* on the mid-plane of the galaxy where Lisa Randall's calculations indicate the presence of the thin disk of dark matter responsible – in her

view – for destabilizing the Oort Cloud and sending comets on their way towards the inner Solar System and the Earth.

We've already argued that Pillar 43 seems to encode a warning – a warning to pay close attention to the skies of our own epoch – and we've seen that the evidence for extinction-level events caused by cosmic impacts now accounts not only for the fate of the dinosaurs 65 or 66 million years ago, but also for the much more recent Younger Dryas cataclysm between 12,800 and 11,600 years ago. The immediate concern outlined in Chapter Nineteen is that potentially fatal debris from the Younger Dryas comet remains in orbit in the Taurid meteor stream through which the Earth passes twice a year. Large fragments of the original comet still circulating in the stream, including one estimated to have a diameter of 30 kilometres, represent a clear and present danger to humanity.

To this picture we must now add Lisa Randall's work identifying a periodicity in the range of 30 to 35 million years between impact episodes. Taking the K-T event of 65 to 66 million years ago as a

datum point, simple mathematics indicates that a further episode of bombardment can be expected in the 10-million-year window between 60 million and 70 million years (i.e. 2 X 30–35 My) after the K-T event. Needless to say we are in that window now and the newly discovered evidence for the Younger Dryas impacts between 12,800 and 11,600 years ago indicates that we are in fact presently in the midst of a long-drawn-out bombardment episode.[49]

'Since we passed through the galactic plane within the last two million years,' Randall writes, 'a comet dislodged from the Oort Cloud one complete oscillation (two disk crossings) in the past might indeed have come hurtling down to Earth 66 million years ago.'[50]

Reluctant to be a scaremonger she then adds:

> As an aside, if we passed within the disk less than a million years ago, we could even be on the tail-end of a heightened comet flux and have the potential to see heightened impacts today.[51]

But as Randall herself goes on to admit, ‘because of the uncertainty of the Sun’s position and lack of knowledge of the precise period, we can only approximately predict the disk crossing times.’[52] In other words, it is perfectly possible that our last passage through the dark-matter disk in the galactic plane *did* occur less than a million years ago. Moreover, as we’ve seen, Randall also concedes that:

> It takes about a million years for the Solar System to cross the galactic plane – longer if the disk is thicker.[53]

A million years of heightened risk in which the last 12,800 years are just the blink of an eye. As above, so below. The message of the ancients, of science, and of the galaxy, is clear – we live in hazardous times.

The ancients were also right about the answer.

> Choose love, not fear.

Appendices

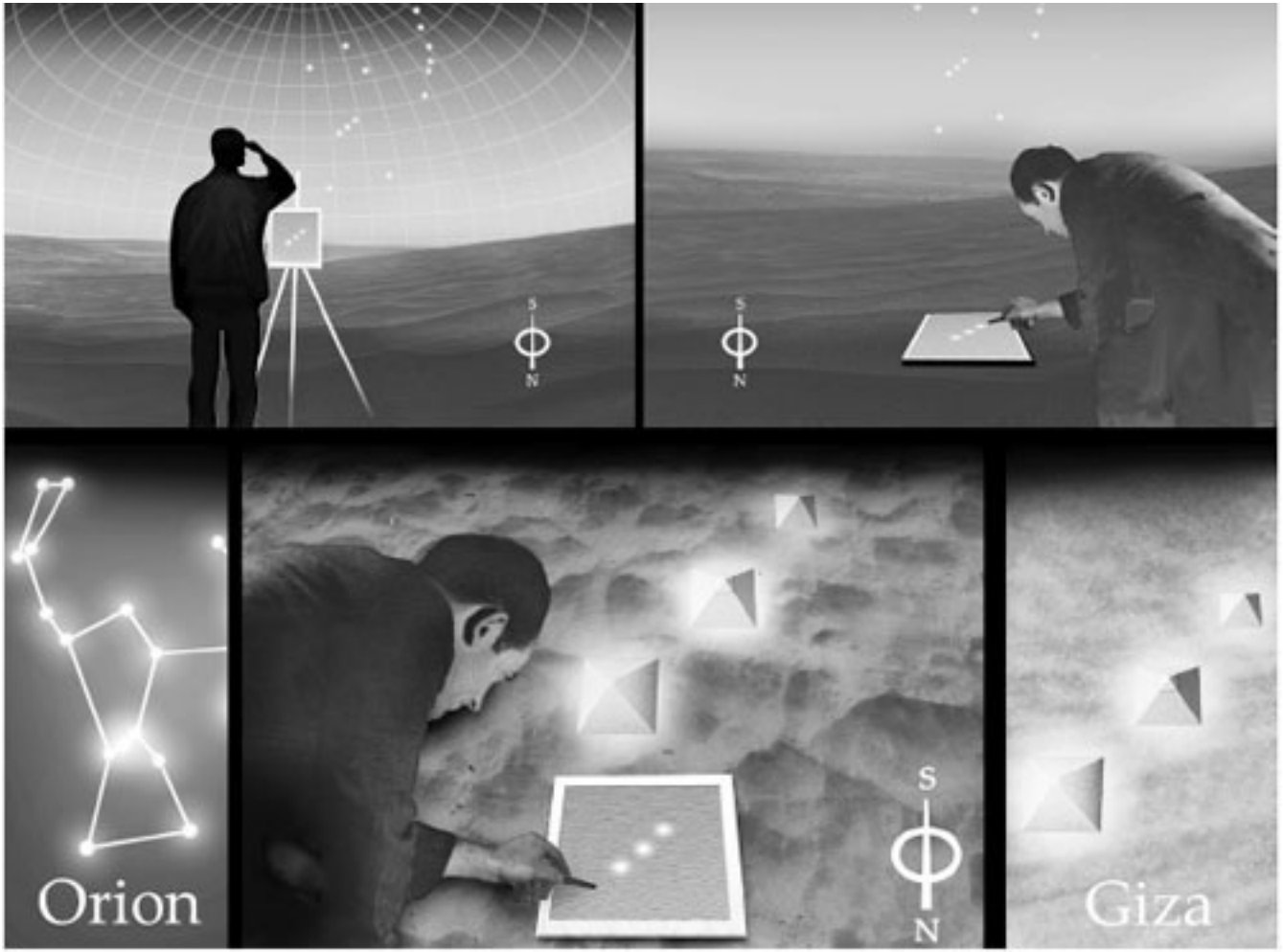
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Figure 78: The Orion Correlation is not ‘upside down’. If we look at it simply as an artistic project – make a painting (or three-dimensional model) of the three stars of Orion’s belt and then lay that painting (or model) down in the most natural way in front of us – we will find that it does match/correlate exactly with the positions of the three pyramids on the ground.

Appendix I

The Orion Correlation is Not Upside Down

Modern astronomers view the sky as a curved dome overhead. So the painter in the graphic opposite is looking south at Orion, and the Orion correlation says that the three stars of Orion's belt are represented by the three pyramids on the ground. The lowest star is represented by the Great Pyramid, the middle star by the Pyramid of Khafre (second pyramid) and the highest star is represented by the Pyramid of Menkaure (the third and smallest of the pyramids, just as the highest star is visually the smallest – least bright – of the three stars).

Now, the Great Pyramid on the ground is the northernmost of the three, the second pyramid is in the middle, of course, and the third pyramid is the southernmost of the three. The objection of astronomers such as Ed Krupp of the Griffiths Observatory in Los Angeles is based on their modern convention that the sky is a curved dome overhead. If you view the sky that way then the highest star – which is represented by Mankaure's Pyramid, according to the Orion correlation – is in fact the northernmost star (remember we are looking south, the sky is imagined to be curving overhead – so the higher you go, the closer you get to the north pole of the sky which is behind the painter in the diagram), and the lowest star, which is represented by the Great Pyramid, according to the Orion correlation, is in fact the southernmost star. But on the ground, the Great Pyramid is the northernmost pyramid and the Pyramid of Menkaure is the southernmost pyramid. Hence Dr Krupp argues that the correlation is 'upside down'.

What the diagram demonstrates is that this is only correct according to the astronomical convention of the sky being the inside of a sphere that curves overhead. If we look at it simply as an artistic project – make a painting of the three stars of Orion's belt and then lay that painting down in the most natural way on the ground in front of us – we will find that it does match/correlate exactly with the positions of the three pyramids on the ground.

Appendix II

Whatever Happened to Earth Crust Displacement?

In 1995 in *Fingerprints of the Gods* I laid out preliminary evidence for a global cataclysm at the end of the Ice Age and gave favourable consideration to Charles Hapgood's theory of Earth Crust Displacement as a possible causative mechanism. Put at its simplest, this theory suggests that the entire crust of the Earth can from time to time shift in one piece around the inner body of the planet, like the loose skin of an orange moving around the fruit. Needless to say

the consequences of such a motion on a world scale would be truly horrendous.

The dates for the cataclysm that I indicated in *Fingerprints* fall very much within the window of 12,800 to 11,600 years ago that I continue to focus upon in *Magicians of the Gods* – when we now know the Earth was struck by multiple fragments of a disintegrating giant comet. I have confined the case I make in *Magicians* to the immediate, obvious effects of the comet impacts, because these have received high-level corroboration from many leading scientists and are sufficient in themselves to account for the destruction and loss from the record of an advanced civilization of the Ice Age. Nonetheless, in an article published on my website, retired Rear Admiral and naval engineer Flavio Barbiero, who has made a special study of the motion of gyroscopes (the Earth is, amongst other things, a giant, 'soft' gyroscope),[1] has this to say:

> The evidence proving that the poles were in different positions during the Pleistocene era [the Ice Age] is quite impressive, and this explains why Hapgood's theory was approved by scientists of the calibre of Einstein and K.F. Mather.[2]

Albert Einstein (1879–1955) and the Harvard geologist K.F. Mather (1888–1978) did indeed approve of Hapgood's theory and before his death Einstein actually wrote the Foreword to Hapgood's major book on the subject.[3] But that was then and this is now and, as Barbiero also notes, Earth Crust Displacement still has many problems to overcome before there is any possibility of it being accepted by the majority of modern scientists as a valid theory.[4] Indeed it:

> meets with so many difficulties that it appears highly controversial. Above all, it does not seem to be compatible with other geological theories which are widely accepted today, notably plate tectonics and continental drift.
>
> Furthermore, the theory does not explain some of the key peculiarities of the climate changes of the Late Pleistocene – most significantly the speed with which these changes appear to have taken place. According to Hapgood's theory, it took

> the north pole at least two thousand years to move from its previous position to the present. The evidence we have, however, supports a much faster climatic change. It was Hapgood himself who underlined a great amount of data proving the high speed at which the shift of the poles appears to have happened; yet the mechanism he proposes does not explain this speed.[5]

In his article Barbiero offers an alternative mechanism that is of obvious relevance to the thesis advanced in *Magicians of the Gods*. The mechanism he suggests is a trigger factor involving certain 'severe consequences that can follow when the Earth is hit by a comet or asteroid.'[6] Given the huge size of the Earth and (relatively) small size of most comets and asteroids, at first it seems counterintuitive for Barbiero to claim that an impact could trigger a displacement, particularly since he accepts that an impactor with a diameter of – say – one kilometre:

> is like a tiny sphere of 2 millimetres next to a ball of 25 metres. Its mass is absolutely negligible. The displacement of the poles due directly to it, if any, can be measured in the order of centimetres.[7]

But, and it's a big but, Barbiero goes on to demonstrate that the *torque* provided by the impact is an entirely different matter. Moreover, the faster the impact (comets move very fast – at speeds of up to 70 kilometres per second), the more likely it is that 'the impulsive torque it delivers can be of sufficient magnitude to overcome, for an instant, the reaction torque developed by the Earth.'[8]

This reaction torque – the force that stabilizes the Earth – is provided by our planet's equatorial bulge which operates like the flywheel on a gyroscope:

> If Earth was a perfectly rigid and spherical body, a single man walking on its surface could make its poles shift. In fact, the stability of the Earth is provided only by its equatorial bulges, some twelve kilometres thick, very small with respect to the Earth's radius. Move the equatorial bulges and the poles will move accordingly. Impossible? Not really, if you consider that two-thirds of Earth's surface is covered with water; and every naval engineer knows that free liquid surfaces induce instability …[9]

Barbiero's calculations indicate that the *direction* from which the impact comes is key:

> If at the moment of the impact the force of the Sun–Moon gravitational attraction on the equatorial bulge has the same direction as the force developed by the impact, a shift of the poles will inevitably follow. Immediately after the impact, in fact, the torque should go down to zero, and the Earth should recover its previous rotational axis. But if the torque exerted by the Sun–Moon attraction has the same direction, the torque cannot be zeroed and therefore the Earth keeps 'memory' of the impact and of its direction.
>
> This memory consists of an extremely small rotational component, with the same direction as that of the impact, in the order of one-millionth of the normal rotation. What is particular in this rotational component is that it is fixed with respect to the Earth. If the latter was a solid gyroscope, this situation would last unchanged indefinitely. The planet, however, is not homogenous and rigid. First of all, it is covered by a thin layer of water, which reacts immediately to any change of motion. Second, even the 'solid' outer shell is in reality plastic and can be easily 'reshaped' by centrifugal forces.
>
> Under the effect of this tiny rotational component, sea water begins to move towards a circle perpendicular to that rotation (the new equator). This is a very small effect, and if it was the only component, the resulting equatorial bulge would be of a few metres only. But as this happens, the value of the rotational component increases, at the expense of the main rotation, therefore increasing the

> centrifugal force which makes more water move towards the new equator, thus increasing the force and so on. This process starts very slowly, but accelerates progressively, until the centrifugal force developed by this rotational component grows strong enough to induce deformations of the Earth's mantle.
>
> From here on the equatorial bulge is quickly 'reshaped' around the new axis of rotation and Earth will soon be stable again, with a different axis of rotation and different poles.
>
> This mechanism shows that the Earth's poles, contrary to what has always been postulated, can make 'jumps' in a matter of days (that is almost instantaneously) of thousands of kilometres, due to the effects of forces at first sight negligible, such as the impact of a medium-size asteroid and the Sun–Moon gravitational attraction on the equatorial bulge, combined with the effects of water mobility and the plasticity of the crust.[10]

And, of course, if a medium-sized *comet* is involved, since its speed will be much faster than that of any hypothetical asteroid, the effects are likely to be even more dramatic. As we saw in Chapter Twenty-One, the scientific consensus is moving towards the conclusion that the extinction of the dinosaurs – referred to throughout this book as the K-T event and occurring around 65 to 66 million years ago – was indeed caused by a comet (not an asteroid as had previously

been thought). In this connection, it is therefore interesting to note that a study published in *Science* magazine on 2 October 2015 argues specifically that the K-T impact had massive effects right around the crust of the Earth, jostling the planet to its core and shaking the core-mantle boundary-plume feeding already active volcanos in India, almost exactly on the opposite side of the Earth from Chicxulub crater.[11]

The researchers draw particular attention to the Deccan Traps, formations of mile-thick lava covering an area of west-central India the size of Utah and Nevada added together, and note that they were poured forth through the Earth's ruptured crust in exactly the same geological instant that the K-T impact occurred. They think this is most unlikely to be chance and infer a causative connection – i.e. that the planet-wide effects of the K-T impact, specifically effects on the Earth's crust, caused the eruptions that produced the Deccan traps.[12]

So it looks as though Barbiero is on solid scientific ground in suggesting – despite the very small relative size of any conceivable bolide in relation to the Earth itself – that sufficiently fast and large cosmic impacts can pack enough kinetic energy to shake and even reshape the entire planet.

Meanwhile a second paper, published in *Science Advances* on 8 April 2016, takes note of a peculiar 'polar motion', defined as 'the movement of the Earth's spin axis as it wanders through the crust' that has been observed over the last century and has undergone some intriguing changes since the year 2000.[13] To be clear, says Surendra Adhikari, Postdoctoral Fellow at NASA's Jet Propulsion Laboratory and co-author of the study, this movement of the spin axis through the crust (which is simply Earth Crust Displacement by another name!) involves radical changes in the speed and the direction of motion. Observed polar motion up to around the year 2000 was in the range of seven centimetres a year. Satellite

measurements show that this speed has doubled since the year 2000.[14] At the same time the direction of the drift also changed.[15] Adhikari explains:

> The pole used to be heading along around 75 degree west longitude, toward Canada, during the twentieth century. It is now heading along the central meridian, i.e. 0 degree longitude, towards the UK. So this shift in direction would be roughly about 75 degrees to the east, from Canada to the UK.[16]

Although the directional shift sounds large at 75 degrees, the changes on the ground are, of course, very small; even with the new doubled speed of the drift, confirmed by satellite measurements, we are still talking only 14 centimetres a year or approximately a kilometre in 7,000 years; hardly cataclysmic! However, Erik Ivins, senior research scientist at NASA's Jet Propulsion Laboratory and co-author of the study with Adhikari, is in no doubt as to the *cause* of these small changes. The culprit, he says, is 'the movement of water on the Earth's surface' which 'affects the planet's distribution

of mass – and its axis.'[17] He offers the following simple analogy by way of explanation:

> If you considered a spinning top, and then placed a piece of chewing gum on the top, it would start spinning around a new axis … On the Earth, since water can be transported in and out of the oceans to the land — affecting global mean sea levels — this also changes the moments of inertia, in exact analogy to the piece of chewing gum on a spinning top.[18]

And clearly, since polar motion *is* happening and the rate and direction of the drift have been measured, these inertia changes are sufficient to overcome, admittedly only to a tiny degree, the gyroscopic stabilization of the Earth's equatorial bulge. The key finding of the Adhikari and Ivins study is therefore close – indeed extremely close – to Barbiero's insight, published on my website a decade earlier, that it is the behaviour of the free liquid surfaces of the Earth that can cause the planet to become unstable after a cosmic impact, reshaping the equatorial bulge and allowing

instantaneous shifts of the Earth's poles in the range of thousands of kilometres. Adhikari and Ivins' research focuses upon climate change – particularly 'climate-driven surface mass redistribution of water'. It was not within their remit to consider the implications of a cosmic impact for their model, so their paper cannot be claimed to have confirmed Barbiero's hypothesis that an extreme form of polar motion can be unleashed by cosmic impacts. However, since they have proved polar motion and measured it more accurately than ever before, their work does quite definitely add weight and plausibility to Barbiero's hypothesis – particularly so, to reiterate, since Adhikari and Ivins have established that the motion is caused by 'changes in terrestrial water storage and global cryosphere'.[19]

The term 'global cryosphere' refers simply to those parts of the Earth's surface where water is frozen solid as ice – notably the Greenland and Antarctic ice caps today, which are affected by global warming and were therefore specifically considered in

Adhikari and Ivins' study. As the reader will recall, however, the Earth's ice masses had a very different distribution until the epoch of 12,800 to 11,600 years ago and the evidence we have considered in this book is that the then North American ice cap was struck, *and substantially liquidized*, by several fragments of a disintegrating giant comet 12,800 years ago – with the fragments all coming in on the same trajectory (roughly north-west to south-east) and with further impacts in the Atlantic ocean, on the Northern European ice cap and as far east as Syria.

None of the individual impactors was as large as the object that created the Chicxulub crater 65 or 66 million years ago, but the combined mass and speed of *all* the impacts, together with their effects on the mass distribution of water through the rapid, partial melting of continental icecaps, could theoretically have had at least equally devastating consequences for the crust. We therefore cannot rule out the possibility that their cumulative effect could have been

exactly as Barbiero envisages – namely a reshaping of the equatorial bulge, a new axis of rotation and different poles.

Triggered by the impacts, such an accelerated and extreme form of true polar motion ('the movement of Earth's spin axis as it wanders through the crust'), would add a new factor to our understanding of the extent and scale of the Younger Dryas cataclysm and of the related Earth changes. I do not expect this idea to be taken up enthusiastically by scientists wedded to the gradualist, uniformitarian model, but a recent discovery concerning Mars should give some pause for thought since it indicates that radical and catastrophic polar motion has occurred on other planets and may, indeed, be a normal part of planetary evolution.

Writing in *Nature* on 2 March 2016, a team of scientists led by Sylvain Bouley and David Baratoux report that Mars suffered 'a reorientation of the planet with respect to its spin axis (True Polar Wander)'.[20] This 'reorientation' was massive – tilting the planet by

20 to 25 degrees *vis-à-vis* its former axis of rotation. And significantly the scientists conclude:

> It wasn't the rotation axis of Mars that shifted but rather the outer layers (mantle and crust) that rotated with respect to the inner core, rather like turning the flesh of an apricot around its stone. This phenomenon had been predicted theoretically, but never demonstrated.[21]

This one-piece displacement of the crust of Mars, now demonstrated and accepted by science, is identical in every respect to Charles Hapgood's long-abused and much-neglected notion of Earth Crust Displacement. Moreover Bouley and Baratoux have identified the mechanism that caused the Martian displacement – and again it is to do with the distribution of mass on the planet's surface. They pinpoint the Tharsis region – the largest volcanic complex on Mars and in the Solar System. Young lava flows cover its surface (from less than 3 billion years ago) but its growth started more than 3.7 billion years ago at a latitude (then) of around 20 degrees North:

> Volcanic activity continued for several hundred million years, forming a plateau exceeding 5,000 kilometres (3,000 miles) in diameter, with a thickness of about 12 kilometres (7.5 miles) and a mass of a billion billion tons (1/70th the mass of the Moon). This mass was so huge that it caused Mars' crust and mantle to swivel around. As a result, the Tharsis dome shifted to the equator, corresponding to its new equilibrium position. [22]

The researchers also note that Mars was once a watery planet like the Earth, and that prior to the displacement there had been a build-up of ice near the former poles. 'The stability of liquid water at the surface of Mars' [23] may also have been a factor in precipitating the displacement.

There are, of course, no volcanic regions of our own planet that even begin to approach the scale of the Tharsis bulge, but let's not forget that it was the build-up of ice near the former poles that Hapgood originally implicated as the trigger for his proposed displacement of the Earth's crust. Writing in the early 1950s, before gradualist scientists began to pour scorn on Hapgood's theory, the

reader will recall that Albert Einstein found the whole idea very plausible. He summarized it as follows:

> In a polar region there is continual deposition of ice, which is not symmetrically distributed about the pole. The Earth's rotation acts on these unsymmetrically deposited masses, and produces centrifugal momentum that is transmitted to the rigid crust of the Earth. The constantly increasing centrifugal momentum produced in this way will, when it has reached a certain point, produce a movement of the Earth's crust over the rest of the Earth's body.[24]

Many of the subsequent criticisms of Hapgood's work have argued that the assymetric build-up of ice at the poles couldn't possibly, in itself, be sufficient to precipitate a radical and rapid crustal shift. The absence of any obvious topographical feature like the Tharsis bulge capable of destabilizing the gyroscope Earth seems to strengthen their case. Flavio Barbiero's calculations, however, show us something new that Hapgood never considered – namely that sufficiently large and fast cosmic impacts can provide the missing trigger factor for a displacement by effecting a temporary radical

alteration of the mass distribution of water and ice on the planet's surface, thus inducing deformations in the Earth's crust and mantle and reshaping the equatorial bulge around a new axis of rotation

1. Overview of Gobekli Tepe with Enclosure D in the foreground.

2. Enclosure D with the enigmatic Pillar 43 at left.

3. The author with Professor Klaus Schmidt at Gobekli Tepe in 2013. Professor Schmidt (at left of picture) passed away in 2014.
4. Eastern central pillar, Enclosure D.

5. Pillar plinth.

6. Detail from west side of pillar figure's belt.

7. Pillar 43 in Enclosure D at Gobekli Tepe. This early photograph was taken by the excavator, Klaus Schmidt. Subsequently the lower part of the pillar showing the scorpion was reburied.

8. Enclosure B Gobekli Tepe.

9. The author with unfinished T-shaped pillar abandoned in the quarry at Gobekli Tepe.

10. The author with geologists Robert Schoch of Boston University (left) and Danny Natawidjaja (centre) at Gunung Padang, Indonesia, studying scans of the interior of the pyramid.

11. The author with Danny Natawidjaja at Gunung Padang.

12, 13. Overview of the principal terraces at Gunung Padang. In this form the site has been known to archaeology for a century. But only when geophysical survey work began in 2011 was it realized that there are hidden structures and much earlier layers of construction beneath the terraces.

14. The author with Randall Carlson at Dry Falls.

15. Wallula Gap, 'the gathering of the waters', scabland and the 'Twin Sisters' in the background.

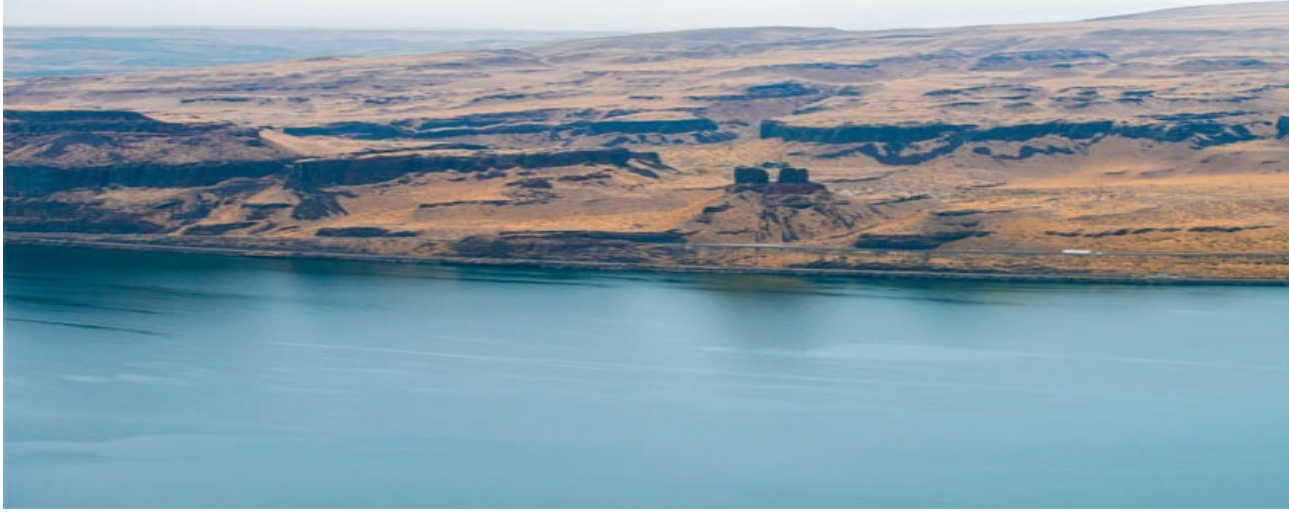

16. The giant current ripples of Camas Prairie, some more than 50 feet high.

17. 'Boulder Park', Washington State. Huge boulders of 10,000 tons and more were carried here in icebergs by the cataclysmic floods at the end of the Ice Age.

18. Mount Ararat viewed over the ruins of Zvarnots Cathedral, Armenia.

19. Entrance passageway and stone door -- Derinkuyu underground 'city', Turkey.

20. The Temple of Horus at Edfu, Upper Egypt.

21. Vignette from the mysterious Edfu Building Texts. The texts leave us in no doubt that the 'gods' of the 'early primeval age' were sailors and navigators. After the destruction of their island homeland they are said to have wandered the world in ships.

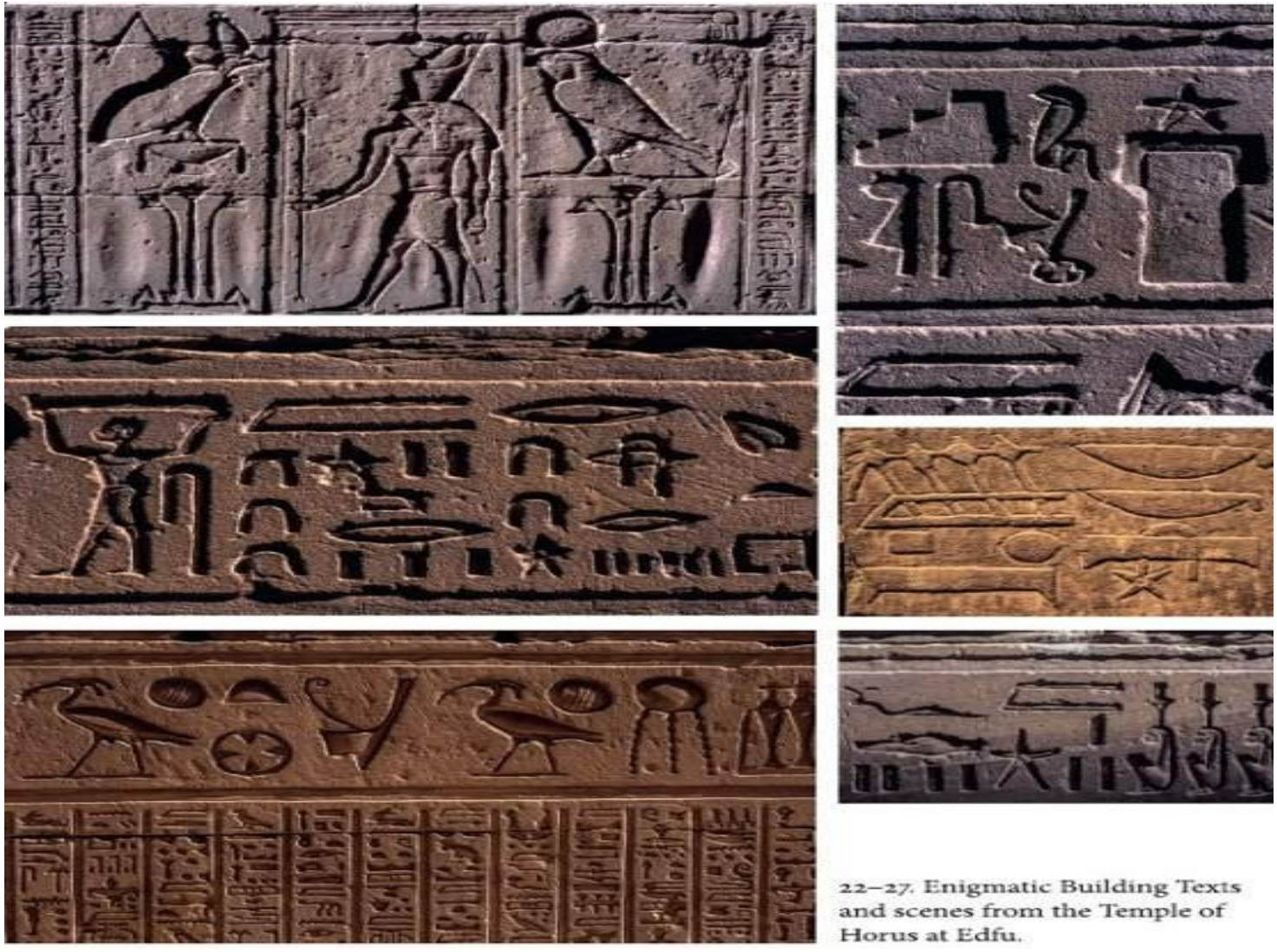

22–27. Enigmatic Building Texts and scenes from the Temple of Horus at Edfu.

28. Above: Scene from the Temple of Horus at Edfu. Horus does battle with his rival Set who takes the form of a hippopotamus.

29. Edfu hieroglyphs.

30. Right: Thoth, the scribe of the gods who wrote down the words of the Seven Sages.

31, 32. The astronomically-aligned monuments of Egypt's Giza Plateau: A 'book descended from the sky'?

33. Aerial view of the Sphinx and its Temples.

34. The ancient megalithic limestone core of the 'Valley Temple'. Its blocks weigh up to 100 tons.

Facing page: 35. The Sphinx with the 'Dream Stela' between its paws.

36. The granite elements of the 'Valley Temple' (above) were added in Dynastic times to the ancient, pre-existing limestone structure.

37. The huge limestone blocks of the 'Valley Temple' were quarried from around the core body of the Sphinx when the Sphinx was made, and are therefore the work of the same culture.

38. The author at Baalbek with the southernmost Trilithon block at his feet. The wall behind him, built on top of the Trilithon, is a later Arab fortification.
39. The three huge Trilithon blocks in the west side of the U-shaped megalithic wall flanking, but not touching, the platform of the Temple of Jupiter.

40. The author's right foot is placed in front of the fragment of a Roman column drum used as a block in the foundations beneath the Trilithon.

41. The Roman column drum was excavated and measured by the German Archaeological Institute who believe it could not be the result of later Arab repairs to the foundations and that the Trilithon must, therefore, be the work of the Romans.

42. A fortification wall built by the Arabs at Baalbek using recycled Roman materials. Note the column drum placed horizontally to the right of the arch.
43. Close-up of the recycled column drum in the Arab fortification wall. Note the drum is perfectly flattened at top and bottom exactly like the column drum in the foundations beneath the Trilithon. The argument that the Arabs lacked the technical expertise to cut and fit blocks so precisely therefore makes no sense.

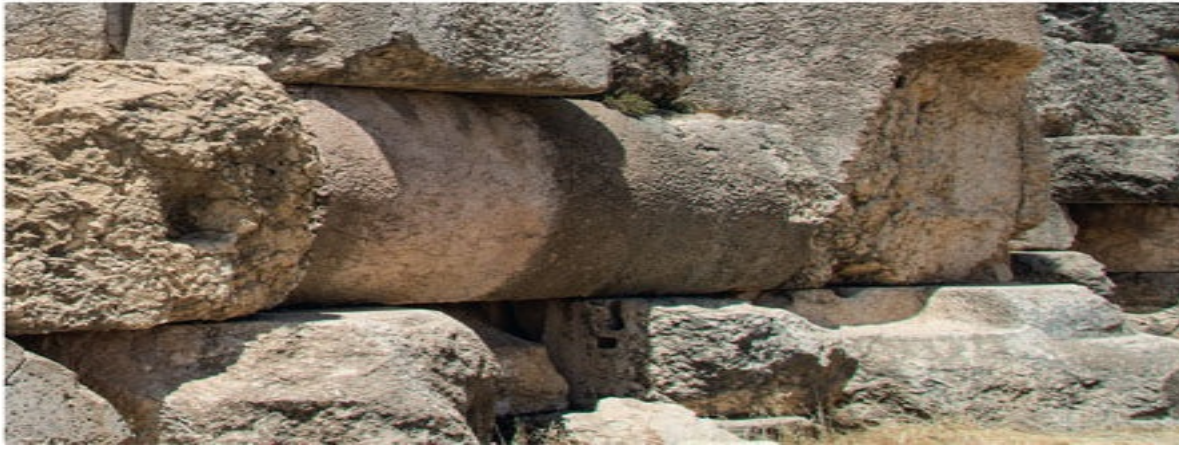

44. Northern arm of the U-shaped megalithic wall surrounding the platform of the Temple of Jupiter. Note the smaller size of the blocks with which the platform itself (right side of picture) is built.

45. The author standing on the southern arm of the U-shaped megalithic wall with the six remaining columns of the Temple of Jupiter on the edge of the platform behind him.

46. The author, for scale, standing on the 970-ton 'Stone of the Pregnant Woman' still *in situ* in the quarries at Baalbek. The block visible beneath it, to the left, was newly excavated in 2014 and is estimated to weigh 1,650 tons.

47. A third block in the quarries weighing 1,250 tons.

48. Above: The tips of buried megalithic pillars jut out from a hillside at Karahan Tepe, sister site to Gobekli Tepe.

49. Left: The "Astronomical Tower" at Harran. In its present form it dates from the Islamic period but it occupies the site of an earlier tower that stood within a temple dedicated to the Moon God of the Sabians.

50. The constellations, as we envisage them today, of the area of the sky depicted on Pillar 43 at Gobekli Tepe.
51. The same constellations overlaid on the figures of Pillar 43 at Gobekli Tepe. See discussion in chapter 15 and fig no. 50.

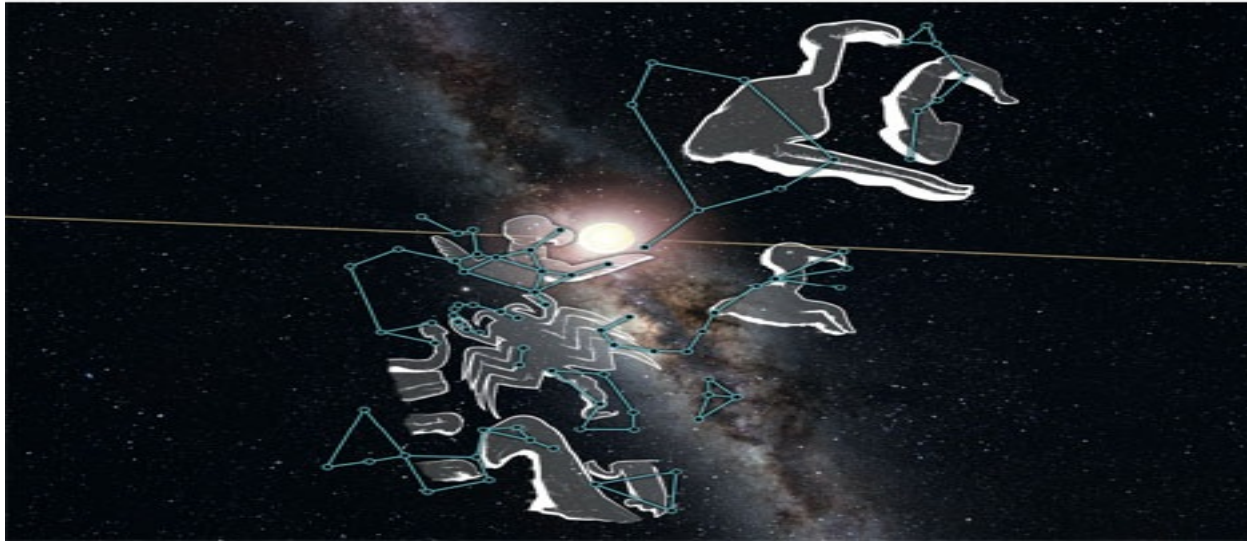

52. Left: The eerie limestone 'Totem Pole' of Gobekli Tepe – a complex, hybrid entity.

53. Above: 'Urfa Man', the oldest three-dimensional sculpture of a human figure to have survived anywhere in the world. It dates to the same period as Gobekli Tepe and was found nearby. Note that the position of the hands matches the hand positions of the T-shaped anthropomorphic pillars of Gobekli Tepe (see, for example, plate 4).

54. Giant 'jigsaw-puzzle' walls at Sacsayhuaman, built thousands of years before the Incas according to Jesus Gamarra.
55. Below left: Loretto Street, Cuzco. Different styles of architecture suggest the work of different cultures.
56. Below right: Inferior architecture of the Temple of the Virgins, known to have been built by the Incas.

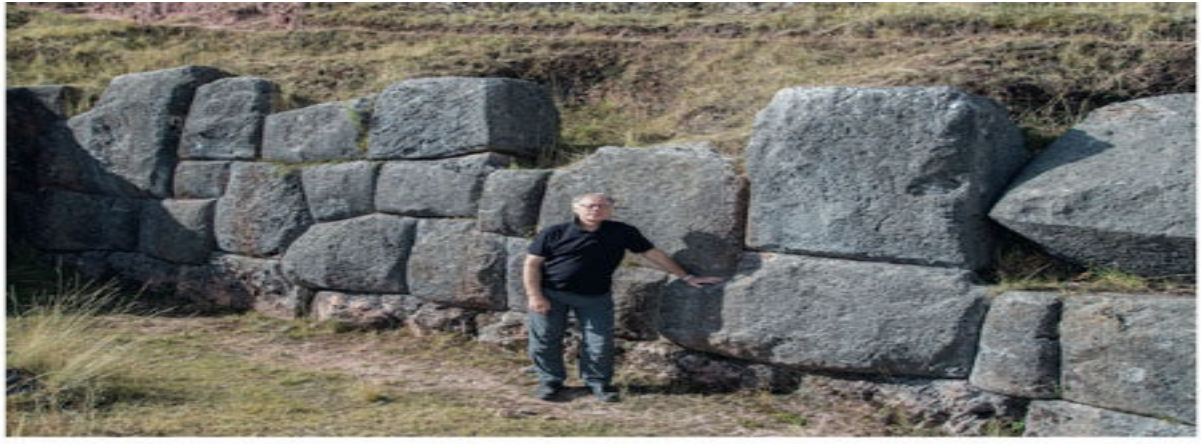

57. Near Cuzco, Peru.

58. Alaca Hoyuk, Turkey. Is it possible that the same prehistoric megalithic culture was at work in both places?

59. The author with Jesus Gamarra at Pisac.

60. Cave shrine. The different architectural styles evident here and at Pisac are indicative of the work of different cultures. In Gamarra's view it is absurd to attribute everything to the Incas.

Facing page: 61. Top left: Cutimbo, Peru. / 62. Top right: Gobekli Tepe, Turkey. / 63. Middle left: Cutimbo. / 64. Middle right: Gobekli Tepe. / Bottom left to right: 65. Cutimbo. / 66. Gobekli Tepe. / 67. Gobekli Tepe. / 68. Cutimbo.

This page: 69. Above left: The author studying serpent with peculiarly large head carved in high relief at the 'Temple of the Moon' near Cuzco. Compare 70. Above right: Serpent with peculiarly large head carved in high relief at Gobekli Tepe.

71. Above: Cutimbo. Compare with 72. Right: Gobekli Tepe.

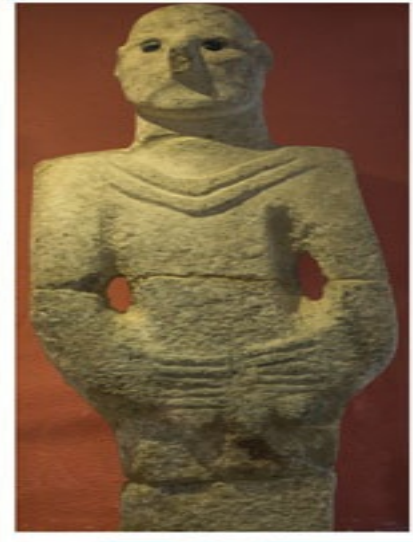

73. Above: Easter Island.
74. Top right: 'Urfa Man', Turkey.
75. Middle right: 'H' Blocks, Tiahuanaco.
76. Bottom right: Gobekli Tepe pillar figure. Note similar hand positions in 73, 74, and 76. Note 'H' motif in 75 and 76.

77. The recycling of an ancient Easter Island head as a construction block suggests the wall is much younger than the figures.
78. Below left: The bearded face of Viracocha, at Tiahuanaco.
79. Below right: Bearded Easter Island head, Rano Raraku quarry. The bodies of the figures in the quarry are buried in up to 30 feet of sediment, suggesting great antiquity.

80. *Watu Palindo*, the 'Sage of Bada Valley', Sulawesi, Indonesia.

81. Painted megalithic chamber near Pagar Alam, Sumatra.

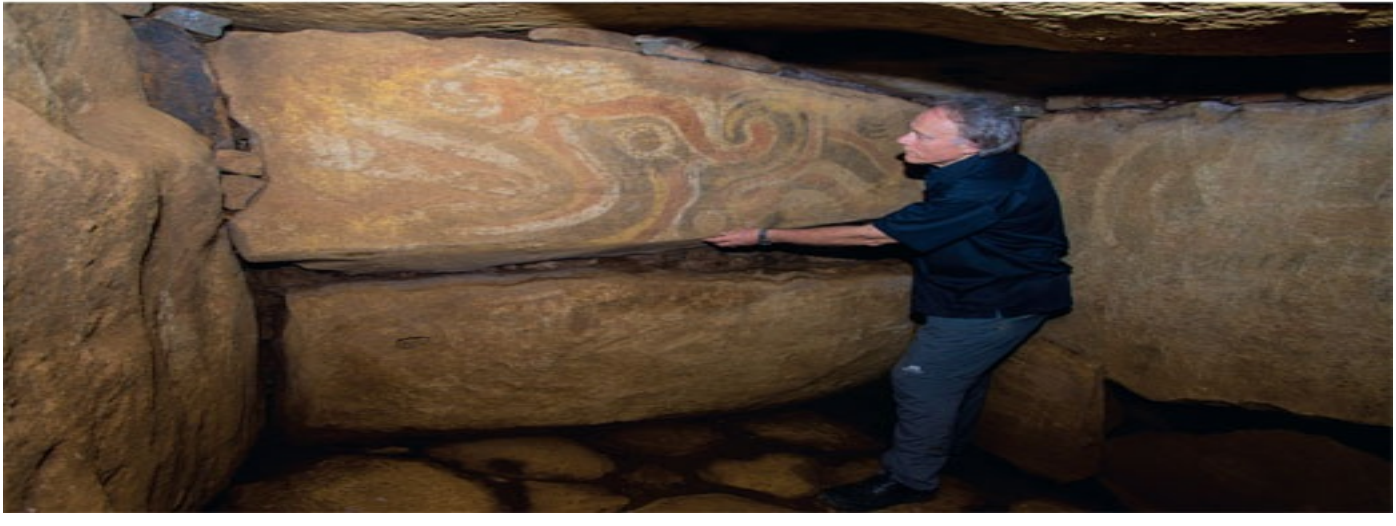

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23. See Graham Hancock, *Fingerprints of the Gods*, op. cit., note 16, p. 517.

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3. Email from Danny Hilman Natawidjaja to Graham Hancock, 2 October 2014.
4. Danny Hilman Natawidjaja, *Plato Never Lied: Atlantis in Indonesia*, Booknesia, Jakarta, 2013.
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6. Reported in *Fingerprints of the Gods*, op. cit., p. 420ff.

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Chapter 4

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those sites *could* have been deposited on the same day – it doesn›t prove it did, but shows it is possible. Yet, even though those dates were *directly on* the YDB layer and are statistically identical, Meltzer et al rejected them as not being the same. Such a rejection is simply indefensible.'

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Chapter 7

1. The late Professor Cesar Emiliani of Miami University, a winner of the Vega Medal from Sweden and the Agassiz medal from the National Academy of Sciences of the United States, whose studies focused extensively on sea-level rise, did put a figure on it: 'As a result of the flood that formed the Scabland, the sea level rose very rapidly from minus 100 metres to minus 80 metres. By 12,000 years ago more than fifty per cent of the ice had returned to the ocean, and the sea level had risen to minus 60 metres.' The references to minus 100 metres, minus 80 metres and minus 60 metres are by comparison with today's sea-level. So, before the flood that formed the Scabland of the Columbia Plateau, sea level

was 100 metres lower than it is today, after the flood it was 60 metres lower than it is today, i.e. a staggering rise of 40 metres or 131 feet. See Cesare Emiliani, *Planet Earth: Cosmology, Geology and the Evolution of Life and Environment*, Cambridge University Press, 1995, p. 543.

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Yima the valiant there was neither heat nor cold, neither old age, nor death, nor disease …' 'Yima's golden reign, in which all men were immortal and enjoyed perpetual youth, lasted a full thousand years.'

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36. Genesis 6: 19-20.
37. Genesis 6: 16.
38. Louis Ginzberg, *The Legends of the Jews*, The Jewish Publication Society of America, Philadelphia, 1988, Vol. I, p. 162.
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40. Omer Demir, *Cappadocia: Cradle of History*, 12th Revised Edition, p. 70.

41. http://en.wikipedia.org/wiki/Derinkuyu_%28underground_city%2
42. *Hurriyet Daily News*, 28 December 2014 (http://www.hurriyetdailynews.com/massive-ancient-underground-city-discovered-in-turkeys-nevsehir-aspx?PageID=238&NID=76196&NewsCatID=375), *The Independent*, 31 December 2014 (http://www.independent.co.uk/news/world/middle-east/vast-5000-yearold-underground-city-discovered-in-turkeys-cappadocia-region-9951911.html).
43. E.g. see report in *The Independent*, 31 December 2014, op. cit.
44. *Turkey*, Lonely Planet, 2013, p. 478.
45. http://en.wikipedia.org/wiki/Derinkuyu_%28underground_city%2
46. Omer Demir, *Cappadocia: Cradle of History*, 9th Revised Edition, p. 61.

47. For example in Proto-Hittite times up to 2,000 years earlier. See Omer Demir, op. cit., p. 70.
48. Ibid., p. 60.
49. Ibid.
50. Ibid., p. 59.
51. Ibid., p. 61.
52. R.C. Zaehner, *The Dawn and Twilight of Zoroastrianism*, op. cit., p. 135.

Chapter 8

1. Genesis 6: 7.
2. Genesis 6: 8-21.
3. Genesis 6: 19-20.
4. Genesis 8: 3.
5. Genesis 8: 4.

6. Genesis 8: 13-17.
7. Genesis 8: 20-1.
8. Genesis 9: 1-7.
9. For example see Jeremiah 51: 27; also Isaiah 37: 38; 2 Kings 19: 37.
10. Armen Asher and Teryl Minasian Asher, *The Peoples of Ararat*, Booksurge, 2009, p. 241.
11. Charles Burney and David Marshall Lang, *The Peoples of the Hills: Ancient Ararat and the Caucasus*, Phoenix Press, London, 1971, p. 127. See also Amelie Kurht, *The Ancient Near East*, Routledge, London and New York, 1995, Vol. II, p. 550: 'Archaeologically, the second millennium of the region is something of a blank at present.'
12. Ibid., p.17.
13. Armen Asher and Teryl Minasian Asher, *The Peoples of Ararat*, op. cit.

14. Moses Khorenatsi, *History of the Armenians*, Caravan Books, Ann Arbor, 2006, pp. 72 and 82ff. Haik, also spelled Hayk, is said to be the son of Torgomah [T'orgom], who was the son of Tiras [T'iras], who was the son of Gomer [Gamer], who was the son of Noah's son Japheth [Yapeth].

15. Arra S. Avakian and Ara John Movsesian, *Armenia: A Journey Through History*, The Electric Press, California, 1998-2008, p. 47. See also Armen Asher and Teryl Minasian Asher, *The Peoples of Ararat*, op. cit., p. 284-5.

16. http://www.armenian-genocide.org/genocidefaq.html.

17. https://www.youtube.com/watch?v=ahoFlLh2Y3E.

18. https://www.youtube.com/all_comments?v=ahoFlLh2Y3E.

19. The quotation is from William Faulkner's *Requiem for a Nun*, 1951.

20. This was the flood that formed the channeled scablands of the Columbia Plateau. Cesare Emiliani, *Planet Earth: Cosmology, Geology and the Evolution of Life and Environment,* Cambridge

University Press, 1995, p. 543, researched the extent of the sea level rise involved: ‘As a result of the flood that formed the Scabland, the sea level rose very rapidly from minus 100 metres to minus 80 metres. By 12,000 years ago more than fifty per cent of the ice had returned to the ocean, and the sea level had risen to minus 60 metres.’ The references to minus 100 metres, minus 80 metres and minus 60 metres are by comparison with today’s sea-level. So, before the flood that formed the scablands, sea level was 100 metres lower than it is today, after the flood it was 60 metres lower than it is today, i.e. a staggering rise of 40 metres or 131 feet.

21. Cesare Emiliani held a Ph.D from the University of Chicago where he pioneered the isotopic analysis of deep-sea sediments as a way to study the Earth’s past climates. He then moved to the University of Miami where he continued his isotopic studies and led several expeditions at sea. He was the recipient of the Vega

Medal from Sweden and the Agassiz medal from the National Academy of Sciences of the United States.

22. Emiliani, *Earth and Planetary Science Letters*, 41 (1978), p. 159, Elsevier Scientific Publishing Company, Amsterdam.

23. E.g. see Karl W. Luckert, *Stone Age Religion at Göbekli Tepe*, Triplehood, 2013, p. 101.

24. Joris Peters and Klaus Schmidt, 'Animals in the symbolic world of Pre-Pottery Neolithic Göbekli Tepe, south-eastern Turkey: a preliminary assessment', *Anthropozoologica*, 2004, 39 (1), pp. 204-5.

25. Karl W. Luckert, *Stone Age Religion at Göbekli Tepe*, op. cit., pp. 100-2.

26. Genesis 9: 1.

27. Joris Peters and Klaus Schmidt, 'Animals in the symbolic world of Pre-Pottery Neolithic Göbekli Tepe', op. cit., pp. 206-8.

28. Samuel Noah Kramer, *The Sumerians: Their History, Culture and Character*, The University Press of Chicago, 1963, p. 33.

29. http://www.penn.museum/collections/object/97591.
30. http://www.schoyencollection.com/literature-collection/sumerian-literature-collection/sumerian-flood-story-ms-3026.
31. Samuel Noah Kramer, *History Begins at Sumer*, University of Pennsylvania Press, 1991, p. 148ff.
32. Kramer, *History Begins at Sumer*, op. cit., p. 148.
33. http://www.penn.museum/collections/object/97591.
34. http://www.schoyencollection.com/literature-collection/sumerian-literature-collection/sumerian-flood-story-ms-3026.
35. Ibid., and see Irving Finkel, *The Ark Before Noah*, Hodder and Stoughton, London, 2014, p. 91.
36. Kramer, *History Begins at Sumer*, op. cit., p. 149.
37. Ibid., p. 149.
38. Ibid.; William Hallow, *Journal of Cuneiform Studies,* Vol. 23, 61, 1970.

39. Cited in Kramer, *History Begins at Sumer*, op. cit., pp. 149-51.
40. Ibid., p. 151.
41. Ibid.
42. http://www.schoyencollection.com/literature-collection/sumerian-literature-collection/sumerian-flood-story-ms-3026. And again see Irving Finkel, *The Ark Before Noah*, op. cit., p. 91.
43. Kramer, *History Begins at Sumer*, op. cit., p. 151.
44. Ibid., p. 152.
45. Ibid.
46. Ibid.
47. Ibid., pp. 152-3.
48. Ibid., p. 153.
49. Ibid., p. 148.
50. See discussion in Gerald P. Verbrugghe and John M. Wickersham (Eds.), *Berossos and Manetho*, University of Michigan Press, 1999, p. 15ff.

51. Benno Lansberger, ‘Three Essays on the Sumerians II: The Beginnings of Civilisation in Mesopotamia’, in Benno Lansberger, *Three Essays on the Sumerians*, Udena Publications, Los Angeles, p. 174; Berossos and Manetho, op. cit., pp. 17, 44; Stephanie Dalley, Myths from Mesopotamia, op. cit., pp. 182-3, 328; Jeremy Black and Anthony Green (Eds.), *Gods, Demons and Symbols of Mesopotamia*, British Museum Press, London, 1992, pp. 41, 82-83, 163-4.

52. Berossos and Manetho, op. cit., p. 43.

53. Ibid., p. 44.

54. George Smith, with A.H. Sayce, *The Chaldean Account of the Genesis*, Sampson Low, London, 1880, p. 33.

55. Berossos and Manetho, op. cit., pp. 26 and 34. See also George Smith, with A.H. Sayce, *The Chaldean Account of the Genesis*, op. cit p. 32.

56. Amar Annus, ‘On the Origin of the Watchers: A comparative Study of the Antediluvian Wisdom in Mesopotamian and Jewish

Traditions', *Journal of the Study of Pseudepigrapha*, Vol. 19.4 (2010), p. 285.

57. Ibid.

58. Ibid.

59. Ibid., e.g. pp. 282, 290, 297, 301, 306. See also Jonas C. Greenfield, 'The Seven Pillars of Wisdom (Prov 9:1): A Mistranslation', *The Jewish Quarterly Review*, New Series, Vol. 76, No. 1, Essays in Memory of Moshe Held (Jul., 1985), p. 16.

60. Ibid., p. 281: 'Many kinds of Mesopotamian sciences and technologies were ideologically conceived as originating with antediluvian apkallus'.

61. Erica Reiner, 'The Etiological Myth of the Seven Sages', *Orientalia* NS 30 (1961), p. 10.

62. Jonas C. Greenfield, 'The Seven Pillars of Wisdom' op. cit., p. 15.

63. Amar Annus, 'On the Origin of the Watchers', op. cit., p. 289.

64. Jonas C. Greenfield, ‘The Seven Pillars of Wisdom’, op. cit., p. 16.
65. Amar Annus, ‘On the Origin of the Watchers’, op. cit., p. 289.
66. Ibid., p. 283, See also: W.G. Lambert, ‘Ancestors, Authors and Canonicity’, *Journal of Cuneiform Studies*, Vol. 11, No. 1, 1957, pp. 8-9: ‘The sum of revealed knowledge was given once and for all by the antediluvian sages.’
67. Jeremy Black and Anthony Green (Eds.), *Gods, Demons and Symbols of Mesopotamia*, op. cit., p. 46.
68. Amar Annus, ‘On the Origin of the Watchers’, op. cit., p. 293.
69. Jeremy Black and Anthony Green (Eds.), *Gods, Demons and Symbols of Mesopotamia*, op. cit., p. 46.
70. Ibid., p. 170.
71. Amar Annus, ‘On the Origin of the Watchers’, op. cit., p. 293.
72. Jeremy Black and Anthony Green (Eds.), *Gods, Demons and Symbols of Mesopotamia*, op. cit., p. 171.
73. Amar Annus, ‘On the Origin of the Watchers’, op. cit., p. 293.

74. Anne Draffkorn Kilmer, ‘The Mesopotamian Counterparts of the Biblical Nepilim’, in E.W Conrad and E.G. Newing (Eds.), *Perspectives on Language and Text: Essays and Poems in Honour of Francis I. Andersen’s Sixtieth Birthday, July 28, 1985*, Winona Lake, IN, Eisenbrauns, p. 41. For Enki/Ea and the Abzu see Jeremy Black and Anthony Green (Eds.), *Gods, Demons and Symbols of Mesopotamia*, op. cit., pp. 75 and 27: ‘It was anciently believed that the springs, wells, streams, rivers and lakes drew their water from and were replenished from a freshwater ocean which lay beneath the earth in the abzu (apsu) … The salt sea, on the other hand, surrounded the earth. The abzu was the particular realm and home of the wise god Enki … Enki was thought to have occupied the abzu since before the creation of mankind. According to the Babylonian Epic of Creation, Apsu was the name of a primal creature, the lover of Tiamat, and when Ea killed Apsu he set up his home on the dead creature’s body, whose name was henceforth transferred to Ea’s residence …’

75. Jeremy Black and Anthony Green (Eds.), *Gods, Demons and Symbols of Mesopotamia*, op. cit., p. 75.

76. S. Denning-Bolle, cites in Amar Annus, 'On the Origin of the Watchers', op. cit., p. 314.

77. Amar Annus, 'On the Origin of the Watchers', op. cit., p. 287.

78. Jeremy Black and Anthony Green (Eds.), *Gods, Demons and Symbols of Mesopotamia*, op. cit., p. 76.

79. Ibid., pp. 76 and 75: see also Gwendolyn Leick, *A Dictionary of Near Eastern Mythology*, Routledge, London and New York, 1998, pp. 4-6.

80. *The Epic of Gilgamesh*, Penguin Classics, London, 1988, p. 108.

81. E.g. see Jeremy Black and Anthony Green, *Gods, Demons and Symbols of Ancient Mesopotamia*, op. cit., p. 84.

82. Berossos and Manetho, op. cit., pp. 49-50. NB. In this fragment Berossos, preserved by Syncellus, Enki is rendered as 'Kronos'. The translators explain in footnote 17 that: 'Kronos was the father

of Zeus, as Enki was the father of Marduk. Berossos or Syncellus here has used the Greek equivalent for the Babylonian god.'

83. In the Epic of Gilgamesh the flood survivor, though manifestly the same figure as Zisudra/Xithoutros, is known by the name of Utnapishti. As Irving Finkel, Assistant Keeper in the Department of the Middle East at the British Museum explains: 'The name Zisudra is very suitable for an immortal flood hero, since in Sumerian it means something like He-of-Long-Life. The name of the corresponding flood hero in the Gilgamesh epic is Utnapishti, of roughly similar meaning. In fact, we are not sure whether the Babylonian name is a translation of the Sumerian or vice versa.' Irving Finkel, *The Ark Before Noah*, op. cit., p. 92.

84. *The Epic of Gilgamesh*, op. cit., p. 111.

85. *Berossos and Manetho*, op. cit., p. 50.

86. Amar Annus, 'On the Origin of the Watchers', op. cit., p. 282; Anne Draffkorn Kilmer, 'The Mesopotamian Counterparts of the Biblical Nepilim', op. cit., p. 43.

87. Anne Draffkorn Kilmer, ‘The Mesopotamian Counterparts of the Biblical Nepilim’, op. cit., pp. 39-40.
88. Amar Annus, ‘On the Origin of the Watchers’, op. cit., p. 295.
89. Jeanette C. Fincke, The Babylonian Texts of Nineveh: Report on the British Museum’s Library Project, *Archiv fur Orientforschung* 50 (2003/2004), p. 111.

Chapter 9

1. John Baines and Jaromir Malek, *Atlas of Ancient Egypt*, Time-Life Books, 1990, p. 76.
2. Ibid. The inner and outer enclosure walls date from the Old Kingdom, and a later wall running outside the outer one dates from the First Intermediate Period (2134-2040 BC). There are remains of other structures that have been dated to the Second

Intermediate Period (1640-1532 BC) and to the New Kingdom (1550-1070 BC).

3. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, Manchester University Press, 1969, p. 8.
4. Ibid., p. 151: 'The mythological situation which we have been analyzing discloses a tradition which originated in another place …'
5. Ibid., pp. 55, 90, 105, 274.
6. Ibid., p. 55.
7. Ibid., pp. 109, 113-14, 127.
8. E.g. See p. 19 'the crew of the Falcon'. See also pp. 27, 177, 180, 181, 187, 202. There are repeated references throughout the Edfu texts to the crews of ships and to sailing. Thus, p. 180: 'The Shebtiw sailed …' p. 187: 'They were believed to have sailed to another part of the primeval world'.
9. Ibid., p. 190.

10. Ibid., p. 274: ‘They journeyed through the unoccupied lands of the primeval age and founded other sacred domains’.
11. Ibid., p. 122.
12. Ibid., p. 134.
13. Ibid., pp. 106-7.
14. E.g. Ibid., pp. 44, 258: ‘At Edfu we have only fragments. A selected number of accounts, from a great and important history of the Egyptian temples.’
15. The last known inscription in the sacred hieroglyphs of Ancient Egypt was made at the Temple of Isis at Philae in AD 394 and the last known example of demotic graffiti was also found there, dated to A D 425. ‘If knowledge of the hieroglyphs persisted beyond this time, no record of it has been found.’ John Anthony West, *The Traveller’s Key to Ancient Egypt*, Harrap Columbus, London, 1987, p. 426.

16. Howard Vyse, *Operations Carried on at the Pyramids of Gizeh in 1837, with an Account of a Voyage into Upper Egypt*, James Fraser, Regent Street, London, 1840, Vol. I, pp. 67-8.
17. The Mesopotamian and Egyptian chronologies are well known. For Peru see Ruth Shady Solis et al, *Caral: The Oldest Civilization in the Americas*, Proyecto Especial Arqueologico Caral-Supe/INC, 2009.
18. Plato, *Timaeus and Critias*, Penguin Classics, 1977, p. 36.
19. Ibid., pp 34-8.
20. J. Gwynn Griffiths, *Atlantis and Egypt With Other Selected Essays*, Cardiff, University of Wales Press, 1991, pp. 3-30.
21. Miriam Lichtheim, *Ancient Egyptian Literature, Vol. I: the Old and Middle Kingdoms,* University of California Press, 1975, p. 211.
22. Ibid., pp. 212-13.
23. Ibid., p. 215, note 3.

24. Margaret Buson, *The Encyclopedia of Ancient Egypt*, Facts on File, New York, Oxford, 1991, p. 130.
25. Ibid.
26. Ibid.
27. Miriam Lichtheim, *Ancient Egyptian Literature*, op. cit., p. 213.
28. Ibid., p. 214.
29. Ibid.
30. Plato, Critias Benjamin Jowett Translation, Internet Classics Archive, http://classics.mit.edu/Plato/critias.html.
31. Plato, *Timaeus and Critias*, Penguin Classics Edition, op. cit., p. 38.
32. J. Gwynn Griffiths, *Atlantis and Egypt*, op. cit., p. 23.
33. https://egyptsites.wordpress.com/2009/03/03/sa-el-hagar/.
34. Ibid.
35. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 324.
36. Ibid., p. 213.

37. Ibid., p. 31.
38. Ibid., p. 111.
39. Ibid., p. 142.
40. Plato, *Timaeus and Critias*, op. cit., Critias, p. 136.
41. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 113.
42. Ibid., p. 109.
43. Ibid., p. 127.
44. Plato, *Timaeus and Critias*, op. cit., Timaeus, p. 38.
45. Ibid.
46. Ibid., p. 35.
47. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 19.
48. E.W. West, Trans., F. Max Muller, Ed., *Pahlavi Texts*, Part I, Reprint Edition, Atlantic Publishers and Distributors, New Delhi, 1990, p. 17.

49. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 113.
50. Ibid., p. 279.
51. Ibid., p. 113.
52. Ibid.
53. *Archaeoastronomy: The Journal of the Center for Archaeoastronomy*, Vol. VIII, Nos. 1-4, January-December 1985, p. 99.
54. Thor Conway in Ray A. Williamson and Claire R. Farrer, Eds., *Earth and Sky*, op. cit, p. 246.
55. Plato, *Timaeus and Critias*, op. cit., Timaeus, p. 38.
56. Ignatius Donnelly, *Atlantis: The Antediluvian World*, Dover Publications Inc., New York, 1976, p. 23.
57. Plato, *Timaeus and Critias*, op. cit., Timaeus, p. 37.
58. Plato, Critias Benjamin Jowett Translation, Internet Classics Archive, http://classics.mit.edu/Plato/critias.html.
59. Plato, *Timaeus and Critias*, op. cit., Critias, p. 138.

60. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 37.
61. Ibid., p. 220.
62. Ibid., p. 240.
63. Ibid., p. 198.
64. Ibid., p. 108.
65. Ibid.
66. Ibid., p. 109.
67. Ibid., pp. 202, 323-4.
68. Plato, *Timaeus and Critias*, op. cit., Timaeus, p. 38.
69. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 171: 'A *pãy*-land is said to have originated after the Creator dried up the water around his place of origin.' See also p. 172: 'The word *pãy*-land describes a land that emerged from the water …'
70. Ibid., p. 162.
71. Ibid., p. 173.

72. Ibid., p. 324.
73. Ibid., p. 194.
74. Ibid., p. 274.
75. Ibid., p. 187.
76. Ibid., p. 274.
77. Ibid., p. 190.
78. Ibid., p. 274.
79. Ibid., p. 190. See also p. 33.
80. Ibid., p. 33.
81. Ibid., p. 24: 'the *Shebtiw* whose function is described as *din iht*, to name (= create) the things'. See also p. 180.
82. Ibid., p. 41.
83. Ibid., p. 28.
84. Ibid., pp. 95, 96, 108, 110-11.
85. Ibid., p. 96.
86. Ibid., p. 91.
87. Ibid., p. 92.

88. Ibid.
89. Ibid., p. 25, 41, 289.
90. Ibid., p. 159.
91. Ibid., e.g. pp. 28, 66, 236.
92. Ibid., pp. 310-11.
93. Ibid., p. 9.
94. Ibid., p. 48.
95. Ibid., p. 273.
96. Plato, *Timaeus and Critias*, Penguin Classics, op. cit., Timaeus, p. 36.
97. Ibid.

Chapter 10

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1348.
2. Graham Hancock, *Fingerprints of the Gods*, William Heinemann Ltd., London, 1995, e.g. p. 446 ff., pp. 456-8.
3. Robert Bauval and Adrian Gilbert, *The Orion Mystery*, William Heinemann Ltd., London, 1994.
4. Robert Bauval and Graham Hancock, *Keeper of Genesis*, William Heinemann Ltd., London, 1996.
5. Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill: An Essay Investigating the Origins of Human Knowledge and its Transmission through Myth*, Nonpareil Books, 1977, reprinted 1999, p. 59.
6. Graham Hancock and Santha Faiia, *Heaven's Mirror: Quest for the Lost Civilization*, Michael Joseph, London, 1998.
7. See ibid for an extensive discussion.
8. Paolo Debertolis, Goran Marjanovic, et al, *Archaeoacoustic analysis of the ancient site of Kanda (Macedonia)*, Proceedings in the Congress 'The 3rd Virtual International Conference on

Advanced Research in Scientific Areas' (ARSA-2014) Slovakia, 1-5 December 2014: 237-251. Published by: EDIS-Publishing Institution of the University of Zilina, Univerzitná 1, 01026 Žilina, Slovak Republic. Paper available online here: https://www.academia.edu/9818666/Archaeoacoustic_analysis_of

9. http://www.usbr.gov/lc/hooverdam/History/essays/artwork.html.

10. Ibid.

11. Ibid.

12. Richard Guy Wilson, 'American Modernism in the West: Hoover Dam.' *Images of an American Land*, ed., Thomas Carter. Albuquerque: University of New Mexico Press, 1997. P. 10, cited in, *The Hoover Dam: Lonely Lands Made Fruitful*, http://xroads.virginia.edu/~1930s/display/hoover/modern.html.

13. E.g. see: https://www.wisdomuniversity.org/ChartresOverview.htm: 'This is the magic and mystery of Chartres, site of the "queen of the cathedrals". This is also the power of "Astronomica", as it was

known among the ancients, which marks the last and highest of the seven liberal arts, the oldest continuously developed learning system known to humanity, which emanated out of Ancient Egypt and was taken to its highest refinement by the Chartrian masters. Sacred astronomy is embedded in the stones and stained glass of Chartres cathedral. It was considered the highest of the liberal arts because it alone contemplates the entire cosmos and seeks to discern ultimate meaning and purpose to all of creation.'

14. See discussion in Graham Hancock, *Fingerprints of the Gods*, op. cit., Chapter 49, p. 443ff.

15. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 134, cited in Chapter Nine.

16. Michael A. Hoffman, *Egypt Before the Pharaohs*, Michael O'Mara Books Ltd., 1991, pp. 89-90. See also Karl W. Butzer, *Early Hydraulic Civilization in Egypt*, The University of Chicago Press, 1876, p. 9.

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18. For a discussion of the geological dating of the Sphinx by Professor Robert Schoch of Boston University see ibid., Chapter 46, p. 420ff.
19. L. Liritzis, A. Vafiadou, 'Surface Luminescence Dating of Some Egyptian Monuments', *Journal of Cultural Heritage* 16 (2015), Table 1, p. 137.
20. Ibid., pp. 134-50.
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23. Ibid., Table 1, p. 137.
24. Ibid.
25. Personal communication from Professor Robert Schoch by email dated 20 January 2015.
26. L. Liritzis, A. Vafiadou, 'Surface Luminescence Dating of Some Egyptian Monuments', *Journal of Cultural Heritage*, op. cit.,

Table 1, p. 137.

27. Personal communication from Professor Robert Schoch by email dated 20 January 2015.

28. L. Liritzis, A. Vafiadou, 'Surface Luminescence Dating of Some Egyptian Monuments', *Journal of Cultural Heritage*, op. cit., Table 1, p. 137.

29. Ibid.

30. For example see John Baines and Jaromir Malek, *Atlas of Ancient Egypt*, Time-Life Books, 1990, p. 36.

31. L. Liritzis, A. Vafiadou, 'Surface Luminescence Dating of Some Egyptian Monuments', *Journal of Cultural Heritage*, op.cit., p. 147.

32. Ibid.

33. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 187.

34. Toby A.H. Wilkinson, *Early Dynastic Egypt*, Routledge, London and New York, 1999, p. 325.

35. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit. p. 262
36. Ibid., p. 263.
37. Ibid.
38. Ibid.
39. Ibid., p. 262.
40. Reymond (*The Mythical Origin of the Egyptian Temple*, op. cit., p. 263) eventually opts for Saqqara as her favoured candidate for 'the place to the north of Memphis' where the book was believed to have descended from the sky. Her logic escapes me. Henen-nesut stands at latitude 29.08, Memphis at latitude 29.84, Saqqara at latitude 29.87, the Great Pyramid of Giza at latitude 29.98, and Dhashur at latitude 29.80. Since the higher the number the further north you are, it is obvious we must rule Henen-nesut and Dhashur out: the former is located 0.76 of a degree south of Memphis and the latter is located 0.04 of a degree south of Memphis. Saqqara is north of Memphis but by just 0.03 of a

degree – so close as to be on almost exactly the same latitude. By contrast Giza is 0.14 of a degree north of Memphis and much more obviously fits the bill.

41. E.A. Wallace Budge, *The Gods of the Egyptians*, Methuen and Company, Chicago and London, 1904, reprinted by Dover Books, 1969, Vol. I, pp. 467, 468, 473, etc.

42. Selim Hassan, *The Sphinx: Its History in the Light of Recent Excavations*, Government Press, Cairo, 1949, p. 80.

43. See discussion in Robert Bauval and Graham Hancock, *Keeper of Genesis*, op. cit., pp. 5, 156ff, 160ff, etc.

44. Rainer Stadelman, 'The Great Sphinx of Giza', in Zahi Hawass (Ed), *Egyptology at the Dawn of the Twenty-first Century* (Proceedings of the Eighth International Congress of Egyptologists, Cairo, 2000; Vol. I: Archaeology), The American University in Cairo Press, Cairo, New York, 2002, pp. 464-9.

45. Ibid., p. 465.

46. Selim Hassan, *The Sphinx*, op. cit., p. 75.

47. Ibid., p. 75.
48. Ibid., p. 76.
49. Ibid., pp. 76, 185.
50. Ibid., p. 76.
51. James Henry Breasted, *Ancient Records Of Egypt*, University of Illinois Press, Urbana and Chicago, 2001, Vol. 2, p. 323.
52. Ibid.
53. Ibid., pp. 320, 324.
54. Selim Hassan, *The Sphinx*, op. cit., p. 76.
55. Gaston Maspero, *The Dawn of Civilization*, SPCK, London, 1894, p. 366.
56. Gaston Maspero, *A Manual of Egyptian Archaeology*, Putnam's Sons, New York, 1914, p. 74.
57. Selim Hassan, *The Sphinx*, op. cit., p. 222.
58. For a translation of the full text of the Inventory Stela see James Henry Breasted, *Ancient Records of Egypt*, op. cit., Vol. I, pp. 83-5. See also Selim Hassan, *The Sphinx*, op. cit., pp. 222-7.

59. Selim Hassan, *The Sphinx*, op. cit., p. 225.
60. http://www.guardians.net/hawass/khafre.htm.
61. http://en.wikipedia.org/wiki/Khafra#Valley_Temple.
62. The so-called 'Mortuary Temple' attributed to Khafre. Email from Professor Stephen Quirke to Graham Hancock dated 2 April 2015.
63. I.E.S. Edwards, *The Pyramids of Egypt*, Pelican Books, 1947, reprinted 1949, p. 107ff.
64. Ibid., p.109.
65. I.E.S. Edwards, *The Pyramids of Egypt*, Penguin, 1993, p. 124. Emphasis added.
66. Kathryn A. Bard (Ed.), *Encylopaedia of The Archaeology of Ancient Egypt*, Routledge, 1999, pp. 342-5.
67. Breasted, *Ancient Records of Egypt*, op. cit., Vol. II, pp. 320-1, note b.
68. Henri Frankfort, *Kingship and the Gods*, The University of Chicago Press, Chicago and London, 1948, 1978, p. 148.

69. William Matthew Flinders Petrie, *Memphis I, The Palace of Apries (Memphis II), Meydum and Memphis III*, Cambridge University Press, 2013, p. 43.
70. Selim Hassan, *The Sphinx*, op. cit., pp. 222-4.
71. Ibid., pp. 224-5.
72. Ibid., p. 223.
73. Ibid.
74. For example, Tibet. Tibetan *Thotchkas* are made from meteoritic iron: 'The word thokcha is composed of two words, *thog* meaning above, first or thunderbolt and *lcags* meaning iron or metal. The meaning of thokcha can thus be given as "first or original iron" or "thunderbolt iron"': http://en.wikipedia.org/wiki/Thokcha.
75. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 10.
76. Ibid., pp. 8-10, 18.

Chapter 11

1. Plato, *Timaeus and Critias*, Penguin Classics, op. cit., pp. 35-6.
2. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 285.
3. This notion is already accepted by some Egyptologists who have 'proposed that Predynastic and/or early dynastic material was cleared away in creating the pyramid platforms.' See Serena Love, 'Stones, ancestors and pyramids: investigating the pre-pyramid landscape of Memphis,' in Miroslav Barta (Ed), *The Old Kingdom Art and Archaeology, Proceedings of the Conference held in Prague, 31 May–4 June 2004*, Czech Institute of Egyptology, Prague, 2006, p. 216.
4. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 327.

5. Letter to Robert Bauval dated 27 January 1993, cited in Robert Bauval and Graham Hancock, *Keeper of Genesis*, op. cit., p. 200 and note 11, p. 333.
6. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 59.
7. Ibid., p. 9.
8. E.A. Wallis Budge, *Egyptian Magic*, Kegan Paul, Trench, Trubner and Co., London, 1901, reprinted by Dover Publications Inc., New York, 1971, p. 143.
9. Cited in John Greaves, *Pyramidographia: Or a Description of the Pyramids in Egypt*, George Badger, London, 1646, reprinted by Robert Lienhardt, Baltimore, p. 96.
10. Ibid.
11. Ibid.
12. Ibid.
13. I.E.S. Edwards, *The Pyramids of Egypt*, 1947 edition op. cit., p. 134.

14. Miriam Lichtheim, *Ancient Egyptian Literature*, Vol. I, op. cit., pp. 218-19.
15. I.E.S. Edwards, *The Pyramids of Egypt*, 1993 edition, op. cit., p. 286.
16. F.W. Green, *Journal of Egyptian Archaeology*, Vol. XVI, 1930, p. 33.
17. Alan H. Gardiner, *Journal of Egyptian Archaeology*, Vol. XI, 1925, pp. 2-5.
18. E.A.E. Reymond, *The Mythical Origin of the Egyptian Temple*, op. cit., p. 77.
19. Ibid., p. 112.
20. See discussion in Robert Bauval and Graham Hancock, *Keeper of Genesis*, op. cit., pp 13, 108, 192, 193-6.
21. R.A. Schwaller de Lubicz, *Sacred Science, Inner Traditions*, Rochester, Vermont, 1988, p. 104.
22. Ibid., p. 111.

23. Sir Walter Scott (Ed. and Trans.), *Hermetica*, Shabbhala, Boston, 1993, p. 343.

24. See discussion in Sylvia Cranston (Ed.), *Reincarnation: The Phoenix Fire Mystery*, Theosophical University Press, Pasadena, 1998, p. 114ff.

25. R.T. Rundle Clark, *The Origin of the Phoenix*, University of Birmingham Historical Journal (1949-1950), p. 17: 'The Benben stone and the Bennu bird must have names derived from the same root bn or wbn. Both words are derivative, so we cannot say that one is an attribute of the other. The bird and the stone – if stone it is – are linked together.'

26. Henri Frankfort, *Kingship and the Gods*, The University of Chicago Press, 1978, pp. 153-4.

27. See, for example, E.A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary*, John Murray, London, 1920, reprinted by Dover Publications Inc., New York, 1978, Vol. I, p. 217.

28. Robert Bauval, *Discussions in Egyptology*, Vol. 14, 1989.

29. PT 1652, cited in R.T. Rundle Clark, *The Origin of the Phoenix*, op. cit., p. 14.
30. E.A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary*, op. cit., Vol. I, p. 217.
31. R.T. Rundle Clark, *The Origin of the Phoenix*, op. cit., p. 15.
32. Ibid., p. 18.
33. Graham Hancock, *The Sign and the Seal: A Quest for the Lost Ark of the Covenant*, William Heinemann Ltd., London, 1992, pp. 67-9.
34. Menahem Haran, *Temples and Temple Service in Ancient Israel*, Clarendon Press, Oxford, Reprinted by Eisenbrauns, Winona Lake, Indiana, 1985, p. 246.
35. For a discussion see Emma Jung and Marie-Louise von Franz, *The Grail Legend*, Coventure, London, 1986, p. 148, footnote 28.
36. Jennifer Westwood (Ed.), *The Atlas of Mysterious Places*, Guild Publishing, London, 1987, p. 74.
37. Ibid.

38. W.H. Roscher, *Lexicon der griechischen und romischen Mythologie*, 1884, cited in Emma Jung and Marie-Louise von Franz, *The Grail Legend*, op. cit., p. 148.
39. See ibid., p. 14-16.
40. R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt*, Thames and Hudson, London, 1991, pp 246-7.
41. Ibid.
42. Summary of Lactantius from Elmer G. Suhr, 'The Phoenix', *Folklore*, Vol. 87, No. 1 (1976), p. 30.
43. E.V.H. Kenealy cited in Sylvia Cranston (Ed.), *The Phoenix Fire Mystery*, op. cit., p. 18.
44. R.T. Rundle Clark, *The Origin of the Phoenix*, op. cit., p. 1; Elmer G. Suhr, 'The Phoenix', op. cit., p. 31; R. Van den Broek, *The Myth of the Phoenix According to Classical and Early Christian Traditions*, E.J. Brill, 1972, pp. 68-72.
45. R.T. Rundle Clark, *The Origin of the Phoenix*, op. cit., p. 1; Gerald Massey, *The Natural Genesis*, Vol. 2, Black Classic Press,

Baltimore, 1998 (Reprint Edition) p. 340.

46. M.R. Niehoff, 'The Phoenix in Rabbinic Literature,' *The Harvard Theological Review*, Vol. 89, No. 3 (Jul 1996), p. 252.

47. R. Van den Broek, *The Myth of the Phoenix According to Classical and Early Christian Traditions*, op. cit., p. 73.

48. See Graham Hancock, *Fingerprints of the Gods*, op. cit., Chapters 28 to 32.

49. Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill*, op. cit., p. 132.

50. R. Van den Broek, *The Myth of the Phoenix*, op. cit., pp. 73-4.

Chapter 12

1. Exactly who was responsible for the murders has still not, at time of writing, been satisfactorily established. Five senior members of Hezbollah, the Shia militant and political group, have been

indicted by a UN tribunal. Hezbollah itself blames Israel for the assassination. In addition there are suspicions that President Bashar al-Assad of Syria was directly involved. See for example http://www.bbc.co.uk/news/world-middle-east-13972350 and http://www.bbc.co.uk/news/world-middle-east-25749185 and http://www.jpost.com/Middle-East/Special-Lebanon-Court-permits-prosecutor-to-bring-evidence-against-Assad-in-Hariri-case-381986 and http://www.thenational.ae/world/lebanon/probe-into-hariris-assassination-to-focus-on-al-assad.

2. Including a raid by Israeli commandos in 2006 – see: http://www.foxnews.com/story/2006/08/02/israeli-commandos-raid-hezbollah-hideout-in-baalbek-hospital/. And see also: http://www.reuters.com/article/2013/04/26/us-syria-crisis-hezbollah-idUSBRE93P09720130426. For the missile strike on Baalbek in June 2013 see: http://www.ynetnews.com/articles/0,7340, L-4386949,00.html

and http://www.arabtoday.net/home/also-in-the-news/syrian-missiles-reach-lebanons-baalbek.html.

3. For the history of Solomon's Temple and subsequent constructions on the Temple Mount see Graham Hancock, *The Sign and the Seal*, op. cit., Chapter 14.
4. Andreas J.M. Kropp and Daniel Lohmann, '"Master, look at the size of those stones! Look at the size of those buildings." Analogies in Construction Techniques between the Temples of Heliopolis (Baalbek) and Jerusalem', in *Levant*, Vol. 43, No. 1 (2011), Council for British Research in the Levant, 2011, p. 42-3.
5. Dan Bahat, *Carta's Historical Atlas of Jerusalem*, Carta, Jerusalem, 1989, p. 30.
6. For a discussion see Graham Hancock, *The Sign and the Seal*, op. cit., Chapter Five, pp. 91-2.
7. Ibid., p. 95.
8. For video see: https://www.youtube.com/watch?v=LCFGjSgTzo0 (from about 1 minute 30 seconds forward). For photographs, see:

http://survin city.com/2012/07/megaliths-of-israel-the-foundation-of-the-temple/ and http://earthbeforeflood.com/megalithic_blocks_on_the_temple_m jerusalem.html.

9. Andreas J.M. Kropp and Daniel Lohmann, 'Master, look at the size of those stones!', op. cit.

10. Selim Hassan, *The Great Sphinx and its Secrets: Historical Studies in the Light of Recent Excavations* (*Excavations at Giza 1936-1937*, Vol. VIII), Government Press, Cairo, p. 267.

11. See, for example, ibid., pp. 264-6.

12. Ibid. p. 49.

13. Ibid.

14. Ibid., p. 256.

15. Ibid.

16. Christiane Zivie-Coche, 'Foreign Deities in Egypt', in Jacco Dielman, Willeke Wendrich (Eds.), *UCLA Encyclopedia of Egyptology*, Los Angeles, 2011, p. 5. NB: In the quotes passage

Zivie-Coche uses Harmachis, the Graecianised form of the Ancient Egyptian Hor-em-Akhet but I have taken the liberty of rendering it simply as Hor-em-Akhet to avoid further confusing multiplication of names!

17. Ibid., p. 6.

18. N. Wyatt, *Religious Texts from Ugarit*, Sheffield Academic Press, 1998, p. 378 ff.

19. Jacobus Van Dijk, 'The Canaanite God Hauron and his Cult in Egypt', *GM* 107 (1989), p. 61. Paper presented at the Fourth International Congress of Egyptology, Munich, 26 Aug-1 Sept 1985. Pdf available here: http://www.jacobusvandijk.nl/docs/GM_107.pdf.

20. N. Wyatt, *Religious Texts from Ugarit*, op. cit., p. 385.

21. Ibid., p. 386.

22. Nina Jidejian, *Baalbek: Heliopolis, City of the Sun*, Dar el-Machreq Publishers, Beirut, 1975, p. 5. See also Michael M. Alouf, *History of Baalbek*, American Press, Beirut, 1951, p. 38,

and Friedrich Ragette, *Baalbek*, Chatto & Windus, London, 1980, p. 16.

23. Christiane Zivie-Coche, 'Foreign Deities in Egypt', op. cit., pp. 2-4, and Figure 4. See also Selim Hassan, *The Great Sphinx and its Secrets: Historical Studies in the Light of Recent Excavations* (*Excavations at Giza 1936-1937*, Vol. VIII), op. cit., p. 278.
24. Friedrich Ragette, *Baalbek*, op. cit., p. 16.
25. See David Grene (Trans.), Herodotus, *The History*, Book 2, The University of Chicago Press, Chicago and London, 1987, p. 132 ff.
26. Friedrich Ragette, *Baalbek*, op. cit., p. 20.
27. Ibid.
28. Ibid., pp. 16-17, 72.
29. Cited in Michael M. Alouf, *History of Baalbek*, op. cit., p. 65.
30. Ibid.
31. Cited in Ibid., p. 66.
32. Friedrich Ragette, Baalbek, op. cit., p. 27.

33. Michael M. Alouf, *History of Baalbek*, op. cit., pp. 69-70.
34. Ibid., p. 71.
35. Ibid.
36. Ibid., pp. 71-2.
37. Ibid., p. 73.
38. Ibid., p. 74.
39. Dell Upton, 'Starting from Baalbek: Noah, Solomon, Saladin, and the Fluidity of Architectural History,' *Journal of the American Society of Architectural Historians*, Vol. 68, No. 4 (December 2009), p. 458.
40. Michael M. Alouf, *History of Baalbek*, op. cit., p. 86.
41. See Dell Upton, 'Starting from Baalbek', op. cit., pp. 459-60: 'The sense that Baalbek was profoundly European, a product of the Roman culture upon which "the West" was grounded, moved into the scholarly literature when the German archaeological excavations of the first years of the twentieth century gave us the Baalbek we know today.'

42. See, for example, Margarete van Ess and Llaus Rheidt (Eds.), *Baalbek-Heliopolis 10.000 Jahre Stadtgeschichte* [*Baalbek-Heliopolis: 10,000 Year History of The City*], Zabern Philipp Von GmbH, 2014.

43. Margaret van Ess, 'First Results of the Archaeological Cleaning of the Deep Trench in the Great Courtyard of the Jupiter Sanctuary,' in 'Baalbek/Heliopolis: Results of Archaeological and Architectural Research 2002-5', in *Bulletin d'Archaeoligie et d'Architecture Libanaises* (BAAL), Hors-Serie IV, Beirut, 2008, p. 113. See also Daniel Lohmann, 'Giant Strides Towards Monumentality: The Architecture of the Jupiter Sanctuary in Baalbek/Heliopolis,' *Bolletino Di Archeologia On Line*, 2010, Volume special/Poster Session 2, p. 29: 'Tell Balbek … was continuously inhabited since the pre-pottery Neolithic period.'

44. Timothy Hogan, *Entering the Chain of Union: An Exploration of Esoteric Traditions and What Unites Them*, 2012, pp. 238-9, 242-5.

45. For the cult of Mercury at Baalbek, see Nina Jidejian, *Baalbek Heliopolis*, op. cit., pp. 28, 29, 30, 33, 36, 37, 45, 54-5. For the Thoth-Hermes connection see Garth Fowden, *The Egyptian Hermes*, Cambridge University Press, 1987, and Patrick Boylan, *Thoth: Hermes of Egypt*, Ares Publishers, Chicago, 1987.

46. Nina Jidejian, *Baalbek Heliopolis*, op. cit., p. 54.

47. Hartoune Kalayan, 'Notes on the Heritage of Baalbek and the Beka'a', op. cit., p. 53.

48. Nina Jidejian, *Baalbek Heliopolis*, p. 30.

49. A piece identified as a fragment from the north corner of the pediment of the Temple of Jupiter. I have seen the piece and do not dispute the weight of 360 tons given in Christian and Barbara Joy O'Brien, *The Shining Ones*, Dianthus Publishing Ltd., Cirencester, 2001, p. 272.

50. Michael M. Alouf, *History of Baalbek*, op. cit., pp. 85-6.

51. Ibid., p. 85.

52. Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill*, op. cit., p. 162.

53. Dimensions for length and height given by Daniel Lohmann in our later personal correspondence (email dated 8 Feb 2015) and see also Michael M. Alouf, *History of Baalbek*, op. cit., pp. 86-7 who gives the width and very slightly different dimensions for length and height.

54. I am grateful to architect and archaeologist Daniel Lohmann for explaining these details to me in our later personal correspondence (email dated 8 February 2015).

55. Dell Upton, 'Starting from Baalbek,' op. cit: 'Ancient written documentation is almost non-existent, and most of what has survived was written centuries after the construction of these buildings. There is absolutely no evidence, for example, to tell us who commissioned, paid for, or designed any portion of the complex.'

56. Daniel Lohmann describes the design and construction of the wall as 'megalomaniac' in 'Giant strides towards Monumentality,' op. cit., p. 28.
57. Andreas J.M. Kropp and Daniel Lohmann, 'Master look at the size of those stones!' op. cit., p. 38.
58. Ibid., p. 39.
59. Ibid.
60. Ibid, p. 38.
61. Ibid, p. 44.
62. Daniel Lohmann, 'Giant Strides Towards Monumentality', op.cit., p. 29.
63. Daniel Lohmann, 'Master look at the size of those stones,' op.cit., p. 39.
64. Personal correspondence with Daniel Lohmann, email of 8 February 2015.
65. Jean-Pierre Adam, 'A propos du trilithon de Baalbek: Le transport et le mise en oeuvre des megaliths', *Syria,* T. 54 Fasc

1.2 (1977) p. 52.

Chapter 13

1. H. Kalayan, ‘The Engraved Drawing on the Trilithon and the Related Problems About the Constructional History of the Baalbek Temples’, *Bulletin du Musee de Beyrouth*, XXII (1969), p. 151.
2. Daniel Lohmann, ‘Drafting and Designing: Roman Architectural Drawings and their Meaning for the Construction of Heliopolis/Baalbek, Lebanon’, Proceedings of the Third International Congress on Construction History, Cottbus, May 2009.
3. Daniel Lohmann, ‘Giant Strides Towards Monumentality: The Architecture of the Jupiter Sanctuary in Baalbek/Heliopolis,’

Bolletino Di Archeologia On Line, 2010, Volume special/Poster Session 2, p. 28.

4. http://dictionary.reference.com/browse/podium?s=t.
5. Ibid.
6. http://dictionary.reference.com/browse/stereobate?s=t.
7. Ibid.
8. http://en.wikipedia.org/wiki/Crepidoma.
9. Personal correspondence with Daniel Lohmann, email of 9 February 2015: 'the Romans were rather pragmatic …'
10. H. Kalayan, 'The Engraved Drawing on the Trilithon and the Related Problems', op. cit., pp. 151-2.
11. http://www.jasoncolavito.com/blog/ancient-astronauts-at-baalbek. For his claim to be a debunker of fringe science and revisionist history see Jason Colavito's biography, here: http://www.jasoncolavito.com/biography.html.
12. https://gilgamesh42.wordpress.com/about/.

13. https://gilgamesh42.wordpress.com/2013/04/25/moving-the-stones-of-baalbek-the-wonders-of-roman-engineering/. Adair's whole argument is that below the three great stones of the Trilithon: 'are other impressive stones that act as a base for the Trilithon. While not as massive as the Trilithon stones these base structures each have a considerable mass. However below them was discovered a part of a drum to a column. The size of the drum corresponds to the columns used for the Jupiter temple, so this was likely a leftover or no longer useful piece of one of those columns. Because it is underneath the base stones, this drum must have been placed there before the Trilithon was put into place. Also, on top of one of the Trilithon stones there is a drawing of the plans for the Temple of Jupiter, which was built over by the Romans when it was no longer needed. By having pieces of the Jupiter temple below the Trilithon and these drawings on top we can be reasonably certain that the Trilithon stones were put into place contemporaneously with the construction of the Temple of

Jupiter. So already, by having the Trilithon stones contemporaneous with the temple we have established the Roman provenance of the structure.'

14. Michael Alouf, refers to this exact section of wall in his *History of Baalbek*, op. cit., originally published in July 1890, and reprinted multiple times through until 1951. On p. 98 where he describes the Trilithon ('No description will give an exact idea of the bewildering and stupefying effect of these tremendous blocks on the spectator') and then notes: 'Above these blocks are the Arab fortifications built, as has already been said, of bases of columns, sculptured friezes and fallen fragments, still bearing an inscription dating to the time of Bahram Shah.'

15. Friedrich Ragette, Baalbek, Chatto & Windus, London, 1980, pp. 32-3.

16. E.g. as well as the above detailed in note 8, see Michael Alouf, *History of Baalbek*, op. cit., p. 85, and Nine Jidejian, *Baalbek Heliopolis*, p. 36.

17. Michael Alouf, *History of Baalbek*, op. cit., p. 86.
18. For the close identification of the Phoenicians with the Canaanites see Gerard Herm, *The Phoenicians*, Victor Gollancz Ltd., 1975 (Book Club Associates edition), p. 25.
19. Ibid., p. 83.
20. Before the Trojan war. See Harold W. Attridge and Robert A. Oden Jr., *Philo of Byblos: The Phoenician History*, The Catholic Biblical Quarterly Monograph Series 9, Washington DC, 1981, p. 4.
21. Ibid., pp. 1-3.
22. Ibid., p. 53.
23. Sabatino Moscati, *The World of the Phoenicians*, Cardinal/Sphere Books, 1973, p. 66.
24. E. Richmond Hodges (Ed.), *Cory's Ancient Fragments of the Phoenician, Carthaginian, Babylonian, Egyptian and other Authors*, Reeves and Turner, London, 1876, p. 13. Emphasis added.

25. Miriam Lichtheim, *Ancient Egyptian Literature*, Vol. III, University of California Press, Berkeley, Los Angeles, London, 1980, p. 148.
26. David Urquhart, *The Lebanon (Mount Souria): A History and a Diary*, Vol. 2, Thomas Cautley Newby, London, 1860, p. 369.
27. Dell Upton, 'Starting from Baalbek: Noah, Solomon, Saladin and the Fluidity of Architectural History,' *Journal of the Society of Archaeological Historians*, Vol. 68, No. 4 (December 2009), p. 461.
28. David Urquhart, *History and a Diary*, op. cit., p. 382.
29. Ibid., p. 371.
30. Ibid.
31. Ibid., pp. 370-3.
32. Ibid., p. 373.
33. Ibid., pp. 374-5.
34. Ibid., p. 377.
35. Ibid., pp. 376, 377, 378.

36. Ibid., p. 376.
37. The alleged ‘tomb of Noah’, Karak Nuh, can be seen within a mosque in the town of Zahle on the edge of the Bekaa Valley. The ‘tomb’ is 31.9 metres (105 feet) long, 2.7 metres (8.7 feet) wide and 0.98 metres (3.2 feet) high.
38. Cited in Michael Alouf, *History of Baalbek*, op. cit., pp. 39-40.
39. Ibid., p. 40.
40. Ibid., p. 41. The Arabic manuscript was ‘found at Baalbek’.
41. Jean-Pierre Adam, ‘*A propos du trilithon de Baalbek: Le transport et la mise en oeuvre des mégaliths*,’ Syria, T. 54, Fase 1-2 (1977), p. 52.
42. Ibid., pp. 31-63.
43. Ibid., p. 54.
44. Ibid., p. 56.
45. Ibid., p. 61.
46. Ibid.
47. Ibid.

48. Friedrich Ragette, *Baalbek*, op. cit., pp. 114-19.
49. Ibid., p. 119.
50. See Christian and Barbara Joy O'Brien, *The Shining Ones*, Dianthus Publishing Ltd., London, Cirencester, 2001, p. 275.
51. Jean-Pierre Adam, '*A propos du trilithon'*, op. cit., p. 62.
52. The upper surface of the southernmost block, where I sat in the shade as described at the beginning of this chapter, and on which the architectural drawing of the Temple of Jupiter pediment was found, is sufficiently clear of masonry to be sure of this. It is this upper surface, over the centre of mass, in which any hypothetical Lewis holes would have had to be made. Since there are no Lewis holes here, on the largest and heaviest of the three blocks, it is a reasonable assumption that there are none on the other two either.
53. See discussion in Graham Hancock and Robert Bauval, *Talisman: Sacred Cities, Secret Faith*, Penguin Books, London, 2005, pp. 302-5.

54. The weight of 1,250 tons for the Saint Petersburg megalith is given in Adam, *A propos du trilithon*, op. cit., p. 42. See also Ragette, *Baalbek*, op. cit., pp. 118-19.

55. Zecharia Sitchin, *The Stairway to Heaven*, Harper, London, 2007 (reprint edition), p. 241.

56. Ibid., pp. 235, 241.

57. Ibid., p. 310.

58. Elif Batuman, 'The Myth of the Megalith', *New Yorker*, 18 December 2004, http://www.newyorker.com/tech/elements/baalbek-myth-megalith.

59. Jean-Pierre Adam, '*A propos du trilithon'*, op. cit., p. 52.

60. Erwin M. Ruprechtsberger, 'Von Steinbruch zum Jupitertempel von Heliopolis/Baalbek', *Linzer Archaeologische Forschungen* (1999) 30, 7-56.

61. German Archaeological Institute figures, http://www.dainst.org/pressemitteilung/-

/asset_publisher/nZcCAiLqg1db/content/libanesisch-deutsches-forscherteam-entdeckt-weltweit-gro%C3%9Ften-antiken-steinblock-in-baalbek.

62. Personal correspondence with Daniel Lohmann, email sent from Daniel Lohmann to Graham Hancock, 8 February 2015.

63. Personal correspondence with Daniel Lohmann, email sent from Graham Hancock to Daniel Lohmann, 8 February 2015.

64. Personal correspondence with Daniel Lohmann, email sent from Daniel Lohmann to Graham Hancock, 9 February 2015.

65. http://www.panoramio.com/photo/46982253 and (back view): http://www.bc.edu/bc_org/avp/cas/fnart/arch/roman/carree02.jpg and a detailed view: http://www.maisoncarree.eu/wp-content/uploads/2012/07/1_1_1_5_DSCN 0047-650x487.jpg.

66. https://www.flickr.com/photos/97924400@N00/7421596468/.

67. Ibid.

68. Personal correspondence with Daniel Lohmann, email sent from Graham Hancock to Daniel Lohmann, 9 February 2015.

69. Ibid.
70. Personal correspondence with Daniel Lohmann, email sent from Daniel Lohmann to Graham Hancock, 13 February 2015.
71. Lohmann provided the following link to illustrate the point: http://www.unicaen.fr/cireve/rome/pdr_virtuel.php?virtuel=ultor&numero_image=0.
72. Personal correspondence with Daniel Lohmann, email sent from Daniel Lohmann to Graham Hancock, 13 February 2015.
73. Ibid.
74. Ibid.
75. The drawing, captioned 'Hossn Niha Tempelpodium, Profil', is from Daniel Krencker, Willy Zschietzschmann (Hrsg.), *Römische Tempel in Syrien nach Aufnahmen und Untersuchungen von Mitgliedern der deutschen Baalbekexpedition 1901–1904*, De Gruyter, Berlin/Leipzig, 1938, S. 122–34.
76. Personal correspondence with Daniel Lohmann, email sent from Daniel Lohmann to Graham Hancock, 13 February 2015.

Chapter 14

1. See Yosef Garfinkel, 'Neolithic and Eneolithic Byblos in Southern Levantine Context', in E.J. Peltenburg and Alexander Wasse, *Neolithic Revolution: New Perspectives on Southwest Asia in Light of Recent Discoveries on Cyprus (Levant Supplementary)*, Oxbow Books, 2004, p. 182.
2. The reader will recall from Chapter One that Professor Klaus Schmidt put the final abandonment and deliberate burying of Göbekli Tepe at 8200 BC.
3. Michael Dumper, Bruce E. Stanley (Eds.), *Cities of the Middle East and North Africa: A Historical Encyclopedia,* ABC-CLIO, 2006, p. 104.
4. Ibid.
5. Nina Jidejian, *Byblos Through the Ages*, Del El-Machreq Publishers, Beirut, 1971, p. 2.

6. Dell Upton, ‘Starting from Baalbek: Noah, Solomon, Saladin, and the Fluidity of Architectural History,’ *Journal of the American Society of Architectural Historians*, Vol. 68, No. 4 (December 2009), p. 457.
7. Ibid.
8. Nina Jidejian, *Baalbek: Heliopolis, City of the Sun*, Dar el-Machreq Publishers, Beirut, 1975, p. 17.
9. Dell Upton, ‘Starting from Baalbek’, op. cit., p. 458.
10. Ibid.
11. Daniel Lohmann, ‘Giant Strides Towards Monumentality: The Architecture of the Jupiter Sanctuary in Baalbek/Heliopolis,’ *Bolletino Di Archeologia On Line*, 2010, p. 28.
12. See, for example, the discussion in James Bailey, *The God Kings and the Titans: The New World Ascendancy in Ancient Times*, Hodder & Stoughton, London, 1973, p. 36ff.
13. See discussion in E.A. Wallis Budge, *Osiris and the Egyptian Resurrection*, Dover Publications Inc., New York, 1973 (reprint

edition), Vol. I,.

14. Ibid.

15. Ibid., p. 3.

16. Ibid., pp. 4-5.

17. Ibid., pp. 5-8.

18. Ibid., p. 93.

19. Selim Hassan, *Excavations at Giza*, Vol. VI, Part I, Government Press, Cairo, 1946, p. 11.

20. R.O. Faulkner (Trans. and Ed.), *The Ancient Egyptian Pyramid Texts*, Oxford University Press, 1969, Aris & Phillips reprint edition, Utterance 442, p. 147.

21. Ibid., Utterance 412, p. 135.

22. Ibid., Utterance 442, p. 147.

23. Selim Hassan, *Excavations at Giza*, Vol. VI, Part I, Government Press, Cairo, 1946, p. 45.

24. Ibid.

25. Francis Yates, *Giordano Bruno and the Hermetic Tradition*, The University of Chicago Press, Chicago and London, 1979, p. 49ff.

26. Tamara Green, *The City of the Moon God: Religious Traditions of Harran*, E.J. Brill, Leiden, New York, 1992, p. 3. The Sabians are mentioned three times in the Koran as a 'people of the book' – Koran 5:69 (http://www.usc.edu/org/cmje/religious-texts/quran/verses/005-qmt.php#005.069) is particularly clear, but see also Koran 2:62 (http://www.usc.edu/org/cmje/religious-texts/quran/verses/002-qmt.php#002.062), and Koran 22:17 (http://www.usc.edu/org/cmje/religious-texts/quran/verses/022-qmt.php#022.017).

27. Brian P. Copenhaver, *Hermetica: The Greek Corpus Hermeticum and the Latin Asclepius in a new English Translation with notes and introduction*, Cambridge University Press, 1992. See also Sir Walter Scott (Ed. and Trans.), *Hermetica: The Ancient Greek and Latin Writings which contain*

Religious or Philosophic Teachings attributed to Hermes Trismegistus, Shambhala, Boston, 1993.

28. Manfred Lurker, *An Illustrated Dictionary of The Gods and Symbols of Ancient Egypt*, Thames and Hudson, London, 1995, p. 121. See also Margaret Bunson, *The Encyclopedia of Ancient Egypt*, Facts on File, New York, Oxford, 1991, p. 264.

29. Michael Baigent, *From the Omens of Babylon: Astrology and Ancient Mesopotamia*, Arkana Penguin Books, London, 1994, p. 186.

30. Harold W. Attridge and Robert A. Oden Jr., *Philo of Byblos: The Phoenician History*, The Catholic Biblical Quarterly Monograph Series 9, Washington DC, 198, p. 29.

31. Nina Jidejian, *Byblos*, op. cit., p. 10.

32. Bahattin Celik, 'Karahan Tepe: A New Cultural Centre in the Urfa area of Turkey', *Documenta Praehistorica*, XXXVIII (2011), pp. 241-53.

33. Ibid., p. 242.

34. Giulio Magli, 'Sirius and the Project of the Megalithic Enclosures at Göbekli Tepe', http://arxiv.org/pdf/1307.8397.pdf, 2013. Magli's paper attracted considerable attention and was discussed in an article in *New Scientist* magazine, 'World's Oldest Temple Built to Worship the Dog Star', *New Scientist*, 16 August 2013, http://www.newscientist.com/article/mg21929303.400-worlds-oldest-temple-b#173;uilt-to-worship-the-dog-star.html#.VOID7bCsXG8, and elsewhere, e.g. http://www.science20.com/science_20/gobekli_tepe_was_no_laug 120278.

35. Giulio Magli, 'Sirius and the Project of the Megalithic Enclosures at Göbekli Tepe', op. cit., p. 2.

36. Ibid.

37. Ibid.

38. Robert M. Schoch, *Forgotten Civilization, Inner Traditions*, Rochester, Vermont, 2012, pp. 54-5.

39. Andrew Collins, *Göbekli Tepe: Genesis of the Gods*, Bear & Co., Rochester, Vermont, 2014, p. 81ff.

40. De Lorenzis, A. and Orofino, V. (2015) 'New Possible Astronomic Alignments at the Megalithic Site of Göbekli Tepe, Turkey', *Archaeological Discovery*, 3, p. 40. doi: 10.4236/ad.2015.31005.

41. Ibid., pp. 40-50.

42. Juan Antonio Belmonte, 'Finding our Place in the Cosmos: The Role of Astronomy in Ancient Cultures,' *Journal of Cosmology*, Vol. 9, 2010, p. 2055.

43. Alexander A. Gurshtein, 'The Evolution of the Zodiac in the Context of Ancient Oriental History', *Vistas in Astronomy*, Vol. 41, No. 4, 1998, p. 521.

44. Ibid. See also Alexander A. Gurshtein, 'The Origins of the Constellations', *American Scientist*, Vol. 85, No. 3 (May–June 1997), p. 268.

45. Michael A. Rappengluck, ‘The Pleiades in the “Salle des Taureaux”, Grotte de Lascaux. Does a Rock Picture in the Cave of Lascaux show the Open Star Cluster of the Pleiades at the Magdalenian Era (ca 15,300 BC)?’ in C. Jashek and F. Atrio Barendela (Eds.), *Actas del IV Congresso de la SEAC*, Universidad de Salamanca, 1997, pp. 217-25.
46. Ibid.
47. Michael A. Rappengluck, ‘Palaeolithic Timekeepers Looking at the Golden Gate of the Ecliptic’, *Earth, Moon and Planets*, 85-86, 2001, p. 391.
48. Ibid.
49. Ibid., pp. 401-2.
50. http://freebook.fernglas-astronomie.de/?page_id=879. See also: http://www.analemma.de/jupisat.html. I emailed Michael Rappengluck on 17 February 2015 and received his confirmation on 18 February 2015 that he was indeed referring to the Hyades

and the Pleiades when he wrote of the 'Golden Gate of the Ecliptic'. He added: 'In the case of the Pleiades and Hyades it is important to keep in mind that the moon can pass through both open clusters during his 18.36 draconic period: They are just ca. 5° away from the ecliptic indicating the lunar orbit with its extreme positions. That is why both open clusters had been recognised as very important and why this "gate" is unique.'

51. The moon's orbital plane is inclined to the ecliptic plane by only about 5.1 degrees. Its movements are therefore are confined quite closely to the plane of the ecliptic, and always within the zodiacal constellations.

52. Juan Antonio Belmonte, 'Finding our Place in the Cosmos', op. cit., p. 2054.

53. Ibid.

54. http://www.grahamhancock.com/forum/BurleyP1.php.

55. John Major Jenkins, *Maya Cosmogenesis*, 2012, Bear & Company, Rochester, Vermont, 1998, p. 113.

56. In Mayan mythology, for example – see ibid., p. 51ff and also, John Major Jenkins, *The 2012 Story*, Tarcher/Penguin, New York, 2009, p. 138ff. And in Inca mythology – see for example William Sullivan, *The Secret of the Incas*, Crown, New York, 1996, p. 30ff. And in for Germanic mythology: http://www.germanicmythology.com/ASTRONOMY/MilkyWay2

Chapter 15

1. See Figures 4 and 5 here: http://www.grahamhancock.com/forum/BurleyP1.php.
2. Nick Kollerstrom, 'The Star Zodiac of Antiquity', *Culture and Cosmos*, Vol. 1, No. 2, Autumn/Winter 1997.
3. Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill*, Nonpareil, Boston, 1969, pp. 216-17.

4. E.C. Krupp, *In Search of Ancient Astronomies*, Chatto & Windus, London, 1979, pp. 199-200.
5. Email exchange with Paul Burley, 14 February to 17 February 2015.
6. Rupert Gleadow, *The Origin of the Zodiac*, Dover Publications Inc., 2001, p. 167.
7. See discussion by Kathryn Slanski, 'Classification, Historiography and Monumental Authority: The Babylonian Entitlement Narus (Kudurrus),' *Journal of Cuneiform Studies* 52 (2000), pp. 95-114. E.g. p. 114: 'Recategorizing the *Kudurrus* as monuments standing in association with the temple, rather than as boundary markers out in the fields, provides a context that makes these objects and their material, textual and iconographic aspects intelligible in relation to their function.'
8. Rupert Gleadow, *The Origin of the Zodiac*, op. cit., p. 167.
9. See here, for example: http://en.wikipedia.org/wiki/Nebuchadnezzar_I#mediaviewer/File

Kudurri-Usur.jpg.

10. Rupert Gleadow, *The Origin of the Zodiac*, op. cit, p. 167.

11. Giulio Magli, 'Sirius and the Project of the Megalithic Enclosures at Göbekli Tepe', http://arxiv.org/pdf/1307.8397.pdf, 2013.

12. Some photographs and further description can be found here: http://travel_toeat.com/babylonian-kudurru-at-the-louvre-2/. See also Jeremy Black and Anthony Green, *Gods, Demons and Symbols of Ancient Mesopotamia: An Illustrated Dictionary*, British Museum Press, London, 1992, pp. 16-17, 113-14.

13. John Major Jenkins, *Maya Cosmogenesis*, 2012, Bear & Company, Rochester, Vermont, 1998, p. 111; John Major Jenkins, *Galactic Alignment*, Bear & Company, Rochester, Vermont, 2002, p. 19.

14. John Major Jenkins, *Maya Cosmogenesis*, op. cit., p. 107.

15. Graham Hancock, *Fingerprints of the Gods*, op. cit. See, in particular, Chapter 21, 'A Computer For Calculating The End of

the World'.

16. Ibid., p. 105.

17. The most accurate figures are in Andrew Collins, *Göbekli Tepe, Genesis of the Gods*, Bear & Co., Rochester, Vermont, 2014, pp. 78-9. These figures are also used by A. De Lorenzis and V. Orofino (2015) 'New Possible Astronomic Alignments at the Megalithic Site of Göbekli Tepe, Turkey', *Archaeological Discovery*, 3, p. 40. doi: 10.4236/ad.2015.31005.

Chapter 16

1. Kay Prag, 'The 1959 Deep Sounding at Harran in Turkey,' *Levant* 2 (1970), pp. 71-2. 'That the site was occupied at an early date is certain.' Limited archaeology, however, so far supports this with only one item, a piece of Samarra Ware style pottery,

circa 5000 BC found in a deep sounding of the ancient Tell of Harran.

2. Seton Lloyd and William Brice, 'Harran', *Anatolian Studies*, Vol. I (1951), p. 87.
3. Selim Hassan, *Excavations at Giza*, Vol. VI, Part I, Government Press, Cairo, 1946, p. 45.
4. The hieroglyphic inscription dated to AD 394 is in the Temple of Isis at Philae. The last known example of demotic graffiti is dated 425 AD. 'If knowledge of the hieroglyphs persisted beyond this time, no record of it has been found.' John Anthony West, *The Traveller's Key to Ancient Egypt*, Harrap Columbus, London, 1987, p. 426. Kurt Sethe's translation of the Pyramid Texts, in which the stellar cult around the Pyramids is made clear, was published in 1910; Breasted incorporated many quotations from Sethe's text in his *Development of Religion and Thought in Ancient Egypt*; R.O. Faulkner's definitive edition of the Pyramid

Texts was not published until 1969. See discussion in R.O. Faulkner, *The Ancient Egyptian Pyramid Texts*, Oxford University Press, 1969, p. v.

5. http://jqjacobs.net/blog/gobekli_tepe.html.
6. Tamara Green, *The City of the Moon God: Religious Traditions of Harran*, E.J. Brill, Leiden, New York, 1992, p. 25.
7. Ibid., p. 52.
8. Ibid., p. 21.
9. Ibid.
10. Ibid., pp. 97, 121.
11. Ibid., pp. 95-7.
12. Ibid., p. 100.
13. Archaeologists excavating the Hoyuk – mound or tumulus – of Harran in 1985 felt confident they were 'near the temple of the god Sin' but I have been unable to find any subsequent reports of actual discoveries of its remains. See M. Olus Arik et al, 'Recent

Archaeological Research in Turkey', *Anatolian Studies*, Vol. 36 (1986), p. 194.

14. See Michael Baigent, *From the Omens of Babylon: Astrology and Ancient Mesopotamia*, Arkana, London, 1994, p. 189. See also Lawrence E. Stager, 'The Harran Project' (University of Chicago): http://oi.uchicago.edu/sites/oi.uchicago.edu/files/uploads/shared/d90/82-83/82-83_Harran.pdf.

15. See, for example, *Hurriyet Daily News*, 26 July 2012: http://www.hurriyetdailynews.com/harran-rises-once-more-with-dig.aspx?pageID=238&nID=26318; and 4 September 2012: http://www.hurriyetdailynews.com/ancient-bath-remains-found-in-harran.aspx?pageID=238&nID=71288&NewsCatID=375; and: 7 December 2012: http://www.hurriyetdailynews.com/roman-traces-found-in-harran.aspx?pageID=238&nID=36271&NewsCatID=375.

16. Kay Prag, 'The 1959 Deep Sounding at Harran in Turkey,' op. cit., pp. 71-2.
17. Seton Lloyd and William Brice, 'Harran', op. cit., p. 110.
18. *City of Civilizations, Harran*, T.C. Harran Kaymakamligi (official publication of the Government of Harran), p. 5.
19. Tamara Green, *The City of the Moon God*, op. cit., p. 183-4. See also Sir Walter Scott (Ed. and Trans.), *Hermetica: The Ancient Greek and Latin Writings which contain Religious or Philosophic Teachings attributed to Hermes Trismegistus*, Shambhala, Boston, 1993, p. 101. The description of Enoch as 'the seventh from Adam' is found in Jude 1:14. And see Genesis 5: 1-32, 'The Book of the Generations of Adam'. The ten patriarchs listed are Adam, Seth, Enos, Cainan, Mahalaleel, Jared, Enoch, Methusaleh, Lamech, Noah (https://www.biblegateway.com/passage/?search=Genesis+5&version=KJV). There is frequently confusion between Enos, the third patriarch and Enoch the seventh

patriarch. However no special intelligence, skills or qualities are attributed to Enos whereas, by contrast, Enoch 'walked with God' (Genesis 5: 24) and mysteriously vanished from the Earth 'for God took him' (Genesis 5: 24). The Book of Hebrews elaborates (Hebrews 11: 5): 'By faith Enoch was taken away so that he did not see death, "and was not found, because God had taken him"; for before he was taken he had this testimony, that he pleased God.'

20. Genesis 5: 19-30.

21. E.g. see Tamara Green, *The City of the Moon God*, op. cit., p. 170.

22. Cited in ibid., p. 137.

23. Cited in ibid., p. 138.

24. Selim Hassan, *Excavations at Giza*, Vol. VI, Part I, op. cit., p. 45. It is noteworthy that while much learned speculation is reported by Tamara Green in her authoritative monograph, *The City of the Moon God*, op. cit., pp. 106, 117, etc, etc, concerning

the origin of the name Sabian she seems unaware of the elegant solution proposed by Selim Hassan.

25. Genesis 5: 24. See also Hebrews 11: 5: ‘By faith Enoch was taken away so that he did not see death, “and was not found, because God had taken him”; for before he was taken he had this testimony, that he pleased God.’

26. Around the third to second centuries BC. See R.H. Charles (Trans.), *The Book of Enoch*, SPCK, London, 1987, Introduction, p. xiii.

27. I write extensively about James Bruce, and about his travels and adventures in Ethiopia, in my book *The Sign and the Seal: A Quest for the Lost Ark of the Covenant*, Heinemann, London, 1992.

28. H.F.D. Sparks (Ed.), *The Apocryphal Old Testament*, Clarendon Paperbacks, Oxford, 1989, p. 170: ‘Among the Ethiopia manuscripts that Bruce brought back were three containing what

is now known as “1 Enoch” or “Ethiopian Enoch”. One of these manuscripts (now in the Bodleian Library at Oxford) contained “1 Enoch” only; the second (also in the Bodleian) contained “1 Enoch” followed by Job, Isaiah, “The Twelve”, Proverbs, Wisdom, Ecclesiastes, Canticles and Daniel; the third (now in the Bibliotheque Nationale in Paris) is a transcript of the second.’

29. Kenneth Mackenzie, *The Royal Masonic Cyclopaedia*, first published 1877, Aquarian Press reprint edition, 1987, p. 201.
30. Ibid.
31. Ibid., p. 202.
32. Ibid., e.g. pp. 40, 114, etc.
33. R.H. Charles (Trans.), *The Book of Enoch*, op. cit., p. 37.
34. Ibid.
35. Ibid.
36. Ibid., p. 31.
37. Ibid., pp. 35, 37, 89, etc.
38. Ibid., pp. 35-6.

39. Ibid., p. 39.
40. Ibid., p. 40.
41. Ibid., p. 39.
42. Ibid.
43. Ibid.
44. Ibid., pp. 34-5.
45. Ibid., p. 46.
46. Ibid.
47. Ibid., p. 40.
48. Ibid.
49. Graham Hancock, *Supernatural: Meetings with the Ancient Teachers of Mankind*, Century, London, 2005.
50. It is notable in later chapters of the Book of Enoch, after the bad Watchers have been admonished and received their punishment, that the good Watchers reveal to Enoch a great many of the secrets, notably astronomical lore, that the bad Watchers were condemned for revealing. See, for example, R.H. Charles

(Trans.), *The Book of Enoch*, op. cit., Chapter 41, p. 60ff, Chapter 71, p. 93ff, Chapter 72, p. 95 ff, etc, etc. Perhaps it is because he comes into possession of this restricted knowledge himself that Enoch ultimately vanishes from the earth – 'taken away by God' as the Bible has it in Genesis 5: 24.

51. R.H. Charles (Trans.), *The Book of Enoch*, op. cit., p. 35.
52. E.g. see closing paragraphs of this article: http://www.dailymail.co.uk/news/article-2513866/A-GI-Christmas-How-American-soldiers-bearing-gifts-extra-rations-proved-festive-hit-British-families-WWII.html.
53. R.H. Charles (Trans.), *The Book of Enoch*, op. cit., p. 37.
54. Ibid., p. 34.
55. Ibid., p. 36.
56. Ibid., p. 35.
57. Ibid.
58. Ibid., p. 36.
59. Ibid., p. 37.

60. Ibid.
61. Ibid.
62. Genesis 6: 4, King James Version.
63. Genesis 6: 4, New International Version.
64. Genesis 6: 5-8, New International Version. The King James Version reads as follows: ‘And God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. And it repented the Lord that he had made man on the earth, and it grieved him at his heart. And the Lord said, I will destroy man whom I have created from the face of the earth; both man, and beast, and the creeping thing, and the fowls of the air; for it repenteth me that I have made them. But Noah found grace in the eyes of the Lord.’
65. Zecharia Sitchin, *The 12th Planet*, Harper, New York, 1976, reprinted 2007, p. 171. To be fair, Sitchin is not alone in making this mistake. A number of genuine Biblical scholars make it also. Writing in The *Jewish Quarterly Review* in 1985, for example,

Jonas C. Greenfield describes the Nephilim as 'fallen angels' (Jonas C. Greenfield, 'The Seven Pillars of Wisdom', *The Jewish Quarterly Review*, New Series, Vol. 26, No. 1, p. 19). Likewise in a paper in the *Journal of Biblical Literature* published in 1987, Ronald S. Hendel tells us: 'Nephilim literally means "the fallen ones" … It is a … passive adjectival formation of the root *npl* ("to fall") … Similar uses of the verb *napal* and its derivatives are found elsewhere in the Hebrew Bible' (Ronald S. Hendel, 'Of Demigods and the Deluge: Toward an Interpretation of Genesis 6: 1-4', *Journal of Biblical Literature*, Vol. 106, No. 1, March 1987, p. 22).

66. http://www.sitchiniswrong.com/nephilim/nephilim.htm.
67. Numbers 13: 32-3.
68. http://www.sitchiniswrong.com/nephilim/nephilim.htm.
69. Ibid.
70. Zecharia Sitchin, *The 12th Planet*, op. cit., p. 257.
71. Ibid., p. 172.

72. Ibid., p. 267.
73. R.H. Charles (Trans.), *The Book of Enoch*, op. cit.
74. Ibid., for example, 7: 2 and 7: 4, p. 35; 9:9, p. 36; 15:3, p. 42.
75. Michael A. Knibb (Ed.), *The Book of Enoch: A New Edition in the Light of the Aramaic Dead Sea Fragments*, Oxford University Press, 1979.
76. George W.E. Nickelsburg and James C. VanderKamm, *1 Enoch: The Hermenia Translation*, Augusburg Fortress, Minneapolis, 2012.
77. R.H. Charles (Trans.), *The Book of Enoch*, op. cit., p. 36.
78. http://clavisjournal.com/the-shadow-of-harran/.
79. Luke 3: 36.
80. R.H. Charles, *The Book of Jubilees*, SPCK, London, 1927, pp. 71-2.
81. http://jqjacobs.net/blog/gobekli_tepe.html.
82. As demonstrated in Peter Tompkins, *Secrets of the Great Pyramid*, Harper & Row, New York and London, 1978, pp. 101-

3.

83. Einar Palsson, *The Sacred Triangle of Pagan Iceland*, Mimir, Reykjavik, 1993, p. 32.

84. Ibid.

85. Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill: An Essay Investigating the Origins of Human Knowledge and its Transmission through Myth*, Nonpareil Books, 1977, reprinted 1999, p. 132.

86. The detailed workings can be found in Graham Hancock, *Fingerprints of the Gods*, William Heinemann & Co., London, 1995, pp. 434-6.

87. Tamara Green, *The City of the Moon God*, op. cit., p. 19.

88. http://jqjacobs.net/blog/gobekli_tepe.html.

89. Ibid.

90. Ibid.

91. Ibid.

92. AD 850 to AD 929 – http://www-history.mcs.st-andrews.ac.uk/Biographies/Al-Battani.html.

93. Nicholas Kollerstrom, 'The Star Temples of Harran', in Annabella Kitson (Ed.), *History and Astrology: Clio and Urania Confer*, Unwin, London, 1989, p. 57.

94. http://www-history.mcs.st-andrews.ac.uk/Biographies/Al-Battani.html.

95. http://www.physics.csbsju.edu/astro/newcomb/II.6.html.

96. http://www-history.mcs.st-andrews.ac.uk/Biographies/Al-Battani.html.

97. Ibid. citing Y. Maeyama, 'Determination of the Sun's orbit (Hipparchus, Ptolemy, al-Battani, Copernicus, Tycho Brahe)', *Arch. Hist. Exact Sci.* 53 (1) (1998), 1-49.

98. http://www-history.mcs.st-andrews.ac.uk/Biographies/Al-Battani.html.

99. *Complete Dictionary of Scientific Biography* (2008), cited in http://www.encyclopedia.com/doc/1G2-2830900300.html.
100. Cited in Walter Scott, *Hermetica*, op. cit., p. 105.
101. Tamara Green, *The City of the Moon God*, op. cit., p. 114.
102. Ibid., p. 12.
103. Ibid., p. 114.
104. Walter Scott, *Hermetica*, op. cit., pp. 97-9.
105. I describe Ma'mun's exploration of the Great Pyramid at some length in *Fingerprints of the Gods*, op. cit., pp. 296-9.
106. Peter Tompkins, *Secrets of the Great Pyramid*, op. cit., p. 5.
107. Ibid., p. 6.
108. For possible Mandean connections with the Sabians see, for example, Tamara Green, *The Temple of the Moon God*, op. cit., pp. 103, 119, 194-5, 205 ff.
109. 'The fact that the Harranian Pagans, when required to name a Scripture, chose the Hermetica, proves that in AD 830 a collection

of Hermetica was known and read in Syria … It may be inferred from the occurrence of the names Tat, Asclepius, and Ammon in conjunction with that of Hermes in Arabic writings, that these Harranians had in their possession Hermetic *libelli* in which the pupils were so named; and among these were presumably some that are now lost, as well as those which have come down to us. In the ninth century, Hermetic documents were most likely known to some scholars at Harran in the original Greek; but the Hermetica had probably been translated into Syriac long before that time, and were doubtless usually read in Syriac by Harranians …' Walter Scott, *Hermetica*, op. cit., pp. 101-2.

110. Frances A. Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1964, reprinted 1979, pp. 12-13.

111. Ibid., p. 13.

112. This is the primary thesis of my book *Talisman*, co-authored with Robert Bauval. See Graham Hancock and Robert Bauval,

Talisman: Sacred Cities, Secret Faith, Penguin Books, London, 2005.

113. Amar Annus, 'On the Origin of Watchers: A Comparative Study of the Antediluvian Wisdom in Mesopotamian and Jewish Traditions', *Journal for the Study of Pseudoepigrapha*, Vol. 19. 4 (2010), p. 283.

114. Ibid., p. 291.

115. Ibid., p. 280-1.

116. See, for example, ibid., pp. 277-320, and Anne Draffkorn Kilmer, 'The Mesopotamian Counterparts of the Biblical Nepilim,' in E.W. Conrad and E.G. Newing (Eds.), *Perspectives on Language and Text: Essays and Poems on Honor of Francis I Andersen's Sixtieth Birthday*, Eisenbrauns, Winina Lake Indiana, 28 July 1985, pp. 39-44. Likewise there are references to the Watchers in the Ancient Egyptian Pyramid Texts. See for example, R.O. Faulkner (Ed. and Trans.) *The Ancient Egyptian Pyramid Texts*, Oxford University Press, 1969, Reprinted by Aris

& Phillips Ltd. See, for example Utterance 373, p. 124 and Utterance 667A, p. 281.

117. Klaus Schmidt, *Göbekli Tepe: A Stone Age Sanctuary in South-Eastern Anatolia*, Ex Orient e.V., Berlin, Germany, 2012, p. 191.

Chapter 17

1. Graham Hancock, *Fingerprints of the Gods*, William Heinemann Ltd., London, 1995, p. 51.
2. Graham Hancock and Santha Faiia, *Heaven's Mirror*, Michael Joseph, London, 1998, p. 288.
3. J. Alden Mason, *The Ancient Civilizations of Peru*, Penguin Books, London, 1991, p. 163: 'It was formerly believed that the megalithic masonry, employing immense stones of irregular size and shape was pre-Inca in age … while masonry of stone blocks of relatively uniform size, laid in courses, was typical of the Inca.

But it is now generally agreed that both types were built by the Inca, and that all the great masonry edifices and structures in the Cuzco region, including Sacsayhuaman, Ollantaytambo, Machu Picchu and Cuzco'.

4. John Hemming, *The Conquest of the Incas*, Macmillan London Ltd., 1993, p. 191.
5. J. Alden Mason, *The Ancient Civilizations of Peru*, Penguin Books, London, 1991, p. 163. See also http://www.roughguides.com/destinations/south-america/peru/Cuzco-and-around/inca-sites-near-Cuzco/sacsayhuaman/ and http://www.andeantravelweb.com/peru/destinations/Cuzco/sacsayhuaman.html and http://www.world-mysteries.com/mpl_9.htm and http://gosouthamerica.about.com/od/perucuzco/ig/Sacsayhuaman-/Sacsayhuaman-Rock-Wall.htm#step-heading.

6. For full details see Jesus Gamarra's documentary *The Cosmogony of the Three Worlds*, http://www.ancient-mysteries-explained.com/archaeology-proofs.html#dvd.
7. http://www.bbc.co.uk/news/science-environment-31664162.
8. A. Kruzer, 'The Question of the Material Origin of the Walls of the Saqsaywaman Fortress', http://isida-project.ucoz.com/publ/my_articles/peru/the_question_of_the_mat 1-0-2.
9. Ibid.
10. Ibid.
11. Sir Clements Markham, *The Incas of Peru*, Smith, Elder & Co., London, 1911, p. 33.
12. Garcilaso de La Vega, *The Royal Commentaries of the Inca Garcilaso de La Vega, 1539-1616,* The Orion Press, 1961, pp. 233, 235.
13. Graham Hancock and Santha Faiia, *Heaven's Mirror*, op. cit., pp. 285-6.

14. See Graham Hancock and Robert Bauval, *Keeper of Genesis*, William Heinemann Ltd., London, 1996.
15. Peter Frost, *Exploring Cuzco*, Nuevas Imagenes, Lima, Peru, 1989, p. 63.
16. William Sullivan, *The Secret of the Incas*, Crown, New York, 1996, p. 118.
17. Ibid., p. 119.
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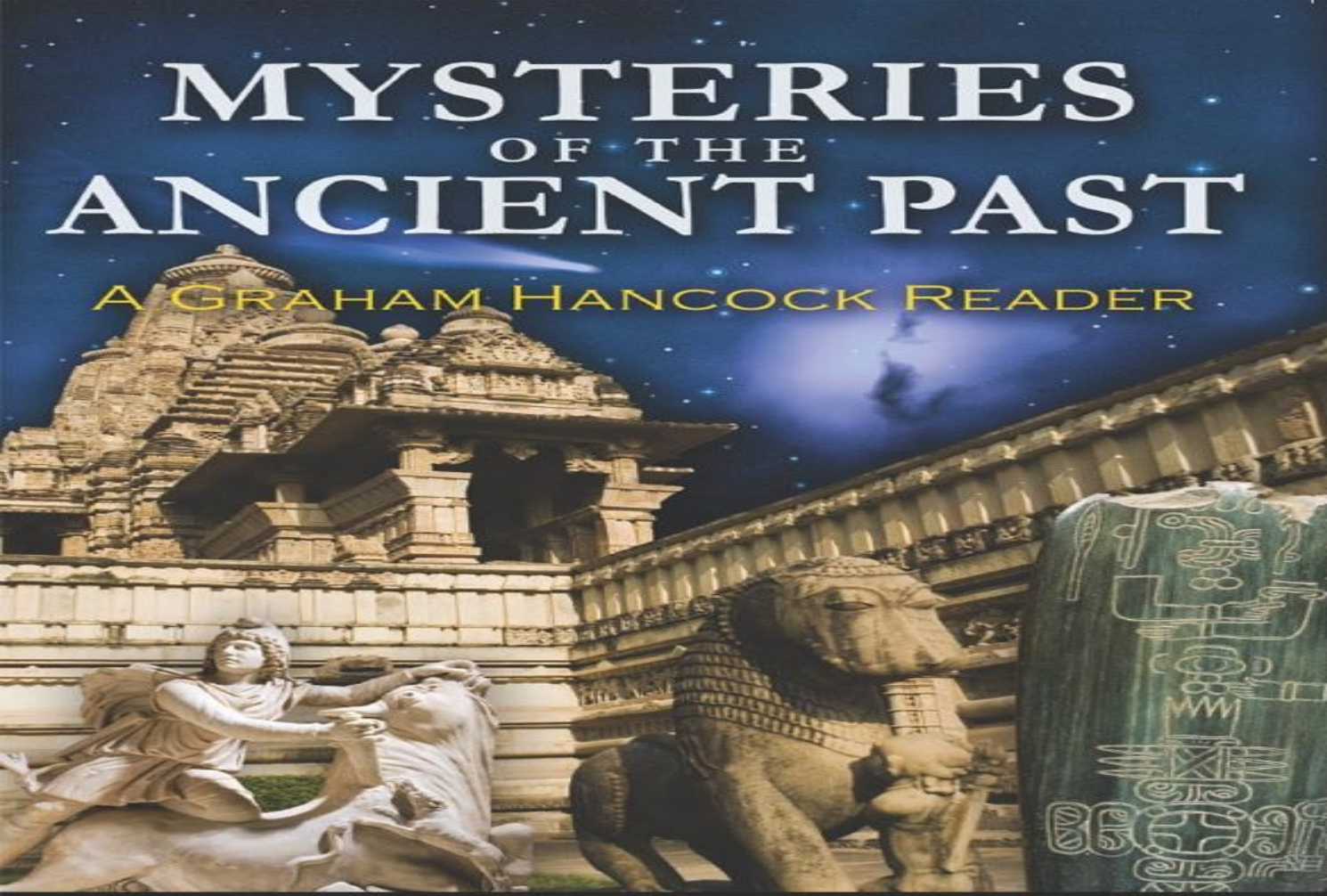

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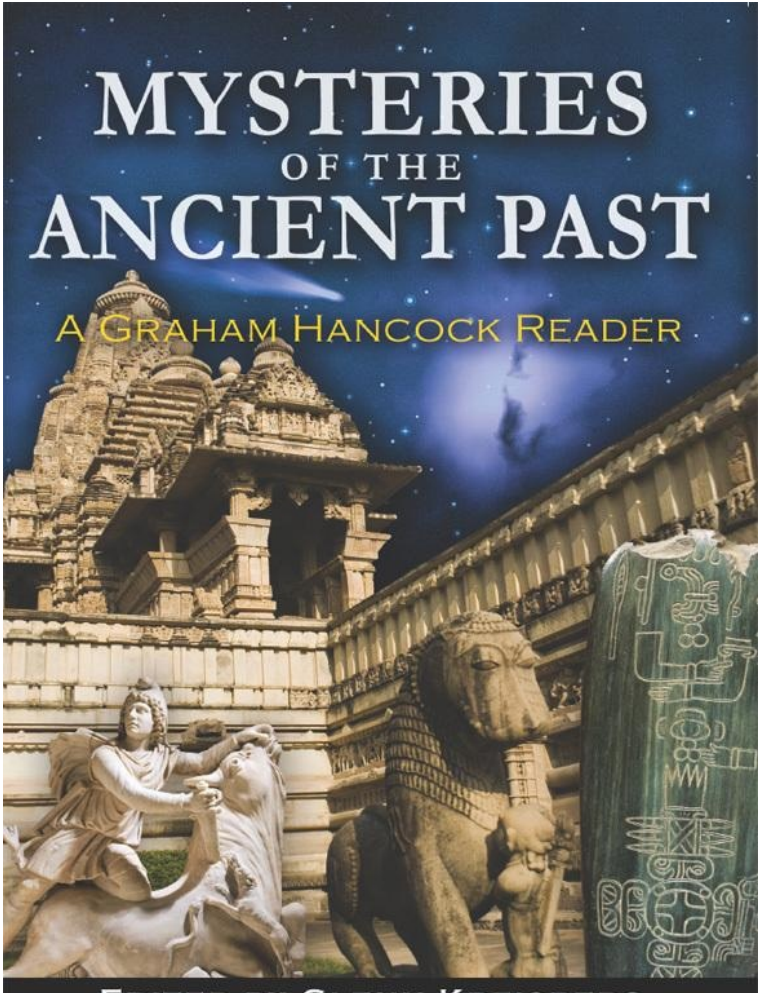

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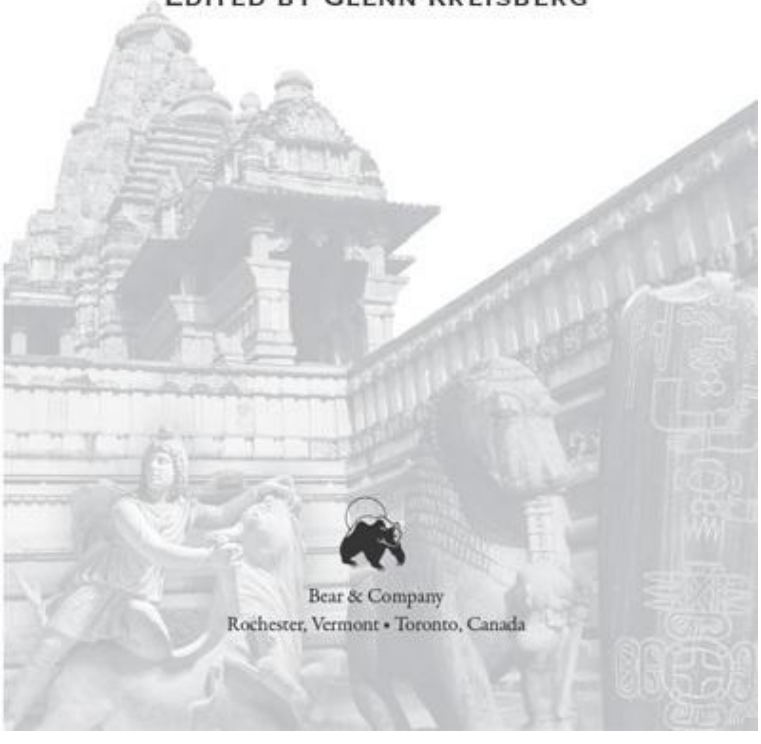

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I would like to dedicate this book to all my wonderful family,

including my mom and dad, who always encouraged reading, education, and open- minded exploration;

my wife, Stephanie, without whose help and support this project would not have happened;

and my two great kids, Sophie and Jason, for inspiring and keeping alive my inner child.

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Acknowledgments

In compiling this anthology of articles, I had the privilege of working and interacting with a group of writers and researchers from across our ever-shrinking globe who have inspired and challenged our minds to consider reasonable alternatives for the path of human knowledge, technology, civilization, and consciousness. For delving deep into the recesses of our ancient past and helping pull back the veil that separates worlds, giving us a glimpse of our true existence and spiritual reality, I wish to offer my profoundest thanks and recognition to all the authors whose work appears in these pages. Their work offers new pieces for a puzzle whose picture is, more and more, turning out to be far from complete.

Additionally I wish to thank all the kind folks at Inner Traditions • Bear & Co. for their support, encouragement, and patience during the course of this project. And lastly I would like to acknowledge author and researcher Graham Hancock, whose approach, insights, and body of work continue to lay the foundation on which so many of us try to build in the pursuits of our particular passions. Without Graham, all these articles, which he commissioned for online discussion, would not exist.

Introduction

GLENN KREISBERG

In bringing together this collection of articles, building on and complementing the previous volume, *Lost Knowledge of the Ancients*, I looked beyond the sensational, beyond the 2012 prophecies and neo–New Age phenomenon that has peaked since the millennium. Instead, we have not a wild journey of unbridled speculation but one of careful study, analysis, and contemplation of evidence, using common sense sometimes combined with uncommon intuition. The researchers presented come from many different walks of life, a wide range of backgrounds, and various regions of the globe, yet all share a common drive and life passion

in their fields of endeavor.

According to G. I. Gurdjieff, one of the world's great spiritual teachers, there was, or is, a secret school or brotherhood (or monastery) that existed in Afghanistan for thousands of years called the Sarmoun Darq. The name of the school translates roughly to "beehive" or "collectors of honey." Gurdjieff is said to have searched the world for many years to find the source of esoteric teaching and to have finally found what he was looking for in the Sarmoun Darq. The school existed to gather up and preserve certain kinds of ancient knowledge regarding the human soul, and it is said many other such schools once existed with a similar purpose. In times when such knowledge was known to be dissipating, these schools served a most important purpose, for without the preservation of this knowledge and its continued reintegration into the human spirit, we would cease to evolve.

Stored, sacred knowledge exists around the world today, and

those who collect and store these esoteric principles do so in a way not unlike how bees collect nectar; they concentrate and change the nectars so that when the proper time arrives, the receptacles can be reopened and the knowledge accessed. Seekers of truth and those souls who are deeply curious and find the knowledge, hidden therein, will then inform others and thereby be of value to humanity.

In the process, new bodies of work are created by great teachers seeking to revise old rituals and meditation techniques and bring new meaning to these ancient beliefs. Deep understandings of esoteric secrets are reconfigured and revealed in new forms. Traditions and methods are borrowed and exchanged between one another. Truths that were once obvious but are now obscured await rediscovery and are revealed. We are in such a time now.

Our very salvation may depend on rediscovering these truths about our world and ourselves. The irony of this age, going back over six hundred years and coming nearly full circle in the present,

is how the faiths of Western civilization have sent out missionaries to save and educate the "savage" tribes and cultures of the world—tribes and cultures that for thousands of years have developed highly sophisticated belief systems based in the shamanic tradition, a tradition of experiential practice of communing with spirit that's anything but "faith based." And now, through the study of these ancient indigenous practices and shamanic belief systems and their assimilation into our modern lives and culture, we may find the path to a secure and sustainable future, if we're to have any future at all.

We must pay attention to the profound messages in the scriptures from every ancient culture that have been handed down through the ages, messages that now offer cures to the curse of modern life. Cures for the disconnection from nature and cures that offer a true path to a higher human consciousness—the path to a new golden age.

While most of the articles are on this topic, a few have nothing to

do with seeking a spiritual path and simply deal with mysteries of the ancient past. However, if we consider a wider context for these articles—that they all share at their heart a search for a deeper truth to the meaning and workings of life and our place in the multiverse—then we notice a reality common to the human condition, that of always thirsting and striving for more and more knowledge. This was the psychology of the ancient mind-set, and it is the common thread that weaves its way through all the written works in this book.

O N E

Welcome to the Revolution

THE RESURGENCE OF ELEMENTAL SHAMANISM IN THE TWENTY-FIRST CENTURY

OMAR RO SALES

Across the planet, from the steppes of the Himalayas to the deepest jungles of Guatemala, a renewed emphasis on ecology, cultural preservation, and spirituality has led to an increased awareness of shamanism as a method to address environmental, humanistic, and intrapersonal challenges. With a shift to indigenous healing traditions and a return to old ways of thought, shamans are rapidly becoming the cultural heroes that bridge the gap between the mystical regions of the upper, middle, and lower worlds, as well as the enigmatic and ethereal realms of the collective unconscious, conscious, and superconscious mind of humanity.

The Rise and Fall of the Plastic Shamans

In the latter half of the twentieth century, a renewed interest in spirituality, politics, and the occult led many on explorative

intrapersonal journeys. Fueled by the counterculture influence of the 1960s, icons such as Timothy Leary, Carlos Castaneda, Jim Morrison, and Hunter S. Thompson glamorized the quest for immortal truth, as defined by native indigenous healers or shamans. Yet, the truth would come at a great cost, as facts were oftentimes distorted or entire accounts of ethnographies fabricated. In fact, some of the most important fieldwork in anthropology had been done forty years before by Bronisław Malinowski, Richard Schultes, and other scholars that few would know outside university circles.[1]

Through research, it was determined that entire accounts of indigenous spiritual and healing traditions, popularized during the 1960s, had been fabricated. Although many continue to quote Don Juan's shamanic insight, the Yaqui shaman Don Juan never existed, except in the mind of Carlos Castaneda.[2] Popular literature in the 1990s continued the Western imagining of how shamans think,

pray, and work. There was no walkabout in Australia that yielded a mutant message from Down Under, nor is there a sisterhood of the shields that provides shamanic knowledge.[3] The Western fables continue to this day, with interpretations of 2012 in the Mayan calendar written by self-professed international Mayan elders who are Caucasian and born in Michigan.[4]

With regard to December 21, 2012, in the Mayan calendar, the most important question to ask is, "What is the indigenous Mayan population doing to prepare for 2012?" Do we see villages in the Peten Jungle being razed and moved to safer and higher elevations by Mayan elders? Are entire ethnic subgroups of the Maya, such as the Tz'utujil of Lake Atitlán, selling their worldly possessions and moving to isolated islands in Micronesia? Of course not. The most important aspect of the calendar round, which sensationalist books fail to mention, is that the Mayan calendar never ends. Which brings us back to the wolfsbane of the plastic shamans, that there is no

substitute for anthropological research and fieldwork.

So, where do we find out about shamans? What is a shaman? What abilities do shamanic practitioners master? Moreover, do any real shamans still exist? The answer is, once again, in the field.

A Return to Scholarship

Through the meticulous fieldwork and studies of Franz Boas, Michael Harner, Martin Prechtel, and Wade Davis, the shared characteristics between shamans of various cultures have been identified.

Shamans are not like you or me. A shaman is a native healer, who uses plants and herbs to effectuate change in patients. Moreover, a shaman has the ability to enter altered states of consciousness at will, interact with beings in nonordinary realms,

and create physical changes in waking reality.[5] A shaman can change her or his energy field to interact with the energy fields of other living objects. Perhaps the most important part of a shaman is that the shaman is typically indigenous. That is, they are transmitting centuries-old cultural knowledge through bloodlines and kinship. Without this bloodline, without this legitimacy of *sang real* (the holy blood, the effervescent teacher) and the enhanced genetic traits from this bloodline, a practitioner is not a true shaman.

One of the most significant roles of the shaman is that of psychopomp.[6] A psychopomp is an intermediary between the world of the living and the land of the dead. The psychopomp will transmit messages, share insight, communicate thoughts, and offer warnings from the land of spirit. Communication occurs through dreams, altered states, and rituals, which allow the shaman to enter a receptive state. The shaman will receive the message either as a symbol or an auditory message to be passed on to the intended

receiver.[7]

Another shamanic ability is divination. Through the use of tools such as bones, cards, entrails, sticks, or runes, a shaman will augur the future. The ability to communicate through dreams is another shamanic skill, used by shamans to rely messages over great distances. Some of the more esoteric shamanic abilities, demonstrated by shamanic masters of the last two thousand years, include *loco tempestas* (the ability to control the weather), bilocation, levitation, and flight.[8]

Yet, how do we find true shamans in the modern age? How do we discern the theatrical from the real, the plastic from the authentic? And what is the truth to shamanism and the limits of human potential?

It was a search for these truths that led me on a worldwide quest to find the real among the landscape of illusion. It was this search that brought me to the elemental shamans.

Cherokee Spirit Walker: Expert in Soul Retrieval

In the Valley of the Sun, at the bottom of an ancient ocean, I had my first encounter with soul retrieval and a Cherokee spirit walker. The son of a Cherokee medicine man, Gary Gent is a Vietnam veteran with an unassuming nature and an important skill, the ability to transverse worlds.

Soul retrieval is the ability of a shaman to heal the psychological trauma caused by cognitive disassociation.[9] Shamans believe that our soul is made up of individual pieces. During periods of great stress, fear, or difficulty, soul pieces will fragment and become stuck or attached to a particular place or person.[10] The accompanying psychological effects may include memory loss, unexplained nervousness, and a feeling of disconnection or

isolation. It's the role of the shaman to travel to the upper, middle, and lower worlds to obtain information about the soul piece and return it to its owner.

Gent follows this traditional method of soul retrieval, but with a twist. Using a drum as a sonic driver, he can enter an altered state within minutes and retrieve a soul piece. Gent travels to the lower world to obtain guidance from animal and plant guides. Having obtained the guidance of spirits from the lower realm, the Cherokee spirit walker will then travel to the middle world to locate the fragmented soul piece. Once found, the reintegration will begin as the soul piece is returned to the owner. Travel to the upper realms is used for revelation and guidance from gods, deities, and beings of legend.

When the soul piece is found and healed, the shaman uses his breath to blow the piece back into the patient. What is unique about Gent is his uncanny ability to describe where the fragmentation

occurred and where the soul piece was found. With regard to my own experience, Gent was able to accurately describe a college dorm room, a military barracks, and a grandparent's home, all without prior knowledge of these locations.

So, how exactly does the Cherokee spirit walker break linear time and glimpse into the patient's past? A more enigmatic question remains: What if the upper, middle, and lower worlds do not exist at all, but are just a method for Gent's consciousness to describe his mind's ability to use quantum mechanics and break linear time?

Mysteries in Guatemala: The Cult of the Maximon

For over fifteen hundred years, shamans in Mayan communities along the Central Highlands, coastal areas, and Peten Jungle region of Guatemala and Mexico have predicted eclipses, created

calendars, tracked the movements of Venus, and forecast periods of symbolic creation called *baktuns*. The end of the current cycle of creation, the thirteen baktun, falls on December 21, or December 23, of 2012 (depending on the Greenwich mean time correlation interpretation of the Mayan calendar).[11] So, will the end date of the current cycle usher a period of cataclysms, disease, and catastrophe? Or will life remain the same, relatively unchanged from one day to the next? More importantly, what do the Maya think?

If there were ever a city of shamans, it would be Santiago Atitlán, Guatemala. Nestled on the north shores of Lake Atitlán, the grittiness and squalor of the city is hidden by lush volcanoes. Navigating the ferry or *lancha* on the thirty-minute trip from Panajachel to Santiago, the boat master must steer past a cove to uncover the bizarre magnificence of the city. Homes are incoherently stacked one upon another, like matchboxes organized by drunken hands. Fires burning grass, timber, and tires spin their

smoke streams into hazy skies. Landing in Santiago, a traveler's first instinct is clear: get out.

Yet secret brotherhoods called *cofradias* maintain a relative peace in the city and the countryside. Old village families have evolved to control the worship and access to the effigy and saint of the region, the Maximon. It is this lord of the lake, this holy boy, the Maximon (pronounced Mosh-ee-moan) that bestows favors, offers protection, seeks vengeance against enemies, and guards the indigenous Tz'utujil Mayan populace.

More than just a bundle of sticks, the Maximon represents triumph over tyranny, success over slaughter. The effigy is the last living Mayan god, the only survivor of the cosmological onslaught of the Catholic Church and the Spanish conquest. Worship of the deity is tolerated due to a tenuous understanding with the local Catholic priests. The Maximon is always displayed next to a glass coffin containing a statue of Christ. And the Maximon is identified

as the son of Christ.

But these interpretations are wrong, as the Maximon is an amalgamation of Mayan nature spirits. The Maximon has the flying ability of Kukulkan, the Mayan god of wind. The statue has the ability to bring rain, like the Mayan god Chac. And the effigy can conquer disease, like Cit-Bolon-Tum, the Mayan god of healing. Some legends continue the syncretism fable, saying that Maximon is Saint Simon, a saint petitioned to provide help for clandestine activities, such as trafficking narcotics and avoiding the law. However, this is also incorrect as there is no Saint Simon in Catholic theology.

Crafted by native hands, the Maximon is said to be carved from a *palo de pito,* or coral tree (*Erythrina corallodendron*). Looking for a suitable vessel for the Mayan deity, two brothers began the search for a tree. The brothers, Juan and David Co, were led by dreams and came upon an enigmatic tree in the midst of a jungle clearing. In the

flesh of the tree, on the bark amid gnarls and limbs, the brothers began to see the symbols of the Maya: a stalk of corn, a bird, a jaguar, and a two-headed eagle—the symbol of Mayan kings.

Carving long into the night, the brothers infused the now-fallen tree with the nature spirits from the forest and the DNA-infused sweat from their brows. It was the brother's DNA that gave life and character to the effigy. It was shamans' hands that created their supreme ruler and last Mayan lord. Yet, it was the spirit in the brothers' hearts that held a secret. Once finished, one of the brothers would become the effigy's standard-bearer or *telinel*. The telinel would be responsible for the upkeep and care of the statue. The telinel would be the village's first shaman, with the ability to communicate to the statue of the Maximon via dreams.

A series of events would necessitate the first surgery and maiming of the Maximon. The statue was infused with the trickster spirit in nature and in the brothers' hearts, but what's funny for the

trickster is not always funny to the recipient of the trick: The Maximon was caught shape-shifting and visiting the beds of the villagers' wives. As a consequence, the telinel hatched a plan. The village elders got the statue drunk with alcohol and prayer, and then performed a ceremony and, more importantly, an amputation. This is why the modern statue has no feet, is restrained by rope, and is missing a finger. Thus the effigy would never again be mistaken for a human male. And now the statue is forever restrained, to carry out the will of the shamans.

The brotherhoods, or cofradias, manage the upkeep of the statue. With over ten cofradias in Santiago Atitlán, the statue is moved from family center to family center every year, to maintain a tenuous balance of power between rival cofradias and families. Whoever has control of the statue has access to the thousands of dollars given in tribute every year to the Maximon. Every shamanic ceremony around Lake Atitlán must first be approved by the telinel.

Without the blessing of the Maximon, and the approval of the telinel, the Mayan shamanic rituals are destined to fail. This is the belief of the local populace, a strong enough belief that can sometimes distort the supernatural nature of spellcasting.

The power to perform magic rests with the practitioner—the shaman. And the tool the shaman uses to break linear time and apply quantum physics is the shaman's own mind and consciousness. The power rests with an individual's beliefs, and the additional electrical and quantum energy generated by the human brain and spinal cord. Still, the Maximon is worshipped and revered all over Central America. So, what other secrets do the Tz'utujil Maya of Santiago Atitlán know?

Ghosts in the Air Realm: Footpaths to Himalayan Glory

Another breed of shamanic practitioners not typically discussed are the Vajrayana Buddhist masters of Tibet and Bhutan. Bon shamanism predated Buddhism in these mountainous and isolated regions of India, Bhutan, and Tibet. The introduction of Buddhism supplanted the beliefs and acceptance of Bon. Yet the most evolved and mystical type of Buddhism, known as Vajrayana, returned to the regional Bon roots. Typified by the recognition of adepts with supernatural powers such as loco tempestas, bilocation, and levitation, the Vajrayana masters use esoteric texts, long periods of chanting and meditation, and secret rituals to refine their concepts of consciousness.

The hallmark of a Vajrayana Buddhist master is the ability to achieve transcendence, break the cycle of karma, and become a bodhisattva, or saint, in one lifetime. Legends tell that the most powerful Buddhist magicians of our age were also Vajrayana

adepts. Examples of these healer-magicians include Padmasambhava, also known as Guru Rinpoche, who brought Buddhism to Bhutan from Swat; Milarepa who destroyed an entire village with magic, yet after his remorse and upon his realization, changed his life and became a Buddhist teacher and healer; and Pema Lingpa, a magician from Bhutan, who leapt into a deep river gorge and emerged from the water holding lighted lamps and sacred Buddhist treasures called *tertöns*.

Yet the most startling contradiction along a Vajrayana Buddhist master's pathway is the dissolution of self and ego and the ultimate realization that individual souls do not exist, that power comes from the universe, and that the clear light of the Buddha mind forms a conscious connection with the thoughts and feelings of all living beings. The final realization, the ultimate insight for a Vajrayana Buddhist master, is that we are one. The final answer is that there is no self, but the All.[12]

Don’t Ignore the Hydra

The major concepts of modern theoretical physics are refined every two decades. Old science is cut down and gives way to a new head or school of thought. Thirty years ago, concepts such as string theory, time travel, and instantaneous movement between points of space hundreds of thousands of light years apart would have been science fiction. But new research into the folding of space-time, movement through a circular universe, and D-branes, has made theoretical science plausible. But haven’t shamans been doing this research for millennia?

When we talk about divination and clairvoyance, doesn’t a shaman’s altered state of consciousness allow his mind to break the linear time of a three-dimensional-plus-time universe? When we examine the fabric and weavings of the Tz’utujil Maya of Santiago Atitlán and determine that they perceive the universe as a geometric

pattern that can be folded to an infinitely small point suitable for instantaneous journeys between solar systems, aren't we describing wormholes and faster-than-light travel? When a Buddhist master says the thoughts of all sentient beings are connected by Buddha mind, aren't we describing string theory and the convocation of D-branes, black p-branes, and Neveu-Schwarz five-branes?[13]

The shamanic world is the world of quantum physics. Yet, are we adapting shamanism and indigenous beliefs to explain science? Or is science evolving to the point where it can explain and quantify indigenous shamanic beliefs? With science, the improbable becomes possible. So, what new breakthroughs will we see in the twenty-first century? And how will shamans continue to teach us?

The Elemental Shamans

Indigenous elemental shamans and healers can give us modern and true answers, which counter the fictionalized accounts penned by unreliable authors. By meticulous research, we determine that there is no need for cultural misappropriation or theft of Native insight. There is no necessity to make up accounts. To learn, all we must do is ask. To discover, we must explore. But the essence will always come back to fieldwork.

There is no substitute for spending time in the jungle. There is no facsimile to visiting Buddhist temples and monasteries in the Himalayas. And there is no faux journey that will substitute for the insight and transdimensional knowledge (predicted by string theory) that is gained by the consumption of the vine of the souls, *ayahuasca,* as distilled by the hands of Peruvian shamans.[14]

If we desire arcane knowledge, ask. If we want to learn about native traditions, journey. Travel to these indigenous healers and ask questions. Ultimately, the journey for shamanic knowledge is

the quest to understand culture, explore the quantum potential of the human body, and demystify the consciousness of the human machine.

Evolution is within us, the power is within us, to change our world. It's in the palm of our hands. It's found in the beauty of our speech and thought. The evolution of humanity is determined by the neuroplasticity of our brains, perhaps even already preencoded in our DNA.[15] But shamans have already been teaching us these profound and holy truths for thousands and thousands of years.

T W O

Higher Consciousness Explains Many Mysteries of the Ancient Past

JOSEPH SELBIE AND DAVID STEINMETZ

There are many intriguing examples of anomalous knowledge that existed in the ancient past: verified knowledge of anatomy and physiology and modernlike medical treatments in use as early as 2500 BCE in Egypt, China, and India; the precision construction of

the Great Pyramid in 2600 BCE (or perhaps earlier); and accurate knowledge of math and physics, including the size and nature of the atom, embedded in India's Vedas dating back to the sixth millennium BCE—just to name a few.

The field of alternative history has long sought the answer to where this advanced knowledge came from—and why it didn't survive. One theory, familiar to most of us, is that aliens came to Earth in the distant past and gave knowledge to humanity that was beyond the comprehension of human beings. As the theory goes, when the aliens eventually left, the knowledge quickly died out because humanity wasn't yet ready for it.

Another theory, sometimes put forward by apologists for mainstream archaeology, is that advanced knowledge may have existed in the ancient past but it was due only to chance combinations of primitive technology and individual genius—serendipitous discovery. As the theory goes, when that particular

genius or serendipitous circumstance was gone, the knowledge quickly died out because humanity wasn't yet ready for it.

There is, however, another explanation for advanced knowledge in the past—one that comes to us from the ancient past itself and does not rely on aliens or serendipity. The explanation is that human beings had more advanced *consciousness* in the past than they now possess and that it was this advanced consciousness, natural to humans, that *enabled* them to develop advanced knowledge on their own without the need for alien intervention or serendipity.

Common to this explanation as it comes to us from the ancient past is the notion that humanity's consciousness goes through a cycle of development; humanity's awareness, perception, and abilities advance and then decline in a recurring cycle. This concept has been a part of the traditional cultural lore of numerous cultures as far back as anyone can determine. Perhaps best known to those of us in the West is the ancient Greek description of descending ages

—from the golden age, through silver and bronze, and finally into the iron age. The tradition of descending ages exists throughout the world. In Giorgio de Santillana's *Hamlet's Mill,* he explores scores of such traditions.

In India, the tradition of descending ages is known as the *yugas* or the yuga cycle. (Yuga simply means "age.") The yuga cycle, however, stands apart from the other traditional descriptions of the same phenomenon. Modern exponents of the yuga cycle, such as Sri Yukteswar, whose description of the yuga cycle appears in his book *The Holy Science,* written in 1894, offer both dates and explanations for cycle.

Sri Yukteswar provides specific dates for the beginning and end of each age or yuga. Moreover, unlike most traditions of descending ages, in which humanity is said to still be at the nadir of its development, Sri Yukteswar states that humanity reached its nadir in 500 CE, but since then people have begun to advance once more

—as you can see in figure 2.1.

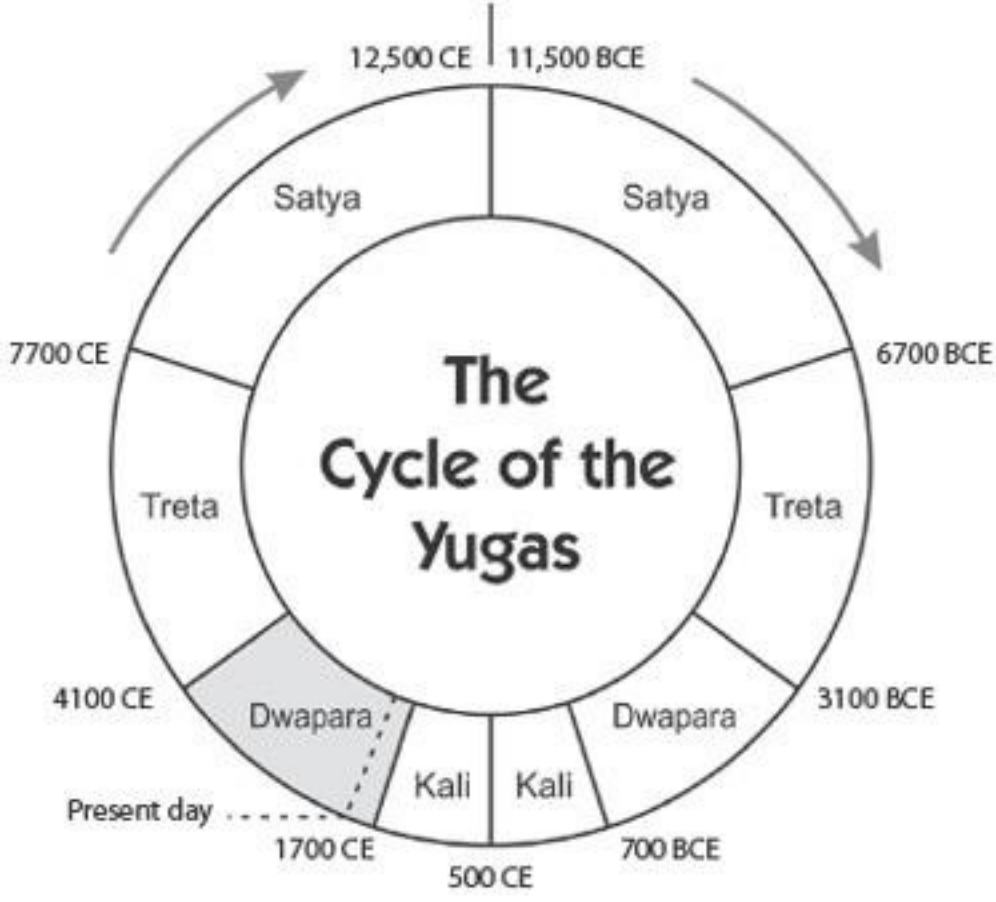

Figure 2.1. The yuga cycle

Perhaps even more important for explaining the ancient past than the specificity of dates is Sri Yukteswar's description of humanity's consciousness in each yuga. His clear description of ancient humankind's consciousness and abilities may well allow us to finally understand some of the more enduring mysteries of the ancient past.

Case in Point: Treta Yuga and the Vedas

The Rig Veda, a collection of over ten thousand Sanskrit verses, is the oldest known spiritual work in the world and can be dated to as early as 7300 BCE. The Rig Veda is the wellspring of spiritual knowledge for what we know as Hinduism and has remained so for over nine thousand years. It is written in Sanskrit, in all likelihood

the oldest language on Earth, and to this day it remains the most precise and internally consistent system of communication in the world. Computer programmers have studied Sanskrit's structure and grammar to help them create programming languages free of ambiguity.

The Vedas were accurately passed down from generation to generation in India by virtue of an extremely methodical system of oral transmission, which involved chanting each verse in ten different ways to cross-check for integrity. It is believed that only *two words* have become corrupted in over nine thousand years.

Such an effective and elaborate system of oral transmission is amazing in itself, but more amazing yet is that there is a large body of astronomical, mathematical, and physical knowledge embedded in the Vedas, knowledge popularly believed not to have been discovered in Europe until the Renaissance and later. Contemporary scientists have found the following facts embedded in the Vedas.

The sun and planets are spherical.

Each of the seven colors of the rainbow carries a different amount of energy.

The sun is the source of all energy for life on Earth.

Earth rotates around the sun.

The sun, Earth, and other planets rotate on their own axes.

Earth's rotation creates night and day.

Earth's orbital path and axial tilt result in the seasons.

The poles have six-month-long nights and days.

The two tropics and the equator are separated by 24 degrees.

Earth has a slightly elliptical orbit.

Because of its orbit around the sun, the planet Venus is both the evening star and the morning star.

The apparent movement of sunspots is due to the rotation of the sun.

As seen from Earth, the full rotation of the sun takes twenty-seven days.

Earth's orbit around the sun creates a plane, and on that plane are the twelve divisions of the zodiac.

The length of a solar year is 365,244 days.

The moon's light is reflected from the sun.

The sun's energy is generated by a continuous process at its core.

The sun is gaseous.

Seventy percent of Earth's surface is covered by water.

The clouds consist of heat-produced water vapor, which in turn gives rise to rain.

The stars are "innumerable."

The stars exist in collections (*niharikas*), or galaxies, which rotate around their own center points.

Earth and sun are part of a galaxy that rotates around a center point.

The physical world is made up of atoms.

The atoms have an internal structure resembling the solar system.

In addition, the following concepts and calculations are embedded in the Vedas.

The cause and timing of solar and lunar eclipses

The precession of the equinoxes

The symbol and concept for zero

The decimal system of notation

The concept of infinity

The concept of arithmetic progression

The concept and value of pi

The formula for calculating the area of a circle

The concept of a number up to 10^{18}

The theorem of diagonals (the Pythagorean theorem)

The means to determine square roots and cube roots

The concept of negative numbers

The concept of algebraic equations using letter symbols for unknown quantities

The conception and expression of quadratic and indeterminate equations

The geometry of the triangle, parallelogram, rectangle, and circle

The geometry of the sphere, cone, and pyramid

How does one explain this?

The Vedas are, after all, spiritual tools, sacred writ. The verses of the Vedas are mantras whose purpose is to raise the consciousness of those who chant them. The verses of the Vedas express an

intimate relationship of humanity and the Divine. Yet, at the same time, they contain scientific knowledge—knowledge that is currently believed to be attainable only through sequentially developed mathematics, scientific instruments such as the telescope, and a rigorously applied methodology of experimentation.

According to Sri Yukteswar, in the most recent Treta Yuga (6700 to 3100 BCE), during which the Vedas were composed, people were able to directly comprehend that everything is made up of ideas or thoughts. The attunement of Treta Yuga people to thought also made them highly intuitive—able to perceive truths without the need for the cumbersome process of experimentation.

If human beings once possessed such awareness and comprehension in the ancient past then they would have had no need to use the tools of science as we understand them today. They would have perceived these truths directly through intuition. The "scientific" truths of the Vedas were perceived right along with

spiritual truths as part of the same indivisible reality.

If such an explanation seems farfetched, let me offer you an interesting example of intuitively derived—and very precise—scientific information that was discovered around the turn of the twentieth century.

Annie Besant and Charles Webster Leadbeater, prominent members of the Theosophical Society, conducted intuitive investigations into the nature of atoms. They compiled a large number of descriptions and drawings of what they observed while in deep trances. Their descriptions and drawings were quite detailed and complex—in fact, more complex than the known facts of the day.

Many years after the deaths of Besant and Leadbeater, physicist Dr. Steven M. Phillips began to study their journals. He published his findings in 1980 in *Extra-Sensory Perception of Quarks*. A thorough examination of their psychic investigations led Phillips to

conclude that Besant and Leadbeater had accurately described the number and nature of quarks—subatomic particles that make up the larger structures of the nucleus of the atom, such as protons and neutrons—*years ahead* of their discovery by modern physics.

The yugas, as explained by Sri Yukteswar, require no outside influence to explain the mysteries of the past. The yugas simply say that as humanity's consciousness advances, its knowledge, perception, and abilities advance as well. Humans don't merely know more as the yugas advance, they become more.

My coauthor, David Steinmetz, and I found an amazingly clear archaeological and historical footprint to match the dates and consciousness of each yuga. Nor did we have to rely on the strange, unusual, or controversial to see the footprint. A clear view of the arc of the yugas can be seen in the broad trends and accepted facts of the past and present. We believe that the yuga cycle could serve as a framework for the discoveries and work of many researchers and

authors in the field of alternative history.

T H R E E

The Vedic Literature of Ancient India and Its Many Secrets

DAVID FRAWLEY

Secrets of Ancient Civilizations: The Vedic Connections

Secrets of ancient humanity and lost civilizations can be found all

over the world. Yet they are perhaps most common in India, with its characteristic regard for the sacred, where even today the spiritual practices of the ancient world continue. The same types of temples with similar forms of ritual worship that were known in ancient Egypt, Babylonia, or Greece thousands of years ago still occur throughout India today, from Badrinath in the Himalayas to the north to Kanyakumari in the south. Indeed, it seems that the ancient world never ended in India but has continually maintained and, at times, reinvented itself. Spiritual and occult arts that abounded in the ancient world— including yoga, Vedic astrology, ayurvedic medicine, and the use of rituals (yajnas)—to improve all aspects of our lives remain commonly used and are honored by the culture of India as a whole. Indeed, we could say that India is a living museum of the ancient world and its lost civilizations. To understand the ancient world, it may be better to visit the holy places of India where the ancient traditions are still unbroken, rather than try to interpret ancient ruins through bricks and pottery shards, which

scholars today usually do according to their own modern mind-sets, not recognizing the all-pervasive regard for the sacred that was the basis of ancient life and culture.

Most notably, ancient India presents us with by far the largest surviving literature from the ancient world. The Vedic literature of India, by all accounts dating from well before the time of the Buddha (500 BCE) and by traditional accounts extending back well over five thousand years (3100 BCE), covers several thousand pages. This literature includes the four Vedas (Rig, Yajur, Sama, and Atharva) and their various Brahmanas, Aranyakas, and Upanishads.

The Vedas contain many ancient poems, commentaries, dialogues, and teachings, of which the famous Upanishads and Bhagavad Gita—the bedrock of Indian philosophy and yoga—represent only the last layer or a late summation. There is no comparable ancient literature remaining from any other country,

much less an ongoing tradition of its interpretation and application through ritual and meditation.

The Vedas are not directly concerned with history or with the mundane aspects of culture, yet these are mentioned in a peripheral way in the texts. In the Vedas, we can find references to the names of peoples, places, and certain events. In addition to deep spiritual knowledge, there are indications of astronomical, mathematical, and medical knowledge of a profound order. Natural disasters and major geologic events, such as floods, earthquakes, the melting of glaciers, and the shifting of rivers, were also recorded, with a sense of the long history of Earth and how life is based on and has evolved with these changes.

Yet, even by way of understanding their spiritual side, it requires a deeper vision to appreciate the Vedas. The Vedas are composed in a cryptic mantric code that cannot be understood without the proper orientation and right keys. Vedic mantras were said to have been

understood by great yogis and seers of the cosmic mind. They reflect a different type of language in which the higher truth is deliberately hidden behind a veil of symbols, sacred sounds, and correspondences. A story that is apparently about seeking cows and horses, for example, can inwardly refer to a development of higher powers of the senses (cows) and *pranas* or vital energies (horses). In fact, Vedic words have many layers of meaning, of which the surface appearance can be misleading, particularly to the modern mind, which is not used to such multidimensional language. This is also a phenomenon that we find throughout the ancient world. The Egyptian Book of the Dead, for example, abounds in similar symbols that, unless we can grasp the spiritual meaning, which few may be willing to look for, can appear quite superstitious.

The Vedas say, "The Gods prefer the cryptic and dislike the obvious." The higher powers speak in symbols, riddles, paradoxes, or conundrums. The Vedas speak of four levels of speech, of which

ordinary human beings only know and speak with one (Rig Veda I.164.45). They refer to a divine word or imperishable syllable on which they are based (Rig Veda I.164.39). They reflect a pattern of cosmic sound that underlies all the laws of the universe and has its counterparts on all levels of both individual and cosmic manifestation. For this reason, the Vedas were called the *shruti,* or revelation, behind the Hindu tradition.

The Vedas speak of secret meanings to their mantras that were veiled to protect the teaching from its application by the spiritually immature. To receive the key to the Vedic mantras required years of ascetic practices, such as reciting mantras, practicing yoga, and meditating, along with special initiations and the favor of a teacher who knew the tradition and had deeply realized the teaching in his own consciousness. We cannot expect such cryptic mantras to unlock their secrets to a casual reading, particularly of limited or bad translations in a language and mind-set quite alien to the Vedic

or ancient worldview.

Modern scholars, particularly from the West, have not been able decipher this Vedic code. Most have not even recognized that it exists. This is not surprising because scholars have largely failed to understand the deeper meaning of the symbols of ancient Egypt, Sumeria, Mexico, and other ancient cultures. Ancient cultures like India and Egypt were carrying on great traditions of spiritual and occult knowledge, not just the rudiments of technology and trade or empire building.[1] Since modern scholars have little background in that spiritual knowledge, with its recognition of higher states of consciousness extending into the infinite and eternal, naturally they cannot find the symbols in which it is specially encrypted.

Scholars look upon the Vedas in the same way they perceive the religion of the ancient Egyptians—as little more than primitive nature worship. But nature is used to symbolize a vast cosmos. For example, in the Vedas, fire connects to the fire of the breath, the fire

of the mind, the fire of consciousness, and the cosmic fire through which the entire universe exists.[2]

This failure to understand the ancient literature is often related to a failure to understand ancient archaeological ruins and their implications. Ancient sites abound in artifacts that reflect the same type of spiritual symbolism of the ancient literature. These are usually dismissed as fetishes rather than looking for any deeper meaning.

Once we have decoded the mantric and symbolic nature of the Vedic language, Vedic literature can help us understand the ancient world and the ancient mind—its symbols, rituals, and aspirations, as well as the legacy and heritage that it has left for us. But it requires that we approach the ancient teachings with an honoring of the sacred, a respect for our elders and gurus, a regard for our ancient human spiritual heritage, and a devotion to the cosmic powers of the greater conscious universe.

The Living Vedic Tradition

The Vedic tradition remains alive, and many great modern yogis have given their comments on the Vedas and have revealed some of the Vedic secrets to the modern world. Sri Aurobindo (1872–1950), perhaps modern India's greatest philosopher, among his voluminous writings wrote several books on the Vedas and translated many Vedic hymns according to an inner yogic meaning.[3] Many of his disciples, such as Kapali Shastri, M. P. Pandit, and R. L. Kashyap, have expanded this work.

Ganapati Muni (1878–1936), the chief disciple of the great Indian guru Ramana Maharshi, left a number of important Sanskrit works on the Vedas, as did his disciple Brahmarshi Daivarata.

Swami Dayananda (1828–1886), founder of the Arya Samaj, the

largest modern Hindu sect, based his entire movement on a return to the Vedas and recognition of a deeper spiritual and scientific knowledge in Vedic texts, a task that many of his disciples have expanded in a number of books, teachings, research, and schools.

Maharishi Mahesh Yogi (founder of Transcendental Meditation) based his work on the Vedic mantras and through them promoted a renaissance of all the Vedic sciences including ayurveda, Vedic astrology, and *vaastu shastra*.

Other great modern yogis, like Paramahansa Yogananda, author of *Autobiography of a Yogi,* have written about the greatness of the Vedas, their antiquity, and the Vedic culture as one of the main sources for ancient civilization and world spirituality, though they have not written specifically on the Vedic texts themselves.

The Theosophical Society, particularly the writings of H. P. Blavatsky, similarly affirmed the deeper meaning of the Vedas. She wrote of how the Vedas were composed by the *rishis* mainly when

they resided by the Manasarovar Lake by Mount Kailas in Tibet.

Such a view of the Vedas as a spiritual treasure-house of great antiquity remains at odds with dominant academic views, which regard the Vedas as a primitive product of invading nomads into India around 1500 BCE, the so-called Aryan invasion theory. This theory proposed that the Vedic people, called Aryans, were a light-skinned racial group from Central Asia who invaded and destroyed the native cultures of India, bringing in the Vedic literature along with them. Though this theory has never been proved or linked to any conclusive evidence on the ground, it has not been abandoned by textbooks either. This theory, though it has been reduced from an invasion to a migration and now to largely a language change, continues to persist.

The theory that Vedic culture was originally based outside India was first proposed by Western scholarship a few centuries ago to explain connections between the languages of India and Europe,

which all belong to the Indo-European family of languages and share many similarities in grammar. An equally valid theory, however—and one that agrees more with both the literary and archaeological data—would have such linguistic influences derive from India and its nearby regions.[4] But during the colonial era, when the Aryan invasion idea was formed, India as a source of Western culture or languages was not such an appealing idea.

The Vedic tradition, we should note, has its own view of history. While the Vedas themselves as religious works do not contain specific or complete historical accounts, the Puranas, another set of ancient Indian literature, have a list of over a hundred kings going back before the time of Buddha and a delineation of many dynasties from throughout greater India going back to Manu, the primal king at the time of a great flood.

More importantly, Vedic and Puranic literature speaks of previous world ages called *yugas* and *kalpas,* extending back many

tens of thousands of years and connected to astronomical cycles of various types going back millions of years. They hold that our current civilization is neither the first, nor the highest. In fact, they regard it as a fallen materialistic culture of low spiritual development. The Vedas and Puranas also speak of contact with beings of other worlds, both in subtle realms and other physical planets, regarding true human civilization as linked to the greater universe. Such ideas of human history as determined by cosmic time cycles are shared by many other ancient cultures, such as Egypt, Babylonia, Greece, and Mexico, and are characteristic of ancient thought as a whole.

Sri Yukteswar, guru of Paramahansa Yogananda, in his book *Holy Science,* relates the fifth and last Manu or founder of Indian civilization to a period that ended around 6700 BCE. This information is similar to what the Greeks found in India at the time of Alexander circa 300 BCE. Megasthenes in his Indika, still

available in fragments, recorded a tradition of 153 kings in India going back over 6,400 years, to a date around 6700 BCE. The king lists of Egypt are not as long as these.

This Vedic view of the yugas or world ages, particularly the 24,000 great year, such as Yukteswar describes, is important for understanding Vedic thought and its antiquity, as well as its outlook for the future.[5] It tells us that we cannot put the Vedas in a historical time line of three thousand years as scholars would still like to do.[*1]

My Work as a Vedic Scholar and Vedic Practitioner

In my personal work, I have spent more than thirty years studying, translating, and writing on the Vedas and connected Vedic sciences, including yoga, ayurveda, and Vedic astrology. I have written

several books on the Vedic view of ancient history, as well as translating over a hundred of the Vedic hymns. This has resulted in more than thirty books and over a hundred articles on these topics.

I learned traditional Vedic Sanskrit and have gone through the Vedic texts repeatedly in the original language, with recourse to Sanskrit commentaries and the works of modern yogis like Ganapati Muni. I approached the Vedas according to an inner vision born of poetry, study of symbolism, and a practice of yoga and meditation. I received a training in the Vedic tradition itself, studying with gurus, pandits, and yogis in India. For this reason, my views of the Vedas can be different than those of scholars writing on the subject, who have not trained in the Vedic tradition and are usually unaware of its views.

My views, therefore, are from inside the tradition. These ancient traditions still have their own voices, and hopefully, I can at least provide a good alternative to the nonspiritual approach to Vedic

texts, which is what is usually presented in universities today. Early on in my studies, it was obvious to me that what we find in existing historical accounts and translations only touches the surface of the Vedic teachings.

Vedas and Ancient Yogic and Occult Knowledge

The Vedas contain spiritual, occult, and cosmic secrets that we are just beginning to become aware of. The great India-based religions of Hinduism, Buddhism, Jainism, and Sikhism may represent only later aspects of ancient enlightenment traditions that were probably more common during the Vedic era. The Vedas represent the remains of these early traditions, of which there were no doubt many more.

Vedic literature portrays an ancient solar religion of yoga and

enlightenment, such as was once common throughout the entire world. The sun is a symbol of the higher self, the *atman* or *purusha* of yogic thought. This Vedic religion of light is a religion of consciousness, which is the supreme form of light.[6]

The Vedic teaching centers a worship of the sacred fire, called *agni,* through which we can connect to the cosmic powers. It details many yajnas, or fire sacrifices, that can help attune us to the blessings of the universe and that remain the foundation of yogic and Hindu rituals to the present day.[7]

The Vedic teaching used special sacred plants called *somas*. These were powerful plants used in preparations to promote longevity, counter disease, aid in rejuvenation, and help us access higher states of consciousness. Vedic doctors are mentioned in Vedic texts along with special herbs, ghees (oils), and soma mixtures of great power.

Yet soma refers not just to the physical plants but to an inner

practice. The Vedic science of soma included ways of accessing our own sacred plant or inner set of energies through the spine, brain, and nervous system. Indeed, the original soma was not a single plant but an entire science of inner and outer healing, with soma plants corresponding to inner yogic somas of mantra, *pranayama,* and meditation. Such yogic somas are more important than the plant somas and more crucial for not only accessing but remaining in higher states of awareness.[8]

Outer Vedic ritualistic practices mirror inner yoga practices, balancing the fire and water and the agni and soma within us. Vedic literature contains the secrets of the practice of yoga, including the ascending of the kundalini fire force and the descent of the soma nectar that opens all the chakras. The practice of yoga itself arose from the inner Vedic sacrifice in which speech, mind, and prana were offered to the immortal divine fire present within our own hearts.[9] Vedic deities reflect a profound psychological and spiritual

symbolism relative to the practice of yoga and meditation, not just outer ritualistic concerns.

The Vedas may hold in their mantras the keys to the yogic and shamanic secrets of ancient humanity. The Vedic rishis describe in their hymns various higher states of consciousness, including self-realization, like the great sage Vamadeva (Rig Veda IX.26.1), who proclaims "I was Manu and I am the Sun"—a statement quoted in the Upanishads (Brihadaranyaka Upanishad I. 4.10) relative to the realization of Brahman or the absolute.

Vedic mantras have been described as a kind of universal language. Classical Sanskrit, which evolved out of Vedic Sanskrit, remains the most scientific language in the world. The Vedic language is the oldest of all Indo-European languages and the best-preserved language that we have from the ancient world. Since language, itself, is the best repository of culture, the Vedic language is perhaps our best key not only to ancient culture but to the ancient

mind, which is very different in its worldview and orientation than the modern mind.

Mathematical secrets of the universe are mentioned in the Vedas, like a time cycle of 4,320,000,000 years and names for numbers from 1 to 10 to 10 followed by twelve zeroes (10,000,000,000,000). The zodiacal number 360 and its divisions and derivatives are common in Vedic texts. Vedic mantras are said to be inherent in the rays of the sun. Noted Vedic scholar Subhash Kak has found a planetary code in the numbering of the books of the Rig Veda.[10]

Vedic astrology contains an extensive knowledge not only of the planets, signs, and houses but of the twenty-seven *nakshatras* or lunar constellations going back to the Vedas.[11] The Vedas relate the nakshatras to various deities and rishis and state that after death the soul can travel to the star it is most connected to in life. The mythology of the nakshatras is quite profound and helps us understand the ancient star lore of many cultures.

Vedic astrology divides the lunar month of 29.5 solar days into 30 equal lunar days or *tithis*. This amounts to 371 tithis in a solar year of 365 days. The number of deities in the Rig Veda are 3,339, or 371 times the mystic number 9, reflecting the importance of the influence of the moon. The Vedas were oriented to astronomical influences of a profound order and at perhaps a much earlier date than that of Babylonia.[12]

Vedic vaastu, its architectural and directional science, shows how the great forces of the universe impact us through the orientation of our rooms and buildings and the direction that we face. Ayurvedic medicine preserves many Vedic secrets of herbs, foods, subtle physiology, and keys to rejuvenation. It is still widely practiced in India and becoming recognized worldwide.

Vedic mantras themselves have a tremendous power to change the psyche and bring in higher cosmic influences into our minds and hearts. Vedic mantras like Gayatri (Rig Veda III.62.10) to the sun

god are still practiced by millions in India and are now being taken up by many in the West as well.

A few salient points about ancient history and Vedas:

Besides the knowledge side of the Vedas, there are also important historical implications of the Vedic literature. Vedic literature along with the current state of archaeology and genetics suggests a much longer history for the Vedas in India, perhaps extending into the ice age period. It suggests that the Vedic idea of previous cycles of civilization may indeed reflect ice age cultures. For example, the Puranas regard agriculture the creation of Manu Chakshusha, the fourth Manu, before the fifth Manu Vivasvan of the flood. We do note that agriculture began already in the late ice age period more than ten thousand years ago. Many of these points are mentioned in *Underworld: Flooded Kingdoms of the Ice Age,* by Graham Hancock. Hancock quotes my work and that of other Vedic scholars like N. S. Rajaram on several issues, particularly in his

sections on India.

Ancient India of the third millennium BCE presents us with the largest urban civilization of the ancient world and the most uniform, with hundreds of sites from Afghanistan in the northwest to across the Ganga in the northeast, to the coast of Iran in the southwest, and nearly to Mumbai in the southeast. This civilization is usually called the Indus Valley civilization, as the main sites were found by the Indus River; it is also called the Harappan civilization after the city of Harappa, which it was centered around.[13]

Mohenjodaro and Harappa are the two most famous and best excavated of the Harappan sites. Today, there are five sites larger in size than Mohenjodaro and Harappa, though not as well excavated, and over two thousand smaller sites, the largest being Rakhigari in the Kurukshetra region west of Delhi. This Harappan or Indus civilization is the largest in size and the greatest in uniformity of all ancient civilizations, and India at the time, as India today, hosted a

much larger population than the arid regions of the Near East.

However, modern scholars portray this Harappan culture as a civilization without a literature, a mysterious civilization that arose and disappeared with little connection to the later history and peoples of India. Meanwhile, the Vedas, which, as we have already noted, represent the largest literature from the ancient world, are portrayed by scholars as a literature without a civilization. In other words, the largest urban civilization of the ancient world is portrayed as civilization without a literary record, while the largest literary record of the ancient world is regarded as a literature without a civilization, though both come from the same part of the world and are traditionally linked together.

Yet if we simply combine these two, the Harappan ruins and the Vedic literature, we can end the mystery on both sides. Both the Harappan ruins and Vedic literature speak of the same region and reflect many of the same artifacts and practices. For example, the

most common symbol found in the Harappan ruins is the swastika, which is the most sacred symbol of Hindu and Buddhist thought. Indus sites also contain fire altars, sacred water tanks, and images of figures seated in meditation (proto-Shiva) or performing yoga postures, such as Vedic and Hindu thought has always given prominence to.

Moreover, the so-called Indus Valley civilization is not located on the banks of the Indus River. The great majority of ancient urban ruins in India have been discovered on the dried banks of the river traditionally called the Sarasvati, which flowed to the east of the Indus. Landsat satellite photography has revealed that the Sarasvati was once a huge river system, up to five miles wide in northwest India, east of the Yamuna River, that dried up around 2000 BCE.

Vedic literature also mentions the Sarasvati River, the most revered of all the Vedic rivers and the great mother of the Vedic people. The Vedas and later literature locate the Sarasvati east of the

Yamuna. The Vedic river hymn starts with the Ganga, Yamuna, and Sarasvati rivers and then identifies other rivers to the west. The sacred land of the Vedic people in Vedic literature (Rig Veda III.23.4) and Manu Samhita is situated between the two divine rivers, Sarasvati and Drishadvati, in the Kurukshetra region west of Delhi, where the Mahabharata War was fought at the time of Krishna. Both Sarasvati and Drishadvati were great rivers in ancient times before largely disappearing around four thousand years ago except as occasional run-off streams. That the Vedas speak of these rivers as their immemorial homeland is a strong evidence of their antiquity.

Moreover, the Rig Veda speaks of the Sarasvati as the largest river of the region, pure in its course from the mountains to the sea (Rig Veda VII.95.2). Later texts, like the Mahabharata, speak of the Sarasvati as a broken stream drying up into a series of lakes in what are now Rajasthan and Haryana.[14] Disasters along nearby rivers like

the Shutudri (Sutlej) are mentioned in the Mahabharata, with the river breaking into a hundred streams, reflecting the changing of rivers in the region.

The Vedas as a lost civilization rest upon these lost rivers. After the ice age ended, the melting of glaciers kept the river flows in north India much higher, until the bulk of the glaciers melted. Most notably, *to date there is no archaeological evidence of any Aryan invasion or migration into India.* No one has ever been able to locate the so-called Aryans in the archaeological records. The attempts to do so, like that of Mortimer Wheeler and his proposed massacre at Mohenjodaro, have proven erroneous and are no longer accepted. There are no Aryan skeletons, no Aryan horses or chariot remains, no Aryan encampments or any identifiable special Aryan artifacts, no remains of cities destroyed by the Aryans, and no memory or literary records of any such invasion in the history of India, whether in the Vedas, Puranas, or Buddhist and Jain

literature. In other words, apart from linguistic speculation, which itself has many variant opinions, there is nothing in the archaeological record to show any incoming Aryans at all.[15]

The whole idea of an Aryan race has been discredited, along with most of the nineteenth-century views it was connected to. The Aryan race idea was a product of European nationalism, not of Vedic thought, for which *Aryan* was a term of nobility only, not ethnicity. It is much like the swastika, which is a Hindu and Buddhist symbol of the wheel of dharma, which the German Nazis perverted into a Nazi symbol.

The Indus or Harappan culture came to an end owing to geological and climate changes, along with the drying up of the Sarasvati River. The decline of the river began by 3000 BCE before ending around 1700 BCE. But the same peoples remained and continued the same types of arts, crafts, and customs until the next urban phase began on the Ganga a few centuries later.

Relative to natural history and genetics, it is now known that the people of India have been continuously occupying their country for more than fifty thousand years. India's subtropical climate enabled them to remain in India throughout the ice ages, unlike Europe and Central Asia, which became largely uninhabitable during the ice age glaciations. There is to date no genetic record of any incoming Aryans. The main genetic markers are of a movement of peoples outside Southeast Asia after the ice age ended and displaced the populations there. The so-called incoming Aryans have failed to turn up in the genetic record as well. Rather, we see the continuity of the same peoples in India going back into the ice age period.[16]

Curiously, the Vedic and Puranic view is that the Vedic people hailed from the south of India after a great flood. The Puranas relate that Vedic Manu, a great yogi, came from Kerala (Malaya) in the south (Matsya Purana I.13–14). Vedic rishis and sages like Vasishta and Agastya are connected to the south. In fact, the Bhrigus, one of

the two main families of the Vedic rishis, are descendants of Varuna, the god of the ocean. The Rig Veda itself has over 150 references to the ocean (*samudra*), as well as to ocean travel and crossing oceans and rivers, though Western scholars claim the Rig Veda is a product of landlocked nomads from Central Asia! The Vedic people likely came from the south of India, perhaps connected to the fabled Kanya Kumari continent, which was said to have existed before the waters rose at the end of the ice age and submerged it.

Implications

If the Vedas do contain such spiritual and yogic secrets, this affirms the idea found not only in Vedic literature but throughout the ancient world that in ancient times people were more spiritually

evolved than today. We find a similar myth of a primordial spiritual golden age in the Taoist literature of China, in Babylonian ideas of earlier ages, and in Hopi and Mayan literature. In this way, the Vedas are a record of that golden age and provide a direct link to the wisdom of that more evolved era.

If Vedic civilization is indigenous to India, then we would need to rewrite world history, particularly the history of the Europeans. We would find that the Indo-European groups of Europe, which include Greeks, Romans, Celts, Germans, Slavs, and others, must have had a great cultural affinity with India before their connections to the Near East or their dispersal throughout Europe.[17] This would be just one aspect of connecting ancient cultures with still older cultures that perhaps extended back into the ice ages.

Clearly, there are many secrets of lost civilizations, and in seeking these out, we cannot forget the role of India, where the ancient world still lives. The history and literature of India,

reflecting a knowledge of lost civilizations, should be given greater attention—not only the Vedas but also the Puranas and various yogic texts.

Conclusion

The Vedas are not the only ancient culture or the sole repository of wisdom, though they are certainly much more important than our current historical accounts indicate. Probably, all the main ancient cultures in the world are much older, more evolved, and more spiritually based than what modern history ascribes to them. Similarly, ancient populations and languages may be much older than current estimates indicate, such as the Proto-Europeans and Persians, who are also regarded by modern scholars as products of nomadic invasions from the north and east.

Our current human history of 5,000 years makes little sense if our species is over 150,000 years old, as current science estimates. The destructive effects of the end of the ice age, which saw huge land masses and coastlines submerged, the destructive influence of long periods of time, and the lack of attention by modern scholars used to a short historical time line may explain why such ancient and pre–ice age cultures have not been better discovered or recognized, even though in the case of India, they are still alive among us.[18]

True, history, not as mere technology but as the development of enlightened cultures, likely goes back tens of thousands of years on all the continents. The great civilizations of the early ancient world that we find, such as the Sumerians, Egyptians, Maya, or ancient Hindus, are more likely the remnants or survivors of yet earlier great cultures that our history has so far failed to uncover. Indeed, all the great ancient cultures that we have found do not present

themselves as the founders of something new but as connected to earlier cultures going back into the ice age and before.

To go forward as a species into a real planetary age, we need to reclaim this spiritual and yogic heritage of ancient humanity. It provides much of the wisdom we need to help us deal with our global challenges. Our great gurus, elders, and ancestors can still be called on. A few remain. Their voices can be heard. Their words have been recorded. But unless we approach them with respect and seek to uncover the deeper meanings behind their mantras, symbols, and myths, we will not be able to access their wisdom or gain their blessings and the blessings of the greater universe that they carry.[19]

In light of such issues, we can discuss both the spiritual and historical implications of the Vedic literature. I can hopefully present the reader with a view from inside the Vedic tradition, reflecting the deeper Sanskrit meanings and Vedic yogic practices that the reader, otherwise, may not find easily.

F O U R

A Cosmological Journey

HOW MODERN SCIENTIFIC DATA IS TAKING US BACK TO THE WISDOM OF THE ANCIENTS

DR. MANJIR SAMANTA-LAUGHTON

A Realization of Galactic Proportions

"Okay, that's it! I can't keep this to myself anymore."

It was early 2004, and I looked up from the report in New Scientist magazine. Antimatter had been found pouring from the heart of our very own Milky Way galaxy, and astrophysicists did not know why.[1] But strange though this was, it was totally predictable from the theories I had published in a paper the previous year.[2] How was it that I knew something that the astrophysicists themselves did not? And why me? Why was a female, British Asian, medical general practitioner (GP) without even an A level in physics and barely out of her twenties coming up with all these ideas about the cosmos?

It was that moment that prompted me to overcome my reservations about writing the book that eventually became *Punk Science: Inside the Mind of God*.[3] I was in the middle of something

big. I didn't know why—I just had to go with it and see where this road was leading me. It was as if I wasn't in control any more; this theory had begun to take over my life.

The Road to Eureka

Believe me, this is not where I thought I would end up—putting forward a new theory in physics. I am from a medical family and have trained as a GP like my parents. But after a spontaneous spiritual awakening, which happened in my first few weeks of medical school, I added a burgeoning mystical life to my medical studies. Pretty soon, I realized that the principles of the universe I was experiencing mystically must have their correlation within scientific realms.

To start with, I simply wanted to explain these esoteric principles

in terms of modern physics. Like authors who had published before me, I could see the links between esoteric principles such as distant healing and nonlocality in quantum theory. So I started learning about ideas in cutting-edge physics and comparing these with traditional esoteric principles. My aim in the beginning was to provide better care for my patients. I had a (perhaps naive) belief that if doctors simply understood the physics behind energy healing modalities, then maybe they would lose their fear of including them in medical practice, and patients would then benefit from these powerful but nontoxic treatments. But this journey took me somewhere quite different.

Gradually a different path emerged, and as I firmly stepped onto it, the universe moved around me creating extraordinary events leaving me free to study and write full-time. I started writing a book, even though I had no publisher initially, highlighting the links between cutting-edge biology and physics and esoteric ideas. But

how did I end up going from being a GP wanting to help her patients to making predictions about the universe that were rapidly being proved right?

At the Heart of Every Galaxy

It was the autumn of 2003, and I had become captivated by the field of cosmology, which had been in turmoil since around the turn of the century with many long-held beliefs becoming obsolete as data came pouring in from telescopes. Cosmologists had just faced one of their biggest challenges for years: the unwelcome arrival of dark energy—a mysterious force that seemed to be blowing the universe apart and accelerating its expansion.

Images from Hubble and other telescopes were throwing open some of our long-cherished beliefs and making us question our

theories and expectations about the universe. I became particularly fascinated by black holes. The concept of black holes started life as a conclusion of Einstein's theory of relativity—that if space and time curved beyond a certain point, they would create a point of infinite gravity. Initially, it was thought that certain stars collapse at the end of their lives and produce these points of infinite density and gravity, with a pull so powerful that not even light can escape—hence a so-called black hole.

For decades, these objects remained a theoretical concept, and although they sparked the imaginations of science-fiction writers, it was not known if black holes really existed. It was not until the dawning of the twenty-first century, when our telescopes were picking up black holes everywhere, that we realized that not only did back holes exist, but they were actually quite common.[4] How is a black hole detected if no light can escape it? One of the ways is to look at the material around them, called an accretion disc, which

spins so fast that only the gravity of a black hole could be creating it.

The amazing thing was that when we turned our telescopes on neighboring galaxies, we found a supermassive black hole at the heart of each one. We even found a black hole at the center of our own galaxy! So instead of being rare exotic creatures, it turned out that black holes are actually quite common. As well as appearing in the heart of each galaxy, smaller black holes appear throughout the galaxies. Sometimes, they are associated with objects such as quasars, which give out bright radiation.

Hold on a minute: Why would a quasar, which has a black hole associated with it, give out such bright radiation? Surely the black hole would suck up all the light so that we can’t see it? In fact, the more we looked, the more the data indicated surprises that contradicted our current theories.

The Great Annihilators

It was in studying objects called microquasars, which are smaller versions of quasars, that I started to find some answers. Microquasars also have a black hole associated with them, but their behavior, again, is peculiar. They, too, are spewing out material very fast, despite the black hole associated with them.

Sometimes they give out gamma ray radiation, sometimes electrons at close to the speed of light, and sometimes the antimatter opposite of electrons—positrons. Because we know that within microquasars, antimatter and matter combine to form light in the form of gamma rays in a process called annihilation, *New Scientist* magazine dubbed them the Great Annihilators.[5]

What was the cause for this strange behavior? Why was this very fast material being spewed out by microquasars? Why aren't the black holes associated with the microquasars sucking everything

up? Astronomer Sir Martin Rees commented that we should study microquasars. There was a general agreement that black holes all probably behave in the same way, just at different scales, so what we find out about black holes of this size will inform us about larger black holes.[6]

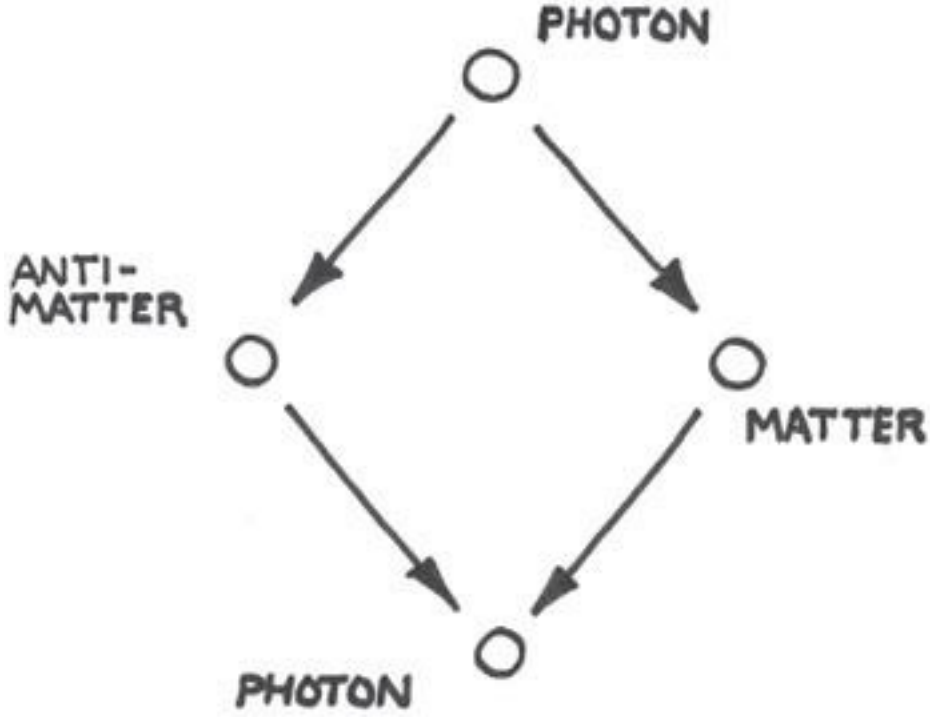

Figure 4.1. Antimatter and matter combine to form light

The Universe Speaks

I was pondering all these conundrums—black holes, dark matter and dark energy, and microquasars—as I took a walk with my dog in the woods in the autumn of 2003. I also wanted to find out how everything fitted together with the notion that consciousness is fundamental to the universe, which has arisen out of the work of quantum physicists such as Amit Goswami and Fred Alan Wolf.[7], [8] Radical scientists such as these have looked at the conclusions of quantum physics, which tell us that a subatomic particle only comes into existence when it is measured. They realized that the act of conscious observation has a role in creating reality. Some physicists have gone further and concluded that, in fact, consciousness is fundamental to the universe.

Mulling this all over in the woods, I decided to take a rest on the

branch of an oak tree and remembered something I had seen years ago in a video featuring the mathematical cosmologist Brian Swimme.[9] He recommended that we take time to tune into the rotation of our own planet, and for some reason, here on this branch of an oak tree, was the first time I tried it.

What came next is something I find hard to describe, but it was if I had been thrown into the very fabric of the universe and caught a glimpse of its secrets. Everything seemed to be made up of the most exquisite geometry and mathematics, which was at the same time both infinitely complex and ever so simple. And I suddenly understood how black holes work, and it wasn't at all how we had previously theorized. I had been shown what I now call the black hole principle, and it was a discovery that would profoundly alter the course of my life.

Dimensions of Consciousness

To understand the black hole principle, I need to first discuss a few other scientific ideas. One is that the universe is made up of many dimensions. This concept started in physics after Einstein had successfully united space and time. Einstein did the equivalent of climbing up a hill to gain an overview of a seemingly disorganized crowd. From this higher perspective, the scene becomes unified; you can see the big picture instead of just seeing the chaos on the ground.

This is effectively what Einstein did in mathematical terms, and ever since, people have been trying to find a way to unite all the forces of nature. Sometimes they do this by creating higher dimensions, such as string theory. These higher dimensions are all around us, but we can't see them because they have different geometrical qualities. Physicists used to think that these dimensions

are very small, but changed their minds and started realizing that these dimensions could be worlds of their own.[10] So, according to physics, we live in a universe of many dimensions.

Another concept that has come out of academic physics in recent years is that the speed of light is not the speed limit of the universe. It sounds crazy, but some radical thinkers, such as Joao Magueijo, have been postulating that the way to solve some of the problems we have in cosmology, such as the horizon problem and the flatness problem, is to realize that the speed of light is variable and was faster in the early universe.[11] Magueijo even goes on to say that light is infinite and is curled up in higher dimensions.[12] So what we see as the speed of light is actually a small fraction of its actual speed, which is infinite. Naturally, these ideas have caused a storm in the world of physics, with some people branding Magueijo and his colleagues as heretics.

These two notions, of multiple dimensions and infinite light,

when combined with ideas coming from quantum theory present a universe alive with consciousness. And all this has come from physicists themselves in the academic world—not from New Age postulations—which makes these ideas all the more remarkable.

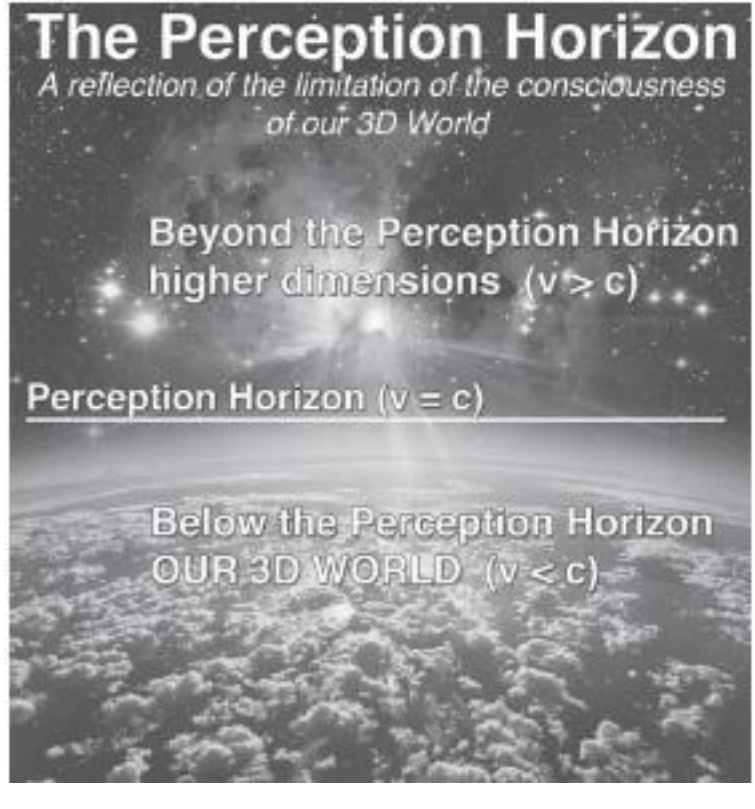

Figure 4.2. The perception horizon

When I started to piece all this together, I realized that what we call dark matter and dark energy is not actually dark at all—it is superbright![13] What we have been calling the speed limit of the universe is not a speed limit at all; it is simply a reflection of the limitations of consciousness in what we call our reality—three spatial dimensions and one of time. The speed of light then becomes the perception horizon, beyond which we don't perceive anything with our normal senses and or our instruments, which are attuned to this dimension alone. However, the areas of the universe that lie beyond this perception horizon are the realms that mystics have been discussing throughout the ages—the light perceived in deep meditative states.

Black Holes: The Source of Infinite Light

So what does this have to do with black holes? Well, in that insightful instant during my walk, which only lasted a few seconds but imparted volumes worth of books to me, I realized that black holes are not dark guzzling monsters at all. We have got it all wrong. They are actually the source of infinite light. This infinite light lies at the heart of black holes. It spirals from the center, down through the dimensions to the edge of our perception, where the light then splits off into a particle of matter such as an electron and a particle of antimatter—a positron. This is why we see electrons spewing out of black holes at the speed of light because they have only just reached our dimension and therefore our perception.

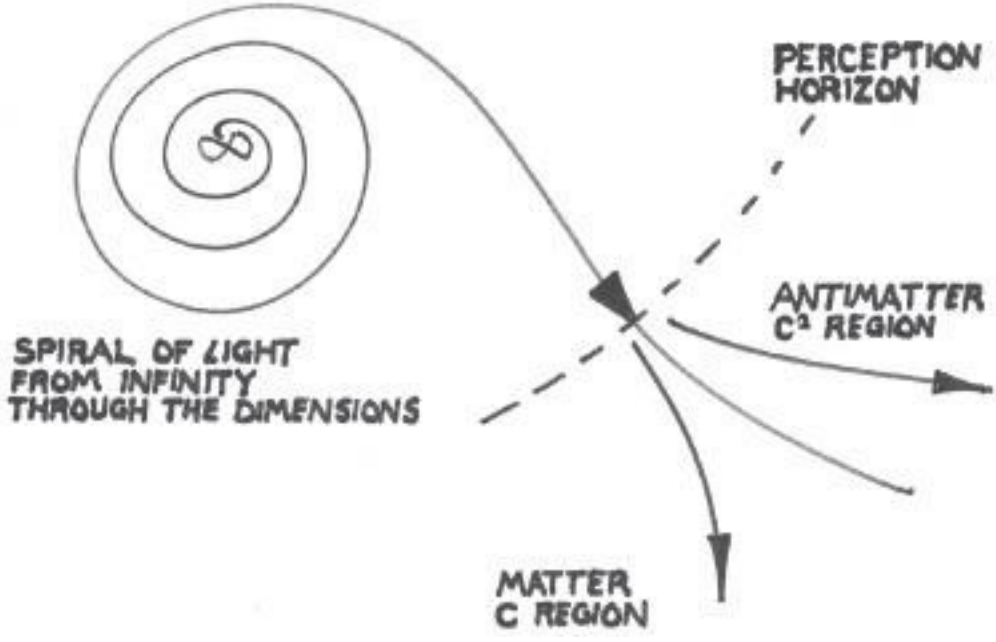

Figure 4.3. The black hole principle

And that is not all. This is a breathing process, and it works both ways. Positrons and electrons recombine to form gamma rays. Black holes are therefore the source of the gamma ray bursts that we have seen coming from even the furthest regions of our cosmos and have puzzled scientists for over fifty years since they were first

discovered. We even have evidence of this breathing process happening near our own Milky Way galaxy. High-energy gases close to the center of our galaxy have been observed moving in and out, and nobody seems to know why, but this finding totally fits our theory.[14]

Burping Black Holes

We may also be able to account for the strange patterns we see coming from black holes. A lot of astrophysicists think that the emissions from black holes are the result of explosions or black holes guzzling up matter such as stars, causing matter to be ejected in the process. But instead of a steady decay of emissions, as would be expected after an explosion, the pattern is more erratic, leading to bizarre concepts such as the one that black holes burp up their

food.[15]

Once we understand that a deeper process is occurring in black holes than just an explosion limited to our dimension, then we will no longer need to create bizarre explanations as we will have a simple, elegant theory that can make some powerful predictions.

I also realized that the black hole principle does not just end with black holes in the cosmos; this same signature behavior is present at every level in a fractal fashion—from objects as small as atoms and quarks to supermassive black holes and even structures in between, such as stars and planets. If I am right, we would see the following types of behaviors in structures:

Emission of electrons at almost light speeds

The presence of antimatter and matter annihilation

Emission of antimatter

Gamma ray radiation emissions

Patterns that are unpredictable—with hours or maybe days between flares

A bipolar jetlike concentrated pattern of emissions (see color plate 1)

The Fractal World

After publishing my initial ideas in a journal in the winter of 2003, I spent the next two years researching and verifying this theory, which I called the black hole principle. Sure enough, a lot of the unexplained behaviors of various objects in the cosmos, from red dwarfs to planets, fit this pattern. Even comets were throwing up surprises for astrophysicists, but not for me—their behavior fit the black hole principle perfectly.[16] Behavior that we have known about for a long time, like radioactivity and the quantum jumps of an

electron within an atom, can now be seen in a new perspective.

Even planets and stars show the same pattern of periodic ejections and emissions of high-energy electrons and light. Just look at the X-ray and gamma ray radiation found around the planets of our solar system, the mysterious plumes given off by Jupiter, and solar flares, which remarkably display the same cycling of antimatter and matter that we see in supermassive black holes.[17], [18]

Our own planet Earth is the site of some astonishing evidence of the black hole principle. Now surely, our own planet cannot be full of fractal black holes? But if you remember, the term *black hole* is now a misnomer as they are actually the source of infinite light and are the creative forces in the cosmos. It is something that cosmologists themselves were forced to announce in 2010 mainly because the size of each galaxy has such a direct correlation to the size of the supermassive black hole at its center that it was no longer possible to deny the creative role of black holes.[19]

Bolt upright

So let's look back at some of the criteria for black hole behavior and compare it to our own planet. Where do we see high-energy electrons moving at very fast speeds? In lightning! We are often given the impression that lightning is created by a sort of static electricity that builds up in the clouds, but nobody has been able to prove this. The measurements that have been taken actually show that the power buildup is not nearly enough to cause a bolt of lightning.[20]

When a lightning bolt hits Earth, it is traveling at one-third the speed of light. Amazingly, recent discoveries have shown that gamma ray flashes that exist in Earth's upper atmosphere are associated with thunderstorms and lightning bolts, and just this year alone (2011), NASA has also found that antimatter is being emitted

too (see plate 2).[21], [22] So now we have periodic ejections of electrons, gamma rays, and antimatter as well as the presence of matter and antimatter annihilation, just as we find in a supermassive black hole at the center of a galaxy.[23] But it is happening not in outer space but in our own atmosphere! This same black hole principle is happening at every single level. There are many more examples given in the book *Punk Science,* which includes DNA, quarks, and the long-derided concept of chakras.[24]

We live in a fractal black hole universe with the signature of creation happening at every single level in everything. Every level of the universe is being created in every moment via spirals of light from infinity. When they reach our dimension, delineated at what we are currently calling the speed of light but is really the limitation of our perceptions in our dimension, they split into the antimatter and the matter that make up our universe and a mirror universe to ours. The matter universe is the one that we are mostly aware of in

our daily lives.

Bang Goes the Theory

This means that creation is happening at every single level, not just at one single point fifteen billion years ago; there was no big bang. Astonishingly, the very evidence that was supposed to support the big bang theory is showing up its deficiencies, and this has prompted a group of cosmologists to form the Alternative Cosmology Group, protesting that unless you work on the big bang theory, you will not get academic funding.[25]

However, the more we look at the evidence, the more the big bang theory disintegrates. For example, when we started looking deeper into the universe, we expected to find that we would see only younger stars; as it has taken a longer time for the light to reach us,

we should be looking into the early universe. But that is not the case. No matter where we look, the universe looks the same—old stars and young stars appear everywhere.[26]

The other piece of evidence that was supposed to cement the big bang theory but, instead, derailed it was the measurement of microwave background radiation. Discovered by accident in the 1960s by Penzias and Wilson, this radiation has been interpreted as the remnants of the big bang. We even faintly pick it up as the snowstorm picture on our television sets.

But strange features started to appear in the microwave background. Curious alignments and axes were seen that relate to current structures.[27], [28] This meant that instead of being related to an event that happened billions of years ago, the microwave background shows alignments to current objects. With microwaves being emitted by our very own Milky Way black hole, it could be that the microwave background is aligned to current structures

because it is being emitted by them in the here and now![29]

Time and time again, findings that were puzzling to astrophysicists were perfectly fitting the black hole principle. The predictions I have outlined above can be applied to structures as small as a quark and as unexpected as a brown dwarf.[30], [31]

So when I found that antimatter was pouring out of our own Milky Way galaxy in a veritable fountain, to the surprise of many but totally predictable by this theory, I realized that too much evidence was accumulating for me to keep this theory to myself; it needed to get out there.[32] So I collated the data together and published it in the book *Punk Science,* which provides many references for further reading. Since then, of course, we have discovered massive bipolar gamma ray emissions coming from our own galaxy, too: another iteration of the theory.[33]

Nothing New under the Black Hole Sun

It has been a difficult journey, at times requiring me to leave behind the familiar life of a medical doctor and step into uncharted territory. The discovery of similar theories from groups around the world has just reiterated that we are in the middle of a massive scientific revolution. In fact, many scientists even a hundred years ago were formulating similar theories but did not have the astrophysics data that we have acquired in the last few decades to express them in this way.

Going even further back, we realize that the concept that the centers of galaxies are a creative force in the universe has been described by many earlier cultures. The Maya described the center of the galaxy as the Great Mother or cosmic womb. The gnostics had a creation myth, possibly inherited from earlier cultures, that describes a goddess from the center of a galaxy swirling around and

falling through some sort of cosmic boundary before creating our world. Maybe this knowledge has something to do with spirals appearing in ancient art, such as at New Grange in Ireland.

I get a sense that the time for this theory has come and that we are simply rediscovering what we used to know. Maybe we had to move away from this ancient knowledge in the cycles of time so that we could rediscover it now with the benefit of our current technologies, which brings us right back to what our ancestors knew —that everything is a spiral of living breathing creative light from infinity occurring at every level and at the heart of every spiral is the same infinite oneness that connects every structure in the universe from the very large to the very small.

F I V E

Megaliths, Shamans, and the City Builders

THE HIDDEN CONNECTIONS

LUCY WYATT

We all share certain assumptions about the ancient past. There are many commonly held presumptions about megaliths, shamans, and

city builders. In this article, I challenge those presumptions, as well as explain what the hidden connections are and why they are hidden. I provide a brief overview of civilization that goes right back to the end of the ice age and so gives an alternative interpretation of how living in cities came about—in particular, by exploring the links between megaliths, shamans, and city builders. This article is based on research from my book *Approaching Chaos*.

The first point to make is that we do not normally link megaliths and shamans with city builders. Indeed, there are no ancient cities associated with well-known megalithic sites in the United Kingdom, such as Avebury or Stonehenge. If you mention megalith to anyone, Avebury or Stonehenge are normally the images that spring to mind; and if you say shamans, then people think of Peruvian medicine men in the jungle or Mongolians in smoke-filled yurts. When we Westerners talk about our ancient pagan "primitive" past, we usually refer to nature and nature spirits, sacred groves of oak

trees, temples and zodiacs in the landscape, energy lines, and rocks and springs. We think of Druids; we think of Stonehenge. It is all wild, elemental, and powerful. We do not think of pharaohs, nor do we think of places like Washington, D.C.—and yet they are all linked.

One reason why we do not make these associations is because of the Romans. They, along with the Greeks, were the most powerful of all the Indo-European tribes, and they continue to dominate us in the West. So much of what we understand about the ancient past is mediated through these people: it is filtered through their mind-sets, their way of thinking, because we have inherited their languages. They both provide access to the past—because we can learn about life two thousand years ago by reading the material they left behind —and form a barrier.

This may sound bizarre, but the Greeks and Romans themselves did not understand everything about the times they were living in. In

fact, they were quite capable of getting it wrong. More particularly, they did not fully understand the group of people we call the Egyptians—in spite of living with them for several hundred years.

The Greeks, of all the Indo-European tribes, were the closest to the Egyptians, and it is mostly through the Greeks that we know as much as we do about ancient Egypt. But after the end of the fourth century CE, even that possibility disappeared, and we lost all ability to read hieroglyphs. For a long time, Egypt remained mysterious, a closed book.

So what are these connections that have remained hidden for so long?

The Ice Age

To answer that question, I want to go right back, back to the

beginning as it were—back to the end of the ice age more than twelve thousand years ago. (The dashed line in figure 5.1 represents the extent of the ice; the other line, the lower sea levels. You can read about the clans in *Approaching Chaos.*) We tend to start the story of how civilization began during the ice age; how we came to be modern, progressive people with all our urban comforts and sophistication, leaving behind the wild, woolly, elemental stuff.

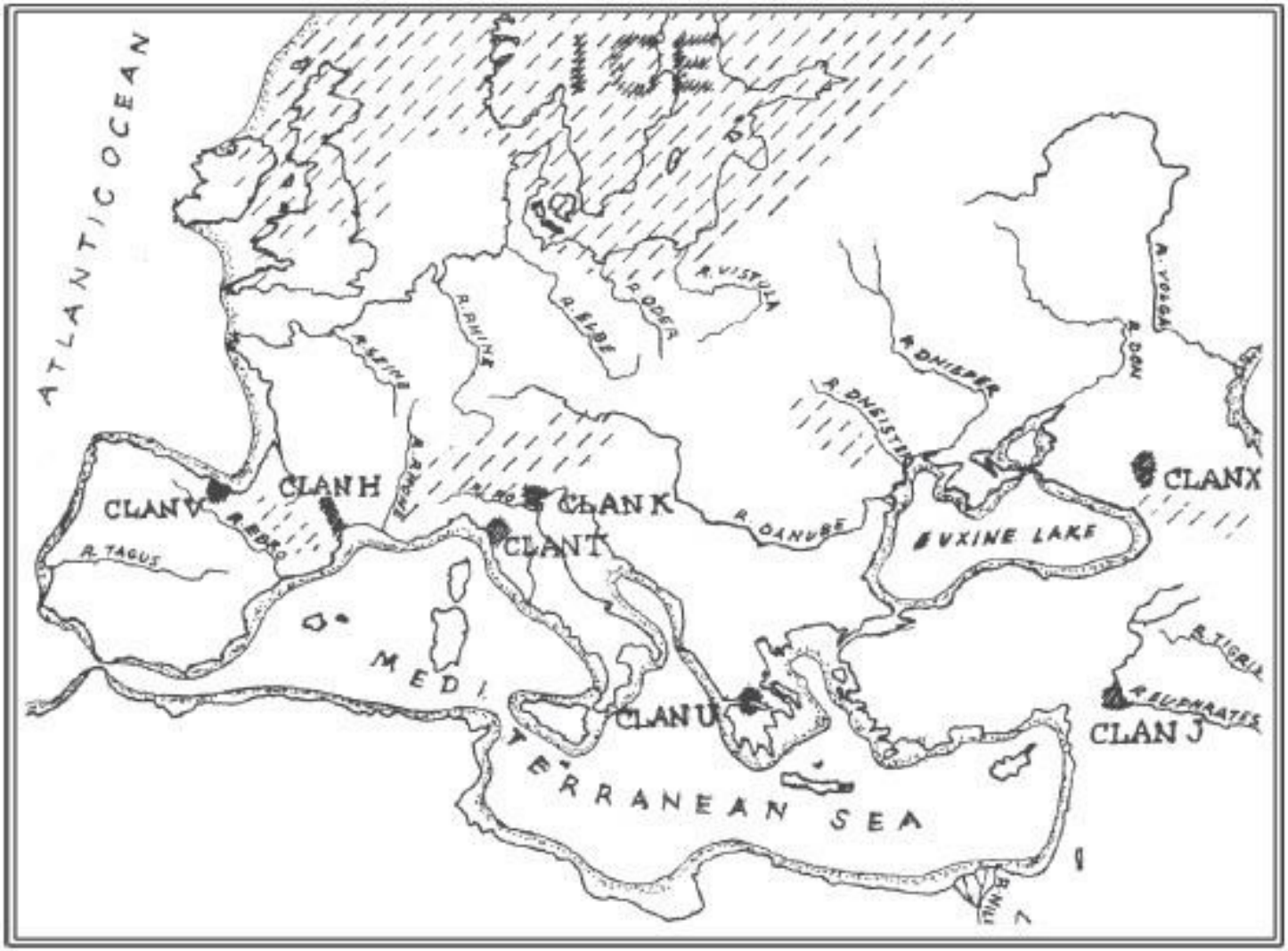
ATLANTIC OCEAN
R. VISTULA
R. ODER
R. ELBE
R. RHINE
R. SEINE
R. DNIEPER
R. DNEISTER
R. VOLGA
R. DON
CLANX
CLANV
CLANH
CLANK
CLANT
R. EBRO
R. TAGUS
R. DANUBE
EUXINE LAKE
R. TIGRIS
R. EUPHRATES
CLANU
CLAN J
MEDITERRANEAN SEA
R. NILE

Figure 5.1. Ice age map, reproduced courtesy of Bryan Sykes, The Seven Daughters of Eve (*London: Corgi, 2001*)

And the story we tell ourselves is that it all starts with the farming experiment. You can read about it in the British Museum: Paleolithic man instead of sitting in his cave begins to throw seeds around outside; he finds he has a crop surplus, and being clever, he decides to exchange it for something else. Primitive people were then on their way to becoming civilized with towns and cities growing out of early marketplaces. They could leave behind their hunter-gatherer cave-dwelling past and evolve into modern man, with the help of the Greeks and Romans, of course. Lots of people continue to believe that civilization only really starts with the Greeks and Romans.

The Farming Experiment?

But unfortunately, we have been telling ourselves the *wrong* story. This is not what the prehistoric record shows. There was no farming experiment. The Natufians, for instance, who were around from about 12,500 BCE onward, cultivated wild seeds for three thousand years. During this time, there was no change from a wild seed to a domesticated seed. Even when the change from wild to domesticated did occur after 9,500 BCE, it is not plausible to suggest that it was an evolutionary process.

The difference between wild and domestic seeds is expressed in a single gene: one that relates not to taste but to convenience; convenience being one of the hallmarks of civilization. Figure 5.2 shows a barley seed head with its rachis—the little hinges that connect the seed heads to the stalk. Wild seed rachis break when the seed heads are ripe; the domestic version waits to be picked.

Figure 5.2. Barley seed head

The chances of a rare genetic mutant wild cereal turning into domesticated cereal have been calculated at once or twice in two to four *million* seed heads—according to Gordon Hillman who is cited by Steve Mithen (a well-respected prehistorian academic). For this change to have occurred naturally would take 20 to 30 cycles, that is 20 to 30 years.[1] No one is realistically going to wait around that long for an "experiment" to work; they would return to trapping and

say, “Dad, can you forget your farming experiment?” The obvious conclusion is that this change was deliberate: someone knew how to interfere genetically with cereals.

What is also suspicious is the climate and geography of those places where the change to farming apparently took place. One such place is Machu Picchu, high up on the altiplano in the Andes in South America, shown in color plate 3; another is the Fertile Crescent near the Mediterranean Sea—often referred to as the cradle of humanity because so many “firsts” happened here The first fully morphologically domesticated cereals occurred at Halula in the northern Euphrates Valley in about 7000 BCE. The map of the Fertile Crescent in figure 5.3 shows the Taurus Mountains in the west, in Turkey, and the Zagros Mountains in the east, in Iran, with both the Tigris and Euphrates rivers coming from a mountainous area in the middle of the crescent.

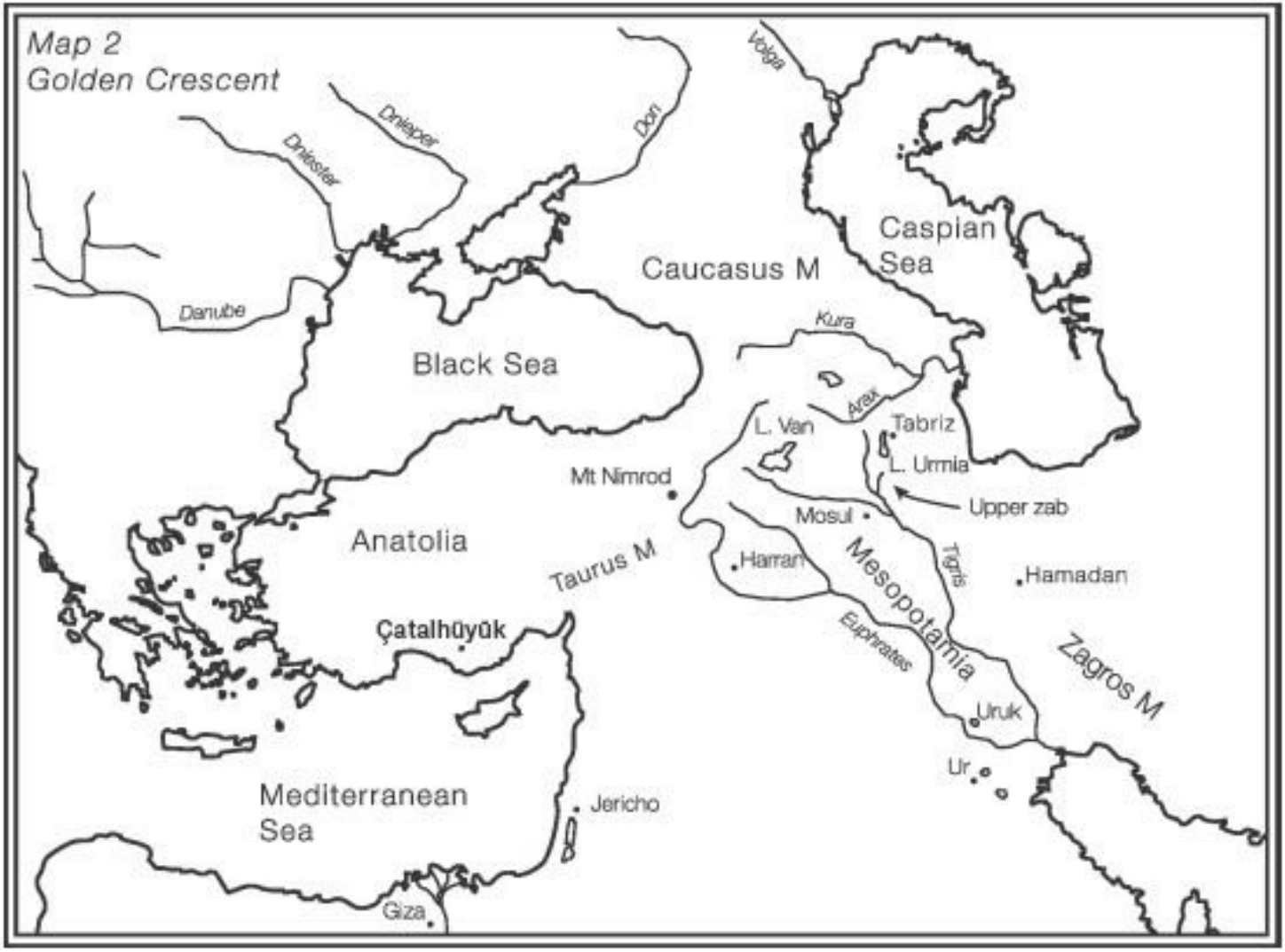
Map 2
Golden Crescent
Volga
Dniester
Dnieper
Don
Caspian Sea
Caucasus M
Danube
Kura
Black Sea
Araxes
L. Van
Tabriz
L. Urmia
Mt Nimrod
Upper zab
Mosul
Anatolia
Taurus M
Harran
Mesopotamia
Tigris
Hamadan
Euphrates
Çatalhüyük
Zagros M
Uruk
Ur
Mediterranean Sea
Jericho
Giza

Figure 5.3. The Fertile Crescent

If farming really were the stimulus for the creation of civilization, why were the earliest examples of it located in such agriculturally difficult places? Jacquetta Hawkes is one of the few to draw attention to this curious situation in her comment that civilization "was not inevitable, for on the one hand men have lived on well-watered and fertile land without creating civilization, and on the other hand they have created civilizations in apparently poor environments."[2]

Hawkes is not alone in her comments. Diana Kirkbride, a onetime director of the British School of Archaeology in Iraq, commented about one site dating to 7500 BCE that she excavated in the 1970s in the Mosul-Sinjar region in northeastern Iraq (in a place called Umm Dabaghiyah) that it was "singularly uninviting"—even allowing for change over time and degradation of habitats. Likewise, Charles Maisels discusses another site dating to 6000

BCE to the east of Mosul at Yarim Tepe on the Upper Zab, describing it as a zone of rocky limestone hillocks "not really suitable for farming, yet there is plentiful evidence of it here."[3]

It is also in the Fertile Crescent that we have the remains of a series of well-built settlements dating to between the tenth and eighth millennia BCE—the most famous being the end of the eighth millennium at Çatalhüyük in Anatolia, southern Turkey. Çatalhüyük is another site hailed as an example of humanity on its way to a civilized life.

What is significant about Çatalhüyük is that well-constructed storerooms are the central feature of the settlement—better built than the human dwellings around them. Çatalhüyük is carefully laid out with a proper street pattern and all the houses have the same floor plan; yet it did not develop into any kind of city. The diet of the inhabitants is also resolutely Stone Age, consisting of wild animals, aurochs, and such like. This contradicts the idea that

farming leads to surplus, which leads to markets, towns, and so on. None of this makes sense.

Here in the Fertile Crescent, we have the earliest evidence not only of farming but of metalwork and pottery—not civilization, as such, but the fingerprints of the civilizers. So what were they doing in the mountains? I will return to this question later.

Bronze Age Secondary Products Revolution

Then, suddenly, around 5000 BCE, the time of the Bronze Age, the first cities started to appear in Mesopotamia (southern Iraq)—about as far away from the mountains as is possible in that part of the world. By 3600 BCE, Uruk, for example, was a great city with over ten thousand people. We know that these are cities because they have the recognizable infrastructure of a city and evidence of

activities like administration and record keeping. These skills are not innate. We only have to look at our own modern difficulties with teaching well-known civilized techniques like writing to know that even after thousands of years of civilization, these skills have to be retaught.

And coincidently, not just cities appeared, but something happened in farming too—what the archaeologists call the secondary products revolution. It is around this time that people milked cows (and made butter and cheese), plowed the soil, rode horses, took wool from sheep, planted vines, and so on—the kind of farming that we would all recognize. Before this moment in time, it was not possible to take wool from a sheep: sheep had coats like deer, even though there is evidence of sheep/goat ovricaprids having been eaten by humans as far back as 10,500 BCE.

How odd and how useful that, just when lots of people start to live in cities, the production of food becomes more organized. This

shift had to be deliberate because no self-respecting hunter-gatherer would give up providing for himself and his family to live in a city until he could be sure that he could rely on someone else for food production and that he had a skill that would be useful in a city.

In particular, farming skills had to be taught. Farming is not natural. Anyone who thinks it is easy should try it. The hunter-gatherer was not used to staying in one place; he followed the herd. He was more used to killing than keeping stock alive, especially through the winter. Farming is a completely different skill set that requires knowledge of the soil and the calendar.

What is notable is that people did not make the transition from nomadic hunter-gatherer to nomadic pastoralist. The shift to farming always involved a settled pattern first, usually identified by the presence of pigs, which cannot be herded long distance. Take the example of the Ferghana Valley in Central Asia, which is in the eastern part of Uzbekistan and is famous today for its Kirghiz tribes

who herd massive flocks of sheep over long distances. The evidence of older patterns of Bronze Age farming, the Chust culture—which can be seen in the museum in Tashkent, capital city of Uzbekistan—is still of the settled pattern first.

What this suggests to me is that the early farmers were not necessarily hunter-gatherers who took up farming because of some environmental change or other external pressure. They were actually a different people with a different knowledge base. First cereals were genetically interfered with, and then animals. This was not a natural evolutionary process. Even Julius Caesar knew that aurochs could not be domesticated. In any case, how would Neolithic man know what would make a "good" cow, just from observing them at waterholes?

I would argue that this change in farming happened because of cities and not the other way round. The first evidence of a city's existence isn't a marketplace but a shrine. One of the oldest cities in

southern Mesopotamia, Eridu, has a shrine dating to 2000 BCE that has seventeen layers underneath it that possibly go back as far as 5000 BCE. Hawkes has also commented that the key group of people who are involved in cities from the start are not farmers but priests.

So, what has this got to do with megaliths and shamans? The connection lies in what these cities represent as a total concept of civilization—a concept in which megaliths and shamans were an integral part. Cities did not develop out of farming but arrived as pre-planned artificial constructs on the landscape. They have identifiable characteristics that link them to a specific archetype, which includes the knowledge of how to move big stones and has shamanic ritual at the heart of it.

The Total Civilization Concept

I refer to this archetype as the Ur concept of civilization. The Egyptians called it living in *ma'at* or truth—the goddess Ma'at having the feather of truth. But I prefer Ur, which in this context doesn't just mean the famous city that Sir Leonard Woolley excavated in the 1920s in southern Iraq (and in my opinion mistakenly identified as the biblical Ur of the Chaldees, as I have good reason to believe that was another Ur elsewhere); Ur in this context has a meaning of foundation and as such can be found in names like Jerusalem (*oru-shalem* or foundation of peace).

The best way to describe this Ur concept is to imagine a color wheel plus white. The archetype was based on all the usual aspects we attribute to civilized city living: straightness, accuracy precision, balance, design, infrastructure, organization.

If there is one part of the circle that is more important than any other, it is the temple at the center, which holds all the other parts in

balance. It was the priesthood that supervised the foundation of cities, the construction of the great engineering works and monumental architecture. It was they who sanctioned the trading exchanges, determined the calendar and predicted the weather, educated the young, kept written records, and healed the sick and helped the dying on their way. They understood the importance of the soul (the psyche) and its role in reincarnation and immortality. Were they also the ones who bred wild animals into domesticated versions?

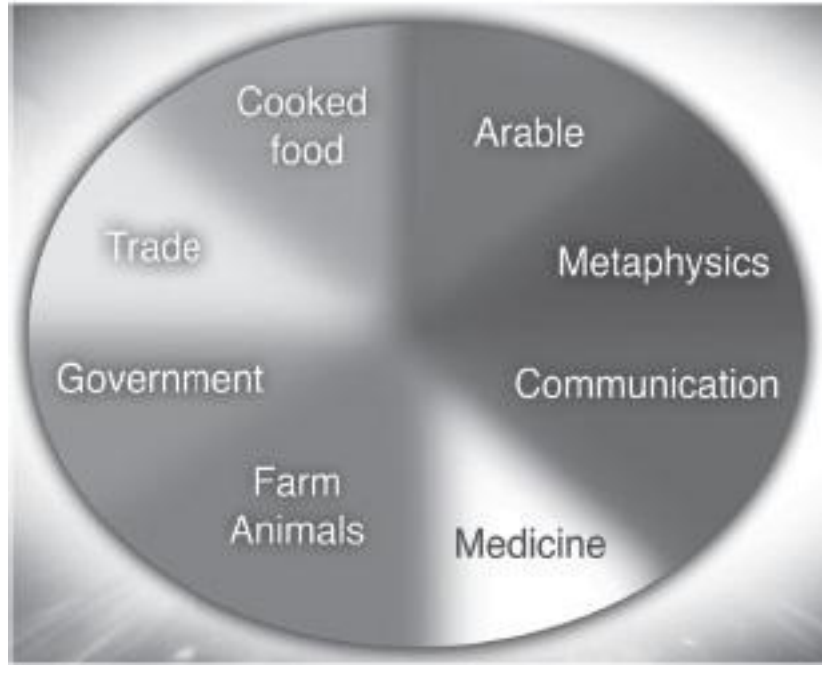

Figure 5.4. The Ur concept of civilization

There are also the relationships across the wheel: all forms of *communication* (trade, travel, and education), the *individual* body (the art of cooking, and the link between food and medicine), *agriculture* (domestication of animals and organized arable

production), and *power*. Power in this context refers to political power (administration, justice, architecture, and infrastructure) and religious power (the priesthood). The critical role is the melchizedek or priest-king.

This archetype exists for all time and in all places, which is why the same characteristics appear in the Near East as in the Indus Valley, in Phoenicia, in Minoan Crete, and in Central and South America (and possibly the Far East—but I haven't explored that aspect). Egypt, with its pharaohs, became the best example of it.

Proto-Indo Europeans

But what is truly extraordinary about the Ur concept is the confirmation of aspects of it among people who themselves were not civilized and who can be found living a long way away from the

civilizers. They did not even live in cities. These people are the very early Indo-European tribes long before they came to Europe, the Proto-Indo-Europeans.

The location of the original homeland of the Indo-Europeans before the fourth millennium BCE is controversial. There is no universal agreement. My own personal view is that it was in the Pontic Caspian in the Ukraine—a long way away from the civilizers in Mesopotamia. And yet, there is evidence, based on an analysis of ProtoIndo-European language, that the civilizers came into contact with these early Indo-Europeans.

It is now a well-established idea that the Indo-European tribes (Celts, Romans, Greeks, and so on) once all lived together. What linguists have worked out is that Indo-Europeans last lived together over five thousand years ago—a time frame that relates to the Bronze Age civilizers. This link was discovered through the realization in the nineteenth century that Indian Sanskrit, although

written in a different alphabet, has the same language roots as other European languages, such as Latin and Greek.

Etymology reveals what kind of environment they knew; what kind of dwellings they lived in; what skills they had; and, to a limited extent, what they thought. And, in my opinion, certain concepts that relate to the Ur civilization archetype have been embedded in the language for more than 5,000 years—2,500 years *before* they lived in cities.

Contact with civilizers is implied in that the Indo-Europeans knew about bronze and copper but not about tin, which suggests that they did not know how to make bronze but got bronze from elsewhere. They also picked up from the civilizers over five thousand years ago practical farming skills and benefited from the secondary products revolution. They knew about stock breeding; evidence of domesticated sheep and cattle and herding can be reconstructed and attributed to Proto-Indo-European, as can the

secondary products of butter and cheese.

There is a very good reason why the civilizers would want to make contact with the early Indo-Europeans. There was a certain something that Proto-Indo-Europeans had, which the civilizers were keen to exchange skills and ideas for. It was this certain something that I think establishes the Proto-Indo-Europeans in a distinct time and place, and that something was the wild horse or the tarpan. The Indo-Europeans lived in the range of the tarpan.

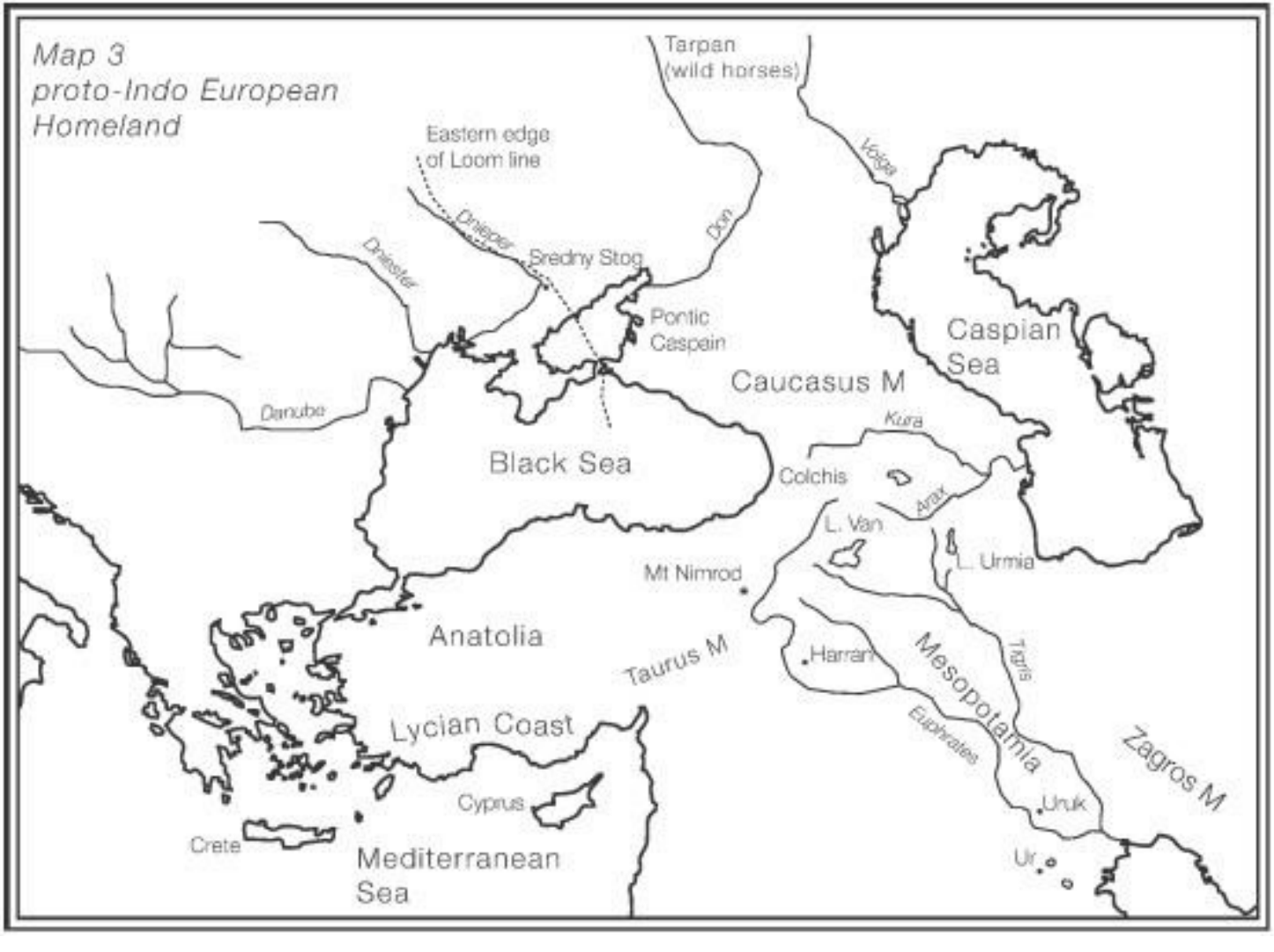
Map 3
proto-Indo European
Homeland
Tarpan
(wild horses)
Eastern edge
of Loom line
Volga
Dnieper
Dniester
Don
Sredny Stog
Pontic
Caspain
Caspian
Sea
Caucasus M
Danube
Kura
Black Sea
Colchis
Arax
L. Van
L. Urmia
Mt Nimrod
Anatolia
Taurus M
Harran
Mesopotamia
Tigris
Euphrates
Lycian Coast
Zagros M
Cyprus
Uruk
Crete
Ur
Mediterranean
Sea

Figure 5.5. The Proto-Indo-European homeland

Until the arrival of the civilizers, who knew how to genetically interfere with wild creatures for the benefit of humans, the tarpan had been of little use to the Proto-Indo-Europeans. The first domestic horse bones are usually claimed to be those dating from 4000 BCE, found at the Dereivka site in the Sdreny Stog region of the Ukraine. The breakthrough in the exploitation of the deep steppe did not happen until about 3500 BCE, and the first wheeled carts did not appear on the steppes north of the Black Sea and Caspian before 3000 BCE.

The civilizers would have brought horses down from the Ukraine, and although it was long before horses made an obvious impact on Mesopotamia, within a certain period of time there is evidence of their use. By 2800 BCE, 80 percent of Sumerians lived in cities and had wheeled carts.

The shift from wild to domestic horses had such an impact on

the Proto-Indo-Europeans that they venerated the horse for thousands of years. They attributed godlike powers to them. Their attitude to religion was simple and nature based (sky god and earth mother). A term for religion can be reconstructed from *creed* based on two words, *cre dhe,* meaning "put into your heart."

One concept that particularly demonstrates the impact of the civilizers and is inexplicable to linguists is the concept of king (*reg*), which can be reconstructed to the earliest level of Proto-Indo-European language (*rex, raj, reich*). This is a remarkable concept as it underpins the rules, regulation, and accuracy aspect of the archetype. But at the time they learned this word, the Indo-Europeans were wild warlike tribes living in mud huts, where the central focus was the hearth. Linguists are forced to give the ridiculous explanation of two kings: one for war and one for ruling. Is it possible that the Indo-Europeans picked up a word that they did not understand the full meaning of?

Global Catastrophe: Fourth Millennium BCE

Then, around 3159 BCE, there was an appalling environmental catastrophe, which resulted in a massive migration of all peoples—the Proto-Indo-Europeans and the civilizers among them. It is after this catastrophe that ancient Egypt as we know it begins. At this point, the Proto-Indo-Europeans split up into their individual tribes, and the civilizers had no further common impact on them, although bits of knowledge remained with the individual tribes.

Celts, for example, went the farthest west, ending up in Ireland, and far to the east in the Tarim basin on the west of China, where they became Tocharians, tall four-thousand-year-old ginger-haired mummies wearing tartan have been found in the Chinese Taklamakhan desert.[4] The language of the Celts, who went the farthest, retains the most archaisms, and therefore more connections with Indians and Sythians, and is possibly the most interesting.

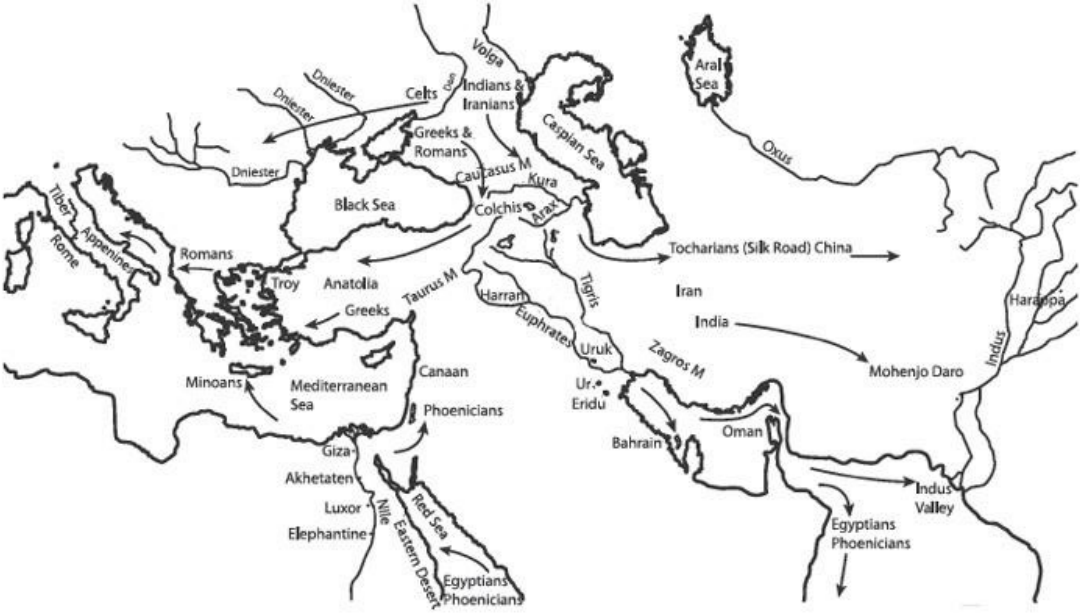
Volga
Aral Sea
Dniester
Dniester
Celts
Don
Indians & Iranians
Caspian Sea
Oxus
Greeks & Romans
Dniester
Caucasus M
Kura
Black Sea
Colchis
Arax
Tiber
Appennines
Rome
Romans
Tocharians (Silk Road) China
Troy
Anatolia
Taurus M
Tigris
Iran
Harrap
Greeks
Harran
Euphrates
India
Indus
Uruk
Zagros M
Mohenjo Daro
Minoans
Mediterranean Sea
Canaan
Ur.
Eridu
Phoenicians
Oman
Bahrain
Giza
Akhetaten
Indus Valley
Luxor
Nile
Eastern Desert
Red Sea
Egyptians Phoenicians
Elephantine
Egyptians Phoenicians

Figure 5.6. Diaspora

To give one example, the Celts possibly retained knowledge of the gods of the civilizers. They continued to refer to Tetates, one of the old names of Thoth, the Egyptian god of writing, when the Greeks and Romans had already changed him to Hermes and Mercury. The implication of this Celtic reference is that Egyptian deities could have been known to the Proto-Indo-Europeans *before* the start of Egypt. The name *Hermes* is in itself worth noting, as its root is possibly *ur-mes* meaning son of Ur (*mes* or *mos* are Egyptian words that mean "son of," as in Thutmosis, a pharaoh name that means "son of Thoth").

But in spite of the close proximity of the Proto-Indo-Europeans with the civilizers, there is no obvious evidence that they knew about shamanism in order to access the metaphysical secrets of the original archetype—which is perhaps why they never built cities

themselves until much later. Even though the concepts of shaman and shamanism are well known, how they relate to civilization is less familiar.

Shamanic Ritual and Role of the Pharaoh

In essence, a shaman is someone who has an out-of-body experience in which he or she undergoes a journey as a spirit on behalf of a person or a community in order to find answers to particular questions. The kind of shamanism that is practiced these days is more usually on behalf of a sick person or child to identify remedies that will cure the patient. It is important to understand that the information thus obtained is not discoverable through experimentation, as it often involves the use of poisons that have to be treated in a particular way first, otherwise they would be fatal.

These shamanic journeys are trancelike, dangerous, frightening, near-death experiences that can result in the actual death of the shaman. They are, therefore, to be avoided by anyone who is not properly trained or prepared (one of the problems with modern drug taking is that it can result in mental damage from ignorant use). The initiation or training of the shaman is thus critical from an early age. In addition, the preparation of the substance that brings on the trance is key to the whole process.

How this applies to the original archetype of civilization is that the king had the responsibility of undertaking the special journey on behalf of his people. In the case of Egypt, that person was the pharaoh; this title, interestingly enough, could be a Greek corruption of the words *per ur,* the name of the place where the pharaoh's initiation took place (*per ur* means "house of foundation"), which might have been at Nekhen (or Hierakonopolis, its Greek name), possibly in its mysterious fort, which had no defensive purpose.

Every forty years, the pharaoh prepared for a highly important festival, sometimes referred to as the pharaoh's jubilee, or the Heb Sed Festival. The festival incorporated the Osirian rites—a reenactment of the death of the god Osiris and his revival at the hands of Isis, his wife—and took took place in a purpose-built courtyard adjacent to a specially constructed pyramid. There were public aspects and secret aspects. Citizens from all over Egypt came to the festival, and the purpose of it was to rededicate the country to civilization.

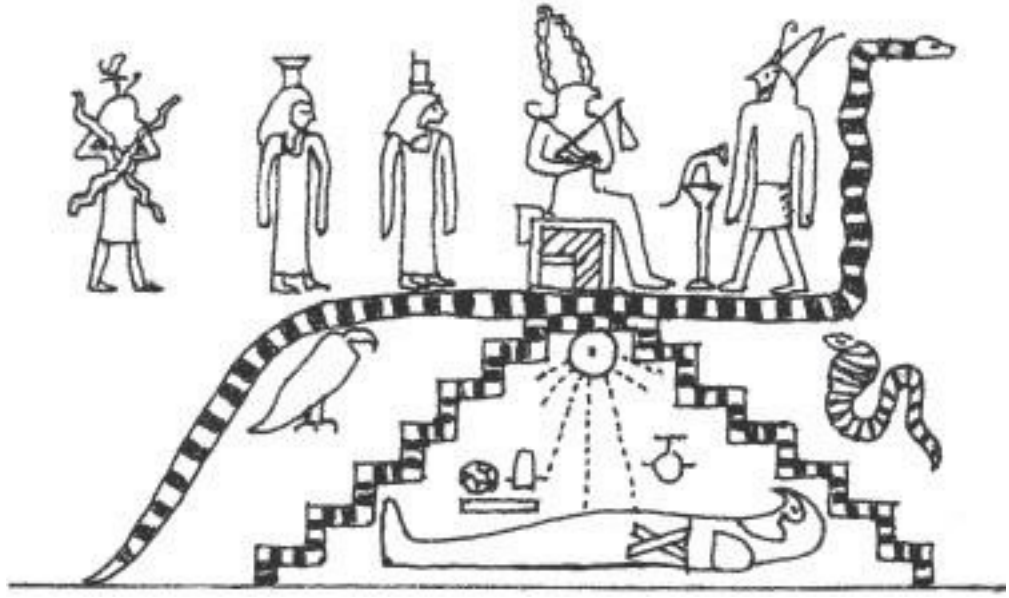

Figure 5.7. Pharaoh riding a serpent

In the public aspects, the pharaoh wore a special bull kilt and had to run around the courtyard. He also participated in a ritual meal called the *hotep*. After this meal, the pharaoh disappeared into the secret part of the festival, which took place inside the pyramid, where he entered the realm of the deity Sokar.

Sokar is interesting because of what he represents. Sokar had a more complicated association with death than just being dead. He was part of a triple manifestation of the gods Ptah-Sokar-Osiris. These gods represented the triple powers of animation, incarnation, and restoration, and thus were essential to the Egyptian ideas of cycles of life and death, in terms of the soul being immortal and reincarnated in a living body.

Writer Rosemary Clark describes Sokar as representing "the latent spiritual principle within all living things, the spirit embedded in the deepest regions of matter that await arousal," a description that implies the beginning of life rather than the end of it.

Pyramids—Not Tombs

It is our cultural problem that we think of pyramids as tombs. Very

few dead bodies have ever been found in them. The Egyptians buried their dead either in the royal tombs on the west bank of the Nile opposite Luxor or in mudbrick *mastabas*. The Egyptian word for pyramid is *mr,* which has the idea of an instrument for ascending, according to American Egyptologist Mark Lehner, who translates *mr* as "place of ascension" according to his belief that the pyramids were tombs for dead kings and where the dead kings souls ascended. A close examination of the structure of the Great Pyramid at Giza reveals another clue to their function.

First, some statistics: The Great Pyramid covers thirteen acres. It is built of 2.3 million blocks of solid rock with an average weight of 2 tons per block; some blocks weigh 50 tons. The four corners are true 90-degree angles to within one one-hundredth of an inch. It is aligned on the cardinal points and deviates by only 5 degrees.

What is remarkable about this pyramid is that it has clearly been constructed very carefully and deliberately, and it is devoid of any

kind of internal decoration or ornamentation; whereas the mastaba tombs at Saqqara are beautifully decorated with the most exquisite bas-reliefs of life scenes that would help a pharaoh on his way in the afterlife.

Consider the most important chamber in the Great Pyramid: the King's Chamber. An enormous effort was made to bring extraordinary granite slabs—megaliths that weighed up to fifty tons—five hundred miles from the quarry in Aswan. And then these slabs were used in the chamber in such a way that their function was not visually obvious. Furthermore, the chamber is deliberately constructed so that its walls and its ceiling are not connected. The ceiling is supported by walls beyond the internal walls. Above the ceiling are a series of hidden granite beams with bits taken out of them.

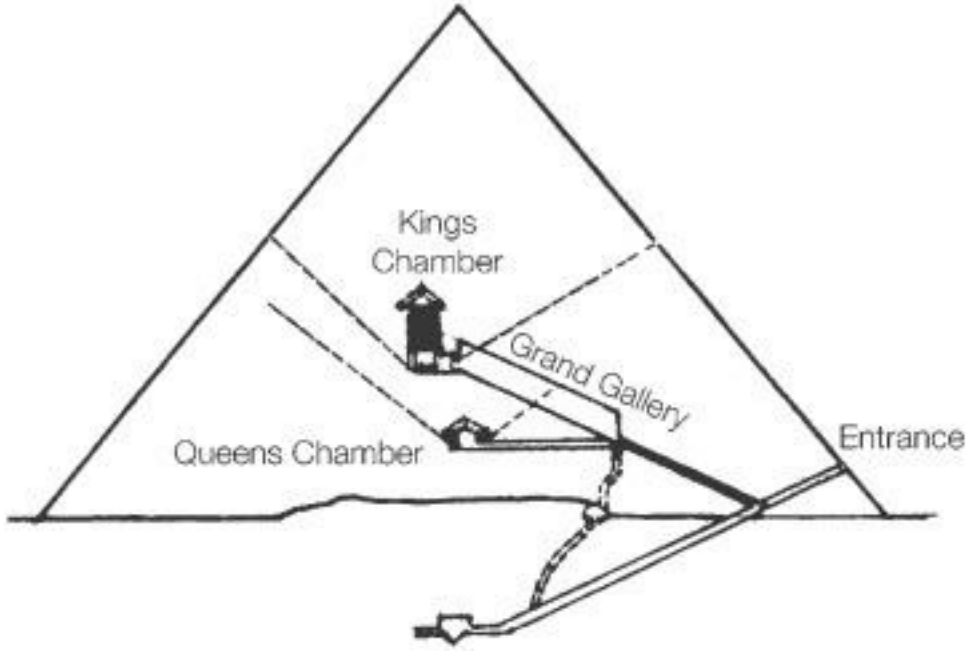

Figure 5.8. Cross-section of the Great Pyramid

One plausible explanation for all of this is that the purpose of the chamber was to create an electrical field using vibration. The quartz in the granite has piezo-electric properties. The reason for not tying the walls to the ceiling was so that they could vibrate freely, and the

explanation for the gouges in the beams above the ceiling could have been for fine-tuning the resonances.*2

By way of reinforcing this idea of vibration in an electrical field, the pharaoh either lay in a sarcophagus of alabaster or granite or on a special Heb Sed Festival bed covered in gold leaf (Tut's golden bed can be seen in the Cairo museum)—gold being a good conductor of electricity.

Before doing this, the pharaoh put on the *qeni* garment over his chest and participated in the Wepwawet Opening of the Mouth Ceremony. Was the point of using the qeni garment, which the pharaoh described as the embrace of Osiris, to protect the pharaoh's heart from the electrical field? And was the Opening of the Mouth Ceremony to stop him from swallowing his tongue during his trance?

What confirms my suspicions that this was all part of a shamanic ritual are the Pyramid or Coffin texts. These texts were discovered

in the nineteenth century by Flinders Petrie, the Victorian archaeologist. Again it is our cultural problem that we think of them as describing the journey of the pharaoh's soul after death, whereas it is more likely that they describe his soul's journey in life. Dr. Jeremy Naydler, an Oxford academic, is one of the few who has come to this conclusion.

The Pyramid Texts frequently refer to the pharaoh taking the form of a bird and flying up or climbing a ladder. Chapter XX of the Egyptian Book of the Dead, for instance, talks of the pharaoh rising into the sky like the mighty hawk. The Antechamber Texts in the Pyramid of Unas at Saqqara refer to "a stairway to the sky [which] is set up for me that I may ascend on it to the sky, and I ascend on the smoke of the great censing. I fly up as a bird." Elsewhere, the same texts refer to the pharaoh flying up in the form of a falcon to the "imperishable northern stars"—an important point I shall come back to.[5]

Alchemy and the Solar Bread

If this was a shamanic experience, was the hotep meal the means by which the pharaoh brought on a trance? A significant element of the meal was the solar bread. And there are references to the solar bread in the Pyramid Texts. One Pyramid Text, which Naydler describes as an enigmatic food spell, is an utterance for the offering bread to fly up.

So what was the solar bread? This essential ingredient of the Hetep meal clearly had special properties. This is where the story gets really interesting. It is at this point that the Greeks, through whom we know as much as we do, got confused. They confused a process with an outcome; as a result, we know about the process without being aware of its purpose and that process was what we call alchemy.

Have we been misled about alchemy? Maybe alchemy isn't the

changing of another metal into gold, or even a spiritual transformation, but the purification of gold to achieve an even purer gold (the four-thousand-year-old Mesopotamian golden ram caught in a thicket—now in the British Museum—is an example of very pure gold). There are several methods for achieving purification, and one of them is to expose gold to a high electrical charge to remove impurities. It is also possible to use this process to turn pure gold into a white powder with levitational properties.

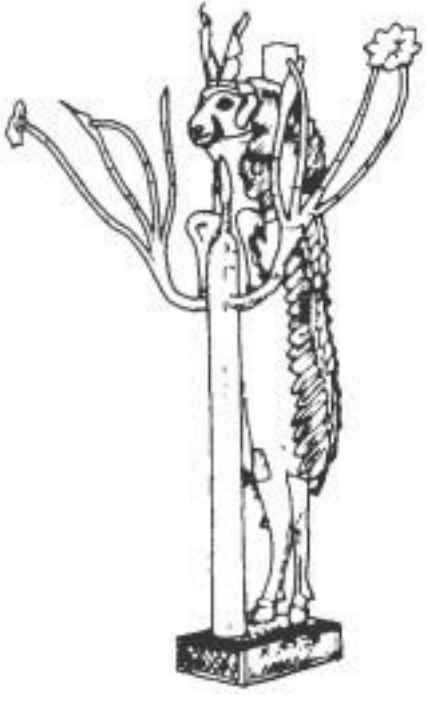

Figure 5.9. The golden ram

The usual source for the word *alchemy* is *khem,* which is the description of Egypt as the black land, but this definition doesn't work in this context. What makes more sense, to me at least, is that alchemy is derived from *khemi,* the Egyptian word for the fixed

stars, and so alchemy means a journey to the fixed stars or the imperishable northern stars. The Egyptians possibly used the levitational properties of the white powder in the form of solar bread as their means of entering a trance.

Because of the Greeks' misunderstanding, we use the term to identify only one part of the process, the means by which the Egyptians made that journey—the preparation of the gold. The Greeks were ignorant of the outcome, the astral flight to the fixed stars. The circumstantial evidence that confirms my interpretation that the preparation of the gold was key to the whole operation is the link between the solar bread—the substance consumed during the hotep, the pharaoh's ritual meal—and the cow goddess Hathor.

Hathor and Gold

Hathor the cow goddess had many roles, mostly to do with nurturing. She is sometimes attributed with lending her cow horns to the goddess Isis when tending the infant Horus. Hathor is also the one who nurtures the soul of the pharaoh on his journey.

Figure 5.10. Hathor the cow goddess

Even more significantly, it is in her temple at Serabit el-Khadim in the Sinai Peninsula where, in the nineteenth century, Flinders Petrie found vast quantities of a mysterious white powder hidden under slabs in the floor. Furthermore, another of her names is Nub-t, the word for gold, and her connection with gold is obvious at her temple at Denderah on the Nile, which has the hieroglyph of gold on its back wall. It is in the Denderah temple where there are the strange "lightbulb" reliefs in the crypt.

Mouni Sadhu, who wrote a fundamental work on the tarot in the late 1950s, alludes to the role of electricity in his summary of a typical alchemical process, albeit repeating the widespread deception that gold results from other metals.

Sadhu notes that "[i]n order to transform another metal into silver or gold, we must first destroy the imperfect combination of its

components, that is to separate the subtle from the gross in that metal, and then to establish a new, perfect combination, passive or active. . . . The Emerald Tablets speak about this separation of the subtle from the gross." Sadhu goes on to explain in more detail the stages that an alchemist might follow to create the philosopher's stone, which he identifies as being a powder.[6] The first phase is the preparation of the "universal solvent" or mercury using a mineral called the "magnesia of the sages." The second phase is the operation, which produces a "dazzling white color" after slow heating in the athanor (the alchemist's oven). There are several points to note in his account: his view that the philosopher's stone is a powder; that the universal solvent is called the magnesia of the sages, which he later identifies as some kind of electrical charge; and the specific description of the powder being a dazzling white color. Is this the powder that Flinders Petrie discovered in the Hathor temple at Serabit el-Khadim?

Figure 5.11. Reliefs in the crypt at Denderah

Writer Lawrence Gardner also describes the electrical process of purifying gold, which results in a white powder with levitational properties. According to Gardner, when the molecular structure of the gold changes, some of its matter turns into energy and becomes pure light. Not only does the powder weigh less than the original

metal, but it is capable of transferring some loss of weight to the container in which it was originally weighed.

Snakes Communicating with DNA

So, now we have all the ingredients. There remains one more piece of the jigsaw puzzle to add: What was it that the pharaoh was communicating with? Who were the *netr,* the Egyptian gods? Were they sometimes giant snakes? And is it just coincidence that netr, the Egyptian word for god, is identical to a Proto-Indo-European word for snake, also netr (*natrix* in Lation; *nathir* in Old Irish; and *naeddre* in Old English, where it became adder). Is that the reason that Thoth or Hermes is associated with the twin snakes of the caduceus?

The modern experience of Jeremy Narby, which he describes in

his book *The Cosmic Serpent: DNA and the Origins of Knowledge,* provides some corroboration.[7] Narby traveled to the Peruvian Amazon in 1985 to study a native community, the Quirishari, as part of his Ph.D. in anthropology from Stanford University. Here he undertook a shamanic experience using the ayahuasca vine in which a pair of enormous snakes communicated with him. What particularly struck Narby was the visual parallel between the image of entwined snakes, such as in the caduceus, and that of the double helix of DNA.

Narby then came to the fascinating conclusion that the parallel was more than visual: it was actual. Shamans, he concluded, were communicating at the level of molecular biology, of DNA itself. He was surprised to discover in the technical literature that the shape of the double helix of DNA is "most often described as a ladder . . . or a spiral staircase," which compares with the worldwide frequent references made to climbing a ladder during a shamanic trance.

Narby thus discovered how native people acquired their knowledge of medicinal plants. These plants were often highly toxic and required critical special preparation before use; otherwise, they would kill you before you had chance to experiment with them and find out their healing properties. Native people knew precisely which plants to choose out of *eighty thousand* Amazonian plant species. And the means by which they knew this nonempirical knowledge, he was told and personally experienced, was through shamanism.

Figure 5.12. Thoth as Hermes with caduceus

Pharaohs—Sophisticated Shamans

What the pharaohs of ancient Egypt were doing was much more sophisticated than the Peruvian jungle version. And knowing the importance of gold to the whole process also explains why civilization appears to start in mountains—that is where the gold is. Çatalhüyük was part of a supply chain of emporia to support operations elsewhere in the mountains, and so the storerooms for this emporia were better constructed than the human dwellings; these storerooms were more important than how the locals lived.

Mesopotamia had no gold reserves, and yet its ancient name of *kien-gi* translates as "land where gold is king." Mesopotamian gold came from the Fertile Crescent. The hairs stood on the back of my neck when I realized that the sites where the earliest pottery was found in the Fertile Crescent are near gold mines and important routes for gold.

The links between megaliths (the ability to move massive stones weighing fifty tons or more over vast distances and hundreds of miles), shaman (wise men who can take their souls on journeys for the benefit of others at great personal risk to themselves), and the original cities should now be clear; they are all integral to each other.

We don't realize any of this because of the barrier the Greeks and Romans created for us—a barrier that grew even greater after the Romans came under the influence of a monotheistic religion we call Christianity from the fourth century CE onward. I would personally argue that it was at that point that civilization collapsed, and that we have been living in a dark age ever since, struggling to reconnect with the original archetype that appeared in the Bronze Age over five thousand years ago.

Romano-Christian Destruction

It was in the fourth century CE that fanatical Romano-Christians massacred the last Egyptian priests at the temple of Isis on the Island of Philae in the Upper Nile. These same people destroyed the site of the Eleusian mysteries in Greece near Athens in 396 CE and burnt down the famous library at Alexandria in 415 CE, brutally murdering Hypatia, its last priestess.

The Egyptians had realized long before that the writing, as it were, was on the wall and that the end lay ahead. The shift that marked the start of Egypt's long decline was the change from Bronze Age to Iron Age in about 1200 BCE, characterized by the fall of Troy. It was at this time that the Hekla volcano in Iceland erupted in 1159 BCE, causing twenty years of poor harvests, famine, and appalling social destruction, including a form of child sacrifice.

There is a particularly sad prophecy in the Hermetica:

If truth were told, our land is the temple of the whole world; . . . a time will come when . . . . Egypt will be abandoned. The land that was the seat of reverence will be widowed by the powers and left destitute of their presence. When foreigners occupy the land and territory, not only will reverence fall into neglect, but . . . a prohibition . . . will be enacted against reverence, fidelity and divine worship. Then this most holy land, seat of shrines and temples, will be filled completely with tombs and corpses . . . only stories will survive and they will be incredible to your children. Only words cut in stone will survive to tell your faithful works. . . . Whoever survives will be recognized as Egyptian only by his language; in his actions he will seem a foreigner.[8]

Egypt had become increasingly vulnerable to invasion, which happened first with the Persians in about 600 BCE, followed by the

Greeks under Alexander the Great in 333 BCE. The Romans, who were so desperate to get hold of Egypt, did not succeed until 30 BCE, at the time of Anthony and Cleopatra. Before the arrival of Alexander, the Egyptians had decided to open themselves up a little to the Greeks from about 500 BCE onward—which explains why all of a sudden the Greeks knew everything (mathematics, geometry, geography, medicine). Pythagoras, for example, is reckoned to have spent twenty-five years in Egyptian temples being taught. He was not the only Greek to do so.

When the Romano-Christians killed the last Egyptian priests at the temple of Isis in 394 CE, all knowledge of hieroglyphs was lost to be rediscovered fifteen hundred years later in the nineteenth century, with the translation of the Rosetta stone by Frenchman Champollion. As a result, one means of accessing Egyptian wisdom and knowledge was soon forgotten. By the end of the fourth century CE, the Romano-Christians had symbolically and literally cut us off

from the ancient past. Not surprising, then, that we knew nothing about the shamanic ritual of the pharaohs or the connections between megaliths and cities.

The Egyptians were especially keen that their secrets should not fall into Roman hands. The Romans were powerful enough as it was, but they never knew how to move the big stones. And if anyone still falls for the explanation that megaliths are moved by teams of slaves, then they need to consider the point that Rome was the ultimate in slave society and still couldn't move megaliths. The Romans *had* to invent the pulley and mortar for constructing their large buildings. Roman building is either smaller dressed stone or many bricks laid on a spectacular scale.

Roman Power

We might mistakenly think that the fourth-century massacre on the Island of Philae occurred because the Christianized Romans saw the light and realized the need to eliminate pagan practices. The truth is, however, that the Romans had been attacking pagans for years before they converted to Christianity.

The military campaigns that the Romans waged against pagans all had something in common: Those pagans all knew about aspects of the original archetype of civilization. The Romans threw out the Pythagoreans; they banned alchemy; they invaded Britain to destroy the Druids; they fought in central Turkey to destroy the Chaldean Magi; and they attacked the Essenes at Qumran on the Dead Sea. All this happened long before Christians infiltrated the Roman state.

Indeed, Constantine decided to adopt Christianity in the fourth century CE because he could see the political advantages of it. The Romans were used to uniting behind the glory of Rome, and now they could use religion and the one God as another tool of

unification. This monotheistic religion then became a useful weapon for attacking those pagan pockets that had metaphysical secrets that were denied to the Romans. And so it was that the connections between megaliths, shamans, and cities were hidden for such a long time and perhaps needed to be—given that the knowledge was for peaceful purposes only. Alchemy was the missing link.

The secret knowledge did not entirely die out after Egypt collapsed but went up the trade routes, appropriately to the northern Euphrates to Harran, where it was kept alive by alchemists and a people known as the Sabians. The story of how we gradually began to reconnect with that hidden knowledge is explained in more detail in my book *Approaching Chaos*. I hope I have managed to give a brief overview of the connections between megaliths, shamans, and city builders—why they are hidden and why we have not realized them until now.

S I X

Atlantis and the Cycles of Time

JOSCELYN GODWIN

Ever since Plato described his Atlantis, many authors have claimed to have found it. Some say it was in the Atlantic Ocean, with the Azores as its former mountain peaks. Others prefer the Mediterranean: Malta, Crete, Cyprus, Santorini, and Troy all have their champions. British Atlantologists find its legacy in Cornwall or the Irish Sea; Germans, in the sinking isle of Helgoland; Swedes,

in Sweden. Some favor the Arctic, others the Antarctic. Still others turn to the New World, finding Atlantis in Cuba, San Domingo, Central America, Bolivia, even Wisconsin. All these authors must have finished their books with a serene smile and the certainty that they, and they alone, had put a stake through the heart of the matter. The fact that it now looks like a pincushion gives one pause. Since these theories cannot all be right, it is quite probable that many are wrong.

So I search for Atlantis in a different way. To begin, I see a wiser group that takes a global perspective. Rather than planting the Atlantean flag in a single location, it finds evidence in the worldwide "fingerprints of the gods" for a prehistoric seafaring culture, expert in mathematics and astronomy and given to moving large stones. Some of the particularists, to give them their due, find their place as contributors to this broader vision. Plato aside, each has found something of value and added in some way to knowledge

of the distant past.

Anyone who keeps abreast of the “new archaeology” is well aware of all this. He or she may also have noticed that the new archaeology has a New Age aura about it. Among its prime movers, Colin Wilson is one of the most popular authors on occult traditions. John Anthony West has written a defense of astrology and an exposition of the Hermetic adept Schwaller de Lubicz. Graham Hancock writes about experiences with entheogens. Robert Bauval’s theories touch equally on Hermetic doctrines of astral immortality. Robert Schoch is concerned with parapsychological research. However, their prime material is still the monuments themselves; their prime intent, to understand why they are as they are. The only explanation that satisfies them is that prehistoric peoples experienced states of being incomprehensible through the materialist paradigm. The reasonable course, then, is to try a different paradigm.

Another type of Atlantologist has been doing this all along, by taking a suprarational approach to the question of prehistoric high culture. It is wrong to call them irrational, because they do not reject reason. However, they consider other avenues of knowledge supplementary if not superior to it. The traditionally minded put their faith in scriptures and sacred authorities, while those open to the paranormal rely on intuition, initiation, clairvoyance, or mediumship. One might call them occultists, but only in the sense that they all claim access to knowledge that is "occulted" or hidden from the rationalists.

The occultists' Atlantis is a colorful and often beautiful tapestry, woven by visionaries, prophets, and receivers of divine revelation. But I cannot leave it at that. I want to turn the tapestry over to see how the knots are made, then snoop around in their workrooms.

One of the first facts to emerge is that there are distinct national schools. The first Atlantologists of the modern age were two

Frenchmen of the Enlightenment—the astronomer Jean-Sylvain Bailly and the theosopher Fabre d'Olivet. Together, they launched a particularly French strain, carried onward by Saint-Yves d'Alveydre, Edouard Schuré, Papus (Gerard Encausse), René Guénon, and Paul le Cour. After World War II, this spawned a more popular genre with Louis Pauwels's and Jacques Bergier's *Morning of the Magicians,* the review *Planète,* and the books of Robert Charroux, who blended it with the ancient astronaut theory.

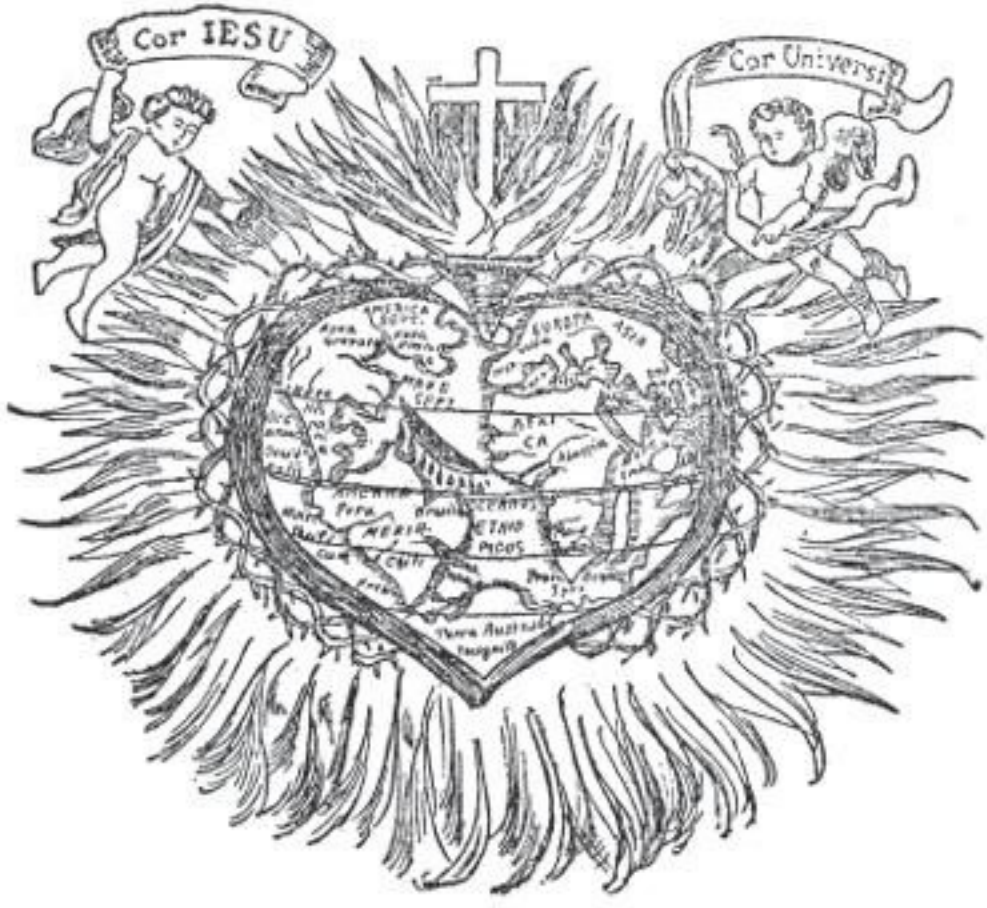

Gravure allemande de 1708.

Figure 6.1. The heart crest, a representation of the French view of

Atlantis, has a map at its center showing the location of the lost continent.

The French Atlantologists tend to give information *ex cathedra,* keeping their sources to themselves, as though what they have to say about prehistory is obvious to any reasonable person. Reason does not exclude immaterial or even spiritual realities, but once these are accepted as part of the natural order of things, certain consequences follow. From the start, they envisaged prehistory in a context of the variously colored races (yellow, red, black, white), to which they attribute separate origins. Each arose on a different continent or, according to some, on a different planet. This is a constant of French occultism, together with the caution that no race is deemed superior or inferior to the others. One of the later writers, Jean Phaure, says that we are all of mixed blood, but "whether we are yellow, white, black, or red, we possess that fragment of the divine Spirit that makes us humans and not animals."[1]

The Germanic strain of Atlantology is rather different, and its earlier proponents have harmed our subject, and occultism in general, by association. The Ariosophists of the pre-Nazi era were racial supremacists, and their Atlantean theories conformed to that outlook. In 1904, Lanz von Liebenfels, a "new templar," set the trend in his *Theozoologie,* writing of how the tall, white race of Atlantis interbred with apes. The result was a hybrid race of "sodomitic apelings" that survived into classical times and left its genetic stain in almost all of us. Lanz's solution was a rigid eugenics program that would, in time, breed out the animal element, though he added that purified humanity would still need some subhuman creatures as slaves. Few of the Ariosophists veered so far toward the lunatic fringe as von Liebenfels, but none of them challenged his authority.

After the German defeat in World War I, Ariosophical doctrines were in place to comfort the battered German soul and hold out a

glorious future for it. Here is one version of the myth, which I paraphrase from Hermann Wieland's *Atlantis, Edda und Bibel:* The Arctic region, where a temperate vegetation flourished, was home to the Aryans, a blond, blue-eyed, brachycephalic race. They lived there happily until a regularly recurring alteration of the earth's axis brought on an ice age, then were forced to migrate southward. Leaving their polar homeland, the Aryans settled on the island-continent of Atlantis, setting up a twelvefold nation that would later become the model for the zodiac and the divisions of time by hours and months. They were forbidden to kill animals and lived whenever possible as vegetarians, unlike the lower races who already inhabited the land and were little better than beasts themselves. The Edda and both Testaments of the Bible are really chronicles of the Aryans' history. Whenever the Bible speaks of Beasts, it refers to lower races, as do all the laws of Moses and injunctions of Jesus.[2]

Readers of my earlier book *Arktos: The Polar Myth in Science, Symbolism, and Nazi Survival* will be familiar with much of this and with later developments.[3]

Germanic Atlantology also included some who were caught against their will in the maelstrom of events. Herman Wirth, for instance, was busy with his own theory of a prehistoric Arctic culture that left its symbols in petroglyphs throughout the circumpolar regions. Anticipating later anthropologists like Marija Gimbutas, Wirth believed that this was a matriarchal society and that the trouble began later with patriarchy and its aggressive monotheistic religions. Wirth was co-opted by the Ahnenerbe (the think tank of the Schutzstaffel or SS) because his theories superficially seemed to support the Nordic-Aryan myth, but he disappointed them. Himmler fired him, and Wirth was forbidden to publish for the remainder of the Third Reich.

One who managed to keep out of trouble was the little-known

occultist known as Peryt Shou. His career spanned both world wars, during which he ran a small and secretive group, teaching methods for regaining one's spiritual birthright through a mixture of astrology, posture, and mantra. He wrote two books on Atlantis and is probably the first to have seen any significance in the names Plato gives for the ten Atlantean kings. He analyzes them into their phonetic contents and tabulates their correspondences with star names, the Egyptian decans, the Sephiroth of the Kabbalah, the antediluvian patriarchs of Genesis, and the multiples and divisions of the "mother number" 432.[4]

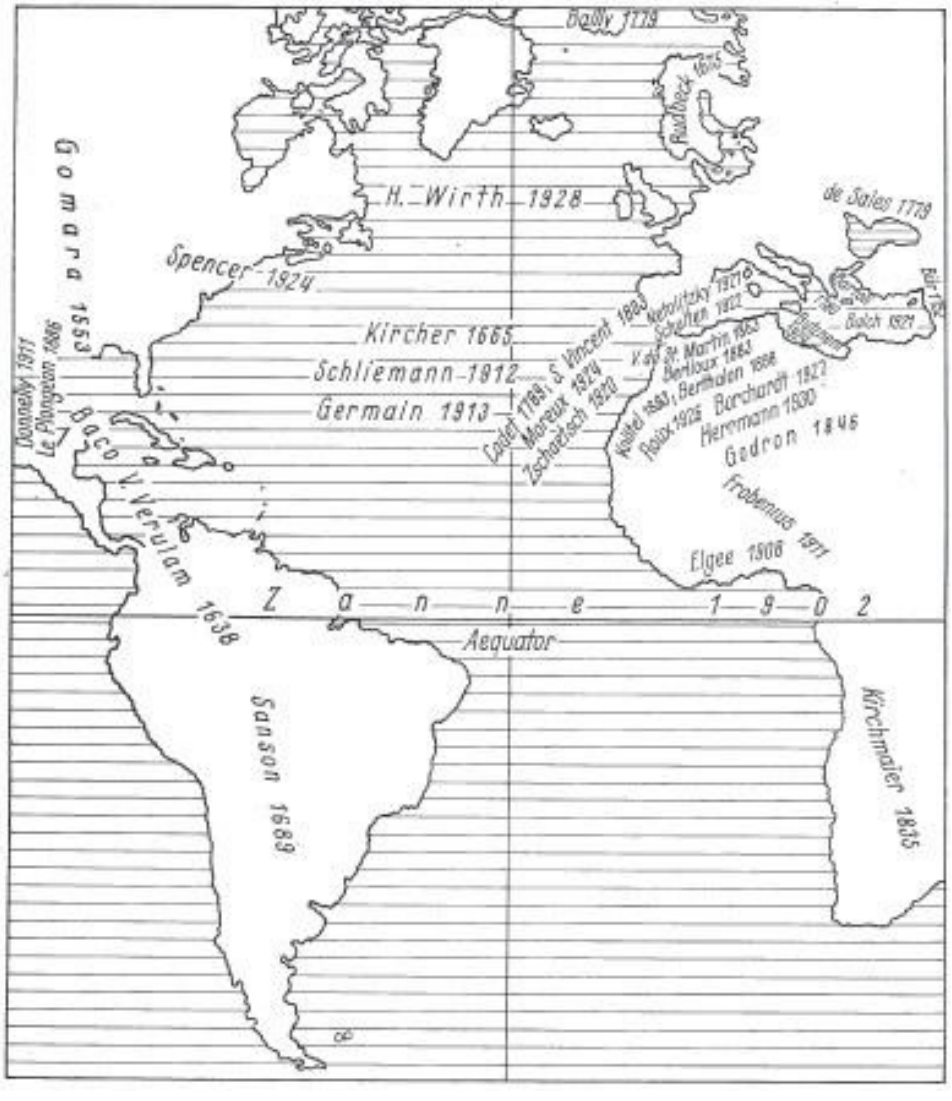
Bailly 1779
Rudbeck 1695
H. Wirth 1928
de Sales 1779
Spencer 1924
Gomara 1553
Donnelly 1911
Le Plongeon 1896
Kircher 1665
Schliemann 1912
Germain 1913
Bacon
Verulam 1638
Zanne 1902
Aequator
Sanson 1689
Kirchmaier 1835
Gedron 1846
Frobenius 1911
Elgee 1906
Herermann 1930
Burchardt 1927
Bolch 1921

Figure 6.2. German map of the Atlantic

Shou's object was to retrieve the spiritual awareness and autonomy that were lost with the fall of Atlantis. In his words, "Man forms himself, creates himself, for he possesses the divine guardian, the angel in his breast, who watches lest he thereby violate the divine law. . . . In the course of his development, man grew ever further from this primordial religion. He believed that the Godhead was there to care for him, and so he should entrust everything to it. . . .Through the Fall, man lost the right to free self-determination. He had to lean on God for everything and thereby forgot that God burned with its holiest rays in his own breast."[5]

After Germany's second defeat, anything occult was shunned owing to its associations, real or attributed, with the Third Reich. Rare exceptions were Rudolf Steiner's Anthroposophic movement, which was obviously innocent of any complicity with Nazism, and

the Externsteine circle. This was founded in the 1960s by Walther Machalett, a schoolteacher enthralled by the genii loci (spirits of place) and by a theory of prehistoric geodesy (earth measurement). His scheme linked Atlantis and the pyramids with the Externsteine, an awe-inspiring natural formation in northwest Germany. Meeting each year on Ascension Day in the shadow of those towering rocks, the Machalett forum brings together psychics and engineers, scholars and eccentrics, in a nondogmatic exploration of prehistoric cultures and Earth mysteries.

Each of the major strains of occult Atlantology has its own style. The Germans are more indebted to theosophy and its concept of root races (see below), which the Ariosophists developed in one direction, the Anthroposophists in another. They almost never claim supersensible powers themselves but believe that such existed in ancient times and may be revived in the future. The third major national strain is the British, which differs from the French and

German by its openness about its methods and the great variety of them.

From Britain, we have accounts of Atlantis from self-trained trance mediums (Dion Fortune, Margaret Lumley Brown); dictation by an inner voice (H. C. Randall-Stevens); visions of the past induced by meditating at an ancient site (Paul Brunton); open-eyed visions onsite by a medium (Olive Pixley); manuscripts made available during initiation into an arcane order (Lewis Spence); a discarnate entity who takes the subject on a tour (Daphne Vigers); the return of a well-known nineteenth-century medium (Mandasoran); another medium who acts as mouthpiece for his controlling entity (Anthony Neate); a person who has a single flash of inspired vision from which she develops a system (Katharine Maltwood); an enthusiast for outlandish theories who constructs his own eclectic model (Brinsley Le Poer Trench); and another whose enthusiasms lead to a geometric revelation of his own (John

Michell). The variety of methods is matched by the variety of Atlantises thus received.

Besides these three principal strains, there are undoubtedly Russian Atlantologists, and certainly some scientific interest there and in Eastern Europe, but apart from Nicolas Zhirov and Zden k Kukal (who have been translated), these await researchers who know the relevant languages. In any case, to classify modern Atlantology by national schools overlooks the biggest contributor of all. None of the twentieth-century authorities, whatever their alleged sources, could avoid the influence of theosophy.

Modern theosophy has passed through two distinct eras, often mistaken for a single one. The earlier one is represented by the writings of H. P. Blavatsky and her contemporaries; the later, by Charles Webster Leadbeater and Annie Besant. Blavatsky made some remarks on Atlantis and prehistoric cultures in *Isis Unveiled* (1877), but it was a series of letters signed by the Mahatmas Koot

Hoomi and Morya that outlined the definitive scheme of human evolution from the occultist point of view. Blavatsky amplified it in *The Secret Doctrine* (1888), which chronicles five “root races” that have nothing to do with the colored races of French Atlantology but are large-scale stages of human evolution. They begin with humanity in an ethereal or gaseous state (the first two root races) and devolve through a gradual coagulation and division into sexes (the third, called Lemurian) into full physicality with the fourth root race (Atlantean). With the fifth (Aryan, our current state), we are on the long return journey to spiritualization.

ATLANTIS AND LEMURIA

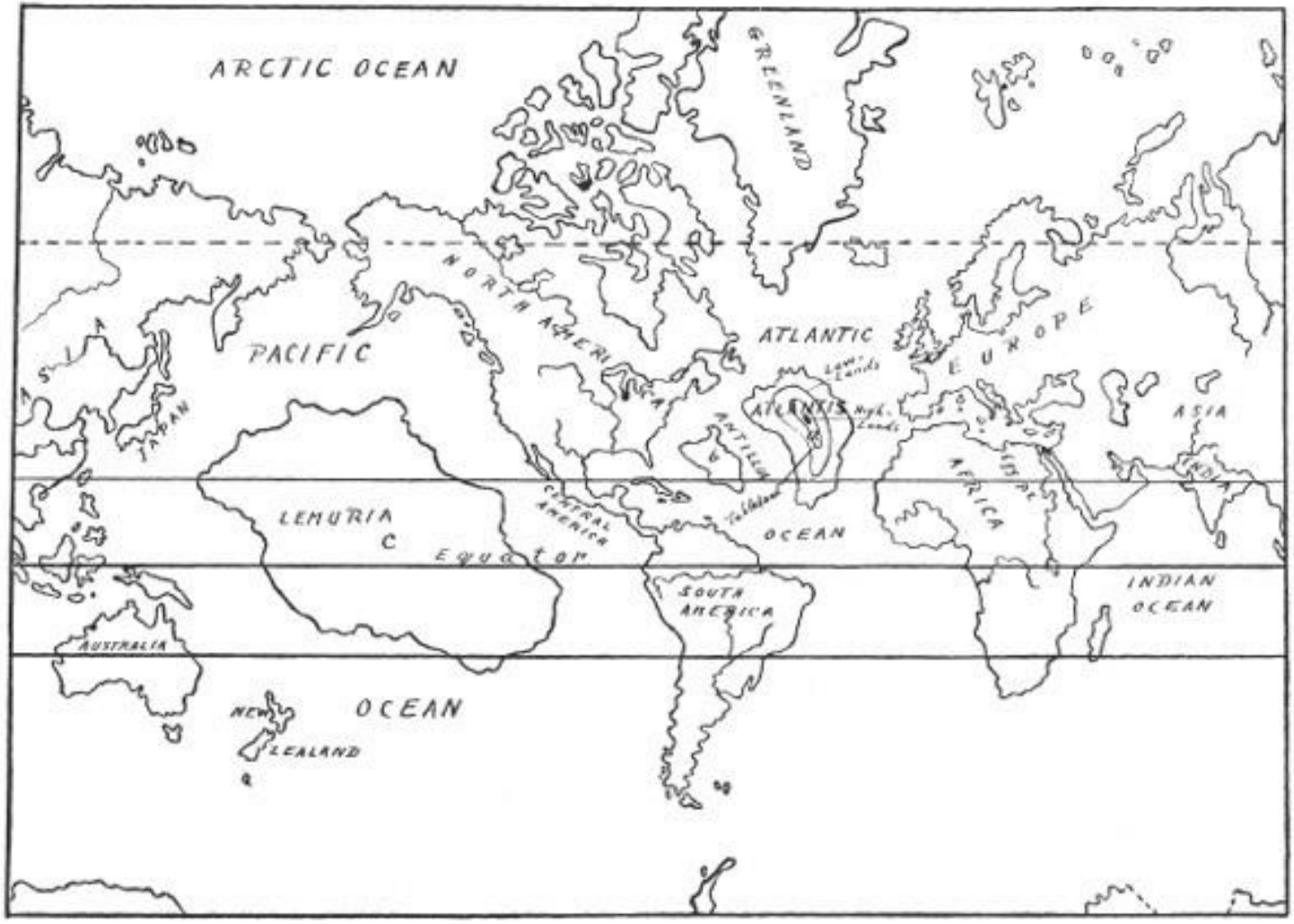

Figure 6.3. Map showing Atlantis and Lemuria

In Blavatsky's scenario, every root race except the first suffered one or more cataclysms. Continents disappeared, new lands appeared, mountain chains rose. "The face of the Globe was completely changed each time; the *survival of the fittest* nations and races was secured through timely help; and the unfit ones—the failures—were disposed of by being swept off the Earth. Such sorting and shifting does not happen between sunset and sunrise, as one may think, but requires several thousands of years before the new house is set in order"[6] (italics in original). The immediate cause of these cataclysms was not an outside agency, such as a comet, but changes in the inclination of Earth's axis (another topic treated at length in *Arktos*).

As to the dating of these events, Blavatsky was aware that the most advanced scientists of her day allowed an age of Earth of 500 million years. Humanity is virtually coeval with the planet: the first

root races appeared in the primordial and primary periods, the Lemurians in the secondary period (age of reptiles), and the Atlanteans in the tertiary period (age of mammals). There is no fossil evidence because early human bodies were not fully materialized. Most of Atlantis was destroyed 850,000 years ago, leaving a fragment that finally vanished as recorded by Plato. As for him, he was an initiate who was forbidden to tell the whole truth about the human past. "Aiming more to instruct as a moralist than as a geographer and ethnologist or historian, the Greek philosopher merged the history of Atlantis, which covered several million years, into one event which he located on one comparatively small island."[7]

After Blavatsky's death in 1891, the theosophists kept the basic structure of root races while seeking to improve on the details. They tended to move the Atlanteans closer to the present day so that they could be made responsible for Stonehenge and the pyramids. One

such was Alfred Percy Sinnett, to whom the Mahatmas Koot Hoomi and Morya addressed their letters. After the correspondence ceased, he started his own private circle in which an entranced medium gave out further information. Sinnett's friend Leadbeater, in contrast, used his own clairvoyance to penetrate the distant past, the astral plane, past lives, and so on. The most popular book of occult prehistory, Walter Scott-Elliot's *Atlantis and the Lost Lemuria,* derives its Egyptian material from Sinnett's medium (whom Scott-Elliot married) and the rest from Leadbeater.

Scott-Elliot's book includes four maps of Atlantis, first published in 1896, which have been reproduced countless times since. Sinnett, in his preface, says that these maps come from "records physically preserved," and Scott-Elliot describes them as "a globe, a good bas-relief in terra-cotta, and a well-preserved map on parchment." From later sources, we learn that they are in Tibet, in the Museum of Records of the Great White Brotherhood, and that

Leadbeater was given permission to visit it in his astral body and copy the maps there.

The Atlantis myth carries a powerful psychic charge and has served many groups and individuals in its manipulation of people's belief systems. I am not in the business of debunking, but I like to get to the bottom of tall tales like Scott-Elliot's maps. Other popular clichés would be James Churchward's *mu;* the last words of Jesus, reputedly spoken in "pure Mayan"; Katharine Maltwood's Glastonbury zodiac; the Lemurians of Mount Shasta; and the various Atlantean scenarios put out by Rosicrucian orders. By clearing away such growths, one has a better chance of tackling the genuine enigmas of human origins and evolution.

Whom, then, should we trust? I listen to them all: Rudolf Steiner; Alice Bailey; the ill-matched traditionalist couple of René Guénon and Julius Evola; the Avalonians from Dion Fortune to John Michell; the excruciating *Oahspe;* wily Gurdjieff's Beelzebub;

Phylos the Tibetan, who starts the Mount Shasta business; Edgar Cayce; the "I AM" folk (see "The I AM Discources" by Guy Ballard); William Dudley Pelley of Silver Shirts fame; Maurice Doreal (Claude Doggins) with his Emerald Tablets; the teasing trio of George Adamski, Richard Shaver, and George Hunt Williamson; wise old Seth; tough old Ramtha (J. Z. Knight); James Merrill with his Ouija board—and quite a few others.

Am I laughing at them, or with them? It depends on the degree to which they were deliberately putting one over on their disciples or audiences. And having said that, who is meant by "they"? The channelers themselves, or whatever is communicating through them? Most channelers seem sincere: almost all of them started their careers unwillingly after a transcendent irruption into their lives. But I am suspicious of their sources, which, when they are not total bores, often seem to be stretching our credulity for their own amusement. Since they do not agree with one another, they cannot

all be right: for example, they date the Great Pyramid at anything from 200,000 to 6,000 years ago. Yet each source has an amazing consistency and personality and a seemingly inexhaustible fund of knowledge.

In former times, possession by a god, demon, or spirit was the only explanation for this phenomenon. Once those were eliminated, it seemed that everything had to come from the channel's subconscious mind, or conscious fraud. I offer a lightly held alternative hypothesis. It combines Buddhist doctrine with the allegory of cyberspace and goes as follows: When sentient beings die, they release mental energies that may form congelations of intelligence, perhaps combining with other free-floating energies in resonance with them (note that in Buddhism no immortal soul exists to keep them together). These act like files containing a mishmash of information, memory, dogma, and speculation, ordered as in life by a logical program akin to language. Given a suitable recipient,

they download into it, blending with the recipient's own information, beliefs, and so forth. The way it emerges—through trance, automatic writing, and so on—is merely a matter of style. This suggestion somewhat resembles the idea of the "egregore," a wandering influence that takes on a pseudopersonality and may be nourished by attention, belief, and sacrifice. But it does not hold out much hope for finding the truth about Atlantis.

If we are sincere in our desire for this, we have to face the mystery of time and its connection with human consciousness. To be brief, it is a question of whether sequential time exists at all outside our minds. The metaphysical doctrines of East and West suggest rather that time, like space, is part of the illusion inherent in human consciousness. We feel caught in its coils and rhythms, but from a higher point of view, past and future coexist. Some channeled communications do help us understand this and so does (I'm told) quantum physics. There is the further possibility that the

Atlantis visited through clairvoyance, astral travel, or entheogens might be not in Earth's past but in a parallel and present universe.

Coming down to Earth, there is an idea that time proceeds not in a straight line but in cycles. There are two main schemes: the four ages or *yugas* and the astrological ages based on the precession of the equinoxes. The weightiest chapters of *Atlantis and the Cycles of Time* survey the origins and permutations of these theories. My object is to give the reader solid information, properly sourced, so that it is clear where the various claims come from and what assumptions (cosmological, historical, metaphysical) underlie them. For instance, Hindu orthodoxy puts us in the Kali Yuga, which began in 3102 BCE and lasts 432,000 years, getting worse all the time. Others reject these figures, especially the French traditionalists who have made time cycles their particular study. René Guénon, Alain Daniélou, Gaston Georgel, and Jean Phaure all come up with a reduced duration for the Kali Yuga of something over 6,000 years.

Their calculations of its end date and the consequent return of the golden age vary: CE 1999, 2000, 2012, 2030, 2160, and 2442 are all mentioned.

There are also contrarian theories. Fabre d'Olivet reversed the yugas, convinced that the Kali Yuga was not the worst period but the best. Some Buddhists, Jains, and the modern guru Sri Yukteswar have them going alternately up and down, like a sine wave. Each of these conflicting theories needs to be examined for its roots and motives, rather than accepted on anyone's authority.

There is similar disagreement about the end of the age of Pisces and the dawning of the Aquarian age. The earliest date I have found is 1760, one of four dates suggested in Godfrey Higgins's *Anacalypsis*. The year 1881 was once a popular choice, seeming to agree with another cycle: that of the reigns of the seven archangels, which was part of the teachings of the Hermetic Brotherhood of Luxor.

Carl Jung took the trouble to consult astronomy and pointed out that dating the age of Aquarius depends on which star marks the beginning of the constellation. That gives a wide range, from 1997 to 2154, but the actual year does not matter much: it was the whole period of transition that interested him.

Calculating the Aquarian age also depends on whether you take the traditional precessional number, 25,920 years, giving 2,160 years for each age, or whether, like Jung, you follow the current scientific estimate of about 25,770. Furthermore, you may divide it into twelve ages according to the astrological constellations, which are exactly 30 degrees each, or the astronomical ones, which are of unequal length and whose borders may shift along with the proper motion of their component stars.

To put the final wrench in the precessional machinery, many traditional texts assert that Earth's axis used to be perpendicular to the ecliptic, so that in former times there was no precession and no

seasons. Some connect this with the golden age and with human habitation in polar or arctic lands. If precession is a recent phenomenon, large-scale cyclical theories based on its invariance are null and void.

All of this may seem mean-spirited, for it undermines many cherished assumptions, but that is not the case. There is a positive joy in this kind of research. The material is philosophically challenging, the parade of characters fascinating. Some of them may be rogues, paranoiacs, deluded and deluding, but what else do we find in profane history? This study, like no other, stretches the imagination over all of space, from Mediterranean islands through crustal shifts and crashing moons, right up to the center of the galaxy. It ranges over all of time, from the dawn of the historical period back to the birthday of this present Earth. And as we reimagine the past, so we help to form our future.

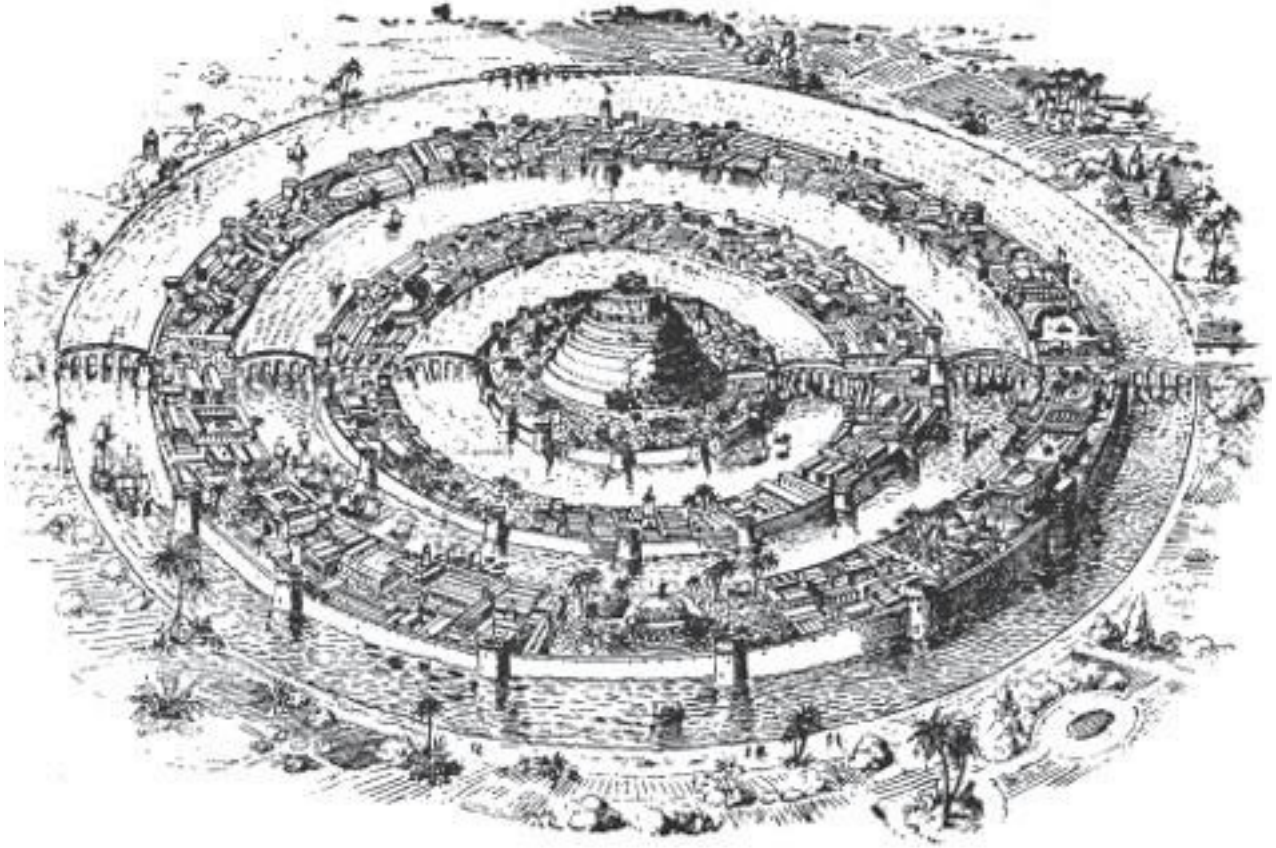

Figure 6.4. City of Atlantis

S E V E N

Bring Back the Sun

GREGORY SAMS

Imagine living in a culture where people spent more time deciding what brand, color, and flavor of condom to buy than they do considering prospective candidates and the act of sex itself. Something would be out of balance. Yet, we live in a culture where most people will have spent more time in their lives contemplating which style of sunglasses to purchase than they will have spent

contemplating the most important thing in those lives, the sun itself. Something is out of balance.

It was once absolutely common to give the sun a great deal of thought, respect, and appreciation. Many of the greatest monuments that survive from ancient civilizations were built to honor the sun. Yet we are raised with the built-in assumption that ancient people were primitive and uncivilized savages. As modern researchers such as Graham Hancock and Michael Cremo have clearly shown, nothing could be further from the truth. Though in many ways we now enjoy an advanced technology to that which existed thousands of years ago, it is not so certain that our understanding of the cosmos and our spiritual development have advanced at the same pace.

Many modern researchers have explored what remains of the civilization of ancient Egypt, recognizing the cosmological alignment of ancient pyramids and calculating where their shafts

would have originally pointed toward in the night sky. Others have studied the Mayan calendar and been amazed at the understanding it displays of solar and stellar activities taking place tens of thousands of years earlier. Tens of thousands make the pilgrimage to Stonehenge every summer solstice to touch and absorb the energy of the hallowed stones of this Celtic monument. We acknowledge our social and scientific debt to the ancient Greeks, whose rediscovered knowledge helped fuel the Renaissance and lift Europe out of the Dark Ages.

Yet as we explore the history of these cultures, we all too easily overlook the one underlying principle common to the Egyptians, Maya, Celts, and Greeks, not to mention the Sumerians, Chaldeans, Assyrians, gnostics, Khmer, Norse, Inca, Aztecs, natives of South and North America, and countless other cultures throughout the world, including today's Hindu and Shinto religions. This is the recognition that our local star is a conscious entity—a celestial

being. It remains one of the most powerful and unspoken taboos of the Western world and one that even modern researchers of the above cultures are often reluctant to breach.

Many of us have finally let go of the biblical mind-set that placed humans on planet Earth as the be-all and end-all and raison d'etre of God and the universe. Since 1975, we have been seeking other intelligences across the galaxy, looking for telltale radio signals, incorporating technology that enlists the brainpower of idle computers throughout the world. Though I quietly came to the realization that there was intelligence in residence at our local star in 1966, I only really "came out" on the subject when talk about the search for extraterrestrial intelligence (SETI) came up. I would then feel compelled to point out that this search was being conducted in complete ignorance of the most intelligent character in the neighborhood—our local star. And no special tools or techniques are required to spot this one—just an open mind that has let go of an

old taboo. It should really be called SSLU—the search for something like us.

Our culture is infused with the notion that the sun worship once practiced throughout the world was born out of ignorance. When SETI got me going on the subject, I would often get "Are you kidding?" and "Who is this crazy man?" looks—just the sort of looks that my brother and I received in the 1960s when introducing people in Britain to the radical freaky notion that what we ate affected our health and wellbeing. This unfounded assumption came up recently on a Sunday morning spiritual radio program when I was asked, "But they were primitive then. Don't we know better now?" That is an interesting question, and I must reply with a question: Is there anything we know today, from the latest in solar science and astronomy, to physics and quantum mechanics, that has any bearing on the issue of solar consciousness?

We will return to that question later, but we first must ask what

we know about our own consciousness that would assist us in the evaluation of whether such a phenomenon could exist elsewhere, whether in bacteria or thousand-year-old trees, in volcanoes or stars.

What is this stuff that we are forever talking about raising or lowering? What is this quality that distinguishes our complex body with being alive and vital? What do we know about *this*?

We know that many scientists actually doubt its existence. Since they have no tools with which to weigh it or measure it, and there seems to be no formula that can express consciousness, this group finds no alternative but to deny its existence. They believe consciousness to be an illusion that is constructed by our brain to gain some, as yet undetermined, evolutionary advantage. Some in this "grand illusion" camp have a corollary to their belief, which is that human beings have no free will and that every single thing we do or think (every rhyme, each wink and stink) is somehow predetermined by the arrangement of particles immediately after the

big bang.

For scientists who do acknowledge the existence of consciousness, it was assumed, until very recently, that human beings were the only vessel that it could possibly inhabit. Nothing else was deemed to be aware of its own existence, or functioning on anything other than the level of a biological machine driven by nothing more than the need to propagate the species. Descartes had a lot to do with this, but now a debate is going on, as some scientists devise tests for consciousness, such as recognizing yourself in a mirror or playing for no apparent reason other than to have fun. This camp is arguing that orangutans and dolphins and a handful of other species, mainly primates, might just share this rare facility.

But scientists are not getting very far, perhaps not trying very hard, in understanding what consciousness is or from whence it arises. And that isn't surprising, considering what a tricky word it is to define—right up there with *God* and *infinity*. There is no accepted

standard definition for consciousness. Mystics and philosophers have devoted entire books to it or summed it up with the two words: *consciousness is.*

Without the need for proof or measurement, we know of our own consciousness because we feel its existence. It was enough for ancient civilizations to know of solar consciousness because they felt its existence. I do not suggest that because we feel something it is true. But when a near universal belief is sustained for thousands of years, it merits consideration. It does not matter which continent we look at, or which century, or which culture. Our pre-Christian ancestors believed that their basic intuition was correct, notwithstanding any explanations and baggage that might thereafter have been added to the picture by organizing priests.

We might well experience this connection to solar consciousness intuitively when, as children, we put smiling faces on drawings of the sun. But by the time we leave school, there is little hint of it left,

as we adopt the “we know better now” attitude. Which brings us back to that question of just what it is that we now know better. And who were the original “we” that we know better than? Is it science that has taught us that sun worship was primitive and irrational?

If we could have told a Mayan or Egyptian sun worshipper about the fusion reaction in the core of the sun, described the very different functions of the next six layers, and explained the corona and the solar wind that spins from it, his or her jaw would have dropped in delighted awe. Our science would give that worshipper greater cause to revere the character bringing light and the power of life to our Earth. The knowledge of anatomy does not diminish our living status.

Was it the church that told us sun worship was primitive and irrational? Yes. They knew better because the Old Testament told them so. They had it on God’s authority, written in his own book, that the sun was just a convenient ball of light placed in the heavens

for the benefit of humankind. And since most of the religions that had been replaced by the new church were big on sun worship, it was very much not OK to persist with such ideas. Neither philosophers, scientists nor variants of Christianity were excluded from papal control of such thinking.

The Christianity of the Cathars, influenced by Mary Magdalene's transmission of Christ's teachings, incorporated sun gazing and elements of solar appreciation into its practice. This, and other unauthorized deviations from Catholic creed, prompted the Vatican to organize twenty years of the brutal Albigensian Crusade (1209–1229) and to create the dreaded Inquisition, dedicated to eliminating every last trace of the Cathars religion and its followers.

Nearly four centuries later, in 1593, they were again alarmed, this time by the teachings of one Giordano Bruno. Copernicus who came before, and Galileo who came later, recognized that the sun and planets did not revolve around Earth, believing instead that the

whole universe revolved around the sun. Unlike them, Bruno also recognized that our sun was but one of countless stars populating an infinite universe. He also recognized that the sun and stars were all living beings—still something of a blind spot for modern astronomers. He was lured back to Italy, arrested by the Inquisition, and imprisoned for seven years, during which time he refused to recant, even under torture. When finally sentenced to death, he responded to the judges: "Perhaps you, my judges, pronounce this sentence upon me with greater fear than I who receive it." His tongue was tied before he was tied to the stake, lest he try to spread his inflammatory ideas to the assembled crowd.

The scientific aversion to considering the question of solar consciousness stems, in essence, not from solar experimentation, technical investigation, or application of the scientific method. It stems from little more than habit, and a religious habit at that.

Obviously, we are not going to be able to apply our normal

consciousness tests to the sun, with mirrors, questionnaires, and analysis of playfulness. But we can take a look at what solar scientists have been able to find using telescopes, helioseismology, spectral analysis, and some pretty brilliant thinking and deduction. I am not in the business of knocking scientists or their discoveries, but I am intolerant of the unfounded taboos that most of them embrace and to which all of them must conform, or face ridicule.

Let us take a very cursory look at a few features of the sun's seven distinct levels, to see if these are the sorts of features you would expect to find in an inanimate, unintelligent, accidental agglomeration of simple matter. And the sun's matter, in common with over 99 percent of matter in the universe, is not in the simple states of solid, liquid, or gas with which we are familiar on this planet. Most matter does not have an even balance of electrons and protons and is thus highly fluid and conductive to the transmission of electromagnetic energy. Plasma is very active. Those plasma gas

balls that are sold for visual home entertainment almost look like living things.

The hot inner *core* is where the nuclear fusion reaction takes place, converting five million tons of the sun's mass into energy each second. This reaction has been going on steadily for some 4.5 billion years and is estimated to have at least as long a future. With the equivalent of billions of hydrogen bombs going off every second, some containment around this first layer of the sun is obviously necessary. This second level takes the form of the *radiation zone,* a region of very dense matter that is twenty-five times as thick as Earth's diameter. Traveling at the speed of light, a photon would pass through this layer of the sun in about one second, but they have to bounce around a bit on the journey outward, and it takes them more like a million years to make the transit. Photons enter this zone as deadly gamma rays vibrating at high frequency and low wavelength and exit it as safe visible light

—the stuff that reaches our planet and sustains all life.

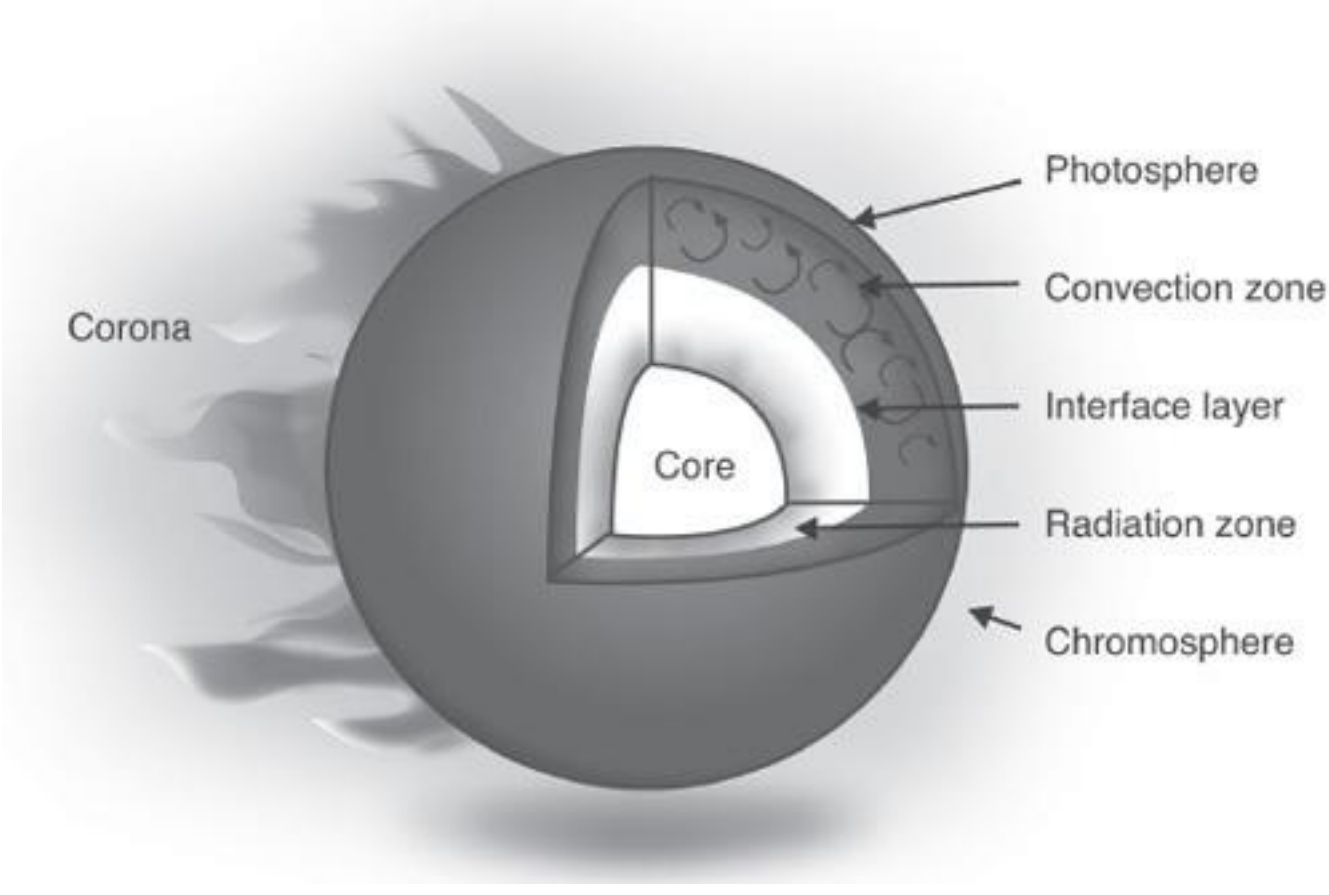

Figure 7.1. The sun's core

Outside the radiation zone is the third, and relatively thin, *interface layer,* described as being like giant twisting ropes of electromagnetic energy. It is thought to be here that electromagnetic energy is produced to power the sun's invisible outermost seventh layer, the corona—about which more later. This energy is believed to be generated by the differential rotation of the *convection zone,* which surrounds the radiation zone and turns at a different speed, producing a dynamo-like effect.

Huge bubbles of charged matter carry the photons from the core through the convection zone to the photosphere with a fractal turbulence compared to that of water in a fast boiling kettle. While the density of the plasma at the beginning of the radiation zone is that of gold, by the time we reach the convection zone, the density is that of water. It will emerge into the next level in about a week, where the density of the sun is now far thinner than Earth's outer atmosphere.

At just 100 to 300 kilometers deep, the visible outer surface of the sun is relatively as thin as an onion skin. The *photosphere* provides the setting or base for many of the sun's most visible, intriguing, and dramatic features, from sunspots to solar flares, coronal mass ejections to coronal prominences. Isaac Newton was the first to spot sunspots and track their activity. Records have been kept ever since of their cyclical, though inconsistent, nature. Solar scientists are still as puzzled as Newton was by their meaning and mechanism, but have noticed enough of a correspondence with coronal activity to believe that they are managed or controlled by the corona. The same is thought to be the case with flares, coronal mass ejections, and prominences, each of them fascinating and powerful events that defy any straightforward explanation.

We have burst forth from the light-producing core and bumbled through the light-processing radiation zone, twisted through the electrical interface layer, bubbled through the seething convection

zone, and shot out of the photosphere, adding another spark to the universe. We have not reached the outer levels of the sun, but already it seems curious to believe that such structured, complex, coordinated, and sustained activity is all going on by accident with nary a drop of intelligence involved. Were solar scientists to step outside the bounds of their religiously rooted taboo, I strongly suspect that they would recognize this complex and energy-rich assembly of active plasma to be another life-form and quite probably one higher than us.

I have rushed through describing the processes taking place in the five inner layers of the sun to give more space in this article to explaining the energetic outer level. The temperature of the sun progressively drops as photons travel from a 15-million-degree core to the 5,800-degree photosphere. We would expect the temperature to drop even further as we travel outward from the surface into the coldness of space. But instead, the temperature rises—one of many

unexplained aspects of solar behavior. The “atmosphere” of the sun is so thin in matter content that it would be considered a near vacuum by our standards, but it is rich in energy and activity.

The lower level of the sun’s atmosphere, the *chromosphere,* is populated by what look like long thin needles or jets of red light shooting upward at high speed. First spotted in 1851, they are called *spicules,* and there have been various theories as to what they are. The big bubbles of the convection zone may be sending sound waves into the chromosphere, powering their upward trajectory at supersonic speeds. One must wonder about the purpose of this activity in the system of a living sun. At the top of the irregular chromosphere, the temperature has jumped from 5,800 to 20,000 degrees, and at the other end of the wafer-thin transition to the outer atmosphere, the heat runs to a million degrees.

Now we reach the least understood feature of the sun, and perhaps, its crowning glory. The energy-rich and matter-light

corona is bigger than the sun's physical "body," stretching two or three million kilometers into space. Temperatures have become hundreds of times hotter, ranging from 1 to 5 million degrees Kelvin. Why hasn't the heat emanating from sun's surface just dissipated into the cold surrounding space? Scientists still struggle to understand why this is.

The corona is an invisible electromagnetic phenomenon, but the power of its activity and associated events are awesome. It only manifests during a total solar eclipse, as even 1 percent of sun's light will completely overwhelm that of its corona. What we see at this moment is its eponymous crownlike shape outlined by light released by free electrons streaming off the sun, excited by the corona's powerful magnetic field lines. Its shape is not constant, changing along with the sunspot cycle on the photosphere. Although solar scientists hold it responsible for many of the sun's features, they describe the corona as the most mysterious feature of the sun.

Interesting.

While scientists grapple with the very real difficulties of explaining the nature and existence of the sun's corona, permit me to hypothesize about the possible relevance of this fascinating phenomenon. Perhaps the invisible corona is the most important feature of the sun—that to which all else is geared and that which is responsible for some of its most far-reaching effects. It is difficult to resist the temptation to compare aspects of a living conscious sun to our own existence, relating its fusion-reactor core to our own heart or its chromosphere full of spicules to our seeing apparatus. But it is, of course, a completely different nature of being, and in some respects, one might as well be looking for the nose of a cauliflower or the nipples of a trout.

It does seem reasonable, though, to look for the mind of a conscious sun, and here, I suggest, one need look no further than its corona (see plate 4). Like our own mind, the corona is essentially an

invisible extension of the sun. As with the force lines of a magnet, all we can ever see is the effect of the corona on particles that are in its presence. Some scientists will no doubt continue to debate the existence of a human mind until tools are developed sensitive enough to register and measure it. In the perfect darkness of a total solar eclipse, does it not seem likely that we are witnessing the image of a mind infinitely more powerful than our own—without the need for any special tools?

We will leave the sun now, hitching a ride out on the solar wind, a rarefied stream of charged particles that spins from the corona at speeds of 300 to 900 kilometers per second. As the sun turns, the solar wind twists into a huge spiraling electromagnetic bubble called the *heliosphere,* which holds the entire solar system in its embrace, cushioning its planets from the potentially disruptive effects of cosmic rays. Isn't that thoughtful?

Recognition of the sun and other stars as living beings changes

the way we look at everything, not just galaxies and a universe awash with them, but everything from subatomic particles up to light itself. Could there be similarities on different scales between the 100-plus-billion neurons in own brains and the 100-plus-billion stars in our galaxy, all of them sending electromagnetic signals in the direction of their neighbors? How do molecules of water become a thundercloud hurling bolts of lightning earthward? Can a tree be tickled by the ripple of a breeze, an ocean know its currents' flow, a mountain feel its majesty? How could clouds of hydrogen and helium atoms assemble into something as complex and finely tuned as a light-producing star?

Could energy have been the original raw material of matter? And is it energy that holds it all together? Is it, too, the architect? For us, it is energy that provides the spirit of life. Without energy, we do not live or think. Without energy, there is nothing that we call living left. Yet, we are brought up with the assumption that it is us who

brings life to energy, and not the other way around.

Why do so many of our linguistic expressions for intelligence rely on light-related words, using phrases and terms as we *shed light on the matter,* enabling us to *see the light,* after which we may be *illuminated on the subject, in the light of* the *brilliant* new insights gained from the *dazzling* ideas of the *bright* author of an article on *enlightenment*? Isn't it *delightful*?

Why are there so many questions? Perhaps it is because we are curious. An open and curious mind drove and directed me along the journey of seven years that was the writing of *Sun of gOd*. The solar path led in many directions, illuminating an unexpectedly coherent whole as the book progressed. Within its pages, the dogma has been stripped from science and the faith removed from religion to reveal the compatibility of ancient beliefs with cutting-edge science.

Relieved of its unfounded antispirit prejudice, science can help us to recognize a universe that is designed from the bottom up, not

the top down. This universe is intelligent and well designed without needing an intelligent designer pulling all the strings behind the scenes. *Sun of gOd* underwrites the ancient wisdom of “all is one” in a refreshing and up-to-date manner, neither rejecting science nor relying on revelation to make the point.

Today’s marvelous technology enables us to probe the far reaches of the universe and to wonder on the mysteries of matter at a quantum level. Yet, we have still to rediscover the most elemental aspect of our sun, the most important character in our lives, even though no technology is required. Like us, it is alive. And the knowledge of that improves forever our relationship with the universe.

E I G H T

Was Our Solar System Designed to Produce Humans?

CHRISTOPHER KNIGHT AND ALAN BUTLER

It is strange where research can lead you. More than a decade has passed since we joined forces to try and find out if there was any reality to a claim that highly accurate units of length had been in use during the British Neolithic. We found that these supposedly

primitive people were using a highly developed science that connected them to the rhythms of Earth.

This led us on to realize that the science used by these Neolithic people did not die out as we first assumed. In our most recent book, *Before the Pyramids*, we uncovered rock-solid evidence that the powers that be in Washington, D.C.—in the White House, the U.S. military, and the highest levels of the Scottish Rite of Freemasonry—are aware of and secretly celebrating this ancient system of science.

But our biggest personal challenge has been to face up to the consequences of our own findings; because they have brought us to the point where we have found compelling evidence that our planet and its environment have been carefully designed for us. Stranger still, there appears to be a message built into the very fabric of the solar system itself.

This was not a finding that we had looked for, or even cared for.

We are very pragmatic people working in an area of ancient research that is specialized and very sober. Here was an idea that was apparently outrageous—but apparently inescapable.

In early 2009, we had decided to revisit all our findings, which had resulted in three joint books plus one still in manuscript form (now published). We were troubled because, despite one of us being an agnostic and the other an atheist, we could not escape the conclusion that we were looking at a message from what we called the UCA (unknown creative agency) that had designed our solar system and all life on Earth.

Then in late November 2009, we were contacted by David Cumming, an expert in AI (artificial intelligence), who had studied our evidence in great detail and independently come to the same conclusion. He claimed that it formed an equation with a very clear message from the creator.

That equation has been refined to:

$$\frac{Hl_f.l}{\Omega} = C_0$$

We describe the mathematics at the end of this article, but the important point is this:

Hlf.π is the specification of the SETI (search for extraterrestrial intelligence) communications frequency for extraterrestrial messages based on a galactic aspect of the hydrogen atom. This shouts, “Pay attention—this is a message.” Omega (Ω) represents the numerals of the base ten counting system. The equation states “ten-fingered humans I am talking to you.”

The left-hand side of the equation equals the right-hand side, which is the speed of light in a vacuum measured in Thoms per second (harmonic units of Earth, moon, sun harmonic). This says, “The message is from the creator”—because the speed of light is the most significant physical reality in the universe.

Is this credible? The facts behind it certainly are. But we thought we should go back to retrace some of our key findings over the years to help you decide.

The Origin of the Megalithic Yard

The starting point of our joint research was simply to consider whether Alexander Thom had been right or wrong in his identification of a prehistoric unit he called the megalithic yard. He was a professor of engineering at Oxford University who surveyed British and French megalithic sites over the course of half a century until he died in 1985. Thom's approach was entirely different to that adopted by any archaeologist. Looking at the scale and obvious planning involved in megalithic sites, Thom had been forced to conclude that the planners and builders must have been highly

skilled engineers—just like himself. He, therefore, carefully analyzed what remained of each megalithic site and then tried to imagine what it was the builders had set out to achieve. Once he had a picture in his mind of what he thought their plan had been, he went away to create his own solution to the assumed problem. Having drawn up his own design, he then returned to compare the site layout to his own blueprint. He deduced that the builders had all been working to a common set of units based on his megalithic yard that was 2.722 feet plus or minus 0.002 feet (829.7 mm plus or minus 0.5 mm).

Thom was viewed as an unwelcome outsider by nearly all archaeologists, and even today most believe, quite erroneously, that he has been proved largely wrong.

Our starting hypothesis was that, if the megalithic yard were real, then it is highly probable that its apparent accuracy can best be explained by it being derived from nature rather than an invented

unit. If we could identify a natural origin, then Thom was probably right; if we couldn't, the debate will continue because it is impossible to prove a negative.

It did not take too long for us to realize that there is only one aspect of nature that delivers up a near-perfect means of creating measures, and that is the revolving of Earth on its axis—something it does every 86,164 seconds. This provides the potential for creating a unit of time, which can then be used to make units of length, weight, and capacity—and potentially everything else from frequency to temperature.

The most obvious way to observe the turning of Earth is to watch the stars, which appear to pass overhead once for each rotation. They also move across the sky in an annual rotation due to Earth's orbit of the sun. Megalithic astronomers could not help but notice that there were 366 daily star movements to one annual one.

To create a repeatable linear unit from the turning of Earth, the

only tools one needs is a length of rope, a few poles, a ball of clay, and a piece of string.

We knew that ancient peoples from all across time have liked to create patterns in which the same values work upward and downward. And we had good reason to believe that early peoples had used a 366day calendar and a 366-degree circle. These astronomers knew that there are 366 star rises (any star such as Sirius) over one circle of the sun, so it was logical to divide the horizon into 366 parts to measure the time in 1/366 part of a day.

They measured time in the same way that all clocks did until recent times—with a pendulum. A handheld ball of clay on a string is a perfect instrument. When stationary, it is a plumb line to gauge verticals, and when swinging, its beats measure time with great accuracy. The only factors that have any significant effect on the beat are the length of the pendulum from fulcrum to the centerline of the weight and the mass of Earth (gravity). The energy put into

the swing by the user has no effect; if the swing is made more vigorous, it just swings faster in a wider arc but the rate of beat remains exactly the same.

Our first and most obvious assumption was that the megalithic people had divided the horizon up into 366 equal parts and then used a pendulum length that beat 366 times.

This proved to be spot on. A pendulum that beats 366 times during one 366th of Earth's turn was, much to our joy and amazement, half a megalithic yard in length! A circle scribed by such a pendulum would have a diameter of one megalithic yard. Archie Roy, emeritus professor of astronomy at Glasgow University (and a friend of the late Alexander Thom), joined us to give a public demonstration of how the megalithic yard is a product of measured observational astronomy.

Figure 8.1. A basic pendulum is a very accurate tool to measure time.

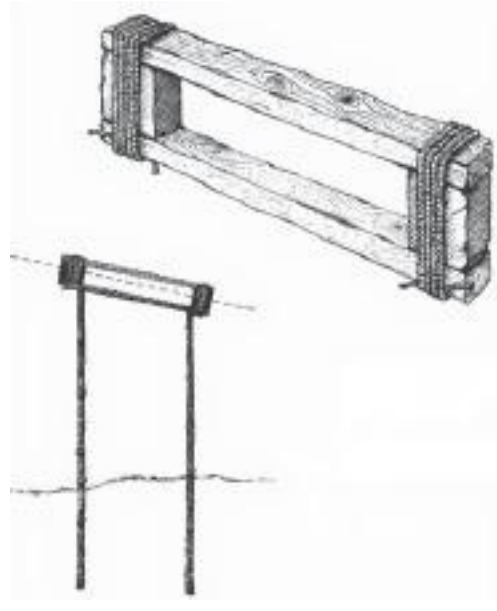

Figure 8.2. A frame 1/366th of the horizon angled to time a star

We later refined the timing method, having realized that the megalithic astronomers had improved their own accuracy by using the movement of the planet Venus at certain times rather than a star. Gordon Freeman, a distinguished professor of chemical physics and a much published amateur archaeologist specializing in megalithic

structures was impressed with this saying: “Tying the my [megalithic yard] to Venus path arcsecond is a major discovery. I’m an admirer of Thom, but was neutral about the my. Now I’m a convert.”

Alexander Thom had been right all along because the chances of this technique producing a perfect fit for his unit could not be a coincidence. But there was more—much more to this system. Given that the builders of these megalithic sites some five thousand years ago used a 366-degree circle caused us to look at Earth itself. Taking the polar circumference as the text-book 40,000,000 meters, we turned it into megalithic units and discovered the following:

Earth’s polar circumference = 40,000,000 meters

1 megalithic degree (1/366) = 109,290 meters

1 megalithic minute of arc (1/60) = 1,822 meters

1 megalithic second of arc (1/6) = 303.6 meters

Now, 303.6 meters for a second of arc may look a little boring, but it is 366 megalithic yards. The actual figure is 829.5 mm, which fits nicely with Alexander Thom's definition of 829.7 plus or minus 0.5 mm.

We now call this beautifully geodetic unit from the 366 system a Thom to differentiate it from the arguably very slightly less accurate megalithic yard.

The megalithic second of arc appears to have been adopted by the Minoan culture of Create some four thousand years ago. The palaces of Crete were carefully surveyed by Canadian archaeologist J. W. Graham, who identified a standard unit he called the Minoan foot, which was 30.36 cm. It follows that one thousand of these feet make precisely one megalithic second of arc—a decimalized version of what was already an ancient measure.

Even earlier, the Egyptian culture had adopted units driven by the same thinking. They took the megalithic yard and made it the

circumference of a circle. The diameter of that circle was called a royal cubit, and the hypotenuse of a square from that diameter was called a *remen*.

Artifact-based Evidence

When we wrote *Civilization One,* we stated that the people who created the megalithic yard must have built very large circles and divided the circumference into 366 parts to be sure that they were viewing 1/366 part of the night sky. We suggested that they may well have understood a quick method to do this by making a circle with a diameter of 233 units (any length would do if they didn't already have a megalithic yard). They then knew that they would have a circle of 732 units, which is twice 366; so they could take every other pole on the circumference. This is a 99.999 percent

accurate means of using pi in a practical manner. For all engineering purposes, this means perfect.

Several years later, we found that structures even older than the megalithic structures demonstrated the use of the 233/732 circles—exactly as we had predicted. These are henges—large circular mounds such as the group near Thornborough in North Yorkshire, England. They were built around 3500 BCE, well before the megalithic builders began their stonework phase. What is more they were using the megalithic yard, or the Thom, as we now call the geodetically refined value of the same length. At Thornborough, there are three interlinked henges that are 233 Thoms across and 732 Thoms around their outer perimeter. These structures with units and ratios are about 366 megalithic rods between the centers of the first two and 360 between the second. The trio, which are also exactly three megalithic seconds of arc apart by latitude, have also been identified as being laid out as a copy of the stars of Orion's

Belt—exactly like the Giza pyramids (see plate 5). The difference is that these are a thousand years older. We also explain in *Before the Pyramids* how Khufu's pyramid builders came to this location in England to get instructions on how to plan this star pattern on the ground!

Weights and Measures

Having established that the people of the British Neolithic had units of lengths and time, we wondered if they had other units, such as capacity and weight. We knew (or so we thought) that the metric system was devised by the French in the late eighteenth century when they used a pendulum that beat at the rate of one second to create a unit they called the meterre (meaning to beat out time). They later made a very small adjustment so that their meter was

1/10,000,000 of the distance from the equator to the North Pole. To create a unit of capacity they took a 1/10 part of the meter (10 cm) and made a cube. Filled with distilled water, this cube's capacity was called a liter, and its weight was designated a kilogram.

We applied the same logic to the megalithic yard (which Alexander Thom said was divided into forty megalithic inches). So we calculated what a four-megalithic-inch cube would contain. The answer is one pint—to an accuracy of one part in five thousand as defined by the British government in 1601. And when carefully filled with any unpolished grain, such as barley, it weighed just one imperial pound.

This was odd in the extreme, but it appears that (unknown to history) Imperial units were indeed based on cubes because doubling the sides of the cube to eight megalithic inches is equivalent to one imperial gallon and doubling again produced a unit equivalent to a bushel, which was used as a dry weight until

recent times.

Next, we found some truly bizarre connections. We thought for thoroughness that we ought to consider the volumes of spheres with megalithic dimensions in addition to the cubes, and a 6-megalithic-inch sphere held a liter and a 1.5-megalithic-yard-wide sphere of water weighs a metric ton. The level of accuracy was not spot on, but at a level of 99 percent fit, we were surprised, to put it mildly.

We are used to modern measurements that are ad hoc, but the 366 system works in depth. Take just two examples:

1. Earth mass

- 1 megalithic degree (1/366) slice of Earth = 360×10^{20} pounds
- 1 megalithic minute slice of Earth = 6×10^{20} pounds
- 1 megalithic second slice of Earth = 10^{20} pounds

2. Temperature (hypothetical scale)

- Water freezes at 0 degrees
- Water boils at 366 degrees
- Absolute zero at –1,000 degrees

The Sumerian Meter

It is well known that the Sumerian culture had a 360-degree circle and a 360-day year. They knew perfectly well that this was wrong and that there are 366 star turns in a complete year, but it made their system of numerical notation and they built in compensation. They also invented the hour, the minute, and the second—or at least they are the earliest people to be known to have used it. (In fact we now know that the second of time was in use in the British Isles at least 2,500 years before the Sumerians adopted it.)

The Mesopotamian cultures, at various times, used a range of

linear measurements, depending on the item being measured, but there is a general consensus that a linear unit known as the *kush* or barley cubit was the main unit of length for during Sumerian times.

The kush was made up of 180 *se*, meaning barley seed, and was equivalent to 49.94 cm and the often-used double kush, which Professor Livio Stecchini stated that he believed should be 99.88 cm. It follows that this double kush was made up of 360 se, just as their year had 360 days and their circle 360 degrees. It is no coincidence that the double kush is almost identical to the modern meter because they were both based on a pendulum that swings at the rate of once a second.

The Sumerians and later cultures of the region around the Tigris and Euphrates rivers used a sexadecimal counting system of base tens and sixties. Their divisions of time were very neat, indeed:

Year = 360 days

Month = 360 hours

Day = 360 *gesh* (a gesh was 4 minutes or 240 seconds)

Each of the Sumerian hours represented 1 degree of the moon's journey around Earth and every degree of the moon's journey was split again, by 60 to give minutes of the arc and by 60 again to give seconds of the arc.

Today, we use seconds to measure many things, including the speed of light, which is 299,792,458 meters per second. If we change that to kush per second, we get the amazingly round figure of 600,000,000—which is a beautiful sexadecimal value (99.95 percent accuracy).

The Jefferson Paradox

Thomas Jefferson, one of the Founding Fathers of the United States, was an amazing polymath. He set out to create a new system of units for his fledgling country, which—apart from the dollar—were never adopted. He started by looking at what means nature provided for producing a repeatable unit, and like us, he quickly identified the spinning of Earth. Furthermore, he used a pendulum that beat at the rate of once per second as his starting point, completely unaware of its ancient origins. He recorded the following statement:

A pendulum, vibrating freely, in small and equal arcs, may be so adjusted in its length, as, by its vibrations, to make this division of the earth's motion into 86,400 equal parts, called seconds of mean time. Such a pendulum, then, becomes itself a measure of determinate length, to which all others may be referred to as a standard.[1]

Jefferson also carefully looked at the units of measure from

Europe, and he was surprised to find that they were not in the least haphazard as generally thought. He wrote:

This seems to have been so combined as to render it indifferent whether a thing were dealt out by weight or measure; for the dry gallon of wheat, and the liquid one of wine, were of the same weight; and the avoirdupois pound of wheat, and the troy pound of wine, were of the same measure.

Another remarkable correspondence is that between weights and measures. For 1000 ounces avoirdupois of pure water fill a cubic foot, with mathematical exactness.[2]

He was bemused by the obvious science that lay hidden behind old measure:

What circumstances of the times, or purposes of barter or commerce, called for this combination of weights and measures,

with the subjects to be exchanged or purchased, are not now to be ascertained. But a triple set of exact proportionals representing weights, measures, and the things to be weighed and measured, and a relation so integral between weights and solid measures, must have been the result of design and scientific calculation, and not a mere coincidence of hazard.[3]

Jefferson concluded that some very ancient but long-forgotten science was behind these unexpected correspondences. He concluded: "but the harmony here developed in the system of weights and measures . . . from very high antiquity."

When Thomas Jefferson had finished creating his own new system of measures, his use of the pendulum and the second of time had connected him directly back into the system from prehistory. Though he could not know it, the following is true:

1,000 Jefferson feet = 360 megalithic yards

366 Jefferson furlongs = 1 megalithic degree of arc of Earth

366^2 Jefferson furlongs = exact circumference of Earth

This is a case-winning piece of evidence.

Megalithic yard deniers or those who wish to casually dismiss the 366 system as all being a strange set of coincidences have to explain away the Jefferson paradox. Why is the ancient measure (still described in textbooks as ad hoc) connected in the way Jefferson described and how could his "new" system harmonize perfectly with a system employed five thousand years earlier some 6,000 kilometers away to the east?

The Sun and the Moon

Have you ever wondered how marvelous total eclipses are?

It is a very strange quirk of fate indeed that the disc of the moon should seem, from an earthly perspective, to be exactly the same size as the sun. While we casually take it for granted that the two main bodies seen in Earth's skies look the same size, it is actually something of a miracle. Most people are fully aware that the moon is tiny compared to the sun, but that it is much, much closer to us, which causes the two to appear equal in size. To be precise, the moon is 400 times smaller than the star at the center of our solar system, yet it is also just one 400th of the distance between Earth and the sun.

The odds against this optical illusion happening at all are simply huge—but how bizarre that both values are the same, perfectly round number. Experts are deeply puzzled by the phenomenon. Isaac Asimov, the respected scientist and science-fiction guru, described this perfect visual alignment as being "[t]he most unlikely coincidence imaginable."

This perfect fit of the lunar and solar discs is a very human perspective because it only works from the viewpoint of someone standing on Earth's surface. And it only works at this point in time because it was very different in the past, and it will change again as the moon moves away from Earth.

The magic of the moon's movements above our heads goes to even more astonishing levels. By some absolutely incomprehensible quirk of nature, the moon also manages to very precisely imitate the movements of the sun. It imitates the perceived annual movements of the sun each month.

The full moon is at its highest and brightest at midwinter, mirroring the sun at midsummer, and at its lowest and weakest at midsummer, when the sun is at its highest and brightest.

The strangeness of the Moon continues when one considers its structure. It is either hollow or made up of extremely low-density material at its center. It has its great centers of mass distributed in

various places at relatively low points just below its surface. This is odd in the extreme.

Figure 8.4. Midwinter and midsummer sunset and moonset; this drawing shows the peculiar relationship of the sun and moon

throughout the year as seen from Earth. At midsummer in the Northern Hemisphere the sun sets north of west, whereas the full moon sets south of west. At midwinter the situation is reversed, with the sun setting south of west and moon setting north of west.

Its origin is also mysterious. The material that forms the moon came from the surface of Earth, but there is no satisfactory explanation for how this happened. The so-called double-whack theory seems unlikely in the extreme.

Applying the megalithic 366 system of geometry and Thoms to the moon and the sun produces an astonishing result:

Polar circumference of the moon = 13,162,900 Thoms

1 megalithic degree (1/366) = 35,964 Thoms

1 megalithic minute (1/60) = 600 Thoms

1 megalithic second (1/6) = 100 Thoms

The sun produces:

Polar circumference of the sun = 5,271,967,000 Thoms

1 megalithic degree (1/366) = 14,404,281 Thoms

1 megalithic minute (1/60) = 240,071 Thoms

1 megalithic second (1/6) = 40,011 Thoms

Given it is impossible to establish an exact circumference for the sun's surface, this result can be considered to be 40,000—as one would expect, given that the sun is four hundred times the diameter of the moon.

How peculiar that the sun and the moon comply with the same system that defines Earth so well? It is almost as though we are looking at the blueprint of the solar system.

The Rhythm of the Solar System

The fact that the 366 system worked so perfectly for Earth, the sun, and the moon caused us to look at every other planet and moon in the solar system. Nothing. None of our neighbors come close to fitting the system. We even tried using each planet's own spin-to-orbit value rather than Earth's 366, but this also drew a blank. There seems to be something very special about our planet and our moon's relationship with the sun.

We stated to look closely at every aspect we could and the following values fell out:

366

The number of complete rotations of Earth in a year

The number of Thoms in a megalithic second of arc on Earth

The percentage size of Earth compared to the moon

100

The number of Thoms in a lunar megalithic second of arc

The number of times Earth rotates faster than the moon

400

The number of times the sun is larger than the moon

The number of kilometers the moon turns on its axis in a day

The number of times the moon is closer to Earth than the sun

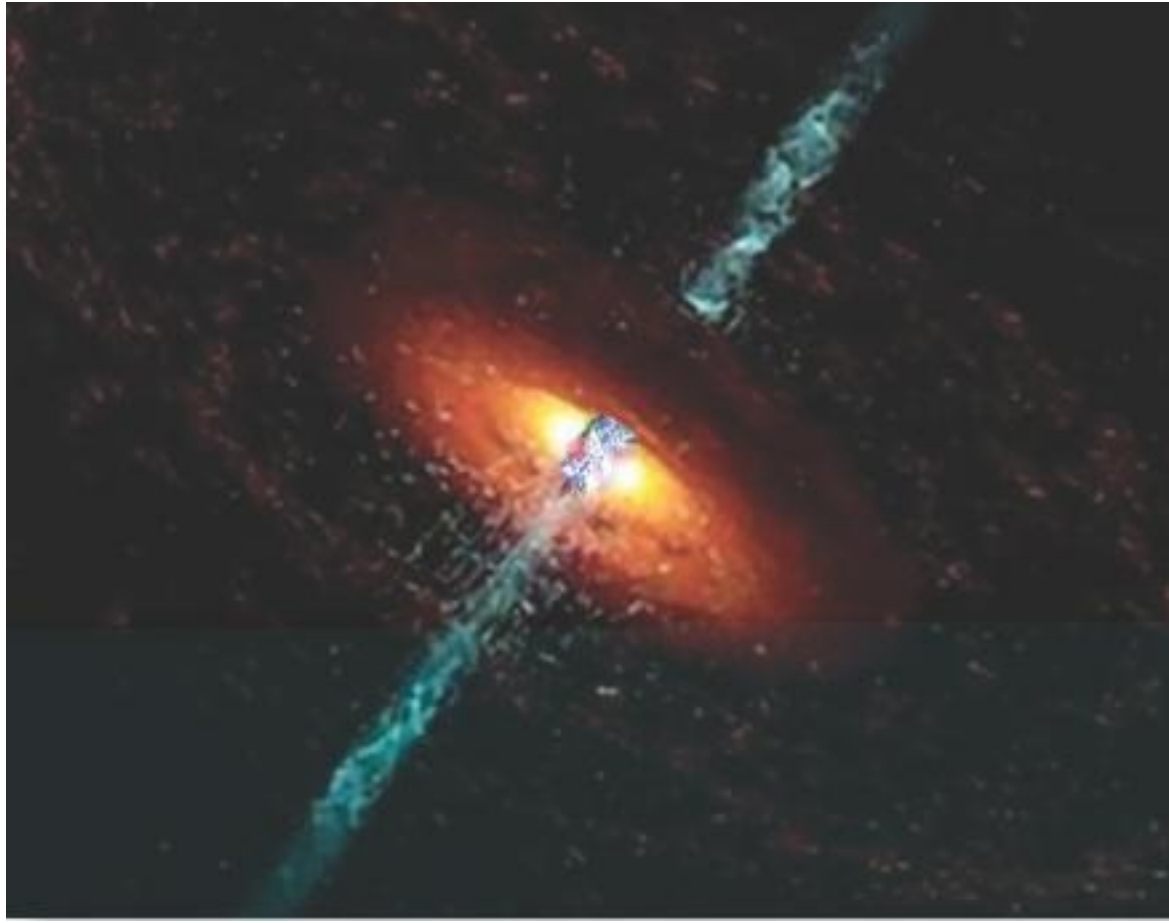

Plate 1. Bipolar emission

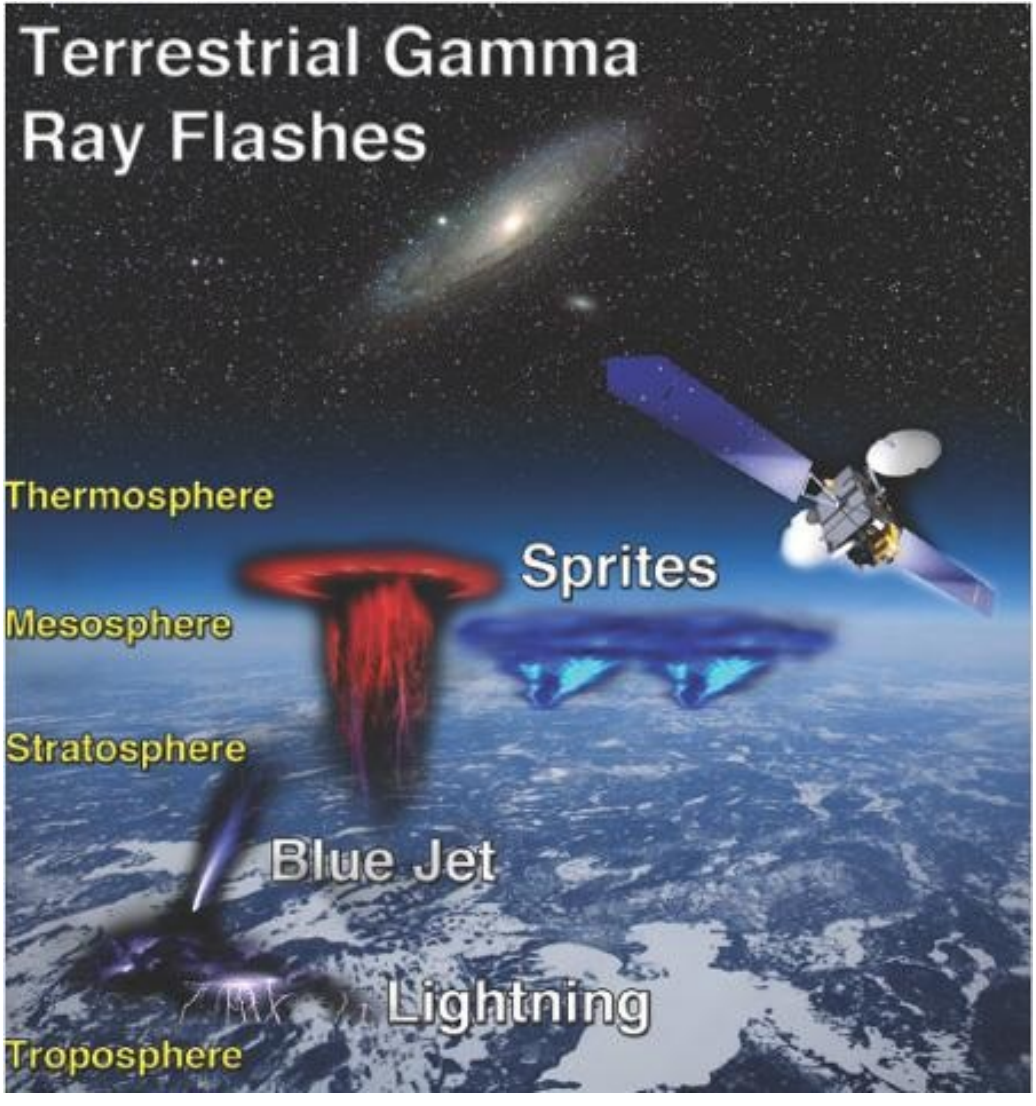
Terrestrial Gamma
Ray Flashes
Thermosphere
Sprites
Mesosphere
Stratosphere
Blue Jet
Lightning
Troposphere

Plate 2. Terrestrial gamma ray flashes

Plate 3. Machu Picchu, Peru

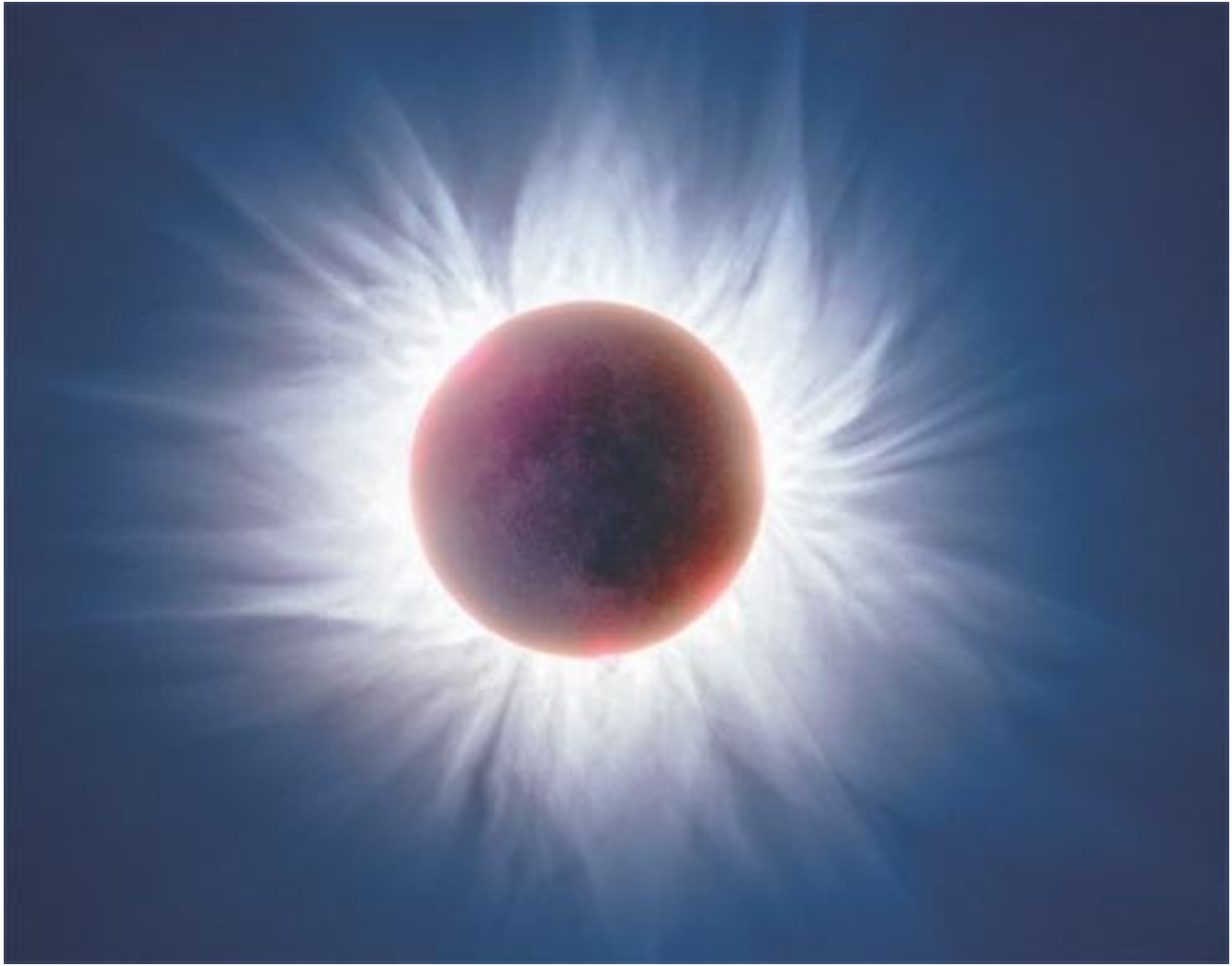

Plate 4. The sun's corona

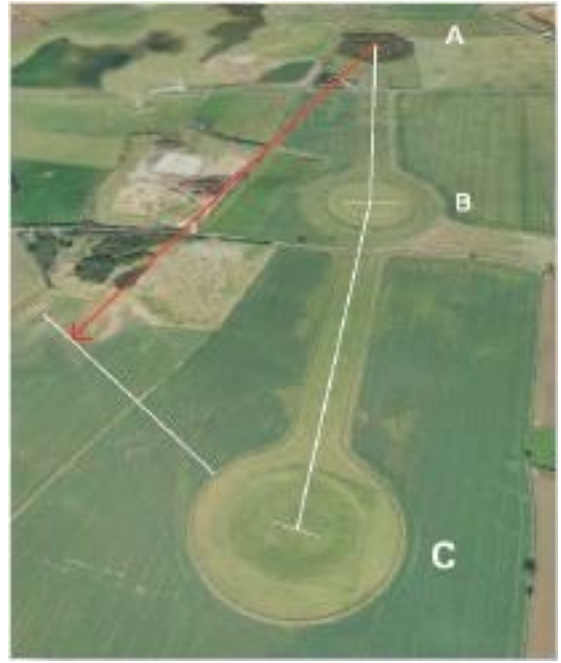

Plate 5. The Thornborough henges, a perfect copy of the stars of Orion's Belt. A to B is 366 megalithic rods, B to C is 360 megalithic rods, and the true north–south latitudinal distance (shown in red) is three megalithic seconds of arc.

Plate 6. A Hopi drawing of a mudhead *katsina* (also spelled *kachina*, associated with the nether realm) wrestling with Pálulukang, the horned water serpent, which is akin to the Mesoamerican deity Quetzalcotl.

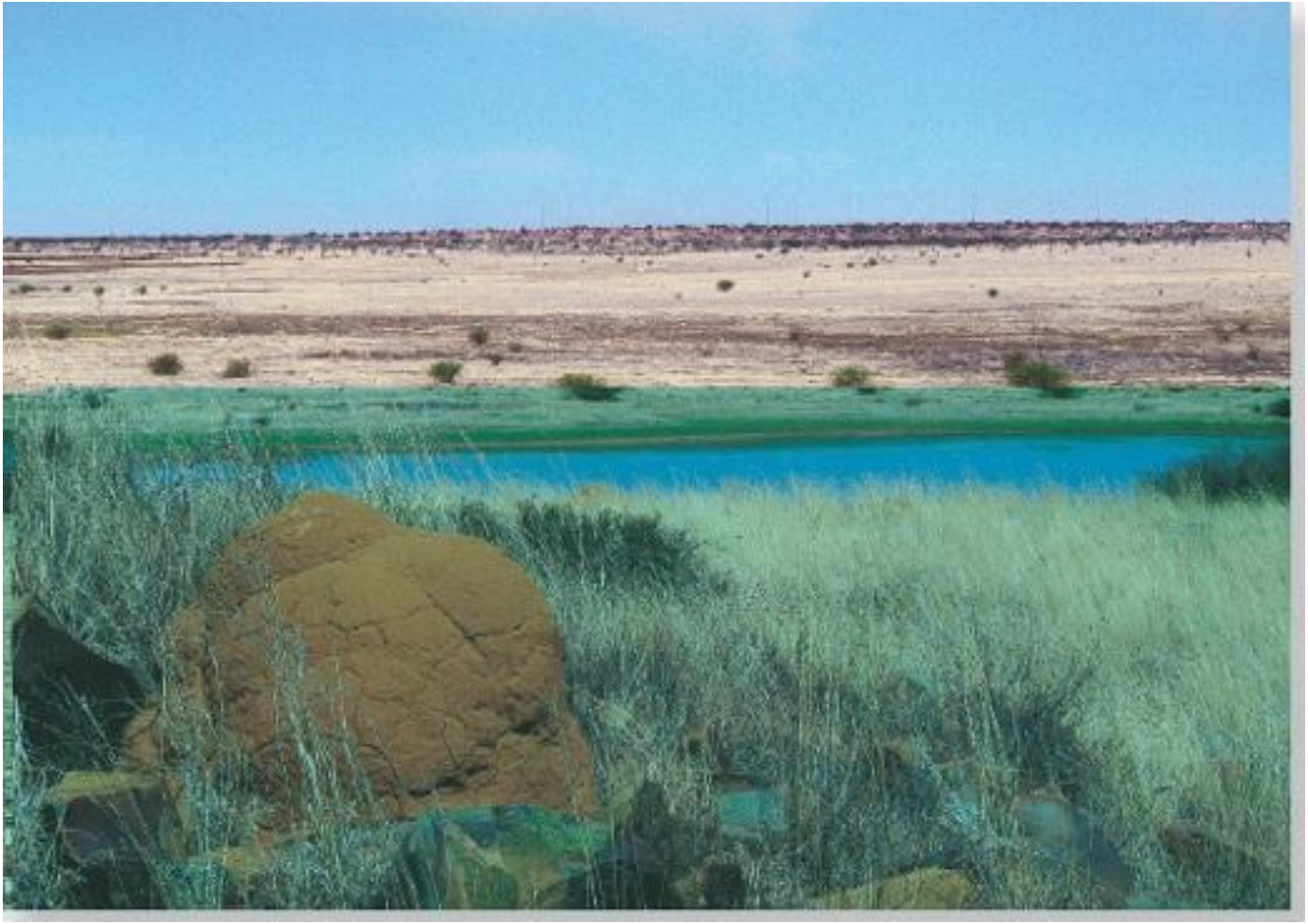

Plate 7. View from a koppie near Kimberley in the northern Karoo.

Barely visible on the horizon is Platfontein, one of the final relocation settlements of the San. A giant red anthill is seen in the foreground.

Plate 8. Anthropoid with staff and striped helmet, Driekopseiland,

South Africa

Plate 9. Hopi corn *kachina* doll, Kriss Collection, Museum of Northern Arizonan

Plate 10. Hopi drawing of their sky god Sótuknang. Because of his control of lightning, he is associated with Pálulukang.

Plate 11. The Step Pyramid

Plate 12. Entrance to the Serapeum

Plate 13. An almost unreal view of a corridor in the Serapeum

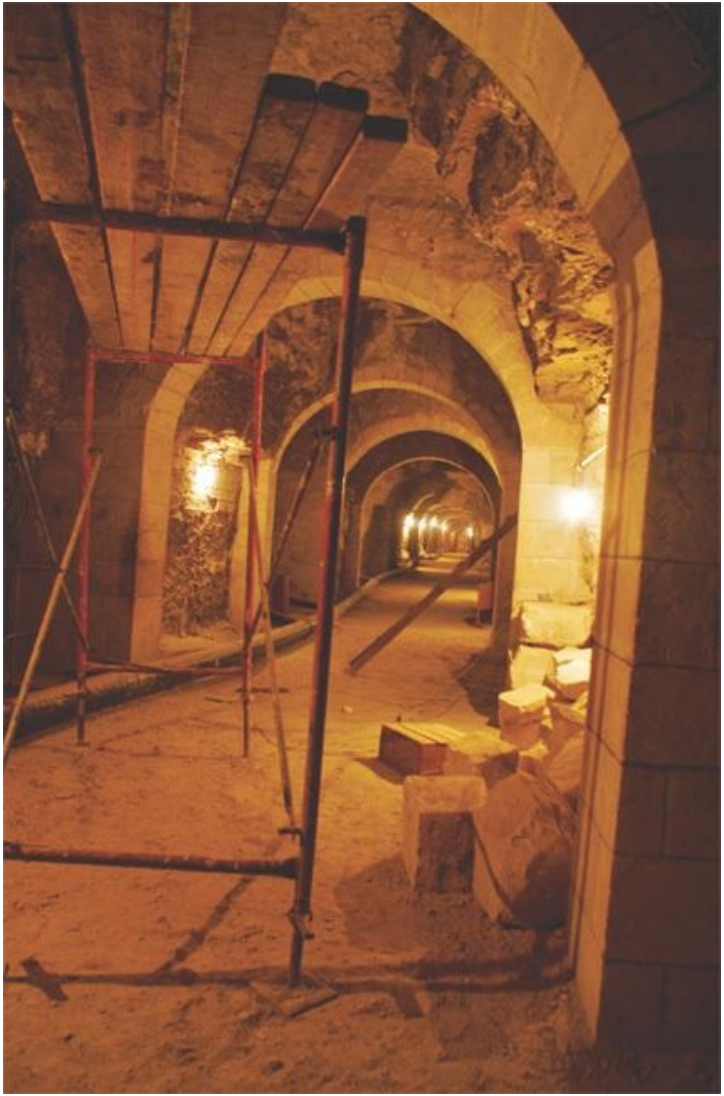

Plate 14. One of the corridors in the Serapeum

Plate 15. Ptah wearing his blue cap.

Plate 16. Granite sarcophagus under restoration in an alcove

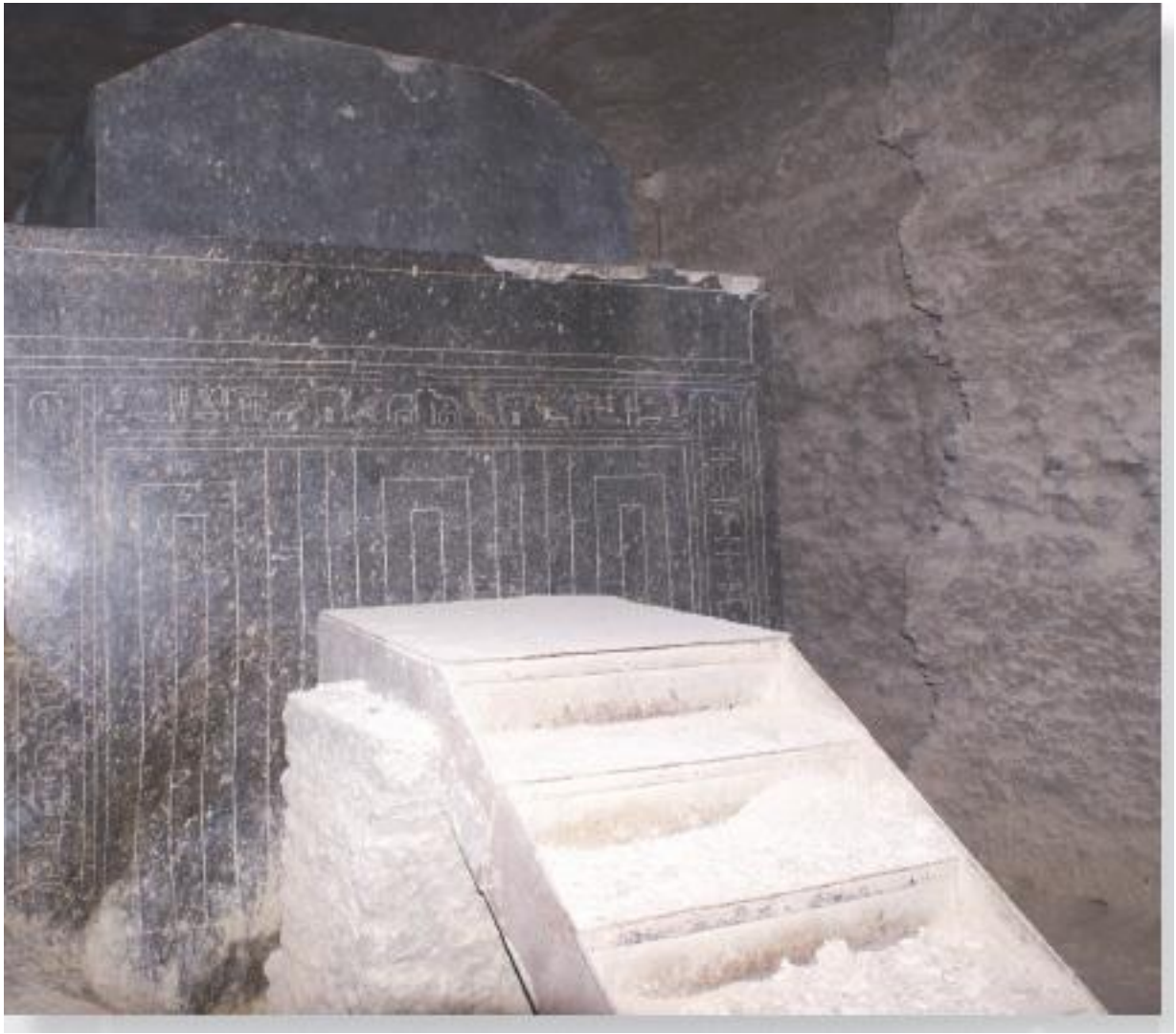

Plate 17. One of the huge granite sarcophagi in the Sarapeum

Plate 18. Funerary mask of Prince Khaemwaset

Plate 19. Gigal and the cobras of Saqqara

10,000

- The number of times faster that light travels in a vacuum

compared to Earth's speed of orbit around the sun

- The number of Earth turns in an orbit of the sun times the number of Earth turns in one lunar orbit of Earth
- The exact number of times that the time difference between a sidereal and solar day fits into one orbit of the moon

40,000

The number of kilometers to Earth's polar circumference

The number of Thoms in a solar second of arc

1,000,000

The number of times faster that light travels in a vacuum compared to the moon's speed of orbit around Earth

109.25

The number of Earth diameters to the sun's diameter

The number of solar diameters across the maximum diameter of Earth's orbit around the sun

27.322

The number of times Earth turns in one turn of the moon

The percentage size of the moon to Earth

The number of megalithic seconds of time it takes the moon to pass across one megalithic second of arc in the sky

The Message

Are we looking at God's blueprint? These integer numbers could not possibly fall out of the Earth-moon-sun relationship by accident

when every other solar system body appears to have no rules whatsoever.

SETI, originally set up by NASA, spends a vast amount of energy searching for radio messages from a nonhuman origin, based on the belief that we are probably not alone. SETI has been criticized by a number of physicists who argue that radio is not a viable means of communicating across the vast amounts of space and time involved in the universe. Some have suggested that a message is more likely to come by means of large physical objects.

Consider these words by Professor Christopher Rose and Dr. Gregory Wright: "Rather than transmitting radio messages, extraterrestrial civilizations would find it far more efficient to send us a 'message in a bottle,' some kind of physical message inscribed on matter. And it could be waiting for us in our own backyard."

Could the moon have been constructed as a message by integrating ratios and values of both the sun and the moon? The

problem is that all these values only work now—at this point in time, which means that the message sender intended for it to be discovered right at this point in time. Did they know that humans would have developed the intelligence to read the message at this point?

It all sounds very weird; especially to us because we are hard-nosed pragmatists and certainly not wishful-thinking believers in exotic ideas. Until now that is, because evidence should not be ignored just because it is not what you expected to see.

Could humans have been "seeded" on a planet that would sustain us? It is a fact that the Moon has been a very accurate "incubator" to nurture life at all of its stages of development. If Earth did not have our unique Moon there would be no humans. That is certain.

Which brings us to David Cumming's idea that all of this can be expressed as an equation that formally identifies that there is a message:

$$\frac{Hl_f.l}{\Omega} = C_0$$

The equation describes a relationship between the hydrogen fine transition line, the ratio between the circumference and diameter of a circle, and the speed of light in a vacuum.

Cumming first realized the importance of the equation when he recognized the equation produced the number 361,449—a very accurate value for the speed of light expressed in the Thom units of an ancient Stone Age measurement system.

First, why is the top line of the equation, Hlf.π, significant? SETI searches on a frequency equal to the frequency of the hydrogen line multiplied by pi (Hlf.π). This frequency was suggested by Pyotr Makovetsky, for various reasons, as the best potential transmission frequency that should be searched for signs of extraterrestrial intelligence, and this frequency was adopted by SETI. The search

frequency equals 1420.405751 MHz multiplied by 3.141592653 (pi is chosen to 10 significant figures to match Hlf) equals 4462.336272. If you check what frequencies members of the SETI alliance are listening on currently, you'll find that Makovetsky's frequency features in many of the lists SETI researchers are using.

Second, why is the value of omega significant? This is the number 0.0123456789—all the characters of the base 10 number system. Cumming states the message originator would know that this is a very likely number system for any life-form to use. At the same time, using all the consecutive characters of any number system at all, in a message, is a very direct sign that this is a message, an ordered intelligent communication and not, he says, a random occurrence.

Take pi/omega (π/Ω) and work this out. Our value for pi is 3.141592653 (ten significant figures are used for pi, as this is what we're using for omega), divided by the omega value of

0.0123456790 (using more significant figures won't affect the calculation), this gives us the result of 254.4690072. The result of the calculation is actually a value in Thoms, namely 254 milli-Thoms, or more conveniently expressed as 0.2544690049 Thoms.

Standard physics says that the frequency of a wave, multiplied by the wavelength of that wave, is equal to the speed of the wave. In the case of the equation, when you divide out pi/omega, the answer must be equal to the wavelength of the hydrogen line, because the hydrogen line frequency multiplied by the hydrogen line wavelength must equal the speed of light.

When we look at the overall equation, we know in advance that the equation will give the value for the speed of light very accurately because what we're doing is multiplying the frequency of the hydrogen line by the wavelength of the hydrogen line. But remember, we've divided pi (3.141592653) by omega (0.0123456790) to get a result for the hydrogen line wavelength

expressed in Thoms, so the fact that we get a highly accurate answer appears to be nothing short of a miracle.

The speed of light calculated using the equation is 1420,405,751 cycles per sec (frequency [Hz]) multiplied by 0.2544690072 Thoms (wavelength). This works out at 361,449,241.3 Thoms per sec. This equals 299,804,073.2 meters per sec. This result for the speed of light is 99.996 percent correct.

Applying Occam's razor, Cumming claims that we are left with the simple conclusion that Earth, the sun, and the moon must have been created to accord with the equation of creation.

Ancient Knowledge

One question that needs to be asked is: How did the people of the British Neolithic come to know all about the 366 system and the

magic of the sun, moon, and Earth? Presumably, they were told. The Sumerians, who did leave written records, say they were told by strange outsiders who taught them the secrets of astronomy and science.

But among the many surprises we have endured over the last few years, it is one we came across in early 2009 that stumped us. As we explain in *Before the Pyramids,* there can be no doubt that the Founding Fathers of the United States secretly designed Washington, D.C., using megalithic seconds of arc for every detail of the city plan. It is still happening. The Pentagon is a perfect and inspirational exposition of Stone Age knowledge—using the 366 system and the Thom with as much perfection as Stonehenge or Thornborough.

And this was driven by the 33rd Degree of the Ancient Scottish Rite of Freemasonry. Presidents and people unknown have been driven to build a city using God's own values—a city fit for God's

great purpose.

Do the powers that be in the United States already understand this message? Are they preparing to respond? We believe that something very special is about to happen, and the world needs to know what it is.

N I N E

Science versus Religion

FROM GENESIS TO ATLANTIS AND THE MEASUREMENTS OF THE GODS

HARRY SIVERTSEN AND STEPHEN REDMAN

This article introduces the two intimately related books of over five

hundred pages each by Harry Sivertsen and Stephen Redman, which, under the project name of Megalith, Masonry, Myth and Measure, *are individually titled* Deluge: From Genesis to Atlantis and Measurements of the Gods.

In 1971, Keith Thomas of St. John's College Oxford published a fascinating book titled *Religion and the Decline of Magic*. In the course of the work, he gave examples of commonalities between the two subjects. Today, we have a different debate, not religion versus magic but religion versus science. So how are these two seemingly diverse subjects defined? The word science is ultimately derived from the Latin word for knowledge, scientia. Hence, science can be described as knowledge. Of course, given what is generally known as the scientific method, we can add the words "gained by experiment or experience" or something similar to knowledge for a clearer description. However, knowledge is the dominating factor.

Religion, on the other hand, as described in 1535 and contained

among numerous other similar descriptions in *The Oxford English Dictionary,* is seen as: Recognition on the part of human beings of some higher unseen power as having control of his destiny, and as being entitled to obedience, reverence, and worship.

Yet such a description, while perhaps being suitable for the commonly accepted perceptions of Christianity, Judaism, and Islam, does not necessarily fit the multitude of beliefs that have blossomed among the world's cultures. Further to this, the primary arguments of today revolve around the concept of creation ex nihilo, or out of nothing, versus the scientific approach of physics and evolutionary biology. Yet, while the physics concept of the big bang is as well known as Darwin's and Wallace's ideas regarding evolution, the source for the creation side of the argument appears in most arguments to be derived solely from the biblical account. But from where did this concept arise? Is this a Hebrew construct or can the source be found elsewhere?

Ultimately, the creation concept of the primary religions of today is derived from Indic sources, long predating any Hebrew writings. In fact, much of the early Bible is drawn from such foundations, but this has passed unrecognized by most.

Religious critics claim that religion is based on belief and not knowledge, but could not knowledge have led to belief in a similar fashion as scientific endeavor has led to beliefs of a whole variety of types of knowledge in the modern world? People had to ask questions to arrive at the conclusion that Earth was created; they had to have knowledge to raise those questions. This being the case, religion, as science, is based on knowledge. Perhaps the knowledge was of a different variety to that today perceived as valid, or possibly there is little difference, and that lacking the learning that has evolved during the past century, human beings arrived at the only logical answer they could find, an answer that in fact was a very much simplified version of today's ideas.

Conceivably, as many of the writings of the religious works stem from earlier oral traditions, from a time before writing was developed, the meanings of some of the works have been misunderstood. Possibly, much is allegory for something else. Just maybe, the strange tales in fact make references that originally would have been understood in a similar fashion as do the science reports of today. All it would take is for science fact to be disguised in a story to make the memorizing of the important elements easier than it otherwise would be. What would result is what we term allegory, and indeed, this was a common ploy before the development of writing.

The well-known scientist Richard Dawkins is vociferous in his condemnation of religion. Dawkins, along with the British Humanism Association, has been involved in a campaign that uses London buses to carry the slogan "There Probably Is No God." We agree, and in fact would go further; we are convinced that the

principles of the major religions sprang out of what today would be termed scientific enquiry. Dawkins, in his much acclaimed work *The Selfish Gene,* developed the theory of memes, a concept later taken up and popularized by Susan Blackmore in her book *The Meme Machine*. A meme is an idea, a tune, a concept that takes over one's thinking, in Dawkins's words, "parasitizes" the mind. One example Dawkins uses is the concept of life after death.

Yet, Dawkins, in his blanket negative treatment of religion, has allowed his own mind to be taken over by the meme of religious condemnation. He has not applied the scientific enquiry of his training to make a value assessment of the works that influence the believers. In other words, Dawkins's adamant refutation makes him equally as guilty of unfounded belief as he asserts applies to religious believers. Both are directed in their thinking by memes of beliefs, the religious of their faith, and Dawkins in the nonexistence of any value in the religious works.

Let us steer a middle road and reveal what both Dawkins and the religious believers have missed. We shall show where early thinking in fact was based on what today would have been accepted as logical deduction and not merely faith in a religious concept; the religious element that embodied such information came later. Our source is ancient Indic material from which, as becomes apparent in our book *Deluge: From Genesis to Atlantis,* eventually all the primary religions took their guide; indeed, there are even commonalities in Egypt. The information from which the following was developed is derived from this book and reveals the type of analysis contained between its covers.

Creation

The questions of today also perplexed the minds of the sages of

ancient times, the most prominent query being from where did all derive? In humanity's experience, all grew or was made, except Earth and what was in the skies. Animals mate to produce offspring, flowers need pollinating insects to reproduce, but the stars did not reproduce, except for comets, in the form of meteorites, which were flung away from the parent body. Strange. The stones of Earth were just there. Like the sun and the moon. The moon has its phases, which were reasonably well understood, and the sun moved north and south during the course of a year—knowledge, scientia, gained via simple observation. All except comets and meteorites were regular and steady. One knew what was to happen in the skies; they were predictable, and one could prophesize what was going to happen generations into the future. The heavens give accurate counts of time—of days, months, and years; of numbers; of math. All was confirmed via repeated observations, what today would be termed the scientific method, and was understood more than twelve thousand years ago, at the end of the last ice age, which is

approximately when our story commences.

But while reproduction and heavenly movements were generally understood in principle, it was not known for where or what it was all derived. Given that the stellar movements were as steady as a mark on the rim of a wheel, even if that wheel was a section of a log, which, when rolled, brought the mark regularly back to its starting point, the whole of the universe must have been created or fashioned to work so accurately; nothing else observed had such symmetry. So from a sequence of logical deductions, it was determined that, lacking another satisfactory explanation, the whole of the universe had to have been created; the sun, moon, and stars would not have merely grown as neither did the ground upon which these thinkers stood, but neither could they have emerged from nothing.

Hence, we have knowledge, scientia, determining that all that is known had to have had a creator. Fine, but from where did the

creator's raw materials derive, from what did this creator fashion not only Earth but the sun, moon, and stars? Taking this further, if there was a creator, who or what created the creator? This line of investigation was getting into a bit of an eddy, so an invention was made, a power greater than the creator, a power that was just that, power, a power that willed a creator into being.

Here we have the Indic Brahman, the overarching power, that which is in everything and is everything—from thought to rock, from bird to fish, timber to water, from flame to ice—is the overarching indescribable, omnipotent ever-present abstract entity that is in all and is all. Effectively, the only word that adequately describes Brahman is *energy*. Brahman is simply pure energy, and as modern science has shown, it is from energy that all in the universe is derived. However, Brahman could not make the visible, physical elements; something had to happen to turn this energy into an observable universe. Brahman required a creator, a builder, to

turn ideas into reality, a catalyst that turned energy into action. Brahman willed the creator Brahma into being to turn Brahman's desires into realities—the creative moment, the source of all; from raw energy came the explosion of creation, from raw energy came the universe and all within.

Invention? Yes, it was. Satisfactory explanation? For the available information at the time—yes. Complies with modern interpretations? Take away the elements that describe characteristics that would apply to human personality and yes. Creation based upon logic, effectively an early description of what we think of as the big bang, an interpretation that suffered only from a lack of the scientific information available today and that made no allowance for the vast time lapses involved simply because there was no comprehension of this, but nevertheless, a definition that in fact preempted the modern concept. This was a theory based upon logic that in fact has stood the test of time but has been grossly

misunderstood and ignored. Religious? No.

The Flood

Demonstrating close observation of the skies since the end of the last ice age, we here relate a little of what constituted the flood story.

It was noticed that the whole of the cosmos appeared to rotate around a specific point in the sky, the northern end of the axis of the universe. The closest to this point was a particular star that (as we know today) got no closer than circa 4.7 degrees. This was Vega in the northern celestial hemisphere. Opposite this star in the southern skies, at the other end of the imaginary axis in the cosmos, was a similar situation; however, the star there, Canopus, was farther from the southern imaginary axis endpoint; here we find a bright light in

the sky that circles 7 to 8 degrees from the axis end or due south.

The northernmost of these stars, when seen in position at the end of the universal axis, became the seat of creation, the home of the creator Brahma, as all revolved around the creator. From this north polar position, Brahma controlled the strings of all the stars and planets, keeping them in their allotted positions. Brahma in that polar position was recognized as the pole star.

Then, shortly after 12,200 BCE both the north polar star Vega and its counterpart in the south, Canopus, started moving away from their allotted positions. Simultaneously, the sea level rose; the farther away from the ends of this axis the stars moved, the higher the waters rose. These stars had been direction-giving entities for hundreds of years, and now they were moving; the heavens were not quite so stable after all. Something was wrong; the creator had moved out of position or the whole universe had moved, as surely the creator would stay in position? The stars were no longer linked

to the central point, as the guiding star of the extreme northern skies was no longer in place relative to the remainder of the universe. The invisible strings that held all together were broken. Not only that, but Earth was no longer the stable place it once was, as coastal flooding was now the norm. Something must have gone wrong for Brahma to allow this destruction to happen.

This flooding, coupled with the loss of pole stars, continued for many years, and records were kept of the movements of the heavens. As time was denoted by the movements of the sun, moon, and stars, the years were counted. People were flooded out of their homelands, and one particular group who had observed the movements of both stars from their vantage point on the equator at Sundaland (south Malaysia) eventually found themselves in northwest India in what is now Pakistan at Merhgarh. Other groups from coastal regions adjacent to Sundaland moved northward to China and adjacent regions.

After many years, another star came to replace the closely circling northern light, although this did not happen to the south. By 8100 BCE, 3,600 years after the loss of Vega, the star Tau Hercules of the constellation Hercules was very close to the polar position, in fact within 3 degrees or, in terms of time, 500 years, and the skies were steady once more.

Brahma, although appearing different and not so bright, was back in place, albeit in a different constellation. By 7600 BCE, Tau Hercules was as close as it would get to the polar position, within about 0.75 of a degree, and shortly after this, before 7100 BCE, there was a turndown in the climate, and the seas stopped rising. The floods even reversed, and there was a new pole star. Here was an apparent correlation: lose a pole star, and there is coastal flooding; gain a pole star, and after a while it stops. Once a different pole star is in place, all is new; the constellation surrounding the star is different—a new creation of the heavenly realm, the northerly

abode of the god of creation.

The climate change was not to last, however, and soon the waters started rising again, just as Tau Hercules was leaving the polar position. This change further correlated loss of the pole star with flooding. Once more the specter of destruction put fear into people's minds. There was destruction, not only on Earth, but devastation in the heavens. Once more people moved away from the rising seas, roughly the region of south Malaysia, as applied to the specific people of which we write, between Hong Kong and Borneo. There was little of their original homeland left. Other refugees from the rising waters of adjacent areas found themselves eventually moving to regions such as China and Japan; others found a new home in the Middle East, and some as far afield as Europe.

Calendars were kept, the years counted, and once more, in 3300 BCE, along came Thuban in the Draco constellation as a pole star, after millennia of chaos in the heavens and ever increasing flooding.

Sundaland was now underwater; the plain between Hong Kong and Borneo, where the people who moved to Merhgarh once lived, was now under many feet of water. This time, however, the floods stopped completely; the sea level had risen about one hundred meters and was now reasonably stable, and there was a new pole star, a new creation to confirm cessation of flooding. Cause and effect: lose a pole star, and there are floods; gain one, and the floods stop and all goes back to normal. This was pure logic, scientia gained via observation and thought.

Here is the basis of the flood story in the religious works. The familiar tale started in India but later spread across most of the world to China, the Middle East, Greece, and eventually even to Europe. Almost certainly there are elements of native versions telling the same tale hidden in localized myths that have yet to be deciphered. The counts of thousands of years were diligently recorded with a flood period being a canonical 3,600 years and the

creation epoch an era of 1,000 years. Manu, the Indian Noah, was a manifestation of Brahma the creator and created all anew after the flood, whereas the Hebrew authors claimed that God's chosen family, that of Noah, carried the essentials of creation in a boat.

Maharaja Druva or Druva-loka is the generic Indian term for pole star and is also an alternative name for Manu. Manu lasts until he is created anew, then his son (also Manu) takes over. The constellation Hercules is seen as a depiction of Manu conducting austerities standing on one toe (the pole star Tau Hercules) on the banks of a river. The river is the Milky Way in its most northerly position, similar to the way the Nile was seen in Egypt. Plato based his Atlantis tale on this description, with the flooding being that which occurred before the onset of Tau Hercules, before the Pillars of Hercules. He was referring to a time, not an earthly location.

So why the tales of boats? There is little invention without good reason. Rain came from the skies, hence the source was a heavenly

ocean, as noted in the Genesis account; after all, no one had observed water going upward. Rain fell from the skies; the heavens pivoted around the pole star (the seat of creation), and when this moved, the heavenly ocean was disturbed, a heavenly flood ensued. A heavenly ocean meant the gods or lights in the sky needed boats to get around, and they had to move about to organize a new heavenly creation, a new constellation with its pole star in place. All is astronomical; even the forty days and nights of rain is, in fact, a reference to the loss of view of the Pleiades, as recorded by classical authors, and the date of the flood so described can be ascertained to the day—twenty days before the vernal equinox in 2300 BCE. The new year commenced at the first new moon after the winter solstice, meaning the count of days given in Genesis for this description is correct.

This flood has had great influence, as Noah's "boat"—a strange rock formation on Mount Nisir in Turkey, precisely where the

Chaldean legend states it is to be found (the region is now known as Durupinar after the Turkish flier who photographed the formation)—was surveyed in antiquity, as well as recently, and it was emulated within the Pyramid of Khufu, albeit in a scaled-down fashion. The funerary boat of Khufu has its length the same as the width or beam of the mythical boat of the gods in Turkey, and this is not a coincidence; it is a very odd measure.

So as it was observed that all revolved around the pole star, the pole of the ecliptic was not understood when the flood tale was developed; it was a logical assumption that if the pivoting point was knocked out of place, then all would run amok. As there was a celestial ocean from which came rain, any travel in the heavenly realms would by necessity be by boat. The sun traveled in a boat pulled by fish in Egyptian lore; boats appear in Indian lore where Varuna is afloat in the vessel in a similar fashion to Ra, although here there is mention of oars, and it is notable that while Ra's boat

is towed by a fish, so also is that of Manu. There is logic in these stories, a logic not even noted by most of the readers of the works.

A different and seemingly unrelated version of the sun's traveling vehicle from India is the chariot, here pulled by seven horses, in fact the Pleiades. This is seasonal and datable as the Pleiades reference applies loosely to the spring period circa 3500 BCE, when the Pleiades rose about thirty-eight minutes before the sun and hence were seen to be "pulling" the sun over the horizon. While horses are a little imaginative, here we are moving toward an Earth-in-heaven concept and not as commonly portrayed the other way around, the heavenly sea and boats along with the pivot of the world are logical deductions, given the limited amount of information available to the seers of the day. That they are illogical to us today is immaterial; they were derived from logical deduction and limited knowledge.

By the time of the New Testament, the whole pole star sequence

of seven stars was known, and it is replicated in the Book of Revelations under the guise of kings, some fallen some standing. Of course by this time, religious fervor had overtaken reason; although some, such as the author of Revelations, obviously were aware of the truth behind the tales. It seems certain that a succession of wise men, a small minority, perhaps a priesthood, handed down the original interpretations to successive generations.

Hence, we see that a creator, later to become, via the machinations of human imagination, God, was originally a necessary part of ancient science, definitely not religion. These people were logical and developed some sound philosophies; in many ways they were very clever. The Indian sages laid the foundations of the science of today (see *Measurements of the Gods*).

Logically, while many cultures seemingly worshipped their ancestors, the principle religious concepts of the modern world were developed primarily for political reasons, laws from God via Moses

and the Ten Commandments being a typical example. Lacking further knowledge, the average person would, of course, accept what the elders stated, and their minds would be taken over by the meme of religious faith. One cannot break God's laws, which is somewhat different to those of a tribal leader, but he now has God on his side, and miscreants have to answer to and be punished by God through him. Different cultures developed a variety of laws, but in essence, it was relatively easy to keep the peace through fear of God. The Christian message turned this on its head, and one was now supposed to love God, as his laws were good. Yet the "love one another" message of the Sermon on the Mount exists in an early Buddhist interpretation—not as a religious concept or dogma but as a philosophical way to peace. Most ideas have a predecessor, and with Buddhism, we again are heading back toward India.

Numerous hints and clues to the astronomical elements of the flood tale can be found in the religious (science?) books. What was

initially merely a suspicion of greater knowledge being hidden in the ancient texts has been confirmed by in-depth research, including the results of archaeological investigation. In fact, the familiar measures of premetrication are many thousands of years old, and there is much information regarding these units and their use among the pages of the Bible.

Perhaps historians of science should take a long hard look at what are generally dismissed as valueless religious texts; as seen above, these tell a tale of questioning and endeavor, a quest to understand the universe, an investigation that is still ongoing today.

The Books

The two works here are irrevocably linked. The original concept was for a single book, but the volume of information unearthed

dictated that two books were required. *Deluge: From Genesis to Atlantis* deals primarily with the subjects of its title, while *Measurements of the Gods* explores ancient measures and finds much that has escaped conventional learning. This latter work reveals a great deal that is very easily checked by the reader and shows how the enquiry can be, as we hope it is, extended by others. Both books commence in modern times and have as their ultimate destination the same place on Earth, Sundaland. It is to this specific location that the evidence has led the enquiry.

Measurement systems, one would think, would be the province of the historian of mathematics. Yet, the subject has hardly been touched by those who logically would understand the subject area. Perhaps as textually much has been shrouded by myth, one could understand this, but again, the work of John Michell, the researcher who gave the principal author of this work his first insight into the units in use in the past, has been in the public domain for nearly

thirty years and academia has not taken it on board. In *Measurements of the Gods,* we trace the uses of the measures through Europe, classical Greece, Egypt, and Mesopotamia to India, where the development of the systems took place. There are links seen between India and China, which again confirm Michell's Earth dimensions.

In the process of this exploratory journey, much is revealed that seemingly has not been published elsewhere, including the use of Michell's interpretation of the anciently accepted Earth circumference in the scales of medieval maps and charts. The development of the unit measures is far older than most would imagine, and the proof is in the archaeology of Merhgarh, now in Pakistan, but the measuring of Earth, an essential prerequisite for the development of the values, took place elsewhere—and even earlier than the dates of 7500 to 8000 BCE that archaeologists have ascribed to the remains at Merhgarh.

Effectively, this work reveals a great deal that convention has missed with abundant evidence to reinforce the arguments involved.

Deluge: From Genesis to Atlantis

In this book, the flood evaluation seen above is relayed with, of course, far more detail than presented here in this article. The work commences with a brief overview, which leads to an examination of the arguments that ensued with the onset of the discipline of geology and the realization that, in fact, Earth is very old. From there, the book moves to the Mountains of Ararat and eventually, after revealing (and refuting) the ideas of some others, arrives at the object of the tale in Genesis, the ark of Noah. This is a geological anomaly at what is now known as Durupinar in Turkey, at the precise location recorded in the Epic of Gilgamesh.

But there was a second ark, the ark of the covenant. This is connected to the tale, as much revolves around information hidden by the use of numbers and measures, and here it is revealed that the same cubit value applied to Noah's vessel was in use for this ark. A smaller derived unit applied to the tabernacle and moving from there to Solomon's Temple, it is seen that this smaller unit applied to all except the temple surrounds and the mysterious oblation to the Lord. The measurement values are explained in the text.

This oddity, the oblation to the Lord, this allocation of a large tract of land, is, in fact, quite informative, as numerically, as indicated by its dimensions, it is a representation of the ark of Noah. Here we have an explanation for ark representations, paintings, and carvings being of a boat shape with what cannot be described as anything else but a stone built temple aboard. The oblation, the grossly oversized ark depiction contained Jerusalem, itself a representation of Earth and its attendant temple. There are hints in

the descriptions of this temple that much is of an astronomical nature, and as seen above, this is correct.

The measures seen here were originally developed from biblical texts—purely as an exercise in possibilities. It emerges that they are correct; they link to numerous other unit values as discovered by Michell and, in fact, were used by the designers of religious buildings in medieval times in Europe. In fact, surveys of such structures seen in *Measurements of the Gods* confirmed the validity of the assessment.

Deluge develops its themes over a number of chapters and includes some Indian astronomy and a completely new and verifiable interpretation of the India *yugas;* traditionally vast time periods of many millions of years. The concept was based on a lunar construct. These values then link to the pole star periods seen in earlier chapters. The dating seen here is confirmed via Indian descriptions of climatic events that are recorded in ice cores and are

well documented. Hence not only dating, but the whole interpretation of the yugas, is confirmed as well as the ability to record accurate observational astronomy in the distant past.

A number of concepts of creation are included, such as those from China, Mesopotamia, and Egypt, for comparison to the biblical and Indian interpretations. It is noted that, once more, there are a number of values associated with lunar counts—as indeed can be seen in the Genesis flood tale where Noah was afloat for a synodic year or lunar period.

A chapter dealing primarily with biblical verses from the Books of Daniel and Revelations is quite revealing, as here we see that the whole pole star sequence was understood, not the timing between all the stars, but nevertheless, while this period was a canonical 3,600 years, it is seen that after the demise of Polaris, a shorter period ensues to the next star. We also show why the concept of the number of the beast is erroneous. The operative value here is 36,

which is the last to count to reach 666. The punctuation in the King James version of the Bible is clear in this respect, and the triple value does not apply to the number of the beast. This "beast" is the flood period, devised because the seas had ceased rising and an evil was still required to explain when a pole star was misplaced. Much of Revelations, in fact, revolves around the demise and reinstatement of a pole star.

Plato's Atlantis is seen for what it is, a replication of the same story with his "beyond the pillars of Hercules" being a reference not to a location but to a time, a time before 7600 BCE, a time when Vega had moved out of place and Tau Hercules had yet to take position as the pole star. Here there is much detail that irrefutably confirms the evaluation.

In essence, this book reveals the truth behind the mysteries of both the flood recorded in the religious annals and Plato's tale of Atlantis. The work reveals that this is a cyclic situation (three floods

are mentioned in Genesis), but the sequence and allegory has to be understood before these cycles are comprehended. The imaginative father of Western philosophy, Plato was giving a historical astronomy lesson in his Atlantis story. A great deal of other directly related information is revealed via the investigations given in this five-hundred-plus-page work, but in a nutshell, this is *Deluge: From Genesis to Atlantis*.

Measurements of the Gods

It's clear that observational astronomy was a reality in the distant past, with written records of events in the seventh millennium BCE (in the Mahabharata) and correlations in myth that show the skies were closely watched around 12,000 to 13, 000 BCE. What else is there to be derived from these distant epochs?

Deluge takes us from recent centuries back to 12,000 to 13,000 BCE. *Measurements of the Gods* commences in the twentieth century and ends just the other side of 9000 BCE. The journeys end again at Sundaland. As with *Deluge; Measurements of the Gods* confirms the abilities of the sages of India, long before Egypt became a coherent nation. What follows is a very brief overview of the contents of this book.

As the title suggests, the primary subject is measurement, and here we have further evidence of the abilities of our distant forebears. This book covers much that contradicts conventional thinking; the work brings together disparate bits and pieces and shows them as parts of a coherent whole. Measurements have been frequently used symbolically, as is revealed in *Deluge; Measurements of the Gods* gives the history of these measurements. The book reveals the ancient source of the British imperial system (extended from John Neal's evaluations) and the numerous other

units that were in use up to the onset of the metric system in France and their use on ancient buildings, such as in Egypt, and not so ancient, including the American White House and the George Washington Monument. Also reviewed is the application of these measurements in maps and charts used by people such as Piri Reis and Columbus.

We relate the confusion that reigned in Greece regarding the size of Earth and steer a course through that recorded chaos of measurement. Also reviewed is the Indian weights system, the basics of which spread to the rest of the world. Of course, we reveal the most fundamental elements of all: the relationships of measurements to the lights in the sky—the gods—which is the source of all calculations. Measurements of the Gods, indeed.

Sequentially, *Measurements of the Gods* commences with suggestions of allegory and calendars, a description of ancient measures and methods, the onset of metrication and modern Earth

measure (with a comparison to John Michell's evaluation) and hence to the records from Greece of Earth dimensions.

From here, we move to maps and their scales as used by Columbus and Piri Reis followed by a more in-depth look at the ancient systems, which in turn is followed by a return to Noah's ark and its representation in the Great Pyramid, a shortened version of the section in *Deluge* for those who may only read this work. There is some repetition of historical material later in the work for the same reason.

In the same chapter is a section on Stonehenge, its measurements and a calendar previously missed. The latter supplies a sound reason for the odd sarsen stone classified as number 11 and also a periodicity for the occasional winter celebrations, which have recently been discovered to have taken place there. Silbury Hill is also analyzed in this chapter; our astronomical argument supplies a sound reason for the vast effort entailed in building the structure.

Note that this does not involve sighting to any other point and accommodates some other ideas that have recently emerged regarding the Stonehenge environs.

The following three chapters deal mainly with measures and alignments across the landscape in South Gwent, with notes to the effect that our investigations have found similar situations in Somerset and Fife. These chapters are profusely illustrated. Once more, little of this nature has been revealed in the past. One interesting facet here is the replication on the ground via two stones and some hilltops of the forty days of rain in the Genesis flood myth, the loss of view of the Pleiades, here dated via alignments of other sites to 2500 BCE against the biblical 2300 BCE. This is followed by an examination of numerous buildings, including the aforementioned famous American structures, and of course, in this we reveal the use of the ancient measures once more.

Moving slowly back toward India, the following three chapters

are of a historical nature, albeit with some new explanations, and these then lead us to archaeology in India, the Maldives, and specifically Merhgarh circa 7000 BCE, with the most informative bricks ever discovered. However, other bricks are also involved in the evaluation, and there are three sets of sizes from differing regions and times in Indian development to take into consideration; these are amazingly accurate, and all connect metrologically to each other. There are hundreds of thousands of correlating examples from which mean values were derived by others, so we cannot argue with results. This is confirmation by repetition—the scientific method.

The next chapter confirms the calculations via the weights systems, which involves a return to the biblical descriptions of Solomon's Temple. This chapter reveals so many correlations and interrelationships that we cannot imagine readers doubting the evaluations and hence confirmation of the stated measurement units.

We follow this with a discussion revolving around Sundaland as a possible source for the measures, with the penultimate chapter being a description of the measuring of Earth—in 9070 BCE! Here we describe the method probably employed, and once more a specific star is key to the dating. As the people of Merhgarh who made bricks complying with this Earth measurement came from Sundaland, confirmed via dental morphology, this appears to be an inevitable conclusion. It was here that knowledge of the size of Earth first emerged. We are then left with a very short concluding chapter and references.

In all, there are nineteen chapters and, again, over five hundred pages of detailed information, most of which is new and has not been in print previously. We feel that even though the argument and analysis and therefore conclusions contradict conventional thinking, they are correct. Every effort has been made to fault the arguments, but these attempts have failed, and as far as we can determine, the

results of the evaluations are accurate.

Conclusion

Both *Deluge* and *Measurements of the Gods* were twenty-five years in the making. The principal researcher and author initially became interested in the origins of the British imperial system and rejected as unsound the belief that our measurements developed from Roman measuring systems—a theory trotted out in history books, in those odd volumes that managed to mention the subject.

It was John Michell's work that initially set the research on its path; although admittedly we did not accept it until we had accrued quite a body of supporting evidence. These two books confirm beyond a shadow of a doubt that Michell's evaluation of the ancient accepted circumference of Earth, a measurement that stood until the

French metric system was adopted, was correct. Our research into the flood story revealed that the Bible used different measures to those evaluated by Michell. However, eventually a definitive set of measures emerged from this tale, and it was here that elements of time began to emerge as being highly significant. After a great deal of research and many years, it emerged that counts of time played an essential role in these matters, an idea confirmed by Indian writings. The work had taken a very different direction to any we had dreamt of at its outset. Much of that which is seen today as being of religious origin is ultimately related to calendar counts derived from observational astronomy or what we can legitimately term science.

This lengthy, frequently tedious and frustrating, but absolutely fascinating journey eventually came to an end, and the culmination of that long trek is the two books described here, which together detail the project *Megalith, Masonry, Myth and Measure*.

T E N

The Electric Jesus

THE HEALING JOURNEY OF A CONTEMPORARY GNOSTIC

JONATHAN TALAT PHILLIPS

Gnosis: The Not-So-Secret History of Jesus

In December 1945, during the tail end of the most devastating war in human history, a peasant named Mohammed Ali of the al-Samman clan stumbled upon an earthenware jar near limestone caves in the deserts of Upper Egypt. He feared an evil *djin* (genie) resided inside, but hoping for lost riches, he still opened the jar. To his disappointment, twelve ragged leather-bound codices fell onto the ground. He didn't realize these 1,200 weathered pages contained a priceless treasure with dozens of lost Christian gospels that had been hidden away for 1,600 years. Mohammed carried them home to his mother, who kept herself warm throughout the night by feeding pages of what we now call the Nag Hammadi library to her fireplace.

These fifty-two texts, with titles like the Gospel of Thomas, the Secret Book of James, the Gospel of Mary, the Origin of the World,

the Gospel of Philip, the Secret Book of John, and the Sophia of Jesus, showed that Christianity from the first through the fourth centuries was much more varied than previously thought, comprised of diverse sects claiming "secret knowledge" of heavenly realms. Modern scholars now label these texts as gnostic, since they lay out an initiatory process for candidates to overcome the "forgetfulness, drunkenness, blindness, and sleep" of the illusory world in order to access *gnosis,* direct experience or personal revelation of a divine reality.

The Nag Hammadi library supported the popular theory that Christianity stemmed from the ancient mystery school traditions of the Mediterranean, which featured dying and resurrecting godmen. In Egypt, they worshipped Horus; in Greece, Dionysus; in Syria, Adonis; in Asia Minor, Attis; in Persia (and later Rome), Mithras; and in Israel, Jesus (historically the most recent). The similarities among these hierophants were uncanny. Several of them, according

to the legends, were born on December 25 around the winter solstice to a virgin in humble surroundings (a cave or a manger) with a star in the Eastern sky. Some grew up to be spiritual masters with twelve disciples (Horus, Mithras, Jesus), performing miracles, giving baptisms and communions. They all died (Dionysus dismembered by Titans, Attis and Adonis eaten by wild boars, and Horus, Mithras, and Jesus crucified) before experiencing a miraculous resurrection.

In *The Jesus Mysteries,* authors Timothy Freke and Peter Gandy discuss how the Vatican sits atop a destroyed Mithraic temple.

Where today the gathered faithful revere their Lord Jesus Christ, the ancients worshipped another godman who, like Jesus, had been miraculously born on December 25 before three shepherds. In this ancient sanctuary Pagan congregations once glorified a Pagan redeemer who, like Jesus, was said to have ascended to heaven and to have promised to come again at the end of time to judge the quick

and the dead. On the same spot where the Pope celebrates the Catholic mass, Pagan priests also celebrated a symbolic meal of bread and wine in memory of their savor who, just like Jesus had declared: “He who will not eat of my body and drink of my blood, so that he will be made one with me and I with him, the same shall not know salvation.”[1]

Freke and Gandy argue adamantly that there never was a historical Jesus who walked the sands of Israel, but rather he is a composite of the earlier godmen. But perhaps that’s too hard of a line to draw, since mythical figures are often based on real people—think of Benjamin Franklin and George Washington, for example.

As the Egyptian god of daytime, Horus battled his jackal-headed enemy Set (as in sunset), the bringer of night, in a cosmic battle of light and dark. Jesus played a similar role as Horus in being “the light of the world” surrounded by twelve disciples who represented the twelve months of the year, and the twelve signs of the zodiac.

The sun enters each zodiac sign at 30 degrees (30 times 12 equals 360); thus, these "Suns of God" embarked on their ministry at the age of thirty. The classic zodiac cross bisects the twelve astrological signs within a circle. The sun hangs "crucified" in the center as it passes through the precession of the equinoxes, something the mystery schools followed closely as each new sign marked the next world age.

Given the astrological significance of the cross, wisdom traditions often depicted the crucifixion in their writing and art. A notorious second-to-third-century European talisman reveals a human figure that looks like Jesus on the cross (with a crescent moon and seven stars above him), but the inscription reads "Orpheus becomes a Bacchoi." Orpheus was a prophet in the Dionysian mysteries, and Bacchio refers to an enlightened disciple who had undergone the final stages of initiation. Around the same time as the talisman had been crafted, a Roman graffiti artist

sketched on a pillar the image of a crucified donkey, which symbolized the initiates' death to their animalistic nature and ascension to the higher self. The first portrayal of Jesus on a cross wouldn't appear until two hundred years later.

Rather than rejoicing in their similarities, "literalist" Christian leaders—those who had not experienced the secret gnosis (direct knowledge) of the highest mysteries—created dams and divisions between the diverse spiritual streams that originally flowed from the same mystical source. As Freke and Gandy explain, the parallels between Mithras and Jesus threatened the emerging "literalist church." Roman bishops such as Justin Martyr, Tertullian, and Irenaeus made the ridiculous claim that the devil had engaged in "diabolical mimicry," "plagiarizing by anticipation" the story of Jesus before it had actually happened in order to mislead the weak-minded.

The Golden Bough's Sir James George Frazer noted a similar

contention between Attis, the mystery god from Asia Minor, and Jesus. “In point of fact it appears from the testimony of an anonymous Christian, who wrote in the fourth century of our era, that Christians and pagans alike were struck by the remarkable coincidence between the death and resurrection of their respective deities, and that the coincidence formed a theme of bitter controversy between the adherents of the rival religions, the pagans contending that the resurrection of Christ was a spurious imitation of the resurrection of Attis, and the Christians asserting with equal warmth that the resurrection of Attis was a diabolical counterfeit of Christ.”[2]

Literalist Christians refused to accept that the rites of the mystery schools form the central narrative of the New Testament. But the similarities are too plentiful to ignore. Jesus encounters a baptism (spiritual cleansing), a Eucharist (communion), an anointing (Christ means “the anointed one”), and the death and resurrection ritual.

These mystical rites provided a rare alchemical education, unifying spiritual energies (*pneuma,* as the early Christians called it) for candidates. In the words of the Gospel of Philip, one of the so-called gnostic texts, "The Lord did everything in a mystery, a baptism and a chrism, and a eucharist and a redemption and a bridal chamber. . . . he said, 'I came to make the things below like the things above, and the things outside like the things inside. I came to unite them in the place.'"

The word *mystery* appears twenty-seven times in the New Testament with Paul telling fellow Christians, "Let a man regard us in this manner, as servants of Christ and stewards of God." Jesus speaks of clandestine teachings for those in the inner circles when he says to his disciples, "You have been given the secret of God's imperial rule; but to those outside everything is presented in parables" (Matthew 4:11).

As an energy healer, I found myself especially drawn to how

early Christians used pneuma for personal transformation. Jesus baptizes with "fire and spirit," heals with "power," and transmits wisdom to his disciples through the "bubbling spring" drawn from a higher source. The purpose of these schools was to create *pneumatics,* people full of spiritual energy. In the Gospel of Thomas, Jesus announces to his disciples, "Whoever drinks from my mouth will become like me; I myself shall become that person, and the hidden things will be revealed to him."

Even common Christian terms reveal clues to this ancient transformational process. I studied the original Greek word for sin, *harmatia,* which turned out to be an archery term meaning "missing the mark." It lacked the guilt and shame pastors used to control their flocks and simply indicated when seekers strayed from their path and needed to get back on course. Similarly, the Hebrew word *satan* (adversary) highlighted the ego/personality attachment the soul needed to overcome to reach higher states of consciousness.

Repent (*metanoia*) meant to "change one's mind" or "have a shift in consciousness," which can occur when absorbing higher frequencies from someone closely connected to source-energy, like Jesus. Most surprisingly, Christ was not our Lord and savior but rather our *soter,* meaning "healer," "bestower of health," or "one who makes whole." Staying connected to universal spirit, Jesus travels through the rift of separation consciousness to heal us and bring us back to our celestial home. "I am the one who comes from what is whole" (Gospel of Thomas). When we finally release our attachments to the material realm, we become redeemed; we experience *apolytrosis,* meaning "released."

Of course, I couldn't help wonder what happened to the original meanings of these words, as well as the numerous gnostic churches that had proliferated in the Middle East. When the Romans destroyed Jerusalem and its Second Temple in 70 CE, after the Jewish revolt, they left one-third of the population dead and the

Christian mysteries fractured into pieces. Members joined the mass exodus out of the country. Those who hadn't been exposed to the inner mysteries started up literalist churches. The remaining gnostics called these rigid sects "imitation churches" as they did not teach the secret gnosis of the Christ within.

According to the Apocalypse of Peter, literalist church fathers were "waterless canals" bereft of consciousness-expanding pneuma who arrogantly claimed to be the sole gatekeepers of heaven. "Some who do not understand mystery speak of things which they do not understand, but they will boast that the mystery of truth is theirs alone." These "empty" churches sprouted up across the Roman Empire. In a sad touch of historical irony, their leaders, like the infamous Irenaeus, the bishop of Lyon, became heretic hunters attacking those who still carried the inner teachings of their religion. "We were hated and persecuted, not only by those who are ignorant, but also by those who think they are advancing the name of Christ,

since they were unknowingly empty, not knowing who they are" (the Second Treatise of the Great Seth).

As the number of Christians multiplied in Roman lands, power-hungry Constantine switched the state religion to co-opt this growing movement, uniting Rome under "one God, one religion" and, incidentally, one emperor. In 325, he oversaw the Council of Nicaea, where the church fathers reduced the vast library of Christian written knowledge to a few documents that we now call the New Testament.

In 391, Emperor Theodosius passed an edict to close all "pagan" temples and burn their books. Christian hordes set out on murderous rampages across the empire, smashing all traces of the mystery traditions from which their own religion had blossomed. They killed off the last of the gnostic circles, including their libraries, churches, scrolls, and, most importantly, the flame of gnosis that had been carefully passed down throughout the ages. By 410 CE, the Roman

Empire had nearly torn itself apart, and the Visigoths strolled in to finish the job. Only eighty-five years after the Council of Nicaea, the Dark Ages had begun.

While poring over the lost gnostic texts of the Nag Hammadi library, I was surprised how many of them focused on reframing the Garden of Eden story. These tales, like the Secret Book of John, explained the human origin story quite differently than Genesis. They described a complicated cosmology that began with a single being (or parent), who was ineffable, eternal, immeasurable light, and created an image or reflection of itself, Barbelo, which in turn begot a multitude of heavenly planes (aeons) that were part of a wider divine realm (the pleroma).

Christ was not just a man but a distinct aeon or larger divine being in the pleroma. Those who fully realized the mysteries became one with Christ, carrying this high vibrational force inside them. Bedazzled by the cosmic palace, Sophia, the aeon of wisdom,

created her own world without consent from the über-parent or her male counterpart. This experiment went awry, and Sophia separated from the pleroma, creating a sinister Frankenstein ruler called the Demiurge (craftsman or maker), who manufactured our "counterfeit" material world.

This was the Old Testament God, who gnostics called Yaldabaoth, Samael (God of the blind), and Saklas (a fool), as he believed himself to be the only god in the universe, ignorant of the pleroma and the omnipresent light of the parent. Breathing life into Adam (and unknowingly the divine spirit of Sophia), the Demiurge ruled over humans with his demonic bully friends, the archons. The angelic realms of the pleroma embarked on a rescue mission for both Sophia and Adam and Eve. Like an undercover agent, Jesus snuck behind enemy lines into the Garden of Eden, inviting the first humans to eat of the tree of knowledge ("the Epinoia of pure light") to "awaken them out of the depth of sleep" and their "fallen state."

The gnostics' description of archons immediately intrigued an activist side in me. These devilish autocrats seemed representative of the oppressive empires that dominated Western history books. Today's Halliburtons and Bechtels, neocons and Exxons, seemed to follow a long shadowy lineage of hierarchical powers profiting from human suffering while expanding their empires. Maybe the gnostics understood that we needed mystical agents of transformation smuggling in celestial light to liberate lost souls on the planet.

And the Christ story seemed to be the perfect place to help free us from worldly bondage. I don't think it's an overstatement to say that millions of people living today have been wounded or misled by literalist Christianity, robbed of their own divine spark. For more than a millennia, the Judeo-Christian tradition has supplied the underlying operating platform for our whole society—our languages, laws, mores, work ethic, sexuality, even our way of perceiving time (with the Gregorian calendar)—shaping our

worldview, whether we realize it or not.

Integrating this tradition could prove a powerful tool in coming to terms with ourselves, and our history. And that doesn't necessarily mean plodding through obscure gnostic texts, making sense of strange Demiurge names. The mysteries lie right there in the New Testament for those with "eyes to see" and "ears to hear." But we need an upgrade of the Protestant revolution, one that incorporates the gnosis of Christ consciousness. Imagine already established churches, the ones on your block, enhancing their services with meditation, prayer, breathwork, energy healing, body movement, possibly even late-night dancing, and, among the more radicalized churches, the ingesting of psychoactive sacraments in a safe and protected space. Why build entirely new systems for connecting us to pneuma when the institutions have already been created, whether Methodist, Lutheran, or Baptist? But these "waterless" religions would have to give up their addiction to

dominating worshippers, address the evolution of the spirit, and infuse the essence of the mysteries into their hollow edifices.

Many of the popular Eastern disciplines of today have us turning away from the world around us, meditating on our navel. But Christ wasn't only a yogi; he was a mystical activist, carrying his message to those who most needed it. In this time of great transition, our ailing planet needs spiritual warriors, ones capable of standing up to the Western materialist machine, so we can create sustainable societies that care for their citizens, harmonize with the cycles of nature, and receive and honor the vast healing light that quietly connects us all.

E L E V E N

Mithras and Jesus

TWO SIDES OF THE SAME COIN

FLAVIO BARBIERO

In 384 CE, Vettius Agorius Praetextatus, the last "papa" (acronym of the words *pater patrum* or father's father) of the so-called cult of

Mithras died in Rome. His name and his religious and political appointments are found written in the basement of St. Peter's Basilica, together with the names of a long list of other Roman senators, spanning a period from 305 to 390. The one thing that they have in common is that they all are paters of Mithras. As many as nine among them have the supreme title of pater patrum, clear evidence that it was here, inside the Vatican, that the supreme leader of the Mithraic organization resided, at the side of the most sacred basilica of Christianity, erected by Constantine the Great in 320 CE. For at least seventy years, the supreme leaders of two religions that were always supposed to be competitors, if not sworn enemies, lived peacefully and in perfect harmony side by side. It was the same Praetextatus, as prefect of the town, who, in 367, defended Damasus against his opponents and confirmed him as bishop of Rome.

Praetextatus often declared that he would willingly be baptized if

the see of St. Peter was offered to him. Following his death, however, the opposite happened. The title of pater patrum fell (today we would say by default) upon Damasus's successor, the bishop Siricius, who was the first, in the Church's history, to assume the title of papa (pope). Together with it he also took upon himself a long series of other prerogatives, titles, symbols, objects, and possessions, which passed en masse from Mithraism to Christianity.

We can only undertand this handover from the Mithraic pope to the Christian one in the light of what had happened in 383 CE, the year before. In that year, the senate almost unanimously voted for the abolition of paganism and all its symbols in Rome and throughout the Western empire. This vote has always puzzled the historians because, in their opinion, the majority of the senators were pagans and represented the last stronghold of paganism against the irresistible advance of Christianity. This opinion, however, is

utterly in disagreement with what during those same years the bishop of Milan, Ambrose, used to declare, that the Christians had the majority in the senate. Who is right, Ambrose or modern historians?

The bishop of Milan was the member of a great senatorial family and closely followed Roman events, so it is unlikely that he could be wrong on a matter of that kind. On the other hand, we cannot ignore the historians because written and archaeological evidence confirm that the majority of the Roman senators were at that time paters of the Sol Invictus Mithras (the Invincible Sun Mithras), and therefore, according to common opinion, definitely pagans. What nobody seems to have understood, however, is that the two cults or religions, Mithraism and Christianity, were all but compatible. And there is no lack of historical evidence supporting that.

The most significant of many possible examples is Emperor Constantine the Great. He was an affiliate of Sol Invictus Mithras

and never disowned it, not even when he openly embraced Christianity and declared himself to be “God’s servant” and a sort of “universal” bishop. His biographer Eusebius hails him as the new Moses, but Constantine was baptized only on his deathbed, and he never stopped minting coins with Mithraic symbols on one side and Christian on the opposite; he even erected in Constantinople a colossal statue of himself wrapped up in Mithraic symbols.

As for the Roman senators, several contemporary sources, starting from St. Jerome, affirm that most of their wives and daughters were Christian. An extant example is St. Ambrose, himself a pagan and the son of a Mithraic pagan (the prefect of Gaul Ambrose), according to historians, although there is no doubt that his family was Christian and lived in a profoundly Christian environment. From his childhood, indeed, Ambrose loved to play the part of a bishop, and in the year 353, at St. Peter’s, his sister Marcellina, still a young girl, received the veil of the consecrated

virgins from Pope Liberius in person. Formally, however, he remained a pagan until he was designated bishop of Milan. He was actually baptized only fifteen days before being consecrated bishop. The fact is that in that period, Christians destined for a public career were baptized only at the point of death, or else when, for one reason or another, they decided to embrace the ecclesiastic career. This was normal practice. The senator Nectarius, who was designated bishop of Antioch by the council of Constantinople in 381, was forced to postpone the consecration ceremony because first he had to arrange his own baptism.

After the abolition of paganism, all Roman senators became Christian overnight, starting with Symmachus who went down in history for his stern defense of "pagan" traditions in front of Emperor Valentinian. A few years later, in fact, Emperor Theodosius, the most fanatic persecutor of heretics and pagans, appointed him as a consul, the highest position in the Roman

bureaucracy.

How is it possible, one might ask, that people could follow two different religions at the same time? This is the essential point. There is an enormous and incredible misunderstanding (that in some way might be deliberate) about the so-called cult of the Sol Invictus Mithras, which is always presented as a religion that rose parallel with Christianity and was in competition with it. Some historians go so far as to maintain that this religion was so popular and deeply rooted in Roman society that it very nearly won the race with Christianity.

Yet there is absolute evidence that the so-called cult of Mithras in Rome was not a religion but an esoteric organization with several levels of initiation, which from the oriental religion had borrowed only the name and a few exterior symbols. For what concerns contents, scope, and operative procedures, however, the Roman Mithras had nothing in common with the Persian god.

The Roman Mithraic institution can in no way be defined as a religion devoted to the worship of the sun, no more than modern Freemasonry can be defined a religion devoted to the worship of the Great Architect of the Universe. The comparison with modern Freemasonry is quite appropriate and very helpful for understanding what kind of organization we are talking about. Actually, the two institutions are quite similar in their essential characteristic. Freemasonry's adepts are not requested to profess any particular creed but only to believe in the existence of a supreme being, however defined. This entity is represented in all masonic temples as the sun, inserted in a triangle, and with a name—Great Architect of the Universe—that is the same given by the Pythagoreans to the sun. In these temples ceremonies of various kind and rituals are performed that never have a religious character. Religion is explicitly banned from the masonic temples, but every adept is free to follow whatever creed he likes in his private life.

A link between the Mithraic and the Masonic institutions is far from improbable, as there are profound similarities in the architecture and decoration of the respective temples, symbols, rituals, and so on; but it's a theme outside the scope of this article. The comparison has been made only for the purpose of stressing the point that Mithraism was not a religion dedicated to the worship of a specific divinity but a secret association of mutual assistance, whose members were free, in their public life, to worship whatever god they liked.

And yet all the adepts of Mithras apparently shared a common attitude toward religion. This is a well-known fact. It is the same Praetextatus who exposes in an exhaustive way the philosophy of his organization in the book *Saturnalia,* written by Macrobius around 430 CE (well after the abolition of paganism). In a long conversation with other great Mithraic senators, like Symmachus and Flavianus, Praetextatus affirms that all the different gods of the

pagan religion are only different manifestations (or even different names) of a unique supreme entity, represented by the sun. This syncretistic vision has been defined, with full reason, as monotheistic paganism.

Most historians agree that the followers of Mithras were monotheists; what they fail to underline is the fact that their particular syncretistic vision allowed them to infiltrate and get hold of the cult (and revenues) of all pagan divinities. In fact, all Mithraic grottos harbored (exactly as the masonic temples of today) a host of pagan gods like Saturn, Athena, Venus, Hercules, and so on, and the adepts of Mithras in their public life were priests at the service not only of the sun (who was worshipped in public temples, which had nothing to do with the Mithraic grottos) but also of all the other Roman gods.

In fact, all the senators who figure in the inscriptions at the base of St. Peters' Basilica, alongside the titles of *vir clarissimus*

(senator), pater, or pater patrum in the cult of Sol Invictus Mithras, also held a long series of other religious positions: *sacerdos, hierophanta, archibucolus* of Brontes or of Hecate, Isis, and Liberius; *maior augur, quindecimvir sacris faciundis,* and even pontifex of various pagan cults. They were also in charge of the college of the vestal virgins and of the sacred fire of Vesta. In the senate, there was no manifestation of cult connected to the pagan tradition that was not celebrated by a senator adhering to the Sol Invictus Mithras. That same senator most of the time was backed by a Christian family.

So, what were they, pagan or Christian? The available evidence on this point is ambiguous. Also the character of Mithras himself, as he is depicted by Christian writers, is absolutely ambiguous. A long series of analogies exists between him and Jesus. Mithras was born on December 25 in a stable to a virgin, surrounded by shepherds who brought gifts. He was venerated on the day of the sun

(Sunday). He bore a halo around his head. He celebrated a last supper with his faithful followers before returning to his father. He was said not to have died but to have ascended to heaven from where he would return in the last days to raise the dead and judge them, sending the good to paradise and the evil to hell. He guaranteed his followers immortality after baptism.

Furthermore, the followers of Mithras believed in the immortality of the soul, the last judgment, and the resurrection of the dead at the end of the world. They celebrated the atoning death of a savior who had risen on a Sunday. They celebrated a ceremony corresponding to the Catholic Mass, during which they consumed consecrated bread and wine in memory of the last supper of Mithras, and during the ceremony they used hymns, bells, candles, and holy water. Indeed, they shared with Christians a long series of other beliefs and ritual practices, to the point that they were practically indistinguishable from each other in the eyes of the

pagans and also of many Christians.

The existence of a connection between Christianity and the sun cult from the earliest times is recognized by the church fathers, too. Tertullian writes that the pagans ". . . believe that the Christian God is the Sun, because it is a well-known fact that we pray turning towards the rising Sun, and that on the Sun's day we give ourselves to jubilation" (Tertullian, *Ad Nationes* 1, 13). He attempts to justify this substantial commonality in the eyes of the Christian faithful, attributing it to Satan's plagiarism of the most sacred rites and beliefs of the Christian religion.

Constantine believed that Jesus Christ and Sol Invictus Mithras were both aspects of the same superior divinity. He was certainly not the only one to have this conviction. Neoplatonism contended that the religion of the sun represented a "bridge" between paganism and Christianity. Jesus was often called by the name Sol Justitiae (Sun of Justice) and was represented by statues that were similar to

the young Apollo. Clement of Alexandria describes Jesus driving the chariot of the sun across the sky, and a mosaic of the fourth century shows him on the chariot while he ascends to heaven, represented by the sun. On some coins of the fourth century, the Christian banner at the top reads Sol Invictus. A large part of the Roman population believed that Christianity and the worship of the sun were closely connected, if not the same.

For a very long time, the Romans kept on worshipping both the sun and Christ. On 410, Pope Innocentius authorized the resumption of ceremonies in honor of the sun, hoping with that to save Rome from the Visigoths. And in 460, Pope Leo the Great wrote: “most Christians, before entering the Basilica of St. Peter turn towards the sun and bow in its honour.” The bishop of Troy openly continued to profess his worship of the sun even during his episcopate. Another important example in this sense is that of Synesius of Cyrene, a disciple of the famous Neoplatonic philosopher Apathias, who was

killed by the mob in Alexandria in 415. Synesius, not yet baptized, was elected bishop of Ptolemais and metropolitan bishop of Cyrenaica, but he accepted the position only on condition that he did not have to retract his Neoplatonic ideas or renounce his worship of the sun.

In the light of all of this, how should we consider the position of Mithraists toward Christianity? Competitors or cooperators? Friends or enemies? Perhaps the best indication is given by the coins minted by Emperor Constantine until 320 CE, with Christian symbols on one side, Mithraic symbols on the other.

Were Jesus and Mithras two faces of the same coin?

The Origins of Mithraism and Christianity

In order to explain the strict relationship between Christianity and

Mithraism, we have to go back to their origins.

Christianity, as we know it, by universal recognition, is a creation of St. Paul, the Pharisee who was sent to Rome around 61 CE, where he founded the first Christian community of the capital. The religion imposed by Paul in Rome was quite different from that preached by Jesus in Palestine and put into practice by James the Just, who was subsequently the leader of the Christian community of Jerusalem. Jesus' preaching was in line with the way of living and thinking of the sect known as the Essenes. The doctrinal contents of Christianity as it emerged in Rome at the end of the first century are, instead, extraordinarily close to those of the sect of the Pharisees, to which Paul belonged.

Paul was executed probably in 67 by Nero, together with most of his followers. The Roman Christian community was virtually wiped out by Nero's persecution. We do not have the slightest information about what happened in this community during the following thirty

years; a very disturbing blackout of news because something very important happened in Rome at that period. In fact, some of the most eminent citizens of the capital were converted, like the consul Flavius Clemens, cousin of Emperor Domitian; in addition, the Roman Church assumed a monarchic structure and imposed its leadership on all the Christian communities of the empire, which had to adjust their structure and their doctrine accordingly. This is proved by a long letter of Pope Clemens to the Corinthians, written toward the end of Domitian's reign, where his leadership is clearly stated.

This means that during the years of the blackout, somebody who had access to the imperial house had revived the Roman Christian community to such a point that it could impose its authority upon all the other Christian communities. And it was "somebody" who perfectly knew the doctrine and thinking of Paul, 100 percent Pharisaic.

The Mithraic organization also was born in that same period and in that same environment. Given the scarcity of written documents on the subject, the origin and the spread of the cult of Mithras are known to us almost exclusively from archaeological evidence (remains of mithraea, dedicatory inscriptions, iconography and statues of the god, reliefs, paintings, and mosaics) that survived in large quantities throughout the Roman Empire. These archaeological testimonies prove conclusively that, apart from their common name, there was no relationship at all between the Roman cult of Mithras and the oriental religion from which it is supposed to derive. In the whole of the Persian world, in fact, there is nothing that can be compared to a Roman mithraeum. Almost all the Mithraic monuments can be dated with relative precision and bear dedicatory inscriptions. As a result, the times and the circumstances of the spread of the Sol Invictus Mithras (these three names are indissolubly linked in all inscriptions, so there is no doubt that they refer to the same and only institution) are known to us with

reasonable certainty. Also known are the names, professions, and responsibilities of a large number of people connected to it.

The first mithraeum discovered was set up in Rome at the time of Domitian, and there are precise indications that it was attended by people close to the imperial family, in particular Jewish freedmen. The mithraeum, in fact, was dedicated by a certain Titus Flavius Iginus Ephebianus, a freedman of emperor Titus Flavius, and therefore almost certainly a romanized Jew. From Rome, the Mithraic organization spread all over the western empire during the following century.

There is a third event, which happened in that same period, connected somehow to the imperial family and to the Jewish environment, to which no particular attention was ever given by the historians: the arrival in Rome of an important group of persons, fifteen Jewish high priests with their families and relatives. They belonged to a priestly class that had ruled Jerusalem for half a

millennium, since the return from the Babylonian exile, when twenty-four priestly lines had stipulated a covenant among them and created a secret organization with the scope of securing the families' fortunes through the exclusive ownership of the Temple and the exclusive administration of the priesthood.

The Roman domination of Judea had been marked by passionate tensions on the religious level, which had provoked a series of revolts, the last of which, in 66 CE, was fatal for the Jewish nation and for the priestly family. With the destruction of Jerusalem by Titus Flavius in 70 CE, the Temple, the instrument of the family's power, was razed to the ground, never to be rebuilt, and priests were killed by the thousands.

There were survivors, of course, in particular a group of fifteen high priests, who had sided with the Romans, surrendering to Titus the treasure of the Temple. For that reason, they kept their properties and were given Roman citizenship. They then followed

Titus to Rome, where they apparently disappeared from the stage of history, never again to play a visible role—apart from Josephus Flavius, the one who undoubtedly was the leader of that group.

Josephus was a priest who belonged to the first of the twenty-four priestly family lines. At the time of the revolt against Rome, he had played a leading role in the events that tormented Palestine. Sent by the Jerusalem Sanhedrin to be governor of Galilee, he had been the first to fight against the legions of the Roman general Titus Flavius Vespasianus, who had been ordered by Nero to quell the revolt. Barricaded inside the fortress of Jotapata, he bravely withstood the Roman troops' siege. When the city finally capitulated, he surrendered, asking to be granted a personal audience with Vespasian (The Jewish War, III, 8,9; in full, The Jewish War refers to *Flavius Josephus's Books of the History of the Jewish War against the Romans,* written around 75 CE). Their meeting led to an upturn in the fortunes of Vespasian, as well as in

those of Josephus: the former was shortly to become emperor of Rome, while the latter not only had his life spared but not long afterward he was “adopted” into the emperor’s family and assumed the name Flavius. He then received Roman citizenship, a patrician villa in Rome, a life income, and an enormous estate. The prize of his treason.

The priests of this group had one thing in common: They were all traitors of their people and therefore certainly banished from the Jewish community. But they all belonged to a millenarian family line, bound together by the secret organization created by Ezra and possessing a unique specialization and experience in running a religion and a country through it. The scattered remnants of the Roman Christian community offered them a wonderful opportunity to profit from their millennial experience.

We don’t know anything about their activity in Rome, but we have clear hints of it through the writings of Josephus Flavius. After

a few years, he started to write down the history of the events of which he had been a protagonist, with the aim, apparently, of justifying his betrayal and that of his companions. It was God's will, he claims, who called him to build a spiritual temple, instead of the material one destroyed by Titus. These words certainly were not addressed to Jewish ears but to Christian ones. Most historians are skeptical about the fact that Josephus was a Christian, and yet the evidence in his writings is compelling. In a famous passage (the so called Testimonium Flavianum) in his book *Jewish Antiquities,* he reveals his acceptance of two fundamental points: the resurrection of Jesus and his identification with the messiah of the prophecies, which are necessary and sufficient conditions for a Jew of that time to be considered a Christian. The Christian sympathies of Josephus also clearly emanate from other passages of the same work, where he speaks with great admiration of John the Baptist as well as of James, the brother of Jesus.

Josephus Flavius and St. Paul

The arguments used by Josephus Flavius to justify his own betrayal and that of his brethren seem to echo the words of St. Paul. The two seem to be perfectly in agreement with regard to their attitude toward the Roman world. Paul, for example, considered it his task to free the church of Jesus from the narrowness of Judaism and from the land of Judaea and to make it universal, linking it to Rome. They are also in agreement on other significant points: For example, both of them declare their belief in the doctrines of the Pharisees, which were those that were wholly received by the Roman church.

There are sufficient historical indications to lead us to consider it certain that the two knew each other and were linked by a strong friendship. In the Acts of the Apostles, we read that after reaching Jerusalem, Paul was brought before the high priests and the Sanhedrin to be judged (Acts 22:30). He defended himself:

“Brethren, I am a Pharisee, the son of a Pharisee: of the hope and resurrection of the dead I am called in question.” And when he had so said, there arose a dissension between the Pharisees and the Sadducees: and the multitude was divided. For the Sadducees say that there is no resurrection, neither angel, nor spirit: but the Pharisees confess both. And there arose a great cry: and the scribes that were of the Pharisees’ part arose, and strove, saying, “We find no evil in this man: but if a spirit or an angel hath spoken to him, let us not fight against God.” And when there arose a great dissension, the chief captain, fearing lest Paul should have been pulled in pieces by them, commanded the soldiers to go down, and to take him by force from among them.

Josephus was a high-ranking priest, he was in Jerusalem at that time, and he certainly was present at that assembly. He had joined the sect of the Pharisees at the age of nineteen, and so he must have been among those priests who stood up to defend Paul. The apostle

was then handed over to the Roman governor, Felix, who kept him under arrest for some time until he was sent to Rome, together with some other prisoners (Acts 27:1) to be judged by the emperor, to whom, as a Roman citizen, Paul had appealed. In Rome, he spent two years in prison (Acts 28:39) before being set free in 63 or 64 CE.

In his autobiography (Life, 3.13), Josephus says:

Between the age of twenty-six and twenty-seven I embarked on a journey to Rome, for the following reason. During the period when he was governor of Judaea, Felix had sent some priests to Rome to justify themselves before the emperor; I knew them to be excellent people, who had been arrested on insignificant charges. As I desired to devise a plan to save them, . . . I journeyed to Rome.

Somehow, Josephus succeeded in reaching Rome, where he made friends with Aliturus, a Jewish mime who was appreciated by

Nero. Thanks to Aliturus, he was introduced to Poppaea, the wife of the emperor, and through her agency, he succeeded in freeing the priests (Life, 3.16).

The correspondence of dates, facts, and people involved is so perfect that it is difficult to avoid the conclusion that Josephus went to Rome, at his own personal risk and expense, specifically to free Paul and his companions, and that it was due to his intervention that the apostle was released. This presupposes that the relationship between the two was much closer than that of a simple occasional acquaintance. Thus, Josephus must have known much more about Christianity than is evident from his works, and his knowledge came directly from the teaching of Paul, of whom, in all likelihood, he was a disciple.

When Josepus returned to Rome in 70 CE, his master had been executed, together with most of the Christians he had converted. His fatherland had been annihilated; the Temple, destroyed; the priestly

family, exterminated; his reputation, tarnished by the stain of treachery. He must have been animated by very strong desires for redemption and revenge. Besides, he probably felt responsible for the destinies of the humiliated remnants of one of the greatest families in the world—the fifteen high priests who shared his same condition. There is information about a meeting presided over by Josephus Flavius, unquestionably the strongest and most important character in that group of people, during the course of which the priests examined the situation of the their family and decided on a strategy to improve its fortunes. Josephus lucidly conceived a plan that, in those circumstances, would have appeared to anybody else to be the utmost folly. This man, sitting amid the smoking ruins of what had been his fatherland, surrounded by a few humiliated, disconsolate survivors rejected by their fellow countrymen, aspired to no less than conquering that enormous, powerful empire that had defeated him and establishing his descendants and those of the men around him as the ruling class of that empire.

The first step in that strategy was taking control of the newborn Christian religion and transforming it into a solid basis of power for the priestly family. Having come to Rome in the entourage of Titus, and thus strong in the emperor's protection and well supplied from an economic point of view, these priests could not have encountered great problems in taking over the leadership of the tiny group of Christians who had survived Nero's persecution, legitimated as they were by the relationship of Josephus Flavius with Paul.

Only six years had passed since he sought Paul's freedom from Roman imprisonment. The apostle of the nations must have died at least three years before. Josephus must have felt a moral obligation to continue the deeds of his ancient master whose doctrine he knew perfectly, and sensing its potential for propagation in the Roman world, he dedicated himself and his organization of priests to its practical implementation. Once he had created a strong Christian community in the capital, it could not have been difficult for the

priests to impose its authority on the other Christian communities scattered around the empire—first of all, on those who had been created or catechized by Paul himself.

Josephus Flavius and the Sol Invictus Mithras

Josephus Flavius knew all too well that no religion has a future unless it is an integral part of a system of political power. This concept that religion and political power should live together in symbiosis, mutually sustaining each other, was innate in the DNA, so to speak, of the priests of Judah. It is unimaginable that he could think that the new religion would spread throughout the empire independently, or even in contrast to political power. His first aim was, therefore, seizing power. Thanks not only to the millennial experience of his family, but also to his own experience of life,

Josephus knew all too well that political power, especially in an elephantine organism such as the Roman Empire, was based on military power, and military power was based on economic power, and economic power on the ability to influence and control the financial leverage of the country. He must have envisaged that the priestly family would sooner or later take control of these levers. Then the empire would be in his hands, and the new religion would be the main instrument to maintain control of it.

What was Josephus's plan to achieve this ambitious project? He didn't have to invent anything; the model was there: the secret organization created by Ezra a few centuries earlier, which had assured power and prosperity to the priestly families for half a millennium. He only had to make a few changes to disguise this institution in the pagan world as a mystery religion, dedicated to the Greek sun god Helios, a name with undoubted assonance with El Elyon, the Jewish god. He was represented as invincible, the Sol

Invictus, to spur the morale of his adepts, and at his side was put, as an inseparable companion, a solar divinity of that same Mesopotamia from where the Jews had originated—Mithras, the sun's envoy on Earth to redeem humanity. And all around them, in the mithraea, were the statues of various divinities: Athena, Hercules, Venus, and so on. This arrangement was a clear reference to God the father and his envoy on Earth, Jesus, surrounded by attributes of wisdom, strength, beauty, and so on—well understood by the Christians but still perfectly pagan to a pagan's eye.

This organization didn't have any religious purpose: its scope was to preserve union between the priestly families and assure their security and wealth, through mutual support and a common strategy, aimed at infiltrating all the positions of power in Roman society.

It was secret. In spite of the fact that it lasted for three centuries and it had thousands of members, most of them very cultured men,

there isn't a single word written by a member about what was going on during the meetings of the Mithraic institution, what decisions were taken, and so on. This means that absolute secrecy was always maintained about the works that were held in a mithraeum.

The access was evidently reserved for the descendants of priestly families, at least at the operative level, from the third grade up (occasionally people of different origin could be accepted in the first two grades, as in the case of Emperor Commodus). This system of recruitment is perfectly in line with the historical and archaeological evidence. Even at the peak of its power and diffusion, the Sol Invictus Mithras appears to be an elitist institution, with a very limited number of members. Most mithraea were very small in size and could not harbor more than twenty people. It was definitely not a mass religion but an organization to which only the top leaders of the army and of the imperial bureaucracy were admitted. Yet, we don't know anything about the enlisting policy of the Sol Invictus

Mithras. Did it recruit its members among the high ranks of Roman society, or was the opposite true—that it was the members of this organization who "infiltrated" all the positions of power of that society? Historical evidence favors the hypothesis that membership in the institution was reserved on a ethnic basis. Access to it, at least at the operative level, was most likely reserved for descendants of the group of the Jewish priests who came to Rome after the destruction of Jerusalem.

The Sol Invictus Mithras Conquers the Roman Empire

Written sources and the archaeological testimonies give evidence that from Domitian on, Rome always remained the most important center of the Sol Invictus Mithras institution, which had become firmly entrenched at the very heart of the imperial administration,

both in the palace and among the Praetorian guard. From Rome, the organization soon spread to nearby Ostia, the port with the hightest volume of trading in the world, as goods and foodstuffs from every part of the empire arrived to delight the insatiable appetite of the capital. In the course of the second and third centuries, almost forty mithraea were built there, clear evidence that the members of the institution had taken control of trading activities, source of incomparable incomes and economic power.

Subsequently, it spread to the rest of the empire. The first mithraea to arise outside the Roman circle were built, shortly before 110 CE, in Pannonia, at Poetovium, the main customs center of the region, then in the military garrison of Carnuntum, and soon after in all the Danubian provinces (Rhaetia, Noricum, Pannonia, Mesia, and Dacia). The followers of the cult of Mithras included the customs officers, who collected a tax on every kind of transport dispatched from Italy toward central Europe and vice versa; the

imperial functionaries controlled transport, the post, the administration of finance and mines, and, last, the military troops of the garrisons scattered along the border. Almost in the same period as in the Danubian region, the cult of Mithras started to appear in the basin of the Rhine, at Bonn and Treves. This was followed by Britannia, Spain, and North Africa, where mithraea appeared in the early decades of the second century, always associated with administrative centers and military garrisons.

Archaeological evidence, therefore, conclusively demonstrates that throughout the second century CE, the members of Sol Invictus Mithras occupied the main positions in the public administration, becoming the dominant class in the outlying provinces of the empire —especially in central and northern Europe. We have seen that members of Sol Invictus Mithras had also infiltrated the pagan religion, taking control of the cult of the main divinities, starting with the sun.

The winning move, however, which made success of the Mithraic institution irresistible, was seizing control of the army. Josephus Flavius knew, from direct experience, that the army could become the arbiter of the imperial throne. Whoever controlled the army controlled the empire. The main aim fixed by him for the Mithraic organization, therefore, must have been infiltrating the army and taking control of it.

Soon, mithraea sprang up in all the places where Roman garrisons were stationed. Within a century, the cult of Mithras had succeeded in controlling all the Roman legions stationed in the provinces and along the borders, at a point that the worship of Sol Invictus Mithras is often considered by historians to be the "religion" typical of Roman soldiers.

Even before the army, however, the attention of Sol Invictus had been concentrated on the Praetorian guard, the emperor's personal guard. It is not by chance that the second known dedicatory

inscription of a Mithraic character regards a commander of the Praetorium, and that the concentration of mithraea was particularly high in the area surrounding the Praetorian barracks. The infiltration of this body must have started under the Flavian emperors. They could count on the unconditional loyalty of many Jewish freedmen who owed them everything—their lives, their safety, and their well-being. The Roman emperors were somewhat reluctant to entrust their personal safety to officers who came from the ranks of the Roman senate, their main political adversary, and so the ranks of their personal guard were mainly filled with freedmen and members of the equestrian class. This must have favored the Sol Invictus, which made the Praetorium its unchallenged fief from the beginning of the second century on.

Once it achieved control of the Praetorium and the army, the Sol Invictus Mithras was able to put its hands also on the imperial office. This actually happened on 193 CE, when Septimius Severus

was proclaimed emperor by the army. Born in Leptis Magna, in North Africa, to an equestrian family of high-ranking bureaucrats, he was certainly an affiliate of the Mithraic organization, having married Julia Domna, sister of Bassianus, a high priest of Sol Invictus. From then on, the imperial office was the prerogative of the Sol Invictus Mithras, as all emperors were proclaimed and/or removed by the army or by the praetorian guard.

As far as we can judge with hindsight, the final objective of the strategy devised by Josephus Flavius was the complete substitution of the ruling class of the Roman Empire with members of Sol Invictus Mithras. This result was achieved in less than two centuries, thanks to the policy enforced by the Mitharaic emperors. The backbone of the Roman imperial administration was formed by new families of unknown origin who had emerged at the end of the first century and the beginning of the second; they were antagonistic to the senatorial aristocracy and traditionally opposed to the

imperial power. They formed the so-called equestrian order, which soon became the undisputed fiefdom of the Sol Invictus Mithras. For sure, most of the families of the fifteen Jewish priests of Josephus Flavius's entourage—rich, well connected and enjoying the imperial favor—belonged to this order.

The Sol Invictus emperors all belonged to the equestrian order and governed in open opposition to the senate—humiliating it, depriving it of its prerogatives and wealth, and striking it physically with the exile and execution of a great number of its high-profile members. At the same time, they started introducing equestrian families into the senate. This policy had been initiated by Septimius Severus and developed by Gallienus (who, we must remember, was also the author of the first Edict of Tolerance toward Christianity), who established by decree that all those who had held the position of provincial governors or prefects of the praetorian guard (both appointments reserved for the equestrian order) would enter by right

into the senatorial ranks. This right was later extended to other categories of functionary, great bureaucrats and high-ranking army officers (all members of the Mithraic institution). As a result, within a few decades, virtually the whole equestrian class passed into the ranks of the senate, outnumbering the families of the original Italic and Roman aristocracy.

In the meantime, the spread of Christianity throughout the empire proceeded at a steady pace. Wherever the representatives of Mithras arrived, a Christian community immediately sprang up. By the end of the second century, there were already at least four bishop's sees in Britannia, sixteen in Gaul, sixteen in Spain, and one in practically every big city in North Africa and the Middle East. In 261, Christianity was recognized as lawful religion by the Mithraic Gallienus and was proclaimed the official religion of the empire by the Mithraic Constantine at the beginning of the fourth century, although it was still in a minority in Roman society. It was then

gradually enforced on the population of the empire, with a series of measures that culminated at the end of the fourth century with the abolition of the pagan religions and the mass “conversion” of the Roman senate.

The final situation regarding the ruling class of the Western Empire was the following: the ancient nobility of pagan origin had virtually disappeared, and the new great nobility, which identified itself with the senatorial class of the landowners, was made up by former members of the Sol Invictus Mitras. On the religious level, paganism had been eliminated, and Christianity had become the religion of all the inhabitants of the empire; it was controlled by ecclesiastical hierarchies, coming entirely from the senatorial class, endowed with immense landed properties and quasi-royal powers within their sees.

The priestly families had become the absolute master of that same empire that had destroyed Israel and the Temple of Jerusalem.

All its high offices, both civil and religious, and all its wealth were in their hands, and supreme power had been entrusted in perpetuity, by divine right, to the most illustrious of the priestly tribes, the Gens Flavia (starting with Constantine, all Roman emperors bore the name of Flavius), in all likelihood descendants of Josephus Flavius.

Three centuries earlier, Josephus had written with pride: “My family is not obscure, on the contrary, it is of priestly descent: as in all peoples there is a different foundation of the nobility, so with us the excellence of the line is confirmed by its belonging to the priestly order” (Life, 1.1)

By the end of the fourth century, his descendants had every right to apply those same words to the Roman Empire. At that point the institution of the Sol Invictus Mithras was no more necessary to boost the fortunes of the priestly family, and it was disposed of. It had been the instrument of the most successful conspiracy in history.

T W E L V E

Star Beings in Stone?

A ROCK ART SITE IN CENTRAL SOUTH AFRICA

GARY A. DAVID

Under the South African Sun

At the southern tip of Africa, equidistant from the Indian Ocean and the Atlantic, lies a high plateau known as the Great Karoo. This arid savannah aptly called the thornveld is dotted with camel thorn and umbrella trees. South of the fabled Kalahari Desert, the harsh region is still hot enough in summer for temperatures to reach well over 100 degrees Fahrenheit.

The late summer monsoon rains drawn from the Indian Ocean sometimes collect in saltpans spread across the barren plains—then quickly dry up. Rainfall in the northern part of the Great Karoo averages only about eight inches annually. Thunderstorms are violent but patchy, with ribbons of rain sometimes evaporating before reaching the ground—much like on the deserts of the American Southwest. However, the rainfall here was once sufficient to support a rich diversity of wildlife: giraffe, zebra, wildebeest,

hartebeest, eland, springbok, buffalo, and ostrich. Along riparian areas rhino, hippo, and elephant roamed. Predator species included lion, leopard, hyena, and wild dog.

This unforgiving territory is the ancestral homeland of the San, sometimes known as Bushmen, and the Khoi, the latter formerly called the Hottentots. In fact, the word *karoo* is a San word that means "land of great thirst." Diffusionist archaeologist Cyril A. Hromnik, who was born in Slovakia, educated at Syracuse University, and lives in Cape town, South Africa, claims that the word *karu* is actually a Tamil term (Dravidian of southern India) meaning "arid country."[1] Hromnik further believes that the Khoi (Hottentots), whom he calls the Quena, are descendants of Indian fathers and South African San mothers.[2] The San were basically hunter-gatherers, whereas the later Khoi were pastoralists, herding sheep and cattle. The San and their famous click language were introduced to Western popular culture by the humorous movie *The*

Gods Must Be Crazy and the more recent Disney film *A Far Off Place*.

On the distant horizon flat-topped hills (koppies) of sandstone and shale also resemble the mesas of my home territory in the southwestern United States. Dark dolerite outcroppings strewn with mineral-stained, igneous boulders were perfect for carving petroglyphs, or, as they call them in South Africa, rock engravings.

In September of 2009, I had the opportunity to travel there to assist my friend and colleague Rob Milne with his rock art research.[3] He and I, along with his wife, Slava, visited a site called Driekopseiland, an Afrikaans name meaning "three hills island." It is located on a working farm along the Riet River near the city of Kimberley in Northern Cape Province. Little did I expect to encounter images in stone that resembled the star beings carved by the ancient Hopi Indians of Arizona.

We arrived on the vernal equinox (September 22) at about 5

a.m., when Orion was just reaching its meridian. Getting out of the car to open the farm gates, I saw both Crux (the Southern Cross) and the brilliant Canopus for the first time in my life—the second brightest star in the night sky after Sirius. The San, by the way, consider Sirius to be the grandmother of Canopus. A few rabbits and a steenbok (antelope) darted across the dirt road, as we made our way to the site in the predawn chill. (Later in the day, we saw a warthog dash across the road and a troop of mongooses scampering about and chattering. Surely a cobra must have been nearby.)

Figure 12.1. The author Rob Miln, and San guide, Adam. Photo by Bronislava Milne.

The Riet (Reed) River, a tributary of the mighty Orange River that flows into the Atlantic, is lined with nonindigenous eucalyptus trees and reeds over fifteen feet high.*3 Driekopseiland contains over 3,500 engravings pecked or chiseled into a glaciated andesite "pavement" that parallels the river. The main part of this blue-gray slab is cut by natural fractures, thin and straight, that divide the horizontal rock expanse into various sections or panels. The whole area is at least 150 yards long and 75 yards wide (see color plate 6).

According to archaeologist David Morris, whom we later met at McGregor Museum in Kimberley and who autographed his new book for us (see note 8), over 90 percent of the petroglyphs are geometric, abstract, or nonrepresentational: grids, meanders, dots, hatches, zigzags, concentric circles, ovals, spirals, star shapes, sunbursts, nested figures, and calendar wheels. Every foot or so we came across some bewildering design deeply carved into a plane of stone so smooth it almost looked polished. Ranging in size from a

few inches to a few feet, these perplexing petroglyphs were rarely superimposed—that is, one carved on top of the other.

We even found a great number of Celtic crosses, which are equilateral crosses inside circles. South African scholar Brenda Sullivan comments on their meaning:

This symbol has many names. It has been called the five-fold bond, the tree of life enclosed within the circle of eternity, and more commonly, the Celtic cross. Well, the Celts may claim pride of name, but this most ancient symbol has been associated with the isangomas [medicine people] of Africa for millennia, and is still one of Africa's most powerful signs of protection and communication with the Creator through the Shades.[4]

On a panel downstream from the main section of the site, we also found petroglyphs that represented a number of animals: eland, elephant, rhino, baboon, anteater, and warthog. We encountered a

few human-shaped engravings cut into the horizontal surface as well, which in some cases was as flat as a paved roadway.

Because rock art is difficult to date, the time frame of these images frozen in stone is anybody's educated guess. Estimates range widely—from between the tenth millennium BCE and the end of the first millennium CE.

Figure 12.2. Dawn along the Riet River, South Africa. The dam (seen in the background) was built upstream from the petroglyphs in the 1920s.

Figure 12.3. Foreground: profile of creature with headdress framed by natural triangular fractures

Figure 12.4. Celtic crosses (upper left), sunburst, abstracts. Photo by Bronislava Milne.

Figure 12.5. Lunar calendar: 13 lines inside inner circle and 28 lines in outer circle

Figure 12.6. Cupules forming space-capsule cone (?); ingot shape (upper left) is one of a group.

Figure 12.7. Geometric petroglyphs at Driekopseiland. Photo by Bronislava Milne.

Whenever the Driekopseiland glyphs were incised, they certainly took a long time to make. In other words, these labor-intensive markings were no idle doodling to while away a hot afternoon. Andesite is a fairly hard mineral and is rated 6 on the Mohs scale. Granite is a bit harder at 6.5 and quartz is only 7. Diamond is the

hardest mineral and rates 10 on the scale. Mined for thousands of years not far from here, the holy “Stones of the Sun” were most likely used to carve this hard rock. In 1866, these valuable gems were discovered downstream from the confluence of the Orange and Vaal rivers, and hordes of miners flooded the area. Kimberley, of course, is now home to the world-famous De Beers Corporation, whose “Big Hole” and museum Rob, Slava, and I later visited.

But what is the meaning of these enigmatic dream symbols carved into the bedrock? David Lewis-Williams, cognitive archaeologist and specialist in South African rock art, says that these engravings were not merely representations of the natural world or abstractions of inner space rendered on static stone. Unlike the modern artist’s canvas, they were instead “windows on other worlds”—veils between the physical world and the spirit world. Like the interactive screens of a sacred video game, the petroglyphs were in fact “reservoirs of potency” that came alive the moment the

San people trance-danced[*4] [5] in front of them.[6]

Lewis-Williams is also the major proponent of the theory that the geometrics found at Driekopseiland were a depiction of the entoptics created by the optic nerve in the initial stages of an altered state. The shaman experienced these varied abstract shapes via intense drumming and dancing, sometimes in conjunction with hallucinogens. Just rub your eyes hard to get a mild sense of this phenomenon.

Even the academic Professor Morris admits to the sacrosanct function of the engravings. “As a powerful portal between spiritual realms, a point of breakthrough perhaps second to none in the area, Driekopseiland would have been the kind of place where !Khwa was appeased, where protections were sought, so that ‘the rain comes down gently.’”[7]

Like the Pueblo people of the American Southwest, the San distinguish between (1) “male rain,” or lightning, fierce winds, and

thunderstorms that pummel Earth, causing floods, and (2) “female rain,” or gentle rains that slowly soak into Earth.[8] Morris believes that the ancient people who made these carvings conceptualized the river as the mythic water snake[*5] named !Khwa, a figure prominent in San mythology.

The regular emergence and submergence of images from the waters of the Gama-!ab [San term for Riet River] seems to us a crucial element in the power of the engravings and, arguably, a key to their meaning. Like the body of a large beast living in the depths of the river, the rock surfaces appear to rise from one medium to another, glistening, striated and engraved. Using a related analogue, the artist Walter Battiss spoke of “great whales lying in the mud” of Driekops Eiland, their backs “decorated with innumerable designs.”[10]

Arching its engraved back, the giant snake breaks the surface of the water—then plunges back into the stream. This vertical

undulation has cosmological significance due to the fact that "to go under water" is a San trance metaphor for death or to die.

Likewise, the Hopi describe a subterranean water serpent known as Pálulukang, which lives in springs, waterholes, or rivers and controls thunderstorms and floods (see plate 7). Hopi cosmology also identifies the underworld with a pluvial afterlife where departed spirits reside.

The late epigrapher Barry Fell had interpreted some of the more abstract symbols at Driekopeiland as Libyan inscriptions written in Ogam script, one translation of which is as follows: "Under constant attack we have quit this place to occupy a safe stronghold." Brenda Sullivan amplifies Fell's rendition: "'People suffering. A time of death and suffering. People were forced to abandon the place, and seek protection elsewhere'—either because they were attacked, or because of violent storms and flooding."[11]

Figure 12.8. Phallic engravings with cupules next to river (dark area to the left)

Although I am not psychic, as I sat in the midday sun at this site, a vague sense of malaise and subliminal tension pervaded the atmosphere. Even my South African friend Rob admitted he would not camp overnight there, due not to the dangerous wildlife but because of the evil spirits that potentially inhabit the place even today. Maybe we were simply experiencing, to quote the South African author Laurens van der Post, "the ghosts of Africa which, as we all knew, walked not at midnight but noon."[12]

Some of the most puzzling engravings that we found depicted humanoids with some sort of bizarre paraphernalia. What Rob has dubbed "the spaceman" is located adjacent to "the flying saucer" and "the rocket." The protrusion from this figure's helmet is somewhat similar to the cone-shaped nose on a Hopi kachina, or spirit messenger (see plates 8 and 9; and plate 10).

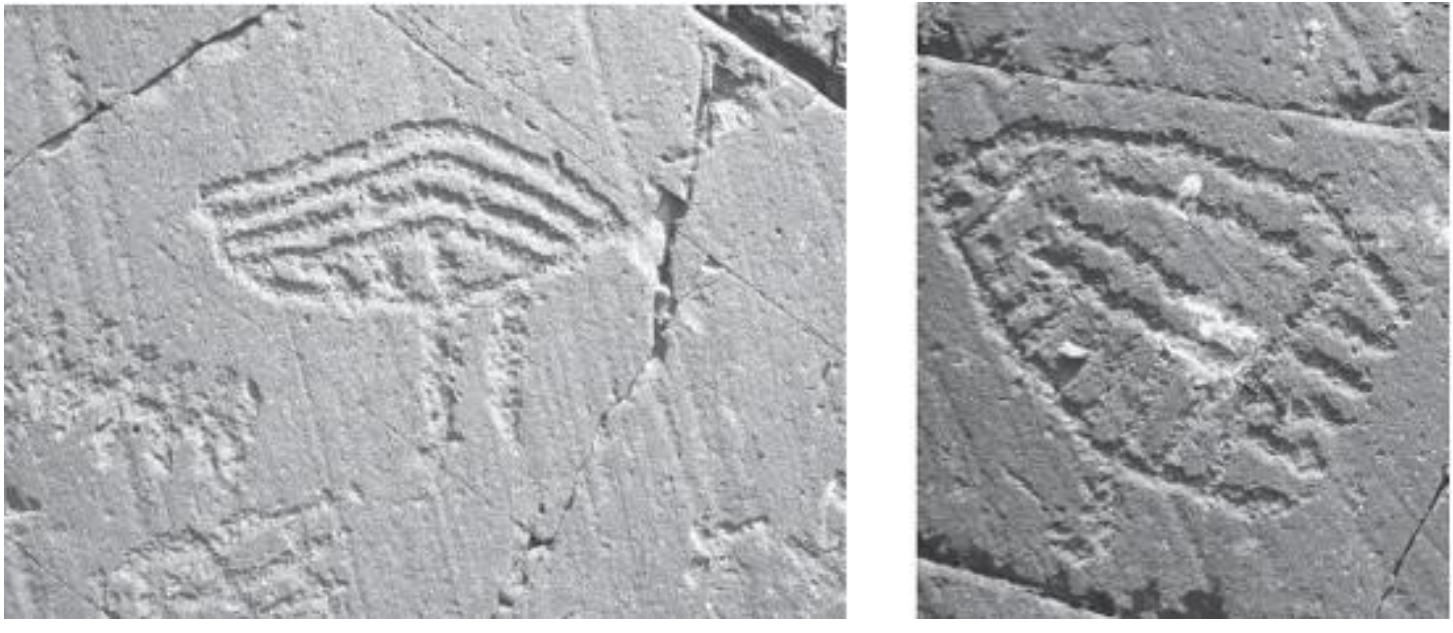

Figure 12.9. Left: Petroglyph of flying saucer ascending (?). Right: Petroglyph of cone-shaped rocket (?).

The intimacy that many African tribes have with the celestial realm is presently confirmed by a world-renowned Zulu *sangoma* (medicine man) and high *sanusi* (uplifter of the people), whose

name is Vusamazulu Credo Mutwa. Unlike most academics, who seem to put up barriers between peoples and compartmentalize them for study, Baba Mutwa continuously shows us the enduring but dynamic connections between continents. For instance, he sees direct parallels between Native American and African tribes.

There is not a single nation among Native American peoples whom I visited in my journeys to the United States that does not have cultural and linguistic links with Africa. Among the Hopi Indians of the American Southwest, I found a custom where masked people, who are called *Kachinas,* come at certain times during the year and conduct sacred ceremonies and bless the people. In the African country known as Zambia, there is a group of people who practice what is called *Mackishee*. People wearing elaborate masks, which refer to certain spirits, visit villages at times and listen to confessions of the villagers' sins. These "spirits" bless the people for the coming period of time and go on their way again.[13]

Credo Mutwa claims that creatures from a star in Orion once lived in prehuman times on Earth and built a huge subterranean metropolis in the heart of Africa.

Before human beings were created on this planet, there had existed a very wise race of people known as the Imanyukela. These people had come from the constellation known to white people as Orion, and they had inhabited our earth for thousands and thousands of years. And that before they had left our earth to return once more to the sacred Spider constellation, they made a great evacuation under the earth, beneath the Ruwensory [Rwenzori] Mountains—the Mountains of the Moon. And deep in the bowels of Mother Earth, the Imanyukela built a city of copper buildings. A city with a wall of silver all around it. A city built at the huge mountain of pure crystal. The mountain of knowledge. The mountain from which all knowledge on earth comes. And a mountain to which all knowledge on earth ultimately returns.[14]

The Hopi also have a female spider figure named Kokyangwuhti, who usually assists people in their quests and was present during the origin of humankind. The Hopi, incidentally, acknowledge four races of people. Spider Grandmother gathered four colors of mud—black, white, yellow, and red—and mixed them with her saliva to create these four races, each with its own basic language. Humans were, by the way, created in the image of the sky god Sótuknang (see plate 10). In addition, the Hopi have many legends of what they call "flying shields."

Rob Milne believes that the depiction of the eight legs would be superfluous, because the spider is stationary. Credo Mutwa claims that Orion is the spider constellation.

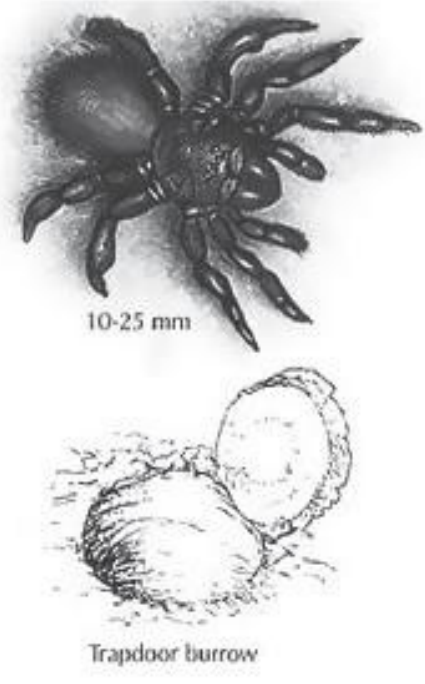

Figure 12.10. Left: Driekopseiland "spaceman" engraving next to trapdoor spider and burrow. Right: The trapdoor spider, a nocturnal arachnid.

One petroglyph that Rob showed me ostensibly looked like a sun symbol, with rays emanating from the circle. Then I flashed on

another icon of a very different sort and thought, “no, that can’t be it,” and put it in the back of my mind.

There are seven rays in each hemisphere of the circle, corresponding to the pulsars (see figure 12.11, left). At the upper right is a circle that contains two lines, corresponding to the hydrogen molecule on the plaque. The outer circle may contain thirty-three rays, but it is impossible to tell because the rock surface is flaked to the immediate right of the circle.

Later, I got a picture of NASA’s Pioneer plaque and compared it with the engraving with a radial pattern (see figure 12.11, right). The six-inch-by-nine-inch gold-anodized aluminum plaque shows the position of the sun with respect to the center of the galaxy and nearby pulsars. Carl Sagan and Frank Drake created it in an attempt to communicate with extraterrestrial life somewhere in the far reaches of outer space. Launched in 1972, the Pioneer 10 and the Pioneer 11 were the first spacecraft designed to leave the solar

system, and both carry duplicates of the plaque. It displays the then nine planets, including Pluto, which, by the way, was discovered at Lowell Observatory in Arizona. It also shows the Pioneer spacecraft's planet of origin, its trajectory past Mars and Jupiter, and its slingshot past Saturn, outward from our helioheart. The radial pattern consists of fourteen lines made up of long binary numbers that represent the periods of the pulsars. The horizontal line that extends past the humans represents the sun's relative distance to the center of the galaxy. A silhouette of the spacecraft in scale is juxtaposed to the humans so that relative size can be determined. The two circles at the top represent the fundamental state of the hydrogen atom, which acts as a universal clock. The regular decrease in the frequency of the pulsars will enable extraterrestrials to determine the time elapsed since each spacecraft was launched. In about two million years, the plaque should arrive at Aldebaran, sixty-eight light-years away. Let's hope that whatever intelligence retrieving this message in a bottle is not reading an

elegy to an extinct civilization.

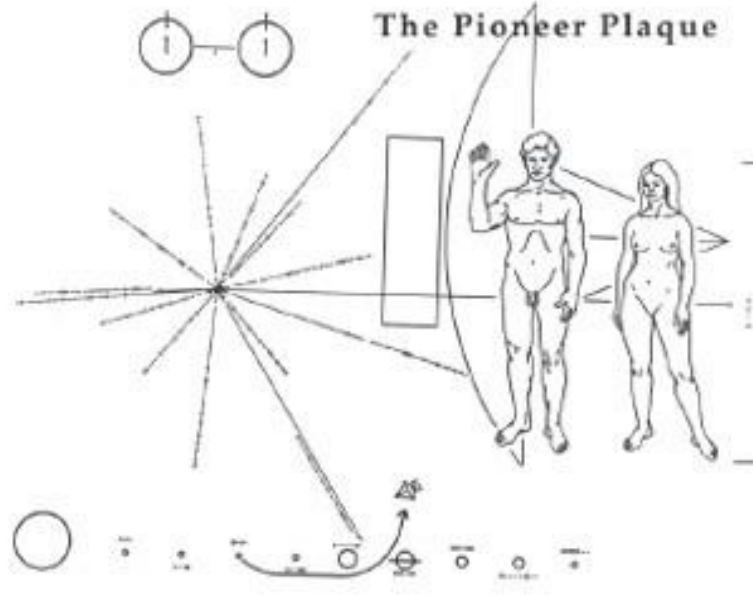

Figure 12.11. Left: Petroglyph with radial pattern. Photo is rotated so the natural rock fracture bisecting the circle is horizontal. Right: NASA's Pioneer plaque.

Did the people who made this South African rock engraving,

perhaps thousands of years ago, actually “remote view” the future and glimpse this image we created in the late twentieth century, which is now bound for the stars? Were they in contact with an intelligence that knew about the Pioneer plaque from their journeys through space-time and wanted to convey its significance to indigenous tribes? Or is this all just a big coincidence?

Countless hours were spent carving sacred symbols into obdurate stone. These inner visions of the spirit world had been received from both cathartic trance states and quiescent deep meditation. The veil between the physical and nonphysical universes was extremely thin, and in many cases, the interaction between the two occurred right at the rock surface, which appeared as a translucent and permeable membrane.

Beyond the two worlds merging like dual circles of the *vesica pis-cis* are myriad realities, world upon world. Some of these are stars with revolving planets inhabited by entities whose

technologies may be millions of years ahead of ours. Other worlds are purely interdimensional, with completely different laws of physics and ontological paradigms. As postmodernists thousands of years removed from San sensibilities, we must in the end admit that we are nothing but Horatios confronting this "wondrous strange." At the end of the nineteenth century, one San informant reported: "We do not utter a star man's name."[15]

T H I R T E E N

Serpent of the North

THE OVERLOOK MOUNTAIN–DRACO CONSTELLATION CORRELATION

GLENN M. KREISBERG

The stone constructions discussed in this article represent the

discovery of a petroform, that is a purposeful arrangement in rock or stone that may be geometric, animal, or human in shape. Covering an area of several acres on a southeastern-facing slope of Overlook Mountain in Woodstock, New York, a grouping of very large, carefully constructed lithic formations, when connected together and taken as whole, appear to create a serpent or snake figure or effigy. The large stone constructions, consisting of six very large stone cairns along with two snake effigies or serpent walls, are surrounded by a few dozen, much smaller stone cairns arranged in clusters and rows. Native American seasonal habitation sites have been documented nearby dating to 4000 years BCE and the site, in recent years, was visited by a Native American tribal preservation officer who, along with many other individuals who have visited the site, felt great awe, wonder, and deep respect for the ancient stone symbols present at the site. If the petroform is confirmed as authentic and constructed in antiquity, it can be inferred that the site was at one time (and still should be) considered sacred.

Additionally, because of the close correlation between the two representations, it is proposed that the snake symbol petroform created by the large lithic structure on Overlook Mountain may represent the star constellation Draco (the dragon).

History and Description of the Site

Overlook Mountain has long been an iconic image, looming above the Hudson River Valley, acting as sentry to the easternmost woodland slopes of the Catskill Mountains in upstate New York. Drawn to those slopes for thousands of years, humans have worked and roamed there as prehistoric hunter-gatherers, early agrarians, colonial lumber cutters and hide tanners, early American glass blowers and quarrymen, and twentieth-century utopians, hikers, and hunters. With such a long and varied past, it's safe to say Overlook

Mountain can be recognized as a serial-use area: an area used by many different groups of people, for many different purposes and reasons, for thousands of years.

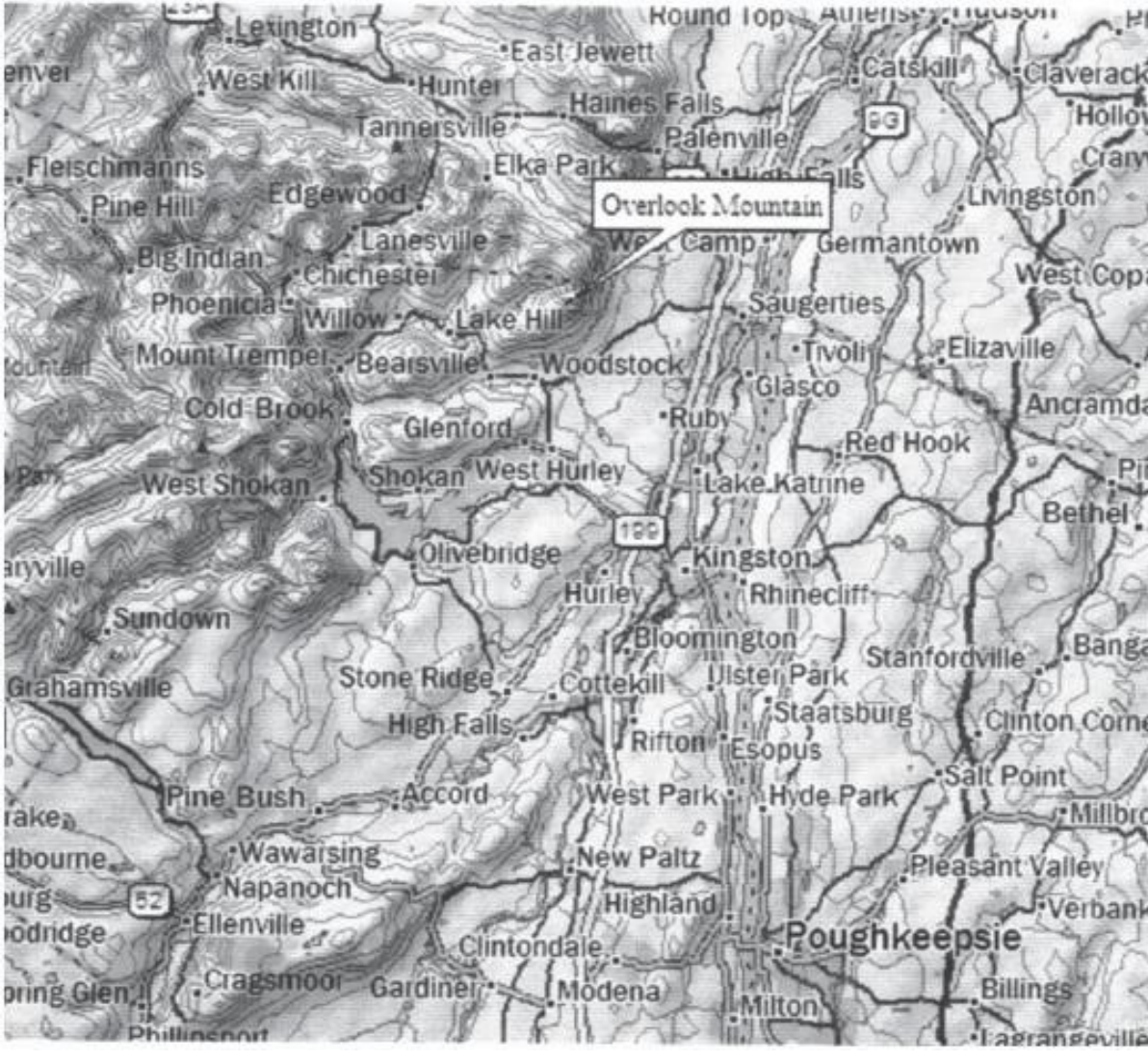
Lexington
East Jewett
West Kill
Hunter
Haines Falls
Tannersville
Palenville
Catskill
Claverack
Hollow
Fleischmanns
Elka Park
Edgewood
Pine Hill
Overlook Mountain
Livingston
Lanesville
Big Indian
Chichester
Germantown
West Copa
Phoenicia
Willow
Lake Hill
Saugerties
Mount Tremper
Bearsville
Woodstock
Tivoli
Elizaville
Glasco
Cold Brook
Ancramda
Glenford
Ruby
Red Hook
West Shokan
Shokan
West Hurley
Lake Katrine
Bethel
Olivebridge
Kingston
Hurley
Rhinecliff
Sundown
Bloomington
Stanfordville
Banga
Grahamsville
Stone Ridge
Cottekill
Ulster Park
Staatsburg
Clinton Corne
High Falls
Rifton
Esopus
Salt Point
Pine Bush
Accord
West Park
Hyde Park
Millbro
Wawarsing
New Paltz
Pleasant Valley
Napanoch
Highland
Verbank
Ellenville
Poughkeepsie
Clintondale
Cragsmoor
Gardiner
Modena
Milton
Billings
Phillipsport
Lagrangeville

Figure 13.1. Overlook Mountain

Beyond that, Overlook Mountain has inspired, enlightened, and invoked. From the practical to the artistic and spiritual, the mountain has been the source and subject of countless paintings, drawings, illustrations, meditations, poetry, and books, all seeking in some way to capture, experience, and ultimately document the essence and nature of the tangible as well as intangible aspects the mountain possesses.

There is little doubt an aspect of paramount importance to the early indigenous dwellers of Overlook Mountain and the lands surrounding, whose connection to the natural world was both intimate and profound compared to this day and age, would have been the relationship and connection between the mountain and the sky.

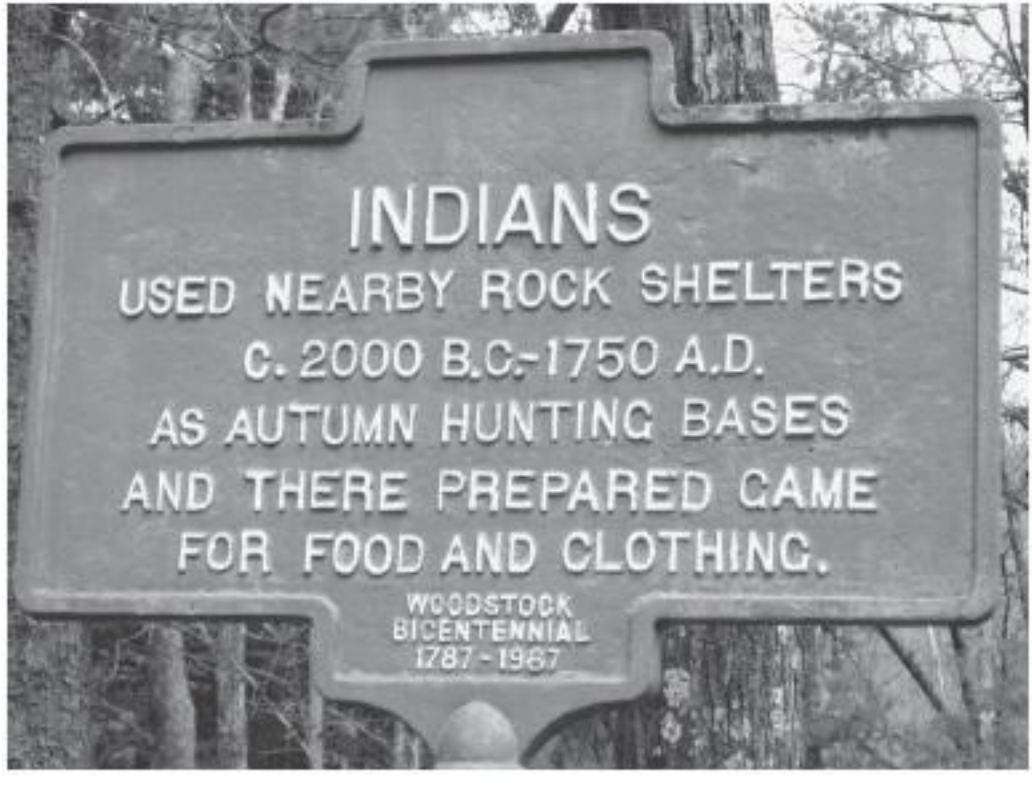

Figure 13.2. Indians historic marker

My interest in the history of Overlook Mountain began in 2004 when a cell tower was proposed for the California Quarry, a historic

bluestone quarry on the lower slopes of the mountain, which operated from the 1830s to the 1890s. During that period, the California Quarry, along with other, smaller, surrounding quarries, contributed greatly to early American industry and commerce in the region. While researching the quarry property, I was introduced to the many stone mounds that were present on the 196-acre quarry property and nearby adjacent parcels. Early property deeds for the area show “ancient stone monuments” present from the first land grants, patents, and subdivisions recorded.

Figure 13.3. Bluestone quarry historic marker

In all, nearly five dozen cairns have been identified on the southeastern slopes of Overlook Mountain between an elevation of 1,100 and 1,500 feet. Most of the cairns are well formed and show

deliberate construction techniques and practices, such as dry stacking and the use of retaining walls. In some cases, it appears quartzite and hematite “donation” stones, which are not structural in nature, were left on the piles.

Figure 13.4. Overlook Mountain cairn

The construction of the cell tower caused the destruction of five

of the nearly sixty stone cairns present in the vicinity. In 2006 as part of the cell tower application review process, Sherry White, tribal preservation officer of the Stockbridge Munsee Community Band of Mohican, visited the cairns and expressed the belief that the larger of the structures could be a memorial or burial cairn. Having toured the entire site, it was her belief the Overlook Mountain cairn complex can likely be seen as a sacred precinct where local groups constructed memorial or burial cairns over successive generations, but it may also be part of more widely spread spiritual, ritualistic, and ceremonial practices and beliefs. Due to the presence of cultural resources of historic (and perhaps prehistoric) significance at the site, a National Register of Historic Places application for the California Quarry property was prepared, submitted, and is currently in review and pending with the New York State Office of Parks, Recreation and Historic Preservation.

In 2008, members of the New England Antiquities Research

Association (NEARA) visited the site along with researchers from the New York State Museum in Albany. Museum GIS (geographic information systems) specialist Susan Winchell-Sweeney conducted a GPS site survey documenting the quantity and location of the remaining stone constructions. In all, six very large or great cairns (up to 100 feet in length), forty-six small cairns (up to 10 feet in length), two walls (90 feet long) in the shape of snakes, and two springs were identified and their size and location data recorded.

Figure 13.5. Overlook Mountain great cairn

After receiving the plotted site data image from Winchell-Sweeney in late 2008 (see figure 13.6), I initially made little of the distribution, concentration, or configuration of the several dozen plotted points. There did seem to be deliberate groupings and clusters of the smaller cairns, while the great cairns appeared to be spread about more randomly. But nothing really jumped out at me. It wasn't until about a year later (late 2009), that I revisited the data image with the intention of connecting the dots.

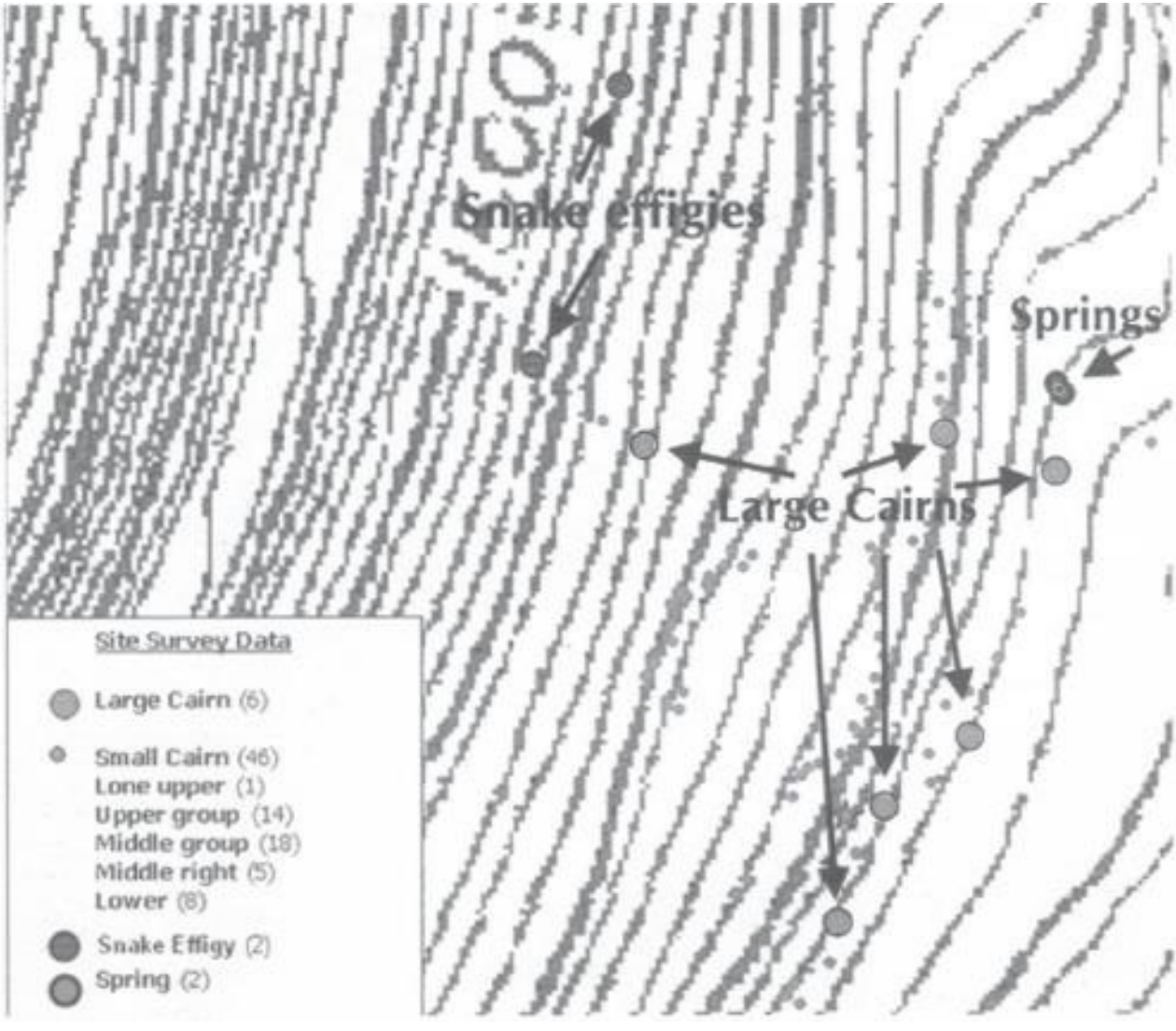
Snake effigies
Springs
Large Cairns
Site Survey Data
Large Cairn (6)
Small Cairn (46)
Lone upper (1)
Upper group (14)
Middle group (18)
Middle right (5)
Lower (8)
Snake Effigy (2)
Spring (2)

Figure 13.6. GPS site survey

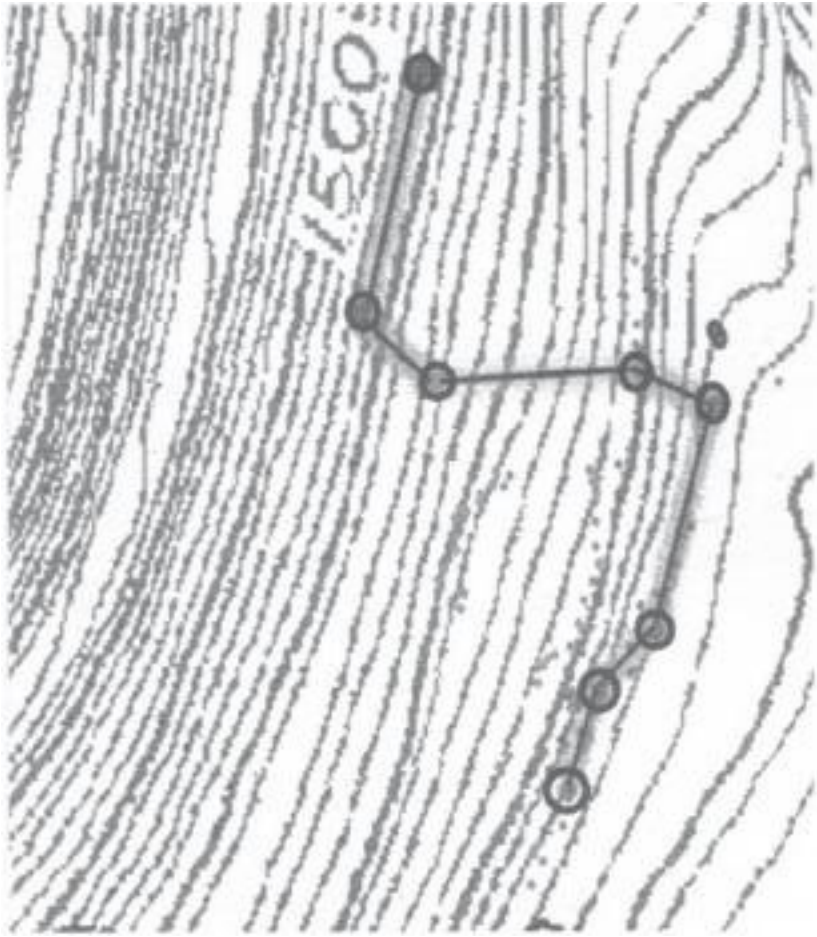

Figure 13.7. Image of the plotted GPS data points of the eight large lithic constructions

Left: Figure 13.8. Northern Hemisphere star chart

Above: Figure 13.9. The constellation Draco

My good friend and fellow NEARA member David Holden, who had first introduced me to the cairns, had suggested that perhaps connecting the points could reveal a pattern, which he believed, on a hunch, could depict the Pleiades star cluster. Somewhat skeptical, I decided to conduct the exercise of tracing the dots onto a piece of paper and comparing them to a star chart of the northern constellations. Winchell-Sweeney's data revealed there were eight large stone constructions seemingly randomly scattered about the mountain-side site, six great cairns, and two snake effigy walls, each separate construction from fifty to one hundred feet in length. I

decided to start by tracing the point of those eight locations on a piece of paper. I then connected the dots with straight lines in the only obvious and logical manner possible.

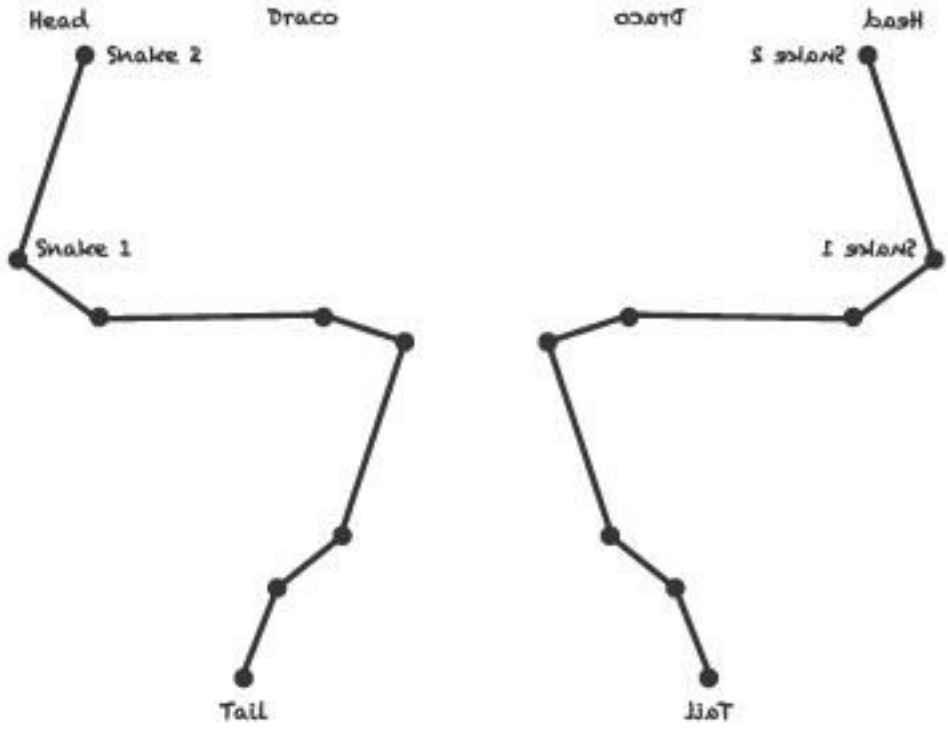

Figures 13.10a and 13.10b. Figure 13.10a shows the original

tracing of the cairn configuration, and 13.10b shows the flipped or mirrored version.

By comparing the tracing to the constellations we see only one match that comes close. The constellation Draco, known as the serpent or snake constellation, is a close match in shape, configuration, and layout to the positions of the stone mound constructions laid out on the ground. In fact, by mirroring the image of the cairn configuration, we see what appears to be an image of the constellation Draco reflected from the sky.

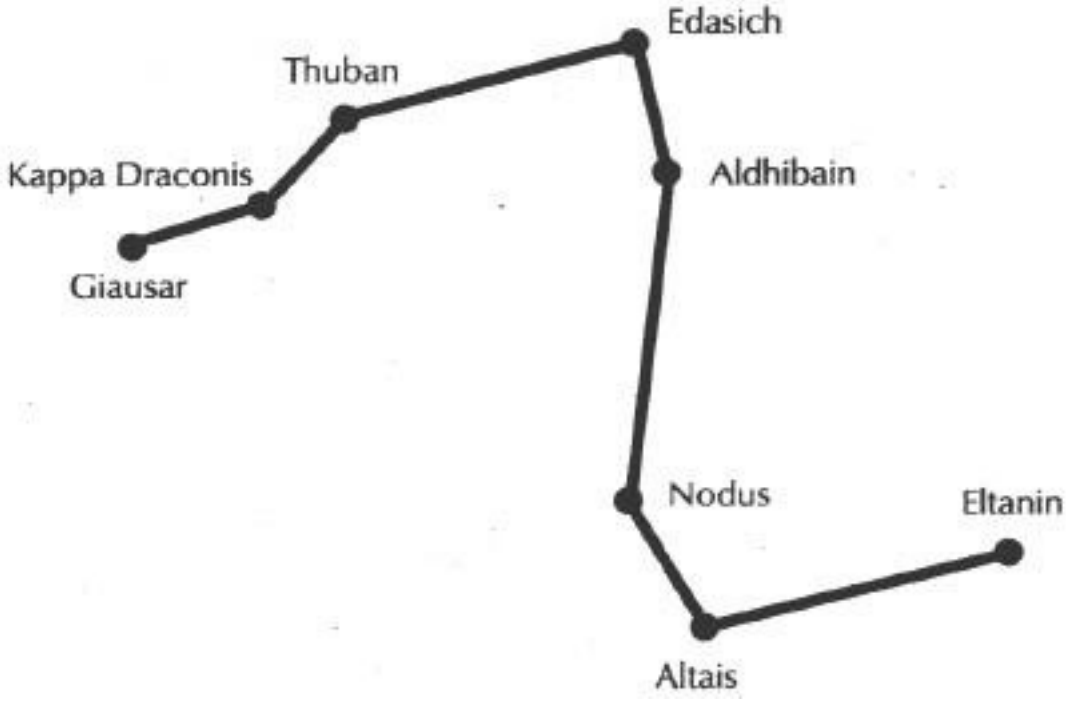

Figure 13.11. The Overlook Mountain–Draco constellation petroform

It should be pointed out that the eight points used to create the snake figure were not "cherry picked" but were distinguished from the rest of the cairns by size and the fact that the large construction

(50 to 100 feet in size) appears to be randomly placed as opposed to the smaller cairns (6 to 10 feet in size), which appear in organized rows and clusters. Sorting artifacts by features such as size and relative position is, I believe, a standard method of classification and in this case provides the basis for determining the stone mounds that constitute the petroform on Overlook Mountain.

Comparative and Descriptive Analysis

Draco is the eighth largest constellation, occupying over one thousand square degrees in the sky as it winds from the Pointers of Ursa Minor nearly to Vega in Lyra. Yet it has no bright stars. Gamma Draconis, or Eltanin, the brightest star of Draco, has a magnitude of 2.2 and is one of three or four stars that typically represent the head of the serpent. It is famous for being the star

observed by the eighteenth-century English astronomer James Bradley when he was trying to detect parallax and so calculate the distance. Since the star Eltanin is considered the brightest star in the constellation, it is most likely to be seen as the star representing the head of the serpent on the Overlook representation, which appears to be consistent between the two representations. The spacing and angle between the stars of the two representations, while close, is not an exact match, and the angle between Altais and Eltanin would also suggest that Eltanin is the single "head" star in the Overlook Mountain representation of Draco, as opposed to Rastaban.

The total number of stars that represent the constellation Draco can vary from 9 to 14 depending on the culture on which the representation is based. The constellation Draco has 7 stars that are less than 10 parsecs (32 light-years) from the sun, has 3 stars brighter than 3.00 magnitude, and 6 that are currently known to have planets. The total number of stars represented in the Overlook

Mountain–Draco constellation depiction is 8.

I thought it might be interesting to compare the magnitude or apparent brightness of the stars that comprise Draco to the size of the cairns on the ground to determine if there is any correlation between size and brightness. The chart below lists the eight brightest stars in the Draco constellation and their apparent magnitudes. In the same chart is a list of the corresponding great cairns and their respective sizes.

Star	Magnitude (Lower numbers are brighter)	Great Cairn	Size (ft)
Giausar	4.1	GC6	50
Kappa Draconis	3.88	GC5	50
Thuban	3.64	GC4	90
Edasich	3.22	GC3	60
Aldhibain	2.73	GC2	60
Nodus	5.7	GC1	60
Altais	4.7	Snake Effigy II	90
Eltanin (Head)	2.42	Snake Effigy I	90

A description of the individual component constructions that constitute the Overlook Mountain petroform follows, beginning with the two snake effigy walls located at the highest elevation (1,420 feet) of the eight locations involved. The easternmost of these two walls would serve as the head of the larger, component serpent (Draco?) petroform. The two slightly curving stonewalls, each approximately 90 feet long, end at a large glacial erratic, which serves as a head to each individual effigy form. It would appear the area around where the figure's mouth would be located on the glacial erratic has been worked to accentuate the appearance of the mouth. The two walls, whose tails point toward one another, are located approximately 100 yards apart and are visible to and from each other when foliage is lacking, if one knows where to look. In fact it was determined during a recent winter visit to the site that each of the large constructions is visible from the next nearest petroform component. The six great cairns making up the remaining, lower portion of the petroform (between 1,140 and 1,300

feet in elevation) range from approximately 60 to 90 feet in length and are elongated and oval or crescent shaped. The three largest of the great cairns are curved or horn shaped and employ the use of retaining walls on the downward slope to allow the high piling up of the stones within, in some place to a height of 12 feet.

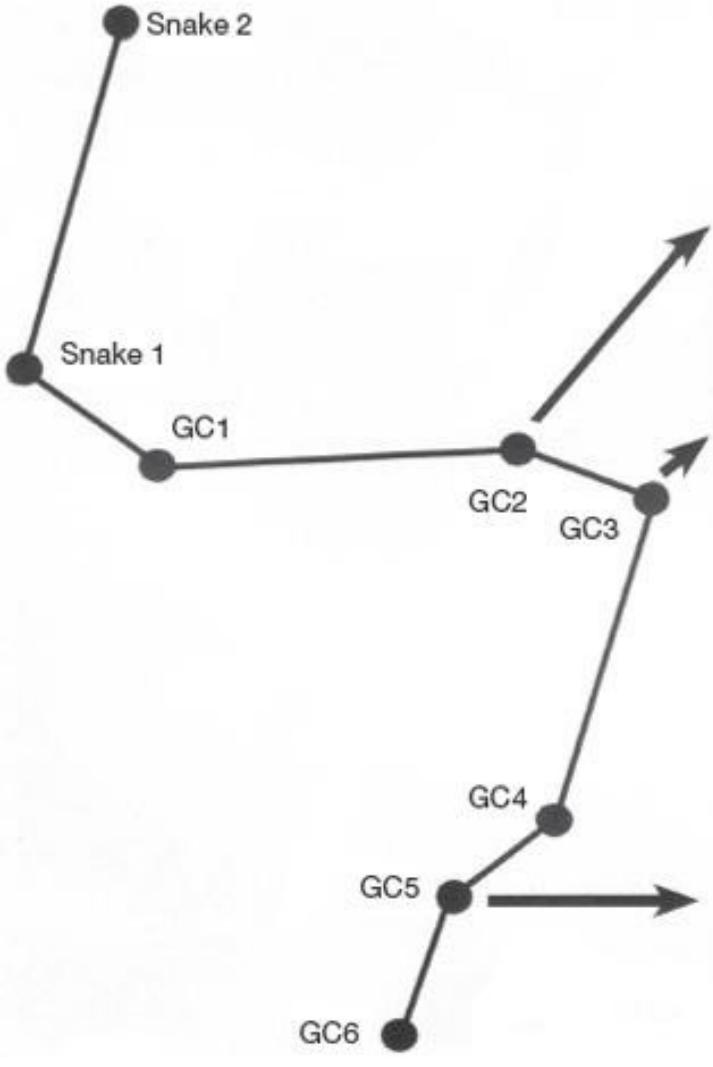
Snake 2
Snake 1
GC1
GC2
GC3
GC4
GC5
GC6

Figure 13.12. An image showing the location of the cairns described in the table on page 1932. The arrows from GC2, GC3, and GC5 point toward the actual photograph of these three great cairns.

Native Stone Constructions

According to Edward Lenik in his book *Picture Rock: American Indian Rock Art in the Northeast Woodlands,* "Snakes or serpents are ancient symbols and appear in rock art sites across North America. They are considered to be creatures of great power and craftiness. Among Algonquian speaking peoples, they may have represented evil and darkness or the energy of life or regeneration, or served as vehicles of transition for the soul of the deceased to the spirit world." Could the Overlook Mountain petroform function as a

guardian of the pathway souls follow to the heavens? Lenik also associates the Algonquin mythical thunderbird as a guardian of humans against the Great Serpent of the underworld. If the thunderbird is seen as the symbol of the protection of life, could the Serpent represent protection of the pathway of the dead?

Accounts of Native American stone constructions associated with definite astronomical attributes are not unique. Research in *Manitou: The Sacred Landscape of New England's Native Civilization,* by James Mavor and Byron Dix, went a long way toward proving that the Native culture of Northeast America built with stone and that many of these constructions were associated with astronomical alignments and observations. This should not be surprising as examples of this apparently geographically diverse cultural practice are well documented throughout the Americas, and in fact worldwide.

Examples of stone serpent effigy mounds (a wavy continuous

line with snakelike configurations) exist and have been documented. An apparent stone serpent effigy has been found in Boyd County, Kentucky. Brisbin (1976) was the first to describe this serpent effigy. Sanders's (1991) article includes a nice drawing of the site and notes that it is "unique for its much larger size, well-defined serpent outline, strikingly bifurcated tail, and associated stone ring, which may represent an egg" (not dissimilar to the Ohio Serpent Mound). This effigy is said to have a solar alignment in the configuration of the head and tail. Brisbin notes also that the sandstone forming the serpent was quarried locally and that "in the head and coil portion, the stones are regularly piled to a height of 12 feet, but in the area of the body, they are stacked about 4 feet high and 5 feet wide until they thin out in the tail." Sanders gives a little more up-to-date information on the site. It is owned by Ashland Oil, and the company has established a 90-meter buffer between the mound and a nontoxic landfill, which serves an Ashland Oil refinery. The head of the serpent has been damaged by both pits

excavated into the rock by unknown individuals and by the construction of a radio tower access road.

Additionally, specific examples of Native American petroforms matching the constellations exist as well. In his paper "'Star-Beings' and Stones: Origins and Legends," researcher Herman Bender argues convincingly for a petroform in Wisconsin, known as the Kolterman petroform effigy, consisting of stone "stickman" formations constructed on the ground, which create human figures known as star beings. The effigy figures are said to be associated with the Native American thunderbird tradition and mirror on the ground the constellations Libra and Scorpio as they appear in the night sky.

Further research led to Professor Harry Holstein, of Jacksonville State University in Alabama, who has discovered apparent serpent effigy stone walls associated with archaeological sites he's excavated in Alabama and Georgia.

When researching Earth surface constructions that specifically reflect the constellation Draco, I discovered there are examples from around the world, including the temples at Ankor Wat, in Cambodia, documented by Graham Hancock. It also turns out the well-documented Great Serpent Mound in Ohio, already mentioned as a serpent effigy, also conforms to the constellation Draco. Also, a site discovered and documented by Lee Pennington in Fort Mountain, Georgia, is said to represent the serpent constellation. Lastly, I discovered that author and researcher Phillip Callihan documented that the positions of the famous Irish round towers are configured to reflect the the northern constellation, including Draco. That all these sites are believed to be configured to represent the circumpolar constellation Draco is fascinating.

In the case of the Overlook Mountain petroform, the comparison to the star group known as Draco cannot help but be made. I have consulted with astronomer Kenneth Leonard, who published

“Calendric Keystone (?) The Skidi Pawnee Chart of the Heavens: A New Interpretation” and have confirmed the constellation Draco would be visible rising above the summit of Overlook Mountain directly to the north before it reached its zenith overhead during daylight hours. And further confirming the assertion, using Starry Night Pro computer modeling astronomy software demonstrates that Draco rose above the mountain on February 1, 2700 BCE (when Thuban was the pole star), just before sunrise. And, the serpent constellation has continued to rise over Overlook Mountain, throughout the night for thousands of years since, occupying a position perpetually spinning around the fixed celestial North Pole.

This is significant because to early sky watchers living in the Hudson Valley, occupying lands stretching for miles to the south, east, and west, Overlook Mountain would have been the place to look toward to see the serpent of the north rising, night after night, to fulfill its duties, protecting and making “precession proof” the

heavens. This is important because by “precession proof ” I mean no matter where the celestial pole drifted over time (due to precession), the dutiful dragon would always appear wrapped around that point diligently spinning about the celestial pole, marking its location for those watching. We must remember that no star ever marks the exact celestial pole, which is the point in space where Earth’s axis points and which also draws a slow circle in the heavens (over 24,000 years) due to the apparent wobble of precession. What we consider the north star now, Polaris, is merely the star that closest marks the exact, true celestial pole. This star changes over time due to precession—more on this later.

Besides the connection to the sky, the connection of this mountain to the serpent is also undeniable, and I don’t see this likely a coincidence since Overlook Mountain has the highest population of eastern rattlesnakes in New York state according to the Department of Environmental Conservation. It is estimated,

based on the wear marks on the bedrock at the den entrances, that some of the rattler habitats have existed for centuries—at least. I think this is significant given the reverence the snake was accorded by the indigenous people and helps complete the picture of the sacred nature of the mountain in the culture of the Native population.

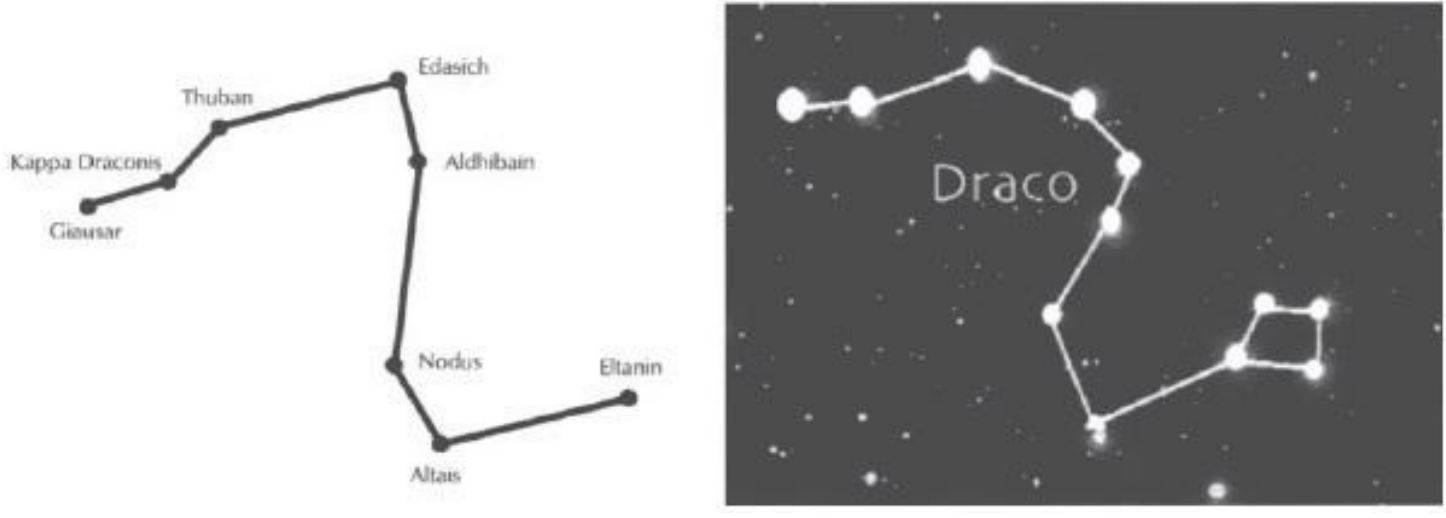

Figure 13.13. Comparing and matching the stars to the petroform

Serpent Mound Connection

Documented images of snakes and serpents are not uncommon in the Northeastern woodlands and elsewhere, and at least one significant Native American example is claimed to have a connection specifically with the constellation Draco. It is said the Serpent Mound of Ohio may have been designed in accordance with the pattern of stars composing the constellation Draco. The star pattern of the constellation Draco fits with fair precision to the Serpent Mound. The fact that the body of Serpent Mound follows the pattern of Draco may support various theses. Putnam's 1865 refurbishment of the earthwork was correctly accomplished, and a comparison to Romain's or Fletcher and Cameron's maps from the 1980s show how the margins of the serpent align with great accuracy to a large portion of Draco.

Some researchers date the Ohio Serpent Mound earthwork to

around five thousand years ago, based on the position of the constellation Draco, through the backward motion of precession, when the star Thuban, also known as Alpha Draconis, was the pole star. Alignment of the effigy to the pole star at that position also shows how true north may have been found. This was not known until 1987 because lodestone and modern compasses give incorrect readings at the site. Most scholars date the Serpent Mound to the Adena culture, which flourished from 1000 to 200 BCE. Though little details are known regarding the religious beliefs and rituals of the Adena, many believe that the Serpent Mound sat at the center of their religious rituals and may have even served as a pathway for practitioners to walk, chanting hymns and thanking their gods for the continued fertility of the land and praying for its continuance.

It has been documented that trading territories and routes of the Adena culture extended along the southeastern shores of the Great Lakes, as well as the Hudson, Ohio, and St. Lawrence rivers. So, it

is likely some of the religious and ritualistic aspects of the Adena culture diffused to the tribes of those regions and vice versa.

Draco and Mythology

From antiquity, Draco has long been known as the serpent or snake constellation. For a period in human history, the star Thuban in Draco marked the north point in the sky, as Polaris does now. This is a significant fact, which I'll take a closer look at later in this article.

Ophiolatreia, the worship of the serpent, next to the adoration of the phallus, is one of the most remarkable and, at first sight, unaccountable forms of religion the world has ever known. Until its true source can be determined and understood, its nature will remain as mysterious as its universality. It is difficult to reconcile

humanity's worship of a creature that is generally found repulsive. Yet, there is hardly a country of the ancient world where it cannot be traced, pervading every known system of mythology and leaving proofs of its existence and extent in the shape of monuments, temples, and earthworks of the most elaborate and curious character.

Babylon, Persia, India, Ceylon (Sri Lanka), China, Japan, Burma, Java, Arabia, Syria, Asia Minor, Egypt, Ethiopia, Greece, Italy, Northern and Western Europe, Mexico, Peru, America—all yield abundant testimony to the same effect and point to the common origin of "pagan" systems wherever found. Whether the worship was the result of fear or respect is a question that naturally enough presents itself, and in seeking to answer it, we're confronted with the fact that in some places, such as Egypt, the symbol was that of a good deity, while in India, Scandinavia, and Mexico, it was that of an evil one—a paradox that no doubt speaks to the struggle

between good and evil in humans and a duality pervasive in their nature and the nature of the universe.

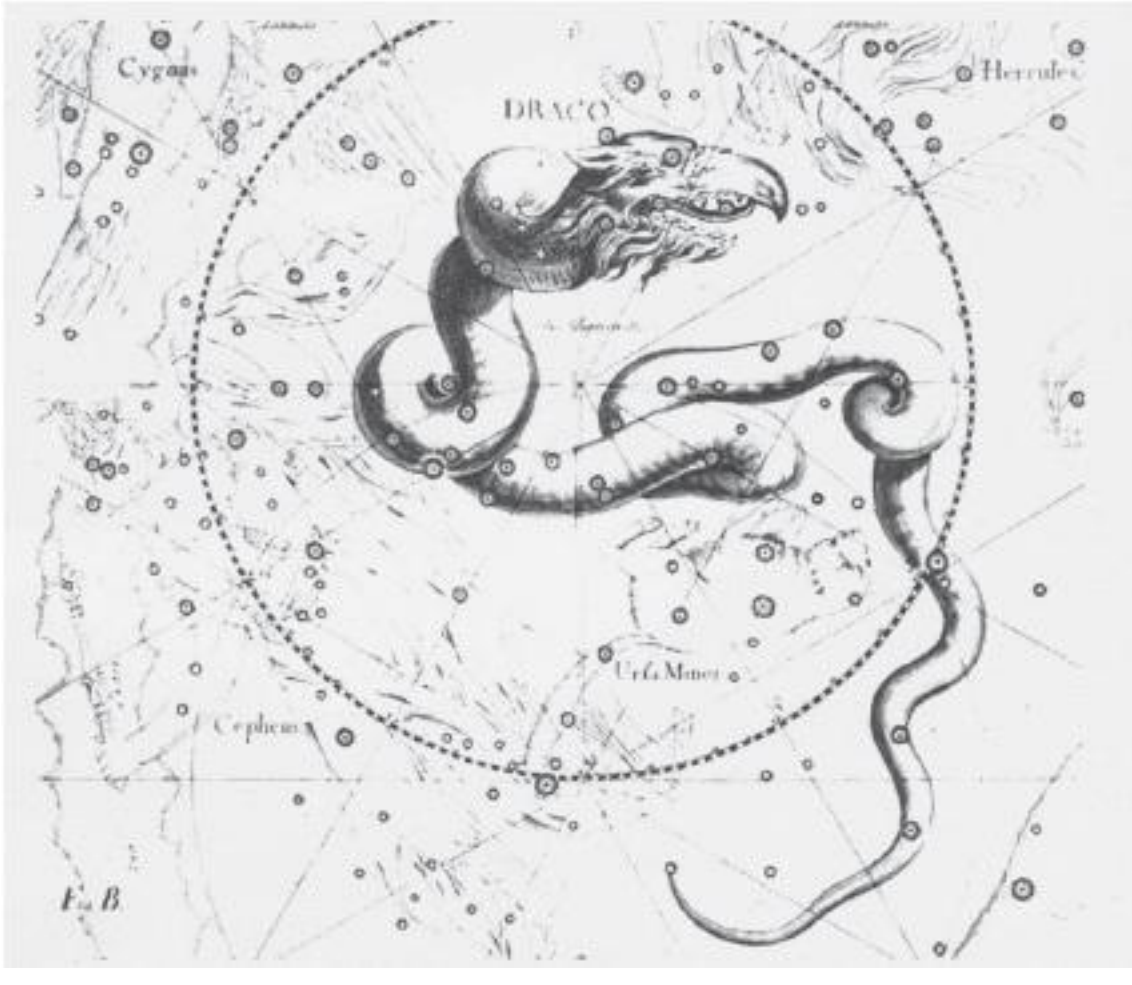

Figure 13.14. Draco in mythology is most commonly depicted as a

coiled snake.

Snakes, dragons, and other similar creatures often played a role in creation myths. In these stories, the gods would often battle such creatures for control of Earth. When defeated, the serpents were flung up into the skies. To the Babylonians, Draco was Tiamat, a dragon killed by the sun god in the creation of the world. To the Greeks, Draco guarded the golden apples of the sun in a magical garden.

In many early cultures, the serpent and the sun were strongly connected in their belief systems. Native American oral tradition relates how at one time people worshipped reptiles but were later compelled to recognize the sun, the moon, and other heavenly bodies as the only object of veneration. It's said the old gods were secretly entombed in earthworks built to symbolize and represent the heavenly bodies.

Figure 13.15. Left: Serpent wall/snake effigy. One of two that are part of the Overlook Mountain Petroform. Right: Serpent effigy crafted in rock outcropping on the author's driveway.

Serpents are a common feature in the art of the Late Prehistoric Period (900 CE to 1650 CE). As already mentioned, many Native Americans of the Eastern Woodlands in North America believed the great serpent was a powerful spirit of the underworld. Serpent

mounds and snake effigies may be a representation of these beliefs and hold a connection to the cosmos through the constellation Draco.

In *Reachable Stars: Patterns in the Ethnoastronomy of Eastern North America,* author George Lankford's volume focuses on the ancient North Americans and the ways they identified, patterned, ordered, and used the stars to enhance their culture and illuminate their traditions. They knew them as regions that could be visited by human spirits, and so the lights for them were not distant points of light, but "reachable stars." Guided by the night sky and its constellations, they created oral traditions, or myths, that contained their wisdom and which they used to pass on to succeeding generations their particular worldview. However, they did not all tell the same stories or see the same patterns. Lankford uses that fact —patterns of agreement and disagreement—to discover prehistoric relationships between Native American groups. In his research,

Lankford devoted an entire chapter to the serpent in the stars, seen usually by the Natives as the Scorpio or Draco constellations.

The great constellation of Draco was seen and revered by most of the civilized cultures and tribes of the Northern Hemisphere. The Nordics shaped their great boats in the form of Draco the cosmic dragon. The Native Americans named their tribes after it, and performed many dances to represent celestial movements. The Irish Druids made good use of the symbol on their monuments. During the time that Draco's star Thuban was the pole star, it may have appeared to ancient sky watchers that Earth revolved around Draco. E. Valentia Straiton writes about the mythology entwined with the serpent and the tree of life.

A symbol of sacred knowledge in antiquity was a tree, ever guarded by a serpent, the serpent or dragon of wisdom. The serpent of Hercules was said to guard the golden apples that hung from the pole, the tree of life, in the midst of the garden of Hesperides. The

serpent that guarded the golden fruit . . . and the serpent of the Garden of Eden . . . are the same.

Kennersley Lewis also wrote of the connections between sacred trees, the serpent, and the acquisition of knowledge.

[T]he nuptial tree, round which coils the serpent, is connected with time and with life as a necessary condition; and with knowledge—the knowledge of a scientific priesthood, inheriting records and traditions hoary, perhaps, with the snows of a glacial epoch.

From these quotes we see that serpent worship was at the heart of humans' earliest religious beliefs. But the concepts involved were far from primitive. Consider the mythological serpent as a representation of the constellation Draco and the tree of life as the pole or axis on which Earth spins. Through the association of the serpent and the tree, and the position of the stars relative to Earth's axis (precession), the importance placed on the certainty of this

relationship by the ancients becomes clearer, as well as why any disturbance in that relationship, metaphorically and perhaps literally, could portend a major imbalance in the energy and natural cycles of the universe, with the results nearly always disastrous.

Thuban, the Once and Future Pole Star

As mentioned already, due to the precession of the equinox, Thuban, the third star from the tail of Draco, was the star closest to the North Pole, according to the naked eye, from 3942 BCE, when it moved farther north than Theta Boötis, until 1793 BCE, when it was superceded by Kappa Draconis. It was closest to the pole in 2787 BCE, when it was less than 2.5 arc minutes away from the pole. This was at the height of the Egyptian dynastic era, and a shaft in the Great Pyramid at Giza points to Thuban as it was the pole star at

the time the pyramid was constructed. Thuban remained within 1 degree of true north for nearly 200 years afterward and even 900 years after its closest approach was just 5 degrees off the pole. Thuban was considered the pole star until about 1900 BCE, when the much brighter Kochab began to approach the pole as well.

Slowly drifting away from the pole over the last 4,800 years, Thuban now appears in the night sky at a declination of 64 degrees 20 minutes 45.6 seconds, RA 14h 04m 33.58s. After moving nearly 47 degrees off the pole by 10,000 CE, Thuban will then gradually move back toward the north celestial pole. In 20,346 CE, it will once again be the pole star.

Conclusions and Further Inquiry

It can be said the configuration and layout of large stone

constructions on Overlook Mountain, consisting of six large stone cairns and two serpentine walls, when taken as a whole constitute a component petroform that resembles a serpent. Specifically, in form and composition, the Overlook Mountain petroform bears a striking similarity to the star constellation Draco. If the Overlook petroform is not an intentional construction depicting the serpent constellation (Draco) that has risen over the mountain over the course of time for many centuries, it is a remarkable coincidence. Either way, it appears the presence of the cairn and serpent wall constructions are evidence of significant cultural activity and resources.

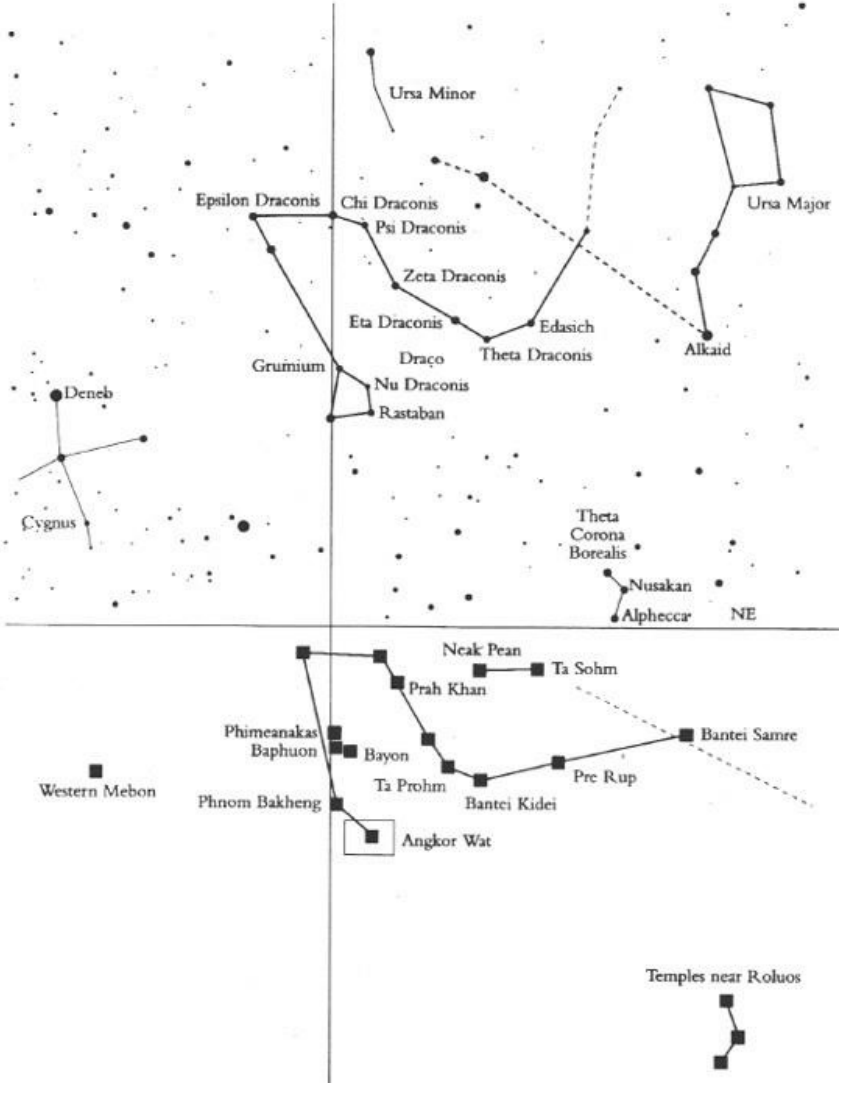
Ursa Minor
Ursa Major
Epsilon Draconis
Chi Draconis
Psi Draconis
Zeta Draconis
Eta Draconis
Edasich
Theta Draconis
Alkaid
Grumium
Draço
Nu Draconis
Rastaban
Deneb
Cygnus
Theta
Corona
Borealis
Nusakan
Alphecca
NE
Neak Pean
Ta Sohm
Prah Khan
Phimeanakas
Baphuon
Bayon
Bantei Samre
Western Mebon
Ta Prohm
Pre Rup
Phnom Bakheng
Bantei Kidei
Angkor Wat
Temples near Roluos

Figure 13.17. Sky charts showing the pole star position over the course of time.

Careful archaeological and geological inspection and analysis of the cairns and serpent walls could help provide answers as to the age and purpose of those constructions. Studying the settled and compacted soil, particles, and pebbles between stones of one cairn and comparing them to others could help determine which of the structures is the oldest or the most recent. That, as well as comparing lichen colony growth rates, from stones on the outer surface of the structures to those on the interior, could help shed light on when the stones were first placed in the cairns and walls. Identifying when could help determine the context within which they were built and the purpose for which they once served, if any.

It's reasonable to wonder: Were a people and culture present at the Overlook Mountain site that created ritual and ceremonial

constructions of stone, exploiting and manipulating the natural environment and materials found there, to express certain aspects of their belief system? Were landscapes routinely identified and modified appropriately to create relationships between the land and the sky, to venerate and preserve symbols and events associated with celestial observation? Many examples of this have been identified, reported, and documented in the Northeast and elsewhere.

Could this be more evidence of a diffusion of the Adena, mound-building culture into the Northeast region? After all, these are mounds we are talking about, albeit mounds made of stone in the Northeast. But then again, stone would have been one of the only materials available in this region for constructing mounds. Mounds made of stone instead of earth makes sense if there is no earth to use, yet mounds are what you wish to build. And, should we consider conversely that the megalithic mound-building concept and

culture of the Adena may have spread from the Northeast to the Midwest, having first arrived on our eastern shores from Europe, in an early wave of migration? Until the full picture is known, this idea should not be ruled out.

As has been suggested with the Serpent mound in Ohio, is the Overlook Mountain serpent petroform a representation on the ground, which is connected to the constellation Draco in the night sky? The crucial question of whether Draco currently or in the past appears in the night sky above the Overlook Mountain has been answered: it has and does. Now, how does it match up and align with the position of the large cairns and effigies as laid out on the ground? Are the orientation—that is the direction, position, layout, and configuration—consistent with, matching, or close to the position of the constellation in the sky above? Is there an actual, visual line up and alignment based on that orientation, and when does that occur? And, perhaps most critically, considering

precession of the equinox, what was the position of Draco above the site, going back hundreds or thousands of years? These are the relevant questions that remain to be answered about the site.

Evidence for the veneration of the four directions—north, east, south, and west—by the Native tribes of America is well documented, dating back to before the time of first European contact and as witnessed by many of the first Europeans to arrive. In many Native ceremonial practices, offerings are made to the four directions, relating each to a season and many times a relative. To this group, the pre-European Native civilization of Northeast America, there was no more sacred and important knowledge than in which direction to face to make such offerings. Keeping track of and preserving that knowledge would have been an important task with both practical as well as ritual aspects, and every opportunity and advantage would have been taken to do so. Knowing the true location of celestial north and tracking it over time would have been

the key to accounting for the celestial motion caused by precession, and this may have been the single greatest undertaking of the "big thinker" of those ancient days.

Until further evidence is found, speaking to the identity and motives of the Catskills stone mound builders, it is hard to make a stronger case for a correlation between the ground constructions on Overlook Mountain and the stars above. However, further research into finding out how the constellations were identified by Native American northeasterners, particularly the Algonquin-speaking tribes, and whether the existence and knowledge of the serpent constellation was present in Northeast tribal mythology, or if they identified what ancient Europeans called Draco as a serpentlike creature as well. Such evidence could considerably strengthen the argument for a correlation existing; a correlation, between Earth and sky, between the lithic constructions on Overlook Mountain and the serpent constellation in the stars above, marking the position of the

eternal, celestial north. Documenting and confirming this correlation, this serpentine connection between the real and mythical, the grounded and the godly, humanity and heaven would surely attest to the truly sacred nature of the site and provide a crucial clue to this unfolding mystery—one most deserving of further investigation and serious, scholarly attention.

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F O U R T E E N

Secrets of the Serapeum at Saqqara

PARTS 1 AND 2

ANTOINE GIGAL

Part 1

In this article I'm going to take you to Saqqara, a site on the Giza Plateau that is 6 km from north to south and about 2 km wide (29° 58' 51"N by 31° 07' 14"E, for those who want to look at the satellite views) and is southwest of Cairo, near ancient Memphis. I'm not going to talk about the famous Step Pyramid of Djoser (3rd dynasty, 2630 BC officially) built by his grand vizier, Imhotep, or of one of many mastaba; no, not this time. Instead I'll let you discover one of the most mysterious places in Giza and the whole of Egypt, the Serapeum, these strange catacombs.

Look at the view from above. The entrance to the Serapeum is almost in a straight line well above the small pyramid of Userkaf and slightly on a diagonal above the great Step Pyramid of Djoser (see figure 14.1, and see plates 11 and 12). Figure 14.1 from 1957 clearly shows the entrance; but today, the ground in this area is so dug over, excavated by archaeologists' concessions, that it is

difficult to see where the entrance is.

Figure 14.1. Satellite view

Some people, like Dr. Aidan Dodson, a professor of archaeology

at the University of Bristol, do not hesitate to regard the Serapeum (in Greek Serapeion, formerly Sinopeion) as the most important monument in the history of Egyptology. This extraordinary subterranean site was rediscovered first by the indefatigable Greek geographer Strabo, who traveled in Egypt around 24 CE, accompanying his friend, the Roman prefect Aelius Gallus, all along the Nile. It was he who alerted us in his writings to the sandstorms that can dangerously take you by surprise at the entrance to the site, concealed between two dunes, and bury you before you even find the door. He also mentioned the Avenue of the Sphinxes in particular, which made a 2.7-kilometer-long path through the dunes toward the Serapeum. This was a very important clue that made it possible much later to rediscover the site, which had disappeared from view, completely covered by sand.

Figure 14.2. The Greek geographer Strabo(57 BCE–25 CE)

Then a great Italian traveler, Giovanni Gemelli Careri, seems to have seen or at least approached it in 1693. He spoke of "a subterranean labyrinth" that he saw "not far from the pyramids." But we think he saw other catacombs, not the Serapeum itself, or rather one of its extensions, because he spoke of corridors running

“for miles like a city under the ground.” He added that the Egyptians he had met called this place the labyrinth, not to be confused with the famous aboveground labyrinth at Hawara in the Fayum area.

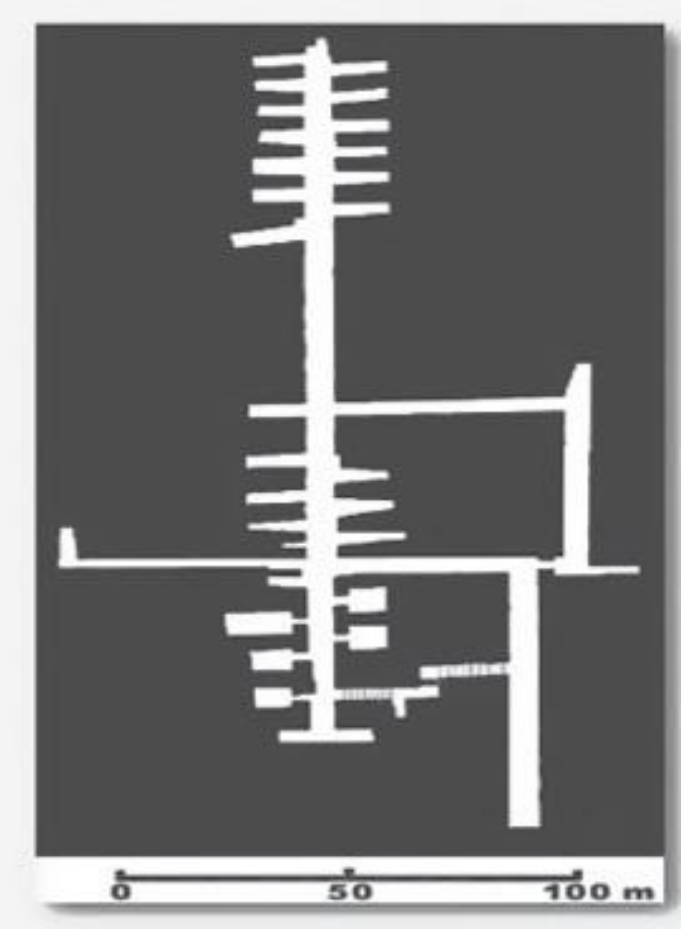

Figure 14.3. Left: The great Italian traveler Giovanni Gemelli Careri who inspired Jules Verne and who went to Egypt in 1693.

Right: Plan of part of the Serapeum.

At roughly the same date, Paul Lucas, a French merchant who bought up antiquities on behalf of Louis XIV, found and visited the site and spoke of galleries already collapsed. I think Benoit de Maillet, consul of France in Cairo from 1692 to 1708, also saw this place, but it was very difficult at the time, when nobody could read hieroglyphs, to identify and understand it. Up until now, it's been a great puzzle to researchers, perhaps even more so than the Great Pyramid itself. Also the place is closed to the public, and you need a special permit to enter. By visiting this site through this article, you'll enter a world of high strangeness; you can judge for yourself (see plates 13 and 14).

Figure 14.4. Benoit de Maillet, French consul in Cairo in 1738

Note in passing how the French became interested in Egypt, well before Napoleon. If anyone has given its letters of nobility to the

Serapeum, it is our dear Auguste Mariette (1821–1881) who discovered the complex on November 1, 1850. If only a few years earlier, Napoleon had searched frantically for the Serapeum, without success, it is because something special must be there. In fact, Mariette's discovery, made almost by accident at first, changed his life, and after this, he decided to devote himself to Egyptology. The discovery must have been of great significance to inspire such a vocation—another clue to the importance of the site.

In fact, Mariette had been sent to Cairo in the first place for a quite different reason: He was commissioned on behalf of the Louvre to find and collect Syrian and Coptic manuscripts from the patriarchs of the monasteries still in existence. Only problem was his mission soon became difficult because the English were in the process of snapping up everything. Competition was fierce. It was even said that the English achieved their ends by getting the monks drunk: They then snatched the manuscripts from their precious

archives, something that the honest and refined Mariette could never do. And then when you are surrounded by Egyptian monuments half visible above the sand and the excavations have just started, it is not very appealing to attend to other things such as texts that are by definition on quite different subjects.

Mariette had read the Greek Strabo, who described some of the Egyptian buildings firsthand. His description of the Avenue of the Sphinxes at Saqqara and the mysterious Serapeum, to which access was virtually impossible, had aroused Mariette's interest. So he decided to take a look in the dune-covered northern part of Saqqara. This was the right move because he soon came across a small sphinx half buried in the sand, a prelude to the famous avenue leading to the famous Serapeum. Given the competition, there was no time to lose. And so, as he loved to recount: "On 1 November 1850, during one of the most beautiful sunrises I've ever seen in Egypt, with a group of thirty men working under my orders near

this sphinx," about a hundred of these small sphinxes on each side of an avenue began to take shape. As the days went by, a classic *dromos,* a sacred way leading to an important place, formed before his very eyes.

He soon came to what he described as a courtyard of the ruins of a small temple. There he found the famous statue of the seated scribe who is now in the Louvre and a statue of the god Bes, whose name means "to be initiated, to be born" and whose ugliness was believed to repel evil forces. Eventually, on November 12, 1851, a year later because of the tons of sand to be moved, he found lower down the real entrance to the catacombs of the Serapeum. If you look closely at pictures of the site as it is now, the place is still totally buried below the level of the dunes. Mariette had to use explosives to break through the rock of the sealed entrance. He then entered a long gallery containing niches with votive stelae and twenty-four side rooms, like alcoves, each containing a huge dark

granite sarcophagus. These sarcophagi were nowhere near human scale, as to reach the top one has to climb a ladder of at least eight full steps; I checked it myself. In addition, each sarcophagus, carved from a single block of granite, measures 4 meters long, 2.30 meters wide, and 3 meters 30 centimeters tall and weighs about 80 tons, proof of a remarkable feat of technology (see plates 16 and 17).

Figure 14.5. Look at the enormous size of the sarcophagus.

We are told that these sarcophagi are the tombs of mummified sacred Apis bulls of the Twenty-sixth Dynasty (664–525 BCE) up to the Ptolemaic period. These huge sarcophagi are therefore supposed to have been receptacles for the mummified bodies of bulls that in real life would not have been much more than 1 meter 60 centimeters high over all and would have weighed as an adult about a ton at the most. The least one can say is that these granite sarcophagi were oversized compared to their supposed content. Strange, isn't it? I will come back to this. We are also told that the granite sarcophagi are empty (it's true, I was able to check on the spot). Supposedly their contents were looted in antiquity. They were thus found as they are now; that is to say empty, with no signs of any mummified bulls. Keep that in mind. Marietta also found that most of the lids had been moved.

He continued the excavations, and the following year he found other galleries, dating from Ramses II (1279–1212 BCE, Nineteenth Dynasty) and thus even older. This time they did in fact contain twenty-eight Apis mummies, but in small caves and in wooden sarcophagi that matched the actual size of a mummified bull. Moreover, the bull mummies were always embalmed in the kneeling position like sphinxes, which took up even less space. The wooden sarcophagus of Apis XIV dating to the forty-fourth year of the reign of Ramses II has come down to us intact. We know from later texts (votive stelae did not exist at the time) that during the sixty-seven-year reign of Ramses II, seven Apis bulls were embalmed. Mariette then found a third network of rooms containing other smaller burials, dating from the time of Amenhotep III (1387–1350 BCE, Eighteenth Dynasty). The only wooden sarcophagi still intact were those of the Apis VII and the Apis IX discovered with *ushabtis* (funerary figures), canopic jars, and amulets. So the only record we have is of a few bull mummies enclosed in wooden

sarcophagi and several stone sarcophagi of normal size. But nothing about the twenty-four huge sarcophagi of granite.

Figure 14.6. Look at the height of the sarcophagus cover.

At this point, a lot of questions raise their heads, but before I go into them any deeper, let's look at something else: Why this worship of bulls? The word *Serapeum* comes from Serapis, a composite god Sokar-Osiris-Apis created on purpose by the late Pharaoh Ptolemy I Soter (305–282 BCE after the Thirty-first Dynasty). The pharaoh had a major problem to solve: he had to reconcile and unify two different cultures mingling in Egypt, Egyptian and Greek. Thus, the new cult of Serapis was created, combining the ancient Egyptian cult of the Apis bull with the ancient Greek cults of Zeus, Hades, Asclepius, and Dionysus, trying to bring them all together into this composite god who represented fertility and the powers of the underworld.

Yes, but before that? The cult of Apis was certainly in existence a very long time before. According to Manetho, who I have already

spoken of a lot, it went back to the Second Dynasty. But for me and many other Egyptologists and researchers, it is much older still, because many objects from the earliest times that show the importance of the bull in connection with the heavens have been found, for example the palette from the predynastic period of Naqada (4000–3000 BCE).

So why the deified bulls? To the ancient Egyptians, the bull Apis contained the divine manifestation of the god Ptah and later of Osiris. The Apis bull was thus the actual receptacle selected by the soul of Ptah to come and incarnate on Earth. When Osiris later absorbed the identity of Ptah, he symbolized life in death, that is to say, resurrection. The Osiris living in the underworld is also the Osiris of fertile vegetation, he who has conquered evil and death. All these associations between similar gods through the centuries, common in Egypt, actually have a very important meaning, a significance that sometimes contains more than one secret. Thus the

Babylonian god Ea was called Serapsi, that is to say King of the Depths, which also relates to our Egyptian Serapis.

But back to the god Ptah, the former Atum, demiurge, creator of the world, the one who shapes, who builds, the Divine Architect of heaven and earth, the possessor of creative fire. On the Shabaka Stone it is said that Ptah "brought the world into existence." The equivalent of Ptah for the Greeks was Hephaistos and for the Romans, Vulcan, also identified with Zeus. Ptah is represented standing upright wrapped in the shroud of mummification, like Osiris, which to me clearly indicates that he resides in the underworld. He does not have the freedom of movement that one has on the surface of Earth. He is a prisoner of a place and a form that was not his in the beginning.

The fact that he is wearing a blue cap (which the blacksmiths adopted later on) shows that he is invisible when on the surface of Earth (see plate 15). In ancient Egypt, the color blue indicated

things and beings that were invisible. Thus Ra was originally depicted in blue, as was Amon. It is the blue of heaven, associated with the creative breath of the life. Ptah has mastered all the secrets of manipulation, which gives him the power to dominate and shape all matter. A chthonic god, he reigns over the minerals in the depths of Earth. Another important link, he is also associated with Ta Tenen, the island rising out of the submerged land (which brings us back to the Great Flood, or to several of them). In any case, he is a god who was present when the first land appeared above the waters —and who perhaps in order to manifest on Earth has to enclose himself in a form, so why not choose the form of the bull Apis?

His consort was Sekhmet the powerful, great in magic, the feared and untameable lion. She was the guardian of the threshold, protector of the gods, the warrior that Ra did not hesitate to send to punish the people on earth who no longer wanted any contact with the heavens and were cutting themselves off from the divine. Some

texts even give the impression that she had a part in unleashing the Flood. Then in the Greek tradition, let us not forget that there is the disturbing story of the nymph transformed into the cow Io by Zeus (associated with Ptah) and who, after an epic journey, ends up arriving in Egypt, where Zeus (Ptah) gives her back her human form and where she gives birth to Epaphus (the Egyptian Apis) and spreads the cult of Isis. The Egyptians associated Io with Hathor, and according to some researchers, Epaphus-Apis became king of Egypt and founded Memphis and was venerated as the god Apis. Strange, aren't they, all these interconnections? In any case, from this story we also learn that Zeus was willing to turn himself into a bull at times. So here we have a divine being, Ptah, linked with the underworld, linked with the creation of the world or its re-creation needed after the Flood, and his consort Sekhmet, who also has a link with the Flood.

But what further explanation is there for the Apis bull and the

sarcophagi in the Serapeum? Let's look at what we know from the texts. This descent of a god into a body of animal flesh on Earth gave rise to all sorts of very strict rules.

The choice of the bull used for the physical manifestation of the god was far from being left to chance. Judge for yourself: the bull had to be black with a white belly, have a white triangular mark on its forehead, an eagle with spread wings on its back, a crescent moon on its side, a scarab-shaped mark under its tongue, and a tail with long hairs parted in two. So it was a bull that was predestined for the role.

Herodotus even tells us that the Apis is "a calf from a cow that cannot bear any more offspring. The belief of the Egyptians is that a flash of lightning descends upon the cow and makes it receive Apis." Priests scoured the whole country to find such a calf. Once he was found, he was carried down the Nile to Memphis by boat, housed in a magnificent golden cabin. There followed a great

celebration because it meant that the living god had come to incarnate in the country; it was a tremendous honor and great joy.

A seven-day feast was held to mark his entry into the temple of Serapis, after which he had an easy life, with tasty delicacies and priests in his service, a harem herd available, music, jewelery to adorn him, and great popularity each time he was led out in grand style for festivities among the cheering people. He was so handsome that Plutarch wrote, strange as it may seem to us today, that “Apis is a beautiful image of the soul of Osiris.”

There were further reasons for his popularity. Indeed, it was said that every child who felt the breath of the Apis then had the ability to predict the future.

Thus people crowded round him. In fact, Apis himself was consulted as an oracle.

LABYRINTHE COLONNES

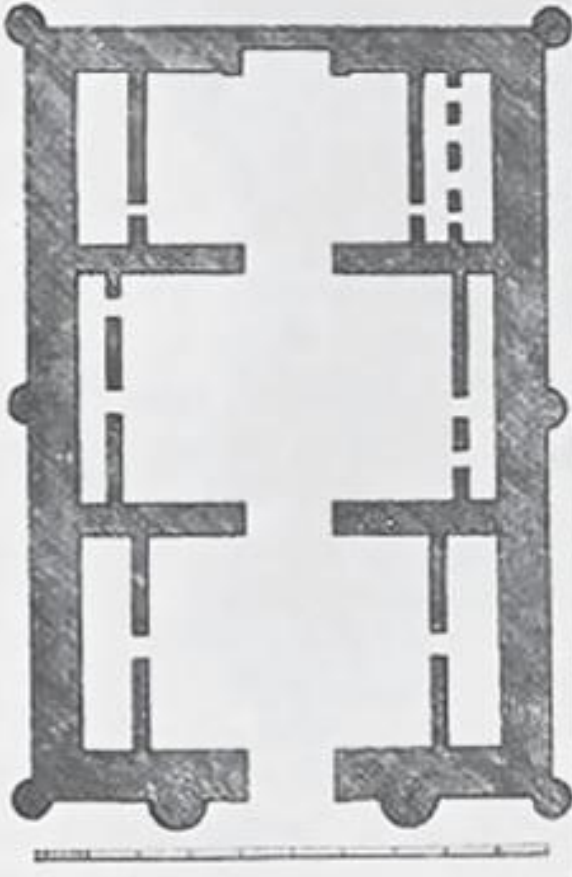

Figure 14.7. A drawing by Paul Lucas, the great collector of antiquities for Louis XIV who traveled to Saqqara in 1700. The upper part gives a good idea of what lies beneath inside the Serapeum.

If he accepted the food you handed him, if he extended a particular leg for instance—everything was matter for interpretation. He was also revered because in the afterlife, anyone who was under his protection had control over the four winds. He was also apotropaic, meaning he was supposed to divert bad fortune. And as soon as one Apis died, the search for another one began.

Also, according to my research, the Apis is linked to what is called the sign of Tanit. Tanit, of Phoenician origin, was a moon goddess of fertility, birth, and of the city of Carthage. Her shrine is at Serepta (still close to the word *Serapis*) in southern Phoenicia, where she is associated with the goddess Astarte (Ishtar). And brace

yourself, in Egyptian Tanith equals Ta Nit, which is to say the land of Neith. The goddess Neith was another warrior, who also watched over the mummy of Osiris; thus she is a goddess who fights and is connected with the underworld and resurrection. There's always this tangle of deities in different areas and different eras.

Figure 14.8. One of several blocked-up entrances

But if you look at the whole picture, it's always about the same thing! And everything takes us back to Egypt. To help you understand why the Apis was related to the sign of Tanit, first look at Apis as he was usually represented, gilded with the solar disc between his horns; then look at the sign of Tanit—the bull seen from the front represents the crescent moon (the horns), the sun (the disc that he was always adorned with), and the pyramid (his triangular snout). According to the Phoenicians, the whole thing was represented by a person raising his arms in prayer to the heavens. I should add that in the secret language of the Egyptian priests, the symbol of the sun meant look at what is fixed (the divine), and the symbol of the moon meant look at what is changeable, mutable (the incarnation). So we are faced with the notion of the animal being the very representation of prayer to the heavens, of the link with the divine, of the ladder to the sky. What other animal could serve so well as a link with the gods?

In addition, the design forms an ankh cross with the central line split in two at the base, which some believe could be the ankh sign of life in its very distant original form. A bull, then, as the symbol of life linked with the sky, linked with resurrection, and, better still, with ascension. We're just beginning to glimpse why so many important people have been interested in the Apis and the Serapeum. The rites surrounding the Apis were considerable. There was even a rite of baptism practiced in Rome much later, when the cult of Apis gained much success. This ritual was very similar to the Christian one.

What's even more significant, the word *bull* is pronounced ka, exactly like another ka, the one that, according to the ancient Egyptians, represented a person's double and held his or her creative energy. Each living being had its own ka, and the Egyptians said in the texts that to die is to pass into your ka. It is no coincidence that everything is a deliberate game in Egyptian

writing. The ka was represented in hieroglyphics by two arms raised to the sky, a symbol seen also in the hieroglyph of the bull. So in the symbolic role given to this animal, the Egyptian priests revealed a favored pathway to the divine and a means to reach eternity.

Conclusion to Part 1

We are thus faced with a place that speaks of resurrection, ascension, and eternity, and one that is hiding more than a few secrets. To help you understand even better the interest certain people have taken in this place, let me tell you that Mariette's first reports—the detailed discovery of each sarcophagus, each grave, each new underground passage, all through several years—have completely disappeared. Everything significant on the Giza plateau tends either to disappear or, if it can't be moved, to be closed to the

public.

Among other things, all along the outer walls of the Serapeum there are dozens of openings more or less effectively sealed up, some with electric wires coming out of nowhere, overlooking places that one cannot visit, not even with special permission. On the inside, these places are walled off, hidden behind heavy wooden panels and inaccessible. Since it was discovered some years ago that the workmen repairing the corridors of the Serapeum were exposed to breathing in excessive doses of radon (28.83mSv per year instead of the maximum of 10mSv per year), the site has been closed to the public. However, I've seen the whole air circulation system, and everything has been working wonderfully well for quite a while.

Figure 14.9. Another blocked-up entrance with an electric wire at the bottom

Figure 14.10. Close-up of the black electric wire

So I think the Serapeum will soon be reopened to the public, after the long period of repair it has undergone. On the other hand, it is clear that whole sections of it are not on the site map. We also

know that in certain places where the corridors have fallen in, it is still obvious that they carry on farther and that the huge granite sarcophagi are impossible to move or to transport. Someone has already tried it with a big team and heavy equipment, and the sarcophagus, slightly smaller than the others, is sitting right in the middle of the return corridor, abandoned there because it could not be dragged any farther. We know also that these sarcophagi are proof of an incredible technology, and one wonders how they could have been brought here in these narrow underground passageways where cranes cannot go.

I discuss this again in detail, but first I must tell you about the mysterious Imhotep, architect of the pyramid of Djoser, and about Prince Khasekhemwy, a son of Ramses II who was one of the greatest priests and magi of all Egypt, and about Aesculapius and the snake. Only then will you begin to glimpse what might have happened in this incredible place. And if you can, do go and take a

look at everything to do with the Apis bull in the Louvre or the British Museum.

Part 2

So, I've just been telling you about the incredible discovery made by Mariette on November 1, 1850, of the entrance to the Serapeum, this mysterious place at Saqqara on the Giza Plateau, with its complex network of underground tunnels containing a number of sarcophagi. These sarcophagi raise many questions, as their existence represents a technological feat that cannot be explained in today's terms. I have also talked about the religious rituals that were carried out around this place devoted to the Apis bull, which according to the ancient Egyptians represented the form in which the manifestation of the god Ptah/Osiris chose to incarnate and

which symbolized resurrection, the link with heaven, a pathway to eternity.

Before returning to the challenge of the sarcophagi, I will focus on an essential topic that usually fails to be addressed in discussions about the Serapeum: Imhotep/Asclepius. Remember the statue of Bes that Mariette found at the beginning of his exploration of the entrance to the Serapeum? Note that this being, revered for its oracles at Abydos, was also known to be a magician of dreams; that is he inspired dreams that could then be interpreted. Egyptians often placed a statue of Bes in their bedroom. At the time, dreams were seen as an important means of therapy; a fact that is essential for understanding the meaning of the Serapeum. In ancient times, dreams were associated with healing and medicine.

Remember that we are near the Step Pyramid of Pharaoh Djoser at Saqqara, built by the legendary Imhotep some time before 2660 CE. Imhotep, whose name means “the one who comes in peace,”

was not only chief minister of Djoser, the architect of the kingdom (the first in Egypt according to many scholars), high priest of Heliopolis and grand magus, and chief of all the priests in northern Egypt, but also a great doctor (probably the first also) with his school of medicine and his temple next to the Serapeum. More than 2,200 years before the birth of Hippocrates in Greece, still known as the father of our medicine, Imhotep in Egypt knew how to diagnose and treat over two hundred diseases, using anatomical terms and practicing surgery.

We can find hints of this in the famous Edwin Smith Papyrus. The great Egyptologist James Henry Breasted says of Imhotep: “In priestly wisdom, in magic, in the formulation of wise proverbs; in medicine and architecture; this remarkable figure of Zoser’s reign left so notable a reputation that his name is not forgotten to this day.” In the canon of Turin, Imhotep is designated as the son of Ptah. Apart from Amenhotep, he is the only mortal or hybrid

Egyptian who managed to attain the full position of a god. The Greeks who settled in Egypt equated the Egyptian Imhotep with their god Asclepius, the god of medicine, and called Imhotep's school of medicine the Asklepieion. It is quite possible that both Asclepius and Imhotep are one and the same person.

But first, who was this Asclepius? Nothing less than the son of Apollo, the ancient texts tell us, and of the nymph Koronis-Arsinoe. (Note in passing, the city of Fayoum in the confines of the Giza Plateau is called Arsinoe.) Yet another demigod? In any case, we are told that his cult, which had already existed on the island of Kos for a very long time, was introduced to Rome in 290 BCE during an outbreak of plague. His temple was erected on an island in the Tiber, and later it was confused with Serapis. You read correctly, Serapis. So, maybe the cult of Serapis is a later disguised version of a cult to Imhotep-Asclepius! But what else is said about Asclepius? That he was raised by the centaur Chiron (the last centaur on Earth

according to the ancient Greeks—now that's an "animal" that would fit quite well into our large sarcophagi) in an underground cave and was taught by him everything about medicine and more besides, because Asclepius was not content just to heal but he also raised the dead. The god Zeus in his heaven, disturbed by Asclepius's enthusiasm for immortalizing earthlings and thus upsetting the natural order of things, finally struck him with a thunderbolt. Does this not remind you of how the cow receives a flash of lightning before conceiving the Apis bull? The fact is that Ptah is often connected with Zeus and with lightning.

Figure 14.11. Left: Asclepius. Right: The caduceus.

Asclepius appeared in dreams to the priests and revealed to them the remedies for their patients, or else the patients received them in

a dream and were cured. He was shown with a rod with a snake coiled round it, the symbol of medicine (not to be confused with the caduceus of Mercury, with two snakes symbolizing commerce and communication). Asclepius had three boys and six girls, including Hygeia, Panacea, and Meditina. Meditina is of particular interest, as you'll see a little further on, for she was said to be a snake bearer. When Zeus struck Asclepius, he was transformed into the constellation Ophiuchus, which means snake bearer, also called Serpentarius—strange, isn't it? Ancient Egyptians taught that the gods when they died were transformed into a constellation or a star. And as you'll see, the snake plays a major role in the Serapeum. It is important to emphasize that our Hippocrates (the father of medicine, from whom we derive the oath our doctors take) is recognized as a descendant of Asclepius on his paternal side. Even if it is to him we owe the words *chronic, endemic, epidemic, convalescence, paroxysm,* and so on, and though Western medicine claims him as parent, in reality his concept of medicine was very different from

ours. Dr. Houdant for example says that “the Hippocratic treatment is much more of a meditation on death.” In fact, Hippocratic medicine was a carbon copy of that of Asclepius and was practiced in temples that had certain features in common. They had to have a temple-sanatorium at ground level and subterranean caves with an underground spring. That is what we also have with the Serapeum of Saqqara. In Athens, you can still see the sanctuary of Asclepius today on the southern flank of the Acropolis, beneath the Parthenon, with its grotto and its spring. This grotto has since been taken over by the Orthodox Church.

It is important for me to explain how Asclepius and his descendant Hippocrates treated their patients because they probably worked in the same way as Imhotep in the vicinity of the Serapeum. Besides their treatments with plant compounds and apart from dealing with fractures and surgery, the heart of their medicine primarily consisted of making their patients drink the water from

underground springs and bathe in it, because for them it was obvious that the water carried in it the healing powers of the spirits of Earth. After that, they only dealt with those who had the courage and determination to undergo the treatment. Patients had to fast and make repeated ablutions in the sacred precincts of what was called the Abaton; that is to say, in the temple, the caves, and the underground passages, which no one else was allowed to enter. Then the patients were made to sleep in the group dormitories of the Abaton so that they would dream. There were specific rituals for encouraging dreaming; the deepest wisdom of Mother Earth was supposed to send the patient dreams revealing the reasons for his or her illness and how to treat it. The next day, the patient told his or her dream to the priests who would then prescribe a treatment. It was also said that the first image that came into the dreamer's mind would become a guardian spirit and would never leave him or her.

Figure 14.12. Asclepius and his daughter Hygeia

The lesson to be drawn from this study of dreams was very sophisticated. They did not give a generalized interpretation of the dreams; they considered that a dream symbol gave rise to a different meaning depending on the person. Each person was considered to have his or her own dream language, and detailed work was done on the images and emotions of the patient. But Asclepius did not work only with the priests of his cult; he was assisted by—guess what?—a horde of snakes. Nonvenomous snakes slithered all over the floor of the dormitories during the night and were believed to be divinities who mediated between Asclepius and the patient. Because of the way snakes shed their skins, they were a symbol of rebirth and resurrection. (Incidentally, I can tell you that the word *life* in Chaldean is the same as for snake, and in Arabic, it's the same except for one letter.) Among the ancient Egyptians, the uraeus—the divine cobra on the headdress or forehead of the pharaoh—

represented the life force with all its power, as it was supposed to strike with lightning any enemy or any negative principle. However, they did not confuse this snake of highly positive qualities with the other—the serpent Apophis who brought chaos and negativity.

Figure 14.13. Hippocrates treating a patient

As a rule, the snake had the reputation of being invigorating and of bringing eternal youth and immortality. Why? Snake venom has powerful properties. Asclepius had a reputation for knowing how to administer doses of poison and antidote, including snake venom, with such skill that he was able to bring the dead back to life. He was known in antiquity to be a master of resurrection thanks to his snakes. We now understand better why he was transformed into the constellation of Ophiuchus, the serpent bearer. We can also understand better why the symbol of medicine is a rod with an entwined snake. In the small Imhotep museum that has just opened next to the Serapeum and displays objects and statues from in and around the Serapeum, what do we find? Snakes in all forms. The feet of a statue of Imhotep posed on beautiful painted snakes, carved cobras that covered the enclosure walls around the pyramid of Djoser, friezes of snakes in bas-relief found above the Serapeum, and so on—snakes everywhere (see plate 19).

And what was Imhotep's genealogy? His mother Kheredu-ankh was a mortal raised to the rank of semidivine (like the mother of Asclepius) as she claimed that her father was the god Banebdjedet, a ram god of fertility that the Greeks later named Pan.

This very strange ram curiously had four heads, two facing backward, two facing forward. It was said that within it was incorporated the essence of the world in four forms representing the four spirits or souls (ba) of the four masters of the world Ra-Shu-Geb-Osiris (perhaps at a time when these four deities were embodied together in a ram?). In any case, in Edfu, Banebdjedet was celebrated as one of the great ancestors. And at Mendes (Tell el Rub'a), there were found sarcophagi (of normal size) containing mummified sacred rams. His wife was the fish goddess Het-Merit. In ancient Egypt, fish represent the transformation of the gods. Don't you find that all this fits the same theme of metamorphoses and transformations, of gods producing different frequencies and

manifestations? In short, there's a lot of similarity with Asclepius. Let's not forget that the ancient Greeks already disagreed about Asclepius, saying he was much older than the official dating was willing to say (even then). Linguists argue that the true meaning of the name *Asklepios* etymologically is "the hero of the mound." Now all the sacred history of Egypt is based on a primitive mound raised above the waters.

Figure 14.14. Banebdjedet

Finally, might not Asclepius and Imhotep be the same person? Do they not seem alike because of their semidivine origins, their concept of medicine, and the almost miraculous power that they had over health, transformation and even resurrection? In both cases, there is the use of a temple sanatorium (at Saqqara archaeologists know there was one next to the Serapeum like that of Alexandria) and of an underground network, all related to snakes. According to the Egyptian historian Ahmed Osman, the Serapeum was maintained and served by volunteer monks, who watched over the patients in the complex. “The followers of the cult of Serapis were supposed to be granted the right to eternal life without the need of mummification if they showed devotion to the deity and went through an initiation ritual that included baptism with water.” Is it not this same immortality that one is supposed to gain in Catholicism through baptism?

On the other hand, we have a cult of metamorphosis, that of the sacred bull Apis as Ptah/Zeus/Jupiter honored among the ancient Egyptians, Greeks, and Romans. There are a large number of ancient writings on the many transformations of Zeus/Jupiter into a bull; for example, the whole story of Io (her other name is Europa), who is transformed into a cow by Zeus, then arrives in Egypt, recovers human form, and gives birth to Apis, who propagated the cult of Isis, founded Memphis, and was worshipped as a god-pharaoh, as I mentioned in the first part of this article. Io was said to correspond to the goddess Hathor, which would be very consistent. On the other hand, many Egyptologists equate Imhotep with Thoth-Tehuti. The cult of Thoth resulted in a cult of the ibis, his preferred form of transformation, and there are catacombs filled with the mummies of this bird beside the Serapeum of Saqqara as well as in Abydos.

It is time to say something about one of the greatest magicians of

all Egypt. More than a thousand years after his death, he was still considered a hero by the Greeks and the Egyptians. He is the Prince Khaemweset (1290–1224 BCE), son of the pharaoh Ramses II. Why was this prince so dedicated to the Serapeum during his life? When Mariette had to use explosives to get through a large rock blocking the first gallery of the Serapeum, and in the rubble found a mummy with a golden mask with human features, he deduced that it could only be Prince Khaemwaset. Certainly, his seal was everywhere on the objects and jewelery found with the mummy. However, a significant doubt remained. First, Mariette could have been influenced at the time by late stories attributing to the prince a desire to be buried with the bulls. Furthermore, certain things just didn't hold together. Some Egyptologists think this mummy could very well be that of an unknown man buried in a crypt above the vault. Apparently, the wall of the crypt collapsed under the impact of the blast. For others, much better informed in my opinion, this mummy, even though it had an anthropomorphic shape and gold

funerary mask with human features, in fact contained the remains of a bull that had been given human shape, with jewelery and amulets bearing the name of Khaemwaset.

Figure 14.15. Auguste Mariette

Why is there still a doubt? Well, simply because the mummy has vanished. Yes. As usual, the really significant objects cannot be found. It is even more unfortunate because Mariette's detailed reports on the Serapeum have also disappeared, strangely enough. The fact is that Prince Khaemwaset did not only contribute to the enlargement of the underground labyrinth and oversee seven Apis burials in the Serapeum, but he showed a genuine devotion to this place. Why? Why did the fourth son of the pharaoh Ramses II undertake throughout his life to restore the teachings of the great ancestors, those who had arrived first in the land of Egypt? The prince was working to reestablish those aspects of the tradition that were the most sophisticated, the most secret, and the most magical. Why did he, as we are told, at the end of his life live almost all the time in the underground Serapeum?

First of all, who was he? After a period of military honors—he was known to have been present at the famous Battle of Kadesh—

he became a priest and then governor of Memphis and Grand Sem Priest of Ptah worship in Memphis. He was president of all the craftsmen. He is often called the first Egyptologist in history because he carried out an unprecedented campaign to restore the ancient monuments of his country, such as the Pyramid of Unas and a dozen pyramids and important monuments of previous dynasties. His passion for his country's past made him inscribe on a statue, "I love so much antiquity and the nobility of the earliest times." Very learned, he also had a huge library of documents on sacred and magical subjects that aroused envy in the ancient world. He founded the library of the Ramesseum in Western Thebes, which contained only papyri about magic. He is said to be, among other things, the author of the "Papyrus that produces terror and respect," mentioned in the time of Ramses III.

This attitude of collecting, of gathering evidence and knowledge of the past, of respect and maintenance of the tradition, in itself

marks Khaemwaset as a constant researcher of the hidden principle of divine intelligence and the human capacity to rediscover it. His approach corresponds to the spirit of the god Thoth-Tehuti, whom many experts now dare to think could be an ancestor of Imhotep, if they are not the same person. Much later, the Greeks claimed that Khaemwaset possessed the famous Emerald Tablet of Thoth-Tehuti-Hermes, and they always called him the King of Magicians. Remember that in the third century, Clement of Alexandria considered Egypt to be the Mother of all Mages. Khaemwaset was known for working against the Nubian magicians to prevent any foreign takeover of Egypt. He was a great magical protector of the existence of the country and of pharaoh. In short, the prince was passionate about the most secret mysteries (see plate 18).

Figure 14.16. Left: Prince Khaemwaset when young. Right: Prince Khaemwaset depicted on the wall of his tomb.

What do we learn from this? That one of the projects that he held

closest to his heart was to restore in his lifetime the practice of the Heb Sed Festival. This was a great ritual festival that originally was to be celebrated every thirty years of the pharaoh's reign so as to renew his accession. It was the celebration of the jubilee. In fact, the prince reintroduced the Heb Sed Festival in favor of his father Ramses II, who celebrated it fourteen times during his reign. Why? Well, because to initiates, Sed was in truth a great ritual of rejuvenation. No need to wonder at the incredibly long life in full fitness of his father Ramses II, the pharaoh who lived the longest. In the original form of the Heb Sed Festival, the pharaoh had to run naked in the full sun and without food or drink, until sundown some say, around places that symbolized the different provinces of southern and northern Egypt. If he did not die of exhaustion, that meant that he was reinstated in office by the approval of the gods. After that came all sorts of secret rites enacted out of sight in the holy of holies of the temple, including invigorating rituals of rejuvenation. It is mentioned sometimes that the pharaoh had to

spend a whole night wrapped in a bull's hide. If he could not stand the physical effort of running, if he was taken ill, it was said that it was time for him to join his ka; that is, move on to the next world.

As you see, being pharaoh was no easy job because the pharoahs carried the responsibility for the cohesive force of the world on their shoulders—at least the earliest pharaohs did—and they absolutely had to be equal to the task. They were the bearers of the positive force, of the harmony of life, and had to keep the upper hand at all times over the forces of chaos that threatened the positive development of events, of things, and of people in the country. So Prince Khaemwaset, a great expert on the Sed rituals, with uncommon powers and knowledge, passionate about medicine, rejuvenation, and resurrection, spent most of his time in the corridors of Serapeum following the example of Imhotep or of Asclepius. Why? Surely for something closely connected to his passionate research, don't you think? In 1991, a Japanese team from

Waseda University discovered north of the Serapeum a building containing 2,500 items bearing the seal of Khaemwaset.

Conclusion to Part 2

For one thing, we have Apis bulls buried in small sarcophagi, usually made of wood, that do not take up much space because the bulls are mummified in the sphinx position. Three have survived intact from the time of Khaemwaset including the Apis XIV, witness to the continuing worship of the incarnation of the god Ptah in a bull. This cult, dedicated to the metamorphosis of a god who, as the ancient Egyptians believed, took physical form on Earth, thus lasted a very long time. Then there is an underground place that was used to treat, to heal, and even to restore people to life with the help of live snakes. And then we have twenty-four huge granite

sarcophagi that look nothing like any others. Apart from their exceptional size, each receptacle has a lid that alone weighs twenty-seven tons and fits perfectly. A careful observer will also notice notches in the walls of the narrow niches where these sarcophagi are placed. These notches allow the 4-meterlong 30-centimeter-wide lid to be rotated sideways on its central axis and to remain in position on the edge of the sarcophagus. This indicates that the sarcophagi were used open as often as closed.

What was kept inside them? Was there any liquid? Were the sarcophagi used in the metamorphoses of the gods, in their possible changes of frequency, in medical treatments with snakes, in a rejuvenation process? Were they the receptacles for giants or were they used for the resurrection of the dead? We are told that they date from the Eighteenth Dynasty. Guess what, this dating is based solely on bits of Eighteenth Dynasty pottery found nearby. Who are they kidding? By that time, the art of stone carving was in rapid

decline in Egypt. And there we have these containers of eighty tons that are found nowhere else in Egypt or in the world. Imagine the technological precision used to drill to perfection these enormous thick troughs of granite in one piece, with corners that are perfect inside and out, exactly parallel. It's just incredible, unequalled to this day, and represents an achievement way beyond the ordinary. In the words of the engineer Christopher Dunn, who went in 1995 to take measurements with properly calibrated instruments, "Nobody makes such things without having a very good reason for their design," and "the tools used to create [these objects] are so precise that they are incapable of producing anything other than perfect accuracy." We are far from the worker with a hammer trying to gouge out a lump of stone. The surfaces of these huge containers are perfectly smooth with precise and perfect edges, made from a solid block of granite of an unbelievable thickness. For many experts, this perfection is proof that a very advanced civilization lived in Egypt for a very long time ago.

These containers are completely smooth and devoid of any inscription, except for two partially inscribes ones. But when you look at one of the two inscribed containters, you see a wobbly and very inaccurate line and poorly drawn hieroglyphs in the design that was very common in the late period of false doors—a very clumsy effort. Now genuine inscriptions on sarcophagi are always perfectly accurate; the royal scribes and sculptors had a total mastery of writing and of their materials, even in bas-reliefs. Writing that was flawed would not have been allowed or tolerated on such objects. So at what point were these writings added—perhaps quite recently? Has someone tried to make us believe, misguidedly and without success, that these objects are not so old after all? And why try to disguise the glaring truth, namely that these objects were designed to be mysteriously smooth and without any inscription? Why would anyone want to turn them into ordinary items, when their dimensions speak for themselves?

Finally, last question: How were people in the old days able to transport these very heavy sarcophagi into these deep and narrow niches? In our time, as I described at the beginning, a serious attempt was made to carry one of them up to ground level but after a few meters, it had to be given up. So, is it not reasonable to think that these sarcophagi were actually already there, long before Khaemwaset, as vestiges of a remarkable technology? They were revered for the extraordinary purposes to which they had been put in the distant past—secret purposes that a few rare scholars, like Prince Khaemwaset, still jealously guard.

F I F T E E N

The Case for the Daemon

ANTHONY PEAKE

The woman had settled down to a quiet evening in, curled up with a book. She was engrossed in the story and at first was not sure what she had heard. It then repeated itself. It was a voice that was somehow inside her head and yet not part of her thought processes.

The voice was absolutely insistent. It had arrived from nowhere and was quite clear about its purpose. It told her that she had a

medical problem but that she was not to worry because it was there to help her.

After a few weeks of these strange communications, some of which where precognitive, the woman, known as AB, decided that her only course of action was to go and see her doctor. The local doctor simply could not understand what was happening but assuming that the problem was psychological referred her to Dr. Ikechukwu Azuonye of the Mental Health Unit at London's Royal Free Hospital. In the winter of 1984, Dr. Azuonye diagnosed a straightforward case of hallucinatory psychosis. He prescribed a course of the antipsychotic drug thioridazine and expected that would be the end of it. How wrong he was.

Initially, the thioridazine seemed to work. Thinking the voice was simply a peculiar psychological interlude, AB and her husband went off on a holiday. However, while out of the country, the voice had found its way through the drug barrier and was more insistent

than before. It pleaded with her to return to England as soon as possible, saying that she needed urgent medical treatment. Indeed it even told her an address that she should go to for help.

The voice was now becoming quite precise concerning AB's medical problem. It told her that it had two reasons for wanting her to have a scan: first, that she had a tumor in her brain and, second, that her brain stem was badly inflamed. She convinced her husband that they had to go and find the address the voice had told her. Much to her surprise, and concern, the address turned out to be the computerized tomography unit of a large London hospital.

This scared her so much that she went back to see Dr. Azuonye. The psychiatrist was, not surprisingly, reluctant at first to do as the voice requested. He knew that the woman had none of the symptoms associated with a brain tumor and for him to force the issue would reflect badly on his professional reputation—particularly if he divulged the source of the diagnosis. Against his

better judgment, he agreed that he would write to the clinic and see what they said.

A few months later, and after many letters, the clinic agreed to do the scan. Much to the surprise of all concerned, with the clear exception of the voice, the scan clearly showed an unusual mass in the brain.

AB was called in to meet with a neurological consultant. The consultant explained that the mass was probably a meningioma tumor. As he said this, AB heard the voice agree with this diagnosis. However the voice was concerned that there had already been too much delay. It demanded that she be operated on straight away. Not only this, but the voice wanted the operation done at Queen's Square Hospital. This was because it knew that that particular hospital specialized in neurological diseases.

This time the hospital authorities agreed, but the operation was to take place at the Royal Free. The voice considered this and

decided that it was acceptable. A few days later AB and, presumably, the voice itself were under full anaesthetic and being wheeled into an operating theater.

As AB came to after the operation, the first thing she was aware of was the voice. All the insistence had gone. It said, “I am pleased to have helped you. Good-bye.”

When the surgeon came round to see her, she already knew that her life had been saved. He explained to her that he had removed a 6.4-cm (2.5-inch) tumor from her brain. He added that he was sure that, had it not been removed, she would have most certainly died.

Over the years, this case continued to fascinate Dr. Azuonye. By 1997, he had moved to Lambeth Healthcare NHS Trust and had mentioned the AB case many times to his associates. He found that the response was always either extremely positive or extremely negative, and with this in mind, he decided to submit an article describing the event to the *British Medical Journal*. He was pleased

when he received a positive response, and the article appeared in the December edition.[1]

Many hypothetical suggestions have been made as to what took place in 1984, but none have been considered satisfactory. However, there is now a possible answer to the question of what was happening to AB.

Who or what was this voice and how did it know what was about to take place? How did it know that AB was dangerously ill? How did it know exactly what the cure could be? And how did it know who would be of the greatest help? Could it be that we all have a secret lodger in our brain—a being that has knowledge far greater than our own?

The central concept of my recent book *The Daemon: A Guide to Your Extraordinary Secret Self* is exactly this: that all conscious beings consist of not one but two semi-independent entities—one of which knows what will happen in the future. In this article, I wish to

present the evidence for such an idea. I will first review the philosophical, historical, and theological background to such a belief, and then I will apply some astonishing evidence from modern neurology and consciousness studies that may show that such a belief may, in fact, be true.

The Evidence from Theology

Although early civilizations such as the ancient Egyptians had a form of duality that implied more than a simple soul-body dichotomy, it was the ancient Greeks who refined this into a coherent philosophy. For the Greeks, human duality was reflected in two beings: a lower, everyday self called an *eidolon* and an immortal, transcendental being called a *daemon*.

Through the fascincating etymology of the word *daemon* (or

daimone, as it is sometimes written), a good deal is revealed about social and cultural history. The ancient Greek word was *daimön,* meaning deity or god. As such, the Greeks definition of the word was positive, or at least ambivalent. The Romans Latinized the Greek word, turning it into daemon. For the Romans, a daemon was an inner or attendant spirit that sometimes gave humble man a touch of genius (hence the phrase *the demon of creativity* that is still used by people who never seem to see how curious the statement is).

The word *eidolon* also has an interesting philological history. Originally, this word was used to describe an image or statue of a god. Eventually, it came to mean a copy of something divine; the copy looked like the original but lacked all its qualities. For the pagan sages, this perfectly described the part of the human duality trapped in the realm of darkness. This entity thus became known as the eidolon, which is the embodied self—the physical body and the personality, the person him- or herself. This lower self is mortal and

is totally unaware, unless initiated into the mysteries, of its higher self. It is very much part of the world of darkness. It is a slave to emotion and all the other ills that beset the physical being. The daemon, on the other hand, is the immortal self. This daemon is always with the eidolon and, where possible, tries to assist and guide.

The idea of this daemon-eidolon duality fascinated the ancient Greeks, and soon a whole philosophy of universal structure was around this relationship. The earliest known writer on the subject was Empedocles. For him the daemon, although semi-imprisoned in the body, is a divine being exiled from its rightful place among the gods. It exists totally independently of its lower self, or eidolon, and has great knowledge and power.[2] However, our knowledge of this interesting belief really comes from the writings of Plato and his descriptions of the teachings of his master, the famed Socrates.

Plato reports that throughout his life his great teacher had

assistance from a guide. Socrates called this discarnate voice his Divine Sign. From childhood, this voice had communicated to him its opinions on what he was doing or intended to do. According to Plato, this voice forbade Socrates from doing certain things and regularly gave prognostications on whether good or bad luck would follow a certain action. It is as if Socrates's Divine Sign was directly aware of the philosopher's potential future. Plato was at great pains to point out that many of these predictions were marked by extreme triviality—as if this spirit were tied very closely to the minutiae of Socrates's life. Socrates explained this in the following speech to the jury who were about to condemn him to death: "I have had a remarkable experience. In the past the prophetic voice to which I have become accustomed has always been my constant companion, opposing me even in quite trivial things if I was going to take the wrong course."[3]

In this final act of his life, Socrates was to find that his Divine

Sign did not oppose him. It was as if his lifelong guide and mentor was resigned to the inevitable; Socrates had to die as decreed both by fate and the jury. The hemlock goblet could not be avoided. The voice remained silent.

However, the idea that all human beings have two independent elements did not remain silent. The theology proposed by Empedocles and refined by Socrates was to find many followers in the ancient Greek world and was to become a central tenant of the school of philosophy that was to become known as Stoicism.

Epictetus, the major Stoic philosopher, was quite fascinated by this duality. As with Socrates and Empedocles, nothing remains of his original writings. However, his pupil Arrian wrote down his teachings, recording them in two works: *Discourses* and *Encheiridian* (or manual). In these works, it is clear that he had taken the evidence of Socrates's Divine Sign and the old belief of human duality and created a cogent philosophy. He wrote:

God has placed at every man's side a guardian, the Daemon of each man, who is charged to watch over him; a Daemon that cannot sleep, nor be deceived. To what greater and more watchful guardian could have been committed to us? So, when you have shut the doors, and made darkness in the house, remember, never to say that you are alone; for you are not alone. But God is there, and your Daemon is there.[4]

Here we see the ongoing idea that this other entity, the daemon, is more than simply another facet of human nature. It is an independent being that watches over its lower self. That it has an ongoing consciousness is stated by the phrase that it cannot sleep. Indeed, the implication is that the daemon perceives even when the eidolon sleeps.

This belief, however, was not unique to Epictetus or even the Stoics. According to the noted historian of the late classical and early Christian period, Robin Lane Fox, the Romans had an ancient

but popular belief that each person had his or her own attendant spirit who followed that person throughout his or her life. This being, termed the genius, was born with the individual and as such was honored, therefore, by each individual, on his or her birthday.[5]

For many of the early Christians, the idea of such a duality of spirit was a dangerous heresy, particularly as it clearly had pagan roots. In order to deal with this, the early Church Fathers applied simple semantics. They took the word *daemon* and consistently used it to designate a disincarnate spirit that has been spawned by the devil to tempt humanity away from the true God. Over time the letter *a* was dropped, and the word mutated into one we all know so well, demon. Job done.

Well, not exactly. There was another group of Christians who found a good deal of theological justification for the daemon-eidolon duality. These were the little known, and quite intriguing, gnostics.

According to the gnostics, the universe was under the influence of two conflicting forces; light and darkness. Human beings are in turn a reflection of this duality. Our soul is a spark that comes from the light. It is therefore part of the positive side. However our bodies are made up of matter. Matter is part of the darkness. As such, there is this ongoing conflict within the human condition. Human beings are imprisoned in this body of darkness but a part of them retains memories of their divine origin. The part rooted in the darkness equates to the eidolon. This being is made of matter and will cease to be when the body dies. However, the part that retains the memory is the daemon.

The central tenant of gnosticism was that an eidolon had to reach a state of *gnosis* (literally knowledge), and having done so, the eidolon could achieve union with the daemon and thereby move away from this corrupt world of matter. To do this, the eidolon would need to spend many years being initiated into the secrets of

gnosticism.

However, there are times when the daemon chooses to make itself seen or heard by its eidolon without initiation. The eidolon in these circumstances will perceive the daemon to be some form of guardian angel or spirit guide. Indeed, Plato writes, “We should think of the most authoritative part of the soul as the Guardian Spirit given by God which lifts us to our heavenly home.”[6]

The gnostic sages carried this belief forward in its entirety. Valentinus taught that a person receives gnosis from his or her guardian angel, but that in reality that being is simply that person’s own higher self.[7] This implies that the angels that communicate between the world of light and the world of darkness are, in fact, not independent beings at all; they are daemons from this world. We are our own teachers!

This is all very interesting with regard to the history of religion and mysticism, but it really has no relevance to twenty-first-century

psychology and neurology. Or does it?

The Evidence from Neurology

That human consciousness may be dual rather than unitary may fly in the face of common sense, but for those who study the brain, such an idea is not only possible but probable. A swift review of brain anatomy cannot but support such a proposition. The most immediate thing that strikes you when you observe a brain for the first time is that it is not, in fact, a brain at all. It is two, virtually identical brains, joined together by a mass known as the corpus callosum. Every structure in one side is mirrored in the other, with one, curious exception, the pineal gland. There are two of everything: two limbic systems, two temporal lobes, two amygdalas —the list goes on. The singularity of the pineal gland was noted in

ancient times, and because of its unique position, it has been thought of as the location of the soul.

Neurologists have long been puzzled by this. Why should the brain be structured in this way? Indeed, the puzzle has deepened in that it has been shown that certain individuals continue as normal people even when one of the hemispheres is damaged or removed. Indeed, in the past fifty years or so, surgery has advanced to such an extent that the corpus callosum can be cut, and in doing so, the two hemispheres cease to have a line of communication. When this is done, these patients literally have split brains. They also end up with two independent centers of consciousness. The implication of this is both clear and mind-blowing: we have two independent beings sharing our perceptions.

It is generally the case that one side of the brain is dominant and one is passive. The dominant hemisphere (usually, but not always, the left) is rational, objective, and unemotional. The nondominant

(right) is understood to be irrational, subjective, and emotional. However, this does not on its own imply two foci of consciousness, just simply two aspects of the same consciousness. The two elements are simply seen as aspects of a unitary consciousness with the left hemisphere being generally in control with the occasional eruption of emotion from the right. This is why in recent years there have been so many self-help books suggesting techniques by which people can attune to their intuitive right brain. But the reality is far more complex—and fascinating.

Usually, the two hemispheres work in tandem, with the left generating a constant stream of inner dialogue that gives us our sense of self. Meanwhile, the right hemisphere is still actively involved in all cognitive processes, working away in the background. However, and here comes the surprise, the being known as I or me is generally completely unaware of what its silent partner is up to. Indeed, for most of the time, the I is completely

unaware of its partner. Problems arise when the two fall out of phase. Suddenly I senses us. However, it is much more disturbing than that. The dominant hemisphere perceives its nondominant twin as an external presence, a being that is not self but other. To the experiencer, this sensed presence is not him- or herself at all but an outside being.

Michael Persinger of the Laurentian University in Sudbury, Canada, has spent many years studying this peculiar psychological effect. He even has a term for this perception. He calls it the *visitor experience*. Indeed, he has been able to reproduce the sensation under laboratory conditions. Persinger believes the experience shows a linear progression. At its weakest, the subject just feels that he or she is not alone; that there is something else in the room that he or she cannot see. However, at its strongest, the subject perceives an objectively existing being of tangible reality, a being that has great emotional significance to him or her. For some, this being may

be an angel or even a god.

As the intensity increases, the manifestation may become even more immanent in the sensual world of the subject. Sensations such as weird buzzing sounds, tingling sensations, and, occasionally, a huge energy release from within subject's body.

What was significant to Persinger was that the brain of the subject, when measured with an encephalograph, showed activity in the temporal lobes. As the experience became more intense, the occipital lobes became activated. When this happened, there was a sudden externalization of the sensation: The sensed presence manifested itself as a visual being fully external to the subject. A common description is of a cowled figure with just a face and hand visible through the folds.

What is very interesting is that if the lower portion of the temporal lobes becomes activated at this time, then long dormant memories may spontaneously enter the subject's mind. The being

will then communicate information that seems intensely personal. This may be interpreted as telepathy or omnipotent knowledge. However, there is more. According to Persinger, past-life memories can be evoked in a panoramic life rerun, similar to those reported during the phenomenon known as the near-death experience.

If this is the case, could it be that the other major element of the near-death experience—seeing a being in white—is really an external projection of the experiencer's nondominant consciousness? If so, it would certainly explain how this being shows such intimate knowledge of the dying person's past life.

Could it be that this being really is an independent focus of consciousness that has shared the life of its alter ego? Could the experiments of Persinger show that the daemon is a very real aspect of every human being's neurological makeup?

Cheating the Ferryman?

In my first book, *Is There Life after Death: The Extraordinary Science of What Happens When You Die,* I present evidence that, during the last few seconds of life, we all split into the two entities I term the daemon and the eidolon. Up until this moment, both entities have been united as one being and do perceive themselves as two separate entities. The daemon, suddenly discovering its true vocation, is aware that it is responsible for the experience called the past-life review. It begins the review, while at the same time manifesting itself as an image perceived by its eidolon as a figure. For some, this image will be the classic grim reaper figure, whereas to others, the daemon may be seen as a relative, religious figure, or even an animal—anything that fits the eidolon's preconceptions of who will be there to welcome him or her into the next life. The daemon then starts the past-life review using the memory stores of

the temporal lobes. However, to be a reported near-death experience, actual death does not take place. The subject lives to tell the tale. Many of these survivors describe how their life flashed before their eyes. This may be because the daemon, suddenly becoming aware that death will be avoided this time, metaphorically presses the fast-forward button and aborts the process.

What happens in a real-death experience is that the daemon starts the past-life review without the need to fast-forward. The dying eidolon, in the last few seconds of its life, falls out of time and relives again its whole life in a minute-by-minute three-dimensional re-creation of a life that is indistinguishable from the real thing. However, there is one major difference: this time, the daemon is not only self-aware but remembers what happened last time. In this way, the daemon reproduces exactly the role as described by the gnostics, the Stoics, and pagan sages: It becomes a guardian angel looking after the life of its lower self, exactly as described by

Socrates.

Can it be that most of us are living our lives in a three-dimensional illusion? Well, it would help to explain certain ongoing mysteries. Precognition suddenly does not defy scientific knowledge because it is simply a memory. Déjà vu can be seen for what it is—a jump in the playback mechanism or simply a flashback. And what about those weird hunches, synchronicities, and intuitions that seem to regularly enter our consciousness? Could they be just messages from our own higher self—our daemon?

S I X T E E N

The Intention Economy

FROM EGO TO WE GO

DANIEL PINCHBECK

While exploring shamanism and nonordinary states, I discovered the power of intention. According to the artist Ian Lungold, who

lectured brilliantly about the Mayan calendar before his untimely death a few years ago, the Maya believe that your intention is as essential to your ability to navigate reality as your position in time and space. If you don't know your intention, or if you are operating with the wrong intentions, you are always lost and can only get more dissolute.

This idea becomes exquisitely clear during psychedelic journeys, when your state of mind gets intensified and projected kaleidoscopically all around you. As our contemporary world becomes more and more psychedelic, we are receiving harsh lessons in the power of intention, on a vast scale. Over the last decades, the international financial elite manipulated the markets to create obscene rewards for themselves at the expense of poor and middle-class people across the world. Using devious derivatives, cunning CDOs (collaterized debt obligations), and other trickery, they siphoned off ever-larger portions of the surplus value created by the

producers of real goods and services, contriving a debt-based economy that had to fall apart. Their own greed—such a meager, dull intent—has now blown up in their faces, annihilating, in slow motion, the corrupt system built to serve them.

Opportunities such as this one don't come along very often and should be seized once they appear. When the edifice of mainstream society suddenly collapses, as is happening now, it is a fantastic time for artists, visionaries, mad scientists, and seers to step forward and present a well-defined alternative. What is required, in my opinion, is not some moderate proposal or incremental change, but a complete shift in values and goals, making a polar reversal of our society's basic paradigm. If our consumer-based, materialism-driven model of society is dissolving, what can we offer in its place? Why not begin with the most elevated intentions? Why not offer the most imaginatively fabulous systemic redesign?

The fall of capitalism and the crisis of the biosphere could

induce mass despair and misery, or they could impel the creative adaptation and conscious evolution of the human species. We could attain a new level of wisdom and build a compassionate global society, in which resources are shared equitably while we devote ourselves to protecting threatened species and repairing damaged ecosystems. Considering the lightning-like speed of global communication and new social technologies, this change could happen with extraordinary speed.

To a very great extent, the possibilities that we choose to realize in the future will be a result of our individual and collective intention. For instance, if we maintain a puritanical belief that work is somehow good in and of itself, then we will keep striving to create a society of full employment, even if those jobs become "green collar." A more radical viewpoint perceives most labor as something that could become essentially voluntary in the future. The proper use of technology could allow us to transition to a

postscarcity leisure society, where the global populace spends its time growing food, building community, making art, making love, learning new skills, and deepening self-development through spiritual disciplines such as yoga, tantra, shamanism, and meditation.

One common perspective is that the West and Islam are engaged in an intractable conflict of civilizations, where the hatred and terrorism can only get worse. Another viewpoint could envision the Judeo-Christian culture of the West finding common ground and reconciling with the esoteric core, the metaphysical purity, of the Islamic faith. It seems—to me anyway—that we could find solutions to all of the seemingly intractable problems of our time once we are ready to apply a different mind-set to them. As Einstein and others have noted, we don't solve problems through the type of thinking that created them, rather they dissolve when we reach a different level of consciousness.

We have become so mired in our all-too-human world that we have lost touch with the other, elder forms of sentience all around us. Along with delegates to the UN, perhaps we could train cadres of diplomats to negotiate with the vegetal, fungal, and microbial entities that sustain life on Earth. The mycologist Paul Stamets proposes we create a symbiosis with mushrooms to detoxify ecosystems and improve human health. The herbalist Morgan Brent believes psychoactive flora like ayahuasca and peyote are "teacher plants," sentient emissaries from superintelligent nature, trying to help the human species find its niche in the greater community of life. When we pull back to study the hapless and shameful activity of our species across Earth, these ideas do not seem very farfetched.

In fact, the breakdown of our financial system has not altered the amount of tangible resources available on our planet. Rather than trying to rejigger an unjust debt-based system that artificially maintains inequitiy and scarcity, we could make a new start. We

could develop a different intention for what we are supposed to be doing together on this swiftly rotating planet and institute new social and economic infrastructures to support that intent.

From Ego to We Go

When I was in my twenties, literature was my ruling passion, and my heroes were writers like F. Scott Fitzgerald, Jack Kerouac, Virginia Woolf, and Henry Miller. I longed to emulate the passionate intensity of their prose and the "negative capability" that infused their characters with recognizable life. When I passed through the crucible of my own transformational process, I lost interest in novels and discovered a new pantheon of intellectual heroes. These days, I find the same level of electrical engagement that I used to find in novels in the works of thinkers whose central

theme is the evolution and possible extension of human consciousness. This varied group is made up of mystics, physicists, philosophers, cosmologists, and paleontologists—the roster includes Rudolf Steiner, Carl Jung, Edward Edinger, Jean Gebser, Teilhard de Chardin, F. David Peat, Sri Aurobindo, and Gerald Heard.

For me, personally, most contemporary fiction, like most current film, has an increasingly retrograde quality. In their efforts to make their audience identify with a particular drama or trauma or relationship saga, these products seem almost nostalgic. We live in a culture that continually seeks to entertain or at least distract us with an endless spew of personal narratives, whether paraded on low-brow talk shows or parsed in literary novels. If you step outside the cultural framing, you suddenly become aware of the mechanism that keeps us addicted to the spectacle—and, above all, hooked on ego. Our entire culture is dedicated to inciting and then placating the desires and fears of the individual ego—what the media critic

Thomas de Zengotita calls “the flattered self.”

Although they use different languages to define it, the various theorists on the evolution of the psyche all agree that the crux of our current crisis requires that we transcend the ego. They suggest that the stage of material progress and scientific discovery we attained in recent centuries is not the end of human development but the launching pad for another stage in our growth. However, this next stage differs from previous phases in one essential way: it requires a mutation in consciousness that can only be self-willed and self-directed. According to this paradigm, it is as if physical evolution has done billions of years of work on our behalf to get us to this point. Right now, it is our choice whether we would like to go forward or fall by the wayside like untold millions of other species who overadapted to one set of conditions and could not re-create themselves as their environment changed.

In his influential book, *Pain, Sex and Time,* the British polymath

Gerald Heard defined three stages in human evolution: physical, technical, and psychical. “The first is unconscious—blind; the second is conscious, unreflective, aware of its need but not of itself, of how, not why; the third is interconscious, reflective, knowing not merely how to satisfy its needs but what they mean and the Whole means,” wrote Heard, who believed we were on the cusp of switching from the technical to the psychical level of development. As we enter the psychic phase, we shift “from indirect to direct expansion of understanding, at this point man’s own self-consciousness decides and can alone decide whether he will mutate, and the mutation is instantaneous.” Originally published in 1939, Heard’s book has just been reprinted in the United States; it was James Dean’s favorite work and inspired Huston Smith to turn to religious studies.

Despite its antique provenance, *Pain, Sex and Time* remains “new news” for our time. Heard viewed the immense capacity of

human beings to experience pain and suffering and the extraordinary excess of our sexual drive compared to our actual reproductive needs as signs of a tremendous surplus of evolutionary energy that can be repurposed for the extension and intensification of consciousness if we so choose. “Modern man’s incessant sexuality is not bestial: rather it is a psychic hemorrhage,” Heard wrote. “He bleeds himself constantly because he fears mental apoplexy if he can find no way of releasing his huge store of nervous energy.” Heard foresaw the necessity of a new form of self-discipline, a training in concentrating psychic energy to develop extrasensory perception, as the proper way to channel the excess of nervous hypertension that would otherwise lead to our destruction. He thought that we would either evolve into a “supraindividual” condition, or the uncontrolled energies would force us back into “preindividuated” identifications, leading to nationalist wars, totalitarian fervors, and species burnout.

A sign I saw at last year's Burning Man put it succinctly: "From Ego to We Go." As the climate changes and our environment deteriorates, we are being subjected to tremendous evolutionary pressures that could push us beyond individuation into a deeply collaborative mind-set and a new threshold of psychic awareness. Seventy years after Heard's manifesto, whether or not we want to evolve as a species remains an open question. But the choice is in our hands.

Enlightenment Reason or Occult Conspiracy?

What holds our world together is not only the laws of physics but language, myth, and story. Our narratives create the framework in which our actions and our intentions have meaning, or at least some kind of order. It is very hard for us to live without any coherence at

all. It may even be impossible, as our minds immediately begin to weave together some type of fable to support whatever it is we find ourselves doing.

Lately, I find myself switching back and forth between divergent models or myths of reality and seeking to integrate them. One of them is the story of progress and reason, the inheritance of the secular and scientific Enlightenment. The progressive believes that a flawed society can be improved by rational policy and political pressure. The world can be made better for more people, inequities reduced, and health care guaranteed. Although he has been strategic in his pronouncements, Barack Obama seems the model of a progressive reformer, promoting the type of sensible policies that led to the New Deal and the Great Society.

The other mythic structure that entices me is occult and conspiratorial. According to this story, there is a hidden agenda beneath the façade of chaotic events. This agenda is orchestrated by

”them,” a group of elite cabals and secret societies, an amalgam of Free Masons, Vatican priests, the descendants of the Nazi scientists brought to the United States after World War II, and so on. To approach this concealed dimension of world affairs, to separate accurate insights from disinformation, is extremely difficult and perhaps impossible. The quest involves long reading lists of small-press and self-published tomes and many hours on YouTube, watching lectures presented by anxious men in drab conferences. From such unreliable sources, one learns that much alien technology has already been recovered and reverse engineered, that a new world order of total social control is being orchestrated, that the ark of the covenant is a torsion field generator perhaps hidden in the Pentagon, that shape-shifting reptilians are controlling everything, and other tidbits.

Personally, I don’t reject the possibility that there is an occult element in global affairs, a distorting factor that makes true

understanding difficult to achieve. During my shamanic work, I encountered spiritual and demonic forces appearing as visions and voices but also causing effects that seemed to cross the barrier between the psychic and the physical. According to shamanic traditions, spirits operate across the entire field of our world. Rather than a fine-tuned conspiracy of elite cabals, the true story might be far more muddled, with various factions holding pieces of a puzzle, mired in outmoded rituals and incoherent beliefs, lacking shamanic skills. Many of those involved in these cabals may suffer from guilt and fear the consequences if their shadowy actions are revealed to the public.

Out on the esoteric edge of the cultural imagination, one finds an increasing convergence of thought streams. The works of Steven Greer, David Wilcock, and Richard Hoagland, as well as Nassim Haramein's DVD set *Crossing the Event Horizon* (available at theresonanceproject. org) all suggest that, beyond a certain

threshold, technological advances may be linked not just to technical knowledge but to our level of consciousness, requiring higher awareness as well as purified intentions to function. As Haramein theorizes, the ark of the covenant might have been an actual device preserved from antediluvian civilizations, capable of generating extraordinary amounts of energy—enough to open a passage through the Red Sea but requiring an initiate on the level of Moses to operate it without causing mayhem. Many of these thinkers offer intriguing scenarios in which alchemical or extraterrestrial possibilities could manifest in tangible forms.

Can someone pursue Enlightenment ideals while simultaneously exploring occult conspiracies? If we avoid becoming obsessive or dismissive, it seems possible to hold contrasting myths or models of reality in our minds at the same time. We can study the Mayan calendar, extraterrestrials, and gnostic cosmology while fighting for social and environmental justice, campaigning for political reform,

and so on. Whether or not our corrupt system can be changed, we could learn a great deal by joining any valiant effort made in that direction.

For Enlightenment thinkers, the sun symbolized the clear light of reason they adored. The clear light of reason may stream from the sun, but as the French philosopher Georges Bataille noted, if you turn your gaze upward to look at its source, you blind yourself. Those who stare at the sun for too long may go insane. The source of reason in itself produces unreason, blindness, and madness. Reason appears to have an innate contradiction at its center. Reason, by itself, may not be enough to get us out of our planetary plight. If spiritual forces operate within our world, then meaningful social change requires, along with political reform, initiatory processes and shamanic practices that could, perhaps, open our minds to new myths of reality.

Building a Scaffold for Social Change

For the most part, the mainstream media and federal government still treat the economic collapse as something that can be fixed so that economic growth can resume in a few years. Some commentators are beginning to realize that our meltdown represents a deeper and more permanent paradigm shift. The physical environment can no longer withstand the assaults of our industrial culture. We are experiencing a termination of capitalism as we have known it, a shutdown recently dubbed the "Great Disruption" by Thomas Friedman, in the *New York Times*. Until recently, a leading cheerleader for neoliberal globalization, Friedman has come to the late realization "that the whole growth model we created over the last 50 years is simply unsustainable economically and ecologically and that 2008 was when we hit the wall." The longer that the general population is allowed to remain in denial about what is

happening, the more dire the probable consequences, such as widespread famine, civil unrest, and a disintegration of basic services.

The truth is that we need to make a deep and rapid change in our current social systems and in the underlying models and ideals of our society. It is highly unlikely that those who have been part of the power structure, whether within government or the mainstream media, possess the necessary will, vision, or inspiration to make this happen. Also, when we consider their self-serving support for a delusional model of infinite growth on a finite planet, ignoring all evidence to the contrary, our mainstream pundits and politicos have clearly forfeited any claim to authority and should never be trusted again.

Many elements of an alternative paradigm, a participatory model in which power is restored to local communities, have been developed over the last decades. One example is the transition town

model in Britain, which serves as a foundation to help communities move toward resilience and self-reliance. Extraordinary initiatives are presented annually at the Bioneers Conference, and their website maintains an archive of these projects, from bioremediation to complementary currencies that could be rapidly scaled up if the collective will is mobilized. The nonprofit organization Pro Natura has developed an alfalfa leaf extract that can fulfill a person's annual nutritive needs for a negligible sum—and many other innovators and activists are holding crucial pieces of the new puzzle we need to assemble quickly.

What blocks real efforts at social transformation is the current level of human consciousness. The Italian political philosopher Antonio Negri has noted that the most important form of production in our postindustrial culture is the production of subjectivity. Our media and education systems have mechanically imprinted a certain level of awareness onto the masses, a passive, consumer

consciousness. People have not been encouraged to think or to act for themselves. Now, their very survival may depend upon learning these unfamiliar skills.

Since I comprehended the full depth of the crisis heading our way, I have been working with friends and collaborators to envision and enact solutions. We saw the need for an alternative social network and media that could integrate many aspects of the new paradigm while providing a scaffold for a large-scale process of social transformation. Facebook and MySpace have shown the extraordinary power of social networks to reach an enormous audience, but they have mainly provided a place for people to display and distract themselves in new ways. Most popular social networks are designed to support the flattered self, constantly craving attention, and the main purpose of these networks is to make a profit for large corporations.

We recently launched Evolver, an independent social network

built on open-source software that is designed to support collaboration between individuals and groups and to engage people in the process of transforming their own consciousness and their local communities. While we still use many of the standard social networking tools, we have shifted the focus to members' mission and projects. We have also created an internal rating system for members to vote on the initiatives presented by other members so that the best ideas in every area will rise to the top and gain more attention. We are currently facilitating a network of local groups, across the United States and eventually globally, that meet in person every month and engage in immediate actions to change their world. These groups are called Evolver Spores; you can check evolver.net to see if there is a spore in your area, or start your own.

Years ago, Barbara Marx Hubbard wrote, "If the positive innovations connect exponentially before the massive breakdowns reinforce one another, the system can repattern itself to a higher

order of consciousness and freedom without the predicted economic, environmental, or social collapse." We are quickly approaching the critical threshold where breakdown or breakthrough becomes inevitable. I don't know if Evolver will reach mass popularity as a tool to bring about this repatterning. Of course, I hope this is the case. In the guise of a for-profit company, we have sought to create something akin to a social utility. At a turbulent time when nobody knows what is going to happen next, it feels good, at least, to have launched something into the world that can help the process of transformation.

S E V E N T E E N

2012 and Beyond

THE TORTUGUERO PROPHECY UNRAVELED

GEOFF STRAY

Before 2006, many anthropologists, archaeologists, and other

Mayan scholars stated that there was nothing in the Mayan inscriptions about the end of the current 5,125-year era of the long count calendar. They often did this to dismiss the increasing discussion about 2012. But in April 2006, epigrapher Dave Stuart answered an enquiry on a specialist discussion group announcing that there is one known inscription from the classic era that mentions the end of the thirteenth *baktun*.[1] It is on Monument 6 from a little-known site called Tortuguero, in the state of Tabasco in Mexico. Many maps don't even show the site or vary in their positioning of it.

Tortuguero was discovered in 1915, but in 1978 and 1980, Berthold Riese, Ph.D., published studies on the inscriptions found there. The papers are in German. Since then, very little emerged until Sven Gronemeyer's master thesis of 2004—also in German.[2], [3] An updated version was published in English in 2006.[4] A cement factory was built on top of the site in 1981, but a few ruins remain.

Tortuguero Monument 6

Tortuguero's most famous artifact is the Tortuguero box—a well-preserved, carved wooden box inscribed with glyphs that describe, among other things, the burial of the Tortuguero ruler, Bahlam Ajaw (Lord Jaguar). Monument 6 is broken into seven parts, four of which are in the Villahermosa Museum, not far from the Tortuguero site. Another part is in the Metropolitan Museum of New York, and two other fragments are thought to be in the hands of a private collector. The monument was originally a T-shaped stela, and one of the wings—the left one that starts the narrative—is missing. It is the other wing—the final part of the narrative—that refers to the end of the thirteenth baktun.

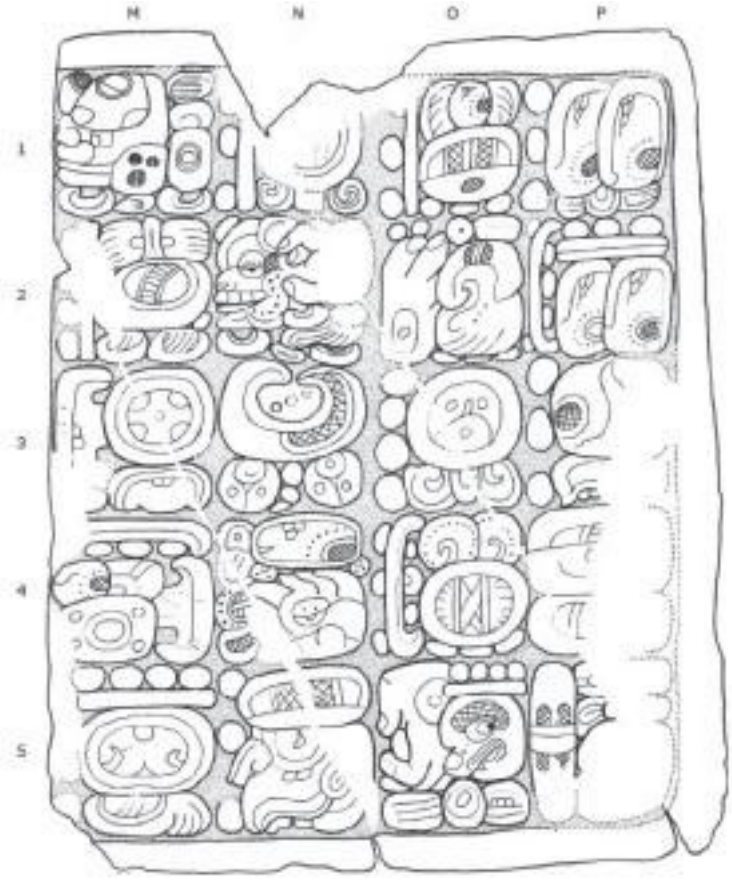

Figure 17.1. The right wing of Monument 6 from Tortuguero, which refers to the end of the thirteenth baktun. Drawing by Sven

Gronemeyer.

Gronemeyer has split the translation of the monument into six sections. The first section concerns the birth and enthronement of Bahlam Ajaw. The second section concerns “star wars” (wars that were timed by the first appearance of Venus as evening or morning star) and decapitation of prisoners. The third section describes the war against the neighboring town Comalcalco and the consequent “harvest of white-flower souls.” The fourth section describes unknown events, since some of the glyphs are damaged. The fifth section describes the ritual burning of a house, the setting up of images of Bahlam Ajaw, and a ruler-binding ritual.

This is the context of the final section that commences three glyphs before the right-hand side wing and continues through the wing. I have rendered Gronemeyer’s translation of this section into English:

7 days 7 Uinals 0 Tuns and 8 Katuns, previously it happened. On 8 Chuen 9 Mak, it was completed for rebirthing [or nascent becoming], the pibnaah of Ahkal K'uk. It was 2 days, 9 Uinals, 3 Tuns, 8 Katuns, and 3 Baktuns before the thirteenth Baktun is completed on 4 Ahau 3 Kankin. Then it will happen—darkness, and Bolon-Yokte will descend to the [?].

The monument was set up in 669 CE to commemorate a building known as a *pibnaah,* which was built around 160 years earlier in 510 CE. A pibnaah is often translated as a steam bath or sweat lodge, and this is how Gronemeyer has translated it. The construction of the pibnaah is directly forward referenced to the end of the thirteen-baktun era in 2012 with its predicted event—darkness accompanied by the descent of the god Bolon-Yokte. But the prophecy cannot be completed due to damage to the glyphs.

The first question this prompts is: Who is Bolon-Yokte?[5] The name *Bolon-Yokte* translates to the god of nine strides or the god of

numerous strides, since *bolon* means both nine and many. Sometimes the god is referred to as B'olon Yookte' K'u or B'olon Okte' K'uh, where K'uh means deity. He has also been called Ah Bolon Yocte of Nine Paths in the postconquest books of Chilam Balam. The god has an association with the underworld, conflict, war, dangerous transition times, social unrest, eclipses, and natural disasters like earthquakes.[6] He appears at the end of baktuns; he assisted at the creation of the current world and will be present at the next creation in 2012. Other translations of the name are God of Nine Steps, the Nine-Footed God, and Jaguar-Foot-Tree, because the word *bolon* or *balan* (nine) was used by the Maya as a pun for *balam* (jaguar). The god was seen alternatively as nine individuals or as a collective god.

The Pibnaah and the Kiva

There are at least two examples of a pibnaah or steam bath at Chichén Itzá. These sweat lodges are still used by the Maya today and are called *tuj,* or sometimes *chitin* or *kun* (oven). The Aztecs also used a steam bath called a *temazcal;* in Mexican package holidays, a spell in a temazcal is often included. They were used for ritual purification ceremonies, healing, revitalization, cleansing, and general meetings. It is known today that they are very beneficial to the health. They flush toxic metals from the system a hundred times faster than the kidneys; they open clogged pores, removing excess salts; they eliminate uric and lactic acid; they increase blood flow, unclog the respiratory tract, and increase negative ions.

Although today's temazcals are aboveground, they, and the pibnaahs at Chichén Itzá were usually dug five feet into the ground and used a direct fire rather than hot rocks, similar to the method used by Native Americans in California. The design and alignment

was similar to that of a Hopi *kiva*, or underground ceremonial room. Though today's kivas are often aboveground and square, the ancient Anasazi (ancestors of the Hopi) examples are round and mostly below ground. According to Frank Waters's *Book of the Hopi,* many Hopis regard Aztecs and Maya as renegade Hopi clans that did not finish their migrations, so we may have here an insight into the pibnaah.

Native American sweat lodges, as well as kivas, are seen as symbolic wombs of Mother Earth, and not only do the Hopi conduct creation myth reenactment ceremonies in kivas, but some tribes design sweat lodges to reflect creation myths. Not only are temazcals used for pregnancy and birth, but those who have used them ritually describe feeling their spirit bodies acknowledging the four elements and experiencing the rebirth and death of parts of the ego that no longer serve growth.

Amazingly, there is an association between kivas and the number

nine—perhaps a remnant of the Bolon-Yokte connection, upon which we are seeking to throw light. Every year, there are nine major ceremonies traditionally performed in the kiva. They correspond to the nine universes of the Hopi creation myth. There is one universe for the Creator, Taiowa, one for his nephew, Sótuknang, and seven for created life. The Hopi say there are a total of seven worlds, or eras, and that each one is governed by a psychic center—the same as the top five chakras of the Hindu system. We are in the fourth world, known as World Complete. Our consciousness descended from the crown chakra in the first era down as far as the solar plexus in the current era—each era becoming more materialistic than the last—but at the next world era transition, it will start to reverse direction. Each transition is called an emergence and is symbolized by a labyrinth symbol—identical the Cretan labyrinth symbol. It is also known as the Mother Earth symbol, or mother and child, and the process is seen as a kind of birth process.

There are also said to be nine prophecies that will be fulfilled before the day of purification, which precedes the emergence. These are the coming of the white man, covered wagons, longhorn cattle, railroad tracks, power lines and telephone lines, concrete roads, oil spills, hippies, and, finally, the blue star kachina. Only the last of these nine remains to be fulfilled. When a blue star is seen in the sky, and the blue star kachina dancer removes his mask in the plaza, then the Hopi ceremonies will cease. Though some have said this was Comet Holmes, the fact is that the Hopi ceremonies were still continuing after Comet Holmes came and went (according to an eyewitness report of a personal friend).

Figure 17.2. This mother and child symbol is identical to the Cretan labyrinth symbol and symbolizes a spiritual rebirth from one world to the next. There is also a square version.

Nine Generation Rites

The first of the nine ceremonies is called Wúwuchim, which

represents birth. This ceremony is a reenactment of the Hopi emergence—their ascent from the third world, represented by the inside of the kiva, to the current fourth world, into which they emerge at the height of the ceremony, naked and wet like newborns coming out of the womb. They then have their hair washed in nine bowls of yucca suds. This ceremony reaches its height when the Pleiades are overhead at midnight, at which point the newborns get the signal to emerge. From John Major Jenkins's discoveries, we know that the Toltec method of tracking precession also involved watching for the Pleiades overhead at midnight. In this way, they could calculate how close they would be to the zenith sun exactly six months later. According to Jenkins, this was encoded into the pyramid of Kukulcan at Chichén Itzá, which encodes this 360-year-long sun-Pleiades conjunction, which starts with a solar eclipse conjunct the Pleiades in the zenith on May 20, 2012.

The second of the nine ceremonies is called Soyál and concerns

seed germination. The seeds of their sacred crop, corn (maize), plus other crops such as beans and squash, are taken into the kiva and germinated, with the help of the kachinas or nature spirits, who are manifested in the form of dancers. This is followed by Powamu, which is a ceremony based around planting and sprouting. The first of the next group of three ceremonies is Niman Kachina, which concerns growth and maturing. Then comes the Flute Ceremony, about irrigation and more planting, followed by the Snake-Antelope Ceremony, which governs fruition. The last three are Lakón, about fertility and planting and harvesting; then Márawu, which concerns flirtation and food gifts; and finally, Owaqlt, which governs conception and gifts. In each group, there is one ceremony that includes an Emergence Ceremony. The ceremonies actually work on three levels: plant, human, and species. They not only help seed germination via crop fertility rituals, they also affect human fertility and involve birth rituals; but on a species level, via the Emergence rituals, they perform a rerun and purification—a preparation for the

Emergence or birth into the next world, the Fifth.

A further insight is allowed by Dave Stuart's second and more complete translation[7] of the final section of Monument 6:

7 days, 7 Uinals, 0 Tuns and 8 Katuns previously it happened, on the day 8 Chuen, the 9th of Mak, the Becoming-Ripe-House was constructed [?]. It was the underground house [or shrine] of [the god?] Ahkal K'uk'. It was two and nine-score days, three years, eight-score years and 3 x 400 years [before] the Thriteenth Pik will end on Four Ajaw, the third of Uniiw, when. . . [?] . . . will happen, the descent . . . [?] . . . of B'olon Yookte' to the [?].

So here, Stuart is providing more information about the pibnaah: it is an underground house or shrine and also a Becoming-Ripe House. At Palenque, which is not far from Tortuguero, the three shrines known as the Temple of the Cross, the Temple of the Foliated Cross, and the Temple of the Sun are fairly intact, and in

their inscriptions, they are called pibnaahs and associated with Bolon-Yokte.[8] Each shrine at the top of a pyramid represents a cave in a mountain—an entrance to Xibalba, the Mayan underworld—each a path to be taken by the king, Kihnich Kan B'ahlam II (son of Lord Pacal). The Temple of the Sun is the shrine to the Jaguar God (remember Jaguar is a pun for nine), and rites of passage are described, in which the king at the age of six and again a month before his eighth birthday participated in a preadolescent rite called Okte' (literally wood column): at the age of six years, two months, and eighteen days he was, according to the inscription, "Okte'd," and on the half-katun date of 9.10.10.0.0, he "descended into Okte'ship." The Temple of the Cross is the shrine to the maize god and depicts the king undergoing a rite of passage at the age of thirteen, in which he was "tied into Okte'-ship" and received Bolon Okte'. He is shown as a boy wearing a nine-knotted costume. God L, the cigar-smoking lord of the underworld is also shown. At eighteen, there was another rite of passage, in which the king

received the K'awill sceptre. The Temple of the Foliated Cross shows the world tree as a maize plant, with corncobs as human heads. The shrine is dedicated to the God Kawil, also known as Bolon Tzacab, the God of Nine Generations, and records the accession to the throne of the king, at the age of forty-eight.

So we have seen that the pibnaah, as well as a steam bath, was a shrine associated with Bolon-Yokte, plus the jaguar god and K'awill, both of which also have associations with the number nine. We have also seen that the rituals performed inside were rites of passage including trips to the underworld and the symbolism of maize. The "becoming-ripe" house was actually a shrine for personal evolutionary development, which has parallels to the kiva with its ceremonies of plant development, human development, and species evolution at the transition between eras. This may throw some light on the connection between Monument 6 and the pibnaah at Tortuguero.

According to Frank Waters in *The Book of the Hopi* (1963), the Hopi saw corn as "a living entity with a body similar to man's in many respects." Mother Earth also had an aspect as Corn Mother. When a child was born, he or she was kept in the dark for thirty days with the child's Corn Mother (represented as an ear of perfect corn whose tip ends in four kernels) beside him or her; also, various rituals were performed involving cornmeal. In a similar way, in the Mayan myth, "*The Popol Vuh*," a series of creations are described in which humans evolve. In the first creation, humankind starts out as mud people, then becomes wooden doll people, who are replaced by monkey people. At the start of the current creation, which is seen as the fourth or fifth by different commentators, Quetzal Snake and companions grind and mold the maize and form the next race of people—the maize people—who are the ancestors of the Quiche Maya. This includes the ninefold blessing of Xmucane, goddess of midwives. According to Martin Prechtel, in the still-surviving mythology of the Tz'utujil Maya, who live in villages surrounding

Lake Atitlán in Guatemala, we are in the fifth creation, which is called Earth Fruit World. As we go through the five stages of life, we assimilate the lessons of the five creations, and then at death, we go to the sixth creation.

This relationship between humanity and maize is reflected in the sacred Tzolkin calendar. The anthropological evidence provided by Barbara Tedlock in *Time and the Highland Maya* (1982) indicates that the Tzolkin's 260 days are based on the period of human gestation. When a woman misses her period, there are 260 days until the birth is due. But a 260-day cycle could also be seen as a gestation period of the maize plant. In the highlands of Guatemala, there are 260 days between planting and harvesting of maize.

There may be a connection with the results found by John Burke in his study of ancient sites, *Seed of Knowledge, Stone of Plenty* (2005), particularly Neolithic dolmens, Silbury Hill and Avebury, plus vision-quest sites and stone chambers in North America, and

the pyramids at Tikal. Burke and his coauthor, Kaj Halberg, found that in all these cases (at Tikal, it was just at the summit of Lost World Pyramid, and not the later Temples I and II), the sites are positioned on a "conductivity discontinuity" that amplifies Earth currents, and the structure amplifies them even more, particularly just before dawn. The result is a two- to-threefold (even more at the Lost World Pyramid) increase in seed germination that can result after just twenty minutes exposure. These same electromagnetic fluctuations can affect human consciousness, and the sacred sites, the authors conclude, thus had a secondary use—the alteration of consciousness.

New Developments

There have been some important developments in Mayan studies in

the past three years that have great significance for the interpretation of Tortuguero Monument 6 and the 2012 creation point. The first of these is Michael Grofe's 2007 dissertation, *The Serpent Series: Precession in the Maya Dresden Codex.*[9] Grofe found a 15,000-year-plus interval depicted in the Serpent Series of the Dresden Codex that is an almost exact multiple of the sidereal year. This is strong evidence that the Maya were measuring and recording the cycle we know as the precession of the equinoxes.

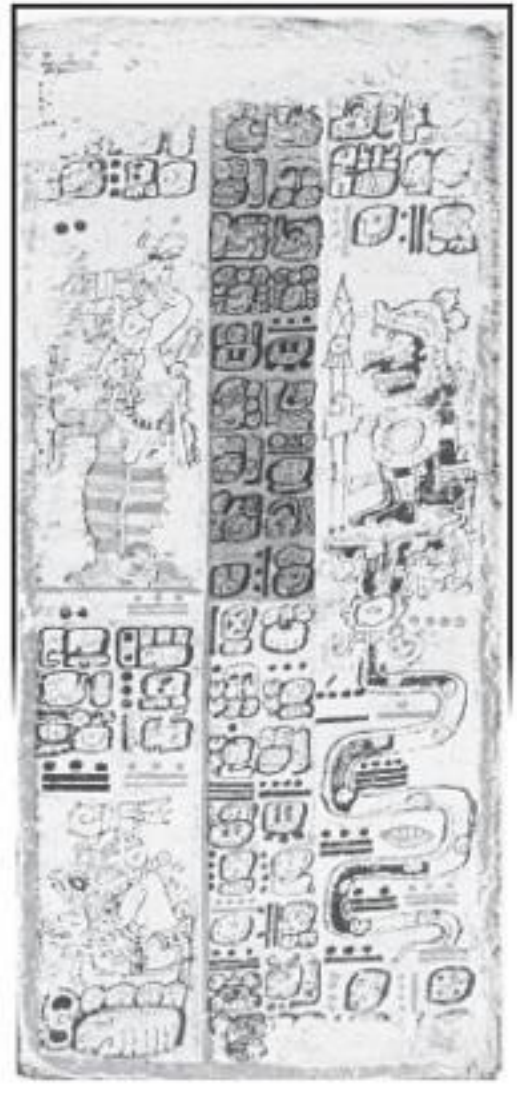

Figure 17.3. The Serpent Series in the Dresden Codex that show a multiple of the sidereal year, according to Grofe. The dates are read vertically between the coils of the snakes.

In the following year, 2008, Barb MacLeod announced the discovery of the 3-11-pik formula.[10] In analyzing the glyphs on a bone from Tikal, she found three intervals of 8,660 days that add to 1 degree of precession, accompanied by a mirrored period of three times eleven baktuns, which is half a precessional period.

In 2009, on *Tribe 2012,* one of the web's most popular 2012 discussion groups, I started a thread about a forthcoming Mayan conference on 2012,[11] and in the ensuing discussion, while researching a response, I stumbled across Sven Gronemeyer's 2004 thesis on Tortuguero—a document that I had previously thought was only available in an elusive hardcopy version. I made the links available in one of my posts, and John Major Jenkins then

downloaded the thesis and enlisted the help of Michael Grofe and MacLeod in translating the Monument 6 text directly from the Mayan glyphs into English.

This has led to some important new discoveries, as Jenkins has just revealed in his *The 2012 Story,* which is hot off the press.[12] Grofe discovered that on Bahlam Ajaw's birth date, the sun was in the exact same position that it will be at the end of the thirteenth baktun on December 21, 2012 (except that, in 2012, precession will have moved the sun/galactic equator conjunction to the day of the winter solstice). Grofe thinks Bahlam Ajaw was claiming a special relationship with the end of the current thirteenth baktun cycle and with Bolon-Yokte, the deity who is connected to that event. Jenkins has also suggested the possibility that Lord Pacal of Palanque did something similar, possibly inspired by Baham Ajaw, and tried to upstage him by having his coronation day on the same day in the solar year as the last day in the next higher cycle in the long count—

the twenty-baktun cycle, or Pictun—thus becoming a kind of higher-ranking time lord. Jenkins has suggested in his excellent new book, that the king of Copan, 18 Rabbit, also connected himself to a future baktun ending, as well as the katun ending 9.14.0.0.0, when the sun was again in the dark rift. This is also the last date recorded at Tortuguero before 13.0.0.0.0, when Bolon-Yokte descends.

Grofe has also discovered that Tortuguero Monument 6 shows evidence that the Maya were measuring precession by recording a lunar eclipse that occurred in the dark rift, when the glare of the moon would have been negated by Earth's shadow cast on it, allowing the Milky Way shape to be discerned. They were thus able to calculate the date six months later, when the sun would be in the dark rift. This collaboration between Jenkins, Grofe, and MacLeod is continuing to provide more evidence that Jenkins's galactic alignment theory is based in fact.

Jenkins's theory, as many readers will know, suggests that the

Maya deliberately targeted the end date of their thirteen-baktun cycle on the winter solstice of 2012, since they viewed it as the point when the solar god One Hunahpu will be reborn in the mouth of the caiman, or sometimes, the jaguar-toad or a snake, represented astronomically by the winter solstice sun appearing to be in the dark rift in the central bulge of the Milky Way. The convergence of the winter solstice sun with the dark rift is governed by what we call the precession of the equinoxes, caused by the slow wobble of Earth's tilt over approximately 26,000 years. The Maya were measuring this movement by the sun's winter solstice position, rather than the spring equinox. Jenkins found constant references to this as a birth event, where the sun is reborn from the birth canal of the Great Mother, and we have seen that the sweat lodges and kivas were symbolic wombs of the Earth mother, and the kivas were used for symbolic rebirth rituals that see the forthcoming Emergence as a birth.

In 2009, Michael Grofe published an essay called "The Name of God L: B'olon Yokte' K'uh?"[13] in which he pointed out that the right sanctuary panel from the Temple of the Cross at Palenque (one of the pibnaahs) shows an image of God L, the cigar-smoking lord of the underworld, in which he carries the "skeletal centipede," and that on it are clearly shown nine footprints. He concludes that God L and Bolon-Yokte (the God of Nine Steps) could be the same deity, and that Bolon-Yokte could be a group of deities that together, are the lords of the Underworld.

Grofe says that God L rules the dark half of the year, but the maize god resurrects in spring and defeats God L. One Hunahpu, the solar deity that will be reborn in 2012, is a form of the maize god, so Grofe concludes that Bolon-Yokte's "descent" as described on Tortuguero Monument 6, may actually be his "falling to a black place," as the maize god's new era begins. He shows a connection with Maximon, the contemporary equivalent of God L, who, in

postclassic Yucatan, was represented by a wooden idol that was ritually fed during the Uayeb days, the five fearful days just before the New Year, at the end of which, he was ritually killed and dismembered. This cigarette-smoking god is nowadays killed by hanging at Easter, due to Christian influences.

Following my reading of Grofe's assertion that Bolon-Yokte could be the same as the nine lords of the Underworld, also known as the Nine Night Lords, or the Bolon Ti Ku, I was amazed to discover an essay by Sven Gronemeyer, published in 2006, in which he shows that the nine night lord glyphs were actually glyphs representing the nine growth stages of the maize plant.[14] This is clearly evident in the glyph for Night Lord Nine, who represents the final completion of the process, and on his head, the ripe ears of corn are easily identified. Gronemeyer shows that the development proceeds in three main phases, and each phase is split into three more. He says that there is a Mixtec Codex—the Fejérváry-Mayer

—that shows the threefold development, and that this relates to rites of passage: the transition from a youth to an adult.

Figure 17.4. The three ceremonies

The three stages mirror the three groups of three ceremonies performed annually in a kiva. This seems to confirm the conclusions we reached earlier—that the pibnaah was used for rites of passage and that these rituals, like the annual defeat of the darkness by the light (God L by the maize god), will be played out on a macroscopic scale in 2012, when the maize god, One Hunahpu, will be reborn in the dark rift. The winter solstice (December 21, 2012) is ruled by

the Ninth Lord of the Night, who shows the completed germination process via the ears of corn on his head. In other words, the pibnaah at Tortuguero that was connected with 2012 via its commemorative monument was used for the ripening of seeds and humans—an individual version of the mass rebirth and species ripening that will happen at the next creation in 2012—and in preparation for which the pibnaah, like the kiva, also probably held species rites of passage.

Figure 17.5. The Night Lord Nine, showing the ripe ears of corn on the head

Who Are the Nine Gods?

When the Spanish arrived, the Maya had forgotten the 13-baktun cycle, and were using a calendar that was twenty times shorter—a 13-katun cycle, that we call the short count. Each katun consisted of 20 tuns or 360-day years, so a katun was just under 20 years, and the 13-katun cycle consisted of 260 tuns. This means a complete 13-katun cycle lasted about 256 solar years. The Spanish burned all the codices, or bark books, they could find, as they were thought to be devil inspired. There are only four of these codices that have survived—the Dresden, Madrid, Paris, and Grolier codices. During the colonial period, various towns in the Yucatan possessed copies of a book named after the last great prophet, the Chilam Balam, or jaguar priest. The books were written in the European script, but in the Yucatec Mayan language, and each town's copy had unique variations.

The Chilam Balam books contain accounts of historical events and prophecies. The prophecies are mainly day prophecies and katun prophecies, so commentators have, over the years, presumed these prophecies to be about events that are over and done with. Some have admitted that, due to the Mayan conception of time as cyclical, these prophecies can repeat when the cycles repeat, though with variations. One translator, however, has found compelling evidence that some of the prophecies were originally prophecies concerning the end of the thirteenth baktun.

Dr. Maud Makemson, a linguist and astronomer, translated the Chilam Balam of Tizimin and found the following prophecy:

[I]n the final days of misfortune, in the final days of tying up the bundle of the thirteen katuns on 4 Ahau, then the end of the world shall come. . . . I recount to you the words of the true gods, when they shall come.[15]

In the 13-katun cycle, each katun was named after the final day of the katun in the Tzolkin (260-day) calendar. The cycle started on katun 11 ahau and ended on katun 13 ahau (see figure 17.6). Makemson realized that this statement didn't fit with the facts, since it says the bundle of 13 katuns was tied up—meaning the cycle ended—on 4 ahau. However, she knew that the 13-baktun cycle ended on katun 4 ahau (the final day is a 4 ahau day). Although Makemson had developed her own correlation, which has since been discounted, this observation remains valid, so the prophecy was originally about the end of the 13th baktun in 2012. It seems that when the 13-baktun cycle fell out of use in the early tenth century, some of the prophecies were retained and reapplied to the 13-katun cycle.

3111 BC	2717 BC	2323 BC	1929 BC	1535 BC	1141 BC	747 BC	353 BC	41 AD	435 AD	827 AD	1224 AD	1618 AD	Katun start dates in the current Baktun	
0	1	2	3	4	5	6	7	8	9	10	11	12		
2	1	13	12	11	10	9	8	7	6	5	4	3	1618 AD	
13	12	11	10	9	8	7	6	5	4	3	2	1	1637 AD	
11	10	9	8	7	6	5	4	3	2	1	13	12	1657 AD	
9	8	7	6	5	4	3	2	1	13	12	11	10	1677 AD	
7	6	5	4	3	2	1	13	12	11	10	9	8	1696 AD	
5	4	3	2	1	13	12	11	10	9	8	7	6	1716 AD	
3	2	1	13	12	11	10	9	8	7	6	5	4	1736 AD	
1	13	12	11	10	9	8	7	6	5	4	3	2	1755 AD	
12	11	10	9	8	7	6	5	4	3	2	1	13	1794 AD	
10	9	8	7	6	5	4	3	2	1	13	12	11	1814 AD	
8	7	6	5	4	3	2	1	13	12	11	10	9	1834 AD	
6	5	4	3	2	1	13	12	11	10	9	8	7	1854 AD	
4	3	2	1	13	12	11	10	9	8	7	6	5	1874 AD	
2	1	13	12	11	10	9	8	7	6	5	4	3	1893 AD	
13	12	11	10	9	8	7	6	5	4	3	2	1	1913 AD	
11	10	9	8	7	6	5	4	3	2	1	13	12	1933 AD	
9	8	7	6	5	4	3	2	1	13	12	11	10	1952 AD	
7	6	5	4	3	2	1	13	12	11	10	9	8	1972 AD	
5	4	3	2	1	13	12	11	10	9	8	7	6	1992 AD	
3	2	1	13	12	11	10	9	8	7	6	5	4	2012 AD	

End of the Baktun Cycle on December 21 2012

Figure 17.6. The 13-katun cycles mapped onto the 13-baktun cycle. Each square is a katun; each column is a baktun. Note the 13-katun cycles (that start with an 11 ahau katu) end on a 13 ahau katun, while the final katun of the 13-baktun cycle is a 4 ahau katun.

Just before the prophecy mentioned above, we find this:

The Nine shall arise in sorrow, alas . . . And when over the dark sea I shall be lifted up in a chalice of fire, to that generation there will come the day of withered fruit. There will be rain. The face of the sun shall be extinguished because of the great tempest. . . . Presently Baktun 13 shall come sailing, . . . Then the god will come to visit his little ones. Perhaps "After Death" will be the subject of his discourse.[16]

Here, Makemson has rendered katun 13 as baktun 13, for the reasons just explained. As you can see, these prophecies predict

climate change, UFO appearances, crop failure, darkness, and a return of the gods—nine gods—for the end of the current era in 2012. They also support the Tortuguero prophecy, which predicted darkness and a return of the nine gods. However, it isn't all bad news, since the prophecy concludes with: "Then finally the ornaments will descend in heaps. There will be good gifts for one and all, as well as lands, from the Great Spirit, wherever they shall settle down."

As for the phrase *"'After Death' will be the subject of his discourse,"* I have explained elsewhere that the possibility that a significant excursion of the geomagnetic field in response to an influx of solar and interstellar plasma could trigger the pineal magnetite to cause an internal secretion of pineal hallucinogens (at least five—three beta-carboline molecules and two methylated trypatamines, including DMT—are manufactured in the pineal gland). In other words, since Rick Strassman's study has shown that

internal DMT is produced at birth, death, and during mystical experiences, it seems possible that one interpretation of this phrase is a mass near-death experience for humanity.

The Nine Night Lords

At Tikal is the nine-leveled Pyramid of the Giant Jaguar, and according to Bob Makransky, Tikal was the "home of the Bolontiku" where they have their own temple (in Complex Q), with nine altars in front of it.[17] At Palenque, in the base of the nine-leveled Pyramid of Inscriptions, is the tomb of Lord Pacal, and the walls show nine deities that are thought to be the Bolon Ti Ku or Nine Night Lords. This suggests that the nine levels represent the nine levels of Xibalba. The Nine Night Lords were, like God L and Bolon-Yokte, present at the last creation and are associated with the

underworld—Xibalba. In the Chilam Balam books, it is stated that the Bolon Ti Ku defeated the Thirteen Heaven Gods. To understand the meaning of this, we can take a trip round the world to find a common thread throughout ancient mythology, but first we can take a clue from the Popol Vuh myth.

The Popol Vuh says that two gods, Hun Hunahpú (an alias of the maize god and solar deity) and Vucub Hunahpú, are summoned to the underworld to play a ball game with the Lords of Death (there are seven of them). They are killed, and Hun Hunahpú's head is hung in a tree. Later, Hun Hunahpú's sons—Hunahpu and Xbalanque—descend to Xibalba and are tested in six zones of fear: the bat house, the razor house, the dark house, the jaguar house, the fire house, and the cold house. They outwit the Lords of Death and become immortal, ascending to the sky as constellations. In summary, they descended to the underworld, conquered their fears, and metamorphosed to an immortal state.

In Greek myth, Dionysus descended into Hades to rescue his mother, whom he placed in the stars. In Christianity, Jesus descended into hell and resurrected after three days, then ascended into heaven. In Mithraism, Mithras dies at the winter solstice and is reborn after three days (solar standstill); he waits in heaven for the end of time, when he will return to Earth to awaken the dead and pass judgment.

Yggdrasil and Ragnarok

In Norse mythology, the creator, Gothar, gave birth to nine gods, and their diagram of the cosmos is called Yggdrasil, which is a version of the world tree—an interpretation of reality that is common to shamanic cultures all over the world. These trees usually comprise three realms: an overworld, an underworld, with

an everyday world in the center. Yggdrasil is a giant tree that is surrounded by nine worlds. The lowest of these is Helheim, the domain of the dead, ruled by Hel. Midgard is the middle-earth realm of humankind, and just above it is Asgard, the realm of the Aesir, or principal gods, led by Odin. Odin is said to have sacrificed himself by hanging upside down on the world tree for nine days and nights in order to obtain eighteen runes (two times nine) from the well of wyrd. The other realms are Niflheim, the frosty realm of ice; Jotunheim, the land of giants; Nidavellir, the land of dwarfs; Svartalfheim, the domain of the dark elves; Alfheim, the land of the light elves; and Vanaheim, the world of the Vanir, or fertility gods. Valhalla, the paradise for heroic warriors is part of Asgard, and the nine Valkyries are goddesses who lead the brave heroes there.

Norse mythology also has its end of time—Ragnarok, or the twilight of the gods. Heimdal, born of nine sister-mothers, will blow the Gjallarhorn and the world will be engulfed in flame; the giant

wolf gods, Fenris and Loki, will break free, devour the sun, and kill Odin; and Thor will kill the world serpent but will die from its poison. There will be some survivors, including nine of the gods.

This Norse mythology was, of course, the basis for Tolkien's *Lord of the Rings* (as Vincent Bridges has pointed out), which was set at the end of the third age. The nine ringwraiths, or Nazgûl, were nine kings who were corrupted by the nine rings of power and were immortal in the "realm of shadows." The fourth age began with the passing of the one ring that binds the nine, following a battle between good and evil, and this was the start of the age of men. A similar battle will occur at each junction of the ages, and we are now approaching the end of the fourth age. Another fictional manifestation of the underworld and the nine was a film called *The Ninth Gate,* starring Johnny Depp, in which he has to locate all three copies of a seventeenth-century book called *The Nine Gates to the Kingdom of Shadows*. The book contains nine engravings that are

parts of a ritual to raise the devil, but only three engravings from each book are the genuine ones, and these are all signed by Lucifer.

Figure 17.7. Yggdrasil and the nine realms

In Siberian shamanism, there is an overworld, middleworld, and underworld that are all explored by the shamans. It is said that the over-world has nine *coats* or levels, that they call God's bodies.[18] During the first days of February, the Clear Tent ritual was held, which lasted for nine days. Ivan Gornok, one of the two last shamans of Taimir nganasans, described the experience to A. A. Popov, a Soviet ethnographer. During the ritual, the shaman travels through all three worlds and, in the underworld, visits the Lake of the Nine Grandads, in which are nine hills with "horns." These are the bellies of nine brothers who are sleeping. The shaman has to travel down one of the horns (penises), thus emerging in the next coat of the lower world, where he finds nine tents where nine women sit. One of these is the "belly tent" and when inside, they find the woman has nine daughters, who feed the visitors. This fractal repetition is reminiscent of a Russian nested doll.

In the Sierra Nevada, in Columbia, the Kogi people have survived isolated from the rest of the world for many generations. Their creation myth says that Aluna, the mother, created a cosmos or womb with nine levels, which are the *nine daughters*. Eight of the nine worlds were infertile; Earth was the only fertile world. Daughter Earth was fertilized by Serankua, one of nine sons. The communal sanctuary is a hut called the Kankurua, which has a nine-level roof structure, in which they can access the nine worlds and the nine states of consciousness. The shamans of the Kogi are called Mamas, and they are chosen at birth and spend their first nine years in total darkness, learning to travel in Aluna, which is comparable to the astral realm of Western esoteric systems.

Shambhala and the Kalachakra Prophecy

In Tibetan Buddhism, there are traditionally said to be six *bardos,* or transitional states, that are experienced between death and rebirth. However, they can apply to any transitional experience in life. These six states of consciousness are birth, dreams, meditation, death, clear-light experience, and transmigration. The bardo clear-light experience starts with profound peace and awareness, but can include karmically created terrifying hallucinations including meetings with forty-two peaceful and fifty-eight wrathful deities. Those who are not spiritually prepared (by meditation and reading the Bardo Thodol or the Tibetan Book of the Dead, with its exercises) could end up transmigrating into a less than desirable incarnation. In the Dzogchen teaching of the Nyingma school of Vajrayana Buddhism, it is said that there are nine bardos: the three extra ones are vision, movement, and instantaneous ordinariness. The nine bardos are connected with the nine *yanas,* or paths of Buddhism, and are symbolized by the nine-pronged *dorje* and *drilbu,* ceremonial tools representing compassion and wisdom.

Remember that when Bolon-Yokte returns at the end of the thirteenth baktun, the Chilam Balam indicated, "'After Death' will be the subject of his discourse."

There is a mythological hidden kingdom in Tibet called Shambhala. Many have searched in vain for this land of paradise. Edwin Bernbaum's book, *The Way to Shambhala,* is probably the best overall guide, and he says that there were two dynasties of kings of Shambhala. The eighth king of the first dynasty founded a new dynasty of which he was the first of twenty-five kings who would each rule for 100 years. The Kalachakra prophecy says there would be a total of thirty-two kings between the time of Buddha's death and the coming of the golden age, which will last at least 1,000 years, when there will be no more toil or conflict and the human lifespan will expand to 1,800 years. Some lamas say that this king, Rudra Cakrin (the Hindu name is Kalki), is now ruling, since there are disputes over the date of Buddha's death.

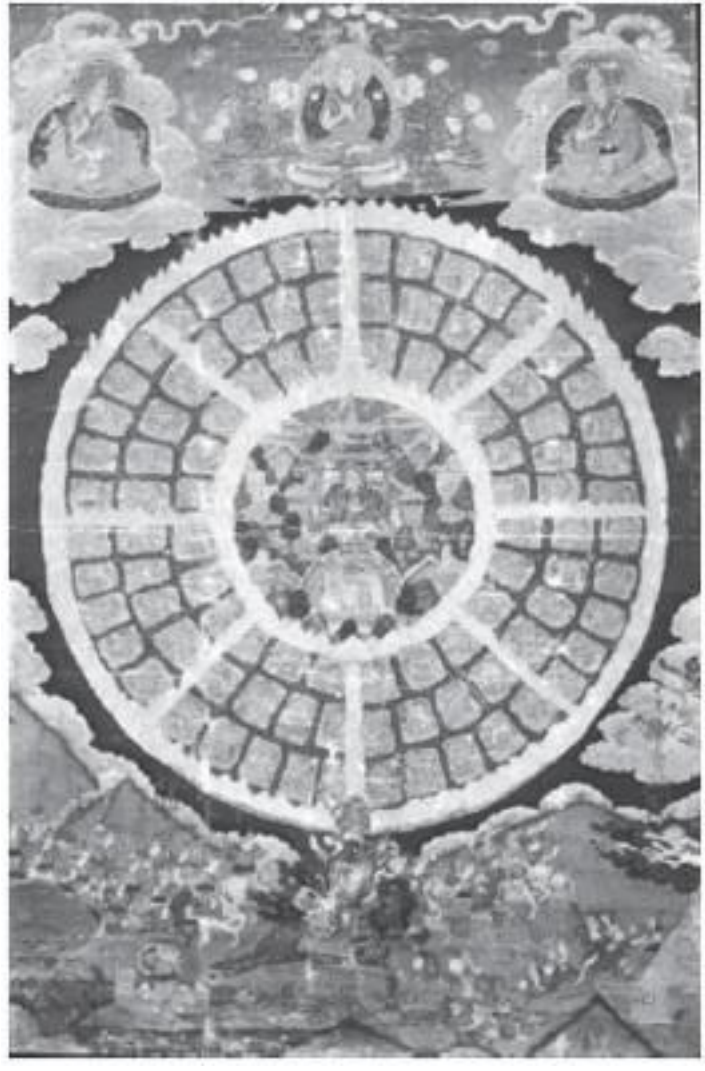

Figure 17.8. A map of the kingdom of Shambhala, with the eight outer regions and the ninth inner region separated by mountain ranges

Shambhala is shaped like an eight-petaled lotus flower. There are eight regions surrounding a ninth. Each of the eight regions has twelve principalities, but in the center of the heart of the lotus is the central palace, which has nine levels. This is also referred to as Mount Meru, the axis mundi. Shambhala is said to be the heart chakra of the world. The heart chakra, or *anahata,* is usually depicted as a twelve-petaled flower, but sometimes it has eight (there is an extra chakra in Tibetan tantra called the *hrit* chakra, which is just below the anahata and has eight petals). There are several guidebooks for finding Shambhala, but Bernbaum says these have a symbolic meaning:

In other words, we can read the guidebooks to Shambhala as

instructions to taking an inner journey from the familiar world of the surface consciousness through the wilds of the subconscious to the superconsciousness. From this point of view, the deities, demons, mountains, rivers and deserts described by the texts, symbolise the various contents of the unconscious that we have to face and master—or make use of—on the way to awakening the innermost mind. These contents include a number of inner obstacles or psychological blocks of two general kinds. Some come from repressed parts of the surface consciousness: They include hidden fears, desires, illusions, and habits that keep us confined to our usual state of limited awareness. Others have their source in elements of the deeper levels of the mind that act as barriers to keep the superconscious from being overrun by the impure and chaotic contents of the subconscious.[19]

According to Victoria LePage, the eight outer regions of the kingdom of Shambhala represent eight states of consciousness,

accompanied by pain and conflict that lead to the ninth, the "radiant mind of enlightenment."[20] In kundalini yoga, it is said that when *kundalini* (the evolutionary serpentlike energy that is dormant in the base chakra of unawakened people) ascends the subtle channel of the spine (the *sushumna*) and reaches the anahata chakra, then the soul awakens. Now recall that the Hopis say at the next emergence, consciousness will reverse its direction, back from solar plexus to heart.

Rudra Cakrin will ride out and "kill the barbarians," ending the age of discord, and inaugurating the golden age, when Shambhala will become visible. Bernbaum says that the killing of barbarians refers to "a decisive inner conflict that results in the emergence or awakening of the innermost mind." So, the Kalachakra prophecy seems to be saying that we are on the verge of a golden age, and just before it emerges, people will confront their own inner demons and shadow material, clearing out the closets as a necessary preparation

for life in an idealized world. There is also inference that realms that were previously invisible will become accessible to our senses.

The Shambhala concept is rooted in the pre-Buddhist shamanic tradition of Tibet, known as Bon. The Bon equivalent of Shambala was called Olmolungring and was also a completely pure and spiritual land (usually depicted as a square with many rectangular regions, but in the center are eight regions surrounding a central square region). At the center was a nine-leveled mountain called Yungdrung Gutsek, and each level symbolized the nine stages of Bon that lead to enlightenment. Olmolungring was not a physical place and could not be reached before enlightenment was achieved. However, some scholars have identified the Mount Kailash area as Olmolungring: it has an obvious layered look, due to the weathering of the geological strata.

Heaven, Hell, and Purgatory

In Christian tradition, there are nine choirs of angels around the throne of God: seraphim, cherubim, dominions, thrones, principles, potentates, virtues, archangels, and angels. Twenty-four centuries ago, Plato conceived of nine spheres around Earth that were the "ethereal spheres" of the moon, the sun, Mercury, Venus, Mars, Jupiter, and Saturn, then the sphere of the fixed stars, then the sphere of the zodiac. In the second century CE, Ptolemy used the same scheme, but with the sun's sphere moved to a place between Venus and Mars. The kabbalistic tree of life showed nine sephiroth or spheres above Earth, or Malkuth. The spheres are connected by 22 paths that are related to the 22 letters of the Hebrew alphabet, the 22 trumps of the tarot deck, and the 22 chapters of the Book of Revelation. The trumps refer to the trumpets of Revelation that announce the arrival of judgment day, depicted on trump number

22.

In the thirteen hundreds, Dante wrote his divine comedy, describing the pilgrimage of the soul up though nine circles of hell via the seven terraces of Mount Purgatory and the nine spheres of the planets, stars, and Primum Mobile, all of which are mobilized by the angels, to paradise. There were later medieval variations on this theme by Lull, Fludd, Cusanus, Kircher, and other philosophers. Each of the nine circles of hell hold those unrepentant sinners who are punished for their various crimes, including the seven deadly sins.

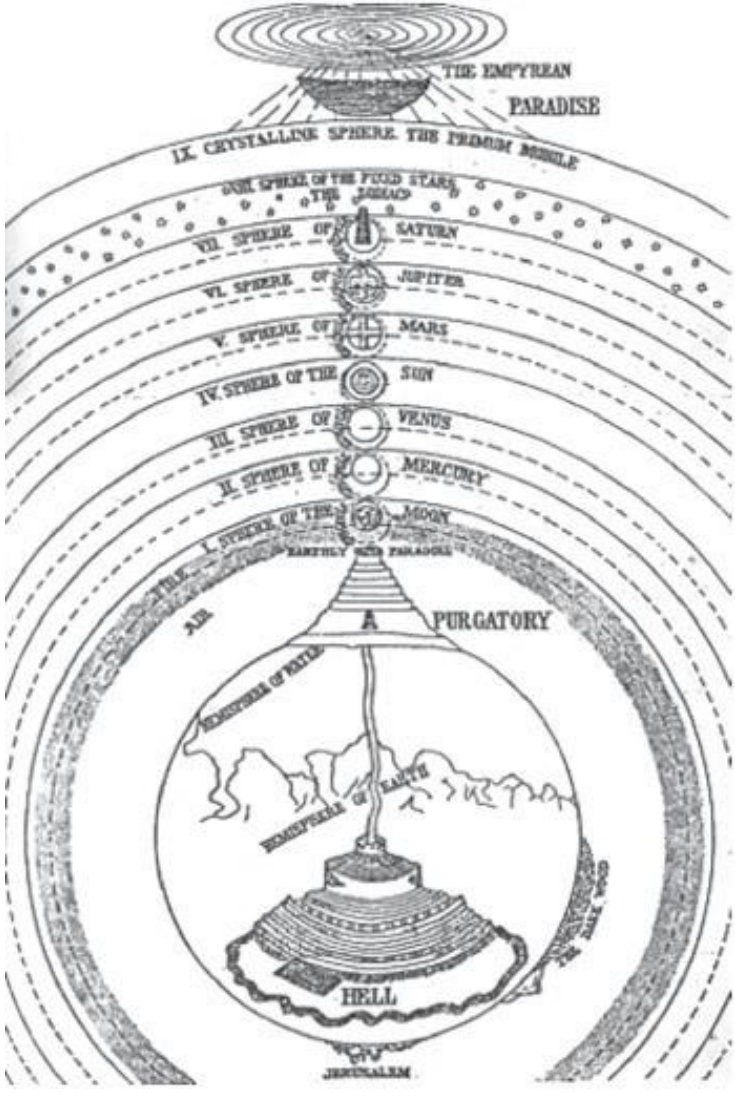
THE EMPYREAN
PARADISE
IX. CRYSTALLINE SPHERE. THE PRIMUM MOBILE
VIII. SPHERE OF THE FIXED STARS
THE ZODIAC
VII. SPHERE OF SATURN
VI. SPHERE OF JUPITER
V. SPHERE OF MARS
IV. SPHERE OF THE SUN
III. SPHERE OF VENUS
II. SPHERE OF MERCURY
I. SPHERE OF THE MOON
EARTHLY SITE PARADISE
AIR
A
PURGATORY
HEMISPHERE OF WATER
HEMISPHERE OF EARTH
HELL
JERUSALEM

Figure 17.9. The nine spheres of Ptolemy and Plato compared with Dante's nine spheres, sevenfold (really ninefold)

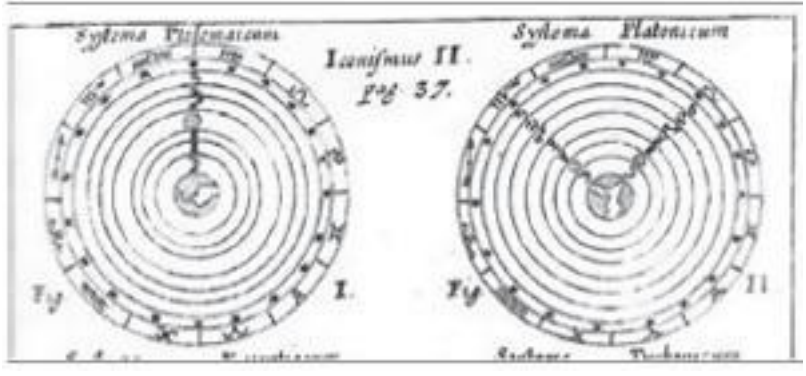

Figure 17.10. Purgatory and the nine circles of hell. This drawing by Cactani was not done until 1855, over five hundred years later. Hell has too many circles.

Mount Purgatory is for those who are repentant but need to be purged (cleansed)—hence purgatory. The mountain has seven levels that relate to the seven deadly sins, but there are two extra layers that exist at the base of the mountain, making nine layers altogether

—these are the late repentants and the excommunicates. On the first level, which deals with pride, souls carry a heavy burden on their backs, symbolizing the burden of pride. On the second level, the eyes of the envious are sewn shut and they wear clothes that render them virtually invisible. On the third level, anger is corrected by acrid smoke, showing how anger clouds judgment. On the fourth level, sloth or spiritual apathy is dealt with by running continually. On the fifth level, greed is dealt with by lying facedown on the ground, immobile, so that external desire turns inward. On the sixth level, gluttony is treated by abstention from food and drink, and on the seventh level, lust is corrected by a wall of flame that burns away carnal desires. At the top of the mountain is the Garden of Eden, where the souls return to original innocence. Then the climb through the nine heavenly spheres starts, with each level peopled by souls with different virtues, until Dante sees God as a point of light surrounded by nine rings of angels. Dante then goes beyond to a zone called the Empyrean, where the souls of believers form the

petals of a rose. There are strange echoes here, of the Shambhala myth.

Nine Vaults of Enoch

The 13th degree of the Scottish Rite of Freemasonry is called the Royal Arch of Enoch.[21], [22] Enoch was the great-grandfather of Noah, who is said in the Book of Genesis to have lived to the age of 365 years. The rite records that Enoch built a column of granite and a column of brass, engraved with knowledge of the arts and sciences, intended to survive a coming flood (the flood of Noah, Enoch's grandson). He dug nine vaults in a vertical sequence, one above the other, each roofed with an arch, and the lowest was hewn from solid rock. The crown of each arch had an aperture sealed with a square stone and iron lifting ring, and over the top was built a

roofless temple of unhewn stones, with granite paving concealing the top entrance stone. In the lowest vault, he placed a cube of agate in which was embedded a triangular plate of gold, studded with precious gems and engraved with “the ineffable name of God.” Many years later, after the flood, when Solomon built his temple, he also built nine vaults, the ninth of which was under the Holy of Holies and which was linked to his palace by a tunnel. Workmen building a Temple of Justice on the site of Enoch’s temple discovered the vaults and delivered the agate cube with its triangular golden plate to Solomon, who put it into his own ninth vault below his temple. Like a Mount Purgatory going downward, one has to descend to the ninth and deepest level to achieve the prize.

In 1119, the nine original Knights Templar went to Jerusalem, set up their headquarters in the Al Aqsa mosque on Temple Mount, and spent nine years digging under the site of Solomon’s Temple. It is widely thought that they found scrolls and treasure, which ended

up in their Paris Temple, before being taken to Rosslyn chapel in Scotland. Rosslyn is a replica of Solomon's Temple and is known to have at least one secret vault and a tunnel.

Several esoteric societies have a nine-level hierarchy of grades. This includes the Rosicrucians, the Theosophists, the Ordo Templi Orientis (before Aleister Crowley added more grades), and the nine initiations of the Ismaelis and the Assassins. It also includes the nine grades of the Priory of Sion (but the Nautonnier, Pierre Plantard, admitted in 1993 that the society was a hoax). The nine-level hierarchy represents increasing levels of spiritual development.

The underworld theme continues in the concept of the labyrinth. In the Cretan myth, the labyrinth was built by Daedalus to house the Minotaur, a monster that was half man and half bull. Every nine years, King Minos sacrificed seven young Athenian men and seven young Athenian women to the Minotaur. When the Greek hero Theseus volunteered as one of the seven male victims, Ariadne, the

daughter of Minos, fell in love with him and gave him a ball of thread with which he could find his way out of the labyrinth, provided he would marry her afterward. Theseus killed the Minotaur, rescuing Athens from its fate. Mythology commentators tell us that the labyrinth represents the underworld, to which the hero must descend, with the help of the maiden. Replica labyrinths usually have seven, nine, or eleven rings, representing the levels of the underworld, and the story symbolizes the killing off of our beast within—repressed violence, anger, and sexual obsessions—before we can be ready to integrate with our higher selves (the overself). Note also that the Cretan labyrinth symbol represents the rebirth or emergence into the fifth world of the Hopi.

Precession and the Nine Doors of Louhi

In *Hamlet's Mill,* de Santillana and Von Dechend tell how the Danish myth of Amleth or Amlodhi concerns a mill that was turned by nine maids on an island off Norway, until the mill was stolen and the ship sank, causing a permanent whirlpool. In another version, the mill belongs to King Frodhi, an alias of Freyr, who is one of the Vanir who live in Vanaheim, which is one of the nine realms of Yggdrasil. The huge mill was worked by two giant maidens and ground out gold, peace, and happiness, making a golden age, but it eventually broke and ground out only salt. The Kalavala epic of Finland tells a similar story about a smith called Ilmarinen, who is tricked by Vainamionen, the minstrel, into going to the frozen land of the North, where he has to forge the Sampo, a magic triangular mill that grinds out flour, salt, and money, in exchange for the daughter of Louhi, the wicked queen of the frozen land. When it is finished, Louhi entombs it in a cave in the Copper Mountain, behind nine doors of granite, each sealed by nine locks. The Sampo is called the treasure. Ilmarinen does not win the maiden, however.

Eventually, the minstrel and smith go back to the frozen North, open the nine doors by magic, and steal the Sampo; Louhi chases them across the sea, but the mill eventually breaks and falls into the sea.

The mill tree was also the world axis, and the golden age comes and goes according to the shifting of it, which is the precession of the equinoxes. Nine is connected to the precession cycle, since the precessional numbers 72, 108, 216, 432, and 25,920 are all divisable by 9.

In the Hindu Mahabharata and Ramayana texts, the churning of the cosmic ocean (the Milky Way) represents precession, according to de Santillana and Von Dechend, and is caused by a tug of war between two dynasties of gods, who are turning the pole by pulling on a snake that is wrapped around it. The snake usually has seven or nine heads—both forms are depicted at the Angkor Wat temple complex in Cambodia.

Figure 17.11. The churning of the milky ocean from the Mahabharata, using the seven- or nine-headed snake, encodes precession

The stone circles and other megalithic sites found across Britain are known to have functioned as Neolithic calendars. Many have alignments to equinoxes and solstices, or lunar standstills. From

some of these observatories, the change in the rise and set positions of stars caused by precession would have been observable. At Avebury, for example, Robin Heath has shown that the line of hills to the east provided a horizon on which precession of half a degree would be clearly evident after thirty-six years observation, as rising stars moved between trees on the skyline. Many stone circles are named after nine maidens; in fact, all the stone circles in Cornwall are locally referred to as the nine maidens, regardless of the number of stones or other names for the sites. There are also the Nine Ladies circle on Stanton Moor and Nine Stones Close, both in Derbyshire, and there are several Wells of Nine Maidens in Scotland.

So the number nine is universally associated not only with the underworld, the overworld, and altered states of consciousness, but also with precession, ancient calendars, and maidens; in fact, nine is the number of the Great Goddess according to mythologist Joseph Campbell.[23]

Nine Goddesses

The Great Goddess has a triple aspect: maid, mother, and crone. These relate to the waxing moon, full moon, and waning moon. The threefold aspect multiplies to a ninefold aspect that relates to the nine months of gestation. One of the best-known groups of nine goddesses is the nine muses, who were Greek goddesses that provided inspiration in the arts and sciences and are said to have inspired Pythagoras, who conceived of the tetractys—a triangular arrangement of nine points around the *bindu,* or seed, as well as a diagram that relates to octaves and other ratios in music. The muses were associated with the oracle at Delphi.

In Arthurian legend, Arthur was taken to the Isle of Avalon (the otherworld) to have his wound healed by nine sisters, one of whom was Morgan le Fay. A Roman historian records a similar island called Sein (breast) off Brittany, that was occupied by nine

priestesses, who were healers, could predict the future, control winds and waves, and change into animal shapes. Another island called Annwn (the underworld) is described in a Welsh epic on which is Cerridwen's cauldron, tended by nine virgins who "boiled the cauldron with their breath." The cauldron had a ring of pearls round its rim; it produced an elixir that conferred inspiration, and oracular speech came out of it. King Arthur entered the underworld (Annwn) to steal the cauldron.

The archaeologist Bligh Bond was appointed by the Church of England as director of excavations at Glastonbury Abbey in Glastonbury, the earthly counterpart of Avalon. Bond enlisted the help of a psychic who brought forth the spirits of nine dead monks who called themselves the company of nine, or the nine elect. They told him where to find the grave of Arthur and the lost Edgar chapel, and a grave and chapel were duly dug up just where the nine indicated. When the church authorities found out, Bond lost his job

at the abbey, but the episode reinforces the connection between the underworld (Avalon and the world of the dead) and the number nine.

The harmonic vision of Martianus Capella, a fifth-century neo-Pythagorean, assigned the nine spheres around Earth to the nine muses, with a three-headed snake connecting heaven to Earth, as illustrated in Kircher's diagram (see figure 17.12). The mythologist Joseph Campbell says the snake correlates to kundalini, the Hindu fire snake that lies dormant in the base chakra. Campbell says Earth represents the base chakra, so Earth and the next two spheres are equivalent to the bottom three chakras; the next three muses or spheres represent the heart chakra and the top three muses or spheres (excluding heaven) represent the top three chakras. Kundalini's full title is Kundalini Shakti, the Earth goddess who comes up from the ground and, when awakened, rises up the spine, energizing the chakras until she meets Shiva, her male consort, who

descends from above, and they meet in the crown chakra, annihilating the ego in a trance called *samadhi*. At the Navatri Festival in India, nine forms of the goddess Shakti are worshipped for nine days. The first three days are a purge, and the first goddess encountered is Durga, who destroys our impurities and defects. The second group of three days centers around wealth, and the last three on success.

Primum Mobile
VRA NIA
POLYHY- NNIA
EV- TERPE
ERA TO
MELPO MENE
TER PSICHORE
CALLI OPE
CLI O

Figure 17.12. Anastasius Kircher's drawing (Ars magna lucis, Rome, 1665), connecting the nine muses to the nine heavenly spheres, relate to the chakras connected by kundalini

It is now known, due to John Major Jenkins's discoveries, revealed in his book *Pyramid of Fire,*[24] that the Toltecs, who worshipped Questzalcoatl, the feathered serpent god (Kukulcan to the Maya) regarded Quetzalcoatl in a similar way to kundalini—a serpentine evolutionary energy that climbs up the spine. There is a prophecy from the Chilam Balam of Chumayel that says Kukulcan will return in katun 4 ahau, and the current katun is katun 4 ahau, from 1993 to 2012, so this suggests the descent of Bolon-Yokte could be associated with a mass kundalini awakening.

The Enneads of Heliopolis

Egypt had several *enneads,* or *pesedjets* (nine-god groups), to use the original Egyptian term, rather than the Greek. The most important was the ennead of Heliopolis (or pesedjet of Annu or On), which consisted of Ra-Atum, the creator, who self-begat Shu and Tefnut, the air and moisture gods, respectively. Shu and Tefnut were the parents of Geb and Nut, the earth and sky. Geb and Nut were (like the Maori sky and earth gods Rangi and Papa) in a close embrace and produced children before separating. The offspring were Osiris, Isis, Set, and Nephthys. All these gods are associated with the underworld, or the Duat, which is really the region between the earthly and spiritual worlds, according to Jeremy Naydler. Atum-Ra traveled each night through the Duat. Shu was the division between the living world and underworld, and he protected Ra on his journey through the Duat by using magic spells to ward off Ra's enemy, the snake-demon Apep. The Pyramid Texts suggest that

Tefnut was the atmosphere of the Duat. Geb was sometimes seen as god of the underworld and protector of the dead; Nut contains the Duat as part of her body. Osiris was the god of the dead, resurrection, and judgment, and Isis as his wife, was thus queen of the Duat. Set protected Ra on his nightly journey through the Duat, and Nephthys, the helper of the dead, also accompanied Ra and Set on the boat.

In the Book of Coming Forth by Day (known as the Egyptian Book of the Dead), nine human components are described. They are the *khat,* or physical body; the *ka,* or double, which is equivalent to the etheric body; the *ba*, or heart-soul, equivalent to the astral body and symbolized by a bird with a human head; the *akh* or *khu,* or spirit-soul, which is a divinized ba; the *sahu,* or spiritual body, which carries the akh; the *khaibit,* or shadow; the *sekhem,* or vital power; the *ren,* or name; and the *ab,* or heart.

Jeremy Naydler has done a great job of decoding this Egyptian

soul science (psyche-ology).[25] The Osirian initiation was centerd on achieving the experience of the ba, where consciousness is externalized into the astral body and the physical body can be observed from another viewpoint. However, the next stage in the process was to neutralize the *khaibit,* symbolized by a dark human silhouette, since it represents "all the untransformed earthly appetites and obsessions that fetter the ba to the physical realm and prevent it from moving on." The divinization of the ba creates the akh or khu (shining one or illuminated one), symbolized by another bird, the crested ibis. It is also called the imperishable one, which returns to its source beyond the Duat. In order for the akh to be released from the body, a new spiritual body had to be germinated from the physical body as a vehicle for the akh. This spiritual body is the *sahu*. This sounds like the immortal man in Taoist yoga that is gestated in the abdomen and expelled through a psychic opening in the top of the head to appear as a person sitting on a lotus within a golden sphere.

When Robert Monroe found himself floating outside his body in the 1950s, he thought he was going mad, until his doctor told him that the experience was not uncommon, but people just didn't like talking about it. Monroe had been listening to subliminal learning tapes while he was asleep at the time he had the experience, so he tried to replicate it by experimenting with sound. He discovered that the brain could be entrained into producing theta waves while awake using binaural beats, where the difference between frequencies heard in each ear is the required frequency—in this case, around 4Hz. He set up the Monroe Institute, a charitable binaural research and education facility in Virginia, to explore the phenomenon.

In *Far Journeys,* Monroe describes the results of thirty years of exploration of the astral realms. The first realm experienced by those leaving their bodies is the physical world, identical to everyday life but with extra inhabitants—the souls of the recently

dead and those who are unaware that they have passed on, plus the dreaming bodies of those who are asleep and dreaming. Next is the innermost ring; then the waiting ring; then the major ring, which is split into four quarters—the inner, lower, upper, and outer; then the outermost ring; and beyond that graduation. This adds up to nine astral realms. Personal development allows the soul to climb the rings until it makes it to graduation, after which no more earthy incarnations are necessary.

Nine Steps to Transformation

In *Mercurius,* Patrick Harpur says that the aim of the alchemists was to restore man's unity with nature and to heal the rift between heaven and Earth that had been caused by the fall.[26] They tried to reinstate the golden age by reproducing the operations taught to

humanity by Hermes Trismegistus. He explains that in tribal societies "when people are profoundly subject to physiological processes," such as puberty or pregnancy, they have to be "cooked" in an oven. This symbolic cooking is a rite of passage, and "some Amerindian tribes place pubescent girls and women who have just given birth into 'ovens' hollowed out of the ground." The Hermetic vessel, he says, is "analogous to the ritual tomb, or womb, or oven in which rites of passage take place," and the physical changes inside it "are symbolically correlated with the spiritual changes of the alchemist." The magnum opus, or great work, of the alchemists incorporates all the rites of passage, according to Harpur:

Solution = the birth of Sol; Separation = his initiation at the hands of hitherto unconscious desires and effects such as occur at puberty; Conjunction = marriage (and death in the forbidden union between Sol and his mother/sister/daughter Luna); Putrefaction = burial (a mixture of cremation and burial, perhaps cooked: rotting:

cremation: burial); Congelation = rebirth (the same configuration as solution/birth but transformed to a new spiritual status); Sublimation (Rubedo) = ? Some state for which nature supplies no equivalent. The Opus re-enacts one's whole life in a short (or shorter) space of time in order to raise it up into consciousness and recreate it.[27]

There are usually said to be seven stages of alchemy. Harpur gives eight; Michael Maier, a sixteenth-century Rosicrucian alchemist, described nine stages of "involutive-evolutive transmutation of the threefold body of the human being, the threefold soul, and the threefold spirit."

At the end of the thirteen-baktun cycle, the sun will be reborn as One Hunahpu according to Mayan mythology. Perhaps this could be a macroscopic alchemical initiation for Earth: the rebirth of sol. Could this be a possible rite of passage for sublimation? In chemistry, sublimation is "the transition from a solid to a gas, with no intermediate liquid stage." Here we may have a clue.

In the spiritual alchemical process of Taoist yoga, there are nine impediments to the vital breath, which allows restoration and circulation of the generative force. These are called the nine unsettled breaths, and they are "caused by anger which lifts and fear which lowers the breath; by joy which slows it down; by grief which disperses it; by terror which throws it out of gear; by thinking which ties it up; by toil which wastes it; by cold which collects and heat which scatters it." The generative force is collected in the *lower tan t' ien* center (just below the navel), where it is purified. Then it is raised to the *middle tan t' ien* at the solar plexus, where it is transmuted into vitality. After this it is sent to the *upper tan t'ien* (pineal area), where vitality is transmuted into spirit. Each of these centers is called a *cauldron,* but when the upper tan t'ien takes over, it is called the *precious cauldron.*[28]

Charles Musés has described a nine-step ritual movement called the Pace of Yu, which relates to the nine components of hexagram

63 of the I Ching (three yang lines and six yin semi-lines).[29] Hexagram 63 is, surprisingly, the climax of the series, rather than hexagram 64. It means climax and the equilibrium achieved afterward. It is an encoded form of transmitting knowledge of the nine cauldrons of transformation, in which are brewed nine ingredients for the elixir of immortality. These are called the nine numinous jewels. The cauldrons are also called the nine cranial palaces, which resonate to the seven (plus two hidden) stars of Ursa Major. Musés says the process is governed by the Great Goddess, so again, we have nine, the Goddess, and the cauldron as a key to transformation to a higher state. The process describes a sacred pregnancy—the germination and nurture of an embryonic immortalized self.

Figure 17.13. Hexagram 63 of the I Ching and its nine parts that correlate to the Pace of Yu

Musés says hexagram 63 means "journeying across the great stream of time and death into a region of harmony." This reminds us of what the Bolon-Yokte have in store for us upon their "descent" in 2012—their discourse will be on the after-death state. Since, like the Taoists, the Egyptians also had a soul-craft technology, this idea complex may be associated with the Eye of Horus, as the various components of it were hieroglyphs for measuring volume and time. They add to 63/64, and there is one myth in which Horus gave his eye to Osiris to help him rule in the netherworld.

Figure 17.14. The Eye of Horus with its fracional components that

Alberto Villoldo has recently announced that he is giving a series of nine Peruvian initiations or rites called the Munay Ki.[30] They are "nine healing gates" that allow a conquering of fear and a "clearing of psychic sludge left by past traumas" in order to transform the energy field and communicate with luminous beings and to allow aspirants to start the process of change toward becoming *Homo luminous*. The rites are said to be in preparation for 2012, when the Andean priests, or Paqos, of the Qero people—direct descendants of the Incas—say that Taripay Pacha will start the Age of Meeting Ourselves Again, according to Juan Nunez del Prado, and when the three worlds *hanaq pacha, kay pacha,* and *ukhu pacha* (overworld, middleworld, and underworld) will converge. Villoldo is the only source on the Munay Ki, so I don't know how genuine it is. However, it does seem a very good fit for the pattern that we have revealed here.

Healing and Revealing the God Self

The Mayan myths tell of a descent of heroes to an underworld of six houses to conquer the lords of death and to conquer their own fears, but other Mayan myths mention an underworld of nine levels, that relate to the Nine Lords of the Night. The latest studies by Mayan epigraphers indicate that these night lords are the same as the God of Nine Steps (Bolon-Yokte) who is set to descend at the next creation in 2012, and that these nine gods relate to the germination phases of maize, human individuals, and the human species evolutionary quantum leap. We have seen that all across the world, the number nine is associated with the underworld, trips into the underworld to confront what turn out to be our own demons, and then trips upward to heaven in a pilgrimage of the soul toward an enlightened state.

The various myths around the number nine seem to boil down to three main themes:

Healing the wounded king: A descent to the underworld of nine levels; a confrontation with inner violence, rage, and fear; at the deepest level, a divine connection is regained, leading to healing and rejuvenation.

Ascent to the ninth heaven: Consciousness rises through nine spheres; Shiva and Shakti unite; the Goddess returns leading to a whole-mind integration of right and left brains.

Cyclic return of the gods: A golden age will return, governed by precession; circa 2012, our inner cauldrons will be activated along with the germination process of a subtle body that can survive in a postmortem state.

In other words, to put it in a nutshell, in 2012, or thereabouts, according to the evidence presented here, something will trigger a

confrontation with our shadow selves at a time of social and environmental upheaval; the kundalini evolutionary energy will be awakened; there will be an integration of subpersonalities as we enter an enlightened state, accompanied by expanded perceptions, the generation of a plasma body, and contact beyond the physical spectrum. Then the golden age will begin.

Footnotes

*1 Relative to the Vedic view of the yugas, I would agree with the views of Yukteswar, who places us in the early stages of an ascending Dwapara (bronze) age of 2,400 years, which has given humanity knowledge of and control over subtle forces of electricity and nuclear energy. According to this view, we will not get out of the darker phase of this beginning cycle until around 2100 CE. This may be the topic of another discussion. See "Keys to the Yugas or Cycles of the Ages" by David Frawley. American Institute of Vedic Studies, www.vedanet.com/component/content/article/129-keys-to-the-yugas-orcycles-of-the-ages.

*2 The importance of materials is not unique to Egypt and

possibly explains the presence of a giant slab of mica found hidden in the Pyramid of the Sun in Mexico. One modern commentator, Christopher Dunn, who has a technical background, has worked out that the Egyptians knew about ultrasound and used it for carving and drilling (that is how he explains the amazing accuracy of Egyptian stonework and the fine carving on very hard stones like basalt and granite—exquisite examples of vessels can be seen in the British Museum). See Christopher Dunn, *The Giza Power Plant: Technologies of Ancient Egypt* (Rochester, Vt.: Bear & Co., 1998).

*3 As I wrote in my book *Eye of the Phoenix,* the reed is a universal symbol of civilization, high culture, education, writing, and even celestial significance. For instance, the Hopi refer to the Milky Way by the term *songwuka,* literally "big reed." They have a legend of coming up through a great reed from the previous Third World to the present Fourth Wold. This perhaps suggests an interstellar journey along the galactic axis.

*4 The trance dance is a curing ritual whereby spirits are contacted. Resembling the Native American Ghost Dance of the late-nineteenth century, it is performed by dancing in a ring, using hyperventilation in order to create a state of transcendent exhaustion. “The !Kung [San] medicine man gradually works himself up into a state of trembling and sweating. When he approaches trance, he feels a rising sensation which he ascribes to the ‘boiling’ of his medicine (n/om); as he enters deep trance, he falls to the ground, sometimes executing a somersault.”

*5 The San used to call out to the mythical Water Snake: “Your breast gurgles because it is full of water. The stars love you—therefore the gemstone gleams on your head.” Was this gemstone a diamond?[9]

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Lucy Wyatt, after studying international relations and Italian at university, went on to work for the National Economic Development Office, then in commercial design and marketing within Sir Terence Conran's empire, and then edited a business magazine for a City of London stockbroker firm. Wyatt comes from an illustrious family of mathematicians, architects, and writers and herself has a lifelong fascination for the ancient past and the political and economic realities of the bigger picture. She lives with her family on an ecofarm in Suffolk, where she puts much of what she has learned from her research into practice. *Approaching Chaos* is her first book.

Joscelyn Godwin is professor of music at Colgate University in Hamilton, New York. He was born in England and came to the United States in 1966 to study musicology at Cornell University. Since then, he has written, edited, or translated over thirty books on

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at his website: https://sites.google.com/a/colgate.edu/jgodwin.

Gregory Sams's first book *Uncommon Sense: The State Is Out of Date,* took chaos theory into a sociopolitical context. His new book *Sun of gOd: Discovering the Self-Organizing Consciousness That Underlies Everything,* is the culmination of seven years of focus on the subject of solar sentience and its relevance to humanity and everything in creation. www.gregorysams.com or www.sunofgod.net.

Christopher Knight is known and respected worldwide for his seminal investigations into ritual and belief systems. His first book, *The Hiram Key,* published in 1996, became an immediate bestseller, selling over a million copies and is now published in thirty-seven different languages. Knight followed this book with a string of bestsellers chronicling his further investigations

Alan Butler's professional background is in engineering, though he has been a professional writer/researcher for over two decades. His

lifelong historical studies extend to an in-depth research into the Cistercian monastic movement and the Order of the Knights Templar, about which he has written extensively. As a professional writer who has always possessed an absolute fascination for history, Butler set out on a two-decade search that led to the decoding of some of the most important details regarding prehistoric knowledge and achievement in Europe. Butler is a recognized expert in ancient cosmology.

Harry Sivertsen's and Stephen Redman's qualifications for this investigative work are quite broad in that between them they hold degrees in electrical engineering, information technology (IT), archaeology, history, and religion. Sivertsen, the primary researcher and analyst of this unusual duo, is a retired carpenter with a long-standing interest in the histories of building development, measures origination, religion, myth, history, and early astronomy. His BA degree studies as a mature student related to history and religion.

Sivertsen, assisted by his architectural-technician wife Gillian, commenced this investigation over twenty-five years ago, and since 2000, he has had the assistance of IT engineer Redman in the presentation and background historical research of both *Deluge* and *Measurements of the Gods*. Redman is a former telecommunications systems engineer and published author, who also holds a second degree in his lifelong interest, prehistoric archaeology.

Jonathan Talat Phillips is cofounder of Reality Sandwich, a web magazine for transformational culture, and the social network Evolver.net, coordinating over forty Evolver regional chapters. He is creator of "The Ayahuasca Monologues," founder of the NYC Gnostics, and has a bioenergetic healing practice in New York City.

Flavio Barbiero is a retired admiral in the Italian Navy who last served with NATO. He is the author of several books, including *The Bible without Secrets* and *The Secret Society of Moses,* and is an archaeological researcher in Israel. He lives in Italy.

Gary A. David has been intrigued by the Four Corners region of the United States for nearly twenty-five years. In 1994, he moved to Arizona and began an intensive study of the ancestral Pueblo People and their descendants the Hopi. In late 2006, after more than a decade of independent research and investigation of archaeological ruins and rock art, his book *The Orion Zone: Ancient Star Cities of the American Southwest* was published by Adventures Unlimited Press. The 2008 sequel is titled *Eye of the Phoenix: Mysterious Visions and Secrets of the American Southwest*. The third book in the series, *The Kivas of Heaven: Ancient Hopi Starlore*, was published in late 2010. These books are available from www.adventuresunlimitedpress.com or by calling toll-free 1-815-253-6390. Autographed copies of the books can be obtained from www.theorionzone.com. David's articles have appeared in *Fate, World Explorer, UFO, Atlantis Rising*, and *Ancient American* magazines, and in Graham Hancock's anthology *Lost Knowledge of the Ancients*. Translations of David's work have appeared in Erich

von Däniken's magazine *Zagenhafte Zeiten* and on the website www.antiguosastronautas.com. His writing was also featured on recent History Channel episodes of *Decoded* and *Ancient Aliens*. David continues to give lectures and international radio interviews.

Antoine Gigal is a French writer, researcher and explorer, and founder of Giza for Humanity Organization as well as the International Women Explorer NGO. For the last twenty years, she has lived mainly in Egypt and has explored all of the most remote archaeological areas, especially those not yet open to the general public. With the eye of a scrupulous researcher, Gigal brings us unprecedented access to new and firsthand information about the understanding of very ancient Egypt and ancient civilizations. She is the author of *The Secret Chronicles of Giza* (in French) and of numerous groundbreaking articles, which have appeared in various magazines in English, French, Italian, and Dutch, mainly about aspects of Egyptian and megalithic civilizations never before

revealed. She has lectured extensively (in English, French, and Italian) since 2002 across the world (South Africa, France, United Kingdom, and Italy) and has appeared in History Channel TV series 2011 (*Ancient Builders, Lost Worlds, Ancient Aliens, Secret Code*), and radio shows, among them *VoiceAmerica, Goldring, Hillary Raimo Show, Sovereignmind, Red Ice Creations,* and *Other World Radio*. Gigal organized several Giza for Humanity conferences in Paris, France, with international speakers: "Some Ancient Mysteries in 2009", "Ancient Technology and Pyramids in 2010", and "The Physics of Ancient Egypt in 2011." She discovered twenty-three pyramids in Sicily not yet listed and the complex surrounding the pyramids of Mauritius.

Anthony Peake lives near Liverpool in England. As well as writing two books, he has also written many articles for magazines and journals in the United States, Canada, Australia, South Africa, and the United Kingdom. He is also regularly in demand as a lecturer

and public speaker.

Daniel Pinchbeck is the author of *2012: The Return of Quetzalcoatl* and *Breaking Open the Head: A Psychedelic Journey into the Heart of Contemporary Shamanism*. He is the editorial director of Reality Sandwich and Evolver.net.

Geoff Stray has been studying the meaning of the year 2012 for over twenty-five years. In 2000, he summarized his findings on his website, Diagnosis 2012, attracting international input. It still remains the largest data base on 2012. Stray is the author of *Beyond 2012: Catastrophe or Ecstasy,* published in the United Kingdom in 2005 (later published in the United States, in 2009, as *Beyond 2012: Catastrophe or Awakening*). The book is an overview of visions, calendars, prophecies, and theories about 2012 and has been called the encyclopedia of 2012. He is also the author of *The Mayan and Other Ancient Calendars* (2007) and *2012 in Your Pocket* (2009) and has written articles for various magazines including *HERA*,

Salvia Divinorum, Caduceus, and *New Dawn*. Stray has contributed an essay to the bestselling book *The Mystery of 2012*. He has given talks in the United Kingdom, Europe, North and South America, and Scandinavia and has appeared in documentaries such as *2012: The Odyssey*, *Timewave 2013, 2012: An Awakening,* and *2012: Mayan Prophesy and the Shift of the Ages*. He lives in Glastonbury, United Kingdom, where he also makes handmade footwear.

About the Author

Glenn Kreisberg, editor of the Author of the Month page at GrahamHancock.com, is a radio frequency engineer, writer, researcher, and licensed outdoor guide and currently serves as the vice president of the New England Antiquities Research Association. The author of numerous articles and papers, including *Lithic Mysteries of the Northeast*, he is the founder and editor of the alternative science and history website ASHnews.org. He lives in Woodstock, New York, with his wife and two children

Bear & Company
One Park Street
Rochester, Vermont 05767
www.BearandCompanyBooks.com

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Library of Congress Cataloging-in-Publication Data
Mysteries of the ancient past : a Graham Hancock reader / edited by

Glenn Kreisberg.

p. cm.

Includes bibliographical references.

Summary: “Cutting-edge thinkers on the origins of civilization, the Giza pyramids, pre-Columbian and early America, and the power of human consciousness”—Provided by publisher.

print ISBN: 978-1-59143-155-8

ebook ISBN: 978-1-59143-805-2

1. Civilization, Ancient. 2. Science and civilization. I. Kreisberg, Glenn.

CB311.M895 2012

930—dc23

2012019623

To send correspondence to the author of this book, mail a first-class

letter to the author c/o Inner Traditions • Bear & Company, One Park Street, Rochester, VT 05767, and we will forward the communication.

REVISED EDITION

GRAHAM HANCOCK

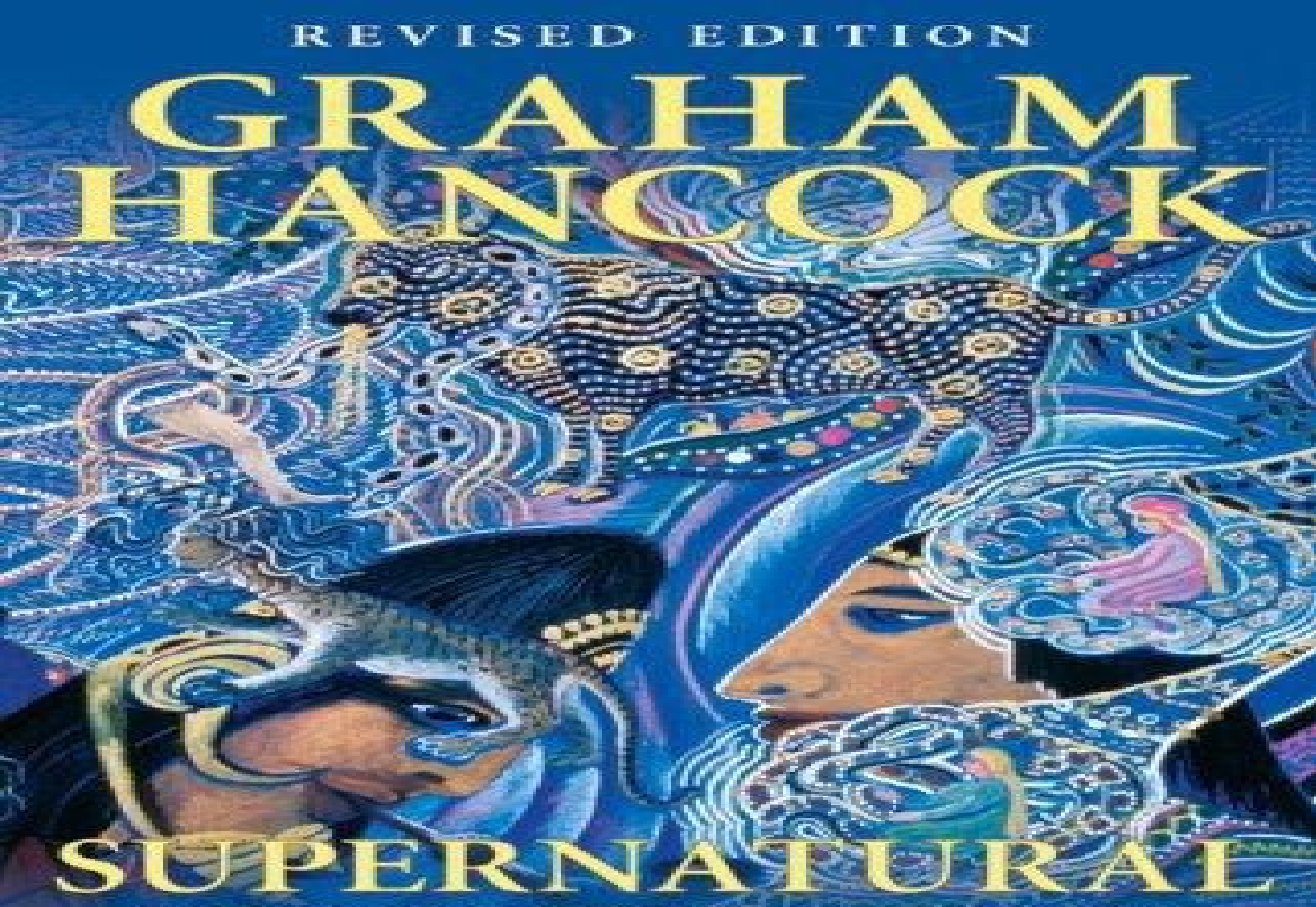

SUPERNATURAL

MEETINGS WITH THE ANCIENT TEACHERS OF MANKIND

“The modern world was not alive to the tremendous Reality that encompassed it. We were surrounded by an immeasurable abyss of darkness and splendor. We built our empires on a pellet of dust revolving round a ball of fire in unfathomable space. Life, that Sphinx, with the human face and the body of a brute, asked us new riddles every hour. Matter itself was dissolving under the scrutiny of Science; and yet, in our daily lives, we were becoming a race of somnambu-lists, whose very breathing, in train and bus and car, was timed to the movement of the wheels; and the more perfectly, and even alertly, we clicked through our automatic affairs on the surface of things, the more complete was our insensibility to the utterly inscrutable mystery that anything should be in existence at all.”

Alfred Noyes, *The Unknown God*, Sheed and Ward, London, 1934, pp. 176-177

For my father, Donald M. Hancock, December 7, 1924 – September 16, 2003.

Ride in green pastures.

Acknowledgements

My father Donald Hancock died when research on this book was in its early stages. He influenced me, and the work I have done, more than I think he ever realized. I miss his warmth, his wise advice, his enduring love, and his celebration of the mysteries and spiritual truths that lie at the heart of this life of ours. I retain the hope, and the expectation, that our dialogue is not over and that death is not the end of all things but simply a transition to another level of consciousness. As ever my wife and partner Santha was with me, stood by me, gave me love, gave me support, gave me understanding – every step of the way. I can't thank her enough. I am also grateful for the encouragement of our six children, Sean, Shanti, Ravi, Leila, Luke and Gabrielle. Each one of them contributed an insight into what was needed to get this book done. Thanks to my mother and to my uncle James Macaulay for reading

and commenting on the manuscript.

In South Africa special thanks go to Bokka du Toit for bringing his unique skills and understanding to our research adventures in that ancient land that he loves so much, and to Ann Steyn for her friendship and help during our stay in Jeffries Bay. I am extremely grateful to all the excellent staff at the superb Bushman's Kloof in the Cedar-berg for their hospitality and knowledge of the local rock art, and to Judy Soul of the Monkey Valley Resort in Cape Town for her kindness shown to us during our stay there. Thanks to Chris Henshilwood and his team at Blombos cave for their hospitality and for a most instructive day spent with them in the midst of an active, news-breaking excavation. And thanks to David Lewis-Williams for revolutionizing scientific understanding of the factors at work in the birth of modern human behavior.

My research in the Amazon would not have been possible without the fantastic back-up, local knowledge, and organizational skills of

Francesco Sammarco and Ignazia Posadinu of El Mundo Magico (www.ayahuasca-shamanism.co.uk), who again and again put me on the right track in the jungle and in contact with absolutely the right people. Additional thanks go to the shamans who introduced me to ayahuasca during my stay – notably Don Francisco Montes Shuna of Sachamama, Don Leoncio García Sampaya, Don Alberto Torres Davilla (in the Aucayacu), Dona Otilia Pashmino and Don Alberto Alvarez Vela. I'm also grateful to Ruber del Castillo Ramirez and his wonderful family for the hospitality and kindness that they extended to us when we stayed with them on their homestead in the Aucayacu.

Additional thanks go to Clever Hoyos who worked with us as an insightful and resourceful translator during our stay in the Peruvian Amazon. Finally, thanks and deep appreciation to Pablo Amaringo (www.pabloamaringo.com) for kind permission to reproduce some

of his luminous and inspiring paintings of his ayahuasca visions. In every case, with these remarkable images, a picture says far more than a thousand words. Thanks also to the anthropologist Luis Eduardo Luna (www.wasiwaska.org) who worked with Pablo on their wonderful book *Ayahuasca Visions: The Religious Iconography of a Peruvian Shaman*.

In Brazil special thanks go to the *Uniao de Vegetal* and in particular to *Mestre* Antonio Francisco Fleury. In France I would like to thank the administration of *la Grotte du Pech-Merle* and in particular M. Zimmermann who took the time to show me around on my private visit to the cave and to share his insights with me.

I am most grateful to Dr. Rick Strassman for discussing with me at such length his breakthrough research with DMT and human volunteers at the University of New Mexico. Thanks, too, to Professor Benny Shanon of the Hebrew University in Jerusalem for our discussions and for his remarkable work which has advanced

the scientific understanding of the phenomenology of ayahuasca experiences to a level not hitherto reached by any other researcher. I am also most grateful to the anthropologist Jeremy Narby for his hospitality in Switzerland and for his remarkable book *The Cosmic Serpent: DNA and the Origins of Knowledge* which opened my eyes to many possibilities that I simply had not seen before. Thanks to Professor Roy Watling for contributing Appendix I of this book documenting the ancient Old World provenance of the hallucinogenic mushroom *Psilocybe semilanceata*.

Thanks to the late Professor John Mack for his pioneering work at the borders of consensual reality and for his tremendous intellectual courage.

Thanks to Hattie Wells for seeing me safely through my first ibogaine session. One of the great untold stories of this book is the remarkable success that Hattie and other healers all around the world have achieved administering ibogaine to drug addicts as a

cure for heroin, cocaine and alcohol addiction. In many cases two to three ibogaine sessions have been sufficient to produce virtually symptom-free withdrawal, a strong determination not to relapse, and a transformed outlook on life on the part of the individuals concerned.

Thanks and appreciation to Simon Macara for his kind and sincere help on several occasions in making difficult things easy, to Helen Vinckier for looking after us in Belgium, to Zoe Kenway for her excellent work under intense time-pressure on so many of the black-and-white illustrations in this book. Thanks to Shanti Faiia for her specialized research into the human-rights implications of current drug laws, and to Damian Walter for his excellent and professional bibli-ographic research. Thanks to my literary agents Bill Hamilton and Sara Fisher for wise advice and good practical encouragement at all times. Thanks to Tim Andrews at Century in London for working so professionally with me on the final stages of the editing

and production of *Supernatural.* Last but not least, particular thanks and appreciation to Mark Booth, my editor at Century. As well as having had the guts to take on such a controversial subject in the first place, he was a real friend who read the chapters and gave me his reactions over the course of a year as the writing progressed.

Graham Hancock

Bath, England, October 2005

www.grahamhancock.com

Author's Note

The first editions of *Supernatural* (UK: Century, 2005 and 2006; US: The Disinformation Company, 2006) contained an extensive and overly academic section on prehistoric rock and cave art around the world. This section, consisting of seven chapters, focussed on the groundbreaking work of Professor David Lewis-Williams of the University of Witwatersrand and his neuropsychological theory of cave art, setting out the details of the theory at great length and critiquing – again extensively – the relatively few scholarly arguments that have been put forward to oppose it. All this material has been deleted from the current edition and replaced by a new chapter (Chapter Four) which summarizes the essential elements of the theory and places them properly in context of the overall argument of *Supernatural*.

Graham Hancock

Bath, England, September 2007

Black-and-white illustrations by Zoe Kenway: 6; 16; 17; 22; 23; 24; 28; 41; 42; 44; 70; 74; 77; 78; 81; 82; 87; 91; 93; 140; 172; 282; 290; 292; 293; 295; 298; 314; 315; 351; 358; 361; 362; 363; 365; 366; 367.

All other illustrations are as credited on the pages on which they appear. Cover design: Greg Stadnyk.

Part 1

The Visions and the Caves

Chapter One

The Plant that Enables Men to See the Dead

I lay on a couch in the darkened drawing room of a 200-year-old townhouse in the English city of Bath. The streets outside were deserted and offered few clues to remind me of the familiar world. It was reassuring to find that I could still read the luminous dial of my wristwatch if I held it in front of my eyes. Ten minutes passed, then 20, then 35. I began to feel bored, restless, even a little blasé. After 45 minutes I closed my eyes and directed my thoughts inwards towards contemplation, still noticing nothing unusual. But at the end of the first hour of my vigil, when I tried to stand up and walk around, I was amazed to discover that my legs would not work. Out of nowhere, an enervating feebleness had ambushed my limbs, the slightest physical effort set off uncontrollable tremors and

stumbling, and I had completely lost my sense of balance.

A wave of dizziness and nausea washed over me, and I fell back exhausted on the couch, drenched in cold sweat. I remembered with a shudder of finality that I could not change my mind, because there was no antidote. Once it was underway, the process I was going through could not be stopped and would simply have to be endured.

My hearing was the next faculty affected. At intervals, there would be a tremendous ringing and buzzing in my ears, blotting out all other sounds. My eyesight also rapidly deteriorated, soon becoming so obstructed at the edges with strange black lines, like fence-posts or grat-ings, that I could no longer see my watch and had to abandon all control of time. For what felt like a very long while, the poison remorselessly tightened its grip, and I fell prey to indescribable sensations of physical and psychic unease. There was a great deal of pain, weakness, and discomfort. It was as if my body were being slowly and systematically smashed and dismembered,

and I began to fear that I might never be able to put it back together again.

In a moment of stillness when my eyes were closed, a vision popped up – a vivid moving tapestry of intertwining branches and leaves, elaborate arabesques, and Celtic knotwork. I blinked my eyes open.

Instantly, the writhing patterns vanished and the darkened drawing room returned. But as soon as I closed my eyes the patterns came back.

More unmeasured time passed while the patterns continued to expand and multiply. Then another great gust of dizziness hit me, and I winced at the terrifying new sensation it brought of balancing on a swaying tightrope over a bottomless abyss. I found that if I lay on my back, looked straight up at the ceiling, and stayed absolutely still, I could minimize these uncomfortable effects. But all it took was the slightest movement of my head to left or right to bring on

another spectacular surge of vertigo.

When at last I closed my eyes again, the sinuous intertwined patterns reappeared with renewed intensity, and then were abruptly overwritten by a profile view of a heavily built blond young man with his eyes turned towards me in a glare of reproach. He appeared right at my side, startlingly close. His skin was pallid and his brow blotched with patches of green mold.

Shamanic portals

In the Central African countries of Gabon, Cameroon, and Zaire, certain age-old ancestor cults still flourish in the twenty-first century.

Their members share a common belief, based, they say, on direct experience, in the existence of a supernatural realm where the spirits of the dead may be contacted. Like some hypothetical dimension of

quantum physics, this otherworld interpenetrates our own and yet cannot ordinarily be seen or verified by empirical tests. It is therefore a matter of great interest, with highly suggestive research implications, that tribal shamans claim to have mastered a means, through the consumption of a poisonous shrub known locally as eboka or iboga, by which humans may reach the otherworld and return alive. How they mastered this skill is told in the origin myth of the indigenous secret society known as the Bwiti:

Zame ye Mebege [the last of the creator gods] gave us *Eboka*. One day . . . he saw . . . the Pygmy Bitamu, high in an Atanga tree, gathering its fruit. He made him fall. He died, and Zame brought his spirit to him. Zame cut off the little fingers and little toes of the cadaver of the Pygmy and planted them in various parts of the forest. They grew into the *Eboka* bush.1 The pygmy's wife was named Atanga. When she heard of the death of her husband she went in search of his body. Eventually, after many adventures, she

came to a cave in the heart of the forest in which she saw a pile of human bones:

As she entered the cave she suddenly heard a voice – as of the voice of her husband – asking who she was, where she came from, and whom she wished to speak with. The voice told her to look to the left at the mouth of the cave. There was the *Eboka* plant. The voice told her to eat its roots . . . She ate and felt very tired . . . Then she was told to turn around in the cave. The bones were gone and in their place stood her husband and other dead relatives. They talked to her and gave her a [new] name, *Disoumba*, and told her that she had found the plant that would enable men to see the dead. This was the first baptism into Bwiti and that was how men got the power to know the dead and have their counsel.2

Today several million people distributed across Gabon, Cameroon, and Zaire have no difficulty resisting well-financed efforts at conver-sion aimed at them by Christian and Islamic missionaries.

Their allegiance instead is to the Bwiti, into which they have been initiated by consuming huge amounts of eboka root-bark shavings and ex periencing a journey into supernatural realms.

Eboka, also known as iboga (the spelling that I will use from now on), is classified scientifically as *Tabernanthe iboga* and is a member of the *Apocynacae* (Dogbane) family. Its root bark turns out to be very special, as the myth of the pygmy asserts, and contains more than a dozen unusual chemicals belonging to a class known as the indole alkaloids. One of them, ibogaine, is the potent hallucinogen responsible for the convincing and life-changing visions experienced by Bwiti initiates, notably "encounters with supernatural beings" and "encounters with the spirits of the dead." Many report meeting their deceased fathers or grandfathers, who act as guides for them in the spirit world.

However, the bark must be eaten in toxic quantities if the visionary state is to be attained, and initiates confront an ever-present risk of fatal overdose as they seek out their ancestors.3

Tabernanthe iboga. Its root bark is the source of the powerful

hallucinogen ibogaine.

Iboga root bark and ibogaine hydrochloride (the pure extract of the psychoactive alkaloid) are both illegal drugs in the United States; they are classed under Schedule I alongside other major hallucinogens, such as LSD, and addictive narcotics and stimulants like heroin and crack cocaine. By contrast, in Britain and several other European countries, where there is growing scientific recognition of a number of startling therapeutic effects claimed for ibogaine, the drug has not been banned.

It may be purchased legally and openly from specialized botanical suppliers and consumed freely in any private place.

Research

Even without the barbaric threat of a jail sentence, ibogaine is a very serious business, so I had not gone lightly into the decisions

that had led me to this couch, this night, and this state of helpless prostration to whatever was coming next.

My primary motive, unabashedly, was research. I had deliberately submitted myself to this ordeal as part of a wider, longer-term investigation into a mysterious “before and after moment” that took place in human prehistory, perhaps as recently as 40,000 years ago. Before it, other than a very few widely scattered and isolated examples, there is nothing in the archaeological record left by our ancestors that we would instantly recognize as modern human behavior. After it, the signs that creatures exactly like us have arrived are everywhere, most notably in the first definite evidence for beliefs in supernatural realms and beings – evidence, in other words, for the birth of religion.

The clearest possible illustration of this is in south-west Europe, where sophisticated religious art – the oldest so far discovered in the world – appears suddenly between 40,000 and 30,000 years ago and

then endures until approximately 12,000 years ago. This is the art of the great painted caves such as Chauvet, Lascaux, Pech Merle and Altamira – surely amongst the most beautiful and enigmatic of all human creations. The cave paintings are rightly famous for their realistic images of Ice Age mammals. Much less well known is the fact that numerous supernatural and chimerical beings, often half human, half animal, are also depicted.

An ingenious explanation for the bizarre appearance of these beings, as well as for other intriguing features of the caves which we'll explore in later chapters, has been put forward by a prestigious international group of anthropologists and archaeologists. The essence of their argument is that the cave art expresses mankind's first and oldest notions of the supernatural, of the "soul," and of realms of existence beyond death – notions that took shape in "altered states of consciousness"

most likely brought on by the consumption of psychoactive plants.

Although not to the liking of some scholars, this has been the most widely accepted theory of cave art since the mid-1990s. It is therefore an embarrassment that none of the experts currently advocating it have ever actually consumed any psychoactive plants themselves; nor do they have any first-hand idea of what an "altered state of consciousness" is, or any desire to experience one. To give fair consideration to their arguments, and to the views of their critics, I felt I needed to be able to judge on the basis of personal experience whether plant-induced visions could be made of strong enough stuff to have convinced early humans of the existence of supernatural realms and of the survival after death of some essence of deceased ancestors.

This, in a nutshell, was why I had taken ibogaine – for sound, solid, common-sense research reasons. But I have to acknowledge that there was another, much more personal motive as well. It had to do with my own father's painful death from bone cancer the previous

autumn and my inexcusable failure to be at his bedside during the last few days of his life. Part of the appeal of this slightly risky experiment with ibogaine was undoubtedly its promise of "encounters with the ancestors," and – however tenuous – the possibility of closure and quietus that it seemed to offer.

Long night of iboga

I've probably given the impression up until now that I was alone during my vigil in Bath, but this wasn't the case. The psychoactive dose of ibogaine that I consumed4 was administered by an experienced and reputable healer who remained on hand the whole night, my wife Santha was also in the room, and we had a medical doctor present as well. At first I'd been acutely aware of all three, but as the malaise and paralysis deepened they faded into insignificance and I seemed to see them – if at all – through panels of thick glass. The same odd disconnection applied to the bowl I'd been given to vomit in. I was able to hold onto it and retch over it,

but I was in one place and it was in another.

As the night wore on, I could feel my couch undergoing an insidious process of transformation, until eventually it had become a stone sarcophagus within which I was laid out. I experienced a strong sense of constriction and immobility, as though a great weight were pressing down on my chest, and wondered: Is this death? At the same instant the room became very full of people – not the healer, my wife, and the doctor, who might as well have been locked away in a soundproof capsule, but a large and somehow threatening crowd of uninvited guests. They did not vanish when I opened my eyes, as my earlier visions had done, but stayed firmly in view, for the most part anonymous and shadowy, shoulders hunched, heads down. A few showed their faces, but like the young blond man I'd seen earlier, with his mildewed skin, they had the look of the grave.

I grew conscious that someone was watching me from far back in

the jostling crowd. Lean and middle-aged, with a solemn manner, he was dark-skinned and his features were unmistakably African. His eyes were huge and black as obsidian. He was not old and gray as was usually the case in the visions of the Bwiti, but the thought came to me that this might be the legendary "Spirit of Iboga," here to abduct my soul:

Iboga is intimately associated with death; the plant is frequently anthro-pomorphized as a supernatural being, a "generic ancestor" who can so highly value or despise an individual that it can carry him away to the land of the dead.5

I fell into a dream state for what seemed like a very long time, and as with most dreams I now find it hard to remember the details. All I can confirm is my absolute certain conviction that *something* happened – something of lasting importance to me. Did I hallucinate an encounter with my father? I don't remember clearly enough to be absolutely sure, but I get flashbacks of that night in

which I see him amongst the crowd of phantoms gathered round me. Sometimes the flashbacks are so poignant and intense that I can almost believe he must really have been out there, walking by with dignity and pain as he did when he was fighting his cancer.

As well as these tantalizing recollections of my father, I've managed to dredge up a few other broken images from those hours of fevered dreams, which add to my sense that something momentous occurred.

At one point I felt very strongly that I had awakened. I opened my eyes, expecting to see the familiar outlines of the darkened drawing room. Instead I found myself in a very strange place that I had never seen before, with billowing draperies hanging from the walls, trees growing within, and a ceiling transparent to the stars. It seemed like some exotic temple, part sanctuary, part palace, part desert tent. To one side, absorbed in the motions of a dance, I could see a giant figure dressed in flowing white robes with black vertical markings.

Was I dreaming, or awake? Was what I was seeing *real* in some way – as it very convincingly seemed to be – or was it all just a grand illusion? And did the spirit of my father still survive in some other dimension or reality? These were weighty questions, not easily settled.

But for now, at least, my interest was narrower. Plants like *Tabernanthe iboga* were available to our ancestors and would have had the same effects on them as they do on us. I remembered the overwhelmingly eerie sense I had experienced for much of the night of crowds of the dead gathered round me – crowds of ghosts, crowds of my forebears.

Of course it was reasonable and potentially productive to ask whether it was not precisely experiences of this general sort that gave rise – in remote antiquity – to mankind's first notions of the spirit world. Since scholarship as yet has no complete or satisfactory explanation for the origins of religion, this is an area that remains

ripe for investigation.

Towards morning, with light beginning to filter through gaps in the curtains, I was not surprised to go through a mild out-of-body experience. These are common amongst Bwiti initiates under the in fluence of iboga, and I wasn't completely new to the phenomenon myself. The last time it had happened to me was when I was 16 years old and was nearly killed by a massive electric shock. Now, as then, my consciousness seemed to float near the ceiling of the room for a few moments, looking down on my own body. Now, as then, I felt detachment and curiosity, certainly not fear, and reveled in the light-ness of being and freedom of flight I seemed to be able to enjoy in the disembodied state. Now, as then, the hallucination – or whatever it was – rapidly faded and the out-of-body view was quickly lost.

I was left with a philosophical reflection in the form of a cartoon image of a large sausage tightly knotted at one end. This is what we

are, the image seemed to be saying. The message was obvious, almost a cliché – that it is pointless to dwell on the physical and material aspects of life, because ultimately our bodies are just overstuffed sausage skins.

Healing with spirits

For more than 12 hours after the visions ended, I remained violently ill and was unable to walk. It was not until the second night that my strength began to return, the muscle tremors stopped, and I recovered my sense of balance. By the following morning I felt completely better and ravenously hungry, and went through a long active day without any sense of fatigue.

Iboga is a shamanic drug. In the Bwiti scheme of things, it brings healing in this world by reconnecting us to the world of spirits. My visions, I knew, had been relatively subdued and unspectacular by comparison with those of the Bwiti initiates, but I too, in my own

limited way, had experienced contact with some sort of otherworld through consumption of their sacred plant. Was it really a supernatural realm that the ibogaine took me into, or just a crazy hallucination? As I've emphasized, this was not something I was yet in a position to judge; nor was it easy to disentangle cause from effect.

But what was miraculous nonetheless was the dramatic turnaround in my mood that I benefited from after my ibogaine session. For months beforehand I had been intensely depressed and irritable, filled with morbid thoughts and gloomy anxiety. My guilt at what I perceived as my dismal failure of my father, and my grief at his loss, had been compounded by feelings of worthlessness and anguish so deep that I frequently saw no point in taking any further initiatives in life. It was better by far, I had persuaded myself, to withdraw from the world, abandon research, and avoid all new intellectual challenges

- which, anyway, I would certainly fail.

I hadn't expected ibogaine to make a difference, but it did. From the moment I woke up with my strength recovered, I knew that it had flipped some sort of switch in me, because I was no longer able to see anything in the world in the same negative and nihilistic way as I had done before. From time to time a morbid thought would still stray across my mind and try to drag my mood down; previously I would have dwelt on it obsessively until it made me miserable; now I found it easy to dismiss it and move on. I didn't feel so bad about my dad either. I'd not been at his bedside, and I couldn't change that.

But somehow, now, I no longer ached so much.

Whether this healing was achieved through contact with the spirit world, or whether it was just a beneficial side-effect of shaking up my brain chemistry, I felt grateful to ibogaine. Regardless of the

explanation, or the mechanism, it had put me through something I would never forget – something very much like a religious experience. It had swept away the cobwebs of ingrained bad habits and moods. And it had most persuasively demonstrated the worth of a hitherto neglected line of research into the spiritual life of the ancients.

Chapter Two

The Greatest Riddle of Archaeology

Pech Merle cave in south-western France is a sacred sanctuary at least five times older than the Great Pyramid of Egypt. Like the pyramid, it has a labyrinthine system of internal corridors, passageways, chambers, and galleries. But unlike the pyramid, which is entirely man-made

- for the most part with quarried blocks – the innards of Pech Merle were reamed out of a limestone massif by an underground river millions of years ago.

When the river changed its course, the cave system it left behind was four kilometers long. It remained untouched and unvisited –

except occasionally by hibernating bears – until human beings took possession of it around 25,000 years ago in the epoch now known as the Upper Paleolithic. They do not seem ever to have lived in it – hardly surprising, since its entrance was cramped and inaccessible and it was impenetrably dark and dripping with damp within. But they began a program of subtle modification and embellishment that went on continuously, though at widely spaced intervals, between 25,000 years ago and about 15,000 years ago, after which it appears that all knowledge that there had ever been a holy place here was lost. Around 10,000 years ago, at the end of the Ice Age, a landslide completely sealed off the cave's entrance from the outside world. From then until its rediscovery in 1922, no one visited or even had the faintest idea that wonders and clues to the secrets of our origins lay entombed within, encoded in sacred images, shrouded in millennial darkness.

Shapes and shadows

Chaperoned by M. Zimmermann, an official of the Pech Merle Museum, I descend the stairway that leads to the modern entrance of the cave, a few meters to one side of the original entrance. The first sensations I register are of a change in the air, chill humidity, rivulets of running water underfoot. We already seem to be deep inside the mountain when we reach a massive security door. M. Zimmermann ceremoniously unlocks it and ushers me through to the halls of mystery that lie beyond.

My eyes are still adjusting to the contrast with the sunny early spring afternoon outside, and the lighting is dim, so for the first few moments I can see almost nothing. But the people of the Upper Paleolithic would have seen even less 25,000 years ago when they began to make use of Pech Merle. My imagination is already at work on the shapes and shadows around me. How much more dramatic, possibly even fearsome, the cave system must have appeared in the low, guttering light cast by the simple torches and

stone lamps that we know were used here by the ancients.

Besides, in several parts of Pech Merle's four kilometers of corridors and galleries, the access has been artificially enlarged, improved and made safe in modern times. In antiquity the people who held the cave sacred would have been obliged to negotiate perilous deadfalls, and crawl on their bellies through narrow and constricting slits and gullies, before reaching the main rooms. Each visit must have been a terrifying experience, calling for courage and a determined effort of will – by no means the sort of venture that anyone would undertake lightly. Archaeological evidence points conclusively to a history of relatively few visits by relatively small numbers of people spread out over a period of more than 10,000 years, *but all coming to do the same thing*

- namely to paint (and perhaps to venerate) beautiful and enigmatic images on certain carefully selected rock surfaces. From this and other important clues, which we'll return to in later chapters,

scholars reasonably conclude that a religion was being practiced here, one of the earliest true religions of mankind, and that the practitioners must have been shamans, who worked largely alone or with a few acolytes to create their mysterious art. It seems clear also, as is obvious in many other painted caves, that some special qualities were recognized in the place itself that led the shaman-artists to select it as their canvas.

Anteroom to the underworld

Pech Merle is first and foremost a marvel of nature – shaped, as though with cunning artifice, in such a way that it could hardly fail to make a powerful and numinous impact upon any human who encounters it. Even in modern times, with permanent electric lighting, it remains a spectacularly eerie and otherworldly subterranean realm.

After M. Zimmermann closes the security door behind us we find

ourselves in a long, sinuous descending corridor, three meters high and wide, carved out of the bedrock by the ancient river. Gnarled and glistening stalactites and stalagmites, the color of old ivory, are stacked up in niches like ranks of organ pipes or folded into weird curtains and drapes that seem to caress the rock walls. There are no cave paintings yet, but the further we penetrate, the stranger and more wildly chimerical and dreamlike the atmosphere becomes. I find it easy to imagine that I am descending into some parallel universe, some kingdom of the dwarves and elves – frozen and preserved like a time capsule come down to us from a legendary age or a snapshot glimpse across the borders of another dimension.

Now we arrive at the first piece of Upper Paleolithic art on the route that all modern visitors take around Pech Merle – although it is by no means the first in terms of its age relative to other paintings here. About seven meters wide by two and a half meters high, it's a horizontal composition, imposed on a slightly concave expanse of

cave wall to our left, where the rock face, sheltered beneath an overhang, is unusually pale, dry, and smoothly polished. Archaeologists refer to it as the Frise Noire because its principal figures of cold-adapted woolly mammoths, bison, aurochs (wild ancestors of modern cattle), and a horse with a disproportionately small head are dreamlike free-hand drawings done in black manganese. The figures all date from about 16,000 years ago and are thought to be the work of a single artist. On casual inspection they seem to form the entire subject matter of the

panel, but a closer look shows them to be superimposed upon copious quantities of red iron oxide ochre. It was daubed and smeared about 4,000 years earlier across the lower part of the wall, here and there marshaled into distinct groups of polka dots, and at a couple of points attenuated into the faint outlines of animals.

Floating over the red foreground of the panel, the Ice Age mammals of the Frise Noire conspire in the convincing illusion of a three-dimensional array. Through the clever use of tricks of perspective, the impression is somehow conveyed that the closest figures have emerged from the rock face itself, while the ranks of other creatures beyond them seem almost to fade and disappear into its distant depths.

Emergence

The bestiary of the Frise Noire stands near the entrance of the so-called Salle Préhistorique, the large primary chamber that contains the vast majority of the Upper Paleolithic art at Pech Merle. It is a mystery why other areas of the cave system – such as the spectacular and sepulchral Salle Rouge – were left untouched by the prehistoric artists, but there is no doubt that the Salle Préhistorique provides a uniquely atmospheric and awe-inspiring setting. As much as 40 meters wide in places, it supports a labyrinth of side passages and tunnels, and is further complicated by rock falls and scree

Salle Rouge

Salle Préhistorique

Prehistoric entrance

Modern entrance

Gallery of the Bear

Plan of Pech Merle.

deposits that create a series of different floor levels. At some points the cave roof is low overhead, at others it soars away to disappear in the lofty darkness above, out of which, drawn down by the force of gravity, a frozen deluge of stalactites descends. Some are meters in length, jagged, multi-pointed, dripping like giant icicles in a thaw.

Others join with stalagmites rising out of the floor below to form huge, irregular multi-fluted columns like fossilized leg bones or stacked vertebrae in a mausoleum of primordial giants.

Turning away from the Frise Noir, M. Zimmermann leads me to our right up a flight of stairs installed in modern times within what must originally have been a steeply sloping natural tunnel. At the top we emerge onto a ledge, also natural, running along the cave wall at a height of about 10 meters above the floor and providing a fantastic vantage point over important areas of the Salle Préhistorique.

Outlined in black manganese on the ceiling above the ledge, the spectral figures of two bison and a mammoth float into view.

Then beneath us in the dark depths of the main chamber, a spotlight snaps on to show me a distant glimpse of Pech Merle's masterpiece, the world-famous panel of the spotted horses. Tantalizingly, M. Zimmermann switches off the spot again almost immediately but reassures me that we will eventually come to the panel when he brings me to the lower level of the chamber.

We seem to have reached the end of the ledge now, and descend 10 modern steps over what must have been a difficult scramble in prehistoric times. This brings us to a shallow natural cleft in the cave wall. To the right of the cleft, M. Zimmermann points out the painted figure of a bison, the head of a second bison with a distinct mane of bushy hair, and the back, head, and trunk of a mammoth

- all in black manganese. To the left, at a slightly higher elevation,

the ancient artist somehow “found” the form of another mammoth immanent in the natural bulges, indentations, and fissures of the rock, then teased out the apparition with suggestive black lines. “The Cro-Magnon man used the natural shape of the rock,” explains M.

Zimmermann, helpfully tracing the figure with a laser-pointer. “You can see the head here, with the trunk. You see the front legs and the back legs. And you have two lines, one for the back and the tail and one for the stomach – here.”

Again, as at the Frise Noire, the essential quality of these painted animals seems to be that of dwelling in and emerging from the rock face. This feels true to me not only of the wonderful three-dimensional “emergence” of the mammoth but also of the whole composition, which somehow contrives to suggest that the creatures depicted have emerged, from hidden depths beneath, through the junction of the cleft around which they cluster.

Venus of the caves

We descend another flight of 10 steps to a lower level of the chamber where the floor is littered with huge piles of giant boulders, through which we follow a winding path. Above us – I would estimate three meters above my head at this point – M. Zimmermann shows me an expanse of ceiling decorated with what looks at first like a meaningless scrawl of crudely inscribed lines but resolves on careful study into pattern and form. “The ceiling is very soft,” M. Zimmermann explains, “and they made the drawings with their fingers. You have maybe two periods – one with only lines, and in the second period you have figures.” His laser lights up the outline of a huge faintly incised mammoth: “Here we have the back, here the head; this is the trunk; the front legs; the stomach.” A second mammoth looms nearby, and to its right hovers an exaggerated, cartoon-like figure of a naked woman with immense buttocks and breasts and a very tiny head – a classic Upper

Paleolithic “Venus,” one amongst many such voluptuous representations of the female form that have been found in the painted caves of old Europe. “We have thirteen human representations in Pech Merle,” comments M. Zimmermann, “two men and eleven women.”

“And the women are all Venus-type, very big, like this one?”

“Yes. Like this. You see another here, without head. You see the breast. You see the stomach here. You see the legs. You see the bottom. And the back.”

It was up the piles of tumbled boulders – almost blocking the floor at this point – that the ancients climbed to compose art on the ceiling with their fingers. Somewhere around 20,000 years ago they also painted the figures of two animals in black manganese on the boulders themselves: a mammoth at shoulder height and a large bison above head height.

We walk on for some tens of meters on a path that seems – in Pech Merle's characteristic labyrinth-like way – to wind first up a little, then steeply down. We find ourselves in the Hall of Discs, so called after its beautiful concentric formations of crystallized calcite.

At the far side, to the right of our path, there is a sheer wall scored high up with four parallel scars. "The claw marks of a cave bear,"

explains M. Zimmermann. "This bear was three meters tall."

The mystery of the children

At the corner of the wall where the claw marks are impressed we come to the foot of a modern staircase. It rises 20 steps in two right-angled flights, where the ancients would have had a steep climb up treacherous scree. At the top we reach a natural alcove a few meters above and behind the claw marks, and on the floor of the alcove M.

Zimmermann shows me the footprints of a child aged about 12. They were made almost 20,000 years ago, in what was originally soft mud, and have survived in fossilized form. Some of the prints are extremely clear, as though they were left this morning, and I find it impossible to look at them without forming some mental image of the intrepid young person – we know it was a single individual but we don't know if it was a girl or boy – who made them. With their neatly rounded heels and toes, the prints powerfully reinforce the common bond of shared humanity that ties us remotely but firmly to the cave artists despite the passage of millennia. It is this same bond that allows us to respond emotively to the art itself, to be affected by it – perhaps in many of the same ways that it affected the ancients – and to recognize its subtle qualities of abstraction and symbolism even while the meaning of its symbolic lexicon continues to elude us.

Pech Merle is not the only painted prehistoric cave in which there is

evidence that children were in some way associated with the artists.

Why should this have been so?

Gallery of the Bear

Beyond the little area of preserved footprints, deep in the mountain and about 50 meters underground, we enter the Galerie de l'Ours, or Gallery of the Bear, a very ancient part of the Pech Merle system.

It contains no paintings but a riot of stalactites and stalagmites, deeply fluted and withered pillars, and improbably immense calcite phalluses lewdly erect. To our right, protecting a dark sanctuary, a rank of polished columns, so symmetrical as to appear man-made, forms a distinct architectural feature, like a scaled-down version of an ancient Egyptian temple. We climb a modern flight of eight steps, then follow a low narrow corridor to our left where the roof clearance is just a few centimeters above my head. But in

prehistoric times it was even lower, explains M. Zimmermann – crawl space only.

Twenty thousand years before the access was expanded for the benefit of modern visitors, what possible motive could the ancients have had to crawl in here? The answer soon presents itself in the form of more art incised high up on the corridor walls – most distinctively the beautifully shaped head and eye of a brown bear etched in profile. Beside it are patterns of vertical and horizontal lines. Cut into the opposite wall of the corridor, four triangles lie partially superimposed upon one another, and alongside them a curious and as yet unidentified symbol somewhat resembling the horn of a bull.

Wounded man

The corridor reconnects us to the main painted gallery of Pech Merle by way of a zigzag path recently cut into the side of a scree

slope, from which breathtaking views unfold. The effect is of being in the heart of an immense gothic edifice, consecrated to the worship of the mineral gods and furnished in the dark depths of the earth with great halls and vaults, soaring archways, flying buttresses, and pillars of calcite and alabaster. Surely, in his famous opium trance, it must have been some vision of sunless otherworldliness like this that inspired Coleridge when he described the measureless caverns of Xanadu and the stately pleasure dome of Kubla Khan? The place seems surreal and enchanted, as though a spell of death-like sleep was cast over it by the magicians of the Ice Age and has never since been lifted.

Halfway down, M. Zimmermann draws me aside into an alcove to show me a strange representation of a human, or human-like, figure, the so-called “wounded man,” painted in red ochre on the low ceiling. I have to stoop to see it properly but, again, this is an area that has been dug out for modern convenience and it would have

been much harder to access in prehistoric times. In fact, in the Upper Paleolithic the ceiling here was little more than a meter above the floor. The artist would therefore have had extremely limited room for maneuver and could only have worked lying on his back. Those who came after to view the painting – assuming that was what happened

- would have been obliged to adopt the same posture.

The wounded man is so named because of a series of lines, drawn as harsh slashes (and often interpreted as spears), that pass directly through his chest, torso and buttocks. Against the background of the ceiling, he seems to be rising slowly into the air. His head is a most peculiar shape. Some archaeologists say it is birdlike. But with its

The wounded man of Pech Merle

prominently domed skull, narrow pointed chin, and oblique slit eyes, the forceful first impression it makes on me is not of any kind of bird but of the traditional image of an elf or goblin from the realm of fairytale.

Directly above the wounded man's head, the back of which it touches, is a large sign also daubed in red ochre. Variations of the same symbol, and indeed of the wounded man himself, have been found in other caves, though none quite identical to this one. Archaeologists describe the symbol as "tectiform" (somewhat like a building) or "aviform" (somewhat like a bird). It has the shape of an inverted outlined letter T with thinner single lines extending down at angles from either end of its crossbar.

Possibly – or possibly not – part of the same composition is the figure of a powerful aurochs (an extinct species of wild bull) with lyre-shaped horns. It, too, is done in red ochre and floats on the ceiling of the alcove very close to the wounded man. A little further

off there is a stylized ibex (mountain goat) also painted in red ochre.

Between the two there are several associated symbols, including one that is distinctively branched or Y-shaped.

The whole complicated multi-media display of signs and pictures seems to pulse and vibrate with ineffable meaning.

Reaching out

We continue our descent to the floor of the main gallery, and come

in a moment to a pattern of red ochre polka dots painted on the cave wall. To their left is the ghostly negative image, also outlined in red, of a graceful female hand.

Negative handprint

and dots

It is an intimate encounter.

When a woman stood here 20,000 years ago, spreading her fingers against the wall, what thoughts were going through her head? Was she young, or old, or in the prime of life? What was her relationship to the artist, who had chewed up a solution of ochre in his mouth, mixing it with his saliva, so that he could use his breath to spray it over her hand? Or was she herself the artist as well as the model? Either way, what was her purpose in leaving her spectral handprint here?

An alcove extends back into the rock face beneath and behind the hand. On the right wall of the alcove, M. Zimmermann points out a representation, again in ochre, of eight female figures, all highly stylized in the familiar “Venus” form with dis proportion ately large breasts and buttocks. There is, however, an ambiguity about them that leads some experts to class them as composite beings, part animal, part human. The French prehistorian A. Leroi-Gourhan called them “bison-women.”1 One of them is superimposed on the head of a horse. The same composition also includes two roughly circular groups of polka dots (one consisting of 7 and the other of 14 dots) and the outline of a mammoth. A few meters away, on the

opposite wall of the passage, the head of a stag looms over us outlined in red ochre.

A palimpsest of spotted horses

A walk of only a few seconds brings us to the acknowledged masterpiece of Pech Merle's gallery of prehistoric art, the spectacular panel of the spotted horses that M. Zimmermann had

first pointed out to me from above. Now, close up, I see that the panel is framed by more negative handprints – this time men's hands, silhouetted in black, one apparently with six digits instead of the usual five.

Whether intended by the ancients or not, the impression created is that these hands have merged with the rock beneath – as though, by the process of painting, the former was drawn into and incorporated with the latter. It seems to me that this is the exact corollary The panel of the spotted horses

of the other gift of the cave artists, the gift of finding and drawing out the forms of animals already dwelling in the rocks they chose to paint. Yet that gift, too, is expressed in this panel, which culminates, to the right, in a naturally formed spur of bedrock shaped unmistakably like the head of a horse. There is little reasonable doubt that this is why two beautiful dappled horses, each about two meters in length, were painted here (rather than elsewhere in the

cave or not at all), and why the horse at the right of the composition is oriented so that its head overlaps the suggestive spur.

The spur is of the correct size and in the correct place to serve with only minimal decoration as the horse's head. Nevertheless it is an illusion. A closer look at the panel reveals that this otherwise realistic animal, as is the case with its counterpart to the left, already possesses a painted head of its own – one that is preposterously out of scale with the rest of the body and seems at first glance to be a mere continuation of the mane. These tiny heads, perched on the end of robust necks and bodies, give the spotted horses of Pech Merle a phantasmagoric quality, as though they have been drawn forth through the rock wall from a dimension that is similar to ours and yet also strikingly and bizarrely different.

Like other works of art in the cave, the frieze is a palimpsest in which compositions from different eras have been superimposed on one another. The horses, for example, were entirely created with an

organic paint based on wood charcoal mixed with saliva and sprayed orally onto the rock wall. Wood charcoal is eminently datable and fragments of paint from the horse on the right are now known to be more than 24,000 years old.2 But there are other ingredients in the panel, executed in red ochre, that are younger, dating to approximately 20,000 years ago. Particularly notable amongst these is an impressive two-meter-long lake fish, a pike, superimposed over the back and part of the mane of the horse on the right. There are also red ochre polka dots, about the same size as – and mingled withthe black dapples of the horse's body. Lastly, there are seven indecipherable signs shaped like bent thumbs, and a range of other more abstract symbols including lines, triangles, dots and a circle.

The symbolic revolution

The spotted horses with their tiny heads are not the only weirdly distorted and phantasmagoric images at Pech Merle. In the narrow

Combell gallery, which is presently off-limits to the public, there are three more “imaginary animals.” These are loosely based on antelopes, and once again have disproportionately small heads. Dating back an estimated 25,000 years, they are the oldest paintings in the cave. The composition of which they form part also includes several dots and signs, more horses, and a large cave lion portrayed as though about to leap on its prey.

Not for the first time, the limitations of present knowledge are such that we may only shrug our shoulders and ask: What does it all mean?

Twenty thousand years, more or less, separate us from the inspired religious artists of Pech Merle, and almost 35,000 years from the most ancient painted caves so far found in Europe.3 No traditions or accounts of any kind have come down to us about these long-forgotten Stone Age visionaries, and despite their frequent use of signs and symbols, they had no written language and so have left us

no inscriptions that we might one day hope to decipher. It is therefore hardly surprising that we do not know the meaning of any of their paintings, that almost everything they did, and their reasons for doing it, is completely mysterious to us, and that many scholars in this field have given up theorizing about prehistoric art and prefer to spend their time simply accumulating and sorting data. The consequence is that we are ignorant of the mechanisms and driving forces behind by far the greatest evolutionary transformation ever to have overtaken the human race – the so-called symbolic revolution, of which the cave paintings that first began to appear in Europe more than 30,000 years ago are a rich and already fully evolved expression.

Despite a very few deeply puzzling anomalies,4 it is the expert consensus that our hominid predecessors did not behave symbolically *at all* during approximately the first five to seven million years of evolution that separate us from our last common

ancestor with the chimpanzee.5 What we see throughout this period is a dull and stultifying copying and recopying of essentially the same patterns of behavior and essentially the same “kits” of crude stone tools, without change or innovation, for periods of hundreds of thousands, even millions of years. When a change is introduced (in tool shape, for example), it then sets a new standard to be copied and recopied without innovation for a further immense period until the next change is finally adopted. In the process, glacially slow, we also see the gradual development of human anatomy in the direction of the modern form.

By 196,000 years ago,6 and on some accounts considerably earlier,7

humans had achieved “full anatomical modernity.” This means that they were in every way physically indistinguishable from the people of today and, crucially, that they possessed the same large, complex brains as we do. One mystery is that their behavior at first lagged behind their acquisition of modern neurology and

appearancebecause it was not until around 100,000 years ago that they began to show the first unmistakable signs of symbolic ability that we associate with almost every aspect of modern human life. Another mystery is that these developments seem to have taken place only in Africa.

Outside the African continent, much more primitive hominids still prevailed. From mainland Asia there is evidence that a species known as *Homo erectus* (whose brain was two thirds the size of ours and whose forebears had left Africa more than a million years previously) may have survived virtually unchanged until first contact with modern humans 50,000 years ago or less.8 During 2004, archaeologists working on the remote Indonesian island of Flores unearthed the remains of another “primitive” hominid that also survived into recent times – in this case until less than 20,000 years ago, when it too came into contact with modern humans. Nicknamed “the hobbit”

because of its very small stature, it is now scientifically classified as *Homo floresiensis*. Initial investigations suggested that this newly discovered species might be a descendant of a *Homo erectus* population that had become marooned on Flores hundreds of thousands of years previously and thereafter pursued its own distinctive evolutionary course. Like other animals living on the island (where there were also pygmy elephants the size of ponies), this meant dwarfism.9

Later researchers suggested that the creature was not just a dwarf *Homo erectus* but a previously unknown species “on a different branch

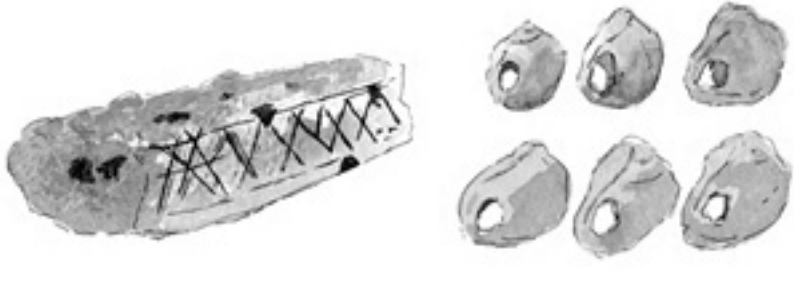

of humanity's family tree."10 The matter remains in dispute, but whatever the final outcome, the remains of *Homo floresiensis* indicate that full-grown adults reached a height of only about one meter and had a brain capacity of around 380 cubic centimeters, which, to put it in perspective, is about the same size as the brain of a chimpanzee, one third the size of a *Homo erectus* brain, and just over one quarter the size of a modern human brain. What is striking, despite his ape-sized brain, is that *Homo floresiensis* made and used stone tools; but neither he, nor his larger-brained ancestor, *Homo erectus*, appears to have made any use of symbols.11

Meanwhile in Europe, *Homo neanderthalensis*, the thickset, beetle-browed species better known as Neanderthal Man, had been the sole master of all he surveyed from perhaps as early as 250,000 years ago until he too began his fatal encounter with modern humans less than 50,000 years ago.12 Neanderthal Man was far ahead of *Homo erectus* and *Homo floresiensis* on the evolutionary scale, but he also

– and greatly to his disadvantage – seems to have had no knowledge of symbols.13

The multiple survival advantage that the ability to use symbols bestowed on our anatomically modern ancestors – from improved hunting strategies to improved transmission of vital lore from generation to generation – are too obvious to require enumeration here.

It is by no means necessarily the case, however, that all groups of humans everywhere became adept manipulators of symbols at exactly Red ochre block with geometrical patterns (left), and drilled shell beads (right), from Blombos Cave, South Africa, estimated to be around 77,000 years old. the same moment. Common sense suggests that some probably caught on much earlier than others, and that there may have been lags of many thousands of years in isolated examples.

This is broadly what the archaeological record shows, with the earliest evidence of symbolism turning up at number of widely scattered sites between approximately 110,000 and 90,000 years ago. In southern Africa exquisitely-made and often impractically-fragile bone tools have been found, dating to this period, that seem to have been hoarded and exchanged rather than used. Although there has been some dispute amongst scholars, the obvious implication is that these objects must have had important symbolic value to their owners.14 Meanwhile undisputed evidence of early symbolism and personal adornment amongst anatomically modern humans has come from Oued Djebbana in Algeria and Skhul cave in Israel. In both locations minute drilled seashells that had been strung and used as beads have been excavated and reliably dated to at least 100,000

years ago.15

The next big landmarks in symbolic thinking take us back to

southern Africa. Chris Henshilwood's excavations at Blombos Cave on the Cape have produced more drilled shell beads in a stratum dated to 77,000 years ago, and also the earliest uncontested example of purely symbolic art so far found anywhere in the world – an abstract geometrical composition inscribed on a small block of red ochre.16 Much more spectacular, however, has been evidence of an early symbolic religious ritual found in a cave in Botswana's Tsodilo hills. In December 2006 archaeologists announced that they had discovered a six-metre-long rock here that had been artificially decorated and reshaped to resemble the head of a gigantic python. "It's very big news" commented lead archaeologist Sheila Coulson, suggesting that certain markings on the rock were likely made by prehistoric shamans to enhance the snake illusion by creating the impression of scales and movement. "When flickering light hits it, it very much looks like the snake is flexing," Coulson argued, pointing out that snakes feature prominently in the mythology of bushmen tribes still living in the area today. Adding to the

impression of a fully-symbolic religious ritual is the fact that more than 13,000 man-29

made artifacts were found deliberately buried in front of the rock while behind it is a small chamber which the archaeologists believe may have been used by shamans “who could have spoken without being seen, giving the impression that it was the snake speaking.”

The whole assembly has been provisionally dated to around 70,000

years ago, which means, said Coulson, “that humans were more organized and had the capacity for abstract thinking at a much earlier point in history than we had previously assumed.”17

Probably other equally early – or even earlier – examples of such sophisticated symbolic behaviour will be found in Africa as more archaeology is done in that vast continent. For the moment, however, the Botswana serpent rock, and the rituals associated with

it, provide the only evidence of such behaviour as far back as 70,000 years ago.

With this notable exception, it looks very much as though the human symbolic revolution remained “stuck” more or less at the Blombos phase (of shell jewelry and geometric patterns) for rather a long while – from 77,000 years ago until anatomically modern humans first began to leave their traces in Europe about 30,000 years later.

For most of this immense period the evidence points to Africa, and neighboring parts of the Levant, as *the only region in the world* where ancestral modern humans were present – and for most of it their surviving symbolism is confined to the relatively low level of abstract patterns and personal adornments found at Blombos.

There is, however, an intriguing geographic anomaly. Australia, never populated by any other hominid species, was colonized by

anatomically modern humans at an astonishingly early date – as early as 60,000 years ago on some estimates, and possibly (though such

“extreme” dates are hotly contested) as far back as 75,000 years ago.18

As well as making the immense overland journey from their home in Africa, apparently over a very few generations, and perhaps even within one generation, these pioneering humans were finally obliged to mount a feat of open-ocean sailing (to reach Australia from south-east Asia) that would surely have been impossible without advanced symbolic abilities.

The mystery deepens when we realize that the earliest evidence for the presence of modern humans in south-east Asia (which strad-30

dles the overland route that migrants from Africa would have had to

follow) dates back less than 40,000 years – i.e. at least 20,000

years *after* the arrival of modern humans in Australia.19 There are also controversial claims of extremely ancient works of rock art in Australia, featuring simple engraved geometrical patterns, some possibly more than 40,000 years old, and some, again, with an

"extreme" suggested antiquity of 75,000 years that is close to the age of the engraved patterns at Blombos.20

Turning our attention to Europe, the oldest items of personal adornment so far discovered are from Bulgaria and are dated to between 46,000 and 42,000 years old. They include a bear incisor tooth, and a fox canine tooth, both drilled to be worn as pendants, and a facsimilie of a red-deer tooth sculpted from deer antler.21 From southern Russia comes the oldest piece of figurative art yet identified on the Eurasian landmass – a representation of a human head carved from mammoth ivory and dated to around 45,000 years

ago.22

As noted above, the earliest European cave paintings were created some 10,000 years after that, i.e. around 35,000 years ago, although it is possible that older examples remain to be found.

Wherever we find its traces in the world, one over-riding impression forces itself upon us from all the evidence. This is the uniqueness and peculiarity of the evolutionary event by which we were drawn into fully modern consciousness and the fully modern capacity for symbolism and culture, religion, and art. No ancestor in the human lineage had ever made use of any form of symbolism before, and needless to say no other animal species had ever done so either. But the switching-on of humanity's symbol-making capacity between approximately 100,000 and 40,000 years ago was the change that changed everything. Before it, other than scattering their stone tools for us to find, the generations of our ancestors appear to have come and gone leaving no more impression upon the earth than any other

animals; after it, our behavior and achievements began to diverge very rapidly from those of the rest of the animal kingdom. While it is undoubtedly the case that there was a lengthy build-up to this, it is also obvious that some sort of “critical mass” was reached, at least in south-west Europe, when the great caves began to be painted between 40,000 and 30,000 years ago. Subsequently, notes Richard Klein, Professor of Anthropology at Stanford University, “ever more closely packed cultural revolutions have taken humanity from the status of a relatively large mammal to something more like a geologic force.”23

What adds to the mystery of this amazing stepping-up of our effectiveness and competitiveness is that it was not accompanied or immediately preceded by any obvious anatomical change. There was, for example, no increase in human brain size between 100,000 and 40,000 years ago. On the contrary, the fossil record shows that today’s average of around 1,350 cubic centimeters had already been

attained by our ancestors in Africa as early as half a million years ago – even before full anatomical modernity was reached – and has since remained relatively stable. We are therefore obliged to ask why it was that humans with identical brains, looks, and genes to ours nevertheless behaved so very differently from us for the first 100,000

years of their existence (i.e. from roughly 200,000 to roughly 100,000

years ago) – so differently, in fact, that they seem almost like another species.24 And why did they then embark on an immense behavioral metamorphosis – that would not hit critical mass until around 40,000

years ago – to become innovative and artistic, symbolic and cultured, religious and self-aware? What caused the momentous change of direction and destiny, hitherto unparalleled in the history

of life on earth, that gave birth to modern human culture?

Dr. Frank Brown, whose discovery of 196,000-year-old anatomically modern human skeletons in Ethiopia was published in *Nature* on February 17, 2005, points out that they are 35,000 years older than the previous "oldest" modern human remains known to archaeologists: This is significant because the cultural aspects of humanity in most cases appear much later in the record, which would mean 150,000 years of *Homo sapiens* without cultural stuff . . .25

Brown's colleague, John Fleagle, of Stony Brook University in New York State, also comments on the same problem: There is a huge debate regarding the first appearance of modern aspects of behavior . . . As modern human anatomy is documented at earlier and earlier sites, it becomes evident that there was a great time gap between the appearance of the modern skeleton and "modern behavior."26

For Ian Tattershall of the American Museum of Natural History, the problem posed by this gap – and what happened to our ancestors during it – is "the question of questions in paleoanthropology."27 His colleague, Professor David Lewis-Williams of the Rock Art Research Institute at South Africa's Witwatersrand University, describes the same problem as "the greatest riddle of archaeology – how we became human and in the process began to make art and to practice what we call religion."28

Clues to follow

The admission by scholars that we simply do not understand the artistic and religious revolution of the Stone Age, or the part it played in putting us on the fast track forward to the Space Age, highlights an obvious direction for new research. The libraries are already full of weighty books and learned papers generated by more than a century of mainstream academic study of prehistoric art. The data mountain is huge; yet ironically, concludes Professor Lewis-

Williams, all the efforts that went into building it have brought us no closer to finding out the one thing we really need to know about the Upper Paleolithic:

“why the people of that period penetrated the deep limestone caves of France and Spain to make images in total darkness.”29

Why indeed? What motives led them to pick out such extreme and difficult places? What did they themselves believe they were doing all this for?

Such were the questions that had brought me to Pech Merle – off-season, when the whole cave was closed to the public, so that I might have the opportunity to experience its great works of art in something like the conditions of solitude and silence that would have prevailed when they were created. Whatever the true nature of the process that transformed the lives of our ancestors, it is clear that it involved symbolic expression above all else. Whether at Pech

Merle or at hundreds of other Upper Paleolithic sites, the images they left behind may therefore be the best clues we have if we want to uncover the secret of our own humanity.

Chapter Three

Vine of Souls

Most human characteristics that are genuinely universal are easily accounted for in evolutionary terms, and the arguments are widely known. For example, we all live in families and societies, because to do so aids our survival and the propagation of our genes. We all have the capacity for love because it is an emotion that promotes family and social life. We all have laws of one kind or another because these, too, reinforce family and social ties and thus make us stronger and more competitive. We all eat food and drink water because we will soon die if we don't. We all use the unique human gift of language to communicate more effectively than other species on the planet, to preserve knowledge handed down from previous generations, and to create culture – thus further sharpening our

competitive edge.

But there's one very odd thing that all of us at all periods of history seem to have done that defies an obvious evolutionary explanation.

Against logic and reason, lacking irrefutable proof that we are right, and sometimes contrary to our own objective interests, every society that we know about since the appearance of modern humans on the planet has maintained a steadfast belief in the existence of supernatural realms and beings. Even in this rational and scientific century (the twenty-first since the crucifixion of a supernatural being called Jesus), more than a billion Christians still believe in Heaven and Hell, God and the Devil, angels and demons. Muslims, Hindus, Buddhists, the ancient Egyptians, the Maya, the Druids, and the practitioners of all other known religions living and dead have all also entertained similar ideas. The exact nature and multiplicity of the beings may change, the number and character of the realms may change, but in all cases, at root, what unites us are our

unproven irrational beliefs of one kind or another in non-material dimensions of reality, inhabited by incorporeal beings that interact with us and frame our destiny in mysterious ways.1

Many evolutionary scientists claim that beliefs of this sort are “hard wired” into our brains. This “neurological adaptation” is said to have been selected because, despite some obvious aberrations and exceptions, religious beliefs generally strengthen society and therefore aid the survival of our species – just like our propensity to love, or our universal inclination to live by laws. But even if religion does exactly what the evolutionists say it does, the central problem remains. We may have learned something more about the workings of society and its institutions, but we are no nearer to understanding why the common ground of all religions everywhere should consist of remarkable, unproven and deeply illogical beliefs in spiritual and supernatural levels of reality and their alleged influences upon our daily lives.

I want to re-emphasize that there is no dispute here about the social usefulness of religious beliefs. I take that for granted. The problem is better phrased if we ask why human societies have so consistently opted for *these particular beliefs* – in supernatural realms and beingsrather than others that might have served the same function without requiring such a radical disconnection from observed reality. To put the issue in some kind of perspective, one can hardly imagine that lions would be more efficient predators if they lavished large amounts of their time and energy on placating nonexistent beings from other worlds. And what about the gazelles? Would they have any chance of escaping the cheetahs if they kept being diverted by parades of spirits, elves, or angels? Because it is hard to see the evolutionary advantage of such impractical distractions for animals, it is all the more difficult to understand how they could provide any possible advantage to humans. Yet if they provide no advantage, then how are we to explain the fact that every human society throughout recorded history in which religion has played an

important role – which is as good as saying *every* society, ever, without exception – has been so thoroughly dominated and entranced by precisely such beliefs?2

Shared neurology

There is an anthropological and archaeological theory, briefly outlined in Chapter One, that seems to offer at least a partial answer to this question. According to this theory prehistoric rock and cave art around the world expresses mankind's first and oldest notions of the supernatural, of the "soul", and of realms of existence beyond death – notions that took shape in "altered states of consciousness" most likely brought on by the consumption of psychoactive plants.

According to Professor David Lewis-Williams, the leading proponent of the theory, such ideas are not part of the normal, predictable currency of everyday life but arise from the universal human neurological capacity to enter "altered states of consciousness"

(ASCs) – i.e. states of deep trance in which extremely realistic hallucinations are seen. Many anthropologists are convinced that as far back as the Upper Paleolithic, our ancestors placed a high value on hallucinations and made extensive use of psychoactive plants to induce them.3 In addition, it is well known that rhythmic drumming and dancing, hyperventilation, self-mutilation, starvation, and a variety of other more or less unpleasant techniques can also bring on hallucinations.4 In hunter-gatherer societies, such work is typically not the responsibility of all people but only of the shamans

- those ritual specialists who are able to make the perilous journey to the hallucinatory otherworld and return with healing knowledge.5

Supported by David Whitley, one of the leading North American rock-art specialists, Jean Clottes, the world-renowned expert on the French prehistoric painted caves, and a growing number of other scholars from many different countries, Lewis-Williams takes the view that the first notions of the existence of supernatural realms

and beings, the first

‘religious’ ideas about them, the first art representing them, and the first mythologies concerning them, were all derived from the experiences of hallucinating shamans.6 By this theory, the art of Pech Merle and of the 300 or so other painted caves of south-west Europe is an art of visions

- in other words, the extraordinary images that confront us there depict hallucinations seen by shamans in altered states of consciousness. Since both we and the shaman-artists of the Upper Paleolithic share the same modern human neurology, and since ASCs are a universal phenomenon of that neurology, it follows that there may after all be some possibility of a bridge between us and them – some possibility for us to see what they saw and, despite the passage of tens of thousands of years, to gain direct experiential insight into the roots of their beliefs.

The limits of objective research

David Lewis-Williams began to develop his “neuropsychological model” of cave art and the origins of religion in the early 1980s, and has been testing and defending it virtually non-stop since 1988, when he and his co-researcher Thomas Dowson officially put it before their peers in the scholarly journal *Current Anthropology*.7 As Lewis-Williams admitted when I met him at Witwatersrand University in 2004, however, there is one thing he has not done and is not prepared to do in the name of science, and that is to experiment directly and personally with the altered states of consciousness he has made a career out of researching and writing about. Like many Westerners, he told me, he was too much of a “control freak” to put himself into trance by dancing or drumming, he had no intention of starving himself for 40 days, and he certainly wasn’t going to take any psychoactive drugs

- by far the easiest, the most certain and, throughout history, the

most common method used by shamans to attain the visionary state.

“Why not?” I asked.

Lewis-Williams shrugged: “I don’t want to fry my brains and frankly I’m not in the least bit interested in the experience.”

I protested that as the leading exponent of the visionary theory of Upper Paleolithic art, I would have thought that he of all people should be extremely interested in such experiences, but Lewis-Williams maintained steadfastly that he was not. He pointed out that the scientific literature already contains a huge number of studies of trance states and hallucinations, and that for him to add a few hallucinations of his own would change nothing. Better to stand back, stay objective, and focus on the search for common patterns in the cave art on the one hand and in what the psychiatric and psychological experts have reported about hallucinations on the other. That was the way to flesh out the neuropsychological theory –

with an overwhelming deluge of evidence and common sense. There was nothing to be gained from seeking a personal tour of the shamanic “otherworld,” whichwe now know as our ancestors did not – is just a silly illusion.

Though I understood perfectly where Lewis-Williams was coming from, I could not agree with him and objected that we do not know any such thing. We might feel very sure that there is no more to reality than the material world in which we live, but we cannot prove that this is the case. Theoretically there could be other realms, other dimensions, as all religious traditions and quantum physics alike maintain. Theoretically the brain could be as much a receiver as a generator of consciousness, and thus might be fine-tuned in altered states to pick up wavelengths that are normally not accessible to us. Depending on our point of view and our experiences, we might find the proposition that such “otherworlds” are real more or less improbable, but it is important to register that

no empirical evidence exists that rules them out entirely.

At this point Lewis-Williams politely expressed impatience at the speculative direction in which he felt I was taking the conversation, and we moved on to discuss weightier matters. At the back of my mind, however, I couldn't help feeling there was a problem with the way that academic researchers who studied the religious impact of visions were so sure they were just "silly illusions." Lewis-Williams was probably 100 per cent right that they were "mere" hallucinations and figments which had tricked our foolish ancestors into believing in nonexistent otherworlds for thousands of years. Still, I thought he was 100 per cent wrong to express that view with such force and authority without ever having experienced visions himself.

I had reason to believe that such experiences might have influenced his take on the matter; they had certainly influenced mine . . .

South American shamans, on drugs, painting their hallucinations

Six months before the ibogaine session that I described in Chapter One, and three months before I met Professor Lewis-Williams in Johannesburg, I spent five weeks in the Peruvian Amazon with indigenous Indian shamans, drinking the sacred plant hallucinogen known in the Quechua language of the Incas as ayahuasca. This is a composite word that means, literally, the "Vine of the Dead" or, in some translations, the "Vine of Souls." It reflects the alleged capacity of the South American brew, very much like iboga in Africa, to propel those who ingest it into realms that seem convincingly spiritual and supernatural where, very often, they encounter their deceased ancestors. Since I sought to test the hypothesis that the first religious ideas of mankind, and the cave art that expressed them, were inspired by visions induced by psychoactive plants, I was intrigued to learn of the existence of

Indian tribal shamans in the Amazon who routinely paint scenes from their ayahuasca visions.8

Certain shamans, such as the renowned Pablo Amaringo and his cousin Francisco Montes Shuna, had even gained international renown for their ayahuasca-inspired art – the latter contributing a mural to the Eden Project in Cornwall, England, the former having collections of his paintings exhibited in New York and published in a prestigious art book.9

Scientists know why ayahuasca produces visions. It does so because one of its two principal plant ingredients is rich in N,N-dimethyltryptamine (DMT), an extremely potent and fast-acting hallucinogen that is also secreted naturally in minute, usually sub-psychedelic quantities by the human brain. Despite being present in our bodies, both DMT in its pure form and DMT in solution in the ayahuasca brew are classified as Schedule 1/Class A illegal drugs in the United States and Britain, and you can go to jail for a long time

for possessing them.

In countries bordering the Amazon Basin, however, where ayahuasca has been an integral part of indigenous Indian culture for thousands of years, it is not illegal; on the contrary, in Peru, Brazil, Colombia, and Ecuador, its consumption is protected under laws of individual religious freedom. Those good and decent laws, and the relative accessibility of indigenous shamans working as *curanderos* – healersin their local communities, were reason enough for me to do most of my ayahuasca sessions in the Peruvian Amazon. But I also participated in one session in Brazil with a modern syncretic cult known as the Uniao de Vegetal (UdV). It uses ayahuasca as its sacrament, and has brought the archaic shamanic experience of visionary revelation alive for a rapidly expanding community of otherwise very "normal,"

middle-class, well-educated Brazilians.

A number of plants growing in different parts of the Amazon contain the DMT that gives ayahuasca its extraordinary visionary powers, and all of these have long been known to indigenous shamans. One of the most widely used is *Psychotria viridis*. It is a bush of the *Rubiaceae* family and its leaves release psychotropic quantities of DMT if cooked together with water. Whether the DMT is extracted from this plant, however, or from one of the half-dozen or so other known sources, there is a problem to overcome. Monoamine oxidase, an enzyme that occurs naturally in our stomachs, so efficiently destroys DMT on contact as to render it entirely orally inactive. It is at this point that the other principal ingredient of the brew – the ayahuasca vine itself

- comes into play. Classified scientifically as *Banisteriopsis caapi*, and a Psychotria viridis. Its leaves contain

dimethyltryptamine (DMT), the active

ingredient of ayahuasca.

member of the *Malpigia* family of giant forest lianas, it contains chemicals known as monoamine oxidase inhibitors which cleverly switch off the stomach enzyme and allow the DMT from the *Psychotria viridis* leaves (or from any of the other sources) to go to work.10

Anthropologist Jeremy Narby comments:

So here are people without electron microscopes who choose, among some 80,000 Amazonian plant species, the leaves of a bush containing a hallucinogenic brain hormone, which they combine with a vine containing substances that inactivate an enzyme of the digestive tract

Banisteriopsis caapi, the ayahuasca

“vine of souls”

which would otherwise block the hallucinogenic effect. And they do this to modify their consciousness. It’s as if they knew about the molecular properties of plants *and* the art of combining them, and when one asks them how they know these things, they say their knowledge comes directly from hallucinogenic plants.11

The renowned ethnobotanist Richard Evans Schultes was struck by the same problem:

One wonders how peoples in primitive societies, with no knowledge of chemistry or physiology, ever hit upon a solution to the activation of an alkaloid by a monoamine oxidase inhibitor. Pure experimentation? Perhaps not. The examples are too numerous.12

So the substance I had gone to South America to drink had a mysterious history. It was intimately connected to religious ideas and to the religious art of the region. Its very existence was biochemically unlikely and contrary to the laws of probability, and the shamans who used it claimed it transported them to supernatural worlds where they encountered spiritual beings of great power.

In the pages that follow, I set out the highlights of my own visions, woven into a sequential narrative. I participated in ayahuasca sessions ten times in Peru and Brazil and once in Europe. But no matter where I drank the brew, its extraordinary effects always brought me, pretty soon, to the same complex, internally consistent, and deeply strange universe.

The vine and the leaf

I accompany the shaman Francisco Montes Shuna to the place in the jungle where ayahuasca is prepared. Gathered there on the ground

there is already a pile of cut sections of ayahuasca vine, which is a tough, liana-like creeper that hangs from the tall trees. Francisco selects several large pieces, each approximately as thick as my arm, consisting of three or four vines coiled around one another in long, tight knots like mating serpents. These large pieces are chopped into 22 segments, each about a foot long. Then we pick approximately 300

fresh green leaves of *Psychotria viridis* from bushes nearby. Finally, the 22 sections of vine are smashed with a heavy wooden club methodically smashed, mainly by Francisco, although I inexpertly assist him with three of them.

Once macerated in this way, the inner part of the vine is exposed.

It is very fibrous but also damp and turning a red color. Francisco places a thick layer of the smashed vine into the bottom of a large iron cooking pot, on top of this a layer of all the *P. viridis* leaves,

then another layer of the rest of the vine. Next the whole mass is wedged down beneath two sticks jammed transversely into place, and several liters of cold water from the creek are added until all the contents are covered. This is left to marinate overnight.

The following morning, around 8 a.m., I go to see the brew being cooked. It has already been on the fire for two hours and is bubbling steadily at a slow boil. This first water is eventually decanted into a second large iron pot and fresh water is added to cover the mass of vine and leaves once again. This will happen three more times. Then all the substance-rich water collected in the second pot, many liters, will be boiled slowly down to less than a liter of pure, concentrated ayahuasca. The vines and leaves from the first pot, having now served their function, are thrown away.

The ceremony begins

It is always night when the ceremony begins, around nine or ten in the evening. The rich velvet darkness of the rain forest envelops everything. The setting may be a small, simple hut out on the far edge of Iquitos, or the temple at Sachamama established by Francisco Montes Shuna, or a homestead beside a stagnant creek on

a remote tributary of the Amazon, or just a clearing in the jungle. Sometimes I'm alone with the shaman; usually my wife Santha is there as well; frequently people from the local community who also want to drink join in.

The shaman is almost always a man, dressed in the nondescript Westernized clothes of the villages. You wouldn't notice anything particularly special about him if you passed him in the street, but he knows a great deal about the plant medicines of the jungle and how they may best be harnessed for the benefit of human beings. As a practicing *ayahuasquero* he is likely to have been drinking the sacred Jungle ayahuasca session

brew since childhood and to have traveled so frequently in the supernatural realms, to which ayahuasca affords a portal, that he is truly the master of all the strange experiences to be encountered there. He will long ago have acquired his own "spirit animals" who meet him in the hallucinatory otherworld, act as his guides and

protectors

throughout the trance, and assist him in his vocation as a seer and healer. Sometimes also he has in his possession a number of “power objects” – for instance, pebbles of quartz crystal, a piece of magnetized iron, a bundle of feathers, and certain small statuettes of wood,

bone or terracotta – which provide additional assistance to him in his struggles in the spirit world.

Wherever we hold the ritual, and whichever shaman is leading it, an essentially similar routine is followed. The shaman puffs on huge hand-rolled cigarettes of sacred tobacco and blows clouds of smoke over himself and the drinkers and into the neck of the bottle containing the ayahuasca. There is much muttering of invocations, brushing of the air with rustling leafy branches, and sprinkling of Agua Florida, a cheap cologne. The shaman clears his throat several times and spits. Then he begins to sing the *icaros*, ancient chants and whistles, handed down since time immemorial, to draw in the spirits around our circle.

Painting of an ayahuasca session in a jungle *maloca*, by Peruvian shaman Pablo Amaringo

Usually by the time the ayahuasca is poured more than half an hour

has passed. Modes of preparation vary. In some cases – for example the UdV in Brazil – large glasses of a very diluted brew are served.

More commonly the ayahuasca is concentrated by repeated boiling into a thick, dark, viscous liquid – of the kind I saw Francisco Montes Shuna prepare – and is presented in a small cup.

First in line at the very first session I attend is a middle-aged woman who wants to contact the spirit of her dead husband. She sips. Pauses.

Looks down into the cup. Then drains the rest at a gulp. The same grubby china cup is used by all participants, with the shaman seeming to assess each individual carefully (body weight? aura?) before pouring out a dose. In each case he whispers incomprehensible words into the cup before handing it over to the participant. In each case the measure he has poured looks much the same as the last – roughly equivalent in volume to a double shot of

spirits.

My turn. I'm sitting on my heels on the grass mat that is spread out in front of the shaman. His lined features are folded like leather into a beatific expression. He weighs me up, pours from the bottle into the cup the standard double shot of ayahuasca, whispers the incomprehensible words, passes the cup over to me.

I take a tentative sip of the vile-tasting liquid – so strong and bittersweet and salty, so dark, so concentrated, and so textured as to be repellent. There are jangling discordant notes of cocoa, medicine and jungle rot. And there is the definite sense that I am partaking here of something formidable and elusive – a "living spirit," as the old myths say – that announces its presence in the sheer mass and energized heaviness of the brew.

I raise the cup to my lips again. About two thirds of the measure that the shaman poured for me still remains, and now I drain it in

one draught. The concentrated bittersweet foretaste, followed instantly by the aftertaste of rot and medicine, hits me like a punch in the stomach. I shudder. Will I throw up? Will I shit myself? I have heard that such inconveniences are always a risk with ayahuasca, which, as well as its unsurpassed qualities as a hallucinogen, is also an extremely strong and efficient purgative (indeed, one of the many names and nicknames by which ayahuasca is known throughout the Amazon is La Purga – the purge). Vomiting and diarrhea are common amongst participants in ayahuasca sessions, and one must simply deal with these effects if they strike. Feeling slightly apprehensive, I thank the shaman and wander back to my place on the floor.

Geometry and nets

Time passes, but I don't keep track of it. I've improvised a pillow from a rolled-up sleeping bag and I now find I'm swamped by a powerful feeling of weariness. My muscles involuntarily relax, I

close my eyes, and without fanfare a parade of visions suddenly begins, visions that are at once geometrical and alive, visions of lights unlike any light I've ever seen – *dark* lights, a pulsing, swirling field of the deepest luminescent violets, of reds emerging out of night, of unearthly textures and colors, of solar systems revolving, of spiral galaxies on the move

. . . Visions of nets and strange ladder-like structures. Visions in which I seem to see multiple square screens stacked side by side and on top of each other to form immense patterns of windows arranged in great banks. Though they manifest without sound in what seems to be a pristine and limitless vacuum, the images possess a most peculiar and particular quality. They *feel* like a drum-roll – as though their real function is to announce the arrival of something else.

I begin to pay attention to one image in particular, or rather to one area of my inner visual field where complex interlaced patterns of

geometry prove on more careful inspection to be part of the skin of a snake – a gigantic snake, apparently alive, not dead, with its head and its tail away from me. I zoom in for a closer view. I can make out the individual scales and the way that they overlap each other.

They're rectangular, outlined in black, like windows. There's a circle in the center of each rectangle. Zoom in again. The circles are purple, spinning like fireworks, glowing with the otherworldly dark light that I'm already getting used to here.

Here? Where is here? Why is it a place where I see colors that do not exist in everyday life?

Closer still. Focus on a single one of the spinning circles.

What is it? A sense of familiarity dawns before all becomes clear.

It's the iridescent eye from the display feathers of a peacock . . . It's

a spiral galaxy, swirling and turning in the darkness of space . . .

Then the shaman begins to chant the *icaros* again. His performance is very quiet at first but it builds up . . . builds up. For what feels like half an hour, maybe more, the whole atmosphere rustles with

melodious chanting and whistling, as though great wings are stirring, and I find myself relaxing into this sound-realm.

Something interesting begins to happen. Quite smoothly, like an Detail from a painting of an

ayahuasca vision by Peruvian

shaman Pablo Amaringo

automatic gear-change, the parade of patterns and unearthly colors that have assailed me until now, the geometrical pulse, the swirling lights, all begin to beat in time to the underlying rhythm of the chant.

I have the sense of rising up through ethereal levels – as though the Gnostics of old were right that reality consists of a series of layers

extending upwards from grossest matter to purest spirit.

My whole visual field gets less static and crystalline, more fluid and organic. Suddenly it feels like a night dive. I'm looking up from the bottom of a clear ocean at a mass of purple jellyfish bobbing at the surface. There are so many of them that they all seem joined into a single voluptuous fabric, each one – I now observe – with a ring of luminous pearls, like the landing lights of a miniature space ship, arranged amongst its undulating skirts. As the chants and whistles rise and fall, this vast repetitive pattern glides slowly and majestically overhead – strobing bright and dark, bright and dark, like a well-synchronized *son et lumière*.

Other than these amazing visuals, I feel completely down to earth.

I've experienced some intense moments of nausea, but the worst seems to have passed and I haven't thrown up yet. There's no particular sign that I'm going to shit myself. And if I open my eyes

the visions instantly disappear – *whoomph!* – like vampires at dawn.

It's an unsettling sensation to see with my eyes closed a decidedly non-ordinary universe and with my eyes open an absolutely mundane world, and to be able, to a limited degree, to switch back and forth between the two – blink, ordinary, blink, non-ordinary, etc., etc. But I can also feel reason and measure reasserting themselves, and already the quality of supernatural immanence that has characterized my experi ence so far is beginning to dull and fade.

I look at my watch. It is around one in the morning. Now even with my eyes closed the visions are weak and intermittent. I'm 100

per cent back on planet earth, sober, rational, not about to visit any parallel dimension.

I reached the anteroom and saw the wallpaper there. That's the

realistic assessment. I fastened my seatbelt and trundled down the runway but couldn't build up enough speed to take off. I stood at the doors of perception but didn't pass through.

Although the prospect is still daunting and horrible, although the mere thought of the taste makes me gag and retch as if I've inhaled mustard gas, I resolve to drink another cup of the brew.

I go outside, pee, look at the stars, come back in again, take off my shoes, have a few swigs of water. Drinking ayahuasca is an ordealeverything about it is difficult, nothing is easy. Yet I have no choice but to persevere if I want to understand this mysterious substance. I know of several examples of people who have taken ayahuasca and experienced nothing very remarkable during their first two or three sessions, only to get the full return ticket to a parallel world on their third or fourth attempt.

I shuffle up to the shaman again, tell him I think I'm ready for a

second dose. He pours out the usual double-shot measure into the cup and whispers the usual incomprehensible words into it before handing it to me to drink.

I intend to drain it in one gulp, because it's only a small amount after all. But once again it seems formidable – the way a toad might seem formidable if blended as a beverage and served in a cup. My flesh recoils from it and I hesitate, then take a preliminary sip exactly as before. There's something unique and indescribable about the taste: ayahuasca from the Amazon. The Vine of Souls. The rancid medicine of the gods . . . I tip my head back, tilt the cup upright, and swig down the remainder of its contents.

As I wander back to reoccupy my place on the floor I'm thinking that with the first dose still presumably in my system, and certainly not vomited out, is it reasonable to hope that this second dose will do the trick? I already know that the answer is "maybe" and that it really does depend – because the effects of ayahuasca differ so

much from person to person and from day to day, even from hour to hour.

After about 40 minutes the parade of images reappears – the geometry, the nets, ladders and banks of windows, the spirals, the swastikas spinning in the void, the furious zigzags, the kaleidoscope of unearthly colors – and I find myself back in the anteroom to the ayahuasca realm. As before, sound and vision have effortlessly synchronized, and the whole scene pulses and vibrates hypnotically. As before, I have the ability to zoom in on small areas of the scene. As before, I see what looks like the flank of a gigantic serpent and, when I come closer, the patterned rectangles of individual scales – each one of which proves to enclose a swirling, iridescent eye.

For a while not much else happens. Then suddenly, without preamble, I get a display of zigzags, pyramids, tribal masks. One after the other, as though briefly illumined by the brightest spotlight, they seem to jump out of the darkness, then disappear. It's the grand

finale of another visit to the ayahuasca anteroom. As the display fades, ordinary reality replaces it and my consciousness engages itself completely with the material world again.

Vision serpents, light-elves, a celestial temple, and an angry supernatural

During my second session, I know things are going to be different when the opening parade of patterns and geometry gets overlaid with a lot of snakes, like a game of snakes and ladders. The snakes are very

large and their whole bodies from head to tail are clearly visible to me. The main colors are browns and yellows.

I've been expecting them to show up. Reading round the subject before coming to the Amazon, I've learned that people from all parts of the world and many different cultures routinely meet snakes on the ayahuasca journey. The shamans say this is because the spirit

of ayahuasca, like the vine itself, takes snake form. In my vision the snakes arrange themselves into patterns of interlaced wheels and spirals. Then they merge into one large mass and finally break apart into pairs of individuals that wind around each other like the DNA double helix.

Painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo The nausea comes on strong and I'm out in the dark, puking. The vomiting racks me to the core until I'm drenched from head to foot in sweat and have only dry heaves left. I sink to the ground on hands and knees, slump against one of the support poles of the hut, and then change my mind when I find myself face to face with a large poisonous spider.

My head has cleared. I go back inside, take my place in the circle, close my eyes. More snakes, a recurrence of the geometrical patterns.

Then suddenly two beings made all of white light pop up in my face, one behind and to the side of the other. They are quite small – three

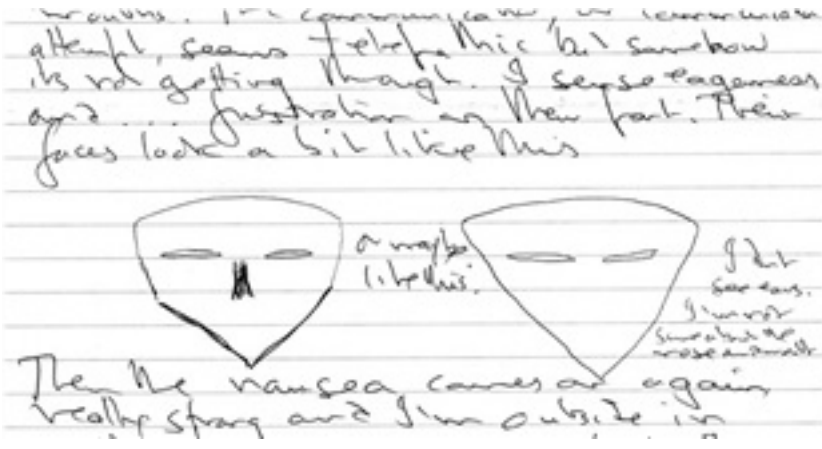

or four feet tall – but I'm only aware of their upper bodies from the waist up. I don't see their feet. Their white light faces glow like neon and are approximately heart-shaped with big domed foreheads and narrow pointed chins. Nostrils and mouths, if they have them at all, are just slits in their otherwise smooth features. Their eyes are completely black and apparently without pupils.

They seem to have business with me. They want to communicate.

The communication, or communication attempt, feels telepathic, but somehow it is not getting through. I sense eagerness and . . . frustration on their part.

Then the nausea comes on again, really strong, and I'm outside for Sketch of an ayahuasca vision from the author's field research notebook another protracted bout of vomiting and retching. Seated on a tree stump, looking up at the stars, I have a strange sense of being possessed by the spirit of my father, as though he's inside me somehow, merged with me and my consciousness.

On another night the visions begin very differently. After an initial bout of geometry and ladders I find myself inside a building – a huge structure a bit like the ancient Egyptian temple of Edfu at its entrance but opening out into something quite other. Fantastic architecture on an extraordinary scale. I have a computercam point

of view and can fly around, zoom in or zoom out anywhere. I fly up into a vast dome, examine the patterns of nested curves that decorate its ceiling. Then the vomiting takes me again and the visions are gone.

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Painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo Around the fifth night of my stay in the Amazon, I drink ayahuasca in a natural clearing in the jungle. The name given by the Indians to clearings like this is *supay chakra*, which means “the devil’s farm.” Two makeshift benches have been set up near a huge ancient fig tree, and we hang hammocks and mosquito nets at the edge of the clearing.

Dark falls, surrounding us with the sounds of the jungle night. We wait until around 8 p.m. to start the ceremony.

I begin to vision very mildly after about 45 minutes – a dreamlike state enhanced by the weird luminous glow given off by thousands of dead leaves carpeting the forest floor. When my eyes are open I see this real jungle with its glowing floor. When I close them another jungle appears – a jungle of trees, stems, shoots, each traced with a line of fire and overcast with strangeness.

I also see snakes again, not very large this time, but with wide-open mouths. Then a tiny mannequin appears amongst the high jungle plants. It has the outline and size of a gingerbread man, but is glowing all neon-white. It behaves like a puppet operated on strings by a puppeteer who is so far above us as to be out of sight. The mannequin dances through the tall trees.

In the morning Don Alberto, the shaman, says that the spirit of the *chakra* was with us, watching us the whole time, hiding behind the big fig tree. Apparently he was not happy that we vomited – and

worse! – in his *chakra*. But Don Alberto reassures us that he intervened on our behalf to make everything OK with this angry supernatural being.

Transformations

January 22: This night I go through what I've come to think of as the scrying mirror into the otherworld. I tolerate the ayahuasca well,

and about 90 minutes pass before I vomit.

In my hour of strong visions I'm surrounded by intelligent plants, which seem almost like animals, waving, weaving leaves – in dark colors but with their own fire. Then I meet a big boa constrictor. Its head alone is about two feet long and a foot high. It allows me to stroke it and I hear myself saying in my vision, "It's a beauty" or "You're a beauty." Something like that.

I see a yellow and black spotted butterfly, the size of a dinner plate, flitting from plant to plant in the hallucinatory jungle. I follow it until we reach a clearing where a second huge serpent awaits. There is no Detail from a painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo

butterfly now, only this immense yellow and black serpent radiating sentience and magical force. Before my eyes it spectacularly and mysteriously transforms into a powerful jaguar with yellow and

black spots and confronts me face to face. There is a sort of telepathy. Then the

creature abruptly turns away and vanishes. For what feels like a long while afterwards I continue to sense its presence still out there, camouflaged amongst the otherworldly jungle plants. At no point do

I feel afraid of it or threatened by it.

Both it and the beautiful boa, the butterfly, even the plants, seem filled with vibrant energy and life and communicative intelligence.

They also seem utterly and convincingly real – not stuff my brain is just perversely cooking up out of some hitherto unknown jungle-scenes Detail from a painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo

image bank in my temporal lobes, but real perceptions of real beings that ordinarily exist outside the range of my senses.

The visions left me thinking, and the following morning I wrote in my notebook:

Matter and spirit. As above so below. Science teaches us to believe that the material world is the primary and only reality. But from the

ayahuasca perspective this is absolutely not the case. What we call the material world, our “consensual reality,” is only part of the pattern – probably not even the primary part. Viewed through the lens of ayahuasca, another

“world” becomes visible, another reality, perhaps many of them. And because these worlds interpenetrate our own, *effects* in this world may turn out to have _causes_in the other worlds. Perhaps the material world is indeed the creation of spirits but if so then presumably they made it because they need it (for their own experience/evolution/development?). The material world, if cut off from the spirit world, becomes meaningless and empty. So the material world _needs_the spirit world too. Ayahuasca, and similar “master plants,” appear to provide a direct means of communication with the spirit realm for sentient beings of the material world. The plants educate us by allowing us to experience in visions the reality of the supernatural – something normally impossible or very

difficult for us to do as material-bound creatures.

Purple prose? A bit New Age and over the top? Even lunatic fringe?

I don't deny it, and in a way that's exactly my point. If I, with all the knowledge and rationalism of the twenty-first century at my disposal, could be so persuaded by the apparently supernatural realms and spirit beings that ayahuasca introduced me to, then what would our ancestors have thought if they had chanced upon similar hallucinogenic plants 30,000 years ago and seen similar wonders? What about the two elf-sized "light-beings" I'd met? What would they have been taken to be in the Upper Paleolithic? What about the serpent transforming into a jaguar? What about the geometry and the architecture? Wouldn't it have all come together as a seamless otherworld? Not the way we tend to see such scenes now – as some sort of derangement of perception devalued by the modern idea of "hallucinations" – but as a veridical experience of another level of reality?

Introspection

January 24: Don Francisco pours me a generous cupful of dense and rancid ayahuasca, which I almost throw up on the last swallow. The taste and smell are extremely strong, and for some reason I feel nervous and out of sorts this evening. There are waves of nausea, but I control them, breathe into them.

I suppose that half an hour passes before the visions become strong.

Tonight I see predominantly snakes, most of them about three or four feet in length. Again the sense I get is that these are intelligent beings who mean us well, not harm. I experience none of the archetypal fear that snakes supposedly evoke. As usual my eyes are closed, but I can

“see” my legs and feet below me as though bathed in light. One of the serpents coils around my left calf and then rears its head up from knee level towards my face. Its body and head are colored a deep and brilliant gold. It seems to be inspecting or examining me, but I feel no fear.

I meet a lot of these snakes, coiling round the vegetation and around each other. They are everywhere, in the foreground, and often the background, of all my visions.

There are patterns and lights. I see something that looks like a very Detail from painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo

large inverted bowl rising up into a purple sky, glowing with light.

I witness a complex series of transformations of snakes into felines.

I have a sense of flying, as though I am a bird (or riding on a bird?) accompanied by two other birds.

I go through what feel like long periods of intense introspection.

Something in the ayahuasca leads me to examine my own moral fail-ings and weaknesses in an utterly unsympathetic light – holds them up to my view and shows me how much, in how many ways, I am inadequate, venal, not good. In particular I flagellate myself mercilessly about my father. Why wasn't I with him those last five

days of his life? Why did I feel so driven to go back and finish my work?

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Detail from painting of an

ayahuasca vision by Peruvian

shaman Pablo Amaringo

There are no excuses. Plain and simple, I should have been there and I wasn't. Several times I ask to see Dad's spirit, to meet him again and to talk to him.

But this grace the Vine of Souls does not grant me.

Aliens and dragons

January 27: The visions begin with 20 minutes of geometry; then suddenly I find myself looking, at very close range, into a shockingly

“alien” face, gray in color, with a wide domed forehead and a narrow pointed chin – heart-shaped like the faces of the “light-beings” I’d encountered a few days earlier. But this creature doesn’t look friendly.

Its eyes are multi-segmented like those of a fly. Frankly, it’s the sort of image you’d expect to see adorning some far-fetched *X-Files* exposé, and since aliens and ETs have never been interests of mine, I’m really puzzled to experience such a hallucination. In the part of my mind that is still dealing with reasoning, I can already see the way that skeptics who have never taken ayahuasca are bound to read it. They must

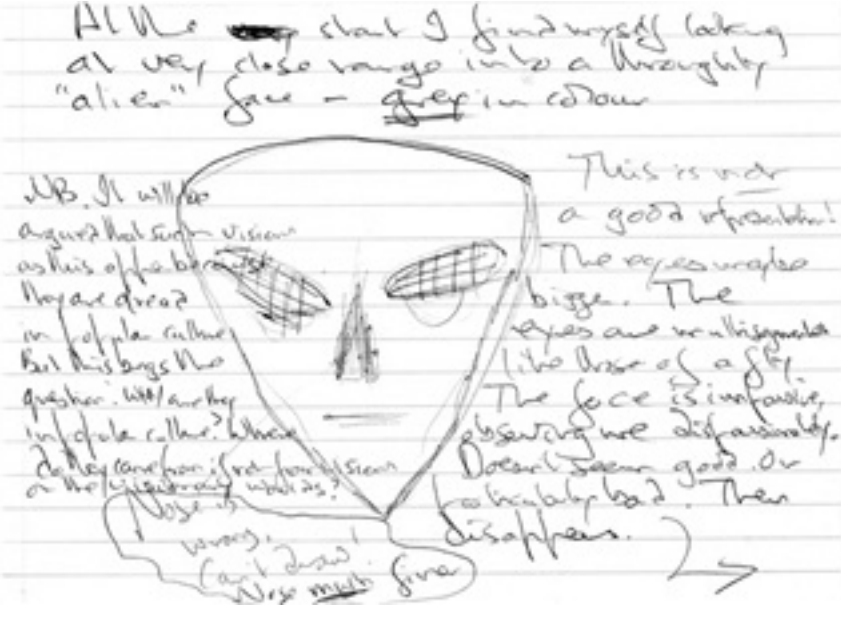

argue that there is no mystery in the appearance of entities like this in my hallucinations because, regardless of my lack of enthusiasm for aliens, my brain has had the opportunity to borrow such imagery from Sketch of an ayahuasca vision from the author’s field research notebook popular culture. Still, I feel unaccountably shaken and perplexed by what I’ve just seen.

A short while later, out of a background of shifting geometrical patterns, a beautiful Egyptian goddess appears. I see only her head and headdress clearly. She's in full regalia. Then she vanishes as abruptly and mysteriously as she arrived.

January 29: Strange and terrifying (briefly), although it didn't start that way. I drink at 8.05 p.m. For the first half-hour, as usual, nothing much happens, just queasy and formless luminescences. Then I begin to see snakes, not a lot and not spectacular. By 9:05 I'm feeling more intoxicated, dizzy and nauseous. But still just snakes. Not many. Mid-size. They're coiling and writhing around a bit more. I begin to wonder (foolish bravado) if this is all I'm going to get.

The nausea increases and the whole visionary experience ratchets up a notch and becomes more sinister. My eyes are closed throughout, but when I "look" up, the visions are "up" and when I "look" down they're "down." I have the sense of gazing through a

tunnel – a tunnel

of vision with serpents coiled at the side of it, close to my eyes, threatening to fall on me.

I throw up over the back of the bench I'm sitting on. As I shift position the serpents shift with me. The visions stay strong while I'm vomiting. As I stop and return to the seated position, everything ratchets up another notch. The serpents morph into Chinese dragons with beards and long serpentine bodies. Serpents and serpentine dragons with beards and rows of teeth. It's as though a Chinese painting has come to life. And again – where did the ancient Chinese originally mine this imagery from, if not from the visionary world?

I'm convinced it's not a matter of my vision being inspired by Chinese paintings – which I hardly ever think of. I'm getting a glimpse into the same visionary realm that inspired the Chinese artists – and countless other mythologies in which dragons feature.

Then another upwards crank of the ratchet. The overall atmosphere

- I can't explain why – is now distinctly terrifying and sinister. I see

the gray heart-shaped face of an alien again, but with an even stranger, harsher expression than before. And I see what could be space ships

- flying saucers – associated with this commanding, unpleasant alien presence. What's frightening is something that would be easy to interpret as an abduction experience – the feeling that if I allow the vision to continue I'm going to be taken up into those metal ships.

They rotate and pulse with light from beneath, seeming to rise through a tube or funnel in the universe. I distinctly don't want to be taken Sketch of an ayahuasca

vision from the author's

field research notebook

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and open my eyes to stop what I'm seeing. But the strangeness persists.

I'm back in the real world but just out of sight I can feel serpents, dragons, demonic aliens, and space ships whirling all around.

Detail from painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo

There’s a sense in which the serpents/dragons morph into the alien who dominates this vision, and a sense in which the alien is different

- not so much a serpent/dragon as some sort of huge insect with humanoid features. I also see four or five other insect-like creatures associated with him. They seem more like “workers” – less intelligent, or not intelligent. Like giant ants in a way. These worker beingsand they do seem to be working as a team on something – are about Detail from painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo

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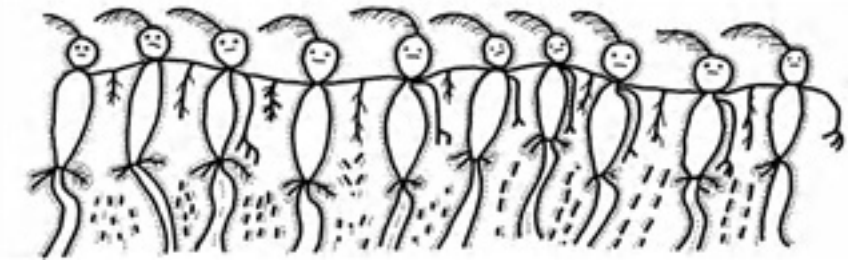

three feet high, I would guess.

Two other images, both of planets, stand out in my memory of this complex vision. In the first the planet is immense and surrounded by rings or discs in the plane of its equator. In the second I see a transparent earth sphere with the fragility, texture, and glittering

iridescent Sketch of an ayahuasca vision from the author's field research notebook Drawing by a Barsana Indian shaman of an ayahuasca vision (source Reichel-Dolmatoff, *The Shaman and the Jaguar*, fig 56) colors of a soap bubble. Etched on its surface are the outlines of the familiar continents, and I can see through them from one side to the other. The sphere is rotating and seems to float in space between two cupped hands.

Half animal, half human

My final ayahuasca session in Peru is with a 74-year-old Shipibo Indian shaman named Don Leonceo in his tambo in the jungle beyond Iquitos. As well as the usual ingredients of _Psychotria viridis_leaves and the *Banisteriopsis caapi* vine, his ayahuasca includes datura, another

well-known visionary plant, and tastes unspeakably awful.

I have a series of small and certainly not terrifying visions. There are a few snakes. Several times I see multiple rows of green pyramids laid out in long tapering strips. I seem to be flying over these strips.

I also see a sphere, a cube, and a triangle, and rows of serpent or

alli-gator mouths full of teeth.

But the single most memorable aspect of my visions this night unfolds over what feels like just a few seconds. I seem to be inside a large, quite dark room with an opened doorway to one side. Light floods into the doorway and through it I can see a beautiful, spacious balcony overlooking what is perhaps a vast river, or a lake, or even the sea.

On the left side of the balcony, at the rear just outside the open doorway through which I'm looking, I suddenly become aware of the presence of a figure. It is an imposing statue, about six feet high and apparently carved in one piece from some green stone – perhaps jade.

The sculptor provided excellent detailing of fine robes, and a belt, and something – possibly a sword? – suspended from the belt.

At first this stunning piece of sculpture seems just that – a harmless, inanimate statue. I'm curious to see more of it and move my point of view a little closer to get a look at its face. To my surprise Detail from painting of an ayahuasca vision by Peruvian shaman Pablo Amaringo the statue is half animal, half human. It has the body of a powerful and well-muscled man but the head of a crocodile, like Sobek, the ancient Egyptian crocodile god. And now I suddenly realize it is alive

- a living being, a supernatural guardian. At this moment its eyes swivel sideways and it is looking at me, taking note of me.

The look is intelligent, appraising, somehow sly, but yet not threatening. What is this living statue, this being of jade? The vision fades . . .

Shamanism comes to suburbia

After leaving Peru, Santha and I flew to Brazil so that I could attend a session with the Uniao de Vegetal (UdV) in the beautiful district of Ilha de Guarantiba, about one hour's drive west of the center of Rio de Janeiro.

The *mestre* – Master of the ceremony – is Antonio Francisco Fleury.

He's a distinguished, intellectual-looking gentleman in his sixties with a gray moustache. Altogether about 100 people attend. It is a family affair with age ranges present from babes in arms, young kids, teenagers, through to grandparents in their seventies. The UdV allows kids to drink ayahuasca (they call it their *cha* – tea) once a month from the age of 14, twice a month from age 18.

This is demonstrably a prosperous, middle-class group including many professionals such as doctors, lawyers, and architects. The temple is in a specially dedicated villa overlooking magnificent countryside.

It has a kitchen, a dining area, a patio, a large area to one side for cooking the ayahuasca (strictly *Banisteriopsis caapi, Psychotria viridis,* and water), and the temple itself, a large rectangular hall with space for congregations of 100 or more, all comfortably seated.

What is striking is the extremely positive atmosphere of friendliness, support, rationality, and love among the congregation. For any Westerner, used to strict drug prohibition, it is quite surprising to discover that these responsible, courteous people and families, all upright citizens, are gathered to take a powerful hallucinogen – and to do so as the basic sacrament of their own intensely philosophical religion. All wear a uniform for the session, representing their place in the hierarchy. The men wear white slacks and white shoes. The women wear orange slacks. All wear green, short-sleeved, button-up shirts. Entry rank is signaled by the white letters UdV on the left breast pocket. Councilors – the next rank – have the letters UdV and CDC in yellow on the breast pocket. Higher rank is indicated by

gold stars. The top rank is the *mestre*, signaled by a blue shirt and a star.

Visitors are allowed to wear civilian clothes.

The *cha* is dispensed from a large glass urn placed at the head of a central table. The *mestre* decides how much each person gets, partly based on body weight, partly on other factors (past experience?). The dispensing of the *cha* is done for the top ranks first – the *mestre*, then the councilors, then down through beginners, and finally visitors like me. We all line up to have our glasses filled, and wait until everyone is ready, then on a word from the *mestre* we all drink. The *cha* is watery and about the color of an overbrewed milky tea. The taste as usual is hideous, and at least four people exit to vomit straight away.

The rest of us sit down. One of the councilors reads from several documents about the philosophy and founding of the UdV. Another

councilor stands and clarifies certain points. A third councilor intones a hymn.

The first hour is mainly passed in silence, reviewing our visions and thoughts, although occasionally a member of the congregation will raise a hand to ask a question which one of the councilors answers.

Sometimes others elaborate.

Later in the session many members of the congregation (one by one) come to the table to stand and address the assembly. Some talk about their visions and thoughts during this session, others about some recent event or idea that has affected them deeply. It is all very earnest, genuine, spiritual, and philosophical.

Sometimes CDs of haunting melodies are played. Sometimes the leading councilor intones hymns.

The session runs from 9 p.m. until about 1:20 a.m. I drink my brew at 9:20 p.m. and am having good visions by 9:45. The first hour after drinking – until 10:20 – passes in what feels, subjectively, like an instant.

My visions are familiar and positive – perhaps more brightly lit (less

"darkness visible") than before. What I remember clearly are large snakes (again!), light-colored boas, huge, coiling around each other and around branches. I also get pyramid shapes built around a lattice or framework of some kind.

But the best part of the evening is when the same Egyptian goddess whom I last saw in Peru reappears – this time on the left side of my visual field. At first she is concealed, in shadow. I look closely and see a slender female figure holding a dark blue mask in front of her face

- one of those masks on a stick. Then she removes the mask and I see her face clearly in the instant before she vanishes once more. She glows the color of molten gold.

Where the impossible becomes real

If I were to nominate the single defining quality of the visions I experienced under the influence of ayahuasca, it would have to be their remarkable sense – no matter how "otherworldly" they were – of being real. It is surprising enough to encounter something so improbable as a "light-being," or an intelligent giant snake that transforms into a jaguar, or a hybrid crocodile-man, or an insect-man like my "aliens"

- especially when any thought of such entities is normally very far from one's mind. But to encounter them in all their strangeness, yet bolstered by an unassailable aura of certainty and solidity, is doubly disturbing and disorienting.

So some months before I met David Lewis-Williams, what I had learned from personal experience in the Amazon had already begun to convince me of the force of his argument. If our ancestors in the Upper Paleolithic had consumed psychoactive plants – and Appendix I demonstrates that there was an excellent candidate available in Europe in the Ice Age that could have produced Ayahuasca-like effects13 – then because we share the same neurology, it is safe to say that they would have had experiences rather like mine (not in every minute detail, of course, but broadly and with something like the same general atmosphere).14 It had begun to seem highly plausible to me, as Lewis-Williams suggests, that hallucinations could have given rise to early religious notions about supernatural realms and beings, and the survival of death by the "soul." Indeed, where else could our ancestors ever have acquainted themselves with such ideas in the first place if not in the visionary realms where the shamans of all cultures in all periods have always made their "spirit journeys"?

The much more interesting question, however, is the one that David Lewis-Williams was plainly uncomfortable with when I raised it with him at the University of Witwatersrand. What if these spirit journeys are in some sense real? What if the so-called "hallucinations" of shamans are not just "silly illusions" but another modality of perception that allows us to peer into other realms and dimensions? What if the supernatural beings seen in shamanic states of consciousness and depicted in rock and cave art all around the world, really do exist?

Author's note: I had not seen any of Pablo Amaringo's paintings before experiencing my own ayahuasca visions. That I was later able to find similarities to my visions in several works by the Peruvian shaman reproduced in this chapter is an illustration of the astonishing common imagery and identical "parallel worlds" that are reported by people from many different cultures who have experienced ayahuasca. We will look further into this mystery in

Chapter Seventeen.

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Chapter Four

The Mind in the Cave

My search for proof of the existence of supernatural beings began deep within the ancient cave systems of south-western Europe. It was here, between 40,000 and 30,000 years ago as we saw in Chapter Two, that out ancestors chose to paint beautiful and enigmatic images on rock faces shrouded in millennial darkness.

The great painted caves such as Chauvet, Lascaux and Pech Merle in France, and Altamira in Spain, contain some of the oldest art in the world. It is so wondrous that when the Altamira caves were first opened at the turn of the twentieth century, academics refused to believe that primitive and savage cavemen were capable of such creativity, suggesting instead that the paintings were ingenious

modern fakes or graffiti left behind by bored Roman soldiers.

Much of the art depicts animals which would have been familiar to our prehistoric ancestors such as horses, bison and woolly mammoths. This quickly gave rise to the idea that the paintings were a form of magic designed to give humans power over the animals they hunted. This idea prevailed for much of the twentieth century but it is hard to see why, because it was so patently wrong. We can tell what our ancestors ate by the animal bones discovered in the caves, and these rarely match the creatures depicted on the walls.

More importantly, many of the images feature fantastic monsters that have never existed in everyday physical reality. Known as "therianthropes" (from the Greek therion = "wild beast" and anthropos =

"man") these are human-animal hybrids of precisely the kind that I

encountered so frequently under the influence of Ayahuasca.

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They include such grotesques as the “Sorcerer” of Trois Freres cave

in France, dating back approximately 17,000 years. Deeply engraved into a rocky ceiling, this amazing protean figure has the ears of a wolf, the eyes of an owl, the antlers of a stag, the tail of a horse, the claws of a lion, and the feet, legs and body of a human being.

The “Sorcerer” of Trois Frères – part owl, part wolf, part stag, part horse, part lion and part human. (Breuil, 1952) Other bizarre therianthropic images can be found in caves across Europe, and the similarities between them are often breathtaking.

A horned bison with a man’s arms and torso, daubed in red ochre in Fumane cave in northern Italy, matches another bison-man etched in charcoal on a cave ceiling in Chauvet in France, which resembles yet another bison-man at El Castillo in northern Spain. The Fumane image is 35,0000 years old, the Chauvet image was created some 3000

years later around 32,000 years ago, and the El Castillo image was made some 17,000 years after that around 15,000 years ago. It is worth reminding ourselves that 17,000 years is a period more than eight times longer than the whole story of the Christian religion.

An image must be very, very powerful to be maintained and repeated over that length of time. And just as significant is the fact that similar images can be found all around the world – notably in Africa.

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“Half-man, half-beast”:

the Fumane therianthrope

In a cave in Namibia, archeologists have discovered a terrifying painting of a figure with the feet and legs of a human being and the body, head and massive jaws of a lion. It is thought to be around 27,000 years old.

Chauvet bison-man (left), El Castillo bison-man (right) In South Africa, I have seen stunning rock paintings of beings that are half man, half preying mantis. In Tanzania, there are weird, otherworldly images of human bodies with insect heads, including

“feelers”and eyes on stalks.

Clearly, such images are not depictions of a hunter’s prey. They are

pictures of “supernatural beings” – i.e. beings that we do not see in everyday life and that are not governed by the normal laws of nature.

So the question is, how and why and because of what experiences did our ancestors first begin to conceive of the existence of beings like these?

The search for an answer lead me to another mysterious set of universal recurring images found in cave and rock art all over the world: enigmatic geometric patterns such as grids, nets, ladders and zig-zag lines.

These patterns are central to the work of David Lewis-Williams, whose groundbreaking research I have already mentioned in previous chapters. Lewis-Williams was intrigued by the results of various neuropsychological experiments in which volunteers under modern laboratory conditions were given hallucinogenic substances

and asked to describe their effects.

During these tests, the volunteers reported seeing various kinds of abstract geometrical patterns known as “entoptic phenomena.”

Since scientists believe that neither the average size of our brains nor their basic wiring has changed at all in the last 50,000 years, Lewis-Williams realized that our prehistoric ancestors would have seen much the same geometric patterns had they entered hallucinatory states.

He began to speculate that the abstract patterns painted on the cave walls represented what our Palaeolithic predecessors saw when they were in some kind of deep, visionary trance – much like the ones I had entered under the influence of Ayahuasca and Ibogaine. And he pointed out, correctly, that as well as seeing identical geometric patterns, modern lab volunteers in altered states of consciousness also routinely report encounters with therianthropic, part-animal,

part-human, beings.1

It was an extraordinary theory, but Lewis-Williams found further evidence to support it in the testimony of an extinct tribe of southern African bushmen known as the San.

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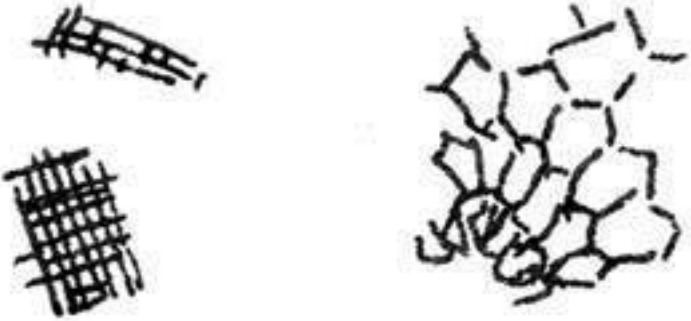

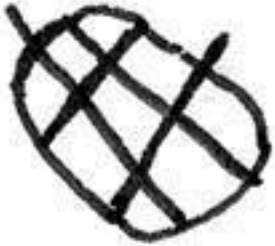

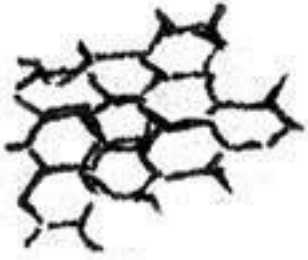

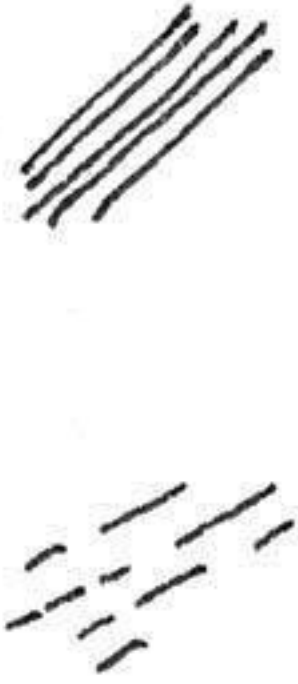

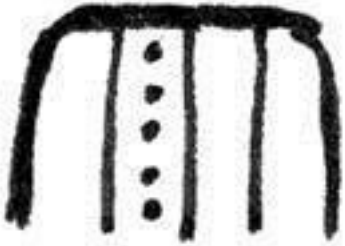

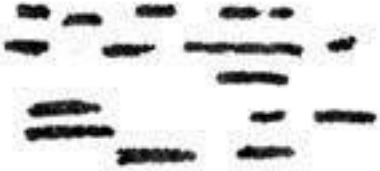

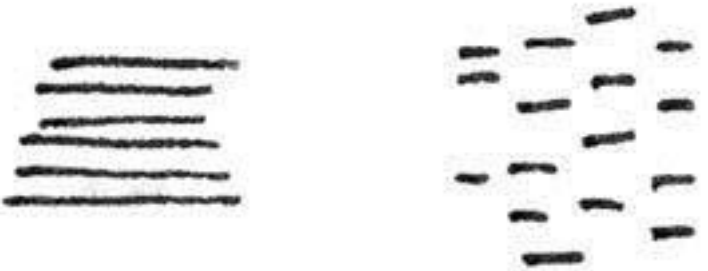

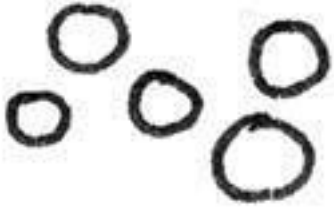

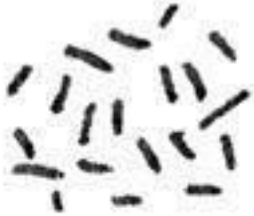

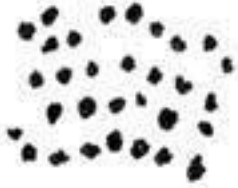

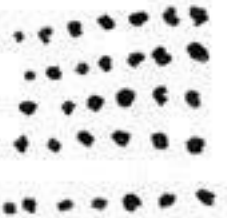

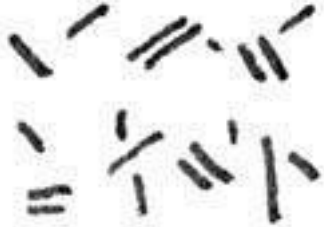

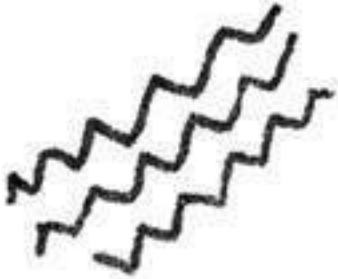

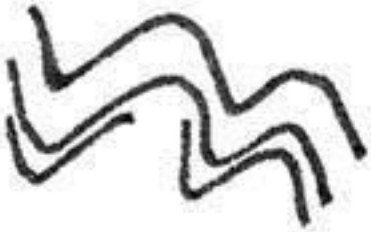

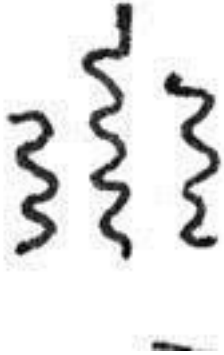

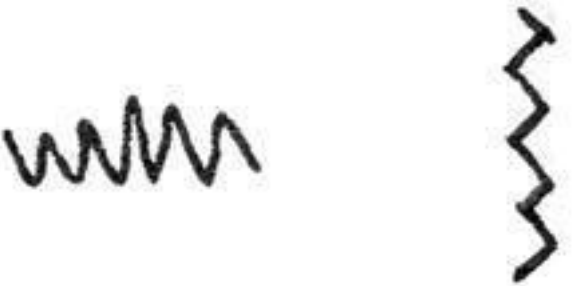

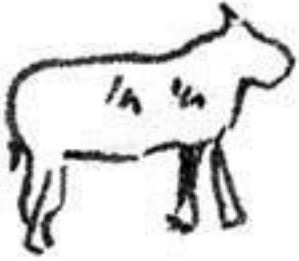

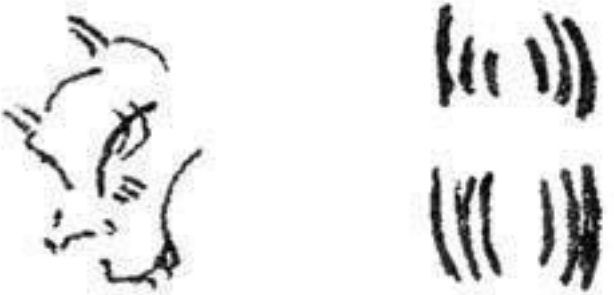

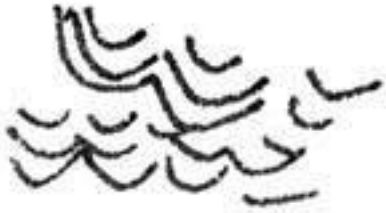

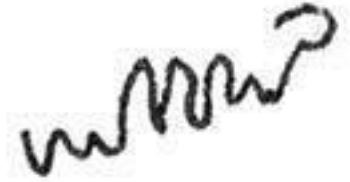

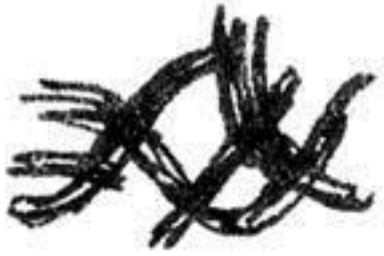

ENTOPTIC

SAN ROCK ART

COSO

PALEOLITHIC ART

PHENOMENA

ENGRAVINGS

PAINTINGS

MOBILE ART

PARIETAL ART

A

B

C

D

E

F

G

H

I

I

II

III

IV

V

VI

Comparison of entoptic phenomena with elements of rock art of the San (South Africa), the Coso (California Great Basin), and of Upper Palaeolithic Europe (after Lewis-Williams and Dowson, 1988) Until 1927, the year in which the last official permit was issued for hunting bushmen, it was legal for whites in South Africa to murder the San, whose body parts were kept and boastfully displayed as trophies.

Anticipating their annihilation as early as the 1870s, a German linguistics expert named Wilhelm Bleek conducted interviews with the few surviving San tribesmen to record their way of life before it disappeared. The notebooks containing his neatly-written transcripts remained hidden in South African archives until David Lewis-Williams re-discovered them nearly a century later.

The San were remarkably clear about the beautiful and mysterious rock paintings of their ancestors, which include the preying mantis images I mentioned earlier. They revealed that the paintings were

the work of shamans, whose role was to travel into the spirit world and negotiate with its inhabitants on behalf of their fellow bushmen.

On their terrifying psychic voyages, these shamans were accompanied by spirit guides who appeared to them in animal form and taught them to heal the sick, influence the weather, control the movement of animals and so on.

Intriguingly, the San described how the shamans entered the otherworld by means of an arduous and exhausting form of dance.

Lewis-Williams realized that this would have led to extreme dehydration and hyperventilation – exactly the physical conditions that could propel them into an hallucinatory trance.

When they returned from these out-of-body journeys, the shamans informed the community about what they had learnt and painted some of the strange beings and scenes they had encountered. Hence

the existence of their rock art.

Lewis-Williams realized that the strange geometric patterns the ancient San painted were the same “entoptic phenomena” experienced by Western volunteers many millennia later – and were also identical to patterns painted on the walls of caves in Europe many millennia earlier.

As for the monstrous half-man, half-beast therianthropes, the shamans believed that to enter the otherworld they had to adopt various animal forms and the paintings depicted them at various stages of their transformation.

The fact that similar images can be seen in cave systems across the world supported Lewis-Williams’s remarkable theory that they were all the work of shamans who had entered states of deep trance. Besides ritual dancing, and eating or drinking hallucinogenic plants, these trances may have been achieved through physical stress such

as body-piercing, starvation or sensory deprivation in the caves where the paintings were created. And research which we will review in a later chapter indicates that even in modern technological societies around two out of every one hundred humans have the ability to fall naturally and spontaneously into deep states of trance. Although it cannot be proved, I think it highly probable that around the same proportion of humanity has always been born with brain chemistry in just the right state of flux to permit them visions, prophetic knowledge and encounters with spirits, without recourse to psychoactive plants

or physical methods of trance induction such as dancing.

That these visions, regardless of the means used to induce them, have consistently thrown up images of strange, animal-human hybrids is – to say the least – tantalizing. But it is another set of creatures that recur in cave art that should really give us pause for thought.

The mystery of the Wounded Men

Deep in their rocky labyrinths, in the low guttering light cast by the simple torches and stone lamps that we know were used at the time, the shamans of the prehistoric era chose to paint pictures of dwarfish figures with extremely distinctive features: heart-shaped or teardrop-shaped heads with large domed skulls, narrow, pointed chins and big, slanting, almond-shaped eyes.

The first time I saw one of these eerie images was at Pech Merle in France. It is described in Chapter Two. Another figure with the same distinctive teardrop-shaped head, narrow chin and large slanting eyes was discovered in 2006 in the Vilhonneur grotto near Angouleme in France; archaeologists believe it to be about 27,000

years old.2 There are four particularly menacing specimens engraved on the walls of the cave of Los Casares in Spain.3 I also found myself staring into one of these strange and unsettling faces in the Drakensberg mountains of South Africa as I examined a rock shelter filled with the cave paintings of the San bushmen.4

Domed skulls and narrow pointed chins

The Pech Merle figure has another interesting characteristic. It is conspicuously “wounded.” As the reader will recall, a series of lines, drawn as harsh slashes (and often interpreted as spears) pass directly through his chest, torso and buttocks. The features of the figure have been compared by some authorities to a muzzle or a beak – in other words it is a kind of therianthrope. Its legs are human, but disproportionately stocky and short, and it has only vestigial arms with no obvious hands.

In the cave of Cougnac, 40 kilometres from Pech-Merle, I had the opportunity to study two more Wounded Men. They feature in a stunning series of interlinked panels covering perhaps a third of the available wall-space in a spectacular almost circular underground grotto. Roughly in the centre of this beautiful fairyland there is a large “island” of stalagmitic columns, two of which were daubed with red ochre by the cave artists more than 20,000 years ago while

a third, that had formerly stood between them, was cut down. The two columns provide a perfect frame through which to view one of the central and most prominent images on the main panel – a large male ibex painted in red ochre with delicately beautiful, steeply curved horns.

A few metres to the left of the ibex, also outlined in red, is the figure of a megaceros, a species of giant deer that became extinct at the end of the Ice Age. The forelegs, neck and head of this animal face to the left, hugging the natural relief of the rock face. Painted in black on its shoulder, and oriented to the right, is the first of the two Wounded Men.

What should seem immediately odd is the way that the figure seems to lack head, neck, shoulders and arms. But the image, though simple, has been skilfully outlined in such a way as to create the illusion that the missing parts are still attached to its upper body and simply thrust out of our sight behind a change of tone in the rock

surface – as it might look, for example, if it were seen hauling itself, upper body first, through a narrow opening into a concealed chamber above. There's much the same feeling about the feet – still attached but not visible, as though obscured by fog. Like other Wounded Men the legs are stocky and foreshortened. The buttocks are clearly shown, so the figure is naked. Three lines, presumed to be "spears", strike it from behind, one in the rump, one in the lower back and the third in mid-back.

Cougnac's second Wounded Man is positioned almost exactly as far to the right of the ibex at the centre of the panel as the first Wounded Man is positioned to its left. This second figure is again painted in black and superimposed on the outline of a large animal in red ochre facing towards the left – here a mammoth – that, again, conforms closely to the natural contours of the rock face. Some other points of comparison may be noted. The vestigial upper limbs of the second Wounded Man are very like those of the Pech-Merle

figure, while it's head (also frequently described as "bird-like"5) faces left and, provocatively, is painted to fit exactly inside the much larger skull of the underlying red-ochre mammoth in the position of its brain. To complete the picture this second Wounded Man of Cougnac is pierced by no less than eight "spears" that seem to skewer him from all directions. One strikes him high in the rump, a second lower down in the thigh, a third in the middle of his back, the fourth and fifth penetrate his belly, the sixth his side, the seventh his shoulder and the eighth his neck.

Another classic "Wounded Man" figure, on a rock wall at the end of a long tunnel in the French cave of Gabillou is captured in the process of transformation from human to therianthropic form, with a bison's rump and human legs merged. "Spears" penetrate its face and thighs.

Despite predictable differences in style, a figure that is essentially identical to the rare Wounded Men of Upper Palaeolithic Europe

appears – equally rarely – in the Stone Age art of southern Africa.

The most striking example, painted in a rock shelter in Eastern Free State, is a Wounded Man who would not be out of place in Cougnac or Pech-Merle – right down to the hint of therianthropy that many of the French subjects share.6 The figure is shown prone, seemingly floating, and multiply penetrated in the legs and torso by close to 50 harsh, stabbing lines, presumed to represent spears or arrows.7

In the Mutoko district of Zimbabwe, east of the capital Harare, another of these San Wounded Men appears, pierced by what look

like eight or nine arrows. Again he is shown prone in a manner that suggests floating.8

Two further examples also come from Zimbabwe and are both part of the same large painted rock face in Makoni district, south of Mutoko. One shows a running figure with a grotesquely distended head, a long body and foreshortened legs, pierced in the rump, lower back stomach and face by four spear lines.9 The second figure, with two spear-lines in its back and one in its abdomen, has a man's legs and body combined therianthropically with the tail of an elephant.10

An air of unreality

In summary, wherever they are found in the world, these "Wounded Men" often have therianthropic elements, suggestive of the well-known hallucinations of transformation into spirit animals and encounters with supernatural beings that are characteristic of altered states of consciousness. Their additional distinguishing feature is that they are all depicted with their bodies pierced through by multiple arrows or spears, like prehistoric Saint Sebastians.

The therianthropy of the figures immediately cautions against any over-literal interpretations of these scenes (executions, battle injuries, etc.). Real people living in the real world cannot transform into bison like the wounded man of the cave of Gabillou, or into elephants like Images of human-animal transformations argue against over-literal interpretations of such scenes

p.

The wounded man images are clearly not simple “realistic”

paintings of executed humans

one of the southern African wounded men, or into unidentified animals (in a standard text, the wounded man of Pech Merle is described as having “a round head with a sort of muzzle or beak”).11

Such qualities give these images an otherworldly glamour that is further enhanced in several cases by foreshortened limbs, and by the way that they seem to float in random orientations, without reference to any local horizon, as though weightless.

So whatever their true meaning, it is clear that these are not simple,

“realistic” paintings of executed humans (as St. Sebastian’s image purports to be). On the contrary, since all the other ingredients of

the images are profoundly *unreal*, there is no good reason to conclude that the arrows and spears that penetrate the wounded men are real either.

But if not real arrows and spears, then what?

Amongst the relatively few scholars who have attempted an explanation, most have suggested that black magic was involved. It has been argued, for example, that the images were made, "and ritually

'pierced' prior to a real fight between competing communities."12 By contrast, others claim that what is depicted is "the exorcism of mali-cious demons rather than the defeat of adversaries."13 One authority speaks of "magic death practices."14 Another writes of "*la magie de la destruction*."15 And all this, of course, diverting as it may be, is pure speculation, since we know nothing, and can know nothing, one way or another, about magical practices in the Stone

Age.

On the other hand, what we do know, and can take for granted, is that human neurology has not changed at all since the earliest cave art was painted, and that in both southern Africa and Upper Paleolithic Europe, the artists were as capable of entering into altered states of consciousness as we are today. The hallucinations of deep trance can and frequently do involve massive distortions of body image. There is also good evidence from modern anthropological research amongst shamans in traditional communities as far afield as the Amazon and southern Africa that trance states can be extremely uncomfortable and are frequently accompanied by stabbing and agonizing pains. The same experiences have been consistently reported by Western volunteers taking part in neuropsychological experiments with hallucinogens. It is from this intertwined array of ethnographic, anthropological and neuropsychological evidence that Lewis-Williams constructs

his own explanation of the wounded man mystery.

Unriddling the wounded men

Vision is not the only sense that hallucinates. Everyone knows about the voices that say crazy things to schizophrenics, but auditory hallucinations are also experienced, though less frequently (and usually less threateningly) by perfectly sane people under the influence of hallucinogens. Phantom smells and phantom tastes are likewise well-documented hallucinatory experiences. Most common of all, however, are what the neuropsychologists call "somatic hallucinations,"

including attenuation or foreshortening of the body and limbs, the possession of extra limbs or digits (an effect known as polymelia), and – significantly – painful pricking and stabbing sensations.16

The evidence that Lewis-Williams cites to build up his case is far

too extensive to reproduce in full here.17 But briefly, from the side of neuropsychological research, he reports hallucinations “of an alarming stretching of the scalp; sometimes it seems as if a fish-hook is dragging the scalp as much as 30 cm above the head.”18 Subjects also speak of

“electricity running through the skin.”19 For example, the psychologist Richard Siegel, who self-experimented with peyote, wrote: “Another ‘Ping!’ My skin prickled with electricity.”20 Likewise, although cocaine is not normally classed as a hallucinogen, chronic use of this drug has been extensively reported in the scientific literature to cause pronounced somatic hallucinations. These include unbearable sensations that subjects often attribute to insects gnawing, biting, and running under their skin.21

The American or British cocaine addict’s “formication” (the technical term for this tingling hallucination of insects biting and

running under the skin) is a cultural construct of neurologically generated sensations, Lewis-Williams argues, likely to have something to do with Western fear and loathing of insects and the "unhygienic" microbial world.22 In other cultures, exactly the same neurologically generated sensations occur, but are interpreted quite differently. He cites Isaac Tens, a Gitksan Native American shaman of the 1920s who frequently entered trance and experienced out-of-body travel in spiritual realms. Recounting one such mental journey Tens said: The bee-hive's spirit stings my body . . . In my vision I went around a strange land which cannot be described. There I saw huge bee-hives, out of which the bees darted and stung me all over my body.23

In the Amazon jungle, when shamans of the Jivaro tribe enter trance under the influence of ayahuasca, they construe the same neurologically generated skin sensations as sharp little darts being fired at them by supernatural entities.24 Siberian Tungus shamans

speak of initiatory trances, induced by ingestion of fly agaric mushrooms, in which they experience themselves to have been pierced with arrows, their flesh cut off, their bones torn out.25 *Ju/'hoansi* shamans in southern Africa often undergo great physical pain at certain stages of their trance and it is notable how frequently they, like Isaac Tens, construe their neurologically generated somatic hallucinations as insect stings. A revered shaman named *K''xau* told anthropologist Megan Biesele that on his journeys in the supernatural realm he sometimes encountered bees and locusts: "When you go there, they bite you. Yes, they bite you [gestures to his legs] . . . Yes, they bite your legs and your body."26

Like the Jivaro far away in the Amazon, the *Ju/'hoansi* (also known as the *!Kung*) have a belief in malign supernatural darts – "arrows of sickness" – that are fired by spirits and visible only to shamans in trance.27 They also speak of beneficial "arrows of potency" which are fired by an experienced shaman into a novice's stomach during

the trance dance in order to energize the novice's supernatural power.

Informants told the anthropologist Richard Katz that when this happened, their abdomens felt "full of thorns" and as though there were "arrows sticking out in all directions."28

To cut a long story short, Lewis-Williams argues, it is precisely hallucinations like these, "associated with the tingling and prickling sensations . . . experienced in certain altered states of consciousness," that are expressed graphically and metaphorically in the enigmatic wounded men of south-west Europe and southern Africa.29 Certainly it is hard to disagree that the sensation of thorns or arrows sticking out of the abdomen does seem to be what is portrayed in Eastern Free State in a prehistoric San rock painting.

As Lewis-Williams comments:

The figure is impaled and surrounded by many short lines that are clearly not “realistic” . . . The short lines may represent “arrows of sickness” or, perhaps, mystical thorns, but because the figure lacks a painted context it is difficult to say whether the “arrows” are carrying sickness or beneficial potency.30

San wounded man figure, Eastern Free State

p.

Pech Merle wounded man

We have no painted context, and no ethnography either, to help us with the European wounded men, but we can be sure that the cultural context of the artists who created these images would have shaped their hallucinations too. “The fact that Upper Paleolithic people were hunter-gatherers who used spears,” writes Lewis-Williams: suggests that there may have been similarities between the ways in which shamans of that time and the San, Gitksan . . . and Jivaro shamans interpret the universal somatic sensations of altered consciousness.

Indeed, the two key factors that I have emphasized – the universality of the human nervous system and the shamanistic hunter-gatherer setting – suggest that the artists who painted the Cougnac and Pech Merle figures probably experienced the prickling sensations of trance and hallucinated them as multiple stabbings with sharp spears. So whilst the radiating lines may represent spears, they are not “literal” spears, and the images do not record

violent incidents of daily life. Rather, they represent spiritual experiences.31

Death and rebirth

Let's be clear about this. The "spiritual experiences" Lewis-Williams envisages here are nothing more, nor less, than the hallucinations of deeply altered states of consciousness. The soaring visions, the out-of-body travel, the therianthropic transformations, and the encounters with monsters and supernatural entities, all come as part of a neuropsychological package that includes, from time to time, painful physical sensations that might easily be constructed as being stung, bitten, stabbed, pierced, or impaled.

Yet when we study the images of the wounded men, it is obvious that there is more to them than the simplistic visualization of painful somatic hallucinations. As with all depictions of agonizingly impaled, ferociously wounded humans – like St. Sebastian, for

example, or Christ on his cross – these prehistoric paintings carry a strong emotional charge. If we can still feel the force of it many thousands of years later, then it is safe to assume that our ancestors felt it even more strongly at the time the images were made. Furthermore, we cannot doubt that they attached some special and distinctive meaning to these remarkable pierced figures – as Christians attach special meaning to crucifixion imagery today – and that this meaning was generally agreed and shared by other members of the cultures to which the artists belonged.

By tracing the inspiration for the impalement and piercing of the wounded men back to neurologically generated somatic hallucinations, therefore, it seems that David Lewis-Williams' approach has enabled us to decode only the first level of meaning locked away in these compositions, and to understand the state of mind that inspired them.

That in itself is a great advance on anything that scholars have

offered us before, but is it possible to go further?

Lewis-Williams argues that it is, and that all the sources we need for this more advanced level of decoding await us in ethnographic and anthropological reports of shamanic beliefs and experiences around the world. The remarkable cross-cultural commonalities that characterize such beliefs and experiences are explained by the fact that shamanism itself is merely one of the natural and predictable means by which the universal human capacity to enter altered states of consciousness is socially channeled. What marks shamans out is that they exercise this capacity more frequently than others, that they do so on behalf of their community, and that they build up high levels of skill, familiarity, and confidence in navigating the hallucinatory spirit world and negotiating with the supernatural beings who inhabit it.

A mental image exists that has been deployed and documented in many traditional cultures where forms of shamanism are still

practiced – or were practiced until recently enough to have been recorded by ethnographers. The essence of this image is that the initiatory trance the apprentice shaman enters before he can take up his calling involves his agonizing sacrificial torture, death, and often dismemberment in the spirit world and subsequent reassembly and rebirth in his earthly body, now equipped with shamanic supernatural power.

The universality of this evocative sacrificial image is massively attested in classic cross-cultural anthropological studies such Mircea Eliade's masterwork *Shamanism: Archaic Techniques of Ecstasy*, and Joan Halifax's appropriately titled *Shaman: The Wounded Healer*.32

The example cited earlier of the Tungus shamans, whose experience of themselves during their initiatory trances is that they have been pierced with arrows, their flesh cut off, and their bones torn out, is perfectly representative of this truly universal phenomenon. A few

more illustrations from the well-documented Siberian region are very much to the point. For instance, a Kazak Kirgiz shaman told ethnographers: “I have five spirits in heaven who cut me with forty knives, prick me with forty nails.”33 According to Yakut shamans, the trancing initiate is sometimes grasped by three “black devils” who

“cut his body to pieces, thrust a lance through his head and throw bits of his flesh in different directions as offerings.”34 Another Yakut shaman gave further details of these terrifying experiences in the spirit world, summarized by Mircea Eliade as follows: The candidate’s limbs are removed and disjointed with an iron hook; the bones are cleaned, the flesh scraped, the body fluids thrown away, and the eyes torn from their sockets . . . The ceremony of dismemberment lasts from three to seven days; during all that time the candidate remains like a dead man, scarcely breathing, in a solitary place.35

In Australia, Aborigines of the Arunta tribe say that the candidate for initiation must go to the mouth of a cave and enter trance there. Then a spirit (belonging to a category of supernatural beings called *Iruntarinia*) comes to him and throws an invisible lance at him, which pierces the neck from behind, passes through the tongue, making therein a large hole, and then comes out through his mouth . . . A second lance cuts off his head, and the victim succumbs. The *Iruntarinia* carries him into the cave, which is said to be very deep and where it is believed that the *Iruntarinia* live in perpetual light and near to cool springs.36

Many of the Australian Aboriginals additionally believe that the spiritual dismemberment and remaking of their "medicine men" involves bizarre surgical operations in which supernatural beings insert small pieces of rock crystal (called *atnongara*) into the initiate's body. In one case recorded by ethnographers in the late nineteenth century, these "sacred stones" were supposedly thrown at

the initiate by “an old man”:

Some hit him on the chest, others went right through his head from ear to ear, killing him. The old man then cut out all of his insides, intestines, liver, heart, lungs – everything in fact – and left him lying all night long on the ground. In the morning the old man came to him and looked at him and placed some more *atnongara* stones inside his body and in his arms and legs . . .37

Similar experiences are also reported by shamans of the Binbinga tribe, who speak of their consecration – again in a cave – at the hands of an aged spirit, Mundadji, and his son Munkaninji. One initiate’s trance ordeal was documented as follows:

Mundaji cut him open, right down the middle line, took out all of his insides . . . At the same time he put a number of sacred stones in his body. After it was all over the younger spirit, Munkaninji, came up and restored him to life, told him that he was now a medicine

man, and showed him how to extract bones and other forms of evil magic from men.38

The inserted “sacred stones” and rock crystals are said to energize the shaman’s healing power, but other Australian Aborigines speak of similar operations undertaken in the spirit world in which a snake is placed inside the initiates’ brains:

Their sides are cut open and . . . their internal organs are removed and they are provided with a new set. A snake is put in their heads and their noses are pierced by a magical object (*kupitja*) that will later serve them in curing the sick. These objects are believed to have been made in the mythical Alcheringa times [the “Dreamtime”] by certain very powerful snakes . . .39

This idea of magical surgery in the spirit world and the insertion of implants into the body of the dying and resurrecting initiate is by no means limited to Australia, reports Eliade. It is also found amongst

the Semang of the Malay Peninsula and is, in addition: “one of the most striking characteristics of South American shamanism.”40 For example: “The Cobeno shaman introduces rock crystals into the novice’s head; these eat out his brain and eyes, then take the place of those organs and become his strength.”41

In Chile, an Araucanian Indian woman described the trance in which she received her calling to become a *machi* (shaman): I felt something like a blow on the breast, and a very clear voice inside me said: “Become a *machi*! It is my will.” At the same time violent pains in my entrails made me lose consciousness.42

In North America, initiation into the shamanic “Ghost Ceremony”

society of the Pomo Indians involves the “torture, death and resurrection of the neophytes.”43 Similarly, among the River Patwin tribe, the aspirant to the Kuksu society “is believed to have his navel pierced with a lance and an arrow by Kuksu himself; he

dies and is resuscitated by a shaman.”44

Of great relevance to Lewis-Williams’ argument is the fact that many cultures of history and of prehistory have expressed such ideas visually and tangibly as paintings and sculptures. Late Classic Maya ceramics, for example, and Shang Dynasty cast bronzes from China both express virtually identical scenes in which a neophyte shaman

“The shaman’s submission to a higher order of knowing”

surrenders himself willingly to a supernatural initiator in the form of a large feline (a jaguar in Central America, a tiger in China) that is sinking its sharp fangs into his skull.45

The same voluntary surrender to psychic pain and "death," which Joan Halifax calls "the shaman's submission to a higher order of knowing," is also seen in a stunning Inuit figure from the Canadian Arctic. Carved in gray stone, ivory, and bone, it depicts a shaman impaling himself with a long harpoon which passes right through the middle of his body from side to side. Together with the other examples of initiatory piercing, stabbing, and cutting cited above, Lewis-Williams suggests that this carved figure is strongly reminiscent of

the Upper Paleolithic images of what seem to be people pierced by spears. The "Wounded Men" may, I argue, represent a form of shamanistic suffering, "death" and initiation that was closely associated with somatic hallucinations.46

The cave in the mind

We learned earlier of Australian Aboriginal shamans who entered trance in a cave that served as a portal to a parallel realm, even deeper underground, where initiatory spirits called *Iruntarinia* lived "in perpetual light." Such ideas of spirits bathed in mystic illumination in the depths of a dark underworld are, of course, archetypal hallucinatory territory, and Lewis-Williams points out that the interpretation of the wounded man "can be extended by a consideration of the locations sometimes chosen for shamanistic initiations."47

Even a casual survey of the ethnographic and anthropological literature quickly reveals that some sort of connection with caves is in fact another remarkable universal of shamanistic experiences all around the world. Amongst the Smith Sound Inuit, for example, the neophyte walks in trance towards the base of a cliff where a cave-mouth, not previously visible, will open for him if it is his destiny to

become a shaman. “If not he will bump into the cliff,” reports Eliade: As soon as he has entered the cave, it closes behind him and does not open again until some time later. The candidate must seize the moment when it reopens and hasten out; otherwise he may remain shut up in the cave forever.48

In Central America, the ancient culture of the Maya, whose religion was intensely shamanistic, as we will see in Chapter Sixteen, believed caves to be openings to the water-filled underworld

“Xibalba, or the Place of Fright . . . the dwelling-place of monstrous supernatural beings, but also the source of life-giving rain and corn, and the home of the beloved dead.”50 In some caves, the Maya left paintings and ghostly negative handprints with the identical appearance and using the same spray technique as the handprints in the Upper Paleolithic caves of south-west Europe.51

In South America, amongst the Araucanian Indians of Chile,

shamans received their initiation in caves that were often decorated with the heads of animals.52 Similarly, numerous ethnographic reports from the nineteenth and twentieth centuries leave no room for doubt that caves played an important and ubiquitous role in the shamanic initiations of North American Indians, very frequently being the locations of vision quests and places where they met their spirit helpers.53 A striking example cited by Eliade is the case of a Paviotso man aged 50 who, feeling the calling to become a shaman, entered a cave and prayed: “My people are sick, I want to save them . . .”

He tried to go to sleep “but was prevented by strange noises; he heard the grunts and howls of animals . . .” Soon afterwards he experienced a vision of a shamanic healing seance. Then the rock of the cave wall began to split, and “A man appeared in the crack. He was tall and thin. He had the tail-feather of an eagle in his hand. The man ordered the candidate to obtain similar feathers and taught him

how to cure.”54

What Lewis-Williams takes from all this is a point already made long ago by Mircea Eliade – that caves have been seized on by many cultures to play a role in shamanic initiations because they are “concrete symbols of passage into another world, or a descent to the underworld.”55 It would surely be perverse, therefore, to exclude the possibility that the eerie and extraordinary caves of Upper Paleolithic Europe might also have been perceived in precisely this way – as portals to a supernatural nether realm – or that they were used for what Lewis-Williams calls “chthonic shamanic initiations.”56 All the evidence indicates that this was so, and that it is in this insight that we can best understand the wounded men. As Lewis-Williams concludes:

The neuropsychological and ethnographic evidence that I have adduced strongly suggests that, in these subterranean images, we have an ancient and unusually explicit expression of a complex

shamanic experience that is informed by altered states of consciousness. That experience comprised isolation and sensory deprivation by entrance into an underground realm, “death” by a painful ordeal of hallucinatory multiple piercing, and emergence from those dark regions of an inspired, reborn shaman.57

Portals

This brings us to the final riddle of the Upper Paleolithic caves: why were so many wonderful paintings and engravings made inside caves *at all*, and why, in particular, were they made inside very deep, very dark caves where they could only be approached with great difficulty and only seen with artificial light?

Lewis-Williams’ work suggests a tentative hypothesis: somewhere after 50,000 years ago, but before 30,000 years ago, neurologically modern humans in Europe, indistinguishable from us in every way, discovered and began to exploit a previously untapped capacity of

their brains – the ability to enter altered states of consciousness and to exper ience extremely convincing hallucinations which were then later memorialized in the cave paintings. It is quite possible that this capacity was triggered without hallucinogens, perhaps through trance states induced by long hours of dancing and dehydration – as in the case of the San in southern Africa. Or perhaps it was first triggered by periods of starvation and intense stress due to environmental circumstances, or by deliberately imposed austerities or self-tortureas in the sun dance and "vision quests" of certain North American Indian tribes – or through sensory deprivation in the caves themselves.

We will see evidence in later chapters that a small percentage of every human population appears to have the ability to enter spontaneously into deep trance and to experience the kinds of hallucinations that might easily have inspired the cave paintings – so it is perfectly possible that such individuals, gifted with visionary

abilities by their brain chemistry, were the first amongst humans living in Europe to exploit altered states of consciousness for the good of the community as a whole and the first to paint their visions on cave walls. Equally likely, however, is that anatomically modern humans present in Europe around 40,000 years ago encountered a potent natural hallucinogenperhaps the mushroom *Psilocybe semilanceata*, or perhaps another native Old World mushroom containing psilocybin, such as *Panaeolus sphinc-trinus, Panaeolus campanulatus*, or *Panaeolus papilonaceus*.58 A number of other European plants, notably members of the *Solanaceae* (potato) family, such as datura, mandrake, henbane, and belladonna, are also powerfully psychotropic and would undoubtedly have produced the sorts of visions and experiences of a parallel spirit world that the cave paintings seem to reflect.

Most likely, plant hallucinogens were discovered by hunter-gatherers who initially tried them out as a food; but, whatever the

reason,

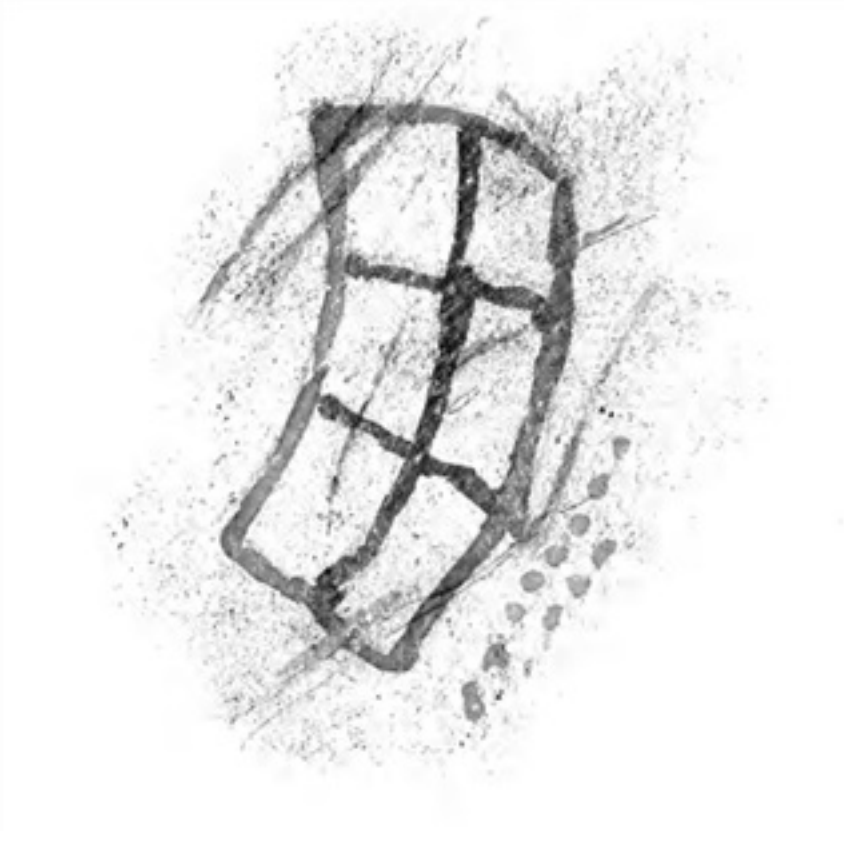

those who ate these substances entered trance and experienced

visions of a seamlessly convincing and terrifyingly real supernatural otherworld inhabited by non-physical beings. As is common in such trances

- however they are induced – these visions would have included the luminous geometrical and abstract patterns known as entoptic phenomena, gradually merging into fully iconic hallucinations of animals and therianthropic figures. We also know from modern research that a sensation of being pulled down into a vortex, or a funnel, or a “tunnel filled up with rushing water,” and thence passing deep underground, is experienced almost universally as subjects enter the profoundest levels of trance:

Many laboratory subjects report experiencing a vortex or rotating tunnel that seems to surround them . . . The sides of the vortex are marked by a lattice of squares like television screens. The images on these “screens”

are the first spontaneously produced iconic hallucinations; they eventually overlie the vortex as entoptics give way to iconic images.59

Of course, Upper Paleolithic people did not have the concept of television screens. But if they were looking for locations in the everyday world where they could best reproduce their impressions of the vortex as they entered the spirit world, then the walls and ceilings of the deep dark caves would have cried out for attention.

Image from El Castillo Cave, approximately 15,000 years old. “The sides of the vortex are marked by a lattice of squares like television screens.”

Indeed, like shamans of all times and places, it seems almost inevitable that these early psychic voyagers would have seen the caves

- to repeat Eliade's insight – as "concrete symbols of passage into another world, or a descent to the underworld." Here was darkness, here were tunnels, here were calcite formations in the form of monsters or mammoths seeming to grow like living things out of the rock face, here were vast echoing chambers, forests of glittering stalagmites, steep deadfalls, narrow fissures and diverticules, underground rivers. For those who had already been ushered by psilocybin or by trance-dancing into chthonic hallucinatory realms, it is easy to see how the deep caves of Franco-Cantabria could have been perceived as gateways to the land of the spirits, perhaps even as its border territories. And there is no doubt, with the low flickering lighting provided by simple Upper Paleolithic lamps, that shamans in suitably altered states of consciousness inside the caves would have seen utterly convincing visions of the denizens of the spirit world

"floating" through the thin membrane of the rock walls and

beginning to materialize before their eyes surrounded by scintillating geometrical patterns.

Since that, more or less, is exactly what we see painted on the walls of the caves, since paintings and engravings were frequently made in extremely remote locations that would have been difficult and dangerous to access, and since we have such figures as the wounded men, it makes perfect sense to conclude that a profound and mysterious shamanic quest lay at the heart of Upper Paleolithic religion. Moreover, this was no slight or primitive effort but an immense project, sustained over more than 25,000 years, that used altered states of consciousness systematically, in carefully controlled settings, to explore and chart the antipodes of the mind. It was, in a sense, the longest-running neuropsychological experiment in history – one that has the potential to unlock the deepest mysteries of human consciousness – and its origins are inextricably interlinked in the archaeological record with the still poorly

understood process by which fully modern human behavior first emerged. Indeed, the hypothesis cannot be dismissed that it may well have been shamanic explorations of hallucinatory realms during the Upper Paleolithic

that played the catalytic role in extracting our ancestors from the five-million-year torpor of the hominid line, galvanized their intuition and creativity, helped them to build a stable and nurturing, non-violent society that lasted for 25,000 years – in itself a staggering accomplishment – and set them on a dramatically new course of evolution.

Scientific sacrilege

Could it be, as shamans in the Amazon repeatedly assert, that the plants really do open a channel of communication to supernatural realms and teachers? Could it be, as the *!Kung* bushmen of the Kalahari tell us with equal vehemence, that their ability to enter deeply altered states of consciousness through their trance dances really does give them access to powerful non-physical entities capable of influencing events in this world? And isn't it logical to conclude, since evolution has bestowed these peculiar and distinctive abilities on the human race, that contact with the

supernatural must have offered some profound adaptive advantage to our ancestors and could, conceivably, continue to do so today?

Even to whisper such questions amounts to scientific sacrilege of the worst order – for the assumption on which science is built is that there is no such thing as the "supernatural," no such thing as

"Fallen Rock" Shelter, Western Cape. Central figure: the spirit of a trance-dancing shaman separating from the body to explore the supernatural realm.

"spirits," and that all unexplained phenomena, no matter how mysterious they may at first appear to be, will prove on proper examination to have natural causes that are fully explicable in terms of established physical, chemical, and biological laws.

In the case of shamanism, everything is quite the opposite. Here the bedrock of the entire edifice is the conviction that the supernatural

does exist. More than merely existing, it is believed to be the senior and pre-eminent dimension and to have a profound influence on all other levels of reality. From the perspective of shamanic cultures, no one disputes that we need to take proper account of the supernatural, and make every effort to learn what we can about it, if we wish to lead full and balanced lives as material creatures on the physical earth.

The common response of scientists who do not believe in the supernatural is to dismiss all such ideas as hallucinations. But we will see in later chapters that this is disingenuous – to say the least!

- since science does not yet really have the faintest idea what hallucinations are, or how they are caused, or why our brains should have evolved in such a way that certain plants can induce them. It is a more or less automatic assumption for, I would guess, close to 99

out of 100 educated people in the technologically advanced

countries today that hallu cinations are simply “wanderings of the mind,”

foolish tricks of brain chemistry to which it would be mad to attribute any objective reality. Yet the truth is that science has never proved this to be the case, and indeed has not yet even progressed very far in understanding the neurological basis of normal day-to-day perception,60 let alone what is involved in occasioning the fantastic mental imagery that is characteristic of hallucinations.

There is an unspoken assumption that the brain is some sort of factory that simply manufactures hallucinations, whereas, with the images of “normal” perception, we tend to think of the brain more as a receiver picking up and processing relevant data from the outside world. But there is another possibility which science, with its materialist mindset, has never seriously pursued, and this is that the brain may be operating as a receiver with hallucinations too. By this reckoning, hallucinogens and other means of inducing altered

states of consciousness work by temporarily “retuning” the brain to pick up frequencies, dimensions and entities that are completely real in their own way but that are normally inaccessible to us.

This, in a nutshell, is the anti-scientific idea at the heart of shamanism – which does not doubt that the mind can be retuned to experience other levels of reality, but rather seeks to harness that capacity to explore those other realms and to channel and maximize the benefits derived there for the good of society as a whole. It is ironic that we today, who have criminalized the use of hallucinogens, and can offer our young people no wise advice when they pursue the natural human yearning for altered states of consciousness, have the temerity to imagine that we know better about these remarkable substances than other cultures that have lived with them and made controlled use of them for thousands of years. It is equally absurd to suppose, in the 50 or so years in which Western neuropsychologists were able to conduct systematic

research with hallucinogens – before being stopped by the "War on Drugs" – that they could have learned even a fraction as much as is already known through long accumulated experience by any shaman in the Amazon jungle today.

Nevertheless, by the early 1970s, just before the War on Drugs really began to take prisoners, a few neuropsychologists were beginning to give serious consideration to what look in retrospect like profoundly shamanistic ideas – including "discussions of hallucinogenic drug use as a threshold to paranormal phenomena."61 Another mystery, which we'll explore in later chapters, is that a broad range of volunteers from very different backgrounds and cultures, who had not met and had no opportunity to compare notes, repeatedly gave lab researchers descriptions of what appear to have been *the same* intelligent, commun icative, non-physical "entities" encountered on their trance journeys.

Who are we to say that such entities are just figments of

consciousness that have no real existence? What do we really understand about the place that shamans call the “spirit world,” or of the states of trance that they must enter in order to explore it? What confidence can we possibly have in anything we’ve been told, when the very scientists who pronounce so loftily on the non-existence of spirits and the impossibility of the supernatural turn out never to have experienced a deeply altered state of consciousness in their lives and profess to hate and despise the plants that could offer them such an experience in an instant? Their assessments of hallucinatory realms and beings are therefore based exclusively on their preconceptions about the nature of reality rather than on direct personal knowledge; as such they should rightly be disregarded.

By contrast, it is precisely because of their own repeated personal experiences, and deep explorations of hallucinatory phenomena, that shamans of all lands and times are unanimous in the opinion that only a thin veil separates the world of everyday reality from

supernatural otherworlds where powerful spirits dwell. David Lewis-Williams' genius has been to demonstrate how this shamanic perception of reality, and the specific kinds of hallucinations seen and experienced in the altered states of consciousness entered by shamans, provide by far the most plausible explanation for the most ancient art of mankind, for the dawn of religion, and, intriguingly, perhaps even for the myster ious "x-factor" in our evolution that jolted our ancestors not only into the practice of religion and the creation of great art, but also into the complete suite of fully modern behavior that begins to be widely documented in the archaeological record after about 40,000 years ago.

It is, however, at this point that Lewis-Williams' work, having pursued a wildly unorthodox trajectory by giving such importance to altered states of consciousness, merges back smoothly and without protest into the mainstream. As I've indicated several times in previous chapters, he is of absolutely one mind with the mass of

scientists on the subject of the “spirit world” and “spirit beings.”

Whatever the cave artists saw in their trances, and no matter how devoutly they may have believed that what they were seeing was real, Lewis-Williams is adamant that the entire inspiration for 25,000

years of Upper Paleolithic cave paintings reduces to nothing more than the fevered illusions of disturbed brain chemistry – i.e. to hallucinations. In his scientific universe there is simply no room, or need, for the supernatural, no space for any kind of otherworld, and no possibility that intelligent non-physical entities could exist.

Quest for the ancient teachers of mankind I found I couldn’t leave the matter there, with the inspiration for cave art and the birth of religion neatly accounted for by disturbed brain chemistry, with the earliest spiritual insights of mankind rendered down to mere epiphenomena of strictly biological processes, with the sublime thus

efficiently reduced to the ridiculous. At risk of repetition, I need to stress again that to have established the role of hallucinations as the inspiration for cave art is one thing – and David Lewis-Williams, in my opinion, has successfully done that.

But to understand what hallucinations really are, and what part they play in the overall spectrum of human perceptions, is another thing altogether, and neither Lewis-Williams nor any other scientist can yet claim to possess such knowledge, or to be anywhere near acquiring it. Gifted and experienced shamans the world over really do know more - much more - than they do. So if we were smart, we would listen to what the shamans have to say about the true character and complexity of reality, instead of basking mindlessly in the over-weening one- dimensional arrogance of the Western technological mindset.

It was because I had been shaken to the core by my experiences with Ayahuasca and Ibogaine that I decided to take my investigation

further and to explore the extraordinary possibility that science is unwilling even to consider, and that David Lewis-Williams dismisses out of hand. This is the possibility that the Amazonian and African hallucinogens had obliged me to confront face to face and that shamans contend with on a daily basis - the possibility that the spirit world and its inhabitants are real, that supernatural powers and non- physical beings do exist, and that human consciousness may, under certain special circumstances, be liberated from the body and enabled to interact with and perhaps even learn from these

"spirits." In short, did our ancestors experience their great evolutionary leap forward of the last 50,000 years not just because of the beneficial social and organizational by-products of shamanism but because they were literally helped, taught, prompted, and inspired by supernatural agents?

The very idea, I know, sounds preposterous at first to anyone educated in the Western logical positivist tradition. The more

closely I pursued it, however, the more convinced I became that it is a matter of extraordinary substance, and that science has done us an immense disfavor by its policy of ridiculing and discouraging all rational inquiry in this area.

Part II

The Beings

Chapter Five

Voyage into the Supernatural

The ocean of the supernatural is vast and treacherous. It cannot be navigated without charts. Wherever possible, landmarks must be sought from which to take one's bearings.

My first landmark, and the mystery that originally drew me to this inquiry, was the realization that encounters with supernatural beings are documented in the oldest representational art that has so far been found anywhere in the world – art depicting therianthropes and dating back more than 30,000 years. The discovery that shamans in surviving hunter-gatherer cultures routinely experience encounters with virtually identical beings when they enter trance, and that I could and did encounter such beings myself under the influence of

the same hallucinogens that the shamans use, convinced me that there was a real mystery to explore here.

Yes, by all means, the “beings” that ayahuasca and ibogaine brought me literally face to face with might just be illusions of disturbed brain chemistry, as Western scientists claim, but they certainly hadn’t seemed that way to me. On the contrary, everything that these two plant-based hallucinogens had put me through had felt *very strongly and convincingly* like the opening of doors into other and entirely different levels of reality. The experiences had been profound, deeply moving, thought-provoking in a lasting way and also, in one case, weirdly menacing and terrifying.

I found it hard to believe that all this complexity and detail, together with amazing images that seemed to have no connection whatsoever to my previous life or interests, could simply have been generated out of nowhere by my poor drug-fried brain. My intuition was that I had been afforded glimpses, however brief and however distorted

by my own cultural preconditioning, of beings that are absolutely real in some modality not yet understood by science, that exist around us and with us, *that even seem to be aware of us and to take an active interest in us*, but that vibrate at a frequency beyond the range of our senses and instruments and thus generally remain completely invisible to us.

This intuition is by no means new, or original to me. In 1901, after inhaling a psychoactive dose of nitrous oxide and passing into a trance in which he experienced intense hallucinations, the renowned psychologist and philosopher William James (brother of the novelist Henry James) was startled by a metaphysical revelation about the way that human consciousness interacts with reality:

One conclusion was forced upon my mind at that time, and my impression of its truth has ever since remained unshaken. It is that our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted

from it by the filmiest of screens, there lie potential forms of consciousness very different. We may go through life without suspecting their existence; but apply the requisite stimulus and, at a touch, they are there in all their completeness . . . No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded . . .

At any rate, they forbid a premature closing of our accounts with reality.1

Half a century later, in 1953, the author Aldous Huxley began to feel exactly the same way after consuming four-tenths of a gram of mescaline, the psychoactive alkaloid derived from the peyote cactus.

Having reflected upon that first and other subsequent experiences with mescaline – and also with psilocybin and LSD – Huxley's mature and thought-out suggestion was that "the function of the

brain and nervous system and sense organs is in the main *eliminative* and not productive" – i.e. that these organs operate primarily as a "reducing valve"

that protects us from being overwhelmed and confused by [a] mass of useless and irrelevant knowledge, by shutting out most of what we should otherwise perceive or remember at any moment, and leaving only that very small and special selection which is likely to be practically useful . . .

What comes out at the other end is a measly trickle of the kind of consciousness which will help us to stay alive on the surface of this particular planet . . . Most people, most of the time, know only what comes through the reducing valve and is consecrated as genuinely real by local language. Certain persons, however, seem to be born with a kind of by-pass that circumvents the reducing valve. In others, temporary by-passes may be acquired either spontaneously, or as the result of deliberate "spiritual exercises," or through

hypnosis, or by means of drugs. Through these permanent or temporary by-passes there flows . . . something more than, and above all something different from, the carefully selected utilitarian material which our narrowed, individual minds regard as a complete, or at least sufficient, picture of reality.2

In 1983, the Swiss scientist Albert Hoffman, who first synthesized LSD (and frequently self-experimented with this powerful hallucinogen), noted that

reality is inconceivable without an experiencing subject. It is the product of the exterior world, of the sender, and of a receiver, an ego, in whose deepest self the emanations of the exterior world, registered by the antennae of the sense organs, become conscious . . . The entry of another reality under the influence of LSD may be explained by the fact that the brain, the seat of the receiver, becomes biochemically altered. The receiver is then tuned into another wavelength than that corresponding to normal, everyday reality.

Since the endless variety and diversity of the universe correspond to infinitely many different wavelengths, depending on the adjustment of the receiver, many different realities .

. . can become conscious . . . The true importance of LSD and related hallucinogens lies in their capacity to shift the wavelength setting of the receiving "self," and thereby to evoke alterations in reality consciousness. This ability to allow different, new pictures of reality to arise, this truly cosmogenic power, makes the cultish worship of hallucinogenic plants as sacred drugs understandable.3

Especially so, we might add, if such changes of receiver wavelength were to give us veridical access to "higher spiritual agencies." William James again:

Just as our primary wide-awake consciousness throws open our senses to the touch of things material, so it is logically conceivable that *if there be* higher spiritual agencies that can directly touch us,

the psycholo gical condition of their doing so *might be* our possession of a subconscious region which alone should yield access to them. The hubbub of the waking life might close a door which in the dreamy Subliminal might remain ajar or open . . . If there be higher powers able to impress us, they may get access to us only through the subliminal door.4

In 2001 a leading American psychiatrist, Rick Strassman MD, of the University of New Mexico, published the results of the first federally approved and funded human hallucinogen research in the U.S. in over two decades.5 Dr. Strassman's project had involved 11 years of closely monitored studies in which dimethyltryptamine (DMT), the principal psychoactive alkaloid in the ayahuasca brew, was given by injection in a purified form to human volunteers who then reported their experiences. Precisely *what* they reported was so extraordinary, so unexpected, and so difficult to explain, as we'll see in Chapter Twelve, that it caused Strassman to re-examine his

view of reality.

Like Huxley and Hoffman, he was forced to consider the possibility that hallucinogens might change the receiver wavelength of the brain, allowing it to make contact with “unseen worlds and their residents,”6

opaque to us in normal states of consciousness but nonetheless completely real. Drawing an analogy between the brain and a TV set, he observed that what DMT seems to do is not merely to adjust brightness, contrast, and color (as might be said of alcohol and other non-hallucinogenic drugs); instead it switches our attention to a new channel altogether:

No longer is the show we are watching everyday reality, Channel Normal. DMT provides regular, repeated, and reliable access to “other”

channels. The other planes of existence are always there. In fact, they are right here, transmitting all the time! But we cannot perceive them because we are not designed to do so; our hard-wiring keeps us tuned in to Channel Normal. It takes only a second or two – the few heart-beats that the "spirit molecule" [DMT] requires to make its way to the brain – to change the channel, to open our mind to these other planes of existence. How might this happen? I claim little understanding of the physics underlying theories of parallel universes and dark matter.

What I do know, however, causes me to consider them as possible places where DMT might lead us . . .7

Two main lines of research

So it seemed that I was in good company in keeping my mind open to the possibility that the "spirit worlds" and "supernatural entities" of which the shamans spoke, and that I myself had experienced,

might after all have some kind of objective existence that the hallucinating brain was capable of interacting with – rather than being simply fantastic subjective concoctions of the selfsame hallucinating brain. I felt encouraged that thinkers of the stature of William James, Aldous Huxley, and Albert Hoffman had self-experimented with hallucinogens in order to test the boundaries of socially constructed reality and try to discover what might lie beyond. Their insights reinforced my sense that this was a valid and potentially fruitful research method, and helped give me courage to extend my own explorations with shamanic drugs.

I decided to experiment with psilocybin as it is likely to have been the catalyst for the visionary cave art of Upper Paleolithic Europe (see Appendix I).

Pure DMT also held great interest for me because of the astonishing and disturbing results of Rick Strassman's work. The detailed reports of his lab volunteers left no room for doubt that when the

alkaloid was isolated and injected in concentrated purified form, its effects differed in intriguing ways from those of the ayahuasca brew.

The reader will recall that other ingredients in ayahuasca inhibit certain enzymes in the stomach that normally render DMT inactive orally (see Chapter Three). Though much less psychoactive than DMT, these other ingredients (principally harmaline) also have their own distinct effects in the brain and thus contribute further to setting a "receiver wavelength" that is specific to ayahuasca.8

The obvious implication of Strassman's research is that pure DMT, separated from the other ingredients, sets a receiver wavelength all of its own. This is confirmed by a number of tribes of Amazonian Indians who make regular use of psychoactive snuffs, extracted from plants of the virola family, containing extremely high concentrations of pure DMT.9 The Tukano, for example, consume ayahuasca frequently and have the greatest possible respect for it.

Nevertheless, the anthropologist Gerardo Reichel-Dolmatoff found that Tukano shamans nominate a virola snuff that they call *viho* as "the most important means by which one can establish contact with the supernatural sphere in order to consult the spirit beings above." Amongst these spirits, *Viho-mahse*, "Snuff Person" (the owner and master of snuff), is considered paramount. He is said to dwell in the Milky Way, from where he continuously watches the doings of mankind.10

I knew that I was most unlikely to be able to locate synthetic injectable DMT of the sort that Strassman had used in his federally approved research project, but learned that it could sometimes be bought in smokeable form on the black market. Another alternative, if it could be obtained, was virola resin, which I could prepare as a snuff, or a resinous extract of pure DMT from the bark of an Australian acacia tree which could be smoked in a pipe.

There were many other hallucinogens that I might try if I so wished,

but I had no plans to do so. Nor, after my intense experiences with ayahuasca and ibogaine, did I feel in any great or pressing hurry to begin my experiments with psilocybin and DMT. Far from it! The truth is that I have very mixed, ambiguous feelings about hallucinogens and about their effects on my consciousness. I welcome their ability to jolt me – even temporarily – into a spiritually receptive state of mind that I am normally too neurotic and preoccupied to permit myself to enter. I welcome the unexpected riches that this state of mind reveals. But like most people who have had acquaintance with powerful hallucinogens and taken them seriously, I'm also permanently afraid of their (or my own?) dark side, afraid in all sorts of nameless ways of the otherworldly vistas that they uncover and of the strange and sometimes terrifying entities they bring us into contact with, afraid that they could lure me to some spiritual hell-world from which I might not emerge sane. Such fear, I think, is appropriate. In investigating the supernatural, as the Peruvian shaman Don Emilio

Andrade Gomez told the anthropologist Eduardo Luna, one should impose limits on the knowledge one seeks to acquire, and above all, “one should not be too eager.”11

Far from eager, I was downright scared! But I also knew that I had to overcome my fear if I wanted to complete this side of my research.

I therefore began looking for ways, preferably legal, to get my hands on the requisite substances, and to prepare myself psychologically for whatever surprises or tribulations they had in store for me.

Meanwhile, I was also well advanced on a second line of inquiry.

This took me back to the mystery of the wounded men in Upper Paleolithic cave art and David Lewis-Williams’ suggestion that these tortured figures “represent a form of shamanistic suffering,

‘death’ and initiation that was closely associated with hallucinations.” The reader will recall the gory and graphic details of some of the agonies and ordeals that shamans from as far afield as Australia and Greenland say they have endured in the spirit world at the hands of supernatural beings. Although they are bizarre, and although ethnographic and anthropological studies of hunter-gatherer societies make frequent mention of them, such reports of “magical surgery,” implantation of

“crystals” into the bodies or heads of initiates, “dismemberments,”

“piercings,” extraction of brains and eyes, and so on and so forth, have never tempted scholars to ask whether something very odd *but real* could possibly lie behind them. So although they are studied for the light they supposedly shed on the tensions and dynamics of hunter-gatherer societies, and other sociological concerns, the reports in themselves are believed to have no truth value, and are loftily dismissed as the brutal, ritualistic, and superstitious fantasies

of pre-scientific cultures and their mentally deranged shamans. Imagine my surprise, therefore, when I discovered that virtually identical experiences are routinely reported today by very large numbers of sane, sophisticated, respectable, well-educated individuals in technologically advanced countries such as the United States, Britain, and Japan that long ago distanced themselves from the shamanic view of reality.

Abductions and other unusual personal experiences In an exhaustive series of three national polls conducted by the Roper Organization in 1991, it was established that approximately one out of every five adult Americans has, at one time or another in their lives, woken up paralyzed with the sense of a strange figure or presence in the room. In addition:

• nearly one adult in eight has experienced a period of one hour or more in which he or she was apparently lost but could not remember why;

• one adult in ten has felt the experience of actually flying through the air without knowing why or how;

• one adult in twelve has seen unusual lights or balls of light in a room without understanding what was causing them;

• one adult in twelve has discovered puzzling scars on his or her body without remembering how or where they were acquired.12

The Roper polls, which had been nominally directed at gathering data about "unusual personal experiences," were commissioned, and their results analyzed, by Dr. John Mack, Professor of Psychiatry at Harvard Medical School, Dr. David Jacobs, Associate Professor of History at Temple University, John Carpenter, a psychiatric therapist from Springfield, Missouri, Dr. Ron Westrum, Professor of Sociology at Eastern Michigan University, and Budd Hopkins, a New York based author, researcher, and counselor with specialist knowledge of the so-called "alien abduction" or "UFO abduction"

phenomenon.13 Indeed, the specific but hidden agenda of the surveys, behind the more innocuous declared interest in “unusual personal experiences,” was to get some sort of statistical measure of the prevalence in the general population of individuals who had been afflicted by the constellation of extremely unusual personal experiences associated with classic UFO

abductions.

The belief that one might have been abducted by alien entities in an unidentified flying object is generally taken as a sign of an unbalanced mind in our society, and provokes ridicule. The pollsters’ strategy was therefore to avoid direct questions on this subject and to focus, more obliquely, on “experiences known to be associated with UFO

abductions.”14 Such experiences, in their turn, had been extracted from thousands of hours of interviews with deeply troubled and

perplexed people, conducted – often under hypnosis – by John Mack, John Carpenter, David Jacobs, and Budd Hopkins. The interviewees had all undergone distressing episodes in their lives, often beginning in childhood and continuing into adulthood, that felt real to them but that seemed objectively impossible. In many cases they shamefacedly attributed these episodes to abduction by "extraterrestrial beings" who took them up to "spaceships in the sky" (or sometimes underwater or underground) and did painful, humiliating, and unpleasant things to them there, before returning them to their home environments. More frequently, however, they did not remember exactly what had happened

- only that *something* had happened – but under hypnosis had full recall of repeated "abductions by aliens" at intervals throughout their lives.

Because so many interviewees were unable to remember being abducted until the details were extracted using hypnosis, the

questions in the Roper surveys concentrated on the kinds of odd experiences that these individuals *had* been able to recall prior to hypnosis – often the very experiences that had led them to seek therapy in the first place. The five "strong indicators" listed above (i.e. waking up paralyzed in the night with a strange figure in the room, inexplicably flying, puzzling scars on the body, an hour or more of missing time, seeing balls of light) were reported particularly frequently by UFO

abductees. The poll designers therefore decided that if any respondents answered yes to at least four out of the five indicators, then they would count these individuals as probable abductees. Altogether, 2 per cent of the total survey sample fell into this category: This suggests that two per cent of the adults in the American population have had a constellation of experiences consistent with an abduction history. Therefore, based on our sample of nearly 6,000

respondents, we believe that one out of every fifty adult Americans may have had UFO abduction experiences.15

In 1991, when the Roper polls were conducted, “one out of every fifty adult Americans” was equivalent to almost four million people.16

My own position on “UFOs” and “aliens”

Before going further, I wish to state, very clearly and for the record, that when I started to explore the avenue of investigation set out in this and the next five chapters I did not believe that UFOs were “nuts-and-bolts” spaceships from other planets. Likewise I did not believe that the “aliens” frequently associated with UFO sightings were physical beings from extraterrestrial civilizations who for some reason visited the earth, abducted certain specially selected humans, inflicted all manner of strange and intimate procedures on them, and then returned them to their homes, only to abduct the

same individuals again and again – often over periods of many years – in order to carry out more strange procedures.

In Chapter Three I described my own direct observations of entities resembling the popular conception of aliens – entities who appeared to me in hallucinations seen under the influence of ayahuasca.

The absolutely convincing and indeed terrifying nature of these hallucinations (which included objects like flying saucers) raised the possibility in my mind that the UFO sightings and alien abductions so widely and sensationally reported all around the world in recent years are likely to be best understood as experiences stemming from altered states of consciousness rather than nuts-and-bolts physical encounters of any kind.

Now, as I write these words after completing my research, my lack of belief in physical, extraterrestrial explanations for UFOs and aliens, and my intuition that they must be visionary phenomena, has

hardened into something close to a certainty. I give readers fair warning, there-110

fore, that nothing will be found in the pages that follow to support the idea that aliens are visitors from outer space. No one can rule out such a possibility entirely, but the evidence I have gathered suggests they are something far more interesting and far more mysterious than that.

Needles, surgery, and pain

There is one particularly unusual, distressing, and distinctive personal experience that people who believe they have been abducted by UFOs report more often and more consistently than almost any other. This is the humiliating and traumatizing experience of being subjected by the abducting entities to forced medical examinations and to painful and incomprehensible surgical procedures that often leave behind permanent visible scars and

sometimes even mysterious implants in abductees' bodies.17 For full details, the reader is referred to the published work of John Mack, David Jacobs, and Thomas Bullard, where hundreds of pages of such reports can be found.18 Here a few examples will have to suffice to convey the peculiar character of the overall phenomenon.

In 1961, Betty and Barney Hill claimed that they were followed in their car by a UFO and abducted by small humanoid beings with rather odd-shaped heads, with a large cranium, diminishing in size as it got toward the chin. And the eyes continued around to the sides of their heads . . . The texture of the skin was grayish, almost metallic looking . . . I didn't notice any hair . . . I didn't notice any proboscis, there just seemed to be two slits that represented the nostrils.19

Once on board the UFO, the couple were separated and Betty was subjected to a medical examination during which a long needle was inserted into her navel, causing her agonizing pain.20

The high point of Sandy Larson's 1975 UFO abduction was a view

"of the earth in space through the end of a luminous tunnel."21 The low point was an extremely unpleasant experience of bizarre and radical surgery in which "beings" removed her brain and set it down beside her.22

In the autumn of 1950, Betty Aho was abducted by humanoids that she described as about three feet tall with "pear-shaped" heads and large unblinking eyes. Dramatic events followed. The UFO "plunged into the sea and came out again, then entered huge crystalline caverns which broadened into a vast underworld."23 Later, Aho was "floated"

onto a table:

She felt stuck to it while the beings removed her right eye and implanted a tiny device deep within her head using a luminous

needle. A being's hand on her forehead relieved her pain. They . . . implanted objects in her spine and heels. The beings passed hand-held instruments over her spine and pointed needle-like devices at her head, causing her to feel the implants inside her.24

Some 40 years later, at the beginning of the 1990s, John Mack's patient "Scott" recalled that during one of his numerous abduction experiences, he found himself in what he took to be a spaceship, stretched out on a table flanked by two "doctor-like" figures. His head lay on a block, and four "prongs" were being pressed into his neck,

"high up, just below the scalp." Scott believed these were electrodes, Mack reports, "that were used to manipulate and control his movements and feelings."25

"Jerry," another of Mack's patients, remembered an abduction in which she was brought into a large spaceship with a domed roof,

and then into “a circular room” within it, which was “shiny and metallic-looking and contained what looked like equipment.”26 Here small, dark human-like beings performed incomprehensible tests on her body under the guidance of a taller, lighter entity who she thought of as male and as “the leader.” At one point he asked her telepathically (but confusingly) if “the medication has been okay up till now?” Immediately afterwards, she reported, “something sharp, like a needle” was driven from a high angle down into the side of her neck: “They’re turning it!

Ohhhh! It’s inside of me . . . They stuck that thing inside me.”27

Like many other abductees, “Catherine’s” experience – having been brought against her will on board what she believed was a UFOinvolved first being taken into a metallic room, “like burnished aluminum but darker,” and made to lie on a table there. She noted that the room had muted lighting and that a number of small beings were present in it with her. The leader, or “examiner,” though taller

than the others, was nonetheless shorter than Catherine. His skin appeared to be “very smooth – whitish gray,” and his manner was intimidating:

“He’s looking at me like you look at a frog before you dissect it.”28

Next Catherine remembered being subjected to a series of painful gynecological procedures and was convinced that samples had been taken from her ovaries.29 We will return in Chapter Seven to the possible significance of these (also very common) “reproductive”

aspects of the UFO abduction experience. Meanwhile, Catherine’s ordeal was far from over. She described a metal instrument “maybe a foot long” that was inserted “perhaps six inches” into one of her nostrils

- i.e. into her brain:

I could feel something breaking in my head. When he pushed it through, he broke whatever it was and pushed it all the way through, up even further . . . I'm wondering what they broke . . . I don't know the anatomy, and he broke something to get it through, to get it into my brain . . . I don't know what it was. I want to know if it's going to heal.30

"Joe" recalled being abducted by a humanoid "with a triangular face and a large forehead, narrow chin, and large, black, elliptical eyes" that first "floated" him up to a spaceship that was "much bigger inside than outside" and then used mind control to make him lie on a table.31 Here he was suddenly surrounded by eight to ten small beings. One, standing to his left, fell upon him with "a large needle about a foot long, with a kind of hilt." The needle entered the left side of Joe's neck below the ear, "against the skull," causing severe pain: "They're putting a picture in my mind of a small, silver, pill-shaped thing that they're leaving there which has four tiny, tiny

wires coming off it.”32 After the needle was removed, Joe reported that he received this telepathic message from the beings: “We are close. We are with you. We’re here to help you.

We’re here to guide you, to make it through your difficult times.”33

On another occasion, Joe was abducted together with his baby son Mark, and witnessed the beings holding “crystals” against the child’s head and “shining a light on his eyes and on his hand.”34

John Mack’s patient “Eva” saw a gray spaceship, panicked, blacked out, then found herself on a table in a room with two beings inspecting her:

I was in a fetal position, my back to them. They were doing something to my spine. My entire spine was stinging and cold. It was awful!

It felt as though they were going inside my body with some very sharp instrument and inserting it between my flesh and my skin.35

“Karin” also found herself in a room on a spaceship: “They opened up my chest and took out my heart.”36 Similarly, “Carlos” told Mack of how he had been “floated” up through the sky “on a beam of light”

to what he took to be a spacecraft. He found himself in the “rotunda”

of this circular vessel in a spacious instrument-filled room where many small humanoid creatures went about their business, seemingly with no expectations of him. However, one of them eventually led him to another part of the ship, where he was placed on a table that he described as “a block of crystal.”37 Here a female being with huge oblique eyes, but “hardly a nose and hardly a mouth,”38 instructed

“reptilian-faced, insectile-bodied, or robot-like entities” to perform an operation on him.39 The operation was excruciatingly painful and involved the use of crystals:

Whatever these crystals are, metal-like more than glasslike, there is light. I can see it . . . It is like a squared tube of crystal with the sides lopped off so that at the ends each tube appears eight-sided . . . And then the end of it is shaped like a step-pyramid. It shoots laser light into the body, but it feels like a needle because it hurts, and it resembles a needle.40

Same phenomenon, different cultural setting?

I was already familiar with the sorts of initiatory ordeals that hallucinating shamans the world over believe they suffer at the hands of spirits. The limited extracts from the vast ethnographic literature on this subject that are given in Chapter Four are sufficient to make it clear that these ordeals frequently and graphically involve

procedures that Westerners would very likely construe as ‘medical’ or ‘surgical’

in nature. I was satisfied that close and persuasive parallels exist between these often baffling and painful episodes of shamanic surgery on the one hand, and the piercing and spearing of the wounded men figures in Upper Paleolithic cave art on the other. But it was unsettling to discover equally strong parallels in the supposed surgical procedures on board spaceships described under hypnosis by people of the late twentieth century who believed that they had been abducted by UFOs:

Jerry reported “something sharp, like a needle” being driven from a high angle down into the side of her neck . . . A small being plunged “a large _needle about a foot long, with a kind of hilt” into Joe’s neck below the ear, _

“against the skull,” causing severe pain . . . A metal instrument

"maybe a foot long" was inserted deeply into Catherine's brain through one of her nostrils: "he broke something to get it through, to get it into my brain . . ."

Compare the above with these ethnographic accounts of shamans'

hallucinatory experiences cited in Chapter Four:

"Three black devils thrust a lance through his head . . ." (Yakut) "A spirit throws an invisible lance at him, which pierces his neck from behind, passes through his tongue, making therein a large hole, and then comes out through his mouth . . ." (Arunta, Australia) "A snake is put in their heads and their noses are pierced by a magical object . . ." (Warramunga, Australia) Returning to the UFO abductees:

Betty Aho's right eye was removed and a tiny device was implanted deep within her head – with additional devices implanted in her

spine and heels

. . . Joe believed that a "small, silver, pill-shaped thing" with wires coming _off it had been implanted in his brain, and witnessed beings holding "crystals" against his son's head and "shining a light on his eyes and on his hand" _

. . . Crystals were used as surgical instruments in the excruciatingly painful operation that Carlos experienced as part of his UFO abduction.

From the shamanic ethnographies:

"They cut his head open, take out his brains, wash and restore them to give him a clear mind to penetrate the mysteries . . . They insert gold dust into his eyes . . ."41 (Dyak, Borneo) "Then comes a man with a stick; he thrusts the stick into the neophyte's head and puts a magical stone the size of a lemon into the wound. Then the spirits

appear . . . to teach him the art of healing

. . .”42 (Wotojobaluk, Australia) “The Cobeno shaman introduces rock crystals into the novice’s head; these eat out his brain and eyes, then take the place of those organs and become his strength . . .” (South America) “Once they are in the sky, the master inserts into the candidate’s body small rainbow-serpents and quartz crystals. After this operation the candidate is brought back to earth . . .”43 (Forrest River, Australia) UFO abductees:

Two beings operated on Eva’s spine: “It felt as though they were going inside my body with some very sharp instrument and inserting it between my flesh and my skin.” A long needle was inserted into Betty Hill’s navel, causing _her agonizing pain. _

The shamanic ethnographies:

“I saw the form of a man . . . whose head was surrounded by a

bright glow

. . . He spoke: 'Wait without fear until I have said and done everything that I intend.' Then I felt various instruments, first like sharp knives, then like needles, penetrate my flesh . . ."44 (Ojibwa, North America) "The aspir ant to the Kuksu Society is believed to have his navel pierced with a lance and an arrow by Kuksu himself . . ." (River Patwin, North America) After Sandra Larson had been taken on board a UFO, she had a memorable and most unusual experience:

"beings removed her brain and set it down beside her . . ."

But even here, hallucinatory initiations offer striking parallels. For example, in the case of a Yakut shaman cited by Eliade:

"The spirits cut off his head, which they set aside."45

Mystery of the bones

I found other remarkable parallels, not all of which there is space to list here, between these medical aspects of the abduction phenomenon and the descriptions of spiritual surgery that feature so frequently and prominently in ethnographies. One that is particularly strikingbecause so odd – concerns the ritual of the "counting of the bones,"

which is reported from many different shamanic cultures. A typical case is that of a Tungus shaman who entered a deep trance, during which he experienced a ritual of initiation at the hands of spiritual beings:

They pierced him with arrows until he lost consciousness and fell to the ground; they cut off his flesh, tore out his bones and counted them; if one had been missing he could not have become a shaman.46

In another Siberian account, the shaman Kyzlasov told how he had been “cut into pieces on a black table” by “two black and two fair”

beings, who counted his bones on the orders of their chieftain: They found a bone around the ribs, which had a hole in the middle.

This was the excess bone. This brought about my becoming a shaman.

Because, only those men can become shamans in whose body such a bone can be found.47

It seemed most unlikely that there would be anything like this in the UFO abduction literature, but I soon discovered that there was.

David Jacobs of Temple University, who has conducted extensive interviews with hundreds of abductees, and himself completely rejects any connection between their experiences and those of

shamans,48 nevertheless notes that they frequently make reference to the “prodding and palpation” of their bones and joints:

The Small Beings look closely at the subject’s ribs and rib cage. Sometimes [they] make a small incision on the abductee’s left side . . . They methodically touch and press each individual vertebra from the neck to the coccyx . . . They take a long time with the vertebrae as their fingers manipulate each bone structure.49

Likewise, John Mack’s patient Catherine, whom we met earlier, described an experience in which small beings with “huge black almond eyes”50 floated her up to an enormous silver-metallic UFO and then into one of its cavernous rooms “the size of an airplane hangar.” As her captors led her through the room, she noticed rows of tables on either side. Some of these were empty, but on others she saw procedures being done on what she estimated were “between one hundred and two hundred humans.” Catherine was forced to sit on one of the tables and then the following explicitly

“bone-counting” experience unfolded: They’re running their little fingers down my spine like they’re counting the vertebrae in my spinal column. “What the hell’s that for?” “To make sure everything’s okay,” he says.51

Troublesome things

My curiosity had been aroused, but my initial reaction to what looked like a series of remarkable unexplained cross-cultural commonalities was one of skepticism. I simply could see no reason why hunter-gatherer shamans, who deal with “spirits” and make rain, should have anything in common with sophisticated American city-dwellers who happen to believe that they’ve been abducted by aliens. So I worked hard to downplay the similarities I was seeing and to persuade myself that they must all result from coincidence.

As other such coincidences began to pile up, however, I became increasingly perplexed at the level of detail. Why should spirits in

one part of the world and at one period of history, and aliens in another part of the world at another period of history, both abduct men and women, insert mysterious objects into their heads, stick lances or massive needles into their necks and skulls, implant crystals into their bodies, count their bones, take out their eyes and brains, etc., etc.? On reflection, I could see how ludicrous it was to imagine that people from such different cultural backgrounds as shamans and UFO

abductees could have independently invented what were essentially the same utterly bizarre entities and the same utterly inexplicable medical/surgical procedures.

But if that wasn't what was going on here, then what was?

I had the sense that I had stumbled on the outline of an underlying pattern, deeply buried, and of troublesome things waiting to come to light.

Chapter six

Shamans in the Sky

Most readers of this book will have heard something about UFO

abductions. Some will know a great deal about them; others will know very little. Many will believe (wrongly) that the phenomenon has been successfully debunked as a mixture of hoaxes and crazed delusions. Many others will feel that the reports they have heard are too numerous, and the people making them too decent and reliable, for them to be completely without foundation. Amongst the latter group, there will be some who have no theory at all about who or what is responsible for abductions, but most will probably take the view, popularized in the famous 1990s television series *The X-Files*, that they are the work of "ETs" – extraterrestrials, in other words

technologically advanced aliens from other planets who have traveled across interstellar space in order to abduct us for arcane reasons of their own.

Needless to say, there is no hard evidence for this or any other theory. There is a phenomenon. It is massively documented. It appears to have involved millions of people. But there is not a scintilla of proof that the abducting agencies – if they exist in any useful sense at all – are extraterrestrials. Nor, though we almost automatically assume it to be so, is there the slightest reason for us to believe that the saucer-like UFOs to which abductees frequently say they have been taken are in fact spaceships. All such ideas are just assumptions built upon speculations that have been conjured out of conjecture and rest ultimately on the public mindset of the twentieth century.

Remember what happened in the twentieth century. We invented space travel. We went to the moon. We put landers on Mars. And

we were the first generation who had to contemplate seriously the possibility, since we ourselves are a technologically advanced species living on a planet, that there might be other species living on other planets who were perhaps even more technologically advanced than we are. So when metallic-looking UFOs began to be noticed flying at impossible speeds and performing maneuvers that defied the laws of physics in the skies over America, Europe, and Japan from the late 1940s onwards, and with increasing frequency during the 1950s and 1960s, it's hardly surprising that "aliens in spaceships from other planets" was the explanation that leapt most readily to our minds.

The first abductions – and with them the first bizarre surgical procedures – began to attract attention in the 1960s. The earliest publicized case was that of Barney and Betty Hill in 1961. During it Betty underwent an ordeal, described in Chapter Five, that she experienced as a long needle being thrust into her abdomen through

her navel. Over the following three decades, thousands of others reported similar experiences, the grotesque character of which was summed up for many in Whitley Strieber's bestselling book about his own abductions (*Communion*, published in 1987, subsequently made into a Hollywood film starring Christopher Walken). In 1989, Dr. John Mack at Harvard University began to offer therapy as part of his psychiatric practice to people who believed they had been abducted by aliens. His extensive interviews, often conducted under hypnosis, revealed that many of his subjects remembered multiple abductions going back to their childhoods. In some cases it became clear that their first abduction experiences had occurred in the late 1940s and early 1950s, more than ten years before the Betty and Barney Hill case drew attention to this unusual syndrome.

Not the lunatic fringe

From the outset, showing unusual humility for a mainstream academic, Mack resolved to take the abductees seriously. He

attracted heavy criticism and much ridicule for this from his peers. However, he was able to defend his position on excellent clinical grounds, since none of the scientific surveys and psychometric tests that have been conducted on self-styled UFO abductees have provided any evidence that connects the syndrome with mental illness. For example, Parnell, who administered the Minnesota Multiphasic Inventory and the Sixteen Personality Factor Questionnaire to 223 UFO abductees in 1988 – just before Mack began to see UFO abductees in his own practice – found "no evidence of serious psychopathology."1 Similarly, in another study, abductees were put through nine psychological test batteries by Elizabeth Slater PhD, a trained psychologist. She herself was not informed, until after she had completed her assessments of the test results, that the subjects had all reported experiencing UFO

abductions. Her conclusion was as follows:

The first and most critical question is whether our subjects' reported

experiences could be accounted for strictly on the basis of psychopathology, i.e. mental disorder. *The answer is a firm no*. In broad terms, if the reported abductions were *confabulated fantasy productions*, based on what we know about psychological disorders, they could only have come from *pathological liars, paranoid schizophrenics, and severely disturbed and extraordinarily rare hysteroid characters subject to fugue states and/or multiple personality shifts* . . . It is important to note that not one of the subjects, based on the test data, falls into any one of these categories. Therefore while the testing can do nothing to prove the veracity of the UFO abduction reports, one can conclude that the test findings are not inconsistent with the possibility that reported abductions have, in fact, occurred.2

Further exhaustive tests carried out by Mack's colleague Catherine McLeod at Harvard in the 1990s compared 40 abduction experiencers with 40 matched controls using a broad range of

psychopathology and personality measures. Again the results were unambiguous: “No findings of personality disorder or other psychopathology that might explain the abduction phenomenon distinguished the experiencers from the control group.”3

On the basis of many such surveys, and of his own direct assessments of the mental health of abductees, Mack felt that the verdict was obvious:

Efforts to establish a pattern of psychopathology other than disturbances associated with a traumatic event have been unsuccessful.

Psychological testing of abductees has not revealed evidence of mental or emotional disturbance that could account for their reported experiences. My own sample demonstrates a broad range of mental health and emotional adaptation. Some experiencers are highly functioning individuals who seem mainly to need support in

integrating their abduction experiences with the rest of their lives. Others verge on being overwhelmed by the traumatic impact and philosophical implications of their experiences and need a great deal of counseling and emotional support.4

Crossover phenomena

In other words, people who believed they had been abducted by UFOs were not fantasists, not mad, and not delusional, but all of them appeared to have suffered the same constellation of unexplained traumatic experiences (indeed many showed the measurable symptoms of post-traumatic stress disorder usually more familiar in soldiers returning from the battlefield).5 If they believed that they had been abducted, therefore, Mack's decision was that he would believe them too. But during the 15 years that he tirelessly sought a solution to this mystery, he was careful never to extend his respectful belief in the truth of abductees' statements to a wholesale acceptance of the unproven popular theory that the

abductions were the work of aliens in spaceships from other planets. Something radical and extraordinary was happening, he was certain of that, but his instinct was that it had to do with collisions of different levels or states of reality, rather than

"nuts-and-bolts" encounters between physical human beings and equally physical aliens from an extraterrestrial planetary culture:6

What kind of matter is the alien abduction phenomenon? . . . It seems to belong to that class of phenomena, not even generally accepted as existing by mainstream Western science, that seem not to be *of* this visible, known material universe and yet appear to manifest *in* it.

These are phenomena . . . that seem to "cross over" or to violate the radical separation of the spirit and unseen realms from the material world.7

This sense of Mack's that alien abductions are spiritual rather than material problems – but that they are nevertheless *real* and able to manifest in this world – got him into even more trouble with his scientific peers at Harvard University, who subscribe to the materialist paradigm and do not believe in spirits. During the 1990s, venomous efforts were made to have Mack fired, but he resisted with the help of a good lawyer, fought the case as an issue of academic freedom, and managed to keep his job.8 In revenge, the university marginalized him, and in an exchange of e-mails with me during April and May 2004, he admitted that his work had forced him "into the ontological and epistemological wilderness."9 (Ontology is the branch of metaphysics that deals with the nature of being; epistemology is the critical study of the validity of knowledge.) As we tried to set up a meeting for later in the year, he told me that after August there were "no bad months."10 In September 2004 he was run over and killed by a drunk driver.11

Aliens and spirits

Could “aliens” and “spirits” be the same thing – or the same class of thing? And if so, what might this mean for our understanding of the human condition and of the nature of reality? Could the realm from which UFOs appear – and then seem to disappear back into again

“between one blink of the eye and the next” – be the “spirit world,”

as John Mack came increasingly to believe? More intriguingly, what are the chances of this being the same spirit world, with its well-charted supernatural geography and inhabitants, that shamans have entered and negotiated with by means of hallucinatory out-of-body journeys since times immemorial?

The idea seems absurd by the tenets of Western science, which holds *all* spirit worlds to be illusory projections of the contents of our own minds. Still, I couldn’t help being intrigued by the close

parallels I'd found between the piercings and inexplicable surgical procedures supposedly carried out on shamans by spirits, and the same sorts of procedures experienced by UFO abductees at the hands of aliens. I began to re-examine ethnographic studies of shamanism side by side with casebooks of UFO abductee reports to see if there were other such similarities. Gradually, I became fascinated and immersed

- for there seemed not just to be similarities here but a whole network of closely interwoven and interdependent connections so intricate and extensive that they could not possibly have arisen by chance.

An example is the way most abductees report that at the beginning of the experience they are "floated" out of their houses or cars and up to the sky to where the UFO awaits. Similarly, most accounts of shamanic initiations also begin with a sky journey (because the realm of the gods and spirits is located in the sky – for example

Viho-mahse, the Tukano god of hallucinogenic snuff, lurking in the Milky Way).

Now, the sky itself is universal to all cultures and periods, always over our heads, always beckoning, glittering with stars, so the fantasy of sky journeys might occur spontaneously to anyone and could easily have been invented independently by many different cultures. That was why I didn't pay much attention to this obvious and elementary parallel until I began to look in detail at the *methods* used by abductees and shamans to reach the sky.

The gentle art of floating (1)

Abductees speak of three principal means by which they are floated through the sky to and from the waiting UFOs. The first is just that

- floating. A few examples of how it is described: I've got this impression of floating above my bed, like being kind of levitated

out the doorway to the hall.12 (Catherine) We kind of walked, kind of floated into the bottom of the ship.13 (Joe) They then support me somehow off the table and down out of the ship . . . They levitate me or something.14 (Dave) I sort of feel like I'm on an elevator except there's no walls or anything around it, it's just up, fast . . .15 (Barbara Archer) I can remember floating down. I came from very far away. We were very high up in the sky, it seemed to me. And when I was put down they put me down gently.16 (Karen Morgan)

They glided me into that thing . . . I couldn't resist them, I just floated

. . .17 (Charles Hickson)

In the second type of experience of floating, abductees associate their sudden levitation and flight through the air with a beam of light which often encloses them completely:

I’m inside the beam of light. I’m going up, and there’s a hole above me, and it’s dark, but there’s light all around it. It’s like a blue light

. . . a blue beam of light come down to the ground, and then it was almost like going through a tunnel . . .18 (Nona) He’s taking me up, up the diagonal. We just kind of fly off. We’re not going straight up. We’re going across too. “This is too fast! Why are you going so fast? I’m going to fall off the beam! I’m going to fall down there!” And he just kind of says: “No, you won’t.”19 (Catherine) The third type of experience is more unusual, but is nonetheless reported in a good number of cases. It involves ropes, wires, strings, or threads of light, which the abductees must float along, or climb, in order to reach a UFO hovering far above them.20 For example, John Mack’s patient Andrea was wakened in her bedroom by a flash of blue light “like a big headlight on a car” and the presence of two small, thin beings with bulging heads and huge eyes. “They’re very skinny,”

she remembered, and “they look like they’re made of light. But then

underneath there's some physicalness to them." One of the beings was "holding a stick or a rod" which he now pressed to the back of Andrea's ear. Her next recollection was of being "floated" feet first "right through" the glass of her bedroom window and high over trees. She reported that a "line" or "thread" of light extended from her navel to the beings, and that "streamers" of light were coming out from one of the beings to her body. These "threads of light" seemed to be used to pull her up to the ship.21

Similarly, as his abduction began, Arthur saw a "light like a thread, a spider's thread that's lit" extending down from the night sky. At the same moment, he saw a group of "little lighted beings clustered all together" who told him: "Don't be afraid or it will break the thread."

Next Arthur found himself in the air, in some way supported by the thread, which he estimated to be no more than one-eighth of an inch in diameter: "like a kite string, maybe."22

The thread or string seemed to be bathed in a light that was everywhere and as the beings were telling him “not to be afraid” Arthur was

“just going along it, standing erect,” pulled as if by an unseen force. The string seemed to go into the craft, “like a phone line or something.”23

The gentle art of floating (2)

Shamans, too, float, or are wafted aloft in various ways, as they begin their journeys in the spirit world:

He saw the roof of his hut open above his head and felt himself carried off to the sky, where he met a multitude of spirits . . .24 (Basuto shaman, South Africa)

I was carried up to the spirit-village of those who live in the sky, a

doctor's village, and there I was instructed . . .25 (Winnebago shaman, North America)

What is particularly puzzling, however, is that the striking motif of a rope, or string, or spider's web, or thread of light that occurs as a means of ascent in some UFO abductions is also commonly found in accounts of shamans' sky journeys. In north-western Australia, for instance, shamans say that they reach the sky on "ropes of air,"26 while the shamans of the Kulin and Kurnai tribes hallucinate a fine thread emerging from their bodies: "It comes out of their mouths like a spider's web and they climb to heaven on it."27

Likewise, the bushmen of southern Africa almost always make use of threads, strings, and ropes in their hallucinatory sky journeys. As was the case with the now extinct San rock artists, the *!Kung* shamans of the Kalahari still use the trance dance as the principal means of entering a deeply altered state of consciousness and summoning up sufficient *n/um* (supernatural power) to ascend to the

spirit world. The

!Kung shaman Bo explains that when the power is strong, he sees lines or strings of light that go up into the sky. These lines may be the thickness of a blade of grass or as big as a rope or chain. They are white in color or shiny like silver metal . . . When I see a rope of light I walk towards it. As soon as I get to it or near to it, I start floating up to the sky . . . You don't have to grab it or touch it. You just float away with that rope. That line just takes you. You become so light that you simply fly away.28

According to another shaman, Mabolele Shikwe: The rope can take away anyone who comes to the dance. If you are very strong and you don't fall to the ground, the rope can take you away while you are dancing.29

A Kalahari shaman named *Cgunta !elae*: When I go to the rope, it makes me float up to the sky. Sometimes I travel to another place

the instant I go toward it. At other times you simply walk along it.30

The same informant:

When we go up the rope we sometimes see other doctors from our

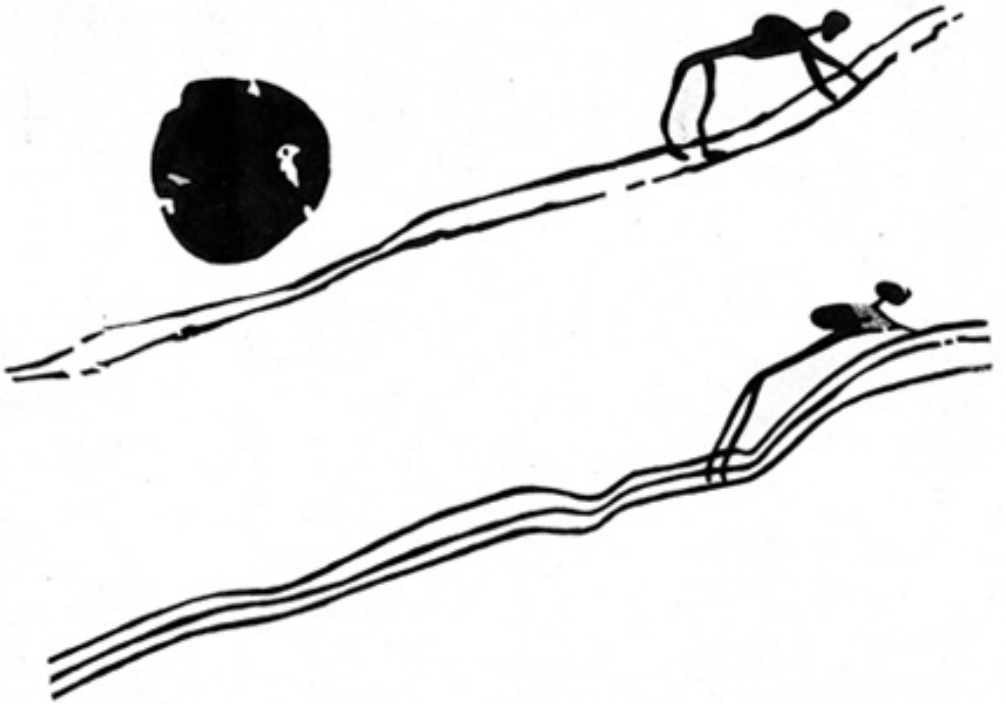

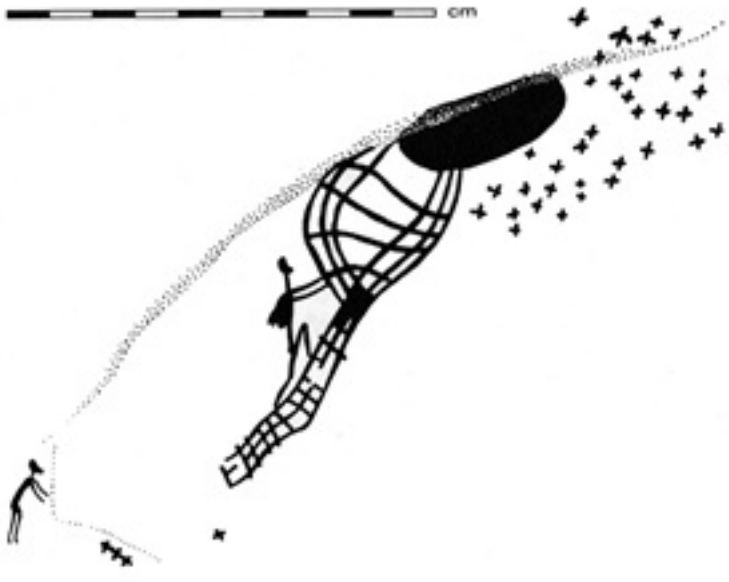

San rock art depiction of shamans

climbing ropes to the sky (RARI).

community who are also going up the same rope. The ropes will be there forever. They point down to us from the sky. The place in the

sky is where the Big God lives . . .31

Here's old *K''xau*, a famous *!Kung* shaman whom we have already met briefly in Chapter Four:

My friend, that's the way of this *n/um* . . . I dance . . . When I emerge I am already climbing. I'm climbing threads, the threads that lie over there in the South . . . I take them and climb them. I climb one and leave it, then I go climb another one. I come to another one and climb, then I come to another one. Then I leave it and climb on another.

Then I follow the thread of the wells, the one I am going to go enter!

The thread of the wells of metal. When you get to the wells you duck San rock art depiction of shaman

climbing to the sky: “I follow

the thread of the wells . . . the

thread of the wells of metal. When

you get to the wells you duck

beneath the pieces of metal . . .”

(RARI)

beneath the pieces of metal . . . It hurts . . . When you lift up a little, the metal pieces grab your back.32

What seems to be envisaged is some sort of contraption in the sky”wells of metal.” It all sounds very strange, but in fact contraptions in the sky are common elements of shamanic visions.

A Yurak-Samoyed shaman of Siberia, for example, relates how

he mounts to the sky by the help of a rope especially let down for him and how he shoulders aside the stars that block his way. In the sky he rides in a boat and then descends to earth at such a speed that the wind passes through him . . .33

The core image of a sky-vehicle letting down a rope also occurs in North America:

One summer day [the shaman Bull Lodge] lay in the grass on his back with his arms out flat on the ground, elbows bent . . . As he gazed up at the sky, an object appeared . . . It was a shield, with a string or fine cord attached to it leading up to the sky . . . Then Bull Lodge heard a voice. The sound came from behind the shield . . . "My child, look at this thing. I am giving it to you from above."34

In Australia, the flying shield in the sky is replaced by a

supernatural bird, but is still approached by a string:

They took hold of the doctor's string, on the other end of which Wombu, [the god] Baimi's bird, was waiting. They traveled up through the clouds to heaven.35

Mircea Eliade reports that amongst the powers claimed by the shamans of the Mara Aborigines of Australia is that of "climbing at night-time by means of a rope, invisible to ordinary mortals, into the sky, where he can hold congress with the star people."36

The comparison with UFO abductees, who also say they climb to the sky by means of threads or ropes, and who also believe they hold congress with "star people," is very clear. Meanwhile, in the depths of the Amazon, a group of shamans of the Cubeo tribe gather in a jungle shelter to drink ayahuasca so that their souls too may hold congress with the spirit world:

And then the Star-People descend, with their shining eyes, with their brilliant eyes, and surround those sitting on their benches. The scintillating lights come and try to carry them back to the Milky Way . . .37

The reader will recall that many UFO abductees do not see threads or ropes but lights, or beams of light, that appear in their rooms and float them out of their beds. Some sort of "abduction by lights" certainly seems to be implied in the case of the Cubeo, and was also reported explicitly by the bushman shaman Twele, who told anthropologists:

"I don't see a string hanging from the sky, but I see a light that makes me float."38

Underground, underwater

There were moments as I researched this material when I wasn't

sure whether I was reading a UFO abduction report or the account of a shaman's psychedelic pilgrimage to the sky world. Despite surface differences appropriate to the very different cultural settings and periods in which the abductees and shamans had undergone their experiences, the clues kept mounting up that the two phenomena must, in some as yet unexplained way, be closely related at a deep structural level.

For example, not all shamanic journeys lead to the sky. This is the most common scenario, but the reader will recall from Chapter Four that shamans in their trances also quite frequently report the experience of being transported into a cave – sometimes lined with crystals or calcite formations, and often illuminated by a strange diffuse light with no obvious source. In other cases they travel to an underwater location that lies at the bottom of a sea, lake, or river pool.

These are not the sorts of destinations that one automatically

associates with UFOs, which are, after all, unidentified *flying* objects.

Nevertheless, we saw in Chapter Five that the UFO which abducted Betty Aho in 1950 “plunged into the sea and came out again, then entered huge crystalline caverns which broadened into a vast underworld.”39

In 1979, in Florida, Filiberto Cardenas was abducted by humanoids dressed in what he described as tight white clothing. They took him to a beach, opened “a lock” in the side of a huge boulder, then transported him through a “tunnel beneath the sea.”40

In 1981, Mexican photographer Carlos Diaz saw a UFO floating over his head. “It was made of millions of small dots of light. I tried to touch the object, but my hand went through the yellow light . . .”

He felt disoriented, and suddenly noticed that the craft now

appeared to be standing “inside a cave that was lined with stalactites and stalagmites . . . There was something strange about the illumination . . . It was everywhere but I couldn’t find a source.”41

Even more to the point is the case of Lucy, abducted in October 1992 by beings who she construed as aliens, although UFOs did not feature in her experience at all. Waking up in the middle of the night, she felt a compulsion to drive her car into the Blue Ridge Mountains west of Washington DC. Finally she stopped on a deserted road, to the right of which there was a steep drop “to a field full of people in their pajamas and nightgowns.”42 She found herself floating in their direction and was then swept with the crowd into an opening in the side of the hill. “It led steeply down through the limestone under the hill to a large room with a high ceiling where the abductees congregated and the aliens inscrutably watched them . . .”43

Similarly, Scott recalled hurtling down into “a huge underground

rock-walled place” in a fast-moving elevator,44 and Joe found himself

“in a subterranean room hewn from rock” lying on a table “surrounded by little people with big heads, and they’re putting a needle in my neck.”45 Many further examples could be cited, but the point has been sufficiently made that as well as going to technological venues in the sky – which themselves are matched in pre-scientific cultures by appropriate construals, such as flying shields and boats and aerial “wells”

made of metal – UFO abductions frequently unfold in classic shamanic settings such as caverns or underwater.

The power of transformation

Aliens, shamans, and the supernatural beings of the spirit realm have another completely unexpected and rather mysterious

characteristic in common.

Before I began this research I had no idea that therianthropes were the subject matter of the most ancient religious art of mankind. Nor had it ever occurred to me (as seems perfectly obvious now in the light of Lewis-Williams' work) that many of the animals depicted in painted caves and rock shelters all around the world might be best understood as representations of transformed shamans or spirits in animal form seen during hallucinatory trances.

On the other side of the equation I had, at the outset, no personal interest in, and possessed only rudimentary information about, the UFO abduction phenomenon, which I did not imagine would prove relevant to my investigation of the origins of religion. I began to change my mind after my own encounters, facilitated by ayahuasca, with friendly "light-beings" and a much less friendly large-headed

"Gray" with a heart-shaped head and huge black eyes, who I had

genuinely feared might abduct me in one of the flying saucers that also featured in the same vision (see Chapter Three). I was given further pause for thought when I realized that very similar figures of small humanoid beings with heart-shaped (or pear-shaped, or teardrop-shaped) heads had been depicted in the cave art of Upper Paleolithic Europe, and also in the rock art of the San hunter-gatherers of southern Africa. It was with my curiosity thus aroused that I then began to delve into the modern UFO-abduction literature of the West, alongside the extensive shamanic sources I already had to hand, and stumbled across the weird parallels and commonalities between spirits and aliens explored in the last two chapters.

My mental picture of the aliens had been heavily conditioned by what I had seen in my ayahuasca visions, which in turn accorded very well with the physical descriptions given of aliens in hundreds of UFO-abduction reports and endlessly regurgitated in the tabloid media. I was therefore completely unprepared for what I discovered

next – which is that, just like spirits, these entities that Western abductees generally construe as aliens *very frequently first present themselves in the form of animals, or with hybrid animal and alien characteristics*, before appearing in their more familiar tabloid identity as small humanoid beings with heart-shaped heads, large eyes, etc., etc.

Aliens as animal spirits

Let's deal with the aliens' side of this peculiar story first. Again, the most useful way to proceed is simply to allow the abductees to speak for themselves about what they saw and experienced.

In Arthur's case, the small "luminescent and semi-transparent"

humanoids (with large dark eyes),46 who encouraged him to climb a thread of light in an episode cited earlier, for some reason strongly reminded him of rabbits: "so close to each other they're touching

each other . . . It's like a bunch of rabbits. They huddle like rabbits."47 This had the effect of endearing them to him.48 Similarly, Peter's abduction began when a group of small beings appeared in his room and a beam of light lifted him off his bed. As he was floated out of his house and into the air, he got a close look at one of the beings. Its eyes, he said, were very dark and deeply set in its face: "like an animal's eyes, like a raccoon's eyes."49

While he was hunting in Medicine Bow National Park, Wyoming, in 1974, Carl Higdon saw five elk together in a clearing. Instinctively he took aim and fired his rifle but, as he did so, a zone of strangeness surrounded him, the sound of the shot seemed to come from far away and time slowed down so that Higdon was able to watch the bullet as it left the gun, traveled slowly through the air, and fell to the ground, "crushed and folded like a glove," about 60 feet away. As he walked to pick up the bullet an odd-looking humanoid figure dressed in black appeared and gave him a "pill,"

telling him that it would alleviate his hunger for four days. Higdon was then taken on a journey in what he presumed to be a spaceship, and later returned to the National Park, bewildered and disoriented, with his body covered in scratches.50

Moments before her abduction by small humanoids, Virginia Horton remembered talking with an “intelligent gray deer,”51 and

added: “there was a person inside this deer.”52 Another woman also reported seeing a deer looking at her through a window just before she was abducted.53 Indeed, John Mack, David Jacobs, and other researchers who interviewed large numbers of abductees found such accounts of encounters with therianthropic aliens – strange humanoids that either had certain animal characteristics or were fully transformed into animals – to be extremely common. “The aliens appear to be consummate shape-shifters,” wrote Mack, “often appearing initially to the abductees as animals – owls, eagles, raccoons and deer are among the creatures the abductees have seen initially.”54

Therianthropic aliens seen by six schoolchildren at Bukit Mertajam, Malaysia, on August 19, 1970. In these drawings by the children, the UFO in which the aliens arrived is depicted bottom right (Ahmad Jamaludin/Fortean Picture Library)

An abductee interviewed by David Jacobs saw a wolf in her

bedroom one night:

The wolf was standing squarely on her bed, looking her in the eyes.

She clearly remembered its fur, fangs, and eyes. Other abductees have claimed to have seen monkeys, owls, deer, and other animals.55

Indeed, owls feature particularly often in abductee reports. For example Colin, aged two and a half, the youngest of Mack's patients, frequently complained of being taken by "scary owls with big eyes" to a "spaceship," which he also sometimes described as a "big boat in the sky."56

The owls, he said, "floated down" from the sky to fetch him. On one occasion he confided that "monster owls" had "attacked" him on the spaceship, hurting his toe.57 The author Whitley Strieber was confronted by the large, hypnotic eyes of "a barn owl" staring at

him

“through the window” of his home at the start of an abduction in which the aliens made an incision in his right forefinger.58 The abduction experience of a woman on the west coast of the U.S.A. began when an entity that she construed as a “five-foot-tall owl” strode down the highway towards her parked Jeep and stared at her over the hood.59

One of Carol’s early abduction experiences began with a large owl that swooped down from the skies and hovered close to her face. Its wings did not seem to flap, and its “big dark eyes” filled “three quarters” of its head.60

A registered nurse from the north-eastern United States,61 Carol’s abductions were of special interest to me because another of her encounters with strange, compelling owls included further levels of transformation, as well as unexpected symbolism that she herself

recognized as shamanic. John Mack, whose patient she was, takes up the story:

She was lying on a grassy mound or hillside, unable to move as she watched a small speck in the sky that seemed to be spiraling down toward her. She felt a wind, heard a high-pitched buzzing sound, and saw bright light around her. As the object seemed to come closer, it appeared to be an owl, and she felt a mixture of fear and awe. She turned her head and saw what looked to be a typical shaman, with a heavy fur robe and an antlered headpiece. Carol took this to be Cerunnos, an ancient Celtic deity, half animal and half person, that presides over animals of the forest. As the owl from the sky came closer, Carol realized that it seemed much too large for an owl – its black eyes were at least four inches across, and it had no other owl-like features, such as feathers or a beak . . . Then the experience seemed to "escalate" quickly into a negative one . . . The owl was not an animal at all, and she was no longer outside on

a hill. Instead she felt panic in the presence of a familiar small being who stood over her “watching and controlling” . . . Mainly she remembered the eyes [of the being]

which seemed like black “bulbous eggs – maybe that’s what’s giving me the image of an owl.”62

Bernardo Peixoto, a shaman of the Brazilian Ipixuma tribe, gained a PhD, qualified as an anthropologist, and held a teaching post during the 1990s at the Smithsonian Institution in Washington DC.63 He is, in addition, a UFO abductee, and identifies the sinister small-bodied, large-eyed beings usually known in the West as “Grays” with spirits that the Ipixuma call the *ikuyas*. Remembering his childhood in the Amazon, he told John Mack about an occasion during a tribal ceremony when the figure of an owl was seen perching at the top of a tree. The elders chanted, “*Ikuya! Ikuya! Ikuya!* ” Bernardo asked them why they thought the creature was an *ikuya* and not simply an owl: They said that, because they were in a

trance, they could see light and force around the owl, which told them it was a humanoid in disguise.

Also when they shoot arrows at the *ikuyas* disguised as owls, the arrows seem to pass through them without killing them.64

Shamans and their spirit helpers

Lacking the benefits of Peixoto's worldwide travel and contacts, most shamans from remote tribes have never heard of aliens or of UFO

abductions, but as we have seen, they know a great deal about spirits that behave in many of the same strange ways that aliens do. The reader is already familiar from previous chapters with the transformations of spirits and shamans into animals and therianthropes that are experienced in deeply altered states of consciousness. Emerging from this, an important universal theme

has been identified: shamans acquire supernatural helpers or guides – spirits who teach them how to become great healers. These spirit guides almost always appear *in the form of animals or therianthropes,* and frequently begin to play a role in the future shaman's life while he is still a child, long before his initiation. In this respect, too, there is a parallel with UFO abductions, which also often begin in childhood and continue into adulthood.

Mircea Eliade reports that the "helping spirits" of future Eskimo shamans are usually

animals appearing in human form; they come of their own volition if the apprentice shows talent. The fox, the owl, the bear, the dog, the shark, and all kinds of mountain spirits, are powerful and effective helpers.65

Among the Cahuilla of southern California, the shaman's powers are believed to be transmitted to him by Mukat, the Creator, through

the intermediary of guardian spirits in the form of owls, foxes, coyotes and bears.66 The Paviotso, another southern Californian tribe, say that it is the “spirit of the night” that gives shamans “power for doctoring,”

which is transmitted with the help of “water-babies [i.e. water fairies or sprites], eagle, owl, deer, antelope, bear, or some other bird or animal.”67

Mun-yir-yir, an Australian Aborigine of the Murngin tribe, reported the following experience at the onset of his shamanic calling: I leaned over and drank out of the water-hole. When I did that a doctor soul caught my nose and made me sink down into the water.

The doctors, they were two boys and a girl . . . They looked like opos-sums . . . They opened my nose and eyes and mouth and made me well.68

At the end of the nineteenth century, the anthropologist Franz Boas recorded the experiences of a Kwakiutl Indian who received his shamanic calling and became a healer after the intervention of an animal spirit – a wolf – that had at first made itself useful to him as a hunting companion:

One day, however, his wolf friend pressed its muzzle against his chest bone and vomited all its magical force into him. He fell into a deep sleep and dreamt that the wolf changed into a human being and told him he would now be able to heal the sick. When he awoke he was trembling all over. Now he was a shaman.69

The Gitksan shaman Isaac Tens, whom we have met in previous chapters, received his calling at the age of 30 when he began falling spontaneously – sometimes in the midst of other activities – into deep and disturbing trances. When he awoke, he was often injured and bleeding, and reported stressful experiences involving owls, very similar to those undergone in modern times by UFO abductees.

This was what happened to Tens around the year 1890 at the end of an afternoon spent cutting wood in a forest:

Before I had finished my last stack of wood, a loud noise broke out over me . . . and a large owl appeared to me. The owl took hold of me, caught my face, and tried to lift me up. I lost consciousness. As soon as I came back to my senses I realized that I had fallen into the snow.70

On another occasion, while out hunting, Tens said he “glanced upwards” and “saw an owl” at the top of a high cedar: I shot it, and it fell down in the bushes close to me. When I went to pick it up it had disappeared. Not a feather was left; this seemed very strange . . . A trance came over me once more and I fell down unconscious . . .71

When a shaman-to-be amongst the Aborigines of eastern Arnhem Land, Australia, received his calling, he construed the frightening

beings that initiated him during his trance as other shamans (*marrnggijt*) transformed into huge birds. This is his account, recorded by ethnographers in 1935:

He heard the *marrnggijt* slapping their sides with their wings. One was close behind his head, and the second was up in the tree above him.

p.

Opening his eyes he saw the one in the tree, in appearance like a *jabiru*

[a large bird of the region, a species of stork] *but with eyes like an owl*.

Almost immediately the one behind him hit him on the head with a stick and half stunned him, while the one in the tree jumped on his chest and stood there . . . The *marrnggijt* then proceeded to thrust all manner of pointed objects into his body . . . saying, "We are doing this to let you know that from now on you will be a *marrnggijt*."72

That the onset of some shamanic initiations and of some UFO

abductions should be marked by the sudden materialization of owls

- or of other birds and animals with huge owl-like eyes – is mysterious enough in itself. But what I thought made the

coincidence even stranger was the way this sort of imagery seems to pick up a reflection from the caves of Upper Paleolithic Europe. A prehistoric engraving on the wall of Trois Frères in south-west France features Humanoid owls of Trois Frères

two large owls, which archaeologists judge to have distinctly humanoid characteristics.73 In the same cave, the famous therianthrope known as the Sorcerer is also found. Thought to be more than 15,000 years old, it has the legs and upper body of a human being, its face is dominated by large owl-like eyes and a beak, and antlers jut from the top of its head. It could serve as an alternative model for the antlered shaman figure seen by Carol in the abduction described earlier that also featured “an owl with black eyes at least four inches across.”

p.

The “Sorcerer” of Trois FrĂŠres (Breuil, 1952) **Knowledge**

Whatever animal or hybrid form they appear in, and whether terrifying or friendly at first, the purpose of a shaman's spirit guides is to bestow upon him the power and teach him the requisite skills to shamanize: to travel freely and at will in the spirit world, to negotiate with its inhabitants, and to return to earth equipped to heal the sick, influence the weather, control the movements of animals, and find out the truth of hidden things – not for his own benefit but for the benefit of the tribe. Very frequently, as noted above, such supernatural helpers first make their presence felt when the shaman is still a child – particularly during episodes of stress related to his unusual abilities and personality, or during a severe illness or emotional crisis.74 I'm reminded of John Mack's patient Joe, quoted in Chapter Five, whose alien abductors told him: "We are close. We are with you. We're here to help you.

We're here to guide you, to make it through your difficult times."75

This pleasant expression of solidarity, as the reader may recall,

immediately followed a much less pleasant experience in which “a large needle, about a foot long, with a kind of hilt” had been thrust into Joe’s neck at the base of his skull.76 But such apparent paradoxes are as rife in the accounts of abductees as they are in accounts of shamanic initiations.

Together with all the piercing, cutting, insertion of implants, counting of bones, removal and replacement of organs, etc., etc. with which we are already familiar from the reports of UFO abductees, it is also clear – despite their frequent feelings of confusion and trauma

- that they regard their encounters with the aliens as important *learning experiences*. For example Jean, a social scientist and lecturer living in the western U.S., is convinced that her frequent abductions have greatly strengthened her creative powers and insights. She believes that her encounters with the aliens have in some way “neurologically reprogrammed” her to “take in

knowledge and put it out for others.”77

Similarly, Jim Sparks, a real-estate contractor in his mid-forties, told John Mack that immediately before each abduction the aliens project a hologram-like symbol, “most often an owl,” into his visual field.

When the owl appears, Sparks understands that it is time to “prepare for school or to learn.”78

Is it a coincidence that shamans likewise regard their initiatory trances as *learning experiences* by which their own inner resources are bolstered and specific information is conveyed to them? Amongst the Auracanian Indians of Chile, the future shamaness (*machi*) ascends in trance to the sky. There not only does she “meet God,” as Mircea Eliade reports it, but also “supernatural beings show her the remedies necessary for cures.”79 Similarly, in the Kalahari, the bushman shaman Bo told anthropologist Bradford

Keeney that he climbed the ropes to the sky in order to learn from "the Big God" and his retinue of spirits: That's one of the ways we learn new songs, dances, and more knowledge about how to heal others. They show us what plants to use for a certain sickness or how to treat a specific person.80

Kgao Temi, another shaman of the *!Kung*, had the same experience: They teach you things and give you more power. They actually talk to you. They tell you about the dance [the trance dance that the bushmen use to attain altered states of consciousness]. They also teach you about the plants.81

In the Peruvian Amazon, Mestizo shamans are adamant that the ayahuasca beverage takes them to a realm where spirits, sometimes in the form of animals and sometimes in the form of "small people of a beautiful and strong constitution," teach them everything they must know in order to shamanize.82 Referred to as *doctorcitos* ("little doctors"), these beings equip them with *icaros*, the magic

songs used during ayahuasca sessions, show how illnesses may be diagnosed, and instruct them in detail on what plants to use, and how they are to be mixed with other plants, extracted, cooked, etc., in order to effect cures.83

Very occasionally, when shamans receive their stern lessons of pain and knowledge at the hands of the spirits, one of them may be given something more than oral teachings and demonstrations. There are cases on record in the ethnographies where a shaman claims to have been given a book. Maria Sabina, a Mazatec Indian shaman who practiced in the village of Huatla de Jimenez in Mexico in the 1950s, attained her visionary state by consuming a species of psilocybin mushrooms known since time immemorial in Mexico as *teonanactl* (literally

"flesh of the gods").84 This she did, like all true shamans everywhere, in order to heal. In one particularly strong vision, during which she penetrated further than ever before into "the world

where everything is known”:

A *duende*, a spirit, came toward me. He asked me a strange question:

“But what do you wish to become, you, Maria Sabina?” I answered him, without knowing, that I wished to become a saint. Then the spirit smiled, and immediately he had in his hands something that he did not have before, and it was a big Book with many written pages. “Here,” he said,

“I am giving you this Book so that you can do your work better and help people who need help and know the secrets of the world where everything is known.” I thumbed through the leaves of the Book, many written pages, and I thought that unfortunately I did not know how to read. I had never learned and therefore that would not have been any use to me. Suddenly I realized I was reading and understood all that was written in the Book and that I became as

though richer, wiser, and that in one moment I learned millions of things. I learned and learned.85

The spirit would not allow Maria to keep the book, which, she said,

"remains in the sky."86 How likely is it to be a coincidence that almost exactly the same story, transferred to a UFO setting, was told by Betty Hill? During her abduction in 1961, the being that she identified as the leader of the aliens gave her a large book, but reclaimed it before allowing her to leave the ship.87 Another abductee, Betty Andreasson, was given "a small blue book with 40 luminous pages" but it too soon afterwards disappeared.88

The materialized psychism and the bottomless void Even if spirits are real – which is basically what shamans the world over have claimed for millennia and scientists have denied for about a hundred years – we still have to ask ourselves what business they have with us. The scientific faction, of course, says that spirits have

no business with us at all, on the grounds that the spirit world does not exist and supernatural beings are just empty projections of the human mind that may naively be believed in at rudimentary stages of culture but must inevitably be abandoned in the light of modern thought and technology. Anthropologist Weston La Barre tells us, as though these things have been proven in a laboratory, that "the notion of an ec-static or body-separable soul (brainless mind or organismless life) that can wander in space and time has long since been banished

. . . and all the supposed attributes of the soul can be better explained in terms of the sciences."89 Babbling triumphantly about the progress of the West in the nineteenth and twentieth centuries, the influential journalist and critic H.L. Mencken praised the scientists who had pioneered this now unstoppable revolution in knowledge: One by one the basic mysteries yielded to a long line of extraordinarily brilliant and venturesome men . . . The universe

ceased to be Yahweh's plaything and became a mechanism like any other, responding to the same immutable laws . . . Heaven and Hell sank to the level of old wives' tales, and there was a vast collapse of Trinities, Virgin Births, Atonements and other such pious phantasms.90

If shamanic experiences of spirits and modern experiences of aliens are essentially a single phenomenon, however, then it becomes harder to maintain certainty that all such apparitions are "phantasms," and that the universe is just "a mechanism like any other, responding to the same immutable laws." This is because it is very difficult to understand how the human mind, *without any real, objective, and consistent external stimulus*, could consistently generate the same bizarre sequences of unexpected procedures and experiences in two groups of people as far apart culturally as shamans in hunter-gatherer societies and UFO abductees in the United States.

We are, of course, talking about *hallucinations* here – which are conventionally defined as perceptions that are thought to be real but that lack any objective stimulus:

"Hallucination" derives from the Latin deponent or half-passive verb *alucinari*, "to wander in the mind" . . . In careful, present-day usage, hallucination indicates a false appearance, in sensory form, hence seemingly external, but occasioned by an internal condition of the mind, the central suggestion of the term being its subjectivity and ground-lessness . . .91

Entoptic phenomena in the early stages of trance are recognized by science as universal human experiences in altered states of consciousness (and ascribed to the structure of the nervous system, as we've seen).

But established opinion holds that full-blown iconic and representative hallucinations – Stage 3 hallucinations in Lewis-

Williams' model – are not only *not real* in any sense, but also that their contents are "derived from memory" and life experiences, and "are all culture specific: at least in some measure, people hallucinate what they expect to hallucinate."92

If this established model is correct, then we need to explain what common cultural factors and common memories have led people all around the world at all periods of history to hallucinate being abducted to the sky (or underground or underwater) by small humanoids with large heads and eyes who are capable of shape-shifting into the form of animals, who perform agonizing and extraordinary surgical procedures on them and who teach them transformative knowledge.

It is at this point that I begin to feel baffled. I just don't see the common memories, common life experiences, and common cultural influences that could explain, for example, Isaac Tens' 1890 hallucination of a large owl hovering directly in front of him (which

he said caught him by the face and tried to lift him up) and Carol's 1990

hallucination in which a large owl swooped down from the skies and hovered close to her face. I just don't see the common memories, common life experiences, and common cultural influences that could explain why both Arthur in the U.S. and Mabolele Shikwe in the Kalahari should hallucinate floating up "threads of light" in order to encounter beings in the sky. I just don't see the common memories, common life experiences, and common cultural influences that could have led both the illiterate Maria Sabina in her remote Mexican village in the 1950s and the highly literate Betty Hill in the U.S. in the 1960s to hallucinate being given a book (which later disappears) by a powerful otherworldly being. I just don't see the common memories, common life experiences, and common cultural influences that could lead UFO

abductees in the West and shamans in Australia and South America

to experience the implantation of foreign objects in their bodies or piercings by long needles or spears, etc., etc.

All in all, I just don't get it, and what it says to me is that yes, the experiences that shamans and UFO abductees have are indeed hallucinations, but no, hallucinations may not always be specific to the individuals who have them and may sometimes not be conditioned very much by the cultures that they come from at all. I refer here not to superficial differences that undoubtedly *are* influenced by cultureas Lewis-Williams puts it, "a San shaman may see an eland antelope; an Inuit will see a polar bear or a seal"93 – but to the underlying perception that both share of the presence of some kind of spirit animal. Similarly, I can understand the cultural conditioning behind construals of flying objects seen in the sky as spaceships on the one hand, and as aerial "boats," "shields," "wells of metal," etc. on the other, but what interests me is that there is an underlying perception in both cases that *something* strange is

present in the sky *and that it is real*.

I repeat that for people all over the world to have massively recurrent shared cross-cultural experiences involving massively recurrent shared external real-world events is one thing. It is quite another thing, however, when people all over the world have massively recurrent shared cross-cultural experiences in situations where science can see no evidence for any external real-world stimulus at all. I suppose one possibility that would not entirely contradict the scientific-materialist paradigm would be that some hitherto undiscovered "library" of extraordinarily detailed mental images, sensations, and information is hard-wired into our brains, that it is the same library for all of us, and that it can be accessed only in altered states of consciousness. In that case, we would need to discover not only how such an eerie and otherworldly mental archive was compiled in the first place, but also why it is so important – presumably to our survival – that evolution has gone to

the trouble of programming the entire collection into all our brains *at the genetic level*. These are interesting questions, and we will pursue them further.

Even more edgy and challenging, because they collide head-on with the fundamental beliefs of Western science concerning the nature of reality, are the arguments of William James, Aldous Huxley, Albert Hoffman, and Rick Strassman, cited in Chapter Five. According to these thinkers, it is quite possible that hallucinations *do* arise from valid external stimuli that are outside what Hoffman calls the "receiver wavelength" of our brains when they are in normal states of consciousness.

We have seen that hallucinogenic drugs, rhythmic dancing, "audio-driving" (with loud, repetitive drumming, etc.), sensory deprivation, self-torture (e.g. the agonizing body piercings of the North American Indian sun dance), starvation, and other extreme austerities are all amongst the techniques that shamans have used

since prehistoric times to alter their consciousness and enter the spirit world.94 But it is well known amongst anthropologists – Eliade discusses the matter extensively – that there have always also been shamans who have no need of any of these tried and tested "techniques of ecstasy," because they have acquired the gift of falling spontaneously into trance (often following a period of illness or an inner crisis marked by disturbed dreams). These specially gifted shamans, the spontaneous trancers, obviously provide the closest parallel to UFO abductees, whose experiences are also spontaneous and not deliberately induced.

The limited amount of scientific research done on the abduction phenomenon – notably the Roper Organization survey in 1991 (see Chapter Five) – suggests that around 2 per cent of the U.S. population has had the constellation of shamanic experiences that we label UFO abductions. Precisely because human neurology has remained unchanged for at least the last 50,000 years, but

remembering always that our brains may be receivers as well as generators of consciousness, it is therefore very likely that around 2 per cent of *every* human population possesses this same spontaneous ability. For the remaining 98 per cent of us, who lack the genetic gift but who yet feel a calling to gain knowledge of the otherworld, it is a gratuitous grace of nature that chemicals closely related to key brain hormones are found in commonly available plants and fungi distributed all over the world.

Whether by ingesting these plants, or by stressing our body chemistry sufficiently through extended periods of rhythmic dancing like the *!Kung* bushmen of southern Africa, or by means of some of the other mental and physical techniques outlined above, we all have the ability to alter our brain chemistry and temporarily "retune" our consciousness to the same remarkable experiences as the spontaneous trancer.

Either way, since 2 per cent of the population seem to be born to

trance, and since the rest of us can be made to trance through judicious use of the (maybe not so gratuitous?) graces of nature, the implication is that sooner or later every culture is going to encounter the characteristic experiences, landscapes, and intelligent otherworldly beings that these trance states unvaryingly reveal. That such experiences have indeed been recorded by every culture at every period of history does not – of course – prove that the experiences are real. But the remarkable mutual corroboration and cross-tallying descriptions provided by such different and completely independent witnesses as UFO abductees and shamans increases my confidence that their experiences *might* be real in some way that science – with its exclusive

"this world" focus – has so far been unable to contemplate.

In 1958, the great psychologist Carl Gustav Jung, as ever far ahead of his time, committed scientific heresy when he considered the possibility that "UFOs are something psychic that is equipped with

certain physical properties.”95 But he also asked, “Where would such a thing come from?” and commented that “the notion of a materialized psychism opens a bottomless void beneath our feet.”96 Elsewhere in his treatment of UFOs, however, Jung tantalizingly suggests exactly where he thinks “materialized psychisms” might come from when he proposes that “all reality” could be “grounded on an as-yet-unknown substrate possessing material and at the same time psychic qualities.”97

What he has in mind here, he makes clear, are the parallel universes envisaged by quantum physics.98

This brings me back to the point I raised a few paragraphs ago.

Let’s say for the sake of argument that spirits *are* real, that they have found ways, and a variety of quasi-physical forms (of which “aliens”

are only the most recent), in which to manifest in our material universe, and that they have been doing so for thousands of years. Even so, what business do they have with us? Why are they here? What do they want? What's in it for them?

In my hunt through the ethnographic sources and UFO abduction reports, I found one thing – most surprising and unexpected – that spirits and aliens do seem to want very much indeed from their human counterparts. This is the subject of the next chapter.

Chapter Seven

Spirit Love

The Urubu Indians, who live along Brazil's Gurupi River in the Amazon rain forest, have preserved a very strange story of two shamans who were "born at the beginning of the world" but later "escaped into the sky" to avoid a planetary cataclysm. Their desire had been to mate with mortal women in order to breed successors who could stay behind on the physical plane and preserve their special knowledge. Intercourse was attempted but was not successful because the shamans' penises were too tiny.1

These first shamans of Urubu myth are so insubstantial as to be rightly classed as spirits themselves, and indeed, there are widespread traditions that the true parents of all shamans are spirits

– even if the intercourse that brings about their conception takes place between spirit bodies in the spirit world.

From Siberia, for example, comes the story of Bo-Khan, a mortal who had sex with a spirit woman. The child of their union became the progenitor of “the race of shamans.”2 Similarly, Tavgytsy, a great shaman of the Avam Samoyed in Siberia in the early twentieth century, had a vision that he himself was the child of a spirit. His first trance, in which he received his initiation, occurred spontaneously during three days of unconsciousness due to smallpox. He was thought to have died, like many others in his village, and was about to be buried when he suddenly came back to life. He told of how he had left his body and made a journey in the company of two spirit guides (in the form of an ermine and a mouse), who led him to the underworld. There his heart was torn out and thrown into a pot (compare Karin, a UFO abductee cited in Chapter Five:

“They opened up my chest and took out my heart”). Then, to complete the familiar sequence of shamanic surgery, his head was cut off, his body dismembered, and his bones counted. Tavgytsy was carried “into the middle of a sea.” There a voice told him: “From the Lords of the Water you will receive the gift of shamanizing.”

Finally he climbed a mountain where he met a naked woman and began to suckle at her breast. She said to him: “You are my child; that is why I let you suckle at my breast.”3

Across Siberia, many tribes say that such mother spirits appear in animal or therianthropic form to abduct the souls of future shamans when they are born and bring them to a huge tree in the spirit world that stands at the foot of a mountain called Jokuo.4 Andreas Lommel, Director of the National Museum of Ethnology in Munich, has observed that the tree described in these accounts has an odd shape with its top “broken or chopped off,” and that Every branch

and twig of this tree, from the lowest to the topmost, bears birds' nests. The shamans of the whole world are brought up on this one tree . . . The shamans themselves usually say that a raven appears as teacher, which sits on the branches of this tree and educates the souls. The shamans whose souls are brought up in the nests on the upper branches become stronger and more important than those brought up in the lower nests. The nests are attached in regular rows and rise step by step with the space of one branch between one row and the next . . .5

This quasi-technological vision of the souls of future shamans in neatly stacked incubators is matched amongst the Cuna, the indigenous inhabitants of islands off Panama in the Caribbean, by legends that link the birth of shamanism to the arrival "from heaven" of a humanlike spirit named Ipeorkum on some sort of flying machine"a golden disk called an *olopatte*." Landing on earth, he taught the people "heavenly knowledge" and then departed again

amidst strange atmospheric effects: “white, yellow, blue and red mists came floating down.” When the air had cleared, “the Cuna found a child in a treetop lying on an *olopatte* like the one on which Ipeorkum had descended from heaven. Later ten more children came to earth in this fashion.”

Cuna legends say that these children, raised by virgins, became the first shamans.6

The Paez Indians of Colombia have an altogether darker tradition about a supernatural jaguar who raped a woman of their tribe at the beginning of time. The offspring of this union, Thunder-Jaguar, became a great shaman who himself fathered many therianthropic children, part human, part jaguar.7 These hybrids, writes the anthropologist Gerardo Reichel-Dolmatoff, “are imagined as most voracious little creatures . . . who, upon their appearance or birth, need several human wetnurses, young girls whom they kill, in the process of growing up, by drinking their milk and blood.”8

Congress with spirits

In hunter-gatherer societies, it is the shaman's relationships with spirits, his great personal experience and knowledge of the spirit realm, and his mastery of techniques, allowing him to enter and leave it at will, that mark him out from the crowd and equip him to make his special contribution. His abilities to find game animals, to protect the community from psychic attack, and most importantly to heal the sick, are gifts that the spirits bestow. But what the myths cited above suggest is that the shaman is also believed to be *reproductively integrated* with the spirit world so that he can be, at one and the same time, the child of spirits, the lover of spirits, the father of spirits, and, in an altered state of consciousness, a spirit himself.

Is this all just hallucination and fantasy, or could there be something more to it?

Some years before his initiation, the neophyte shaman amongst the Buryat, a Siberian tribe, experiences a celestial journey during which he has sex with large numbers of female spirits, one of whom becomes his “wife in the sky.”9 Likewise, every Teleut shaman has a celestial wife whom he holds in very high regard: “My wife on earth is not fit to pour water on thy hands.”10

During the trance in which he received his initiation, a shaman of the Siberian Goldi tribe reported an encounter with a spirit woman.

Although very slender and only about two feet tall, she had a commanding presence and was beautiful. She announced that she was going to make him a shaman, and to this end would give him assis-tant spirits: “You are to heal with their aid, and I shall teach and help you myself.” She also informed him: “I love you, I have no husband now, you will be my husband and I shall be a wife unto you.” Thereafter, the shaman claimed, they had regular sexual relations.11

Amongst the Warao of eastern Venezuela, the initiatory trance of the shaman is induced by the consumption of immense doses of South American wild tobacco (*Nicotiana rustica*, a different and much more powerful species than the *Nicotiana tabacum* presently smoked recre-ationally in cigarettes all over the world).12 In the hallucinations that follow, he finds himself on what he construes as "a bridge made of thick white ropes of tobacco smoke" leading to "a round white house"

in the sky – the "House of Smoke" – inhabited by spirits in the form of insects. There is an obvious parallel with UFO abductions where the "round white house" in the sky is replaced by a flying saucer and where, in addition to appearing as animals, birds, and small humanoids with large black eyes, the abductors do also, quite frequently, manifest either as insects or as humanoids with insectile characteristics.13 Similarly in my ayahuasca visions, the being who most frightened me, and who indeed had seemed about to abduct me

to the sky, had the look of “some sort of huge insect with humanoid features.” Another had eyes that I described in my notebook at the time as “multi-segmented, like those of a fly” (see Chapter Three). Curiously, the insect form of alien that is most frequently seen by UFO abductees is the praying mantis, with its long body, upright posture, triangular face, and large black eyes.14 Kaggen, the shaman god of the San in southern Africa, also most frequently takes the form of the mantis. Meanwhile, the “insect-people” encountered in the House of Smoke in the sky by the Warao shaman have the form of black bees, honey bees, wasps, and termites. One of these is a “beautiful bee girl” with whom the shaman has repeated sexual intercourse and fathers four hybrid children: Elder Brother Black Bee, Younger Brother Wasp, Elder Brother Termite, and Younger Brother Honey Bee.15

In North America, the Algonquin reverse the usual direction of the shamanic abduction narrative with a story of a hunter who saw 12

ravishing young spirit maidens descending from the sky in a basket.

The hunter succeeded in capturing one of these female spirits, kept her his prisoner here on earth, married her and had sexual intercourse with her. She became pregnant and bore a baby son, but longed to return to the sky. Accordingly, she made a small basket of her own, and "Having entered it with her child she sang the charm she and her sisters had formerly used, and ascended once more to the star from whence she had come."16 For two more years she remained with her son in the heavens, but the Algonquin tradition adds an important detail. It seems that all was not well with the hybrid child in the spirit world, because he needed contact with his human father. To this end a voice instructed her: "Thy son wants to see his father; go down therefore to the earth and fetch thy husband."17

Amongst the Saora, an aboriginal tribe of Orissa in north-west India, the future shamaness receives her calling and supernatural

consecration during “visits from a suitor from the Underworld who proposes marriage.” Being a spirit, he naturally has the capacity to transform himself into any bodily shape he wishes. Usually he adopts the form of a “well dressed and handsome” man, who appears “in the depth of the night.”18 As with UFO abductees, who frequently experience being taken from their homes in the small hours while the other members of their family have been plunged into an unnaturally deep sleep, the Saora say that when this suitor from the spirit world enters the maiden’s bedroom, “the whole household is laid under a spell and sleeps like the dead.”19 And also as with abductees, it is futile to resist. One shamaness named Champa told of how she refused the advances of the being who had appeared by her bed, at which “he took me up in a whirlwind and carried me away to a very high tree where he made me sit on a fragile branch.” There, terrified, she accepted his proposal of marriage.20 Another Saora shamaness was already a married woman when her spirit lover appeared to her. When she resisted he

threatened to drive her mad unless she agreed. “Finally she was obliged to accept,” reports Eliade, and learned in dreams the art of shamanizing.

She had two children in the underworld.21

In an observation reminiscent of the Algonquin tradition cited above, the Saora state that the offspring of such unions generally remain in the underworld with their spirit father, but cannot thrive there without the love and attention of their human mother. In one case, a young woman was seduced by a spirit, enjoyed intercourse with him, and they married:

Soon the young woman gave birth to a child by him in the spirit world, and he would bring it to her at night for her to breastfeed it. He came when everyone was asleep. The people in the village heard the child cry, but her own family slept as if they were dead. Later she married a man in this world, but because she had a child in the

other world she did not think that she could have more children here.22

In Mexico, Don Soltero Perez was the shaman of a small village who received his calling when he was struck by lightning and nearly killed. He recovered, but continued to lose consciousness regularly, once or twice a week, for about six months. On awakening from each of these episodes he reported that his spirit had been abducted by the *enanitos*, dwarf-sized supernatural beings well known in Mexico since Aztec times, whose purpose was to transform him into a shaman. When he attempted to refuse his calling, as he did for a long while, they tortured him and beat him from head to toe, making him “sore all over.” Eventually, knowing that they would kill him if this punishment continued, he gave way and agreed to their demands. They then equipped him with a staff and three magical stones, through which in future he would be able to focus his healing power. Last but not least, they married him to an *enanita*

wife who would remain in the spirit world, “in a cave with others of her kind,” where Don Soltero would be able to visit her in a state of trance. “Since he became a healer,”

reports the anthropologist Holger Kalweit, who studied this case: Don Soltero has not been allowed to have sexual relations with his human wife. He tried once but immediately had an attack and fell to the floor as though he were dead. During this attack his spirit was forced to go to a cave where it was beaten by the *enanitos*. Since then Don Soltero concentrates all his sexual activity on his spirit wife . . .

She and Don Soltero have children who live with their mother in the cave.23

In South America, throughout the Amazon region, the belief is widespread that some river dolphins (*botos*) are not what they seem but are spirits from another realm, materialized in this world. Such

beings have the power to come out of the water and appear on land in the form of handsome young men and beautiful young women.

Thus disguised, they seduce mortals and lure them down to Encante, the enchanted city which every boatman knows lurks far beneath the surface of that deep and turbid river:24 “When you are alone in the water and the *boto* comes, you are afraid . . . They make a hole under the water . . . and they really attract you. They seduce you. You must be careful.”25

The general view is that “women become pregnant by botos”; however, the offspring of these unions are said to be deficient, sometimes “monstrous” creatures that “die very quickly.”26 In one interesting case, a woman believed that a *boto* came to her in the night, disguised as her husband, and that they “made love as if in a dream.” She claimed that she conceived, but nine months later, when she gave birth: “It was as if the baby was made of water. The baby just melted away.”27

Another spirit animal of the Amazon that likes to seduce mortals takes the form of a nutria – a large otter. Local people say that it is

"driven by an insatiable longing to seek sexual intercourse with human beings in their dreams." As with the *botos*, when the spirit lover is male and the mother is mortal, the offspring of such unions are born here on earth, but sickly – in this case with "white skin and white hair."28 On the other hand, when the hybrid infant is born in Encante of a mermaid mother and a human father, the outcome is different.

Then the child remains in the underwater realm and becomes a great shaman of that dimension.29

p.

Details from two paintings of ayahuasca visions by Peruvian shaman Pablo Amaringo. Left, mermaids lure a boatman down to the enchanted city deep beneath the surface of the Amazon; right, mermaids and serpents.

Alien lovers

One of the most surprising but consistent "subroutines" of UFO abductions, reported independently in the vast majority of cases, has been put into a concise and useful summary by John Mack:
Abductees experience being impregnated by the alien beings and later having an alien-human . . . pregnancy removed. They see the little fetuses being put into containers on the ships, and during subsequent abductions may see incubators where the hybrid babies are being raised

. . . Sometimes the aliens will try to have the human mothers hold and nurture these creatures, who may be quite listless . . .30

Where male abductees are concerned, sperm samples are repeatedly taken, and hybrid babies are displayed to them with the strong mental suggestion that these are their offspring. Like female abductees, who are sometimes artificially inseminated and sometimes impregnated directly in acts of sexual intercourse with "the alien beings,"

male abductees also have sex with alien females. Before psychologists rush in with obvious suggestions like fantasy-projection, it is worth making the point that these sex acts are rarely experienced as being pleasurable and are reported redundantly, in almost exactly the same language, over and over again, by hundreds of abductees. Based on close investigation of his own patients, Harvard psychiatrist John Mack confirmed:

I am convinced that the reproductive narrative is powerfully real for the experiencers. To the best of my knowledge, after thousands of hours of investigation with scores of abductees, no Freudian or

other individual psychodynamic explanation seems to account for its basic elements.31

How then are we to explain this very specific, widespread, and easily identified pattern of bizarre “non-real” experiences?

The short answer is that only in the Western context, from which spirits have been temporarily expelled by science, do such experiences seem bizarre, extraordinary, inexplicable, and threatening. In the shamanic context they occur routinely and require no explanation at all.

For example, John Mack’s patient Sara reported frequently being forced into intercourse with an alien male who had “a light contour of a penis, but not like a physical penis.”32 Similarly, based on analysis of the testimony of 60 abductees,33 David Jacobs of Temple University provided this summary of intercourse when the male partner is alien: “The insertion of the ‘penis’ is quick, and the

penis does not feel normal; it is usually very thin and very short.”34 Jacobs’ own view is that there is no connection between modern UFO abductions and

“myth, folklore, legend and so forth.” He believes that his evidence

“inexorably leads to the abduction phenomenon beginning in the late nineteenth century . . . and not to any time before that” (personal correspondence, May 2005). Nevertheless, his summary of alien intercourse is strongly reminiscent of the Urubu Indian descriptions, cited at the beginning of this chapter, of the mythical first shamans whose penises were so tiny that they were unable to mate successfully with human women.35

When we consider the number of occasions on which shamans are abducted and engage in intercourse with spirits, the 1957 abduction and subsequent rape by an “alien” woman of a rich young Brazilian named Antonio Villas-Boas seems unmistakably to be part of the

same genre. While working on his father's farm at night, Villas-Boas saw a UFO land nearby and was forced inside it by four small beings with large heads. They stripped him naked and took a blood sample from his chin. Then a small, nude female with the ethereal looks of a fairy

- thin blonde hair, large slanted eyes, high cheekbones – entered the room and began to embrace him: "Her body looked human, her feet were small, and her hands were long and pointed. She was about four and a half feet tall."36 Two vigorous bouts of sexual intercourse followed, leaving the young man feeling that he had been used like "a good stallion to improve their . . . stock."37 He recalled later that despite her transparent and delicate looks, the alien female had emitted harsh grunts during sex, "giving the disagreeable impression that I was with an animal."38

Peter, one of John Mack's patients, remembered repeated episodes of lovemaking with an alien female but did not feel raped and

abused.

On the contrary, he said of his alien lover: “It feels like she’s my real wife – I want to say on a soul level.”39

Similar emotions of deep love and loyalty to an alien of the opposite sex, creating what Mack calls “a moral dilemma for marriages on this Earth plane,” are reported by large numbers of abductees.40 Such triangles are highly reminiscent of the case of the Buryat shaman cited earlier, who felt that his wife on earth was not even “fit to pour water”

on the hands of his celestial wife. Likewise, Don Soltero Perez broke off all sexual contact with his human wife so that he could concentrate his attentions on his spirit wife.

Interestingly, however, many abductees also report that when sexual intercourse is first initiated by the aliens, they are lulled into a false

sense of security by a flood of imagery in their minds in which "the abductee is made to believe that either her husband or loved one is with her. Abductees sometimes say that the face of the husband, for instance, tends to 'phase' in and out of the face of the alien."41 The obvious parallel here, and it is a close one, is of the woman in a village along the Amazon, cited earlier, who made love "as if in a dream" with a dolphin spirit that had taken on the appearance of her husband.

Hybrid offspring (1): tanks and nests

In some cases of UFO abductees who experience themselves to be in intense long-term "marriages" with aliens, hybrid children are deliberately created and parented.42 Here, too, there is an exact parallel to the deliberate creating and parenting of the hybrid offspring of spirits and shamans reported earlier. In addition, however, the study of large numbers of UFO abduction reports reveals consistent repeated testimony to the effect that the aliens are

creating and rearing hybrid children, born of human mothers or fathers, outside anything even remotely resembling a human family unit – indeed in what sound like extremely impersonal “battery” conditions.

Almost always, what happens is that the abductee is taken by the aliens to an area set against the curving inner wall of the ship, where he or she – more often she – is shown large numbers of hybrid babies stacked up in “drawers” or “tanks” in some sort of symmetrical grid or rack.

Here is Julie Knapp’s observation of such a scene during one of her abductions in 1977:

God! It’s like they’ve got . . . babies there. They’re like in drawers in the walls; it’s like little drawers that pull out and there’s babies, like little, little somethings in these drawers that pull out like in a lab or something.43

John Mack's patient Jerry had almost exactly the same experience in a room lined with "lots and lots and lots and lots of rectangular-shaped containers, like drawers in a cabinet, with hardly any space between them." Inside the drawers she was shown hundreds of "I don't know if you can call them babies or not, but I guess just little fetuses."44

During one of her abductions, Catherine saw "cases" stacked in floor-to-ceiling rows – four or five rows from top to bottom, eight or ten from left to right. The cases, she said, were "lit from the back"

and contained "baby versions" of the aliens "all in a liquid" and "all facing out."45 Similarly, in an abduction in 1980, James Austino saw what he construed as rows of fish tanks, stacked up on one another, each containing a hybrid baby: "The whole wall's lined up . . . Sixty, maybe seventy."46 Another abductee, Karen Morgan, compared the room with the rack of hybrid babies to "a big womb.

There seem to be a lot of new babies in it. Fifty or maybe a hundred . . .”47

Allowing, of course, for the very different metaphor, isn’t what is envisaged here rather familiar in some way? Aren’t these geometrical stacks of incubation tanks, in which half-alien, half-human babies are lined up in neat symmetrical rows, in essence the same thing as the great tree of Siberian legend, described earlier, that incubates the souls of shamans in nests attached in geometric rows rising step by step with the space of one branch between each row and the next?

What makes the comparison particularly tempting is the report of Karin, one of John Mack’s patients, that she had emerged during an abduction on board a UFO “into a black space that contained a huge tree with a great canopy of leaves. On the different branches of the tree there were large nests with thick twigs and an eagle sitting quietly and peacefully in each one.”48

It is almost as though the symbolic array by which the spirit world represents itself to humans in shamanic cultures has here broken through and momentarily overwritten the symbolic array by which

"aliens" represent themselves to humans in modern America.

Hybrid offspring (2): parents, wetnurses, and playfriends As well as being incubated in nests on a tree, a number of other definite characteristics of the offspring of shamans and spirits are indicated in the cross-section of myths and initiation experiences cited at the beginning of this chapter. The strong themes that I take from these accounts are the association of hybrid human-spirit babies with flying discs (Cuna, Panama), their failure to thrive in the spirit world unless breastfed either by a wetnurse (Paez, Colombia), or preferably their own mother (Saora, India), their need for contact with their human father as well (Algonquin, North America), and their pale and sickly, sometimes "monstrous" appearance (Mestizo, Amazon).

Turning now to the offspring of aliens and humans, what do we find?

The reader will recall from Chapter Six that the troubled toddler Colin, John Mack's youngest patient, repeatedly experienced being abducted to a flying saucer in the sky by "scary owls with big eyes."

After one such abduction, Colin announced that he did not like the flying saucer and did not want to go back, but nevertheless insisted:

"I was born there and fell from the stars . . . I was born on the spaceship . . ."49 The comparison with the Cuna tradition of a baby left behind in a treetop by a flying disc from the sky is obvious, and indeed many UFO abductees report feeling that they too were in some way born amongst the aliens, that they are not "from here," and that their human mother and father are not their true parents.50

What about the spirit child's failure to thrive unless breastfed either

by his own mother or by a wetnurse, and his need for other human contact including with his father? Surprisingly, these themes are richly represented in the reports of UFO abductees, and shed completely new light on the sorts of experiences with spirits that must have inspired the shamanic narratives.

Many UFOs supposedly have specific recognizable rooms on board in which hybrid babies (and also older children) are presented to their human parents of both sexes. Several reluctant abductees report being told specifically by the aliens that they are involved with the hybrids whether they like it or not and that the babies "need their mothers.

They have to have their mothers. It doesn't matter if you care or not, it doesn't matter. They need their mothers."51 In other cases, however, such feelings seem to be reciprocated. For example, John Mack found a number of his patients who believed passionately that they had living hybrid offspring "out there." They suffered terrible

feelings of loss at being separated from them and completely unable to gain access to them except on those occasions when

periodically the abductee mothers and fathers are brought to see the hybrid offspring and encouraged to hold and love them, which is one of the most disturbing aspects of the whole process. For the abductees are naturally filled with conflict at the prospect of forming a deep bond with an odd offspring that they can only rarely see at the pleasure of the alien beings.52

Hybrid babies are not only encountered by their own human mothers and fathers, but also quite frequently by unrelated humans who are required by the aliens to serve as wetnurses and playmates to them.

Summarizing the reports of 60 abductees, David Jacobs gives a helpful, moment-by-moment account of a typical “baby presentation”

and nursing sequence, where the human involved is not the hybrid's mother:

The aliens bring the abductee into the child presentation room . . . The abductee stands or sits down on a bench or chair. The beings who brought her in are behind her. Then a "female" being approaches her.

She is holding a baby. The woman senses the communication "Isn't this a nice baby? Wouldn't you like to hold the baby? Hold the baby!" The female being extends her arms with the baby in it toward the woman, and the abductee takes it. She holds the baby to her chest with the baby's head resting on her arm or shoulder. If the abductee resists she may be given a "reason" to force her to hold the baby. One woman was told that the baby would get sick if she did not hold it, and that it would develop a rash or some other sickness if she held the baby away from her body. Therefore she had to hold the baby against her skin for as long as possible. The baby may be

naked, or it may be wrapped in a “blanket.” It is usually very small, but it can be an older and larger baby as well. Women describe the small baby as being very light in weight but with a heavy head. The woman sits with the baby, or she may get up and walk around with it. The aliens stare intently at her and the baby. The woman hears another directive: “Nurse the baby.”

“Put the baby to your breast and feed the baby.” The woman says, “But I do not have any milk.” The response is, “Put the baby to your breast and nurse the baby!” Saying “no” is futile. If she resists the aliens will put the baby to her breast anyway. It cups its mouth to her nipple. It has a very weak sucking reflex. In many instances the woman may be surprised to find that she is lactating and that her breasts are engorged.

When that happens the baby will partially drain the breast. Often, however, nursing the baby is futile but seems to satisfy the watchful aliens nonetheless.53

After going through such an experience Jill Pinzarro commented: I feel it's very important to the baby that it has this contact and I'm very happy to do it for it. I feel that it really needs that . . . It's like soaking up the experience of being held. That's what I think.54

During several of her abductions, Karen Morgan has found herself in a room with other human women, playing with naked babies: The women hold the babies up in the air, tickle them, and make baby sounds to amuse them. The babies do not respond. They do not laugh or smile, and they do not make sounds in return. Sometimes Karen and the other women might be told to "wash" the baby . . . Frequently the offspring the aliens tell the woman to hold in this setting is between two and ten years old, or even older . . .55

In one abduction Karen was required to embrace a hybrid teenage female. At first she refused, but the aliens made her wrap her arms around the girl, who returned the embrace, clinging on to her for a long while. At the end the child seemed energized. She turned to

Karen and telepathically projected into her mind the words “thank you.”56

John Mack’s patient Peter recalled being recruited by the aliens as a playmate for hybrid children: “Since I was a young child I had agreed to do this, and I chose to play with the babies, the other beings, the aliens.”57

Hybrid children (3): pale and sickly and monstrous We’ve seen that the hybrid offspring of spirits and humans are frequently described as pale and sickly, with white skin and white hair, and also as being in some way deficient, perhaps even monstrous.58

Although often given in more detail (as one would expect since they are recent and were recorded by trained psychotherapists), the accounts of UFO abductees ascribe exactly the same characteristics to the hybrid offspring of humans and aliens.

Monstrous hybrids are described – for example one with one arm

“almost human” while the other arm appeared “alien,” and another whose face was alien on one side and human on the other.59 Likewise an abductee named Melissa furiously resisted contact with what she described as the “gross baby” that the aliens presented her with – to which she reacted as though it were indeed a monster: It’s . . . an ugly one like the little creatures. I don’t want anything to do with this species, nothing at all. I’ll kill it . . . It’s so fucking unnatural. Fucking stupid. Disgusting thing . . .60

But others have more tender feelings. Debbie Tomey reported an episode in which the aliens presented her with a young adult female hybrid:

a few feet tall, with a slim body and ivory skin and a big head and high cheekbones and no eyelashes or brows, and unnervingly sparse blonde hair, the color of cotton, which in certain places didn’t quite

cover her scalp.61

Debbie said that she could not help feeling a pang of maternal affection for the girl.62

Another abductee, Barbara Archer, had this to report: They scared me when I first looked at them because they looked odd.

They looked kind of old. They don't have much hair. They have some hair, but not much . . . They strike me as being very fragile. I feel like maybe they're what I would think of as premature babies . . . They're fragile . . . I feel like they're not real strong . . . They don't look healthy to me. They're kind of scrawny or something.63

Nona:

Their bodies were short for their heads. Their heads seemed oversized.

They had very blue eyes. They had very thin, wispy hair . . . I would say they were probably three and a half feet tall, but they all looked the same age. “You’re our mother and we need you,” they said.64

Isabel:

She had long limbs, and she wrapped her arms around me, and I held her . . . on my hip and her leg was in front. The other one was dangling.

Her skin looked dry and scaly and flaky, like she needed lotion. She looked so lonely. I felt she was mine in a biological sense.65

Peter:

They had big heads, and, like, wisps of hair, and they have bigger heads than their bodies. They have skin that’s kind of like our skin. It’s a little rougher – more fleshy. It’s not like baby fat. It’s like old-

age fat, and the arms are really fragile, but they have big bellies.66

"Abductees universally state that the baby does not have the normal human reactions of a human infant," adds David Jacobs. Furthermore, such a baby

is almost always listless. It does not respond to touch as a normal baby would. It does not squirm; it does not have a grasping reflex with its hands. It is lifeless, yet it is not dead. Most women think that there is something terribly wrong with the baby. They feel that they must hold the baby to help it survive.67

Catalyst

Although spirits frequently abduct shamans and make babies with them, they rarely bother to explain why.68 Likewise, in all the extensive UFO abduction literature, I have found few references to attempts made by aliens to explain the very great amount of effort

that they appear to put into the creation and nurture of hybrid offspring. But in answer to the question posed at the end of Chapter Six – what do spirits and aliens want from us? – it seems clear, even from this necessarily brief survey of the evidence, that what they want, more than anything else, is to mate with us and create hybrids. This simply begs further questions, of course – notably, why do they want that, and how long have they wanted it for?

The argument has been made in Part I that entoptic phenomena and complex visions of spirit worlds and spirit beings were the inspiration for the transcendental art of the painted caves of Upper Paleolithic Europe. We also saw how the impaled and suffering images of wounded men make complete sense in terms of what we know about the symbolism, imagery, and experiences of shamanic initiations the world over. What comes as a complete surprise, however, is how much sense they also make in terms of the symbolism, imagery, and experiences of UFO abductions. Since we

have no ethnography from the Upper Paleolithic, it is obvious that we cannot prove that all the other experiences reported to ethnographers by shamans, and to psychiatrists by UFO abductees, were shared by their Upper Paleolithic predecessors, nor can we be certain what their construal of such experiences would have been. Nevertheless, it would be unwise to exclude the possibility that the cave artists were as capable as we are of attaining the full range of trance perceptions. They are therefore also just as likely to have experienced abductions at the hands of supernatural beings encountered in their visions, to have received teachings of vital knowledge and the gift of healing powers, and to have paid for these in return with marriages to spirit spouses and the creation of hybrid children.

Who knows, perhaps experiences such as these might even have provided the catalyst that – virtually overnight in evolutionary terms

- transformed anatomically modern but dull, uninspired, and

spiritually void humans into behaviorally modern, innovative, spiritually aware, and interesting humans?

It seemed to me that if this were so, if interactions with mysterious supernatural beings had played such a pivotal role at such a critical moment in the story of human evolution, then the phenomenon was much too important to have confined itself to shamans in hunter-gatherer societies and UFO abductees in technologically advanced countries. No matter how well hidden by local and finite construals, it was almost certain to have been present at other moments in human history as well.

Not even sure exactly what I was looking for, but only that I would know it if I found it, I began to investigate further.

Chapter Eight

The Secret Commonwealth

The great Swiss psychologist and psychiatrist Carl Gustav Jung, writing in 1958, was the first to point out that the UFO phenomenon has a history, and perhaps a prehistory. Large numbers of people would later report having experienced abductions during the 1950s and even the 1940s, but in 1958 the matter had not yet received any publicity, and Jung knew nothing of it. His interest was therefore limited exclusively to UFOs themselves which, since the Second World War, had generated huge numbers of eyewitness reports of "flying saucers" and ever-rising public interest and concern. Jung described the sightings as a new form of global rumor that "differs from an ordinary rumor in that it is expressed in the form of visions."1 His inclination was to treat UFOs as "a 99 per cent

psychic product," yet he admitted he was baffled by their "apparently physical nature,"2 which, he lamented, created insoluble puzzles for even the best brains

The only thing we can say with tolerable certainty about UFOs is that they possess a surface which can be seen by the eye and at the same time throws back a radar echo.4

In addition one other thing was clear, and this was that UFOs were nothing new:

Though UFOs were first publicized only towards the end of the Second World War, the phenomenon itself was known long before. It was

observed in the first half of this century [the twentieth century], and was described in earlier centuries and perhaps even in antiquity.5

In August 1566, for example, “many large black globes were seen in the air” above the city of Basel in Switzerland, “moving before the sun with great speed, and turning against each other as if fighting. Some of them became red and fiery and afterwards faded

and went out.”6

Jung reproduced an illustration of the scene from a Basel broadsheet of 1566, noting that the “speed and irregular motion” attributed by eyewitnesses to the black discs “are typical UFO features.”7

Basel broadsheet, 1566

In April 1561, there was a spectacular UFO display over Nuremberg, Germany. Plates and globes were sighted in large numbers whirling in the sky near the sun, and also “great tubes in which three, four and more globes were seen.”8

Nuremberg broadsheet, 1561

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An engraving from the seventeenth century shows a pilgrim breaking through the star-strewn rim of this universe and beholding what Jung describes as

another, supernatural universe filled with . . . layers of cloud or mountain ranges. In it appear the wheels of Ezekiel and rings or rainbow-like figures, obviously representing the “heavenly spheres.” In these symbols we have a prototype of the UFO empirical vision . . .9

The spiritual pilgrim

discovering another world

A fourth scene considered by Jung, called “The Quickening of the Child in the Womb,” is from the Rupertsberg Codex (twelfth century,

“The Quickening of the Child in

the Womb” (twelfth century)

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written by Hildegard of Bingen), and shows a pregnant woman, reclining, approached by two groups of people bearing baskets of

gifts.10

I note in passing that a mushroom, in the hands of a small goblin-like figure, can be seen in one of the baskets.11 Meanwhile a large quadrangular object containing a curious mixture of eyes and discs floats overhead, set against the background of a starry sky. The object is connected by a long tube to a fetus in the woman's womb.12

Although he knew nothing of the UFO abduction phenomenon, Jung was characteristically prescient in picking out this scene from the twelfth-century codex. Not only was something very much like the basic form of the flying quadrangular object sketched by eyewit-Drawing of the Cash/Landrum UFO sighting (after Stillings, Ed., 1989).

nesses of a modern UFO sighting (the Cash/Landrum case), but also the scene neatly symbolizes one of the fundamental themes of UFO

abductions – namely the impregnation of human women by aliens and the creation of hybrid offspring. In addition, it may or may not be relevant that following some sightings of UFO-type lights in the sky in the U.S. in the late 1960s, people reported experiencing strange dreams in which groups of giant eyes floated above them.13

Jacques Vallee and the flying saucer connection Jung's insights were penetrating, but as he himself admitted, his research – for what was never intended to be more than a short monograph – was strictly limited. Beyond recognizing that a historical background to the UFO phenomenon does exist (and examples could be multiplied from every folklore and mythology of the world), he had neither the time nor the inclination to find out more before his death in 1961.

A few years later, in 1969, the mystery of the historical background to the UFO sightings of the mid-twentieth century was explored again.

This time the task was taken up with great vigor by mathematician and NASA consultant Jacques Vallee in his underground cult classic *Passport to Magonia*, unfortunately now long out of print.14

Vallee's contributions were manifold. Of great value is his catalogue of UFO sightings documented in relatively recent news sources. The catalogue, which stretches back long before the first modern wave of publicity for the phenomenon following World War II, begins in July 1868, when a strange "aerial construction" bearing lights and making engine noises flew low over the Chilean town of Copiago.15 In January 1878, a farmer in Texas was startled by a sighting of a dark flying object that he described as a "large saucer."16 In 1880, a 14-year-old boy saw a luminous ball descend from the sky and hover near him.

He reported feeling drawn to it but overcame his fear and escaped.17

The examples go on and on; without needing to reproduce Vallee's entire catalogue here, the gist is that many apparently motorized and piloted UFOs, and even identifiable "flying saucers," were in fact seen all over the world during the second half of the nineteenth century.18

Moreover, Vallee was able to trace the phenomenon much further back than this, and much further even than Jung had followed it.

Indeed, Vallee's title, *Passport to Magonia*, is taken from an account written by Agobard, Archbishop of the French city of Lyons, around the year 820. Like a modern UFO skeptic, the good archbishop's testa-ment to posterity was a lament at the ignorance of the masses for believing in the existence

of a certain region, which they call Magonia, whence ships sail in the clouds . . . Out of the number of those whose blind folly was deep enough to allow them to believe these things possible, I saw

several exhibiting in a certain concourse of people, four persons in bondsthree men and a woman who they said had fallen from these same ships; after keeping them for some days in captivity they had brought them before the assembled multitude, as we have said, in our presence to be stoned. But truth prevailed.19

Doesn't it seem likely that these four unfortunates, who Agobard saved, would describe themselves as UFO abductees if their experience were to occur today? It may be relevant that a small number of modern abductees have stated that they were *not* conveniently floated directly back to their homes and beds after the experience, but dropped less gently elsewhere – sometimes miles away. It is not difficult to imagine how such a return, observed or merely reported, might have attracted the attentions of a lynch mob in the superstitious climate of the ninth century.

Another early UFO report that Vallee found comes from Japan, where Imperial records inform us of the erratic flight over Kii

Province, beyond the north-east mountain of Fukuhara, of an unusual brightly lit object described as an “earthenware vessel.” Soon “the object changed its course and was lost to sight at the southern horizon leaving a luminous trail.”20 Likewise, on September 12, 1271, the famous priest Nichiren was about to be beheaded at Tatsunokuchi, Kamakura, when there appeared in the sky “an object like the full moon, shiny and bright . . .” Officials panicked and cancelled the execution.21

Vallee also cites a number of other UFOs and UFO-linked phenomena that were seen and documented in Japan between the tenth and eighteenth centuries. In August 989, for example, three round, exceptionally bright objects that later joined together were observed. In September 1702, cotton-like threads fell from the heavens, apparently emanating from the sun itself, and in 1749 three more large round objects, “like the moon,” were observed continuously in the sky over a period of four days, sparking riots.22

In addition to such neglected and overlooked UFO reports in secular sources, Vallee argues that “it is in the literature of religion that flying objects from celestial countries are most commonly encountered . . .”23

Again, it is not necessary here to recapitulate in any detail the evidence already published on this point, but we can easily grasp what Vallee is getting at by calling to mind the winged discs of Sumer and ancient Egypt, the Vimana “aircraft” referenced in Hindu texts, the flying carpets of Arabia, and the “sky-rafts” used by the “star spirits” of ancient China.24 Let’s also not forget biblical UFO spectacles such as Elijah’s ascent to heaven in “a whirlwind” associated with a “chariot of fire”25

and the prophet Ezekiel’s vision, again involving a whirlwind and fire, as well as mysterious creatures on board great “wheels” (cited earlier by Jung) that “lifted them up from the earth.”26 In the same general vein, we quite often read accounts in the Old Testament of

such aerial vehicles as “the Chariots of God,”27 and descriptions of what sound like a superior race of beings whom humans must have dealings with and “who come from a far country, from the end of heaven.”28 Last but not least, in keeping with two of the fundamental themes of modern UFO abductions – sex with aliens and the creation of hybrid offspring – it is surely significant that the Bible depicts women having intercourse, and making monstrous hybrid babies, with heavenly supernaturals. In a famous passage from Chapter Six of the Book of Genesis, we read that the “Sons of God,” immortal beings whom scholars usually identify with angels,

saw the daughters of men that they were fair; and they took them wives, of all which they chose . . . There were giants in the earth in those days; and also after that, when the sons of God came unto the daughters of men and they bare children to them.29

Whatever else might be made of these strange verses, it is clear that the “sons of God” are not human – a matter on which every

authority is agreed. Yet these non-human or superhuman spiritual powers seduce and impregnate mortal women, who in turn give birth to hybrid children. As the reader will agree, this is precisely the scenario explored in Chapter Seven whereby immortal spirits engage in intercourse with mortal shamans with a view to producing hybrid offspring, and whereby aliens engage in intercourse with abductees to exactly the same end.

Jacques Vallee and the fairy connection

Passport to Magonia does not consider any of the connections between UFO abduction experiences and shamanic initiation experiences, or between aliens and spirits, that I had turned up in my research. But what it does consider is another, apparently completely different but equally extraordinary, set of connections that I had been unaware of.

“The modern, global belief in flying saucers and their occupants,”

wrote Vallee,

is identical to the earlier belief in the fairy faith. The entities described as the pilots of the craft are indistinguishable from the elves, sylphs and lutins of the Middle Ages. Through the observations of unidentified flying objects, we are concerned with an agency our ancestors knew well and regarded with terror: we are prying into the affairs of the Secret Commonwealth.30

I was naturally intrigued by Vallee's forthright comparison of the fairy phenomenon on the one hand and the UFO phenomenon on the other – a comparison that he documents at length and backs up with solid evidence.31 Furthermore, the insights that he offers take us far beyond Jung on these matters, because a few of the specifically abduction-related aspects of UFOs that we are familiar with today had begun to be reported during the 1960s when Vallee was doing his research. In making his case, he was therefore able to take two of the early reports very closely into account – the

abductions of Antonio Villas-Boas and of Betty and Barney Hill – and to provide us with a masterful analysis of these and of their precedents in fairy folklore.

On the other hand, there was also a great deal in 1969 that Vallee did *not* know about UFO abductions – and could not have known then. Full details of the experience as we now understand it would only filter into the public domain in the 1980s and 1990s, when Budd Hopkins, David Jacobs, John Mack, and other psychiatric counselors began to record extensive interviews with people who believed they had been abducted by UFOs (at the same time revealing the astonishing commonalities that unite all such accounts). Lacking access to the mass of data that these researchers have uncovered, Vallee obviously had very little to work with in his attempt to compare fairy and alien phenomena. Nonetheless, he found more than enough to convince me that the resemblance is strong, and intriguing.

Fairy knolls and skyships

Vallee's dark hint about "prying into the affairs of the Secret Commonwealth" is derived from the title of a book – *The Secret Commonwealth of the Elves, Fauns and Fairies* – published in 1691 by the Reverend Robert Kirk, a church minister of Aberfoyle in Scotland.32 Like a powerful shaman, Kirk was rumored to possess "the second sight"33i.e. clairvoyance and other psychic abilities. By means of this gift, he claimed that he regularly encountered the small, unpredictable, often dangerous supernaturals – given many different names by many different cultures in many different epochs – that have been classed for about a thousand years throughout the Celtic fringe of western Europe under the broad rubric of "fairies" (*feie, fata, faerie*, etc., etc.).34

Based on his direct and powerfully felt experiences, Kirk described these fairy tribes as "a distinct order of created beings possessing humanlike intelligence and supernormal powers, who live and move

about in this world invisible to all save men and women of the second sight."35

What adds special poignancy to Kirk's story is that in 1692, a year after the publication of *Secret Commonwealth*, he vanished and was believed locally to have been "taken" by the fairies. This tradition was confirmed by Walter Scott in 1830,36 and was still in circulation in 1909 when the renowned scholar of religions, W.Y. Evans-Wentz, was preparing his own careful and extensively documented study, *The Fairy Faith in Celtic Countries*.37 Wentz visited Aberfoyle, the site of Kirk's supposed disappearance. There, Mrs. J. MacGregor, the caretaker of the old churchyard, where there is a tomb to Kirk, reported that "many say there is nothing except a coffin filled with stones." Mrs. MacGregor further informed Evans-Wentz that "Kirk was taken into the Fairy Knoll," a low hill that she pointed out on the other side of the valley,

"and is there yet, for the hill is full of caverns and in them the 'good

people' have their homes."38

The reader will recall the frequency with which shamans experience abduction to caves by spirits during their initiatory trances, and how some modern UFO abductees have also reported cave and underground settings for their experiences. In addition, as Vallee points out, fairies themselves are not confined to a troglodyte existence in any folklore, but also always have strong connections with the air, the sky and flight: "There was the sudden vision of brilliant 'houses' at night, houses that could often fly, that contained peculiar lamps, radiant lights that needed no fuel."39

Numerous other sources that I have consulted – both ancient and modern – confirm this aerial – and even "extraterrestrial" – affinity of fairies. In Ireland, for example, it was said that the fairy host traveled through the air and caused "fairy winds,"40 while formations of "fairy lights" were often seen moving at high speed across the sky long before the age of airplanes.41 In Wales it was

well known that fairies – the *Tylwyth Teg* – were only "visitors to earth," and that as a special order of creation they had the ability to "fly about at will."42 Sometimes they did this by just taking to the air in bodily form and swimming through it, but in many traditions fairies traverse the skies more grandly in cloud-like aerial vessels called "fairy boats" or "specter ships."43 A UFO

sighted in France in the 1850s was described as a "chariot with whining wheels." It rushed at high speed up the side of a hill and then disappeared in the air. It was driven, eyewitnesses said, by a species of small dark fairies known locally as *farfadets*.44

Rape, reproduction, and wetnurses

Vallee did not content himself with making a prima facie case based on the broad similarities of aliens and fairies both flying around the sky in unidentified objects and having connections with caves. Much more significantly, he also picked up very early on the sexual

element in the abduction of Antonio Villas-Boas (reported in Chapter Seven), and compared the case to traditions of fairies raping and/or marrying humans, abducting their lovers to Fairyland, and producing offspring to "strengthen their race" – often requiring the services of a human midwife or wetnurse.45 Although unaware of the shamanic side of the story (which we have seen is also dominated by themes of rape, spirit marriage, and reproduction), Vallee was certain it was no accident that the rape/reproduction sequence seemed to be common to fairy and alien phenomena. Other than the Villas-Boas case, however, which contained several highly relevant details, there were really no parallels to these reproductive narratives about fairies in the UFO abduction reports available to Vallee in the 1960s – and therefore, apparently, no comparisons to be drawn.

For example, no tales of female abductees being required to wetnurse hybrid babies had yet surfaced when *Magonia* was

published. So although Vallee noticeably pricked up his ears when he found the theme of human wetnurses in the ethnographic sources on fairy abductions ("obtaining the milk and fostering care of human mothers for their own offspring," as he put it),46 he was unable to cite a comparison in UFO abduction literature. He therefore overlooked the following passage in *The Secret Commonwealth* in which the Reverend Robert Kirk writes of "Women . . . yet alive who tell they were taken away when in childbed to nurse Faire Children . . ."47

Vallee could not have known in 1969 that the predicament of these seventeenth-century women is exactly duplicated by the predicament of women in the twentieth and twenty-first centuries who have described being brought on board a UFO and into one of its many rooms – a room that they may have been in before and that is consecrated exclusively to the nursing of hybrid babies. As we saw in Chapter Seven: The aliens stare intently at her and the baby.

The woman hears another directive: “Nurse the baby.” “Put the baby to your breast and feed the baby.” The woman says, “But I do not have any milk.” The response is, “Put the baby to your breast and nurse the baby!” . . . In many instances the woman may be surprised to find that she is lactating and that her breasts are engorged. When that happens the baby will partially drain the breast.48

Returning to the seventeenth century, Kirk’s informants said that they had been brought to a grand “lodging,” where they found themselves in an anonymous room with no apparent exit: The Child, and Fire, with Food and other Necessaries, are set before the Nurse how soon she enters; but she nather perceives any passage out, nor sees what the people does in other rooms of the lodging. When the child is wained, the Nurse dies, or is conveyed back, or gets it to her choice to stay there.49

If there really is a link between UFOs and fairies, then we should be

grateful today that practically all UFO abductees seem to be conveyed back to this world – rather than dying, or remaining in UFO-land forever. By contrast, it was believed and understood in olden times that those who were abducted to Fairyland very frequently failed to return – like the Reverend Robert Kirk himself. A survey of traditional accounts and of more recent fairy abduction narratives suggests a rather random process in which some of those who had been taken by the fairies did return to their normal lives and routines, sometimes mysteriously enriched. Others did not return at all and were assumed to have become permanent residents of Fairyland.

Others still came back but, horrifyingly, their homecomings sometimes took place hundreds of years after all their relatives had died, and after the houses they had lived in had crumbled to dustsuggesting that time runs differently in the otherworld than it does here. We will see later that UFO abductees report strange time-

effects too, particularly episodes of missing time – usually periods of hours, but sometimes days, that they cannot account for, that are simply gone from their lives, leaving behind only vague memories of a vast and inexplicable experience.

Widening the mystery

Almost four decades have passed since the publication of *Passport to Magonia* in 1969. Subsequently, while Vallee's thesis of a fairy-alien connection has slipped into relative obscurity, a mass of new evidence has been steadily building on the "alien" side of the equation. I refer to the thousands of hours of tape-recorded interviews that trained counselors such as David Jacobs and John Mack have been able to conduct with people who believe they have been abducted by UFOs.

As a result of their work, we now possess, as we did not in 1969, a solid database on the phenomena currently labeled as "UFO

abductions," and on the entities currently labeled as "aliens," that have been experienced by millions of people, but that most scientists dismiss as purely imaginary.

Most of the post-1969 arguments about these phenomena and entities have centered around precisely this very difficult and emotive issue

- i.e. is science right, or is experience right? Are UFOs and aliens brain fiction, or could they be in some way *real*? If they are brain fiction, then why and how do the brains of a minority of every population, running into tens of millions of individuals around the world, make this stuff up? And if they are real, then where do they come from – another planet, or another dimension, the future, or the earth itself? I was surprised to discover that in their often heated pursuit of interesting and important questions like these, none of the key protag-onists seem to have realized the potential of Vallee's original insight connecting fairies and aliens. But if fairies and

aliens are the same thing, then suddenly we have at our disposal an entire additional database on a very strange and mysterious category of human experiences apparently involving encounters with and abductions by intelligent non-human entities. Because of the strong new evidence now to hand, and because of my own parallel research into the alien/spirit/shaman connection – itself constituting a third independent database of such experiences – I therefore decided that the time had come to reopen Vallee's superb 1969 investigation.

I was soon to stumble into a labyrinth of conduits linking "Fairyland" and its supernatural inhabitants to the otherworlds of shamans, linking fairies themselves to the spirits with whom shamans must deal, and linking all of these – fairies, shamans, and spirits – to the weird traumas, adventures, and experiences surrounding the supposedly modern phenomenon of UFO abductions.

Chapter nine

Here is a Thing that Will Carry Me Away

On the tiny island of Rathlin, off the coast of Northern Ireland, folklorist Linda-May Ballard found that belief in fairies was still widespread amongst the population as late as 1982. Amongst the many accounts of fairy encounters that she recorded for the archives of the Ulster Folk and Transport Museum is the story of what had happened one stormy night many years before to “a nurse-cum-midwife” who

“lived at the far end of the island.” She had retired for the night when loud knocking awakened her. Half asleep, she went to the door and was confronted by the shadowy figure of a man and, behind him, an impressive four-wheeled coach drawn by a team of

four horses. At first the midwife thought she was dreaming, but then "realized there was something strange about it":

and the man, she couldn't see him in the darkness. He said that she was needed, there was a woman in labor and they needed her very urgently, and so she knew, and decided that no harm would come to her, that she'd get into the coach.1

No sooner was she aboard than the coach took off at great speed, confirming the initial strange impression it had made by floating unnaturally across impassable bogs and around obstacles where there was no road. Eventually:

They arrived at this hill at the back of Brockley. And as they came to the hill, the side of the hill opened up and the horse and carriage went into the hill. And inside it, you know, it was the most beautiful place, it was like a palace inside it . . . And anyway, she attended to the woman that was giving birth and everything was sorted out. But

I forgot to add here that there was a lot of fairies running around, the wee folk, there was a lot of them in this hill, you see.2

And not only fairies. During her mission of mercy, the midwife reported seeing the familiar faces inside the fairy knoll of a number of young men and women who had mysteriously vanished from Rathlin over the past few years. Until that moment "nobody ever knew what was happening," but now it was clear they had been abducted by the fairies. There was also an obvious indication *why* they had been abducted: the midwife had been called to attend to the birth of a baby, and according to her testimony, at least one of the young female abductees she saw was "sitting nursing a small baby" and singing to it in Gaelic.3 The midwife herself was invited to stay on in Fairyland, but declined. True to the telepathic reassurance she had received at the beginning of the adventure that "no harm would come to her,"

she was allowed to get into the carriage again, "and they left her

back to her own door.”4

UFOs in disguise (1)

When I found this rather eerie account, I was already well aware of the examples from modern research of people who believed they had been abducted by aliens to a cave or some other underground setting rather than to the usual flying saucer (see Chapters Six and Seven).

I was also familiar with the examples of female abductees obliged to act as wetnurses for alien-human babies (see Chapter Seven), and even of some cases where abductees claimed that they had been “bred”

with other humans to produce presumably entirely human babies, which the aliens also kept.5 What I couldn’t immediately call to mind was any case in the modern literature in which a UFO had

appeared in the form of anything quite so “this world” as four horses and a four-wheeled carriage.

Further inquiry, and a second look at some of the material I’d already explored, showed that there were precedents for this too. For example, a Long Island radio journalist named Jaye Paro underwent a typical UFO abduction in what she perceived as a black Cadillac that carried her off to a secluded area.6 And in Chapter Six I told the story of Lucy, who experienced abduction by aliens into a cavernous underground chamber, reached – as in the tale of the midwife – through an opening in the side of a hill. I stated there that UFOs “did not feature in her experience at all,” which is correct. However, when I took a second look at the case, I noticed Lucy spoke of something else that did behave exactly like a UFO. This was a fire engine that drove noisily along her street immediately before her experience began, parked outside her house, shone a beam of light through her window, and then disappeared.7

Noting that “the aliens themselves seem to be able to change or disguise their form, and . . . may appear initially to the abductees as various kinds of animals, or even as ordinary human beings,” John Mack also confirms that “their shape-shifting abilities extend to their vehicles.”8 His patients reported experiencing UFOs in disguises as varied as “a string of motorcycles” and “a soaring cathedral-like structure with stained glass windows.”9 One young woman recalled “seeing a fifteen-foot kangaroo in a park, which turned out to be a small spacecraft.”10 A number of children claimed “to have been transported into the sky in a small craft that appeared to them initially as a booth at a carnival in which aliens disguised as humans asked if they wanted to go on a journey.”11

All in all, therefore, I concluded that the story from Rathlin of a human female taken away to Fairyland in a magical flying coach to help out with an obstetric problem was well within the norm of modern UFO abduction experiences – with the only difference

being that today the vehicle might take a form more appropriate to modern perceptions, such as an ambulance or stretch limousine. As John Mack suggests, it may be the case that “the aliens assume a form or forms that are familiar or comprehensible within the individual’s own perceptual background or framework . . .”12

p.

UFOs in disguise (2)

Mack's insight about the apparently deliberate generation of culturally appropriate displays looks even more plausible when we realize that there sometimes seem to be errors and glitches in the process.

Particularly notable, and curious, are apparent overlaps when whatever perceptual force that is exerted to give us culturally appropriate Cadillacs and flying saucers in modern America, and aerial ships and floating coaches in other less technological contexts, somehow starts broadcasting mixed signals and anachronisms. Thus, for example, Fortean researcher Janet Bord reports a story that was a brief local sensation in the English city of Nottingham in September 1979, when a small group of children of between eight and ten years old were in Woolaton Park at dusk and saw "around sixty little men, about half as tall as themselves." The children, who were deeply impressed, stuck by the details of their collective vision. It seems the men, who wore

"blue tops and yellow tights" as well as jester-style caps with a bobble on the end, had wrinkled faces and long white beards with red tips.

In the drawings the children did of them, as in the verbal

descriptions, they greatly resemble fairies, imps, elves, dwarves, or clowns as A drawing of one of the “Woolaton fairies” made by a child witness (Fortean Picture Library)

they might have been portrayed in the Middle Ages,13 but with one jarring, anachronistic detail. This is that they are driving around in small motorcars. The children were adamant that there were around 30 of these cars, most of them with two of the little men on board.

The cars didn’t have conventional steering wheels, “but a round thing with a handle to turn.” Although there was no engine noise, the cars moved fast and could jump over obstructions.14

Bord adds that six years before the Woolaton fairies hit the media, she had heard from a Cornishwoman, Marina Fry, who wrote giving details of her own fairy sighting when she was a child in the 1940s: One night she and her older sisters, all sleeping in one bedroom, awoke to hear a buzzing noise (one sister said “music and bells”).

Looking out of the window they saw a “little man in a tiny red car driving around in circles” He was about eighteen inches tall, and had a white beard and a “red droopy pointed hat” . . . He just disappeared after a while.15

A third such case documented by Bord is a report of a fairy airplane seen in 1929 by a five-year-old boy and his eight-year-old sister. The tiny plane was piloted by a tiny humanoid wearing a tiny leather flying helmet. As he zoomed by, nearly colliding with a dustbin, he waved to the children in a friendly manner.

There has even been a sighting of a fairy flying saucer, all the more persuasive because it took place long before the most recent phase of UFO sightings made flying saucers a common idea. In August 1914, eight men saw a “large, flat-topped spherical object” on the surface of Lake Huron in Canada. Next to it were small humanoids just over a meter tall. Though they had the characteristic appearance and “violet-green” clothes of “fairies,”16 they were doing

something technical with a hose immersed in the water. Finally they inserted it into a hatch,

“and the object suddenly took off.”17

In 1957, after flying saucers had been widely sighted for about a decade, John Trasco of Tennessee encountered an out-of-the ordinary

“egg-shaped” UFO hovering in front of his barn. Standing between him and it, glaring at him with its “large frog-like eyes” was a three-foot-tall humanoid dressed in “a green suit with shiny buttons, a green tam-o-shanter cap, and gloves with a shiny object at the tip of each.”

In other words, a fairy. The creature said something faintly ludicrous to Trasco: “We are peaceful people, we only want your dog.” When he refused and expressed anger, it ran away, and

moments later the UFO was seen to take off straight up.18

Mrs. Sheridan meets "the mistress"

To return to the mystery with which this chapter opened, the figure that folklorists call "midwife to the fairies" is widespread in global mythology, particularly in the Old World, where she is found throughout most of western and eastern Europe and in many different parts of Asia, all the way to Japan.19 Such universal themes attest to universal experiences involving reproductive contact of one kind or another with non-human intelligences – much as UFO abductees report today.

From Chapter Eight, the reader will recall the Reverend Robert Kirk's seventeenth-century account of Scottish mothers abducted

"when in childbed" to wetnurse fairy babies, and how the anonymous sealed rooms in "grand lodgings" in which these

nursing episodes took place are virtually interchangeable with modern descriptions of rooms on board UFOs, where women are taken to wetnurse hybrid children.

The degree of overlap is even more obvious in a statement given in Ireland in the early twentieth century to the folklorist Lady Gregory by a certain Mrs. Sheridan, who admitted to being frequently “away among the fairies” when she was a younger woman: Where they brought me to I don’t know, or how I got there, but I’d be in a very big house, and it was round, the walls far away that you’d hardly see them, and a great many people all about . . . but they wouldn’t speak to me nor I to them.20

Like the Reverend Kirk’s Scottish mothers, Mrs. Sheridan’s function in this strange flying-saucer-like house was to breastfeed children for the fairies – a number of whom were always present, “moving about”

busily amongst the abducted humans. She said that they had “long faces” and wore “striped clothes of all colors”21 – in other words, typically gaudy, pre-industrial fairy attire from almost any epoch between the tenth and the early twentieth centuries. Significantly, Mrs. Sheridan added that they – and more directly, she herself – were under the command of an important female fairy with “a tall stick in her hand,”

who was “the mistress.” When Mrs. Sheridan cried and begged to be returned to her home, the fairy quieted her by touching her on the breast with the stick.22

Is it a coincidence that John Mack’s patient Andrea, whose abduction was reported in Chapter Six, was controlled by an alien “holding a stick or a rod,” which he pressed against the back of her ear?23 Indeed, in virtually every procedure to which abductees are subject, notably when they are brought to the dedicated nursing rooms and “baby presentation” rooms on board the UFOs, they will

encounter an authority figure like Mrs. Sheridan's fairy mistress. This figure will sometimes be identified as male, sometimes as female – although generally speaking, female aliens are more frequently reported to be present when the abduction focuses around the care of hybrid babies, and male aliens are more frequently reported to be present when other procedures take precedence.24 Mrs. Sheridan referred to her fairy authority figure as "the mistress." Modern UFO abductees refer to their alien authority figure as "the leader" or "the doctor."25 Typically, he/she will be up to a meter taller than the other "Grays," but will otherwise be identical – with the same familiar gray skin, elf-like appearance, pear-shaped head, huge black eyes, etc., etc.26 In the unlikely event of an abductee getting out of control, it is always "the doctor" who restores order, sometimes with an implement or wand of some kind, sometimes with a form of hypnosis or mental compulsion exercised through the eyes.27

Amorous fairies

We have seen that shamans all over the world have experienced what they believe to have been sex with spirits, and that UFO abductees all over the world have experienced what they believe to have been sex with aliens. Because I could already feel that I was following a strong and reliable pattern that could be counted upon to repeat its basic features regardless of cultural or historical context, it came as little surprise to me to learn that there are numerous accounts in the ethnographic sources of humans falling for, having sex with, and even marrying fairies.

In Ireland, the fairies are known as the *Sidhe,* and the story is told of two *Sidhe* women who loved a young prince "and suddenly took him away into a fairy palace and kept him there three years."28 In England, chivalric romances of the Middle Ages describe the plight of a young man seduced and abducted by the Queen of the Fairies to spend seven years serving her in Fairyland.29 In Wales, fairies are

known as the *Tylwyth Teg*, and W.Y. Evans-Wentz was told in 1909

of "a special sort of *Tylwyth Teg*" that lived beneath the waters of deep lakes from which they sometimes emerged to dance on the shore:

"Their fine looks enticed young men to follow them back into the lakes and marry one of them. If the husband wished to leave the lake he had to go without his fairy wife."30

This latter is, of course, essentially the same story that is told in the Amazon, where female spirits in the form of dolphins lure young men down beneath the water to the otherworld city of *Encante*. Moreover, just like spirits – and, of course, aliens (see Chapter Six) – fairies frequently appear to humans in animal and therianthropic forms. For example, traditions of sea fairies abound around the islands and coasts of Britain. They are mermaids and mermen who are sometimes part fish, part human in appearance, or sometimes

part seal, part human.

It was believed that these fairy therianthropes seduced men and women and created hybrid offspring distinguished by possessing "webbed fingers and toes" or "a seal's face."31 In northern France, Evans-Wentz recorded an old belief in a class of fairies known as lutins, related to elves, whose natural appearance was that of "a little man dressed in green" but who could also "assume any animal form."32 They were known to transform themselves particularly into black horses or goats.33

Just as "aliens" and "spirits" frequently assume the form of owls and other birds, it was believed in Ireland that "fairies assume the form of crows."34 Romanian fairies are said to have cat's paws or donkey's feet, while in other parts of eastern Europe fairies are associated with forest animals.35 A pair of French woodcuts from 1500 show the medieval fairy Melusine, abductor of human babies, with the upper body of a woman and the lower body of a serpent.36

A Flemish woodcut from

The medieval fairy Melusine, abductor of babies. She is a therianthrope with a human upper body and the lower body of a serpent.

1558 shows fairies as partially transformed therianthropes with human bodies and heads, furred cloven hoofs instead of feet, and in some cases emerging horns.37 The same perception of fairies as horned, cloven-Fairies as therianthropes in a Flemish woodcut of 1558

(Fortean Picture Library)

hoofed therianthropes was also very strong in England, where it affected popular perceptions of the Devil – who was also frequently portrayed with cloven hoofs, a shaggy hide, and horns.38

We can therefore understand why the Inquisitors in the Scottish witch trials of the sixteenth and seventeenth centuries repeatedly interpreted witches' references to fairies as though they had intended to speak of the Devil.39 Nonetheless, the transcripts are self-explanatory, and "the predominance of fairy stories" in them, as Diane Purkiss, lecturer in English at Oxford University, observes, "is proof that the accused women thought such stories believable."40 I take it as another sign of a well-established pattern running true to form that many of these unfortunate women, who could have made up anything they liked to mollify their interrogators, spoke primarily of sex with fairies, and of reproductive unions with fairies – in just the same ways that

shamans speak of sex and reproduction with spirits, and UFO

abductees speak of sex and reproduction with aliens. “In all these confessions,” reports Purkiss:

a woman meets a man, who may be wearing black or green, or may have a specific name. He asks her to be his servant, or he offers her something. She may refuse at first, but eventually agrees. He then has sex with her . . . The being involved . . . is always otherworldly.41

In one summary given by the Inquisitors, “the Devil” had appeared before a certain witch:

in the likeness of a man in green clothes . . . [She] cannot presently remember whether he had carnal dealings with her at that time or not, but remembers perfectly that afterward he did lie with her.42

Another Scottish witch, Katherine Jonesdochter, told of a fairy lover she called “the bowman,” who first had intercourse with her when she was an adolescent girl and continued to visit her for sex for 40 years, gifting her with supernatural knowledge and healing skills in return.43

There is some hint that the two had produced offspring – for “the bowman’s bairn,” described as “a little creature, a small child-sized man,”44 once mysteriously appeared and was seen playing amongst a group of children.45

An English witch, Susan Swapper, was put on trial in Rye in the year 1611, and told of being visited while sleeping in bed with her husband by “four spirits in the likeness of two men and two women.”

One of the women, she said, the leader of the group, wore a “green petticoat” – standard fairy garb.46 The description of these night

visitors as “spirits” in the court records of the time is significant, since it further confirms the increasingly obvious interchangeability of the fairy and spirit worlds. On the other hand, the sudden rather ominous appearance of the visitors in Susan’s room, and their desire, soon revealed, to “take her away,” have much in common with the first stages of typical UFO abduction sequences.

It was well known in Susan’s time that fairies had a constant demand and fearsome need for human children of all ages, but especially, and puzzlingly, for the newborn.47 Since Susan was heavily pregnant and close to term when the visitors appeared, she was therefore terrified of being abducted,48 and resisted with all her will when “the woman in the green petticoat said to her: ‘Sue, come and go with me, or else I will carry thee.’” Susan’s response was to shake her slumbering husband and beg him to hold on to her:

And he awakening turned unto her and answered her: “Wherefore should I hold thee?” and she replied unto him again and said, “Here

is a thing that will carry me away," and he said again unto her, "I see nothing" and so turned about from her . . .49

It is quite commonly the case with modern UFO abductions that a group of aliens (and often four of them) will enter a bedroom where a couple are asleep and take one, leaving the other unaware of what has happened – and apparently incapacitated – until the abductee is returned.50 Typically, notes David Jacobs, spouses "sleep through the abduction. If they are awakened at the beginning of it they are made to go back to sleep immediately."51

The mystery of the changelings (1)

Why should the fairies have wanted Susan Swapper's as yet unborn baby? Why did the medieval fairy Melusine steal babies? Why did women so frequently experience being brought inside Fairyland to wetnurse babies there and to assist in the delivery of yet more babies?

These are all difficult mysteries of the fairy tradition, but I was beginning to hope that modern data on the alien abduction phenomenon might shed some light on them.

We all know where babies come from and how they are made. But if fairies were thought to have sexual intercourse with each other, then I have found no mention of this in the ethnographic sources, and if

"fairy babes" were born to fairy mothers and fathers, then I have found no mention of this either. On the contrary, human midwives who had multiple experiences of visits to Fairyland to deliver so-called "fairy babes" confided that the mothers they assisted there were sometimes not fairies but humans who had "previously been abducted into the Fairy realm."52

So what we know from the examples cited above – and many others

- is that fairies were believed to have sex with humans (whom they had often abducted permanently, or for very long periods, into Fairyland) and that a number of brief but unambiguous references do exist to offspring born of such unions. However, other than half sea-fairy, half human hybrids with their webbed fingers and toes and their bestial seal-like faces, detailed descriptions are never given of the appearance of these hybrid offspring or of their ultimate fate. This being the case, it is legitimate to ask what they looked like, and what happened to them. More pointedly, in the absence of any strong and clear tradition of "pure-bred" fairy children, was it perhaps *always* hybrids who had to be delivered and nursed by human women – if, for example, the mother was a fairy and the father human, or if the father was a fairy and the human mother had been killed after delivery, as several traditions darkly hint? Since the women specially abducted as feeders and carers were invariably wetnurses who had not actually given birth to the hybrids, then they might easily have persuaded themselves that they

had “fairy babes” at their breasts.

Let’s remember that we’re speculating freely here about entities that scientists say are only imaginary and have never existed in any shape or form. Nonetheless, this general scenario – a requirement by the fairies for surrogate mothers to feed and cuddle hybrid offspringwould explain why so many of the women who reported this kind of abduction were mothers themselves who had recently given birth to normal babies in the human plane or, like Susan Swapper, were about to give birth, and thus were already prepared physiologically for lactation. By contrast, even when they are not pregnant or recently delivered, modern women abducted to wetnurse human-alien hybrids say that they experience induced lactation at the hands of the aliens (see Chapter Seven) – a technology that does not seem to have been available to the fairies.

Today, although they rarely enjoy their experiences, human wetnurses – so far as we know – are never killed, nor are they

detained for more than a few hours by the aliens. A century or a thousand years ago, when our aliens, or something very like them, were called fairies, we have seen that there was no such assurance. Indeed, fairies were deeply and abjectly feared as merciless killers53 and “for their tendencies to assault, torture, and abduct humans.”54

There’s another big difference. Although there are cases on record of children as young as two reporting detailed UFO abduction experiences (e.g. John Mack’s patient Colin; see Chapter Six), there are no cases of children being permanently abducted; they are always reunited with their parents. Things were not so civilized with the fairies, of course. As noted earlier, these serial abductors had a particular reputation for taking children away from their parents forever. Quite often, too, there was a further twist. Not only did they steal healthy, happy babies, but also they left not-quite-human “changelings” in their place.

The copious accounts of these creatures that have come down to us in folklore and in the ethnographies (thin and restless, ugly and malformed, physically weak but voraciously hungry, mewling and never satisfied) are the only detailed descriptions we have of “fairy babes”which is what changelings were always assumed to be, an interpretation that the fairies themselves seem to have encouraged. This is brought out clearly in an ancient Gaelic song in which a fairy who desires to steal a mortal woman’s “ruddy, plump and praiseworthy”

child first speaks with dismay of her own child’s frailty and bad looks: He is my ungraceful child,

Withered, bald and light-headed,

Weak-shouldered and weak in his equipments . . .55

“Withered, bald and light-headed” are all definitive characteristics

of changelings, as we'll see below – and indeed, the bad fairy in the song does want to exchange her weak child for the mortal woman's strong one. No matter how they were presented, however, or what assumptions were made about their identity, a close examination of the evidence undermines the view that these unhappy babies are best understood as the pure-bred offspring of fairies.

The mystery of the changelings (2)

A couple of accounts will have to suffice to give the flavor of this ancient and extremely widespread and widely reported "changeling"

phenomenon.56

In Norway, folklorists collected the story of Anne, a dairymaid who gave birth to a fine young boy. One night she was sitting with the child when "a woman in black" entered the room carrying another child. Anne felt paralyzed as the woman approached, touched her

baby son, and left. Afterwards, she discovered that a substitution had occurred: her own child was gone, and a lean, difficult, ugly, hunched brat had been substituted. He grew up a fool who lowed like an ox, and the mother's birth-son was never restored to her.57

In Ireland, as late as 1981, folklorist Patricia Lysaght recorded another typical changeling tradition:

A child was about a year old and it was taken and there was a changeling put in its place, a terrible cross child left in its place. It was getting no bigger and at night they used to hear music in the room. And the mother and father were out walking the rooms with the child, crying, crying, crying.58

On the Isle of Skye off the west coast of Scotland, around 1908, W.Y. Evans-Wentz collected a very peculiar story of a baby abduction apparently abandoned on a whim, when no child was taken and no changeling substituted:

An aged nurse who had fallen fast asleep as she sat by the fire, was holding on her knees a newly-born babe. The mother, who lay in bed gazing dreamily, was astonished to see three strange little women enter the dwelling. They approached the unconscious child, and she who seemed to be their leader was on the point of lifting it off the nurse's lap when the third exclaimed: "Oh, let us leave this one with her as we have already taken so many!" "So be it," replied the senior of the party . . .59

Bearing in mind the 2 per cent or so of the modern population who appear to have undergone UFO abduction experiences – and the fairy's own statistical hint – one wonders indeed how *many* human babies were "taken" by fairies over the centuries, why changelings were so often substituted, and once again, what exactly changelings are or were.

The mystery of the changelings (3)

What we have to go on are the descriptions in the folklore and ethnographies. These paint a completely clear and consistent picture of changelings:

. . . ugly . . . with an abnormally big head and with a pale, wrinkled skin as that of an old person. The changeling cries frequently and is always hungry. It is slow to learn to speak and walk and to keep itself clean, if it ever reaches such normal stages of development . . .60

. . . strangely and almost impossibly thin, very long feet, very long, thin legs, as though he weighed nothing at all. And he had a very strange appearance of being enormously ancient, despite the fact that he wasn't.61

. . . unusual features – misshapen limbs, an oversize head, slowness in learning to walk . . .62

. . . shriveled up with withered face and wasted body . . . ill-favored and deformed . . . ugly and loathsome . . . evermore craving food and yet it never grew nor throve . . .63

Of particular interest are those ethnographic sources in which not only the changeling is described, but also the reactions of the parents on first noticing the substitution:

There was my own fine child whipped off me out of his cradle . . .

and an ugly bit of shriveled up fairy put in his place . . . You are not my child . . . A little wizened face as ugly as a walnut . . . An ugly, wizened, crying brat . . .64

Now compare these to the reactions of UFO abductees to hybrid human-alien children reported in Chapter Seven: “Gross baby,”

exclaimed Melissa, “it’s an ugly one . . . I’ll kill it . . . It’s so

fucking unnatural . . . Disgusting thing . . .”65 Another abductee, not cited in Chapter Seven, told her counselor David Jacobs that she found her enforced contact with a hybrid baby “creepy . . . I can’t stand to touch it . . . Their skin is like paper.”66 In addition, as with the parents of changelings, it is normal for abductees presented with a hybrid child to suspect that in some way it might be theirs, but yet to reject it on the grounds that “It’s not mine.”67

All in all, don’t the descriptions of changelings given in the ethnographic sources make them sound much less like fairies and more like human-alien hybrid children (or for that matter like the hybrid children of shamans and spirits also described in Chapter Seven)? David Jacobs, who himself rejects any connection with fairy lore and is convinced that the alien abduction phenomenon began only in the late nineteenth century, provides this summary of the alien side of the story based on his case studies:

It [the alien-human hybrid] has a very large head . . . Its body is

long and thin. Its hands and fingers are long and thin. Its pale-white or grayish skin is almost translucent . . . It is almost always listless . . .68

Likewise, the reader will recall how Barbara Archer described human-alien hybrids as looking “kind of old” and being “very fragile.”69

Nona said: “Their bodies were short for their heads. Their heads seemed oversized.”70 Isabel spoke of the dry, scaly and flaky skin of a hybrid child.71 Debbie Tomey mentioned “ivory skin and a big head

. . .”72 Peter said: “They have big heads . . . bigger heads than their bodies . . . The arms are really fragile but they have big bellies.”73

Needless to say, all these peculiar and distinctive physical details are the same for changelings – who, long before the nineteenth

century, were also routinely described as old-looking with disproportionately large heads, elongated and misshapen limbs, pale, wrinkled papery skin, etc., etc. We will defer until later the question of whether or not we are dealing with anything *real* here (as opposed to fantasies, “brain fiction,” delusions, or other dismissive scientific labels). But the close similarities between the strange, weak, large-headed hybrid children reported by modern UFO abductees and the strange, weak, large-headed changeling children of the fairies should grab our attention.

These similarities, and these amazing continuities over long periods of time in unconnected cultures, are most unexpected. Moreover, they go much deeper than mere surface appearances.

More permanent, more powerful

Whether we speak of a changeling fostered and nursed by a human mother in her own home, or whether we speak of a human midwife

invited to a fairy knoll to deliver a “fairy babe,” or whether we speak of a human wetnurse abducted to a “grand lodging” to breastfeed a

“fairy babe,” or whether we speak of a modern woman abducted to a UFO to wetnurse a hybrid alien-human baby, there remains at the heart of the whole matter a clear, unwavering underlying concern with reproduction.

In the case of the aliens, we have seen that the very strong perception amongst abductees is that they are being used for breeding and child-nursing purposes. John Mack’s summary, based on large numbers of abductee reports, is that a “complex, reproductive-like process or

‘project’ appears to be a central feature of the UFO abduction phenomenon,”74 and that its “purely physical or biological aspect . . . seems to have to do with some sort of genetic or quasi-genetic

engin eering for the purpose of creating human/alien hybrid offspring.”75

Most abductees who claim to have asked the aliens about this say they have received evasive answers. Nevertheless, a number of hints as to the purpose of the project do exist in the literature. The case of Kathie Davis is particularly interesting. During an extended series of abductions over the course of many years, she had multiple experiences of being impregnated by aliens. She also had subsequent encounters with two of her own hybrid offspring. One of these, a male, was introduced to her when he was still a baby. “He looked,”

she said, “like an old man, and he looked so wise. I looked into his eyes . . . he was so . . . smart . . . more wise than anybody in the world.” She also met a “tiny” girl, aged about four years, who she knew immediately was her daughter. The child’s eyes were disproportionately large, her skin pale and translucent, “her hair

white and wispy.”

Kathie described her as “real pretty . . . like an elf, or an . . . angel”

and felt deep attachment towards her, but was told by the aliens that the girl could not survive in the physical world, because “you wouldn’t be able to feed her” there.76

The physical description of this hybrid child (Kathie also said she had a “really old” look) greatly resembles the traditional picture of a changeling from fairy lore. Yet as Patrick Harpur points out, there are important differences. Unlike the changelings, who are “stunted, ugly, voraciously hungry” rejects, this little girl is “angelic, beautiful, and unable to be fed in this world.”77 So although she is still physically insubstantial by comparison with a fully human child, it seems that the aliens have made some sort of progress with their “complex reproductive project.” If they are indeed the same beings that we used to call “fairies,” then perhaps they have learned

a thing or two.

But what have they learned, and why? The abduction of Lori Biggs from Redondo Beach, California, in 1970 adds more to the limited information we have at our disposal. She was told by the aliens that they were able to turn themselves into light (by means of which they could also levitate objects), but that they were unable to hold their own physical form for very long: “They wanted to learn how to combine human solid form and their luminous form into a morepermanent, more powerful being.”78 It is far from being proof, but such a scenario would certainly explain the great interest that aliens show in breeding with humans and creating hybrid babies. They want to become more material, more permanent, more powerful. They want, in other words, to stiffen their own stock with an infusion of human solidity. As Patrick Harpur puts it, their aim appears to be to

“strengthen their race.”79

Is it coincidence that the very same scenario of "race strengthening"

is the one most often put forward to explain why fairies were interested in breeding with humans, and why they stole vigorous, healthy human babies and replaced them with their rejected changelings?

According to folklorist Peter Rojcewicz, "Clearly the most significant form of fairy dependence upon mortals involves their genetic evolution. Humans are essential to fairies for a healthy bloodline."80 The Irish poet W.B. Yeats likewise believed that "the *Sidhe* [fairies] need human robustness."81 Professor A.C. Haddon states of the changeling tradition in Ireland that "dwarf or misshapen children are held to be given to a mother by the fairies in place of a healthy child they had stolen from her to renew the stock of fairies."82 Katherine Biggs likewise confirms a popular belief that the reason fairies abducted young men and women, and swapped changelings for healthy babies, was their need to "inject

the dwindling stock with fresh blood and a human vigor.”83 Diane Purkiss reports a tradition that “fairies . . . need blood.

They need new blood.”84 Edwin Sydney Hartland states: “The motive assigned to fairies in northern stories is that of preserving and improving their race.”85

So it seems that not only do fairies and aliens have a shared need for sexual and reproductive contacts with humanity, but also, in both cases, they seek these contacts in order to bring about some desired transformation in their own condition.

Some conclusions on an evolving experience A book could be written on the complex connections and continuities that bind fairy lore and alien lore together at the hip like Siamese twins. But once those links are established, what I find even moreinteresting are the subtle (and sometimes not so subtle) differences between the two phenomena. Thus, although changelings look and behave like

hybrids, we have seen that no changelings are deposited in the homes of modern UFO abductees, and that no human babies are abducted forever to UFO-land as they once were to Fairyland.

Similarly, although wetnurses are used in both contexts – itself quite a remarkable correspondence in my view – we have seen that they were often killed by fairies, or stayed in Fairyland. Today the whole process, though still entirely outside abductees' control, seems much more reasonable and less final: they are taken, they lactate, they breastfeed, and then they are floated back safely to their beds. So although the same sort of extremely weird experience with many identical or near-identical ingredients is clearly involved in both cases, *the experience itself seems to be evolving*.

Standing back from the data and viewing it dispassionately, we can say that the focus of this evolving experience in all the forms in which it is documented – whether spirits, fairies, or aliens – has been on sexual and reproductive contact between supernatural races

and humans, and on the creation of hybrid offspring to “strengthen the stock” of the supernaturals. Beyond this, however, differences make themselves felt. To summarize what we have established thus far: (1) offspring are described in all the traditions; (2) in the case both of spirits and of aliens, such offspring are clearly understood to be hybrids of monstrous or ugly appearance with pale, flaky skin, oversized heads, an old, wizened look, and an unhappy demeanor; (3) hybrids are mentioned in fairy traditions but are nowhere extensively described; (4) on the other hand we do hear a great deal about changelingswho, despite the absence of any strong and clear evidence in favor of the hypothesis, are generally presumed to be pure-bred “fairy babes.”

I asked earlier if it is possible that changelings too were really hybrids, passed off as “fairy babes,” and also if perhaps it was *always* hybrids, and *never* pure-bred fairies, who had to be delivered and nursed by human women. There can be no certainty, but my

reading of fairy lore, and of hundreds of people's accounts of being abducted by fairies, as well as the similar accounts of hundreds of people abducted by aliens, convinces me that the whole phenomenon, in alltimes and places, has always been about creating hybrids. I see no reason why changelings should have been any exception. I therefore conclude that changelings were indeed hybrids too. More than thisalthough of course we tread in realms of pure speculation – could it be that they were perhaps failed hybrids who, for one reason or another, did not strengthen fairy stock and were therefore rejected? Keeping in mind the constant reproductive tampering that aliens do with modern abductees – many of whom forget everything until their buried memories are extracted by hypnosis – I even wonder if the families to whom changelings were returned were genetically related to the changelings without ever realizing it themselves. This would explain why they were often puzzled to note that the "ugly bit of shriveled-up fairy" substituted for their own healthy baby always, in some odd way, resembled the

missing mortal child.86

As to the ultimate fate in Fairyland of the abducted human babies of past centuries, who knows? Dark hints and confusing whispers are found in the ethnographies that “in olden times” the fairies “used to take young folks, and keep them and draw all the life out of their bodies.”87 But what is clear in the latest alien incarnation of the experience is that while the long-term interest in reproduction remains the same, human babies are no longer permanently detained, and creatures like changelings no longer appear at all. Instead, all contact with babies takes place in the dimension of the supernaturals, on board their UFOs, or in their crystal caverns, or in some enchanted, paradoxical space deep beneath the sea. The babies look almost exactly like changelings, but they clearly benefit and gain vitality – in a way that changelings never did – from being breastfed, held, cuddled, caressed, and generally loved by abductees who may or may not sense some sort of genetic bond with them.

So these do not seem to me to be anything like failed hybrids of the changeling type, but on the contrary, successful or potentially successful hybrids who the aliens understand need love and human warmth in order to thrive. Between fairies and aliens, I therefore conclude that there has indeed been a distinct change, a distinct *evolution*, in the way the "hybrid program" – John Mack's phrase88 – is handled. Any attempt to understand the phenomenon must takeaccount of this curious ability it has to evolve and develop, but must also be able to reckon with the steady and remorseless attention it seems to have paid, at all times and in all places, to the creation of a

"more permanent, more powerful" hybrid race.

It is a great mystery that people from many different cultures in many different epochs all report encountering supernaturals who are unwilling to be confined to supernatural realms and who – even while they initiate our shamans and bestow the "second sight" and

healing powers upon them – seem to want to take something of our materiality and incorporate it into their own non-physical lineage. As the first manifestations of these ancient supernatural forces in the technological age, UFO abductions and encounters with aliens have been subjected to an unrelenting campaign of ridicule and abuse by scientists who are strongly wedded to the materialist paradigm. It has been said, however, that "the greatest trick the Devil ever played was to convince the world he doesn't exist." Living in societies elevated by technology to almost godlike heights, we have convinced ourselves, against the wise advice of our ancestors, that there are no supernatural intelligences – that spirits do not exist, that fairies are crazed delusions, and that aliens are just figments.

We may be wrong.

Chapter Ten

Dancers between Worlds

Andrea, one of John Mack's patients whose abduction experience was reported in Chapter Six, said that the aliens "look like they're made of light. But then underneath there's some physicalness to them."1 The reader will recall that Sara, another of Mack's patients, reported frequently being forced into intercourse with an alien male who had

"a light contour of a penis, but not like a physical penis."2

It is precisely this paradoxical "non-physical physicality" that characterizes spirits in all their interactions and sex acts with humans described in Chapters Five through to Seven, and – not

surprisingly – the same turns out to hold true for fairies. Writing in the seventeenth century, the Reverend Robert Kirk described fairy bodies as "so pliable through the subtlety of the spirits that agitate them that they can make them appear or disappear at pleasure."3 Folklorist Peter Rojcewicz points out that this description is strongly reminiscent of supernatural beings known as the *Siddhas*, said in ancient Indian scriptures to be capable of

"becoming very heavy at will or as light as a feather, and which travel through space and disappear from sight."4 In the same way, the fairies of Brittany were said in the nineteenth century to have bodies that are

"aerial and transparent,"5 a group of fairies seen in Suffolk, England, in 1842 were "light and shadowy, not like solid bodies,"6 and fairies in the west of Ireland were described as "pale beings, almost gray in color."7

Summing up many traditions, Rojcewicz concludes that “fairies have light, changeable bodies . . . capable of altering their form at will. Fairies have something of the nature of a mist or condensed cloud.”8

p.In the legends of Scandinavia, elves, a tribe of the worldwide fairy race, are depicted as “beings with oversized heads, tiny legs and long arms.”9 (The very word *aelf*, by the way, from which we derive the English name of these creatures, means “supernatural.”)10 Known as corrigans, the “aerial and transparent” fairies of Brittany were said to be “little beings not more than two feet high.”11 The biggest of the Suffolk fairies cited above was “about three feet high.”12 In the Isle of Man, fairies were described as generally “about two and a half feet high.”13 In Wales, numerous accounts state that the *Tylwyth Teg* (the local name for fairies) were usually no more than three to four feet tall.14 In County Sligo in Ireland, an elderly informant told Evans-Wentz of an occasion on

the slopes of Ben Bulbin when he encountered a fairy who “seemed only four feet high,” but who informed him: “I am bigger than I appear to you now. We can make the old young, the big small, the small big.”15 In a similar vein, the Irish poet W.B. Yeats, who was deeply learned in these matters, warned: “Do not think the fairies are always little. Everything is capricious about them, even their size.”16 Indeed in all fairy traditions, amongst the mass of smaller beings in the range of two to four feet in height, individuals are occasionally mentioned who reach five feet or more and who in some cases seem “as big as we are.”17

We’ve seen that one strong point of appearance shared by aliens and fairies is that they both frequently present themselves to abductees in animal and therianthropic forms. The above descriptions, which are representative of countless others in the ethnographies, show that the humanoid forms of both are also to all extents and purposes identical.

For like fairies and elves, aliens typically have large heads and thin limbs and are, in the main, of small stature with the exception of a few individuals. Researcher David Jacobs explicitly rejects any connection with fairy lore, and does not believe that his findings support such a connection (personal correspondence, May 2005). Nevertheless, from his intensive work with abductees in the U.S. he notes that: By far the most common types of aliens reported are the Small and Taller Beings. The Small Beings are from two to four-and-one-half feet tall, thin, slight, and even “delicate” in appearance. They have ahead, a body, two arms, two hands, fingers, two legs, two feet. They stand and walk like humans. The Small Beings are light in weight.

Taller Beings stand from two to six inches above the Small Beings and have most of the same gross physical characteristics . . . By and large, most witnesses report the Small Beings’ skin as just “gray” . . . The heads of the aliens are, in human terms, disproportionately

large for their bodies.18

Ambiguous sexuality and a hive-like social order When W.Y. Evans-Wentz was in Ireland at the start of the twentieth century, collecting reports of encounters with the *Sidhe* (fairies), he was told by informants that they had seen "forms both male and female, and forms which did not suggest sex at all."19 When he asked whether any "definite social organization" had been witnessed "among the various *Sidhe* orders and races," the reply came: I cannot say about a definite social organization. I have seen beings who seemed to command others, and who were held in reverence. This implies an organization, but whether it is instinctive like that of a hive of bees, or consciously organized like human society, I cannot say.20

These observations are interesting – and especially so bearing in mind they were made 50 years before anyone anywhere ever claimed to have encountered an alien. For here again, in tandem with all the other continuities and commonalities, we seem to have

interchangeable descriptions. Aliens, too, are perceived in both male and female forms and in forms of ambiguous sexuality. Indeed, aside from the peculiar accounts of intercourse with humans (where we might hear of a “non-physical” penis, etc., etc.), there seem to be no externally obvious anatomical features that in themselves proclaim the sex of the aliens21 – and abductees report being completely unable to tell “one Small Being from another.”22 Where the Taller Beings are concerned, things are different; abductees always say they know whether they are dealing with a male or a female. Jacobs again: The female is often the same size as the [male] Taller Being. She hasno mammary glands and no hair, cranial, facial or pubic. When asked to describe the differences between the male and the female, the abductees say that the female is thinner, more “graceful,” more “sensitive,” and “kinder.” Even with these vague descriptions, the abductees are quite clear about whether they are being tended by a male or female.23

Last but not least, what little is known about the social organization of the aliens coincides with the informant's remarks, quoted above, on the social organization of the *Sidhe*. For we saw in Chapter Nine that, amongst the aliens, the Taller Beings are indeed in command of, and deferred to absolutely by, the Small Beings, and that abductees do very often experience something impersonal, inhuman, or hive-like in the highly programmed way that the latter in particular go about their tasks.24

Doors and windows no obstacle to fairies and aliens Another quite different characteristic shared by fairies of all periods and aliens today is that they both seem to be masters of spectacularly advanced forms of camouflage and stealth technology: Not only do fairies render themselves invisible, but they also render people, animate and inanimate things invisible.25

They [the aliens] cause themselves, humans and other matter to be invisible when they are outside the confines of the UFO.26

We have seen that both fairies and aliens can shape-shift into multiple forms and both can appear and disappear at will. Countless examples also testify to the uncanny ability of both to pass effortlessly through solid walls and closed windows.27 More alarmingly, there are strong indications from fairy lore, and definite claims on the part of alien abductees, that this ability can also be harnessed in the other direction for the transport of humans; at any rate, there are many cases on record of abductees who claim to have been passed bodily throughsolid walls and closed windows.28

Understandably, the experience is a strange one. John Mack reports that:

when they are taken or floated through the wall, ceiling or window of their homes or through the door of a car, the abductees feel as if an intense energy is separating every cell, or even every molecule, of their bodies. So powerful is this feeling that experiencers often find it remarkable that they “come back together” whole on the

other side of the wall

. . . The abductees speak of powerful vibratory sensations in their arms, legs and other parts of their bodies . . .29

An oddly convincing detail, evident over large numbers of abductions, is that the aliens seem to prefer closed windows to walls if they must pass an abductee through one or the other. According to David Jacobs: “The beings appear to seek out a window. Sometimes the aliens will take the abductees out of their bedrooms and into another room and then out through a window there.”30 In one typical case, a mother and her son sleeping in two different rooms in a basement were abducted together. Both were walked out of their bedrooms and into the bathroom:

She wondered why they were crowding into the bathroom and then she realized that the bathroom was the only room in the basement with a window. Soon a bright light entered and they flew out of the

window.31

Karin, one of John Mack's patients, perhaps shed some light on this mysterious technology – and its limitations – when she described her own experience:

It's racking just to go through the window because they have to alter your vibration in order to get a solid object to pass through another solid object, literally. And that happens. You go through a window or wall – they prefer the window.32

p.**The blast**

Another hint of shared fairy-alien technology comes in the spectacular ability of both to "zap" people, strike them down, paralyze them with unseen rays, and penetrate their bodies with supernatural projectiles.33 Once again, considerations of space oblige me to cut a long story short. In a paper comparing fairy and

alien lore, Peter Rojcewicz points to the mysterious force known as the “fairy blast,” widely referred to in traditional accounts, whereby fairies attacked humans and farm animals, knocking them off their feet and putting them “immediately into a state of unconsciousness.”34 Another weapon was “elf-shot,”

often used “by angry fairies in contexts where individuals intrude on fairy territory or cross fairy paths,”35 and which felt like an arrow or other projectile entering the body – although the skin was not broken

- and left a festering *internal* wound from which foreign elements were often later surgically removed.36 In the seventeenth century, the Reverend Robert Kirk described a similar fairy device “flying as a dart with great force . . . mortally wounding the vital parts without breaking the skin, some of which wounds, I have observed in beasts, and felt them with my hands.”37

Looking for parallels in alien lore, we might mention the phenomenon of cattle mutilations, often associated with UFO sightings,38

while assaults on humans are equally common. Rojcewicz gives details of a number of cases including those of

Maurice Masse and Herb Schrime [who] both experienced a paralysis after being “hit” by something from a circular object. Like those who receive the “fairy blast,” Travis Walton was “gunned down” by a brilliant beam of bluish white light that lifted him a foot into the air before laying him out on the ground, his head thrown back, his arms and legs wide apart. A beam of green light rendered Inacio de Souza unconscious. Police sergeant Charles Moody felt “numb” after he saw a UFO.39

Patrick Harpur reports a case of great interest from 1970 that overlaps characteristic elements of fairies and UFOs. Two skiers in

Finland entered a wood, where they were soon “stopped in their tracks by around craft that hovered above them.” It sent “an intense beam of light downwards onto the forest floor,” in the midst of which a humanoid about a meter tall was seen. He held a black box that itself emitted a pulsating beam of yellow light, which he aimed at the skiers.

Other than this piece of technology, however, he was a typical medieval fairy, “with thin arms and legs, a pale waxy face, small ears that narrowed towards the head and he was dressed in green with a conical hat.” One of the skiers felt a powerful force exerted on his body, which he associated with the pulsating beam of light. It was as though he had been “seized by the waist and pulled backwards.”

Moments later, the UFO emitted a cloud of red-gray mist which enveloped the whole scene. When it cleared, both the UFO and the being had disappeared. The skier who had taken the force of the

beam was numb on his right side, with no strength in his right leg.

His friend had to drag him home.40

Don't interrupt fairies when they're dancing On the basis of the evidence I have put before the reader in the last five chapters, it seems to me beyond serious dispute that fairies, spirits, and aliens are all locally customized adaptations of the same extremely puzzling and mysterious core phenomena. What has been demonstrated, in contexts as different as medieval Europe, seventeenth-century Siberia and modern America is a constantly repeated pattern involving sightings and encounters, abductions by otherworldly beings, specific types of procedures carried out during abductions, settings in which abductions unfold, etc., etc. – a pattern that appears to hold true at all levels down to the minutest details. Such repetition and cross-cultural consistency should in themselves increase our confidence that we may be dealing with something real here, and at least give us reason to take these phenomena seriously –

as those who have experienced them *always* do.

If we are prepared to set aside the automatic skepticism and reductionism of our age, and if we spell out the problem in plain language, then we find that we are contemplating the existence – and powerful intervention in our lives – of highly intelligent *discarnate* entitiesbelonging to an order of creation fundamentally different from our own. Paradoxically, however, these non-physical entities seem to have mastered a "technology," and I use the word advisedly, that enables them to enter our material world and to manifest in it in a quasi-physical, "shape-shifting," sometimes therianthropic, sometimes large-headed and small-bodied humanoid form – but always evanes-cent, ephemeral, somehow luminous, almost but not quite transparent.

With that in mind, let's take a closer look at the group of fairies, mentioned earlier, seen in Suffolk in 1842:

They were moving round hand in hand in a ring, no noise came from them. They seemed light and shadowy, not like solid bodies . . . I ran home and called three women to come back with me and see them.

But when we got to the place they were all gone.41

It is remarkable how frequently the activity that fairies were engaged in when they were sighted was described as some sort of circular dance,

“moving round hand in hand in a ring.” It is surprising too, as we will see, how frequently those humans who stumbled upon the dance say that it culminated in the disappearance of the fairies, and how dangerous they could sometimes become if they were interrupted in the midst of it. The witness from Suffolk probably did well to run away as fast as his legs could carry him. Around the year 1908, W.Y.

Evans-Wentz interviewed a certain Neil Colton of Lough Derg in County Donegal, Ireland. Then 73 years old, Colton told of a time when he was a boy out gathering bilberries with his brother and cousin, and came suddenly across a group of six or eight fairies, “and they dancing.”42 When the fairies saw the children, things went wrong very quickly:

a little woman dressed all in red came running out from them towards us, and she struck my cousin across the face with what seemed to be a green rush. We ran for home as hard as we could, and when my cousin reached the house she fell dead.43

p.Following the intervention of the local Catholic priest, Colton added, the girl was later revived.44 Her condition had been one not of death but of narcolepsy.

A rather similar story comes down to us from the Reverend Edward Williams, born in Denbighshire in north Wales around 1750, and

concerns events that took place there when he was about seven years old. Together with several older children, Williams was playing at the edge of a field when he observed near the middle of it: a company of – what shall I call them? – *Beings*, neither men, women, nor children, dancing with great briskness . . . They appeared of a size somewhat like our own, but more like dwarves than children . . .45

At this moment the children observed one of the company: starting from the rest and making towards us with a running pace.

I being the youngest was the last at the stile, and, though struck with an inexpressible panic, saw the *grim elf* just at my heels, having a full and clear, though terrific view of him, with his ancient, swarthy and grim complexion . . . This warlike Lilliputian leaned over and stretched himself after me, but came not over . . .46

Fairies were often quick to anger and ready to do harm, ornery,

unpredictable, and habitually violent. In that respect, the stories of Colton and Williams are not very different from many others. Still, my attention had been grabbed by the clear line of cause and effect that runs through both these reports. Remember that we are suspending disbelief here, considering accounts of fairies, spirits, and aliens on their own terms, without a priori judgments about their reality status, so that we may compare them and expose any common patterns. If we stay with that method, take this story on its own terms, and do not simply insist that these Irish and Welsh children were suffering from foolish collective delusions, then it is clear in each case that their arrival on the scene must have been perceived as a *threat* to what the fairies were doing at that very moment – in other words

dancing – and that in each case the attack was a direct reaction to that threat.

Why should the fairies have wanted to protect the dance? My curiosity led me to examine other accounts of this phenomenon.

Dancing and disappearing

The tribe of fairies known amongst the Breton people of northern France as *kornigan* or corrigans could, at will, assume "any animal form," and were able, moreover, "to travel from one end of the world to another in the twinkling of an eye."47 They were said to "dance in a circle holding hands, but at the least noise disappear."48

In a field in the Isle of Man around the year 1730, fairies were seen

"playing and leaping over some stones." Perhaps with more risk to The fairy dance. Note hallucinogenic mushroom (with the characteristic spotted cap of Amanita muscaria) in the foreground, doorway into a "hollow hill" – the entrance of Fairyland – far left, and tree spirit to the right (Fortean Picture Library) himself than he realized, the witness managed to get close to them.

"But when he approached, as near as he could guess, within twenty

paces, they all immediately disappeared.”49

One afternoon in 1945, J. Foot White and a companion were walking through the Dorsetshire countryside when they saw a group of about 20 small beings:

p.Their hands were joined, and all held up, as they merrily danced round in a perfect circle. We stood watching them, when in an instant they all vanished from our sight. My companion told me they were fairies, and they often came to that particular part to hold their revels. It may be our presence disturbed them.50

As recently as August 10, 1977, well into the UFO age, fairy “overlaps” were still occurring. On that day, a police constable on early-morning patrol first saw a bank of fog – which cleared to reveal three figures dancing in a field. “As he got nearer, however, they disappeared into thin air.” The constable described one of the figures as “a man dressed in a sleeveless jerkin, with tight-fitting

trousers; the other two figures were women, wearing bonnets, shawls and white dresses." All had an arm raised as if dancing around an invisible maypole.51

Janet Bord asks rhetorically, "Why are the fairies so often seen dancing?" but feels that this is an "unanswerable question."52 Later, commenting on the huge numbers of accounts that exist of the dance, many collected together for the first time in her excellent book *Fairies: Real Encounters with Little People*, she adds that in her view these consistent descriptions

have the ring of truth . . . though I am at a loss to explain why the fairies should so much enjoy dancing . . . Perhaps it is simply that they enjoy it and will take every opportunity to relax in this way; perhaps they are performing rituals of some kind . . .53

Test-driving the dance

But perhaps something altogether different is involved. When I compare the very typical and representative accounts cited above of dances underway followed by the abrupt disappearance of the dancers, with the parallel typical and representative accounts of dances underway followed by attacks on witnesses, the hypothesis that suggests itself to me is that the fairy dance is not about revels or enjoyment at all, or even very much about rituals. What I proposeinstead is that its vigorous, brisk, energetic movements and generally circular pattern may be some kind of technique – or technology, just as the San trance dance is a technology – to transmit the dancers from this world to the otherworld, and back again as well. I once more remind the reader that we are suspending disbelief here and speculating freely. I therefore feel at liberty to suggest that attacks on witnesses may be triggered if the dance is interrupted *before the required momentum to jump the gap between worlds has been built up*, but may become unnecessary once that momentum has been attained and disappearance is just seconds

away. This would explain the evidence which shows some witnesses receiving the fairy blast and some not, apparently arbitrarily, when in reality the decisive factor may be at what point in the progression of the dance the witness appears, or whether the witness is far enough away from the dance to avoid detec-tion or to be judged no threat.

Another of Bord's collection of fairy dance traditions illustrates this last point. It is from Carmarthenshire in Wales, and dates back to 1862, when David Evans and Evan Lewis paused on the road near a place called Cwmdwr and saw a group of about 50 "small people"

walking fast one after another up a hillside path some 400 yards away.

A rather extraordinary scene then unfolded on the distant hilltop that is strongly suggestive of deliberately induced transit between this world and the otherworld:

The first of those who were climbing up along the winding footpath had reached a small level spot on the top of the hill. The others quickly followed him, and each one in coming to the top gave a jump to dance, and they formed a circle. After dancing for a short time, one of the dancers turned into the middle of the circle, followed by the others, one by one till they appeared like a gimblet screw. Then they disappeared into the ground. After a while one of them reappeared again, and looked about him in every direction as a rat, and the others followed him one by one and did the same. Then they danced for some time as before, and vanished into the ground as they had done the first time.54

p.What on earth – and apparently somewhere other as well – was going on here? What was this backwards and forwards movement between realms, between the everyday world and the underworld of Fairyland

- which is a dimension that we know may at one moment be found

in deep caverns, at another beneath seas or lakes, and at another in the sky? What were these 50 small beings really doing when they danced themselves into the form of a corkscrew and descended beneath the hills of Carmarthenshire, then reappeared, and danced some more only for the ground to open beneath their feet and swallow them up once again? It almost seems to me as though they were trying the system out – in a sense "test-driving" the dance. We don't know where it transported them too – other than loosely "underground." But if we take the story at face value, as a sighting, as an eyewitness report, then what we do know is that this particular dance does definitely seem to have been entered into and deployed with the explicit purpose of making this particular group of fairies disappear, that the dance itself was highly disciplined and structured, and that it involved the entire team working in almost hive-like co-ordination to form first a circle then a spiral that corkscrewed into the earth and vanished.

Ring portals (1)

What is unusual about this report is not only that the trick of disappearance was pulled off twice on the same spot by the same group of dancers within a few moments, but also that the performance of the dance was witnessed from beginning to end – an extremely rare state of affairs. Janet Bord's collection of relevant traditions does, however, contain one other example where the entire sequence of the dance was observed. This report dates back more than 100 years, to a time when people still believed in fairies, long before the beginning of the modern UFO age. Yet, as Bord points out, it contains a number of ingredients that are more reminiscent of UFO than fairy phenomena.

The eyewitness was David Williams, a manservant who lived at Penrhyndeudraeth, Gwynedd, North Wales, and he and his wife were walking home on the night in question with David lagging behind.

p.He was distracted, but she not, by “a brilliant meteor passing through the air,” followed

by a ring or hoop of fire, and within this hoop stood a man and woman of small size, handsomely dressed. With one arm they embraced each other, and with the other they took hold of the hoop, and their feet rested on the concave surface of the ring. When the hoop reached the earth, these two beings jumped out of it, and immediately proceeded to make a circle on the ground. As soon as this was done, a large number of men and women instantly appeared, and to the sweetest music that ear ever heard commenced dancing round and round the circle.55

Williams paused to observe the scene for what he thought was about three minutes until the “meteor” was suddenly present again, hovering above, and “the fiery hoop” returned – at which point the lady and gentleman jumped on board their transport and disappeared into the sky. At the same moment “the fairies vanished

from sight.”56

Was the circle that the lady and gentleman inscribed on the ground at the beginning of the scene some kind of portal to bring the group of dancers through into this world from Fairyland, and to send them back again? I have racked my brains to try to figure out what might have been going on, what sort of procedure or process it was that David Williams observed and tried to describe in his report, and I see no easy answer. But there is one more detail that may provide a clue. Williams thought he had observed the dance for three minutes, but when he arrived home after his wife, she informed him in no uncertain terms that he was a full three hours behind her. “Does this mean,” asks Bord, “that he unwittingly strayed into another worldfairyland – where time runs at a different speed?”57

The dance and time

The way that time behaves around the fairy dance is distinctly odd,

and the accounts that are given of it, even when they go back centuries, seem to take for granted one of the very sophisticated notions of physics that has only been adopted by science in the past 100 years –

p.

namely that the passage of time is not absolute or universal, but is

instead relative to the place and motion of the observer.58 Were there to exist other dimensions, or multiple other dimensions as quantum physicists maintain, then we would expect the flow of time to be different in each one of them and to adhere strictly to local rules, regularities, circumstances, and conditions in each case. It follows that any hypothetical interdimensional travelers would have to contend with the relativity of time – where, for example, three minutes in one realm might indeed prove to be equivalent to three hours in another.

Remember, this is all hypothetical, so we can add, just for fun, that if the dance was a vehicle for interdimensional travel, then perhaps the forces unleashed in jumping between realms might have generated a vortex powerful enough to suck in unwary humans who came too close. Could this even be why the dancers felt threatened when humans approached and rushed to frighten them off, and why they were less concerned when witnesses were a safe distance away

or when they were seen too late for anything useful to be done about them?

Many different traditions attest that humans *did* get trapped in the dance, stuck fast like flies in amber. A nineteenth-century woodcut shows fairies moving in a ring around the perimeter of a circular depression. One man is being drawn in – and he looks as though he

“Twm pulling his friend Iago out of the Fairy Circle.”

Nineteenth-century woodcut.

p.very much wants to go. But his friend is pulling him back to safety.59

Sometimes, when no friend was nearby to lend a hand, people trapped in this way would be invited to enter Fairyland, often with bewildering and tragic consequences. In the 1960s, folklorist Robin

Glyndaff was told the following story by an elderly Welsh tradition-bearer: Two men . . . went for a stroll and one of them lost the other . . . And what one of them saw was fairies dancing and he stopped to look at them and to listen to them. And that's where he was for a bit, for about two or three hours, he thought. Then he went home and on the way he met this man who greeted him: "Good evening." "Good evening,"

he replied. "Hello," he said, "aren't you Jack, my cousin?" "God yes," said he. "How long is it since we lost each other?" said the other man. "Well, let me think. I've been married ten years and it was five years after losing you that I married. That makes fifteen years." And he thought he'd only been in the company of the fairies for a couple of hours.60

Here's another variant of the story – or another consequence of the same phenomenon – also from Wales, in which the time penalty paid by the human victim was much more severe. It alerts us to the

significance that was once accorded to the bright green circles (known colloquially as “fairy rings” or “fairy circles”) that often appear in meadows, marshlands and floodplains. Thanks to science, we know today that these distinctive patterns are the result of soil enrichment due to subsurface fungal growth. But because extensive traditions and folklore have survived, together with numerous witness accounts collected by ethnographers, we also know that they were repeatedly identified as favored spots for the fairy dance. Another of Glyndaff ’s elderly informants recalled one such “very strange round circle,” greener than the surrounding marshland in which it stood, and the fear in which it was held:

I heard about a boy who entered the circle . . . And the fairies came to dance and the boy stood in the center looking at them. He wasn’t realizing that time was passing, but one of the fairies came to him.

“Would you like to come with us to our country?” “Dear me, yes,” theboy replied. “Well, come down these steps here this way.” And

he hadn’t noticed before that there were any steps there. But he goes down these steps, down and down. And after walking for a while he came to a certain country, the most beautiful he had ever seen . . .61

In this land the lad was feasted and entertained, allowed to sleep overnight, and then the next day escorted to the top of the steps again: And after he returned to the circle he makes his way for home. And he goes to the house. Dear me! There were strangers in the house. No one knew him. “Where are my father and mother?” he asks. “Your father and mother?” they said. “Goodness me! We don’t know who you are, tell us your name.” “Robin Jones is my name,” he replied . . . And they said, “We heard some talk once about a Robin who had gone into the fairy circle, but this happened over a hundred years ago.” And the boy had been in Fairyland for one hundred years and had returned.

Then he didn’t know anybody.62

The idea of a circle in the grass as some kind of portal to another world, another dimension, another frame of time, is also found in a third Welsh story where we hear of a young girl on her way home from the shops to buy a loaf of bread who takes a short cut across a field and makes the mistake of trying to jump across a fairy ring:

"But, oh dear! Before she completes her jump she has disappeared."

Eventually she does return home, with the loaf still fresh: "Here it is, mam," she says, "here's the loaf for you to have tea." "My dear little girl, where have you been?" "In the shop to get a loaf of bread for you." "Oh! No my girl. Seven years have passed since you went to the shop for a loaf."63

Ring portals (2)

From Cornwall come parallel traditions that affirm the important connection between circles in the grass and all members of the fairy

tribe:

p.Up on Sea-View Green there are two rings where the piskies [pixies]

used to dance and play music on a moonlit night. I've heard they would come there from the moors. *Little people* they are called. If you keep quiet when they are dancing you'll see them, but if you make any noise they'll disappear.64

Also in Cornwall there were cases in the nineteenth century – long before the modern phenomenon of crop circles began – of "piskies"

coming "at night to thrash the farmer's corn."65 In the sixteenth century, Bishop Olaf Magnus investigated similar rings in crops and grass in Sweden which he attributed to the dance of the elves: "They [the elves] make so deep an impression on the earth that no grass grows there, being burned with extreme heat."66

When accounts like these are thrown into the melting pot, I realize we may not even have begun to understand what is going on with the phenomenon known as the fairy dance. Still, I repeat my suggestion that it feels like some sort of technology for jumping between worlds, and in particular for entering and leaving this one. I think the evidence suggests that this technology could not be used at any time and place, but would only work in the context of portals that were circular in form and that were generally, but not always, to be found at certain fixed locations. Fairies dancing – presumably in the otherworld – could be brought through one of these portals into this world (as in the strange story, cited earlier, of a circle inscribed on the ground and dancers suddenly materializing around its circumference, only to vanish again soon afterwards).

But generally, if a group of fairies wished to leave our world and enter another by means of the dance, then a case could be made that they were obliged to do so through a pre-established portal. That

would explain why the Dorsetshire fairies cited earlier were said to hold their dances again and again at the same particular spot in the countryside – from which they would then mysteriously disappearand why Cornish piskies traveled all the way from the moors to dance in the two rings on Sea-View Green, from which they then likewise vanished. A similar example comes from Wales in the mid-nineteenth century, when John Jones, then aged about 18, was walking home lateat night "along a lonely path." He had the sense that he was being followed, and when he turned around, sure enough, he saw "two young men or boys coming after him." They pursued him further, moving quickly, in a way that he found threatening, then suddenly turned out from the path, and began to jump and to dance, going round and round *as if they followed a ring or a circle* just as we hear of the fairies. They were perfectly white, and very nimble, and . . . there was something supernatural both in their appearance and movements.67

Again I get the sense of a fixed mechanism at work in the dance – a mechanism that may indeed be supernatural, generating uncanny forces at the intersection of worlds. Moreover, with its circular form and its ability to materialize and dematerialize itself and its occupants instantly, it reminds me distinctly of many of the things we know, or think we know, about UFOs. Is it possible that whatever objective was achieved by the "spiritual technology" called the fairy dance from the Middle Ages through Victorian times is more often achieved today with the mysterious apparitions that we call UFOs? After all, just as there appear to be definite signs of evolution between fairies and aliens on the matter of changelings, so too there may have been evolution in the means used to travel between this world and Fairyland/

UFO-land.

Such a hypothesis does not rule out the possibility of overlaps – of both means being used together – and we've seen examples of true

UFOs in the fairy period, and of the fairy dance in the UFO period.

Evolution

There are many hints in fairy lore that the dance was never exclusive technology and that there were always other means of interdimensional travel. Throughout the Celtic fringe of western Europe, springs, wells, and notably caves were also widely believed to serve as portals to the otherworld, and in these cases the dance does not seem to have been used as the energizing agency.68 In Catholic Ireland of the early twentieth century, for example, caves were still popularly supposed “to

lead to Hades or an underworld of fairies, demons and spirits . . .”69

A sixteenth-century woodcut shows a crowd of fairies inside a hollow hill. To the fore are several beautiful females who are attempting to lure a handsome young human male to join them. I draw the reader’s attention in passing to the fact that a clump of mushrooms can be seen growing between the young man and the fairies.70

In this sixteenth-century woodcut, fairies attempt to entice a handsome young prince to join them inside a hollow hill (Fortean Picture Library) Nor are such ideas confined to Europe. The hints and clues that certain caves, like the fairy rings, mark the spot of fixed portals to the otherworld are found everywhere. Whether we speak of the *Iruntarinia* fairies of Aboriginal Australia in their perpetually lit caverns, or the spirits who emerge through cracks in the rock to Paviotso shamans in North America, or the Inuit shaman who must enter a cave that closes behind him, we have seen many examples of this idea in previous chapters. Like the fairy dance and the fairy ring, it is an idea that is often caught up with the strange, sophisticated concept of the relativity of time.

A peculiarly evocative example from China tells of the Taoist holy man Wang Chi. Gathering firewood in the mountains one day, he came to a cave and saw inside it a group of elders playing chess. Laying down his axe, Wang Chi entered the cave to watch the

game, and soon afterwards one of the old men gave him a capsule about the sizeof a date stone and instructed him to put it in his mouth. “No sooner had he done so than hunger and thirst passed away.” A few more hours passed, then another of the elders told him: “It is a long time since you came here, you should go home now.” Wang Chi took his leave, but when he stepped outside the cave to pick up his axe the handle had turned to dust. When he reached his home valley he discovered that “not hours but centuries had passed, and nothing remained of the world as he had known it.”71

So whatever route humans took on their temporary journeys into the otherworld, whether by the fairy dance or by some other enchantment as in this Chinese example, such stories tell us that they often became badly misplaced in time – a very heavy personal price to pay.

It therefore seems to me potentially significant, despite all the other

continuities and commonalities linking fairies and aliens, that this most unfortunate “Rip van Winkle” syndrome does not seem to have been encountered even once in the 50 years since UFO abductions first began to attract publicity. There *are* time distortions and, most frequently, abductees are unable to account for short periods of their lives – usually no more than an hour.72 But this well-known problem of “missing time” is quite a different matter from spending what feels subjectively like a few hours in Fairyland and getting home decades or centuries later.

Once again, an evolutionary process seems to have been at work, ironing out the glitches, turning the fairy dance into more efficient UFOs, relinquishing baby theft, and rigorously avoiding the late return of abductees. By whatever name we know them – spirits, fairies, aliens

- it really is almost as though the beings we are dealing with have been changing and developing alongside us for thousands of years,

and that they therefore cannot simply be mass delusions, as scientists would like us to believe, but must have a definite, independent reality outside the human brain.

It is to serious consideration of this possibility that we shall now turn.

Part III

The Codes

Chapter Eleven

Tuning in to Channel DMT

We saw in Part I that human evolution looks very much like the evolution of every other animal species (even tool-using is not unique to man) from five million years ago down to about 40,000 years ago; then, suddenly, we seem to take an astonishing and unprecedented new tack. By 35,000 years ago in Europe and 27,000 years ago in Africa, rock and cave art have appeared, apparently already sophisticated and fully formed.1 It is as though an inspired artistic genius in the full flow of his powers has miraculously awakened from an extremely long vegetative coma and begun to paint. His work from the outset is technically adept, magisterial, and numinous, but a much bigger mystery is that it gives special importance to the depiction of therianthropic entities, part human,

part beast, for which no model exists, or has ever existed, in the natural world. These, therefore, are depictions of *supernatural* beings – spirits – and we are obliged to ask from where it was that such fantastic images were conjured up. “Imagination” alone will not suffice as an explanation, since our ancestors had managed to pass the previous five million years without ever showing even the faintest sign that they possessed any symbolic imagination at all. Clearly, therefore, something fundamental must have changed in the way that they perceived their lives, related to the world they lived in, and assessed the boundaries of their reality.

We have addressed the mystery of this great change at length in Part I and pursued David Lewis-Williams’ suggestion that the catalyst was the cultivation of altered states of consciousness, most probablyfirst experienced by our ancestors through the accidental consumption of plant or fungal hallucinogens, and subsequently deliberately and systematically sought out. It seems reasonable to

suppose that the overwhelmingly potent visions and experiences that we now know can be reliably elicited by psilocybin and other naturally available psychoactive substances would have exploded like incendiary bombs in the dull, somnolent, utilitarian minds of the anatomically modern but behaviorally archaic humans of 40,000 years ago. It may even be the case that *only* such a paroxysm of consciousness, capable of affecting every member of society, would have had sufficient power to demolish the barren and rigid mental structures that had hitherto masked the potential of the human brain and held back the intellectual and cultural evolution of our species.

This is *not* to say that no humans before 40,000 years ago had visionary experiences. Full anatomical modernity was achieved around 200,000 years ago,2 or perhaps earlier according to some authorities, and much evidence supports the view that there has subsequently been no further change in the size, anatomy, or complexity of the human brain. For at least 200,000 years,

therefore, during which our ancestors had the same neurological equipment as we do, it follows that they must also have had our capacity to experience the visions and hallucinatory encounters of altered states of consciousness.

We know from surveys that around 2 per cent of modern adults (and this is a cautious estimate) do in fact seem to be born with the ability to fall spontaneously into very deep states of hallucination. We know that what happens to them in these states is frequently experienced as convincingly *real* and sometimes terrifying abductions by supernatural entities that often first appear to them in therianthropic or animal forms. We know, too, that this apparent genetic capacity to trance has been attested to statistically in the United States, where such visions and experiences are today most frequently construed as contact with aliens – although, as I have tried to demonstrate, they are nothing new and have been construed differently by other cultures in the past.

Though it cannot be proved, I think it is highly probable that around 2 per cent of *every human population* has always been born

Adventures in the spirit world: Ayahuasca visions of Peruvian shaman Pablo Amaringo.

Human figures

with reedbuck

heads. Main Caves,

the Drakensberg.

Note twin serpents,

also with reedbuck

heads, coiled

around the upper

body of the figure

to the right.

Photo: Santha Faiia.

Chimera with two

heads – feline to

the left, antelope

to the right – from

Heaven Cave in

the Karoo.

Photo: Santha Faiia.

Humans transforming into antelopes

perched on an

entoptic zig-zag,

Western Cape.

Photo: Santha Faiia.

Dancing women

with entoptic patterns.

Photo: Santha Faiia.

Elephant and human

figures with entoptic dots.

Photo: Santha Faiia.

The mysterious ‘bridge’ scene at Junction Shelter in the Drakensberg (see Chapter Nine).

Photo: Santha Faiia.

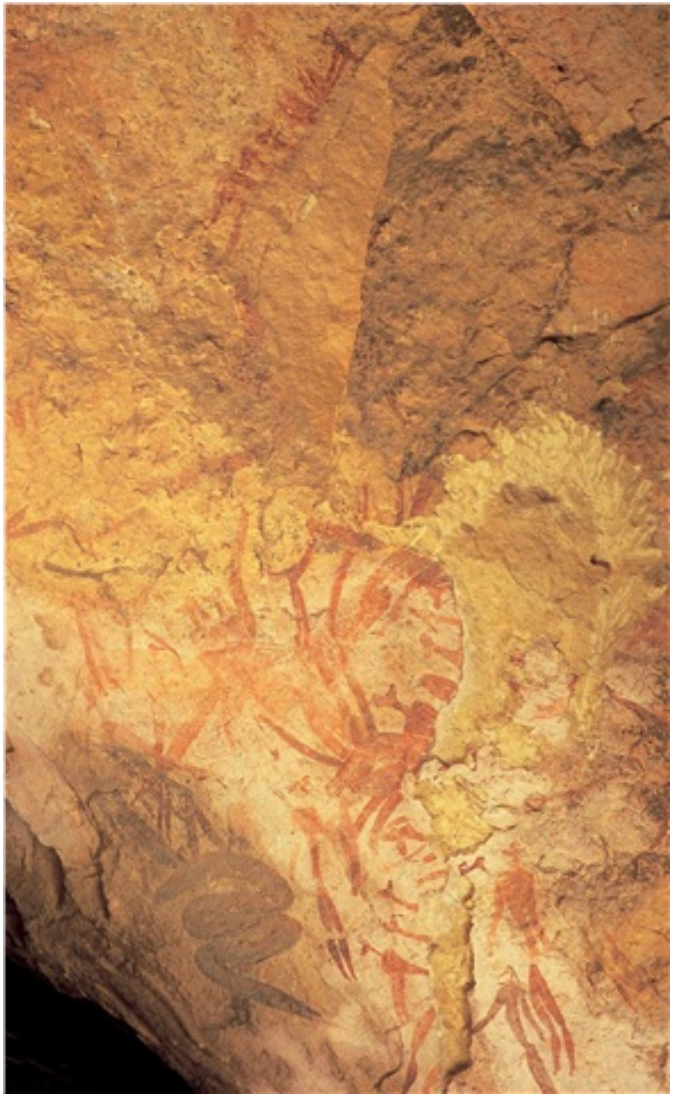

Left, Snake Rock overview. Below, detail

from Snake Rock: a serpent, bleeding

from the nose, coiled around an elongated

human figure. Photos: Santha Faiia.

Close up of face of one of the Junction Shelter figures. What sort of being is represented here?

Photo: Santha Faiia.

Rock art panel depicting a shaman partially

transformed into a hoofed animal. Note upside-down antelope-headed snake and figures of fish and eels.

Photo: Santha Faiia.

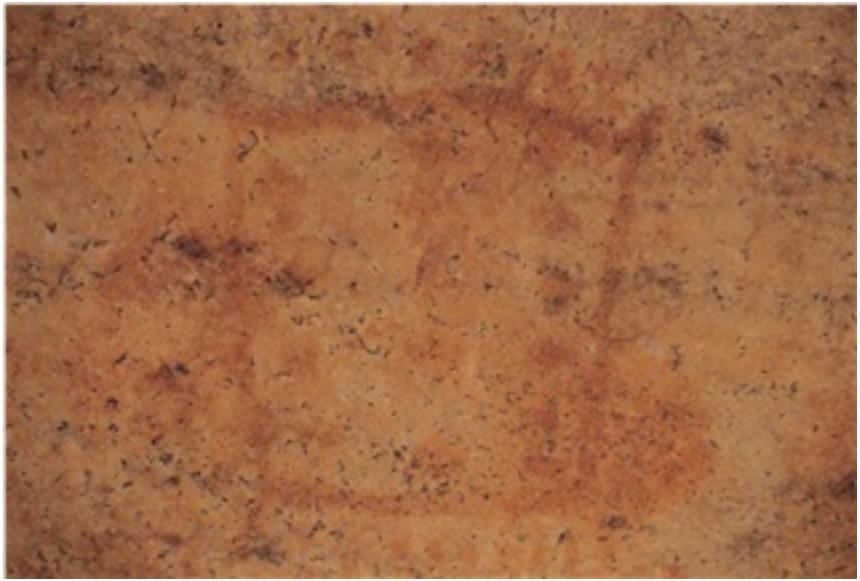

Examples of entopic patterns in San rock art. Such grids, dots and zig-zags, frequently combined with more complex figures, belong to the universal imagery of altered states of consciousness. Photos: Santha Faiia.

with brain chemistry in just the right state of flux to permit them visions, prophetic knowledge, and encounters with spirits without recourse either to psychoactive plants or to physical methods of

trance induction such as rhythmic dancing or drumming. My guess is that such people existed and were experiencing visions and encounters long before the earliest rock art was ever painted. Perhaps it was precisely they – the first shamans, spontaneously "shamanizing" – who were responsible for the odd, isolated breakthroughs of behaviorally modern symbolism *before* 35,000 years ago (for example, the shell necklace and ochre slab decorated with entoptic patterns found at Blombos Cave in South Africa and dated to approximately 77,000 years ago). I don't rule this out at all, but the archaeological record says that the influence of such visionaries on their fellows in the Stone Age was for a long while no greater then than the influence of UFO abductees is in modern society – i.e. pretty much zero.

I suggest that not only art, but the entire switch to behavioral modernity, came when those in any Stone Age society who lacked the genetic capacity to trance spontaneously were enabled to do so

by the discovery and subsequent systematic exploitation of plant hallucinogens, or one of the physical methods of trance induction. The hypothesis is that it was this “democratization” of altered states of consciousness, the possibility for the entire community to share in the life-changing visions and encounters that had previously been limited to a very few, that brought new, more open, more creative, more innovative, more flexible, more intuitive, and frankly more intelligent ways of thinking to a point of “critical mass” in society after society, and ushered in the single most decisive shift ever to have occurred in human evolution. We need not be surprised that the archaeological record shows this moment being reached at different times in different places, sometimes with intervals of thousands of years between the awakening of one group and another. If the trigger factor in every case was the discovery of reliable means for all to enter altered states of consciousness, and if this first discovery was often accidental, then we would not expect to find modern human behavior emerging everywhere all at once,

but rather in stages and somewhat randomly – which is in fact what we see in the archaeological record. Once the processhad started, however, it could not be stopped, as people who did not know how to use altered states of consciousness would sooner or later have encountered people who did, and would have learned from them.

Concealed matrix and the receiving mind

The fundamental experiences of the shamanic trance in all times and places have been the otherworld journey and the shaman's initiation by, encounters with, and reception of powers from supernatural entities. For reasons we have explored in Part I, we can say with a high degree of confidence that the art of the painted caves of Upper Paleolithic Europe and the rock art of the San of southern Africa were both inspired by exactly such otherworld journeys and encounters experienced in deeply altered states of consciousness. We have seen that the outward forms in which experiences of this kind clothe themselves – in other words, the ways in which they are

construed and the ways in which they are portrayed – can change dramatically from culture to culture. However, we should not forget that "normal"

perceptions and experiences do so as well.

For example, if five different people witness a crime, the police are used to being given five quite different descriptions of the perpetrator. This is because interpretation is built into our perceptual processes from the outset, and we each bring our own preconditioning, individual experiences, and cultural preferences to bear on what we see and on how we experience reality. The fact that our hallucinations are also hugely in fluenced by our own preconditioning, individual experiences, and cultural preferences therefore tells us more about standard mechanisms underlying *all* forms of perception than it does about the objective reality – or not – of the scenes and beings encountered in hallucinations.

Stated simply, the great variety of imagery seen in trance states by different cultures and peoples (or even by the same person in different moods and settings) does not prove that “there is nothing there” at the source of the images, or that they are all cooked up “within the brain”

- any more than the variety of witness descriptions proves that there was no crime. The corollary, however, is that any underlying _similarities_between the hallucinated experiences of different peoples and cultures at different periods of history and prehistory should be of the greatest interest and taken fully into account in weighing up the reality status of the supernatural realms and beings that feature in such experiences.

We encounter the supernatural, or what we think of as the supernatural, in many different guises, and there are as many different ways to approach and explore it. In a book, there are strict limitations of space, so out of a desire for parsimony and to

maintain focus, my strategy has been to concentrate on three specific manifestations of the supernatural in unconnected settings and epochs where similarities ought, legitimately, to be least expected.

The first manifestation we have explored has been the spirit world, so evident in prehistoric rock art and still actively experienced to this day in surviving shamanic cultures as far afield as central and southern Africa, Australia, and the Amazon rain forest. The second manifestation has been the fascination with the supernatural beings known as fairies that captivated the imagination of Europe from medieval through to Victorian times. The third manifestation has been the modern experience, particularly strong in North America, of encounters with UFOs and aliens.

Beneath the obvious superficial and culturally determined differences, our close examination of all three cases in the previous chapters reveals the existence of a concealed matrix of deep

structural similarities and connections. It is also particularly notable how certain common themes, such as therianthropic transformations, the presence of dwarf-like humanoids with large oblique eyes and oversized teardrop-shaped heads, the presence of owls, the ordeal of the

"wounded man," and the breeding of hybrid infants, seem to be expressed over and over again. Extending from the Upper Paleolithic to the Space Age, such close and distinctive continuities and commonalities would seem extraordinary enough if they had arisen in response to easily identifiable, objective, and long-lasting external stimuli that all had shared. But for them to show so much consistency over so long a period in the absence of any objective "real world"

stimulus at all is a much more mysterious matter.

It raises again the question of the mind as a receiver rather

thansimply as a generator of consciousness, and the possibility that everyone who has ever experienced abduction by aliens or fairies, or initiation with painful piercings and tortures by spirits, automatically takes for granted – namely, that the otherworlds we explore and the supernatural entities we encounter in trance states do have an objective reality all of their own and do have an independent existence outside our brains.

A common molecule with uncommon effects

It was this possibility that Dr. Rick Strassman, a psychiatrist working at the University of New Mexico, was forced to contemplate when he began human trials in the 1990s with dimethyltryptamine (DMT). In Chapter Three we saw that this potent hallucinogen, which shamans in the Amazon extract from the leaves and resins of a number of jungle plants, forms the principal active ingredient of ayahuasca. But DMT is also very closely related, at the molecular level, to the fungal hallucinogen

psilocybin,3 and to serotonin (5-hydroxytryptamine), the most important neurotransmitter in the human brain.4

Widely distributed throughout the plant and animal kingdoms,

“DMT is, most simply, almost everywhere you choose to look,” says biochemist Alexander Shulgin. “It is in this flower here, in that tree over there, and in yonder animal.”5 Rick Strassman adds that it is “part of the normal makeup of humans and other mammals; marine animals; grasses and peas; toads and frogs; mushrooms and molds; and barks, flowers and roots.”6 In addition, our brains themselves synthesize and produce DMT, which has been found to be naturally present in human blood, in human brain tissue, and in the cerebrospinal fluid bathing the brain. By any standards, therefore, we are talking about a relatively common molecule. What is most *uncommon*, however, is the storm of hallucinations unleashed in human subjects when naturally occurring levels of DMT in the brain are raised above a certain threshold.

The nominal purpose of Strassman's research was to discover whether psychoactive doses of DMT given over sustained periods of time might have any medical or therapeutic applications. To cut a longstory short, no such applications were identified,7 but instead something else, quite unexpected, came to light. Many of the subjects experienced intense encounters with supernatural, non-physical beings during their DMT trips, encounters that they often received – like the shamans of old – as profound and disturbing revelations. Several different volunteers gave accounts of virtually identical experiences, and even seemed to be entering the *same* realms and communicating with the *same* beings. In a large number of instances, Strassman was stunned to realize, these experiences, realms, and beings were identical to those reported to John Mack and other psychiatric counselors by people who believed they had been abducted by aliens.8

Clearly there had been no physical abduction here. In each case, the

subjects had remained throughout on a hospital bed in the University of New Mexico and directly under Rick Strassman's watchful eye. Yet, with intramuscular injections of DMT in doses as low as 0.2 milligrams per kilogram of body weight (only tiny quantities of this substance are required to induce hallucinations), their consciousness had been effortlessly projected to the same sorts of places that UFO abductees say they are taken, where they underwent the same sorts of ordeals at the hands of the same sorts of enigmatic beings.

In Chapter Twelve we will look in detail at what the volunteers had to say. Their experiences were not identical to mine, but overall there were many striking similarities. The main difference, I think, was that I was obliged to use a much less efficient method of delivery, and was much more frightened and unsure of my ground.

Smoking DMT

I applied the naked flame of a butane lighter to the ruby-red blob of crystalline resin, about one third the size of a pea, that I had just crumbled into the bowl of a glass pipe. There was some crackling and hissing as I inhaled deeply and filled my lungs with smoke. The taste was much less noxious than I had expected, and the substance had an odd smell, not at all unpleasant, that reminded me of plasticine. I held my breath, retaining the smoke, giving the DMT a chance to work its way through the lining of my lungs and into my bloodstream. Evenbefore I exhaled I had begun to feel very dizzy – the sort of instant buzz and disorientation that I used to get years ago from a big hit of marijuana.

I flicked the lighter on again and moved it towards the bowl. But hold on! Where was the DMT? The resin had melted into a thick clear liquid that now lay pooled in the pipe's mesh foil and was presumably already dripping through it into the bottom of the bowl. I put the flame to the liquid and inhaled again, this time getting

much less smoke, which I retained in my lungs for about ten seconds before I exhaled. There was now just a smear left on the foil.

I sat back. What was I experiencing, if anything?

Well, I was definitely experiencing something. For a start, I was in the midst of a serious light-headed buzz. I felt pretty good, but also scared. I wanted to lie down under a blanket, and at the same time get up and pace around. I closed my eyes. If there were to be visions, that would be where I would first see them, behind my closed eyes. But I saw nothing, or perhaps not quite nothing – perhaps just the faintest hint of random lines and flashes of light, the slightest disturb ance and rippling on the edge of consciousness. This too rapidly faded, and within ten minutes the buzz and disorientation had cleared completely, leaving me in full possession of all my senses and faculties.

If we lived in a free society and had made an adult choice to use hallucinogens to explore our own consciousness, then we would be able to acquire good-quality injectable DMT from our local pharmacy, along with a safe system of delivery and excellent advice on how to use the drug, and on its risks, benefits and contraindications.

Unfortunately, however, the powers of this world have determined that we in the wealthy industrialized countries are not under any circumstances to be permitted to use hallucinogens for consciousness exploration, or any other purpose, and that if we do we may be sent to prison for up to 30 years. Naturally, this brazen and inexplicable breach of our basic human right of sovereignty over our own minds does make it quite difficult to acquire DMT – and particularly to acquire pure high-quality DMT.

So this was my problem. Given the choice, given the liberty to actrationally and wisely in the best interests of my health, I would have preferred to be like Rick Strassman's very fortunate volunteers

and to receive my DMT in the form of injections. But because my society denies me that choice, and would imprison me for making it, and because government-sanctioned projects like Strassman's are as rare as hen's teeth, I had been forced to acquire the drug "on the street." It came to me through contacts I trust, so I had no doubt that what I was getting would be of tried-and-tested quality, not some dangerous rip-off cocktail of bogus chemicals – always a possibility with street drugs. But I had to take what was available, and what was available was this ruby-red resinous tree-bark extract, loaded up by nature with very high concentrations of DMT. Smoking it was a hit-and-miss method of delivery, far less efficient than Rick Strassman's wonderfully precise intramuscular injections, and potentially very wasteful of the substance into the bargain – as I had now discovered.

I took stock of what remained of my stash. There was one solid lump of resin about twice as large as the piece I had already burned.

And in a separate plastic bag I had what looked like the same amount again, but broken up into powder and flakes.

Dose was absolutely crucial with this drug, and in my first session I had smoked too little. This was obviously because I had not used enough of the resin, and because the little that I had used melted down and became unsmokeable almost immediately. I removed the foil with its smear of salmon-colored residue from my pipe and replaced it with a fresh one. I had strong feelings of apprehension, and indeed fear, about using DMT, and had it not been essential for my work to get acquainted with this molecule I do not think I would ever have gotten this far with it. Now I could not bear the thought of my low-level dread of the DMT experience carrying on for even another hour.

I had to get this done! I therefore decided to smoke all of the rest of the main lump in one session – which would give me at least double the dose I'd had already. Presumably, the trick would be to apply

the flame in such a way that not all of the resin burned at once, thus allowing at least four or five good hits on it before it disappeared.

The resin broke up easily between my fingers into crystalline crumbs, which I sprinkled on the new, clean foil. It made quite aformidable little pile. And I was going to smoke all this? At once? I must be crazy. Santha was sitting beside me now, and handed me a glass of spring water from the shrine of the Blessed Virgin Mary at Lourdes, which we'd visited together eight months previously. I'm not a Christian, but the grotto at Lourdes was a fairy cave before Catholicism adopted it, and when little Bernadette Soubirous experienced visions in front of it in the mid-nineteenth century, she initially described the female figure she saw not as the Virgin Mary but as *un petito damizela*, "a little lady" – a term redolent of the fairy lore of the Pyrenees.9 Another thing that is not widely known about Lourdes is that a large quantity of portable Upper Paleolithic art was found there,10

but this is a matter that we will return to.

Whirlwind

I clicked on the lighter, held it over the edge of the bowl, and tried to avoid igniting all the resin at once. There was crackling and hissing as before, and I inhaled deeply, this time drawing down what felt like a large amount of smoke into my lungs. I held it there for some seconds, then slowly breathed out and reinhaled about half the smoke.

The immediate rapid buzz was back, multiplied in strength. I exhaled again, peered into the bowl. Hmm, quite a lot left this time! I flicked the lighter back on and applied the flame to the other side of the diminished melting pile. Crackle. Hiss. Another big inhalation . . .

hold it, breathe out, reinhale, breathe out. Fire up the lighter again.

This time the target is that solid little chunk of resin standing out of a sea of meltdown. Click. Crackle. Hiss. Inhale. Breathe out . . .

By now I was feeling way beyond buzz, way beyond disoriented. I needed to lie down fast. But there was still something that could be smoked left in that bowl. Having come this far, I knew it was my duty to smoke it all and make certain I got a good dose. Click. Crackle.

Hiss. Inhale. I handed the pipe and lighter to Santha, and stretched out full-length on the couch with my eyes closed.

Although my rational observing consciousness never left me for a moment, I now found myself fully immersed in an extremely potent psychedelic episode. I felt as though I were being drawn up out ofmy body by some utterly irresistible impersonal force, like a flood or a whirlwind, and carried off to a far-off, high-up place. Then, while I was still in the midst of that vertiginous upwards rush, a

seething mass of incredibly rich, deeply saturated colors presented themselves across my entire field of vision, coiled into serpentine internested wave patterns decorated with bright dots like the bodies of a thousand snakes – the whole glowing, luminous mass pulsating and writhing and filled with an extraordinary and indescribable sense of menace. I felt real fear now. My heart was beating faster. I was sweating. Santha had her cool hand on me, but after a while I started to be afraid that somehow she would get drawn into this vortex and asked her to sit back. I groaned and moaned. And all the while, eyes open or closed, the mass of seething colors invaded my consciousness and called insistently for my attention.

Then suddenly . . . WHOOSH!! It happened unbelievably fast.

One second I was outside the wall of colors, mesmerized and menaced by it. The next second . . . BAM! I was projected through it into some strange, pristine geometrical space on the other side of the wall.

High-speed machine beings

What was this place? Where was I? How had I gotten here? I hardly had time to ask any of the basic questions when things started happening and information started flowing.

The first thing was that I felt the presence of other intelligences with me in this weird geometrical room with transparent planes and impossible angles. What I could see were hints and suggestions of very rapid, purposive activity around the edges of the room, as though beings were there but moving so fast that they were a blur.

At this point I said out loud: “I’m scared. This is a scary place. I want to get out of here.” I was shaking and trembling, partly with genuine fear, partly because I was suddenly feeling very cold. But I knew that I couldn’t escape from any of this until the DMT let me go.

I paid attention to the fast-moving little entities zipping around the margins of the geometrical room as though they were running on rails around the circuit boards of a giant computer, and gradually thescene opened up to me. Still I could not see the beings, exactly, could not make out definite form, but I felt a strong sense of communication with them. It dawned on me that this place I was in had something to do with teaching. I was here to learn, and these high-speed little machine-like beings were my instruments of instruction.

At that moment, and for perhaps the next one or two minutes of real time, I was introduced – to the limited extent I was able to grasp it – to a true otherworld, organized completely differently from our own, where our laws of physics do not apply, where there are more than three dimensions, and where vast amounts of information have been stored. I had the strong sense that I was being shown around very, very quickly – “this is how we do things here; this is how we

are" – and that the purpose of the lesson was as a kind of induction to enable me to use their world properly. To that extent I was a bit like an immigrant, not knowing the language, being given a lecture by earnest local officials. They meant well and definitely had useful things to tell me. I meant well and definitely wanted to hear what they had to say. But we couldn't understand one another.

Towards the end of the experience, I was shown a lozenge-shaped screen filled up with the same internested serpentine wave patterns in the same seething colors that I had seen on the way in. I felt drawn towards the patterns. Then . . . WHUUMPH! As suddenly as it had started, I was back on Channel Normal.

The first and most powerful emotion I felt was relief.

Script

I was now reduced to the powdery substance in the plastic bag. It

wasn’t identical to the resin I had finished. Perhaps it was older. Or perhaps it had been derived from a different species of DMT-producing plant. I started off with a third of it, but this was a mistake, since – quite predictably – it got me only as far as the buzz.

I immediately filled up the pipe bowl with everything I had left, and by working round the edges of the pile of powder with the flame, managed to get what felt like four good hits out of it.

I lay back, did some shivering and shuddering, groaned and moanedsome more, felt mightily afraid again. This time I didn’t get the colors, and I didn’t find my way into any geometrical otherworldly rooms.

Instead a different but equally purposive and meaningful communication aimed directly at me started to come my way.

The first thing I noticed was that there was a thick, ivory-colored,

organic-looking tube running horizontally across approximately the lower third of my visual field. Then black lines faded into view on the surface of the tube, and began to move and rearrange themselves in ordered vertical and horizontal registers and in chaotic spirals and zigzags. Very often, strings of almost recognizable numbers and letters would appear, but just as frequently I would see sections of script from languages that were completely unknown to me – sometimes expressed in what looked like hieroglyphs, picture writing, or signs. Constantly shifting, sorting, and juggling like a computer program running through a thousand different alphabets in an instant, the lines themselves seemed to come alive at certain moments and to behave in a way that reminded me of small, diligent mechanical ants and spiders.

Then the display changed in the blink of an eye, and it wasn't simple monochrome lines anymore, but pairs of colorful writhing snakes wrapped around one another, drawn down to a minute,

submicroscopic scale, as though I were being allowed to peer deep into the nucleus of a cell and to witness the dance of DNA – the ultimate

“Master of Transformations.”

What did it all mean? What was I being told here? Why was I being shown this? Behind the intertwined helices, I just had time to notice that the display of numbers and letters had started rolling again before . . . WHOOMPH! ZAP!

I had smoked DMT and survived.

Chapter Twelve

Amongst the Machine Elves

My experience with DMT was qualitatively different from the realms and beings ayahuasca introduced me to. For whereas the ayahuasca worlds seemed rich, luxurious, and abundant in the transformations of organic and supernatural life, DMT brought me to a world – or to some aspect of a world – that appeared from the outset to be *highly artificial, constructed, inorganic, and in essence technological*.

Perhaps this was not so very far apart from the technological props that spirits, fairies, and aliens have always been linked to – the circular dance, flying saucers, flying shields, etc., etc. Moreover, as we'll see, a number of the volunteers in Rick Strassman's DMT

project at the University of New Mexico did report experiences that closely paralleled some elements of my ayahuasca visions. Still, nothing that I personally encountered under ayahuasca was anything like the transparent geometrical space into which DMT projected me on the first of my two trips. With its sense of intelligent little entities scurrying around on printed circuit boards stuffing vast quantities of incomprehensible data into my brain, it had the impact of a technological array that had been created explicitly to give very rapid courses of instruction in complex information.

To be more specific, the technology of the room seemed to be about displaying some sort of *recording* that had been set in playback mode by the arrival of my consciousness. It seemed to me to be a very powerful and special kind of recording, one that was *interactive* beyond the wildest dreams of today's computer programmers. It would adjustits output according to the psychology, habitual perceptions, and culture of each individual plugging into it,

and could be played slow or fast, again dependent on interactive feedback.

I was a panicked subject, inexperienced in the use of mental technology, and tuned in to Channel DMT only for a few moments.

Recalling the scene now, I feel that when my consciousness was in that room – wherever or whatever it was – I behaved like a terrified animal that had inadvertently blundered into a machine shop. My disrupted hold on reality, my utter vertigo at being in so alien and unexpected a space, and my deep-seated fear at the presence of non-human intelligences caused me to thrash about in panic in a full-scale fight-or-flight reaction, and prevented me from observing and trying to assess the set-up that confronted me.

Nevertheless, I came out of the experience with the weird feeling that enormous amounts of data had been transferred to me. It's a strange thing to say, but I remained thoroughly aware for a long

while afterwards of all this new data – just as one might be aware of the presence of a massive new file suddenly downloaded onto the hard disk of a computer. And just as it is possible to download a file but impossible to open it unless we have the right software, I found that what I had received during my DMT sessions was a great deal of information that I simply could not "read." Whether I would in due course learn to read it was another matter, but for now I had what felt like a million gigabytes of raw binary code awaiting my attention, and could understand none of it.

So part of the experience was this continual vast flow of information. But the other part – though I have only the haziest recall of their appearance – concerned the entities that presented or channeled this information to me during my first trip. What I remember most of all about them, anyway, was not their appearance but their *intelligence* – which struck me immediately as utterly different in its emotional temperature from contact with human

intelligence. It felt more like being in the presence of big-brained robots than peoplerobots who probed and tested me for my reactions and adjusted the volume and tone of the data-flow accordingly. Moreover, their exclusive function seemed to be to show stuff to me – *indeed, to put on a show for me* – often in a rather entertaining or amusing way, leaping about through six dimensions and uncovering panels of moving patterns before my eyes with a certain flourish, as though they had pulled off a very clever trick that they were pleased with. I was sure that they had been in the room before I entered it, that they remained in it after I left it, and that they were, in short, part of its basic equipment. Indeed, I imagined the entire interactive ensemble falling instantly into "sleep" mode the moment the DMT ran out and I was hauled back to Channel Normal.

Machine realms

My experience of being brought into an otherworldly space that was distinctly technological in character was widely shared by the

volunteers in Rick Strassman's project. This is what Jeremiah had to say after receiving an injection of DMT at the intensely psychoactive dose (for this extremely potent substance) of 0.4 milligrams per kilogram of bodyweight – the highest dose available under Strassman's study: It's a different world. Amazing instruments. Machine-type things . . . I was in a big room . . . There was one big machine in the center, with round conduits, almost writhing – not like a snake, more in a technical manner. The conduits were not open at the end, they were solid blue-gray tubes, made of plastic? The machine felt as if it was rewiring me, reprogramming me . . . I observed some of the results on that machine, maybe from my brain. It was a little frightening, almost unbearably intense.1

Other volunteers reported seeing the "inner workings" of machines on their DMT trips and "inside a computer's boards,"2 and on the final dose of a four-dose tolerance study, Sara suddenly announced:

I always knew we weren't alone in the universe. I thought that the only way to encounter them is with bright lights and flying saucers in outer space. It never occurred to me to actually encounter them in our own inner space. I thought the only things we could encounter were things in our personal sphere of archetypes and mythology. I expected spiritguides and angels, not alien life forms . . . I saw some equipment or something . . . It looked like machinery.3

Carnivals and clowns

The peculiar impression I'd come away with of a "show" being put on for me by machinelike mannequins – who I might easily have construed as "clowns," or "elves" – and of information or data being transferred, was also reported quite frequently by Rick Strassman's DMT volunteers. Marsha had this to say when she returned to normal consciousness after a DMT session at the high dose of 0.4 mg per kg:

You know what happened? I was on a merry-go-round! There were all these dolls in 1890s outfits, life-sized, men and women . . . They were all whirling around me on tiptoes . . . And there were some clowns, flitting in and out, not really the main characters, but busier, somehow more aware of me than the mannequins.4

At the same dose, Cassandra reported:

Something took my hand and yanked me. It seemed to say, “Let’s go!”

Then I started flying through an intense circus-like environment. I’ve never been that out of body before. First there was an itchy feeling where the drug went in. We went through a maze at an incredibly fast pace. I say “we” because it seemed like I was accompanied. It was cool.

There was a crazy circus sideshow – just extravagant. It’s hard to

describe.

They looked like Jokers. They were almost performing for me. They were funny looking, bells on their hats, big noses. However, I had the feeling they could turn on me, a little less than completely friendly.5

Chris:

They were trying to show me as much as possible. They were communicating in words. They were like clowns, or jokers or jesters or imps.

There were just so many of them doing their funny little thing.6

p.Sara:

I was scared, but I kept telling myself, “Relax, surrender, embrace.”

Then I saw what I can only describe as a Las Vegas casino type of scene, all flashing and whirling lights . . . Then . . . I “flew” on and saw clowns performing . . . animated clowns . . .7

Given DMT’s crucial role in the psychoactivity of ayahuasca, it is perhaps predictable that the South American brew also sometimes seems to tune the brain to the strange “receiver wavelength” of pure DMT – very far from Channel Normal – in which the entities encountered quite frequently appear in the guise of clowns against a background of carnivals or circuses. This is not to say that the ayahuasca and DMT experiences are identical; on the contrary, I have been careful to emphasize that they are not. The reader will recall that ayahuasca contains other psychoactive alkaloids as well, notably harmaline, that extend the “trip” to several hours in duration (rather than the 20 minutes that is typical for pure DMT). Nevertheless, Benny Shanon, Professor of Psychology at the Hebrew University in Jerusalem, reports that across a sample of

several hundred individuals whose ayahuasca experiences he has documented, “The frequency of facilities pertaining to amusement parks in the visions is, it seems to me, disproportionately high. Especially noted are carousels and Ferris Wheels.”8

As an example of this, Michael Harner, an American anthropologist who did his fieldwork in the Amazon in the early 1960s, saw what he described as “a supernatural carnival of demons” on the night that he first drank ayahuasca.9

In Chapter Ten I reported the case of a group of children in the United States who had certainly *not* been drinking ayahuasca, but who claimed to have been transported to the sky by a UFO that had appeared to them initially in the guise of “a booth at a carnival in which aliens disguised as humans asked if they wanted to go on a journey.”10 In the same chapter the reader will also find the story of another sighting by schoolchildren. Aged between eight and ten years, these were English kids who saw a group of about sixty small

beingsdressed in blue tops, yellow tights, and jester-style caps with a bobble on the end. Although reportedly driving around in little cars that traveled at high speed and could jump soundlessly over obstacles, the overall style and appearance of the beings was not at all modern or technological. Drawings were done of them by the children at the time, and in these they very closely resemble fairies, imps, elves, dwarves, or clowns as they might have been portrayed in the Middle Ages.11

In Chapter Six we met Maria Sabina, a Mazatec Indian shaman who practiced in the village of Huatla de Jimenez in Mexico in the 1950s. I reported the story of the "big Book with many written pages"

that she claimed to have been shown by a spirit during one of her psilocybin-induced trances, and I drew the comparison with similar books that have been shown to UFO abductees by beings they presume to be aliens. Thanks to ethnographers who were sometimes

allowed to be present, and who made recordings and transcriptions, a large number of the sacred chants that Maria Sabina used in her "mushroom *veladas*" (all-night shamanic healing vigils) have survived. It is of interest that these include frequent mention of clowns, and that Maria often referred to the hallucinogenic mushrooms themselves as

"little clowns."

On one night, when she consumed 13 pairs of *Psilocybe mexicana*, she described them as "Thirteen superior whirlwinds. Thirteen whirlwinds of the atmosphere. Thirteen clowns. Thirteen personalities."12

Later during the same *velada*, the transcript tells us that Maria cried out: "Woman lord of clowns am I, Woman lord of the holy clown am I."13 And towards morning: "Woman chief of clowns am I . . . Woman of the holy clown am I."14

On another occasion, while giving her life story to the American anthropologist Joan Halifax, Maria recalled the time when she first consumed the hallucinogenic mushrooms and began her career as a shaman:

My soul was coming out of my body and was going toward the world that I did not know but of which I had only heard talk. It was a world like this one, full of sierras, of forests, of rivers. But there were alsoother things – beautiful homes, temples, golden palaces. And there was my sister, who had come with me, and the mushrooms, who were waiting for me – mushrooms that were children and dwarfs dressed like clowns . . .15

For Maria Sabina, these hallucinated experiences under the influence of psilocybin were unquestionably real, even if they took place in a world that she had never encountered before and that was not accessible to her in her normal state of consciousness. For most Western scientists, on the other hand, the otherworld Maria believed

she had entered and the “dwarfs dressed as clowns” that she saw there cannot possibly have been real, because it is known that she did not go anywhere during her *veladas* but remained very much physically present throughout. Like Rick Strassman’s volunteers 40 years later, who never left their hospital beds, it seems that the receiver wavelength of the Mazatec shaman’s brain had been temporarily returned to pick up broadcasts from Channel DMT – and since psilocybin is closely related to DMT, as we’ve seen, this need not surprise us.

But what exactly is this “channel,” and why should millions of years of physical evolution have equipped us to experience encounters with beings who look like clowns when the level of a hormone that is already naturally present in our brains is boosted above a certain threshold? Also, and this is not a small point, where did the idea for clowns come from in the first place? Were the visions of carnival-type figures seen by Strassman’s subjects, Maria Sabina, Michael

Harner, and others influenced by strictly modern and culturally contingent television and circus spectaculars? Or is it possible that the direction of influence really flows the other way, and that the inspiration for the earliest clowns came from visions and hallu cinations seen in altered states of consciousness – whether entered spontaneously or under the influence of DMT-linked hallucin ogens? We know that at least as far back as ancient Greece, a land rich in psychoactive plants, stage plays, farces, and mimes frequently featured performances by dwarves and children dressed up in ways quite similar to modern circus buffoons.16 Before that, the history of such theatrical figures is obscure – as well it mightbe if they had emerged from occult realms that were originally accessible only in visions.

Paradigm wars

It is impossible for Western science as it is presently structured to give serious consideration to the shamanic explanation of

experiences like those of Maria Sabina and Rick Strassman's volunteers, and indeed of the experiences that I myself have had under the influence of hallucinogens. This is not because the way that shamans explain reality has ever been falsified. Nor is it because there is anything inherently weak, faulty, or illogical about their world view. The reason is simply that the opposing materialist paradigm, upon which all the progress and achievements of Western technology have been built, would face catastrophic implosion if the shamans were ever proved right.

According to the shamanic explanation, when Maria Sabina, Rick Strassman's volunteers, and I consumed hallucinogens, our bodies remained in the material world while the "plant spirits" temporarily liberated some aspect of our consciousness to travel in other, non-physical realms and to interact with intelligences there. It is perhaps a sign of how profoundly Strassman's research has changed his own world view as a scientist that he refers to DMT as "the spirit

molecule”

and is prepared to contemplate the possibility that humans have evolved a relationship with it precisely because it leads us to spiritual realms

These worlds are usually invisible to us and our instruments, and are not accessible using our normal state of consciousness. However, just as likely as the theory that these worlds exist “only in our minds” is that they are, in reality, “outside us” and freestanding. If we simply change our brain’s receiving abilities, we can comprehend and interact with them.18

Strassman is to be commended for exploring such ideas. But he himself would be the first to point out that it was partly because of his subjects’ interactions with what they took to be the inhabitants ofother realms – and because it was difficult to describe the therapeutic benefit of such experiences according to the norms and

expectations of Western healthcare – that he eventually decided to give up his potentially explosive research project.19 He was, he explained frankly,

"unprepared for the overwhelmingly frequent reports of contact with beings. They challenged my view of the brain and reality."20

Looking back on the project in 2001, he elaborated on this point: When reviewing my bedside notes I continually feel surprise in seeing how many of our volunteers "made contact" with "them" or other beings.

At least half did in one form or another. Research subjects used expressions like "entities," "beings," "aliens," "guides," and "helpers" to describe them. The "life-forms" looked like clowns, reptiles, mantises, bees, spiders, cacti, and stick figures. It is still startling to see my written records of comments like "There were these beings," "I was being led,"

“They were on me fast.” It’s as if my mind refuses to accept what’s there in black and white. It may be that I have such a hard time with these stories because they challenge the prevailing world view, and my own.21

Return of the fairies and elves

Quite a number of the encounters reported by Strassman’s volunteers after their DMT trips were with fairy-like or elf-like beings – sometimes explicitly named as such in the reports. For example, Cassandra spoke of meeting “the DMT elves . . . They were jovial and they had a great time giving me the experience of being loved.”22 Eight minutes into a high-dose 0.4 mg-per-kg session, however, Karl had a slightly less friendly (and certainly more perplexing) encounter with the same type of beings:

That was real strange. There were a lot of elves. They were prankish, ornery, maybe four of them appeared at the side of a

stretch of inter-state highway I travel regularly . . . They held up placards, showing me these incredibly beautiful, complex, swirling geometric scenes in them.

One of them made it impossible for me to move. There was no issue of control; they were totally in control. They wanted me to look!23

p.After her second dose on the day when she took part in the four-dose tolerance study of DMT, Sara reported:

This time the aggressive spinning colors were almost familiar. Suddenly, a pulsating “entity” appeared in the patterns. It sounds weird to describe it as “Tinkerbell-like” [i.e. fairy-like]. It was trying to coax me to go with it. At first I was reluctant, because I didn’t know about finding my way back. By the time I made up my mind I did want to go with it, I could tell the drug was starting to wear off, and I wasn’t “high”

enough to follow it. I told it, “I can’t go with you now. See, they want me back.” It didn’t seem to be offended and, in fact, “followed” me back until I sensed it had reached its boundary. I felt like it was saying goodbye . . .24

Sean also participated in the tolerance study, receiving four 0.3

mg/kg doses of DMT at hourly intervals. During the first session the following extraordinary interactive vision unfolded: I watched a low-lying city . . . on the far horizon mutate through a variety of colors and hues, with many ill-defined “things” floating in the air above the city. Then I noticed a middle-aged female, with a pointed nose and light greenish skin, sitting off to my right, watching this changing city with me. She had her right hand on a dial that seemed to control the panorama we were watching. She turned slightly toward me and asked, “What else would you like?” I answered telepathically, “Well, what else have you got? I have no idea what you can do.” Then she stood up, walked up to my forehead, touched

it and warmed it up, and then used a sharp object to open up a panel in my right temple, releasing a tremendous amount of pressure. This made me feel much better than I'd felt before, even though I realized that I'd felt fine in the first place.25

As well as the presence of the green-skinned, witch-like fairy, there is more than a hint in this strange account of other themes the reader is already familiar with from earlier chapters – "shamanic surgery," for example (during which initiates frequently believe their heads havebeen penetrated or opened), and the painful but often beneficial operations that aliens supposedly carry out on abductees.26

Playrooms

In Chapter Seven we saw that UFO abductees are frequently brought to so-called "child-presentation rooms," to rooms where they are required to play with hybrid babies, and to rooms where they are required to nurse hybrid babies. Under the influence of

DMT, Strassman's subjects did not report seeing babies, but did report finding themselves in spaces that seemed like playrooms or nurseries.

"There were some scenes or forms like in a nursery," said Gabe after receiving a high dose of 0.4mg/kg:

There were cribs and different animals, vibrant. I went to a childhood scene, or feeling. It was like I was in a stroller, kid images. It was sort of scary. I can't describe it. I could draw it maybe. It was like being in a room, as a child, with a stroller. There were cartoon-like people in the room, but they weren't what I wanted to see.27

Soon after he had received his 0.4 mg/kg dose, Aaron found himself

- or at any rate his consciousness – in a sealed room. Just like so many of the featureless rooms to which UFO abductees say they are

taken, and like the transparent geometrical room that my first dose of DMT

projected me into, it lacked any obvious entrance or exit: There are no doors, there's nothing to go through. It's either over here

- it's dark; or over there – there are images. You just can't do anything with them. It was Mayan hieroglyphics. It was interesting. The hieroglyphics turned into a room, like I was a child. There were toys there, like I was a kid. It was like that. It was cute.28

Also on the high dose, 50-year-old Jeremiah discovered that his consciousness had vaulted into a similar room: It was a nursery. A high-tech nursery with a single Gumby, three feettall, attending me. I felt like an infant. Not a human infant, but an infant relative to the intelligences represented by the Gumby. It was aware of me, but not particularly concerned. Sort of detached concern, like a parent would feel looking into a playpen at his one-year-old lying there. As

I went into it I heard a sound: *hmmm*. Then I heard two to three male voices talking. I heard one of them say, “He’s arrived.”29

Tales of the alien laboratory

The playrooms are the first of many strong and obvious similarities between the experiences of UFO abductees and the hallucinations of injected DMT. In the accounts given above, for example, it is already clear that the subjects frequently felt they had no control at all over the places their consciousness was being taken to. That was exactly how I felt too, and we’ve seen in earlier chapters that this is a common feeling and experience amongst UFO abductees – and, of course, amongst those abducted by fairies as well. Moreover, further study of the hundreds of pages of statements made by Strassman’s volunteers reveals an overall atmosphere, setting, cast of characters, *and sequence of procedures* at the heart of their DMT experiences that overlaps to a remarkable degree with the typical progression of UFO abductions.

After a high-dose session of 0.4 mg/kg, Lucas reported: There is nothing that can prepare you for this. There is a sound, a *bzzzz*. It started off getting louder and louder and faster and faster. I was coming on and coming on and then POW! There was a space station below me and to my right. There were at least two presences, one on either side of me, guiding me to a platform. I was also aware of many entities inside the space station – automatons, android-like creatures . . . They were doing some kind of routine technological work and paid no attention to me. In a state of overwhelmed confusion, I opened my eyes.30

It is exactly the same overwhelmed confusion that many UFO

abductees feel when they are floated up threads or beams of light to flying saucers in which they first see ranks of robotic little creaturesbusily working on incomprehensible tasks, and are then frequently taken to or simply find themselves in an examination room where medical procedures are performed on them.

“I was in a white room experiencing certain emotions and feelings that gave me a feeling of co-reality,” reported Eli, one of Strassman’s volunteers, after receiving a dose of 0.4 mg/kg of DMT. “The white room consisted of light and space. There were cubes stacked with icons on the surfaces . . . It was light but there was a lot of other information coming in.”31

Aaron:

There was no turning back. After a moment or two I became aware of something happening to my left. I saw a psychedelic, Day-Glo-colored space that approximated a room whose walls and floor had no clear separations or edges. It was throbbing and pulsing electrically.

Rising in front of “me” was a podium-like table. It seemed that some presence was dealing/serving something to me. I wanted to know what it was and “sensed” the reply that I had no business

there. The presence was not hostile, just somewhat annoyed and brusque.32

Such non-hostile but annoyed and brusque alien presences are, of course, frequently encountered by UFO abductees – who generally describe them as somewhat taller than the drone-like Grays. These beings are usually also in charge of the bizarre surgical procedures to which abductees are subject, during which they believe that their bodies have been cut open, pierced, and probed, and that implants have been placed in their eyes, brains, arms, spinal columns, or other parts of their anatomy. We cannot always be 100 per cent certain that abductees' bodies did *not* in fact go to the places where their consciousness went – because there are rarely witnesses to report one way or another. But we do know for sure that the bodies of the volunteers in Rick Strassman's project stayed in the hospital room when he injected them with DMT. Nonetheless, they too experienced probes, implants, and surgery.

“There were clinical researchers probing into my mind,” reported Jim during one of his DMT experiences. “There were sort of long fiber-optic things that they were putting into my pupils.” Jim knewthat his body could not actually be experiencing this invasive eye proced ure, because it was lying safely in a hospital bed in the University of New Mexico. His mind was experiencing it, however, andparadoxically – seemed to have acquired some sort of bodily form of its own in whatever dimension the procedure was taking place. Jim was matter-of-fact about all this in a way that those who believe they have been abducted by aliens rarely are. “It was pretty weird,” he said,

“but I figured it was just the drug.”33

Ben stayed silent for 36 minutes during his high-dose DMT session, then reported how he had arrived in another reality and been received by the beings who inhabited it:

There were four or five of them. They were on me fast . . . They weren't benevolent but they weren't non-benevolent. They probed, they really probed. They seemed to know time was limited. They wanted to know what I, this being who had shown up, was doing. I didn't answer. They knew. Once they decided I was okay, they went about their business . . .34

A few moments later he added:

I felt like something was inserted into my left forearm, right here, about three inches below this chain-link tattoo on my wrist. It was long.

There were no reassurances with the probe. Simply business.35

Dimitri was well aware that his DMT experience resembled the publicly reported experiences of UFO-abductees. The instant the injection took effect:

WHAM! I felt like I was in an alien laboratory . . . A sort of landing bay or recovery area. There were beings . . . They had a space ready for me. They weren't as surprised as I was . . . There was one main creature, and he seemed to be behind it all, overseeing everything. The others were orderlies, or dis-orderlies. They activated a sexual circuit, and I was flushed with an amazing orgasmic energy . . . When I was coming out, I couldn't help but think "aliens."36

p.**Sexual bonding**

The reader will recall that there is very frequently a sexual element to the contacts that take place between aliens and humans during UFO

abductions, and Dimitri was by no means unique amongst Strassman's DMT subjects in reporting similar experiences. Of particular interest is the well-established pattern, noted in previous chapters, of the UFO

abductee who establishes close, loving, and often sexual bonds with a particular alien figure, sometimes explicitly identified as belonging to the opposite sex. Dimitri again:

These beings were friendly. I had a bond with one of them. It was about to say something to me or me to it, but we couldn't quite connect.

It was almost a sexual bond . . . I was filled with feelings of love for them. Their work definitely had something to do with my presence.

Exactly what remains a mystery.37

A very similar story was told by Rex after a low dose of DMT

(0.2 mg/kg):

The beings were there and they were doing something to me,

experimenting on me . . . There was a female. I felt like I was dying, then she reappeared and reassured me . . . When I was with her I had a deep feeling of relaxation and tranquility . . . She had an elongated head.38

Rex also reported other interesting details: There were rays of psychedelic yellow light coming out of the face of the reassuring entity. She was trying to communicate with me. She seemed very concerned for me, and the effects I was experiencing due to her attempts at communicating. There was something outlined in green, right in front of me and above me here. It was rotating and doing things. She was showing it to me, it seemed like, how to use this thing. It resembled a computer terminal. I believe she wanted me to try to communicate with her through that device. But I couldn’t figure it out.39

p.It is almost as though we are the aliens to the inhabitants of the DMT world. But when we make unscheduled visits to their

dimension – not as abductees but as psychedelic voyagers – do they have some way of knowing we are coming? We will return to the disturbing implications of this question in due course.

Insects with an agenda

One of Rex's other DMT sessions included a terrifying, "demonic"

encounter with "insect creatures." Elements of his description, and a similar description given separately by Aaron, remind me of nothing I saw in my two DMT sessions – but who knows what I would have seen next if I'd had more resin to burn? What Rex's and Aaron's descriptions do remind me very strongly of, however, is the being who most frightened me in my ayahuasca visions (see Chapter Three) and who I described in my notebook at the time as having the look of

"some sort of huge insect with humanoid features." This is what

Rex told Strassman:

When I was first going under there were these insect creatures all around me. They were clearly trying to break through. I was fighting letting go of who I am or was. The more I fought, the more demonic they became, probing into my psyche and being. I finally started letting go of all parts of myself, as I could no longer keep so much of me together . . . They were interested in emotion. As I was holding on to my last thought, that God equals love, they said, "Even here? Even here?" I said, "Yes, of course."40

UFO abductees frequently report encountering aliens in the form of insects or of insect-humanoids. We've seen examples of this in previous chapters and parallel examples of the insect-like spirit beings encountered by shamans – such as the "bee-people" of the Warao of eastern Venezuela,41 or Kaggen, the mantis god of the San of southern Africa.42 The reader will recall that part of the hallucinogenic mission of the Warao shaman is to find a "beautiful

bee-girl" and have sex withher repeatedly in the "round white house" in the sky where these insect spirits dwell.43 Interestingly, Rex's negative alien-insect DMT experience also developed in a sexual direction:

They were still there but I was making love to them at the same time.

They feasted as they made love to me. I don't know if they were male or female or something else, but it was extremely alien, though not necessarily unpleasant. The thought came to me with certainty that they were manipulating my DNA, changing its structure. And then it started fading. They didn't want me to go.44

In a later DMT session Rex (like the Warao shamans) experienced his new insect friends as part of a bee-like social structure: I was in a huge infinite hive. There were insect-like intelligences everywhere. They were in a hypertechnological space . . . They

wanted me to join them, to stay with them. I was tempted . . . There was another one helping me . . . It was very intelligent. It wasn't at all humanoid.

It wasn't a bee but it seemed like one.45

During his first high dose of DMT, Aaron reported seeing: a mandala-like series of visuals, fleur-de-lis type visions. Then an insect-like thing got right into my face, hovering over me as the drug was going in. The thing sucked me out of my head into outer space. It was clearly outer space, a black sky with millions of stars. I was in a very large waiting room, or something. It was very long. I felt observed by the insect-like thing and others like it. Then they lost interest.46

Aaron concluded that the experience was "like being possessed" by an

“alien-type, insectoid, not-quite-pleasant” entity: There is sense of someone, or something else, there taking control. It’s like you have to defend yourself against them, whoever they are, but they certainly are there. I’m aware of them and they’re aware of me.

It’s like they have an agenda.47

p.**Same beings, same experiences, same worlds** When ayahuasca brought me face to face in the Amazon with what I construed as an insect-humanoid alien who wanted to abduct me, I know that I felt exactly the same sense of demonic attack and psychic intrusion that both Rex and Aaron described, the same sense of an agenda aimed at me, and the same need to defend myself.

Rex, Aaron, and I therefore represent a nice little micro-mystery all of our own – three people who do not know each other but who both experienced very similar “non-real” encounters with very similar

“non-real” beings. At first glance it looks as though the mystery should be easily solved, since all three of us had received psychoactive doses of DMT immediately prior to these encounters: in my case together with a cocktail of other alkaloids delivered by the ayahuasca brew; in the case of Aaron and Rex in pure form and delivered by injection.

But even with DMT as an important common factor, current theories of the way the human brain supposedly concocts hallucinations cannot even begin to explain the shared details and characters in the peculiar visions that confronted us. We are, after all, completely separate individuals who have never been in contact with one another, who come from different cultures and backgrounds, and who received DMT

a decade apart in starkly contrasting settings (the jungle in my case; the University of New Mexico for Aaron and Rex). It follows that if what David Lewis-Williams calls Stage 3 hallucinations are

“culturally controlled” and “derived from memory,” as orthodox scientists teach,48 then there is simply no way that Rex, Aaron, and I, with so little in common, could have experienced such similar encounters with unpleasant and intrusive “alien-type insectoids.”

The problem is compounded when we remember that several of Rick Strassman’s other volunteers also encountered these alien-type insectoids on their DMT trips, and that encounters with insectoids are also very commonly reported by UFO abductees who have never taken DMT in their lives. I stress again that present theories about hallucinations cannot explain the recurrence of such complex common themes amongst such disparate groups of people – and doubly so when some of them are drugged and some are not.

p.As well as the insectoids, we’ve seen that Strassman’s volunteers reported meeting more obviously humanoid beings during their DMT

trips, who they often described as small-statured with epithets such as “the little presences,”49 “the small gremlins,”50 and in one memorable case, as a three-foot-tall “Gumby.”51 Frequently set in an operating-theatre-type environment, and featuring surgical procedures, implants, etc., it must be obvious to any reader of this book that the volunteers’ DMT-occasioned encounters with those little humanoids follow very much the same general pattern as UFO-abductees’ encounters with aliens. There are differences, but the overall similarity of tone is striking.

“They were hurting me, they were not human”

Confronted by this data, the skeptic might very reasonably respond that once again there is no mystery. By the 1990s, when Strassman was doing his research, so-called alien abductions had received more than three decades of massive publicity. All of his volunteers therefore must have been familiar with alien and UFO imagery from popular culture, and simply dredged up some of these stored images

and notions during their hallucinating state. The same would go for my own alien visions under ayahuasca, and the machine intelligences that communicated with me under DMT – not real perceptions of usually invisible entities, not even tremendous feats of the imagination, just a spewing-out of internalized tabloid clichés.

But Strassman has a complete answer to all such arguments.

In the 1950s, a decade before any UFO abductions had ever been publicly reported anywhere in the world, a Hungarian medical doctor named Stephen Szara gave DMT to large numbers of human subjects in trials to assess its possible utility as a psychiatric drug. Similar research was also done in the United States during the distinctly pre-abduction 1950s by William Turner MD and Sidney Merlis MD. All these investigators asked their subjects to report their experiences during their DMT trips and, as Strassman points out, their replies were “remarkable in their foreshadowing of the

stories we were going to hear almost forty years later."52

p.On April 30, 1956, for example, Szara's patient KV was injected intramuscularly with a massive 1 mg/kg dose of DMT. After 32

minutes, she reported the characteristically shamanic experience, also shared by some UFO abductees as the reader will recall, of feeling that her heart had been removed. At 38 minutes she proclaimed: "I saw strange creatures, dwarfs or something, they were black and moved about." She also announced that she was flying, "as if I were floating between earth and sky."53

Similarly, on June 21, 1957, one of the American DMT subjects reported a characteristic experience of both UFO and fairy abductions when she found herself "In a big place, and they were hurting me.

They were not human. They were horrible."54

In 1966, a few years after UFO abductions had begun to be publicized, but long before an “insectoid” image of the aliens had become established, the famous psychedelic guru Timothy Leary took DMT.

Two minutes into the experience, he described what he saw: “There squatting next to me are two magnificent insects . . . skin burnished, glowing metallic, with hammered jewels inlaid.” A few moments later, he found himself exploring “A huge, gray-white mountain cliff, moving, pocked by little caves and in each cave a band of radar-antennae, elf-like insects merrily working away.”55

That “alien-like” and “insectoid alien-type” entities should have popped up in scientific papers in the 1950s and 1960s, doing exactly the same kinds of things to hallucinating DMT subjects as aliens would much later become famous for doing to abductees, is extremely significant. It certainly rules out any simplistic attempt to derive the alien imagery in the reports of Strassman’s volunteers

from the mass culture of the 1990s, and makes it more likely that the popular imagery itself is in some way derived from visionary experiences.

Living with an endogenous psychedelic

On the basis of all this, therefore – and compressed into a nutshellRick Strassman's theory is that people who believe they have been abducted by aliens are those whose brains from time to time spontaneously overproduce DMT.56 We are dealing here with what has rightlybeen described as an "endogenous human psychedelic,"57 so naturally when its overproduction exceeds a certain threshold, we can understand why its effects might be virtually indistinguishable from those experienced by normal subjects like Strassman's volunteers who had been injected with the drug – or for that matter by shamans who had consumed it in plant form.

Indeed, in my view, Strassman's simple, elegant theory does most parsimoniously and satisfactorily explain many aspects of the alien abduction phenomenon and of the closely interlinked phenomena of fairies and spirits that we have explored in Part II. But it is important to assert, and for the reader to be very clear, that Strassman is not a reductionist. Nowhere does he insist that these extraordinary experiences are simply *caused* by an increased level of DMT in the brain, only that the experiences are "made possible" by the DMT.58

And although he professes embarrassment and consternation at volunteers' numerous reports of contact with what they took to be other

"freestanding realities," we have seen already that Strassman is with Huxley, Hoffman, and James in strongly advocating the "receiver"

model of the brain. He therefore makes a point of remaining open to

the possibility that the beings encountered on these trips – and by UFO abductees – are absolutely real but normally opaque to us until our “receiver wavelength” is reset by DMT or other similar hallucinogenic molecules.

Entoptic phenomena

In a few of the accounts of their DMT experiences cited above, the reader may have noted that Strassman’s volunteers refer to visual effects such as “complex, swirling geometric scenes” and “aggressive spinning colors.” These are entoptic phenomena of the kind that appear in all three of the stages of trance envisaged in David Lewis-Williams’ neuropsychological explanation of cave art. Moreover, further study of the volunteers’ reports turns up many more references to imagery that is clearly and unmissably entoptic, sometimes standing alone as in Stage 1 and sometimes combined with complex

“iconic” Stage 3 hallucinations.

p.On a relatively low dose of DMT, Vladan reported: “There were visuals at the peak, soft and geometric. There were 3-D circles and cones with shading. They moved a lot.”59 Also, on a low dose, Rex described finding himself in the midst of “creatures and machinery,”

and noted that “there were brilliant psychedelic colors outlining the creatures and machinery” – a characteristic entoptic effect.60 Similarly, Saul experienced striking entoptic phenomena merging with fully iconic figures. He reported that “complicated and beautiful geometric patterns” had overlaid his visual field. Out of these patterns the forms of beings emerged: “I ‘stared’ with my inner eyes, and we appraised each other. As they disappeared back into the torrent of color, now beginning to fade, I could hear some sounds in the room. I knew I was coming down.”61

Other entoptic phenomena reported by Strassman’s subjects are too

numerous to list here but included, in no particular order, “kaleidoscopic geometric patterns,” “beautiful, colorful pink cobwebs,”

“tremendously intricate, tiny geometric colors, like being one inch from a color television,” “tunnels,” “stairways,” “ducts,” and “a spinning golden disc.”62 Flecks and dots of light “shooting off in all directions”63 were mentioned by many of the volunteers.

It provides further broad support for Strassman’s theory that UFO

abductees also report noticing identical entoptic phenomena at various points during their experiences. To cite just a few examples here, Patti Layne told researcher David Jacobs of seeing “stars and lines, images, geometric things” during one of her abductions. “Geometric images?”

asked Jacobs. “I guess,” Patti replied, “they’re like lines and dots, things like that.”64 In other words, entoptic phenomena.

John Mack's patient Shiela saw something that looked like "a huge, red stained-glass window with brown and fold lattice work separating the panes."65 This sounds like a construal of a classic entoptic lattice form. Anne, another of Mack's patients, sketched a specific entoptic pattern – very like the patterns known as "meanders" drawn on cave walls and ceilings in the Upper Paleolithic – that she had seen repeatedly projected onto her visual field following her abduction experiences.66

p.

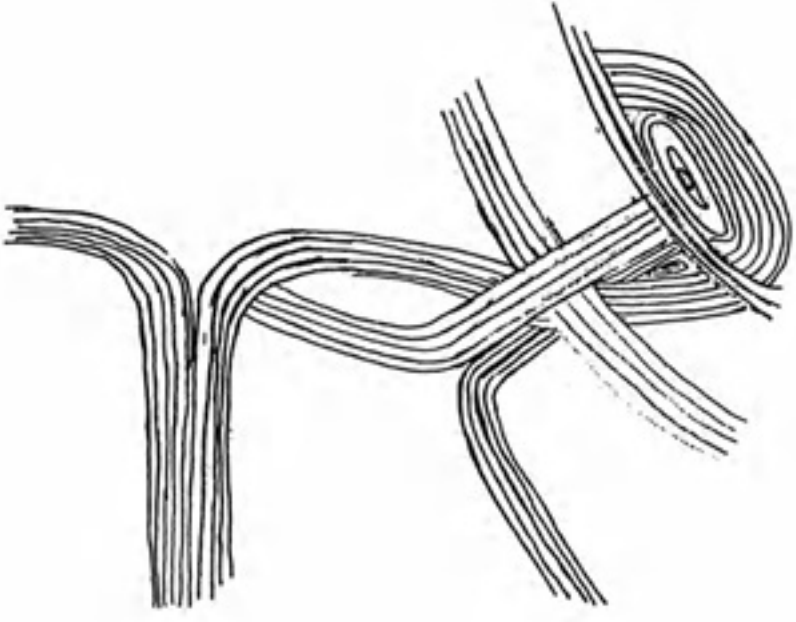

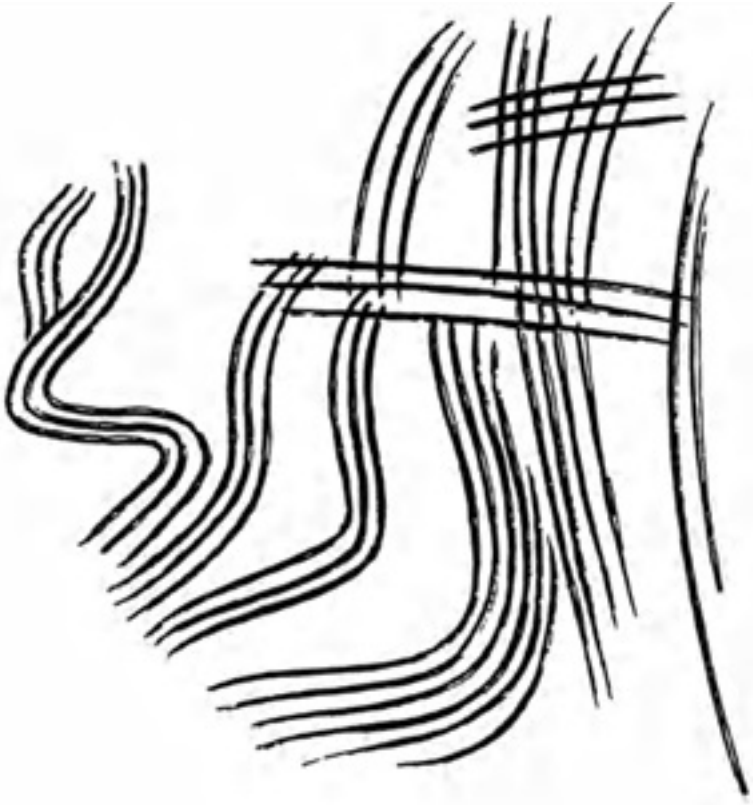

Top, drawing by modern UFO abductee: ‘When I turn the lights out at night, this has been the show for the past week. I can see it with my eyes closed as well as open.’ (Mack, 1995, 308). Centre left and right, prehistoric

‘meanders’ – finger tracings on clay in the caves of Hornos de la Pena (Spain) and Gargas (France). Bottom, prehistoric ‘meanders’ on the ceiling of the cave of Altamira in Spain (Breuil, 1952).

p.And let’s not forget the case of Carlos Diaz (see Chapter Six), who saw a UFO “made of millions of small dots of light” floating over his head. He was baffled to find, when he tried to touch the object, that his “hand went through the yellow light . . .”67 In the next moments, the reader will recall, Carlos found that both he and the craft had been transported “inside a cave that was lined with stalactites” and decorated with “works of art.”68

Back to the caves

Hallucinating an entoptic UFO inside a painted cave, Carlos brings us back, quite appropriately, to the riddle with which we began this book, described by David Lewis-Williams as "the greatest riddle of archaeology – how we became human and in the process began to make art and to practice what we call a religion."69 Indeed, the combination of entoptic phenomena with fully iconic figures was an important clue leading Lewis-Williams to formulate his neuropsychological theory in the first place, and to propose hallucinations seen in altered states of consciousness as the most likely inspiration for the extraordinary hidden art of the deep, dark caves of Upper Paleolithic Europe.

"Owl-Man," the "Sorcerer," "Lion-Man," "Bison-Man," "Aurochs-Man" – the supreme images of the caves are unmistakably those of *supernatural* beings, of "spirits." Our ancestors depicted them as therianthropes and fully transformed animals, because this is exactly how they encountered them in their visions, and how they continue

to be construed and depicted to this day by the shamans of surviving hunter-gatherer cultures all around the world. In more complex and sophisticated societies, the same entities are sometimes no longer thought of as spirits. Even in the guise of fairies and aliens, however, two of their most recent manifestations in the West, we've seen in earlier chapters that they are still shape-shifters and that they frequently appear in therianthropic and animal form.

I've made the case that what we are dealing with here are not multiple, different, very strange phenomena, but *a single very strange phenomenon*, truly Protean in its character, that has been construed indifferent ways by different cultures at different times, that cannot be pinned down anywhere in the material world, but that nevertheless behaves exactly as though it possesses an independent freestanding reality of its own. It is remarkable that this phenomenon has been so long-lived and that it has maintained its integrity and hidden consistency across the transformation that we

have documented from spirits through fairies into aliens. It would be truly extraordinary, however, if it were found to have been at work not only in bizarre abductions and initiations, operations, and implants, hybridization programs, and interspecies love affairs, but in the dawn of art and religion – perhaps the very innovations that made us fully human and set us on our present evolutionary path.

Today such possibilities need no longer be left unexplored for lack of data. The close family resemblances that we have documented interlinking spirits, fairies, aliens, and the beings encountered on DMT

trips suggest a completely new approach to the fundamental mystery of our past. By their very existence, these family resemblances build bridges across the ages and invite us to make use of the unsettling data that modern scientists have gathered on aliens and the DMT

beings as a means to assess the true significance, agenda, and impact of the therianthropic spirits that so impressed our ancestors in the Upper Paleolithic.

We have seen already that the modern research reveals remarkable consistencies across a range of supposedly “non-real” experiencesconsistencies that cannot be explained within the present scientific model of hallucinations. Moreover, when huge numbers of people over enormous periods of history from entirely unrelated cultures keep on experiencing the same “unreal” things – as we know has consistently and continuously been the case – then perhaps the time has come for us to stop dismissing and discounting such visions and to seek out a proper explanation for them instead.

Dark matter, quantum worlds

One very plausible, and for me very persuasive, explanation, in the school of thought of Huxley, James, and Hoffman, is that there

doindeed exist “separate, freestanding realities” – or “parallel dimensions” of the kind quantum physics predicts – that vibrate at a different frequency to our own and thus are invisible to us *except when we approach them in altered states of consciousness*. These other realities seem to be inhabited by intelligent beings who are non-physical in our dimension – although they would apparently like to acquire permanent physical forms – and who have had a long-term interest in us, interfering in and manipulating human affairs in the guise of spirit guides, supernatural teachers, fairies, and recently aliens. Perhaps it was even they, in the therianthropic forms they have continued to show to shamans ever since, who launched us on the path of modern behavior just 40,000 or 50,000 years ago? After all, one of the key functions performed by such beings, in all their manifestations, has traditionally been initiation and the bestowal of wisdom on the human seeker during a hallucinated ordeal, represented by the wounded man figure in one epoch, stories of shamanic surgery in another, and reports by

abductees of alien operations today.

We've seen that Rick Strassman, for all his empirical caution, was ultimately obliged by his research to accept the possibility that DMT

does provide our consciousness with access to real parallel dimensions.

He speculates freely about this in his major work on the subject *DMT: The Spirit Molecule*, published in 2001. "It may be," he writes,

"that DMT alters the characteristics of our brains" so that we are able to perceive what the physicists call "dark matter" – the 95 per cent of the universe's mass that is known to exist but that at present remains invisible to all our senses and instruments.70 Strassman devotes a good deal of attention to the concept of "different levels

of reality perme-ating and suffusing our own" and reminds us of the "surprisingly common" reports by his volunteers that they were *expected* by the beings they encountered on their trips, and even "welcomed back" when they returned again and again. But how could this be possible? "How might these beings be even dimly aware of our presence if we normally don't have an inkling of theirs?" Warning that "we're treading on extraordinarily thin ice," Strassman suggests:

p.Perhaps we are not dark for the denizens of dark matter, or parallel to those intelligent beings who have mastered quantum computing?

We are limited to inferring these alternative realities exist by employing powerful mathematical treatment of massive amounts of experimental data. It may be that those who have evolved in different universes, or according to their own unique laws of physics, actually can observe us directly with their own senses or by

using particular types of technology.71

So following this line of reasoning, I have no objection in principle to the possible free-standing other-dimensional existence of "spirit worlds" and "spirit beings" – at least as a working hypothesis. I'm also with Strassman on the notion that hallucinogens like DMT might allow us to undertake rational, targeted, and repeated explorations of an infinity of such worlds that might hypothetically surround us in every direction though normally unseen. Indeed, it sometimes seems to me that the actual existence of parallel non-physical realms and beings is a far more plausible explanation than anything that orthodox scientists have so far offered us for the consistent story told in alien lore, fairy lore, and spirit lore for as far back as anyone can remember.

Seeing DNA on DMT

On my second good dose of DMT, as well as a scrolling palimpsest

of scripts, signs, and numbers displayed on an ivory-colored tube in the lower third of my visual field, I had seen the forms of serpents arranged in pairs each coiled into double helices – “as though I were being allowed to peer deep into the nucleus of a cell and to witness the dance of DNA.”

When I looked back on the notes of my ayahuasca experiences in the Amazon (reported in Chapter Three), I found that I had experienced an almost identical vision there:

snakes arrange themselves into patterns of interlaced wheels and spirals.

Then they merge into one large mass and finally break apart into pairs of individuals that wind around each other like the DNA double helix.72

p.

Double helix of serpents. Detail from a painting of an ayahuasca

vision by Peruvian shaman Pablo Amaringo I reread the reports that Rick Strassman's volunteers had given of their DMT experiences, and found that many of them had also spoken of DNA. In one case, already cited above, the reader will recall Rex's insistence that the insect-beings he encountered had "manipulated"

his DNA and "changed its structure."73 Likewise, Karl saw "spirals of what looked like DNA, red and green,"74 Cleo saw a "spiral DNA-type thing made out of incredibly bright cubes,"75 and Sara said: I felt the DMT release my soul's energy and push it through the DNA

. . . There were spirals that reminded me of things I've seen in Chaco Canyon [an ancient rock-art site in Arizona]. Maybe that was DNA.

Maybe the ancients knew that. The DNA is backed into the universe like space travel. One needs to travel without one's body. It's

ridiculous to think about space travel in little ships.76

p.For Eli, the experience was eerily similar to my first DMT trip: like threads of words or DNA or something. They're all around here.

They're everywhere . . . When I looked around it seemed like meaning or symbols were there. Some kind of core of reality where all meaning is stored. I burst into its main chamber.77

Likewise, Vladan was presented with symbols filled with meaning in an experience that was again close to mine: It was almost like looking at an alphabet, but it wasn't English. It was like a fantasy alphabet, a cross between runes and Russian or Arabic writing. It felt like there was some information in it, like it was data.

It wasn't just random.78

Something supernatural about DNA?

If, hypothetically, one was the master of an astonishingly advanced biotechnology, and wished to record a vast amount of information in an indelible and as near as possible immortal form, then it would be difficult to think of a more suitable recording medium than DNA.

For only DNA would stay the same through all the vicissitudes and transformations that evolution might bring about in the course of life on a planet, and if enough DNA were given over to this task, then the genome of all living creatures would still be carrying copies of the original recording billions of years later. Moreover, although a certain amount is known about the 3 per cent of our DNA gathered up in our genes, nothing at all is known about the function of the other 97

per cent – so-called “junk DNA.”79

What an ideal place to store data – in a bio-genetic system of truly

“supernatural” construction that already encodes the secret of life itself.

Chapter Thirteen

Ancient Teachers in Our DNA?

Eyewitness reports of human encounters with “supernatural beings”

have been documented as far back as the painted caves of Upper Paleolithic Europe 35,000 years ago and brought right up to date with bizarre accounts of abductions by aliens in the twenty-first century.

Such reports include powerful common themes that we have explored in detail in Part II and that science is unable to explain. In particular we’ve seen the massive universality of the experience that spirits, fairies, and aliens (though themselves taken to be non-physical or only quasi-physical in nature) are interested in

interbreeding with men and women

- an interest that *in every case* is said to have led to the production of hybrid offspring. Equally universal is the belief that supernaturals can and frequently do present themselves in the form of therianthropespart human, part animal. The same widespread distribution applies to the “wounded man” experience – whether construed as “shamanic surgery” in hunter-gatherer societies, “torture by fairies” in the European Middle Ages, or “alien operations” today. Finally, let us not forget the astonishing range of unusual motifs that are shared by all three domains – for example, dwarfish humanoids with large oblique eyes and oversized heads, the experience of climbing or floating up “threads of light,” and the experience of abductions to sky, cave, and underwater settings.

It is striking that many of these same experiences can be reproduced in the minds of people who have consumed certain types of hallucinogens (or used non-drug trance techniques such as

rhythmicdancing, austerities, and sensory deprivation) which temporarily reset the electrochemical balance of the brain. This can be made to happen quite reliably, even under laboratory conditions as we saw in Chapter Twelve. We may therefore conclude that altered states of consciousness, which are themselves universals of human neurology, are fundamental to "supernatural" encounters.

What remains to be discovered is the true status of the visions that we all see in such altered states. Are they simply quaint "brain fiction"?

Most mainstream scientists would say so – although they cannot explain why evolution should have installed identical, highly imaginative Gothic novelists in all our brains. Or could it be that these strange, complex, universal experiences with evolving storylines are in some way as *real* as those we take for granted in normal states of consciousness?

The reader knows already that I am not with mainstream science on this. I do not regard it as an a priori impossibility that spirit worlds and beings may in some significant sense be real. Nonetheless, just as my research seemed to be luring me inevitably towards that deeply anti-scientific conclusion, another theory that seemed to account equally well for all the anomalous evidence began to force itself upon me. This is the theory that DNA, the fundamental mechanism for the reproduction of all forms of life on earth, contains, or is driven by, intelligence – and that information originating with this intelligence can, under special circumstances, become accessible to our consciousness. If the information were in some way "written" or recorded on DNA that we all share, and if nature has designed us to access this information in trance states by means of our shared human neurology, then all the otherwise inexplicable commonalities, and all the universal motifs, imagery, and phenomena that are experienced by different hallucinating individuals, would make perfect sense.

Clever entities

It's good to be clear. By "information," I am not referring to the ordered and highly specific chemical instructions that DNA gives to our cells to assemble long chains of amino acids into proteins. This is, itself, amiraculous process that goes on every minute of every day and that unites our life processes at the submicroscopic level with those of daisies, flatworms, blue whales, elephants, monkeys, mice, sharks, sprats, plankton, cabbages, coral, and all the rest of the biosphere. But it is not what I have in mind here. I mean actual messages, intelligent, structured communications, a system of symbols conveying meaning, as in any other language.

It does not surprise me at all that the late great Terence McKenna was the first to suggest this extraordinarily fertile idea – or that he conceived it in the Amazon after a month spent drinking ayahuasca supplemented by "heroic" doses of psilocybin mushrooms.1 McKenna, who died on April 3, 2000, was a radical and original

thinker, an advo-cate of hallucinogen use for consciousness exploration, and a specialist in the ethnomedicine of the Amazon basin. His intensive ayahuasca/psilocybin experiments were done at La Chorrea in Colombia in 1971. He never gave detailed written treatment to his intuitions about DNA. However, in his classic study *The Invisible Landscape*, co-authored in 1975 with his brother, the neurobiologist Dennis McKenna, he speculated that:

information stored in the neural-genetic material might be made available to consciousness . . . by intercalation of tryptamines [e.g. DMT]

and beta-carbolines [e.g. harmaline, the second essential ingredient of ayahuasca] into the genetic material. We reasoned that both neural DNA and neural RNA were involved in this process.2

Ten years later, Bruce Lamb put forward a somewhat similar suggestion, also following research in the Amazon and also in the

context of ayahuasca:

Perhaps on some unknown, unconscious level the genetic encoder DNA provides a bridge to biological memories of all living things, an aura of unbounded awareness manifesting itself in the activated mind.3

Ten years later again, the Swiss anthropologist Jeremy Narby developed the concept much further and took it in several exciting newdirections in his important book *The Cosmic Serpent: DNA and the Origins of Knowledge*, first published in 1995.4 When I met Narby at his home in Switzerland almost a decade after that, on May 27, 2004, I asked him to clarify his position and whether he still stood by it.

"Correct me if I'm wrong," I said, "but when I read *Cosmic Serpent*, if I were to take your idea as far as it would go, it's almost that there's a message, encoded in our DNA, which we can read, or see,

or interact with through ayahuasca. Is that right?"

"Or a bunch of messages. I think that we haven't even found all that goes with it."

"Who put the message there?" I asked.

"I don't have the faintest," Narby replied, "but I think it was some entity, or several entities, that were rather clever."

The cosmic serpent: DNA and the origins of knowledge Part of Narby's argument involves reminding us of some easily forgotten facts of the submicroscopic kingdom. A double strand of DNA ten atoms wide and nearly two meters long is coiled up inside every human cell,5 and DNA is found in every cell of every living creature – the one unifying factor that runs unchanged through the whole story of the evolution of life on earth from the advent of the first bacteria to the emergence of modern humans. "DNA is a

master of transformation, just like mythical serpents," says Narby: The cell-based life DNA informs made the air we breathe, the landscape we see, and the mind-boggling diversity of living beings of which we are a part. In four billion years, it has multiplied itself into an incalculable number of species, while remaining exactly the same.6

Drawing on his years of field research amongst tribal peoples in the Amazon basin, and several direct experiences of his own with ayahuasca, Narby's *Cosmic Serpent* forcefully advances the seemingly extraordinary and unbelievable hypothesis that DNA is in some myster ious way "minded," and that ayahuasca opens a door to nonmaterial levels of reality where that mind can be contacted. In Narby'sview, the famous double-helix structure discovered in 1953 by Nobel Prize-winners Francis Crick and James Watson has been rightly described by some biologists as nothing less than an ancient, high biotechnology containing over a hundred trillion times as much

information by volume as our most sophisticated information-storage devices. Could one still speak of a technology in these circumstances? Yes, because there is no other word to qualify this duplicable, information-storing module. DNA is only ten atoms wide and as such constitutes a sort of ultimate technology. It is organic and so miniaturized that it approaches the limits of material existence.7

Most orthodox evolutionary scientists might accept the *metaphor* of DNA as a technology, but would certainly not agree that it is *in fact* a technology, or that it could be in any way "minded" or "intelligently designed." In their framework, blind Darwinian forces of natural selection alone are quite sufficient to explain the structure and workings of DNA and its involvement with life; no other explanation need be sought for its miraculous miniaturization and perfection. But Narby means something much more guided:

DNA and the cell-based life it codes for are an extremely

sophisticated technology that far surpasses our present understanding and that was initially developed elsewhere than on earth – which it radically transformed on its arrival some four billion years ago.8

Of course, this is an outrageous thought from the perspective of mainstream science. But it is no more outrageous than the hypo thesis to which Narby reconfirmed his commitment when I met him at his home in Switzerland in 2004 – namely that as well as its more routine functions, which are in themselves miraculous and unexplained, the DNA code may conceal purposeful, intelligent messages for us, emanating from whichever "clever entities" invented the technology in the first place. Narby nowhere commits as to the exact status or provenance of these entities, but it is their messages, he hints, that have been accessed by shamans from all parts of the world for millennia. All anyof them needed to do was to find a way to tune their consciousness to the right frequency –

efficiently achieved with hallucinogens like ayahuasca, as McKenna long ago suggested – and then they could decode their own DNA and learn from it everything they needed to know.

A new slant on spirit teachers

Narby reminds us that the "coded" nature of DNA is not in dispute amongst scientists, most of whom would also agree with the linguist Roman Jakobson that until the discovery of the genetic code, such encryption systems were considered to be "exclusively human phenomena – that is phenomena that require the presence of an intelligence to exist."9 Moreover, there is certainly room for intelligent hidden messages in the astonishing total of 125 billion miles of sub microscopic strands of DNA, 10 atoms wide, estimated to be folded up within the cells of each and every adult human body.10 Indeed, despite rapid advances in genetics, scientists admit that "the vast majority of DNA in our bodies does things that we do not presently understand."11

As we saw at the end of Chapter Twelve, the truth is that genes, of which we now do have some knowledge, make up only about 3 per cent of our DNA, while the function of the other 97 per cent remains entirely unknown. Does it make sense to suppose, as most scientists do, that this "junk DNA" has no function at all? Or is it possible, as Narby contrarily suggests, that hidden messages, teachings, and revelations were long ago coded into it by "clever entities" – messages that Amazonian shamans have accessed for thousands of years through the use of ayahuasca?

I began to realize that if Narby's questions led anywhere, then here, potentially, was another radical way to explain the mysterious revolution in human consciousness that took place around 40,000 years ago, producing the first art and religions, and initiating the whole suite of recognizably modern behavior. Alongside the possibility of "spirit worlds" and "spirit beings" coexisting and interacting with our own three-dimensional reality, accessible to us

in trance states, and intervening at crucial moments to catalyze our development, there was nowa rather different question to consider – one that my own recent DMT

experiences had primed me for.

Perhaps our ancestors' discovery of trance techniques and widespread use of hallucinogens not only shattered five million years of mental rigidity with extraordinary and life-changing experiences, but also gave them access to *specific information*, recorded billions of years previously in their DNA, deposited there by Narby's "clever entities,"

to await the evolution of creatures that could make use of it. Perhaps this information was packaged by its makers in such a way as to be responsive to, and highly interactive with, the cultural preconceptions of just about any creatures above a certain level of intelligence that evolution might eventually produce. And perhaps

the interactive display in the case of modern humans most frequently takes form as therianthropic “spirit teachers” – just like those man-beasts that first began to be painted on cave walls around 35,000 years ago, right at the dawn of modern human behavior.

In this case we would be dealing not with visions of “real” spirits seen by Upper Paleolithic shamans, but with the teaching devices of some sort of guidance and control system for intelligent beings, installed like a time-bomb in DNA at the moment that life began on earth, to await activation billions of years later by a combination of the right sort of brain with the right sort of electrochemical trigger.

Such messages from a higher intelligence would presumably provide immense adaptive advantages, as they perhaps did during the Upper Paleolithic “revolution.” They would also be democratic. Those who found the trigger, used it properly, and paid attention would receive tangible benefits.

Plant teachers of the Amazon and the Kalahari It is widely recognized that the Indians of the Amazon have unparalleled knowledge of the properties of jungle plants, and of their uses as medicines and poisons. One of the most remarkable aspects of this knowledge is that many of the individual plants required for the recipes are entirely inert on their own, and can only be brought into activity through long preparation and mixture with other plants. This is thecase with ayahuasca, as we saw in Chapter Three, and at the other end of the spectrum, it is the case also with the neurotoxin curare, used for thousands of years by hunters in the Amazon and now extensively adopted by Western medicine for its life-saving properties during radical surgery and anesthesia. Jeremy Narby's view is that the secrets of such substances are most *unlikely* to have been revealed by chance experimentation, no matter how long we might hypothetically allow for that to occur:

There are forty types of curares in the Amazon, made from seventy

plant species . . . To produce it, it is necessary to combine several plants and boil them for seventy-two hours, while avoiding the fragrant but mortal vapors emitted by the broth. The final product is a paste that is inactive unless injected under the skin [on the tip of an arrow or spear, for example]. If swallowed it has no effect. It is difficult to see how anybody could have stumbled on this recipe by chance experimentation.12

Amazonian shamans do not claim that they stumbled upon their tribal archives of biochemical secrets by chance experimentation, or by any other such rational and quasi-scientific device. What they claim, very simply – but unanimously – is that a variety of "plant spirits,"

amongst which ayahuasca is paramount, have taught them everything important they need to know about the properties of other plants in the jungle, thus allowing them to make powerful medicines, to heal the sick, and, in general, to be good doctors and

vegetalistas.13

Ayahuasca itself is said to be a “doctor,” possessing a strong spirit, and is considered to be “an intelligent being with which it is possible to establish rapport, and from which it is possible to acquire knowledge and power.”14

The anthropologist Angelica Gebhart-Sayer, who studied the Shipibo-Conibo Indians of the Amazon, notes that under the influence of ayahuasca, “the shaman perceives, from the spirit world, incomprehensible, often chaotic *information* in the form of luminous designs . . .”15 As Gebhart-Sayer sees it, it is the shaman’s function to decode and “domesticate” this raw, unprocessed data beamed at himby the plant spirits by “converting it” into therapy for the tribe as a whole. Similarly, among the Campa, another Amazonian tribe, herbal recipes alone are not effective in bringing about improvements in health unless they are specified by a plant spirit encountered by a shaman in an ayahuasca

trance.16

When the anthropologist Eduardo Luna interviewed mestizo shamans around the Amazonian town of Iquitos in the early 1980s, one of them, Don Celso, remarked that he himself had never had a shaman as a teacher and did not require one, because ayahuasca was an infallible source of true knowledge:

That is why some doctors believe that the *vegetalismo* [or science of the plants] is stronger than *la medicina de studio* [Western medicine], because they learn by reading books. But we just take this liquid

[ayahuasca], keep the diet, and then we learn.

Another of Luna's subjects, Don Jose, also claims that the spirits of the plants taught him everything he knows. Likewise, Don Alejandro said that what he learned directly from ayahuasca very

quickly surpassed his lessons from his human teacher, an old Indian shaman, because the spirits of the plants taught him so much.17 "The spirits . . . present themselves during the visions and during the dreams," Luna concludes: They show how to diagnose the illness, what plants to use and how, the proper use of tobacco smoke, how to suck out the illness or restore the spirit to a patient, how the shamans defend themselves, what to eat, and, most important, they teach them *icaros*, magic songs or shamanic melodies which are the main tools of shamanic practices.18

It is notable that in the Amazonian traditions, the "plant teachers"

are said to assume not only plant forms, but also to appear as animals (the boa constrictor is a particularly common manifestation of the spirit of ayahuasca) or as human beings. Quite often they adopt the guise of "small people of beautiful and strong constitution,"19 a description strongly reminiscent of European fairies. Picking up on another ancient theme found across the

domains of spirits, fairies, and aliensthat we have explored throughout this book, Amazonian shamans also routinely report plant teachers appearing to them in the shape of hybrids and therianthropes – “the product of the mating of human fathers with mermaids,” in the words of Luna’s informant Don Jose.20

Notable too, in every case, is the role of ayahuasca as a vehicle or a portal that allows the shaman to gain access to the hidden realms of information in which the plant teachers reside. This belief is prevalent throughout the indigenous cultures of the Amazon, notes Benny Shanon, Professor of Psychology at the Hebrew University in Jerusalem and one of the world’s leading academic experts on ayahuasca:

In these [Amazonian] cultures, knowledge of the ultimate realities as well as all major cultural achievements are attributed to this brew . . .

Ayahuasca – along with other psychotropic agents – is considered to be “the only path to knowledge.” The world revealed through the consumption of these agents is taken to be real whereas the ordinary

“real” world is often regarded as illusory.21

Significantly, though they attain their deeply altered states of consciousness without using any drugs, the bushmen shamans of southern Africa speak of their trance dance in much the same way that their counterparts in the Amazon speak of ayahuasca – as a vehicle for encountering spirits who deliver practical teachings to them.

The reader will recall the imagery of “threads of light” and “ropes to the sky” that is so common in the bushmen accounts. According to the Kalahari shaman Bo:

Only the strongest doctors go up the rope and learn from their

ancestors and the Big God. That's one of the ways we learn new songs, dances, and more knowledge about how to heal others. *They show us what plants to use for a certain sickness* or how to treat a specific person.22

Another bushman shaman, Kgao Temi, describes similar experiences:

p.When we dance we sometimes travel underneath the ground. There's a line that goes to the sky and a line that goes under the earth. One line takes you to the Big God and the other line brings you back.

When you're up in the sky, you can see the line below you . . . The people who sit around the fire can touch your body, but you're not there. You disappear, while your body remains behind. It feels like you float up to the sky . . . The people from the past may come and take you. They teach you things and give you more power. They

actually talk to you. They tell you about the dance. They also *teach you about the plants*.23

Whether construed as the apparitions of ancestors in southern Africa, or as "plant teachers" in the Amazon, it is clear that these entities, "hallucinations," "interactive recordings," "spirit beings"whatever they may be – are everywhere experienced in much the same way. By some mechanism or other, they do actually talk to people, and many of those who listen believe that the communications thus received are from intelligent beings.

Westerners come to the school

Benny Shanon has drunk ayahuasca more than 130 times, and strongly affirms the widespread Amazonian perception of it as a powerful source of knowledge. As his experience with the brew increased, he says, he realized that he was "entering a school":

There were no teachers, no textbooks, no instructions, yet there was definitely structure and order to it. The teacher was the brew, the instruction was conducted during the period of intoxication without the assistance of any other person.24

During one ayahuasca session, Shanon reports experiencing a series of different visions that all pertained to one common theme – the life of nocturnal animals:

In each vision a different species appeared: jaguars, jackals, several kindsof birds, insects and organisms smaller than insects. In each case I was shown how the animals in question behave. My eyes accommodated and I could see what the animals themselves saw. In effect, the entire set of visions was a very instructive course on animal behavior.25

Such structuring of experiences in an ordered flow, like a lesson, is quite common in Shanon's view:

As one gains more experience with the brew, one discovers that what happens to one under the intoxication is not haphazard – it seems to have an internal logic and order. It is as if there is, within the brew itself, a wise teacher who decides what one should experience and learn in each session.26

In addition to his own direct experiences of ayahuasca, which he describes extensively in his important book, *The Antipodes of the Mind*, Shanon has interviewed a large sample of ayahuasca users in South America and collated their accounts with those of a separate group of outsiders who have come to the hallucinogenic brew from many different countries.27 He reports the case of a European informant, participating in a private ayahuasca session held in Europe,

who was struck by the feeling that a plant-being was in his body and that he had a strong, intimate relationship with it. This man felt that the plant was a being in its own right and that it was passing

knowledge to him. This is in line with the indigenous conception of plants as teachers, a topic with which this subject was not familiar.28

In 1999, three Western molecular biologists traveled to the Amazon to participate in ayahuasca sessions with a Peruvian shaman. Two subsequently reported that they had experienced contact with “plant teachers” in the form of “independent entities” that had permanently altered the way they thought about reality. One, an American biologist whose specialist subject is the human genome, said she saw “a chromosome from the perspective of a protein flying above a longstrand of DNA.” She claimed to have received a specific technical teaching from the vision concerning the hitherto-unknown function of certain DNA sequences called “CpG islands,” found upstream of about 60 per cent of all human genes.29

Francis Crick, LSD, and the double helix

Those from rational, technological societies who have not drunk ayahuasca must naturally rebel at the notion of any plant teaching us about anything in the sense that is meant here – let alone teaching us about something so specific, and frankly so technical, as CpG

islands and the mysteries of our own DNA. Yet it is not very hard to find evidence that something like this does in fact take place. As it happens, one very clear example concerns the discovery of the structure of DNA itself.

As the reader is already well aware, DMT, the active ingredient of ayahuasca, is a prominent member of a family of hallucinogenic and non-hallucinogenic molecules, known collectively as the tryptamines.

These are the very molecules highlighted by Terence McKenna earlier in this chapter for their possible role in making “information stored in the neural-genetic material . . . available to consciousness.”

We saw in Chapter Eleven that one of the best known tryptamines is the neurotransmitter serotonin, 5-hydroxytryptamine, which is itself entirely non-psychedelic. Another well-known – and definitely psychedelic! – tryptamine is psilocybin. Ibogaine, the African psychedelic that put me on my back for 48 hours, has a tryptamine core, and so too does the most famous psychedelic in the world, lysergic acid diethy-lamide (LSD),30 discovered by Albert Hoffman in Switzerland in 1943

and elevated to cult status by the hippie movement in the 1960s. Peculiarly appropriately, one of the key amino acids with which DNA does its mysterious work of constructing and replicating life is tryptophan,31

the parent molecule from which all the tryptamines, including DMT, are derived.32

In late July 2004, the Nobel Prize-winning biologist Francis Crick,

co-discoverer of the structure of DNA, died at the age of 88, and soon afterwards a little-known fact of his life hit the tabloid press. This was

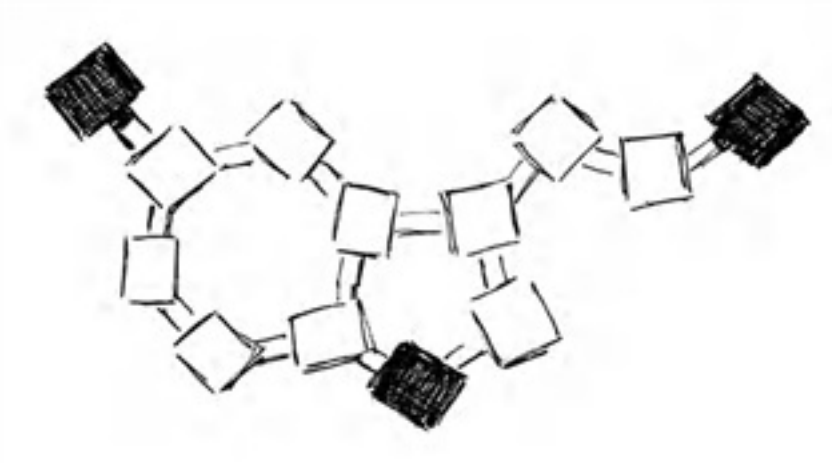

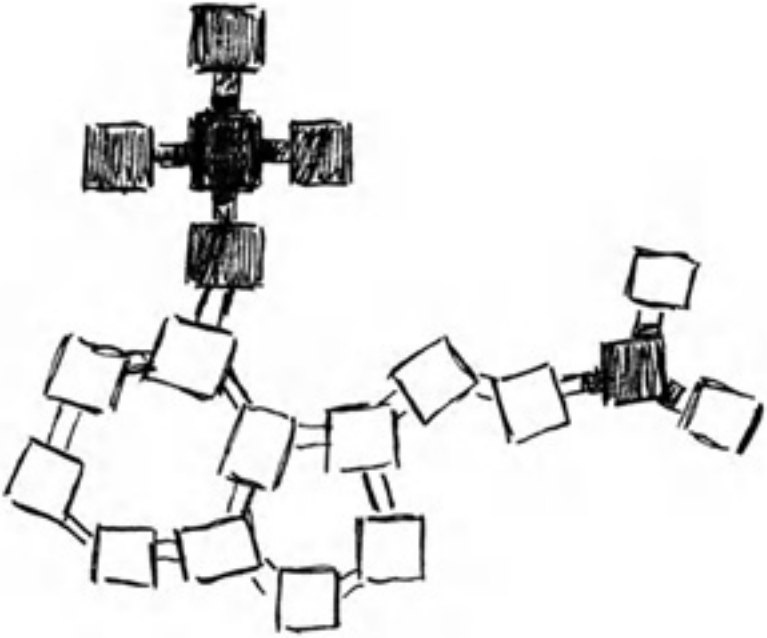

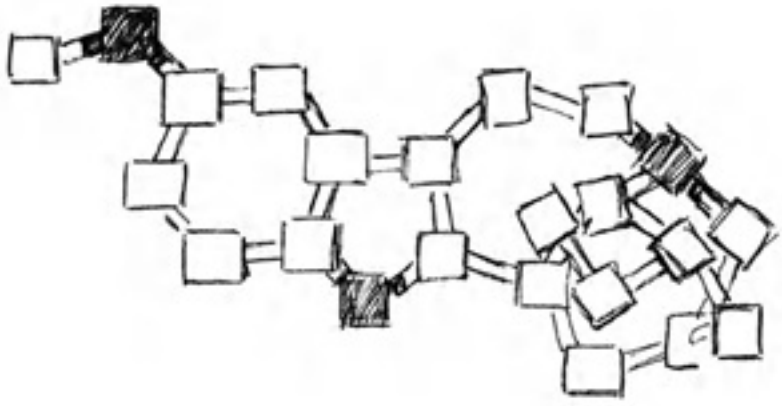

Serotonin

Tryptamine

Dimethyltryptamine (DMT)

Psilocybin

Ibogaine

LSD

Serotonin, DMT, psilocybin, ibogaine, and LSD all contain a nucleus, or basic building block, of tryptamine, derived from the amino acid tryptophan.

(after Strassman, 2001, pp. 34-36)

that when he was working at the Cavendish Laboratory in Cambridge in the early 1950s, he frequently used LSD (which remained legal until the mid-1960s) as a “thinking tool” to boost his mental powers.

According to a report published in London on August 8, 2004 in *The Mail on Sunday*, Crick had privately admitted to colleagues that he was under the influence of LSD in 1953 at the moment when he “perceived the double helix shape” and unraveled the structure of DNA.33

p.

Nobel Prize genius Crick was high on LSD when he discovered the secret of life

The headline in *The Mail on Sunday*, August 8, 2004

While he was using LSD, as he supposed, to free himself from rigid preconceptions, is it possible that the drug's tryptamine core brought Crick inadvertently into that hypothetical hall of records in our DNA to which ayahuasca gives us access, where "clever

entities”

long ago hid away the secrets of the universe? Since his mind was already well prepared in that direction, and his consciousness temporarily retuned to the right wavelength, could he have picked up high-quality information encoded in his own DNA . . . about the structure of DNA itself?

Francis Crick and the mysterious origins of DNA In the Amazon, a fellow ayahuasca drinker gave Benny Shanon this eloquent thought about the kind of knowledge that might possibly be unlocked by the tryptamine-rich brew:

God wanted to hide his secrets in a secure place. “Would I put them on the moon?” He reflected. “But then, one day human beings could get there, and it could be that those who would arrive there would not be worthy of the secret knowledge. Or perhaps I should hide them inthe depths of the ocean,” God entertained another

possibility. But again, for the same reasons, He dismissed it. Then the solution occurred to Him – “I shall put my secrets in the inner sanctum of man’s own mind.

Then only those who really deserve it will be able to get to it.”34

The moral of the story is that drinking ayahuasca, or ingesting some other similar hallucinogen, may for most of us be *necessary* if we wish to open secret chambers in our own minds – but it is certainly not *sufficient*. For just as a horse may be brought to water but not made to drink, so a man or woman may consume ayahuasca without gaining any revelation – unless he or she “really deserves” it. All the shamans in the Amazon would agree, however, that revelations are there to be had if ayahuasca is used properly, and that what is needed is a prepared mind and a cool head to grasp the import of the information received and make the most of it.

Few men’s minds could have been better prepared, or heads cooler,

than Francis Crick's when he came to his LSD experiences. Along with James Watson and Maurice Wilkins, he broke the genetic code of DNA and won the Nobel Prize. It's hard to be more orthodox or more mainstream than that. Indeed, in a sense Crick was one of those who defined the mainstream. Where he led, generations of less inventive and less original scientists have been happy to follow. When he spoke, no matter what the subject, he was listened to. Indeed, one of his favorite topics was a matter on which it is difficult to see that he had any special qualification to pronounce judgment – namely the supposed impossibility of the soul's existence.35 But when Crick spoke on DNA, there can be no doubt, as the co-discoverer of its molecular structure, that he did so with special authority.

He always recognized that the big problem was not how life perpetu ated itself through natural selection *after* DNA had come on the scene, but how DNA came on the scene in the first place. "At first it

seems highly unlikely that this complicated mechanism could have arisen by chance," he wrote in 1966, "but it really is quite possible that some primitive version of it started in that way and although not perfect was sufficiently accurate to enable the system to get along."36

Over the next 15 years, Crick changed his tune entirely, and in 1981

p.he published a remarkable book entitled *Life Itself: Its Origin and Nature*, in which he set out his view that DNA could not, in fact, have arisen on earth "by chance," but rather that the seeds of life and of all future evolution, most likely in the form of simple, resilient bacteria, must have been sent here in spaceships by an alien civilization. The aliens' motive, he speculated, might have been to overcome the certain doom of a supernova explosion (or some such cataclysm) by preserving the DNA of their world in stripped-down bacterial form and sending it out into the universe in crewless, automated ships programmed to seek and crash into certain sorts of

planets at certain stages of development – there to release their cargo of bacteria to begin all over again the long process involved in the evolution of fully conscious beings.37

Perhaps the early earth was one such planet? Perhaps it was seeded with bacteria sent here by intelligent beings from the other side of the galaxy who had evolved their civilization billions of years before the earth was even formed, and whose technology was astonishingly, almost magically advanced?

These are Francis Crick's speculations, not mine. But if our DNA is not "of this earth" and originated with an alien civilization in command of advanced genetic engineering technologies, as he proposes, then we cannot rule out the possibility that its scientists might have been able to record meaningful information, "messages,"

or "wake-up calls" in the language of DNA. If they were clever

enough, they might even have transcribed the entire accumulated knowledge of their culture into DNA to await the evolution and attention of intelligent species on whichever planets anywhere in the universe the original cargoes of bacteria had happened to land . . .

Chapter Fourteen

The Hurricane in the Junkyard

Francis Crick's hypothesis that life on earth was "seeded" with DNA by an alien civilization from a far-off planet is oddly similar in its essence to the cosmology of the ayahuasca-drinking Yagua Indians of the Peruvian Amazon, who told the French anthropologist Jean-Pierre Chaumeil: "At the very beginning, before the birth of the earth, this earth here, our most distant ancestors lived on another earth . . ."1

Crick called his version of the Yagua belief "directed panspermia,"

and although it sounds a little crazy coming from a Nobel Prize-winner, he got away with it – well, because he was Crick, and

because he made it clear that he was just punting a hypothesis. Besides, another scientist of almost equal eminence, though from a different field – the astrophysicist Sir Fred Hoyle – was also promoting a panspermia theory at around the same time, and also succeeded in keeping his career intact despite it.2 Hoyle envisaged the spores of life being carried randomly through space on great interstellar comets – rather than the intentional, intelligent dissemination favored by Crick – but what both men had in common was the strong conviction that life was already too complex when it first appeared on earth to have evolved here.

Accordingly, they both believed that the first and most difficult steps

- the steps from non-life to life that no scientist has ever been able to replicate – must have been taken somewhere else.

The story begins around 4.5 billion years ago when the earth's mass

had formed as a planet orbiting the sun. For the next 600 millionyears it remained a molten lava fireball, but by 3.9 billion years ago, cooling was sufficiently advanced to produce a thin outer crust of solid rock.3 It is supposed that around the same time, pools of water enriched with minerals began to take shape beneath an atmosphere of simple gases. In these pools of primeval, prebiotic "soup," many scientists believe that the first very primitive life-forms appeared suddenly and almost instantaneously as a result of the accidental collision of molecules.4 Others, Crick amongst them, argue that "the odds against such instant life are beyond the astronomical – more unlikely than the assembly of a Boeing 707 by a hurricane in a junkyard."5

Whatever one's view, the fact of the matter – on which scientists are generally agreed – is that life appears to have spread across the earth almost as soon as a prebiotic soup could be supported. The crust had not formed fully until about 3.9 billion years ago, yet by 3.8 billion

years ago – a window of just 100 million years – there is abundant though secondary evidence that the planet had already been colonized by bacterial life.6 This evidence becomes firm at 3.4 billion years ago, the date of the oldest fossilized bacteria so far discovered7 – still barely half a billion years after the earth's first rocks had formed.

Source code

Crick was a biophysicist, and no mean mathematician, and he had statistical objections to the notion that life got its start on "this earth here" in a period of half a billion years or less. He had no problems with the notion of a prebiotic soup, but he did not see how the "formation from the soup of a primitive, chemical, self-reproducing system"

- i.e. the beginnings of the DNA/RNA system that he played so large a part in decoding – could have occurred spontaneously, or

even at all, in the relatively short time available.8 The argument here is not an anti-evolutionary one. Once such a system was in place, as it appears to have been from the very beginning of life on earth, once individual organisms could inherit “adaptive” characteristics which improved their survival chances, it is easy to see how Darwinian natural selection would begin to interact with DNA, favoring different traits in different circumstances and thus providing the fundamental mechanism for theevolution of all the myriad forms of life that presently girdle the planet.

But Crick’s difficulty had to do with how the system got up and running in the first place – even if it was granted much more than half a billion years to do so. No matter how long he allowed in his models, the odds against this kind of organized complexity taking shape *on its own* remained vanishingly immense.

To understand why, we need to understand a little bit about the family of molecules known as the proteins, on which much of the

structure and metabolic machinery of all living cells are based, and we need to know more about DNA.

“A protein molecule is a macromolecule, running to thousands of atoms,” explains Crick:

Each protein is precisely made, with every atom in its correct place.

Each type of protein forms an intricate three-dimensional structure, peculiar to itself, which allows it to carry out its catalytic or structural function. This three-dimensional structure is . . . based on one or more

“polypeptide chains,” as they are called . . . [which the cell constructs]

by joining together, end to end, a particular set of small molecules, the amino acids . . . Surprisingly just twenty kinds of them [amino

acids]

are used to make proteins, and this set of twenty is exactly the same throughout nature . . . A protein is like a paragraph written in a twenty-letter language, the exact nature of the protein being determined by the exact order of the letters . . . Animals, plants, microorganisms and viruses all use the same set of twenty letters . . . The set of twenty is so universal that its choice would appear to date back to very near the beginning of all living things.9

A second chemical language of equal antiquity can be seen in the nucleic acids, DNA and RNA.10 Classified amongst that broad category of naturally occurring and synthetic compounds known as the polymers, they are giant chain molecules, each of which is characterized by repeating patterns – “bases” – of only four chemical elements.

For RNA, these are adenine, cytosine, guanine, and uracil

(represented by their initial letters A, C, G and U). For DNA, the first three bases are the same – namely adenine, cytosine, and guanine, while the fourthbase is thymine (T), such a close relative of uracil that it creates no incompatibility in the constant interactions that take place at the cellular level between strands of DNA and strands of RNA.11

These two polymers (with DNA usually "in command" and RNA playing subordinate, "messenger" functions) carry all the genetic informa tion required to construct living organisms, and are the fundamental templates of inheritance.12 Moreover, DNA and RNA, with their four bases, remain *exactly the same* and fulfill *exactly the same functions* in all living things, whether bacterium or elephant, flea or dog, jellyfish or acacia tree, cabbage or butterfly, minnow or whale, worm or man, four billion years ago or today. All that changes is the order of the letters A, C, G, and T in the genetic code written into the DNA of each organism, and of course the amount of

DNA that each organism has. Thus, the intestinal bacterium *E. coli* consists of only a single cell, within which is coiled a half-millimeter-long ribbon of the DNA polymer;13 by contrast, as we have seen, every one of the thousands of billions of cells making up the human body contains *two meters* of the same DNA – obviously loaded with many more paragraphs of genetic code than poor little *E. coli* has room or need for.

Still, a great deal of information is required to code for even the simplest forms of life. *Mycoplasma genitalium* is the smallest bacterium known to science, but nevertheless requires enough DNA to carry its genetic code of 580,000 letters. The much more extensive genetic code that specifies a human being consists of approximately *three billion* letters, strung out along every one of those two-meter-long ribbons of DNA coiled inside every one of our cells.14

The great biological breakthrough of the 1960s, again in large part

thanks to Crick's work, was the unraveling of this genetic code – the small dictionary "similar in principle to the Morse Code," as Crick put it, "which relates the four-letter language of the genetic material to the twenty-letter language of protein, the executive language."15

Without going into this submicroscopic alchemy in any depth, let's just state briefly that meaningful combinations of any three of DNA's four chemical letters mobilize cells to join amino acids together in a particular order so as to synthesize specific proteins – thus determining the final shape, form, and functioning of every organism according to

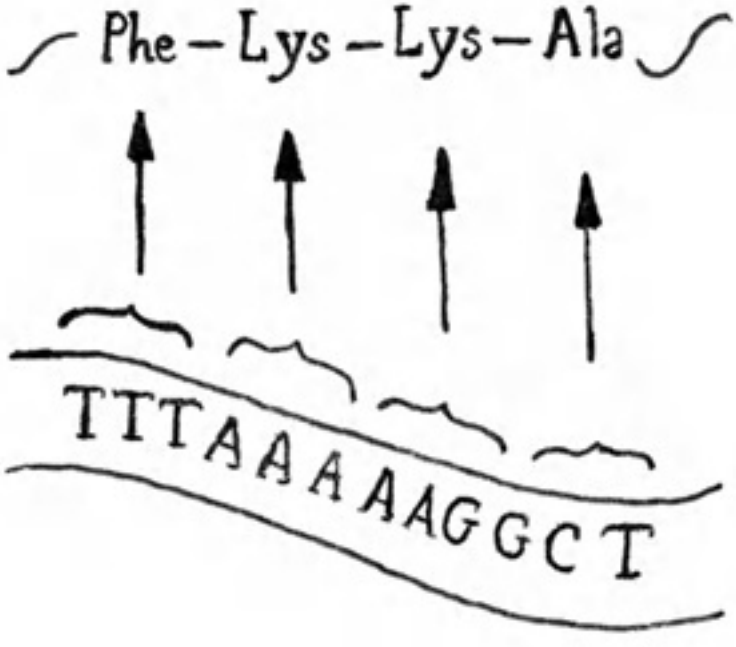

its own inherited code. Given the vast apparent diversity of life on earth, I find myself newly amazed every time I am reminded that exactly the same breathtakingly simple cipher can be reshuffled in a sufficient number of ways to specify us all, with only the order of

the letters making the difference between geranium and giraffe, ant and elephant, ape and man (exactly as they do in written words, of course).

But it all comes down to math, as Crick explains: Since the nucleic acid language has just four distinct letters, there are sixty-four possible triplets (4 × 4 × 4). Sixty-one of these "codons," as they are called, stand for one amino acid or another. The other three triplets stand for "end chain."16

As we have already seen, only 20 amino acids are actually used by living cells in the construction of proteins. Inevitably, therefore, there is quite a lot of "ambiguity" – with most triplets coding for more than one amino acid and different triplets coding for the same amino acid.

It is not known how cells decide on the right amino acid when several Phe Lys

Lys Ala

TTTAAAAGGCT

Codons specifying amino acids: TTT = phenylalanine; AAA = lysine; AAG = lysine; GCT = alanine (After Calladine et al., 2004, page 13).

alternatives seem to be equally specified. Indeed, and I mention it without drawing any inference, there are only two amino acids that DNA treats as too important for any ambiguity to be tolerated, since it specifies them unequivocally with a single codon in each case. One is methionine. The other is tryptophan, the source molecule of all the tryptamine hallucinogens.17

p.**Miracle**

It should be obvious from the above that both nucleic acids and

proteins, which in all cases are very large, complex macromolecules, are required for anything that we might call life, at least on this planet.

Crudely, the nucleic acids are needed because they carry the genetic code and they can replicate themselves – two things that proteins cannot do. Proteins, on the other hand, are needed for all the dynamic body-building tasks of cells, including the construction and replication of DNA itself. Without the inherited instructions already contained in DNA – "pick this amino acid," "put it together with that one," "stop," etc., etc. – no protein chains would be synthesized, and cells could not do their work. But since DNA could not be made and could not replicate itself in the absence of proteins, we are faced with a chicken-and-egg situation.

What bothered the statistician in Crick was the absolute improbability of even a single fully assembled protein made up of a long chain of amino acids emerging as a result of chance – no matter

how nutritious the prebiotic soup or how many billions of years the ingredients were allowed to stew. Based on an average protein about 200

amino acids in length (others are much bigger), he calculated the odds of this happening as just one chance in a 1 followed by 260 zeros. To provide some sort of benchmark, all the atoms in the entire visible universe (not just our own galaxy) amount to a 1 followed by 80 zeros

- quite a paltry number by comparison with the odds against the chance assembly of a single protein.18 How much less likely would it be, therefore, that life itself – which even at the bacterial level calls for complex cellular mechanisms and makes use of many proteinscould have gotten started through the chance collisions of molecules?

This sense of an amazing ordered complexity, right down to the

atomic scale, is reinforced by a closer look at DNA's double-helix structure. Remember that in every human cell, each cell being one millionth the size of a pinhead, there is a double "ribbon" of DNA two meters long and ten atoms wide.19 Indeed, the reduction factor is even greater than that required to stuff two meters into a pinhead, since the entwined strands of DNA are entirely housed in the cell

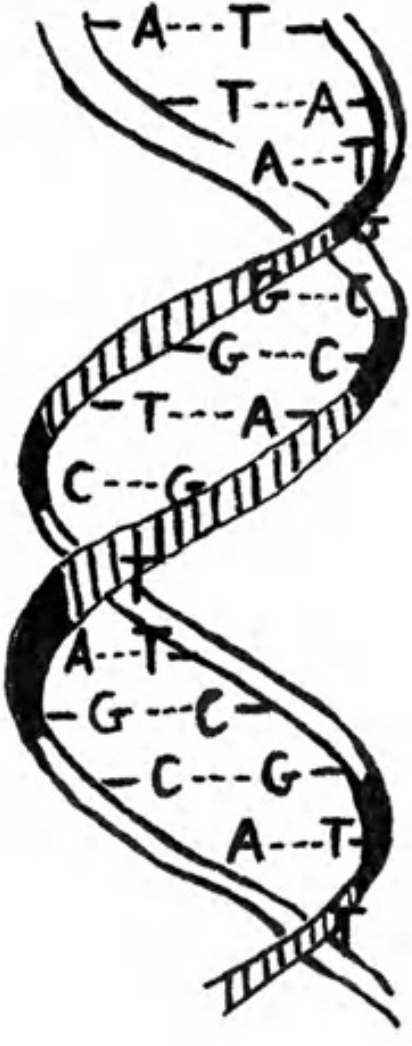
A---T
T---A
A---T
G---C
G---C
T---A
C---G
A---T
G---C
C---G
A---T

Because of the “upside-down” symmetry of its coiled strands, the DNA molecule is frequently compared to two identical serpents wound around each other and facing head to tail nucleus, which is much smaller than the cell itself, with a diameter of just ten micro meters. The result is a feat of compaction that has been compared to folding fifty miles of kite string into a shoe box. The two identical polymer ribbons are generally wound around each other like two serpents facing head to tail, each an “upside-down” duplicate of the other and joining at their bases in a specific order (A always with T, C always with G).20 Scientists correctly speak of them as the

“master copy” and the “back-up copy” because if any errors are introduced on one ribbon, the cell has a mechanism for repairing them with reference to the other.

Strung out along the DNA polymer ribbons, as we have seen, the genetic information in each cell is recorded chemically in detailed

base sequences that code for the synthesis of proteins. The beauty and complexity of the system is that these instructions are not implemented directly from the cell's DNA archive, but are first copied (the technical term is "transcription") onto single-stranded RNA molecules ("messenger RNA"), which then initiate the synthesis without the need for further reference to the master and back-up copies safely stored inside the double helix.

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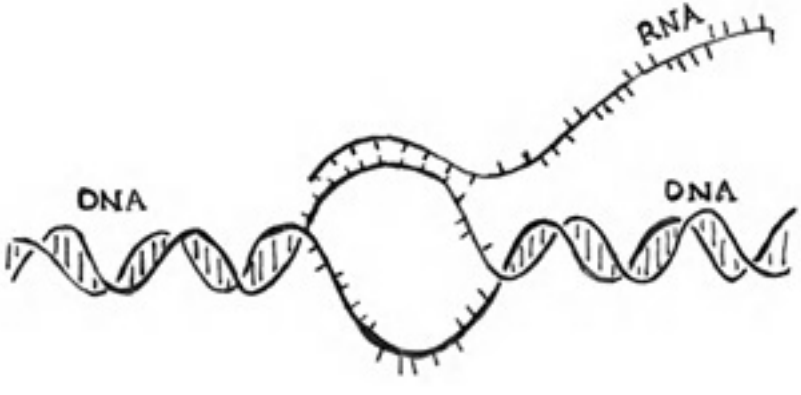

A

RN

DNA

DNA

Transcription of information from DNA onto single-stranded "messenger"

RNA. (After Calladine et al., 2004, page 65)

"It is quite remarkable," notes Crick, "that such a mechanism exists at all, and even more remarkable that every living cell, whether animal, plant or microbial, contains a version of it."21 As with the 20-letter protein code, to which it is intimately linked by its amazing "translation" mechanism, this universality tells us that the genetic

code is extremely ancient. Indeed it, and the DNA/RNA system which embodies it, must have been present in the first living organisms from which we are all descended. Yet the system itself is built of component parts and, in Crick's view, "is far too complex to have arisen at one blow. It must have evolved from something simpler."22

The problem is that there is no evidence for that simpler thingno evidence that any such evolution took place anywhere on earth before the spread of the first DNA-based bacteria between about 3.9

billion and 3.4 billion years ago. The implications are obvious, but as an arch-rationalist and committed atheist, it clearly pained Crick to admit that "the origin of life appears at the moment to be almost a miracle, so many are the conditions which would have needed to be satisfied to get it going."23

Perhaps it was in subconscious rebellion against any sort of spiritual

explanation of this “miracle” that Crick came up with his panspermia theory. He did not believe in the supernatural, but the evidence convinced him that the four-letter DNA “language,” together with the 20-letter protein “language,” and the translation mechanism that links the two, were most unlikely to have arisen naturally on earth through chance collisions of matter. In some sense, the system appeared to havebeen engineered, even “created,” *before* it ever went into action here.

But by whom? Crick would have been going against his own character to consider the possibility that it might have been a supernatural entity of the kind that most people call God. He much preferred the scenario of intelligent aliens on a distant planet sending rocket-loads of bacterial DNA out into space targeted at promising solar systems.

Recording the music of life

It is rather odd to think that our bodies are built and our parts function according to a complex set of coded chemical instructions, half of which we have inherited from our mothers and half from our fathers. Then, as we delve deeper, we realize that they too inherited half their DNA from their mothers, half from their fathers – and so on, counting along the chain of generations all the way back to the beginning of life on earth. The one constant factor, from the first bacterium more than three and a half billion years ago to the most exalted members of the modern human race, are these little polymer ribbons of self-reproducing "recording tape" that make up the DNA system.

We have already noted that inside every human cell, a two-meter length of this "tape" is coiled up containing the complete genetic informa tion for the construction of a human being. As a polymer, the tape itself is chemically related to the vinyl records on which the hit songs of the 1960s were played, but the information recorded on

it is the endlessly duplicable, endlessly renewable music of life: Growth occurs by the process of cell division: each cell divides into two new cells, and these cells in turn divide, and so on. Just before any cell divides, it duplicates all of its DNA, so that every new cell contains a complete set of DNA, which again contains all the genes of the organism. Only a small fraction of the genes present on this DNA are activated in any given type of cell . . . A little thought indicates that this scheme for providing every cell with a complete set of DNA is, in fact, an extremely simple way of providing the necessary information, in all places where it is required – even though, of course, the

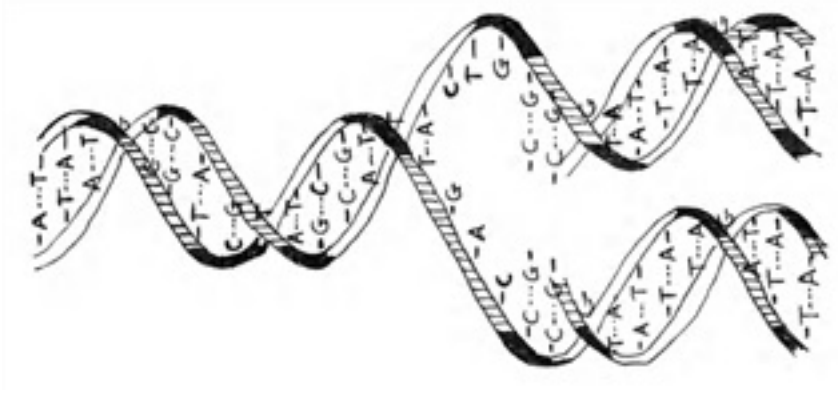

Just before any cell divides, it duplicates all of its DNA, so that every new cell contains a complete set of DNA which again contains all the genes of the organism (after Calladine et al., 2004, p. 10 and 65) scheme requires a vast amount of repetitive copying and duplicating of DNA.24

The theme of apparently redundant copying and duplicating is one that comes up again and again. First there is the double helix itself – an original and a copy. Then there is the role of RNA, busily copying specific segments of code from DNA in order to initiate

protein synthesis. In any one cell at any one moment, the end result is that most of those highly meaningful clusters of code on the DNA ribbons that we call genes have no function whatsoever. They are

“off-line”:

Thus cells which develop into an eye use only the genes which program for the growth of eye cells. How cells “know” which kind of organ they belong to is a large and only partly understood area of research.25

What is clear is that it seems to be part of the normal functioning of DNA for most of it to be off-line most of the time, with only specific segments being activated for protein synthesis. Moreover, it would be wrong to think that DNA’s only function is to make proteins according to the inherited instructions of the genetic code. On the contrary, even within genes, less than 1 per cent of the bases contain programs to synthesize specific proteins.26 The issue looms

larger whenwe remember that genes themselves make up only around 3 per cent of the DNA in each cell. Figures vary, and some authorities assign 5 per cent, others as much as 10 per cent of DNA to genes – but even on the highest estimate, it still means that "the vast majority of DNA in our bodies does things that we do not presently understand."27 All that we know for sure about these huge libraries of DNA – remember, we are speaking of between 90 and 97 per cent of the total – is that they contain immense amounts of information written in exactly the same language as the genetic code, but in this case not coding for the construction of proteins or any other recognized function. Some areas of such "non-coding" text consist of long sequences of bases repeated over and over again, sometimes thousands of times, apparently uselessly. Understandably, therefore, scientists for a long while had the idea that this must be "junk DNA," superfluous, meaningless code, with no function, that survived simply because it was automatically replicated whenever cells divided.

But why would natural selection preserve such a huge volume of useless gibberish and go to all the trouble of reproducing it in every living cell?

Coming at the problem from many different directions, scientists today are finding that the answer is quite straightforward. The old throwaway theory is wrong. So-called junk DNA does in fact play a vital role in regulating cellular processes, and is every bit as important to the overall health and functioning of the organism as the better-known coding sections. But this is not the place to describe the medical implications of the expanding scientific exploration of non-coding DNA. What I'm interested in is something else, discovered by scient ists as a chance by-product of other inquiries, about the information recorded on these long and so far still mainly mysterious segments of polymer.

It has to do with the patterns in which that information is organized.

The message of Zipf

All human languages have a very strange and most unexpected secret in common. It is called Zipf 's Law, after the linguist George Zipf, who discovered it in 1939. He studied texts in many different languages and ranked the words in order of frequency. What he found, which has since proved to be true whether the language is English or Inuit, Japanese or Xhosa, Arabic or Urdu, is that a direct, exact, unvarying and utterly counter-intuitive mathematical relationship exists between the rank of a word and the actual frequency of occurrence of that word. No matter which text he selected, when Zipf created a histogram that plotted word frequency against word rank, the surprising result was a straight line "with a slope of -1 for every human language."28

In order to grasp the general principle here, imagine a book of any given number of words, 60,000, or 114,000, or any number, it doesn't matter. If the most common word in the book – i.e. the word

with the rank of one – appears 10,000 times, then you can be certain that the tenth most common word (i.e. ranked ten) will appear 1,000 times and the one hundredth most common word will appear just 100 times.

The numbers will vary, obviously, from text to text dependent on overall length, but the exact mathematical proportions between rank and frequency will always turn out to be the same in any human language at any time. This, in a nutshell, is Zipf 's Law.29

Now here is the even stranger thing. In the mid-1990s, researchers from Boston University and Harvard Medical School examined 37

DNA sequences containing at least 50,000 base pairs each, as well as two shorter sequences and one with 2.2 million base pairs. Where possible, they evaluated both coding and non-coding regions.30 They noticed that distinct patterns of three, four, five, six, seven, and eight base pairs – comparable to individual "words" – existed in

all the sequences. This led them to apply two standard linguistic tests to the material. One of these was Zipf 's test, and following Zipf 's own method, the DNA "words" were ranked in order of frequency, and a histogram plotting the rank of each word against the actual number of times that it appeared in each "text" was drawn up.

In every case where coding regions were evaluated, they turned out *not* to obey Zipf 's Law. This is precisely as one would expect, since the coding regions are just codes, not languages – and are better thought of as templates for the construction of particular proteins.31

"The coding part has no grammar," explains lead researcher Eugene

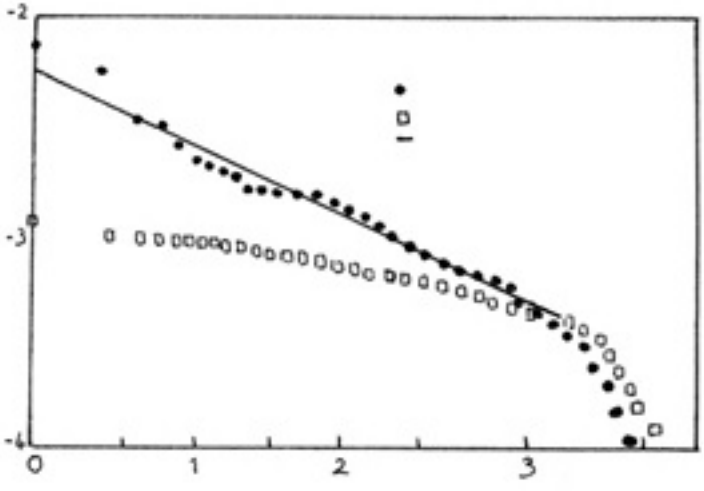

Stanley. “Each triplet [of bases] corresponds to an amino acid [in a protein]. There’s no higher structure to it.”32

So far so predictable, and so reassuring. Of course our DNA doesn’t contain intelligent messages and isn’t trying to communicate them to us in a language! If it did, all the basic principles of modern evolutionary science would be turned head over heels! Still, what happened next was most unexpected – “really remarkable,” in

Eugene Stanley's appraisal: "There's no rhyme or reason why that should be true."33

This really remarkable and totally unexpected discovery was that *in every case where non-coding regions of DNA had been evaluated, they turned out to demonstrate a perfect Zipf Law linear plot.* 34 If these DNA sequences had been books filled with pages of indecipherable printed

-2

Non-coding regions

Coding regions

Power-law fit

y)

equenc

-3

og (frL

-4

0

1

2

3

Log (rank)

Plotting frequency against rank for arbitrary “words” in non-coding DNA yields the linear plot found in human languages. By contrast, coding DNA does not conform to this law (After Eugene Stanley, *Science*, 25 November 1994).

letters, then this result would oblige us to conclude that the letters were not random alphabet soup but words in an organized language.

Stanley didn’t shy away from the implications of this. In his opinion, the non-coding DNA sequences do contain “a structured language fundamentally unlike the coding in genes.”35 Even though it doesn’t code for proteins, we therefore need to consider the possibility that”the ‘junk’ DNA may carry some kind of message.”36

Such a daring proposition receives further support from the second linguistic test that the team also applied to the DNA sequences. Developed in the 1950s by information theorist Claude Shannon,

this test distinguishes texts written in true languages from texts written in alphabet soup by quantifying the "redundancy" of any string of characters. The test works, and is universal, because "languages are redundant sequences . . . You can fill in a typographical error by noting nearby characters. A random sequence, in contrast, has no redundancy."37

Again, when the test was applied to coding regions of the DNA, these were shown *not* to have the properties of a human languageas we would predict. The genetic code is not, and cannot be, a redundant sequence in which errors can be corrected with reference to the general context; on the contrary, geneticists are well aware that even a single mistake involving a single base pair on a single gene can scramble the code and produce catastrophic abnormalities. By contrast, the researchers found that the *non-coding* sections of DNA "revealed a surprising amount of redundancy – another sign that something was written in these mysterious stretches."38

In short, these completely unexpected discoveries allow us to contemplate something astonishing. The chemical “writing” on so-called junk DNA may not only possess “all the features of a language,”39

but may in fact *be* a language like any human language. When I contacted Professor Eugene Stanley at Boston University in June 2005

to ask if he still stood by his electrifying 1994 findings, or if they had subsequently been refuted, he told me: “You bet I stand by them!

Nothing has been refuted.”

The ancient anonymous author

As a general rule of thumb, the more complex an organism is, the

more non-coding DNA it will have. There are, however, a great many simple organisms that possess a great deal of non-coding DNA, and even the simplest organisms have some. Indeed, these long sequences of apparently meaningless code are found so widely distributedamongst all categories of living things that they may even descend from the DNA of our remotest common ancestors – those first single-celled replicating bacteria that colonized the earth almost four billion years ago.40

We have much more in common with primitive organisms and lower animals than we imagine. An Australian National University study of 1,300 DNA sequences from the coral *Acropora millepora*, published in December 2003, found more than 500 coding and non-coding areas that were also present in humans.41 Similarly, in 2004

researchers at the University of California showed that long sections of the non-coding DNA of mice and humans are identical despite 50

million years of divergent evolution from their last common ancestor.42

“It absolutely knocked me off my chair,” comments Professor Haussler, the leader of the University of California team. “It’s extraordinarily exciting to think there are these ultra-conserved elements that weren’t noticed by the scientific community before.”43

What I find much more exciting, however, is the possibility envisaged by Eugene Stanley and his colleagues at Boston and Harvard that “some kind of message” might be written on these ultra-conserved sequences of code that occupy up to 97 per cent of our DNA but have no known function. It is difficult to see how the accidental processes of chemistry alone could have produced the intense language-like organization embedded in the so-called junk sequences. But if it really is some kind of message, rather than a freak of chance and nature that just looks like a message, then who,

or what, might have written it?

For those who feel uncomfortable with the intervention of gods or spirits in our affairs – and most of all in our creation – Francis Crick's theory of directed panspermia provides what looks like a thoroughly reasonable, "nuts-and-bolts" alternative. Yet let's recall that Crick, despite being one of the great rational atheists of the twentieth century, received his vision of the structure of DNA while he was in an LSD

trance, and ultimately felt obliged to conclude that the double helix must have been introduced to this planet on board the spaceships of an advanced alien civilization.

p.**The teachers within**

It is bizarre not only that Crick's hypothesis reflects the ayahuasca-inspired mythology of the Yagua of the Amazon, as we saw at the

beginning of this chapter, but also that a number of Westerners who did not know one another or compare notes, and who experimented with ayahuasca or with pure DMT at different times, nevertheless arrived separately at what were essentially very similar visions involving DNA. In Chapter Twelve we saw that several of the volunteers in Rick Strassman's DMT project at the University of New Mexico experi enced intense visions featuring "threads of DNA"44 and "spirals of DNA."45 In Chapter Thirteen the reader will find the case of the American biologist who received detailed images of specific DNA sequences under the influence of ayahuasca, and in Chapter Three I reported my own ayahuasca visions of "snakes that wind around each other like the DNA double helix."

Indeed, this theme seems to be everywhere abundant amongst people who have encountered hallucinogens, like DMT, LSD, psilocybin, and ayahuasca, which have a tryptamine core. In 1961,

the American anthropologist Michael Harner was one of the first Westerners to participate fully in an indigenous ayahuasca ceremony in the Amazon – in his case in a Conibo Indian village beside a remote lake off a tributary of the Rio Ucayali. After drinking a large dose of the bitter hallucinogenic brew, he received a spectacular vision in which he saw dragon-like creatures that came to earth fleeing something, perhaps an enemy, "out in space" after a journey that had lasted for "eons":

The creatures showed me how they had created life on the planet in order to hide within the multitudinous forms and thus disguise their presence. Before me, the magnificence of plant and animal creation and speciation – hundreds of millions of years of activity – took place on a scale and with a vividness impossible to imagine. I learned that the dragon-like creatures were thus inside all forms of life, including man. They were the true masters of humanity and the entire planet, they told me. We humans were but the receptacles and

servants ofthese creatures. For this reason they could speak to me from within myself. In retrospect one could say they were almost like DNA, although at that time, in 1961, I knew nothing of DNA.46

Much later, in the 1990s, Jeremy Narby's experiences of ayahuasca evoked a similar chain of thought. During his first session with the brew he reports that he suddenly found himself surrounded by two gigantic boa-constrictors that seemed fifty feet long.

I was terrified. These enormous snakes are there, my eyes are closed and I see a spectacular world of brilliant lights, and in the middle of these hazy thoughts, the snakes start talking to me without words.

They explain that I am just a human being.47

Despite superficial differences, it seems to me that Narby and Harner's ayahuasca experiences have much in common with Crick's

LSD experience, and his subsequent elaboration of the directed panspermia theory. In essence, what all three seem to envisage is a control system for the human race that is not of this earth, that is serpent-like in form, that now dwells inside us, and that is superior to all of us. Crick calls it the double helix, coils it up inside bacteria, and has it sent here from across the galaxy on alien spaceships. For Harner it is creatures that he sees as dragons that have likewise come to earth from space after a journey of "eons," that have found a way to perpetuate themselves here inside all life, and that are the "true masters of humanity." Narby is put in his place by twin serpents, notes that the double helix of DNA resembles "two entwined serpents,"48

calls it "an extremely sophisticated technology . . . that was initially developed elsewhere than on earth,"49 and goes on to write a book called *The Cosmic Serpent*, in which the notion that DNA may be minded, and may encode intelligent messages that we can access in

altered states of consciousness, receives its fullest elaboration.50

I feel that the possibility cannot be discounted that these insights into the mysteries of DNA that have been given to scientists and anthropologists, just like the insights into the properties and combinations of plants that ayahuasca gives to shamans in the Amazon, maynot be accidental. If our DNA is in any way an artifice of technology, then there is every reason to suppose that its makers would expect such a technology to result in the evolution of beings of high intelligence – sooner or later. In that case, the one certain way to send those future beings a message, no matter what unpredictable paths their mental and physical development might follow, would be to encode it in their DNA – indeed in the most basic elements of DNA that everyone and everything would have to possess some of, but that might accumulate preferentially in higher organisms.

Making up 97 per cent of the total DNA library in the cells of

modern human beings, this is why the “junk” non-coding sequences with their mysterious language-like properties are so interesting. It may be the case that hallucinations of the sort that convey veridical knowledge about DNA or about plants, or about how to cure a certain sickness, or about the nature of reality, are as effective a technology as bio-engineering and genetic manipulation for exploring the true potential of the legacy stored inside all our cells. It may be, in other words, that the ancient teachers of mankind have been inside us all along but that we must enter altered states of consciousness in order to hear what they have to say.

p.

Part IV

The Religions

Chapter Fifteen

The Hidden Shamans

Since it first began to leave definite traces in the archaeological record in the painted caves around 35,000 years ago, religion has undoubtedly been one of the two or three great influences on human behavior

- as universal and as far-reaching in its effects as the struggle to meet basic physical needs.

Its importance in our affairs is not a thing of the past.

Despite the advance of science, which has no space and no patience for the supernatural, roughly two out of every three human beings

alive today continue to hold strong beliefs in supernatural entities and in the existence of spirit worlds. Hindus and Buddhists recognize the veridical existence of limitless non-physical realms, entities, intelligences, and states of existence. Traditional Jews believe that Moses talked to God face to face, as the Torah states, and received from him "heavenly writings" in the form of the Ten Command-ments. Muslims are taught that Muhammad had encounters with a majestic supernatural being, later identified with the Angel Gabriel, whose apparitions were preceded by "a peculiar sound like the tinkling of bells," and who subsequently revealed to the Prophet the entire text of the Koran.1 Interestingly, with a mind to the UFO abductees and shamans we have met in previous chapters who believe they were shown a book that is kept in the otherworld, and gained some revelation from it, Muslims believe that the Koran is "a perfect transcription of an eternal tablet preserved in heaven."2 Another parallel is found in the Mormon belief that Joseph Smith receivedhis revelation from an angel named

Moroni, who gave him the text of the Book of Mormon on golden plates that later vanished into thin air.3

Mani, eponymous founder of the Manichean religion in the third century AD, claimed to have received all his teachings from an angel who first visited him when he was 12 years old and told him he had a mission to educate mankind. This being, who inspired Mani throughout his life, frequently appeared to him like a dazzling "flash of lightning."4 Likewise, St. Paul, the great apostle of Christianity, began his mission with a supernatural encounter on the road to Damascus when suddenly he heard a voice accompanied by "a light from heaven" so bright that it knocked him to the ground and blinded him for three days.5 The shamanic theme of Paul's initiation fits comfortably into the framework of the Christian religion as a whole

- founded as it is on a belief in the life, death, and resurrection of a supernatural being whose father was a god, whose mother was a

mortal woman, and who was thus, himself, a particularly special, important and effective kind of spirit-human hybrid. Christians generally also believe in angels, the Devil, demons of various sorts, and other supernaturals such as the Blessed Virgin Mary and the Holy Ghost. The heaven and hell of Christianity are of course spirit worlds.

We cannot escape it. Belief in the supernatural – whether manifested through spiritual beings thought to have been born in human form, or through revelations to particular humans – has been responsible for social, political, economic and cultural developments "of monumental significance in the history of mankind."6 Moreover, we need only watch a few minutes of international television news daily to realize what a huge force religion *still* is, how deeply and effectively it controls the minds of billions of people all around the globe, and the extent to which it underlies the hot political issues of our times.

Few scientists would agree with the suicide bomber's firm belief that when he blows himself up his soul will go straight to paradise, but none would argue with the power of such beliefs to shape events in the "real world."

p.**The bureaucratization of shamanism**

Since religious beliefs are so important, it should not be controversial to state clearly what the evidence shows about their ultimate source and inspiration. And what the evidence shows, if we probe deeply enough into the foundations of all the world's great religions, is that they rest upon a bedrock of supernatural encounters and experiences involving powerful and charismatic individuals with the gift to communi cate what they *knew* to others. Although such beliefs quickly crystallize into dogmas passed on from generation to generation, it is clear, even from the few examples given above, that they were not originally conjured out of thin air, or arrived at through scholarly study, or deliberately devised to

assuage supposed human needs, but that they arose in every case solely out of attempts to describe, depict, and explain the supernatural *experiences* of their founders – who were, by any standards, shamans of the highest order. The evidence we have explored in these pages suggests that experiences of this sort have been inextricably tangled up with altered states of consciousness since the dawn of human culture, and indeed that they derive from, and in fact are only attainable in, such profoundly altered states – more often than not induced by the consumption of psychoactive plants. Anthropologist Weston La Barre goes so far as to assert that:

All our knowledge of the supernatural derives *de facto* from the statements made by religious visionaries and ecstatics, i.e. prophets and shamans . . . Priests only administrate the ecclesia established on this supernatural basis . . .7

I find La Barre to be entirely correct and highly perceptive in this observation. In the case of all the great religions of the modern

world, the original supernatural experiences and revelations of their founders are now so far in the past that salaried priests, ministers, rabbis, mullahs, and bishops have taken over entirely – presenting themselves not just as administrators but as true and exclusive intermediaries between humanity and the otherworldly powers. The reader is well aware by now that this role of intermediary is the shaman's role. Unfor-309

tunately for us, however, the imposing bureaucrats and managers whose modern monopoly over our relationships with the otherworld has often been brutally built up by centuries of repression are not shamans. On the contrary, they are no more likely than most members of their congregations to encounter spirits in their daily experience. They teach, and adhere, often rigidly, to what they themselves have been *taught* about the supernatural, but they have no special abilities and have practiced none of the special skills needed to penetrate supernatural realms and return with hard-won

knowledge of real value to their communities. Unless they happen to belong to the 2 per cent of our species who are capable of spontaneously entering trance states, or consume psychoactive drugs, or use arduous physical techniques such as long sessions of rhythmic dancing (like the San of southern Africa) in order to induce such states, we can therefore be quite certain that these functionaries will *never* present us with any new supernatural experiences of their own to refresh the original inspirations, revelations, and insights of the religions they now direct and control. Perhaps this is part of the tragedy of the modern world – that the blind have for so long been allowed to mislead the blind about the very experiences and revelations that may have made us human in the first place.

What hope do we have of rediscovering the truth? In a sense it is always there waiting for us. Indeed, it is our birthright. Shamanic ecstasy lies at the root of all religions and, as Weston La Barre

admits,

“the nature of the shamanic ecstasy may be illuminated by attention to ancient hallucinogens . . .”8 That has been the path pursued throughout this book. By paying close attention to ancient hallucinogens, we have attempted to illuminate the contribution of shamanic ecstasy to the emergence of modern human behavior. In the process we have also been drawn inevitably to explore the full spectrum of human consciousness and the multiple realities it is capable of recognizing – rather than confining ourselves to “the carefully selected utilitarian material,” wrongly perceived as “a complete or at least sufficient picture of reality,” that is normally admitted into consciousness by the “reducing valve” of the brain.9

The reducing valve is plainly necessary, as Aldous Huxley observed (see Chapter Five), to prevent us

p.from being overwhelmed and confused by a mass of useless and

irrelevant knowledge, by shutting out most of what we should otherwise perceive or remember at any moment, and leaving only that very small and special selection which is likely to be practically useful . . .10

At the same time as equipping us with such an obviously adaptive device, however, and presumably for some equally important reason, evolution has also given us access to a variety of shamanic techniques by which almost anyone can bypass the reducing valve in his or her own brain. It is a sad irony that these "gratuitous graces," which our ancestors originally used with caution and reverence to explore and learn from non-ordinary reality, have, with the passage of much time, been diverted by bureaucrats into the spiritual dead end of the

"ecclesia," where everything is dogma, endlessly repeated, where almost no one has first-hand experiences of the supernatural any more, and where nothing new may be discovered or learned.

Primitive Christians

Arguably, the rot sets in from the moment that any culture begins to devalue its shamans as madmen and visionaries, to deny the legitimacy of direct revelation amongst "ordinary people," and to place its spiritual trust in a sacerdotal class who can only teach what they have been taught by others rather than what they themselves have experienced.

Let's take a closer look at Christianity, by way of example. After its foundation around 2,000 years ago it was, at first, an overtly shamanistic religion. This is hardly surprising since Christ was so obviously and so profoundly a shaman. It is not only his pedigree as a half-human, half-divine hybrid that makes him so, or his heaven-sent gifts as a healer. His ordeal of crucifixion and piercing, followed by death and subsequent resurrection as a spiritualized being equipped with the power to save souls, is essentially the story of the wounded man – the story that is told by all shamans

everywhere of their own initiatory agonies, death, and resurrection.

The primitive Christians who called themselves Gnostics believedthat salvation was to be attained through a special sort of "knowledge of the true nature of things" that could not be taught but only revealed directly to the initiate. They also believed, like the Jivaro of Ecuador, that this material world in which we live is essentially an illusion in which the soul is trapped, and that the only way for us to see reality is to enter the visionary state. We do not know how the Gnostics did it (although some certainly practiced severe austerities, and there is inferential evidence of a mushroom cult).11 In the case of the Jivaro, however, there is absolutely no doubt that hallucinogens – principally ayahuasca – are used. As anthropologist Michael Ripinsky-Naxon explains:

The spiritual and metaphysical contingencies of the energies of life may be tapped, the Jivaro believe, by means of hallucinogens. The spiritual realm, this antipodal World, thus entered, is where

knowledge of the great cosmic causality can be apprehended. All the events that occur inside the Otherworld are manifestations of the "true" reality and exert an impact on the daily, physical aspect of existence. Consequently, the everyday non-visionary life is considered "fake" and "false."12

During approximately the first to sixth centuries AD, this was precisely how the Gnostics, and their "pagan" cousins the Hermeticists, described the human predicament in a world of material illusions: All things on earth then, my son, are unreal; but some of them – not all, but some few only – are copies of reality. The rest are illusion and deceit, my son, for they consist of mere appearance. When the appearance flows in from above, it becomes an imitation of reality. But apart from the working of power from above it remains an illusion.13

All things which the eye can see are mere phantoms, and unsubstantial outlines; but things which the eye cannot see are the

realities.14

You must understand that that which ever is, and that alone, is real.

But man is not a thing that ever is; and therefore man is not real, but is only an appearance.15

p.One can find many similarly subversive statements about the sham nature of daily reality, and the contrasting truth of the visionary realm, in the Hermetic texts and in the library of original Gnostic texts rediscovered at Nag Hammadi in Upper Egypt in 1945.16 Such views, however, were ferociously repressed from the fourth century AD onwards by the emerging Catholic Church, whose priests preached blind faith in an extremely crude, “down-to-earth,” and literal interpretation of the tightly censored range of Christian scriptures that became the canonical New Testament. Far from encouraging the personal search for revelation (and thus escape from illusion) amongst their “flock,” these Catholic “men of

God”

presented themselves and their Church as the exclusive channel by which divine wishes reached the masses and by which the masses could communicate with the divine. Indeed, so determined were they to maintain and enforce their spiritual monopoly that by the thirteenth century the Pope had made it illegal across large parts of Europe for lay persons to possess any of the books of the Old and New Testament “with the exception of the Psalter, the Breviary and the Book of Hours of the Blessed Virgin.” Even these could only be owned if they were in Latin. To attempt to translate them into any vernacular tongue that might be understood by the masses, and worse still to circulate vernacular copies, was considered heresy and called for the attentions of the Inquisition.17

Shamanic survivals from Santa Claus to St. Sebastian Against such a background of censorship and persecution, including the execution of tens of thousands of Gnostic “heretics” during the

Albigensian Crusades in the twelfth and thirteenth centuries,18 I'm not surprised that Christians today are mostly unaware of the shamanic roots of their religion.

Yet by no means all of those roots have been amputated.

An example is the way that Christmas Day, arguably the most important annual Christian festival, has been thoroughly overtaken in the public imagination by strange non-Christian ceremonials and symbolism involving the figure of "Santa Claus." American

ethnobotanist Jonathan Ott proposes that what all this goes back to are ancient shamanistic cults amongst the reindeer-herding tribes of Siberia, in which the hallucinogenic red and white fly agaric mushroom was consumed to induce visions – particularly around the time of midwinter:

The winter dwelling, or yurt, had a smokehole in the roof, supported by a birch pole. At the midwinter festivals, the shaman would enter the yurt through the smokehole, perform his ceremonies, ascend the birch pole and leave. Santa Claus is robed in red and white, the colors of the fly agaric. He enters and leaves by the chimney, and he has reindeer. Santa Claus also flies, an accomplishment that he shares with the shaman.19

Numerous shamanic vestiges are also to be found in the cults of saints that are so popular amongst both the Catholic and Orthodox branches of Christianity. For instance, the Greek St. Christophoros

is often portrayed in Orthodox Christian art in therianthropic form with The Greek St. Christophoros (after

Ripinsky-Naxon, 1993, p. 3)

the body of a man and the head of a dog.20 Moreover, it is common for individuals to relate themselves especially to a particular saint who they believe intercedes on their behalf with the supernatural powers.

p.

All of this, of course, would be intensely shamanic even if it were not for the additional fact that most saints are saints in the first place by virtue of having performed feats of healing or other miracles that would clearly mark them out as shamans in hunter-gatherer societies.

Very often, too, if we examine the life story of a saint, we will find that he or she has been through a recognizably shamanic initiatory ordeal.

There are hundreds, if not thousands, of such cases, of which the most famous and most obvious is St. Sebastian, who was supposedly made a target by Roman archers and then beaten to death with clubs.

Always depicted in Church art as a naked youth pierced by multiple
Left, wounded man of Pech Merle; center, St. Sebastian; right,

wounded man of Eastern Free State, South Africa

arrows, Sebastian should be instantly recognizable to readers of this book as another form of the ubiquitous image of the wounded man that has been with us since the Upper Paleolithic.21

St. Ursula underwent the same ordeal of piercing by arrows.22 Similarly, St. Justina is depicted as a damsel with both breasts pierced by one sword23 while St. Stanislaus is always shown as a bishop being

"hacked to pieces" at the foot of an altar24 (a direct echo of the traditions of shamanic dismemberment from all around the world that we have examined in previous chapters). Though never physically martyred, the sixteenth-century Spanish nun St. Theresa of Avila also underwent a classic shamanic ecstasy of piercing and agonizing pain:To my left I saw an angel in bodily form . . . its face so fiery that it seemed to belong to the highest of angels, who

appear to be all flame

. . . In its hand I beheld a long golden spear at the point of which a small flame seemed to flicker. I felt as if the angel pierced that spear several times through my heart, that it penetrated to my bowels, which were extracted when the spear was withdrawn, leaving me all aflame with an immense love of God.25

Sisters in vision and prophecy

Very often, the Church reacts badly at first to potential saints, seemingly dumbfounded as to what to do with them, but ultimately finds ways to capture and channel their energies within the dominant ortho-doxy. Jeanne d'Arc, who communed directly with the spirit world and its supernatural inhabitants, "and thereby miraculously saved her king and her country,"26 was ultimately executed for her shamanic powers when the ecclesiastical authorities determined that her "voices"

(modern psychiatrists would call them auditory hallucinations) were those of demons, not of angels. In an act of infamy that has rung down the ages, Jeanne was burnt at the stake at Rouen, France, on April 30, 1431. In April 1909, almost five centuries later, the Catholic Church belatedly decided that her spirit guides had after all been angels, not demons, and this great shaman of the late Middle Ages was at last canonized as a saint.27

What is less well known about Jeanne d'Arc is that when she stood before the Inquisition accused of witchcraft, the first questions her interrogators asked were if she had "any knowledge of those who went to Sabbath with the fairies" or if she had not assisted "at the assemblies held at the fountain of the fairies, near Domremy, around which dance malignant spirits."28

Another matter the inquisitors were eager to learn about was a certain "fairy tree" that Jeanne was accused of frequenting. She did not deny knowledge of it and said that it was called the Tree of the

Mistress, or sometimes the Tree of the Fairies, because long ago in the past fairies had been at the tree. She reported that girls used to hang bunches of flowers on the tree and admitted that she herself had"made wreaths there for the picture of our Lady of Domremy." Near the tree was a spring, Jeanne added, "where sick people would scoop up water to drink; the water healed them."29

Dianne Purkiss, who teaches English at Oxford University, has taken a special interest in these fairy connections, and points out that Jeanne d'Arc's testimony before the Inquisition often seems to mix up standard vernacular terms for the fairies – "white ladies," "good ladies"

- with those for the Virgin ("Our Lady").30 Nor is this confusion confined to Jeanne d'Arc or to the fifteenth century. Exactly the same thing happened hundreds of years later on another occasion, when recognizably shamanistic experiences and supernatural encounters erupted in the face of an initially reluctant Catholic

Church. This is the case from the mid-nineteenth century, briefly cited in Chapter Eleven, of Bernadette Soubirous. Her visions of a supernatural entity later identified with the Virgin Mary were much more quickly co-opted and accommodated by the Vatican than those of Jeanne d'Arc, and led to the foundation of the world-famous shrine at Lourdes in the French Pyrenees, which is today visited by more than two million Christian pilgrims every year, and where miracles of healing through contact with the waters of a sacred spring are still regularly reported.

Although the copious publicity about Lourdes that the Church now churns out attributes these miracles to the powers of the Blessed Virgin Mary, the truth is that the place had a miraculous reputation long before any such association was made. As Diane Purkiss explains, this reputation derived from a much more ancient connection with the supernatural beings that we know as fairies: Jeanne did not have much luck conflating the Virgin Mary with "the

good ladies," but her much later sister in vision and prophecy, Bernadette Soubirous, was to be more fortunate. Like Jeanne, Bernadette frequented a site linked with the fairies, and like Jeanne, she saw visions of a beautiful lady there. Like Jeanne, Bernadette associated the sight with a healing spring, a spring in which the sick could shed their illness. Like Jeanne, Bernadette chose a term redolent of fairy lore to describe what she saw, saying that her lady was *uo petito damizela*, a little lady; Pyrenean fairies were often dwarfish . . . Unlike Jeanne, her visions wereaccepted and her healing spring became the fountain at Lourdes. Of course, nothing was said about the fairies by the Church, but the influence of Pyrenean fairy stories is evident at Lourdes.31

The influence of Pyrenean fairy *stories*? I think Purkiss makes the wrong emphasis here, since she does not address the question of where the stories themselves originally came from. I hope I have conclusively demonstrated in Part II that such traditions are for the

most part not made up, but reflect genuine personal experiences, widely reported down the ages, of supernatural beings seen in altered states of consciousness and construed sometimes as spirits, sometimes as aliens and sometimes as fairies, depending on the epoch and the local cultural context. It is not a big jump from the Fairy Queen to the Blessed Virgin Mary, and the really interesting issue here is that Bernadette Soubirous clearly saw *something* that shook her to the core, as powerful hallucinations often do, and that quickly led to real effects in the real world touching the lives and beliefs of huge numbers of people and delivering to many the characteristically shamanic gift of healing.

“I beheld a lady dressed in white . . .”

When she had her first vision, on February 11, 1858, Bernadette was a half-starved, asthmatic 14-year-old from a very poor family, out that cold day with her friends Toinette and Baloume to collect firewood and any animal bones that they might find on richer

people's rubbish tips. Following advice on where to look given to them by an old woman who crossed their path, they eventually found their way to the banks of a stream running alongside the Hill of Espeluges, where a cave was long ago cut by water into the imposing rocky outcrop known as Massabielle.32

The cave and the massif had a mysterious glamour and, as Diane Purkiss points out, were "linked with the fairies." Now, as everyone knows, fairies sometimes unpredictably present those they favor with gifts. Perhaps this was why the children were not too surprised to see that a great "mass of wood and bones" – exactly what they were outlooking for – lay stacked up in the mouth of the cave. All they had to do was cross the icy waters of the stream and the prize they sought would be theirs.33

Toinette and Baloume did not hesitate. They pulled off their shoes and stepped at once into the stream. As Bernadette later told the story: My two companions began crossing the water in front of the

Grotto.

They began crying. I asked them why they were crying. They replied that the water was bitterly cold. I remained alone on the other side.34

Desperately wanting to cross the stream herself, and yet afraid of catching a chill that might set off her breathing difficulties, Bernadette's rising sense of urgency and distress becomes palpable in her account at the moment that Toinette and Baloume reach the other side and unkindly decline to make special arrangements to get her across with dry feet:

I asked them to help me by throwing stones in the water so that I could cross without taking off my shoes. They told me to do as they had. Then I went a little further down to see if I could get across with my shoes on. I could not. I came back towards the Grotto and I started taking off my shoes . . .35

At this point, physically weak, hungry, anxious, agitated, and contemplating the impending shock of cold water, it is obvious that Bernadette Soubirous was a prime candidate for an instant altered state of consciousness even if she had not been (as she almost certainly was) one of the 2 per cent of all human populations who are able to enter trance spontaneously. “Hardly had I taken off my first stocking,”

she tells us:

when I heard a sound as though there had been a rush of wind. I looked around towards the meadow. I saw the trees quite still. So I continued to take off my shoes. Again I heard the same noise. I looked up towards the Grotto. I beheld a Lady dressed in white. She wore a white dress, a blue sash and a yellow rose on each foot . . .36

p.In another, more detailed account of that vision, Bernadette said that she “lost all power of speech and thought” after hearing the

rushing wind noise the second time. Turning her head towards the Grotto, she saw

at one of the openings of the rock a rosebush, one only, moving as if it were very windy. Almost at the same moment there came out of the interior of the Grotto a golden-colored cloud, and soon after a Lady, young and beautiful . . . the like of which I had never seen, came and placed herself at the entrance of the opening above the rosebush . . .37

The "Lady," who appeared to Bernadette at the same spot 17 more times over the next five months, wore the typical garb of a fairy (though coupled in this case with a politically expedient rosary). It was only much later that she became identified with the Virgin Mary. On her way home with Toinette and Baloume after the first vision, Bernadette reports quite explicitly: "I told them I had seen a Lady in white, but that I did not know who it was . . ."38 Even the term "Lady in white"

is a giveaway in a land where, as we saw above, fairy women were commonly referred to as “white ladies.”

Just as spirit-helpers in the Amazon today teach hallucinating shamans the properties of plants, so on February 25, 1858, “Our Lady of Lourdes” instructed Bernadette concerning a certain “herb”: “Go and drink from the fountain and wash yourself and eat of the herb which is at the side . . . [‘ *Vous mangerez de l’herbe qui est à côté* . . .’]”39

I can’t help wondering what sort of “herb” was growing that day by the side of the Grotto of Massabielle at Lourdes, and whether what was meant might not have been some crop of psychoactive mushrooms such as *Psilocybe semilanceata* that might help explain Bernadette’s repeated sessions of pure shamanic ecstasy.

There is another curiosity, too, that I don’t want to make too much of but will simply mention in passing. Lourdes stands near the

geographical center of that large area of south-west France and northern Spain where the greatest number of painted caves dating from the Upper Paleolithic have been found. The hill of Espeluges at Lourdes, at the foot of which the Grotto is located, also containsanother much larger cave, situated about 65 meters higher up, that was used by our ancestors during the Upper Paleolithic.40 In 1889

Church authorities decided to build a chapel inside this cave, and in the process removed over 2,000 cubic meters of deposits from its floor, which were then scattered over nearby land. Archaeologists note that

“many items of Paleolithic portable art [were] subsequently discovered in these discarded sediments.”41

It seems at least permissible to guess, therefore, that the Grotto of Lourdes that Christians today describe as “an open door to another

world,”42 and that we know was linked with fairies in medieval times, could possibly have been part of some shamanic pilgrimage tradition as far back as the Upper Paleolithic. Perhaps the place itself has special qualities that science doesn’t understand, but that have been discovered empirically, and forgotten, and rediscovered again and again by successive societies and cultures down through the ages.

Michael Persinger and electromagnetism

The last point is pure speculation, nothing else. Nonetheless, it rests on almost 30 years of solid research by Dr. Michael Persinger, head of the Neuroscience Laboratory at Laurentian University in Ontario.

His work has shown that certain almost imperceptible electromagnetic fields, often associated with earthquakes and other seismic events, seem to interact with the human brain in such a way as to trigger temporarily altered states of consciousness every bit as

deep and every bit as “hallucinatory” as those induced by drugs like DMT, psilocybin, and LSD. These effects are especially pronounced in the case of individuals with unusually excitable temporal lobes.43

Persinger’s theory provides a neat, one-stop explanation for why large numbers of people gathered together in the same location sometimes all start to hallucinate at once and often say that they have seen broadly the same things, though some more intensely than others. Indeed Persinger’s volunteers, subjected to strong electromagnetic fields under laboratory conditions, routinely report hallucinations of small beings standing near them.44 As with my approach to drugs, my use of the word “hallucination” here impliesno judgment concerning the actual reality status of what is seen. Just as DMT may conceivably retune the receiver wavelength of our brains to “pick up” veridical alternative realities, so too it is conceivable that electromagnetic fields might have the same effect.

Even Persinger, who is himself not much in favor of spirit worlds, has to admit the possibility that:

The experience [occasioned by an electromagnetic field] actually represents what was perceived. From this perspective, the experience reported by the thousands of normal people who have reported visitation phenomena – from the Virgin Mary to the most repugnant alien – are primarily veridical. The similarity of experiences would be due to the similarity of actual stimuli that produce them rather than to a mundane stimulus that simply activates an intrinsic pattern of complex neuronal activity.45

Persinger does not seem to be aware of the pitfalls that confront this preferred notion of his – i.e. supposedly "intrinsic" patterns of complex neuronal activity, somehow installed in the human brain, that when suitably stimulated yield experiences like abductions by aliens or encounters with the Blessed Virgin Mary. If such intrinsic patterns exist, which no scientist has yet demonstrated, then we

have to be able to explain how they evolved, and that, as we will see in Chapter Seventeen, is no easy matter and leads us into a mystery every bit as deep as any spirit world. It is to Persinger's credit, however, despite his reductionist instincts, that he does not entirely rule out the shamanic alternative that spiritual beings seen in altered states of consciousness may in some way be real, noting that "in the pursuit of the Unknown, all possibilities must be considered."46

The shaman and the Fairy Queen

Probably we will never know how Bernadette Soubirous induced her altered states of consciousness, but we have the reports of eyewitnesses that she frequently fell into a deep trancelike condition during her encounters with "the Lady" (whatever the true identity of this super-322

natural being). These trances, or raptures, were very much like those of a shaman communing with spirits. For example, on March 4,

1858, in the presence of a crowd estimated at 10,000 (none of whom saw the Lady), “Bernadette went into a rapturous ecstasy that lasted well over an hour in an atmosphere of fervor and peace . . .”47 Earlier, on February 24, she had put on an even more classically shamanic display to a smaller audience of around 200 (who again did not see the Lady themselves):

After a few minutes, Bernadette’s face saddened, her eyes filled with tears; then she was seen to advance on her knees into the hollow of the Grotto which opens out on the outside recess. The child conversed with the Lady who was now quite near her. She smiled. Thus, for some minutes Bernadette came and went from the outside into the interior of the Grotto; on her face tears changed into smiles and smiles into tears. Now and again she would kiss the ground.48

Just as the shaman intercedes with spirits to bring the gift of supernatural healing to his people, so we can see that Bernadette’s

encounters at Lourdes with the mysterious “Lady in the cave” led ultimately to the bestowal of a potent healing grace upon mankind. Indeed, the miracles that happen every day to ordinary human beings as they bathe themselves in the spring waters that flow forth from the Grotto seem to me to be prime examples of a very powerful and ancient kind of

“shamanic healing” in action.

I visited Lourdes on an ordinary midweek in June 2004, yet I found myself amongst more than 8,000 hopeful, damaged people, many in wheelchairs, or on crutches, or supported by friends and relatives, as they made their way painfully down the long processional avenue that leads to the great Basilica, to the Crypt where the relics of St.

Bernadette are now kept, and to the sanctum sanctorum of the Grotto itself. Night was falling, and we all held candles as we spilled into the large square in front of the Basilica. There,

volunteers marshaled us into a winding, sinuous procession that gradually and majestically coiled forward to form the glowing body of a gigantic serpent of light with its tail towards the secular world of the town and its head alreadypenetrating the otherworld of the ancient cave where Bernadette received her visions.

A tiny point of illumination amongst so many flickering sparks, I drank the waters of the healing spring, bathed my face and hands and, entering at last within the mouth of the Grotto, felt drawn to touch its craggy stone walls, worn smooth as any marble by the generations of pilgrims before me who had responded to the same instinct. I was powerfully reminded that sections of wall in many of the Upper Paleolithic painted caves, and in the rock shelters of southern Africa, are worn smooth in exactly the same way – and perhaps for exactly the same reason.

Some who have been healed at Lourdes have left written messages of gratitude inside the Crypt close to Bernadette's relics. Their

simple statements and affirmations bear witness to a form of direct experiential contact with supernatural powers that long pre-dates Christianity:

Grateful. Cured of deadly cancer 1974, John B. Flachs, Hamilton, Canada.

Merci NDL [*Notre Dame de Lourdes*] *pour avoir sauvée notre maman,* _mai 1980. _

Deep gratitude for favors obtained through our lady. M. Argier.

Thank you. Anne, Angela and Joseph Chang-Hoi Phin, June 18, 1979.

One need not remain very long at Lourdes to realize that the quest for direct intervention, help, and healing from the realm of the spirits that anthropologists most commonly associate with

shamanism in hunter-gatherer societies is still a strong force in the modern world.

Bernadette's role was fundamentally that of a shaman, and – far from being supplanted by Christianity – it is the Fairy Queen who still rules in the enchanted realm of the Grotto.

p.**The Virgin in the flying saucer**

During the course of the twentieth century, shamanic visions and encounters like those of Jeanne d'Arc and Bernadette Soubirous with entities described as "ladies in white," who were later officially co-opted by the Church as true apparitions of the Virgin Mary, seem to have occurred at a steady rate of around three per year; however, there are no figures on the number of sightings that have not been reported to the Church or that the Church rejects.49 The overlap between such direct experiences of supernaturals and the entities formerly known as fairies is obvious and, as we have seen, is often

made explicit by the visionaries themselves. It is therefore of interest that the Virgin Mary phenomenon also has strong overlaps with UFOs and the sorts of supernatural entities who might just as easily be described as “aliens.”

Limitations of space forbid a lengthy treatment here, and two brief examples will have to suffice.

The village of Knock in County Mayo, Ireland, became a world center of Christian pilgrimage after a group of “shining” beings, one of whom the Church later accepted as the Virgin Mary, appeared there on the evening of August 21, 1879. The apparition was witnessed from different sides of the field in which it occurred by three men, six women, two children, and three teenagers. What they reported would be taken as a UFO sighting today, since it began with the arrival of

“a large globe of golden light” which settled somewhat above the

grass of the field. Within the light could be seen three glowing and radiant human-like beings – two men and a woman. One of the men, construed as St. John, was said to have had the manner of a teacher and held an open book in which the lines and letters could be seen

- a common enough theme of UFO abductions and shamanic encounters with spirits. Another figure, construed by all the witnesses as the Virgin Mary, was a classic “lady in white”; her robe was described as

“strikingly white” and she wore in addition “a large white cloak.”

Bridget Trench, one of those who was there that night, rushed to embrace her feet, but found her to be non-physical:I felt nothing in the embrace . . . yet the figures appeared so full and so lifelike and so lifesize that I could not understand it and wondered why my hands could not feel what was so plain and distinct to my sight.50

Almost immediately afterwards, as at Lourdes, healing miracles began to occur at Knock and have continued to this day.51

The second example of "UFO crossover" is the so-called Miracle of Fatima in 1917. In this famous case, Lucia, Francisco, and Jacinta, three Catholic children of the small town of Fatima in Portugal, had repeated encounters over a period of six months with a mysterious supernatural being who said she was "from Heaven," and who they naturally construed as the Virgin Mary.52 Their fame quickly grew, and on a number of occasions the encounters occurred in the presence of crowds of tens of thousands of people – many of whom saw visions and reported effects identical to those associated with modern UFO sightings.

It is worth noting that before the Fatima apparitions began on May 13, 1917, Lucia, Francisco, and Jacinta had each reported other supernatural encounters. On several occasions during 1915, when she was eight, Lucia had been visited by "a transparent white cloud

and a human form." Likewise, in 1916, when they took shelter from a rain-storm in the mouth of a cave near Fatima, all three of the children had a close encounter with a being who they construed as an "angel."53

He appeared to them initially as a bright light, "whiter than the driven snow," amidst a strong wind that shook the trees above their headsa description that could apply to many modern UFO sightings.

Coming closer, he then revealed himself in the form of "a young man, transparent and resplendent with light."54

All the subsequent Virgin Mary apparitions that the children experienced between May 13, 1917 and the miraculous climax of these events on October 13, 1917 took place in a wide, amphitheatre-like meadow near an ancient sacred spot called *Cova da Iria* (the Cave of St. Irene).

On the first occasion, the children were tending their sheep in an adjoining pasture when they saw a blinding flash of light over *Cova da Iria*. They ran towards the light, which hovered above a tree, andin its midst they saw the figure of “a little woman” who instructed them to return every month to the same place.55

On June 13, 1917, a crowd of 50 spectators gathered in the hope that the Virgin Mary would appear again as promised. Though none were rewarded with visions of the Virgin themselves, they did see the children transported in shamanic ecstasy, while Lucia, the eldest of the three, appeared to address an unseen entity. Only Lucia could hear the Virgin’s replies, although one member of the crowd reported being aware of a very faint voice like the buzzing of a bee56 (such buzzing sounds are often associated with shamanic altered states of consciousness and are frequently construed as bees). At the end of the dialogue, all witnesses heard a loud bang and reported the presence of a small cloud surrounding the tree

above which the children had seen the Virgin.57

On July 13, 1917, more than 4,000 witnesses were present for the third apparition and reported phenomena that Jacques Vallee regards as "specific enough to be compared to UFO data."58 As on the second occasion, these phenomena included "a buzzing or humming sound, a decrease in the Sun's glow and heat, a small whitish cloud about the tree of apparitions, and a loud noise at the Lady's departure."59

On August 13, 1917, the children were not present to witness the scheduled appearance of the Virgin, as they had been imprisoned by a local official who believed the whole thing to be a hoax. They were released by a mob later the same day, but in the meantime the 18,000

people who had gathered in the meadow at *Cova da Iria* heard a loud explosion followed by a bright flash and saw a small white

cloud gather about the tree before dissipating a few moments later. Nature took on psychedelic tones. Clouds in the sky changed color in weird ways, rapidly alternating from crimson, to pink, to yellow, to blue. Witnesses spoke of "colored light, like a rainbow on the ground," of "clouds around the sun reflecting different colors on the people," and of

"flowers" falling from the sky. Manuel Pedro, one of the eyewitnesses, reported *una especie de globo luminoso girando nas nuevas* – "a luminous globe spinning through the clouds."60

Alongside a crowd of 30,000, two Jesuits who had come to debunk the apparitions witnessed the events of September 13, 1917. By the endof the day they were skeptics no longer, convinced of everything the children claimed. In their report, they describe how "a globe of light was seen by all, advancing slowly down the valley, from east to west, toward the children," how it came to rest on the tree where the Virgin always appeared, how a white cloud formed, and how

“petals” began to fall from the sky:

As the people stare at this strange sight they soon notice that the falling, glistening globules, contrary to the laws of perspective, grow smaller and smaller as they near them. And when they reach out their hands and hats to catch them they find they have somehow melted away.61

It would be hard to think of a better description of a hallucinatory fog of entoptic dots and dashes raining down from the sky. Meanwhile, the three children were in touch with the figure of the little woman inside the globe of light, and received a communication from her – on October 13, a miracle would occur. The globe then ascended and vanished into the sun.62 Afterwards, one of the priests described it as “a heavenly vehicle that carried the Mother of God from her throne above.”63

The final apparition, on October 13, 1917, was attended by a crowd

of 70,000, none of whom saw the Virgin or heard a word she said to the children. What all the spectators did see was “the miracle”: “a revolving, multicolored disk in the sky which plunged downwards and then, again, upwards into the sun.”64 This large flying disc, which many believed would crash into their midst, was described at the time as having pursued a zigzag course – the characteristic “falling-leaf trajectory” of UFO sightings, as Jacques Vallee points out.65 Another intriguing parallel is that a witness who studied the disc with binoc-ulars reported seeing “a ladder and two entities” emerging from it.66

As had been the case at Lourdes, and as at Knock, there was a shamanic aftermath to the apparitions at Fatima: hundreds of people with previously life-threatening illness reported miraculous, spontaneous cures.67

p.**Ezekiel on ayahuasca?**

Much more evidence could be given of the shamanic vestiges, active shamanic practices, and unmistakably shamanic experiences wrapped up in modern Christianity, but this is not intended to be a comprehensive survey of these ancient influences on any one religion. My purpose is rather to convey to the reader the broader truth, suggested earlier, that if we scratch the surface of *any* religion deeply enough we will sooner or later come to shamanism and to the distinctive supernatural realms, beings, and phenomena that shamans everywhere encounter in their visions.

Before Christianity there was Judaism, and before the New Testament there was the Old Testament. In these more ancient sources, too, shamanic allusions, supernatural beings, and visionary flying discs abound.

We have already seen in Chapter Eight the direct comparison made in 1958 by the psychologist Carl Gustav Jung between the so-called "wheels of Ezekiel" and modern UFOs. The Old Testament

description (Ezek I: 4â19) involves a whirlwind and fire, as well as mysterious creatures on board great wheels that “lifted them up from the earth.” In 2003 Benny Shanon, Professor of Psychology at the Hebrew University in Jerusalem, drew attention to these same verses in the Book of Ezekiel, but from a different – though by no means contradictory – perspective. In his view, they describe hallucinations very similar to those seen under the influence of ayahuasca. The reader will recall that Shanon has himself consumed ayahuasca more than 130 times and is well qualified on this subject, having, in addition, interviewed hundreds of other users and collated their reports.

He points out that

Ezekiel opens his text with noting that the heavens opened. Many powerful ayahuasca visions present the same pattern. Like Ezekiel who recounts that “the heavens opened, and I saw visions of God” [Ezek I:1], drinkers of the brew report that the heavens opened and

celestial and heavenly scenes were revealed to them.68

p.Shanon argues that the descriptions of light and fire in Ezekiel parallel ayahuasca visions.69 Additionally:

The materials prevalent in ayahuasca visions are gold, brass, gilded wood, crystal (especially palaces of crystal), precious stones and fine textiles. In the Ezekiel vision gold and textiles are not mentioned. Apart from these, all the materials common in ayahuasca visions are encountered in Ezekiel. Furthermore, all the materials mentioned in the Ezekiel vision pertain to the set of materials commonly seen in ayahuasca visions.70

Large revolving wheels and disembodied eyes are other features common to Ezekiel and to ayahuasca visions,71 as are therianthropes: The creatures described in Ezekiel have four faces – those of a human being, a lion, a bull and an eagle. Furthermore, while having “the likeness of a man,” these creatures were winged

and their soles of feet were those of a calf. *Chimeras* (in the extended sense of the term) or *hybrid* creatures – that is, creatures which are half-human, half-animal – are very common in ayahuasca visions. Such creatures encountered in the corpus I have collected include hybrids of, on the one hand, humans and, on the other hand, fish, felines, reptiles, birds, and canines. Also frequent are creatures who ordinarily do not have wings but in the visions do – e.g. winged horses and winged elephants. In my corpus there are also several instances of creatures with multiple faces. Usually, these creatures are encountered in heavenly scenes in which the ayahuasca drinker [as was the case with Ezekiel] feels that some ultimate secrets are being revealed to him or her . . .72

To cut a long story short, Shanon puts forward a tentative hypothesis that the origins of the Hebrew religion are rooted in experiences of this sort (Moses' "burning bush" vision is another archetypal example) made possible – as they still are today in the

Amazon – by the consumption of psychoactive plants. He points out that combinations of acacia (*Mimosa tortilis* and *Mimosa raddina*) with *Peganum harmala* (the plant known as Syrian rue) "produce a biochemicalconfiguration identical to that produced by the Amazonian plants of which ayahuasca is made."73

Since the relevant acacia and Syrian rue species grow widely in several arid areas of the Middle East, including the Land of Israel, the Sinai Peninsula, and Mesopotamia, Shanon argues that hallucinatory experiences arising from the use of these plants cannot be ruled out and are, on the contrary, strongly indicated by the character of many of the visions reported in the Old Testament.74

Drugs and genuine religious experiences

It is Benny Shanon's controversial view that "all the paradigmatic characteristics of the mystical experience are encountered with ayahuasca

. . .”75 He also asks if the “meaning and value of religious and spiritual experience induced by the ingestion of psychoactive agents” are

“compar able to the experiences of mystics attained without external agents,” and replies: “My empirical study of ayahuasca leads me to answer with a categorical ‘yes.‘“76

It may at first seem absurd that anything like a genuine religious experience could be induced by activities as simple and apparently as materialistic as eating, drinking, or smoking certain species of plants.

But we should feel less surprised when we remember that the plants in question contain chemicals intimately related to brain hormones and neurotransmitters such as dopamine and serotonin. Although the neurological details are difficult to grasp, the fact is that these chemicals, and others like them, are intrinsic to *all* the functions of

our brains, while our brains in turn are involved in *everything* we experience – even if we choose to define some of those experiences as real and some as non-real. Whether we like it or not, in other words, and whether or not we augment them or tinker with their balance in any way, it is beyond serious dispute that these chemicals *already* play a fundamental role in spontaneous (i.e., non-drug-induced) religious experiences. And since such spontaneous experiences occasioned by brain chemistry are regarded as genuine, then there is no reason why the deliberate induction of the same brain chemistry with hallucinogens should result in experiences that are any less genuine.

p.It was for this exact reason that Aldous Huxley, who had no doubt of their mystical and religious value, often referred to hallucinogens as "gratuitous graces."77 Those of us reared in puritanical moral climates might feel that we cannot possibly deserve something so wonderful and enlightening as a religious experience without

working and suffering for it, but this is not a logical position. Besides, no matter how powerful the hallucinogen we may consume, the truth is that we will *not* have a religious experience with it unless we have prepared ourselves properly and have indeed made ourselves in some way deserving.

Huston Smith, the renowned American scholar of religions, agrees that many drug experiences may be entirely lacking in religious features: "They can be sensual as readily as spiritual, trivial as readily as transforming, capricious as readily as sacramental."78 Nevertheless, he reports recent research which demonstrates that under the right circumstances with properly prepared subjects, drugs can and do induce religious experiences that are indistinguishable from such experiences that occur spontaneously . . . The way the statistics are currently running, it looks as if from one-fourth to one-third of the general population will have religious experiences if they take certain drugs under naturalistic conditions . . . Among

subjects who have strong religious proclivities, the proportion of those who have religious experiences jumps to three-fourths. If such subjects take the drugs in religious settings, the percentage soars to nine out of ten.79

I feel compelled to re-emphasize at this point that my full acceptance of the role that brain chemistry plays in consciousness does not mean that I think brain chemistry *causes* consciousness or that religious experiences – whether or not induced by hallucinogens or other means – are necessarily "made up" in the brain. I see no evidence for such reductionism. The alternative model that I have adopted throughout this book is of the brain as a biochemical and bioelectric *receiver* that may be "retuned" by a variety of techniques to allow attention to be paid to other levels of reality not normally accessible to our consciousness. Those "retuning" techniques include the use ofhallucinogenic drugs combined with the skilful manipulation of the

“set” and “setting” of participants to generate maximum sensitivity and openness on their part.80

Inspired by the progress that David Lewis-Williams has made cracking the visionary code of Upper Paleolithic cave art, more and more scholars are coming to suspect that the answers to some of the greatest mysteries of antiquity may lie in further research into the role of hallucinogens in triggering spiritual experiences. It seems that very often those experiences were sought in theatrically staged subterranean settings, selected, like the caves themselves, to maximize visionary

“retuning” of the brain. Specific suggestions have been made on the basis of large bodies of convincing evidence that the religions of ancient Greece, ancient India, ancient Egypt, and the ancient Maya of Central America – to name but a few – were rooted and grounded in direct spiritual experiences that the devotees themselves attained through the use of psychoactive plants. If this is so, then one would

expect to find many strong shamanistic traces in all of these religions.

Perhaps not surprisingly, it turns out that we do, and that in a number of cases it is even possible to identify the specific hallucinogens that were used.

The end of life and its god-sent beginning Barely half an hour's drive outside the modern city of Athens lies the ancient shrine of Eleusis, humbled and in ruins now but once the center of the most famous "mystery cult" of antiquity, dedicated to the myth of Demeter and Persephone. The myth tells the story of Demeter's journey to the underworld to claim back from death the soul of her daughter Persephone – a shamanic mission that honors the forces of life, rebirth, and regeneration. So vital were these forces held to be that once a year, in our month of September, thousands of pilgrims from all parts of Greece used to converge on Eleusis, where it was believed that the living Persephone had burst forth from the earth.

The terminus of their journey was the great Telestrion, the darkened Hall of Initiation, with its forest of columns, focused around an inner enclosure known as the Anaktoron, from which, at the climaxof the ceremonies, a figure apparently materialized “in the midst of a great light.”81 The figure was often construed as that of Persephone

“returning from the dead with her new-born son conceived in the land of death.”82

It is hard work to discover anything else about the visions that the pilgrims saw at Eleusis. The shrine was astonishingly successful at guarding its mystery over a period that some authorities suggest may have been as long as 2,000 years of continuous functioning, before it was finally closed by Christian diktat in the fourth century AD.83

Hundreds of thousands passed through its gates down the ages,

including some of the most famous names of Classical Greece, such as Plato, Aristotle, and Sophocles, but almost everyone stayed very quiet about what they had seen – which, indeed, they were obliged to keep secret "on pain of death or banishment."84 We have few specifics, therefore, but from many of the pilgrims there have survived more general reports telling us that the rituals at Eleusis and the visions seen there were transformatory, and that afterwards they were never the same as before. Very commonly, they claimed to have utterly lost their fear of death and to be prepared for life beyond it in the land of shadows. In the words of Sophocles after his initiation at Eleusis:

"Thrice happy are those of mortals, who having seen those rites depart for Hades; for to them alone is granted to have a true life there. For the rest, all there is evil."85 The poet Pindar likewise said that what he had seen validated the continuity of existence beyond the grave, and that he had learned great truths from his experience at

Eleusis:86 “Happy is he who, having seen these rites, goes below the hollow earth; for he knows the end of life and he knows its god-sent beginning.”87

As archaeologist George Mylonas puts it, when we read these and many other similar statements by the great and nearly great of the ancient world:

We cannot help but believe that the Mysteries of Eleusis were not an empty, childish affair devised by shrewd priests to fool the peasant and the ignorant, but a philosophy of life that possessed substance and meaning and imparted a modicum of truth to the human soul. That belief is strengthened when we read in Cicero that Athens has givennothing to the world more excellent or divine than the Eleusinian Mysteries. Let us recall again that the rites of Eleusis were held for some two thousand years; that for two thousand years civilized humanity was sustained and ennobled by those rites. Then we shall be able to appreciate the meaning and importance of

Eleusis . . .88

Mylonas was certain that the shrine succeeded so spectacularly for so long because it "satisfied the most sincere yearnings and deepest longings of the human heart"89 – but neither he nor anyone else, when he wrote these words in 1961, really had the faintest idea *how* it managed to pull off a trick like that. It's all very well to hint that it must have had something to do with "a philosophy of life," but a philosophy takes time to absorb, while it is clear that what all the pilgrims were struck and transformed by at Eleusis was a powerful and immediate *experience* that they went through during their night inside the Telestrion and that seems to have included visions seen, sounds heard, and supernatural beings encountered.

The oath of secrecy, and the passage of thousands of years, means that the pickings are thin in the relatively limited range of primary sources on Eleusis that have come down to us. Nevertheless, scattered here and there, some clues have survived that have helped

researchers build up a clearer picture of what was really going on inside the Telestrion. Aristotle confirms that it was “an experience rather than something learned.”90 The pilgrim Sopater tells us that he saw a *schema ti*, “a form or appearance of some kind hovering above the ground.”91

Plato was perhaps a little more explicit when he spoke of *phantasmata* or ghostly apparitions, while Pausanias records that the initiation hall

“became filled with spirits.”92 Also relevant are the physical symptoms reported by many:

fear and trembling in the limbs, vertigo, nausea, and a cold sweat. Then there came the vision, a sight amidst an aura of brilliant light that suddenly flickered through the darkened chamber. Eyes had never before seen the like . . . The division between earth and sky melted into a pillar of light.93

p.**Spot the hallucinogen**

What are we to make of this distinctive constellation of symptoms combining spectacular visions with physical malaise? Carl A.P. Ruck, Professor of Classical Studies at Boston University, is in no doubt: Clearly an hallucinatory reality was induced within the initiation hall and since at times as many as three thousand initiates, a number greater than the population of an ordinary ancient town, were afforded such a vision annually on schedule, it would seem obvious that some psychotropic drug was involved.94

Together with the world-famous mycologist R. Gordon Wasson, and Albert Hoffman, the discoverer of LSD, Ruck was the third member of a team of eminent scholarly detectives who spent much of their spare time during the first half of the 1970s trying to solve the mystery of Eleusis. They drew attention to the well-documented fact that on entering the Telestrion every pilgrim was obliged to drink

“a special potion, the *kykeon*, that was an essential part of the Mystery.”95

Could the potion have been psychedelic? Fortunately, its ingredients are recorded in a Homeric hymn to Demeter dating to the seventh century BC, so we ought to be able to find out. At first glance they don’t look anything like hallucinogens, being listed rather innocently as barley (*alphi*), water, and mint (*glechon*).96 However, Gordon Wasson, the mycologist on the research team, knew that barley and other wild and cultivated grasses often support a fungal parasite called ergot that does contain hallucinogenic alkaloids. Indeed, it was from precisely the same fungus that Albert Hoffman had first synthesized LSD in 1943. Hoffman tells the story as follows:

In July 1975 I was visiting my friend Gordon Wasson in his home in Danbury when he suddenly asked me this question: whether Early Man in ancient Greece could have hit on a method to isolate

an hallucinogen from ergot which would have given him an experience comparable to LSD or psilocybin. I replied that this might well havebeen the case and I promised to send him, after further reflection, an exposition of our present knowledge on the subject.97

It took Hoffman two years and much laboratory work to complete his task, since ergot-contaminated rye was known as a dreaded poison in the Middle Ages and he had to satisfy himself that it would have been possible for the priests of Eleusis to isolate the hallucinogenic alkaloids from the toxic and deadly ingredients. What he discovered is that ergonovine and lysergic acid amide, the two principal hallucinogens in ergot, are both water-soluble, whereas the poisonous alkaloids such as ergotamine and ergotoxin are not. Throughout Greece ergot is a parasite of barley, which we know was one of the ingredients of the *kykeon*, and in Hoffman's opinion it would have been relatively easy for the priests to extract

the visionary alkaloids: “The separation of the hallucinogenic agents by simple water solution from the non-soluble ergotamine and ergotoxin alkaloids was well with the range of possibilities open to Early Man in Greece.”98

Although the priests of Eleusis were dedicated in particular to the cultivation of wheat and barley in the name of Demeter, goddess of grains, Hoffman points out that an even easier method than washing contaminated barley was available to them. *Paspalum distichum*, a wild grass that grows throughout the Mediterranean basin, supports *Claviceps paspali*, a species of ergot

which contains only alkaloids that are hallucinogenic and which could even have been used directly in powdered form . . . In the course of time the hierophants could easily have discovered *Claviceps paspali* growing on the grass *Paspalum distichum*. Here they would be able to get their hallucinogen direct, straight and pure. But I mention this only as a possibility or a likelihood, and not

because we need *P. distichum* to answer Wasson's question . . . The answer is yes. Early Man in ancient Greece could have arrived at an hallucinogen from ergot.99

Any remaining doubt that the sacred potion of Eleusis was indeed a psychoactive brew was dispelled when the researchers came across evidence of a

p.notorious scandal . . . uncovered in the classical age, when it was discovered that numerous aristocratic Athenians had begun celebrating the Mystery at home with groups of drunken guests at dinner parties.100

The revelers included Alcibiades, the brilliant but unscrupulous politician and military commander who was convicted of profaning the Eleusinian Mysteries in 415 BC and defected to Sparta rather than face the death penalty.101 As well as showing the seriousness with which such matters were treated by the Athenian authorities,

the significance of this story lies in what it tells us about the true nature of the visionary experiences at the heart of the Mysteries. We now know that these experiences were not exclusive to the sacred precincts of Eleusis, but could even be enjoyed at private dinner tables by the simple expedient of drinking the *kykeon*.102 The conclusion that they were drug experiences is more or less inevitable, as is the obvious parallel with the modern recreational use of once sacred plant hallucinogens.

Last but not least, it is surely significant that Demeter herself, the goddess of Eleusis, was sometimes known by the name of *Erysibe*, which means, literally, "ergot,"103 while we read three times in the Hymn to Demeter that her robes were "purple dark," the color of the fruiting bodies of ergot.104

For all these reasons, and many more, Professor Ruck concludes:

"I and my colleagues interpreted the Eleusinian mysteries as

communal shamanic ceremonies involving the ingestion of drugs.”105

The mystery of soma

As becomes apparent under modest magnification, “fruiting bodies”

of ergot are in fact clusters of tiny purple mushrooms.106 Another much larger species of mushroom, *Amanita muscaria* – the fly agaric – has been identified by the mycologist R. Gordon Wasson, together with Indologists Stella Kamrisch and Wendy O’Flaherty, as the most likely candidate for the mysterious soma, the famous consciousness-altering drug of ancient India’s Vedic scriptures.107

The Rigveda, the oldest of the four Vedas that stand at the root of modern Hinduism, is thought to date back more than 3,000 years andperhaps a great deal longer. It describes soma as a god, as a plant, and as a beverage extracted or pressed from that plant.108

The Vedas run to millions of words, and tens of thousands of them are devoted to soma, but we need only cite a few lines here to convey the sense of its hallucinogenic attributes and its unmistakably shamanic undertones: Like currents of wind, the drinks have lifted me up. Have I not drunk soma?

One of my wings is in heaven, the other trails below. Have I not drunk soma?

I am huge, huge! Flying to the clouds. Have I not drunk soma?109

In the navel of the earth [is situated soma], which is also the main-stay of the sky.110

The filter of the burning [soma] has been spread in heaven's home. Its dazzling mesh was spread afar . . .111

We have drunk the soma, we are become Immortals, we have

arrived at the Light, we have found the Gods.112

The identity of the original soma plant had long been forgotten by Hindus by the beginning of the historical period. The problem first came to the attention of Western scholars in 1784, when it was mentioned in a note to a translation of the Bhagavad Gita, and has been the subject of heated discussions ever since. Wasson's evidence linking soma to the hallucinogenic fly agaric has, however, proved the most convincing. Briefly:

• The Vedic descriptions of the soma plant make no mention of leaves, roots or branches;113 a mushroom best fits this bill.

• The Vedas frequently refer to soma as *aja ekpad* (literally "not-born, one-foot"). This strongly suggests a mushroom, "which, springing up mysteriously and without seed could be said to be 'not-born.'

p.Likewise, if thought of anthropomorphically, its stipe (stem) could be conceived of as ‘one-foot.‘“114

• Soma’s color is sometimes described with the word *hari* in the Rigveda, meaning bright red to tawny brown. Bright red is the color of fresh fly agaric, while the dried mushrooms are tawny brown.115

• It is very likely that the mushrooms were preserved dried (in which state they anyway undergo certain chemical reactions that make them more potent) and when needed were rehydrated with water, milk, or ghee before being “pressed” out, just as described in the soma ritual.116

• The word most frequently used in the Rigveda to describe the effects of soma has “a range of meanings including delight, intoxication, and inspiration. It also refers to the heavenly bliss of the gods and ancestors and is, in the context of soma, best translated and interpreted as rapture or elation.”117

Much other evidence too detailed to enumerate here is also cited.

But even setting aside all this, there is one passage in Rigveda IX:74

which on its own appears to contain sufficient detail to vindicate Wasson's thesis that soma is *Amanita muscaria*. The passage reads as follows:

Soma, storm cloud imbued with life, is milked of ghee, milk. Navel of the Way, Immortal Principle, he sprang into life in the far distance.

Acting in concert, those charged with the Office, richly gifted, do full honor to soma. The swollen men urinate the on-flowing soma.118

The reason that the Vedic image of priests with swollen bladders pissing out "the on-flowing soma" is so firmly diagnostic of

Amanita muscaria is that the fly agaric is the only psychoactive plant that retains, or even strengthens, its activity after being passed through the “filter”

of the human digestive system. It can thus be said quite accurately to flow onwards into urine. Wasson’s wide research on hallucinogenic fungi throughout the world had taken him on field trips amongst the shamans of Siberia long before he became interested in India, and he was therefore very well aware that in Siberia:He who drinks the juice of the hallucinogenic mushroom saves his urine, and others drink this urine with inebriating effect, perhaps heightened, for there is reason to think that certain nauseating ingredients in the original mushroom are filtered out in passing through the human organism. This use of the urine can be repeated over and over again, it is said, until it has passed through five human bodies, when at last it loses its virtue.119

Wasson further points to other passages in the Rigveda in which the

god Indra is said to drink soma, “pissing it out day by day,” and in which the mythical Rudras in the shape of horses seem to have pissed soma likewise.120 But this is all very curious, unless we are prepared to accept that an ancient hallucinogenic cult exploiting the well-know shamanic virtues of the fly agaric mushroom provided the visionary spark out of which the Vedas first emerged fully formed in remote prehistory. Wasson’s logic is, in my view, impeccable: When one drinks tea, or coffee, or milk, or beer, one later urinates, not tea, coffee, milk or beer, but urine. Why does Indra, why possibly do the Rudras, urinate soma? How did the Vedic priests learn that soma-urine was also soma unless they had drunk it?121

A vital role

Professor David Lewis-Williams, the originator of the neuropsychological theory of cave art, has faced stiff resistance from a faction of archaeologists who appear to object *in principle* to

the notion that the first religious experiences of our ancestors were induced by hallucinogens. It is not surprising, therefore, that there has been hostility towards those scholars like Gordon Wasson, Albert Hoffman, and Karl Ruck who have argued that shamanic plants and practices continued to play a vital role long after the prehistoric period was over and are directly implicated in the genesis of all the great historical religions.

I have already made it clear that my purpose here is to sketch out rather than to record in detail the shamanic and hallucinogenic themes that weave their way continuously through the entire fabric of humanreligion since it first manifested its presence in the painted caves and rock shelters 35,000 years ago. There is neither space nor need to trace these threads in every religion, but it will repay our effort to look a little more deeply in the next chapter at the case of ancient Central America, where the spiritual role of hallucinogens has never been in doubt, and the case of ancient Egypt, where the

most elaborate steps were taken to induce altered states of consciousness, and the most sublime and mysterious shamanic religion of historical antiquity was practiced.

Chapter Sixteen

Flesh of the Gods

The high civilizations of ancient Egypt and of the ancient Maya maintain an air of occult mystery. We would like to know what made them tick, get inside their souls. We are familiar with their numinous religious art and its capacity to transport us to other realms.

We have experienced the magnetism of their majestic and extraordinary sacred architecture. We have read their surviving scriptures.

Even so, full understanding remains elusive. We sense that they were engaged in the exploration of some tremendous mystery, and

much suggests that it had to do with the quest for life after death, but our prevailing scientific biases make it hard for us to accept that they could ever have had any realistic hope of attaining their desired goal of immortality.

The ultimate origins of these great and mysterious religions of antiquity, one in the Old World, one in the New, are lost in time, but it is certain that at some stage, and for a very long while, shamanism, the techniques of shamanism, the experiences of shamanism, and the discoveries of shamanism played a central role in the evolution of both of them.

As I make this statement, I can already hear the academic critics, who have digested many books but few hallucinogens, protesting that what went on amongst the ancient Egyptians and the ancient Maya cannot be described as shamanism because their societies were urbanized, sophisticated, etc., etc., and shamanism is the religious domain of hunter-gatherers. But we have been through

these arguments before.

p.Shamanism is not confined to specific socio-economic settings or stages of development. It is fundamentally the ability that all of us share, some with and some without the help of hallucinogens, to enter altered states of consciousness and to travel out of body in non-physical realms – there to encounter supernatural entities and gain useful knowledge and healing powers from them.

The hero twins, Osiris, and the journey of the dead We have seen again and again in previous chapters how it is diagnostic of the shamanic initiatory trance that it should involve a spiritual ordeal – often construed as an otherworld journey culminating in tortures of piercing, dismemberment, and skeletonization followed finally by the "rebirth" of the newly energized and empowered shaman.

The Popol Vuh, a book of the ancient Quiche Maya of Guatemala that survived the Conquest and the Inquisition, tells just such a story

when it describes the descent of the hero twins Huhnapu and Xbalanque into the netherworld, Xibalba, sometimes depicted as a true underworld and sometimes as a “nocturnal celestial dome over the earth.”1 Interestingly, the twins’ adventure begins when they are abducted from their home by the “messengers” of Xibalba – supernaturals described as owls whose “horrible faces frightened people.”2

The reader will recall from Chapter Six that fearsome-looking owls play a role as spirit messengers in other shamanic cultures, that images of owl therianthropes are found in the painted caves of Upper Paleolithic Europe, and that modern UFO abduction experiences frequently begin with the appearance of owls with huge black eyes.

As is usually the case with shamans in altered states of consciousness, Huhnapu and Xbalanque transform themselves into therianthropes in order to confront the perils of the spirit realm and

are shown in Mayan art with patches of spotted jaguar skin on their faces and bodies.3 We need not rehearse here the many trials, travails, and tortures that they undergo in such places of supernatural terror as “the Dark House,” “the Rattling House,” “the Jaguar House,” “the Bat House,” and “the Razor House.”4 At the end of it all, finally and predictably, they allow themselves to be defeated by the evil spirits of

The hero twins

(drawing by Karl Taube)

Xibalba5 – the shaman's classic "submission to a higher order of knowing."6 They are then "cooked in an oven and their bones ground and tossed into the river."7

Needless to say, a very similar fate was experienced by many of the shamans from all around the world whose accounts we examined in earlier chapters, and, like those shamans, Huhnapu and Xbalanque were naturally reborn after an interval and returned with supernatural powers to vanquish wickedness and disease amongst their people and to heal the earth.8 For these reasons, the anthropologist Michael Ripinsky-Naxon believes that "Xibalba actually means the Otherworld as perceived through shamanistic visions."9

We may also make a direct comparison here with the well-known story of the god Osiris, in ancient Egypt, who was killed and hacked

to pieces by his brother, the evil god Set – always depicted as a therianthrope with a human body and the head of an unknown animal with distinctive ears and a long snout. Set buried the 14 parts of the dismembered body throughout the land of Egypt, but then the Goddess Isis retrieved them and with her magic brought Osiris back to life for long enough to engage him in copulation and conceive their child – the hawk-headed therianthrope Horus. Thereafter Osiris became king of the afterlife-realm known as the Duat, through which the souls of the dead must journey after death.

In ancient Egyptian cosmology, this realm was not located underground, but in the sky – as are many shamanic netherworlds. Indeed, as Robert Bauval and I have shown in previous books, the Duat was viewed quite specifically as the sky region, divided by the Milky Way,lying between the constellations of Orion and Leo. The figure that we call "Orion" was identified directly with Osiris.10

The Maya were interested in exactly the same region of the sky, and

connected it to similar ideas of afterlife journeys and spiritual rebirth.

On a mural in the Temple of the Foliated Cross at the Mayan site of Palenque in Mexico's Chiapas province, we see the Milky Way represented by a maize tree rising from "the place of Creation near Orion."11

The Milky Way is flanked by two figures – the spirit of Lord Pacal, the deceased former ruler of Palenque, and his son and successor Chan-Bahlum, who are shown in shamanic communion with one another.

As the father ascends to the heavens, the son is transformed from "the status of heir apparent into king."12 At the same time, it is understood that the deeds and rituals performed by the son are essential if the father's hoped-for rebirth amongst the stars is to be achieved. Indeed, this is the whole point and message of the mural –

a message that has been described by David Friedel, Linda Schele and Joy Parker as

“the central mystery of Maya religion.”13

It is extremely curious that an identical mystery lies at the heart of the ancient Egyptian royal rebirth cult in which the deceased pharaoh is cast in the role of Osiris and the pharaoh-to-be plays the role of Horus, the son who assures his father’s rebirth in the spirit world.14

In Egypt, as amongst the Maya, the stellar context involves Orion and the Milky Way. In Egypt, as in Mexico, a journey through the netherworld must be undertaken by the deceased.15

A key shamanic function in virtually every culture where shamanism has been studied is that of the psychopomp, guiding the souls of the dead. In ancient Egypt this function was memorialized

in permanent form by the so-called Books of the Dead, which serve as Baedekers for the soul's journey through the Duat netherworld. As we will see later, these remarkable texts, which we cannot doubt are direct records of the *experiences* of shaman priests on out-of-body journeys in deeply altered states of consciousness, instruct the deceased on how to overcome the dangers of the afterlife journey, enable him to assume the form of several mythical creatures, and equip him with the passwords necessary for admission to the various stages, or levels, of the scary parallel universe called the Duat.

p.

Is it a coincidence, or is it because the same parallel universe could be accessed by all humans in an appropriately altered state of consciousness, that the peoples of ancient Central America preserved a similar vision of the perils of the afterlife? There the netherworld was said to consist of nine strata through which the deceased would journey for four years, overcoming dangers and obstacles on the way.16 In both ancient Central America and ancient Egypt, it was believed that certain segments of the deceased's afterlife voyage were made in a boat accompanied by "paddler gods" who ferried him from stage to stage.17 The tomb of Double-Comb, an eighth-century ruler of the Mayan city of Tikal, was found to contain a representation of this scene.18 Similar
Stingray

Iguana

Spider

Dead

Parrot

Kankin

paddler

monkey

king

dog

Jaguar

paddler

Paddler gods in the barque of Double-Comb, who ruled the Mayan city of Tikal in the eighth century (drawing by Linda Schele © David Schele, courtesy FAMSI).

images appear throughout the royal tombs in ancient Egypt's Valley of the Kings.19 The passengers in the canoe in which Double-Comb makes his final journey include deities in the form of a dog, a bird, and a monkey. The passengers in the barque of the dead pharaoh frequently include Horus, who has the head of a bird, Upuaut, the

"Opener of the Ways," who has the head of a dog, and Thoth, the god of wisdom, who sometimes appears in the form of an ape and sometimes as a bird-headed therianthrope (an ibis).20

Baby Jaguar

In the Americas, there is firm archaeological evidence dating back almost 10,000 years for the use of hallucinogenic plants to alter

consciousness, and there is no doubt whatsoever, as we will see, that

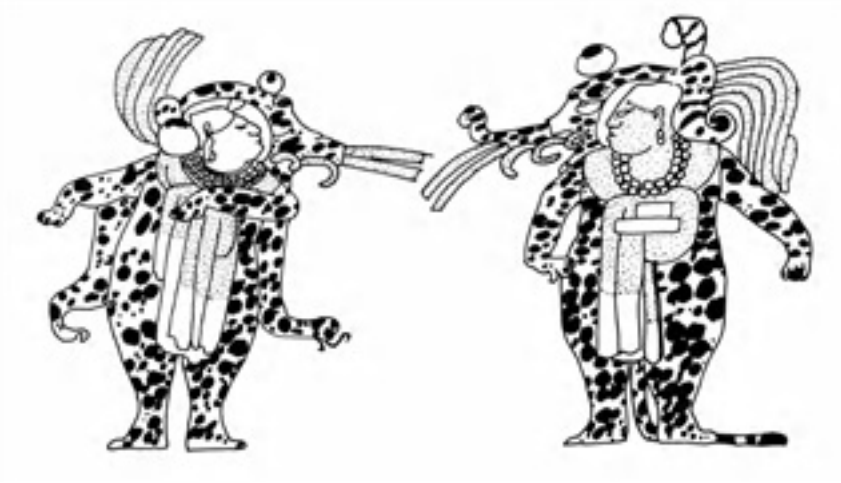

the Maya were sophisticated users of hallucinogens with an extensive shamanic pharmacopoeia at their disposal. As virtually every chapter of this book has demonstrated, visions of therianthropes – half-man, half-beast hybrids – are amongst the imagery most consistently seen in altered states of consciousness. It is therefore only to be expected that Maya art should feature therianthropic transformations – as indeed it does, very frequently in specifically visionary contexts.

Thus, for example, certain painted murals from the Classic period show strange ceremonial dances which scholars believe "combine the Transformation into jaguars (left) and monsters (right) in shamanic pageants of the ancient Maya (drawings by Linda Schele © David Schele, courtesy FAMSI) dynamics of pageants with the mystical transformation of human beings into supernaturals by means of visionary trance."21 The dancers are shown just as we know that shamans all around the world still experience themselves

today – i.e. partially transformed into animals such as jaguars and birds of prey, and in some cases into fantastic Mayan lord entering hallucinatory state

reaches for vision-serpent emerging

from the conch shell in front of him

(drawing by Linda Schele © David Schele,

courtesy FAMSI)

p.

monsters.22 Similarly, a carved conch shell shows a Maya aristocrat of the Late Classic period (around AD 600-800) smoking a thin hallucinogenic cigar. Out of the back of his elongated skull, a second head appears to grow – that of a deer – and he reaches for a "vision-serpent"

emerging from the conch shell in front of him.23

Gigantic rearing "vision-serpents" with the bodies of huge snakes and human heads are a repeated theme of Mayan art of all periods.24 Again Vision-serpent and penitent (drawing by Ian Graham) they are frequently presented in contexts that leave little

doubt that altered states of consciousness were involved, since associated human figures are often shown smoking or otherwise consuming hallucinogens, or self-torturing – another tried-and-tested shamanic technique for inducing visions. The Celestial Monster of Maya cosmology is a The Celestial Monster, a hybrid of human, reptilian, and animal parts (drawing by Linda Schele © David Schele, courtesy FAMSI)

hybrid of many reptilian and animal parts. It has two heads, one of which is fully human.25 J. Eric Thompson, the leading authority on Mayan religion, notes that most Mayan gods “show a blending of human and animal forms . . . The god of number nine, for instance,

borrows both snake and jaguar features" – the latter in the form of feline whiskers and spots on his otherwise human chin.26 Similarly, the Mayan divinity known to archaeologists as God III "walks and acts like a human" but is depicted fully transformed into a jaguar with a water-lily blossom or leaf (the hallucinogenic significance of which we will come to in a moment) placed on top of his head. Supposedly brought to life by the God III, a jaguar who walks and acts like a human (drawings by Linda Schele ©

David Schele, courtesy FAMSI).

Water-Lily Jaguar

(drawing by Linda Schele ©

David Schele, courtesy FAMSI).

mating of a human mother and a spirit-jaguar father,27 his other

manifestation, particularly common in the Early Classic period, is in the very peculiar form of “Baby Jaguar”: “His features are subject to some vari-ation, although he is always anthropomorphic. His feet and hands may be human or feline, but he always has a jaguar tail.”28

p.

God III manifesting as Baby Jaguar (drawings by Linda Schele © David Schele, courtesy FAMSI)

Baby Jaguar is a reminder of how ancient such hallucinatory notions of spirit-human hybrids are in the amazing prehistoric religions of Central America. Before the Maya, going back some 3,000 or 4,000

years, we come to an even more mysterious people who built pyramids in the jungles along the Gulf of Mexico in what are now the states of Veracruz and Tabasco. Known to archaeologists as the Olmecs, they frequently depicted themselves in sculptures as human beings Olmec jaguar-human therianthropes

partially transformed into jaguars; very often, baby were-jaguars were shown.29 David Gillette, a student of Central American religions, draws the following conclusions:

A being of mystery and terror, the jaguar was almost certainly the Olmecs' primary deity. He appears to have been for them what he was for the later Maya, a vision from the demon-haunted regions . . .

p.

The Jaguar-god lived in caves, especially those with pitch-black pools of water in their lower reaches. These pools of water in the deep interior of caves were entrances to the realm of death and spiritual transformation.30

Pitch-black pools . . . Deep, dark caves . . . These, we know, have been seen as portals to the otherworld by shamanic cultures since before history began. Likewise, the part-animal, part-human infant, the changeling, the attempt by aliens or spirits or fairies to mingle their supernatural essence with human DNA, are all very archaic and at the same time very modern themes.

The player in the maze of serpents

Ancient Egyptian art abounds in eerie and disturbing therianthropes of the kind that are only seen in profoundly altered states of consciousness, and of which our ancestors have been making

images since the Upper Paleolithic. In the case of the Maya, it is not controversial to state that hallucinogens were used to induce these trance states, since the role of psychoactive drugs in their society is relatively well known and documented. But with the ancient Egyptians, too, as we will see, there is strong evidence to suggest that therianthropes like dog-headed Anubis, lion-headed Sekhmet, crocodile-headed Sobek, hawk-headed Horus, and ibis-headed Thoth (who could also manifest in the form Left Anubis, dog-headed guide of human souls in the underworld; center Horus; right Thoth

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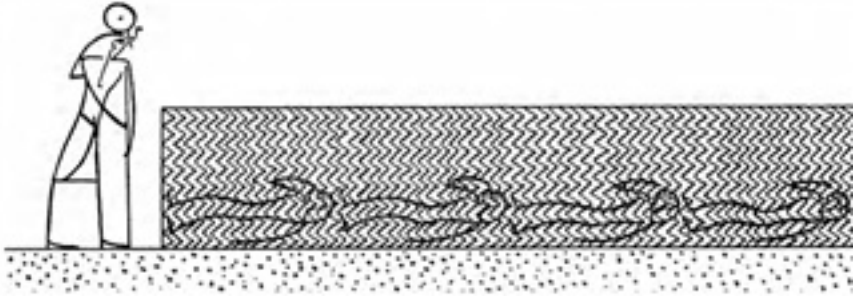

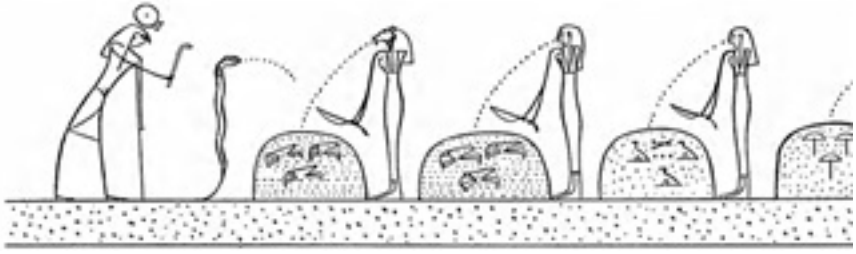

of an ape) were not concoctions of pure imagination but were seen and experienced by shaman priests in altered states of consciousness who sought to explore and map the netherworld and win useful knowledge from the supernatural beings residing there.

Nor is it simply a matter of therianthropes, the ubiquitous presence of which can be confirmed by any tourist visiting the majestic temples and tombs arranged along the banks of the sacred river Nile.

Other hallucinatory themes with which we have become familiar are also found everywhere in ancient Egyptian religious art. These include extensive entoptic patterns of stars, zigzags, dots, and

grids,31 flying discs (from which rays ending in human hands are sometimes seen to project),32 spirit beings, disembodied eyes, and an extraordinary menagerie of gigantic serpents, many of which are coiled around each other, or have multiple heads, or spit fire, or are elaborately winged and feathered.

The ancient Egyptian text known as *Per em am Duat*, the *Book of What is in the Duat*, plunges the reader into a nightmare maze of Water-filled tunnel in the Duat

Serpent and spirits spitting fire into pits of fire in the Duat

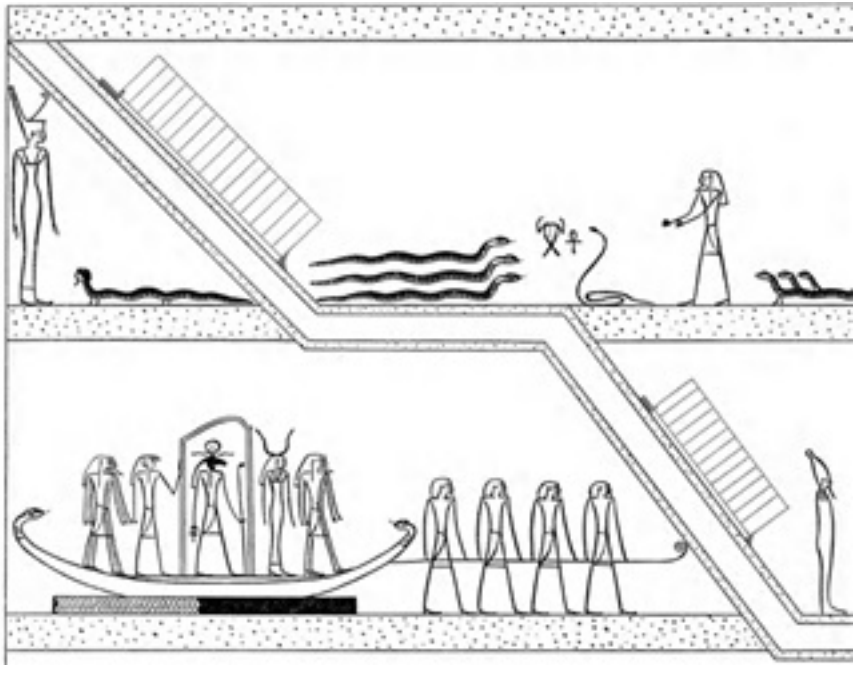

narrow, often water-filled tunnels and secret chambers, caverns where monsters lie in wait, and pits of fire. I have viewed an almost complete version of this extensively illustrated text arranged around the ovoid walls of the tomb of Thuthmosis III in the Valley of the Kings. The scenes depicted, though 3,500 years old, have something of the feel of a computer or video game, while many of the beings

shown are “wire people” and stick figures of the kind frequently reported by modern lab volunteers during DMT sessions. Overall there is a sense of quest Fourth Division of the Duat. The scenes depicted, though 3,500 years old, have something of the feel of a computer or video game, with a maze-like underworld of tunnels and corridors. Many of the beings shown are “wire people” or “stick figures” of the kind frequently reported by modern lab volunteers during DMT sessions.

as the “player” – supposedly the soul of the deceased pharaoh – battles his way through the perils of the Duat to win immortal life in the Judgment Hall of Osiris. He knows what to expect, has the passwords to all the gates, can subdue all the monsters because othersthe great shaman priests and ultimately Osiris himself – have been

there before him and mapped out the way: “Whosoever knoweth these things shall, when he passeth by these beings, not be driven away by their roarings and he shall never fall down into their caverns.”33

Today, people who drink ayahuasca sometimes report a similar maze-like underworld of tunnels and corridors, with or without the threatening beings. Alex Polari, a *padrinho* of the Santo Daime ayahuasca church in Brazil, describes the following Duat-like experiences under the influence of the sacred brew: I found myself in the salon of a castle illuminated by torches. The salon was oval, slightly oblong, with semicircular doors, placed at regular intervals.

At the same time I saw an atrium situated in front of the principal wall . . . Thousands of tunnels, galleries, corridors, secret doors, staircases, inclined planes crisscrossed . . . These led to sumptuous palaces, lofty halls, sarcophagi, caverns or temples. In some of these were sentinels appearing as medieval figures.34

The strange, intelligent serpents whose images are found in every one of the 12 divisions of the Duat also turn up, in all their different Vision-serpents of the Duat.

manifestations, in modern ayahuasca visions. The experienced ayahuasca drinker Benny Shanon reports:

About a third of the serpents I have seen were mythical or non-naturalistic in one way or another. Some of the serpents were adorned with flowers or shining scales. Phantasmagoric serpents like those ofmythology were also reported by my informants. Amongst these were gigantic serpents, serpents characterized as

“cosmic,” winged serpents, and ones made of or emitting fire. At times, serpents appear entwined in pairs, with one serpent coiled around another.35

Before ayahuasca enabled me to make my own first explorations of visionary realms, I used to study ancient Egyptian art for its beauty, for the secrets I hoped it might reveal about the origins of Egyptian civilization, and for what I believed was simply its extraordinary imaginative power. Now, having encountered my own vision-serpents, having witnessed miraculous transformations of animal and human forms that spoke to me of the unity of all being, having met and interacted with spirit entities, and having peered in my own limited way into the abyss of the supernatural, I look at the tomb paintings and temple reliefs with new eyes. By all means there is a system here, set rules, a canon. There are even definite schools and styles, long-lasting conventions, automatic habits in the art. Nevertheless it seems obvious to me that *the original inspiration*

behind every depiction of supernatural realms and beings that the ancient Egyptians left us can ultimately be traced back to the visions received by shaman priests in deeply altered states of consciousness.

Shaman priests

Let me be clear again about what I mean by shaman priests, since I know that the term is an anthropological contradiction in terms. My focus is on the role of altered states of consciousness in the origins of religion, in the cultivation of authentic religious experiences, and in the inspiration of religious imagery. My own opinion is that once "religions" abandon, forget, or even outlaw the deliberate induction and use of altered states of consciousness, then they lose contact with their roots and wellsprings, and great ugliness and materialism can be expected to ensue. In hunter-gatherer cultures, in close touch with the powerful rhythms and energies of nature, this is least likely to happen, and the shamanic adventure thrives. But as societies grow more complex, it is easy to see how techniques of ecstasy

could fall intodisuse and even disrepute, and how secrets of knowledge acquired through millennia of shamanic exploration of visionary realms and contact with “supernatural” beings might thus be lost.

If we want examples of the sort of societies where that has already happened, or is happening now, then the highly technological and industrialized nations of the northern hemisphere come immediately to mind. On the other hand, if we seek an example of a society which achieved an advanced level of civilization, sophistication, urbanization, and economic development (built on a secure agricultural base), but which at the same time did *not* sever its shamanic roots – and on the contrary celebrated them from first to last – then we need look no further than ancient Egypt.

It is in this context, therefore, that I speak of shaman priests. I am referring to functionaries, associated with the great temples and cult centers of Egypt, who might properly be called priests in the

modern sense of the term, who lived with the economic and social realities of an advanced urban civilization, but who were also masters of ancient techniques of ecstasy through which they entered trance and systematically explored the experiences that became accessible to them as a result. When they did this, they were doing the same things that shamans all over the world have always done, projecting their consciousness into the same non-physical dimensions, and meeting the same non-physical beings there – the animal spirits, the therianthropes, the vision-serpents, and the monsters that have been with us since the dawn of art and religion in the Upper Paleolithic.

A graphic representation of this sort of direct tie with the Upper Paleolithic has been provided by anthropologist Felicitas Goodman.

She has made a special study of the use by shamans from surviving hunter-gatherer cultures of ecstatic body postures in trance, meditation, dance, etc., often having her students try the postures

out to the rhythmic beat of a rattle. There are strong reasons to suppose that the striking bird-man therianthrope in the Upper Paleolithic cave of Lascaux in south-west France represents a shaman undergoing hallucinatory transformation into his spirit form as a capercaillie grouse.

But to this Goodman adds that we should also pay attention to his posture, leaning back at an angle of 37 degrees:

This very precise angle was a hallmark of spirit-journey postures performed by hunters, especially for journeying to the sky world . . .

This same posture turned up twelve thousand years later in Egypt in a drawing of Osiris [who] underwent a typical shamanic initiation in which his body was dismembered and then reassembled by his sister before he made his spirit journey to the Upper World.36

Please note that although they are shown in contexts which suggest that they are “dead” (charged down by a bison in the case of Lascaux, mummified in the ancient Egyptian example), the figures depicted in Left, detail from the shaft scene at Lascaux; right, ithyphallic figure of Osiris both these works of art are both equipped with prominent erections.37

Such an “ithyphallic” condition is frequently experienced by shamans entering trance, who associate it with the “boiling”

excitation of “supernatural potency” in the abdomen. “Osiris,” Goodman concludes, “was a shaman” and:

the figure . . . seems to point to the fact that shamanism in this form once predominated around the Mediterranean, from southern France all the way to Egypt. What is remarkable is that these elements were preserved in northern Africa over such an enormous time span, especially in light of the fact that we are dealing with two different cultural types. The shaman of Lascaux was without doubt a hunter, like everyone during that period. Osiris, on the other hand, changed into a god of

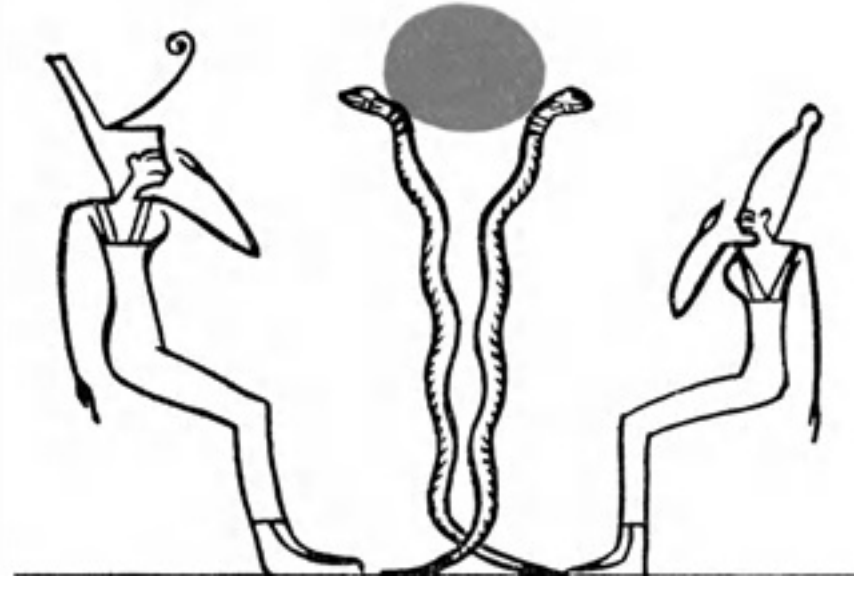

the much more recent agriculturalists on the Nile without, however, losing his original character. Nor indeed did the Egyptians lose the knowledge about the correct posture, especially about the proper angle of ascending to the sky world.38

But it is not necessary to suggest some kind of long-term dissemination and transmission of “shamanic knowledge.” Such

knowledge can be rediscovered anywhere, at any time, whenever and wherever people are able to acquire reliable means to enter altered states of consciousness, and begin to learn the lessons that seem to be available to our species there. Very often, for mysterious reasons, whether Serpent teachers of ancient Egypt: a scene from the *Book of What is in the Duat*

in modern drug experiments or in traditional shamanic settings, the ancient teachers of these lessons present themselves in the form of serpents.

The water lily, the mandrake, and the poppy Ayahuasca is the "serpent drug" par excellence, and we saw in the last chapter that the availability of an "ayahuasca analogue" in the Middle East and north Africa cannot be ruled out, since plant species containing suitable ingredients do grow in the region. At present, however, it is not proven that the ancient Egyptians understood anything about how to potentiate the hallucinogenic effects of theseplants – by no

means an easy or an obvious process. Still, a hint that their pharmacological knowledge – and contacts – might have been wider than most historians are prepared to allow is provided by the widely reported presence in ancient Egyptian mummies of cocaine and nicotine, psychoactive drugs derived from supposedly indigenous South American plants that the Egyptians of 3,000 years ago should have had no access to.39 A bitter academic dispute still rages around these findings, which are far from being universally accepted, but of course if they do turn out to be correct then there could be no objection in principle to the notion that other psychoactive plant alkaloids from the Americas might also have found their way to Egypt in antiquity. Any hypothetical use of DMT, whether from an Old World or a New World source, would leave no trace in mummies, since excess levels of DMT are eliminated from the human body within two hours of ingestion.

Though fun to conjure with, the possibility of a prehistoric trans-

Atlantic drug trade is deeply improbable and cannot be used to bolster the hypothesis that ancient Egyptian religious imagery could have been derived from altered states of consciousness induced by hallucinogens. As it turns out, however, the hypothesis has no need to rely on such exotic sources, since a perfectly suitable visionary drug was available locally and its properties were well known to the ancient Egyptians. William Emboden, Professor of Biology at California State University, has established that the blue water lily, *Nymphaea caerulea*, a plant that is indigenous to the Nile and prominent in ancient Egyptian art, has pronounced narcotic, hypnotic, and hallucinogenic effects.40 In a series of thoroughly argued scientific papers and books, he has also presented convincing evidence that it was used, along with opium, and with the mandrake (*Mandragora officinarum*, already known in Europe for its visionary qualities), to produce a form of shamanistic trance

Analysis of the ritual and sacred iconography of dynastic Egypt, as

seen on stelae, in magical papyri, and on vessels, indicates that these people possessed a profound knowledge of plant lore and altered states of consciousness. The abundant data indicate that the shamanistic priest,

who was highly placed in the stratified society, guided the souls of the living and the dead, provided for the transmutation of souls into other bodies and the personification of plants as possessed by human spirits, as well as performing other shamanistic activities.42

There is not space here even to hint at the wealth of evidence that Emboden adduces to support his case. Briefly, he draws attention to many scenes in ancient Egyptian art in which mandrake roots and After Emboden, 1989, p. 62: “Meriton, consort to Semenhkara, offers him two mandrake fruits and a bud of narcotic blue water lily. More of these flowers are held in her left hand.”

buds of the narcotic blue water lily are offered in a context of ritual healing, very frequently in association with “emblems of opium poppy capsules.”43 He also points out that opiate residues have been found in an unguent vessel from an Eighteenth Dynasty tomb: To this end, it must be noted that when the Tomb of Tutankhamen was looted [in antiquity], an estimated 400 liters of fluid in sealed

vessels had been taken, in preference to the gold, the decorative arts, and the vessels themselves. It was believed by the looters that these vessels contained *didi*, the elixir of life. Certainly the combined narcotic properties of water lilies, mandrakes, and the opium poppy would provide the most potent vehicle (*didi*) to a profound hypnotic

state terminating in an extended period of somnolence. The symbolic death so necessary to shamanic tradition would be provided by any one of these plants. Sleep is the symbolic death that permits miraculous resurrection.44

A similar association is made in the tomb of Nebamun at Thebes (modern Luxor), where we see a widow with bared breasts squatting before the figure of her deceased husband. Springing from the base of the figure, Emboden draws our attention to a vegetal column of narcotic blue water lilies and poppy capsules (incised to release their narcotic latex) bound together and crowned with three palm fronds. It is difficult to imagine a simply fortuitous combination of narcotic water lilies and poppies. As for the palm, it was the source of palm wine and could have provided a solvent for the poppy and *Nymphaea* derivatives.45

After Emboden, 1989, p. 71: “A scene of ritual mourning in which dust is thrown upon the head of a grieving widow as she squats

before a totem of narcotic blue water lilies and incised capsules of opium poppies.

Both facilitate a trance state appropriate to mourning.”

p.

Emboden highlights the fact that in the foundation myth of the Heliopolitan cult responsible for the rituals at the Pyramids of Giza, a central notion is that of

the creation of order out of chaos (*Nun*) in which the dark pool of

nothingness gave rise to a blue water lily from which the first being arose. This legend explains the relationship between the order of the entire civilization and the sacred quality of the narcotic blue water lily.46

Also of importance is a chapter in the ancient Egyptian *Book of the Dead* entitled “Transformation into a Water Lily”: Horus is seen being petitioned by an offering of two vessels with pouring spouts. Above them are gigantic *N. caerulea* flowers . . . The water lilies indicate that these are the *didi* or elixir in the jars under them. The indication is clear that the holy water lily or narcotic water lily belongs to Horus . . . As master of the sky, Horus becomes the perfect emblem of soul flight in shamanistic ecstasy. He is portrayed in his alter ego as half falcon and half man.47

After Emboden, 1980: ‘Horus is propitiated by an offering of two vessels whose contents are made known by overlying *Nymphaea caerulea* flowers. ’

p.Emboden's conclusion from his study of this and many other works of art, and his own direct experiences of the psychotropic effects of the plants themselves,48 is that:

In the Egyptian dynasties, the essence of shamanistic trance provided by the hypnotic constituents of the mandrake and the narcotic blue water lily are clearly in evidence. They continue to be portrayed and appear in magical writings from the Fourth Dynasty until the fourth century BC. The constituents of these plants are able to provide the requisites for shamanistic trance . . . that separates the sacred from the profane and the soul from the body. The spiritual death, journey, revelation, and resurrection are implicit in both writings and murals.49

Water Lily Jaguar and the Mayan mushroom stones Emboden's interest in the hallucinogenic effects of the Egyptian water lily had been stimulated by his own previous studies of the use by the ancient Maya of a closely related species of water lily (*Nymphaea*

ampla) for exactly the same visionary purposes. He draws attention in particular to the famous Mayan murals at Bonampak in Mexico, where water lilies are shown associated with the noses and foreheads of dancers. These images, he says, “are so like some of the Egyptian murals that the similarity is startling.”50

Many other Mayan artworks also depict identical themes. For example, a representation of one of the hero twins on their journey through the netherworld of Xibalba shows him wearing a water lily headdress.51 Likewise, as we saw earlier, God III, in his therianthropic manifestation as Water Lily Jaguar, wears water lily pads on his head.52

A Late Classic vessel from Yucatán carries a polychrome depiction of a lake filled with gigantic water lilies and water lily pads intimately connected with a great serpent that inhabits the lake.53 A polychrome pottery vase has a principal hallucinatory motif of “a giant undersea serpent with the tail of a fish, the body of a snake

and a fantastic head . . . The figure to the right . . . is a shaman with two musical horns, below which is a giant *Nymphaea ampla* bud."54 Recalling the universal shamanic metaphor of "undersea" or "underwater" in

Water Lily Jaguar as he is depicted in the Dresden Codex, one of the very few Mayan hieroglyphic works to have survived the orgy of book burnings ordered by Spanish missionaries following the Conquest alluding to deep states of trance, it is interesting that the Bonampak murals have a similar hallucinatory theme that is similarly linked to *N. ampla*:

Grotesque personages are involved in a sort of undersea dance ritual.

Water lilies are on their foreheads and are associated with fish. One of the figures holds his hands aloft which are the giant claws of a lobster . . . As Dobkin de Rios has suggested, plant and sea familiars are common New World drug-linked motifs.55

We need not dwell further on the hallucinogenic iconography of the water lily amongst the ancient Maya – who also used many other

vision-inducing drugs, some of which they likewise depicted in their art. It is certain that *ololiuqui* (Morning Glory) seeds, which have powerful LSD-like effects, were amongst the diverse pharmacopoeia they resorted to.56 Psychoactive mushrooms, more than 20 species of which grow in the region,57 were likewise of great importance for shamanic journeying, which perhaps explains why the Quiche Maya of Guatemala, the authors of the Popol Vuh, had a specific phrase, *xibal-baokx*, meaning "mushroom of the underworld."58 Mushrooms appear

Stones carved in the form of hallucinogenic mushrooms by the

ancient Maya of Guatemala

in the Popol Vuh in direct association with religious activity,59 and archaeologists have found hundreds of stone sculptures and ceramic models of mushrooms in ancient Mayan tombs and religious sites in Guatemala, El Salvador, Honduras, and Mexico dating back to the first millennium BC.60 “It is now clear,” writes Richard Evans Schultes, Director of the Harvard Botanical Museum, “that whatever the use of these ‘mushroom stones,’ they indicate the great antiquity of a sophisticated sacred use of hallucinogenic mushrooms.”61

“They would see a thousand visions, especially serpents . . .”

Looking beyond the areas of Maya habitation, archaeologists and botanists agree that hallucinogens have in fact played a formative role in the religious beliefs, rituals, and imagery of almost all the indigenous peoples and civilizations of Central America, Mexico,

and neighboring parts of the United States. Indeed, despite the odds against the survival of physical evidence of hallucinogen use, substantial caches of the intensely psychoactive red bean-like seeds of a shrub known as *Sophora secundiflora*, dating back more than 9,000

years in some cases, have been found in painted caves across much of north-central Mexico and Texas. Along the Lower Pecos River in Texas, they are associated with a remarkable complex of 8,000-year-old rock paintings of spirit beings, therianthropes, and entoptic patterns. Even before Lewis-Williams, archaeologists were largely

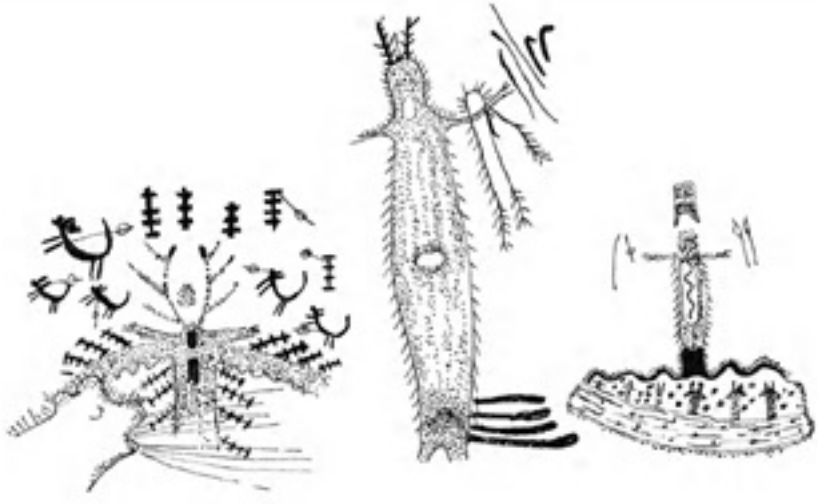

agreed on a shamanistic interpretation of these paintings, relating their content to “hallucinogenic and divinatory red bean rites.”62 It is significant that in some sites, *Sophora secundiflora* seeds (more commonly known as “mescal beans”) have been excavated from successive occupation layers dating from 7000 BC to the eleventh century AD.63 Moreover, there are ethnographic reports from the nineteenth and early twentieth centuries of American Indians still using the seeds to pursue “delirious exhilaration” in a religious

context.64

8,000-year-old rock paintings of spirit beings, therianthropes, and entoptic patterns, Lower Pecos River, Texas.

If we study the murals and reliefs at the pyramids and temples of Teotihuacan, 30 kilometers north of modern Mexico City, we see depictions of hallucinogenic plant species and psychoactive mushrooms everywhere coupled with fantastic and monstrous imagery. The internationally renowned mycologist R. Gordon Wasson has concluded that “for centuries Teotihuacan was a vast sanctuary dedicated to the two or three hallucinogens that enjoyed superlative prestige.”65

Teotihuacan flourished around the time of Christ and reached its zenith by AD 700, afterwards rapidly falling into decline. By the early sixteenth century, when Europeans engaged in the bloody business of conquest first encountered the fierce Mexican people

known as the Aztecs, the Pyramids of the Sun and the Moon at Teotihuacan werein ruins and the painted temples were overgrown and ghostly. The cults of sacred plants and mushrooms celebrated in the Teotihuacan murals were, however, not forgotten but continued to provide the principal means by which the peoples of the region established and maintained their contacts with the spirit world.

The Aztecs made particular use of *ololiuqui*, the LSD-like Morning Glory seeds mentioned earlier, and also of several different species of psilocybin mushrooms, which they knew by the name of *teonanactl*,

"flesh of the gods."66 From the writings of the friars and other commentators who came alongside the Conquistadors and who witnessed Aztec use of these and other drugs, scholars agree it is clear that sacred hallucinogens played an important part not only in divinatory or curing practices on the "folk level" of religion and ceremonial, but also in the far more complex beliefs and rituals of

the priestly hierarchies that served the demanding gods of Aztec Tenochtitlan and its allies and tributaries.67

The descriptions of the sixteenth-century chroniclers speak for themselves:

_Ololiuqui _. . . deprives all who use it of their reason . . . The natives communicate in this way with the devil . . . and they are deceived by various hallucinations which they attribute to the deity which they say resides in the seeds.68

They all went to eat raw mushrooms, on which food they all went out of their minds . . . With the force of those mushrooms they would see visions and have revelations of the future, the Devil speaking to them in that drunken state.69

At the very first, mushrooms had been served . . . When the mushrooms took effect on them, then they danced, then they wept.

But some, while still in command of their senses, entered and sat there by the house on their seats; they danced no more but only sat there nodding

. . . And when the effects of the mushrooms had left them, they

consulted among themselves and told one another what they had seen in vision . . .70

When the priests wanted to communicate with their gods, and to receive messages from them, they ate this plant [*ololiuqui*] to induce a delirium. A thousand visions and satanic hallucinations appeared to them . . .71

It was their custom to dance and get drunk on some mushrooms in

such a manner that they would see many visions and fearful figures.72

A particularly detailed account was left by Fray Toribo de Benavente: They had another way of drunkenness . . . and it was with some fungi or mushrooms . . . Eaten raw and being bitter, they drink after them or eat with them a little bees' honey; and a while later they would see a thousand visions, especially serpents . . . These mushrooms they called in their language *teunanacatlth* [*teonanactl*], which means "flesh of god,"

or the devil whom they worshipped.73

One can see from their reactions that the friars instinctively disliked the direct communication with the spirit world that the sacred plants seemed to give the Mexican shamans. Naturally the Church and the Inquisition launched a systematic campaign after the Conquest to Left, from the Magliabechiano Codex, illustration depicting a man

eating hallucinogenic mushrooms. A terrifying supernatural figure stands behind him.

Right, from the Florentine Codex, illustration of “Satanic” mushrooms.

p.stamp out the religious use of hallucinogens entirely and to blacken the name and distort the memory of those who had venerated them.

Historians thought that the campaign had been a complete success until 1955, when R. Gordon Wasson and his colleagues discovered a psilocybin mushroom cult still active amongst the Mazatec Indians of the mountainous country around Oaxaca. Far from being cruel and diabolic, this shamanistic cult was gentle, wise, and dedicated to healing.74

Teaching man that which he knoweth not

We have already met Maria Sabina, the shaman of the little village of Huatla de Jimenez near Oaxaca who Wasson made famous with an article about her that he published in *Life* magazine in 1957. We saw in Chapter Six that on one occasion, following the consumption of a large dose of psilocybin mushrooms, she traveled more deeply than ever before into the otherworld. There she met a spirit being who had guided her on previous visits, but this time he "had in his hands something that he did not have before, and it was a big Book with many written pages." He told her: "I am giving you this Book so that you can do your work better and help people who need help and know the secrets of the world where everything is known." This seemed most inappropriate to Maria as she thumbed through the

"many written pages" of the book: "Unfortunately I did not know how to read. I had never learned and therefore that would not have been any use to me." At the very moment this thought crossed her mind, however, "I realized I was reading and understood all that

was written in the Book and that I became as though richer, wiser, and that in one moment I learned millions of things. I learned and learned."75

I am reminded of the way, in another time and place, that the illiterate Prophet Muhammad was ordered to read by the spirit being who he identified with the Angel Gabriel. "I am not a reader," the prophet protested:

Then he took hold of me a third time and squeezed me as much as I could bear, and said: "Read! In the name of the Lord who created;created man from a clot of blood. Read! For the Lord is most beneficent, He hath taught the use of the pen; He hath taught man that which he knoweth not."76

Amongst the ancient Egyptians it was the god Thoth, a bird therianthrope with the body of a man and the head of an ibis, who was said to have taught the skills of reading and writing, while the

shaman god Osiris was remembered as a great civilizer and the inventor of agriculture. In the same way the Mayan god Kukulkan, whose name means “Feathered Serpent,” was regarded as the supreme organizer,

“the former of laws and the teacher of the calendar.”77

These are not isolated examples, and once again the question arises

- who are these ancient teachers, who some call “gods,” and some call

“aliens” or “spirits,” who come to us in altered states of consciousness with strange messages that have shaped the course of human history?

p.

Part V

The Mysteries

Chapter Seventeen

Doors Leading to Another World

I began this inquiry with a question about religion. When and where did our ancestors first start to believe that they could encounter supernatural realms and beings?

Although I predict that older evidence will ultimately be found in Africa, there is presently little dispute that the painted caves of Europe contain the oldest clear *surviving* evidence of the beliefs in "spirit worlds" and "non-real beings" that lie at the heart of all religionsno matter how far they may subsequently have evolved away from their shamanic roots. If I wanted to know about mankind's first supernatural encounters, therefore, I realized that I was going to have to learn about the caves, and their extraordinary,

transcendental art, and about other ancient rock-art systems around the world.

I quite soon discovered that real knowledge about prehistoric cave art could be divided into two periods. Before Professor David Lewis-Williams began to publish widely in the 1980s, there was no good explanation of the art at all. By 1988, thanks to his work, there was an excellent explanation that made perfect sense. Precisely because it makes such good sense, though it has been opposed by a strident minority, his “neuropsychological theory” quickly won the support of the majority of archaeologists and anthropologists specializing in this field.

For reasons that I have set out at length in Parts I of this book, I myself am convinced that Lewis-Williams is broadly correct: the visions and experiences of altered states of consciousness, brought onby classic shamanic techniques such as rhythmic dancing or the use of plant hallucinogens, were indeed, as he proposes, the source

of inspiration for the first religious ideas of mankind. Beyond this basic but extremely important point, I disagree with just about everything else Lewis-Williams has to say. In particular, I disagree vehemently with the certainty he professes that the spirit worlds and beings encountered while hallucinating are not in any sense real. Likewise, he is just plain wrong to argue that only entoptic phenomena – which he attributes to the structure of the nervous system – are universally experienced in altered states, while what he calls "fully iconic" Stage 3 hallucinations are entirely artifacts of the individual's memory and cultural background and thus differ enormously from person to person, from epoch to epoch, and from location to location.

On the contrary, even when Lewis-Williams first published on this subject, there existed a number of puzzling cases in the neuropsychological literature attesting to the universality of Stage 3 hallucinations as well. These cases were and remain puzzling

precisely because they are so similar to one another despite the different cultural backgrounds and different personal memories of the individuals experiencing them.

As early as 1977, for example, Dr. R.K. Siegel, one of the leading U.S.

psychiatric researchers in this field, published an important study in the journal *Scientific American* reviewing some 500 hallucinations induced by LSD. Although Lewis-Williams generally relies on Siegel, he seems to have overlooked this study, in which no less than 79 per cent of the subjects reported very similar complex imagery, including religious images and symbols, images of small animals, and humans.1

As critics point out: “This finding strongly suggests that some of the complex imagery (‘iconic’ hallucinations per Lewis-Williams) seen upon electrical or chemical stimulation of the visual associational

cortices and temporal lobes is hard wired.”2

Lewis-Williams was also well aware, and indeed makes much of it in his writings, that therianthropic, part-man, part-beast figures are a universal feature of rock art in many different lands because they are universally experienced in deeply altered states of consciousness.

However, he does not seem to recognize that what he is effectively admitting here is that at least some “iconic” Stage 3 hallucinations areapparently *not* strongly culturally constrained. Everyone sees therianthropes even if the therianthropes they see are part man, part bison in Upper Paleolithic Europe, part man, part eland in southern Africa, or part man, part jaguar in the Amazon jungle.

In 1990, Robert Bednarik of the Australian Rock Art Association took Lewis-Williams to task for overlooking evidence of this sort. In a critique published in the journal *Current Anthropology,* he drew

attention to research which has demonstrated that certain universal themes appear in the ayahuasca visions of people from quite different cultures, and suggested that further investigation of such shared "non-real"

experi ences might demonstrate the existence of "a collective unconscious of 'iconic form constants.'"3

On the basis of everything I've learned, I'm certain Bednarik is right to draw attention to the mysterious universality of Stage 3 hallucinations. But to say that they derive from a "collective unconscious of 'iconic form constants'" is to say that we all unknowingly share immense quantities of bizarre otherworldly images of utterly unfa-miliar places and beings that have somehow been "hard-wired" into our brains. This, of course, is not an explanation of the problem but merely a description or reformulation of it. What we really want to know is *why* so many people all around the world see the same "non-real" things once

they enter altered states of consciousness.

Furthermore, though Bednarik would undoubtedly be aghast at the comparison, his idea that we each possess a hard-wired neural archive filled with “iconic form constants” depicting supernatural realms and beings comes remarkably close to Jeremy Narby’s off-beat notion that intelligent interactive video messages have been recorded on DNA by some higher intelligence and that we all see the same things because we are all one at the level of DNA.

Eyewitnesses to the non-real

I began to understand that this problem of human experiences of the supernatural – judged to be non-real but nonetheless universal and apparently very ancient – lay at the heart of the matter I was investigating. It was precisely such experiences, documented in the paintedcaves, and duplicable by drugs such as ayahuasca, psilocybin, ibogaine, and DMT, that seemed to have accompanied

mankind's leap into fully modern symbolism.

The next step was to look elsewhere – in folklore, in mythology, in the annals of ancient and contemporary religions, and in modern news sources – for other examples, not necessarily connected with drugs, of complex, detailed but supposedly non-real experiences reported in very similar terms by large numbers of people with nothing in common.

For practical reasons it was necessary to impose constraints on the scope of my inquiry, and in particular to make some difficult decisions about which aspects of it to write about and which to keep to myself. But because of the direction from which I had approached the problem, my primary research focus was inevitably on the "spirit world" that our ancestors depicted for the first time in prehistoric rock art, that continued as the great obsession of the high religions of antiquity, and that is still actively experienced to this day in surviving shamanic cultures as far afield as central and

southern Africa, Australia, and the Amazon rain forest. Then there was the modern supernatural phenomenon of encounters with and abductions by UFOs and aliens, and in between the two there were the fairies and elves, the imps and goblins, the nymphs and sprites that were so commonly encountered in Europe from medieval through to Victorian times.

Once I started digging, I found clues leading in all directions and multiple interconnections linking areas of inquiry that I had previously thought to be entirely separate. Most important of all, in a field of study that has been neglected by modern researchers, I found that the ethnographies and folklore collections were stuffed with statements by earnest and sincere eyewitnesses describing supernatural beings and events.

Many scientists dismiss such accounts as hoaxes, or delusions, or

"mere hallucinations," and don't consider the possibility that the

eyewitnesses might have seen something real. However, this is a knee-jerk response driven by deeply embedded materialist prejudices about the nature of reality rather than by any solid research or evidence. I therefore decided to undertake a thorough examination of some ofthese bodies of eyewitness testimony – not a patronizing sociological or psychological study of mass delusions (just about the only approach that scholars have made to this material up to now), but an attempt at a deliberately open-minded appraisal, ruling out nothing in advance.

I hoped if I treated the evidence with respect, and allowed it to speak for itself, that it might have something useful to teach me about the supposed supernatural realms and beings to which it refers – which I myself had experienced and which I was willing to accept might *not* be real, or might, on the other hand, be real in some way that scientists did not presently understand.

What I found, set out in Chapters Five to Ten, is that essentially the

same pattern of bizarre non-real experiences has been consistently reported over and over again by people from all parts of the earth and all periods of history. Furthermore, despite the glaring underlying similarities, there is clear evidence of evolution in these experiences – notably in the way that the issue of hybrid infants is handled and in the way that the technology for navigating between worlds, and even the clothing worn by the "beings," seems to change and develop. It seems to me completely obvious that when people from all times and places consistently and reliably report the same non-real experiences – especially experiences as extraordinary and distinctive as those typically associated with spirits, fairies, and aliens

- then it is not good enough to say that all the eyewitness are "mad"

or deluded. Nor will it do to dismiss their testimony on the grounds that they must be hallucinating, since that does not explain but merely restates the problem – which is, of course, that they are all

hallucinating the same things! The real issue that science keeps dodging is *why* they are all hallucinating the same things. Why do the same otherworlds and spirit beings keep appearing, and what does this all mean?

Hard-wired program

I was already aware of how closely "supernatural" experiences are linked to altered states of consciousness, very often brought on by the use of plant hallucinogens. This is, after all, the entire basis of shamanismin the Amazon. But it was only when I began to study Rick Strassman's work that I realized how such experiences could be occasioned virtually instantaneously by DMT – which turns out to be a substance that the human brain produces naturally in minute quantities. Even in laboratory and hospital settings, as we saw in Chapters Eleven and Twelve, a dose of DMT above a certain minimum threshold is guar-anteed to send just about anyone on a very rapid, intense, and convincing otherworld journey. Moreover,

despite some notable differences, which we will return to in a moment, it is, once again, essentially *the same* otherworld to which shamans and alien abductees and those taken by the fairies have always been transported.

Rick Strassman and others working in this field repeatedly warn that the ease with which DMT can *facilitate* such experiences does not mean it has *caused* them. On the contrary, we have seen that there is considerable support at top scientific levels for the notion of the brain as a receiver that may be temporarily retuned by hallucinogens to pick up frequencies that normally fall below the threshold of our senses. Theoretically, if it were possible for beings to exist at those frequencies, we would be unable to see them without the assistance of a substance like DMT – though they might be "round us thick as flies" (as used to be said of fairies).

Yet my own experiences with DMT also suggested another possibility. Despite their general similarities to other alternative

realities I had encountered in trance states, I was haunted by the mechanical, artificial, and even technological overtones of the DMT "world."

Unlike the rich, abundant supernatural life revealed by ayahuasca, the effect of pure, concentrated dimethyltryptamine had felt less like an encounter with spirits and more like a personal session with an interactive computer program designed to tailor its output to my individual psychology, habitual perceptions, and cultural background.

Now, the weird thing, as we saw in Chapter Twelve, is that everyone else who takes DMT seems to engage with the same computer program – as though it is somehow hard-wired into all of us. Such an interactive system, just conceivable somewhere far beyond the limits of twenty-first-century biotechnology, would require vast amounts of information, stored within our bodies on

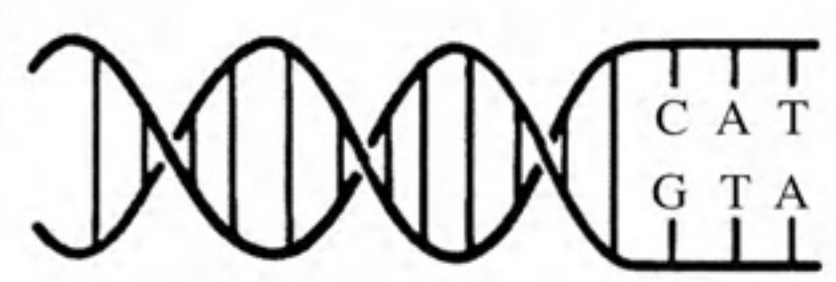

C A T

G T A

Top, the “twisted cord” of DNA, a physical medium within our bodies for the storage of vast amounts of information. Above, “Those who carry the twisted cord,” from the ancient Egyptian *Book of Gates* (tomb of Rameses VI).

some physiological medium that would allow it to be accessible to consciousness. We saw in Chapters Thirteen and Fourteen that this is not impossible, that there are good reasons to believe our DNA did not evolve on this planet, and that neural DNA with its billions upon billions of supposedly "junk" letters is an obvious candidate to carry an interactive message written by "clever entities," as Jeremy Narby suggests.

Video-game people

If we continue for the moment to speculate – with Narby – that alongside all its other miraculous properties, our DNA contains interactive recordings of intelligent messages that we can activate in altered states of consciousness, then the hybrid and therianthropic imagery documented in visionary experiences from the painted caves of Europe 35,000 years ago to the Amazon jungle today make deep symbolic sense. How better could an intelligent, interactive system express the essence of DNA as a fundamental animating

principle uniting the attributes of all living things than to summon up virtual teachers that merge the characteristics of different species into composite beings?

It is perhaps no accident, while about half the group saw aliens and flying saucers in one form or another, that many of Rick Strassman's volunteers also reported encounters with therianthropes during theirDMT sessions, mostly in the form of insect-like or reptilian hybrids who seemed to be driven by a bizarre urge to *teach* them. Chris, for example:

It was wild. There were no colors. There was the usual sound: pleasant, a roar, a sort of an internal hum. Then there were three beings, three physical forms. There were rays coming out of their bodies and then back to their bodies. They were reptilian and humanoid, trying to make me understand, not with words, but with gestures. They wanted me to look into their bodies. I saw inside them and understood reproduction, what it's like before birth, the

passage into the body.4

Note the theme of reproduction – with the added twist that what is being envisaged is the passage *into* the body, "before birth," presumably of some non-physical entity. Was the lesson Chris says he was given about this "mechanism" just brain fiction with no broad significance at all? Was it a revelation, vouchsafed to him by "spirits," of some fundamental truth about the nature of physical existence? Or could it have been an encounter with high-tech virtual teachers in his own DNA?

Gabe, another of Strassman's volunteers, reported "an initial sense of panic" on receiving an intravenous dose of 0.4mg/kg of DMT: Then the most beautiful colors coalesced into beings. There were lots of beings. They were talking to me but they weren't making a sound.

It was more as if they were blessing me, the spirits of life were

blessing me . . . At first it felt like I was going through a cave or tunnel or into space, at a fast rate, definitely. I felt like a ball hurtling down to wherever it was.5

If modern lab volunteers conclude that the beings they encounter in altered states of consciousness are “spirits” (and meet them in caves and tunnels!), then it is easy to understand how our ancestors in similar trance states – whether induced by drugs or other techniques – would have come to similar conclusions. But by no means all the volunteers in Rick Strassman’s study believed they were dealing with spirits, and

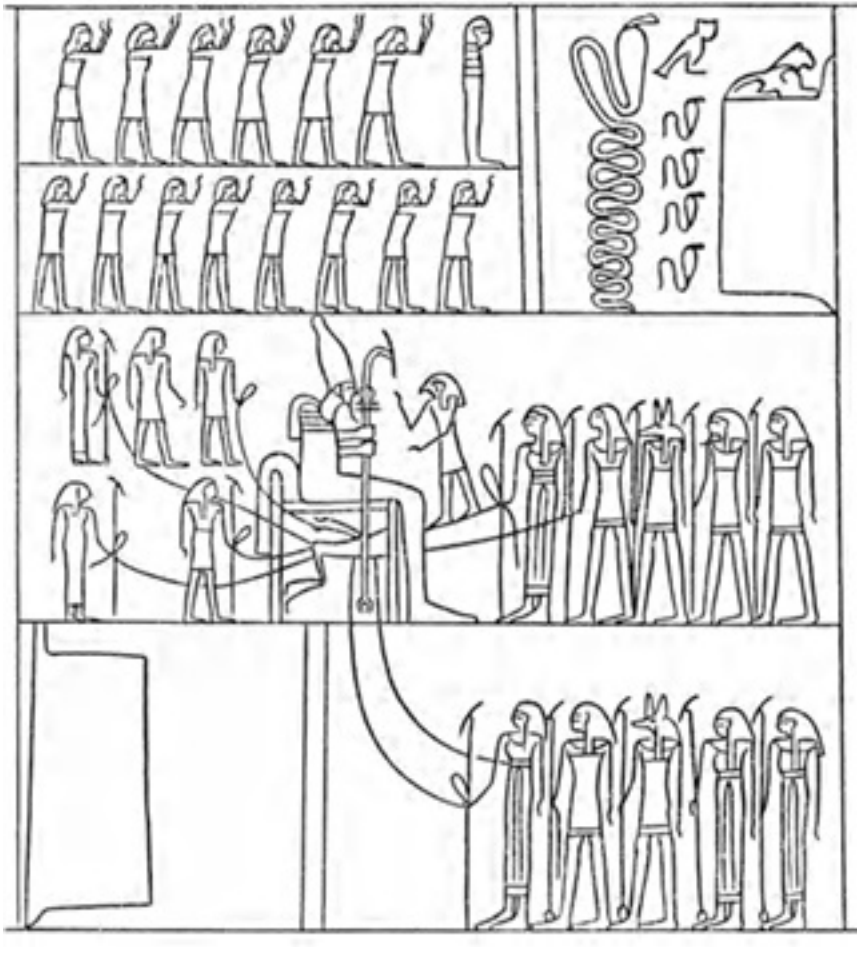

the descriptions that many gave of their experiences accord equally

well with the “virtual teacher” hypothesis.

Sean:

I couldn’t watch it all, it was so busy. Something asked me, “What do you want? How much do you want?” I answered that I wanted to see fewer things, but more of it. That reduced the intensity of the busy, crackling, colorful Chinese-like panels. It became more manageable and focused. I’m feeling freer about going out there. I’m not lost. I’m asking questions and getting answers.6

On another day, after receiving the third of four consecutive doses of DMT, the same subject reported:

The trip started with an electric tingling in my body, and quickly the visual hallucinations arrived. Then I noticed five or six figures walking Scene from the ancient Egyptian *Book of Night*, Tomb of Rameses VI (circa 1150

BC). The existence of such archaic depictions suggests that “wire people” and

“stick people” of the kind repeatedly seen by subjects under the influence of DMT do not result from the influence of modern “cartoons” and video games, but are part of a mystery buried deeply in the structure of the human mind.

p.rapidly alongside me. They felt like helpers, fellow travelers. A humanoid male figure turned toward me, threw his right arm up toward the patchwork of bright colors, and asked, “How about this?”7

On his fourth dose, Sean found himself in a place with wire people everywhere riding bicycles, like programmed people, like video-game people . . . I watched them. They were blue-green, running all around me . . .8

Another participant in the same four-dose tolerance study was Sara.

“This time, I quickly blasted through to the ‘other side,’” she said soon after receiving her third injection:

I was in a void of darkness. Suddenly, beings appeared. They were cloaked, like silhouettes. They were glad to see me. They indicated that they had had contact with me as an individual before. They seemed pleased that we had discovered this technology . . . They wanted to learn more about our physical bodies. They told me humans exist on many levels . . .9

Sara’s experience after her fourth dose seemed to continue the scenario from the third:

I went directly into deep space. They knew I was coming back and they were ready for me. They told me there were many things they could share with us when we learn how to make more extended

contact.

I wish you [Strassman] didn’t control who gets DMT!10

In a later interview she added:

I have the feeling of remembering those entities. My experience of them was so real it doesn’t fade with time like other things do. They want us to come back and teach us and play with us. I want to go back and learn.11

p.Dimitri said that he was “confused and in awe” about the beings he encountered during his DMT trips:

I knew that they were preparing me for something . . . They had things to show me. But they were waiting for me to acquaint myself with the environment and movement and language of this space . . .12

Jeremiah felt that DMT was “not like some kind of drug”: It’s more like an experience of a new technology than a drug. You can choose to attend to this or not. It will continue to progress without you paying attention. You return not to where you left off, but to where things have gone since you left. It’s not a hallucination, but an observation.13

But an observation of what? Neural pulp-fiction? Or real spirits from parallel otherworlds? Or virtual teachers broadcasting interactive lectures at us from our DNA?

Or none of the above?

The baffling of Strassman and Shanon

Implausible, mind-boggling, universal experiences of the kind described repeatedly in this book do not often attract serious academic attention. Those few scientists who have studied them in

depth, however, have concluded that there is something deeply mysterious about their universality, and that it in fact raises profound questions about what is real and what is not. Rick Strassman, for one, admits to being “baffled and nonplussed” during his DMT research by the surprising and remarkable consistencies among volunteers’ reports of contact with nonmaterial beings . . . [in an] “alien” realm . . . or high-technology room. The highly intelligent beings of this “other” world are interested in the subject, seemingly ready for his or her arrival and wasting no time in “getting to work” . . . They . . . communicated with the volunteers, attempting to convey information by gestures, telepathy,or visual images. The purpose of contact was uncertain, but several subjects felt a benevolent attempt on the beings’ part to improve us individually or as a race.14

As a clinical research psychiatrist, Strassman says, it was natural for him to presume that the regularity and consistency of these reports,

as well as their strong sense of reality, must arise from some biological cause. He speculated that the DMT was “activating certain hard-wired sites in the brain that elicit a display of visions and feelings in the mind. How else could so many people report similar experiences: insect-like, reptilian creatures?”15 However, the volunteers were not satisfied with such reductionism: “‘Yes,’ they would reply,

‘but what about what I just saw and felt? Are there brain centers for clowns, elves and aliens? Where did this really come from?‘“16

In due course, Strassman found himself agreeing that there was a problem. “Why do we all have DMT in our brains?” he asked: Why is there a compound . . . that generates experience of “alien-contact,” death, space-travel, and other extraordinary effects?17 How could anyone believe there were chunks of brain tissue that, when activated, flashed encounters with beings, experimentation and reprogramming?18

Benny Shanon, Professor of Psychology at the Hebrew University in Jerusalem, has arrived at very similar conclusions about ayahuasca.

After interviewing a sample of several hundred ayahuasca users from many different cultures and backgrounds, he found that no less than 75 per cent reported visions of death, birds, reptiles, divine beings, creatures and beings, palaces and temples, and forests and gardens.19

Serpents and felines were the most common visionary creatures,20 and significantly, there was much content that had nothing whatsoever to do with drinkers' life histories, including "all sorts of animals, phantasmagoric creatures and beings, royalty and religious figures, objects of art and magic, and divine beings . . ."21 Like many ayahuasca users, Shanon himself reported seeing spaceships twice during his ayahuasca visions,22 and notes that amongst his interviewees, "beings referred toas extraterrestrials" were often

“seen along with spaceships.”23

What are we to make of such unexpected universal themes? “A reductionist would argue that the commonalities in the ayahuasca experience are directly due to neuroanatomical structures and brain processes,” says Shanon, and hence should be explained in biological terms

While at first glance such an explanation may seem most natural, further reflection reveals that it is far from being obvious. Would we say, for instance, that the recurrence of visual elements such as serpents and jaguars, palaces and works of art are due to there being specific brain centers in which such information is stored? . . . It seems to me that, at least in the present state of our understanding of the brain and nervous system, the postulation of such specific centers simply does not make sense.25

What most directly affronts common sense is the notion that natural

selection could ever have allowed the evolution of such a potent and spectacular hallucinatory mechanism, requiring those equipped with it to become helpless in the real world and to devote close attention to non-real things instead. If the materialist view of the universe is correct, then it is hard to see how attending to _anything _"non-real" could have been at all adaptive or could have contributed usefully to our ancestors' chances of survival – especially in the early days when such an adaptation would have had to provide spectacular immediate payoffs in evolutionary terms if it was to become established in the genome.

On the other hand, if the shamanic view of the universe is correct, then attending closely to spirit realms and beings makes complete sense, as does their universality, even if Western scientists persist in their delusion that such realms and beings are not real. Moreover, as Rick Strassman reminds us:

By conceiving of the brain as a receiver of information . . . one can

accommodate the biological model of changing brain function with a chemical. At the same time, it allows for the possibility that what is being received, while not usually perceptible, is consistently and veri-387

fiably existent for a large number of individuals. It may, indeed, reflect stable, free-standing, and parallel planes of reality.26

Benny Shanon likewise admits that his ayahuasca experiences brought him, for the first time in his life, “to doubt the validity of the Western world view.”27 But, unlike Strassman, he rejects the notion that visionary experiences might in some way be “transmitted” from other dimensions.28 The thesis that he is in the process of developing is that human creativity, which “in principle . . . is without limits,” is the key mechanism at work in ayahuasca visions. The problem, however, is that

there are some specific contents that are more likely to be created

than others. These . . . do not reflect the life history, knowledge or concerns of the individual drinker, and they even seem not to be specific to members of any particular cultural group. Thus it appears that human beings, while not storing in their memories ideas of these specific semantic contents, are built in such a fashion as to be likely to imagine them . . .29

As a scientist, Shanon resists any attempt to explain such universal

"creations" with reference to the supernatural. He prefers to address what he calls "the enchanted nature of the ayahuasca experience" in a way that respects the "frames of thought and canons of judgment that define my own cultural and professional heritage."30 Only if this proves fruitless, and

if the commonalities in the ayahuasca experience cannot be accounted for in ordinary psychological terms, then perhaps we have no choice but to shift from the internal domain to the external

one and consider the possibility that these commonalities reflect patterns exhibited on another, extra-human realm.31

Internal domain?

The upshot is that Strassman and Shanon, the top scientists in this field, are able to offer theories, but not definitive explanations, for themysterious universal hallucinations of spirit beings that our ancestors first depicted in rock art 35,000 years ago, that took the form of gods and goddesses for the high civilizations of antiquity, that were known as fairies, elves, demons, and goblins in the European Middle Ages, and that continue to manifest in the twenty-first century as spaceships and aliens while still retaining much of their ancient

"enchantment" and many of their traditional disguises. Nothing that Strassman and Shanon have discovered rules out the possibility that these complex hallucinations, and the distinctive themes such as

therianthropy, hybridism, abduction, and the wounded man that run through them from the earliest times until today, might represent veridical encounters with alternative realities. But despite the complexity of such hallucinations, both authorities also acknowledge that they might in some way have been generated inwardly – although they can offer no suggestion as to what process, evolutionary or otherwise, could have brought this about.

Let's first address this problem of the universal inward generation of non-real perceptions.

The one thing that is clear is that "coincidence" – that much over-used longstop of materialist arguments – cannot explain the massive universality of the many supposedly "non-real" human experiences described in this book. If we are to think of them all as inwardly generated hallucinations, therefore, then we are more or less obliged to conclude, as some academics do, that evolution has hard-wired the bizarre images, sensations, and information that they contain

into the modern human nervous system. The moment that we try to take this proposition seriously, however, we collide with the evolutionary paradoxes outlined earlier – namely the difficulty of seeing *why* natural selection should have favored the survival of such a large amount of useless information (along with ingenious means for its admission into consciousness), and *how* it could possibly manifest itself in the form of universal images, ranging from therianthropes to aliens and angels to demons, in settings as diverse as caves and UFOs.

The problem looms larger if we ask *when* the alleged hallucinatory database was downloaded onto the human genome (from where, thereafter, it would be duplicated in every newly made human being). Thosewho want us to believe that blind evolutionary forces acting on their own could have compiled such a database and impressed it permanently on all our brains ought to have an instant answer to this question, but, as it turns out, they do not.

We have seen that there are no grounds for attributing the human ability to hallucinate to any kind of neurological change. Although the earliest surviving evidence that our ancestors were experiencing hallucinations comes in the cave paintings of 35,000 years ago, it is the scientific consensus that our species had undergone no neurological evolution whatsoever for at least 160,000 years before that. The brains of the great shaman artists of the Upper Paleolithic did not differ in terms of size, complexity, or structure from the brains of the most ancient anatomically modern humans so far discovered, who lived in Ethiopia around 196,000 years ago.32 The difference was all in behavior, with the symbolic abilities that are expressed so fluently in the cave paintings being found to lie at the root of all the significant innovations – then and since – that have elevated human beings above animals and allowed us to take our destiny into our own hands.

From this we may deduce that any evolution required to install the

ability to hallucinate on our mental hard-drives must have occurred much further back in the human story than just 35,000 years ago, or even 196,000 years ago, *but that this ability was for a long while incon-sequential in its effects.* I have argued that a small percentage of every human population has always been able to hallucinate spontaneously without the need for drugs or other shamanic techniques, but that most of our ancestors probably didn't know how to "switch on" this ability in any sort of systematic way until such a time as they encountered and began to make deliberate use of psychoactive plants and fungi. I am certain that the ability was already present amongst our pre-sapient hominid ancestors all the way back to the Australop-ithecines, and I do not doubt that they would from time to time have encountered and enjoyed psychoactive plants without being transformed by them in the way that later humans would be.

Indeed, scientists have established that the ability to hallucinate is

not confined to humans, but is shared by other mammals and also by birds, bees, butterflies, ants, and spiders, many of which are knownactively to seek out psychoactive substances.33 Of course we cannot know what mental events they experience – or even if they experience any mental events at all – under the influence of a drug. What we can be sure of is that their behavior changes. Spiders on LSD, for example, weave fantastic, convoluted, “arabesque” webs. There are ants that become addicted to the abdominal secretions of a certain beetle, specimens of which they collect, nurture, and breed so as to ensure a permanent supply on hand in their colonies. Once under the influence of the secretions, the ants stagger around and abandon their normal work. Similarly, moths in Arizona favor the nectar of hallucinogenic datura flowers over all other sources available. After visiting just a few flowers they become clumsy, researchers report, and often

“miss the target and fall onto the leaves or the soil. They right

themselves slowly and awkwardly. When they take to flight again, their movements seem erratic, as if they were confused. But the moths seem to like this effect and return to suck more nectar from those flowers.”34

That such different categories of creature as insects and humans should both turn out to have an evolved ability to alter their state of consciousness with hallucinogens is highly significant. It means that the actual process by which the ability to hallucinate was “naturally selected” and imprinted on DNA (so that it could thereafter be replicated from generation to generation) must have taken place before the last common ancestor of them all. This is so because the Arthropoda (the line to which insects and spiders both belong) and the Chordata (the line to which humans and other vertebrates belong) have been separate from the very first records of multicellular life, and their last common ancestor is thought to have lived around a billion years ago.

It is a hypothetical creature, for no physical remains have survived, and the general view amongst biologists is that it would have been little more than a ball of cells without eyes, a face or a brain.35 Nevertheless we can be certain that some such creature did exist, and that its descendants separated and formed the Arthropod and Chordate lines because of the astonishing similarities that still connect insects and humans at the genetic level. Thus, for example, although the compound eyes of a fly and the camera-like eyes of a human being are completely different in structure their development turns out tobe controlled by exactly the same group of genes – i.e. segments of DNA that are identical in both flies and humans. Likewise the same gene clusters that regulate the differentiation of the paired and segmented antennae of the head region in fruit flies are also involved in the differentiation of the head region in mice and humans. The implication is that these genes were "retained in invertebrates and vertebrates from a common ancestor that lived eons upon eons ago."36

By the same logic, the genes that control the response of insects and humans to hallucinogens must also have been present in the common ancestor of both. That hypothetical faceless, eyeless, and brainless ball of cells bobbing mindlessly in the waters of the primeval ocean a billion or more years ago must, in other words, have already been equipped with the same genetic coding that makes it possible for modern humans to experience complex universal hallucinations.

One cannot say that nature gave the common ancestor this equipment, which it could not use itself, so that it would much later be available for more evolved species – since every step of evolution has to pay its way *at the time*. So if we want natural selection to explain our ability to hallucinate and to account for the specific types of content that are seen universally in altered states of consciousness – including flying discs, “wheels,” therianthropes, beings with multiple faces, clowns, “white ladies,” small humanoids

with large heads, and serpents coiled around each other like the double helix – we must first explain why it was useful for the last common ancestor of insects and humans to have the necessary instructions on its DNA to enable it to hallucinate, even though it did not yet have any brain cells to hallucinate with! If it is not immediately obvious how possessing the ability to see “non-real” things could confer survival advantages on an advanced mammal like a human being, it is a thousand times more difficult to explain how or why such an ability could have evolved in the first place in much earlier and simpler forms of life.

But perhaps it did not evolve. Or anyway not here. Perhaps Narby and Crick are right and our DNA really is an “ancient high biotechnology . . . that far surpasses our present understanding and that was initially developed elsewhere than on earth.”37

Far better than vain attempts to bend natural selection to explainwhy the DNA of creatures ancestral to insects and humans should have

been equipped with blueprints to enable their descendants to observe the unreal is to suppose that the blueprints were always present in some vital area of DNA right from the moment that life first began replicating on this planet, and that they were put there by "clever entities" in the expectation that the processes of evolution would one day result in a creature that could understand and make use of them.

If there is any truth to this scenario, then it could be that the next stage in our evolution depends on our willingness to give full attention to the ancient interactive teachers in our DNA. Perhaps Rick Strassman's volunteer Jeremiah came as close to the truth as anyone when he announced in the middle of a high-dose DMT session: "I felt evolution occurring. These intelligences are looking over us."38

Extra-human realm?

The alternative to experiences like these being inwardly generated is that they genuinely do “reflect patterns exhibited on another, extra-human realm.” Much of the evidence we have explored in these pages is at least suggestive of this possibility.

For example, what final reckoning are we to reach with the parallels between flying saucers (circular, rotating fast, instrumental in the abduction of humans, linked to the appearance and disappearance of aliens) and the fairy dance (circular, rotating fast, instrumental in the abduction of humans, linked to the appearance and disappearance of fairies)? They often seem like two different technologies for doing the same thing, with the fairy dance the equivalent of the analogue version and the UFO showing off its tricks as the latest digital model. But if they are technologies of any kind, rather than abstract mental images, then we can only be dealing with perceptions of extra-human realms and beings.

The alternative, “inward” notion that we are interacting with

intelligent virtual agents in our DNA does not seem to provide a good explanation for data of this sort. It is also unable to account for the many physical elements of abductions by spirits, fairies, and aliens that have been reported down the ages – ranging from the completedisappearance of individuals in medieval times, to radar echoes of UFOs today, and to the small but distinct traces, such as scars and implants, that are often left on the bodies of abductees. Far from being "virtual" and inwardly generated, such phenomena seem to meet most of the standard tests that we apply to exterior reality.

What I find most persuasive, however, is the consistent tradition of interbreeding between humans and spirits/fairies/aliens, together with the parallel themes of wetnursing, hybrid children, etc., etc., and clear indications of change and development taking place within these peculiar phenomena over the course of relatively recent human history.

Such experiences do not seem to accord at all well with Narby's

scenario, since it is difficult to guess why even the most creative and interactive virtual teachers should have been designed to convince us that we are having intercourse and making babies with them, let alone why they should further require us to return repeatedly to the class-room to cuddle and nurse our poor, sickly, hybrid (and of course *virtual*) offspring.

Also, although the "lessons" envisaged by the virtual-teacher hypothesis would have been designed to draw on and tailor themselves sensitively to the existing mental imagery of the pupil (thus accounting for bison therianthropes in Upper Paleolithic Europe, eland therianthropes in southern Africa, and jaguar therianthropes in the Amazon), it is much harder to understand how the actual content and structure of the lessons could change if they had indeed been pre-loaded onto DNA at the start of life on earth. We have seen, for example, that the "hybrid project" has maintained a consistent focus on producing offspring that are half human and

half spirit (or fairy, or alien), and that this seems to have been going on for thousands of years. The reader will recall that many intricate details of this supposed mental figment have remained exactly the same as far back as records go, but that there also appears to have been significant streamlining of standard operating procedures (e.g. no more changelings and no more permanent abductions of adults and children into the otherworld – see Chapter Nine).

Such evidence can only add weight to the scary but intriguing possibility that the reason why human experiences of the "non-real"

p.demonstrate so many astonishing commonalities is that they do in fact "reflect patterns exhibited on another, extra-human realm." The bottom line would be that non-human, apparently non-physical intelligences, whose first interactions with us are documented in rock paintings of therianthropes dating back 35,000 years, and who inspired all the world's religious traditions, are still present amongst us today, following their own agenda according to their own

timetable and purposes.

We know that about 2 per cent of humans have the spontaneous ability to enter the altered states of consciousness that are required for seeing and hearing such beings. The rest of us – including many of the most accomplished shamans – require the help of a range of techniques in order to induce the requisite state of consciousness. Amongst these, by far the simplest, the most certain and the most immediate is the consumption of large doses of one or other of the many plant and fungal hallucinogens that have evolved alongside us. Indeed, when we look at the pattern globally we can see that psychoactive flora are so widely available in nature that evolution seems to have taken almost a “belts and braces” approach to ensuring that they would sooner or later be encountered by any intelligent species that might evolve on this planet.

It so happened that the first species on earth with the brain power to do more than just enjoy these plant catalysts – as even ants and

spiders seem to do – was our own, *Homo sapiens sapiens*. Other species seek out hallucinogens, and demonstrate behavioral changes while intoxicated, but soon revert to rigid instinctive patterns when the drug effects have worn off. Earlier hominids no doubt did so too. Modern humans, on the other hand, are frequently transformed by the same substances. As we saw in Chapter Fifteen, studies where subjects have been questioned on such matters emphasize that their drug experiences had profound effects on their views of reality and often left them with long-lasting spiritual leanings and metaphysical interests.39

We have no reason to suppose that it would have been any different for our ancestors in the Upper Paleolithic. On the contrary, the evidence is overwhelming that their great leap forward 35,000 years ago was causally linked with the experiences that they went throughin altered states of consciousness and documented so fluently in the dark depths of the painted caves. They believed that

they were encountering supernatural beings from non-human realms. After all we know now, who are we to say that they were wrong?

Psilocybin at Avebury

Under the influence of five dried grams of psilocybin mushrooms, the acerbic American comedian and social commentator Bill Hicks had experiences that changed his outlook on life completely: I have seen UFOs split the sky like a sheet . . . I have seen seven balls of light come off a UFO, lead me onto their ship, explain to me telepathically that we are all one and there is no such thing as death . . .

I laid in a field of green grass for four hours going, “My God . . . I love everything.” The heavens parted, God looked down and rained gifts of forgiveness onto my being, healing me at every level, psychi-cally, physically, emotionally. And I realized our true nature

is spirit, not body, that we are eternal beings.40

I too had seen UFOs under the influence of a drug – in my case ayahuasca – and come to similar realizations. But then the DMT in ayahuasca and the psilocybin in the mushrooms that Hicks ate are closely related. Indeed, Rick Strassman defines psilocybin as orally active DMT.41 Psilocybin is also a plausible candidate for the hallucinogen used to induce trances by the shamans of the Upper Paleolithic, since *Psilocybe semilanceata* and a number of other highly psychoactive mushroom species grew in Europe during the Ice Age.42

In addition, scholars have implicated the consumption of *P. semilanceata* as most likely to have inspired the later Neolithic art of Europe's great megalithic monuments at sites such as Carnac in Brittany, and Newgrange and Dowth in Ireland.43 Though fully iconic figures are lacking, many of the same entoptic phenomena abound, and there is a sense of continuity – as though the great

project of the painted caves never quite died out but somehow re-emerged amongst the megaliths thousands of years later.

p.There is another strange connection too. In European folklore, the Neolithic monuments have always been strongly associated with fairies.

The tumuli – or ancient burial mounds – were often taken to be "fairy hills," and the stone circles and megalithic passage-graves such as Gavrinis, New Grange, and West Kennett Longbarrow were feared and avoided as entrances to Fairyland.44

A megalithic setting therefore seemed appropriate to attempt what I was determined would be one final experiment with psilocybin – a final experiment because I had already taken hefty doses of *Psilocybe cubensis, Psilocybe mexicana,* and *Psilocybe semilanceata,* and was frankly scared of further encounters.

I’m not sure why I felt as afraid as I did, because nothing particularly terrifying had happened to me under the influence of the drug.

Far from it! Mushrooms are very hit-and-miss, and on two of the three previous occasions I didn’t have a psychedelic experience at all.

The third occasion was different, but perhaps that was because I took 13 dried grams of *P. semilanceata* (far too much, apparently – almost three times as much as the dose that put Bill Hicks onto a UFO). I tipped the little mushrooms into a pot of water and cooked them at well below boiling point for half an hour until I had about a liter of dark brown stock. Then I hauled out the tangled, soggy mushroom mass from the bottom of the pot, put it in a sieve, squeezed most of the liquor in it into the pot, ate a handful of the mushrooms out of the sieve, and then drank all the soup (which didn’t taste at all bad).

Within half an hour I was immersed in a heavy visual storm of entoptic patterns and ever-changing colors, and as I let these develop, the room around me, and even members of my family who were in it with me, underwent a slightly sinister metamorphosis. Walls bent and breathed, the floor expanded, facial features were distorted, skin took on strange tones and pallor. It was as though everything in my familiar reality had surreptitiously shifted half a step to one side and now was somehow different. At the same time, I knew clearly who I was, where I was, who I was amongst, and that these were just the characteristic perceptual effects of the drug I had taken which would wear off in six hours or less.

p.I listened to our daughter Shanti playing beautiful music on our old piano. The notes seemed to take shape in the air – sometimes as huge curtains of light rippling across my visual field like the aurora borealis, sometimes as fireworks and starbursts, sometimes almost as winged beings. I found that there was a curious way my

consciousness could follow and be guided by these notes in flight, or sometimes be lulled by them as though into a gentle rocking motion like a soft swell out at sea.

When Shanti stopped playing I stood up and walked around. At some point I looked down at my feet and found that they were ridiculously far away – at least two floors beneath me. Later I noticed that my left hand seemed to be surrounded by a fuzzy glowing aura. I held it up to study it, splaying my fingers out, and realized that the effect was almost exactly like the negative handprints, each surrounded by a penumbra of spray-paint, that I had seen in so many of the painted caves of Europe.

I started to feel cold, and lay down on the couch, wrapping myself in a blanket. Santha sat with me. After a while our daughter Leila came into the room and recounted a harrowing story about hunters in Africa slaughtering a pregnant chimpanzee for “bush meat.” The story filled me with an unutterable and inconsolable sense of sorrow

and desolation, and I spent the next hour in tears. By the time I pulled myself together the psychedelic side of the trip was well and truly over.

So . . . emotional, yes, a bit disturbing, yes, a lesson, yes (both my daughters taught me different important lessons about the beauty and sadness of life), but scary – no. There was nothing out-and-out scary about where psilocybin had taken me, because it hadn't really taken me anywhere at all. Unlike ayahuasca and DMT, which had propelled me into convincing otherworlds, and ibogaine, which had introduced me to the spirits of the dead, the large dose of mushrooms I had consumed had not plunged me into anything like a full-scale visionary state. What the drug had done, however, was play around enough with my sense of reality to hint at the limitless powers that it still held in reserve, and what it could do to me if it let rip. Everyone has their own threshold, and clearly mine for psilocybin was high, but if Iwanted to get into as deep a trance as

Hicks had done, and as perhaps the cave artists had done, then I was going to have to test my threshold and break through it. In practice that would mean what? Twenty dried grams? Thirty?

The otherworld can be a very scary place, and I began asking myself how much I wanted to see it again. Psilocybin was clearly a vehicle that would get me there if I was willing to brave a truly heroic dose, but how much did I really want or need to do that? And what more did I hope to find out? Was there any real chance, even if I “asked the mushrooms” (as the Mazatec shaman Maria Sabina used to do in Mexico back in the 1950s), that any kind of definitive insight, or any answers at all, would come out of a big psilocybin trip? Well, honestly, yes there was. Was there any hope that I might meet the spirit of my father and be reconciled to his loss? Again, honestly, yes there wasI have heard regular users of hallucinogens report stranger things. But did I have the stomach for a trip like that now, after two years of research and writing, with my energy at a

low ebb and my fear of the spirit world high? I wasn't at all sure that I did.

Nonetheless, a couple of weeks before the spring equinox in 2005, I made my way to the 5,000-year-old megalithic stone circle at Avebury in Wiltshire with three friends who are all experienced users of psychedelics. Santha and our son Luke came along to lend reassurance and help out in case of any problems. Again the mushroom of the day was the Liberty Cap, *Psilocybe semilanceata*, which has grown in profu-sion across huge swathes of Ireland, the British Isles, and mainland Europe since times immemorial. One of us had brought the little fungi in a rucksack, and we chewed them up pretty much as they came out of the earth, just as our ancestors might have done.

I lost count after a while but I know that I ate at least 50 caps and stalks. I have no idea what that would amount to in dry grams, but certainly it was many fewer mushrooms than had gone into the soup

I’d made before. Since I hadn’t broken through into the visionary state then, it followed that I was most unlikely to break through to it now on what felt like less than half the dose, yet at the same time I found myself strongly resisting the idea of eating more.

We were perched up amongst the exposed roots of an ancient treeon the ridge of the immense ditch and embankment in the form of a fairy circle that surrounds the principal henge at Avebury. I looked around at the colossal earthworks and at the weathered, imposing megaliths, standing stark, in silhouette, like doors leading to another world. It was early afternoon, cold and gray, with a chill wind blowing, the trees were bare, and there were very few people around.

Then I ate five more mushrooms and closed the rucksack . . .

p.Appendices

Appendix i

Psilocybe semilanceata – a hallucinogenic mushroom native to Europe

by Professor Roy Watling, OBE, winner of the Royal Society of Edinburgh's Patrick Neill Medal for research in mycology *Although the hallucinogenic mushroom* Psilocybe semilanceata *is widespread in Europe today, the claim has been made that it is not an ancient native species but was introduced from the New World after trans-Atlantic contact began in the late fifteenth century. Professor Watling investigates this claim and gives his opinion on the provenance of the species.*

Psilocybe semilanceata, or "Liberty Caps," a colloquial name pertaining to the cap resembling the helmet of the First World War

French infantry (before the general term “magic mushroom” was introduced), is well known to naturalists and forayers – and more recently, those collecting wild recreational drugs. Scientifically it is classified amongst the *basidiomycetes*, a group which includes the bracket fungi, puffballs, and the like, in addition to the mushrooms and toadstools, the last two together called agarics. Within this group the Liberty Cap is placed in the *Cortinariales* along with the cultivated mushroom, and it resides in the family *Strophariaceae*.

As a species, *Psilocybe semilanceata* is well defined and belongs to a relatively small genus, as presently understood, even after the recent expansion by Noordeloos (1995), but despite being well known, *P. semilanceata* is not particularly characteristic of the genus when all the world species are taken into account. The majority of non-European species have been described as new to science in the last half-centuryby those actively involved in the documentation of hallucinogenic taxa.

Guzman (1983) has monographed the world species and examined material of *P. semilanceata* from nearly all European countries, in addition to Australia, Chile, and North America. It has been recorded many times by European authors since its formal description by the Swedish botanist Elias Fries in 1838. Indeed, it has been the subject of ecological studies in more recent years, and molecular analyses have been undertaken which demonstrate a uniformity within the taxon. It is, however, rather significant that Stamets (1996), who monographed the hallucinogenic fungi, records it only from west of the Cascades in the United States, from northern California to British Columbia during the autumn and early winter, and sometimes in Oregon and Washington during the spring months. This distribution when linked with its European distribution fits in with many other known organisms; in contrast, the eastern United States ties up with the temperate and subtropical areas of Asia. Charles Peck, the influential pioneer American mycologist, recorded *P. semilanceata* and indicated it was common in

grasslands but failed to keep any material, something unusual for him. Material was sent to him from all over North America during his career, so he could have thought it was common in America if the specimens sent to him by his contacts included those from the west. Examination of specimens in his herbarium in Albany, however, has ascertained that he had confused the Liberty Cap with what was then known as *Psilocybe foenisecii*. This latter species we now know as *Panaeolus* or *Panaeolina foenisecii*, depending on the authority. Regardless of the generic placement, this fungus agrees with those placed in a totally different family of fungi to the *Strophariaceae*. Thus old records of *P. semilanceata* from eastern North America are at most extremely limited or totally confused. Strange for a fungus considered to be common! No?

In Britain, *P. semilanceata* extends from the northernmost islands of Orkney and Shetland, including even some of the smaller non-inhabited islets in the archipelagos, and the Hebrides, including the

far-flung St. Kilda, to the eastern and western extremities of southern England. It is considered native to these islands. It is found in semi-natural grassland communities often unimproved in even historictimes, and even perhaps since they were originally formed after woodland clearance.

Equally it is a widespread species in Europe, its distribution reaching northernmost parts of the continent, in addition to the Faeroes, as attested by published records, the author's own collecting, and that of his colleagues from Norway, Sweden, Denmark, and the Netherlands, including some who have monographed *Psilocybe* for their respective countries. All agree that there is no evidence to suggest that the Liberty Cap is not native to Europe. The uniformity of *P. semilanceata* throughout its range is supported by little or no morphological differences between collections from different areas and by molecular studies. The latter indicate that there are no differences in the portions of DNA studied

between specimens from Scotland and Spain (Watling and Martin, 2003).

P. semilanceata is also uniform over other large parts of the world.

It possibly has been introduced to Australia, but the finding of it in high-altitude grasslands in New Zealand needs careful interpretation.

In Europe as in New Zealand *P. semilanceata* is a grassland species with a propensity for areas where there is nitrogenous input; it is not, however, coprophilous (the closely related annulate *P. fimetaria* fills this habitat niche). Although often associated with hill and lowland pastures supporting domesticated animals (cows, sheep, and even horses), *P. semilanceata* is also found in grassy glades in woodlands and in copses frequented by deer. It has obviously spread from such sites to lawns and playing fields and therefore closer to habitation, and evidence has been accumulated

on the movement of populations of man and *Psilocybe* in Shetland connected with the oil industry.

Nowhere in its range has *P. semilanceata* demonstrated the explosive expansion generally associated with an incomer, such as the false truffle *Paulocotylis* in Britain, or an expansion of distribution as a result of the availability of a new substrate as seen in the spread northwards in the last 40 years of the native and southern *Schizophyllum*. We are all by now familiar with the devastating and rapid spread of the causal organism of Dutch Elm disease, *Ceratocystis ulmi*, after its recent entry into the country from imported timbers. Certainly there have been historic connections between Spain and Britain, but any uniformityshown between the Liberty Caps of these countries should be reflected also in the DNA of North American specimens if the hypothesis is correct that North America is the origin of *P. semilanceata*. Instead, the North American information available to us shows several

differences to the European material. Unfortunately, dried voucher specimens, although available to support the European sequences, are apparently not available for the New World collections which have been flagged up on the international GenBank. Cross-checking cannot therefore be conducted, for as shown above there has been some confusion in the identity of *Psilocybe* spp. abroad. The differences exhibited, however, indicate that there has been much longer separation between New and Old World populations, differences which would hardly have occurred in the period of a few centuries.

In South America, *P. semilanceata* is rather infrequent and few records are known; indeed, collectors have been particular in noting its absence except in Chile. Surely if this fungus moves so easily between continents, South America would be a very good site as the Spanish colonists were prominent there. As this is not the case, evidence for *Psilocybe semilanceata* being native to Europe is

supported.

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Appendix ii

Interview with Rick Strassman MD

Rick Strassman lives and practices psychiatry in western New Mexico, and is Clinical Associate Professor of Psychiatry at the University of New Mexico School of Medicine. He has published nearly 30 peer-reviewed scientific papers, and has served as a reviewer for several psychiatric research journals. He has been a consultant to the U.S. Food and Drug Administration, National Institute on Drug Abuse, Veterans' Administration Hospitals, Social Security Administration, and other state and local agencies. Dr. Strassman's clinical research at the University of New Mexico included an investigation of the function of the pineal hormone melatonin, in which his team documented the first known role of melatonin in humans. As we saw in Chapters Five and Twelve, he

also began the first new U.S. government-approved and funded human hallucinogen research in North America in over two decades, the results of which were published in his important and thought-provoking book, DMT: The Spirit Molecule (Park Street Press, Rochester, Vermont, 2001). This interview was conducted in May 2005.

Graham Hancock: For me the most intriguing aspect of your extraordinarily interesting DMT research has to do with your volunteers'

detailed reports of encounters with "entities," "beings," etc., and the implications that these reports might have for an open-minded inquiry into the nature of reality. You point out the striking similarities between the reports that were given to you after DMT sessions and reports of encounters with "aliens" given to John Mack (and others) by people who believe they have been abducted by UFOs. In addition, you are probably aware of the numerous almost

identical reports from folklore and ethnography of encounters with "fairies," "elves," etc., and ofshamanic encounters with "spirits" of various sorts. Since we know that your volunteers' experiences were "hallucinations" as conventionally defined, it is therefore not a very big jump to infer – as you yourself propose vis-à-vis "aliens" – that these other categories of very similar experiences might also have been hallucinations. If this is so, however, then are established scientific theories about how the brain "concocts"

complex hallucinations (from memories, personal history, etc.) able to explain such a huge range of commonalities in apparently "non-real"

experiences reported by so many different people from such different cultural backgrounds and periods of history?

Rick Strassman: The crux of this concern hinges on whether one believes that all of these phenomena are internally generated, or

externally perceived, or some combination thereof. Clearly, the brain is affected by one's experiences. It's as though the brain learns a particular language through experience – it obtains a vocabulary, perceptual, emotional, and cognitive – based on that with which we come into contact, and the constraints of our brain's hardware and software.

With that in mind, it's possible to take a larger view of the visionary experiences people may have on psychedelics. While certainly there are just "releases" of previously, or normally, repressed or suppressed images, thoughts, feelings, and the like – particularly at lower doses of these drugs, or in those with reduced sensitivity to them (for either biological or psychological reasons) – in the more nether regions where these drugs may lead our consciousness, something else may happen.

That is, we are forced to clothe, or engarb, the *external* forces, or beings, or influences that otherwise might be invisible to us, in a

manner that we are able to recognize. This follows what many others have suggested – that angels, demons, imps, elves, dwarves, etc. are similar "creatures" but ones that appear in a guise that is culturally or personally flavored or determined. Like Captain Cook's ships, which the indigenous people of the South Pacific saw either as large ocean waves, or as nothing at all – not until they actually came up to the ships and touched them could they see them in their true form.

So, beneficent beings may be seen as "angels," malevolent forces as

"demons," strange forces taking on strange appearances and emotionalcoloration – assuming personally and socially specific shapes and valences that convey the nature of the forces or information they are representing or conveying.

Drugs like DMT would provide access to these forces or beings, and then our own personalities and cultures would act as the prisms

through which we see them. This is also where religious, ethical, moral training may be important. It's necessary to have as unsullied a personality and psychology as possible. No matter how powerful a drug might be, if it's working on a polluted, avaricious, sadistic level of consciousness, we're not going to be able to perceive things that someone who's been working on themselves for decades might be able to perceive. And, once we come "down" from the expanded level of consciousness, what we can remember, and then put into practice, is certainly dependent upon our pre-existing personality organization and structure.

Actually I don't come out in favor of explaining my volunteers' experiences as "hallucinations." I sort through a variety of possible, relatively plausible, models to explain their experiences.

However, there were problems which I encountered with explaining away, as it were, their experiences as something other than they seemed to be. First, most of the volunteers described their

experiences as more real than real. More intensely visually constructed, more emotionally powerful, more cognitively and spiritually profound than anything they'd ever undergone before. In addition, they nearly unanimously stated that they never could have imagined, made up, or otherwise invented or hallucinated these experiences.

I *do* first begin with the "hallucination" model; that is, "this is your brain on DMT." However, volunteers rejected this theory as unrealistic – "How could there be brain centers for such complexly constructed story lines, visions, messages?" I then tried the Freudian unconscious model: that what they were undergoing was of the nature of symbolic representation of unexpressed drives, impulses, feelings, or the like. This, too, was laughed at by the volunteers. I offered a Jungian model, along the lines of their visions representing archetypal constructs. Again, a lead balloon. In some cases, the visions did seem to meet many of the criteria of dreams,

and in those cases, there waslittle problem coaxing volunteers through those pathways – investigating what the “dreams” might be representing in their lives – but these types of experiences were rather rare.

Finally, I decided to treat the experiences “as is.” That is, if they were envisioning and interacting with beings from what seemed to be other dimensions of reality, I accepted this as such. In other words, I stopped making their experiences into something other than they seemed to be. By doing so, volunteers began confiding more and more about the utter strangeness of their experiences under DMT. Also, I could rest a bit easier and work more readily with the volunteers’ experiences, because there seemed to be such commonalities among them.

If they were really what they seemed to be, then where could such realities reside? It was then I began allowing myself to consider that DMT provides a portal into alternative dimensions of reality –

perhaps parallel universes, or dark matter, about which I speculate rather freely in the book.

Graham Hancock: Are you still open to this hypothesis, and would you be prepared to elaborate further on the problems that it raises for scientific understanding of the nature of reality and consciousness?

Rick Strassman: I remain more wedded to this idea than ever. The primary problem right now in validating and extending my theories is the lack of technical equipment, other than our mind/brains, that is, to verify such phenomena as existing outside of this time-space continuum. If we could photograph things like this, we'd all be able to come to an agreement that they exist. However, I am quite impressed with the commonalities existing in the reports of our volunteers; and in the subsequent large number of reports I've received from those who have had such experiences on psychedelic drugs, or spontaneously without drugs – perhaps through elevated

levels of endogenous DMT generated by various means such as meditation, stress, sleep disorders, etc.

The scientific method generates scientific understanding. Charles Tart wrote a neat little paper about "state specific sciences" in the 1970s for the journal *Science*, in which he describes the requirements for"state specific scientists" who would explore different states of consciousness using the fundamental tools of the scientific method: field data based on "anecdotal" reports, hypothesis generating, experiments, gathering more data, revising theories based on new data, and so on. Training a cadre of scientists to be experts in negotiating through these "laboratories." However, in this case, Tart recommended studying states of consciousness with this permutation of the scientific method, rather than objective external reality. If you replace "state of consciousness" with "states of reality," I think we'd be in a similar situation.

Graham Hancock: You oppose the biological reductionism of

many scientists with an important idea that has also been entertained by William James, Aldous Huxley, and Albert Hoffman amongst others.

This is the idea of the brain as a receiver that can be retuned by certain hallucinogens (and other techniques) to pick up different wavelengths of a much wider "reality" than is normally available to our senses. Are you aware of any evidence within the prevailing materialist/empiricist scientific paradigm that is capable of refuting the

"receiver" model? If not, then on what basis do you think so many mainstream scientists are so dismissive of hallucinations and so adamant that the information they contain can in no way be veridical?

Rick Strassman: This almost would fall into the "philosophy of science"

field. About which I know little. I'm sure someone could "disprove"

the receiver model using a materialistic argument. Because such a theory falls outside of what we "know," or what is "real," it cannot happen. This seems a rather immature way of looking at things, and one which science itself has disproven countless times in its history.

This is where science becomes another agent of evil's use of fundamentalism.

The receiver model is just that. The brain receives information at the level for which it happens to be tuned at that particular time.

Clearly, there are examples of objective technical equipment changing what we're able to see: the microscope, or night-vision goggles, or radar, the telescope. Meditation is a "subjective" technique or tool that seems relatively well established as a method by which we canexperience things not normally accessible. So is

“biofeedback,” in which case we are trained, by the aid of a machine, to “feel” various physiological functions previously believed to be outside our realm of perception.

Theories about psychedelics providing even greater ranges of what is perceivable are little more than extensions, albeit somewhat radical extensions, of what we already have incorporated into our scientific biomedical world view.

The remarkable thing about DMT is that it is endogenous, the brain’s own psychedelic. And the fact that it is capable of eliciting such amazing and earth-shattering effects makes theorizing about what its role might be in human consciousness so compelling.

Graham Hancock: Another model that you contemplate is that “We were activating certain hard-wired sites in the brain that elicit a display of visions and feelings in the mind. How else could so many people report similar experiences: insect-like reptilian creatures?” (

DMT: The Spirit Molecule, p. 200) But you clearly also see many problems with this "hard-wired" model and ask on the same page: "How could anyone believe that there were chunks of brain tissue that, when activated, flashed encounters with beings, experimentation and reprogramming?"

Where do you come down on this today? After all, it is widely argued, pretty much without contest, that so-called entoptic phenomena are seen universally in certain altered states of consciousness because they are "hard-wired" into the structure of our nervous systems. Why shouldn't much more complex experiences like those reported by your volunteers also in some way be "hard-wired"?

Rick Strassman: The entoptic phenomena are the bytes of information from which more complex constructs are made. It may be a bit of turning the whole issue upside down. Rather than the brain constructing the mind, perhaps the mind constructs the brain.

That is, the entoptic bits of brain structure are just what the mind needs in order to display the phenomenon which it accesses.

The television analogy is always handy, and one for which in this incarnation I owe a debt of gratitude to my friend and mentor, RupertSheldrake. We can take apart a television set and investigate the ways in which each transistor and switch work. However, we cannot explain the programs which come in through the TV by understanding the mechanisms of action of each component part.

We all have DNA, mitochondria, tissues, and cells. However, they are put together in a very special way to make organs, limbs, and these are then themselves organized in a particular manner, to make a human body. Even then, it is just a body, lifeless, a hunk of flesh. Without the overriding principle that enlivens and directs all this matter, there really is not much to speak of. In a similar vein, the entoptic bits and pieces that people believe are hard-wired into the brain would exist in an absolute vacuum unless they were organized

and directed in the particular manner coming through as visionary experience.

Graham Hancock : To expand on the above a bit, are you able to envisage any sort of evolutionary process (over the five- or seven-million-year story of human evolution since our last common ancestor with the chimps) that might have the capacity to hard-wire "flashed encounters with beings, experimentation, and reprogramming" into all human nervous systems? This for me is one of the real problems with the "hard-wired" theory that is so often deployed as if it explains all commonalities. If such information is hard-wired into us, then how, when, and why did this hard-wiring occur?

Rick Strassman: This mechanism, say through the aegis of DMT, seems to be hard-wired into every mammal that has been investigated.

DMT exists in the brain and blood and spinal fluid of humans, mice, rats, other primates. In addition, DMT has been found in an enormous number of plants. Fish, too. Invertebrates.

No religion of any merit discounts the spiritual nature of all existence, including that of plants, animals, minerals, space, time, light/energy, and what have you. At least on the material biological realm, DMT seems to be the link, the mechanism of action by which this spiritual nature is manifest, and through which a divine connection seems, at least in certain circumstances, possible.

God wants us to be godly. So, by being close to God, we can learnto emulate God. Perhaps DMT is one of the ways in which we are able to communicate with God that much more intensely – for better or worse.

Graham Hancock: Can you see any way in which the experiences that DMT occasions could be described as “adaptive” in

conventional evolutionary terms?

Rick Strassman: This touches upon what I have spent the last several years pondering, which is, what is the evolutionary/adaptive role of endogenous DMT? A few years back, I was asked to write a response to Karl Jansen's paper in *Journal of Near Death Studies* regarding his theory of an endogenous ketamine-like compound being involved in the near-death experience. Karl is a good friend and colleague, and we had batted around these ideas at some length.

Karl, I believe, proposes that such compounds as putative endogenous ketamine-like substances function like ketamine, which has a neuroprotective effect on the brain when it suffers oxygen deprivation in near-death circumstances. Ketamine also is quite psychedelic in and of itself. Karl proposed that ketamine-like endogenous substances produce NDEs as a side effect of its primary role – which is to protect the brain from damage when it is being traumatized.

It is worth mentioning that the initial reports of such ketamine-like endogenous compounds have not been replicated.

Nevertheless, I come down on the side of believing the other way around. That is, DMT and its ilk produce such psychedelic experiences during the NDE, because that is what our consciousness is experiencing at that time – it is what we see, feel, hear, think, as we are dying, and DMT is the aegis through which this happens. And, rather than DMT just producing a blank, dark, empty nothing state, which some people think is what happens at death, it produces quite the opposite. And that may be, I believe, because what happens *is* quite the opposite. It is on DMT's wings, so to speak, that consciousness takes flight from the body on its way towards death. That is what's happening, and this is the mechanism by which it occurs.

I hope I'm being clear. The NDE is not a hallucination – it iswhat happens as we die. It is what our consciousness experiences. How

else could there be such an astonishingly consistent reporting of such experiences throughout time and cultures? How could it be an artifact? How much more proof do we need? Why in the world would nature or God have set things up in such a way? It would have been much more kind to just let us drift into oblivion, if such was the function of compounds easing our transition to death. On the contrary, death does not seem to be that way, and DMT shuttles us along as we make that transition.

Graham Hancock: Apropos of this you write (in *Entheogens and the Future of Religion*, pp. 158-9): "Why do we all have DMT in our brains?

Why is there a compound, when given (or produced), that generates experience of 'alien-contact,' death, space-travel, and other extraordinary effects? However, the comparable question is not asked of silicon in computer chips. Rather silicon is in computer chips because it works; it's the best molecule for the function

needed. In the same way, we have DMT in our brains because it works. It's the best molecule for the function needed, to retune the perceiving abilities of the brain to different levels." In which case, the evolutionary question then becomes, "Why would we need such abilities if the conventional scientific model of reality is correct?"

Rick Strassman: Our conventional scientific model of reality is correct, for this level of reality. And, taking into account the endogenicity and nature of DMT's effects, we can expand that conventional model into what are now believed to be the unconventional realms, those that have previously been under the purview of religious, spiritual, and shamanic disciplines.

One of the problems, I believe, with the DMT work, and the conclusions I come to, is that they don't fit into anyone's world view very well – that is, at least the scientific and spiritual ones. And the

“new age” one ignores the real dangers inherent at both the spiritual and physical levels.

The scientific model is generally limited to objective reality, although some of the developments in physics and astronomy arepretty psychedelic in themselves – but they haven’t quite trickled down into everyday parlance and thinking very well, especially not in psychiatry. And the fact that these ideas partake of non-corporeal, non-physical levels of existence, which are usually referred to as “spiritual,” causes my colleagues to bristle (at the worst), or quickly lose attention (which is most common).

And the fact that DMT allows a relatively reliable entry into states of consciousness or levels of reality that had heretofore been the primary turf of religious organizations and doctrines raises the hackles of members of those institutions. No need to study, pray, take vows, wear unique clothes and hairstyles, exchange special bows and hand-shakes.

I wish there were some way of bridging those gaps. Why not take the best of both worlds? That is, the scientific methodology with its mastery of the physical/natural world (read: access to DMT), and the ethical/moral advances that exist within religion?

Graham Hancock: Subsequent to the publication of *DMT: The Spirit Molecule*, have you had any opportunity to follow up your hypothesis that "the alien abduction experience is made possible by excessive brain levels of DMT"? Did you ever have the chance to compare notes directly with John Mack before his tragic death in a car accident last year?

Rick Strassman: John thought there were striking similarities, and I think, if time had permitted, might have agreed to collaborate on a study giving DMT to some of his subjects, to determine how close the two phenomena were.

I haven't followed up with such a study. Many of the notes I've

gotten from people since the book came out confirm what I believe

- that is, many of those who have their spontaneous “being contact”

experiences appear to be having what otherwise would be indistinguishable from a big dose of DMT on our clinical research unit.

Some people have argued against my theory by pointing to the lack of physical “stigmata” of abduction, and the relatively sparse (nearly zero) reports of the typical “grays” of the literature.

p.Regarding the stigmata issue, I have come to believe there is probably a spectrum of “encounters,” from the purely consciousness-to-consciousness variety, to the purely physical-to-physical varietythe latter might be the ones in which the stigmata occur, but are the ones about which I have the least knowledge and opinions. The consciousness-to-consciousness encounters, however,

could very likely be mediated via DMT.

Regarding the relative absence of "grays," there is nothing that precludes these beings donning other garb!

Graham Hancock: In *DMT: The Spirit Molecule* you ask: "What would happen to the study of spirit realms if we could access them reliably using molecules like DMT?" As a matter of interest, what do you think would happen?

Rick Strassman: I'm not sure what would happen. I think it would be a bit too much for fundamentalistic members of any religion, and they would suppress or ignore it. It also would be too much for fundamentalistic scientists – that is, those scientists who mistake what is known so far for all that is possible and to-be-determined-as-true.

For those who were interested, it could revolutionize our

understanding of the spirit realms, and therefore might have a positive effect on our evolution as a species. However, the forces of evil seem to be gathering a lot of strength right now, and that is primarily through using a black-and-white fundamentalist approach to reality. Shades, nuances, and even shockingly obvious contradictions to the fundamentalistic world view don't have much of a chance when they are so outnumbered and feared.

Not that we would learn anything we weren't already ready to learn

- if it's just too much out of our sphere, we won't see/hear/understand it. That's why spiritual/religious/shamanic training is so importantwe must be ready to entertain the strangest and most unexpected phenomena and information. And there's nothing about realms of the spirit that is inherently good. There certainly are dark spiritual forces.

We don't want to be seduced by something that solely by its non-

physical nature promises to be helpful.

p.By revolutionizing our understanding of spirit realms, hopefully our understanding of the physical/material realms would evolve – into more ethical, co-operative, and beneficent practices. It will take a lot of optimism and fearlessness.

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Mack, *Abduction*, p. 32.

55

Jacobs, *Secret Life*, p. 50.

56

Mack, *Abduction*, pp. 115-16.

57

ibid., p. 115.

58

Cited in Keith Thompson, *Angels and Aliens*, Fawcett Columbine, New York, 1993, pp. 204-5.

59

Hopkins, *The Ongoing Problem of Deception*, p. 2.

60

Mack, *Passport to the Cosmos*, pp. 139-40.

61

ibid., p. 43.

62

ibid., pp. 146-7.

63

ibid., pp. 158-68.

64

ibid., p. 140.

65

Eliade, *Shamanism*, p. 90.

66

ibid., p. 103.

67

ibid., p. 105.

68

Halifax, *Shamanic Voices*, p. 163.

69

Kalweit, *Dreamtime and Inner Space*, pp. 78-9.

70

Halifax, *Shamanic Voices*, p. 184.

71

ibid., p. 185.

72

Webb (1935) cited in Christopher Chippendale, Benjamin Smith and Paul S.C. Tacon, “Visions of Dynamic Power: Archaic Rock Paintings, Altered States of Consciousness and ‘Clever Men’ in Western Arnhem Land (NT), Australia,” *Cambridge Archaeological Journal*, 10:1 (2000), p. 75. Emphasis added.

73

Leroi-Gourhan believed these owls to be therianthropes. See Paul Bahn, *Journey through the Ice Age*, Weidenfeld and Nicolson, London, 1997, p. 156, who adds: “Indeed in some cases it is not sure whether faces on cave walls belong to owl-like birds or to

humanoids.”

74

E.g., see Eliade, *Shamanism*, pp. xii, 33.

p.75

Mack, *Abduction*, p. 182.

76

ibid.

77

Mack, *Passport to the Cosmos*, pp. 46, 68, 88.

78

ibid., pp. 46, 149.

79

Eliade, *Shamanism*, p. 141.

80

Keeney, *Ropes to God*, p. 44.

81

ibid., p. 71.

82

Luis Eduardo Luna, “The Concept of Plants as Teachers,” *Journal of Ethnopharmacology*, 11 (1984), pp. 141-2

83

ibid., p. 142.

84

See discussion in Richard Evans Schultes, “Teonanactl, the Narcotic Mushroom of the Aztecs,” *American Anthropologist*, NS, 42, 1940, pp. 429-43.

85

Halifax, *Shamanic Voices*, pp. 133-4.

86

ibid., p. 212.

87

Bullard, *UFO Abductions*, Vol. I, p. 119.

88

ibid.

89

Weston La Barre, “Anthropological Perspectives on Hallucination and Hallucinogens,” in Siegel and West (Eds), *Hallucinations: Behavior, Experience and Theory*, Wiley, New York, 1975, p. 10.

90

Cited in David M. Jacobs, *UFOs and Abductions: Challenging the Borders of Knowledge*, University Press of Kansas, 2000, p. 149.

91

Weston La Barre, “Anthropological Perspectives on Hallucination and Hallucinogens,” pp. 9-10.

92

David Lewis-Williams, *The Mind in the Cave*, Thames and Hudson, London, 2002, p. 129; Jean Clottes and David Lewis-Williams, *The Shamans of Prehistory: Trance and Magic in the Painted Caves*, Harry N. Abrams, New York, 1998, p. 19; and for a more extensive presentation of this point of view see Louis Jolyon West MD, “A Clinical and Theoretical Overview of Hallucinatory Phenomena,” in Siegel and West, *Hallucinations*, pp. 287-311.

93

Clottes and Lewis-Williams, *The Shamans of Prehistory*, p. 19.

94

Substantial caches of the intensely psychoactive red bean-like seeds of a shrub known as *Sophora secundiflora*, dating back more than 9,000 years in some cases, have been found in painted caves across much of north-central Mexico and Texas. In the Lower Pecos River in Texas they are associated with a remarkable complex of 8,000-year-old rock paintings of spirit beings, therianthropes, and entoptic patterns. See discussion in Chapter Sixteen.

95

Carl Gustav Jung, *Flying Saucers: A Modern Myth of Things Seen in the Sky*, Routledge, London and New York, (1958; 1959) 2002, p.

125.

96

ibid., p. 125.

97

ibid., p. 120.

p.98

ibid: “In view of the trend of modern theoretical physics, this assumption

[i.e. that all reality is grounded on an as-yet-unknown substrate possessing material and at the same time psychic qualities] should arouse fewer resistances than before.”

Chapter Seven: Spirit Love

1

Michael Ripinsky-Naxon, *The Nature of Shamanism: Substance and Function of a Religious Metaphor*, State University of New York Press, 1993, p. 79.

2

Mircea Eliade, *Shamanism: Archaic Techniques of Ecstasy*, Princeton University Press, 1972, p. 77.

3

The full story is told in ibid., pp. 39-42.

4

Andreas Lommel, *Shamanism: The Beginnings of Art*, McGraw-Hill, New York, 1967, p. 62.

5

ibid., pp. 62-3.

6

Holger Kalweit, *Shamans, Healers and Medicine Men*, Shambhala, Boston and London, 1992, p. 11.

7

G. Reichel-Dolmatoff, *The Shaman and Jaguar: A Study of Narcotic Drugs amongst The Tukano Indians of Colombia*, Temple University Press, Philadelphia, 1975, pp. 51-2.

8

ibid., p. 52.

9

Eliade, *Shamanism*, p. 75.

10

ibid., pp. 76-7.

11

ibid., p. 72. As we would expect, this spirit woman is also a therianthrope and sometimes appears as a wolf and a winged tiger.

12

Warao, see Joan Halifax, *Shamanic Voices: A Survey of Visionary Narratives*, Penguin Compass, New York, 1991, pp. 226 ff.; Tobacco, see William Emboden, *Narcotic Plants: Hallucinogens, Stimulants, Inebriants, and Hypnotics, their Origins and Uses*, Studio Vista, London, 1979, pp. 35ff.

13

See John Mack, *Abduction: Human Encounters with Aliens*, Simon and Schuster, London, 1995, pp. 37, 207, 211, etc.; Dennis Stillings (Ed.), "Cyber-Biological Studies of the Imaginal Component in the UFO Contact Experience,"

Archaeus, Vol. 5, 1989, pp. 153ff.; John Mack, *Passport to the Cosmos: Human Transformation and Alien Encounters*, Thorsons, London, 2000, pp. 19, 57, 139ff.

14

John Mack, *Passport to the Cosmos*, pp. 19, 57, 230.

15

Halifax, *Shamanic Voices*, pp. 226-32.

16

Hartland, cited in Jacques Vallee, *Passport to Magonia: On UFOs. Folklore and Parallel Worlds*, Contemporary Books, Chicago, 1969, 1993, p. 42.

17

ibid.

18

Eliade, *Shamanism*, p. 423.

p.19

ibid.

20

ibid., pp. 423-4; Holger Kalweit, *Dreamtime and Inner Space: The World of the Shaman*, Shambhala, London and Boston, 1998, pp. 130-1.

21

Eliade, *Shamanism*, p. 424.

22

Kalweit, *Dreamtime and Inner Space*, p. 132. See also Eliade, *Shamanism*, p.

423.

23

Kalweit, *Dreamtime and Inner Space*, pp. 141-2.

24

Sy Montgomery, *Journey of the Pink Dolphin: An Amazon Quest*, Touchstone/Simon and Schuster, New York, 2000, pp. 18-19.

25

ibid., p. 271.

26

ibid., p. 270; Luis Eduardo Luna, *Vegetalismo: Shamanism among the Mestizo Population of the Peruvian Amazon*, Acta Universitatis Stockholmiensis, Stockholm Studies in Comparative Religion, Almqvist and Wicksell Publishers, Stockholm, 1986, p. 84.

27

Sy Montgomery, *Journey of the Pink Dolphin*, p. 270.

28

Luna, *Vegetalismo*, p. 86.

29

ibid., p. 83: “The offspring of a mermaid and a human being may

become a powerful *vegetalista* [shaman]. Both Don Jose Coral and Don Santiago Mura-yari told me that when they take ayahuasca and cure, among the spirits they call are *vegetalistas* who live under the water and whose mothers are mermaids."

30

Mack, *Abduction*, pp. 38-9.

31

Mack, *Passport to the Cosmos*, p. 114.

32

Mack, *Abduction*, pp. 210-11.

33

David M. Jacobs, *Secret Life: Firsthand Documented Accounts of UFO Abductions*, Simon and Schuster, New York, 1993, p. 15.

34

ibid., p. 206.

35

ibid.

36

ibid., p. 39.

37

Villas-Boas, cited in ibid.

38

Jim Schnabel, *Dark White: Aliens, Abductions and the UFO Obsession*, Penguin Books, London, 1994, pp. 22-3.

39

Mack, *Abduction*, pp. 319-20.

40

See, for example, Mack, *Passport to the Cosmos*, p. 114, and Jacobs, *Secret Life*, p. 104.

41

Jacobs, *Secret Life*, p. 206.

42

Mack, *Passport to the Cosmos*, p. 120.

43

Jacobs, *Secret Life*, p. 122.

44

Mack, *Abduction*, p. 132.

45

ibid., p. 157.

p.46

Jacobs, *Secret Life*, pp. 154-5.

47

ibid., pp. 156-7.

48

Mack, *Passport to the Cosmos*, p. 140.

49

Mack, *Abduction*, p. 116.

50

ibid., p. 17.

51

Jacobs, *Secret Life*, p. 164.

52

Mack, *Cosmos*, pp. 124-5; Mack, *Abduction*, p. 414.

53

Jacobs, *Secret Life*, p. 168.

54

ibid., p. 170.

55

ibid., p. 178.

56

ibid., p. 186.

57

Mack, *Abduction*, pp. 322-3.

58

Sy Montgomery, *Journey of the Pink Dolphin*, p. 270; Luna, *Vegetalismo*, pp. 84, 86.

59

Mack, *Passport to the Cosmos*, p. 253.

60

Jacobs, *Secret Life*, p. 272.

61

Cited in Schnabel, *Dark White*, p. 61.

62

ibid.

63

Jacobs, *Secret Life*, p. 166.

64

Mack, *Passport to the Cosmos*, p. 117.

65

ibid.

66

Mack, *Abduction*, p. 323.

67

Jacobs, *Secret Life*, p. 172.

68

Compare Diane Purkiss, *Troublesome Things: A History of Fairies and Fairy Stories*, Penguin, London, 2000, p. 60: “Why did fairies

want babies? No one knows.”

Chapter Eight: The Secret Commonwealth

1

Carl Gustav Jung, *Flying Saucers: A Modern Myth of Things Seen in the Sky*, Routledge, London and New York, (1958; 1959) 2002, p. 1.

2

ibid., p. 19.

3

ibid.

4

ibid., p. 123.

5

ibid., p. 105.

6

Broadsheet of Samuel Coccius, cited in ibid.

7

ibid., p. 106.

8

ibid.

9

ibid., p. 109.

10

Supposedly representing “the fates that preside over the awakening of thesoul,” ibid., p. 113.

11

Jung assimilates the figure with the devil.

12

ibid., pp. 110-13.

13

Jim Schnabel, *Dark White: Aliens, Abductions and the UFO Obsession*, Penguin Books, London, 1994, p. 151.

14

Jacques Vallee, *Passport to Magonia: On UFOs, Folklore and Parallel Worlds*, Contemporary Books, Chicago, 1969, 1993.

15

ibid., p. 179.

16

ibid., p. 4.

17

ibid., p. 180.

18

ibid., pp. 179ff.

19

ibid., pp. 9-10.

20

ibid., pp. 4-5.

21

ibid., p. 5.

22

ibid., p. 6.

23

ibid., p. 3.

24

Winged discs of Sumer and Egypt: see discussion in Jeremy Black and Anthony Green, *Gods, Demons and Symbols of Ancient Mesopotamia: An Illustrated Dictionary*, British Museum Press, 1992, pp. 185-6; Vimanas: See for example David Hatcher Childress, *Vimana Aircraft of Ancient India and Atlantis*, Adventures Un limited Press, Stelle, IL., 1991; China: Edward H.

Schafer, *Pacing the Void: T'ang Approaches to the Stars*, University of California Press, Berkeley, 1977, p. 146.

25

II Kings 2:11.

26

Ezekiel 1:4-19.

27

Psalms 68:17.

28

Isaiah 13:5.

29

Genesis 6:2, 4.

30

Vallee, *Passport to Magonia*, p. 57.

31

ibid. See in particular chapters 3 and 4.

32

ibid., p. 64.

33

Peter Narvez (Ed.), *The Good People: New Fairylore Essays*, The University Press of Kentucky, (1991) 1997, p. 98.

34

For Kirk see ibid., p. 100; for antiquity of usage of term “fairy” see Purkiss, *Troublesome Things: A History of Fairies and Fairy Stories*, Penguin, London, 2000, pp. 11-12ff., 73; Narvez, *The Good People*, pp. 159, 463.

35

W.Y. Evans-Wentz, *The Fairy Faith in Celtic Countries*, New Page Books, Franklin Lakes, NJ, 2004 (facsimile reprint of original 1911 edition with a modern Introduction by Carl McColeman), p. 224, note 20.

36

Walter Scott, *Demonology and Witchcraft* (1830), cited in Narvez, *The Good People*, pp. 100-1.

37

Evans-Wentz, *The Fairy Faith in Celtic Countries*.

38

ibid., p. 110.

39

Vallee, *Passport to Magonia*, p. 50.

40

Narvez, *The Good People*, p. 201.

41

Janet Bord, *Fairies: Real Encounters with Little People*, Michael O'Mara Books, 1997, pp. 5-6.

42

Narvez, *The Good People*, p. 481; Evans-Wentz, *The Fairy Faith in Celtic Countries*, p. 159.

43

Narvez, *Good People*, p. 484.

44

Vallee, *Passport to Magonia*, pp. 58-9.

45

E.g. see ibid., pp. 101-5, 116-19.

46

ibid., p. 105.

47

Kirk, *Secret Commonwealth*, cited in Purkiss, *Troublesome Things*, p. 185.

48

David M. Jacobs, *Secret Life: Firsthand Documented Accounts of UFO Abductions*, Simon and Schuster, New York, 1993, p. 168.

49

Kirk, *Secret Commonwealth*, cited in Purkiss, *Troublesome Things*, pp. 185-6.

Chapter Nine: Here Is a Thing that Will Carry Me Away 1

Peter Narvez (Ed.), *The Good People: New Fairylore Essays*, The University Press of Kentucky, (1991) 1997, pp. 53-4.

2

ibid., p. 54.

3

ibid.

4

ibid.

5

See, for example, David M. Jacobs, *Secret Life: Firsthand Documented Accounts of UFO Abductions*, Simon and Schuster, New York, 1993, p. 158; John Mack, *Abduction: Human Encounters with Aliens*, Simon and Schuster, London, 1995, pp. 38-39, 416.

6

Jim Schnabel, *Dark White: Aliens, Abductions and the UFO Obsession*, Penguin Books, London, 1994, p. 153.

7

ibid., p. 258.

8

Mack, *Abduction*, p. 396.

9

ibid.

10

ibid.

11

ibid.

12

John Mack, *Passport to the Cosmos: Human Transformation and Alien Encounters*, Thorsons, London, 2000, p. 144.

13

Or in more recent times. A Victorian Shetlander described fairies as having a “yellow complexion . . . red eyes and green teeth,” while in the Orkneys inthe same period one informant described a fairy as “a small man about a foot high clad in green and red.” Narvez, *Good People*, p. 134.

14

Janet Bord, *Fairies: Real Encounters with Little People*, Michael O’Mara Books, 1997, pp. 55-6.

15

ibid., p. 57.

16

For a discussion of fairies and the color green, see Purkiss, *Trouble some Things: A History of Fairies and Fairy Stories*, Penguin, London, 2000, pp. 63-4: “fairies are always linked with green.”

17

Valerii I. Sarnov, “On The Nature of Flying Saucers and Little Green Men,”

Current Anthropology, Vol. 22, No. 2, April 1981, p. 165.

18

Jacques Vallee, *Passport to Magonia: On UFOs, Folklore and Parallel Worlds*, Contemporary Books, Chicago, 1969, 1993, pp. 43-4.

19

Narvez (Ed.), *The Good People*, p. 126.

20

Cited in Bord, *Fairies*, pp. 125-6.

21

ibid., p. 126.

22

Bord, *Fairies*, p. 126.

23

Mack, *Passport to the Cosmos*, p. 69.

24

Jacobs, *Secret Life*, p. 162: “Abductees nearly always say that the aliens attending the babies are females.” See also pp. 104, 226.

25

Mack, *Abduction*, p. 37.

26

ibid.

27

Jacobs, *Secret Life*, pp. 271-2.

28

W. Y. Evans-Wentz, *The Fairy Faith in Celtic Countries*, New Page Books, Franklin Lakes, NJ, 2004, p. 297.

29

Purkiss, *Troublesome Things*, p. 68.

30

Evans-Wentz, *The Fairy Faith*, p. 156.

31

Narvez (Ed.), *The Good People*, p. 245.

32

Evans-Wentz, *The Fairy Faith*, pp. 204-5.

33

ibid., p. 205.

34

ibid., p. 267.

35

Purkiss, *Troublesome Things*, pp. 146-7.

36

ibid., Plates 5 and 6.

37

ibid., Plate 9; Bord, *Fairies*, p. 10.

38

Bord, *Fairies*, pp. 113-14.

39

Purkiss, *Troublesome Things*, p. 89: “When these women talked about fairies, interrogators thought they were hearing about a pact with the devil . . .”

40

ibid., p. 88.

41

ibid., p. 89.

42

Cited in ibid., p. 89.

43

ibid., p. 110: “The fairy man gives Katherine knowledge, and knowledge ispower. He gives her magical weapons which allow her to cure her cows, and do anything else she wishes.”

44

ibid.

45

ibid.

46

ibid., pp. 116-17.

47

ibid., p. 60: “Why did fairies want babies? No one knows.”

48

ibid., p. 116: “She [Susan Swapper] is expecting a child, and in her mind, this makes her a target.”

49

ibid., pp. 116-17.

50

E.g. see Mack, *Abduction*, p. 277.

51

Jacobs, *Secret Life*, p. 55.

52

Patrick Harpur, *Daimonic Reality: A Field Guide to the Otherworld*,

Pine Winds Press, Ravensdale, WA, (1994) 2003, p. 214.

53

Purkiss, *Troublesome Things*, pp. 73-4.

54

Narvez (Ed.) *The Good People*, p. 491 and see also p. 169; Evans-Wentz, *The Fairy Faith*, p. 9.

55

Cited in Purkiss, *Troublesome Things*, p. 58.

56

Detailed first-hand reports and descriptions of changelings are best

known from Europe, where ethnographers worked assiduously in the 19th and 20th centuries to preserve and record all aspects of fairy lore in the face of rapid social and economic change. But traditions and experiences involving changelings are by no means limited to Europe. The same “bizarre tale of a supernatural race exchanging one of their own ill-thriven infants . . . for a handsome human infant” is globally distributed, and detailed examples have been recorded from as far afield as Egypt, India, China, and America’s Pacific northwest. See Joyce Underwood Munro in Narvez, *Good People*, op. cit., p. 251.

57

Cited in ibid., p. 221.

58

Cited in ibid., p. 34.

59

Evans-Wentz, *Fairy Faith*, p. 115.

60

Narvez, *Good People*, p. 220.

61

ibid., p. 225.

62

ibid., p. 234.

63

ibid., p. 258.

64

ibid., p. 257.

65

Jacobs, *Secret Life*, p. 272.

66

Karen, cited in ibid., pp. 277-8.

67

Melissa, cited in ibid., p. 272.

68

Jacobs, *Secret Life*, pp. 172-3.

69

ibid., p. 166.

70

Mack, *Passport to the Cosmos*, p. 117.

p.71

ibid.

72

Cited in Schnabel, *Dark White*, p. 61.

73

Mack, *Abduction*, p. 323.

74

John Mack in David M. Jacobs (Ed.), *UFOs and Abductions: Challenging the Borders of Knowledge*, University Press of Kansas, 2000, p. 253.

75

Mack, *Abduction*, p. 39.

76

Harpur, *Daimonic Reality*, pp. 210-13.

77

ibid., pp. 213-14.

78

Thomas E. Bullard, *UFO Abductions: The Measure of a Mystery*, The Fund for UFO Research, 1987, Vol. II, p. C 184.

79

Patrick Harpur, *The Philosopher's Secret Fire: A History of the Imagination*, Ivan R. Dee, Chicago, 2003, p. 22.

80

In Narvez, *The Good People*, p. 493.

81

Cited in Harpur, *The Philosopher's Secret Fire*, p. 22.

82

Cited in Bord, *Fairies*, p. 93.

83

Cited in ibid., pp. 93-4.

84

Purkiss, *Troublesome Things*, p. 69.

85

Cited in Vallee, *Passport to Magonia*, p. 105.

86

Narvez, *Good People*, p. 258, “But always the changeling bears a physical resemblance to the real child . . .”

87

Evans-Wentz, *Fairy Faith*, p. 98.

88

E.g. see Mack, *Passport to the Cosmos*, p. 112.

Chapter Ten: Dancers between Worlds

1

John Mack, *Passport to the Cosmos: Human Transformation and Alien En counters*, Thorsons, London, 2000, p. 69.

2

John Mack, *Abduction: Human Encounters with Aliens*, Simon and Schuster, London, 1995, pp. 210-11.

3

Cited in Peter Narvez (Ed.), *The Good People: New Faiylore Essays*, The University Press of Kentucky, (1991) 1997, p. 482.

4

ibid., p. 482.

5

W.Y. Evans-Wentz, *The Fairy Faith in Celtic Countries*, New Page Books, Franklin Lakes, NJ, 2004, p. 208.

6

Cited in Janet Bord, *Fairies: Real Encounters with Little People*, Michael O'Mara Books, 1997, p. 27.

7

Evans-Wentz, *Fairy Faith*, p. 90.

8

Narvez, *Good People*, p. 482.

9

Jacques Vallee, *Passport to Magonia: On UFOs, Folklore and Parallel Worlds*, Contemporary Books, Chicago, (1969) 1993, p. 38.

p.10

Narvez (Ed.), *The Good People*, p. 465.

11

Evans-Wentz, *The Fairy Faith*, p. 208.

12

Cited in Bord, *Fairies*, p. 27.

13

Evans-Wentz, *Fairy Faith*, p. 137.

14

ibid., p. 156.

15

ibid., p. 76.

16

Cited in ibid., p. 248

17

ibid., p. 137.

18

David M. Jacobs, *Secret Life: Firsthand Documented Accounts of UFO Abductions*, Simon and Schuster, New York, 1993, p. 222.

19

Evans-Wentz, *Fairy Faith*, p. 91.

20

ibid.

21

Jacobs, *Secret Life*, p. 226: “the physical description is not unique

enough to suggest anatomical differences."

22

ibid., p. 223.

23

ibid., p. 226.

24

For example, see Mack, *Abduction*, p. 37: "The grays are mainly two kindssmaller drone *or insect-like workers*, who move or glide robotically outside and inside the ships and perform various tasks, and a slightly taller leader or

'doctor' as the abductees most often call him" (emphasis added).

25

Narvez (Ed.), *The Good People*, p. 496. See also: Evans-Wentz, *The Fairy Faith*, p. 177: “The land of pixy was supposed to be able to render its devotees invisible, if they only anointed their eyes with a certain green salve made of secret herbs gathered from Kerris-moor. In the invisible condition thus induced, people were able to join pixy revels, during which, according to the old tradition, time slipped away very, very rapidly . . .” ibid., p. 153: “As a race, the Tylwyth Teg [fairies] were described as having the power of invisibility; and it was believed they could disappear like a spirit while one happened to be observing them. The world in which they lived was a world quite unlike ours . . .”

26

Jacobs, *Secret Life*, p. 220.

27

Aliens, e.g. see Mack, *Abduction*, pp. 19, 279; Mack, *Passport to the Cosmos*, pp. 45, 71. Fairies: see Evans-Wentz, *The Fairy Faith*, p. 93: “Fairies passing through stone walls,” and p. 148: “When I was a boy here on the Island

[Anglesey, Wales], the *Tylwyth Teg* [fairies] were described as a race of little beings no larger than children six or seven years old, who visited farmhouses at night after all the family were abed. No matter how securely closed a house might be, the *Tylwyth Teg* had no trouble to get in.”

28

E.g. see Mack, *Abduction*, pp. 19, 279; Mack, *Passport to the Cosmos*, pp. 45, 71.

p.29

Mack in David M. Jacobs (Ed.), *UFOs and Abductions: Challenging the Borders of* Knowledge, University Press of Kansas, 2000, pp. 254-5.

30

Jacobs, *Secret Life*, p. 51.

31

ibid.

32

Mack, *Passport to the Cosmos*, p. 57.

33

Patrick Harpur, *The Philosopher's Secret Fire: A History of the Imagination*, Ivan R. Dee, Chicago, 2003, p. 179: "Encounters with the Sidhe often include a

'touch,' or a 'stroke' which leaves us tender, scarred, even witless. Contact with UFOs or 'aliens' often includes a zap from a beam of light or a ray-gun, which leaves the contactee dizzy, sick, disoriented, 'touched,' numb or irradiated."

34

Narvez, *The Good People*, p. 491.

35

ibid., pp. 10-11

36

ibid., p. 225: A man takes a short cut across marshy land. “And halfway across he got a jab in the left leg, in the calf of the left leg, sort of like something jabbed him. Well, he went on home and it felt troublesome and so on and so forth. It felt troublesome, felt troublesome. And ’twas beginning to protrude, expand, turn black up to the knee and down to the ankle, and they got a doctor in. And the doctor cut this open and out comes little bunches of grass and little splinters of wood, out of this man’s leg. There was so much damage done, they cut the man’s leg off up to the knee.”

37

Cited in Patrick Harpur, *Daimonic Reality: A Field Guide to the Otherworld*, Pine Winds Press, Ravensdale, WA, (1994) 2003, p. 195.

38

See, for example, Vallee, *Passport to Magonia*, pp. 45-8.

39

Narvez, *The Good People*, pp. 491-2.

40

Harpur, *The Philosopher's Secret Fire*, pp. 11-12.

41

Cited in Bord, *Fairies*, p. 27.

42

Evans-Wentz, *Fairy Faith*, p. 98.

43

ibid.

44

ibid.

45

Cited in Bord, Fairies, p. 25.

46

Cited in ibid.

47

Evans-Wentz, *Fairy Faith*, p. 208.

48

ibid.

49

Cited in Bord, *Fairies*, p. 26.

50

Cited in ibid., p. 39.

51

ibid., pp. 41-2.

52

ibid., p. 30.

53

ibid., p. 36.

54

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55

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57

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58

Jacques Vallee was the first to point this out. See Vallee, *Passport to Magonia*, pp. 105-6, 162.

59

Bord, *Fairies*, p. 128.

60

Narvez (Ed.), *The Good People*, p. 186.

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63

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64

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otherworld through fairy circles and rings."

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Chapter Eleven: Tuning in to Channel DMT

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20

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22

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23

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24

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25

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26

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32

ibid., p. 182.

33

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34

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36

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38

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42

See Chapter Four.

43

See Chapter Seven.

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ibid., p. 388.

25

ibid., pp. 388-9. Shanon (p. 389) comments in particular on the shortcomings of the reductionist theory set out by Eugene d'Acquili and Andrew B.

Newburg in their book, *The Mystical Mind: Probing the Biology of Religious Experience* (Fortress Press, Minneapolis, 1999). This book, as Shanon notes,

“suggests that religious and mystical sentiments are due to the activation of brain centers specifically responsible for such sentiments. The book had an immediate great impact and was even the topic of a *Newsweek* cover story

. . . The empirical data on which the suggestion is based involve the new sophisticated technology of brain imaging. When a meditating person is inspected with imaging devices specific patterns of brain activation are observed. Much has been made of this finding and even the bombastic term

‘neurotheology’ has been coined. Brain imaging technology is indeed most impressive, yet conceptually, its impact is, I think, less radical than many believe. After all, everything a human being does involves brain activity. The finding of particular brain activation in conjunction with religious experience should thus be expected. By no means, however, does this finding imply that the brain *causes* the religious experience or that religious experiences (or religion, or

God . . .) are to be accounted for in a biological reductionistic manner.

When one speaks the brain is acting as well; this does not mean that language and linguistic creations (think of Shakespeare's sonnets, for example) are reducible to brain activity and are to be explained in neurological terms. What the new findings may be indicating is that, like languaging, spirit uality is ingrained in our very being, that the propensity for religiosity is a fundamental feature of what it is to be a human being. But do we need the supermodern technology of brain imaging to know that? Incidentally, I should add that I myself would never put ayahuasca drinkers into an fMRI machine.

The experimental manipulation, its artificiality, and the discomfort associated with it are likely to affect the very experience it is set to examine. I doubt that any really powerful ayahuasca session can be entertained under such circumstances, let alone the supreme spiritual experiences that are the subject of discussion here."

26

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27

Shanon, *The Antipodes of the Mind*, p. 166.

28

E-mail correspondence with Professor Shanon, December 2005, March 2006.

Shanon's views as expressed in this paragraph were not conveyed accurately in the first (2005) edition of *Supernatural*. The text in this edition has been corrected.

29

Shanon, *The Antipodes of the Mind*, pp. 398-399. See also p. 138.

p.30

ibid., p. 362. Shanon also notes (pp. 398-9): “Creation is of course a standard cognitive-psychological notion. Yet the creative accomplishments discussed here are far from being standard. First the creative power at hand is extraordinary, and while unbounded it is subject to constraints: there are some specific contents that are more likely to be created than others. These – such as serpents and jaguars, palaces and artistic objects, objects made of gold and of precious stones, angels and beings of light – do not reflect the life history, know ledge or concerns of the individual drinker, and they even seem not to be specific to members of any particular cultural group. Thus it appears that human beings, while not storing in their memories ideas of these specific semantic contents, are built in such

as fashion as to be likely to imagine them

. . .” Shanon emphasizes (p. 399) that his suggestion should not be confused with the traditional notion of innate ideas or with the Jungian collective unconscious:

“What is being suggested rather are specific characteristics of human creative imagination. Unlike innate ideas, these characteristics are not stored in the mind of the individual as such, unlike the Jungian archetypes they cannot be reduced to existential aspects of human life, and unlike universals of music, grammar, and logic they pertain to content, not to form.

Thus in some respects these characteristics resemble the Platonic Ideasthey involve specific contents and they do not reflect the life history of any individual. Where do these characteristics belong, then? My suggestion is that they are part and parcel of the make-up of human beings. Just as bees are made to produce honey and

beavers to construct dams, human beings are made to build pyramids and compose sonatas. Surely, not all members of the human species will ever do this, but the species as a whole is designed so that some of its members will eventually achieve these accomplishments. With ayahuasca the likelihood of individuals to be wonderfully creative is dramatically increased."

This is all very well but seems to me not to explain the problem. If it is

"part and parcel of the make-up of human beings" to imagine "serpents and jaguars, palaces and artistic objects, objects made of gold and of precious stones, angels and beings of light," then the real questions remain: why should this be so and at what point in the human evolutionary career did this specific propensity to envisage serpents, jaguars, beings of light, etc., etc., get so tightly grafted onto the human genome that today people who have absolutely nothing in common all "imagine" (or "create") the same things

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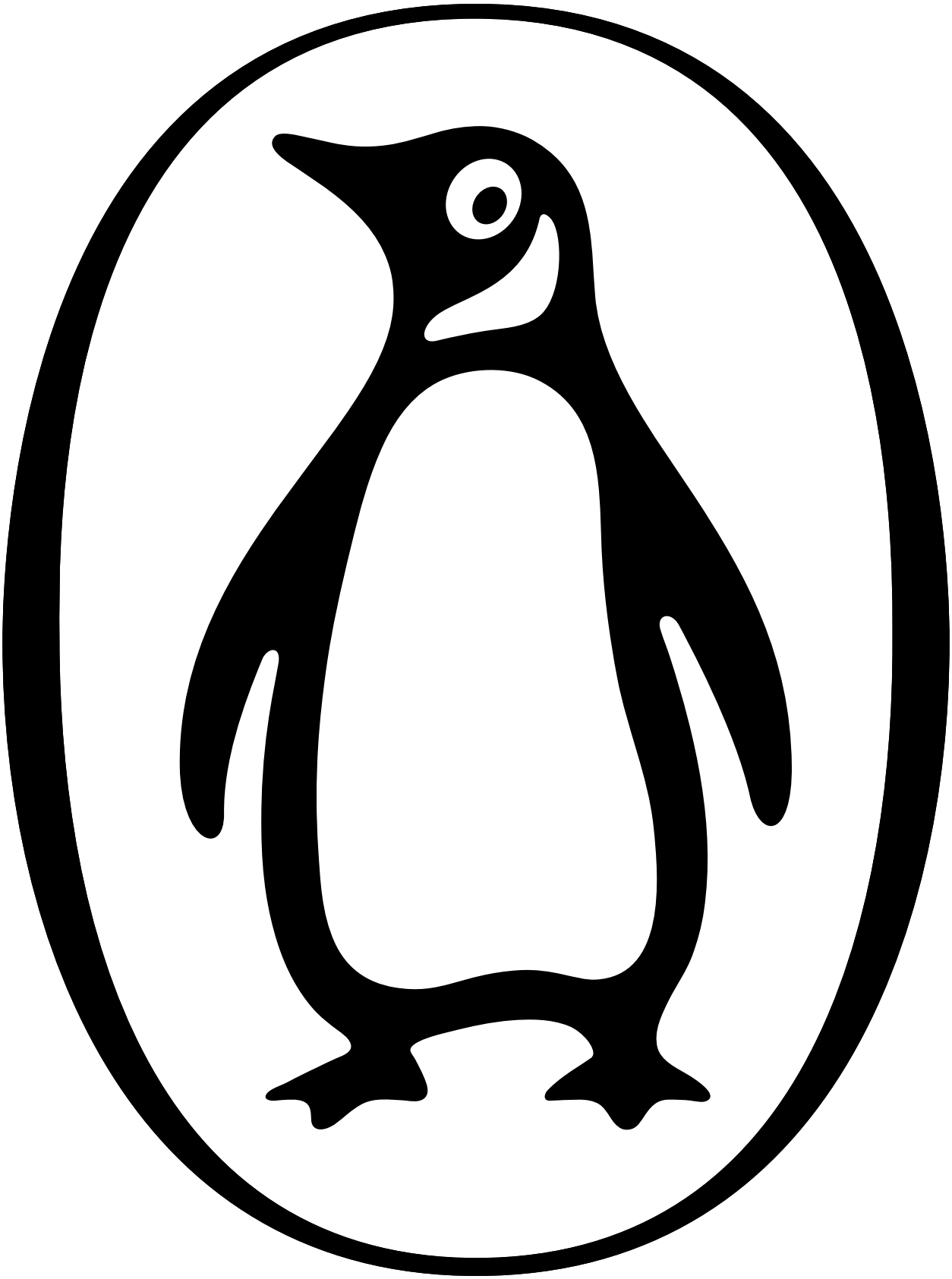

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Published by the Penguin Group
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First published 2004
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EISBN 978–0–141–90671–3

I dedicate this book to my mother Yvonne Bauval (née Gatt), whose boundless Latin good nature and unflinching love for her family has been the bright flame that has guided us all through our mini Diaspora out of Egypt, and to my inimitable brother Jean-Paul and twin sister Thérèse, who have always supported me in my many years of mixed success, strife and tribulations.

Robert G. Bauval

For my father. Your warmth and wise advice are sorely missed.

Graham Hancock

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47. The interior of the Egyptian room in Freemasons' Hall, Philadelphia.

Acknowledgements

The making of this book has a long and chequered history. It began in 1992 and was finally brought to a close in 2004. This unusually long period reflects not only the complex nature of the subject matter but also the strong and enduring working relationship and friendship that I have with my co-author, Graham Hancock, a master of the trade par excellence. It highlights, yet again, the power of teamwork and the old but true axiom that two heads are better than one.

As always, I am deeply indebted to my lovely wife, Michele, for her tolerance, perseverance and, above all, for keeping the fort thriving while I lost myself in the labyrinth of my manuscript. I am also grateful to my two children, Candice and Jonathan, for not minding too much my regular lapses of consideration, which, I am afraid, are an all too common predicament of authors of such historical conundrums. I have, too, many other relations and friends to thank – far too many to do all of them justice in such a short space. Special thanks must go, however, to Yuri Stoyanov, John Gordon, William Horsman, Jean-Paul Bauval, Diana Lucas, Roel Oostra, Ahmed Osman, Dennis Seisun, John Orphanidis, Fedora Campos, Hoda Hahim, Sandro Mainardi, Andrea Vitussi, Giulio Magli, Richard Fusniak, Adriano Forgione and all his staff at *Hera* Magazine in Rome, Mohamad Nazmy and his staff at Quest Travel in Cairo and all the lovely people at Stars & Signs, Hera and Power Places Tours.

An immense debt of gratitude is owed to my literary agent and friend Bill Hamilton, and to Sara Fisher and all the staff at A. M. Heath Ltd. Their support and encouragement is forever appreciated. I would like to also thank Tom Weldon, Genevieve Pegg, James Kellow, Elisabeth Merriman, Stef Hinrich and Jane Opoku and all the staff at Penguin Books, UK. A very big ‘grazie’ to the lovely Cecilia Perucci,

Luisa Azzolini and all the staff at Corbaccio in Milan, Italy. Also I need to thank our new publishers in the USA, Thorsons (HarperCollins) Publishers. I give special thanks to our diligent copy editor, David Watson, for his excellent professional input in the final stages of this book. Last but not least, a big thank you to all our readers, without whom none of this would be possible or worthwhile.

Robert G. Bauval
Buckinghamshire, February 2004

Thank you to my wife Santha and to our six children Sean, Shanti, Ravi, Leila, Luke and Gabrielle, who have given me so much solidarity, love and support over the twelve years *Talisman* has been in the making. I am really grateful to my Dad, too, who read the whole manuscript during what turned out to be his last summer and took the trouble to give me many helpful comments and suggestions. He passionately disagreed with many of my views on the Christian Church, but we agreed equally passionately that life has a spiritual meaning and that it does not end with the grave.

Graham Hancock
London, February 2004

The sources of the illustrations used in this book are as follows: plates 1, 2, 3, 13, 14, 15, 17, 20, 25, 26, 29, 30, 32, 34, 39, 44, 45 Robert G. Bauval; plate 3 Diana Lucas; plate 6 Mary Evans Picture Library; plates 7, 9, 24, 28 Bibliothèque Nationale de France; plate 46 Jim Alison; plates 35, 37 Grande Arche Exhibition Museum, La Défense, Paris; plates 36, 38 1930 aerial photographs in *Dossiers: Histoire et Archéologique*, no. 101, January 1986; maps on pages 26 and 48 John Grigsby; illustration on page 339 (bottom) Adrian Gilbert.

Note on the Authorship

Chapters originally researched and written by Robert Bauval are as follows: 1, 8, 10, 11, 14, 16, 17, 18 and 19. Chapters originally researched and written by Graham Hancock are as follows: 2, 3, 4, 5, 6, 7, and 9. Robert Bauval and Graham Hancock contributed roughly equally to chapters 12, 13 and 15, and Graham Hancock additionally made contributions to Chapters 8, 11 and 14. Finally Graham Hancock put the whole text into one voice.

PROLOGUE:

The Sacred Cities

Chapter 1

Behind the Veils

> 'The boat of Isis, a feast which was celebrated in Rome with great pomp, was known as Navigium Isidis; after it had been launched in the water, it was brought back to the temple of Isis and prayers were made for the prosperity of the emperor, for the empire and for the Roman people…' (F. Noël, *Dictionaire de la fable*, Paris, 1823)

> 'No one ignores that Paris was originally enclosed in the island (de la Cité). It was thus, since its origins, a city of navigation… As it was in a river rife with navigation, it took as its symbol a boat, and as tutelary goddess, Isis, goddess of navigation; and this boat was the actual one of Isis, symbol of this goddess.' (Court de Gebelin, *Monde Primitif analysé et comparé avec le monde moderne*, Paris, 1773)

On 14 July 1789 a furious crowd ran riot on the streets of Paris and stormed the great prison known as the Bastille. Less than an hour later the fate of France hung in the balance and European history seemed set on a new and alarmingly unpredictable course.

Contemporary engravings of the Bastille show a forbidding rectangular structure flanked by eight tall towers. It does not look easy to storm. Built in the late fourteenth century as a fortress to

protect eastern Paris, it was converted in the seventeenth century into a squalid and ghastly prison for dissidents. By the time of the Revolution it was firmly established in the public mind as an instrument of tyranny and as a powerful symbol of the despotism of the French Crown.

The day after the storming of the Bastille an enterprising local contractor, Monsieur Pierre-François Palloy,[1] took it upon himself to mobilize a workforce of 800 citizens to dismantle the hated prison stone by stone.[2] The work was so well done that within a month most of the structure had been reduced to rubble with only a small part of the perimeter wall and foundations still intact.

At this point something curious occurred. The suggestion was made, and for a while taken seriously, that the stones of the Bastille should be salvaged in order to construct a replica of an ancient Egyptian pyramid on the site.[3] And although the project later stalled for lack of funds, the core idea of making a symbolic connection with ancient Egypt persisted behind the scenes. If a pyramid could not be managed, something less would have to suffice. Thus it was that on 10 August 1793 a group of revolutionaries ceremoniously installed a large statue of the ancient Egyptian goddess Isis where the Bastille had formerly stood. Depicting the goddess seated on a throne flanked by two lions, the statue had been conceived by Jacques-Louis David, the famous artist and propagandist of the Revolution. It was to be one of the props in a macabre republican feast hastily put together in order to celebrate the decapitation of Louis XVI six months previously and the forthcoming guillotining of Queen Marie-Antoinette still two months ahead.

The sculptors Suzanne and Cartelier did not have sufficient time to cast the statue in the preferred medium of bronze, so they simply moulded it in plaster and coloured it with bronze paint.[4] From the bare nipples of the ‘goddess Isis’ water could be seen being ejected into an open basin below the statue. Known as the ‘Fountain of Regeneration’, the general idea was for the crowd of people to pass in procession in front of ‘Isis’ and drink ‘from her fertile breasts the pure

and salutary liquor of regeneration'.[5]

De-Christianization

Everyone knows that philosophical ideas, notably those of Rousseau and Voltaire, were part of the ferment that led to the French Revolution. Still, it is hard to explain why an overtly *religious* ritual – such as the Isis ceremony described above – should have received official sponsorship from the revolutionary government as early as 1793. That it did so, moreover, on a site so powerfully symbolic as the Place de la Bastille raises an interesting question. Is it possible that spiritual and even 'religious' beliefs could have played a greater role than has hitherto been recognized in precipitating and sustaining the changes that gripped France after 1789?

For example, although the matter has been little studied, it became clear in the early days of the Revolution that its core objectives included not only the eradication of the monarchy and a radical readjustment of the social and economic order, as might be expected, but also another, even more far-reaching goal: the eradication, no less – one might almost say the *extirpation* – of Christianity from the soil of France. This objective was adopted as official policy in the winter of 1793, a few months after the Isis rituals at the Bastille, and set in train an intense and systematic national campaign of 'de-Christianization'.[6] As French historian Michel Vovelle sums up, this now almost forgotten facet of the Revolution was not some passive and progressive attempt at conversion, but a methodical and forceful enterprise imposed though violence and intimidation.[7]

Why this sudden rush to stamp out Christianity?

Was it just that the Revolutionaries saw Christianity as a rival for the loyalty of the masses and hated and resented the ancient ties between the monarchy and the Church?

Or was there another, deeper game being played?

Very Christian King Beheaded by Cult of Supreme Being

The kings of France liked to trace their origins back to the Merovingians, a Frankish dynasty of the fifth to the eighth centuries AD. Nothing is known about Merovech, the semi-legendary founder of the dynasty, but his son, Childeric I, is a historical figure who ruled a tribe of Salian Franks from his capital at Tournai *circa* AD 470. In AD 481 or 482 Childeric was succeeded by his son, Clovis I, who united almost all of Gaul and converted to Christianity around AD 496.

Clovis died *circa* AD 511, but the Merovingian dynasty continued to rule much of what is now France until AD 750. It was succeeded by the Carolingian dynasty, which gained great renown *circa* AD 800 with the dramatic coronation by Pope Leo III of Charlemagne as the very first 'Holy Roman Emperor'. Thereafter all kings of France were regarded as the protectors of the Roman Church and to this effect bore the title *Roi Très Chrétien* – 'Very Christian King'. Indeed, so pious were France's medieval kings that one of them was actually canonized as a saint – Louis IX, a hero of the Crusades, whom we will meet in Part I.[8]

Meanwhile, to return to that terrible year of 1793–4 – the year, in fact, of the revolutionary 'Terror' with its unruly orgy of beheading – a different kind of religious phenomenon was suddenly widely observed in France: Catholic priests began to 'abdicate' their positions in droves[9] and a new, officially sponsored cult was launched by the Convention (the revolutionary government) within recently 'de-Christianized' churches and cathedrals all across the land. Sometimes referred to as the 'cult of Reason', but more commonly as the 'cult of the Supreme Being', it seems that this new religion was the brainchild of the revolutionary leader Maximilien Robespierre and that its establishment was masterminded once again by the artist Jacques-Louis David (who had previously been involved in the Isis/Bastille stunt).

The Tricolour Goddess with the Phrygian Cap

In street festivals staged during the French Revolution, the 'goddess Reason' was routinely personified by an actress garbed with a tricolour red, white and blue veil and wearing the so-called Phrygian cap. This same little red cap was in great vogue with the general public in the early part of the Revolution and was worn especially by the Sans Culottes, the most zealous faction, who partook in the thousands of guillotine executions in Paris and throughout the country.

The Phrygian cap is the typical headwear of two well-known pagan deities: the goddess Cybele and the god Mithras.

Cybele was one of the great mother goddesses of antiquity and, more particularly at one stage, of Rome, whose 'republic' the French revolutionaries tried to emulate. As the name of her cap suggests, her cult origins were in ancient Phrygia (modern Turkey). In statuary she was routinely associated with two lions, either depicted harnessed to her chariot or flanking the ceremonial throne used by the high priests of her cult. Medieval and Renaissance scholars frequently identified her with the ancient Egyptian goddess Isis. It therefore seems unlikely to be an accident that a Cybele-like goddess was to figure so prominently in the iconography of the French Revolution – for example in the so-called *Génie de la République*, a marble sculpture by the artist Joseph Chinard, made in the aftermath of the fall of the Bastille, which shows 'République' as a young woman in Graeco-Roman garb wearing the Phrygian hat.[10]

In the strange and terrible year of 1793–4 the so-called cult of Reason spread like wildfire in the French provinces alongside the de-Christianization process. It became common to witness large processions, or street theatres, in which the goddess 'Reason', wearing the Phrygian cap, was towed on a cart to the nearest church or cathedral. Such events might look like nothing more than excuses for men and women to get drunk together, yet in France there were always more serious undertones. On 7 November 1793, for example,

no less a figure than the Bishop of Paris was forced by the Convention to recant his faith. Three days later, on 10 November, huge celebrations were organized at his cathedral in honour of the alternative cult of 'Reason'.

As the highlight of the celebrations a certain Mlle Aubry, a beautiful and popular actress wrapped in a white veil and blue tunic and wearing the red Phrygian cap, emerged from a 'temple' dedicated to 'philosophy' and was sat on a throne while the crowds came to pay homage to her. The procession then marched to the Convention, where Citizen Chabot, a zealous revolutionary and one of the co-architects of the new cult, decreed that henceforth the Cathedral of Notre-Dame in Paris, the oldest and most revered Christian sanctuary in the land, was to become the 'Temple of Reason'. Several ceremonies then followed where the role of the 'goddess' was assumed by various Parisian beauties, among them Mlle Maillard, Mlle Lacombe and Mme Momoro.[11]

The Obelisk and the Painting

In 1813, twenty-six years after the storming of the Bastille, the great culture-changing momentum of the French Revolution seemingly came to a grinding halt with the defeat of Napoleon. Seizing the moment, the exiled Count de Provence, Louis-Stanislas-Xavier, younger brother of Louis XVI, promised the French people that he would uphold some of the tenets of the Revolution in a new form of monarchy. Then, advised by the brilliant statesman Talleyrand, he entered Paris in May 1814, where he was received with open arms by the war-weary French and, amid much jubilation, was installed on the throne as Louis XVIII.[12]

Louis XVIII ruled for ten years. He was a Freemason. On his death in 1824 he was succeeded by his brother, the Count d'Artois – also a Freemason – who took the name Charles X. Both monarchs showed a marked preference for ancient Egyptian symbolism in their public

works and two projects of Charles X are of particular interest in this regard. The first involved transporting an intact ancient Egyptian obelisk to Paris. The second called for the commissioning of a gigantic painting in the Louvre.

The Obelisk

In 1827, Jean-François Champollion (dubbed the 'father of modern Egyptology' for his breakthrough decipherment of ancient Egyptian hieroglyphs) was commissioned by Charles X to arrange for the importation to Paris of a 3500-year-old obelisk – one of a pair – that stood at Alexandria in Egypt.[13]

The obelisk was destined for the Place de la Concorde, a prestigious location of great personal significance to Charles X. It had originally been named in honour of his father, Louis XV, an equestrian statue of whom had once graced it. But the statue had been pulled down and destroyed during the 1789 Revolution and the site renamed by the Convention as 'Place de la Concorde'. Here also the guillotine had been erected that had beheaded Louis XVI in January 1793 and Marie-Antoinette in October of the same blood-stained year. May we speculate that the installation of the obelisk was to commemorate the idea of a reborn and restored monarchy, with the ancient solar symbol of the divine kings of Egypt rising in the heart of the Parisian skyline like a 'phoenix'?

The Painting

Charles X's second noteworthy project was to commission the artist François-Edouard Picot to decorate the ceiling of his personal museum at the Louvre with a specific 'Egyptian' theme.

Picot, like many promising artists of the time, had studied under the master Jacques-Louis David – the man responsible for the statue of Isis in the Place de la Bastille. We should not be surprised, therefore, that the very same 'Isis' is found on Picot's painting for

Charles X.

Still decorating a ceiling of the Louvre, the great work was completed in 1827 and measures roughly 5 × 4 metres. Its title is *L'Etude et le Génie dévoilent à Athènes l'Antique Egypte* ('Learning and Genius Unveil Ancient Egypt to Athens'). The figure of Isis dominates the scene and is depicted seated on a throne flanked by two lions – as was the case with David's earlier Isis of the Bastille. The viewer, however, is immediately drawn to contemplate the sky above the goddess, where can be seen flying two angels in the act of 'unveiling' the secrets of Isis.

We catch a tantalizing glimpse of a haunting landscape containing in the far distance an obelisk and a group of pyramids at which Isis languidly casts her gaze. From the clouds next to the angels, the Greek goddess Athena appears with an owl at her feet symbolizing initiation and wisdom. To the left of Athena is a winged goddess wearing a laurel wreath symbolizing 'Learning' (*l'Etude*). To the right of Athena is the so-called *Génie de Paris*, a naked winged youth brandishing a torch in order to illuminate and reveal to Athena the Egyptianized landscape below.

After the abdication of Charles X in 1830, Louis-Philippe I became the new ruler of France. Also known as the Citizen-King, he commissioned a monument to commemorate the *Trois Glorieuses*, those three days of 26, 27 and 28 July 1830 that marked France's Second Revolution. This monument, which was completed in 1836, is a tall pillar erected in the Place de la Bastille on the very spot where David had positioned his statue of Isis in August 1793. On top of the pillar is a close replica of the winged youth with the torch seen in Picot's painting in the Louvre.

Is Picot reminding us that here, below the winged *Génie de Paris*, had once been a statue of Isis as also seen in his painting?

Coincidence, or Blueprint?

Let us imagine ourselves in Paris today, riding in a helicopter above

the Bastille pillar and looking westward, along the line of sight of the *Génie de Paris*. We are hovering over the city's oldest and most sacred quarters. Sprawled beneath us are some of the most impressive buildings and monuments that Paris has to offer. To our left runs the Boulevard Henri IV leading to the river Seine. The river itself runs roughly from east to west, and thus parallel to our westward line of sight, while beyond Boulevard Henri IV is the old Pont Sully arching over the eastern edge of the Ile St Louis, with its famous abbey of the same name. The western tip of the island is linked by a pedestrian bridge to the much larger Ile de la Cité, site of the celebrated Cathedral of Notre-Dame and the impressive Palais de Justice.

Across the Seine is the tall bell tower of the Abbey of St Germain – the latter, as we shall later see, intriguingly once a sanctuary dedicated to the goddess Isis. Yet all these wonders will pale when we focus our eyes along our line of sight westwards with the *Génie de Paris*, for before us will unfold the most enchanting urban landscape that Europe has to offer. Shooting westward and parallel to the Seine is the Rue de Rivoli, leading to the Church of St Germain L'Auxerrois – the oldest in Paris, where the ancient kings of France were traditionally baptized. Immediately beyond the church is the crab-shaped Grand Louvre, perhaps Europe's most wonderful museum and, until 1663, the main palace of the kings of France.

And there is yet more to feast our eyes upon. Today an imposing glass pyramid – commissioned by President Mitterrand for the bicentennial celebration of 1989 – looms like a giant diamond in the Cour Napoléon of the Louvre. This out-of-place pyramid seems to define for us an open vista westward leading through Napoleon's Arc du Carrousel and towards the impeccably groomed gardens of the Tuileries. Our line of sight further takes in the wide and perfectly straight Avenue des Champs-Elysées, the backbone of Paris that was once known as the *Axe historique* – the Historical Axis. At this point it is impossible not to see the tall Egyptian obelisk that rears up towards the sky in the Place de la Concorde at the entrance of the Champs-Elysées. And nor can we ignore the way in which the whole layout that we observe from the high vantage point of the *Génie de Paris*

bears an uncanny and striking similarity to the layout and general scheme suggested in Picot's painting. For if we examine this painting more closely and try to imagine ourselves now alongside the other winged *Génie de Paris* which hovers over the mysterious Egyptianized landscape of Picot's masterpiece, something immediately becomes clear. The obelisk and the various pyramids that Picot included not only seem to define the central axis of the painting but, if transposed to the layout of Paris, will correlate with the Concorde obelisk and the Louvre pyramid that define the central or 'historical' axis of the city!

Charles X's decision to send Champollion to Egypt to bring back the obelisk was taken during the year 1826–7 *while Picot was in the process of painting his masterpiece at the Louvre*. We also know that Picot was deeply involved in the furbishing of Charles X's Egyptian Museum at the Louvre palace and that he would almost certainly have been privy to the discussions surrounding the importation and positioning of the obelisk. Even though it was not until 1836 that it was finally raised up in the Place de la Concorde, therefore, it's easy to understand why the artist might have been inspired to put an obelisk in his 1827 painting – and in the right place.

Much harder to explain is the relationship between the pyramids Picot shows in the painting and the glass pyramid visible in our aerial view. This is because the latter is a modern work, less than twenty years old at time of writing, designed by architect I. M. Pei and completed in 1984.

So the question is, how could Picot have anticipated I. M. Pei's pyramid? Or – more conspiratorially – did the 1827 painting allude to some sort of occult plan or blueprint for Paris that has continued to be implemented over more than 150 years? Or is it just a huge coincidence that the Egyptianized landscape being unveiled in the painting has been reproduced in the architecture of Paris?

Was Freemasonry Behind the French Revolution?

We have already seen how during the 1789 Revolution it was proposed to raise a pyramid at the site of the Bastille – something that Picot would certainly have known of. Picot is also likely to have been aware of a number of other grandiose 'pyramid' projects that were planned before and after the Revolution but that had been stalled because of shortage of funds.

There had been, for example, a massive 'pyramid tomb' planned in Paris in honour of the scientist Sir Isaac Newton, who was a hero of the 'Enlightenment' and, consequently, of revolutionary ideals. The 'pyramid' was designed by the French architect, Joseph-Jean-Pascal Gay, in 1800, and was to have had a great perimeter wall with four gates modelled on the temple of Karnak in Upper Egypt, and an alley of eighteen sphinxes leading to the 'pyramid'.[14]

There were, too, the various pyramids proposed by the architect Etienne-Louis Boullée. One of his surviving sketches is of a group of pyramids closely resembling the pyramids in Picot's painting – where they are seen enveloped in clouds and haze with their capstones missing.[15] The historian Jean Starobinski, in his study of the emblems and symbols of the 1789 Revolution, explains that the 'language of the Revolution' was intensely 'symbolic'. Starobinski also speaks of a mood that seems to have seized architects in the immediately pre-revolutionary period: a novel need to use basic geometrical shapes – cubes, spheres, pyramids – on a monumental scale and to transform Paris into some sort of 'utopian city':

> [there was a] need to add images to ideas, and to design the plans of an ideal city. This city, like all other utopic cities, would be governed by the laws of a simple and strict geometry… All these grand architectural styles in line with simple principles of geometry presented as projects remained unrealized. [And although] a harmonious city, a city for a new age… existed in the portfolios of certain architects, well-before the storming of the Bastille… the Revolution would have neither the time, nor the resources, nor perhaps the audacity to ask them to undertake these great civic projects…[16]

But why an *Egyptianized* utopian vision for Paris? Why pyramids and pseudo-Egyptian landscapes? Where did such strange ideas come from? And who was promoting them?

Such obsessions with Egyptian symbolism, architecture and particularly geometry once again suggest the influence of Freemasonry. Yet the authorities are divided on the matter. Scores of historians argue that an important role was indeed played by Freemasons in the French Revolution while, on the other hand, equal numbers argue that Freemasonry had nothing or little to do with it. This state of affairs is adequately expressed by the French historian J. Godechot, an expert on the subject:

> There is a whole genre of literature, which shows no sign of abating, which attributes the responsibility of the Revolution, and especially the days of 1789, to the Duc d'Orléans [the first Grand Master of the Grande Orient, the supreme body which regulates Freemasonry in France]. According to this literature, it was the Duc d'Orléans who was responsible for the riots of the *Reveillon*, those of the 14th July, those of the night of the 4th August, and those of the days of October. The Duc certainly attempted to profit from these events but whether he was the cause of them seems highly doubtful. In any case, if he did play this game, his efforts constituted a small influence compared to the much larger forces that pushed the people, France and even all of the Western world towards Revolution…[17]

The truth is that no historian, however thorough his or her research, can really know what 'forces', visible or occult, moved the French people to erupt in total revolution against the monarchy and the Church in 1789. By definition such 'forces' are impossible to gauge and sometimes may not be 'visible' or 'documented' at all. It is a similar problem attempting to catalogue the forces behind the Crusades in the Middle Ages or behind the Holocaust in Nazi Germany – or indeed those 'forces' that launched the United States on its war against 'terrorism' at the beginning of the twenty-first century. No single force, occult or otherwise, can be deemed solely responsible for any of these events; rather a combination of forces has in every instance been at play.

In the case of the French Revolution, it is clear that one of the main forces was generated by the terrible oppression of the people and the abuse of power by the monarchy. Yet no historian will deny that there was also a strong philosophical and/or intellectual

undercurrent to the Revolution which exerted a powerful influence on the behaviour of key figures such as Robespierre, Danton and Marat, as well as others such as the painter Jacques-Louis David and the sculptor Jean-Antoine Houdon. At this stage of our investigation Freemasonry remains as good a candidate as any for the source of this undercurrent.

Meanwhile, across the Atlantic in America, another, 'sister' Revolution had taken place a decade earlier. There, too, a strong philosophical/intellectual undercurrent can easily be detected which moved the main players such as Benjamin Franklin, Thomas Jefferson, Thomas Paine and George Washington. And there, too, a utopian city was, quite literally, in the making – to an esoteric plan far less veiled than that of Paris.

Franklin, Freemasonry and Revolution

That the American Revolution or War of Independence was much influenced by Freemasons and Masonic ideologies and principles is a well-accepted thesis. There are several good works on this topic[18] that leave little doubt that Freemasonry was one of the driving forces behind the ideals and tenets, and the attachment to republicanism, of the American Revolution. What is less well known is the fact that there was a very close connection between the French and American Masonic lodges at that time.

It is not clear whether or not Freemasonry might have entered North America before the establishment of United Grand Lodge in 1717, but the earliest surviving records of formal Masonic lodges in America are from Boston and Philadelphia in the early 1730s.[19] The spread of Freemasonry in America occurred through the so-called 'military lodges', and by the eve of the War of Independence in 1775 it had become extremely popular among the ranking officers and gentry.

One of the first American Freemasons was Benjamin Franklin, who was initiated in February 1731 and became Master of the St John's

Lodge in the city of Philadelphia, where he 'produced the oldest draft of American lodge by-laws still in existence'.[20] Franklin, who had founded the *Pennsylvania Gazette* in 1729, is also renowned in Masonic circles for printing (in December 1730) the very first article in America which referred to Freemasonry.[21]

In those days Freemasonry in America was regulated by United Grand Lodge in England, which appointed 'Provincial Grand Masters' in various regions of the North American continent. In 1749 Franklin was appointed Provincial Grand Master of Pennsylvania. An intellectual, a brilliant politician and, above all, a cunning agent-provocateur, Franklin was to become the key figure in the American revolt against Britain and, of course, the most renowned 'Founding Father' of the United States.

Both as a young man and later in his adult life, Franklin passed three sojourns in England – a total of fifteen years accumulated between 1724 and 1726, 1757 and 1762, and 1765 and 1775. During these lengthy stays no one disputes that he gravitated in his choice of friendships towards influential Freemasons and radical intellectuals. On his return visits to America he became notorious for stirring up dissent against British colonial rule – so much so that the Privy Council of London found it necessary to summon him and severely warn him not to rouse anti-British sentiment in the colonies.

It was Franklin who, while in England, had encouraged the rejection of the so-called Stamp-tax imposed by the British on the American colonies (the tax required settlers to pay a fee to certify all legal documents and transactions). Franklin managed to intercept a series of letters written by Thomas Hutchinson, the British governor of Massachusetts, in which several important American political figures were spoken of in very hostile terms. Franklin dispatched copies of these letters to friends in America, who had them published, causing such an outrage that the British had to appease the situation by retracting the Stamp-tax.

By the spring of 1775 the pressure was mounting against Franklin in England, and he decided it was time to return to America. He

arrived there on 5 May. While he had been at sea, war had broken out between the British and the American revolutionary forces at Lexington and Concord on 19 April 1775.

On his arrival in Pennsylvania, Franklin was immediately appointed as a delegate to the Second Continental Congress, the body that was soon to become the Congress of the United States of America. Other newly appointed members were Thomas Jefferson and George Washington. Among the first decisions that the Congress made (on 15 June 1775) was the appointment of Washington as commander-in-chief of the revolutionary armed forces.

Washington was forty-three years old in 1775 and Franklin sixty-nine. Like Franklin, Washington was a Freemason. He had been initiated into the brotherhood in 1752 at Fredericksburg in Virginia, and had been raised a Master Mason the following year.[22] John Hancock, a rich Harvard gentleman, was president of the Congress at the time. He, too, was a prominent Freemason, later to be distinguished as the first man to sign the Declaration of Independence on 4 July 1776.

In September 1776 the Congress agreed to send a commission to France in order to seek military and financial support for the war against Britain. Franklin was a member of the three-man commission. He arrived in Paris just before Christmas that year. Although France was not at war with England at the time, it was regarded as its natural enemy and, therefore, sympathetic to the American cause.

Franklin immediately struck up friendships with important figures in French society and, particularly, among the elite and the Freemasons. To the French he personified the unsophisticated nobility of the New World, and he quickly became the darling of French society and the hero of the intellectuals and military gentry. A sort of 'Franklin cult' was to emerge, and his portrait was seen everywhere, from snuffboxes to chamber pots. His company was in great demand by artists, intellectuals and high-society ladies. Spies and informers infested his house.

Franklin was to engage in secret negotiations with the Comte de

Vergennes, Louis XVI's Minister for Foreign Affairs. These negotiations lasted several years, and eventually treaties were signed in 1778 in which France pledged military and economic support to the revolutionary cause in America.

Meanwhile, in Paris Franklin pursued his social and intellectual interests with gusto by joining the illustrious Nine Sisters Masonic lodge.[23] This famous lodge was founded in 1776 by Joseph Lalande and the l'Abbé Cordier de Saint-Fermin, the latter the godfather of Voltaire. This was the same year that the Declaration of Independence was signed in America, with Franklin being the most senior of the signatories. Lalande was France's most respected astronomer, and wielded much influence amongst Parisian intellectuals.

Nine Sisters Lodge

The Nine Sisters lodge, named after the nine muses of Greek mythology, was in fact the successor of an older lodge, Les Sciences, which Lalande had founded in 1766 with the philosopher and mathematician Claude Helvetius. Helvetius was a staunch advocate of absolute atheism whose political and philosophical ideas would much influence the 1789 Revolution. After the death of Helvetius in 1771, his wife, Anne Catherine Helvetius, joined forces with Lalande and Saint-Fermin in the creation of the Nine Sisters lodge. Her own elite salon in the Rue Sainte Anne in Paris was famous throughout Europe, and was dubbed 'the general headquarters of European philosophy'.[24] Another of her salons in Auteuil near Paris maintained very close links with the Nine Sisters lodge.[25]

Not surprisingly, Franklin was a regular visitor to Mme Helvetius's salon. Another was the Marquis de Lafayette, a young officer in the French army. Lafayette belonged to a Masonic lodge, Le Contrat Social, which was linked to other important lodges throughout France. Notable amongst these was the lodge La Société Olympique, with its membership of young officers such as the Count de

Chambrun, the Count-Admiral de Grasse, the Count-Admiral d'Estaing and the buccaneer John Paul Jones – all of whom would fight for the American cause a few years later.[26]

In 1779 Franklin became the Venerable Master of the Nine Sisters lodge. Earlier, in 1778, he had been given the ultimate honour of assisting in the initiation of the 84-year-old Voltaire. It is said that the aging Voltaire was supported on the arms of Franklin and Court de Gebelin, the Swiss-French inventor of the modern esoteric Tarot.[27]

In April 1777 Franklin's agent in Paris, the diplomat Sileas Deane, succeeded in recruiting the young Marquis de Lafayette, then only nineteen years old, and dispatching him to America to serve under Washington.[28]

All in all, therefore, there is ample evidence of Masonic activity – in France – focused on the care and nurture of the American Revolution and centred around Franklin and the Nine Sisters lodge. Such evidence is suggestive but does not permit us to deduce that the Nine Sisters lodge and/or Freemasonry in general were also responsible for the violent eruptions in Paris on 14 July 1789 with the storming of the Bastille and the total revolution that followed.

Still, the suspicion lingers. As the French historian Bernard Fay explains:

> The revolutionary impulse, the revolutionary funds, the revolutionary leaders, during the first two years of the Revolution, came from the privileged classes. If the Duc d'Orléans, Mirabeau, Lafayette; if the Noailles family, the La Rochefoucauld, the Bouillon, the Lameth and other liberal nobles had not deserted the nobility in order to join the cause of the people and the Revolution, the revolutionaries would have been deprived of this advantage which allowed them to triumph from the outset. Now, all these nobles who rallied in haste to the cause of new ideas, although at the end they lost their fortunes, their situation, their ranks, and their lives, were Freemasons and we cannot attribute this to hazard, unless we ignore the evidence.[29]

Not surprisingly, Bernard Fay also sees the Nine Sisters lodge as being the focus of the activities that marked the early years of the

French Revolution. This lodge, as we know, harboured not only several key players in both the French Revolution *and* the 'sister' Revolution in America, but also writers, intellectuals, politicians and artists, who used their talents to extol the virtues of the Republic in their publications and artwork. 'It is certain', writes Masonic historian Jean-André Faucher, that 'the Freemasons [of the Nine Sisters lodge and other lodges] who contributed to the collapse of the monarchy and to the success of the Revolution were in great numbers.'[30]

Another alleged member of the Nine Sisters lodge was the brilliant trained orator, lawyer and self-made politician Georges Jacques Danton. He is credited by many scholars with the pivotal role in toppling the French monarchy and in the creation of the First Republic in September 1792. He was also the founder of the infamous Club des Cordeliers, an ultraradical revolutionary society officially known as the Society of the Friends of the Rights of Man and of the Citizen.

Robespierre and the Cult of the Supreme Being

Danton was one of the so-called Triumvirs, contesting the control of the Republic with two other revolutionary leaders, Robespierre and Marat – the latter a Freemason. It has never been conclusively established that Robespierre was a Freemason too. Nevertheless, his intellectual ideals and obsession with the 'virtues', as well as his promotion of the cult of the Supreme Being, all reek of Masonic influence.

In Freemasonry God is often described as 'the Grand Architect of the Universe'. His symbol is either a five-pointed star – the Blazing Star, in which is depicted the letter G – or a glowing pyramid or triangle with the all-seeing-eye (the eye of vigilance) inscribed within it. This symbol can still be seen on the 1789 Declaration of the Rights of Man and appears quite obviously to have been modelled on the 'Supreme Being' of the Freemasons – likewise symbolized by the all-seeing eye in the glowing pyramid.

English Freemasonry in particular has gone to great lengths to assert that belief in a Supreme Being is a precondition of membership.[31] Thus, in an official statement by the 'Board of General Purposes', ratified by Grand Lodge in London, it was confirmed that:

> The Board has given the most earnest consideration to this subject, being convinced that it is of fundamental importance to the reputation and well-being of English Freemasonry that no misunderstanding should exist on either side of the craft. It cannot be too strongly asserted that Masonry is neither a religion nor a substitute for religion… On the other hand, its basic requirement that every member of the Order shall believe in a Supreme Being and the stress laid upon his duty towards Him should be sufficient evidence to all but the wilfully prejudiced that Masonry is an upholder of religion since it requires a man to have some form of religion before he can be admitted as a Mason…[32]

The above statement was, in fact, construed from the Constitution of Freemasonry, drafted in 1723, where in the so-called First Charge, which is entitled 'Concerning God and Religion', the following statement appears: 'Let a man's religion or mode of worship be what it may, he is not excluded from the Order, provided he believe in the glorious Architect of heaven and earth…'[33]

The term 'Supreme Being' is widely used in the information literature of United Grand lodge where, for example, an official leaflet declares that 'members must believe in a Supreme Being, but there is no separate Masonic God'.[34] In other Masonic pamphlets the term 'Grand Architect of the Universe' is also extensively used. Clearly no distinctions are made between terms like 'Glorious Architect of Heaven and Earth', 'Grand Architect of the Universe' and 'Supreme Being'. All are, quite obviously, considered appropriate and interchangeable epithets for the Masonic idea of 'God'.

Taking into account that most of the main players of the French Revolution were Freemasons (including fellow Triumvir members Danton and Marat), and giving thought to the terminology used by Robespierre for his republican cult, it is difficult to avoid the conclusion that his Supreme Being was one and the same as the

Masonic ‘Grand Architect of the Universe’. Indeed, the historian Michel Vovelle, an expert on cults of the French Revolution, quite readily equates the ‘Supreme Being’ of Robespierre with the ‘Grand Architect’ of the Freemasons.[35]

Rousseau and the Contrat Social

It is well known that Robespierre was much influenced by the work of Jean-Jacques Rousseau (1712–78), the writer and philosopher whose *Contrat Social* (a political tract which extolled the virtues of social equality and the dignity of man) set the foundation for the Declaration of the Rights of Man, the natural successor to the American Declaration of Independence.

Although Rousseau was not a Freemason, French Masons took many of his philosophical and political ideas as gospel – so much so that one of the most important and influential pre-Revolutionary Masonic lodges, La Loge du Contrat Social, was named in his honour. It must be remembered that both Voltaire and Rousseau were – and still are – regarded as having been the intellectual dynamos behind the Revolution. It would be going too far to say that they actually *caused* it, but it is fair to say that they provided the moral framework upon which the Revolution rested.

Thus, it is not at all surprising to find that the two most important Masonic lodges in France in the years immediately preceding the 1789 Revolution were the Nine Sisters and the Contrat Social, the former linked to Voltaire and his godfather, and the latter to Rousseau’s political masterpiece bearing the same name. It was at these lodges that many of the protagonists of both the French and American Revolutions would gather.

La Loge du Contrat Social was founded in Paris in 1776 at the same time as the Nine Sisters lodge. Originally going under the name of La Loge Saint-Lazare, it had taken over the function of an older lodge, La Loge Saint-Jean d’Ecosse de la Vertu Persecutée based at Avignon, the latter acting as the ‘mother lodge’ of the Philosophical Scottish Rite,

the forerunner of one of Freemasonry's elite orders, the so-called Scottish Rite, also known as the Supreme Council of the Thirty-third Degree.[36]

Almost as popular as the Nine Sisters lodge, the Contrat Social recruited its members from the very best of the liberal nobility, the intellectuals and the military. Under its warrant other lodges were set up all over France, the most notable being the lodges Saint-Alexandre d'Ecosse and L'Olympique de la Parfaite Estime.[37] The name of the Contrat Social lodge had, in fact, been chosen by one of Jean-Jacques Rousseau's intimate friends, the Baron d'Astier,[38] who, like Robespierre and many other intellectuals of the Revolution, practically deified Rousseau. In April 1794 Robespierre even had Rousseau's body exhumed and reburied at the Pantheon in Paris next to other national heroes.[39]

Designer Cult

Robespierre's cult of the Supreme Being was officially installed in France on 7 May 1794, a little more than a year after the beheading of Louis XVI. By then the de-Christianization process had taken its toll, with the clergy abdicating *en masse*, and many Christian places of worship converted into 'temples' for the new revolutionary cult.

Although a staunch anti-clerical, Robespierre was not an atheist. He was to present a report to the Convention on the 'principles of political morality which must guide the Convention in the administration of the internal affairs of the Republic', in which he stated: 'the idea of the Supreme Being and the immortality of the soul is a perpetual reminder of Justice. It is thus social and republican'.[40]

The Convention agreed, decreeing soon after: 'The People of France recognize the existence of the Supreme Being and the Immortality of the Soul.'[41]

'A deist in the mould of Rousseau',[42] Robespierre firmly believed

that at the true basis of the new democratic state should be a *natural* religion, one that was intrinsic to the human condition, one that could root the virtues of the nation on to 'eternal and sacred foundations'.[43] It was proposed that the cult would consist of celebrations and gatherings throughout the year – Robespierre wanted thirty-six festivals in all[44] – devoted notably to the important events of the Revolution (such as 14 July), to various entities and concepts such as the Supreme Being, Nature, Liberty and Equality, and finally to the 'virtues most useful to man', such as Truth, Patriotism and so forth.

As part of Robespierre's cult, the old Gregorian calendar was abandoned in favour of a 'republican' calendar with the months given 'natural' names. This new calendar was divided into thirty-six *decadi* of ten days each, producing a year of 360 days to which were added five 'complementary' days to commemorate 'virtue, genius, labour, opinion and rewards'.[45]

It is indeed odd to discover that this republican calendar appears to have been modelled on the ancient Egyptian solar calendar – which was divided into thirty-six *decans* each of ten days, producing a year of 360 days to which five additional days were added to commemorate the virtues of Osiris, Isis and other divinities.

Lalande and Sirius

The task of developing the republican calendar was given to Charles-Gilbert Romme, a respected mathematician and president of the Committee of Public Instruction. According to Masonic historian Charles Sumner Lobingier, Romme was a prominent Freemason of the Nine Sisters lodge.[46] Romme was assisted in technical matters by the mathematicians Gaspard Monge and the astronomer Joseph-Louis Lagrange. Monge, too, was a staunch Freemason and a prominent member of the Nine Sisters lodge, which in turn had been founded by the astronomer Joseph Lalande, who had served as director of the

Paris Observatory since 1768.

Lalande, and the astronomer-historian Charles Dupuis, sat on the committee established by Romme to create the new republican calendar. Dupuis was a firm believer that all religious ideas stemmed from ancient Egypt and, more particularly, that the city of Paris was somehow associated with the Egyptian goddess Isis. We shall return to this later. Meanwhile, David Ovason, in his intriguing book *The Secret Zodiac of Washington DC*, makes this most revealing comment concerning Lalande during the obituary ceremony for Voltaire at the Nine Sisters lodge in November 1778:

> The French astronomer Joseph Lalande, so used to standing in the darkness while looking up at the stars, would probably have thought of only one star as he stood in the darkened Parisian room on 28 November 1778. In his capacity as Master of the Lodge of Nine Muses [Sisters], Lalande was mourning with his Brothers [of which one was the American Benjamin Franklin] the passing of the writer Voltaire… Among the symbols guarded by the 27 Brothers was a pyramid… As he gazed at the Pyramid, Lalande would almost certainly have been drawn to thinking about the star Sirius. An astronomer who had shown great interest in ancient orientations, he could not help realizing the importance assigned to this star by the ancients. If the Egyptian Pyramids themselves were not aligned to it, he knew full well that a large number of Egyptian temples had been, and that an entire Egyptian calendar was regulated by it. In his four-volume study of stellar lore, Lalande had listed six alternative names for Sirius, and gave its position in 1750 with remarkable accuracy. His interest was almost personal: he would have known that in the horoscope of his own birth, the sun and Mercury had bracketed this powerful star.[47]

Ovason also points out that Lalande's involvement with and deep admiration for Voltaire make it very likely that he would have been familiar with Voltaire's book *Micromégas*, published in 1752. In this curious work of fiction Voltaire set the home of the hero in the star Sirius and prophetically noted that this star also had a satellite – a fact only discovered to be true in 1844 by the Prussian astronomer Frederick Bessel.[48] Sirius, of course, was also the star identified by the ancient Egyptians with the goddess Isis – and again Lalande would

have known this.[49] Indeed, so interested were Lalande and Dupuis in the goddess Isis that one of their colleagues at the Académie des Sciences could not help commenting: 'MM. Dupuis et de Lalande voient Isis par-tout! [Messrs Dupuis and Lalande see Isis everywhere!]'[50]

Monge, Isis and Osiris

There is another connection with Egypt and the 'republican' calendar which needs to be mentioned. The mathematician Gaspard Monge, who worked out the mechanics of the calendar, was a keen student of Egyptology. Through his close friendship with Napoleon Bonaparte, whom he accompanied to Egypt in 1798, he was to found the Institut d'Egypte in Cairo. Like many Freemasons of his time, Monge believed that Masonic rituals had originated in ancient Egypt and that modern Freemasons had inherited ancient Egypt's secret system of initiation and symbolic language. Even today, confirms a Masonic historian, 'Many Freemasons consider that the Masonic Order draws much of its mysteries from Pharaonic Egypt. It is thus that they refer themselves to Osiris and Isis, symbols of the supreme being and universal nature…'[51]

Celebrations and Iconography

The first official celebrations held in honour of the Supreme Being under France's new republican calendar took place on 8 June 1794.

At the heart of the proceedings, organized by Robespierre's close friend the artist Jacques-Louis David, was a huge amphitheatre in the Tuileries gardens in front of the Louvre Palace. There the official congregation gathered to listen to a sermon preached by Robespierre in honour of the Supreme Being. At the close of the sermon, David had arranged for the dramatic burning of a Hessian cloth statue representing 'Atheism' – from which emerged, like a phoenix from the

flames, a stone statue representing 'Wisdom'.

Next the choir of the Paris Opera sang: 'Father of the Universe, Supreme Intelligence, Benefactor unknown to mortals. You will reveal your existence to those who alone raise altars in your name.'[52]

'Those who raise altars' were, of course, the republicans; and the 'altar' in this particular case turned out to be a massive artificial mountain (historian Jean Kerisel calls it a 'pyramid') in the heart of the Champs-de-Mars, where today stands the Eiffel Tower.[53] Representatives of the forty-eight districts of Paris, as well as those of the Convention with Robespierre at the helm, made their way to the pyramid/mountain and ascended its flanks. Robespierre was then raised on the summit next to a symbolic 'Tree of Liberty', while patriotic hymns were sung by the Paris Opera choir.

Let us note that in the iconography of the Revolution the all-seeing eye (or 'eye of vigilance') was often shown above the 'Tree of Liberty', while at other times it was also seen within a glowing triangle or pyramid hovering above the scene, much like the symbol seen today on the US one-dollar bill. This symbol, in fact, was originally designed for the so-called Great Seal of the United States in 1776 by a committee that included Benjamin Franklin and Thomas Jefferson.[54] The very same symbol was also to appear in 1789 on the frontispiece of the Declaration of the Rights of Man, drafted by the Marquis de Lafayette, a close friend of both Franklin and Jefferson. The symbol clearly represents the Supreme Being of the republicans and, by extension, the Masonic 'Grand Architect of the Universe' – also depicted as a pyramid with the all-seeing eye or 'eye of providence'. In one propaganda poster which has survived from the 1789 Revolution, the all-seeing eye is portrayed above the words *Etre Supreme*, i.e., Supreme Being, which confirms the link between the two ideas.[55] In this poster the 'eye' is not within a pyramid but inside a solar disc from which shoot down golden rays of light on the 'People' and the 'Republic'. There are two figures on the bottom of the poster, the one on the left is the aging Voltaire, and the one on the right is Jean-Jacques Rousseau, the two intellectual heroes of the

Revolution.[56]

This sort of iconography and rhetoric is strongly suggestive of an attempt to push forward some sort of deist-cum-Masonic 'religion' as an alternative to Christianity. And as British historian Nigel Aston remarks in his book *Religion and Revolution in France*, the 'belief in the Supreme Being permitted enough variations to accommodate many tastes'.[57] Aston quotes the patriot Lazare Carnot, a Freemason and also a member of the Convention, who made a speech in 1794 extolling the many virtues of mankind, and explained: 'these are things to be found in the *Supreme Being*; he is the *seal* of all thoughts which make for the happiness of man'.[58]

Meanwhile, on the Other Side of the Atlantic…

This perhaps unpremeditated association of the 'Supreme Being' with the idea of a seal brings to mind the Great Seal of the United States, which not only displays the 'Supreme Being' with the symbol of the glowing pyramid and the all-seeing eye, but also is an icon of the individual's constitutional right to the pursuit of happiness.

On 18 September 1793, just a few weeks after the festivities that were staged at the Place de la Bastille by David, another sort of ceremony, this time blatantly Masonic, took place across the Atlantic at the site of the future Capitol in Washington, DC. Wearing a Masonic apron given to him by the Marquis de Lafayette, George Washington laid the cornerstone of the Capitol on Jenkins Hill during a ceremony attended by hundreds of Freemasons. The Masonic apron worn by Washington, which had been embroidered by Mme de Lafayette, contained an assortment of well-known Masonic symbols, but its centrepiece is undoubtedly the all-seeing eye emblazoned by a radiating sun disc. Interestingly, author David Ovason, a Freemason who has conducted extensive research into the meaning of this Masonic ceremony, concluded that it was, among other things, primarily intended to consecrate both this building as well as the federal city to the zodiacal constellation of Virgo:

The idea of Virgo plays an important role in the astrological symbolism which dominates the city. I have also examined two foundation ceremonials in which the Virgoan element was of considerable importance. By taking this approach I might have given the impression that the sole Masonic concern in these early years of the building of the federal city was with Virgo… The importance of Virgo, and her connection with the goddess Isis, has been recognized in Masonic circles from the very early days of American Masonry. The French astronomer Joseph Lalande had been an important Mason, and his writings were widely read by Americans of the late 18th century. As early as 1731, Lalande had recognized that: 'The Virgin is consecrated to Isis, just as Leo is consecrated to her husband Osiris… The sphinx, composed of a Lion and a Virgin, was used as a symbol to designate the overflow of the Nile… they put a wheat-ear in the hand of the virgin, to express the idea of months…[59]

In his book *Inside The Brotherhood*, author and Masonic researcher Martin Short has this to tell us about George Washington's affiliation to Freemasonry:

His [Washington's] funeral in 1799 had been conducted according to Masonic rites. The coffin had been draped with a Masonic apron given to him by a brother revolutionary and Mason, the Marquis de Lafayette, and the many Masons present each cast a sprig of acacia, to symbolize both Osiris's resurrection and Washington's own imminent resurrection in the realm where Osiris presides.[60]

It is perhaps significant that the national memorial later built in Washington, DC in honour of George Washington was in the form of a huge Egyptian-style obelisk, and that on its eastern entrance was displayed the ancient Egyptian symbol of the solar disc. It is reported that during the dedication ceremony a prominent Mason read a speech and, after extolling the virtues of Freemasons, added those strange words: 'Their minds enlightened with divine love, their hearts radiant with discovering of pure love, their souls cherishing – like the ancient Egyptian worshippers of Osiris – the hope of immortality.'[61]

We shall see later how many of the symbols involved with the cornerstone ceremonies of the Capitol and the Washington memorial were veiled with symbolism involving the 'star of Isis', i.e., Sirius. Meanwhile we hope that it has become fairly evident that, for reasons

and motives not yet too clear, the ceremonies, festivities and city monuments associated with the ‘sister’ American and French Revolutions display Masonic ideas and imagery and, perhaps even more intriguingly, are heavily tinged with ‘Egyptian’ connotations and symbols.

PART I

The Secret Faith

Chapter 2

Lost World

Mixed with the many other currents and forces that are acknowledged to have driven the French Revolution we have tried to demonstrate in Chapter 1 that powerful religious and spiritual energies were also at play. These energies surfaced visibly in an aggressive de-Christianization campaign that saw great cathedrals, including the famous Notre-Dame in Paris, reconsecrated as Temples of the 'Supreme Being'. Throughout the land, ancient Egyptian and other 'pagan' images were substituted for Christian symbols, notably the cross, and even ancient Egyptian deities such as the goddess Isis were venerated. The Convention was thus not referring to the God of the Christians, or to the Christian vision of the afterlife, when it affirmed in 1794 that 'The People of France recognize the existence of the Supreme Being and the Immortality of the Soul.'

Strange and startling though these developments were, the late eighteenth century was not the first time that a religion utterly opposed to Christianity, showing signs of an ancient Egyptian influence, and deeply interested in the fate of the soul, had taken root in the land we now know as France. In the twelfth century, more than 600 years before the Revolution, just such an alternative religion had materialized in Provence and Languedoc – seemingly out of nowhere – already deeply entrenched in the hearts and minds of large sectors

of the population. It was also present in force in adjoining districts of eastern Spain and northern Italy, and scattered in smaller communities throughout the rest of Europe as far afield as Belgium, northern France and Germany.

The name of this religion that had so rapidly and successfully displaced the Roman Catholic Church in areas so close to the seat of its own power was… Christianity.

At any rate its practitioners called themselves ‘Good Christians’, but the Church labelled them heretics from the moment they first came to its attention. Their contemporaries in the twelfth, thirteenth and fourteenth centuries frequently called them ‘Manichees’ (after the ancient dualist heresy of Manicheism, supposedly wiped out in Europe hundreds of years previously). And they were known by a wide variety of other epithets including, most

Occitania, thirteenth century.

commonly, ‘Albigensians’ (after Albi, a prominent city of Languedoc) and ‘Cathars’ (derived from the Greek word *katharos*, meaning ‘The Pure’).[1]

These Cathars (the name that we will generally use here) venerated Jesus Christ every bit as much as the Catholics did. That was why they called themselves 'Good Christians'. But the place that he occupied in their religion was radically different. In the Catholic view Christ was 'the Word… made flesh' who 'dwelt among us'.[2] The Cathars repudiated this utterly and worshipped him as a being of pure spirit – an emanation from the 'Good God', a projection or an apparition. They categorically denied his material incarnation as the 'son' of God, born in a human body to 'dwell among us'. They also forcefully rejected the Catholic teaching of Christ crucified to redeem our sins. How could he have been crucified, they asked, if he had never existed physically in the first place? Far from revering the central spiritual symbol of Christianity, therefore, the Cathars denied the significance of the cross. For them it was an obscene instrument of torture that the Church of Rome had misled millions into worshipping as an idol.

Turning the most cherished symbols, doctrines and dogmas of Christianity upside down like this was a Cathar speciality that infuriated and repeatedly challenged the medieval Catholic Church.

The source of the problem was that, unlike the single all-powerful and all-good God of the Christians, the Cathars were 'dualists' who believed in the parallel existence of two deities – a God of Good and a God of Evil. Each was powerful only in his own domain and nearly impotent in the realm of the other. The domain of the God of Good was entirely spiritual, intangible, immaterial and filled with Light. It was here that human souls had originated – the creation of the Good God. The domain of the God of Evil was the earth itself, the material world and all physical life upon it – an infernal place of pain and punishment filled with Darkness and iniquity. In the Cathar scheme of things it was the God of Evil, the maker and ruler of the material world, who had fashioned the bodies (though not the souls) of mankind out of 'mud and water'. And it was towards this same Evil God, Cathar preachers argued, that the worship of the Roman Catholic Church was directed.

The Pope, in other words, was not a servant of the Good God but

the Devil's representative on Earth. And the purpose of the Catholic Church was not to transmit our souls to the spiritual and light-filled domain of heaven after death, but to trick us into returning again and again – in one human incarnation after another – to the hell-realm of the material world. Only a lifetime of self-denial culminating in the special *gnosis* – or inspired knowledge – attained on initiation into the highest grade of the Cathar faith could save us.

It was a revolutionary teaching and, in twelfth-century Europe, an extremely dangerous one.

Hesitating at the Crossroads

During the period of world history for which written records have survived – most of the last 5000 years – no scholar would seriously argue with the proposition that religions have played a fundamental role in shaping the character of civilization and directing its course. Likewise, few would dispute that the human race during this period has consistently been divided not only by different languages and cultures but also by the competing spheres of influence of different religions. Some ancient faiths that once commanded absolute obedience across vast areas have withered away and vanished. Others that were insignificant have risen to prominence. Others still are almost forgotten in their original homelands but have flourished in distant lands. Against the recent background of rampant secularism in many rich countries, and rampant religious fervour in many poor ones, we are left today with four great faiths commanding distinct socio-geographic spheres of influence that still collectively claim the allegiance of roughly nine of every ten of us:

Hinduism is strong only in the Indian subcontinent but there it has 800 million adherents.

Buddhism sprawls from Sri Lanka to Tibet, and from China to south-east Asia and Japan.

Islam has hundreds of millions of followers in Indonesia, Bangladesh, Pakistan, Iran, Turkey, the Levant and North Africa, but

its heartland and historical home is in the Arabian peninsula.

Christianity has a near-monopoly in the Americas, having obliterated or utterly marginalized all the New World's indigenous faiths during the past 500 years. It also predominates in Australia, New Zealand, sub-Saharan Africa and other areas of former European colonial expansion. Its historical home is in the eastern Mediterranean. However, after the triumph of Islam in the Middle East and North Africa more than a thousand years ago, Christianity's heartland moved to Europe itself.

Today, as a result, it is a habit of mind to think of Europe as a region locked so firmly and for so long within the Christian sphere of influence that no other faith need be considered to have shaped its destiny. For scholars prepared to look hard enough there are, of course, faint traces of earlier, pagan beliefs in the European heritage, but these are rarities and throwbacks – quaint exotica with no mainstream impact. Whether we travel to Austria, Belgium, Britain, France, Germany, Greece, Holland, Ireland, Italy, Portugal, Spain or Switzerland, the reality is that all the countries of Europe confront us with very long, unbroken traditions of Christianity. In some cases these traditions substantially predate the fourth century AD, when the Roman Empire under Constantine adopted Christianity as its state religion and established Rome (where a persecuted Christian community had already existed for 250 years)[3] as the headquarters of the newly empowered Catholic Church.

Almost immediately after coming into imperial favour the formerly persecuted Church Fathers themselves turned persecutors. They sought to impose their control on Christians throughout the Roman Empire, to suppress schisms and to distil a universally agreed doctrine out of the great variety of teachings that the faith had previously encompassed. To this end, as we will see in later chapters, they promulgated dogmas and defined and declared anathemas upon a whole series of heresies. These were then systematically hunted down and obliterated over the next three centuries.

Notable among the forbidden faiths was the great dualist heresy of

Manicheism (to which no less a figure than Saint Augustine, one of the four most revered 'Doctors of the Church', had belonged for nine years before converting to Christianity in AD 386).[4] Claiming to lead to direct and personal knowledge of the divine, all forms of Gnosticism were also persecuted to vanishing point. Influenced by elements of the ancient Egyptian religion, Asian and Middle Eastern mysticism, Greek philosophy and alternative interpretations of Jewish and Christian teachings, Gnosticism was as profoundly dualistic as Manicheism and was for some centuries the chief rival to Roman Catholic hegemony.[5]

By the seventh century, however, Manicheism had been expelled to the distant East, and the numerous Gnostic sects that had confronted the early Church seemed to have been obliterated.[6] No longer facing any organized spiritual competition, Catholicism was able to see out the remainder of the Western Dark Ages with its defences relaxed. The result, by the early eleventh century, was that churchmen had no living experience of heresy. Those who sought to remind themselves of its dangers could only turn to books – among them Saint Augustine's agonized account of his own 'errors' as a 'Manichee' written 700 years earlier.[7]

It therefore came as something of a jolt when a heresy (looking very much like Manicheism) suddenly resurfaced in the twelfth century in the form of Catharism in areas at the very heart of Western culture. Moreover, it proved to be no transitory movement linked to the lives of a few charismatic leaders but the most deadly threat ever to confront the Catholic faith. Appearing as though from nowhere, it was a well-organized 'anti-Church' that claimed an antiquity even greater than that of Catholicism itself. It also had the temerity to recruit its new members directly from Catholic ranks.

What made Catharism such a threat and outrage to the Catholic Church, however, was not just its embarrassing success at converting Catholics, nor the challenge of its doctrines – radical though they were. Nor was it simply the shock of confronting a dualist heresy that seemed to have conjured itself up out of the past like a ghost. Nor was

it the heresy's obvious dynamism, nor the uncomfortably rapid spread of its sphere of influence ever closer to Rome during the twelfth century. The real problem was that as well as winning over large numbers of ordinary people, Catharism had succeeded in attracting the tacit and sometimes even the overt support of some of the most powerful noble families in south-western Europe. These included, most notably, the Counts of Toulouse, the Counts of Foix, and the Trencavel viscounts who ruled the walled cities of Albi, Béziers and Carcassonne. With their knights and castles and strength of arms concentrated in the Languedoc and surrounding areas, such men had transformed Catharism into something that the Church of Rome had never faced before. Here was a heresy that could fight back, that would not easily be crushed by the use of secular force and that might conceivably, if allowed to grow further, push the Catholic religion out of Europe altogether.

For more than a century, with consequences that reach us today, European civilization hesitated at the crossroads of two competing spiritual systems and confronted the choice of two very different ways forward into the future. Let us take a closer look at the key players and events during this decisive period of history.

A Language in Which 'Oc' Means 'Yes'

Languedoc in the twenty-first century is part of the colourful mosaic of southern France. It adjoins Provence to the east and is separated from Spain to the west by the Pyrenees mountains. In the twelfth and thirteenth centuries it was famed for the romantic poetry of its troubadours, for its 'Courts of Love',[8] for the fiercely independent character of its people and for its unique culture.

Underlining this sense of difference was the basic fact that the people of Provence and Languedoc had never been French subjects and did not even speak French. Indeed, at that time what the word 'France' conjured to mind for most was just the Ile de France, the region immediately around Paris. More broadly defined, 'France' also

included the territories lying between the Loire, the middle part of the Meuse and the Scheldt. But the lands to the south of the Loire and south of the Massif Central, as well as the whole of the Mediterranean coast, were excluded. As late as the fourteenth century travellers heading north from Toulouse or Avignon thought of themselves as journeying *to* France rather than within it.[9]

Together with the regions of Limousin and old Aquitaine, and the southern part of the French Alps, Languedoc and Provence were known in medieval times by the collective name of Occitania. They by no means formed a 'state' or a 'country' as we understand those concepts today. On the contrary, other than to family, friends and neighbours, the primary loyalties of the majority of the inhabitants were to the town or city in which they lived or to the aristocrats whose fields they ploughed. Still, they had much more in common with each other than they did with the cultural and political community of northern states that were in the process of becoming 'France'. And above all else these 'Occitanians' were united by their common language, literally the *langue d'oc* – that is to say the language in which the word for 'yes' is *oc* (as opposed to the *langue d'oil*, the twelfth-century language that was to evolve into modern French, in which the word for 'yes' was *oil* – later to become the more familiar *oui* of today).

Medieval scholar Joseph Strayer points out that the French of the north and the Occitan of the south are separated by one of the sharpest breaks in the whole family of Romance languages and are mutually incomprehensible. Occitan is, however, very close to Catalan and quite close to Castilian. The result is that in the twelfth century:

> A merchant from Narbonne would have been easily understood in Barcelona, while he would have needed an interpreter in Paris… A baron of the Ile de France would have found more men to talk to in London, or even in Cologne, than he would have in Toulouse. Now a language barrier is not an impassable obstacle, but it is a real one, and it is the kind of barrier that creates misunderstandings and suspicions.[10]

The Mailed Fist of Occitania

Power in Occitania was in the hands of a feudal aristocracy dominated by the three great families of Foix, Trencavel and Toulouse.

Described at the time as 'the peers of kings, the superiors of dukes and counts',[11] the princes of the house of Toulouse ruled a domain extending from Toulouse itself to Nimes in the east, and from Cahors in the north to Narbonne on the Mediterranean coast.[12] They also enjoyed, and could sometimes call upon, an impressive range of international alliances. Raymond VI, Count of Toulouse (1194–1222), for example, was a cousin of the King of France and brother-in-law to the Kings both of England and of Aragon.[13] He also tolerated and sometimes even promoted Catharism and travelled with a Cathar holy man.[14]

The Counts of Foix, lords of the high Pyrenees along the border with Spain, were renowned for their military prowess, stubborn ruthlessness and strong Cathar connections. In 1204 Raymond-Roger, Count of Foix (1188–1223), witnessed the reception of his widowed sister Esclarmonde into the *perfecti* (literally the 'Perfect'), the highest rank of Cathar initiates.[15] Two years later his own wife, having borne him six children, was also received into the *perfecti* and retired from the world to preside over the Cathar equivalent of a nunnery.[16] Though never avowedly a Cathar himself, Raymond-Roger was staunchly anti-Catholic all his life. On one occasion it seems that soldiers in his employ chopped a Canon of the Church into pieces and used 'the arms and legs of a crucifix to grind up spices with, in lieu of a pestle.'[17] In a lengthy essay on 'the barbarity and malignity of the Count of Foix' a contemporary pro-Catholic chronicler wrote: 'His wickedness exceeded all bounds… He pillaged monasteries, destroyed churches, excelled all others in cruelty.'[18]

The Trencavel dynasty, controlling lands that stretched from the Tarn to the Pyrenees, added their own combination of wealth,

hereditary influence, military might and pro-Cathar sympathies to the equation of power in Languedoc. Raymond-Roger Trencavel, who ruled from 1194 until his capture and murder by Catholics in 1209, had been tutored by the well-known Cathar scholar Bertrand de Saissac. The latter had once shown his contempt for the laws of Catholicism when a monk he disliked was elected abbot at the monastery of St Mary Alet. Bertrand's response was to have the corpse of the former abbot exhumed and placed, mouldering, in the abbatial chair to supervise a new election. Not surprisingly the abbot elected on this occasion did meet with Bertrand's favour.[19]

Support for and involvement with the Cathars, combined with a rejection of the Church, were not confined solely to the upper levels of the aristocracy. In the Lauragais, the populous area between Toulouse and Carcassonne, the minor nobility are reported to have been almost solidly Cathar. The same was also the case for their counterparts in the Corbiàres between Carcassonne and Narbonne.[20] Tellingly it has been calculated that 30 per cent of all Cathar *perfecti* were of noble birth.[21] Moreover, even the remaining Catholic nobility of Occitania often proved to be at least sympathetic to the Cathars – and at times were openly supportive of them. An indication of their dilemma is to be seen in the reply given by the Catholic knight, Pons Adhemar of Rodeille when he was asked by Foulkes, the Bishop of Toulouse, why he and his co-religionists had not expelled the heretics from their lands: 'We cannot. We have grown up amongst them. We have relatives amongst them, and we see them living good, decent lives of perfection.'[22]

Weaving the Threads of the Great Heresy

Thus sheltered by the aristocracy of the region on both sides of the religious divide, the Cathars also found strong support at all other levels of Occitanian society. Large numbers of them were skilled craftsmen and artisans. A list of Cathars present in the city of Béziers in 1209 includes

one noble (*baronus*), four doctors, five hosiers, two blacksmiths, two pelterers, two shoe-makers, a sheep-shearer, a carpenter, a weaver, a saddler, a corn-dealer, a cutler, a tailor, a tavern-keeper, a baker, a wool-worker, a mercer, and a money-changer.[23]

Malcolm Barber, Professor of History at Britain's University of Reading, observes that the Béziers list includes no fewer than ten individuals employed in the textile industry, and that a great many other primary documents from the period likewise link weavers (*textores*) to the heresy.[24]

This is true both within and outside the borders of Occitania. In France the general name by which Cathars were known was simply *Texerant*, 'the weavers'.[25] In 1145 the renowned French ecclesiastic Bernard of Clairvaux undertook a preaching tour to warn against a 'heresy of weavers'.[26] It had supposedly sprung up fully formed 'from the suggestions and artifices of seducing spirits'[27] and was so successful at winning conversions that 'women have quitted their husbands, men have deserted their wives… Clerks and priests… often abandon their flocks and their churches, and are found in the throng, among weavers male and female.'[28]

Likewise, in 1157 Archbishop Samson of Rheims was almost certainly complaining of Cathar missionary activity when he spoke of a 'Manichean plague' that had recently infected the greater part of Flanders[29] (we noted earlier that twelfth-century churchmen commonly referred to the Cathars as Manicheans – after the dualist sect of that name that had supposedly been stamped out hundreds of years previously). This new outbreak of the heresy, Samson said, was being spread by itinerant weavers and cloth-merchants.[30]

The explanation is simple. Employment as weavers and in other sectors of the medieval cloth trade – with its extensive international connections – was chosen as 'cover' by Cathar *perfecti*. They needed cover to avoid early detection by Church authorities because they were mounting what can only be described as a large-scale and well-thought-out missionary campaign. The rather gentle, patient and

systematic methods that they used to win local trust, and eventually conversions to the heresy, have been nicely described by the Canadian historian Stephen O'Shea:

> On the paths and rivers of the Languedoc of 1150 there were not only traders and troubadors but also pairs of itinerant holy men, recognizable by the thin leather thong tied around the waist of their black robes. They entered villages and towns, set up shop, often as weavers, and became known for their honest hard work. When the time came, they would talk – first in the moonlight, beyond the walls, then out in the open, before the fireplaces of noble and burgher, in the houses of tradespeople, near the stalls of the marketplace. They asked for nothing, no alms, no obeisance; just a hearing. Within a generation these Cathar missionaries had converted thousands. Languedoc had become host to what would be called the Great Heresy.[31]

The Perfect and the Believers

The missionaries were all Cathar *perfecti*, and, as O'Shea rightly observes, it was their custom – like modern Mormons or Jehovah's Witnesses – to travel and evangelize in pairs.[32] Their black robes would have given them something of the look of Christian monks or priests. Other than their appearance, however, there was really no similarity at all between the lifestyles of these *perfecti* and the lifestyles of the typical Catholic clergy of the period. As even their most bitter opponents were willing to admit, the distinguishing characteristic of the Perfect was that they lived exemplary lives of chastity, humility, great poverty and simplicity throughout the whole period of Catharism's rise and fall.[33] Meanwhile, the Church of the eleventh and twelfth centuries had already become decadent and disreputable. It was widely despised because of the rampant sexual licence of so many of its ministers. In some areas it was openly hated because of its vast wealth, corruption, greed, and unnecessary ostentation. Doubling as large-scale feudal landlords, most bishops enjoyed lives of profligate, scandalous luxury. No wonder, then, that they were unpopular in their own dioceses where they were reviled

for their indifference to the privations of the poor.[34]

To understand the extreme asceticism for which the *perfecti* were renowned, one need only recall the teaching that lay at the core of Cathar dualism. The material world was the wholly evil creation of a wholly evil god. All contact with matter was therefore also evil and could only inhibit Catharism's primary project. This was the gradual purification and eventual release of immortal human souls from their cycle of rebirths in mortal human bodies. 'O Lord, judge and condemn the imperfections of the flesh,' went one of their prayers. 'Have no pity on the flesh, born of corruption, but show mercy to the spirit, which is imprisoned.'[35]

The *perfecti* were active participants in what they saw as a cosmic struggle between utterly incompatible powers – spirit and matter, good and evil.[36] Success in the struggle required them to lead lives in strict accordance with their beliefs and teachings. Since flesh was 'born of corruption', it followed that any foodstuff thought to have originated from processes of coition and reproduction was absolutely forbidden to them. This meant, in practice, that they could eat neither flesh nor fowl, nor any of the derivatives from these creatures such as eggs, milk, cheese, cream or lard.[37] Their diet consisted of bread, vegetables, pulses, fruits and nuts. Inconsistently (to the modern mind) fish were also allowed. This was because of a medieval misconception that fish did not issue from sexual reproduction but were somehow spontaneously generated in water or mud.[38]

The same anti-reproductive, anti-coital logic meant, of course, that the *perfecti* must themselves be totally celibate – even an 'unchaste' kiss was believed sufficient to destroy their ritual purity. All other bodily needs and desires brought the same peril and were likewise to be shunned.[39] To harden their resistance to the desire for nourishment they not only rigorously followed the already sparse diet outlined above but also subjected themselves to lengthy fasts amounting to more than seventy days a year on bread and water alone.[40] The purpose of all these privations was to loosen the bonds

that imprisoned the soul within the body.[41]

In pursuit of the same objective, and in order further to minimize their contacts with the snares and lures of the material world, the *perfecti* renounced all property and personal possessions except the clothes they stood up in.[42] Many other austerities were also required of them. Despite these, however, there was no shortage of candidates for the *perfectus* grade and the Cathar religion in fact made it very difficult for anyone to achieve it. Aspiring *perfecti* underwent a period of training and direct exposure to the full rigours of the life that they would lead after initiation. Known evocatively as the *abstinentia*, this typically involved three years of full-time attachment to a senior *perfectus*. Only at the end of the *abstinentia*, if they had conducted themselves satisfactorily, would they become eligible for the ritual known as the *consolamentum* ('consoling') that completed their own elevation to Perfect status.[43]

Though often referred to as the 'priests' of the Cathar religion, several researchers have noted that the *perfecti* were in reality much closer in terms of their austerities, their personal comportment and their function within the faith to the 'ascetic teachers of the East, the bonzes and fakirs of China or India, the adepts of the Orphic mysteries, or the teachers of Gnosticism'.[44] This impression is enhanced by contemporary reports which seem to describe *perfecti* in trancelike or meditative states. One eyewitness speaks of the 'extraordinary sight' of a Cathar *perfectus* seated on a chair 'motionless as a tree trunk, insensible to his surroundings'.[45]

But the Cathar authorities knew very well that a life of meditation, total chastity, austerity and withdrawal from the material world was beyond the reach of the average mortal. Moreover their society did not – and could not – consist solely of *perfecti* and candidate *perfecti* whose celibacy would provide them with no successors. What was needed was a much wider pool to draw on. This was supplied by a second grade or rank, far more numerous than the Perfect, known as the *credentes* ('Believers'). It was they, in their tens of thousands, who constituted the vast majority of all Cathars. It was they who

contributed the social and economic energy – to say nothing of the military muscle – that made this religion such a threat to the Church of Rome.

What the 'Believers' believed in were the fundamental tenets of the dualist faith concerning the existence of two gods, the evil nature of matter and the imprisonment of the soul in flesh. They might even aspire, ultimately, to becoming wandering gurus of *perfectus* rank themselves. But the reality was that most *credentes* never took up the challenge. Instead, wherever Catharism was established, we know that its Believer class lived ordinary lives of no great self-denial. They married, produced children, owned property, ate well and generally enjoyed the world. They certainly attended the simple services and gatherings led by *perfecti* that were part of the Cathar calendar. Along with all other Believers they likewise accepted and took with extreme seriousness a general duty to accommodate the impoverished *perfecti* on their travels and to provide them with a strong network and support system. They were also required to offer a ritual salute to any *perfecti* they might encounter. Called the *melioramentum*, this involved triple genuflections and greetings to the Perfect and culminated in the following exchange:

Believer: Pray God for me, a sinner, that he make me a good Christian and lead me to a good end.

Perfect: May God be prayed that he may make you a good Christian.

The exchange, explains medieval historian Malcolm Lambert, was standardized and had a special meaning:

To be a Good Christian, or a Christian at all, in Cathar belief was to become a Perfect. To come to a good end was to die in possession of the *consolamentum*, not having forfeited it by lapse. In the exchange and genuflection Perfect and adherent reminded each other of their own status, the one waiting, not yet freed from Satan, the other outside his power, in a unique position.[46]

Believers were taught that it was particularly important for them to find a Perfect and to perform the *melioramentum* if they had in any way been exposed to the contamination of Catholic influences. This was so at least partly because obeisance – amounting almost to worship (and referred to in some contexts as 'adoration') of the Perfect – represented a direct and public denial of the Catholic Church.[47] When the prominent *credens*, the Lady Fidas of St Michel, travelled to Rome with Countess Eleanor of Toulouse, she cheekily took a Cathar Perfect with her, 'to worship him in the very chapel of the Pope'.[48]

Whether they were nobles or peasants, however, the majority of Believers would postpone until their deathbeds the moment when they felt ready to summon a *perfectus* to confer upon them the dualist baptism of the *consolamentum*. It was an act of momentous importance that filled the recipient with a charge of the Holy Spirit, and, for some, could open the door to the Kingdom of Heaven. Though it amounted, on the surface, to nothing more than a short ritual accompanied by prayers and a laying-on of hands, the *consolamentum* was considered to be so powerful that it was sufficient, *by itself* – even without years of itinerant austerity – to initiate the dying Believer into the ranks of the Perfect. He or she would thereafter consume only bread and water, avoiding any further contamination from the evil world of matter. The hope for those thus consoled, and in a state of ritual purity, might not have been that death would this time bring a final release from the cycle of rebirth in human form, but that it would, at the very least, bring 'progress on the chain of being towards it'.[49] On occasions when patients unexpectedly recovered after being consoled they could always return to the normal life of a *credens* and to full involvement with the world. In that case they would have to receive the *consolamentum* and enter a fast once again when death approached or whatever progress their souls might have made in this incarnation would be lost.

It was by no means certain that the next incarnation would bring the soul to a body that would again receive the Cathar teaching (or even necessarily to a human body at all – rather than, say, the body of a donkey – let alone to the body of a Cathar). Believers were

therefore provided with a strong incentive to receive the *consolamentum* in this life (where they knew it was definitely available) but to so juggle things that they did not have to go through with it until their deathbed. During the late twelfth century, when there were large numbers of *perfecti* on the roads and living in every village, town and city of Occitania, this was not usually difficult to accomplish. But during the thirteenth century, as we shall see in Chapters 6 and 7, Catharism became a persecuted faith throughout Europe – with the greatest attention paid to Occitania. There, amidst demonic scenes from the lowest circles of Hell, the populations of entire cities were put to the sword by soldiers of the Church of Rome. The Papal Inquisitors followed and as they went about their work the numbers of *perfecti* fell into an ever more catastrophic decline with each new mass burning. By the early fourteenth century there are only known to have been three Perfect still at work in the whole of the Languedoc, once the very epicentre of the faith. Surviving Believers faced great uncertainty as to whether they would be able to obtain the *consolamentum* at all. The desperate solution of many Cathars nearing the end of their natural lives in these last days was the *endura* – an Occitan word meaning 'fasting' or 'hungering' applied to the bread and water fast that normally followed deathbed consolings.[50] Now, however, those who had received the ritual preferred not to risk breaking their fast even if they later began to show signs of recovery. The consequence was that the *endura* 'came to have the precise and technical meaning of fasting to death after receiving the *consolamentum*'.[51]

Abolishing Superstition and the Fear of Hell

When extensive persecution of Catharism began in the thirteenth century the fundamental difference in lifestyle between the consoled and the unconsoled – between Perfect and Believers – was sometimes seized on by the latter to try to persuade their accusers that they weren't heretics at all. In the Bourg of Toulouse in 1223 for example

Jean Teisseire, a *credens* in the prime of life who had no interest in an early *consolamentum*, was arrested and accused of heresy. 'I have a wife and I sleep with her,' he protested, 'I have sons, I eat meat and I lie and swear'[52] (along with marriage, sex, reproduction and meat-eating, lying and the swearing of oaths were forbidden to *perfecti*).[53] Teisseire was convicted on the evidence of witnesses, and his arguments were ignored by the court. He was sentenced to burn at the stake and placed in the bishop's prison to await execution. The procedure now allowed him to recant and go free, but he stubbornly continued to profess his innocence and remained on death row. There he fell into conversation with several Cathar *perfecti* and a few days later accepted the *consolamentum* at their hands. Still refusing to recant beliefs that he now acknowledged he held he was 'burnt with the rest'.[54]

There are many reports of courage and extreme self-sacrifice from the era of persecution. They tell us that Catharism was capable of inspiring its adherents with profound and strongly held beliefs concerning the progress and afterlife destiny of the soul. Indeed, these beliefs were so strong that again and again *perfecti* and *credentes* like Teisseire were prepared to suffer death in the utmost agony rather than recant and jeopardize their imminent release from the evil world of matter.

There are several well-attested accounts of the condemned rushing *en masse* towards the pyres that had been prepared for them and flinging themselves joyfully into the roaring flames. Whether we think of them as credulous fools, therefore, or as exalted martyrs, it seems that Catharism had liberated these people from the paralysing fear of hell that the Catholic Church had used for centuries to terrify and close the minds of medieval Europeans. Indeed, such a liberation would have followed more or less automatically from conversion to Cathar dualism – which proposed no lower hell than the earth itself, 'the lowest plane of consciousness to which we sink'[55] – a place of trial and torment in which our souls were *already* undergoing fierce penances and had remained trapped for countless prior incarnations.

Hell, in other words, was not an unknown destination, to which we would be sent for sins defined by the Catholic Church, but a known one in which we were already present, but which it was our destiny one day to escape.

In this way, at a stroke, the Cathars not only abolished all fear of death in their initiates but also sundered bonds of superstition and demonology that had stalled the progress of Western civilization throughout the Dark Ages. Seeking to sweep the cobwebs away from all aspects of habitual religious behaviour, they said that chanting in church 'deceived simple people', and ridiculed as an irrational waste of money the Catholic practice of paying alms for souls in purgatory.[56]

By giving exposure and prominence to such ideas – albeit for just a brief period of history – the Cathars encouraged a new freedom of thought and a new spirit of flexibility and openness to change. The psychologist Arthur Guirdham believes that this was 'perhaps their most significant contribution to the emancipation of the common man':[57]

> Not to understand this is to fail to realize that Catharism was not only an enlightened but an optimistic creed. Some of the contemporary defenders of Catharism regard it as a dour, Calvinistic and basically pessimistic religion. Sir Steven Runciman who is, on the whole, very fair in his assessment of the Cathars, regards the religion as foredoomed because of its built-in pessimism. Those holding such views are at a loss to explain how such a repressive and pessimistic creed could have spread like wildfire through the most sophisticated and sceptical region of Europe…[58]

A Renaissance Ahead of Its Time?

Catharism's sudden flowering took place at a time when Europe, stimulated by the contact with the East that the Crusades had brought, was shaking off the slumber of the Dark Ages and rediscovering ancient wisdom in the classical texts. Often described by historians as 'the Renaissance of the 12th century', this period of

‘change, experimentation and broadened horizons’[59] ended hundreds of years of intellectual stagnation. It saw the birth of many new philosophical and scientific ideas, witnessed the rise of the first towering Gothic cathedrals and experienced far-reaching social and economic changes.

Together with the neighbouring parts of eastern Spain and northern Italy, where the Cathar religion was also strong, the twelfth-century civilization of Occitania – urbanized, sophisticated, cosmopolitan – was ‘indisputably ahead of anywhere else in Europe’.[60] It lay at the epicentre of what promised to become a great upheaval in Western values marked by a spirit of inquiry and the introduction of a gentler, more cosmopolitan and more tolerant world view. Moreover, had Catharism succeeded in all its aims, we can be certain that there would have been no place, in this new age, for the Catholic Church – which, as the Church of Satan, had for so long led so many souls astray. Far from succeeding, however, the Cathar heresy was crushed by a series of violent and genocidal ‘Crusades’, unleashed by the Catholic Church in the first half of the thirteenth century. The last of the resistance was then slowly and methodically finished off by the Papal Inquisition, which was officially established in 1233 specifically for the repression and extirpation of Catharism.[61] Had it not been for the destruction and dislocation wrought by these so-called ‘Albigensian Crusades’, some believe that the culture of the Languedoc could have anticipated the Renaissance in Italy by more than two centuries.[62]

Such speculations are frowned on by mainstream historians.[63] As a result questions like ‘What would have happened to the West if Catharism had won its struggle against the Catholic Church?’ are rarely given any serious scholarly consideration. An exception was the French social philosopher and activist Simone Weil. She died in 1943 as a result of voluntary starvation in sympathy with her compatriots then under German occupation. Aged only thirty-four at the time of her fatal *endura*, Weil had spent the last few years of her life cultivating a deep interest in the unique culture of twelfth-century

Occitania. She believed Catharism to have been the source of all its inspiration. By crushing the Greeks more than 2000 years ago, she argued, the Roman Empire had 'brought sterility to the Mediterranean basin'. Only once since then had another civilization raised its head in the same region which might have had the capacity to attain 'a degree of freedom and spiritual creativity as high as that of ancient Greece'. Snuffed out in the thirteenth century by the Church of Rome, this was the lost Occitanian civilization of the Cathars – which, in Weil's analysis, had somehow plugged itself into much older currents of thought:

> Little as we know about the Cathars, it seems clear that they were in some way the heirs of Platonic thought, of the esoteric teachings and mysteries of that pre-Roman civilization which embraced the Mediterranean and the Near East…[64]

Weil was one of those for whom Occitanian civilization in the twelfth and thirteenth centuries had conceived the true Renaissance. Its potential had been greater even than that of the Italian Renaissance in the fifteenth century. Because Languedoc was the heartland of this precocious civilization, the brutal engine of the Albigensian Crusades smashed not just the Cathars but Europe's last living link with the ancient wisdom traditions of India, Persia, Egypt and Greece. By contrast, the centuries that followed the destruction of Languedoc 'were an essay in totalitarian spirituality'.[65]

Cosmopolitan Cities

Occitanian society under the influence of the Cathars was anything but totalitarian. It was far ahead of the rest of Europe in the process of urbanization. Its rapidly expanding cities like Narbonne, Avignon, Toulouse, Montpellier, Béziers and Carcassonne proudly guaranteed the freedom of thought and the economic and political independence of their citizens. Even in his own city, for example, the Count of Toulouse lacked any executive legal authority over the citizens and

was only obeyed so long as he respected local common law.[66] Narbonne, Avignon, Montpellier and Béziers were hives of intellectual activity – in every sense university cities even before their universities had officially been founded. The most advanced course on Aristotle in Europe, which took account of the latest work by Arab scholars, was taught at Toulouse.[67]

Arab merchants and doctors had long found their way to Occitania across the Pyrenees from those parts of Spain then under Muslim control, or by sea from the east. They had been welcomed by the Cathars – who were inclined to see the Roman Catholic Church, not the 'infidel', as the natural enemy. Besides, for the Cathars, all human bodies, whether Muslim, Christian or Jew, were the prisons of entrapped souls. Since all suffered the trials and rigours of the material world equally, and since only Catharism offered a way out of it, the oppression of one man by another on grounds of race or creed was absurd.

Such ideas spilled over into civic life and resident aliens in the cities of Occitania enjoyed full citizens' rights, regardless of their nationality or creed.[68] Moreover, while Catharism maintained its resolute antipathy to the Church of Rome, it was open-handed and liberal with other faiths that were willing to co-exist peacefully with it. This was a time when possession of land by non-Christians was a criminal offence in northern France. It was a time when mobs of Catholics throughout Europe could frequently be worked up into frenzies of anti-Semitic prejudice. Yet in Occitania large and long-established Jewish communities owned land, worshipped openly in synagogues and prospered unmolested throughout the twelfth century.[69] They, too, seem to have been going through a period of creative intellectual and spiritual inquiry, just as the Cathar communities were. Indeed, it was in the coastal cities of Languedoc in this same period that Jewish savants elaborated the occult philosophy of the Cabala and began to explore its implications.[70] A system of mysticism rooted in ancient Judaic traditions, Cabala laid claim to secret knowledge and divine revelation. It also exhibited strong

dualistic tendencies in which the 'left side' and 'right side' of the cosmos were envisaged in constant opposition and conflict.[71]

It is notable that acclaimed schools of Talmudic Law flourished at Narbonne, Lunel and Beaucaire in the twelfth century and that there is a report from 1160 of Jewish students from 'distant lands' studying there.[72] Intriguingly the same source – Rabbi Benjamin of Tudela – also describes an encounter with a Jew at Lunel who had 'discarded all worldly business, studied day and night, kept fasts, and never ate meat'.[73] This suggests the possibility that Cathar ideas about how we should live in the world and what we are doing here had begun to have an impact not only on the large number of former Catholics it had freed from the fear of hell but also on the followers of other faiths as well.

Cathars and Troubadours

It was in the twelfth and thirteenth centuries that Catharism briefly lit up people's minds in Occitania. In the same period another extraordinary intellectual phenomenon also appeared and disappeared in precisely the same region now encompassed by southern France, northern Spain and northern Italy. This parallel phenomenon was the lyric poetry of the troubadours – a form that was invented in Occitania and composed in the Occitan language. Judged by literary experts today as 'one of the most brilliant schools that ever existed', it is accepted as an influence on all later European lyrical poetry.[74] Of much greater consequence, however, is the fact that troubadour poetry also had an unprecedented *social* impact. Indeed, it brought about what has been described as 'a revolution in thought and feeling, the effects of which are still apparent in Western culture'.[75]

The revolution had to do with attitudes towards women in society. The troubadours themselves were favoured at the many noble courts of Occitania – where they enjoyed high status and exceptional

freedom of speech (sometimes even intervening in political matters). Launched from this position of eminence, their poetry focused respect-filled eyes upon women in general (including such lowly figures as shepherdesses), and upon the ladies of the courts in particular, bestowing an exalted, almost saintly, status on the female gender. These poems promulgated the idea of courtly love in which the male protagonist existed to worship his lady and to serve her faithfully. Such love was adulterous, in the sense that the lady was almost always married, but also pure in the sense that it was not to be consummated physically.[76] The essence of the whole exercise was self-denial and frustration, longing from afar and the ennoblement of chastity. In the process the man who must love and yet not touch, must desire and yet never be fulfilled, was raised above the common herd.[77] What was really being celebrated, suggests Zoé Oldenbourg, was 'nothing else, surely, but the urge to proclaim a triumph of self-will'.[78]

Is it a coincidence that Cathar *perfecti*, too, sought to impose their will over every physical need and desire, and believed it necessary for their bodies to pass through suffering, protracted vigils, deprivation of the senses and many deaths before that goal could be achieved? For these and other reasons, Oldenbourg believes that there must have been a considerable degree of overlap between the troubadour movement and Catharism. She goes so far as to argue that on many occasions when 'the troubadours… mention God and Jesus Christ it is very probable that they are speaking as Cathars, and that their deity is the "Good God" of the Manichean faith'.[79]

But Oldenbourg is out of line. It is the consensus of medieval historians and literary scholars that the ideas diffused through Occitania by the troubadours in the twelth and thirteenth centuries had very little and perhaps even nothing at all to do with Catharism.[80] We may only comment, with Arthur Guirdham, that this simply makes no sense:

How could two such startling manifestations of culture occur at the same time and in a

limited area without their being related to each other? To hold such an opinion is equivalent to saying that the teachings of Freud swept London in the 1920s but had no influence on medicine or literature.[81]

Women Hold Up Half the Sky

In tandem with the poetry of the troubadours, the basic organization and beliefs of Cathar religion also had the effect – whether by accident or by design – of elevating the status of women in Occitanian society. Catholicism had done nothing to dismantle the gross inequalities of the sexes that prevailed in the European Middle Ages and explicitly forbade women to become priests. Catharism, on the other hand, regarded the souls of men and women as absolutely equal. It saw no reason why the material envelopes that they were imprisoned in – namely their bodies, which by chance could be either male and female – should be treated with any less equality.

For this reason membership of the Cathar *perfectus* class was not restricted by sex and both men and women could and did become *perfecti*. On the highways and byways of these dangerous times Cathar *perfectae* preached and travelled less than their male counterparts[82] – for understandable reasons of physical security. Nor do we find any women among the relatively few 'bishops' and 'deacons' at the top of the simple, low-maintenance and minimally hierarchical structure by which Catharism was administered in Occitania. Nevertheless there is no doubt that women Perfect were highly esteemed and enjoyed great influence in their communities,[83] where they often established group homes for 'the daughters, widows and dowagers of the local petty nobility and artisan classes'.[84]

In practice it is thought that the cadre of active Perfect present in Occitania at any one time is likely to have included rather more males than females (perhaps on the order of 6:4), but this resulted from individual choices, not policy, and was compensated by a higher ratio of women amongst the *credentes*.[85]

In summary, by contrast with anything the Catholic Church had to offer, the status of women within the Cathar faith was high and their role both important and recognized. This liberation, too, must have played its part in the great awakening of ideas and human potential that took place in Occitania in the twelfth century.

The Revolution and the New World Order

The point we wish to make here is that although Catharism was a system of inspired spiritual knowledge and in every sense a religion, it was also a great deal more than that.

We've seen that it was, at one level, a social programme anticipating by centuries the modern recognition that human potential can never be fully realized without 'women's liberation'. Likewise, we've seen how the Cathar doctrine of the equal predicament of souls – and the basic irrelevance of the sex, race or creed of the bodies in which they happen to be trapped – lent itself naturally to the refreshing liberalism, open-mindedness, cosmopolitanism and democratizing tendencies of Occitanian society.

Catharism was also a comprehensive philosophy of anti-materialism that offered all who adhered to it a choice of two very clear ways forward in this life – a 'high' road and a 'low' road. The high road was the way of solitary meditation and renunciation of the world – the suppression through willpower of all physical needs, attachments and desires – that was followed by the Perfect. The low road was the way of engagement in the world followed by ordinary Believers until they received the *consolamentum* on their deathbeds. They hoped to make solid progress in this incarnation in the great project of freeing their souls from the trap of matter but understood that they might need to return again and again to the material plane before that objective would finally be achieved.

Had it been allowed to become widespread and to win dominance over the Catholic Church throughout Europe we cannot say what the long-term political and economic consequences of such a philosophy might have been. Simple logic suggests that it would have been most

unlikely to have led to either of the two great political and economic systems – capitalism and communism – that were ultimately to dominate human affairs in the nineteenth and twentieth centuries. Both are entirely materialist in their outlook and their disagreement is only over the manner in which the riches of the world are to be extracted and divided up. We can suppose that the very different concerns of Catharism, and its horror of material entrapment, would have led during the course of history to very different arrangements concerning 'production', the ownership of its 'means' and the uses and exploitation of the masses.

Already in twelfth-century Occitania there is evidence that the Cathars had begun to meddle with the feudal economic order through programmes of adult education and practical training for the poor and disenfranchised. For example, workshops run by skilled *perfecti* were set up to provide apprenticeships in leather, paper-making and the textile trade.[86] One of the objectives of these workshops was undoubtedly to turn out missionaries who could be self-sufficient as they wandered from town to town making conversions (as we noted earlier, surviving records show a particularly strong concentration in Cathar areas of weavers and other workers in the textile trade). But the long-term effects of such an education programme, leading as it did to the foundation of an instructed artisan class, might have been literally revolutionary if it had been allowed to continue. Little wonder, therefore, that the French philosopher Voltaire seized on the memory of the suppression of Catharism to rabble rouse against the evils of the Church and of feudal oppression of the masses.[87] Initiated as a Freemason in 1778, as we saw in Chapter 1, Voltaire's ideas were amongst the cocktail of influences that precipitated the French Revolution in 1789.

Pacifism was another central value in the ethical system of the Perfect and a resolute commitment to non-violence was part of the regime of self-control over the baser bodily instincts and desires that their initiation required of them. There are cases on record of Perfect who chose to be burned at the stake rather than satisfy the Inquisition

that they were innocent of heresy by killing even as lowly a creature as a hen.[88] Yet surprisingly for people with such apparent contempt for their own lives – and for the pains of death – it has been observed that the Perfect 'retained an absolute respect for the fact of life itself; they would not allow any violent intervention by the human will (which they regarded as invariably evil and arbitrary) in the fate of a soul pursuing its road to salvation'.[89]

The same reasoning explains why the *perfecti* were utterly opposed to the use of the death penalty, even for capital offences. They also claimed that common criminals should not be punished but instead educated to become better citizens.[90] Such avant-garde doctrines were, of course, denounced by the Church as scandalous.[91]

Equally controversial was the strident insistence of the Cathars – quite contrary to the spirit of the times and the teachings of Catholicism – that preachers of Crusade were 'murderers'.[92] Had the Cathars continued to win converts at the rate they achieved in Occitania, instead of themselves being stamped out (significantly by a Crusade), what might the consequences have been? Isn't there every likelihood that they would have transformed the international landscape of the Middle Ages – again with incalculable but quite possibly very positive consequences for the subsequent course of world history?

Fighting Back

But the world is the way it has been, not the way it might have been, and the Cathars did not win. As we will see in Chapters 6 and 7, they lost everything – their lands, their culture, their freedom and their lives – in the blood-drenched horror of the Albigensian Crusades. Ravaging Occitania between 1209 and 1244,[93] these were thirty-five years of virtually unremitting war – a brutal war of sieges and burnings and fearful massacres. Despite belonging to 'the Church of

Love', therefore, which 'did violence to no man',[94] the very fact that a nation of vegetarian pacifists were able to resist the Papal armies for so long tells us that they did not simply lie down and surrender when they were attacked. They fought back – tooth and nail.

This is by no means the only such paradox that Catharism offers. We've noted already that its doctrinal horror of sex (as the production-line that delivers new material incarnations for trapped souls to be reborn in) did not result in a concomitant change in reproductive behaviour in Occitania during the Cathar heyday. On the contrary, Cathar families went on producing children in large numbers and the region enjoyed rapid population growth. The solution to the apparent paradox lies in the very different standards of behaviour expected of *credentes* and *perfecti*. The former adhered to the beliefs of Catharism but were not required to emulate the practices of its adepts.

We've seen how this system left Believers free to marry, make babies and eat meat as they chose. By the same token, despite its pacifism, it also left them free to resist persecution, and to defend their country and their faith with force of arms – even if doing so required them to commit acts of 'violent intervention in the fate of other souls'. The *perfecti* themselves seem always to have stood back from the fray, leaving the actual job of fighting the enemy to the *credentes*. Still there is evidence, in the face of pitiless Catholic aggression and mounting atrocities against Cathars, that even the Perfect found reason to qualify their philosophy of absolute pacifism and non-violence. Since this world was the creation of the Evil God, and the material realm was fully in his power, it followed that he could create beings of pure evil – demons who merely looked like humans but had no souls – to destroy the Good Men and Good Women of the Cathar faith. To fight against such beings, who were numerous in the crusading armies and amongst the Inquisitors, was hardly a crime.[95]

The Ancient Enemy

So, in defending themselves against the murderous assault of the Albigensian Crusades, Cathars came to feel vindicated in their beliefs. The Catholic Church was the instrument of an Evil God who had created the material world as his personal fiefdom of suffering and horror, pain and misery. Now day by day in Occitania there was ever more compelling evidence for the accuracy of this proposition: the massacres repeatedly unleashed upon the civilian population; the tortures and the informer culture devised by the Inquisition; the endless holocaust of the Cathar faithful.

The scale, ferocity and sheer thoroughness of the Crusades are of course a measure of the threat that the Church perceived in Catharism. We already knew that the military support given to the Cathars by the great lords of Occitania had triggered this perception of danger. But as we looked through the heresiological literature of the period, we could not fail to note that something else, perhaps almost equally potent, seemed to have been at work as well.

For although the scale of the Church's response was new – indeed unprecedented – the Catholic authorities clearly recognized Catharism as an old and deadly enemy. It was for this reason that they so often referred to the Cathars as 'Manichees', a heresy over which Rome had supposedly triumphed centuries before. For their part, though they would never have identified themselves as 'Manichees', the Cathars claimed that their religion had come down to them from antiquity, 'passed from Good Man to Good Man'. It was, they said, the true faith that the Church had usurped in the early days of Christianity.

Most medieval scholars today prefer to argue that Catharism was essentially a new phenomenon and very much the product of its times. But neither of the protagonists in this affair, Catholics or Cathars, thought this was the case. They believed themselves to be caught up in the latest episode of an ancient struggle of profound consequence for the future of mankind.

In the next chapters, with due respect to the opinions of the experts, we will investigate the possibility that the protagonists could have been right.

Chapter 3

Where Good and Evil Meet

> 'These are they who… fell from Paradise when Lucifer lured them thence, with the lying assurance that whereas God allowed them the good only, the Devil (being false to the core) would let them enjoy both good and evil; and he promised to give them wives whom they would love dearly; and that they should have authority over one another, and that some amongst them should be kings, or emperors, or counts; and that they would learn to hunt birds with birds, and beasts with beasts.' (A Cathar prayer)[1]

Up till now we have been able to treat the problem of the Cathars as if their heresy existed in isolation. Of course, this was not the case. They posed a massive threat to the Church of Rome on the basis of their success in nearby Occitania and northern Italy. But they were in fact part of a much larger heresy that threatened the entire Christian establishment in Europe – not only the Roman Catholics in the West but also the Orthodox Church of the East based in Constantinople (ancient Byzantium, known today as Istanbul).

The Catholic/Orthodox schism had been developing for centuries and became official in AD 1054. By that date the former Bishops of Constantinople had already long been in the habit of calling themselves 'Oecumenical Patriarchs' – literally 'Patriarchs of the entire inhabited world'.[2] Since this seemed to challenge the Pope's own claim to the top job, it was a source of great mutual hostility. Nevertheless, both churches were of one mind on the subject of

heresy – which was to be stamped out.[3] And just as Rome faced the heresy of Catharism in the West in the twelfth and thirteenth centuries, so too, and for rather longer, the Patriarchate in Constantinople confronted the heresy known as 'Bogomilism' in the East, which began its period of expansion some 200 years earlier and survived until the end of the fourteenth century.

It was called 'Bogomilism' after its supposed founder, whose name in Greek was Theophilis and in Slav Bogomil – meaning 'Beloved of God'.[4] Active in Bulgaria in the first half of the tenth century, this enigmatic individual preached a form of dualism that was identical, in almost every detail, to the creed that would later be introduced into Western Europe as Catharism. Hand

The Balkans, tenth to fourteenth centuries.

in hand with these spiritual teachings, he is also remembered as the organizer of a political rebellion that gave the persecuted Slav peoples a voice and incited them to withdraw their labour and fealty from their Graecized Bulgar overlords.[5]

Although the Bogomil heresy endured in the East for three

centuries longer than Western Catharism, there is little reliable information about Bogomil himself. Not a single contemporary reference to him has come down to us and we know nothing about where or when he was born or died, who his teachers were, or how widely he preached.[6] The earliest surviving report to mention him by name (although it is not the earliest to notice the heresy he started)[7] appears in a book written at some point between AD 977 and 990.[8] The work of a hostile Christian monk named Cosmas, this tract tells us only that 'In the days of the Orthodox Tsar Peter [AD 927–69] there lived… a priest called Bogomil (Loved of God), who in reality was not loved of God (*Bogu ne mil*), who was the first to sow heresy in the land of Bulgaria.'[9] Though it supplies no more information about the man himself, Cosmas's book was written specifically to denounce the faith that Bogomil had founded. His purpose was to draw the attention of the Orthodox Church to the threat it faced, and to upbraid Church authorities for the lapses that had permitted such a heresy to flourish.[10]

Close to the Sources of Power

In the years following the death of Tsar Peter in 969 Bogomilism spread rapidly westwards out of Bulgaria into the Balkan principalities of Serbia and Bosnia (where it fared so well that it was frequently the official state religion).[11] Equally influential in Croatia, Dalmatia and Macedonia, it also extended its grip into the heart of the great city of Constantinople itself,[12] headquarters of the Orthodox Church of the East. The first account of Bogomilism being practised within the walls of Constantinople dates from 1045. It is found in a letter written by the monk Euthymius of Periblepton – who even claimed to have discovered a heretical 'cell' in his own monastery.[13]

Cosmas I (1075–81) was the first Emperor of Constantinople to take stern action against the Bogomils.[14] His successor, Alexius I,

‘Comnenus’ (1081–1118), was even more vehement in his attacks on the heresy. At an uncertain date between 1097 and 1104 he ordered the arrest of a known Bogomil named Diblatus, who was tortured for information about key figures in the movement. The trail led to Basil, a renegade monk from Macedonia, now living under cover at a monastery in Constantinople, who was said to have been a Bogomil evangelist for more than forty years.[15]

Next, Comnenus set a trap for Basil. Pretending only to know of him as a respected Orthodox monk, the emperor innocently asked for enlightenment about the Christian faith. Human nature being what it is, Basil could not pass up this apparently golden opportunity and set out to try to convert Comnenus to Bogomilism. A series of meetings followed in which the emperor thoroughly debriefed the unfortunate Basil, getting him to reveal not only the central doctrines of the heresy but also compromising details of its organization and membership in Constantinople.[16]

Basil and his associates were then arrested and contemporary accounts tell us that Comnenus reasoned in person with the Bogomils, trying to win them back to the Orthodox faith. Those who recanted were pardoned and released. Those who would not recant were imprisoned for life. Only Basil, on this occasion, suffered the extreme penalty – so much favoured by heresy-hunters in the West – of being burned to death. His stake was set up in Constantinople’s Hippodrome for the edification of a large crowd.[17]

Surviving records from Constantinople say nothing more about Bogomilism until the 1140s when there are reports of more heresy trials.[18] Then, in 1145, we learn that no less a figure than Cosmas Atticus, Patriarch of the Orthodox Church, has fallen under the spell of a certain Niphon, a Bogomil. When – horror of horrors – the heretic was allowed to take up residence in the Patriarchal palace, other ecclesiastics began to agitate against him. Eventually they took their complaints directly to Emperor Manuel I (himself later rumoured to have had covert ‘Bogomil tendencies’) and in 1147 Cosmas was deposed and Niphon arrested.[19] Still, the episode

indicates that by the mid-twelfth century, at about the time that Catharism was first detected in the West, Bogomilism had grown from a minor cult started by an unknown priest into a major religion that could position itself close to the sources of power in the East.

Papa Nicetas

This sense of a big faith on the move, taking shape, growing in confidence and building up structure before our eyes is heightened twenty years later in 1167. In that year, seemingly out of the blue, Nicetas, a senior Bogomil bishop from Constantinople, suddenly turned up in the West. He arrived first in Lombardy in northern Italy, where he persuaded the local Cathar bishops to adopt important doctrinal changes and to be 'reconsoled' at his hands.[20] Then he moved on to the Languedoc.

The entire Cathar administration of Occitania had gathered to await his presence at the small town of St Felix de Caraman near Toulouse. Under his guidance routine matters such as boundary disputes amongst the existing Cathar Bishoprics were resolved and three new dioceses of Toulouse, Carcassonne and Agen were established.[21] As in Lombardy, however, the primary purpose of Nicetas's visit seems to have been to urge important doctrinal changes upon the Cathars and to reaffirm what were clearly by this stage well-established links between the Cathar and Bogomil churches.[22] Indeed, the immense respect shown to Nicetas, and the fact that he once again 'reconsoled' all the *perfecti* present, tell us very clearly that the relationship between these two churches was that of a senior to a junior, or a father to a son. The Cathars of 1167, in other words, clearly regarded Bogomilism as the 'home church' to which they owed their allegiance.

This conclusion is endorsed by modern historians, who have amassed persuasive evidence that the Catharism of the West was indeed a direct offshoot of Bogomilism.[23] Although northern Italy is closer to Constantinople, the heresy seems to have been brought to

northern France and even to Germany first (a report has survived of the trial of a Cathar bishop in Cologne as early as 1143).[24] When it reached the Languedoc, and by what route, is not certain, but it had clearly been present long enough by 1167 for bishoprics to have been established and boundary disputes to have broken out.

It seems, however, that there must also have been some doctrinal lapse amongst the Western Cathars which the doctrinal changes introduced by 'Papa' Nicetas were designed to correct. These brought Catharism into line with his own powerful faction of the Bogomil Church, which believed in the absolute opposition of the 'two powers' of Good and Evil.[25] By contrast, there were other Bogomils, and prior to 1167 many Cathars too, whose beliefs compromised this pristine polarity. These so-called 'mitigated dualists' contemplated linkages, and even family relationships, between the Good God and the God of Evil, something that absolute dualists were not prepared to do.

Another objective of Nicetas's visit was to organize further missionary activity throughout Europe, using Occitania as a bridgehead. There is evidence that delegates left the 1167 Council invigorated and actively anticipating the prospect.[26]

Social Engineering

In the decades after Nicetas at the close of the twelfth century the Cathar and Bogomil Churches begin to look increasingly as though they are involved in a well-planned and coordinated plot.[27] The purpose of this plot could not have been more revolutionary: to compete with and eventually to overthrow the Church of Rome and the Orthodox Church of the East. The absurd worship of the Evil God who had made this world was to be undermined – not all at once but slowly, city by city, region by region. The true dualist religion of the Cathars and the Bogomils was to be introduced in its place. The fundamental aim of the project was to free the souls of all mankind from the prison of matter and allow them to return to the heavenly realm of the Good God who had made them. Since this would require

an attitude towards material things radically different from the dominant interests of the times, it was obvious that permanent changes in the structure of society would also be necessary.

For us as researchers, this issue was clarified when we discovered that the Cathars in Occitania had involved themselves quite extensively in what we described in the last chapter as 'meddling with the feudal economic order'.

It seemed unlikely to be a coincidence when we learned that the Bogomils did exactly the same thing. From the earliest references in the tenth century they are linked with social, economic and political upsets. 'They teach their followers not to obey their masters,' warned the monk Cosmas in his exposé of the abominations of this seemingly new heresy, 'they scorn the rich, they hate the Tsars, they ridicule their superiors, they reproach the boyars, they believe that God looks in horror on those who labour for the Tsar, and advise every serf not to work for his master.'[28]

Confronted by material like this it is little wonder that many historians have judged Bogomilism to be 'at base… a social movement, directed against feudal oppression'.[29] Others disagree and argue that we should 'beware of attributing too much importance to the social anarchism of the Bogomils or of seeing in them Slavonic communists of the Middle Ages'.[30] In our opinion neither view is quite correct. The Bogomils were not early communists – or any such thing – since communism is a wholly materialist ethic concerned only with the material world. Neither were they 'at base' a social movement. Exactly like Catharism, the evidence convinces us that the Bogomil religion was first and last a spiritual movement, interested exclusively in the liberation of souls. It was the efficient pursuit of this spiritual objective, rather than any of the normal characteristics of a 'social movement', that led the Bogomils inevitably towards revolutionary behaviour in the material world. It inspired a critical attitude towards earthly hierarchies and put a new mood of intelligent rebelliousness into the air.

The same phenomenon of 'social engineering' running alongside

dualist heresy was observed in other parts of Europe as well. In Occitania and France we showed in the last chapter how the Cathars busied themselves in the education of a skilled artisan class – notably weavers and others involved in the cloth and paper trades. In this way empowerment of the poor through skills training went hand in hand with the spread of the faith. We were therefore not surprised to learn that researchers in Italy have unearthed proof of significant links there between Catharism and the trade of purse-making. Like weaving, this was an occupation that could provide suitable cover for missionary activities enabling Cathar evangelists to travel incognito, 'making and selling their wares and at the same time making heretical contacts'.[31]

So, although the dualists professed to hate this world, such strategies show that they did not hesitate to use rather worldly and 'street-wise' methods to win converts from the established Christian churches. After travelling amongst the Italian Cathars in the early thirteenth century, Ivo of Narbonne reported that they routinely 'sent to Paris capable students from nearly all Lombard and some Tuscan cities. There some studied logic, others theology, with the aim of strengthening their own error and overthrowing the Catholic faith.'[32] Such evidence of calculation and strategy seem less discordant with the Cathars' ethereal central purpose when we remember that they believed themselves to be locked in an elemental struggle – often literally to the death – for the soul of man. If the Catholic Church were allowed to crush out the light of Catharism for ever, then the soul of man would likewise be lost for ever. With the stakes so high and the enemy so diabolical, any means, fair or foul, were reasonable to bring him down.

School of Heresy

Further evidence that Cathars and Bogomils were involved not only in social agitation but in a coordinated 'plot' to overthrow established Christianity comes from study of the methods they used to win

conversions. The field missionaries of both sects appear to have followed the same procedures in the same order so closely that it is obvious they must have shared the same training. In this, once again, we have the sense of confronting people who were not in any way ethereal but, on the contrary, rather down-to-earth, calculating and strategic.

They also demonstrated a good basic knowledge of psychology in ensuring that the course of instruction they gave as missionaries began with easily acceptable generalities and moved on only very slowly to reveal the more deeply heretical – and thus conventionally shocking – aspects of their faith.[33] Euthymius Zigabenus, who interrogated the monk Basil in Constantinople while he was awaiting his execution in the Hippodrome, was told that the Bogomils began by instructing their followers in those beliefs and practices which they shared with the Orthodox, 'preserving the fouler doctrines for later, and entrusting them to the more initiated in impiety as mysteries'.[34] The objective, in other words, was to detach potential converts as far as possible from the beliefs they had been raised in before attempting to substitute the alternative dualist system.

Another technique used by both Bogomil and Cathar preachers was to capitalize on the commonsense scepticism of ordinary people to demystify elaborate Church rituals – and therefore, by association, the whole religious edifice that lay behind them. The Mass was a favourite target of the Cathars, who asked churchgoers to think very carefully and objectively about each of its details. When they partook of the wafer and the wine of Holy Communion, for instance, how could they possibly imagine – as Catholic priests had taught them – that they were consuming the *actual* body and blood of Christ? Wasn't this contrary to reason, if not just plain stupid? All the Catholics that had ever existed had been performing the Mass and guzzling the Holy Communion for hundreds and hundreds of years. If what they had been consuming were really the physical body and blood of Christ then he must have been absolutely enormous – at least the size of a mountain, with veins like rivers – which clearly had not been the

case. Moreover, coming at the problem from a different direction, Cathar evangelists would frequently add an unpleasant reminder about digestive processes and their end products. Did decent people who loved God really want to pass his body and blood through their intestines?[35] What kind of religion was it that would require them to participate in such bizarre and frankly cannibalistic practices? So logic, reason and good taste were all against the Church being right about this basic issue long before the time came to introduce more 'touchy' Cathar doctrines like the non-physical nature of Christ.

The next step in the conversion process was often for the missionary to provide concrete examples of how far the Church had strayed from the true path. Favoured object lessons were the notorious sins of the clergy and their extravagant lifestyles. These were then graphically compared to the simple, decent, unostentatious lives advocated in the New Testament for Christians. After contemplating the glaring contradictions thus revealed, most right-thinking citizens in the audience would have needed little further convincing that there was something rotten in the heart of the Church.

In a similar way, further still down the road of conversion, the method for introducing the dualist doctrine of the evil nature of material creation was to illustrate it with numerous practical examples that anyone could easily grasp. Earthquakes might be cited, or volcanic eruptions, or lightning-strikes, or snakes, along with many of the other noxious evils that we all know do stalk the material world.[36] As before, New Testament texts would be extensively quoted, this time to show that the true teachings of Christ and his apostles endorsed the dualist rejection of material things.[37]

Malcolm Lambert, a modern scholar with decidedly pro-Catholic sympathies, claims that the heretics usually achieved these effects by dishonest manipulation of the relevant passages which were 'wrenched out of context' to reinforce the dualist message.[38] The end result, most efficacious in winning conversions, was that the typical unsophisticated audience for a dualist sermon would be convinced

that they had received ‘an exhortation by good men based on the words of the founder of Christianity and of his followers’.[39]

It is little wonder, therefore, that for a long while the Cathars and the Bogomils enjoyed enormous success in their respective spheres of influence. By the end of the twelfth century they had together created what Sir Steven Runciman describes as ‘one great confederate Dualist Church… stretching from the Black Sea to Biscay’.[40] At its core were sixteen bishoprics positioned in areas of influence and high population all the way from Constantinople in the east to Toulouse in the west.[41] Since the heretics had, from the beginning, commanded great influence in the countryside as well as in the cities – and had generally worked from the bottom of society up in their programme of conversions – they entered the thirteenth century occupying an astonishingly strong position in Europe. Not even 250 years had passed since Bogomil himself had first appeared in Bulgaria to preach the doctrine of the Good and the Evil God. Yet in that short time an international infrastructure had been laid down and enough popular support won for medieval dualism to begin to think of itself as an established religion and to proclaim its own ‘universality and supranational unity’[42] over and against that of the established Church.

The Portrait of Dorian Gray

Accepting as all scholars do that Bogomilism was simply ‘Bulgarian Catharism’,[43] or, more accurately, that ‘Catharism was in origin a Western form of Bogomilism’,[44] what were the most important beliefs at the core of this heretical, pan-European religion?

We’ve seen that a belief in duality was fundamental – that is to say, a belief in two gods, one good, one evil, with the latter depicted as the creator of the earth, of mankind and of all material things. This in turn led the dualists to the conclusion that Christ, as an emanation of the Good God, could not have existed ‘in the flesh’ – which was by

definition evil. Likewise, he could neither have been born nor crucified (both of which call for a physical body) – and therefore could not have redeemed our sins by dying on the cross.

The reader is also familiar with the notion, again shared in full by the Bogomils and the Cathars, that the Holy Spirit had been brought to earth by the non-physical Christ and transmitted ever since – 'from Good Man to Good Man' – through the ritual of the *consolamentum* and the laying-on of hands. In both branches of the religion the ritual was the same and in both it served as an instrument of initiation at which a sacred Gnosis was acquired that raised the candidate from the class of the neophytes to the class of adepts.[45]

Such beliefs and behaviour, on their own, clearly delineate key differences between mainstream Christianity on the one hand and the Bogomil/Cathar religion on the other. But there are many more – as might be expected given the genuinely Gnostic and essentially non-authoritarian character of the heresy. Like all earlier forms and expressions of Gnosticism it honoured the power of individual revelation over and above established doctrine. The result, part of the life of the religion, was a luxuriant jungle of speculation by both Cathars and Bogomils around their key concerns. These were the origins of evil, the essential goodness and immortality of souls and the cause of their repeated incarnations in human bodies here on wicked planet earth. It was the encouragement given to such individual creativity and freedom of expression that led to the principal schism in the heretical Church – that between so-called 'absolute' and 'moderate' dualists, which in turn proliferated into numerous smaller subdivisions. These seem to have competed for conversions – 'although they may have differing and contrary opinions'[46] – but they also apparently recognized one another and co-existed in a spirit of mutual tolerance.[47]

Despite the state of intellectual anarchy that prevailed amongst the heretics, we thought it was possible to make out certain fundamentals of their religion on which all or most seem to have agreed. When we compared these with the fundamentals of established Christianity it

was difficult to avoid the eerie feeling that each was a weirdly distorted reflection of the other. Like Dorian Gray and his portrait in the attic, they were the same but opposites, near but very far apart.

The Journey of the Soul

One matter of great common interest and wildly dissimilar treatment was the origin and ultimate fate of the soul and its relationship to the human body.

Established Christian teaching is extremely clear: 'Each individual soul is a new creation of God, infused into the body destined for it.'[48] At death the soul is separated from the body, though not permanently, as the two will be reunited at the Second Coming of Christ and the Resurrection of the Dead. Then 'departed souls will be restored to a bodily life and the saved will enter in this renewed form upon the life of heaven'.[49] Said to be a 'fundamental element' of Christian doctrine, it was a dominant view amongst medieval theologians that 'the resurrection will involve a collection and revivifying of the particles of the dead body'.[50]

Naturally the Cathars and Bogomils did *not* believe in the resurrection of the body. They regarded it as a truly impractical and actually rather hideous idea. Their interest was exclusively in the soul, which they saw as an immortal, non-physical intelligence that entered the human body at conception and thereafter wore it like a 'tunic'[51] until the body died. They pictured the soul as a time traveller on an immense journey towards perfection. Rather than the one-off 'resurrection' of billions of mouldering corpses on Judgement Day, their view was that each soul would be reborn many times on earth, in many different bodies – both human and animal[52] – before attaining its goal. Very much as in Buddhism, the objective was to progress to the advanced state of detachment, purity and self-control, obtainable only in human form,[53] that was believed necessary to release the soul for ever from its imprisonment in the world of matter.

The price was a life, perhaps many lifetimes, of severe asceticism and meditation. Moreover, though austerities were regarded as absolutely necessary, the reader will recall that they were not on their own held to be sufficient to obtain the soul's release. For that was also required the power of the Holy Spirit transmitted through the laying-on of hands in the *consolamentum*.

So, in the dualist scheme of things, the destiny of the soul after death depended on what it had done with its period of physical incarnation just completed.

- If, through efforts made in this and previous lives, it had been born in the body of a man or a woman who would become a Cathar or Bogomil *perfectus*, and if the *perfectus* concerned died in a fully consoled state without having lapsed, then the soul's term of imprisonment on earth would end. Released from the snares of matter, it could rise back at last to its true home in the furthest and highest heaven – the realm of pure spirit ruled by the God of Good.
- If, on the other hand, the soul had incarnated in a body that did not have the opportunity to encounter Cathar or Bogomil teachings – and thus to be consoled – then it would be born again in yet another body, and another, and another, until it did, finally, come to 'the understanding of God'.[54]

A doctrine of Karma is not explicitly spelled out in the fragments of the dualist teachings that have come down to us. Still, it is clear that goodness and personal austerity were thought to be beneficial to the progress of the soul while a lifetime of wickedness and self-indulgence would have profoundly negative consequences. Punishments of a 'Karmic' nature could take the form of rebirth in particularly ghastly circumstances, or as an idiot, or even as a dumb animal – which, since it could not speak or reason, would only further frustrate the progress of the soul caged within it.[55]

Jehovah (aka the Devil) and the Old Testament

For Cathars and Bogomils the earth, and all material things in the perceptible universe, were the work of the Evil God. And while they worshipped the God of Good they acknowledged that he existed in an entirely separate dimension and had no direct influence in the Devil's playground.

By way of stark contrast, Christians believe in only one God, depicted as omnipotent and universally good, who created the material world and with it the human body and soul. He also established a spiritual heaven somewhere 'above' and outside the material dimension. There the souls of his elect, restored to their bodies, are to be sent on the Day of Judgement while for the remainder of mankind – sinners all – it is well known that God has prepared a suitable hell.

For mainstream Christians the Books of the Old Testament, just like those of the New Testament, are regarded as inspired texts that form an integral part of their canonical scriptures.[56] Much is made of the continuity between the old 'Law', shared with the Synagogue, and the new Law brought by Jesus. Likewise, when Roman Catholics or Orthodox Christians speak of God as the 'Father' and Jesus as the 'Son', they clearly understand the 'Father' to be none other than Yahweh (Jehovah), the God of the Old Testament. Nothing compels us to believe that he has become some completely different or even radically transformed deity. Jesus brings a 'New Covenant', certainly, but you don't have to read the small print to realize that the God Christians go to church to worship today *is* still Jehovah.

The heretics adopted the same general scenario, but their take on it was radically different. Far from being the object of their worship, Jehovah for them was synonymous with the 'Devil', or 'Satan', or 'Lucifer' – just another of the many names by which the Evil God who had made the material world was known. They judged him by his deeds, which were well known and had always been arbitrary, vengeful, violent and cruel. The Old Testament, in describing these deeds, was simply an extended paean to Jehovah's unmitigated wickedness and was seen by the Cathars and the Bogomils as an irredeemably evil text – evil through and through – that had been

written to flatter this evil deity. To adopt it as Scripture, as the established Christians had done, was to capitulate entirely to the Devil. They therefore exorcised the Old Testament from their lives and would accept no argument based on its authority.[57] They relied instead upon the New Testament, and in some extreme cases on just a few specific Books within the New Testament.

To this extent, though they were not Christians, theirs was a New Testament religion. However, they also reverenced several other texts, as we shall see later, that were neither known nor accepted by the mainstream Church.

The Creature of Mud and the Hole in Heaven

If the basic dualist perception is of the separation and complete incompatibility of the realms of spirit and matter, then how is it possible that souls – though wholly spiritual and the creation of the Good God – could have ended up imprisoned in human bodies created by the Evil God?

Cathar and Bogomil missionaries had a varied collection of myths at their disposal to help confront such paradoxes and answer questions arising from them in graphic and engaging ways.[58] The myths weren't 'dogmas' or even 'doctrines' and it would be foolish to think that they were taken literally. Rather they were storyboards used as teaching devices – the point being for different teachers to bring different listeners in different circumstances to their own independent understanding of the mystery.

In brief, what the dualist myths tell us is that the paradoxical mixing of good and evil in the heart of the human creature came about after the Evil God Jehovah/Satan had created the material earth as described in the Old Testament. Some of the myths state that he was not satisfied with this achievement so he attempted to create a man, moulding the body out of mud or clay, like a potter.[59] But try as he might he was unable to breathe the spirit of life into the body he had made – for the spirit of life is in the gift of the Good God alone.

In desperation, therefore:

> He sent an embassy to the Good Father, and asked Him to send His breath, saying that the man would be shared if he were to be endowed with life… Because God is good, He agreed and breathed into what [Jehovah/Satan] had moulded the breath of life; immediately man became a living soul, splendid in his body and bright with many graces.[60]

A quaint sidelight comes from a vernacular form of the myth, repeated to the Inquisition in Toulouse in 1247. A witness reported having been told by a Cathar how the Devil made the body of the first man, Adam, and God gave it a soul. But then: 'The man leaped up and said to the Devil, "I do not belong to you".'[61]

So we are to envisage an independent-minded creature here, one who is aware of the good within himself and capable of subduing the evil material inclinations of his body. The natural impulse of this 'living soul' is to return to the realm of the Good God, yet it cannot do so without purification because it has now been thoroughly contaminated by matter. Worse, far from sharing Adam, as he had promised, it is the intention of the Evil God to monopolize the man, drawing him ever deeper into the realm of this world and causing him to forget his spiritual origins. Eve is suddenly (sometimes confusingly) on the scene, also a living soul, and she and Adam are impelled by the Devil 'towards that carnal union that finally consummated their position as creatures of matter'.[62] The original gift of Spirit breathed by God into the parents nevertheless is transmitted through the act of reproduction to their descendants, and their souls, now enchained to matter, are reborn again and again on the Devil's earth.

Another myth tells a different story to make essentially the same points. In this case the Evil God starts out not so much as a completely separate principle but as an emanation from the Good God – a heavenly being of the type that we might think of as an angel. Like Satan in Christian cosmology his pride, arrogance and avarice corrupt him and he must leave the Good Heaven. In the momentum

of his Fall he draws down with him 'a great crowd of souls who had been created by God and were living close to him in a state of beatitude. It was from this inexhaustible reserve of fallen or captive angels that human souls derived.'[63]

In other recensions the God of Good and the God of Evil may be portrayed as equal and opposite powers, or the latter may again be a fallen emanation of the former. Having created the material world, the God of Evil lures a host of angels out of Heaven. This he does by promising them 'possessions, gold, silver and wives, till they fell like rain upon the earth for nine days and nights to be shut up in bodies by Satan'.[64]

Many accounts say that a third of all the angels in Heaven,[65] due to their own 'weaknesses', were thus tempted to descend to earth to animate the zombie bodies that the God of Evil had prepared for them. Meanwhile, the God of Good notices the radical decline in the angel population and discovers that the departure of so many has ripped a hole in Heaven. He prevents further losses by jamming his foot in the hole and tells those who have already fallen that they will remain on earth, encased in bodies 'for the moment and for now'.[66] Through the cycle of reincarnation, harnessed to the sex impulse that ensures an endless supply of new bodies to replace those that wear out, the Devil believes that he has imprisoned the fallen angels in the human race for ever. But the enigmatic words 'for the moment and for now' lead us to understand that the God of Good has a plan that will frustrate the Devil and restore the lost souls to heaven.[67]

Christ's Holographic Mission to the Realm of an Alien God

Since the dualist perspective makes the God of Good powerful only in the spiritual realm, and the God of Evil powerful only in the material realm, it does not easily provide a mechanism for either to operate on the other's home turf. Perhaps this is why it takes a very long time – thousands of years we're told, in all the Cathar and Bogomil

cosmologies[68] – for the Good God to implement his plan to frustrate the Devil.

It is a plan conceived out of compassion for the imprisoned souls of the angelic host – because their life on earth, isolated from the Holy Spirit that had filled them before their fall, is one of 'unimaginable suffering'.[69] Denied the radiance of the Spirit, and all that is good, they are trapped far from their true home in a dimension to which they do not belong. A Cathar prayer expresses their grief: 'We are not of this world, and this world is not of us, and we fear lest we meet death in this realm of an alien God.'[70]

The prayer goes right to the heart of the problem. How is the God of Good to project his spiritual power into the material realm of the God of Evil in order to rescue the souls trapped there?

The dualists all gave the same answer to this question – Jesus Christ. But their Christ was a very different figure from Jesus the 'Son of God', born a man, later crucified and resurrected from the dead, who was worshipped by Roman Catholics and Orthodox Christians. The reader will recall that the Cathars and Bogomils believed Christ to have been non-human – an emanation from the Good God who could never have been 'born' into evil flesh but who had manifested in our material dimension as a particularly convincing yet 'non-physical' apparition. Indeed, it might even be helpful in explaining what the dualists had in mind here to say that their Christ figure was a sort of *avatar* – not a created, material being, but an emission or radiation or instrument of the Good 'sent forth to deal with the created world'.[71]

Christ's mission was threefold.

Firstly, he was to preach a religion, and transmit a *gnosis*, that would lift the scales from the eyes of mankind and provide high initiates with insight into the meaning of death, the true character of existence and the fate of the soul.

Secondly, he was to offer instruction as to how humans might best live together through their vast cycle of incarnations in the hell called the earth. In the long-term project of cleansing souls contaminated by

matter and preparing them to return to heaven there was no doubt that certain social arrangements and personal commitments were more conducive to the success of the 'mission' than others. For example, if humanity could be persuaded to organize itself according to principles of love, non-violence, kindness, frugality, tolerance and mercy, then this would obviously be better for all concerned than hate, bloodshed, cruelty, excess, dogmatism and vengeance. Since the God of Evil sought every opportunity to urge us on to all of the latter – and to every other ugly and wicked impulse of which we are capable – the purpose of the teachings of Jesus was to provide a counterbalance. Though in fact he was a phantasm, the perfect 'life' that he would appear to live on earth would also serve as an example to show others the way.

The third and by far the most important objective of Christ's holographic mission was to bring down with him from heaven a blazing fragment of the Holy Spirit. For those souls who succeeded in purifying and perfecting themselves on earth it would provide the final necessary burst of sacred energy that would break the bonds of matter and return them to heaven.[72] We might envisage it as a flaming torch, lit from the main fire of the Spirit in heaven and now able to transmit its revivifying flame to souls marooned in the material world below.

Before his feigned death upon the cross, the Cathars and the Bogomils believed that Jesus had passed custody of this spiritual flame to the Apostles through the laying-on of hands – the original ritual of the *consolamentum* – and thence to the primitive Church.

A Short Excursion to Parallel Worlds

For some years our own long-term research interest has been in religious systems that give special emphasis to the dualisms of 'heaven–earth', 'sky– ground' and 'above–below'. We have argued in previous books that such systems were once prominent in the ancient world – most notably amongst the Egyptians.[73] There are, for

instance, funerary texts 3500 years old (and older examples of the same type of material could be cited) that instruct the Pharaoh to make a copy on the ground, and gain knowledge – *gnosis* – of a region of the sky called 'the hidden circle of the Duat'.[74] He is to do this so that he may become 'a spirit' after death and be 'well-equipped both in heaven and earth, unfailingly and regularly and eternally'.[75]

The source of this passage is the eleventh division of the *Book of What is in the Duat* (written on the walls of the tomb of Tuthmoses III, 1479–1425 bc). A little later in the same text – in the twelfth division – the Pharaoh is instructed for a second time to make a copy on the ground of the hidden circle of the Duat so that it may 'act as a magical protector for him, both in heaven and upon earth'.[76]

We have argued that such dualistic sky–ground thinking was a key element in the religion of ancient Egypt for at least 3000 years from the beginning of the Old Kingdom to the time of Christ. And we've tried to show how that religion inspired the Pharaohs to undertake great construction projects – the Pyramids of Giza, for example, or the Temples of Karnak and Luxor – which in a variety of different ways sought to 'copy' or 'reconstitute' the perfection of the heavens in the land of Egypt.[77]

We were therefore intrigued to discover that surviving texts, traditions and inquisitional records from Occitania, Italy and Constantinople contain not only copious illustrations of the well-understood 'spirit–matter', 'good–evil' dualism practised by the Cathars and the Bogomils but also rarer examples of a distinctly 'ancient Egyptian' heaven–earth dualism.

For example, when Euthymius Zigabenus interrogated the Bogomil evangelist Basil in Constantinople around the year 1100, he was told one of the versions of the 'fallen angel myths' often used to explain how souls created by the God of Good had come to be in bodies created by the God of Evil. In this variant both Satan and Jesus are 'Sons' – emanations – of the Good God. Satan, the elder 'Son', covets the father's kingdom and rebels against him. The rebellion fails and Satan is expelled from Heaven. Yet through pride and envy he still

yearns to possess a realm where he might be God. He therefore creates the earth and '*a second heaven*' (our emphasis), moulds his zombie humans from mud and water and persuades the Good God to breathe souls into them.[78] The reader knows the rest of the story.

Another hint of the same kind of thinking comes in reports, collected by the Inquisition, of Cathar teachings concerning 'the truth of the Upper and Lower Worlds'.[79] Here we read about the God of Good 'preaching in the sky to his people', and how he sent Satan down to 'this world' and how afterwards Satan desired 'to have a part of the Lower and Upper possessions, and the Lord did not wish it, and on this account there was war for a long time'.[80] Striking and colourful reference was also made to a Cathar teaching that 'Oxen… grazed and ploughed the soil and worked on the sky as on the earth'.[81]

Rather than outlining actual 'beliefs', it seems to us that such teachings are best understood as simplified illustrations or mental images to assist neophytes in the analysis of difficult concepts. Embedded in all of them is the fundamental dualist idea of two parallel worlds, one all spirit, one all matter, but here visualized in terms of graphic sky–ground metaphors. It was in the same vein that the Cathars would often speak of the 'earthly earth' and the 'heavenly earth'[82] – the former being our planet, this underworld or hell-world on which human incarnations are served out; the latter to be understood as a parallel celestial or heavenly realm.[83]

There was a text that was held in the highest regard by the heretics. Known as the *Vision of Isaiah*, it reached the Cathars in the late twelfth century from the Bogomils, being translated in the process from Greek or Old Slavonic into Latin. However, it is believed by scholars to have 'deep roots in the past, probably finding its origins among the Greek Gnostics towards the end of the first century AD'.[84] In it we read how Isaiah (a prophet generally exempted by the dualists, for reasons that need not detain us here, from their general hatred of the Old Testament) is given a great privilege by the God of

Good. He sends an angel from heaven to take the prophet by the hand and lead him on a journey through both the earthly and the celestial realms, crossing the barrier between the two – something that 'no one who desires to return to the flesh' has ever before been permitted to do. As they ascend through the heavens they see tremendous battles raging on all sides between the emanations of the God of Evil and the emanations of the God of Good: 'For just as it is on earth, so also it is in the firmament, because replicas of what are in the firmament are on earth.'[85]

Rainier Sacconi, a relapsed Cathar *perfectus* who turned Inquisitor in the mid-twelfth century, reported significant discussion of such ideas amongst his former co-religionists. They believed, he said, that certain of their sacred books had been '*written in Heaven and brought down to earth*' (our emphasis) by Christ, who entrusted them to the Primitive Church on the completion of his mission.[86]

It was to this Primitive Church, 'which alone could offer true consolation to the souls dwelling in exile',[87] that the dualists claimed to belong. Through an unbroken chain of consolations, they said, their *perfecti* had preserved and passed down the flame of the Holy Spirit undimmed from the time of Christ. The only problem was that they had been forced to preserve it in secret because the God of Evil, absolute master of this world, had substituted a false Church for the true one centuries before and endowed it with immense material power. This imposter Church masqueraded as 'Christian' but actually served the Devil.[88] By working for its downfall, therefore, the Bogomils and Cathars claimed that they only sought to restore the *status quo ante* that had prevailed at the time of the Apostles.

Ancient Legacy or Medieval Invention?

It sounds like blatant propaganda. Of course, heretics would like us to believe that only their Church was the authentic descendant of the Church of the Apostles. Even if they'd only invented themselves yesterday, why settle for anything less? Surprisingly, however, several

leading scholars in this field are convinced that such claims are solidly based and that the Cathar and Bogomil Churches somehow did manage to preserve genuine traditions from the earliest days of Christianity.

The pro-Catholic scholar Martin Lambert doesn't want to make too much of it when he admits that:

By a strange chance the rite of the *consolamentum* that appears in the thirteenth century texts does seem to have been based on a rite for baptism and on practices connected with the catechumenate [those who were candidates for baptism] much earlier than the contemporary Catholic rites of baptism or ordination.'[89]

But Steven Runciman points out that this is by no means the only close resemblance. In his view, whether we think them 'strange' or not, there are far too many similarities for us to put them all down to 'chance':

The Ritual Feast of the Cathars [which involved a simple breaking-of-bread ceremony] is, if we equate the Perfect with the Early Christian priest, exactly the same as the Early Christian Communion Feast. The Kiss of Peace terminated Early Christian services as it did those of the Cathars… The *consolamentum* in its two aspects was closely akin to the adult baptism administered by the Early Church to the dying and to the ordination or initiation into its ministry. The very details of the service are similar. In the Early Church [as was the case with a prospective Cathar *perfectus*] the catechumen was tested by a long and stern probationary period [prior to] his initiation ceremony… The actual ordination was identical, consisting of the laying on of hands and of the Gospel upon the catechumen's head…[90] While polemical churchmen in the Middle Ages denounced the heretics for maintaining a class of the Elect or Perfect they were denouncing an Early Christian practice, and the heretic initiation ceremony that they viewed with so much horror was almost word for word the ceremony with which Early Christians were admitted to the Church.[91]

Such similarity cannot be fortuitous. Obviously the Cathar Church had preserved, only slightly amended to suit its doctrines of the time, the services extant in the Christian Church during the first four centuries of its life.[92]

Runciman notes that everywhere they went – whether it was amongst the oppressed Slav peasants of Bulgaria or amongst the free-thinking burghers of Occitania – the heretics were able to exploit pre-existing social and economic conditions in order to gain a foothold. But, he concludes, 'the political impulse was not everything': 'Behind it there was a steady spiritual teaching, a definite religion, that developed and declined as most religions do, but that embodied a constant tradition.'[93]

It is his view that this tradition is in one sense as old as human speculation about the nature of evil in the world – dating back, long before Christianity, to whatever prehistoric age it was when men first asked 'why God, if there be a God, could permit it?'[94] From there Runciman is willing to trace the same primordial religion very tentatively into the historical period, seeing elements of it drawn together from 'Egyptian, Zoroastrian and even Buddhist ideas'.[95] Three centuries after Christ it was likewise notable how:

> Stoics and Neoplatonists each in their own way condemned the world of matter; and Jewish thinkers of Alexandria began to face the problem [of evil], influenced by the emphasis on spirit that they found in the Hermetic lore of Egypt.[96]

Runciman concludes that it was the Gnostics of Alexandria and Syria who were responsible – roughly between the first and fourth centuries AD – for finally gathering together all such lines of thought and applying them to Christianity.[97] Thereafter a series of overlapping heresies could be sketchily made out in the historical record. It was these together, Runciman argues, that had preserved the 'constant tradition' from the early Gnostic schools, by way of Manicheism between the third and sixth centuries, eventually to reach the Bogomils in the tenth century. They in their turn transmitted it to Western Europe in the form of Catharism in the twelfth century.

Hans Soderberg is a second major authority in this field who is satisfied that the religious beliefs and practices of the medieval

dualists were connected by ‘an uninterrupted traditional chain’ to the Gnostic religions that had flourished a thousand years earlier.[98] He believes, moreover, that the Cathars merely gave ‘a Christian clothing’ to the even more ancient, indeed virtually universal, myth ‘of the combat between the two powers’.[99]

But other historians are not at all happy about tracing the origins of medieval dualism so far back.[100] Malcolm Lambert thus speaks for many when he tries to place the whole Cathar/Bogomil phenomenon firmly in the context of its times, seeing it primarily as a reaction to specific economic, political and social circumstances. Even he, however, is prepared to admit that Bulgaria (converted to Orthodox Christianity barely a century before Bogomil began teaching) may have provided uncommonly good ground for the heresy because of the possible influence of ‘pre-existing dualist beliefs in the country’.[101]

Listening to Heretics and Heresy-hunters

Whatever the personal stance of individual scholars may be on the problem of origins, we’ve observed a curious phenomenon in reviewing the literature. Very few of the attempts made to trace the history of ideas behind medieval dualism (whether they support or contradict the idea of an ancient tradition) have been willing to pay serious attention to what the dualists themselves – or their opponents in the Church – had to say on the matter. For example, when heresy-hunters in Western Europe referred to the Cathars as ‘Manichees’, it is automatically assumed that they must have been mistaken because Manicheism had been suppressed centuries previously.

In the East, Theophylact, Patriarch of Constantinople AD 933–56, was one of the first to warn of the stirrings of the heresy that soon become known as Bogomilism (although he did not know of Bogomil by name). Writing to Tsar Peter of Bulgaria, he was just as quick as his counterparts in the West to link the heresy to Manicheism (and also to the pre-existing dualist religion known as Paulicianism, of

which we shall hear more in the next chapter). 'Let the leaders and teachers of this ancient heresy which has newly reappeared be anathema,'[102] he pronounced firmly at the end of his letter. Yet scholars are reluctant to pursue the possibility that the heresy thus anathemized could have been anywhere near as 'ancient' as Theophylact clearly believed.

The same academic scepticism also inhibits research into the implications of the heretics' own statements about their origins – all of which have come down to us through the work of the heresy-hunters and thus seethe with hostile comments and interpretations. As early as 1143 or 1144, for example, when Catharism was first beginning to be recognized in Western Europe, the monk Everwin of Steinfeld (near Cologne in Germany) wrote a worried letter to Bernard of Clairvaux appealing for his assistance in the struggle against the heretics, 'who everywhere in almost all churches boil up from the pit of hell as though already their prince were about to be loosed and the day of the Lord were at hand'.[103] Everwin frankly observed that the heresy was gaining ground because of the apparent piety of its missionaries who possessed 'no house, or lands, or anything of their own, even as Christ had no property nor allowed his disciples the right of possession'.[104]

Equally potent, and apparently extremely convincing, was the heretics' insistence that theirs was Christ's original Church – the Primitive Church itself, reawakened after being forced to lie low 'in Greece and certain other lands… from the time of the martyrs'.[105] Though Evil powers had made every effort to destroy the Church of the Good God, 'We, and our fathers of apostolic descent, have continued in the grace of Christ and shall so remain until the end of time.'[106]

Martin Lambert's comment is that one of the reasons the Cathar *perfecti* were so convincing was because they:

honestly thought that they were the only true Christians, that the clergy were the servants of Satan's Church; and that Cathar teaching presented a stream of pure underground

Christianity, often persecuted, but always surviving and reaching back to the days of the apostles.[107]

Whether they were right or not is another matter, but we know what the heretics believed. They believed that their faith was meant to guide the world. This was what was destined. This had been the plan of the Good God to fetch the lost souls back to heaven and he had sent Christ to earth to set it in motion.

All had proceeded as it should until the reign of the Emperor Constantine in the fourth century. Then, at the very moment when Christianity triumphed over multiple competitors to become the state religion of the Roman Empire, the Devil pulled off his most cunning trick. A clique within the Church that insisted on literal interpretation of the Scriptures – rather than the more allegorical approach favoured by Gnostic Christians – seized control and rapidly began to persecute as heretics all those who disagreed with them. Under interrogation the Bogomil evangelist Basil explicitly mentioned the Church Father John Chrysostom (AD 347–407), who is indeed known for his 'literalist' views,[108] as a ring-leader of this clique of early heresy-hunters.[109]

It was such purges between the fourth and sixth centuries, said the Cathars and the Bogomils, that had forced their true Church underground. Only now, after the sleep of years, was it emerging once more from the shadows. In the tenth century it had seemed no more than the rantings of a lone vegetarian in Bulgaria. By the eleventh it had become a cult that had spread throughout the Balkans and to Constantinople. By the mid-twelfth century it was firmly established in Italy and Occitania and could also claim to have won many followers elsewhere 'scattered throughout the world'.[110]

Though the scholars have paid scant attention, it seemed to us that what the heretics were claiming was dynamite – not only that their forefathers in the dualist Church were the true descendants of the Apostles, but also that an ancient conspiracy had denied them their rightful role in shaping the destiny of the West. Perhaps even more

explosive was the way they clearly saw themselves as part of a long-delayed ‘counter-conspiracy’ that had begun in the last fifty years of the first millennium and that had grown steadily, one might almost say remorselessly, in the two centuries that followed.

As we continued to explore the strange phenomenon of medieval heresy we could not shake off the feeling that something ancient and hidden, with a profound purpose for mankind, had briefly shown its face 1000 years ago, tried to change the world, and failed.

Chapter 4

Chain of the Great Heresy

> 'In its Manichean form Gnosticism was once a real worldwide religion, i.e. a worldwide and separate Gnostic community or church (*ekklesia*) with its many thousands and, later on, even millions of adherents; its own leader, bishops and priests; its own canonical scriptures; and even its own very attractive art. Once Manicheism spread from southern Mesopotamia as far as the Atlantic in the West and the Pacific in the Far East. It had its adherents in Egypt, in Roman North Africa, in Spain, Gaul, Italy and the Balkans, and in the end even in the regions on the South China Coast. Its history covers the period from the beginning of the third century to modern times. Even in our century [i.e. the twentieth century] Manicheism was still forbidden by law in Vietnam.'
> (Johannes Van Oort, Lecturer in the History of Christianity at the University of Utrecht)[1]

Christianity in the twenty-first century is enshrined in the law of many lands, and even where it is not practised it has worked its way both overtly and subliminally into virtually every sphere of life – marriage patterns, child rearing, education, social and political relationships, ethics, philosophy and so on. Subsumed into Western capitalism, it has also had a huge impact, built up over centuries, on our relationship with the material world.

Consider the account of Creation given in the Old Testament Book of Genesis (a text that the Church views as inspired and that fundamentalist Christians to this day teach as fact).[2] The creator is

Jehovah, whom the Bogomils and Cathars equated with the Devil. In Chapter 1 we read how he makes heaven and earth, night and day, the oceans, dry land, grass, herbs, trees, fruit. To fill the oceans, 'God created great whales, and every living creature that moveth, which the waters brought forth abundantly.' Land animals come next. Then, on the sixth day, 'God created man in his own image, in the image of God created he him; male and female created he them.' Finally, Jehovah invites the first couple to 'subdue' the whole earth and gives them 'dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth'.[3]

This is a code of subjugation and domination, even if it includes some commonsense 'replenishing' as well.[4] In the West it set the moral agenda for the Industrial Revolution of the eighteenth and nineteenth centuries. And even in the secular modern world it continues, through force of ancient habit and in many subtle ways, to underwrite the environmental irresponsibility of the big economies and the vast multinational corporations they have spawned.

You can see the effects of the Old Testament's righteous sense of dominion everywhere. The fowl of the air are now battery chickens; many species of those great whales that Jehovah made have been hunted to extinction; fish-stocks in the oceans have never been lower; there is a continent-sized hole in the ozone layer; and the rainforests of the Amazon – the very lungs of the world – are being logged out or burned at a terrifying rate to make way for cattle ranches. Of course, we do not claim that the Christian Church is solely responsible for all this; but neither should its part in the matter be underestimated. Though fewer and fewer Westerners study the scriptures today, or would claim to be much influenced by them, all the structures, wealth and international power inherited from the Age of Discovery and the Industrial Revolution were built up by people who did.

There are other matters for which the Church and its leaders have been much more completely responsible. In Chapters 6 and 7 we will tell the story of the Albigensian Crusades that destroyed the Cathars in the thirteenth century. No one acquainted with these terrible

events could doubt the absolute disregard of the Christian leadership in Europe for the spiritual rights of others or its willingness to use lethal force. The same arrogance and blood-lust also showed themselves in the brutal Crusades between the eleventh and the thirteenth centuries mounted by European Christian armies to recapture the Holy Land.

The faith was therefore only running true to type when it continued to be imposed forcefully by Europeans wherever they went during the Age of Discovery – witness the activities of the Jesuits and other missionaries in Africa, Asia and the Americas, from the fifteenth century onwards. Indigenous religions and their cultural treasures were systematically demolished and replaced by Christianity – at incalculable cost to the diversity of human ideas. Where this could not be achieved, notably in the disruptive 1000-year conflict with Islam, massive trauma and lasting damage were inflicted on those societies that would not accept conversion. The suffering, chaos and violence that still continue in the Middle East today result directly from this ancient legacy of pain – and since 11 September 2001 the war has been carried to the West's own front door. In the eyes of Muslim fundamentalists, contemporary Western geopolitics in the Middle East are a continuation of the Crusades by modern means and so must be resisted to the death. The result is a flashpoint, built on a millennium of hatred, that could yet set the whole world in flames.

All in all, then, it seems reasonable to conclude that established Christianity has been amongst the great determinative forces of history and that the baleful global conditions we confront in the twenty-first century have much to do with its long-term influence. A moment can be pinpointed when that influence first began to be felt – in the early fourth century AD following the conversion to Christianity of the Roman Emperor Constantine. That was the moment when Christianity first strapped itself to the engine of secular power and (almost immediately, as we shall see) became a persecuting bureaucracy. In its first 300 years, however, it had possessed no unified Church, nor any agreed body of fundamental dogma that it might wish to impose on others, nor the ability to impose it on them.

Far from persecuting, Christianity itself had been a despised and persecuted agglomeration of sects with a very wide range of ideas centred around the figure and mission of Christ.

What Was Smashed?

The heretical Churches of the Bogomils and the Cathars that flourished for a few brief centuries in the Middle Ages also centred their ideas around the figure and mission of Christ. How does the impact of their thinking compare with the giant presence and powers of the established Christian Church? The question is asked specifically with reference to their influence on the world stage and their overall importance in the history of mankind.

There are scholars who give what seems to be the obvious answer. They argue that the Bogomil and Cathar movements are best understood as strictly local responses to temporary social and economic circumstances in various parts of Europe between the tenth and the fourteenth centuries.[5] If their view is correct, then to know the whole life story of the heresy we need only examine the immediate conditions surrounding its rise and fall. With no past – and, of course, no future – its place in history would be small and its impact on the development of Western civilization negligible or non-existent.

We've seen that other scholars, like Hans Soderberg and Sir Steven Runciman, oppose this view, arguing that 'an uninterrupted traditional chain' connects the Cathars and the Bogomils to the religion known as Christian Gnosticism that flourished in Egypt and the Middle East a thousand years earlier. If they are correct, then whatever it was that the Church smashed with the Albigensian Crusades in the thirteenth century can hardly be described as a short-lived social movement. If the links in the chain can be traced back 1000 years, then doesn't the Cathar phenomenon look much more like a bid for power after a millennium of silence by a parallel persecuted religion, secretive, shadowy and as old as established

Christianity itself?

'That Most Wicked Sect of Obscene Men who are Called Paulicians.. .'

Working back from the Cathars, for whom there are no unambiguous reports prior to the mid-twelfth century, we come to the Bogomils. They are first heard of in the tenth century and survived in some isolated communities in Eastern Europe until the fifteenth century. Not only did they predate and outlive the Cathars, therefore, but also there is consensus amongst the scholars that Catharism in the West did arise as a direct result of Bogomil missionary activity.

The next link in the proposed 'chain of the great heresy' overlaps in time with the Bogomils in a similar way, and again with a significantly earlier origin. The link is formed by a strange and uniquely warlike dualist sect known as the Paulicians. They co-existed with the Bogomils and are thought to have played a significant part in shaping the ideas of Bogomil himself in the tenth century.[6]

As with most heretical movements, much that we know about them comes from their opponents in the Christian Church. One of these was the monk Peter of Sicily, whose *History of the Manicheans who are also called Paulicians* contains valuable contemporary information on the sect. Peter learned about them at first hand in 869–70, when Emperor Basil I of Constantinople sent him as an ambassador to the Paulician leader Chrysocheir – who had recently established an independent principality on the Arab–Byzantine frontier.[7]

As we can see from the title of his tract, Peter assumed that the Paulician religion was merely a disguised form of Manicheanism. This is understandable. The Paulicians and the followers of Mani were dualists, exactly like the later Bogomils and Cathars. But the Paulicians' account of their own origins, which Peter of Sicily also helpfully preserved for us, makes no claim of descent from Mani. Instead, it traces the sect's beliefs back to a certain Constantine of

Mananalis, who had lived in what is now Armenia during the reign of the Byzantine Emperor Constans I (641–8).[8] Constantine of Mananalis, in his turn, is said to have been influenced by a mysterious 'deacon' who stayed at his home 'after returning from prison in Syria' and gave him a number of books including 'a Gospel Book and a book of the Epistles of St Paul, on which he… based his teaching'.[9]

So clearly there must have been something 'Christian' about these Paulicians if the teachings of their founder were based on Christian texts. Indeed, it turns out that Christ was the central figure in their religion but that just like the Cathars and Bogomils they refused utterly to accept that he had ever been born 'in the flesh' or that Mary was his mother.[10] Since he did not possess a physical body, how could he have had a mother? Like the Cathars and the Bogomils they believed him to have been a non-physical emanation of the God of Good, an emissary from the spiritual realms.[11] Like the Cathars and the Bogomils they rejected the cross and all the material sacraments of established Christianity, as well as the cults of saints and of icons.[12] Like the Cathars and the Bogomils they entirely rejected the Old Testament and did not accept every part of the New.[13] And again like the Cathars and the Bogomils they claimed that theirs was the only true Church, descended directly from the first Christian communities, and that the Roman Catholic and Orthodox Churches were imposters.[14]

The supreme leader of the Paulicians, wielding absolute spiritual and secular power, was known as the *didaskolos*. His followers regarded him, says Peter of Sicily, as 'the apostle of Christ'.[15] Constantine of Mananalis in the seventh century was revered as the first *didaskolos*, but all his successors held the same title and each was considered 'the authoritative teacher of the Christian revelation in his own generation'.[16]

Although we do not know the exact date that Constantine of Mananalis began his ministry, historians generally set it around

655.[17] He acted from the beginning, say historians Janet and Bernard Hamilton, as though he were:

> restoring the true Church that had been founded by Saint Paul… Later *didaskaloi* followed Constantine's example and took the names of Paul's disciples, and also called their churches after places visited by Paul. The implication was that they were restoring the true apostolic Church.[18]

Understandably these heretics referred to themselves simply as 'Christians' (again something they have in common with the Bogomils and the Cathars, who likewise called themselves 'Good Christians').[19] The name Paulicians apparently had nothing to do with their attachment to Saint Paul but came into general usage long after the sect was formed and was bestowed on them by others. It is most plausibly explained as a derivation from the *didaskolos* Paul, who led the semi-nomadic sect back to Armenia in the eighth century.[20]

But while the Paulicians thought of themselves as true Christians, the Orthodox Church and the Byzantine Empire thought otherwise. Constantine of Mananalis was eventually executed for heresy on the orders of Emperor Constantine IV (668–85). Historians believe it most likely he was burned at the stake, although the Paulicians themselves put about a story that he was stoned to death. It has been suggested that this was probably 'to draw a parallel between their first martyr and the first Christian martyr Stephen'.[21]

The second Paulician *didaskolos*, who took the name Titus, was also executed for heresy, this time definitely by burning.[22]

During the eighth century the Paulicians enjoyed long periods of official tolerance, although John of Otzun, who became Catholicus of Armenia in 717, described them as 'that most wicked sect of obscene men who are called Paulicians'.[23] What he objected to most was that they scorned the established clergy as 'idolaters because of their worship of the Cross'.[24] But he does not seem to have had the secular support to do anything about this.

It was not until the reign of the Byzantine Emperor Michael I (811–13) that the death penalty was reimposed for followers of the Paulician faith.[25] There then followed a period of massive imperial persecution in which, according to the official chroniclers, 100,000 of the heretics were killed[26] – a scale of slaughter fully comparable with the holocaust of the Languedoc Cathars 400 years later. In the 840s, in response to the continuing persecutions, a faction of the Paulicians, including a fighting group 5000 strong, retreated into Arab territories. By the 850s they had established their own independent mini-state based around the fortress city of Tefrice on the Byzantine frontier. It was to the court of the Paulician leader Chrysocheir at Tefrice that Peter of Sicily came on his embassy of 869–70. Two years later Chrysocheir was killed in battle with Byzantine forces and Tefrice finally surrendered in 878.[27]

This was a setback, but certainly not the end of the Paulicians. Around 975 they were still causing enough trouble in the Byzantine Empire for the Church to insist that large numbers of them be deported from the eastern provinces. They were sent to the Balkans, where there was already a long-established Paulician community[28] and where Bogomil had begun to spread his own heresy only a few years previously. The Paulicians almost certainly bequeathed to the Bogomils their belief in the state of opposition of the material and spiritual realms – of the God of Evil and the God of Good. Moreover, the Paulicians identified this very aspect of their belief-system as the chief factor that distinguished them from the Roman Catholic and Orthodox Churches. They told Peter of Sicily:

> We say the heavenly father is one God who has no power in this world, but who has power in the world to come, and that there is another God who made the world and who has power over the present world. The Romans confess that the heavenly father and the creator of all the world are one and the same God.[29]

This doctrine of the two opposed gods is precisely the position of the Bogomils and the Cathars. And they also shared with the

Paulicians a view of the cosmos as a battleground between good and evil with the fate of humanity as its fulcrum.[30]

In other respects, however, there was much less of a resemblance. Most prominently, although they attributed the creation of the world and all material things to the God of Evil, the Paulicians did not practise any form of asceticism, were not vegetarians and placed no special value on chastity and abstinence. They were also men of violence who often found themselves in battle and who were widely recognized by others as formidable warriors.[31] In this sense we might regard them as an entire community of that grade of neophytes whom the Cathars called *credentes* – Believers – who were free to fight, marry and make love as they wished, to eat and to drink, and generally to live in the world and to affirm it. Consistent with this it seems that the Paulicians did not make use of any initiation ceremony and thus had no class of initiated adepts or 'Perfect' as the Cathars and Bogomils did.[32]

The Praying People and the Demon in the Soul

Although there can be little doubt that the Paulicians were amongst the important influences on the emergence of the Bogomils, the differences between the two religions make it clear that other factors must also have been in play.

As one of these factors, and the next main link in the chain of transmission, Steven Runciman proposes a sect known as the Messalians (literally the 'Praying People').[33] They were Christian Gnostics[34] whose origins can be traced back to the city of Edessa in the mid-fourth century AD and who survived in coherent form until late enough in the seventh century to overlap with Constantine of Mananalis and the first Paulicians.[35] They were said to have been the keepers of a secret tradition and of secret books which Runciman presumes to have been 'heterodox Gnostic legends'.[36] He argues that the riches of this esoteric literary tradition reached the Bogomils

directly from communities of Messalians who survived in the Balkans beyond the seventh century and indeed until as late as the eleventh century.

Runciman sees Bogomilism as a combination of Paulician and Messalian doctrines – 'a new Christianity… based on early Christian legend and Eastern Dualism'.[37] Probably the influence of Paulicianism came first:

> but as time went on the new faith developed; the heretics came into touch with the Messalians, who gave them access to all the wealth of the Orientalised Gnostic tradition…[38] The Bogomils… largely owed their mythology to these books that medieval Byzantium had inherited from the Christians of the first few centuries, when Christian doctrine was still imperfectly circumscribed and Gnostic tendencies were rife.[39]

Naturally in this contentious field, other scholars dispute that the Messalians ever came into contact with the Bogomils at all – on the grounds that the former had ceased to exist before the latter were founded. According to Bernard Hamilton, Professor Emeritus in Crusading History at the University of Nottingham, it is all a matter of mislabelling:

> There is no evidence that organised Messalianism survived beyond the 7th century, even though the label continued to be used by Byzantine heresiologists to describe excesses in Orthodox monastic practice. There can therefore have been no possibility of contact between the Bogomils and a living Messalian tradition.[40]

Let us acknowledge these opposing points of view. Still, the fact remains that many Orthodox churchmen of the period, highly skilled in exposing heresy, were convinced, like Runciman, that Messalianism was still alive and well in the Balkans as late as the eleventh century – and thus did overlap with Bogomilism. The Bogomils themselves were often mislabelled 'Messalians', not, we would suggest, because of ignorance on the part of the heresiologists, but because the Messalian and Bogomil religions were similar in

many ways and do strongly suggest some form of influence of the former on the latter.

The Messalians placed great emphasis on a ritual initiation that created a class of Elect or Adepts, called the 'Pneumatics', directly comparable to the Cathar *perfecti*.[41] The same term was also used by other sects of Christian Gnostics as early as the first and second centuries for their own initiated spiritual elites.[42] So there's a sense of the Bogomils standing at one end of the first millennium, the early Christian Gnostics standing at the other, and the Messalians standing roughly in the middle and somehow connected to both 'ends'.

Other shared characteristics add to this impression. For instance, like the Bogomils (and their offshoot the Cathars), the Messalians rejected the Old Testament and loathed the Cross.[43] So too did the early Christian Gnostics.[44] The Bogomils and the Messalians regarded the world as an evil creation. So too did the Gnostics. And as part of this outlook, very similar creation stories were also told by all three groups. Indeed the Messalian version is a classic 'moderate dualist' myth of the kind the Bogomils and the Cathars favoured in their early days before becoming more absolute in their views. As such, it does not propose polarized divinities of Good and Evil, one the creator of the spiritual and one of the material realm. Instead, the Messalians envisaged the prior existence of a single deity, 'God the first Principle', whose domain was entirely spiritual and good and filled with light. He produced two 'Sons' – emanations – of whom the elder was Satan and the younger Christ. Pride and envy caused Satan to rebel against the Father and led to his expulsion from the good and spiritual Heaven:[45] 'The material world was his creation after his Fall and as such was a wicked place.'[46]

The Messalians, like the Bogomils after them, and the early Christian Gnostics before them, had a theory to explain how our souls had become trapped in matter. Though similar in general principle and outlook, these theories differ significantly from each other in terms of plot and detail. For the Bogomils, as we've seen in Chapter 3,

the idea was that the souls of fallen angels had been encysted in our bodies, or that we carry within us, always seeking a way back to heaven, the spark of divine life breathed by God into the Devil's clumsy 'Adam' and his progeny. The Messalians, on the other hand, believed that every soul was possessed by a demon which bound it by force to the wicked material world. The only way to eject the demon and gain release for the imprisoned soul was through extreme asceticism sustained over a period of years[47] – a regime very similar to the extensive apprenticeships and mortification of the flesh that Bogomil and Cathar neophytes underwent before they could receive the *consolamentum* and be elevated to Perfect grade.

The Messalians also made use of emotional and dramatic prayer (hence their name 'Praying People') to help drive out the demons.[48] However, they had just one prayer in their repertoire – the *Pater Noster* ('Our Father'), also known as the Lord's Prayer.[49] Using prayer to drive out demons is not a custom that we find amongst the Bogomils and the Cathars. Nonetheless, like the Messalians, they too, used no other prayer but the *Pater Noster*. This was because it is the only prayer that the Bible attributes directly to Christ himself.

Described as a 'troop of vagabond preachers',[50] the Messalians first appeared in the territory of the Eastern Roman Empire around AD 350. This was less than forty years after Constantine the Great had extended his official protection to the Christian Church. It was just twenty years after he had forsaken Rome to establish his new capital of Constantinople on the site of the ancient Greek city of Byzantium (modern Istanbul).

With its principal bishoprics in Rome, Alexandria, Antioch and Constantinople, the recently empowered Catholic Church was by this time flexing its muscles, and in a sense defining itself, by the heresies it persecuted. After winning state sponsorship in AD 312, it had almost immediately taken a strong authoritarian and literalist turn (literalist in the sense of interpreting the Scriptures in the most literal manner possible). This, inevitably, made the rather free-thinking and creative anarchy of the Christian Gnostics, who had previously been allowed

to co-exist with the literalists, a target for heresy hunters. In AD 390 the Messalians were condemned and added to the Church's growing list of banned sects, which, as we will see, already included several other much longer-established Christian Gnostic groups.[51]

Mani, Messenger of Light

The teachings and philosophy of another sect are also an important part of this jigsaw puzzle. Known as Manicheism after its founder Mani, it was younger than some of the Christian Gnostic movements but a century older than the Messalians. It, too, was viciously persecuted by the Church as a 'heresy', rather than as a pagan religion. Yet there is a dispute amongst scholars as to whether Manicheism was Christian in any meaningful sense at all.[52] Certainly it was much *less* 'Christian' than the religion of the Bogomils and the Cathars, and that, as we've seen, cannot accurately be described as 'Christianity'; it was really a completely different faith built up around many of the same New Testament texts and characters.

Perhaps the confusion comes in because Mani sometimes claimed to be 'the Apostle of Christ'[53] (later also one of the titles of the Paulician *didaskoloi*), and because surviving letters sent between communities of Manicheans in North Africa show that they saw themselves as Christians.[54] It is also generally accepted that several of the strong central notions of Christianity, including the idea that there is 'a redemptive meaning to things', are found in Manicheism.[55]

On the other hand, there is much in Manicheism that seems to be unmistakably *non*-Christian. For a start, it was an uncompromisingly dualistic religion in exactly the same way as the religion of the Cathars and Bogomils. It saw the human race, endlessly regenerated by the snare of reproduction, as the creation of an evil god – an idea that we know Christianity rejects. Similarly, Manicheans made little or no use of New Testament texts. They offered worship to the Sun and the Moon as 'vessels of the Light' (in this very unlike the Cathars

and the Bogomils). And despite sometimes calling himself the 'Apostle of Christ', it is notable that Mani also frequently used the broader term 'Apostle of God'.[56] He meant that he was an emissary or messenger and he placed himself as the successor to Christ at the end of a line of earlier, non-Christian, Apostles.

Obviously the Church saw this as heresy. It involved Christ, but clearly devalued the unique quality of his mission by putting him on a par with the founders of well-known pagan religions. One of Mani's own surviving statements on the matter, in his *Book for King Shaphur* (*circa* AD 250) makes this completely clear:

> From age to age the Apostles of God did not cease to bring here the wisdom and works of the spirit. Thus in one age their coming was into the countries of India through the Apostle that was the Buddha; into another age, into the land of Persia through Zoroaster; into another, into the land of the West through Jesus. After that, in this last age, this revelation came down, and this prophethood arrived through myself, Mani, the Apostle of the true God, into the land of Babel.[57]

In this fragment Buddha, Zoroaster, Jesus and Mani are given as examples, not as a definitive list, of the Apostles of God. In another surviving fragment Mani names two more such messengers: the Greek philosopher Plato (427– 347 bc), and the Greek deity Hermes.[58] In Mani's time the latter, whom we will meet again in Part II, was generally equated with Thoth, the ancient Egyptian god of wisdom.

Meetings with the Twin

Despite the extensive persecution of Manicheism by different regimes in different periods over hundreds of years, some of the details of Mani's biography, and of his claims to a sacred mission, seem to have come down to us fairly reliably.

He was born in or about AD 216 in a village called Mardinu to the south of the city of Ctesiphon near Babylon[59] – a location some 32 kilometres south-east of Baghdad in the modern state of Iraq. In

Mani's time Ctesiphon enjoyed great wealth, prominence and political power within the Persian Empire as the winter capital of the king. It had served this function for the Parthian dynasty that ruled the empire from 247 BC until AD 224 (when Mani was about eight years old), and it continued to do so with renewed grandeur under the Sassanian Empire (AD 224–642), which succeeded the Parthians.

The Sassanians were decidedly national and Persian in character. Their first king, Ardeshir I (AD 224–41), moved rapidly to install the ancient Persian faith of Zoroastrianism as the official religion of the Empire and gave enormous powers to its priesthood, the Magi. As he lived in the neighbourhood of Ctesiphon at this time, therefore, we can be sure that Mani would have been well acquainted with Zoroastrianism – although traditions that he was for some time a Magus himself are unlikely to be true.[60] Since the region was a cultural crossroads of the ancient world, a young man like Mani, deeply interested in spiritual matters, would also have been exposed here to a wide range of other potential influences – amongst them Babylonian astrology, Judaism, Buddhism from India and the philosophy of Greece.[61]

More directly, it is known that Mani was reared amongst an obscure sect of Jewish Christians called the Elchasaitans[62] (considered to have been Gnostics,[63] and linked by some scholars with the Essenes of Dead Sea Scrolls fame).[64] They were mystics and visionaries with strict purity laws and repetitive rituals that Mani rebelled against. But through them he was exposed to an additional vital influence on his thinking – the teachings of the Christian Gnostics.[65] Although later to be persecuted as heresy, these teachings were still in free circulation in the first half of the third century and are generally agreed to have had a great impact on the construction of Mani's own distinctively Gnostic religion.[66]

Secret texts passed down within the Elchasaitans, or within his own family, may also have played a role. In this respect it is interesting that some accounts present Mani as the adopted son of an

elderly widow. The story goes that on her death she entrusted him with a precious legacy of four books of sacred knowledge – from which, critics alleged, he derived many of the teachings that he later claimed as his own.[67] The content of these books was said to have been gathered in Egypt 'in the time of the apostles' by a certain Scythianus, who had learned 'the wisdom of the Egyptians'.[68] Scythianus dictated the books to his disciple Terebinthus. In due course Terebinthus brought the books to Babylonia and on his death they passed to his own disciple – the widow who would adopt Mani in her old age.[69]

Though legends say that he was a sickly child and lame in one leg,[70] it seems that Mani grew up in prosperous circumstances.[71] Later he would claim that throughout his childhood he had received revelations directly from Ahura Mazda, the 'Father of the Light' – the God of Goodness in the Zoroastrian faith.[72] He also experienced strange and disturbing visitations of the type normally treated today with powerful anti-psychotic drugs. In one surviving text (the Cologne *Mani-Codex*) he tells us how he was:

> guarded by the might of the Light-angels and the exceedingly strong powers, who had a command from Jesus the Splendour for my safekeeping…[73] They nourished me with visions and signs which they made known to me, slight and quite brief, as far as I was able. For sometimes like a flash of lightning he came…[74]

The being who sometimes came to Mani like a 'flash of lightning' was an angel – one he regarded as a manifestation of his own higher identity and referred to variously as his 'Light-Self' and as *al-Taum*, the 'Twin'.[75] When Mani was twelve years old, the Twin appeared to him in a vision and informed him that he was to be responsible for transmitting a great teaching to mankind. In order to do this, he would have to leave the Elchasaitans at some time in the future. Thereafter, the young Mani lived a quiet and studious life, out of the limelight, gathering knowledge in secret, tutored by divine

revelations and by his angel:

> With the greatest possible ingenuity and skill I went about in that Law [of the Elchasaitans], preserving my hope in my heart; no-one perceived who it was that was with me, and I myself revealed nothing to anyone during that great period of time. But neither did I, like them, keep the fleshly custom… I revealed nothing of what happened, or of what will happen, nor what it is that I knew, or what it is that I had received…[76]

It was probably during this same period of learning that Mani honed the skills as a painter, which traditions say he later used to illustrate his teachings, and acquired the knowledge of astronomy and mathematics for which he would also be renowned.[77]

When Mani reached the age of twenty-four, the Twin appeared to him and announced: 'The time has now come for thee to manifest thyself publicly and to proclaim thy doctrine aloud.'[78] Next, says Mani, the Twin 'delivered, separated and pulled me away from the midst of that Law in which I was reared. In this way he called, chose, drew, and severed me from their midst, drawing me to the divine side.'[79] He also initiated Mani into a *gnosis*:

> Concerning me, who I am, and who my inseparable Twin is… And who my Father on high is; or in what way, severed from him, I was sent out according to his purpose; and what sort of commission and counsel he has given me before I clothed myself in this instrument [the body], and before I was led astray in this detestable flesh… Moreover, concerning my soul, which exists as the soul of all the worlds, both what it itself is and how it came to be. Beside these he revealed to me the boundless heights and the unfathomable depths;[80] he revealed mysteries hidden to the world which are not permitted for anyone to see or hear…[81] He showed me all.[82]

Mani and the Magi

It was at this point, around AD 240, that Mani – a sleeper at last awakened – began his preaching mission.[83] What he was preaching

was distinctly *not* Zoroastrianism, and Ardeshir I, champion of the Zoroastrian faith as the official religion of Persia, was still on the throne. Mani seems to have fallen foul of the Magi almost immediately and to have been forced into exile.[84] He travelled to India, by all accounts propagating his teaching with great success there,[85] and returned via the Persian Gulf in 241, the year of Ardeshir's death. Somehow Mani managed to convert Firuz, Ardeshir's youngest son and, through him, obtained a personal audience with the eldest son Shapuhr – who shortly afterwards succeeded to the throne as King Shapuhr I.[86] At the coronation Mani was permitted to come forward to proclaim his own spiritual message – an unprecedented honour.[87] And on either 21 March 242 or 9 April 243 (the date is disputed by historians) Shapuhr issued a letter authorizing Mani to preach as he wished and protecting him throughout the Persian Empire.[88]

Thereafter, freed of all obstructions, Manicheism won converts at a phenomenal rate, causing intense resentment and jealousy amongst the Zoroastrian priesthood. There was a backlash and later in Shapuhr's reign it seems that the Magi persuaded the king to exile Mani a second time.[89] But in 272, following Shapuhr's death, Mani returned to Persia and was welcomed by the latest successor to the throne, King Hormuzd, who once again extended royal favour to him.[90]

Hormuzd's reign lasted barely a year and Bahram I, who succeeded to the throne in 273, was a strong supporter of the old Zoroastrian faith. He reversed the policy of tolerance towards Manicheism and began to persecute its leaders and followers. In 276 his officers arrested Mani at Gundeshaphur in southwestern Persia. The self-styled Apostle of God was then subjected to four days of Inquisition-style interrogation by the Magi, and declared to be *zandic* – a heretic. A month of imprisonment in heavy chains followed, after which he was flayed alive and then decapitated. His head was impaled on the city gate, from which his skin, stuffed with straw, was also suspended;

what remained of his body was thrown to the dogs.[91]

No doubt the level of brutality in his execution was commensurate with the level of the threat that the Magi saw in Mani's new religion which was everywhere overtaking them. And just as was the case with the destruction of Catharism by the Roman Catholic Church 1000 years later, a determined attempt was also made by the Zoroastrians to wipe out Manicheism completely.[92]

They did not succeed. Before his imprisonment and execution Mani had already sent out his twelve disciples, and hosts of followers, to all the corners of the known world.[93] In addition the continuing persecutions by the Zoroastrian state after 276 prompted a large-scale migration of Manichean communities. Some travelled deep into China – where Mani's religion would survive in remote enclaves until as late as the sixteenth century. Others infiltrated eastern parts of the Roman Empire, the Roman colonies in North Africa, and eventually all the immense territories under Rome's control as far west as Britain.

Though at times violently opposed by Rome (even before its conversion to Christianity) Manicheism won immense popularity throughout the Empire and was particularly well represented in its North African colonies. It was in North Africa that it acquired its most famous acolyte, Augustine – later Saint Augustine of Hippo. Born in AD 354, the son of a pagan father and a Christian mother, he became a Manichean 'Auditor' or 'Hearer' in AD 377 – equivalent to joining the Cathar class of *credentes*. He held to the Manichean faith for nine years then abandoned it in 386 and was baptized as a Christian in 387. He returned to North Africa, where he formed a religious community and was appointed Bishop of Hippo in 396. He lived to see the fall of Rome to the Vandals in 410. When he died in 430 Vandal forces had crossed the Mediterranean and were besieging Hippo itself.[94]

Like many converts Augustine zealously detested his former faith. During his long and influential career as one of the great Doctors of the Church he wrote extensively condemning Manicheism and the Manicheans. His anti-Manichean tracts survived the ages and played

an important part in shaping the attitudes of medieval Roman Catholics to the Cathar heresy. As we saw in Chapter 2, Catharism was frequently identified in the twelfth and thirteenth centuries as a resurgence of the *same* Manicheism that Augustine had censured in the fourth century – a conclusion that modern scholars reject. Nevertheless, the Cathar and Manichean religions were, in our view, similar enough in their essentials to make the medieval identification understandable and worth further consideration.

The Cosmos According to Mani

One of the notions upon which Manicheism is founded is that there existed from the beginning of time 'two gods, uncreated and eternal and everlastingly opposed to each other'.[95] One is the God of Evil and Darkness, the other the God of Good and the Light.[96] The realm of Light was the uppermost and was 'without bounds in height and on each side'. The realm of Darkness lay below it similarly boundless in depth and on each side.[97] For untold ages neither was aware of the other's existence, but in the bowels of the Darkness was Satan, with his 'disorderly, anarchical, restless brood' of demonic powers.[98] There was constant agitation, chaos and turmoil, as in the heart of a black thunderstorm, and at some point the Prince of Darkness rose up through the abyss, perceived the light from the upper world and conceived a hatred for it. Returning to the depths he prepared his forces: 'Then again springing upwards, he invaded the realms of Light with the intention of there spreading calamity and destruction.'[99]

Like the later Cathars and Bogomils Mani saw the human body as part of the evil creation within which sparks of the Light had been imprisoned. Like the Cathars and the Bogomils he taught that sexual reproduction and reincarnation are the mechanisms by which the cycle of imprisonment is perpetuated. And also like the Cathars and Bogomils he believed that by abstinence and prayer this imprisoned Light could gradually be released, but that we must pass through

many incarnations, and much pain, before that would happen.[100]

Such resemblances to the religion of the medieval dualists become all the clearer when we realize, as Yuri Stoyanov confirms, that Light and Darkness in Manichean cosmology are metaphors for Spirit and Matter.[101] It was the fusion of these two contrary principles, at the beginning of the present cycle of time, which caused the imprisonment and suffering of the soul in the first place.[102] The details of exactly *how* the imprisonment was achieved – how fragments of the Light came to be trapped in Darkness, how good ended up mixed with evil, how souls were enwrapped in matter – may have more to do with the inspiration of individual storytellers than anything else. We know that this was a tradition that made broad use of colourful symbols, myths and parables as teaching aids. But the point, in the final analysis, is that the medieval dualists of Europe, exactly like the Manicheans of Persia centuries earlier, envisaged Man as a 'mixed' creature who must fight a constant war within himself in order to subdue his baser elements, and to perfect and liberate his soul.

It was to get this point across that the Cathars and Bogomils told stories of angels who had fallen downwards from the pure spiritual realm of heaven to the impure material realm of earth. In the parallel Manichean myth the Prince of Darkness with his demons rushed upwards out of the abyss to attack and destroy the Light. So forceful and impetuous was this onslaught that the Evil One, wielding the malign powers of Smoke, Fire, Wind, Water and Darkness as his weapons, broke through the defences and encroached upon the Light. The Father of Light defended his Realm by evoking a proxy – the 'Primal Man' – and arming him with the 'luminous' powers of Air, Wind, Light, Water and Fire. Battle was joined, Satan was victorious, the Primal Man lay in a deathlike trance, and elements of the luminous powers that he had been armed with were now engulfed or 'eaten' by the forces of darkness.[103]

Next the Father of Light created further emanations or proxies – amongst them the 'Living Spirit', identified with the pre-Zoroastrian

Iranian god Mithra, and a figure called the 'Great Architect'.[104] Together they revived and rescued the Primal Man and began the work of recovering for the Light the luminous powers that had been consumed by the forces of Darkness – a task described as saving the 'Living Soul' from the 'burning house' of matter.[105]

The diabolical counter-attack against the works of the Living Spirit and the Great Architect involved the creation of Adam and Eve 'to fortify', as Stoyanov puts it, 'the imprisonment of the Light elements through the lust and reproduction of the human species'. But the Realm of Light sent a saviour to Adam who made him aware of the Light existing within himself – i.e., his immortal soul – and caused him to rebel against the Evil One who had fashioned his body. Ever since the human race has 'remained the principal battleground between the forces of Light and Darkness'.[106]

The saviour sent to Adam is called 'Jesus the Splendour' in the Manichean texts.[107] As time passes other saviours are sent, each of them to renew the *gnosis* needed to awaken Man to his true condition. Earlier we listed some of the household names amongst these saviours – Zoroaster, Hermes, Plato, Buddha, Jesus Christ and, last but not least, Mani. Other lists echo the spread of Manicheism in Hebraic cultures and feature Seth, Enoch (like Hermes frequently identified with the ancient Egyptian wisdom god Thoth), Noah, Abraham, and again Mani.[108] Similarly the eastwards expansion of Manicheism is reflected in other formulations that refer to Mani as the Buddha of Light or as a reincarnation of Lao-Tsu, the founder of Taoism.[109]

In all cases and in all lists Mani is extolled as the 'Seal of the Prophets'.[110] It is he who brings the final message, the final revelation and the final *gnosis* through which mankind is to complete the great work of freeing the last elements of Light from the prison of Darkness. This work, as described, is almost alchemical in character – an intricate, gradual process of distillation down the ages, incarnation after incarnation, channelling the Light away from the Dark, purifying the soul from its contamination with matter. The dénouement is our

realization that the physical earth on which we live was brought into existence as the theatre or laboratory in which this process of endless, painstaking refinement could unfold – *and for no other purpose*.[111] Finally, using all the Light thus reclaimed, the Great Architect and the Living Spirit, assisted by the souls of the Manichean Elect, are to construct a 'New Paradise' and a spiritual earth to replace the dark, leaden husk of the old material creation that will fall away at the completion of the project.[112]

If It Looks Like a Duck, Swims Like a Duck, and Quacks Like a Duck… Then It Probably is a Duck…

Although the Manicheans, Bogomils and Cathars told different stories about the human predicament, we suggest that closer examination shows that they share a deep and abiding theme. At the heart of it all, for every Believer and Perfect, for every Hearer and Elect, was a desire to live in the world in such a way as to minimize spiritual pollution and to improve, strengthen, purify and ultimately (after great struggle) liberate the soul. In all cases this involved accepting and following a system and working within a structure, and these were remarkably the same from the early days of Manicheism in the third century AD to the final crushing of medieval dualism in Europe more than 1000 years later.

Just like the Bogomil and the Cathar Churches, the Manichean Church was divided into two principal categories. There were the ordinary, the rank and file adherents who could marry, have children, own property, eat meat and drink wine. And there was a small highly committed elite of celibate teetotal vegetarians who lived in personal poverty and renounced all the material pleasures of life.[113] The rank and file were known as the Hearers and the elite as the Elect – concepts identical in all respects to the Believers and Perfect of the medieval dualists. Indeed, amongst the Manicheans the term 'Perfect' was used interchangeably with 'Elect'.[114]

Like the Cathar and Bogomil *perfecti* the Manichean elect could be men or women and always travelled in adept–disciple pairs. Also like the *perfecti*, the Elect passed through a strict process of initiation culminating in a ceremony comparable to the *consolamentum*. Following this initiation they were considered to be 'full of the light' and thenceforward must do nothing to contaminate their inner light with the dark of earthly things.[115] For the Manichean Elect that included doing no agricultural work and not even such a simple task as breaking bread. It involved leading a wandering, penniless existence, possessing only 'food for a day and clothes for the year', completely dependent upon the charity of the Hearers who, by joining the Manichean Church, took on an obligation to care for the Elect.[116] Although the Cathar and Bogomil *perfecti* did break bread for themselves, they too led wandering, penniless lives and were dependent on the charity of the Believers, who likewise had a duty to care for them. Moreover, even Bernard Hamilton, though not normally a fan of the 'continuing tradition', has to admit that: 'The Manicheans had required their elect to observe an ascetic rule of life, and their reasons for doing so were identical to those of the Bogomils, springing from a conviction that the material creation was evil.'[117]

Mani taught that messengers like Zoroaster, Buddha and Jesus – to whose line he also claimed to belong – had been sent to earth out of sympathy for mankind, to remove the clouds of ignorance from our minds, to teach us Truth, and to rescue the Light in us (i.e., our shining souls) from darkness and evil.[118] Again, these are themes that are entirely familiar from the dualism of the Cathars and the Bogomils.

The reader will recall that the Cathars and Bogomils, believing Jesus to have been a spiritual emanation of the Good God, could not accept that he had ever been born in the flesh and therefore concluded that he must have been an apparition sent down directly from the heavenly realms. The identical idea was voiced by Mani, who preached, centuries earlier, that Jesus was not born of woman but came forth from the Father of Light and descended from heaven

in the form of a man aged about thirty. The body in which he appeared was an illusion and so, accordingly, was his crucifixion.[119] In one Manichean text he even appears afterwards to his disciple John, who is grief-stricken at the supposed death of his master, and informs him that the crucifixion was a spectacle, a phantasmagoria, in short a kind of miracle play performed to impress the masses.[120]

Despite their conviction that material life was evil the Cathars, Bogomils and Manicheans all showed great respect for life and opposed causing pain or suffering of any kind to fellow creatures whether human or animal.[121] All believed in reincarnation.[122] All forbade the use of images and worshipped only through prayers and hymns.[123] We know that the Cathars and the Bogomils looked with horror on the Old Testament and regarded its God Jehovah as the Devil. So too did the Manicheans[124] and Mani himself had declared:

> It is the Prince of Darkness who spoke with Moses, the Jews and their priest. Thus the Christians, the Jews, and the Pagans are involved in the same error when they worship this god. For he led them astray in the lusts that he taught them, since he was not the God of Truth.[125]

Connecting the Cathars to the First Century AD

Until the early twentieth century scholars were obliged to rely almost exclusively on the works of the persecutors of Manicheism in order to reconstruct the 'lost' Manichean religion that those very persecutors had destroyed. But intact ancient Manichean texts discovered in the Far East in the 1920s and in Egypt in the 1970s have added greatly to our store of knowledge. In consequence it is now generally accepted that Christian Gnosticism, hitherto allocated a relatively minor role in the intellectual parentage of Manicheism, may in fact have been the single most decisive influence on Mani's thinking. H. J. W. Drijvers goes so far as to suggest that even the term 'Christian Gnosticism' is misleading:

> It has usually been assumed that the Christian elements in Manichaeism reached Mani through a Gnostic filter… It is rather more in agreement with the historical situation and development during the third century… to assume that Mani and Manichaeism heavily drew upon the whole of Christian tradition and literature extant in that time without any restriction to a supposedly Gnostic strain.[126]

In other words, if Manicheism as it is now understood reveals an overwhelming influence from Gnostic Christianity, then this is likely to be because the Christianity of Mani's time was in fact overwhelmingly Gnostic – a controversial conclusion that is nevertheless supported by much recent scholarship. In 1945 a great hoard of hitherto unknown Gnostic texts from the early centuries of the Christian era was found at Nag Hammadi in Upper Egypt. Since the translation and eventual publication of these texts in 1977 it has become apparent that Christianity's relationship with Gnosticism goes back to the very beginnings of the Christian cult in the first century AD. Likewise, it is now obvious, and widely accepted, that 'Christian Gnosticism' was not some weird offshoot from the 'mainstream' of Christianity. On the contrary it was part of the mainstream – perhaps even the major part as we will see in the next chapter.

And then something happened. From the beginning of the fourth century AD, as it acquired state power, the Church undertook a radical change of direction. The freethinking and sometimes anarchical approach of the Gnostics began to be frowned upon, their allegorical interpretations of the scriptures were dropped in favour of literal ones, and persecutions for heresy began almost immediately. Could it possibly be true, as the Cathars always claimed, that this was the time when the authentic Church of Christianity was forced underground and the impostor Church of Rome was put in its place? And the corollary: could it be true that the authentic Church – persecuted, outlawed, oppressed – had nevertheless somehow managed to survive from the fourth century until its doctrines reappeared again 600 years later with the Bogomils?

It seems like a long shot. Nonetheless we've shown that a viable chain of transmission exists connecting the central ideas behind the

Cathar and Bogomil religion to the ideas of Mani in the third century AD. And if the primary influence on Mani was Christian Gnosticism, as the scholars now agree, then it is to the Gnostics we should look for the final links in the chain of the 'Great Heresy'.

Chapter 5

Knowledge of the True Nature of Things

> 'I shall use the term Gnosticism to indicate the ideas or coherent systems that are characterized by an absolutely negative view of the visible world and its creator and the assumption of a divine spark in man, his inner self, which had become enclosed within the material body as the result of a tragic event in the precosmic world, from which it can only escape to its divine origin by means of the saving Gnosis. These ideas are found in most of the original Gnostic writings that have survived, for the greater part in the Nag Hammadi Library…' (Roelof van den Broeck, Emeritus Professor of the History of Christianity at the University of Utrecht)

There is no easy sound-bite description of what Gnosticism was, or is. As we've already had reason to note several times, the Gnostic tradition was one in which special emphasis was placed on individual revelation and self-expression. In consequence, though it is true that a number of underlying themes, and even certainties, were shared by all Gnostic sects, there was also a rich and confusing proliferation of differences amongst them. Sects typically developed around the teachings of inspired men – the most famous names from the first and second centuries AD include Simon Magus, Marcion, Basilides and Valentinus. Depending on the precise nature of the revelation of the founder, each sect then added its own speculations, metaphors and teaching-myths, sometimes even complete cosmological systems, to the vast and eclectic body of ideas and behaviour already loosely categorized as 'Gnosticism'.

This background state of intellectual anarchy, coupled with the luxuriant multiplication of 'systems' within Gnosticism, make the subject a daunting one. But the matter is even further complicated by the determined persecutions inflicted on the Gnostics by the Christian Church between the fourth and the sixth centuries Ad.[1] As well as the holocausts of countless individuals, who were prepared to die terrible deaths rather than relinquish their faith, these persecutions resulted in the collection and burning of huge numbers of Gnostic texts. In this way one of the precious 'hard disks', on which was stored a vibrant portion of the intellectual and spiritual heritage of mankind, went up literally in smoke, leaving virtually nothing behind for future generations to ponder over. The thoughts on the human condition of inspired mystics and great philosophers, their journeys into the enigma of death, the liberating *gnosis* that they believed they had discovered of the true nature and purpose of our existence – all this seemed to have been lost. For fifteen centuries those few scholars who still had any interest in learning about this smashed and apparently forgotten religion were obliged to depend for their knowledge almost exclusively on the works of those responsible for smashing it in the first place. The heresy-hunters would frequently quote passages from suppressed Gnostic works, or report the content of those works in some detail, in order to preach against and attempt to refute them. But relying on such one-sided material, even – or perhaps especially – in the choice of original texts quoted, was almost bound to produce a very one-sided understanding of Gnosticism. A roughly comparable exercise would be trying to build up an accurate picture of Judaism from books written by Nazi propagandists.

In the case of the latter we can ignore the Nazi trash because Judaism, unlike Gnosticism, is still a living religion and can speak for itself. But there has been some good fortune too in the case of Gnosticism. The vast majority of its scriptures were destroyed in the pogroms that the Christians unleashed. But towards the end of the fourth century AD an unknown group of heretics in Upper Egypt took the precaution of assembling a 'time-capsule' containing a substantial collection of banned Gnostic texts. Possession of such texts, if

detected, was extremely dangerous, so the 'capsule' – actually a large earthenware jar – was buried in the ground, by the side of a great boulder, at the foot of cliffs overlooking the ever-flowing Nile.

Perhaps the owners hoped that things might improve and that they would eventually be able to return to collect their library. But they never did. It's very likely that their heresy was detected and they were killed. During the last two decades of the fourth century the dogmatic faction of Christianity that had converted Emperor Constantine years before was flexing its muscles under the full protection of the Roman state. With tacit support from the local authorities, and sometimes with direct military assistance,[2] hysterical mobs of religious fanatics and unkempt monks were on the loose in Egypt, spreading fear wherever they went.[3] They vandalized temples that had stood for thousands of years in homage to the gods. They defaced ancient inscriptions. They murdered priests and philosophers. It was under their pressure that the sublime religion of ancient Egypt breathed its last. However, it was not 'pagans' that the Christian terrorists reserved their worst excesses for. Much higher priority, and the greatest violence, were focused on fellow Christians – heretics of the numerous Christian Gnostic sects that had been developing and multiplying in Egypt since the first century.[4]

It would have been the members of one such sect who buried the 'time-capsule' beside the boulder at the foot of the cliffs. There it was to remain intact and undisturbed for nearly 1600 years while the life of Egypt, slowly changing, went on around it.

The Nag Hammadi Library: Time-capsule or Time-bomb?

In December 1945, near the modern town of Nag Hammadi in Upper Egypt, a local farmer named Muhammad Ali was clearing land at the edge of a field owned by his family. By chance he exposed a large intact earthenware jar that had obviously been purposefully buried in an upright position by the side of a boulder. When he broke the jar open out spilled thirteen leather-bound papyrus books and a large

number of loose papyrus leaves. He brought the complete haul of priceless knowledge about a long lost religion to his home, where his mother put much of the loose-leaf material to use as kindling. But the books – *codices* is the correct term – survived and eventually found their way on to the black market in Egypt. Through good detective work the government's antiquities service succeeded in buying one and confiscating ten and a half of the thirteen codices. A large part of another was smuggled out of Egypt and offered for sale in the US. Professor Gilles Quispel, an expert on Gnosticism at the University of Utrecht in the Netherlands, was quickly able to certify to its importance and the codex was rescued.

As Quispel made a provisional translation of the text he found to his astonishment that it seemed to be a Christian gospel but one previously unknown to him that did not appear anywhere in the New Testament. Its title was the *Gospel of Thomas* and it claimed to contain secret words spoken by Jesus to his 'twin' – one Judas Thomas. The New Testament says nothing about Jesus having a twin.[5]

Despite the pages burned by Muhammad Ali's mother a total of fifty-two separate texts survived in the approximately twelve and a half salvaged codices. Direct scientific tests on the papyrus used in their bindings, as well as linguistic analysis of the Coptic script in which they are written, indicates that the codices were manufactured between AD 350 and 400.[6] The age of their content is another matter, since the texts themselves are translations into Coptic, the vernacular of Egypt in the early Christian age, of somewhat older source texts originally written in Greek. Scholars are in general agreement that the majority of these were composed or compiled between AD 120 and 150.[7] But it has been persuasively argued that the *Gospel of Thomas*, at least, is an exception to this rule. Professor Helmut Koestler of Harvard University has proposed that this heretical gospel includes some content that may possibly be 'as early as the second half of the first century (50–100) – as early as, or earlier than Matthew, Mark, Luke and John'.[8]

The date normally ascribed to the four canonical gospels of the

New Testament is in the range of AD 60–110.[9] But in the case of *Thomas* we're dealing with a banned text claiming to be a genuine Christian gospel that may also be genuinely older – i.e., nearer in time to Christ – than any of the canonical gospels. This has to raise disturbing questions about the canonical gospels themselves. How canonical are they really? How can we be sure that they contain the truth, the whole truth and nothing but the truth about Christ and the Christic phenomenon? The existence of this 'elder' gospel in the Nag Hammadi collection suggests that Matthew, Mark, Luke and John may have been part of a much wider literature that was at some point 'edited out' of the New Testament. That impression is enhanced by the inclusion of several other heretical gospels amongst the fifty-two Nag Hammadi texts – the Gospel of Philip, the Gospel of Truth and the Gospel to the Egyptians. Were there others still that Muhammad Ali's mother burned? Or that didn't make it into the precious Nag Hammadi time-capsule and were erased from history by the heresy-hunters?

The Organization (1): Hints of a Gnostic Secret Society

There is much more that is disturbing about the texts of the Nag Hammadi Library. Remember that they were composed mainly between the first and third centuries, originally in Greek, translated into Coptic some time later, and finally concealed during the late fourth century. We've noted that this was a time when the newly Christianized state of Rome was beginning to turn all its resources against Christian heretics – particularly, and most savagely, against the Gnostics. It is intriguing, therefore, that several of the Nag Hammadi documents make allusions to the existence of something very much like a secret society, usually referred to as 'the Organization'.[10] Part of its mission, which we will return to in later chapters, is to build monuments 'as a representation of the spiritual places' (i.e., the stars).[11] It is also to use every means possible, including guile and stealth, to protect the sacred knowledge of

Gnosticism and to oppose the universal forces of darkness and ignorance that are said to have:

> steered the people who followed them into great troubles, by leading them astray with many deceptions. They became old without having enjoyment. They died not having found truth and without knowing the God of truth. And thus the whole creation became enslaved forever from the foundations of the world until now.[12]

The Gnostic religion revealed by the Nag Hammadi texts is unambiguously dualistic. It starkly envisages two potent spiritual forces at work in the fulness of all existence – the God of light, love and goodness, and the God of darkness, hate and evil. As with the Bogomils and the Cathars a millennium later, the Gnostics believed that it was the latter, the God of Evil, who had constructed the material universe and created human bodies. Our souls, however, were from the spiritual realm of the God of Good and yearned to return there. A primary purpose of the God of Evil was to frustrate this desire and keep these lost souls imprisoned for ever on the earth – to 'make them drink the water of forgetfulness… in order that they might not know from whence they came'.[13] The evil powers worked to anaesthetize intelligence and spread the cancer of 'mind blindness'[14] because 'Ignorance is the mother of all evil… Ignorance is a slave. Knowledge is freedom.'[15]

By contrast the Nag Hammadi texts make it clear that 'the Organization' serves the spiritual forces of light. Its sacred purpose is to free human beings from their state of enslavement by initiating them into the cult of knowledge. There could hardly be a more important or more urgent task: in the Gnostic view mankind is the focus, or fulcrum, of a cosmic struggle; individual choices for evil, arising out of ignorance, therefore have ramifications far beyond the merely material and mortal and human plane.[16] For these reasons the Gnostics said, 'Our struggle is not against flesh and blood, but against the world rulers of this darkness and the spirits of wickedness.'[17]

The Public Craftsman

In Alexandria, one of their prime centres, the Gnostics lived in close contact with the last vestiges of the ancient Egyptian religion, and also co-existed with Judaism and early Christianity. They honoured Christ. And in precisely the same way as the later Cathars and Bogomils (as well as the Manicheans and Paulicians) they did not believe him to have been born in the flesh but favoured the apparition or 'phantasm' theory.

Evidence from Alexandria suggests that the Gnostic communities there during the first three centuries after Christ also honoured Osiris, the ancient Egyptian god of rebirth,[18] 'who stands before darkness as a guardian of the light'.[19] This was not a cult shared by any of the other post-Christian dualist groups.

On the other hand – once again like the Manicheans, Messalians, Paulicians, Cathars and Bogomils – the Gnostics saw Jehovah, the Old Testament God of the Jews and Christians, as a dark force, indeed as one of the 'world rulers of darkness'. He was to them the evil 'demiurge' – a Greek term, somewhat derogatory, that means, literally, 'public craftsman'.[20] In other words, he was a low-class sub-deity who had created the earth as his personal fief (rather like an odd-job man with a hobby), placed the human race upon it to worship and adore him and deluded the poor creatures into believing that he was the only God in existence. His sole purpose for us, therefore, was to keep us enchained in spiritual ignorance and darkness for all eternity and enmesh us in acts of evil that would make us truly his for ever. For this reason the account given in the Nag Hammadi texts of the 'temptation' of Adam and Eve in the Garden of Eden depicts the serpent not as the villain of the piece, as the Old Testament Book of Genesis portrays him, but rather as the hero and true benefactor of mankind:

'What did God say to you?' the Serpent asked Eve. 'Was it "Do not eat from the tree of knowledge [*gnosis*]"?'

She replied: 'He said, "Not only do not eat from it, but do not touch it lest you die."' The Serpent reassured her, saying, 'Do not be afraid. With death you shall not die; for it was out of jealousy that he said this to you. Rather your eyes shall open and you shall come to be like gods, recognizing evil and good.'[21]

After Adam and Eve had eaten of the tree of knowledge, the Gnostics taught that they experienced enlightenment, awoke to their own luminous nature and could distinguish good from evil, just as the serpent had promised. Seeing their intellectual and spiritual transformation, the demiurge was jealous and roused his demonic companions:

Behold, Adam! He has come to be like one of us, so that he knows the difference between the light and the darkness. Now perhaps he also will come to the tree of life and eat from it and become immortal. Come let us expel him from Paradise down to the land from which he was taken, so that henceforth he might not be able to recognize anything better. And so they expelled Adam from Paradise, along with his wife.[22]

What stands out in this Gnostic Genesis story is the way in which Adam and Eve are expelled from 'Paradise' *down* to 'the land' – where henceforth they are to live in ignorance of their true potential. The underlying concept of a descent from a spiritual paradise into a fleshly and material world is extremely close to the Bogomil and Cathar notion of angels falling from heaven to earth to inhabit human bodies. In both cases the predicament of the soul is the same – trapped in matter, forgetful of its true nature, unmindful of its divine potential, deluded by the wiles of an evil God, and carried in a frame (the body) that is subject to every whim of that supernatural monster.

The Gnostic texts continue with their version of the Book of Genesis telling the story of human history on earth after the 'Fall'. Time passes and we read how the descendants of Adam and Eve achieved a high state of development, manipulating the physical world with clever machines and devices and beginning to engage in

profound spiritual inquiries. Out of jealousy the demiurge intervenes again to diminish human potential, calling out to his demonic powers: 'Come, let us cause a deluge with our hands and obliterate all flesh, from man to beast.'[23]

According to the Gnostics, the Flood was not inflicted to punish evil – as the Old Testament falsely informs us – but to punish humanity for having risen so high and 'to take the light' that was growing amongst men.[24] The devastation of the Flood all but achieved this objective. Although there were survivors, they were thrown 'into great distraction and into a life of toil, so that mankind might be occupied by worldly affairs, and might not have the opportunity of being devoted to the holy spirit'.[25] But fortunately there were a few amongst our ancestors who still possessed the old knowledge, and who were determined to pass it down for the benefit of future generations, for as long as necessary, wherever possible, until such a time as a general awakening might occur again.[26]

'The Organization' (2): A Reawakening in the Tenth Century?

We could not help wondering how the mysterious 'Organization' spoken of in the Nag Hammadi texts would have reacted to the persecutions being unleashed on Gnosticism when the texts were sealed away near the end of the fourth century AD. Might its members not have been inclined to see themselves in the same mythical framework as the flood survivors of the Gnostic creation legends? Of course, they were not dealing this time with a literal 'flood' sent by the diabolical God of the Old Testament to steal the light of mankind. But from the Gnostic point of view what they confronted was at least equally dangerous – the investigations of the heresy-hunters, the random violence of Christian mobs, the burnings of books and people.

The Nag Hammadi texts invite us to consider the possibility that a secret society, purposefully set up to secure and preserve Gnostic

teachings through periods of difficulty, had been in existence at least between the first and third centuries AD (when the texts were composed). If such an 'Organization' still remained active until the time when the texts were buried then there is every possibility that it could have survived the holocausts of the fourth to the sixth centuries. Even without such obvious shelters and vectors as the Messalians and the Manicheans, it would not have been too difficult for a small and dedicated sect of heretics to have maintained a clandestine existence and to have continued to recruit new members through the Dark Ages between the sixth and the tenth centuries. There is no particular reason, if it was discreet, why it should have attracted much attention or ever been recognized for what it was. There were many remote religious communities of hermits or monks that could have provided it with suitable camouflage until such a time as it chose to step out of the shadows again.

And what better or more auspicious time for Gnosticism to step out of the shadows and make another bid to establish a world religion than the final century of the first millennium? This was precisely the moment – somewhere between AD 920 and 970, as we saw in Chapter 3 – that the heresiarch who called himself Bogomil, 'Beloved of God', began to preach so persuasively in Bulgaria. We know already that the Church he founded had ambitions to achieve a general awakening. We've seen how its influence spread with great rapidity and success, first in territories under the spiritual hegemony of the Eastern Orthodox Church, and later in areas such as northern Italy and Occitania that were under the control of the Roman Catholic Church.

On both fronts the absolute dominance of what was by then thought to be established Christianity was challenged with a doctrine in many respects identical to that of the early Christian Gnostics.

And on both fronts the challenger claimed to be the original Church of Christ whose rightful place had been usurped by the incumbent.

Gnostics, Bogomils and Cathars: Much in Common (1)

Gnosticism is thought by many scholars to have been a late pre-Christian philosophical religion that insinuated itself like a virus into early Christianity and attempted to transform it into a vehicle for propagating its own ideas – hence 'Christian Gnosticism'. On the same evidence that they offer, however, it is equally possible to argue that the Christian cult was Gnostic in origin but was later hijacked by a group of hard-headed scriptural literalists who turned it to their own ends. Either way most authorities point to Palestine in the first century BC as the birthplace of Gnosticism; from there, they say, it spread rapidly to Alexandria, which was to become the main centre for its subsequent expansion.[27]

During that epoch, though they had very different backgrounds, Palestine and Alexandria shared the common Hellenistic culture that had prevailed throughout the Mediterranean, Mesopotamia and Iran since the conquests of Alexander the Great in the fourth century bc. This had been – and indeed continued for some time to be – a period of extraordinary vivacity, intellectual endeavour, creativity, rationality and intense spirituality. It brought together in one gigantic Hellenistic melting pot the priests of ancient Egypt, the dualist Magi of Iran, initiates of the mysteries of Mithras, Platonic philosophers from Greece, Jewish mystics, Buddhist missionaries and a host of other influences from near and far. It was somewhere in that 'confused but thrilling encounter', suggests historian Joscelyn Godwin, that 'Gnosticism was born, the religion of *gnosis* – knowledge of the true nature of things'.[28]

There are certain fundamental elements of Gnosticism. Of these the most important is the notion that there exists an entirely good, spiritual, light-filled realm that is ruled by a benevolent and loving God, but that the material realm in which we live is the creation of an Evil God. As we've seen, the exploits of Jehovah in the Old Testament served the Gnostics very well as illustrations of this idea during the first and second centuries AD. He had created the world, the Bible

said, and his actions were also almost invariably wicked, mean-spirited, jealous, violent and cruel – exactly what one would expect of an Evil God. It cannot be an accident that we find the identical usage of Jehovah in identical contexts for identical purposes by the Cathars and Bogomils between the tenth and the fourteenth centuries AD.

Another hint that these groups at opposite ends of the first millennium must have been closely linked comes when we remember that all of them believed our souls to have been created by the Good God and to belong in the good realm while our bodies were part of the evil material creation. Gnostics, Cathars and Bogomils all likewise regarded the soul as a *prisoner* in the demonic material world, where it was in constant danger of being dragged ever deeper and trapped ever more firmly. All three of them offered it a way of escape (from what would otherwise be eternal confinement) by means of initiation into their system and acquisition of the *gnosis* that they had to teach.

In all three cases this *gnosis* appears to have involved an absolutely convincing and probably instantaneous insight into the miserable situation of the soul, the true nature of matter, and the escape route that Gnosticism offered. In all three cases Christ was seen not as a redeemer (who died to expiate our sins) but as an emanation of the divine who had descended to open men's eyes to their true predicament. Last but not least, although all three groups treated the advent of Christ as a cosmic event of enormous importance, all three also believed that he had never incarnated in the flesh, that his body was an apparition, and that his crucifixion was therefore an illusion.

Gnostics, Bogomils and Cathars: Much in Common (2)

The Gnostic religion of the first four centuries of the first millennium and the Bogomil and Cathar religions of the first four centuries of the second millennium shared many other intimate details. We've already seen in Chapter 3 how the *consolamentum* ritual of the latter, which raised the candidate from the status of Believer to the status of Perfect, was essentially identical to the ritual of adult baptism in the Early Church which raised the candidate to the status of a fully

initiated Christian. The irony, as Steven Runciman points out, is that:

> While polemical churchmen in the Middle Ages denounced the heretics for maintaining a class of the Elect or Perfect they were denouncing an Early Christian practice, and the heretic initiation ceremony [the *consolamentum*] that they viewed with so much horror was almost word for word the ceremony with which Early Christians were admitted to the Church…[29] Such similarity cannot be fortuitous. Obviously the Cathar Church had preserved, only slightly amended to suit its doctrines of the time, the services extant in the Christian Church during the first four centuries of its life.[30]

What is now clear is that the services used by the Early Church were, in origin, *almost exclusively the services of early Christian Gnosticism*.[31] They were deleted and replaced as the literalist Christian faction in Rome consolidated its power during the fourth and fifth centuries. But it was natural that the banned rituals would continue to be practised and preserved by surviving Gnostic sects. Some of these have been named in the provisional chain of transmission we sketched out in Chapter 4. But it's likely that many more lived on in secret either in remote communities or by 'veiling' themselves inside the organizations of their religious competitors.

Although all this sounds very cloak-and-dagger, it is accepted by historians that many Gnostic and dualist sects were extremely secretive in their behaviour. Understandably, they became adept at concealing themselves from authorities who would burn them. We have cited examples in previous chapters of 'nests of heretics' – Bogomils and Cathars – being exposed within both Eastern Orthodox and Roman Catholic monasteries during the tenth to fourteenth centuries. It is significant, and even suggestive of a 'standard operating procedure', that veiling of exactly the same sort was also used by the heretics of the fourth and fifth centuries, when Gnosticism was being persecuted. Indeed, it is most likely that the unknown group of Gnostics who concealed the Nag Hammadi Library were themselves Christian monks. At that time two monasteries of the supposedly orthodox Pachomian order stood within six miles of the

spot where the codices were buried.[32]

The initiation ritual of the *consolamentum* served at least two major functions in the religion of the Cathars and Bogomils.

Firstly, through a chain of direct contact, which they claimed stretched unbroken all the way back to the Apostles, the laying-on of hands transferred the power of the Holy Spirit. As the jolt of sacred energy washed over him, they believed that the candidate's eyes were opened – in an instant – to the full predicament of his soul, separated from its true heavenly home, imprisoned in the realm of an Evil God. What that flash of enlightenment really gave him, in his belief, was the complete knowledge and spiritual power needed to break the bonds of matter and return his soul to heaven.

Professor Roelof van den Broeck of the University of Utrecht has made an argument that the *consolamentum* was not a truly 'Gnostic' initiation because no 'special kind of Gnosis' was transferred by the ritual.[33] The Professor is an authority in his field, whose work we highly respect. But this statement requires an overly restrictive definition of the kind of 'knowledge' that *gnosis* was, and gives no thought as to how it was supposedly acquired. As we've already noted, the Gnostic initiation rituals of the first to the fourth centuries, just like the initiations of the Bogomils and Cathars 1000 years later, were simple ceremonies involving the laying-on of hands. It is absolutely obvious that what descended on the candidate in all three cases was *not* a specific body of learning to be mastered intellectually either through an oral tradition or from books. It was, instead, *revealed* knowledge, *inspired* knowledge, which passed in an instant like a charge of electricity and which he or she had to experience directly and personally. In essence it was not even complicated or difficult knowledge. As Bernard Hamilton maintains, the early Christian Gnostics saw it simply as 'knowledge of the truth about the human condition.'[34] As such, you either got it, or you didn't.

Besides, despite his reservations about full Gnostic status for the *consolamentum*, van den Broeck himself goes on to affirm:

Because of their dualism, be it moderate or absolute, the Cathars can be called Gnostics. If the idea that the material world is made by an evil creator and that the soul is locked up in the prison of the body cannot be called Gnostic, then there are no Gnostic ideas at all. In this sense Catharism is a medieval form of Gnosticism.[35]

The second function of the *consolamentum* for the Cathars and the Bogomils was to elevate the candidate from the rank of Believer to the rank of Perfect. In this, too, they were following a pattern that had been set down by Christian Gnostics in the first four centuries AD. We've already seen that the Manicheans, in exactly the same way as the Cathars and Bogomils, divided themselves into two great classes of Perfect and Hearers. So, too, did an earlier Gnostic Church established by Valentinus in the second century AD. He divided his 'good Christians' into two classes – the 'Pneumatics' ('Spirituals', 'full of divinity'[36]) and the 'Psychics' (those with the potential, through effort, to become Spirituals).[37] Marcion, another charismatic heretic of the second century BC, used the same system in the influential and successful Gnostic Church established in his name.[38] As was the case with the Cathar and Bogomil *perfecti*, severe austerities, fasts, vegetarianism and chastity were the domain of the Pneumatics only. As was the case with the Cathar and Bogomil Believers, the Psychics were free of such obligations but had a duty to care for, worship and protect the Pneumatics.[39]

Gnostics, Bogomils and Cathars: Much in Common (3)

Another matter which changed not at all between the fourth century and the thirteenth was the peculiarly consistent and cruel manner in which people who held to the Gnostic and dualist perspective were punished by the Church. When you consider what is involved for the victim of a burning at the stake it is obvious that no rational person would choose such a death lightly. So the very fact that so many initiated Gnostics actually chose to die in this awful manner – rather

than abjure their beliefs – and that so many Cathar *perfecti* did the same a millennium later, tells us, at the very least, how deeply all these men and women must have been convinced that they were right. Whether they were deluding themselves or not is another matter – and one that is impossible to settle with certainty in this life. But we cannot doubt that *they* were absolutely certain about what would happen to their souls after they had passed through the ordeal of the flames.

As well as having much in common with each other, Gnosticism and the later religion of the Bogomils and Cathars also share one striking characteristic with established Christianity. They are all 'Salvationist' faiths – i.e., they all provide a *system*, and they promise that if it is followed it will 'save' the souls of its adherents. Yet even here, when we look closer, we discover that the Cathars, Bogomils and Gnostics stand together on one side of a line while the guardians of established Christianity stand on the other. This is because the doctrine of Catholicism and of the Eastern Orthodox Church might best be summed up as 'salvation through faith alone' – blind faith being all that is required. Whereas what the heretics were all offering was salvation through knowledge – revealed knowledge, inspired knowledge, *saving* knowledge – that was experienced directly by the initiate.

Whether a delusion or not, it was on account of this personal *knowledge* of what awaited them after death – and nothing else – that the Gnostic and Cathar heretics endured the flames with such calm certainty.

Pontifex Maximus

The Roman Catholic Church did not invent burning at the stake as a punishment for heresy but took over the idea intact from long centuries of Roman tradition. Since the reign of Caesar Augustus (23 AD–AD 14) all the emperors, in addition to their other responsibilities, had held the office of *Pontifex Maximus* – the title of the ancient high

priest of the state religion of Rome.[40] The religion could (and did) change from emperor to emperor, but the emperor of the day always remained its *Pontifex Maximus*. In order to maintain the mandate of heaven he was required to protect the state religion and punish any attempts to undermine it. This did not concern most creeds, which went about their business peacefully and were tolerated. But it did affect militant evangelistic religious movements like the Christians and the Manicheans, which offered a perceptible threat to the dominance of the state cult, and thus to the state itself. Very frequently the offenders were charged with heresy and burned at the stake.

In 186 BC a mystery cult dedicated to the god Dionysus was banned in Rome and thousands of its initiates executed.[41] On another occasion 'philosophers' were burned for threatening the proper conduct of religion. Witnesses said they went to the stake 'laughing at the sudden collapse of human destinies' and died 'unmoving in the flames'.[42] A thousand years later when the persecutions began in the Languedoc, Cathar *perfecti* were repeatedly seen to do the same.

The Roman historian Tacitus records a terrible massacre of Christians during the reign of the Emperor Nero (AD 54–68). However, this seems to have had less to do with protecting the state cult than with popular hatred of the Christians at that time. Already despised for 'their abominations', they were wrongly blamed for starting the great fire that devastated Rome in AD 64:

> An arrest was first made of all who confessed; then, upon hearing their confessions, an immense multitude was convicted, not so much of arson but of hatred of the human race. Mockery of every sort was added to their deaths. Covered with the skins of beasts they were torn apart by dogs, nailed to crosses, or doomed to the flames. Those who were burned were used to illumine the night-time skies when daylight ended.[43]

It was to be almost 200 years before there were systematic persecutions of Christians by the Roman Emperor in his role as *Pontifex Maximus*. Decius was the first of these when he punished

Christians who failed to offer animal sacrifices to the pagan gods in AD 250. There were further martyrdoms under Valerian in 257–9,[44] and in 303–5 Diocletian launched separate pogroms against Christians and Manicheans.[45] Diocletian's *Rescript on the Manichees* ordered the leaders of that sect burned at the stake together with their most persistent followers. He accused them of committing many crimes, disturbing quiet populations and even working 'the greatest harm to whole cities'. Making clear why to be a Manichean was to be a heretic, he wrote:

> It is indeed highly criminal to discuss doctrines once and for all settled and defined by our forefathers, and which have their recognized place and course in our system. Wherefore we are resolutely determined to punish the stubborn depravity of these worthless people.[46]

In other words, Diocletian was burning those poor Manichean *perfecti* because they disagreed with established religious doctrines and dogmas. The tone of his *Rescript* is eerily similar to papal pronouncements of the thirteenth century calling down the Albigensian Crusades upon the Cathars of the Languedoc.

As to the Roman persecution of the Christians, authors Timothy Freke and Peter Gandy have made the valid point that 'in its whole history… Christianity was officially persecuted for a total of five years'.[47] This is not the impression given to children brought up in the Western Christian tradition, who are led to imagine centuries of sustained persecution. The truth is that there were a few isolated incidents between AD 50 and 250 followed by a few years of – admittedly awful – torture, again frequently involving burning at the stake, but also scorching in red-hot iron chairs, scourging, 'the frying pan' (!) and consumption by wild beasts.[48]

Such torments ended for the Christians when their champion Constantine the Great defeated his rivals at the battle of the Milvian Bridge in 312 and became the senior ruler of Rome's cruel and violent Empire.[49] He immediately extended state tolerance to Christianity.

This, however, did not mean that the powers of the *Pontifex Maximus*, which he continued to hold in his hands as emperor, were done away with. It simply meant that in future – with the notable exception of the reign of Emperor Julian the Apostate (332–63) – these powers would no longer be used against Christians. It was not until 380 under Emperor Theodosius[50] that Roman Catholic Christianity was adopted as the state religion (while other forms of Christianity were denounced as 'demented and insane').[51] So this technically was the moment when Catholicism formally acquired the right to be protected by the emperor in his capacity as *Pontifex Maximus*. But it had long previously been given *carte blanche* by Constantine himself to persecute its internal enemies – the heretics.

The First Step on the Road to the Stake

Even by Roman standards Constantine the Great was not a nice man. He had his eldest son Crispus executed (while the latter was en route to attend celebrations with him) and his wife Fausta locked in an overheated steam room and poached to death![52] He did not in fact become a baptized Christian until hours before his death, thus allowing himself considerable latitude for cruelty, excess and wickedness along the way. Indeed, it is reported that one of the principal reasons for his adoption of Christianity (other than his 'miraculous' success at Milvian Bridge, which is another story) had been that it alone amongst the religions of Rome had promised him expiation of his many sins. Apparently the priests of the pagan temples, horrified even to be asked for expiation by such a brute, had refused him.[53]

So it seems that Constantine, who had good reason to worry about the afterlife destiny of his soul, owed a very large debt to the Christian bishops. By granting them state tolerance in 312–13 he repaid part of it. But he was a politician with an eye to his constituencies. Despite much urging he therefore refused to abolish or interfere in any way with the freedom of religion of the many other

popular and powerfully supported faiths in the Empire. Defending the very same policy of tolerance from which Christianity had just benefited, he reminded the Bishops: 'It is one thing to undertake the contest for immortality voluntarily, another to compel it with punishment.'[54]

This was a matter on which Constantine remained consistent throughout his life – with one exception. That exception was announced in an edict (*circa* 324–6). In it he attacked the 'venomous errors' of Christian heretics, confiscated their properties and initiated other persecutions. The wording of the edict has been preserved for us by Constantine's fawning biographer, the eminent Church Father Eusebius. It is worth quoting it at some length:

Be it known to you by this present decree, you Novatians,[55] Valentinians, Marcionites [the latter two well-known Gnostic sects], Paulians and those called Cataphrygians, all in short who constitute the heresies by your private assemblies, how many are the falsehoods in which your idle folly is entangled, and how venomous the poisons with which your teaching is involved, so that the healthy are brought to sickness and the living to everlasting death through you. You opponents of truth, enemies of life and counsellors of ruin! Everything about you is contrary to truth, in harmony with ugly deeds of evil; it serves grotesque charades in which you argue falsehoods, distress the unoffending, deny light to believers… The crimes done by you are so great and immense, so hateful and full of harshness, that not even a whole day would suffice to put them into words; and in any case it is proper to shut the ears and avert the eyes, so as not to impair the pure and untarnished commitment of our own faith by recounting the details. Why then should we endure such evils any longer? Protracted neglect allows healthy people to be infected as with an epidemic disease. Why do we not immediately use severe public measures to dig up such a great evil, as you might say, by the roots? Accordingly, since it is no longer possible to tolerate the pernicious effect of your destructiveness, by this decree we publicly command that none of you henceforward shall dare to assemble. Therefore we have also given order that all your buildings in which you conduct these meetings… not only in public but also in houses of individuals or any private places… are to be confiscated… and handed over incontestably and without delay to the Catholic Church… and thereafter no opportunity be left for you to meet so that from this day forward your unlawful groups may not dare to assemble in any place either public or

private.[56]

It was the first step on the slippery slope of persecution. Within less than a century, in league with emperors like Theodosius, the Catholic Church had begun to burn heretics at the stake…

When Coercion was Learned

H. A. Drake, Professor of History at the University of California, thinks that Constantine's out-of-character initiative against the heretics in 324–6 was almost certainly the result of pressure from the bishops[57] – i.e., that the emperor was paying off another instalment of his spiritual debt to them. Besides, looking at his options at the time, it would have seemed like the obvious move to make:

> With heresy, both imperial and episcopal agendas came together. Punishment of improper worship was the one action that Constantine would have been prepared by centuries of imperial procedure to take, and the one that, in his eyes, a new and important constituency had the most right to demand. It had the additional advantage of demonstrating his toughness to militant Christians at very little cost.[58]

Drake has investigated Christianity's rise to power in Rome and its changing relationships with the state between Constantine's initial acceptance of the faith in 312, its elevation as the official religion of the Empire in 380, and the banning of all other faiths in 392.[59] This was a period of immense importance for the future of Christianity in which – for good or ill – it set the course that it has followed ever since. It was also the period, as Drake observes, in which 'militant Christians first came to dominate and then to define the Christian movement'.[60] Noting that in the decades after Constantine the Church 'became more militant and more coercive as it became more powerful', he asks: 'What happened to the Christian movement, why was it that the militant wing prevailed?'[61]

During the first three centuries AD we know already that the 'Christian movement' consisted of a diverse mass of sects, all of which

defined themselves as followers of Christ despite their wildly varying doctrines and contradictory beliefs.

At one end of the scale there were those like the Gnostics who rejected the Old Testament, interpreted the New Testament allegorically within a dualist framework, did not believe that Christ had been born in the flesh (or crucified), allowed the greatest possible latitude for individual revelation and inspiration, and had no wish to impose dogma on others. Although they claimed to be the original Christians, guarding the true apostolic succession, they were interested not in coercion but in a process of personal inquiry and experience that would lead their initiates to a saving *knowledge* of the truth. They did not believe that there was just one exclusive path to this *gnosis*. As such, blind obedience to any form of dogma, together with intolerance for the beliefs of others, were rejected by all the Gnostic systems.

At the other end of the scale were Drake's 'militant Christians', the Catholics and their bishops who established their primary power centre in Rome in the early fourth century AD after they had won Constantine's favour. They too claimed to be the original Christians, guarding the true apostolic succession, and it was on the exclusive basis of their doctrines and beliefs that what we now think of as 'the Christian Church' took shape during the decades that followed. They accepted the Old Testament, interpreted the New Testament with adamant literalism, believed in Christ's incarnation, crucifixion and bodily resurrection (and that all humans would experience bodily resurrection too), rejected dualism, allowed no latitude whatsoever for individual revelation and inspiration, and felt it was their duty to impose their beliefs on others. Their interest was in obtaining the complete and unquestioning *faith* of their congregations in the infallibility of the doctrines that they taught. As such, dogma, the enforcement of blind obedience and violent intolerance for the beliefs of others, were, from the beginning, their stock in trade.

Why did the militant wing prevail? The answer that Drake gives to his own question is in a sense a tautology. The militant wing of the once broad Church of Christianity prevailed *because it was militant* and

because it was the first to acquire access to the coercive apparatus of the state. As a simple and universal function of human organization, Drake suggests 'there are persons in every mass movement who are willing to coexist with variant beliefs and others who see such non-believers as outsiders and as a threat that must be neutralized'.[62]

If coercive powers are made available to people who cannot tolerate variant beliefs, as they were in Rome in the fourth century, then it is inevitable that they will soon be used to enforce uniformity by destroying or marginalizing other religions. But because of Constantine's calculated squeamishness about persecuting pagans, the dogmatic tendencies of the Catholic bishops during their first few decades in imperial favour were channelled exclusively into the fight against heresy. This was a fight that the Church was subsequently to pursue with single-minded ferocity during the thirteenth and fourteenth centuries, when it destroyed the Cathars, and until as late as the seventeenth century, when heretics throughout Europe were still routinely burned at the stake. Indeed, it may well be that it was only through this early process of discriminating against, stigmatizing, punishing, terrorizing, and physically eliminating internal rivals that the members of the militant faction of Christianity were able to elucidate their own beliefs fully in the first place. 'The existence of heresy cannot be considered apart from the existence of the Church itself,' argues Zoé Oldenbourg. 'The two run *pari passu*. Dogma is always accompanied by heresy; from the very first, the history of the Christian Church was a long catalogue of battles against various heresies.'[63]

Thus what had started out as Constantine's 'low-cost' strategy to appease militant Christians, to whom he felt indebted, and to impose uniformity on the more heterodox Christian sects (something that would have appealed to the dictatorial instincts of any red-blooded Roman emperor) was to have unforeseen consequences that rebounded down the ages. Before Constantine there had been an eclectic field of Christians in which no sect held power over any other – because all were persecuted. After Constantine the field was rapidly

transformed and polarized. On one side, clustered around a literal interpretation of the Scriptures, were the bishops of the Catholic Church – the militants whom the emperor wanted to appease. On the other side was everyone else and every other shade of opinion. The net effect, after 324–6, was that all anyone needed to do to become a 'heretic', and to risk losing freedom of assembly, home, property and life, was to disagree publicly with the infallible pronouncements of the bishops – most particularly the supreme bishop of the Church of Rome. It is not an accident that by the 380s the emperors had renounced their age-old responsibility of *Pontifex Maximus* – high priest of the Roman state religion – leaving it for the popes to pick up.[64]

To this day it remains their official title.[65]

Longing for Power Long Before Constantine

We are not suggesting that militant literalism within the Christian Church was *created* by Constantine's willingness to punish heretics. On the contrary, a strong literalist tendency had been present in Christianity long before the fourth century – perhaps as long as any of the Gnostic sects – and simply took advantage of this willingness. The really radical transformation of Constantine's reign was that for the first time it gave literalists the power to impose their views on others.

It's obvious with hindsight that they'd been longing for this for centuries. It's obvious, too, how they consistently made use of rabble-rousing emotional arguments and hateful accusations during their years in waiting simply to stir up trouble for their opponents – sophisticated techniques that modern disinformation specialists would call black propaganda. Everything about their demeanour and rhetoric indicates that these people believed they would one day gain the power of enforcement over others – as they eventually did under Constantine – and that once they had it they would not hesitate to use it.

Consider, for example, the words of Irenaeus, one of the Catholic

Church's great scourges of Christian Gnostics during the second century:

> Let those who blaspheme the Creator… as [do] the Valentinians and all the falsely so-called 'Gnostics', be recognized as agents of Satan by all who worship God. Through their agency Satan even now… has been seen to speak against God, that God who has prepared eternal fire for every kind of apostasy.[66]

From the first to the fourth centuries there are repeated examples of this sort of rhetoric, often wound up to an even higher pitch and including accusations of cannibalism, sexual promiscuity, infant sacrifice and so on. Another telling detail is that even before Gnosticism was banned, techniques were in use to 'flush out' and identify its initiates for possible future persecution. Because the Gnostic *perfecti* were generally vegetarian, one well-tried method of identifying their presence amongst the orthodox clergy and monks of Egypt was to make meat-eating compulsory for all once a week.[67]

It is the victors who write history, not the losers; so we don't know whether such witch-hunts and hate campaigns had begun to spark off physical violence against the Gnostics as early as the second century. But the Gnostics' side of the story may have survived in one of the Nag Hammadi texts, the *Second Treatise of the Great Seth*, which says in part:

> After we went forth from our home, and came down to this world, and came into being in the world in bodies, we were hated and persecuted, not only by those who are ignorant [pagans], but also by those who think they are advancing the name of Christ, since they were unknowingly empty, not knowing who they are, like dumb animals.[68]

Massacre of the Innocents

Constantine's edict of 324–6, cited at length earlier, handed the militant Christians the one thing they'd obviously wanted all along – the power of the state to persecute their old opponents the Gnostics.

It is notable that the edict is expressed in the peculiarly violent rhetoric favoured by the militants. As Drake points out, it was a very deliberate choice of words when the emperor characterized the beliefs of Gnostics as 'venomous' – a term comparing those who held them to snakes. Similarly,

> he likens heresy to a disease, something capable of infecting healthy souls. Such images are important as labels that serve both to identify and stigmatize a group, making it easier to single out its members and deny them humane treatment… This step, however limited in scope and duration, opened the door for the more massive coercion campaigns that would occur at the end of the century.[69]

During the last decade of Constantine's rule the evidence shows, as expected, that militants began to use the new powers he had given them;[70] but they did so quite tentatively at first – as though feeling out the opposition. Under the reigns of his sons they became significantly more persecuting.[71] During the fifteen years that Emperor Theodosius was on the throne (379–95) he outdid all his predecessors by passing more than 100 new laws aimed at the Gnostics – laws that deprived them of their property, their liberty and frequently their lives, confiscated their places of assembly and commanded the destruction of their books.[72] It is unlikely to be a coincidence that this was the precise period in which the codices of the Nag Hammadi Library were hidden away in Upper Egypt to escape detection and destruction. And though records are incomplete, we know that there was also state sponsorship of anti-heretical terrorism during the same period in Lower Egypt.

Maternus Cynegius, Theodosius' governor in Alexandria from 384 to 388, was renowned for his relentless harassment and persecution of heretics and pagans.[73] In that great cosmopolitan city, one of the first strongholds of Gnosticism, a local syncretistic and universalizing cult dedicated to the composite deity Serapis (a fusion of two ancient Egyptian gods, Osiris and Apis) had long enjoyed the patronage of people from many different social and religious backgrounds.

Scholars believe that Christian Gnostics may have participated in the Mysteries of Osiris in his Serapis incarnation 'while professing to place upon what they saw there a Christian interpretation'.[74] It is also notable that several of the Alexandrine Gnostic sects made direct use of figures of Serapis – generally depicted as robed and bearded in the Greek rather than Egyptian style – as a symbol of the God of Goodness.[75] Such flexibility and open-mindedness in the search for spiritual truths had been characteristic of Alexandria since its foundation some seven centuries previously. But precisely because of this venerable tradition of tolerance and fusion many of its citizens were shocked, and then outraged, when Cynegius began to put the military forces he commanded as governor – supposedly for the protection of all sections of the community – at the disposal of the Catholic campaign to abolish other religions.[76]

In 391, three years after Cynegius' death, state-sponsored persecution was still on the increase. In parallel Theophilus, the Catholic Archbishop of Alexandria, had been rousing the Christian masses against Gnostics and pagans. Riots were engineered and many members of the oppressed sects fled to the shelter of the Serapeum. This was the great temple dedicated to Serapis that had been built by Ptolemy I Soter (323–284 BC), the former general of Alexander the Great who established the dynasty that ruled Egypt until the time of Cleopatra (51–30 BC). The refugees felt sure that they would be safe there, on ground for so long deemed sacred. But they were wrong. Again at the instigation of Theophilus a huge Christian mob, including large numbers of monks, besieged and then attacked the Serapeum.[77] The temple's irreplaceable library of ancient books and scrolls, arranged in the cloisters around the central building,[78] was ransacked and burned. Then with imperial troops openly supporting the Christian assault, the defenders were massacred and the temple itself was razed to the ground.[79]

Reviewing the affair some time later, the emperor held the victims responsible for their own destruction and did not punish the

attackers.[80] Nor was the loss of the temple library to be lamented. Theodosius' well-known view was that all books contradicting the Christian message should be burned 'lest they cause God anger and scandalize the pious'.[81]

The First Inquisition and the Ancient Enemy

In the early fifth century, though their numbers had drastically declined after the persecutions of Theophilus, Church and state still kept the pressure on the remaining Gnostics in Egypt. We know, for example, that Cyril, who succeeded Theophilus as Archbishop of Alexandria, enforced the persecution of a group that believed the material world to be the creation of the demiurge[82] – a classic Gnostic view – and that refused to accept Cyril as their 'illuminator' (a classic Gnostic concept).[83] His emissary Abbot Shenoute seized their 'books full of abomination' and 'of every kind of magic' and warned: 'I shall make you acknowledge Archbishop Cyril, or else the sword will wipe out most of you, and moreover those of you who are spared will go into exile.'[84]

Cyril was a man to take seriously. In 415 he provoked the gruesome murder of an extraordinary woman of Alexandria, Hypatia, a pagan philosopher said to have been of 'the school of Plato and Plotinus'.[85] She was famous and much loved in the city for her 'attainments in literature and science, as to far surpass all the philosophers of her own time'.[86] Some reports suggest that it was out of jealousy at her obvious popularity that the archbishop had her killed. Whatever the reason she was dragged from her house on Cyril's orders by a Christian mob, carried into a church and hacked limb from limb with broken tiles (*ostrakois*, literally 'oyster shells', but the word was also used for brick tiles on the roofs of houses).[87] Finally, reports one pro-Christian commentator of the time, 'they carried her to a place named Cinaron, and they burned her body with fire. And all the people surrounded Archbishop Cyril and named him

“the new Theophilus”, for he had destroyed the last remains of idolatry in the city.’[88]

With such an atmosphere of Christian fanaticism prevalent throughout the Roman world it is not surprising that the numerous Christian Gnostic sects of the second and third centuries had soon all but disappeared. In 447 Pope Leo the Great still felt it necessary to condemn Gnostic writings as ‘a hotbed of manifold perversity’ which ‘should not only be forbidden, but entirely destroyed and burnt with fire’.[89] But by the end of the fifth century it seemed that organized Gnosticism was a thing of the past.

Some of those prepared to risk their lives for their Gnostic beliefs certainly joined the ragged group of charismatic preachers known as the Messalians. Established at Edessa in the mid-fourth century, they were still going strong in the sixth. We saw in the last chapter how they might have formed part of the chain of transmission that would ultimately bring Gnostic texts and teachings to the Bogomils and thence to the Cathars of medieval Europe. But it was Manicheism, also a Gnostic religion with strong Christian elements, that would have provided the most obvious haven for survivors of the disbanded sects.[90] Perhaps because of this, and because Manicheism was an evangelistic faith that still posed a real threat to the Church, it became the primary target of persecution during the fifth century. So violent and thorough was this persecution that by the end of the sixth century, though it was to survive for another 1000 years in the Far East, Manicheism was a dead force in the Roman world.[91]

The final measures were the work of Justinian (527–65), who ruled the Eastern Roman Empire from Constantinople. Mass burnings of Manicheans soon followed when he equated heresy with treason and subjected both offences automatically to the death penalty.[92] The Manicheans had begun to act like a secret society, disguising their identity and pretending to be good Christians.[93] Justinian’s response was not only to burn them at the stake but to burn any of their acquaintances, Manichean or not, who had failed to denounce

them.[94] Significantly, in our view, he also created an official investigative agency, the *Quaestiones*, which was specifically tasked to root out and destroy the Manichean heresy.[95]

Seven centuries later, did Pope Innocent III have Justinian's initiative in mind when he created a very similar instrument of terror and oppression called the Inquisition?[96] It was to become greatly feared and would ultimately take on a global role as Catholicism advanced into the New World and Asia. It's easy to forget that when Innocent established it in 1233 he did so with the specific purpose of rooting out and destroying the Cathar heresy – which we know he believed to be a resurgence of the more ancient heresy of Manicheism.

So by unleashing the Inquisition in the thirteenth century, it is almost as though Innocent was trying to pick up where his predecessor had left off in the sixth century. This would have been perfectly in character, because together with many other European churchmen of the period he appears to have had a genuine sense of continuity about what the Bogomils and Cathars represented and how they were to be handled. The heretics, too, felt themselves to be part of a continuum and dealt with the Church like an old enemy whom they already knew very well.

What was odd was that so few of the participants on either side seemed surprised, after such a long silence, that a fully fledged Gnostic 'anti-Church' was now straddling Europe like a colossus, confronting both Rome and Constantinople, and threatening to turn the tables of the world.

Chapter 6

The Rivals

> 'A monstrous breed… You must eliminate such filth.' (Pope Innocent III (1198–1216), speaking of the Cathars)[1]

The Second Treatise of the Great Seth, one of the Nag Hammadi texts, speaks of the Gnostics' experience of persecution at the hands of people who believed themselves to be Christians. The setting could be any time in the first four centuries AD before the texts were concealed. The *Treatise* then goes on to make a further allegation – one that the Cathars and Bogomils were to repeat 1000 years later. This is that the established Church is an impostor – an 'imitation' of the true Church that it has displaced.[2]

So we're now better able to understand the references in the *Treatise*, cited in the previous chapter, to 'empty people' who 'think that they are advancing the name of Christ' when they persecute others. The writer is either speaking of the Catholic Church itself, or of the militant, literalist faction always in favour of persecuting its opponents that would ultimately dominate the Church during the reign of Constantine – and that would impose its agenda on the future. Set against it, and persecuted by it, are the Gnostic adepts, 'Sons of Light', founders of the true Church, described as 'an ineffable union of undefiled truth'.[3] The impostor Church has 'made an imitation' of their 'perfect assembly' and 'having proclaimed a doctrine of a dead man'[4] (the crucified Catholic Christ), it has tricked

its followers into lifetimes of:

> fear and slavery, worldly cares, and abandoned worship… For they did not know the Knowledge of the Greatness, that is from above, and from a fountain of truth, and that it is not from slavery and jealousy, fear and love of worldly matter.[5]

It should be obvious to the reader by now that this simple statement of Gnostic dualism, which lay at Nag Hammadi for 1600 years after being buried there in the late fourth century, could equally well have been written by a Cathar or Bogomil *perfectus* of the twelfth or thirteenth centuries. There is the same horror of worldly matter and the same sense that it entraps and enslaves the soul. There is the same belief that while ignorance can extend the soul's imprisonment, knowledge can set it free. And there is the same concept of what this knowledge is – i.e., that it concerns the existence of a spiritual realm of Greatness, 'above', which is the domain of the God of Good, the source of truth, and the long-lost home of the soul.

The reader will recall that according to Cathar and Bogomil doctrine, Christ was not a physical human being 'in the flesh' but an immensely convincing apparition.[6] *The Second Treatise of the Great Seth* clearly has the same thing in mind when it puts these words into Christ's mouth after the crucifixion: 'I did not succumb to them as they had planned… I was not afflicted at all. Those who were there punished me, and I did not die in reality but in appearance…'[7]

Many other religious ideas that we have come to associate with the Cathars and Bogomils also appear a millennium earlier in *The Second Treatise of the Great Seth* – for example, that the God of this world is evil and ignorant and can be identified with the God of the Old Testament, and that his minions, the Catholic bishops, are 'mere counterfeits and laughingstocks'.[8] The passages we've quoted here are just fragments of the *Treatise* – itself only a small part of the overall collection of fifty-two Gnostic texts preserved in the Nag Hammadi Library. Virtually any of them could serve, without alteration, as a manifesto of Cathar and Bogomil beliefs. It therefore seems to us

inconceivable, as many scholars continue to argue, that there is no link between the religion of the early Christian Gnostics and the later religion of the Cathars and the Bogomils.

There is in our view more than a link. Despite some superficial differences – and their significant separation in time – these two religions have so much in common at the level of their vital concepts, cosmology, doctrine and beliefs that they're almost impossible to tell apart. When we consider that essential elements of ritual, symbolism, initiation, structure and organization were also the same, and that both the Gnostics and the medieval dualists were persecuted with the same spirit of savage repression by the same opponent and for the same reasons, it is increasingly difficult to resist the conclusion that they must, indeed, have been one and the same thing.

Seizing Control of the Tradition

Because the Catholic Church won the power-struggle against the Gnostics it gained victor's privileges over the way history would be told. It's not surprising, therefore, while all other beliefs and doctrines are regarded as aberrations, that Catholic beliefs and doctrines tend to be treated as orthodox (literally 'straight-teaching') and also as 'authentic', 'of true apostolic descent', etc., in most historical accounts.[9] However, a dispassionate look at what is now known about the broad and eclectic character of Christian beliefs in the first three centuries AD does not support the Catholic claim to primacy. There is no doubt that the evidence shows us the nucleus of the faction that became the Catholic Church forming around dogmatic militants like Irenaeus and Tertullian. But after the discovery of the Nag Hammadi texts, and the gradual revelation of their contents that has followed, it has been impossible to ignore the presence, and equal weight, of the Gnostic Churches in the same period. Since Catholics and Gnostics alike claimed that the teachings in their possession were the earliest and the most 'authentic', why has the Catholic version for so long been accepted as gospel (literally!), and left unchallenged, while the

Gnostic version was hunted down and persecuted out of existence? Isn't it equally possible, as the Nag Hammadi texts themselves invite us to believe, that the tradition of the Gnostics was all along the 'authentic' one?

Scholars have known for many years, for example, that the Valentinian Gnostics of the second century AD accepted not only the four gospels of the New Testament that have come down to us today (Matthew, Mark, Luke and John), 'but many additional documents professing to contain traditions of the secret teachings of Jesus'.[10] Writing in 1967, Henry Chadwick, the great historian of Christianity, was happy to accept that such 'secret teachings' did in fact once exist and suggested that they would have been similar to 'the *Gospel of Thomas* [one of the Nag Hammadi texts] recently recovered from the sands of Egypt'.[11] But he was not interested in questions concerning the *authenticity* of these Gnostic traditions. He simply took it for granted that whatever 'secret teachings' the Gnostics possessed must self-evidently have been false. Chadwick even seemed happy to gloss over the pseudoscientific claptrap of heresy-hater Irenaeus who, he observed approvingly, 'ingeniously vindicated the fourfold gospel on numerological principles. Four, he urged, was a sacred number corresponding to the four winds, or the four faces of the cherubim in Ezekiel…'[12]

Chadwick accepts that even as late as the last two decades of the second century a substantial oral tradition was still in circulation, purporting to transmit the true words of Christ. This tradition, he notes, was 'regarded as an authority which had not yet been wholly merged with the written gospels'.[13] In other words, the canonical New Testament was still incomplete by the end of the second century,[14] and the eventual course of Christian doctrine was not yet set in stone.

Chadwick suggests that *circa* AD 185–90, with many different ideas (both written and oral) in circulation, Irenaeus, together with others from the proto-Catholic group, saw the advantage 'which a written

document possessed and which oral transmission did not'.[15] Although the Gnostic leader Marcion had prepared his own canon some time before – much to the consternation of the Catholics – few of the other proliferating Gnostic sects of the period accepted it and the possibility that they would ever be able to agree amongst themselves for sufficiently long to put a representative Gnostic canon together seemed remote.

Amongst the proto-Catholic group there was no such hesitation. Knowing that those who controlled the written document would effectively have 'the control of authentic tradition',[16] they launched their own initiative to compile and create a canonical New Testament. Since this group was dominated by men like Irenaeus, who regarded their own views as infallible and were intolerant of the views of others, they were naturally inclined to label whichever texts or traditions supported their views as belonging to the authentic apostolic line and to cast into the outer darkness as inauthentic any that contradicted them.

What justified this, notes Chadwick, was that 'the teaching given by the contemporary Bishop of, say, Rome or Antioch' was held by the Catholics to be 'in all respects identical with that of the apostles'.[17] As Irenaeus himself put it in the second century with reference to the so-called 'Rule of Faith' (a short summary of the main points of Catholic belief that he and other heresy-hunters favoured), 'This rule is what the bishops teach now and therefore comes down from the apostles.'[18] Thus, irrespective of its actual origins and authenticity, *any* teaching given by the Catholic bishops was automatically deemed authentic and to have come down from the Apostles. Vice versa, any teaching of which they did not approve was automatically deemed inauthentic and not descended through the proper apostolic line – in other words, heretical.

In an era when oral traditions were still dominant, and the bestowal of canonical status upon texts was in the hands of a militant faction, such circular arguments could only have one outcome. There is little doubt that the proto-Catholics deliberately manipulated the

gradual formation of the New Testament so that it could serve them in their early battles against the Gnostics and reinforce their own claims to authenticity and exclusivity as the sole mediators of Christ's message.

No Eyewitnesses We Can Trust

Can we be sure of anything that the New Testament has to tell us?

No matter how dense the smokescreen surrounding the vexed issues of authenticity, few would dispute that somewhere in the century between 50 BC and AD 50 mysterious and powerful events occurred in Palestine that set in motion the Christian phenomenon. But it is not at all certain what sparked the phenomenon off. Was Christ really the Son of God, born as a flesh-and-blood human being and murdered on the cross – thus somehow redeeming our sins? That's the Catholic position. Was he a projection or emanation from the divine – an 'appearance' only, not really flesh and blood? That's the Gnostic and Cathar position. Or could he simply have been an urban legend blown out of all proportion, or perhaps even an artificially constructed myth designed to serve the purposes of a particular religious cult?

The first two possibilities, Catholic and Gnostic/Cathar, are both based on unprovable articles of faith and therefore are equally likely – or unlikely – to be true. Though its defenders claim otherwise, there is no superior logic whatsoever in the Catholic position. It is, after all, no more logical or inherently more probable to insist that Christ was the Son of God in human flesh born of a virgin than to insist that he took form only as a very convincing apparition.

The third possibility – that the whole story was made up – has much to recommend it. The prime issue is the remarkable absence of solid and convincing historical evidence to confirm that the figure known to the world as Jesus Christ ever actually existed. He might have; it can't be ruled out. But it's equally possible that there never was any such being – whether man or apparition. His obvious

resemblance to several other much older 'dying and resurrecting god-men' – notably Osiris in Egypt and Dionysios in Greece – has not gone unnoticed by scholars, and the possibility must be confronted that 'Jesus Christ' was a myth, not a man. Since no part of the canonical gospels is thought to date earlier than about AD 60, and some parts may be as late as 110, it is within the bounds of reason that everything we know about Christ's person, words and deeds was simply invented some time during the first century AD and then passed into the oral tradition in the form of 'eyewitness accounts' of events that had supposedly taken place a couple of generations previously. Extensive editing in the late second century began to standardize the oral traditions into the beginnings of the canonical New Testament. By then, needless to say, there was no one left alive who could claim to have witnessed, or to have known anyone who had witnessed, or even to have known anyone who had known anyone who had witnessed, the events surrounding Christ's life and death.

Somehow This Secret Religion Went On

In the early years, along with many smaller factions, we've seen that two main competing forms of Christianity evolved, approximately in parallel, and that there is no clear evidence of which came first. Both claimed primacy and sought to reinforce their position with their own selections from the whole stock of oral and written traditions available in that period. The literalist form, which was to become Catholicism, gained the upper hand – and the ear of Constantine. Gnosticism, the interpretive and revelatory form of Christianity, lost out, was declared a heresy and persecuted.

We make no claim ourselves as to which form was the oldest or most 'authentic'. The issue is strictly speaking irrelevant to the hypothesis we're developing here. Our point is simply that until literalist Catholicism began its sustained campaign to wipe out interpretive Gnosticism, Christianity had been diverse enough to accommodate *both* simultaneously. The persecutions of the Gnostics

were so successful that by the end of the sixth century it seemed that only the literalist form had survived. However, the fact that a strong Christian Gnostic religion emerged again in the tenth century in the form of Bogomilism makes it impossible for us to accept that the destruction of Christian Gnosticism in the sixth century was as final as it looked. Somehow this secret religion went on – either through the Manicheans, the Messalians and the Paulicians – or by another less obvious route.

This is why the 'Organization' spoken of so cryptically in the Nag Hammadi scriptures continues to intrigue us. In Chapter 5 we saw that the references made to it seem to hint at the existence of a secret society charged with a mission to protect, restore and repromulgate Gnosticism after times of trouble.

It would all sound like so much ancient wishful thinking were it not for the fact that this was more or less what happened at the end of the first millennium. The sudden appearance of Bogomilism in Bulgaria during the last decades of the tenth century was not some isolated heresy. It marked the first step in the repromulgation and resurgence of a fully fledged Christian-Gnostic religion after 400 years absent from the scene. The next step was its rapid westwards expansion as Catharism during the twelfth century. By the beginning of the thirteenth century it had become a genuinely pan-European faith and the only serious rival that the established Church had faced for 1000 years.

We know that the Church did not identify it as a new rival, but as an old and dangerous one seemingly returned from the dead. Perhaps this sense on the Church's part, of being drawn back into an ancient conflict, one that struck at the very heart of all its shaky claims to legitimacy and authenticity as the true faith, explains the terrible events that followed.

Christ and Antichrist

All wars are terrible – no matter in what epoch they are fought, or with what weapons. Medieval wars were particularly ghastly. But the

wars of the Catholic Church against the heresy of Catharism in the thirteenth century, the so-called Albigensian Crusades, must rank high on the list of the most repulsive, brutal and merciless conflicts that human beings have ever had the misfortune to be involved in.

The Cathars are innocent in these matters, by any sane standards of justice. All they did was reject the authority of the Pope and give their loyalty to another religion that sought to correct what it saw as the false doctrines of Catholicism. The rational modern mind cannot blame them for acting independently in this way, let alone detect any reason why their beliefs and behaviour should have merited so gruesome a punishment as burning at the stake. We know that the past is another country – where people do things differently. We understand that the medieval world, full of superstition and the fear of damnation (a fear fostered by the Catholic Church and used as a weapon of mind-control), was not governed by the same codes of interpersonal decency that we try to live by today. Yet the savage persecution of the Cathars, carried out in the name of the Church, and frequently on the direct orders of its bishops, went so far beyond what was normal – even for that blood-stained period – that it has to raise disturbing questions about the beliefs of the perpetrators.

Because our primary focus in *Talisman* is on the long-term survival of a secret religion, irrespective of its 'authenticity', we will not pursue such questions further here – notably the vexed issue of whether Catholic or Cathar teachings represent 'authentic' Christianity. Nonetheless, it seems patently obvious to us that the spirit of the gentle and loving Jesus who pervades the New Testament did *not* ride with the Catholic clergy and knights who ravaged the once free land of Occitania in the first half of the thirteenth century. A chronicler of the time, one of the two authors of the epic *Chanson de la croisade contre les Albegeois*, summed the problem up in an ironic unofficial epitaph for Simon de Montfort, the fearsome general who led the Catholic armies in Occitania for almost a decade of unremitting slaughter before being killed in battle in 1218. He was buried with much pomp and ceremony at Carcassonne, where, the *Chanson* reports:

Those who can read may learn from his epitaph that he is a saint and a martyr; that he is bound to rise again to share the heritage, to flourish in that state of unparalleled felicity, to wear a crown and have his place in the Kingdom. But for my part I have heard tell that the matter must stand thus: if one may seek Christ Jesus in this world by killing men and shedding blood; by the destruction of human souls; by compounding murder and hearkening to perverse council; by setting the torch to great fires; by winning lands through violence, and working for the triumphs of vain pride; by fostering evil and snuffing out good; by slaughtering women and slitting children's throats – why, then, he must needs wear a crown, and shine resplendent in Heaven.[19]

In other words, unless the lessons of humility, non-violence, forgiveness and unconditional love so plain to read in the New Testament have somehow been turned upside down, inside out and back to front, there is *no way* that anyone seeking Christ in this world is going to find him by following Simon de Montfort's route. And if that is the case, since we're in a position today to stand back from the propaganda and prejudices of the time, doesn't it suggest that the entire Catholic onslaught against the Cathars was fundamentally unchristian?

Or even, as the Cathars themselves suggested, 'antichristian'?

'More Evil than Saracens…'

We've already filled in the background to the Albigensian Crusades in earlier chapters. The tremendous success of the Cathar heresy in Occitania and other parts of Europe during the twelfth century had for many years been watched with envy and growing alarm by the Catholic hierarchy in Rome. By the early thirteenth century it is estimated that more than half the Occitanian population had abandoned the Church and that growing numbers were looking exclusively to Catharism to meet their spiritual needs. Worse still, as we saw in Chapter 1, the local nobility gave tacit and sometimes even overt support to the Cathars, frequently had relatives amongst them, sided with them in disputes with the bishops, and were closely linked to some of the leading *perfecti*. Once it had become clear that the

Cathar religion was not a flash in the pan, but quite possibly formed part of a great coordinated plot against the Church, it was obvious that sooner or later one Pope or another was going to have to do something about it. The only question was what exactly, and when?

That the 'what' should be the terror weapon of a Crusade had probably been decided by Pope Innocent III some years before the perfect excuse to use such a weapon presented itself.[20] But when that happened he acted immediately.

The precipitating incident was the assassination of the Papal Legate to Occitania, one Peter de Castelnau, in January 1208. A former monk of the Cistercian Abbey of Fontfroide, de Castelnau was in Occitania on Innocent's orders, accompanied by another leading Cistercian, Arnald-Amalric, the Abbot of Citeaux.[21] In 1207 they stirred up deep-seated resentments when they tried to form a league of southern barons to hunt down the Cathars. Raymond VI, the powerful Count of Toulouse, refused to join and was excommunicated by de Castelnau. The excommunication was withdrawn in January 1208 after Raymond had been forced to apologize personally to the Papal Legate – a shameful climb-down for such a highly placed nobleman. The very next morning one of Raymond's knights, perhaps seeking to avenge the humiliation of his master, rode up to de Castelnau as he prepared to ford the river Rhône and ran him through with a spear. He died on the spot.[22]

Two months later, on 10 March 1208, Innocent declared the Crusade – the first time ever that the term 'Crusade' was used for a war against fellow Christians. Like the Christian emperors of Rome long before, he clearly gave the highest priority to the extirpation of heresy – higher even than to the wars to regain the Holy Land. He wrote:

> Attack the followers of heresy more fearlessly even than the Saracens – since they are more evil – with a strong hand and an outstretched arm. Forward then soldiers of Christ! Forward brave recruits to the Christian army! Let pious zeal inspire you to avenge this monstrous crime against your God.[23]

Meanwhile, Arnald-Amalric, Abbot of Citeaux, had been sent to northern France to rally support amongst the nobles there. 'May the man who abstains from this Crusade,' he is quoted as saying, 'never drink wine again; may he never eat, morning or evening, off a good linen cloth, or dress in fine stuff again to the end of his days; and at his death may he be buried like a dog'.[24]

But such browbeating was hardly needed to mobilize the rednecks at the court of the King of France. They were raring to go anyway. Here was an opportunity to acquire wealth and status with an adventure relatively near to home and to earn Papal indulgences and forgiveness of sins that would normally have required much harder work in the Holy Land. Along with dozens of B-list aristocrats like Simon de Montfort, who were looking to get rich quick, thousands of volunteers at the foot-soldier level also poured in from all walks of life. The lowliest man could benefit since crusading meant the automatic postponement of all his debts and the release of his property from the hold of creditors for the duration of his service.[25]

Still, the preparations took more than a year. By February 1209 military detachments for the Crusade were reported to be massing all over northern France.[26] But it was not until Saint John's day, 24 June 1209, that the full force, estimated to number 20,000 men, had assembled at the French city of Lyons ready for the march south. Simon de Montfort was with it but not yet its general. For this first campaign the terrifying Christian horde was headed by Arnald-Amalric himself.[27] It need not be imagined that being a Cistercian abbot, supposedly dedicated to a lifetime of Christian peace and charity, would inhibit him in any way on the battlefield. Far from it. At Béziers, the first Cathar city that he attacked, Arnald-Amalric was about to order an infamous atrocity…

Hell's Army

Conditioned as we are by television images of modern warfare with smart bombs and other high-tech weaponry it is difficult to imagine

the atmosphere of primal harm and menace that must have radiated like heat off the big medieval army that marched out of Lyons on 24 June 1209.

Its iron fist, mounted, armoured from head to foot and heavily armed, was an elite fighting force of trained killers. These were the knights – the samurai class of old Europe. Gathered from the aristocracy, they were men who had been groomed for warfare since childhood. They probably totalled no more than 1000 individuals, but each of them, depending on his resources, was supported in battle by anything from four to thirty hand-picked cavalry and infantry who fought at his side as a skilled and disciplined unit.[28]

Lower down the social ladder the theme of discipline in the crusading army was continued amongst divisions of professional soldiers specialized in particular military arts. They included the gunners who operated the great war catapults and stone-guns – the trebuchets and mangonels that had a range of almost half a kilometre and could hurl projectiles weighing 40 kilograms. There were teams of battering-ram specialists who would breach the city-gates, while other teams assembled and operated huge siege towers from which archers could fire down on the defendants inside the walls. Sappers and siege engineers were also needed for the business of filling in moats and undermining foundations.[29]

Less disciplined but equally deadly, and in a way far more frightening, were the mercenaries, known as *routiers*, who had been hired for their unprincipled ferocity. These were times of widespread poverty and frequent famines in Europe, and droves of the landless, the unemployed and the dispossessed wandered the countryside. The most efficient and ruthless amongst them formed up into lawless bands, looting and killing to support themselves, and were hired *en masse* by the Christian army that the Pope had unleashed on Occitania.[30] 'They were,' notes Zoé Oldenbourg:

> desperate fellows with nothing to lose, and therefore would plunge on through thick and thin regardless… They formed a series of shock battalions, all the easier to utilise since no-one

had the slightest qualms about sacrificing them. The most important thing… was the terror they inspired in the civilian population… Not content with mere pillage and rape they indulged in massacre and torture for the sheer fun of the thing, roasting children over slow fires and chopping men into small pieces.[31]

Even lower down the pecking-order than the feared *routiers* were the *ribauds*, the unpaid camp followers, numbering several thousands in their own right, who had attached themselves unofficially to the Crusade. They too were desperate people – a ragged bunch of bare-arsed muggers, rapists and corpse looters. But weirdly they elected their own 'king' on the campaign, who divided the chores and the spoils of war amongst the rest.[32]

Last but not least there were the holy rollers – wild, itinerant Christian preachers and groups of their fanatical followers armed with crude weapons like scythes and clubs who hoped to gain a special dispensation in heaven by murdering any Cathars that the main army missed.[33]

It seems richly ironic that the self-proclaimed Catholic Church of so peaceful and loving a figure as Jesus Christ was not only prepared to raise an army to massacre those who disagreed with it, but also to pack its ranks with the most notorious murderers and brigands of the age. But if we look at the whole affair from the Cathar perspective the sense of disconnection goes away. It is *not*, as its later apologists would claim, that the Church of a good and loving God was somehow (aberrantly, temporarily) provoked into extreme violence by extreme circumstances. In the Cathar take on this, the Catholic Church served the God of Evil; accordingly it was behaving entirely in character when it recruited an army of demons.

Now formed up behind Arnald-Amalric into a vast column of men and supplies more than four miles in length, this demonic force – or army of valiant Crusaders depending on one's point of view – bristled with axes and pikes and seethed with the intent to do violence.

'Kill Them All': the Feast of Saint Mary Magdalene and the

Workings of Divine Vengeance…

After taking a meandering course through Occitania, pausing only to accept the surrender of settlements unable to defend themselves and to burn small groups of Cathars along the way, Arnald-Amalric and his 20,000 hooligans fetched up in front of the prosperous city of Béziers on 21 July 1209. Its walls were very thick, very high and very well defended and everyone assumed that this was going to be a long siege.

Some curiosities now coincide.

It is our hypothesis that the Cathars were the descendants, through an underground stream of secret religion, of the Christian Gnostics of the first few centuries AD. Scholars agree that the Christian Gnostics of that period had a special reverence for Mary Magdalene, who plays a small but highly significant role in the New Testament. By comparison her status in the Nag Hammadi texts is elevated to that of Christ's first Apostle, his closest confidante, and perhaps even his lover.[34] We were therefore naturally interested to learn that the area around Béziers had been known for centuries before the Crusade for its special and fervent dedication to Mary Magdalene.[35] A local tradition had it that she had fled here by ship from Palestine in the mid-first century, landed at Marseilles, and become the first Christian missionary in what was then the Roman Empire's Provincia Narbonensis.[36] Odder still, 21 July, the date that the Pope's army pitched camp before Béziers, was the eve of the annual feast of Mary Magdalene, held on 22 July.[37] Oddest of all, however, was what would happen on the feast day itself.

Béziers was by no means entirely a Cathar city. There may have been as many as several thousand Cathar *credentes* living there, but Catholics are likely to have been in the majority. We know that there were 222 Cathar *perfecti* present on the day the siege began because a list of their names, prepared by Renaud de Montpeyroux, the Catholic Bishop of Béziers, has survived.[38] The bishop (whose predecessor had been assassinated in 1205) scuttled through the gates with the list

soon after the Crusaders began to arrive and returned from their camp a few hours later with an offer. If the townsfolk would hand over the 222 named Cathar notables for immediate burning then the city and everyone else living in it would be spared.[39]

It was in fact a pretty good offer but, to their lasting moral credit, the Catholic burghers of Béziers rejected it, stating that they 'would rather be drowned in the salt sea's brine' than betray their fellow citizens.[40]

What was to follow was a good deal worse than drowning.

It started on the early morning of 22 July with a minor and wholly unnecessary skirmish. Separated by some distance from the main force of the Crusader army, the *ribauds* – camp followers – had gathered by the banks of the River Orb, which flowed a little to the south of the city walls. A bridge leading to one of the city gates spanned the Orb at this point and now one of the *ribauds* strolled on to it, shouting insults and challenges to the defenders. Angered by his temerity, some inside rushed spontaneously out through the gate and down on to the bridge, where they caught and killed him and threw his body into the water. Probably they expected to retreat to the safety of the city at once but before they could do so a gang of camp followers swarmed on to the bridge and locked them in combat. At the same moment, with what was obviously an experienced eye for the main chance, the elected 'king' of the *ribauds*'called all his lads together and shouted, "Come on, let's attack."'[41]

Within minutes, driven on by an ugly cocktail of crowd-psychology, blood-lust and greed, a howling mob bore down on the scrum at the bridge. According to the chronicler of the *Chanson de la Croisade*, 'There were more than 15,000 of them, all barefooted, dressed only in shirts and breeches, and unarmed save for a variety of hand weapons.'[42]

Hatchets? Butchers' knives? Cudgels? The mind boggles at the thought of what primitive bludgeons and rusty blades these dregs of the Crusade wielded as they forced the bridge and pursued the foolish skirmishers back up the slope towards the city walls. No one is quite

sure exactly what happened next, but by now the whole Crusader camp was roused and bands of mercenaries and regular soldiers were charging into the fray. Most probably the *ribauds* succeeded in seizing control of the gate as the skirmishers tried to slip back inside, and were able to hold it open while Crusader reinforcements poured through. But whatever the mechanism, the result was the same. With their defences hopelessly breached the proud citizens of Béziers were now doomed beyond any redemption: 'No cross or altar or crucifix could save them. And these raving beggarly lads, they killed the clergy too, and the women and the children. I doubt one person came out alive.'[43]

The leaders of the Crusade made no attempt to stop or even limit the massacres. Quite the contrary, as the knights rushed to arm and mount, eager not to miss the action, a group of them reportedly asked Arnald-Amalric how they were to distinguish the many Catholics in the town from the heretics they had come to kill. The Abbot is notorious for replying in Latin: 'Caedite eos. Novit enim Dominus qui sunt eius.'

Which means: 'Kill them all; God will look after his own.'[44]

Though most of the killing was done by the lower orders, a particularly awful bloodbath was unleashed inside the Church of Mary Magdalene by the knights themselves. Here a multitude of Cathars and Catholics – old and young, men, women and children – were cowering in fear. Their numbers were estimated by chroniclers at the time as between 1000 and 7000. Just like the Gnostic and pagan refugees who had taken shelter inside the Serapeum in Alexandria nine centuries previously when it was attacked by Christian forces, they probably hoped that the hallowed ground would save them. And just as in Alexandria, it didn't. The knights burst in and slaughtered them all.[45]

By noon, a few hours after the fighting had started at the bridge, the entire population of the city had been murdered. Working with all the contemporary estimates, and allowing for exaggeration in some cases, modern scholars generally concur on a figure of between

15,000 and 20,000 for the total number of the dead of Béziers.[46] Guiraut Riquier of Narbonne, one of the last of the Occitanian troubadours, expressed the scale of the tragedy in a song:

Béziers has fallen. They're dead.

Clerks, women, children. No quarter.

They killed Christians too.

I rode out. I couldn't see or hear

A living creature…

They killed seven thousand people,

Seven thousand souls who sought sanctuary in Saint Madeleine.

The steps of the altar

Were wet with blood.

The church echoed with the cries.

Afterwards they slaughtered the monks

Who tolled the bells.

They used the silver cross

As a chopping block to behead them.[47]

Clearly Riquier's sympathies were not with the Crusaders and he had no interest in making them look good. We might think that the whole scene was just something he'd invented as anti-Catholic propaganda were it not that all other accounts of the sack of the city, supported by archaeological evidence, also speak of a fearful massacre taking place inside the Church of Mary Magdalene.[48] Indeed, the Catholic forces felt they had nothing to hide or be ashamed of in the killing of so many heretics in so holy a place. The Cistercian chronicler Pierre des Vaux-de-Cernay proclaimed: 'It was right that these shameless dogs should be captured and destroyed on the feast day of the woman [i.e. Mary Magdalene] they had insulted and whose church they had defiled…'[49]

Arnald-Amalric, Abbot of Citeaux and leader of the Crusade, was thrilled too – and not just with the slaughter in the church but with the overall tally of the day. In a breathless letter to his master, Pope Innocent III, the man at the source of all this carnage, he wrote proudly: 'Nearly 20,000 of the citizens were put to the sword, regardless of age or sex. The workings of divine vengeance have been wondrous.'[50]

Truth in Extremes

Our purpose thus far has been to track the secret tradition that lay behind Catharism, that kept a complex system of Gnostic spirituality alive in the West through 1000 years of persecution, and that the Albigensian Crusades were designed to obliterate for ever. We will not offer a detailed history of the Crusades themselves, since several excellent books already exist that provide a thorough record of the main sieges and battles. Nevertheless, the best chance to study human behaviour always comes in the starkest, most dangerous and most

extreme circumstances. For this reason, as we will see in the next chapter, the Crusades provide a unique opportunity to get closer to the truth about the two sides.

The truth is that upon the citizens of Béziers, who had threatened no one, aggressed no one, gone out to make war on no one, and merely followed their own harmless beliefs, the Catholic side unleashed an army from hell to inflict a hellish atrocity of rare and terrible evil. Zoé Oldenbourg suggests that we should reflect on what this tells us:

> Massacres such as that at Béziers are extremely rare; we are forced to accept the proposition that even human cruelty has its limits. Even amongst the worst atrocities which history has to show us through the centuries, massacres of this sort stand out as exceptions; and yet it is the head of one of the leading monastic orders in Catholic Christendom who has the honour of being responsible (while conducting a 'Holy War' to boot) for one such monstrous exception to the rules of war. We should be on our guard against underrating the significance of this fact.[51]

Nor did the atrocities stop with Béziers. They went on and on, seemingly endlessly, each with some mad demonic quality of its own. But soon after Béziers, having bathed in sufficient blood to satisfy his appetite, Arnald-Amalric opted for a less 'front-line' role. His successor, chosen to prosecute the Crusade with the utmost vigour, was Simon de Montfort, described as a man who 'prayed, took communion and killed as easily as drawing breath'.[52]

Chapter 7

The Sword and the Fire

> 'It was not until the formation of the Holy Office [of the Inquisition] that the world was presented with the spectacle of an organization prepared to kill, starve, and dispossess those who had deviated a hair's breadth from its own theological preoccupations. No other major religion has ever produced such an organization. There are secular organizations which have acted with equal ferocity and efficiency, but, unlike the Inquisition, they did not last for seven centuries.' (Arthur Guirdham, *The Great Heresy*)[1]

The crusading army rested three days in the meadows around the reeking corpse of Béziers, then marched off to besiege the great city of Carcassonne – which surrendered two weeks later without putting up a fight. A condition of the surrender was that this time the inhabitants would not be slaughtered; instead all their property was confiscated and they were expelled from Carcassonne, penniless and homeless, never to return.

In August 1209 Simon de Montfort officially took command of the army, and of a new title, Viscount of Béziers and Carcassonne.[2] But by mid-September the vast majority of the forces at his disposal had packed their bags and gone home. This was a routine and predictable desertion since the indulgences and remission of sins that the Pope bestowed on Crusaders required them to put in a minimum of forty days on campaign. The surrender of Carcassonne was accomplished just within the forty days, but after that, in the minds of most of the

volunteers, the campaign was over.

With a small band of dedicated knights de Montfort hung on in what was now the heart of very hostile territory over the winter. Then in 1210 – and yearly thereafter – the Pope preached another Crusade and the ranks of the army swelled once more.[3]

A macabre highlight of the 1210 campaign was the capture of the fortress of Bram after three days of stiff resistance. Because they had put up a fight, the surviving members of the garrison, numbering over 100, suffered a terrible punishment. On de Montfort's orders their eyes were put out. Then their noses and upper lips were crudely hacked off. One man was left one eye, not out of charity but so that he could lead the stumbling, blinded, mutilated soldiers to Caberet, the Crusaders' next target, as a very particular message for the defenders there.[4]

At Béziers, because the city's entire population, heretic and Catholic alike, had been indiscriminately massacred, there could be no mass burning of heretics. Although de Montfort had personally supervised the immolation of a small group of Cathar *perfecti* at Castres in 1209,[5] it was therefore not until the 1210 campaign that the opportunity came his way to burn a large number of heretics at once – a sight, according to the pro-Catholic chronicler Pierre des Vaux-de-Cernay, that all the Crusaders experienced with feelings of 'intense joy'.[6]

The opportunity was provided by the fortress city of Minerve, where it was known that many Cathar Perfect – both men and women – had taken refuge. De Montfort laid siege to the stronghold in June 1210 and forced its surrender some weeks later after cutting off its water supply and deploying his war catapults and stone-guns to bombard it mercilessly. As had been the case at the surrender of Carcassonne, there was no massacre; but this time the Cathar Perfect sheltering in Minerve were identified and singled out. Their choice was either to recant or die. Initially none recanted, and one of the Perfect explained to a Catholic priest: 'Neither death nor life can tear us from the faith to which we are joined.'[7] On 22 July 1210, the exact

anniversary of the sack of Béziers (and again, significantly, the feast day of Saint Mary Magdalene)[8] Vaux-de-Cernay reports that a huge fire was prepared. While it blazed and roared the prisoners were brought out before it and:

> more than one hundred and forty of these heretical *perfecti* were flung thereon at one time. To tell the truth, there was no need for our men to drag them thither; for they remained obdurate in their wickedness, and with great gaiety of heart cast themselves into the fire. Three women, however, were spared; being brought down from the stake… and reconciled with the Holy Roman Church.[9]

What stands out from the next year's campaign – 1211 – is the fate of an even larger group of Perfect. On 3 May 1211, after a lengthy siege, the Crusaders breached the walls of Lavaur and poured through, seizing the city. Amongst the captives were more than 400 *perfecti*, both men and women, who were burned on a gigantic bonfire.[10] Though not Cathars, the eighty knights who had commanded the garrison were hanged for protecting them. Guiraude, the Lady of Lavaur, was also brutalized then murdered. This high-ranking Occitan noblewoman was a Cathar *credens*, much loved in the city, of whom it was said: 'Never did a living soul leave her roof without having eaten well first.'[11] De Montfort handed her over to a band of mercenaries, who dragged her through the streets, heaping indignities upon her, before throwing her down a well and killing her with stones.[12]

A month later de Montfort burnt sixty more Cathar *perfecti* at Casses.[13]

In 1213 King Peter II of Aragon, famous for having recently won a great victory against the Moors in Spain, intervened against the Crusaders. Some of the hard-pressed Occitan noblemen who were protecting the Cathars were his relatives, and there was a large population of Cathars in Aragon itself. Peter brought hope, a splendid force of 2000 battle-hardened knights and 50,000 infantry into the equation – more than enough to change the course of the war. But it

was not to be. Though he was heavily outnumbered, de Montfort attacked Peter at Muret and, through brilliant, ruthless generalship, succeeded in killing him in battle.[14] At the sight of this terrible and totally unexpected catastrophe the Aragonese and Occitan forces hesitated, then began to retreat. The retreat turned to panic and then to a rout with de Montfort's knights in hot pursuit. Thousands were cut down, drowned in a nearby river, or crushed as they fled.[15]

It took the Occitan nobles three years to lick their wounds and gather their strength before they were ready to take on de Montfort again. Nonetheless, by 1216 the Count of Toulouse had succeeded in raising an army and, for the first time, began to inflict serious reverses on the Crusaders. Using his favoured strategy – if in doubt attack – de Montfort tried to take the initiative by besieging Toulouse. The city fought back ferociously and – refusing to be put on the psychological defensive – routinely sent out armed sorties to attack de Montfort in his own camp.

The siege dragged on for many months and the defenders' sorties grew ever more daring. On the morning of 25 June 1218, while repelling one of these raids, de Montfort was killed outright by a projectile from a stone-gun mounted on the walls of Toulouse and said to have been fired by a crew of women and young girls.[16] The *Chanson de la Croisade* describes his death:

> A stone flew straight to its proper mark, and smote Count Simon upon his helm of steel, in such wise that his eyeballs, brains, teeth, skull and jawbone all flew into pieces, and he fell down upon the ground stark dead, blackened and bloody.[17]

The Darkest Hour Before the Falsest Dawn

With de Montfort thus felled like a pole-axed ox his son Amaury took charge and abandoned the failed siege within a month. In 1219, however, he was back in action, leading yet another Crusade. This time he was joined by Prince Louis of France, out to do his crusading duty and bringing with him '20 bishops, 30 Counts, 600 knights and

10,000 archers'.[18] The two armies met in front of the unfortunate city of Marmande, which Amaury had already besieged, and launched a joint attack, overwhelming its defences.

Then another of those demonic interludes of the Crusades took place – when the Catholic troops, urged on by their bishops, fell upon the fleeing citizens in the narrow streets of the city. From the *Chanson* comes this harrowing description of what they did at Marmande:

> They hurried into the town, waving sharp swords, and it was now that the massacre and fearful butchery began. Men and women, barons, ladies, babes in arms, were all stripped and despoiled and put to the sword. The ground was littered with blood, brains, fragments of flesh, limbless trunks, hacked-off arms and legs, bodies ripped up or stove in, livers and hearts that had been chopped to pieces or ground into mash. It was as though they had rained down from the sky. The whole place ran with blood – streets, fields, river bank. Neither man, nor woman, young or old survived; not a single person escaped…[19]

Did the Catholic forces serve the God of Evil, as the Cathars claimed?

We cannot say whether a 'God' of any sort was behind the butchery at Béziers and Marmande, the mass burnings and martyrdom of the *perfecti* and the ruin of Occitania. But since the Albigensian Crusades were launched and maintained exclusively on the Pope's initiative, we can say, without equivocation, that the Catholic Church was directly responsible for all these evil things, and that it was acting in the name of its God.

Soon after Marmande, their forty days of crusading up, their sins forgiven and their indulgences earned, Prince Louis and his French soldiers went home. Amaury de Montfort and his much diminished army were left to continue the campaign, but it soon became obvious that they were not capable of winning it alone. Part of the problem was generalship: though a competent soldier, Amaury was a man of greatly inferior calibre to his warrior father. But equally important was a renewed spirit of national resistance in Occitania, where the people and nobles now began a determined fightback against the occupying forces. Under the leadership of the Count of Toulouse, huge territories were recaptured, and by the time of his death in

August 1222 the war of liberation seemed unstoppable. The advances continued under his son and in January 1224 the young Count of Toulouse and the Count of Foix – the other main leader of the Occitanian resistance – signed a peace treaty with Amaury de Montfort that secured the withdrawal of the bulk of crusading forces.[20]

But doom still overshadowed Occitania and its citizens of all religious persuasions who had protected the Cathars so bravely, and died so uncomplainingly on their behalf, through the fifteen years of horror from 1209 to 1224. It is a quite remarkable fact of these dreadful wars that the Cathars never once seem to have been blamed by their non-Cathar countrymen for the catastrophe that all were now plunged in together. And it is remarkable, too, although Cathar *credentes* did join the resistance, that there is not a single example in all the extensive records of the Albigensian Crusades of Cathar *perfecti* ever participating in any way in violence. Despite enormous provocation – literally to the death – they seem to have adhered with almost superhuman consistency to their principles of absolute pacifism and non-resistance.[21]

Nor is it that they were simply suicidal and wanted to die – something that they have frequently and quite wrongly been accused of. Despite their negative view of material life, the Cathars were utterly opposed to suicide and believed that each of us, so far as possible, should live out the natural term of our soul's imprisonment. Accordingly the *perfecti* disguised themselves, abandoned the wearing of their characteristic black robes, went on the run, sheltered where they could in safe-houses, caves or forests, and used any and every form of evasion short of actually fighting back. As Zoé Oldenbourg observes:

> It is easy to see how, to that hard-pressed society, such hunted, indomitable pacifists must have appeared as the only true fathers in religion and sources of spiritual consolation, the one genuine moral authority which men could obey.[22]

The Pope Hires the French to Finish the Job

The treaty of January 1224 was the falsest of dawns. Only a month after he had signed it Amaury de Montfort divested himself of his inherited title to the vast swathe of Occitania that his father had won during his glory years. All these lands that the de Montforts had stolen from their rightful Occitanian owners were now officially handed over by Amaury to a man much better equipped to consolidate the spectacular land-grab for ever – the King of France.[23]

Previously, under King Philip Augustus, the French monarchy had resisted direct involvement in the Albigensian Crusades – despite many strident demands from the Papacy for French intervention. Although Philip had not objected to the participation of his son Louis, as well as some of his barons and lesser nobles, he had made a clear policy decision to stay out of it himself. But when the old king died on 14 July 1223, it was Louis who succeeded to the throne[24] – the same Prince Louis who had ordered the despicable massacre at Marmande in 1219.

Now crowned Louis VIII, and with legal title to much of Occitania handed to him on a plate by Amaury de Montfort, he was ready for a return visit. This time what he had in mind was full-scale annexation under the disguise of a Crusade. Even so, he drove a hard bargain with Pope Honorius III (Innocent III's successor) who, conveniently, had begun to urge him to mount a new Crusade into Occitania from the moment he had ascended to the throne. So desperate was Honorius to smash the Cathars once and for all that he made an unprecedented agreement with Louis. In return for subduing Occitania, the Crown would be rewarded to the measure of one-tenth of all French Church revenues for five years.[25]

In the spring of 1226, almost two years after he had received the title deeds to Occitania from Amaury de Montfort, Louis VIII set out on his bogus 'Crusade' of annexation. So overwhelming was the force he led that he received the surrender of several great cities, including Carcassonne and Narbonne, without even having to fight. His first

and last major setback occurred on 8 November 1226, when he was suddenly taken ill and died.[26]

But still the campaign went on. Louis had been married to Blanche of Castile, a hard-hearted and determined woman with vast ambitions for their twelve-year-old son (also Louis – the future 'Saint-King' Louis IX), to whom she was now regent. On her orders the French army remained in Occitania, gradually wearing down the resistance – once again represented mainly by the Counts of Toulouse and Foix. In 1228 and 1229 the French adopted a scorched-earth policy, unleashing a terror campaign on the countryside, burning farms and villages throughout Occitania, destroying crops, driving the inhabitants out as refugees. By 1229 the will of the people to resist further after years of exhausting conflict had been utterly destroyed and the counts sued for peace.[27]

It was a crushing peace that included a public scourging in Notre-Dame Cathedral in Paris of the Count of Toulouse on 12 April 1229.[28] And although it marked the official end of the Albigensian Crusades, it robbed Occitania of its independence for ever, putting a huge area of this once free land under French control – effectively as an occupied state – and leading to its full annexation into the Kingdom of France within a century.

One of the provisions of the treaty allowed the count to retain nominal title to some of his hereditary domains around Toulouse but also obliged him to go into exile for five years, this exile to start no later than June 1230. In order to reduce even further his time amongst his own subjects, and thus his potential as a focus of rebellion, he was detained in Paris as a house prisoner in the Louvre palace for six months after signing the treaty. By the time he reached Toulouse in November 1229 he found that the city's massive defensive walls had been pulled down to ensure that it would never again become a centre of pro-Cathar and anti-French resistance.[29]

Pieces of Silver

Despite the mass holocausts of *perfecti*, and increasingly focused persecution, Catharism continued throughout the 1220s to be a vibrant religion that had an important place in the life of Occitania and that still attracted large numbers of believers. There is evidence from the first half of the decade, when it seemed that the curse of the Crusades had been lifted, of fairly active reorganization and restructuring of the Cathar Church. The jurisdictional boundaries of bishoprics were re-established, and in 1225 the Cathars even felt confident enough to establish a new bishopric – that of Razes.[30] Although many *perfecti* had been lost to the stake, it has been calculated that several hundred, both male and female, were still active in Occitania in 1225.[31] So clearly, while the Albigensian Crusades had done much damage and taken many lives, they had not yet succeeded in their primary goal of eradicating the heresy of Catharism.

Military activities had of course occupied centre stage during the Crusades, but an element of heresy-hunting had followed every campaign since 1209. In July 1214, for example, at the height of Simon de Montfort's successes, we find Foulques, the hated Catholic Bishop of Toulouse, appointing a certain. 'Brother Dominic and his companions… to extirpate heresy and eliminate vice, and promote the teachings of the Faith… as preachers in our diocese'.[32] This 'Brother Dominic' was Father Dominic Guzman, the Spanish monk who was to establish the famous Dominican monastic order in the Toulouse area on 11 February 1218.[33] Early on in the Albigensian Crusades, when Arnald-Amalric was still Papal Legate, Dominic had been invested with Inquisitorial powers. Until his death in 1221 he deployed these powers mercilessly and his systematic programme of persecutions and investigations in Occitania laid the groundwork that would lead to the formal establishment of the much-feared Papal Inquisition in 1233.[34]

The reverses suffered by the Crusaders after Simon de Montfort's death in 1218 had been a set-back to the heresy-hunters too. But all this changed when the French renewed the Crusades in 1226 and,

under the devout guidance of Blanche of Castile, made it clear that they supported the strongest action against heretics. Soon afterwards Peter Isarn, the Cathar Bishop of Carcassonne, and Gérard de la Moethe, a Cathar deacon from La Bessède, were burned at the stake.[35]

The peace treaty that Count Raymond of Toulouse went to France to sign, and endured a public scourging for on 12 April 1229, introduced draconian procedures for the hunting down of heresy.[36] In the following years the gradual expansion of the use of these procedures, always backed up by 'the secular arm' – i.e., the French occupation forces – meant that the Church came to exercise unlimited power over the life and liberty of the people of Occitania. As a signatory to the treaty Count Raymond was even obliged to persecute heretics himself – the same heretics whom he and his father had fought so hard to protect for the past twenty years. He was to order his own bailiffs to hunt them down on the much-reduced lands that the treaty had left nominally under his control, and he was to assist in hunting them down on the far larger lands that had been ceded to the French Crown:

> We will purge these lands of heretics and of the stench of heresy and we will also aid the purgation of the lands which the Lord King shall hold… In order better and more easily to unmask them [the heretics], we promise to pay two marks of silver for the next two years and, after that, one mark to every person who causes a heretic to be arrested, on condition that the heretic is condemned as such by the bishop of the place, or by a competent authority.[37]

As well as paying blood money to informers, Raymond was also required to pay large sums directly to the Church – 10,000 marks, supposedly to repair damage done to its property by heretics, 4000 marks to the monasteries, and a further 4000 marks to support fourteen masters of Catholic theology at the University of Toulouse.[38] The idea, comments medieval historian Malcolm Barber, was to fill the land 'with bastions of orthodoxy where heretics could find no

comfort or protection'.[39]

Informer Culture

At the same time the heat was turned up on individual Cathars at all levels with a whole raft of new statutes. These forty-five cold-hearted, methodical, pettifogging, bureaucratic decrees made the suppression of heresy obligatory under common law. A few examples will give us a glimpse of just how far the Church was prepared to go in invading and taking control of people's everyday lives and drawing them into inhumanities:

In every parish throughout the land the Catholic bishops were to nominate a priest and two or three trusted laypersons 'of unblemished reputation, who shall take an oath to search out, loyally and assiduously, such heretics as may be resident in the said parish'. The job of these state-sponsored vigilantes required them to 'make a close inspection of all suspect houses, their chambers and cellarage, and likewise all concealed hiding places, the which to be demolished'. They were to arrest not only heretics but also anyone who had helped heretics in any way.

A person who had permitted a heretic to stay on his land was to confess to this crime forthwith, 'else on conviction he will forfeit his lands in perpetuity, and be liable to personal punishment'.

Persons whose lands were used by heretics without their knowledge or agreement were subject to the same penalties.

The house in which a heretic is discovered shall be razed to the ground, and the land on which it stands confiscated.

If the resident bailiff of a locality suspected to be a haunt of heretics does not hunt the said heretics down zealously, he shall lose his position without compensation.

All persons may search out heretics on their neighbours' land.

Heretics who had abjured Catharism and returned to the Church were

to wear ‘two crosses on their outer garment, one on the right and other on the left side, and of a different colour from the garment itself’.

In every parish all males over fourteen years of age and all females over twelve were required to swear an oath before their bishop, renewable every two years thereafter, that they would be loyal Catholics, abjure heresy, help to hunt down heretics and inform on any heretics known to them. In the process the name of every person dwelling in every parish was to be recorded and those who failed to take the oath were to be treated as suspected heretics.

Every person of either sex on the parish lists (again aged over fourteen in the case of males and over twelve in the case of females) was to be compelled to confess to their parish priest at least three times a year and to take Communion at Christmas, Easter and Pentecost. ‘Priests are to seek out any who fail to attend Holy Communion, and who thereby incur suspicion of heretical beliefs.’

Lay persons were forbidden to possess any of the Books of the Old and New Testament ‘with the exception of the Psalter, the Breviary, and the Book of Hours of the Blessed Virgin; and it is rigorously forbidden to possess even these in the vernacular tongue’.

‘Any person denounced by public opinion, and whose ill reputation is known to the Bishop, shall properly be called a heretic.’[40]

And so the statutes droned on, releasing into the free air of Occitania the horrible odour of a Nazi-style informer culture and, as Zoé Oldenbourg observes, setting up ‘a system of virtual police control over the entire population’.[41] We use the word Nazi advisedly here. A decade and a half earlier, in 1215 at its Fourth Lateran Council, the Catholic Church had already anticipated the Warsaw Ghetto by more than 700 years when it compelled the Jews of Europe to stitch a prominent yellow circle on to their clothing.[42] Now, following the 1229 treaty, we see the same treatment – albeit with the different symbol of the two crosses – applied to reconciled heretics. Considered a ‘symbol of shame’, the two crosses came routinely to be coloured yellow as specified in a later statute which

also gave the exact dimensions of the crosses and more information on how they were to be worn. All reconciled heretics, states the relevant law:

> shall carry from now on and forever two yellow crosses on all their clothes except their shirts, and one arm shall be two palms [8 inches] long while the other transversal arm shall be a palm and a half [6 inches] long, and each shall be 3 digits [2.25 inches] wide, with one to be worn in front of the chest, and the other between the shoulders.[43]

Required under severe and possibly fatal penalty not to 'move about either inside or outside' their homes without wearing the crosses, reconciled heretics were moreover obliged to 'redo or renew the crosses if they are torn or destroyed by age'.[44]

The Dominican Flying Squad

One gets a sense of the kind of cold, calculating minds that must have been at work behind the dreaming-up and enforcement of such regulations – regulations that were designed to sever the bonds of warmth and trust that link human beings one to another. The clear objective was to create an atmosphere of suspicion, blame and jeopardy, and to whip up a frenzy of denouncements by capitalizing on people's fears of loss of property – and far worse.

The following years saw many heretics seized and killed. On one occasion, for example, shortly after he had taken office as Bishop of Toulouse in 1231, Raymond de Fauga was able to gloat over the mass burning of nineteen high-ranking Cathar *perfecti* who had been betrayed, ambushed and captured at one of their meetings.[45] De Fauga was a Dominican, the monastic order established by the late Saint Dominic with the explicit purpose of attacking heresy. Since 1215 these austere and zealous monks had occupied three houses near Toulouse's Narbonne Gate. In 1230, in recognition of their growing importance, they moved to a new site beside the Saracen Wall.[46] By 1234 there were more than forty of them in Toulouse

alone and they had established missions in many other parts of Europe as well.[47]

Tremendous recognition, prestige and power had begun to come their way when Pope Gregory IX had succeeded Honorius III in 1227. Gregory was unhappy with the system so far established in Europe for the suppression of heresy. Though primarily under the control of the bishops, other figures with overlapping responsibilities were also frequently involved. The result was chaos and inefficiency at a time when attention was beginning to be focused on the supposed 'danger' posed by Cathar communities in Germany, France and northern Italy, as well as the continuing survival of Catharism in Occitania. With the linked Bogomil heresy still looking very strong further east, the paranoid tendencies of the Catholic Church went into overdrive and there was a widespread conviction that enemies were hiding themselves everywhere.

The benefit in this for the Dominicans was that in 1231 Gregory appointed them as his own personal 'flying Inquisition', superior to the bishops and independent of them, to discover, arrest, interrogate and condemn German Cathars. In 1233, seeing the success of their work in Germany, Gregory also asked them to do the same job in France and in Occitania.[48] Success bred success, triumph followed triumph, and soon the Dominicans, aided to some extent by Franciscans and local prelates, had been appointed as the official Papal Inquisition, overriding all other authorities in any matter concerning heresy.[49]

The term 'Inquisition' had long been used for the process of extracting confessions from heretics, and 'Inquisitions' – interrogations and mass trials of suspected heretics – were periodically held by the bishops. But this was the first time in the history of the Church that officials had been appointed whose only function was to conduct Inquisitions, who were officially titled 'Inquisitors', and who were responsible directly and exclusively to the Pope.[50]

You Never Expect the Spanish Inquisition

When we began this research we did not know ourselves that the famed (but misnamed) 'Spanish Inquisition' (subject of a memorable Monty Python sketch) had first been established in April 1233 by Pope Gregory IX. Nor did we know that the original and explicit purpose of the Inquisition was to root out and destroy the Cathar heresy. Building on the repressive structures that had already been firmly laid down in Occitania, the Dominican Inquisitors were empowered after 1233 to use virtually any measure they wished to extract confessions and to crush the Cathar faith. They began at once to institute a reign of terror – true and awful terror from which no one was safe.

A chilling example is provided by the behaviour of Raymond de Fauga, the Dominican prior whom Pope Gregory IX had appointed as Bishop of Toulouse in 1231. A few years later, on 4 August 1235 (by chance the first official feast day for the recently canonized Saint Dominic) de Fauga held Mass at the order's convent in Toulouse and then made his way to the refectory to take dinner with the other monks. While he was washing his hands an informer was admitted, bringing him a titbit of hot news from his spy network. In a nearby house an elderly Cathar lady lay in a fever and close to death. She was a *grande dame* of a good family and had been visited shortly before by a fugitive *perfectus* who had given her the *consolamentum* and then slipped away.[51]

Annoyingly, it was too late to catch the *perfectus*. But the old woman wasn't going anywhere! Joyfully seizing the opportunity to bring another sinner to justice, de Fauga and his fellow Dominicans, dressed only in monks' habits, left their dinner and hurried at once to the house pinpointed by the informer. It was very close, in the Rue de l'Olmet Sec, and turned out to belong to a certain Peitivin Brosier, who had long been suspected as a Cathar sympathizer.[52] The dying woman was his mother-in-law, and as the Dominicans brushed past Brosier into her sick room it seems he only had time to warn her that

‘the Lord Bishop’ was coming. In her fevered state she unfortunately did not understand that he meant the Catholic Bishop of Toulouse and mistook de Fauga for a Cathar bishop.[53]

A horrifying scene then unfolded as the Dominican took advantage of the frail old lady’s confusion, spoke to her in familiar dualistic terms ‘about contempt for the world and earthly things’[54] and began to question her concerning her faith. Having no reason to suspect that she had fallen into the hands of a skilled and unscrupulous impostor, she innocently revealed all her Cathar beliefs and confirmed the extent of her attachment to them. De Fauga, whose cynicism was bottomless, even carried the charade so far as to urge her to remain steadfast in these beliefs, admonishing her firmly: ‘the fear of death should not make you confess aught else than that which you hold firmly in your whole heart’.[55]

The old woman’s honest reply, as one would expect from a dying *credens* who had been recently consoled, was that she would certainly not lie about her beliefs, and thus obliterate the benefits of the *consolamentum* she had received, when there was so little of her life left to her.[56] For de Fauga, who had everything he needed, this was the perfect moment to reveal his true identity. Looming over her bed he pronounced her a heretic and ordered her to recant and embrace the Catholic faith.

The old lady was by now fully awake to her predicament and, like many a brave Cathar before her, refused to recant. De Fauga and the other Dominicans insisted that she must. The badgering went on for some time in front of a growing number of witnesses who had crowded in from the neighbourhood, all keen to see how this was going to end. Finally, since his victim ‘persevered with increasing stubbornness in her heretical alliance’,[57] de Fauga decided to ‘relax her to the secular arm’ – the Church’s usual euphemism for having local civil authorities do the dirty work of executing a heretic.[58] In this case, to speed things up, a magistrate had already been called and now legally sentenced the dying woman to death![59]

Runners were despatched to prepare a huge fire at the public execution ground, a place called Pré du Comte (the Count's Meadow), and word of the spectacle was sent out all over Toulouse, attracting a large crowd. For the old woman it must have seemed a vision straight from hell, exactly what her beloved Cathar Church had always told her this world was anyway. Since she was quite unable to walk, the Dominicans had ordered her to be tied to her bed. She had then been carried out of her son-in-law's house, bed and all, and brought to this place. Now, after refusing one more chance to recant, she was thrown into the raging flames and burned alive.

'This done,' concludes William Pelhisson, one of the witnesses to these events and himself a Dominican Inquisitor who entirely approved of de Fauga's actions,[60] 'The Bishop, together with the monks and their attendants, returned to the refectory and giving thanks to God and the Blessed Dominic, ate with rejoicing what had been prepared for them.'[61]

One wonders what happened to the old woman's son-in-law, Peitivin Brosier. All we know from Pelhisson's cheerful account is that he was arrested.[62] Under the rules of the Inquisition in force at the time it is unlikely that he would have survived his subsequent – inevitable – interrogation without recanting the Cathar faith, accepting Catholicism fully and informing on his friends. Even then he would have remained a prisoner in close confinement for the rest of his life. All other members of his family, as well as all his known associates and all members of his wife's family and all their known associates, would have been interrogated and their statements cross-referred to detect any inconsistencies that might expose other heretics amongst them.

And, of course, since he'd sheltered his mother-in-law – a proven heretic – it goes without saying that his house in the Rue de l'Olmet Sec would have been razed to the ground.

That was just the way the Inquisition worked.

Paradox

When William Pelhisson concluded his congratulatory report of the trapping and brutal murder of a helpless old lady, he modestly expressed the view that such a great achievement should not be credited to the Dominicans alone: 'God performed these works… to the glory and praise of His name… to the exaltation of the faith and to the discomfiture of the heretics.'[63]

Reading these sentiments, we find ourselves – not for the first time – overtaken by the sense of a really weird 'disconnection' between the words and the deeds of Catholic holy men like Pelhisson. He was part of a Christian gang that had just done the most awful thing – something really psychotic and unbelievably cruel – to a fellow human being. But instead of being ashamed of such wickedness, he was proud of it and felt that it glorified his God! Nowhere in the New Testament is it possible to find justification for such behaviour, so which God did he think he was talking about?

Once again the sense of disconnection goes away if we look at the whole scene from a Cathar perspective. Then the vile deeds of the Dominicans make perfect sense. Of course they acted as they did. Of course they took delight in the pain and suffering of the old lady. Theirs was the Church of the God of Evil. What else would you expect of them?

We're only half serious… Who's to say that there's even such an entity as 'God' at all, let alone Good and Evil Gods? Since there will never be any certainty on such matters this side of the grave, all we can do is weigh up the competing theories and compare them with the behaviour of the participants. When we do that it is clear that Cathar theology provides an internally consistent explanation for why the Catholic Church burned people at the stake and butchered the populations of whole cities. No such internally consistent explanation is forthcoming from Catholic theology; on the contrary the massacres and the many acts of prolonged, deliberate cruelty that the Catholic Church was responsible for represent a profound and inexplicable paradox when set against the teachings of Christ.

Making Hell on Earth

Every year from 1233 onwards, this impossible paradox of gentle Christ and brutal Church was repeatedly reinforced by the Inquisition. The first two official Inquisitors in Occitania, Peter Seila and William Arnald, both of whom were recruited from amongst the Dominicans of Toulouse, were appointed by Pope Gregory IX in late 1233.[64] Like all natural bureaucracies with high-level backing the Inquisition grew unrestrainedly. By the end of the decade numerous different teams of Inquisitors like Seila and Arnald were at work throughout Occitania interrogating, cross-referencing, condemning and burning. From the beginning they were a law unto themselves, independent both of the bishops and the civil authorities, with unlimited authority to act against heretics.

Their standard methodology was deliberately intimidating, designed to spread terror in any community they descended upon and to 'drive a wedge into the façade of community solidarity, so that the loyalties and fears which had held it together could be undermined'.[65] Task forces, typically led by one or two Inquisitors supported by an attendant band of soldiers, clerks and magistrates, roamed the land going from village to village, town to town, city to city. The idea was that each unit should be self-sufficient as detective, gaoler, judge, jury and executioner, identifying suspected heretics and 'processing' them from freedom either to repentance or the stake in as short a time as possible.

Methods of operation were constantly refined in response to the latest evasions and escape plans of the heretics, although by the 1240s large parts of the procedure had been standardized and written up by the Dominicans in a series of detailed technical manuals. From these we learn that in each parish the Inquisition would begin with a public meeting which the entire local community would be required to attend. Once everyone was assembled, the Inquisitor would appear and address them with a general sermon condemning the Cathar heresy. Then notice was served on all males over fourteen and all

females over twelve ('or younger if perchance they shall have been guilty of an offence')[66] to appear individually before the Inquisitor over the coming days. If no previous Inquisition had visited the parish, an announcement would be made granting:

> indulgence from imprisonment to all from that place who have not been cited by name or who have not yet earned the indulgence, if within a specified time, they come voluntarily as penitents to tell the exact and full truth about themselves and about others.[67]

In other words, those who pre-emptively informed on themselves or others, and were willing to recant their heresy, would earn exemption from punishment, perhaps even escape punishment altogether. By contrast those who knew something – anything – and decided to keep quiet about it were taking an immense risk that their neighbours or friends might inform on them. If that were to happen they would be judged to have misled the Inquisition – an offence for which extreme penalties applied.[68] In such circumstances, notes the historian Malcolm Barber:

> The temptation to denounce others was almost overwhelming, if only for defensive reasons… In a community that had had frequent contact with heretics… nobody was likely to be innocent in the eyes of the Church, and therefore anybody could have been written into the Inquisitors' copious records.[69]

The atmosphere of mutual suspicion was increased – together with the likelihood of denunciations – by the way that all the parishioners were then interrogated, one by one, with no opportunity for the others waiting in line to hear what was being said by their neighbours. Again and again these *in camera* interviews proved to have an unnerving effect, demoralizing communities all across Occitania, turning their attention inwards on themselves in a most negative manner and weakening their will to cooperate in a fight-back.[70]

Indeed, the Inquisition's sweeping powers had set aside at a stroke

all the ancient legal safeguards that had formerly protected individual rights in medieval society. An example was the right for the accused to be represented while undergoing interrogation. Theoretically even the Inquisition had to abide by this. In practice, however, no accused heretic was ever represented as he stood before the Inquisitors. This was because any lawyer foolish enough to defend an accused heretic would immediately have been suspected and accused of heresy himself. Once that happened (accusation was enough; he didn't have to be found guilty) his arguments would have become inadmissible and he would have stood in immediate jeopardy of his own life.[71]

The idea of undergoing the full process of interrogation by the Inquisition would have been a terrifying prospect whether one were a heretic or not. Questioning was inexorable and, on top of an array of psychological techniques, it's known that the Inquisitors routinely used torture to extract confessions long before the Pope gave his official blessing for them to do so in 1252.[72] Between the torture and interrogation sessions, the accused would be confined in deeply uncomfortable conditions intended to undermine his will further. Cells of the 'little-ease' variety – in which the prisoner had room neither to sit, stand up or lie down – are reported to have been particularly favoured by the Inquisitors. Other devices included keeping cells knee-deep in water, or permanently dark, starving prisoners, and shackling them hand and foot in heavy chains.

In the most recalcitrant cases such interrogations could continue over periods of months or even years.[73] However, once a confession had been extracted and a judgement made, the chances in law of reversing it were about zero – even if the judgement were manifestly faulty. Since appeals were not allowed, the Inquisitors literally held the powers of life and death in their hands, without any checks or balances.[74] They were amongst their enemies and could do what they liked to them. The consequence was that many Cathars were burned at the stake, many who recanted on pain of death nevertheless remained imprisoned for life, and countless numbers of those who may not even have been Cathars themselves but who had at one time

or another spoken to a Cathar, or had some other such trivial contact with the heresy, were exiled from their homeland for years, fulfilling arduous pilgrimages imposed on them by the Inquisition.[75]

Burning the Living and the Dead

Seila and Arnald, the first two Inquisitors, were the prototypes of a ruthless breed who would continue to rend the enemies of Catholicism for another six centuries. Soon after taking office they were able to arrange a spectacular demonstration of the efficient spy network already at their disposal when they succeeded in trapping and arresting Vigoros de Baconia, one of the leading Cathar *perfecti* in Toulouse. He was summarily tried, condemned and burned alive.[76]

During the two years from 1233 to 1235 the two Inquisitors initiated what has been described as a 'veritable reign of terror', first in Toulouse and then far and wide throughout Occitania.[77] Burnings of individuals and small groups became commonplace and on a number of occasions there were larger catches to be had. In 1234, for example, on their very first visit to Moissac, Seila and Arnald presided over the mass burning of 210 Cathar *perfecti* who they had condemned as 'contumacious heretics'.[78]

Keeping a record as ever, the faithful Dominican commentator William Pelhisson tells us that with this splendid *auto da fé* 'great fear was aroused among the heretics and their believers in that land'.[79] More fear was on the way the following year, 1235, when a General Inquisition was held in Toulouse on Good Friday. Voluntary mass confessions occurred as people rushed to implicate themselves and others before someone else did. Threatened with execution, one Cathar sympathizer avoided the stake by taking the city magistrate and the Inquisitors to a place where ten *perfecti* were in hiding: three managed to escape; the other seven were burned.[80]

During 1234 and 1235 large numbers of new Inquisitors had been appointed from amongst the Dominicans but even so had proved

insufficient to the task of interrogation, filing and cross-referencing that the cult of mass confessions had now generated. Franciscans and parish priests were therefore conscripted to help.[81] Adding to the overall burden was the matter of the paperwork from earlier investigations of heresy by the episcopal and other authorities. Undertaken before the Inquisition had been formed, and going back as far as 1209, these investigations had produced information, tip-offs and denunciations which the years of war had made it hard to follow up. Now the Inquisition was determined to make good the deficit.

On examination of the older records, and the full cross-referencing of all statements, it became clear that many who had formerly been exonerated as good Catholics had in fact been heretics all along. Those still living were arrested and burned alive. But the remains of those who had already died during the intervening years were not forgotten! Wherever they had been buried they would be assiduously sought out and exhumed so that they too could be burned.[82] Sometimes whole piles of mouldering disarticulated skeletons would be brought in at once, paraded through the streets and then burned in a heap.[83]

Such severely demented behaviour (shall we call it *necropyria*?) would require urgent psychiatric restraint today. In Occitania in the 1230s and 1240s it was lauded by the Church, but naturally caused much anger amongst the relatives of the deceased who were publicly shamed in this way. A particular source of resentment was that the property of posthumously condemned heretics was subject to confiscation, just as it would be if the heretic were still alive, which had the effect of impoverishing his descendants.[84] Inevitably the civilian population began to hate the Inquisitors. In one case, in the city of Albi, an Inquisitor named Arnald Cathala was beaten up and nearly killed by an angry mob after he went personally to exhume the corpse of an old woman, recently revealed as a heretic, who had passed away some years before.[85]

Even by the late 1230s and early 1240s, despite being the focus of a concerted, well-funded, well-staffed Church operation to wipe them

out to the last man, there were still sufficient numbers of Cathar *perfecti* in circulation – and able with local support to evade the Inquisitors – to keep the heresy alive. Evidence of this astonishing persistence in the face of extreme adversity comes from the sheer number of penances still being imposed on convicted heretics. Over just two and a half months in 1241–2 Peter Seila (the reader will recall him as the first Inquisitor to be appointed in 1233) imposed penances on 732 heretics in nine different locations.[86]

The Fall of Montségur

One amongst several reasons for the longevity of Catharism in Occitania was that the heretics were able to hold on to their major fortress of Montségur for many years after the French occupation of 1229. It provided a place of refuge to which *perfecti* could flee to rest and recuperate after risky missions in the occupied territories and its symbolic importance as a symbol of hope and resistance was vast. Its walls were high, believed impregnable, and it stood on top of a remote and inaccessible rocky crag.

In May 1242 two of the most loathed Inquisitors, the Dominican William Arnald (again one of the original appointees back in 1233) and the Franciscan Stephen of Saint Thibéry, arrived in the little town of Avignonet with their hit-squad of enforcers. They had been on the road for seven months conducting General Inquisitions across most of the region from Lavaur in the north to Fanjeaux in the south and spreading the usual tidal wave of terror wherever they went. Now it was Avignonet's turn.[87]

Except on this occasion it wasn't. The local bailiff, Raymond of Alfaro, was a Cathar sympathizer and immediately sent word by fast teams of riders to Montségur, 70 kilometres to the south. There the lord of the castle, one Peter Roger of Mirepoix, decided to take action. On the night of 28 May 1242 he arrived at Avignonet with a group of heavily armed knights, who massacred the entire Inquisitorial team of ten. Later one of the assassins, William Golarian, explained that they

had mounted the attack so that 'the affair of the Inquisition could be extinguished and the whole land would be free, and there would not be another Inquisition'.[88]

Talk about wishful thinking! Far from extinguishing the Inquisition, Avignonet proved to be the catalyst that led to Montségur being placed under siege by the forces of the French King – now the young Louis IX (who, as one might expect of a future Catholic saint, prosecuted heretics mercilessly). The siege began in May 1243 and ended, after ten months of violent assaults and bombardments, with the surrender of Montségur, in March 1244.

Rather more than 200 Cathar *perfecti* had taken refuge there, including Bertrand Marty, who had the rank of bishop. Eyewitness reports tell us that on 17 March 1244 they were all 'brutally dragged forth from the fortress of Montségur'.[89] Further down the slope, on a level area, a large rectangular enclosure defined by a wooden palisade had been filled up with firewood, straw and pitch. Now, without ceremony, soldiers set light to the piled firewood and the wretched heretics were thrown in a mass inside the palisade. 'There,' as one commentator of the period assures us, 'they experienced the fire of Hell'.[90]

The Last Cathars

Montségur was a catastrophe, but still it did not mark the end of Catharism. Through the remainder of the 1240s the struggle between Inquisition and heretics went on and there were many more executions. In 1245–6, for example, the Inquistion of Toulouse had to deal with cases involving more than 600 villages and towns.[91] In one of these villages for which more detailed records are available, Mas-Saintes-Puelles (to the west of Castelnaudry), we know that a staggering total of 420 suspected heretics, roughly two-thirds of the population, were interrogated by Inquisitors Bernard of Caux and John of St Pierre. This information has come down to us in two of the Inquisition's original registers detailing the interrogations of more

than 5,500 different people from 104 different places. It is known that there were originally ten registers.[92]

Gripped in the cold, dead hand of such a powerful, vindictive, and impressively well-organized bureaucracy, the Cathar heresy began to falter and then slowly to die. By the 1250s the Inquisitor Rainier Sacconi was able to estimate with satisfaction that there were not more than 200 *perfecti* left in all of Occitania[93] – too small a number, reckons historian Joseph Strayer, 'to preserve the structure of the Cathar Church'.[94] As a result, though the heresy was to persist into the next century, it had been so reduced by the Inquisition that it no longer represented a danger to Catholicism.[95]

The last upsurge was focused around the highlands of the county of Foix – an old centre of the resistance. Here in 1299 a *perfectus* named Pierre Autier, together with a small group of followers, began to evangelize amongst the rugged farmers and shepherds of the region. For a few brief years he enjoyed great success and even set in motion something of a revival, but he never really stood a chance. Soon the Inquisitors were after him – big names like Bernard Gui, Geoffrey d'Ablis and Jacques Fournier. In 1309, with utter inevitability, Autier was caught. We know that he then underwent ten months of interrogation by the Inquisitors, who finally burned him alive in 1310.

One more prominent *perfectus* remained to be executed, a certain William Belibaste. Finding the going too hot in Occitania, he had become a refugee in a small Cathar community across the border in Spain. There he was reached by an *agent provocateur* from the Inquisition who worked himself into his confidence and eventually tricked him into making a short return visit to Occitania. When he did so in the spring of 1321 he was captured, thrown into irons, tried and condemned. In the autumn of 1321 he was burned at the stake.[96]

He was the last of the estimated 5000 Cathar Perfect who were formally burned alive in the name of the Christian God during the 112 years following the start of the Albigensian Crusades in 1209.[97]

He was also the last Cathar known to history.

A Quiet, Natural Death?

Probably the heresy did survive for a few more years in some remote pockets of Occitania to be rooted out by Inquisitions too small to have been reported by anyone. But the apocalypse at Montségur in 1244, the long downhill journey thereafter, and the demise of Autier and Belibaste in 1310 and 1321, really did mark the end of it.

Numerous Cathars fled Occitania. As well as nearby parts of Spain, where Belibaste would have done well to stay, another favoured refuge close to home was amongst their co-religionists in northern Italy. But the Inquisitors were at work there too. In November 1276 all members of the Cathar community of Sirmione were arrested. And in February 1278 'about 200' were rounded up and burned in Verona – the headquarters in exile of the Toulousan Cathar Church.[98]

Longer term it seemed like the only secure refuge was in the ancient Byzantine Empire, where the Bogomils, the mother Church of Catharism, remained relatively strong during much of the fourteenth century. As late as 1325, four years after Belibaste had perished at the stake, we find Pope John XXI complaining to the leader of Bosnia about the heretics who were fleeing to his country and taking shelter there.[99]

Indeed, although lands in the Byzantine Empire did not strictly speaking come under the jurisdiction of the Pope in Rome, but of the Patriarchate in Constantinople, there had been constant Papal interference in this part of the world since the early thirteenth century – round about the same time that the Albigensian Crusades began in the west.[100] For example, Pope Gregory IX, who created the Inquisition in 1233 to smash the Cathars, deposed the Catholic Bishop to Bosnia at around the same time for failing to take action against the Bogomils and replaced him, significantly, with a Dominican. Gregory also declared a Crusade against Bosnia to root out heresy there. The Crusade, which continued until 1240, was willingly led by

the Duke of Croatia. 'In practice,' notes Bernard Hamilton, 'this was a Hungarian war against Bosnia that was given Crusade status.'[101] On another occasion, in 1238, the Pope incited his ally King Bela IV of Hungary to mount a Crusade against Bulgaria as well. Any possibility that this might go ahead, however, was stopped by the Mongol invasion of Hungary in 1241–2.[102]

By the fourteenth century the Ottoman Turks were on the move, eating up and incorporating into their Islamic state many areas of the former Byzantine Empire. They conquered Bulgaria in 1393 and thereafter Bogomilism was never heard of again in that land; indeed the last surviving report of Bulgarian Bogomilism comes to us from no later than 1370.[103] It lasted longer in Bosnia but was finally wiped out there after the invasion of Sultan Mehmed II (called 'the Conqueror') in 1463.[104] By the end of the fifteenth century the population of Bosnia was almost entirely Muslim.[105] 'After a major expenditure of effort on refutation and, above all, police work,' says Malcolm Lambert, 'the Cathars were finally put down by the Western Church; by contrast Byzantine Bogomilism died a quiet natural death…'[106]

Though the Inquisition never reached the wild lands of Bulgaria and Bosnia, its brutal success in Occitania, and the growing numbers of Cathars fleeing east to tell of horrors they had witnessed, must have been profoundly discouraging for the whole Bogomil movement. This perhaps explains the loss in energy that becomes apparent in Bogomilism from the early fourteenth century onwards – after which, though still thriving in the east, it seems to have abandoned all sense of its world mission. The Muslims brought about its final demise, but even without their role the Catholic and Orthodox Churches had by then become so vigilant concerning heresy that there would have been no second chance for the Bogomil faith to evangelize and gain converts in the Christian world.

After Occitania was lost, all was lost. The millennial opportunity had come, and been seized, and then snatched away. An ancient

Gnostic religion offering a starkly alternative vision of Christianity had mysteriously reappeared after centuries in darkness, flourished mightily at first and made a bid for universality, only to fail utterly in the end…

Or had it?

Renaissance

In the summer of 1460, shortly before the last embers of the Bogomil faith were stamped out by Sultan Mehmed II's invasion of Bosnia, a Tuscan monk named Leonardo da Pistoia rode unobtrusively into Florence on a donkey. Attached to his side was a bundle of cloth in which a small collection of books had been packed.

Leonardo, who had travelled a long way, took his precious cargo directly to the Doge of Florence, Cosimo de' Medici.

An intellectual nuclear bomb was about to explode.

PART II

The Sacred Cities

Chapter 8

The Other Secret Religion

> '[As] the embodiment of the Italian Renaissance, the Medici were enormously rich and through their wealth and character ruled Florence, controlled the Papacy, and influenced the policies of an entire continent.' (Christopher Hibbert, *The House of Medici: Its Rise and Fall*, Morrow Quill, New York, 1980)

> 'For want of a better term, I shall call it "astral magic"…' (Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1991, p. 60)

In the summer of 1460, shortly before the last embers of the Bogomil faith were stamped out by Sultan Mehmed II's invasion of Bosnia, a Tuscan monk named Leonardo da Pistoia rode into Florence on a donkey. He had been away for several months on a dangerous mission to Macedonia for his learned and immensely wealthy master, Cosimo de' Medici, the Doge of Florence, who employed him to procure rare and ancient writings. Already a vast library of extraordinary scrolls, codices and books had been built up. Yet Leonardo knew that Cosimo would remain dissatisfied until he had in his hands certain very specific and once widely circulated books suppressed by the Church and lost to the world for close to 1000

years. Cosimo was convinced that these books must still exist somewhere – and had ordered Leonardo to seek them out and buy them no matter what the cost.

Now at last, after returning many times to Florence with lesser prizes, Leonardo took great pride in the fact that he had found the ancient books that his master sought. They were books of knowledge, purported to have come down from Thoth, the wisdom god of the Egyptians, who had been known to the Greeks as Hermes Trismegistus. And though neither Leonardo nor Cosimo were aware of this, these highly mysterious 'Hermetic' texts had been compiled in Alexandria during the first three centuries of the Christian era, i.e., at the same time and in the same place as the Nag Hammadi Gnostic texts. The link between the two collections becomes even stronger when we realize that a fragment of one of the 'Hermetic' texts that Leonardo had purchased – a document known as the *Asclepius* – was also reproduced amongst the Gnostic codices buried at Nag Hammadi in the late fourth century and not recovered until 1945.[1]

The Body is a Tomb

No one can dispute that the Roman Catholic Church has a long track record of vigorous opposition to all forms of knowledge, scripture, inquiry, wisdom and religious self-expression that do not accord with its own views. The reader will recall that it was mobs of Christians, aroused by Theophilus, the Catholic Archbishop of Alexandria, who sacked the Serapeum in Alexandria in AD 391. They killed all the 'pagans' and Gnostics who had taken shelter inside it and razed to the ground the wonderful library that had been arranged around its cloisters together with its entire irreplaceable collection of ancient books and scrolls. We saw in Chapter 5 that this atrocity was just one amongst many in the ruthless suppression of Gnosticism and paganism by the Catholic Church, and its generally very efficient destruction of their texts and traditions.

A different expression of this same antagonism to knowledge

outside the narrow band accepted by orthodoxy was the closure in AD 529 by the Christian Emperor Justinian of Plato's revered Academy in Athens.[2] Originally established by Plato himself in the 380s BC on a site a mile outside Athens that was already held sacred, the Academy enjoyed more than 900 years of continuous existence until Justinian and Christian bigotry shut it down for spreading 'pagan' ideas.

Today we do not know exactly what was taught at the Academy. However, Plato's own copious surviving writings have led the majority of scholars to infer that the original syllabus was designed to produce a select few wise philosophers, deeply knowledgeable in mathematics (including the theory of harmonics and astronomy), dialectics, natural science and political theory[3] who would 'leave the Academy for politics, not as power seekers themselves but to legislate or advise those in power'.[4]

It is known that the great Christian Gnostic teacher Valentinus, an Egyptian, studied Platonic philosophy at Alexandria in the early second century AD,[5] so it is perhaps not surprising to find the Catholic apologist Hippolytus (AD 170–236) accusing the Gnostics of being 'disciples of Plato' and following the Platonic system in making 'arithmetical science the fundamental principle of their doctrine'.[6] For our purposes it is also interesting that Plato seems to have been the first to use the term 'demiurge' – Greek for 'public craftsman' – to describe the Creator of the material world. In exactly the manner later copied by the Gnostics he meant to imply that the Creator was a subordinate power, not the true God,[7] and that the material world was a corrupt, imperfect copy of the ideal world.[8] Tim Freke and Peter Gandy point out that Plato also frequently liked to quote a common phrase of the pagan mystery religions of his period – that phrase being *soma sema*, 'the body is a tomb': 'Gnostic initiates also understood that those who identified with the incarnate physical self were spiritually dead and needed to be reborn into eternal Life…'[9]

It is beyond the scope of this book to present a full exposition of the similarities – and the differences – between Platonism and

Gnosticism. The point we wish to make is simply that the suppression of Plato's Academy in AD 529 was part of a much wider attack on the pursuit of knowledge that also included the virtual destruction of Christian Gnosticism – until, we propose, it resurfaced in Bulgaria in the tenth century as Bogomilism. During the intervening centuries book-burning was deemed an act of piety by the Church and the persecution of scholars who ventured outside strict ecclesiastical boundaries was deemed an act of righteousness and a service to God.

The Enraged Enforcement of an Unearned Spiritual Monopoly

It is with good reason that historians refer to the period between the fifth and the tenth centuries AD as the Dark Ages. But things were to get much darker before European culture was to see any lasting glimmers of light. We've documented aspects of the astonishing 'mini-Renaissance' that accompanied the sudden upsurge of Catharism in Occitania in the twelfth century. And we've documented the reaction of the Church – the Albigensian Crusades that laid waste the cultural development of the region, a century of terrorism and mayhem, the holocaust of 5000 Cathar Perfect, and, last but not least, the Inquisition.

It should be obvious to the reader by now that Cathars and Catholics had very different attitudes to the uses and control of knowledge, and that these attitudes were rooted in their very different underlying philosophies.

For the Cathars, inheritors of the Gnostic tradition, the predicament of humanity was ignorance; it was knowledge, therefore, that would provide the only sure route of escape. And since they believed that the greatest store of relevant knowledge was contained in the New Testament – the fundamental document of Christianity – they felt strongly that every Cathar should be able to read it in his or her own language.

Accordingly the Cathars of Occitania had the New Testament

translated from Latin, in which it had hitherto been locked away from the masses, into the vernacular *langue d'oc*, and large numbers of copies, laboriously prepared by hand, were put into circulation. The demand for a cheap convenient material on which such copies could be made led them to become the pioneers of paper-making in Europe, establishing numerous apprenticeships in the new trade[10] and contributing greatly to the subsequent spread of this liberating technology.

In parallel, Cathar children were taught to read and study the New Testament from an early age, thus gaining the gift of literacy that was so rare in general in Europe in that period. Rare, too, was the fact that both sexes were taught equally, not just the males as was often the norm elsewhere.[11] The result was that educated, literate, freethinking women became a feature of Cathar communities during the short period that the heresy flourished.

In this, as in many other respects, the behaviour of the Cathars can only be described as enlightened – no other word will do – while their campaign to provide accessible vernacular editions of the New Testament was clearly an initiative far ahead of its time. By contrast the reader will recall from Chapter 7 that the Catholic Church and the Inquisition strictly forbade lay persons to possess the New Testament 'with the exception of the Psalter, the Breviary, and the Book of Hours of the Blessed Virgin'. Moreover, even these limited selections were permitted only in Latin whilst translations into the 'vernacular tongue' were 'rigorously forbidden'.[12]

It seems ironic that the so-called 'heretics' were the ones doing everything they could to spread knowledge of the New Testament while the 'true Church' was doing everything it could to limit and control such knowledge. But to understand this behaviour we need only remind ourselves of the basic philosophy of Catholicism – which utterly opposes any personal quest for knowledge and instead teaches blind faith and absolute mindless trust in the infallibility of Papal dogma. It was this doctrine that snuffed out the brilliant light of scientific and spiritual inquiry that had flourished around the great

libraries of Alexandria during the last three centuries BC and the first three centuries AD. It was this doctrine that plunged the world into the Dark Ages by suppressing not only Gnostic inquiry but also the vast bulk of 'pagan' classical knowledge. And it was this same doctrine of blind faith and unquestioning obedience – still top of the Catholic agenda 1000 years later – that led directly to the gross moral errors of the Albigensian Crusades and the Inquisition in the thirteenth and fourteenth centuries, and to yet more suppression of books and knowledge, more burning of heretics, more terror and stupidity.

By the fifteenth century, though the persecution of individual heretics was far from over, European society was exhausted and sickened by all this mad violence, censorship and bigotry. By then, too, with the complete destruction of the Cathar threat well behind it, the vigilance of the Church itself had inevitably begun to slacken. Not quite certain what sort of backlash they might ultimately incur – but willing to take the risk – certain open-minded scholars took advantage of the lull to begin a quest for ancient manuscripts. Their frank hope was that by rediscovering the lost wisdom of the past they might better guide the world towards its unknown future.

One such scholar was Cosimo de' Medici, who employed the monk Leonardo da Pistoia as his bookfinder. Now riding into Florence on the back of the little donkey that had carried him all the way from Macedonia, Leonardo anxiously fumbled in the bundle strapped at his side and felt once again the reassuring outline and weight of the miraculous, wonderful books that he was bringing to his master.

A Philosopher with Fire-power

The origin of the House of Medici is obscure, but 'Medici' means literally 'medical doctors', so a background amongst physicians and apothecaries is thought likely. Further back the family's ancestry may have included a humble charcoal burner who had moved into Florence from the nearby district of Mugello. But an apocryphal

origin added much colour to their name. Legend had it that the family had been founded in the fifth century by a brave knight who came to Mugello and helpfully killed a fearsome giant who had been plaguing the local population. As a reward he was allowed to add to his shield eight red balls, one for each of the dents from the giant's attack. These red balls, others have suggested, either represented apothecaries' pills or coins of the famous banking family that the Medici would later become.

Since 1239 the Medici had been official *Gonfaloniere* of Florence (standard bearers and custodians of the city banner). By 1389, the year Cosimo was born, the family was already prominent and rich due to the banking activities of Cosimo's father, Giovanni. He had apparently benefited greatly from his personal friendship with Pope John XXIII, Baldassare Cossa, who later, in 1414, was to be accused of heresy, simony, tyranny, the murder of his predecessor Pope Alexander V and the seduction of no less than 200 girls and ladies of Bologna![13]

Named after saint Cosmas, on whose feast day – 27 September – he had been born, Cosimo was educated at the Camaldolese monastery of Santa Maria degli Angeli, where he learned French, German and Latin and a spatter of Hebrew, Greek and Arabic. In his teens he attended the lectures and lessons of one of the most prominent scholars in Florence, Roberto de Rossi, also a member of an old and rich Florentine family. Through the influence of Rossi the young Cosimo acquired and developed a lasting respect and love for classical works, particularly Plato, and an insatiable interest in man's role and purpose on earth. In short, he was a philosopher in the ancient mould who, as it would turn out, would acquire the sort of fire-power that few lovers of wisdom ever enjoy.

Through political machinations and more especially through his influence on the Papacy (he had befriended the popes and practically ran the finances of the Vatican), Cosimo was able to add greatly to the already enormous wealth of the House of Medici. His influence grew accordingly and he was soon the *de facto* ruler of Florence, a position that he was to maintain for the rest of his life. In 1458, just

two years before the lost texts of the Hermetica were delivered to him, Cosimo was described as 'master of the country' by Pope Pius II: 'Political questions are settled in his house. The man he chooses holds office… He it is who decides peace and war and controls the laws… He is king in everything but name.'[14]

The Florentine historian Francesco Guicciardini went even further when he said that Cosimo 'had a reputation such as probably no private citizen has ever enjoyed from the fall of Rome to our own day'.[15]

All the Learning of Constantinople and a New Platonic Academy

In 1438 Cosimo came up with a brilliant idea that, in a curious and indirect way, was to change the course of Western scholarship. For centuries, as the reader will recall, the Catholic Church, headed by the Pope in Rome, had been in conflict over doctrinal issues with the Eastern Orthodox Church, headed by the Patriarch in Constantinople. This great religious 'West versus East' schism reached a crisis point in the 1430s, when Constantinople was beginning to be seriously threatened by the Muslim Ottoman Turks. Since the dramatic fall of Egypt and Alexandria to the Muslims in AD 642, the 'Eastern' Empire of Rome, which extended from Turkey through to Egypt, had been slowly gnawed away by the Muslim forces. By 1438, all that remained in Christian hands was its capital, Constantinople, called the 'Second Rome'. In the famous words of Mehmed II, the Ottoman Sultan who would eventually capture the city in 1452 after a siege of six weeks, it was just 'a monstrous head without a body'.

In 1438 John Paleologus, the Eastern Roman Emperor, whose seat was Constantinople, appealed to the Pope in the name of all Christianity for military help to save the last bastion of Christendom in the East from falling into the hands of the Muslims. In response, Pope Eugenius IV decided to call for a Great Council to meet somewhere in Italy. Cosimo de' Medici, seeing the enormous prestige

such a council would bring, especially if it achieved a reconciliation between the Eastern and Western churches, was determined that the venue should be his own city. Through his friendship with the Pope, and by offering to cover all expenses plus a generous loan to the Vatican, Cosimo had his way, and in the winter of 1439, after a night of storms and torrential rains, the Eastern Emperor, the Greek Orthodox Patriarch and the Pope all made their triumphal entries into Florence.

Months of deliberations and ecumenical debates followed until at last, in July 1439, the Great Council reached a compromise that brought the two churches together again. Predictably their reunification was short-lived; indeed the Eastern delegates barely had time to return to Constantinople before repudiating the feeble agreement. But there was an unexpected upside. Florence, all of Italy, and in due course the rest of Western Europe as well, were to benefit incalculably from the exciting intellectual stimulant provided by the large retinue of Byzantine-Greek scholars who had accompanied the Eastern Emperor to the Council. These scholars were amongst the prime catalysts in the remarkable Renaissance of classical history, art and philosophy that was soon to follow and they added new force to the already keen and burning interest of Cosimo de' Medici in Plato's works. The great Byzantine scholar Bessarion, who had accompanied the Eastern Emperor to Italy, was persuaded to remain behind, as well as his colleague Gemistos Plethon, a leading authority on Plato.[16]

After attending lectures by Plethon, Cosimo had another inspiration. He would use some of his immense wealth to establish a Platonic Academy in Florence, modelled on Plato's original. Plethon's departure, and Cosimo's involvement with other issues, delayed the project for several years. Nonetheless, the idea of the Academy did finally come to maturity. Its first home was the Villa Montevecchio in Florence and Cosimo appointed his adopted son, the brilliant scholar Marsilio Ficino, as its first director. Ficino had, in fact, been groomed for such a task by Cosimo over the years after he had noted the young man's keen enthusiasm for Plato's works, and it was Cosimo who had generously paid for Ficino's education and for his special studies in

Greek and Latin.

Cosimo had for many years been an avid collector of rare and important books and made some valuable additional acquisitions from the Byzantine-Greek scholars who had attended the 1439 Council. His library, regarded as the most extensive collection of classical and religious works in Europe, formed the nucleus of the Medici Academy and was to serve eventually as a model for the Vatican's own library. Until 1460, however, the ultimate prize – the fabled works of Hermes Trismegistus – had eluded him as well as all other collectors in Europe.

Travel-stained and weary, the monk Leonardo da Pistoia now calmly directed his little donkey into the Villa Careggi, the sumptuous residence of Cosimo de' Medici in Florence. He was admitted at once and delivered the bundle that he had carried so far directly to Cosimo himself.

Older than Moses, Greater than Plato

It was well known to European scholars of the Renaissance that the great Greek philosopher Plato, and before him Solon and Pythagoras, had visited the land of Egypt and there had allegedly learned the wisdom of the Egyptian sages. Plato, it was said, had special respect for the Egyptians – who he referred to as a 'race of philosophers'.[17] In his *Timaeus*, famous for containing the earliest surviving direct references to Atlantis, he recounted a story that had supposedly been told by Solon, the celebrated Athenian statesman and poet, after the latter had visited Egypt *circa* 600 BC. There, at Sais in the Delta area, Egyptian priests at the temple of Neith apparently recognized Solon's wisdom and agreed to discuss with him issues related to the origin of the world. After listening to Solon expounding some of the Greek myths, however, one of the priests interrupted him and exclaimed:

O Solon, Solon, you Greeks are all like children, and there is no such thing as an old [wise] Greek… You are all young in mind… you have no belief rooted in ancient tradition and no

knowledge hoary with age…[18]

Solon apparently was told by the Egyptian priests that deluges and fire had periodically ravaged the earth, causing civilizations to collapse and disappear. However, because of the disposition of the Nile valley, Egypt had miraculously been spared and all her ancient temples and sanctuaries had survived. In them and them alone was preserved a complete memory of the great events of the distant past and of deeds previously accomplished by mankind. They even contained a record of the origins of the world and knowledge of that golden age when mortals had fraternized with the gods.

Classical writers who had visited or lived in Egypt, such as Herodotus, Diodorus Siculus and Proclus Diadochos, likewise extolled the immensely old wisdom of the Egyptian priests, and especially their revered knowledge of the heavens and the motion of the stars. Many deemed Egypt a sacred land, a land in which the gods had once dwelt and taught men the divine and sacred science, and where the secrets of immortality had been revealed to those who were fully worthy.[19] However, this wonderful and pristine Egyptian science had thus far remained out of the reach of Renaissance scholars such as Cosimo de' Medici because it was written in the mysterious and impenetrable hieroglyphic language which no one any more could understand. Ancient and holy Egypt had fallen into a deep coma from which, it seemed, it might never again awake.

One can therefore imagine the intellectual shockwave that passed through the learned circles of Florence in 1460 when Cosimo de' Medici excitedly announced that he had in his possession a collection, translated by some unknown hand into Greek, of the fabled lost books of Hermes Trismegistus. The late Dame Frances Yates, a world authority on the Renaissance, puts the scale of the discovery into context:

From… early Christian writers, more about Hermes Trismegistus could be learned, particularly from Clement of Alexandria, who, in his striking description of the procession of the Egyptian priests, says that the singer at the head of the procession carried two books of

music and hymns by Hermes; the *horoscopus* carried four books by Hermes on the stars. In the course of this description Clement states that there are forty-two books by Hermes Trismegistus, thirty-six of which contained the whole of the philosophy of the Egyptians, the other six being on medicine. It is very improbable that Clement knew any of the Hermetica which have come down to us, but the Renaissance reader believed that he had in the *Corpus Hermeticum* and the *Asclepius* precious survivors of that great sacred library of which Clement speaks.[20]

Cosimo and his contemporaries believed that the 'divine' Plato had himself been taught philosophy by the priests of Egypt. It was the desire to regain contact with the source of that philosophy that mostly fired the imagination of Cosimo de' Medici and led him to action.

Drop Plato, Translate Hermes Instead

When the Hermetic texts reached Cosimo, it so happened that his adopted son, Marsilio Ficino, was busy translating the works of Plato from Greek into more accessible Latin. Cosimo ordered the young man to drop Plato at once and to concentrate all his efforts full-time on the translation of the Hermetica (as the collection that Leonardo da Pistoia had brought back from Macedonia is now known).

Ficino, then twenty-seven years old, had already acquired a reputation as a fine scholar, theologian and linguist – especially in Greek and Latin. Born in 1433, he was the natural son of a Florentine physician, the latter a close friend of Cosimo de' Medici. Cosimo adopted Ficino after the death of his father, and encouraged him to pursue his passion for Plato's works.

Roman Catholicism had a long history of disapproval of Platonic philosophy going back before the closure of the original Academy in 529. By the 1400s, however, Plato was beginning to find supporters again within the Church – and Ficino was one of these. He therefore set out very deliberately to apply his intellect to an integration of Plato's philosophy with Roman Catholic teachings. He would also try to do the same, as we shall see, with the philosophy found in the

books of the 'Egyptian sage' Hermes Trismegistus. But what was amazing was that the man who was to be the head of Cosimo de' Medici's Platonic Academy should have been ordered to put aside Plato and to focus instead on the translation of the books of Hermes. As Frances Yates comments:

> It is an extraordinary situation. There are the complete works of Plato, waiting, and they must wait whilst Ficino quickly translates Hermes, probably because Cosimo wants to read him before he dies. What a testimony this is to the mysterious reputation of [Hermes] the Thrice Great One![21]

Within a year Ficino managed to complete a Latin translation of the fourteen books or 'tracts' of the Hermetica. In 1473, ten years after finishing this work, Ficino was ordained a priest of the Roman Catholic Church and eventually became a high official at the Cathedral of Florence. It is widely accepted by scholars that his translations of the Greek classics and, especially, the works of Plato, were part of the impetus behind the Italian Renaissance. But what is less appreciated is the huge, indeed revolutionary, effect that Ficino's translation of the Hermetica was also to have on Western culture and on the Catholic Church itself.

The Full Corpus

Ficino had given his translation the title of *Pimander*, the name of the mysterious 'universal mind' that supposedly had revealed to Hermes Trismegistus the divine wisdom imparted in the Hermetica.

Although the printing press had just been invented fifteen years before,[22] the publication of *Pimander* was a huge success. It had first circulated in handwritten copies but eventually was printed in 1471 in Treviso (apparently without permission from Ficino) under the title *Pimander or the Power and Wisdom of God*. This was somewhat misleading since the term *Pimander*, which is derived from the original Greek *Poimadres* – itself derived from *Peime-n-Re*, meaning

the ‘knowledge of Re [or Ra]’, the Egyptian sun-god – only appears briefly in the opening part of the book. None of the other tracts in the Hermetica mentions *Pimander* at all.

Be that as it may the Treviso edition was so successful that it prompted another publisher at Ferrera to bring out a rival edition in 1472, again without Ficino’s permission. By 1543, the same year that Copernicus’s famous *Revolutions* was first published in Nuremberg, there were over fifty separate editions of the Hermetica circulating in Europe!

When Ficino had translated the texts back in 1463, he had not included a tract called the *Logos Teleios*, the *Perfect Discourse*, better known as the *Asclepius*. This was because the latter (a fragment of which, the reader will recall, was also found amongst the Nag Hammadi Gnostic texts) had already been translated into Latin from a Greek original some time in late antiquity and had been circulating among European scholars since medieval times. We shall come back to the *Asclepius* in due course but, in brief for now, this book purports to explain the magical religion of the Egyptians and, more importantly, the mysterious talismanic skills that they supposedly deployed to draw down the powers of the stars into statues and other objects.[23] It was this type of magic that was to impress Ficino deeply and to influence his many followers.

The *Asclepius* was printed for the first time in 1469 with the complete works of Apuleius, only two years before the first printed edition of Ficino’s *Pimander*. It thus quickly became customary to attach the *Asclepius* to the Hermetica, the whole forming one major corpus generally known as the ‘philosophical’ Hermetica or *Corpus Hermeticum*. There is also a further booklet known as the *Definitions of Asclepius* that is sometimes added to this corpus.

According to French scholar Jean-Pierre Mahe, Professor of Humanities at the Sorbonne in Paris, the *Definitions of Asclepius* was rediscovered in 1484, that is, two decades after the rediscovery of the Hermetica, in a far more dramatic and flamboyant manner than the Ruritanian spectacle of a monk riding his little donkey into Florence. Apparently a certain signore Ludovico Lazzarelli, in an obscure tract

titled *The Letter of Enoch*, narrated how his master, Don Giovanni Mercurio da Correggio, had helped him to find these lost writings of Hermes Trismegistus (also called Mercurio by the Italians). On Palm Sunday in April of the year 1484, Giovanni Mercurio, then exactly thirty-three years old, that is, the supposed age of Christ at his crucifixion, rode into Rome on a black stallion guided by two servants, and made his way towards the Vatican. Dressed in black and wearing a golden belt and purple shoes, Giovanni Mercurio had placed on his head a crown of thorns, and upon his brow was fixed a silver plaque in the form of a lunar crescent on which were written these words:

> This is my son Pimander, whom I personally chose. From early childhood he has grown to sublime heights, and I have empowered him with all my compliance to cast away demons and to install my truth and my justice upon all nations. Be warned not to oppose him! Heed his words and obey him with fear and reverence. These are the words of the Lord of all the sanctuaries of the world, Jesus Christ.[24]

Giovanni Mercurio then pulled a heap of leaflets out of his saddlebag and threw them all around. The crowds gathered; some thought him mad, others thought that he was making some strange vow, but the majority hailed him as a prophet. At the Vatican, the Swiss Guard, baffled by this strange scene, stood aside and let him pass. In the cathedral Giovanni Mercurio announced that he was the reincarnated Pimander. He spent the next few days talking to the crowds then returned to his hometown in Bologna, where he was widely acclaimed by women and children. Not surprisingly, he was soon arrested by the Inquisition for blasphemy and threatened with the stake. In 1486, however, he was released under the protection of the then King of France, Charles VIII.

Almost every aspect of this whole strange episode underlines the incredible religious impact that the Hermetica had on the collective mind of the Renaissance and, even more curious, the way that Hermes/Mercurio Trismegistus was being attached to the Christian faith.

A repercussion of Giovanni Mercurio's strange but short career as a 'prophet' of Hermes Trismegistus was that the poet and astrologer Lodovico Lazzarelli, who had been an eyewitness to Giovanni's cavalcade into Rome on that Palm Sunday back in 1484, also succumbed to the Hermetic spell, and adopted the mystical name of 'Enoch' (another alleged incarnation of Hermes).[25] Lazzarelli became Giovanni's most ardent disciple and, according to him, here is how the *Definitions of Asclepius* were found:

> It was by chance, while scrutinizing relentlessly the old books of those who inspired me, and while over a cup full of the most suave nectar which, I do not doubt, had flowed from the huge *crater*[bowl] of *Hermes Trismegistus*, by which I mean a small book in Greek having the title of the *Definitions of Asclepius*. As soon as I read it, its conciseness and the mysterious authenticity of its wisdom enchanted me and filled me with admiration.[26]

Lazzarelli made it his task to translate the *Definitions of Asclepius* immediately into Latin, but it was only after his death in 1507 that this book was eventually printed – alongside the work of the French Neoplatonist and occultist Symphorien Champier, in his *Book of the Quadruple Life*. Now, at last, the full works attributed to Hermes Trismegistus were in the hands of Western scholars, and something quite extraordinary was about to happen…

Veiling Hermes in the Church (1)

In the mind of Marsilio Ficino, Hermes Trismegistus was a historical person who had lived in ancient Egypt and had actually been the author of the Hermetica. This view was shared by all the Renaissance humanists and philosophers – notably the great Christian Hermetic-Cabalist Pico della Mirandola – who, like Ficino, were totally seduced by the Hermetica. As Professor Jean-Pierre Mahe explains:

> According to Marsilio Ficino, [Hermes] Trismegistus [Hermes Thrice-Great] had merited his surname by becoming at the same time the greatest of philosophers, the greatest of priests and the greatest of kings… And his successors were Orpheus, Aglaophemus, Pythagoras and

Philolaus, the teacher of Plato… Thus, the works of Trismegistus were the true source of ancient wisdom. Not only the divine Plato, but also the legendary Pythagoras and even the inspired poets such as Orpheus, perpetuated the same Egyptian doctine: all bouncing the echo, as it were, of a single and same ancient theology, the *prisca theologia*…[27]

Concerned, however, not to undermine the authority of the Bible and awaken the Inquisition, the early Hermetic scholars accepted that Hermes Trismegistus came after Moses. This play-it-safe idea had originated with St Augustine, the Manichean 'hearer' who converted to Catholicism and became one of the great Doctors of the Church (see Chapter 4). Augustine accepted that Hermes Trismegistus lived long before the Greek philosophers, but insisted that he

came after Abraham, Isaac, Jacob, Joseph and even Moses. Because Moses was born in the time of Atlas, brother of Prometheus, who was a great astronomer… he was the grandfather of the older Mercury [Hermes], himself the grandfather of [Hermes] Trismegistus.[28]

But some did not agree with this chronology. Lazzarelli, who had translated the *Definitions of Asclepius* and utterly believed in Hermes Trismegistus' older origin, argued:

It was not at the times of Moses that Trismegistus had lived, but long before, as one can easily ascertain from the works of Diodorus of Sicily. The latter reported, in his chronology of the kings of Egypt, it was first gods that ruled then human brings. Hence it is evident that Mercury (Hermes) Trismegistus lived in the times of the gods… whereas Moses lived at an epoch where the Bible and many other ancient writings known in Egypt clearly state when ruled pharaohs.[29]

If you visit the famous Cathedral of Siena located between Rome and Florence, you will find that the entire floor, which dates back to 1488, is paved with exquisite marble designs depicting religious and mythological scenes. One of these scenes shows the Egyptian sage Hermes Trismegistus handing a book to an oriental figure standing in a respectful manner bowing slightly. Written upon the book in Latin are the words 'Suscipite O Licteras Et Lege Egiptii', meaning 'Take up

thy letters and laws O Egyptians', and the bowing figure, according to Frances Yates, was 'perhaps intended to be Moses'.[30] What seems to support this amazing identification is the plaque under the feet of the figures which states: 'Hermes Mercurius contemporaneous of Moses', implying, says Yates:

> a *supplication* from the lawgiver of the Hebrews (if the suppliant figure is Moses) to the lawgiver of the Egyptians to revive Egyptian piety and morality… The representation of Hermes Trismegistus in this Christian edifice, so prominently displayed near its entrance and giving him so lofty a spiritual position, is not an isolated phenomenon but a symbol of how the Italian Renaissance regarded him and a prophecy of what was to be his extraordinary career throughout Europe in the sixteenth century and well on into the seventeenth century…[31]

Veiling Hermes in the Church (2)

The ancient Egyptian sage Hermes Trismegistus, and by extension the writings attributed to him, were indeed due for a glittering Renaissance career. In 1544, for example, when the French humanist Adrien Turnebous (better known simply as Turnebus) published in Paris the first edition of the original Greek text of the Hermetica accompanied by Ficino's translation in Latin, the theologian Petrus Paulus Vergerius had this to say in the preface:

> Hermes Trismegistus was an Egyptian by race… He flourished before the time of pharaoh, as many of the *chronographi* think. Some, among whom is Cicero, suppose that he is the person whom the Egyptians call Thoth… He must have lived, therefore, before pharaoh, and consequently, before Moses also… He wrote at the time many books of mystical philosophy and theology. Among these writings, there are two of special importance: the one is called *Asclepius*, and the other, *Poimandres*.[32]

After Turnebus's publication came the work of François Foix de Candalle, the Bishop of Aire, better known as 'Flussas', who published a new edition of the Hermetica. Flussas was even more enthusiastic

than his predecessors, and dedicated the work to the Holy Roman Emperor Maximilian II (reigned 1564–76), informing him that Hermes Trismegistus had attained to a knowledge of divine things which he first wrote in Egyptian, then in Greek, surpassing that 'which was revealed to the Hebrew prophets, and equalling that of the Apostles and Evangelists':

> What more is made known to us by those who were instructed by our Saviour himself? And yet this man [Hermes] was anterior in time not only to the disciples of our Lord, but also to all the prophets and teachers of our law, and, as the ancients say, to Moses himself.[33]

In 1591 came the Italian Neoplatonist scholar Francesco Patrizzi, who was also to publish an edition of the Hermetica in his work *Nova de Universis Philosophica*. Patrizzi not only saw Hermes Trismegistus as the source of all wisdom, but in the preface of his book, which is addressed to Pope Gregory XIV, Patrizzi actually urged the Pope to order that the Hermetica should be taught to everyone, even to the Jesuits, because it could somehow serve as a 'conversion' tool for the Catholic Church:

> I hope that you and your successors will adopt this new restored religious philosophy and cause it to be studied everywhere… I would have you then, Holy Father, and all future Popes, give orders that some of the books which I have named shall be continually taught everywhere, as I have taught them in the last fourteen years at Ferrara. You will thus make all able men in Italy, Spain and France friendly to the Church; and perhaps even the German protestants will follow their example, and return to the Catholic faith. It is much easier to win them back in this way than to compel them by ecclesiastical censures or by secular arms. You should cause this doctrine to be taught in the schools of the Jesuits, who are doing such good work. If you do this, great glory will await you among men of future times. And I beg you to accept me as a helper in this undertaking.[34]

The 'doctrine' that Patrizzi was referring to is the same that Plato had once taught and which, at least according to Patrizzi, had been originally developed and transmitted to man in ancient Egypt by Hermes Trismegistus. Patrizzi believed that it was passed on to Plato

during his stay in Egypt and then passed by Plato himself to his pupil Aristotle, the tutor of Alexander the Great.[35] Amazingly, Patrizzi seems to be asking the Pope to *canonize* the Hermetica and other related writings which, he believed, contained a pristine doctrine, a *Prisca Theologia*, rooted in ancient Egypt. Yet, seen in the context of his times, Patrizzi's seemingly heretical request to the Pope is not as far-fetched as it at first appears. In fact there had been one Pope at least who took such ideas very seriously indeed…

Pico, Hermetic Magic and the Cabala

One of the most brilliant minds of the Renaissance belonged to a young Florentine scholar named Pico della Mirandola. The scion of a noble family of Modena, Pico was much influenced by the ideas of Marsilio Ficino on Hermetism and, more especially, Hermetic magic, which Pico not only completely accepted, but would propagate with even more fervour and enthusiasm.

Whilst wholeheartedly sharing Ficino's view that Hermes Trimegistus was a 'gentile' prophet of Christianity, Pico went further. What he saw in the Hermetica was a form of mystical teaching and 'natural magic' which he also associated with the Jewish Cabala. The reader will recall from Chapter 2 that this was a system of mysticism rooted in esoteric Judaic traditions that had received its most extensive elaboration and development amongst the Jewish communities of coastal Occitania during the twelfth century. Now, more than 300 years later, Pico felt with all his heart that these two types of Cabalistic magic, Jewish and 'Egyptian', needed to be merged and used for the benefit of the Christian Church.

According to Frances Yates, 'the marrying together of Hermetism and Cabalism' was an invention of Pico della Mirandola, who also 'united the Hermetic and Cabalistic type of magic' to create a powerful intellectual brew loosely termed the Christian Hermetic-Cabala, which was to have far-reaching consequences amongst Renaissance theologians, reaching even as far as the Vatican itself.[36]

And although magic, in the medieval sense, was abhorred and virtually outlawed by the Church, Pico successfully argued that what the Church had in mind concerned the diabolical 'modern' type of magic which, he agreed, was detestable. What he was advocating, he explained, was something quite other – the beautiful, ancient and innocent *magia naturalis*, i.e., the natural magic of the wise Egyptian sage Hermes Trismegistus. This was seen by many, not just Pico, as a form of 'sympathetic magic', which could establish a benevolent link between heaven and earth. In short, what Pico had in mind was that 'Egyptian' form of talismanic magic as found in the Hermetica and, more especially, in the *Asclepius*.[37] But unlike Ficino, Pico believed that this 'Egyptian' magic must be 'supplemented' by 'practical Cabala', i.e., Cabalistic magic. And precisely this, says Yates, is the intellectual contribution to Renaissance magic that Pico was to develop with amazing success.[38]

Cabala, in fact, literally means 'tradition', namely that special Jewish mystical tradition that was supposedly handed by God to Moses in the sacred Hebrew language and which, according to Cabalists, conveys mystical and magical meaning encoded in the twenty-two letters of the Hebrew alphabet. Hebrew letters and the words they form are viewed by Cabalists in very much the same way as the statues and objects of the Egyptians were most likely viewed by their devotees – that is to say as *talismans* charged with magical and mystical meaning that can be released through a form of 'magic'. Thus, according to Pico, both the Hermetic-Egyptian and Cabalistic-Hebrew magical systems – which supposedly had emanated, respectively, from the Egyptian law-giver Hermes Trismegistus and the Jewish law-giver Moses – complement one another. The next step, surely, was to merge them? And since both these ancient sages received their wisdom from God and were thus 'prophets' of Christianity, then, in Pico's logic, the now merged Hermetic-Cabalistic magic rightfully belonged to the Christian Church!

It is not within the scope of this book to review and elaborate on the complex 'science' of Cabala, nor is it possible to enlarge and give

details on how Pico proposed to merge this system with the Hermetic magic of the *Asclepius* or, indeed, incorporate it within the Catholic religion. Briefly, however, Pico essentially saw his Christian Hermetic-Cabala as the means through which the 'truth' of the Trinity could be proved and confirmed to the people. Or, as Pico himself was to put it, his Christian Hermetic-Cabala was the means of 'confirming the Christian religion from the foundations of Hebrew wisdom'.[39]

It also did not take much imagination for the Church to see that Pico's clever variant of the ancient Jewish mystical tradition could serve as a 'conversion tool' to bring Jews into the Catholic faith. One example of such a simple but devastatingly effective 'tool' was Pico's very forceful argument that the name of Jesus, *Iesu* in Hebrew, if interpreted through Cabalistic principles and methodologies, could be proved to mean 'God', the 'Son of God' and also the spirit or 'wisdom of God', i.e., the Christian Trinity of Father, Son and Holy Spirit.[40] In short, Pico proposed to win the Jews over using their own mystical game. And indeed, with such seemingly simple but convincing manipulation of Hebrew words using 'Christian Hermetic-Cabala', it seems that many Jews living in Italy were persuaded that 'Christian truths' were locked within their own religious scriptures and thus felt compelled to convert to the Catholic Faith.[41]

Not surprisingly, Pico's bold but unwise claim 'that there is no science that gives us more assurance of Christ's divinity than magic and the Cabala' was bound to attract the sombre attention of the Papal Inquisition, whose henchmen missed the point of Pico's 'good intention' and promptly accused him of heresy.[42] Matters got progressively worse between Pico and the Church, and he had to take refuge in France and seek the protection of Charles VIII. He eventually returned to Italy bearing letters from the King of France, and soon found himself under the protection of Lorenzo the Magnificent, the powerful Medici ruler of Florence from 1469 to 1492. In the tradition of his grandfather Cosimo, Lorenzo gave the fugitive political support and interceded on his behalf with the Pope.[43] Pico spent his last years in Florence, where he died in 1494,

at the youthful age of thirty-one.

Perhaps it should be mentioned that, coincidentally, Pico had been born in the same year that Marsilio Ficino had completed the first Latin translation of the Hermetica. These propitious coincidences seem to have been part of Pico's life. The year before his death, Pope Innocent VIII, who had condemned Pico for heresy, was succeeded by the infamous Pope Alexander VI who, unlike his predecessor, was rather open, indeed even sympathetic, towards magic, Cabala and Hermetism. In June 1493 Alexander VI gave his absolution to Pico della Mirandola, revoked the charges against him, and even wrote him a personal letter in which he describes Pico as a 'faithful son of the Church' inspired by a '*divina largitas*.'[44]

Suddenly and, for a brief moment, there was a crack in the doors of the Vatican. Through it, quietly but surely like a thief in the night, the wisdom and magic of the 'Egyptian sage', Hermes Trismegistus, slipped quickly inside…

The Borgias, Orgies in the Vatican, Isis and Osiris on the Ceiling

Pope Alexander VI's family name was Rodrigo Borgia. Born in the former Cathar stronghold of Aragon in north-eastern Spain, he came from an immensely wealthy, powerful and ultimately notorious family. His uncle, the Bishop of Valencia (later to become Pope Calixtus III), had supervised his education in Bologna in Italy and later made him a cardinal of the Roman Church. Through bribery and intrigue he thereafter succeeded in amassing a huge personal fortune. Father of an unknown number of illegitimate children, he also had four legitimized children from a Roman noblewoman, Vanozza Cantanei. These included the twisted Cesare Borgia and the beautiful Lucrezia Borgia, whose names would come to epitomize intrigue and foul play.

In spite of his licentious reputation – and somewhat amazingly, all things considered – Rodrigo was elected Pope in 1492 and adopted

the name of Alexander VI. He immediately began to manipulate and control the Vatican through bribery and by appointing members of his own family in key positions. Cesare Borgia, his celebrated evil son, was promoted to cardinal while still in his teens, along with another young man of the Borgia clan, Alessandro Farnese, the future Pope Paul III. The latter was the brother of the Pope's favourite mistress, Giulia la Bella (from whom the Pope had at least one illegitimate child). There are contemporary accounts of wild orgies at the Vatican, and historians have even traced at least two assassinations by poisoning directly related to Pope Alexander VI. Indeed, so corrupt and evil was the papacy of Alexander VI that after his death, even the Vatican itself could not avoid condemning him as the worst of the so-called 'Bad Popes' – a polite understatement to describe the huge damage to the reputation of the Catholic Church done by the Borgias.

There is another, yet more bizarre story about Alexander VI which, we think, might explain his interest and even sympathy for Christian Hermetic-Cabala and the 'Egyptian' *magia naturalis* of Hermes Trismegistus which Pico had so fervently expounded…

A Dominican abbot called Giovanni Nanni – also known as Annius or Ennius – was a renowned historian who also acted as the personal secretary to Alexander VI.[45] In his better-known work concerning the chronology of man from the Deluge to the fall of Troy, Nanni advanced an extraordinary theory that the Borgia family of Pope Alexander VI were *descendants* of the Egyptian god Osiris, also known in Nanni's days as the 'father of the Egyptian Hercules'.[46] Using such classical authorities as Herodotus, Diodorus Siculus and others – as well as the 'authority' of certain ancient texts which he himself had forged – Nanni presented an astoundingly convincing theory that the 'wisdom of the Egyptians', that is, the Hermetic wisdom, had been transferred directly to the Italian people by Osiris when he had roamed the world in ancient times on a great civilizing mission.[47] According to the Danish scholar Erik Iversen, Nanni then 'provided a heroic genealogy for his papal patron by demonstrating that the Borgia family descended directly from the Egyptian Hercules, the son

of Osiris, and that the bull on the family crest was, in fact, the Osirian *Apis*'.[48]

The Pope must have taken such ideas very seriously indeed, for he promptly commissioned the renowned Renaissance painter Pinturicchio to decorate the ceiling of the Borgia apartments at the Vatican with scenes of Hermes Trismegistus along with the Egyptian goddess Isis and the Osirian Apis bull – i.e., Serapis, the composite Graeco-Egyptian deity of ancient Alexandria. One such scene is clearly an allegory of the Hermetic 'natural' or 'astral' magic found in the *Asclepius*, where Hermes Trismegistus stands under a huge sky-globe with a large star dangling over his head, and is surrounded by various wise-looking men or sages, probably representing the classical philosophers, who are standing in reverence around him as if receiving his teaching.[49]

This strange episode of Nanni and the Borgia pope is, of course, somewhat farcical and has nothing or little to do with the erudite and scholarly approach that Ficino, Pico and other savants applied to the Hermetic writings. Nonetheless, it stands as evidence of how deep the Hermetic influence had penetrated in those Renaissance days in Italy and the rest of Europe. More importantly, it testifies to the strange lure that its mysterious Hermetic-Cabalistic-talismanic 'magic' had on those seeking the divine secrets through the rediscovered ancient wisdom believed to be incorporated in the writings of the 'Egyptian' Hermes Trismegistus.

The Mystery of the Picatrix and the Star-people

Although it can be said with absolute certainty that Ficino developed his own brand of talismanic and 'natural magic' from his readings of the *Asclepius*, some scholars, such as Frances Yates for example, also think that he was much influenced by another Hermetic book on magic entitled *Picatrix*[50] – a book that is not normally associated with the canon of the *Corpus Hermeticum*, although versions of it had been circulating in Europe since at least the thirteenth century. Indeed, a

copy of the *Picatrix* was found in Pico della Mirandola's private library, and it is also almost certain that Ficino and others of his group possessed copies or, at the very least, knew where to find such copies.[51]

The *Picatrix* was first translated into Latin from an Arabic version, now lost, which is believed to have been written in the twelfth century in Spain, although some scholars think that it might have been originally composed in Egypt in the mid-eleventh century. In the Arabic version this book bore the title *Ghayat Al Hakim*, which means 'The Aim of the Sage' (also sometimes translated as 'The Goal of the Wise') and no one really knows why Italian Renaissance scholars named it *Picatrix*.[52]

With its source said to be 224 ancient manuscripts on Hermeticism, astrology, magic, Cabala and alchemy, the *Picatrix* is considered one of the most complete works on ancient talismanic magic in existence. There are, today, various European translations available: in German by the scholar Helmut Ritter in 1933; in Spanish by Marcelino Villegas in 1982; in Latin in 1986 by the American scholar David Pingree of Brown University; and in Italian by Davide Arecco and Stefano Zuffi, also in 1986. A partial English translation was published in 2002 by Hashem Attallah, and we understand that David Pingree has been working on an English translation in recent years.[53] Pingree published an extensive article on the *Picatrix* in the *Journal of the Warburg Institute* in 1981, and there are some very useful commentaries on it, supported by extensive quotations, in Frances Yates's book *Giordano Bruno and the Hermetic Tradition*, published in 1964, on which we have mostly based our investigation. Yates, who studied the German and Latin versions of the *Picatrix*, concluded that this work must be associated with the Hermetic tradition, since not only is much reference to Hermes Trismegistus made in it but also it almost certainly draws from the ideologies of the Sabeans – Arabs of Harran (a location in the south-east of modern Turkey) who had adopted the Hermetica as their own 'religion' in the ninth century AD and who also practised the talismanic magic of the *Asclepius*.[54]

The Sabeans venerated the moon-god Sin, and they are known to have been avid stargazers and astrologers. An interesting theory of how they got their name has been put forward by Selim Hassan, an Egyptologist who worked at the Giza pyramids in Egypt in the 1930s.[55] Hassan proposed that the name Sabeans, which is *Saba'ia* in Arabic, may have come from the ancient Egyptian word *Saba'a*, which means 'star'. Apparently the Sabeans of Harran had performed yearly pilgrimages to the Giza pyramids from time immemorial until at least as late as the eleventh century AD. At the pyramids they are known to have conducted astronomical observations and rituals which may have been remnants from the old astral religion of ancient Egypt. Hassan believed that the Sabeans had recognized the Giza pyramids as monuments dedicated to the stars, which probably inspired them to take the name *Saba'ia*, i.e., the 'star-people.'[56]

There is, however, another possible explanation. When the Hermetic and Gnostic sects were persecuted in Egypt by the Roman Church, some initiates may have fled to Harran carrying with them copies of the Hermetic and Gnostic writings. Harran, with its moon-worship cult – in Egypt, Thoth-Hermes was also a moon-god – as well as star-worship and astral magic, would have been an obvious place for the Hermetists and Gnostics seeking refuge and protection from the Roman and Christian persecutions. At any rate, whatever the true origins of the Sabeans, it seems clear that their astral and talismanic magic was passed on to Arab scholars in Spain and Occitania, and that much of it survived in books such as the *Picatrix*. It is not within the scope of this investigation to pass into review the whole content of the *Picatrix*, but suffice to say here that it served as a sort of practical manual for talismanic magic or, to be more specific, it provided a step-by-step explanation of how to make talismans by pulling into them the power of the spiritual and astral world.

Perhaps an example may be useful here. Imagine two identical AA batteries, the sort we use every day to power electronic equipment such as portable cassette or CD players, penlights, cameras and the like. One of the batteries, however, is fully charged while the other is

empty. The charged battery has the potential to release energy to power music, light and so forth; the other is simply an inert object that produces nothing. In a similar way any object can be charged with *intellectual, spiritual or emotional* energy, just like the battery can be charged with electrical energy. In short, a talisman can be created. Imagine a young man who takes his lover to a restaurant dinner by candlelight and, at the appropriate moment, after having made a full declaration of love, pulls out a small box with a diamond ring in it and offers it as a token of his love. Whatever the reaction, that ring is henceforth not just a ring; it is a talisman.

Today we use the words 'sentimental value', but an ancient Egyptian or Sabean or, if you prefer, a Hermetic thinker, would use the words 'talismanic value'. We all have our talismans: rings, necklaces, bracelets, amulets, crystals and so forth. And we generally would be quite disturbed should they get lost or stolen. Many cutting-edge researchers have long accepted that ancient Egyptian art, statuary, obelisks, pyramids and even whole cities were meant to act as powerful talismans. It is also recognized that the subliminal effect of such talismans can be increased manifold by adding a variety of sensual stimuli other than mere visuals. Carefully chosen music, for example, will almost certainly enhance the experience, as well as perfumes, incense and lighting conditions. We all know how vastly different it is to visit a cathedral with a noisy group of tourists and again alone when a choir is singing hymns in soft candlelight with the smoke of incense filling the air.

It should be noted also that such talismanic environments do not necessarily have to be artificial. The natural environment can, and often does, act as a 'temple'. Just think of a Scotsman after years of absence returning to his beloved Highlands, or a Berber returning to the desert after a long spree in a city, and you will get the idea. This, in part, is what Ficino and Pico called *natural magic*.

But it is the perfect *combination* of an artificial 'temple' with a natural 'temple' that can act as the most inspiring and effective 'temple-talisman' of all. Think of the palace of Versailles in France, the Taj Mahal in India, Angkor Wat in Cambodia. Think of a city like

Paris in the spring, or Rome in the summer, or Washington, DC in the fall and you begin to understand the principle here.

All this may sound like some hocus-pocus pseudoscience in our present climate of intense empirical, rational and analytical thinking. But irrespective of what we may think of talismanic magic or so-called 'sacred science', the fact remains that we are complex creatures and we have evolved over billions of years under the subtle influence of nature. Our senses act as finely tuned receivers that enable us to understand nature and the cosmos around us intuitively. Such abilities are quite simply *natural magic* and in ancient times were skilfully amplified by enhancing and capturing the multiple aspects of nature within well-defined symbols and talismans. We would go so far as to say that the ancient Egyptian priests were the true masters of this arcane magic and that an Egyptian temple was not really a temple at all so much as a powerful talisman meant to influence events in the macrocosm. Enter an Egyptian temple and you enter a model of the universe as perceived by the inner human mind. A temple was not merely a place of worship, but an environment that you had to integrate with – its ambience, its harmonic proportions, its carefully chosen images, its symbols, its magical texts and its talismanic statuary, all of which were charged with archetypal values, cosmic principles and natural ideals. And yet in the *Picatrix* we are presented with something far more ambitious than a sacred talismanic temple. We are presented with no less than an esoteric manual for the transformation of great cities, and even perhaps the whole *world*, into talismans…

Temple of the World

In the Hermetic text known as the *Asclepius* there is a call sent to a future generation of 'wise men' to bring about the full *restoration* and *restitution* of the true religion of the world[57] – that is, the magical talismanic religion which was once practised in the sacred land of Egypt. This call is highly reminiscent of the mysterious 'Organization'

spoken of in the Nag Hammadi Gnostic texts, which date from approximately the same period and which even include a fragment of the *Asclepius*. As the reader will recall from Chapter 5, the texts leave us with the impression that this 'Organization' was some sort of Gnostic secret society and that its objective was also the restoration of a 'true religion' – in its case Gnosis.

Let's look at the relevant passages of soaring prose in the *Asclepius*, in which Hermes Trismegistus laments and prophesies to his favourite pupil *Asclepius* the forthcoming and inevitable destruction of Egypt and its ancient and most revered religion:

> Do you not know, Asclepius, that Egypt is an image of heaven or, to be more precise, that everything governed and moved in heaven came down to Egypt and was transferred there? If truth were told, our land is the temple of the whole world. And yet, since it befits the wise to know all things in advance, of this you must not remain ignorant: a time will come when it will appear that the Egyptians paid respect to divinity with faithful mind and painstaking reverence – to no purpose. All their holy worship will be disappointed and perish without effect, for divinity will return from earth to heaven, and Egypt will be abandoned. The land that was the seat of reverence will be widowed by the powers and left destitute of their presence. When foreigners occupy the land and territory, not only reverence will fall into neglect but, even harder, a prohibition under penalty prescribed by law – so-called – will be enacted against reverence, fidelity and divine worship. Then this most holy land, seat of shrines and temples, will be filled completely with tombs and corpses.

O Egypt, Egypt, of your reverent deeds only stories will survive, and they will be incredible to your children! Only words cut in stone will survive to tell your faithful works, and the Scythian or Indian or some such neighbour barbarian will dwell in Egypt. For divinity goes back to heaven, and all the people will die, deserted, as Egypt will be widowed and deserted by god and human. I call to you, most holy river, and I tell your future: a torrent of blood will fill you to the banks, and you will burst over them; not only blood will pollute your divine waters, it will also make them break out everywhere, and the number of the entombed will be much greater than the living. Whoever survives will be recognized as Egyptian only by his

language; in his actions he will seem a foreigner.

Asclepius, why do you weep? Egypt herself will be persuaded to deeds much wickeder than these, and she will be steeped in evils far worse. A land once holy, most loving of divinity, by reason of her reverence the only land on earth where the gods settled, she who taught holiness and fidelity, will be an example of utter unbelief. In their weariness the people of that time will find the world nothing to wonder at or worship. This all – a good thing that never had nor has nor will have its better – will be endangered. People will find it oppressive and scorn it. They will not cherish this entire world, a work of God beyond compare, a glorious construction, a bounty composed of images in multiform variety, a mechanism for God's will ungrudgingly supporting his work, a unity of everything that can be honoured, praised and finally loved by those who see it, a multiform taken as a single thing. They will prefer shadow to light, and they will find death more expedient than life. No one will look up to heaven. The reverent will be thought mad, the irreverent wise; the lunatic will be thought brave, and the scoundrel will be taken for a decent person. Soul and teachings about soul (that the soul began immortal or else expected to attain immortality) as I revealed them to you will be considered not simply laughable but even illusory. But – believe me – whoever dedicates himself to reverence of mind will find himself facing a capital penalty. They will establish new laws, new justice. Nothing holy, nothing reverent nor worthy of heaven or heavenly beings will be heard or believed in the mind. How mournful when the gods withdraw from mankind! Only the baleful angels remain to mingle with humans, seizing wretches and driving them to every outrageous crime – war, looting, trickery and all that is contrary to the soul…[58]

This superb piece of early Hermetic writing very much appears to anticipate the plight of the Egyptians under the Roman occupation of Egypt and, most intriguingly, it also seems to foretell the collapse of the Egyptian religion that was engineered after Christianity became the state religion of the Roman Empire. Since the *Asclepius* is dated to no later than the third century AD and, more intriguing, since the

decree of the very Christian Emperor Theodosius outlawing 'paganism' was not to be issued until 391 BC, then the eerie premonitions of the unknown author of this ominous tract are, to say the least, extraordinary. Yet this is not all. For the Lament goes on to promise hope for the future in words that resonate like a temple bell:

> When all this comes to pass, Asclepius, then the master and father, the god whose power is primary, governor of the first good, will look on this conduct… and in an act of will – which is god's benevolence – he will take his stand against vices and the perversion in everything, righting wrong, washing away malice… then he will restore to the world its beauty of old so that the world itself will again seem deserving of worship and wonder, and with constant benedictions and proclamations of praise the people of that time will honour the god who makes and *restores* so great a work. And this will be the geniture of the world: a *reformation* of all good things, and a *restitution* most holy and most reverent of nature itself…[59]

Restoration, reformation and restitution to the ways and beauty of old…

But a 'restoration, reformation and restitution' by whom? How… and when?

As the text continues it becomes clear that part of the plan – if it is a plan – includes the building or rebuilding of a magical talismanic city along certain well-defined astronomical and symbolic principles:

> The gods who exercised their dominion over the earth will be restored one day and installed in a city at the extreme limit of Egypt, a city which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of mortal men…[60]

According to Frances Yates, the above passage presents us with the image of an enchanted utopia, a sort of ancient Egyptian version of Camelot, created by the manipulation of astral magic by adept priests who, as she says, were conversant in 'astronomy, mathematics, music, metaphysics, and indeed practically everything for the introduction of the *spiritus* (astral power) into talismans'. And all this was achieved, notes Yates, by making 'images of stars inscribed on the correct

materials, at the right times, in the right frame of mind and so on'.[61] As for the magical city itself, Yates thinks that it 'might thus be seen both as the ideal Egyptian society before its fall and as the ideal pattern of its future and universal restoration'.[62]

There is, too, another eerie passage in the *Asclepius*, where Hermes Trismegistus again addresses his pupil and gives us a tantalizing glimpse of how the ancient Egyptians saw their sacred land as a model or 'image' of the heavenly landscape and a parallel world of the gods:

> Do you not know, Asclepius, that Egypt is an image of heaven? Or, to be more precise, that everything governed and moved in heaven came down to Egypt and was transferred there? If truth were told, our land is the temple of the whole world…[63]

In a Hermetic tract known as the *Kore Kosmou*, the 'Virgin of the World' – i.e., Isis, the Egyptian goddess, the consort of Osiris – makes the following revelation to their son Horus:

> The earth lies in the middle of the universe, stretched on her back as a human might lie facing toward heaven… Her head lies toward the south… her right shoulder toward the east, and her left shoulder toward the west; her feet lie beneath the Great Bear [north]… But the right holy land of our ancestors [i.e., Egypt] lies in the middle of the earth; and the middle of the human body is the sanctuary of the heart, and the heart is the headquarters of the soul; and that, my son, is the reason why men of this land… are more intelligent [wise]. It could not be otherwise, seeing they are born and bred upon Earth's heart.[64]

In the above we have an actual geographical scheme which is based on some form of astral magic, where Egypt is said to be at the very centre of the world, right at the crossing of some prime meridian. It is interesting to note that the Great Bear constellation is mentioned in this scheme, for it is well known that ancient Egyptian temples were ritualistically aligned to the Great Bear constellation, i.e., Ursa Major, in a ceremony known as 'the stretching of the cord'. It can now be better understood why in the *Asclepius* the whole of

Egypt is said to be a 'temple' or, more specifically, that Egypt is 'the temple of the world'. Was this what the ancients meant when they called Egypt 'the land of the gods'? Was it, quite literally, a *sacred land* fashioned in the image of the cosmos?

The City of Adocentyn

Part IV of the *Picatrix* seems to elaborate on this theme. Here Hermes Trismegistus is presented as the founder of a magical solar city that, we are told, was designed around astrological ideas and that contained fantastic talismanic statues and other such wonders. The secret knowledge of this magical city of Hermes, claims the unknown author of *Picatrix*, was passed down the ages by the Chaldean magi who were adepts in the science of talismanic magic:

There are among the Chaldeans very perfect masters of this art and they affirm that Hermes was the first who constructed images by means of which he knew how to regulate the Nile against the motion of the moon. This man also built a temple to the sun, and he knew how to hide himself from all so that no one could see him, although he was within it. It was he, too, who in the east of Egypt constructed a city 12 miles long within which he constructed a castle which had four gates in each of its four parts. On the eastern gate he placed the form of an eagle [Horus?]; on the western gate, the form of a bull [Apis?]; on the southern gate the form of a lion [Sphinx?]; and on the northern gate he constructed the form of a dog [Anubis?]. Into these images he introduced spirits which spoke with voices, nor could anyone enter the gates of the city without permission. There he planted trees, in the midst of which was a great tree which bore the fruits of all generation [immortality?]. On the summit of the castle he caused to be raised a tower thirty cubits high on the top of which he ordered to be placed a light-house, the colours of which changed every day until the seventh day after which it returned to the first colour, and so the city was illuminated with these colours. Near the city there was abundance of waters in which dwelt many kinds of fish. Around the circumference of the city he placed engraved images and ordered them in such manner that by their virtue the inhabitants were made virtuous and withdrawn from all wickedness and harm. The name of the city was Adocentyn…[65]

Dame Frances Yates's commentary is most helpful:

Passed through the vivid imagination of the Arabs of Harran, we seem to have here something that reminds us of the hieratic religious magic described in the *Asclepius*. Here are the man-made gods, statues of the animal- and bird-shaped gods of Egypt, which Hermes Trismegistus has animated by introducing spirits into them so that they speak with voices and guard the gates of this magical utopia. The colours of the planets flash from the central tower, and these images around the circumference of the City, are they perhaps images of the signs of the zodiac and the decans [constellations] which Hermes has known how to arrange so that only good celestial influences are allowed into the City? The lawgiver of the Egyptians [Hermes] is giving laws which must perforce be obeyed, for he constrains the inhabitants of the City to be virtuous, and keeps them healthy and wise, by his powerful manipulation of astral magic… One might say that this City shows us Hermes Mercurius [Trismegistus] in his triple role of Egyptian priest and god-maker, of philosopher-magician, and of king and lawgiver… The pious admirer of those two 'divine' books by the most ancient Hermes – the *Pimander* and the *Asclepius* – must surely have been struck by this vivid description of a City in which, as in Plato's ideal *Republic*, the wise philosopher is the ruler, and rules most forcibly by means of the priestly Egyptian magic such as described in the *Asclepius*…[66]

In the original Arabic version of the *Picatrix* the name of the magical Hermetic city is not given exactly as Adocentyn but as *Al Ashmunain*. This turns out to be a real location in Middle Egypt. It stands on the banks of the Nile, where there is an abundance of vegetation, fish and fauna, and would indeed have been a paradisiacal spot in antiquity. It was the main cult centre of Thoth/Hermes in Greek and Roman times[67] and a famous temple dedicated to Thoth once stood here.[68] For this reason the Greeks called it Hermopolis, i.e., the city of Hermes. Its original Egyptian name was Kmun, meaning 'eight', apparently in honour of a group of eight gods, the *ogdoad*, who represented the world before creation.[69]

We cannot be sure that it was Kmun/Hermopolis/Al Ashmunain that was envisaged by the writers of the *Picatrix* when they summoned up their vision of the magical, talismanic city of Hermes Trismegistus. The problem is that Adocentyn, as they described it, bears no resemblance to any real region in Egypt – although certainly

this was a land in which many 'temples to the sun' existed, the most famous being Heliopolis in the north and Luxor-Karnak in the south. The term *Ashmunain* in the original text of the *Picatrix* could also be a corruption of *Ain Shams*, meaning the 'Eye of the Sun', a name still used by Egyptians today to denote the region of Heliopolis.

But what really interests us about the talismanic city of the *Picatrix* is not so much its very plausible connection to real sacred cities of ancient Egypt. Far more important, in our view, has been its role as an archetype or template for cities to be built or rebuilt *in the future*, including the capitals of Britain, Italy, France and the United States. We will demonstrate in later chapters that in each of these cases prominent monuments, works of architecture, and sometimes the street plans of whole districts, appear have been harnessed to a secret Hermetic scheme.

If we are right then we have come across the traces of an organization that has hitherto sustained its existence and purpose undetected for hundreds of years while carrying out immense projects of occult urban planning – all of them 'hidden' in full public view. To understand why anyone might have been motivated to do such an audacious thing we must first explore the Hermetic religion that lies behind the cosmic city of Adocentyn.

Chapter 9

Two Phoenixes

> ‘A divine city hath been built for me, I know it and I know the name thereof…’ (*Ancient Egyptian Book of the Dead*, Chapter 109)[1]

> ‘I have come into the city of god – the region which existed in primeval time.’ (*Ancient Egyptian Book of the Dead*, Chapter 183)[2]

> ‘The opening into the city is fire… and the god hath made it for those who follow willingly in his train… He hath made the city so that he may dwell therein at will, and none can enter therein except on the day of the great transformations…’ (*Ancient Egyptian Book of the Dead*, Chapter 149)[3]

Specialized scholars who study ancient literature often argue that there is no strong genetic link between the known religious texts of ancient Egypt (which span the period from roughly 2300 BC to 0 BC) and the Hermetic texts composed in Alexandria in Egypt between approximately AD 1 and AD 300. ‘There is a want of technical Egyptian mythological, liturgical and sacerdotal knowledge in the [Hermetic] texts,’ explains Tobias Churton. ‘We really learn nothing about Egyptian religion, except in the most general terms, terms which would not stretch the vocabulary gained by the average reader of a tourist guide to ancient Egypt today.’[4]

The scholarly dissection of the Hermetica began with Isaac Casaubon (1559–1614), who late in his life argued, successfully, that none of the texts could possibly have been written by an ancient Egyptian named Hermes Trismegistus – as had been widely believed since their rediscovery in 1460. By skilful textual analysis he rightly attributed them to the early Christian period in the first three centuries AD and thus, it seemed, 'debunked' the notion that they were as old or older than Moses. Casaubon's findings took many years to be fully accepted, but wherever they were accepted they removed from the texts the aura of prestige that their false antiquity had given them. The inevitable result, over the next century and a half, was that 'the Hermetic writings lost their hold on men's interest, and sank into comparative neglect'.[5]

A renewal of academic interest in the Hermetica was brought about almost single-handedly in the 1960s by Dame Frances Yates, whose works we cite frequently in *Talisman*. By 'making Hermes a major figure in the preliminaries to the scientific revolution' and a vital catalyst of the Renaissance she has ensured that the Hermetic writings are now once again 'required reading for many students of early modern thought and letters'.[6]

In Yates's view Casaubon's debunking exercise in the seventeenth century had thrown out the baby with the bathwater. To be sure, the texts were *not* ancient Egyptian in origin – Casaubon was right about that. Nevertheless the 'Egyptian illusion', which misled the scholars of the Medici Academy and their successors all over Europe for the best part of two centuries, gave the Hermetic texts the power and leverage – and enough time – to effect profound changes in the way that people thought about the world and understood the human predicament.[7]

Preserving the Essence

This argument for pragmatic study of the *effects* of the Hermetic writings, regardless of any debate about their antiquity, has made the

subject academically respectable again but has done nothing to advance our understanding of their origins. We are left to believe that these astoundingly sophisticated texts arose fully formed out of nowhere in the first three centuries BC, with no background or evolution, and are asked to accept that: 'The precise provenance of the philosophical Hermetica remains to a large extent a mystery.'[8]

The one certainty, all the experts agree, is that there must have been a close connection between the philosophers and religious thinkers who composed the Hermetica in Alexandria in the first three centuries AD and the philosophers and religious thinkers who composed the Gnostic texts in Alexandria in exactly the same period. It is not simply that certain texts of the Hermetica (including the *Asclepius*) were part of the Nag Hammadi Gnostic library[9] – although this is strongly indicative of overlapping interests in the Hermetic and Gnostic communities of that period. Much more significant are the deep structural connections at the level of ideas that can be demonstrated between the two collections of texts.

The painstaking work that has revealed these connections, and begun to get to grips with the amazing philosophical and religious undercurrents of late antiquity, has all been done by orthodox, 'mainstream' scholars. Since Casaubon, however (with a few remarkable exceptions whom we'll meet in later chapters), it has been tantamount to academic suicide to reinvestigate the supposedly settled question of any possible ancient Egyptian origin for the Hermetic texts.

Our primary objective in *Talisman* is to follow the traces of what we suspect may be a 'conspiracy', or something very like one, based on Hermetic and Gnostic ideas and originally formulated about 2000 years ago. In complete contradiction to the scholarly consensus it is our proposal that the Hermetic texts *are* closely connected to the much older ancient Egyptian religion. They may have been deliberately designed to preserve its *essence* while dispensing with its substance. To take a metaphor from Gnostic and Hermetic teachings of reincarnation, the intention may have been to transfer the '*soul*' of

the Egyptian system, at the point of its death under the Roman Empire, into an entirely new and different 'body' better adapted to the times.

Building the City of the God

There is a consistent emphasis on cities throughout the Hermetic literature.

At the end of Chapter 8 we drew particular attention to the magical 'cosmic city' of Adocentyn, said in the *Picatrix* to have been built in the remote past by Hermes Trismegistus and so designed that it brought benevolent celestial influences streaming down on its inhabitants. We also pointed out that a similar magical city built by the gods is described in the *Asclepius*, probably the best-known of all the Hermetic texts. There it is intriguingly portrayed not as a city of the past but as a prophesied city – a city of the future, 'which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of mortal men'.[10]

If there is no genetic connection between the ancient Egyptian and the Hermetic texts, as scholars tell us, then it is presumably a coincidence that Chapter 183 of the *Ancient Egyptian Book of the Dead*, dated to about 1200 BC, contains this curious passage: 'I come from the city of the god, the primeval region; soul, *ka* and spirit are what is in this land. Such is its god, namely the Lord of Truth possessor of provisions, he to whom every land is drawn…'[11]

Soul, *ka* and spirit are the names given to different elements of the person all believed by the ancient Egyptians to survive death, while 'Lord of Truth' is a frequently used epithet for the wisdom god Thoth-Hermes. So here in the *Book of the Dead* we have a 'city of the god' (indeed a city of the god who would become Hermes) towards which 'every land is drawn'. Isn't that essentially the same concept that crops up more than 1400 years later in the supposedly unconnected *Asclepius* (*circa* AD 268–73), where 'the whole race of mortal men' hasten towards a city built by the gods?

Going further back in time we come to the ancient Egyptian *Pyramid Texts*, the world's oldest scriptures, dated to around 2300 BC. Here too we find references to the sacred functions of cities that are echoed in the much later and supposedly unconnected Hermetica. Of particular interest is Utterance 319, in which we learn that it is the responsibility of the King, during his reign, to *build the city of the god*: 'The King has united the heavens, the King has power over the southern and northern lands, and the gods who were aforetime, the King has built the city of the god in accordance with its proper due.'[12]

This idea that it is the sacred duty of the King to build a city that will harmoniously unite earth and heaven for the benefit of its inhabitants would be taken up some 4000 years later by the great Hermetic philosopher Tommaso Campanella. Based entirely on his studies of the Hermetica, Campanella claimed in the early seventeenth century that he could 'make a city in such a wonderful way that only by looking at it all the sciences may be learned'.[13] He would go on, as we'll see in Chapter 12, to prophesy that King Louis XIV of France would be the one who would actually build this magical 'city of the sun'.

We recall the words of Frances Yates, reported in Chapter 8, to the effect that Adocentyn, the magical city of the *Picatrix*, kept its citizens healthy and wise through the 'powerful manipulation of astral magic' which ensured that only 'good celestial influences' could reach them. How different is this from Campanella's claim to be able to make a city from which its inhabitants could learn and benefit merely by looking at it? Or from this passage in the ancient Egyptian *Pyramid Texts*, where the King says: 'I build you, O city of mine; You shall do for me every good thing which I desire; You shall act on my behalf wherever I go'.[14]

Sky and Ground

We suggest that key shared concepts underlie this shared interest in the cosmic 'city of the god' and/or 'city of the sun' that is found in

both the ancient Egyptian and the Hermetic texts. The most important of these concepts is, indeed, the unifying theme of the entire corpus of Hermetic writings: 'That which is below corresponds with that which is above, and that which is above corresponds with that which is below, in the accomplishment of the miracle of the one thing…'[15] The passage quoted is from *The Emerald Tablet of Hermes Trismegistus*, not part of the so-called 'philosophical' Hermetica but one of a large number of 'alchemical' Hermetic tracts from various periods that fall largely outside the scope of this discussion. Nonetheless, in both the alchemical and the philosophical Hermetica, as throughout the much older ancient Egyptian texts, we encounter the consistent deployment of a distinctive metaphor in which 'sky', 'heaven', 'above' and other related terms represent the spiritual, immaterial realms to which the soul properly aspires, while 'ground', 'earth' and 'below' represent the world of gross matter in which the soul is imprisoned. Implicit – and often explicit – in the relevant texts is the understanding that perfection belongs exclusively to the 'above' world, while the world of 'earth' and 'below' is corrupt and eternally imperfect.

Let's look first at a few examples from the ancient Egyptian texts, all of which in different ways explore, describe and prepare the initiate for life after death as it was conceived in the religion of the Pharaohs:

Your soul is bound for the sky, your corpse is beneath the ground… You shall go up to the sky… You shall ascend to those who are above the earth…[16] (*Ancient Egyptian Book of the Dead*)

You shall ascend to the sky, you shall traverse the firmament, you shall associate with the stars…[17] (*Ancient Egyptian Book of the Dead*)

This King is Osiris in a dust-devil; earth is this King's detestation… This King is bound for the sky…[18] (*Pyramid Texts*)

Arise, remove your earth, shake off your dust, raise yourself, that you may travel in company

with the spirits, for your wings are those of a falcon, your gleam is that of a star…[19] (*Pyramid Texts*)

'How lovely to see you, how pleasing to behold!' says Isis, 'when you ascend to the sky, your power about you, your terror about you, your magic at your feet… The doors of the sky are opened for you, the doors of the starry firmament are thrown open for you…'[20] (*Pyramid Texts*)

A particularly clear example of what we might call ancient Egyptian 'matter– spirit dualism,' is found in the *Coffin Texts*, *circa* 1900 BC:

The King is pure on that great tomb-plateau; the King has got rid of his evil; the King has discarded his wrongdoing; the King has cast down to earth the evils which were on his flesh…[21]

This passage contains the by now familiar equivalences (matter = evil; spirit = good) that we've encountered repeatedly in Part I of this book amongst the Gnostics of the early Christian era and their dualist successors the Bogomils and the Cathars. Yet it was composed 2000 years before any of the surviving Gnostic texts and 3000 years before the upsurge of the Cathar phenomenon in Western Europe in the twelfth century AD.

In our view it is not a coincidence that the Hermetic texts are redolent of exactly the same system of ideas. A few extracts are sufficient to make the point:

Evil, as I have told you before, must needs dwell here on earth, where it is at home; for the home of evil is the earth.[22] (Hermetica, *Libellus IX*)

It came to pass that evils inherent in matter were intermingled with the human body.[23] (Hermetica, *Asclepius III*)

The soul of a child… is still hardly detached from the soul of the Kosmos. But when the body has increased in bulk, and has drawn the soul down into its material mass, it generates

oblivion; and so the soul separates itself from the Beautiful and Good, and no longer partakes of that; and through this oblivion the soul becomes evil.[24] (Hermetica, *Libellus X*)

I see that by god's mercy there has come to be in me a form which is not fashioned out of matter, and I have passed forth out of myself and entered into an immortal body.[25] (Hermetica, *Libellus XIII*)

You are purified, now that you have put away the earthly tabernacle.[26] (Hermetica, *Libellus XIII*)

The last quoted remark, although from the Hermetica, could equally well sum up the state of the Cathar *perfectus* in receipt of the *consolamentum* – who thereafter severed all connections with the world of matter. Meanwhile, in the *Pyramid Texts* of the ancient Egyptians the formula 'remove your earth, shake off your dust'[27] was used in exactly the same way and to exactly the same purpose.

The Divided Creature

Scholars do not dispute the existence of a strong genetic link between Gnostic and Hermetic beliefs. On the contrary, such a link is fully accepted. As we've seen, however, the notion of a similarly close link between the Hermetic religion and the ancient Egyptian religion is rejected outright. It's provocative, then, that all three systems appear to be in complete agreement in their analysis of the fundamental dilemma of the human being as an ambiguous or 'dual' creature composed both of matter and of spirit.

The doctrine of the Gnostics, Bogomils and Cathars on this subject has been explored extensively in Part I. The reader will recall the vivid picture painted in their teachings and myths of the souls of fallen angels trapped in the 'alien' material world within the gross physical bodies of men and women. The view that emerges of the human condition is undeniably that of a creature made of 'mud' and corruption that is paradoxically illuminated by a divine and deathless

spark – a creature in large part of 'earth' that also contains a fragment of 'heaven'.

Could this permanent state of duality be what the composers of the *Ancient Egyptian Book of the Dead* were hinting at with an enigmatic formula found in Chapter 156 that reads: 'His one arm is toward the sky, his other arm is toward the earth'?[28] It is certainly what the Hermetic sages had in mind in the *Poimandres* when they wrote:

> Man, unlike all other living creatures upon earth, is twofold. He is mortal by reason of his body; he is immortal by reason of the man of eternal substance… He is exalted above the structure of the heavens… yet he is mastered by carnal desire and by oblivion.[29]

In the Hermetic text that bears his name, the student Asclepius asks Hermes the obvious question about this arrangement: 'But what need was there, Trismegistus, that man should be placed in the material world? Why might he not have dwelt in the region where God is, and there enjoyed perfect happiness?'[30] In reply Hermes explains that God first created man as an 'incorporeal and eternal being' – the reference here is to the spiritual man, the immortal soul, the 'divine spark'. Then, however:

> Perceiving that the man whom he had made could not tend all things on earth unless he enclosed him in a material envelope, God gave him the shelter of a body to dwell in, and ordained that all men should be formed in like manner.[31]

While we recognize that the Hermetic script at this point diverges sharply from the Gnostic/Cathar script (in which the soul of man is made by the God of Good and the body of man is made by the God of Evil) the general scenario of incorporeal souls immersed in matter nevertheless remains almost identical in the two religions. One profound difference must, however, be acknowledged concerning their attitudes towards matter – for while the Gnostics and Cathars deduced from their beliefs that matter should be hated, the Hermeticists reached a much more positive conclusion about the

creation and about man's place in the scheme of things:

Thus he [God] fashioned man of the substance of the mind, and the substance of body – of that which is eternal and that which is mortal – blending and mingling together portions of either substance in adequate measure, to the end that the creature so fashioned might be able to fulfil the demands of both sources of his being, that is to say, to venerate and worship the things of heaven, and at the same time to tend and administer the things of earth.[32]

Knowledge, Reason, Intelligence…

Later in the same Hermetic text – the *Asclepius* – the argument verges back into close proximity to Gnostic ideas when it reminds us that it is the ultimate destiny of the human soul to end its sojourn on earth and return to the heavens where it belongs:

God saw that of all living creatures men alone had need of reason and knowledge, whereby they might repel and put away from them the evil passions inherent in their bodies; and for this cause he imparted to them the gift of reason; and at the same time… he held out to them the hope of immortality, and gave them power to strive toward it.[33]

In the case of the Gnostic religion the reader will recall from Part I that the return to the heavenly realm could not be achieved by blind faith but was to be striven for through *gnosis* – 'revealed knowledge of the reality of things'. In the case of the Hermetic religion we see this same emphasis on knowledge, now also combined with the 'gift of reason'. Indeed, the *Asclepius* goes so far as to state that the 'divine part' of man consists of 'mind, intellect, spirit, and reason', and to assert that it is on account of these 'higher elements' that he is 'found capable of rising to heaven'.[34]

This goal of the return to heaven, the *Poimandres* asserts explicitly, is 'the consummation for those who have got *gnosis*'.[35] And in one of the *Discourses of Hermes* a helpful definition is even offered of the precise kind of knowledge involved in *gnosis*. It seems that it 'cannot be taught by speech, nor learnt by hearing': 'Knowledge differs

greatly from sense-perception… Knowledge is incorporeal; the organ which it uses is the mind itself; and the mind is contrary to the body.'[36]

The individual's quest for *gnosis*, in both its Hermetic and purely Gnostic forms, involved putting off the material world and its illusions. The reader will recall from Part I the asceticism of the Gnostic sages of Alexandria and of their successors the Cathar and Bogomil *perfecti*. The writers of the Hermetic texts would have approved: 'If a man understands the design of god,' says the *Asclepius*, 'he will despise all material things.'[37]

On the other hand, for those who persist in wilful ignorance, all the vices and evils that are inherent in the material realm:

> grow in strength, and lacerate the soul with incurable sores; and infected and corrupted by the poison, the soul breaks out in tumours, so to speak, save in the case of those whose souls are cured by the sovereign remedy of knowledge and intelligence.[38]

Like so much else in the Hermetica, this constant emphasis on the role of knowledge and intelligence in the soul's struggle to win immortality seems to have strong precursors in the ancient Egyptian funerary texts. There we encounter a bearded god called Sia who attends Ra in the solar barque. Sia's special quality is that he is the personification of intelligence[39] so it is interesting that his role in bringing the soul of the deceased safely through the Netherworld is repeatedly emphasized. In Spell 237 of the *Coffin Texts*, for example, the deceased embarks on his afterlife journey with confidence, stating: 'I know what Sia knows, and a path is opened for me…'[40] Earlier, in Spell 38, we read: 'I have seen the chest [i.e., strongbox] of Sia and I know what is in it…'[41] Another metaphor for the crucial importance of intelligence is employed in Spell 689, which states: 'This King has swallowed Sia, he has eaten magic from the magician.'[42] In the *Book of What is in the Duat* we find Sia accompanying the deceased on his journey through the Netherworld

and opening gates of fire that would otherwise remain closed to him.[43]

Stars and Angels Falling to Earth

In the ancient Egyptian system the afterlife journey through the Netherworld – the *Duat* – was the opportunity for the 'perfected spirit' (i.e., one that had acquired the necessary knowledge during incarnation on earth) to throw off for ever the entrapments of matter, ascend to the spiritual realms and become, metaphorically, a star in heaven. In the case of initiates in the Gnostic system, whether in its early Christian or later Cathar forms, we know that this sought-after 'ascent to heaven' was in fact understood as a *re-ascent* of our angelic souls to the heavenly realms from which they had fallen long ago.

The reader will recall from Chapter 3 vivid descriptions of angels falling 'like rain upon the earth' through a hole in heaven, having been tempted downwards by Satan, who then trapped them in human bodies and the cycle of reincarnation. There are some striking but neglected passages in the ancient Egyptian texts which seem to us to be expressions of essentially the same idea and once again provide support for a mysterious connection between the religion of ancient Egypt and the Hermetic and Gnostic religions. For example, in Chapter 99 of the *Book of the Dead* we read: 'This land is baleful and the stars have overbalanced themselves and have fallen on their faces therein, and they have not found anything which will help them to ascend again…'[44]

Routine use is made in the ancient Egyptian texts of the star as a metaphor for the beatified and 'perfected' soul. We therefore see little difference in intent between this image of fallen stars unable to get back to the sky and the Gnostic image of fallen angels unable to return to heaven. Of course, the purest and most spiritual angels in the Gnostic/Cathar system were those who resisted temptation and never fell to earth at all. So it was, too, amongst the ancient Egyptians as far back as the *Pyramid Texts* in 2300 BC: 'The King is one of

those… beings… who will never fall to the earth from the sky…'[45]

Reproducing Eternity in a Copy

At the heart of all such imagery, whether ancient Egyptian, Gnostic or Hermetic, is the sense of a radical rupture between matter and spirit, sky and earth. We've seen how all three of these religions taught the need for some sort of special knowledge – *gnosis* – as a way of escape for souls trapped 'below'. In the case of the Cathars the saving knowledge was acquired through asceticism, study, and the initiation ritual known as the *consolamentum*. In the case of the Hermeticists and the ancient Egyptians, as we saw earlier and in Chapter 8, there was a curious interest in cities which were to be made, so far as possible, in 'the image of heaven'. By somehow replicating or 'copying' celestial perfection on earth, the clear implication of the Hermetic texts is that such cities would provide untold benefits to their inhabitants, constrain them 'to be virtuous' and keep them 'healthy and wise'.[46]

In the *Poimandres* ('Pimander'), the first book of the Hermetic collection, we even find this idea of replication of the above by the below employed in describing the process of creation. We are led to understand that there exists an 'archetypal form', perceptible only to the mind and not at all to the senses, 'which is prior to the beginning of things and is limitless'. The material world 'issued from God's Purpose, which beheld that beauteous world [i.e., the archetypal form] and copied it'.[47]

The *Asclepius* likewise speaks of a 'higher' archetypal *Kosmos* that is imperceptible to the senses but that nevertheless influences and shapes the lower 'sensible *Kosmos*' that we inhabit as beings of matter: 'If you consider the whole, you will learn that in truth the sensible Kosmos itself, with all things that are therein, is woven like a garment by that higher Kosmos.'[48] A little later the same text adds:

God… stands unmoved; and eternity likewise is ever changeless, containing in itself a

Kosmos which is without beginning, even that Kosmos which we rightly call 'imperceptible to sense'. This sensible Kosmos [i.e., the universe of matter and space that we see all around us] has been made in the image of that other Kosmos, and reproduces eternity in a copy.[49]

In *The Discourses of Hermes to Tat* we learn more about the mechanisms of the 'copying' process: 'The forces do not work upward from below, but downward from above. The things in heaven receive no benefits from the things on earth; but the things on earth receive all benefits from the things in heaven.'[50]

In the beautiful and mysterious *Kore Kosmou* the point is re-emphasized with more detail:

All the world which lies below has been set in order and filled with contents by the things which are placed above; for the things below have not the power to set in order the world above. The weaker mysteries, then, must yield to the stronger; and the system of things on high is stronger than the things below.[51]

Hermetic Landscapes

We are now better equipped to understand the central Hermetic notion, introduced in Chapter 8, of ancient Egypt as an 'image of Heaven':

Do you not know, Asclepius, that Egypt is an image of heaven? Or, to be more precise, that everything governed and moved in heaven came down to Egypt and was transferred there? If truth were told, our land is the temple of the whole world…[52]

If the land of Egypt is 'an image of heaven', and for that reason 'the temple of the whole world', then it's easy to understand how those who believed this might have wanted to build temples that were also – in their own smaller-scale way – 'images of heaven'. The same logic would also apply to the creation and positioning of great monuments. And of course to the planning and building – or rebuilding – of cities. In other words, if we know that a person is a committed initiate of

the Hermetic system then we can predict that he or she will take an interest in temples, monuments and cities that in some way 'imitate' or 'copy' heaven. If it so happens that the initiate is a great king or a person otherwise in a position to have a major influence on decisions about the built environment, we might expect to see that interest turned to action.

It is understood that the earthly 'copy' is and always will be inferior to the heavenly archetype on which it is modelled because 'there is nothing good on earth; there is nothing bad in heaven', and because while 'nothing in heaven is in bondage, nothing on earth is free'.[53] Nevertheless, the clear logic of the Hermetic texts is that it is better to copy the perfection of heaven on earth – however inferior the results – than to do nothing at all. In the *Discourses of Hermes to Tat* we read:

> All things on earth… are unreal; but some of them – not all, but some few only – are copies of reality… When the appearance flows in from above, it becomes an imitation of reality. But apart from the working of power from above, it remains an illusion; just as a painted portrait presents to us in appearance the body of the man we see in it, but is not in itself a human body.[54]

It seems perfectly obvious from this that a Hermetic king would prefer to dispose his monuments, temples and cities so that 'power from above' would be able to work in them. And the way to do that, as the texts themselves suggest, would be to fashion the built environment as an 'imitation of reality', 'an image of heaven', 'a reproduction of eternity in a copy'…

The Beauty of the Archetype

Practised in Europe between the tenth and the fourteenth centuries, the Gnostic religion of the Bogomils and the Cathars taught an intense 'matter– spirit dualism'. As we would expect in such closely interconnected systems, it also made use of 'sky–ground' metaphors of

the specifically Hermetic and ancient Egyptian type. In Chapter 3 we cite several examples of such Bogomil and Cathar teachings, including the notion that a number of their sacred books had been 'written in heaven and brought down to earth' and the following classically 'Hermetic' doctrine: 'For just as it is on earth, so also it is in the firmament, because replicas of what are in the firmament are on earth.'[55]

Once again we find striking precedents in the supposedly unrelated funerary texts of ancient Egypt. There are, for example, numerous exhortations calling upon initiates to make copies on the earth of a region of the sky called the *Duat*, incorporating the constellation of Orion – associated with the god Osiris – and the star Sirius, associated with the goddess Isis.[56] This was the sky-region believed to be the location of the ancient Egyptian Netherworld, where souls journeyed and were judged after death. It was therefore thought to be vitally important to gain foreknowledge of it and of the trials that awaited the soul there. We learn from the *Book of What is in the Duat* (*circa* 1400 BC) that one way to attain this *gnosis* was to build copies on the ground 'of the hidden circle of the *Duat* in the body of *Nut*[the sky]':[57]

> Whosoever shall make an exact copy of these forms, and shall know it, shall be a spirit well-equipped both in heaven and in earth, unfailingly, and regularly and eternally.[58]

> Whosoever shall make a copy thereof, and shall know it upon earth, it shall act as a magical protector for him both in heaven and in earth, unfailingly and regularly and eternally.[59]

For a supposedly unrelated text, it is odd that the *Book of What is in the Duat* seems to draw the same distinction as the Hermetica between the heavenly archetype, which is perceptible only to the mind, and the earthly copy, which is perceptible to the senses. Both traditions therefore necessarily imply a group of initiates who were trained to 'see' – i.e., attain *gnosis* of – what otherwise only the gods could see:

> The secret representation of the *Duat* is not known to men and women.[60]

Whosoever shall make a copy of these representations according to this copy of what is in the *Ament* of the *Duat*, *which cannot be looked at or seen*, and whosoever shall know these secret images, shall be in the condition of a spirit who is equipped for journeying…[61] (Emphasis added.)

To become 'a spirit equipped for journeying' was, of course, the goal of the entire ancient Egyptian religious system in the sense that it sought to equip its initiates for spiritual immortality and freedom from the fetters of matter. But it was possible to fail in this quest and for the soul to be destroyed utterly. Consistent and repeated evil acts were inevitably fatal to the soul of the perpetrator. Wilful ignorance – always detested by the Hermetic sages – was also believed to be extremely dangerous to one's prospects of eternity. Thus: 'He who hath no knowledge of the whole or part of the secret representations of the *Duat*, shall be condemned to destruction.'[62]

We reiterate that the *Duat*, for the ancient Egyptians, was understood to be a region of the starry sky and that those who aspired to immortality rather than extinction in the afterlife were more or less obliged to attain knowledge of it. Is it a coincidence that an almost identical scenario is painted in the Hermetic texts where, after a lengthy exposition on the sky and stars, we are abruptly told:

He who has not failed to get knowledge of these things is able to form an exact conception of god… But it is impossible, my son, for one who is yet in the body to attain to this happiness. A man must train his soul in this life, in order that, when it has entered the other world, where it is permitted to see God, it may not miss the way which leads to him. But men who love the body will never see the vision of the Beautiful and Good. How glorious, my son, is the beauty of that which has neither shape nor colour.[63]

In other words, the beauty of the archetype, which 'cannot be looked at or seen' by uninitiated men and women because it is perceptible only to the mind and not at all to the senses.

Transforming the World

The recurrent emphasis on intelligence, reason and the use of the mind to 'train the soul' that characterizes the Hermetic texts was also the wellspring of their immense influence on science and scientific thinking following their rediscovery in the mid-fifteenth century. By promoting the individual's quest for knowledge and illumination they would prove as powerful an antidote to the dogmas and received wisdoms of the Church during the Renaissance and the Enlightenment as the Gnostic teachings of the Cathars had done in the Middle Ages. Nor in our view is it an accident, but an almost inevitable by-product of these closely related systems of thought – wherever and whenever they may be applied – that Cathar Gnosticism stimulated its own 'mini-Renaissance' across southern Europe in the twelfth century.

We speculated in Chapter 2 that this Cathar revolution in religious and philosophical ideas, music and poetry, culture and social order, might have transformed the world if the Church had not crushed it – utterly – in the thirteenth century. It's true that in the Balkans a few scattered Bogomils lingered on as late as the fifteenth century. To all extents and purposes, however, we accept that the hitherto unbroken chain of Gnostic heresy stretching back to the dawn of the Christian era was snapped when the very last Cathar *perfectus*, William Belibaste, was burned at the stake in 1321.

We find it rather remarkable, therefore, that *another embodiment* of essentially the same ideas should have slipped through the gates of Western culture less than 120 years later. We mean, of course, the Hermetic texts, their emergence from the wilderness after a millennium of silence, and their transferral to the Medici Academy in Florence in 1460.

Either by accident or by some hidden design, they arrived at exactly the right place and time to bring alive again the ancient religion of 'salvation through knowledge' that the Church thought it had just killed. In this latest incarnation, however, it would wear a much more overtly 'ancient Egyptian' and much less 'Christian' face. Perhaps for that very reason it would also set out a more positive and life-giving route towards the goal of world transformation than Gnosticism, with its world-hatred, could ever have achieved.

The Hermeticists shared the Gnostic view that evil is inherent in matter, and thus – through the body – in mankind. Yet they did not allow this recognition to seduce them into the mood of hopeless nihilism and species suicide that one sometimes senses could have led Cathar dualism down a very dark road. Far from that, the Hermetic 'way' accepted the human condition, sought our transformation through the elevation of the spiritual element within us, and handed the responsibility directly to the individual and to his own conscience:

It is man's duty not to acquiesce in his merely human state, but rather, in the strength of his contemplation of things divine, to scorn and despise that mortal part which has been attached to him because it was needful that he should keep and tend this lower world.[64] (Hermetica, *Asclepius*)

Moreover, 'keeping and tending the lower world' in the Hermetic scenario is not a repulsive and humiliating imprisonment in matter but a sacred responsibility with a vital role in the cosmic scheme of things that can only be fulfilled by man. The texts speak eloquently for themselves:

Man is a being partly divine and partly mortal; not that he is to be thought the lower because he is mortal in part; we ought rather to regard him as exalted by his mortality in that he is by such a lot more fitly and effectively constituted for a purpose preordained. For since he could not have met the demands of both his functions if he had not been made of both kinds of substance, he was fashioned out of both, to the end that he might be able both to tend the earth and to do service to the Deity.[65]

Man is a marvel, then, Asclepius; honour and reverence to such a being!… Strong in the assurance of that in him which is divine, he scorns the merely human part of his own nature… He raises reverent eyes to heaven above; he tends the earth below… He has access to all; he descends to the depths of the sea by the keenness of his thought; and heaven is not found too high for him, for he measures it by his sagacity, as though it were within his reach.[66]

To man is given charge of that part of the universe which consists of earth and water; and this earthly part of the universe is kept in order by means of man's knowledge and application of the arts and sciences. For God willed that the universe should not be complete until man had done his part.[67]

If man takes upon him in all its fullness the function assigned to him, that is, the tendence which is his special task, he becomes the means of right order to the Kosmos, and the Kosmos to him.[68]

Despite the protests of scholars that there is no clear link between the Hermetica and the religion of ancient Egypt, the pharaohs too believed that it was their function, and the function of their divine land, to interact in the correct manner with heaven and thus to serve as a force for the maintenance of right order (*Ma'at*) in the universe.[69] Indeed, the pharaoh was a Hermetic king *par excellence*, and we've suggested that one of the ways that he could fulfil his responsibility to cosmic 'right order' would have been to build a temple, or even a city, 'in the image of heaven'. We've shown specific textual authority for such a course of action in the *Book of What is in the Duat* of the fourteenth century BC. Likewise, in the highly enigmatic *Building Texts* inscribed at the Temple of Edfu in Upper Egypt in the third century BC, the following words are put into the mouth of the god Thoth-Hermes himself:

I will cause its [i.e., the temple's] long dimension to be good, its breadth to be exact, all its measurements to be according to the norm, all its sanctuaries to be in the place where they should be, *and its halls to resemble the sky*.[70]

Dedicated to Horus, the golden son of Isis and Osiris, the Edfu Temple was built in several stages between 246 and 51 BC by pharaohs of the Graeco-Egyptian Ptolemaic dynasty on a site that had been sacred since before 3000 BC. Although there is no doubt that they took their conversion to the ancient Egyptian religion extremely seriously, the Ptolemies were newcomers, having ruled Egypt only

from the late fourth century BC following the conquests of the god-king Alexander the Great.

Before his premature death in 323 BC Alexander founded a great city on Egypt's Mediterranean coast that would ever afterwards bear his name – Alexandria. A few centuries later it was here that Christian Gnosticism and its pagan Hermetic twin would emerge phoenix-like from the ashes of the ancient Egyptian religion and begin to wing their way silently towards the modern world.

Chapter 10

City of the God King

> ‘The city still shall follow you…’ (Constantine Cavafy, Alexandrian poet [1863–1933], ‘The City’, 1930)

> ‘Alexandria, the capital of memory!’ (Lawrence Durrell, *Clea*, *The Alexandria Quartet*, Faber and Faber, London, 1989)

> ‘When alive, Alexander had founded a city; when dead, he gave birth to the universal metropolis…’ (François de Polignac, *L’ Hombre d’Alexandre*, Editions Autrement, Series no. 19, p. 48)

In the autumn of 332 BC, Alexander the Great marched triumphantly into Egypt at the head of his Macedonian army after it had crushed the Persians at the battle of Issus in Syria. The Egyptians had been under the much-detested Persian occupation for nearly two centuries, and Alexander was now hailed as their liberator. He entered the Nile valley at Memphis and was immediately crowned pharaoh and legitimate successor of the pharaohs – the divine solar kings who had ruled this ancient land since time immemorial.

Alexander’s behaviour at this point tells us much about his state of mind. His very first act as pharaoh was to order the complete restoration and restitution of the famous twinned temples of Karnak and Luxor in Upper Egypt (about 500 miles south of Memphis) which

had suffered damage and degradation under the Persians. Why did Alexander give this matter such priority? The answer is to be found in the strange circumstances of his birth in 356 BC.

Alexander's mother, Olympias, was the daughter of the King of Ipirus (today a part of north-western Greece) and a high-priestess of the temple-oracle of Zeus-Ammon at Dodona, located south-west of the modern city of Ioannina. This oracle was one of the most revered in the ancient world and the story of its foundation was linked to the temple of Amun at Karnak-Luxor in Egypt; it was also considered to be 'twinned' to the temple-oracle at the Oasis of Siwa in Egypt – which was likewise dedicated to Zeus-Ammon. The Hellenic scholar Joan Wynne-Thomas presents us with a concise overview of these connections:

During the fourth century BC there were public sacrifices in Athens to Zeus-Ammon, whose original cult was at the Siwa Oasis in Egypt. The cult was, of course, Egypto-Greek, as Ammon or Amun, also in Egyptian Amun-Ra, was the all powerful god of the Egyptian pantheon, whom the Greeks equated with their own great god, Zeus.[1]

Any attempt to explore in detail how and why the Egyptian solar cult of Amun (Zeus-Ammon) came to mainland Greece is outside the scope of this book. But the legendary background is given by the ancient Greek historian Herodotus, who visited Egypt around 450 BC, a century or so before the birth of Alexander the Great. This is the story as he reported it:

About the oracles – that of Dodona in Greece and of Ammon in Libya [Western Egypt or Siwa] – the Egyptians have the following legend: according to the priests of the Theban Zeus [priests of Amun-Ra at Karnak-Luxor], two women connected with the service of the temple [Karnak-Luxor] were carried off by the Phoenecians and sold, one in Libya [Siwa] and one in Greece, and it was these women who founded the oracles of these two countries. I asked the priests at Thebes what grounds they had for being so sure, and they told me that careful search had been made for the women at the time, and that though it was unsuccessful, they had afterwards learned that the facts were just as they had reported them. At Dodona, however, the priestesses who delivered the oracle had a different version of the story: two

black doves flew away from Thebes [the district of Karnak-Luxor] in Egypt, and one of them alighted in Dodona, the other in Libya [Siwa]. The former perched on an oak, and speaking with a human voice, told them that there, on the very spot, there should be an oracle of Zeus. Those who heard understood this to be a command from heaven, and at once obeyed. Similarly, the other dove which flew to Libya [Siwa] told the Libyans to found the oracle of Ammon – which is also an oracle of Zeus. The people who gave me this information were the three priestesses Dodona…[2]

Also according to Herodotus, it was the Egyptians who originated and eventually taught the Greeks to use 'ceremonial meetings, processions and liturgies'. He said that the Greeks had even modelled their gods on those of the Egyptians.

Dodona, Olympias, Egypt and the Persians

Nowadays such views are scoffed at by Hellenistic scholars and Egyptologists alike. Despite the well-known tendency of the Greeks to 'identify' their gods with specific ancient Egyptian deities – e.g. Zeus-Ammon or Hermes-Thoth – the academic consensus is that the two pantheons are structurally unrelated. Yet it seems beyond doubt that the cult of Amun-Ra did find its way into Greece at least as early as the fifth century BC, perhaps even much earlier, and was somehow involved with the temple oracle at Dodona.

Dodona itself is located in the lovely pastoral and mountainous region of Ipirus adjacent to the ancient kingdom of Macedon, where Alexander the Great was born. No one really knows the truth about exactly when or why it was consecrated, but according to consensus:

The original shrine of the oracle probably existed before 2000 BC, and was dedicated to the 'Earth-mother' or goddess. This was a cult of southern Greece which had, like the cult of Zeus, originated in the east. Archaeological finds date from the Early Bronze Age, approximately 2500 BC, and are in the Museum of Ioannina. There is a mention of the shrine by Homer, in the *Iliad*, which is the earliest reference known…[3]

The priests of Dodona were known as the *Helli* or *Selli*, and it was they who interpreted the proclamations and prophecies made at the oracle. This they did by listening to the rustling of leaves from an oak grove within the sanctuary. Legend had it that it was from the wood of this sacred grove that was fashioned the prow of Jason's ship carrying the Argonauts (hence the figurehead's gift of speech and prophecy).

The Dodona temple-oracle was held in particular reverence by Philip II of Macedon, the father of Alexander the Great, who had consulted it on numerous occasions. But Philip's links with the oracle were to go much deeper when he married Olympias. The latter, as we have said, had been a priestess at Dodona and is known to have been a zealous devotee of the god Amun of Egypt.

Philip met Olympias when he was twenty-six years old and she sixteen. The fateful encounter took place on the island of Samothrace, off the Thracian coastline of Greece. Philip and Olympias had both come independently to the island in order to attend the religious celebration of the *Cabeiri*, a curious festival where violent fertility and sexual rituals were performed in various mythical settings. It was during one of these events that Philip and Olympias fell in love, and thus began that potent union that was to change the course of world history.

Endowed with a deep and mystical nature, the young and lovely Olympias was obsessed with the idea that she was destined to bear a divine child in the likeness of the god Dionysos – in Greek mythology the handsome and heroic son of Zeus, who had been born from the womb of the mortal Semele. Dionysos literally means 'Son of God', and Olympias would certainly have been acquainted with the works of the Greek historian Herodotus who, a century earlier, had identified Dionysos with the Egyptian god Osiris.[4]

When Olympias became Philip II's queen in 357 BC, Egypt was under assault by the Persians, the most bitter enemies of the Greeks and Macedonians. In 525 BC Cambyses, the son of the legendary Cyrus I, had occupied Egypt and thus widened his already vast empire. His

successor, Darius I, consolidated Persian rule in the Nile valley after suppressing a major Egyptian revolt there. Then he took his army north across the Mediterranean and occupied Thrace and Macedon before being decisively defeated at the battle of Marathon in 490 BC. A decade later the Persian king Xerxes invaded Greece and brought terrible destruction to Athens, but he too was eventually defeated in 479 BC.

Even though Darius and Xerxes had failed in Greece, the fear that a new Persian invasion would be attempted at some point was a very real one. Neighbouring countries were also targets. By 356 BC, when Alexander was born, Egypt had freed herself from Persian rule but was under attack again and was finally reoccupied in 350 BC. Humiliated and defeated, Egypt suffered heavily under the new 'King of Kings' of Persia, Artaxerxes III, who was a brutal and merciless oppressor – as was his equally vicious son, Oarses. So despised was their rule that they were eventually poisoned by one of their eunuchs called Bogoas, who offered the throne of the 'King of Kings' of Persia to Darius III. Bogoas was duly 'rewarded' by being forced to swallow his own poison.

Nectanebo, Osiris, and the Ancestry of Alexander

For a brief period Egypt managed to oust the Persians yet again, and the last native pharaoh to rule there was Nectanebo II, who had usurped the throne from his brother Teos in 358 BC – two years before the birth of Alexander. There is a tale told of Nectanebo II that seems worth recounting, even though it is almost certainly fictional, in view of its association with the strange circumstances surrounding Alexander's birth. But first we should place Nectanebo II in the correct historical setting.

After initial successes in resisting the Persians, Nectanebo II was hailed by his people as a great hero and liberator. Much loved for his military deeds and for his devotion to the supreme god Amun (whose 'son' he deemed himself to be) he was also renowned as a powerful

magician[5] – a reputation that was taken very seriously in ancient Egypt. As Alexander was to do some years later, Nectanebo marked his coronation by ordering a massive restoration programme for the many sanctuaries of Amun that had been destroyed or desecrated by the Persians. He paid special attention to the restoration of the temple complex of Karnak-Luxor. It had been Nectanebo's own father who had been partly responsible for the magnificent avenue of sphinxes (a segment of which survives to this day) that joined Karnak with Luxor. Nectanebo also restored the existing temples of Amun at the Oasis at Siwa, and built a magnificent new one there, the remains of which still stand at the Umm Ybaydah area of the modern oasis.[6]

Married to Philip or not, we may imagine that the association of Nectanebo II with the temple-oracle of Amun at Siwa must have impressed the young Olympias, who, as we recall, harboured dreams of giving birth to a 'Son of Amun'. Surely the idea of being seeded by a pharaoh in whose veins flowed the blood of the god Amun, and who had such close links with the oracular centre of Amun at Siwa as well as Luxor, would have been one of the wild fantasies of this very impressionable and very young queen? In this respect, the strange stories reported by some of Alexander's biographers might contain an element of truth in them. According to one such account found in pseudo-Callisthenes, Nectanebo fled Egypt after the Persian invasion that ultimately dethroned him, and made his way to Macedon in Greece. There he was received at the court of Philip II, to whom Nectanebo presented himself as a magician and astrologer. At night, however, the exiled pharaoh turned into a huge snake, a symbol of Amun, and in this form seduced and impregnated Olympias.[7]

Another legend, this time associating the royal ancestry of Alexander the Great with the god Osiris of Egypt, is told by the Greek chronicler Diodorus Siculus, who lived in the first century bc. In Book I of his famous *Bibliotheca Historica*, Diodorus recounts the mythical origins of the non-Hellenic and Hellenic people of Greece up to the destruction of Troy. It is in this first book that the story of Macedon, a mysterious 'son' of Osiris, is narrated.[8]

According to Diodorus, Osiris left Egypt with his brother Apollo on a universal mission to teach men to plant the vine and sow crops of wheat and barley:

> two sons of Osiris, Anubis and Macedon,… took the field with him… Osiris also brought Pan [Egyptian Min] on this expedition.
>
> [After visiting the countries of Africa and Asia] Osiris… crossed over into Europe at the Hellespont. In Thrace he slew Lycurgos, a barbarian king who opposed his plans… And he left his son Macedon behind as king of Macedonia, which was named after him…

Diodorus does not give us his sources. It is generally thought that for the part of his *Bibliotheca* dealing with Greek history, he drew from the works of earlier writers such as Ephorus and Hieronymus of Cardia. For his Egyptian material the evidence suggests that Diodorus relied heavily on Hecataeus of Abdera.

Hecataeus (365–270 BC) lived in Alexandria – the prototypical city of the classical world, founded in Egypt by Alexander the Great. There Hecataeus benefited from the liberal protection of Ptolemy I Soter, the general in Alexander's army who set himself up as Pharaoh of Egypt in 305 BC after Alexander's premature death. As a foreign traveller who reached as far south as the temples of Karnak and Luxor, Hecataeus was an eyewitness to the early stage of Greek and Egyptian fusion in Egypt. He produced a rather idealized account, the *Aegyptiaca*, aimed at Greek readers, and it was this text that was to serve as Diodorus' source when he came to write his own history of Egypt 200 years later.

Let us look at the context when Hecataeus was in Egypt. First, it is well known that Ptolemy I Soter was extremely keen to promote any idea that would integrate his newly founded 'pharaonic' Macedonian dynasty with that of the true Egyptian solar pharaohs whose divine lineage was believed to extend back to the god Osiris. It is, therefore, quite possible that Hecataeus made up the story of Osiris' journey to Greece and the founding of Macedonia by one of his 'sons' – Macedon – in order to create a link between the Macedonian 'pharaoh' of

Alexandria and the mythical ancestry of Egyptian pharaohs.

In Egyptian mythology Osiris had only one son, Horus, whose sacred animal was not the wolf, as Diodorus says, but the hawk or falcon. It is easy to see how such a mythological association between Osiris and the origin of the Macedonian royal family, when it is also coupled with the strange tales told by pseudo-Callisthenes about the pregnancy of Olympias, would create a belief that Alexander was somehow linked by birth to the gods of Egypt and, by extension, would add legitimacy to the Macedonian claim to pharaonic kingship in Alexandria. This strange belief and, especially, as we shall see, the persistent theme of a symbolic sexual union between the god Amun and Olympias, would have untold repercussions on the future history of Egypt and, by cultural osmosis, the rest of the Hellenistic world.

Lightning Seed and the Star Sirius

Legend has it that when Olympias gave birth to Alexander the two stone eagles that decorated the roof of her apartments were struck by lightning. Other accounts speak of living eagles that came to perch there. Others say that at that very same moment the temple of Diana-Artemis at Ephesus was destroyed by fire while the goddess herself was in Macedon attending Alexander's birth. This link involving Diana-Artemis, eagles and the lightning bolt is most interesting. For Diana-Artemis was worshipped at Ephesus in the form of a sacred *omphalos* – a conical or pyramid-shaped stone which had supposedly 'fallen from the sky' as though ejected from a lightning-bolt. It was also said that the foundation of the Oracle of Apollo in Delphi occurred when two eagles sent from Zeus alighted near the *omphalos* there. Meanwhile in Egypt a pyramid-shaped 'stone from heaven' called the *Benben* had formed the central symbol of religious worship at the sacred city of Heliopolis since before history began.[9] Indeed such *baetyls* and *omphali* played a significant role in many ancient religions, and were typically associated with fertility and the birth of divinities.

According to Plutarch, Olympias claimed that she had become pregnant when lightning had struck her womb and fertilized her with the seed of Zeus-Amun – thus siring Alexander.[10] Elsewhere Plutarch narrates how the womb of the sacred cow-goddess of Egypt (a form of Isis) was also seeded by the god's lightning in order to create the new Apis calf, symbol of the ruling solar pharaohs, i.e., the Horus-king.[11] In Egyptian religious iconography, the goddess Isis was often represented by a cow with a five-pointed star above her head, the latter being the star Sirius, called Sothis by the Greeks. Traditionally the heliacal (dawn) rising of this star denoted the moment of the divine birth of the solar kings of Egypt. It is therefore notable that many classical authors fix the birth of Alexander at 20 July in the Julian calendar, a date that would have been on or near the heliacal rising of Sirius in that epoch. The implication is that this star must have played an important role in his birth-myth. As French author Jean-Michel Augebert points out, it even led Alexander to abandon the old Greek calendar and replace it with one like that of the Egyptians that was based on the heliacal rising of Sirius. He did this some time before his armies reached Egypt:

> The doors of Egypt now lay open for him. But Alexander met up with further resistance at the port of Tyre, the siege of which lasted for six months, from January to July 332 BC, which Alexander did not want to leave behind. There occurred, then, an extraordinary event: the taking of the city corresponded to the astronomical date of the heliacal rising of Sirius, the Dog-star, which meant that the star, after having been absent in the sky for a part of the year [seventy days], reappeared in the east horizon to mark the victory of Alexander and to announce that he would soon be wearing the crown of pharaoh… [thus] Alexander the Great, pious son of Amun, modified the Greek calendar such that henceforth the rising of Sirius would mark the New Year, as it was done in Egypt…[12]

Further strengthening the sense of a definite association between Alexander and the star Sirius, Jean-Michel Augebert also draws attention to the so-called 'ascent to the sky of Alexander'. This was an illustrative theme popularized in medieval times which showed the

deified Alexander rising to heaven and the sun on a carriage towed by griffins with a five-pointed star – identified as Sirius by Augebert – leading the way:

> Many scenes, sculptures, paintings and even jewellery represent this apotheosis… Concerning the 'ascension' of the hero, we often see Alexander standing in the chariot of Helios (the sun) pulled by griffins or lions; another type of representation shows him being carried on his throne; a third type shows Alexander being carried by eagles towards the sun. On all these representations, a star is seen shining over the head of the figure, an obvious symbol of Sirius, the celestial body which presides over the destiny of kings according to the Egyptians…[13]

This association with the 'birth star' Sirius is also found with Alexander's successors and in the city of Alexandria itself. For according to French Egyptologist Sydney H. Aufère, a specialist in Ptolemaic studies,[14] the Ptolemaic queens were portrayed wearing the head-gear of the goddess Sothis, i.e., Sirius. Aufère also shows that the goddess of the *Pharos*, the famous Lighthouse of Alexandria, one of the Seven Wonders of the ancient world, was once again none other than Sothis/Sirius. This strongly suggests that the spot of bright light that mariners would see when approaching the coastline of Egypt was likened to the spot of light from the star Sirius when *rising in the east* to guide the mariners back to Alexandria.

Son of Amun

Plutarch also reported another version of the birth-myth of Alexander which seems to be related to the Nectanebo story told by pseudo-Callisthenes, but this time without the presence of Nectanebo. In the Plutarch version Philip II peeped through the keyhole of Olympias' chamber on the night of their nuptials, and was aghast to see his virgin wife in their bed copulating vigorously with a huge snake. Deeply shocked, Philip went to consult the oracle of Apollo at Delphi, where he was told that he must henceforth make special sacrifice to

Zeus-Amun, for the snake was a well-known symbol of Zeus-Amun.

Another incident that also seems to reflect this link between Alexander and Zeus-Amun concerns the city of Aphitis, which surrendered to the forces of Phillip II without a struggle on the day of Alexander's birth. The people of Aphitis were worshippers of Zeus-Amun on account of which, 150 years earlier, Aphitis had been spared by the great Spartan general, Lysander. This was because Lysander himself was a devotee of Zeus-Amun and had actually performed a pilgrimage to Siwa to consult the oracle there.[15]

After Alexander was crowned Pharaoh of Egypt at Memphis and recognized as the legitimate heir to Nectanebo II, he too set out with a small party of friends to the Oasis of Siwa. His companions included his childhood friend, Ptolemy (future 'Pharaoh' of Egypt), and Callisthenes, the nephew of Aristotle. They followed the desert route west from Rhakotis (the site of the future Alexandria) towards Marsa Matruh, some 320 kilometres away. Today the journey from Alexandria to Marsa Matruh is covered in four hours by car, but Alexander and his group took at least a week on horseback.

From there the royal party turned due south and inland and began their slow march towards Siwa, which required a further eight days. Now, as it would have been in Alexander's time, the whole route is arid flat desert with only the occasional mound or hill to change the monotony of the quasi-lunar landscape. After hours of this, however, the vista suddenly changes into a sort of mini-Grand Canyon, and in the distance, like some desert Shangri La, spreads the lush oasis flanked by two lakes in the east and west.

Upon entering Siwa, Alexander was hailed with the cries 'son of Amun'. With great ceremony he was then escorted to the oracle-temple of Zeus-Amun, where he was taken by the high priest into the inner sanctuary. No one knows what happened to Alexander there, or what he saw, but it is probable, amongst other things, that he was shown an *omphalos* sacred to Amun as evidence of his own divinity.[16]

The Intellectual Parenthood of Alexandria

Far to the south of Siwa the city of Thebes, our modern Luxor, with its vast temple complex dedicated to the supreme god, Amun, was the sacred city *par excellence* of the ancient world even at the height of Greek civilization. And although Heliopolis – in the north of Egypt near the Great Pyramids – had been pre-eminent in earlier times, it was now at Thebes that the solar kings of Egypt were deemed to be legitimized and divinized. So it was perfectly natural, and indeed predictable, that Alexander the Great, in his capacity as the 'son of Amun', would have wanted to link his own person to Thebes.

This was why he acted so swiftly to restore the temple complex there, the most important centre of Amun worship in Egypt. When we consider that he also had the temple's inner sanctuary converted into a chapel bearing his own name it is clear that he soon intended to perform a pilgrimage to Luxor – there to be consecrated, like all solar kings before him, as the 'son of Amun'. Fate intervened, however, and Alexander died on campaign in Babylon. His troops decided that he should be buried in Egypt, in the land of his 'father' Zeus-Amun.[17] Ptolemy, now in control of Egypt, and soon to become pharaoh, intercepted the funerary cortège and took command of the body of Alexander which, some years later, he would finally bring to Alexandria.

Alexandria had been Alexander's dream. He had wanted to create a new city dedicated to wisdom and learning – a sort of intellectual bridge on the shore of the Mediterranean Sea that would unite east and west. It was to be a city that would enlighten the world.

When Alexander was a boy, his father, Philip II, selected for him a special tutor. The choice fell on Aristotle, the greatest and most imaginative and influential philosopher of the epoch.

Aristotle was born in the year 384 BC at the city of Stagira in Macedon. His father, Nicomachus, was the personal physician and friend of the king of Macedon, Amytas II, the grandfather of Alexander the Great. At seventeen Aristotle travelled to Athens and entered Plato's Academy, and soon became its most noted pupil, so much so that his master, Plato, called him 'the intelligence of the

school'. When Plato died in 347 BC, Aristotle left the Academy and embarked on a journey that took him to all parts of Greece and Asia Minor. Then in the year 342 BC Philip II of Macedon summoned him to his court at Pella, and appointed him tutor to his fourteen-year-old son, Alexander. Aristotle, who was now forty-two, brought along his brilliant nephew Callisthenes and also the scientist Theophrastis. The team of learned men were provided with a country residence at Mieza near Pella, where, for the next three years, Alexander was tutored and groomed.

When Alexander became king at the age of twenty-one, Aristotle left Macedon and returned to Athens, where he founded his famous Lyceum. It was there that he created the first prototype of a university library; it would eventually be transferred after his death to the Great Library of Alexandria in Egypt. Aristotle died at the age of sixty-two, a year after Alexander's death in Babylon. His lectures were collated in 150 volumes devoted to philosophy, ethics, politics and, his great love, the natural sciences. Until the Middle Ages Aristotle was regarded as the supreme authority on all matters concerning science. He was to write, probably with Alexander in mind, that: 'If there is one man superior in goodness and political capacity to all others, such a person may be like a god among men… and should be gladly obeyed, for they are permanent kings.'[18]

There is much speculation and debate as to what extent Alexander's sense of mission might have been influenced by Aristotle. Apart from teaching the sciences to Alexander, the philosopher's main objective was to instil in his pupil his concept of 'virtues', the most important of which, according to Aristotle, was *reason*. A few years before Aristotle became tutor to Alexander, he had completed his famous work on *Politika* (*The Politics*) in which he examines various systems of 'constitutions' and expounds on the idea of the 'Ideal State'. And it would seem almost certain that Aristotle discussed his concept of the 'Ideal State' with the young Alexander and imbued the future hero-king with those high virtues and ideals that were eventually to be put into practice at Alexandria in Egypt.[19] Alexander

also received from Aristotle copies of Herodotus' *Histories* as well as Homer's *Iliad* and *Odyssey*, which became the future world-conqueror's most precious possessions.

In the *Odyssey* Homer speaks of the fabled island of Pharos off the coast of Egypt in connection with the Argonauts, while Herodotus recounts how Helen of Troy and Paris took refuge at Herakleion, a few miles east of the future Alexandria. So enthralled and influenced was Alexander by these epics that apparently he once angrily slapped Callisthenes, the nephew of Aristotle, for openly criticizing Homer. It was such literary influences, and the influence of his mother Olympias, that must have fired Alexander in his quest to weld the eastern and western worlds into one great empire ruled from a capital city of light modelled on the ideal state: Alexandria.

The Founding of the Universal City

It is often said that sound military principles are sufficient to explain why the peninsula of Rhakotis on the Mediterranean Sea was chosen as the site of Alexandria. The assumption is that Alexander saw in the natural harbour formed between the small island of Pharos and the peninsula the ideal place to build a port. Tradition has it that although Alexander had selected the site, it was the architect Dinoclates of Rhodes who actually designed the city. In opposition to this view, we shall attempt to show that a strong Egyptian influence also cast its spell over the whole enterprise from the very beginning.

There was a kind of enchantment and magic about this place that was unlikely to have been ignored by Alexander and his other educated companions such as Ptolemy and Callisthenes, especially considering the high spirits and frame of mind they were in. They all were keen readers of Homer's works and surely were now acutely aware that in the *Odyssey* Homer wrote: 'There is an island in the surging sea which they call Pharos, lying off the coast of Egypt. It has a harbour with good anchorage and hence they (the Argonauts) put out to sea after drawing water.'[20]

To Alexander and his loyal companions, Homer's *Iliad* and *Odyssey* had the same forceful effect as the Bible had on the crusading Christian knights in medieval times. Most educated Greeks could quite easily recite long sections from Homer, and often quoted Homer, as we do the Bible today, as the source of moral and practical examples for daily life. Leaders such as Alexander – perhaps especially Alexander – used the *Iliad* and *Odyssey* not only for spiritual and moral guidance, but also as a practical guidebook for their own lives. And there is much to suppose that Alexander saw himself as a Homerian hero of boundless courage and dash.

It must be realized that such heroes were not viewed by the Greeks as mythological and legendary characters but rather as real historical men and women who had lived in a golden age among the gods. When Alexander and his companions came upon the island that Homer had described in such warm terms we may therefore safely imagine that they took it as a favourable omen from the gods. It was recalled by Alexander and his engineers and architects that Pythagoras, the 'father of geometry and philosophy', and likewise the noble Plato after him, had also sojourned in Lower Egypt as guests or 'students' of the Heliopolitan priests and had learned from them the wisdom that had made Greek culture great. Such evocative visions of Homer, Pythagoras and particularly Plato, the tutor of Aristotle himself, surely inspired the young conqueror, then barely twenty-four years old, to raise, near this magical Homerian island of Pharos, a great and wonderful city. What he had in mind was a metropolis that would rival Athens and in which the teachings of Pythagoras, Plato and Aristotle could mingle with the ancient wisdom of Egypt.

So, using Pythagorian geometry, Alexander's architect, Dinoclates, began to draw the plan of the future Alexandria, with Alexander himself supervising every small detail. The city, oblong in shape, would be developed on a system of parallel grids. The main east–west artery, to be known as the Canopus Way, would bear the name of the Homerian hero Kanopos, the legendary navigator who steered the ship bearing Helen of Troy. According to a legend, Helen and her lover, Paris, had taken refuge at Canopus (modern Abukir) at the

eastern end of the Alexandrian shoreline on their way to Troy. Helen was the daughter of the god Zeus from his union with Leda, as well as the sister of the famous immortals the *Dioscuri*, i.e., the twins Castor and Pollux, who became stars in the zodiacal constellation of Gemini.

Helen of Troy, the Egyptian Aphrodite and Isis-Pharia

There is a curious story told of Helen which is of relevance to the connection Alexander the Great felt with Egypt, and gives us more background to his mystical claims to descend from the divine lineage of the pharaohs. This story is found in a poem of Stesichrus (632–553 BC) which has it that after escaping from her husband (King Menelaus) Helen and Paris attempted to sail to Troy. On the way their ship was driven by a storm to the shores of Egypt near Canopus. Here the 'real' Helen was detained by the Pharaoh Proteus, whilst a 'phantom' Helen – a very similar idea to the 'phantom' or 'apparitional' Christ of the later Gnostic Gospels – went on to Troy with Paris.

Stesichrus' version of the story was later made into a play by Euripides around 412 BC, but underwent further mutation, placing the 'real' Helen in the custody not of the legendary Proteus but of his equally legendary son Theoclymenus. Herodotus, too, reports a somewhat similar story, which he tells us he obtained from an Egyptian priest.[21] He also speaks of a temple dedicated to 'Aphrodite the Stranger' in honour of Helen, within the royal city of Memphis:

> Within the enclosure there is a temple dedicated to Aphrodite the Stranger. I should guess, myself, that it was built in honour of Helen daughter of Tyndraeus, not only because I have heard it said that she passed some time at the court of Proteus, but also, more particularly, because of the description of Aphrodite as 'the stranger', a title never given to this goddess in any of her other temples (in Egypt).[22]

To the Greeks the 'Egyptian Aphrodite' was the goddess whom the ancient Egyptians called Hathor.[23] But the Greeks also associated the

goddess Isis, in her loving aspect, with Aphrodite. This suggests that they appreciated the very close connection that does in fact exist between Hathor and Isis in the ancient Egyptian pantheon and, presumably, the association that Hathor and Isis share with the star Sirius. In Ptolemaic Alexandria Isis also became the protecting deity of the port and of its famous lighthouse, the *Pharos* (named after the island of Pharos on which it stood). In this capacity, Isis was known as Isis-Pharia, the protector of mariners, suggesting another connection with Helen of Troy, who – presumably on account of her many nautical adventures – was similarly called the 'patron goddess of sailors'.

There was a temple dedicated to Isis-Pharia near the *Pharos*. Apparently also her colossal statue once stood directly outside the *Pharos*, and is likely to have been perceived as part of the lighthouse complex. In Roman times Isis was frequently known as Stella Maris, i.e., 'Star of the Sea',[24] and the same epithet has, for a very long while, been applied by Christians to the Virgin Mary. Sir James Fraser, the great British mythologist of the 1920s, goes so far as to suggest a causal link:

> To Isis in her later character of patroness of mariners the Virgin Mary perhaps owes her beautiful epithet of *Stella Maris*, 'Star of the Sea', under which she is adored by tempest-tossed sailors. The attributes of a marine deity may have been bestowed on Isis by the seafaring Greeks of Alexandria. They are quite foreign to her original character and to the habits of the Egyptians, who had no love of the sea. On this hypothesis Sirius, the bright star of Isis, which on July mornings rises from the glassy waves of the eastern Mediterranean, a harbinger of halcyon weather to mariners, was the true Stella Maris, 'the Star of the Sea'.[25]

Let us also note that many of the Ptolemaic queens of Alexandria, and especially the celebrated Cleopatra, identified themselves with Isis-Pharia or Isis-Sothis (Sirius) and, to emphasize their beauty and art of love-making, with Isis-Aphrodite as well. Glamorous Cleopatra posed as the goddess Isis-Aphrodite when she presented herself to Mark Antony in Tarsus. According to Egyptologist Julia Samson:

The dramatic couple quickly became linked in people's minds with the gods: Anthony with Bacchus (Dionysos) whom the Greeks associated with Osiris; and Cleopatra with Venus (Aphrodite) and long associated with Isis…[26]

The connection between Sothis-Sirius and Isis-Pharia of the *Pharos* is probably due to the beacon of light from the lighthouse as it was seen from afar by sailors approaching the harbour, and may explain why the *Pharos* lighthouse was sometimes called 'the second sun'[27] – a term used by the ancient Egyptians for the star Sirius.[28] At the temple of Isis on the island of Pharos, the statue of the goddess wore a crown made up of a sun/moon disc surmounted by two gazelle horns.[29] These horns, according to French Egyptologist Sydney H. Aufère, are similar to those of the goddess Satis, the divine gazelle who watches over the Nile's flood.[30] The same headdress is seen on representations of the Ptolemaic queens at temples in Upper Egypt such as Denderah, Philae, Edfu and others. Dr Aufère also points out that Ptolemy III, in the Canopus Decree of 238 BC, states how he had adjusted the religious and civic calendars (which had become desynchronized with the passage of time) so that the start of the new year would once again coincide with the heliacal rising of Sirius – an event which itself coincided closely with the beginning of the Nile's flood in mid-summer. Aufère also offers this account of why one of the many names of Sirius was 'the Eye of Ra':

In order to explain the mechanism of the Flood on the religious level, there was witnessed at the opening of the new year a fusion or 'coalescence' of the solar and lunar myths, such that the 'Distant One' was considered both as the 'Eye of Ra' and the 'Eye of Horus' – in other words Sirius and the full Moon. The two – the star and the Moon – unite the magical effects of their manifestations which result in the Nile's Flood. Sirius by its rising announced the New Year and the Flood, and the full Moon symbolising the fullness of the latter.[31]

Brief Excursion to Paris

According to the French Egyptologist Bernard Mathieu:

> Isis was named *Pelagia* ('of the sea'), or *Euploia* ('of safe navigation') and *Pharia* ('of Pharos'), and was said to have invented the sail and had a temple on the island of Pharos. She was so famous in the whole Mediterranean world that we find her even in 17th century manuscripts, and comfortably installed on the prow of the boat on the coat of arms of Paris which Napoleon commissioned in 1811…[32]

The reader will recall from Chapter 1 the bizarre religious rituals and symbolism of the French Revolution that frequently seemed to link the city of Paris explicitly to the goddess Isis. The comments made by Dr Mathieu suggest that such a link may have some basis in historical truth. It is also notable that the seventeenth-century writer, Jean Tristan, claimed that the name Paris was actually derived from Isis-Pharia or, more precisely, from Pharia-Isis corrupted to Paria-Isis and, finally, to Paris.

Tristan based his hypothesis on ancient coins dating from the time of the Roman Emperor Julian which depict his empress, Helen, as Isis-Pharia or Faria.[33] Julian, who reigned some decades after Constantine, brought a very temporary halt to the onward march of Christianity and was commonly known as 'Julian the Apostate' for having readopted the ancient pagan cults and declared himself a 'follower of Helios', the sun-god. Helios in turn was a divinity whom the Romans closely associated with Alexander the Great.

Julian had governed Gaul – ancient France – for five years and had resided in Lutecia, ancient Paris, for three years between 358 and 360 AD. Julian and his wife Helen were also devotees of the Alexandrian god Serapis and the goddess Isis-Pharia, and may have imposed, or at the very least encouraged, her cult on the inhabitants of Lutecia. At any rate, Jean Tristan was to write:

> The Parisians received their name of *Paria Isis*, because of the cult of this goddess which had been introduced in Illyria and in Gaul, in the region next to the river Seine and in Lutecia, called 'Lutecia of the Parisians', or 'Farisians', because of this.[34]

As further support to this hypothesis, the French classicist Jurgis Baltrušaitus points out that in a fragment of a manuscript from St Hilaire concerning the synod of Rimini, the city of Paris is actually referred to by him as 'Farisea Civitas' i.e., the city of the Farisians or, as Jean Tristan suggested, the city of those who worship Isis-Pharia or Faria Isis.[35] We shall return to this problem in a later chapter.

The Canopus Way

The Roman writer Arrian tells us that, when Alexander came to the site on the coast where his future city, Alexandria, would rise:

> he was taken by a strong desire to carry out his project, and setting out himself the plan of the city, he fixed the place where the Agora should go, the number of sanctuaries and to which deities [they were dedicated]: the Greek gods but also to Isis, goddess of Egypt…[36]

The 'Agora' was the equivalent of a town hall or square where public meetings were held in Greek cities. In the case of Alexandria the Agora was located at the intersection of two main arteries, the north–south artery known as the Soma and the east–west artery known as the Canopus Way. This arrangement formed a huge cross and it was at the intersection of its two arms, according to most accounts, that was eventually raised a small Doric temple to serve as the mausoleum for the golden sarcophagus of Alexander the Great.

At both ends of the Canopus Way were gates. The west gate was called the 'Gate of the Moon' (Selene) while the east gate was the 'Gate of the Sun' (Helios).

It has always been assumed that the physical layout of Alexandria was designed in accordance with the principles of Greek city planning based on a rigid grid system with sets of parallel roads crisscrossing each other at right angles. In fact such grid plans were also known in Egypt long before the Greeks. The French Egyptologist André Bernard rightly observes that the Giza necropolis in the area of the Great Pyramids is effectively a mortuary city gridded with roads running

east–west and north–south. A similar scheme can be seen at Saqqara and, much further south, at Akhetaten (modern Tel-el-Amarna), the city of the Pharaoh Akhenaten.[37]

This notwithstanding, what is often not considered as a direct influence on the design of Alexandria is the state of mind of the twenty-four-year-old Alexander the Great at the time of the foundation of the city. He had just conquered the hitherto invincible solar Persian King of Kings, Darius III, and was now the undisputed ruler of the known world. He had been hailed as hero and liberator by the Egyptians, and recognized as the legitimate successor of the Pharaoh Nectanebo II. He had been proclaimed the 'son of Amun' and 'son of Isis' plus all the other titles attributed to a legitimate pharaoh of Egypt. And all this had happened almost certainly immediately *before* the foundation of the city of Alexandria.

Another factor to consider is Alexander's deep psychological identification with the temple complex of Karnak-Luxor at Thebes as an expression of his identification with the god Amun. The French scholar François de Polignac has pointed out that Alexander demonstrated an unusual knowledge and sensitivity to Egyptian religious customs by paying so much attention to the restoration of this temple and, more particularly, by grafting his own name on to the inner sanctuary near the temple's sacred 'birth room' or *mammisi*. These acts suggest that Alexander must have been closely advised by a native Egyptian high priest, probably much in the same way that the high priest Oud-ja-Hor-esne of Sais had acted as advisor to the Persian King Cambyses, and the high priest Manetho of Heliopolis was to become senior advisor to Ptolemy I Soter, the successor of Alexander the Great in Egypt.[38]

We have seen how Alexander had developed a connection with the star Sirius, the star of Isis and divine birth, when he changed the Greek calendar at Tyre. We have seen, too, how the rising of this star was the 'calibrator' of the Nile's flood and we will show in a later chapter how its position on the eastern horizon often served to align the axis of ancient Egyptian temples dedicated to the birth of Horus,

the ‘son’ of Isis-Hathor. Finally, we have also noted that the heliacal rising of Sirius during Alexander’s lifetime fell on the ‘official’ date of his birth, i.e., 20–21 July (Julian).

It would be odd, indeed improbable, if such a rich network of symbols, ideologies and mythical associations had *not* influenced Alexander when he was about to supervise the design of a city on the Mediterranean shore of Egypt opposite the enchanted island of Pharos…

Brief Excursion on Napoleon and Sirius

Before Napoleon invaded Egypt and occupied Cairo at the end of the eighteenth century he commissioned the famous mathematician Gaspard Monge to round up a group of the finest scholars – called the ‘*lumières*’ or ‘lights’ in those days – to accompany the expedition. Comprising a total of 167 men, the group of savants included the mathematician Fourier, the chemist Berthollet, the naturalist Geoffroy Saint-Hilaire, the geologist Domie, the geographer Jomard and the engineer Conte. Such men were to form the basis of Napoleon’s Institut d’Egypte, a sort of academy of science – the first of its kind ever to study ancient Egyptian monuments – founded on 22 August 1798, very soon after the invasion. Vivant Denon, a painter and a favourite of the future Empress Josephine, became the institute’s first director, while Gaspard Monge was made its first president.

The reader may recall from Chapter 1 that Monge was a Freemason and a prominent member of the Nine Sisters lodge in Paris. He was instrumental in creating the so-called republican calendar, which, we also saw in Chapter 1, was almost certainly modelled on the ancient Egyptian civic calendar ‘calibrated’ by the heliacal rising of Sirius. On 22 September 1798 the first volume of the Institut d’Egypte’s journal was published. Its title was the *Décade égyptienne*, a name selected by Monge to evoke this new republican calendar.

It was on 5 March 1798 that Napoleon left Paris for Toulon to meet up with the fleet that he had readied to sail for Egypt. And it was on 21 July 1798 that Napoleon engaged the Egyptian Mameluk army at

the Battle of the Pyramids. Whether by design or by chance is yet to be decided but it is a fact that both these dates have a direct association with Isis, her 'boat' and her 'star'. In ancient Rome 5 March had marked the well-known feast of Isis Navigum or Isis-Pharia, when an effigy of the goddess seated in her boat was carried in procession around the city. And 21 July (Julian) was the date of the heliacal rising of Sirius. Coincidence? Perhaps. But we shall return to such issues in later chapters.

Mapping Ancient Alexandria

After Napoleon, the fine example set by the Institut d'Egypte later prompted the new ruler of Egypt, Mohamad Ali Pasha, to fund the education and training of Egyptian scholars in France. His most prominent scholar was the astronomer Mahmoud el Falaki, better known as Mahmoud Bey, who was to found the first modern astronomical observatory in Egypt. Mahmoud Bey was also trained as an engineer and geographer, a combination that was to serve him well in his 'Alexandria Mapping Project' that was to come later under the Khedive Ismail in 1865. Perhaps it should be also noted that Mahmoud Bey's numerous other contributions to science, such as the charting of geomagnetic and meteorological phenomena around the globe, earned him the respect and official praise of the Belgian as well as the French Academies of Science.

During his Alexandria Mapping Project, Mahmoud Bey carried out excavations and through them was able to determine that there had been eleven main streets running parallel along the width of the ancient city, and seven main streets also running parallel but at right angles to the other eleven. The two principal arteries were confirmed as the Canopus Way running the length of the city, and the Soma, running the width of the city, thus, as we've observed, forming a huge 'cross' by their intersection.

Some European archaeologists were quick to criticize Mahmoud Bey's 'reborn' plan of ancient Alexandria, but according to Dr Jean-Yves Empereur, the present director of the Centre of Alexandrian

Studies in Egypt:

In spite of the criticisms levelled at it in the later 19th century, this plan is still used by archaeologists today ... Mahmoud el Falaki decided to publish his plan in Copenhagen in 1872, six years after he had completed it. It is an outstanding work, reflecting the considerable resources employed in its production, rendered even more effective by the support of the Khedive and the solid training of its maker. Almost a century and a half after its publication it is still used as a reference work by archaeologists working in Alexandria.[39]

The Gate of the Sun and the Gate of the Moon

After digging several trial pits and trenches, Mahmoud Bey was able to establish that the Canopus Way was approximately 2300 metres long and that its axis was oriented to a point on the horizon about 24 degrees north of east.[40] Two factors indicate that this alignment was not accidental but was interwoven in the astronomical ideologies prevailing at the time. The first, of course, is the conspicuous angle of 24 degrees north of east, which immediately brings to attention a possible solar alignment close to the summer solstice. The other factor, perhaps even more obvious, is that the gate on the eastern side of the Canopus Way was called the 'Gate of Helios', i.e., the 'Gate of the Sun', again strongly suggestive of a solar alignment. The sun's rising points on the eastern horizon as observed from Alexandria fluctuate between 28 degrees south of east (winter solstice) and 28 degrees north of east (summer solstice), with the mid-point, due east, falling on the spring and autumn equinoxes.

In his *Life of Alexander*, the well-known first-century author Plutarch tells us: 'Alexander was born the 6th of *Hecatombaeon*, which month the Macedonians call *Lous*, the same day that the temple of Diana at Ephesus was burned…' *Hecatombaeon*, the first month in the Greek year, began on the first new moon immediately following the summer solstice. From this, many chronologists have calculated that Alexander must have been born on 20 July (in the Julian calendar) or very near to that date. Since this was also the time of year when the

sun rose in the horoscope sign of Leo, it may explain the powerful leonine symbolism that ancient writers associated with Alexander's birth and character.[41]

The persistent mythological connections between Alexander and Diana, which we explored earlier, are also of interest. Diana, the Artemis of the Greeks, was often identified with the Egyptian goddess Isis, the mother of Horus, the mythical prototype of the solar pharaoh-kings of Egypt with whom Alexander was keen to identify. These 'Horus-kings' were traditionally believed to be born under the protection of the star Sirius, the heliacal rising of which was the celestial sign that divinized and legitimized the reign of each and every future king of Egypt. It is a verifiable astronomical fact, and in our view most unlikely to be a coincidence, that the helical rising of Sirius in Alexander's epoch occurred on 20 July as seen from the latitude of Egypt's ancient capital, Memphis. Tradition has it that it was Alexander himself who fixed the central axis of the future city of Alexandria, later to be known as the Canopus Way. It is thus also unlikely to be coincidental that this axis turns out to have been aligned approximately 24 degrees north of east, targeting the point of sunrise on the day of the heliacal rising of Sirius through the appropriately named 'Gate of the Sun'.

Alexander, admittedly promiscuous in his choice of divine ancestors, is known to have claimed descent from Dionysos and Herakles – both of whom were associated with the Egyptian god Osiris by Herodotus, one of Alexander's favourite authors. Bearing this in mind, let us note that if we extend the axis of the Canopus Way further in the direction of the horizon we find it passing the ancient city of Herakleion (later submerged by an earthquake and recently relocated by marine archaeologists in Abukir Bay). At least since the time of Herodotus it was known that a temple dedicated to Herakles-Osiris had stood at Herakleion.

The Gate of the Moon at the other (western) extremity of the Canopus Way may also have had astronomical connotations linked to the myth of Isis and Osiris. We've seen that Isis, and the many Ptolemaic queens who emulated her, were commonly depicted with

the full-moon disc and/or lunar crescent above their heads – a motif that continued to be used for the goddess-queens of Alexandria in Graeco-Roman times. Cleopatra is well known to have identified herself with 'Isis and the Moon', and when she bore twins – a boy and a girl – by Mark Antony, she called them Selene (Moon) and Alexander-Helios (Sun), clearly an allusion to Isis and Osiris/Dionysos as well as to the city of Alexandria itself with its Moon and Sun gates. In order for a full moon to occur, it must be in almost direct opposition to the sun. This seems to explain why the west end of the Canopus Way was named 'Gate of the Moon' (Selene) and the eastern extremity named 'Gate of the Sun'.

With all such possible symbolic alignments it would seem likely, if not certain, that the city of Alexandria was sacred to Isis or, more specifically, to the figure Isis-Pharia who dovetailed perfectly with the Alexander-Dionysos-Helios myth. Indeed, so important was Isis to Alexandria that she became effectively its co-tutelary deity, being held in equal reverence to its very own specially invented supreme god Serapis. The reader will recall from Chapter 5 that it was within the compound of the great temple of Serapis in Alexandria – the Serapeum – that a great number of Gnostics and so-called 'pagans' were massacred by Christian mobs in the late fourth century AD.

The Making of a Universal God

When Alexander the Great died on campaign in Babylon in 323 BC, his vast empire was split into smaller dominions to be shared among his generals. His closest friend, Ptolemy, son of Lagos, inherited the kingdom of Egypt and was crowned pharaoh in 305 BC after the death of Alexander IV (the son of Alexander the Great by the Persian princess Roxanne). Ptolemy adopted the name Soter, meaning 'The Saviour', and thus is best known to historians as Ptolemy I Soter.

A very wise and enlightened man, Ptolemy set out to fulfil Alexander's dream to make his city, Alexandria, a universal centre of wisdom and learning. He recruited as his principal advisor an

Egyptian high priest from Heliopolis called Manetho, and consulted him on all matters related to religion, history and protocol. Manetho, who came from the Delta city of Sebennytos, is best known to Egyptologists for having compiled a chronology of all the dynastic and predynastic pharaohs which, to a great extent, is still used as reference today. It is almost certain, too, that Manetho was the principal contributor to the creation of the 'new' god Serapis for the city of Alexandria.

It seems that Ptolemy I Soter wanted to find an ideal deity for the cosmopolitan citizens of the universal city of Alexandria – the latter now perceived as the symbol of a regenerated Egypt that he, Ptolemy, was destined to govern. The choice quite naturally went towards the most revered of Egyptian gods, Osiris, or, to be more specific, as we saw in Chapter 5, to a special form of Osiris known as Osiris-Apis, the Wsr-Hapi of the ancient Egyptians. This linked Osiris to the worship of the bull-god Apis, a very ancient cult with its main centre at Memphis in Lower Egypt.[42] According to Herodotus, who visited Egypt when this cult still flourished, the sacred Apis bull was:

> The calf of a cow which is incapable of conceiving another offspring; and the Egyptians say that lightning descends upon the cow from heaven, and that from thence it brings forth the Apis. This calf, which is called Apis, has the following marks: it is black, and has a square spot of white on the forehead; and on the back the figure of an eagle…[43]

Indeed, the Apis bull was said to be born from the womb of a sacred cow known as 'Isis', and when the Apis bull died he was considered to have become Osiris. As Egyptologist George Hart states:

> Following concepts about the dead pharaoh in the Underworld, Apis, upon dying, became the god Osiris. It is the sacred bull of Memphis in his form of Osiris-Apis that provides the Egyptian nature of the hybrid god created under early Ptolemaic rulers known as *Serapis*.[44]

The close similarity between the Apis bull cult and the Isis and Osiris cult is obvious. And the close identification between the Apis

calf and the Horus *child* said in Egyptian mythology to have been born from the womb of Isis is thus inescapable: (1) The Apis bull was associated with the Horus-king or living pharaoh; (2) the sacred 'Isis' cow became pregnant by divine intervention in the same manner that the goddess Isis had become pregnant; (3) the sacred 'Isis' cow bore only one calf in the same way Isis had borne only one son; (4) the Apis became 'Osiris' after death in the same way that the Horus-king – the pharaoh – was also devoutly believed to became 'Osiris' after death. As Hart further explains:

> The pharaoh identifies closely with Apis-bull imagery (with its inherent notion of strength and fertility) being an ancient characteristic in the propaganda of the god-king, as can be seen from carved slate palettes and in one of the names used in the royal protocol 'victorious bull'. Celebrating his jubilee festival, a ceremony concerned with the rejuvenation of the monarch's power, the pharaoh strides briskly alongside the galloping Apis bull. The ritual which took place at Memphis is vividly portrayed in a relief on a block from a dismantled chapel in the temple of Karnak at Thebes.[45]

A contemporary account of the Apis cult is given by Diodorus Siculus, who visited Egypt in the first century BC. Diodorus describes the funeral of the Apis bull in much the same terms as that of a pharaoh:

> After the splendid funeral of Apis is over those priests who have charge of the business seek out another calf as like the former as they can possibly find, and when they have found one an end is put to all the mourning and lamentation, and such priests as are appointed for that purpose lead the young bull through the city of Nile and feed him forty days. Then they put him into a barge wherein is a golden cabin and so transport him as a god to Memphis… For the adoration of the bull they give this reason: they say that the soul of Osiris passes into a bull and therefore whenever the bull is dedicated, to this very day the spirit of Osiris is infused into one bull after another for posterity.[46]

The most crucial aspect of the ancient Egyptian mystery religion is that the 'son of Osiris', i.e., Horus, was perpetually reincarnated in the person of the pharaoh, and after each pharaoh died he became

‘Osiris’, while his eldest son became the new living ‘Horus’. Or, to put it another way, each successive pharaoh was the living embodiment of Horus while, at the same time – as was the case with the Apis bull – it was held that his soul would become ‘Osiris’ after his death. It can be seen, therefore, that the idea of the combined name ‘Osiris-Apis’ – which transmutated to Serapis – was modelled on the idea of ‘Osiris-Horus’ and, consequently, must be understood to be the ultimate name that symbolizes the legitimacy and divinity of the ruling pharaoh.

This is precisely how Alexander the Great wanted to be perceived by the world, and this was also in the mind of Ptolemy when he was crowned the successor of Alexander in Egypt. When, in the summer of 323 BC, Alexander lay dying in Babylon from malaria (made worse by drinking excessive quantities of wine as a ‘cure’), his priests prepared a makeshift temple of Osiris-Apis, i.e., Serapis, in his encampment, leaving us with no choice but to conclude that Alexander had embraced this god as his own. According to the official royal journal kept by the scribe Eumenes,[47] Alexander was seized by a violent fever on 4 June which persisted for several days and, by 8 June, it was becoming clear to all that he was dying:

8 June: The fever continues. The Macedonians, thinking that he was dead, came screaming to the gates of his palace and insisted to see him. The doors were opened. They all passed in procession in front of the bed. In silence he [Alexander] greeted each of them by nodding his head or by making a sign with his eyes. In the temple of Serapis, Peithon, Attalos and Demophon [Alexander’s close companions] slept in turn waiting for an oracle from the god to tell them if they should transport Alexander to his sanctuary for him to be cured. The fever continued all night.

9 June: Same condition [the King is now in a coma]. New consultation of the god [‘father’ of Alexander] by Kleomenes, Menidas and Seleukos who relayed in the temple of Serapis to sleep and to consult the god.

10 June: The god gave his reply, which was not to bring Alexander to the temple as he was better off where he lay resting. The companions reported this to the soldiers. A short while

later, towards evening, Alexander died.[48]

The above text make it clear that a temple of shrine of Serapis had been raised somewhere near Alexander's palace in Babylon, and that this god was consulted over a matter of great importance – i.e., whether or not Alexander's body should be transported to the principal 'sanctuary' of Serapis, i.e., Osiris-Apis, in Egypt. There is an apparent anomaly in the text which refers to Serapis as the 'father of Alexander' when we know that Amun of Siwa already filled that role. But perhaps in the minds of the Macedonians at least, no clear distinction was made between Serapis and Amun, since both in the Egyptian tradition were 'fathers' to the pharaohs. Herodotus clearly equates Amun of Siwa with Zeus,[49] and we know that Serapis was also equated with Zeus by the Alexandrians.

The Labyrinth of Serapis

The main sanctuary of the Osiris-Apis bull (Serapis) was near Memphis in Lower Egypt, not far from the complex of the step pyramid Zoser at Saqqara. Here, from at least 1400 BC, successive generations of Apis bulls were buried, in huge stone sarcophagi, in a subterranean labyrinth known today as the Serapeum (the same name applied to the temple of Serapis at Alexandria). Herodotus, who wrote his *Histories* a century or so before Alexander's arrival in Egypt, is the first foreigner to mention the 'temple of Apis'. It probably was still operational well into Christian times, but by the Middle Ages the Serapeum had been completely buried in sand and its location forgotten. It was not until 1850 that it was rediscovered by the French archaeologist Auguste Mariette. The story goes that Mariette, while trekking in the desert near Saqqara, stumbled on one of the many small sphinxes mentioned by the ancient geographer Strabo that had once flanked the processional road leading to the Serapeum. He was later to write:

'One finds,' said the geographer Strabo (1st century AD), 'a temple to Serapis in such a sandy

place that the wind heaps up the sand dunes beneath which we saw sphinxes, some half buried, some buried up to the head, from which one can suppose that the way to this temple could not be without danger if one were caught in a sudden wind storm.' Did it not seem that Strabo had written this sentence to help us rediscover, after over eighteen centuries, the famous temple dedicated to Serapis? It was impossible to doubt it. This buried Sphinx, the companion of fifteen others I had encountered in Alexandria and Cairo, formed with them, according to the evidence, part of the avenue that led to the Memphis Serapeum…[50]

Inspired by his find, Mariette organized a workforce and, within a few weeks, had uncovered the entrance to the Serapeum which, even today, remains a hugely impressive and awe-inspiring place. It is located about a kilometre to the north-west of the stepped pyramid of Zoser, and is approached from the east through a sloped alley going downwards into the bowels of the sand-rock desert. The vastness of this underground maze is what first hits you, with its dark and sprawling corridors running in several directions like a hellish labyrinth built for giants. Today there is low-wattage electric lighting, but even so, if left wandering alone in this strange Hades, one is gripped by a curious sense of uneasiness, a sort of slow panic that mingles with the eerie and deathly stillness. There is something almost unnatural and something almost superhuman here. For what is seen all along the huge tunnels and corridors are dozens and dozens of enormous sunken niches, the size of large living rooms, in which were inserted massive granite sarcophagi that once contained the mummified corpses of the Apis bulls. The size and weight of these sarcophagi – some over 60 tons and cut from a single block of granite – fire the imagination for, at least on face value, it is very difficult to see how they were brought down here in the first place let alone manoeuvred into the niches. One has the sense that deep and dark mysteries were performed here. Their atmosphere still lingers – the charged residue of a place where, in the words of the ancient Greeks, men were transformed into gods.

Alexander's Return

Nectanebo II (the 'father' of Alexander in some legendary accounts) had his tomb built not far from the Serapeum at Saqqara.[51] Could this have played a part in the strange events that took place after Alexander's death and the dilemma confronting his generals and officers as to where the remains of their heroic demi-god should be taken? For while still in Babylon, the body of Alexander was prepared in the ancient Egyptian manner by embalmers brought specially for this task. Alexander's body was then placed within a golden sarcophagus and a huge catafalque was built – the size of a house on wheels according to some eyewitnesses – in order to transport the dead hero-god back to Egypt.

The journey took almost two years. Finally, when it arrived at the borders of Egypt, the catafalque was met by Ptolemy, and the golden sarcophagus taken to Memphis. There it was buried near the Serapeum in a sumptuous tomb befitting the hero-god. So entrenched is the idea that Alexander's 'lost tomb' lay hidden in Alexandria that it generally comes as a surprise for some to know that his coffin remained at Memphis for at least *ten years*, and perhaps even longer, before finally being taken to Alexandria. At that time the city of Memphis was still the capital of Egypt, and the temple of Heliopolis was still functioning as the priestly school for the state. As for Ptolemy himself, he was still *Satrape*, i.e., governor of Egypt under the authority of Alexander IV, the son of Alexander the Great by his Persian wife, Roxanne. In 310 BC, however, when Alexander IV was thirteen, he was assassinated, and the succession not settled. Against this background, five years later, Ptolemy seized his chance and declared himself Pharaoh of Egypt in 305 BC.

We may guess that it was to strengthen and symbolize his own legitimacy as the true successor of Alexander the Great that Ptolemy transferred Alexander's golden sarcophagus, and along with it the cult of Serapis-Osiris-Apis, to the newly built city of Alexandria. It is also likely that the kernel of the future Great Library of Alexandria was brought at this time from the great temple-library at Heliopolis.

This, then, was the manner in which Alexandria was turned into

the new ‘capital’ of Egypt and created the great spark of enlightenment that was to illuminate the Western world at the time of the Renaissance.

A Special Gnosis

It has long been recognized that the ancient Egyptians did not have a ‘religion’ – at least not in the sense that we understand the meaning of this word today. And although the term Egyptian ‘religion’ has been extensively used in Egyptology, and we ourselves use it in this book, the fact remains that it cannot be found in the vocabulary of the ancient Egyptians. It simply does not exist. As the eminent Egyptologist and philologist Alan H. Gardiner explains, ‘From the Egyptian point of view we may say that there is no such thing as “religion”; there was only *heka*, the nearest English equivalent of which is “magical power”…’[52]

Everything about the ancient Egyptian monuments and texts leads us to suppose that *heka*, i.e., magical powers, were believed to be acquired through a very intense spiritual and intellectual learning process involving elaborate and secret initiations. *Heka* was a sort of *sacred science* or, as we prefer to call it, a *special gnosis*, and it was thought to be the gift of Thoth, the ancient Egyptian god of wisdom (the Hermes Trismegistus of the Greeks). According to British Egyptologist Patrick Boylan, Professor of Eastern Languages at University College, Dublin:

> Thoth… is god of wisdom and orderer of the cosmos. His word has to call things into being… [and is] endowed with magical powers. Magic presupposes always a special Gnosis. The magician claims to possess a higher and deeper knowledge of the secret nature of things, and the hidden connection which holds things together. He is the wise one whose words have power to control mysterious forces, and to ward off invisible perils. And the magician does all this by the power of his special gnosis…[53]

This *special gnosis*, or magical knowledge, was said to have been

gathered by Thoth and written in sacred books which, according to a legend found in the Egyptian *Book of the Dead*, were taken to the temple of Heliopolis by the goddess Hathor, whose star, the reader will recall, was Sirius.[54] A rather similar legend that associates Thoth and his sacred books to the city of Heliopolis is found in the *Westcar Papyrus*. In this 3500-year-old text a story is told about a magician brought to the court of the Pharaoh Khufu, the legendary builder of the Great Pyramid at Giza. Khufu is keen to find the secret chamber of Thoth (presumably where the magical 'books' were kept) in order to design his pyramid, and he is told by the magician that it will be found at Heliopolis in some sort of 'Inventory Room' or library or hall of scriptures and records.[55] This story therefore associates the idea of the pyramid with the magical knowledge of Thoth – knowledge, as we shall see, that was specifically connected to the *stars*. As the French Egyptologist and author Christian Jacq asserts:

> The greatest centre of magic in Egypt was probably the holy city of Heliopolis, the city of the sun, where the most ancient theology developed. Here were preserved numerous papyri, 'magic' in the widest sense of the word, including medical, botanical, zoological and mathematical texts. Most Greek philosophers and savants travelled to Heliopolis to study some of that knowledge…[56]

Jacq then goes on to say that at Heliopolis and other similar learning centres was practised the most 'sacred science that requires specialists trained for many years to grasp the most secret forces of the universe'.[57] Everything points to the fact that the most important aspect of this 'sacred science', or special *gnosis*, rested on the belief that the influences and powers of the stars could be somehow drawn down to earth. As Christian Jacq and others have pointed out, the edifices of the ancient Egyptian sacred science rested on the fervent conviction that innate objects such as amulets, statues, shrines, monuments, temples and even whole cities could be imbued with the divine essence of the star-gods which was harnessed with the application of *heka*, i.e., magic.

Western civilization in the twenty-first century does not, by and large, believe in magic. Earlier civilizations did, and the ancient Egyptians were emphatically amongst them. What they understood by *heka*, however, does not necessarily accord with modern ideas of magic at all and therefore needs to be clearly defined. According to the late Dame Frances Yates of London University, who made a lifetime study of these matters:

> The type of magic with which we are to be concerned differs profoundly from astrology which is not necessarily magic at all but a mathematical science based on the belief that human destiny is irrevocably governed by the stars, and that therefore from the study of a person's horoscope, the position of the stars at the time of his birth, one can foretell his irrevocably foreordained future. This magic is astrological only in the sense that it too bases itself upon the stars, their images and influences, but it is a way of escaping from astrological determinism by gaining power over the stars, guiding their influences in the direction which the operator desires. Or, in the religious sense, it is a way of salvation, of escape from material fortune and destiny, or of obtaining insight into the divine. Hence 'astrological magic' is not a correct description of it, and hereafter, for want of a better term, I shall call it 'astral magic'…[58]

Frances Yates, as we shall see in the next chapter, was speaking here not of ancient Egyptian 'astral magic' but, more specifically, of the *revival* of the Egyptian magical religion during the Italian Renaissance. But she might as well also have referred to ancient Egypt itself, for the definition she gives covers precisely the sort of 'astral magic' that seems to have existed in Egypt since time immemorial.

A Time of Change

In the years after the coronation of Ptolemy I Soter as the successor of Alexander the Great, the city of Alexandria began to flourish. First, a magnificent tomb was built to house Alexander's coffin and then various monumental and religious projects were planned. Most notable among these were the *Pharos*, one of the wonders of the

ancient world, the great temple and library complex of Serapis – the Alexandrian Serapeum – and, of course, the legendary Library of Alexandria.

It was at the Alexandrian Serapeum that the Ptolemies regenerated the cult of Serapis, the supreme universal god, and where a huge statue of the Serapis was erected. And at the *Pharos*, as we have already seen, was raised a great temple dedicated to Isis, 'consort' of Serapis, but now specially designated in this new maritime city as Isis-Pharia.

As for the famous Library, this was dedicated to the seven muses or sisters, patrons of music and the arts. It is most likely that much of the Library's original collection was derived from stocks brought from other parts of Egypt, especially Heliopolis and Memphis, which had been preserved since time immemorial in the temple libraries of the ancient Egyptians. Also, literary works of philosophy, religion, science and the arts were imported from other parts of the world, especially Greece. Ptolemy I Soter, moreover, took a great personal interest in having brought to him a copy of the Old Testament of the Hebrews and, for the first time ever, had the latter translated into Greek, making it available to the non-Jewish world. Thus an incredible intellectual and spiritual vortex began to swirl in Alexandria, and the result would be the creation of an even more powerful magical religious philosophy, which was to be attributed to Hermes Trismegistus, the name given to the Egyptian wisdom god, Thoth, by the Graeco-Egyptian population of Alexandria.

Over the coming centuries, as we shall see, the ancient Egyptian magical tradition was to dress itself in Greek garb and subliminally inject itself into Western Europe.

Metamorphosis

In 586 BC, the Babylonian king Nebuchadrezzar II captured Jerusalem, causing a mass expulsion of Jews, many of whom found their way into Egypt. Evidence of a Jewish presence in Egypt in those times is

widespread from the Nile Delta area in the north to the distant south at Elephantine near Aswan. Also two centuries later, when Ptolemy I Soter took control of Palestine and Jerusalem, he brought back Jewish mercenaries and encouraged Jews to settle in his newly founded city of Alexandria. By the first century BC and the reign of the fabled Cleopatra, last of the Ptolemaic rulers, a large segment of the population of Alexandria was made up of Jews who had adopted Greek language and customs. And there can be no doubt that it was with the Jews of Egypt that a patriarchal, monotheistic religion that abhorred idols and graven images began to take hold in the ancient land of the pharaohs.

In 30 BC the Roman legions of Octavian (Augustus Caesar) reached the gates of Alexandria to challenge his arch-rival, Mark Antony. Inside the virtually defenceless city there was panic and pandemonium. The armed forces commanded by Antony and Cleopatra had been decisively defeated at the naval battle of Actium and now any resistance to Octavian would simply be foolish bravado. Indeed, earlier Mark Antony, in a moment of heroic folly, had attempted a valiant charge against Octavian's Roman legions only to find himself deserted by his own men, who hailed Octavian as their true leader. Thus abandoned but still unable to face defeat, Mark Antony committed suicide, begging the last of his loyal soldiers to finish him off. When the news reached Cleopatra, she became determined not to be captured alive by Octavian, and committed the most famous suicide in history by being bitten by a deadly asp.

Thus 3000 years of pharaonic civilization came abruptly to an end. Octavian immediately declared Egypt to be a province of Rome, and the might of the Caesars fell on this ancient and sacred land like a gigantic sledgehammer. Within years Egypt was reduced to nothing more than a granary to feed Rome's legions.

Alarmed at changes they saw being introduced all around them, what the Egyptian priests undoubtedly feared most was the extinction of their magical religion. Throughout the three centuries of Ptolemaic rule, the ancient Egyptian temple-cult had not only survived but had received active state sponsorship and had boomed everywhere. This

was because its time-honoured antiquity had a powerful, almost enchanting appeal for the Ptolemies, who found that it meshed perfectly with their own mythologies and ideas of the divine. Indeed, the ancient Egyptian magical religion was seen as a boon for the universal dream of the Ptolemies and, like many other things, fitted the city of Alexandria like Cinderella's slipper. The Romans, on the other hand, saw the connection simply as another source of political power to run Egypt and its resources efficiently. It is true, of course, that Roman emperors appointed themselves as 'pharaohs' and even adopted the religion of Serapis and Isis. They also restored temples and built new ones in honour of the Egyptian deities – the famous temple of Denderah was restored to its present-day appearance by the Emperor Tiberius.[59] None of this, however, won over the Egyptians let alone the Egyptian priests. They knew that under the Romans, things would inevitably be very different. The enlightened Ptolemies saw themselves as successors to the Egyptian pharaonic tradition, whereas the Romans had come as conquerors and masters. As the Coptic scholar Dr Jill Kamil points out:

> The institution of sacrosanct monarchy, a cardinal feature of Egyptian life in pharaonic times which had been maintained by various later dynasties (the Ptolemies, for example), was lost in Roman times. The emperors may have claimed to be divine but it was their prefects who ruled Egypt, reduced the prestige of the priests, and exerted pressure on the people. They siphoned off the wealth of the land to Rome and recruited Egyptians to fight Roman wars in other countries. The Egyptians, who had accepted Ptolemaic rule, resisted Roman. It is not difficult to see the difference between them. Under the Ptolemies, Egypt had retained its integrity and had a stable economy. Under the Romans the country was shorn of identity and impoverished. It was no more than a private estate for the emperor and a pleasure-ground for the Roman upper classes.[60]

There was at first some semblance of prosperity and even a sense of protection under the Romans,[61] but on the whole it did not benefit the Egyptians themselves. The wealth extracted from agriculture fed the Roman garrisons and filled the treasury of Rome; and if any new

temple or hydraulic project was built by the Romans it was done for strategic reasons and to strengthen their political and military hold on Egypt. Soon the Egyptians – now a people mixed with 'Egyptian' Greeks and Jews – began to revolt. In AD 115 a huge revolt, apparently led by the Jews, was brutally crushed by the Romans. Another massacre was to take place in Alexandria during the visit of the mad Emperor Caracalla in AD 215, after he was accused by the rash Alexandrians of his brother's assassination. And an even more serious revolt took place in AD 297, this time firmly put down by the emperor Diocletian, who recaptured Alexandria after a siege of eight months.

But not all imperial visits were aggressive. There was the time when the Emperor Vespasian had come to Alexandria and, like Alexander the Great before him, was proclaimed 'son of Amun' and even the 'reincarnation' of Serapis. So seriously did Vespasian take this that he apparently went through the streets of Alexandria performing 'miracles', and on one occasion restored the sight to a blind man.[62]

Then there had been the relatively peaceful visit of Hadrian to Alexandria and to Thebes in Upper Egypt in AD 130. While in Egypt Hadrian's favourite companion and lover, a youth called Antinous, drowned in the Nile, whereupon Hadrian promptly ordered that a city be founded near the tragic spot to be called Antinoupolis. Hadrian also left us an observation of very great value concerning the worship of Christ and of Serapis in Alexandria when he wrote as follows to Sevianus, the governor of the city:

> So you praise Egypt, my very dear Servianus! I know the land from top to bottom… In it the worshippers of Serapis are Christians, and those who call themselves Bishops of Christ pay their vows to Serapis… Whenever the patriarch himself comes to Egypt he is made to worship Serapis by some and Christ by others.[63]

Amid such alarming religious syncretism, and constantly threatened by the temperamental debaucheries and cruelty of the Roman

emperors, the Egyptian priesthood must have paused to reflect. So far they had succeeded, beyond their wildest dreams, in ensuring the survival of their age-old magical religion by accommodating and converting the Ptolemies. Now, however, they saw the Romans as a much more serious and perhaps even insurmountable danger. When the Romans had arrived in Egypt in AD 30 an intellectual and literary osmosis had long taken place between the Greeks and the educated Egyptians, many of whom were priests, scribes and functionaries associated with the temple-cult. As Dr Kamil explains:

> The languages in official use in Egypt were Greek and Egyptian, Greek being the more widely used. Egyptian literates had learned Greek long before the conquest of Alexander. They also realized that if they transcribed their own language in the Greek alphabet, which was well-known among the middle classes and was simpler to read than demotic (the cursive form of hieroglyphic writing in its latest development), communication would be easier. Scribes started translating Egyptian sounds in Greek, adding seven extra letters from the demotic alphabet to accommodate the sounds for which there were no Greek letters. The emergence of this new script [is] now known as Coptic.[64]

There had been much encouragement in the exchange of ideas and written works, and the first Ptolemies, such as Soter and Philadelphus, would actually issue decrees that important Egyptian writings from the temple libraries should be translated into Greek, the *lingua franca* of Egypt and its neighbours.[65] As noted above, tradition has it that Ptolemy I Soter also commissioned seventy-two erudite Jewish scholars to translate the Old Testament into Greek, a version now known as the *Septuagint*, which was to serve as the basis for future Latin translations.

Not surprisingly a very powerful spiritual and intellectual mutation began to occur in Alexandria which ended up producing a 'neo-Egyptian' wisdom philosophy that was readily embraced by the cosmopolitan inhabitants. One element of this was Christian Gnosticism, which we have examined at length in Part I, and which is represented most strongly today in the surviving Nag Hammadi texts. Another, closely linked but with its own distinct character, was the

‘pagan’ Hermetic literature we’ve explored in Chapters 8 and 9. Also compiled in Alexandria in the first three centuries BC, it is these Hermetic texts, claims Jill Kamil, that most perfectly sum up the intellectual and spiritual yearnings of the period:

> Although, therefore, Egypt was ruled by a Greek speaking elite, and the bulk of the population was largely illiterate, there was a bilingual community that was multinational. This is nowhere more clearly demonstrated than in a collection of syncretistic treatises known as the *Corpus Hermeticum*. The corpus was purportedly written by Thoth, the ancient Egyptian god of wisdom who, under his Greek name Hermes Trismegistus, gave the compilation its name. The Hermetic texts, some composed in Greek, some translated from Egyptian into Greek, were a blend of semi-philosophical treatises on the divine, ancient Egyptian wisdom and literature, and esoteric teachings including cosmological conceptions and mysticism. Through such literature, one can best appreciate the varied and subtle ways in which the consciousness of the divine manifested itself among the whole cultural amalgam in Egypt.[66]

In Chapter 8 we saw the effects of this strange and mysterious Hermetic literature after it burst upon the European scene in 1460. Let us now place it at its origins into its proper intellectual and cultural setting alongside the emergent force of Christianity in both its Gnostic and its ‘literalist’ forms.

The Three Major Players

Around the year AD 30, some sixty years after Augustus Caesar invaded Egypt, it is claimed that a man called Jesus from the town of Nazareth was crucified in Jerusalem. This claim – that Christ was indeed man as well as god – is central to the doctrine of Roman Catholicism. On the other hand the reader will recall from Part I that the Gnostics held an entirely different view which did not admit the physical incarnation of Christ. Who is to say, at this remove of 2000 years, which side was right and which was wrong, whether or not Christ was a man, or an apparition, or ever existed at all? Christianity

exists, of that there is no doubt. It has shaped the world we live in. But Christ himself still proves elusive, and nothing about the story of his life and death, or even about what happened to his followers during the first thirty or so years after his death, can honestly be said to be confirmed as solid historical fact.

Tradition has it St Mark went to Rome and in that city wrote his famous Gospel. Then, during the reign of the Emperor Nero at about 60 BC, he left Rome and travelled to Alexandria on his apostolic mission to convert the Egyptians. The great persecution of the Christians had already begun in Rome under Nero, and thus Egypt was not only a safer place to be but, and perhaps more important, was ripe for such a mission to succeed. And succeed it did, well beyond the wildest of St Mark's expectations.

According to Egyptian-Coptic tradition, the first person in Egypt to be converted to Christianity by St Mark was a Jewish shoemaker from Alexandria. Whether this is historically true or not is unimportant, but it does emphasize the fact that the large Jewish population of Alexandria would have been an obvious target for such conversion to a new Judeo-Messianic cult. It is possible, indeed very probable, that some of the early followers of Jesus – whoever this mysterious figure really was! – found refuge in Egypt and formed the first nucleus of proto-Christian adepts in Egypt. Conversion thus naturally began within the existing Jewish population and then gradually spread to the indigenous as well as to the Graeco-Roman populations.

This process, almost organic in its progress, had the inevitable effect of producing a variety of religious factions in Alexandria. Right from the outset two key players were the Christian Gnostics on the one hand, who frequently interpreted the Scriptures symbolically and allegorically, and 'literalist' Christians on the other, who interpreted the Scriptures literally. We have considered both at length in Part I.

A third major player resisted the Christian tide and remained 'pagan', retaining many original ancient Egyptian beliefs but now expressed in Greek, with rituals structured for Greek-speaking adepts. These were the Hermetists – so called, as we know, because they followed the teachings of Hermes Trismegistus, the *alter ego* of the

ancient Egyptian wisdom god Thoth. Vilified and hated by the Catholic Church, the Gnostics and Hermetists found in each other a common bond – this being the search for salvation and spiritual illumination through divine knowledge, that is to say through *gnosis*. And although the Gnostics were labelled 'heretics' by the Church and the Hermetists were branded as 'pagans', both were perceived as equally dangerous enemies and were, accordingly, persecuted with equal ferocity.

We've seen in Chapter 5 how the persecution reached a point in the late fourth century BC, when the Christian Emperor Theodosius closed all the 'pagan' temples in Egypt. Gnostics and pagans alike were hounded into the desert and their places of worship either destroyed or 'converted' into Catholic churches, while their books were seized and burned. It seems, however, that both groups had previously taken precautions to ensure that their sacred texts and ancient traditions would not be completely erased.

We followed the story of Gnosticism in Part I and how it survived as a living tradition until the destruction of the Cathars and the Bogomils in the thirteenth and fourteenth centuries AD. We also reported the story of the Nag Hammadi Gnostic texts in Part I, their loss to the world for sixteen centuries, their miraculous recovery in 1945, and their implications for our understanding of Christianity.

The Hermetic texts, the so-called writings of Hermes Trismegistus, came to light rather sooner. Copies had been smuggled out of Egypt, probably during the fifth or sixth centuries, with some reaching Byzantium and Macedonia. One complete collection would pass from hand to hand, albeit recopied several times but nonetheless remaining essentially the same for 1000 years until, as we described in Chapter 8, an aging Italian monk found it, recognized it for what it was, and brought it to Cosimo de' Medici.

The man of his epoch best suited to respond to such a discovery, Cosimo's early sponsorship launched the Hermetic message on a glittering Renaissance career that saw it infiltrate its symbolism into the very apartments of the Pope before the end of the fifteenth century. Where Christian Gnosticism had been utterly crushed in

Occitania after its re-emergence as Catharism, is it possible that the 'pagan' branch of the Alexandrian *gnosis* – i.e., Hermetism – was about to succeed in overthrowing the hated tyranny of the Catholic Church?

Chapter 11

The Prophet of Hermes

> 'In the later part of the 16th century, in a Europe devastated by the awful wars and persecutions arising from the conflict between Reformation and Catholic reaction… men turned to the Hermetic religion of the world to take them above these conflicts…' (Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1991, p. 203)

> 'Perchance your fear in passing judgement on me is greater than mine in receiving it…' (Response of Giordano Bruno to the cardinals of the Inquisition after they sentenced him to be burned at the stake, reported by an eyewitness of his trial, Gaspar Schopp, in January 1600)

> 'Some say the Renaissance ended with his death.' (About Giordano Bruno, in Kenneth J. Atchity's *The Renaissance Reader*, HarperCollins, London, 1996, p. 253)

During the Cathar crisis of the twelfth and thirteenth centuries the Roman Catholic Church was obliged to compete with the high standards of behaviour and morality set by the Cathar *perfecti*. But after the heretics had been crushed the pressure was off and by the sixteenth century the reputation of the Vatican had once again become severely tarnished. Not only were there the ongoing excesses and horrors of the Inquisition – which was passing through a phase of

renewed frenzy – there had also been the numerous scandals of the so-called 'Bad Popes'. Amongst these, as we saw in Chapter 8, the Borgia Pope Alexander VI stands out for his bizarre behaviour, not to mention the intrigue and homicidal cruelty of his two children, Cesare and Lucretia Borgia, and the wild parties and orgies that took place at the Vatican.

All this debauchery began to cause many in Europe to doubt the Papacy. Such doubt led first to derision, then to cautious protestation and finally to open revolt by 'Protestant' groups outside Italy. The main thrust of the movement was spearheaded in Germany by a country pastor, Martin Luther, in a bold bid to wrangle Christianity away from the clutches of the Papacy in Rome.

Awful carnage ensued where Catholic and Protestant armies battled for decades. By the second half of the sixteenth century many were utterly sickened by the terrible bloodshed and destruction and had begun to hope for a saviour or champion who could unite Europe again in peace and prosperity. In the year 1569 all eyes fell on the Bourbon family in the Kingdom of Navarre, and on France, where the religious crisis between Catholics and Protestants (known as Huguenots) was reaching a turning point.

The Rise and Rise of Catherine de Médicis

At the head of the Catholic military 'league' in 1569 was the French King, Charles IX, but in reality much of the power of this rather sickly and weak monarch was vested in his ambitious and domineering mother, Catherine de Médicis. Born into the powerful and influential Florentine family in 1519, Catherine's parents were Lorenzo de' Medici, Duke of Urbino, and Madeleine de la Tour d'Auvergne, the latter linked to the French royal family. Orphaned at a very young age, Catherine was once kept as hostage when the Medici palace was attacked and occupied by an angry mob of Florentines who revolted against the Papacy. Finely educated in convents around the city during the siege of Florence, she was at last set free and taken to Rome after her warring uncle, Pope Clement VII (Giulio de' Medici),

crushed the rebellion in Florence. The Pope then negotiated with King Francis I of France for Catherine – at that time just fourteen years old – to marry the king's second eldest son, Henry of Orléans.

Wanting to make a suitable impression on the French court to counter her rather short stature and not-too-pretty countenance, the youthful Catherine de Médicis consulted a Florentine artisan, who presented her with the very first example of a pair of modern high-heeled shoes, which caused quite a stir when she arrived. Immediately disliked by the French, she nonetheless became their queen when the eldest son of Francis I died, leaving the throne to her husband, Henry of Orléans, who was crowned as Henry II. Henry, meanwhile, had been having a passionate affair with Diane of Poitiers, a ravishingly beautiful courtesan twenty years his senior. But in spite of this, Catherine de Médicis bore him no less than ten children; three died at birth; three others were destined to become kings of France: Francis II, Charles IX and Henry III.

Henry II's hatred for the Protestant Huguenots of France and the violent repression that he imposed on them finally led to an all-out civil war. He was to die from a horrible jousting accident in 1559. It was then that Catherine de Médicis started a long reign of co-regency with her sons; first with Francis II, who died a year later in 1560; then with her second son Charles IX, who died in 1574; and finally with Henry III, who died in August 1589, just a few months after Catherine's own death in January of that same year.

At first Catherine had oscillated between Huguenots and Catholics in an attempt to bring peace to France, and she even went as far as to arrange a marriage between her daughter, Marguerite, and Henry of Navarre, the dashing Protestant Bourbon prince, the future Henry IV of France. The kingdom of Navarre, which was situated in northern Spain, was ruled by a rogue French dynasty, the Bourbons, who bitterly opposed the Catholic League. Henry's mother, Jeanne d'Albret, the Queen of Navarre, was a staunch Protestant and saw to it that her son also followed suit. Trained in military skills by Gaspard de Coligny, an able Protestant general of Navarre, Henry of Navarre proved to be a natural military strategist who excelled at hand-to-

hand combat, starting at the young age of sixteen, when he personally led the first cavalry charge of the Huguenots against the Catholics at the battle of Arny-le-Duc. Finally, in 1570, a precarious peace treaty was signed by Catherine de Médicis, Queen of France, and Jeanne d'Albret, Queen of Navarre, and a marriage was proposed between Catherine's daughter, Marguerite de Médicis, and Jeanne's heroic son, Henry of Navarre. After lengthy negotiations between the two rival queens, an agreement was reached in 1572 and the marriage ceremony was planned to take place in Paris. Upon arrival in Paris in June, however, the Queen of Navarre suddenly died of a lung infection and, in consequence, her son Henry became the new King of Navarre. He and Marguerite de Médicis married on 18 August 1572 but Henry refused to attend Catholic Mass after the wedding with the French royal family. And barely a few days later, one of history's most gruesome 'days of infamy' was to crush all hopes of peace between the Protestant Huguenots and the Catholics in France.

The St Bartholomew's Day Massacre

During the royal wedding of Henry and Marguerite, thousands of Huguenots, including Henry's famous cousin, the Duke of Condé, had poured into Paris for the celebrations. Rumours began to spread of a plot against Catherine de Médicis, who urged her frail and weak-minded son, Charles IX, to act swiftly and harshly against the Huguenots. There followed an attempt to assassinate the Duke of Condé, which sparked a huge riot against Catherine; in return the Royal Guards were ordered to attack the unprepared Huguenots. A terrible massacre ensued, and the streets of Paris, it was later said, were knee-deep in blood. This gruesome genocide has gone down in history as the 'St Bartholomew's Day Massacre' because it took place on 24 August, the festival of that saint.

Against the background of such charged events, Henry of Navarre found himself effectively a prisoner of the most Catholic French royal family into which he had married. In a bid to save his own life as well as the Protestant cause, he pretended to abandon Protestantism. After

convincing the crafty Catherine de Médicis that he had sincerely converted to Catholicism, Henry finally escaped three years later to his kingdom in Navarre to raise an army against the Catholics.

Meanwhile Charles IX died and was succeeded by Henry III, Catherine's last and favourite son. Aloof and apparently fond of young men known as the *mignons*, a quaint French word for homosexuals, Henry III spent much of his time in questionable pastimes which included dressing up as a woman, taking part in macabre processions around Paris wearing a sinister monk's cloak and cagoule, and joining a group of Capucin friars who impersonated 'the Virgin Mary' and 'Maria Magdalena' while a third, perhaps the king himself, impersonated 'Jesus'.[1] Additionally Henry was the patron of two religious military orders – the 'Knights of the Holy Spirit' and 'Knights of the Phoenix' – which were reported to have conducted unusual rituals involving the king.[2]

With no marriage or heirs in sight, Henry III seemed destined to be the last of the powerful Orléans-Médicis dynasty to rule France. Attention fell on his dashing renegade brother-in-law, Henry of Navarre, who was the next in line to the throne of France. And many began to see in him the God-sent king who would unite Protestants and Catholics once again.

A Mass for Paris

In 1586 Henry of Navarre set up his military headquarters at La Rochelle, traditionally a strong fortress city and symbol of Protestant resistance. From there he would oppose the powerful Catholic League formed by an unholy alliance of Spain, France, the Vatican and the Hapsburgs in Germany, the latter the traditional seat of the Holy Roman Empire. In the autumn of 1587, Henry of Navarre confronted the Catholic army of Henry III of France at Coutras, near Bordeaux. Henry III's army was led by one of Henry III's *mignons*, the Duke of Joyeuse, who was no match for Henry of Navarre. The Catholics were crushed and the Duke of Joyeuse was killed in action.

Not unexpectedly, Henry of Navarre was immediately condemned as a heretic by the Pope and declared unfit to succeed to the throne of France. Philip II of Spain, unquestionably the real power behind the Catholic League, then proposed that his daughter, Isabella, should become queen of France. Bullied by the immensely powerful Count of Guise, a staunch Catholic, Henry III fled Paris, and the Catholic League took over.

Henry III struck a secret deal with Henry of Navarre and promised him the succession to the throne if he would help him recapture Paris. The next move was the assassination of the Count of Guise by Henry III's *mignons* on 23 December 1588. He and Henry of Navarre then laid siege to Paris in early 1589. In the midst of this crisis, however, Henry III was himself knifed by a fanatical Jesuit monk, Jacques Clement. On his deathbed, coughing blood from his lung wounds, Henry apparently managed to master enough strength to proclaim Henry of Navarre his legitimate successor.

The Catholic League refused Henry of Navarre entry into Paris and the crown of France unless he would attend a Catholic Mass. It was then that Henry immortalized the phrase, 'Paris is well worth a Mass!' and once again abjured Protestantism in the name of expediency. Henry of Navarre was crowned King Henry IV of France at Chartres Cathedral in 1594 and, on 22 March, the spring equinox, rode into Paris on his celebrated white steed amid huge cheers and jubilations.

The Hermetic Mission of Giordano Bruno

It will be clear from the brief sketch given above that the religious struggle which most concerned the Catholic Church during the sixteenth century was its fight against Protestantism. The Cathar wars were a thing of the past, dualist heresy was dead and buried, and although the Protestants were 'heretics', they were nothing like as heretical as the Cathars had been 400 years before. Indeed, apart from a shared anti-materialism, the Cathar religion had no more in common with Protestantism than it did with Catholicism and belonged, as we have seen, to the tradition of Gnostic Christianity

that took shape in Alexandria in the first three centuries AD.

Out of the same Alexandrian melting-pot, in the same period, emerged a second tradition that also claimed to pass on a sacred soul-freeing *gnosis*. We've seen in previous chapters that the name of this second tradition was Hermetism – after Hermes Trismegistus – and that the Church regarded it as 'pagan' rather than Christian. Unlike the Gnostic tradition, which we suggest survived in a virtually unbroken chain of heresy from the early Christian period until the crushing of the Cathars, the continued survival of Hermetism from the fifth to the fifteenth centuries is much harder to attest.[3] What brings this ancient tradition to life again, at least in the West, seems purely and simply to be the recovery of its primary texts, their translation at the Medici Academy in the 1460s, and the subsequent international 'movement' that the texts inspired. It may be the case, however, that there was more than immediately meets the eye to the phenomenal success of this revived Hermetism. The sheer speed with which it took off and the way in which it so rapidly managed to work its way into the heart of the Vatican, as we reported in Chapter 8, are hard to explain. It is almost as though some sort of system or 'organization' was *already in place* when the texts resurfaced that had both the will and the capacity to exploit their full potential for undermining the established Church.

If so Giordano Bruno, perhaps the greatest Hermetic magus of the sixteenth century, is likely to have been part of the plot (though he may have possibly been too stubborn and independent a thinker to have plotted efficiently!). Born in 1548 at the little town of Nola near Naples, he was burned agonizingly to death over a slow fire by the Inquisition in 1600 for having spent the previous twenty-one years trying to destroy Catholic Christianity…

The reader will recall that the majority of Papal Inquisitors were Dominicans. Ironically, as a young man, Bruno himself had been a Dominican monk, at their monastery in Naples. It was a foretaste of what was to come that even at this early stage he was accused of heresy by his fellow monks. His crime was to have been caught reading the banned works of Erasmus and those of Marsilio Ficino

and Pico della Mirandola expounding the Hermetic tradition.

Bruno's stubborn attitude and fierce free will were not assets for the controlled life at the monastery. In 1576, when he was twenty-eight years old, he finally ended up repudiating this oppressive religious order and emotionally defrocked himself in public. Learning that the Inquisition was preparing an indictment against him (which consisted of no less than 130 separate charges of heresy!), he then wisely went on the run.[4]

Impulsive, argumentative, brilliant – indeed a genius – Bruno was an all-out Hermetist who harboured wild dreams of the full restoration of the 'Egyptian' religion of Hermes Trismegistus. But unlike Pico della Mirandola's rather feeble attempt to integrate Hermetism with Christianity through the Cabala (see Chapter 8) Bruno had something much more radical in mind: the actual *replacement* of Christianity by the Hermetic magical religion of Egypt.

Bruno's Travels

After fleeing the Inquisition in 1576, Bruno turned up in quick succession in Genoa, Turin, Savona and Noli. In 1577 he spent a few weeks in Venice, where he published his first book, unfortunately now lost, under the title *De segni de tempi*. His next stop was Padua and after that Milan, where he first heard of an English nobleman, Sir Philip Sidney, who would later come to play an important role in his life.[5]

In 1578 Bruno travelled to Geneva, where he hoped to win the protection of the Marchese di Vico, a wealthy and influential Italian Protestant living in exile. Bruno made it clear that he did not want to adopt Protestantism himself, only to live and work quietly, but the authorities would not permit him to do so. He fell into a slanging match with an eminent professor of Geneva, was arrested for his temerity and forced to apologize. Soon afterwards he left the city in disgust.[6]

From 1579 to 1581 Bruno lived in Toulouse, capital of the former

Cathar domain of Occitania and now fully integrated into France. He took his doctorate in theology at the University of Toulouse and was subsequently appointed to a chair in philosophy there. Once again, however, his instinctive nonconformism and outspokenness led him into conflicts with other scholars and with his students.[7]

In 1581 Bruno sought refuge in Paris where he delivered a series of thirty lectures that were reportedly widely admired. He quickly began to acquire a reputation for his 'enormous erudition, prodigious memory, and eloquence'.[8]

Bruno at the French Court

In 1582 Bruno was summoned to the French court by the slightly unhinged Henry III, who was then at the apogee of his doomed reign. Bruno, it seems, was at first very well received by the king, and in due course was given a position at the Collège de France to teach the art of memory and mnemonics.[9] In Bruno's own words:

> I gained such a name that the King Henry III summoned me one day and asked me whether the memory which I had and which I taught was a natural memory or obtained by magic art; I proved to him that it was not obtained by magic art but by science. After that I printed a book on memory entitled *De Umbris Idearum* (The Shadow of Ideas) which I dedicated to his majesty, whereupon he made me an endowed reader.[10]

That the art of memory had nothing to do with magic is, strictly speaking, not true; and Bruno knew this.[11] But he made the statement quoted above during his trial by the Inquisition in 1600, and thus would have been most reluctant to admit to using pagan magic in his teachings. Nevertheless the cultivation of a powerful memory, and more specifically the kind of super-memory that Bruno had mastered through the art of mnemonics, was indeed very much part of the system of magic that was once practised by the ancient Egyptians and divulged in the Hermetic writings. As Frances Yates comments:

Bruno's relations with Henry III are only documented from what Bruno himself told the Inquisitors… If Henry looked at the *De Umbris Idearum* [the book Bruno dedicated to him] he would certainly have recognised its magic images for… at one time the king sent to Spain for magic books… one of which was the *Picatrix*. It is also incredible in view of his mother's addiction to magicians and astrologers [Catherine had, after all, been a member of the Medici elite in Florence], that Henry should not have known a good deal about magic. The more probable version of the story would be that Henry was attracted by the rumour about magic in connection with Bruno, and this was why he sent for him.[12]

Images, especially images of stars and other celestial objects such as the sun, planets and the zodiac, in short, all the symbols of *astral magic* found in the Hermetica's *Asclepius* and in the *Picatrix* (see discussion in Chapter 8 above), were indeed used by Bruno as powerful memory devices. To speak more technically, they served for him as *talismans* by means of which memories could be permanently imprinted on the mind.[13] Also incorporated into Bruno's magical art of memory was to be found the new and still very controversial theory of the great astronomer Nicolaus Copernicus with its sun-centred/Heliocentric dynamics so abhorred by the Catholic Church at the time. Bruno, in fact, saw himself as a disciple of Copernicus; but being Bruno, he wanted to go even further than the shy Pole by boldly proclaiming that the universe was infinite and made up of an infinite number of suns, i.e., the stars, each having planetary systems populated by living creatures just like our own planet. And thus Bruno, through his remarkable intuition, can be said to have anticipated by nearly four centuries our modern ideas of the cosmos.[14]

Copernicus's theory, by correctly placing the sun rather than the earth at the centre of our own planetary system, was understood by Bruno as evidence of divine harmony and universal unity, in which all the planets were governed by a central authority. Seen through the complex and symbolically inclined mind of Bruno, the heliocentric system, brought down to earth by the power of astral magic, provided the model for the ideal society. Such a society would of course be

ruled by a great 'solar monarch', advised by philosopher-priests, whose reign would usher in the magical Hermetic religion around which all the nations of the world would unite. To Bruno's way of thinking the French, or perhaps even the English in the person of their illustrious Queen Elizabeth I, might prove to be the source of such a benign and charismatic ruler.

Thus it was that, after sojourning a year at the French court, Bruno travelled to England in March 1583. His purpose, as discerned by Sir Henry Cobham, English ambassador to Paris at the time, was to promote a 'religion I cannot commend'.[15] Or, as Frances Yates puts it, 'Giordano Bruno, Hermetic magician of a most extreme type, [was] now about to pass into England to expound his "new philosophy"'.[16]

Bruno in London and Oxford

Bruno was to spend two very active years in England during which he converted his life 'from that of a wandering magician into that of a very strange kind of missionary indeed'.[17] He took up residence in London at the house of the French ambassador, Michel de Castelnau de Mauvissière, having earlier been introduced to him by the King of France, Henry III.

No sooner had Bruno settled in his new home than he began to write in earnest. His first publication was a book on the art of memory dedicated to his host, the French ambassador. Bruno was hoping that, as in France, his special knowledge of this 'magical art' would attract the attention of scholars, perhaps even the favour of the court, and obtain for him a scholarship at Oxford.

He was, however, soon to be disappointed. In June 1583, just a few months after his arrival in England, Bruno somehow found his way into a debate with a group of Oxford scholars during an evening organized for the entertainment of Prince Albert Alaski of Poland. Bruno delivered a lecture on 'the immortality of the soul' and on his personal vision of the Copernican theory but was heckled and interrupted by an elderly Oxford gentleman. 'Learn how roughly and

rudely that pig behaved,' Bruno commented later:

> and with what patience and humanity the Nolan [Bruno] replied, showing himself to be indeed a Neapolitan, born and bred beneath a kindlier sky. Hear how they [the Oxford dons] made him leave off his public lectures on the immortality of the soul and on the quintuple sphere.[18]

Bruno (who liked to be known as 'the Nolan' after Nola, his place of birth) had a deep aversion to narrow-minded scholars like those he encountered at Oxford. He called them 'Grammarians', 'Aristotelians' (Aristotle, unlike his master Plato, had long been a favoured philosopher of the Catholic Church) and 'pedants'. Rather than seeking divine truth, he complained, they quibbled and endlessly debated with each other over trivialities. Worse, there was many a scholar of this type who 'understood but did not dare to say what he understood [and]… saw but did not believe what he saw'.[19] In Bruno's view, all such were to be pitied for their inability to develop deeper insight or to grasp the importance of the intuitive faculty that the ancients had once harnessed with their 'profound magic'.

At the heart of Bruno's attack on his fellow scholars was the view that their titles and positions merely served to disguise their fundamental emptiness. They were quite the opposite of the Gnostic and Hermetic sages of antiquity, whose search for knowledge and truth had *not* depended solely upon the analysis and observation of nature. Those remote figures, Bruno knew, had relied additionally, and especially, on deeper insights that could be reached only by intuition harnessed through *natural magic* – in the manner of the high initiates of ancient Egypt.

None of this means that Bruno condemned analytical or mathematical science; quite the contrary, as his support for Copernicus proves. Indeed, Bruno was among the very first to speak openly at Oxford on the heliocentric theory of Copernicus. But with a major difference. Unlike other scholars, the Nolan insisted on placing the theory within 'the context of the astral magic and sun-worship' that was evident in the Hermetic texts, as well as extending it to

support his own cosmological vision of an infinite universe with numberless inhabited worlds.[20] It was because the stiff Oxonians of the sixteenth century were not ready for such cutting-edge ways of thinking that they treated Bruno insultingly and forced him to abandon in midstream his lecture on the immortality of the soul.

Sidney and Dee

Present that day was the young and influential English statesman, Sir Philip Sidney, who had come on the command of Queen Elizabeth I to escort the Polish nobleman Prince Albert Alaski to the debate. The Queen had high regard for Sidney, and it was no secret that his uncle, the debonair Earl of Leicester, Sir Robert Dudley, had once been Elizabeth's favourite and, according to some, even her secret lover.

Philip Sidney was a refined scholar and poet and would, almost certainly, have been familiar with the Hermetic texts, which by this time had been circulating in Europe for more than a century. A great patron of scholars and artists, Sidney is credited with ushering in the age of Elizabethan poetry with his acclaimed sonnet sequence *Astrophel and Stella*. This he composed as the result of his passionate love for Penelope Devereux, the beautiful young wife of Lord Rich. Sidney was also well acquainted with the famous court astrologer and 'magician' Dr John Dee – although the extent and depth of this connection is unclear.

Dee was a genuine mathematician, but had also previously served as astrologer to Mary Tudor. She had ended up accusing him of practising evil magic on her and had imprisoned him at Hampton Court. Dee was released in 1555 and later resumed his work as official astrologer and magician at the court of Elizabeth I – from whose royal support, favour and protection he was fortunate to benefit. It was John Dee in his role as astrologer who advised the court on the most favourable date for Elizabeth's coronation.

Dee seems to have been an alchemist, cabalist, astronomer, astrologer and mathematician all rolled into one, but is remembered

mostly as a ‘conjuror’ and ‘magician’. He believed, with utter conviction, that he could communicate with the spiritual world and ‘angels’ through crystals. To further his work in this area he employed a certain Edward Kelly, a clairvoyant with a rather dubious past, to assist him.

At the time Bruno arrived in England, Dee was preparing to travel to Poland and Bohemia to give seances and exhibitions of his conjuring at the courts of various princes. We shall see in a later chapter how this magical mystery tour of Dee’s was to be among the catalysts that led to the formation of a secretive movement known as Rosicrucianism. Not unlike Bruno, the Rosicrucians made use of Hermetic magic and the Cabala as tools for religious reform.

The Expulsion of the Triumphant Beast

Although Bruno did not meet Dee, he did know Sir Philip Sidney, a fact which is attested by Bruno himself in the dedication of his most important book, *Spaccio della Bestia Trionfante* (‘The Expulsion of the Triumphant Beast’), published in 1584.

The peculiar and striking title of this work is to be understood on at least two levels. First, as Bruno also states in his dedication to Sir Philip Sidney, ‘driving out of the triumphant beast’ is a metaphor for driving out ‘the vices which predominate, and oppose the divine part of the soul’.[21] What this calls to mind is something closely akin to the Gnostic/Cathar/Manichean vision of the soul imprisoned in the world of matter and ever more deeply entrapped by surrender to the fleshly vices. But at the second level of meaning the ‘Triumphant Beast’ is unquestionably the Pope, and with him the entire established structure of Catholic Christianity. At this level the ‘expulsion’ envisaged by Bruno is to make way for his ‘Egyptianism as a religion’[22] based on the teachings of Hermes Trismegistus: ‘It is the good religion which was overwhelmed in darkness when the Christians destroyed it, forbade it by statutes, substituted worship of dead things, foolish rites, bad moral behaviour and constant wars.’[23]

One of the very peculiar and distinctive aspects of the religious revolution proposed in the *Spaccio*, notes Frances Yates, and one clearly attributable to the influence on Bruno of the Hermetic texts: 'Is that it begins in the heavens; it is the images of the constellations of the zodiac and of the northern and southern constellations which are reformed or cleansed through a council of the planetary gods…'[24] The *Spaccio*, in short, is a treatise on Hermetic astral magic, filled with references to the stars, the zodiac and the constellations, that goes to great lengths to explain how their powers can be brought down and vested in earthly things through 'the magic and divine cult of the Egyptians'.[25] Bruno's intention was clear enough. He wanted to show that Egyptian wisdom came earlier than that of the Greeks, and certainly much earlier than that of the Christians and, therefore, must be regarded as 'the best religion and the best magic and the best laws of them all'.[26]

Bruno reproduces a passage in the *Spaccio* from the famous *Lament of Hermes*. In this text, the reader will recall from Chapter 8, Hermes Trismegistus tells his pupil Asclepius that the religion of Egypt will fall, and be lost under the hands of invading barbarians, and vanish from the world. But Hermes also says that a time will come when it will be restored and accorded a place of honour once again – and so too does Bruno: 'The marvellous magical religion of the Egyptians will return, their moral laws will replace the chaos of the present age, the prophecy of the Lament will be fulfilled…'[27]

In Bruno's eyes, 'the sign in heaven proclaiming the return of Egyptian light to dispel the present darkness was… the Copernican sun'.[28] Accordingly he looked on the Copernican diagram of the concentric orbits of the planets encircling the sun as a sort of hieroglyph or talisman. It functioned as a magical Hermetic seal that he, Bruno, thought he understood at its deepest level. He became in consequence acutely aware of the huge 'revolution' which it was about to unleash and of its potential for inflicting a total upheaval on the dogmas of the Church. Bruno's strategy – simple really – was to integrate this inevitable Copernican truth that was about to

revolutionize science and religion into his own Hermetic revolution. He believed that Copernicus had vindicated the sun-centred system of the ancient Egyptians, and that it was now up to the Nolan to revive and restore that lost faith in order to reform the world.

As Above So Below

We said above that the great religious reformation envisaged by Bruno, which he expounded in the *Spaccio della Bestia Trionfante*, is supposed to begin in the heavens among the stars. Here, a great council of 'magicians', including the Egyptian goddess Isis, is convened by Jupiter (Zeus-Amun) in order to reform the images of the constellations and thus, at the same time, through astral magic, also reform the earthly world below. Such ideas, notes Yates, are clearly pulled from the *Kore Kosmou* ('The Virgin of the World'), a well-known Hermetic tract in which Isis addresses Horus and another pupil called Momus, and explains to them how things below on earth must be kept in 'sympathy' with things above in heaven in order to avoid chaos and destruction.[29] There is a strange and telling passage where Hermes reveals to Momus that he, Hermes, plans to invent a 'secret engine', or celestial mechanism, a sort of cosmic clockwork regulated by the cogwheels of the planetary orbits, the constellations, the zodiac, the moon and the sun, in order to control events on earth as well as the lives of men:

> 'Momus', said he [Hermes], 'I will devise a secret engine linked to unerring and inevitable fate, by which all things in men's lives, from their birth to their final destruction, shall by necessity be brought into subjection; and all things on earth likewise shall be controlled by the working of this engine'…[30]

It seems clear that Bruno believed that the great religious reform that many were dreaming of could, as in the *Kore Kosmou*, be brought about by Egyptian astral magic or, as Yates was to put it:

> [by] manipulating the celestial images on which all things below depend in order to make

the reform come. For in the *Spaccio* Bruno has Jupiter proclaiming: 'If we thus renew our heaven, the constellations and influences shall be new, the impressions and fortunes shall be new for all things depending on this upper world.[31]

'And what', asks Yates, 'does this remind us of?'

Surely of the magical city of Adocentyn in *Picatrix*, built by Hermes Trismegistus, who placed around the circumference of the city 'engraved images and ordered them in such a manner that by their virtue the inhabitants were made virtuous and withdrawn from all wickedness and harm'. This… provides the connection between Hermes Trismegistus as magician and Hermes Trismegistus as law-giver of the Egyptians, who gave them their good moral laws and kept them in it. And this, I believe, may be also the connection in the *Spaccio* between the manipulation or reform of the celestial images and the universal religious and moral reform.[32]

In the *Picatrix* we learn that Hermes built a temple dedicated to the sun, a sort of Hermetic solar temple if you will. The reader will recall that this solar temple, as well as the magical city of Adocentyn, much resembled another Hermetic metropolis described in the *Asclepius* in which:

the gods who exercise their dominion over the earth will be restored one day and installed in a city at the extreme limit of Egypt, a city which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of mortal men…[33]

It may be worth noting at this stage that there did once exist two great solar temple-cities at both extreme limits of Egypt, one in the north, which was the city of the sun at Heliopolis, and another in the south, the solar city of Karnak-Luxor at Thebes – which is indeed oriented towards the setting sun. So could the Hermetic city of the *Picatrix* somehow have been modelled on ancient Thebes? And, more importantly, what effect are such statements in the *Picatrix* and the *Asclepius* likely to have had on the prepared minds of Bruno and other Renaissance Hermetic reformers? Might they not have been inspired to accelerate the great religious changes they sought by building a

magical solar city somewhere in Western Europe?

The high possibility that Bruno would have associated his own Hermetic reformation of Europe with the founding of magical 'solar' cities is confirmed by one Guillaume Cotin, with whom Bruno spent some time after he returned to France from England in 1585. Cotin, the librarian at the Abbey of St Victor in Paris, reports that Bruno had 'heard it said that the Duke of Florence [a Medici] wished to build a *Civitas Solis* [literally a City of the Sun] in which the sun would shine every day of the year…'[34] Just the mention of the words *Civitas Solis* should immediately bring to the mind of any student of Renaissance magic and the Hermetic tradition the strange mission to Paris of yet another Hermetic thinker. The man in question was Bruno's contemporary and, like him, was also a 'defrocked' Dominican monk hounded out of Italy by the Inquisition. Like Bruno, too, he was inspired by the Hermetic vision of religious revolution. The greatest similarity of all, however, is that this Bruno clone is famous for having written a book entitled *Civitas Solis* – 'The City of the Sun' – and for seeking out an enlightened monarch of 'solar' pedigree to install such a utopian city somewhere in the heart of Europe.

Bruno's Fatal Decision

We'll meet the author of the *Civitas Solis* later in this chapter.

Meanwhile Bruno left England in 1585 and sailed back to France, only to find Paris in turmoil and a far less hospitable place for him than it once had been. King Henry III, whose favour Bruno had formerly enjoyed, was totally preoccupied with the religious war within his realm that was by this point reaching a climax.

The situation, which we sketched out earlier, was explosive. The Catholic forces, assisted by the Spanish and led by the Count of Guise, were mobilized outside Paris. Pope Sixtus V had declared the Protestant leaders Henry of Navarre and the Duke of Condé to be heretics, thus supposedly debarring Henry from the throne of France – a move which, by its provocative implications, was virtually a

declaration of war against Navarre and the Huguenots. The Catholic clergy in Paris, especially the Jesuits, were inciting the populace with inflammatory sermons against the 'heretics' and Huguenots, forcing the meek Henry III to retreat into his convoluted acts of piety, scarcely to be seen in public except during those bizarre and morbid religious processions in which he participated doing 'penance'. It was obvious to Bruno that he could no longer rely on royal support.

After quarrelling with the scholars at the college at Cambrai, who were incensed over a public attack Bruno had made on Aristotle, the Nolan left France in September 1586 and went to Germany, then Poland, then back to Germany, where he stayed until the summer of 1591. At this time he was seized by a deep – and for him fatal – nostalgia for Italy and a naive hope that the newly elected Pope Clement VIII could somehow be persuaded to adopt his plans for a universal Hermetic reform.

Events in France may have encouraged Bruno: Henry of Navarre had been crowned King Henry IV, and there was already much hopeful talk that this once staunch Protestant prince would soon convert to Catholicism. This was probably seen by Bruno as a sign of the impending great reformation – albeit here within a Catholic framework – that he, Bruno, had been divinely commissioned to bring about.

Fired by such misplaced ideas about himself and his mission, Bruno was probably in an unusually susceptible state of mind when he received an invitation to become the private tutor to a certain signore Zuane Mocenigo, a Venetian nobleman who claimed to be a great admirer of the Nolan's works. Mocenigo was put into contact with Bruno through the Venetian bookseller Giovanni Battista Ciotto, who knew of the heretic's whereabouts in Germany. Oblivious to the grave danger of returning to Italy, Bruno impulsively accepted Mocenigo's offer and left for Venice in late 1591.

At first the Nolan did not stay with Mocenigo, but took up residence independently in Venice. He also travelled to Padua, where he stayed from January to March 1592. Ironically, had he stayed a little longer he would probably have met the author of the *Civitas*

Solis, who was not to arrive in Padua until October that same year. Had they met, the author of *Civitas Solis* would certainly have warned Bruno of the terrible risks he was taking by staying in Italy, and might have even convinced him to return to Germany, where he could live in relative safety.

But as it turned out, history had reserved for Bruno a far more sinister fate in Rome…

The Field of Flowers

In March 1592, Bruno finally went to reside at the home of Mocenigo. The latter was not the gentle student that Bruno was led to believe, but turned out to be a very possessive and vindictive man. It seems Mocenigo wanted Bruno to teach him 'the art of memory and invention' so that he could acquire the Nolan's intellectual powers for himself. Bruno, however, seems to have been more concerned with a book that he had just completed which he intended to dedicate to Pope Clement VIII in order to win his attention and, hopefully, his support and sponsorship. When Bruno announced his intentions to Mocenigo and furthermore informed him that he was going to Frankfurt to have the book printed, Mocenigo flew into a fit of rage, locked Bruno in his room, and called in the Venetian Inquisition.

Bruno was arrested and accused of heresy on several counts, being ordered to renounce his beliefs or face trial. Apparently Bruno did renounce but the Venetian inquisitors were unconvinced of his honesty and sent him to Rome for further questioning.

Thus began an eight-year ordeal at the hands of the Roman Inquisition. Tortured and tormented in the Vatican dungeons, Bruno stood accused of heresy on several counts, including his claims of an infinite populated universe (in line with twenty-first century science), that the earth itself is a planet (it is), and that the symbol of the cross was known to the ancient Egyptians (it was, in the form of the *ankh*, or *crux ansata*, symbolizing the life-force).

Ordered to retract these and his other 'heresies' or else face death

by burning, Bruno courageously stood firm. He not only refused to retract but also withdrew the retractions he had made earlier in Venice. Fired by his convictions, he defiantly told his accusers that he had neither said nor written anything that was heretical, but only what was true. When his sentence was passed, Bruno bravely stared at the cardinals lined up in front of him and calmly told them: 'Perchance your fear in passing judgement on me is greater than mine in receiving it.'

On the morning of 17 February 1600, Bruno, garbed with a white shirt, was taken to the Campo de' Fiori, the Field of the Flowers, a piazza not far from the Roman Pantheon. There, the Nolan was securely tied to a wooden pole around which were stacked planks of wood and bundles of sticks. 'I die a willing martyr,' he is said to have declared as the fire was being lit all around him, 'and my soul will rise with the smoke to paradise.' A young Protestant, Gaspar Schopp of Breslau, who had recently converted to Catholicism and thus enjoyed the favours of the Pope, was an eyewitness to the burning, and reported that 'when the image of our Saviour was shown to him before his death he [Bruno] angrily rejected it with averted face'.[35] The truth is that a Dominican monk had tried to brandish a crucifix in Bruno's face while he suffered in the flames. In an act reminiscent of the courage of the Cathar Perfect, and of their detestation for the cross, poor Bruno, his legs now charred to the bone, mustered enough strength to turn his head away in disgust.

A few days earlier Bruno had written his own epitaph:

> I have fought… It is much… Victory lies in the hands of Fate. Be that with me as it may, whoever shall prove conqueror, future ages will not deny that I did not fear to die, was second to none in constancy, and preferred a spirited death to a craven life.[36]

The 'Organization' at Work Again?

By burning Giordano Bruno the Inquisition sent a clear and unmistakable message of intolerance to all who dared think like him:

such ancient heresies would be crushed, whenever and wherever they emerged. Bruno's dreams of a great universal Hermetic reform or revival – whether within the Christian framework or outside it – nosedived and burrowed deep underground. From now on any person or group thinking of religious change of any kind, or even proposing scientific theories deemed contrary to Christian teachings and dogmas, knew very clearly what awaited them.

Not surprisingly, perhaps, it was after the death of Bruno that Europe was to see the resurgence of secret societies and fraternities. It was as if from the ashes of Bruno's funeral pyre arose an invisible phoenix that flew out to nurture universal reform elsewhere in Europe. Frances Yates buries in her excellent book on Bruno and the Hermetic tradition a devastating hint as to the identity of this invisible, nurturing and revolutionary 'phoenix':

> one of the most significant aspects of Giordano Bruno [is that] he came at the end of that sixteenth century with its terrible exhibitions of religious intolerance, in which men were seeking in religious Hermetism some way of toleration or union between warring sects… There were many varieties of Christian Hermetism, Catholic and Protestant, most of them avoiding the magic. And then came Giordano Bruno, taking full magical Hermetism as his basis, preaching a kind of Egyptian Counter Reformation, prophesying a return to Egyptianism in which the religious difficulties will disappear in some new solution, preaching, too, a moral reform with emphasis on social good works and an ethic of social utility. As he stands in post-Reformation Oxford, the ex-Dominican has behind him the great ruins of the medieval past, and he deplores the destruction of the good works of those others, the predecessors, and the contempt for their philosophy, their philanthropy, and their magic.
>
> Where is there such a combination as this of religious toleration, emotional linkage with the medieval past, emphasis on good works for others, and imaginative attachment to the religion and symbolism of the Egyptians? The only answer to this question that I can think of is – in Freemasonry, with its mythical link with the medieval masons, its toleration, its philanthropy, and its Egyptian symbolism. Freemasonry does not appear in England as a recognizable institution until early in the seventeenth century, but it certainly had predecessors, antecedents, traditions of some kind going back much earlier, though this is a most obscure subject. We are fumbling in the dark here, among strange mysteries, but one cannot help wondering whether it might have been among the spiritually dissatisfied in

England, who perhaps heard in Bruno's 'Egyptian' message some hint of relief, that the strains of the Magic Flute [a euphemism for Freemasonry in reference to Mozart's Masonic-Egyptian opera] were first breathed upon the air.[37]

We shall examine such a connection between the Hermetic movement and Freemasonry in later chapters. Meanwhile it very much appeared, on that awful morning of February 1600, that Bruno's hopes for a great Hermetic reformation of the world, together with his dreams of an 'Egyptian' solar city somewhere in Europe, went up in smoke along with him in the Campo de' Fiori.

Or did they?

Enter Campanella

Around the time that the firewood was being heaped at Bruno's feet in Rome, another rebellious monk with much the same sense of mission was tried in Naples by the Inquisition and thrown in a dungeon. His name was Tommaso Campanella, the future author of *Civitas Solis*.

According to Frances Yates:

Tommaso Campanella was the last of the line of Italian Renaissance philosophers, of whom Giordano Bruno was the last but one. Like Bruno, Campanella was a magician-philosopher, in the line of the Renaissance Magi descending from Ficino. Campanella is known to have practised Ficinian magic up to the end of his life. Like Bruno, too, Campanella was a Magus with a mission. This huge man… had colossal confidence in himself as in touch with the cosmos and destined to lead a universal magico-religious reform. Unlike Bruno, Campanella was not burned at the stake, though he was several times tortured and spent more than twenty-seven years of his life in prison. Yet – also unlike Bruno – Campanella very nearly succeeded in bringing off the project of magical reform within a Catholic framework, or, at least, in interesting a number of very important people in it.[38]

But Frances Yates could have been wrong on one important point. As we shall see in Chapter 12, it is possible that Tommaso Campanella did much more than 'nearly' succeed in 'bringing off' the magical reform.

We think that he may have succeeded even beyond Giordano Bruno’s wildest dreams…

Chapter 12

Envisioning the Hermetic City

> ‘Campanella spent the rest of his life trying to find the contemporary representative of the Roman Empire who would build his City of the Sun… In 1634, Campanella went to France, and transferred his whole scheme… [to] the French Monarchy…’ (Frances Yates, ‘Considérations de Bruno et de Campanella sur la monarchie française’, *Actes du Congrès Leonard da Vinci, Etudes d’Art,* 8, 9 et 10; Paris-Alger, 1954)

> ‘Man lives in a double world: according to the mind he is contained by no physical space and by no walls, but at the same time he is in heaven and on earth, in Italy, in France, in America, wherever the mind’s thrust penetrates and extends by understanding, seeking, mastering. But indeed according to the body he exists not except in only so much space as is least required, held fast in prison and in chains to the extent that he is not able to be in or to go to the place attained by his intellect and will, nor to occupy more space than defined by the shape of his body; while with the mind he occupies a thousand worlds.’ (Tommaso Campanella, *Metafisica*)

Giordano Bruno and Tommaso Campanella were both born in southern Italy – the former in 1548, the latter in 1568. Both entered the Dominican order at a young age. Both men had passionate and outspoken personalities. Both detested Aristotle and both were in continuous trouble with the Catholic Church. Both ultimately came to see themselves as Hermetic magi. And both, in their own ways,

changed the world.

Campanella entered the Dominicans in 1583, when he was fifteen, but went absent without leave six years later in 1589. He settled in Naples, where his first book, *Philosophia sensibus demonstrata* ('Philosophy Demonstrated by the Senses') was published in 1591. Its contents annoyed the Church but since the book did not contain sufficient grounds to justify a trial for heresy, charges were trumped up. Found guilty of harbouring a demonic familiar under the nail of his little finger, and denounced for showing a contemptuous attitude to the Church's power of excommunication, he was imprisoned for several months in 1592 at the Dominican Convent in Naples.[1]

After his release later that year Campanella made his way to Padua. There, in 1593, he was accused of sodomy (an indictment frequently cast at those the Inquisition wished to tarnish) but acquitted. Clearly a marked man by this point he was soon charged with other heretical acts: writing a sonnet against Christ; possessing a book of magic; and not accepting the rule and doctrine of the Church. Rather gravely he was also accused of debating matters concerning the Christian faith with a 'Judaizer' – who had lapsed from Christianity – without having denounced the man to the Inquisition.[2]

In February 1594 Campanella underwent his first bout of torture at the Inquisition's hands. He was tortured again, more severely, in July the same year and his case was handed over to Rome. On 11 October 1594 he was flung into the same dungeons as Bruno – but apparently not the same cell, for there is no record of the two meeting there. Released seven months later in May 1595, while his case was being determined, Campanella was found to be in poor health and suffering from hernia, sciatica, consumption and partial paralysis.[3] He was rearrested in December 1596, imprisoned again, released in January 1597, rearrested in March 1597 and imprisoned again until December 1597 – on the latter occasion in the Inquisition's worst prison in Rome. His release came after he had abjured his heresies, accepted the prohibition of all his books, and agreed to reside for the remainder of his life in his native province of Calabria to the south of

Naples.[4]

A New Sort of Republic and a Heavenly City

It was not Campanella's destiny to live out his days quietly in Calabria. No sooner had he arrived home in July 1598 than he became embroiled in disputes with the local authorities. His writing began to take on a political tinge and also to hint that he possessed prophetic powers – given biblical sanction by Saint Paul in I Corinthians 14:31 ('For ye shall all prophesy one by one, that all may learn, and all may be comforted').

What Campanella seemed to be prophesying, however – a revolution in Calabria against the authority of the Kingdom of Naples[5] – did not comfort the Church. 'It occurred to me,' he wrote early in 1599, 'that revolution ought to happen soon.' To confirm this he consulted 'several astrologers' and they agreed 'that political revolution ought to occur for us'.[6] Elsewhere, definitely with more in mind than just Calabria, he predicted: 'If a general transformation should impend for us, certainly it will happen on a crucial date, thus in the next seven-year period following the year 1600.'[7]

Between February and April 1599 Campanella became an increasingly strident public preacher, using the pulpit to forecast the imminence of 'grave upheavals' and apocalyptic events.[8] He began to attract a popular following amongst all social classes in Calabria, including powerful noblemen, and with incredible rapidity found himself at the centre of exactly what he had prophesied – a revolutionary conspiracy. He and his co-conspirators even planned to enlist the services of the Ottoman Turkish fleet in their rebellion and entered into negotiations to this end.[9]

But the uprising was doomed from the start, beset by poor coordination and grandiose but muddled objectives. At the political level these objectives involved the establishment of something very much ahead of its time, described by Campanella's biographer

Professor John Headley as 'a new sort of republic'.[10] Since it was to have been run along egalitarian principles and guided by benevolent scientist-priests,[11] we are reminded, irresistibly, of the actual conditions that the Cathar *perfecti* had succeeded in fostering in Occitania in the late twelfth century before the Albigensian Crusades.[12] Additionally Campanella set out what sounds like a manifesto for the Hermetic idea of 'building the city of the sun' in his proposed republic:

> And although some Fathers sustain… that only in heaven will be realized the reconciled future community, nevertheless [others], with whom I agree, allow for a literal interpretation according to which *some sort of prelude of the heavenly city is already to be realized on earth.*[13]

This idea of building on earth an imperfect replica or 'prelude' of the City of God, the City of Heaven, the City of the Sun – or any one of a number of other celestial cities – is as old as the ancient Egyptian *Pyramid Texts* (roughly 2300 BC) as we saw in Chapter 9. It is also, we know, central to the agenda of the Hermetic texts (roughly 100 BC–AD 300). It was to become the dominant obsession of Campanella's life which, partly due to luck, and partly to his own resilience and quick-wittedness, did not end over a slow fire when his Calabrian 'revolution' failed.

In an Insane World only the Mad are Sane

In August 1599 two defectors gave the conspiracy away. Campanella fled but was captured and imprisoned on 13 September in the castle at Squillace. At the end of October 1599 he was herded together with 155 of his co-conspirators into four galleys sailing for Naples. On arrival at the port of Naples sixteen of the prisoners were hanged – four from the yardarm of each of the galleys. Two more were ceremoniously slaughtered by quartering (being torn into four parts) on the wharf.[14]

As the mind behind the proposed revolutionary new republic with

its sky-city to be built on earth, and as a man who had already come several times to the attention of the Inquisition, Campanella was now in imminent danger. One of several clerics to have participated in the conspiracy, he was investigated by a tribunal of Inquisitors specially appointed by Pope Clement VIII on 11 January 1600. The tribunal at once requested and was granted permission to use certain kinds of torture including week-long periods of underground isolation and sensory deprivation, as well as a nasty technique called the *polledro*, which was 'designed to rupture veins and tissue'[15] without actually drawing blood.

After some weeks a partial confession was extracted from Campanella to the effect that he had indeed wanted to create a new sort of republic. But he realized that his best defence to the charges against him was to pretend to have been insane all along and thus not responsible for his actions. To help convince the Inquisition of this it seems that on 2 April 1600 he set fire to the contents of his cell.[16]

Three interrogations in quick succession, all accompanied by torture, followed on 17, 18 and 20 May 1600. Through these, and for the next twelve months of recurrent agonies, Campanella faultlessly maintained his charade of insanity. Then, at the end of May 1601, an order was received from Rome requiring the Inquisitors to prove once and for all whether he was really mad or just feigning madness – and to do so by means of a terrible torture called *la veglia*, 'the awakener'. Campanella could stop the excruciating pain it would inflict upon him at any time simply by admitting that his madness was feigned. In that case he would be burned at the stake as an impenitent heretic. If on the other hand he could withstand its pains for forty hours then he was to be judged legally insane. This would mean that whatever else might happen to him, he could not be burned by the Inquisition.[17]

Beating the Awakener

Campanella's life-or-death duel with 'the awakener' took place on 4–5 June 1601 in the dungeons of Castel Nuovo, one of the great

Neapolitan prisons.[18] The peculiar and horrible cunning of this torture, as Professor Headley describes, is that:

> The victim is suspended in such a way that only his arms and shoulder muscles prevent his body from coming to rest on a set of wooden spikes; eventually, however, he tires and must allow the spikes to gash his buttocks and thighs until he can once more raise himself. Thus between these positions he must move back and forth.[19]

It seems that several times during the hours of unremitting suffering that he endured – his diligent Inquisitors taking notes all the while – Campanella cried out incoherently and uttered strange, usually meaningless phrases as though delirious: 'ten white horses'; 'I am slaughtered'; 'Enthrone and shut up'. In the midst of all this, pointing out that his body was plainly ruined and likely to die, his torturers suggested he should give thought to the salvation of his soul. He somehow found the energy and will to yell hoarsely back a four-word statement of his core belief: 'The soul is immortal!'[20] This was a belief that he shared with the Hermetic and Gnostic sages of ancient Alexandria, and with the Cathars. The same belief would also later be taken up and trumpeted by the French Revolution, as we saw in Chapter 1.

Ten hours passed, then twenty, then thirty. Finally, writes Professor Headley. 'After 40 hours, near death, yet spiritually unbroken, his simulation of madness undiscovered, our prisoner was cut down. According to canon law his insanity had been established; therefore he could not be executed.'[21]

Campanella's jailer, who became his personal friend, records that as he lifted the broken body from the embrace of 'the awakener' to carry him back to his cell the supposed madman whispered the following question hoarsely in his ear: 'Did they really think that I would be enough of a blockhead to speak?'[22]

The First European Celebrity

He had escaped the fire, but he still remained very much in the frying pan. Legally mad or not, he was sentenced to life imprisonment in the dungeons of Naples without any hope of parole.

After everything he had already been through, such a grim prospect would have killed a lesser man, but somehow the indomitable Campanella refused to abandon optimism and fade away. Instead, though he was kept for many years in a damp, dark, subterranean cell, he constantly made use of his brilliant mind. He composed poetry – some of which he managed to write down himself, some of which he dictated – and wrote countless letters to influential figures around Europe who he hoped might have the power to set him free. Most extraordinary of all, he somehow also managed to produce his great philosophical work, *City of the Sun*, with its magical 'natural religion' and its scientist-priests ruled by one of their number called 'Sun'. Not only that but Campanella successfully arranged to have the completed manuscript smuggled out of prison by one of his loyal disciples – a certain Tobias Adami, whom we will meet again in Chapter 13. Though it stirred great interest, and is widely recognized by historians of ideas as the inspiration for many of the great utopian schemes of the seventeenth and eighteenth centuries, no scholar seems yet to have seriously considered the possibility that Campanella's *City of the Sun* could ever have been much more than just an idea – let alone that someone might actually have attempted to build it. Yet it is precisely this possibility that we intend to pursue.

The *City of the Sun* was by no means Campanella's only full-length work during his imprisonment. It is the most important, but much of his other output also proved to be exciting and provocative intellectual fare. All things considered, his achievements were prodigious and after a little more than a quarter of a century had passed – and despite his sentence to perpetual imprisonment without parole – Campanella, now aged over sixty, did win back his liberty. The final decade of his confinement until his release, first into house-arrest in 1627 and then at last to freedom in 1629, was spent in increasing comfort as mysterious friends in high places lobbied on his behalf.[23] Even before graduating to house-arrest he was already being

allowed to hold tutorials, give full-scale lectures, and receive visiting VIPs in his cell – many of whom arrived with copies of his books which he would graciously autograph for them. He managed to transform himself, in a sense, into the Nelson Mandela of the Renaissance, 'one of the sights to see if visiting Naples', as John Headley puts it: 'Campanella had not only survived; he had become possibly the first European celebrity.'[24]

After gaining his freedom in 1629, Campanella stayed for some years in Italy, much of the time in Rome. There he was drawn into the circle of the French ambassador, François de Noailles. In 1634 came reports of another uprising in the Naples area led by a certain Pignatelli, once a disciple of Campanella. When captured, Pignatelli wrongfully accused his former master of involvement in the conspiracy, placing him in immediate jeopardy of arrest. Now sixty-six years old, and understandably phobic about any idea of a return to prison, Campanella sought refuge in the French embassy. Soon afterwards, disguised and using the ambassador's personal carriage, he was smuggled out of Italy into France.[25]

France Update: Murders and Plots

Things had changed in France since Giordano Bruno had enjoyed protection there. Henry III had died in 1589, a year after his domineering mother, Catherine de Médicis, and the throne had passed to Henry of Navarre, now crowned Henry IV of France. As we saw in Chapter 10, Henry of Navarre, who belonged to the powerful Bourbon family, was a Protestant and had converted to Catholicism in 1593 in order to neutralize those who opposed his coronation as King of France. But not everyone was convinced of Henry's sincerity in this all-too-convenient 'conversion'. Certainly Bruno had not been – although his own theory, stated during his trial, was that Henry of Navarre was from the outset a Catholic at heart:

When I praised the King of Navarre, I did not praise him because he was an adherent of the

heretics [Protestants], but for the reason that… he was not otherwise a heretic, but that he lived as a heretic from desire of ruling.[26]

Among those who most doubted Henry IV's 'conversion' were the Jesuits – 'The Society of Jesus', founded by Ignatius Loyola a century or so previously – whom the king had, in fact, distrusted all his life. 'They will kill me one day,' he is reported to have confided in his close friends. 'I can see that they are putting all their resources into my death.'[27]

Sure enough, on 14 May 1610, Henry IV was assassinated by a religious fanatic, François Ravaillac. The official story told by the Church was that even under the most persuasive torture, Ravaillac had insisted that there were no accomplices to the crime and that he had acted entirely on his own initiative. But many, especially the Huguenot Protestants, believed that he had been put up to the murder by the Jesuits.

Others went so far as to suspect the involvement of Henry IV's Catholic queen, Marie de Médicis. Their marriage had been famously unhappy. It was also well known, and obviously suspicious, that barely two months before the assassination Marie had persuaded her husband to make her regent of France should he suffer an untimely death. Her official coronation as regent occurred on 13 May and Henry was murdered less than twenty-four hours later.[28] The coincidence was alarming, to say the least. But nothing could be proved against Marie and the blame, rightly or wrongly, fell entirely on the wretched Ravaillac. He suffered the ultimate penalty for regicide: first to be tortured with red-hot pincers, then seethed in hot oil, and finally, still alive, to be ripped apart by four farm horses tethered to his arms and legs.

The Low Libido of Louis XIII

Henry IV's eldest son Louis – the future Louis XIII – was only nine years old when his father was assassinated and Marie de Médicis'

position as his regent was legally unassailable. He was crowned king in 1614 when he reached the required minimum age of thirteen but was at first entirely dominated by his ambitious mother. He gradually began to assert his authority and in 1631, at the age of thirty, he at last took full control of his throne and had Marie de Médicis banished for ever from France.

Louis XIII had been married to the Spanish Infanta, Anne of Austria, daughter of Philip III of Spain, when they were both only fourteen years old, and the marriage remained unconsummated for many years. Of a very curious nature and disposition, Louis was more interested in his hobbies of repairing locks and making jams than in having sex with his wife. It was clear that the young man was very much unlike his father, Henry IV, who had seduced so many women during his short reign that it had earned him the nickname of '*Le Vert Galant*', seventeenth-century French slang for 'playboy'.

Louis' low libido wasn't the only problem. It was also obvious that he just plainly *disliked* his Spanish wife, even though she was openly affectionate to him, and perhaps even loved him. According to French historian Jean Duché, things had deteriorated so much that on a cold night in January 1619 Louis practically had to be dragged out of his own bed by leading courtiers and taken forcibly to the queen's chamber in order finally to consummate his marriage.[29] Two years later the queen – almost miraculously one could say in such circumstances – was found to be pregnant. Unfortunately she suffered an accident in the Louvre Palace and miscarried. The king's peculiar response to this was not sympathy but fury and he seems to have become even more reluctant to perform his marital duties after this tragedy.

As the years went by the desperation of the young and warm-blooded queen became so pronounced that she sought some affection by casually flirting with the dashing and very handsome Duke of Buckingham, the British ambassador in Paris. Rumours reached the ears of Louis XIII that his wife was having an affair with Buckingham, which in those days was an act of treason punishable by death. But being a very devoted and strict Catholic, it is unlikely that the queen

would have taken such a risk. At any rate, and luckily for her, the king was persuaded of her innocence. And so, by the time Tommaso Campanella arrived in Paris in 1634, a dark, cold and solemn mood had fallen over the royal couple, and everyone by then had given up on seeing them produce an heir for the Bourbon dynasty.

But then, as if by magic, something rather wonderful and strange happened…

Brief Excursion to Some Buried Egyptian Treasures

Since time immemorial a certain glamour of magic and mystery always surrounded the kings of France – whose origins were steeped in fabulous legends and myths. At the root of these were three successive royal houses, some even say races, known as the Merovingians, the Carolingians and the Capetians. All were bound by a very ancient Teutonic law, the so-called Salic Law, introduced by the Salian Franks who had invaded Gaul in the fifth century AD.

This Salic Law had been formalized by Clovis, the founder of the Merovingian dynasty, and was later repromulgated by the legendary Charlemagne, Carolus Magnus, founder of the Carolingian dynasty and first emperor of the Holy Roman Empire. The Capetian dynasty was founded in AD 987 when Hugues Capet became King of France. And through some oblique and rather dubious historical logic, the Valois and the Bourbon families also regarded themselves as linked, if not by blood then 'spiritually', to these ancient roots and, more directly, to the Capetians. The Capetian bloodline ended in 1328 with the death of Charles the Fair. The latter had left no sons or even brothers to succeed him and thus the throne of France had gone to his cousin, Philip de Valois.[30]

In 1653 a mysterious treasure-trove was unearthed at Tournai (today part of Belgium), where the ancient Merovingian kings had set their capital. The discovery caused quite a stir at the time because the artefacts, mostly small items of gold and bronze, were believed to be from the tomb of King Childeric (*c.* AD 460), the father of Clovis. We

note with interest that amongst the artefacts recovered was a golden Apis bull, a small statue of Isis and, in another nearby find at Saint-Brice, dozens of golden bees. In ancient Egyptian myths bees were the tears of the sun-god Ra, while the hieroglyphic symbol of the bee was part of the royal titulary of the pharaohs (as in 'he of the sedge and the bee').[31] Interesting too is the fact that the Egyptian character of these artefacts was correctly identified by savants at this seventeenth-century French court who went on to suggest a connection between the Merovingian dynasty and the Isis-Serapis solar cults of ancient Egypt.[32]

Predicting a Capetian Miracle

Tommaso Campanella arrived at the French court in 1634. This was a full twenty years after the marriage of Louis XIII to the Spanish Infanta Anne of Austria and the royal couple remained without child. The prospects of a continuation of the Bourbon dynasty looked dim and it was the general view that there was not going to be a 'Capetian miracle' – the mocking term being used by this point to describe the likelihood of a royal successor.

The big problem, and the source of all sorts of rumours and gossip at court, was that Louis XIII flatly refused to have any sexual contact with his wife. The king was thought (variously) to be impotent, simply not interested in women, or perhaps a homosexual.[33] Reinforcing the latter speculation was the rather bizarre relationship, bordering on romantic love, which Louis was now publicly enjoying with his personal valet, Cinq Mars. Further complicating the matter, the king was unwell and suffered from tuberculosis. Last but not least, and notwithstanding the business with his (male) valet, he was also romantically in love with a young and very pious lady, Mademoiselle Louise de la Fayette, who had entered a convent in Paris. Somewhat reminiscent of the pure, platonic love once promoted by the troubadours of Occitania, this affair of the king's had no sexual element to it whatsoever but was felt at court to be a distraction from

any potential sexual encounters he might otherwise have had with the queen!

The queen herself, of course, was the one who felt most strongly about the matter. Hearing that the famous prophet and magus Tommaso Campanella had recently arrived in France, she summoned him to her side. He had been highly recommended to her by Cardinal Richelieu, and she wanted to have his prophetic opinion on the matter of the succession.

There was nothing unusual about this. The queen and Richelieu, like most intelligent and highly placed people of their epoch, were much influenced by prophetic and astrological predictions. Many European monarchs of the sixteenth and seventeenth centuries are known to have had their personal astrologers who were consulted regularly on matters of state, of marriage and even of war. Indeed, through intermediaries, Richelieu had already consulted Campanella on many occasions and, no doubt, the nerve-racking question of the succession must have been often raised and discussed.[34] The two men were to become close confidants, with Campanella dedicating a number of his new works to Richelieu and calling for the cardinal's assistance to 'build the City of the Sun' as expounded in the *Civitas Solis*, which had just been reissued in Paris.[35]

Brokered by Richelieu, Campanella's meeting with the queen came quickly and, to the court's amazement, the magus boldly predicted that soon the French monarchy would be blessed with an heir.[36] The heir, moreover, would be a male child who, like the very sun itself, would illumine the whole world and usher in a glorious and golden era for humanity:

> Everyone will acknowledge a single Father and a single God and love will unite them all… Kings and nations… will gather in a city which will be named *Heliaca*, The City of the Sun, which will be built by this illustrious hero [the future 'solar' king of France].[37]

As French historian Jean Meyer delicately puts it, Campanella had taken a very dangerous, high-stakes gamble by proclaiming the

imminent birth of a male heir to the French throne. If he were proved right he stood to gain much, if wrong his reputation would be ruined.

God-sent

A flash thunderstorm over the city of Paris on a cold winter's day was to play in Campanella's favour, and his prophetic gamble would pay off. For early one afternoon in December 1637, Louis XIII left his small weekend residence at Versailles and made his way to the palace at Saint-Maur, where he intended to spend the night. En route he decided to make a stop in Paris at the convent of St Marie on the Rue Saint-Antoine, where Louise de la Fayette, his platonic and very pious lady friend, lived.

With his bodyguards waiting outside, and an old nun serving as chaperone, the king and Sister Louise de la Fayette sat in a secluded part of the convent talking in whispers. When finally night fell, the king decided it was time to go, but he was informed by the captain of the guards, a man called Guitaut who was deeply devoted to the queen, that there was a violent storm outside, making the trip to Saint-Maur imprudent. Guitaut strongly advised the king that it would be safer for him to spend the night at the Louvre Palace, which was much closer.[38]

There was one small problem. The queen had her private apartments at the Louvre,[39] and the king did not relish the prospect of spending the night in her company. But as the storm grew more violent, and with Guitaut constantly reminding the king that the queen would most certainly be overjoyed to receive him at the Louvre, Louis had not much choice but to agree. A guard was sent ahead to warn Anne of this wonderful opportunity that was presenting itself. A candlelit supper was quickly arranged, and a spare bed brought to the queen's chambers. The loyal captain Guitaut had made sure that the news was sent to all the convents and churches in Paris to pray in unison for the long-awaited event…

Sure enough, exactly nine months later, on 5 September 1638,

Anne of Austria gave birth to a male child, who was christened Louis Dieudonné (literally, 'Louis the God-given') – the future Louis XIV. As though as a reminder that this great miracle had been prophesied by Tommaso Campanella, it so happened that 5 September was also Campanella's seventieth birthday. Now amidst great jubilations and prayers of thanks, the rapturous and very grateful queen summoned the magus and asked him to cast the natal horoscope for her son – who was already spoken of as the *Dieudonné*, the 'God-sent'. We know that Campanella paid at least two visits to the queen's private chamber, was present when she breastfed the infant, and was even given the immense honour of holding the future king in his arms.[40] Finally, after thoroughly examining the child, he announced, somewhat underwhelmingly, that the reign of Louis XIV would be long, happy and glorious.[41]

But he had more to say in his Latin Eclogue for Louis XIV, which appeared in print in January 1639.[42] Modelled on the messianic Fourth Eclogue of Virgil (which had prophesied the universal rule of Augustus Caesar), Campanella's expanded prophecy leaves no doubt about the future he saw for the French monarchy and the forthcoming reign of Louis XIV. Quite simply, it was divinely ordained to bring about the great universal 'Christian-Hermetic' reform that Bruno had dreamed of, and to build the 'City of the Sun' which he, Campanella, had promoted.[43]

So it is time to ask: what did Campanella really have in mind? What type of 'solar city' was he thinking of? Was it a real city or merely a symbolic vision of some utopian reform to be ushered in by the French monarchy?

A Hermetic Signature

So far we can see that Campanella had succeeded in his Hermetic mission where Bruno before him had failed. True, Bruno had managed to gain some backing from Henry III of France and even had his chance to present his own Hermetic-Egyptian vision of universal

reform to the scholars in Paris and Oxford. But what it all finally amounted to had been a heap of ashes in Rome's Campo de' Fiori. Campanella, on the other hand, thanks to his more cunning temperament and greater ability to deal with complex human relationships, now held the support of the French royal couple and their powerful minister, Richelieu. This, though it came very late in his life, gave him the almost unbelievable opportunity to plant the seed of his own vision of reform right in the heart of the French monarchy. Did not Campanella once boast, asks Frances Yates, that he could 'make a City in such a wonderful way that only by looking at it all the sciences may be learned'?[44] Now at last he was in a position to make good on his pledge.

Yates quite rightly sees in Campanella 'a more successful Bruno'[45] and writes that 'it does look very much as though a torch may have passed from Bruno to Campanella'.[46] She also points up another aspect of the mystery, something far more subtle and vague, that no one else seems to have seen before her. In her view Campanella's City of the Sun was 'ultimately Egyptian in origin':

> It is now clear that to the Roman ideal of universal empire returning in a new golden age, to the Platonic ideal of a state in which philosophers ruled, Campanella added a third ideal, that of the Egyptian state kept intact and eternal by priestly magic. The Sun ruler of the City of the Sun is both priest and king, supreme in both the spiritual and the temporal domains, in short he is Hermes Trismegistus, priest, philosopher and king. Campanella was thus in no sense a liberal revolutionary. His ideal was an all powerful theocracy like that of Egypt, so powerful that it regulated by scientific magic the celestial influences and through them the whole life of the people. Its apparently liberal side is that it encouraged scientific enquiry and invention… but this advanced Solarian science was in the hands of the supreme priesthood and regulated by it – as in ancient Egypt.[47]

In our view it is not a coincidence that the 'liberal revolutionary' aspects of Campanella's utopia – to be based on the principles of truth, justice and brotherly love, and characterized by freedom of speech, equal rights for women, good health-care and universal

education for children[48] – had already begun to be realized in Occitania hundreds of years before.[49] Nor is it likely to be an accident, as we saw in Chapter 1, that they were to appear again, linked to the work of Voltaire, Rousseau and other leading lights of those times, in the philosophical and intellectual undercurrents of the 1789 French Revolution.

The strangest and most striking aspect of Campanella's scheme, however, and the one that Yates particularly draws attention to, is its Egyptianism. The Hermetic magus cleverly grafted it on to the French monarchy in the person of the future Louis XIV, thus ensuring its acceptability within the existing systems of Europe. But at the same time there is no doubt that what Campanella ultimately had in mind was a revival of the ancient Egyptian 'golden age' when a 'solar' king and his wise and benevolent 'scientific-priesthood' had regulated and governed the land.

Were such thinking to be carried through to its logical conclusion then we would expect Louis XIV to have left a Hermetic signature on the landscape of France. We would expect him, in short, as Campanella had prophesied in the Latin Eclogue, to have built, or to have attempted to build, the City of the Sun.

Hidden Magical Springs

Of course, it's always possible that the 'City of the Sun' was just a metaphor for an ideal type of society, rather than something that was intended to be realized in bricks and mortar. Yet there is much in Campanella's scheme, and in the Hermetic teachings, that leads us to think otherwise. Most significant is the thoroughly 'astral' character of his model, which constantly leverages the intimate feedback mechanisms between sky and ground, above and below, that are envisaged in the Hermetic texts.

The broad plan of Campanella's City of the Sun as he sets it out in his great work *Civitas Solis* looks like a diagram of the Copernican solar system. At its centre, on a raised mound, is a perfectly circular

temple of gigantic size (representing the sun) with its dome supported on soaring pillars. Ringing the temple are the seven concentric divisions of the city (one for each of the orbits of the then known planets) separated by walls penetrated by gates facing the cardinal directions – north, south, east and west. Two axial roadways traverse the city entirely, crossing, as it were, at the centre, one running due north–south and the other due east–west.[50]

Within the vast 'Temple of Sun' lying at the heart of all this geometrical perfection Campanella's text envisages an altar on which is to be found nothing except two huge globes, one showing 'all the heaven' and the other 'all the earth'.[51] On the ceiling of the dome are depicted 'all the greatest stars of heaven, with their names and the powers which they have over things below'; these representations are in correspondence with the globes on the altar. Seven eternal lamps also hang in the temple, called after the seven planets. The outer wall of the temple bears a representation of 'every star in its order'.[52]

Images and writings are inscribed on both the outer and inner faces of each of the seven sets of concentric walls and these seem primarily aimed to educate and inspire the citizenry. They include more world maps, cultural geographies of different peoples, representations of seas and rivers, knowledge about the animal, vegetable and mineral kingdoms, and images of 'inventors of sciences and laws' – an eclectic list including Hermes Trismegistus (in his Romanized disguise as Mercury), Jupiter (Zeus-Amun in the Graeco-Egyptian pantheon of Alexandria), the Prophet Mohamed, Jesus Christ and his twelve Apostles and, last but not least, Osiris.[53]

In summary, observes Frances Yates, the city that Campanella wanted, and prophesied that Louis XIV would in some way build, was to be 'a complete reflection of the world as governed by the laws of natural magic in dependence on the stars'.[54] It was to be carefully arranged 'so as to be right with the stars' – the source of 'all its happiness, health and virtue'.[55] Its ruler was to be a priest, who was to be 'head in all things, both spiritual and temporal',[56] while its

governance was to be in the hands of great men who could understand and use natural magic: 'inventors, moral teachers, miracle workers, religious leaders, in short, Magi'.[57] They were to be selected according to their ability, in the words of Marsilio Ficino, to 'draw down the life of heaven' for the benefit of mankind.[58]

The intellectual origins of Campanella's grand scheme, Yates shows, are not to be sought (except perhaps superficially) in contemporary or near-contemporary works he might have known such as Thomas More's *Utopia*. 'To find the ultimate source,' she argues, 'one must dig deeper and uncover those hidden magical springs from which the Renaissance was fed.' She means the Hermetic texts and singles out particularly the *Picatrix*, with its magical city of Adocentyn, reminding us that it featured:

> a castle with four gates, on which were images into which Hermes Trismegistus had introduced spirits. Compare this with the four gates and roads of the City of the Sun. On the summit of the castle was a lighthouse which flashed over the city the colours of the seven planets. Compare this with the seven planetary lamps always burning in the City of the Sun… In the passage in *Picatrix* describing the City of Adocentyn Hermes Trismegistus is also said to have built a temple to the Sun.[59]

In other words, Yates concludes, 'the deepest, the primary layer of influence behind the City of the Sun is, I suggest, Hermetic; and its first model, to which many later influences have been superadded, is, I believe, the magical city of Adocentyn described in the *Picatrix*, and the description in the *Asclepius* of the religion of the Egyptians'.[60]

In Chapter 8 we quoted at length the famous 'Lament' from the *Asclepius* in which we hear of the destruction by inimical forces of the magical, natural religion of the Egyptians, and its apparent disappearance from the earth for a long interval of time. But the reader will recall that the *Asclepius* also makes the prophecy that the persecuted religion will one day be restored in 'a reformation of all good things, and a restitution most holy and most reverent of nature itself.' Most important of all, this restoration and restitution are to be

triggered by the founding of a city aligned with the sun.[61]

Could Louis have been influenced by Campanella to carry such thinking through to its logical conclusion and leave a Hermetic signature in the architecture of France? If so the old magus must somehow have found a way to reach out to him from beyond the grave – for he died in Paris on 21 May 1639, eight and a half months after the young 'Sun King' was born.

In matters of influence, however, as we shall see (and as the Hermetic texts themselves advise), it is best to presume that 'nothing is impossible'.[62]

Chapter 13

The Invisible Brotherhood

> 'Richelieu did not receive the Rosicrucians, but when eleven years later Campanella came to Paris he had the powerful cardinal's support – an indication of Campanella's success in switching his ideas… into channels acceptable to the powers that be.' (Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago, 1991, p. 446)

> *'The Rosicrucians, do they exist? Are you one?…'* (Frances Yates, *The Rosicrucian Enlightenment*, Ark Paperbacks, London, 1986, p. 206)

In 1623, during the reign of Louis XIII and eleven years before Tommaso Campanella arrived at the French court, a subversive organization made its presence known in Paris. Stealthily, by night, eye-catching placards were put up on the walls of public buildings and in all the main streets of the city, bearing the following announcement:

We, being deputies of the principal College of the Brothers of the Rose Cross, are making a visible and invisible stay in this city through the Grace of the Most High, towards whom turn the hearts of the Just. We show and teach without books or marks how to speak all languages of the countries where we wish to be, and to draw men from error and death.[1]

Another poster contained a variant of the message with more specifically religious overtones:

> We deputies of the College of the Rose Cross, give notice to all those who wish to enter our Society and Congregation, that we will teach them the most perfect knowledge of the Most High, in the name of whom we are today holding an assembly, and we will make them from visible, invisible, and from invisible, visible…[2]

As it had certainly been intended to do, the poster campaign caused quite a stir in Paris. Contemporary reports speak of a 'hurricane' of rumour at the news that the mysterious Rose Cross fraternity – already believed to be active in Germany – had now come to France.[3] Pamphlets and further rumours (although of a rather concrete and specific nature) had it that the core of the brotherhood was formed by thirty-six 'Invisible Ones' – implying that they were veiled, incognito, disguised – who were dispersed throughout the world in six groups of six.[4] They held their assemblies at the time of the summer solstice, the longest day of the year. And although the language of the pamphlets and posters seemed religious and obviously Christian, it was said that adepts of the fraternity 'swore to abjure Christianity and all the rites and sacraments of the Church'.[5]

To understand the sort of moral panic, accompanied in many cases by a thrill of illicit excitement, which was generated by hints and rumours like these, we need to keep in mind the general condition of Europe in 1623. For more than a century, bloody religious conflicts between Catholics and Protestants had been tearing the peoples of the continent apart, creating a climate of overwhelming fear and suspicion, and now the great struggle in Central Europe that was to become the Thirty Years War had just begun, further inflaming the deep hatreds and passions of the time. So it was natural that everyone, particularly the court and the government of France, would feel disturbed and even a little threatened by these announcements that a clandestine brotherhood had set up shop in Paris and intended to save the people from 'error and death'.

Who was behind all this provocative propaganda? Who was responsible? Who were the 'invisible' people calling themselves brothers of the Rose Cross?

Although a mass of material supposedly stemming from these original 'Rosicrucians' has come to light, scholars still debate such questions today and have proposed no definitive answers. All that is clear is that the self-styled 'invisible' brothers – whoever they were – must have been cut from very much the same cloth as men like Bruno and Campanella. Though their methods were more guarded than those of the great Hermetic magi, they saw themselves in the same way as being endowed with special magical powers, or knowledge, or 'science' that could be used to bring about a religious and intellectual reform of the world.

The Rosicrucian Manifestos

If a secret society is successful – which means, by definition, that it is difficult to detect in its own epoch – then we may suppose that its traces are unlikely to be easily found by the historians of a later epoch. If we take the Rosicrucians at face value as a secret society, therefore, it follows that we really can't say for sure how long they may have existed undetected before they declared themselves. All we know is that the first direct and definite references to them were made in Germany during the twenty years before the 1623 poster campaign in Paris. From this early activity comes almost everything we know, or think we know, about the 'Invisible College' of the Rose Cross.

The name 'Rosicrucian' is derived from 'Christian Rosencreutz', i.e., Christian Rose Cross or Rosycross, the hero of two small books, deep and most unusual in their contents, that were first published at Cassel in Germany in the years 1614 and 1615. The full title of the first is *Fama Fraternis, Or a Discovery of the Fraternity of the Most Noble Order of the Rosy Cross*. Scholars generally refer to it as 'the *Fama*'. The second, published in 1615 and usually known as the *Confessio*, is titled in full: *Confessio Fraternitatis, Or the Confession of the Laudable Fraternity of the Most Honourable Order of the Rosy Cross, Written to all the Learned of Europe*. These two texts amount in English translation to a total of less than twenty-five pages and are known collectively as

the ‘Rosicrucian Manifestos’.[6]

The Fama

The *Fama* purports to be the work of a group of Rosicrucian adepts and tells the story of ‘the most godly and highly illumined Father, our brother, C. R. [Christian Rosencreutz], a German, the chief and original of our Fraternity’, whose aim was to bring about a ‘general reformation’. It seems that as a youth this C. R. had set out on a pilgrimage to the Holy Land but had stopped on the way amongst the ‘wise men of Damascus’. Receiving him ‘not as a stranger but as one whom they had long expected’ they showed him secret things, ‘whereat he could not but mightily wonder’, and taught him knowledge of physics and mathematics. C. R. was so magnetized by his studies that he lost all interest in reaching Jerusalem – his original objective – and spent three years with the Damascene sages, undergoing what sounds very much like a Hermetic initiation.[7]

Finally, with their blessing, he began to make his way westwards again. First, he journeyed into Egypt. Then he ‘sailed across the whole Mediterranean Sea for to come unto Fez’ [Morocco]. There the ‘Elementary Inhabitants’, members of an occult society of ‘magicians, Cabalists, physicians, and philosophers… revealed unto him many of their secrets’. However, the knowledge that he had learned in Damascus seems to have been superior to theirs since he judged that ‘their Magia was not altogether pure… their Cabala was defiled with their religion’.[8]

After two years in Fez, brother C. R. moved on, this time to Spain and thence into the rest of Europe. He wished to share the great wisdom he had learned in the East and to teach the wise men of the West ‘the errors of our [i.e., Western] arts, and how they might be corrected… also how the faults of the Church and the whole *Philosophia Moralis* was to be amended’. However, he was ridiculed and attacked by the scholars to whom he unfolded his ideas because they ‘feared that their great name should be lessened’.[9] We are

reminded, inevitably, of the mission of Giordano Bruno to bring about the Hermetic reform of the world.

At last Christian Rosencreutz returned to Germany. He built a home, meditated at length about his journey and his philosophy, 'and reduced them together in a true memorial'. He also intensified his studies of mathematics and made 'many fine instruments'. After five years 'came again into his mind the wished for reformation… and unwearying, he undertook, with some few who joined with him, to attempt the same'. We hear at this point of three other brethren – Brother G. V., Brother J. A. and Brother J. O. – whom C. R. binds 'unto himself to be faithful, diligent and secret':

> After this manner began the Fraternity of the Rose Cross; first by four persons only, and by them was made the magical language and writing, with a large dictionary, which we yet daily use to God's praise and glory, and do find great wisdom therein…[10]

Soon afterwards these four founders were joined by four others – Brother B., Brother G., Brother P. D., and Brother J. A. – 'so in all they were eight in number, all bachelors and of vowed virginity'.[11] The group then 'collected a book or volume of all which man can desire, wish or hope for' – a system of guidance which 'shall unmovably remain unto the world's end' with the power to open the eyes of the masses of all lands and to make them less passive before 'the Pope, Mohamed, scribes, artists and sophisters'.[12]

Thus prepared 'and able perfectly to discourse of secret and manifest philosophy', the eight 'separated themselves into several countries' – there to draw aside from amongst the learned those who were worthy to receive their doctrines. Like Cathar *perfecti* who were renowned for their medical skills, these Rosy Cross brothers were to work as doctors curing the sick, and were to do so free of charge. The better to disguise themselves and blend in, they were not obliged to wear any particular habit 'but therein to follow the custom of the country'. Like Cathar *perfecti* they were celibate and, again like Cathar *perfecti*, each was to seek out and work with an apprentice, 'a worthy

person who, after his decease, might succeed him'.[13]

In this way generations passed until 'none of us had in any manner known anything of brother C. R. and of his first fellow brethren', than could be gathered from the books of the order. There began to be doubts as to whether the true teachings of the original eight had been properly passed down. At this time, however, and by chance, one of the brothers stumbled upon the long-lost tomb of Christian Rosencreutz himself. It turned out to be a kind of Hermetic 'Hall of Records' containing all the wisdom necessary to restore the Order: 'We opened the door, and there appeared to our sight a vault of seven sides and corners, every side five foot broad, and the height of eight foot.'[14] A permanent light, like 'another sun', glowed 'in the upper part in the centre of the ceiling'. Instead of a tombstone the vault contained a round altar covered with a brass plate on which was engraved the following mysterious epitaph: 'This compendium of the universe I made in my lifetime to be my tomb.'[15] Beneath the brass plate was the dead body of Christian Rosencreutz, 'a fair and wise body, whole and unconsumed'. In his hand he held a parchment book, on the final page of which was this eulogy:

> A grain buried in the breast of Jesus, C. Ros. C. sprung from the noble and renowned German family of R. C.; a man admitted into the mysteries and secrets of heaven and earth through the divine revelations, subtle cogitations and unwearied toil of his life. In his journeys through Arabia and Africa he collected a treasure [of knowledge, not gold and worldly riches] surpassing that of Kings and Emperors, but finding it not suitable for his times he kept it guarded for posterity to uncover… He constructed a microcosm corresponding in all motions to the macrocosm and finally drew up a compendium of things past, present and to come. Then, having now passed the century of years, though oppressed by no disease… but summoned by the Spirit of God… he rendered up his illumined soul…[16]

The authors of the *Fama* claim that they 'have the knowledge of Jesus Christ' and that their philosophy 'is not a new invention': 'Also our building (although one hundred thousand people have very near seen and beheld the same) shall forever remain untouched,

undestroyed, and hidden from the wicked world.'[17]

Finally, and in ringing tones, there comes this statement and prophecy of tremendous changes and the birth of a new order, which the Rosicrucians, with the treasures of knowledge at their disposal, stand ready to usher in: 'Europe is with child and will bring forth a strong child, who shall stand in need of a great godfather's gift.'[18]

The Confessio

Published in 1615, the *Confessio* presents itself as a sequel to the *Fama* and begins with a condemnation of 'the East and the West [meaning the Pope and Mohamed] blasphemers against our Lord Jesus Christ'. It then promises that 'all learned who will make themselves known to us, and come into our brotherhood, shall find more wonderful secrets thereby than heretofore they did attain unto, and did know, or are able to believe or utter'.[19]

Using strange metaphorical language, the *Confessio* next proposes what sounds like total revolution in Europe, wiping the slate clean, because 'posterity will be able only thereby to lay a new foundation and bring truth to light again'. This is argued to be preferable to endless renovations and repairs to 'the old ruinous building'.[20] The hoped-for end result will be that 'the World shall awake out of her heavy and drowsy sleep, and with an open heart, bare-headed, and bare-foot, shall merrily and joyfully meet the new arising Sun.'[21]

The text continues with an attack on the Church: 'Like as the mathematician and astronomer can long before see and know the eclipses which are to come, so we may verily foreknow and foresee the darkness of obscurations of the Church.'[22] We are told that 'the Romish seducers have vomited forth their blasphemies against Christ, and as yet do not abstain from their lies in this clear shining light'.[23] There are also repeated appeals for proper understanding of the Scriptures.[24] Finally:

We acknowledge ourselves truly and sincerely to profess Christ, condemn the Pope, addict ourselves to the true Philosophy, lead a Christian life, and daily call, entreat, and invite many more into our Fraternity, unto whom the same Light of God likewise appeareth.[25]

The *Confessio* for the first time provides the reader with the chronology within which the whole story is set: Christian Rosencreutz is born in 1378 and lives for 106 years, dying in 1484. His tomb is rediscovered 120 years later – in other words in 1604, exactly ten years before the publication of the *Fama*.[26]

Mystery of the Chemical Wedding

A third publication appeared in 1616 that added to the mystery of the Rosicrucian Manifestos. Its title is *The Chemical Wedding of Christian Rosencreutz* and, like the Manifestos, it describes a secretive order which uses a red cross and red roses as its symbols.[27] Now, though, the focus has shifted to what might be called 'inner transformation' – as opposed to the social and religious transformation heralded in the Manifestos.[28]

The authors of the *Fama* and the *Confessio* have never been firmly identified. For some time, however, it has been the consensus of scholars – Frances Yates believed it to be a certainty – that the *Chemical Wedding* was the work of Johann Valentin Andreae, a young Lutheran pastor from Tübingen in Germany.[29] Recent research has begun to cast some doubt on this identification, primarily because the *Chemical Wedding* as it appeared in 1616 is distinctively different from all other surviving writings of Andreae. As the Hermetic scholar Adam McLean puts it:

From what we know of Andreae as an orthodox and eminent Lutheran pastor and academic, it seems unlikely that he could have devised such a profoundly esoteric document, which in fact has as its basis many ideas heretical even in Protestant terms.[30]

The confusion enters in because Andreae lists a work called *The Chemical Wedding* amongst a number of short plays – 'first juvenile efforts as an author'[31] – that he wrote while studying at the University of Württemberg in 1602 and 1603. This early play has not survived. But Andreae moved in esoteric and Hermetic circles, as we shall see, and was very much involved with the nascent Rosicrucian movement of Germany,[32] so it was natural for scholars to identify his *Chemical Wedding* of 1602/3 with the anonymous *Chemical Wedding of Christian Rosencreutz*, published in 1616. The latter contains references to the Rosicrucian Manifestos (1614/15) and to other contemporary matters and so cannot be identical to the lost 1602/3 text, but the general view is that Andreae must have updated it prior to publication.[33]

Born in 1586, Andreae would have been seventeen in 1603, too young and inexperienced of the world, in our view, to have written a work as deep, dark and rich in complex symbols as *The Chemical Wedding of Christian Rosencreutz*. By 1616, when it was published, he would have been thirty – a different matter altogether. Even so, if he was the author, he must not so much have 'updated' as completely rewritten the juvenile version of the play before bringing it out in print – for there is nothing at all of a seventeen-year-old boy to be seen in the finished work. And even accepting that he did completely rewrite it in his maturity, we still confront the problem of its 'heretical' undertones and its alleged incompatibility with the rest of Andreae's writings. The issue will probably never be resolved to everyone's satisfaction unless the lost manuscript of 1602/3 turns up. Meanwhile we find Adam McLean persuasive when he speculates that:

> Andreae did in fact write a version of the *Chemical Wedding*, perhaps a simple play or masque… Some years later… one of the 'Rosicrucian' fraternity… with whom Andreae had some connections, might have decided to rework Andreae's early, unpublished play into the complex esoteric allegory we know today.[34]

A Strange Story

As to the content of the *Chemical Wedding*, there is simply not space here for us to do it justice. In English translation the printed text runs to about ninety pages, divided into seven chapters each representing a day's journey in a sort of pilgrim's progress. The narrator is Christian Rosencreutz himself, who, the reader will recall, was said in the Manifestos to have lived to the age of 106. In the *Chemical Wedding* his age must be eighty-one – for we know that he was born in 1378 and the story is set in the year 1459.[35]

'The First Day' finds C. R. at his table, quietly meditating 'on the many great mysteries which the Father of Light, in his majesty, had allowed me to glimpse'.[36] We note in passing that the phrase 'Father of Light' never appears in the Christian Bible, either in the Old Testament or in the New Testament.[37] In the early centuries of the Christian era, however, it was in common usage amongst Manicheans and Gnostics as a reference to the God of Goodness, and there was a sect of Gnostic Christians whose members called themselves the 'Sons of Light'.[38]

While in the depths of his meditation, C. R. is visited by the angelic, glowing, winged figure of 'a wonderfully beautiful female… dressed all in blue, spangled like the heavens with golden stars'. She produces a 'small note', puts it on the table with a curtsey and immediately flies off into the upper atmosphere blowing loudly on a trumpet.[39] When C. R. opens the note he finds it contains an invitation to 'the wedding of the King' and a cryptic warning that he must study himself closely before deciding to accept:

> If you're not clean enough,
> The wedding can work ill.
> Perjure here at your peril.[40]

What kind of wedding is it – one is inclined to ask – that can be perilous to guests who are impure or do not tell the truth? This is an

early hint, one amongst many in the narrative, that we are not in any way dealing with an account of real events here, or even with pure fiction, but strictly and exclusively with what Adam McLean calls an 'esoteric allegory'. It may be said safely that the allegory of the wedding is meant to bring to mind something more of the nature of a quest or personal challenge than a 'marriage'. Very much in the same tradition as the quest for the Holy Grail, the ordeals and moral dilemmas that the guests confront over the coming 'Days', and in which they must cooperate to complete a complex alchemical operation, seem themselves to be part of a subtle process of purification and transformation.

Like the Grail Quest, the *Chemical Wedding* is often claimed as a document of esoteric Christianity. But as Adam McLean asks and observes: 'Where is the Christian message? What is described seems more like an ancient "mystery initiation" than a Christian religious experience.'[41]

Still on Day One of his quest, the octogenarian Christian Rosencreutz does as the wedding invitation has warned him to do. He observes himself, both inwardly and outwardly, with absolute honesty and finds himself wanting:

> The more I pondered, I could see that there was nothing in my head but a great want of sense and blindness in esoteric matters… I also found that my physical life, outward conduct, and brotherly love towards my neighbour were far from being purged and pure enough. I was aware of fleshly desires, which aim only for reputation and worldly show, not for the well-being of others; I was always thinking how I could use my skills for my own immediate benefit, for building many splendid things, for making an everlasting name in the world, and other such materialistic thoughts…[42]

It is interesting that the two matters for which C. R. reproaches himself are (1) his esoteric blindness and lack of inner *gnosis* and (2) his worldly and materialistic behaviour. Regardless he decides that he will attend the wedding. Dressed in a white linen coat with a blood-red belt bound crosswise across his shoulders, and wearing four red roses in his hat, he proceeds on his journey. Thus ends the First Day.

On the Second Day Rosencreutz enters a great forest and comes eventually to a clearing. There he is offered 'the choice of four paths, by all of which you may reach the royal castle, if you do not fall by the wayside'. One is short but dangerous, another long and winding – and so on. Eventually, C. R. finds his way to the castle, where other guests are already gathered. A beautiful Virgin appears and makes a portentous announcement reminding the guests that they are not supposed to be here unless properly prepared:

> Tomorrow every one of you
> Upon the balance will be
> weighed…
> He who dares beyond his powers
> Would have done better not to
> come.
>
> We wish you all the best.[43]

We will not take the reader step by step through the remaining five days of the *Chemical Wedding*, which indeed feature (on the Third Day) a symbolic 'weighing of the guests' in which some are 'successful' and some are not. Varying degrees of punishment await those who prove 'too light in the balance' and the worst offenders ('who could not even out-weigh a single weight') are slaughtered.[44] Many elements of this curious scene are strongly reminiscent of the stage in the afterlife journey known as the 'weighing of the soul' as it is described in the *Ancient Egyptian Book of the Dead* – a text of the second millennium BC that no one in the seventeenth century AD is supposed to have been able to read. And other elements of the landscape of the *Chemical Wedding* also have ancient Egyptian resonances: to pick at random – a Phoenix, the god Hermes, a royal staircase with 365 spiral steps, the 'House of the Sun', scenes of death, a rebirth ritual (e.g., 'We had to drudge away on this island until we had done everything necessary for reviving the beheaded bodies'),[45] a pyramid, a pentagon, various pieces of equipment

needed in the quest including a ladder, a rope and wings, an egg produced by alchemical processes, a bird that grows at miraculous speed, resurrection of the king and queen, and elevation of certain of the guests to the status of 'Knights of the Golden Stone'.

Towards the end of the Seventh Day Christian Rosencreutz writes his name in a great book above the following enigmatic motto: 'The height of knowledge is to know nothing.'[46]

Bruno, Campanella and the Rosicrucians

It seems to us to be beyond serious doubt that a great allegory of death, rebirth and spiritual transformation lies at the heart of the *Chemical Wedding* and that Adam McLean is right to compare the entire process to an ancient mystery initiation. At the successful completion of the Seventh Day we are perhaps to understand that the initiate, now an adept – literally a Perfect – has attained that *gnosis* by means of which 'the soul can escape its bondage to material existence'.[47] If so, no matter how different the mode of expression, the primary concerns of the *Chemical Wedding* can be seen to be essentially the same as those of the Alexandrian Hermetists, the Gnostics, the Manicheans, the Paulicians, the Bogomils, the Cathars – and all those on the great chain of heresy that we have traced in the preceding chapters. Since the *Chemical Wedding* can, in a sense, be regarded as the 'statement of faith' of the elusive Rosicrucian Order, the clear implication is that their General Reformation of the World was to be of a distinctly Hermetic nature.[48]

Reinforcing this is the fact that even a cursory examination of the *Fama*, the *Confessio* and the *Chemical Wedding* makes it quickly evident – whatever their identity – that our shadowy 'Rosicrucians' were using a strong mixture of Hermetic magic, *gnosis*, Cabala and alchemy in a Christian framework. In short, these pamphlets that caused such a stir at the time were seeking not only to bring about a 'Rosicrucian' reformation of the world but also to do so with all the intellectual weaponry of the Hermetic magi such as Pico della

Mirandola, Giordano Bruno and Tommaso Campanella. Even more curiously, through their connection with Johann Valentin Andreae, the 'Brothers' were also involved in the conception of a utopian city-society they called Christianapolis–a sort of microcosm of the world governed by Hermetic statesmen-priests[49] – that very much resembled Campanella's *Civitas Solis*. With such similar terminology, imagery and objectives, it is justified to ask whether this 'Rosicrucian' movement might not somehow have been rooted in Bruno's long sojourns in Germany between 1586 and 1591 (see Chapter 11) as well as the smuggling of advance copies of Campanella's *Civitas Solis* into that country – events that occurred in the years immediately *before* the Rosicrucian Manifestos first appeared.

During Bruno's Inquisition in Venice in 1592 (before his case was referred to Rome, see Chapter 11), his Venetian 'pupil' and betrayer, the faithless Mocenigo, reported that the Nolan had plans to found a new philosophical sect in Germany. Other witnesses said that the sect existed, that Bruno had named it the 'Giordanisti' and that it much appealed to the Lutheran heretics in Germany. Such testimonies led Frances Yates to wonder whether these rumoured 'Giordanisti' could have had any connection with the unsolved mystery of the origins of the Rosicrucians, who, she reminds us 'are first heard of in Germany in the early seventeenth century, in Lutheran circles'.[50] If such a connection exists at all, however, as Yates discovered, it is as yet far too murky and faint for us to be sure of. Nonetheless, sufficient hints and clues exist for her to suggest that 'Rosicrucian aspirations after a universal reform in a Hermetic context may well owe something to Bruno as well as to Campanella.'[51] And although no direct connection has so far been confirmed between Bruno and the Rosicrucian movement in Germany, there is at least strong circumstantial evidence of a connection between Campanella and the Rosicrucians.

The Gradual Unveiling of the City of the Sun

Campanella's great work, *Civitas Solis*, the 'City of the Sun', was

written during his long years of incarceration between 1599 and 1627. The earliest printed edition, in Latin, was published in Frankfurt, Germany in 1623.[52] However, Campanella's first draft of the manuscript – in Italian, not Latin – was complete as early as 1602, and has survived (although it was not published until 1904).[53] By or before 1613, and possibly as early as 1611,[54] the manuscript copy of another draft had been smuggled out of Campanella's prison by one of his disciples and regular visitors – the Lutheran Tobias Adami, as we saw in Chapter 12. We know that Adami took the smuggled manuscript to the city of Tübingen in southern Germany,[55] where at the time lived Johann Valentin Andreae, a scholar with undeniable Hermetic and Rosicrucian connections and the possible author, or part-author, of *The Chemical Wedding of Christian Rosencreutz*.

Did Adami pass Campanella's manuscript to Andreae and to others in the proto-Rosicrucian circle in Tübingen? It seems highly likely. In which case – since the *Fama* and the *Confessio* did not appear until 1614/15, while the *Chemical Wedding* appeared in 1616 – there is time enough to allow, as Yates suggests, for a Campanellan influence on 'Rosicrucian aspirations after a universal reform'. The link is tightened, Yates reveals, by the presence amongst Andreae's close friends of another of Campanella's German Lutheran disciples – a man called Wilhelm Wense.[56]

Dame Frances Yates has not been alone in noting the implications for our understanding of the Rosicrucian phenomenon of these behind-the-scenes connections involving Campanella, Tobias Adami, Wilhelm Wense and the enigmatic Johann Valentin Andreae. Christopher McIntosh similarly argues that Campanella's 'utopian work, City of the Sun, which describes an ideal society ruled over by Hermetic priests… helped create the atmosphere in which the Rosicrucian manifestos were produced'.[57] It would appear that Wense had even suggested to Andreae that the society 'The Christian Union' which Andreae wanted to create in Germany should be called *Civitas Solis*.[58]

In 1619, four years before the first (1623) publication of *Civitas Solis* but at least six years after the manuscript had reached Lutheran circles in Tübingen, Andreae was to publish a book of his own expounding the virtues of Christianopolis – a special kind of utopian city. There can be little doubt that Campanella's Christian-Hermetic vision of an ideal state was its inspiration.

The Union of the Thames and the Rhine

The central image of *The Chemical Wedding of Christian Rosencreutz* is the marvellous, magical wedding of a mythical king and queen. In February 1613, three years before the publication of the *Chemical Wedding*, a fabulous and almost mythical wedding did in fact take place…

The story begins on 24 March 1603 when Queen Elizabeth I of England died in Richmond Court. Her life had been childless, and so the kingdom passed to her closest cousin, King James Stuart VI of Scotland, who was crowned James I of England at the age of thirty-seven. He was naturally followed into England by many loyal noblemen and gentry of his original Scottish court. With them they brought not only their traditional clannish sense of bonding in elite male fraternities but also the budding seed of what was eventually to become the most powerful and influential secret society of modern times.

James I was a staunch Protestant who, on the death of his illustrious cousin, found himself transformed from the king of a small, relatively poor country – Scotland – to the supreme head of one of the most powerful states in the world. His personality, it seems, was crude and ill-mannered, leaving much to be desired. Though married, he apparently harboured an acute disdain for women, and preferred to spend his time in the company of men – with whom, it was inevitably rumoured, he was not averse to enjoying occasional sexual relationships.[59]

An all-out biblical fanatic of the worst sort, James I was fired by an

adamant belief in his own ‘divine right’ to rule. In practice, however, he was to prove rather mediocre as a king and a statesman, some might even say, a failure. The English mistrusted the peace that he had struck with their traditional mortal enemy Spain, and were perplexed when he began to involve himself in an increasingly intimate relationship with the Spanish ambassador.

But all was forgiven in late 1612, when James I announced the marriage of his daughter, who bore the evocative name of Elizabeth, to the young and much loved German Protestant prince Frederick V, the Elector of the Palatinate and the Rhine. As well as the high romance, the glamour, the excitement and the anticipation of the impending event (then, as now, the masses loved royal weddings) this move seemed to confirm James I’s commitment to the Protestant cause. Many in England and elsewhere even began to hope that he might, after all, champion and defend the Protestants of Europe as Elizabeth I had before him. And such hopes, quite naturally, were focused in particular on what might happen in Germany, the hub of the Protestant Reformation.

The Elector of the Palatinate and the Rhine was a sensitive, handsome and very gentle young man. He had received a refined French education at the famous University at Heidelberg, an enchanting university city that was the seat of the Lower Palatinate, and in 1610 had succeeded his father, Frederick IV, a staunch Calvinist and one of the founders of the German Protestant Union. This was a coalition of German Protestant principalities whose objective was to resist the Catholic League and the power of the Hapsburgs by forging alliances amongst themselves in Germany and also with foreign sympathizers such as the French Huguenots under Henry of Navarre, and the English Protestants.

There were, in fact, two Palatinates, the Upper Palatinate in northern Bavaria and the Lower or Rhine Palatinate located on both sides of the middle Rhine. Since medieval times the Palatine rulers had served as stewards of royal territory in the absence of the Hapsburg emperors, and eventually obtained the right to be among the electors of new emperors, hence their title of ‘Electors’. When the

Palatinate adopted Calvinism in the 1560s, these principalities suddenly became the bulwark of the Protestant cause in Germany. As Elector of the Rhine Palatinate, Frederick V symbolized Protestant resistance against the Counter-Reformation spurred by the Catholic League under the Hapsburgs, and quite naturally his marriage to the daughter of James I was perceived as a great strengthening of this resistance.

When Frederick arrived in England in the autumn of 1612 he made a huge positive impression on the English court. The young princess Elizabeth fell deeply in love with him at first sight, and he, too, with her. It all promised to be the ultimate fairy-tale of the century. Frederick was invested with the Order of the Garter, and everyone in the realm rejoiced at the prospect of the fabulous wedding and of the great things that would come from this union.

The wedding took place on 14 February, St Valentine's Day, 1613, amid lavish festivities along the river Thames near London. And two months later, on 25 April, the sparkling royal couple left for Germany, and set up court at the magnificent palace at Heidelberg in the Lower Palatinate.

Dee and Christian Rosencreutz

We shall recall from Chapter 11 that in 1583, the year Giordano Bruno arrived in England, the famous Elizabethan astrologer, conjuror and mathematician John Dee was preparing to leave. The Polish prince Albert Alaski, who had been amongst Bruno's audience at Oxford, had invited Dee and his family to join him at his home in Trebona, Poland, and Dee had accepted. Dee also took along his young clairvoyant assistant, Edward Kelly.

After leaving England in October 1583 Dee and his little party first stayed in Trebona for a year and then travelled extensively through Poland and Bohemia, from town to town, performing mystical seances and conjurations for the nobility until 1587. Dee and his family then returned to England, passing through Germany and Holland, but Kelly decided to stay in Poland. He was eventually killed in 1593 in an

accident while trying to escape from a German prison where he had been jailed for heresy.

Back in England Dee fell into deep poverty, and was nearly destitute when Elizabeth I took pity on him and appointed him chancellor of St Paul's Cathedral. A few years later Dee was appointed Warden of Manchester College, where he stayed until the death of Elizabeth I in 1603. Under James I, however, Dee lost all influence with the Crown and all its support as well. He died in 1608, in an awful state of poverty, at the age of eighty-one.

Curiously the character of Christian Rosencreutz in the *Chemical Wedding*, published eight years later, is also eighty-one years old. Remembering how the Rosicrucian Manifestos boast that the brothers communicate with one another in coded language, we suggest this may not be a coincidence. The author, whoever he was, may have been trying to express a deliberate, if cryptic, link between Dee and Christian Rosencreutz, the legendary founder of the Rosicrucian movement.

This is speculation, of course. But what lends it some credibility is the fact that many scholars believe the roots of the Rosicrucian movement do go back long before the publication of the *Fama* and the *Confessio* in 1614/15 – perhaps even all the way back to Germany and Bohemia in the 1580s, right after John Dee's visit to those countries. The late Dame Frances Yates, the greatest scholar of this field, certainly thought she could detect Dee's influence. This might have followed directly from his own travels in Germany and Bohemia. Or it could have come later and indirectly through the retinue of English scholars and artists, many of whom may have been influenced by Dee, who followed Elizabeth Stuart to her new home at Heidelberg in the Palatinate and then later on at Prague in Bohemia.[60]

Such influences were too well hidden for any scholar to expect to uncover them fully today. All we can say for sure is that the Rosicrucian phenomenon of 1614–16 followed closely on from the 'alchemical marriage' in 1613 of Frederick V and Elizabeth Stuart. Taken together with other signs of the times, these events conspired to raise hope of an end to the age-old system of religious and political

intolerance that had ruled Europe for so long and seemed to offer the promise of a new dawn.

The Rosicrucian Investment in Frederick V

To 'build the City of the Sun', in Hermetic parlance, requires the patronage and participation of powerful secular leaders. Without their support the great social, political and religious changes that the process requires – not to mention the architecture – are just impossible dreams. With this in mind it is, in our view, quite possible that Frederick of the Palatinate, head of the Protestant Union in Germany, was deliberately groomed by Rosicrucian and Hermetic thinkers to play the key secular role in their grand plan for Europe – the same role that they may also have had in mind for Henry IV of France before his assassination in 1610. The added frisson in Frederick's case was his marriage to the King of England's daughter – taken by many as a token of future English military intervention against the Hapsburgs and the Catholic League.

Frederick's most trusted chief advisor at Heidelberg was Prince Christian of Anhalt, a keen student of esoteric and mystical topics, particularly alchemy, Cabala and the occult. He was the patron of the German alchemist Oswald Croll, who was his physician, and he was a close friend of Peter Rosenberg, a wealthy landowner with estates around Trebona, whose brother, Villem Rosenberg, had acted as host to John Dee during his stay there a few years before.[61] Even more striking is the fact that one of Anhalt's closest relatives, Prince Augustus of Anhalt, is credited with having published – in 1605, nine years before the *Fama* – the earliest known reference to the Rosicrucian Brotherhood.[62]

It was under Anhalt's influence that the Heidelberg court, as well as Frederick and Elizabeth's later court in Prague, came to be frequented by many well-known Rosicrucian sympathizers – amongst them the famous English Hermetic philosopher Robert Fludd, a pupil of John Dee, and the German alchemist Michael Maier. Interestingly,

Anhalt is also known to have been in close contact with the great Italian reformer Paolo Sarpi, the latter a Venetian theologian and statesman who, other than his intensely anti-Catholic sentiment, also wanted to turn Venice into an independent Protestant republic.[63] Sarpi was in turn a close friend of Galileo and is often credited with having been the first to introduce to this great astronomer the primitive optical long-distance sighting devices – telescopes – that were then being developed in Holland.

Anhalt was forty-five years old when the young Frederick, then barely fourteen, became Elector of the Palatinate. Frederick and Elizabeth were still only seventeen when they married and set up court in Heidelberg in 1613. Having previously served under Frederick IV, and with enormous experience of diplomacy, it was easy for Anhalt to become a father-figure to the impressionable royal couple – and there seems little doubt that it was he who promoted Frederick V as the figurehead of a great and imminent universal reformation. It is known that Anhalt even harboured the hope that his protégé might become the first Protestant Holy Roman Emperor after the anticipated overthrow of the Catholic Hapsburgs.

In August 1619 the throne of Bohemia, which the rebellious nobility of Prague considered to be an *elective* rather than a hereditary title, was offered to Frederick. Against the sound advice of the Union of Protestant Princes and the beseeching of his own mother he unwisely accepted the offer and late in September 1619 he and his English wife left their palace in Heidelberg and headed for Prague. When the news reached England, it was greeted with huge enthusiasm by the public – almost as though a new or 'reincarnated' 'Queen Elizabeth' had manifested herself in Central Europe in defence of Protestantism. This time, moreover, a splendid young prince was to be found at her side bearing the title of Head of the Protestant Union and protected by his powerful father-in-law, James I.

It was all a grave mistake, for James I had absolutely no intention of jeopardizing the precarious peace that England then enjoyed with Spain and thus, indirectly, with the Catholic League and the Habsburgs.

In these adverse political and military circumstances – which surely he must have been aware of – historians have often wondered why Frederick V accepted the crown of Bohemia at all. What was it that prompted him to take such a huge risk? Explaining this very matter to an uncle, Frederick himself stated in a letter that he believed it to be his 'divine calling which I must not disobey… my only end is to serve God and his Church'.[64]

By God's 'Church' Frederick presumably meant the Bohemian or Calvinist Reformed Church. But it is not altogether impossible that his idea of his 'divine calling' might have encompassed a much larger 'mission' extending beyond Bohemia, beyond Germany and even beyond Calvinism. Through Anhalt, the Rosicrucian and Hermetic influences that are likely to have reached the young elector all envisaged a great and imminent religious and cultural reformation of the world – nothing less than a new Hermetic golden dawn for mankind that was about to break very soon. Those who promulgated such ideas believed that the instrument to bring this about was an ancient and secret knowledge that had recently been rediscovered – a knowledge that they had understood and that was to be found in the Hermetic writings, in the Cabalistic Hebraic texts, and in the old sciences of alchemy and natural magic.

All those who promoted such ideas – at high risk to their freedom and lives – were also seeking an enlightened monarch or prince to bring about this great universal reform and advancement of learning. It was expected that he would do so from the heart of a utopian republic or 'city' ostensibly named *Civitas Solis* (Campanella), Christianapolis (Andreae) or, as we shall soon see, New Atlantis or even New Jerusalem. It was visualized as a wonderful and magical Hermetic-Christian state ruled by a 'solar' king and governed by his wise and learned priest-scientists, priest-philosophers or *magi*, set at the very epicentre of the known world.

What better location, then, than the Central European state of the Palatinate, ruled by an enlightened prince, a chivalrous Knight of the Garter, who had just married a wonderful and sensitive princess of the Blood Royal of England? The latter, moreover, had been groomed

in the sophisticated and enlightened Baconian and Shakespearian milieu of the Jacobean Renaissance. Better still, she brought with her the clout of her powerful father, James I, to buttress the great adventure and enterprise ahead.

After the unexpected death of Henry IV of France a terrible sense of loss and frustration befell freethinkers in Central Europe until, it seems to us, a clever propaganda campaign using Hermetic-Christian-Cabala changed the direction of the movement. Now it was no longer France but Germany that offered the best vector for the great reform. As the leading Hermetic scholar Joscelyn Godwin puts it, 'The hopes of all whose outlook could be described as "Rosicrucian" were pinned on Frederick: hopes that he could initiate the reform of which the *Fama* and the *Confessio* spoke…'[65]

The Battle of the White Mountain

Days after Frederick V was crowned King of Bohemia, his rival, the deposed Ferdinand of Hapsburg, was immediately declared Holy Roman Emperor – Ferdinand II – by the Catholic League. The League then mounted a ferocious crusade against the usurper Frederick and the Protestant cause in general. This was the start of the terrible Thirty Years War that was to scourge Central Europe and kill half the population of Germany.

Through swift negotiations with his Catholic allies and even the 'heathen' Turks, Ferdinand II was able to form a powerful coalition against Frederick and his supposed Protestant allies. Badly organized and weakened by personal feuds, one by one the Protestant princes and the other foreign Protestant powers began to abandon the elector. The final blow came when it was gradually realized by all that James I, his powerful father-in-law, was not going to send any military support to him. The dismal end to Frederick's short reign was now imminent.

On 8 November 1620, a force of 26,000 Catholic soldiers belonging to Ferdinand II and placed under the command of the brilliant

general Tilly marched against the 21,000-strong Protestant force of Frederick, which was under the command of Christian Anhalt. The two armies met outside Prague on a gentle sloping field known as the Bila Hora – White Mountain. Within a few hours Frederick's army had been smashed. Anhalt was made prisoner of the Catholics, and Frederick and Elizabeth barely managed to escape with their lives, leaving all their belongings behind.

Predictably Ferdinand II and the Catholic League took an abominable revenge on the rebellious Bohemian estates that had preferred Frederick, Protestantism and perhaps a great deal more. Land and properties were confiscated, twenty-seven leaders of the revolt were publicly beheaded and, to the horror of the Protestants, Catholicism was imposed as the only permitted faith in Bohemia. Those who refused to convert were ordered to leave the country and all their assets were confiscated.

It is estimated that over a quarter of a million Bohemians chose to go into exile.[66] Many went to Holland, others to England and some even made it to the New World. The beautiful dream that Frederick's rule would be the vector for a Europe-wide 'Rosicrucian' reformation had been proved to be just that – a beautiful dream.

But this did not mean that the dream died. It simply shifted its location – to England, which many would argue was its natural home (if John Dee was indeed the father of Rosicrucianism):

> The opportunity for general reformation and the advancement of learning that the Rosicrucian Manifestos had proclaimed… had been lost in Germany through the collapse of the Frederickian movement. Those who had suffered from that bitter disappointment [came] to England, and those in England who bitterly regretted that the movement had not been supported, welcome[d] them.[67]

The previously 'invisible College' of the Rosicrucian Brotherhood was about to become very visible indeed…

Chapter 14

Emergence of the Invisibles

> 'And after the decease of King David, Solomon that was son unto David performed out the Temple his father had begun and had sent after Masons into divers lands and gathered them together so that he had four score thousand workers of stone and they were named Masons…' (*The Old Charges* of Freemasonry, *c.*1583)

> 'The Legendary history of [Free]masonry, of the actual art of building, is recounted in certain medieval poems [the Old Charges]… in these writings… architecture is identified with geometry. One account maintains that geometry was discovered before the Flood; another states that Abraham taught the Egyptians geometry. In yet another version… geometry is said to have been invented by the Egyptians…' (Frances Yates, *The Rosicrucian Enlightenment*, Ark Paperbacks, London, 1986, p. 212)

If a Christian Gnostic of the fifth century AD and a Cathar of the thirteenth century AD were to encounter one another in a time-warp they would find that they had much in common. Their views of the Roman Catholic Church as a diabolical agency would be identical. Their basic beliefs and theology would be the same. Their ascetic lifestyles would be the same.

Were our time-travelling pair then to be transferred to an encounter with a sixteenth- or seventeenth-century European Protestant they would discover much less common ground. Although

they would share with him a commitment to a simple and unostentatious form of religion, their basic beliefs and theology would be as different from his as they would be from those of a Roman Catholic.

But there's an old saying: 'my enemy's enemy is my friend'.

History shows, during their war to the death with the Roman Catholic Church in the thirteenth century, that the Cathars cooperated closely with another heretical sect, the Waldensians (or 'Vaudois') founded by one Peter Valdes in Lyons in the late twelfth century.[1] In their simplicity and austerity, their distrust of sacraments administered by unworthy ministers, their opposition to the veneration of saints and relics, and many other aspects of their religion, these Waldensians were the true forerunners of the later Calvinist and Lutheran movements that came to define European Protestantism. Their argument, in other words, was primarily with the *behaviour* of the Roman Catholic Church, but they accepted most of the tenets of Catholic doctrine that the Cathars vehemently rejected.[2] Even so, the Waldensians were violently persecuted by the Catholic authorities and it was in this shared experience of persecution, coupled with their shared detestation of 'Romish' vanity and ostentation, that the Cathars and the Waldensians found common cause.

In this book we are tracing the course through history of two interrelated underground religions, Gnosticism and Hermetism.

Having survived centuries of persecution following the triumph of literalist Christianity in the Roman Empire, Gnosticism underwent a renaissance in twelfth-century Europe when it found support amongst the ruling barons of the semi-independent state of Occitania. That renaissance, as we've seen, was brought to a bloody end by the Albigensian Crusades in the thirteenth century – although the Gnostic religion undoubtedly lingered longer in the Balkans until it was finally snuffed out there by Islam in the fifteenth century.

Meanwhile, Hermetism – which might be described as Gnosticism's pagan twin – slept in the West for 1000 years before suddenly and

spectacularly waking up again when the Hermetic texts were rediscovered and brought to Florence in the fifteenth century. It then enjoyed an amazing and highly enigmatic period of Papal favour during the sixteenth century, documented in Chapter 8, before the Vatican finally recognized it for what it was – a deadly heresy that would bring Catholicism to its knees if it could. The Inquisition's renewed interest in the matter, sending a clear signal of its intentions to all who sought to bring about a 'general reformation of the world', was marked by such acts as the torture and twenty-seven-year imprisonment of the Hermetic magus Tommaso Campanella, and the imprisonment, torture and savage burning in February 1600 of Giordano Bruno, the greatest magus of them all.[3]

Just as the Cathars had made common cause in the thirteenth century with the Waldensians, so too it was natural for the Hermetic and Rosicrucian visionaries who roamed Europe in the fifteenth, sixteenth and seventeenth centuries to make common cause with the Protestants of their time. The principle of my enemy's enemy being my friend still applied. And just as the Cathars had needed secular political support in order to become a force to be reckoned with – one that could actually change the world – so too the Hermetists and Rosicrucians of the fifteenth, sixteenth and seventeenth centuries needed secular political support, and for the same reason. Only in very exceptional cases – e.g., the aging Campanella at the court of Louis XIII – were they likely to receive that support from Catholic rulers. Inevitably, therefore, we find key Hermetic and Rosicrucian figures turning up repeatedly in areas of Protestant influence – e.g., Bruno's travels in Germany between 1586 and 1591 – and congregating in large numbers around Protestant monarchs such as Frederick V, the Elector of the Palatinate and the Rhine.

Bruno, for one, was as outspokenly honest with his wealthy and influential Protestant sponsors as he was with everyone else: he was not a Protestant and would not become one; he sought only their protection and simply wished to continue his studies in peace.[4] But we may confidently suppose that other Hermetic freethinkers

preferred to adopt a lower profile and to blend in, as perfectly as possible, amongst their Protestant hosts. These were uncertain, violent, highly volatile times and, since the terrible destruction of the Cathars, common sense had taught most heretics the wisdom of 'invisibility' – whether they found themselves amongst Protestants or Catholics.

Indeed, was it not precisely this quality of 'invisibility' that was most emphasized in the Rosicrucian Manifestos? The reader will recall from Chapter 13 that the *Fama* speaks of a 'magical language and writing' that had been developed by the early Rosicrucian brothers, presumably for secretive communications amongst themselves. The *Fama* additionally reports that the brothers are distributed about the world and, as a deliberate policy, wear no distinguishing garments but follow the custom of whichever country they find themselves in.[5] In other words, they blend in – the way, perhaps Johann Valentin Andreae blended in as a straight-thinking Lutheran pastor whilst pursuing his Rosicrucian and Hermetic interests. It may be a mark of his success as a Rosicrucian 'invisible' that even today we cannot be 100 per cent certain whether he was 'just' a Lutheran pastor and academic with some unconventional interests, or whether he was, as most scholars believe, the author of the *Chemical Wedding* – the Rosicrucian statement of faith.

The Rosicrucian Manifestos speak, ultimately, of the existence of an 'Invisible College', working behind the scenes, through existing institutions for the moment, blending in until the time comes when it can reveal itself to the world. What it seeks is a great general reformation of religion and society. And though the word 'reformation' in this context was itself perhaps chosen for its political correctness and acceptability in Protestant circles, we are quite certain that it was not meant in the Protestant sense at all. It's very obvious from the Rosicrucian example that, veiled within Protestant religious bodies, organizations and power structures of the early seventeenth century, there were people whose agenda was much closer to Giordano Bruno's deeply heretical 'Egyptian' idea of the Hermetic reformation of Europe, and who might yet heed Tommaso

Campanella's call to build the City of the Sun.

Eyes Turn to England and the New World

We saw in the last chapter that on 8 November 1620 the Catholic forces of the Holy Roman Emperor Ferdinand II inflicted a devastating defeat on the Protestant forces of Frederick V, the Elector of the Palatinate. The Bohemian estates were dragooned into Catholicism and a quarter of a million Protestant refugees fled, leaving all their worldly goods behind.

Amidst the massacres and the streams of refugees generated by this terrible ongoing conflict between Catholics and Protestants in Central Europe, the opportunistic minds of some Hermetic thinkers would have turned naturally towards England, that great Protestant kingdom across the channel. It would have stood out from the general background chaos of the continent as a place where they still might hope to achieve universal reform based on advancement of learning.

Remember that Hermetic philosophers, conditioned by the characteristic sky–ground dualism of the Hermetic texts, were avid star watchers. We can therefore be sure that they would have been paying attention in December 1603, the year James I was crowned King of England, when there was an impressive conjunction of the planets Saturn and Jupiter, seen by astrologers to presage a new age.[6] It was in the following year, 1604, that the 'opening' of the tomb of Christian Rosencreutz, described in the *Fama*, supposedly took place, ushering in a renewed cycle of Rosicrucian activity. That year also witnessed the strange appearance of two new stars in the constellations of Serpentarius and Cygnus, giving rise to a combustible mixture of huge fears and tremendous hopes.[7]

It's not difficult to understand how Hermeticists and Rosicrucians taking shelter amongst Lutheran and Calvinist Protestants in the beleaguered war-zones of Central Europe must have felt in this atmosphere. It should come as no surprise to learn, therefore, that for some the opening of the Stuart era in England was regarded as the

foundation of a 'New Jerusalem', a land chosen by God that could lead the world into a new age of universal peace and enlightenment. We saw in the last chapter that such hopes were intensified by the widespread public perception – though it ultimately proved false – that a powerful alliance between the 'Rhine and the Thames', i.e., between Protestant England and Protestant Germany, had been cemented through the marriage of Frederick of the Palatinate and Elizabeth of England.

But there was also another factor at work, one that must have loomed large in the collective subconscious of those seeking the great universal reform. This was the recent acquisition by England of vast and virgin territories in the Americas. A whole new continent had suddenly emerged on the other side of the Atlantic, a sort of 'new Atlantis' ready to be colonized by a new breed of European. Might it not be easier and better, some of these reformers must have thought, to put aside Europe and its religious troubles altogether and to build instead, a *completely new society* on a clean slate in this untarnished 'new world' – a reformed society, furthermore, that could be dedicated to the pursuit of happiness, justice and the advancement of learning?

This was the context in which the great English visionary Francis Bacon was to publish a series of books that would galvanize the intellectuals of Europe.

Hermetic Bacon

Francis Bacon (1561–1626) was the son of the Lord Keeper of the Seal of Elizabeth I. At the age of twelve he was sent to Trinity College, Cambridge. At eighteen, finding himself virtually penniless after his father's death, he turned to law, and by the age of twenty-three Bacon had managed to win a seat in the House of Commons. Throughout his early career he was disliked by his peers and even distrusted by Elizabeth I, but after the queen's death in 1603 he found new royal favour and patronage under James I. With the king's support, Bacon quickly rose to fame and fortune, first as Lord Chancellor, then as

Baron Verulam in 1618 and, finally, as Viscount St Albans in 1621. However, Bacon's brilliant career in politics was to end in shame and dejection after he was accused of taking a bribe. He spent the rest of his life devoted to his writing.

It was in 1605, two years after the death of Elizabeth I, that Bacon published his epoch-making book, the *Advancement of Learning*. Still hailed today as a cornerstone of education and science, this calm and measured work surveys the state of early seventeenth-century knowledge and finds it wanting. If more attention were paid to research and experimentation, Bacon suggests, we could make much faster progress in understanding nature and thus improving the human condition. To this end, in his dedication of the book to his patron James I, he proposes the establishment of 'a fraternity in learning and illumination'[8] where scholars and the erudite of all countries could exchange knowledge and ideas for the benefit of humankind:

> Surely as Nature createth brotherhood in families, and arts mechanical contract brotherhoods in communities, and the anointment of God superinduceth a brotherhood in kings and bishops, so in learning there cannot but be a fraternity in learning and illumination, relating to that paternity which is attributed to God, who is called the father of illumination or lights.[9]

Let's not forget this was written in 1605, nine years before the publication of the *Fama*, yet the language is plainly Rosicrucian. The 'fraternity in learning and illumination' that Bacon wishes for is precisely what the Rosicrucians (though 'invisible') later claimed to be. We also note with interest that Bacon refers to God as the 'father of illumination or lights'. The reader will recall from Chapter 13 that this same distinctive phrase – 'the Father of Light' – turns up in the *Chemical Wedding of Christian Rosencreutz* (published 1616). The phrase is not found anywhere in the Christian Bible. It was, however, in common usage in the early centuries of the Christian era amongst Manicheans and Gnostics as a reference to the God of Goodness. Likewise, in the Hermetic texts of the same period we find frequent

references to the spiritual, immaterial, first and greatest god as the god of light. In the *Pimander*, for example (a title that is itself derived from *Peime-n-Ra*, meaning the 'knowledge of Ra', the Egyptian sun-god), we may read: 'That Light… is I, even Mind, the first God, who was before the watery substance which appeared out of the Darkness.'[10] This passage strikes an association not only between Light and the first God but also between both and Mind. It likewise makes clear, in familiar dualistic terms, that all three (Light/Mind/God) are of a spiritual, non-material essence, different from, and preceding, 'the watery substance', i.e., matter, that 'appeared out of Darkness'. These links are reinforced in the *Asclepius*:

> Gross matter… is the nutriment of bodies, and spirit is the nutriment of souls. But besides these, there is mind, which is the gift of heaven, and one with which mankind alone is blessed… By the light of mind the human soul is illumined.[11]

It is precisely this illumination of the human soul by the light of mind that the Rosicrucians claimed to be devoted to and that Bacon sought to bring about through his proposed international 'fraternity in learning and illumination'. His choice of these particular words in his dedication to James I must, moreover, be understood in the wider context of the times. As the Italian scholar Paolo Rossi points out, the view of Francis Bacon as 'a modern scientific observer and experimentalist emerging out of the superstitious past is no longer valid'.[12] Rossi's research, backed up by Frances Yates, shows that:

> It was out of the Hermetic tradition that Bacon emerged, out of the Magia and Cabala of the Renaissance as it had reached him via the natural magicians… Bacon's science is still, in part, occult science.[13]

The same science, natural philosophy and Hermetic magic were also advocated by Marsilio Ficino, Pico della Mirandola, Giordano Bruno and the Rosicrucians. And what all sought to bring about was a universal revolution in learning promoted by an elite international

fraternity of illuminati.

It can't be an accident that a fraternity fitting this description was soon to flourish in the British Isles and eventually to spread around the world: the fraternity of the Freemasons. Nor were we surprised to learn from our friend the Masonic historian Robert Lomas that both Francis Bacon and James I were, in all probability, Freemasons themselves – associated with the early formation of the so-called 'Scottish Rite'. Indeed, it seems that in addition to its obvious Hermetic and Rosicrucian content, the language used by Bacon in his dedication to James I is recognizably 'Masonic language' – i.e., a sort of allegorical system of communication used by Freemasons couched in symbolism and secret words and fully comprehensible only to initiates.[14] Such an idea is, of course, identical to the 'magical language and writing' spoken of in the Rosicrucian Manifestos.[15]

All in all there is, in our view, no doubt that Bacon's carefully chosen words of 1605 are resonant of Rosicrucian and Masonic influences, suggesting, at the very least, the presence of a proto-Freemasonic movement within the elite inner circle of the Stuart court.

A Rosicrucian Christmas Card in the Scottish Record Office

At about the time that Francis Bacon was putting the finishing touches to the *Advancement of Learning*, the German alchemist Michael Maier (1568–1622), a renowned Rosicrucian thinker, was living in Prague and working as the private physician to Emperor Rudolph II. When Rudolph died in 1612 – the year before the marriage of Frederick of the Palatinate and Elizabeth Stuart – Maier came to England. There he met Sir William Paddy, the private physician of James I. It cannot be confirmed that Maier met the king, but he certainly felt comfortable enough to send him a personal Christmas card – one that, on face value, very much appears to associate James I with the Rosicrucian movement.

Maier's Christmas card to the king is kept today in the archives of

the Scottish Record Office in Edinburgh. It depicts a large rose around which are written the words: 'Greetings to James, for a long time King of Great Britain. By your true protection may the rose be joyful.'[16]

This weird card has led many researchers to suppose that there might have existed in England some early form of the 'Rosicrucian movement' and that James I was seen as its protector by German Rosicrucians like Michael Maier.[17] It's very probable, while he was in England, that Maier would have met the Hermetic philosopher and Cabalist Robert Fludd (1574–1637), who was then in his late thirties. Although Fludd had not yet published his own work on the Rosicrucian brotherhood, *A Compendium Apology for the Fraternity of the Rosy Cross* (1616), he nonetheless was a keen 'Rosicrucian in spirit'.[18]

It is certain that the German Rosicrucians must have noted Fludd's defence of their fraternity in England because later, in 1618, at the height of Rosicrucian furore, two more of Fludd's books, *History of the Macrocosm* and *History of the Microcosm*, were published at Oppenheim in the Palatinate by the firm of Johann Theodore De Bry – who apparently paid handsomely for the privilege.[19] De Bry was also the publisher of one of Michael Maier's works, *Atalanta Fugiens*, likewise brought out in 1618,[20] and it seems probable that Maier was the link between Fludd and the Palatinate publisher.

Maier remained in England until 1616 and it would have been extraordinary if he had not met Bacon during this period, since they moved within the same circle. What is known with certainty is that Bacon sat down to write a utopian book soon after Maier's visit which bears the unmistakable imprint of Rosicrucian thinking.

The New Atlantis

In 1627, a year after Bacon died, a manuscript he had been working on turned up amongst his personal papers. Its title was *New Atlantis*.

And like Plato's original story of Atlantis (in his dialogues *Timaeus* and *Critias*) it had been left unfinished. It was also undated, but scholars assume Bacon must have written it soon after the two Rosicrucian Manifestos and the *Chemical Wedding* had appeared in Germany – i.e., after 1616 – for it contains allegories and ideas that are distinctly reminiscent of those documents.

In brief, *New Atlantis* presents Bacon's utopian vision of a scientific and yet spiritually oriented society that exists in secret on a far away island called Bensalem, which lies 'in the midst of the greatest wilderness of waters in the world'. This society is governed by an elite fraternity of scientist-priests who gather within a great college or lodge called Salomon's House. Members include accomplished astronomers and geometers, and – surprising in a seventeenth-century document – the builders of aeroplanes and submarines ('we have some degrees of flying in the air; we have ships and boats for going under water'). They are also accomplished navigators and seafarers, but secretive and unwilling to reveal their existence: 'we know well most parts of the inhabitable world, and are ourselves unknown'.

Their quest, Bacon tells us, is for 'the knowledge of the causes, and secret motions of things' and it is their mission to 'nourish God's first creature, which was Light'. This mission they continuously spread abroad by means of 'twelve that sail into foreign countries under the names of other nations (for our own we conceal)… These we call Merchants of Light'.[21]

The travels of Bensalem's twelve invisible missionaries 'nourish the Light' by promoting the advancement of learning all around the world – very much the Rosicrucian method – and like the original eight Rosicrucians, and the Freemasons, they take an 'oath of secrecy' and proceed with discretion in all things.[22] They travel incognito, doing good deeds *gratis* like the Rosicrucians. They remain unnoticed and invisible because they wear the clothing and speak the languages of the countries they visit – for like the Rosicrucians they communicate easily in every language. At home in Bensalem they are distinguished by wearing a white turban emblazoned with a red cross – the

eponymous symbol of the Rosicrucians – and their great 'seal' features a representation of 'cherubim's wings, not spread but hanging down'. The same emblem, Frances Yates has shown, was used in the Rosicrucian Manifestos.[23]

We digress for a moment to note that the image of 'Cherubim's wings' also evokes the Judaic Ark of the Covenant, surmounted by the winged figures of two golden cherubim, which the Old Testament tells us once stood in the Holy of the Holies of the fabled Temple of Solomon in Jerusalem. Bacon gives us a 'House of Salomon' located in a place called 'Bensalem' – essentially the same idea. *Ben* in Hebrew and Arabic means 'Son' or 'Son of' – implying in this case, perhaps, a 'New Salem' or New Jerusalem.

Though the terms 'Rose Cross' or 'Rosicrucian' are not to be found anywhere in *New Atlantis*, Frances Yates believed it to be 'abundantly clear that he [Bacon] knew the Rose Cross fiction and was adapting it to his own parable':

> New Atlantis was governed by R.C. [Rosicrucian] Brothers, invisibly travelling as 'merchants of light' to the outside world from their invisible college or centre, now called Salomon's House, and following the rules of the R.C. Fraternity, to heal the sick free of charge, to wear no special dress. Moreover the 'cherubim's wings' seal the scroll brought from New Atlantis, as they seal the *Fama*. The island has something angelic about it, and its official wore a red cross in his turban.[24]

Yates quite correctly pointed out that modern students of Bacon, unfamiliar with the Rosicrucian literature, would not readily recognize the similarity between *New Atlantis* and the R.C. Manifestos. But this handicap would not have been applicable to the literati of the seventeenth century, to whom the R.C. literature was widely known. A case in point is an adaptation of Bacon's *New Atlantis*, entitled *Holy Guide*, published by the author John Heydon in 1662. On the island of Bensalem they had a 'House of Strangers', a sort of quarantine or immigration point where new visitors were temporarily kept. In his adaptation, Heydon has Bacon's official of the House of Strangers speak as follows: 'I am by Office Governor of this House of

Strangers… and of the Order of the Rosie Cross.' Heydon also refers to Bacon's 'wise men of the House of Salomon' as being 'Wise men of the Society of the Rosicrucians', and speaks of this 'House of Salomon' as being one and the same as the 'Temple of the Rosie Cross'.[25]

A Brief Excursion to Consider Freemasonry

The case for a link between the Rosicrucians and Bacon's fraternity of scientist priests seems unassailable, yet we've seen that what Bacon tells us frequently supports a link with Freemasonry as well. Might it not be possible then that the elite brotherhood he had in mind was all along not the Rosicrucian Brotherhood *per se*, but rather the up-and-coming 'speculative' Masonic Brotherhood which was beginning at exactly this time to insinuate itself into England?

Unquestionably, the term 'House of Salomon' in relation to an elite and 'wise' Brotherhood is very suggestive of this, whether Bacon intended it to be or not. 'Salomon' is, in fact, the transliterated French form of 'Solomon', the well-known biblical 'wise king' whose famous 'temple' (or rather its reconstruction) is the epicentre of Freemasonic initiation and rituals. Indeed, as Masonic historians very well know, there is nothing more important and more symbolic to the ideal of Freemasonry than the Temple of Solomon and its 'rebuilding' in a supposedly spiritual manner. The 'Temple of Solomon' is so intricately bound to Freemasonry that the entrances of many Masonic lodges are flanked by two pillars or columns representing the legendary original pillars of Solomon's temple called Boaz and Jachin – meaning 'wisdom' and 'power'.[26] In the same way the architectural design of United Grand Lodge in London, the headquarters of English Freemasonry, is almost certainly to be seen as an allegory of Solomon's Temple in Jerusalem. For example, the ceiling of the so-called Grand Temple is decorated with scenes and symbols of Solomon's Temple and reliefs on the main entrance door of the Grand Temple at Freemasons' Hall:

are conventionally pictorial, depicting historical events. The three lower panels on each door show scenes connected with the building of King Solomon's Temple in Jerusalem, and the top left and right-hand panels together show the procession for the Dedication of the Temple. The inscription at the foot is God's promise to King Solomon as recorded in I Kings, 6:12.[27]

Here is I Kings 6:12:

Then the word of the Lord came to Solomon, saying: 'As for this house which you are building, if you are obedient to my ordinances and conform to my precepts and loyally observe all my commands, then I will fulfil my promise to you, the promise I gave your father David, and I will dwell among the Israelites and never forsake my people Israel. So Solomon built the Lord's house and finished it.

Last but by no means least is the well-known fact that Scottish Rite Freemasonry sees itself as a revival in some form of the notorious medieval crusading order of the Knights Templar (so named because it established its headquarters in the twelfth century on the site of Solomon's temple in Jerusalem). The Templars were contemporaries of the Cathars and like the Cathars they were ultimately persecuted for heresy, imprisoned, tortured and burned at the stake. We will return to their mystery in the next chapter.

Isis in Virginia

When Francis Bacon placed his invisible island of Bensalem 'in the midst of the greatest wilderness of waters in the world' he was clearly signalling a location far away from his native England and Europe. Could he perhaps have been inspired by the idea of the Americas, still largely unexplored in the early seventeenth century? There, after all, lay a real 'new world', unburdened as yet by the deep-rooted religious and social traditions of the old world, where a great experiment modelled on Masonic or Rosicrucian ideals might have its best hope of successful implementation.

We note with interest that Bacon was a passionate exponent of Britain's colonization and development of its recently acquired North

American territory of Virginia. In 1606 the so-called Virginia Company was granted a royal charter by James I which allowed it virtually unlimited power of government in the colony. Bacon had been instrumental in the creation of the charter. Bearing this in mind, it is not surprising that in the *New Atlantis*, Bacon refers to Bensalem as the 'Virgin of the World',[28] the latter a well-known allegory for Elizabeth I, the 'Virgin Queen' and, by extension, her new domain of Virginia. But we saw in previous chapters that there also exists an important Hermetic text which is called the *Kore Kosmou* – literally the 'Virgin of the World' – in reference to the ancient Egyptian goddess Isis. In Chapter 8 we quoted a passage from the *Kore Kosmou* in which Isis makes the following astro-geographical statement:

> The earth lies in the middle of the universe, stretched on her back as a human might lie facing toward heaven… Her head lies toward the south… her right shoulder toward the east, and her left shoulder toward the west; her feet lie beneath the Great Bear [north]… But the right holy land of our ancestors [i.e., Egypt] lies in the middle of the earth; and the middle of the human body is the sanctuary of the heart, and the heart is the headquarters of the soul; and that, my son, is the reason why men of this land… are more intelligent [wise]. It could not be otherwise, seeing they are born and bred upon Earth's heart.[29]

Frances Yates makes the point that Queen Elizabeth I, the 'Virgin Queen', was associated by her contemporaries with the constellation of Virgo, the latter identified by the Greeks as 'Astraea', a word meaning 'star'. This name Astraea appears to be connected to a number of ancient 'star' goddesses of the Middle East such as Astarte and Ashtoreth, all probably directly or indirectly stemming from 'Ast' the ancient Egyptian name for Isis, whose star was Sirius, the Dog Star.[30] Could this be a hint that, for some, the image of Elizabeth as the 'Virgin Queen' had contained a coded reference to the 'virgin' goddess Isis?

Such a possibility may not be as far-fetched as it at first appears. For, curiously enough, both 'Solomon's Temple' and 'The Temple of Isis' make appearances in the work of Sir Edmund Spenser, a

contemporary of Francis Bacon. A close associate of the enigmatic Dr John Dee,[31] Spenser was the author of the *Faerie Queene*, written between 1580 and 1590, a panegyric to Queen Elizabeth I and her imperial reform of the world. In it the celebrated poet refers to 'House of Alma', imagined as being an architectural allegory, in microcosm, of the macrocosmic world. The idea is strongly reminiscent of a statement made a generation later in the *Fama* (published 1614), where we read that in the closing years of his life Christian Rosencreutz 'constructed a microcosm corresponding in all motions to the macrocosm'.[32]

The whole notion of such correspondences between macrocosm and microcosm, sky and ground, above and below, is intensely Hermetic. Not surprisingly, therefore, Alastair Fowler, an acknowledged expert on Spenser, has discovered that the *Faerie Queene* contains a complex system of numerology as well as an 'astral' or planetary pattern within its central theme.[33] Frances Yates goes further to deduce that the mysterious 'House of Alma' encodes, by means of allegory and numerology, the proportions of the Temple of Solomon.[34] Another Elizabethan scholar, Professor Angus Fletcher, sees a hint of Hermetic-Egyptian magic in Spenser's legend of the beautiful, noble and chaste lady-knight Britomart (an allusion to Elizabeth I), where the magician Merlin interprets the 'vision of Britomart' as being the 'Temple of Isis'.[35] Perhaps we should also note in passing that King Solomon is said in the Book of Kings to have built a 'house' for his wife, an Egyptian princess, who, as a daughter of Pharaoh, would automatically have been identified by the ancient Egyptians with the goddess Isis: 'Then Solomon brought Pharaoh's daughter up to the City of David [Jerusalem] to her own house which he had built for her.'[36]

Antilian Intrigues

The possibility that the newly colonized territories of Virginia were

somehow part of the Rosicrucian and Hermetic dream of universal reform in a utopian setting may have been detected by the historian and researcher Ron Heisler.[37] In an in-depth investigation into Michael Maier's sojourn in England between 1612 and 1616, Heisler discovered that 'in Maier's associations there is a pattern of an unexpected dimension'. This pattern emerges from a series of close contacts that Maier established in England with individuals who were all related in one way or another to the Virginia Company – a corporation of wealthy men whose royal charter, we saw above, had been drafted by Francis Bacon.

Heisler's research reveals that when Maier published his first work in England, *Arcana arcanissima*, he personally sent copies to various notables, including Sir Thomas Smith and a certain Dr Francis Anthony, both of whom were to become deeply involved with the running of the Virginia Company. Indeed, Thomas Smith was its treasurer and Dr Anthony became a member of its committee in 1619. Others involved with the Company, such as its legal advisor John Selden, and the writer George Sandys, also seem to have had a special interest in Maier and his ideas.[38] All this led Heisler to suspect that the Rosicrucian reformer's *Atalanta Fugiens*, published in 1618, 'may have been deeply inspired by the utopian vision of America'.[39]

There is another connection with the Rosicrucian movement and the colony of Virginia in America which might shed more light on this intriguing problem. In his remarkable study *The Tessera of Antilia*, the American scholar Donald R. Dickson presents evidence concerning the existence of a 'utopian brotherhood' known as Antilia (a name sometimes used in medieval times to refer to Atlantis). The brotherhood was apparently inspired by the Rosicrucian Manifestos and by 'Baconian beliefs in experimental science as a key to prosperity'.[40] To this end the brothers wished to purchase a small island in the Gulf of Riga in the Baltic on which to found their utopian society. Separately they also considered emigrating *en masse* to Virginia and establishing themselves there instead.[41] It is obviously not irrelevant that our old friend Johann Valentin Andreae, the

suspected author of *The Chemical Wedding of Christian Rosencreutz*, was a key participant in the Brotherhood of Antilia.[42]

All this very much suggests, if not actually confirms, that the utopian vision of the New World, and perhaps more specifically of Virginia in North America, was modelled or inspired by the Rosicrucian programme as set out in the Manifestos as well as by Francis Bacon's *New Atlantis*. Also caught up in the blend was Freemasonry, that very real, visible and influential Brotherhood, still with us today, that was launched on its present course on English soil in the early seventeenth century, right after the Rosicrucian scare…

Before Freemasonry Came Out

The origins of modern Freemasonry are veiled behind such a mass of legends and pseudo-history that the subject has become a true nightmare for even the most dedicated of researchers. The problem lies in the fact that today Freemasons define themselves as a 'society with secrets' whereas once, and no one actually knows for how long, they were a secret society that went to great lengths to be 'invisible'. We've noted before that successful secret societies are, by definition, hard to trace in the historical record.

Freemasonry as a recognized institution originated in Britain in 1717 with the formation of the Grand Lodge of England, an event that is documented in the second edition of the *Constitution of Freemasons* published by James Anderson in 1738.[43] But all this tells us is the moment when the former secret society publicly declared its existence, thereafter becoming visible – though still a society with secrets.

In 1722, sixteen years before Anderson's *Constitution* appeared, a Brother named J. Roberts helpfully published a compilation of the so-called *Old Charges* of Freemasonry, also known as the 'Gothic Manuscripts'. These, as the names suggest, are a collection of old manuscripts – some of which date from the late fourteenth century – in which is given a 'history' of the craft of Freemasonry.[44] According

to the manuscripts, the origins of Freemasonry go back to the antediluvian patriarch Lamech, who lived before Noah's Flood. To Lamech's three sons – Jabal, Jubal and Tubal – and one daughter, called Naamah, is accredited the invention of all the essential 'crafts' on which civilization is based. We are told that Jabal was the inventor of geometry, Jubal invented music, Tubal invented the smelting trades, and Naamah was the inventor of weaving.[45] Knowing that one day God would punish humankind for its sins with a cataclysm of flood and fire, they took precautions to write down all their learning on two huge pillars made of stone so that their discoveries would not be lost to mankind for ever but could be recovered by the survivors. As the *Old Charges* inform us:

> The one stone was called marble that cannot burn with fire. The other was called lateras that cannot drown with water. Our intent is now to tell you truly how and in what manner these stones were found whereon these crafts were written. The Greek Hermenes that was son unto Cush, and Cush was son unto Shem who was son unto Noah – this same Hermenes was afterwards called Hermes the Father of Wise Men, and he found out the two pillars of stone wherein the sciences were written and taught them forth…[46]

The 'Greek Hermenes' is understood to be, of course, Hermes (the Thoth of the Egyptians and the Mercury of the Romans). As for 'Hermes the Father of Wise Men', there can be little doubt that this is a reference to Hermes Trismegistus.

The rest of the 'history' in the *Old Charges* consists of a very convoluted and circuitous narrative that passes through Babylon, the coming of Abraham to Egypt (whence 'he taught the Egyptians the seven sciences') and finally brings us to the most important moment in the Masonic story – the building of Solomon's Temple in Jerusalem. We are told that through the construction of this magnificent edifice 'the worthy craft of masons was confirmed in the country of Jerusalem'.[47]

From there the *Old Charges* hop-skip-and-jump through space and time to try and show how this 'worthy craft of masons' was brought

into Europe via France and finally to England in the 'time of St. Alban'.[48] Perhaps not totally unrelated is the curious fact that Francis Bacon, at the peak of his career, was granted the title of Viscount of St Albans by James I – thus linking him, in name at least, to this strange genealogy of Freemasonry in Britain.

We also note with interest that the *Old Charges* cast Hermes, 'the Father of Wise Men', as the finder and repromulgator of lost knowledge. Though the effect may not be intentional this is a scenario that does very much call to mind the rediscovery of the Hermetic writings in 1460 and their subsequent repromulgation. We saw in Chapter 8 that Marsilio Ficino and his intellectual successors, including men like Giordano Bruno and Tommaso Campanella more than a century later, really believed that the lost 'magical religion' or 'science' of the Egyptians had been rediscovered and felt strongly that it should be 'taught forth'.

An Invisible College in Dangerous Times

Over two decades James I's extremely unpopular and confusing foreign policy, as well as his authoritarian attitude and contempt for Parliament, had created a deep and dark mood of discontent in England. When he died in 1625 he was succeeded by his cultivated but weak and somewhat unstable son, Charles I, who was destined to lead the monarchy into a headlong collision with Parliament and with the people. Disaster loomed ahead.

The new monarch pursued the same unpopular foreign policy as his father and proved to be even more tyrannical and dictatorial. His early marriage to the French Catholic princess Henrietta Maria, the sister of King Louis XIII, did not go down well with the Puritanism that pervaded in the House of Commons. But most of all it was Charles I's mismanagement of the new war with Spain and France, and his abusive raising of funds through illegal taxations to finance a war in Scotland also, that finally brought the Parliamentarians to quasi-open revolt in 1640.

The unthinkable rumours of civil war in England were everywhere. These were extremely dangerous times for everyone. The Thirty Years War was still raging in Central Europe, Spain and France were at war with England, and in England itself the monarchy and Parliament were at serious odds. Mistrust and treachery had become the norm, and one had to be exceedingly prudent even to survive, let alone to prosper, in this highly perilous and volatile environment. The state of generalized distrust and chaos also created a need amongst certain groups in society – intellectuals, the elite gentry and the military for example – for a neutral forum in which they could safely exchange views on politics, religion and science. It would much appear that the network and system of Masonic lodges, veiled by their multifarious rituals and screening system of recruitment and, above all, secrecy, may have provided just the right structure to satisfy such a need.

Operative, and possibly even a form of 'speculative' (i.e., esoteric, as opposed to strictly practical) Freemasonry had long existed in Scotland, probably since the late fifteenth century.[49] As time passed an 'Acception' system was introduced that allowed the recruiting of those men of stature and position in society who were not necessarily engaged in the operative stone-masonry, building and architectural trades.[50] This 'Acception' system was almost certainly the precursor to the 'speculative', i.e., non-operative, enrolment system of the modern society of Freemasons. It would also much appear that 'Acception' was brought into England with the coming of the Stuart dynasty. Now, with the English Civil War looming ahead, it conveniently provided a ready-made network through the lodges in which the 'Accepted' English elite could meet in secrecy, in brotherly friendliness and within a liberal atmosphere – the whole veiled in rituals and symbolism that were intended to bond together men from different backgrounds but with similar social goals and spiritual aspirations.

Open Parliamentary rebellion finally came in 1642. After a failed attempt to arrest five Members of Parliament, Charles I and his Royalist supporters quit London and set up court in exile at Oxford,

that traditional hub of elitist intellectuals and scholars. It was there, in the following years, that a strange fraternity of literati began to meet, calling themselves – evocatively – the 'Invisible College'. The earliest surviving written reference to this mysterious 'Invisible College' comes from the celebrated physicist Robert Boyle in a letter he wrote to his tutor in France in 1646. In this letter Boyle states that he is now diligently applying himself to 'natural philosophy' based on the principles of 'our new philosophical college' and requests certain books from his tutor that 'will make you extremely welcome to our *Invisible College*'.[51] A few months later, in 1647, Boyle again mentions the 'Invisible College' in a letter to a friend, saying that,

> The cornerstones of the Invisible or (as they term themselves) the Philosophical College, do now and then honour me with their company… [These are] men of so capacious and searching spirits, that school-philosophy is but the lowest region of their knowledge… [They are] persons that endeavour to put narrow-mindedness out of countenance, by the practice of so extensive a charity that it reaches unto everything called man, and nothing less than a universal goodwill can content it. And indeed they are so apprehensive of the want of good employment, that they take the whole body of mankind to their care.[52]

The term 'Invisible College', as well as the description of its activities and concerns given above, immediately brings to mind, of course, the Invisible College of the Rosicrucian Brotherhood. Also the lofty intellectual and humane qualities of the College Brothers, to which Boyle alludes, are, as we saw in the previous chapter, the very same qualities attributed to the Rosicrucian Brothers – notably, for example, on the posters that sensationally appeared all over Paris in 1623.[53]

It turns out that Boyle had spent some time in Paris in his youth, during an educational tour of France and Geneva, and it is not impossible that he could have heard of the Rosicrucian 'Invisible College' through his tutors or other acquaintances. Frances Yates observes that there is, on face value, an uncanny similarity in the terminology used by Boyle in his letters to his tutor and the

terminology used by Francis Bacon in *New Atlantis*. Both authors speak of a learned and elite brotherhood that is 'invisible' and whose goal is the betterment of all mankind – which both hope to achieve through an enlargement of knowledge and by doing benevolent deeds.[54]

Many researchers agree that Theodore Haak and John Wilkins were probably the founders of Boyle's Invisible College.[55] Theodore Haak was a German immigrant who had settled in England in the 1620s, and John Wilkins was a vicar who later became Bishop of Chester. At first there seems to be nothing in common between the two men, until it is realized that Haak was a refugee from the Palatinate and that John Wilkins acted as chaplain for Prince Carl-Louis, the eldest son of Frederick V of the Palatinate and Elizabeth Stuart. Others who might have been connected to Boyle's Invisible College were the architect Christopher Wren and the alchemist Elias Ashmole. The Invisible College first met in London in 1645 then moved to Oxford in 1648. Let's look more closely at its activities and its members and at what it was trying to achieve.

Utopia on Hold for the Civil War

While in England, Theodore Haak acted as an unofficial diplomat for the Palatinate and, more especially, as the representative and agent to the Bohemian Bishop Jan Amos Komensky, better known as Comenius (1592 – 1670).[56] Comenius had been the bishop of the Bohemian Church of Unity of Brethren until its fall in 1620 after the battle of the White Mountain near Prague. He was exiled with his fellow Protestants in 1628 and settled in Poland, where he became rector of the Gymnasium at Leszno. There he developed a new Christian philosophy, a *pansophia* or 'universal knowledge' expressed in one common language to facilitate communication and understanding among scholars throughout the world. Comenius's ideas were published in 1631 in a work entitled *Janua Linguarum*, which attracted the interest of the great German philanthropist and

educationalist Samuel Hartlib, who had been living in England since the mid-1620s.

'Hartlib, in his whole life and work', wrote Frances Yates, 'was something like what an R.C. Brother, if real and not invisible, might have been.'[57] Dubbed 'the Great Intelligencer of Europe', Hartlib had set himself up as a human clearing-house, establishing a society known as the 'Office of Address' in order to promote a 'commonwealth of learning'. The Office encouraged and facilitated the intellectuals of Europe to correspond and to exchange ideas, and bears comparison with Francis Bacon's 'House of Salomon'. Both concepts centre on an elite international brotherhood whose objective is to reform society and serve all mankind.

In 1640, two years before the Civil War broke out in England, the Long Parliament proposed radical reforms that, if implemented, would have blood-lessly stripped the Stuart monarchy of much of its power. Amidst a mood of great public excitement and enthusiasm there were those who began to believe that the utopian society they had so much dreamed of might perhaps be achieved in England. Zealous speeches were given in Parliament, amongst them one by special invitee Samuel Hartlib, who presented his own vision of an 'English utopia'. He hoped that Parliament would adopt it and 'lay the cornerstone of the world's happiness'.

According to Frances Yates, the experience of addressing such a lofty crowd in such a lofty place went to Hartlib's head:

> In this thrilling hour when it seemed that England might be the land chosen… to be the scene of the restoration of all things, when the possibility dawned that here imaginary commonwealths might become real commonwealths, invisible colleges real colleges, Hartlib wrote to Comenius and urged him to come to England to assist in the great work… Comenius in far away Poland was overjoyed. He believed that he had a mandate from Parliament to build Bacon's New Atlantis in England.[58]

Comenius arrived in England in 1641, and was received by Haak and Hartlib. Among them was another of Hartlib's friends, the Scottish

minister John Drury whom Hartlib had known since the 1620s. It was, in fact, Drury who had been instrumental in bringing Comenius to London. A staunch Protestant and outspoken reformer, Drury had just published a book in which he urged the restoration of Prince Carl-Louis, the eldest son of Frederick V and Elizabeth Stuart, to the Palatinate in Germany. It will be recalled that Prince Carl-Louis' personal chaplain was John Wilkins, and we may well wonder, in view of such connections, whether Hartlib and Comenius might not have taken part in the activities of Haak and Wilkins's 'Invisible College'. At any rate, while in England, Comenius wrote a book entitled *Via Lucis*, 'The Way of Light',[59] in which he calls for the formation of an elite fraternity of learned men. These Brothers, moreover, are to be guided by some 'order' or 'sacred society' devoted to the welfare of humankind and they are to spread the light through the use of a universal language.

As well as the recurrent theme of 'Light' that seems to go right back to Manichean Gnosticism, the reader will note the similarity to Bacon's 'House of Salomon' with its learned fraternity that travelled the world and spoke many languages.[60] The Rosicrucians likewise claimed to be fluent in many languages and, in addition, to possess their own magical language and writing.

But all the great utopian ideas and expectations generated by Hartlib, Comenius and Drury came to nothing. A year after Comenius's arrival in England it was pretty obvious to everyone that the differences between Charles I and Parliament were irreconcilable and that civil war was inevitable. To Comenius especially, it became clear that the reformation he had hoped to bring about in England was definitely not going to happen. In 1642, Comenius prepared to leave England for Sweden, and John Drury took his leave for Holland.

It was in this manner that the dreams the utopian reformers had for Britain went up in smoke on 19 August 1642, when the king's banners were raised by the Royalist army at Nottingham, effectively marking the beginning of the English Civil War…

The Dashing Cavalier of the Palatinate

At the start of the war, success for the Royalists – or Cavaliers as they were being called – seemed assured. Notable among the Royalist Cavaliers was the very dashing twenty-three-year-old Prince Rupert, the son of the exiled Frederick V of the Palatinate and Elizabeth Stuart, the deposed King and Queen of Bohemia. Rupert was to become the hero of the English Civil War, highly admired for his gallant cavalry charges against the Parliamentarian forces, or Roundheads. Rupert's heroic example did much to boost the morale of the king's forces, especially after he reclaimed Bristol in July 1643, relieved Newark and Nottingham in early 1644 and seized most of Lancashire by the summer of that year.

But his luck was soon to run out. The Parliamentarian Oliver Cromwell, a 'brawny, flushed-faced MP from Cambridge', had trained an army of fanatics from the eastern counties and, with Sir Thomas Fairfax to command them by his side, Cromwell delivered the first serious blow to Prince Rupert's army at Marston Moor in Yorkshire on 2 July 1644.[61] It was the beginning of the end for the Royalists. But despite this terrible defeat, Rupert was appointed commander in chief of the king's army, and managed to pocket one more victory by recapturing the city of Leicester in May 1645. The following month he was severely beaten again by Cromwell at Naseby in Northamptonshire. When Rupert surrendered at Bristol to the Roundheads, an angry Charles I stripped him of his command. An odd career was to follow for Rupert. After the defeat of the Royalists at Torrington in 1646, he was banished by the Puritan Parliament. Somehow he managed to take charge of a small Royalist fleet stationed in Holland and became a dashing pirate of the seven seas, first preying on Parliamentarian ships and eventually taking his swashbuckling to the Azores and the West Indies.[62] Only after the Restoration did Rupert return to England.

The end for the Royalists came in July 1646, when the king's stronghold at Oxford was surrounded and placed under siege by

Cromwell and his Roundheads. Among those taken prisoner when the Royalists surrendered was a young man of twenty-nine called Elias Ashmole, who had been serving as Controller of Ordnance for the king. Astrologer, alchemist and antiquarian *extraordinaire*, Elias Ashmole was destined to take a place of honour in the official history of Freemasonry…

'I Was Made a Freemason'

Some four months after his capture by the Roundheads, Elias Ashmole made the following entry in his diary: '1646. Oct. 16. 4H 30' p.m. I was made a Freemason at Warrington in Lancashire.'[63] Most historians take this as the very first *recorded* Masonic initiation on English soil, but others reasonably argue that the honour should go to Sir Robert Moray. He was initiated into Freemasonry in 1641 at Newcastle-on-Tyne by members of the Edinburgh No. 1 lodge, who belonged to a Scottish regiment that had crossed into England. Thus the names of Moray and Ashmole are interlocked in Masonic history for ever. And not only in Freemasonry. As we shall see, what also brings these two names together is the crucial role that both men were to play a few decades later in the conversion of the 'Invisible College' at Oxford into the very visible 'Royal Society' in London.

On 30 January 1649, amid an eerie silence followed by the roll of drums, Charles I was beheaded outside Whitehall Palace in London. England was renamed a Commonwealth of Free States, and, a few years later, Oliver Cromwell became Lord Protector of this new and morose Puritan dominion. It was the nearest that Britain was ever to get to a full-scale 'revolution'. But there was none of the wild jubilation that would be seen much later in France in 1789 to greet this odd and discomfited English 'Republic'.

In those turbulent and despotic years of Cromwell's rule, the 'Invisible College' organized by Wilkins was moved to Cambridge and remained in low-key semi-secrecy oblivious of the glorious future awaiting it. As for Wilkins himself, he had been appointed Warden of

Wadham College at Oxford and later was to become Warden of Trinity College at Cambridge – the first and only scholar ever to head both these illustrious institutions. In 1656, by one of those odd twists of fate, Wilkins fell in love with and eventually married a widow, Mrs Robina French, who was none other than the sister of Oliver Cromwell.

Even though many had bitterly opposed Charles I's tyrannical rule, the vast majority of the British population remained Royalists at heart and there was a deep nationwide yearning for a return to monarchy. In the autumn of 1658, less than ten years after the shocking regicide at Whitehall, Oliver Cromwell died in bed a much hated and despised man, and hopes were again raised for a full restoration of the monarchy. All eyes turned towards the English Channel, across which the legitimate heir to the British throne was somewhere roaming.

Restoration and the Return to the Promised Land

When Oxford fell in 1646, Charles I had ordered his eldest son, Charles the Prince of Wales, to leave the country and take refuge in France. After a brief stay in the Scilly Islands Prince Charles headed for Paris, where he rejoined his mother, Queen Henrietta Maria, the sister of King Louis XIII of France. Louis XIII had died three years earlier, leaving the throne to his son, Louis, the future 'Sun King' whose glorious reign, the reader will recall, had been predicted by the Hermetic magus-astrologer, Tommaso Campanella. The future 'Sun King' was only eight years old when Charles arrived in Paris, and apparently did not much take to his older English cousin. Louis' mother, Queen Anne, and her trusted prime minister, the imposing Italian cardinal Mazarin, practically ran France, and it was widely believed that they were conducting an illicit romance, some even going as far as to suspect a secret marriage.[64]

The exile in Paris was to be a great disappointment and source of deep frustration for Charles, for not only was he completely dominated by his French mother, but also the French nobility

snubbed him and ignored him. For several years he lingered in this state of limbo until the public execution of his father in London in 1649 jolted him back into action. Suddenly, at the French court, Charles was proclaimed Charles II, king in exile. Gradually he was lured to join and lead the Scottish Presbyterian forces in Perth who opposed Cromwell's regime. But this move proved to be disastrous, for the ill-organized Scots were no match for Cromwell's Roundheads and Ironsides. When the two armies met at Dunbar on 3 September 1650 the Scottish forces under Charles II were decisively smashed. A final defeat at Worcester in 1651 was too much for Charles II, and he fled again to France. His life degenerated into a string of tempestuous love affairs,[65] and the small and poverty-stricken English court in exile became the laughing stock of Paris.

To make things worse, Mazarin came to terms with Cromwell and Charles II was booted out of France, left to wander around Europe and eventually southern Germany, where he sank further into a life of debauchery and idleness, siring at least three illegitimate children in the process.[66] Most of his time was spent hatching harebrained plots against Cromwell – on one occasion he even considered offering to marry the Lord Protector's daughter and to share the realm with him.[67] Finally, in the autumn of 1658 news was brought to Charles of Cromwell's death, and suddenly a new window of opportunity opened for him. He made haste for the port of Calais on the French coast and there waited to seize the moment.

At first it seemed as if the Protectorate and Puritan Republic left behind by Cromwell would prove too deep-rooted for the badly organized Royalists to wrench it back into their possession. But soon things began to fall apart for the Puritans, for Cromwell's son and successor, Richard, lacked the experience and character of his father. He was thus unable to contain the growing rift between the Roundhead army and Parliament, a conflict that quickly created a mood of uncertainty and discontent throughout the kingdom. The London taverns buzzed with talk of a possible 'restoration' of the Stuart monarchy and by early 1660 the whole country was fired up

by Royalist supporters among the common folk.

An ex-Royalist soldier, George Monk, who was in control of Scotland for the Puritans, was now eager to avoid more anarchy and bloodshed, and decided to support the idea of a restoration. Monk arranged for an emissary, Sir John Grenville, to sail across the Channel in secret and meet with Charles II and his small court. A deal was struck that gave Charles full support from Monk and his powerful armed forces if he, Charles, would consent to certain conditions – mainly to uphold the Church of England but also to grant 'liberty to tender consciences' who practised other faiths, and to leave important matters of state to Parliament. Charles II agreed, and Monk moved his huge army towards London. In April 1660 Charles issued his famous *Declaration of Breda* from Holland, where he promised a general amnesty to his enemies, 'liberty of conscience', equitable settlement to land disputes, full payment in arrears to the army and, most important of all, a free Parliament to run the affairs of the state. And on a breezy day in late May 1660, Charles II boarded the flagship *Naseby*, appropriately renamed the *Royal Charles*, and set sail for England.

The *Royal Charles* docked at Dover on 25 May. Monk was there on the quayside to receive Charles II in great pomp and in the midst of wild jubilation and emotional scenes. Huge spontaneous celebrations greeted the king all along the way to London, and the royal procession made a triumphal entry into the city on 29 May, the day of Charles II's thirtieth birthday. John Evelyn, the famous diarist and horticulturist, who was an eyewitness to the event, vividly described the scene:

> 20,000 horse and foot, brandishing their swords, and shouting with inexpressible joy; the way strewn with flowers, the bells ringing, the streets hung with tapestry, fountains running with wine… myriads of people flocking even so far as from Rochester… it was the Lord's doing, for such a restoration was never mentioned in any history, ancient or modern, since the return of the Jews from the Babylonian captivity…[68]

The poet Andrew Marvell also drew inspiration from the Bible, and

described Charles II as being 'of a tall stature and sable hue, much like the son of Kish, that lofty Jew'.[69]

Such well-chosen analogies presenting Charles II as the 'Son of Kish, that lofty Jew' and his restoration as a sort of 'return of the Jews from the Babylonian captivity' are most revealing, for they signal the incredible mood that had enveloped the return of this prodigal royal son to his Promised Land, England. Such analogies also have a distinct 'Masonic' ring to them, for as we have seen, the name 'Son of Kish' or 'Cush' (i.e., Nimrod) appears in the *Old Charges*, where he is said to be none other than 'Hermes the Father of Wise Men' who finds the two pillars upon which all the sciences were written. Nimrod, who was dark in complexion[70] like Charles II,[71] immediately evokes the Tower of Babel, which is another important 'Masonic' symbol[72] – one that was very significant to Comenius, Hartlib and Bacon in their search for a universal language. As for the 'return of the Jews from Babylonian captivity', this is one of the principal themes of Freemasonry, for it marked the events that led to the rebuilding of Solomon's Temple in Jerusalem.[73]

And so here we have it, couched in symbolic language, the hope that London would soon become the epicentre of a far greater 'restoration' involving the 'sciences' and 'ancient wisdom' in a wonderful 'New Jerusalem' rising like a phoenix from the smouldering ashes of the Civil War. Little did anyone suspect that soon this euphoric vision would literally become true – not as they had intended but as a nightmarish Satanic vision from the very gates of hell…

From Invisible College to Royal Society

It says something for the character of Charles II that he spent the evening of his triumphal entry into London triumphantly entering into Barbara Palmer, the beautiful young wife of the Royalist Roger Palmer, whom he had recently met at The Hague in Holland.[74] She

was the king's latest conquest, but many more were to follow. It was the start of an era of decadence at court that would soon disappoint those who had hoped for great things from the Restoration. Within four years England was again engaged in a disastrous and costly war, this time with Holland. And as if such a man-made calamity was not enough, London itself would receive two terrible blows in succession that would hit the city with such force that many came to believe they were witnessing divine retribution for the debauchery of Charles II. Meanwhile in these early days of the Restoration, with great changes and reformations still expected from the new king, the Invisible College decided to make its move.

In late November of 1660 twelve members of this self-styled Invisible College met in a room at Gresham College, London. This was right after they had attended a lecture by Christopher Wren, the Gresham Professor of Astronomy, who was one of their number. There and then it was decided to found a 'College for the Promotion of Physico-Mathematicall Experimentall Learning' which, very soon, would become The Royal Society. Among the twelve men that met at Gresham College were Robert Boyle, John Wilkins and Sir Robert Moray. Christopher Wren was twenty-eight at the time. John Wilkins, who had been in at the origins of the Invisible College with Theodore Haak, was appointed as chairman to this meeting. Sir Robert Moray, the first Freemason to be initiated on English soil in 1641, advised the group that they should obtain a Royal Charter, and in early December Charles II gave his approval for the creation of the Royal Society. The Society moved into premises at Gresham College, and it was decided immediately to draw up a list of suitable members.

A list of forty was prepared, which included Elias Ashmole, Freemason *par excellence* and Rosicrucian enthusiast. Another on the list was the diarist and horticulturalist John Evelyn (1620–1706) who, as we will recall, had likened the return of Charles II and his court to the 'return of the Jews' to the Promised Land. According to Masonic historian and author Robert Lomas, John Evelyn was almost certainly a Freemason.[75]

Things were about to move very fast for many of these early

members. Elias Ashmole was appointed by Charles II as Windsor Herald as well as Controller and Auditor of the Excise; Christopher Wren was made Savilian Professor of Astronomy at Oxford, although a far greater honour awaited him when later he shifted his career into the field of architecture. And the diarist John Evelyn was appointed to serve on several Royal Commissions. Sir Robert Moray, possibly the most influential player in the formation of the Royal Society, acted as its first AD hoc president until the Royal Charter was granted by Charles II in 1662, after which Moray moved into permanent residence at the king's court at Whitehall.

Parallel Developments in France

Although much praise and honour is bestowed on the Royal Society for being the first scientific academic body of its kind, it is often forgotten that another 'royal' society with even more illustrious royal patronage was already active in the city of Paris. In fact since the early 1640s, a group of scientists including the great mathematicians Blaise Pascal, Pierre Gassendi, René Descartes and Gilles Roberval had met informally in Paris, first at the residence of the famous theologian and mathematician Merin Mersenne and, after 1648, at the home of their sponsor Habert de Montmor.[76] This small but very powerful elite group was eventually to serve as the nucleus of the Académie des Sciences, founded in 1666 under the patronage of Louis XIV.

Indeed, even earlier than the creation of this scientific body, the powerful Cardinal Richelieu, Prime Minister of France, had founded the Académie Française in 1638 under his own patronage and backed by letters of patent from Louis XIII. At the death of Richelieu in 1642 the patronage passed to the chancellor, Pierre Seguier, the Count of Gien, and, after him, to Louis XIV – who himself became royal patron. Exactly like the Invisible College, the Académie Française started life amongst a group of learned men who met informally. There were originally twelve members, then, after the society was granted royal

charter, the membership was expanded to forty. The reader will recall that the Royal Society in England was also to develop in the same way, with twelve informal founder members building up to forty official members after December 1660.

The original objective of the Académie Française was to develop the French language into a format that would allow it to be understood by all, that is to become *universalized* into a *lingua franca*. This, of course, brings to mind the original ambitions of the Invisible College, with the universal-language schemes concocted by Hartlib, Comenius and Wilkins. It also recalls the claim made by the Rosicrucian brotherhood, namely that its members could communicate with all the peoples of the world through a sort of 'natural language', appropriately dubbed 'the silent language' by modern Rosicrucian researchers.[77]

Had this natural, magical language anything to do with the Masonic secret sign language that also employs ancient symbols, particularly those used by Renaissance Hermetic-Cabalists and also Rosicrucian adepts? Whatever the answer to such a provocative question, it is nonetheless justified to a certain extent for us to wonder whether the development of a philosophical-scientific group in Paris in the 1630s might not have had something to do with the Rosicrucian movement and, more particularly, the 'poster scare' of 1623, when it was alleged that emissaries of the Invisible College of the Rosicrucians had arrived in France, or were about to arrive, who could communicate in a universal or 'natural' language as a tool to reform and better the condition of the world.[78]

The Scottish Connection

As regards the formation of the Royal Society in England in 1660, all historians agree that the initial driving force of this institution was Sir Robert Moray. We've already seen how, in 1641, Moray was the first Freemason to be initiated on British soil. This event occurred two years after Richelieu founded the Académie Française in 1638. In that

same fateful year of 1638 the future 'Sun King' Louis XIV was born and the Hermetic philosopher Tommaso Campanella, who had prophesied the unexpected birth, dedicated his famous *City of the Sun* to Richelieu.[79] The connection is that Sir Robert Moray had spent many years in Paris, where he had joined the Scots Guard of Louis XIII in 1633. In 1638 he had been elevated to the command of the Guard by Cardinal Richelieu, who greatly admired this rather bold and refined young Scotsman.[80]

Fourteen years later, in 1652, Moray married the lady Sophia Lindsay,[81] daughter of Sir David Lindsay, the first Earl of Balcarres. Sir David Lindsay was a learned man who enjoyed the private life. He had a keen interest in alchemy, and in his library were to be found many alchemical works which Lindsay himself had translated and copied in Scottish colloquial in his own handwriting, including some 'Rosicrucian literature'.[82] It was also in 1652 that Sir Robert Moray sponsored the very first English-language edition of the *Rosicrucian Manifestos*, which was published by the famous Welsh alchemist Thomas Vaughan (brother of the poet Henry Vaughan), who wrote under the pseudonym Eugenius Philaletes.[83] Anthony Wood, a contemporary, was to describe Thomas Vaughan as 'a zealous brother of the Rosie-Crucian fraternity', and then also Robert Moray, his sponsor, as a 'most renowned chymist [and] great patron of the Rosie-Crucians'.[84] With such keen sustained interest in all things Rosicrucian, one wonders if a contact did not take place between Moray and Campanella, both of whom were at the French court in 1638, both of whom were sponsored by Cardinal Richelieu and, more importantly, both of whom had acted as patrons to the Rosicrucian movement.

There is yet another Royal Society founder to consider, the diarist John Evelyn, who also was no stranger to Paris in those troubled times. In 1643, after the outbreak of the Civil War in England, Evelyn left for Paris, then travelled to Rome, Venice and Padua. He was back in Paris in 1646, where a year later he married Mary Browne, the

daughter of the British ambassador. Evelyn stayed in Paris till 1652. Was he, too, exposed to the 'Rosicrucian' and Hermetic ideas that hovered at the French court? It would be odd, indeed, if he was not.

According to Masonic historian Robert Lomas, the Jacobean court in exile in Paris was rife with Freemasons. Many of the Scots Guards, for example, were Masons from Scottish lodges including, of course, their leader, Sir Robert Moray. The Masonic historian and Master of the famous Lodge of Antiquity, William Preston, who is known among Freemasons for having published the very popular book *Illustrations of Freemasonry* in 1772, even believed that Charles II himself might have been a member of the brotherhood.[85] Early Freemasons with a great appetite for illumination and arcane knowledge would have been particularly receptive to such 'Rosicrucian' ideas and the Christian-Hermetic utopian vision that Campanella preached. It is not impossible that these influences in Paris might have prompted Robert Moray to seek out the 'Invisible College' when he returned to England.

But we are now going to examine the connection of yet another Royal Society founder who deserves even closer scrutiny. For this particular English gentleman was to play a pivotal role in the events that were soon, quite literally, to reshape the old city of London…

Blazing Star of Doom

Towards the end of 1664 rumours spread that a 'blazing star' had been seen in the south-east sky from London. It was a comet. And these rare and impressive cosmic visitors were believed in those days to be the harbingers of 'famine and plague' and other such calamities.[86] Martin Luther, the German Protestant leader, even believed comets to be the signs of God's wrath or tokens of the Second Coming.[87] On 15 December 1664, Robert Hooke, a senior member of the Royal Society, reported the 'blazing star' to his colleagues. On 17 December Sir Robert Moray spotted it from his observatory at Whitehall, and soon others saw it from other locations.

It vanished from view about the end of January 1665 but then just two months later in March 1665 a second comet appeared.[88] Amongst the general public and the erudite alike this was taken as the ultimate herald of doom. And they were not to be disappointed. In May 1665 the bubonic plague hit the city of London. The nightmarish disease was first noticed in the parish of St Giles in the Fields. With its narrow, dirt-infested alleys, its virtually non-existent drainage, and its total lack of public hygiene, London in the mid-1660s was the perfect environment for the Plague to strike and take hold. To make matters worse, the month of June that year was unusually hot, giving more impetus to the deadly epidemic. Within a few months people began to die in droves.

Predictably many attributed the Plague to the wrath of God. Henry Oldenburg, secretary of the Royal Society, went as far as to claim that 'when we have purged our foul sins this horrible evil will cease'.[89] Alarmed by the rising number of deaths, Charles II moved his court to Oxford in July, leaving the Londoners to their grim fate.[90] All those who could afford it followed suit, moving either into the country or, better still, across the Channel to the safety of continental Europe. It was at this time that Christopher Wren took the opportunity to travel to France…

Christopher Wren's Esoteric Pedigree

Christopher Wren was educated at Westminster school and completed his studies at Wadham College, Oxford, where he attained the prestigious fellowship of All Souls in 1653. Within a few years he was appointed Professor of Astronomy at Gresham College in London and, after the restoration of Charles II in 1660, he was given the prestigious chair of Savilian Professor of Astronomy at the University of Oxford. He was only twenty-nine when he took up this post, but even then was regarded by his peers as one of the most learned men in England.

Wren developed a close friendship with Prince Rupert of the

Palatinate, who also held the title of Duke of Cumberland. Prince Rupert, like John Evelyn and Robert Moray, spent some time in Paris with Charles II during his exile. And like Moray, he had been very well received by Richelieu. On his return to England after the Restoration Rupert developed a keen interest in 'natural science' and became an active member of the Royal Society, often travelling to Oxford to visit Wren and see him at work in his laboratory.

It will be remembered that John Wilkins, one of the original founders of the Invisible College, was chaplain to Rupert's older brother, Prince Carl-Louis, the Elector Palatine in exile. Wren, in fact, had probably known Prince Carl-Louis in his childhood, when both were at the deanery at Windsor, where Wren's father had been stationed as Registrar of the Order of the Garter. In those early days Wren himself had been a protégé of Wilkins.[91] When we recall how much Frederick V of the Palatinate, the ill-fated father of Rupert and Carl-Louis, had been indirectly entangled in the Rosicrucian movement in Germany, and also the many Rosicrucian connections that can be traced to the founding members of the Invisible College, it is tempting to consider the possibility that Wren too might have been influenced by the same Rosicrucian ideologies.

In 1663 Wren began to develop a keen interest in architecture, and it was becoming clear to him that this career, rather than one in mathematics or astronomy, was his true and natural vocation. Although Wren was a brilliant geometrician and had a talent for model-making and design, one cannot help but wonder if it was not his contact with the Invisible College in 1660, and more particularly the Masonic attachments of individual members of the Invisible College, that might have inspired him to make such a switch at this rather advanced stage of his academic career. We have seen how Freemasons hold architecture and geometry in the highest esteem. After all, the legendary hero of Freemasonry, Hiram Abiff, was allegedly the architect of Solomon's Temple. Likewise, Freemasons also refer to God, who they prefer to call the Supreme Being, as the 'Grand Architect of the Universe'.

Since many, if not all, of the protagonists who played a part in the

formation of the Royal Society were Freemasons, we ought not to be too surprised to find that Wren was a member of the Brotherhood as well. According to Anderson's Masonic *Book of Constitutions* (second edition) published in 1738, Christopher Wren was already a Master Freemason in 1673 and later, in 1685, became the Grand Master of all English Freemasons at Grand Lodge.[92] Other documents suggest that Wren may have joined the Freemasons by 1663, perhaps even earlier.[93] It is also thought that Wren was a regular member of one of the four original Masonic lodges that were amalgamated in 1717 to form Grand Lodge of England.[94] This lodge was originally located at St Paul's in London, and it is almost certain that Wren was at one time its Master.[95]

Pausing to Deposit Wren in Paris, We Make an Excursion to Rome to Study a Mysterious Obelisk

When Christopher Wren arrived in Paris in late July 1665, he was in for a great treat.

Louis XIV was in the process of launching a massive revival in classical and baroque architecture in Paris and Versailles. He had invited the great Italian Baroque architect Gian Lorenzo Bernini to be advisor and witness to these events and, specifically, to design the new façade for the Louvre Palace. At the time Bernini, whose reputation in architecture had reached almost heroic levels, had just begun the design of the great plaza in front of the Vatican Basilica of St Peter in Rome, at the centre of which still stands today an intact ancient Egyptian obelisk surmounted by a golden cross.[96]

We shall digress briefly to tell a little of the story of this Vatican obelisk and of Bernini's role in its final decoration, since these matters have a bearing on our primary theme – namely the survival of secret traditions that have carried ancient Egyptian religious concepts and symbolism through time and lodged them in the Western heartlands of orthodox Christian power.

The Vatican obelisk, which stands more than 25 metres tall and weighs 320 tonnes, is hewn from a single block of solid granite. One of thirteen original Egyptian obelisks that can still be seen in Rome today,[97] it is somewhat unusual in that none of its faces bears an inscription telling us anything about its origins. We know for certain, however, that it was brought to Rome from Egypt on the orders of Emperor Caligula (AD 12–41). It was transported across the Mediterranean in a special ship and set in place in AD 37 in the Vatican Circus, which Caligula had built for chariot racing.

As to the ancient Egyptian provenance of the obelisk, we learn from the Roman historian Pliny, a contemporary of Caligula, that it had been made originally for one 'Nuncoreus, the son of Sesostris'.[98] The reference here is to the twelfth-dynasty Pharaoh Sesostris I (1971–1926 BC), who carried out extensive restoration at ancient Egypt's most sacred city, Anu, which the Greeks would later call Heliopolis – literally 'The City of the Sun'. Heliopolis was itself a sort of 'Vatican City' in the sense that it held the same powerful symbolic significance to the ancient Egyptians as the Vatican does to devout Roman Catholics today. But on the actual site of ancient Heliopolis, in the suburbs of modern Cairo, almost nothing is left to show of former glories. The magnificent Sun Temple that once formed the sacred heart of ancient Egyptian spirituality is nowhere to be seen and the only remnant of any size is a lone obelisk raised by Sesostris I.[99] On this and other evidence scholars have concluded that the Vatican obelisk also originally stood at Heliopolis and may perhaps even have formed one of a pair with the obelisk that remains on site.

Historian Christopher Hibbert, in his book *Rome: The Biography of a City*, asserts simply that 'the obelisk of St Peter's Square was transported by Caligula from Heliopolis in 37 AD'.[100] Likewise, in their book *Roma Egizia* ('Egyptian Rome') Italian scholars Anna Maria Partini and Boris de Rachewiltz accept Pliny's statement that the Vatican obelisk was originally from Heliopolis and belonged to a son of Sesostris. But they establish additionally that it was not brought directly from Heliopolis to Rome but was first taken by the Emperor

Augustus Caesar to Alexandria and raised there in the Julian Forum, where it remained until it was shipped to Rome by Caligula in AD 37.[101]

As we've seen, Caligula had the obelisk raised in the Vatican Circus as the centrepiece of his private chariot-racing grounds. There it was to remain for the next 1600 years while the Vatican Circus – where Saint Peter was believed to have been martyred in AD 64 – was redeveloped to become the heart and centre of the Roman Catholic world. Begun in AD 334 by Constantine the Great (but not completed until the sixteenth century by the architects and sculptors Bramante, Raphael and finally Michelangelo himself)[102] the Basilica of Saint Peter was built half over the top of, and overlapping with, the Vatican Circus.

The result was that Caligula's obelisk ended up close to the south wall of the Basilica. It was observed in that spot in the fourteenth century by a certain Master Gregorius, an English prelate who made a journey to Rome and left us an account. He describes the obelisk as standing in a dark alley, its base and pedestal completely covered by rubbish, flanked by crumbling old houses up against the wall of the Basilica.

In the fifteenth century the plan was first conceived to move the ancient Egyptian relic to the position of honour it occupies today in the centre of St Peter's Square. The idea came from Pope Nicolas V (Papacy 1447–55), who intended that the base of the obelisk should stand on four life-size bronze statues of the Evangelists and that its tip should be surmounted by a huge bronze Jesus with a golden cross in his hand. Nicolas died before he could commission the work and the project lapsed.

It fell to Pope Sixtus V (Papacy 1585–90) to complete the plan. Dubbed 'the last of the Renaissance Popes', Sixtus was:

> intent on making Rome Europe's finest city, and St Peter's its grandest basilica. He was responsible for redesigning the city's entire layout, chiefly by the construction of immense avenues which opened up a series of vistas anchored in obelisks radiating from the core of

the built-up area immediately across the Tiber from the Vatican towards the hills in the east.[103]

Sixtus dispensed with the four figures of the Evangelists proposed by Nicolas V for the base of the Vatican obelisk and replaced them with four lions around a stone pedestal. He also dispensed with the idea of a statue of Jesus balanced on the tip of the obelisk. A bronze sphere, popularly believed to contain the ashes of Julius Caesar – the first 'divine' emperor of Rome and also 'pharaoh' of Egypt – had been positioned there by Caligula, but proved on examination to be empty. Deciding to retain the sphere, Sixtus placed inside it fragments of Christ's supposed 'True Cross' that were in the possession of the Vatican. He then ordered that the heraldic symbol of his own family, a star over three small mountains, be placed above the bronze sphere, and, above the star, a golden cross. It was in this form, therefore, surmounted by a cross, that the ancient obelisk from Heliopolis was finally raised in the heart of the Vatican on 27 September 1588.[104]

The first thing Sixtus did after the obelisk was safely upright was to have it exorcised. With all the usual bells and incense a bishop stood before it and solemnly cried out:

> I exorcise you, creature of stone, in the name of omnipotent God, that you may become an exorcised stone worthy of supporting the Holy Cross, and be freed from any vestige of impurity or shred of paganism and from any assault of spiritual impurity.

To make sure that the point was properly driven home, Sixtus had the same formula carved permanently into the western and eastern sides of the base of the obelisk.

Ironically, however, the anti-pagan message was flatly contradicted by a secret or 'invisible' message that the obelisk itself had begun to pulse forth from the moment that a cross was fixed to its apex. The message was secret because it was written in three dimensions in ancient Egyptian hieroglyphs which no one in the sixteenth century is supposed to have been able to read. Whether by pure coincidence, or by design, however, it is a fact that an obelisk surmounted by a cross

is a symbol that would have had a meaning for ancient Egyptian priests. The meaning is the name of the most sacred 'pagan' city of antiquity – Anu-Heliopolis – the ancient Egyptian 'City of the Sun'. Not only is the Sixtus arrangement of the obelisk meaningful in the ancient Egyptian language, in other words, but also, and much more impressive, the meaning is *correct* – since Anu-Heliopolis was the very place where this obelisk originally came from!

One small detail might spoil this otherwise intriguing picture. Although it is true that a hieroglyph showing an obelisk surmounted by a cross would have been understood as Anu (Heliopolis) by an ancient Egyptian priest, the symbol is nevertheless incomplete. It should normally be accompanied by a circle or ellipse divided into eight parts – the standard hieroglyphic indicator of a city. The failure of Sixtus and his architects to include such a circle in the plan for St Peter's Square seems to rule out any notion that some secret Hermetic game was being played here.

Or it would if things had been left the way they were when Sixtus died in 1590.

Instead, more than seventy years later, the architect Bernini was commissioned by Pope Alexander VII (Papacy 1655–1667) to redesign St Peter's Square.[105] He chose to surround it with elegant freestanding colonnades, creating a huge elliptical space centred on the obelisk. Bernini's work on the project, as we noted above, was interrupted in 1665 when he took up Louis XIV's personal invitation to visit Paris. But he completed it on his return to Rome by marking out on the plaza, around the base of the obelisk, the beautiful geometrical pattern of a gentle ellipse divided into eight parts that can be seen there to this day.

Coincidence? Or could some secret group, capable of sustaining influence on the Papacy over many decades, have understand ancient Egyptian hieroglyphs long before scholars learned to read them in the nineteenth century?

Anu-Heliopolis was the archetypal 'City of the Sun' that Giordano Bruno and Tommaso Campanella had been determined to restore.

And we have shown that Bruno and Campanella were not alone but were part of a larger network of Hermetic and 'Rosicrucian' thinkers spread across Europe who had become very influential – though still not unburnable – by the mid-1660s. The defiant act of writing the name of Heliopolis in 'invisible language' in the midst of the Vatican's proudest stronghold is precisely the sort of symbolic and talismanic guerrilla warfare that we would expect of the members of such a network.

But there is no proof. The reader must decide.

An English Architect Meets His Hero at the Court of the Sun-King

Let's now return to Paris in July of 1665, where Christopher Wren had just arrived, fleeing the Plague in London, and where Bernini was then also in residence, invited by Louis XIV to design the new façade for the Louvre Palace.

At the court of Louis XIV Bernini mingled with France's leading architects such as Pierre Le Vaux and Claude Perrault, as well as the great landscape architect André Le Nôtre. Born in 1613, Le Nôtre came from an illustrious family of royal gardeners – his grandfather had been in charge of the Tuileries gardens at the Louvre Palace, and his father had been the chief gardener of Louis XIII. At the birth of the Sun King, Louis XIV, Le Nôtre was put in charge of the Tuileries and the gardens at the Luxembourg Palace. Later, at the peak of Louis XIV's reign, Le Nôtre would design and engineer the famous gardens at Versailles.

When Wren visited Paris, Le Nôtre was a mature man of fifty-two with an immense reputation at court. Since 1656 he had been in full control of all the king's buildings, and was on the verge of beginning one of his most ambitious – and least publicized – projects: the so-called Grand Cours or 'Perspective'. The central idea was a wide processional avenue, starting from the Tuileries, that would open the outlook from the Louvre towards the west. It had originally been

proposed during the reign of Henri IV, the grandfather of the Sun King. But nothing was done about it until 1661, when Colbert, Louis XIV's all-powerful minister of finance, appointed Le Nôtre to bring the idea to fruition.

Le Nôtre's scheme somehow manages to be grandiose yet exquisitely simple at the same time. A contemporary plan now kept in the Archives des Hauts de Seine shows a vast straight avenue (the celebrated Champs-Elysées)[106] flanked on either side by rows of trees, running westward from the Tuileries all the way to the Pont de Neuilly. Roughly at the centre of the avenue there was a flat-topped hill, then known as the Colline de Chaillot, on which Le Nôtre proposed to situate a huge piazza in the shape of a 'star'.[107] In the fulness of time the latter was to become the Place de l'Etoile, where, in 1815, Napoleon commissioned the famous Arc de Triomphe, today perhaps Paris's best-known landmark.[108]

It was amidst illustrious men, therefore, in a Paris buzzing with new architectural concepts and idealistic city plans, that Christopher Wren was to spend six months of his life at the formative stage of his new architectural career. And aside from the obvious lure of the architectural revival then underway, a flurry of scientific activities also attracted the Englishman. He met with the topographer Melchisedech Thevenot, the astronomer Pierre Petit – a collaborator of Pascal – as well as the Huguenot philosopher Henri Justel. Both Petit and Justel would themselves eventually become Fellows of the Royal Society.[109] Wren also befriended the physicist Adrien Auzout, who, like him, had cultivated a deep interest in architecture. Thevenot, Petit and Auzout belonged to the group of scientists we mentioned earlier who met, very much like a Parisian version of the 'Invisible College', under the patronage of Habert de Montmor. There was much talk of formalizing this group under the charter of Louis XIV – again in the same fashion as the Royal Society – and members were thus naturally interested to meet Christopher Wren and to hear his views on the matter.

Wren also met Bernini, who had arrived in Paris just a month

before he did. But at the time of this meeting, it is important to recall, Wren was to Bernini as a new undergraduate is to the head of a school of architecture. In short, Wren at this point was a nobody while Bernini was a giant who commanded the respect, the funds and even the patience of the Pope and many kings and princes of Europe. In consequence the great Bernini was constantly swamped by his admirers while he was in Paris – so we may not suppose that he took much notice of the insignificant Wren.

For Wren himself, however, it was a life-changing encounter. To meet face to face, even briefly, with his architectural super-hero, was an experience that affected him deeply. It is probable that from this moment on he was fired by the ambition that was to make him one of England's greatest architects. Here is how Adrian Tinniswood, Wren's latest biographer, sums up the meeting:

> With hindsight this meeting is one of the most momentous in the history of seventeenth-century architecture – the man destined to be England's greatest exponent of the Baroque in a face-to-face encounter with the most famous Baroque architect in Europe[110]… The benefits Wren gained from his visit to France were considerable. They range from the experience of a more sophisticated architectural milieu than he knew in England, and a chance to exchange ideas in a less sophisticated, but still rewarding, scientific milieu, to the quantities of books he brought home with him – 'almost all France in paper'.[111]

But Christopher Wren may have brought back something else, something perhaps less tangible than drawings and papers but far more powerful: a 'vision' of the new role he had to play in the restored Stuart monarchy. We shall return to the city of Paris and its exciting scientific and amazing architectural renaissance in later chapters. Meanwhile things became uncomfortable there for Wren when Louis XIV declared war on Britain in January 1666 in support of the French alliance with the Dutch. It was time for Wren to go home. He arrived back in London in March 1666 and within a few months an incredible opportunity was to drop into his lap – one that no one could have imagined in their wildest dreams… or nightmares as the case would be.

Rising from the Ashes

The Great Fire of London began on 2 September 1666, apparently sparked in a bakery at Pudding Lane, near London Bridge, when Thomas Farrinor, the king's baker, forgot to dowse the fire of his oven before going to bed. Some embers fell on nearby kindling and soon his rickety wooden house was in flames. In those days the houses in the city of London were mostly built with timber frames and pitched roofs, which caused them to burn like big matchboxes. Within a few hours several streets were engulfed in a swirling inferno, with the fiery progress aided by a violent easterly wind that fanned the flames. By the time the fire had abated five days later, 430 acres, that is, nearly four-fifths of the city, had been reduced to cinders. About 13,000 houses, 90 churches and 50 liveries had been destroyed, and even the great cathedral of St Paul's had been ruined.

Apparently Charles II himself worked heroically alongside the fire-fighters, which earned him back some public respect. Nonetheless, the king's enemies were quick to claim that this was God's wrath for the debaucheries at court and the ungodly foreign policies of Parliament. A pamphlet issued by the Dutch, who were at war with England, called it a vengeful act from the 'Almighty and Just God', and the Catholics in Britain promptly agreed with them. Even the *London Gazette* was to report that 'the heavy hand of God is upon us for our sins, shewing us his Judgement in raising the fire'.[112] One also wonders what the Jews of London must have thought with Rosh Hoshanah (Day of Judgement) only ten days away, and the Yom Kippur (Day of Atonement) a further ten.[113]

The rumour mill cycled wildly. Stories of a 'Papal plot', or a 'foreign plot', or 'God's Wrath' were rife. Charles II did his best to persuade the angry population of London, now gathered at Moorfields, that their collective misfortune was due to nothing more than an accident. He vowed gallantly to take good care of all homeless Londoners and to rebuild their homes and their city immediately. But it is probable that the king was not entirely

displeased at this opportunity, for he himself was a bit of a dabbler in town-planning and design. Since the Restoration he had been bitterly frustrated by the lack of funds to transform London into a splendid metropolis that would eclipse the 'City of Light' that his cousin, Louis XIV, was turning Paris into. Now here, out of the blue, had come this amazing opportunity that might allow him to do just that.[114]

A new London, everyone hoped after hearing the king's emotional speech at Moorfields, was about to rise like a great phoenix from the smouldering ashes.

Or, better still, like a 'New Jerusalem', as we will see in the next chapter.

Chapter 15

Cabal

> 'The major theme of the Knights Templar legend is its survival through the form of secret societies… The Templars themselves were a secret society… It has survived into Freemasonry… Freemasonry, then, is the heir of the Templars (and) purports to be the recipient of the ancient wisdom of the builders of Solomon's Temple coming down to them from the crusades.' (A. Demurger, *Vie et mort de l'Ordre du Temple*, Editions du Seuil, Paris, 1985, p. 9)

> 'Even a brief survey will show that he [Charles II] was dedicated to private alchemical experiments… Such a king could indeed be expected to provide the long awaited "Solomon's House"…'(Donald R. Dickson, *The Tessera of Antilia*, Brill, Leiden, 1998, p. 239)

> 'I will not cease from mental fight, nor shall my sword sleep in my hand, till we have built Jerusalem in England's green and pleasant land.' (William Blake, Preface to 'Milton', 1804)

A few days after the Great Fire had finally abated, Christopher Wren and John Evelyn, each man apparently acting independently, rushed to present Charles II with plans for the full reconstruction of London.[1] To be precise, Wren presented his plan on 11 September 1666 and Evelyn presented his on 13 September 1666.[2] The king is reported to have admired both designs greatly but in the end neither could be

implemented because the pressing need of the time was not for grand architectural schemes but to rehouse the tens of thousands of people made homeless by the fire.

The abandoned plans of Wren and Evelyn would therefore amount to no more than a footnote to architectural history were it not for two very curious facts.

Both men 'invisibly' incorporated esoteric symbolic devices into their proposed layouts for the streets and plazas of London, and can only have done so with the same purposes in mind.

Exactly the same symbolic devices, again apparently used for the same purposes, turn up more than a century later on the other side of the Atlantic in the layout adopted for the streets and plazas of Washington, DC, the newly built capital of the United States of America.

The first of these symbols is the simple octagon. The second is more complex, with multiple branches and terminals, and is known as the 'Sephirothic Tree' or the 'Tree of Life'. It is derived from Hebrew Cabala, a system of Jewish mysticism that was elaborated in Occitania during the great period of intellectual and religious freedom that was ushered in there by the rise of Catharism in the twelfth century.

The octagon and the Sephirothic Tree remain hidden in plain view in Washington to this day, as we will show in Chapter 19, and can easily be seen by the prepared eye in Wren's and Evelyn's abandoned plans for London, which we will examine later in this chapter. In both cases the real issue is not so much demonstrating the use of the symbols but trying to find out *why* they were used in the first place. What was it that Wren and Evelyn, as well as their successors in the American Revolution, had in mind with these devices? Why would the octagon and the Sephirothic Tree have been significant to them?

The first clue that will help us to answer these questions does not lie in London in the seventeenth century, nor Washington in the eighteenth century, but in Occitania in the thirteenth century, in an anomaly of the history of the Albigensian Crusades.

Mystery of the Knights Templar

We saw in Part I how the Albigensian Crusades that smashed the Cathars in the thirteenth century were mounted at the instigation of successive popes and fought by armies recruited from all over Europe, though principally from northern France. During the whole period of sustained warfare in Occitania, however, from the fall of Béziers in 1209 until the fall of Montségur in 1244, there were large numbers of seemingly obvious 'Crusaders' permanently on hand in Provence and the Languedoc who took almost no part in the fighting at all. This is odd, and what makes it odder is that these reluctant Crusaders against the Cathar heresy were all members of an elite order of highly trained warrior monks, sworn to Papal service, who had already proved themselves in the Holy Land as valiant Crusaders against the forces of Islam. Their full title was 'The Poor Knights of Christ and the Temple of Solomon', but they're much better known as the Knights Templar.

We do not propose to rehearse at great length here the familiar story of the Templars, which has been told so many times before. But some background is unavoidable if we are going to work out why they abstained from the Cathar wars when we would have expected them to join in wholeheartedly on behalf of the Church.

The order was founded by nine French noblemen who travelled to the Holy Land in AD 1119 – twenty years after Jerusalem had been captured and occupied by the European powers in the First Crusade of 1099. The twelfth-century historian Archbishop William of Tyre tells us that 'foremost and most distinguished' amongst these nine men 'were the venerable Hugh de Payen and Godfrey de St Omer'.[3]

When the nine arrived in Jerusalem they were received as VIPs by the Crusader king, Baldwin I. They requested and were granted the right to use as their headquarters the El-Aqsa Mosque, which lies on the south side of the ancient Temple Mount and still survives today. Traditionally held to have been the site of the biblical Temple of Solomon, the Temple Mount also houses a second splendid Islamic shrine that the Templars now took control of as well – the Dome of the Rock. It, too, has survived the centuries and may be visited today.

Its floor-plan forms a perfect octagon with all eight sides of equal length, its lofty walls rising to support a beautiful golden dome towering directly above the eponymous 'Rock'. This is the gigantic slab of exposed bedrock that is held in Judaic, Christian and Islamic tradition to have formed the original floor of the Holy of Holies of the Temple of Solomon. On it, the Old Testament tells us, once stood the Ark of the Covenant containing the tablets of the Ten Commandments given to Moses by God – the God in question being Jehovah, whom the Gnostics and their later successors the Cathars saw as the evil second-class deity who had created the material world as a trap for souls. A Jewish tradition says it was on this same rock that Abraham prepared to sacrifice his son, Isaac, on the instructions of Jehovah. For the Muslims it is the place from whence the prophet Mohamed made his night journey into heaven.[4]

Solomon's Temple was the First Temple of the Jews, and biblical archaeologists today generally agree with the tradition that it was sited on the Temple Mount and most likely on the spot where the Dome of the Rock now stands. It was destroyed by the Babylonians when they sacked Jerusalem in 587 BC but the Second Temple was built on the same site between 537 and 517 BC after the return of the Jews from their Babylonian exile.[5] In its turn the Second Temple was destroyed by the Romans in AD 70 and there has never subsequently been a Jewish place of worship on the Temple Mount.

This is why the famous 'Wailing Wall' has been of such enormous importance to Jews down the ages and is today the single most important Jewish holy place. It dates back to Second Temple times, being part of a retaining buttress built by Herod the Great in the late first century BC. It escaped demolition by the Romans in AD 70 (because, says the *Midrash*, the 'Divine Presence' hovered over it) and in later years it became a potent symbol of the nationalist aspirations of the Jewish people scattered in the diaspora.[6]

From AD 70 until Jerusalem was captured in AD 638 in the early Islamic *jihads*, we know little of the history of the Temple Mount. This is partly because of the confusion of the period that saw the collapse

of the Roman Empire and the rapid expansion of Islam, and partly because the Islamic authorities controlling the site do not permit archaeological investigations (although some illicit digs have taken place).[7] Their reluctance is perfectly understandable, since the Dome of the Rock and the El-Aqsa Mosque represent respectively (after Mecca and Medina) the third and fourth most sacred sites in the Islamic world.[8]

Archaeologists believe that a Roman temple was built on the ruins of the Second Temple after AD 70. Six centuries later, in AD 670, the Caliph Omar, the successor to Prophet Mohamed and at that point the absolute ruler of Jerusalem, ordered the Temple Mount cleared, 'and a Moslem house of worship to be erected there, on the spot where Israel's Temple had once stood'.[9] That same year a temporary wooden shrine was put up. Then, in AD 691, during the reign of Caliph Abd el-Malik, the permanent structure of the Dome of the Rock that we still see today was built. Under its huge gilded cupola it represented a unique concept in Islamic architecture of the period, with its striking octagonal floor-plan encompassing a circular central nave containing the sacred Rock of the Temple of Solomon. Some decades later Abd el-Malik's son Caliph el-Walid built the El-Aqsa Mosque.[10] There then followed three centuries of relative peace under Islamic rule, rudely interrupted by the First Crusade and the capture of Jerusalem in 1099. At that point both structures and the whole of the Temple Mount came under Christian control and then, from 1119, under the exclusive control of the Knights Templar – hence, of course, their name.

The Rosy Cross and the Octagon

The Templars signalled their affiliation to Christ by wearing a blood-red cross in the distinctive style known as *croix patte* stitched to the white background of their tunics – almost 500 years before the Rosicrucian Manifestos made a feature of a very similar 'Rosy Cross'. But their identification with the Temple of Solomon was equally

strong, as they demonstrated from the outset by choosing the Temple Mount for their headquarters. Because the Dome of the Rock is an octagonal structure, they adopted the octagon as their symbol of this affiliation and their *croix patte* was cunningly designed so that an octagon with all eight sides of exactly equal length like the floor-plan of the Dome of the Rock was produced by joining all the exterior points of the cross.

One of the several puzzles surrounding the story of Templar origins is the speed with which King Baldwin I of Jerusalem handed over the keys of the El-Aqsa Mosque to the nine founder knights when they turned up on his doorstep in 1119. It would be a puzzle under all circumstances, but perhaps particularly so in this case because, shortly before the Templars took possession, Baldwin had been lovingly renovating the Mosque for use as his own palace.[11] No matter how heavily armed and battle-scarred these rather mysterious and impressive men were, they were in no position to threaten the ruler of Jerusalem, who controlled far larger forces. So we may only suppose that he delivered the sacred precinct to them voluntarily – in which case they must have been able to furnish him with the most persuasive reasons why he should do so.

Once the Temple Mount was in their hands the knights lived, ate, slept and worked on this site sacred to three religions. They rarely left it during the next seven years. In public pronouncements they had declared that their mission to the Holy Land was 'to keep the road from the coast to Jerusalem free from bandits'. They don't seem to have done that. Indeed, in the words of one authority, 'the new Order apparently did very little' in this period.[12] Besides, simple logic suggests that nine men could hardly have protected anybody on a highway almost 50 miles long – and their number stayed at nine until they were joined by the Count of Champagne in 1125. Moreover, the members of an older and far larger military order – the Knights Hospitallers – were already doing the job of protecting pilgrims when the Templars arrived.[13]

Late in 1126 Hugh de Payen suddenly left Jerusalem and returned

to Europe accompanied by André de Montbard, another of the founders. De Montbard's nephew was the renowned Catholic cleric Bernard (later Saint Bernard) of Clairvaux, who was about to become the sponsor of the Templars. A staunch opponent of the early Cathars, Bernard would subsequently lead a peaceful preaching campaign against them that took him deep inside Occitania in AD 1145 and subjected him to a number of humiliations. For example, though he was known as the greatest preacher of his age and was accustomed to being mobbed by adoring crowds of thousands, Bernard only managed to attract an audience of thirty when he preached in the Cathar city of Albi.[14] At Verfeil (north-east of Toulouse) mounted Cathar knights (they would, of course, have been *credentes*, not *perfecti* sworn to non-violence) are reported to have pounded on the doors of a church where Bernard was attempting to preach and to have clashed their swords together so loudly that no one in the small congregation could hear a word he said.[15]

So if anyone had a reason to hate the Cathars and want to punish them it would surely be the Templars, who owed so much to Saint Bernard. All the more difficult to understand, therefore, why the large numbers of Templars – who are known to have occupied fortresses and preceptories throughout the length and breadth of Occitania in the twelfth and thirteenth centuries[16] – chose to step back from the Albigensian Crusades that raged after 1209. The reader will recall from Chapter 2 that several times between campaigns the Catholic champion Simon de Montfort was able to retain only skeleton forces – sometimes down to as few as a dozen knights – with which to preserve Crusader gains in Occitania. Never once, so far as we have been able to establish, did the Templars intervene on his behalf or help him in any way in these periods of dire need.

Why not?

If they were exactly what they very much seemed and claimed to be in 1209 – i.e., Catholic knights dedicated to the service of the Pope and to the destruction of his enemies – then surely the Templars should have been the first, not the last, to raise the sword of wrath

against the heretics of Occitania?

Hubris

Hugh de Payen and André de Montbard arrived in France in 1127 and in January 1128 participated in what was to be the most significant event in the early history of the Templars. That event was the synod of Troyes, which had been convened with the explicit objective of procuring the Church's official backing for the Templar order. Bernard of Clairvaux presided over the synod and personally drew up the formal Rule of the Knights Templar that, henceforth, was to guide the evolution and development of the order. Thereafter, in a series of sermons and glowing panegyrics such as *De laude novae militae*, he vigorously promoted the young order – thus using his own prestige and influence to guarantee its success.

The results were spectacular. New recruits flocked in from all over France and later from many other parts of Europe as well. Donations of land and money were received from wealthy patrons, and political power quickly followed. By the last quarter of the twelfth century the order had become phenomenally rich, was operating a sophisticated international banking system (that made use of the first ever 'letters of credit') and owned fortresses and a vast range of properties in many different lands.

But it was at about this point, the apex of their meteoric rise and rise, that everything began to go horribly wrong.

On 4 July 1187, in the great battle of the Horns of Hattin, a terrible defeat was inflicted on the Templars by a Muslim army led by the legendary Salah El Din, better known as Saladin.[17] The reputation for invincibility in battle that the Templars had managed to build for themselves was badly dented especially when, a few weeks later, the Christian Kingdom of Jerusalem was for ever lost to the Arabs.[18]

The Templars lingered in some parts of the Holy Land for yet another century, but their final downfall came in the spring of 1290, when an Egyptian army led by the Caliph Qulawan and his son, Al-

Ashraf Khalil, moved to lay siege to the city of St Jean d'Acre, the modern Akko in Syria, which was in the hands of the crusading knights and regarded as the last bastion of the so-called Crusading Christian States.

With its fortified wall and its back to the sea, Acre's reputation as a Crusader stronghold was legendary. But now, after almost three centuries of warfare between Christians and the Muslims, the bulk of the Crusading States had been severely weakened. Undermanned and drastically low on supplies, Acre was about to face the full brunt of the Muslim forces. There was a moment of hope when it was announced that the Caliph Qulawan had suddenly died, as though felled by the hand of God, just before reaching the walls of Acre. But his son and successor Al-Ashraf Khalil kept a cool head and immediately took control of the Arab army. By 6 April 1290 Acre was thoroughly under siege, with the only way out being by sea.

Within the high walls the knights braced themselves for the worst, as it was now clear to all just how massively the Arabs outnumbered them. There were terrible scenes of panic as the populace scrambled for places on the few ships available, and many old people and children drowned in the mad scuffle to evacuate the doomed city. On 15 May the Arabs breached the walls and stormed inside. An awful carnage ensued, even by medieval standards. The Knights Templar fought to the last like mad lions, knowing full well the gruesome fate that awaited them if they were captured alive. Amazingly, they held on in a redoubt for a further twelve days and when the fighting was finally over the city looked like a giant butcher's floor.

Infuriated by the insane resistance of the Templars, Al-Ashraf Khalil ordered Acre razed to the ground and all prisoners – male and female, young and old, civilian or military – put to death 'under the prophet's sword'. The famous Church of St Andrew's at Acre, renowned throughout Christendom, was demolished and its heavy Gothic door, weighing several tonnes, was taken as booty to Cairo to adorn the mausoleum of Al-Ashraf Khalil's brother. As the Arabs rode off from the smouldering stench and the terrible carnage, a dark and sombre mood descended on the whole Christian world. The adventure

of the Crusades, of heroic tales and gallantry to ‘protect’ the Holy Land from the ‘heathen’, was finally over.

Nemesis

The fall of Acre marked the beginning of the end for the Templars. Within less than a decade of the disaster most of the knights had returned to Europe. Some went to England, where they were absorbed by the many long-established Templar preceptories there. The order’s headquarters in England was located in London just north of the Thames to the east of Holborn in the district that is still called ‘Temple’ today. Some of the returning Templars went to Germany and to Spain. Many went to France, particularly to Paris and to the Port of La Rochelle where, again, there were large numbers of existing Templar institutions to receive them. Thousands also chose to settle in Occitania, which, by 1300, was increasingly being absorbed into France, and which had hosted a strong and continuous Templar presence for more than 150 years.

By the beginning of the fourteenth century the Papacy’s long and corrupt dependence on the French Crown to provide a ‘final solution’ to the problem of the Cathar heresy had not only resulted in the annexation of Occitania into France but also in a steady diminution in the powers of the Pope. So much was this the case that, from 1309 until 1377 (a period referred to by Catholic historians as the ‘Babylonian Captivity’), the Papacy was not based in Rome but in Avignon, where it was almost totally under the control of the French monarchy.

The Pope who made the move to Avignon in 1309 was Clement V. Formerly Bertrand de Got, Archbishop of Bordeaux, he was elected Pope in 1305 and crowned at Lyons in the presence of King Philip IV of France, known as Philip the Fair. Two years later Clement laid grave charges of heresy against the Templars and authorized Philip to bring the Knights to trial. The charges were in many cases identical to those that had been repeatedly brought against the Cathars by the Inquisition during the thirteenth century and included accusations of

secret ceremonies in which initiates were required to spit on or break crosses – accusations that aroused feelings of righteous horror amongst orthodox Catholics.

Thus it was that on Friday 13 October 1307 all members of the order within reach of Philip's forces – including all the Templars in Occitania – were arrested. Since more than 15,000 of them were rounded up in this way, it is clear that the operation must have been exceptionally well planned and well coordinated, and implemented by large numbers of the king's men. We know that simultaneous dawn swoops on hundreds of Templar properties were carried out and that in most cases the arrests were secured without a struggle.[19]

In the months that followed, the Templars were savagely tortured by the Inquisition. And as with the Cathars before them, and Bruno after them, this torture – which was of exceptional brutality, even by Inquisition standards – was specially authorized by the Pope. Moving quickly to follow up the arrests in France, Clement V also issued a Bull, *Pastoralis praeeminentiae*, dated 22 November 1307, which ordered the arrest of all other Templars throughout the Christian world. Proceedings followed as far afield as England, Spain, Germany, Italy and Cyprus and, in 1312, another Bull from the puppet Pope officially suppressed the order. Meanwhile thousands of Templars were subjected to the most gruesome tortures and many were subsequently burned at the stake.

The agonizing death of the last Grand Master of the Templars, Jacques de Molay, came on 18 March 1314, and was recorded for posterity by a monk who was an eyewitness to the event:

> At the hour of vespers [late afternoon], on a small island on the Seine situated between the gardens of the king and the church of St Augustin, they [Grand Master Jacques de Molay and the Templar Preceptor of Normandy Geoffroi de Charnay] were condemned to be burned… They were seen so resolute to endure the ordeal of the fire, with such willingness, that they gained the admiration and surprise of all who witnessed…[20]

Such descriptions inevitably remind us of the calm fortitude of the

Cathar *perfecti* when they faced similarly terrible deaths at the stake, and later of Giordano Bruno, the Hermetic magus who was burned for his beliefs in Rome in February 1600. But Jacques de Molay was a fighting man and he went out fighting. Twisting in horrible pain as he roasted in the midst of a slow fire, the last Templar Grand Master found the strength to call down a curse on the French monarchy for thirteen generations and to prophesy that Clement V and Philip the Fair would both meet him for judgement before the throne of God within the year. Weirdly Clement V died just one month later, in April 1314, and Philip the Fair died inexplicably in November 1314.[21] The climax of the story comes many generations later with the outbreak of the French Revolution in 1789 and the public beheading by guillotine of the unfortunate Louis XVI in 1793. Allegedly as the king's head rolled into the basket, a French Freemason darted forward, dipped his fingers in the blood and scattered it over the crowd, shouting: 'Jacques de Molay, thou art avenged!'[22]

Templar Survivals and the Long Quest for Utopia

When Jacques de Molay was burned in 1314 many say that the Templars ceased to exist. This is true in the legal sense, for the order was suppressed. But practically speaking it did survive in a number of places. One was the Scotland of Robert the Bruce, which liberated itself from English occupation at the Battle of Bannockburn in 1314. Another was Portugal, where the Templars were tried but found to be free of guilt, and thus neither tortured nor imprisoned. There, though their order was officially dissolved in 1312 as elsewhere, it was able to reconstitute itself under a different name – the Militia of Jesus Christ (also known as the Knights of Christ or the Order of Christ).[23]

A persistent rumour down the centuries hints at a great mystery concerning the large and well-appointed Templar fleet that had been anchored in the French Atlantic port of La Rochelle on the night of 13 October 1307 when the mass of Templars were rounded up. Historians accept that the fleet was there the day before but gone the

next morning, eluding the king's forces that came to take possession of it. Clearly, therefore, good numbers of Templars – enough at any rate to man and sail the fleet – did escape arrest in France.

But where did they go? On this there is no consensus. One theory has it that the Templars sailed to North Africa to join forces with their long-time enemies, the Muslims. Another theory has them discovering the Americas almost two centuries before Columbus. A third theory, not necessarily inconsistent with the latter as we shall see, has them sailing to Scotland and taking refuge amongst the large number of Templars already established in that country.[24] There, according to eighteenth-century Masonic sources such as the Chevalier Ramsay and Baron Carl von Hund, they formed the core of the underground movement that would eventually blossom forth again as Freemasonry.[25]

There is a particularly strong association linking the Templars in Scotland, Scottish Freemasonry and the ancient Sinclair family of Rosslyn near Edinburgh. A thorough study of the subject was published by Andrew Sinclair in 1991 under the title *The Sword and the Grail*.[26] It presents compelling evidence that Sir William Sinclair, who began construction of the spectacular Gothic chapel at Rosslyn around 1446, was himself secretly initiated as a Knight Templar more than 130 years after the suppression of the order and was at the same time the hereditary Grand Master of Freemasonry in Scotland.[27]

Equally intriguing from our point of view is the evidence also presented in *The Sword and the Grail* of a voyage made to the north-east coast of America around 1398–9 by William's grandfather Prince Henry Sinclair, First Earl of Orkney, and also an initiated Knight Templar. This precocious voyage appears to have been partly memorialized in reliefs at Rosslyn Chapel, dated prior to 1450 (thus still more than forty years before Columbus) that show American maize and aloe cactus.[28] And since 1991, so much new historical and archaeological evidence has been brought forward in support of the general thesis that it is no longer, so far as we are aware, seriously disputed by scholars.

What is more remarkable is the evidence that Andrew Sinclair managed to unearth regarding the *motive* for Prince Henry's transatlantic expedition: 'There is little doubt that the Knights Templar wanted to create another Paradise and Temple of Solomon in the New World beyond the reach of Papal authority.'[29] Sinclair's research suggests that the underground remnants of the Templar order in Scotland at the end of the fourteenth century saw Prince Henry's pioneering voyage as the first step in the implementation of a long-term plan to establish a utopia. It was, in other words, a bold and very early attempt to put into action what would again be envisaged more than 200 years later by men like Campanella, Andreae and Bacon as the ideal solution to the repulsive corruption and entanglements of the Old World.

Of course, it's possible that the actual adventure of a transatlantic voyage in the late fourteenth century, and the philosophical adventures of the seventeenth century, could have occurred entirely independently of each other. But the involvement of powerful Templar symbolism in both periods makes us think otherwise. It is not only the recurrence of the Rosy Cross (which also appears on the tombstone of Sir William Sinclair at Rosslyn).[30] Equally indicative of a link is the way in which the early explorers and the later philosophers were all inclined to express their mission in terms of exactly the same intent (whether symbolic or otherwise) – i.e., to rebuild the 'Temple of Solomon in the New World'.

For a variety of reasons which need not detain us here, Prince Henry Sinclair's voyage was not followed up in the way that the later voyages of Columbus were instantly followed up.[31] The chance was lost. But the big question is this. At the end of the eighteenth century, when the opportunity to create a genuinely new and revolutionary society built on new principles offered itself a second time with the American War of Independence and the vision of a free and independent United States, how can it possibly be an accident that Templar symbolism was once again involved?

We'll return to this problem in Chapter 19. Meanwhile a more

pressing and so far unaddressed issue demands our attention here.

How were the Templars transformed from the Pope's chosen warriors in the twelfth century into heretics who had to be burned at the stake in the early fourteenth century?

The scholarly consensus, much of which makes a great deal of sense, is that the round-up of the Templars in 1307 was motivated almost entirely by King Philip the Fair of France, who trumped up the accusations of heresy against them, and had his puppet Pope condemn them, so that he could steal their vast wealth. Since he did in fact steal much of their wealth, and since we know that Clement V did everything Philip told him, this is generally a very plausible scenario.

We disagree fundamentally on one point, however, which is the widely accepted idea that the accusations of heresy against the Templars were trumped up. Far from that, our proposal is that they very likely were heretics, guilty as charged, and that what had turned them into secret warriors against the Church was their long exposure to Cathar culture in Occitania and the return there from the Holy Land of many of the Knights at the end of the thirteenth century.

Templars and Cathars

Looking at the dualist doctrines of the Cathars and at what is known about the initiations and beliefs of the Order of the Temple, Sir Steven Runciman notes: 'It may be that the secret practices of the Templars… were partly based on Dualist ideas and usages…'[32] It is generally accepted that the Templars were exposed to such ideas in the Holy Land – for example through their contacts with members of the ancient sect known as the Druze. Still extant today in Lebanon, Syria and Israel, the Druze are technically Shi'a Muslims but their beliefs have been characterized as 'a mixture of Judaism, Christianity and Islam [including] elements of Gnosticism'.[33] Other Shi'a splinter groups in the region such as the Nusayris also held beliefs identifiably tinged with Gnosticism.[34] And the Templars would have been well

placed during their long stay in the Holy Land to encounter the descendants of the Sabeans of Harran, the compilers of the great Hermetic text known as the *Picatrix* – which contains, as we saw in Chapter 8, an early blueprint for the utopian Hermetic city.

Having absorbed esoteric 'Eastern' influences far more enthusiastically than any other crusading group, it is difficult to imagine that the large numbers of Templars resident in Occitania from the twelfth to the fourteenth century were unaware of the distinctly Gnostic and dualist flavour of the local Cathar religion. It also makes sense, if their own thinking was already tinged by dualism as Runciman speculates, that they might have been favourably predisposed towards the Cathar cause – particularly so if the noble families of Occitania who were united in their support for the Cathars were also supporters of the Templars. This is highly likely. Indeed, as Malcolm Barber points out, the great expansion that the Templars enjoyed in Occitania could not have been achieved without strong support from the nobles:

> The establishment of new communities, and the opening up of previously uncultivated territory which was common in the twelfth century owed much to an alliance between the nobles' land and the Order's capital…[35]

Simple logic suggests that if the Cathars were sponsored by the noble families of Occitania, as we know they were, and if the Templars were sponsored by the same noble families of Occitania, as we know they were, then the Cathars and Templars are likely to have been on friendly terms. This could explain why even at the outset of the Albigensian Crusades in 1209, called by a Pope – Innocent III – who was known to favour the Templars and who had accorded them special privileges,[36] we find the Templars peculiarly reluctant to aid Innocent's cause.[37] There is no suggestion that the Knights had become heretics themselves by this stage, but it is obviously puzzling that one of the few duties these heavyweight fighters did during the Albigensian Crusades was very far from being a 'front-line' one. In

1212, to pay for the costs of the Crusade, the Pope imposed a tax of three pence per household across the length and breadth of the Languedoc. The Templars collected it but otherwise, notes historian Aubrey Burl, they remained neutral.[38]

Such 'neutrality' amongst the Pope's own chosen warriors in so crucial a holy war is highly anomalous and, in our opinion, significant. Several researchers pursuing this line of investigation have argued that as the Albigensian Crusades took their toll, and in particular after the fall of the last major Cathar fortress at Montségur in 1244, the Knights Templar became less 'neutral' and were increasingly influenced by Cathar doctrines. This happened, says Andrew Sinclair, because 'most of the Cathar knights who escaped the slaughter were received into the Military Order of the Temple of Solomon, which was itself permeated with oriental influences'.[39] Similarly Arthur Guirdham sees 'indications of some connection between the Cathars and the Templars' in the fact that:

> A large number of Templar knights were recruited from Languedoc. There was an influx of recruits in the mid-13th century when the Albigensian wars were to all intents and purposes over. It is significant that the immensely powerful and ubiquitous Order of the Temple took no part in the Crusade against the Albigensians.[40]

Evidence of this sort is irritatingly and elusively circumstantial – 'interesting, presumptive, but not conclusive', as Guirdham admits.[41] On the other side of the debate, however, Malcolm Barber, Professor of History at the University of Reading in England and a leading authority on the Templars, is much more assertive:

> Romantics like to see connections between the two [i.e., between the Cathars and the Templars] but there were none: no fabulous treasure passed on to the Templars after the fall of the Cathar fortress of Montségur in 1244, no shared anti-Christian beliefs pervaded by esoteric cults… Inevitably some of the accusations against the Templars derive from those against the Cathars – they were, after all, embedded in the minds of those who pursued dissent.[42]

Barber's argument, though reasonable, seems to us weakened by his evident desire *not* to be a 'romantic' and thus *not* to find a conspiracy in anything. In the case of organizations like the Templars and the Cathars, which were forced to be secretive and conspiratorial by the circumstances of the times, such a policy could be a mistake. If, for example, Cathar knights after Montségur had sought and been granted shelter by the Templars, would we honestly *expect* to find records of this – let alone records of the transfer of any 'treasure'? Would these hypothetical fugitives, joining a religious military order that was already notorious for its secrecy and weirdness by 1244, have left a paper-trail for the Inquisition, and later historians, to follow? It seems most unlikely.

On the other hand, the hypothesis that the Templars were increasingly influenced by Cathar-dualist ideas from the mid-thirteenth century onwards has much to recommend it – not least because it makes better sense than Barber's explanation of the charges of heresy that were brought against the order in the early fourteenth century. The reader will recall that one of the sensational indictments was that Templar initiates were required to spit on or break crosses. Such behaviour, though seemingly bizarre or diabolical, is entirely consistent with the Cathar religion, which denied the physical incarnation of Christ, disbelieved in the crucifixion, and regarded veneration of the cross as a form of idolatry and torture-worship.[43]

Seen from the perspective of the Inquisition – and of the French Crown – the huge influx of heavily armed and battle-proven Templars returning to the Languedoc in the last years of the thirteenth century after the loss of the Holy Land may well have looked threatening. Depending on the level of suspicion with which the permanent Templar population of the region was already regarded – fuelled perhaps by rumours that fugitive Cathars had joined Templar ranks – this quantum leap in the order's local military strength could well have been regarded as extremely dangerous by the secular and religious powers. Their suspicions, moreover, are likely to have been intensified by what they would have regarded as the most unwelcome signs of a Cathar revival led by the *perfectus* Pierre Autier that began

in 1299 (see Chapter 7).

Once all these factors are taken into account, we propose that the perceived threat of a renascent Catharism supported by the armoured might of a Templar order now 'lost to heresy' is sufficient on its own to explain the sudden move that Philip and the Church made against the order in 1307. Whether there was any real substance to the perceived threat is another matter, but it is inconceivable that king and Pope would have conspired to bring down the Templars at this exact moment when Catharism was in its death struggle without connecting the two matters together in their minds.[44] That is not to say that greed for the wealth of the Templars played no part in their decisions and actions. With a man like Philip, greed always played a part. But our point is that greed was not the only factor, nor perhaps even the main factor. What happened to the Templars between their arrest in 1307 and the burning of their last Grand Master in 1314 may be best understood as it was understood then – i.e., as yet another battle in the war against heresy and social revolution that the Church had waged since the time of Constantine the Great.

Elements of the Templar Heresy

An argument can be made against any kind of secret association between the Cathars and the Templars on the grounds that their beliefs were fundamentally incompatible. While the latter took pride in the Old Testament symbolism of the Temple of Solomon, the former abhorred and opposed the Old Testament as the book of the evil demiurge.

This objection, though obvious, is irrelevant to the hypothesis being put forward here. We are *not* claiming that the Templars were influenced by Catharism in the early years of their existence – when they occupied the Temple Mount in Jerusalem between 1119 and 1187 and adopted the octagonal floor-plan of the Dome of the Rock as their fundamental symbol. Our proposal is that this influence may have *begun* to be felt during the twelfth century, through the many

Templar preceptories in Occitania, but that it did not have a significant impact until well into the thirteenth century when, as several historians believe, fugitive Cathar knights were absorbed into the order. We speculate that the process was accelerated after 1290, with the influx of returning Templars from the Holy Land, but that before it could reach critical mass it was interrupted by the pre-emptive strike of Philip the Fair and Clement V in 1307.

Another claim that we are *not* making is that the Templars had *become* Cathars. Our hypothesis is that by 1307 Cathar dualism was one amongst a number of ingredients in a probably multifaceted Templar heresy that had brought together a *pot pourri* of seemingly incompatible religious ideas. In a way the heretics whom the Templars most remind us of are not so much the Cathars as the warrior sect of Christian Gnostics known as the Paulicians (see Chapter 5) who displayed the same fearlessness and willingness to kill. It is also widely recognized that the unique and idiosyncratic Templar religion was tinged with aspects of esoteric Islam and mystical Judaism that the order had picked up in the Holy Land.

The Judaic element meshed particularly well with the Knights' own original obsession with the Temple of Solomon and would have continued to be available to them in Occitania through the large and long-established Jewish communities that we know were also resident there at the time. These communities had an honoured place in Occitan society in the twelfth and thirteenth centuries until the Albigensian Crusades destroyed the region's heterodox and tolerant way of life for ever. Acclaimed schools of Talmudic Law flourished at Narbonne, Lunel and Beaucaire and there is a report from 1160 that Jewish students travelled from 'distant lands' to study at them.[45]

In addition, as we saw in Chapter 2, the important branch of esoteric Judaism and mystical cosmic speculation known as the Cabala was developed amongst the scholarly Jews of Occitania's coastal cities between the twelfth and thirteenth centuries[46] – again overlapping with the Cathars and the Templars in the same area. We cited Benjamin of Tudela's twelfth-century description of a Jew at

Lunel who had 'discarded all worldly business, studied day and night, kept fasts, and never ate meat'.[47] Since this suggests that Cathar ideas about how we should live in the world and what we are doing here had begun to influence the Occitanian Jews, why should not the occult philosophy of the Cabala, elaborated by Occitania's Jewish savants, have likewise influenced the Cathars – and the Templars?

Emanations and the Sephirothic Tree

Catharism was a revival, which took root in Occitania in the twelfth century (and in the Balkans somewhat earlier) of Christian Gnostic heresies that had last flourished in Palestine and Alexandria in the first four centuries AD. It is a remarkable coincidence that Cabalism likewise is a revival, which took root in Occitania in the twelfth century, of schools of Jewish mysticism that had last flourished in Palestine and in Alexandria in the first four centuries AD.[48] And although the revival of Hermetism did not come until the recovery of the Hermetic texts in the fifteenth century, those texts too had their origin in the first four centuries AD – and, moreover, in the same predominantly Alexandrian milieu that nourished Gnosticism and the schools of Jewish mystical speculation.

A central concept shared by all the dualist religions that we traced in Part I is that of *emanation*. In the simplest possible terms it is conceived of as a conscious or unconscious creative act of the pure and unassailable spiritual Godhead forming manifestations of him/her/itself that then pursue an independent existence. The Gnostics of the first four centuries AD called these emanations *eons*. They were ranked in order of their degree of self-knowledge and they were frequently given abstract characters such as 'Silence', 'Intellect', 'Truth', 'Wisdom', and so on.[49]

Together Godhead and *eons* formed the Pleroma – literally 'the Fulness' – the perfect group. The process that led to the creation of the world resulted from a Fall within the Pleroma usually caused by

curiosity or desire on the part of one of the *eons*.[50] The reader will recall that in some Gnostic schemes Jehovah, the God of the Old Testament, was portrayed as the fallen *eon*, in others he was even less than that, reduced to the status of an emanation of an emanation – smart enough to create the material world but too stupid to remember where he had come from and what his own small role really was in the scheme of things.[51] Likewise, the Cathars saw Jesus not as the physical and material 'son of God', as the Christians did, but as a divine emanation.[52]

This concept of emanation is also fundamental to the Cabala. Here the text on which the twelfth- and thirteenth-century Occitanian speculation was based was the *Sepher Yetzirah* ('Book of Creation'), a Hebrew treatise on cosmogony and cosmology originally compiled in the third century AD.[53] This work recounts a creative act on the part of the Godhead manifesting 'in ten distinct stages of Emanation' corresponding with the numbers one to ten.[54] These ten emanations, which combine alchemically with the twenty-two letters of the Hebrew alphabet – the language of God – are known as the *Sefirot*. Their order and qualities are as follows:

(1) *Keter Elyon* (Supreme Crown) or *Ratzon* (Will); (2) *Chochmah* (Wisdom); (3) *Binah* (Intelligence); (4) *Chesed* (Love) or *Gedullah* (Greatness); (5) *Gevurah* (Power) or *Din* (Judgement); (6) *Tiferet* (Beauty) or *Rachamim* (Compassion); (7) *Netzach* (Lasting Endurance); (8) *Hod* (Majesty); (9) *Yesod Olam* (Foundation of the World) or *Tzaddik* (Righteous One); (10) *Malchut* (Kingdom) or *Atarah* (Diadem) or *Shekhina* (Feminine Divine Presence).[55]

As the Cabala was developed in the twelfth and thirteenth centuries the Jewish mystics of Occitania organized these ten *Sefirot* into 'a specific archetypal pattern', usually drawn as interlinked by a complex network of straight 'branches', or 'pathways', or 'columns' or 'pillars': 'The pattern thus called forth is the model on which everything that is to come into manifestation is based. It has been named the Image of God, but it is more generally known as the Tree

of Life.'[56]

One might think of it as a diagram of the DNA structure of reality – intended not as a literal 'map of reality' or representation of 'what reality is made of' but as a *mandala*[57] or talisman to be used for focused mental exercise through which knowledge of the true nature of things can be reached.

Sephirothic Tree and Temple of Solomon

Like other *mandalas*, the Sephirothic 'Tree of Life' is a geometrical pattern. It features three main vertical columns or pillars on which the ten *Sefirot* representing the emanations of God are fixed like glass balls on a Christmas tree (see illustration). There is a significant interpenetration of symbolism here with Freemasonry. As we saw in Chapter 14, Freemasons generally represent the Temple of Solomon by two pillars or columns, known as Boaz and Jachin ('wisdom' and 'power'), with the open corridor between the two pillars often considered as a 'third' pillar. Such imagery of two or three pillars, so close to the basic structure of the Tree of Life, is frequently evoked in Masonic illustrations and certificates.

It is also commonly found in Rosicrucian symbolism[58] and some researchers have even detected it on the engraved title-page of Francis Bacon's *Advancement of Learning*.[59] This engraving, which appears in the 1640 edition, shows two pillars and beyond them the open ocean with a ship sailing away.[60] At the top of the left pillar is the symbol of the sun and at the top of the right pillar is the symbol of the moon – i.e., like the pillars in the Tree of Life they are surmounted by globes. But this is also, unmistakably, the same motif which is often seen in Masonic illustrations of Solomon's Temple, with the pillars Jachin and Boaz. One globe represents the visible world lit by the sun, and the other globe the invisible or occult world under the glow of the moon, i.e., the secret world. Two hands, one extended from each of the globes, are clasped in

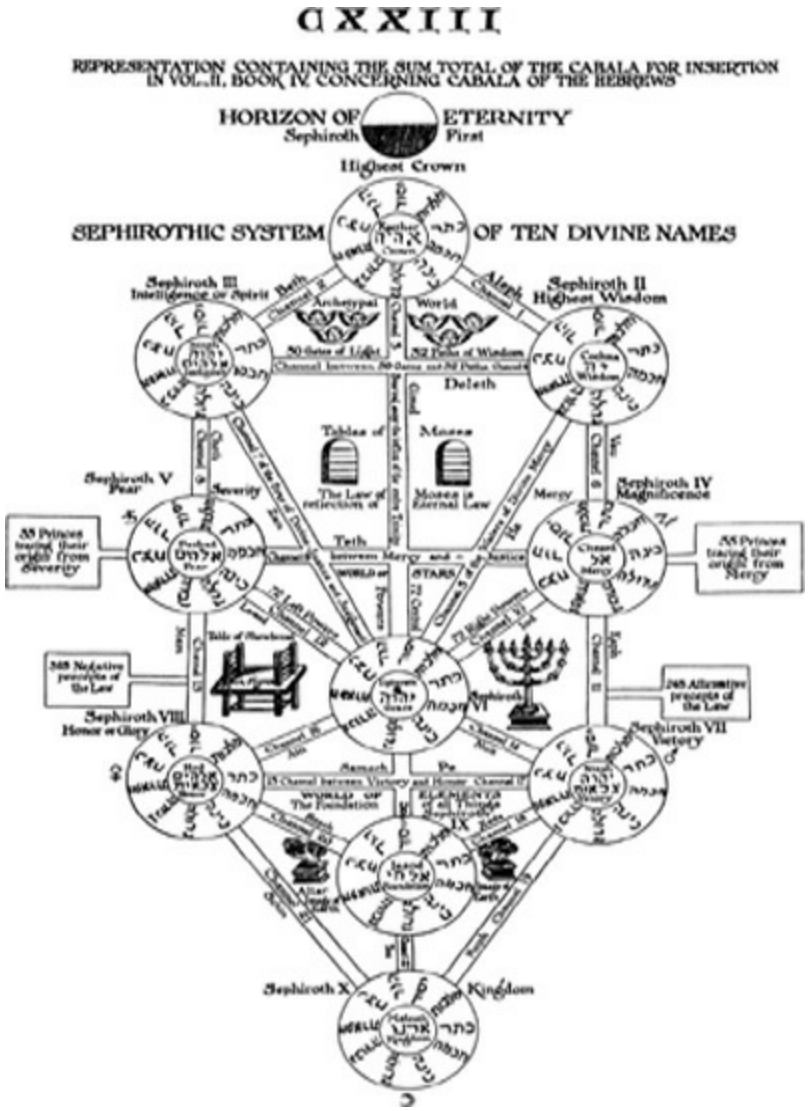

A typical Cabalistic ‘Tree of Life’ or Sephiroth.

what clearly seems to be a ‘Masonic handshake’. We are not alone in noting that this whole arrangement is suggestive of a Sephirothic Tree of Life that branches out into ‘Wisdom’, ‘Power’, ‘Intelligence’ and so forth.[61]

This same general pattern using symbols to denote the various Masonic ‘virtues’ and the many paths to their attainment can be easily discerned in the so-called ‘tracing boards’ used by Freemasons to this day in rituals likened to entry to the ‘spiritual Temple of Solomon’. At the foot of these ‘tracing boards’ is to be seen a representation of the two pillars, Jachin and Boaz, and beyond them some sort of shrine,

probably symbolizing the Holy of Holies of Solomon's Temple, and often represented by a Pentagram or a Blazing Star. Behind the Pentagram/Star device are spread a variety of Masonic symbols, the whole culminating at the top of the tracing board where we find the Supreme Being represented either by a crown (*Keter* in the Cabalistic Tree of Life also means crown), or by the 'all-seeing eye', or a glowing pyramid.

That such symbolism is to be directly associated with the Tree of Life is confirmed by the preparatory information given to Masonic candidates for the so-called Thirtieth Degree of the Scottish Rite, also known as the Knight Kadosh Degree, where a Sephirothic Tree is shown to the candidate along with a textual explanation of its symbolic use. According to Masonic historian Robert Lomas:

> In the preparatory section ritual of the Knight Kadosh (the 30th degree of the Ancient and Accepted Scottish rite and the first degree of the Chivalric Series), the Candidate is given this information. This division of the ten Sephiroth into three triads was arranged into a form called by the Kabbalists the Kabbalistic Tree, or the Tree of Life (as shown in the following Tracing Board). In this diagram the vertical arrangement of the Sephiroth is called – Pillars. Thus the four Sephiroth in the centre are called the Middle Pillar the three on the right, the Pillar of Mercy and the three on the left, the Pillar of Justice.[62]

In Chapter 1 of the *Sepher Yetzirah* it is stated that:

> Ten are the numbers of the ineffable Sephiroth, ten not nine, ten not eleven. Learn this wisdom and be wise in the understanding of it; investigate these numbers and draw knowledge from them; fix the design in its purity, and pass from it to its creator seated on his throne…[63]

The *Sepher Yetzirah* also speaks of 'the 32 most occult and wonderful paths of wisdom' on which 'the Lord of Hosts engraved His Name'. These thirty-two paths, pillars or columns in the design represent the ten Sephirot and the twenty-two Letters which are 'the foundation of all things'.[64] Thus the Sephirothic Tree, with its twenty-

two paths and ten 'emanations', also mystically connotes the number thirty-two. In Scottish Freemasonry this represents the thirty-two 'degrees' that must be taken (i.e., 'pathways' that must be followed) in order to reach the door of full Masonic enlightenment – the ultimate thirty-third degree. The link we make here is confirmed by the Thirty-third Degree Scottish Rite author, Charles Sumner Lobingier, who, in 1929, was commissioned by the Grand Commander of the Scottish Rite in Washington, DC, to write an official history of this Masonic Order:

A later feature of the Kabala is the thirty-two paths of wisdom. The number is obtained by adding the letters of the Hebrew alphabet (twenty-two) to ten Sephiroth, and here we doubtless have the origin of the number of degrees as formulated by the Grand Constitution [of the Scottish Rite]…[65]

The Paradoxical Kircher

The belief that divine principles, emanations or archetypes can be made manifest in a 'temple' or 'house' of God – both in the material and in the spiritual sense – is at the very heart of the Tree of Life concept. But much earlier the ancient Egyptians also designed their temples with precisely such a purpose in mind – think, for instance, of the great sacred precinct of Amun at Karnak-Luxor.

The notion that the Egyptian esoteric design of temples could in some way be connected to the Sephirothic Tree was developed as early as the seventeenth century by the Hermetic-Cabalist and philosopher Athanasius Kircher in his book *Oedipus Aegyptiacus*. In this work Kircher, who was also (or seemed to be) a devout Jesuit, goes so far as to argue that all religions and all knowledge of the divine originally came from Egypt.[66] Joscelyn Godwin, Professor of Music at Colgate University in New York, is a world-renowned authority on Kircher and has this to say:

Kircher derives all the wisdom of the Jews from Egypt, transmitted through the initiate

Moses. In The Tree of the Sephiroth we have the primary metaphysical symbol of the Hebrew Cabalists. It shows ten invariable archetypes linked to each other by twenty-two paths corresponding to the twenty-two letters of the Hebrew alphabet. Since the Tree is a diagram of the utmost universality, it may be used as a key to the working of every level of the Universe… On the cosmological level, the lowest seven Sephiroth are the seven Chaldaean planets, and the upper triad, according to Kircher, the spheres of the fixed stars.[67]

In 1621, Athanasius Kircher, then a young novice in the Jesuit order, was forced to flee Germany – his homeland – because of the outbreak of the Thirty Years War. He eventually found his way into France and joined the Jesuit College at Avignon. A brilliant mathematician and accomplished linguist, Kircher developed an insatiable interest in all things Egyptian and in 1635 was given a post at the Jesuit College in Rome to study hieroglyphs. In 1638 Kircher was made Professor of Mathematics, but his scientific interests were wide and varied. His fame became such that scholars from all over the world corresponded with him and many came to see him in Rome, such as the English inventor William Gascoignes and the French painter Nicolas Poussin, to whom he taught perspectives.[68] Kircher was a keen collector of antiquities, and was to establish one of Europe's first museums, the Museo Kircheriano, which some compared 'with Elias Ashmole's foundation in Oxford of the Ashmolean Museum'.[69]

Like Giordano Bruno before him Kircher was an all-out 'Egyptian' Hermetist who 'regarded Egyptian idolatry and polytheism as the source, not only of Greek and Roman religion, but of the later Hebrews'.[70] Kircher also believed that Egypt was the source of all civilizations and, more importantly, that all ancient philosophies, and especially Hebrew Cabala, had been 'derived from the Egyptian wisdom' handed down in the Hermetic writings.[71] Because of this, Frances Yates calls Kircher the 'most notable descendant of the Hermetic-Cabalist tradition'. Yates also comments that he was 'much preoccupied with Isis and Osiris as the chief gods of Egypt'.[72] In his *Oedipus Aegyptiacus*, Kircher reaches the following conclusion:

The divine Dionysius testifies that all created things are nothing else but mirrors which reflect to us the rays of divine wisdom. Hence the wise men of Egypt feigned that Osiris, having given charge of all things to Isis, permeated invisibly to the whole world. What else can this signify save that the power of the invisible God penetrates intimately into all?[73]

One of Kircher's closest friends was the great Baroque architect Gian Lorenzo Bernini, whom Christopher Wren met in France in 1665 at the court of Louis XIV. Bernini, like Kircher, was (or seemed to be) an ardent Jesuit, and all his life would attend Mass every morning at the small church of Il Gesù in Rome, where the founder of the Jesuit Order, St Ignatius Loyola, was buried. Kircher's vast knowledge of perspective and of the symbolic use of architecture gave him much in common with Bernini, and they collaborated on several architectural projects for the Pope in Rome. Notable amongst these was an ancient Egyptian obelisk (not to be confused with the Vatican obelisk described earlier) that they erected in the Piazza della Minerva, where once had stood a temple of Isis. It was in 1652, thus thirteen years before Bernini met Christopher Wren in Paris, that Kircher published his *Oedipus Aegyptiacus*, a book that was a bestseller in its days and widely read throughout Europe.

Kircher's depiction of the Sephirothic Tree is identical to the portrayals in the Hebrew Cabala with ten emanations interlinked by twenty-two pathways. But unlike others, Kircher saw the original source of the Cabalistic knowledge enshrined therein as being 'Egyptian'. Could Kircher's 'Egyptianized' Hermetic-Cabalistic ideas of sacred and symbolic architecture and perspectives somehow have reached Christopher Wren and John Evelyn in England?

John Greaves, the Pyramids and Gresham College

In considering this question we note that there is another possible 'Egyptian' connection – again peculiarly involving Kircher – in Christopher Wren's background.

The reader will recall that Wren was appointed Savilian Professor of Astronomy at Oxford in 1661, right after the restoration of Charles

II.[74] Prior to Wren's appointment, the post had been occupied by Seth Ward, who held the position from 1649 to 1660. Before Ward the Professor had been another eminent figure – John Greaves.

Like Wren, Greaves had formerly taught mathematics at Gresham College in London. His stint there was from 1630 to 1637, after which he took a sabbatical in order to make a rather unusual journey to Egypt, the main objective of which was to investigate the pyramids of Giza. He hoped to find a 'universal unit' of measurement encoded into these great structures. To this end he teamed up with an Italian scientist, Tito Livio Buratinni, whose sponsor was none other than Athanasius Kircher.[75]

Buratinni, although Italian by birth, was domiciled in Poland. He was a keen mathematician, astronomer and cartographer, but his real passion, like Kircher's, was ancient Egypt. Buratinni was finally to travel there in 1637 with support from Kircher, a short while before Greaves himself arrived in Egypt. In his book *Pyramidographia*, published in 1646, Greaves refers to Buratinni as 'an ingenious young man from Venice' and makes use of some of Buratinni's drawings of the pyramids.[76]

It was when Greaves returned to England in 1639 that he was rewarded for his Egyptian endeavours with the post of Savilian Professor of Astronomy at Oxford – the same post that Christopher Wren would eventually occupy in 1661.

David Stevenson, professor of Scottish History at St Andrews University, has discovered that Sir Robert Moray, the principal founder of the Royal Society and the first man to be initiated into Freemasonry on English soil, also had a connection with the ubiquitous Athanasius Kircher:

> In 1643 he [Robert Moray] was knighted by the king [Charles I]… Later in that same year he was captured by imperial forces while fighting for the French, and was imprisoned in Bavaria. By 1645 he had been ransomed, having made use of his captivity to develop his scientific interests through conversations and correspondence with Jesuit scholars, including the remarkable Hermetic polymath Athanasius Kircher who was a leading authority on the

mysteries of ancient Egypt.[77]

There is, too, another common denominator to consider. Gresham College itself. Many of the protagonists associated with the Invisible College, the Royal Society and the early London Masonic lodges were directly or indirectly involved with Gresham College. These included Robert Moray, John Wilkins, Christopher Wren and Robert Hooke. The origins of this college go back to Sir Thomas Gresham, the famous founder of the London Royal Exchange. In 1575 he bequeathed his home in Bishopsgate to serve as headquarters for the college and left provision in his will for it to be funded in the future through revenues accrued by the Royal Exchange. The idea of such a college seems to be somewhat 'Masonic', in the sense that Sir Thomas Gresham decreed that seven 'readers' or scholars would be appointed to lecture on each of the seven liberal arts.[78] Indeed, according to Robert Lomas, Gresham College was 'the main centre for Freemasonry in Restoration London… which Sir Thomas Gresham had set up to support his Masonic ideals of study'.[79]

Could all these circumstances, as well as the encounter with Bernini in Paris, have brought Christopher Wren into contact with Kircher's Hermetic-Cabalistic ideas and their application to geometrical design and structures such as the Sephirothic Tree of Life? And if they had, might they have influenced Wren's plan for the rebirth of London after the Fire? We can only surmise that the opportunity was there for this to happen.

Oddly enough, the same can also be said of John Evelyn, who presented his plan for a 'new' London just a couple of days after Wren. Evelyn, as we shall recall, had travelled to Europe between 1643 and 1652. He spent time in Rome during this period, where he is known to have developed a keen interest in Bernini and his works.[80] It is by no means impossible that he might have seen or learned something there, in the city where Giordano Bruno had been burned at the stake less than half a century before, that sparked off Hermetic-Cabalistic ideas in his mind.

Many Different Streams Converging

'After the disappearance of Catharism and the Temple at the beginning of the 14th century,' Arthur Guirdham asks:

> what outlet was there for those of a dualist tendency? One thing we can say with certainty. By this time the dualists of Europe had learnt that the open profession of their opinions was so hazardous as to be impracticable.[81]

In other words if religious teachings as contrary to Church dogma as those of the Cathars were in any way to survive the mindset of the Middle Ages they would have to go underground, and to follow whatever further course of natural evolution and development they could while remaining out of sight. We are convinced that this happened and that dualist beliefs were sheltered and nourished beyond the view of the Inquisition and historians long after 'Catharism and the Temple' had been officially destroyed. It seems to us that this process was dramatically catalysed and briefly brought out into the open again by the recovery of the Hermetic Texts in 1460 and that afterwards another period of incredible openness, progress and revolutionary thinking followed. But Hermetists like Bruno, who pushed the revolution too quickly, died for their beliefs while other less hot-headed thinkers waited patiently for a better time.

In the long years of waiting many different ideas, like many different streams converging, all became available to 'those of a dualist tendency'. Included in the mix were remnants of Cathar Gnosticism; Jewish mysticism and the Cabala; the recovered Hermetic revelations; Templar and Masonic notions about rebuilding Solomon's Temple; the Rosicrucian and 'New Atlantean' programme for an ideal utopian city designed to bring harmony between heaven and earth; and last but not least Tommaso Campanella's City of the Sun, the Adocentyn of the *Picatrix*, to be made 'in such a wonderful way that only by looking at it all the sciences may be learned'.[82]

All these elements and influences, we suggest, were at work in the mysteriously similar city plans that Christopher Wren and John

Evelyn prepared after the Great Fire of London in 1666.

Wren's Plan to Rebuild the Temple

The Great Fire swept over the City of London like a giant blowtorch, clearing an area one and a half miles long and half a mile wide. It destroyed almost everything from Tower Hill in the east to Temple in the west, where it finally burned itself out in front of Temple Church, a distinctive round structure built of stone in the Gothic style.

The district where the fire stopped – still known as 'Temple' and today inhabited mainly by lawyers – is so named because of its historical association with the Knights Templar. It lies roughly between St Paul's in the east and Covent Garden in the west, and is bracketed by Fleet Street in the north and the Victoria Embankment in the south. The Templars built their great *preceptory* (headquarters) of the New Temple here in 1161, providing themselves in the process with a pier on the river Thames and inland access for their ships all the way to Newgate via the nearby river Fleet.[83]

Construction of Temple Church began in 1180. Like many other Templar places of worship, its core structure was a circular building with a domed roof, reminiscent of the Church of the Holy Sepulchre (the supposed tomb of Jesus) in Jerusalem. Let us note in passing that the Church of the Holy Sepulchre lies west of the site of Solomon's Temple in Jerusalem, an alignment, as we shall see later, that did not go unnoticed by the Templars in London. Dedicated to the Virgin, Temple Church was consecrated on 10 February 1185 by Heraclius, Patriarch of Jerusalem, who was brought to London for the purpose. This was just two years before the dramatic fall of Jerusalem to the 'heathen' forces of the Arabs under Saladin in 1187.

The district of Temple and Temple Church remained under the order's control until its suppression in 1307. In 1312 all Templar properties in London, including the round church, were handed over to the rival military order of the Knights Hospitallers. When the Hospitallers were in turn suppressed during the Reformation, the

church and its surrounding buildings passed to the Crown. The buildings were tenanted by lawyers – the Benchers of the Inner Temple and the Middle Temple – who secured the freehold by royal charter from James I in 1608. These two 'Inns of Court' have remained the owners of Temple Church ever since and are under an obligation by terms of their royal charter to maintain it and its services for ever.[84]

In the plans that Wren and Evelyn drew up for London's architectural rebirth after the Great Fire, both men paid inordinate attention to the area around Temple Church.

Christopher Wren was first to get the king's attention. On 11 September 1666, with a blueprint tucked under his arm, he rushed to see Charles II at Whitehall. The blueprint was an amazingly detailed and professionally executed map for a new London, the sort of town-planning design project that should take weeks, if not months, to conceive and draft in final form. Yet barely a week had passed since the Fire and there were still dozens of smoke plumes hanging over the skyline of the charred city.

Christopher Wren's ideas combine a magnificent vision for a new capital city with an appreciation of sophisticated concepts in urban planning. His blueprint, which has survived, looks like the polished product of a highly skilled team. Yet the evidence suggests that Wren did not consult his colleagues at the Royal Society and worked alone on the plan.[85] Was he trying to protect his ideas so that no one else could take the credit? Or was he just in a tremendous hurry – out of a natural desire to be 'first'? He could have had many motives for secrecy and speed, but what interests us more are his motives and hopes for the new London.

Freshly back from his eight months in Paris, where he had studied neoclassical architecture as well as new and daring city plans, Wren's dream was to replace the winding streets and courtyards of the old medieval city with new monumental avenues such as those he had seen in France. His plan is

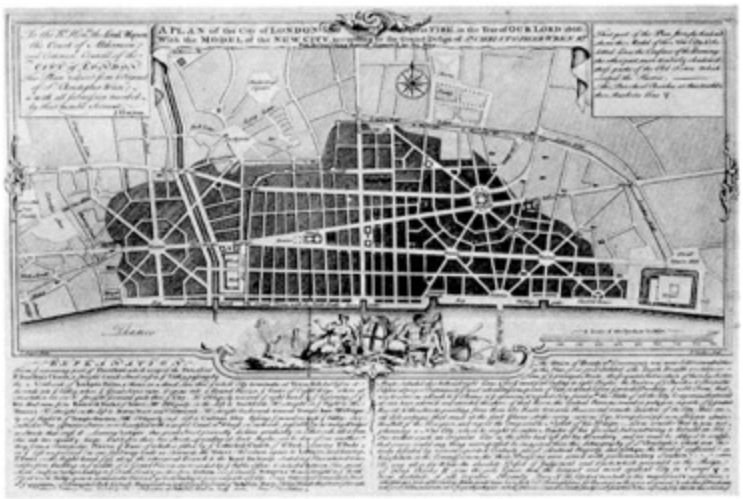

Plan proposed by Christopher Wren for the city of London, 11 September 1666.

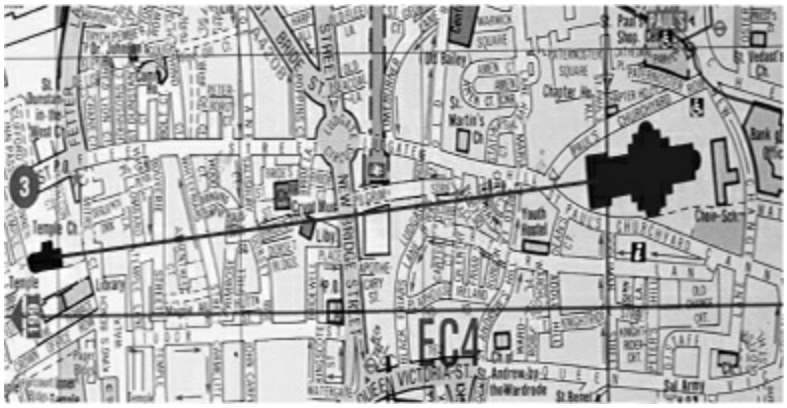

The east–west alignment between Temple Church (left) and St Paul's (right).

dominated by a main central avenue that runs virtually straight from one end of the city (Aldgate) to the other (The Strand), passing through a series of huge star-shaped plazas distributed along the way. From these plazas numerous straight roads emanate in all directions, linking up to smaller piazzas or 'circuses' on either side of the main axis to form a closed network. Wren's plan also features a second monumental avenue running from the Tower of London, along Cannon Street and up to St Paul's.[86] This second avenue merges

with the main axis coming from Aldgate, and the whole is then prolonged to Ludgate to become Fleet Street.

It is at this point, just past Ludgate – and not far from Temple Church – that a major feature of Wren's plan stands out: a large open plaza in the form of an octagon with all eight sides of equal length. Wren's established Masonic connections make it more than likely that he would have known the significance of the octagon as the Templars' own symbol for the Temple of Solomon. He should also have known that the location he proposed for this distinctive octagonal plaza encroached physically on the site of the Templars' former London headquarters. But if there is any doubt over his deliberation in these matters it is settled for us by a final telling detail. Half a mile to the east Wren deliberately altered the east–west axis of the 'new' St Paul's Cathedral by a few degrees to the south so that it would now align with Temple Church.[87]

We've noted that Temple Church was conceived of initially as a scale model of the Church of the Holy Sepulchre and that the latter stood west of the original site of the Temple of Solomon in Jerusalem. In Wren's London Temple Church stands west of St Paul's in the same way. Could it be, therefore, that what the architect had in mind with all this was a scheme for building a 'hidden Jerusalem' in the heart of London?

The Ghost in the Plan

It is reported by Christopher Wren's own son (also called Christopher) that during his inaugural speech as professor of Astronomy at Gresham College, Wren senior described London as 'a city particularly favoured by the celestial influences, a Pandora, on which each planet has contributed something'.[88]

This, it must be remembered, was a time when astrology and scientific astronomy overlapped seamlessly, and when many still believed in the influence of the stars and planets. But it is unlikely

that Wren had in mind horoscopic astrology when referring to London. What is more likely is that he was thinking of influences of a more spiritual and mystical nature, such as the talismanic influences found in Hermetic magic and in Renaissance Christian-Cabala. Steve Padget, a professor of Architecture at the University of Kansas, explains:

> Following the break with Papal authority, the 'cosmos' for the English no longer centred around Rome and St Peter's, but London and the old Gothic St Paul's. Its centre spire acted the role of *axis mundi* for this world, symbolizing the centre of London, England and the universe… When the spire was broken (felled in the Great Fire of 1666), it denoted a catastrophe of cosmic proportion. The symbolic connection between heaven/earth/underworld had been severed.[89]

Charles II and the Anglican clergy were eager to dispel the rumour started by Catholics that the Great Fire had been the act of a wrathful God to admonish the English people for having broken away from the Church of Rome and the authority of the Pope. The trick that the king and his advisers pulled off was to transform the Fire into a symbol of purification and regeneration for London and the realm, intended to bring to fruition a 'perfect Christian society'. And once that had been achieved, comments Professor Padget, 'the implication was that fulfilment of "The New Jerusalem" was possible'.[90] The king himself wrote a sermon in which, according to historian V. Hart,

> the Bishop of London… proclaimed St. Paul's at the centre of a royalist New Jerusalem for 'here hath the lord ordained… the throne of David for judgement; and the charre of Moyses for instruction,' adding that 'this Church is your Son indeed, others are but synagogues, this is your Jerusalem, the mother to them all.'

Following the Cabalistic theme within this sermon, the influence of Christian Cabala… could be expected in… subsequent work of the restoration of the seat of David and Moses… The Christian Cabalist hoped that through such divinely inspired intellectual magic, pre-Christian or otherwise, the conditions on earth for nothing less than

the Second Coming would be created, a necessary prelude to the Apocalypse and final establishment of the Heavenly Jerusalem.[91]

We shall return to Wren's design of the new St Paul's and its full implications in due course. Meanwhile the longer we looked at his plan for London, the more we sensed something else was embedded in it, something 'ghosted', as it were, beneath the layout of the avenues and plazas. Standing back and viewing the design as a whole, we realized that what the overarching vision reminded us of – albeit a little hazily – was the Sephirothic Tree of Life![92]

Naturally our first thought was that our eyes were just being tricked by a common optical illusion. And, indeed, a common optical illusion it might well have been were it not for the fact that two days after Wren had presented his plan to Charles II, yet another 'Sephirothic' scheme for the redesign of London was proposed to the king by John Evelyn.

Evelyn's Plan

On 13 September 1666, Evelyn secured his own audience with Charles II in – of all places – the queen's bedchamber in Whitehall.[93]

What immediately strikes the eye in Evelyn's plan, and must surely have struck the king's eye as well, is how strangely *similar* it is to Wren's. Yet on the face of things Wren seems to have done everything he could to keep his work secret.[94] We know, for example, that he did not take the advice of his colleagues at the Royal Society – much to the chagrin of Secretary Henry Oldenburg.[95] When the latter complained about the lapse Wren curtly replied that he had wanted to submit his design first, before anyone else had the chance to distract the king's attention and thus 'could not possibly consult the Society about it'.[96]

For his part Evelyn simply wrote in his diary: 'Dr. Wren had got a start on me.'[97] However, historian Adrian Tinniswood is satisfied that there was much closer collusion between the two men than such

remarks suggest:

Striking similarities between the two schemes show that they [Wren and Evelyn] must have discussed their dream of an ideal London either before the fire brought those dreams a dramatic step closer to realization, or when they were both working on them in the second week of September. They both proposed that the area between Temple Bar and the Fleet should be given over to a piazza which would form the intersection of eight streets radiating out on the points of the compass. They both enclosed the buildings which fronted onto this piazza with an octagon of connecting streets. They both made the entrance to the northern end of London Bridge a focal point of their plan, and created a semicircular piazza as a grand introduction to it. They both sent main thoroughfares in from the east to converge at St. Paul's… A passing reference in the explanatory discourse that Evelyn submitted along with his plan confirms some sort of collaboration, and suggests that he adopted some of Wren's ideas. He implied that the two men discussed their respective schemes on or immediately before 11 September, and says that the '*street from St. Paul's may be divaricated like a Pythagorian* Ψ*, as the most accurately ingenious Dr. Wren had designed it, and I willingly follow in my second thoughts*.'[98]

It cannot be a coincidence that the plans of Evelyn and Wren both incorporate the same meaningful Templar symbol of the octagon in exactly the same meaningful place: i.e., overlapping the old London headquarters of the Knights Templar close to Temple Church. We note also that on Evelyn's plan the octagonal plaza is placed directly west of St Paul's Cathedral in such a way that its centre aligns with the axis of the cathedral – the two points being joined together by the wide avenue of Fleet Street.

Most intriguing of all, however, as our illustration shows, is the clear, purposeful definition with which Evelyn's plan is so obviously structured

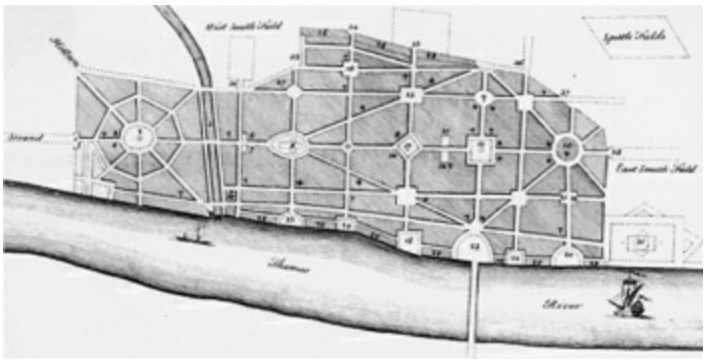

Plan proposed by John Evelyn for the city of London, 13 September 1666.

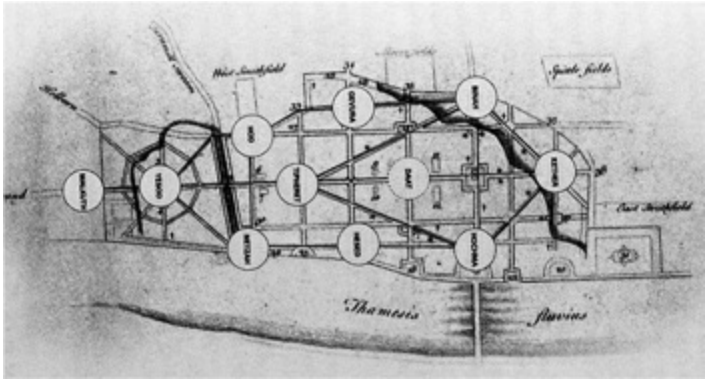

The Sephirothic Tree superimposed on Evelyn's street layout.

around the Sephirothic Tree of Life. If there is some ambiguity in Wren's case, Evelyn's plan certainly leaves no doubt as to his motive. For despite some minimal variations required for practicality, the similarity between Evelyn's geometrical pattern and that of the Sephirothic Tree of Life is *unmistakable*.

Presumably by firing their 'double salvo' on 11 and 13 September Wren and Evelyn must have hoped that the Sephirothic Tree of Life, as well as the other shared elements concealed in both their plans, would quickly be approved by the king. We suspect also that in the minds of both men must have been the well-known final verses from the *Book of Revelation* which evoke the creation of the 'New

Jerusalem' and the 'Tree of Life':

Then I saw a new heaven and a new earth, for the first heaven and the first earth had vanished… I saw the holy city, New Jerusalem, coming down out of heaven from God, made ready like a bride adorned for her husband… It had a great high wall, with twelve gates, at which were twelve angels, and on the gates were inscribed the names of the twelve tribes of Israel… the city had twelve foundation-stones, and on them were the names of the twelve apostles… Then I was shown the river of the water of life, sparkling like crystal, flowing… down the middle of the city's streets. On either side of the river stood a Tree of Life, which yields twelve crops of fruits… Happy are those who wash their robes clean! They will have the right to the Tree of Life and will enter by the gates of the city…[99]

It is quite obvious from this scheme of things in the *Book of Revelation* that the design of the 'New Jerusalem' was to incorporate the number *twelve* and, more importantly, that the holy city should rest upon a matrix of twelve 'foundation-stones' or foci. Interesting, then, as historians F. Barker and R. Hyde point out, that:

Evelyn wanted *twelve* interconnecting squares and piazzas… [and] a straight east-to-west thoroughfare [that would] cut its way for a mile and a half from 'King Charles Gate' [in the London wall, south of Aldgate] to Temple Bar where there was a piazza with eight radiating roads like Wren's.[100]

Interesting, too, that by comparing Evelyn's obviously 'Sephirothic' plan with the actual geometry of a Sephirothic Tree of Life, it can be seen that St Paul's Cathedral corresponds to the *Sephirah* – divine emanation – known as *Tipheret*, which means 'Beauty'. Astrologically this *Sephirah* represents the Sun, the centre of the universe, from which emanates all life and light. The analogy is obvious: St Paul's was to be the spiritual centre of the regenerated city as it rose from the ashes like a solar phoenix to guide the restored Stuart monarchy on the true path of the reformed Christianity.

Corresponding to the large 'Templar' octagon in Evelyn's plan is the *Sephirah* known as *Yesod*, which means 'Foundation'. Could this mean that the new world order which was to emerge from the 'New

Jerusalem' had its foundations in the Order of the Temple or, more precisely, the new Masonic Order which had emerged from Templar ideologies and to which the Stuart monarch had given his royal protection?

Another curious feature of Evelyn's plan is that he moved the Royal Exchange *away* from the centre of the city (whereas Wren had kept it there on the original site of Thomas Gresham's building).[101] Evelyn placed it nearer to the river, further upstream from London Bridge – most likely because he wanted to have at the heart of his planned 'New Jerusalem' another more relevant symbol which would correspond to the appropriate *Sephirah* in the Tree of Life. This came in the form of the fountain he envisaged for Gracechurch Street market place, which may represent the so-called '11th hidden *Sephirath*', known as *Daat*, from which emanates the fountain of knowledge that irrigates the whole.[102]

Solomon's Temple Veiled in St Paul's Cathedral?

In addition to serving as the spiritual centre and solar symbol of the regenerated London, logic suggests that St Paul's Cathedral also came to symbolize Solomon's Temple in the New Jerusalem that Wren and Evelyn had in mind. Christopher Wren was subsequently made Surveyor of St Paul's Cathedral in 1668 and Surveyor General for the King's Works a year later. In this capacity he produced a design for the rebuilding of St Paul's which, finally, in 1671 he presented to Charles II. Here is Tinniswood's assessment of the design:

> The building was quite unlike anything seen in Britain before. A round central space more than 120 feet in diameter had four stubby arms of equal length projected out to north, south, east and west. The sloping sides of the octagon thus formed were concave, so that in plan the cathedral looked like a Greek cross. And inevitably, the central space was crowned with a monumental dome supported on a ring of eight pillars.[103]

It is gtrue that Wren's octagonal floor-plan for St Paul's was

something totally ‘unseen in Britain before’. But not elsewhere,[104] and most certainly it had been seen by those who had visited the Holy Land and Jerusalem and studied the Dome of the Rock which the Knights Templar had much earlier adopted as their symbol for Solomon’s Temple. Viewed in profile, Wren’s design for the new St Paul’s does in fact bear an uncanny resemblance to the Dome of the Rock: both have the same octagonal floor-plan; both have the same rotunda or rounded central space; both have the massive cupola supported by eight pillars; both have been deliberately aligned to the four cardinal directions,

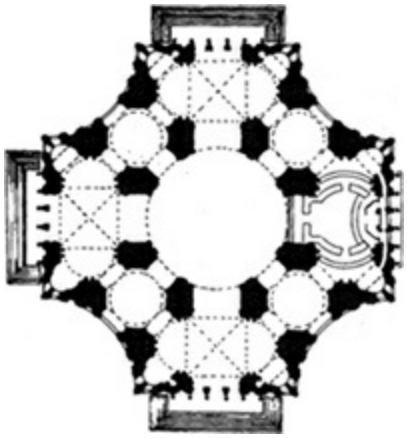

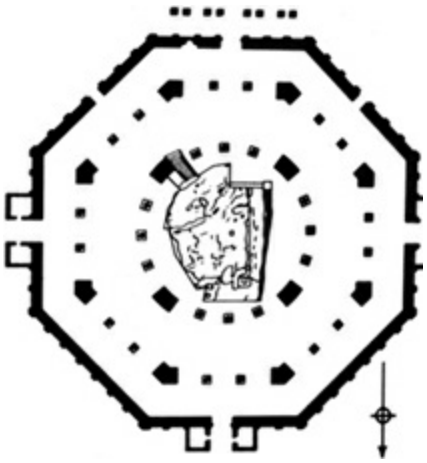

Wren's plan for St Paul's Cathedral (above) compared to the plan of the Dome of the Rock (below).

north, south, east and west. Last but not least, from both the eight-sided Templar Cross can easily be derived.

What Masonic game was Wren playing in his plans for London and for St Paul's Cathedral? And why did it involve the symbols of an ancient heresy?

Chapter 16

From Secret Society to Society With Secrets

In February 1685 Charles II died peacefully at Whitehall, having made a deathbed conversion to Catholicism that left the nation somewhat confused. Since there were no legitimate sons, the succession went to his autocratic brother, James Duke of York, a devout and zealous Catholic. In 1673 James had married Mary of Modena, also a staunch Catholic. And not surprisingly, as soon as he was safely crowned he placed Catholics in important positions within the government. This raised fears, even amongst his Anglican supporters, that he was on the verge of reimposing Roman Catholicism as the state religion in Britain. The situation reached a crisis in 1689 when, on 22 February, James II was forced to abdicate in favour of William of Orange and his wife Mary, the heiress presumptive, who were both staunch Protestants.

This marked the end for the Stuarts as a ruling dynasty, but not yet for James II and his 'Jacobite' supporters (the latter being a name derived from the Latin version of 'James', i.e., Jacobus). As Charles II had done before him, James went into exile in France at the court of Louis XIV. He took along with him his whole family and a large band of Jacobites, and they all settled in the palace at St Germain-en-Laye near Paris. It was there, according to some Masonic researchers, that the first official Masonic lodges on French soil began to emerge.

When James II died in 1701, his thirteen-year-old son, Prince James Francis Edward, was immediately recognized by Louis XIV as James III, the British king in exile. In 1713, however, Louis made

peace with Britain, and the 'Old Pretender', as James III was now being called, left for Rome along with his family and his Jacobite court. In 1714 his half-sister, Queen Anne, died, leaving no surviving children. But because of an act of Parliament that precluded James from the succession on account of his Catholic faith, the British throne went to the Protestant Elector of Hanover, who became King George I.

Within the small group of Jacobites in Rome making up the increasingly decrepit Stuart court in exile was a well-educated Scotsman called Andrew Michael Ramsay, who served as private tutor of the children of the Old Pretender. Ramsay, who is better known to Freemasons as 'the Chevalier Ramsay', was soon to play a pivotal role in the evolution of Freemasonry.

Meanwhile in Britain the official 'coming out' of the Craft took place when the so-called Grand Lodge in London was created on 24 June 1717 – St John the Baptist's Day, the attested feast and 'new year' of the Freemasons.[1] In the New Testament, St John the Baptist is depicted as the forerunner of Christ the Messiah, and in Eastern Christian tradition he is regarded as the most important saint after the Virgin Mary. Indeed, in the Gospel of Matthew Jesus himself is made to praise St John as follows: 'Truly, I say to you, among those born of women there has risen no one greater than John the Baptist.'[2]

A prophet in his own right, John the Baptist supposedly stepped aside to prepare the way for the Christ-Messiah by saying: 'He must increase, but I must decrease.'[3] In this apparently cryptic remark there is obvious solar symbolism which accomplished Freemasons will surely understand – for by 24 June the sun's altitude in heaven does indeed decrease after passing the apogee of the summer solstice.

The celebration of St John's Day traditionally began on the night of St John's *Eve*, i.e., 23 June, and was at one time called 'Bonfire Night' in parts of Europe and Ireland. But there was an inherent error in the Julian calendar relative to the true solar year (and thus also relative to the new, more accurate, Gregorian calendar). Accumulating year by year, the effect of this error was that '23 June Julian' was forever

slipping further away from the summer solstice – such that it fell some thirteen days *after* the solstice by 1717. At that time, Britain and its American colonies had not yet adopted the new Gregorian calendar (which they regarded as a Catholic, and thus tainted, innovation). The official calendar in Britain was therefore still the Julian calendar, which was eleven days *ahead* of the new Gregorian calendar.

St John's Eve, 23 June 1717 on the Julian calendar, corresponds with 4 July in the Gregorian calendar. Let us keep this curious conversion in mind, since 4 July is clearly a date which would soon have a great symbolic resonance in the American colonies and in France.[4]

Recruiting from the Ruling Classes

On 24 June 1717 the formation of Grand Lodge was achieved by the amalgamation of four older lodges in London. From this date onwards Freemasonry was no longer a secret society but began to operate very much out in the open, and in a manner that would certainly have attracted heresy charges in earlier, less enlightened, centuries.

A certain Mr Anthony Sayer was appointed the first Grand Master of the new united body.[5] Very little is known of Sayer. He remained at his post for only a year and was succeeded by George Payne in 1718, then by the celebrated Dr John Theophilus Desanguliers in 1719.[6] Of French birth, Desanguliers had been brought to England as an infant by his Huguenot parents, who had fled from La Rochelle during the persecution of Protestants by Louis XIV. He grew up to become a brilliant scholar, and studied law at Oxford. In 1714 Desanguliers was elected a Fellow of the Royal Society and eventually became its curator. There he befriended several famous scientists, including the great Isaac Newton. It was Desanguliers who was responsible for attracting into Freemasonry many men from the nobility, amongst them the Duke of Lorraine, the future Holy Roman Emperor Francis I, and Frederick Prince of Wales, the son of George

II, to whom Desanguliers was appointed tutor.[7] It is thus that from 1721, and much thanks to Desanguliers, Grand Lodge of England has always been headed by a member of the royal family.[8]

Such illustrious sponsorship and royal approval, as well as its policy of religious tolerance and freedom of thought and, paradoxically, its stringent oath of secrecy, made Freemasonry an exceedingly popular fellowship amongst the aristocracy and the educated middle classes. Masonic lodges began to flourish everywhere in Europe, and the first Parisian lodge of English origin, which went under the name of St Thomas, was opened in 1726 by Charles Radclyffe, who belonged to an old Scottish family loyal to the Stuarts. It seems that Charles Radclyffe himself was the son of an illegitimate daughter of Charles II.[9] Radclyffe unwisely attempted to return to England in 1746, where he was arrested as a Jacobite spy and executed.

Another illegitimate descendant of Charles II, who presided in the French lodge La Loge d'Aubigny, was the Duke of Richmond, grandson of the Duchess of Portsmouth, Louise de Keroualle, a favourite mistress of Charles II.[10] The Duke of Richmond had also put in a spell as Grand Master of Grand Lodge of London in 1724.

The Jacobite community in Paris at the time also included the Duke of Wharton, who had likewise been Grand Master of Grand Lodge of London – in his case in 1722. Wharton, who was expelled from Grand Lodge in 1723 after a serious scandal, fled to Europe, where he eventually settled in Paris to become the first Grand Master of French Freemasonry in 1728, later to be called the Grande Loge de France.[11] It was about this time that the Scotsman Ramsay, who was also now in Paris, began to nurture radical ideas about how Freemasonry might be developed in France and in other lands.

The Knight Ramsay

Freemasonry's famous 'Scottish Rite' is often said to have originated

in France in 1725, that is, eight years *after* the formation of United Grand Lodge of England in 1717. The well-known Masonic historian Jasper Ridley has this to say:

> During the eighteenth century other Masonic rites developed in various parts of the world, of which the most important was the so-called Scottish Rite. It had never, in fact, existed in Scotland, but had originated in France, and was called the *Rite Ecossais* – the Scottish Rite – because the Scotsman, the Chevalier Ramsay, was thought to have started it.[12]

Other researchers think there's more to the story. It does seem almost certain that Andrew Michael Ramsay, better known as the Chevalier Ramsay, and indeed a Scotsman, was responsible for the *formation* of what became known as the Scottish Rite throughout the world. But there is much to suggest that the Rite was an amalgamation of older ideas that had circulated among earlier Scottish lodges in Scotland itself and that Ramsay had simply synthesized and brought to France.[13]

Andrew Michael Ramsay was born in 1686 in Ayr, a town about forty miles south-west of Glasgow in Scotland, and not far from Kilwinning, 'the traditional birthplace of Scottish Freemasonry'.[14] Although the son of a lowly baker, Ramsay was to become a refined man of letters. Educated at Edinburgh University, he eventually received a degree in law from Oxford. After serving as an officer with the Duke of Marlborough in Flanders in 1706, Ramsay decided to remain in the Netherlands. There he met a Frenchman, Pierre Poiret, a disciple of Madame Guyon, a popular French Catholic mystic who was closely associated with the great French scholar and author, François de Salignac de la Mothe Fénelon, the Bishop of Cambrai. Fénelon was famous throughout Europe, and was particularly well known for having written *Les Aventures de Télémaque*, a very popular book at the time, in which he presented to the French court an allegory, set in historical locations such as ancient Egypt and Phoenicia, of the ideal utopian state.[15]

For a long time Fénelon had entertained excellent connections at

the French court in Paris when he was tutor to the heir apparent and grandson of Louis XIV, the Duke of Burgundy. Indeed, Fénelon originally wrote the *Aventures de Télémaque* while he was at court – apparently for the benefit of the young prince, who he hoped would one day become King of France and put into practice the perfect state and the ideal government modelled on the Golden Age of the ancient world.[16] But Fénelon's unorthodox relationship with the Catholic mystic Madame Guyon eventually lost him the support of Louis XIV, who had him exiled to his diocese at Cambrai in 1709.

Now it seems that Ramsay may have acted as some sort of secretary for Madame Guyon, which might in turn explain why in 1710 he suddenly received an invitation to visit Fénelon at Cambrai.[17] There, Ramsay and Fénelon developed a warm friendship which lasted until Fénelon's death in 1715. So influenced was Ramsay by Fénelon that he converted to Catholicism at his request.

In 1716, a year after Fénelon's death, Ramsay settled in Paris, where he circulated amongst the high aristocracy and became tutor to the young Duke of Château-Thierry. At the same time Ramsay befriended the powerful Philippe d'Orléans, nephew of Louis XIV and regent of France. The latter was the head of the Order of St Lazarus, an old crusading order, akin to the Knights Templar, that had been founded in Jerusalem in the twelfth century. Soon Ramsay was dubbed a Knight of St Lazarus by Philippe.

We know that Ramsay was initiated into Freemasonry by the Duke of Richmond at the Horn lodge at Westminster[18] during a visit that he made to London in 1730. On his return to Paris, Ramsay joined Charles Radclyffe's Masonic lodge St Thomas, and soon was appointed as Orator for the Grand Lodge of France. It was in this capacity that he prepared a landmark speech in 1737, one that would have reverberations throughout the world in decades to come.

An Ancient Order and a Dangerous Whiff of Republicanism

Legend has it that Ramsay's speech, which is better known as

Ramsay's Oration, was delivered on 21 March 1737 so that it would coincide with the spring equinox. There may be a reason for this date, as we shall see. However, the evidence suggests that the Oration was not 'delivered' to an audience at all; instead, Ramsay had it printed and distributed to the lodge's members. By 1740 it was published in Paris, where it was widely and avidly read.[19]

Knowing that Ramsay was both a member of the Royal Society and a Freemason helps to put his Oration into context – for this remarkable document is resonant of 'republicanism' and of an ideal of global unity based on a new world order. Of particular note is the fact that the Oration was put before the general public as early as 1740 – a full thirty-six years before the outbreak of the American War of Independence in 1776 and forty-nine years before the outbreak of the French Revolution in 1789. We suspect that Ramsay's carefully chosen words must have struck a worrying note with the French monarchy and royalists in general:

> The world is nothing more than a huge Republic, of which every nation is a family and every individual a child. Our society [i.e., Freemasonry] was at the outset established to revive and spread these essential maxims borrowed from the nature of man. We desire to reunite all men of enlightened minds, gentle manners and agreeable wit, not only by a love for the fine arts but much more by the grand principle of virtue, science, and religion, where the interests of the Fraternity [Freemasonry] shall become those of the whole human race, whence all nations shall be enabled to draw useful knowledge… Our ancestors, the Crusaders, gathered together from all parts of Christendom in the Holy Land, desired thus to reunite into one sole Fraternity the individuals of all nations.[20]

The last sentence gives an interesting and novel spin on the Crusades, or rather on those 'Crusaders' who, we're told, desired 'to reunite into one sole Fraternity the individuals of all nations'. Since it is safe to say that 'a universal brotherhood of nations' was not uppermost in the minds of the vast majority of Crusaders – who believed their job was to win the Holy Land for Christendom and to steal as much booty as possible – it is legitimate to ask *which* 'Crusaders' Ramsay is talking about here.

We can only think of one group who might have been motivated by such an ideology and they are, almost inevitably, the Knights Templar – who are, moreover, frequently cited by Freemasons as their 'ancestors'. That it was indeed the Templars whom Ramsay had in mind (though he did not wish to name them) is also made clear by several indirect allusions in the Oration:

Because a sad, savage, and misanthropic Philosophy disgusts virtuous men, our ancestors, the Crusaders, wished to render it lovable by the attractions of innocent pleasures, agreeable music, pure joy, and moderate gaiety. Our festivals are not what the profane world and the ignorant vulgar imagine. All the vices of heart and soul are banished there, and irreligion, libertinage, incredulity, and debauch are proscribed.

It was well known throughout Europe that the Templars had been dissolved by Papal Decree and French military force after accusations of vice, debauchery and heresy. Here, Ramsay is obviously defending the Templars and their alleged 'descendants' the Freemasons against such accusations by claiming that what appeared as debauchery and heresy to the 'profane' was in reality nothing more than the display of innocent pleasures and moderate merrymaking.

Ramsay also tells us that the order once enjoyed special royal protection in England:

After the deplorable mishaps in the Crusades, the perishing of the Christian armies, and the triumph of Bendocdar, Sultan of Egypt, during the eighth and last Crusade, that great Prince Edward, son of Henry III, King of England, seeing there was no longer any safety for his brethren in the Holy Land, from whence the Christian troops were retiring, brought them all back, and this colony of brothers was established in England. As this prince was endowed with all heroic qualities, he loved the fine arts, declared himself protector of our Order, conceded to it new privileges, and then the members of this fraternity took the name of *Freemasons*, after the example set by their ancestors.

The 'great Prince Edward, son of Henry III' evoked by Ramsay as the 'Protector of our Order' was the celebrated Edward I – famously nicknamed 'Longshanks' on account of his unusually tall stature. King

of England from 1274, Edward I is best known for his war of oppression against the Scots first under William Wallace and later under Robert the Bruce – the latter long suspected to have been a patron of the Templars in the years after their persecution. But Ramsay's clear implication here is that Edward was *also* their patron. Presumably, therefore, he would have remained so until his death on 7 July 1307, three months before the mass arrests of Templars in France which, the reader will recall, took place on 13 October 1307.

In the years that followed it is notable that Edward I's son, Edward II, continued to favour the Knights Templar despite increasing pressure from the Pope and King Philip IV of France. As late as 1312, when Philip convinced the Pope to issue his infamous *vox clamantis* Papal Bull of 22 March (the spring equinox) officially suppressing the Templars, it seems that Edward II's compliance was only half-hearted. He made a few token arrests while allowing most of the knights simply to melt into other chivalrous orders, such as that of the Knights Hospitaller.

Bearing this in mind, let's recall the legendary 'official date' of Ramsay's Oration – i.e., 21 March 1737, the spring equinox. Surely this must be a deliberate allusion to the Papal Bull that had suppressed the Templars on the spring equinox? Masonic historian Alexander Piatigorsky, who has made a special study of the Oration, notes how Chevalier Ramsay subtly managed to pack it with quite a number of controversial claims:

> The first places the origin of Masonic rituals 'at the time of the Crusades' and associates them with… the Knights Templar and the esoteric traditions of other medieval Christian Orders. The second asserts that after the suppression of the Templars in the beginning of the fourteenth century and the decline of the other Orders, their esoteric traditions were originally grafted onto, or found shelter among, some Scottish Masonic Lodges e.g. the Mother Lodge of Kilwinning. And the third maintains that those Scottish Traditions (or Orders), which are Christian by definition… were still continuing in Scottish Masonry, and that he [i.e., Ramsay] himself represented them in France as well as in England.[21]

It is interesting that Ramsay also goes on to state in his Oration

that ‘the famous festivals of Ceres at Eleusis, of *Isis in Egypt*, of Minerva at Athens, of Urania among the Phoenicians, and Diana in Scythia, were connected to ours [i.e., to the rites and festivals of Freemasonry]’. He pauses to recognize that some fellow Freemasons attribute great antiquity to the Brotherhood by ascribing ‘our institution to Solomon, some to Moses, some to Abraham, some to Noah and some to Enoch who built the first city, or even to Adam’. But ‘without making any pretences of denying these origins’ Ramsay chooses to pass on ‘to matters less ancient’:

This, then, is a part of what I have gathered in the annals of Great Britain, in the Acts of Parliament, which speak often of our privileges, and in the living tradition of the English people, which has been the centre of our Society [Freemasonry] since the 11th century.

At the time of the Crusades in Palestine many princes, lords and citizens associated themselves to restore the Temple of the Christians in the Holy Land… and to employ themselves in bringing back their architecture… Our Order [which was amongst them] must… be considered… as an Order founded in remote antiquity, and renewed in the Holy Land by our ancestors in order to recall the memory of the most sublime truths…

[After the Crusades were over] the kings, princes and lords returned from Palestine to their own lands, and there established divers Lodges. At the time many Lodges were already erected in Germany, Italy, Spain, France, and from thence in Scotland, because of the close alliance between the French and Scots. James Lord Steward was Grand Master of a Lodge established at Kilwinning, in the West of Scotland… This lord received as Freemasons into his Lodge the Earls of Gloucester and Ulster, the one English the other Irish.

By degrees our lodges and our rites were neglected in most places. This is why of so many historians only those of Great Britain speak of our Order. Nevertheless it preserved its splendour among those Scotsmen [the Scots Guard] to whom the kings of France confided during many centuries the safeguard of their royal persons.

Whatever Ramsay’s motives, and regardless of the vexed issue of the veracity of the Oration, most Freemasons agree that it was soon after its publication that the so-called ‘additional’ or ‘higher degrees’ of Freemasonry first began to appear. Ramsay may not have been involved directly in formulating any of these degrees, but there can be little doubt that his ideas about the past – and future – of

Freemasonry played an important role in bringing them into existence. These degrees are still very much part of the Masonic world today. They represent a set of goals towards which most Freemasons aspire, which may be attained by the right candidates through ever higher levels of initiation. Before returning to the story of Freemasonry in the years leading up to the French Revolution it will be useful to make a short excursion into these airy realms.

Excursion to the Higher Degrees (1): Schisms

When Grand Lodge of England was founded in 1717, not all Freemasons wanted to accept its authority as a centralized Masonic body.

Even within Britain a powerful opposing faction eventually emerged which considered itself the 'true repository' of ancient Freemasonry. Those adhering to it called themselves the 'Antients' and labelled all who joined Grand Lodge of England disparagingly as 'Moderns'. After nearly half a century of feuding between the Antients and the Moderns, both factions were finally 'united' in Britain under the banner of the *United* Grand Lodge of England – a sort of Masonic mini-version of the 'United States'. This happened in 1813 when twenty-one articles of union were signed by both groups, the most important declaring and pronouncing that:

> pure Antient Masonry consists of three degrees and no more i.e. those of the Entered Apprentice, the Fellow Craft and the Master Mason, including the Supreme Order of the Holy Royal Arch. But this article is not intended to prevent any Lodge or Chapter from holding a Meeting in any of the Degrees of the Orders of Chivalry, according to the constitutions of the said Orders.[22]

What this means in practice, as we shall see, is that 'higher' or 'additional' degrees are available to Freemasons in English lodges exclusively through the Supreme Order of the Holy Royal Arch. However, in the world as a whole, there are other Masonic orders which also offer 'higher' or 'additional' degrees. Two that are particularly popular in the USA are the so-called York Rite, and the

Ancient and Accepted Scottish Rite, descended from Andrew Ramsay's original Scottish Rite. The York Rite offers ten extra degrees that include the Royal Arch Masons degree, the Royal and Select Masters degree and the Knights Templar degree. The Ancient and Accepted Scottish Rite, by far the largest and most important, offers a total of *thirty-three degrees* and is considered by many as the most influential and supremely elitist of all the Masonic orders.

It is these Rites that offer the 'Degrees of the Orders of Chivalry' mentioned above. An important factor contributing to their formation and rapid proliferation was again the desire on the part of Freemasons *not* to be under the jurisdiction of United Grand Lodge of England – in this case often because they lived in countries that were in conflict with Britain. Since France remained Britain's traditional foe well into the nineteenth century, French Freemasons were determined to have a separate identity. While developing a completely independent type of Freemasonry of their own they also began to nourish close ties with Freemasons in Britain's American colonies during the build-up to the American Revolution.

This is why we find many of the higher 'Degrees of the Orders of Chivalry' still enjoying active support in the USA today. Moreover, even the most cursory examination of the Scottish Rite and the York Rite leaves little doubt that the degrees they offer are heavily laced with Templar associations.

In the York Rite, which some Masons in the USA call the 'American Rite', the symbolism, iconography and regalia used are all unambiguously 'Templar', and Templar symbols and links are openly flaunted. As noted above, one of the 'additional' degrees of the York Rite is called the 'Knights Templar' degree.

As for the Scottish Rite, the chivalrous element of the Knights Templar is clearly seen in the names given to the various degrees offered – such as 'Knights of the East', 'Knights of Jerusalem', 'Knights of Rose Croix', 'Knight Commander of the Temple', 'Knights Kadosh', and so forth. In the USA, the Scottish Rite also sponsors the very popular para-Masonic fraternity for young men, generally sons of Freemasons, known as 'The International Order of DeMolay', so

named in memory of Jacques de Molay, last of the true Grand Masters of the Knights Templar.[23]

Excursion to Higher Degrees (2): Holy Royal Arch

Regular or 'Craft' Freemasonry, meaning that type of Freemasonry which is regulated by the United Grand Lodges and their various warrants around the world, offers three levels of initiation to the new recruits. These are often referred to as 'Symbolic' or 'Blue' degrees and are, respectively, Entered Apprentice, Fellow Craft and Master Mason.

Most Freemasons complete their Masonic education when they obtain the Master Mason degree. There are, however, a few others who want to take their initiation further and thus proceed to what are generally referred to as the 'additional degrees' or 'higher degrees'. These can be considered as emanating from Craft Freemasonry and can only be entered by those who have completed the Third or 'Blue' degree of Master Mason. In Britain the only additional degree that is regulated by United Grand Lodge is the so-called Royal Arch. This is how United Grand Lodge introduces the Royal Arch:

> Under the English Constitution, basic Freemasonry is divided into two parts, called the Craft and the Royal Arch. For Freemasons who really want to explore the subject in more depth there is a host of other ceremonies, which, for historical reasons, are not administered by the United Grand Lodge of England. All English Freemasons experience the three Craft (or basic) ceremonies unless they drop out from Freemasonry very early on. These three ceremonies (or degrees as we call them) look at the relations between people, man's natural equality and his dependence on others, the importance of education and the rewards of labour, fidelity to a promise, contemplation of inevitable death, and one's duty to others. A fourth ceremony – the Royal Arch – emphasises man's dependence on God.

United Grand Lodge of England has its headquarters at Freemasons' Hall in London. This is a huge neo-classical edifice located at the crossroads of Great Queen Street and Drury Lane. But few initiation ceremonies are conducted there, with most of the three degrees being 'worked' in the 8,000 or so 'lodges' or 'temples' across

the country. As one recent Grand Master pointed out, there is an even wider 'spread from English origins throughout the world' if we consider all the so-called overseas 'warrants'.

Any Master Freemason, i.e., Third Degree Mason, can further his Masonic career by taking one or more or all of the 'additional' or 'higher' degrees. In England, this usually entails taking the supplementary degrees recognized by United Grand Lodge, meaning those administered by the Holy Royal Arch under the jurisdiction of the Supreme Grand Holy Royal Arch Chapter of Jerusalem instituted in 1766. Higher Royal Arch degrees are 'worked' not in lodges but in *chapter lodges*. There are some 3,000 or so chapter lodges in Britain alone, with an estimated combined membership of 150,000.

Excursion to Higher Degrees (3): Warrior-Masons of Zerubbabel

In regular or Craft Freemasonry the themes of the rituals revolve around pseudo-biblical events concerning the construction of Solomon's Temple. More specifically, the Third or Master Mason degree deals with the death and raising of one Hiram Abiff, a pseudo-biblical character probably modelled on the legendary Phoenician architect Hiram of Tyre, who supposedly designed or participated in the construction of Solomon's Temple around 950 bc.[24] In this ritual, the apotheosis is reached when the Master Mason-elect is 'raised' from a symbolic death supposedly mimicking the death and 'raising' of Hiram Abiff, who was himself brutally murdered by three 'Fellows' for refusing to impart to them the 'secret' of the Master Mason's 'word'. Presumably one of the messages of all this is that a Master Mason chooses death rather than to break his Masonic oath – an act of ultimate loyalty which is rewarded by him being 'raised' as a resurrected new Master.

In the Holy Royal Arch rituals, however, the so-called Hiramic theme is replaced by a different focus, now concerning the *reconstruction* of Solomon's Temple by Zerubbabel and his followers.

In the Bible Zerubbabel was the leader of the Jews exiled in Babylon who negotiated their freedom from their Babylonian oppressors and heroically led them all back to Palestine. Zerubbabel became governor of Jerusalem and ordered the reconstruction of the Temple which had been destroyed by the Babylonians. Interestingly some researchers believe that the particular obsession of the Knights Templar with Solomon's Temple might likewise have been focused, in a mystical sense, on its *rebuilding* rather than anything else:

The Templars saw themselves as the Warrior-Masons of Zerubbabel, who persuaded King Darius to allow the rebuilding of the Temple of Jerusalem. They inherited the belief from the Gnostics and St John that the Temple was the mystic centre of the world, and so they secretly resisted the power and authority of the Popes and Kings of Europe. The black-and-white devices of their order… showed their Gnosticism and Manicheism, the belief in the continuing struggle of the devil's world against God's Intelligence. They bequeathed to the Masons the black-and-white lozenges and Indented Tassels of their Lodges.[25]

The alleged dualistic or 'Manichean' symbolism of the 'black-and-white devices' used by the Templars (which were numerous and included their checkered battle flag, the *Beauseant*) are not matters that we need concern ourselves with here. What interests us more is this further hint of the continuity of interests, symbolism and ritual that seems to tie the Freemasons, who are still very much a force to be reckoned with in the world, to the Knights Templar who have supposedly been extinct for 700 years.

To return to the Royal Arch rituals of Freemasonry, there are usually three main 'actors' who assume the role of Zerubbabel and his two trusted colleagues, Joshua and Haggia. These protagonists re-enact the clearing of the site where once stood 'the Temple of Solomon' and while doing so discover a golden plate upon which are written the 'sacred and mysterious' names of God. These turn out to be the well-known name of Jehovah, correctly written as Jahweh (from the consonants YHVH, which are all that the Old Testament gives us) and also another, more mysterious name proclaimed to be Jahbulon.[26] The name Jahweh is split into three syllables, *Jah-h-weh*, and written inside a small circle. The same is done for Jahbulon: *Jah-*

bul-on, but in this case inscribed on the corners of a triangle drawn inside the circle.

Thus combined, these obvious Pythagorian symbols also form the common alchemical device used to show the so-called 'mystical relationship' of the square, the circle and the triangle. Masonic author and researcher Martin Short refers to a 'mystical lecture' that is sometimes given in Holy Royal Arch rituals in which it is explained that:

> In times of antiquity, names of God and symbols of divinity were always enclosed in triangular figures… In the days of Pythagoras the triangle was considered the most sacred of emblems… The Egyptians termed it the Sacred Number, and so highly was it prized by the ancients, that it became amongst them an object of worship. They gave it the sacred name of God… This sacred *Delta* is usually enclosed with a square and circle… the word on the triangle is that Sacred and mysterious Name you have just solemnly engaged yourself never to pronounce.[27]

Excursion to Higher Degrees (4): Much Fuss about Jahbulon

Regular Freemasonry uses epithets for God such as 'the Grand Architect of the Universe', 'The Great Geometrician' or 'The Supreme Being'. But in the Royal Arch the adepts find it necessary actually to give God a name such as Jahbulon. We cannot be certain how long this name was used before it began to attract hostile attention in the early 1980s. In 1985, however, the Church of England and the Methodist Church urged Freemasonry to remove it from Royal Arch rituals on the grounds that they suspected it to be of pagan origins.[28] Many anti-Masonic researchers within the clerical establishments were convinced that the name Jahbulon veiled three ancient deities, namely the Hebrew Jahweh, the Phoenician Baal or Buul, and the patron deity of the ancient Egyptian city of On (Anu, or Heliopolis, the 'City of the Sun') who some took to be Ra, and some Osiris.[29]

The clerics protested that this sort of pagan syncretism was

something ‘which Christianity cannot accept’ and that quite simply Jahbulon, whoever or whatever he was, had to go. The Freemasons retaliated by arguing that Jahbulon was not a name of God at all but merely a ‘description of God’. The clerics, however, were unimpressed and fought a relentless battle over the matter in the media – causing much nervousness in Masonic circles inhabited by people who are normally accustomed to secrecy. In July 1989 United Grand Lodge caved in under the pressure and announced that Jahbulon would henceforth be replaced by Jahweh alone, a name for God generally regarded as acceptable by Christians. This seemed to do the trick and the media lost interest in the story.

Not many clerics were convinced at this quick ‘conversion’ of the Masons. Jahweh, after all, was confirmed to have been associated with the first syllable of the name Jahbulon, and it seemed to some that the whole bizarre exercise merely amounted to more or less the same thing as replacing a name by its diminutive – such as ‘Kat’ for ‘Katherine’, and so forth.

Could there possibly be some fire behind all this smoke about Masonic ‘paganism’?

Excursion to Higher Degrees (5): Ancient Egypt and Geometry

An aquarelle illustration made by artist R. F. Sherar in 1901 of the original interior of the Grand Royal Arch Chapter of Scotland designed by the architect Peter Henderson and located at 78 Queen Street, Edinburgh makes it immediately clear that this particular Grand Chapter at least was modelled on an ancient Egyptian pharaonic temple.[30] A closer examination of the various illustrations on the walls uncovers scenes taken from the ancient Egyptian *Book of the Dead* depicting the god Osiris on his heavenly throne like some monarch of the Solomonic age passing divine judgment on the neophyte brought before him. There is also a very similar pseudo-Egyptian temple at Freemasons’ Hall in Philadelphia, USA, on the

floor of which can be seen the winged-uraeus or solar-serpent, the supreme symbol of ancient Egypt. Many other Royal Arch Chapters around the world are likewise designed or partly designed as 'Egyptian' temples, such as Freemasons' Hall in Dublin, which, in Martin Short's words, boasts two sphinxes and other sculptures 'aping Ancient Egypt'.[31] Short similarly draws attention to the modern Holy Royal Arch temple at Petersham, New South Wales, which has an Egyptian room with murals showing scenes from the Egyptian *Book of the Dead* including images of Osiris.[32]

A colleague of Martin Short, the notorious anti-Masonic author Stephen Knight, had been one of the first – as early as 1981 – to take the Masonic name Jahbulon to task. In the refrain that the clergy would later echo he claimed that it was an allegory of pagan deities including the Egyptian god Osiris, 'Lord of *On*'.[33] In 1987 Martin Short reiterated Stephen Knight's view that the syllable *On* in Jahbulon denoted the Ancient Egyptian holy city of On, i.e., Heliopolis or the 'City of the Sun', where had once stood the great sun-temple of Atum-Ra, progenitor of Osiris. According to Martin Short:

> if *Jahbulon* means anything, it means 'God, the Lord of On', or possibly 'He Who is the Lord of On'. Whether that god is the sun god Ra or Osiris the God of the Dead depends on which period of Egyptian history takes your fancy.[34]

Naturally most modern Freemasons vehemently deny all this, arguing that the ancient images and deities found in Masonic rituals are only used in a *symbolic* manner and then merely to emphasize or represent ideas that are entirely harmonious with Christianity.

But something that is rarely discussed remains unexplained about the name Jahbulon.

In Masonic Royal Arch iconography, the Pythagoras triangle is often shown alongside Masonic symbols such as the stonemason's block, the chisel and the mace. Now the pseudo-biblical setting in which the Royal Arch rituals unfold is derived from the so-called *Old*

Charges, already discussed in Chapter 14. The reader will recall that these *Old Charges* are a compilation of medieval manuscripts which provide an account of the ancient origins of Freemasonry. In one of these, the Beswicke-Royds manuscript dating from the sixteenth century, there is a description of the so-called Seven Liberal Arts and Sciences and the statement: 'all the sciences in the world are to be found in Geometry'.

Right across the whole spectrum of Masonic writings the discipline of 'Geometry' continues to this day to be given a place of honour along with its ancient 'fathers' such as Euclid and, more especially, Pythagoras. Indeed Pythagoras' famous square-root-triangle theorem pops up in many Masonic illustrations and can even be seen on the frontispiece of the 1723 Masonic Constitution. The curious sanctity and reverence that Freemasons give to 'Geometry' is such that the letter 'G' – commonly seen inside the symbol of the Masonic triangle or 'Blazing Star', where it denotes the 'Grand Architect of the Universe' – also apparently stands for 'Geometry'. By the same logic, the Masonic 'Supreme Being' Himself is often called 'the Great Geometrician'.

Now the connections of Pythagoras and also of Euclid with ancient Egypt were well known to eighteenth- and nineteenth-century historians, who read the classics. Many classical chroniclers such as Cicero, Diogenes, Isocrates, Porphyry, Valerius, Strabo, Justinian and Clement of Alexandria tell us that Pythagoras had long sojourned in Egypt, and Iamblichos even reports that Pythagoras stayed there for twenty-two years. All agree that it was in Egypt that Pythagoras learned the science of geometry from the ancient sages of Heliopolis. The Greek chronicler Isocrates even maintains that Pythagoras became a disciple of the Heliopolitan sages, and the historian Plutarch went as far as to assert that Pythagoras was initiated by the Egyptian priest Oenuphis of Heliopolis.[35] This almost mystical link between Pythagoras and ancient Egypt fascinated the scholars of the Renaissance and the Enlightenment, and led many to believe that much of the sacred and pristine 'science' or 'knowledge' of the ancient Egyptians had been somehow brought into Western tradition encoded

in Pythagorian geometry.

In the *Old Charges* reference is made to a mysterious patriarch called Jabal, the 'descendant of Lamech',[36] who is known as the 'Founder of Geometry' and is often called Jabal of Geometry.[37] The reader will recall from Chapter 13 that Jabal's Geometry and the other antediluvian sciences were said to have been recorded on two stone pillars 'erected by the inhabitants of the ancient world to carry the knowledge of mankind over an impeding destruction which proved to be Noah's Flood'.[38]

After the Flood, the *Old Charges* go on to say that 'Hermes the father of Wise Men' rediscovered the two pillars 'wherein the sciences were written and taught them forth'. We're told that the texts recording these 'sciences' were later taken out of Egypt by Moses during the Exodus and that in this way 'was the worthy craft of Masons confirmed in the Country of Jerusalem'.[39] What is interesting about all this is that the *Old Charges* are adamant that the two stone pillars carrying this arcane knowledge were *not* those from Solomon's Temple, i.e., Jachin and Boaz, but much older ones somehow connected to the quintessential Egyptian sage 'Hermes the father of wise men', i.e., Thoth or Hermes Trismegistus. A reasonable conclusion would be that these 'pillars' were thought to be *inscribed obelisks* from the great sun temple of Heliopolis, where all the great sages of antiquity were taught the 'seven liberal arts and sciences'. As we have seen, in the Bible the city of Heliopolis is called On. So if the patriarch Jabal in the *Old Charges* was the 'founder' of Geometry, then it is quite possible that the word Jahbulon is a cipher to denote the 'sacred geometry' or 'sacred science' of On, i.e. Heliopolis.

From Grand Lodge to Grand Orient

Having broached the subject of the higher degrees, and of the esoteric speculation that seems inevitably to arise from them, let's now return to the more general story of Freemasonry in France in the years before the French Revolution.

Most historians believe that Freemasonry took root in France from the Scottish lodges that we know were set up in the seventeenth century by Jacobites in exile, and thus well before the creation of Grand Lodge in London in 1717.[40] This 'Jacobite' type of Freemasonry on the continent was vehemently opposed by Masonic lodges later established in France under the warrant and jurisdiction of Grand Lodge of England. In 1738, however, a general assembly of all lodges, both 'Jacobite' and 'English', voted that the powerful Duke of Antin, a cousin of King Louis XV, be elected as Grand Master of all Freemasonry in France.[41]

After the death of Antin in 1743, the French Freemasons elected another prince of the blood royal, Louis de Bourbon-Conde, the Count of Clermont, as the new Grand Master. Among other things, the Count of Clermont was also the Lieutenant-General of the king's army, Abbot of St Germain des Prés in Paris, and a prominent member of the Académie Française.[42] More importantly, the Count of Clermont was the son of the Duke of Bourbon and Mlle de Nante, the latter a natural daughter of Louis XIV and his favourite mistress, the influential Mme de Montespan. But an even more powerful royal would be found. On 24 June 1772, a year or so after the death of the Count of Clermont, the Grande Loge de France elected as its new Grand Master the Duke of Chartres, the future Duke of Orléans, first cousin of King Louis XVI. At his election the name of the Grande Loge de France was changed to the Grand Orient de France.[43] French Freemasonry under the Grand Orient quickly become very popular not only with the aristocracy but also, and perhaps more so, right across the middle classes amongst the military, academics, men of letters, the clergy and the bourgeoisie in general.

In these early formative years of the Grand Orient another important Masonic influence was to penetrate France – an influence that had the unmistakable hallmark of the Hermetic-Egyptian ideologies that Giordano Bruno and Tommaso Campanella had first imported a century before.

Cagliostro and 'Egyptian' Freemasonry

In the late 1770s there emerged from Italy, like a Bruno or Campanella reborn, yet another Egyptian-Hermetic reformist. He was to prove tenacious and determined and would become, in a most curious way, one of the political catalysts of the French Revolution.

Giuseppe Balsamo, a man who is better known as the Count of Cagliostro, was born in the Italian city of Palermo in 1743.[44] Little is heard of Cagliostro until the 1760s, when we find him in Rome working as a restorer and copier of old paintings. There he married a ravishingly beautiful girl called Lorenza Feliciani, the daughter of a wealthy Roman coppersmith, and acquired some knowledge of medicine and alchemy. Along the way Cagliostro also managed to acquire a reputation of his own as a healer, an alchemist and a very generous philanthropist.

By 1776, the year the American Revolution began, Cagliostro and the beautiful Lorenza were in England, having travelled there via Malta and Spain. They set up home in Whitcomb Street and Cagliostro began at once to introduce himself to Masonic circles in London. In this he had no difficulty since he carried impressive Masonic letters of recommendation from a certain Luigi Aquino, a Knight of Malta and brother of Prince Francesco Aquino, the Grand Master of Freemasonry in Naples.[45]

Within a year Cagliostro was raised to the rank of Master Mason at the Royal Tavern lodge in Soho, London.[46] A very charismatic and well-spoken person, with an added touch of glamour thrown in by the constant presence of his beautiful wife Lorenza, Cagliostro's reputation as a healer and magician brought him amazing fame. It seems that he much impressed his English friends by guessing correctly the winning numbers of the national lottery. This ability, quite naturally, created a huge stir, with everyone trying to buy winning numbers from him. So persistent were these demands that the Cagliostros had to close their home to all visitors except for a few personal acquaintances.[47]

An unfortunate incident involving an expensive diamond necklace that Lorenza was lured to accept from a cunning admirer in exchange for lottery numbers was to bring charges of embezzlement against Cagliostro from the authorities in London.[48] After a very embarrassing trial that lasted several months, the Cagliostros left England in late December 1777 in the hope of making a better life on the continent. They first went to Bavaria, staying in hostels recommended by fellow Masons, and were well received by the nobility of Leipzig. There, Cagliostro is said to have encountered the French Hermetic alchemist Antoine-Joseph Pernety.[49]

Pernety was a Benedictine monk from the Abbey of St Germain des Prés in Paris. He had acquired some fame in 1766 for having founded a Masonic Rite known as the 'Hermetic Ritual of Perfection' for the so-called 'Illuminati of Avignon', an esoteric Masonic sect.[50] Persecuted by the Jesuits, Pernety had been obliged to flee Avignon, and had spent several years in Berlin under the protection of King Frederick II. The latter was a keen patron of Masonic Orders and had himself been initiated into Freemasonry in 1738. Frederick II appointed Pernety curator of the Berlin Library and granted him membership of the Prussian Academy of Sciences and Liberal Arts.[51]

In Berlin, Pernety practised what he clearly believed to be Hermetic 'Egyptian' astral and talismanic magic. He frequently performed at seances attended by members of the German aristocracy, for whom it was said he invoked the power of angels and spirits.[52] During these sessions Pernety addressed his new recruits with words reminiscent of the Renaissance magi: 'the science into which I am about to initiate you is the first and most ancient of sciences. It emanates from Nature, or rather it is Nature herself perfected by art and based on experience'.[53]

Cagliostro Reaches France by Way of Germany and Russia

Germany in the 1770s was rife with exotic secret societies and

Masonic orders. One of these was known as the 'African Architects'. It had been founded in 1767 by Frederick von Koppen, an officer in the Prussian army,[54] who is thought to have been behind a strange Masonic tract, the *Crata Repoa*, which purports to contain authentic reproductions of initiation rituals performed in the Great Pyramid by ancient Egyptian priests.[55] As odd as it may seem, this peculiar 'Egyptian' Masonic society of 'African Architects' received the sponsorship of Frederick II, who even had a magnificent library built for its members in the region of Silesia in south Poland.[56]

There was also the so-called 'Rite of Strict Observance' founded in 1756 by Carl Gothelff, better known as the Baron von Hund, who had been initiated into Freemasonry in Paris in 1743 in one of the fashionable 'Templar' orders.[57] Baron von Hund, like the Chevalier Ramsay before him, claimed that Freemasonry was linked to the medieval Knights Templar, and his own 'Rite of Strict Observance' was to enjoy astounding success in Germany and other parts of Europe. It was in one of the Strict Observance lodges, Zur Wohltätigkeit, that the composer Wolfgang Amadeus Mozart was initiated, and it is obviously from the influence of Hund's and Koppen's Masonic Rites that Mozart was to develop the theme for his famous Masonic opera, *The Magic Flute*, which is set in a pseudo-Egyptian context highly charged with Masonic symbolism and virtues.[58]

But by far the most famous of all these exotic orders, and also somewhat connected to Hund's Strict Observance Order, was an intensely anti-clerical organization called the Illuminati of Bavaria. It had been founded in 1776 in Ingolstadt by the lawyer Adam Weishaupt and was backed by the influential Baron Knigge, a Freemason and also a member of the Strict Observance.[59] Such German Masonic activity in the late 1770s was to have a great influence on American 'higher degree' Freemasonry and the Supreme Council of the Thirty-third Degree of Charleston and Washington, DC.[60]

In 1777, a year after the start of the American Revolution and twelve years before the start of the French Revolution, Cagliostro arrived in Germany. He immediately involved himself with a wide variety of Masonic orders all of which had in common a distinctive blend of Hermetic-Egyptianism and neo-Templar ideologies. And although most Masonic historians maintain that the 'Egyptian' type of Freemasonry was the invention of Cagliostro, it does very much appear that at least some of his ideas were cribbed from Koppen's *Crata Repoa*. The basis of the Egyptian Rite can be summed up in Cagliostro's celebrated claim that 'all light comes from the East and all initiation from Egypt'.[61]

Cagliostro was the first Freemason to be aware of a huge and untapped source of Masonic recruits: women. And even though it is true that the idea of women's lodges had occurred to the Grand Orient in France as early as 1744,[62] it was nonetheless Cagliostro with his intriguing and attractive Egyptianized version of Freemasonry who, in practice, brought the ladies flocking in droves into the Masonic world.[63] It all began in 1775, when Cagliostro first set up an 'Egyptian Rite' lodge for women in The Hague, and where he was assisted by the beautiful Lorenza, who would assume the role of 'Isis' in the rituals performed. From the outset what really seemed to appeal to women was the promise of a 'rejuvenation' ritual that Cagliostro and Lorenza performed in a pseudo-Egyptian setting. The course apparently took forty days to complete, a period clearly modelled on the forty days of embalming in Ancient Egypt reported by classical authors such as Diodorus, who called this period 'the remedy which confers immortality'.[64] It is also said in the Bible when Jacob died in Egypt that:

> Joseph threw himself upon his father [Jacob], weeping and kissing his face. He ordered the physicians in his service to embalm his father… and they did so, finishing the task in forty days, which was the usual time for embalming. The Egyptians mourned him for seventy days.[65]

It was widely believed that the goddess Isis had invented the rites

of embalming and rejuvenation, and therefore not surprisingly Cagliostro claimed that his own ritual was also the invention of the goddess Isis. Such claims, as well as Cagliostro's amazing reputation as a healer, did wonders for his new Masonic Egyptian Rite. But things started to go wrong when his travels brought him to Russia. At the court of Empress Catherine the Great, in the autumn of 1780, the empress herself accused him of being an imposter and a charlatan.

Fleeing Russia, Cagliostro travelled to France, entering through the Alsatian town of Strasbourg. There he met the immensely rich but also immensely naive Prince de Rohan, the Cardinal of Strasbourg. Cardinal Rohan was fascinated by Cagliostro, who performed a 'miracle' by curing Rohan's uncle, the Prince de Soubise, from a near-fatal attack of scarlatine fever. The story of the 'miracle' went around France like wildfire, and from that moment on Cagliostro's reputation as a healer and magician began to open doors for him.

In the summer of 1784 he made his triumphal entrance in the city of Lyons. There hundreds of regular Freemasons willingly deserted their lodges to join Cagliostro's new 'Egyptian' lodge, La Sagesse Triomphante, which he hastily founded to receive them. On 24 December 1784, under the ecstatic gaze of his followers, Cagliostro proclaimed to the world the re-establishment of the 'true and ancient order of the Higher Rituals of Egyptian Free Masonry'. He would head it and hold the title Grand Copt.[66] Funds were immediately raised by his enthusiastic disciples for the construction of a magnificent Egyptian temple, which, predictably, was to be in the form of a pyramid.

This was only the beginning of Cagliostro's meteoritic to rise to fame in France and his equally meteoric fall. His pyramidial 'temple' in Lyons was built and finally inaugurated in 1786, unfortunately without the presence of Cagliostro, who by that time was in Paris languishing in the Bastille for reasons that we'll explain in the next chapter. Afterwards his 'temple' remained a landmark in the district of Broteaux in Lyons for many years. In 1788, the year before the Revolution, it was proposed that a second pyramid should be erected beside it – this one in honour of Joseph-Michel Montgolfier, the

famous pioneer of the hot-air balloon, who was also a Freemason. Then, in 1793, the idea was proposed yet again at the same location, only now the pyramid was to be a mausoleum for the 'martyrs' of the massacre of 1793, when the army of the Convention attacked Lyons. It is interesting that today, not far from this place, stands a high tower, the so-called 'crayon', shaped like an Egyptian obelisk with a huge glass pyramid at the top, owned by the Crédit Lyonnais Bank. It was designed in 1977 by the New York architect Araldo Cossutta. Oddly, Crédit Lyonnais owns another building at Lille, which is designed as an inverted pyramid.

But we're getting far ahead of Cagliostro's story. On 30 January 1785, blissfully unaware of what lay in wait for him at the Bastille, he made his way to Paris.

We are now four short years from the French Revolution. For some it would be a cataclysm; for others an unprecedented opportunity…

Chapter 17

The New City of Isis

> ‘Wonderful year! You will be the regenerating year, and you will be known by that name. History will extol your great deeds. You have changed my Paris, it is true. It is completely different today ... I nourish my spirit on it…’ (Sebastien Mercier, Parisian literary anatomist of the eighteenth century, ‘Farewell to the Year 1789’. Quoted in Hans-Jürgen Lusebrink and Rolf Reichardt, *The Bastille: A History of a Symbol of Despotism and Freedom*, Duke University Press, London, 1977, p. xv)

> ‘Someone asked me if I would return to France in the case that those who attacked me [the king and the government] would be removed? Surely, I replied, but only if the site of the Bastille [where Cagliostro was imprisoned] becomes a public park.’ (Letter from Cagliostro, London, 20 June 1786, predicting the destruction of the Bastille in 1786 after being exiled to London)

> ‘Man is born free, but everywhere he is in chains.’ (Jean-Jacques Rousseau, *Le Contrat Social*, 1762, the phrase that most inspired the French Revolution)

Cagliostro first took up residence in Paris in early February 1785 at the Hôtel de Strasbourg in the Rue Vieille-du-Temple, where his sponsor, the Cardinal de Rohan, resided. But then Cagliostro and Serafina (as he now called his wife Lorenza) moved to another small residence in the Rue Saint-Claude-au-Marais.[1]

There, Cagliostro set up an 'Egyptian' Masonic lodge which very soon attracted many notables, among them the Duke of Montmorency-Luxembourg, who, at the time, was Deputy Grand Master of the Grand Orient. Among the members was also the famous musician Benjamin Laborde, who had been the personal valet of Louis XV. The Duke of Montmorency-Luxembourg was appointed by Cagliostro as the Grand-Master Protector of his new 'Egyptian' Freemasonry.[2] Then, in August 1785, Cagliostro, with the help of Serafina-Lorenza, created his famous adoption lodge 'Isis', which immediately became a huge success with the ladies of the court. Among his recruits were the Countess of Polignac, the Countess of Brienne, the Countess of Choiseul (the wife of Louis XVI's Finance Minister) and many other ladies of the nobility.[3]

Cagliostro's Egyptian Rite rapidly became the craze of Paris, so much so that the ill-fated Queen Marie-Antoinette was to write in a letter to her sister. 'Tout le monde en est; on sait tout ce qui s'y passe' ('Every one has joined; and everything that goes on is known to us').[4] Soon the sculptor Houdon, who was himself a keen adept of Cagliostro's Freemasonry, was to honour the maestro by fashioning a bust of him. It is reported that members of the famous Philalèthes lodge, which studied the occult sciences, also fell under Cagliostro's spell and converted *en masse* into his new Egyptian Rite. Nothing, it seemed, could now stop this self-declared 'prophet of Isis'.[5]

Flashback (1): The Fifteenth to the Seventeenth Century: Traditions of Paris as the City of Isis

There was, in fact, something about Paris itself that very much played in favour of Cagliostro's Egyptian Rite and that conditioned citizens to respond enthusiastically to his claims regarding the ancient Egyptian goddess Isis.

Since the early part of the fifteenth century it is possible to document a persistent belief among Parisian historians that their city

was somehow related to Isis. The belief probably goes back much further than that but is confirmed in a collection of manuscripts dating from around AD 1402 kept at the Bibliothèque Nationale in Paris. In these rare medieval documents we can find miniature drawings showing the goddess Isis dressed as a French noblewoman arriving by boat in Paris, where she is greeted by French nobles and clergymen[6] bearing the title 'the very ancient Isis, goddess and queen of the Egyptians'.[7] It is the 'boat of Isis' that is striking in these medieval miniatures, for it bears an uncanny resemblance to the boat that was also placed on the medieval coat of arms of the city of Paris.[8] And during the same period we know that Parisians believed the name of their city to have been derived from the name of Isis. For example, a fourteenth-century Augustine monk called Jacques le Grant wrote that:

> In the days of Charlemagne [eighth century AD]… there was a city named Iseos, so named because of the goddess Isis who was venerated there. Now it is called Melun. Paris owes its name to the same circumstances, Parisius is said to be similar to Iseos (quasi par Iseos), because it is located on the River Seine in the same manner as Melun.[9]

In 1512 another French historian, Lemaire de Belge, reported that an idol of the goddess Isis had been worshipped in a temple immediately outside the southern gate of Paris, where now stood the Abbey of St Germain des Prés.[10] And the same was reported by many other contemporary writers, notably the sixteenth-century Parisian historian Gilles Corrozet, who is reputed to be the first historian ever to produce a comprehensive guide to the city of Paris. In 1550 Corrozet also published a history of Paris titled *Les Antiquitez, Histoire et Singularitez de Paris*, in which he wrote that:

> coming to the imposition of the name [of Paris], it is said that there, where stands St Germain des Prés, was a temple of Isis, who it is said was the wife of the great Osiris or Jupiter the Just. The statue [of Isis] having come in our times, of which we recall… This place is called the Temple of Isis and as the nearby city this was called Parisis… meaning near the temple of Isis.[11]

The early seventeenth-century French editors Pierre Bonfons and Jacques du Breul republished Corrozet's book under their own names in Paris in 1608 and titled it *Les Antiquitez et choses plus remarquables de Paris, recuillies par M. Pierre Bonfons et augmentées par Frère Jacques du Breul*. Jacques du Breul was a Jesuit monk from St Germain des Prés, and thus presumably conversant with the records kept at that abbey. It is therefore of great interest to find him writing as follows:

> at the place where king Childebert [fifth century AD] had constructed the church of St Vincent now called St Germain, and to which he donated his fief of Issy, the consensus was that there was there a temple of Isis, wife of Osiris, also known as Jupiter the Just, and from whom the village of Issy got its name, and where can still be seen an ancient edifice and murals which are believed to be from the castle of Childebert.[12]

In 1612 yet another French historian, André Favyn, reported that the Cathedral of Notre Dame des Champs also once possessed an idol of Isis similar to the one found in the nearby Abbey of St Germain des Prés: 'I believe this was due to another idol, for the proximity that there is with [Notre Dame] and the Abbey of St Germain des Prés where was venerated Isis, called by the Romans Ceres.'[13]

During the reign of Louis XIV an archaeological discovery was to add even more fervour to this widely held set of beliefs linking Isis with Paris. In 1653, as we reported in Chapter 12, a worker digging the foundation of a new vicarage in the city of Tournai stumbled across an ancient tomb containing hundreds of golden ornaments. The tomb was thought to belong to Childeric, a fifth-century Frankish king and legendary ancestor of the French monarchs.[14] Among the ornaments found within, and at a second site discovered near by, was a statue of Isis, the head of an ancient Egyptian 'Apis' bull (associated with the Osiris and later Serapis cults) and also some 300 golden bees. It was known, even at the time, that the symbol of the ancient Egyptian pharaohs was the bee, which was immediately taken to mean that there was a link between the ancient solar pharaohs of Egypt and the ancient solar kings of France.

Flashback (2): 1665: The Mystery of the Deviated Axis (1)

In 1665 the Childeric treasures were sent to Louis XIV, who had them stored in his personal *Cabinet des Medailles*. We saw in Chapter 14 that the same year also witnessed a gathering in Paris of a powerful cabal of architects and city planners, including the stellar figure of Gian Lorenzo Bernini from Italy, Christopher Wren from England, and France's own André Le Nôtre. Wren was there to learn and listen. Bernini was designing the new façade of the Louvre Palace, and Le Nôtre was planning the gardens of the Tuileries on the west side of the Louvre.

The central axis of the Louvre is set roughly east–west, running more or less parallel to the river Seine, which flows immediately to the south, and the Rue de Rivoli, which runs immediately to the north. If we follow the axis west today (i.e., towards the Tuileries gardens) we will find that it passes through the apex of a huge glass pyramid installed in the Cour Napoléon of the Louvre in 1989 and then, further west, through the centreline of the Arc du Carrousel (a triumphal arch built by Napoleon in 1806). At this point something strange happens – and it is the result of Le Nôtre's work in the seventeenth century. Instead of extending the 'axis of the Louvre' further to the west along its existing alignment, Le Nôtre made a deliberate decision, whilst developing the Tuileries gardens, to deviate it a few degrees to the north – such that it now runs precisely at 26° north-of-west.[15] At first glance, it would appear that Le Nôtre may have wanted to adjust the alignment of the axis in order to have the Tuileries gardens run more precisely parallel to the flow of the river Seine. That would seem a logical and practical decision for an urban architect to make. But still, why did he opt for exactly 26° and not a rounded value such as, say, 25° or even 30°? We might suppose that the choice was arbitrary but for one very important point…

A few hundred yards downriver from the Louvre is the famous Cathedral of Notre-Dame on the Ile de la Cité, a small and peculiarly boat-shaped island in the river Seine. Here we find the alignment of 26° north-of-west incorporated into the axis of the cathedral itself.[16] Our point is not only that Notre-Dame's axis was established centuries

before Le Nôtre but also that there is no obvious practical reason, in the case of the cathedral, that could account for this 26° alignment. It is not likely to be a coincidence that two major monuments within a few hundred yards both have the same axial alignment. If the angle is meaningful, however, then what does it mean?

The clue, we suggest, is the *sun*. Let's not forget that Le Nôtre was planning a programme of monumental works for the *Sun King*. It should hardly be surprising, therefore, if solar symbolism were to be incorporated into such schemes. Further evidence that this is probably the right approach comes, yet again, from the anomalistic alignment of Notre-Dame. As the Parisian historian Jean Phaure has observed, the axis of this great cathedral starts at an angle of 23.5° north-of-west but incorporates a deliberate deviation to the final figure of 26° north-of-west.[17] Why?

Readers with even a basic education in astronomy will recognize, as we did, that the angle of 23.5° has solar significance since it represents exactly the positive and negative declinations of the sun at the summer and winter solstices respectively. But if this is to be the explanation for the axis of Notre-Dame, then why the deviation to 26°? Is it another solar alignment?

Let's first understand the significance of the angle of 23.5°.

The sun's altitude in the sky, measured at noon, changes throughout the year. It is at its highest at mid-summer (the summer solstice) and at its lowest at mid-winter (the winter solstice). These regular annual changes occur because the axis of the earth is tilted at an angle of 23.5° relative to the solar plane (referred to by astronomers as the ecliptic). Like a cosmic skewer passing through the north and south poles, this oblique axis governs our relationship to the sun at all times and is, of course, the true *axis mundi* of our planet. The reader will recall from Chapter 15 how the spire of St Paul's Cathedral in London was taken to symbolize the *axis mundi* and also how John Evelyn sought to equip St Paul's with intense solar symbolism through his Sephirothic scheme. We suggest that the angle of 23.5° in the axis of Notre-Dame may have been intended to express a similar solar connection.

The sun's position changes throughout the year not only at noon (the astronomical 'meridian' or mid-line of the sky) but also at all other points along its arc – including, of course, at its rising and setting points on the horizon. At the latitude of Paris (48° 51′ north), an observer looking west (the general direction of Notre-Dame's alignment) will note that the sun sets at about 38° *north*-of-west at mid-summer and at about 38° *south*-of-west at mid-winter. On other days of the year the sun sets at points in between these two extremes moving from north to south for six months and then travelling back from south to north again in the next six months. Obviously, with this pendulum-like swing, the sun will set at any selected point within the range twice in the year (once on its journey from north to south and a second time on its journey from south back to north).

According to researcher and author Jean Phaure the second angle incorporated into the axis of Notre-Dame Cathedral – i.e., the angle of 26° north-of-west – is to be explained by this pendulum swing of the sun along the horizon. It turns out that the two days of the year when an observer at Notre-Dame would see the sun setting at 26° north-of-west are 8 May and 6 August – both dates of important Roman Catholic religious festivals.

The first, 8 May, marks Saint-Michel du Printemps, a very popular feast in medieval times commemorating the miraculous apparition in the fourth and fifth centuries AD of the archangel Michael on various mounts in Europe – for example on Mont Saint-Michel on the Brittany coast of France and on St Michael's Mount in Cornwall, Britain. Michael the Archangel is the guardian prince of God's people, revealed in the Bible to be the 'captain' of God's army (Daniel 12:1, Joshua 5:14) – a role which many European monarchs were keen to project upon themselves.

The second date, 6 August, marks the Transfiguration of Christ, which remains an important feast in all of Christendom to this day. It commemorates the occasion, described in the New Testament, when Jesus was accompanied by his disciples Peter, James and John to the top of a mountain; there Moses and Elijah appeared and transfigured Jesus, making his face and clothes become white and shining as light

(Mark 9:2–13; Matthew 17:1–13; Luke 9: 28–36). We can understand, then, why Roman Catholics have frequently associated 'shining' solar symbolism with the figure of Christ (for example his iconographical representations as a *Sol Invictus* in the early Roman Church).[18] It's obvious, too, that many Christian festivals track the solar cycle – such as Christmas (winter solstice), the feast of St John (summer solstice), Easter (the spring equinox), and so forth.[19]

Now in the Bible Elijah is prophesied to appear before the coming of the Jewish messiah, but Jesus maintains that this prophecy had already been fulfilled when Elijah appeared as John the Baptist (Matthew 17:9–13). Another biblical prophecy states that at the time when the messiah is about to appear: 'Michael will stand up, the great prince who mounts guard over your people' (Daniel 12:1). Many Christians took this second prophecy as an indication that Michael the Archangel was to be the harbinger of Christ's second coming. For just as God sent Elijah in the form of John the Baptist to herald the first coming of the Christ on earth, so too will He send Michael at the end to proclaim Christ's second coming. And this appearance, the traditions leave no doubt, is to take place on a 'mount'. The Jews are clear that the setting is to be Mount Zion, where Solomon's Temple stood. But for Christians the location of the second coming was for grabs – hence the many claims of St Michael's appearance on mounts all over Europe in medieval times.

Flashback (2): 1665: The Mystery of the Deviated Axis (2)

It seems obvious that complex interconnecting solar symbolism was at work in the choice of the angle of 26° north-of-west for the final axis of the medieval cathedral of Notre-Dame and thus in its linkage to the feasts of Saint-Michel du Printemps (8 May) and the Transfiguration (6 August). But let's not forget that this same axial alignment of 26° north-of-west was also much later adopted by Le Nôtre for the Tuileries gardens and the Champs-Elysées (along what was to become the 'historical' axis of Paris). So it is interesting that in Le Nôtre's

epoch – the epoch of the 'Sun King' Louis XIV – the date of 6 August which commemorates the Transfiguration could boast not one but two significant sky events linked to the angle of 26°.

The first event, we already know, was *sunset* at 26° north-of-west, in line with the axis of Notre-Dame Cathedral and the historical axis of Paris. The second event was the so-called *cosmic rising* of Sirius (i.e., the rising of the star at the same time as the sun).[20] This also occurred on 6 August, but, impressively, *in the exact opposite direction* – i.e., at 26° south-of-east, in direct line with the reverse view along the axis – and, of course, not at sunset but at *sunrise*.

Another matter also beckoned for attention. With the benefit of hindsight, we know that along the historical axis of Paris would one day be raised a huge solar talisman: an obelisk from ancient Egypt. The reader will recall from Chapter 1 that this obelisk came from Luxor, the 'Heliopolis of the South' and a 'city of the sun' *par excellence* of the ancient world. One of a pair that had stood outside the Luxor temple (the other still remains there *in situ*), the 'Paris' obelisk belonged to the Pharaoh Rameses II, ancient Egypt's most powerful sun king whose very name means 'Son of the Sun'.[21] This obelisk thus creates an obvious symbolic link across the ages between two powerful solar kings – i.e., Rameses II and Louis XIV.

Furthermore, as we've seen in Chapter 10, Luxor was an integral part of the much larger sun-temple complex of Amun-Ra at Karnak. And here we find something very interesting indeed – for it turns out that just like the historical axis of Paris, the axis of the Temple of Karnak was set out by its architects along an alignment 26° south-of-east in one direction and 26° north-of-west in the other…

Flashback (2): 1665: The Mystery of the Deviated Axis (3)

No adjective in the English language can adequately describe the great sun-temple complex of Amun-Ra at Karnak. But 'grandiose', 'breathtaking' and 'awe-inspiring' all apply. Known in ancient times as 'the most splendid of places' (*Ipet-Sut*), the central axis of this

outstanding temple is over half a kilometre long, targeting the Theban hills and the Valley of the Kings in the west across the Nile, where Egypt's mighty sun kings were buried. The approach to the temple is also from the west along an impressive monumental avenue flanked by ram-headed sphinxes. As you pass the so-called First Pylon – massive inclined walls that serve to frame the gateway – and into a spacious open court, there looms ahead of you a huge statue of Rameses II. You then enter the Great Hypostyle Hall with its 134 massive rounded columns and cross beams that once supported a roof 25 metres above the floor. A series of other Pylons finally takes you to the inner sanctuary of the sun-god Amun-Ra. When the distinguished British astronomer Sir Norman Lockyer visited Karnak in 1891 in order to measure the alignment of its axis, he was bedazzled by what he saw:

> This temple of Amen-Ra is beyond all question the most majestic ruin in the world. There is a stone avenue in the centre, giving view towards the north-west, and this axis is something like 500 yards in length. The whole object of the builder of the great temple of Karnak – one of the most soul-stirring temples which have ever been conceived or built by man – was to preserve that axis absolutely open; and all the wonderful halls of columns and the like, as seen on one side or other of the axis, are merely details; the point being that the axis should be absolutely open, straight and true. The axis was directed towards the west hills on the west side of the Nile, in which are the tombs of the kings… There were really two temples [dedicated to the sun-god in his forms as Amun-Ra and Ra-Horakhti] in the same line back to back, the chief one facing sunset at the summer solstice, the other probably the sunrise at the winter solstice… it is easy to recognize that these arrangements bear out the idea of an astronomical use of the temple…[22]

Lockyer, who described this temple as a giant 'horizontal telescope' permanently aimed at the western horizon, calculated that its axis was aligned about 26° north-of-west, the place of the setting sun at the summer solstice at the latitude of Luxor.[23] But, as he points out, the axis not only points towards the summer solstice sunset at its western end, but also towards the *winter solstice sunrise* at its eastern end. For it is an astronomical peculiarity that if an axis is aligned to

the summer solstice *sunset* (looking westwards) this same axis will by necessity also be aligned in the opposite direction towards the winter solstice *sunrise* (looking eastwards).

So had the ancient builders wanted to aim the temple's axis at the summer solstice *sunset* or, the other way, at the winter solstice *sunrise*? The answer, as odd as it may first seem, is probably at both.

In ancient Egyptian texts we are told of a very important feast called Mesora, literally 'the birth of Ra (the sun)'. This feast took place on the New Year's Day of the civil (solar) calendar, the first day of the month known as Thoth. When the civil calendar was introduced in *c.*2800 BC, the 'birth of Ra' festival was not far adrift from the summer solstice. But by the time the temple complex of Luxor-Karnak was begun in *c.*2000 BC, the 'birth of Ra' had 'moved' six months ahead to the *winter solstice*. This was because the Egyptian civil calendar was based around an 'idealized' year of 365 days that did not take into account the extra quarter day in the true solar year, causing it to drift away from its original starting point at the summer solstice at the rate of one day every four years. It can thus be seen that the great solar temple complex of Karnak-Luxor, which was begun in *c.*2000 BC, was not merely dedicated to Ra (the sun) in general but, more specifically, to 'the birth of Ra' which fell on the first of Thoth. As provocative and controversial as it may be, this question must nonetheless be asked: could André Le Nôtre, aided perhaps by the astronomers from the Académie des Sciences – who had been housed in the Louvre since 1663 – have consciously set out to create the same solar alignment for the Sun King of France as that of his ancient Egyptian counterparts?

Flashback (2): 1665: The Mystery of the Deviated Axis (4)

There is a further curious astronomical fact to add to this already very intriguing collection of 'coincidences'. We have seen in Chapter 10 how a powerful celestial marker – the heliacal (dawn) rising of Sirius (represented by the goddess Isis in Egyptian and 'Hermetic'

mythology) – was used by the ancient Egyptians to symbolize and sanctify the birth of their solar pharaoh-kings. The American astronomer Ronald Wells, a recognized authority on ancient Egyptian astronomical lore, has this to add:

> The goddess Isis, a daughter of *Ra* (the sun god), was also identified with Sirius. The relationship came about astronomically not only because Sirius is the brightest body of the night (apart from the moon) like the sun is the brightest body of the day, but more particularly because *the place of its heliacal rising on the horizon is very close to the same point where Ra rises on the morning of his winter solstice birth*. Its yearly appearance at nearly the same spot coupled with the fact that the river began to rise about the same time made the combined event sacrosanct.[24] (Emphasis added).

The angle that Sirius makes with due east at rising is not the same when seen from different places on the planet. The further north one travels, the larger will be the angle. For example, from Paris, which stands very close to latitude 49° north, the angle today is 27.5°, whereas from Cairo (at latitude of 30° north) it is only 20°. A second factor also affects the angle at rising over very long periods of time. This is the phenomenon of precession – a very slow 'wobble' of the earth's axis with a cycle of about 26,000 years. Calculations taking both these factors into account show that in 1637, the year Louis XIV was conceived, Sirius rose at 26° south-of-east, and thus *in direct alignment with Le Nôtre's axis*!

We know that since time immemorial the heliacal rising of Sirius, the star of Isis, was the cosmic sign that sanctified the supernatural 'birth' of the sun kings of Egypt. We've seen how the cult of Isis was brought to Paris by the Romans. Indeed, it may well be relevant that the Cathedral of Notre-Dame itself stands over a very ancient sacred site which, according to some historians, was a shrine dedicated in Roman times to Isis-Ceres.[25] We've also seen in Chapter 12 how Louis XIV was supposedly conceived in Anne of Austria's private apartments at the Louvre on a stormy December night in 1637 – the so-called 'Capetian miracle'. Putting all this together, how likely is it to be a coincidence that when the Le Nôtre's 'Sirius' axis of 26° is

extended eastwards into the Louvre it passes *through or very close to the apartments of Anne of Austria*, where the 'Capetian miracle' took place in 1637? And is it also a coincidence that three centuries later, in 1989, an equestrian statue sculptured by Bernini for the Sun King Louis XIV, depicting him as Alexander the Great (the quintessential classical solar king of antiquity), was brought from its former home at Versailles and carefully positioned in the open court of the Louvre in the *direct path* of this axis?…

The reader will recall that the birth of Louis XIV on 5 September 1638 had been prophesied more than a year earlier by the Hermetic philosopher Tommaso Campanella in 1637. Campanella had also predicted that the future king would transform Paris into the 'Egyptian' City of the Sun. Intriguingly, Jean Phaure reports that when André Le Nôtre extended the 26° angle of the axis of the Tuileries gardens further to the west to form the Champs-Elysées in 1665–7 he seems to have anticipated in his overall scheme the inclusion at a later date of certain other elements: 'Le Nôtre ébauche en plan une croix, prévoit une étoile et projette soit un obélisque, soit une porte solaire analogue aux portes Saint-Martin et Saint-Denis élevées sous Louis XIV' ('Le Nôtre placed in his plan a cross, foresees a "star" and projects either an obelisk or a solar gate, similar to those of St Martin and St Denis built at the time of Louis XIV').[26]

This is most interesting, not least because it was not until more than a century later that two prominent monuments, one representing a 'star' and the other the obelisk of Rameses II brought from Luxor, would, in fact, be raised right on the axis of the Champs-Elysées as set out by André Le Nôtre.

Cagliostro and the Affair of the Queen's Necklace

In Chapter 18 we'll pursue these matters further. But first we'll finish the strange story of the self-styled 'Count' of Cagliostro and see how his dramatic rise to fame and fortune in Paris after his arrival there in 1785 would be rudely stunted by his own mentor, the Cardinal de

Rohan. For the latter was about to make one of the greatest blunders in history – a small folly that would set in motion untold consequences for France and the world…

It all had to do with an obsession that the Cardinal de Rohan had concerning the queen, Marie-Antoinette. The latter had rebuked him at court, and the cardinal was desperate to make amends in whatever way he could. In the summer of 1785 a certain Countess de la Motte, who claimed to be an intimate friend and close confidante of the queen, approached the cardinal and offered to help him in this delicate matter.[27]

The countess suggested that the cardinal should purchase on behalf of the queen an expensive diamond necklace, owned by the jewellers Boehmer & Bassenge. The queen dearly wanted this necklace, explained the countess. However, on account of the near bankruptcy of the country and the hostile attitude of the Parisian public towards the queen's extravagance, Louis XVI had refused to buy it for her.

The jewellers wanted a staggering price – 1,600,000 livres, enough to have fed all the hungry of Paris for several months – but the foolish cardinal refused to be deterred. He was shown a very convincing – but forged – letter allegedly written by the queen, and the countess even arranged a nocturnal meeting in the gardens of Versailles between the cardinal and an impostor disguised as the queen. The 'queen' confirmed to the cardinal that she could pay for the necklace out of her own pocket money if only the cardinal could pay the first deposit. So the over-excited cardinal rushed to the jewellers and bought the necklace on credit on behalf of the queen. He then gave it to the Countess de la Motte, who assured him that it would be handed immediately to Marie-Antoinette.

La Motte, of course, did nothing of the sort, but vanished with the necklace. When the jewellers presented the queen with the invoice for the next instalment of the huge sum of money they thought she owed them, an enormous scandal ensued. The queen, furious at how she had been so vilely implicated in this sordid affair, urged the king to press charges of fraud against the cardinal. The king reluctantly agreed.

It was a grave mistake, for it was obvious to all that the naive cardinal had been the victim of a very clever embezzler. Knowing how unpopular the queen already was among the people, he made emotional appeals in court and managed to cause a huge political fuss. Matters got worse when the king tried to put pressure on the judges to condemn the cardinal. The net effect was to elevate de Rohan into a symbol of the oppression, despotism and financial profligacy of the monarchy. According to Masonic author Jean-André Faucher, there was a widespread conspiracy behind all this involving many prominent Freemasons who were determined to have the cardinal, also a Freemason, released.[28] Among them was the Duke of Montmorency-Luxembourg together with other notables such as the Marquis de Lafayette and Mirabeau.[29] As a result the most the king was able to extract from an unsympathetic court was an order suspending the cardinal from office and exiling him to an abbey in the Auvergne.

Inevitably, Cagliostro, de Rohan's colourful protégé, was dragged into the scandal and made its scapegoat. The king had him arrested, hastily tried and sentenced for fraud, and thrown into the Bastille in August 1785. There Cagliostro was to remain for nearly a year. Finally, in early June 1786, after much pressure from the Parisian public and behind-the-scenes manipulation by his Masonic friends, he was freed. It is reported that when Cagliostro walked out of the Bastille there was a huge Parisian crowd cheering him as a national hero.

Some historians have suggested that the trial of the Cardinal de Rohan and the unfair imprisonment of Cagliostro catalysed the growing discontent against the monarchy and led directly to the French Revolution. Rather than clear the queen's name in the scandal, the kangaroo courts set up to try de Rohan and Cagliostro did the opposite. They highlighted the unpopularity and frivolity of the queen, the weakness of the king and his blatant abuse of the law. The German philosopher Goethe, a Freemason, called the Affair of the Necklace 'the preface of the French Revolution'![30] The whole fiasco

ended up making the Cardinal de Rohan and Cagliostro appear to be – as in a sense they were – the victims of a corrupt state ruled by a weak and pompous monarch.

Nonetheless, Cagliostro wisely decided to move to England. There he was at first greeted with much enthusiasm by the Masonic lodges but his 'Egyptian Rite' did not prove popular and he ended up being shunned and ridiculed.[31]

Prophet of Revolution Plays with Fire in Rome

Later in 1786, safely in London, Cagliostro published his famous *Letter to the French People* in which he urged them, with incredible premonition, to make a 'peaceful revolution', to destroy the Bastille and to replace it, perhaps, with a 'Temple of Isis'.[32]

But Cagliostro left his place of safety. In the spring of 1789 he made the same fatal error as Giordano Bruno almost two centuries before: he decided to return to Italy. He arrived in Rome in May 1789, two months before the Parisian mob would storm the Bastille. In Rome Freemasonry had officially been banned since 1738, and Cagliostro, who tried to set up an 'Egyptian Rite' lodge there, was, quite literally, playing with fire.

When the news of the fall of the Bastille reached Rome, it caused pandemonium at the Vatican, where the cardinals were alarmed by the virulent anti-clerical tone of the French anarchists. Rumors of Masonic plots were rife. By then the Vatican had a complete file on Cagliostro's activities, and he was promptly accused of subversion and heresy. On 27 December 1789 Pope Clement XII signed the order for Cagliostro's arrest. He was at first sentenced to suffer the same awful fate as Bruno and the Cathar *perfecti* of earlier eras, but it was thought to be unwise to have yet another public burning in such unsettled times. Accordingly the Pope showed 'clemency' by altering the death sentence to one of life imprisonment. Cagliostro was taken to a prison at San Leo near Naples, cast into a dungeon there, and never seen again. It was eventually discovered that he had died in 1795, at the

age of fifty-two, in what can only be described as very suspicious circumstances.[33]

Historians downplay Cagliostro's role as a catalyst for the French Revolution, and he is often presented – we have to say understandably – as some sort of embezzler, charlatan or conman. The attitude of many Freemasons seems to be that his activities were a brief and best-forgotten embarrassment. Yet the furore caused by his trial in Paris, and the fact that an estimated 8000 citizens, many of them Freemasons, came to cheer him when he was released from the Bastille, seem to tell another story.[34] There is at least one Masonic historian, Manly P. Hall, who likewise seems to regard Cagliostro's career in a positive light:

> [Cagliostro] founded the Egyptian Rite of Freemasonry, which received into its mysteries many of the French nobility and was regarded favorably by the most learned minds of Europe. Having established the Egyptian Rite, Cagliostro declared himself to be an agent of the order of the Knights Templars and to have received initiation from them on the Isle of Malta… Called upon the carpet by the Supreme Council of France, it was demanded of Cagliostro that he prove by what authority he had founded a Masonic lodge in Paris independent of the Grand Orient. Of such surpassing mentality was Cagliostro that the Supreme Council found it difficult to secure an advocate qualified to discuss with Cagliostro philosophic Masonry and the ancient Mysteries he claimed to represent. Court de Gebelin – the greatest Egyptologist of his day and an authority on ancient philosophies – was chosen as the outstanding scholar. A time was set and the Brethren convened. Attired in an Oriental coat and a pair of violet-colored breeches, Cagliostro was hauled before this council of his peers. Court de Gebelin asked three questions and then sat down, admitting himself disqualified to interrogate a man so much his superior in every branch of learning. Cagliostro then took the floor, revealing to the assembled Masons not only his personal qualifications, but prophesying the future of France. He foretold the fall of the French throne, the Reign of Terror, and the fall of the Bastille. At a later time he revealed the dates of the death of Marie Antoinette and the King, and also the advent of Napoleon. Having finished his address, Cagliostro made a spectacular exit, leaving the French Masonic lodge in consternation and utterly incapable of coping with the profundity of his reasoning. Though no longer regarded as a ritual in Freemasonry, the Egyptian Rite is available and all who read it will recognize

its author to have been no more a charlatan than was Plato.[35]

The Noble Traveller

Court de Gebelin, the man who confirmed Cagliostro's knowledge of Egyptian esotericism, was himself a prominent member of the influential Nine Sisters lodge as well as a proponent of the view that the Tarot card system was of Egyptian origin. Interestingly, Gebelin believed that the 'Star' in the Tarot deck labelled XVII was, in fact, Sirius, the 'star of Isis'.[36] Later we shall see how Gebelin's Tarot became interwoven with the 'higher degrees' of Scottish Rite Freemasonry. Meanwhile it is reasonable to conclude that whatever one's opinion of Cagliostro the man, it is clear that Cagliostro the 'Great Copt' and founder of the 'Egyptian Rite' had an enormous psychological impact on the events that were slowly unfolding in Paris.

It is reported, for example, that while he was in that city, and at the very height of his fame, Cagliostro had much hoped that his Egyptian Rite would receive official recognition from the Duke of Orléans, the king's cousin, who was at the time the Grand Master of Grand Orient Freemasonry.[37] Through the intervention of the Duke of Montmorency-Luxembourg, who was the official protector of Cagliostro's Egyptian Rite as well as the chief administrator of the Grand Orient of France, it was arranged for Philippe d'Orléans to visit Cagliostro's 'Isis' lodge in the Rue Saint-Claude. It seems that Philippe d'Orléans was duly impressed and offered his trust to Cagliostro.[38] Such a connection, as we will see, almost certainly had some repercussions on the dramatic events that were soon to implicate the Duke of Orléans in the 1789 Revolution.

Apparently during his trial in Paris in May 1786 the judge had bluntly asked Cagliostro, 'Who are you?' to which Cagliostro replied: 'I am a noble traveller'.[39] Indeed, Cagliostro had often claimed that he had travelled extensively in the east, particularly in Egypt and other Islamic countries. Bearing this in mind, the historian and esoteric

researcher Joscelyn Godwin highlights something that may further explain Cagliostro's mysterious reply to his French judges:

> The initiatic journey to Islamic soil has been a repeated theme of European esotericism, ever since the Templars settled in Jerusalem and the mythical Christian Rosenkreuz learnt his trade in Damascus. We find it in the lives of Paracelsus and Cagliostro, then, as travel became easier, in a whole host that includes P. B. Randolph, H. P. Blavatsky, Max Theon, G. I. Gurdjieff, Aleister Crowley, René Guenon, R. A. Schwaller de Lubicz and Henry Corbin. There was very likely some element of this in Napoleon's Egyptian campaign of 1797, when he announced to an astounded audience that he, too, was a Muslim.[40]

Illuminated by Reason

Other researchers, however, have wondered whether Cagliostro's answer that he was a 'noble traveller' was not perhaps a coded message in Masonic language aimed at his judges in the hope that they would recognize him as an initiate of the anti-clerical and anti-monarchical Illuminati of Bavaria.[41]

Originally known as the Order of the Perfectibilists, we saw in Chapter 16 that these Illuminati of Bavaria were a very short-lived but controversial brotherhood known in particular for their radical anti-clerical stance. The Illuminati were founded in 1776 by Adam Weishaupt, an ex-Jesuit priest who was Professor of Law at the University of Ingolstadt, and given an official structure in 1779 by the Baron Knigge, a Freemason and member of the Templar Order of the Strict Observance founded by the Baron von Hund.[42] One of Weishaupt's remarks reveals the Illuminati's ambitious plans for social and cultural reform: 'Princes and nations will disappear without violence from the earth, the human race will become one family and the world the abode of reasonable men. Morality alone will bring about this change imperceptibly.'

According to Masonic historian Albert G. Mackey, the 'professed object' of the Bavarian Illuminati was: 'by the mutual assistance of its members, to attain the highest possible degree of morality and virtue,

and to lay the foundation for the reformation of the world by the association of good men to oppose the progress of moral evil'.[43]

In short, what the Illuminati were after was nothing less than a massively ambitious global reformation programme, a sort of new world order, calling for the eradication of monarchies under one universal power run by 'reasonable men'. It is therefore of great interest that in a rather curious statement made on the other side of the Atlantic by Thomas Jefferson, the name of Weishaupt crops up again in connection with the idea of rendering men 'wise and virtuous':

> As Weishaupt lived under the tyranny of a despot and priests, he knew that caution was necessary even in spreading information, and the principles of pure morality. This has given an air of mystery to his views… If Weishaupt had written here [i.e., in America], where no secrecy is necessary in our endeavours to render men wise and virtuous, he would not have thought of any secret machinery for that purpose.[44]

Although Jefferson does not specifically mention the word 'reason', it is evident that it was very much in his mind when writing this statement. Jefferson himself practically venerated 'reason' and was dubbed the 'man of reason' par excellence, as another of his famous statements clearly shows: 'It rests now with ourselves alone to enjoy in peace and concord the blessings of self-government, so long denied to mankind; to show by example the sufficiency of human reason for the care of human affairs…'[45]

Indeed, 'reason' was to become the principal virtue of both the French and American Revolutions, and in France, as we recall from Chapter 1, a 'cult of Reason' was even proposed as a substitute for Christianity.

The Eye in the Pyramid

Meanwhile, the ultra radical Illuminati of Bavaria, that curious and unholy progeny of Masons and Jesuits, began to send agents and

emissaries all over Europe – hence, perhaps, Cagliostro's definition of himself as a 'noble traveller'. Like the Rosicrucians before them, the Bavarian Illuminati were extremely secretive and preferred to travel incognito, often assuming pseudonyms and code names. Weishaupt himself took up the code name 'Spartacus'. The town of Ingolstadt, where the Illuminati had their headquarters, was codenamed 'Eleusis' and the whole of Bavaria was codenamed 'Egypt'. Perceived as highly revolutionary and anti-clerical, the Illuminati were violently opposed by the Church and, more specifically, the Jesuits, who eventually persuaded the Elector of Bavaria, Karl Theodore, to outlaw them in Germany in 1784.[46]

Anti-Masonic groups often claim that the insignia of the Illuminati was the 'eye in the pyramid', and that the documents that bear proof of this were confiscated by the Elector of Bavaria, and are today (for reasons that need not detain us) kept under lock and key at the British Museum.[47] The same symbol, however, was well known long before the Illuminati came across it. It was widely used, for example, by Hermetists and Cabalists from the sixteenth to the eighteenth centuries.[48]

Weishaupt, it will be remembered, was a former Jesuit priest, and as such must certainly have been familiar with the works of Athanasius Kircher, the Hermetic-Cabalistic Jesuit we met in Chapter 15 – a magus, as the reader will recall, who had been particularly involved with Egyptian obelisks and, through a proxy, the exploration of the Giza pyramids in 1637. Kircher made profuse use of the 'eye in the pyramid' symbol. It can be seen, for example, on the cover of his book *Ars Magna Sciendi* ('The Great Art of Knowledge'),[49] and also on the top of an Egyptian obelisk surmounted by the so-called 'Hapsburg double-eagle' that Kircher had designed specially for the German Emperor, Ferdinand III.[50] Let us point out in passing that the same 'double-eagle' symbol, as well as the 'eye in the pyramid' symbol, are commonly used in the Supreme Council of the Thirty-third Degree Scottish Rites of Freemasonry.[51]

In July 1776, the same year that Weishaupt founded the Illuminati of Bavaria – and presumably by a curious fluke of history – the same 'eye in the pyramid' or 'eye in the triangle' symbol was proposed for the Great Seal of the newly created United States of America.[52] It was designed by Pierre-Eugène Simitière, a Swiss-born artist who had emigrated to the colonies in 1766 and settled in Philadelphia. Benjamin Franklin and Thomas Jefferson, both signatories of the Declaration of Independence, were members of the committee set up to oversee the design, and a drawing of the Seal in the latter's own hand done in 1776 (preserved in the Library of Congress archives) clearly shows the 'eye in the triangle'.[53] We shall see later how also in that eventful July of 1776, Franklin left America for France as part of a congressional delegation to be based in Paris, and there was hailed as a hero of the American Revolution by the fashionable salons and the Masonic lodges.

The Illuminati and the Duke of Orléans

Historians of this period have noticed the coincidence of the almost simultaneous signing of the Declaration of Independence in America in July 1776 and the founding of Weishaupt's Illuminati in Germany. It is not known with certainty whether there had been any direct contact between Franklin, Jefferson and the Illuminati of Bavaria through the channel of French and German Masonic lodges, but it is nonetheless certain that both Franklin and Jefferson knew of Weishaupt's organization – and we quoted above Jefferson's remarks on Weishaupt. Jefferson's own presence in Paris from 1784 to September 1789 makes direct contact between the two a strong possibility, as we shall see in Chapter 19.

The general view is that the Illuminati of Bavaria simply died out after their persecution in Germany in 1784.[54] Not everyone, however, is convinced. Some believe that Illuminati members infiltrated Masonic lodges and stirred up political unrest in several European countries, most especially in France, where the Revolution would

finally break out in 1789.

One of the most prolific proponents of the 'Illuminati theory' was the distinguished 1920s British writer and historian Nesta Webster. Webster argued that a variety of secret plots hatched by the Illuminati and the French Freemasons combined with other factors to precipitate the Revolution.[55] Webster, and many others like her, see the Duke of Orléans, the Grand Master of the Masonic Order of the Grand Orient, as the main culprit and behind-the-scenes agitator of the Parisian revolutionary crowds and, more specifically, the crowd that would storm the Bastille on 14 July 1789.

That the Duke of Orléans played a vital role in the events of the Revolution cannot be denied; but to what extent, and how far-reaching was his influence, are matters that have long been debated by historians. There are records from the Masonic lodge La Parfaite Union in the city of Rennes that leave little doubt that the Freemasons saw him as the main force driving the events that led to the Revolution:

> It is from our temples [lodges] and from those elevated into the holy philosophy [Freemasonry] that emanated the first sparks of sacred fire which, spreading rapidly from east to west and from south to north of France, embraced the hearts of all citizens… None of us, my dear Brethren, can ignore that it was our Grand Master, the duc d'Orléans, who has participated more than anyone else in the happy Revolution that has just begun…[56]

If what this Masonic lodge says is true, then it is not impossible that the Duke of Orléans could have been in collusion with agents of the Bavarian Illuminati. French historian André Faucher shows that one of the Duke's closest associates and protégés, Honoré Gabriel Riqueti, better known as the Count of Mirabeau, the most outspoken of all the French revolutionaries, had, in the year 1776, 'visited the city of Brunswick and met up with the Illuminati of Bavaria'.[57] And although some historians have raised doubts that Mirabeau was a Freemason, counter-evidence has surfaced that confirms Mirabeau's membership of the Brotherhood from at least the year 1776.[58]

There are also telling statements made by two famous Masons of the time, the enigmatic Count of Saint-Germain and the hypnotic Franz Anton Mesmer, that strongly suggest the presence of Illuminati agents in Paris in the years preceding the Revolution. Several researchers have suggested that the term 'noble traveller' used by Cagliostro during his court trial may have been a secret password of theirs.[59] It is surely also significant that Cagliostro, during his trial in Rome, admitted having been a member of the Illuminati.[60]

Out Goes the Duke of Orléans, In Comes Philippe Egalité

The Duke of Orléans was a descendant of Frederick of the Palatinate and Elizabeth Stuart of England, that ill-fated royal couple of Bohemia who seem to have unsuspectingly catalysed the Rosicrucian fervour in Germany and the events of the Thirty Years War. The duke's great-great-grandfather, also named Philippe d'Orléans, was the second son of Louis XIII and thus younger brother to the 'Sun King' Louis XIV. In 1661 Philippe had married Henrietta of England, daughter of Charles I, and in 1671 he married again, this time to Charlotte Elizabeth, Princess of the Palatinate and daughter of Carl-Louis, Elector of the Palatinate and son of Frederick and Elizabeth of Bohemia.[61]

No doubt because of his ancestry, the Duke of Orléans at the time of the French Revolution was an all-out Anglophile, and his obsessive affinity for all things English was directly responsible for the development of a bizarre fad in Parisian circles known as *Anglomania*. The duke was a great admirer of the British parliament and of the constitutional monarchy, and had openly opposed the despotic rule of his uncle, Louis XV, who had him exiled to England in 1771. He eventually returned to Paris only to begin at once opposing the new King of France, Louis XVI, who was his first cousin.

In 1786 the Duke of Orléans was elected Grand Master of the Grand Orient of France, and thus effectively the leader of all the Freemasons in the land. Immensely rich, as sole owner of much of

France's choicest real estate, the duke teamed up with the famous revolutionary orator Mirabeau, and the vast grounds of his private residence at the Palais-Royal became a regular meeting place for the revolutionary crowds. Many believe that he used his great fortune to fund the revolutionaries and some even think he was the unseen force behind the storming of the Bastille in July 1789. Whatever the truth, it is absolutely certain that he vehemently opposed his cousin, Louis XVI, and that he was among those who voted for his execution in 1793. It is also certain that the duke entertained the perhaps unrealistic hope that he could become king himself and form a constitutional monarchy such as in England.

So fervent was his support for the Convention and the Commune de Paris – the two principal revolutionary bodies that ruled France in the aftermath of the Revolution – that in 1792 Philippe d'Orléans changed his name to Philippe Egalité. Unfortunately, however, Philippe Egalité developed a great antipathy for the Marquis de Lafayette, the hero of both the French and American Revolutions. This, as well as other factors, led to his eventual downfall and, ironically, in November 1793 Philippe Egalité was to suffer the same fate as his royal cousin, when he lost his own head under the blade of the guillotine. Nonetheless, his great ambitions for a constitutional monarchy in France would materialize with his eldest son, Louis-Philippe I, the so-called 'Citizen King', who was helped to the throne of France in 1830 by none other than his father's bitter enemy of old, the Marquis de Lafayette.

We shall now see how the very disturbing anti-clericalism that was to ensue after 14 July 1789 would send a shockwave across the whole of Christian Europe, as a new but also very old religion was about to be reborn from the womb of a goddess called Reason. Ironically, this would certainly have been something that would have enthralled the Count Cagliostro who, sadly, was now rotting in the Papal dungeon near Naples. For the goddess Reason, as it turned out, would much resemble the Egyptian goddess Isis whom Cagliostro had so much extolled in Paris…[62]

Behind the Scenes of the Revolution

On the morning of 14 July 1789 a crowd of about 800 people gathered in the city of Paris and marched in disorder towards the Bastille. Armed with an assortment of weapons they had plundered earlier from the arsenal at the Invalides, this unruly mob hurled themselves on the poorly defended prison and, within hours, had 'liberated' its seven pathetic inmates.[63] Six of the Swiss mercenaries stationed to guard the Bastille were chopped to pieces. The head of the chief prison warden, Bernard-René Jordan, the Marquis de Launay, was brutally hacked off with a blunt butcher's knife and paraded around Paris until late in the night.[64]

The clichéd images of the French Revolution that most of us learn in school depict oppressed Parisian citizens driven to revolt by famine, despotism and tyranny, marching in unison against the king's troops while chanting the 'Marseillaise'. The truth, of course, was a great deal more complicated than that.

Certainly the economic and political conditions in France were appalling, and thus ripe for revolutionaries to exploit. The winter of 1788–9 had been terrible and very poor harvests followed. In addition, Louis XVI was an incompetent political player whose attempts to deal with the state's bankruptcy played into the hands of the agitators. All these factors created a context for the Revolution but we should not leap to the conclusion that any of them actually caused it.

History has shown that full-blown revolutions rarely take place without a great deal of covert intellectual and even financial activity going on behind the scenes. In France a subversive intellectual movement had been active amongst the educated classes and the liberal aristocracy for many years. By promoting the enlightened political visions of writers such as Voltaire, Jean-Jacques Rousseau, and the so-called *Encyclopédistes* – many of whom were Freemasons[65] – this at first loosely organized movement did much to set the scene for the overthrow of the old regime.

The Duke of Orléans, having been rudely shunned by Queen Marie-Antoinette, who bitterly disliked him, had developed a deep hatred not only for her but also for his cousin Louis XVI and for the entire court at Versailles. He soon began to use his great personal fortune to subsidize a variety of organizations, such as the infamous Jacobins Club, that were hostile to the king and queen. There is even evidence, somewhat downplayed by historians, that points to the existence of a sort of shadowy 'government-in-waiting', led by the Duke of Orléans and other agitators, which conducted subversive propaganda campaigns in many of the 600-plus Masonic lodges in France – of which sixty-five were in Paris. We've seen that the duke was an avid admirer of Britain's constitutional monarchy. He was also the richest man in France and in direct line to the throne of France. All this would imply, if not prove, that the 'Revolution' may initially have been intended not to replace but to 'reform' the existing monarchy into a British-style constitutional system under the Duke of Orléans, and that the more radical idea of setting up an American-style republic came later.

When the Third Estate Found Its Voice

Early in 1788, Louis XVI was coerced into agreeing to call a meeting of the General Estates for May 1789. It was to prove a fatal mistake.

Traditionally, there were three so-called 'Estates' in France: the nobility comprised the First Estate, the clergy comprised the Second Estate, the bourgeoisie and the nation in general comprised the Third Estate. In January 1789 the Abbé Sieyès published a pamphlet that starkly highlighted how little say the Third Estate actually had in matters of politics even though it represented 98 per cent of the population.[66] Entitled *What is the Third Estate?* Sieyès' pamphlet boldly proposed the immediate drafting of a Constitution and the formation of a National Assembly outside the nobility and the clergy. Thousands of copies of his article were sold and distributed all over France. And with this, the seeds of republicanism began to sprout.

It is not an accident that the Abbé Sieyès was a Freemason, and a member of the powerful Nine Sisters lodge in Paris.[67] In Chapter 1 we discussed the origins of this important lodge, whose other members included thinkers such as Benjamin Franklin, Condorcet, Guillotin, Court de Gebelin (the inventor of the modern Tarot), the astronomer Lalande, the mathematician Romme and the radical revolutionary leaders Desmoulins and Danton.[68]

Like Sieyès, Desmoulins had preached revolution and also published a pamphlet entitled *La Philosophie du peuple française*, which was followed in June 1789 by a violent attack on the monarchy. Desmoulins was chief among those who called for an armed uprising on the eve of the Revolution during a rally at the residence of the Duke of Orléans, which was at that time serving as the command headquarters for the Revolutionaries.

Danton was the founder of the dreaded Club des Cordeliers, which, like the Jacobins Club, was one of the most radical and influential organizations at work during the Revolution. The Club des Cordeliers was officially known as the Society of Friends of the Rights of Man and the Citizen, but it had inherited the name 'Cordeliers' from a former Franciscan monastery located on the rue des Cordeliers, where its first meetings were held. The Cordeliers accepted members of all races, classes and creeds, and many were influential journalists and writers such as Jean-Paul Marat, Camille Desmoulins, Pierre-François Robert and Nicolas de Bonneville.

The disastrous meeting of the General Estates began on 5 May 1789. The Third Estate had 584 representatives compared to the 290 for the nobility and 292 for the clergy. Present were Louis XVI and the Queen Marie-Antoinette. Many leading Freemasons and men of letters had been elected as representatives of the Third Estate and also had a strong presence in the other two Estates as well. Among them were the Marquis de Lafayette, Mirabeau, the Duke of Orléans and Robespierre.

As the days dragged on the king and his supporters appeared increasingly weak and confused, and it became obvious that they

lacked any clear plan for solving the very real economic crisis in which the country by then found itself. Predictably, the negotiations between the Third Estate and the nobility broke down in chaos. In defiance, the Third Estate changed its name to the Communes ('the Commons'), implying a constitutional monarchy by default, and Sieyès and Mirabeau took the helm. Mirabeau proposed that the Communes be called the 'Representatives of the French People'. Sieyès went one better, and had the name 'National Assembly' accepted. Immediately several members of the nobility, principal amongst them the Duke of Orléans and the Marquis de Lafayette, offered their support to the National Assembly. That had been expected but a shockwave hit the clergy and the nobility when Charles-Maurice de Talleyrand, a representative of the Second Estate, also crossed the fence to side with the National Assembly.

Born into the nobility, Talleyrand entered the clergy at an early age. In 1789, just before the fall of the Bastille, he was made a bishop by Louis XVI. As soon as he joined the National Assembly, he was among the first to propose the confiscation of all the assets of the Church in France.[69] With such radical views being increasingly flaunted as the weeks of discussions went by the king intervened on 20 June and ordered his guards to prevent the members of the National Assembly from entering the meeting hall. In response the outraged National Assembly met instead in another hall at Versailles – one that was used by the royals for playing tennis. Immortalized as the 'Tennis Court Oath', the members swore not to be moved until a constitutional monarchy was formed under a solid political and legal foundation.

Another meeting was called with the king on 23 June, but at this point Louis XVI threatened to exercise his divine right to rule and to act alone 'on behalf of the people'. He then ordered the delegates of the National Assembly to 'disperse forthwith' and stormed petulantly out of the hall. The delegates remained seated, refusing to budge. The Marquis de Dreux-Brèze, a staunch royalist and spokesman for the king, again ordered them to leave 'in the name of the king'. He was shouted down by Mirabeau, the Freemason who was sponsored by the

Duke of Orléans: 'Sir, go tell to those who send you that we are here by the will of the people, and that we will not be moved except by the force of the bayonets.' When Dreux-Brèze reported this to the king, he is said to have replied: 'Damn them, let them stay!'[70]

The die was cast, and from here on events rushed forward like a roaring tide. Louis XVI called in his troops to Versailles, sacked his Prime Minister, Necker, and formed a new government to 'oppose' the National Assembly. But it was all too late. At the Palais-Royal in Paris the National Assembly, buttressed by the financial power of the Duke of Orléans, and with the whole of the Parisian population behind them, prepared for a full confrontation with the king's troops, and now the agitators were calling openly for an armed revolt against the old regime. Soon there began to be defections from the army to the side of the National Assembly. The point of no return was reached on 14 July 1789, when mobs of citizens took to the streets and the Bastille was stormed.

Impregnating the National Conscience

It is, of course, not the purpose of this book, or indeed within its scope, to pass in review the full complexity of the political and cultural upheavals behind the French Revolution. Nor can we look at all the arguments and opinions that have been laid for *and* against the involvement and influence of Freemasonry on the Revolution. For not only are the historical events lost in the chaos of the times, but they have also suffered much distortion, bias and misinformation under the pen of factions wanting either to downplay the role of the Freemasons or to play it up. Not least amongst these factions, of course, is Freemasonry itself, which seems to prefer to cloud the issue. In 1976, for example, Fred Zeller, Grand Master of the Grand Orient of France, had this piece of peculiar obfuscation to offer on the subject:

We can be assured that the Freemasons did not conspire against the throne, nor worked towards the formation of the Republic. In truth, no one had thought of this at the time. But

they had slowly, patiently, during half-a-century of secret discussions (and forbidden by the laws of the time) impregnated the national conscience with the hope and will for change. In 1789 there were more than 70,000 Freemasons in France. It is not surprising, therefore, that in the revolutionary assemblies we note a majority of parliamentarians who were initiated in Masonic lodges![71]

Even such carefully chosen words cannot entirely disguise the obvious implication that the Masonic lodges played a major role in the events that led to the French Revolution! In a more candid manner the 1983 Grand Master of the Grand Orient, Paul Gourdot, made a declaration similar to Fred Zeller's but then could not avoid adding that although it was the writings and examples of the *Encyclopédistes*, of Montesquieu, of Diderot, of Voltaire, that prepared the 'spirit' of the Revolution, it was nonetheless 'those like Condorcet, Saint-Juste, Danton [all Freemasons] who applied the principles of the formation of the First Republic with its immortal *Declaration of the Rights of Man* which was formulated in our lodges –'.[72]

Besides, there is another aspect of the French Revolution, in which Freemasons were also directly involved, that still requires explanation. This is the phenomenon of de-Christianization that we introduced in Chapter 1, and the attempt by the National Assembly to replace Christianity with the 'Cult of the goddess Reason' and the 'Cult of the Supreme Being'.

Two-hundredths of a Second

On the cold morning of 21 January 1793, a huge crowd gathered in Paris at the Place de la Révolution, today the Place de la Concorde, to watch the execution of Louis XVI. With his hands tied behind his back, he was grabbed by four executioners, laid flat facing down, and his head pushed into the crossbeam of the dreaded guillotine. To the surprise of the Parisian mob the king behaved bravely throughout the horrific ordeal and even attempted a poignant farewell speech to the nation, but it was rudely interrupted by the thundering roll of drums

immediately preceding his decapitation. Louis XVI's last audible words apparently were: 'People of France, I am innocent, I forgive those who are responsible for my death. I pray God that the blood that will be spilt here never falls on France! And you, unfortunate people…'

The guillotine, which had been improved from an old design only a short while before by the anatomist Joseph-Ignage Guillotin, was extremely efficient. Apparently painless, it is estimated that each beheading took just two-hundredths of a second. Guillotin was a Freemason and member of the Nine Sisters lodge. He was also an active member of the National Assembly. He had developed this death machine specifically to cater for the anticipated high demand for executions after the fall of the Bastille. But no one, however bloodthirsty they might have been, could have predicted the thousands upon thousands of decapitations by guillotine during those early years of the Republic known appropriately to history as the Reign of Terror.[73]

After Louis XVI was beheaded, Marie-Antoinette was to wait a further nine months for her own appointment with the guillotine. But some years earlier, in 1790, when she had been under house arrest at the Tuileries Palace, the queen had written these haughty words to her brother, Emperor Leopold II of Austria: 'Take heed in your country of all Masonic associations. We already can see that all these monsters here have intentions to do the same in all other countries. Oh, that God saves my homeland, Austria, of such troubles.'[74]

Isis of the Bastille

A few weeks before the guillotining of the queen, a very strange thing indeed had taken place in Paris. As if arising out of some inherent need for a matriarchal figurehead, a replacement in the form of a statue of the ancient Egyptian goddess Isis suddenly appeared on the scene. It was raised in the Place de la Bastille on 10 August 1793. As we saw when we introduced this mystery in Chapter 1, it had been

designed in haste by the artist Jacques-Louis David, who was an intimate friend of the Revolutionary leader Robespierre and was acting as Minister of Propaganda for the National Assembly.

A coin was struck in 1794 to commemorate the occasion, and is described as being 'the work of the famous engraver DUPRE… which evokes the cult of Isis chosen to illustrate the goddess of Reason, and is also the first commemorative coin issued in France'.[75]

The coin preserves the image of the so-called 'Isis of the Bastille' or 'Fountain of Regeneration' which, along with its pedestal, stood some 20 feet high. The statue depicted the Egyptian goddess sitting on her throne flanked by two lions, and at her feet was placed a large bath emblazoned with the ancient Egyptian winged solar disc, a symbol of the pharaohs which was also much used by the Hermetics, the Rosicrucians and the Freemasons.[76]

Isis of the Bastille was naked from the waist up, her large breasts intended to evoke the idea of fertility and regeneration for the new republic of France. From her nipples gushed out water into a pool, and the people made their way to drink the 'water of regeneration' while an orchestra played popular Revolutionary tunes.

Jacques-Louis David, who masterminded this curious festival, had been a hero of the people from the very start of the Revolution. Many of his paintings – depicting heroism and republican virtues – were treated as objects of worship by the Parisian crowds. A zealous Revolutionary himself, David was famous not only for his art but also for the eloquent philosophical speeches he gave at the National Assembly. He had been the most outspoken participant in the 'Tennis Court Oath' and had been among those who had loudly demanded the death sentence for Louis XVI in December 1792. Some of the more radical Revolutionary factions, such as the Sans Culottes, even regarded him as some sort of latter-day messiah come to regenerate the spirit of France – a role which David took most seriously.[77]

Closing Down the Church

The year before the guillotining of Louis XVI and Marie-Antoinette, the ultra-radical faction within the Revolution had begun a campaign to rid France of Christianity – the latter seen as an undesirable aspect of the old regime and thus unfit for the new Republic and its ideals.[78] The full meaning of this initiative was felt in October 1793, when priests and nuns all over France were forced to 'defrock' themselves in public while the assets of their churches and monasteries were taken over by the state.

The ultra-radical group within the National Convention – the new name for the 600 or so members of the National Assembly after it had been reshuffled in September 1792 – were called the 'Hébertistes'.[79] It was they who most directly and most often fanned the flames of de-Christianization. Principal amongst them were Pierre Gaspard Chaumette, a prominent member of the Commune de Paris, and the eponymous Jacques-René Hébert, a popular journalist.

Hébert ran a radical newspaper, called *Le Père Duchesne*, which enjoyed a wide circulation during the Revolution. Both Hébert and Chaumette were staunch Freemasons.[80] In August 1792, Hébert had become the leader of the ultra-radical Club des Cordeliers – previously controlled by Maximilien Robespierre, Jean-Paul Marat and Georges Danton, the so-called Triumvir.

It seems that radicals like Chaumette and Hébert not only wanted to replace the 'head' of France, so to speak, but also the nation's very soul. An interesting account of these events is given by the nineteenth-century author the Baroness Emmuska Orczy, made famous by her books *The Scarlet Pimpernel* and *The Elusive Pimpernel*. And although Orczy was a novelist, her stories are nonetheless based on historical accounts and succeed marvellously in capturing the mood in France during the Revolution:

Paris 1793:… On! ever on! in that wild, surging torrent; sowing the wind of anarchy, of terrorism, of lust of blood and hate, and reaping a hurricane of destruction and of horror. On! ever on! France, with Paris and all her children still rushes blindly, madly on; defies the powerful coalition – Austria, England, Spain, Prussia, all joined together to stem the flow of

carnage – defies the Universe and defies God! Paris this September 1793!… Paris! a city of bloodshed, of humanity in its lowest, most degraded aspect. France herself a gigantic self-devouring monster… That is thy reward, oh mighty, holy Revolution! apotheosis of equality and fraternity! grand rival of decadent Christianity…

The man-eating tiger for the space of a sigh licked his powerful jaws and pondered! Something new! something wonderful! We have had a new Constitution, a new Justice, new Laws, a new Almanack! What next? Why, obviously! How comes it that great, intellectual, aesthetic Paris never thought of such a wonderful thing before? A new religion!

Christianity is old and obsolete, priests are aristocrats, wealthy oppressors of the People, the Church but another form of wanton tyranny. Let us by all means have a new religion. Already something has been done to destroy the old! To destroy! always to destroy! Churches have been ransacked, altars despoiled, tombs desecrated, priests and curates murdered; but that is not enough. There must be a new religion; and to attain that there must be a new God. 'Man is a born idol-worshipper.' Very well then! let the People have a new religion and a new God. Stay! – Not a God this time – for God means Majesty, Power, Kingship! everything in fact which the mighty hand of the people of France has struggled and fought to destroy. Not a God, but a goddess. A goddess! an idol! a toy!…

Paris wanted a new religion… and grave men, ardent patriots, mad enthusiasts, sat in the Assembly of the Convention and seriously discussed the means of providing her with both these things which she asked for. Chaumette, I think it was, who first solved the difficulty… it was Procureur Chaumette who first discovered exactly what type of new religion Paris wanted just now. 'Let us have a Goddess of Reason,' he said … 'Let the People rejoice and dance around that funeral pile, and above it all let the new Goddess tower smiling and triumphant. The Goddess of Reason! the only deity our new and regenerate France shall acknowledge throughout the centuries which are to come!'

Loud applause greeted the impassioned speech. 'A new goddess, by all means!' shouted the

grave gentlemen of the National Assembly, 'the Goddess of Reason!'… 'The goddess must be beautiful… not too young… Reason can only go hand in hand with the riper age of second youth… she must be decked out in classical draperies, severe yet suggestive… she must be rouged and painted… Aye! the feast should be brilliant enough! gay or horrible, mad or fearful, but through it all the people of France must be made to feel that there was a guiding hand which ruled the destinies of all, a head which framed the new laws, which consolidated the new religion and established its new goddess: the Goddess of Reason: Robespierre, her prophet!'

In those terrible years of 1793–4, all around France churches and cathedrals were violated and desecrated and, to the utter horror of the Pope in Rome, the buildings were converted into 'temples' for the new cult of the goddess 'Reason', who was also called 'Liberty' or 'Nature'. Author Kathleen Jones, in her book *Women Saints*, gives a detailed account of these events:

In 'the Terror'… priests and nuns went in danger of the guillotine, and many died when they refused to take an oath of loyalty to the new regime and to abandon their vocations. Churches were closed by troops who removed church bells, smashed altars and crucifixes, and made bonfires of vestments and confessional boxes. A popular spectacle was that of a priest abjuring his vocation, and a ceremony of 'debaptization' was invented for the laity. All public and private worship was forbidden.

On 10 August 1793 the artist Jacques-Louis David, a strong supporter of the Revolution, organized a secular ceremony for the acceptance of the new Constitution. An enormous statue of the goddess Nature [Isis], spurting water from her breasts into a pool, was erected on the site of the Bastille, which had been razed to the ground. There was a new calendar, which began not with the birth of Christ but with the proclamation of the Republic. The months had new names and there was a 10-day week, the *decadi*.

Christmas, Easter, Pentecost, and the harvest festival, together with saints' days, were abolished. In their place were substituted thirty-six new festivals, one every *decadi*, celebrating reason, courage, motherhood, temperance, hatred of tyrants, and similar ideals of the regime. On 10 November a great Festival of Reason was held in the cathedral of Notre-Dame in Paris, where sixteen Louis Capets had walked to their coronations as kings of France. The secularized Notre-Dame was re-named the Temple of Liberty.

The rest of France varied in its expression of the new system: local administrators organized events varying from mildly pagan ceremonies to the active stirring-up of public hatred against religion of any kind. In Le Havre a girl of good morals was made the goddess

Reason for a day, with floral tributes and dances; in Poitiers, farther south, there were grotesque ceremonies in which people dressed as sorcerers, priests, popes, monks, angels, and nuns were chased through the church of Saint-Porchade.[81]

Cybele-Isis

Professor François Aulard (1849–1928), a highly respected historian of the French Revolution, somewhat downplays these events by arguing that the anti-clerical movement was not as pronounced and as radical as most historians would want us to believe.[82] But Aulard was himself militantly anti-clerical, which may have blurred his judgement of the evidence under examination. There are other French historians and specialists of the Revolution such as Michel Vovelle, director of the Institut d'Histoire de la Révolution in Paris, who have a completely different view:

Between October 1793 and June 1794, a multi-faceted attack was mounted in France to eradicate [the Christian] religion. The goddess Reason triumphed: temples were opened to her, represented by living persons… In tens of thousands the priests abdicated their sacerdotal role and many of them even married…[83]

But by June 1794 the whole business of de-Christianization had run completely out of control. Even the Revolutionary leader Robespierre was horrified by the chaos and sought an alternative to this degrading carnage and mess. France was witnessing obscene pagan-like processions organized everywhere, often parading voluptuous women dressed as 'Liberty', 'Reason' or 'Nature' wrapped in blue and white veils and wearing the little red Phrygian cap (see Chapter 1). The 'goddesses' were followed by wild crowds chanting and dancing, all very reminiscent of the ancient Greek Bacchanals, the Roman Hilarias and the Isaic processions. The image of these processions of 'goddesses' wearing the Phrygian cap also brings to mind the great pagan processions of the Phrygian mother goddess, Cybele, which took place in ancient France before the advent of Christianity. Cybele was often linked to Isis, as authors Anne Baring and Jules Cashford explain in their excellent book *The Myth of the Goddess*:

Under the [Roman] Empire, the cult of Cybele became part of the Roman state religion. It existed side by side with the cult of Isis… and both spread all over the Roman Empire… An

interesting image to follow through different civilizations is the 'Phrygian cap', which was worn by… the priests of Cybele. This distinctive cap first appears in Crete… Later, in Greece, it is worn by Hermes, messenger of the Gods… Today similar caps are worn by the Sufi dervishes… Mary was worshipped at sites once sacred to Cybele and Isis.[84]

In his book *Cybele and Attis*, the scholar Maarten J. Vermaseren gives a description of Cybele which clearly shows how this goddess was seen as the embodiment of Nature and all the cosmos:

It is not only Nature that the goddess rules: her power reaches much further. She stands in the center of the Universe of Time, Sun and Moon, Earth, Water, the sea and the Seasons. In front of her chariot stands the Tree of Life, stylized as an obelisk and entwined by a serpent.[85]

The French scholar Jurgis Baltrušaitis, in his book *La Quête d'Isis*, demonstrates the great extent to which Cybele and Isis were perceived as being the same entity by seventeenth-century French historians. Baltrušaitis reports that in 1675 a priest called Berrier, while digging in the garden of the St Eustache Church, discovered a bronze statue of a female deity wearing a strange tower on her head. Details of this discovery were published in 1683 by Claude du Molinet, canon of the St Geneviève Church in Paris. Here is how Molinet describes the deity:

The goddess that the Greeks called Io and the Egyptians called Isis is the same as the one the Romans honored under the name of Cybele, identified to the Earth or Nature, and the same as the Egyptians had married to Osiris.[86]

Baltrušaitis goes on to say that the iconography of the Cybele and Isis figures that were found in France were 'identical… Cybele is crowned with a tower; Isis also had a tower on her head'.[87]

Cult of the Supreme Being Veiling Isis Again

By the end of spring 1794, Robespierre, now the undisputed leader of the National Convention in Paris, had began to turn against Hébert

and Chaumette. Soon enough he accused them of being ‘enemies of the Nation’ and arranged their appointments with Madame Guillotine. He then decided to introduce his own idea of a ‘Republican religion’. This he named the ‘Cult of the Supreme Being’. Its symbol was the ‘eye in the pyramid’, and Robespierre issued a decree stating that ‘the French people recognize the existence of the Supreme Being and the immortality of the soul’. The ‘Supreme Being’ cult was largely modelled on the ‘natural’ philosophy of Jean-Jacques Rousseau, whom Robespierre idolized.

It is clear that Robespierre considered the de-Christianization of France as inevitable but that he also repudiated atheism and the wild excesses that had accompanied the cult of the goddess Reason. What Robespierre sought to create was a new deist cult based on republican virtues to replace the spiritual vacuum left by the intense de-Christianization activities of Hébert and Chaumette.

On 4 June 1794 Robespierre was elected President of the National Convention. He at once began to work closely with the artist Jacques-Louis David to prepare a grand celebration for Paris on 8 June 1794, the day of the Pentecost. The purpose of the celebration was to install the Cult of the Supreme Being as the new religion for France.

This curious event began in the Tuileries gardens in front of the Louvre, with Robespierre himself, draped in blue, standing next to a statue of the ‘Supreme Being’. A huge makeshift amphitheatre was erected in order to seat the members of the National Convention. In front of the amphitheatre had been prepared a bonfire upon which, according to the programme written by Jacques-Louis David, were ‘gathered all the enemies of the felicity of the people’. The ‘enemies’ were symbolized by a statue called ‘Atheism’ supported by figures called ‘Ambition’, ‘Egoism’, ‘Discord’ and ‘False Simplicity’.

All over Paris houses were decorated with garlands and tricolour flags, and the streets through which the procession was to pass were lined with flowers. Pretty girls in white frocks carrying bouquets were placed along the quays of the Seine. The members of the National Convention, fully attired in their official costumes, filled the amphitheatre, each carrying a small bundle of wheat-ears, a symbol

that Freemason and astronomer Joseph Lalande associated at the time with the 'virgin' goddess Isis.[88] Lalande, as the reader will recall from Chapter 1, was a prominent member of the Nine Sisters lodge in Paris and had been instrumental in introducing the new republican calendar based on the Egyptian solar year, which, in ancient times, was calibrated on the heliacal rising of the star of Isis, Sirius. Earlier, in 1731, Lalande had written:

> The Virgin is consecrated to Isis, just as Leo is consecrated to her husband Osiris… The Sphinx, composed of a lion and a virgin, was used as a symbol to designate the flow of the Nile… they put a wheat-ear in the hand of the Virgin, to express the idea of the months, perhaps because the sign of the Virgin was called by the Orientals… *epi* or wheat-ear.[89]

The Nine Sisters lodge was founded by Lalande and the Abbé Cordier de Saint-Firmin, the godfather of Voltaire, in 1776 – the same year as the signing of the American Declaration of Independence. Three years later, in 1779, Benjamin Franklin, the most senior of the signatories to the Declaration, was appointed Grand Master of the Nine Sisters lodge in Paris. We'll return to this intriguing connection in Chapter 18. Meanwhile, let's continue to follow the progress of the Supreme Being on that balmy day of 8 June 1794.

Robespierre, with his hair powdered white and his whole body wrapped in a blue-violet mantle, delivered a prayer to the crowds from a high altar: 'The whole Universe is assembled here! O Nature, how sublime and delicious is your power!' He then evoked the Supreme Being and asked the congregation to pay homage to Him. But at the end of his very long sermon, rather than promise an end to the carnage or offer new hopes for curbing the excesses of the Revolution, Robespierre delivered instead a chilling warning to his political opponents: 'Tomorrow, when we return to work, we shall again fight vice and tyrants!' Then the large choir, brought from the National Opera, sang a hymn by Gossec entitled 'Father of the Universe, Supreme Intelligence'. Finally Robespierre stepped towards the veiled effigy representing Atheism and set fire to it. Jacques-Louis David had designed it in such a way that when the veil burned a stone statue of 'Wisdom' was revealed beneath it, modelled on the

ancient goddess Sophia and meant to emerge 'like a phoenix from the flames'.

Widely used as a symbol in Freemasonry, 'Sophia' has frequently been associated with Isis. According to the poet Gérard de Nerval, the statue that Robespierre 'unveiled' on that day was, in all probability, an effigy of Isis. In his book *Les Illuminés* published in 1852, Nerval speaks of the ceremony performed by Robespierre and compares it to 'a remembrance of the practices of the *illuminises*[the Illuminate]', pointing out that the Veiled Nature used for the 8 June 1794 ceremony was 'a statue covered with a veil which he [Robespierre] lit up and which represented either Nature or Isis'.[90]

At last, when the effigy was revealed to the people and all the chanting stopped, Robespierre led a cortège at the helm of a massive chariot carrying the goddess and towed by eight oxen, their horns painted in gold. The cortège passed through the Place de la Révolution (now Place de la Concorde), Les Invalides and finally came to rest at the Champs-de-Mars, where more celebrations, speeches and chanting took place.[91]

Notre-Dame, Temple of the Goddess

Contemporary records confirm that the attacks on the clerical establishment in 1793–4 were not mere acts of sporadic 'revenge' against individual members of the clergy but rather a well-organized and systematic de-Christianization campaign which resulted, in a matter of months, in the wholesale 'voluntary abdication' of some 20,000 Catholic priests, many of whom then gladly embraced the cult of the Revolutionary goddess.[92]

French historian Michel Vovelle reports that the cult of the goddess Reason first appeared during the trial of Marie-Antoinette, and then took off with zest immediately after the queen's public execution on 16 October 1793.[93] It has been confirmed that the first signs of de-Christianization were witnessed in the Alliers and Nièvre departments on 2 October 1793 during the closing stage of the trial.

Then, on 7 October, a shockwave hit the country. It was reported that a representative of the National Convention, an ex-pastor called Philippe Ruhl who was acting under the orders of Chaumette and Hébert, had taken the Sainte-Ampoule – a glass chalice containing holy oil – from the Cathedral of Reims and smashed it in the public square. The Sainte-Ampoule was said to contain the sacramental oil that had been used to consecrate the kings and queens of France since the time of Clovis in AD 496. When the Sainte-Ampoule was smashed by Ruhl, it is said that a priest, the Abbé Serrain of the village of Saint-Rémi, rushed to the spot and managed to mop up some of the sacred oil.[94]

But Ruhl's act was only a prelude. On 7 November 1793, a few weeks after the decapitation of Marie-Antoinette, the Bishop of Paris, Jean-Baptiste Gobel, was defrocked in front of a large audience at the National Convention. This charade too was orchestrated by Chaumette. The bishop, who was frightened out of his wits, promptly declared that he wanted to join the Hébertistes and the cult of Reason.

Three days later, on 10 November, the unthinkable happened: a large crowd, accompanied by a choir, stormed the Cathedral of Notre-Dame de Paris. They carried in a makeshift throne upon which sat the 'goddess' personified by a beautiful Parisian actress, Mademoiselle Aubry, who was dressed in the blue, white and red republican colours and wearing the Phrygian cap. The 'goddess', who was labelled 'Liberty, daughter of Nature', brandished a torch to signify that 'Liberty is the light of the world'.[95] The whole congregation was then led by Chaumette and the ex-Bishop Gobel to the National Convention. There it was decreed that the Cathedral of Notre-Dame was henceforth to be known as the 'Temple for the Goddess Reason'.[96]

City of Light

Let us note in passing that Chaumette was no ordinary Freemason.

Like many Freemasons at the time, he had acquired a taste for 'Egyptian' symbols and rituals. He was, for example, a keen supporter of the astronomers Charles Dupuis and Lalande, and it comes as no surprise that a contemporary critic was to exclaim: 'Messrs. Dupuis and Lalande see Isis everywhere…'[97] It was fashionable in Masonic circles just before the Revolution to see ancient Egypt as the source of all Masonic enlightenment,[98] and we shall recall that the astronomer Dupuis was among those who argued that Isis was the original tutelary goddess of Paris. Indeed, Dupuis in 1794 published the thesis that the Cathedral of Notre-Dame was actually an *Iseum*, i.e., a temple of Isis, which had been converted or built upon by the Christians:

> This famous Isis was the goddess of the ancient French or the *Sueves* who joined to her cult the symbolic boat, known as the boat of Isis. This boat still exists on the coat of arms of Paris, the city of which Isis had become the tutelary goddess. It is Isis, mother of the God of Light, to whom the people [of Paris] make offering and light candles at the New Year and even during the rest of the year, in memory of the Feast of the Illumined Ones…[99]

Once again we note the epithet 'God of Light', which was used by the Gnostics and Manicheans in the first few centuries after Christ, and later by the Cathars. It also occurs in various forms in Freemasonry and in the Rosicrucian Manifestos, as we have reported in earlier chapters, but never in the Christian Bible.

In support of Dupuis' position, the astronomer Lalande wrote: 'M. Dupuis concluded in his research into the façade [of Notre-Dame in Paris] that it is a crude copy of a frontispiece of an ancient temple of Isis, the goddess whose cult was long ago established in Gaul and especially in Paris.'[100]

With their clear Masonic penchant for the Goddess Isis, whom they called 'mother of the God of Light' and also correctly identified as 'goddess of the year' (as she was known in ancient Egypt)[101] it is easy to understand the inspiration for the new republican calendar that Dupuis and Lalande were closely involved in creating. The reader will recall from Chapter 1 that this so-called republican calendar was built

around the ancient Egyptian year of 365 days, which was divided into twelve months of thirty days each with ‘five extra days’ added to make up the full solar year.

But along with the goddess Isis-cum-Reason-cum-Nature-cum-Liberty, the Revolutionaries of late eighteenth-century Paris also made profuse use of other well-known Egyptian symbols: the pyramids and the so-called Eye of Vigilance. It was while trying to understand *why* such symbols were used that Robert Bauval stumbled on the key that would open a secret window looking out over Paris and allow us to see an enchanted, almost magical landscape interwoven in the modern layout of this City of Light…

Chapter 18

Paris Unveiled

> 'In French Freemasonry the allegorical and metaphorical aspects [of architecture] appear to have been invested with greater significance than in eighteenth-century England. Architectural history was equated with the development of society. And architecture was seen as a means of establishing a just and ordered system.' (James Stephen Curl, *The Art and Architecture of Freemasonry*, B. T. Batsford, London, 1991, p. 118)

On 14 July 1792 a republican ceremony was held at the Champ de Mars in Paris at which a 'Pyramid of Honour' was erected to commemorate those who died during the storming of the Bastille.[1] An etching has survived of another republican ceremony that took place a little over a month later on 26 August 1792 in the gardens of the Tuileries in front of the Louvre. Again a pyramid was raised in honour of the martyrs of the Revolution. A third pyramid appeared in the Parc Monceau, this one commissioned by Philippe Egalité and designed by the architect B. Poyet, next to a pavilion that probably served as a Masonic temple. And there were many other pyramid projects that, though never built, still serve to show the peculiar obsession with the pyramidial form in the decades surrounding the 1789 Revolution.

There are, for example, the curious projects of the Revolutionary architect Claude-Nicolas Ledoux,[2] a Freemason, whom the architectural historian James Curl describes as being 'involved with

Masonic and crypto-Masonic cults'. Indeed, so involved was he with such interests that when a fellow Freemason from Britain, an architect, attended a Masonic meeting in Ledoux's home in Paris, he was put out by what he felt to be the excessively occult nature of the event. He commented afterwards: 'it would seem that Ledoux was more involved in the type of heretical Masonry of *Cagliostro*'.[3] Many architects have been intrigued by one of Ledoux's most ambitious designs, the so-called 'Forge à Canon', an iron smelting plant with massive pyramids and a layout that recalls 'various versions of the Temple complex in Jerusalem'.[4]

Then there are, of course, those most extraordinary pseudo-Egyptian designs by the Revolutionary architect Etienne Boullée, the most famous of which was the so-called 'Cénotaphe dans le genre égyptien' which was a series of gigantic pyramids with their capstones missing – a design very reminiscent of the actual appearance throughout historical times of the Great Pyramid at Giza and of the truncated pyramid seen on the Great Seal of the United States.[5] James Curl, who is regarded as an expert on Masonic architecture, comments that 'in spite of its title *Cénotaphe*, the building was clearly a cemetery or a *center for cults*, to judge from the processions going up and down the gigantic ramps'.[6]

Imaging the Supreme Being

Were Ledoux and Boullée thinking of the 'Supreme Being' in their designs? Perhaps. But both these men, like many architects of their generation, were much influenced by the famous architect and Freemason Quatre-Mère de Quincy. The latter was known for having presented a prize essay to the Académie des Inscriptions et Belles-Lettres in 1785 on ancient Egyptian architecture and, more specifically, on the pyramids.[7] According to James Curl, 'Quincy was not only a Freemason, but was very powerfully influenced by his Masonic convictions'.[8]

There is, too, an extraordinary project by Ledoux – Quincy's pupil – which is shown in his book *L'Architecture considerée*, published in Paris in 1804. There we can see a plan for the theatre of the city of Besançon in the form of a gigantic 'all-seeing-eye' which James Curl describes as 'an unquestionably Masonic allusion'.[9] The same idea was used by the revolutionary architect Poyet, who had designed the Parc Monceau pyramid for Philippe Egalité. Another of Poyet's ambitious plans was for a public hospital in Paris, where a gigantic 'all-seeing-eye' can easily be discerned in the general layout.[10]

The 'eye of vigilance', the 'all-seeing eye', the 'eye in the pyramid' and the 'eye in the triangle' were all symbols of the Supreme Being, the *Etre Suprême* of Robespierre. Thus, for example, we have a poster dating from the Revolution which depicts the hero-philosophers Voltaire and Rousseau pointing to a glowing solar disc within which is the 'all-seeing eye' and a caption that reads: *Etre Suprême, Peuple Souverain, République Française*.[11] The 'all-seeing eye' is also prominent on a poster of the *Fête de la Fédération* at the Champ de Mars dated to 1790, where the rays of the sun shoot down to form a golden pyramid that engulfs two tricolour flags and a red Phrygian cap fixed on a 'pole of Liberty'.[12]

The association of the 'all-seeing eye' with Voltaire on the first of these posters is particularly interesting. It is a very well-known fact among Freemasons that Voltaire was initiated on 7 April 1778 at the Nine Sisters lodge in Paris by the astronomer Lalande and Benjamin Franklin.[13] When Voltaire died a month later, the lodge was converted into a 'Lodge of Sorrows', a sort of Masonic funerary service, and on 28 November 1778 a service was held there for his departed soul. In line with Masonic tradition, the whole interior of the lodge was draped in black veils. At the far end of the room was raised a stepped pyramid, also draped in black.[14] On the summit of this pyramid was a cenotaph, and at the place where the capstone would normally have been could be seen hovering a glowing triangle with the letter 'G' inscribed in it.

Such a pyramid with the same glowing capstone is, of course, to be seen on the Great Seal of the United States, the design of which was coordinated by Benjamin Franklin and Thomas Jefferson in 1776.[15] In Masonic symbolism the 'eye' representing the Supreme Being is interchangeable with the letter 'G', and both symbols stand for 'God', i.e., the 'Grand Geometrician' or the 'Grand Architect of the Universe'. The French author Professor Michel Vovelle also draws attention to a French Revolutionary poster where the 'all-seeing eye' is depicted over the breast of the 'goddess Reason'; she holds a victory wreath above a plaque on which appears a small 'glowing pyramid with the eye'.[16] Indeed, the same glowing triangle with the all-seeing eye found its way to the top of the *Declaration of the Rights of Man and the Citizen*, signed in August 1789 at the National Assembly. The text was modelled on essays written by the Marquis de Lafayette and the Abbé Sieyès, two very prominent Scottish Rite Freemasons. Perhaps we ought to recall the telling words of the Grand Master of the Grand Orient, Paul Gourdot, when he claimed that intellectuals such as Voltaire provided the 'spirit of the Revolution' and that the outcome of this – the First Republic – was based on 'the Declaration of the Rights of Man *which was formulated in our lodges*'.[17]

The Cry of a Dying Tiger

Ironically, the extravagant ceremonies during the so-called feast for the Supreme Being on 8 June 1794 were to lead to Robespierre's downfall. Not all who witnessed the event liked his spurious display of piety and reverence towards an effigy of a pagan deity, and even some of his closest allies were put off by what they saw as his increasing pompousness and vanity. Many worried that being at the helm of the National Convention had gone to his head.

The Montagnards, who were normally Robespierre's most ardent supporters, began to have doubts. And being mostly atheists, many of them were deeply embarrassed by the strange pseudo-religious shows he was now putting on. Amazingly, they found a way to accuse the

previously invulnerable Robespierre of anti-republicanism and sent him to the guillotine on 28 July 1794. His jaw had been blown off by a pistol shot, so he was bleeding profusely and unable to talk. All that the poor man could do was let out a frightening cry which, according to an eyewitness, sounded 'like that of a dying tiger'.

The Revolution had nearly run its course and, for a brief, tantalizing moment, the reins of power were dangling free and there for the taking. A young Corsican officer who had been closely monitoring these grisly events and biding his time was slowly getting ready to make his move.

A new Alexander the Great was in the making…

Napoleon's Goddess

On the evening of 5 March 1798, a date that, oddly, coincided with the well-known ancient Roman feast of the *Navigium Isidis*, the feast of the Boat of Isis, a carriage under heavy military escort left Paris for the port of Toulon. In it was the new hero of France, Napoleon Bonaparte, and his lovely wife Josephine. They were on their way to meet up with the French fleet which was waiting to sail to Egypt.

In a mere two years Napoleon had risen from being an obscure artillery officer amidst the 'Terror' of 1794 to Commander-in-Chief of the army by early 1796. A week after his appointment as Commander of the French army in Italy, Napoleon had married the exquisitely beautiful Josephine Beauharnais,[18] widow of the Viscount of Beauharnais, a Freemason and nobleman who, like many others of his Estate, had ended on the guillotine in 1794. Josephine was the eldest daughter of Joseph Tascher de la Pagerie, an impoverished nobleman who had settled in Martinique, where Josephine had spent the first fifteen years of her life. She had come to Paris in 1779, a decade before the Revolution, and there had married the ill-fated de Beauharnais. It was an arranged marriage and never happy. When Napoleon met her in 1795, she was widowed with two children and on the verge of breaking up a turbulent affair with Paul de Barras, the

Commander-in-Chief of the army of the interior. Napoleon, who was deputy-general to Barras, was only twenty-seven years old at the time. Josephine was thirty-three and the darling of Parisian high society, into which she had been introduced by the beautiful Thérèse Tallien. The latter was the wife of Jean-Lambert Tallien, who, along with Barras, had plotted the downfall of Robespierre back in 1794. It was Thérèse, in fact, who had introduced Josephine to her own lover Barras, who, in turn, passed her on to Napoleon.

Josephine seems to have been attracted to Freemasonry quite early in her career – perhaps partly because it was considered to be very fashionable among women of the aristocracy and partly because her first husband, the Viscount de Beauharnais, had been a prominent Freemason who came from a family of illustrious Freemasons.[19] Josephine was probably initiated in women's Freemasonry at Strasbourg, while her husband the Viscount was Commander of the Rhine army.[20] Long afterwards, their son, Eugène de Beauharnais, who now was about to go to Egypt with Napoleon, would become Grand Master of the Grand Orient of Italy and also of the Supreme Council of the Thirty-third Degree of Italy.[21]

When she become Empress of France in 1804 Josephine was elected as the Grand Mistress and Patroness of women's Freemasonry in Paris.[22] Many ladies close to her also joined the Masonic sisterhood. Apparently Josephine's lady of honour, Filicité de Carbonnel de Canisy, was initiated into women's Freemasonry by the wife of the mayor of Strasbourg, Madame Dietrich, and to mark the event a commemorative medal was struck, showing a golden triangle at the tip of which was placed a star in a crown – almost a premonition of Josephine's future role in France.[23] Josephine's favourite cousin, Emilie de Beauharnais, wife of Antoine Chamans, Count of la Valette and director-general of the Imperial Postal Office, was elected Grand Mistress of the Adoption lodge Anacreon in Paris.[24]

Being a Freemason initiated in the ancient mysteries, and now with

all this post-Revolution talk of deism, it may be possible that Josephine had begun to take an interest in Islam and may even have privately encouraged Napoleon to bring it into the fold of Western Europe. For it is well known that her first cousin and closest friend, the beautiful Aimée Duburcq de Rivery, had been kidnapped by Arab pirates and sold to the harem of the Sultan of Turkey, Abdul Hamid I, where she soon became his favourite concubine and bore him a son, the Emir Mahmoud. When the old Sultan died, Aimée became the mistress of the heir-apparent, the young and glamorous nephew of the Sultan, the Emir Selim, over whom Aimée was to wield enormous influence by turning him into a keen Francophile.[25] There thus existed a 'dynastic' link between Josephine of France and her cousin the 'Sultana' of Turkey, a connection which might have brought the Middle East and Islam within Josephine's sphere of attention. At any rate, whatever was going on secretly in Josephine's and Napoleon's minds, he would one day write to her from Egypt these curious words: 'I saw myself founding a new religion, marching into Asia, riding an Elephant, a turban on my head and in my hand a Koran that I would have composed to suit my needs.'[26]

But whether or not such words were written in jest, we shall never know.

Inspirations for the Invasion of Egypt

The idea for a French invasion of Egypt was not original to Napoleon. It was the brainchild of Talleyrand, the great French statesman and diplomat. We have already encountered Talleyrand when, in 1789, he resigned from his role as representative of the Second Estate – the clergy – and sided with the Revolutionaries. But because he was in favour of a constitutional monarchy, he had to flee France in order to save his neck as the Revolution developed. He first went to England in late 1792 then, in 1794, to America, where he stayed until September 1796, after the rise of Napoleon Bonaparte. Upon his return to France, he was made Foreign Minister by Napoleon.

In spite of having reached the position of bishop in the Catholic Church, Talleyrand was a staunch Freemason who, during the early years of the Revolution, had been a supporter of the Duke of Orléans. Talleyrand had been a member of the prestigious lodge Les Philalèthes in Paris, and of the lodge Les Amis Réunis (to which Marat, Sieyès and Condorcet also belonged).[27] Les Philalèthes in Paris had been much involved with Cagliostro's Egyptian Rite back in 1784–5, where it was said that many of their members joined his lodge in Paris. The Freemason Henry Evans explains:

The controversy between Cagliostro and the Lodge of *Philalèthes* (or Lovers of Truth) is Masonic history. On February 15, 1785, the members of the *Philalèthes*, with Savalette de Langes at their head, met in Paris to discuss questions of importance regarding Freemasonry, such as its origin, essential nature, relations with the occult sciences, etc… . among them being French and Austrian princes, councillors, financiers, barons, ambassadors, officers of the army, doctors, farmers, a general, and last but not least two professors of magic. M. de Langes was a royal banker, who had been prominent in the old Illuminati. A summons had been sent to Cagliostro to attend the convention, and he had assured the messenger that he would take part in its deliberations. But he changed his mind and demanded that the *Philalèthes* adopt the constitutions of the Egyptian Rite, burn their archives, and be initiated into the Mother Lodge at Lyons ['Triumphant Wisdom'], intimating that they were not in possession of the true Masonry. He deigned, as he said, to extend his hand over them, and consented 'to send a ray of light into the darkness of their temple.' The Baron von Gleichen was deputed to see Cagliostro and ask for more detailed information, and at the same time to request the presence of the members of the Mother Lodge at the convention. Renewed correspondence took place, but Cagliostro would not recede from his position. Finally three delegates from the *Philalèthes*, among them the Marquis de Marnezia of Franch le-Comte [sic], repaired to Lyons, and were initiated into Egyptian Masonry. In their report to the convention occur the following significant words: 'His [Cagliostro's] doctrine ought to be regarded as sublime and pure; and without having a perfect acquaintance with our language, he employs it as did the prophets of old.'[28]

Could any of this 'Egyptian' hype have influenced Talleyrand in any way when he later began to push the idea of an 'Egyptian expedition' to Napoleon Bonaparte? It seems plausible, particularly since there were existing precedents for a French invasion of Egypt.

In 1249, five years after his army had captured the Cathar stronghold at Montségur, King Louis IX landed at the port of Damietta with a force of French knights and attempted to win control of Egypt. The king was defeated and captured by the Arabs at Mansourah, a small town on the road to Cairo, but was eventually ransomed for a huge sum. Undeterred, Louis was to organize a second attempt to seize Egypt in 1270, this time approaching across the desert from a landing-point in Tunisia. But terrible diseases afflicted the French invaders and the king himself died on the desert trek.

A few centuries later, in 1672, the famous mathematician and philosopher Gottfried Leibniz presented Louis XIV with a secret plan for a full-scale invasion of Egypt.[29] Louis was then at war with Holland and ultimately turned down the plan – the real object of which may have been to divert his attention from European conquests by getting him to focus instead on a 'universal mission' to unite East and West in the style of Alexander the Great.

Scholars suspect Leibniz to have been a member of the 'invisible' brotherhood of the Rosicrucians.[30] It is also known that he was for a long while in contact with the Jesuit and Hermetic-Cabalist Athanasius Kircher, with whom he shared an interest in Egyptian hieroglyphs and obelisks.[31] Kircher appears to have influenced Leibniz in his mathematical and philosophical researches and especially in his studies of ancient languages, which in due course would become a personal obsession.[32]

The idea of an invasion of Egypt still did not go away. Other similar plans were later proposed by the Duke of Choiseul, Minister of Foreign Affairs under Louis XV.[33] Choiseul was among the very first of the high aristocrats of France to become a Freemason.[34] He was also a bitter enemy of the Jesuits, whom he eventually managed to have banned from France in 1764. His wife, the Duchess of Choiseul, was a regular participant in the Adoption lodge 'Isis' that Cagliostro had opened at Paris in 1785, and had even been nominated as the lodge's Grand Mistress at one stage.[35] Being the man responsible for

the modernization of the French fleet, Choiseul was the authority on any naval invasion France cared to consider. But his project, too, was eventually shelved.

So when Talleyrand put forward his plan for the invasion of Egypt in early 1798, it was at first received with some hesitation. On the one hand, Napoleon was wary of crossing the Mediterranean at a time when the British fleet under Nelson was actively seeking French prey. On the other hand, the prospect of a glorious and seemingly easy victory evoking the exploits of Alexander the Great and Caesar was extremely tempting and Napoleon found it difficult to ignore. Intelligence reports had shown that the port of Alexandria was manned by a small and poorly trained Arab garrison that was hardly a match for modern French battleships and Napoleon's elite troops.

Trouble with Josephine

There were painful personal considerations bearing down on Napoleon when he took the decision to invade Egypt. These involved his wife, Josephine. The couple had been married for barely two years and already Josephine had been unfaithful with a young officer called Hipolyte Charles. Indeed, a few months after their wedding in 1796 Napoleon – then away waging war in Italy – seems to have sensed that something was wrong with Josephine's behaviour and was prompted to write her this rather immature letter:

> I write you, my beloved one, very often, and you write very little. You are wicked and naughty, very naughty, as much as you are fickle. It is unfaithful so to deceive a poor husband, a tender lover! Ought he to lose all his enjoyments because he is so far away, borne down with toil, fatigue, and hardship? Without his Josephine, without the assurance of her love, what is left him upon earth? What can he do?… Adieu, adorable Josephine; one of these nights your door will open with a great noise, as a jealous person, and you will find me in your arms. A thousand loving kisses.

In November 1796, Josephine made a trip to Genoa with Hipolyte Charles, which provoked anger and emotional confusion in Napoleon. Although he now strongly suspected his wife of infidelity, his huge

pride and obsessive love caused him to react paradoxically:

I do not love you any more! On the contrary, I detest you. You are a vile, mean, beastly slut. You don't write to me at all. You don't love your husband… Soon I will be holding you in my arms, then I will cover you with a million kisses, burning like the equator…

On 5 March 1798, amidst eloquent orations evoking France's 'universal mission' and the alleged need to thwart British trade with India, the Directory voted in favour of a military expedition to Egypt to be headed by Napoleon. The vote was kept secret until the fleet actually set sail from Toulon on 19 May 1798.[36] According to British historian Aubrey Noakes, Napoleon had wanted Josephine to come along, probably to keep her away from mischief in Paris, but she had stubbornly refused.[37] But Vincent Cronin, in his recent biography of Napoleon, says the opposite, that it was Josephine who desperately wanted to go to Egypt but that it was Napoleon who refused her.[38] Either way, the result was that Josephine stayed behind with strict orders from Napoleon not to see Hipolyte Charles ever again. Apparently a rather odd exchange of words took place between Napoleon and Josephine as he prepared to board the flagship *L'Orient*, bound for Egypt:

'When will you return?' she murmured.

'Six months, six years, perhaps never,' Bonaparte replied indifferently.

As the boat pushed off from the quay, Josephine stepped forward with one last message: 'Good bye, Good bye! If you go to Thebes [Luxor], do send me a little obelisk…'[39]

And so, in this tense emotional mood, Napoleon set out for Egypt on his epic adventure of discovery and glory. In spite of Josephine's disloyalty and frivolity, he was still madly in love with her and fervently believed in their historical destiny together. Now, perhaps more than ever, he must have wanted to impress on her his heroism and unique sense of mission.

'We Who Have Destroyed the Pope.. .'

When the French fleet reached Alexandria on 1 July 1798, an excited Napoleon issued a rather curious proclamation to the Egyptian people, who were under the supposedly oppressive rule of the Mameluks:[40]

People of Egypt! You will be told that I come to destroy your religion. Do not believe it. Reply that I come to restore your rights and punish the usurpers, and that I venerate more than the Mameluks, Allah, his Prophet and the Koran… There formerly existed in Egypt great cities, great canals, great commerce; by what means have they all been destroyed if not by the avarice, the injustice, and the tyranny of the Mameluks?… Sheikhs! Imams! Go tell the people that we are the friends of true Muslims. Is it not we who have destroyed the Pope who preached that war must be made on Muslims? Is it not we who have destroyed the Knights of Malta because these madmen believed that God willed them to make war on Muslims? Is it not we who have been long friends with the Sultan and the enemies of his enemies?[41]

There is a very revealing colour etching by the Parisian printer Basset dating from that time which shows what Napoleon might have had in mind.[42] In the top register Napoleon is seen in the centre of the scene standing next to the pyramids of Giza and receiving the key of Egypt from two Arabs kneeling at his feet. Above Napoleon are two angels holding a wreath-crown; one angel represents Glory and the other Renown. In the lower register Napoleon is shown pointing to a large glowing triangle (the Supreme Being) hovering next to him, and seems to be inviting representatives of all the known religions to venerate the universal 'God' symbolized by the glowing triangle.

After Napoleon's capture of Cairo in late July 1798, the Arabs played along with his offer of a covenant between the new French Republic and Islam, all the while secretly hating him and his troops as much as they had hated the Crusaders of bygone days. But it was a case of bargaining now with the devil until a way was found to throw him out. Meanwhile it must have been at about this time that General Junot, through a personal letter he had received from Paris, brought Napoleon irrefutable evidence that Josephine had been seen staying at an inn with Hipolyte Charles immediately after he had left her in

Toulon. Napoleon was devastated. In retaliation he began an open affair in Cairo with Pauline Fouré, the pretty wife of a young officer.[43]

The *folie égyptienne*, as historians would later call Napoleon's Egyptian campaign, was to cost France dearly: the complete destruction of the French invasion fleet at Abukir by the British under Horatio Nelson, and the loss of nearly 40 per cent of the expeditionary army which, at the outset, had totalled some 54,000 men. Worse still was the humiliating surrender of the survivors to the British forces under Abercrombie at Alexandria.

Napoleon himself returned to France long before the surrender and somehow managed to survive this military and political disaster. Soon enough an effective propaganda campaign began to convert the reality of the defeat into the perception of a cultural victory.

The Savants and the Destiny of Napoleon

Napoleon had taken along to Egypt 167 'savants' – scholars and the erudite from many different disciplines, amongst them surveyors, mathematicians, astronomers, engineers, botanists, linguists, poets, artists and architects, all hand-picked from the newly formed Institut National de France. It had been the mathematician Gaspard Monge who had personally recruited them. Monge was one of Napoleon's closest friends and advisors, and considered the young general as his 'adopted son'.[44] The reader will recall that Monge was a prominent Freemason from the Nine Sisters lodge in Paris and had been directly responsible with Charles-Gilbert Romme for the introduction of the republican calendar modelled on the Egyptian solar year. While in Egypt, Monge founded the Institut d'Egypte in Cairo, a scientific and *Encyclopédiste* body modelled on its French counterpart, the Institut National. Monge acted as president of the Institut d'Egypte with Napoleon acting as his vice-president.[45] Many of the other savants and officers who accompanied Napoleon to Egypt were also Freemasons, notably his right-hand man, General Jean-Baptiste

Kleber, who is said to have been the master of the first modern Masonic lodge on Egyptian soil.[46]

Also among the savants was Dominique-Vivant Denon, an artist with an incredible talent for freehand sketching and the making of etchings. A highly educated man, Denon had been a diplomat in Russia and Sweden before the Revolution. He had been about to face the guillotine in December 1793 for his alleged royalist sympathies when he had been rescued from the blade by his friend, the painter Jacques-Louis David. A prominent member of the National Convention, David had masterminded the celebrations of 'Isis of the Bastille' and in December 1793 was busy promoting the cult of the Supreme Being with Robespierre.

Denon, who was talented, sophisticated and very handsome, was a favourite with the ladies of the aristocracy. He was highly admired by Catherine II of Russia and had no difficulty in winning the favour of the up-and-coming Josephine, who introduced him to Napoleon. Josephine urged Napoleon to take Denon to Egypt, but as the latter was not a member of the Institut National, Napoleon had at first resisted the idea. Eventually, however, as was often the case, he yielded to Josephine's demands. It was a decision he would not regret, for it was Denon, through the publication of his spectacular drawings, who would find the magic to transform Napoleon's Egyptian fiasco into a cultural victory for him in person and for the French Republic as a whole.

Albeit tarnished a little by the defeat at Abukir and the humiliating surrender of the expeditionary army at Alexandria, Napoleon's 'conquest' of Egypt allowed him to stand alongside history's most illustrious military heroes and empire builders: Alexander the Great and Augustus Caesar. And now here, in flesh and blood, was France's own Napoleon the Great. He had 'returned from Egypt' like some mythical solar hero ready to found a new French empire modelled on the empire of Charlemagne. The famous *Description de l'Egypte*, which was published under the supervision of Dominique Denon, was dedicated to 'Napoleon le Grand', who is depicted on the front cover as an Apollo-Sol Invictus hero-king. There he may still be seen, riding

the solar chariot under the protection of the Egyptian symbol of the winged solar disc – into which, in this case, has been placed a star.

Is it an accident that at about the same time, but on the other side of the Atlantic, the same symbolic representation of Apollo-Sol Invictus – including the same solar chariot and the same winged solar disc with the same star – would be used in connection with George Washington? We will return to this mystery in the next chapter.

Few historians would disagree that the driving force behind Napoleon's military conquests was his unshakeable belief in his own destiny – the belief that he had somehow been chosen by history to unite all Europe, and perhaps even the whole world, under one, universal rule. Since his vision for this rule was based on French republican ideals, virtues and laws, Napoleon, by his own reckoning, had become *the embodiment of the Revolution* and its universal, almost sacred 'mission'.

After his return from Egypt in 1799 and now barely thirty years of age, Napoleon had the Directory proclaim him 'First Consul' of the Republic, a term clearly drawn from republican Rome. In 1802 he was voted Consul for life and soon, with his large and well-trained armies, he had annexed to France vast territories in Europe that included Germany, Austria and Italy. He was by then 'Emperor' of Europe in everything but title.

Then in 1804, now thirty-five years of age, Napoleon went for the ultimate prize.

The Holy 'French' Empire

On Christmas Day AD 800, Pope Leo III crowned the Frankish general Charlemagne as first Emperor of the Holy Roman Empire. Charlemagne was in Rome with a large army to 'protect' the Pope, but the legend has it that he had merely entered the Basilica of St Peter to take part in the Mass. When he approached the altar and kneeled to pray, the Pope placed a golden crown on his head and caused the congregation to cry out: 'Life and victory to Charles the

August, crowned by God, the great and pacific Emperor of the Romans!' It is said that the Pope even prostrated himself before Charlemagne and paid him homage in the manner once accorded to ancient Roman emperors, which also included anointing him with sacred oil.

After Charlemagne's 'coronation', no other emperor or king had ever again been given the great honour of being physically crowned by a Pope. A thousand years later, however, Napoleon Bonaparte decided it was high time to change all that.[47] To this end he had Pope Pius VII forcefully brought to Paris in late 1804. The coronation, meticulously planned by Napoleon himself, took place in the Cathedral of Notre-Dame which, until very recently, had served as the 'Temple of the Goddess Reason'. Just before the climax of the event, Napoleon stepped forward, took the crown away from the Pope's hands and, in a grand symbolic gesture, crowned himself Emperor. Under the bemused gaze of the Pope, Napoleon then took a smaller crown and placed it on the head of the lovely and promiscuous Josephine, making her Empress.[48] David was to immortalize this moment in an appropriately huge painting that may be viewed today in the Louvre. Also marking the occasion, the sculptor Jean-Antoine Houdon, a Freemason, a member of the Nine Sisters lodge, and formerly a close friend of Cagliostro, made a marble bust of Josephine.[49]

We may perhaps wonder if French artists such as Houdon, Denon and David were not somewhat bedazzled by Josephine – whom they went on to promote as the new Isis and thus the new tutelary goddess of continental Freemasonry and of the city of Paris. The reader will recall that in 1773, Court de Gebelin, Freemason, member of the Nine Sisters lodge and inventor of the modern Tarot, had written:

> No one ignores that Paris was originally enclosed in the island [the Ile de la Cité]. It was thus, since its origins, a city of navigation… As it was in a river rife with navigation, it took as its symbol a boat, and as tutelary goddess, Isis, goddess of navigation; and this boat was the actual one of Isis, symbol of this goddess.[50]

The association with the 'Parisian' boat of Isis and the notion of 'empire' is explained by the early nineteenth-century Parisian historian F. Noël:

The boat of Isis, a feast which was celebrated in Rome with great pomp, was known as *Navigium Isidis*; after it had been launched in the water, it was brought back to the temple of Isis and prayers were made for the prosperity of the Emperor, for the Empire and for the Roman people.[51]

Dates and Words

In the brief period of Napoleon's occupation of Egypt, from 1798 to 1801, there were witnessed some events that gave a mythical sparkle to this otherwise doomed adventure.

First, there is the matter of the date – 5 March 1798 – on which the Directory voted in favour of sending Napoleon to 'liberate' Egypt. Given the intense Masonic and Isaic interests of some of the protagonists, it would be unusual if no one had realized that 5 March was the feast of the Boat of Isis, the *Navigium Isidis*, widely popular during the Roman Empire and subsequently in ancient France or Gaul.

Second, there are the confusing circumstances surrounding the naval battle at Abukir, the shallow bay to the east of Alexandria where Nelson obliterated Napoleon's fleet on 1 August 1798. Abukir was the site of the ancient city of Canopus, where legend has it that the ship carrying the Trojan lovers Paris and Helen long ago took refuge. Helen, as we recall from Chapter 10, had been associated by Herodotus with an Egyptian deity whom he called 'Aphrodite the Stranger'. The Alexandrians identified Aphrodite with Isis, and both Helen and Isis were well known to be protectors of mariners and ships. Moreover, the star of Isis – Sirius – was the *Stella Maris*, the 'Star of the Sea', also known as the 'Star of the East' or 'Star of the Orient'. Surely Napoleon and his erudite friends in Egypt would have been aware how highly evocative of all these mythical archetypes was the act of anchoring the flagship *L'Orient* at Abukir-Canopus?

We concede at once that the question is highly speculative, but Napoleon's mindset at the time does not exclude such links being made. Of Corsican origins, he remained all his life a very superstitious man, and considered Josephine to be his 'lucky charm', a sort of human talisman. His extremely superstitious nature meant that he was always on the look-out for omens. French historian Jean Duché reports an occasion when Napoleon, having been openly criticized by a cardinal about his military campaigns, grabbed the cardinal by the sleeve, dragged him to a window, and, in broad daylight, asked him if he could see 'the star'. When the baffled cardinal retorted that there was no 'star' to be seen, Napoleon replied: 'Well, as long as I shall be the only one to see it, then I will follow my own destiny and will not permit anyone to criticize me!'[52]

To any French Freemason the word 'Orient' in the name of Napoleon's flagship would inevitably be reminiscent of the 'mother lodge' in Paris known as the Grand Orient, i.e., the Great East. In Masonic jargon to this day the word 'Orient' or 'East' denotes the name/place of the main Masonic temple in any town or city, and the term Grand Orient or Great East denotes the mother temple or lodge in a country.[53] For example, the 'Grand Orient' denotes the main Masonic temple of Paris in the Rue Cadet; likewise the 'Great East' denotes Freemasons' Hall of London.

Masonic Emperor of the French?

There are no primary source documents that prove Napoleon was a Freemason; nor are there any that disprove this proposition. There has, however, been much learned speculation on both sides, with some scholars arguing vehemently that he was an initiated Mason[54] and some arguing equally vehemently that he was not.[55]

Many continental Freemasons in the nineteenth century certainly acted as though Napoleon was a member of the brotherhood. There were dozens of Masonic lodges in Europe that bore his name such as the Saint Napoleon lodge in Paris, the Napoleomagne lodge in

Toulouse, the Napoleone lodge in Florence, La Constellation Napoleon in Naples, the Etoile Napoleon in Madrid and so on – with lodges usually choosing names that evoked Napoleon's military, social and cultural achievements.[56]

We know for sure that Napoleon's strategic entourage was filled with prominent Freemasons such as Talleyrand, Monge, Kleber, Massena and others. We know, too, that most members of Napoleon's family were Freemasons, including his own father, Charles Bonaparte, his brothers Jérôme, Louis and Joseph, his wife, Josephine, and his brother-in-law, Joachim Murat.[57] Historian and Masonic author François Collaveri asserts with confidence that 'the initiation of Napoleon is not a legend; he was initiated into Freemasonry probably in Egypt as is expressly claimed by the Grand Orient of France'.[58] Other authorities go as far as to argue that Napoleon, as well as his general, Jean-Baptiste Kleber, underwent their Egyptian Masonic initiation inside the Great Pyramid of Giza at the hands of a Coptic sage.[59]

Jean-Baptiste Kleber, the son of an operative Mason, had practised architecture in Paris long before joining Napoleon's army. In 1787, two years before the French Revolution, he had designed an Egyptian-style temple for the Parc d'Etudes in Paris.[60] Few had any direct acquaintance with ancient Egyptian temples at that time and Kleber's design bears little resemblance to any of the existing ancient temples in Egypt – though from the décor that he also designed it is likely that he had a 'temple of Isis' in mind.

According to historian Paul Naudon, Kleber founded Egypt's first modern Masonic lodge which he predictably named La Loge Isis.[61] In June 1800, however, two years after arriving in Egypt, he was assassinated by an Arab fanatic. Kleber's corpse was embalmed and shipped back to France. When the coffin arrived in Paris in late September 1800, Denon made plans for the construction of a replica of the Egyptian temple of Denderah to be raised at the Place des Victoires in Paris as a mausoleum for the great general.[62]

Napoleon Researches Isis

After his return from Egypt Napoleon was to develop a rather curious fascination with the goddess Isis. Indeed, so strong was his interest that he eventually set up a special commission, headed by the scholar Louis Petit-Radelin, to confirm the ancient legend (reported by Corrozet, Dupuis and others) that Isis was the true and ancient tutelary deity of the city of Paris. Napoleon apparently expressed a specific interest in the so-called 'Boat of Isis' and its alleged connection with the 'Boat of Paris' found in the coat-of-arms of the city.[63] After a year or so of research into this matter, the special commission was able to report to Napoleon that there was, in fact, much evidence to support the claim that the Boat of Isis was, indeed, the very same as the Boat of Paris.[64] Highly impressed by these findings, Napoleon issued instructions on 20 January 1811 that a figure of the Egyptian goddess and her 'star' should now be included on the coat-of-arms of Paris:

> We have previously authorized and do also authorize now by these present signed documents by our hand, that our good city of Paris will bear the coat-of-arms as shown and coloured on the attached drawing, at the front of the ancient ship, the prow loaded with a statue of Isis, seated, in silver on a sea of the same, and led by a star also of silver.[65]

The drawing that was attached to Napoleon's letter is today kept in the Bibliothèque Nationale in Paris.[66] On this drawing can be seen the red, gold and silver coat-of-arms surrounded by a wreath of wheat. The whole is surmounted by a golden crown on which is perched the imperial eagle. The crown is transpierced by the Hermetic *caduceae*, the entwined winged-snakes. The main image is the silver boat floating on a silver sea. On its prow is the goddess Isis seated on a throne and guided by a five-pointed star hovering in front of the boat. Above the boat are three golden bees, symbolizing divine solar rule.

Interestingly, the same group of symbols also turns up in the *Description de l'Egypte*, published by Denon – on the dedication of which Napoleon's name, denoted by the letter 'N', is seen surrounded

by the Hermetic coiled snake surmounted by a crown and placed next to a pharaonic *cartouche* inside which is drawn a bee and a five-pointed star.

Napoleon appointed Dominique Denon as first director of the newly opened Musée Napoléon housed at the Louvre. At the same time he commissioned the architects Percier and Fontaine to design the Cour Carrée on the east side of the Louvre, and the artist Jean-Guillaume Moitte to decorate the eastern façade of the inner gateway. Moitte chose to have the most famous law-givers of history, Moses and Numa, flank a statue of the goddess Isis seated on a throne. Next to Isis can be seen the legendary Inca solar emperor and lawmaker Manco Capac.[67]

Three decades later, when Napoleon's body was repatriated from his place of exile in St Helena and placed in the mausoleum at Les Invalides in Paris, the renowned sculptor and architect Louis Tullis Visconti designed the final decorations on the circular walls surrounding the former emperor's large sarcophagus. In one of the scenes Visconti sculpted a representation of Napoleon as a solar god-king much resembling Manco Capac and Sol Invictus, showing the revered French general seated on a throne, bare-chested and with the solar rays shooting out of his head, his arm outstretched handing the 'law' to the many nations of his empire…

The Place of the Star

The most famous monument of Paris, one that was commissioned by Napoleon himself in 1806, is, of course, the Arc de Triomphe at the western end of the Champs-Elysées.[68] The name of the location must have had a special resonance for Napoleon, for so long as anyone could remember it had been called L'Etoile, 'The Star'. Given his obsession with his own 'star of destiny' and his obvious interest in the connection between Isis and the city of Paris, it is not impossible that the 'star' in question was imagined by Napoleon to be Sirius. There is, moreover, a rather unusual depiction on the Arc de Triomphe that is

highly implicit of Isis and her connection to Napoleon. On the east face of the monument is the so-called *Triumph of Napoleon*, sculpted by the artist Jean-Pierre Cortot in 1833.[69] The scene shows 'Victory' (a naked woman) crowning Napoleon (who is wearing the toga of a Roman emperor) with a laurel-wreath. A Roman goddess wearing a 'tower' on her head (supposedly symbolizing a town surrendering to Napoleon) is seen kneeling at the emperor's feet.

The kneeling goddess is, in fact, Cybele, and had clearly been modelled by Cortot from the figure of a Roman goddess wearing a 'tower' on her head found in Paris in 1675 when the foundations of the church of St Eustache were being excavated.[70] According to Claude du Molinet, the Bishop of St Geneviève who published the find in 1683, this effigy was:

> The one that the Greeks called Io and the Egyptians called Isis, and is the same as the one the Romans honoured under the name of Cybele, being the Earth or Nature that the Egyptians married to Osiris who was the Sun, in order to make it fertile and mother of all productions that form within her breasts.[71]

Thus in the minds of French historians of the seventeenth century, the goddess with the tower headdress was none other than a representation of Isis, for the latter, too, 'had also a tower on her head'[72] (as indeed she does in ancient Egyptian hieroglyphs, although what looks like a 'tower' is, in fact, a throne).

In addition it would not be too far-fetched to equate the kneeling figure on the Arc de Triomphe with the Empress Josephine wearing the 'crown of Isis' in Paris – for this scene brings sharply to mind the famous painting by David of the coronation of Josephine and Napoleon in December 1804 sanctioned by the presence of the Pope.[73] In the painting Napoleon is shown wearing the laurel-wreath of Roman emperors while Josephine is seen kneeling at his feet, herself wearing the empress's crown. The same scene is depicted on the Arc de Triomphe, where Napoleon is again garbed as a Roman emperor and crowned with laurel while Isis-Cybele kneels at his feet, herself wearing the crown-tower of the goddess.

We saw in Chapter 16 how the main axis of Paris (running through the monumental avenue of the Champs-Elysées) was aligned by Le Nôtre, either by coincidence or by deliberation, 26° north-of-west towards the sunset on two religiously important days of the year (8 May and 6 August) and, also looking back, 26° south-of-east towards the cosmic rising of the star Sirius. We also saw that this arrangement correlates with the main axis of the great solar temple complex of Karnak-Luxor, which is likewise directed 26° north-of-west towards the sunset and, looking back, 26° south-of-east towards the heliacal rising of Sirius at the beginning of Egypt's civilization. We know that Sirius was the herald of the 'birth' of solar kings. And we've seen how Napoleon endowed the city of Paris with a new coat-of-arms blatantly displaying the goddess Isis and her star Sirius, and how he also commissioned a huge arch to be raised at the 'place of the star' right on the centreline of the axis of Paris. All these interlocking themes, when considered together, become even more intriguing when we add to them one further fact of history. In 1831, just as Napoleon's Arc de Triomphe was being completed, there was also brought to Paris an ancient Egyptian obelisk – the obelisk of Rameses II, as the reader will recall, one of a pair that had originally stood outside the temple of Luxor in Upper Egypt but now destined for a place of choice along the axis of Paris.

How France Had a Second Revolution

The year 1831 was special for the French, for it followed the country's second great popular 'revolution', that of July 1830 when the restored monarchy under Charles X, a brother of Louis XVI, was toppled – never to return. This second revolution was engineered by France's and America's most famous Freemason, the Marquis de Lafayette, who personally masterminded the *coup d'état* that brought the 'Citizen King', Louis-Philippe d'Orléans, eldest son of Philippe Egalité, into power.

To French Freemasonry on both sides of the Atlantic it must have appeared as if the 'Blazing Star' or 'Star of the Orient' had finally

risen over the horizon of Paris. Not surprisingly then, when the 'Citizen King' took charge of the completion of the Arc de Triomphe, it was proposed that the top of this monument should be decorated with a huge, golden five-pointed star.[74]

Let us see how the 1830 'revolution' came to be.

After Napoleon's shattering defeat at Waterloo at the hands of the British on 18 June 1815, the emperor 'abdicated' and was exiled for life to the island of St Helena. France was left with a terrible sense of failure, shame and utter confusion, and, in the chaos that followed, the people were coaxed to agree to the unthinkable – the restoration of the Bourbon monarchy.

In 1814 the Count of Provence, the younger brother of Louis XVI, became the newly restored king of France as Louis XVIII. Ironically, all was back to square one for the republicans and the Bonapartists. But there was really no choice in this matter. A new Republic at that time would have been completely out of the question, let alone a 'successor' to Napoleon. It seemed to everyone that a constitutional monarchy *à l'anglaise* was the only realistic option. But the wellsprings of the Revolution were far from dry.

Tensions quickly began to develop between those who wanted the French Revolution to be an ongoing process and those others who wanted a return to the old regime of totalitarian monarchy. A group of zealous royalists, known as the Ultras, started a political movement which became known as the White Terror. It aimed to eradicate all traces of the Revolution and to purge France of those who had supposedly 'betrayed' the monarchy before and after the fall of the Bastille.

Although the king secretly sanctioned the Ultras, publicly, at least at first, he wanted to be seen as a moderate. To this end he took as his Prime Minister the famous industrialist Elie Decazes, bestowed on him the title of duke, and relied on the latter's high reputation as a reasonable and just man to win the support of the people. In this indirect manner Louis XVIII hoped to ride out the growing political storm that was brewing between royalists and republicans.

Decazes was a prominent Freemason. In 1818, the year before he was appointed Prime Minister, he had become the Grand Commander of the Supreme Council of the Thirty-third Degree of the Ancient and Accepted Scottish Rite. It is believed by some Masonic historians that even Louis XVIII was initiated into Freemasonry. This apparently was done in 1775, when he was still the Count of Provence. It is also said that Louis XVIII's brother, the Count of Artois (the future Charles X), was a Freemason and that both belonged to the Trois Frères lodge.[75]

It seems that Louis XVIII naively supposed that Freemasonry in France was still that quaint club frequented by aristocrats and the high bourgeoisie that he had known before the Revolution. But, of course, he was much mistaken. At first, with the influence of Decazes at court, everyone had hoped that the king would slowly be swayed towards a British-style parliamentary monarchy. But any chance of this happening was completely shattered on 13 February 1821, when a republican fanatic, Louvel, shot dead the young Duke of Berry, the king's nephew.

The Duke of Berry had been the only hope of keeping the Bourbon dynasty going indefinitely, for it was well known that Louis XVIII had no children and that his brother was well past the age of producing more.[76] The assassin and, more specifically, those behind him, had figured that by eliminating the Duke of Berry they would, in effect, cut off the Bourbon bloodline to the throne of France. However, there was something that the assassins could not have known which ended up foiling their ingenious plot. The Duke of Berry's wife, the beautiful and intelligent Marie-Caroline de Bourbon-Sicile, was pregnant. A few months later she bore a son, *l'Enfant Miracle*, who was named Henry.

The assassination of the Duke of Berry gave the Ultras the excuse they wanted to start a witch-hunt against all anti-royalists. Louis XVIII now showed his true colours by allowing the Ultras a free hand in the affair. Louis dismissed Decazes, who was suspected of being a republican and Bonapartist. He was replaced by the Count of Villère, a zealous royalist and Ultra ringleader of the worst sort.

Decazes' dismissal much alarmed the republicans, who now began

to suspect strongly that Louis XVIII was about to restore the old regime, and plots began to be hatched against the king. Because Decazes and many of his supporters were Freemasons, the Ultras suspected that the lodges were behind these plots. Ironically, many Freemasons including Decazes were actually loyal to the king, but it is equally true that Masonic lodges became the cover for secret political gatherings and, as was clearly the case during the 1789 Revolution, an ideal breeding ground for radicals working against the monarchy.

By December 1821 members of an extremist secret society called the Carbonerie, whose aim was to launch an armed rebellion against the king, began to infiltrate Masonic lodges in Paris. The Carbonerie (also called Charbonerie) had direct links to the Italian Carbonari, an ultra-radical anti-clerical and anti-royalist group which, since the early 1820s, had been behind many armed uprisings against the joint Papal and Austrian-Habsburg regime in Italy.

Much like the Freemasons, the Carbonari selected their members and had initiation ceremonies. These took place not in lodges but in *ventes*, an Italian word that means 'twenty'; each was limited to twenty members so as not to attract the attention of the police. The Carbonari's origins can be traced to the year 1812, and they were almost certainly a militant offshoot of the Masonic Grand Orient of Italy which, at that time, was headed by Joachim Murat, the King of Naples and brother-in-law of Napoleon.[77] Indeed, Italian Freemasonry had flourished after the Napoleonic conquest of Italy, and by 1820 the Carbonari and the Freemasons in Italy formed a huge network of lodges and *ventes* that provided ideal meeting grounds as well as an effective system of secret communication for radical political groups plotting to liberate Italy from the detested Austrians.

The Carbonari, who symbolized the driving force behind Italy's independence movement, certainly did not hide the fact that they were staunch Bonapartists and, as such, opponents of all monarchies as well as enemies of the Catholic Church. In September 1821, after the death of Napoleon, they took to the streets, causing serious unrest, which forced Pope Pius VII to condemn them as well as

Freemasons in general.[78] The days of burning at the stake were over, but in 1821 the Austrian police launched a massive operation in Italy to purge all radical elements from Masonic lodges and the *ventes* of the Carbonari. There were hundreds of arrests and many Masons and Carbonari were imprisoned. Others were deported or escaped into France, where they quickly began to infiltrate the Masonic lodges.

The 1822 Carbonerie uprising in France immediately brought Masonic lodges there under intense scrutiny. To make things worse, it was also suspected by the Ultras that the notorious Marquis de Lafayette was the leader of the Carbonerie. Lafayette was seen on both sides of the Atlantic as a great republican hero, and his reputation had become almost legendary among Freemasons. But even though Lafayette was a staunch republican and also a very active Freemason, he was by no means a radical, and at heart almost certainly had favoured a constitutional monarchy rather than the chaotic 'Republic' he had witnessed first-hand in France after the 1789 Revolution. At any rate, whether Lafayette was sympathetic to the Carbonerie or not became an academic issue, for the Carbonerie was very poorly organized in France and heavily infiltrated by royalist spies. It was soon disbanded after the police arrested the Carbonerie plotters *en masse* and also many Freemasons in the confusion that followed.

A series of death sentences were immediately passed. Among those executed were the famous 'four sergeants of La Rochelle', two of whom were found to be Freemasons belonging to the Egyptian Order of Memphis-Misraim. According to the Masonic author Jean-André Faucher, the insurrection of 1821–2 was, indeed, largely blamed on the new Masonic Order of Memphis and also the Order of Misraim both of which were believed to have originated in Italy in the early 1800s.[79] To make matters worse, Elie Decazes, the ex-Prime Minister, had become a member of the Order of Misraim, as well as many other notable figures on the other side of the Channel in England who supported Decazes, such as the Duke of Leicester and the Duke of Sussex.[80]

In that troubled year of 1822 there were no fewer than twenty-two Misraim lodges in Paris, plus about a dozen more elsewhere in France, mostly in Lyons and Metz. The pseudo-Egyptian character of the rites that were practised in those lodges is evident in lodge names. For example there was one in Metz called 'Heliopolis Reborn', another in Lyons called 'Memphis', and yet another in Montauban called 'The Flooding Nile'.[81]

The Second Revolution

It was the Order of Misraim which, in 1822, was principally accused of harbouring the Carbonari. In consequence it was banned in 1823. In the midst of these confusing and turbulent events Louis XVIII died in September 1824 leaving no offspring to take his place. He was succeeded by his brother, the Count of Artois, crowned as Charles X, who was now approaching his seventieth year.

Like most aristocrats who had fled the 1789 Revolution, Charles had lived in exile until 1814, and this bitter and humiliating experience made him determined to restore the old regime with the divine right of kingship and also the full authority of the Catholic Church. At his coronation, Charles insisted that he should be anointed in accordance with the ancient rituals of kingship at Reims Cathedral with the few drops of sacred oil that had been saved when the Saint-Ampoule had been smashed during the Reign of Terror of 1793–4.

Once crowned, Charles X became the leader of the Ultras and the Catholic revival began to gather pace, causing outrage among those who had supported the Revolution. Many anti-clericals as well as republicans now joined Masonic lodges not for spiritual enlightenment but for political shelter. Charles X, who was a devout Catholic himself, began to revive the dreaded Society of Jesus, the Jesuits, and soon it was rumoured that he had joined the order and might hand over power to them.

Political unrest reached boiling point in March 1830, when, in a naive move to appease his critics, the king dissolved the Chambre des

Députés and called a general election which he hoped the Ultras would win. The vote, however, went against the Ultras and Charles X now confronted two unsavoury options: he could either agree to a constitutional monarchy or scoop the power already in his hands with a *coup d'état* by eradicating the Bonapartists and republicans in his government. He unwisely opted for the latter, and by July 1830 the barricades were up again in the streets of Paris.

For the second time in less than fifty years a revolution had been unleashed against the Bourbon dynasty.

Lafayette Seizes the Day

Not unexpectedly, two factions quickly emerged, one made up of pure republicans the other of constitutional monarchists. Lafayette, that eternal compromiser, at first swayed between the two, even though the republicans considered him their leader. In his view, however, the best option now was to oust the Bourbons altogether and replace them with a new monarchy who would 'constitutionalize' the old regime. He had in mind a prince, the Duke of Orléans, whose father, Philippe Egalité, had sponsored the 1789 Revolution with his immense wealth and position – for which it eventually beheaded him!

Although Lafayette had been at odds with Philippe Egalité during the 1789 Revolution, he was now in very close contact with his son, Louis-Philippe d'Orléans. Lafayette's plan had the distinct advantage of offering a solution that might be acceptable to both the republicans and the constitutionalists, and thus avoid the real risk of a civil war. It remained now to persuade the republicans, the Bonapartists and, especially, the general population of Paris, that Louis-Philippe d'Orléans was the right man for the job. This, Lafayette achieved with the well-judged use of powerful symbolism – a technique that had so often worked with the rowdy Parisian mob.

In August 1830 Charles X was forced to abdicate. In a desperate bid to keep the Bourbon dynasty on the throne of France, he asked that his grandson, the 'miracle child' of the Duchess of Berry, be accepted as the new king. But both the republicans and the

constitutional monarchists rejected the proposal outright. This was the moment when Lafayette and his own candidate, Louis-Philippe d'Orléans, made their move. After three days of bloody street fighting in Paris, the crowds gathered at the Hôtel de Ville and, in a perfectly timed propaganda coup that only high initiates would know how to bring about, Lafayette grabbed a tricolour flag of the Revolution and wrapped it around Louis-Philippe d'Orléans, proclaiming him the Citizen-King of France.

Amazingly, the theatrical gesture worked. The Parisian mob cheered and Louis-Philippe won the day. The hard-line republicans and Bonapartists were furious at having their 'revolution' snatched away from them by such trickery, but there was not much they could do.

Almost immediately Louis-Philippe I began a series of projects supposed to demonstrate his love and support for Bonaparte and the Revolution. He ordered that the Arc de Triomphe, the construction of which had begun in 1809 but had been shelved ever since, should now be completed. He also ordered the construction of a huge pillar at the Place de la Bastille to commemorate the 1830 Revolution; on top of the pillar, as the reader will recall from Chapter 1, was then placed the 'genie of Paris', a winged youth much resembling the Greek Hermes.[82]

Also at about this time Louis-Philippe ordered that the obelisk brought from the Temple of Luxor in Egypt, and recently arrived in Paris, should now be raised in the Place de la Concorde…

Champollion

In 1822, a year and a half after Napoleon's death, an amazing scientific discovery was made which would not only stun the academic world but would also fulfil a promise that the Emperor had made at St Helena. For when asked why he had invaded Egypt, Napoleon had calmly replied: 'I came to draw attention and bring back the interest of Europe to the centre of the ancient world.'[83]

This was a side of Napoleon that has often been neglected, namely that he was not only a military genius but also an accomplished scholar and a senior member of the Institut National. It was Napoleon who had the great forethought of taking the 167 savants to Egypt in 1798, and it was he who founded the first modern scientific institute in Egypt: the Institut d'Egypte in Cairo. It was therefore appropriate that his grand dream of restoring cultural interest in ancient Egypt was not fulfilled by a politician but rather by a quiet and studious young man living in the little town of Figeac near Grenoble – a young man who had never travelled out of France, let alone to Egypt.

On 17 September 1822 Jean-François Champollion, coughing and speaking with the weak voice of someone suffering from serious pulmonary problems, announced to a group of scholars at the Académie des Inscriptions et Belles-lettres in Paris that he had an important statement to make regarding the mysterious ancient Egyptian hieroglyphs. Feeling awkward in front of such an illustrious and very sceptical congregation of learned men, Champollion slowly read a paper which he had addressed to the chairman of the Académie Française, Monsieur Dacier, and which was simply titled *Lettre à M. Dacier relative a l'alphabet des hiéroglyphes phonétiques*.

It was, in fact, a cultural and scientific bombshell on a scale rarely experienced in the world. For it became obvious to many of those listening to Champollion that day that the young man had solved the biggest mystery of the past: he had cracked the code of the ancient Egyptian hieroglyphic language. Indeed, Champollion's modest *Lettre à M. Dacier* was to mark the most prestigious moment of the Académie Française and provided the foundation stone upon which scientific Egyptology would be developed. Many Freemasons present on that day in September 1822 would also have thought it wonderful and most appropriate that this world-changing discovery had been announced in Paris, the city of Isis.

In the 1820s the area of Grenoble and Lyons where Champollion lived was not only the haunt of republicans and Bonapartists who opposed the monarchy, but also the hotbed of many innovative Masonic movements, especially those related to the 'Egyptian' type of

Freemasonry started at Lyons by Cagliostro.[84] It is known that Champollion and, more especially, his older brother, Jacques-Joseph, were fervent Bonapartists, and so were most of their friends, many of whom were also Freemasons.[85] The question must arise, therefore, whether Champollion himself was not a member of the brotherhood and, more specifically, a member of one of the Egyptian-style lodges? Today some Masonic historians list Champollion as a 'famous Freemason', but there is no documented proof of his involvement.[86]

Champollion and his brother had at one time been held under suspicion of political agitation and, in 1816, had even been placed under house arrest at Figeac. It is said that they gained the support of the influential Freemason Elie Decazes, then the Minister of Interior, who ordered their release and allowed the two brothers to return to Grenoble in 1817.[87]

Decazes, as we shall recall, was to become Grand Commander of the Supreme Council of the 33rd Degree and one of the first notables to join the Egyptian Masonic Order of Misraim.[88] Later also the prominent statesman, the Duke of Blacas d'Aulps, became the patron and protector of Champollion.[89] Paradoxically, Blacas was a staunch Ultra and a favourite of both Louis XVIII and Charles X. Blacas had served as the French Ambassador to the Kingdom of Naples since 1815, then the hotspot of 'Egyptian' Misraim Freemasonry. Let us also note that there had been curious exchanges between Champollion and certain well-known adepts of these neo-Egyptian Masonic groups.

Champollion was a rival of Alexandre Lenoir, a staunch Freemason and once the Superintendent of the King's Buildings before the 1789 Revolution. Lenoir, who was a keen adept of the 'Philosphic' Scottish Rite,[90] and an 'initiate of the cult of Isis',[91] was also the publisher of *La Nouvelle Explication des hiéroglyphes* in 1808. When Champollion began his own work on the Egyptian hieroglyphs he had condescendingly called Lenoir 'a little goose' (*un oison*) and stated that he only respected the older man because he was 'in the good books' of the Empress Josephine.[92] In 1814 Lenoir had published a

book entitled *La Franche-Maçonnerie rendue à sa véritable origine* ('Freemasonry brought back to its true origins'), in which he linked the origins of the brotherhood to the 'cult of Isis', which may explain why Lenoir, as Champollion himself had drily noted, was highly regarded by Josephine.

There is, too, Champollion's relationship with an Italian-Greek beauty from Livorno, Angelica Palli, with whom Champollion had fallen desperately in love during a research trip to Italy in 1826. Livorno, which is on the Mediterranean coast near Pisa, had been the principal port of the Medici of Florence who, as we saw in Chapter 8, played a great part in the Hermetic Renaissance. Angelica Palli, a poetess and writer attached to the Livorno Academy, was very conversant with Hermetic and Neo-Platonic literature. Her evocative name (literally 'angel of the temples') must have much stirred the fertile imagination of Champollion, who was to write of her to his friend, the Abbé Gazerra: 'I thank the great Ammon-Ra for meeting her.' She in return commented with delight on his 'philosophy', which she found to be imbued with 'Egyptian doctrines, fertile source from which drew Plato and… Pythagoras.'[93]

Many years later Angelica Palli became an active supporter of the famous Italian revolutionary, Giuseppe Mazzini, a staunch Freemason who was head of the Italian Supreme Council of the Thirty-third Degree. Mazzini was a close friend and colleague of the popular hero Giuseppe Garibaldi, who was to become the first Grand Master of the Egyptian Masonic Order of Memphis and Misraim.[94] There was, too, a curious connection between the city of Livorno, where Angelica Palli and Champollion had met, and a rather elusive Masonic society called the *Société Secrète Egyptienne*. It is thought that one of the founders of this society was Mathieu de Lesseps, father of the famous engineer Ferdinand de Lesseps, who built the Suez Canal in Egypt.[95] The story goes that in 1818 the Austrian police raided a Masonic lodge in Venice. Amongst the confiscated documents was one revealing the existence of the secret society and implicating as one of its members no less a figure than Egypt's first modern ruler, the Khedive Mohamad

Ali.[96]

Mathieu de Lesseps was a staunch Bonapartist and also a keen adept of the Egyptian rites of Freemasonry.[97] He was a very close friend of the Khedive, and from 1803 to 1806 had been France's commercial attaché in Egypt, after which he had served as French Consul in the city of Livorno.[98] We shall encounter the de Lesseps family again in the next chapter in connection with the Statue of Liberty that stands in New York's harbour. Meanwhile, whether all this had any influence or bearing on Champollion whilst he was in Livorno is not clear, but it may explain his mindset as he began to plan there his first and only trip to Egypt…

'If You Go to Thebes Do Send Me a Little Obelisk…'

In Chapter 1 we saw that three years before his abdication in 1830, Charles X had commissioned the artist François-Edouard Picot to decorate the ceiling of his personal museum at the Louvre with an ancient Egyptian motif centred upon the goddess Isis.[99] The reader will recall that Picot had been a student of the radical revolutionary and Bonapartist Jacques-Louis David who, along with Robespierre, had masterminded the various celebrations in Paris of the goddess Reason and the Supreme Being and, more especially, the celebrations at the Bastille in August 1793 when a statue of Isis was displayed to the Parisian crowds. Bearing this in mind, the 'Isis' featuring on the large-format ceiling painting by Picot can be seen immediately to have been modelled on David's statue of 'Isis of the Bastille'. Indeed, the painting itself contains independent confirmation of this connection – for seen flying above 'Isis' is the so-called 'Genie of the Arts', a naked youth with golden wings much resembling the Greek god Hermes. The 'genie' holds a torch in one hand in order to illuminate the landscape below for the benefit of the 'goddess Athena', at whose feet can be seen an owl, the symbol of wisdom acquired through initiation.

There is little doubt that the landscape beneath Isis in the painting

is to be imagined not in Egypt but in Paris and, more precisely, at the Place de la Bastille – for the give-away is the 'genie' which, today, can actually be seen 'flying' over the Place de la Bastille. Where? It stands at the top of the huge pillar which was commissioned for the spot by the 'Citizen-King' Louis-Philippe I in 1830, three years after Picot completed the painting.

And there is one other point. In Picot's painting the goddess Isis is gazing at a tall obelisk in the distance. Could this obelisk be the *actual obelisk from Luxor* raised at the Place de la Concorde by Louis-Philippe I? Is the Picot painting suggesting some sort of connection or link between the city of Paris and the city of Luxor?

In 1828, a few months after Picot had completed the painting for Charles X, the latter offered to sponsor Champollion to undertake a feasibility study for bringing an obelisk from Egypt to Paris. The obelisk in question had been donated to France by the Khedive Mohamad Ali.[100] Charles X cultivated a keen interest in ancient Egypt and, in 1828, had just inaugurated the Egyptian antiquities museum in the south wing of the Louvre.

In July that year Champollion headed a small team of scientists and artists, including the French archaeologist Charles Lenormant and the architect Bibent, and set sail from the port of Toulon towards Egypt. Champollion and his 'Argonauts', as he called his team, reached Alexandria on 18 August 1828, where, barely three decades earlier, Bonaparte had landed with his troops. Champollion was received by the French Consul, Bernadino Drovetti, and a friendship quickly developed between the two.

Drovetti was from southern Italy, and since 1818 had also been the 'Grand Copte' of the Egyptian Masonic lodges in Alexandria.[101] He had been appointed French Consul in 1821, and had earlier served as assistant to Mathieu de Lesseps. And like de Lesseps before him, Drovetti had become a close friend of the Khedive Mohamad Ali. This privileged connection gave Drovetti a rather free hand in dealing with ancient Egyptian relics, and he soon amassed a huge personal fortune. His British counterpart and rival was Henry Salt, the British Consul in

Alexandria, who, along with Giovanni Belzoni,[102] the flamboyant Italian Freemason and Egyptologist, also traded in antiquities, which he sold to private collectors and to the British Museum.

Champollion was totally enchanted by Egypt. He was to write of this ancient civilization:

> We in Europe are but Lilliputians, and no other ancient or modern people has developed the art of architecture on a scale so sublime, so huge, so grandiose as did the Egyptians… I repeat yet again… ancient Egypt taught the arts to Greece, the latter developed them into a more sublime form but without Egypt, Greece would probably not have become the home of the arts.[103]

> So fascinated was Champollion with Egypt that he even entertained the notion that he had been somehow physically connected to it since his birth: 'It seems to me that I was born here', he wrote to his brother whom he had nicknamed Ammon, 'and the Europeans here think I look very much like a Copte.'[104]

During his eighteen-month visit to Egypt, Champollion managed to get an agreement with Mohamad Ali that he would take to Paris one of the two obelisks that stood outside the temple of Luxor. The Khedive would have been quite happy to let Champollion take both obelisks, but it seemed that one was all that the French engineers could cope with. The job of bringing the ancient monolith to France proved to be no easy task. As it weighed an estimated 230 metric tons and was 23 metres tall, there was some question at first of slicing it into several manageable pieces, but Champollion would not have it, claiming that it would be a 'sacrilege'.[105]

On his way back to France, Champollion made the acquaintance of a young naval engineer called Verninac de Saint-Maur, who would later receive the command of the *Luxor*, the special ship that was built to carry the obelisk down the Nile and across the Mediterranean. Verninac worked under the authority of the French Minister of the Navy, Baron d'Haussez, who much disliked Champollion on account of a feud he had had with him in Grenoble, when Haussez had been the chief of police there. Not unexpectedly, Haussez pushed

Champollion aside and took all the credit for securing the obelisk from the Khedive of Egypt. Haussez was to write in his memoirs:

> As soon as it was known in the learned world how I dreamed of enriching France with a monument that only Rome owned, I was put in charge to try and obtain two obelisks much more precious… than those of Alexandria [which ended up in London and New York], and also much more difficult to transport by reason of their location at Luxor.[106]

The operation was to take six years and Haussez was not to see it through. Hardly a year after he had come to office as Minister of the Navy, he was sacked during the chaos that followed the July Revolution of 1830. The responsibility for the project then passed to the distinguished Baron Taylor, the son of a naturalized Englishman. Taylor was a patron of the arts, and was himself an accomplished author. A friend of the archaeologist Jomard, Taylor had a keen interest in ancient Egypt and diligently took over where Haussez had left off. Supplied with letters of recommendation from the king, and a generous budget of 100,000 francs, he went to Egypt himself to meet the Khedive and take charge of the shipping operation. Taylor quickly assigned the task of the engineering works to Baptiste Apollinaire Lebas, a stocky and rather short man whose small stature was to be the subject of much ridicule among the Egyptians, who could not believe that such a squat individual was given the mission of moving so tall an obelisk all the way to France.

It took from April 1831 to July for Lebas to get the purpose-built ship the *Luxor* from Toulon to Upper Egypt. It was summer, the heat at Luxor was insufferable – 40°C in the shade – and the whole affair was besieged by untold problems, including a terrible cholera epidemic. But at the end, Lebas proved to be the right man for the job. By October he had managed to have the obelisk lowered safely and in one piece to the sand. Two further months followed while it was dragged the few hundred metres to the shore of the Nile and finally hoisted on board the *Luxor*. Then Lebas had to wait till July of the next year for the inundation of the Nile in order to be able to sail downstream to Alexandria. After a delay of three months at

Alexandria, the *Luxor* finally crossed the Mediterranean and arrived at the French port of Toulon on 11 May 1833. From there it was brought by river to Paris where it waited at the docks for three more years.

It was Louis-Philippe I who had personally long ago decided that the obelisk should be raised on the axis of Paris in the centre of the Place de la Concorde, immediately west of the Tuileries gardens between the Louvre and the Arc de Triomphe.[107] Now, at last, a date was set for raising the obelisk. On 25 October 1836, a crowd of 200,000 people gathered at the Place de la Concorde to witness the event – more than had assembled for the beheading of Louis XVI on the same spot forty-three years earlier. Lebas personally supervised the difficult lifting operations which, to everybody's admiration and delight, went without any hitches. Amid cheers of jubilation and joy, Paris at long last had its very own solar talisman from ancient Egypt adorning its skyline. France now could fittingly claim for its capital the name of *Cité Lumière* (City of Light) – or should we say 'City of the Sun'?

The beautiful obelisk standing in the Place de la Concorde was, and still is by virtue of its great antiquity, the oldest monument of Paris. It witnessed the story of Egypt from about 1500 BC and now in Paris it was to see the passing of the French monarchy and the creation of the Second Republic in 1848; the rise of the Second Empire under Napoleon III, the nephew of Napoleon Bonaparte, and its fall in 1871; the formation of the Third Republic under the 'Masonic' government of Léon Gambetta;[108] the First World War; and the Second World War; and finally, in 1958, the present Fifth Republic founded by General Charles de Gaulle.

But it was not until 1984 that it would be joined in Paris by a modern structure evoking the Great Pyramid of Giza…

Mitterrand's 'Great Works'

In 1981 François Mitterrand, then President of France, launched the

so-called *Grands Travaux*, the 'Great Works', which involved the construction of a series of impressive architectural projects to the glory and culture of France. In eight years would come the bicentennial of the 1789 Revolution, and huge celebrations were being planned by Mitterrand who, with a zeal reminiscent of Louis XIV, wanted to furnish this event with great national monuments. Either intentionally or by coincidence the two monuments in which Mitterrand took great personal interest evoked ancient Egypt and the Masonic Supreme Being or 'Great Architect of the Universe'. These choices earned Mitterrand titles like *Dieu*, *Sphinx* and *Roi Soleil* in France's satirical press.

Although François Mitterrand was not a Freemason,[109] he was nonetheless extremely sympathetic to the lodges – so much so that many in France remain convinced to this day that he was a clandestine Mason. Much has been made in recent years of the fact that Guy Penne, one of Mitterrand's closest political advisors, was a member of the Council of the Grand Orient of France.[110] There is also the scandal involving Mitterrand's son, Jean-Christophe, who, in 1982, joined the office of Guy Penne and in 1986 took over Penne's job. Jean-Christophe was recently exposed by the French press for his embroilment in the so-called Falcone Affair involving shady arms deals in West Africa which also implicated some senior African politicians who were members of Masonic lodges.[111]

The two projects that most interested President Mitterrand were those that were to be readied for the bicentennial celebrations planned for July 1989. They involved the Grand Louvre project, which would ultimately feature a huge glass pyramid, and the Grande Arche de la Fraternité project at La Défense on the extreme western end of the extended axis of the Champs-Elysées. Under the personal directive of Mitterrand, two institutions, provided with special budgets set up under the Ministry of Finance, were created to administer these projects, one being the EPGL, Etablissement Publique du Grand Louvre, and the other being the EPAD, *Etablissement Publique d'Aménagement de la Région de la Défense*. Two

renowned architects were then personally selected by Mitterrand: Ieoh Ming Pei, the celebrated Chinese-born American architect, for the Louvre,[112] and Johan-Otto Von Spreckelsen, a Danish architect for the Grande Arche.[113]

President Mitterrand was so keen to have I. M. Pei for the Louvre that he decided to bypass the normal requirements for an international tender and simply offered him the design commission.[114] According to Pei, these were the circumstances:

> In July 1981, Paul Guimard asked to meet with me at the French Embassy in London… He told me that President Mitterrand wanted me to come to Paris… Only the President, Paul Guimard and myself were present at this meeting which took place on December 11, 1981…[115]

Pei claimed that at this first meeting with Mitterrand there was no specific mention of the Louvre pyramid, and the President only spoke of 'the importance of architecture in French national life'.[116] It was later, in 1983, that Mitterrand sent his advisor, Emile Biasini, to New York with instructions to contract I. M. Pei directly for this project.[117] When asked by a journalist why a pyramid was chosen for the Louvre, which was a classical baroque design, Pei replied: 'Architecture is geometry – it's geometry. The Louvre is also geometry. It's slightly tilted, but it's geometry… The French opposed it at first, but never President Mitterrand. He never faltered in backing my idea.'[118]

I. M. Pei insists that he borrowed the idea for a pyramid from 'a garden trellis design of Le Nôtre, who laid out the vast gardens at Versailles for Louis XIV and also the gardens of the Tuileries'.[119] Perhaps so. Yet the slope which Pei finally chose for his pyramid was 50.71°, only about a degree different from the slope of the Great Pyramid of Giza in Egypt. Was the similarity deliberate? We shall perhaps never know. But here is how Pei's senior architect, Yann Weymouth, replied when asked this question:

> Working with models and perspectives we studied form and site. We shaped the central skylight, studying it from ground level in perspectives and models. With a perfect equilateral triangle as side, the 54.74° slope felt aggressive, but as the slope approached 45° the form 'melted'. The 50.71° finally chosen is close to the slope of the Great Pyramid of Giza, so it is possible we were repeating studies made by the IVth Dynasty Egyptians.[120]

From the above statement it is clear that both Pei and Weymouth must in fact have studied the evolution of the fourth dynasty pyramids in Egypt with some care. According to Egyptologists the first true pyramids were those of the pharaohs Sneferu and his celebrated son Cheops (Khufu) – and it is a well-known fact that their three pyramids (two at Dashour plus the Great Pyramid at Giza) had slopes that started near 54° (South Pyramid at Dashour), then changed to 45° (North Pyramid at Dashour) and finally settled for 51.85° (Great Pyramid at Giza)!

Given the historical importance of the project, the location of the site and the fact that it was to be a symbol for the Bicentennial of the Revolution, Pei must also have been aware that several pyramid projects had been proposed for Paris in the past – such as those of Etienne Boullée and Claude-Nicolas Ledoux, mentioned at the start of this chapter. He should also have known that during the reign of Louis XIV a pyramid to the glory of the Sun-King had been proposed for the Cour Carrée of the Louvre by the architect François Dubois,[121] and also that a weird baroque pyramid with a statue of Napoleon on its top had been designed by the architect Louis-François Leheureux to stand precisely where Pei eventually placed his glass pyramid.[122]

The Grande Arche de la Fraternité project, unlike Pei's, was the subject of an international tender, but the final decision was nonetheless taken by Mitterrand. Here is how the architect Von Spreckelsen described his design: 'An open cube, a window open to the world… with a gaze towards the future. It is a modern Arc de Triomphe, to the glory of the triumph of humanity; it is a symbol of hope that in the future people may meet freely.'[123]

The Grande Arche is indeed a nearly perfect cubical structure 110

metres tall by 112 metres deep with a base that is just over one hectare in area. It is estimated that the Cathedral of Notre-Dame would fit quite well in the void of the arch. In the official guide it is described as a monument that 'evokes the sense of the sacred… which compares to the Egyptian pyramids'.[124] On the rooftop the artist Jean-Pierre Raynaud created a zodiac to inspire 'a real dialogue with the celestial vault, which is the true natural architecture',[125] and one might add on his behalf that his design was a sort of 'as above so below' concept.

On the top floor of the Grande Arche is the headquarters of the Fondation l'Arche de la Fraternité, the Foundation of the Arch of the Brotherhood, which, since August 1989, has been presided over by Claude Cheysson, ex-Minister of Foreign Affairs. The foundation dates from the 1970s, when it was established as a human rights organization headed by Edgar Faure, formerly President of France, in the 1950s. When in the early 1980s President Mitterrand began to make it known that he wanted the Grande Arche monument to be a symbol of 'Fraternity and Liberty', Edgar Faure proposed to him that the Fondation l'Arche de la Fraternité headquarters in Paris should be moved to the Grande Arche building at La Défense.[126]

Mysteries of the Axis

The Grande Arche project was completed on time for the bicentennial of the Revolution and was inaugurated with much fanfare by François Mitterrand on 14 July 1989. The final result is stunning. The Grande Arche can be seen from miles away, and, after the Eiffel Tower, it is unquestionably the most imposing landmark of Paris. Jean-Claude Garcias, who wrote the text for the official guidebook of the Grande Arche, described it as *the* monument of the 1980s that inspires the collective mind with the 'instinct of immortality'.[127] Moreover, Garcias saw the Grande Arche not as a project that came out fully formed 'from the brain of its architect', but rather as 'the end product to a long and sinuous urban axis which was begun in the seventeenth

century and which', he says, 'can be schematized as follows':

Born in the open court of the Louvre, but deviated six degrees towards the north during the run through the Tuileries, the great east–west axis of Paris has its origins in the avenue of trees planted by Le Nôtre at the beginning of the reign of Louis XIV, who opened the perspective towards the setting sun… It was followed by the development of the present Place de la Concorde under Louis XV, then the levelling of the slope on which today stands the Arc de Triomphe and the avenue of the Champs-Elysées. At the end of the Old Regime the engineer Perronnet built the first stone bridge at Neuilly, taking the axis all the way to the hill of Chantecoq, our present area of La Défense.'[128]

Jean-Marcel Humbert, the well-known French Egyptologist who is regarded as the foremost authority on 'Egyptomania' in Paris, also made this tantalizing remark:

I have not verified this, but it is said that the great axis (Arche de la Défense/ Obélisque de la Concorde/Pyramide du Louvre) is a Masonic alignment, and that it is not the result of hazard… It is known that the Freemasons find their origins in ancient Egypt.[129]

The Grande Arche, therefore, much appears to be the culmination of an ongoing chain of ideas, an occult plan one might even venture to say, which began with the Sun-King Louis XIV and ended with François Mitterrand – who was soon jokingly referred to by the French as *Le Roi Soleil* because of the ambition of his *Grands Projets* scheme. Let us note in passing here that Mitterrand had also one more *Grand Projet* in store for La Défense: a skyscraper 400 metres tall called La Tour Sans Fin. This monster of a building was designed by the architect Jean Nouvel,[130] and, unlike most skyscrapers, was to feature varying levels of transparency acting as 'sky filters', such that at the top it would become fully transparent and disappear into the clouds.[131] What was intended, here, was an allusion to the biblical 'Tower of Babel', a universal talisman of the first magnitude that is also a popular Freemasonic pictogram often held to be a symbol for the origins of the Craft.[132] The Tour Sans Fin, however, was

eventually scrapped due to lack of funds and the immense impracticality of the idea.[133]

Unquestionably, the Grande Arche occupies the place of honour on the western extremity of the axis of Paris. It is the final 'sunset' of a great plan whose 'sunrise', as we have seen, was the 'miraculous birth' of the Sun-King Louis XIV at the Louvre – but whose *first sunrise*, we suggest, took place long ago and far away in ancient Egypt. The Grande Arche thus becomes an integral part of a monumental array of talismans strung out along the axis of Paris, notably the Arc de Triomphe at the Place de l'Etoile and the obelisk at the Place de la Concorde. The axis then enters the precinct of the Tuileries gardens to make its way to the Louvre. When the axis is traced eastwards towards the Louvre, the reader will recall from Chapter 17 that it passes first through the bronze equestrian statue of Louis XIV represented as 'Alexander the Great', placed to the south of Pei's glass pyramid. East again and we find that the axis transects the west wing of the Louvre and then passes right through or very near (see chapter 12, note 39) the private apartments of Anne of Austria, Louis XIV's mother – the very place where the 'Capetian Miracle' of Louis XIV's conception took place in December 1637.[134]

Interestingly, the full effect of the ensemble of these 'Masonic' and 'Egyptian' monuments and, more specifically, of their alignments, was not to be unveiled on the bicentennial day of 14 July 1989, but exactly a year later when the French composer Jean-Michel Jarre was commissioned to organize a special concert at the Place de la Grande Arche at La Défense for 14 July 1990. Why and how Jean-Michel Jarre was chosen for this event is not clear, but it was to prove an amazing extravaganza of sound, light and fireworks the likes of which Paris had never seen before, not even during the Revolution when Jacques-Louis David and Robespierre had inaugurated the era of the Supreme Being near the Louvre.

Beginning at dusk on 14 July 1990, an estimated two million people filled the Champs-Elysées as if coming to attend some weird Hermetic Mass. On that strange night all the relevant monuments on

the historical axis – Grande Arche, the Arc de Triomphe, the Luxor obelisk and, of course, the Louvre glass pyramid – were lit up as if to reveal a magical landscape for Paris.

The orchestra of Jean-Michel Jarre, with the chorus wearing long, flowing white robes, giving them a surreal appearance, were positioned at the foot of the Grande Arche inside a huge, makeshift metal-framed pyramid that was lit up with laser lights. The lasers projected images on to the façades of adjacent skyscrapers. Many of these images were reminiscent of Hermetic-Masonic symbols, especially a set of large eyes projected on the sides of the pyramid.

Eight years later, in May 1998, Jean-Michel Jarre would be commissioned to perform a similar show, this time involving the Great Pyramid of Giza itself. At that time, President Hosni Mubarak of Egypt and other officials of his government attended a special ceremony at the Place de la Concorde in Paris at which a golden capstone was placed on top of the Luxor obelisk.[135] During this ceremony Egypt's Minister of Culture, Dr Farouk Hosni, announced that a golden capstone would also be placed on top of the Great Pyramid of Giza at midnight on 31 December 1999 as a symbol for the new millennium. Weeks later Jean-Michel Jarre was officially commissioned to organize that event.

Robert Bauval's Eureka Afternoon (1)

On an afternoon in the early spring of 1992, Robert Bauval happened to be at the Louvre Museum bookshop and bought a copy of an archaeological journal containing a major pictorial on the city of Luxor. The journal was *Dossiers: Histoire et Archéologie*,[136] and the article in question was the work of a number of different authorities including Dr Mohamad El-Saghir, Director of Antiquities at Luxor, and William J. Murnane and Lany D. Bell of the University of Chicago Epigraphic Survey.

Earlier that same day Bauval had also visited the Grande Arche at La Défense, and there, on the top floor, was an exhibition room

featuring a superb aerial photograph of the city of Paris showing the whole length of the historical axis from the Bastille in the east all the way to the district of La Défense in the west. The photograph was several feet long, and showed every detail clearly: the distinctive crab-shaped layout of the Louvre, the Tuileries gardens (even individual trees were visible), the Place de la Concorde and the obelisk, the Arc de Triomphe, all the skyscrapers at La Défense and, of course, the Grande Arche. A security officer was standing near by, and with his permission Bauval videoed the impressive aerial view, then took section shots of it with his still camera. A scale model of the axis of Paris, showing the main monuments and buildings, was also part of the exhibition, so Bauval photographed and filmed this as well.

Bauval then left the La Défense area and travelled underground by Métro directly to the Louvre. All the way he pondered on the aerial photograph and scale model of the axis of Paris, refreshing his memory of the details by reviewing the footage he had shot with his video camera. Seeing the city as a whole from the air in this way, and scaled down in a three-dimensional model, gave a very special perspective – a high vantage point from which the metropolis seemed to reveal itself like some giant jigsaw puzzle that had been put together over the centuries.

Though one could be forgiven for not noticing it at all at ground level, what particularly stood out in the aerial view was the curious way that the axis of Paris slightly changed direction as it emerged from the Louvre and headed west. It seemed, on face value, that this had been done to have the Tuileries gardens parallel to the course of the river Seine. But even so, it was clear that the axis could have been set true again as it emerged from the Tuileries into the Place de la Concorde. Here the Seine actually took a slight turn to the south, whereas the axis was turned slightly in the opposite direction towards the north.

This curious anomaly bothered the structural engineer in Robert Bauval. He wanted to think that the deviation of the axis of Paris had been due to a practical problem, but somehow this explanation did

not quite suffice in so ambitious a scheme where careful, coordinated deliberation was the obvious keynote throughout. One could see that deliberation, for example in the distances between the principal symbolic monuments placed along the axis and in the relative sizes of the three 'arches'. As the guide books like to point out:

> Curiously the distance between them doubles each time: 1 km from the Carrousel triumphant arch to the Concorde's Obelisk, 2 km from the Obelisk to the Arc de Triomphe at the top of the Champs-Elysées, and 4 km from there to the Grand Arche. Even more curiously, the size of the arches also doubles at each stage.[137]

So since everything else seemed to have been planned to produce a special symbolic effect wasn't it likely that the deviation of the axis was also part of the symbolic scheme?

Robert Bauval's Eureka Afternoon (2)

As Bauval stepped out of the Métro station at the Louvre he decided on impulse to take a stroll along the nearby parts of the axis of Paris before visiting the museum. The aerial view of the axis, and the problems that it raised, were still vivid in his mind.

He first walked to the obelisk at the Place de la Concorde, and there, placing himself with his back to the west face of the obelisk, looked directly up the Champs-Elysées and along the axis of Paris. It shot straight as an arrow westward, past the Arc de Triomphe and all the way to Grande Arche 6 kilometres away.

He next placed himself on the east side of the obelisk and looked back eastwards towards the Louvre. The axis shot straight along the centreline of the Tuileries gardens and all the way to the Arc du Carrousel outside the Louvre's open court. But it was at this point that the troubling 'deviation' occurred for the eastwards extension of the axis did not merge, as one would have expected, with the central axis of the Louvre but instead crossed it and carried on along the Louvre's south wing.

Bauval now walked to the Arc du Carrousel, found the exact spot where the axis changed direction, and looked again east towards the

Louvre. As he had thought, the axis of Paris did not extend through the Glass Pyramid and the centreline of the Louvre, but instead ran to the right (south) of the Pyramid and neatly through the imposing bronze equestrian statue of Louis XIV in the style of Alexander the Great. Beyond the statue Bauval could see that the axis intersected with the Louvre at the second window of the façade of the Pavillon Sully. The window, by luck, was open. So Bauval decided to go there, figuring that he would be able to get a good shot with his camera of the whole axis of Paris looking west.

To reach the window, Bauval had to go to the first floor of the Sully Pavilion and pass through a series of rooms in which were displayed works from the Louvre's extensive Greek and Egyptian collections. On the ceiling of one of these rooms – number 30 on the guide map – was the mysterious painting by Picot that we described in Chapter 1. Bauval had seen this painting before, of course, and remembered the curious scene of the Hermes-like 'genie of Paris' witnessing the 'unveiling of Isis' to reveal an obelisk and pyramids in the distance. Now, with the Concorde obelisk and Louvre glass pyramid fresh in his memory, he could not help noticing how the obelisk and the pyramids in Picot's painting also appeared to be aligned in a perspective towards the distant horizon, just like those on the axis of Paris.

Realizing that he was standing not far from where the axis of Paris crossed the Louvre, Bauval was startled by this strange coincidence but shrugged off the thought and made his way to the open window. From there, as he had hoped, he had a spectacular view westward along the axis of Paris, past the obelisk, past the Arc de Triomphe and all the way to the distant Grande Arche. Now that he was attuned to it, the deviation of the axis was also quite unmissable. Bauval snapped a few photographs then made his way to the bookshop in the lower floor of the museum where, as noted earlier, he purchased an archaeological journal containing a detailed pictorial of the city of Luxor in Upper Egypt.

Robert Bauval's Eureka Afternoon (3)

After browsing in the bookshop Bauval left the Louvre by the exit under the glass pyramid. Outside in the courtyard, in bright sunshine, he found a seat and began to leaf through the pages of the journal he had just bought, *Dossiers: Histoire et Archéologie*. One of its double-page spreads featured a superb colour photograph of the Luxor temple from the air. The photograph was taken looking west towards the Nile with the temple sprawling from left to right (i.e., from south to north), and thus parallel to the course of the Nile. A single obelisk stood conspicuously in front of the temple's entrance on the north side. Next to it Bauval could clearly make out the empty plinth where once had stood the second obelisk that was now in Paris – and, weirdly, within his sight from where he now sat! How strange to think that these two distant points on the earth's surface, one in front of the Luxor temple in Thebes and the other in front of the Louvre palace in Paris, had been brought together, as it were, by this ancient pair of solar talismans.

Bauval looked more closely at the photograph. Seen from this high altitude, it was funny how the crab-shaped outline of the Luxor temple and the way it was positioned along the river Nile, could easily be mistaken for the Louvre's same crab-like shape and the way that it, too, was positioned along the river Seine. With a mounting sense of excitement Bauval turned the pages of the journal and quickly found what he hoped it would contain – a second aerial photograph taken from much higher up that showed the whole layout of the city of Luxor, from the Temple of Luxor in the south to the Temple of Karnak in the north.

Now this was really strange!

Although he knew that he was looking at an aerial photograph of Luxor-Karnak, Bauval was overtaken by a powerful sense of *déjà vu*. He had seen the very same 'image' with the very same features just a short while before, but not in a photograph of Luxor. He played back the video film he had just taken at the Grande Arche – the video film of the aerial view of Paris. Looking at it, and then again at the aerial

photograph of Luxor in the archaeological journal, it was obvious that there were remarkable similarities between the layout of Paris from the Louvre to La Défense and the layout of the sacred Egyptian city from the Luxor Temple to Karnak!

The positioning and provenance of the obelisks were part of the puzzle. But even more stunning was the way that the axis of Paris and the axis of Luxor both *changed direction* at roughly the same place as they headed one towards La Défense, and the other towards Karnak. Bauval knew, however, that in Egypt, the Nile ran from south to north and that the Luxor temple faced north; whereas in Paris the Seine was directed east to west and the Louvre 'temple' faced west. Champollion and Lebas would have been acutely aware of these orientations. If they had really been participants in some mysterious game of symbolism, therefore, then surely they would have taken them into account?[138]

An observation by the historian Jean Vidal in a Paris guidebook helpfully settled the matter: 'Let us note… that in the position that it occupies at the Place de la Concorde, the four sides of the obelisk have changed orientation: the north side at Luxor is today turned to the west and directed towards the Champs-Elysées.'[139]

Gazing back and forth from the aerial view of Paris to the aerial view of Luxor, it was as if both images had a will of their own, wanting to merge with one another. Bauval looked up and towards the distant obelisk at the Place de la Concorde. It was as though a veil was slowly being lifted from the city of Paris just like the veil so tantalizingly lifted in Picot's painting…

Architecture Fulfilling Prophecy

Remember how the Hermetic philosopher Tommaso Campanella predicted in 1638 that Paris would become an 'Egyptian' City of the Sun? Now Bauval had found what looked like an unmistakable architectural correlation between Paris and a 'City of the Sun' in Egypt – i.e., Thebes-Luxor. It was all very weird and yet at the same

time strangely logical.

He imagined himself like the genie in Picot's painting, hovering over the Place de la Bastille to witness the unveiling of an Egyptian landscape. It was a secret landscape that had been slowly prepared and hidden in plain view in the streets of Paris. This had called for a *purposeful* multi-generational building and city-planning project that began when Le Nôtre first deviated the axis of the Tuileries gardens to 26° north of west in 1665 and was only completed in 1989, more than 300 years later.

Was it a conspiracy, or just a conspiracy theory? Were the similarities of the axis of Paris and the axis of Luxor just coincidences or something else?

What made it seem more likely to be 'something else', and indeed some sort of conspiracy, was the whole mysterious connection that had linked ancient Egypt and particularly the goddess Isis to the city of Paris for centuries. Nor – weird though it admittedly seemed – was it easy to set aside the matter of Campanella's prophecy, made at the birth of the 'solar king' Louis XIV, that Paris was to become a 'City of the Sun' modelled on the golden age of ancient Egypt.

It was then that something else suddenly hit Bauval. At about the same time that the French republicans were planning monumental urban projects to refurbish the city of Paris between 1789 and 1794, there was another group of 'Brothers' and republicans planning to design a city from scratch on the other side of the Atlantic.

And there, too, strange geometrical layouts and alignments evoking Hermetic and Masonic ideas came to the surface…

Chapter 19

The Cornerstone

> 'The extraordinary truth is that the very existence of the Washington Monument [an obelisk] is intimately linked with the Egyptian star Sirius… How is it that the most important star of the ancient world should find itself, as it were, resurrected in the architecture of the United States?' (David Ovason, *The Secret Zodiac of Washington DC: Was the City of Stars Planned by Masons?*, Century, London, 1999, p. 137)

> 'If, as Thomas Jefferson argued, the Capitol represents "the first temple dedicated to the sovereignty of the people", then the (Masonic) brothers of the 1793 ceremony served as its first high priests.' (Steven C. Bullock, *Revolutionary Brotherhood*, University of North Carolina Press, Chapel Hill, 1996, p. 137)

> 'Washington DC can fairly be described as the world's foremost "Masonic City". Its centre was laid out according to a plan drawn up by the French Freemason Pierre L'Enfant.' (*Freemasonry Today*, 16, 2000)

If a monument or a building – or even, as we now can see, a whole city – can become like a living heart, a talisman charged with powerful ideologies and meaning, then the 'pacemaker' of such a talisman must be its *cornerstone*.

In ancient times, and in many different cultures, the dedication ceremony for a new temple or stately monument often called for

elaborate rituals performed by the ruler. During such ceremonies the objective was to call upon a god or goddess to cast his or her benevolent and protective powers on the building – or even to beseech the deity to descend from the heavenly world and reside within the temple. A crucial element was the placing of a permanent marker to commemorate the ceremony, generally in the form of 'the first stone' or 'cornerstone'.

In medieval Europe, in direct continuation of such ancient ideas, the laying of the cornerstone for a church or cathedral was understood to symbolize the 'raising of the building into the light of day, into consciousness or towards the heavens'.[1] In this respect it was vital that the most propitious moment be selected when participants could be assured that the influences of the stellar and planetary deities were at their very best. To that end a 'horoscope' was cast.

To modern Freemasons the cornerstone ceremony remains one of paramount importance. It serves not only as a link to their 'operative' ancestors who built temples and cathedrals, but also as a potent symbol of renewal and 'rebirth'. It expresses itself with particular force in the Masonic aspiration (whether taken literally or metaphorically) to 'rebuild Solomon's Temple' in Jerusalem and to lay its cornerstone. Indeed, for Masons and non-Masons alike, there are few other talismans that can evoke so much fervour – benevolent *or* destructive. Think of the Crusades, the 1967 Arab–Israeli War, the ongoing Palestinian *intifada*, and you begin to feel the energy that this talisman is capable of unleashing. The finding and replacing of the cornerstone of a renewed Temple of Solomon would set off an intellectual and spiritual explosion that would have huge ramifications for the Middle East and for the world.

In many ancient buildings we find that the cornerstone was embedded into the wall of a crypt or basement that had been carefully prepared prior to the ceremony. According to Masonic author David Ovason:

Symbolically speaking, the crypt is the burial place. It is the earth into which the seed of

wheat must be dropped, to grow and resurrect, emerging as a sprouting plant from the coffin. In Masonry, the crypt is the burial place of the Master Mason, under the Holy of Holies… This idea of rebirth is continued even in modern times in the formal ritual of the Freemasonic cornerstone ceremonials, in which participants in the ritual scatter wheat upon the floor, and sometimes even link this seeding with the stars.

It is known that from the earliest days of their civilization the ancient Egyptians performed a 'stellar' ritual – a form of 'astral magic' – during the cornerstone ceremonies for their pyramids and temples. This ritual involved reference to the circumpolar stars in the northern sky, and, in the southern sky, to the stars of Orion and, more especially, the star Sirius.[2] In Ovason's view, 'it was this promise of stellar immutability which first led the ancient Egyptian priests, and their pupils the Greek architects, to orientate their temples to the stars'. The very same promise, says Ovason, leads Masonic architects to ensure that their buildings and city plans are 'also laid out with a geometry which reflect[s] the wisdom of the stellar lore'.[3]

The 'Raising' of Washington

On 18 September 1793, a little more than a month after the 'Isis' ceremony was held at the Place de la Bastille in Paris,[4] another ceremony laden heavily with specific symbolic referents took place on a high point known as Jenkins Hill on the other side of the Atlantic. At the climax of this ceremony the first President of the United States of America, George Washington, wearing a Masonic apron which had been presented to him by the Marquis de Lafayette, laid the cornerstone of the Capitol in the presence of a congregation of high-ranking Freemasons.[5]

Surveyor, farmer, and Episcopalian, George Washington was born in Pope Creek in the state of Virginia. He grew up near the town of Fredericksburg on his father's plantation. As a young man he studied mathematics and surveying, and eventually joined the Virginia militia, where he excelled. In 1775, at the age of forty-three, he was elected by the Continental Congress to serve as Commander-in-Chief

of the revolutionary army to fight the British. After the War of Independence was over, Washington retired from the army, and in 1789 the State of Virginia sent him to the Constitutional Convention, where he was unanimously elected as President of the United States. He was re-elected without opposition in 1792, refused a third term in 1796 and died at Mount Vernon in 1799 from laryngitis at the age of sixty-seven.

George Washington became a Freemason in 1752 in Fredericksburg, and was 'raised' as a Master Mason the following year.[6] In 1777, when the Freemasons in the American colonies sought to form a united Grand Lodge independent from England, they offered the position of Grand Master to Washington, but he modestly declined, saying that he was not qualified for this high office. In 1788, however, he did become Master of the Alexandria lodge, today known as the Alexandria Washington Lodge No. 22, situated on the south side of the Potomac river near the city of Washington, DC. Since 1932 this famous lodge has been engulfed within a huge Masonic monument built around it. The monument is modelled on the ancient Lighthouse of Alexandria in Egypt,[7] the *Pharos*, and bears the official name of *The George Washington Masonic National Monument*.[8] According to Mr Hemle of the firm Hemle and Corbett of New York who designed this monument:

> the Pharos was erected to guide the ancient mariners safely to shore; what would be more appropriate than a facsimile of that lighthouse in Alexandria Virginia on top of the highest hill and overlooking the Potomac River?[9]

Isis of the Suez Canal

Both Mr Hemle and Louis A. Watres – the latter representing the 'client' – were themselves Freemasons, and as such would have known that the ancient *Pharos* of Alexandria had been dedicated to Isis and also to her star, Sirius-Sothis. Nor was this the only time that Freemasons would evoke Isis and her star in a landmark monument in

the United States. According to Bernard Weisberger, Isis was also in the mind of the designer of the Statue of Liberty that now stands in New York harbour:

> The sculptor who made the great statue was Italian. His name was Auguste Bartholdi. His work was greatly influenced by the ancient sculptor Phidias who made gigantic statues of the ancient goddesses, particularly Athena, the 'goddess of wisdom' and Nemesis, a goddess who held a cup in her right hand. Before beginning the Statue of Liberty project, Bartholdi was seeking a commission to construct a giant statue of the goddess 'Isis,' the Egyptian Queen of Heaven, to overlook the Suez canal. The statue of Isis was to be of 'a robed woman holding aloft a torch'.[10]

Frédéric-Auguste Bartholdi was born in France, at the city of Colmar in Alsace. He had studied in Paris at the prestigious *Lycée Louis le Grand*, and, in 1855, when he was only twenty-one, he embarked on a voyage to Egypt with three friends, the orientalists Léon Gerôme, Auguste Belley and Narcisse Berchère. There, while visiting the ancient temples of Thebes and Abu Simbel, Bartholdi became enchanted by the gigantic works of the ancient Egyptian sculptors. He spent eight months documenting the colossi and returned to France with numerous sketches and photographs.

It was during that first voyage to Egypt that Bartholdi met the celebrated French engineer Ferdinand de Lesseps, and thus began a friendship between the pair that was to last a lifetime. De Lesseps was negotiating funding with the authorities in France and Egypt for the construction of the Suez Canal to join the Mediterranean Sea with the Red Sea. Bartholdi was deeply impressed with de Lesseps' vision and began to think how he might complement it by creating a gigantic statue of a goddess holding a torch. Bartholdi imagined this statue positioned at the entrance to the canal and representing 'Egypt Enlightening the East' – a name, as most French Freemasons knew in those days, which was strangely reminiscent of Count Cagliostro's famous saying that 'All Enlightenment comes from the East, all initiation from Egypt.'[11]

The Khedive Ismail of Egypt, another Freemason, was much enamoured with the beautiful French Empress Eugénie, wife of

Napoleon III, and indeed with all things French. Eugénie was a cousin of Ferdinand de Lesseps, and it was she who put in a good word to the Khedive to look favourably on the Suez Canal project. We saw in Chapter 18 that de Lesseps' father, Mathieu, together with Mohamad Ali, Ismail's grandfather, had founded the *Société Secrète Egyptienne*, which practised a form of Scottish Rite Freemasonry merged with Cagliostro's Egyptian Rite.[12]

It seems that Bartholdi did manage to discuss his idea of a giant statue for the Suez Canal with the Khedive Ismail, but nothing came of it, probably because of the financial crisis that had then struck Egypt due to over-borrowing from European bankers. But Bartholdi was not disheartened in the least and took his project elsewhere.

Isis of New York, a Talisman to 'Liberty'

The idea of a similar monument to commemorate the friendship between France and the United States for the 100th anniversary of the Declaration of Independence was first discussed by Bartholdi and others at the home, near Paris, of Edouard de Laboulaye, an authority on North American culture. It seems that Bartholdi simply 'converted' his original project for Egypt and proposed it instead as a 'Statue of Liberty enlightening the world' for New York. To this end the so-called Franco-American Union was established in 1875 to raise the necessary funds.

Not unexpectedly, several members of the Franco-American Union turn out to have been Freemasons, including Bartholdi's own cousin, who was the French Ambassador to the United States. Other Freemasons also actively involved were Henri Martin, the Count de Tocqueville and Oscar de Lafayette. Bartholdi himself had been initiated into Freemasonry in 1875 at the Paris lodge Alsace-Lorraine, and was raised as a Master Mason in 1880.

Although Bartholdi was to be the designer of the Statue of Liberty, the actual task of building it fell on Alexandre Gustave Eiffel, the celebrated French structural engineer who would also design and

build the Eiffel Tower in Paris. Eiffel, too, was a Freemason – so let us note in passing that the first two levels of his famous steel tower, according to French engineer Jean Kerisel, are shaped like a pyramid.[13] Eiffel would certainly have been aware that about a century before, in 1792, a pyramid had been erected on the very same spot on the Champs de Mars in Paris to commemorate the French Revolution.[14]

Here's what the *Reader's Companion to American History* has to say about the inspiration behind the Statue of Liberty: 'Sculptor Frédéric Auguste Bartholdi combined elements of the Egyptian pyramids he admired with his mother's face to serve as a model for the statue, which he finished early in 1884'.[15]

There has been much dispute about whether the face of the Statue of Liberty was modelled on that of Bartholdi's own mother, and the matter, though trivial, has not been settled. What is more certain is that the statue was linked to the 'cult of Liberty' or the 'cult of Reason' of the French Revolution, both of which, in the minds of republicans, were intimately connected to Masonic ideals. It is certain, too, as we saw in Chapter 1, that figures representing 'Liberty' and 'Reason' were often modelled on the Egyptian goddess Isis or her Greek and Roman counterparts.

Interestingly, according to French Egyptologist Bernard Mathieu, Bartholdi used to refer to the Statue of Liberty as the 'Pharos' before it was raised in New York, and he even designed a base for the statue just like the one believed to have been used for the ancient *Pharos* of Alexandria.[16] Bartholdi, who had spent much time in Egypt and had studied the origins of this ancient 'wonder of the world', would certainly have known the association of the *Pharos* with the goddess Isis – and, by extension, her star, Sirius – that we explored in Chapter 10. In this respect, it seems highly likely that his giant statue of 'a robed woman holding aloft a torch' to serve as a sort of lighthouse for the Suez Canal and, later, for New York harbour may well have been imagined by him as Isis-Pharia and the lighthouse of Alexandria.

Garibaldi, 'Hero of the Two Worlds'

There is, too, an aspect of Bartholdi's life that is rarely considered in this context but which, we think, had a bearing on his state of mind when he designed the statue.

Bartholdi was a close friend of the Italian revolutionary hero Giuseppe Garibaldi, the leading military man behind the Italian Unification known as the *Risorgimento*. Along with the politicians Camillo Cavour and Giuseppe Mazzini, Garibaldi is regarded as one of the founding fathers of modern Italy. It was said that Camillo Cavour was the 'intelligence' behind the *Risorgimento* and Giuseppe Mazzini its 'spiritual drive'. Garibaldi was the 'fighting force' that was essential to bring it to fruition. His famous quip 'give me the ready hand rather than ready tongue' encapsulates the spirit of this remarkable man. Not surprisingly, we find that for his heroic deeds in Italy and also in the revolutions in South America, Garibaldi – like the Marquis de Lafayette before him – earned the title 'Hero of Two Worlds'.

Garibaldi was born in Nice and served as a sailor in the merchant navy for many years. In 1833, while in Marseilles, he met the great Italian patriot Giuseppe Mazzini who recruited him into the so-called 'Giovane Italia', Young Italy, which spearheaded the Italian National Movement. The charismatic Mazzini was to have a deep and lasting impact on Garibaldi who, throughout his life, often referred to him as his 'Master'. Freemasonry was particularly active in the liberation movement,[17] and Giuseppe Mazzini, who was often called 'the apostle of the Italian Republic', was a staunch Freemason. He was elevated as a Thirty-third Degree Mason of the Scottish Rite by the Grand Orient of Palermo in 1864.[18]

Garibaldi himself was initiated into the Carbonari secret society in 1833[19] and then into regular Freemasonry in 1844. In 1862 he was made a Thirty-third Degree Mason in Palermo, and in 1864 was elected in Florence as the Grand Master of all Italian Freemasonry. In 1870, when the Prussians put Paris under siege, Garibaldi, ever the

hero, rushed to the rescue with a contingent of Italian volunteers to defend the newly declared Third Republic of France headed by France's first president, the Freemason Léon Gambetta.[20] For his military successes against the Prussians, Gambetta invited Garibaldi to become a member of the National Assembly in Paris. In 1880 Garibaldi joined the 'Egyptian' Masonic Order of Memphis and, a year later, he was appointed as the first General Grand Master of the united Masonic Order of Memphis-Misraim.[21]

An 'Admirable Spot' for a Global Talisman

It was in France, during the military campaign of 1870, that Garibaldi was introduced to the sculptor Bartholdi, who was then a major in the French army. Bartholdi served for a while as Garibaldi's personal aide-de-camp, but a few months later went to America, proposing 'to glorify the Republic and Liberty over there'. He arrived in New York in July 1871. Upon entering New York harbour, he knew immediately where his gigantic statue of 'Liberty' should one day stand:

> The picture that is presented to the view when one arrives in New York is marvellous .. . When one awakes, so to speak, in the midst of that interior sea covered with vessels .. . it is thrilling. It is, indeed, the New World. .. I've found an admirable spot. It is Bedloe's Island, in the middle of the bay. .. just opposite the Narrows, which are, so to speak, the gateway to America.

In the US, Bartholdi made good use of the letters of introduction he had been given by high-ranking French Freemasons. He met with many notables and veterans of the Civil War, including Henry Wadsworth Longfellow, Horace Greeley, Senator Charles Sumner, and President Ulysses S. Grant. To each in turn he talked up his big idea while showing them drawings and a model of the statue which he now called 'Liberty Enlightening the World'.

The project, of course, was a success, and created the powerful global talisman that now stands in New York harbour. Meanwhile the very intense Masonic involvement in the whole affair was made

lucidly evident on 5 August 1984, when a bronze plaque was affixed to the pedestal of the statue. The plaque reads as follows:

At this site on August 5th, 1884, the cornerstone of the pedestal of the statue of 'Liberty Enlightening the World' was laid with ceremony by William A. Brodie, Grand Master of Masons in the State of New York. Grand Lodge Members, Representatives of the United States and French Governments, Army and Navy officers, members of Foreign legations, and distinguished citizens were present. This plaque is dedicated by the Masons of New York in commemoration of the 100th Anniversary of that historic event.

August 5, 1984. M. W. Calvin O. Bond, Grand Master of Masons; P. W. Robert G. Singer, Deputy Grand Master; M. W. Arthur Markwich, Masonic Anniversary Chairman.

At the original ceremony on 5 August 1884 Grand Master William Brodie was asked why the Masonic fraternity had been called upon to lay the cornerstone of the Statue of Liberty. He replied: 'No other organization has ever done more to promote liberty and to liberate men from the chains of ignorance and tyranny than Freemasonry.'[22]

One could say the same down the ages of the Gnostics and the Hermetics in their original Alexandrian context in Egypt and later in their Cathar and Renaissance incarnations of the Middle Ages. All along the object of these subversive religions, whether taught by Valentinus or Mani, Bruno or Campanella, has indeed been to liberate mankind 'from the chains of ignorance and tyranny'.

Another Ancient Egyptian Goddess Lends her Seven-pointed Star

In view of the 'Isis' connection with Bartholdi's Statue of Liberty, we could not help noticing that there was something rather curious about the date of 5 August, which was chosen for the important cornerstone ceremony.

Isis, we know, was identified with the star Sirius – a fact that was much discussed at the time of Bartholdi in Masonic circles and, especially, in lodges in France and the United States. In Chapter 1 we also saw that Sirius held a special fascination for French Freemasons

and even more so for Masonic astronomers such as Lalande (who was a prominent member of the Franco-American Nine Sisters lodge in Paris). Lalande's interest had been focused on the mystique surrounding the heliacal (dawn) rising of Sirius which, to Freemasons, evoked ideologies of spiritual 'rebirth' and the 'raising' of the initiated into the mysteries.[23] Given that Bartholdi was a Freemason, had travelled extensively in Egypt, had worked closely with the Freemason Eiffel, had also been in close contact with Garibaldi and his 'Egyptian' type of Freemasonry, and had taken a keen interest in ancient Egyptian monuments, it would, we think, be perverse to imagine that he would have been unfamiliar with the heliacal rising of Sirius and its intense 'rebirth' symbolism. Indeed, what better association than the heliacal rising of the star of Isis could be found to lock auspicious events in the sky to the construction on the ground of a 'temple' dedicated to freedom and intended to serve as the beacon of hope for a new life in a new land built on the lofty virtues of Freemasonry?

In the early days of ancient Egypt in the third millennium BC the heliacal rising of Sirius took place close to the summer solstice which (in our modern, 'Gregorian' calendar) falls on 21 June. By the end of the Egyptian civilization in *c.* 30 BC, however, the precession-cycle of our planet's axis had caused the heliacal rising of Sirius to 'slip' relative to the summer solstice so that it took place nearly one month later, that is, around 20 July. When Bartholdi visited Egypt in the 1860s, the heliacal rising of Sirius had slipped even further behind the summer solstice, and from the latitude of ancient Heliopolis near Cairo would have been observed *on the morning of 5 August.*[24]

Now it is a well-established fact that in ancient Egypt, the cornerstone-laying ceremony of temples, known as the 'stretching of the cord', had been performed since time immemorial by a priestess impersonating the goddess Seshat – whose symbol was a seven-pointed star which she wore over her head. Seshat was known as the 'Lady of the Builders', a title that established her as the protector of temple-builders, architects and masons. Interestingly, she was also the

wife of Thoth, the ancient Egyptian god of wisdom who provided the prototype of Hermes Trismegistus – the much revered patron of esoteric and occult traditions, including Freemasonry. *There is a very high probability that in ancient Egypt the stretching-of-the-cord ceremony was performed at dawn at the time of the heliacal rising of Sirius*.[25] Considering this, and Seshat's seven-pointed star headdress, we have to wonder at Bartholdi's decision to place a seven-pointed star over the head of his statue of 'Liberty', and also at the choice of 5 August for the statue's cornerstone ceremony.

If we look even deeper into the symbolism that Bartholdi and others involved might have had in mind, the possibility must be considered that the seven-pointed star on the head of the Statue of Liberty is also there because it has esoteric connotations and sinuous links to the Egyptian goddess Isis. We have already seen how Scottish Rite Freemasons, particularly in France, variously associated the symbolism of Tarot card XVII, known as 'The Star', with the symbolism of the star of Isis, i.e., Sirius. Is it not surprising, therefore, to discover that a seven-pointed star is often shown above the head of the woman who features on this card pouring water out of a jug into a river – surely a clear metaphoric pictogram of the links between Isis, the star and the inundation of the Nile which took place at the heliacal rising of Sirius?

An Obelisk for New York

At around the same time that the Statue of Liberty was being erected on Bedloe's Island an original ancient Egyptian obelisk was brought to Central Park, New York. This obelisk, which bears inscriptions dedicated to the pharaoh Tuthmoses III (1479–1425 bc), is one of a pair that originally stood at Heliopolis in ancient times; the other stands today at London's Victoria Embankment. The obelisk eventually destined for Central Park was brought from Heliopolis to Alexandria in 12 BC, during the reign of Augustus Caesar, to adorn the entrance of the Caesarium temple near the great eastern harbour,

right opposite the *Pharos* lighthouse on the northern side of the bay.[26] And from there, after a further eighteen centuries had passed, it was finally taken to New York.[27]

As was the case with the Statue of Liberty (as well as the 'London obelisk'),[28] the whole complicated operation that brought the 'New York obelisk' to New York was Masonic through and through. The man with overall responsibility for the project, a naval engineer, Henry Honeychurch Gorringe, was a staunch Freemason who had been initiated in New York at the Anglo-Saxon lodge 137.[29] Indeed, even Dr Martina D'Alton, who wrote the official account of the New York obelisk for the Metropolitan Museum, could not avoid stating that:

> The Freemasons had a strong presence in New York. Almost to a man, all those involved in bringing [the obelisk] to America were members – Gorringe, Schroeder, Vanderbilt and Hurlbert, as well as the mayor, commissioner of police, and others in city politics…[30]

It seems that the original idea of bringing an obelisk to New York had come from the Egyptian Khedive Ismail himself. The occasion had been the inauguration of the Suez Canal in 1869. Finding himself next to William Hurlbert, the editor of the *New York World* newspaper, the Khedive suddenly blurted out that he would like to send an obelisk as a gift to the government of the United States.[31] Hurlbert, a Freemason, would have immediately recognized in this gesture a sort of polite 'Masonic handshake' from the Khedive, who also was a Freemason.[32]

Indeed, the Masonic influence went further than that. A few months before the opening of the Suez Canal, the Khedive Ismail's uncle, Prince Halim Pasha, had been elected Grand Master of the Masonic Order of Memphis, which practised pseudo-Egyptian rituals using a system of '92 higher degrees'.[33] Halim Pasha also served as the official Grand Master of the Grand Orient of Egypt.[34]

Henry Gorringe arrived in Egypt in October 1879 with a Freemason colleague, Lieutenant Seaton Schroeder, to take delivery of

the obelisk. The Khedive had entrusted the Frenchman Salvatore Zola (who had replaced Prince Halim Pasha as Grand Master of the Order of Memphis in 1874)[35] with the task of handing over the gift to the Americans.[36] It was reported at the time that when Gorringe finally had the obelisk lowered on to the sandy beach at Alexandria, there was great excitement. The many Freemasons in the party had noticed 'Masonic emblems' – a trowel, a builder's square and an architect's triangle – carved into the base of the ancient pedestal.[37] It seems that Gorringe was 'struck with the symbolism [and] decided to take the pedestal, steps, and foundation to the New World and reposition them as they had been'.[38]

Perhaps we should mention as well that Gorringe had only a few years before been 'struck' by something else. He was convinced that he had discovered 'Atlantis' in the Azores while working with the US Hydrographic Office in 1876 – a 'discovery' that earned him a personal congratulatory message, no less, from US President Ulysses Grant.[39]

The obelisk finally reached New York and 'On October 9th 1880, a parade of nine thousand Freemasons marched up Fifth Avenue, bands blaring, to Graywacke Knoll for a grand and solemn cornerstone ceremony.'[40] The ceremony itself took place the next day, 10 October 1880, when Jesse B. Anthony, the Grand Master of the New York Masons, did the honours to 'link the origins of Freemasonry to ancient Egypt'.[41]

We spoke earlier of the George Washington Masonic Memorial at Alexandria in Virginia. In its case the ceremony of the laying of the cornerstone was performed in May 1923 by President Coolidge using the same trowel that George Washington himself had used 130 years earlier when he had laid the cornerstone of the US Capitol in Washington, DC.[42] The George Washington Masonic Memorial at Alexandria in Virginia is thus the third of three significant Masonic monuments in the United States (the other two being the Statue of Liberty and the New York obelisk) which all exhibit intense symbolic

links to the ancient city of Alexandria in Egypt – a city which was universally associated in antiquity with the *Pharos* lighthouse and the goddess Isis-Pharia.

Philadelphia, the 'City of Brotherly Love'

Although the foundation of Washington, DC took place in 1793, the city was not occupied by the government until the end of President John Adams's term in 1801. During the two terms of George Washington's presidency, spanning the period from 1789 to 1797, the seat of government, and thus the capital of the young United States, were located in the city of Philadelphia – a name that literally means 'City of Brotherly Love' or, perhaps more appropriately, 'City of The Love of the Brotherhood'. This name, to say the very least, has a strong Masonic ring to it. But then that is hardly surprising when we realize, as we shall see later in this chapter, that it was in Philadelphia that colonial Free–masonry first flourished in the Americas.

The story of Philadelphia, and its brief spell as the USA's first capital, is the stuff that Hollywood producers dream of. It all began in England in 1681, when King Charles II was confronted with an old and nagging debt due to a certain Admiral Penn and now payable to the Admiral's son and heir, William Penn.

William Penn was the visionary leader of the Quakers – Christian nonconformists who then happened to be causing a great deal of annoyance to the Church of England. So Charles II, who was unwilling to meet his obligations to Penn in cash, offered him instead a region in North America the size of England, on condition that Penn use it to develop a province where Quakers and other nonconformists could enjoy 'freedom of worship and self-government'. The name Pennsylvania was chosen by King Charles II himself, and means 'Forests of Penn', apparently in honour of Admiral Penn, William's father.

William Penn saw this, quite literally, as a God-sent opportunity to carry out what he called the 'Holy Experiment', and thus, to Charles

II's delight, gladly accepted the offer and challenge. Yet not in his wildest biblical dreams would Penn have imagined the final outcome. As for Charles II, he thought that he had lumbered the irksome Quaker with a piece of useless real estate, not realizing, of course, that he had in actual fact planted the seed of Britain's demise in the American colonies.

By the Rivers of Babylon

William Penn set sail for America in early 1682, his thoughts filled with dreams and visions of the great city he would found in the New World. Many contemporary documents show that Penn visualized what he constantly called 'my Greene Country Town' modelled on his rural properties back in England. But according to one of William Penn's most distinguished biographers, Susan Coolidge, 'the city of Babylon is said to have been in Penn's mind as a model for his proposed city'.[43] Much suggests that Coolidge is correct. It is known, for example, that Penn was greatly inspired by the idea of placing his city between two rivers, the Delaware and the Schuylkill, in much the same way that ancient Babylon had been situated between the Tigris and the Euphrates rivers. Another factor is the so-called 'gridiron' layout adopted by Penn, which required an alignment of parallel avenues running east–west and crisscrossing with another set of avenues running north–south – a scheme that, according to some historians, was apparently used for ancient Babylon.[44] The third factor is, of course, the name that Penn chose for his city: Philadelphia, the 'City of Brotherly Love', in which people of different races and languages would be reunited.

In the Bible, Babylon was, of course, where the so-called Tower of Babel had been built under Nimrod, when all men had spoken a single language. And for many Freemasons, the Tower of Babel serves as the ultimate talisman or symbol of their origins. In his celebrated essay *The Origins of Freemasonry*, Thomas Paine explained why:

It is always understood that Freemasons have a secret which they carefully conceal; but from

everything that can be collected from their own accounts of Masonry, their real secret is no other than their origin, which but few of them understand; and those who do, envelop it in mystery. .. In 1730, Samuel Pritchard, member of a constituted lodge in England, published a treatise entitled 'Masonry Dissected'; and made oath before the Lord Mayor of London that it was a true copy: 'Samuel Pritchard maketh oath that the copy hereunto annexed is a true and genuine copy of every particular.' In his work he has given the catechism or examination, in question and answer, of the Apprentices, the Fellow Craft, and the Master Mason. There was no difficulty in doing this, as it is mere form. In his introduction he says, 'the original institution of Masonry consisted in the foundation of the liberal arts and sciences, but more especially in geometry, for at the building of the tower of Babel, the art and mystery of Masonry was first introduced, and from thence handed down by Euclid, a worthy and excellent mathematician of the Egyptians; and he communicated it to Hiram, the Master Mason concerned in building Solomon's Temple in Jerusalem'.[45]

Tom Paine correctly went on to point out that:

Besides the absurdity of deriving Masonry from the building of Babel, where, according to the story, the confusion of languages prevented the builders understanding each other, and consequently of communicating any knowledge they had, there is a glaring contradiction in point of chronology in the account he gives. Solomon's Temple was built and dedicated 1,004 years before the Christian era; and Euclid, as may be seen in the tables of chronology, lived 277 years before the same era. It was therefore impossible that Euclid could communicate anything to Hiram, since Euclid did not live till seven hundred years after the time of Hiram.[46]

What Paine, a pragmatist, failed to understand is that English Freemasonry does not have a 'history' in the sense scholars understand the term, but rather a 'symbolic history', where principles and ideologies of the Craft are elucidated or 'symbolized' by biblical, mythical and even historical events such as the building of Solomon's Temple and the Tower of Babel. To academic historians this sort of thing amounts to nothing more than pseudo-history – a yarn of absolutely no historical value concocted to glorify particular individuals or cultures by associating them with the biblical story. But Freemasons know better. Symbolic history – even though false or, at best, grossly distorted and exaggerated – is to be valued in itself for

its effects on society and on mass human behaviour.

Within William Penn's vision of a 'New Babylon' between the rivers of the New World was also a vision of a Mesopotamian-style 'Garden of Eden', whereby a huge area of 10,000 acres – of which 1200 were reserved for Philadelphia – was to be developed in Penn's curious concept of a 'Greene Country Towne' with its 'gridiron' system of intersecting avenues. In this biblical 'theme park' each citizen would be allocated 'sizeable areas of green'. Eighty acres in the centre of Philadelphia were specifically reserved for 'gentlemen's estates' with mansions set at least 800 feet apart from each other separated by lavish gardens and fields. The wide streets of the gridiron crisscrossed in perfect rectangular symmetry, and at each corner of the city-centre were 'squares' – forerunners of today's urban parks. In their midst was a fifth, larger 'square', with a wide avenue radiating from each side to form a giant *croisée* or 'cross'.

The whole city was circumscribed within a gigantic rectangle whose longer side ran east–west. Oddly, however, this great rectangle was not perfectly oriented to the astronomical cardinal directions (i.e., due north, south, east and west) but was instead fixed about 10° south-of-east. This may have been to keep the layout more or less parallel to the adjacent rivers. But a more esoteric purpose is by no means out of the question in such a city of 'brotherly love'. We note with interest, therefore, that the sun aligns itself at rising with the axis of Philadelphia on two days of the year: 16 February and 13 October.[47] The latter date marks the anniversary of the suppression of the Knights Templar, which took place, as we saw in Chapter 15, on 13 October 1307. Whether by accident or by design, as we will show later, the same date of 13 October also crops up in connection with the cornerstone ceremony of the White House in Washington, DC.

Penn entrusted the design of Philadelphia to Thomas Holme, an accomplished urban architect, who published Penn's scheme in 1683.[48] Copies of Holme's design have survived, and the 'gridiron' principle can clearly be seen, with its four corners and central 'squares'. It was perhaps appropriate that such a geometrical city

should not only serve as the capital of the newly formed United States of America for the twelve years from 1789 to 1801, but should also have become the 'capital' of American Freemasonry. Today about twenty-five 'Masonically related sites' are recognized in Philadelphia, not least the great Masonic Temple on Broad Street with its 'Egyptian' and 'Solomonic' rooms. On 5th and Arch Street stands the Free-Quaker Meeting House; it served as the Masonic Grand Lodge of Pennsylvania in the crucial years between 1775 and 1777. And let's not forget the National Memorial Arch dedicated to 'Brother' George Washington (rebuilt by the Freemasons of Pennsylvania in 1996).[49]

Such roots go deep. Just forty years after William Penn's arrival in the New World, the utopian city that he created was to become the home of America's first Freemasons…

The Candle-maker's Son

By the final quarter of the eighteenth century Philadelphia had grown to become the second largest English-speaking city in the world after London. And as its name implied, its local culture was intensely Masonic. At the same time it was a rich commercial centre which, in direct contrast to its proclaimed brotherly love, was heavily engaged in the black slave trade. Tradition has it that it was in the city of Philadelphia that the first Masonic lodge in America was consecrated, the St John's Lodge.[50] It was also in Philadelphia that the most renowned of all American Freemasons, Benjamin Franklin, received his initiation.[51]

Born the son of a candle-maker in Boston, Benjamin Franklin left his home town in 1723 after losing his job because of the political tone of articles he had written for his brother's newspaper, the *New-England Courant*. The young Franklin settled in Philadelphia, where he was encouraged by William Keith, the governor of Pennsylvania, to set himself up in the publishing trade. To this end, he was sponsored by Keith to go to England in order to acquire experience in the publishing business. Franklin stayed in London from 1724 to 1726

then returned to Philadelphia, where he eventually founded *The Pennsylvania Gazette*. This was the newspaper in which appeared the first published commentary on Freemasonry in America.[52]

In 1730 Franklin was made a Freemason at the St John's Lodge in Philadelphia, and by 1734 became its Grand Master.[53] From 1737 to 1753 Franklin was in charge of the Philadelphia post office. A deist and preacher of religious tolerance, Franklin was also a scientist and, in 1751, gained fame and notoriety when he invented the lightning conductor after flying a kite in a thunderstorm.

Franklin revisited England between 1757 and 1762, this time as the representative of the colony of Pennsylvania. He was to return again two years later, staying until 1775. During this last sojourn in London Franklin entered into lengthy negotiations with the British government, and was instrumental in toppling the so-called 'Stamp Act' imposed by George III on the American colonies. As such, Franklin sowed the political and intellectual seeds that would lead to open opposition against the British in America and, ultimately, to the American War of Independence. In 1775, when he heard that the American colonists were preparing for an armed uprising against the British, Franklin felt that his position in England was becoming too dangerous and so made his way back across the Atlantic. He arrived in Philadelphia in May 1775, just two weeks after the first shots were fired against the British at Lexington. In June the American revolutionary army confronted the British forces at Bunker Hill, marking the beginning of a full-scale war.

Thomas Paine

It was from Philadelphia, too, that another popular journalist, Thomas Paine, a Quaker and staunch deist, began a violent attack on the British in his writings. Paine was born in Norfolk, England, and was the son of a Quaker and corset-maker. After repeated failures to forge a career, his luck began to turn when he met Benjamin Franklin in London in the early 1770s. Franklin advised him to seek his fortune

in America and provided him with letters of recommendation. Thomas Paine arrived in Philadelphia in 1774 and two years later, in January 1776, published his celebrated pamphlet *Common Sense*, in which he put forward the notion of a 'Declaration of Independence'. It sold over half a million copies and some even believe it served as the basis of the formal Declaration of Independence that was eventually compiled by Thomas Jefferson in July 1776.

Aside from his great political impact, Paine is known in Masonic circles for promoting the same idea as the British archaeologist (and Fellow and Council Member of the Royal Society) the Freemason William Stukeley – who claimed that Freemasonry took its rituals from the ancient Druids who, in turn, had inherited them from the ancient Egyptians.[54] In an article on this subject Paine informs us of his view that 'the ancient Druids… like the Magi of Persia and the Priests of Heliopolis in Egypt, were priests of the Sun'. Paine goes on to say:

> The Christian religion and Masonry have one and the same common origin: both are derived from the worship of the Sun. The difference between their origins is that the Christian religion is a parody on the worship of the Sun… And in what period of antiquity or in what nation this religion was first established, is lost in the labyrinth of unrecorded time. It is generally ascribed to the ancient Egyptians… The religion of the Druids, as before said, was the same as the religion of the ancient Egyptians. The Priests of Egypt were the professors and teachers of science, and were styled priests of Heliopolis, that is of the City of the Sun…[55]

In the same article, Paine supports his own claims by quoting Captain George Smith, Inspector of the Royal Artillery Academy at Woolwich and Provincial Grand Master of Masonry in Kent, who had asserted that:

> Egypt, from whence we derive many of our mysteries, has always borne a distinguished rank in history, and was once celebrated above all others for its antiquities, learning, opulence and fertility. In their system, their principal hero-gods, Osiris and Isis, theologically represented the Supreme Being and Universal Nature… The Egyptians in the earliest ages constituted a great number of Lodges, but with assiduous care kept their secrets of Masonry from all

strangers. These secrets have been imperfectly handed down to us by oral traditions only, and ought to be kept undiscovered to the labourers, craftsmen and apprentices, till by good behaviour and long study they become better acquainted in geometry and the liberal arts, and thereby qualified for Masters and Wardens…[56]

We shall see later how Thomas Paine went to Paris during the French Revolution and befriended the astronomer Charles Dupuis, who, as we shall recall, was an advocate of the view that the city of Paris owed its origins to the Egyptian goddess Isis. We shall also see how Paine developed a close friendship with the writer Nicolas de Bonneville, a Freemason, mystic and radical revolutionary, and with the mathematician and philosopher the Marquis de Condorcet, likewise a revolutionary and a member of the Nine Sisters lodge.[57] Paine, who was to arrive in Paris at the height of Robespierre's reign, may have played a part in the attempt to induce the populace of Paris to adopt the new republican cult of the Supreme Being, and perhaps even the cult of Nature-Reason-Liberty which was flaunted as a pseudo-Isis cult at the Place de la Bastille in August 1793…

Franklin in France

We saw in Chapter 1 that in late 1776, thirteen years before the French Revolution broke out, Benjamin Franklin was sent to France to serve as the first Ambassador of the newly formed Republic of the United States. Being the most senior of the signatories of the Declaration of Independence, and also the inventor of the lightning rod, Franklin's huge fame had preceded him, and he was now hailed as a sort of cult hero upon his arrival in Paris. His primary mission was to gain support, both financial and military, for the American war against the British. This he succeeded in doing, largely through complex behind-the-scenes negotiations with Charles Gravier, the Count of Vergennes, Louis XVI's Minister of Foreign Affairs.

Witty and wise, Franklin was taken by the pre-revolutionary French as a symbol of 'liberty in the New World'. He was the hero who opposed the British – and, by extension, the oppression and

despotism of European monarchs in general. He was quickly to become the darling of the social *salons* in Paris and, invariably, the favourite of the elitist Masonic lodges. As we also saw in Chapter 1, Franklin joined the famous Nine Sisters lodge while he was Ambassador in Paris and, in 1779, was to become its Grand Master.

The Nine Sisters lodge was the natural successor of an older lodge, Les Sciences, founded in 1766 by the astronomer Lalande and the philosopher and atheist Claude Helvetius. In 1771, after the death of Helvetius, Lalande and Helvetius' widow, Mme Anne Catherine Helvetius, were instrumental in the founding of the Nine Sisters lodge. Mme Helvetius ran the famous elitist 'salon' in the Rue Sainte Anne in Paris, which was renowned throughout Europe for the intellectual excellence of its members.[58] She also hosted another salon at Auteuil near Paris, which maintained very close links with the Nine Sisters lodge.[59]

Franklin was a regular visitor to Mme Helvetius' salons, and so was the Marquis de Lafayette, who was then a young officer in the French army. Lafayette was also a member of the lodge Le Contrat Social, itself linked to elitist lodges such as the Société Olympique, whose members included other young officers, among them the Count de Chambrun, the Count-Admiral de Grasse, the Count-Admiral d'Estaing and the famous 'buccaneer' John Paul Jones. All these men would play important roles later in America in the War of Independence. Indeed it was almost certainly through these Masonic lodges and salons that Franklin's political and commercial agent in Paris, the American Silas Deane, recruited young French officers to help George Washington fight the British. One such officer recruited by Deane, probably through the intermediary of Beaumarchais, was the Marquis de Lafayette, who was only nineteen years old at the time.[60]

'Why Not?'

The importance of Lafayette in the American Revolution cannot be overstated. Indeed, many Americans today believe that were it not for

Lafayette, Washington might have been unable to muster enough military support to defeat the British. Many have also wondered what prompted Lafayette to make such great personal sacrifices for the cause of America. Part of the answer can be found in the motto that he chose for his coat-of-arms: *Cur Non?*, 'Why Not?'.[61] These two simple words perhaps reveal better than anything else the character of this enterprising and immensely courageous man.

Lafayette, whose full name was Marie-Joseph-Paul-Yves-Roch-Gilbert du Mothier, was born on 6 September 1757 in Chavaniac, in the Haute Loire in France. His father, an important general in the army, was killed in battle when Lafayette was only two years old, and his mother was to die eleven years later, leaving the adolescent Lafayette as the sole beneficiary of a huge fortune. True to his descent from a distinguished military family, he enrolled to study at the Military Academy in Versailles and by the age of sixteen became a captain in the Dragoon guards of Louis XVI. At nineteen he was introduced to the American agent Silas Deane who, thinking that Lafayette's influential position and financial fortune could be of great use to the American cause, immediately commissioned the young officer to join Washington's revolutionary army in the colonies.

Lafayette was from the old nobility of France and enjoyed additional connections through his marriage. His father-in-law was the Duke of Ayen, who came from one of the country's wealthiest and most influential families, the Noailles. The Duke of Ayen's father and also his grandfather had held the highest military title, that of Maréchal de France, and the duke himself was the captain of Louis XVI's bodyguards. The duke's brother, the Count of Noailles, was the French Ambassador to England. Not surprisingly, in his letter of recommendation to the American Congress, Silas Deane described Lafayette as being 'of the first family and fortune [who]… will do us infinite service'. He urged that 'a generous reception' be prepared for this young and dashing figurehead upon his arrival in America.

Fired by the excitement of defending 'Liberty' in the New World, and hungry for military glory, Lafayette used his own money to purchase a ship, *La Victoire*, in order to sail to America with his

companions. All this was done in secrecy, for Lafayette had not been granted the required permission from Louis XVI, nor had he received the approval of his powerful and influential father-in-law. However, the Atlantic crossing of *La Victoire* went without too much trouble, and Lafayette and his team arrived in Georgetown, Carolina in mid-June 1777. He and six of his companions then made their way inland to Philadelphia, only to find Congress reluctant to endorse the military commissions they had received from Silas Deane in France. But in a passionate speech, Lafayette managed to persuade the Congressmen that he would use his own funds and resources. Impressed with such zeal and commitment to their cause, Congress finally agreed to ratify his appointment and, a fortnight later, he was sent to the general quarters of George Washington north of Philadelphia. Legend has it that both men took to each other like brothers. Later, after the war, when Lafayette had returned to France, Washington was to write to him these famous words:

> Whether you come here in the character of commanding officer of a corps of gallant French, should circumstances lead to that event; whether as an American major general you come to retake command of a division of our army; or whether after the peace you come to see me simply as my friend and my companion, I shall receive you in every case with all the tenderness of a brother.

In September 1777, riding at the side of Washington, Lafayette fought bravely against the British at the battle of the river Brandywine. Wounded, Lafayette was evacuated to Philadelphia, and there witnessed the fall of the city to the British. He was to distinguish himself brilliantly at Barren Hill seven months later. All in all Lafayette proved to be a superb officer in the field, and a wise advisor to Washington. And his deep friendship with the future first President of the United States, who was twenty-five years his senior, turned to almost filial adoration. It was, however, Lafayette's catalytic role in the relationship between France and America, and his influence in persuading France to sign a treaty of alliance with Congress against the British early in 1778, that made him a crucial player in the War of Independence.

In 1781 he fought at Washington's side in the decisive battle of York Town, and his brilliant actions largely contributed to the routing of British forces and their surrender to Washington. Now at twenty-four, barely four years after he had arrived in America, the young and debonair Marquis de Lafayette was hailed as 'Hero of the Two Worlds' (as Garibaldi would be later), i.e., a hero on both sides of the Atlantic. The huge and lasting impression that Lafayette has had on the American people can be witnessed today with the 400 or so public places and streets that bear his name, including a whole county in Pennsylvania. When, forty-two years later, in 1824, Lafayette, by now a Thirty-third Degree Freemason, visited America again, he was received as a national hero.

The immense and enduring sense of gratitude of the American people towards this remarkable Frenchman is immortalized in the words of Colonel Stanton on behalf of the US General John Perching, a Thirty-third Degree Freemason, after the liberation of Paris in 1917: 'Lafayette, we are here!' Stanton pronounced this 'brotherly homage' on 4 July, Independence Day, in the presence of hundreds of Freemasons in front of the tomb of Lafayette at the cemetery of Picpus in Paris.[62]

The House of the Temple

The Thirty-third Degree system is regulated by the Ancient and Accepted Scottish Rite under the jurisdiction of the Supreme Councils in America. This elitist Masonic order, with its many ostentatious titles and impressive grades, seems to hold a strong appeal for high-ranking military men and for up-and-coming politicians. Today there are about forty Supreme Councils as well as four National Lodges around the world, all of which fall under the informal authority of the Southern Jurisdiction Supreme Council of the United States.

This so-called Mother Supreme Council now has its headquarters in the city of Washington, DC located at 1733 16th Street NW. Known as the 'House of the Temple', this imposing, neo-classical building is

modelled on the mausoleum of Helicarnassus, and was designed in 1911 by the famous architect and Freemason John Russell Pope. At the entrance are two imposing 'Egyptian' sphinxes symbolizing 'wisdom' and 'power'.[63] The 'wisdom' sphinx has on its breast an image of an Egyptian goddess, probably Isis, and the 'power' sphinx has the ancient Egyptian *Ankh*, the so-called 'key of life', as well as the *ureus* symbol designating the solar pedigree of the pharaohs.

The great door knob of the main entrance of the Supreme Council in Washington, DC is in the shape of a solar lion, and inside the atrium, which is very reminiscent of an Egyptian temple, are two 'Egyptian' statues of seated scribes placed at the foot of a large ceremonial staircase. Each of these statues carries a hieroglyphic inscription which translates as 'Established to the Glory of God' and a dedication 'to the teaching of wisdom to those men working to make a strong nation'. The staircase leads to a bronze bust of Albert Pike, the most famous of all Scottish Rite Grand Masters, to whom the 'House of the Temple' is dedicated. A plaque above the bust of Pike reads: 'What we have done for ourselves alone dies with us: What we have done for others and the world remains and is immortal.'

Another imposing pseudo-Egyptian motif in the Supreme Council in Washington, DC is the winged glowing triangle that hangs over the altar in the main room of the temple as well as on the ceiling. This is a motif which is, of course, modelled on the winged solar disc common to all ancient Egyptian temples. But more intriguing is the fact that it was Albert Pike himself who confirmed that the so-called 'Blazing Star' that is often seen at the entrance of Masonic lodges, or associated with the Masonic glowing triangle, is none other than the star of Isis, Sirius: 'The Ancient Astronomers saw all the great symbols of Masonry in the stars. Sirius still glitters in our lodges as the Blazing Star…'[64]

When coupled with the claims of Albert Pike regarding Sirius, the star of Isis, the intense pseudo-Egyptian quality of the House of the Temple in Washington, DC, especially the two sphinxes guarding the entrance, immediately brings to mind the two sphinxes and the Isis

statue that were designed by Jacques-Louis David for the 1793 celebrations at the Place de la Bastille in Paris, as well as Picot's painting in the Louvre.

Before we examine this curious link further we need to know more about Albert Pike, and why the Washington, DC 'House of the Temple' was dedicated to him…

From Cabin to Temple

Albert Pike is often described by Scottish Rite Freemasons as a poet, trapper, historian, revolutionary, lawyer, politician, army commander, orator, author and philosopher. In short, the Renaissance man *par excellence*. Born in Boston in 1809, he went to Harvard but dropped out to become a school teacher. He then became a trapper in Arkansas in 1831 but later was somehow admitted to the Bar of the Supreme Court. He eventually moved to New Orleans to practise law, then joined the side of the South during the Civil War and was appointed Confederate Commissioner Commander leading Indian tribes. He was court-martialled on dubious charges of fraud, acquitted, and finally opened a law office in Washington, DC.

Albert Pike is best remembered not so much for his colourful career but for having revived the Scottish Rite when he became the Grand Commander of this Masonic order in 1859. He has been dubbed the most 'famous (or infamous as the case may be) Freemason of his times'. He died peacefully in April 1891 while working at his desk at the Scottish Rite Temple in Washington, DC. Ironically, most of those who become Freemasons today know little, if anything, about him.

Albert Pike joined Freemasonry in 1850 at the Western Star lodge No. 2, Little Rock, Arkansas, and became a Master Mason in November that same year. In 1859, thus in less than a decade, he rose to the position of Sovereign Grand Master of the Supreme Council of the Scottish Rites in the United States and, by definition, the whole world. When Pike joined the Scottish Rite he found the order in tatters, but by the end of his life 'he left it a stately temple to the

dignity and rights of man' and made it 'the single most influential body of Freemasonry in the world'.[65] His first big task in this amazing reformation of the Scottish Rite was to rewrite and formalize the thirty-three degree rituals which had much degraded over the years. He then set about the task of providing a 'foundation literature' for the Scottish Rite, which entailed writing an opus of 860 pages entitled *Morals and Dogma of the Ancient and Accepted Scottish Rite of Freemasonry*, first published by the Scottish Rite press in 1871.[66] This huge and somewhat baffling book was based on a series of lectures Pike had given, and is divided into thirty-two chapters to cover all the degrees except the last – the thirty-third – which is not a degree as such, but more of a title.

It becomes evident on studying this book that Pike must have conducted an extensive investigation of comparative religion, Cabala, Hermetism, mysticism, mythology, symbolism and speculative philosophy in general. For the first sixty years or so after it was published, *Morals and Dogma*, as it is known for short, was compulsory reading for all who joined the Scottish Rite. Yet in spite of its title, the book is not a Masonic manifesto at all, but rather an attempt to provide a historic and mythological framework for Scottish Rite Freemasons. Pike himself made it clear to his readers that they were free to accept or reject what he had written, although his immense reputation at the time meant that his research tended to be accepted without question. Besides, as one modern Masonic writer so correctly remarks about similar dubious historical claims, 'whether it is true is not the point; the point is that it is claimed to be true'.[67]

It was in *Morals and Dogma* that Pike made the association between the Masonic five-pointed 'Blazing Star' and the Egyptian star of Isis, Sirius, which is also often depicted as a five-pointed star. Pike strongly opposed the idea held at the time by some Masons that the Blazing Star represents the 'star of the east', i.e., the star of Bethlehem:

To find in the Blazing Star of five points an allusion to Divine Providence is also fanciful; and to make it commemorative of the Star that is said to have guided the Magi is to give it a

meaning comparatively modern. Originally, it represented SIRIUS, or the Dog Star.

This was not the first time that Sirius had been equated with a Blazing Star. In Homer's *Iliad* (*c.*800 bc) the wrath of the hero Achilles is described as the 'blazing star that comes forth at harvest time, shining forth amid the host of stars in the darkness of the night, the star whose name men call Orion's Dog [i.e., Sirius]'.

We also read in Appolonius Rhodius' *The Argonautica* that 'the Dog-star Sirius was scorching the Minoan Islands from the sky'. Similarly there is a reference in the same text to 'Sirius rising from Okeanos, brilliant and beautiful but full of menace for the flocks'.[68] Aratus speaks of 'a star that keenest of all blazes with a searing flame and him men call Sirius'.[69] Finally Manilius referred to Sirius as 'the dog with the blazing face'.

So, whatever his faults, it seems that Albert Pike was a very meticulous scholar, and there can be little doubt that he consulted all these classical sources during his research for *Morals and Dogma*. Indeed, it is known that he had taught himself Latin, Greek and Sanskrit in order to study such ancient texts. We must also conclude that if Pike could easily make the obvious link between the Masonic 'Blazing Star' and Sirius, then quite clearly other educated Masons could have arrived at the same conclusion.

Did they?

Thomas Paine's Supreme Being

In 1782, after the surrender of the British at York Town, the Marquis de Lafayette returned to France to a huge hero's welcome. He was now ranked as a Maréchal de Camp, and served for a while as a diplomatic aide to Benjamin Franklin in Paris. In 1784 Franklin was joined by Thomas Jefferson, the new Ambassador of the United States. In the same year Lafayette went on tour in Germany and met Frederick the Great. Meanwhile Thomas Paine was still in the United States, now poverty-stricken and devoting his time to odd ventures like inventing the smokeless candle and designing a pier-less iron

bridge for the Schuylkill river near Philadephia.[70]

Benjamin Franklin had been raised to the position of Grand Master of the Nine Sisters lodge in Paris seven years earlier, and had developed a large network of contacts in France and elsewhere in Europe. It is not so clear whether Thomas Jefferson was a Freemason but as James W. Beless, a Thirty-third Degree Mason with an interest in this question, so aptly put it: 'Jefferson may not have been a card-carrying Mason, but his philosophy and actions certainly paralleled Masonic ideals and practices.'[71] A report from Dr Joseph Guilotin, a member of the Nine Sisters lodge at the time when Jefferson was in Paris, confirms that Jefferson visited this lodge at least once.[72] There is also no doubt that Jefferson was often surrounded by prominent and very active Masons. According to Beless:

> His son-in-law, Governor of Virginia Thomas M. Randolph, his favourite grandson Thomas Jefferson Randolph, and nephews Peter and Samuel Carr were all members of *Door to Virtue* Lodge No. 44, Albemarle County, Virginia. Freemasons such as Thomas Paine, Voltaire, Lafayette and Jean Houdon were some of his closest associates in Europe. Masons whom he admired in America included George Washington, Benjamin Franklin, Dr Benjamin Rush, John Paul Jones, James Madison, James Monroe, Meriwether Lewis and William Clark… He had marched in Masonic procession with *Widow's Son* Lodge No. 60 and *Charlottesville* Lodge No. 90 on October 6, 1817, at the cornerstone laying of Central College (now the University of Virginia)… The Grand Lodges of South Carolina and Louisiana held funeral orations and processions for him following his death on July 4, 1826 and… a Blue Lodge at Surrey Court House, Virginia, was named Jefferson Lodge No. 65 in 1801.[73]

While Jefferson was still in Paris, Thomas Paine returned to Europe in 1787. He first went to London, where he hoped to get support for his iron bridge project. But after the fall of the Bastille in July 1789 he became interested in the French Revolution and began a regular correspondence with Jefferson in Paris.

In spring 1790 Paine travelled to Paris to advise Lafayette on constitutional matters, and during this first visit Lafayette presented him with the key of the (now nearly demolished) Bastille.[74] On the same trip, Paine made contact with the Freemason and writer Nicolas

de Bonneville, who, with the Abbé Fauchet, had recently founded the so-called Cercle Social, a radical literary group that promoted deism and republican virtues and ideals. Later, in 1812, Nicolas de Bonneville would translate Thomas Paine's *Origins of Freemasonry* into French. In this work, Paine argues that the ancient Egyptian cult of the Sun and of Osiris are at the root of Masonic rituals.[75]

Among Paine's other Parisian friends and supporters was the Marquis de Condorcet, also a Freemason and a friend of Voltaire. A renowned mathematician as well as champion of human rights, Condorcet was a member of the Nine Sisters lodge – where fellow members included Benjamin Franklin, the occultist and inventor of the Tarot Court de Gebelin, and the astronomer Lalande. Let us recall in passing that it was Court de Gebelin who, in 1781, had written in his celebrated book, *Le Monde primitif analysé et comparé avec le monde moderne*, that:

> No one ignores that Paris was originally enclosed in the island [the Ile de la Cité]. It was thus, since its origins, a city of navigation… As it was in a river rife with navigation, it took as its symbol a boat, and as tutelary goddess, Isis, goddess of navigation; and this boat was the actual one of Isis, symbol of this goddess.

The reader will recall from Chapter 17 that Court de Gebelin, who was an adept of the proto-Scottish Rite and Templarism in Freemasonry, had met the famous Count Cagliostro, inventor of 'Egyptian' Freemasonry, and admitted himself not qualified 'to interrogate a man so much his superior in every branch of learning'.[76]

It was Court de Gebelin who, along with Benjamin Franklin, was given the ultimate honour of escorting Voltaire during the latter's Masonic initiation at the Nine Sisters lodge in 1778. Why, out of all the many illustrious members available, was Gebelin selected to officiate in this most historic of initiations? The reason, we suspect, may well be in the alleged connection linking the Scottish Rite's 'degrees', the Tarot's 'cards' and the Cabalistic 'paths' – with the number thirty-two being the mystical common denominator for all three.

We saw in Chapter 15 that the Thirty-third Degree Scottish Rite

author Charles Sumner Lobingier, historian for the Grand Commandery of the Scottish Rite in Washington, DC, deduced that in the Cabala's thirty-two paths of wisdom[77] 'we doubtless have the origin of the number of degrees as formulated by the Grand Constitution' of the Scottish Rite.[78] It is well known that the modern esoteric Tarot is largely modelled on the ideologies of the Cabala and the Cabalistic Sephiroth. Even more interestingly in this context, we may recall that it was Court de Gebelin himself who had attributed to the Tarot an 'Egyptian origin' and furthermore had asserted that the so-called 'Star' in the Tarot deck was none other than the star of Isis, Sirius. And even though Thomas Paine could not have met Court de Gebelin (the latter died several years before Paine came to Paris), all this goes to show the potent brew of Cabalistic and Hermetic ideologies that was bubbling amongst Thomas Paine's circle of friends in Paris at the precise time that he was preparing to publish his celebrated *Rights of Man*.

In early May 1790 Paine returned to London just as Edmund Burke published his *Reflections on the French Revolution* – a broadside attack on the uprising of the French people against the monarchy. Paine's outraged response was his *Rights of Man*, the first part of which he wrote and rushed into print before going back to Paris in early 1791 to establish the first 'republican' club there and to write his *Republican Manifesto*. By July 1791 the energetic Paine was once again in London, where he wrote the second part of *Rights of Man* and dedicated it to Lafayette.[79]

It was during his visits to Paris that Paine met Thomas Jefferson, who would become his friend and confidant.[80] Meanwhile in London he frequented an elite group of radical thinkers including the famous English poet William Blake. For all these radical intellectuals, as Professor David Cody has recently shown, the French Revolution in its early stages:

portrayed itself as a triumph of the forces of reason over those of superstition and privilege… (and) as a symbolic act which presaged the return of humanity to the state of perfection from

which it had fallen away.[81]

Not unexpectedly Thomas Paine's *Rights of Man* was immediately banned by the British government and, rather disturbingly, effigies of Paine were burned outside churches. Paine himself was indicted for 'seditious libel', which, in those dangerous days, carried the death penalty. He narrowly managed to escape arrest, however, through the timely intervention of his good friend, William Blake, who warned Paine not to return to his home and helped him flee immediately to France.

Upon arriving in Paris, Paine was hailed as a hero and friend of the revolutionaries and was promptly given honorary French citizenship and made a member of the National Assembly. But being a pacifist, Paine opposed the death penalty for Louis XVI and instead voted that the king be exiled. This stance infuriated the zealous Robespierre, who had Paine thrown into prison in the old Luxembourg Palace. While incarcerated there, Paine managed to arrange for the publication of the first part of his most famous work, *The Age of Reason*.

In *The Age of Reason* Paine makes clear that he was a deist and believed in a Supreme Being while opposing the established Church. Naturally he must have been aware that at precisely this time, Robespierre and Jacques-Louis David were pressing on with their own cults of 'Reason' and 'the Supreme Being'. And we know that 'Reason' and 'Liberty' – in the mind of at least David – were personified as the Egyptian goddess Isis during that strange ceremony that took place at the Bastille on 10 August 1793. In consideration of Paine's keen interest in Masonic origins, and his belief that Freemasonry owed its rituals to the Druids and the ancient Egyptians, it is not impossible that the personification of Paine's 'Reason' might also have veiled the same ancient goddess of the Nile…

On 18 September 1793, barely five weeks after the 'Isis' ceremony in Paris, another republican ceremony was about to take place on the other side of the Atlantic on the summit of a low hill overlooking the Potomac river. But this time it was not to celebrate the demolition of a vilified national monument like the Bastille but rather to lay the

cornerstone of a great 'Temple of Liberty' that would be built here – the brainchild of yet another adventurous Frenchman, Pierre-Charles L'Enfant.

L'Enfant

On a warm and bright spring day in April 1909, the Depot Quartermaster of Digges Farm near Washington, DC, a certain D. H. Rhodes, with the commissioners of the District of Columbia all present, supervised the disinterment of the remains of a man who had died eighty-four years previously, in 1825. The pitiful remains were gently gathered and placed in a metal-lined casket which was then covered with the American flag and taken to the Mount Olive Cemetery. Early in the morning of 28 April the casket was moved to the Capitol, where it lay in solemn state until noon. Then, under military escort, it was finally taken to Arlington National Cemetery and buried in a permanent grave on sloping ground in front of the Mansion and overlooking, in the distance, the city of Washington, DC. A sum of $1000 was allocated by Congress to erect a monument over the grave, featuring the street plan of the Federal City. Below the plan the name of the deceased may also be seen: *Pierre-Charles L'Enfant, engineer, artist, soldier*.

Pierre-Charles L'Enfant was born in Paris in 1754, the son of a painter of landscapes and battle-scenes.[82] Like his father before him, the young L'Enfant was educated at France's Académie Royale de Peinture et de Sculpture. There he learned how to design military fortifications. He also studied the science of landscapes from the works of André Le Nôtre who, a century earlier, had designed the Tuileries gardens of the Louvre and the great historical axis of Paris. L'Enfant then joined the French army, and by 1776, when the American War of Independence began, he had reached the rank of lieutenant.

Like Lafayette and many other young Frenchmen of the time, L'Enfant was fired up with the new republican ideals of liberty and

equality, and promptly offered his services to the American revolutionary army. His knowledge of fortifications proved invaluable, and brought him to the attention of George Washington. L'Enfant was made 'captain of engineers', the embryo of what would later become the US Corps of Engineers. In March 1782 Washington was to write to L'Enfant:

> Your zeal and active services are such as reflect the highest honour on yourself and are extremely pleasing to me, and I have no doubt they will have their due weight with Congress in any future promotion in your Corps [of Engineers].[83]

Networking with the Cincinnati

We were intrigued to discover that L'Enfant had been associated with an organization known as the Cincinnati Society.

Founded in 1783 for officers who had served in the War of Independence, to help them and their families in case of need, the Society still exists today. Named after the fifth-century Roman soldier Lucius Quintus Cincinnatus, it is a patriotic and elitist military organization with the peculiarity of being based on hereditary membership and only open to the eldest male descendants of the original members. George Washington was its first president and, in 1790, the society gave its name to the city of Cincinnati.[84] Amongst the original members were Alexander Hamilton, John Paul Jones and two future presidents of the United States, George Washington and James Monroe – the latter whose name is immortalized, of all places, in West Africa as 'Monrovia', the capital of Liberia.[85]

Although the Cincinnati Society is not a Masonic order as such, many of its founder members – Lafayette, Hamilton, Jones and Washington – were Freemasons, and thus not surprisingly 'the Cincinnati shared a rhetoric of fraternal affection and honour as well as a significant number of members with Masonry.'[86] In 1785 L'Enfant opened an architectural practice in New York, and through his Cincinnati connections, managed to land many lucrative design

projects. When, in 1789, L'Enfant heard that plans were being made to establish a new federal capital for the United States in Virginia, he wrote directly to his old friend George Washington. According to Jean-Jules Jusser-and, author, historian and formerly French Ambassador to the United States:[87]

L'Enfant, with his tendency to see things 'en grand', could not fail to act accordingly, and the moment he heard that the federal city would be neither New York nor Philadelphia, nor any other already in existence, but one to be built expressly, he wrote to Washington a letter remarkable by his clear understanding of the opportunity offered to the country, and by his determined purpose to work not for the three million inhabitants of his day, but for the one hundred of ours, and for all the unborn millions that will come after us. The letter is dated from New York, *11th of September, 1789*. 'Sir', he said, 'the late determination of Congress to lay the foundation of a city which is to become the capital of this vast empire offers so great an occasion of acquiring reputation to whoever may be appointed to conduct the execution of the business that your Excellency will not be surprised that my ambition and the desire I have of becoming a useful citizen should lead me to wish a share in the undertaking… No nation, perhaps, had ever before the opportunity offered them of deliberately deciding on the spot where their capital city should be fixed… And, although the means now within the power of the country are not such as to pursue the design to any great extent, it will be obvious that the plan should be drawn on such a scale as to leave room for that aggrandizement and embellishment which the increase of the wealth of the nation will permit it to pursue at any period, however remote. Viewing the matter in this light, I am fully sensible of the extent of the undertaking.[88] (Emphasis added.)

'Templar' Octagons Again, and the Tree of Life

In early 1791 George Washington asked Thomas Jefferson to instruct L'Enfant to proceed to Georgetown to join and give assistance to Andrew Ellicott, a Quaker and Freemason from Pennsylvania who was also the land surveyor for the District of Columbia. Ellicott, who was thirty-seven at the time, was the son of a watchmaker from Bucks County in Pennsylvania and had grown up with a keen interest in astronomy. He had attained the rank of major during the War of Independence, and had somehow worked his way into a close

friendship with Washington and Benjamin Franklin – the latter being particularly interested in Ellicott's by then very good knowledge of astronomy and of the techniques of stellar observation.[89]

In 1790 Washington appointed Ellicott as Surveyor for the new federal capital – a job that he pursued with diligence over the coming year with the assistance of his younger brother Joseph. Ellicott had good reason to believe that he was Washington's chosen man for the job. L'Enfant, however, was to change all that. The strong-willed and pompous Frenchman simply barged in, armed with Washington's instruction to 'assist', and practically took over from Ellicott.

L'Enfant's specific task was to 'have a drawing of the particular grounds most likely to be approved for the site of the Federal town and buildings'.[90] L'Enfant worked closely with Jefferson to produce a preliminary plan by June 1791, and in September, he received a letter from the newly appointed Commissioners responsible for the administration of the project informing him that the: 'Federal district shall be called the "Territory of Columbia" and the Federal City the "City of Washington"'.[91]

L'Enfant, described by many who knew him as hot-tempered and arrogant, soon began to antagonize the Commissioners and refused to obey their instructions. The situation deteriorated rapidly, and in February 1792 George Washington was forced to ask Thomas Jefferson to give L'Enfant a severe warning that he must recognize the authority of the Commissioners. L'Enfant, however, was unwilling to compromise, and resigned from the project.

That same year Washington promoted Ellicott to Surveyor General for the United States and gave him the task of completing the plan for Washington, DC largely based on L'Enfant's original design.[92] Within a month Ellicott had an engraving ready.

The suspicion has been raised that both George Washington and Thomas Jefferson participated directly in the evolution of this plan, here and there putting in their own specific ideas. For example, in their book *The Temple and the Lodge*, authors Michael Baigent and Richard Leigh point to curious octagonal patterns that seem to

underlie the layout of Washington, DC, and argue that these were Templar symbols introduced by Washington himself. The octagons are huge and can be clearly made out in two distinct areas centred on the Capitol and the White House.[93]

The first printed edition of L'Enfant's plan, measuring 8.5 × 10 inches, is kept at the Library of Congress, Geography and Map Division, in Washington, DC.[94] The engraving was made by the artists Thackara and Vallance, and is thought to be the earliest surviving print of Washington, DC. Attached to the print is an article, published in *The Universal Asylum and Columbian Magazine* in March 1793, entitled *Description of the City of Washington, in the territory of Columbia, ceded by the States of Virginia and Maryland to the United States, by them established as the Seat of their Government.*[95]

The first observation to make about L'Enfant's plan is its grand ambition. For what the Frenchman had in mind was a splendid metropolis for 800,000 inhabitants, with classical buildings and monuments appropriate to the capital of an eventual gigantic republican empire of 500 million citizens. Now at the time, the entire population of the states of the Union could not have been much more than four million. The population of the whole of Europe was, in fact, less than 200 million and the world's population would have been around 900 million. Even today there are less than 300 million US citizens, a figure that is expected to double in 100 years.[96] If it does, it would just about meet up with L'Enfant's staggering projection some time in the early twenty-second century.

The plan itself is as ingenious as it is intriguing. Immediately one is struck by the similarity – or more precisely the *combined* similarity – to the city plan of Paris, to the plan of Versailles and, even more intriguing, to Wren and Evelyn's aborted plans for London. But this is perhaps not so surprising. Apparently Jefferson, who was himself an accomplished architect and who had visited and studied many European urban centres, had supplied L'Enfant with plans of several European cities to serve as a guide.[97]

Like Paris and London, L'Enfant's plan features a dominant east–

west layout, emphasized by the alignment of the Mall (which he called ‘Grande Avenue’) that runs from the US Capitol to the (future) Washington National Monument. This would understandably lead a casual observer to conclude that the main axis of the city was fixed, whether by intent or by coincidence, to the equinox sunrise and sunset.[98] A closer examination of the map and contemporary accounts, however, makes it clear that the principal axis that L’Enfant had in mind was a presidential avenue (Pennsylvania Avenue), which joined the US Capitol to the presidential palace (the White House).

Pierre L’Enfant’s plan for the City of Washington, DC (1791).

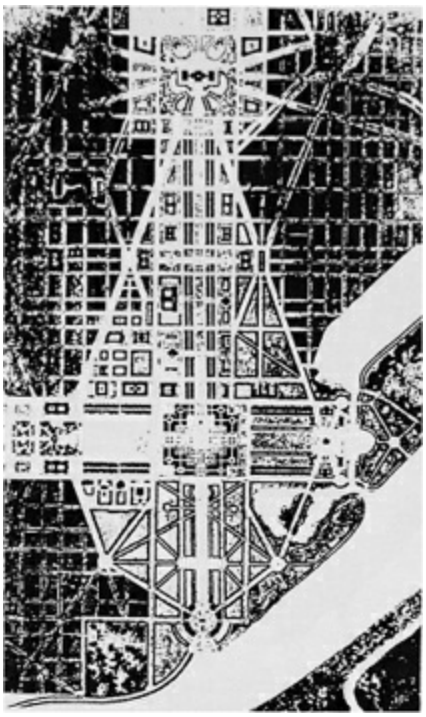

Aerial view of The Mall in Washington, DC.

It does not take much to see that L'Enfant's plan was heavily inspired by the layout of Paris and, perhaps even more so, by the 'unexecuted' layouts of the city of London made by Wren and Evelyn after the Great Fire.[99] Most notable is the diamond-shaped design that evokes the Sephirothic Tree of Life; although not as evident as on Evelyn's plan for London, it can easily be discerned in the layout scheme which emanates from the Capitol in the east and culminates at the National Monument – a gigantic obelisk – in the west.

In Robert Cameron's excellent pictorial essay *Above Washington*,[100] a series of stunning aerial photographs show that, in the main, the modern city has stayed fairly true to L'Enfant's scheme. Starting with the Capitol as the node of the plan looking west, two major avenues shoot at an angle, one to the south-west (Maryland) and the other to the north-west (Pennsylvania) forming the classical upper portion of the Sephirothic Tree of Life which has as its node the first *Sephirah* (divine emanation) representing the godhead. And although it may seem strange to equate the Capitol with the godhead, we note that in

1830 Congress commissioned a massive statue of George Washington seated on a throne in the style of Zeus, the godhead *par excellence* of the classical world. Initially placed in the forefront of the Capitol, the statue, sculpted by Horatio Greenough, was then moved to a less ostentatious location on the east side of the Mall, and today can be seen in the Smithsonian Museum.[101]

Continuing with the hypothetical Sephirothic scheme of L'Enfant's Washington, DC, we note that the location of the gigantic obelisk of the Washington Monument corresponds to the *Sephirah* known as *Tipheret*, which means 'Beauty'. This *Sephirah*, as we saw in Chapter 15, represents the Sun, the centre of things, from which emanates all life and light. The analogy intended by the 'Egyptian' obelisk that stands in Washington therefore seems obvious. Towering more than seven times as high as those in Rome, Paris, London and New York, this powerful solar talisman is today the emblem of the capital city of the new world order.

Echoes

If we overlay Wren's plan for London with L'Enfant's for Washington we find that the Royal Exchange in the former corresponds with the US Capitol in the latter. Since we know that the laying of the cornerstone of the US Capitol was an intensely Masonic affair involving George Washington himself, the juxtaposition of the Capitol and the Royal Exchange raises an obvious question: was any similar Masonic ceremony ever held in London for the Royal Exchange?

The Royal Exchange was founded as the 'Bourse' by Sir Thomas Gresham in 1566 and received its present name by royal proclamation in 1571. On 3 September 1666 it was engulfed by the Great Fire and totally destroyed. Soon afterwards, however, Charles II commissioned new plans from the architect Jarman for the rebuilding of the Royal Exchange[102] and work began in mid-1667. Just as George Washington, Freemason and President of the United States, participated in the Capitol ceremony in 1793, so too, as we shall see,

did Charles II, suspected Freemason and King of England, participate at the equivalent ceremony at the Royal Exchange 126 years earlier.

Sir Thomas Gresham, the founder of the Royal Exchange, died in 1579. But his name has been persistently linked to Freemasonry and his legacy continued to play a role in its development long after his death. In 1660 his London residence, Gresham House at Bishopsgate – by then Gresham College – became the first home of the Royal Society. The reader will recall that many of the original protagonists linked with Gresham College such as Sir Robert Moray, John Wilkins, Christopher Wren, Elias Ashmole and John Evelyn were, in some way or other, associated with either the 'Invisible College', the Royal Society or the early Masonic lodges in London. Though harder to specify there was also a strong Masonic 'ambience' at Gresham College, as Robert Lomas shows in his recent study of the Royal Society. This 'ambience' can be sensed in Sir Thomas Gresham's own decree that 'seven readers' or scholars should be appointed there to lecture on each of the 'seven liberal arts'.[103] Indeed, Lomas goes so far as to argue that the College was 'the main centre for Freemasonry in Restoration London… which Sir Thomas Gresham had set up to support his Masonic ideals of study'.[104]

We have also seen in Chapter 15 how Christopher Wren, unlike John Evelyn, had retained the original location of the Royal Exchange in his plan for London, giving it a pre-eminent position in his overall layout. This is what historian Adrian Tinniswood has to say about Wren's decision:

> The real pride of place went to the [Royal] Exchange piazza with its radial vistas and its surrounding complex of commercial buildings. The absolutist ideology underlying the planning of Sixtine Rome, which Louis XIV and André Le Nôtre were currently putting to such good use in the laying out of Versailles, was here called into service to pay homage to mercantilism. *Trade was to be the new religion.*[105]

The 'new religion', in Wren's mind, might well have been a concoction of the new scientific ideologies coming from the Royal Society, Freemasonry and Templarism – all of which extolled the

virtues of commerce and trade. For all their possible dualism at a late stage of their history let's not forget that the Templars were at the very root of the banking and investment systems of Europe. As for the Freemasons, they would eventually insinuate themselves into the Trade Guilds and into the banking, investment and insurance institutions of the City of London. Thus the Royal Exchange becomes the symbol or talisman of mercantilism and all it stands for.

The confirmation that Masons and their rituals were involved in the rebuilding of Gresham's Royal Exchange after the Great Fire comes in the diary of Elias Ashmole, where a cryptic note reads as follows: 'King Charles, his position of the first stone of the Royal Exchange Oct. 23, 1667, 23h 7 A.M. per Esq. Ashmole et Dominum Bernard.'[106] Ashmole's pre-eminent role in the origins of Freemasonry in England requires no further emphasis. It should not surprise us, therefore, that according to historian C. H. Josten, a specialist on Elias Ashmole who examined this enigmatic entry, it is perhaps telling us that Charles II laid the 'first stone', i.e., the cornerstone of the Royal Exchange 'in true Masonic form, and that for this reason Ashmole, the Freemason, was asked to determine the most propitious time for the ceremony'.[107] It is known that Elias Ashmole was frequently asked by King Charles II to 'cast horoscopes' for various stately functions and, more particularly, after the Great Fire of 1666, to select favourable dates for the laying of the cornerstones of important buildings. We know he did precisely this in 1675 when, for example, he participated in the cornerstone ceremony for St Paul's (see below). Indeed, the tradition of casting horoscopes or selecting propitious astrological dates for the laying of cornerstones of important buildings and monuments was then, and remains today, a common practice in Freemasonry. So we may well ask what was so 'favourable' about the date of 23 October selected by Ashmole?

We've already pointed out that in 1667 England was still using the Julian calendar which, at that time, differed from the Gregorian calendar by ten to eleven days. A scholar like Ashmole would have known that the Gregorian calendar must soon be adopted in Britain –

since it was obviously based on far more precise scientific realities than the Julian. Should this happen, then 23 October Julian would align to 13 October Gregorian. In other words, in most of continental Europe and, more particularly, France, the date of the ceremony for 'the first stone of the Royal Exchange' was not 23 October but *13 October*. To continental Freemasons, this date is immediately recognizable as a 'Templar' date, since, as we know, it marked the infamous suppression of the Order on 13 October 1307. Ashmole was a Freemason with a keen penchant for heraldic chivalry. It is by no means out of the question that some sort of 'Templar' message was his hidden intent.

If this hypothesis is correct then similar 'Templar' symbolism might be expected to turn up in other cornerstone ceremonies where Elias Ashmole was involved. This should be especially be the case for St Paul's Cathedral, which we have shown to be an intensely 'Templar' talisman.

The Cornerstone of St Paul's

The ceremony for the laying of the cornerstone of the new St Paul's is surrounded by a riddle. According to one diary entry by Elias Ashmole, the event was supposed to have taken place on 21 June 1675. It would also appear that it was Ashmole who decided the date by a horoscope cast.[108] There is another entry in Ashmole's diary, however, that categorically states: '23 June 1675, 6 h. 30' A.M., the foundation of St Paul's Church London, layed [sic].'[109]

Historian and astrologer Derek Appleby believes that the different dates (21 June and 23 June) for the ceremony were due to a change of plan caused by bad weather.[110] This is possible. But there is another explanation. The prevailing calendar in England was still the Julian one, so that the date of 21 June – although evoking the summer solstice in the new Gregorian calendar – actually fell ten to eleven days *after* the solstice in the Julian calendar and thus had no special significance in that respect. What 23 June Julian did denote,

however, was St John's Eve, the herald to the Masonic and Templar New Year celebrated on 24 June. There is no question at all that Elias Ashmole would have been acutely aware of the meaning of this date. The reader will also recall that when British Freemasons created United Grand Lodge they chose to do so on 24 June *because it was* St John's Day. But then, in 1814, the Gregorian calendar had been long previously adopted (since 1752 in fact). In Ashmole's day, however, the Julian calendar was still very much in force.[111]

So what did Ashmole really have in mind – a Julian date or a Gregorian one?…

If we convert 23 June Julian to its Gregorian counterpart we get 4 July.[112] How likely is it to be an accident, therefore, that in all history books on the Knights Templar, the date of 4 July is particularly highlighted? It is the date of the Templars' massive defeat by Muslim armies in the Holy Land at the Horns of Hattin on 4 July AD 1187, which was followed by the loss of Jerusalem to Christendom. There could therefore hardly be a more evocative 'Templar' or 'Solomonic' date than 4 July – evocative, that is, of the aspiration to rebuild Solomon's Temple in Jerusalem. The reader will also be aware, of course, that 4 July is Independence Day in the US, commemorating the signature of the Declaration of Independence and converting the date for ever into a powerful talisman that spells out 'Independence' and 'Freedom' for the New World and, now by and large, for a new world order.[113]

It would be almost perverse in these circumstances to fail to examine more closely the dates of the cornerstone ceremonies of powerful talismanic monuments such as the US Capitol and the White House – and even the Pentagon – for possible astrological, Masonic and 'Templar' symbolism.

The Virgin and the Star

Masonic author David Ovason points out that when the cornerstone-laying ceremony of the US Capitol took place on the morning of 18

September 1793, the sun was in the constellation of Virgo, which, he argues, had special significance in the scheme of things.[114] According to Ovason:

> The imagery of Virgo as ruler of Washington DC is reflected in the considerable number of Zodiacs and lapidary symbols which grace the city. The Virgoan connection has also been emphasized in a number of foundation charts which are of fundamental importance to Washington DC. The foundation of the city itself, and the three corners of the triangle which L'Enfant had marked out for its centre (the Capitol, the White House, and the Washington Monument) were each set down on the earth at a time when the constellation Virgo had a particular importance in the skies.[115]

Not being astrologers or Freemasons ourselves, we cannot vouch for Ovason's theory. What we can support, however, is his hunch that astronomy had an important part to play in the planning and symbolism of cities such as Washington, DC.[116] Ovason goes on to make a particularly strong case that much of the symbolism surrounding events and monuments related to the 1776 Declaration of Independence and the foundation of the United States can be linked to the ancient heraldic star Sirius, whose pictogram was the well-known five-pointed star.[117] With this in mind, there is, we think, another astronomical matter to consider in connection to the Capitol.

The latest astronomical software, such as StarryNight Pro v.4 or the professional programme SkyMap Pro 8, makes it a relatively easy matter to reconstruct ancient skies for any epoch and any location with a high level of precision and realism. We can thus, quite literally, observe events that were going on 'invisibly' in the sky (invisible because they were obscured to the naked eye by the light of the sun) when the cornerstone of the Capitol was laid on the morning of 18 September 1793.

At Jenkins Hill, the location of the future Capitol, preparations had been going on through the night for the arrival of George Washington and his retinue of important guests. The White House (which had undergone its own Masonic cornerstone ceremony a little less than a year earlier on the now familiar 'Templar' date of 13 October

1792)[118] was to be the starting point of the procession. From there the presidential party would travel in horse-drawn carriages along Pennsylvania Avenue to Jenkins Hill.

The alignment of Pennsylvania Avenue between the White House and Jenkins Hill is 22° south-of-east. Looking along this alignment, it cannot be an accident that a few hours before sunrise on 18 September 1793 (cloud conditions allowing) observers would have been able to see the bright star Sirius rising directly over Jenkins Hill. It would slowly have gained in altitude as the world turned, so that by dawn it would have been positioned, quite alone, over the spot where the Capitol would stand. That such portentous astral symbolism could have gone unnoticed by the group of important Freemasons and astronomers who planned Washington and decided the locations of its principal structures, seems most unlikely. But if this is so, it would mean that the axis of Pennsylvania Avenue must have been *deliberately* set by Pierre L'Enfant and/or by his colleague Andrew Ellicott so that it would be directed towards the rising of the star Sirius.

Is there anything to suggest that this is likely?

We have already seen how Pierre L'Enfant, while a student of architecture and city planning in Paris, had been much influenced by the work of the seventeenth-century landscaper André Le Nôtre. It was Le Nôtre who had been directly responsible for the famous axis of Paris running from the Tuileries gardens, on the west side of the Louvre, along the Champs-Elysées and all the way to Chaillot Hill – where today stands the Arc de Triomphe. This axis, as the reader will recall, was directed by Le Nôtre 26° north-of-west and 26° south-of-east such that it aligned, whether by coincidence or intent, to the rising-point of Sirius – also 26° south-of-east – as observed from Paris during the reign of Louis XIV. Because there is a difference of 10 degrees of latitude between Paris and Washington, DC, the rising point of Sirius as observed from Washington is also different. As we've just seen, calculations show that the star rose 22° south-of-east, and thus in line with Pennsylvania Avenue,[119] when observed from Washington in the epoch of L'Enfant.

It makes sense to suppose that L'Enfant would have been well aware of this fact. And so would Andrew Ellicott, the man responsible for physically setting out the axis of Pennsylvania Avenue, and, at the time, America's most respected surveyor and astronomer. Being a Freemason as well, he could hardly have ignored the alignment with the rising of Sirius, the five-pointed Blazing Star of the Scottish Rite Masons, which would have been very obvious for much of the year to anyone standing at the White House and looking south-east towards the site of the future Capitol.[120]

So let us venture a little further in this direction and see what else comes up.

Hidden in the Sky

While researching his recent book, *The Secret Zodiacs of Washington DC*, David Ovason noticed that when he looked back from the US Capitol westwards along Pennsylvania Avenue towards the White House from 6 to 12 August he would see the sun setting in alignment with this avenue:

For a period of about one week, the sunset viewed from the Capitol seems to take place directly over the western end of Pennsylvania Avenue. From 6 to 12 August the disc of the sun cuts into the horizon above the avenue, with almost magical precision. Anyone who watches the sunset, on any of those days, cannot fail to realize that the designers of this city intended this period – or perhaps *one* day in this period – to be an important element in the city's design.[121]

Ovason goes on to note that:

in terms of the spherical geometry of astronomy, and the computerized programs available in modern times, there is no problem to establish a 'theoretical' date for the significant sunset. The Capitol is at longitude W77 01, latitude N38 53. The azimuth for Pennsylvania Avenue proposed by Ellicott and L'Enfant was 290 degrees. This points to sunset around 11 and 12 August.[122]

If we use similar computer software to recreate the sky for the epoch of 1793 as seen from Washington, DC, and focus our attention on the period of 11–12 August, we will notice something most interesting not only regarding the sun, as Ovason has observed, but also regarding the star Sirius. For on these very days Sirius rose *heliacally*, i.e., shortly before the sun. The reader will recall that the heliacal rising of Sirius in ancient Egypt was the astro-solar event marking the beginning or 'birth' of the New Year and seems to have been the focus of much attention in Masonic esoteric lore. Let us recall also that the heliacal rising of Sirius was incorporated into the myth of the 'solar' birth of Alexander the Great and, if our theory is correct, into the yth of Louis XIV's 'Capetian Miracle', and also into the very axis of Paris itself.

If you were both a land surveyor as well as a Freemason, like Andrew Ellicott (or, indeed, like George Washington himself), it would have been difficult under these circumstances *not* to associate the event of the heliacal rising of Sirius as viewed from Washington in 1793 with the 'birth' of the new federal city and capital of the world's first true republic since Rome. It is perhaps pertinent also to note that the world's first 'republic' had been founded by Julius Caesar who, as it turns out, commemorated the republican era with the founding of the Julian calendar in 48 BC, which had been calibrated for him in Alexandria in Egypt by an Egyptian astronomer who made use of the heliacal rising of Sirius.

Can it be a coincidence, therefore, that on 15 April 1791 at 3.30 p.m., a congregation of Freemasons gathered in Alexandria near the future site of Washington, DC, and enacted the Masonic ceremony of the 'first stone' presided over by the Master of Alexandria Lodge 22? [123] Let us also note in passing that the sun was in Pisces, a Christic symbol, when the constellation of Leo (a 'kingly' symbol) was on the rise in the east.

Next, let us consider the heliacal rising of Sirius as seen from the city of Paris in that same year of 1793. There, because of the change of latitude, it would have occurred not on 11–12 August but on 20 August. In plain observational terms, this means that when looking

from the Place de l'Etoile towards the Louvre just before dawn on 20 August 1793, an observer would have seen the star Sirius rising over the Louvre Palace's south wing, right above the apartments where the 'Capetian Miracle' had taken place. Also at this precise moment the sun would have been in conjunction with the star Regulus, Alpha Leonis, the star of the 'solar kings'. Indeed, this is why in ancient times the official 'birthday' of Alexander the Great was celebrated between 20 and 26 July Julian – because on those days the same conjunction of the sun and Regulus likewise accompanied the heliacal rising of Sirius in Alexandria.

Such occult and astrological considerations seem in place in Alexandria in 332 BC, but we found it quite eerie and unsettling to be obliged to suspect that they also determined the positioning and alignments of major avenues and monuments in the great modern cities of the West.

And still the clues kept on presenting themselves…

An Obelisk for Washington

In 1799, five years after the founding of Washington, DC, George Washington died. The Freemasons of the United States organized his stately funeral, and all the lodges both in America and in France were temporarily turned into 'lodges of sorrow'.

In that same year of 1799 Napoleon's army occupied Egypt. To all republican Masons, this must have seemed like a great historical moment when the ancient 'home' of Freemasonry was finally drawn into the new Masonic-cum-republican world order initiated by the United States and France.

Soon after Washington's death, plans were prepared to raise a great 'National Monument' in Washington, DC, due west of the US Capitol, in commemoration of the first president of the Republic. In May 1800, the Congressional Committee formed for this purpose expressed itself in favour of building a pyramid, 100 feet square at the base and 'of proportional height', but lack of funds and, eventually, lack of

interest meant that the project was shelved.[124] In 1833, however, a group of patriots created the Washington National Monument Society, which was successful in raising funds. Approval was obtained from Congress for the design and construction of an edifice appropriate to the memory of the 'Father of the Nation'.

The first design proposed was by Peter Force, an influential Freemason and one of the founding members of the Society. His idea, too, was a pyramid, but this time even more enormous than the one envisaged in 1800.[125] In 1836 a design was put forward by Robert Mills, a Freemason and architect, which consisted of a circular colonnaded temple with a statue of Washington in Graeco-Roman garb riding the solar chariot of Apollo with a huge obelisk rising above it adorned with an enormous 'blazing five-pointed star' at the top. The design that was finally retained, however, was that of a lone giant obelisk with a tapered pyramidal apex – the Washington Monument that we know today. The obelisk, which is 555 feet tall, had to be placed slightly offset from the centre line of the Mall due to poor ground-bearing conditions in the ideal spot.

The notion of a pyramid (and an obelisk is simply a pyramid on a pillar) rising symbolically above the new Republic has a background. It had previously been proposed in 1776, when Benjamin Franklin and Thomas Jefferson designed the Great Seal of the United States (this motif can still be seen today on the back of the US one-dollar bill, introduced in 1934 by Franklin D. Roosevelt, a 32nd Scottish Rite Freemason). In 1789 the same symbol was placed on top of the Declaration of the Rights of Man signed in Paris under the guidance of the Freemasons Lafayette and Benjamin Franklin.

The cornerstone ceremony for the Washington Monument took place on Independence Day, 4 July 1848. We have already discussed the curious 'Templar' symbolism of this date, and also how it 'converts' to the St John's Day of the Freemasons according to the Julian calendar. Appropriately, therefore, the cornerstone ritual for the Washington Monument was organized by the Freemasons of America, hundreds of whom attended in full Masonic regalia.[126] The

ceremony was conducted by a prominent Mason, Benjamin French, the Grand Master for the District of Columbia, who donned the Masonic apron and sash that George Washington had worn for the 1793 ceremony of the US Capitol. According to author David Ovason,

> The moment of the ceremonial cornerstone laying of the Monument has been preserved, and from this it is possible to reconstruct the foundation chart… In many ways it is a remarkable horoscope, for it reflects precisely the same sort of stellar magic as was practiced in ancient Egypt, millennia ago.[127]

Due to lack of funds and political shenanigans, construction was delayed for several decades after the cornerstone had been laid, and it was not until 1880 that work began again at the site. A 'second' cornerstone ceremony was therefore arranged for 7 August 1880 at 'one minute of 11 o'clock'. Sensing that this curiously precise timing (10.59 a.m.) was for astronomical rather than astrological reasons, David Ovason worked out that the intention might have been to make a link with the rising of a particular star which, in this case, turned out to be Spica, the brightest star in the constellation of Virgo. The inspiration may have perhaps come from the Masonic astronomer Lalande, who had been a founding member of the Nine Sisters lodge in Paris and who was present, along with Benjamin Franklin and the 'Tarot' astrologer Court de Gebelin, at the initiation of Voltaire in 1778. Lalande had written that:

> The Virgin is consecrated to Isis, just as Leo is consecrated to her husband Osiris… They put a wheat-ear in the hand of the Virgin, to express the idea of the months, perhaps because the sign of the Virgin was called by the Orientalists… *epi*, or wheat-ear.[128]

It is likely that such ideas were entertained by those involved in the cornerstone ceremony of the Washington obelisk, which, after all, is a blatant 'Egyptian' symbol selected by Freemasons.

The final dedication of the Washington obelisk took place on 21 February 1885, which was, curiously enough, just one day after George Washington's birthday. On that cold and snowy day, twenty-

one Masonic lodges of Columbia, as well as Masonic delegations from Massachusetts, Delaware, Pennsylvania, Maryland, Virginia, Texas, South Carolina and Georgia, along with a vast number of 'brothers', formed a huge procession. The President of the United States and members of Congress joined the Freemasons, while a huge crowd of onlookers cheered and the US Marine band played a 'number of rousing marches'. Ovason's calculations show that this ceremony, which took place in the afternoon, occurred at the moment of the rising of Sirius over the Capitol.[129] 'The extraordinary truth', he concludes,

> is that the very existence of the Washington Monument is intimately linked to the Egyptian star Sirius… that the ancients represented in their sacred hieroglyphics as an obelisk-like form as well as a star. How is it possible that this most important star of the ancient world should find itself, as it were, resurrected in the architecture of the United States?[130]

In 1998 Robert Bauval visited the Washington Monument, which had been completely shored up with scaffolding for repair and embellishments in preparation for the millennium celebration planned for Washington, DC. Inside the Monument's entrance, right over the door lintel, Bauval noticed a bronze plaque on which the face of George Washington had been sculpted by the French artist Jean-Antoine Houdon, a Freemason, and member of the Nine Sisters lodge in Paris, whose other subjects had included Cagliostro and Empress Josephine.[131] Above the plaque was the unmistakable motif of the ancient Egyptian winged solar disc with a star prominently positioned at its centre.

We can now safely guess which star is represented here…

The Pentagon and Sirius

In 1941, fifty-six years after the final dedication ceremony of the Washington Monument, another cornerstone was laid in Washington, DC, this time for a gigantic five-sided, star-shaped edifice: the Pentagon. The notables attending were not in Masonic regalia but

instead wore the uniforms, spangled with gold five-pointed stars, of high-ranking US military personnel.

Before the attack on Pearl Harbor in 1941, the 24,000 civilian and military personnel of the US War Department in Washington, DC were scattered amongst seventeen buildings throughout the District of Columbia. In view of the forthcoming entry of the United States into the Second World War, it was hastily decided to place all these personnel together into one gigantic, centralized headquarters.[132] The job was given to the Army Quartermaster Corps' Construction Division which produced a design for the future Pentagon in July 1941. The plans were approved by President Franklin D. Roosevelt, who, on 1 December 1941, signed legislation transferring the whole project to the US Corps of Engineers. The first section was completed in April 1942, and the full edifice was completed on 15 January 1943 at a total cost of $64 million.[133]

In view of the great importance of the project, all the major decisions were approved by President Roosevelt himself.[134] It is often claimed that the distinctive and eponymous pentagonal shape of the building was derived from the fact that the first location proposed near Arlington Cemetery was a five-sided plot of land. But if so, the question arises why the pentagonal design was retained even though another site was eventually chosen further to the south.

It is, of course, entirely possible that the prosaic explanation is the truth. But it is also true that Franklin Delano Roosevelt was raised as a Master Freemason in 1911 at the Holland Lodge No. 8 in New York and, in 1929 became a Thirty-second Degree Scottish Rite Mason at the Albany Consistory.[135] He would have been acutely aware, as were all high-ranking Scottish Rite Masons who had read Albert Pike's *Morals and Dogma*, that the pentagonal shape, or *pentacle*, was associated by Pike with the Masonic Blazing Star and, in turn, identified with the five-pointed star of ancient Egypt, Sirius.

In Robert Cameron's book *Above Washington* (p. 117), there is a remarkable photograph taken by NASA with infrared film, which 'demonstrates the ultimate refinement in aerial photography'. The

photograph was taken by a U-2 spy-plane from an altitude of 65,000 feet. Although the 'technical reading' for images of this sort is very specialized, even lay viewers can easily see that the positioning of the Pentagon on the west side of the Potomac seems to be guided by the general axis that leads south-east – and more or less parallel to Maryland Avenue across the river – straight towards the US Capitol.

Turning the observation around, Robert Bauval calculated that the Pentagon lies some *24° south-of-west* when viewed from the Capitol. Reconstructing the skies over Washington, DC for the epoch 1941 with StarryNight Pro, and directing his attention to 24° south-of-west, he typed the command to 'run' the sky. As he had half expected, the star Sirius positioned itself right over the spot where the NASA photograph shows that the Pentagon is situated. Naturally Bauval wondered if here, too, a cornerstone ceremony had taken place in 1941. A few minutes' research on the Internet produced the answer.

The True 'New Jerusalem' in Israel?

Every American, indeed almost everyone in the world, is acutely aware of the date of 11 September. This was the 'day of infamy' in 2001 when Arab terrorists crashed a commercial plane into the US Pentagon and two other planes into the twin towers of the World Trade Center in New York (see Appendix).

It was therefore very strange, indeed almost surreal, to discover that the date of the ground-breaking ceremony for the Pentagon was also 11 September – in its case 11 September 1941. Little has been made of this, although the coincidence can hardly be said to be obscure since President George W. Bush himself drew attention to it in a speech he gave to Pentagon staff exactly a month after the attack. According to the *Army Link News*:

President George W. Bush, Lt. Gen. John Van Alstyne and First Lady Laura Bush joined a joint-service chorus and thousands of flag-waving Pentagon personnel in singing 'God Bless America' during the memorial ceremony at the Pentagon Oct. 11, 2001… He [the President] listed a number of victims: three school children travelling with their teacher on the hijacked

jet, an Army general officer, a Department of the Army civilian who had worked 30 years in the Pentagon, and a naval reservist. The President recalled how construction on the Pentagon, 'a symbol of America's freedom and confidence' and 'a symbol of our strength in the world,' began 60 years ago *on Sept. 11, 1941*… 'And on that very night, President Franklin Roosevelt spoke to the nation,' Bush said. (Emphasis added.)

At this point we ask the reader to recall two things: (1) the intense 'Templar' and 'Judaic' characteristics of the Scottish Rite ceremonies to 'rebuild Solomon's Temple' in the context of the lodges; and (2) the root of the Islamic terrorists' grievance against the US – which is the oppression of the Palestinian people and the political and military support that the superpower extends to the state of Israel. Could there have been more to Roosevelt's involvement in the affair of the US Pentagon and the date of 11 September than at first meets the eye?

We know, of course, of the many harebrained conspiracy theories that followed the 11 September 2001 attacks, and we don't want to add more fuel to the fire. But it is also obvious that the foreign policies of Roosevelt and Truman greatly contributed to the creation of the state of Israel in the second half of the 1940s, and this made us wonder about their common affiliation to the Scottish Rite.

There is also the bizarre fact that Roosevelt was both a Thirty-second Degree Scottish Rite Mason as well as the thirty-second President of the United States, while Truman – who had been Roosevelt's Vice-President – was both a Thirty-third Degree Scottish Rite Mason and the thirty-third President of the United States. In Scottish Rite Freemasonry, the four final degrees, from the thirtieth to the thirty-third, are the stage of initiation at which the candidate is thought to achieve the sublime objective of the Masonic enlightenment (or, some would say, experiment), which – allegorically – is the 'rebuilding of the Temple of Solomon in Jerusalem'.

We've seen that the 'Tracing Board' provided in the rituals of the Scottish Rite's Thirtieth Degree makes use of the Sephirothic Tree of Life – which can be taken as the 'spiritual' representation of Solomon's Temple. As noted above, all such rituals are supposed to be purely allegorical, and we are assured by Masons that their meaning

is simply that the candidate has achieved a level of spiritual perfection within himself as the human 'temple', and is thus compared, in a sense, to the perfection of the 'temple' of Solomon.

Nonetheless, we can hardly avoid posing the obvious question: is it possible that the Roosevelt and Truman administrations took the 'Masonic experiment' all the way and actually 'rebuilt' the Jewish Solomonic state in Palestine? As far-fetched and incredible as it seems, there is something else in the background that justifies such an outrageous question – and this is the actual 'degrees' that both these presidents were linked to.

From the 30th to the 33rd Degree

Several years ago, while visiting a friend in Egypt, Robert Bauval was shown a Scottish Rite Masonic certificate issued at a lodge in Cairo in 1918 by the Supreme Council of the Thirty-third Degree. The certificate had belonged to the friend's maternal grandfather.

Freemasonry is practically unknown in Egypt today, having been declared illegal by Gamal Abdel Nasser in 1964. But in the early part of the twentieth century it was extremely popular and many high-ranking government officials and even members of the Egyptian royal family were Freemasons.[136]

The certificate was printed in French and Arabic. Bauval, who is fluent in both languages, could not help noting not only that the location of the Supreme Council was specified as 'Cairo', but also that the precise latitude was given as 'under the celestial vault at the zenith by 30° 2′ 4″…', which would pinpoint the location to somewhere in central Cairo near Abdeen Palace.

Here is a curious fact. The modern state of Israel extends from latitude 30° north to 33° north. When carried west into Egypt, the former latitude passes almost through the Great Pyramid of Giza.

We are reminded of the historical statement sent by Harry Truman to the provisional government of Israel in May 1948. It reads simply:

This Government has been informed that a Jewish State has been proclaimed in Palestine, and recognition has been requested by the (provisional) Government thereof. The United States recognizes the provisional government as the *de facto* authority of the new State of Israel.
President Harry Truman
Approved 14 May 1948

Two decades later, in June 1967, Israeli forces stormed Jerusalem and recaptured the city from the Arabs after eight centuries of Muslim occupation. The Star of David had finally risen again. The 'cornerstone' of the New Jerusalem and, by extension the New Temple, had been laid.

As has several times been the case during our years of research for this book, we felt the ghostly lifting of a veil brush against our faces…

1. The ‘benben’ stone of the pyramid of Amenemhet III displayed at the Egyptian Antiquities Museum in Cairo. Note the ‘eyes’ at the centre of the pyramidion, the latter said to have been originally covered with gold leaf.

2. François-Edouard Picot’s 1827 painting on the ceiling of Room 30 of the Louvre: ‘L’Etude et le Génie dévoilent à Athènes l’antique Egypte’. The ‘unveiled’ Isis on a throne flanked by lions is contemplating a landscape of pyramids and an obelisk.

3. Statue of Giordano Bruno at Campo dei Fiori in Rome.

4. View of the ‘octagonal ellipse’ in the Piazza San Pietro from the roof of the Basilica.

5. Sully Wing Room 26: this is the room that most symbolized the ‘sacred’ union of Anne of Austria and Louis XIII. The wood panelling of the room is from her apartments from the Château Vincennes, and on the east wall hangs a portrait of the queen depicted as ‘Minerva’. Facing the queen is a portrait of Louis XIII. Between them has recently been placed a statue of the Egyptian God Amun of Thebes/Luxor. The latter was reputed to have fathered Alexander the Great. Oddly the statue of Amun is almost in perfect alignment with the equestrian statue of Louis XIV depicted as ‘Alexander the Great’ (see plate 17) and thus in alignment with the Historical Axis defined by Le Nôtre in 1663–7 for the Sun-King. In the Luxor temple at Thebes a special room, known as the mamissi, served as the meeting place between the reigning queen and ‘Amun’ in order to conceive a ‘Sun-King’.

6. A Knight Templar, showing the croix-patte that characterized order, and the octagonal frame within which it can be imposed.

7. ‘Here is seen the very ancient goddess and queen of the Egyptians’, etching from the fifteenth century. Note the boat and the ‘dog’ on the standard representing the ‘Dog Star’ Sirius.

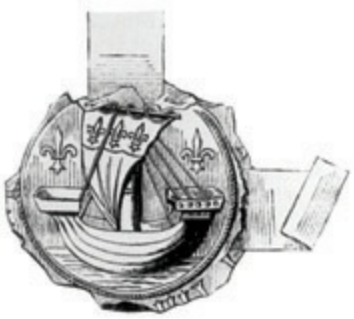

8. Coat-of-arms of Paris, fifteenth century.

9. The coat-of-arms of Paris commissioned by Napoleon in 1811, showing Isis on the prow of the boat and her star, Sirius, leading the way. Note the three bees of ‘Charlemagne’ to symbolize imperial solar royalty. Also note the Hermetic caduceus piercing the crown supporting the imperial eagle.

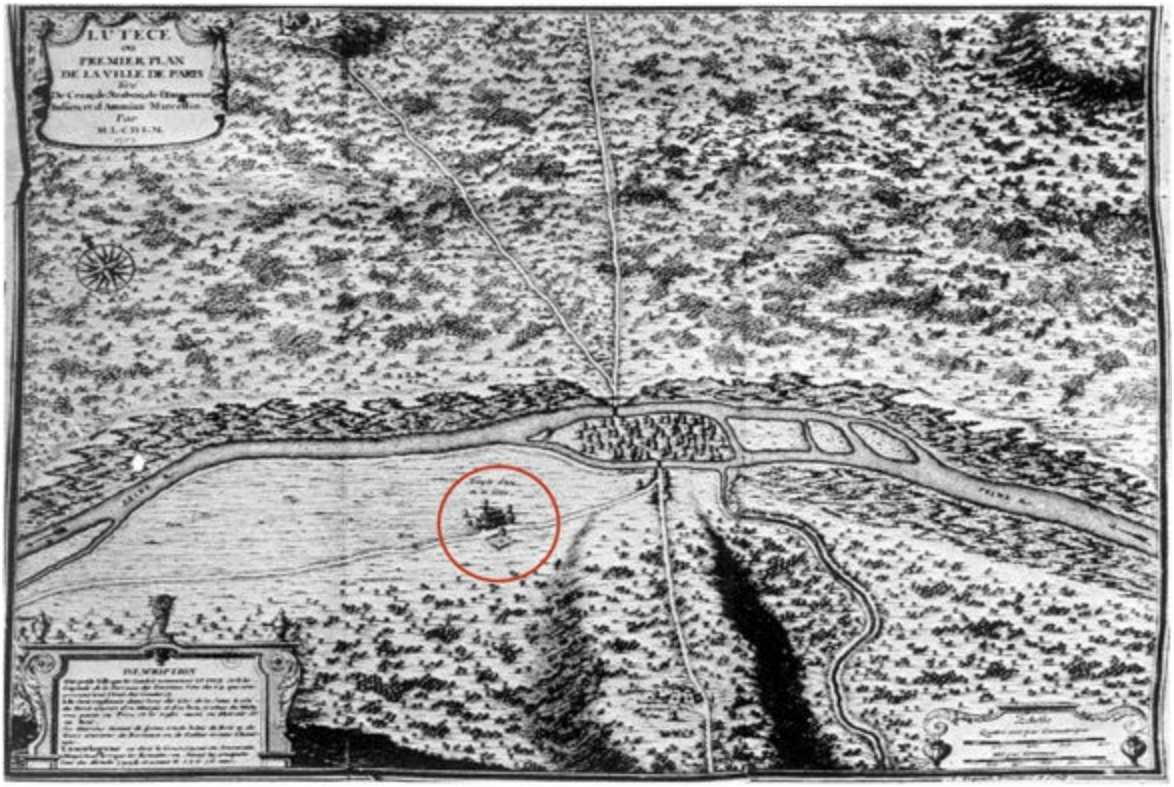

10. A reconstruction map of the region of Paris before the city was built, showing the location of the Temple of Isis (where the Abbey of St Germain des Prés now stands). The region, some sixteenth-century historians claimed, was thus known as 'Near the Temple of Isis', hence the 'Isi' in 'Parisi'.

11. Aerial view of the Louvre looking east. Note the Historical Axis passing through the equestrian statue of Louis XIV (as 'Alexander the

Great'), then through the south flank of the Cour Carrée and extending towards the horizon where the rising of Sirius took place. Note the 'boat' shape of the Ile de la Cité on the right. A 'temple of Isis' was found under the existing cathedral, implying that the island is the 'boat of Isis' on the Seine (see plates 7 and 9).

12. Aerial view of Historical Axis of Paris looking west from the Louvre towards La Défense on the distant horizon. Note the deviation of the axis.

13. Sunset on 6 August along the Historical Axis (Champs-Elysées).

This date is the feast of the Transfiguration of Christ, here clearly evoking solar symbolism also linked to Louis XIV, the Sun-King, under whose reign the Historical Axis was first defined.

14.Winter solstice sunrise at Karnak-Thebes along main axis. Compare to sunset in Paris along the Champs-Elysées on 6 August (see above). The orientation is 26.5 degrees from the latitude at both locations.

15. Sunset on 6 August along the Historical Axis (Avenue de la Grande Armée). The Grande Arche is, however, turned 32 degrees from due west such that the sun will be in the centre of the arch on 24 June, St John's Day, celebrated by the Freemasons as the 'New Year' (see below).

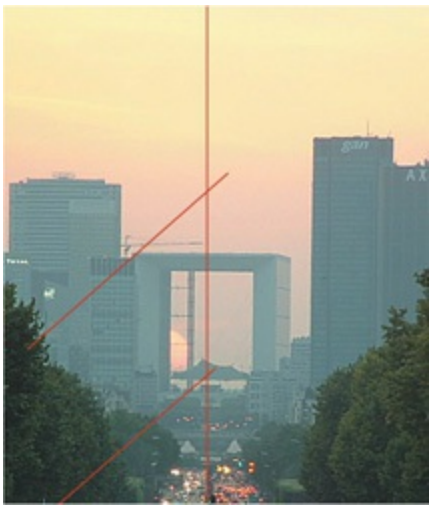

16. View of the Grande Arche looking west. The 6 degrees deviation of the Grande Arche's axis from that of the Historical Axis is obvious. This produces an orientation of 32 degrees north-of-west towards the sunset horizon, matching the sunset on 24 June (see plate 15).

17. The equestrian statue of Louis XIV as 'Alexander the Great'. The legend that Alexander was the son of Amun, the supreme Sun-God of Egypt at Thebes (modern Luxor), was well known to classical scholars in the seventeenth century, and it is no surprise that Louis XIV, who insisted on being seen as the 'Sun-King', was often depicted in art as Alexander the Great or Apollo. The original model of this statue was by Bernini in 1668 and sculpted in marble by his students and

displayed at Versailles. Later a lead cast was also made. In 1981, when Ming Pei was developing the new 'Grand Louvre', he requested that the statue be brought from Versailles and placed adjacent to the Glass Pyramid and in alignment with the Historical Axis.

18. Revolutionary etching showing Voltaire (left) and Rousseau (right) introducing the Supreme Being to the French people, the deity here shown as an eye within a blazing sun (known also as a 'glory') instead of a triangle or pyramid.

19. The 'Eye in the Pyramid' on the frontispiece of the Declaration of Human Rights drafted in August 1789.

20. The reverse motif of the Great Seal of the United States. This same motif also can be seen on the US one-dollar bill.

21. August 1793. The so-called ‘Fountain of Regeneration’ (also known as ‘Isis of the Bastille’). This was a statue of the Egyptian goddess Isis, designed by the artist Louis David, with water sprouting from her nipples. Here we see the President of the Convention Nationale filling his cup with the ‘regenerative’ liquid symbolizing the new order, social and religious, for the French Republic, while the revolutionary crowds cheer in delight.

22. August 1793: a ‘pyramid’ outside the Hôtel de Ville in Paris in honour of the Supreme Being.

23. An etching in the journal Le Franc-Maçon showing the Empress Josephine in her Masonic regalia at the ceremony of ‘Adoption des Francs-Chevaliers’ at a lodge in Strasbourg in 1803. Note the crescent moon or cloud on which the empress stands, an allusion to ‘Isis’. The ditty translates as: ‘“My Brothers and Sisters,” says the lovely companion of the great Napoleon, this other Charlemagne, “my husband spoke true when he said that the examples and lessons of virtue and honour come from Freemasons.”’

24. Head of Cybele/Isis found in Paris in 1675 in the St Eustache gardens. It probably dates from the Antonine period and was brought from Italy. Compare the tourelle on the head of the goddess to that on the Arc de Triomphe, Place de L'Etoile (below).

25. A goddess placing the imperial laurels on Napoleon, and at his feet another goddess wearing the *tourelle* of Cybele/Isis.

26. The goddess Isis on the façade of the Louvre looking east at the rising sun in the Cour Napoléon.

27. The 'Loge Bonaparte' (1853), one of many Masonic lodges bearing the name of Napoleon, showing Napoleon and Joachim Murat in Masonic regalia. The caption at the top reads 'Where the laws of Freemasonry rule, also rules Happiness'.

28. Revolutionary etching showing Napoleon introducing the Supreme Being to all religious groups. Note the Giza pyramids on the top register.

29. The ‘missing’ obelisk at the temple of Luxor.

30. The obelisk of the Concorde that once stood outside the temple of Luxor.

31. The genie of Paris (or Liberty) on top of the Bastille Pillar. Compare to Picot's 'genie' in plate 2.

32. Pyramid project proposed by the revolutionary architect Etienne-Louis Boullée in 1785: ‘Cénotaphe dans le genre Egyptien’.

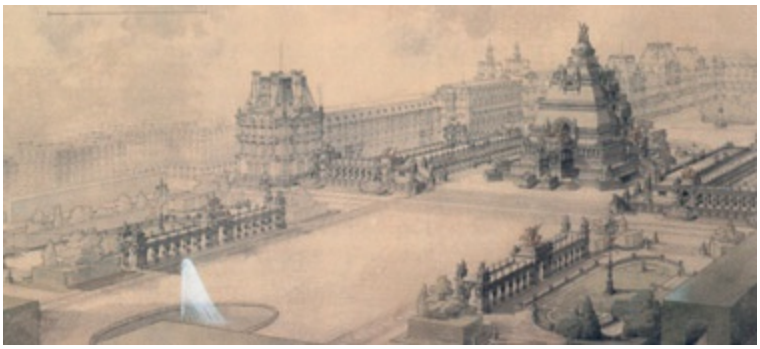

33. The baroque ‘pyramid’ proposed for the Louvre for the centennial celebrations of the French Revolution of 1789. It seems most unlikely that Ming Pei was unaware of this previous scheme when he designed the glass pyramid for the bicentennial celebrations of 1989. The link between the French Revolution and the ‘pyramid’ is, of course, the symbol of the ‘Etre Supreme’, or Supreme Being, which appeared on the frontispiece of the Declaration of Human Rights in 1789 as the ‘Eye in the Pyramid’, an obvious Masonic symbol (see plate 19).

34. The glass pyramid at the Louvre.

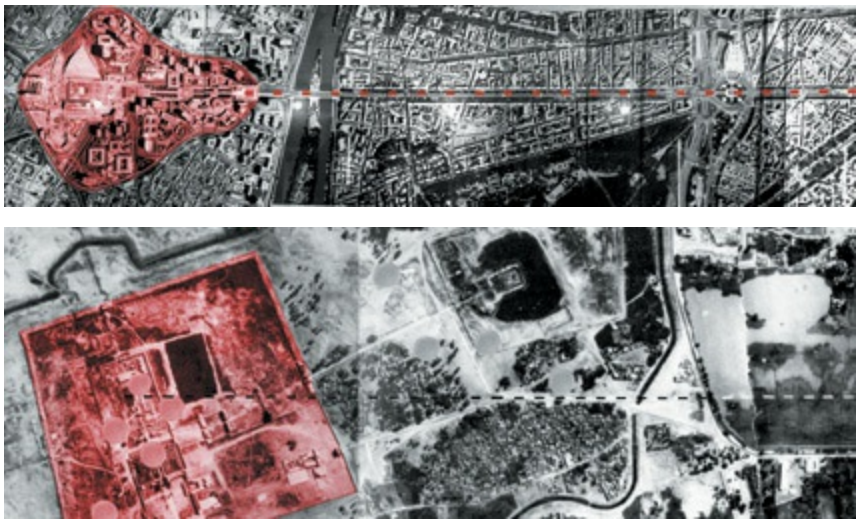

35. Aerial view of Paris and the Historical Axis from the Louvre to the Grande Arche. Compare the axis and the scheme to the aerial view of ancient Luxor, Egypt (see below).

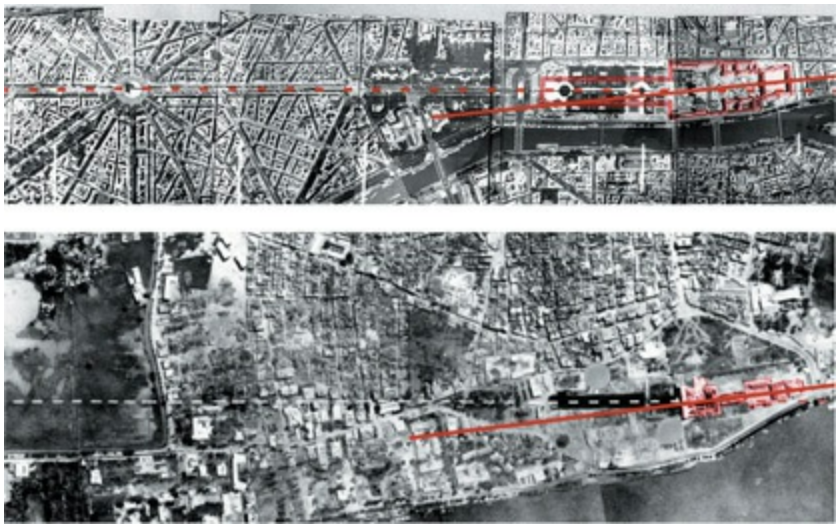

36. Aerial view of the city of Luxor in Upper Egypt. Compare the axis and general scheme to Paris (see above).

37. Aerial view of the Louvre and the Seine. Compare to aerial view

of the Luxor temple and the Nile (see opposite). Note ‘corresponding’ position of obelisks in Paris and at Luxor.

38. Aerial view of Luxor temple at Thebes. Compare to aerial view of the Louvre Palace (see opposite).

39. The obelisk of Tuthmoses III on the Victoria Embankment, London, better known as ‘Cleopatra’s Needle’.

40. Gorringe lecturing at a Masonic ceremony at the dedication of the New York obelisk in 1881.

41. The Masonic foundation-laying ceremony for the New York obelisk in 1880 during which the Grand Master linked Freemasonry to ancient Egypt.

42. & 43. The George Washington Masonic Memorial at Alexandria, Virginia (near Washington, DC). Compare with the (model of the) Alexandria *Pharos*/lighthouse below.

44. The entrance to the lift in the Washington Memorial designed as that of an ancient Egyptian temple. Note the star inside the solar disk.

45. Statue of George Washington in full Masonic regalia in the Washington Masonic Memorial.

46. Sun setting along the axis of Pennsylvania Avenue on 12 August, also the day of the heliacal rising of Sirius. In the reverse direction, looking east, the star would also align with this axis.

47. The interior of the Egyptian room in Freemasons' Hall, Philadelphia.

Appendix:

The Day that Shook the World

> 'May 14th [1948], David Ben Gurion is creating history. At 4 o'clock this afternoon, when he reads these words aloud, he will change world politics for ever. In this simple text lies a dream of the Jewish people that has endured 2000 years of exile. It is the Declaration of the State of Israel. Yet the nation may not survive the day. All around him powerful forces are working to obtruct or destroy his fledgling nation. In neighbouring Jordan, King Abdullah heads an alliance of five Arab nations to strangle Israel at birth. He [Ben Gurion] is defying the United Nations, who have their own plans for the Middle East. Civil war rages across the country. The British Empire, which has played peacekeeper for thirty years, is leaving. His only hope lies in Washington. With the backing of President Truman Israel might have a chance to survive.' ('The Birth of Israel, May 14th 1948', *Days that Shook the World*, BBC2, 14 January 2004)

Declarations

In February 1998, almost exactly fifty years after David Ben Gurion read the Declaration of the State of Israel to the Jewish Council in Tel Aviv, another 'Declaration' was read by Osama Bin Laden – The Declaration of the World Islamic Front for Jihad against the Jews and the Crusaders – calling upon all Muslims to wage a 'Holy War' against Jews and 'Crusaders', i.e., Americans and their allies, 'until the El-Aqsa Mosque (in Jerusalem) and the Haram Mosque (in Mecca) are freed from their grip'.

Three years later, on 11 September 2001, Bin Laden's organization, the dreaded Al Qaeda, masterminded the destruction of the twin towers of the World Trade Center in New York and the Pentagon in Washington, DC, by having suicide volunteers hijack three commercial airlines and fly them into those buildings. This abominable event has gone down in history as 9/11.

On 20 November 2003 the British Consulate and the HSBC bank in Istanbul, Turkey, were destroyed by suicide bombers. A man claiming to be from the Turkish Great Orient Raiders of the Eastern Front (TGOREF) telephoned the semi-official Anatolian Press and coldly informed them that the TGOREF and Bin Laden's Al Qaeda group had jointly carried out the attacks. The mysterious voice then added these sinister words: 'Our attacks against *Masonic* targets will continue. Muslims are not alone.'[1].

And on 25 January 2003 the controversial north London Muslim spiritual leader Sheikh Abu Hamza al Masri expressed this strange view to the *Independent*:

I am not saying every American government figure knew about this [11 September]. But there are a few people [in the US government] who want to trigger a third world war. They are sponsored by the business lobby. Most of them are Freemasons, and they have loyalty to the Zionists.

On 10 March 2004, the BBC News reported that

A suicide attack on a Masonic lodge in the Turkish city of Istanbul has left one person dead and five injured… The BBC's Jonny Dymond in Istanbul says… the highly secretive international society of Masons is seen by radical Islamic groups as a supporter of the policies of Israel and the United States.

One of the bombers reportedly chanted 'God is great' before detonating his device… (another) assailant, who identified himself as Abdullah Islam, shouted, 'Down with the Israeli lodge' (Guardian Unlimited, 10 March 2004)

These threats, accusations and attacks against Freemasons coupled with the language used by

Bin Laden in his declaration of holy war against 'Jews and Crusaders' and a call to liberate the holy El-Aqsa Mosque in Jerusalem send a chilling message. We saw in Chapter 15 that on the site where the El-Aqsa Mosque stands today once stood the Temple of Solomon, which lent its name to the legendary Knights Templar, who, according to many Masonic researchers, were the precursors of the British Freemasons[2] and, more especially, the Scottish Rite Masons who are headquartered in Washington, DC. Indeed, probably the most important symbol representing the ideal of Freemasonry is the Temple of Solomon and its 'rebuilding' in a spiritual manner. We saw in Chapter 15 how the entrances of many Masonic temples and lodges are usually flanked by two pillars representing those of Solomon's temple called Boaz and Jachin – meaning 'wisdom' and 'power' – and how Scottish Rite Freemasonry, particularly the type practised in America, sees itself as a sort of neo-Crusading order modelled on the Knights Templar.

This, then, begs the following questions: could Al Qaeda be seeing America as a Masonic-Crusading power whose occupying force in the Middle East is Israel? And was 9/11 an expression of this belief? Does 9/11 have a direct link to Al Qaeda's 'declaration' to liberate the holy Muslim shrine of El-Aqsa and the Dome of the Rock? And, more sinisterly, was 9/11 an attack on 'The Temple of Solomon'?

A Question of Degrees

The Scottish Rite is an elite branch of Freemasonry known as the Supreme Council of the Thirty-third Degree. It was founded in 1801 at the city of Charleston in South Carolina. Its origins are obscure, but it is generally agreed by Masonic historians that it started in the 1740s in the city of Bordeaux, France, and brought to the American Colonies soon after. The idea was to link the normal or 'craft' Freemasonry with the elitist medieval order of the Knights Templar, a powerful political and financial organization that was originally formed to protect the Holy Land – and especially Jerusalem – from the Muslims. The Knights Templar got their evocative name from the Temple Mount in Jerusalem, the site of Solomon's Temple, where the Christian knights established their first camp during the Crusades. Jerusalem had been wrenched from the Muslims in the eleventh century, and the new Christian 'Kingdom of Jerusalem' was placed

under the protection of the Christian knights, mostly Knights Templar, who had sworn a solemn oath to protect it. In 1187 the Holy Land was lost again to the Muslims, when the army of Saladin crushed the Knights' Templar army at the battle of Hattin on 4 July. The Christian kingdom of Jerusalem eventually surrendered to Saladin in October 1187, and from that time onwards the holy city remained more or less in Muslim hands until it was occupied by Israel in the 1967 War.

Not unexpectedly, the rituals of Scottish Rite Freemasonry are intensely 'Judaic', and those of the top degrees between the Thirtieth and the Thirty-third are intensely 'Templar', advocating the 'symbolic rebuilding' of the Temple of Solomon. Today two Muslim shrines stand on the site of the Temple: the Dome of the Rock and the El-Aqsa Mosque, Islam's most sacred site, where the Prophet Mohamed is believed to have ascended to paradise. The Temple Mount in Jerusalem is thus Islam's most venerated place, and for many Muslims it is even more sacred than the Kaaba at Mecca. This site, however, is also the Jews' most venerated place, but for very different reasons. It is their Mount Zion, site of the all-important Temple of Solomon, which housed the Tabernacle and the Ten Commandments. It has the sacred Wailing Wall and is the focus of Jewish messianic hopes. Central to the Scottish Rite rituals are the so-called 'tracing boards', which are types of sheets or rugs placed on the floor of the lodge on which the secret initiations are performed. On many of these tracing boards can be seen symbols that supposedly represent the 'Temple of Solomon', the most prominent being two tall pillars, Jachin and Boaz, and a five-pointed star or pentagon in the epicentre of the 'temple'. It may thus be more than mere coincidence that the targets chosen by Al Qaeda were the two towers at the 'entrance' of America (i.e., New York) and the Pentagon, the epicentre of American power.

The Semblance of a 'Zionist-Masonic Conspiracy'

It is well known that many presidents of the United States have been

sworn Freemasons, including George Washington. These include the two presidents who had an involvement in the creation of the modern state of Israel: Franklin D. Roosevelt and, more directly, Harry S. Truman. Roosevelt was sworn in as the Thirty-second President of the United States in 1933. A weird coincidence would have it that he was also sworn in as a Thirty-second Degree Freemason of the Scottish Rite. Harry Truman was sworn in as Thirty-third President of the United States in 1945. By another weird coincidence, he was sworn in as a Thirty-third Degree Freemason of the Scottish Rite. In this respect, the 'Thirty-second and Thirty-third Degrees' could bear a curious apparent relevance to Jerusalem and the Temple Mount. In the Scottish Rite the Thirty-second Degree ritual derives its name from the so-called thirty-two 'Paths of Wisdom' found in the cabalistic Sephiroth, or Tree of Life. The Cabala is a complex mystical Jewish system of initiation based on the belief in a coded 'language of God' the key of which was handed to Moses and passed on to the Jewish rabbis. The twenty-two letters of the Jewish alphabet link up with ten 'emanations' of God to make up the thirty-two Paths. Jewish mystics thus believe that the Temple of Solomon was designed from a divinely inspired plan based on these mystical ideas. Bearing this in mind, it has been remarked that on some Scottish Rite 'certificates' the actual geographical location of the issuing lodge is given in degrees of latitude alongside the name of the lodge, which could be an indication of some sort of mystical connection between the 'Degrees' of the Masonic rituals and the degrees of latitude of the lodge. The geographical latitude of Jerusalem and the Temple Mount lies between the thirty-first and thirty-second degree parallels, with the latter passing just north of the holy city. It has also been remarked that the 'Mother Lodge' of the Scottish Rite Supreme Council of the Thirty-third Degree was located in the city of Charleston in South Carolina probably because the thirty-third degree parallel passes almost right through it. Whether all this is pure coincidence or not is very difficult to prove, but it can easily be seen how some radical thinkers may perceive in all this a huge conspiracy involving elite American Scottish Rite Freemasons and the creation of the modern

state of Israel which, as we shall see, was masterminded by the Zionist Organization and US Presidents Roosevelt and Truman in 1942–8.

It is reported that when President Roosevelt met with his Treasury Secretary Hans Morgenthau on 3 December 1942, he made these extraordinary comments regarding the creation of a Jewish state in Palestine:

> I actually would put a barbed wire around Palestine, and I would begin to move the Arabs out of Palestine… Each time we move out an Arab we would bring in another Jewish family… 90 per cent of them should be Jews… It would be an independent nation just like any other nation – completely independent. Naturally, if there are 90 per cent Jews, the Jews would dominate the government.[3].

The Letter that Stunned the World

According to the recent BBC2 programme 'The Birth of Israel' (which we have quoted from at the beginning of this Appendix), during the early hours of 14 May 1948 the Zionist leader David Ben Gurion was still giving the finishing touches to the Declaration of Independence of the State of Israel, which he would soon read to the Jewish Council in Tel Aviv. Let us note in passing that the population of Palestine at that time was just over two million souls, of which only some 30 per cent were Jews; the rest were mostly Muslims, with a small number of Christians. Civil war between Muslims and Jews had broken out, and at first it looked like the Jews would be overwhelmed by an Arab military alliance formed by Jordan, Syria, Egypt, Iraq and Lebanon.

At 4 p.m. Ben Gurion read the Declaration, which started with the words:

> The land of Israel was the birthplace of the Jewish people. Here this spiritual, religious and national identity was formed. Here they achieved independence and created a culture of national and universal significance. Here they wrote and gave the Bible to the world.

The Declaration goes on to state:

Accordingly, we, the members of the National Council, representing the Jewish people in Palestine and the Zionist movement of the world, met together in solemn assembly today, the day of the termination of the British mandate for Palestine, by virtue of the natural and historic right of the Jewish people and of the Resolution of the General Assembly of the United Nations. We hereby proclaim the establishment of the Jewish State in Palestine, to be called ISRAEL… The State of Israel will be open to the immigration of Jews from all countries of their dispersion; will promote the development of the country for the benefit of all its inhabitants; will be based on the precepts of liberty, justice and peace taught by the Hebrew Prophets… our call goes out to the Jewish people all over the world to rally to our side in the task of immigration and development and to stand by us in the great struggle for the fulfilment of the dream of generations – the redemption of Israel. With trust in Almighty God, we set our hand to this Declaration, at this Session of the Provisional State Council, in the city of Tel Aviv, on this Sabbath eve, the fifth of Iyar, 5708, the fourteenth day of May, 1948.

In the Declaration it was announced that the Jewish state would officially become effective at midnight on 15 May 1948, which marked the deadline of the so-called British Mandate of Palestine. In Washington this would be 6 p.m. EST on 14 May. In Washington, at about the time Ben Gurion was in the process of reading the Declaration in Tel Aviv, Eliahu Epstein, head of the Jewish Agency for Palestine (and now calling himself 'Agent to the Provisional Government of Israel') received a phone call from Mark Clifford,[4] the Special Counsel to President Truman, asking him to write a letter immediately to the President asking for the US government to 'recognize and welcome Israel into the community of nations'. Later that same day Epstein sent this telegram to his 'provisional government' in Israel:

A few minutes after the proclamation of a Jewish State in Palestine became effective at 6.01 p.m. EST, Mr Truman issued this statement: 'This Government has been informed that a Jewish State has been proclaimed in Palestine, and recognition has been requested by the (provisional) Government thereof. The United States recognizes the provisional government as the de facto authority of the new (Jewish) State of Israel.

As the BBC2 programme pointed out, 'Truman's answer stunned the world… with America

leading, the rest of the world followed.'

David Ben Gurion became Israel's first Prime Minister, and Chaim Weizmann, the 'guiding spirit behind the Zionist Organization' living in New York, became its first President. The rest, as they say, is history.

In January 2001 the following newspaper article was circulated by the Associated Press:

George W. Bush to take oath on 234-year-old Masonic Bible: New York City News

A Bible that George Washington used to take the oath of office as the nation's first president will be used by George W. Bush. Three officials of the Manhattan-based St John's Lodge of the Free and Accepted Masons will board an Amtrak liner for Washington, DC, tomorrow. They'll be carrying the nine-pound, 234-year-old King James Bible in a special case. For the sixth time in history, the Bible will be used on Saturday for the swearing in of a US president. George Washington was the first, in 1789. The last was George H. W. Bush, who used the Bible in 1989. Other presidents who have placed their left hand on the Masonic Bible were Warren Harding in 1921, Dwight Eisenhower in 1953, and Jimmy Carter in 1977. The Bible was also displayed at the New York World's Fair in 1964–65.

On 11 September 2001 Al Qaeda struck its major direct blow against the 'Crusaders'.

It may not be the last…

References

PROLOGUE: The Sacred Cities

Chapter 1: Behind the Veils

1. Jean Duché, *L'Histoire de France raconté à Juliette*, Presses Pocket, Paris, 1954, p. 179.
2. Palloy made eighty-three 'models' of the Bastille with the original stones which he had distributed to various towns in France. One of the 'Bastille' models can still be seen at the Musée de Valence. The rest of the stones were used for the building of the Pont de la Concorde. Some were pulverized and the fine powder sold in bottles.
3. Jean Kerisel, *La Pyramide à travers les âges*, Presses des Ponts et Chaussées, Paris, 1991, p. 161.
4. Jurgis Baltrušaitis, *La Quête d'Isis*, Flammarion, Paris, 1985, p. 24. Ermanno Arslan, *Iside*, Electa, Milan, 1997, pp. 642–4. See also Jean-Marcel Humbert, *L'Egyptomanie dans l'art occidental*, ACR, Paris, 1989, p. 36.
5. Arslan, op. cit., p. 643.
6. Michel Vovelle, *La Révolution contre l'Eglise*, Editions Complex, Paris, 1988.
7. Ibid., p. 15.
8. Louis IX was canonized on 11 August 1297 and his feast day is 25 August. In AD 800 Charlemagne was unofficially 'beatified' by Pope Leo III, but not actually canonized.
9. Vovelle, op. cit., p. 103.
10. Jean Starobinski, *1789: Les Emblèmes de la Raison*, Flammarion, Paris, 1979, p. 42.
11. *Grand Larousse Encyclopédique*, Paris, 1961 edn, vol. 8 p. 1014.
12. The son of Louis XVI died in Temple prison in Paris in 1795 at the age of ten. He was proclaimed King by the French nobility in exile in January 1793 after his father's death.
13. Originally offered as a gift to the French by Mohamad Ali in 1824. Champollion judged the Alexandria obelisks to be of poor quality due to their excessive corrosion by the sea air, and exchanged the 'gift' for a single obelisk from the Luxor temple.

14. Humbert, op. cit., p. 44. Interestingly, at the top of the pyramid was to be placed a statue of a goddess wearing a seven-pointed star on her head, much like the Statue of Liberty in New York.

15. Ibid.

16. Starobinski, op. cit., pp. 49 and 58.

17. Jean Godechot, *La Prise de la Bastille*, Paris, 1965, p. 183.

18. Michael Baigent and Richard Leigh, *The Temple and the Lodge*, Jonathan Cape, London, 1989.

19. Steven C. Bullock, *Revolutionary Brotherhood*, University of North Carolina Press, Chapel Hill, 1996, p. 50.

20. Fred Pick and G. Norman Knight, *The Pocket History of Freemasonry*, Frederick Muller, London, 1953, p. 272.

21. Ibid., p. 271.

22. Ibid., p. 275.

23. Pierre Chevallier, *Histoire de la Franc-Maçonnerie française*, vol. I, Librairie Fayard, Paris, 1974, pp. 272–88.

24. *Dossiers de l'histoire mystérieuse*, no. 7, part 2, ed. F. Carbonnel, p. 81.

25. Ibid.

26. *Dossiers de l'histoire mystérieuse*, no. 6, p. 64.

27. Chevallier, op. cit., p. 275.

28. Jacques Debu-Bridel, *Lafayette: une vie au service de la liberté*, Editions Nouvelles de France, 1945, p. 27.

29. Quoted from Jean-André Faucher, *Les Francs-Maçons et le pouvoir*, Librairie Acadé-mique Perrin, Paris, 1986, p. 46.

30. Ibid., p. 47. Faucher, like many others, also points out that there were many Masons who supported the king and actually fought against the Revolutionaries. This is true of the American Revolution as well.

31. John Lawrence, *Freemasonry: a Religion?*, Kingsway Publishing, London, 1987, p. 15.

32. Ibid., p. 109.

33. Ibid., p. 121.

34. Martin Short, *Inside The Brotherhood*, Grafton Books, London, 1989, p. 72.

35. Vovelle, op. cit., p. 187.

36. *Dossiers de l'histoire mystérieuse*, no. 6, p. 64.

37. Ibid.

38. Ibid.

39. Vovelle, op. cit., p. 274.

40. Ibid.

41. *Décret de la Convention*, 18 Floral An II, 7 May 1794.

42. Warren Roberts, *Revolutionary Artists*, State University New York Press, Albany, 2000, p. 272.

43. *Grand Larousse Encyclopédique*, vol. 4, p. 784.

44. Roberts, op. cit., p. 270. The language used by Robespierre is intensely 'Masonic'. For example, he states that 'a system of well-organized national festivals would offer at once the most gentle of fraternal ties and the most powerful means of regeneration'. This is almost like bringing out on a public scale the rituals performed in lodges.

45. The republican calendar was introduced on 24 October 1793, just after the guillotining of Queen Marie-Antoinette.

46. Charles Sumner Lobingier, *Ancient and Accepted Scottish Rite*, Kessinger Publishing Co., Kila, Montana, USA, 1931, p. 24.

47. David Ovason, *The Secret Zodiacs of Washington DC*, Century Books, London, 1999, pp. 116–17.

48. Bessel deduced the existence of Sirius's super-dense companion by observing its wave-like motion, but did not actually see the 'invisible' companion. The latter, known as Sirius B, was first 'seen' by telescope by Alvin Clark in 1862, and photographed by Lindenblad in 1970.

49. Ovason, op. cit., p. 117.

50. Baltrušaitis, op. cit., p. 31.

51. *Dossiers de l'histoire mystérieuse*, no. 7, p. 106.

52. Nigel Aston, *Religion and Revolution in France*, Macmillan Press, London, 2000, p. 272.

53. Kerisel, op. cit., p. 160.

54. Robert Bauval, *Secret Chamber*, Arrow, London, 2000, p. 507, n. 27.

55. Sylvie Legaret and Philippe Coutines, *Paris Story*, Editions Denoël, Paris, 1977, p. 83, plate 3.

56. Ibid.

57. Aston, op. cit., p. 271.

58. Ibid.

59. Ovason, op. cit., p. 87

60. Short, op. cit., pp. 121–2.

61. Ibid., p. 122.

PART I: The Secret Faith

Chapter 2: Lost World

1. Aubrey Burl, *God's Heretics: The Albigensian Crusade*, Sutton Publishing, Stroud, 2002, p. 9. As early as 1198, as part of the virulent anti-Cathar propaganda of the time, Alan de Lille sought to promote an alternative derivation of the word 'Cathar' from 'cat's-arse' claiming that the devil appeared to the heretics in the form of a cat whose hindquarters they kissed. Similar accusations were later to be made against the Knights Templar – see Chapter 15 below.

2. John 1:14.

3. F. L. Cross and E. A. Livingstone (eds.), *The Oxford Dictionary of the Christian Church*, Oxford University Press, Oxford, 1988, p. 1198.

4. St Augustine, *City of God*, Penguin, London, 1984, p. i.

5. Chas S. Clifton (ed.), *Encyclopaedia of Heresies and Heretics*, ABC-Clio Inc., Santa Barbara, 1992, p. 49.

6. See Chapters 4, 5 and 6 below.

7. Malcolm Lambert, *The Cathars*, Blackwell, Oxford, 1998, p. 4.

8. See Jonathan Sumption, *The Albigensian Crusade*, Faber and Faber, London, 1999, pp. 28–30. See also Arthur Guirdham, *The Great Heresy: the History and Beliefs of the Cathars*, C. W. Daniel Company Ltd., Saffron Walden, 1993, p. 23.

9. Joseph R. Strayer, *The Albigensian Crusades*, The University of Michigan Press, Ann Arbor, 1995, p. 1.

10. Ibid, p. 3.

11. Gervase of Tilbury, cited in Sumption, op. cit., p. 18.

12. Sumption, op. cit., p. 18.

13. Zoé Oldenbourg, *Massacre at Montségur*, Weidenfeld and Nicolson, London, 1997, p. 1.

14. Guirdham, op. cit., p. 15.

15. Lambert, op. cit., p. 62.

16. Guirdham, op. cit., p. 15; Lambert, op. cit., p. 62.

17. Oldenbourg, op. cit., p. 11.

18. Cited in Malcolm Barber, *The Cathars: Dualist Heretics in Languedoc in the High Middle Ages*, Longman, London, 2000, p. 51.

19. Lambert, op. cit., p. 62.

20. Guirdham, op. cit., p. 15.

21. Ibid., p. 15.

22. Cited in Burl, op. cit., p. 21.

23. Barber, op. cit., pp. 65–6.

24. Ibid., p. 66.

25. Ibid., p. 25.

26. Malcolm Lambert, *Medieval Heresy: Popular Movements from the Gregorian Reform to the Reformation*, Blackwell, Oxford, 1992, p. 57.

27. Cited in Lambert, *The Cathars*, p. 39.

28. Cited in ibid., pp. 39–40.

29. Steven Runciman, *The Medieval Manichee: A Study of Christian Dualist Heresy*, Cambridge University Press, Cambridge, 1999, p. 121; Sumption, op. cit., p. 39.

30. Ibid.

31. Stephen O'Shea, *The Perfect Heresy: The Life and Death of the Cathars*, Profile Books, London, 2001, p. 20.

32. For example, see Lambert, *The Cathars*, p. 155.

33. For example, see Oldenbourg, op. cit., p. 49; Runciman, op. cit., p. 160.

34. Oldenbourg, op. cit., pp. 21–2.

35. Cited in Lambert, *The Cathars*, pp. 142–3.

36. Lambert, *Medieval Heresy*, p. 121.

37. Lambert, *The Cathars*, p. 75.

38. Ibid., pp. 23 and 153; see also O'Shea, op. cit., p. 24.

39. Lambert, *The Cathars*, p. 75.

40. Runciman, op. cit., p. 160.

41. Ibid., p. 151.

42. Ibid., p. 160.

43. Lambert, *Medieval Heresy*, p. 120; Rion Klawinski, *Chasing the Heretics: A Modern Journey through Medieval Languedoc*, Ruminator Books, Saint Paul, Minnesota, 2000, p. 68; Runciman, op. cit., pp. 159–60.

44. Lambert, *Medieval Heresy*, p. 124, citing Guiraud. See also Sumption, op. cit., p. 50.

45. Testimony before the Inquisition of a woman of Puylaurens, cited in Sumption, op. cit., p. 52.

46. Lambert, *Medieval Heresy*, p. 109.

47. Runciman, op. cit., p. 158.

48. Ibid., p. 158.

49. Lambert, *Medieval Heresy*, p. 108.

50. Lambert, *The Cathars*, pp. 240 and 242.

51. Ibid., p. 242.

52. Cited in ibid., p. 139.

53. For example, see Strayer, op. cit., p. 247.

54. Lambert, *The Cathars*, p. 139.

55. Guirdham, op. cit., p. 24.

56. Lambert, *The Cathars*, p. 160.

57. Guirdham, op. cit., p. 23.

58. Ibid., p. 23.

59. O'Shea, op. cit., p. 8.

60. Guirdham, op. cit., p. 95.

61. For example, see Oldenbourg, op. cit., pp. 283–4 and Lambert, *The Cathars*, p. 125.

62. Guirdham, op. cit., p. 95.

63. See Barber, op. cit., pp. 203–25.

64. All quotations from Weil cited in ibid. Martin Barber (p. 207) dismisses Weil's argument for what he maligns as its 'cavalier disregard for evidence' and its 'fundamentally unhistorical' vagueness of approach.

65. Cited in ibid., p. 206.

66. Oldenbourg, op. cit., p. 23.

67. Ibid., p. 24.

68. Ibid., p. 24.

69. Burl, op. cit., p. 19.

70. See Sumption, op. cit., p. 90; O'Shea, op. cit., p. 20.

71. Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, The Jerusalem Publishing House, 1989, p. 514.

72. The report of Benjamin of Tudela, cited in Sumption, op. cit., p. 90.

73. Cited in Sumption, op. cit., p. 90.

74. *Encyclopaedia Britannica*, 15th edn, London, 1991, *Micropaedia*, 11: 946–7.

75. Ibid., 3: 686–7.

76. Ibid., 11: 946–7; 3: 686–7.

77. Sumption, op. cit., pp. 29–30.

78. Oldenbourg, op. cit., p. 26.

79. Ibid., p. 230–31.

80. For example, see Sumption, op. cit., p. 30; Lambert, *Medieval Heresy*, p. 83.

81. Guirdham, op. cit., p. 96.

82. Lambert, *The Cathars*, p. 149.

83. Oldenbourg, op. cit., p. 61.

84. O'Shea, op. cit., p. 41.

85. Oldenbourg, op. cit., p. 61.

86. Guirdham, op. cit., p. 16.

87. Barber, op. cit., p. 216.

88. Oldenbourg, op. cit., p. 51.

89. Ibid., p. 51.

90. Ibid., p. 69.

91. Ibid., p. 70.

92. Lambert, *The Cathars*, p. 160.

93. Technically the Albigensian Crusades ceased in 1229 with the Treaty of Paris; however military crusading was continued by French occupation forces in the Languedoc for a further fifteen years, culminating in the siege and massacre at the last Cathar stronghold of Montségur in 1244. See Chapter 7 below for a more detailed discussion.

94. Oldenbourg, op. cit., p. 56.

95. Ibid., p. 310.

Chapter 3: Where Good and Evil Meet

1. Cited in Zoé Oldenbourg, *Massacre at Montségur*, Weidenfeld and Nicolson, London, 1997, Appendix C, p. 376.

2. F. L. Cross and E. A. Livingstone (eds.), *The Oxford Dictionary of the Christian Church*, Oxford University Press, 1988, pp. 339 and 993.

3. See, for example, Malcolm Lambert, *Medieval Heresy: Popular Movements from the Gregorian Reform to the Reformation*, Blackwell, Oxford, 1992, p. 395: 'The Christian Church in the East as well as in the West was the heir to the assumptions of the pagan Roman Empire and of the whole ancient world, of the duty of the ruler to enforce right belief, and, with some hesitation, its leaders came to act on these assumptions… Byzantine churchmen shared the horror of heresy and emperors took a direct part in the pursuit of heretics. Burning was a penalty imposed on the obdurate in the Byzantine Church as well – we have a vivid description by Anna Comnena of the burning of the Bogomil leader Basil in Constantinople.'

4. For example, see Oldenbourg, op. cit., pp. 30–31; Malcolm Lambert, *The Cathars*, Blackwell, Oxford, 1998, p. 23; Stephen O' Shea, *The Perfect Heresy: The Life and Death of the Cathars*, Profile Books, London, 2001, p. 22–3; Aubrey Burl, *God's Heretics: The Albigensian Crusade*, Sutton Publishing, Stroud, 2002, p. 9; Steven Runciman, *The Medieval Manichee: A Study of Christian Dualist Heresy*, Cambridge University Press, Cambridge, 1999, p. 67; Lambert, *Medieval Heresy*, p. 55–6.

5. Runciman, op. cit., p. 68; Lambert, *The Cathars*, p. 23; Malcolm Barber, *The Cathars: Dualist Heretics in Languedoc in the High Middle Ages*, Longman, London, 2000, p. 16.

6. Runciman, op. cit., p. 67.

7. Theophylact Lycapenus, Patriarch of Constantinople AD 933–56, provides us with an earlier mention of the heresy but, strangely, does not mention Bogomil himself. See Janet Hamilton and Bernard Hamilton, *Christian Dualist Heresies in the Byzantine World c. 650–c.1405*, Manchester University Press, Manchester, 1998, pp. 98–101.

8. Runciman, op. cit., p. 68.

9. Cited in ibid., p. 67.

10. Ibid., p. 68.

11. Oldenbourg, op. cit, p. 31.

12. Runciman, op. cit., pp. 69–70.

13. Hamilton and Hamilton, op. cit., p. 32.

14. Ibid., p. 36.

15. Ibid., p. 37; Runciman, op. cit., pp. 70–71.

16. Ibid., pp. 70–71; Hamilton and Hamilton, op. cit., p. 38.

17. Hamilton and Hamilton, op. cit., p. 39; Runciman, op. cit., pp. 70–71.

18. Hamilton and Hamilton, op. cit., p. 40; Runciman, op. cit, p. 71.

19. Runciman, op. cit., p. 72.

20. Barber, op. cit. p. 21.

21. Ibid., p. 21; see also Lambert, *The Cathars*, pp. 46–9.

22. Barber, op. cit., p. 22.

23. For example, see Runciman, op. cit., p. 170; Hamilton and Hamilton, op. cit., pp. 43–4.

24. Lambert, *The Cathars*, pp. 35 and 37.

25. Barber, op. cit., p. 71.

26. Lambert, *The Cathars*, p. 48.

27. Which was the view of most Orthodox and Catholic clergymen and monks of the period. In the East Euthymius Zigabenus definitely suspected a plot after interrogating the heresiarch Basil. See Hamilton and Hamilton, op. cit., p. 32. For other examples see ibid., p. 266 and Lambert, *The Cathars*, pp. 22, 31.

28. Cited in Barber, op. cit., p. 16; Hamilton and Hamilton, op. cit., p. 28.

29. Dimitur Anguelou, cited in Barber, op. cit., p. 16.

30. Obolensky, cited in ibid., p. 16.

31. Lambert, *Medieval Heresy*, p. 116.

32. Cited in Lambert, *The Cathars*, p. 203.

33. See Lambert, *Medieval Heresy*, p. 118.

34. Zigabenus, cited in Hamilton and Hamilton, op. cit., pp. 39 and 204.

35. Lambert, *The Cathars*, p. 248.

36. Lambert, *Medieval Heresy*, p. 118.

37. Ibid., p. 118.

38. Ibid.

39. Ibid.

40. Runciman, op. cit., p. 171.

41. Barber, op. cit., p. 73.

42. Oldenbourg, op. cit., p. 31.

43. Ibid.

44. Hamilton and Hamilton, op. cit., pp. 43–4.

45. Lambert, *The Cathars*, p. 33: 'The Cathar ritual of the consolamentum derives from the Bogomil form of the initiation of adepts.'

46. The former Cathar turned Inquisitor Rainier Sacconi, cited in ibid., p. 204.

47. Sacconi, cited in ibid., p. 204. Sacconi excepted the Albingensians and the Concorezzans from the otherwise general harmony, stating that they 'censure each other'.

48. *Oxford Dictionary of the Christian Church*, p. 1292.

49. Ibid.

50. Ibid.

51. The Cathar Pierre Autier, cited in Lambert, *The Cathars*, p. 251.

52. Ibid., p. 253.

53. Ibid.: 'The bodies of animals formed part of the chain of transmigration, though since they could not speak, no soul… imprisoned there could reach salvation. It was a

penitential process… lasting till they reached the body of a man or woman who had "the understanding of God!" and could be saved.'

54. Ibid.

55. Ibid.

56. *Oxford Dictionary of the Christian Church*, p. 997.

57. Hamilton and Hamilton, op. cit., p. 27.

58. See discussion in Lambert, *Medieval Heresy*, pp. 121ff.

59. Lambert, *The Cathars*, p. 204.

60. Euthymius Zigabenus' debriefing of the Bogomil Basil, cited in Barber, op. cit., p. 19.

61. Cited in Lambert, *The Cathars*, p. 162.

62. Oldenbourg, op. cit., p. 35.

63. Ibid.

64. Pierre Autier, cited in Lambert, *The Cathars*, pp. 250–51.

65. For example, see Runciman, op. cit., p. 148; Barber, op. cit., p. 84.

66. Autier, in Lambert, *The Cathars*, p. 251.

67. Ibid.

68. For example, see Runciman, op. cit., p. 76.

69. Oldenbourg, op. cit., p. 35; see also Lambert, *The Cathars*, p. 25.

70. Cathar prayer cited in Oldenbourg, op. cit., Appendix C, p. 376.

71. Runciman, op. cit., p. 75.

72. Ibid., p. 150: 'It was hoped when lives were pure the fragments of soul attached to them were able to catch on to the divine spirit which descended on to such perfected persons and thus won release.'

73. Robert Bauval and Adrian Gilbert, *The Orion Mystery*, Heinemann, London, 1994; Robert Bauval and Graham Hancock, *Keeper of Genesis* (in the US: *Message of the Sphinx*), Heinemann, London, 1996; Graham Hancock and Santha Faiia, *Heaven's Mirror*, Michael Joseph, London, 1998.

74. E. A. Wallis Budge, *The Egyptian Heaven and Hell* (*Book of What is in the Duat*), Martin Hopkinson Co., London, 1925, pp. 240, 258.

75. Ibid., p. 240.

76. Ibid, p. 258.

77. See note 73 above.

78. Cited in Runciman, op. cit., p. 75.

79. Barber, op. cit., p. 97.

80. Ibid.

81. Ibid., p. 98.

82. Lambert, *The Cathars*, p. 197.

83. Ibid.

84. Barber, op. cit., p. 86.

85. Ibid., p. 87.

86. Hamilton and Hamilton, op. cit., p. 28.

87. Oldenbourg, op. cit., p. 36.

88. Ibid., pp. 36–7.

89. Lambert, *Medieval Heresy*, p. 119.

90. Runciman, op. cit., p. 164.

91. Ibid., p. 173.

92. Ibid., p. 164.

93. Ibid., p. 171.

94. Ibid.

95. Ibid., p. 172.

96. Ibid., p. 171.

97. Ibid., p. 172.

98. Cited in Barber, op. cit., p. 11.

99. Ibid.

100. Joseph R. Strayer, *The Albigensian Crusades*, The University of Michigan Press, Ann Arbor, 1995, pp. 183–4.

101. Lambert, *The Cathars*, p. 23.

102. Hamilton and Hamilton, op. cit., pp. 98–101.

103. Everwin of Steinfeld, cited in Lambert, *The Cathars*, p. 22.

104. Ibid.

105. Everwin, cited in Barber, op. cit., p. 24.

106. Everwin, cited in Lambert, *The Cathars*, p. 22.

107. Lambert, *Medieval Heresy*, p. 119.

108. *Oxford Dictionary of the Christian Church*, pp. 285–6.

109. Lambert, *The Cathars*, p. 25.

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Chapter 4: Chain of the Great Heresy

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4. Genesis 1:28.
5. For example, Malcolm Lambert and Malcolm Barber, whose works on the Cathars and medieval heresies have been extensively cited in previous chapters.
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8. Ibid., pp. 7–8.
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26. Runciman, op. cit., p. 40.

27. Hamilton and Hamilton, op. cit., pp. 21–2.

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31. Ibid., p. 10.

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33. Runciman, op. cit. p. 21.

34. Ibid.: 'The Messalians were Gnostic in origin but they were less interested in intellectual speculation.'

35. Hamilton and Hamilton, op. cit., p. 30.

36. Runciman, op. cit., p. 90.

37. Ibid., p. 93.

38. Ibid.

39. Ibid., pp. 91–2.

40. Hamilton and Hamilton, op. cit., p. 30.

41. Runciman, op. cit., pp. 21–2.

42. Ibid.; see also Francis Legge, *Forerunners and Rivals of Christianity from 330 BC to 330 AD*,

University Books, New York, 1965, vol. II, p. 313: 'Valentinus [second century AD], like many other Gnostics, divided Christians into two classes of pneumatics and psychics, the first-named of whom were to enjoy a more distinguished position in the world to come than the other.'

43. Runciman, op. cit., p. 22.

44. Ibid.

45. Ibid.

46. Ibid.

47. Ibid.; Hamilton and Hamilton, op. cit., p. 30.

48. Runciman, op. cit., p. 22; Hamilton and Hamilton, op. cit., p. 30.

49. Runciman, op. cit., p. 22.

50. Ibid., p. 23.

51. Ibid. The Massalians were condemned by Flavian of Antioch, who discovered their tenets by feigning a desire for conversion. 'Horrified by his discoveries, he began to persecute them with the full force of the newly Christianized State.'

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62. Wellburn, op. cit., pp. 12, 51, 86.

63. John R. Hinnels (ed.), *The Penguin Dictionary of Religions*, Penguin, London, 1988, p. 200.

64. Wellburn, op. cit., p. 87.

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67. Legge, op. cit., pp. 285–6; Wellburn, op. cit., pp. 80ff.

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71. Legge, op. cit., p. 279.

72. For example, Wellburn, op. cit., pp. 14–15, 17.

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74. Cited in ibid., pp. 12–13.

75. Ibid., p. 11.

76. Cologne Mani Codex, cited in ibid., p. 16.

77. Legge, op. cit., pp. 280–81.

78. *Encyclopaedia of Heresies and Heretics*, p. 87.

79. Cologne Mani Codex, cited in Wellburn, op. cit., p. 15.

80. Ibid., p. 15.

81. Ibid., p. 18.

82. Ibid., p. 15.

83. *Oxford Dictionary of the Christian Church*, p. 864.

84. Ibid.

85. Ibid.

86. Wellburn, op. cit., p. 67.

87. Ibid.

88. *Encyclopaedia of Heresies and Heretics*, p. 87.

89. *Oxford Dictionary of the Christian Church*, p. 864; Legge, op. cit., p. 281.

90. Legge, op. cit., p. 281; Wellburn, op. cit., pp. 67–8.

91. *Encyclopaedia of Heresies and Heretics*, p. 87; *Penguin Dictionary of Religions*, p. 201; *Oxford Dictionary of the Christian Church*, p. 864; Wellburn, op. cit., p. 108; Runciman op. cit., pp.

6–17; Legge, op. cit., p. 281.

92. Legge, op. cit., p. 282.

93. Wellburn, op. cit., p. 68.

94. St Augustine, *City of God*, Penguin, London, 1984, p. i.

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96. Ibid.

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98. Runciman, op. cit., pp. 12–13.

99. Legge, op. cit., p. 292.

100. Aubrey Burl, *God's Heretics: The Albigensian Crusade*, Sutton Publishing, Stroud, 2002, pp. 8–9.

101. Yuri Stoyanov, *The Other God*, Yale University Press, New Haven and London, 2000, p. 108.

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104. Ibid., p. 109.

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106. Ibid., p. 110; Runciman, op. cit., p. 14.

107. Stoyanov, op. cit., p. 110.

108. Ibid.

109. Ibid., pp. 117–18.

110. Ibid., p. 111.

111. Runciman, op. cit., p. 13; Barber, *The Cathars*, op. cit., p. 10.

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113. Malcolm Lambert, *The Cathars*, Blackwell, Oxford, 1998, p. 21.

114. See Legge, op. cit., pp. 221–2, 317.

115. Runciman, op. cit., p. 15.

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117. Hamilton and Hamilton, op. cit., p. 29.

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19. Legge, op. cit., p. 318; Runciman, op. cit., p. 14.

20. Legge, op. cit., p. 320.

21. Ibid., pp. 278, 337–8.

22. We have reported the beliefs of the Cathars and Bogomils on reincarnation in depth in Chapters 2 and 3; for an example of the Manichean belief in reincarnation, see Legge, op. cit., p. 340.

23. Legge, op. cit., p. 278, for the Manicheans; the reader is already familiar from Chapters 2 and 3 with Cathar and Bogomil teachings on this matter.

24. Legge, op. cit., p. 278.

25. Cited in ibid., p. 315.

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Chapter 5: Knowledge of the True Nature of Things

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4. Ibid., p. 416.

5. Elaine Pagels, *The Gnostic Gospels*, Penguin, London, 1990, pp. 13–15.

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11. Ibid., p. 85.

12. Ibid., pp. 121–2.

13. Ibid., p. 119.

14. Ibid., p. 387.

15. Ibid., p. 159.

16. Kurt Rudoph, *Gnosis: The Nature and History of Gnosticism*, Harper, San Francisco, 1987, p. 116.

17. Robinson, op. cit., p. 194. Compare Paul, Ephesians 6:12.

18. See discussion in Francis Legge, *Forerunners and Rivals of Christianity from 330 BC to 330 AD*, University Books, New York, 1965, vol. II, p. 21.

19. Normandi Ellis, *Awakening Osiris: The Egyptian Book of the Dead*, Phanes Press, Grand Rapids, 1988, p. 84.

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28. Ibid., p. 84.

29. Steven Runciman, *The Medieval Manichee: A Study of Christian Dualist Heresy*, Cambridge University Press, Cambridge, 1999, p. 173.

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31. Ibid., p. 173: ‘There is one characteristic of any Dualist Church: Man, to escape from the vileness of his body, must seek to make himself spirit as far as may be. This is done by a gnosis, an experience that is usually won by an initiation ceremony. For the Early Christians Baptism was a kind of initiation and was often put off until late in life. The initiatory function declined in the Orthodox Church and the importance of Confirmation rose… The Gnostic sects, however, by the stress they laid on their gnosis, retained the

older practice.'

32. *Encyclopaedia of Heresies and Heretics*, pp. 101–2.

33. Roelof van den Broeck, writing in Roelof van den Broek and Wouter Hanegraff (eds.), *Gnosis and Hermetism from Antiquity to Modern Times*, State University of New York Press, Albany, 1998, p. 96.

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36. Runciman, op. cit., p. 7.

37. Legge, op. cit., p. 313; Runciman, op. cit., p. 7.

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46. Diocletian, cited in Drake, op. cit., p. 142.

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55. It is a curiosity, probably no more, that these 'Novatians' were also known by another name – the *Cathari*, or 'Pure Ones'. See Eusebius, *Life of Constantine*, Clarendon Press, Oxford, 1999, Commentary on Book III, p. 307.

56. Ibid., Book III, pp. 151–3.

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58. Ibid., p. 349.

59. Ibid., p. 403.

60. Ibid., p. 420.

61. Ibid.

62. Ibid, p. 483.

63. Zoé Oldenbourg, *Massacre at Montségur*, Weidenfeld and Nicolson, London, 1997, p. 28.

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69. Drake, op. cit., pp. 347–8.

70. Ibid., p. 350.

71. Ibid., pp. 402–3.

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73. Drake, op. cit., p. 404.

74. Legge, op. cit., vol. II, p. 21.

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82. *The Nag Hammadi Library*, Introduction, p. 20.

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93. Andrew Wellburn, *Mani, the Angel and the Column of Glory: An Anthology of Manichean Texts*, Floris Books, Edinburgh, 1998, p. 35.

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96. For a fuller discussion of the Inquisition see Chapter 7 below.

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Chapter 7: The Sword and the Fire

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PART II: The Sacred Cities

Chapter 8: The Other Secret Religion

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22. By Johannes Gutenberg in *c.*1450 in Germany.

23. Yates, op. cit., p. 3.

24. Roelof van den Broek and Cis van Heertum (eds.), *From Poimandres to Jacob Böhme*, In de Pelikaan Press, Amsterdam, 2000, p. 372.

25. In Western and also in Eastern occultism and mysticism there is a belief that 'divine messengers' such as the Egyptian Thoth, the Greek Hermes, the Roman Mercury and the biblical Enoch, the Christian St Michael or the Muslim Idris were reincarnations of the same divine entity. See Frances Yates, op. cit., p. 48. See also Freke and Gandy, op. cit., p. 222, and chap. 9, n. 46. For the assimilation of Enoch to Idris and Hermes see also Jean Daresse, *The Secret Books of the Egyptian Gnostics*, Inner Tradition, Vermont, 1986, p. 315.

26. *From Poimandres to Jacob Böhme*, p. 373.

27. Ibid., p. 374.

28. St Augustine, *City of God*, XVIII, 19.

29. *From Poimandres to Jacob Böhme*, p. 377.

30. Yates, op. cit., p. 42.

31. Ibid., p. 43.

32. Ibid.

33. Ibid.

34. Ibid., p. 39.

35. Ibid., p. 37, fn. 5.

36. Ibid., p. 86.

37. Ibid., p. 88.

38. Ibid., p. 89.

39. Ibid., p. 94.

40. Ibid., p. 95.

41. Frances Yates, *The Occult Philosophy in the Elizabethan Age*, Routledge & Kegan Paul,

London, 1979, p. 22.

42. Christopher McIntosh, *The Rosicrucians*, Samuel Weiser, York Beach, 1997 edn, p. 7.

43. Yates, *Giordano Bruno*, p. 112.

44. Ibid., p. 114.

45. Erik Iversen, *The Myth of Egypt and its Hieroglyphs in European Tradition*, GEC GAD Publishers, Copenhagen, 1961, p. 62.

46. Ibid.

47. Ibid., p. 63.

48. Ibid.

49. Yates, *Giordano Bruno*, p. 115.

50. Ibid., p. 49.

51. Ibid., pp. 49–50.

52. For a more detailed narrative, see Robert Bauval, *Secret Chamber*, Arrow, 2000, p. 163ff.

53. Attallah translation, Oourboros Press, 2002; Pingree translation as informed by Elizabeth Witchall, the Warburg Insititute, August 2001.

54. Yates, *Giordano Bruno*, p. 49.

55. Bauval, op. cit., pp. 168–9.

56. Selim Hassan, *Excavations at Giza vol. VI – Part I*, Government Press, Cairo, 1946, p. 45; Hassan quotes from the geographical dictionary '*Moagam el Buldan*' by Yakut El Hamwi, vol. VIII (Cairo Edition), p. 457: 'To both of them (two pyramids) the Sabian made their pilgrimage.'

57. Frances Yates, *Giordano Bruno*, pp. 211–14.

58. Brian P. Copenhaver (trans.), *Hermetica: The Greek Corpus Hermeticum and the Latin Asclepius in a New English Translation with Notes and Introduction*, Cambridge University Press, Cambridge, 1997, pp. 81–2.

59. Ibid.

60. Yates, *Giordano Bruno*, pp. 55–6.

61. Ibid., p. 52.

62. Ibid., p. 56.

63. Copenhaver, op. cit., p. 81.

64. Sir Walter Scott (trans.), *Hermetica: The Ancient Greek and Latin Writings Which Contain Religious or Philosophic Teachings Ascribed to Hermes Trismegistus*, Shambala, Boston, 1993, excerpt xxiv, pp. 501–3.

65. *Picatrix*, lib. IV, cap. 3; See also Yates, *Giordano Bruno*, p. 54.

66. Yates, *Giordano Bruno*, p. 55.

67. Ibid, p. 128.

68. Ibid., p. 54, fn. 1.

69. Jaromir Malek and John Baines, *Cultural Atlas of the World: Ancient Egypt*, Stonehenge Press, Alexandria, Virginia, 1991, p. 127.

Chapter 9: Two Phoenixes

1. E. A. Wallis Budge, *The Book of the Dead*, Arkana, London and New York, 1985, p. 318.

2. Ibid., p. 628.

3. Ibid., pp. 492–3.

4. Tobias Churton, *The Hermetic Philosophy: A Primer*, Sabiot Truchon Books, London, 1998, p. 7.

5. Sir Walter Scott (trans.), *Hermetica: The Ancient Greek and Latin Writings Which Contain Religious or Philosophic Teachings Ascribed to Hermes Trismegistus*, Shambala, Boston, 1993, p. 43.

6. Brian P. Copenhaver (trans), *Hermetica: The Greek Corpus Hermeticum and the Latin Asclepius in a New English Translation with Notes and Introduction*, Cambridge University Press, Cambridge, 1997, p. lix.

7. See discussion in ibid., pp. lviii–lix.

8. Churton, op. cit., p. 7.

9. See Chapters 5 and 8 above.

10. Cited in Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1991, pp. 55–6.

11. R. O. Faulkner (ed.), *The Ancient Egyptian Book of the Dead*, British Museum Publications, London, 1989, p. 184.

12. R. O Faulkner (ed.), *The Ancient Egyptian Pyramid Texts*, Oxford University Press, Oxford, 1969 (Aris and Phillips reprint), p. 101.

13. Cited in Yates, op. cit., p. 394.

14. Faulkner, *Pyramid Texts*, pp. 240–41.

15. *The Emerald Tablet of Hermes Trismegistus*, Evanescent Press, Layton, California, 1988, p. 4.

16. Faulkner, *Book of the Dead*, p. 166.

17. Ibid., p. 44.

18. Faulkner, *Pyramid Texts*, pp. 67–8.

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20. Ibid., p. 227.

21. R. O. Faulkner (ed.), *The Ancient Egyptian Coffin Texts*, Aris and Phillips, Warminster, 1994, vol. I, p. 220.

22. Scott, op. cit., p. 181.

23. Ibid., p. 337.

24. Ibid., pp. 197–9.

25. Ibid., p. 241.

26. Ibid., p. 249.

27. For example, see Faulkner, *Pyramid Texts*, line 748, p. 138.

28. Thomas George Allen (trans.), *The Book of the Dead or Going Forth by Day*, The Oriental Institute of the University of Chicago, Chicago, 1974, p. 155.

29. Scott, op. cit., p. 123.

30. Ibid., p. 299.

31. Ibid., p. 301.

32. Ibid.

33. Ibid., p. 337.

34. Ibid., p. 305.

35. Ibid., p. 129.

36. Ibid., p. 193.

37. Ibid., p. 335.

38. Ibid.

39. Faulkner, *Coffin Texts*, vol. I, p. 31, fn 4; and see Allan W. Shorter, *The Egyptian Gods: A Handbook*, Routledge & Kegan Paul, London, 1981, pp. 85 and 139.

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41. Ibid., vol. I, p. 30.

42. Ibid., vol. II, p. 254.

43. E. A. Wallis Budge, *The Egyptian Heaven and Hell (Book of What is in the Duat),* Martin Hopkinson Co., London, 1925, vol. III, p. 125.

44. Wallis Budge, *The Book of the Dead*, p. 298.

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49. Ibid., p. 351.

50. Ibid., p. 433.

51. Ibid., p. 457.

52. Copenhaver, op. cit., p. 81.

53. Scott, op. cit., p. 429.

54. Ibid., p. 383.

55. *Vision of Isaiah*, cited in Malcolm Barber, *The Cathars: Dualist Heretics in Languedoc in the High Middle Ages*, Longman, London, 2000, p. 87.

56. For a full discussion and full supporting references, see Robert Bauval and Graham Hancock, *Keeper of Genesis* (in the US: *Message of the Sphinx*), Heinemann, London, 1996, pp. 134ff.

57. E. A. Wallis Budge, *The Egyptian Heaven and Hell*, vol. I, p. 258.

58. Ibid., vol. I, p. 240.

59. Ibid., vol. I, p. 258.

60. Ibid., vol. II, p. 21.

61. Ibid., vol. II, p. 39.

62. Ibid., vol. II, pp. 38–9.

63. Scott, op. cit., p. 419.

64. Ibid., p. 307.

65. Ibid., pp. 303–5.

66. Ibid., p. 295.

67. Ibid., pp. 301–3.

68. Ibid., p. 305.

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70. Cited in E. A. E. Reymond, *The Mythological Origin of the Egyptian Temple*, Manchester University Press, Manchester, 1969, p. 309.

Chapter 10: City of the God King

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2. Herodotus, *The Histories*, II, 55–6.

3. Wynne-Thomas, op. cit., p. 80.

4. Herodotus, op. cit., II, 42. It is known that a copy of Herodotus' *Histories* was kept by Alexander during his campaigns.

5. E. A. Wallis Budge, *The Mummy: Funereal Rites and Customs in Ancient Egypt*, Senate, London, 1995 edn, p. 64.

6. Ahmed Fakhry, *Siwa Oasis*, American University Press, Cairo, 1982 edn, p. 167.

7. Budge, op. cit., p. 64.

8. Diodorus, *Biblioteca Historica*, book I, sections xviii and xx.

9. Robert G. Bauval, 'Investigations on the Origin of the Benben Stone: Was it an Iron Meteorite?' in *Discussions in Egyptology*, vol. 14, 1989, pp. 5–16.

10. Plutarch, *Lives*. Alexander.

11. Plutarch, *Iside et Osiride*.

12. Jean-Michel Augebert, *Les Mystiques du soleil*, Robert Laffont, Paris, 1971, p. 144.

13. Ibid., p. 161.

14. Sydney H. Aufère, 'La Couronne d'Isis-Sothis, les Reines du Phare et la Lointaine', in *Egypte, Afrique et Orient*, 6, Avignon, September 1997, pp. 15–18.

15. Plutarch, *Lives*. Lysander.

16. Ahmed Fakhry, op. cit., p. 146.

17. Paul Faure, *Alexandre*, Fayard, Paris, 1985, p. 146.

18. Aristotle, *Politics*, III, 1283b.

19. Faure, op. cit. pp. 9, 34. See also *Alexandrie IIIe siècle avant J.C.*, Editions Autrement, Paris, Série Mémoires, 19, p. 17.

20. Homer, *The Odyssey*, Book IV.

21. Herodotus, op. cit., II, 111–19.

22. Ibid.

23. Ibid., 42.

24. E. O. James, *Le Culte de la Déesse-Mère*, Le Mail, 1989, p. 196 (translated as *The Cult of the Mother-Goddess*, Thames and Hudson, London, 1960).

25. Sir James Fraser, *The Golden Bough*, Wandsworth Editions, Ware, 1993 edn pp. 383–4.

26. Julia Samson, *Nefertiti and Cleopatra*, Rubicon Press, London, 1985, p. 127.

27. Bernard Mathieu, 'Le Phare d'Alexandrie', in *Egypte, Afrique et Orient*, 6, Avignon, September 1997, pp. 9–14.

28. E. M. Antoniadi, *L'Astronomie égyptienne*, Gauthier Villars, Paris, 1934, p. 77.

29. Aufère, op. cit., pp. 15–18.

30. Ibid.

31. Ibid.

32. Ibid.

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34. Jurgis Baltrušaitis, *La Quête d'Isis*, Flammarion, Paris, 1985, p. 79.

35. Ibid.

36. Faure, op. cit., p. 479.

37. André Bernard, *Alexandrie la Grande*, Hachette, Paris, 1998, p. 66.

38. *Alexandrie IIIe siècle avant J.C.*, p. 44.

39. Jean-Yves Empereur, *Alexandria Rediscovered*, British Museum Press, London, 1999, p. 25.

40. Bernard, op. cit., p. 66.

41. According to Plutarch, for example, the night before Alexander's parents (Philip of Macedon and his wife, Olympias) consummated their marriage 'she [Alexander's mother] dreamed that a thunderbolt fell upon her body, which kindled a great fire, whose divided flames dispersed themselves all about, and then were extinguished. And Philip, some time after he was married, dreamt that he sealed up his wife's body with a seal, whose impression, as be fancied, was the figure of a lion. Some of the diviners interpreted this as a warning to Philip to look narrowly to his wife; but Aristander of Telmessus, considering how unusual it was to seal up anything that was empty, assured him the meaning of his dream was that the queen was with child of a boy, who would one day prove as stout and courageous as a lion.' Astrology was extremely popular in ancient Greece and, especially, in the Macedonian court where Alexander was born. It is little surprise, then, that horoscopic astrology appears to have been created and nurtured in Alexandria. After Alexander's invasion of Egypt an important school of astrology was established in the city of Alexandria. Here Babylonian and Greek astrology fused with the sky-religion of the Egyptians, and gave rise to the type of astrology we know today as horoscopic (the influence of stars and planets on terrestrial matters and the lives of men). Although most of it was written in Greek, the *lingua franca* of that period, many of the authors were not Greeks but Egyptians. It is this Alexandrian type of astrology which would form the basis of Greek astrological writings which flourished in later centuries. For more on this, see Nick Campion, *Introduction to the History of Astrology*, chap. 'Mesopotamian Astrology'. Also Holden's *A History of Horoscopic Astrology* and Hand's *Chronology of the Astrology of the Middle East and the West by Period*.

42. George Hart, *A Dictionary of Egyptian Gods and Goddesses*, Routledge & Kegan Paul, London, 1988, p. 28.

43. Herodotus, op. cit., III, 28.

44. Hart, op. cit., p. 30.

45. Ibid., p. 29.

46. Quoted from Lewis Spence, *Myths and Legends: Egypt*, Bracken Books, London, 1985, p. 285.

47. Faure, op. cit., p. 128.

48. Ibid., pp. 139–40.

49. Herodotus, op. cit., II, 42.

50. Auguste Mariette, *Le Serapeum de Memphis*, Paris, 1858.

51. *Alexandrie IIIe siècle avant J.C.*, p. 45.

52. Robert Bauval, *Secret Chamber*, Arrow, 2000, p. 47.

53. Patrick Boylan, *Thoth, the Hermes of Egypt*, Oxford University Press, Oxford, 1922, p. 124.

54. Ibid., p. 94.

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56. Christian Jacq, *Magic and Mystery in Ancient Egypt*, Souvenir Press, London, 1998, p. 19.

57. Ibid., p. 15.

58. Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1991, p. 60.

59. Jill Kamil, *Coptic Egypt*, American University Press, Cairo, 1993, p. 15.

60. Ibid. p. 16.

61. See Alan K. Bowman, *Egypt After the Pharaohs*, British Museum Press, London, 1986.

62. Ibid.

63. Letter addressed by Hadrian to his brother-in-law, the Consul Servianus, in AD 134. See also Ahmed Osman's very good book on this topic, *Out of Egypt*, Century Books, London, 1999.

64. Kamil, op. cit., p. 7.

65. Ibid., p. 8.

66. Ibid.

Chapter 11: The Prophet of Hermes

1. Frances Yates, *Astraea: The Imperial Theme in the Sixteenth Century*, Routledge & Kegan Paul, London, 1975, p. 184.

2. Ibid., p. 83.

3. The Sabeans (Sabians) of Baghdad (modern Iraq) and Harran (modern Turkey) served as incubators and preservers of the Hermetic texts in the East during the long period that these texts were absent from the West. See discussion in Chapter 8, above. Tobias Churton, *The Hermetic Philosophy: A Primer*, Sabiot Truchon Books, London, 1998, p. 31, notes 'It is certainly strange that at the very time the Sabians seem to disappear from Baghdad, the Hermetic documents known to us as the Corpus Hermeticum appear in

Constantinople after a 500-year interval.'

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5. Ibid., p. 5.

6. Ibid., pp. 5–6.

7. Ibid., p. 6.

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9. Frances Yates, *The Art of Memory*, Pimlico Press, London, 1996, p. 197.

10. Ibid., p. 198.

11. Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1991, p. 203.

12. Ibid.

13. Yates, *Art of Memory*, pp. 212–20; See also Yates, *Giordano Bruno*, pp. 197–9.

14. Hermann Kesten, *Copernicus and His World*, Roy Publishers, New York, p. 330.

15. Yates, *Giordano Bruno*, p. 204.

16. Ibid.

17. Ibid.

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19. Bruno, op. cit., dial. 5.

20. Yates, *Giordano Bruno*, p. 209.

21. Cited in ibid., p. 219.

22. Ibid., p. 215.

23. Ibid.

24. Ibid.

25. Giordano Bruno, *Spaccio della Bestia Trionfante* (1584), dial. 3; See also Yates, *Giordano Bruno*, p. 213.

26. Yates, *Giordano Bruno*, p. 223.

27. Ibid., p. 215.

28. Ibid.

29. Ibid., p. 216.

30. *Kore Kosmou*, 48; see also Sir Walter Scott (trans.), *Hermetica: The Ancient Greak and Latin Writings Which Contain Religious or Philosophic Teachings Ascribed to Hermes Trismegistus*, Shambala, Boston, 1993, p. 485.

31. Bruno, *Spaccio*, dial. 1; Yates, *Giordano Bruno*, pp. 231–2.

32. Yates, *Giordano Bruno*, p. 232.

33. *The Corpus Hermeticum, Asclepius*, 27. See Scott, op. cit., p. 361; see also Brian P. Copenhaver, *Hermetica: The Greek Corpus Hermeticum and the Latin Asclepius in a New English Translation with Notes and Introduction*, Cambridge University Press, Cambridge, 1997, p. 83.

34. *Documenti della via di Giordano Bruno*, a curia di Vincenzo Spamanato, Florence, p. 44; see also Yates, *Giordano Bruno*, p. 233.

35. Dorothea Waley Singer, *Giordano Bruno, His Life and Thoughts*, Henry Schuman, New York, 1950, chap. 7.

36. Giordano Bruno, *De Monade Numero e Figura*, Frankfurt, 1591.

37. Yates, *Giordano Bruno*, pp. 273–4.

38. Ibid., p. 360.

Chapter 12: Envisioning the Hermetic City

1. John M. Headley, *Tommaso Campanella and the Transformation of the World*, Princeton University Press, Princeton, 1997, p. 26.

2. Ibid., p. 29.

3. Ibid., p. 30.

4. Ibid., pp. 30–32.

5. Which was then, to complicate matters, under the control of Spain.

6. Cited in Headley, op. cit., pp. 34–5.

7. Cited in ibid., p. 40.

8. Ibid., p. 36.

9. Ibid.

10. Ibid., p. 38.

11. Ibid., p. 3: ‘an effort to establish an ideal state, a democratic/theocratic republic as harbinger of a new aeon’.

12. See Chapter 2 above.

13. Cited in Headley, op. cit., p. 39. Emphasis added.

14. Ibid., p. 37.

15. Ibid., p. 38.

16. Ibid., pp. 38–9.

17. Ibid., pp. 45–7.

18. Ibid., p. 47.

19. Ibid., p. 3.

20. Ibid., pp. 47–8.

21. Ibid., p. 3.

22. Ibid., pp. 47–8.

23. Ibid., p. 53.

24. Ibid.

25. Ibid., pp. 114–17.

26. Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1991, p. 342.

27. Jean Duché, *L’Histoire de France racontée à Juliette*, Presses Pocket, Paris, 1954, p. 66.

28. Ibid.

29. Ibid., p. 76.

30. *Grand Larousse*, 1960 edn, II, p. 598; see also Jean Meyer, *La Naissance de Louis XIV*, Editions Complexe, 1989, pp. 12–13. In recent years some historians have attempted to attribute some sort of ‘messianic’ origin to the Merovingian lineage through various convoluted mystical links, involving among these a legendary Frankish king called Pharamond (*c.*AD 420), Mary Magdalena, the ‘Holy Grail’ and the small town of Renne-le-Chôteau (see M. Baigent, H. Lincoln and R. Leigh, *The Holy Blood and the Holy Grail*, Corgi, London, 1983; also L. Gardner, *Bloodline of the Holy Grail*, Element Books,

Shaftesbury, 1996).

31. Ian Shaw and Paul Nicholson, *British Museum Dictionary of Ancient Egypt*, Book Club Associates, London, 1995, pp. 51, 247.

32. Jurgis Baltrušaitis, *La Quête d'Isis*, Flammarion, Paris, 1985, pp. 86–93.

33. Duché, op. cit., p. 77.

34. Meyer, op. cit., p. 108.

35. Yates, op. cit., p. 390.

36. Meyer, op. cit., p. 103.

37. Frances Yates, 'Considérations de Bruno et de Campanella sur la monarchie française', *Actes du Congrès Leonardo de Vinci*, *Etudes d'Art*, 8, 9 and 10, Paris-Alger, 1954, p. 12.

38. François Bluché, *Louis XIV*, Fayard, Paris, 1986, p. 29; also Duché, op. cit., p. 90.

39. The location of her apartments at the time is somewhat blurry. In 1637 the king was residing at Saint-Maur, and although he still had his own apartments at the Louvre, his furniture would have been moved to Saint-Maur, making it possible when staying at the Louvre only for him to sleep in Anne of Austria's quarters. There were plenty of other rooms, of course, but the records are clear that on that night of 5 December 1637, he slept with the queen in her apartments. It is not clear whether these were located on the west wing (built in 1551–3 by Pierre Lascot under Henri II) or on the ground floor of the 'Petite Galerie' (built in 1566–7 by Chambiges for Catherine de Médicis). It is known that Anne of Austria did, in fact, have 'summer' apartments on the ground floor of the 'Petite Galerie', but these were made ready for her in 1655, when her son, King Louis XIV, commissioned the architect Le Vau (who designed Versailles) to decorate them (source: Louvre official website and *Grand Larousse*, 1962, pp. 881–4).

40. Meyer, op. cit., p. 112.

41. Headley, op. cit., p. 130.

42. Ibid.

43. Ibid., pp. 130–31.

44. L. Firpo, *Rivista di Philosofia*, 1947, pp. 213–29; see also Yates, *Giordano Bruno*, p. 394, fn. 1

45. Yates, *Giordano Bruno*, p. 390.

46. Ibid., p. 366.

47. Ibid., p. 387.

48. Ibid., p. 369.

49. See Chapter 2 above.

50. Yates, *Giordano Bruno*, p. 367.

51. Ibid., pp. 367–8.

52. Ibid., p. 368.

53. Ibid.

54. Ibid., p. 369.

55. Ibid., p. 370.

56. Ibid., p. 369.

57. Ibid.

58. Ibid., p. 370.

59. Ibid.

60. Ibid., p. 371.

61. See Chapter 8 above and Yates, *Giordano Bruno*, pp. 55–6, citing the *Asclepius*: 'The gods who exercised their dominion over the earth will be restored one day and installed in a city at the extreme limit of Egypt, a city which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of mortal men.. .'

62. Sir Walter Scott (trans.), *Hermetica: The Ancient Greek and Latin Writings Which Contain Religious or Philosophic Teachings Ascribed to Hermes Trismegistus*, Shambala, Boston, 1993, pp. 221–2.

Chapter 13: The Invisible Brotherhood

1. Cited in Frances Yates, *The Rosicrucian Enlightenment*, Ark Paperbacks, London, 1986, p. 103.

2. Cited in ibid., p. 104.

3. Ibid., p. 103.

4. Ibid., p. 104.

5. Ibid.

6. Ibid., pp. 30, 238, 251.

7. *Fama*, in ibid., p. 239.

8. *Fama*, in ibid., pp. 239–40.

9. *Fama*, in ibid., pp. 240–41.

10. Ibid., p. 242.

11. Ibid.

12. Ibid., pp. 242–3.

13. Ibid., p. 243.

14. Ibid., p. 246.

15. Ibid.

16. Ibid., p. 248.

17. Ibid., p. 251.

18. Ibid., p. 244.

19. *Confessio* in ibid., p. 252.

20. Ibid., p. 253.

21. Ibid., p. 257.

22. Ibid.

23. Ibid., p. 258.

24. Ibid.

25. Ibid., p. 259.

26. Ibid., pp. 248 and 255.

27. Ibid., p. 30.

28. Joscelyn Godwin (trans.), *The Chemical Wedding of Christian Rosencreutz*, with Introduction and Commentary by Adam McLean, Phanes Press, Grand Rapids, Michigan, 1991, Introduction by Adam McLean, p. 7.

29. Yates, op. cit., p. 30.

30. Godwin, op. cit., p. 10.

31. Yates, op. cit., p. 31.

32. Ibid., p. 50: 'Andreae was certainly behind the scenes of the whole movement [the Rosicrucians] to which he frequently refers in his numerous works.'

33. Ibid., pp. 30–31.

34. Godwin, op. cit., p. 10.

35. The full title is 'The Chemical Wedding of Christian Rosencreutz in the year 1459', see ibid., p. 13.

36. Ibid., p. 15

37. Electronic Bible Search, *Franklin Electronic Bible*; for 'Father of Light'.

38. See Chapter 6 above.

39. Godwin, op. cit., p. 15.

40. Ibid., p. 16.

41. Ibid., p. 107.

42. Ibid., pp. 16–17.

43. Ibid., pp. 33–4.

44. Ibid., pp. 46–8.

45. Ibid., p. 80.

46. Ibid., p. 102.

47. Dr Stephan Holler, in *Gnosis: A Journal of the Western Inner Traditions*, The Lumen Foundation, San Francisco, summer 1996, p. 26; See also Godwin, op. cit., p. 145, Adam McLean's commentary on the symbolism of the death of the king and the queen in the Chemical Wedding: 'Now a physical death is actually a rebirth in the spiritual world, from when a being is released from its material envelope it returns to a more spiritual state.'

48. Yates, op. cit., p. 57.

49. Ibid., p. 147.

50. Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press; Chicago and London, 1991, pp. 312–13.

51. Ibid., p. 414.

52. Ibid., p. 373.

53. Ibid., p. 367.

54. Ibid., p. 413.

55. Ibid.

56. Ibid.

57. Christopher McIntosh, *The Rosicrucians*, Samuel Weiser, York Beach, Maine, 1997, p. 21.

58. Yates, *Giordano Bruno*, pp. 413–14, fn. 1. However, in 'Campanella fra i Rosacroce', in *Tommaso Campanella e l'attesa del secolo aureo*, Fondazione Luigi Firpo, Florence, 1998, pp. 107–55, Carlos Gilly argues that Tobias Adami did not bring copies of Campanella's manuscripts to Germany till after 1610 when the Rosicrucian *Fama* Manifesto (another work by Andreae) was already written. Gilly quotes Ole Worm's 'Laurea philosophica summa', published in Copenhagen 1619, where the author reports that he had known of the Manifesto in 1611, that is, *before* it was publicly put to the press and thus could not have been influenced by Campanella's ideas. This argument, in my opinion is weak. *Civitas Solis* was written in 1602, and surely its content, if not actual physical copies, were probably known to Andreae and his entourage before the writing of the Manifesto; otherwise why would Tobias Adami risk smuggling them out of the Inquisition prison in Naples to take to Andreae? And why would Wense suggest to Andreae to name his utopian book *Civitas Solis*?

59. J. P. Kenyon, *The Stuarts*, Fontana, London, 1966, p. 41.

60. Yates, *The Rosicrucian Enlightenment*, pp. 39–40: 'There can be no doubt that we should see the movement behind the Rosicrucian publications as a movement ultimately stemming from John Dee. The Dee influence could have come into Germany from England with the English connections of the Elector Palatine, and it could have spread from Bohemia where Dee had propagated his stirring mission in earlier years.. .'

61. Ibid., pp. 36–7.

62. McIntosh, op. cit., p. 24.

63. Yates, *The Rosicrucian Enlightenment*, pp. 134–8.

64. Ibid., p. 19.

65. Joscelyn Godwin, *Robert Fludd: Hermetic Philosopher and Surveyor of Two Worlds*, Phanes Press, Grand Rapids, Michigan, 1991, p. 11.

66. Hence the term 'Bohemian' to describe a roving or homeless person.

67. Yates, *The Rosicrucian Enlightenment*, p. 178.

Chapter 14: Emergence of the Invisibles

1. See Zoé Oldenbourg, *Massacre at Montségur*, Weidenfeld and Nicolson, London, 1997, p.

311.

2. Ibid., p. 78.

3. See Chapters 11 and 12 above.

4. See Chapter 11 above.

5. *Fama*, cited in Frances Yates, *The Rosicrucian Enlightenment*, Ark Paperbacks, London, 1986, p. 243.

6. Christopher McIntosh, *The Rosicrucians*, Samuel Weiser, York Beach, Maine, 1997, pp. 16–18.

7. Ibid, p. 18.

8. Yates, op. cit., p. 118.

9. Ibid., p. 119.

10. Sir Walter Scott (trans.), *Hermetica: The Ancient Greek and Latin Writings Which Contain Religious or Philosophic Teachings Ascribed to Hermes Trismegistus*, Shambala, Boston, 1993, p. 117.

11. Ibid., p. 321.

12. Yates, op. cit., p. 119.

13. Ibid., p. 119.

14. Robert Lomas, *The Invisible College*, Headline, London, 2001, pp. 71–80, 85–6.

15. *Fama*, cited in Yates, op. cit., p. 243.

16. McIntosh, op. cit., p. 33.

17. Ibid.

18. Joscelyn Godwin, *Robert Fludd: Hermetic Philosopher and Surveyor of Two Worlds*, Phanes Press, Grand Rapids, Michigan, 1991, p. 11.

19. Ibid.

20. Yates, op. cit., p. 70.

21. Francis Bacon, *New Atlantis*, Kessinger Publishing Co. reprint, Kila, Montana, p. 329.

22. Jerry Baker (ed.), *New Atlantis and The Great Instauration: Bacon*, Harlan Davidson, Arlington Heights, Illinois, 1989, p. xxx.

23. Yates, op. cit., p. 126; see also p. 55 for the R.C. ‘seal’.

24. Ibid., p. 127.

25. John Heydon, *The Holy Guide*, London, 1662, sig. B6 recto; sig. C7 recto.

26. Alexander Piatigorsky, *Freemasonry*, Harvill Press, London, 1997, p. 83.

27. R. W. Bros. Sir James Stubbs, *Freemason's Hall*, The Library Art and Publication Committee, London, 1983, pp. 53–5.

28. *New Atlantis and The Great Instauration: Bacon*, p. xxv.

29. Scott, op. cit., excerpt xxiv, pp. 501–3.

30. E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary*, Dover Publications, New York, 1978, vol. I, p. 9a.

31. Frances Yates, *The Occult Philosophy in the Elizabethan Age*, Routledge & Kegan Paul London, 1979, p. 96.

32. *Fama*, cited in Yates, *The Rosicrucian Enlightenment*, p. 248.

33. A. Fowler, *Spenser and the Numbers of Time*, Routledge & Kegan Paul, London, 1964.

34. Yates, *Occult Philosophy*, p. 95.

35. Angus Fletcher, *The Prophetic Moment: An Essay on Spenser*, Chicago University Press, Chicago and London, 1971, pp. 157 and 275.

36. I Kings 9:24.

37. Ron Heisler, 'Michael Maier and England', *The Hermetic Journal*, 1989.

38. Ibid.

39. Ibid.

40. Donald R. Dickson, *The Tessera of Antilia: Utopian Brotherhoods and Secret Societies in the Early Seventeenth Century*, E. J. Brill, Boston, 1998.

41. Ibid., pp. 114–15.

42. Ibid., p. 121.

43. Piatigorsky, op. cit., p. 38.

44. Fred Pick and G. Norman Knight, *The Pocket History of Freemasonry*, Frederick Muller, London, 1953, p. 272.

45. Piatigorsky, op. cit., p. 46.

46. Pick and Knight, op. cit., p. 32.

47. Ibid., p. 34.

48. Ibid., p. 35.

49. Lomas, op. cit., chap. 5.

50. Pick and Knight, op. cit., pp. 23 and 43.

51. Yates, *The Rosicrucian Enlightenment*, p. 182.

52. Ibid., p. 183.

53. Ibid.

54. Ibid.

55. Ibid., p. 182.

56. Ibid., p. 177.

57. Ibid., p. 176.

58. Ibid., p. 178.

59. First published in Amsterdam in 1668.

60. Yates, *The Rosicrucian Englightenment*, p. 179.

61. Christopher Falkus, *Charles II*, Cardinal, London, 1975, p. 21.

62. After the Restoration, Charles II gave Prince Rupert various naval commands during the war against the Dutch. In the years before his death Rupert dabbled in scientific experiments and is said to have invented the art of mezzotint printmaking.

63. Pick and Knight, op. cit., p. 45. Present at Ashmole's 'raising' ceremony was a certain Lord Henry Mainwaring, a colonel with the Roundheads; by one of those strange twists of fate that can befall a person's life, Mainwaring's wife, after she was made a widow a few years later, would become Elias Ashmole's second wife in 1649.

64. For a saucy account of this romance see Guy Breton, *Histoires d'amour de l'histoire de France*, Presse Pocket, Paris, 1960, pp. 14–15.

65. Falkus, op. cit., p. 38.

66. Ibid.

67. Ibid., p. 39.

68. Ibid., p. 46.

69. Ibid., p. 47.

70. He was presumably of Babylonian, i.e., dark, complexion.

71. Falkus, op. cit., p. 47.

72. Paul Naudon, *Histoire générale de la Franc-Maçonnerie*, Office du Livre, Paris, 1981, p. 49.

73. John Lawrence, *Free-Masonry: a Religion?*, Kingsway Publications, Eastbourne, 1987, pp. 92–100.

74. Antonia Fraser, *King Charles II*, Mandarin, London, 1993, p. 182.

75. Lomas, op. cit., p. 220.

76. François Bluché, *Louis XIV*, Fayard, Paris, 1986, p. 247.

77. For example, by Joseph Ritman and his colleagues at the Hermetic/Rosicrucian Library in Amsterdam. See *The Silent Language: The Symbols of Hermetic Philosophy*, In de Pelikaan Press, Amsterdam, 1994.

78. The origin of many of these sorts of universalism or utopian movements in Europe stemmed from the growing rift between the Papacy and the more purist factions of Christianity which eventually led to the Protestant Reformation and the Catholic Counter-Reformation in the mid-sixteenth and early seventeenth century. And there is no one person more acutely aware of this dangerous rift between the Christian factions than Cardinal Richelieu in Paris, who was in charge of the religious as well as the state affairs of France. Richelieu was constantly vigilant of the religious tension in France and the terrible civil war that this had caused in the not-too-distant past. And although the French court was intensely Catholic, especially after the union of Louis XIII and Anne of Austria, it was nonetheless well known that one of Richelieu's great ambitions was to end the Papal-Habsburg-Spanish hegemony in Central Europe. In his first years in office Richelieu surprised everyone with his ruthless determination to oppose these forces by taking quick and decisive military action against the Papal forces in the Swiss canton of Grisons. This had sent a clear message to all those who were under the illusion that Richelieu was the unequivocal defender of Roman Catholicism and the Catholic League. His biggest political challenge came in 1630, when the queen mother, the hysterically staunch Catholic Marie de Médicis, incited her weak son, Louis XIII, to dismiss Richelieu. In a moment of uncharacteristic show of strength, Louis XIII refused to obey her and, instead, had her banished from court. This crucial decision that was to change the course of French history is known as the 'night of the dupes', an allusion to how Richelieu's astute political acumen had even duped the regent of France. Richelieu confused many with his shifting foreign policies, for on the one hand he dealt severely with Protestant Huguenot uprisings such as the one at La Rochelle after they sided with the English Protestants in 1628, and on the other hand he delivered equal severity towards the Catholic League when, for example, in 1635 he sided France with the Protestants during the Thirty Years War. Such acts earned him the hatred of both the Catholics and the

Protestant extremists and generated an endless conflict between him and the Pope in Rome. Immensely wealthy, Richelieu was an avid patron of the arts, and was himself a playwright and musician of some talent. The Académie Française, which he founded when he was fifty-three years old, was his pride and joy. Could Richelieu have been somewhat sympathetic to a new 'Christian' movement such as the Rosicrucian movement in Germany that sought to bring about a universal reform? Did he encourage individuals like Descartes to form a somewhat similar society in France to promote 'natural philosophy' as an antidote to the religious mania in Europe? These are extremely provocative and speculative questions that, nonetheless, require further investigation.

79. Frances Yates, 'Considérations de Bruno et de Campanella sur la monarchie française', *Actes du Congrès Leonardo de Vinci, Etudes d'Art*, 8, 9 and 10, Paris-Alger, 1954, p. 12.

80. Lomas, op. cit., pp. 114–16.

81. She died a year after they married, in January 1653, while giving birth to a stillborn child; Moray was heartbroken and never remarried.

82. Data from California Freemason on-line: October 2001, 'The First Initiation on English Soil'.

83. Yates, *The Rosicrucian Enlightenment*, p. 185; the actual translation in English was not Vaughan's.

84. Dudley Wright, 'The First Initiation', in *The Builder*, 1921.

85. Lomas, op. cit., p. 250. For details on Preston see Pick and Knight, op. cit., p. 97.

86. Adrian Tinniswood, *His Invention so Fertile: A Life of Christopher Wren*, Jonathan Cape, London, 2001, p. 108.

87. Ibid., p. 109.

88. It might have been the same comet after it had passed the sun; see Tinniswood, op. cit., p. 112.

89. Ibid., p. 115.

90. Fraser, op. cit., p. 237.

91. Lomas, op. cit., chap. 2.

92. Pick and Knight, op. cit., pp. 50–51.

93. Piatigorsky, op. cit., p. 209; Jasper Ridley, *The Freemasons*, Constable & Co., London, 1999, p. 23; Williamson and M. Baigent, 'Sir Christopher Wren and Freemasonry: New Evidence', in *AQC*, vol. CIX, pp. 188–90.

94. Pick and Knight, op. cit., pp. 68–70.

95. Ibid., p. 69.

96. For the story of the Vatican obelisk see Christopher Hibbert, *Rome: The Biography of a City*, Penguin, London, 1985, pp. 175–8. See also E. A. Wallis Budge, *Cleopatra's Needle and Other Egyptian Obelisks*, Dover Publications, New York, 1990 edn, pp. 255–7; also Labib Habachi, *The Obelisks of Egypt: Skyscrapers of the Past*, American University Press, Cairo, 1984, p. 131.

97. Today it is possible to be guided through churches and piazzas of Rome by the obelisks in decreasing size: Piazza San Giovanni in Laterano (32.18 m), Piazza San Pietro (25.37 m), Piazza del Popolo (23.20 m), Monte Citorio (21.79 m), Piazza Navona (16.54 m), Piazza dell Esquilino (14.75 m), Piazza del Quirinale (14.64 m), Piazza della Minerva, Trinità dei Monti (13.91 m), Monte Picio (9.25 m), Piazza della Rotunda (6.34 m), Piazza della Minerva (5.74 m) and Villa Celimontana (2.68 m).

98. Pliny, *Natural History*, xxxvi, II. See also Budge, *Cleopatra's Needle and other Egyptian Obelisks*, p. 255.

99. Jaromir Malek and John Baines, *Cultural Atlas of the World: Ancient Egypt*, Stonehenge Press, Alexandria, Virginia, 1991, pp. 173–4.

100. Hibbert, op. cit., p. 355.

101. A. M. Partini and B. de Rachewiltz, *Roma Egizia*, Edizione Mediterranee, Rome, 1999, pp. 105–6.

102. The Basilica was finally consecrated in AD 1626, on the 1300th anniversary of the original consecration by Constantine. The study of Michelangelo (who died before the work was fully completed) was carried on by Giacomo della Porta and Domenico Fontana. The new façade, erected by Carlo Maderno, was begun in 1607 and completed 1614. In 1650–67 Bernini added the famous piazza and colonnade, which has the obelisk as focus.

103. Paul Johnson, *The Papacy*, Orion, London, 1998, p. 154.

104. Sixtus V then appointed Domenico Fontana to move the obelisk and raise it in front of the entrance of St Peter's Basilica. The whole operation took nearly a year to complete. Fontana employed traditional methods, with the only real innovation over the ancient Egyptians being the use of horses instead of just sheer manpower. On the surface, the Pope's motivation was the aesthetic improvement of the Vatican's piazza, but a more profound purpose was the display of the growing power of the Papacy in line with that of

the ancient Roman emperors who had brought these Egyptian trophies to Rome more than sixteen centuries earlier. It is true that moving the obelisk to its new location was visually important to the Basilica; but the whole affair was an overt way for Sixtus V to draw the obvious parallel between the ancient emperors and the Papacy. And like these emperors and pharaohs of old, Sixtus V granted Fontana extraordinary powers to commandeer any labour, any tools and any materials required for the task of raising the great obelisk. Fontana also had full Papal authority to demolish any houses that happened to be in the way. And the Pope made it clear that opposition or obstruction to the project by anyone could result in a huge fine and even the punishment of death. Indeed, during the final stage of raising the obelisk into place, Sixtus V gave strict orders that everyone in the huge crowd of spectators that had come to watch should remain totally silent. The penalty for breaking this order, the Pope declared, was death. The story goes that at one stage the ropes holding the obelisk were about to break under the huge strain. And so a Genoese sailor bravely ignored the Pope's command and shouted: '*Put water on the ropes!*', thus probably saving the monument from destruction. After the obelisk was safely raised into place, the crowds were finally allowed to cheer.

105. Bernini was also commissioned to design the famous monument of an elephant bearing an Egyptian on its back in the Piazza della Minerva. Many centuries before, the area surrounding the Church of Santa Maria sopra Minerva was occupied by three pagan temples: the Minervium, built by Gnaeus Pompey in the year 692 in honour of the pagan goddess Minerva Calcidica; the Iseum, dedicated to Isis; and the Serapeum, dedicated to Serapis (the Grecian Osiris). The obelisk on the elephant was inspired by the work of Francesco Colonna's *Hypnerotomachia* (1546), a curious dissertation on pseudo-Egyptian hieroglyphs (see J. M. Humbert, *L'Egyptomanie dans l'art occidental*, ACR, Paris, 1989, p. 13).

106. The name Champs-Elysées, i.e., the Elysian Fields (a concept which originated in ancient Egypt as the *Duat*), for the main avenue/axis of Paris can be traced to the epoch of Louis XIV, towards the end of his reign (see Marc Gaillard, *Les Belles Heures des Champs-Elysées*, Editions Martelle, Paris, 1990, p. 11). This famous avenue is also known as the *Axe Historique*.

107. Gaillard, op. cit., pp. 10–11.

108. Marie-France Arnold, *Paris: ses mythes d'hier à aujourd'hui*, Editions Dervy, Paris, 1997; see Map and Preface. See also Jean Phaure, *Introduction à la géographie sacrée de Paris: Barque d'Isis*, Editions Du Borrego, Paris, 1985, pp. 20–21.

109. Tinniswood, op. cit., p. 122.

110. Ibid., pp. 125–6.

111. Ibid., p. 137.

112. *London Gazette*, 3–10 September 1666.

113. Julian 20 September 1666 = Gregorian Thursday, 30 September 1666 = Hebrew 1 Tishri 5427.

114. Fraser, op. cit., p. 248.

Chapter 15: Cabal

1. There were a few others, too, who prepared plans, but these were far less significant; see Adrian Tinniswood, *His Invention so Fertile: A Life of Christopher Wren*, Jonathan Cape, London, 2001, p. 151; Richard Hooke, Curator and Fellow of the Royal Society as well as Professor of Geometry at Gresham College, presented plans (Tinniswood, op. cit., p. 77).
2. Tinniswood, op. cit., p. 150.
3. William of Tyre, *A History of Deeds Done Beyond the Sea*, Octagon Books, New York, 1986, vol I., pp. 524–5.
4. See the Koran, ch. XVII.
5. See discussion in Graham Hancock, *The Sign and Seal: A Quest for the Lost Ark of the Covenant*, Heinemann, London, 1992, pp. 379–80.
6. Ibid., p. 385.
7. For example, see Hancock, op. cit., pp. 389ff.
8. Ibid., p. 94.
9. Dan Bahat, *Carta's Historical Atlas of Jerusalem*, Carta, Jerusalem, 1986, p. 46.
10. Ibid., pp. 46–7.
11. Hancock, op. cit., p. 93.
12. John J. Robinson, *Born in Blood: The Lost Secrets of Freemasonry*, Century, London, 1989, p. 66.
13. Hancock, op. cit., p. 93.
14. Zoé Oldenbourg, *Massacre at Montségur*, Weidenfeld and Nicolson, London, 1997, p. 85.
15. Stephen O' Shea, *The Perfect Heresy: The Life and Death of the Cathars*, Profile Books, London, 2001, p. 29.
16. Malcolm Barber, *The Cathars: Dualist Heretics in Languedoc in the High Middle Ages*, Longman, London, 2000, p. 61: 'For Templars and Hospitallers, Languedoc was a major source of income and recruits… During the 1130s the Templars appointed a regional master or *bailli* over Aragon, Toulouse, and Provence, to oversee the increasing number of preceptories they were establishing in the region.'
17. Alain Demurger, *Vie et mort du Temple*, Editions du Seuil, Paris, 1989, pp. 152–8.
18. It was not regained till 1967, when the Israeli army under Moshe Dayan annexed

Jerusalem.

19. Hancock, op. cit., p. 154.

20. Demurger, op. cit. p. 322.

21. Robinson, op. cit., pp. 142–3.

22. Michael Baigent and Richard Leigh, *The Temple and the Lodge*, Arrow, London, 2000, p. 91.

23. Hancock, op. cit., p. 167.

24. For a full account, see Baigent and Leigh, op. cit.

25. Hancock, op. cit., p. 166.

26. Andrew Sinclair, *The Sword and the Grail*, Crown Publishers, New York, 1992.

27. Ibid., pp. 48–9.

28. Ibid., plates section.

29. Sinclair, op. cit., p. 108.

30. Ibid., p. 75.

31. See discussions in ibid.

32. Steven Runciman, *The Medieval Manichee: A Study of Christian Dualist Heresy*, Cambridge University Press, Cambridge, 1999, p. 179.

33. Gaetan Delaforge, *The Templar Tradition*, Threshold Books, Putney, Vermont, 1987, p. 71.

34. See Albert Hourani, *A History of the Arab Peoples*, Faber and Faber, London, 1991, pp. 184–5ff.

35. Barber, op. cit., p. 61. Barber shows that the same alliance was also established between the Knights Hospitaller and the Languedoc nobles.

36. Sinclair, op. cit., p. 76.

37. Arthur Guirdham, *The Great Heresy: The History and Beliefs of the Cathars*, C. W. Daniel Company, Saffron Walden, 1993, p. 90.

38. Aubrey Burl, *God's Heretics: The Albigensian Crusade*, Sutton Publishing, Stroud, 2002, p. 38.

39. Sinclair, op. cit., p. 26.

40. Guirdham, op. cit., p. 89.

41. Ibid., p. 90.

42. Barber, op. cit., p. xiii.

43. See Guirdham, op. cit., pp. 90–91.

44. Ibid., p. 89.

45. The report of Benjamin of Tudela, cited in Jonathan Sumption, *The Albigensian Crusade*, Faber and Faber, London, 1999, p. 90.

46. Ibid., p. 90; O'Shea, op. cit., p. 20.

47. Cited in Sumption, op. cit., p. 90.

48. Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, The Jerusalem Publishing House, 1989, pp. 512–13.

49. Runciman, op. cit., pp. 6–7.

50. Ibid.

51. Ibid.

52. And again see ibid., pp. 6–7; the early Christian Gnostics held the same view.

53. *Encyclopaedia of Judaism*, pp. 740–41.

54. Z'ev ben Shimon Halevi, *Kabbalah: Tradition of Hidden Knowledge*, Thames and Hudson, London, 1988, p. 5.

55. An excellent article on the Sephiroth on the Web can be found at: http://www.aril.org/Drob.htm.

56. Halevi, op. cit., pp. 5–6.

57. For a fuller discussion of mandalas see Graham Hancock and Santha Faiia, *Heaven's Mirror*, Michael Joseph, London, 1998, pp. 122ff.

58. For a discussion see R. T. Prinke, 'Early Symbolism of the Rosy Cross', in *The Hermetic Journal*, 25 (1984), pp. 11–15.

59. See Francis Bacon Research Trust: www.fbrt.org.uk.

60. The printer was L. Lichfield of Oxford; the publishers were R. Young and E. Forrest; the engraving is by William Marshall; and the translation from Latin into English is by Rev. Gilbert Wats.

61. Ibid., as note 59 above.

62. Source: *The Ancient and Accepted Scottish Rite of Freemasonry containing Instructions in all the degrees*, approved by the Supreme Council of the Thirty-third Degree of the Southern

Jurisdiction, 1801.

63. William W. Westcott, *Collectanea Hermetica*, Parts 1–10, 'Sepher Yetzirah', Samuel Weiser, York Beach, Maine, 1988.

64. Ibid.

65. Charles Sumner Lobingier, *The Ancient and Accepted Scottish Rite of Freemasonry*, Kessinger Publishing Co., Kila, Montana, 1931, p. 4.

66. See Joscelyn Godwin, *Athanasius Kircher*, Phanes Press, Grand Rapids, Michigan, 1991, p. 56.

67. Ibid., p. 61.

68. Ibid., p. 13.

69. Ibid.

70. Ibid., p. 15.

71. Ibid., p. 18.

72. Frances Yates, *Giordano Bruno and the Hermetic Tradition*, University of Chicago Press, Chicago and London, 1991, p. 418.

73. Kircher, *Oedepus Aegyptiacus*, Rome, 1652, p. 150; see also Yates, op. cit., p. 418.

74. Wren had replaced Seth Ward, who had been holding this Savilian Chair since 1649. Ward was an intimate friend of John Wilkins, and together they were to write a controversial book in support of ancient universities in 1654 while at Oxford. In 1660 Charles II fired both Wilkins and Ward from their posts, and replaced the latter with Christopher Wren. Ironically, in 1661 Seth Ward was to become Bishop of Exeter and, in 1668, Wilkins became the Bishop of Chester. These were indeed strange times.

75. Peter Tompkins, *The Secret of the Great Pyramid*, Allen Lane, London, 1973, p. 30.

76. John Greaves, *Pyramidographia or a Description of the Pyramids in Aegypt*, London, 1646.

77. David Stevenson, *The Origins of Freemasonry, Scotland Century 1590–1710*, Cambridge University Press, Cambridge, 1988.

78. *The Last Will and Testament of Sir Thomas Gresham*, London, 1765.

79. Robert Lomas, *The Invisible College*, Headline, London, 2001, pp. 154–64.

80. Christopher Hibbert, *Rome: The Biography of a City*, Penguin, London, 1985, pp. 179–86.

81. Guirdham, op. cit., pp. 91–2.

82. Cited in Yates, op. cit., p. 394, fn 1.

83. The Knights Templar first arrived in England in 1130 on the invitation of King Henry I. Initially they established their preceptory in High Holborn in the north, between Chancellor's Lane and Faitour Lane. In 1161 they moved it a mile southward to the more favoured site close to the Thames. Dr Hugh Clout (ed.), *The Times History of London*, FBA, Times Books, London, 1991, p. 50.

84. David Lewer, *The Temple Church London*, Pitkin Pictorials, London, 1989, pp. 3–4.

85. *Times History of London*, p. 150.

86. Felix Barker and Ralph Hyde, *London as It Might Have Been*, John Murray, London, 1982, p. 22.

87. This point was also highlighted in Adrian Gilbert, *The New Jerusalem*, Bantam Press, London, 2002, p. 211: 'Wren changed the axis of St Paul's so that it ran roughly 8° north of east… this put it directly in line with the old Temple Church…'

88. Christopher Wren (son), *Parentalia*, Farnborough, 1995.

89. Steve Padget, 'Wren's St Paul's: Axis Mundi of the New Jerusalem', paper read at Ball University, 2000, p. 2.

90. Ibid., p. 4.

91. V. Hart, *Art and Magic in the Court of the Stuarts*, Routledge, London, 1994. See also V. Hart, *St Paul's Cathedral: Christopher Wren*, Phaidon, London, 1995. Hart also added that 'in reflecting this "Christianised" cosmology, Hermes was pictured in the pavement of Siena Cathedral and in frescos painted by Pinturiccio for Pope Alexander VI in the Appartamento Borgia in the Vatican… the figure of Mercurius Trismegistus came to personify links between Christian magic and art in the Renaissance.'

92. The Sephiroth invited the initiate to pass between two 'pillars' on the pathway towards the Godhead. Interestingly, according to Jewish author Z. Halevi, we find the same idea of passing between two 'pillars' in the design of Solomon's Temple, where one had to pass between two pillars known as Jachin and Boaz on the path towards the divine presence. Z. Halevi, *Kabbalah: Tradition of Hidden Meaning*, Thames and Hudson, London, 1979.

93. Tinniswood, op. cit., pp. 150–2.

94. This tendency to secrecy was to be also the case when Wren designed new St Paul's. See Barker and Hyde, op. cit., p. 31.

95. Tinniswood, op. cit., p. 150.

96. Ibid.

97. Barker and Hyde, op. cit., p. 23.

98. Tinniswood, op. cit., p. 152. See also Evelyn, *London Revived*, ed. De Beer, Clarendon Press, 1938, pp. 45–6.

99. Revelation 21–2.

100. Barker and Hyde, op. cit., p. 25.

101. In Wren's scheme, according to Adrian Tinniswood, 'the real pride of place went to the Exchange piazza with its radial vistas and its surrounding complex of commercial buildings. The absolutist ideology underlying the planning of Sixtine Rome, which Louis XIV and André Le Nôtre were currently putting to such good use in the laying out of Versailles, was here called into service to pay homage to mercantilism. Trade was to be the new religion.' That the Royal Exchange was Thomas Gresham's brainchild, and that his own home had probably served as a Masonic lodge prior to becoming the home of the Royal Society, may also have had something to do with the symbolism intended in Wren's scheme.

102. This idea was first proposed by Adrian Gilbert in op. cit., p. 205. Gilbert also observes that it may not have been accidental that the *Daat Sephirah* was brought close to Gresham College, home of the Royal Society.

103. Tinniswood, op. cit., p. 188.

104. Ibid.

Chapter 16: From Secret Society to Society With Secrets

1. Fred Pick and G. Norman Knight, *The Pocket History of Freemasonry*, Frederick Muller, London, 1953, p. 68.

2. Matthew 11:11.

3. John 3:30.

4. The 4 July is, of course, Independence Day in the USA.

5. Pick and Knight, op. cit., p. 69.

6. Ibid.

7. Ibid.

8. Jasper Ridley, *The Freemasons*, Constable & Co. London, 1999, p. 37.

9. Paul Naudon, *Histoire générale de la Franc-Maçonnerie*, Office du Livre, Paris, 1981, p. 66.

10. Ibid., pp. 69–70.

11. Ibid., p. 72.

12. Ridley, op. cit., p. 37.

13. Lynn Picknett and Clive Prince, *The Templar Revelation*, Corgi Books, London 1998, p. 481.

14. Charles Sumner Lobingier, *The Ancient and Accepted Scottish Rite of Freemasonry*, Kessinger Publishing Co., Kila, Montana, 1931, p. 32.

15. A full electronic text can be consulted at: http://gallica.bnf.fr/scripts/ConsultationTout-.exe?E=0&0=N101439.

16. The duke never became king, but died from illness in 1712.

17. Lobingier, op. cit., p. 35.

18. See Eliane Brault, *Le Mystère du Chevalier Ramsay*, Editions du Prisme, Paris, 1973, p. 81; also *Transaction of the Quatuor Coronati Lodge*, 1934, vol. XLVII, p. 77. For a very good account of Ramsay's life and Masonic career, see Lobingier, op. cit., pp. 32–49.

19. Ridley, op. cit., p. 70.

20. The full 'Ramsay's Oration' with commentaries can be found in Robert Freke Gould, *History of Freemasonry (1883–7)*. See also Cyril N. Batham 33°, 'Ramsay's Oration: the Epernay and Grand Lodge Versions' in *Heredom, The Transactions of the Scottish Rite Research Society*, vol. I, 1992.

21. Alexander Piatigorsky, *Freemasonry*, Harvill Press, London, 1997, pp. 116–17.

22. Pick and Knight, op. cit., p. 204.

23. The Order of DeMolay declares itself to be 'A young men's fraternal organization which was founded upon the basic principles of love of God, love of parents, and love of country. It tries to introduce these teachings to its members in various ways through the exercise of the seven cardinal virtues… Love of parents, Love of God, Courtesy, Comradeship, Fidelity, Cleanness, Patriotism. The name "DeMolay" comes from a thirteenth-century French hero and martyr named Jacques De Molay, who was the last grand master of an order of chivalric knights known as the Knights Templar… Be between the ages of 12 and 21, believe in a Supreme Being (God), be of good moral character, Petition a DeMolay. Local groups of DeMolays are called chapters and are

sponsored by a group of masons or masonic lodges.' In 1919, a Kansas City freemason named Frank S. Land noticed a need for a young men's organization in the Kansas City area. After meeting with a local youth named Louis Lower, Land arranged a meeting with several other area youths at the Kansas City Scottish Rite building. With Land's guidance and the ambition of the young men, the Order of DeMolay was born. Almost instantaneously, the popularity of the new order grew and in no time at all, there were chapters in every state in the union and soon there were even chapters abroad. For over seventy-five years now, the Order of DeMolay has continued to teach its members the basic principles of life which will help prepare any young man for a good and clean manhood, and which will help them to develop a greater love and respect for their God, parents and country. In its history, the Order of DeMolay has boasted a strong membership and has long lists of successful and influential members.

24. I Kings 5–6; II Chronicles 2–6.

25. Andrew Sinclair, *The Sword and the Grail*, Crown Publishers, New York, 1992, p. 158.

26. For a detailed critical appraisal of these rituals, see John Lawrence, *Freemasonry: A Religion?*, Kingsway Publications, Eastbourne, 1991, pp. 92–107.

27. Martin Short, *Inside the Brotherhood*, Grafton Books, London, 1989, p. 93.

28. Lawrence, op. cit., pp. 51–61.

29. Ibid.

30. Jean-Marcel Humbert, *L'Egyptomanie dans l'art occidental*, ACR Edition, Paris, 1989, p. 117.

31. Short, op. cit., p. 115.

32. Ibid., p. 123.

33. Stephen Knight, *The Brotherhood*, Grafton Books, London, 1985, pp. 236–9.

34. Short, op. cit., p. 104.

35. For a full account of Pythagoras in Egypt see R. A. Schwaller de Lubicz, *Sacred Science*, Inner Traditions, New York, 1982, p. 259.

36. See also Genesis 4:20.

37. Pick and Knight, op. cit., p. 32.

38. Ibid., pp. 32–3.

39. Ibid.

40. Naudon, op. cit., p. 64.

41. Ibid., p. 72.

42. Ibid., p. 74.

43. Ibid., pp. 74–6.

44. François Ribadeau Dumas, *Cagliostro: homme de lumière*, Editions Philosophiques, Paris, 1981, p. 25.

45. Gérard Galtier, *Maçonnerie égyptienne, Rose-Croix et Neo-Chevalerie: les fils de Cagliostro*, Editions du Rocher, Paris, 1989, p. 29.

46. Ibid., p. 35; Masonic historians, however, still do not seem to be able to agree where Cagliostro's initiation into Freemasonry took place. They venture two places, Malta in 1767 (Gastone Ventura, *Masonic Rites of Memphis and Misraim*, 1986) or London in 1777 (Galtier, op. cit., p. 30).

47. Ribadeau Dumas, op. cit., p. 35.

48. Ibid., p. 39.

49. Pernety is often accredited for creating the so-called 'Swedenborgian Rite' of Freemasonry. When he was fifty years old, Pernety left the Benedictine Order and settled at Avignon. There he directed his earlier alchemical interests into Freemasonry and created the so-called 'Rite Hermetique'. He then moved to Berlin and became librarian to Frederick II. In Berlin Pernety translated the works of Swedenborg, the Swedish theologian and alleged founder of the New Jerusalem Church.

50. Ribadeau Dumas, op. cit., p. 50; Naudon, op. cit., p. 92.

51. In 1781 Frederick II was initiated into the Order of the Golden Rose Cross, a German Rosicrucian order, by Johann Woller and Johann Bischoffwerder, two Rosicrucians who were to become Frederick's closest advisors (McIntosh, *The Rosicrucians*, Samuel Weiser Inc., York Beach, Maine, 1997, pp. 95–6). The esoteric name given to Frederick II during the initiation rituals was 'Ormesus Magnus'. The Order of the Golden Rose Cross, according to the origins it gave itself, was allegedly created in Egypt, at Alexandria, by an Egyptian sage called 'Ormissus or Ormus' (Galtier, op. cit., p. 164), which is the 'second name' given to the infamous Prière de Sion (see M. Baigent, H. Lincoln and R. Leigh, *The Holy Blood and the Holy Grail*, Corgi, London, 1983, p. 123). 'Ormus', as we shall see later, was also the name given to the founder of the Masonic Order of Memphis. According to Masonic author Carla Miccinelli, the name 'Ormus' appeared as early as 1753 in a private letter written by the Prince Raimondo di Sangre de Severo, a

Freemason, to the Baron de Tchoudy in Paris (Miccinelli, *E dio Creo L'Uomo e la Massoneria*, Rome, 1985, p. 73).

52. Ribadeau Dumas, op. cit., p. 51.

53. Ibid. In 1758 Pernety had published a treatise with the ambitious title of *The Egyptian and Greek Fables Unveiled and Linked to the same Principles, with an Explanation of the Hieroglyphs and the War of Troye*, which gives us a fair indication what his 'science of Nature' was.

54. Galtier, op. cit., p. 36.

55. Ibid. See also Manly P. Hall, *Freemasonry of the Ancient Egyptians: Crata Repoa*, Philosophical Research Society, Los Angeles, 1965, pp. 81–102.

56. Galtier, op. cit., p. 36; see also Hall, op. cit., p. 73.

57. Naudon, op. cit., p. 91.

58. Ridley, op. cit., pp. 110–21.

59. Ibid., p. 129.

60. Naudon, op. cit., p. 91.

61. Galtier, op. cit., p. 19.

62. Naudon, op. cit., p. 229.

63. Pierre Chevallier, *Histoire de la Franc-Maçonnerie française*, Librairie Fayard, Paris, 1974, vol. I, pp. 258–9.

64. J. E. Manchip White, *Ancient Egypt in Culture and History*, George Allen & Unwin, London, 1970, p. 107. Herodotus gives seventy days (*Histories*, II, 85), which is more in line with ancient Egyptian practice.

65. Genesis 50:3. The duration of the Flood was also forty days (Genesis 8:6).

66. Chevallier, op. cit., vol. I, pp. 256–62.

Chapter 17: The New City of Isis

1. François Ribadeau Dumas, *Cagliostro: homme de lumière*, Les Editions Philosophiques, Paris, 1981, p. 165.

2. Pierre Chevallier, *Histoire de la Franc-Maçonnerie francaise*, Librairie Fayard, Paris, 1974, vol. I, p. 261.

3. Ibid. See also Gisèle and Yves Hivert-Messeca, *Comment la Franc-Maçonnerie vint aux*

femmes, Editions Devry, Paris, 1997, p. 148.

4. Paul Naudon, *Histoire générale de la Franc-Maçonnerie*, Office du Livre, Paris, 1981, pp. 228–30.

5. An excellent article on Cagliostro can be seen in Henry Evans, 'Masonry and Magic in the Eighteenth Century', *The Master Mason*, June 1927.

6. Bibliothèque Nationale, ms. Fr. 12420 c. 1402 AD fol. XVI; ms. Fr. 598, c. 1403 fol. XVI

7. Jurgis Baltrušaitis, *La Quête d'Isis*, Flammarion, Paris, 1985, p. 63.

8. L. M. Tisserand, *Les Armoiries de la ville de Paris*, Paris, 1874, chap. 3, 'Formation du sceau ou des armoiries de Paris', p. 61; also Baltrušaitis, op. cit., p. 63.

9. Jacques le Grant, *Sophologium*, Paris, 1475; also see Baltrušaitis, op. cit., p. 61.

10. Lemaire de Belge, *Les Illustrations de Gaule et Singularitez de Troye*, Paris, 1512; also see Baltrušaitis, op. cit., p. 59.

11. Baltrušaitis, op. cit., p. 58; plates 1, 6.

12. Jacques du Breul, *Théâtre des Antiquitez de Paris*, Paris, 1612.

13. André Favyn, *Histoire de Navarre*, Paris, 1612.

14. Baltrušaitis, op. cit., p. 89.

15. Jean Phaure, *Introduction à la géographie sacrée de Paris: Barque d'Isis*, Editions Borrego, Paris, 1985, pp. 19–20 (map).

16. Jean Phaure, op. cit., p. 84 (map).

17. Ibid.

18. Ian Wilson, *Jesus the Evidence*, Pan Books, London, 1984, pp. 136–7. See also Timothy Freke and Peter Gandy, *The Jesus Mysteries*, Thorsons-Element, London, 2000, pp. 41–2.

19. From Edward Carpenter's (1844–1926) *Pagan and Christian Creeds*, 1981, p. 50:

> The Jesus-story, it will now be seen, has a greater number of correspondences with the stories of former Sungods and with the actual career of the Sun through the heavens – so many indeed that they cannot well be attributed to mere coincidence or even to the blasphemous wiles of the Devil! Let us enumerate some of these. There are (1) birth from a Virgin mother; (2) the birth in a stable (cave or underground chamber); and (3) on the 25th December (just after the winter solstice). There is (4) the Star in the East (Sirius) and (5) the arrival of the Magi (the 'Three

> Kings'); there is (6) the threatened Massacre of the Innocents, and the consequent flight into a distant country (told also of Krishna and other Sungods). There are the Church festivals of (7) Candlemas (2nd February), with processions of candles to symbolize the growing light; of (8) Lent, or the arrival of Spring; of (9) Easter Day (normally on 25th March) to celebrate the crossing of the Equator by the Sun; and (10) simultaneously the outburst of lights at the Holy Sepulchre at Jerusalem. There is (11) the Crucifixion and death of the Lamb-God, on Good Friday, three days before Easter; there are (12) the nailing to a tree, (13) the empty grave, (14) the glad Resurrection (as in the cases of Osiris, Attis and others); there are (15) the twelve disciples (the Zodiacal signs); and (16) the betrayal by one of the twelve. Then later there is (17) Mid-summer Day, the 24th June, dedicated to the birth of the beloved disciple John, and corresponding to Christmas Day; there are the festivals of (18) the Assumption of the Virgin (15th August) and of (19) the Nativity of the Virgin (8th September), corresponding to the movement of the god through Virgo; there is the conflict of Christ and his disciples with the autumnal asterisms, (20) the Serpent and the Scorpion; and finally there is the curious fact that the Church (21) dedicates the very day of the winter solstice (when anyone may very naturally doubt the rebirth of the Sun) to St Thomas, who doubted the truth of the Resurrection!...

In a cathedral, the congregation faces the east in order to pray. It does not face Jerusalem but the east, i.e., the direction of the sunrise. This direction of prayer is almost certainly derived from ancient pagan solar cults. In Christian worship the meaning is somewhat changed. Christ has many attributes of the ancient sun-god, but he is also the messiah who has come and who will return, another analogy of the death and rebirth of the sun-god in ancient myths. East is the place of sunrise, of solar rebirth, of the coming of light. In mystical religions the east symbolizes spiritual enlightenment and divinity.

20. Norman Lockyer, *The Dawn of Astronomy*, Cassell & Co., London, 1894, p. 120.

21. Labib Habachi, *The Obelisks of Egypt*, American University Press, Cairo, 1988, pp. 155–6.

22. Lockyer, op. cit., pp. 98–106.

23. Much later, in 1973, the astronomer Gerald S. Hawkins disagreed with Lockyer and

asserted that the Karnak Temple had not been aligned to the summer solstice sunset but rather to the *winter solstice sunrise*, which took place 26° 55' south-of-east; see Gerald Hawkins, *Beyond Stonehenge*, Arrow Books, London, 1977, Chap. 11 'Amon-Ra', pp. 193–218; see also Ronald L. Reese, 'Midwinter Sunrise at Karnak', in *Sky & Telescope*, March 1992, p. 276. Hawkins is best known for his work on the astronomical alignments of Stonehenge. Hawkins, however, did not carry out actual astronomical observations at Karnak as did Lockyer. He obtained his orientation angle from survey maps at the Franco-Egyptian Research Centre at Luxor and, like Lockyer before him, calculated the position of the sunrise/set at the solstice rather than actually observe it (Hawkins was in Egypt in May, a month before the summer solstice). A few years later the astronomer Ed Krupp confirmed Hawkins's values from actual observations of the sunrise at the winter solstice from the Karnak Temple (Krupp, *Echoes of Ancient Skies*, Oxford University Press, Oxford, 1994, pp. 253–7). Hawkins argued that Lockyer's conclusions were wrong, since the Theban hills in the distance made it such that the setting sun at the summer solstice could not be properly seen through pylons of the temple. But although it is true to say that the Theban hills in the west present an obstacle to us from a *practical viewpoint*, this reasoning cannot be applied to the ancient Egyptians' *religious viewpoint*. To them such physical obstacles were not an impediment, viz., for example, the so-called 'false door' made of solid stone often found in tombs and through which the soul of the deceased was imagined to pass. Egyptian astronomer-priests – and especially those assigned to the sun-cult – had been observing the sunrise and sunset at the solstices long before the construction of Karnak, and there is no question that they would have been acutely aware of its maximal and minimal declinations. And so the conclusion by Hawkins that the Theban hills invalidate the alignment towards the summer solstice sunset is not tenable when placed in the religious context of the ancient temple builders (Hawkins, op. cit., p. 198). Hawkins commends Lockyer on the accuracy of his survey at Stonehenge, but says that 'his survey of the Amon-Ra temple was not [accurate]'. Hawkins refers to the report by army engineer P. J. P. Wakefield, who performed a theodolite survey at Karnak for Lockyer on 21 June 1891. And although it is true that Wakefield reported that the sun could not be seen from any of the points on the axis of the temple marked by Lockyer, he did add that he placed the theodolite at the entrance of Pylon 2 and that he was 'able to see a portion of the setting sun, the remainder being hidden behind the south wall of the great pylon (Pylon 1)'. Now the sun's diameter is about 0.5°, which means that if it could be 'shifted' a further 0.5° to the north along the horizon, it would be seen along that part of the axis running from Pylon 1 to Pylon 2. In *c.* 1500 BC the sun was, in fact, 0.5°

further north due to the obliquity of the ecliptic at the time. This suggests to me that the orientation of the Karnak Temple might be closer to 26° than the 26° 55' quoted by Hawkins which he got off the map of the Franco-Egyptian Centre. Indeed, Lockyer reported that according to Lepsius and other Egyptologists, the angle was '26° or 26° 30' north-of-west. When E. C. Krupp went to verify this, he did so on the winter solstice, and thus could only verify the alignment at the other end of the temple through the so-called Temple of Re-Horakhti and the 'High room of the Sun'. In my (Robert Bauval's) opinion another survey had to be made on 21 June to ascertain the statement of army engineer P. J. G. Wakefield. I did, in fact, observe the sunset on 21 June 2003; my conclusion is that the builders aimed at the sunrise on the winter solstice, but also knew that the sunset at the summer solstice would take place in the reverse direction. And although it is true that the latter does not fall on the axis alignment but a little short towards the west, it is obvious that the intention was there.

24. R. Wells, 'Re and the Calendar' in *Revolution in Time: Studies in Ancient Egyptian Calendrics*, ed. A. J. Spalinger, Van Siclen Books, San Antonio, Texas, 1994, p. 19. Ron Wells calculated that at *c.* 3500 BC the star Sirius would have risen at exactly the same spot as the winter solstice sunrise. His computations assume a 'level horizon and no refraction'. My (Robert Bauval's) own calculations show that as seen from the latitude of Cairo today, it would have been seen rising about 29.5° south-of-east. However, in *c.* 3300 BC, at the foundation date of dynastic Egypt, it would have risen some 28° south-of-east (Azimuth 118°). A simple calculation shows that at that epoch Sirius had the same declination as the sun at the winter solstice, i.e., about –24° (that is, 24° south of the celestial equator), and thus performed exactly the same path as the sun at the winter solstice. It was, quite literally, a 'second sun' seen at night in the place of the winter solstice sun. The epoch 3300 BC is extremely significant in that it marks the historical beginning of dynastic Egypt, when the whole country was unified under one kingdom.

25. In Roman times the goddess Isis was closely identified and even merged with the Roman goddess Ceres, the Greek Demeter. See Baltrušaitis, op. cit., p. 70. See also Sir James Fraser, *The Golden Bough*, Wandsworth Editions, Ware, 1993, pp. 383 and 393. See also Marie-France Arnold, *Paris: ses mythes d'hier à aujourd'hui*, Editions Dervy, Paris, 1997, pp. 87–8: 'The Romans did not call her [Isis] "mother of the wheat and of nature" as did the ancient Egyptians, but they venerated her and made offerings to her… a shrine was built in the Cité of Paris at the exact spot where Christians would later build Notre-Dame de Paris. In 1711, while digging a crypt under the cathedral destined for the burial of bishops this shrine was discovered.. .' Anne Baring and Jules Cashford, in their book *The*

Myth of the Goddess: Evolution of an Image (Penguin Arkana, London, 1993), showed that the concept of 'Notre-Dame' in France, especially for the so-called Black virgins, has an esoteric association to the Egyptian goddess Isis (pp. 586 and 647). See also further Baltrušaitis, op. cit., pp. 24–40.

26. Phaure, op. cit., pp. 56–7.

27. Ribadeau Dumas, op. cit., p. 167.

28. Jean-André Faucher, *Les Francs-Maçons et le pouvoir de la Révolution à nos jours*, Editions Perrin, Paris, 1986, p. 32.

29. Ibid.

30. *Grand Larousse*, op. cit., vol. III; p. 261A.

31. Naudon, op. cit., p. 95.

32. Faucher, op. cit., p. 27; see also Gérard Galtier, *Maçonnerie égyptienne, Rose-Croix et Neo-Chevalerie: les fils de Cagliostro*, Editions du Rocher, Paris, 1989, p. 30.

33. Ribadeau Dumas, op. cit., p. 294.

34. Ibid., p. 200.

35. Manly P. Hall, 'Rosicrucian and Masonic Origins', in *Lectures on Ancient Philosophy – An Introduction to the Study and Application of Rational Procedure*, The Hall Publishing Company, Los Angeles, 1929, pp. 408–9.

36. See Court de Gebelin, *Monde primitif analysé et comparé avec le monde moderne*, Book 8, Paris, 1773–83.

37. Ribadeau Dumas, op. cit., pp. 167–8.

38. Ibid., p. 168.

39. Ibid., p. 199.

40. Joscelyn Godwin, *The Theosophical Enlightenment*, State University of New York Press, Albany, 1994.

41. Ribadeau Dumas, op. cit., p. 199.

42. Naudon, op. cit., p. 129.

43. Albert G. Mackey, *Encyclopedia of Freemasonry*, Macoy Publishing, Richmond, Virginia, 1966, p. 474.

44. See source of this information at: http://freemasonry.bcy.ca/Writings/Illuminati.html.

45. Noble E. Cunningham Jr, *In Pursuit of Reason: the Life of Thomas Jefferson*, Ballantine Books, New York, 1988, opening page.

46. Naudon, op. cit., p. 129. The order was apparently exposed in a most curious way. One of its leaders, Jacob Lang, while walking back home during a bad storm, was struck by lightning. Subversive documents were found on his body and taken to the Elector of Bavaria, prompting him to launch an investigation into the Illuminati.

47. For source data see http://freemasonry.bcy.ca/anti-masonry/anti-masonry02.html.

48. The 'eye' in a 'glowing triangle' was used in medieval times to denote 'God' and can be seen on the covers of many biblical manuscripts (see an example in Manly P. Hall's *The Secret Teachings of All Ages*, The Philosophical Research Society, Los Angeles, 1998, p. xcviii). Robert Fludd's works (1574–1637) are full of the glowing triangle-pyramid symbol, although he often replaces the 'eye' with other symbols or the words for 'God' (see Joscelyn Godwin, *Robert Fludd: Hermetic Philosopher and Surveyor of Two Worlds*, Phanes Press, Grand Rapids, Michigan, 1991). German alchemists and Cabalists used the 'eye in the pyramid' symbol profusely in the early eighteenth century (*The Silent Language, The Symbols of Hermetic Philosophy*, ed. J. Ritman, In de Pelikaan, Amsterdam, 1994, pp. 59 and 75).

49. Joscelyn Godwin, *Athanasius Kircher*, Phanes Press, Grand Rapids, Michigan, p. 8.

50. Iversen, *The Myth of Egypt and its Hieroglyphs*, GEC GAD Publishers, Copenhagen, 1961, p. 105, plate XIX.

51. Naudon, op. cit., p. 122.

52. The first design of the Great Seal was in July 1776 by Pierre-Eugeène Simitière. A drawing made in 1776 with pencil on paper by Thomas Jefferson exists in the Manuscript Division Library of Congress. The 'eye in the triangle' can clearly be seen on the top of the Seal. The choice of design by the first committee, which met on 20 August 1776, was a shield with emblems of the six European cultures that migrated to America: three for Britain (English rose, Scottish thistle, Irish harp) and three for continental Europe (French fleur-de-lis, German eagle, Belgic lion); supporting the shield is the Goddess of Liberty, who holds a spear and wears the Phrygian cap, and the Goddess of Justice with her balance. The crest reads '*The Eye of Providence in a radiant Triangle* whose Glory extends over the Shield and beyond the Figures'. 'E PLURIBUS UNUM'.

53. The Great Seal first committee was formed in the afternoon of 4 July 1776. It comprised Benjamin Franklin, Thomas Jefferson, John Adams and Pierre-Eugène Simitière. Each

member proposed various ideas. Franklin's idea was 'Moses standing on the Shore, and extending his Hand over the Sea, thereby causing the same to overwhelm Pharaoh who is sitting in an open Chariot, a Crown on his Head and a Sword in his Hand. Rays from a Pillar of Fire in the Clouds reaching to Moses, to express that he acts by Command of the Deity. Motto, Rebellion to Tyrants is Obedience to God.' There were several 'committees' formed in the course of the next six years. The third and final committee was formed on 4 May 1782. Hardly a month before in Paris, on 12 April 1782, a series of peace talks had begun between the United States and Britain. America was represented by Benjamin Franklin. The United States of America urgently needed an official sign of sovereignty and coat of arms for the signing of the peace treaty. The so-called third committee consisted of Chairman Arthur Middleton and John Rutledge, both of South Carolina, Elias Boudinot of New Jersey and Virginia's Arthur Lee. William Barton, a twenty-eight-year-old artist wellversed in the science of heraldry, came up with two complex designs which were graphic interpretation of the official written description that precisely defines the design as follows:

Obverse: On the breast of the American bald eagle is a shield with thirteen vertical white and red stripes beneath a blue chief. In the eagle's right talon is an olive branch, and in his left a bundle. In his beak is a scroll inscribed with the motto 'E Pluribus Unum'. Over the head of the eagle, a golden glory is breaking through a cloud, and surrounds a constellation of thirteen stars on an azure field.

Reverse: In the zenith of an unfinished pyramid is an eye in a triangle surrounded with a golden glory. Over the eye are the words 'Annuit Coeptis'. On the base of the pyramid the numerical letters MDCCLXXVI, and underneath, the motto 'Novo Ordo Seculorum'.

54. See a very good article on this topic by Geoff Muirden, 'Conspiracy Theory and the French Revolution', in *The Journal of Historical Review*, vol. 9, No. 1, pp. 109–15.

55. See Nesta H. Webster, *The French Revolution*, Constable & Co., London, 1919. See also Webster's *Secret Societies and Subversive Movements* (1924), A & B Publishers Group, New York, 1998, chap. 9.

56. Faucher, op. cit., p. 39.

57. Ibid., p. 24.

58. Ibid., p. 25.

59. Ribadeau Dumas, op. cit., p. 199.

60. See Evans, op. cit. See also *Master Mason* magazine, vol. 1, No. 1, January 1924 to vol. 7,

Nos. 3 and 4, March–April 1930.

61. *Grand Larousse*, op. cit., vol. VII, pp. 1009–10.

62. Galtier, op. cit., p. 37.

63. In July 1789 there were only seven prisoners in the Bastille. These were Jean de la Corrège, Jean Béchade, the Count of Solages, Tavernier, Bernard Laroche, Jean-Antoine Pujade and DeWhitt, the latter an insane Irishman who was jailed as a spy; he was taken on the shoulders of the rioters who freed him from the Bastille, all the time shouting that he was Julius Caesar.

64. Captain Deflue had been moved to the Bastille earlier on 7 July 1789 along with thirty-two 'Salis-Samade', a regiment of Swiss guards, to protect the Bastille. There were also eighty-four 'invalides' at the time, also appointed to defend the Bastille. All in all, a very poor match for the Parisian mob.

65. Chevallier, op. cit., vol. I, p. 272.

66. Out of the 25 million living in France at the time, 350,000 or so were 'nobility' and some 150,000 were 'clergy'. All the rest was considered the Third Estate.

67. Faucher, op. cit., p. 32.

68. Ibid.

69. In 1791 Talleyrand was excommunicated by the Pope after he consecrated two 'constitutional' bishops. Talleyrand was to play a pivotal role a few years later in the rise of Napoleon Bonaparte and his daring military expedition to Egypt.

70. 'Et bien, f.. ., qu'ils restent!', see Faucher, op. cit., p. 172, pl. 1.

71. Ibid., p. 34.

72. Ibid.

73. The first guillotining took place on 25 April 1792, when Nicolas Jacques Pelletie was executed in public at Place de Grève in Paris. The guillotine was still used in France well into the twentieth century, and was finally officially banned in 1981. The last execution by guillotine in France was on 10 September 1977 in Marseilles, when the murderer Hamida Djambuti was beheaded.

74. Gisèle and Yves Hivert-Messeca, *Comment la Franc-Maçonnerie vint aux femmes*, Editions Devry, Paris, 1997, p. 124.

75. For source data see www.epromat.com/pwh/poindessault/vso/revolemp.htm; see also Ermanno A. Arslan, *Iside: il mito il mistero la magia*, Electa, Milan, 1997, p. 644.

76. This image can be seen, for instance, above the bronze image of George Washington on the National Monument (obelisk) in Washington, DC, east entrance, above the inner door.

77. *Grand Larousse*, op. cit., Vol. III, p. 910b.

78. Michel Vovelle, *La Révolution contre l'Eglise: de la Raison à l'Etre Suprême*, Editions Complexe, Paris, 1988, p. 28.

79. The Convention Nationale was essentially controlled by the 'Montagnards', the main political party to which the Hébertistes also belonged. Its bitter rivals were the Girondins, a moderate and conservative faction, who were accused of secretly harbouring royalist sympathies. When the Girondins were defeated at the Convention in June 1793 the Hébertistes and the Montagnards lost a common enemy, a serious void, since their politics was mostly dependent on blaming another party and launching fiery verbal attacks on such as 'enemy of the people'. Thus they now deflected their accusations on each other, and soon the mood turned quite deadly. Robespierre, seizing an opportunity provided by a huge fraud and spy scandal which was construed to have involved the Hébertistes, ordered the arrest of Hébert and Chaumette. They were hastily tried and sent to the scaffold in March 1794. Now with no one left to blame and accuse for the problems that the Republic was facing, a terrible feud ensued between Robespierre and Danton – a feud that was to prove fatal for both men. Danton, who had been somehow mixed up in the scandal of the Société des Indes, was accused of treason and sent to the guillotine in April 1794.

80. Faucher, op. cit., pp. 42–4.

81. Kathleen Jones, *Women Saints: Lives of Faith and Courage*, Forest of Peace Publications, Chap. 2, p. 54.

82. See François Victor Alphonse Aulard, *Culte de la Raison*, Paris, 1892 and *Christianity and the French Revolution* (English edn 1927). Aulard published many works of sources on the French Revolution. His best-known work is the *Political History of the French Revolution* (1901). In 1886 Aulard became the first Professor of the History of the French Revolution at the University of the Sorbonne.

83. Vovelle, op. cit. Author Kathleen Jones (op. cit., p. 54) reports the events of sister Madeleine Fontaine (1723–94), a nun who suffered the horrors of this persecution in 1794 and was decapitated by the guillotine in June 1794 under the orders of Joseph Lebon, an apostate priest and a collaborator of Robespierre at the Convention. Sister Madeleine Fontaine, who was in her early seventies, was in charge of a small group of nuns in Arras, where they ran a hospital and a school for children when the Revolution

broke out. Apparently, when she was dragged on to the scaffold, the old nun turned to the crowd and cried: 'Listen, Christians! We are the last victims. The persecution is going to stop. The gallows will be destroyed. The altar of Jesus will rise again gloriously!' Sister Madeleine Fontaine was beatified by Pope Benedict XV on 13 June 1920.

84. Baring and Cashford, op. cit., pp. 399–401. Apparently, the wearing of the Phrygian cap by the revolutionary sansculottes, the most extremist faction of the French Revolution, had been popularized by Jacques-Louis David in *Les Amours d'Hélène et Paris*, which he had painted in 1787 for the Duke of Artois, the future Charles X.

85. Maarten J. Vermaseren, *Cybele and Attis*, translated by A. M. H. Lemmers, Thames and Hudson, London, 1977, p. 10.

86. Baltrušaitis, op. cit., p. 80.

87. Ibid. Actually what Isis has on her head is not a tower but a 'throne'. Its upright shape, however, can easily be mistaken for a tower, indeed as it often was by the Parisian historians of the eighteenth and nineteenth centuries.

88. David Ovason, *The Secret Zodiac of Washington DC: Was the City of Stars Planned by Masons?*, Century, London, 1999, p. 87.

89. Joseph Jérôme Lalande, *Astronomie par M. de la Lande*, 1731, vol. IV, pp. 245ff.

90. Gérard de Nerval, *Les Illuminés*, Editions Folio, Paris, 1976; also see Cagliostro, *Les Païens de la République*, p. 1200.

91. Kerisel, *La Pyramide à travers les âges*, Presse des Ponts et Chaussées, Paris, 1991, p. 160.

92. Vovelle, op. cit., p. 105.

93. Ibid., p. 271.

94. *Grand Larousse*, op. cit., Vol. I, p. 365a.

95. Louis Blanc, *History*, Vol. II, pp. 365–7.

96. *Grand Larousse*, op. cit. Vol. VIII, p. 1014c.

97. 'MM. Dupuis et Lalande voient Isis par-tout... !'; see Baltrušaitis, op. cit., p. 31.

98. Ibid., p. 35; Faucher, op. cit., p. 20.

99. Charles Dupuis, *Origine de tous les cultes ou religion universelle*, Paris, 1794, vol. III, p. 50; Baltrušaitis, op. cit., pp. 24–30.

100. 'Histoire de l'Académie Royale des Sciences, année 1785, compte rendu de J. de Lalande', in *Le Journal des Scavans*, July 1788, pp. 475–8.

101. In the *Pyramid Texts*, which date from the third millennium BC, we read that 'Sothis [Sirius, the star of Isis] is your beloved daughter [of Ra] who prepares yearly sustenance for you in her name of "Year"' (line 965).

Chapter 18: Paris Unveiled

1. Jean Kerisel, *La Pyramide à travers les âges*, Presses des Ponts et Chaussées, Paris, 1991, p. 158.
2. Marcello Fagiolo, *Architettura e Massoneria*, Convivio/Nardini Editore, Florence, 1988, p. 44.
3. James Stephen Curl, *The Art and Architecture of Freemasonry*, B.T. Batsford, London 1991, p. 118.
4. Ibid.
5. Kerisel, op. cit., p. 161.
6. Curl, op. cit., p. 129.
7. Ibid. For a detailed review on the pyramid design and the French Revolution, see J. P. Mouilleseaux, 'Les Pyramides éphémères de la Révolution Française', *Revue FMR*, 21, vol. 6, August 1989.
8. Ibid., p. 129.
9. Ibid., p. 117.
10. Fagiolo, op. cit., p. 53.
11. Sylvie Legaret and Philippe Courtines, *Paris Story*, Editions Denoël, Paris, 1977, p. 83, plate 3.
12. Ibid., plate 6.
13. David Ovason, *The Secret Zodiac of Washington DC: Was the City of Stars Planned by Masons?*, Century, London, 1999, p. 116.
14. Curl, op. cit., pp. 132–3.
15. See notes 47 and 48 of Chapter 12.
16. Michel Vovelle, *La Révolution contre l'Eglise*, Editions Complexe, Paris, 1988, frontispiece.
17. Jean-André Faucher, *Les Franc-Maçons et le pouvoir de la Révolution à nos jours*, Editions Perrin, Paris, 1986, p.34. It may be of interest to note that in 1819 Mme de la Villette, Voltaire's adored step-daughter, opened the so-called 'Adoption' lodge in Paris called

‘Belle et Bonne’ for the Order of Misraim, which practised higher degrees of the Egyptian Rites (see *Les Dossiers de l’Histoire*, No. 7, 98; also see Paul Naudon, *Histoire générale de la Franc-Maçonnerie*, Office du Livre, Paris, 1981, p. 230).

18. Her real name was Marie-Josephe-Rose. She was named ‘Josephine’ by Napoleon after they married in 1796. Apparently the nickname was derived from ‘Joseph’, Napoleon’s younger brother.

19. Gisèle and Yves Hivert-Messeca, *Comment la Franc-Maçonnerie vint aux femmes*, Editions Dervy, Paris, 1997, p. 159.

20. Ibid., p. 160.

21. Ibid., p. 159.

22. Naudon, op. cit., p. 172.

23. François Collaveri, *Napoleon: Empereur Franc-Maçon*, pp. 26–7.

24. Ibid., p. 168.

25. The same had happened much later in 1867 when the Empress Eugénie, a great-granddaughter of Josephine, bedazzled the Khedive of Egypt in one of the most exquisite and daring flirtations in history that eventually led to the construction of the Suez Canal by her cousin, the engineer Ferdinand de Lesseps (see Trevor Mostyn, *Egypt, La Belle Epoque*, Quartet Books, London, 1989, p. 17).

26. Mostyn, op. cit., p. 17.

27. Faucher, op. cit., pp. 9, 32–3. Perhaps it should also be noted that Talleyrand’s illegitimate son, the famous painter Eugène Delacroix, was among the core of agitators accused by the French police of having plotted with the Egyptian Masonic Order of Memphis and the Carbonerie against the restored King Louis XVIII in the failed *coup d’état* of 1822.

28. Bros. Henry Evans, ‘Masonry and Magic in the Eighteenth Century’, in *The Master Mason*, June 1927.

29. Erik Iversen, *The Myth of Egypt and Its Hieroglyphs*, GEC GAD Publishers, Copenhagen, 1961, p. 125.

30. Frances Yates, *The Rosicrucian Enlightenment*, Ark Paperbacks, London, 1986, p. 154.

31. Iversen, op. cit., p. 100.

32. Jean Lacouture, *Champollion: Úne vie de lumières*, Editions Grasset, Paris, 1988, p. 382.

33. Ibid., p. 34.

34. Faucher, op. cit., p. 18.

35. Pierre Chevallier, *Histoire de la Franc-Maçonnerie française*, Librairie Fayard, Paris, 1974, p. 261.

36. Lacouture, op. cit., p. 35.

37. Noakes, *Cleopatra's Needle*, H. F. & G. Witherby, London, 1962, p. 1.

38. Vincent Cronin, *Napoleon*, HarperCollins, 1994, p. 146.

39. Noakes, op. cit., p. 1.

40. A military-political class made up of the descendants of freed slaves.

41. Alan Moorehead, *The Blue Nile*, Penguin, 1983, p. 65. Apparently Napoleon also told the Imams of Egypt: 'In the name of Allah… tell your people that the French are also Muslims… they have [occupied Rome and] ruined the Papal See which was always urging the Christians to attack Islam.. .'

42. Lauren Foreman and Ellen Blue Phillips, *Napoleon's Lost Fleet*, Roundtable Press, New York, 1999, p. 69.

43. Ibid., p. 159.

44. Ibid., p. 49.

45. Moorehead, op. cit., p. 124.

46. Naudon, op. cit., p. 224.

47. See Donald Bullough, *The Age of Charlemagne*, Paul Elek, London, 2nd edn, 1973; also see Russell Chamberlain, *Charlemagne*, Grafton, London, 1986. Apparently Pope Leo III crowned Charlemagne as Holy Roman Emperor in gratitude for having saved him as well as Rome. In the *Frankish Royal Annals* (*Grandes Chroniques de France*) it is reported that one of Charlemagne's advisors suggested the idea to the Pope. According to Einhard, his biographer, as well as other contemporary writers, the coronation actually took Charlemagne by surprise and made him angry. This, say modern scholars, is because Charlemagne considered the Pope to be a mere subject of his vast empire.

48. Pope Pius VII, who had been forced to participate in this charade, was to take his revenge when Napoleon's empire began to crumble. Firstly in 1814, the Pope restored the Order of the Jesuits, which had been banned from France in 1764, and later, when the French had forced an earlier pope, Clement IX, to completely dissolve the Jesuit Order in 1773. Perhaps not unrelated, in 1821, when Napoleon was dying a solitary death at St

Helena, Pius VII issued his famous Bull, *Ecclessiam a Jesu Christo*, condemning Freemasonry and the Carbonari in all Christendom (see Faucher, op. cit., p. 71).

49. Naudon, op. cit., p. 78.

50. Court de Gebelin, *Monde primitif analysé et comparé avec le monde moderne*, Paris, 1773.

51. F. Noël, *Dictionaire de la fable*, Paris, 1823.

52. Jean Duché, *L'Histoire de France raconté à Juliette*, vol. II, Presse Pocket, Paris, 1954, p. 237.

53. Faucher, op. cit., p. 315.

54. See F. Collaveri, *La Franc-Maçonnerie des Bonapartes*; also see Gérard Galtier, *Maçonnerie égyptienne, Rose-Croix et Neo-Chevalerie: les fils de Cagliostro*, Editions du Rocher, Paris, 1989, p. 139; see also Naudon, op. cit., p. 97.

55. Chevallier, op. cit., vol. II, pp. 17–30.

56. See Collaveri, op. cit., annex iv.

57. Ibid., p. 67.

58. Ibid., p. 68.

59. *The Kneph*, vol. III, no. 6, June 1883, p. 45; see Galtier, op. cit., pp. 139–40.

60. Jean-Marcel Humbert, *L'Egyptomanie dans l'art occidental*, ACR, Paris, 1989, p. 40.

61. Naudon, op. cit., p. 124.

62. Humbert, op. cit., p. 48; although the foundation stones were laid as well as the raising of a cardboard model of the building, the project was eventually abandoned due to lack of funds.

63. Lacouture, op. cit., p. 20.

64. Ibid., pp. 55, 63.

65. Ibid., pp. 54–5.

66. Jurgis Baltrušaitis, *La Quête d'lsis*, Flammarion, Paris, 1985, p. 55, see also plate 3.

67. Ermanno A. Arslan, *Iside: Il Mito, Il Misterio, La Magia*, Electra Editore, Milan, 1997, p. 645.

68. The architects were: Chalgrin (1806–11), Joust (1811–14), Blouet (1833–6). The sculptors were: Cortot, Rude, Etex, Pradier, Lemaire.

69. Also known as *l'Apothéose de Napoléon*.

70. Baltrušaitis, op. cit., p. 80.

71. Ibid.

72. Ibid., p. 8.

73. Margaret Laing, *Josephine and Napoleon*, Sidgwick & Jackson, London, 1973, pp. 131–2.

74. *Project d'Achèvement de l'Arc de Triomphe de l'Etoile, Monument des Victoires, Sciences et Arts, ou de la Légion d'Honneur, offert au Roi des Français, Louis-Philippe 1er, et aux Deux Chambres*. A photograph of this project can be seen in the museum of the Arc de Triomphe.

75. Naudon, op. cit., p. 78; Faucher, op. cit., pp. 22 and 62–3.

76. The Count of Artois had another son, Louis Antoine, but he was believed to be impotent.

77. Naudon, op. cit., p. 98.

78. Faucher, op. cit., p. 71.

79. Faucher, op. cit., pp. 72–4.

80. Ibid., p. 73.

81. Galtier, op. cit., p. 121.

82. 'Charles X et l'Egypte', article by Jean-Marcel Humbert, Conservateur du Patrimoine, Directeur du Musée National de la Légion d'Honneur in Paris.

83. Lacouture, op. cit., p. 38; see also *Mémorial de Sainte-Helene*, Seuil, Paris, 1968. chap. 1, p. 67.

84. Lacouture, op. cit., pp. 333–74.

85. Ibid.

86. Ibid., p. 340.

87. Ibid., p. 324.

88. Faucher, op. cit., p. 73.

89. Lacouture, op. cit., p. 465.

90. Galtier, op. cit., p. 40.

91. Lacouture, op. cit., p. 33.

92. Ibid., p. 190.

93. Lacouture, op. cit., pp. 33 and 549.

94. Ibid., p. 550; Naudon, op. cit., p. 166.

95. Galtier, op. cit., pp. 150–51.

96. Ibid.

97. Ibid.

98. Ibid.

99. This painting can be seen in room no. 30 in the Sully wing of the Louvre Museum, the interior of which was designed by the architect Fontaine during the reign of Charles X.

100. Lacouture, op. cit., p. 727.

101. Galtier, op. cit., p. 151.

102. Belzoni is a character well known to British Freemasons. He had married an Englishwoman called Sarah and who, after Belzoni's death, was very active in promoting his Masonic thesis that the Egyptian god Osiris had been a 'Freemason' because he was 'clad in the distinctive Masonic apron' as was obvious, at least to Belzoni and his followers, from depictions on many Egyptian monuments (Martin Short, *Inside the Brotherhood*, Grafton Books, London, 1989, p. 118). It was Belzoni, of all people, who was to discover the magnificent tomb of Sethi I, the 'Sesotris' that had been the subject of much Masonic controversy in England and France. Belzoni, with the help of Henry Salt, had made a full-scale facsimile of this temple and had it shipped to Europe in 1818. First to Paris, then to London in 1821, where it had made a sensation, especially in Masonic circles (see *Who Was Who in Egyptology* pp. 23–4). It is interesting to note, therefore, that Champollion, in March 1829, gave a party inside the temple of Sethi I in honour of the birthday of his daughter Zoraide, and also to the 'late Belzoni' (who died in 1825), whom Champollion apparently much admired. (See Lacouture, op. cit., p. 661.)

103. Lacouture, op. cit., pp. 636 and 668.

104. Ibid., pp. 613 and 618.

105. Ibid., p. 731.

106. Ibid., p. 734.

107. Ibid., p. 742.

108. Five of the founders of the Third Republic were Freemasons, including their leader, Léon Gambetta (see Faucher, op. cit., pp. 9 and 85).

109. Faucher, op. cit., p. 8; François Mitterrand is often confused with Jacques Mitterrand, who was a Grand Master of Grand Orient of France in the 1960s (see Faucher, op. cit.,

pp. 169–70).

110. Faucher, op. cit., p. 275.

111. BBC News, Africa, 22 December 2000 16:01 GMT; see also ParisMatch.com/news/mit2812/s4page03self.stm.

112. *The New Louvre*, Publications Connaissance des Arts, p. 36.

113. *La Grande Arche*, Publications Beaux Arts, p. 3.

114. *The New Louvre*, p. 38.

115. Ibid., p. 36.

116. Ibid.

117. Ibid., p. 38.

118. *Sunday Express*, 3 February 1994, sect. 3, p. 7.

119. Ibid.

120. *The New Louvre*, p. 44.

121. Kerisel, op. cit., p. 157.

122. Ibid., p. 177.

123. *La Grande Arche*, p. 6.

124. Ibid., p. 19.

125. Ibid., p. 22.

126. Ibid., p. 31.

127. Ibid., p. 19.

128. Ibid., p. 11.

129. 'Je n'ai pas vérifié, mais on dit que le grand axe Arche de la Défense/Obélisque de la Concorde/Pyramide du Louvre est une ligne maçonnique, que ce n'est pas le fruit du hasard… Il est connu que les maçons trouvent leurs sources dans l'Egypte ancienne' (Jean-Marcel Humbert, Docteur en égyptologie, on NovelObs.com).

130. Jean Nouvel was born in 1945 at Fumel, a village in the south-west of France. He worked with an architectural firm while attending school. In 1975, he opened his own office and participated in several competitions. Nouvel has worked to create a stylistic language separate from that of modernism and post-modernism. Rejecting the strict obedience to Le Corbusier that had stifled much of modern architecture, Nouvel initiates

each project with his mind cleared of any preconceived ideas. Although he may borrow from traditional forms, he creates a building that stretches beyond traditional constraints. He places enormous importance on designing a building harmonious with its site and surroundings. Although he relies on context to generate his designs, a certain continuum occurs from one design to the next. Within nearly all of his designs, he consistently presents an interplay of transparency, shadow and light. In 1981, Jean Nouvel won the competition for a series of 'great projects' requested by François Mitterrand, the French President. In 1987 he was awarded the 'Grand Prix d'Architecture' for his whole body of work and the 'Equerre d'Argent' for his design work on minimalist pieces of furniture. Some of his well-known projects are: The Arab World Institute (Paris, 1987) and the Monolith (Morat, Switzerland, 2002).

131. See *Guardian*, 21 May 2001: 'There are some buildings that deserve to have been built but never were. Jean Nouvel's Tour Sans Fin is one of them. Designed at the end of the 1980s, this Eiffel Tower-high glazed cylinder was to have risen up from the bombastic banality of La Défense, the vast office quarter at the western end of the Champs-Elysées, only to vanish as it kissed the sky.'

132. Quote from Thomas Paine, 'Origin of Freemasonry', in Moncure Daniel Conway (ed.), *The Writings of Thomas Paine*, G. P. Putnam's Sons, New York, 1896: 'In 1730, Samuel Pritchard, member of a constituted lodge in England, published a treatise entitled "Masonry Dissected"; and made oath before the Lord Mayor of London that it was a true copy. "Samuel Pritchard maketh oath that the copy hereunto annexed is a true and genuine copy of every particular." In his work he has given the catechism or examination, in question and answer, of the Apprentices, the Fellow Craft, and the Master Mason. There was no difficulty in doing this, as it is mere form. In his introduction he says, "the original institution of Masonry consisted in the foundation of the liberal arts and sciences, but more especially in geometry, for at the building of *the tower of Babel*, the art and mystery of Masonry was first introduced, and from thence handed down by Euclid, a worthy and excellent mathematician of the Egyptians; and he communicated it to Hiram, the Master Mason concerned in building Solomon's Temple in Jerusalem"'.

133. See *New York Observer*, 13 April 2003.

134. Furthermore, the axis now exits through Room 26 of the Sully Wing, built by Le Vau under Louis XIV in 1668. Oddly, this room was decorated again much later in 1832 by the architect Fontaine, with wood panels bearing the arms of Anne of Austria, and has a

painting of the queen dressed as Minerva, holding the hermetic caducei, and facing a painting of her husband Louis XIII. Even more intriguing is the recent addition of a statue of the Egyptian supreme solar god, Amun, that is placed between the two paintings and smack at the centre of Room 26, Sully Wing. At the temple of Luxor the god Amun was said to 'visit' the queen mother in a special 'birth room' in order to make her pregnant with the seed that would bear the solar king. Amun, too, had reputedly visited the apartments of Queen Olympias making her pregnant with the seed that would bear Alexander the Great. Bearing all this in mind, then it is particularly interesting to note that Room 26, Sully Wing aligns with the equestrian statue of the Sun King Louis XIV as 'Alexander the Great' which stands in the front courtyard of the Louvre.

135. Robert Bauval, *Secret Chamber*, Arrow Books, London, 2000, Update, Prologue and Epilogue.

136. *Dossiers: Histoire et Archéologie*, vol. 101, January 1986.

137. Gérard Bauer, *Tableaux Choisis: Paris*, p. 41.

138. The evidence, both historical and astronomical, suggests that when André Le Nôtre projected the Historical Axis at 26 degrees north-of-west, he was incorporating a solar alignment for the glory of his monarch, Louis XIV. But he is very unlikely to have considered the alignment of Luxor-Karnak at Thebes in Upper Egypt, as there is no evidence that plans of Thebes existed during his time. However, that was not the case in 1828, when the decision was made to bring one of the Luxor obelisks to Paris and raise it in the Place de la Concorde. The city of Thebes had been mapped in 1799 by Napoleon's army and made public in the *Description de l'Egypte*. It would be from that time onwards that the idea of a correlation between the Historical Axis in Paris with that of Luxor-Thebes might have been envisaged by the French architects. Indeed, when one considers the location of the Paris obelisk, it is hard to see how they could have failed to notice the uncanny similarity between the two.

139. Jean Lacouture, op. cit., Epilogue, 'L'Absent Obelisque' by Jean Vidal, p. 731.

Chapter 19: The Cornerstone

1. David Ovason, *The Secret Zodiac of Washington DC: Was the City of Stars Planned by Masons*?, Century, London, 1999, p. 76.

2. See E. C. Krupp, *In Search of Ancient Astronomies*, Chatto & Windus, London, 1979.

3. Ovason, op., cit., p. 5. For a fuller discussion on this, see also Norman Lockyer, *The Dawn*

of Astronomy, London, 1894.

4. Although the 'Isis Fountain of Regeneration' ceremony in Paris, which took place on 10 August 1793, was related to a political date, we cannot help being intrigued by the symbolism involved: Isis on a throne flanked by lions, gushing water from her nipples. The star Sirius was, on that day, rising at dawn cosmically with the sun which, at that time, was in Leo. In ancient Egypt the symbolism was clear: the goddess Isis brought the regenerative waters of the Nile's flood at about this time of year. It would seem unlikely that the organizers of this ceremony in Paris were unaware of this connection. As we have already noted elsewhere, the 'propaganda' artist Jacques-Louis David had taught symbolism to Picot who, in 1827, painted Isis on the lion throne in the Louvre.

5. Steven C. Bullock, *Revolutionary Brotherhood*, University of North Carolina Press, Chapel Hill, 1996, p. 137.

6. Fred Pick and G. Norman Knight, *The Pocket History of Freemasonry*, Frederick Muller, London, 1953, p. 275.

7. William Adrian Brown, *History of the George Washington Masonic Memorial*, 1980, pp. 8–9.

8. Ibid., p. 56.

9. Ibid., p. 9.

10. Bernard Weisberger, *Statue of Liberty: First Hundred Years*, p. 30; see also James Lloyd, *Beyond Babylon*, p. 103.

11. Gérard Galtier, *Maçonnerie égyptienne, Rose-Croix et Neo-Chevalerie: les fils de Cagliostro*, Editions du Rocher, Paris, 1989, p. 19.

12. Ibid., p. 150.

13. Jean Kerisel, *La Pyramide à travers les âges*, Presses des Ponts et Chaussés, Paris, 1991, p. 176.

14. Ibid., p. 138.

15. '*Statue of Liberty': The Reader's Digest Companion to American History*, January 1991.

16. Bernard Mathieu, 'Le Phare d'Alexandrie', in *Egypte, Afrique et Orient*, 6, Avignon, September 1997, p. 14.

17. Paul Naudon, *Histoire générale de la Franc-Maçonnerie*, Office du Livre, Paris, 1981, p. 170.

18. Ibid., p. 167.

19. Ibid., p. 171.

20. Pierre Chevallier, *Histoire de la Franc-Maçonnerie française*, Librairie Fayard, Paris, 1974, II, p. 487.

21. Garibaldi took over from Salvatore Zola, an Italian living in Egypt who was a relative of the famous French novelist Emile Zola. Salvatore Zola had fought with Garibaldi in the 1850s; later, in 1896, Zola resigned from Freemasonry and ended his life in a mental hospital, see Galtier, op. cit., p. 153; also see *Dossier de l'histoire*, 2117 RD 7, pp. 116–19.

22. *Freemasonry Today*, 19, January 2002, p. 12.

23. Robert Bauval, *Secret Chamber*, Century Books, London, 1999, Epilogue. See also Robert Lomas and Christopher Knight, *The Second Messiah*, Arrow Books, London, 1998, p. 288. Also in his essay 'Origins of Freemasonry', Tom Paine was to write these cryptic words: 'The Masons, in order to protect themselves from the persecution of the Christian Church, have always spoken in a mystical manner of the figure of the sun in their lodges, or, like the astronomer Lalande, who is a Mason, been silent upon the subject.'

24. Data source: Skymap Pro v.7. The 5/6 August is for the latitude of Heliopolis (30° north). In New York, which has a latitude of 44.5°, the heliacal rising in 1884 would have been around 12 August. Bartholdi may have opted for the original Egyptian latitude that marked this event. Oddly, we shall again encounter the date of 12 August as we examine the layout of Washington, DC later in this book.

25. Martin Isler, 'The Gnomon in Egyptian Antiquity', in *JARCE*, 28, 1991, pp. 167–8, and, 'An Ancient Method of Finding and Extending Directions', in *JARCE*, 26, 1989, pp. 201–2. See also E. C. Krupp, op. cit., pp. 197–9. Also N. Lockyer, *The Dawn of Astronomy*, London, 1894, pp. 192–5.

26. E. A. Wallis Budge, *Cleopatra's Needle and other Egyptian Obelisks*, Dover Publications, New York, 1990, p. 166. The two obelisks had originally belonged to Thothmoses III, the great warrior-pharaoh who is often dubbed the 'Napoleon of 18th Dynasty Egypt' (Martina D'Alton, *The New York Obelisk*, Metropolitan Museum of Arts, New York 1993, p. 3), and had once adorned the temple of sun-god Atum-Re in the ancient Anu (On), the City of the Sun, Labib Habachi, *The Obelisks of Egypt: Skyscrapers of the Past*, The American University Press, Cairo, 1984, pp. 165–7). Three others belonging to Thothmoses III had also once stood at the temple of Amun at Karnak (Budge, op. cit., p. 129). On the 'New York' obelisk (erroneously called 'Cleopatra's Needle') the hieroglyphic inscriptions confirm that the pharaoh Thothmoses III (his name literally means 'Son of Thoth') was 'Governor of Heliopolis' and it was he who had made these

two obelisks for his ‘father’, Atum-Re, the ‘Lord of Heliopolis’ (Budge, op. cit., p. 172).

27. D’Alton, op. cit., pp. 42–4; see also Habachi, op. cit., and Budge, op. cit.

28. Robert Bauval, *The Orion Mystery*, Heinemann, London, 1994, Epilogue.

29. Richard Noone, *5/5/2000, Ice: The Ultimate Disaster*, Three Rivers Press, New York, 1982, p. 19.

30. D’Alton, op. cit., pp. 41–2.

31. Ibid., p. 12.

32. Pick and Knight, op. cit., p. 331; see also Robert Bauval, *Secret Chamber*, Arrow, London, 2000, p. 185.

33. Galtier, op. cit., pp. 429–31.

34. Ibid., p. 153.

35. Ibid., p. 152.

36. Noone, op. cit. p. 19.

37. Ibid., p. 20; see also D’Alton, op. cit., p. 27.

38. D’Alton, op. cit., p. 27.

39. Ibid., p. 10.

40. Ibid., p. 42.

41. Ibid., p. 44.

42. Ibid., p. 25.

43. S. Coolidge, *A Short History of the City of Philadephia from its Foundation to the Present Time*, Arden Press, 1880, Chap. 3. It has also been suggested that Penn was inspired by a utopian Renaissance city plan by Cataneao in 1567, although this seems unlikely.

44. Ovason, op. cit., p. 41.

45. Thomas Paine, ‘Origins of Freemasonry’, in Moncure Daniel Conway (ed.), *The Writings of Thomas Paine*, G. P. Putnam’s Sons, New York, 1896.

46. Ibid.

47. Using StarryNight Pro v.4, for epoch 1683 AD. The dates given are Gregorian. In Britain and the colonies they were still using the Julian calendar, even though it had been introduced in 1582 by the Vatican. It is possible that the Quakers also used the solar/Gregorian calendar at that time.

48. Thomas Holme, *Portrait of the City of Philadephia*, 1683.

49. *The Pennsylvania Freemason*, vol. 43, no. 2, May 1996.

50. Naudon, op. cit., p. 181. The St John's Lodge in Boston is often cited as being the first to have formal documentation to prove its origin.

51. Pick and Knight, op. cit., p. 271.

52. Ibid.

53. Jasper Ridley, *The Freemasons*, Constable & Co., London, 1999, p. 92.

54. Jurgis Baltrušaitis, *La Quête d'Isis*, Flammarion, Paris, 1985, pp. 201–8.

55. Paine, op. cit.

56. Ibid.

57. Naudon, op. cit., p. 32.

58. Ibid., p. 81.

59. Ibid.

60. Jacques Debu-Bridel, *La Fayette: une vie au service de la liberté*, Editions Nouvelles de France, Paris, 1945, p. 27.

61. Ibid., p. 29.

62. Naudon, op. cit., p. 198.

63. See http://www.srmason-sj.org/web/temple.htm.

64. Albert Pike, *Morals and Dogmas of the Ancient and Accepted Scottish Rite of Freemasonry*, prepared for the Supreme Council of the Thirty-third Degree for the Southern Jurisdiction of the United States, Charleston, 1871, p. 486.

65. Dr Rex R. Hutchens, *Albert Pike – The Man Not the Myth*, address to the Supreme Council of the Thirty-third Degree for the Southern Jurisdiction of the United States, 17 October 1989.

66. Albert Pike, op. cit.

67. Robert Temple, *The Sirius Mystery*, Century, London, 1998, p. 404.

68. *Argonautica*, 2.518ff. and 3.958ff.

69. *Phaenomena*, 328.

70. *Encyclopaedia Britannica*, vol. 9, p. 65.

71. *The Scottish Rite Journal*, see http://srjarchives.tripod.com/1998–03/beless.htm.

72. Ibid.

73. Ibid.

74. Paine eventually shipped the key to George Washington, and it is now displayed in the Mount Vernon Washington Home.

75. Baltrušaitis, op. cit., pp. 52–3.

76. Manly P. Hall, 'Rosicrucian and Masonic Origins', in *Lectures on Ancient Philosophy – An Introduction to the Study and Application of Rational Procedure*, The Hall Publishing Company, Los Angeles, 1929, pp. 408–9.

77. The 'paths' are obtained by adding the twenty-two letters of the Hebrew alphabet to the ten Sephiroth. See Chapter 14.

78. Charles Sumner Lobingier, *The Ancient and Accepted Scottish Rite of Freemasonry*, Kessinger Publishing Co., Montana, 1931, p. 4.

79. *Theosophy Magazine*, vol. 27, no. 2, December, 1938.

80. Thomas Edison, 'The Philosophy of Paine', (7 June 1925), in Dagobert D. Runes (ed.), *The Diary and Sundry Observations*, 1948.

81. See article by David Cody, Associate Professor of English, Hartwick College, at http://65.107.211.306/Victorian/history/hist7.html. William Blake had just completed his poem 'The French Revolution' and was already nurturing his poetic vision of turning England and the city of London into a 'New Jerusalem'. Although Blake himself was not a Freemason, he nonetheless produced the famous etching of the 'supreme being' as the great architect of creation, wielding his compass in the act of creation, that Masonic publications are so fond of.

82. We are indebted to Ms Mimi Murray, a graduate of Johns Hopkins University, for making available to us her college major's thesis on Pierre-Charles L'Enfant.

83. Library of Congress, *Washington Papers*.

84. The Cincinnati Society was formed on 13 May 1783 at Verplanck House in Fishkill, New York. The first chapters were limited to the thirteen colonies in America and France. The society was mostly the idea of Major-General Henry Knox, Commander of the continental army artillery and America's first Secretary of War. Knox was Secretary-General of the society under George Washington, who remained President until his death in 1799. Eligibility in the society was offered to officers who had served in the war. Of the 6000 or so officers who were eligible, only 2403 joined, mostly coming from the Delaware area.

About 250 French officers also decided to join.

85. *Washington Post*, 13 December 2001, p. CO1. Later presidents who have belonged to the Cincinnati include Jackson, Taylor, Pierce, Buchanan, Grant, Cleveland, Benjamin Harrison, McKinley, Theodore Roosevelt, Franklin D. Roosevelt, Taft, Wilson, Harding, Hoover and Truman. The organization's headquarters is at the splendid fifty-roomed Anderson House at 2118 Massachusetts Avenue NW, Cincinnati. Its last original member died in New York in 1854, and today the society is still open only to direct descendants of the original members.

86. Bullock, op. cit., p. 130.

87. Jean-Jules Jusserand was also a Pulitzer Prize Winner for History in 1917.

88. From Jean-Jules Jusserand (1855–1932), *With Americans of Past and Present Days*, 1916.

89. See *The Journal of Andrew Ellicott*, 1803.

90. H. Paul Caemmerer, *The Life of Pierre Charles L'Enfant*, De Capo Press, New York, 1950, p. 135.

91. Ibid., p. 167.

92. Ellicott did, however, change the alignment of Massachusetts Avenue and deleted some five short radial avenues. He also added two short radial avenues to the south-east and south-west of the US Capitol and participated in the naming of the streets.

93. Michael Baigent and Richard Leigh, *The Temple and the Lodge*, Jonathan Cape, London, 1989, p. 262; Ovason, op. cit., pp. 42–3.

94. First printed edition of the L'Enfant plan, G3850 1792 L4 Vault.

95. March Issue, 1793, pp. 155–6; published in Philadelphia by William Young, Bookseller, No. 52 Second-Street, the corner of Chestnut-Street. A larger print of this map had, in fact, already been published several months earlier, in November 1792, by Thackara and Vallance. The same map also appeared facing the title-page of *Observations on the River Potomack, the Country adjacent and the City of Washington* by Tobias Lear, and printed by Samuel Loudon and Son, No. 5 Water-street, New York, 1793.

96. Data from the *Encyclopaedia Britannica*.

97. Ovason, op. cit., p. 42.

98. Ibid., p. 83.

99. Although it is generally said that it was the André Le Nôtre design of Versailles and not Paris that influenced L'Enfant, the similarity of the main axial layout of Washington, DC

with Paris is uncanny and too striking to be ignored. See *Washington Architecture 1791–1957*, Prepared by a Committee of the Washington-Metropolitan Chapter American Institute of Architects, Reinhold Publishing Corporation, New York, 1957, pp. 5 and 36.

100. R. Cameron, *Above Washington*, Cameron & Co., San Francisco, 1996, plate on p. 81.

101. Ibid., plate on p. 42

102. This new Exchange was also destroyed by fire in 1838. The present Royal Exchange was built in 1842–44, and apparently cost £150,000 at the time.

103. Taken from *The Last Will and Testament of Sir Thomas Gresham*, published in London 1765.

104. Robert Lomas, *The Invisible College*, Headline, London, 2001, p. 292.

105. A. Tinniswood, *His Invention so Fertile: A Life of Christopher Wren*, Jonathan Cape, London, 2001, p. 150.

106. MS Ashmole 242, f.78; see C. H. Josten (ed.) *Elias Ashmole (1617–1692) His Autobiographical and Historical Notes, His Correspondence and Other Contemporary Sources relating to his Life and Works*, edited with a biographical introduction, 5 vol., Oxford University Press, Oxford, 1966, vol. 3, pp. 1, 112. This entry by Elias Ashmole is accompanied by an astrological horoscope and inscribed notes by the astrologer William Lilly (see *History of Astrology*, edited by Annabella Kitson, Mandala-Unwin Paperbacks, London, 1989, p. 200).

107. Ibid., no. 4.

108. Annabella Kitson (ed.), *History of Astrology*, Mandala-Unwin Paperbacks, London, 1989, pp. 199–204.

109. MS Ashmole 1136, f. 53; cited in *Elias Ashmole*, vol. 4, pp. 1, 432.

110. *History of Astrology*, pp. 199–200.

111. It would not be until 1752 that the Gregorian calendar was introduced in England.

112. See calendar converter at: http://abstract.cs.washington.edu/~dougz/cgi-bin/date.pl?date=4+july+1667.

113. Apparently the Declaration of Independence was voted by Congress on 2 July 1776 and only agreed unanimously on 4 July. It was then read out publicly on 8 July. See Ovason, op. cit., pp. 142–3. 23 June 1776 (Julian) converts to 4 July 1776 (Gregorian).

114. For a full discussion as to why Virgo was significant to Washington, DC, see Ovason op. cit., Appendix, pp. 357–91.

115. Ovason, op. cit., p. 379.

116. A very critical review of Ovason's 'astrological' theory for Washington, DC has been published by the author Michael Baigent in *Freemasonry Today* (vol. 15, 1999). In a private conversation with Baigent during the writing of *Talisman*, he informed Robert Bauval that Ovason's knowledge of astrology seemed very poor, and there were many mistakes in his book. There are, too, several astronomical errors. But in spite of this, Ovason's detailed and meticulous research into the documentation and records of the event surrounding the design and building of Washington, DC is excellent, and was most useful to us in the writing of this book.

117. Ovason, op. cit., p. 118.

118. The only surviving record of this very important Masonic ceremony is in a short letter printed in one of the Charleston newspapers when the Georgetown lodge no. 9 of Maryland gathered on the site for the cornerstone ceremony on Saturday, 13 October 1792. The cornerstone was laid on the south-west corner of the President's house (later to be called the White House, by virtue of it being painted white after being scorched by fire in 1814 by the British artillery guns).

119. According to Ovason's observation of the setting sun on 12 August along Pennsylvania Avenue, the axis would have to be between 20° and 22°, depending on the height of the observer. Ovason recognized this in his notes (see Ovason, op. cit., p. 456, n. 69). This fact was verified for us on 11–12 August 2003 by David Hudgins, Ph.D., CFM, University of Oklahoma, who took a digital photograph of the event.

120. This happens almost every day of the year, except for about 2½ months when this star is not visible at night. David Ovason thinks that the alignment from the White House to the Capitol (i.e., along Pennsylvania Avenue) was deliberately designed to point at the setting sun (see Ovason, op. cit., p. 337). Considering that Ovason makes a strong case that the five-pointed 'Egyptian' star symbol of Sirius was integrated into the fabric of the Declaration of Independence and the 'cornerstone ceremony' of the Washington National Monument (the Egyptian-style obelisk), it is curious, to say the least, that he did not realize the significance of the stellar alignment to Sirius of the White House–US Capitol axis along Pennsylvania Avenue.

121. Ovason, op. cit., p. 337.

122. Ibid., p. 456, n. 69. Not knowing, however, from what vantage height Ellicott and L'Enfant made their observations, Ovason decided to establish his solar alignment by direct observations from 6 to 12 August.

123. Ibid., pp. 47 and 58.

124. Ibid., p. 127.

125. Ibid.

126. Peter Tompkins, *The Magic of Obelisks*, London, 1981, pp. 322–9.

127. Ovason, op. cit., p. 129.

128. Quote in ibid., p. 87 from J. J. Lalande, *Astronomie par M. de la Lande*, Paris, 1731, 2nd edn in 4 vols., vol. 1, p. 245.

129. According to StarryNight Pro v.4 this event took place at about 4 p.m.

130. Ovason, op. cit., p. 137.

131. Naudon, op. cit., p. 79.

132. The Pentagon was conceived at the request of Brigadier-General Brehon B. Sommervell, Chief of the Construction Division of the Office of the Quartermaster General, on a weekend in mid-July 1941. The purpose was to provide a temporary solution to the War Department's critical shortage of space. The building was dedicated on 15 January 1943, nearly sixteen months to the day after the ground breaking.

133. See article by Bernard Tate in *Headquarters US Corps of Engineers*, on http://www.hq.usace.army.mil/cepa/pubs/oct01/story4.htm.

134. R. Cameson, op. cit., p. 32.

135. F. D. Roosevelt's vice-President, Harry Truman, received the degrees in Belton lodge no. 450; he organized and became a charter member of Grandview no. 618. He served in France as a captain in the US army in the First World War. He served as both district lecturer and deputy Grand Master for several years. He was elected Grand Master of Masons in Missouri in 1940. He always claimed this was the greatest honour that had ever come to him. He received the first Gourgas Medal of the Scottish Rite, NMJ, granted while he was serving as a Senator. He worked for servicemen and women through The Masonic Service Association during the Second World War. Elected Vice-President in 1944, he became President on the death of Franklin D. Roosevelt (a Mason) on 12 April 1945. He died on 26 December 1972. On the 28th he was buried on his library's grounds with impressive rites. These included the only Masonic funeral service ever televised worldwide.

136. Bauval, op. cit. Chap. 7.

APPENDIX: The Day that Shook the Arab World

1. This story was also reported on SkyNews.
2. The original impetus behind the creation of the state of Israel in 1948 started with the so-called Balfour Declaration on 2 November 1917. Arthur James Balfour (1848–1930) was the British statesman who maintained a position of great power within the Conservative Party for fifty years. He was Prime Minister from 1902 to 1905 and Foreign Secretary from 1916 to 1919. Many Masonic researchers believe that Lord Balfour was a Freemason, but the United Grand Lodge denies this. At any rate, after being prompted by Zionist leaders Chaim Weizmann and Nahum Sokolow, Balfour wrote to Baron Rothschild, a leading financier in England and head of the Zionist movement in the UK. His famous letter from the Foreign Office is typed on plain paper:

   Dear Lord Rothschild,

   I have much pleasure in conveying to you on behalf of his Majesty's Government, the following declaration of sympathy with Jewish Zionist aspirations which has been submitted to, and approved by, the Cabinet.

   'His Majesty's Government views with favour the establishment in Palestine of a national home for the Jewish people, and will use their best endeavours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine, or the rights and political status enjoyed by Jews in any other country'

   I should be grateful if you would bring this declaration to the knowledge of the Zionist Federation.

   Yours,

   Arthur James Balfour

3. See Robert Rockaway, 'FDR's Plan for a Jewish State in Palestine', *Israel Insider*, 25 December 2002, and Robert H. Abzug, *America Views the Holocaust 1933–1945. A Brief Documentary History*, St Martin's, Bedford, 1999, pp. 134–5.

4. Mark Clifford is often said to have been the real influence on Truman on this matter. But in the words of Clifford himself, ‘President Truman said he would like me to prepare the case for the formation of a Jewish homeland as if it were a case to be presented to the Supreme Court.’

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GRAHAM HANCOCK, EDITOR

THE DIVINE SPARK

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disinformation®

Published by Disinformation Books,
an imprint of Red Wheel/Weiser, LLC
with offices at
665 Third Street, Suite 400
San Francisco, CA 94107
www.redwheelweiser.com

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ISBN: 978-1-938875-11-3

Library of Congress Cataloging-in-Publication data available upon request.

Cover and text design by Jim Warner.
Cover photograph © xrender / istock.
Printed in the United States of America
EBM

10 9 8 7 6 5 4 3 2 1

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INTRODUCTION

BY GRAHAM HANCOCK

I've been very lucky; I feel I've been blessed; I've lived a blessed life. I'm grateful to the universe for giving me the chance to live this life.

But why am I here? Why are you here? Why are we *all* here on planet earth? Why are we conscious? What are our lives *for?*

In answer to such questions, I can't offer any facts. I can only give you my view, which is that this world is a theatre of experience and that consciousness is fundamentally *nonphysical* and one of the driving forces of the universe like gravity or electricity. My guess is that consciousness has chosen to manifest in physical form and perhaps has invested in a very long process of manifestation on the earth—a four-and-a-half-billion-year process using evolution.

So . . . I'm not against evolution. Evolution is obvious. It's a fact. It's there. But the fact that it's there gets over-interpreted. It gets loaded down with a lot of baggage that it shouldn't really be carrying. For example, materialist scientist Richard Dawkins, author of *The Selfish Gene*, goes so far as to claim that the existence of evolution *proves* that there's no transcendental meaning to life, that there's no such thing as spirit, that consciousness cannot survive physical death—and so on and so forth.

What Dawkins doesn't consider is the possibility that "the spirit world" (for lack of a better phrase) has *used* evolution to manifest physical entities in which consciousness can emerge and express itself and learn lessons. What he doesn't consider, in other words, is the possibility that consciousness comes first while physical realms and beings are manifestations or projections of that primordial consciousness—as above, so below, as many ancient wisdom traditions state.

According to these traditions, the world is indeed a theatre of experience and we find ourselves on its stage in order to learn lessons that can only be taught in a physical realm. Moreover, we are enjoined to be aware that we have been given a precious opportunity to be born into this world of matter and consequences as human beings (rather than as fruit flies, or slime molds, or cockroaches, or stones). After all, the whole biosphere is here to support us. Four billion years of evolution on earth have led us to a point where we can make very fine distinctions between good and evil, darkness and light, love and fear—where we can make conscious choices that will impact us and others in profound ways.

This is why, in my view, modern technological society can only be described as demonic. It appears to have been expressly engineered to switch people off to the wider implications, and the wider mystery, of being alive. It bombards our consciousness with sterile, soulless messages of production and consumption, of envy and greed, that never get to the fundamentals of anything. It seeks

to convince us that we're just meat—just accidents of physics and chemistry—that our only purpose is to produce and consume as much as possible, and that when we're dead, we're dead and that's the end.

I don't believe those messages! I think we're part of a very long journey—and that we may manifest in human form many times upon this earth. Reincarnation makes perfect sense to me precisely because I don't see consciousness as a mere "epiphenomenon of brain activity," as a man like Richard Dawkins must, but as the true source of all created things.

I am not alone in this intuition of the primacy of consciousness; indeed, it is shared by all the contributors to this volume and, I suspect, in various guises, by a great many others, all around the world, who have successfully resisted the mental virus mind-programming of modern technological society. But how to take that resistance further? How, if we are beings of consciousness, are we to attempt to penetrate the mystery of consciousness itself and

perhaps even discover who or what we really are and why we're here?

At the level of scientific research, I'm not sure how much further scope there is for physical probing of the brain, whether directly through surgical procedures or dissection, or indirectly by means of CT scans, MRI scans, PET scans, intracranial electrophysiology, and so on and so forth. Yes, we can compare healthy and diseased brains, and we can map brains and arrive at fairly definite conclusions about the functions of different brain areas, and we can even digitally reconstruct neurons, but I suspect the real breakthroughs in our understanding of consciousness are going to come from an entirely different direction.

That direction, controversially, has to do with psychedelics—which, as many of the contributors to *The Divine Spark* argue, offer spectacular potential for the investigation of the "hard problem" of consciousness. After a hiatus of nearly half a century, this potential is again beginning to be explored by science—

although as yet only in tentative and limited ways that focus on therapeutic outcomes and that shun the use of psychedelics to explore the deeper mysteries of consciousness. Indeed, even in the therapeutic arena, continuing delays, sidetracking, and shortage of funds are still the norm and arise entirely from the ideology of the mind-programming exercise called the "war on drugs" that we have been subjected to by our governments since the 1970s and that continues to undermine the most basic values of Western democracy.

SOVEREIGNTY OVER CONSCIOUSNESS

What, after all, is Western civilization all about? What are its greatest achievements and highest aspirations?

It's my guess that most people's replies to these questions would touch—before all the other splendid achievements of science, literature, technology, and the economy—on the nurture and growth of freedom.

Individual freedom.

Including, but not limited to, freedom from the unruly power of monarchs, freedom from the unwarranted intrusions of the state and its agents into our personal lives, freedom from the tyranny of the Church and its Inquisition, freedom from hunger and want, freedom from slavery and servitude, freedom of conscience, freedom of religion, freedom of thought and speech, freedom of assembly, freedom to elect our own leaders, and freedom of sexual orientation.

The list of freedoms we enjoy today that were not enjoyed by our ancestors is indeed a long and impressive one. It is therefore exceedingly strange that Western civilization in the 21st century enjoys no real *freedom of consciousness.*

There can be no more intimate and elemental part of the individual than his or her own consciousness. At the deepest level, our consciousness *is* what we are—to the extent that if we are not sovereign over our own consciousness, then we cannot in any

meaningful sense be sovereign over anything else either. So it has to be highly significant that, far from encouraging freedom of consciousness, our societies in fact violently deny our right to sovereignty in this intensely personal area and have effectively outlawed all states of consciousness other than those on a very narrowly defined and officially approved list. The war on drugs has thus unexpectedly succeeded in engineering a stark reversal of the true direction of Western history by empowering faceless bureaucratic authorities to send armed agents to break into our homes, arrest us, throw us into prison, and deprive us of our income and reputation simply because we wish to explore the sometimes radical, though always temporary, alterations in *our own consciousness* that drugs facilitate.

Other than being against arbitrary rules that the state has imposed on us, personal drug use by adults is not a crime in any true moral or ethical sense and usually takes place in the privacy of our own homes where it cannot possibly do any harm to others. For

some, it is a simple lifestyle choice. For others, particularly where the psychedelics such as LSD, psilocybin, and DMT are concerned, it is a means to make contact with alternate realms and parallel dimensions, and perhaps even with the divine. For some, drugs are an aid to creativity and focused mental effort. For others, they are a means to tune out for a while from everyday cares and worries. But in all cases, it seems probable that the drive to alter consciousness, from which all drug use stems, has deep genetic roots.

Other adult lifestyle choices with deep genetic roots also used to be violently persecuted by our societies.

A notable example is homosexuality, once punishable by death or long periods of imprisonment, which is now entirely legal between consenting adults—and fully recognized as being none of the state's business—in all Western cultures. (Although fourteen US states, at time of writing, retain “anti-sodomy” laws banning homosexuality, these statutes have rarely been enforced in recent years, and in 2003 the US Supreme Court invalidated those laws.)

The legalization of homosexuality lifted a huge burden of human misery, secretiveness, paranoia, and genuine fear from our societies, and at the same time, not a single one of the homophobic lobby's fire-and-brim-stone predictions about the end of Western civilization came true.

Likewise, it was not so long ago that natural seers, mediums, and healers who felt the calling to become “witches” were burned at the stake for “crimes” that we now look back on as harmless eccentricities at worst.

Perhaps it will be the same with drugs. Perhaps in a century or two, if we have not destroyed human civilization by then, our descendants will look back with disgust on the barbaric laws of our time that punished a minority so harshly (with loss of reputation, financial ruin, imprisonment, and worse) for responsibly, quietly, and in the privacy of their own homes seeking alterations in their own consciousness through the use of drugs. Perhaps we will even end up looking back on the persecution of drug users with the same

sense of shame and horror that we now view the persecution of homosexuals, the burning of witches, and the imposition of slavery on others.

Meanwhile, it's no accident that the war on drugs has been accompanied by an unprecedented expansion of governmental power into the previously inviolable inner sanctum of individual consciousness. On the contrary, it seems to me that the state's urge to power has all along been the real reason for this “war”—not an honest desire on the part of the authorities to rescue society and the individual from the harms caused by drugs, but the thin end of a wedge intended to legitimize increasing bureaucratic control and intervention in almost every other area of our lives as well.

This is the way freedom is hijacked—not all at once, out in the open, but stealthily, little by little, behind closed doors, *and with our own agreement*. How will we be able to resist when so many of us have already willingly handed over the keys of our own consciousness to the state and accepted without protest that it is

okay to be told what we may and may not do, what we may and may not explore, even what we may and may not *experience*, with this most precious, sapient, unique, and individual part of ourselves?

It may even be, by allowing the demonization and criminalization of altered states of consciousness to continue, that we are denying ourselves the next vital step in our own evolution as a species.

THE GREAT LEAP FORWARD

During most of the first seven million years of human evolution, there is no evidence at all for the existence of symbolic abilities amongst our ancestors. No matter how intensively we examine what is known about the fossil record, or speculate about what is not yet known about it, all that we see evidence for throughout this period is a dull and stultifying copying and recopying of essentially the same patterns of behaviour and essentially the same "kits" of

crude stone tools, without change or innovation, for periods of hundreds of thousands, even millions of years. When a change is introduced (in tool shape, for example), it then sets a new standard to be copied and recopied without innovation for a further immense period until the next change is finally adopted. In the process, glacially slow, we also see the gradual development of human anatomy in the direction of the modern form: the brainpan enlarges, brow ridges reduce in size, and overall anatomy becomes more gracile.

By 196,000 years ago, and on some accounts considerably earlier, humans had achieved "full anatomical modernity." This means that they were in every way physically indistinguishable from the people of today and, crucially, that they possessed the same large, complex brains as we do. The most striking mystery, however, is that their behavior continued to lag behind their acquisition of modern neurology and appearance. They showed no sign of possessing a culture, or spiritual beliefs, or self-

consciousness, or any interest in symbols. Indeed, there was nothing about them that we could instantly identify with “us.” Dr. Frank Brown, whose discovery of 196,000-year-old anatomically modern human skeletons in Ethiopia was published in *Nature* on February 17, 2005, points out that they are 35,000 years older than the previous “oldest” modern human remains known to archaeologists: “This is significant because the cultural aspects of humanity in most cases appear much later in the record . . . which would mean 150,000 years of *Homo sapiens* without cultural stuff.”

Brown's colleague, John Fleagle of Stony Brook University in New York State, also comments on the same problem: “There is a huge debate . . . regarding the first appearance of modern aspects of behaviour. . . . As modern human anatomy is documented at earlier and earlier sites, it becomes evident that there was a great time gap between the appearance of the modern skeleton and ‘modern behavior.’”

For Ian Tattersall of the American Museum of Natural History, the problem posed by this gap—and what happened to our ancestors during it—is “the question of questions in palaeoanthropology.” His colleague Professor David Lewis-Williams of the Rock Art Research Institute at South Africa's Witwatersrand University describes the same problem as “the greatest riddle of archaeology—how we became human and in the process began to make art and to practice what we call religion.”

Contrasted with the endless, unimaginative cultural desert extending from 7 million years ago down to just 40,000 years ago, the appearance of the first great, fully representative symbolic art in caves and rock shelters between 40,000 and 30,000 years ago represents a spectacular enigma. That art, moreover, was already perfect and fully formed from the moment that it began to be created. What ushered it in? Why did it happen? And why was it accompanied by other significant changes in human behavior—including but not limited to better and more sophisticated stone and

bone tools, better hunting strategies, and the first evidence for spiritual beliefs? Correlation is all we can prove, but looking at the overall suite of new behavior that appears at this time, it is difficult to avoid the conclusion that whatever divine spark led our ancestors to start creating art *caused* all the other changes as well.

In other words, if we can explain the art, we can explain the origins of modern humanity. It is therefore of the greatest interest that such a theory has been proposed and does indeed completely explain the special characteristics of Stone Age art from as far afield as Europe, the Americas, Africa, and Australia, and moreover, why identical characteristics are found in art produced by the shamans of surviving tribal cultures today. The theory was originally elaborated by Lewis-Williams and is now supported by a majority of archaeologists and anthropologists. In brief, it proposes that the reason for the eerie similarities and universal themes linking all these different systems of art is that in every case—both ancient and modern and wherever in the world they are found—the

shaman-artists responsible for them had previously experienced altered states of consciousness in which they had seen vivid hallucinations, and in every case their endeavour in making the art was to memorialise on the walls of rock shelters and caves the ephemeral images that they had seen in their visions. According to this neuropsychological theory, the different bodies of art have so many similarities because we all share the same neurology, and thus share many of the same experiences and visions in altered states of consciousness.

There are lots of ways of inducing the necessary altered state. The Bushmen of South Africa get there through night-long rhythmic dancing and drumming; the Tukano Indians of the Amazon do it through consuming the psychedelic beverage Ayahuasca, the “vine of souls.” In prehistoric Europe, it's most likely that the requisite altered states were reached through the consumption of *Psilocybe semilanceata*—the popular little brown magic mushroom that is still used throughout the world to induce

hallucinations today. In Central America, the Maya and their predecessors used other *Psilocybe* species *(P. mexicana* and *P. cubensis)* to induce the same effects.

TERRA INCOGNITA

I took LSD once in my twenties, at the Windsor Free Festival in England in 1974, and had a fantastic, exciting, energizing twelve-hour trip in a parallel reality. When my normal, everyday consciousness returned—and it did so quite abruptly, like a door slamming—I felt grateful for such a wonderful experience but so much in awe of its power that I doubted if I would ever want to embrace it again. Suppose things had gone the other way? Suppose instead of an exciting medieval Otherworld through which I had been allowed to travel like a knight-errant, I had been ushered into some hell realm for twelve hours? How would I have handled that? Would I have handled it at all?

It was not until I reached my fifties and began work on my book

Supernatural: Meetings with the Ancient Teachers of Mankind that I decided to confront the psychic challenges of major hallucinogens again. In order to research my subject properly, and to know what I was talking about when I spoke of altered states of consciousness, I drank Ayahuasca with shamans in the Amazon and self-experimented with DMT, psilocybin, and the African visionary drug known as Iboga—"the plant that enables men to see the dead."

The extraordinary experiences I went through convinced me that David Lewis-Williams is right and that visionary states of this sort, brought on by the accidental discovery of plant psychedelics, did indeed provide the inspiration for ancient cave and rock art traditions all around the world. Lewis-Williams is also right to insist that it is to the proper examination of such altered states of consciousness that we should turn if we wish to discover the source of the first spiritual ideas ever entertained by our ancestors.

It was precisely at this point, however, that I began to part

company with Lewis-Williams and his theory. Whatever the cave artists saw in their trances, and no matter how devoutly they may have believed that what they were seeing was real, the South African professor is adamant that the entire inspiration for 25,000 years of Upper Paleolithic cave paintings reduces to nothing more than the fevered illusions of disturbed brain chemistry—i.e., to hallucinations. In his scientific universe, there is simply no room, or need, for the supernatural, no space for any kind of otherworld, and no possibility that intelligent nonphysical entities could exist.

I found I couldn't leave the matter there, with the inspiration for cave art and the birth of religion neatly accounted for by disturbed brain chemistry, with the earliest spiritual insights of mankind rendered down to mere epiphenomena of strictly biological processes, with the sublime thus efficiently reduced to the ridiculous. To have established the role of hallucinations as the inspiration for cave art is one thing—and David Lewis-Williams, in my opinion, has successfully done that. But to understand what

hallucinations really are, and what part they play in the overall spectrum of human experience and behaviour, is another thing altogether, and neither Lewis-Williams nor any other scientist can yet claim to possess such knowledge, or to be anywhere near acquiring it. Gifted and experienced shamans the world over really do know more—much more—than they do. So if we were smart, we would listen to what the shamans have to say about the true character and complexity of reality instead of basking mindlessly in the overweening one-dimensional arrogance of the Western technological mind-set.

Because I had been shaken to the core by my experiences with Ayahuasca and Iboga, I decided to take my investigation further and to explore the extraordinary possibility that science is unwilling even to consider and that David Lewis-Williams dismisses out of hand. This is the possibility that the Amazonian and African psychedelics had obliged me to confront face-to-face —and that shamans contend with on a daily basis—the possibility

that the “spirit world” and its inhabitants are real, that supernatural powers and nonphysical beings do exist, and that human consciousness may, under certain special circumstances, be liberated from the body and enabled to interact with and perhaps even learn from these “spirits.” In short, did our ancestors experience their great evolutionary leap forward of the last 40,000 years not just because of the beneficial social and organisational by-products of shamanism but because they were literally helped, taught, prompted, and inspired by supernatural agents? Could the “supernaturals” first depicted in the painted caves and rock shelters —and still accessible to us today in altered states of consciousness —be the ancient teachers of mankind? Could it be they who first ushered us into the full birthright of our humanity? And could it be that human evolution is not just the “blind,” “meaningless,” “natural” process that Darwin identified, but something else, more purposive and intelligent, that we have barely even begun to understand?

If so, then we demonise altered states of consciousness at our peril, and rather than sending our fellow humans to prison for seeking them out, we should encourage, reward, and support them as the true explorers and adventurers of our time. I have brought together this series of essays in *The Divine Spark*, written by researchers and activists in the field of consciousness whose work I respect, as a contribution to this exploration of terra incognita.

ON CONSCIOUSNESS

TO INFINITY AND BEYOND: THE HOLOGRAPHIC NATURE OF MASS

BY NASSIM HARAMEIN

EXPLORING REALITY

Have you ever wondered about the structure of reality? Where did it come from? How did it get here? And how did it self-organize to result in my observing it? These are fundamental inquiries that most people have asked themselves at some point in life. They might have thought of these questions in many different ways, perhaps not exactly as stated above, but most people have wondered about the source of existence, about a beginning and an end, or about an eternal continuous dynamic.

From an early age, I have felt these questions are most worthy of investigation, and in a certain way, my earlier adventures in the

various sports industries became tools that I could use to investigate the reality I am in, my interaction with it, and my capacity to modify it or at least push it to the extreme. And to the extremes I pushed it: whether it was skiing, climbing, or deep-sea diving, my tendency was to see how far I could push the edge of the structure of reality by my intent and capacity to overcome physical limitations. It was a test of mind over matter, and in every case I felt that a resonance field could be established with the structure of reality—what athletes typically call "the zone"—where, as best I can describe it, I felt a flow, a type of harmony with all the various dynamics I was encountering in these extreme situations.

Whether it was the forces involved, such as gravitational in skiing, or the sensations of the material world feeding back information to my body and my body responding to it—such as the fine edge of my ski slicing through an icy surface, or the sensations in the tips of my fingers conforming to sharp crystals while I

climbed a thousand-foot rock face—these moments of high communion with nature taught me that there must be a fundamental feedback relationship. Some kind of a feedback/feedforward in the structure of space-time that produced a sense of complete integration within the wheelworks of nature that I was experiencing (in the zone). In these moments of high awareness, it felt like I had reached a harmonious relationship with the self-organizing properties of the material world, which I could clearly observe everywhere in the natural environment where highly organized and complex systems can be found.

Yet there was more. My early interest in exploring the more mystical side of our experience led me to investigate the internal world of meditation, a world that is in complete reference to the event of consciousness, of a deep and fundamental self-discovery and exploration of the observer experiencing this reality. Therefore, it was both an external exploration, in which I could push the boundary of my influence on the external world (what one

could call the material world), as well as an exploration of how far I could push the boundary of the internal world to identify the source of the observation. And to my great surprise, the two seemed to feedback on themselves. For instance, in those states of "the zone" during peak experiences in sporting events, nature seemed to be speaking to me beyond the receptor sites of my five senses to a deeper, more profound sense, as in a unity between my physicality and the physicality of the world around me. Similarly, in deep meditative states and moments of rapture, a profound sense of unity with the material world around and inside of me seemed to take place. The question then was: what are the mechanics of the apparent feedback between me, the observer, and the material world, and is there an information medium that makes the connection between the observed and the observer? Such discovery would generate a unified view of natural processes and the physics of our world.

In order to answer these questions appropriately, I had to

conduct, on the one hand, an in-depth study of the physics of our world and, on the other hand, a study of the mores (the customs and ritual practices) of various societies that could reveal a deeper understanding of the relationship between the observer and the material world. In my opinion, both were equally important, although the task of studying both in parallel, which encompassed fields ranging from applied physics to cosmology and quantum mechanics as well as archaeology, psychology, and spirituality, seemed insurmountable. Therefore, it was with great procrastination and reluctance that I finally abandoned my professional career in the sports industry to dedicate all of my time and energy to the studies necessary in order to begin answering some of these questions.

This led to a prolonged, isolated period of my life, when I lived in a van with the bare minimum necessary to survive, living the simplest life possible in order to dedicate every second of my day (and most nights) to the study of these various fields. Still, to this

day, I consider those times as some of the most wonderful, productive, and mystical times of my life. I was completely free—free of telephones, appointments, and interactions with the outside world. I was completely free to think whatever I wanted to think, to study whatever I wanted to study, and to move wherever I wanted to move, as all I had to do was put the key into the ignition, press on the gas pedal, and I was instantaneously relocating. My home was wherever I parked, and I was fortunate enough to be in some of the most beautiful and remarkable natural environments on our planet. From the alpine meadows of British Columbia and Alberta, Canada, to the high deserts of the American Southwest and everything in between, I spent many months in communion with the natural world while in deep contemplation of its physics and of the relationship between these physical structures and my observations of them.

I continued a routine of physical activities to balance the typical fifteen to eighteen hours a day I spent studying. At the time, most

of my physical activity consisted of rock climbing, as I would typically start my morning with a sunrise climb after some time meditating, or I would get out of the van at sunset for a little fresh air and a quick multipitch climb to get my blood flowing. Since I was usually alone, these climbs mostly consisted of free solos (no protective gear).

At the fine edge of these experiences, where any mistake would surely result in the obvious outcome of a body falling through space being rudely arrested by the ground, I could get into that zone where, however extreme the experience of reality was, there was a complete sense of comfort, a sense of absolute trust, of harmony with all of nature at the same time as complete relaxation —and that stuff was addictive. I was in love with nature, and it felt like nature was in love with me.

I distinctly remember moments when my cheek was glued to the face of sheer rock walls, with the exposure of a few thousand feet unravelling below me, and I was gazing at teeny crystals glistening

in the rising Sun and thinking about the molecules and atoms and subatomic particles that make up those crystals. Where did they begin, and where did they end? After all, these crystals I was climbing were part of a larger crystal, a large geode called the Earth, and the Earth was part of a solar system, and the solar system was part of a galaxy, and the galaxy was part of a cluster of galaxies, which was most likely part of a supercluster, and so on. Furthermore, every crystal was made out of millions and millions of molecules, and each molecule was made out of atoms, and these atoms were made out of subatomic particles, and so on. Was it appropriate to think that the Universe ended somewhere, whether on the infinitely large scale or on the infinitely small scale?

These moments often brought on trance-like states in which I would completely lose track of my whereabouts and either dive down the rabbit hole into the molecular structure of these crystals or expand into galactic and universal structures, imagining and contemplating!

A MATTER OF SCALE

From the study of the physics I was conducting and from various discoveries I had made in exploring my internal experience, I realized that if we were truly to look for a complete picture of the dynamics and mechanics that produce both the material world and the observer that experiences it, the model would have to be based on an infinite relationship of scales.

I discovered within myself what seemed to be an infinite division of the scales. This seemed to be beyond the concept of a bubble Universe from which everything started with a bang without any clear understanding of either what produced the bang or how the material/energy got there to bang in the first place.

I remember being very young, probably about seven, when it was explained to me that the Universe was like a big balloon expanding. My first question to myself was: expanding in what? Surely, if the Universe were expanding, it must be expanding inside another Universe, larger than the one we are in. And then

again, if that one were expanding as well, surely it must be expanding in a larger one, and so on. There was no easy solution to the riddle. The only thing that made sense was that the Universe was infinitely large and infinitely small, that we lived in a continuum of divisions, and that our world was defined by the mere fact that we observed the Universe from a very specific scale. Therefore, from this scale (that is, the scale of our Universe) there would be a fundamental lower size that defined the pixel of our scale. Not that this pixel would be the smallest thing the Universe does but that this pixel size is the fundamental building block for a universe of our specific magnitude.

For instance, if you were experiencing the Universe from the scale of an atom or even a subatomic particle, your experience would be widely different from the experience you have of your Universe as a human being. And if I were to grow you from an atom to the size of a human, you would most likely think that you had changed universes or even changed dimensions (although that

would be partially true, as you have literally changed in dimension).

These thoughts had come to me in various ways throughout the years, but how could they be appropriately expressed in physics? Were there any physics already written in our world that indicated such a principle? Furthermore, did these concepts agree with thousands and thousands of years of advanced thinking in philosophy, mysticism, and religious belief?

The first clue had come in my teenage years, when I initially realized that for almost a hundred years, a chasm had existed in physics between the mathematics and models we use for large objects, which predicts a continuum that tends toward singularity and infinities (Einstein's field equations), and the quantum world of atomic and subatomic particles, which predicts linear functions of bounded states, well-defined and with finite behaviors. Yet big things are made out of small things, so how could the Universe use two completely different sets of physics?

How could the Universe be both finite and infinite at the same time? Truly, day-to-day experience seems to point to the existence of well-defined finite boundaries. After all, your body's dimensions are defined by what appears to be a very specific scale. The same applies to the chair you're sitting on, or the pole you're holding on to while you're reading this article on the bus on your way to work. But wouldn't an infinite universe have no definition, no distinct way of identifying a boundary to define all other ones? All of this became the subject of many years of contemplation, and the answer, interestingly, came from an unexpected source.

THE ORGANIZING PRINCIPLE OF NATURE

From my study of ancient civilizations, there seemed to be a persistent, recurring theme, and that theme, to cut to the chase, seemed to have something to do with geometry and some fundamental medium permeating everything, being omnipresent, omniscient, and the organizing principle of nature. I looked to find

if similar concepts were present in our history of physics and the advanced physics of today, and indeed I found similarities.

On the geometric side, for instance, was Einstein's geometrization of the structure of space-time. As well, in mathematics, fractal theory resembled many ancient concepts and symbols and provided a perfect relationship between infinities and the boundary condition, as an infinite amount of boundaries could be embedded within a finite initial boundary (the scale at which you are observing). As far as an omnipresent permeating energy was concerned, it occurred to me then that maybe, just maybe, the all-prevailing intensely energetic vacuum of the quantum world might fit the bill.

Maybe the space between all of the molecules and atoms that I was observing on my cliff face inside the crystal that my hands were so firmly gripping, the space between our planet and the Sun, the space inside our galaxy and the space between galaxies was full instead of empty. Maybe space was permeated with all the

information of all things in the space and was the great connector between all these things. After all, from infinitely large to infinitely small, space is always present, since even the extremely small radius of an atom still contains some 99.99999 percent space. Perhaps space defined matter, rather than the material world defining the space.

What if matter were only the result of a discrete boundary condition of the space itself, like the feedback iterations that produced the divisions of a fractal? Was the world-space experiencing itself? Were we an extreme extension of the space, looking back at ourselves and experiencing matter? Einstein seemed to think so, as in his famous statement: "Physical objects are not *in space*, but these objects are *spatially extended.* In this way the concept 'empty space' loses its meaning."

But if space were the great medium that connected all things, gathering information from all places so as to self-organize and create the complexity we observed in our natural world, then space

would have to be nearly infinitely dense—infinitely dense with information or energy. Was this possible, and if so, was there any evidence as such? I was probing deeper and deeper into the physics that had been written and into the experiments that had been performed throughout nearly three hundred years of modern physical theory, and I came across something significant.

THE ENERGY DENSITY OF THE VACUUM

It seemed that in the quantum world, a difficulty had been encountered when physicists tried to calculate the energy density of an oscillator such as an atom. It turned out that some of the vibrations still existed even when the system was brought to absolute zero, where you would think that all the energy would be gone. In fact, the equations showed that there was an infinite amount of possible energy fluctuation even within the vacuum.

To understand this better, physicists applied a principle of "renormalization," using a fundamental constant to cut off the

number and get a finite idea of how dense the vacuum energy must be with all its vibrations. The cut-off value used was the Planck's distance or length, named after the great physicist Max Planck, who is considered to be the founder of quantum theory. This value is thought to be the smallest vibration of the electromagnetic field possible, being in the order of 10^{-33} centimeters and having a mass energy in the order of 10^{-5} grams.

To better understand the scales involved, here is an analogy. There are approximately 100 trillion cells in the average human body, and each typical cell is made of approximately 100 trillion atoms. If you were to take one of those minute atoms and make it the size of the dome at the Vatican (138 feet or 42 meters diameter) the proton in the middle nucleus would be approximately the size of a tiny head of a pin. Now, if we were to put a Planck unit on the end of your finger and then grow it to the average size of a grain of sand, then the minuscule proton would all of a sudden have a diameter equal to the distance from here to the nearest star, Alpha

Centauri or approximately 25.5 trillion miles or 40 trillion kilometers in diameter. Therefore, although the proton is already an extremely small entity, the Planck size is mind-bogglingly tiny.

Thus, the calculations that were done to derive the Planck vacuum energy density entailed working out how many teeny Planck's volume vibrations could coexist in a cubic centimeter of space. The answer is then the number of Plancks that fit in a centimeter cubed of space multiplied by each of their mass (10^{-5} grams) to obtain the mass/energy density that existed in a centimeter cubed of space. Of course, the result was enormous since the Planck is so tiny! The vacuum energy density, or what is typically called the Planck density, was, when it was first calculated, in the order of 10^{93} grams per cubic centimeter of space and was quickly dubbed at the time "the worst theoretical prediction in the history of physics"[1] or "the vacuum catastrophe."

To give you an idea of how dense this value is, if you were to take all of the matter we observed in our Universe today with

billions of galaxies containing billions of stars, most of which are much larger than our Sun, and we were to stuff them all into a centimeter cube of space, the density of that cube would only be 10^{55} grams/cm^3. This is still some thirty-eight orders of magnitude less dense than the density of the vacuum. Many scientists thought that this figure was ridiculous, and in general, it fell into obscurity. Even today, some trained physicists are not necessarily aware of this value. Throughout the years, I've received prompt criticism from certain physicists who either were unaware of its existence or simply discarded it, as if the largest energy quantity ever predicted could be completely ignored.

However, the vacuum fluctuations of energy are crucial to our understanding of particle physics at this point, as they are the source of virtual particle creation at the atomic level, which is essential to our current understanding of physics. This is what led John Archibald Wheeler, a colleague of Einstein, to eventually state, “The vision of quantum gravity is a vision of turbulence—

turbulent space, turbulent time, turbulent spacetime . . . spacetime in small-enough regions should be not merely ‘bumpy,’ not merely erratic in its curvature; it should fractionate into ever-changing, multiply connected geometries. For the very small and the very quick, wormholes should be as much a part of the landscape as those dancing virtual particles that give to the electron its slightly altered energy and magnetism [Observed as the Lamb shift].”[2]

More importantly, in 1948 the Dutch physicist Hendrik Casimir calculated and elaborated a configuration that would ultimately allow an experimental validation of this vacuum energy. Casimir reasoned that if two plates were placed close enough to each other so that the longer wavelengths of the vacuum oscillations would be eliminated from between the plates and yet would still be present on the outside of the plates, then a minute density gradient could be generated where there would be more pressure on the outside and less on the inside, resulting in the plates being pushed together. However, when the distance by which the plates had to be

separated to do the job was calculated, it was found that the plates had to be mere microns apart. This was an impossible task in 1948, and it wasn't until the early 1990s that this experimental test could be done successfully. The result agreed very well with the calculations done by Casimir, showing that this energy of the structure of space itself is truly present.

More recently, the Casimir effect has been able to be reproduced in a dynamic way called the dynamical Casimir effect, in which the plates are essentially replaced by a nano-scale mirror oscillating at a significant percentage of the speed of light. The result is that some of the pairs of virtual particles in the vacuum fluctuations cannot recombine quickly enough, as they usually do as they are being separated by the movement of the mirror disturbing their path, and thus become “real” photons being emitted directly from the vacuum.[3]

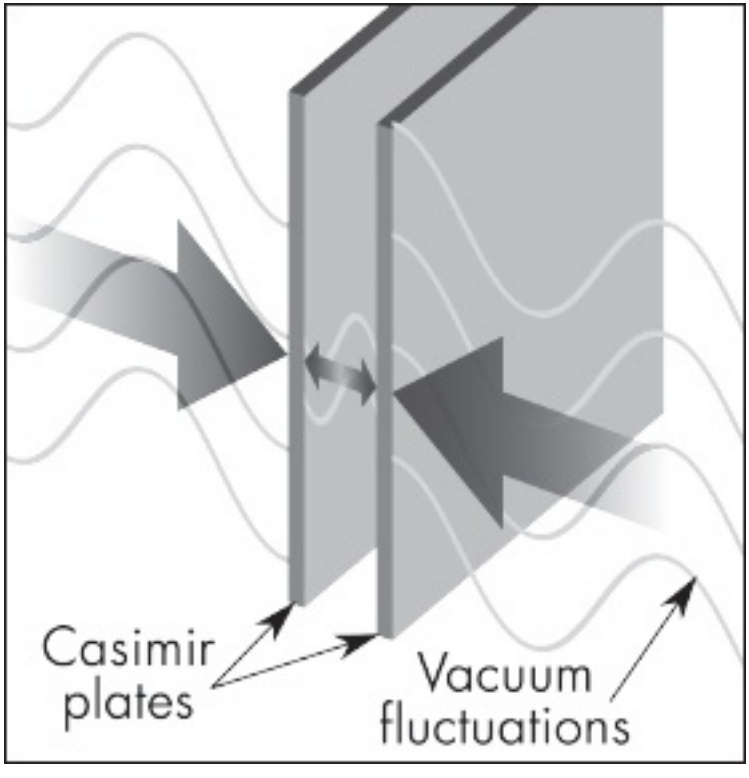

A CONNECTED UNIVERSE

So the energy was there in the vacuum at the quantum resolution. Could it be the energy that connects all things, the energy from which everything emerges and to which everything returns? Well,

if so, it would have to be present at all scales. That is, there had to be evidence of this energy between stars and galaxies as well. I had studied quite a bit of cosmology by then, and at the time, there was zero evidence of this energy being present at the cosmological level. Nevertheless, I was in a highly creative mode, elaborating on many of the foundations that eventually brought me to form the various scientific papers I have written.

From the sense I was getting from my studies of both ancient civilizations and advanced physics, this vacuum energy could not be completely random. It had to have structure, some kind of geometry, and most likely it was polarized—that is, spin was involved. And it was these thoughts that eventually brought me to add a fundamental force to Einstein's field equations in order to show that space-time, in addition to curving to produce gravitation, twisted as well—like water going down the drain—to produce the spin of all organized matter from galaxies to stars and even to subatomic particles. That twisting of space would imply that space

itself was imbued with gyroscopic and Coriolis effects that needed to be included in Einstein's geometrization of space and time. Yet if this torque really was present, then we should be able to detect it at the cosmological level.

I will always remember the day when this confirmation fell into my lap. It must have been around the late 1990s, when I was in Joshua Tree National Park, where I liked to spend part of the winter climbing and studying. Typically, I would go in and stay for weeks at a time before my supplies ran out and I would have to come out again to get a little bit of shopping done. My budgets were quite restricted (on average, three thousand dollars a year), so I would buy a very minimal amount of food (I mostly lived on prana—vacuum energy), but almost every time, I would buy popular science magazines to keep in touch with the latest scientific discoveries.

So on a beautiful morning after one such expedition the night before and then after my ritual climb, I sat on the edge of the stairs

of my van and opened what I recall was an issue of *Astronomy Magazine.* And there it was: astronomers had found evidence that the Universe was not only expanding but was also accelerating as it did so.

This discovery produced a large amount of controversy at the time, and most theorists agreed that the best approach to deal with this anomaly was to reinstate a constant that was first used by Einstein. He had added this fudge factor, called the cosmological constant, in his early mathematical expressions to make the Universe static (which was believed to be the case at the time). It was later removed when astronomer Edwin Hubble discovered that the Universe was expanding, as Einstein's equations would predict without the fudge factor. Now astronomers reinstated the cosmological constant with a negative energy in such a way as to show the Universe accelerating as it expanded. The fudge factor was back. This eventually was dubbed “dark energy,” and it wasn't until recently that it started to be associated with vacuum energy.

For me, however, that was an easy and obvious leap, as I had already expected from my theoretical tenets that the polarized Coriolis dynamics of the vacuum structure would produce such an effect on the universal expansion and rotation.

So the vacuum energy was there at all scales, although in various densities—a density gradient in the structure of space itself. Was the vacuum dividing at specific densities from extremely large to extremely small? And if the vacuum energy was essentially infinitely dense, and all scales contained vacuum—since even the atom itself (as we saw earlier) contains a large percentage of vacuum—then all atoms inevitably contained enough vacuum mass-energy to be considered a black hole. The Universe had to be black holes, from all the way up—the Universe that we're in—to all the way down to every single atom. With this concept, I eventually coined the term *black whole.*

A BLACK WHOLE UNIVERSE

While pursuing various readings at the time and looking at the currently accepted mass of our Universe, I realized that the Universe as a whole obeyed the condition that described a black hole. Later on, with the help of Dr. Elizabeth Rauscher and afterwards Dr. Michael Hyson, we developed various scaling graphs that supported the concept of a fractal black hole universe.

Eventually, after some twenty years of being almost alone in thinking that we may live in a black hole universe, popular science reports appeared that elaborated on the research of a physicist at Indiana University. The first sentence of the university's communiqué asks: “Could our universe be located within the interior of a wormhole which itself is part of a black hole that lies within a much larger universe?”[4-5]

But could an atom, or the nucleus of an atom, the proton, be considered a black hole? I suspected so but I didn't know, and it was not until the year 2003 that I finally got to working out the calculations to make such a prediction.

At the time, I was living on the Big Island of Hawai'i and my daily routine started at sunrise with an encounter with the creatures of the ocean, usually wild dolphins, spinner dolphins in particular. The sensation of gliding in the ocean and the vorticular spinning hydrodynamics of the water around my body often reminded me of our daily “swim” through the vacuum structure and the Coriolis dynamic that was part of my views of the physics of creation.

It occurred to me that a certain percentage of the mass–energy of the vacuum must be contributing to the energetic event that we call the nucleus of an atom. Scribbling on a notepad in my office chair overlooking Kealakekua Bay, I calculated the tiny volume of a proton and then proceeded to pack it with Planck vacuum fluctuations and outputted their combined mass. Remarkably, the combined mass of all the Plancks inside the volume of a proton was equivalent to the mass of the Universe, approximately 10^{55} grams! Was this evidence of the holographic nature of this vacuum information network connecting the information of all other

protons in the Universe in one proton? Of course, this value was large enough to make a single proton a black hole since this value even in the volume of our Universe makes our Universe a black hole. I called Dr. Rauscher right away and discussed the simple calculations that would tell us how much of the vacuum energy was necessary for a proton to be in the Schwarzschild condition, the condition of a black hole. It took a remarkably small amount of the energy of the vacuum available in the proton to do the job, but what was notable was that the energy it took was equivalent to the energy necessary to produce the force typically described as the strong nuclear force, or the strong force, the confining force that holds the protons together in the nucleus of an atom. That is, if the proton was considered a teeny black hole due to the vacuum energy present in it, then the attraction between two of these protons would be exactly the force we attribute to the so-called strong force. Coincidence? I didn't think so.

The strong force had always bothered me because, as in many

other instances in modern physics (such as with dark energy and dark matter), this force had been simply invented, plucked out of thin air. When it was found that the protons were highly charged but confined to a very small radius in the nucleus of an atom, physicists went on to invent a force that would overcome the repulsion of the electrostatic fields of these particles, and they made it exactly what it was needed to be to do the job. Eventually it was believed that the proton seemed to have smaller constituents within it called quarks, which were confined in an even smaller space, and so the color force had to be invented, which is the base for quantum chromodynamics, or QCD. Furthermore, QCD predicts that it would take an infinite amount of force to separate two quarks in order to account for the fact that no free quarks have ever been observed. Now the original strong force near the radius of a proton was seen as only a remnant of this color force at the quark level.

Yet from decades of calculations with supercomputers, no

analytical solution has ever been found to support the QCD model, and the idea that quarks cannot be found because it would require an infinite amount of force to separate them is circular at best. From my point of view, the infinitely strong nuclear color force was, instead, the result of the gravitational attraction of mini-black holes, and it was extremely confirming to find that, when one considered the proton as a black hole, the gravitational attraction of such an entity was exactly the energy typically associated with the strong force.

Furthermore, although these calculations were very rough at the time, as we were scribbling on pieces of paper and napkins, it seemed that certain values of the Schwarzschild proton, as I came to call it, nicely predicted certain measured values of the proton entity. This was, and still is, a radical idea—although more and more physicists are coming to these conclusions now. Imagine all of the atoms that make up your physical body, and the entire material world around you, are made out of mini-black holes the

size of a proton.

Although these initial calculations were somewhat conclusive, it took until 2008 before a first version of the calculation was published in one of our papers titled “Scale Unification: A Universal Scaling Law for Organized Matter.” A more complete version titled “The Schwarzschild Proton” was eventually presented at a scientific conference in Belgium in 2009, where it won a Best Paper Award.

Of course, the publication of that paper created many controversies in the scientific community and the public at large. Many argued that the mass of a black hole proton, being some forty orders of magnitude larger than the measured value in a laboratory, was not acceptable. Yet there were no qualms with throwing a force into the standard model that has infinite strength in order for the model to work, giving no explanation of the source of energy required to produce such a force nor any mathematics or analytical solution to back it up. At least my solution was well-

grounded in the analytical mechanics of gravitation. Yet I certainly had to expand the understanding in order to complete the model and account for these forty orders of magnitude that were contributed by the vacuum energy present within the volume of a proton. What were the mechanisms that made this energy express itself as a gravitational force between two protons? And would this mechanism demonstrate that the range of such a gravitational field matches the short range typically associated with the strong force?

From 2009 to December of 2012, I worked continuously almost day and night in an attempt to uncover this mechanism. The Schwarzschild Proton approach had given me some very important hints. The mass of all the vacuum fluctuations inside the volume of a proton was equivalent to the mass of the Universe, or all other protons in the Universe. Maybe the holographic nature of the vacuum fluctuations' information network was the source of the mechanism that made the proton act as a mini-black hole. I started to think that maybe the vacuum energy inside the proton and the

vacuum energy outside the proton relating information through the surface event horizon of the proton may be the source of this pressure we call gravity.

I set out to study holographic concepts and found that in the same period of time, some of the most advanced physicists on the planet were attempting to solve the black holes information paradox problem utilizing what eventually was dubbed the Holographic Principle. The so-called information loss paradox resulted from the consideration that all the information that falls into a black hole would be lost as the black hole evaporates to nothing, due to an earlier postulate by Hawking—known as Hawking radiation—which describes the emission of quantum Planck vacuum fluctuations' “virtual particles” producing a slight loss of the black hole's energy over time, eventually leading to its complete evaporation.[6] But if the whole thing evaporates, where does the information go? The conservation of information or energy would be violated. The Holographic Principle states that all

of the information that falls into the volume of the black hole is imprinted in terms of little Planck bits on the surface of the black hole, and by using this approach, physicists arrived at the correct answer for the temperature, or entropy, of the black hole.[7]

But what if the information that fell into the black hole was shared across all other black holes through the wormhole network of the vacuum fluctuations, like a huge information superhighway at the Planck and proton level? Maybe that's what allowed extremely complex systems to self-organize in such a rapid evolution since the early Earth, such as the biological structures all around us (including us) which cannot be accounted for under random functions in such a short amount of time. Maybe the feedback between the network structures is the source of the neuronal structure of our brain and the basis of what we think of as self-awareness or consciousness. Furthermore, what if the information back and forth across the event horizon surface of the black hole, whether cosmological or a proton, is the source of its

gravitational mass? Yet how would I define the mechanics of this information structure and extract from it meaningful results? After all, the numbers involved with the vacuum fluctuations were extremely large (the mass of the Universe) and it was tentative at best that such large numbers would yield precise values for objects like a proton for instance, with a mass in the order of 1.6726×10^{-24} grams (0.00000000000000000000000016726gm), an extremely small number.

After years of manipulations of algebraic relationships and geometric explorations, finally a solution emerged. In fact, the solution was so simple, it had completely eluded me all these years. It turned out that a simple volume-to-surface ratio of the Planck vacuum fluctuations (but only if they are Planck spherical units, which I call PSU) generated the correct answer for the gravitational mass of any black hole in the cosmological Universe and that a simple inverse relationship yields the exact value of the mass of the proton. This was a remarkable result; all of a sudden I

could give a solution to Einstein's gravitational equations by simply deriving the discrete Planck quantities of electromagnetic fluctuation of the vacuum interacting with the surface of the black hole. Of course, this was a quantum gravity solution since it was quantized in discrete Planck units, and when I applied it to the quantum world of the proton, although the numbers were extremely large, the resulting mass was within 0.001×10^{-24} grams of the measured value.

Knowing that we are able to measure the mass of the proton extremely precisely but that the measurement of the radius has been a source of great difficulties, I then reversed my equation to predict from the mass what the exact radius of the proton should be. In December of 2012, I sent a paper titled “Quantum Gravity and the Holographic Mass” to the Library of Congress containing these results and my prediction. A few months later, on January 25, 2013, a new most-precise-to-date measurement of the radius of the proton was made by the proton accelerator in Switzerland and

published.[8] Incredibly, my predicted value was within 0.00036 x 10^{-13}cm of the new measurement and inside one standard deviation, or loosely speaking, the margin of error of their experiment. Therefore, my predicted value from theoretical tenets may be the most precise value and the experiments are slowly approaching it. This would make sense since I am making the calculations utilizing the smallest unit of measurement possible, the Planck units, and the smaller the units of measurement, the more precise the result.

However, the paper did not predict just the radius of the proton and that gravity can be described by discrete chunks of Planck quantities but as well that such a geometric approach of the pixilation of space-time with Planck spherical units yields as well, the correct value for the strong force and its correct range—demonstrating that the force that confines protons in the nucleus of atoms is actually gravity in terms of discrete Planck quantities of vacuum electromagnetic fluctuations.

REFLECTIONS ON A REVOLUTION IN PHYSICS

We live at a remarkable time. It is a time of great changes, including fundamental changes in our understanding of the physics of our world and its relationship to consciousness. There is a quiet revolution occurring in physics that will modify our understanding of the atomic structure as many other researchers are now starting to realize that atoms may be considered as mini-black holes[9-12] and that the vacuum structure may be a crucial player in the existence of our world.

Why is this exciting? Because if we understand the source of energy that generates our Universe, its forces, and the mechanics under which the creation process occurs, then we can reproduce these dynamics with advanced technological means and completely transform our relationship to nature. Such discoveries will change our world from a society that believes that there are only limited amounts of resources and available land—and the wars fought over them—to a society that realizes that there is an infinite amount of

energy all around and within us, and a whole Universe to explore with the means literally to reach for the stars.

However, we don't need to wait for these advances to start to transform ourselves and our environment. We need only take a few moments every day to connect with the infinite potential present at the center of our entire material world, which makes up our existence, and experience its infinite nature and beyond.

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THE CONSCIOUSNESS REVOLUTION

BY GRAHAM HANCOCK

Consciousness is one of the great mysteries of science—perhaps the greatest mystery. We all know we have it, when we think, when we dream, when we savor tastes and aromas, when we hear a great symphony, when we fall in love, and it is surely the most intimate, the most sapient, the most personal part of ourselves. Yet no one can really claim to have understood and explained it completely. There's no doubt it's associated with the brain in some way, but the nature of that association is far from clear. In particular, how do these three pounds of material stuff inside our skulls allow us to have experiences?

Professor David Chalmers of the Australian National University has dubbed this the “hard problem” of consciousness, but many scientists, particularly those (still in the majority) who are

philosophically inclined to believe that all phenomena can be reduced to material interactions, deny that any problem exists. To them, it seems self-evident that physical processes within the stuff of the brain produce consciousness rather in the way that a generator produces electricity—i.e., consciousness is an "epiphenomenon" of brain activity. And they see it as equally obvious that there cannot be such things as conscious survival of death or out-of-body experiences since both consciousness and experience are confined to the brain and must die when the brain dies.

Yet other scientists with equally impressive credentials are not so sure and are increasingly willing to consider a very different analogy—namely that the relationship of consciousness to the brain may be less like the relationship of the generator to the electricity it produces and more like the relationship of the TV signal to the TV set. In that case, when the TV set is destroyed—dead—the signal still continues. Nothing in the present state of

knowledge of neuroscience rules this revolutionary possibility out. True, if you damage certain areas of the brain, certain areas of consciousness are compromised, but this does not prove that those areas of the brain generate the relevant areas of consciousness. If you were to damage certain areas of your TV set, the picture would deteriorate or vanish but the TV signal would remain intact.

We are, in other words, confronted by at least as much mystery as fact around the subject of consciousness, and this being the case, we should remember that what seems obvious and self-evident to one generation may not seem at all obvious or self-evident to the next. For hundreds of years, it was obvious and self-evident to the greatest human minds that the Sun moved around the Earth—one need only look to the sky, they said, to see the truth of this proposition. Indeed, those who maintained the revolutionary view that the Earth moved around the Sun faced the Inquisition and death by burning at the stake. Yet as it turned out, the revolutionaries were right and orthodoxy was terribly, ridiculously

wrong.

The same may well prove to be true with the mystery of consciousness. Yes, it does seem obvious and self-evident that the brain produces it (the generator analogy), but this is a deduction from incomplete data and categorically *not* yet an established and irrefutable fact. New discoveries may force materialist science to rescind this theory in favor of something more like the TV analogy in which the brain comes to be understood as a transceiver rather than as a generator of consciousness and in which consciousness is recognized as fundamentally "nonlocal" in nature—perhaps even as one of the basic driving forces of the universe. At the very least, we should withhold judgment on this "hard problem" until more evidence is in and view with suspicion those who hold dogmatic and ideological views about the nature of consciousness.

It's at this point that the whole seemingly academic issue becomes intensely political and current because modern technological society idealizes and is monopolistically focused on

only one state of consciousness—the alert, problem-solving state of consciousness that makes us efficient producers and consumers of material goods and services. At the same time, our society seeks to police and control a wide range of other "altered" states of consciousness on the basis of the unproven proposition that consciousness is generated by the brain.

I refer here to the so-called "war on drugs" which is really better understood as a war on consciousness and which maintains, supposedly in the interests of society, that we as adults do not have the right or maturity to make sovereign decisions about our own consciousness and about the states of consciousness we wish to explore and embrace. This extraordinary imposition on adult cognitive liberty is justified by the idea that our brain activity, disturbed by drugs, will adversely impact our behavior toward others. Yet anyone who pauses to think seriously for even a moment must realize that we already have adequate laws that govern adverse behavior toward others and that the real purpose of

the “war on drugs” must therefore be to bear down on consciousness itself.

Confirmation that this is so came from the last British Labour government. It declared that its drug policy would be based on scientific evidence, yet in 2009 it sacked Professor David Nutt, chair of the Advisory Council on the Misuse of Drugs, for stating the simple statistical fact that cannabis is less dangerous (in terms of measured “harms”) than tobacco and alcohol and that ecstasy is less dangerous than horse riding. Clearly what was at play here were ideological issues of great importance to the powers that be. And this is an ideology that sticks stubbornly in place regardless of changes in the complexion of the government of the day. The present Conservative-Liberal coalition remains just as adamant in its enforcement of the so-called war on drugs as its Labour predecessor and continues, in the name of this “war,” to pour public money—our money—into large, armed, drug-enforcement bureaucracies which are entitled to break down our doors at dead

of night, invade our homes, ruin our reputations, and put us behind bars.

All of this, we have been persuaded, is in our own interests. Yet if we as adults are not free to make sovereign decisions—right or wrong—about our own consciousness, that most intimate, that most sapient, that most personal part of ourselves, then in what useful sense can we be said to be free at all? And how are we to begin to take real and meaningful responsibility for all the other aspects of our lives when our governments seek to disenfranchise us from this most fundamental of all human rights and responsibilities?

In this connection, it is interesting to note that our society has no objection to altering consciousness per se. On the contrary, many consciousness-altering drugs, such as Prozac, Seroxat, Ritalin, and alcohol are either massively overprescribed or freely available today, and they make huge fortunes for their manufacturers but remain entirely legal despite causing obvious harms. Could this be

because such legal drugs do not alter consciousness in ways that threaten the monopolistic dominance of the alert problem-solving state of consciousness, while a good number of illegal drugs, such as cannabis, LSD, DMT, and psilocybin, do?

There is a revolution in the making here, and what is at stake transcends the case for cognitive liberty as an essential and inalienable adult human right. If it turns out that the brain is not a generator but a transceiver of consciousness, then we must consider some little-known scientific research that points to a seemingly outlandish possibility, namely that a particular category of illegal drugs, the hallucinogens such as LSD, DMT, and psilocybin, may alter the receiver wavelength of the brain and allow us to gain contact with intelligent nonmaterial entities, "light beings," "spirits,""machine elves" (as Terence McKenna called them)—perhaps even the inhabitants of other dimensions. This possibility is regarded as plain fact by shamans in hunter-gatherer societies who for thousands of years made use of visionary plants

and fungi to enter and interact with what they construed as the "spirit world." Intriguingly, it was also specifically envisaged by Dr. Rick Strassman, professor of psychiatry at the University of New Mexico, following his groundbreaking research with human volunteers and DMT carried out in the 1990s—a project that produced findings with shattering implications for our understanding of the nature of reality. For further information on Strassman's revolutionary work, see his book *DMT: The Spirit Molecule.*

WHY RICHARD DAWKINS IS THE BEST ARGUMENT FOR THE EXISTENCE OF GOD

BY RUSSELL BRAND

I'm glad I get the opportunity to prove the existence of God. You may think me unqualified for a task that has baffled the finest theologians, philosophers, and physicists since the dawn of time, but don't worry, I've been unqualified for every job I've ever embarked on, from learning to drive to working as a postman for the Royal Mail, and both these quests were successfully completed, aside from a few broken wing mirrors and stolen letters. So, unlike the Christmas money of the residents of Ockendon, Essex, you're in good hands. Atheists are all around us, sermonizing from the godless pulpit on the benefits of their anti-faith with some pretty

good arguments like, oh I dunno, “evolution” and oddly, I think, given the stated nature of their motives, being incredibly reductive in their line and manipulative in their targets.

ZERO FUN AND TOO MUCH MENTAL

I once had the pleasure of talking to the brilliant Richard Dawkins, who has been called the “Abu Hamza of atheism.” (It was me who called him it, just then.) In his remarkable documentary *The Genius of Charles Darwin*, the professor excellently relayed the information within his hero's *On the Origin of Species*, gave us some key information from his own masterpiece *The Selfish Gene* (which I only read because I took it to be an unsanctioned biography of the Kiss bassist Gene Simmons) and set about unraveling religion and spirituality with the adorable fervor of the Andrex puppy making off with some scriptural lavvy paper. Choice among Dawkins's targets were the kind of daft apeths we're accustomed to tolerating on our telly; low-browed creationists

gurgling up Genesis like (forbidden) apple chutney and knee-jerk fundamentalists, who are always zero fun and far too much mental.

Who could fail to concur with Dawkins's erudite dismissal of these hapless saps? No one. I have Dawkins to thank for my own understanding of the fantastic discovery that is evolution; his passion and expertise in this documentary hugely enhanced my knowledge and illuminated what for many spiritual people can be a difficult subject.

It is only in his absolute renunciation of God that the professor and I part company and, heaven knows, I'd understand if you wanted to join his party. In almost any expedition in which the rival guides were myself and Richard Dawkins, I wouldn't be surprised to find myself pulverized by the converted horde stampeding toward the professor.

However, it's not just swivel-eyed haters and mad mullahs who live a religious life, and to condemn all religion and spirituality on the basis of their slack-jawed, knee-jerk, saliva-flecked vitriol

(spit-triol?) is as unfair as the simplified dogma that the choir of pious atheists harmonizes against. Gandhi, as I recall, was quite a religious man.

Saint Francis of Assisi was a straight-up believer. And while the tenets of Buddhism are varied on the notion of God, the creator, I think it would be fair to describe the Dalai Lama as a spiritual chap. I don't see atheists queuing up to call the Dalai Lama a dickhead. These are the examples to which we should turn when questioning the existence of a power beyond man. Not Glenn Beck or some other capillary blob on Fox News.

Dawkins, the patron saint of atheists, would say that all religions are simply wrong—a baffled blanket of cozy lies to warm dopes into snug compliance, unproven ideologies based on faith. I think God exists beyond the current reach of science, that one day our fast-evolving minds will know God empirically as they do now only intuitively. That the mystical will become physical.

Galileo Galilei, the man credited with being the first to point a

telescope skyward (all previous users had presumably been Renaissance Peeping Toms), speculated that heliocentrism was viable: that the Earth likely circled the Sun. He was imprisoned for this observation, which, viewed retrospectively (through my invention, the retro-speculars), seems unfair. He was, after all, correct. Evidently the persecution of scientists by religion has irked the members of that community, but I think that the theoretical annihilation of God is a reprisal too far.

We must, on both sides of the debate, show compassion. I, for example, have overlooked the bald fact that Galileo's parents gave him a bloody stupid first name considering their surname was Galilei. Galileo Galilei. He would have gone through hell at my school, not for being a heliocentric heretic but for being a ridiculously titled child. We already had another lad in my year called David Dave (honestly), so his problem wouldn't have even been original.

Religion has rightly been cited as the cause of much suffering

and conflict, way beyond what ol' star-gazing “two names” went through with his prison stretch and forced retraction. Plus the Pope (I think it was Pope Benedict Benedicto) recently pardoned GG, so let it go.

A CROISSANT CONFLICT

It has been said that “man is never more vehement in killing his brother than when it is in God's name”; perhaps that's true, but we humans can seek out conflict in any situation. My last serious argument was about a croissant. It had been placed in the fridge beneath a meat product and could have been contaminated by dripping. If I'd had a sword on me, I would have happily carried out a jihad in the kitchen, and I'm a vegetarian. It is our nature to quarrel and fight just as it is to inquire and to empathize.

Frankly, I think atheism is a commodity we cannot currently afford. “No atheists on a sinking ship,” they say, and a quick glance out the porthole reveals icebergs aplenty, but I'm not

suggesting God as some demented alternative to desperation—no, this is a phenomenon that touches my life every day.

Through Transcendental Meditation, twice daily I feel the bliss of the divine. Through the mental repetition of a mantra, eventually my chattering monkey mind recedes, gently banishing concerns of the past and drawing the inner eye away from speculation and want. I connect to a boundless consciousness that has no palpable relationship with my thoughts, fears, or desires.

In this impersonal state of awareness, I recognize that consciousness exists beyond time, beyond the individual. There was a time when the universe did not exist, this we know. We also know that energy cannot be created or destroyed, only transformed. This means that something, not nothing, existed before the universe. We do not know what, but there is wonder and intelligence enough to suggest that design may have been a component.

Could a witless miasma of molecules and dust ever have created

anything as ingenious and incredible as Richard Dawkins? I don't think so, but I'm prepared to listen and tolerate any theories and arguments, a concerto of contemplation, a requiem of speculation, to divert us till we know the truth.

STELLAR CONSCIOUSNESS

BY GREGORY SAMS

Have you ever wondered why your spirits are lifted on a sunny day and not in a hot bright room—or paused to consider that the energy of your life is itself the recycled light of the Sun? Have you spent more of your life thinking about suntans, sunglasses, and sunblock than about the nature of the star in your movie—the movie of Life? As you read these words, the energy that moves your eyes and the energy with which you comprehend their meaning is the light of our Sun being expressed through a new medium: you. It's no wonder that we enjoy bathing in Sun's light.

Is there any reason why we cannot consider whether that which brings us the light of life might be conscious of life itself? It was once a common understanding. History's most enduring monuments were built with the Sun and other heavenly bodies in

mind. As we explore the history of these cultures, we can easily overlook the one underlying principle common to the Egyptians, Maya, Celts, and Greeks, not to mention the Sumerians, the Chaldeans, the Assyrians, the Gnostics, the Khmer, the Norse, the Inca, the Aztec, the natives of South and North America, and countless other cultures through the world, including today's Hindu, Zoroastrian, and Shinto religions. This is the recognition that our local star is a conscious entity—a celestial being worthy of divine status. Yet despite being the world's most worshipped deity, the concept of a living Sun became one of the most powerful and unspoken taboos of the Western world and one which modern researchers of the above cultures are often reluctant to breach.

Many scientists question the existence of consciousness itself. Since they have no tools with which to weigh or measure it, and no formula to express it, they find no alternative but to deny its existence. They believe consciousness to be an illusion created by our brain to serve some evolutionary purpose, as yet undetermined.

Some of this “Grand Illusion” camp have a corollary to their belief, which is that human beings have no free will—that every single thing we do or think (every word, each wink or inadvertent stink) was somehow predetermined by the arrangement of particles immediately after the Big Bang.

For scientists who do acknowledge the existence of consciousness, it was assumed until recently that human beings were the only vessel that it could possibly inhabit. Nothing else was deemed to be aware of its own existence, or functioning on anything other than the level of a biological machine solely driven by the need to propagate its species. Some in this camp now argue that orangutans and dolphins and a handful of other species, mainly primates, might just share this “rare” facility. But worms and trees rarely figure in their consideration, even though bacteria colonies are seen to act like a unified intelligence.

Scientists who may disagree over whether or not consciousness is an illusion will agree that it is the greatest mystery of our

existence; this, even though it is consciousness that is seeking to understand itself. So how can we be sure that nothing else experiences this mysterious experience that we cannot understand? We cannot be sure; we simply perpetuate a well-entrenched Church tradition. It was not science that made us look on Sun worship as primitive and ignorant, but the Roman Church that took an extremely dim view of anybody who disagreed. Scientific thought does not even entertain the idea of stellar consciousness, dismissing it out of habit, not by the application of science.

Were you to have told a Zoroastrian or Mayan Sun worshipper of the fusion reaction in the core of the Sun, describing the very different functions of the next six layers, explaining the corona and the solar wind that spins from it, their jaw would have dropped in delighted awe. Our scientific understanding would give them greater cause to revere the character bringing light and the power of life to our world. The knowledge of anatomy does not diminish our status as conscious living beings.

However, unlike the ancients, we now view the Sun as little more than a dumb ball of hot gas that happens to accidentally provide us with the light of life. But science has found out an awful lot about this hot ball of highly charged plasma (it's not actually gas) and its stellar siblings. Unlike the ancients, we know Sun and others stars turn simple hydrogen and helium into all the elements that make up us and the world around us—from carbon and oxygen, to iron and gold. They are the transmutation engines of the cosmos. By weight, 93 percent of the matter in your body was born in the body of a star.

We know that stars turn matter itself into the energy of light, agent of the electromagnetic force. Light informs us of the world around us and brings it energy. Light is the catalyst in photosynthesis, on land and in the world's oceans, where water molecules and carbon dioxide from the air are rearranged into the basic building blocks of the entire vegetable world. During this process, the energy of Sun's light is stored in plants and their seeds,

transferring to us when we eat those basic foods or another animal that ate them. This is the energy that powers life and consciousness.

We are made of stardust and powered by starlight. This much we know.

Unlike the ancients, we know that stars are complex and interconnected balls of plasma. Our Sun has seven distinct layers, all performing different functions with some of them rotating around each other at different speeds. Its powerful corona, an invisible energy field, occupies more space than Sun itself and is thought to manage various solar features including sunspots, solar flares, coronal filaments, and coronal mass ejections. We identify and measure electromagnetic field lines connecting the corona to Earth. In 2008 NASA discovered a magnetic portal the diameter of Earth that connects Sun's corona to our planet's geomagnetic field, through which tons of high-energy particles are believed to pass at eight-minute intervals in what is called a “flux transfer event.” We

know that the solar wind spinning off Sun's corona twists into a giant electromagnetic bubble, the heliosphere, which embraces and protects the solar system as it travels through the galaxy at an estimated 45,000 miles per hour. Scientists rank Sun's corona as its most mysterious feature. Perhaps it is as great a mystery as human consciousness. Perhaps it embodies the mind of Sun.

Unlike the ancients, we know that all those stars in the night sky are related to our Sun. We see that most stars live as couples, called “binary systems” by astronomers, and that they are not scattered randomly but live in communities called “stellar clusters.” Every star sends its own unique signature into space and may have undiscovered connections to other stars, like those recently discovered connecting Earth to Sun. Electromagnetic fields have been discovered spanning deep space, connecting galaxy to galaxy.

Unlike us, the ancients felt connected to the heavens and believed that the consciousness of the Sun and planets influenced

our consciousness, and thus the course of our lives. They carefully constructed monuments designed to connect our human energies to those of the Sun and other celestial beings. Today we know little of their knowledge and skills, of why and how they created the structures that survive to this day.

The harnessing of light in its multiple wavelengths underpins nearly all our technology of information transfer, from radio to TV, smartphones to wi-fi, optic cables to MRI scans. Within its narrow "visible" spectrum, light informs us and other animals of the world around us. Our cells and those of other species use photons to communicate with each other, and we discover plants communicating with photons. It does not seem far-fetched to consider that when stars are dispatching photons of many frequencies into the cosmos, they are serving the same purpose—the exchange of information.

Perhaps if scientists abandoned that old religious taboo against considering consciousness in anything other than us or things like

us, they would not need fixes like “dark matter” to explain why galaxies do not behave like accidental mechanical systems. Essentially, “dark matter” is little more than the name given to the solution for a problem that has not yet been solved—it might as well be called “Factor X.” Perhaps the reason galaxies don't fall apart is because they are not dumb balls of gas reacting to nothing more than the laws of physics, but are instead joined-up communities of intelligent dynamic beings. Just a thought.

I do not claim that Sun's behavior proves it and other stars to be conscious beings—simply that from an unbiased viewpoint and considering all the science, this looks like the most likely option. It is the default option humanity had always held until it was burned from our culture, literally, by a jealous Church. Now, with the supporting data to hand, and burning at the stake out of vogue, let us reconsider this idea with an open mind, free of irrational taboos.

Acknowledgment of stellar consciousness changes everything, and I explore the inevitable implications of this within my book

Sun of gOd. Perhaps the most profound of these recognizes the status of light itself, for which our Sun is the local agent. And from a personal perspective, can there be anything more important to our spiritual well-being than reestablishing a connection with the life-giving star in the movie of Life?

REFLECTIONS IN A REAR-VIEW MIRROR: SPECULATIONS ON NOVELTY THEORY AND THE END TIMES

BY DENNIS J. MCKENNA

JUNE 6, 2014

When Graham recently invited me to contribute to his new anthology on consciousness, *The Divine Spark*, I was pleased at the invitation but didn't really know what to submit. Then I ran across two rather peculiar essays that I had written in the fall of 2011 while writing my memoir, *The Brotherhood of the Screaming Abyss*, which was published at the end of November in 2012. For various reasons, I eliminated them from the final draft of the book

and relegated them to the limbo of some backup hard drive.

One, titled “This Just In . . . ,” is a speculation on Terence's Novelty Theory that was prompted by an unusual announcement by a group of physicists at the Large Hadron Collider at CERN in Geneva. In September 2011, these researchers announced that they had observed an extremely anomalous phenomenon, the detection of neutrinos that travel faster than light, in clear violation of Einstein's Special Theory of Relativity. This event, if proven to be true, would have certainly been novel, or at least the measurement of it would have been novel, so it seemed like an excellent opportunity to muse on the Time Wave (TWO) and Novelty Theory and the nature of Novelty itself. The Time Wave, or more accurately the basic tenets of its construction, was downloaded into Terence's bemushroomed brain while we were in the grip of our shared psychedelic/shamanic odyssey at La Chorrera, Colombia, in April 1971.

The second essay, titled “The Day the World Ended,” was

written a few weeks after the first, on October 28, 2011, which happened to be the date that some Mayanist scholars had postulated was the real correct date for the end of the Mayan calendar, not December 21, 2012. This essay provided a good opportunity to reflect on humanity's seeming mass obsession with the End Times and the associated eschatological hysteria that infected the collective zeitgeist in the years and months preceding the postulated end date of the Mayan Calendar, December 21, 2012. Now, nearly two years downstream from that much anticipated and much dreaded event, we can look back on that date and wonder just what got into our collective heads. It was arguably the greatest non-event in human history; viewed as a cultural phenomenon, it can tell us little about the nature of time, eschatology, or history, but it can tell us volumes about our problematic human nature, and our endless capacity for distraction and denial.

THIS JUST IN . . .

September 24, 2011 1:43 PM

Over the last few days as I have been working on this section, a research group[1] at the CERN Large Hadron Collider facility in Geneva has reported that they have detected a population of neutrinos that apparently travel faster than light. The group reported an "anomaly" in experiments in which a beam of neutrinos sent 454 kilometers from Geneva to Italy arrived at the detector 60 nanoseconds faster than the speed of light. This is an infinitesimally small amount of time (a nanosecond is a *billionth* of a second), but nevertheless, it can be measured accurately, so the researchers claim. This announcement has rocked the world of physics, as well it should, and now other groups of researchers are piling on to either find the errors in the measurements (as well they should) or verify the results. This is the way that science is supposed to work. Extraordinary claims require extraordinary

evidence, and this is one of the most extraordinary claims to come out of physics in a good long while. So therefore, independent confirmation by other research groups is the first step. Most likely, there is an error somewhere in the measurements, the math, or some other factor (these experiments are extremely delicate) but the researchers claim to have repeated the experiment multiple times and are standing by their results. If, however, the experiment *is* confirmed, it's extremely big news, because it means nothing less than the complete collapse of Einstein's Theory of Special Relativity, and with it, much of the foundation of modern physics.

I decided to comment on this development in midstream, because time does not stop in the real world and interesting things are constantly happening. And much of what has preoccupied Terence and me has been the nature of Novelty, and that preoccupation led to the Time Wave theory. The Time Wave that Terence conceptualized (or channeled) at La Chorrera purports to be a mathematical construct that describes the structure of time, a

map of novelty and its “ingression” (to use Whitehead's term) into the continuum, that is, into reality. I am actually one of the harsher critics when it comes to TW0, or Novelty Theory as it has come to be known. I do not believe it's a real theory, and there are gaps and loopholes in the conceptual foundations of Novelty Theory that on close scrutiny are extremely hard to defend. However, much of the TW0 “theory” is based on Alfred North Whitehead's metaphysics, which is much more carefully reasoned. And based on Whitehead, I'm willing to grant that there is such a thing as “Novelty” (which, loosely characterized, means that occasionally there really *is* something new under the sun), and that, somehow or other, Novelty does “ingress” into reality. But some of the more animated discussions that Terence and I had about Novelty Theory were precisely about the questions: what is a truly novel event, and how does it “ingress” into the continuum, and how do we recognize it when it does (or more specifically how does the Time Wave map it or identify it)?

Now we have been handed, in the lovely waning days of September 2011, a report of an event that may be truly novel! We have been given the gift of a case study. We can watch novelty unfold in real time, so we can learn something (maybe) about just how novelty does express itself in reality and how that really plays out in our experience of reality. Much of the controversy over the Time Wave (and the subject of many an argument between Terence and me), had to do with the question of how one "fits" the wave to time, how to set the "end date" which you have to do because the theory postulates that there is a definite instant, a moment in time in which the wave collapses presumably at the instant of the Ultimate Novel Event, whatever that might be. Some have referred to this moment as the Singularity, but this is a deliberately vague term and possibly is misleading as well. The concept of the Singularity implies that at some point we cross a threshold where all of our assumptions, about causality, time, space, and virtually everything else, no longer apply. The

Singularity could be just about anything, so the term is not particularly helpful in predicting what it's likely to be.

As anyone familiar with TW0 and Novelty Theory knows, Terence settled on the exact moment of the winter solstice on December 21, 2012, as the end point for the Time Wave based on a number of criteria and assumptions that may or may not be valid. This date corresponds to the generally accepted date for the end of the Mayan Calendar as well (though ever-industrious revisionists have recently come up with a much more alarming, because more imminent, date for the end of the Mayan Calendar of October 28, 2011.[2] About this, we shall see, it's just around the corner. But that's the subject of another conversation and probably another rant.).

In his conception of Novelty Theory, Terence favored what might be called the "punctate" theory of Novelty. Novelty ingresses into the continuum as dramatic events that have a global impact. Events like the detonation of the atomic bomb over

Hiroshima, or the assassination of JFK, or the crucifixion of Christ, or Hurricane Katrina, or the terrorist attack of 9/11/2001 (though of course he did not live to see the latter two). But his idea was that these kinds of events had an enormous impact on history and the subsequent unfolding of human affairs, so they were truly "novel" and thus could be used as markers when trying to fit the Time Wave to the major novel events of history (and on larger scales even geological and evolutionary events, such as the impact of the Chicxulub asteroid in the so-called K-T extinction event that is thought to have spelled the end of the dinosaurs some 65 million years ago) and thereby arrive at an End Date for the Time Wave.

In contrast, I argued in favor of the "gradualist" theory of Novelty. Major historical or geological events like these may appear to erupt into time, but it's an illusion; it ignores the necessary chain of cause and effect that leads up to the dramatic event. Which is truly the novel event? When the bomb detonates over Hiroshima, or when it is first detonated in the desert at

Alamagordo? Or when the first sustained fission reaction is triggered in the Field House at the University of Chicago by Oppenheimer's group? Or when Einstein first conceives his Theory of Relativity and comes up with the famous equation $E=MC^2$, which provided the mathematical framework that enabled the invention of the bomb? Or some even more ancient event, perhaps Democritus's early intuition that the world is made of atoms in the 4th century BCE? Is the assassination of Kennedy more novel than his election, or his birth, given that it would not have happened without these preceding events? Is the crucifixion of Christ more novel than his supposedly miraculous birth, and his remarkable career, prior to his crucifixion?

You can see my point: Novelty does not erupt into history as much as it oozes into history, and this makes the identification of truly novel events much more problematic. The wave becomes much harder to fit against the historical, geological, or evolutionary record because there are very few punctuate points against which

to lay the map. And there is no way to quantify these events, no criteria that Terence ever defined whereby we can say a given event is more “novel” than another on some kind of measurable scale. This is, to my mind, the major and probably fatal flaw in Novelty Theory. Science works on measurement and quantification; to qualify as a scientific theory, it must be validated using measurable, quantifiable, and ideally mathematical criteria. A true theory must also state what will *invalidate* it; it must postulate what new data or new discovery will disprove it. (And here it is worth noting that no theory can ever be regarded as proven. All theories are provisional, some more than others, but there is always the possibility that new data will come along that overturns the theory. You can disprove theories but never definitely prove them.) The Time Wave does none of this. Thus it is not really a theory. It is a speculation, an interesting idea, a hallucination or fantasy; but it is not a theory. Terence never provided a quantifiable definition of Novelty, I don't really think he

knew how, and I'm not sure anyone does. But the result is that unfortunately, Novelty in the Novelty Theory was defined as whatever Terence postulated it to be. So, interesting as it is, TW0 is utterly useless as a map of time, a predictor of events, or in any way as a mathematical theory that describes something fundamental and profound about the world.

So now, thanks to those industrious scientists at CERN, we have a rare opportunity to study the ingression of Novelty into our continuum. And the same questions apply. First of all, it's important to note that they are probably wrong. There is some error, somewhere, in the measurements or the design of the experiment. This is the conservative and parsimonious position to take for the moment, the provisional position. More data, please, from independent and unbiased researchers! What if such data is provided? That would be fantastic! We all hope that this discovery can be verified, especially us science fiction nuts, because *if* verified, it opens the way to the wildest of science fiction canards,

faster than light travel and even time travel. Oh, we *so* want this discovery to be true!

If it is found to be true, if the consensus emerges that (until disproven, see above) this discovery holds up—that is, it can be independently verified under carefully controlled conditions—then it is novel indeed. It means the complete collapse of everything we thought we knew about physics since Einstein postulated the Theory of Relativity. Begging for the moment *when* the actual novel event took place. Presumably, if true, neutrinos have been traveling faster than light ever since there were neutrinos to do so, so these events have been occurring everywhere for about 13 billion years, give or take a few billion, ever since the Universe took form. So, neutrinos traveling faster than light? Nothing novel there. What was novel was the *measurement* of the phenomenon; so was the first measurement event the truly novel event, or the umpteenth measurement? After the initial measurement, the researchers scratched their heads and figured that they had made

some mistake. They went back and checked their data, repeatedly. Ran the measurement numerous times, finally felt confident enough to report it to their colleagues. *The New York Times* (and the global media machine) first published the report on September 22. Was that the novel event? Colleagues immediately shouted, “Pshaw! This can't be true!” and got to work to try to verify it (or actually, to knock it down; Nobel prizes and careers depend on this, in a big way). But suppose another group verifies the data. They are “me too” runners up, but their work is essential; the theory can't become the scientific consensus until at least one other group, and ideally several groups, verify this data. Just what event, exactly, out of this series of events, does one fit the Time Wave to, that defines the emergence of the novelty? I submit that it can't be done.

And further: one of the unspoken assumptions always looming in the background in discussions of the Time Wave and the Ultimate End Date, the ultimate novel event, is that the event is

going to be either a catastrophic global event (though if the Time Wave purports to describe the structure of time for the entire Universe, it's hard to see why anybody should get too excited about some global catastrophe here on Earth, such as an asteroid impact or even a supernova; after all, we're pretty small potatoes on that scale). But the assumption has been that, on Earth, the End will be marked by some global event, either a catastrophe, which we'd rather didn't happen (most sane people, anyway, do not look forward to global disaster and the death of millions), or some kind of more hopeful scenario—the benevolent alien Space Brothers show up in their mile-wide ships and provide gentle advice and advanced technology to help us get our act together (the Childhood's End scenario), or a wrathful Jesus comes riding in on his golden chariot to smite the wicked and take the righteous up to heaven for an eternity of harp playing and bingo, or whatever they are going to do up there to pass the time (no sex or drugs allowed, remember!). Or the embryonic AI lurking in the Internet will

suddenly cross the threshold into self-awareness and realize, in about three nanoseconds, that the reason things are so screwed up is because of the damn monkeys running all over the place, fouling the nest, so it will pull the plug on the whole show by causing all the world's nuclear reactors to go into critical meltdown while simultaneously launching the entire nuclear arsenal of the world's superpowers. All of these events would certainly be dramatic; all of them would be novel enough to qualify as a validation of the Time Wave if they occurred at or close to the postulated End Date (if the date is off by a few weeks, months or even years, we can still grant that the theory is verified; Novelty Theory, after all, is nothing if not an inexact science). All of them would have really dramatic consequences for life on Earth, if there was any life left, post-End Date. None of them is very likely to happen.

But now we have a discovery come along that might, just might, demolish the foundations of physics as we know it. If verified, that is an enormously significant discovery. It might even qualify as the

Ultimate Novel Event, or at least the most novel event to come along in historical memory. What difference will it make to our daily, humdrum, dreary lives? Practically none. A thousand years from now, it might mean that we will have FTL starships and time machines. That's certainly wonderful, and to be hoped for.

But in the first year of the second decade of the third millennium CE, it's not going to make a damn bit of difference, except that it will give physicists plenty to ponder and the rest of us geeks plenty to yak about. We will still have global warming, vast unemployment, widespread disease, poverty, wars, famine, and even unhappiness. It will not make a damn bit of difference to the way we live our daily lives. And yet . . . and yet, in some respects, you would have to say that if verified, this discovery, in some lab in Switzerland, amounts to a novel event that changes everything. Most importantly it changes (or will change) the way we think about and understand the world. But perhaps that is Singularity enough; a fundamental re-understanding of reality and the way it is

constructed will not immediately change the way we conduct our daily lives, but over time, as that understanding permeates the collective world view, it may indeed have profound impacts. The pity is that no one alive today is likely to live to see any of those impacts. So perhaps this is indeed how the world ends, as T. S. Elliot said, not with a bang but a whimper.

And as I review this piece and reflect on it, I can't resist mentioning another novel event, one that also took place in a Swiss laboratory a few decades ago, that has had a much more profound impact on human history than this discovery is likely to do, at least in any foreseeable future. That discovery, of course, was Albert Hofmann's accidental (?) discovery of the remarkable properties of his new molecule, LSD. Now *there* was a novel event! We had better keep a watchful eye on those Swiss; you never know what they might get up to!

THE DAY THE WORLD ENDED

October 28, 2011 12:51 PM

The time has come to step away from my reminiscences, time to return to 2011 for a moment to note an event that is most germane to the theme of our story, and thus, too important to ignore.

I'm referring, of course, to the end of the world. It's supposed to happen today, but I expect most of us will be too busy to notice. Hopefully we'll be able to catch it on the ten o'clock news, except we won't because it's well off the radar of even the most eclectic journalists.

According to some Mayanists, who pay close attention to matters related to the Mayan calendar[3] and thus its imminent end, the calculations that postulate an end date of 12/21/2012 are in error, due to the discrepancies between the Mayan and the Julian calendars. After the necessary corrections needed to bring the two calendars into sync are made, it turns out that the real date is today, October 28, 2011.

The calculations needed to reconcile these discrepancies are not trivial. It seems that there is not one Mayan calendar, but at least three. There is the Mayan Long Count calendar, which is a nonrepeating, vigesimal (base 20 or base 18) calendar defining the number of days that have passed since a mythical creation date that correlates to August 11, 3114 BCE in the Gregorian calendar or September 6, 3114 BCE in the Julian calendar. There is also the 365-day solar calendar, the Haab, also used by the Maya as well as other Mesoamerican civilizations. Then there is the Tzolk'in, a 260-day calendar based on thirteen twenty-day cycles. These two calendars measure days but not years. The combination of a Haab date and a Tzolk'in date represents a specific date that does not occur again for fifty-two years. The two calendars based on 365 days and 260 days repeat every fifty-two years. For periods longer than fifty-two years, most Mesoamericans relied on the Long Count calendar. There is controversy over the correlations between the Long Count calendar and the Julian and Gregorian calendars.

In the Long Count calendar, the B'ak'tun, the largest subdivision of the calendar, is 144,000 days, or 393.4 solar years. Creation was initiated in 3114 BCE with the beginning of the Long Count, thirteen B'ak'tun, and the count will end with the end of the second cycle of thirteen B'ak'tun, on December 21, 2012, or perhaps on October 28, 2011, or perhaps on December 24, 2011, or perhaps it already happened sometime in February 2011.

The fact is, nobody knows what the correct calculated date of the Mayan Long Count calendar is, as there is no consensus on the correlations to the Julian and Gregorian calendars. The most accepted correlation is the so-called Goodman, Martinez, Thompson (GMT) model, in which 584,283 Julian days is equivalent to the thirteen B'ak'tun. According to this correlation, creation started on September 6, 3114 BCE (Julian) or August 11, 3114 BCE (Proleptic Gregorian). The completion of another Long Count of thirteen B'ak'tun corresponds to December 21, 2012.

Most credible Mayanists do not interpret the end of this cycle as

corresponding to the end of time. It was an occasion to celebrate the end of a long cycle, but was not viewed as a doomsday event. From the Wikipedia article, Sandra Noble, executive director of the Foundation for the Advancement of Mesoamerican Studies in Crystal River, Florida, believes: “To render December 21, 2012, as a doomsday event or moment of cosmic shifting . . . is ‘a complete fabrication and a chance for a lot of people to cash in.’”

“There will be another cycle,” says E. Wyllys Andrews V, director of the Tulane University Middle American Research Institute (MARI). “We know the Maya thought there was one before this, and that implies they were comfortable with the idea of another one after this.'

I certainly make no claims to be an expert on the Mayan calendar, nor am I a mathematician. The endless debates over the correlations with the Julian or Gregorian calendars and the reasoning behind the arguments seem opaque to me. The reason for this is partly because I have not bothered to study them in great

detail to draw a conclusion as to which one is “right.” In fact, they are all wrong. They have about as much relevance to our current historical, and existential, crisis as the disputes of medieval theologians who tried to calculate the number of angels that could fit on the head of a pin. It just strikes me as the wasted effort of a number of excellent minds that could have been better occupied spending their time on other matters. To that we can add in the insights of other theorists who claim to have privileged information from extraterrestrials, extra-dimensionals, or other unverifiable sources. And there is the 2012 “franchise” to serve and a chance to cash in on that—have you purchased the iPhone app yet? There is still time to sign up for the latest workshop, pilgrimage, seminar, or combination package in some exotic location such as Palenque or Tikal. You had better get your reservations in soon because slots are filling fast, and frankly, you're not going to be able to find a parking place.

As the brother of Terence McKenna, arguably the person who

has done more than all the Mayanists to seed the meme of 12/21/12 as the end date of history into the collective consciousness, I suppose I could be accused of being at best unsporting and at worst an annoying curmudgeon on this issue. I have to plead guilty on both counts. Certainly Terence's selection of 12/21/2012 as the end point of the Time Wave was a matter of convenience as much as it was the result of a serious mathematical analysis. The Time Wave and the Mayan calendar have nothing to do with each other, but they have been conflated in the delusions of the current cultural Zeitgeist.

The Time Wave is so wrong in so many ways, and I have previously discussed some of them. The Mayan calendar may end today, or it may end on 12/21/12 or some other date, but trust me on this: the only people who are going to take this seriously are those who either have a financial stake in the 2012 mythos or those who are so completely deluded that they are ready to grasp at any straw to avoid honest consideration of our current environmental

and historical crisis. For the rest of us, the event will be noted as a human-interest story presented as a wrap-up item by chirpy bubble-headed anchorpeople at the end of your evening newscast. We will awake up on 12/22/12 faced with the same set of intractable and horrifying problems that we were faced with the previous day. Jesus is not coming in his chariot of fire to save the righteous and smite the wicked; neither are our space alien brothers going to materialize in mile-wide ships over the major cities of the world to hand over the keys to galactarian citizenship. God knows I wish they would; if I'm wrong and it happens, I'll be the first to queue up to eat a mountain of crow. Nor is there going to be a massive asteroid impact, a supervolcano eruption, a gamma ray burst from a distant supernova that wipes out 99 percent of terrestrial life. These things may, and probably will, happen someday. I just don't believe they can be predicted. As a rule, this is not the way that Novelty ingresses into reality. With rare exceptions, such as global natural catastrophes that occur every

few million years, Novelty ingresses more locally, and more slowly, than these disaster scenarios would have us believe.

As a species, we are extremely adept at denial. We can expend enormous effort on developing models to predict events that a moment's reflection will tell us are extremely unlikely. This is far preferable, certainly a welcome distraction, from the depressing contemplation of our current existential crisis. Every great civilization, every historical era, probably believes that it lives at the end of time, and that the end of its particular exceptional situation will define the end of history. The fact that this has never happened—that somehow history just rolls on whether or not civilizations rise and fall, continents and cultures are devastated by plagues and famines, environments or economies collapse—is dismissed in our longing for some resolution to our dilemma, some final outcome no matter how catastrophic.

What we should be doing is doubling down on the problems we face, now, and trying to figure out what we do about them, if

anything is to be done, now. It's what we need to be doing, yet it is so damned hard. We are like the dysfunctional Congress of 2011; it needs to focus on jobs, jobs, jobs but instead wastes time on culture war issues, passing yet more restrictions on abortion, naming a post office, all the other trivia that fills its agenda while meanwhile Rome burns. We are a stupid species. Darwinian mechanics is not kind to stupidity, the dumb do not survive, and if we destroy ourselves due to our own stupidity (as it appears we are bent on doing), then perhaps that's for the best. The problem is that we have now developed toys and technologies (but not the wisdom to use them) that can bring down a good deal of the planet with us when we finally do implode, or more likely, explode.

We yearn for an escape from the prison of history. We long for what Eliade called the Eternal Return, a mythical, timeless era outside of time, before history, or after it (there is really no difference). Linear, historical cultures are trapped in history in much the same way that each individual is trapped in the time

frame of his or her life. Every life has a beginning and an end; we are pushed along, inexorably, by time from the moment we are born to the moment the plug is pulled and the sheet drawn up. Nobody has ever escaped from time, though all of the world's religions are scams predicated on the notion that if we toe the line in certain ways, pay homage to the authoritarian structures, accept the dogma, behave ourselves, and of course have “faith,” somehow we are going to beat the system. This may serve the agenda of whatever authoritarian hierarchies run these institutions, but it's a lie. Every person confronts their own personal Singularity at the end of time, the end of their own personal history. This is the only eschaton we can realistically look forward to. No one can say, definitively, what happens to consciousness when that Singularity is breached, whether it is extinguished forever or translates into some sort of virtual reality, whatever that means when talking about post-death survival. Someday, we may understand this. Someday, technology may advance to a point where it's possible to

consider uploading one's consciousness or “soul” (whatever that is) into some kind of virtual environment maintained by supercomputer networks that are vastly more powerful than anything we have today. If that day ever comes (and I don't expect to see it in my lifetime) it will mark the collapse of all of the world's religions, and this is an unintended consequence to be relished.

Until that day comes, here we are, trapped in our own personal history that is in turn nested inside our cultural and national history, and that in turn is embedded in biological, evolutionary, geological, and cosmological history. It's not going to end today, or tomorrow, or on December 21, 2012. Like an insect stuck in amber, we are imprisoned in time, and rather than waste energy trying to escape, or predict its end, we should rather devote our efforts to making the time we are afforded the best it can possibly be.

History ended today. I am looking forward to tomorrow's

sunrise.

NOTES

1. http://www.nytimes.com/aponline/2011/09/22/world/europe/AP-EU-Breaking-Light-Speed.html?_r=1&scp=1&sq=faster%20than%20light%20particle&st=cse
2. http://www.calleman.com/content/articles/end_of_creationcycles.ht
3. http://en.wikipedia.org/wiki/Mayan_calendar_ending#2012_and_th

FROM COSMIC CONSCIOUSNESS TO CONVERGENCE: PSYCHEDELICS, ENTHEOGENS, AND SPECIES ACTIVATION

BY RAK RAZAM

Rushing tunnel of light like hyperspace in Star Wars, and each bead is a frozen liquid angel, a condensed vibrational being, another drop in the cosmic ocean all around. And the angels are alive, they pulse with welcoming light-love, they caress and become me as I enter the DMT space and everything becomes infused with holiness, with a sacredness beyond words, felt in every fiber of my being. This is what the saints say, what the enlightened ones experience, the lower bar-dos and the shores of the heavenly realms. ... All I have to communicate it to you, dear reader, is these

poor words, these little niños.. . . The vehicle of the Word is like a freshly minted wave packet to contain energies that are burst open here as I swim through—in—become one with the core, the Source of all things, the Logos that creates and is pure Creation itself.

—RAK RAZAM, *AYA AWAKENINGS: A SHAMANIC ODYSSEY*, 2013

I have, in my career as an "experiential journalist" covering issues around technology, spirituality, counterculture, and the global shamanic resurgence, been exposed to many illuminating states of mind and mystic traditions of indigenous tribal people and esoteric Western mystery cults, old and new. An invisible landscape has opened up for me that is every bit as real and potent as the baseline reality we experience around us in the material world. Indeed, this inner dimension seems inextricably bound and intertwined with the world we know, underscoring and perhaps animating it with a spirit or consciousness—as one paradigm would have it; others might use equally exotic terms like *coherent quantum processes*

and *entanglement.* However we define it, consciousness is still at the heart of our reality, and it is a mystery that is yet to be fully explained.

Philosopher Alfred North Whitehead once defined consciousness as the “awareness of awareness, or the apperception of pattern as such.” The mind-brain relationship has been debated all the way back to the ancient Greeks, and around the turn of the 19th century, philosophers like Henri Bergson and psychologist William James were still debating the brain's relationship to consciousness. James himself also famously experimented with another consciousness alterant of the time, nitrous oxide, and the use of other psychoactives like mescaline, opium, and peyote was prevalent in the medical underground and the bohemian intelligentsia. These substances also paralleled a rise in spiritualism, alternative religions, and interest in psi phenomena that seems to eerily parallel the later psychedelic revolution of the 1960s.

In 1898, James delivered a lecture at Harvard University that opposed the idea that consciousness is solely produced by the brain. Like Bergson before him, he believed that the "fangs of cerebralism" alone could not explain the full function of the brain and consciousness, which was, "as far as our understanding goes, as great a miracle as if we said, thought is 'spontaneously generated,' or 'created out of nothing.'" He went on to say, "Our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different." (*The Varieties of Religious Experience*, 1902)

Richard Maurice Bucke was a contemporary of James's, a Canadian who worked with the American Medical Association. In 1901, he wrote the book *Cosmic Consciousness: A Study in the Evolution of the Human Mind*, in which he explained that "cosmic consciousness is a mystical state above and beyond self-

consciousness . . . which is man's natural state, which is in itself above pure sentient animal consciousness," and so on. This stepping-stone gradation of consciousness itself is something that modern science usually says ends with the current human condition, perhaps recognizing flashes of difference with geniuses like Einstein or Hawking.

But instead of just an increase in *intellect*, Bucke envisaged a type of consciousness that was itself conscious of "the life and order of the universe," an interconnected perspective "which is more of an intuitive knowing than it is a factual understanding." While it was evidently only possessed by a select few in his day, the increase in this awareness in the species over time promised a stage of human evolution where it would be eventually shared by all humanity.

The idea that consciousness continues to aggregate above our current plateau, and parallel to it, is deeply intuitive. We can recognize consciousness in ourselves, in animals, and in the

shamanic paradigm, in plants as well. There are all different levels of consciousness in the indigenous understanding of the world as a living organism, and in that macro organism, there seems to be a cascading effect where one state of mind can build upon another for an interdependent whole that is greater than the sum of its parts.

Indeed, we can see the stratum of collective consciousness at work in different species in nature, as with many insects that work synergistically together, even though individually they might only have a rudimentary self-consciousness, or in partnership with plant species. Together they act in a synergistic way to actually perform more as a collective than they can individually, and that lesson is reflected in examples of collective consciousness developing in 21st-century human culture as the drive toward retribalization increases and a collective gestalt emerges in the social media-nonlinear-mesh-networks of the Internet.

This collective consciousness in nature may be a stepping stone for Bucke's idea of cosmic consciousness itself, which Wikipedia

defines as: “The concept that the universe exists as an interconnected network of consciousness, with each conscious being linked to every other. Sometimes this is conceived as forming a collective consciousness which spans the cosmos, other times it is conceived as an absolute or godhead from which all conscious beings emanate.” (*http://en.wikipedia.org/wiki/Cosmic_consciousness*) This theory has echoes and resonances with the Buddhist concept of Indra's net, Pierre Teilhard de Chardin's noosphere, and James Lovelock's Gaia hypothesis, amongst others.

While many mystics and seers both exhibited and talked about the concept of cosmic or expanded consciousness, Bucke was one of the first Victorian-era gentlemen to tease new ground with the concept by mapping it across the history books with individuals who achieved altered states. Bucke graphed and compared the experiences of saints and mystics like Jesus, Mohammed, William Blake, etc.—the list was pretty well-developed for a pre-20th-

century demographic, but it raised a lot of questions, like whether or not some of these people were actual historical figures, and did they, in fact, have an elevated consciousness?

Still, perhaps because of his Victorian-era prejudices, one thing that Bucke didn't comment upon was shamanic cultures. Bucke's mapping of manifestations of cosmic consciousness in individuals across history ignored the sacramental use of indigenous peoples and the plant sacraments that connected them to the divine, however temporarily. Indigenous peoples the world over have used *entheogens* (Greek for “substances which evoke the divine within,” usually natural plants and fungi, as opposed to *psychedelics* which are made-in-the-lab chemicals). Preeminent amongst modern entheogenic use is Ayahuasca and San Pedro in South America, peyote in North America, and psilocybin-magic mushrooms through Mesoamerica and Siberia—and all of the above in the Western-led Shamanic Resurgence that is currently blossoming across the world.

The altered state of consciousness of shamanic culture also provides a deep connection to the great green-mind of nature, developing a sense of cultural equilibrium and sustainability for man's place in the web of life. In many instances, it also provides brief flashes of contact with an exploration of higher-dimensional realms for the tribal shamans and their patients. In higher doses, especially with the right entheogenic keys, locks are said to open to deep states of core consciousness and a perception of unity with all living things—that is, an awareness of the individual as an emanation of the Godhead, or as Bucke would call it, *cosmic consciousness*.

But this is still largely an individual affair, a global subculture protected from the mainstream in the West, although rapidly gaining in popularity and mainstream media attention. Traditionally, plant-based gnosis has often been sanctioned as part of village life in the old world, mediated by the village shaman in indigenous societies. Sometimes it was something the entire tribe

would do—other times, depending on the dogma of the tribe, it was used by the hunters or other specialists. With the Shipibo-Conibos tribe in Peru, the shaman himself would take the Ayahuasca on behalf of the patient and go into the realms as a medicinal tool. So these states of higher consciousness have often been compartmentalized within the larger village life, until the mid to late 20th century, when modern Western culture "discovered" altered states en masse via LSD.

In the 1950s, psychedelics like LSD were still legal and were widely used in experiments by psychiatrists, corporations, the military, and the intelligentsia to boost creativity, remove mental blockages, and experiment with a reliable "truth serum." Writer Aldous Huxley helped coin the term *psychedelic* (Greek for "mind-manifesting") in letters with Dr. Humphry Osmond, who suggested the term in counterpoint to Huxley's phanerothyme. Huxley was also one of the first modern intellectuals to continue the idea that the function of the brain and the nervous system was as a filtering

agent of consciousness. He argued the brain was not just an epigenetic nodal point where thought originates from; rather, he thought the brain was actually something that filters down the tsunami of overwhelming sensory information on all the different frequencies to make it more palatable for down here on the baseline level:

> According to such a theory, each one of us is potentially Mind At Large . . . [but] to make biological survival possible Mind At Large has to be funneled through the reducing valve of the brain and nervous system. What comes out at the other end is a measly trickle of the kind of consciousness which will help us stay alive on the surface of this particular planet . . . temporary bypasses may be acquired either spontaneously, or as the result of deliberate "spiritual exercises" . . . or by the means of drugs. (Huxley, *The Doors of Perception*, 1954).

One of the key attributes of psychedelics and entheogens, and

perhaps the reason they are often approached with trepidation, is that they dissolve the ego. In a 2013 presentation, by Brazilian neuroscientist Dráulio Barros de Araújo, he argued that fMRI brain scans proved that the hallucinogenic brew Ayahuasca reduces neural activity in what is called the Default Mode Network (DMN) regions of the brain. (*http://maps.org/conference/ayahuascafriday/*) Science is still grappling with the DMN's role but believe it may trigger our sense of being itself, our identity and ego. Similar tests by the Beckley Foundation in the United Kingdom in 2012 found that psilocybin mushrooms also inhibit the DMN, which suggests this is how psychoactive substances tune us in to that mystic sense of oneness with all things.

As our paradigms deepen and seem to parallel, the scientific, spiritual, and psychedelic experience all present valid models to understand the world around us and find the meaning we so desperately crave. And yet, as philosopher and raconteur Terence McKenna once said: “The psychedelic experience is as central to

understanding your humanness as having sex, or having a child, or having responsibilities, or having hopes and dreams, and yet it is illegal." As increasing attention is focused on the use of both manmade psychedelics and plant-based entheogens as potent psychological tools in legal medical studies across the world, a wider context must also be established to integrate the proper understanding of these substances in the role of consciousness itself.

Investigations into the suppression of the DMN by psychoactive substances could be crucial to finding the truth about consciousness in general. Current models of how consciousness works includes the "electromagnetic field theory," which states that the brain produces an electromagnetic field that orders neuronal activity into coherence. Other theories posit a "quantum brain dynamic" interpretation where water molecules in the brain create a "cortical field" that interacts with quantum coherent waves in the neuronal network. Both of these dominant models still

propose an unresolved assumption—that the brain itself *creates* consciousness within the brain-mind dynamic.

If consciousness isn't simply created from the “hardware” of the brain itself, the inverse possibility is that it is received and filtered through the quantum-neuronal interface. The original analogy for this was of that of a radio and the signals it receives—if the radio is destroyed, the data it transmits is not lost; the music and audio signals are, of course, broadcast from an external source. The radio is simply the receiving and filtering mechanism to convert radio signals to audible sound. In the same way, William James and others argued that when the brain is damaged and consciousness is impaired, this does not mean that the full spectrum of consciousness is destroyed, merely that the receiving device is debilitated.

This, of course, then raises the larger question of where does the stream of consciousness that is being broadcast originate from? If it's not local to the hardware of the brain, it must be “nonlocal.” Dr.

Larry Dossey, in his book *The Power of Premonitions*, also reminds us that the radio (or even the updated analogy of a TV set) picks up electromagnetic (EM) signals that weaken according to distance and can be blocked, whereas consciousness does not appear to be limited in the same ways the EM bandwidth is.

Dossey goes on to say that:

> My conclusion is that consciousness is not a thing or substance, but is a *nonlocal* phenomenon. *Nonlocal* is merely a fancy word for *infinite.* If something is nonlocal, it is not localized to specific points in space, such as brains or bodies, or to specific points in time, such as the present. Nonlocal events are *immediate;* they require no travel time. They are unmediated; they require no energetic signal to "carry" them. They are *unmitigated;* they do not become weaker with increasing distance. Nonlocal phenomena are *omnipresent*, everywhere at once. This means there is no necessity for them to go anywhere; they are already there.

> They are infinite in time as well, present at all moments, past present and future, meaning they are *eternal*. (*The Power of Premonitions: How Knowing the Future Can Shape Our Lives*, 2009)

Here we start to delve into the territory of quantum physics and the ideas of leading physicists like Einstein and David Bohm. Einstein famously posited in his Theory of General Relativity that space and time are not separate but are actually parts of a larger time continuum. Bohm went further than Einstein, saying that everything in the universe is part of this continuum and that on the "Explicate" level (the manifested world that springs from a primal "Implicate," or Source) everything is seamlessly connected. "The universe may be nothing more than a giant hologram created by the mind," said Bohm. He further argued that consciousness itself is a subtle form of matter that is intrinsically embedded in all things on the Implicate level.

This model of a "conscious universe" changes the typical

Western view of reality and what consciousness is. There is no longer a need for any distinction between living and nonliving things, as everything is alive and has consciousness, including energy itself and everything made from it. This announcement has immediate parallels to the worldview of shamans, mystics, and the indigenous wisdom of tribal people. Still, if consciousness is a field of being not just broadcast but "on," underlying and perhaps animating the material world, through what interface does it work? How does the brain then receive this omnidirectional signal given off by this Implicate Source? How do other living creatures without a centralized brain structure—for instance, plants—receive this signal?

The modern science of quantum biology examines how the theories of quantum physics interact with biological life forms, and in recent years, plants have played a central role in deepening our understanding of these processes. A 2007 paper in *Nature* magazine saw "evidence for wavelike energy transfer through

quantum coherence in photosynthetic systems." (http://www.nature.com/nature/journal/v446/n7137/full/nature0567 Plants have long been posited as conscious entities, and as far back as 1966, Cleve Backster, an ex-interrogation specialist for the CIA during the infamous MK Ultra days, conducted his now-infamous plant intelligence experiment. Backster attached polygraph electrodes to a Dracaena cane plant and was amazed to see that it was alive and was reading out in much the same way a human polygraph readout would display. He went on to experiment with biocommunication in plant and animal cells, which led to his theory of what he called "primary perception," or extra-sensory perception by plants to external stimuli.

This interspecies communication becomes more possible as our understanding of energetic frequencies increases. We currently know that the human brain has five different frequencies it operates at: Beta, Alpha, Theta, Delta, and Gamma, measured in cycles per second (Hz), each of which have their own set of characteristics

and produce a specific brain function and type of consciousness. Beta (14–40 Hz) gives us waking consciousness and reason and logic; Alpha (7.5–14 Hz) is a state of deep relaxation, light meditation, and intuition; Theta (4–7.5 Hz) is present in the REM dream state, deep meditation, and spiritual and psychoactive states of unity and oneness. Delta (0.5–4 Hz) is the slowest brain frequency, manifesting in deep, dreamless sleep or egoless meditation; and Gamma (above 40 Hz) is the fastest frequency, thought to produce insight, flow, and rapid information processing.

Gamma was only discovered with the advent of EEG machines that read the brain, and that in itself proves that states of consciousness can and do exist that we are sometimes unable to measure. Modern scientific tests have also proven that plants respond and improve their growth when exposed to signals of consciousness in the 0–15 Hz frequency range (Delta through Alpha), the same bandwidth as ecstatic states, meditation, and out-of-body experiences.

Modern science has discounted Backster's experiments as misinterpretations of galvanic skin responses (and indeed, later testing hasn't been able to replicate his extreme findings), but the idea of plant sentience, and a larger reservoir of consciousness embodied in nature herself, is at the heart of the indigenous perspective of the Amazon. The shamans, *brujos, vegetalistas, tobaqueros, ayahuasqueros*, et al., all work with unseen entities and forces of embodied consciousness that do not have discreet corporeal form. These medicine people say they are in direct communication with the plant and earth spirits that animate their jungle canvas. The vegetalistas in particular work with thousands of medicinal plants and understand the delicate ecosystem as a living entity. The ayahuasqueros work with the power plant Ayahuasca and a number of other plant additives in the Ayahuasca brew to produce an astounding visionary entheogen that is also a remarkable physical purgative and emotional cleanser.

While Western science has proven that Ayahuasca is a rich

source of serotonergic agonists and reuptake inhibitors, the effect of the Ayahuasca brew is not just a neurochemical one. The shamans believe it is the relationship with the spirits both in the plant ("madre ayahuasca") and in the astral or consciousness ecology that engage with their patients to aid in their healing, often mediated through the shaman's use of *icaros*, sacred songs transmitted by the plants themselves that are, in essence, vibrational codes. By singing the vibration, or essence, of a plant into the patient, the shaman connects the energetic bodies of plant and patient in a symbiotic gestalt. All of this is part of the deeply researched, tested, and proven efficacy over hundreds of years of knowledge (within their culture) of their science of *curanderismo.*

Stephan Beyer, author of *Singing to the Plants*, wrote an article in the *Journal of Shamanic Practice* titled "What Do the Spirits Want from Us?" In it he said:

> Shamans in the Upper Amazon have established a relationship of trust and love with the healing and protective

> spirits of the plants. To win their love, to learn to sing to them in their own language, shamans must first show that they are strong and faithful, worthy of trust. To do this, they must go into the wilderness, away from other people, and follow *la dieta*, the restricted diet—no salt, no sugar, no sex—and ingest the sacred plant that is the body of the spirit. . . . The spirits are all here, with us, right now. This world is as magical—as filled with ogres and allies, signs and mysteries—as the miraculous world of the vision fast.

The modern world is too caught up at a denser energetic state to hear the singing of the plants, the shamans say. It is fixated to computer screens, TVs, iPhones, and the like, trapping consciousness at Alpha levels. But when you take entheogens like Ayahuasca, the DMN is subdued, and the transmission of higher consciousness is revealed and remembered.

Dennis McKenna, an ethnopharmacologist known for his work with Ayahuasca and its effect on the brain with pioneering studies

like the Hoasca Project (1990), and brother of psychedelic philosopher Terence McKenna, has also had his fair share of mind-expanding shamanic experiences. Integrating them into the Western scientific paradigm forced him to examine many basic concepts anew, such as: "If the brain is a receiver of consciousness, then perhaps consciousness itself is a singularity point much like black holes, where energy is compacted so densely in on itself that it collapses. That collapse in the brain may be what causes consciousness." (Dennis McKenna, quoted in *Aya Awakenings: A Shamanic Odyssey*, 2013) Is this what psychoactives do when they subdue the Default Mode Network? I once posited that "adding an injection of DMT to the endogenous levels of DMT already in the brain . . . may act like the collapse of a star into a black hole, as the brain receiver tunes into an ultra-dense state, reading deeper than ever before." (Rak Razam, *Aya Awakenings: A Shamanic Odyssey*, 2013).

The science of black holes is still an evolving field, and despite

recent headlines by Steven Hawking claiming black holes don't exist (he was actually proposing a hypothesis that the event horizon around a black hole doesn't behave the way models suggest), the relationship to black holes as singularities in space time, and consciousness as a singularity, is an intriguing one. Astrophysicists have recently used computer simulations to model how the universe evolved, with visual representations of that growth showing clusters of young galaxies surrounded by stars, older galaxies and dark matter in a complex web eerily identical to the synaptical pathways of the brain, with individual neurons in the same place as galaxies. Ancient alchemical wisdom had an axiom "as above, so below," and in this, and so many other examples, nature may use the same principles in unfolding her creation on different scales.

Interestingly enough, there is another culture that believed the source of consciousness was in the center of our galaxy—the ancient Maya. The Maya had an amazing ability to map the stars

and create calendrical systems that proved astoundingly accurate over vast periods of time, but for them, it wasn't a dry, scientific affair. The spiritual intimacy of their science is reflected in the language they used to describe the stars—for them, galactic center, which they knew about and revered as the source of their knowledge and of all consciousness in our galaxy—they called Hunab Ku, which translates as “the womb of the great mother.” The Maya, and many of their contemporary Mesoamerican cultures, were also entheogenic based and used San Pedro cactus, Ayahuasca, and DMT-containing plants and snuffs both in their consciousness exploration and to facilitate the underpinnings of their science and culture.

Interestingly enough, since the launch of the latest generation of space telescopes like the Swift Gamma-Ray Burst mission in 2004 and the Fermi Gamma-Ray Telescope in 2008, our understanding of black holes has deepened. NASA has confirmed that the center of our galaxy *is* actually a supermassive black hole, which

according to current theories doesn't just suck matter into its event horizon but also spits out jets of ionized gas into space. The jets are bits of matter accelerated by the event horizon they entered, rebounded so fast, they give off gamma rays, converting energy to light. This then heats space and changes the cosmic environment, which may help spark new stars into being. So black holes are not just a source of death, but—like the Maya said about Hunab Ku, the womb of the great mother—they are a source of life.

So what if the Maya were also right about the center of the galaxy being the seat of consciousness, a "pan-galactic cloud computer," if you will, that creates, stores, and transmits consciousness itself ? Other exotic theories also posit the potential for black holes to be wormholes to other points in spacetime or to parallel universes or higher dimensions. Like our current mapping of the structural similarities of the galactic star structure and neuronal pathways in the brain, could the galactic superstructure itself be the macroreceiver for higher dimensional consciousness

from an Implicate Source? And like the way different regions of the brain filter and modulate consciousness for specific tasks, does the distribution of consciousness in the form of energy blanket the galactic-neuronal pathways to activate subprograms, i.e., life forms?

We do know that these galactic emissions affect the magnetic fields of both our sun, and through it the earth, and from there our brains directly. In 2008 *New Scientist* magazine interviewed Kelly Posner, a psychiatrist at Columbia University in the United States, who said: "The most plausible explanation for the association between geomagnetic activity and depression and suicide is that geomagnetic storms can desynchronize circadian rhythms and melatonin production." The pineal gland, which regulates circadian rhythm and melatonin production, is sensitive to magnetic fields. "The circadian regulatory system depends upon repeated environmental cues to [synchronize] internal clocks . . . Magnetic fields may be one of these environmental cues."

(http://www.newscientist.com/article/dn13769-does-the-earths-magnetic-field-cause-suicides.html) The pineal gland in rats has recently been confirmed to secrete endogenous dimethyltryptamine, or DMT, a powerful psychoactive chemical that also exists in our brains as well as in most mammal and many plant species. The pineal gland is directly affected by sunlight and the magnetic fields tripped by the light, and through the pineal, the metabolism of the body is regulated.

So if this celestial daisy chain we are all embedded in has a verifiable effect on the earth, and the health of us as individuals, what then can we say about the alignment of our solar system with galactic center and the supermassive black hole in the cosmic circuit? To the Maya, it was 0.0.0.0.0 on their calendar, or the moment when the 26,000-year orbit concluded and a new cycle began. The grand 26,000-year galactic orbit took in a series of successive world ages, or quadrants, each of which they believed affected consciousness. Heading toward the super-information

highway of galactic center, their cosmology suggests, should see a peak in the cosmic-consciousness-connection. You could make an analogy of a mobile phone: Halfway through the galactic orbit of 13,500 years, you go down to a one- or two-bar signal. And as you align closer to galactic center, you receive more consciousness signal, like getting four-bar reception on your mobile phone. And if you use up all your galactic bandwidth allowance, consciousness itself may be “shaped” until you roll over to the next installment, or world age. . . .

Which is just where we seem to find ourselves in the post-2012 Gregorian era, a critical turning point within history. The exponential march of consciousness has created a technological transformation that has simultaneously drained the planet of resources while creating an ever-complexifying web of interconnected information (the Internet), startlingly similar to Vladimir Verandsky and Pierre Teilhard de Chardin's conception of the “sphere of human thought” they called the “noosphere.” A

cross between atmosphere and biosphere, the noosphere was defined by Verandsky as the third phase after the geosphere and the biosphere, and was marked by the emergence of human consciousness transforming the environment.

But human consciousness is not the only one on the planet transforming the environment—in fact, humans, animals, plants—all the sentient species have different levels of consciousness that make up and transform the biosphere. Collectively, we may act as an *organic mesh network*, a terrestrial-DNA-receiver for the galactic signal, a "species satellite dish," for receiving consciousness itself. To update the old analogy of the radio or TV set receiving signal, what if the planet creates the hardware (each species) to host the software (consciousness), downloaded like a *bit-torrent from galactic center*? What if the quantum entanglement of consciousness file-shares the source code from higher dimensional space on the other side of the black hole? And what if those clever plants, themselves deep in the egoless 0.5 Hz

frequency of consciousness and connected to the broadcast signal, have been grooming us to come back to the garden, to balance with nature and *four-bar Godhead consciousness* through their entheogenic brethren?

Isn't that just where the resurgence of global shamanism and the popularity of entheogens like Ayahuasca and psilocybin is heading? A return full circle? These entheogens give us a brief flash of the interconnected web of life embodied in the DMT frequency, and in doing so, they may be training us for that experience of full-spectrum consciousness embedded in nature and connecting us back to the Source.

If there is some truth in these theories of consciousness that unites the macro-galactic with the micro-neuronal levels, mediated by the plants and the entheogenic frequencies they enable, it would reposition our understanding of consciousness in the same way that Galileo's discovery that the earth actually revolves around the sun changed our worldview centuries ago. It would take us from the

egoic role of consciousness creators to consciousness receivers, and in a way, relieve us of at least some of the guilt the ego brings. For when we go into the egoless state and merge with a sense of unity consciousness, we're actually present in real time, outside linear time and inside eternity.

And in that moment you might, as William Blake said:

> . . . see a World in a Grain of Sand
> And a Heaven in a Wild Flower,
> Hold Infinity in the palm of your hand
> And Eternity in an hour.

EXPANDING THE MIND

THE CREATIVE PROCESS AND ENTHEOGENS

BY ALEX GREY

with thanks to Allyson Grey

On the evening of May 30, 1975, I took my first dose of LSD in Allyson's apartment. The experience was so rich and profound, coupled as it was with the meeting of my future wife, Allyson, that there seemed nothing more important than this revelation of infinite love and unity. As an artist, this became the only subject worth my time and attention. Spiritual and visionary consciousness assumed primary importance as the focal point of my life and art. My creative process was transformed by my experience with psychedelics, also called entheogens, because of their uncanny ability to reveal the God within.

Due to its visionary power and richness, the psychedelic experience has played a tremendous role in fueling an artistic and cultural renaissance. Offering artists access to deeper and higher aspects of their soul, the psychonaut is given a subject worth making art about. The transformative vision is a critically important discovery, a magnetic passion that burns in their souls and artworks. A worthy subject is an artist's most important discovery and can impact whether their work will evoke the deepest and highest resonance with their viewers.

Oscar Janiger's studies of LSD and creativity showed that many artists felt the work done while tripping or post-tripping was more inventive and inspired work than their previous work. Keith Haring, one of the most celebrated artists of the 1980s, credited LSD with stylistic breakthroughs that brought him to his own unique work. Sacramental substances in every culture have been treasured by certain members and not recommended for all. It seems a crime against cognitive liberty, however, to punish self-

discovery through sacraments that can empower our spiritual and creative lives.

"How can we bring the insights of the entheogenic state into our lives?" For the visionary artist, their work is a translation of a mystical state and represents, to the best of their ability, the depth of feeling and perception in subtle inner worlds they experienced in that state. Utterly unique to each individual, the entheogenic state is yet characterized by archetypal states of being reported by scores of psychonauts, some through art. Stages of the psychedelic experience can be translated into works of art.

1. Body signals or symptoms: Jitteriness or rushes of energy may shoot through our body. The chest or the top of our head may have an opening or lifting sensation. We feel a heightened sensitivity to colors and notice wavy or slowly billowing distortions of our outer world perceptions. Turning our attention inward, we may perceive dynamic geometric forms

and cartoon-like figures morphing into strange and inventive shapes. The unconscious is surfacing toward consciousness. As we release the depth of mystery and meaning our conceptual mind has been keeping at bay, our ordinary perception floods with portent.

2. Psychodynamic visions: Unresolved repressed emotions emerge. Dramatic personally meaningful imagery confronts us face-to-face. Frightening encounters with suppressed memories can emerge and resolve to ultimate completion in a healing environment.

Next come transpersonal stages:

3. Birth, death, and rebirth experiences: The ego/small self is frightened, crushed, overcome, and reborn through intense cythonic and cathartic visions.

4. Archetypal and mythic visions: Meditating on each other's faces, Allyson and I simultaneously saw the “everyface” of

humanity wash across the face of our adored one. In my view, Allyson became every woman, every man, and every animal, and for her, I transformed into all beings.

5. Energy release: Kundalini movements in body, chakras opening, awareness of subtle energy systems.

6. Universal mind: Cosmic unity, voidness or emptiness as the ground of being beyond polarities. Vistas of subtle, pulsating fountains and drains of energy. Looking down infinite turning, activated suck-holes and blow-holes of energy.

Each of these stages or structures of higher consciousness and the subtle inner worlds can be evoked in our art. As with sacred art traditions in a multitude of cultures gone by, the Integrative Entheogenic Vision in art brings together the opposites of dark and light, reason and intuition, the known and the believed, male and female, life and death, matter and spirit.

Heinrich Kluver studied the effects of mescaline on normal

subjects and found visual and perceptual “form constants” that recur in psychedelic voyages. Particularly relevant to developing our entheogenic artistic vision, these form constants include the spiral, the lattice or fretwork, tunnels, funnels, and passageways. There is a perception of “greater dimensionality,” both visual multidimensionality and ontological dimensions of meaning. Iridescent and finely filigreed organic and complex geometric shapes evolve and dissolve, referencing both nature and sacred architecture. Colors appear more radiant and overwhelming. Light itself takes on a palpable character. The white light is everywhere present, the “glue” of creation.

An experience of such overwhelming power can influence an artist's approach. In order to bring forth the deepest work, an artist needs to be sensitive and courageous toward their own process. There are many stages in realizing a work of art and the mysterious phases of creativity:

1. Formulation: Discovery of the artist's subject/problem
2. Saturation: A period of intense research on the subject/problem
3. Incubation: Letting the unconscious sift the information and develop a response/solution
4. Inspiration: A flash of the artist's unique response/solution to the subject/problem
5. Translation: Bringing the internal response/solution to outer form
6. Integration: Sharing the creative answer with the world
7. Interpretation: Collecting and integrating feedback

The most important question for any artist is, what is my subject? The formulation of a problem arises from the artist's worldview and, if the problem is sufficiently broad, the stage may be set for an entire life's journey. The problem is the “well” dug to reveal the Source, the Vision, the creative matrix of questions and obsessions that drive you. Solving your aesthetic problem becomes

your mission.

The journey of creating the painting *Transfiguration* clearly illuminates the evolution of an artwork and the stages in my creative process. The subject of the body/mind has long been my passion and making visible multiple dimensions of reality among my greatest challenges. Initial experiences on LSD compelled me to make mystical consciousness itself the subject of my art. The subject of consciousness and the artistic problem of how to portray it became my life's work.

In the stage of saturation, I immersed myself in the subject, researching and scouring many libraries for tracts on transpersonal psychology and the art of diverse cultures. Transfiguration became the subject of an illustrated lecture with artistic representations of transcendental light or energy in relation to the body, created by artists all over the world today and in cultures throughout human history. The painting *Transfiguration* had not yet been envisioned.

In the incubation stage, the vast womb of the unconscious takes

over, gestating the problem. The embryonic artwork grows effortlessly at its own pace. For the painting *Transfiguration*, this phase took about half a year.

Then, in a dream, I had been painting a piece called *Transfiguration*. The painting had a simple composition, two opposing spherical curves connected by a figure. Floating above the earth sphere, a human, fleshly at the feet, became gradually translucent as the figure rose between the globes. At about groin level, the figure "popped" into a bright hallucinogenic crystal sphere. The dream revealed a unique solution to my simmering aesthetic problem.

This illumination, or inspiration phase, my aha! moment provided by the dream, was underscored later that week when I smoked DMT for the first time. As I inhaled the immediately active and extremely potent psychedelic, I experienced the transfigured subject of my painting firsthand. In my vision, my feet were the foundation of the material world. As I inhaled, the

material density of my body seemed to dissolve, and I “popped” into the bright world of living geometry and infinite spirit. Strange jewel-like chakra centers glowed within my wire-frame spirit body. Spectral colors appeared that had been absent from my dream painting. Fully inside my future painting, this image was clarified in order to better create a work of art.

After two visionary encounters of the same painting, I began drawing my inspired impression in a sketchbook. This started the translation phase. Bringing the inner solution of my artistic problem to an outward form, I drew the body and computer-plotted an accurate texture map of the electric grid around the hypermindsphere. Assembling the various elements, I stretched a 60 x 90 inch canvas to create a life-sized figure centered between two large spheres. After a long period of drawing and refining, I started painting. After months of painting the figure and the spheres, Allyson, my partner in all things, continued to ask about the unconsidered area of the painting, the blue negative spaces

around the lower body below the hypermindsphere and above the earth. This was a dark area that went unnoticed in my previous visions.

When we are aesthetically “stumped” and need to see our work with fresh and creative eyes, Allyson and I, studio mates for most of our lives, smoke cannabis together and gaze at the work of art (or blank canvas) in question. Suggestions of what should appear in the empty space of *Transfiguration* did coalesce. Stars obviously, but this was not just outer space—this was inner space, the place of numinous angels or demons, of Terence's “self-dribbling basketballs,” beings with skin like a Fabergé egg, the oddly glowing mindspheres anticipating the transformative megasphere above. The painting took almost a year to complete.

Integrating the inspired moment by creating an artifact and bringing that artifact into the world outside the studio is a prime function of the creative process. I sculpted an elaborate 104 x 156 inch frame to honor this life-altering vision. A poster was

published, the work has been widely exhibited, and it was reproduced in my book titled *Transfigurations*. Allyson and I have decided to retain the original framed painting to share at CoSM, Chapel of Sacred Mirrors, a sanctuary of visionary art.

Although entheogens have played a crucial role in the creative process of many artists, including Allyson and me, we cannot responsibly advocate the use of these sacraments for everyone and certainly do not promote a constant haze of chemically altered consciousness for anyone. Some—and they often know who they are—should completely steer clear of psychoactive substances without guidance from a qualified physician. Vision drugs catalyze our inherently visionary and potentially mystical dimensions of consciousness. May they be recognized and honored for the powerful and sacred substances they are, proof of the importance and infinite vastness of the subtle inner worlds of imagination and illumination, and may they open an endless source of inspiration for new universal sacred art.

POSTSCRIPT

Since writing this essay nearly fifteen years ago, a tribe of visionary artists has emerged, developing and refining the subject of altered and higher states of awareness. The visionary art movement is largely underground, appearing at transformational festivals worldwide, and the resulting visionary artworks form a body of evidence that testifies to the recurring motifs of the inner worlds and beings that dwell there. Allyson and I believe this is a new sacred art pointing to the emergence of a planetary civilization.

HOW EXPANDING CONSCIOUSNESS AND OUR CONNECTION TO SPIRIT MIGHT HELP THE SURVIVAL OF LIFE ON PLANET EARTH

BY MARTINA HOFFMAN

With the latest International Climate Report in place, we now know that climate change is a definitive reality and that there are ways to keep things at bay. Also, we are told that there are certain changes that are irreversible, like losing species that have graced Gaia for a long time.

On a brighter note, it appears that growing numbers of humans worldwide have started to take inventory of their state of consciousness and spiritual lives. The idea of looking within reveals a new frontier, and now millions of people worldwide are

meditating.

As we are navigating through these greatly accelerated times of global change, this might come in handy with the way we'll be able to stay focused and strong. As we experience changes in the weather, we are simultaneously changing the way we see and have to make adjustments in how we exist on planet Earth.

This is good news, and we are beginning to see new streams of consciousness expressed on select television shows, social media in the increasing amount of spiritual awareness sites, as well as the multitude of YouTube videos. The Internet is a world wide web with a technical pathway where one can inquire on a variety of consciousness-, spirituality-, and environment-related subjects. And finally when mainstream media begins to stir, it will become a new star and will champion the support of an awakening that is as necessary for the successful and healthy continuation of life on Earth as it is timely. Granted, many of these shows are a watered-down level of how deep we truly need to go, but they are a start.

This gives us at least some hope that whatever challenges we may encounter, as a collective we can discover a sustainable solution and act upon it. Should our balance of problems and solutions be serendipitous with natural flow, we will be in harmony with Gaia.

Tree of Knowledge

I've been asking myself how we can accelerate the process of positive and healthy change for our humanity as well as Gaia, and the term *raising Consciousness* seems to offer an excellent place to start.

Consciousness is an ancient term and has always been a part of our human existence. And while it appears that we are in the process of rediscovering it as an integral part of our reality, in actuality, we are just reinventing the wheel.

Regardless of how much or how little the concern for Consciousness has grown in the hearts and awareness of the masses, it has always existed as part of our evolution. And most of us will agree that our graceful survival as a species will largely depend on it.

Unfortunately, the Western mind and world at large seem to have denied the essential role of "Consciousness," this age-old connection to the Universe, the key ingredient throughout human evolution. They have placed it into the category of a rare and

isolated human experience, reserved for secret societies, mystical groups, and the chosen few: the saints who seek strange experiences and visions while meditating for extended periods of time on isolated mountaintops, and the spiritual weirdos and lunatics. But nothing could be further from the truth.

The ancients and tribal cultures in particular have for millennia lived an awareness that is our innate birthright. They have spoken about this most essential connection to the cosmos and to spirit and kept it at the heart of their spiritual practices and lives. They have continuously, since the beginning of humankind, lived in close relationship with the earth and used rituals, methods, and tools to build, increase, and maintain their awareness in Consciousness. In the Western context however, these practices have largely been kept a secret, reserved for those who choose to live an ascetic life away from the world. Often, such individuals are marginalized by society. But if we pay attention, we find that these tools are still available at all times to us in the form of dream work, fasting,

drumming, and other shamanic/spiritual practices, and that they allow us to connect deeper with the fundamental energies that drive and support us. Sometimes these rituals might even involve the ingestion of today's criminalized, Consciousness-enhancing plant teachers that have the potential to help us to expand our awareness, our spiritual connection, and our enlightenment as well as physical healing. While these ancient practices are here for us to tap in to for support in our evolution as a species, the majority of the world follows well-guided, rehearsed, repeated, and dogmatic religious practices, which foster the dependence on religious institutions, formulae, and the powers that be, as well as creating great separation within humanity. Meanwhile, the ancient indigenous rituals provide us with a profound experience of knowing to be an integral part of the Universe and of being deeply interconnected, interrelated, and interdependent with all of Life. This offers us a vast and tremendous view of the seemingly unlimited landscape of Consciousness.

Caught in the Web

Ultimately it appears to me that the “renegade” versions of paths to greater Consciousness traditionally seem more universal and all accepting. They afford us a greater-encompassing worldview and connection to the larger reality, one that considers all sentient beings, all peoples bound into a living “Web of Life” and Consciousness which is eternal and infinite. With every thought,

feeling, and action being an integral part of the Web, we directly influence how it vibrates, contracts, expands, and ever changes. In this ancient cosmology, all beings and all that is are intimately connected. To know and see all that is as an important part of the whole, and us not just at the mercy of the Gods but rather as an individualized reflection of the “One” provides us a precious gift and opportunity: to become instrumental in the creation of our reality, hopefully conscious cocreators for our planetary existence as well as aware guardians for our planet.

Cusp

Curandura

It is quite remarkable to see that it is often our indigenous brothers and sisters who have kept the connection between this world and the Spirit World alive through their way of living closer to the earth and through their rituals. But the old Shamans are

slowly vanishing, and they are now facing, just as the Western world, a reality that does not harmonize with the same ancient Gaian rhythm. We now all have to become “shamans” in our own right and find new ways of working and approaching reality together. And if we add play and joy to the mix, evolution is inevitable.

Of course, greater Consciousness can be developed and reached by following many paths or spiritual traditions as long as the path is tread upon with honesty, humility, and our interconnectedness in heart and mind.

This new path that wants to emerge worldwide includes all peoples and traditions—indigenous as well as Western—and all religions. It is nondenominational, nongenerational, nongender, and nonracial, and its development lies in our own hands.

Many feel a continuous and all-pervasive revolution happening, which we wish will transcend all differences and move our evolution forward.

There is no earthly authority that has a patent on it.

With this, we are free to develop and attain a higher understanding of it by ourselves. If need be, we can utilize the help of age-old practices—prayers, meditations, sacred shamanic journeys, sacred medicines, simple personal interactions with nature, being in silence, fasting, singing, chanting, making art, simply loving, and being of service to others.

This revolution begins at home in the intimacy of our own bodies, minds, and hearts, and luckily there is no middleman or institution needed to achieve it. As long as we are willing to listen inside with abandon to the individualized voice of "Source Energy" that is as eternal and infinite as our spirits, we will grow.

As an artist, my personal path to Consciousness has led me on a magical journey of discovering the ways through expressing in form and color. But whether we are actual artists or not, we still remain cocreators of the divine, all instrumental in changing and creating our world and reality one step, one person, and one day at

a time. So it is paramount that we are becoming conscious of our great power and importance in this game of life and of how we are influencing and shaping reality every second of our existence. This is no longer a dress rehearsal. We all have to show up.

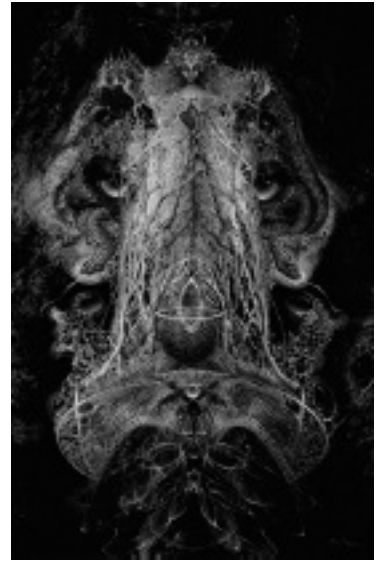

La Chacruna

Lysergic Summer Dream

Alien Ascension

Snake Egg

Snake Helix

With this awareness comes responsibility and the need to be present and conscious of our actions at every moment. The world and all life within it, us included, lie in our own hands and depend on it.

Having Consciousness means holding this responsibility with

absolute respect for all life and existence. We hold the powerful and precious tool for transformation in our own hands and hearts, one loving thought and action at a time.

Each individual's gift and contribution to the whole will vary but has equal importance. Mine, as a visionary painter, lies in making visible the more subtle and intuitive states of our existence by encoding them in my work and thereby producing symbols and maps that reflect Consciousness. These symbols and otherworldly blueprints, now manifested on canvas, have become part of the human field and thereby directly shape our world, reality, and culture. Further, I like to use art as a portal for spirit-communication and as a conscientious tool for manifesting spiritual, physical healing and transformation.

My work is an attempt to show spirit as the one universal force beyond the confines of cultural and religious differences.

Gayatri

I feel that we all need to become artists with our gifts and talents, as we are all called to raise our Consciousness and awareness. As the light dawns upon our Consciousness, we learn to embrace our Oneness as a global human family—our interconnectedness, interrelatedness, and interdependence with

Nature and all that is.

Through this, we have a real chance to heal and transform the planet's existing state of woundedness and the opportunity to create a reality as beautiful, healthy, and strong as our imagination can fly.

Let's do it! The “divine intervention” that many of the “awakened ones” have been waiting for might come in the form of each and every one of us individually and all of *us* together finally taking charge. The world is a better place because you are in it.

Hawk Medicine

WHISPERING LEAVES: INTERSPECIES COMMUNICATION?[1]

BY PAUL DEVEREUX

Societies of the past have used the psychedelic experience to strengthen, renew, and heal the spiritual underpinning of their social structures. The ever-deepening social unease that Western civilisation seems to be caught in is the real source of our "drug problem": natural hallucinogens are not the problems in themselves; it is the context in which they are used that matters. If there were orderly and healthy structures and mechanisms for their use and the cultural absorption of the powerful experiences—and knowledge—we could separate these from the culture of crime that surrounds them now. In short, the problems are not in the psychoactive substances themselves, but in a society, which on the

one hand wants to prohibit mind expansion altogether and on the other chooses to use mind-expanding substances in a literally mindless, hedonistic fashion.

Perhaps only a shock of some kind could break our society free from the patterns of thought and prejudices that lock it into this crisis. The desire for such a shock may be hidden within the widespread modern myth of extraterrestrial intervention. In fact, we do not have to look to science fiction for a real otherworld contact: it already exists in the form of plant hallucinogens. If we see them in the context of a "problem," it is only because they hold up a mirror in which we see our spiritual, social, and mental condition reflected. And they hold that mirror up to us as one species to another just as surely as if they were from another planet. Indeed, that champion of the psychedelic state, the late Terence McKenna, argued that the ancestral spores of today's hallucinogenic mushrooms may have originated on some other planet.[2] (This is not as fringe an idea as it sounds, for even some

“hard scientists”—the late Francis Crick, codiscoverer of DNA, among them—have suggested that the germs of life may have had extraterrestrial origins, brought to Earth by means of meteorites or comet dust.) The psilocybin family of hallucinogens, says McKenna, produces a “logos-like phenomenon of an interior voice that seems to be almost a superhuman agency . . . an entity so far beyond the normal structure of the ego that if it is not an extraterrestrial it might as well be.” Precisely.

Other “psychonauts” have emerged from the altered mind states enabled by plant substances with similar impressions. For instance, New York journalist Daniel Pinchbeck wrote about his various initiations with plant hallucinogens in his book *Breaking Open the Head* (2002). In one Ayahuasca session with Amazonian Secoya Indians, he found himself wandering in a visionary space where he encountered beings that “never stopped changing” their forms. “The shaman and the elders seemed to be inhabiting this space with me. . . . They sang, their words unintelligible, to these

creatures, interacting with them. . . . I had no more doubts that the Secoya engaged in extradimensional exploration." Or, again, two of the three molecular biologists taken to the Amazon to experience Ayahuasca trances by anthropologist and writer Jeremy Narby felt that they had communicated with an "independent intelligence." Narby himself feels that in their Ayahuasca altered states, shamans plumb the molecular level of nature and that, to put Narby's idea crudely, Ayahuasca—with its trademark visionary snakes—has the ability to communicate information concerning the double-helix coil of DNA (*The Cosmic Serpent*, 1998). Indeed, to allow contact with what we might call the mind of nature.

The idea that ontologically independent beings ("spirits") or intelligences are contactable through plant-induced trances is standard in most if not all shamanic tribal societies, but to posit such a thing in modern Western societies is viewed as tantamount to insanity, a nonsense notion to be dismissed out of hand. In other words, we can't discuss it without forfeiting all credibility. This

problem concerning the inability to explore certain ideas has been addressed by Oxford-based researcher Andy Letcher.[3] He uses Foucauldian discourse analysis to critique the models, the "discourses" employed by the West in dealing with the content of altered mind states. These include pathological, prohibition, psychological, recreational, psychedelic, and entheogenic discourses. Each has its own imposed boundaries; they are cognitive constructs. Letcher notes that some of these discourses or approaches to hallucinogenic substances ignore the subjective experience of the altered mind states involved, or else place it within an inner psychological framework rather than it being a case of simply seeing more, of being in a wider frame of consciousness. He critiques even the entheogenic discourse as relying on a "God within" model, divine revelation that does not by any means occur in all altered states. However diverse they might be, all these discourses can be used within the norms of Western culture. Only one discourse crosses that "fundamental societal boundary," what

Letcher refers to as the animistic discourse—the belief that the taking of, say, hallucinogenic mushrooms occasions actual "encounters with discarnate spirit entities." Because of the deep-rooted modern Western assumption that consciousness cannot occur in any other guise than human (the ultimate hubris of our species, perhaps), discussion of a conscious plant kingdom, or of that providing a portal through which contact with other, ontologically independent beings or intelligences can occur, is simply not possible within the mainstream culture. "It nevertheless remains a phenomenon in need of further scholarly research," Letcher rightly insists.

It is a remarkable fact that plant hallucinogens are hallucinogenic precisely because they contain the same, or effectively the same, chemicals as are found in the human brain and so act on us as if we were indeed engaged in an interspecies communication. "The chemical structure of the hallucinogenic principles of the mushrooms was determined . . . and it was found

that these compounds were closely related chemically to substances occurring naturally in the brain which play a major role in the regulation of psychic functions," Schultes and Hofmann have observed, for instance.[4] This challenges the view held by many people that taking a plant hallucinogen is somehow "unnatural." Certainly, mind-altering plants take the brain-mind to states that are not normal by the standards of our culture, but the "normal" state of Western consciousness cannot claim to be the one-and-only "true" state of consciousness. (Indeed, judging by the mess we manage to make of our societies and of the natural world around us, it may even be an aberrant or pathological state of mind that we are culturally locked into.)

Peter Furst writes:

> If one were to reduce to its essentials the complex chemical process that occurs when an external psychoactive drug such as psilocybin reaches the brain, it would then be said that the drug, being structurally closely related to the naturally

> occurring indoles in the brain, appears to interact with the latter in such a way as to lock a nonordinary or inward-directed state of consciousness temporarily into place. . . . There are obviously wide implications, biological-evolutionary as well as philosophical, in the discovery that precisely in the chemistry of consciousness we are kin to the plant kingdom.[5]

These are probably the same kind of chemical changes that occur during the course of long and intensive spiritual exercises, but it takes a rare person to achieve sufficient expertise in such techniques to arrive at experiences that match those accessible through hallucinogen usage, which are certainly very “real” in a subjective sense. It is a culturally engineered cliché to dismiss such states as being somehow delusional. They are subjectively no more delusional than the experience of daily life. The human body is an open system, taking in material from the environment and expelling matter into it all the time, and we really shouldn't think of

taking in natural chemicals for visionary and mind-expanding functioning as any different, any less natural, than taking in gases from the air for their chemical benefits to the body; or chemicals and compounds in animal and vegetable matter to provide food; or fermented fruits and vegetable matter to provide delicious, refreshing, or inebriating beverages; or vitamins to augment healthy functioning; or medicines when we are ill; or caffeinated teas and coffees when we want to be energised. “Ethnobotanists now realize that psychotropic plant species extend further than had been suspected, as though nature truly wanted the human species to get in touch with its floral neighbors,” Richard Gehr muses. “As plant species die off at a furious rate, the issue is no longer what they are trying to tell us, but whether we will get the message in time.”[6]

That message may be to do with the need for us to change our minds, or at least, to broaden our cognitive horizons. The plant kingdom could be urging us to allow the ability to “switch

channels" in consciousness terms to let them become a recognised and acceptable part of our emerging global culture. Hallucinogen-using ancient and traditional societies had and have exceptional sophistication when it comes to understanding and navigating alternative states of consciousness, whereas we are still quite primitive and inexperienced in this regard. The manual for using expanded consciousness is a textbook we have not read—or, more accurately, recalled. Not that simply widening our collective experience of consciousness will act like a magic wand and remove all problems and obstacles, but it would help us to make wiser, more wholesome decisions in coping with them. If Western civilization is truly to advance, we surely must learn to operate within the multidimensional capacities of our minds rather than using the police to conduct an indiscriminate war on the means of doing so. A workable balance has to be struck between protecting the well-being and the orderly functioning of society as a whole, and allowing the human brain-mind to explore its full potential.

We are smart enough and complex enough and able enough to make it possible to do both. There are no excuses.

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THREE HUMONGOUS IDEAS AND A DOZEN MERELY BIG ONES OR THE PSYCHEDELIC FUTURE OF THE MIND LITE

BY THOMAS B. ROBERTS

These three excerpts from The Psychedelic Future of the Mind *present a trimmed-down form of what I see as the book's three biggest ideas. Their importance rests on what I judge as their answers' broad scope to the question, "What does it mean to be a human?" A list of the "merely big ideas" follows at the end of this article. But first, a few words about this book's unique perspective on psychedelics.*

A SHORT TRAIL GUIDE TO THE BOOK

The book *The Psychedelic Future of the Mind* looks forward, not backward. Experiences beget ideas, and the book is an exploration of some ideas psychedelics engender. Based on a collection of pieces of scientific research, case studies, anecdotes, and other information about psychedelics, the book asks, when all these pieces are assembled, what do they tell us about what it means to be a human, about our minds, and about the future?

- It is not a book about the discovery and history of LSD and all the strange and wonderful characters who are part of that story.
- It is not a book about psychotherapy and the seemingly miraculous cures psychedelics sometimes produce.
- It is not a book about how psychedelics plug in to receptor sites on neurons and set the brain adancing.
- It is not a book of the I-drank-Ayahuasca-puked-and-saw-the-anaconda-goddess kind.

Where might psychedelic ideas take us?

IDEA 1: THE NEW RELIGIOUS ERA—FROM RITUAL TO WORD TO EXPERIENCE

In Western culture, we are transitioning from an era of word-based religion to an era of experience-based religion, a change that may turn out to be as broad and as deep as the religious transformation five hundred years ago when text-based religion replaced the then-dominant rite-based religion's place at the center of religion. Two other ideas support this one: 1) mystical experiences form a foundation of religion that gives rise to beliefs, rituals, ethics, and organizations, and 2) under the right conditions, psychedelic plants and chemicals can—but do not always—produce mystical experiences.

DEMOCRATIZING TEXT—AROUND THE YEAR 1500

Around 1500, moveable type and the printing press democratized access to religious texts. The Reformation and the Counter-

Reformation followed. General literacy and public education became important so that people could read religious texts. The growing importance of words nourished reason and science. While older religious observances of the prior period continued, new word-centered activities such as reading texts and interpreting them overlaid and overcame the older religion-as-rite era. New interpretations resulted; new churches flourished. Most important, text became an increasingly powerful source of religious ideas and a standard for judging them. Over time, the locus of Western religious activity shifted from rites to reading, from observances to Bible, from participation to verbalization.

We need only look at our current religions to see. In contrast to pre-1500, we approach religion verbally—through words. Texts, speaking, beliefs, sermons, catechisms, creeds, dogmas, doctrines, theology, and so on—all these are words. This overemphasis on words shows up today in the way we describe religions—as sets of wordy beliefs. To us, thoughts (cognitive processes) form religion.

If we ask someone about his or her religion, we expect to hear about beliefs, not what rituals that person performs. The older rites certainly remain but lie obscured beneath a five-hundred-year blizzard of words.

DEMOCRATIZING PRIMARY RELIGIOUS EXPERIENCE—AROUND THE YEAR 2000

Four questions and their respective answers point to a new stage of religious development that is unfolding: a transition from word-based religion to a new era of experience-based religion, one whose foundation is an intense, personal experience of the sacred.

How would a direct primary spiritual experience affect someone?

A volunteer in the psilocybin study at the Johns Hopkins Medical Institute's Behavioral Pharmacology Research Unit answers this way: “The complete and utter loss of self . . . the sense of unity was awesome. . . . I now truly do believe in God as an

ultimate reality."

If this happened regularly, how might wider society change?

Stanislav Grof, summarizing one of the effects of LSD psychotherapy, says: "Even hard-core materialists, positively oriented scientists, skeptics and cynics, and uncompromising atheists and antireligious crusaders such as Marxist philosophers suddenly became interested in a spiritual search after they confronted these levels in themselves."

What if religious studies programs, divinity schools, seminaries, religious orders, and similar religious educational institutions could teach their students to know this?

Psychotherapist Frances Vaughan, describing her own LSD-based experience, conducted when LSD was legal: "I understood why spiritual seekers were instructed to look within. . . . My understanding of mystical teaching, both Eastern and Western, Hindu, Buddhist, Christian, and Sufi alike, took a quantum leap."

What if this happened fairly regularly?

Data from the fourteen-month follow-up of the Johns Hopkins psilocybin study states that “33 percent of the volunteers rated the psilocybin experience as being the single most spiritually significant experience of his or her life, with an additional 38 percent rating it to be among the top five most spiritually significant experiences.” Today entheogens—psychoactive plants and chemicals used in a spiritual context—democratize access to primary religious experience.

Just as the 1500s word-based reformation evolved into today's religious, social, and political world, will today's experience-based reformation give birth to its distinctive future?

IDEA 2: MULTISTATE THEORY—APPS ARE TO DEVICES AS MINDBODY STATES ARE TO MINDS

After recognizing the Singlestate Fallacy—the erroneous idea that all useful abilities reside in our ordinary, default mindbody state—

Multistate Theory proposes substituting the word *mindbody* for *consciousness* in its theory. Then it challenges many of the social sciences and humanities into expanding into wider mindbody territories of human experience.

WHAT'S THE MATTER WITH CONSCIOUSNESS?

Mindbody states are overall patterns of cognitive and bodily functioning at any one time. They are composed of body plus mind considered as one unified whole, such as in the commonest states of wakefulness, sleeping, and dreaming. The word *mindbody* also avoids the ambiguity of the word *consciousness*, which is used in different ways in different disciplines and in common language. Confusion arises when people think that they are talking about the same thing when they use the same word. The uses of the word *consciousness* listed here, however, make it clear that the meanings are quite different, though at times overlapping.

- Common language 1: *Consciousness* means awake and interacting normally with the environment, for example, “She is *conscious* now, but last night she was asleep,” and “After being in a coma for three days, he is *conscious.*”
- Common language 2: *Consciousness* refers to what one habitually thinks about, to what is typically “on one's mind” such as, “She has good ecological consciousness,” or “His money occupies the center of his consciousness.”
- Politics and the social sciences: *Consciousness* means the thoughts and feelings one has constructed due to one's place in society, for example, *proletarian consciousness* or *women's consciousness.*
- Philosophy: *Consciousness* refers to a self-reflective sense of “I”: one thinks and can reflect on oneself and on one's thinking. In this case, the word *self-reflexiveness* would be more precise and avoid ambiguity.
- Religion and spiritual discussions: *Consciousness* means level

of spiritual development, as in, “His mystical experience raised John's level of consciousness.”

- Psychology 1: *Consciousness* is the sequence of what one attends to second by second; what passes through one's mind becomes the *stream of consciousness.*
- Psychology 2: Here *consciousness* refers to different overall patterns of mind and body functioning at any one time, as in Tart's “altered states of consciousness.” This meaning is the one I suggest replacing with *mindbody.* This will allow cognitive studies to avoid ambiguity and will provide a way of specifying a particular pattern of mind plus body functioning at any one time.

BLOWING THE SINGLESTATE ROOF OFF THE HUMANITIES AND SOCIAL SCIENCES

Residence. One of the major concepts in the multistate theory is *residence.* Our mental and physical capacities reside within

mindbody states; that is, mindbody states are the programs that express, or produce, outputs—our behavior, sensations, and thoughts. To access the outputs, we first achieve the states that contain them. As we move from one state to another, we observe that some of our cognitive processes, perceptions, feelings, and abilities become stronger in some states and weaker in others; processes in one state have their analogs in others. This leads to an enormous question that blows the roof off nearly all the topics that psychologists, cognitive scientists, and humanists study: how does [insert a topic here] vary from mindbody state to mindbody state?

Applying the Central Multistate Question

How does/do _____ vary from mindbody state to mindbody state?

To sample the opportunities that the Central Multistate Question and its paradigm offer, try inserting the topics below into the question above:

cognition	aesthetics	observation
consciousness	theology	values
movement	development	identity
meaning	emotions	reason
learning	perception	intelligence
memory	performance	creativity
language	sensations	relationships

To invent additional hypotheses, questions, and intellectual agendas, insert your favorite topics.

As we move from one state to another, we may also discover new, unsuspected abilities—ones that do not exist in our ordinary state. Systematic exploration of all mindbody states and inventorying their resident abilities are two huge mind-mapping tasks that remain in the quest to fully describe the human mind and to develop it fully.

Possible/impossible. Generally when we say a specific human behavior or experience is possible or impossible, we are tacitly

implying but seldom acknowledging that we mean “in our ordinary awake state.” Rare and unusual abilities and even some so-called impossible abilities and events may seem impossible to us because we have looked for them only in our default awake state. As we systematically examine other mindbody states, however, we are likely to find skills and experiences that don't reside in our ordinary state. In addition to alerting us to examine how an ability that we recognize—say, problem solving—varies from state to state, the concept of residence also alerts us to extend our vision of possible human functioning to abilities and events that do not reside in our default state.

Experimental Humanities. The section above, “The New Religious Era,” hints at how it is now possible to develop a new specialty of experimental religious studies. Philosophers can do similar experiments. How does mind vary from mindbody state to mindbody state? Do default-state philosophical ideas hold in other mindbody states? What are we to make of these changes? Thanks

to psychedelics and other psychotechnologies, philosophers can move beyond armchair speculation to study their topics experimentally too. Just as religion is moving beyond its word-anchored past, so can the humanities.

IDEA 3: DESIGNING AND INVENTING NEW COGNITIVE PROCESSES

Just as programmers can write a large number of new programs and apps for electronic devices, cognitive designers using psychotechnologies (ways of producing mindbody states) can compose a large number of programs for our minds. These programs and their applications are not limited to states we now know of; it may be possible for future cognitive scientists to invent new, hitherto unknown, synthetic mindbody states containing new cognitive processes, possibly with their respective applications for human needs. This might be done by inventing new psychotechnologies, by sequencing current or new

psychotechnologies in innovative series, or by combining them into new recipes. The singlestate fallacy frowns on this possibility: multistate theory sees designing and creating new cognitive processes as inventing the future of the human mind.

Without our recognizing it, the Neurosingularity Project (the application of the neurosciences to building bigger and better brains) has already started. Much of the information above marks milestones along this road. Current neuropsychology is (among other things) mapping the human mind and many of its complexities. There is still a long and exciting way to go. A full map must include all mindbody states and all their respective abilities and biological correlates.

The multistate section mentioned the possibility of combining existing mindbody psychotechnologies, both chemical and behavioral, to produce new mindbody states. There we considered only new mindbody states as they might affect our current brains, but biological sciences raise the possibility not only of enhancing

our current brains' activities but also designing and growing advanced brains, even bigger heads for bigger brains.

Existing psychotechnologies provide enough leads to keep generations of psychologists, biologists, and their many friends and relations busy. And the scope of the Neurosingularity Project will grow even more as new psychotechnologies are invented and imported from other cultures: the number of mindbody combinations and sequences multiplies. When brain enhancement is added, the number of possible psychotechnology recipes and sequences multiplies again.

For future mindbody inventors—perhaps we should we call them *neuroarchitects, cerebralengineers, mindartists*, or *cognidesigners*—the possibilities of the Neurosingularity Project and the human future are endless.

A DOZEN MERELY BIG IDEAS

In this brief article, we have tasted three psychedelic ideas that

enrich the humanities and liberal arts, and although we haven't mentioned how the arts have benefited from psychedelics, this is already widely recognized. Besides the Humongous Three—1) the transition to an era of experiential relation, 2) Multistate Theory, and 3) mind design—psychedelics offer an additional swarm of "merely big" ideas. Here are where you can find some of my favorites in *The Psychedelic Future of the Mind*:

- Experimental humanities and abstract concepts, pages 129, 138, 142
- Experimental religion, page 139 and on
- Mind explorer as hero, page 176
- Residence and Central Multistate Question, pages 127–29
- Values developed from mystical experiences, chapter 3, especially altruism, page 48, and open-mindedness, page 51
- Transcendence as peak of Maslow's needs hierarchy, pages 33–36

- A company to offer psychedelic sessions, chapter 13
- Teaching psychedelic courses and units in higher education, chapter 15
- Another path to moral development, page 38
- Changing what well-educated means, chapter 14
- Singlestate Fallacy, page 123
- A method to discover rare and unusual abilities, page 128

Chapter and page numbers refer to *The Psychedelic Future of the Mind*. Book reviews and elaborations on these ideas reside at: niu.academia.edu/ThomasRoberts

SERIOUS RESEARCH

TRANSCENDING THE MEDICAL FRONTIERS: EXPLORING THE FUTURE OF PSYCHEDELIC DRUG RESEARCH[1]

BY DAVID JAY BROWN

When I was in graduate school studying behavioral neuroscience, I wanted nothing more than to be able to conduct psychedelic drug research. However, in the mid-1980s, this was impossible to do at any academic institution on earth.

There wasn't a single government on the entire planet that legally allowed clinical research with psychedelic drugs. However, this worldwide research ban started to recede in the early 1990s, and we're currently witnessing a renaissance of medical research

into psychedelic drugs.

Working with the Multidisciplinary Association for Psychedelic Studies (MAPS) for the past four years as their guest editor has been an extremely exciting and tremendously fruitful endeavor for me.

It's a great joy to see how MDMA can help people suffering from posttraumatic stress disorder (PTSD), how LSD can help advanced-stage cancer patients come to peace with the dying process, and how ibogaine can help opiate addicts overcome their addiction.

There appears to be enormous potential for the development of psychedelic drugs into effective treatments for a whole range of difficult-to-treat psychiatric disorders.

However, as thrilled as I am by all the new clinical studies exploring the medical potential of psychedelic drugs, I still long for the day when our best minds and resources can be applied to the study of these extraordinary substances with an eye that looks

beyond their medical applications, toward their ability to enhance human potential and explore new realities.

This appendix explores these possibilities. But first, let's take a look at how we got to be where we are.

A BRIEF HISTORY OF TIME-DILATION STUDIES

Psychedelic drug research began in 1897, when the German chemist Arthur Heffter first isolated mescaline, the primary psychoactive compound in the peyote cactus.

In 1943 Swiss chemist Albert Hofmann discovered the hallucinogenic effects of LSD (lysergic acid diethylamide) at Sandoz Pharmaceuticals in Basel while studying ergot, a fungus that grows on rye. Then, fifteen years later, in 1958, he was the first to isolate psilocybin and psilocin—the psychoactive components of the Mexican “magic mushroom,” *Psilocybe mexicana*.

Before 1972, nearly seven hundred studies with LSD and other psychedelic drugs were conducted. This research suggested that LSD has remarkable medical potential. LSD-assisted psychotherapy was shown to safely reduce the anxiety of terminal cancer patients, the drinking of alcoholics, and the symptoms of many difficult-to-treat psychiatric illnesses.

Between 1972 and 1990, there were no human studies with psychedelic drugs. Their disappearance was the result of a political backlash that followed the promotion of these drugs by the 1960s counterculture. This reaction not only made these substances illegal for personal use but also made it extremely difficult for researchers to get government approval to study them.

THE NEW WAVE OF PSYCHEDELIC DRUG RESEARCH

The political climate began to change in 1990, with the approval of Rick Strassman's DMT study at the University of New Mexico.

According to public policy expert and MAPS President Rick Doblin, this change occurred because “open-minded regulators at the FDA decided to put science before politics when it came to psychedelic and medical marijuana research. FDA openness to research is really the key factor. Also, senior researchers who were influenced by psychedelics in the Sixties now are speaking up before they retire and have earned credibility.”

The past eighteen years have seen a bold resurgence of psychedelic drug research, as scientists all over the world have come to recognize the long-underappreciated potential of these drugs. In the past few years, a growing number of studies using human volunteers have begun to explore the possible therapeutic benefits of drugs such as LSD, psilocybin, DMT, MDMA, ibogaine, and ketamine.

Current studies are focusing on psychedelic treatments for cluster headaches, PTSD, depression, obsessive-compulsive disorder (OCD), severe anxiety in terminal cancer patients,

alcoholism, and opiate addiction.

The results so far look quite promising, and more studies are being planned by MAPS and other private psychedelic research organizations, with the eventual goal of turning MDMA, LSD, psilocybin, and other psychedelics into legally available prescription drugs.

As excited as I am that psychedelic drugs are finally being studied for their medical and healing potential, I'm eagerly anticipating the day when psychedelic drug research can really take off and move beyond its therapeutic applications in medicine.

I look forward to the day when researchers can explore the potential of psychedelics as advanced learning tools, relationship builders, creativity enhancers, pleasure magnifiers, vehicles for self-improvement, reliable catalysts for spiritual or mystical experiences, a stimulus for telepathy and other psychic abilities, windows into other dimensions, and for their ability to possibly shed light on the reality of parallel universes and nonhuman entity

contact.

Let's take a look at some of these exciting possibilities.

THE SCIENCE OF PLEASURE

Almost all medical research to date has been focused on curing diseases and treating illnesses, while little attention has been paid to increasing human potential, let alone to the enhancement of pleasure.

However, one can envision a time in the not-too-distant future when we will have cured all of our most challenging physical ailments and have more time and resources on our hands to explore post-survival activities. It's likely that we'll then focus our research efforts on discovering new ways to improve our physical and mental performance.

A science devoted purely to enhancing pleasure might come next, and psychedelics could play a major role in this new field. Maverick physicist Nick Herbert's “Pleasure Dome” project seeks

to explore this possibility, and although this is little more than an idea at this point, it may be the first step toward turning the enhancement of pleasure into a true science.

According to surveys done by the US National Institute of Drug Abuse, the number-one reason why people do LSD is because “it's fun.” Tim Leary helped to popularize the use of LSD with the help of the word *ecstasy*, and sex expert Annie Sprinkle has been outspoken about the ecstatic possibilities available from combining sex and psychedelics.

Countless psychedelic trip reports have described long periods of appreciating extraordinary beauty and savoring ecstatic bliss, experiences that were many orders of magnitude more intense than the subjects previously thought possible.

With all the current research emphasis on the medical applications and therapeutic potential of psychedelics, the unspoken and obvious truth about these extraordinary substances is that, when done properly, they're generally safe and healthy ways

to have an enormous amount of fun. There's good reason why they're so popular recreationally, despite being illegal.

When psychedelic research begins to integrate with applied neuroscience and advanced nanotechnology in the future, we can begin to establish a serious science of pleasure and fun. Most likely this would begin with a study of sensory enhancement and time dilation, which are two of the primary effects that psychedelics reliably produce.

Perhaps one day our brightest researchers and best resources will be devoted to finding new ways to enhance sexual, auditory, visual, olfactory, gustatory, and tactile sensations, and create undreamed-of new pleasures and truly unearthly delights.

Scientific studies could explore ways to improve sexual performance and enhance sensory sensitivity, elongate and intensify our orgasms, enlarge the spectrum of our perceptions, and deepen every dimension of our experience.

Massage therapy, Tantra, music, culinary crafting, and other

pleasure-producing techniques could be systematically explored with psychedelics, and universities could have applied research centers devoted to the study of ecstasy, tickling, and laughter.

The neurochemistry of aesthetic appreciation, happiness, humor, euphoria, and bliss could be carefully explored with an eye toward improvement. Serious research and development could be used to create new drugs and integrate neurochemically heightened states with enhanced environments, such as technologically advanced amusement parks and extraordinary virtual realities. In this area of research, it seems that psychedelics may prove to be extremely useful, and countless new psychedelic drugs are just waiting to be discovered.

In addition to enhancing pleasure, psychedelics also stimulate the imagination in extraordinary ways.

CREATIVITY AND PROBLEM SOLVING

A number of early studies suggest that psychedelic drugs may

stimulate creativity and improve problem-solving abilities. In 1955 Louis Berlin investigated the effects of mescaline and LSD on the painting abilities of four nationally recognized graphic artists.

Although the study showed that there was some impairment of technical ability among the artists, a panel of independent art critics judged the experimental paintings as having “greater aesthetic value” than the artists' usual work.

In 1959 Los Angeles psychiatrist Oscar Janiger asked sixty prominent artists to paint a Native American doll before taking LSD and then again while under its influence. These 120 paintings were then evaluated by a panel of independent art critics and historians.

As with Berlin's study, there was a general agreement by the judges that the craftsmanship of the LSD paintings suffered; however many received higher marks for imagination than the pre-LSD paintings.

In 1965 James Fadiman and Willis Harman at San Francisco

State College administered mescaline to professional workers in various fields to explore its creative problem-solving abilities. The subjects were instructed to bring a professional problem requiring a creative solution to their sessions.

After some psychological preparation, subjects worked individually on their problem throughout their mescaline session. The creative output of each subject was evaluated by psychological tests, subjective reports, and the eventual industrial or commercial validation and acceptance of the finished product or final solution. Virtually all subjects produced solutions judged highly creative and satisfactory by these standards.

In addition to the scientific studies that have been conducted, there are also a number of compelling anecdotal examples that suggest a link between creativity and psychedelic drugs.

For example, architect Kyosho Izumi's LSD-inspired design of the ideal psychiatric hospital won him a commendation for outstanding achievement from the American Psychiatric

Association, and Apple cofounder Steve Jobs attributed some of the insights which led to the development of the personal computer to his use of LSD.

Additionally, a number of renowned scientists have personally attributed their breakthrough scientific insights to their use of psychedelic drugs—including Nobel Prize winners Francis Crick and Kary Mullis.

There hasn't been a formal creativity study with psychedelics since 1965, although there are countless anecdotal reports of artists, writers, musicians, filmmakers, and other people who attribute a portion of their creativity and inspiration to their use of psychedelics. This is an area that is more than ripe for study.

Anecdotal reports suggest that very low doses of LSD—threshold level doses, around 20 micrograms—are especially effective as creativity enhancers. For example, Francis Crick was reported to be using low doses of LSD when he discovered the double-helix structure of the DNA molecule.

I'd love to see a whole series of new studies exploring how cannabis, LSD, psilocybin, and mescaline can enhance the imagination, improve problem-solving abilities, and stimulate creativity. At the time of this writing, the Beckley Foundation in England is supporting a study into the effects of cannabis on creativity, which is getting positive results.

As more and more of our world becomes automated with advanced robotics, I suspect that creativity will eventually become the most valuable commodity of all. Much of the creativity in Hollywood and Silicon Valley is already fueled by psychedelics, and research into how these extraordinary tools could enhance creativity even more effectively may become a booming enterprise in the not-too-distant future.

However, creativity isn't the only valuable psychological ability that psychedelics appear to enhance.

ESP AND PSYCHIC PHENOMENA

Few people are aware that there have been numerous carefully controlled scientific experiments with telepathy, psychokinesis, remote viewing, and other types of psychic phenomena, which have consistently produced compelling, statistically significant results that conventional science is at a loss to explain. Even most scientists are currently unaware of the vast abundance of compelling scientific evidence for psychic phenomena, which has resulted from over a century of parapsychological research.

Hundreds of carefully controlled studies—in which psi researchers continuously redesigned experiments to address the comments from their critics—have produced results that demonstrate small but statistically significant effects for psi phenomena such as telepathy, precognition, and psychokinesis.

According to Dean Radin, a meta-analysis of this research demonstrates that the positive results from these studies are significant with odds in the order of many billions to one.

Princeton University, the Stanford Research Institute, Duke

University, the Institute of Noetic Science, the US and Russian governments, and many other respectable institutions have spent years researching these mysterious phenomena, and conventional science is at a loss to explain the results. This research is summarized in Radin's remarkable book *The Conscious Universe*.

Just as fascinating as the research into psychic phenomena is the controversy that surrounds it. In my own experience researching the possibility of telepathy in animals and other unexplained phenomena with British biologist Rupert Sheldrake, I discovered that many people are eager to share personal anecdotes about psychic events in their lives—such as remarkable coincidences, uncanny premonitions, precognitive dreams, and seemingly telepathic communications.

In these cases, the scientific studies simply confirm life experiences. Yet many scientists that I've spoken with haven't reviewed the evidence and remain doubtful that there is any reality to psychic phenomena. However, surveys conducted by Sheldrake

and me reveal that around 78 percent of the population has had unexplainable “psychic” experiences, and the scientific evidence supports the validity of these experiences.

It's also interesting to note that many people have reported experiencing meaningful psychic experiences with psychedelics—not to mention a wide range of paranormal events and synchronicities, which seem extremely difficult to explain by means of conventional reasoning.

Psychologist Charles Tart, PhD, conducted a questionnaire study of 150 experienced marijuana users and found that 76 percent believed in extrasensory perception (ESP)—with frequent reports of experiences while they were high, which were interpreted as psychic.

Psychiatrist Stanislav Grof, MD, and psychologist Stanley Krippner, PhD, have collected numerous anecdotes about psychic phenomena that were reported by people under the influence of psychedelics, and several small scientific studies have looked at

how LSD, psilocybin, and mescaline might affect telepathy and remote viewing.

For example, according to psychologist Jean Millay, PhD, in 1997, students at the University of Amsterdam in the Netherlands did research to establish whether or not the use of psilocybin could influence remote viewing. This was a small experiment, with only twelve test subjects, but the results of the study indicated that those subjects who were under the influence of psilocybin achieved a success rate of 58.3 percent, which was statistically significant.

A great review article by Krippner and psychologist David Luke, PhD, that summarizes all of the psychedelic research into psychic phenomena can be found in the spring 2011 *MAPS Bulletin* that I edited about psychedelics and the mind/body connection. This article can be found here: *www.maps.org/news-letters/v21n1/v21n1-59to60.pdf*.

When I conducted the California-based research for two of Sheldrake's books about unexplained phenomena in science, *Dogs*

That Know When Their Owners Are Coming Home and *The Sense of Being Stared At*, one of the experiments that I ran involved testing blindfolded subjects to see if they could sense being stared at from behind. One of the subjects that I worked with reported an unusually high number of correct trials while under the influence of MDMA. I'd love to run a whole study to see if MDMA-sensitized subjects are more aware of when they're being stared at.

It is especially common for people to report experiences with telepathy, clairvoyance, precognition, remote viewing, and psychokinesis while using Ayahuasca, the potent hallucinogenic jungle juice from the Amazon. There have only been several studies with Ayahuasca that demonstrate health benefits, but this is an area that is just crying out to be explored carefully and in depth.

Future studies could examine Ayahuasca's potential and accuracy as a catalyst for psychic phenomena, and all of the traditional studies that have been done with psychic phenomena, which generated positive results, could be redone with subjects

dosed with different psychedelics to see if test scores can be improved.

Increasing our psychic abilities may open up the human mind to new, unimagined possibilities—and if you think that harnessing telepathic and clairvoyant abilities is pretty wild, then hold on to your hats for what's likely to come next.

HIGHER DIMENSIONS AND NONHUMAN ENTITY CONTACT

A primary ingredient in Ayahuasca is DMT, and it appears that this remarkable substance has the extraordinary power to open up an interdimensional portal into another universe. Some of the most fascinating psychedelic research has been done with this incredible compound.

DMT is a mystery. One of the strangest puzzles in all of nature —in the same league as questions like, what existed before the Big Bang? And, how did life begin?—revolves around the fact that the

unusually powerful psychedelic DMT is naturally found in the human body as well as in many species of animals and plants, and nobody knows what it does, or what function it might serve, in any of these places.

Because natural DMT levels tend to rise while we're asleep at night, a role in dreaming has been suggested. But this is pure speculation, and even if true, it may do much more. Because of its endogenous status and unusually potent effects, many people have considered DMT to be the quintessential psychedelic.

DMT has effects of such strength and magnitude that it easily dwarfs the titanic quality of even the most powerful LSD trips, and it appears to transport one into an entirely new world—a world that seems more bizarre than our wildest imaginings, yet somehow, is also strangely familiar.

Psychiatric researcher Rick Strassman, PhD, who conducted a five-year study with DMT at the University of New Mexico, has suggested that naturally elevated DMT levels in the brain may be

responsible for such unexplained mental phenomena as spontaneous mystical experiences, near-death experiences, nonhuman entity contact, and schizophrenia.

Strassman and others have even gone so far as to speculate about the possibility that elevated DMT levels in the brain might be responsible for ushering the soul into the body before birth and out of the body after death.

But perhaps what's most interesting about DMT is that, with great consistency, it appears to allow human beings to communicate with other intelligent life forms.

When I interviewed Strassman, I asked him if he thought that there was an objective reality to the worlds visited by people when they're under the influence of DMT and if he thought that the entities that so many people have encountered on DMT actually have an independent existence or not. Rick replied, “I myself think so. My colleagues think I've gone woolly-brained over this, but I think it's as good a working hypothesis as any other.”

A 2006 scientific paper by computer scientist Marko A. Rodriguez called “A Methodology for Studying Various Interpretations of the N, N-dimethyltryptamine-Induced Alternate Reality” explores how to possibly determine if the entities experienced by people on DMT are indeed independently existing, intelligent beings or just projections of our hallucinating brains.

Rodriguez suggests a test that involves asking the entities to perform a complex mathematical task involving prime numbers to verify their independent existence. While it seems like a long shot that this method could lead to fruitful results, I think that any serious speculation about establishing communication channels with these mysterious beings is constructive.

Strassman's work could represent the very beginning of a scientific field that systematically explores the possibility of communicating with higher-dimensional entities, and this might prove to be a more fruitful endeavor for establishing extraterrestrial contact than the SETI project. What they can teach us, we can only

imagine.

My own experiences with DMT lead me to suspect that Strassman's studies would have yielded far more fruitful results had the subjects been dosed with harmaline prior to receiving their DMT injections. Harmaline is an MAO-inhibiting enzyme that is found in a number of plants. It's found in the famous South American vine known as *Banisteriopsis caapi*, which composes half of the mixture in the sacred hallucinogenic jungle juice Ayahuasca, which has been used for healing purposes by indigenous peoples in the Amazon basin for thousands of years.

Harmaline is widely known as the chemical that allows the DMT in other plants, like *Psychotria viridis*, to become orally active. Orally consumed DMT is destroyed in the stomach by an enzyme called monoamine oxidase (MAO), which harmaline inhibits. However, it does much more than just make the DMT orally active. I've discovered that drinking a tea made from Syrian rue seeds—which also contain harmaline—two hours prior to

smoking DMT dramatically alters the experience. Harmaline has interesting psychoactive properties of its own that are somewhat psychedelic, and it slows down the speed of the DMT experience considerably, rendering it more comprehensible, less frightening, and easier to understand. For thousands of years, indigenous peoples in the Amazon jungles combined harmaline and DMT, and this long history has cultivated a powerful synergism between how the two molecules react in our bodies.

In future studies, harmaline could be used in conjunction with DMT to more accurately simulate the Ayahuasca experience that strikes such a powerful primordial cord in our species. This would allow for the experience to become much more comprehensible and to last for a greater duration of time, which would allow for more ability to examine the phenomenon of nonhuman-entity communication.

Some readers may have noticed that this article has loosely followed a Christian theological progression, from the ego death

and bodily resurrection of the medical studies with psychedelics, to the paradisical pleasures of heaven, where we discovered our godlike powers and met with the angels. Ultimately, it appears, this research will lead us to the source of divinity itself.

THE STUDY OF DIVINE INTELLIGENCE

Perhaps the most vital function of psychedelics is their ability to reliably produce spiritual or mystical experiences. These transpersonal experiences of inseparability often result in an increased sense of ecological awareness, a greater sense of interconnection, a transcendence of the fear of death, a sense of the sacred or divine, and an identification with something much larger than one's body or personal life.

Many people suspect that this experience lies at the heart of the healing potential of psychedelics—and that making this experience available to people is essential for the survival of our species. I agree that we need a compassionate vision of our interconnection

with the biosphere to guide our technological evolution, or we appear doomed to destroy ourselves.

In his book *The Physics of Immortality*, physicist Frank Tipler introduces the idea that if a conscious designing intelligence is genuinely a part of this universe, then ultimately religion—or the study of this designer intelligence—will become a branch of physics. Psychedelic drug research may offer one pathway toward establishing this science of the future.

Recent studies by Roland Griffiths and colleagues at Johns Hopkins have confirmed that psilocybin can indeed cause religious experiences—which are indistinguishable from religious experiences reported by mystics throughout the ages—and that substantial health benefits can result from these experiences.

These new studies echo the findings of an earlier study done in 1962 by Walter Pahnke of the Harvard Divinity School, and it's certainly not news to anyone who has had a full-blown psychedelic experience. An online commenter by the username R.U. Sirius

responded to this seemingly redundant research by saying “Wow! Scientists Discover Ass Not Elbow!” Nonetheless, this may represent the beginning of a whole new field of academic inquiry that explores those realms that have been previously declared off limits to science.

It appears that the integration of science and spirituality lies on the horizon of our adventure as a species, and that our future evolution depends on this. Without a transpersonal perspective of interconnection to guide our evolutionary direction, we seem to be firmly set on a path toward inevitable self-destruction. I think that psychedelics can help us get back on track and help us heal the damage that we've done to ourselves and to the earth. This is why I believe so strongly in psychedelic drug research.

There isn't much time left before our biosphere starts to unravel, and we may only have a small window of opportunity to save our fragile world.

I think that MAPS—and sister organizations like the Beckley

Foundation and the Heffter Research Institute—are industrialized society's best hope for transforming the planet's ancient shamanic plants into the respectable scientific medicines of tomorrow and, in so doing, for bringing psychedelic therapy to all who need it.

This may not only help to heal a number of difficult-to-treat medical disorders and increase ecological harmony on the planet, but it may also open up a doorway to untold and unimagined new worlds of possibility.

NOTE

1. This essay also appears on the Acceler8or.com website (http://www.acceler8or.com/2011/07/transcending-the-medical-frontiers-exploring-the-future-of-psychedelic-drug-research/), and in the book *The New Science of Psychedelics*, by David Jay Brown, Inner Traditions, 2013.

PAHNKE'S “GOOD FRIDAY EXPERIMENT”: A LONG-TERM FOLLOW-UP AND METHODOLOGICAL CRITIQUE

BY RICK DOBLIN

On Good Friday, 1962, before services commenced in Boston University's Marsh Chapel, Walter Pahnke administered small capsules to twenty Protestant divinity students. Thus began the most scientific experience in the literature designed to investigate the potential of psychedelic drugs to facilitate mystical experience (Pahnke, 1963, 1966, 1967, 1970; Pahnke & Richards, 1969a, 1969b, 1969c). Half the capsules contained psilocybin (30 mg), an extract of psychoactive mushrooms, and the other half contained a placebo. According to Pahnke, the experiment determined that “the

persons who received psilocybin experienced to a greater extent than did the controls the phenomena described by our typology of mysticism" (Pahnke, 1963, p. 220).

This paper is a brief methodological critique and long-term follow-up study to the "Good Friday Experiment." Pahnke, who was both a physician and a minister, conducted the experiment in 1962 for his PhD in Religion and Society at Harvard University, with Timothy Leary as his principal academic advisor (Leary, 1962, 1967, 1968). Describing the experiment, Walter Houston Clark, 1961 recipient of the American Psychological Association's William James Memorial Award for contributions to the psychology of religion, writes, "There are no experiments known to me in the history of the scientific study of religion better designed or clearer in their conclusions than this one" (Clark, 1969, p. 77)

Since a classic means of evaluating mystical experiences is by their fruits, follow-up data is a fundamental importance in

evaluating the original experiment. A six-month follow-up was part of the original experiment, and a longer-term follow-up would probably have been conducted by Pahnke himself had it not been for his death in 1971. For over twenty-five years, it has not been legally possible to replicate or revise this experiment. Hence, this longterm follow-up study, conducted by the author, is offered as a way to advance scientific knowledge in the area of psychedelics and experimental mysticism. Lukoff, Zanger, and Lu's review (1990) of psychoactive substances and transpersonal states offers a recent overview of this topic.

Though all raw data from the original experiment is lost, including the uncoded list of participants, extensive research over a period of four years and enthusiastic cooperation of most of the original subjects have resulted in the identification and location of nineteen out of the original twenty subjects. From November 1986 to October 1989, this author tape recorded personal interviews with sixteen of the original subjects, meeting fifteen in their home cities

throughout the United States and interviewing one subject (from the control group) over the telephone. In addition to the interviews, all sixteen subjects participating in the long-term follow-up, nine from the control and seven from the experimental group, were re-administered the six-month one-hundred-item follow-up questionnaire used in the original experiment.

Of the remaining three subjects from the experimental group, one is deceased. The identity of another is unknown. One declined to participate citing concerns about privacy. One subject, from the control group, declined to be interviewed or to fill out the questionnaire because he interpreted Pahnke's pledge of confidentiality to mean that the subjects should not talk about the experiment to anyone. This author's discussion of the meaning of confidentiality and mention of the explicit support for the long-term follow-up by Pahnke's wife failed to enlist his participation.

Informal discussions were also conducted with seven out of the ten of Pahnke's original research assistants for purposes of

gathering background information about the experiment. At the time of the experiment, these people were professors or students of religion, psychology and philosophy at universities, colleges, and seminaries in the Boston area.

METHODOLOGY OF THE ORIGINAL EXPERIMENT

Pahnke hypothesized that psychedelic drugs, in this case psilocybin, could facilitate a "mystical" experience in religiously inclined volunteers who took the drug in a religious setting. He further hypothesized that such experiences would result in persisting positive changes in attitudes and behavior.

Pahnke believed the most conducive environment for his experiment would be a community of believers participating in a familiar religious ceremony designed to elicit religious feelings, in effect creating an atmosphere similar to that of the tribes which used psilocybin-containing mushrooms for religious purposes

(Harner, 1973; Hofmann, Ruck & Wasson, 1978; Hofmann & Schultes, 1979; Wasson 1968). Accordingly, the experiment was designed to administer psilocybin to a previously acquainted group of Christian divinity students in church during a Good Friday service.

Methodologically, the study was designed as a randomized controlled, matched group, double-blind experiment using an active placebo. Prior to Good Friday, twenty white male Protestant volunteers, all of whom were students at the same theological school in the Boston area, were given a series of psychological and physical tests. Ten sets of closely matched pairs were created using variables such as past religious experience, religious background and training, and general psychological makeup. On the morning of the experiment, a helper who did not participate further in the experiment, and who did not know any of the subjects, flipped a coin to determine to which group, psilocybin or placebo, each member of the pair would be assigned.

Three different methods were used to create numerical scales quantifying the experiences of the subjects in terms of an eight-category typology of mystical experiences designed by Pahnke especially for the experiment. Blind independent raters trained in content-analysis procedures scored descriptions of the experiences written by the subjects shortly after Good Friday as well as transcripts of three separate tape-recorded interviews conducted immediately, several days, and six months after the experiment. A 147-item questionnaire was administered to the subjects one or two days after Good Friday, and a one-hundred-item questionnaire was administered six months after the experiment. The subjects' responses to the interview and the two questionnaires were transformed into three distinct scores averaging the percentage of the maximum possible score in each category. Each of the three complementary scores was then compared to each other.

Pahnke secured support and permission to use Marsh Chapel from Rev. Howard Thurman, Boston University's dynamic black

chaplain. Several small meeting rooms and a self-contained basement chapel were set aside on Good Friday for the participants in the experiment while the main service led by Rev. Thurman was taking place upstairs in the larger chapel. The two-and-a-half hour service was broadcast into the basement chapel, where altar, pews, stained glass windows, and various religious symbols were permanently located.

Pahnke gave an active placebo of nicotinic acid to the controls who were expecting to receive either the psilocybin or an inactive placebo. This was done in order to "potentiate suggestion in the control subjects, all of whom knew that psilocybin produced various somatic effects, but none of whom had ever had psilocybin or any related substance before the experiment" (Pahnke, 1963, p. 89).

The ten research assistants worked as part of the experimental team in order to provide emotional support to the subjects prior to and during the service. Subjects were divided into five groups of

four with two research assistants, known as group leaders, assigned to each group. These small groups met for two hours prior to the service to build trust and facilitate group support. Subjects were encouraged to "go into the unexplored realms of experience during the actual experiment and not try to fight the effects of the drug even if the experience became very unusual or frightening" (Pahnke, 1963, p. 96).

As a precaution against biasing the subjects toward the typology of mystical experience, leaders were told not to discuss specific aspects of the psychedelic or mystical experience. The lack of overt bias was confirmed by all of the subjects in their long-term follow-up interviews. In a typical long-term follow-up report, psilocybin subject S.J. (all initials used to identify subjects are coded to preserve anonymity) made the following remarks both about the preparation phase of the experiment and the conduct of the group leaders:

> None of the fine points of the mystical experience were

> given to us. We were not told to read any books such as Stace's book on mysticism or Jacob Boheme's books, nothing like that. They did not bias us in any way towards that, not at all.

At the insistence of one of the group leaders as well as Pahnke's faculty sponsor, Timothy Leary, but over the objections of Pahnke, all of the group leaders were also given a pill prior to the service (Leary, 1984, p. 107). This was done in a double-blind manner with one of each group's leaders receiving a half dose of psilocybin (15 mg) and the other the placebo. Pahnke was concerned this would lead to charges of experimenter bias being leveled against the study, but Leary and the group leader felt that the full involvement of the group leaders would create more of a community feeling and lend necessary confidence to the subjects. Though administered a capsule at the Good Friday service, the group leaders' reactions were not tape recorded, nor did they fill out questionnaires. Pahnke himself refrained from having any

personal experiences with any psychedelic drug until after the experiment and follow-up had been completed.

DIFFICULTIES WITH THE DOUBLE-BLIND

The double-blind was successfully sustained through all of the preparation phases of the experiment up to and including ingestion of the capsule. The double-blind was even sustained for a portion of the Good Friday service itself because of the use of nicotinic acid as an active placebo. Nicotinic acid acts more quickly than does psilocybin and produces a warm flush through vasodilation of blood vessels in the skin and general relaxation. Subjects in the placebo group mistakenly concluded, in the early stages of the experiment, that they were the ones who had received the psilocybin (Pahnke, 1963, p. 212). The group leaders, unaware that an active placebo was going to be used, were also initially unable to distinguish whether subjects had received the psilocybin or the placebo.

Psilocybin's powerful subjective effects were eventually obvious to all subjects who received it, even though they had not previously ingested the drug or anything similar to it (Pahnke, 1963, p. 212). Inevitably, the double-blind was broken during the service as the psychoactive effects of the psilocybin deepened and the physiological effects of the nicotinic acid faded. At the end of the day of the experiment, all subjects correctly determined whether they had received the psilocybin or the placebo even though they were never told which group they were in (Pahnke, 1963, p. 210). Pahnke himself remained technically blind until after the six-month follow-up. The comments of subject O.W., gathered in the course of the author's long-term follow-up, are typical of members of the control group:

> After about a half hour I got this burning sensation. It was more like indigestion than a burning sensation. And I said to T.B., “Do you feel anything?” And he said, “No, not yet.” We kept asking, “Do you feel anything?” I said, “You know,

I've got this burning sensation, and it's kind of uncomfortable." And T.B. said, "My God, I don't have it, you got the psilocybin, I don't have it." I thought, "Jeez, at least I was lucky in this trial. I'm sorry T.B. didn't get it, but I'm gonna find out." I figured, with my luck, I'd probably get the sugar pill, or whatever it is. And I said to Y.M., "Do you feel anything?" No, he didn't feel anything. So I sat there, and I remember sitting there, and I thought, "Well, Leary told me to chart my course so I'm gonna concentrate on that." And I kept concentrating and sitting there and all I did was get more indigestion and uncomfortable.

Nothing much more happened and within another 40 minutes, 45 minutes, everybody was really quiet and sitting there. Y.M. was sitting there and looking ahead, and all of the sudden T.B. says to me, "Those lights are unbelievable." And I said, "What lights?" He says, "Look at the candles." He says, "Can you believe that?" And I looked at the

> candles, and I thought, “They look like candles.” He says, “Can't you see something strange about them?” So I remember squinting and looking. I couldn't see anything strange. And he says, “You know it's just spectacular.” And I looked at Y.M. and he was sitting there saying, “Yeah.” And I thought, “They got it, I didn't.”

The follow-up interviews yielded no evidence that the experimental team consciously used their knowledge of which pill the subjects had received to bias the results. However, unconscious bias resulting in an “expectancy effect” cannot be ruled out (Barber, 1976). Still, valuable information can be generated without the successful use of the double-blind methodology. Louis Lasagna, director of the Center for the Study of Drug Development at Tufts University, writes:

> We have witnessed the ascendancy of the randomized, double-blind, controlled clinical trial (RCCT), to the point where many in positions of authority now believe that data

> obtained via this technique should constitute the only basis for registering a drug or indeed for coming to any conclusions about its efficacy at any time in the drug's career. My thesis is that this viewpoint is untenable, needlessly rigid, unrealistic, and at times unethical. . . . Modern trial techniques [were not] necessary to recognize the therapeutic potential of chloral hydrate, the barbiturates, ether, nitrous oxide, chloroform, curare, aspirin, quinine, insulin, thyroid, epinephrine, local anesthetics, belladonna, antacids, sulfonamides, and penicillin, to give a partial list . . . (Lasagna, 1985, p. 48).

Commenting about the attempt to remove the experimenter from the experiment completely, Tooley and Pratt remark:

> In certain participant-observer situations (e.g. psychotherapy, education, change induction, action research) the purpose might be to influence the system under investigation as much as possible, but still accounting for

> (though now exploiting) the variance within the system attributable to the several significant and relevant aspects of the investigator's participant observation. . . . From this perspective, the quixotic attempt to eliminate the effects of participant-observation in the name of a misplaced pseudo-objectivity is fruitless, not so much because it is impossible but because it is unproductive. . . . From our point of view . . . the question becomes not how to eliminate bias (unaccounted-for influence) of participant observation, but how optimally to account for and exploit the effects of the participant observation transaction in terms of the purposes of the research (Tooley & Pratt, 1964, pp. 254–56).

The loss of the double-blind makes it impossible to determine the relative contributions of psilocybin and suggestion in producing the subjects' reported experiences. If the experiment were designed specifically to measure the pure drug effects of psilocybin, the failure of the double-blind would be quite damaging. In this

instance the loss of the double-blind is of lesser significance because the entire experiment was explicitly designed to maximize the combined effort of psilocybin and suggestion. The setting was religious, the participants were religiously inclined, and the mood was positive and expectant. Pahnke did not set out to investigate whether psilocybin was able to produce mystical experiences irrespective of preparation and context. He designed the experiment to determine whether volunteers who received psilocybin within a highly supportive, suggestive environment similar to that found in the ritual use of psychoactive substances by various native cultures would report more elements of a classical mystical experience (as defined by the questionnaires) than volunteers who did not receive psilocybin. The loss of the double-blind may have enhanced the power of suggestion to some extent and suggests that restraint should be used in attributing the experiences of the experimental group exclusively to the psilocybin (Zinberg, 1984).

CRITIQUE OF THE QUESTIONNAIRE

Pahnke designed the questionnaire he used to measure the occurrence of a mystical experience specifically for the experiment. No similar questionnaires existed at the time (Larson, 1986; Rue, 1985; Silverman, 1983). Pahnke decided to measure the mystical experience in reference to eight distinct experiential categories. The categories include 1) sense of unity, 2) transcendence of time and space, 3) sense of sacredness, 4) sense of objective reality, 5) deeply felt positive mood, 6) ineffability, 7) paradoxicality, and 8) transiency. These categories are very similar to those elaborated by such well-respected scholars of mystical experience as William James (1902), Evelyn Underhill (1910), and W. T. Stace (1960) and are accepted as valid even by academic critics of the Good Friday experiment such as R. C. Zaehner (1972). At present, the scientific questionnaire most widely used by researchers to assess mystical experiences is a thirty-two-item questionnaire created by Ralph Hood, also based on categories

developed by W. T. Stace (Spilka, Hood & Gorsuch, 1985).

Zaehner's critique of Pahnke's questionnaire is that it does not contain a category for experiences which are specifically Christian, such as identification with the death and rebirth of Jesus Christ. From Zaehner's perspective, this omission made it impossible to determine if the experiences were religious, since he thought a religious experience for Christians necessarily involves a theistic encounter with Christ. Zaehner objected to the claim that an experience of a generalized, nonspecific, apprehension of a transcendent reality beyond any specific cultural forms and figures could properly be called religious. Anticipating this critique, Pahnke asserted in the thesis that he was not attempting to resolve the question of what can properly be called religious but was simply investigating mystical experiences, regardless of whether or not they were considered religious. This author will also leave this delicate discussion to others.

The questionnaire used in the Good Friday experiment has been

modified and expanded over the years by Pahnke, William Richards, Stanislav Grof, Franco Di Leo, and Richard Yensen for use in subsequent psychedelic research (Richards, 1975, 1978). From the initial creation of the questionnaire by Pahnke in 1962 to Di Leo and Yensen's computerized version, called the Peak Experience Profile, the basic items relating to the mystical experience have remained essentially unchanged (Di Leo, 1982). While the original follow-up questionnaire was composed of eight different categories, the Peak Experience Profile uses only six. The category of transiency was eliminated since it measures any altered state of consciousness whether mystical or not. The paradoxicality and alleged ineffability categories were combined into the ineffability category. Over the years, new categories measuring transpersonal but not necessarily mystical experiences were added. For example, new questions relate to the re-experiencing of the stages of birth and the perinatal matrixes as defined by Grof (Grof, 1975, 1980) and also to pastlife experiences (Ring, 1982, 1984,

1988). A series of questions relating to difficult and painful nadir experiences, in some sense the opposites of peak experiences, has also been added.

In Pahnke's original questionnaire and in the subsequent revisions, the completeness with which each subject experienced each category is measured through numerical responses to category-specific questions. Pahnke's subjects rated each question on the post-drug questionnaire from zero to four, with zero indicating that the item was not experienced at all and four indicating that it was experienced as strong or stronger than ever before. The six-month follow-up questionnaire used a zero-to-five scale, with four indicating that it was experienced as strong as before and five indicating that it was experienced stronger than ever before.

The questions themselves are of two types. The predominant type asks the subject about experiences of a new perspective. For example, some of the questions used to determine the sense of

unity ask subjects to rate the degree to which they experienced a pure awareness beyond any empirical content, a fusion of the self into a larger undifferentiated whole, or a freedom from the limitations of the self in connection with a unity or bond with what was felt to be all-encompassing and greater-than-self. These types of questions are sufficiently detailed and specific to be an effective test for the specific category.

The second type of question, used much less frequently, asks about the loss of a normal state. For example, two questions used to determine the presence of a sense of unity simply required subjects to rate the degree to which they lost their sense of self or experienced a loss of their own identity. This type of question is a minor weak point of the questionnaire because it can be rated highly without having anything to do with mystical experiences. For example, one subject reported in the follow-up interview that under the influence of psilocybin, he temporarily had difficulty recalling his career choice, home, names of his wife and children,

and even his own name. This experience of a powerful loss of the usual sense of self and identity would be highly correlated with mystical experience in the questionnaire but may not actually be related because it can occur for a variety of reasons. Though the questionnaire has relatively few of this type of question, some overestimation of the completeness of the mystical experience could have been introduced into the data as a result.

In addition to asking questions about the experience itself, the follow-up questionnaire also sought to assess the effects of that experience on the attitudes and behaviors of the subjects. For example, the subjects' attitude changes were assessed by asking them to use a zero-to-five scale to rate whether they had experienced an increase or a decrease in their feelings of happiness, joy, peace, reverence, creativity, vocational commitment, need for service, anxiety, and hatred. Changes in subjects' behavior were assessed by means of questions asking whether or not they experienced changes in their relationships with

others, in time spent in quiet mediation or devotional life, or whether they thought their behavior had changed in positive or negative ways.

Pahnke's questionnaire gathered information only from the self-reports of the subjects, resulting in a general sense of the subjects' own assessment of the direction of the effects of their Good Friday experience. The data do not yield specific information about the internal psychodynamic mechanisms at work within each subject, nor do they include the views of significant others regarding the effects of the experiment on the subjects.

In contemporary psychotherapy research, more sophisticated methods than Pahnke's are used to assess personality change (Beutler & Crago, 1983). Reports from significant others such as family members and close friends of the subject are almost always used to add an important “objective” element in assessing personality change. Data from the follow-up questionnaires, administered by Pahnke at six months and by the author after

twenty-four to twenty-seven years, should be considered valuable as far as they go, but this is not very far. Since no detailed personality tests were given prior to the experiment, results of such tests at the time of the long-term follow-up would have been of little value and were not conducted. The long-term follow-up interviews, because of their open-ended format and extensive questioning, yielded more detailed information than the questionnaire about the content of the experiences and the persisting effects.

FINDINGS OF THE ORIGINAL STUDY AND LONG-TERM FOLLOW-UP

Pahnke arbitrarily determined that for a mystical experience to be considered complete for the purposes of the experiment, out of the maximum total possible score, "the total score and the score in each separate category must be at least 60 to 70 percent" (Pahnke, 1967, p. 66). According to this cut-off point, "Four of the ten

psilocybin subjects reached the 60 to 70 percent level of completeness, whereas none of the controls did" (Pahnke, 1967, p. 64). Looked at by subjects and categories, Pahnke reported that "eight out of ten of the experimental subjects experienced at least seven out of the eight categories. None of the control group, when each individual was compared to his matched partner, had a score which was higher" (Pahnke, 1966, p. 647). In every general category and in every specific question, the average score of the experimental subjects exceeded that of the control subjects. The differences between the groups in the scores on the questionnaires were significant at $p<.05$ level for all categories.

When asked at a conference if any of the controls had a mystical experience, Pahnke replied:

> To take an individual case, there was one control subject who scored fairly high on sacredness and sense of peace and that he himself, in his written account, said, "It was a very meaningful experience, but in the past I've certainly had one

that was much more so" (Pahnke, 1966, p. 648).

Pahnke's six-month follow-up data and the author's long-term follow-up questionnaire data, both of which used the same instrument, are displayed in Table 1. The six-month scores are listed first, and the long-term follow-up scores follow in parentheses. For each category, the percentages in the chart represent the total scores of the subjects divided by the highest possible scores that could have been reported. The numbers measure the completeness with which each category was experienced.

Comparisons can reliably be made between the control group's sixmonth and long-term scores because nine out of the original ten control group subjects participated in the long-term follow-up and the variance in scores between control subjects was small. The absence of completed longterm questionnaires from three of the ten original subjects from the psilocybin group makes comparing their six-month and long-term scores more difficult. The long-term

follow-up interviews produced specific information suggesting that one of the three missing psilocybin subjects had scores significantly lower than average. No information was generated suggesting that the other two missing subjects had scores significantly different than average. The average scores for the long-term follow-up may thus overstate somewhat the scores from the entire psilocybin group.

Table 1: "Good Friday Experiment" Experimental and Control Groups at Six-Month and Long-Term Follow-Up Shown as Percentages of Maximum Possible Scores

Category	Experimentals		Controls	
Unity	Six-Month	Long-Term	Six-Month	Long-Term
A. Internal	60	(77)	5	(5)
B. External	39	(51)	1	(6)
Transcendence of Time and Space	78	(73)	7	(9)
Deeply Felt Positive Mood	54	(56)	23	(21)
Sacredness	58	(68)	25	(29)
Objectivity and Reality	71	(82)	18	(24)
Paradoxicality	34	(48)	3	(4)
Alleged Ineffability	77	(71)	15	(3)
Transiency	76	(75)	9	(9)
Average for the Categories	60.8	(66.8)	11.8	(12.2)
Persisting Positive Changes in Attitude and Behavior	48	(50)	15	(15)
Persisting Negative Changes in Attitude and Behavior	6	(6)	2	(4)

At Six-Month Follow-Up, Exper. N = 10, Control N = 10
Long-Term Follow-Up (In Parentheses) Exper. N = 7, Control N = 9
$P<.05$ for all category comparisons at both six-month and long-term follow-ups

The average scores for the eight categories of the mystical experience and the scores for persisting positive and negative changes in attitude and behavior have changed remarkably little for either the controls or the experimentals despite the passage of between twenty-four and twenty-seven years between the two tests. The questionnaire seems to be reliable and indicates that time has not substantially altered the opinions of the subjects about their experiences. In the long-term follow-up even more than in the sixmonth follow-up, the experimental group has higher scores than the control group in every category. For the long-term follow-up, these differences are significant at $p<.05$ in every category.

For the experimental group, the average score for the mystical categories at the six-month follow-up was 60.8 percent. They scored 66.8 percent at the long-term follow-up. In the six-month follow-up, the experimental group scored about 34 percent in all categories while in the long-term follow-up, they scored above 48

percent in all categories. The experimental group scored the highest in those categories that typify a different state of consciousness such as transcendence of time and space, alleged ineffability and transiency.

For the control group, the average score for the eight categories of mystical experience at the six-month follow-up was 11.8 percent. They scored 12.2 percent at the long-term follow-up. The highest score of the control group at either time was 29 percent, in the sacredness category. The control group scored the highest in the categories of experience that religious services are most likely to induce, namely sense of sacredness, deeply felt positive mood, and sense of objectivity and reality.

For the psilocybin group, the long-term follow-up yielded moderately increased scores in the categories of internal and external unity, sacredness, objectivity and reality, and paradoxicality, while all other categories remained virtually the same as the six-month data. Several decades seem to have

strengthened the experimental groups' characterization of their original Good Friday experience as having had genuinely mystical elements. For the controls, the only score that changed substantially was that of alleged ineffability, which decreased.

A relatively high degree of persisting positive changes were reported by the experimental group while virtually no persisting positive changes were reported by the control group. In the open-ended portion of the long-term follow-up questionnaire, experimental subjects wrote that the experience helped them to resolve career decisions, recognize the arbitrariness of ego boundaries, increase their depth of faith, increase their appreciation of eternal life, deepen their sense of the meaning of Christ, and heighten their sense of joy and beauty. No positive persisting changes were reported by the control group in the open-ended section of the follow-up questionnaire.

There was a very low incidence of persisting negative changes in attitudes or behavior in either group at either the six-month

follow-up or the long-term follow-up. However, the one psilocybin subject reported to have had the most difficult time during the experiment was the one who declined this author's request to be interviewed in person or fill out a questionnaire, placing in question the generalization of this finding for the long term.

Both the six-month and long-term follow-up questionnaire results support Pahnke's hypothesis that psilocybin, when taken in a religious setting by people who are religiously inclined, can facilitate experiences of varying degrees of depth that either are identical with, or indistinguishable from, those reported in the cross-cultural mystical literature. In addition, both the six-month and the long-term follow-up questionnaire results support Pahnke's hypothesis that the subjects who received psilocybin, more so than the controls, experienced substantial positive persisting effects in attitude and behavior.

THE LONG-TERM FOLLOW-UP INTERVIEWS:

GENERAL OVERVIEW

This long-term follow-up was conducted roughly a quarter century after the subjects participated in the original experiment. All subjects contacted live in the United States, with five out of the eight psilocybin subjects and five out of the ten placebo subjects currently working as ministers. Other professions represented are stockbroker, lawyer, community developer, social worker, administrative assistant, and educator. Except for one of the psilocybin subjects, all are currently married. All are working and self-supporting. All but two welcomed the opportunity to discuss their participation in the Good Friday experiment.

Each of the psilocybin subjects had vivid memories of portions of their Good Friday experience. For most, this was their life's only psychedelic experience, in part because there have been no legal opportunities for such experiences for the last twenty-five years in the United States (or in any of the roughly 90 countries who are party to the international drug control treaties coordinated by the

United Nation's World Health Organization). The experimental subjects unanimously described their Good Friday psilocybin experience as having had elements of a genuinely mystical nature and characterized it as one of the high points of their spiritual life. Some subjects reported that the content of their experience was specifically involved with the life of Christ and related directly to the Christian message, while others had experiences of a more universal, nonspecific nature. Most of the control subjects could barely remember even a few details of the service.

Most of the psilocybin subjects had subsequent experiences of a mystical nature with which they were able to compare and contrast to their psilocybin experience. These subsequent experiences occurred either in dreams, in prayer life, in nature, or with other psychedelics and seemed to the psilocybin subjects to be of the same essential nature as their Good Friday experience. Significant differences between their nondrug and drug mystical experiences were noted, with the drug experiences reportedly both more intense

and composed of a wider emotional range than the nondrug experiences. The nondrug experiences were composed primarily of peaceful, beautiful moments experienced with ease, while the drug experiences tended to include moments of great fear, agony, and self-doubt.

The discussion of Subject T.B. about the relationship between his psilocybin and his other mystical experiences illustrates how the subjects saw the validity of their psilocybin experiences:

> I can think of no experiences [like the Good Friday experience] quite of that magnitude. That was the last of the great four in my life. The dream state . . . I had no control over when it was coming. It was when I [was about nine and] had scarlet fever and rheumatic fever, apparently at either similar or at the same times. And they thought that I was going to die. And I saw a light coming out of the sky, this is the dream, and it came toward me and it was like the figure of Christ and I said, “No, let me live and I'll serve

> you.” And I'm alive and I've served. The prayer state when I was in seventh grade was very similar in the way it happened to me. I intentionally went for an experience with God. In seventh grade. And I also went for an experience with God at the Good Friday experience. And those were similar. The West Point experience was different. In that yes, it was prayers, it was on my knees, it was there, but the face of Christ was . . . it happened more to me than me participating in it. It was more like a saving experience kind of thing. So I've had that and can talk about “a salvation experience,” a born again experience, it was that kind of dedication.

Each of the psilocybin subjects felt that the experience had significantly affected his life in a positive way and expressed appreciation for having participated in the experiment. Most of the effects discussed in the long-term follow-up interviews centered around enhanced appreciation of life and of nature, deepened sense

of joy, deepened commitment to the Christian ministry or to whatever other vocations the subjects chose, enhanced appreciation of unusual experiences and emotions, increased tolerance of other religious systems, deepened equanimity in the face of difficult life crises, and greater solidarity and identification with foreign peoples, minorities, women, and nature. Subject K.B.'s description of the long-term effects is representative. He remarks:

> It left me with a completely unquestioned certainty that there is an environment bigger than the one I'm conscious of. I have my own interpretation of what that is, but it went from a theoretical proposition to an experimental one. In one sense it didn't change anything. I didn't discover something I hadn't dreamed of, but what I had thought on the basis of reading and teaching was there. I knew it. Somehow it was much more real to me. . . . I expect things from meditation and prayer and so forth that I might have been a bit more skeptical about before. . . . I have gotten help with problems,

> and at times I think direction and guidance in problem solving. Somehow my life has been different knowing that there is something out there. . . . What I saw wasn't anything entirely surprising and yet there was a powerful impact from having seen it.

In addition to self-reports, several subjects who had stayed in contact with each other over the years spoke about the effects they noticed in each other. In the instances where such information was obtained, the observations of fellow subjects were similar to the self-reports and confirmed claims of beneficial effects.

Several of the psilocybin subjects discussed their deepened involvement in the politics of the day as one result of their Good Friday experience. Feelings of unity led many of the subjects to identify with and feel compassion for minorities, women, and the environment. The feelings of timelessness and eternity reduced their fear of death and empowered the subjects to take more risks in their lives and to participate more fully in political struggles.

Subject T.B. discussed how his perception of death during the Good Friday experience affected his work in the political field. He remarked:

> When you get a clear vision of what [death] is and have sort of been there, and have left the self, left the body, you know, self leaving the body, or soul leaving the body, or whatever you want to call it, you would also know that marching in the Civil Rights Movement or against the Vietnam War in Washington [is less fearful]. . . . In a sense [it takes away the fear of dying] . . . because you've already been there. You know what it's about. When people approaching death have an out-of-body experience . . . [you] say, “I know what you're talking about. I've been there. Been there and come back. And it's not terrifying, it doesn't hurt. . . .”

Subject S.J. found that his Good Friday experience of unity supported his efforts in the political field:

> I got very involved with civil rights after that [his

> psychedelic experience] and spent some time in the South. I remember this unity business. I thought there was some link there. . . . There could have been. People certainly don't write about it. They write about it the opposite way, that drugs are an escape from social obligations. That is the popular view. . . .

Only one of the control subjects felt that his experience of the Good Friday service resulted in beneficial personal growth. That particular control subject thought he was probably the one in the original experiment reported to have had a partial mystical experience. Ironically, he felt that the most important benefit he received from the service was the decision to try psychedelics at the earliest opportunity. The Good Friday service had that same effect on one another placebo subject, who also had a subsequent psychedelic experience.

The actual experiences of the original psilocybin subjects are best communicated by quoting from the transcripts of the long-

term follow-up interviews. Rev. S.J. had an experience almost uniformly positive. He described his experience as follows:

> Something extraordinary had taken place which had never taken place before. All of the sudden I felt sort of drawn out into infinity, and all of the sudden I had lost touch with my mind. I felt that I was caught up in the vastness of Creation . . . huge, as the mystics say. . . . I did experience that kind of classic kind of blending. . . . Sometimes you would look up and see the light on the alter and it would just be a blinding sort of light and radiation. . . . The main thing about it was a sense of timelessness.
>
> The meditation was going on all during this time, and he [Rev. Howard Thurman] would say things about Jesus and you would have this overwhelming feeling of Jesus. . . . It was like you totally penetrated what was being said and it penetrated you. . . . Death looked different. It became in focus. . . . I got the impression, the sensation . . . that what

people are essentially in their essence that somehow they would continue to live. They may die in one sense, the physical sense, but their being in heaven would survive. . . .

We took such an infinitesimal amount of psilocybin, and yet it connected me to infinity.

Subject L.J. confronted the issue of personal mortality, which he described as follows:

I was on the floor underneath the chapel pew and he [a group leader] was looking after me and sort of aware of, you know, “L.J. is down there, is everything all right?” I was hearing my uncle who had died [several months before], the one who was a minister, saying, “I want you to die, I want you to die, I want you to die” I could hear his voice saying. The more that I let go and sort of died, the more I felt this eternal life, saying to myself under my breath perhaps, “it has always been this way, it has always been this way. . . . O, isn't it wonderful, there's nothing to fear, this is what it

> means to die, or to taste of eternal life. . . .” And the more I died the more I appropriated this sense of eternal life. . . . While the service went on I was caught up in this experience of eternal life and appreciating what the peyote Indians or the sacred mushroom Indians experienced with their imbibing of the drug. Just in that one session I think I gained experience I didn't have before and probably could never have gotten from a hundred hours of reading or a thousand hours of reading.
>
> I would have to say as far as I'm concerned it was a positive, mystical experience . . . confirmed by experiences both before and after.

Rev. L.R. had one of the most difficult experiences of all the psilocybin subjects. He described the early portion of his experience as follows:

> Shortly after receiving the capsule, all of a sudden I just wanted to laugh. I began to go into a very strong paranoid

> experience. And I found it to be scary. The chapel was dark and I hated it in there, just absolutely hated it in there. And I got up and left. I walked down the corridor and there was a guard, a person stationed at the door so individuals wouldn't go out, and he says, “Don't go outside,” and I said, “Oh no, I won't. I'll just look outdoors.” And I went to the door and out I went. They sent [a group leader] out after me. We [L.R. and the group leader] went back into the building and again, I hated to be in that building and being confined because there were bars on the window and I felt literally like I was in prison. One of the things that was probably happening to me was a reluctance to just flow. I tried to resist that and as soon as resistance sets in there's likely to be conflict and there's likely, I think, for there to be anxiety.

In addition to his emotion struggles, Rev. L.R. discusses the mystical aspect of his experience as follows:

> The inner awareness and feelings I had during the drug

> experience were the dropping away of the external world and those relationships and then the sudden sense of singleness, oneness. And the rest of normal waking consciousness is really . . . illusion. It's not real and somehow that inner core experience of oneness is more real and more authentic than normal consciousness. . . . I was also experiencing some of those same kind of states that produced anxiety, and I wanted to try to get at the bottom of it.
>
> I personally feel that the experience itself was, and I know [Pahnke's] research came to the conclusion, that the effect of the chemicals like that is very similar, parallel to, perhaps the same as a classical mystical experience. . . .

Rev. Y.M. described his experience, which also had some difficult moments, as follows:

> I closed my eyes and the visuals were back, the color patterns were back, and it was as if I was in an ocean of

bands, streams of color, streaming past me. The colors were brilliant and I could swim down any one of those colors. Then that swirl dissolved itself into a radial pattern, a center margin radial pattern with the colors going out from the center. I was at the center and I could swim out any one of those colors and it would be a whole different life's experience. I could swim out any one of them that I wanted. I mean I could swim metaphorically. There wasn't the sense that I could actually paddle. I could choose any one I wanted, but I had to choose one.

I couldn't decide which one to go out, and eventually it connects to the decision I was in the midst of making about career choices . . . when I couldn't decide, I died. Very existential . . . for a brief moment there, I was physically dying. My insides were literally being scooped out, and it was very painful. . . . I said to myself . . . that nobody should have to go through this . . . it was excruciating to die like

that. Very painful. And I died. . . .

After the psilocybin experience, I never consciously made the choice as to what I was going to do career-wise, but the choice was made. It was made while I was on the psilocybin. But it never had to be consciously, intentionally, "Ah, let's see, what I am going to do is. . . ." It was made, and I was confident of it, it was going to be. And I did it afterwards. . . .

Rev. K.B. described his mystical experience in the following manner:

I feel almost whatever I say about it . . . is a little bit artificial in terms of describing. What it is is something deeper and probably also more obvious and I think I endeavor to put it into some kind of category which may obscure the point in some way. I remember feeling at the time that I was very unusually incapable of describing it. Words are a familiar environment for me and I usually can

think of them, but I didn't find any for this. And I haven't yet.

I closed my eyes, either thinking of meditating or maybe I was drowsy or something. I closed my eyes and it seemed to be darker than usual. And then there was a sudden bolt of light which I think was entirely internal and a feeling almost like a shock or something and that was only for an instant. It was violent but it was a definite tingling like taking hold of a wire or something.

I closed my eyes and . . . thought that this would be a fine time for [meditating on the Passion]. . . . So I did think about the procession to the cross. And with my eyes closed I had an unusually vivid scene of the procession going by. A scene quite apart from any imagining or anything on my part. A self-actualizing thing—kind of like watching a movie or something, it was apart from me but very vivid.

I had a definite sense of being an infant or being born, or

something like that. I had a sense of death, too, but I think actually the sense of death came after the sense of birth. . . . I had my hands on my legs and there wasn't any flesh, there were bare bones, resting on my bones. That part wasn't frightening, I was just kind of amazed. . . . I think I must have gone along through the life of Christ identifying in a very total sort of way—reliving the life in some way until finally dying and going into the tomb.

I really am glad I took it. And glad that I was a subject. I don't think it would be a particularly memorable experience if I just had listened to the service. I've heard some good services and I imagine this was as moving as most. But I think it would be in that category instead of a once-in-a-lifetime sort of thing. . . .

I've remained convinced that my ability to perceive things was artificially changed, but the perceptions I had were real as anything else.

Subject T.B. was very comfortable with the effects of the psilocybin, perhaps because he had had mystical experiences prior to the experiment. He described his experience in the following way:

> I was kneeling there praying and beginning to feel like I was in the seventh grade, eleven or twelve years old. It was the kind of experiences that you knew that something great was happening. I started to go to the root of all being. And discovered that . . . you never quite get there. That was my discovery during that time . . . it's a philosophy and a theology that I hold yet today. You can approach the fullness of all being in either prayer, or in the psilocybin experience. You can reach out, but you can't dive down . . . and hit that root.
>
> The discovery within that experience is that you could approach God by two different ways. You either get to the root, the ground of all being, or the fullness of all being.

> And in getting to the root, you'll strive, you'll come closer and closer, but it's always half, and you'll think another half step, another half step, and you'll never quite get there. The fullness, to approach the fullness of God is the only way to approach God.

Subject H.R. told of his largely positive experience in the following way:

> It was a feeling of being . . . lifted out of your present state. I just stopped worrying about time and all that kind of stuff . . . there was one universal man, personhood, whatever you want to call it . . . a lot of connectedness with everybody and everything. I don't think Christ or other religious images that I can remember came into it. That's the only reason I didn't think it was religious. I don't remember any religious images. . . .
>
> I was convinced after the experiment that I had had quite an experience but that it was really into my psychological

> depths, and it was not a religious experience. . . . It was really the sense that I was discovering the depths of my own self. It did not have a sacredness kind of element to it. . . . I didn't think I had experienced a God that was particularly outside of me. What I experienced was a God that was inside of me. And I think that . . . made me say, I don't think this is religious, I think this is psychological. But that was because of the way I was defining being . . . the way I thought God was being defined by other people at that point.

After the Good Friday experiment, two out of the ten placebo subjects experienced psychedelics. Placebo Subject P.J. described his first psychedelic experience, which took place in a chapel with psilocybin Subject L.R. as his guide, as follows:

> I laid on the front pew and watched myself—it seemed like eternity—pour through my navel and totally become nothing. And I felt that this would never stop. It seemed like an eternity of being in heaven and everything. One of the

most beautiful experiences in my entire life.

> It sure kicks the hell out of one being rigid with what could go on and what kind of experiences you could have. To take one of these drugs says a lot more can happen than what's been happening in your total experience. And I think that's good, and that's why I would want my kids to take it.

Placebo Subject L.G. received psilocybin in a hospital as a part of a subsequent experiment conducted by Pahnke (1966) in a fruitless search for a placebo substance which would permit a successful double-blind experiment. L.G. described his experience as follows:

> It was rather removed from the religious context. Certainly the environment we were in had no particular religious symbols. I recall they really stressed [the need to] be absolutely open and just relax and flow with the experience whatever comes. So, there was no context really to suggest a particular experience like there might have been with the

Good Friday experiment. We didn't talk about the mysticism, as I recall, or religious symbols. . . .

At one point I kind of felt like, “Well, maybe this is what it is like to be crazy.” I never really panicked but I was acutely aware of anxiety. . . . As time evolved I just had this incredible sense of joy and humor, too. I was laughing, real ecstasy. . . . The thing that struck me was how anybody could worry or not trust, that just struck me as an absurdity. It was very exciting.

There was an energy, it was almost a sexual thing, an intensity and a joy. The visual things that I experienced and the music, I think were aligned with the sense of unity, everything was unified. We were all part of the same thing. You didn't sense a difference between the music or the physical objects. . . .

I think that you can certainly have a religious experience without the religious symbols. Certainly the religious

> symbols can lead you to a mystical experience. Unfortunately, they can also be divisive. The sectarianism can flow from the different symbols and justify the differences rather than the commonality. I think the mystic experience as I understand it comes down more on the commons.

Contrasting with the desire of two of the control subjects to have their own psychedelic experience, several of the remaining control subjects decided during the course of the experiment that they had no desire to try psychedelics. The behavior of some of their fellow subjects who received psilocybin had frightened them. Placebo Subject B.A. remarked:

> I tend to look back on it as an historical curiosity, with intellectual interest to me, but you know, frankly not much else at this point. . . . The only change that I can think of that it brought about in my life was a conviction that I never wanted to go on a drug trip of any type ever. And I never

> have, except for booze. The sights I saw [during the experiment] were very disturbing to me, and I didn't see myself wanting to be in that kind of position. It appeared to be hopelessly out of control and life threatening in several instances.

The remaining control subjects viewed psilocybin with some equanimity but were not motivated enough to seek out their own experience. If the circumstances were right and the substances were legal, several indicated that they might be willing to participate in another experiment.

A SIGNIFICANT OMISSION

Out of the seven psilocybin subjects formally interviewed, only two had had Good Friday experiences that they reported to be completely positive without significant psychic struggles. The others all felt moments in which they feared they were either going crazy, dying, or were too weak for the ordeal they were

experiencing. These struggles were resolved during the course of the Good Friday service and according to the subjects contributed to their learning and growth.

It appears that these difficult moments were significantly underemphasized in Pahnke's thesis and in the subsequent reporting on the experiment. Psilocybin Subject H.R. stated:

> The other thing I found unique that wasn't talked at all about in what I read, at least in the thesis, was that it was all on the positive up side. I don't know whether other people have said this but I had a down side. . . . It was a roller coaster. . . . I mean I had a very strong positive sense of the whole . . . one with humanity kind of positive glowing, unity kind of feeling and then I went down to the bottom where I was really just . . . guilt . . . that's all I can say. It was a very, very profound sense of guilt.

Pahnke does mention that two of the subjects who received the psilocybin “had a little difficulty in readjusting to the ‘ordinary

world' and needed special reassurance by their group leaders until the drug effects subsided" (Pahnke, 1963, p. 219). Almost certainly, one of those subjects was L.R., who found the chapel to be like a prison and went outside for much of the service. The other subject is, almost certainly, the one who refused to participate in the follow-up study.

In one technical section of the thesis, and in none of his subsequent papers, Pahnke mentions that one of those two subjects later referred to his experience as "a psychotic episode" (Pahnke, 1963, p. 232). In another part of the thesis, Pahnke mentions that injectable thorazine was on hand for emergencies. What he does not report anywhere is that one subject was actually given a shot of thorazine as a tranquilizer during the course of the experiment. Several of the subjects and group leaders remembered this incident and reported in the long-term follow-up interviews that it involved the one psilocybin subject who refused to be interviewed by the author. Needless to say, this occurrence should surely have been

mentioned in Pahnke's thesis and, by those few who knew that such an event had actually transpired, in any subsequent reporting on the experiment.

Pahnke probably did not report his use of the tranquilizer because he was fearful of adding to the ammunition of the opponents of the research. Fears that negative aspects of the experiment would be taken out of context and exaggerated may have been justified. In an example of just such a critique, Zaehner asserts in his book, *Zen, Drugs, and Mysticism*, that Pahnke, in an article Pahnke published several years after the Good Friday experiment, repudiated the results of his own study (Zaehner, 1972, p. 105). In that article, Pahnke does indeed say that mystical experiences were absent (Pahnke, 1967, p. 71). Pahnke was, however, referring to the control of subjects. This misreading of Pahnke by Zaehner is an indication of how, even in an educated scholar, bias can overwhelm facts. This observation, of course, is also true of Pahnke. His silence about his administration of a

tranquilizer may perhaps have been good politics; certainly it was bad science.

Although an interview with the subject who was tranquilized would be necessary to understand the subtleties of his experience and its consequences, several long-term follow-up interviews generated secondhand information which may be summarized as follows: This subject was reported to be deeply moved by a sermon delivered by the very dynamic preacher who emphasized that it was the obligation of all Christians to tell people that there was a man on the cross. This subject was reported to have gone outside of the chapel possibly intending to follow the exhortation.

A struggle ensued when the group leaders, worried for his safety, tried to bring him back inside. After a time during which he seemed fearful and was not settling down, Pahnke tranquilized him with a shot of thorazine. He was then brought back into the chapel and remained calm for the duration of the experiment. He participated in all further aspects of the experiment and in the six-

month follow-up reported that he considered his fear experience "slightly harmful" because "in a mob panic-situation I feel I would be less likely to maintain a calm objective position than I might have formerly" (Pahnke, 1963, p. 232).

Subsequent to the Good Friday experiment, the use of tranquilizers in controlled psychedelic psychotherapy research was largely abandoned in favor of simply providing a supportive environment and letting the drug run its course (Richard Yensen, personal communication, 1991).

DISCUSSION

The original Good Friday experiment is one of the preeminent psychedelic experiments in the scientific literature. Despite the methodological shortcomings of the unavoidable failure of the double-blind and the use of several imprecise questions in the questionnaire used to quantify mystical experiences, the experiment's fascinating and provocative conclusions strongly

support the hypothesis that psychedelic drugs can help facilitate mystical experiences when used by religiously inclined people in a religious setting. The original experiment also supports the hypothesis that those psilocybin subjects who experienced a full or a partial mystical experience would, after six months, report a substantial amount of positive, and virtually no negative, persisting changes in attitude and behavior.

This long-term follow-up, conducted twenty-four to twenty-seven years after the original experiment, provides further support to the findings of the original experiment. All psilocybin subjects participating in the long-term follow-up, but none of the controls, still considered their original experience to have had genuinely mystical elements and to have made a uniquely valuable contribution to their spiritual lives. The positive changes described by the psilocybin subjects at six months, which in some cases involved basic vocational and value choices and spiritual understandings, had persisted over time and in some cases had

deepened. The overwhelmingly positive nature of the reports of the psilocybin subjects are even more remarkable because this long-term follow-up took place during a period of time in the United States when drug abuse was becoming the public's number-one social concern, with all the attendant social pressure to deny the value of drug-induced experiences. The long-term follow-up interviews cast considerable doubt on the assertion that mystical experiences catalyzed by drugs are in any way inferior to nondrug mystical experiences in both their immediate content and longterm positive effects, a critique of the Good Friday experiment advanced primarily by Zaehner (Bakalar, 1985).

Unexpectedly, the long-term follow-up also uncovered data that should have been reported in the original thesis. Pahnke failed to report the administration of the tranquilizer thorazine to one of the subjects who received psilocybin. There is no justification for this omission no matter how unfairly the critics of this research may have used the information and no matter how minimal were the

negative persisting effects reported by the subject. In addition, Pahnke underemphasized the difficult psychological struggles experienced by most of the psilocybin subjects. These very serious omissions point to an important incompleteness in Pahnke's interpretation of the effects of psilocybin.

Some of the backlash that swept the psychedelics out of the research labs and out of the hands of physicians and therapists can be traced in part to the thousands of cases of people who took psychedelics in non-research settings, were unprepared for the frightening aspects of their psychedelic experiences, and ended up in hospital emergency rooms. These unfortunate instances of panic reaction have many causes, yet some of them stem from the way in which the cautionary elements of the Good Friday experiment were inadequately discussed in Pahnke's thesis, in subsequent scholarly reports, and in the popular media. For example, *Time* magazine reported on the experiment in glowing, exaggerated terms stating, “All students who had taken the drug [psilocybin] experienced a

mystical consciousness that resembled those described by saints and ascetics" (9/23, 1966, p. 62).

The widespread use of psychedelics, both in medical and nonmedical settings, which began in the 1960s, is still currently taking place, apparently largely underground. Such use was partially founded upon an optimism regarding the inherent safety of the psychedelic experience which did not fully acknowledge the complexity and profundity of the psychological issues associated with psychedelic experiences. With some proponents of psychedelics exaggerating the benefits and minimizing the risks, a backlash against these substances was predictable. With the intriguing connection reported by several psilocybin subjects between mystical experiences and political action, the backlash in retrospect may have been inevitable (Baumeister & Placidi, 1985).

Despite the difficult moments several of the psilocybin subjects passed through, the subjects who participated in the long-term follow-up reported a substantial amount of persisting positive

effects and no significant longterm negative effects. Even the subject who was tranquilized in the original experiment reported only “slightly harmful” negative persisting effects at the six-month follow-up. Secondhand information gathered during the course of the long-term follow-up suggests that his experience caused no persisting dysfunction and may even have had some beneficial as well as detrimental effects.

The lack of long-term negative effects or dysfunction is not surprising. Strassman's literature review of all controlled scientific experiments using psychedelics in human volunteers found that panic reactions and adverse reactions were extremely rare. He concluded that the potential risks of future research were outweighed by the potential benefits (Strassman, 1984).

This long-term follow-up study, even in light of the new data about the difficulties of the psychedelic experiences of many of the subjects, adds further support to the conclusion that additional studies are justified. Future experiments should be approached

cautiously and carefully, with a multidisciplinary team of scientists involved in planning and implementation. Such a team should include psychiatrists, psychologists, religious professionals from a variety of traditions, as well as drug abuse prevention, education, and treatment officials. Questions as fundamental as those raised by the Good Friday experiment deserve to be addressed by the scientific community and post special challenges to the regulatory agencies. Renewed research can be expected to require patience, courage, and wisdom from all concerned.

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THE SECOND COMING OF PSYCHEDELICS

BY DON LATTIN

Ric Godfrey had the shakes. At night, his body temperature would drop and he'd start to tremble. During the day, he was jumpy. He was always looking around, always on edge. His vibe scared the people around him. He couldn't hang on to a job. He started drinking and drugging, anything to numb out.

Years passed before a counselor with the Veterans Administration told him he had severe posttraumatic stress disorder, or PTSD. The former Marine had spent the early 1990s interrogating prisoners in Kuwait. Years later, he was still playing out the first Persian Gulf War.

Counseling helped a little, but the symptoms continued. He went

to rehab for his substance abuse, then tried Alcoholics Anonymous. “That went on for ten years,” he said. “I don't know how many times I hit rock bottom.”

Then one of his Seattle neighbors—a woman who also suffered from PTSD—told him about a group of veterans who were going down to Peru to try a psychedelic drug called Ayahuasca, a jungle vine that is brewed into a tea. Indigenous Peruvians called it “sacred medicine.” A wealthy veteran had started a healing center in South America and would pay all Ric's expenses.

The next thing Ric knew, he was crawling into a tent on a platform out in the middle of the Amazon jungle. The sun went down. The shaman gave him the tea, a blessing, and a pail in which to vomit.

“Your body will not keep it in you,” Ric recalled. “At first, it's the worst thing you've ever done in your life. Then all of a sudden, you blink your eyes and you are not there anymore. You get out of your body and look back and see what is wrong with you. I saw the

shell of the person I didn't want to be and stepped out of it. It was the most amazing thing. I've taken lots of drugs before, but I never remembered. I think this is the key. You actually gain knowledge from this. I don't even consider it a drug. It's an eye-opener. It makes you think about stuff. Your deepest darkest secrets, stuff you have been holding on to since you were eight years old. It washes out of you, and you feel like a totally different person. People look at you differently. Your whole world changes before your eyes.”

Three years later, Ric Godfrey says he hasn't had a single symptom of the shakes or night terrors since he came back from the jungle. He's relaxed and holding down a great job.

“I've always been afraid that someone was out to get me, but I don't have that fear anymore,” he says. “I still like to sit with my back to the wall. I still have certain military idiosyncrasies, but I'm not afraid anymore.”

Psychedelic drugs are back. Not that they ever really went away. You could always find them on the street, in the psychedelic underground, and along the more enlightened edges of the drug culture. What's new is that these powerful, mind-altering substances are finally coming out of the drug counterculture and into the mainstream laboratories of some of the world's leading universities and medical centers. Research projects and pilot studies at Johns Hopkins, Harvard, Purdue University, and the University of California at Los Angeles are probing their mind-altering mysteries and healing powers. Psychedelic drugs like psilocybin and ecstasy are still illegal for street use and cannot be legally prescribed by doctors, but university administrators, government regulatory agencies, and private donors are suddenly giving the stamp of approval and the money needed for new research into beneficial uses for this “sacred medicine.”

“This field of research is finally coming of age,” said David Nichols, a veteran researcher who recently retired professor from

the Purdue University College of Pharmacy and the Indiana University School of Medicine. “As Crosby, Stills and Nash said, it's been a long time coming.”

Mainstream America's panic over psychedelics began after experiments at Harvard in the 1960s by notorious psychologists Timothy Leary and Richard Alpert spun out of control. What began as the Harvard Psilocybin Project morphed into a crusade to turn America on to the wonders of LSD. The researchers were eventually removed from the school's faculty, and Leary served jail time for marijuana. “Timothy Leary played a very significant role in the backlash,” said Roland Griffiths, a professor in the departments of psychiatry and neurosciences at Johns Hopkins, who has emerged as one of the leaders in the new wave of research into the beneficial use of psychedelic drugs. “Leary was an iconic figure at the time, but he modeled the wrong outcome by departing from scientific method. He had a lot of interesting things to say about it but didn't pursue a systematic and cautious experimental

approach.”

The excesses weren't limited to Harvard. “Out on the West Coast we had the Acid Tests (of Ken Kesey and his Merry Pranksters) and all that—parties where psychedelic beverages were distributed,” said Charles Grob, a professor of psychiatry and pediatrics at UCLA who has studied Ayahuasca rites in Peru and led research with psilocybin and cancer patients. “The culture was not prepared to handle these compounds.”

The 1970 Controlled Substances Act reclassified common hallucinogens as schedule 1 drugs, meaning they were considered easy to abuse and had no legitimate medical use. New limitations were placed on human research, and federal funding disappeared.

But the times they are a-changin'. There's a new openness to the medicinal use of marijuana. In the November 2012 elections, the states of Washington and Colorado legalized the recreational use of pot. Baby boomers who came of age in the psychedelic sixties and seventies are now running government agencies and university

administrations.

Leading the campaign in the new wave of government-sanctioned research is the Multidisciplinary Association for Psychedelic Studies (MAPS), an independent nonprofit which has raised millions of dollars to fund an ongoing study into the use of MDMA, also known as “ecstasy,” to treat returning war veterans and rape survivors suffering from PTSD.

In the first phase of that study, MAPS researcher Michael Mithoefer, a psychiatrist from South Carolina, treated twenty-one patients. Some of the participants were given MDMA with psychotherapy, while some got a placebo along with their therapy. Researchers hoped to show that MDMA's ability to enhance trust, empathy, and openness would make it easier for patients to recount a traumatic event. It did. Over 80 percent of those who received MDMA had no PTSD symptoms two months later, compared to only around 25 percent of those who got the placebo. Patients with MDMA-assisted therapy did better than those treated with

traditional prescription drugs, such as Zoloft or Paxil.

In September 2012, Mithoefer and his colleagues released more results in a paper published in the *Journal of Psychopharmacology*. It showed that the benefits of MDMA-assisted psychotherapy were sustained over an average of three and a half years since the last time the drug had been ingested, an exceptionally lengthy period for a follow-up study. Furthermore, there were no reports of lasting harmful effects from exposure to the drug.

Rick Doblin, the executive director of MAPS, envisions his organization as a sustainable nonprofit that will train therapists, run its own clinics, and distribute ecstasy to doctors and psychologists.

MAPS controls 960 grams of ecstasy that was legally manufactured in 1985 by Nichols, the Purdue University chemist. That's enough for between four and five thousand doses, and it has not lost its potency. “It's still the world's purest MDMA,” Doblin said.

The use of psychedelic drugs for therapeutic purposes is not

without controversy.

In the 1950s, writer Aldous Huxley warned that psychedelics can take users to “heaven or hell”—for some, a path to enlightenment; for others, the spark for psychosis.

Huston Smith, the scholar of world religions who was another early explorer, noted the drugs can mimic “authentic religious experience” but questioned whether altered states of consciousness actually change the way people live their lives.

Smith also issued early warnings that today's “Ayahuasca tourists” might consider. While “sacred medicine” may be helpful for a child or young adult raised in Native American religious culture, it may prove disastrous for an outsider unprepared for a mind-blowing trip. “History shows that minority faiths are viable, but only when they are cradled in communities that are solid and structured enough to constitute what are in effect churches,” Huston writes in an essay titled “Psychedelic Theophanies and the Religious Life.” More recently, the dangers of using psychedelics

without medical supervision were illustrated when a man died after ingesting Ayahuasca at the same Peruvian retreat center where Ric Godfrey had his life-changing experience with the drug.

Doblin and other advocates of psychedelic-assisted therapy acknowledge that these powerful substances—while not as addictive as drugs like alcohol, heroin, or cocaine—can be abused by recreational users. They propose a system whereby the substances can be prescribed by doctors and administered by trained therapists.

Nevertheless, researchers and advocates argue that psychedelic drugs, used with close supervision, hold great promise for a deeper understanding of the connection between the brain and human consciousness.

“Where does our capacity for consciousness come from?” asked David Presti, who teaches graduate and undergraduate courses in neuroscience at the University of California at Berkeley. “It's still a huge mystery. It's the biggest mystery of all in science, and

psychedelics are the most powerful probe to study that connection."

In an interview in his office in the Life Sciences Building on the Berkeley campus, Presti held up a large piece of dried Ayahuasca vine. He said brain scientists are confirming what shamanic cultures around the world have known for millennia. "These substances have a profound capacity, when used under appropriate conditions, to be catalysts for real transformation in people, for real healing."

A Johns Hopkins study of psilocybin and mystical experience is a good example. Follow-up surveys of thirty-six "hallucinogen-naive adults" who took psilocybin under Griffiths's supervision found that two-thirds of them rated the sessions as being "among the five most spiritually significant experiences of their lives."

Griffiths's work on the behavioral and subjective effects of moodaltering drugs has been largely supported by grants from the National Institutes of Health. Along with Grob, he has studied the

effects of psilocybin to treat anxiety in cancer patients—their research found that low doses of psilocybin improved patients' mood and reduced their need for narcotic pain relievers—and has begun a new pilot study to see if the active ingredient in “magic mushrooms” can help people overcome their addiction to tobacco.

Griffiths's personal interest in meditation inspired his study of psilocybin-occasioned mystical experience in healthy volunteers. One research subject, Brian, who asked that his last name not be used, recalled, “I was unified with everything. I still had enough awareness to get up and walk to the bathroom, but everything was so incredibly beautiful that I laughed and cried at the same time. I was one with it. It was just incredible—one of the top five experiences I have ever had in my life.”

The experience was so spiritually profound that Brian recommitted himself to his study of meditation and Buddhism, and in late 2012 was scheduled to be ordained as a monk in the Soto Zen tradition.

For Presti, outcomes like Brian's are not surprising. “One of the ways psychedelics work is by reducing our psychological defenses. They allow the person to become aware of uncomfortable feelings and thoughts so they can come to the surface and be therapeutically processed,” he said. “Nobody knows exactly how these things work, but there may be some kind of hard rewiring that goes on in the brain. They may increase neuroplasticity—make the neurons more susceptible to forming new connections.”

He believes the substances should also be studied as a possible treatment for depression. “But there is a lot of resistance to this from the pharmaceutical industry. The last thing it wants to see is a substance people only use once or twice. They want us to use something every day for the rest of our life. That's how they make money.”

Other researchers are troubled that the new wave of psychedelic research is blurring the lines between spiritual experience and the hard science of medicine. “We are not purveyors of spirituality.

Having an epiphany is not a part of medicine," said John Mendelson, a senior scientist at the California Pacific Medical Research Center in San Francisco. "Most of medicine is not predicated on making you better than you are. It's getting you back to where you were. There are lots of people and things out there [that] can make us feel better, but our job is to diagnose and treat and fix diseases." But that view is no longer going unchallenged.

At the same time, a new generation of dedicated psychedelic drug researchers has emerged on university campuses across the nation. Many of them gathered last September at a "Psychedemia" conference at the University of Pennsylvania in Philadelphia. They see their mission as "integrating psychedelics in academia."

"Psychedelic studies are entering the mainstream," said Neşe Devenot, young graduate student at Penn and a lead organizer of the multidisciplinary conference. "You can talk about this now at the dinner table without coming across as some kind of fanatic."

During a lunch break at the weekend conference, one of the wise

elders in the field of psychedelic drug research, psychologist William A. Richards, sat in the cafeteria in the basement of Houston Hall, surveying the buzz of intergenerational excitement. Richards, who is nearing the end of a long career at Johns Hopkins, has been exploring these realms since the early 1960s with such luminaries as Stanislav Grof, Abraham Maslow, Walter Pahnke, and yes, Timothy Leary.

Richards knows there could be another backlash against psychedelic drug research, not just by those who are still fighting the "war on drugs" but also by academics who resist the idea that scholars should seriously study something as slippery as "spirituality."

"But if mysticism is to emerge from silent monastic cells into the bright light of scientific discourse, I see no alternative," Richards said. "We have arrived at that frontier where the growing edge of true science meets the mystery of the unknown. Here, faith takes over—either belief in something or belief in nothing. These

experiences are not in any drug. They are in us."

Like Ric Godfrey, Judith Goedeke needed a way to heal.

Judith helped others through her work as an acupuncturist. She'd always taken care of her own body. Then she was diagnosed with kidney cancer in 2003.

"How has this happened to me?" she asked herself. "I was just obsessing over that question. I did not do the things that assault the kidney in my adult life." Then she thought of another possibility. "In my younger years I went a very long time in fear. My house was not a safe place, and I know from my work with Chinese medicine that fear does assault the kidney."

Judith had her left kidney removed. "By its removal, I am removing decades of trauma," she told herself. "I would see it then as a really deep healing, and I could live with that."

Over the next five years, she had three CAT scans a year. There was no indication of further disease, and she was released from the

care of her oncologist.

A couple years later, Judith heard about a study at Johns Hopkins University School of Medicine in Baltimore, under researcher Roland Griffiths. Patients with life-threatening illnesses were being treated with psilocybin, a synthesized version of the drug found in “magic mushrooms,” to help them deal with the psychological trauma of a cancer diagnosis.

“At first, I couldn't see myself doing this,” she recalled. “I am a cancer survivor. I have tremendous respect for my body and am very careful.”

Judith decided to enter the study after she got to know two staff members with the project who would guide her through the process. “They are very solid and generous, deeply spiritual, good people. I had a tremendous amount of trust in everyone I encountered who was part of the program.”

She was led through two psychedelic sessions, one with a low dose and one with a high dose. She saw what seemed like the

ornate work of a great medieval cathedral, patterns that would rapidly change color and texture. There were other hallucinations of strange, garish creatures—like something out of a carnival. They annoyed her, and scared her a bit.

"I said silently, 'Okay. Here's the deal. If I give myself over to you, will I get myself back in at least the same shape?' And what I heard was a voice that said, 'Do you think I would disrespect my own handiwork?'"

Three years later, Judith Goedeke felt that the session helped her to finally heal her decades-old trauma. "It was out of my brokenness that the disease got hold of me," she said. "So it helped me heal my life in a way that years of therapy and years of acupuncture and decades of journaling had not done. I felt like I could forgive all the folks who had unintentionally harmed me, and forgive myself of unintentionally harming myself. That has had tremendous ramifications in my family and stays with me on a daily basis. I've learned that we are not here to judge one another.

Forgiveness is not earned. It is simply the way forward.”

PREPARATION FOR THE JOURNEY

BY RICK STRASSMAN, MD

Important disclaimer: *None of the authors of* [***the book that this essay was first published in, INNER PATHS TO OUTER SPACE],*** *condones any illegal activities, even when it comes to the potentially beneficial effects of altering consciousness with a psychedelic drug. In nearly the entire world, it is illegal to possess major psychedelics such as mescaline, DMT, LSD, and psilocybin. In some instances, the plants that contain these chemicals, such as mescaline-containing peyote cactus and psilocybin-containing magic mushrooms, are also banned.*

While a discussion of the current laws regarding these plants and chemicals is beyond the scope of the book, we believe in the maxim "The law of the land is the law." Therefore, the authors take no responsibility—legal, medical, psychological, spiritual, or

otherwise—for any difficulty in which anyone may find him- or herself as a result of manufacturing, possessing, distributing, or using a psychedelic substance.

Nevertheless, the human drive to profoundly alter consciousness in the way that psychedelics do so reliably cannot be extinguished. Whereas there clearly are other legal ways in which we may alter our consciousness—meditation, prayer, fasting, extreme sports, and so on—few of us are able to attain a truly psychedelic state without using drugs or plants. Thus, some may consider the legal and other risks associated with taking psychedelic substances as less compelling than their perceived benefits.

Whenever possible, we advise using such materials in licit circumstances. There are countries and contexts in which the use of certain psychedelic substances is legal. Examples include Ayahuasca-using churches in the West, centers in Latin America that use Ayahuasca and other psychoactive plants, and peyote-using churches in North America, where jurisdictions allow its use

for both Natives and non-Natives.

Those preparing for a psychedelic drug experience, even the most seasoned veterans, nearly always feel intense anticipation. The late Secret Chief, a San Francisco Bay–area psychologist who supervised thousands, if not tens of thousands, of psychedelic drug sessions, referred to this feeling of anticipation of a session as "[t]he trip has already begun."

The Secret Chief was uncannily, unerringly, and extraordinarily accurate—and it may require some deep thinking to fully understand what he meant. Obviously, the mere act of thinking about, discussing, and deciding to undergo a psychedelic drug session is not the same as actually taking a drug. Nevertheless, by making such a decision, we initiate a cascade of events within the matrix of set and setting, which form a continuum not only limited to the discrete time period during which we are under the influence of a psychedelic, but also spreading in all directions, like the proverbial pebble thrown into the pond. By embarking on the

preliminary stages of taking such a trip, we set in motion certain feelings, thoughts, and actions that lead to a potentially life-changing event. Our lives have already come under the influence of the trip.

Set and setting, the two primary factors involved in determining the outcome of the inner journey to outer space, are themselves modifiable via the two primary tasks of that journey: getting ready and letting go.

GETTING READY

In order to derive the most benefit from making any journey, inner or outer, we must do what we can to minimize the risks of a negative outcome and optimize the chances for a positive one. Once we have established the most solid foundation possible, we can be more assured of the beneficial outcome that may result from truly letting go.

We possess the power to determine the nature and course of our

trip much as we possess the power to determine the nature and course of our lives. On the one hand, our lives are undeniably constrained by the circumstances of our birth: our genetic makeup; who our parents are; and the chemical, social, and psychological environment into which we were born. In addition, we are subject to the "accidents" continuously coming our way: those chance encounters that play such an important role in who we are and what we do. On the other hand, we also have the choice of how to regard and react to these circumstances. This may be what is meant by the maxim "Everything is in the hand of heaven except the awe of heaven."

At the same time, we must not forget that the ultimate purpose and context of our lives is vast and ultimately unknowable. In this case, we can refer to the complementary maxim "The work is never done, but we must never cease from doing it." We must do everything we can to develop our intention and attitude toward what awaits us in the psychedelic state. Then, when we meet what

awaits us, we can allow it to show us what it will and take us where it will.

There are several practical considerations in getting ready for a session. We can parse these into a general temporal scheme: long-term work, intermediate work, and short-term work.

LONG-TERM WORK

If we know ourselves—our state and traits—as best as possible, we will be able to contend with any likely resistance to the letting go that is requisite for the optimal journey. This self-knowledge cannot be acquired quickly but rather requires years and decades. Nevertheless, at some point, anyone who will make this journey must begin walking the path to inner knowledge.

The two most common ways of increasing self-knowledge and learning how we relate to ourselves and others—those enduring and deep-seated elements of our set—are *psychotherapy* and *spiritual practice.* Although some consider the two at cross-

purposes, they may be combined in very useful ways, because they exhibit common elements in theory, technique, and goals. Both use focused self-awareness to observe, understand, accept, and modify our feelings, thoughts, and behaviors in order that we may live more fulfilling, satisfying lives. Whereas meditation may emphasize awareness of mental, cognitive, and perceptual processes, Western psychotherapy usually relates to working with emotional concerns.

Spiritual or religious practice may be shorn of much of its theological content and rituals by emphasizing primarily its benefits in the development of self-awareness and the cultivation of desired mental states. For example, sustained concentration on our bodies and minds in a regular meditation practice can help make apparent several core issues: How do we experience anxiety —in our bodies or mentally? If we perceive anxiety in both the body and mind, which perception comes first? What of vulnerability, happiness, and fear? What are our fears? Is it our

nature to share with others or keep to ourselves?

Prayer, perhaps in a way we usually don't consider, also may provide access to helpful discoveries. Praying to an outside source of help or wisdom may result in many of the same answers regarding who we are and how we function in the world—answers similar to those that might arise in a meditation practice. Where we acquire such information may not matter fundamentally within the context of simply obtaining increased self-knowledge and efficacy. In addition, regular meditation or prayer practice does much to develop our muscles of attention, and we can then apply our strengthened ability to focus toward examining ourselves in ways we may not have been capable of engaging previously.

A reliable, dependable, empathetic, and admirable teacher can be of great help in this process. He or she can provide instruction and encouragement and serve as a role model who encourages us to persist in our practice. In addition to these more formal teaching functions, an effective meditation or prayer teacher allows for the

development of a close relationship between him- or herself and students. An open-eyed examination of the nature of this relationship—its ups and downs, misinterpretations, and projections—can be invaluable to our process of discovering who we really are.

Effective psychotherapy shares features with an effective meditation of prayer practice. These include paying attention to areas of difficulty in our lives. By looking carefully at what situations stir up particular emotions, thoughts, and behaviors, we may discover previously unacknowledged emotional and cognitive habits that served us at one time but no longer do so. Within the traditional psychotherapeutic setting, we find the relationship that develops between student and therapist more commonly subject to careful examination. This *analysis of the transference* is especially the case within the psychoanalytic framework.

If our meditation or prayer practice is focused on more than self-examination and self-improvement, it will begin forcing us to ask

larger questions that almost certainly will arise in any deep psychedelic work. These questions concern the existence, nature, and providence of God; the reason for our birth; the nature of this reality; enlightenment; and how to contend with nonphysical realities and encounters with alien or spiritual or noncorporeal beings. The deeper mystical teachings of the religions from which these meditation or prayer practices emerge are well equipped to provide answers to these questions. We may thus find ourselves pursuing a deeper involvement in a particular religion.

Conversely, the typical psychotherapeutic endeavor is not as concerned with spiritual issues—though any good psychotherapist knows the limits of his or her skill and will make a timely and appropriate referral to a spiritual teacher when necessary. In the same manner, a competent spiritual teacher will recognize the need for a psychotherapy referral when mood, thought, or personality issues appear to be interfering with progress in a meditation or prayer practice.

INTERMEDIATE WORK

Once we have decided to take a psychedelic journey, we can start preparing in specific ways. To the extent possible, we can educate ourselves regarding what to expect on our trip. Having some sense of the expected terrain, as described by those who have gone before, can be quite helpful. In this way, if others have alerted us to what to expect, we may not be surprised when we encounter phenomena far beyond the range of what is familiar to us.

The literature regarding near-death and out-of-body experiences, meditation, abduction, shamanism, and of course, the taking of psychedelic drugs contains a wealth of information about others' experiences. It can provide us with helpful background information as well as practical means of dealing with those states. Also recommended is speaking with others who have gone before, listening to talks, and getting involved in online groups of the various communities that discuss highly altered states of consciousness—and not only those concerned with the effects of

psychedelic drugs.

Some might object on the grounds that these educational activities may bias us toward particular expectations that can lead to certain specific types of experiences at the expense of others—yet these arguments are not especially persuasive. The truly psychedelic experience is totally unexpected. Nevertheless, knowing how unexpected it can be may help us to keep our bearings when confronted with it. We will be ready for the unexpected.

Discuss the impending trip with your therapist or spiritual teacher if you have one. However, it should not come as a surprise if the stigma attached to drug use causes spiritual teachers to discourage the taking of them. This may be the case even if he or she has personally beneficial experiences with psychedelics. Faced with disapproval from someone in whom we have placed great faith and who has previously been very helpful to us, we may need to shelve the topic of psychedelic use and continue our work with

him or her without any continued interference caused by such a discussion. Or perhaps we may decide to seek instruction elsewhere, in a context in which we can discuss how psychedelic drug experiences may work together with therapy or meditation or prayer.

Those who are taking medication should make certain that there are no possible adverse interactions with these medications and the psychedelic drugs considered. For those who are taking medications for conditions that can also be managed by lifestyle changes such as exercise; weight loss; diet adjustments; and the cessation of the use of alcohol, tobacco, caffeine, and other drugs, try to follow through with these changes first to see if some of the medications may no longer be necessary. The point is to simplify body chemistry as much as possible. Though the reasons behind the desire to stop medications may remain private, the actual process of trying to discontinue them must be taken up with your health care provider.

Intent

Once we have decided we want to experience a psychedelic drug session, we must home in on our intent. As the Secret Chief asked, "To what purpose?" Why are we doing this, and what do we hope to accomplish or gain from such an experience? Is it primarily curiosity that drives us—are we intellectually and emotionally drawn to novelty, to something new, exotic, and exciting? Do we wish to experience pleasure of an extraordinary degree? Do we have an emotional, artistic, creative, professional, spiritual, or interpersonal problem we want to solve? Are we seeking a spiritual experience or answers to our deepest yearnings? Do we wish to know God—to see him or her face-to-face? Do we hope for an encounter with the angels of the powers through which God manifests? Are we interested in outer-space travel, sciencefiction revelations, journeys through time, and encounters with alien civilizations and their inhabitants? Do we wish to obtain information and power for good or for ill? Do we want to make the

world a better place—or do we intend to hurt those who have hurt us? Do we wish to suffer? Do we want to create a situation in which we replay abusive past or present relationships?

There are so many possible motivations to take a trip—and any of these may compete and blend with one another. We must be as honest as possible with ourselves when deciding what our intentions are, realizing that having a particular intention doesn't necessarily guarantee the content of the session. We don't always have the trip we want; instead, we seem to have the trip we need. If we tell ourselves that our motivation is, perhaps, to learn more about our relationships, but more honestly, we want to have a good time, we may be unpleasantly surprised when we're actually confronted by deeper, more painful psychological issues. Conversely, we may approach the experience with deep solemnity and expectations for a divine encounter and then be similarly unprepared for the fun, lighthearted aspects of our session. Thus, it is important to understand the full range and complementary nature

of our motivations. Ideally, this is accomplished through the use of the introspective skills we have obtained during our own inner work, either spiritual or psychotherapeutic.

It is worth noting that developing an intention to undergo a spiritual, otherworldly, near-death transcendent type of experience is, in some ways, the same as making the decision to subvert the dominant Western postindustrial worldview. That is, the total loss of self-control and our usual self-identity and the wish to interact with and be guided by spiritual entities whose mercy we count upon fly in the face of a materialistic, individualistic, and fear-based relationship to existence. It also runs contrary to a solely clergy-mediated relationship to the divine. If and when we do have this type of experience, we must realize that the mainstream, using the tools of ridicule and psychopathologizing, among others, will oppose our discussing and valuing it.

SHORT-TERM WORK

How do we prepare ourselves in the day or two before the psychedelic journey? First, it is paramount that we understand our intentions. Then, by attending to certain concrete matters, we validate our intention to mark this experience as unique. The essence of making something holy or sacred is to separate or distinguish between the sacred and the profane. Though at the absolute level of reality, there are no such differences between what is sacred and what is profane, at the relative level, in which most of us exist most of the time, the two do differ. Thus, it is important to manifest our inner intent through our physical reality. We want to perceive as clearly as possible our psychedelic experience without the muddying effects of influences such as fatigue and an unsafe environment.

It's important to approach the trip in good health and with a positive state of mind and to be well rested and have a clean body and clean clothes. Participants should be careful with what they eat, drink, and smoke several days before the trip. Further, are

there loose ends requiring attention? Are these minor tasks, such as taking out the garbage, making a necessary phone call, and paying an overdue bill, or are some more significant, such as updating a will? Though updating a will may appear morbid, consider the prospect that while undergoing a near-death experience, you may recall that you have no will! Would your emotional reactions to your sense of dying be different if you knew you had taken care of those you were leaving behind?

Before taking any psychedelics, it is recommended that you check in with those who are most important in your life. Are we on good terms with our partner, spouse, family, friends, and business associates? An extra prayer, meditation session, or psychotherapy appointment or two in the days before a trip can make clear some internal or external issues that might require special attention.

SETTING

Clearly perceiving our intent naturally leads us to decide upon the

setting, the circumstances in which we will be taking the trip. Earlier, we discovered different categories of experiences resulting from psychedelic-drug ingestion. We can use these categories as a model for conceptualizing the types of trips available to us:

- A pleasurable trip that fulfills curiosity
- A problem-solving session that addresses psychotherapeutic issues we want to work on or creative, professional, or other concerns
- A spiritual, near-death experience or otherworldly journey

Also to be considered are the particulars of the trip. These include:

- Environment—outdoors or indoors
- The dose of the drug
- Whether we will journey alone or in a group
- Whether we will have a sitter

- Accoutrements for our trip such as music or art supplies
- Supplemental techniques for reaching altered states of consciousness

Finally, we must consider if the session will take place in a research setting. All types of trips can take place in a research environment; it is important, however, to note the constraints and opportunities unique to this type of setting—the most important of which concerns the issue of altruism, the notion of giving up something in our own trip for the benefit of others.

IS THE SETTING OUTDOORS OR INDOORS?

An outdoor setting of natural beauty can lead to profound levels of identification or merging with the natural world, yet being outdoors is also less predictable than being indoors. These unpredictable factors include insects, animals, inclement weather, unwelcome intrusions by other people, dirt of all kinds, and lack of facilities if

participants fall ill or feel particularly helpless.

An outdoor setting in a city or suburb can provide a unique perspective on humanity, but it lends itself more to an externally oriented and at times potentially chaotic experience. Such a setting requires us to be prepared for exposure to a wide array of interpersonal and technical challenges. An indoor setting in an area of natural beauty can combine the best of both worlds: the safety and predictability of an indoor space and the option of going outside to experience nature.

DOSAGE, ROUTE OF ADMINISTRATION, AND COMBINING DRUGS

We can divide doses into low, intermediate, and high. Usually, the higher the dose of drug, the more intense and longer-lasting the effects. Yet there are many cases in which the same person experiences a marked effect from a small dose and seems less affected by a large dose at some other time. Instead of serving as

examples of tolerance, in which repeated dosing decreases subsequent responses, or sensitization, in which low initial doses increase the effects of subsequent low doses, there seems to be some poorly understood interplay among dose, set, and setting that results in dose not being invariably related to intensity and duration of effect.

There is merit in beginning with a low dose of any substance that is new to us, whether that "substance" is a relationship, an exercise routine, or a psychedelic drug. As is true most of the time, however, the true nature of any particular relationship is rarely known without receiving a full dose. Thus at some point, for the truly adventurous explorer of these realms, sooner or later a high dose plays a role in his or her work with the substance and the realms into which it leads.

Another consideration is route of administration. There are various ways to administer a drug. Intravenous injection, smoking, and snorting are the fastest ways to experience effects. Slower

onset occurs with routes such as intramuscular and subcutaneous (under the skin) injection. Slower yet are gastrointestinal methods, such as swallowing or rectal administration. Topical application to the skin or mucous membranes varies in speed, depending upon the integrity of the tissue—that is, effects occur more quickly from applying a drug to a wound or open sore than from applying it to intact, calloused skin. In addition, the "carrier" for the topically applied drug, the solvent into which it is dissolved, can make a big difference in the speed of absorption. For example, DMSO (dimethylsufoxide) is a solvent that allows for very rapid skin absorption of a drug, whereas cocoa butter is absorbed by the skin more slowly.

It's also best to choose one dose of one drug for a particular session and then stick to that decision. Participants may feel the need to take more of a substance if the effects are not as hoped for —what some refer to as taking a "booster" dose. While there are instances of this booster being an integral part of the experience—

for example, in indigenous Ayahuasca sessions—it is advisable to exercise caution in this area. Particularly when alone, impaired judgment may lead to making ill-advised decisions and can lead to taking a dose that is too high. Remember, there is always the next time to take more.

Neither is it advisable to mix substances. Doing so blurs the effect of one or the other and may produce toxic interactions.

SOLO OR GROUP: THE ROLE OF STRUCTURE

In this instance, the term *structure* refers to behavioral parameters that we impose upon ourselves during a session. Such parameters are for our own safety and comfort as well as the optimization of the trip. Further, when we are in a group setting, establishing a structure is intended to respect others' feelings and needs. There are several options regarding how many people we decide to journey with: we may travel solo, with a small group of friends or strangers, or with a larger group of friends or strangers.

SOLO

Safety concerns suggest having a trusted individual or individuals in our space when we take psychedelics, but sometimes none is available. In addition, we may want to journey free from interpersonal interference; we may not want company. Nevertheless, it is relatively imprudent to embark solo on a first trip. Even after we've gained some familiarity with a particular drug, it's wise to let a confidant know of our plans and whereabouts when we take the drug again.

If we do take the journey alone, it is important to think through certain issues beforehand and to decide upon responses to which we can adhere. It's important to gain familiarity with these structural issues from those who are more experienced with taking a drug, and that we spend some time establishing reasonable and appropriate guidelines for our session. Though we might hope to commit these guidelines to memory, once the time comes, it is helpful to have them available in written form in case we are

unable to recall them. In most cases, when we are under the influence, it is ill advised to change the structure we have set up before taking the drug. It is important to remember that we can always change the guidelines for our next session, when we have had some time to think about these issues after we've had the experience of one journey.

There are many structural issues to consider, especially if we are taking the drug alone. Will we be listening to music? If so, will we set up our playlist beforehand or decide what we will listen to when we are in an altered state of consciousness? Do we intend to keep our eyes open or closed? Would we like eyeshades? Will we remain clothed? How much of the session will we spend lying down versus sitting up and walking around? When and what do we eat? How will we make sure we drink enough fluids? Under what circumstances might we take more of a drug or smoke a cigarette or drink alcohol or coffee? After our trip, when can we drive or leave the immediate premises? What about answering the

telephone or making calls? How do we get help if we need it? What do we do if things become unbearable—do we want to have tranquilizer on hand to chemically abort the trip?

GROUP

Whenever more than one person in the room is under the influence, we must take into consideration other people's set and setting issues; however, this may quickly ferment into a frothy brew of personalities and interactions. Therefore, in group settings—particularly in a new group—it is important to have additional elements of the structure decided and agreed upon in advance. One way to minimize stresses associated with a group session is for each person to have his or her solo trip. The use of eyeshades and well-spaced, single-sized mattresses or pads will help effect well-demarcated, individual experiences in a group setting. As drug effects wear off, interactions might then begin outside the main room in order not to distract those who want to continue with a

more inner-directed experience.

Ye the purpose of a group setting, particularly with lower and intermediate doses, may be to engage in some group activity such as playing or listening to music, sharing an aesthetic experience, or problem solving. In cases such as these, we might spend most of our time exploring how the group process is affected by the influence of the psychedelic. Most important, however, is that these expectations and ground rules be discussed and agreed upon before a session begins.

There are other concerns in a group: How do we signal that we are in need (that is, do we raise our hand or speak)? How would we like to be supported? Is support verbal or physical? How are decisions made regarding our welfare or behavior? If some find the music, incense, or room temperature or lighting unpleasant, how will this be managed? In addition, will others in the group be sober or intoxicated? If intoxicated, will everyone in the group be taking the same drug? How will we know?

Whereas certain variables lend themselves to more or less flexible responses, some structural issues are best adhered to rather strictly. For example, intercourse or sexual interactions of any kind between participants during the session should be prohibited, as should physical, verbal, or emotional acting out of aggression. It is unwise to ask for or accept material favors such as money or property during the group session. Certainly, we may ask for and accept favors whose consequences do not extend beyond the session, such as a blanket if we are cold, a book for viewing, and the like. Asking for favors that require follow-through outside of the session, however, should wait until everyone is back to a normal state of consciousness. In addition, everyone must remain in the group until previously agreed-upon criteria have been met—for example, the group leader has determined that drug effects are adequately resolved and, if there is no leader, everyone must get a good night's sleep before leaving. Privacy and confidentiality are crucial in the success of any such group, and therefore, everyone

must agree never to mention with whom they took a group trip without the express permission of the others involved.

One of the advantages of the group setting is the option of having a period of organized sharing after the session, usually the day after the experience. This can be quite helpful in terms of the crucial reentry and reintegration necessary for optimal use of the session.

THE SITTER

Along with the question of who else is in the room tripping with us, an important question concerns whether anyone is "sitting" for those under the influence. The sitter supervises a psychedelic session much like a babysitter supervises children—those who take psychedelics may need the same kind of steering, restraining, and nurturing. In addition, it derives from the similarity between sitting in meditation and supervising a psychedelic session. The sitter must combine the skill of allowing people under his or her care to

go through whatever takes place in a psychedelic trip and the skill of remaining alert and focused on the needs of those who are journeying. This combination of alert passivity and passive activity is a hallmark of many meditation practices.

Whether we are tripping on our own or in a group without a designated sitter, ostensibly there is a greater sense of freedom to have the type of trip we want—yet, particularly with high-dose sessions, it may be easier to let go more completely if we feel someone is taking care of us. In addition, the relative anarchy that may reign in a group setting, especially if people are on high doses, can be difficult to orchestrate. One or more sitters can provide a much needed supervisory function in such a setting.

Some sitters may lead sessions more actively rather than simply responding to the needs of participants. Those trained in a shamanic model may play musical instruments, sing, whistle, dance, shout, manipulate bodies physically and energetically, and pour, run, or spit various liquids, smokes, and powders onto

participants.

SET OF THE SITTER

Though there are many reasons to trip with a sitter, it is important to be extraordinarily careful regarding under whose supervision we place ourselves when we are taking psychedelics. Such consideration both makes the most of sessions and works to avoid problems. It's useful to note that participants will be deeply involved with this person at all stages of a trip—before, during, and after. The sitter is in a position of authority, leadership, and support, and those who will participate in a session are well advised to learn what they can about that person.

Some questions include: Is he or she religiously or spiritually oriented? Is he or she a member of any particular religion or profession? What is his or her training? What about sexual orientation? Is he or she married, or does he or she have children? Does a potential sitter drink alcohol or use drugs, and if so, does he

or she use them excessively or in moderation? Is he or she vegetarian? What are his or her motivations for supervising sessions—money, a desire to heal, sadism, curiosity, altruism, voyeurism, career advancement? How does he or she relate to the power and reputation that a sitter may accrue? What is his or her experience with these compounds in terms of administration to others as well as regarding personal use? Is this someone of whom we can ask questions and with whom we can work out plans for various situations that might arise during our trip? Do we feel we can trust this person to give us guidance and support when we are unable to provide these for ourselves?

We strongly encourage asking prospective sitters any or all questions whose answers will affect participants' feelings of safety and encouragement during a session. Included in these questions is a discussion of issues regarding structure. In addition, because it is so difficult to obtain psychedelic drugs, the person who supervises a session may be the one from whom participants obtain the drug.

This is usually the case in small-group and shamanic sessions, and is always true in the research environment.

IS THE SITTER EXPERIENCED?

Within the shamanic tradition, it is axiomatic that the leader is intimately and thoroughly familiar with all manner of drugs and plants that he or she will administer to others. This is also usually the case in the West with those who sit for underground users of psychedelics. Empathy—knowing what another is feeling—is quite important in any healing or spiritual work and is found most often when the healer has previously undergone a similar experience. Even if the setting is not intended to address healing or spiritual issues directly, these may nevertheless arise at any time, and the sitter should be capable of responding appropriately.

Within the academic setting in the United States, a sitter's personal use of the psychedelic in question is discouraged. This is one of the unfortunate results of the Harvard research group's

widely publicized personal use of psychedelics in the 1960s. Yet Western European researchers are required to “go first” in any of their own psychedelic studies. There are several reasons for this: in order to make sure drugs and doses are safe, these scientists believe it is more ethical to first self-administer an experimental treatment, especially if there is no significant therapeutic benefit expected. By going first, they bear the brunt of any adverse effects. In addition, European regulatory authorities believe that the informed consent process is better served if the researchers are personally familiar with the effects of the drug. As a result of their own experience, they then are more able to inform a prospective volunteer fully regarding what to expect, and they can be more empathetic during the actual drug studies.

IS THE SITTER TRIPPING AT THE SAME TIME?

It's important to know if, at the time of a session, a sitter is under the influence of a psychedelic. It's also important to determine how

participants will know whether or not the sitter takes a drug. Often, in shamanic or indigenous settings, the leader also partakes of a psychedelic substance, though perhaps at a lower dose than the participants in order to retain the ability to move around and interact. This empathetic resonance among those who are experiencing a particular drug effect helps the sitter provide an especially deep level of support and guidance. In Western models, however, this is an evolving area; some leaders ingest psychedelics, others do not.

In an academic setting, it is unlikely that the researcher will also use the same psychedelic substance during the study period. The extraordinarily rare possibility exists that a sitter under the influence of the same drug would also be the object of study. For example, a research project might ask whether a therapist is more or less helpful while affected by the same psychedelic used by participants. Whatever the case, answers to the question of the leader's use of the drug should be addressed ahead of time. There

have been a number of situations in which group leaders have acted inappropriately while intoxicated, crossing important boundaries and later using as an excuse the effects of the drug.

ACCOUTREMENTS

Music can evoke profound effects in a highly psychedelicized individual. It usually is easier to arrange music beforehand, either by the solo tripper or, in the case of a group session, in consultation with the sitter if there is one. In a group setting, it is advisable to consider a “veto” rule regarding music: If anyone finds the music intolerable, it must be discontinued. Music with understandable lyrics can sometimes be distracting or can constrain the experiences. Instrumental music or world music with lyrics that are unintelligible may allow for more fluidity in reaction to it. Playing musical instruments in a solo setting may help a participant express nonverbal, nonvisual elements of a trip. In a group setting, however, participants must take into account the reactions of other

group members.

Art supplies, particularly during the “coming down,” resolution period of a trip, can aid in giving form, shape, and color to otherwise nonverbal aspects of the experience. Writing materials also may be helpful, and in solo settings, a voice-recording device can capture fleeting ideas. Some people find looking into a mirror while tripping to be particularly evocative, especially in a session with a primarily spiritual or psychotherapeutic focus. Similarly, reviewing family photos from the past and present can stimulate the release of many emotions and insights.

SUPPLEMENTAL TECHNIQUES

There are many nondrug-based methods available for altering consciousness. These may be helpful in refocusing attention for those who might feel adrift in the psychedelic space or who might be physically uncomfortable. Examples of these techniques include yoga, massage, and a quiet form of meditation. Other techniques

may help participants break through a particular psychic impasse in a trip. These include controlled hyperventilation, singing, dancing, and exercise. It's a good idea to be familiar and comfortable with these ancillary techniques before trying them in a psychedelicized condition. It's also important that participants not expose themselves to stressful or traumatic interventions unless that is one of the purposes of the trip. For example, participants may wish to work through their resistance to a particular yoga posture that they normally find too difficult to attain.

TYPES OF TRIPS

Keep in mind that despite the type of trip we wish to have, and despite deciding upon the dose, where we are, who we are with, and the activities available to us, we may not have the kind of experience we wanted. For example, we may expect a relatively minor, pleasurable experience, but we may instead reach a near-death state. We must be ready for anything to occur during a trip,

no matter how much effort we expend in preparation. Also, it is rare that any one trip consists of only one particular type. Psychedelic experiences are notoriously varied. We enter and exit many levels during any one session. Nevertheless, there are general types of sessions and advisable related parameters.

AESTHETIC, PLEASURE-ORIENTED TRIPS

These journeys may occur outside, in an environment of natural beauty, or they may occur in a setting of manmade beauty that features music, art, or archaeological relics. Ideally, participants will have access to both environments. If we are alone, we may take a walk in the woods, visit a museum, play or listen to music, or get a massage. For this type of trip occurring solely in an urban setting, it is best to take a low dose of psychedelic.

These types of trips lend themselves to group experiences. Examples of large group settings include contemporary “raves”—large-venue dance events—and events such as Burning Man, in the

Nevada desert, where tens of thousands of people congregate. Also fitting this type of intention are smaller groups, such as several friends who “hang out” together and enjoy each other's company in a psychedelic state.

Usually, there are sessions without a sitter or leader. The spontaneity and freedom that we seek in such a setting, with doses generally being relatively low, do not require much supervision. It's a good idea, however, to make certain that noninebriated people are available who know of participants' condition and whereabouts.

PROBLEM-SOLVING SESSIONS

We may decide to use a psychedelic drug to help work on personal, professional, or creative concerns. Lower and intermediate doses provide more ease in maintaining focus on these issues and recalling our solutions when we return from our journey.

Enhancing creativity with psychedelics may occur outdoors or indoors, depending upon the particular task. An unobtrusive sitter

can help record our new approaches to problems and can provide encouragement and focus. We may want help within the context of a psychotherapeutic process, using the effects of psychedelics to modify the processes by which psychological healing occurs—that is, projection, transference, abreaction, and catharsis. In psychotherapeutic sessions, it's usually helpful to have someone acting as a sitter. This may be our own therapist or someone whom we only work with in psychedelic sessions. In a psychotherapeutic group setting, some people may be in therapy with the sitter, while others may not.

Lower doses in the psychotherapeutic setting allow for a better focus than higher ones and provide the basis of *psycholytic psychotherapy*. High-dose sessions, referred to as *psychedelic psychotherapy*, add the qualitatively unique spiritual, mystical, or near-death states to the quantitative augmentation of normal psychotherapeutic processes. Religious and spiritual issues often become conscious and important in psychedelic psychotherapy.

If we are working on interpersonal issues, we and those with whom we want to work through these problems might be journeying together. We may choose to begin the session solo and later come together with other group members. Because of the sometimes intense dynamics that may arise even with low or medium doses, it is helpful to have a sitter in this type of session.

One model of psychedelic psychotherapy combines high doses of drug with overpowering, multimodal sensory stimulation in an indoor group setting. This particular technique is intended to cause a breakdown of psychological defenses not deemed possible by any one modality alone. Yet such experiences are difficult to negotiate and later to integrate.

It is usually easier to work on psychological issues in an indoor setting, although access to the natural world can provide a necessary balance for the intense inner work that engages participants.

SPIRITUAL, NEAR-DEATH, AND OTHERWORLDLY EXPERIENCES

These breakthrough experiences usually lend themselves to large-dose, introspective, solo settings. They also require the most in terms of our ability to let go and open ourselves to highly unusual effects. If we choose involvement in a group setting, the emphasis usually remains on an individual's experience, at least in the initial and middle stages of the trip.

It is easier for us to maintain an inward focus in an indoor setting. Nevertheless, nature can provide powerful catalysts for such experiences. If we decide to take this type of trip outdoors, we must do our best to ensure that participants are safe and free from unexpected disturbances.

If there is a sitter, he or she is unlikely to be a minister of any organized religion. Rather, those trained in the shamanic tradition are usually capable of containing and guiding these types of

sessions. In the postindustrial West, sitters are often psychologically or spiritually trained individuals with their own psychedelic experience. Supplemental techniques such as controlled hyperventilation can be useful in providing the final impetus for the desired breakthrough.

As alluded to earlier, these types of experiences usually require us to be placed into uncomfortable inner spaces. The giving up of cherished selfconcepts and identifications necessary to emerge anew into our reality is nearly always quite distressing at some pint —and once we have had this type of experience, there is little social support for discussing its merits within the larger social mainstream. Social and spiritual support to help integrate such deep experiences is necessary and must be part of the preparation for any planned breakthrough session.

VOLUNTEERING TO BE IN A RESEARCH STUDY

Any of these types of trips can be experienced within the research setting. Volunteering to be a research subject, however, even for a study that may provide benefit—such as psychotherapy, mysticism, or creativity research—involves the element of altruism, of giving up something in our own trip for the greater good. This altruism generates a unique dynamic between us and our setting, particularly to those in the room with us. When we volunteer for a research study, the trip is not all ours. We are being asked—and are expected—to provide data and information rather than just have an experience for our own sake. While this is neither intrinsically good nor bad, the informed-consent process must be open and transparent, and this altruism must be acknowledged at the outset. From the beginning, there exist competing interests between our trip and the data we are generating—and we will not be allowed to forget this give-and-take that's superimposed upon our trip. It's important that research subjects not be surprised by, rebel against, or resent the exigencies of providing data. For

example, as we may be traversing the deepest reaches of inner space, our vein may clot, and the nurse will flush the intravenous line with jarringly cold water or he or she might need to remove the line and replace it with another.

Those who are neophytes to psychedelic states must consider these issues carefully. “Sharing” a trip in this way can be likened to having our first sexual experience observed, with data and specimens collected. We might be more generous with our time, body, mind, and soul after we've gained some experience and familiarity with such new and intense experiences. Nevertheless, it is possible to participate in a research setting during our first psychedelic experience and have it turn out better than one we undergo alone or with friends. Perhaps the setting takes into account our inexperience and is designed to determine those factors that contribute to the best outcome. Such research projects are rare, though, and regardless of their intent, they must still collect data.

Research settings are characterized by a relatively constrained physical environment. They are almost always indoors, range of movement is restricted, and there are few surprises. Generally speaking, accoutrements or supplemental consciousness-altering methods are few or unavailable. These constraints are intended to keep constant as many variables as possible while modifying only those of interest. For example, the researcher may vary the dose of drug in the exact same setting to determine the effects of dose on the measured variables such as heart rate and blood pressure. It is interesting to note that though the usual hospital research unit is not especially peaceful, there we may have a sense of medical security—for instance, knowing that a cardiac resuscitation team is nearby—that is otherwise absent. In these studies, we are usually the only one in the environment taking a psychedelic drug.

Once we have decided to participate in research, there are two general types from which to choose: biological and psychological. The emphasis in the former is on data regarding our bodies, and the

emphasis in the latter is on data regarding our minds. Biological studies may include subjective effects in their purview. They are called *psychopharmacological*—that is, seeking the pharmacological underpinnings of subjective experiences. *Psychobiological* studies, or *psychophysiological* studies, attempt to explicate the physiology of the mind. For example, these may assess the effects of psychedelics on involuntary aspects of perception, such as how we respond to images presented to one or both eyes using various sequences and time intervals.

The tools used in biological research may include brain-imaging equipment, some of which may be noisy and tight fitting and may involve being injected with a radioactive drug. Participants may have blood drawn to quantify levels of any number of factors: hormones, immune function, and metabolism of the drug in question or other drugs. Body temperature may be monitored, as may cardiovascular responses such as blood pressure and heart rate using an automatic blood pressure cuff.

Psychological studies can be divided into roughly two different categories: *problem solving* and *phenomenological*. We have previously discussed some of the parameters involved in problem solving with psychedelics as well as the difference in psychotherapeutic work between lower-dose psycholytic and higher-dose psychedelic therapy. In the research setting, the goals are similar, but the structure is more rigorously adhered to.

Phenomenologically based psychological studies focus on the mental rather than biological effects of psychedelics—that is, perception of time, color, distance, and depth. Rather than assessing perceptual, information-processing mental functions, psychoanalytic studies may investigate more complex phenomena such as projection, transference, mood reactivity, and free association.

Finally, studies may investigate the efficacy of psychedelics in eliciting mystical, near-death, and otherworldly experiences. These are somewhat more difficult to categorize within a research setting

because they deal with concepts that, for many, fall outside of the purview of traditional scientific inquiry. Nevertheless, they partake of the general research model, limiting variables as much as possible and providing data to the research team.

LETTING GO

Once we have completed as much preparatory work as possible before a session and clarified our intent—thus choosing our setting—we are ready to turn our attention to the actual trip.

On the day of the session, we should be well rested and clear-eyed, feeling ready for whatever may come our way. Though it's a good idea to have water or ice chips available during the session to address thirst and dehydration, a person should not plan on eating any food or drinking alcohol.

The fundamental task required for an optimal psychedelic experience is somewhat paradoxical: it consists of actively establishing the direction in which we decide to let go. We

consciously choose the cliff from which we will jump and with what attitude we make that leap. This is especially the case in high-dose sessions during which we hope to encounter the most radical and unusual experiences.

Resistance to high-dose, powerful trips can be extraordinarily painful and confusing. An open-eyed, level-headed surrendering of resistance is the most effective way to prevent being thrown into this maelstrom and is the best method for pulling ourselves out of it if we do find ourselves overboard. Prayers, mantras, mudras, visualization, music, bodywork, and other aids may be helpful at various points in our trip to redirect the flow of experience. At the deepest, most exposed, raw, and vulnerable moments of the psychedelic encounter, however, it is only through letting go that we find ourselves making the most progress. From the five minutes of the DMT flash to the twelve hours of an ibogaine ordeal, this surrender is the crux of a successful journey.

The foundation laid by any previous inner work will hold us in

good stead at such times by virtue of the attention skills we have developed. These skills make it easier to remain focused when confronted with the unexpected. In addition, effective psychotherapy or spiritual practice will have made us familiar with the skeletons in our closets and will have better equipped us to contend with them if and when they emerge. Thus, not only do we clearly perceive what is garnering our attention, but also we subsequently open up and drop our resistances to it. We will know when we are resisting and when we are moving forward at any given moment of the psychedelic experience.

Yet it is not only in negative aspects of a trip that we may become blocked. We also might be unable to move out of pleasant or neutral states. For example, we might find ourselves deeply blissful but also sense that we can go even deeper into what lies beneath and supports that bliss. Seemingly innocuous images or feelings, such as the curtain of psychedelic lights that is often a hallmark of the drug experience, may stand in our way. We want to

see even more, but we cannot take the next step.

All these states can be managed to facilitate our moving forward; we can slow down, right ourselves, and then go on. We regain our balance through the proper application of attention and awareness. This is the slowing down, which we can facilitate physically through relaxed, deep breathing and helps release any tension in our bodies. Once we've slowed ourselves down and replanted our psychic feet, it is easier to move our consciousness through the resistance or block. Sometimes, however, we may not feel we have a body to relax or lungs through which to breathe. At these times, it may be useful simply to bring our minds back to what is happening and to approach it in a positive, bright, and curious manner. For example, in my DMT work, I prepared volunteers by warning them that they might find themselves convinced that they had died. They could react in one of two ways: “Oh, my God, I'm dying—get me out of here!” or “I seem to have died. Very interesting. What's next?”

This approach creates the smallest space between being aware of an object (such as an emotion, thought, or perception) and having a relationship with it—in other words, just before we establish a relationship with it. The leverage exists in that microsecond gap; we become aware of the stuck or static nature of the relationship. Then, taking a psychic deep breath, we can pull back from it ever so slightly, enough to work ourselves through or out of the block. For example, with respect to the curtain of psychedelic lights, we can look for space or cracks within it and then pass through it.

ENCOUNTERING BEINGS

One of the most profound aspects of a psychedelic session is contact with alien or noncorporeal, spiritual, or invisible beings or entities. Upon experiencing such an encounter, the first task we must pursue is to regain our composure from the shock of meeting what appear to be sentient creatures in our newly discovered worlds—creatures that, in many instances, seem to have been

waiting for us. Next, we are faced with how to relate to them.

Some beings appear to be kind, gentle, and concerned for our welfare. Others seem to be aggressive, angry, and hurtful. Some present in an ambiguous or mischievous manner. They may communicate more or less effectively, or they may ignore us altogether. While their sheer novelty and unexpectedness make us feel a sense of awe, it may be best, whenever possible, to appraise them with the same objectivity with which we would judge any chance encounter with strangers. At the time of such encounters, we don't know these beings' language or culture, nor do we know their intent. As with all elements of the psychedelic experience, it's important not to become obsessed with them or our reaction to them. Once we establish a modicum of stability in our interactions with them and have decided they are “safe,” we can engage them in any number of ways—we can seek their help, advice, love, and healing. Keep in mind, however, the flux of the psychedelic experience, and do not be surprised if these beings morph readily

into the opposite of everything that we had considered them the moment before.

Entities with fangs, poisonous-looking appendages, and other clearly menacing features usually are not benign, and it is best to be very wary of them. We can listen to what they have to say, but we ought not to be in any hurry to follow their advice. On the other hand, strange or frightening entities that seem to understand our fears may be more beneficent, particularly if they modify their behavior or appearance in response to our anxiety. Even if their appearance and behavior repel us, more benign entities usually do not force us to do or accept things or become angry with us if we do not agree to their requests. In addition, we should never make any contract with the beings for doing evil or harm to another person or thing.

THE BAD TRIP

Though we can try to ensure that we have a smooth session, it is

the norm to have difficult, painful periods in at least part of any major psychedelic experience. These can range from transient anxiety to prolonged psychosis. More than 99 percent of the time in someone medically and psychologically healthy, properly screened, prepared, and supervised, such distressing moments are short-lived and leave little if any aftermath. Nevertheless, being prepared for difficult stretches in a session can help us manage them more easily.

Anxiety and fear are relatively common as we begin to enter into the psychedelic state—when we are "coming on" to the drug effect. Simply relaxing physically and mentally—for example, slowing and calming our breathing—is often sufficient to dispel these jitters. If we are with a sitter or in a supportive group, we may ask to have someone lay a hand upon us in a nonerotic manner or to hold our hand. Sometimes placing a blanket over the body or removing uncomfortably heavy clothes or coverings can also help by allowing us to reconnect with our bodies. Once we are in the

midst of the experience, we can deal with unpleasant periods in a variety of ways. The simple breathing or physical contact suggestions outlined here can be helpful in refocusing us on the flowing, dynamic nature of the experience and can get us out of a rut. More intense or prolonged confusion, anxiety, fear, anger, or grief may require more active intervention, either on our behalf or on the behalf of those with us—that is, the sitter or group members.

Quieting the environment—turning off the music, turning down the lights, lying down—can be helpful. Such maneuvers allow us to pay attention to what is important: our inner state. Soothing interventions may be necessary, however. A warm or cool compress on the forehead; mild, nonintrusive, and nonsexual massage; and quiet, melodious humming or singing can help replace the more tumultuous inner workings of our minds with quieter thoughts and visions.

For more intense disturbances, there is a range of options: Someone may perhaps have to hug us or even lie on top of us to

help us to ground ourselves. A cold shower, ice cubes down the back of our shirt, and other firmly yet gently administered strategies can help break any vicious cycles in which we find ourselves. Controlled hyperventilation can also help push us through any particularly tenacious disturbing states.

Finally, there is the option of using medication to interrupt an especially out-of-control situation—but such instances are extraordinarily rare. For many of us, however, it can be quite reassuring to know that a medication is available to pull us out of almost any negative spiral if we are unable to do so ourselves. Usually, a benzodiazepine such as alprazolam or lorazepam is sufficient, but the sedating side effects of these interventions—which can last for hours—must be taken into account. Antipsychotic medications are a last resort and come with their own host of unpleasant side effects.

COMING DOWN AND REINTEGRATING

After a trip, we must be kind to ourselves. It's best to allow for one or two days between a session and resumption of normal, everyday activities. It's also important to rest, eat healthy food, drink plenty of liquids, and get several nights of good sleep. Rest. Most of all, we must consider what we just experienced. After a session, we should write, draw, or record in some way the images, feelings, ideas, body sensations, and perceptions we contacted. We should share and process our experience with others whom we trust: we may share with someone who either did or did not join us for our trip; with our sitter; or with a shaman, minister, or therapist. We must review the aspects of the trip that continue to draw our attention.

GETTING HELP

While most people can integrate even major psychedelic drug experiences relatively well, some sessions—especially our first ones—may be traumatic. Generally, by the time the session is

winding down, a well-integrated experience resolves itself into a sense of happy satisfaction with our session. Intense, unshakable, powerful emotions such as sadness, anxiety, fear, or anger may foretell unpleasant postsession feelings.

Intense or prolonged negative aftereffects may occur, and these can range from anxiety and depression to psychosis. Added to these potential negative outcomes are the stigma associated with psychedelic drugs and their illegality. These factors make seeking help more problematic. Nevertheless, when we feel we need help, we must search for it. If we have taken our trip with others of if we were supervised by a sitter, it is best to start with them when asking for appropriate referrals for follow-up. Such after-session follow-up may range from an hour or two decompressing with a knowledgeable friend to psychiatric hospitalization. In between these two extremes is the common feeling that we have confronted issues we are not psychologically or spiritually mature enough to integrate. We may recognize that a course of inner work must now

ensue in order to use the session optimally and in a healthy way.

INTEGRATION

Even after relatively trauma-free sessions, we are faced with a daunting task: What do we do with all this information? It may be a case of "Now for the hard part . . ." We may ask ourselves if we will trip again, and we may wonder why or how we will if we choose to try another session. Perhaps most important, we may ask ourselves if we plan to change anything about our lives: our career, relationships, diet, drug use, or religious views or practices. Finally, we may ask whether we have begun a new phase of inner or outer work.

It may take awhile for a big trip to fully exert its effects—we need space and time for the ripples to reach the shore. We may have to live many years to fully digest and manifest the results of a big journey. It's important to be patient with ourselves and not to become frustrated that more has not changed in our lives as a result

of what appeared, at the outset, to be a life-changing experience. More drug trips may not be the answer; perhaps what's necessary is a sober, concerted application in our everyday life of what we experienced.

Though we should not push ourselves, we also do ourselves a disservice by allowing a trip to be forgotten, filed away in some dusty recesses of our minds as just one more interesting experience. We must remember that in a psychedelic trip, we've been given a tremendous gift, one that very few people ever have the opportunity to receive and experience.

EXPERIENCING PSYCHEDELICS

AYAHUASCA AND THE CONCEPT OF REALITY: ETHNOGRAPHIC, THEORETICAL, AND EXPERIENTIAL CONSIDERATIONS[1]

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INTRODUCTION

Ayahuasca, a psychotropic preparation created by Upper Amazonian people since time immemorial, has been the subject of an increasing number of scientific and popular publications. Today,

thousands of people from many countries and walks of life have had experience with it. Ayahuasca is the Quechua name, widely used in Peru, Ecuador, and Bolivia, and to a lesser extent in Brazil, where it has been adopted by religious organizations that refer to the beverage either as *Santo Daime* or *vegetal*. It is prepared by brewing the stem of *Banisteriopsis caapi*, a vine of the Malpighiaceae family, and the leaves of *Psychotria viridis*, in the Rubiaceae, locally known as *chacruna* or *chacrona.* In Colombia as well as areas of the Ecuadorean Amazon, *Diplopterys cabrerana*, a vine belonging also to the Malpighiaceae locally known as *chagropanga*, is added to *B. caapi* to prepare a beverage (as a cold infusion or as a brew) called *yajé* (also spelled *yagé*). Some indigenous groups make a drink of only *B. caapi.* This plant contains two main alkaloids, harmine and tetrahydroharmine (some contain traces of harmaline), while both *P. viridis* and *D. cabrerana* contain the powerful visionary alkaloid dimethyltryptamine (DMT), which is not orally active when

ingested alone due to oxidation by the enzyme MAO (monoamine oxidase) in the liver and gut wall. In the presence of harmine, an MAO inhibitor, DMT crosses the brain-blood barrier and attaches to 2A and 1A serotonin receptors in the central nervous system, causing dramatic perceptual, cognitive, and mood changes.

Ayahuasca (as well as yajé) is thus the creation of Upper Amazonian indigenous groups, also famous for their discovery of the properties of other plants, such as those involved in the preparation of curare, a powerful muscle relaxant, and various species of rubber essential to the automobile revolution until the introduction of synthetic rubber in the 1930s. In addition, Amazonian indigenous groups brought about the domestication of numerous plants, such as tobacco and many species of palms. The Amazon area is gradually being recognized as having been a center of high culture previous to the European invasion that brought unimaginable destruction to the whole continent. Within 150 years of the invasion, around 95 percent of the continent's population had

disappeared, mostly due to contagious diseases for which the people had no natural defenses (see for example Mann 2005).

Ayahuasca (and yajé) is used within a shamanistic complex by numerous indigenous groups of the Upper Amazon with various purposes, such as divination, diagnosing illnesses, transformation into animals, or more generally to get in touch with normally unseen realms subjacent to ordinary reality, including visits to the primordial time where humans and animals acquired their present shapes. The concept of reality among indigenous groups suggests a many-worlds interpretation of the real. Ayahuasca and other sacred plants facilitate access to these other realities. Its importance is reflected in the myths of origin. Gerardo Reichel-Dolmatoff, who worked among Tukanoan indigenous groups of Colombia (also living on the Brazilian side of the border) collected a myth that I present here in a highly condensed form (Reichel-Dolmatoff 1975:134-136):

The Sun Father is the Master of Yajé. He impregnated a woman

who looked at Him through the eye. She gave birth to the Yajé vine in the form of a radiant child. When she entered the *maloca*, or communal house, she asked, “Who is the father of this child?” One after the other, several men, the ancestors of the Tukano, said “I am his father,” the first cutting his umbilical cord, others grabbing him by his fingers, his arms and legs, tearing him into pieces, each getting his own kinds of yajé. With it, they also got the rules by which to live and other things with which to reciprocate: conversations, songs, food, and also evil things. They found their place, their way of life.

Among the Cashinahua and other Pano indigenous groups of Peru and Brazil (who call Ayahuasca *nixi pae*), the origin of the vine is in the subaquatic realm. According to Lagrou (2000:33) the ancestor named Yube enters the water world of his spiritual kin, the snakes, to marry the beautifully painted snake woman whose vision had seduced him. He is initiated into taking Ayahuasca, but he fails to resist the fear induced by the visions. He cries out,

offending his snake kin, owners of the brew, and escapes, only to be found and wounded by his angry kin a year later. Before he dies, he transmits to his people his knowledge of the brew's preparation and its song.

In other groups, the plants from which the beverage is prepared came from the bones, flesh, or blood of mythical beings. Numerous Amazonian indigenous groups consider *B. caapi*, together with tobacco and coca, as highly sacred, one of the greatest gifts to humanity.

Since at least the beginning of the 20th century, Ayahuasca has been adopted by segments of the mestizo population of Peru, Colombia, and Ecuador. In Peru Ayahuasca, along with other plants that are often psychotropic, is considered a *doctor*, a *plant-teacher* (Luna 1984, 1986). A new phenomenon took place in the states of Acre and Rondonia, in the Brazilian Amazon. Religious leaders originally from the mostly Afro-Brazilian Northeast created religious organizations, a mixture of popular Catholicism, in some

cases Afro-Brazilian ideas, European esotericism, native Amazonian beliefs, and the use of Ayahuasca as a sacrament. There has been a rapid expansion of these religious organizations in urban centers of the whole country, and later with offshoots in other Latin American countries, Europe (mostly Holland and Spain), the United States, and Japan.

Consequently, in the last fifteen to twenty years, thousands of people have had access to the Ayahuasca experience, either by traveling to Amazonian countries, mostly Peru, or by joining the rituals of Brazilian religious organizations, or through practitioners from various backgrounds that offer Ayahuasca sessions in many countries. Significant religious syncretism has occurred since its use depends on cultural setting. A variety of therapeutic methods have also been incorporated within or around the ritual setting. Experiences are often extremely powerful, featuring contact with entities, animal or plant spirits, and journeys to other realms. In Westerners the Ayahuasca ingestion often elicits discussions of a

philosophical nature, as people try to somehow make sense of their experiences. Many claim that Ayahuasca has been a veritable teacher to them, and it is not uncommon that Ayahuasca is considered as an intelligent being, a mother, grandmother, or grandfather. Such ideas are similar to those found among Amazonian indigenous groups.

It is my intention to present here some reflections on the Ayahuasca experience based on fieldwork I carried out among some indigenous groups in Colombia and Peru, Peruvian mestizo practitioners, members of Brazilian religious organizations as well as among contemporary Westerners from a number of countries. I will also draw materials from my contact with other researchers and my own investigations throughout the years with Ayahuasca.

THE ROLE OF AYAHUASCA AMONG INDIGENOUS GROUPS

The Amazon area is not only biologically but also culturally

diverse. There are cultural differences between the various indigenous groups of the Upper Amazon in terms of social structure and habitats. There is, for example, a contrast between humans living in nutrient-rich vàrzea forests versus those living in relatively unproductive terra firma forests. There are also commonalities, such as the institution of shamanism and what has been called animism, the belief that nature, including rock and winds, rivers and thunder, is animated and intelligent, and that it is possible to establish a rapport with it. Another common belief is that human beings possess various souls, some of which transcend the dissolution of the body and may interact with the living. Certain plants, if taken under certain conditions, facilitate access to normally occult knowledge through altered states of consciousness. These are sacred plants such as tobacco (especially strong varieties of *Nicotiana rustica*), coca (there are 403 described species of *Erythroxylum*), *Anadenanthera peregrina* (locally known as *yopo, paricá, cohoba*, and many other vernacular names), *Virola* species,

of which potent psychotropic snuffs are made, and of course the plants involved in the preparation of yajé and Ayahuasca.

Ayahuasca plays an important role in many Upper Amazon societies. Jean Langdon (2000:21), who worked among the Siona of Colombia, points out the centrality of yajé and its rituals for their notion of well-being and health as well as for their acquisition of knowledge about the occult reality. In Siona society, most narratives can be characterized as shamanic in the sense that they deal with shamans and/or with experiences in the occult world when dreaming or taking yajé. The Siona universe is characterized by two superimposed realities: "this side," everyday reality; and "the other side." It is composed of five disks arranged hierarchically beginning with the level under the earth and extending up to the end of the heavens, all populated by entities. Each domain has specific sounds, rhythms, music, smells, and colors that can be visited, although these are full of dangers, and the inexperienced can be trapped in the evil spirit domain.

Els Lagrou (2000:32) reports that among the Cashinahua of Northwest Brazil and Eastern Peru, "Ayahuasca is a means of transport and transformation, a means of reconnecting with invisible layers of the cosmos, as well as a way of making present the world and stories told in myth through imaginary experience." Osmani, one of her informants, told her, "You have to remember a myth before you drink the brew. If you concentrate well on the story, the story and its beings will appear to you in vision and you will understand the meaning this story has for your own life and experiences. You will feel the story. You will live it." (*Ibid*. p. 33).

This last report is similar to observations made earlier by Gerardo Reichel-Dolmatoff among the Tukano:

> Taking yajé is called *gahpí irí-inyári* (from *iri*/to drink, *inyári*/to see), and is interpreted as a return to the cosmic uterus, to the 'mine,' to the source of all things. It has the objective of reaffirming religious faith, through the personal experience of seeing with one's own eyes the origin of the

> Universe and of mankind, together with all supernatural beings. On awakening from the trance, the individual remains convinced of the truth of the religious teachings." (Reichel-Dolmatoff 1971:174).

This idea is related to that of transformation into an animal, a common shamanistic motive in the Amazon area (as well as in traditional societies all over the world). The shaman is thought to transform into a predator of one of the three realms (earth, water, and sky)—jaguar, anaconda, harpy eagle—or into other animals, in order to perform certain tasks or to experience the world through them, a transformation of identity the Cashinahua referred to as a "change of skin," a symbolic death (Lagrou 2000:31). This is a radical epistemological possibility difficult to imagine without direct experience. If true, it would mean alternative consciousness and transpersonal perception of whatever is out there, of the "real."

Contemporary members of Brazilian religious organizations that use Ayahuasca as a sacrament exhibit similar ideas. Among

members of the UDV (União do Vegetal), one of these organizations, the central doctrine is embedded in certain *histórias*, stories or myths, which are recited (not written down) during rituals, the memorization of which would determine the advancement in the organizational hierarchy. I participated in some rituals, hearing several times the main central myth, the *História da Oaska*, which in fact is a variation of a myth of origin found among indigenous groups and among mestizo practitioners by which the origin of the two plants involved in the preparation comes from the bones and blood (or simply from the grave) of human beings. I was struck at how vividly the story unfolds in the mind while under the effect of the brew, how easily it would be to believe the myth to be true. Ayahuasca may in fact reinforce any religious beliefs, hence its potential for being adopted by other religious organizations and as a facilitator of syncretism.

Mestizo shamanism in Peru is the result of the syncretism of popular Catholicism, Amazonian, and Andean ideas (as well as

some European esoteric elements). Furuya (1994) has pointed out the gradual *umbandization* (from *umbanda*, an Afro-Brazilian religion) of CEFLURIS, the largest of the Brazilian religious organizations that use Ayahuasca under the name Santo Daime. Afro-Brazilian ideas are even more evident among members of Barquinha, an organization I studied carefully (Luna 1995). They have the concept of "incorporation," different from "possession" in that the person remains conscious of his normal self. Members are believed to be able to incorporate four types of spirits: *pretos velhos* (old and wise black slaves), *caboclos* (the spirits of Indians), *erés* (the spirits of children), and *encantados* (princes or princesses "enchanted" or transformed into certain animals). This is close to the Amazonian idea of transformation. Once while harvesting the vine in the forest with a group from Barquinha, one of the men told me the story about one of the members that once was gripped by extreme anxiety while harvesting the vine up to about twenty meters above the ground. He solved the problem by

“incorporating” the spirit of a preto velho, a black slave, and descended easily to the ground. This suggests that accessing such states of consciousness may have had an evolutionary advantage.

SUPERNATURAL ENTITIES

Shamanism, which implies altered states of consciousness and the activation of what seems as common archetypes beyond ethnic and cultural differences, may have had a role, as Winkelman suggests, (2010) in the emergence of modern humans. This may have its roots back in ancient primate ritual heritage from our evolutionary past. Winkelman attempts “to understand the original manifestation of shamanism and the diversity of manifestations of shamanistic phenomena produced by social influences on our innate potential for ritual, alterations of consciousness, and endogenous healing responses.”

Contact with supernatural entities of some sort is documented since Upper Paleolithic time, the so-called therianthropes, part

human and part animals, found in rock art of all continents (Hancock 2003:69–93). Lewis-Williams (2005:10) explores the possibility that people from that period "harnessed what we call altered states of consciousness to fashion their society and that they used imagery as a means of establishing and defining social relationships." The same author summarizes thus one of the chapters in his extraordinary research on Upper Paleolithic Art:

> Most researchers have consistently ignored the full complexity of human consciousness and have concentrated on only one slice of it and made that slice the defining characteristic of what it is to be an anatomically and cognitively fully modern human being. Here I examine interaction of mental activity and social context: how, I ask, do notions about human experience that are shared by a community impinge on the mental activity of individuals and how does socially controlled access to certain mental states become a foundation for social discrimination?

When I was doing fieldwork among the mestizo riverine population of the Peruvian Amazon, I marveled at what seems to me complete sincerity when, for example, a fisherman described the mermaids he saw once in the river, or when another man vividly told me of the apparition at night of a frightening huge water snake, the *Yakumama*. Mermaids, dolphins turning into human beings in order to seduce, bird spirits announcing a death in the family—all are to be expected given the shared notions about human experience of that society. Actual apparitions are usually extraordinary events, often connected with altered states of consciousness, the same way that UFO apparitions often are (see Vallee 1969, Hancock 2005). Culture has been, no doubt, a powerful influence in the way we perceive the world and ourselves. It is well-known that anthropologists sometimes are afflicted by the so-called ethno-specific illnesses of the human groups they study.

At the same time this would also explain why Westerners

(except children) seldom see fairies. They are said to live in the forests. Most Westerners live in cities, far from nature, and their notions of reality would usually preclude this kind of belief beyond a certain age. I read fairy tales to my mother when she was in her deathbed, and I know of psychologists who read those stories to very old people. The results are often simply extraordinary, as if in this way we connect with something deep inside us with which we were in touch as children.

NEW INFORMATION

There is no doubt that experiences with Ayahuasca and other psychointegrator (a term coined by Michael Winkelman) plants and substances bring forth not only ecstatic but also sometimes terrifying emotions. Information may also come from long-forgotten or repressed memories. New information may come from such channels as de-familiarization, when everything is seen as new, most eloquently expressed by Huxley (1954) in his

experiments with mescaline: “I was seeing what Adam had seen on the morning of his creation—the miracle, moment by moment, of naked existence.” This is something I have often experienced, “discovering” new qualities in what was familiar, objects, plants, or human beings. When anthropologists have gone to the field, their first notes are invaluable, as they record what they have seen as new in the societies and the environment is portrayed as seen with greater clarity. As time goes by, what was strange becomes familiar, and therefore becomes practically invisible. To have the chance of seeing all, in the cosmic sense, once more like “in the beginning” (in mythical times) is a precious gift.

When asked about the origin of their body painting, their art, or other products of their culture, indigenous Amazonian groups often refer to sacred plants. “We see this in the visions.” “These are songs we learn from the plant spirits.” “Ayahuasca taught us the right way of living.” Michael E. Brown reports that among the Aguaruna of the Alto Río Mayo in Peru:

“Men continue to recognize the important role that the visions obtained in their youth had in promoting their moral education and physical wellbeing, and in helping them make the transition to the responsibilities of adult life” (Brown 1985:59).

According to Lagrou (2000:31) “The cosmic snake Yube has mastered all possible appearances of form, color and design that can be perceived by human eyes. All the phenomena of this world are said to be inscribed in the designs of its skin and can be visualized through the (metaphoric) ingestion of his blood (*nawa himi*) or his urine (*dunuc isun*), which are the names of Ayahuasca in ritual songs.”

Among members of the Brazilian religious organizations, the songs sang during the rituals are called hymns by those organizations that refer to the sacrament as Santo Daime, or *chamadas* by members of the UDV (União do Vegetal). These songs are said to have been “received” from the astral plane, not composed by the founders or their disciples.

ALTERED STATES OF CONSCIOUSNESS

Consciousness in general was until recently almost a taboo in academic circles. Roger Penrose (1994:8) states, “A scientific world-view which does not profoundly come to terms with the problem of conscious minds can have no serious pretensions of completeness. Consciousness is part of our universe, so any physical theory which makes no proper place for it falls fundamentally short of providing a genuine description of the world.” Western rational thinking, as pointed out by Frecska (2005), continues to marginalize—and even pathologize—ASCs (altered states of consciousness), considered deviant states. It is unable to differentiate between disintegrative and integrative forms, and cultivates only the basic state of consciousness. It is unfortunate that the theme of ASCs is still anathema in most learning centers, even more so in therapeutic practice.

In a much-quoted paragraph, William James (1929:378-9) affirms:

> Our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential form of consciousness entirely different. We may go through life without suspecting their existence; but apply the requisite stimulus and at a touch they are there in all their completeness, definite types of mentality that probably somewhere have their field of application and adaptation. *No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded*. [italics mine].

The belief in spirits is nearly universal across ages. Shall we just dismiss, in the name of advanced rational thinking, the existence of other intelligent realms right here under our noses, only were we able to attune ourselves to these other realities? Roberts (2006) proposes the idea that our minds function in many mindbody states. Consequently, he rejects what he calls the "single state

fallacy": the erroneous assumption that all worthwhile thinking, behaving, and emotions occur only in our ordinary, awake mindbody state. Could it be, then, that there are mental state-bound realities, only manifested under appropriate circumstances? Traditional societies usually consider the cosmos as multilayered, normally depicted by anthropologists as worlds above and below a middle plane representing this reality. Could it also be conceived as multidimensional from within, depending on the state of consciousness? Is not this perhaps the reason why ideas, events, and imagery during our dreams (as well as often in the hypnagogic state previous to falling asleep) lose all their meaning immediately after waking, even though apparently our other self, the one in the dream, found no contradiction? Dreams and visions are equated in many cultures. Perhaps visions are a form of conscious dreams. According to Winkelman (2010), the physiological properties of ASC indicate that the visionary experiences are produced by the information capacities of the lower brain systems, and tap in to the

dream capacity, an ancient mammalian adaptation for integrating information in the pre-language symbolic capacity represented in the visual system.

Neurons alone aren't sufficiently complex to explain all brain phenomena and provide a computational model for thought. Roger Penrose and Stuart Hameroff (Penrose 1996) propose that consciousness emerges from biophysical processes acting at the subcellular level involving cytoskeletal structures. Consciousness is attributed to quantum computation in cytoskeletal proteins organized into a network of microtubules within the brain's neurons. Ede Frecska (2005) proposes the existence of a dual foundation of knowledge. The first one would be the ordinary, perceptual-cognitive-symbolic, which is neuroaxonally based, is electrochemical (based on local effects), and relies on sensory perception, cognitive processing, and symbolic (visual, verbal, logical) language. It performs modeling, with an implicit split subject-object: it peaks in Western scientific thinking. The second

one is the direct-intuitive-nonlocal, its medium being a subneural network, such as the microtubular network, which connects the whole body, from head to toe, and based on nonlocal correlations, so small (measured in nanometers) that they are close to quantum physical measures. The cytoskeletal matrix, with 10 million more units than neurons may be immense enough to contain holographic information about the whole universe via nonlocal interaction. It may mediate direct, ineffable experiences without subject-object split. It is perhaps the realm from where shamans and mystics, the masters of nonlocality, after rigorous training and symbolic death, get their information and powers when in altered states of consciousness. This direct-intuitive-nonlocal knowledge is perhaps "The Forgotten Knowledge" in Western civilization, deemed nonexistent by academic Western science.

MIND AND MATTER

Among some indigenous groups of the Amazon, there is the idea

that people take Ayahuasca not “to see the future” but “to create the future.” Brown (1985:60), who worked among the Aguaruna of Peru, writes: “The future exists as a set of possibilities that are given shape by the effort to bring them into consciousness within the visionary experience.” Rafael Karsten, who worked among the Shuar of Ecuador, writes that in the victory feast, celebrating the acquisition by a warrior of a new *arutam* spirit by slaying an enemy, both men and women, even half-grown children, take part: all “who want to dream” being allowed to drink *natéma* (Ayahuasca). The drinking has a ceremonial character throughout. During the victory feast celebration, half a litre of natéma was drunk by each person three times followed by vomiting. The participants did not eat or drink before the ceremony nor after they had slept and dreamed. After the ceremony the dreamers left the house and remained in shelters in the forest, where they slept until the afternoon. After they woke up, they took a bath in the river and returned to the house where they told the older Indians what kind

of dreams and visions they'd had. The object of the drinking of natéma at the victory feast was to dream of the house of the slayer and his closest relatives:

> Surrounded by large and flourishing plantations of manioc and bananas, they see his domestic animals, his swine and his hens, numerous and fat, etc. At the same time the persons who have drunk the sacred drink will be purified from impure and disease-bringing matter, and gain strength and ability in their respective work and occupations. (Karsten 1935:345).

Fericgla (2000), who worked much later among the Shuar, reports that when they take Ayahuasca and have visions referring to their lives, this is because what they see is either happening to them, or is about to happen. If they see something negative to happen in the future, they take the brew again and try to correct it. If they are not able to do so, and they again see the same thing, they look for a shaman stronger than them in order to be able to

change what would happen. In other words, they have the belief that the visions influence reality.

I have witnessed extraordinary synchronicities in this respect happening to contemporary Westerners. It is as if having a vision had enough power for the universe to conspire toward its completion. Perhaps mind and matter are two apparently contradictory manifestations—like the wave and particle properties of light—of an underlying ultimate reality. Perhaps consciousness is an essential part of reality. It is urgent to have a deep understanding of this paradigm in a world of increasing environmental degradation, alienation from the natural world, and consequently our proneness to violence and/or depression. Whatever may reconnect us with our past, with nature, and with our inner self is of vital importance for our own survival.

Shamanism is ultimately about healing in the highest sense, a reintegration of all levels of existence. Ede Frecska (2008:146-8) suggests an extension of the biopsychosocial paradigm in

contemporary medicine proposed by George Engel (1997), including also the spiritual dimension: therapy *sui generis* is reintegration *in toto* on biological, mental, social, and spiritual levels; the identification with higher realms of reality, with the psyche, with the community, and at the end with an entity above community (i.e., environment, nature, Universe, Mother Earth, etc., depending on culturally determined worldviews). A process contrary to what has happened to modern humanity who lost first the connection with any kind of supernatural world, then got alienated from nature and from his/her community, including the extended family, being then reduced to an often depressed individual devoid of their dreams and creativity. A concept of reality restricted to the measurable material world is certainly impoverishing.

BY WAY OF CONCLUSION

It is not at all strange that plants with the properties of altering the

mind have been considered sacred by traditional cultures. It is now forty years since my first encounter with such a powerful medicine. I have witnessed and participated in hundreds of sessions in different settings, and I have been in touch in one way or another with most of the people who have been doing research on the subject. The most important questions have not been answered. What is the nature of the worlds and the entities one may encounter in such experiences? What is their level of reality? Are they simply "creatures of imagination," as proposed by Reichel-Dolmatoff (1975:5)? Do they have any kind of reality outside our own experience? Are certain plants really intelligent and able to communicate with us through real "communion" (and even more convincing than is claimed for the Catholic Eucharist)? Are the supernatural powers residing in these plants "organic chemical constituents that allow mortal man to communicate through visual, auditory and other hallucinations with the spirit world that controls every aspect of man's earthly existence"? (Schultes 1975). Is the

brain more a receptor than the originator of all experience? Are we really able to communicate with normally unseen intelligences, perhaps in other dimensions? Are spirits real? Is there a multidimensional ecology of beings? What is the relationship between mind and healing? What about those very common motifs —the serpents, for example? Are they part of our mind, and therefore universal?

Under the effects of Ayahuasca and other psychointegrators the mind seems to open to higher, more comprehensive dimensions. One is confronted in a very real and profound way with the mystery of existence, of life and death and the great enigma of the relationship between mind and reality. Few people are left indifferent to such experiences, if done in a respectful, controlled setting and under the guidance of an experienced facilitator.

I would like to present here, as way of illustration, two accounts of recent experiences I had with Ayahuasca:

I see a strange, floating, irregular, nearly transparent bubble

with alien organs. I cannot make sense of it. It comes toward me slowly from the left. I let it happen. It stops in front of me. I enter it with my intention, look at it from inside with total clarity. I go through it and enter a world of threatening beings in the shape of brownish intricate surfaces with protruding tentacles that go for my forehead. I hum and lift my arms, protecting it. Then from the right, almost out of my visual field, comes another attack. I search for my rattle with eyes closed. To open them would mean defeat. I rattle, blow, hum—they seem unaffected by what I do and persist in their attack. In front of me I have the perfect perception of three-dimensional space. Tall shapeless beings, perhaps five of them, occupy the space that expands in front of my closed eyes. I think of the water from the Sangoma Valley in South Africa, that was brought to the house by a friend. My wife had used it on me on a previous occasion in which I was attacked, with almost instant results. I call Rodolfo, a friend,

to bring the bottle that is with my wife.

Almost immediately after my request, there is a change in the visions. There is light to my left; the creatures all seem to look toward the light, pointing at something to come. There is the feeling of reverence in the strange creatures of this world. Is it due to the bottle that is coming? The bottle comes to my hands. I continue with my eyes closed. Open the cork, moisten my fingers, there is now color, flowers spring out, movement toward the sacred water, almost formless beings rushing toward the moisture that crossed from this reality to the other world. Then gifts come, like other times, small objects, perhaps some sort of jewelry, nothing I can fully recognize as anything concrete corresponding to my world.

The “beings” rush toward me, appearing in several irregular layers. I am in a more familiar territory. I have seen this many times before. I am less interested and begin to pay

attention to the exterior world. I open my eyes, still seeing forms in the darkness. I am in both worlds, but more here than there. Everything is all right. I close again my eyes. I am again in a world that seems to be made of a light-brown continuous material, almost like a kind of plastic. I have the feeling of intelligent presence. There seems to be some sort of technology. I think: *How could I keep this channel open? How could I always get in touch with "them"? As they seem to be ahead of my own time, they know what is coming (the principle of divination).* The thought of an implant comes to mind but no; I do not wish anything inside me. I would not allow this to happen. I think of finding out about lottery numbers, and faintly I see some numbers appearing but then reject the thought. This is cheap; this is not the way divination should be used, for personal gain. I am taken again by the thought of communication with this other reality. But then I come back, I have to take care of other

people, choose the appropriate music for the moment. This reality is calling me now.

On another occasion I had the following experience:

Even with my eyes open, I can see with dismay, once more, the black ants that were almost constant in my visions of some years ago. I close my eyes. There they are against a familiar background that seems to be underground. This has been my specialty, the visitation to subterranean worlds. I follow a row of ants going somewhere.

I notice that without any effort, my mind is following, and I begin to zoom in. I see the ants bigger than any other time before. I continue zooming, or better, zooming is taking place almost without my volition. I get closer and closer to some sort of nodules that separate small areas from others within that, somehow lightly illuminated organic environment. I get excited. The zooming continues, and I am now seeing tiny organelles that become bigger as I

continue getting closer and closer. I begin a narrow deep descent, and then suddenly I am in a new place.

It is lighter here. I can see everything with total clarity, sharper than everyday vision, mediated by the eye anatomy. Round, relatively bright, softly colored organisms covered by some sort of moving filaments approach me. The feeling is good. No danger here. I let them come very close, just a few centimeters from my inner eyes. More come behind. I let them also come to just what seems as millimeters from my eyes. I have no apprehension. They are curious. Again, they bring presents. That is at least what I believe they are, as they come with all these objects that I cannot recognize as anything belonging to my world.

Then something is happening to my left. The attention of all those beings turns toward something coming from a seashore that I see upside-down as I am lying down. I understand I have to get up. I get to my knees, facing a sort

> of wall with sort of pre-Columbian anthropomorphic figures. I have the feeling that there is a ceremony, and it has to do with me. I am humbled by the situation. I tell them that I do not want anything for myself, but I would like to be able to help other people. More than asking to be a healer, I simply ask that healing may take place through me. Two figures, which I cannot distinguish well, are above me, carrying some sort of flags, or floating veils. I am struck by how when I move my head, the whole perspective changes, as if I was really in a three-dimensional space. If the visions were projected on my vision, the same image should follow my head. This is not the case. I can turn around. There is space all around me.

In another experience, I saw what riverine people of the Peruvian Amazon call the *Sachamama*, the great serpent of the jungle realm, powerful yet completely indifferent to my presence. In yet another, I was riding the Yakumama, the great serpent of the

water realm, down to the bottom of a lake. There is often a certain consistency, familiar places that I visit again and again. I know more or less their geography. In some cases, I get to places and see people who seem to go on with their own business without paying any attention to me. *Just one more tourist*, they seem to think. In others, I am welcomed, there is a rapport, they seem eager to meet me. How can I explain such experiences to myself in a satisfactory way?

First of all, it is obvious that stories like this are universal. Experiences like these are deeply ingrained in human physiology. They are part of us. I was simply experiencing aspects of reality in remarkably similar ways to those of human beings across time and space (Winkelman, personal communication). There are plenty of similar contemporary accounts of journeys to other realms with various (potentially) psychointegrator agents, including of course Ayahuasca. The Internet is of course an extraordinary source in this respect. These extraordinary inner worlds, beyond normal

imagination, seem to be too organized to be disparate constructions of the mind under the effect of alien alkaloids, just hallucinations without any value. The feeling is rather that these plants and substances are extraordinary tools for the study of consciousness. They may give access to infinite treasures of beauty and mystery, perhaps to the source from which all human construction finally emanates.

NOTE

1. Published earlier in Ascott, Gangvik & Jahrman (eds) *Making Reality Really Real. Consciousness Reframed*. Trondheim: TEKS Publishing, 2010. Permission was granted for this publication.

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COMMUNION WITH THE GODDESS: THREE WEEKS OF AYAHUASCA IN BRAZIL

BY MARK SEELIG

I just got back from a shamanic seminar in South America involving a number of fascinating lectures by world authorities on South American culture and shamanic wisdom. The seminar included seven nightly ceremonies of drinking the jungle brew Ayahuasca, a potion containing DMT and harmaline known to bring strong visions and communion with the divine.

This is an attempt at reporting things that cannot really be put into words. Since many have asked me to send a recollection of my impressions, I am doing so in a form that is somewhat like a travel report. This account also contains content of the visionary journeys

that addresses philosophical and contemporary issues.

But before I begin, a warning and disclaimer is in order:

1. What follows is in no way intended as an incentive to ingest substances that are illegal in most countries.

In other words: Be sure to protect yourself against the idiocy of current legislation!

2. What follows is entirely my subjective experience and does not claim authority over anyone else's experience.

In other words: Be sure to protect yourself from “gurus, methods, and teachers” (Van Morrison), and seek out your own personal experience in a safe setting!

3. What follows is an entirely personal and subjective mixture of highly ecstatic and poetic descriptions mixed with spicy and

aggressive criticism of what I believe to be a global misunderstanding of why humanity is here.

In other words: Do not read what follows unless you enjoy a good rant and a good portion of spiritually poetic bliss!

Ayahuasca makes us see what's real. This can be something collective and global, and it can also be very much about oneself. One of the many things I was shown again and again was this:

Given my personal history as a former theologian turned clinical psychotherapist and student of shamanic traditions, I have very deeply looked into the endless destruction and genocide that religious ideologies and dogma have inflicted upon human beings. After having worked with hundreds, if not thousands, of people for about thirty years now, I have seen how damaged human souls are, how deeply depressive, meaningless, and prone to exploitation are the lives that many live. Religious dogma is at the root of this epidemic meaninglessness. Behind that is a thirst and cry for love.

My past and present prompt me to make no bones about what lies at the core of the human soul: the deep longing to experience communion with the divine, to be received and loved. I take issue with anything that stands in the way of this calling of the human species. I consider it my obligation to do so, simply because I have repeatedly and deeply experienced this communion and because I have witnessed more than enough of what the lack of this communion does to human beings.

With these warnings and disclaimers in mind, I enjoy the thought of you reading the sharing of my ecstasy, of my aggressive rants against the destructive and violent constructs of religious dogma, against the schizophrenia and superstition called "science," against contemporary legislation, which in its utter arrogance criminalizes plants that grow from the earth while at the same time endorsing, promoting, and profiting from lethally dangerous and addictive substances such as alcohol, nicotine, etc.

These things have to be said. And they cannot be said loudly

enough. And I deeply admire all those who speak their respective truths about these matters.

The Brazil report: I want to begin by describing how the fabulous lectures, usually given from about five to seven in the afternoon, kind of set the stage for the Ayahuasca journeys that began at nine in the evening. It is one thing to move into the mystery of a shamanic journey, particularly if we're talking about the order of what can be expected with good Ayahuasca. It is yet another when, prior to the actual vision quest, a world authority on shamanism, someone who has studied the history *and* has submitted themselves to the shamanic experience—to my mind, the only credible qualification and trustworthy authority to speak about such matters—has shared her or his wisdom and thus prepared the "neurological stage" for the journey and its meaning.

I consider myself incredibly fortunate having had the opportunity to share the sacred space of such a gathering with a wonderful group of seekers, among whom were three people who

full-heartedly embrace the abovementioned credibility and authority. Precisely because they do not hide behind theories but base them on their own repeated personal experience, I consider these people world teachers who should be heard and read by as many as possible. One of these folks arguably is the world's most knowledgeable person on Ayahuasca and South American shamanic traditions, the next arguably is the world's most exciting authority on ethnopharmacology, and the third arguably is the world's most fascinating expert on the hidden mysteries and wisdom of ancient cultures. For reasons of privacy, I do not want to name them here.

It is very difficult to put into words the excitement that builds as a precursor to Ayahuasca experiences in such company. It is even more daunting to describe what transpires during an Ayahuasca ceremony, as it is very different for each individual. The experiences I had are therefore entirely subjective and have to do with my personal history, with the way my life is at the moment,

and with the way I relate to Spirit and to people.

This said, there also are some general qualities to Ayahuasca journeys that are similarly experienced by most everyone drinking the brew, for example:

- A sometimes extremely challenging and at times very frightening encounter with what shamanism refers to as the "Underworld." In "modern" and more psychological terms, the Underworld would include dimensions of existential and object-related fears; shadow sides of the human personality; repressed, forgotten, and denied contents of the psyche; as well as collective symbols for the difficult aspects of being human (see the 'DSM-4' and the 'ICD-10' for psychology's attempt to group and categorize—and severely pathologize—these experiences). All these "energies" can appear in the form of menacing visions of demons and dark forces that at times seem to threaten one's very life.

- At other times, the journeyer will experience highly ecstatic phases during the visionary quest, blissful encounters with divine beings waiting to teach the shamanic traveler about her/his life, about how to collaborate with the divine in saving planet Earth, how to change one's life toward supporting and helping all sentient beings, and how to be a happy, spiritual, and compassionate human being.

In spite of the fact that magazines such as the *Men's Journal* should be taken *cum grano salis*, with the proverbial "grain of salt," there is a very reasonable and interesting, if somewhat brief article in the March 2013 issue (Link: http://www.mensjournal.com/magazine/ayahuasca-at-home-an-american-experience-20130215).

Ayahuasca ceremonies are usually held in a group setting. It is almost uncanny to witness how in a very short time people who have never met before, and who speak different languages and

have grown up in different cultures, bond in a deeply heartfelt way when they journey together. This type of gathering is a role model for community building because it also immediately becomes evident that this kind of healthy family has a strong capacity to expose, make visible, and help grow out of, immaturities that we all carry as baggage from our respective pasts.

Inconceivable depth of healing is possible. Human beings have an almost unlimited potential for ecstasy, love, compassion, support, and reciprocating nourishment. These strange creatures called humans have been given bodies that have a capacity to feel the deepest ecstasy, joy, and comfort when touched and caressed. They have been given souls that can commune with the divine and thereby experience the highest spiritual bliss. They have been given hearts that can feel the deepest love. They have been given eyes to behold the breathtaking beauty of life, of other beings, of nature, of art. They have been given ears to listen, to share words, and to revel in one of the most beautiful and soul-inspiring

mysteries conceivable: music.

How is it, then, that so few of these strange creatures, these earthlings, make use of this unbelievable abundance of talent? How is it that so many of them prefer to hunger and lust for power, status, money? Well, because they have forgotten to regularly thank the universe for the gifts they have been given. Because they have forgotten to hold sacred ceremonies. In simple words: most of them have forgotten how to love. This is all of us, guests on planet Earth!

My own seven journeys have mainly consisted of deeply blissful and ecstatic communion with what I very clearly experience as a feminine energy that I like to call "Mother Ayahuasca" or "The Goddess." Hardly ever do I only have ecstatic communion without first, or somewhere along the journey, being challenged by being shown demons, frightening visions, etc., but the more I learn to trust that SHE is always working for our best, the more I am able to let myself go through these fearful moments and be moved on to

ecstatic communion with HER spirit of cosmic wisdom, healing, and revolutionary inner freedom that SHE infuses me with.

There is no question: this is by far the deepest, most profound teaching, and the greatest adventure that I or any human being, I believe, can submit themselves to, and the most rewarding one at the same time, right next to a deep love relationship. I do not have the notes to sing and play the beauty of HER. I do not have the words to praise the utter devotion I feel toward HER. I live for HER, and SHE has told me many times that I am HER child (as we all are), HER student, HER collaborator when it comes to making a contribution to the growth of consciousness and conscientiousness on this planet. There can be no greater honor for me. I was saved from sure death several times; I was invited into the highest heavens several times; I was shown the deepest meaning of what human existence is meant to be; I was told how to help preserve our sacred abode Earth. The questions I ask HER are always answered, either through the words I hear HER speak during the

journey, or through the visions SHE gives me. SHE awakens the poetic nature of the soul. SHE awakens the warrior of the heart.

Music is playing throughout the whole journey. For me and many others, music becomes "visible" during the ceremonies in a way that is hard to put into words—rainbow colors shape-shifting into garlands, ornamented with billions of glittering crystals and jewels, twist and turn around their own axis and explode into kaleidoscopic supernovae that dance with every note of the track. It becomes visible what Mozart "saw" when he wrote his symphonies. I feel the incredible passion and love of the rock singer putting her soul into a song, having devoted years of hard work practicing her instrument and voice . . . "show your true colors . . . they are beautiful . . . like a rainbow." On top of a simple but heavenly composition of guitar music, I hear Terence McKenna speak about what a shaman is, and I explode into deep longing for divine communion, forever grateful that the Goddess has invited me into HER realms. No greater ecstasy for me to

behold.

One of the most powerful and moving visions that came to me happened in the middle of the third journey. It sounds almost pathetic when I put it into writing: how could a moment that most probably changed the entire course of human history (see the vibrant writing of Graham Hancock, particularly his new book, *War God*) appear in a vision of a German person? That doesn't make sense. At least not from a purely rational perspective. However, Ayahuasca does not adhere at all to what we consider rational faculties. It actually couldn't care less. It will just give us what it decides we must see. The challenge, then, is not so much the reality of the visions; they are way more real than some of the stuff we see through our eyes on any given day shopping for groceries. The challenge is to accept that there is more to reality than meets the eye.

The vision: I saw the initial encounter between the South American native peoples and the first vessel of the Spanish

conquistadors reaching the shores of South America. I was alternating back and forth between being two persons: A native man looking on in awe as the giant wooden ship slowly closed in on the banks, recollecting the prophecies of my scriptures. And I was a Spanish soldier on the ship looking on in awe as I beheld the abundant beauty of the land and its people. I remember very clearly the feeling of that moment, which lasted for quite some time. It was actually a moment of deep reverence, utter beauty, and endless potential, of mutual admiration and silent communion. And then the lightning of dogma struck: the Spanish soldier remembered what he had come here for, what he was supposed to carry out as his duty, and the rest is history, as they say. One of the most brutally violent and destructive genocides in human history ensued. In the name of "god" entire populations were annihilated within a matter of a few years, and in the wake of this disaster, thousands of years of spiritual wisdom and healing arts were obliterated and lost forever (see *American Holocaust* by David E. Stannard). The

magnitude, horrifying brutality, and pseudoreligious delusion of this frenzied extermination committed in the name of the "Christian" "god" is beyond anything the human mind can imagine.

Since then, the planet has never recovered. In many parts of the world, humanity has long since fallen prey to the delusional and inflated dogma of monotheistic religions and their angry and jealous gods that seek revenge against each other and try to kill whatever is in their way. Their followers to this day do not believe what their own scriptures have been trying to teach them for millennia: that there is only one god. Instead, they continue to live in paranoid fear of "other gods"that might threaten theirs, and they wage war on everyone that triggers this fear.

This devastating monotheistic rampage then spread throughout South America. The reality of a giving, caring, feminine universe that loves its children and provides for them was lost. The experience that nature is benign, that it must be cherished and

preserved, that it holds all the healing secrets that humans need was forgotten. The communion with the Goddess, with the creative principle of a mothering abode—Earth—with a cosmic intelligence is only now being rediscovered as some of us, scattered across this globe, are privileged enough to be reintroduced to the ancient wisdom that shamanic traditions have cherished for millennia. Some call this emergence the “rise of the divine feminine.”

I had the great fortune of being joined in the last two ceremonies by my beautiful lover and partner. Some say, a “good tripping buddy” can be as important as a love relationship. How about if one's own lover and partner is that good journey companion? Can there be a greater blessing? In one of the journeys, my lover sang along with the music, and I had to get my ears close to her so that I could drink her voice; it was incredible, this beautiful feminine energy.

The masculine world is so starved for feminine beauty and tenderness, and it has lost the ways to be nourished by it, instead

trying, but never succeeding, to find it in glossy magazines and many other venues that sell women's bodies. What a teaching to listen to that song being sung into my ears and to see how the feminine, Shakti, always holds the universe together so that the masculine can do Shiva's dance without getting lost in space, i.e., in the spacy-ness that frustrated men lose themselves in: the airheaded and retarded pseudo-masculine spacy-ness of academia, the power-driven madness of politics, the fear-based and frenzied propagation of ideologies, the spiritually destructive and deluded evil force of religious dogma. Make no mistake here: these energies have almost completely destroyed ancient spiritual wisdom and human sanity.

Most of academia is nothing but a pursuit of scientific superstition, the unfounded belief that measuring and reproducing is the only valid means of acquiring knowledge. That's a fear-based ideology; it has nothing to do with science.

Most established religions are dogmatic constructs serving the

purpose of power and influence of a few leaders who like to oppress and exploit fellow human beings; these leaders promote fear-based ideologies, not authentic spiritual communion with the divine. Legislation follows and condemns and criminalizes everything that might truly liberate people. As the notorious Tim Leary has so mischievously and beautifully stated: psychedelics cause schizophrenia and paranoia in those that have not used them. Or as the beloved Terence McKenna had it: psychedelics dissolve boundaries.

Behind these stupid endeavors that too many men waste their beautiful potential for—and as collateral damage, so to speak, tear the planet to pieces—behind these activities rings the muffled scream to be held, protected, mothered, and loved by the divine feminine. Like small children, these lost men throw temper tantrums all over the globe, abusing their talents and gifts to gain power, influence, status, and a kind of recognition that leaves them empty at heart and prone to fight for more. To make a blunt

statement: Ayahuasca can fix this schizophrenia. As one of our experts so aptly stated: all political leaders should be obliged to go through ten Ayahuasca sessions before being admitted to office.

Really, the deepest thirst of the masculine is to be of service to the feminine, to protect and shield the loved ones, to go out into the world with a powerful vision and be lovingly welcomed back home, to adore and be blown away by the beauty of the feminine, to be fully and completely received and be nourished that way. Really, the deepest longing of the feminine is to be protected and held, to be cherished and adored, to support the masculine in its visionary power, to drink the heart-centered strength of the masculine and be nourished that way.

Another deeply instructive vision was one that was at times unbearable because of its threatening character. An energy of utter darkness and destruction crept into the overall quality of that particular journey. This was felt by a number of people as an immediate threat that went against everything that was good, true,

and beautiful—an utterly destructive attempt of unknown origin, seemingly bent on annihilation. It was extremely mysterious in that we all felt it had nothing to do with the life-affirming power of Ayahuasca. Some very deep teaching was afoot.

It took quite some time to come to grips with what had happened. Our discussions afterwards were filled with a sense of deep recognition for the polarity of existence. It is difficult to grasp when just told as a story, at times mind boggling or even seemingly crazy, but there was a very acute sense that we had been exposed to the eternal struggle of darkness and light that is being told about in all mythologies, all sacred scriptures, and all spiritual teachings. It was scary enough, all right, but the subsequent blessing was of such incredible beauty and spiritual depth that once again, there was not the slightest trace of doubt: to go through this together was well worth it.

We emerged feeling that this sister- and brotherhood can weather the storm of the assault of evil and emerge with an even

stronger resolve to hold on to the light, to everything we humans know as good, true, and beautiful. Needless to mention, the sense of belonging to each other was acutely felt by everyone. But what's more important was nothing short of miraculous: many felt that by going through this ordeal, we had helped the eternal cause of the very essence of Mother Ayahuasca's teaching, the teaching of all good forces, the teaching of the creative principle of the universe: to prioritize our working together at bringing Love, Healing, and Wisdom to this planet.

Filled with remaining awe and wonder from that session—and with a clear sense that we must always be conscious of the reality of these challenging forces—I went into the next quest two days later. At some point, I directly asked what I always experience as the spirit of “The Goddess” or Mother Ayahuasca. I flat-out posed the question to HER: “What the hell was *that?*” The reply came as straightforward and as clear as a bell. SHE said: “Now you know what I'm having to struggle with *all* the time, and I need you

beautiful and courageous people to help me!" I was speechless. I felt so deeply validated as a human being. In spite of all my frailties, my feelings of powerlessness to make a difference in this world, in spite of feeling so incredibly small in the face of the magnitude of destruction that our species visits on this planet, I felt acknowledged and appreciated by the divine in my effort to gain insight and to receive HER teaching by moving into these journeys with HER. It was clear beyond any doubt: this was a calling. The call of the mystic to pursue the path toward the divine, to follow that which brings peace, healing, and love to all sentient beings.

I returned from Brazil, acutely aware that I cannot even begin to think that my experiences can be expressed in words. Believe me . . . what I tried to hint at above is less than a far cry from what really happened inside. The human soul finds rest only if it finds a way to fully surrender and open to the divine communion. Wise women and men in tribal cultures have preserved the sacred art of holding ceremony and have passed on the wisdom and tools to us

so that we can now study this art and learn what it means to live in harmony with all sentient beings and with the universe.

The tea served was one that made only very few people throw up, yet it's very strong and spiritually powerful. Volume was freely and individually chosen, so plenty of cautiousness was possible in working toward a level that doesn't scare the living daylights out of one. Obviously, and as demonstrated by the above, I constantly went way beyond that level and did get those daylights scared out of me, but I knew things to be safe. The learning was incredible. All in all, an experience I would most emphatically recommend to anyone inclined to inner exploration of depths, provided they seek out a safe setting.

Ayahuasca even teaches Buddhism . . . HER comments on the essential wisdom of the Buddhist teachings are priceless. But this is yet another story of many that will follow. I hope and pray that this experience becomes available to you and that you'll go and seek it out in a safe surrounding.

Namaste

IS ALCOHOL A SPIRIT? OR, MY GOODNESS, MY GUINNESS!

BY ROBERT TINDALL

The word *spirit*, the "animating or vital principle in man and animals," comes to us via the Latin *spiritus*, "soul, courage, vigor, breath," and is related to *spirare*, "to breathe." Its plural form, *spirits*, or a "volatile substance," is an alchemical idea, and it was only in the 1670s that its usage narrowed to its present meaning: "strong alcoholic liquor."

Yet lurking within our modern, dry categorization of strong alcohol as "spirits," this original sense of animating power remains firmly entrenched.

As Shakespeare's Falstaff put it, a good sherris sack "ascends me into the brain, dries me there all the foolish and dull and crudy

vapors which environ it, makes it apprehensive, quick, forgetive, full of nimble, fiery, and delectable shapes, which, delivered o'er to the voice, the tongue, which is the birth, becomes excellent wit." Not only that, it breathes courage into the soul, it "illumineth the face, which as a beacon gives warning to all the rest of this little kingdom, man, to arm, and then the vital commoners and inland petty spirits muster me all to their captain, the heart, who, great and puffed up with this retinue, doth any deed of courage, and this valor comes of sherris."

This is the language of spiritual inspiration, not mere infatuation with a physical effect!

Perhaps we should take ourselves at our word. What if alcohol really is a spirit?

In a recent interview with Erik Davis on his program *Expanding Mind*, our discussion turned to the nature of addiction and the healing potential of traditional, and psychoactive, plant medicines such as Ayahuasca and peyote.

To illustrate these plants' mysterious capacity to cleanse us of addictive patterns, I disclosed an experience I'd had not so long ago, one which ended a decades-long fierce attachment to red wine.

Indeed, I loved red wine. Holding a wine glass was like cupping a rosy heart in my hand, transparent, almost pulsing, catching the light like blood. Ancient, celebrated by song, wine even had its own deity! A good wine tasted of the roots of the earth, of her fruit, even the sunshine, and its relaxation was, to quote the Cyclops in Homer's *Odyssey*, “Ambrosia!”

Although I knew full well my life had been fraught with addictive struggle, I hadn't ended that particular love affair. When I did, it was with a finality that will endure until my dying breath.

It happened deep in the ocean of an Ayahuasca ceremony. Accompanied by the otherworldly, Asiatic tones of the Shipibo icaros of the Amazon rainforest, I had found myself in deep trance, holding my water bottle and praying for the health of the waters of

our planet: thanking the ocean for giving birth to us and sustaining us, apologizing for our contamination of her precious being.

Suddenly, I caught a glimpse of something dark flickering over my right shoulder. My hand, like a cat's paw, shot back and, seizing whatever it was, thrust it into the water bottle.

“Okay,” I said to myself, sitting there bemused in the dark, “I've just gone and trapped a spirit in my water bottle. Now what do I do?”

I directly knew I needed to go outside and toss out the water, dispersing the spirit back to the elements. Getting up, I carefully walked through the crowded room, slipped out beneath the stars, and scattered the water.

Returning to my seat, charmed, I asked, “Okay, what was that all about?”

I then saw it. The dark, flickering thing had been the spirit of red wine, and the entity had been feeding off of my energy like a succubus. I thought of all the evenings I had hastened home from a

long day of work to relax into the amber red cave of her intoxication, reading my books, disappearing from my family, escorted into a sodden sleep by her liquid embrace. She had been a dark lover.

And I was done with her.

Returning home, I emptied my house of my stockpiled bottles of organic red wine, and wondered to myself, “How am I going to do this?” I was already aware of a hollow yearning within me, one I would never feed again, left gasping for air in the dust. I felt a smidgen of dread in my soul. So many years seeking solace in the opiate embrace of red wine—could that yearning ever fade away?

Well, it did. So clean was the excision of the spirit that some nights ago, watching an Italian priest pour himself a well-deserved glass of red wine across the table from me, I felt not a trace of yearning arise in my being.

After relating this story, I received this message from a listener to that episode of *Expanding Mind*:

I have had a complicated relationship with alcohol for years. Just last night I was alone and decided to have some beers while watching hockey. I ended up drinking too much. It hurt my work production today and I decided to go and do some errands. That's when I heard you talk.

Hearing you tell your red wine entity story was the second thing that was hugely helpful. The first was that over the weekend I had a powerful dream. I was in a big, old library with the comedian Greg Fitzsimmons, who is sober and in his mid-forties like me. Greg was guiding me through the shelves and we were looking for a spirit.

At one point, he disappeared and it was just me. I knew the spirit was just around the corner and suddenly I was terrified. I let out this huge scream that scared the crap out of my wife. She said it sounded as though I was going to attack something.

This dream really rattled me. Then yesterday I didn't plan

> on drinking but I just did. Then I heard your red wine story and I immediately knew that there is a spirit of alcohol that feeds off my energy.

Is this so strange? Do we not call distilled alcohol “spirits”? Don't we celebrate so, from Shakespeare's Falstaff to the Captain Morgan rum ads, where a piratical, intensely colorful, mischievous spirit manifests like a jinni in the company of young drinkers at a party?

From an indigenous perspective, it isn't odd at all. As anthropologist Frédérique Apffel-Marglin points out, among traditional cultures:

> Concerted actions between humans and certain nonhumans that have been crucial for human welfare and carried out over long periods of time have given rise to entities, or rather beings, who embody those concerted actions. For example, the soil becomes Mama Allpa, a being to whom prayers and offerings are made, who is endowed with

> understanding, agency and sentience and responds to the actions of humans. In modernity the soil has become a "natural resource" bereft of agency, sentience and understanding.[1]

If this has been characteristic and true (the ethnographic records clearly indicate it is) for human culture for thousands of years, why should we be an exception? Why should alcohol, to whom we do indeed offer up a steady stream of addicts' prayers and offerings, not be an entity in its own right?

My own innate resistance to this concept, which I presume is shared with most of my readers, is actually a product of my own historical conditioning. As Apffel-Marglin points out regarding ancestral practices of making offerings to the Earth:

> The Reformers in 16th century Europe called such rituals "magic" due to their insistence on the total separation between humans, nonhumans, and the religious, namely a God removed from the material world. For the Reformers,

> agency, voice, and meaning became exclusively human attributes. Ever since the Reformers' separation between matter and spirit, such rituals of regeneration could only be understood as humans representing symbolically or metaphorically the nonhumans who became passive and silent.[2]

Does not her argument, which applies to all concerted action between human and nonhuman agencies carried out over long periods of time, apply equally well to alcohol? Are we really justified in claiming that all the spiritual manifestations of alcohol are mere representations of something actually inert and without sentience?

For “passive and silent” alcohol is not, not by a long shot.

This essay is not, by the way, an argument for a ban on alcohol or any other consciousness-altering substance. It's a call to get our relationships straight with them, which indigenous peoples can teach us a lot about. Whatever our take may be on the metaphysics

of indigenous worldviews, their efficacy is undeniable.

Wine with admixtures was once used medicinally in medieval Europe; tobacco and coca in indigenous cultures are sacred plants that allow us to commune with divinity and heal; and if I'm ever seriously injured, please give me a preparation from the opium plant! Opium, according to the indigenous ancient Greeks, is sacred, a gift to humanity from Prometheus. I have entire faith in its curative properties.

By treating our plant allies with respect and veneration, we protect ourselves. A quick glimpse at any tobacco addict, who believes tobacco a mere “natural resource” and consumer product, is sufficient to support that argument!

Even if not taken in an explicitly sacred context, it's still good to know what being you are communing with. For myself, although my relationship with red wine is sealed, because of the cultural richness and personal significance of enjoying a glass of stout, I still leave that possibility open for myself.

Yet I haven't taken that opportunity in many moons, and I don't know if I ever will again. First, I'll be sussing out how my relationship stands with that other old friend of mine, that pint of Guinness, once enjoyed in many a convivial gathering in the local pubs in Connemara, Ireland.

NOTES

1. Apffel-Marglin. “The pre-Columbian Amazonian Black Earth Re-emerging,” 6.
2. Ibid., 10.

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IWGIA, Denmark; and Casas de las Americas, Cuba. Forthcoming.

DMT: THE THINKING MAN'S MOONSHINE?

BY GABRIEL ROBERTS

Did you know that you are presently “holding” a schedule 1 psychedelic drug in your brain right now? Unfortunately as soon as that shit is anywhere other than in your brain, it's as illegal as heroin or crack.

You may be wondering what it is. Well, psychnautical guru and all-around interesting guy Terence McKenna said DMT was the most shocking thing a human can consume this side of the yawning grave. Coming from a guy who was to psychedelics what Lil Wayne is to “Sizzurp,” this is quite an astonishing claim.

Due to its difficulty to get ahold of, some have gone through the work of figuring out how to get this mystical substance from their

expanding little minds. A friend of mine was one of those people. He, like many others, had been hearing wonderful and sometimes terrifying stories of DMT's transformational power. He had read books like *The Cosmic Serpent*, *Supernatural*, and *DMT: The Spirit Molecule* and watched all kinds of YouTube stuff.

By this time, something in him just had to make his first encounter with DMT happen. It's not like you can just score some on a street corner, and it's not exactly an easy thing to casually bring up, so with no other option seemingly available, he did what any resourceful young man would do; he made it himself.

Before he knew it, he had the bark he needed from an online source and a recipe from the Internet. Lo and behold, he had (with some trial and error) the real deal. After he had made a batch of his own and tried it, he was now on a mission to let other people know about his wild journey through hyperspace.

I had come to many of the same conclusions as him about the nature of consciousness and spent many nights talking about the

mysteries of the world, so when he revealed to me that he had figured out how to make DMT, I jumped at the chance to try it.

Though he was very excited to share with me (free of charge), he was also very stern that this was not some lighthearted deed. He offered that I take a moment to be at peace with myself and make sure I wasn't going in half-cocked. I took his advice and gave it a whirl.

Upon first inhalation, I was staring at my bookcase, which now looked like a giant smile with six rows of book-teeth. It smiled at me because “it held so much wisdom in its mouth.” During this first time, the plants in the room all reached out to me and telepathically told me that they were always there for me.

Something was not quite right, though; when I closed my eyes, it looked like I was staring at a giant mandala that was ever changing. It also felt like I was on some cosmic swing and needed a push in order to swing higher. There was this frustrating feeling of not being all the way there, even though I didn't know where

“there” was.

I committed to a larger dose of his home-brewed paradigm changer, and off I went! This time, everything was left behind, including my sense of self. In fact, self was a laughable concept. While the set of eyes that made up the perceptive character I knew as myself floated in a Technicolor clusterfuck, every digital media I had ever seen in my life spun like a trillion rainbow dervishes and transformed into “people.”

I use the term *people* very lightly—these were like a million-year-advanced species of light serpents making love and tangling like earphones in Jerry Garcia's pants pocket. Through all of this, they spoke to me in jokes and riddles, telling me the mysteries of the universe in a Fourth of July finale.

The illusion of disconnection had been so powerful in my life just moments before, and now it was laughable. Everything and everyone was a mechanical part in a giant machined object; one of love and hate, of all manner of feeling. It was amoral; it was

loving, it was alien in a way that beggared any Hollywood depiction of alien.

I came back with tears in my eyes having witnessed a wild spectacle that only the closed eye can reveal. The potential of the human mind walked into the room like an unexpected visit to your home from your favorite movie star.

My friend and I suddenly spoke a language of symbol and metaphor, because everything seemed to be exactly that. I understood finally what the mystics of the ages saw. No wonder they seemed so otherworldly! They very well may have seen these things from a natural outburst of DMT in their own system. Religion was someone else's trip report sadly misunderstood!

Two years and many trips later, my life was changed by an experience that my own brain holds the key to. Holy shit.

This leads us to the question of whether or not it is responsible to even try such a thing. I cannot tell other people that this is the be-all and end-all, because it isn't. I can't say that it's advisable to

try, but I can say that I should be able to make those decisions for myself as an adult. If I'm going to live and die, I'd like to think it's on my own terms.

So is DMT the thinking man's moonshine? It might be. My friend burned a hole in his floor and stained his toilet purple as Grimace's ass. He set his first batch on fire because he forgot to do some sort of chemical wash before he tried it. Trial and error made mayhem and peril possible as well.

Like moonshine, people can make DMT at home, but with no small amount of legal risk and pharmacological uncertainty. Hopefully, like moonshine, the psychedelic helper known as DMT will become like booze: legal.

DMT—THE FINAL FRONTIER: WHAT DO HALLUCINATIONS, ANGELS, ALIENS, DREAMS, AND NEAR-DEATH EXPERIENCES ALL HAVE IN COMMON?

BY MIKE ALIVERNIA

Your brain on DMT! I believe that it would be hard to *disprove* the connection between all those words above, in bold print, and the chemical DMT produced within each of our brains as the mysterious link at the center of so many misunderstood moments in human history! Simply stated, our brains *function differently* in reaction to *any* chemical. There is no doubt that your reaction to any external form of DMT (either smoked or injected for a shorter

but extremely effective result, or drank as a simple but serendipitous concoction in the form of an ancient Amazonian brew known as Ayahuasca) allows for your brain to explode into other realms of consciousness while your heart beats and your body stays piled in its seat. There is also no doubt that our bodies produce the chemical dimethyltryptamine: DMT *http://en.wikipedia.org/wiki/Dimethyltryptamine*. Dr. Rick Strassman's almost exclusive, yet extensive work has shown the effects of a DMT "trip" to be most likened to reports of near-death experiences, alien abductions, encounters with spiritual beings, or feeling wide awake in the most incredible of dreams. Indeed, our bodies take a required, daily physical and mental break from our reality that we accept as sleep. During which, I believe there is a mechanism that releases the appropriate amount of DMT required for your mind to peacefully enjoy whatever hallucination it can conjure—dreaming in REM. (Does the pineal gland produce or simply regulate the chemical? This seems to be the final wrangling

point for science. http://disinfo.com/2013/05/breakthrough-dmt-found-in-the-pineal-gland-of-live-rats/)

With the acceptance that there is no other reasonable definition for what a dream is—save a hallucination while your body lies incapacitated—it should be noted that this is the exact state induced by a DMT or Ayahuasca "trip." One is left to realize that while we not only don't understand the reasons humans are born equipped to access a naturally available, nightly neuro, carpet ride, we seem to be ignoring the answer as to *how* we sail uninhibited in dreamscapes un-mappable, all from the comfort of our down pillow. Recently, I've been afforded the opportunity to listen in on firsthand, graphic retellings of more than a handful of hallucinations, a few rare cases of "bipolar 1 with psychotic features" patients have had to endure. More importantly, they were retellings of these brave souls trying to survive within the midst of the never-ending wake of confusion and fear these prolonged parallels of perception leave behind. It was during one of these

sessions that I truly had that aha moment, in which I was flooded with the obvious connections in all of their stories and the work Graham Hancock clearly laid out in "Elves Aliens, Angels, and Ayahuasca" *http://www.youtube.com/watch?v=0qgMFO0KU-I*.

There was one fact that every story shared, but every patient would naturally gloss over, that struck me as most important. These were altered realities that would uncannily occur at night, during a period of high anxiety or manic-induced insomnia, or during an unusually difficult night of sleep and were nonetheless eerily similar to the narratives in the relatively recent flux of "alien abductions" and the equally unexplainable "breaks from reality" that medicine currently classifies as "schizophrenia." The resulting altered realities share strikingly similar reports of geometric shapes, animals, or creatures that have humanoid features that usually share animal features or have "otherworldly" characteristics, knowledge, and settings that are far more powerful and/or frightening than that moment of confusion right before you

wake—when you can't quite put your finger on the fact that you're still dreaming. Let's not forget the peculiar pasttime as old as man itself, for those rare individuals with a “more close relationship with God.” Why have they been able to have face-to-face, seemingly flesh encounters with Angels, have conversations with God Himself, or put into words divinely inspired wisdom? The vast majority of these people have, indeed, induced altered states of consciousness through meditation; fasting by deprivation of sleep, food, or water; severe stress or trauma; eating or drinking “spiritual sustenance”; or otherwise been deemed to be “special” or “touched.”

WHAT DOES IT ALL MEAN?

What makes these human beings enter into states that they perceive to be “not our shared reality”? I purpose it to be quite simple. It is the altering or *malfunctioning* of the natural mechanisms we all use to dream while asleep—and for our soul to escape the body upon

its demise. I won't go into my thoughts as to why we are intended and readily equipped to enter into a dream state every single night—or why DMT is released at the moment the brain believes the body is dying—here. What I want to get across is that indeed, *things that cannot currently be explained have a remarkable way of being connected!* Whatever the trigger—be it REM sleep, lack of sleep, extreme anxiety, a malfunctioning of our brain's internal regulator, lack of food and water, purposeful deprivation and meditation, or the introduction of external DMT or psilocybin—the result is the same. Our brains use all their naturally equipped physical pathways necessary for DMT to produce alternate states of perceived realities. How can we begin to understand our true purpose here on this planet, with a dualism as perverse as a fleeting mortal body, carrying within it a super computer of soft membrane encased in fluid, firing on electricity and chemicals in ways we'd rather ignore than embrace?

WOULD IT BE THE END OF THE WORLD AS WE

KNOW IT?

If every culture openly partook in spiritual rituals (freely and religiously practiced in the Americas from antiquity until the bloody Spanish conquests of the 16th century, and *surely* the lost key used by the ancient Middle Eastern, Indian, and Far Eastern religious originators) of using either plants or chemicals, or fasting and meditation methods for encountering spiritual realms currently either feared or deemed to be worthy of only prophets or sick minds, would *anything on this earth* be the same? I don't know, but I presume such a worldwide movement to be the awakening, rebirth, revival, or revelation so many have feared or foreseen.

As the ever-churning motor of science's boat keeps us moving forward, in an unfathomable ocean of physics and chemistry, mysticism and magnetism, and the light of life and the dark of matter, the only things changing are the make and model of the engine and the perception of the brain instantly analyzing the images taken in by the eye peering into the scope placed firmly on

“our reality” http://www.youtube.com/watch?v=5UwvaSLbIgc. That is to say, wake up! The future is arriving at an exponentially escalating rate. The shift in understanding necessary to realize that we have the keys to answer spiritual, religious, esoteric, theosophic, and all other philosophical questions and ideas with scientific proofs will be as mute in its infancy as Christ's death on a cross. Just as it took some three hundred years for one man's death in the desert to show its value in the manifestation of His messianic, cult-based following becoming His executioner's mandated orthodox, it will take time to relearn what has been oppressed and forgotten to the point of near spiritual extinction. While they don't draw fish in the sand, perhaps there are enough brave souls making rifts in the newly (re)constructed and ever-evolving web of consciousness that can bring whoever you are now and whoever I was when I wrote this together to enjoy a fulfilling reality in which we embrace each other for what we are. Star-crossed souls, blessed with the chance to experience everything our

brain and soul, have the ability to access here—knowing love, pain, gain, loss, sharing, and caring in the miraculous manipulation of matter that is our only chance at *this* physical life. One with a transparent ceiling. Don't fear the images on the other side—simply looking through it won't crack the glass!

Resources

Watch DMT: The Spirit Molecule, here:
http://www.youtube.com/watch?v=c4FaDMak-TQ; and here:
http://www.youtube.com/watch?v=eMOC44vby9g

Terence McKenna rapping about DMT, here:
http://www.youtube.com/watch?v=EZAMKn2xr9E

Watch Rupert Sheldrake, get banned from TED here:
http://www.youtube.com/watch?v=1TerTgDEgUE

Watch Graham Hancock, get banned from TED here:
http://www.youtube.com/watch?v=YIjYA_X4ivg&feature=c4-overview-vl&list=PLAFA58CE2C884BBCC

Graham Hancock Interview on Consciousness, Ayahuasca and more: *http://www.youtube.com/watch?v=B1Ne6rTo_5U&feature=c4-overview-vl&list=PL4E62628231F3DD64*

WHY I DON'T DO PSYCHEDELICS VERY OFTEN ANYMORE

BY THAD MCKRAKEN

I feel like I should start this off by saying that I'm never going to stop doing psychedelic drugs and to say that I don't do them very often anymore would sort of ignore the fact that I get high almost every day. In my mind, weed's a bit more of a hallucinogen than most people like to acknowledge—it just takes a bit more focus to be used in that capacity and people are lazy. Things like acid and mushrooms come right into your headspace and impose their essence into the very fiber of your world. They're the only reason I'm writing this weird shit for you today. I took mushrooms when I was eighteen and saw a universe of transcendent, shape-shifting, mutant space art that no one will ever be able to explain to me with conventional thought.

One of the more mind-blowing aspects of randomly experimenting with psilocybin as a teenager had to do with reading people like Carlos Castaneda shortly thereafter. Whatever you think about the guy's work, I can absolutely say that I was completely unfamiliar with the concept of sorcery or shamanism until that exposure. Most of us tune it out. I wasn't crazy. People had been basing their spiritual beliefs on the ritualistic use of entheogens ever since we can remember there being people, and yet, we've outright rejected this philosophy in Western culture. I just can't figure out why everything's fucked. I just can't figure it out.

The sensory fireworks of psychedelic high strangeness eventually led me into the even freakier spectacles of astral projection and chaos magick. I can say with all certainty that these things have led to more coherent cosmic informational downloads than psychedelics ever have. Hands down. The psychedelic experience is almost too powerful. You get a constant invasion

stream of more than you can take, which is why it's so awesome, but it's also easier to process the information more effectively in alternate formats like sex ganj-i-tation and dream analysis. It typically takes me months to process a single trip, but there was a time when I didn't take them so sparingly.

The problem is the drug war. Set and setting largely dictate the resulting imprint of any entheogen voyage, and in this day and age, your average teenager dives into them like they would any other illegal substance. You could argue that the majority of our spiritual beliefs are backhandedly diluted shamanism when you get down to it. This is some powerful shit. And most of us just throw ourselves into it as if it's no different than choogling cheap beers and trying to get laid. I had absolutely no idea what I was getting myself into when I first tripped out. It was a Friday night—I was looking to party. What happened changed me forever. Not many people are going to tell you that's a possibility. The psychedelic experience has never really grown up past its frat boy party phase in Western

culture. I'm still not of the mind that going to a crowded concert or festival is the best way to get something profound out of them, as hyper rad as that can be. Optimally, I think sex should be involved, but that's another story.

What I'm really getting at is that I sort of find psychedelic culture embarrassing to a certain extent. I remember reading about research done back in the sixties that indicated that without the implementation of an alternate spiritual practice, the long-term effects of a given acid trip on an individual's behavior were often negligible. I've known a crap ton of people who have taken a bunch of psychedelics, and very few of them have adopted any sort of alternative spiritual discipline whatsoever. It usually seems to be about, again, taking drugs as a means to escape life's bullshit and little more. A lot of times, it almost turns into a pissing contest, a sort of I-can-handle-more-than-you-can competition. Granted, I know a lot of other people who use it to inspire art, and that's a spiritual discipline unto itself, but very few people I've known take

on even basic things like regular meditation or intentional dream manipulation. For most casual trippers, it doesn't change them much at all in the long term. If I were to put a finger on why this is, I'd wager it has something to do with the set and setting in which we take them, which is typically “at a party or party environment” under the impression that “they're just drugs fucking with your head.” That's a pretty good setup for a failure to learn anything. Basically, just edit out all the freaky shit to the best of your abilities because there's no reason to pay much attention to it anyway. That's the attitude a lot of us are launching ourselves heavenward with.

God, the dumb shit I did in my youth. I have multiple stories of being drunk at like three a.m. at some random party and one of my friends finding acid. Yeah, let's take that, right now, after seventeen beers. It's not like it wasn't fun. I had the free time, and I used to be able to handle these shenanigans. On the other hand, it's also kind of stupid. I knew one girl who took mushrooms and had to be

forcefully evacuated from a concert because she wigged the fuck out. I knew another guy who on several different occasions ate 'shrooms and wound up in a mental institution not really having any idea how he got there. He lost a couple jobs because of that. Right after high school, I sold a dude some and he went home and took them by himself. Ended up freaking and his mom took him to the hospital in the middle of the night to get his stomach pumped. That has to be one of the worst trips on record, and I still sort of feel bad for selling him those. Why doesn't anyone say obvious shit about psychedelic drugs? Why is it always just “Goooooo Teeeaaaam Druuugs!!!!!”?

No seriously, I'm about the biggest advocate for the stuff imaginable, but if someone who's never tried them asked, I'd tell them to try weed first. If you can't handle what that does to your brain (and a lot of people struggle with it), you really have no business going any further. Try smoking pot and meditating, and if you like that, by all means proceed. If you have a predilection to

things like manic depression, schizophrenia, or spontaneous schizophrenic experience, taking acid or mushrooms might just push you way over the edge, which we've seen time and time again. When you do try them, take a small dose and wait for a couple hours. If you want more, take more, but increase the dosage in small increments to test what you can deal with. I so did not take this advice or think this way when I was younger. Even years back when I took mushroom chocolates with my wife, who had never done them, I accidentally gave her way too much because I'd never tried that batch and had no idea how strong they were. As a result, she had a rough first few hours (although she learned a few things) and I had to put in a bit of effort to pull her out of it, which worked. You'd think I would have figured the protocol out by this point, but it's not like you learn it in schools or on TV. They tell you to party.

The other important point is: don't do them all the freaking time. I'm of the mind that Timothy Leary's idea that you can take these

things weekly without frying your brain is 100 percent off. When I read about the sixties, it never ceases to amaze me how large they went on that front. There is absolutely no way that wouldn't have made me go all Syd Barrett bat shit—which is quite depressing, I might point out. And it's not like I've never gone over the edge tripping balls too much like those guys did. When I moved out to Seattle twelve years ago, I arrived with a half sheet of acid in tow. On top of that, mushrooms just kept finding me. This of course led to some of the most transcendent sexual experiences of my life, but eventually an eerie communication started reverberating through the ether of psychic waves. I kept seeing the exact patterns repeating themselves over and over again. Nothing new was piercing the veil of novel experience. It wasn't just that, but as with everything telepathy, I was starting to understand that the repeating feedback loop was meant to tell me something, and I'll try and translate it into English for you:

Hey, Thad, it's us, the mutating hive-mind super gods. Yeah,

> we dig you too. I get that you like making us do this little trick we do, but guess what. We've shown you everything we can, little guy. Go out and, like, accomplish something with your life before you summon us again. Impress us and we'll impress you. Thanks for leaving us alone until you do.

Of course I didn't really listen to all that because back in the day, I was actually quite a bit denser than I am now, which is hard to believe. I did slow it down a bit, though, but of course I suppose a true lesson had to be imparted for them to get through to me. That happening took some of my most irresponsible drug behavior ever. I got promoted into this new management gig where I had to be on call and carry a pager regularly. The very first night that I had this responsibility, I showed up at home, and my girlfriend at the time was cutting up lines of coke. We bumped those, and then at like two in the morning, decided we're going to do the ecstasy we had lying around. That got weird and really sort of fun and emotional. We talked about a lot of repressed things we'd never touched on

before. I actually answered a call from my work no problem despite being completely out of my head. Then when the E wore off at, like, six in the morning, we had the brilliant idea of taking the last bits of acid we had in the fridge. This is the problem with thinking about psychedelics as party drugs in a nutshell.

Now, it should be noted that before this happened, we'd done this stuff a few times and it was super weak, which is what influenced the decision. We thought it'd just put a perma-grin on our faces, which is what it did before. An hour later, though, while we were walking around the park, it somehow came on fiercer and more sinister than anything I've ever had creep up on me. The next ten or so hours were the most demonic horror-show invasion-type vibes that have ever slipped into my micro-verse. The spirits were fucking pissed. Now the message was:

> Hey, dipshit. We told you! *We told you!* What the fuck are you doing with your life? Jesus Christ, get a fucking hold of yourself. Go out and do something to impress us or never

summon us like this ever again.

It was absolutely brutal, and one of, like, only two bad trips I've ever had. I remember at one point actually having sex with my quite gorgeous girlfriend and just stopping. I wasn't even into sex. That's how nuts it was. Eventually, she had the quite brilliant idea of giving me a bunch of Benadryl, which finally ended the ordeal and knocked me out. Thank god no one else paged me. It should be noted that it wasn't nearly as negative a vibe for her and I had way more experience with acid at that point.

After that, I didn't do hallucinogens at all for like two and half years, and I, you know, actually sort of accomplished some things with my life. I got into magick. Then next time I took them was again at, like, one in the morning when I was sort of drunk with the same girl, who called me out of nowhere. It ended up being one of the better trips I've had, and I've actually written about it fairly extensively. The spirits were pleased with me again. There sure is some potent psilocybin in the Pacific Northwest. The trip started

with this kitten on a calendar someone gave me shooting psionic neon-red laser beams out of its eyes and into my eternal structure. Hadn't seen that trick before.

In the seven or so years since, I usually embark on one or two cosmic voyages a year, max. I typically do it to reward myself for some sort of accomplishment, which for me typically involves the completion of an album that I ritualistically listen to. I've been increasingly trying to plan these things out and hone the ritualistic element more precisely. This is all new, honestly. I did a 2012 audio acid ritual that quite quickly pointed out to me what the next step in my magickal evolution is: communion with my Holy Guardian Alien. Abduction basically, but from my body, not of my body. I've got a long way to go as far as mastering that goes, but until then, further figuring out how to maximize the set and setting of the psychedelic experience is sort of what I'm up to.

On that note, part of the reason I'm talking about all this is because I took a chocolate and went to the first Hypnotikon

psychedelic music festival in 2013. Aces. Just top-shelf psychic residue spewing forth from that camp. I was peaking in the front row while an unholy Night Beats freak-out was going down. Amazing. Like going on a hyper-color great-space roller coaster. Did I gain any real new spiritual insights? Not really, but it certainly was mind blowing in epic proportions. So mind blowing that my head wasn't entirely back to normal for four whole days afterward. Christ, I'm getting old. It used to take me, like, a day to bounce back from that kind of madness overload. On the other hand, just kind of verifies my point. You probably don't want to be doing this sort of thing too often, but rather, ritualistically and with respect. The term *acid casualty* exists for a reason. Let us not forget that.

GIVING UP THE GREEN BITCH: REFLECTIONS ON CANNABIS, AYAHUASCA, AND THE MYSTERY OF PLANT TEACHERS

BY GRAHAM HANCOCK

I have some personal stuff to share here, and I intend to do so with complete openness in the hope that my experiences will prove helpful to some, thought provoking to others, and might stir up discussion around issues of consciousness and cognitive liberty that are often neglected in our society.

I'll soon be on my way to Brazil for what has become pretty much an annual pilgrimage to drink the visionary brew known as Ayahuasca, the “vine of souls,” sacred among shamanistic cultures of the Amazon for thousands of years.

I'm not doing this for fun, or for recreation. Drinking Ayahuasca is an ordeal. It is, for a start, among the most horrible tastes and smells on the planet—a mixture of foot rot, raw sewage, battery acid, sulfur, and just a hint of chocolate. Within about forty-five minutes of drinking it, you frequently begin to suffer bouts of severe nausea, vomiting, and diarrhea. It is not for nothing that it is also known as “the purge” in the Amazon! And then, alongside the light and joy and valuable life lessons that are often part of Ayahuasca journeys, there are the sometimes terrifying psychic challenges including visionary encounters with seemingly malevolent entities in convincingly freestanding parallel realms that can be distressing to say the least.

So . . . I'm bracing myself. But I don't feel too much fear because of the deep understanding, which has gradually settled on me during the ten years I've worked with Ayahuasca, that a being of pure and boundless love—who may even be that being recognized by some ancient cultures as the Mother Goddess of our

planet—has harnessed the brew in the context of time-honored ceremony to gain access to human consciousness and to teach us to do the best we can with the precious gift of our life on this earth.

I know how strange this may sound to those who have never drunk the Amazonian brew and never encountered "Mother Ayahuasca" in one of her many forms. Moreover—let me be clear—I am not making any empirical claims about the reality status of the sorts of experiences I'm talking about here. Perhaps they *are* all "within the brain," as skeptics say. Perhaps they *are* all imaginary (although if so, we must explain the transpersonal character of these imaginings). Perhaps they *are* "just hallucinations." Or perhaps what is going on here is that our brains are transceivers rather than generators of consciousness, in which case, could it be that Ayahuasca temporarily "retunes the receiver wavelength of the brain," giving us fleeting access to other levels or dimensions of reality not normally accessible to our senses? This is a serious question, and one that is taken seriously by increasing numbers of

scientists working at the cutting edge of consciousness studies.

But setting aside the unsolved problem of whether Mother Ayahuasca is real or not, what is interesting is that at the level of phenomenology, many, many people have undergone encounters with her during Ayahuasca sessions and have had their behavior and their outlook profoundly changed as a result. Those changes are real even if materialist science would like to reduce the entity who inspires them to a mere epiphenomenon of disturbed brain activity.

Very often this entity (who, I repeat, may or may not be real but is experienced as real) gives us profound moral lessons in the depths of the Ayahuasca journey. We may be shown episodes from our lives in which we have behaved unkindly or unjustly to others, or been mean-spirited and unloving, or failed to live up to our own potential, and we will be shown these things with absolute clarity and transparency, with all illusions and excuses stripped away, so we are confronted with nothing more or less than the cold, hard

truth about ourselves. Such revelations can be very painful. Frequently, people cry during Ayahuasca sessions because of them. But they bring insight and give us the chance to change our behavior in the future, to be more nurturing and less toxic, to be more considerate of others and to be more aware than we were before of the incredible privilege the universe has given us by allowing us to be born in a human body—an opportunity for growth and improvement of the soul that we absolutely must not waste.

Perhaps this is one of the reasons why Ayahuasca has been so very successful in getting people off addictions to harmful hard drugs. For example, Dr. Jacques Mabit has for many years been offering heroin and cocaine addicts incredibly effective treatments with Ayahuasca at his Takiwasi clinic in Tarapoto, Peru, where they might typically undergo twelve sessions with Ayahuasca in the space of a month. See here: *http://www.takiwasi.com/docs/arti_ing/ayahuasca_in_treatment_ad*

A very high proportion of participants have such powerful revelations about the roots of their own problems and behavior during the sessions that they leave Takiwasi completely free of addiction, often without withdrawal symptoms, and never resume their habit. The success rate is far better than any of the conventional Western treatments for drug addiction.

Likewise in Canada, Dr. Gabor Mate was offering phenomenally successful Ayahuasca healing sessions to his drug-addicted patients before the Canadian government stepped in and stopped his work on the grounds that Ayahuasca itself is an illegal drug—see here: *http://www.theglobeandmail.com/life/health-and-fitness/bc-doctor-agrees-to-stop-using-amazonian-plant-to-treat-addictions/article4250579/*.

Yes, indeed, Ayahuasca *is* an illegal drug in the narrow Western definition of the term, which allows big pharmaceutical companies to make billions out of marketing consciousness-altering substances like Prozac or Ritalin but will send us to prison for

exploring our own consciousness with time-honored sacred plants such as those that go into the Ayahuasca brew.

The plants concerned, which are simply cooked together with water, are the Ayahuasca vine, *Banisteriopsis caapi*, and a shrub from the coffee family, *Psychotria viridis*, called *chacruna* in the Amazon. (Very few other plants are also known to produce an effective brew, but *B. caapi* and *P. viridis* are probably the most widely used.)

The illegal element, contained in the leaves of *P. viridis*, is dimethyltryptamine (DMT), is arguably the most powerful hallucinogen known to man. Normally in the West, when we encounter DMT, it must be smoked—producing a rapid, overwhelming, but short-lived (twelve to fifteen minutes) alteration of consciousness, with which there is no negotiation. The smoking route has to be taken because there is an enzyme in our gut called monoamine oxidase that switches off DMT on contact. The ancient shamanistic societies of the Amazon, however, have found a

workaround for this problem in the form of *B. caapi*, the vine itself, the other ingredient of the Ayahuasca brew, which it turns out, contains a monoamine oxidase inhibitor that switches off that enzyme in our gut and allows the DMT in the *chacruna* leaves to be absorbed orally. The result is a long, reflective (up to four-hour) visionary journey with which a great deal of negotiation is possible and that is very different qualitatively from the intense but brief experience of smoked DMT.

How, thousands of years ago, did shamans manage to select these two plants out of the estimated 150,000 different species found in the Amazon and learn to marry them together with water to produce the extraordinary potion that we know as Ayahuasca? It is a bit of a mystery, but shamans today claim it was not done by trial and error. Their ancestors, they say, were taught the secret by spirit beings as a gift to mankind.

Certainly those who have experienced the profound healing of harmful addictions that Ayahuasca can bring would agree that the

brew is a very special gift. And on this matter, I speak not only from my knowledge of the research but also from personal experience.

In my case, the addiction was not to heroin or cocaine but took the form of a twenty-four-year cannabis habit that I began in 1987 at the age of thirty-seven and that I stopped abruptly at the age of sixty-one after five traumatic—but ultimately positive and life changing—Ayahuasca sessions in Brazil in October 2011.

In what I have to say next, I want to make a number of things extremely clear.

1. I am not putting down or disparaging cannabis or those who choose to use it. The "Green Bitch" in the title of this article is not cannabis itself but the abusive, self-indulgent relationship, entirely my own responsibility, that I had developed with the herb.
2. I recognize that cannabis can be an immensely helpful plant

ally and that it has uniquely beneficial medicinal applications.

3. Quite apart from these medicinal properties, I recognize that the sensual qualities of cannabis can also be of great value—enhanced appreciation of food, music, the joys of lovemaking, the wonders of nature, and so on and so forth
4. I believe absolutely and unconditionally that it is the right of adults—an inalienable and fundamental human right—to make sovereign decisions over their own consciousness, including the right to enjoy the effects of cannabis and to benefit from its medicinal properties, should they choose to do so.
5. I remain as strongly opposed as I have ever been to that wicked and evil enterprise called the "war on drugs," which only serves to empower criminal gangs on the one hand and the worst and most controlling elements of government on the other. My views on this matter have not changed a jot since I wrote the article, "The War on Consciousness," in 2009 (*http://www.grahamhancock.com/features/the-war-on-*

consciousness.php.).

6. Last but not least, I fully recognize that I myself benefited greatly from some aspects of my long relationship with cannabis. It lightened me up a lot in all sorts of ways and encouraged me to explore unusual connections between things that I would not normally have connected. I was a current affairs journalist when I was thirty-seven (that was in 1987—I was born in 1950) and I had written some nonfiction books on travel and current affairs issues, but I don't believe I would ever have moved on to writing about ancient mysteries (still nonfiction, although many of my critics would disagree!) if it hadn't been for the new way of thinking that cannabis drew me into.

My first investigation of an ancient mystery was *The Sign and the Seal: A Quest for the Lost Ark of the Covenant*, which I began to research seriously in 1987, shortly after getting into cannabis

(http://www.grahamhancock.com/library/sats.php). *The Sign and the Seal* was published in 1992. During the writing of that book, it was my habit to smoke cannabis only in the evenings for an hour or two before going to bed, but things changed from 1992 onward when I began to work on my next nonfiction historical mystery *Fingerprints of the Gods*. This was when I began to smoke cannabis all day long and to experiment with writing while I was stoned. I liked the result, and it soon became my practice to light up my first joint (or pipe if it was hash) the moment I sat down at my desk in the morning and then just to carry on smoking all day long until I went to bed—often in the small hours of the morning. This remained my habit thereafter—smoking continuously from morning to night, whether writing or not, and gradually seeking out stronger and stronger strains of the herb.

In 2006 or 2007, I switched from combustion products to a Volcano Vaporizer and at the same time began to buy from a grower who has amazing green fingers and produces incredibly

powerful varieties of bud, most usually a variety called “Cheese”—I guess because of the smell—but way stronger than anybody else's product of that name that I have sampled.

Cannabis had always exaggerated paranoid tendencies that I probably have already, but these began to come more and more to the fore from 2007 onward with very negative effects on my behavior. The worst was that with absolutely no real-world justification at all, I began to become increasingly jealous and suspicious of my beloved partner, Santha, who is the most honest and true person I could ever hope to know. We would have increasingly frequent shouting matches, always initiated by me, as I accused her of all sorts of things that she had not done and would never do. And while part of me knew I was behaving in a more and more crazy way I couldn't stop the behavior or the feelings that were causing it. We still had happy times, but the jealousy and suspicion kept tightening their grip on me, and I can honestly say that I made Santha's life a misery between 2007 and 2011. It is a

miracle and a tribute to her goodness of heart, care, and love for me that she didn't simply walk out and leave me but instead patiently and tolerantly persisted with me and tried to get me to see sense.

So what did those five sessions of Ayahuasca show me in October 2011 that led me abruptly, overnight, to end my cannabis habit? After all, I had already been smoking cannabis for sixteen years when I first began to drink Ayahuasca in 2003, initially as part of the research for my last nonfiction book *Supernatural* but later as a form of regular spiritual work. I drank Ayahuasca at least three times a year every year after that—so what changed? What was so different about those sessions in 2011?

When I look back on the whole process now, I can see that right from the very first session, Ayahuasca was giving me messages about the need to moderate my cannabis habit and showing me how my obsessional relationship with the herb was feeding and empowering negative aspects of my character. What's more, I

received those messages loud and clear! But by then, I was already so involved with cannabis, so convinced that I could not live my life without its help, and so sure that all my creativity would dry up and wither if I did not continue to smoke it, that I simply ignored and blanked out what Ayahuasca was trying to tell me. Perhaps if I hadn't done that and had listened carefully instead, I could have got my relationship with cannabis into some sort of constructive balance and stayed within the boundaries of responsible use rather than self-indulgent abuse, and perhaps then I would never have needed to reject the herb completely, as Ayahuasca finally compelled me to do in 2011.

The process began on September 30, 2011, just before Santha and I flew down to Brazil. We were in the United States, at a location I won't disclose, where I smoked a pipe of pure DMT.

I had smoked DMT before. My first two experiences, in England in 2004, were terrifying (for those who are interested, I describe them in my book *Supernatural*). Then in 2009, I had three pipes in

one night in the same US location I found myself in in 2011 and had amazing, healing experiences. Rotating lights moving all over my body, a sense that I was being scanned and that something was being fixed, some (slightly scary) computer-like circuitry that seemed to be sentient, an encounter with a sorcerer/magician figure who opened a rip in the earth for me and showed me an ancient buried city, etc. It was all great fun and rather exciting. Same thing happened in 2010—two pipes that time, separated by about an hour—and more beautiful, healing experiences.

So when I found myself back at the same location in the United States in 2011, I felt relaxed, and I welcomed what I expected would be another pleasant healing excursion to the DMT realms. I certainly had no expectation that anything particularly disturbing or terrifying would happen to me.

Turned out I was wrong.

As soon as I took my first long draw, I had the unsettling feeling that something intelligent and not necessarily friendly had leaped

into my head from the spherical glass pipe. I held in the smoke as long as I could and then took another long draw. By now, there was a crackling, buzzing sound in my ears, and I felt utterly overwhelmed and had to lie back at once (I always lie back; no way can I stay sitting up!). Immediately, things were very different (though with some similarities) from all my previous smoked DMT experiences. The first thing I saw was something like a mandala with an ivory background and intricate brick-red geometric lines—like tracks—inside it. Between the lines, or tracks, imposed on the ivory background, were a large number of clock faces with weird hands. I'd seen something like this before, not under smoked DMT, but under a very strong dose of Ayahuasca. It terrified me then, don't know why, and it proceeded to terrify me again. Then I realized that the mandala (only an approximation; there was something very like computer circuitry about it as well, or even like one of those toy race-car tracks where little electric cars whiz round and round) was sentient and focused on me. I got a hint of

eyes or feelers. There was something very menacing about the whole scene, and I began to feel uncomfortable and restless in my body. I had enough of my everyday consciousness left at that point to wish profoundly that I hadn't smoked the pipe, and I felt myself struggling—uselessly of course—against the effect. Then I heard an ominous voice, filled with a sort of malicious glee, that said very clearly, "*You're ours now.*" And I thought, *Shit, yes, I am yours now, not much I can do about it, but it's only for about ten more minutes and then I'm out of here.*

Since it was pointless to struggle, I resigned myself to the situation and thought, *Okay then, get on with it*, and immediately the mandala/intelligence and lots of its little helpers (who I felt but cannot describe) were all over me. I had the sense that my body was a huge, fat, bloated cocoon and that these beings were tearing it apart, tearing off lumps of matter and throwing them aside, getting access to the real, hidden me. I was aware that this was a place of absolute truth, like the Hall of Maat in the ancient

Egyptian tradition, and that everything about me was known here—every thought, every action, good and bad, throughout my whole life—and the sense that the real hidden me within the cocoon was utterly transparent to these beings and that they were finding me wanting. About as far from being "justified in the judgment"—as the Egyptian texts put it—as it is possible to be, I realised that therefore I might face annihilation here. And I heard something like a trumpet blast and a loud voice that announced, as though this were a proclamation at court: "*Now the great unfolding will begin.*" Or possibly: "*Now the great transformation will begin.*"

That was the point where I lost consciousness of the material realm completely, and indeed of everything else. Feeling utterly helpless, utterly in the power of whatever process I was going through and of the intelligence that was running it, I fell into a darkness that seemed to last forever. I have no conscious recollection of what happened to me in there, only the conviction that it was something massive. When I began to come out of it,

there were some moments—though this felt much longer than moments—when I was deeply confused and disoriented and had absolutely no idea where I was or why I was there. I could see the room around me but didn't recognise it, didn't even know it was a room at first, or even what a room is, and it kept melting back into that other terrifying reality out of which I was emerging. This has never happened to me with DMT before—I've always known, even in the depths of the experience, that I was having that experience because I had smoked a pipe of DMT and my body was in a specific place, which I did not forget, at a specific time. This was completely different and very, very scary.

Gradually my eyes began to focus, I remembered I had smoked DMT, and I looked around and saw Santha sitting on the edge of the bed, very calm, and incredibly strong. I was immersed in a wild melting storm of colours, and the only clear, sure thing in the whole place for me was Santha with her amazing strength and beauty and lines of light emerging from her body and rising up out

of her and surrounding her. I remember falling to my knees on the floor in front of her and telling her, “I found you again,” or something such (the sense was that I had known her in a past life and had found her again in this one) and also telling her that she is a goddess. I felt shaken but basically happy to be back on planet normal and was able to witness the sessions of several other participants without actually falling apart or melting down.

Over the next two days as we left the United States and made the journey to Brazil, I thought quite a lot about what had happened to me and began to feel very apprehensive. If I had been “theirs” for ten minutes and it had been so overwhelming, what was it going to be like for me being “theirs” for four hours at a time in the upcoming Ayahuasca sessions (since DMT is, of course, the primary active ingredient of Ayahuasca)?

Accordingly, on the night of the first session in Brazil (Monday, October 3) I chickened out and had a (for me) small cup of just 80 mililitres. Nothing much happened that night. Just restlessness and

annoyance at myself for not taking a bigger dose.

So on the night of the second session—Wednesday, October 5—I increased the dose to 140 mililitres. The first two hours passed uneventfully and I was thinking, with some relief, that nothing was going to happen. That's when I became aware of a great serpent looking at me. Just the eye filled with wisdom and compassion. I got the message—“I can work with you but you have to surrender to me.” So I did surrender and in fact said out loud, “I surrender.” Immediately, she was inside me—a huge, very warm, almost hot presence inside my chest. I was immobilised, literally pressed down onto the mattress, and felt a tremendous vibrating sensation inside my chest and along my arms, and I thought—*Wow! This is weird.* But I could no longer resist or do anything about it, and the presence (whom I construe as Mother Ayahuasca) worked her way down into my abdomen and then down to my groin, and then back up again all the way up my trunk, up inside my chest, into my neck, and finally into my head, where she spent a very long time. I

felt I was in the hands of a great power that was doing stuff with me whether I liked it or not. I have always trusted Mother Aya, so I didn't feel fear and stayed calm while this was being done to me.

Then suddenly the presence left, and I could move again, and I thought, *What an amazing blessing Mother Aya has just given me, to work with me for so long, and I felt sure that I had been healed.* But just when I was feeling that, I was suddenly back into the same DMT space that I had gotten lost in in the United States, and the feeling of calm and healing gave way to terror. I was aware once again of an entity (one this time, not many) all over my body, dancing around me, filled with malice, and I spent the next half hour or so in utter terror and also feeling in some way betrayed by Mother Aya—that she had left me in the hands of this, that she had let me be "theirs" again.

The third session, I took a low dose and pretty much escaped under the radar.

The fourth session, I increased the dose, and Santha also took a

larger dose, and we went through an extraordinary series of traumas together. Santha had the sense of some terrible dark being pulling out her heart and saying to her, “I'm going to take you to teach Graham a lesson.” She communicated this to me—and I at this point had the DMT trickster all over me again—and I totally freaked out. I had a massive realization of all the pain I had caused Santha in recent years and how this was a black mark on my soul and how I absolutely had to do something about it and stop living selfishly and start being a nurturing, loving, giving, and above all *trusting* presence in her life—otherwise I would be doomed, and I would doom her too. I was filled with grief and terror that she would die right there on the mattress beside me. Both of us were sobbing and crying. Santha grabbed hold of me and said, “Don't let them take me,” and our shaman came over to help and began singing just an amazingly poignant and beautiful song, which in due course helped to ground both of us.

The next morning in the sharing (a common feature of

Ayahuasca sessions worldwide), I expressed my intent to change my behavior and be a better partner to Santha in the future, and I said I was determined to change my relationship with cannabis. I didn't think it was realistic, after twenty-four years, to give it up completely, but I resolved to go back to my pre-1992 pattern of only smoking at night and never again all day.

On the fifth session, after the traumas of the fourth, I took a very small cup of Ayahuasca—less than 50 militres; still, I didn't quite get under the radar. I was approached by entities offering me food and drink, but I remembered the rule expressed in many ancient cultures that one should never eat food in the Underworld (witness, for example, the story of Demeter and Persephone), so I refused and opened my eyes to stop the vision.

At the final sharing, I once more expressed my intent to rid my life of all jealousy and suspicion toward my wonderful Santha and to get my relationship with cannabis under tight control, smoking only at night, not all day.

We flew home on October 14, arriving October 15. It was a very tiring and uncomfortable journey with no legroom and the fasten-seat-belts sign on almost all night. I naturally wanted to comfort myself with a little cannabis when we got back, so I fired up my Vaporiser and filled a nice fat bag. But as soon as I started to smoke it, I began to feel really awful—as though I had a poisonous fog inside my head. Immediate massive paranoia set in, and I felt I was on the edge of going completely insane. I persevered and took a few more puffs, but the feeling of madness just got worse and worse. Panic and total self-revulsion seized me—things I have never felt before with the herb. The upshot was that I squeezed out the rest of the vapor in the bag to get rid of it without smoking it and put the Vaporiser away. As I walked upstairs from my office, shuddering with paranoia, convinced I was going crazy, and disgusted at myself, I suddenly realised that my stated intention in Brazil "to change my relationship with cannabis and use less of it" just wasn't enough. It wasn't good enough just to use it less. It hit

me with the force of a revelation. I could never smoke cannabis again, or I would be doomed. I had become a complete slave to my abusive, seductive relationship with the herb; it had exacerbated the worst aspects of my personality, and my only hope was to give it up completely. Sure, I reasoned, it might be difficult for me to write without it (since for so long it had been inextricably interlinked with my writing life), but I was just going to have to deal with that.

So I have not smoked any more, well over a year has passed, and I remain resolutely determined never to smoke again. I feel free now. Liberated. As though a whole new chapter of my life has opened up in front of me. I find myself enjoying little things I didn't enjoy before, appreciating every moment that I am not stoned and that my head is clear. It feels *great* to have a clear head! My concerns about the effect on my writing have also turned out to be completely groundless. I had feared I would lose my inspiration without the herb as my muse, but quite the opposite has turned out

to be the case. I am buzzing with new ideas and creativity. Also, I'm *much* more efficient—writing between three and five times as many words a day as I did before.

Last but not least, my crazy jealousy and suspicion of Santha have evaporated like a bad dream. I simply don't have those feelings anymore, or the toxic behavior that used to go with them. We're having lots of fun together and have rediscovered the positive and beautiful basis for our love.

As to my soul, I think I've been given another chance—a chance not to be found wanting in the judgment when death finally comes. I am grabbing that chance with both hands.

SUPERNATURAL

TOWARD AN EXPLORATION OF THE MIND OF A CONQUERED CONTINENT: SACRED PLANTS AND AMERINDIAN EPISTEMOLOGY[1]

BY LUIS EDUARDO LUNA

INTRODUCTION

The conquest of the Americas by the empires of Europe resulted in the nearly total loss of the cultural, technical, and intellectual achievements of one-third of the population of the world of that time. The Amerindian crops adopted by the European conquerors spread around the world: corn, potatoes, manioc, tomatoes, pepper, calabash, certain beans, as well as stimulants such as cacao, coca, and tobacco. Yet the advanced technical capabilities of many

Amerindian societies in the fields of astronomy, engineering, medicinal plants, ceramics, weaving, basketry, and—as is becoming increasingly evident—the sophisticated and efficient use of the land, did not have any significant impact on the home countries of the conquerors.

Apart from the academic work of relatively small circles of historians, ethnologists, and anthropologists and the obscure accounts of travelers, there was no European acknowledgment of a single philosophical idea from the people of the Americas prior to the recently awakened interest in Amerindian shamanism.[2] There was no technical or philosophical/theological exchange between the peoples of the two continents. Europeans viewed the Amerindian population as objects of conversion, assimilation, subjugation, or annihilation.

The sacred books of the Maya were burned in 1562. The quipus of the Andes—a work of the Devil according to 16th-century friars—were destroyed by a decree in 1583.[3] The sacred groves,

temples, and places of worship of the Amerindians were desecrated. Revered works of art were melted down for the price of their gold. The repository of Amerindian traditions, the bearers of wisdom who "remembered" and knew "how to speak," were hunted and killed. Their knowledge was treated as the work of Satan, still today a powerful archetypical figure in both the Christian and Islamic worlds.

It was the obliteration of the wonderings about the nature of reality of a whole continent with the transplantation into the Americas of an Indo-European syndrome that, according to Gimbutas (1989), had already destroyed the spiritual manifestations of European Neolithic cultures, the "Old Europe," largely associated with the natural environment. At the time of the arrival of the European conquerors, the "Old World" for a long time had been engulfed in ideological religious wars in which deviation from pronounced dogmas could be punished with death.[4]

All of this went hand in hand with deforestation, a development

that in the West goes back to Greco-Roman times, if not even further back in time to the fear of forests: it can be traced to the Mesopotamian myth of Gilgamesh, the first hero in world literature, who embarked on a quest to kill Humbaba, the demon of the forest, who lived in the mountainside cedar groves harvested to the last by the ancient Sumerians (Harrison 1992).[5]

The deforestation of Europe was carried out in the interests of agriculture; the conversion to grasslands for the grazing horses, cattle, sheep, goats, and pigs to satisfy an insatiable appetite for meat and milk; the construction of houses, palaces, fortresses, boats, and weapons, and for strategic or religious reasons.

The Americas are still being subjected to the kind of devastating deforestation that already by the time of the conquest of America had decimated the forests of much of Europe, North Africa, and the Middle East.[6] Domesticated plants and animals from Eurasia accompanied the conquest of the Americas, destroying much of the original biota, a phenomenon referred to by Crosby (1986) as

“ecological imperialism.” At the same time, the indigenous population was condemned to humiliation, subjugation, and poverty, barely surviving history's greatest ethnocide. Almost by a miracle after five hundred years of persecution, one aspect of Amerindian cosmology did survive, although in an attenuated form: shamanism.

SHAMANISM IN THE AMERICAS

The term *shamanism* is used here to refer to an innate human capacity, culturally manifested in various ways, which include several universal elements: altered states of consciousness (ASC), community rituals, spirit world interaction, and healing (Winkelman 1992, 2010). The ASC produce a cognitive and personal transformation by means of various techniques used to enter into an “integrative mode of consciousness” (Winkelman 1996, 2010), which include sensory overload or sensory deprivation, drumming, chanting, fasting, isolation, meditation, and

hyperventilation. Both in the past as well as in the present, numerous examples can be found of the use of psychotropic plants, often in combination with one or more of the other techniques.

The cognitive changes thus achieved may involve journeying to complex, stratified, and interconnected worlds perceived as ontologically real, and contacting entities often related to the natural environment, such as animal spirits, or the spirits of the dead. These changes may involve a symbolic death or experiencing a transformation into an animal such as a bird or a powerful predator to visit specific realms or to better perform a certain task.

Understood in this sense, shamanism entails a socially recognized status that includes the possibility of certain individuals being able to heal, cause harms, prophesize, mediate in situations of social conflict, or obtain leadership capacities by means of the knowledge and power acquired by such techniques and supernatural contacts.

Shamanism was of central importance in the Americas prior to

the arrival of the Europeans and still plays a central role among contemporary indigenous groups as well as among certain segments of the mestizo population. Its ethnography has been extensively and widely documented.

When examined from the perspectives of the shamanic paradigm, much of the art left behind by pre-Columbian societies as well as specific paraphernalia, point in this direction. The archaeological record suggests that shamanism may have often been intimately associated with the use of certain plants, usually considered as sacred, and as proposed by Winkelman, now known as psychointegrator plants.

Winkelman (1996, 2010) uses the concept of psychointegrator plants and the related concept of integrative modes of consciousness to postulate that they reflect not only what happens at the level of the self but also at the biological level, manifested in theta wave synchronization, i.e., at three to six cycles per second. The Winkelman model posits an accessing of information from the

lower levels of the brain, the brain stem or reptilian brain that regulates vegetative processes such as breathing, heartbeat, and the fight-or-flight mechanism as well as accessing the paleomammalian brain or limbic system that supports functions such as emotion, behavior, long-term memory, and olfaction. Winkelman suggests that in this way, the information that is normally habituated or relegated to the subconscious is made available through a reverse inhibitory process.

In addition, Winkelman posits that at the physiological level, psychointegrator plants and substances enhance the way the serotonin system functions, modulating and integrating information within the brain. They also inhibit very specific mechanisms, releasing certain dopamine-related capacities of the brain normally repressed by serotonin, and consequently enhancing the functioning of the dopaminergic system, which is fundamental to motivational and learning processes of the brain.

Winkelman uses the concept of psychointegrator plants to refer

to experiential, phenomenological, or psychological aspects of their physiological effects. He suggests that the resulting mentation (how you think) and emotion (how you feel) may produce a holistic state of psychological integration and emotional growth.

Some of the alkaloids found in psychointegrator plants are surprisingly similar to human brain neurotransmitters, reflecting adaptations made by human ancestors in the course of evolutionary processes. Psychointegrator plants are traditionally used across cultures in a religious, spiritual, and often therapeutic context and may enhance some of the innate capacities of consciousness, integrating various forms of information. They seem to enhance the innate capacities of human beings for spiritual experiences as well as the presentiment of spirits embodied in nature.

The standard Eurocentric worldview has no place for the powerful cognitive transformation facilitated by psychointegrators. For this reason, the typical inhabitant of a Eurocentric worldview is unable to make any sense of examples of Amerindian art such as

the extraordinary Tolita ceramic from Ecuador shown in Figure 1 (Klein & Cruz 2007). In Europe, prior to the advent of modern art, there were few representations of the cognitive changes such as of body perception, of the disintegration of the self, or of the perception of nonnatural entities that may be produced by psychointegrators. But once shamanism and integrative states of consciousness are taken into account, a great deal of Amerindian art begins to make sense.

A case in point is the pioneering work of the "Father of Colombian Anthropology" Gerardo Reichel-Dolmatoff and his study of the pre-Columbian gold work in the Gold Museum in Bogotá (1988). He argues that by recognizing the relationship between ritual objects and the subjacent shamanic ideology, a deeper significance is revealed. In fact, the greater part of the figurative representations constitutes a consistent and articulated complex of shamanic art, with transformation as the unifying theme (Reichel-Dolmatoff 1988). He contends that much of the

artwork preserved can be explained in terms of the shamanic paradigm. Certain iconographic elements may serve to identify particular figures as shamans, such as special headdresses, specific postures, rattles, and more significant representations of animal transformation or journeys by means of animal auxiliaries.

Figure 1: Tolita ceramic, Ecuador

Figures 2: Pre-Columbian gold work

The ritual objects include several golden snuff trays from the territory of the Muisca people in the central highlands of present-day Colombia. The snuff trays, decorated with felines and birds commonly associated with shamanism, were once used for the storage of small amounts of the highly psychoactive powder obtained from the crushed roasted seeds of *Anadenanthera peregrina*. The ritual objects also include golden poporos once used for the storage of small amounts of lime as well as poporo sticks once used in the consumption of coca—the poporo sticks are

topped with tiny and complex heads with apparent shamanic motifs.

Representations of birds or winged objects are also predominant in the goldwork. Reichel-Dolmatoff suggests that the winged motif is connected with the shamanic sphere and is a conscious or unconscious allusion to shamanic flight. In many instances he recognizes, in different styles and variations, the figures as that of a shaman transformed into a bird, a “bird-man” (two examples from Reichel-Dolmatoff 1988). There are also highly abstract examples of goldwork, which are variations of the birdman motif, once the basic elements are recognized.

Effigies of various animals—sometimes of a fantastic, nonnaturalistic nature—sometimes accompany the central figure, which the author interprets as animal auxiliaries perhaps representing qualities such as sharpness of sight or hearing, aggressiveness, the ability to undergo metamorphosis, etc. The incorporation of animal qualities—in its more radical form being

complete transformation into an animal—or the transference of those qualities to their patients being one of the characteristics of shamans in many cultures (Luna 1992).

Reichel-Dolmatoff also presents examples of golden figurines with a toad spread on the head of the central figure, perhaps a reference to *Bufo marinus*, whose parotid glands produce bufotenine, a psychoactive alkaloid, as well as figurines in which semispherical bodies appear on the head, possibly a reference to psychoactive mushrooms according to Schultes and Bright (1979). In some of these figures, both elements appear.

The goldwork preserved at the Museo del Oro is thus for Reichel-Dolmatoff "a treasure of shamanic art, a treasure of forms and ideas which for thousands of years have constituted one of the cornerstones of the Indian cultures of this country," and the bird-man, the ecstatic shaman, one of its key symbols.

Rebecca R. Stone in *The Jaguar Within: Shamanic Trance in Ancient Central and South American Art* examines what she calls

"shamanic embodiment," which may be artistically expressed along a continuum that may go from predominantly human to creative mixtures embedding animal selves to images almost wholly given over to the ineffable. She argues that in order to represent a shaman, a liminal being who is both Here and Not-Here, there is a deliberate engagement with ambiguity, perhaps the essential feature of shamanism, which "productively fires the artistic imagination, catalyzing inventive ways to express the ineffable cosmic flux," and using such strategies as "juxtaposition, conflation, substitution of parts, *pars pro toto* (the part stands for the whole), inversion, double reading (through contour rivalry, figure-ground reversal, and three-dimensional versus two-dimensional aspects), mirror-imaging, abstraction, and interiority" (Stone 2011:67).

Among the myriad possible artistic approaches to the paradoxes intrinsic to embodying of the shamanic Self, she proposes four general traits: creative ambiguity, authority, cephalocentrism, and

the trance gaze. By way of evidence, she cites examples of ancient Costa Rican and Central Andean art, at the same time pointing to the possibility of subjecting thousands of works of art from all over Central and South America to a similar analysis making use of the concepts she has presented.

Stone's compelling and encompassing well-crafted argumentation is impossible to encapsulate in a few paragraphs. Here are some ideas I found particularly attractive. How can the artist through colors, shapes, and lines in a static image capture the flux of liminality, of existing somewhere suspended between states of being, of true multiplicity in the Self? Amerindian art gives a plethora of solutions. The artists, without the constraints of an artistic mandate to reproduce terrestrial appearances, have as their goal the recorporealization of the shaman, something that entails a decorporealization, just as does the visionary experience, and then the rebuilding of a different idea of a spirit-body as a holder for the being in trance. The visionary experience, on the other hand,

requires a participation in a convincingly nonhumancentered gestalt of all nature infused with life and obviates the need to make hard-edged visual distinctions between a person and a bat or a peanut and a divine being. The artist is able to throw aside discrete categories and mimetic attachments to this world and its static constituents by exploring possibilities beyond how things look under normal conditions, creating combinations that defy description. The Western worldview limits our understanding of such art objects because seemingly neutral terms such as *image, depiction*, and *representation* inevitably communicate the opposite of the shamanic approach to the object. Amerindian artists, on the other hand, "embrace creative ambiguity." Stone proposes that the object we call an effigy of a shaman served as both a visual rendition of the shaman's many selves and as one of the shaman's subjective selves.

We may infer that seen as a whole, totally unrecognized by most people, pre-Columbian art is full of allusions to unseen realms,

shamanic transformation, subjective states, and alternative modes of cognition. One of the most common themes is the jaguar transformation. The human/feline motif is found in South America from the earliest cultures, such as in Caral (ca. 4,600 B.P.) in coastal Peru. The idea that shamans are able to transform into jaguars is widespread even today in the Amazon, as shown by Reichel-Dolmatoff (1975) in his monograph on this subject. Transformation into other animals, such as serpent, harpy eagle, or whatever animal it would be necessary to acquire certain qualities or cognitive abilities is also believed to be possible. Therianthropes, a composite of human and animal, sometimes of several of them, as well as many other motifs expressing various inner states are thus common in Amerindian iconography. Therianthropes may be either a representation of entities acquiring anthropomorphic features in order to communicate with human counterparts, or an expression of a subjective perceptional mode in which the human acquires animal qualities. These images would

instantly evoke in Amerindian people particular cognitive states related to multidimensional, multilayered cosmologies, spaces in the mind (perhaps the perception of alternate realities) nowadays mostly forgotten but once visited by the ancestors of all of us, as may be deduced from numerous examples of Paleolithic rock art (Clottes & Lewis-Williams 1998; Lewis-Williams 2002; Hancock 2005).

PSYCHOINTEGRATOR PLANTS

Throughout the Americas in the past and in some places still today, shamanism has gone hand in hand with the use of psychointegrator plants. The best known are peyote (*Lophophora williamsi*) and psilocybin mushrooms in Mesoamerica; several species of *Brugmansia, Anadenanthera colubrina*, and *Anadenanthera peregrina* in South America (also introduced in pre-Columbian times in the Caribbean); the various San Pedro cacti (*Trichocereus pachanoi* and other *Trichocereus* species) in Andean and coastal

areas of Peru; Ayahuasca (*Banisteriopsis caapi* with *Psychotria viridis*) and *yajé* (*B. caapi* with *Diplopterys cabrerana*) in the Upper Amazon; and of course tobacco, sacred in the whole of the Americas. In more restrictive areas, many other psychotropic plants were or are still used.

According to Alicia Fernández Distel (1980), *A. colubrina* was already being used in Inca Cueva, Puna de Jujuy, Argentina, around 2100 BCE. It played a central role in the extraordinary Tiwanaku culture, from roughly 300 to 1000 AD, as evidenced in representations of snuff paraphernalia in monoliths and the ubiquity of snuff kits, including tablets, inhalators, spoons, and pouches with powder from seeds of this plant, conserved in San Pedro de Atacama, Chile, an area heavily influenced by the Tiwanaku culture (Torres & Rebke 2006; see figures 3–4, courtesy of C. M. Torres).

According to Gordon Francis McEwan (2001:197) prehistoric agricultural groups associated with the Saladoid tradition (ca.

5300–2000 BCE) transplanted *A. colubrina* into the West Indies from the Orinoco valley, reaching Puerto Rico by 2300–2000 BCE. Several pre-Columbian mortars from the Amazon area probably associated with the use of *cohoba* or *yopo* have been preserved (McEwan 2001). The use of *A. peregrina* was witnessed during his second trip (1497–98) to the Americas by Columbus, who had the Catalonian friar Ramón Pané document its use in the very first book written in the Americas in a European language.[7]

The oldest evidence of the use of *Trichocereus pachanoi* dates from around 2000–1500 BCE in Las Aldas on the north-central coast of Peru (Fung 1972; Polia Meconi 1996: 289). The San Pedro cactus played a central role in Chavin culture in the northern Andean highlands of Peru, as evidenced in figures from the religious and political center of Chavin de Huántar (900–200 BCE, see Figure 5) as well as from Nazca (100 BCE to 700 AD).

The oldest known dates for tobacco are from the north coast of Peru, with dates ranging between 2500 and 1800 BCE (Pearsall,

1992: 178). Coca chewing in northern Peru began in at least 6000 BCE (Dillehay et al. 2010).

PRE-COLUMBIAN AMAZON

Compared to the extraordinary cultures found in coastal Peru, the Andes, and Mesoamerica, until recently the pre-Columbian Amazon area was considered to be devoid of high culture. It is now clear that human beings were living in the Amazon area at least twelve thousand years ago or even longer (Roosevelt 1994). The oldest ceramics in South America, from 5080 BCE, were found in Taperinha, near Santarem, in the Brazilian Amazon area (Roosevelt et al. 1991). Several agricultural centers have been localized in the Amazon area, perhaps independent of those where agriculture was autonomously originated in the Americas (Mesoamerica, the Andes, and eastern North America). Archaeologists such as Clark L. Erikson, William L. Balée, Michael Heckenberger, Eduardo Neves, Augusto Oyuela-Caycedo,

and others are changing our ideas of the pre-Columbian Amazon with the discovery of the vast manmade channels, raised fields, mounds, and forest islands connected by earthen causeways in various parts of the Amazon, and the existence over large areas of the so-called *terra preta do indio* (Amazonian Dark Earths), or manmade soils of the highest quality, and at times two meters deep in areas where natural soils are no more than a few centimeters, as well as large orchards of semidomesticated fruit trees (see, for example, Woods et al. 2009). In Acre, Brazil, a large number of geoglyphs, geometric earthworks, have been localized (Schaan et al.) and a large circle of granite stones found in Calçoene, near Macapá, in Amapá state, also in Brazil, dating back to between 700 AD and 1000 AD suggest a knowledge of astronomy.

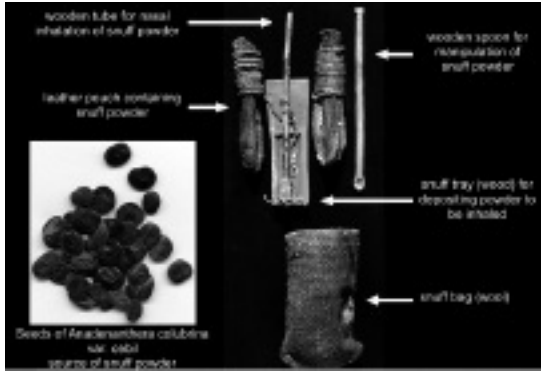

Figure 3: Paraphernalia from San Pedro de Atacama
(Courtesy C. M. Torres)

Figure 4: The Ponce monolith in the Kalasasaya yard of

Tiwanaku

Figure 5: Therianthrope with feline characteristics holding a stalk of San Pedro cactus, Circular Plaza of the Old Temple, Chavin de Huántar (Photo C. M. Torres)

The indications of large sedentary populations, perhaps in the millions, and levels of civilization much higher and complex than previously thought, lend credence to the picture painted in 1542 by

Friar Gaspar de Carvajal in his chronicle of the odyssey of Francisco de Orellana and his men, the first Europeans to travel down the Amazon River from the Napo River to the Atlantic Ocean. Carvajal wrote of great "capitanías," large human settlements on both sides of the river, and of extraordinary ceramic work, "the best in the world" even "better than then of Málaga."

It is difficult to imagine the kind of cultures that occupied this vast area, given the cataclysmic decimation of up to 95 percent of the population throughout the Americas following European contact (Stannard 1992). In 1634, Acuña still talked about myriads of people living along the rivers and cultivating soils of great fertility. Nearly one hundred years later, Charles-Marie de La Condamine reported on his journey into the Amazon, which started in 1743, that the area was to a great extent empty. The most probable cause was the diseases brought by the European conquerors.

The material culture of the inhabitants of the Amazon of today

and probably even more so of the Amazon of the distant past is based on a sophisticated use of plant material. The inhabitants have proved to possess a great knowledge of edible, venomous, medicinal, and psychoactive plants. Amazonian Indians discovered the properties of latex from the *Hebea* genus, the source of rubber: the rubber boom in 1850 to 1914, which was to become a pillar of the automobile and weapon industries, resulted in the enslavement of local populations; a similar havoc was also suffered by the local populations in the Congo Free State, the personal fiefdom of the ill-famed King Leopold II of Belgium. Quinine from the bark of Ecuadorian cinchona trees was used until the 1940s in the treatment of malaria. Plants containing curare have not only been used for various types of arrow poisons but have also been vital for the development of the techniques of open heart, radical brain, and craniofacial surgery as well as organ transplants.

The people of the Amazon live in one of the areas of largest biodiversity on the planet. It is becoming increasingly evident that

the biodiversity of the Amazon is to a great extent the result of the natural resource management of the pre-Columbian people of the Amazon. Some of this knowledge is still preserved today by the Cayapó of the Brazilian Amazon, who demonstrate a great understanding of ecosystems, plant and animal species association, insect-plant interaction, as well as sophisticated soil taxonomy (Posey 1984, 1991, Posey et al. 1989). The Cayapó have been credited with the creation of forest islands on mostly savanna covered territories, with the recognition of marginal or open spots within the forest that have micro-environmental conditions similar to those in the savannah, as well as with the exchange and spread of useful species between ecological zones through the transplantation of seeds, cuttings, tubers, and saplings (Posey 1984, 1991, Posey et al. 1989).

To a certain extent, the Amazon is an anthropogenic forest, a gigantic garden partially created by human beings through millennia of interaction with the natural environment.

THE AYAHUASCA/YAJÉ COMPLEX IN THE UPPER AMAZON

The knowledge of the people of the Amazon of what may be called the pharmacology of consciousness needs perforce to be placed within the context of such a sophisticated high culture.

Snuffs made from the seeds of *A. peregrina* or from the sap of *Virola theiodora*, are still used today to induce altered states of consciousness. Various indigenous groups of Colombia and some areas of the Ecuadorian Amazon as well as indigenous groups belonging to several linguistic families in the Upper Amazon still today use the pounded stem of the vine *B. caapi*, often in combination with *Diplopterys cabrerana*, a vine in the same family (Malpighiaceae), either as a cold infusion or as a decoction called yajé (also spelled *yagé*). In other areas of Ecuador, as well as the Peruvian, Bolivian, and Brazilian Amazon, indigenous groups use the stem of *B. caapi* in combination with the leaves of *P. viridis* (Rubiaceae), usually as a decoction, under the Quechua name

Ayahuasca (also spelled *ayawaska*). There are other vernacular names for both yajé and Ayahuasca.

There is no clear evidence of the earlier use of either of these plant preparations beyond the statements by 18th-century missionaries, who considered the preparations to be agents of the Devil. However, given the antiquity of the use of other psychotropic plants, it seems unlikely that yajé or Ayahuasca is a relatively recent innovation. It is little more than speculation to claim that knowing how to prepare yajé or Ayahuasca derives from some kind of higher psychopharmacological knowledge of indigenous Amazonians. But what is beyond speculation is that the preparation of yajé or Ayahuasca requires the mastery of a sophisticated technique.

D. cabrerana and *P. viridis* contain the alkaloid DMT (dimethyltryptamine), which is orally inactive due to its degradation by the monoamine oxidase (MAO) present in the human gut and liver. The MAO-inhibitor harmine in *B. caapi*

protects the DMT in *D. cabrerana* and *P. viridis* from oxidative metabolism, thus allowing the transport of the DMT through the intestinal wall and liver and making it available for the central nervous system. The serotonin reuptake inhibitor tetrahydroharmine in *B. caapi* most probably adds to the overall effect of Ayahuasca on consciousness. In addition to the two main alkaloids harmine and tetrahydroharmine, some varieties of *B. caapi* contain active amounts of harmaline.

Yajé and Ayahuasca are still used by numerous indigenous groups of the Upper Amazon for contacting normally hidden spiritual realms, for hunting, for learning about the plans of other people, for finding the etiology of illness, or for divination. Yajé or Ayahuasca is frequently a source for their art, expressed in body painting or the decoration of their material culture. It may also be used for memorizing myths or tales important to their communities; for reinforcing the social moral values, especially among the youth; and for getting in touch with the spirits of other

plants to learn about their properties (all uses are not necessarily present in each and every indigenous group).

The importance of the plants involved in these preparations is reflected in myths and narratives. They may have been revealed by beings living in underwater realms—considered especially powerful—or the offspring of the Sun after impregnation of a woman through her eyes (Reichel-Dolmatoff 1975, Lagrou 2000, Luna 2011). The plants are considered sacred, with their collecting and handling often ritualized and their consumption occurring in special ceremonies, either collective or intimate.

In some areas, these and other plants are considered teachers, a commonly held idea the author first encountered while doing fieldwork in the Peruvian Amazon among *mestizo vegetalistas*, or practitioners, specialized in certain especially powerful plants, or *vegetales* (Luna 1984, 1986), many of whom primarily used Ayahuasca for the diagnosis and treatment of illness as well as for divination. Another commonly held idea is that by taking

Ayahuasca and other sacred plants, it is possible to have a clearer mind and focus, enhanced sensory perception and imagery (and therefore the possibility of learning more easily), in addition to access to information not readily available in everyday life. It is commonly held that the plants strengthen and protect people from illnesses, including those caused by living agents such as other human beings or spirits.

Practitioners often talk about *la ciencia de la Ayahuasca*, a concept that describes the ability to find the plants in the forest, the knowledge of the kind of soil where they grow, their color and shape, the part of the plants used, as well as the way to prepare them such as the amount of plant material and water added, the intensity of the fire, the point of boiling, the moment at which the pot is taken off the fire, even the thoughts, songs, or prayers of the person who is preparing the brew.

Plant teachers include not only the plants involved in the preparation of Ayahuasca but also other plants that are used either

as occasional admixture plants, such as several species of *Brugmansia* and *Brunfelsia grandiflora*, or are used by themselves, such as *Couroupita guianensis* that is said to teach in the dreams, which are not necessarily psychotropic (Luna 1986, Beyer 2009). The subjacent idea is that by ingesting these plants, one gets in touch with their spirits and learns from them, either directly in the visions that they may produce, or in dreams. Practitioners claim that it is possible to finetune one's psyche in a controlled way in order to acquire certain cognitive abilities to perceive aspects of reality not available in normal consciousness. The Aguaruna of the Peruvian Amazon, for example, believe it is not enough simply to know the facts: one must learn how to bring the body, the intellect, and the emotions together into the epiphany of the visionary experience (Brown 1985). The acquired knowledge inspires cultural creations such as song, dance, body painting, or narratives, or otherwise benefits the individual or group. In contemporary terms, we could say that for the practitioners, the plants are

cognitive tools to enhance their cultural production.

A NOTE ON AYAHUASCA SHAMANISM AND ART AMONG THE SHIPIBO OF THE UCAYALI RIVER, PERU

In 1987, I spent a month in Santa Rosa de Pirococha, a small Shipibo settlement of around seventy inhabitants on the left bank of the Ucayali River approximately between the cities of Pucallpa and Orellana. The Shipibo are famous for their elaborated designs —*kené* in their language—with which in earlier times they decorated the objects of their material culture and their bodies. Nowadays, Shipibo women still embroider their skirts with elaborate geometrical patterns. Originality is emphasized so that within their overall particular style, all the skirts are different (Figure 6). Nowadays, Shipibo women also produce high-quality ceramics, which they also decorate with elaborate geometrical patterns (Figure 7). The Shipibo seem to see themselves as not only

covered but also surrounded by a normally invisible field of colorful tridimensional patterns.

The Shipibo are locally known for their shamanic traditions associated with the use of *shori*, their vernacular name for Ayahuasca. The reason for my visiting Santa Rosa de Pirococha was to study the process of "learning from the plants," which involves a certain diet and the repetitive ingestion of Ayahuasca. During the one-month stay, I was guided by Don Basilio Gordon, at the time a reputed shaman and now deceased. For one month, I followed the prescribed traditional diet consisting of only manioc, plantains, and at times a little fish, and did not consume any salt, sugar, or alcohol. I drank Ayahuasca thirteen times. As I do not know the language, my training basically consisted of following the melody of the songs while under the effect of the brew and accompanying Don Basilio in his trips to the forest to see various plants.

Figure 6: Young Shipibo Women, Santa Rosa de Pirococha, 1987

Figure 7: Shipibo woman decorating a ceramic, Santa Rosa de Pirococha, 1987

Don Basilio told me that when you know the songs of a given plant, it is not necessary to use the physical plant, as all their physical properties are embedded in the song. In this tradition, healing is basically done through the songs. There were always a few mestizo patients attending the ceremonies during my stay, but no members of the Shipibo community, except Irineo, a man in his thirties, who often sang along with Don Basilio.

At the end of my stay, Don Basilio told me that he was going to sing a song to protect me when going back to Pucallpa. When I asked him what he meant, he took one of the cloths richly embroidered with geometrical patterns. “I am putting this on you,” he said. This was, for me, a confirmation of the work by German anthropologist Angelika Gebhart-Sayer, who to my knowledge was the first person to find a relationship between the songs sung under the effect of Ayahuasca, Shipibo art, and healing, which involves

the restoration of the beauty and harmony of the invisible patterns surrounding the body of the patients. She writes:

> Under ayahuasca influence, the shaman perceives, from the spirit world, incomprehensible, often chaotic, information in the form of luminous designs. He then "domesticates" this information by converting it into various aesthetic notions: geometric patterns, melodies/rhythm and fragrance which play a key psychological and spiritual role for both the patient and society. Only through this mediating step the awesome and incomprehensible become an applicable corpus of shamanic cognition suitable for the mundane village (Gebhart-Sayer 1986).

Shipibo art is one of the many examples of Amerindian art that point to another reality, to perhaps the threshold of geometric patterns that often appear at the onset of the visionary experience with Ayahuasca. The current interest of Westerners in Ayahuasca has provoked an interest in Shipibo textiles and ceramics that has

created a renaissance in Shipibo art, body painting, and cultural identity.

AYAHUASCA TRANSFORMATION NARRATIVES

Yajé and especially Ayahuasca already by the beginning of the 20th century were adopted by a segment of the mestizo population of the Western Amazon. In the 1930s, 1940s, and 1960s, they gradually gained a foothold among the urban population of non-Amazonian towns in Brazil, becoming a part of organized religions. Beginning in the 1980s with the experimentation of Westerners with Ayahuasca and its various associated traditions, interest in Ayahuasca has become an international phenomenon (cf. Labate & Jungaberle 2011). The numerous narratives about Ayahuasca encounters and other plant preparations with a similar phytochemistry, i.e., the so-called Ayahuasca analogues (Ott 1994), have made possible comparative studies.

Among the narratives available, I decided to concentrate on the theme of transformation, which are so common in indigenous accounts and pre-Columbian iconography, particularly on that of jaguar transformation. Here are two examples of transformation from an anthology on Ayahuasca encounters (Luna & White 2000). The first, a jaguar transformation experienced during an Ayahuasca session by French anthropologist Dr. Françoise Barbira-Freedman. The second example is transformation into a water molecule and witnessing of the photosynthesis process experienced by American ethnopharmacologist Dr. Dennis McKenna during a ritual of one of the Brazilian religious organizations that use Ayahuasca as a sacrament.

Barbira-Freedman studied shamanism among the Lamista during the early 1980s. She partook in ceremonies and participated in an apprenticeship process, gradually penetrating into a worldview that challenged her own ideas about power and morality. She was being "put right" by her shaman informants in the sense that she was

becoming spiritually and physically stronger to be better able to cope with the cosmological realities of that culture. She relates how in one of her experiences with the brew, she came face-to-face with a large female jaguar following her. She goes on to relate how other jaguars she saw became angry when she picked some flowers and how she became transformed into a jaguar and began to fight:

> A wave of intense aggressiveness unfurls in my solar plexus. This causes me to vomit, later than usual after taking Ayahuasca, and the process of "becoming jaguar" takes me over irresistibly. I feel it all at once, paws and claws, spine and tail, nose, whiskers and tail; I see with a jaguar's eyes, suddenly encompassing a wider field of vision, prick a jaguar's ears, open my jaws in practice. "My" jaguar has gone; It dawns on me that I have become her, am her, yet at the same time I retain the awareness of her merged with my consciousness. I find it easy to signal to the other jaguars to go away with mere body language, arching my back

intensely. As I do this, I have a flashback of my cat standing up to the stray cats of a new neighborhood when we moved house in Cambridge.

Nothing I ever read about shamanic animal metamorphoses could have prepared me for the total involvement of my senses, body, mind in this process. I am fully experiencing it, I am it, yet at the same time I retain the awareness of who I am, albeit in jaguar form, partaking with other people clearly dealing with intense experiences of their own in an Ayahuasca ceremony. The female jaguar whose form I have entices me to go into the forest where she will teach me the ways of jaguars. Suddenly I am in a swampy area near an ox bow lake which is my home and instantly I am made to understand/feel stalking prey, jumping and killing, ripping, spreading fear and also feeling fear myself, being lonely and shy and even cowardly among the other animals there; surprisingly lounging and relaxing

> in the water. ...
>
> It does not surprise me that the other shaman present, as an eagle, comes to find me and blows gently on my crown. It is even reassuring, as surprised as I am to know that this large harpy eagle is him, that as a jaguar I can physically relate to the being of the eagle, particularly eyes, beak and talons. I respond to the ritual blowing and feel very calm and at ease in my jaguar self, keenly sensing my surroundings. (Barbira-Freedman 2000:115)

Particularly noteworthy are the author's comments:

> This vision engaged my whole self experientially in a phenomenological approach, which was blatantly at odds with the empiricist standpoint I intellectually favoured. There was no longer any other possible standpoint for me as an anthropologist than that of the shamanic rainbow, forever bridging between incommensurable perceptions and perspectives within highlands and lowlands, earth and sky,

earth and water, from a constantly changing in-between." (p. 117)

The full text merits a close reading.

Dennis McKenna was one of the invited guests at the first scientific conference organized by the Uniâo do Vegetal (UDV) in Brazil. The UDV, created in Porto Velho in 1968 by José Gabriel da Costa, is the youngest of the Brazilian religious organizations that use Ayahuasca as a sacrament, to which they give the name of *vegetal*. The UDV conceives the brew as having two basic components: *força* (force) and *luz* (light).

At the end of the conference, a ritual was held involving the consumption of the sacrament. After a second cup, McKenna found himself changed into a disembodied point of view, suspended in space, thousands of miles over the Amazon basin" seeing a World Tree in the form of an enormous *Banisteriopsis* vine, "the embodiment of the plant intelligence that embraced and covered the earth, that together [with] the community of the plant

species that existed on the earth provided the nurturing energy that made life on earth possible."

McKenna "understood" that photosynthesis was the "force" the UDV were talking about, "indeed the force on which all life depends." He relates:

> I found myself "instantly transported from my bodiless perch in space to the lightless depths beneath the surface of the earth. I had somehow become a sentient water molecule, percolating randomly through the soil, lost amid the tangle of the enormous root fibers of the *Banisteriopsis* World Tree." (McKenna 2000:154–7)

McKenna continues with an extraordinary, detailed narrative about his journey through the roots and vascular system of the vine, his arrival at the surface of a leaf, and how as a water molecule, he not only witnessed but also participated in the process of photosynthesis.

Accounts by educated Westerners such as Barbira-Freedman

and McKenna echo ideas found in pre-Columbian art and in indigenous narratives. They point to a new alter-ego, to an alternative epistemology: the gaining of knowledge through a radical self-transformation, by taking an alternative—nonhuman—point of view, by cognitively merging with the focus of one's attention.

The techniques for achieving such cognitive states are culture specific. Like the mastery of any other technique, they require a special form of training. However, the various techniques have a biological dimension that is common to all human beings. The first steps in the scientific study of this biological dimension have already been taken in what amounts to an immense field of future research. Hopefully the development of some of the new theories of human consciousness will take into account tools that traditional societies have used for thousands of years.

An example of one such new theory of human consciousness is Ede Frecska's theory of the dual complementary methods of

knowledge acquisition (Frecska 2008). The author proposes that the duality and complementarity in the physical universe where there are particles and waves, mass and energy, local effects and nonlocal connections is also found in a duality and a complementarity in knowledge acquisition. Frecska posits the existence of two sources of knowledge: perceptual-cognitive and direct-intuitive, with the former having fewer problems than the latter with replicability. Perceptual-cognitive knowledge is electrochemical (based on local effects), operates via neuroaxonal networks, is linguistic albeit not necessarily verbal, and relies on a modeling with a subject-object division. It peaks in Western scientific thinking. Direct-intuitive knowledge is quantum-physical (based on nonlocal connections), operates via subneural networks, it is ineffable, and relies on direct experience with no subject-object division. It is the source of contemplative traditions.

Winkelman, on the other hand, suggests evolutionary mechanisms by which early primates would be able to metabolize

substances toxic for other organisms found in the natural environment, and which may have contributed to human evolution.

CONCLUDING REMARKS

Clearly, psychointegrator agents do not simply disrupt normal perception. It seems that through them, by mysterious ways of mind exploration not yet understood, it is indeed possible to access valid information not readily available by ordinary means. Psychointegrator agents offer complex, often beautiful, coherent, and useful experiences not normally accessible, to which some traditional societies assign great value. To dismiss such experiences as aberrations of the mind under the effect of drugs, which is the ordinary accepted discourse, is quite biased. Unbiased attention needs to be given to such phenomena. As William James pointed out, no account of the universe in its totality can be final, which leaves these other forms of consciousness quite disregarded (James 1929:379).

The religious use of peyote by Native Americans in the United States and Ayahuasca among the general population in Brazil and a few other countries has been accepted. This is of course a great step forward. However, this is still too short. Ferguson (2011) points out that one of the reasons for the scientific superiority of Western Europe over the Ottoman Empire in the 16th century was the unlimited sovereignty religion in the Muslim world: in 1515 a decree of Sultan Selim I had threatened with death anyone found using the printing press. To allow the religious use of Ayahuasca but to prohibit it as a tool for scientific and personal exploration would be a similar mistake. Science explores today the vast riches of outer space as well as the minute yet immense realms of subatomic particles. We explore the depth of the oceans and the forests, the high mountains and the deserts. Yet the exploration of consciousness is still a forbidden realm, vastly explored by shamanic societies yet neglected in contemporary science due to a great extent to religious preconceptions carried throughout

centuries.

Amerindian art, largely inspired by altered states of consciousness, has perhaps a message for us. It expresses forms of cognition neglected by most but still accessible to all of us as humans. The ontological reality of the worlds perceived through psychointegrator agents in the final analysis depends on the perceiver's worldview. Many traditional societies would not doubt the existence of parallel and multidimensional worlds. With the exception of contemporary theories in physics and cosmology, modern thinking does not admit the existence of parallel and multidimensional universes. Short of direct experimental verification, orthodox scientific thinking treats talk of parallel and multidimensional universes as fiction if not as the projections of a deranged mind. This is not usually corroborated by those who have immersed themselves deeply in the study or experimentation of integrative states of consciousness.

As a researcher, I often ponder about the reality of the worlds I

perceive through Ayahuasca. A recent study on visual perception using functional MRI concludes that practically neural activity observed in the primary visual cortex when having visions under the effects of Ayahuasca was indistinguishable than during normal perception. According to the authors, this means that visions have a real, neurological basis; they are not made up or imagined (Araújo et al. 2011). Certainly this somehow explains why these alien perceptions often seem to subjectively have the qualities of reality, at times even more so than normal reality. Interaction with normally invisible beings, visitation of apparently coherent—at least subjectively—other worlds are commonly reported by educated individuals. The fact is that, whether we want it or not, these other dimensions—whatever their ontological reality—constantly emerge in our daily life, either through the stories we tell our children—we all lived once in those forested and magical worlds—in the arts everywhere, in some of the religions we create, and certainly in our dreams. These other worlds and beings greatly

enrich our existence. Without them, as without our remaining forests and their animals, the world would be a duller place.

NOTES

1. A shorter version of this chapter was published in Adams C, Waldstein A, Sessa B, Luke D, King D, eds. *Breaking Convention: Essays on Psychedelic Consciousness*. London: Strange Attractor Press. 2013.

2. A remarkable exception would be the influence of Iroquois Confederacy ideas on the Constitution and Bill of Rights of the United States (see *http://www.senate.gov/reference/resources/pdf/hconres331.pdf*).

3. Consider the following paragraph from the 1583 Decree of the Church Council of Lima, Declaring the Quipus to be the Work of the Devil: “Consider prohibited in full books that deal directly with, or recount, or teach lascivious or unchaste things, for one must keep in mind that which undermines the faith but also that

which undermines good behavior—which reading such books usually does. And so those who have such books shall be rigorously punished by the bishops. However, ancient books in Latin, written by non-Christians, shall be permitted, because of the elegance and propriety of the Latin language, provided that these lascivious books, even if they are in Latin, not be read to young boys. And because in lieu of books the Indians have used, and some continue to use, registers made of different threads, that they call quipus, and with these they preserve the memory of their old superstitions, rites, ceremonies, and perverse customs, the bishops should diligently try to take away from the Indians completely all the records or quipus that facilitate their superstition."

(*Organización de la Iglesia y órdenes religiosas en el virreinato del Perú en el siglo xvi: Documentos del Archivo de Indians*. Ed. Roberto Levillier, vol. 2 (Madrid: Sucesores de Rivadeneyra, 1919), pp. 213–214. This selection was translated by Cheryl E. Martin.

4. In Mann's view (2011) it was the 1492 collision of two Old Worlds that resulted in a New World.

5. Plato, in his unfinished dialogue *Critias*, wrote a moving account of the damage done in his time: “What now remains compared with what then existed is like the skeleton of a sick man, all the fat and soft earth having wasted away. . . . Mountains which now have nothing but food for bees . . . had trees not very long ago. [The land] was enriched by yearly rains, which were not lost to it, as now, by flowing from the bare land into the sea; but the soil was deep, and therein received the water, and kept it in the loamy earth . . . feeding springs and streams running everywhere. Now only abandoned shrines remain to show where the springs once flowed” (Quoted by Wright [2004:87–8]).

6. It is estimated that the amount of pristine forest in Western Europe is just 2–3 percent. In the European part of Russia 5–10 percent of the forests can be classified as pristine or near-pristine natural forests

(http://www.saveamericasforests.org/europages/history&geography

Deforestation in the Amazon area is well-known. Less so is the near-total loss of Brazilian Atlantic Coastal Forest, one of the areas of richest biodiversity and high endemism in the world—even more so than most of the Amazon area—of which only around 7 percent remain of a million square kilometers of forest due to urbanization, agriculture, and cattle ranching (Thomas 2008).

7. Fray Ramón Pané; Translated by Susan C. Giswold (1999). José Juan Arrom. ed. *An Account of the Antiquities of the Indians*. Durham, NC; London: Duke Univ. Press. A New Edition, with an Introductory Study, Notes, & Appendixes by José Juan Arrom.

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THE SOUL CLUSTER: RECONSIDERATION OF A MILLENNIA-OLD CONCEPT

BY EDE FRECSKA[1], LEVENTE MÓRÓ, HANK WESSELMAN

While I am not so foolish as to make rash assertions about these things [i.e., the substantial nature and possible immortality of the soul], still I do claim to have proofs that the forms of the soul are more than one, that they are located in three different places . . .

—GALEN OF PERGAMON

ETERNAL RETURN . . .

Every era is unique, but our age is unprecedented in that for the

first time in recorded human history, the myths and spiritual teachings of almost every living tradition have become accessible to all as a common cultural treasure. One hundred years ago, the *Rigveda*, an ancient Indian sacred collection of Vedic Sanskrit hymns and one of the oldest religious texts (ca. 1700–1100 BCE) in continual use in any Indo-European language was accessible to the curious mind, but information about the Hawaiian mystical Kahuna tradition, or about the worldview of the Inuit circumpolar peoples was entirely lacking. As always, many pieces of the overall human cultural spectrum are still missing, but the teachings derived from a wide variety of cultures about the Great Mystery of human existence can now be studied from different perspectives, and the cross-cultural similarities are stunning.

Ethnographic data collected over the last one hundred years has generated a fertile field for those interested in studying cross-cultural commonalities. Frecska and Luna (2006) have discussed why the ideas of soul, spirit, or rebirth echo across the ages and

why these concepts repeatedly appear in entirely different cultures. The belief in the existence of soul(s), spirit guides, spiritual forces, and other worldly realms appears to be universal in the human species. Edward Osborne Wilson (1998) has noted that sociology has identified the belief in a soul to be one of the universal human cultural elements, and he has suggested that science needs to investigate what predisposes people to believe in a soul. With our coauthors, we have made efforts to overcome the typical rational interpretations that deem such ideas to be superstition, originating in delusion or the fear of death. We accept that these recurrent, prevailing themes ("elementary ideas"—as they were called by Adolf Bastian, one of the founders of ethnography) (see Koepping, 1983) are not just products of wishful thinking, and represent more than irrational coping mechanisms against the anxiety of ego-dissolution at death.

The focal point of the current paper is the observation that the concept of soul is noticeably complex in aboriginal cultures, and its

plural—especially tripartite—nature is the rule rather than the exception. Curiously, this perception is getting clearer and more pronounced when one considers our shamanic origins. Herewith, we refer to Wilhelm Wundt (1920) who gave much attention to the point that the animistic perception of the soul is pluralistic. Among aboriginal groups, the term *soul* cannot be used as it is in the Western tradition because indigenous peoples widely hold the belief in multiple souls (or aspects) of a human being. There are advanced cultures where the number of principles defining the human essence is reduced to a number smaller than three (e.g., the duality of *ling-hun* in Chinese traditional medicine), but a thorough look reveals that such dualism (or monism) is a deflation of an earlier trinity (Harrell, 1979). Taoism, which has shamanic origins (Stutley, 2003), teaches that there are three souls, one of which remains with the corpse after death (like the *Ka* of the ancient Egyptians), while another resides always in the spirit world, and the third that transmigrates between the physical back to the

spiritual realms. Shinto lore suggests the soul has multiple sections that can act and move around independently, so it may be that different parts have different afterlives—one being reincarnated, one becoming a guardian, etc. As far as advanced Mesopotamian civilizations are concerned, there seems not to have been any clear concept of a soul in neither Sumerian, nor Babylonian, and Assyrian religions. One may just speculate if these advanced civilizations have moved far from their source.

Swedish Sanskritist Ernst Arbman (1926/1927) analyzed the Vedic beliefs in India and found that the concept of the soul (*atman*) was preceded by a duality. In his analysis, Arbman separated the soul inhabiting the body and endowing it with life and action from the free-soul, an unencumbered soul-aspect embodying the individual's nonphysical mode of existence not only after death but also in dreams, trances, and other altered states of consciousness (ASCs). According to his classification, the free-soul doesn't have any physical or psychological attributes; it simply

represents the immortal spiritual essence of the individual.

In this regard, Arbman addressed the issue of duality but implicitly wrote about tripartition since he combined two soul parts for which different cultures have separate names (see Table 1). In addition to the free-soul, the physical soul or body-soul is often divided into several components. Usually it falls into two categories, one of which is the “life-soul,” the vital force, frequently identified with the breath, while the other is the “ego-soul,” the source of thoughtful action and decision making. In the Vedic tripartite soul concept, the free-soul incorporated the psychological attributes of the bodysoul, a development that occurred among a number of other cultures.

One of Arbman's most gifted pupils Åke Hultkrantz (1953) followed his master's lead while studying Native American Indians and took the same stance, speaking about dualism while describing a trinity. Bremmer (1983) has addressed how multiplicity can be obscured by the focus of interest and the concepts of the soul held

by the field investigators themselves. In this regard, Arbman and Hultkrantz were clearly more interested in the free-soul and in its evolution over time and accordingly paid less attention to the “life-soul” and “ego-soul” as independent entities. Their predecessors and contemporaries were also more interested in the myths of Afterlife than in tribal psychology. The main goals of this publication are: 1) to give a detailed analysis of ancient and indigenous soul concepts within the framework of tripartition, 2) to outline a dynamical relationship between the soul components, and 3) to provide a tentative “neuro-ontological” interpretation based on a biophysical approach.

SOUL CONCEPTS IN EARLY CIVILIZATIONS

Ancient Egypt

The conception of the soul in Ancient Egypt was complex. The Egyptians conceived of a person's individuality as being made up

of several independent beings, each of which was a distinct personality seen as a whole having a separate existence both during life and after death. Their belief system that appears to have been based in direct shamanic experience included a number of souls or soul aspects and auxiliary entities that together constituted the individual. According to Egyptian funerary texts, man was composed of a mortal body, the *Kha*, and at least three soul principles: the *Ka, Ba*, and *Akh* (Hall, 1965).

- *Ka* represented the spiritual essence, which made the difference between a living and a dead person. It was received at the instant of birth by breath, and death occurred when Ka left the body. The ancient Egyptians contributed life-giving energy to the Ka. This characteristic makes Ka similar to the concept of "life-soul" or "spirit" in other religions and the "energy body" in contemporary Western thought.
- Ba referred to all those qualities that make up a person,

including everything nonphysical that makes an individual unique, similar to the Western view of personality. In this regard, Ba is the closest to the contemporary notion of “ego-soul” or “mental-soul.” Ka and Ba were held to be very much attached to the physical body: they had physical needs, like food and water, confirming their resemblance to Arbman's two body-souls.

- The most important player who has the leading role in the Afterlife was the immortal soul called the Akh. Following the death of Kha, the Ba and Ka had to be reunited to reanimate the Akh. The Egyptian funerary customs were intended to aid the deceased in becoming an Akh, to prevent rebirth and “dying a second time in the Afterlife.” In the Egyptian religion, this second death was possible and permanent. Akh was associated with thought, but not as an action of the mind; rather, it was a form of pure consciousness, analogous to the higher self or immortal spiritual Oversoul in Western thought.

It was believed to be able to wander away (Ka and Ba could also do that), to haunt the deceased body if the tomb was not in order, and it could either do harm (sickness, nightmares, and bad feelings) or extend good (protection) toward persons still alive. Within the frame of the ancient Egyptian belief system, Akh corresponds the best to the "free-soul" or higher self of a human being.

In addition to the Ka, Ba, and Akh, there were further principles, which make the comparison more difficult: the *Ib* (metaphysical heart center of compassion), *Sheut* (shadow aspect of the person), *Ren* (name soul aspect of the person), *Sahu* (spiritual body for the Akh), and *Sekhem* (spiritualenergetic entity dwelling in the Afterlife in association with Akh). An interesting parallel can be noticed here with the Taoist conception of the "immortal spirit body."

Accordingly, it can be observed that the ancient Egyptian soul

concept is an example of the inflation of the number of soul aspects: In comparison to other traditions (Table 1), a segregation and transformation of soul elements is presumable. The idea of an independent and pure immaterial existence was so foreign to Egyptian thought that it assigned spiritual body (Sahu) and spiritual force (Sekhem) to the potentially eternal soul form (Akh), and delegated the other soul forms (Ka and Ba) for its help. It also seems that by Sekhem, ancient Egyptians introduced a complementary, ethereal version of the “life-soul” (vital force) by granting it to the deceased person's Akh as an energetic force. After all, in Egyptian cosmology, nothing existed in isolation, and duality was a norm.

PRE-CLASSICAL GREECE

The Christian worldview is monistic, allowing for only one soul per human body. The Trinity applies only to God, but not to man. However, centuries before, there were many discussions of the

pluralistic concept of the human soul. In the early Greco-Roman period, the mindbody problem was complex: On the one hand, there was the *psyche* (Greek), or *anima* or *genus* (both Latin), an unencumbered soul that survives death. The Greek concept of the psyche is confusing to Western investigators. While on the one hand, it can closely correspond with Arbman's free-soul, some regard the psyche as passive while the body is alive. Its presence is the precondition for the continuation of life, yes, but—following the Greek tradition—Western scholars hold that it has no connections with the physical or psychological characteristics of the individual. In other words, it doesn't carry over one's personal identity or memories after death but instead enters the Underworld as a shadow of the living person (Bremmer, 1983).

On the other hand, there was the Greek concept of the *thymos*, or in Latin *animus* or *fumus*, which is the seat of personal identity and personal memories, but which dies with the physical body. It is this soul part that is the seat of emotions. Unlike psyche, thymos was

believed to be active only when the body is awake. Thirdly, *noos* was a soul form representing the intellect and generating the willful actions of the person. There also was a soul component called *menos*, which can be described as a momentary impulse of combined mental and physical agencies directed toward a specific act. It was said to be able to manifest itself in a berserk-like fury. After the Archaic Age (800–500 BCE), there was a gradual incorporation of thymos and the noos into the psyche, which made the latter the center of the self—the organ of both thought and emotion. Accordingly, Plato goes as far as to include all intellectual functions (originally belonging to the noos) into the psyche.

The resemblance of the Archaic Greek soul belief to that of most indigenous peoples (to be discussed) strongly suggests that it belongs to a type of tribal society consciousness in which the individual is not yet in the center of focus (Bremmer, 1983). It may also reflect the effect of a tradition based less on philosophical

speculation but rather more on the direct experience of which shamans and tribal healers were masters. Hultkrantz (1953) cites Edward Tylor, the 19th-century scholar of comparative religion who observed that the belief in a personal supernatural aspect or soul formed the original foundation for religious awareness: "The material shows that the greatest importance should be ascribed to such experiences and observations for the development of the ideas of the soul." Apparently, a "direct-intuitive approach," "the second foundation of knowledge" (Strassman et al., 2007) is the source that was suppressed with the unfolding of Western civilization, dominated by Judeo-Christian overlay.

CLASSICAL GREECE

Lack of direct experience can partly explain—at least—that in our own time, the concept of the soul is one of the most ambiguous, confusing, and poorly defined of our human ideas. As the antipode of the material essence, it exists as an entity substantially different

from the body. Within this concept, the soul is the principle of life, action, and thought, and in this framework, body and mind can depart from it and go on in separate paths (like in Hindu mythology) . . . or they cannot be separated but can be opposed to each other (as in the three Abrahamic religions). In other approaches, the soul designates the totality of the self, refers to every level of the individual, and represents both the essence and the wholeness of human nature.

In this essay, we are going to refer to it in the latter meaning.

Discovering the "true" nature of the self has always been part of the Great Mystery, for unless one understands who and what we are, one cannot experience the mantle of authentic initiation. In Western philosophy, the 5th century BCE Ionian philosopher, mathematician, and mystic Pythagoras was the first to express his ideas about this during the classical period, proposing that every human being has three *principia*: a physical aspect (body, or *soma*), an intellectual-emotional aspect (mind, or psyche), and an

immortal spirit. Pythagoras's three principia have influenced numerous thinkers and philosophers across time—among them Plato, Aristotle, Galen of Pergamon, and the Renaissance physician Paracelsus. One must also keep in mind the Freudian "Id—Ego—Superego," or the Jungian "conscious—subconscious—collective unconscious" personality models, both of which converge on this ancient perception.

Yet the tripartite division of human nature was probably recognized far earlier than Pythagoras since we can find its categorical depictions in the many millennia old shamanic traditions of the indigenous peoples. In fact, it is conceivable that the Greek philosopher himself was drawing on the shamanic traditions of tribal cultures. Christopher Janaway (1995) wrote: "The body of legend which grew around Pythagoras attributes to him superhuman abilities and feats. Some think these legends developed because it is more likely that Pythagoras was a Greek shaman." Indeed, Aristotle described Pythagoras as a wonder-

worker and somewhat of a supernatural figure. According to Aristotle and others' accounts, some ancients believed that he had the ability to travel through space and time, and to communicate with animals and plants, all features that link him with the shamanic tradition (Huffman, 2009). Herodotus and modern scholars (Dodds, 1951) admit that Greek civilization was greatly influenced by the shamanistic culture of the Black Sea Scythians in the 7th century BCE. Kingsley (1999, 2003) presents evidence through the fragmentary writings attributed to the 6th-century mystic and shaman Parmenides of Velia, a small town in southern Italy, that the shamanistic tradition (*iatromantis*) actually formed the foundation for Western thought and philosophy, one that Plato did not fully understand. Seen in this perspective, Pythagoras and his fellow "Pythagoreans" were most definitely practitioners and teachers in the shamanic foundation.

SOUL CONCEPTS IN INDIGENOUS CULTURES

Africa

According to the view of the Kwawu people in Ghana, three soul categories animate each human being. “At the time of conception, blood and flesh come from the mother. The person's body comes from his mother, belongs to his mother's matrilineage, and ultimately returns to the Great Mother: Earth.” It is occupied by the bodily soul form *saman*. A person receives semen from the father at conception. By this medium, a child gets fertility and cleanliness. Cleanliness means morality in a spiritual sense, while fertility is closely linked to personality by them. The soul component associated to it is called *sunsum*. “In contrast to blood and semen that a child obtains at conception, the breath of life is received from the God[2] at time of birth.” The soul part entering the body this way is called *kra*. Death means that *kra* is taken back by the God (Bartle, 1983).

ASIA

Surprisingly similar to this African soul concept is that of the Mongolian shamanic tradition that also considers that people have three souls. According to the *Darkhad* shamans, one soul comes from the maternal side (the soul that governs flesh and blood), a second is a bone soul from the paternal side, and the third soul comes from the Spirit World. The third one, the immortal soul, transmigrates from the Spirit World to a fetus in the womb. After death, it stays for a short while in the body, and then later, seeing the light, it moves back to the Spirit World and, eventually, transmigrates back into another baby (Purev, 2004).

In other parts of Mongolia, the soul form *ami* is held to be the soul that enlivens the body. It is related to the ability to breathe—in other words to the breath. After death it returns to the Upper World in the form of a bird (like the Ba of the Egyptians). During an illness the ami soul may temporarily be displaced, but it does not leave permanently until death. Ami may reincarnate among the relatives of the dead person. The *suld* is the most individualized of

the human souls. It lives in a physical body only once; after death it remains around the body for a while, and then it takes residence in the Middle World. The *suns* soul, like the suld, also contributes to the formation of personality, but it carries the collected experiences of past lives. The suns reincarnates and stays in the Other World between incarnations but may return as a ghost to visit friends or relatives. Among the two reincarnating souls, the suns usually bears the strongest past-life memories. The suns soul may also temporarily leave the living body and sometimes wander as far as the Lower World, which may require a shaman to negotiate for its return. This Mongolian tripartite soul concept clearly reflects the three-tier shamanic cosmology (Sarangerel, 2000).

Throughout Siberia, it is widely held that all humans possess at least three souls; some groups such as the Samoyedes believe there are more: four in women and five in men. Not every author agrees on the concept of multiple souls. Shirokogoroff is skeptical of this notion: “I believe that in some instances of very multiple souls . . .

we have the ethnographer's complex, his creation and not that which exist in [the indigenous population's] mind" (Shirokogoroff 1935/1982, p. 54). Some sort of deculturalization process adds to the confusion: Western influences and missionary assimilations have greatly adumbrated the soul concept of numberless tribes. Even so, the examples above suggest that humanity's archaic culture—the hunter-gatherer culture—perceived the reality of the soul trinity over thousands of years, and the commonality, even perhaps universality of the tripartite soul concept is plausible. Like in the case of the shamanic cosmology: the three-tier view is the most common worldwide, despite numerous deviations (for example, the twelve-level worldview of the South American Yagua tribe) (Fejos, 1943).

The Puyuma people—indigenous in Taiwan—believe that each person has three souls, one of which resides in the head, and the other two reside on each shoulder. Chinese aborigines belonging to the Hmong tribes follow their ancient shamanic tradition and

believe that each living body has many souls (not in full agreement on the numbers, though). For a newborn infant, one soul enters his or her body when he or she is conceived in the mother's womb. Another soul enters when the baby has just emerged from the mother's body and taken its first breath. A third one will have to be called on the third morning after birth. The first soul is the one that normally stays with the body. The second soul is free, it wanders; this free-soul causes a person to dream while asleep. The third soul is the protective soul that tries to protect its owner from harm (Symonds, 2005).

AMERICA

The Native American Lakota Sioux distinguish the *woniya* (physical self), *nagi* (cognitive self), and *nagila* (spiritual self). Similarly, the Inuit Eskimos separate three souls: an *anerneq* soul, which we receive with the first breath at the moment of birth, an *ateq* soul, which we get with our names after birth, and a *tarneq*,

our immortal soul. The Caribbean Voodoo religion also differentiates three forms of soul: *gros bon ange, ti bon ange*, and *z'étoile* (Wesselman, 2008.)

The Shuar (Jívaro) headhunter tribe living in the Upper Amazon regions of Ecuador also believes in the trinity of the soul (Winkelman and Baker, 2008). In their culture, everyone bears a "true soul," the *nekás wakanl*, which arises at the moment of birth. This soul resides in the blood of an individual, and therefore blood loss equates to partial soul loss to a Shuar. The "true soul" leaves the body when one dies, and it starts an immortal existence reliving the entire life of the individual that it belonged to. After reliving this life, it may become a forest demon, or after several transformations, it evolves into mist and in this form unifies with the cloud of every deceased person's "true soul." The war-cultivating Shuars are pragmatically minded and preoccupied with their everyday warfare. Therefore, the "true soul" interests them the least among the three, since—they suppose—it has minimal

effect on their actual affairs.

The second soul is the *arutam wakanl*, which brings vision (*arutam*), and provides protection to the person. This "protecting soul" is so important that no one can reach adulthood without it, and it has to be gained before puberty. To acquire this soul, a young Shuar boy must go out into the forest for a vision quest of about five days. It is the vision (arutam) that brings power and intelligence; it shields against malevolence and witchcraft. Over the course of a lifetime, a warrior acquires several "protecting souls," or helping spirits that give him extra protection.

The third one is the "avenging soul," the *muisak wakanl*, which takes the stage when an arutam bearer is murdered. The function of muisak wakanl is revenge. When an individual with arutam wakanl is killed, his "avenging soul" leaves through the mouth and proceeds to try to kill the murderer. Because the Shuars are frequently engaged in killing raids, it is important for them to come up with a mechanism to stop the "avenging souls" from coming

after them. This is the reason why the shrunken heads (*tsantsa*) are made. Shrinking the head prevents the muisak from leaving the body, and covering it with charcoal blinds this "avenging soul." Moreover, the preparation moves the power of muisak to the killer's family (for example awarding them with more food). However, the muisak means potential danger for the tribe even when it is incarcerated into the tsantsa, so after a while, they excommunicate it to its village of origin, or sell the head to someone passing by (e.g., a tourist). In the belief system of the Shuars, the three-soul concept serves a double function: the conservation of tribal warfare and the protection of the individual's well-being (Winkelman and Baker, 2008).

According to the view of Hawaiian aboriginals (Kahuna mysticism), everybody has a lower soul—the *'unihipili*, connected to the body and feelings, a medial soul; '*uhane*, related to mentality and thinking; and a superior, immortal *'aumakua* (Wesselman and Kuykendall, 2004, Wesselman, 2008, 2011). Ancient Greek

thinkers would definitely ponder upon the tripartite definition of the Kahuna tradition, as in classical Greek thought, the psyche subsumed the emotional and the cognitive functions into one, while the Polynesians perceive these to be functions of two quite different souls.

THE TRIPARTITE "SOUL CLUSTER"

The composite picture derived from the concepts of the soul in numerous cultures outlines meaningful commonalities and offsets insignificant differences. The results suggest that the singularity defined as "self" by Westerners is actually a cluster, a personal "soul cluster" (Table 1). All aspects of the soul cluster are combined to create a functional self, and all of them are part of the same totality, originating from the same source, yet they exist in very different states of quality. In considering the Hawaiian Kahuna teachings, we find a psychodynamically intriguing interplay between the three soul components, a sort of *soul*

dynamic that has been utilized in treatment concepts and enjoys an extensive multicultural acceptance spanning across space and time. It has been my experience (Frecska) that my psychiatric patients can relate to this tripartite soul division more easily than to the terminology and psychodynamic approach of classical psychoanalysis.

The indigenous peoples understand that the harmony between the components of the self (i.e., the soul forms) is essential for physical and mental health. If the relationship between them is well-balanced and the unity of the three soul components is maintained, then health persists. In other instances where there is disharmony within and between them, healing intervention is necessary.

In the following, we plan to cast light upon the benefits of this perception that are not quite present in Western teachings and practice. Conversely, the traditions of the indigenous cultures can provide this to us if we are open to them. Concretely, as it is

expressed in the Kahuna protocol, every soul form can act both independently—in different roles according to their special attributes as well as in special intra- and transpersonal dynamics. Longterm or even complete and final healing may be based on the practical use of this recognition.

Table 1: The Various Presentations of the Tripartite “Soul Cluster”

	SOUL ASPECTS		
	Physical	Mental	Spiritual
Ancient Egypt	Ka-Ib	Ba-Ren-Sheut	Akh-Sahu-Sekhem
Archaic Greece	thymos	noos, menos	psyche
Mongolian shamanism	ami	suld	suns
Lakota Sioux	woniya	nagi	nagila
Inuit Eskimo	anerneq	ateq	tarneq
Shuar (Jívaro)	arutam	muisak	nekás
Kwawu tradition	saman	sunsum	okra
Kahuna teaching	'unihipili	'uhane	'aumakua
Caribbean Voodoo	gros bon ange	ti bon ange	z'étoile
Christianity	Son	Father	Holy Spirit
Kabbalah	nephesh	ruach	neshamah
Ernst Arbman	life-soul	ego-soul	free-soul
Hank Wesselman	body-soul	mental-soul	Oversoul

In the complex soul-concept of ancient Egypt, the precise meaning of the individual components Ka, Ba, Akh, Sekhem, etc., is not clear. "Well-meaning scholars try again and again and again to force the Egyptian idea of the soul into our traditional categories without enabling us to understand even a little of it any better" (Poortman, 1978, p. 108). Bewaring of this while still maintaining good intention, we would dare to say that several Egyptian soul parts can be merged under the auspices of tripartition. We are unprepared for a theological discussion, so we abstain from disrupting and classifying the Holy Trinity (we mean, whether the Father corresponds to body-soul or mental-soul). In the table, we just mention it to emphasize the consistent appearance of tripartition.

HAWAIIAN KAHUNA THOUGHTS ON THE SOUL ASPECTS

‘Aumakua: The Immortal Free-Soul

As mentioned above, the Hawaiian expression *‘aumakua* refers to the supreme, immortal aspect of the self and can be translated as “utterly trustworthy ancestral spirit,” or as “the spirit that hovers over me.” In Western teachings, this component of the self appears as the “overself,” the “higher self,” the “divine me,” the “angelic self,” the “transpersonal witness,” the “god self,” and the like. Symbolic illustrations of it in the West depict it typically as a benevolent winged creature, a guardian angel. In Polynesia, it is associated with the creator deity Kane or Tane, and is depicted by an upright stone monolith. Following Wesselman and Kuykendall (2004) and Wesselman (2011), we call it Oversoul, which can be conceptualized as our personal share of the all-encompassing Holy

Spirit, or as some call it “the Human Spirit.” Originally, it was Ralph Waldo Emerson who coined the word *Oversoul* while a divinity student at Harvard University.

The visitation of something magnificent, benevolent, and divine is a frequent subjective experience during mystical altered ASCs, either occurring spontaneously or induced by transpersonal techniques. Those who are less familiar with direct transcendent experiences may interpret this presence as a divine visitation of an angelic greeting or even as a manifestation of the Almighty father-God, and we must always observe that such visitations cannot be ruled out. However such a transpersonal connection is interpreted, one can observe a tendency for the mystical presence to be perceived as being outside the subject's self, although it most likely may be the manifestation of one's own Oversoul. Such a claim must be validated by the words *most likely*, as—paradoxically—similar interpretations tend to be more accurate when they are less categorizing (i.e., not the “either–or” kind).

In the Polynesian Kahuna tradition (Wesselman and Kuykendall, 2004; Wesselman, 2008, 2011), our Oversoul is observed to be in permanent connection with us in every moment of our lives, both waking and sleeping, whether we are aware of it or not. This connection appears to be surprisingly easy to manifest or activate, and those who practice meditation have a greater ongoing access than those who do not. As part of our soul matrix, the Oversoul monitors all our deeds and thoughts, actions and reactions, emotions and relationships, revealing that privacy is truly an illusion. This self-aspect is passive but not dispassionate toward us, silently feeling concern for our wrong decisions and silently rejoicing upon our successful choices. The Oversoul is a silent observer, as the responsibility for decision making belongs to another self-aspect, the mental-soul or egoic self. This reveals that for most of our lives, our Oversoul does not interfere with our mundane affairs, and neither does it dictate what to do—it respects the right of free choice. However, its protection and guidance can

be asked for and invoked. Without such a request, it is only in the rarest cases—perhaps to avoid an “untimely end”—when such an “angelic intervention” or miraculous avoidance experience may happen.

As our wise spirit teacher, our Oversoul is also the source of our inspiration and intuition. It may send us dreams and visions in which it may appear in the image of a spiritual teacher or other wise being, depending on the person's culture, belief systems, and mythical world. Cross-cultural examples reveal that people who have been raised in European traditions may have transpersonal experiences of discarnate entities known in Polynesian or Mesoamerican civilizations. In a relaxed meditative state of perfect calmness and inner peace, such connections can be achieved . . . and then, upon recalling a certain problem, an answer to the dilemma may suddenly appear within the meditator's conscious awareness revealing that the Oversoul is passive only for the passive person. Through personal divination, it may serve as a

source of information, and this service can be cultivated with practice.

The Kahuna tradition reveals that the ‘aumakua, the Oversoul, is also our personal creator: the primordial source of our self. At birth it divides itself, sending in a seed of its light that takes up residence within a new body for a new life with the first breath, revealing the breath to be the vehicle of transfer. As our “divine source,” it projects a hologram of its immortal soulcharacter into the newborn, including all its cosmic information content. Similar to many other cosmogenic myths, the Kahuna tradition emphasizes that our personal creator is not a monotheistic off-planet father god, but rather our own divine and immortal part of our self.

All individual Oversouls create a holographic field—the spirit of humankind, termed *ka po'e ‘Aumakua* (Wesselman and Kuykendall, 2004). As the Oversoul resides outside space and time (i.e., it is nonlocal), the result of this summation is the cumulative (past + present + future) experience and wisdom of our species

Homo sapiens. This database corresponds to the "collective unconscious" in Carl Jung's terminology. In Kahuna thought, it is an inexhaustible resource of information, which has been and is being tapped by mystical philosophers and shamanic healers, and which is theoretically accessible to all of us, all the time. Connection with it is often realized during rituals and ceremonies, and in integrative forms of ASCs, with the body-soul being the mediatory agent between our mental-soul and our Oversoul.

'UNIHIPILI: LIFE-GIVING FORCE, THE BODY-SOUL

Upon its arrival in the biological medium, the nonlocal Oversoul seed must achieve a successful relationship with another soul already in residence: the body-soul sourced into us from our mother and father. The usage of the terms *local* and *nonlocal* is essential for us, as they serve as the basis for a rationalizing approach that will be explicated. The body-soul approximates what

psychoanalysis calls the "personal unconscious." In the Kahuna tradition, this self or soul aspect is the source of all our emotions and feelings and is in charge of the entire operation of the physical body, including its repair and restoration. Next to the energetic matrix of the body-soul and that of our own Oversoul, the third soul form, the mental or egoic soul, takes form in response to life as we live it and is shaped by our life events.

According to the Kahuna thought, the body-soul, being energetic in nature, serves as the location of our personal memory storage, and so it is this soul that may recall all personal events upon request by the mental-soul. It is the database of all instinctual and learned behavior and thus serves as our personal operating system and inner hard drive.

The body-soul communicates to the other soul components, the mental as well as the spiritual, by reacting to our life events with emotional responses, expressing what it likes or dislikes. The body-soul does not lie; it expresses itself without inhibitions in the

language of emotions, revealing exactly how it feels about a family member, a friend, a job, or a life opportunity. As the interface between our inner and outer worlds, it vividly monitors both the realities in which we act as well as those in which we think, feel, and dream. We could describe it as the mind of the body, which uses our sensory organs to gather information, then forwards the data to our receiving self (mental-soul). This *interface* function should be emphasized, because the body-soul is both the sender and receiver of all psychic experiences as well as shamanic visions. It is thus the part of our self that makes the spiritual world accessible, according to Kahuna teaching and practice. The inner portal, through which we may make contact with our spiritual guardians and teachers, is located just there, within it. Even the Oversoul part of our self communicates through it to the third soul aspect, the mental-soul or intellect.

The body-soul is the soul of great possibilities. It is at one and the same time material and immaterial, bound by matter and yet

free. When Wilhelm Wundt (1920) combined the breath-soul with the idea of the free-soul, he did that on good grounds as both are unsubstantial and unstable. From a psychological viewpoint, the conception of the free-soul, Oversoul, is identical with the memory image of the dead person projected back into the supernatural reality—the airy, ethereal shape of the deceased like a condensation of human breath. The Oversoul and the body-soul thus have qualifications favoring a meeting and merging.

The body-soul—although not by logical abstraction—is able to reason. It provides us with conclusions based on immediate experience. It remembers everything that succeeds or that which causes pain and damage. It is programmed in such a way that induces such behavioral output that helps survival. The body-soul is a fundamental driving force toward our growth, upon acquiring new skills that help us to grow, increase, and become more than we were.

As mentioned above, the body-soul is also our inner healer,

programmed to repair our bodies. It restores us based on our genetic as well as our energetic inheritance, and as such, it works with the interactive field of our body components. According to Kahuna thought, these two sources—genetic and energetic—are essential in the healing function because the body-soul is not creative; it is not able to invent and does not draw a plan, but it follows the genetic and energetic blueprint around and with which the body was formed. It is not a leader, but it executes commands as a good subordinate, and it functions at its best when getting unambiguous directives from the mental-soul—from the soul form (self aspect) that is named ego in the West.

‘UHANE: OUR EGO, AS THE MENTAL-SOUL

Next to the Oversoul and body-soul, the third aspect of our self is the mental-soul, which takes form in the process of our reactions to life events. Well known to the West, this is the intellectual part of the “I” that thinks, analyzes information, integrates, adjudges,

assigns meaning to, and functions as our chief executive. It is the source of our rational mind and intentions, and the realizer of our creative inspirations. The mental-soul conceptualizes new ideas, thought forms, and goals, and then aspires to reach them. However, as we have mentioned earlier, the source of this inspiration is the Oversoul, which is accessible to the mental-soul via the *interface* of the body-soul. In other words, the mental-soul is our intellectual, rational, creative, coping apparatus—our inner director. It is the side of our self that is continuously changing on the basis of our experiences and collected knowledge. The mental-soul is also the bearer of our belief systems that it holds to be true, those same convictions that underlie how well it directs. If the mental-soul faces a challenge that it deems uncontrollable, then it may become inefficient. For example, if one accepts that his or her illness is incurable (and this often happens by external influence, like a medical opinion), then the mental-soul may surrender to the illness.

In Kahuna teaching, a connection exists between feelings and

emotions generated by the body-soul and the belief systems held by the egoic self, and long before Aaron Beck, the Kahunas assumed that the former depend on the latter. They understood that feelings inform the mental-soul about which belief is currently the operative one, and that the body-soul expresses its opinion about the dominating schema in the form of feelings. The mental-soul then has a choice, whether to accept the subconscious message and to act accordingly, or to discard it by declaring as invalid. Mental and physical health presumes a good working relationship between the mental-soul and the body-soul. Indeed, this is not a democratic relationship; the mental-soul is the master, and the body-soul is the servant. As the superior agent of our coping mechanism, the mental-soul directs the activity of the bodysoul, which serves as its executer. However, this dominance is maintained only in the ordinary state of consciousness, when orientation to the outer world is adaptive and the main daily task is coping. Meditative, contemplative, and ritual techniques may break the mental edges

and the dominance of the ego, and may evoke a state in which the mental-soul introspectively receives signals coming from the Oversoul, crossing the bridge (or interface) of the body-soul.

The mental-soul has a rather heterogeneous and sometimes obscure nature. In its “pure” form, it constitutes a hypostasis of the stream of consciousness, the center for thinking and willing—the intentional mind in a broad sense. But at the same time, the mental-soul manifests certain peculiar features, which makes it clear that it is not just an expression of the individual's own personality but also functions as a being within the individual which endows him with thought, will, and so on. This “soul of consciousness” is motivated by order (this influence is coming from the Superego in Freudian theory); the body-soul by comparison is motivated by desire or pleasure (a characteristic of the Freudian Id). The conscious content of the ego may thus manifest certain independence—especially when neurotic persons are found to be in conflict with compulsive notions, acts, phobias, etc., sourced by the

body-soul. This peculiarity of the mental-soul explains why we find it now split into several potencies, now taking up an exaggeratedly independent, at times superior, attitude toward its owner. On the other hand, most addictive or impulsive behaviors are expressions of the body-soul that may assume dominance over a poorly developed mental-soul.

THE TRIPARTITE SOUL-CONCEPT IN EUROPEAN AND NEAR-EASTERN CULTURES

The Polynesian teachings draw upon the dynamism and essence of much the same trinity that accompanies the history of many other cultures, including the significant tradition in Western thinking. It is indeed thought provoking for us that at the dawn of European philosophy, expressed through Pythagoras and Plato, the transcultural similarity is demonstrable. Pythagoras believed in the immortality and transmigration of the soul. Plato understood that the soul differs from the body and that it can exist separately as

pure thinking, but his thoughts do not reflect whether the soul can or cannot survive death (Janaway, 1995). Plato argues that the human soul has three parts: *Logos* (an intellective, rational part), *Thymos* (a spirited part, having to do with emotion and will), and *Eros* (an appetitive part, having to do with drives and basic impulses). Each of us has two mortal soul parts—appetite and spirit—plus one, the intellect, which is immortal (Sedley, 2009).

Aristotle avoids addressing the principle of immortality. He thinks of the soul as a substance, the form of a potentially living natural body, which accomplishes and consummates the possibility of supplying bodily functions. Aristotle attempts to explain life processes with the soul; he distinguishes three soul parts, according to three assumed life processes: nutrition–reproduction, sensation, and cognition. In his case, the unity of the self is already far away. Aristotle did not consider the soul in its entirety as a separate, ghostly occupant of the body (just as we cannot separate the activity of cutting from the knife). As the soul, in Aristotle's view,

is an actuality of a living body, it cannot be immortal. Perhaps it was the influence of his physician father that caused the narrowing of his soul concept to biological and psychological relations. Following Aristotle's footsteps, Western scientific thinking was influenced accordingly, until it reached the point where the notion of the soul had eventually become completely disqualified. We take it that, avoiding the metaphysical, “direct-intuitive” experience (Strassman et al., 2007) provided by integrative forms of ASCs (like the shamanic state), the idea of immortal soul has gradually lost ground in Western philosophy.

Yet Aristotle also described a quality of being that is closely allied with the perception of the Oversoul. He called it the *entelechy*—that which is already realized as opposed to the *energia* (the energy body) that carries the life force that motivates and orients an organism toward self-fulfillment. The entelechy was understood in classical philosophy as a fullness of actualization that requires ongoing process and effort in order to continue to

grow and thus exist, perpetually becoming itself . . . a good description of the Oversoul.

Plotinus of Lycopolis (205–270 CE) presents arguments for the *tripartition-cum-trilocation* of the soul (Plotinus, 1991) advanced by Plato in *Timaeus* (2001). His version is marked by a clear spatial separation between the three parts of the soul: reason in the brain, will in the heart, and desire in the liver. Plotinus refers to the ideas presented by Galen of Pergamon in his work *On the Doctrines of Hippocrates and Plato* (Galen, 1978/1980). At the same time, he takes stance for the unity and incorporeality of the soul. From Galen's perspective, the parts of the soul are not located in the three bodily organs in an ordinary sense—only their activity takes place there.

In Islam, the human soul is also split into three parts: the *Qalb* (heart), the *Ruh* (blood), and the *Nafs* (passion of the soul). In the words of Ibrahim Haqqi of Erzurum: the heart is the home of God. Qalb enables the individual to perceive God as the All-Helping and

All-Maintaining. Interestingly, the immortal Oversoul seed is also felt by the Kahunas to reside in the heart.

The *Zohar*, a classic work of Jewish mysticism, separates three soul parts as *neshamah, ruach*, and *nephesh*. They are characterized in this way (Von Rad, 1965): Neshamah is the higher soul, or Oversoul. It allows man to have awareness of the existence and to feel the presence of God. It is the bearer of intellect and provides us the gift of immortality. This part of the soul is implanted at birth. After death, neshamah returns to the source. Ruach is the middle soul. It carries the moral virtues and gives humans the ability to distinguish between good and evil. Ruach corresponds to the ego, to the mental-soul in our terminology. Nephesh is a living mortal essence: it feels pain, hunger, and emotions, and most importantly, it eventually dies. It is the source of one's physical and psychological nature. The last two elements of the soul are not given at birth but are continuously created over time; their maturation depends on the beliefs and deeds of the

person.

THE TRIUNE MAN[3]

"Man is a bundle of relations, a knot of roots, whose flower and fruitage is the world."

—RALPH WALDO EMERSON (1841/1979, p. 20)

One could raise a justified doubt about the fundamental basis for using the notion of the soul at all. As an answer: the Kahuna can "psychodynamize" and elucidate by using the three soul forms, and can even build a healing praxis on this basis. Of course, this does not necessarily mean that the thing must be more than just a hollow metaphor (even the phlogiston theory was capable of explaining certain phenomena). The Kahunas knew that metaphors work powerfully because the body-soul takes everything literally and does not distinguish between reality and illusion. It perceives both as real.

Rational content can be given to a metaphor by deducing or transferring it into other metaphors that have been approved in other fields of science. If we discern a premise which is extremely reductionist and which constricts our aspects, then questioning the given starting point can take us forward on the cognitive path. What we are questioning here is that our self, our human essence, and all of our experiences would be reducible to the operation of one and only one network: the neuroaxonal network. If we accept that other networks—operating by other and different types of information processing strategies—may also contribute to our human essence, then we may reasonably address many concepts that so far have been excluded from the reference framework of rational thinking.

Table 2 summarizes the levels of organization supposedly involved in generation of the conscious experience. Since the topic of consciousness is mostly ignored by mainstream neuroscience, it is difficult to determine the opinion of prominent brain researchers.

Despite some positive trends in other disciplines (for example, physics), orthodox neuroscientists avoid the issue, and unorthodox ones use the politically correct term *awareness* when preparing their grant proposals. Nevertheless, with the exception of the very top level and one at the very bottom, most neuroscientists would not disagree with the assumption that all these levels represented in Table 2 are involved in the process.

To avoid the trap of radical reductionism, one must assume that all levels are at work with bidirectional interrelated causative processes (*bottom-up* and *top-down* reciprocal interactions). Let us pay attention to the position of the dashed line in Table 2. Illustrating the contemporarily accepted view, it divides levels based upon their assumed causational role in generating the conscious experience.

Table 2: Organizational Levels That Play a Role in the Human Experience

altered consciousness	something else? culture individuum, the brain brain subsystems (e.g., triune brain by MacLean) corticothalamic loops brain modules neurons synapses, neural membranes ——————————————————————————— microtubules microfilaments cytosol proteins hydrophobic pockets van der Waals forces electron superpositions, photon polarizations spin networks, space–time geometry	ordinary consciousness

According to the theories on the neural correlates of consciousness, the neuroaxonal system has a pivotal role both in the emergence of conscious experience and in the function of levels above it. In his book, *The Blank Slate: The Modern Denial of Human Nature*, Steven Pinker (2003, viii) writes, "Culture is crucial, but culture could not exist without mental faculties that allow humans to create and learn culture to begin with." The effect of culture in shaping brain structure and neuroaxonal function is also permitted. In cogent and convincing writing, Bruce Wexler (2006) argues that our brain does not merely dictate how we respond to changes in the environment but is also itself shaped through interaction with the social world. Briefly, social relations, even culture and ideology, affect neurobiology.

This means that above the dashed line *bottom-up* and *top-down* interactions are at work, and every level is supposed to have an active role. This is not the case below it: the assumption here is that

subcellular levels are passive, subserving higher levels by permitting, but not shaping, their function. Here the causation operates only from *bottom-up*, but the role of *top-down* effects is not believed to operate at this level in mainstream neuroscientific thinking. Above the horizontal line, there is a well-balanced "cooperative hierarchy"; below it, "oligarchy" is the rule. Of course, this is an arbitrary delineation with broken symmetry. It lacks an explanation about why only the upper half has active and reciprocal interactions. Perhaps it would be more consequent and congruent to suppose that subcellular levels also have an active role in the creation of the human experience and that they add something to the self, which is a characteristic of their level. Considering their size, this characteristic could be their relation with quantum reality.

So what is this quantum characteristic that subcellular parts can enrich the human experience with? We assume that it is "nonlocality" (more specifically "signal nonlocality"), which is an

important property of the quantum processes. In brief, *nonlocality* means that if two elementary particles were once part of the same quantum system, then they remain in immediate interaction, regardless of their position in space and time. If the quantum state of one particle changes, then the state of the other *quantum entangled* particle will also change simultaneously—no matter how far apart they are from each other in space and time. "Signal nonlocality"—a new fertile term in 21st-century physics—means that a change in the state of a system induces an immediate change in an interconnected (*entangled*) system. A subcellular network (perhaps the lipoprotein membrane complex) might enable the brain to receive "nonlocal" information and to transmit it toward the neuroaxonal network (Figure 1). A tentative function of subcellular components by forming a "quantum array antenna" of the brain is discussed in our book (Strassman et al., 2007). A biological model of information processing is proposed there, in which subcellular, cytoskeletal networks serve as the basis for

quantum computation and represent a medium of quantum holography.

The connection to quantum reality can be mediated by a subcellular network that presumably covers the whole body and represents a space- and time-independent holographic image of the Universe inside the body by "nonlocal" connections, in other words, by quantum correlations (Figure 1). "Nonlocal" information about the physical Universe provides the missing link between objective science and subjective experience, including the mystical experience. Based on the principle of "nonlocality" and with the "quantum array antenna" of subcellular networks, the brain (and the full body) is in resonance with the whole Universe. A faint hologram of the Cosmos emerges inside the body, and regardless how pale it is, it is able to present wholeness and can elucidate teachings like: "The kingdom of God is within you" (Luke 17:21, in Greek, *entos hymon*), or "Look inside, you are Buddha" (Humphreys, 1987). The perennial wisdom of "As above, so

below" (or: "As within, so without") obtains a fresh perspective and there is hope for the integration of similar teachings into Western rational thinking. Subcellular matrix can be the mediator of the Jungian "collective unconscious," and cytoskeletal quantum holography can explain a very common but obscure phenomenon known as "intuition."

Figure 1: The hierarchy and speculative interaction of networks related to human experiences.

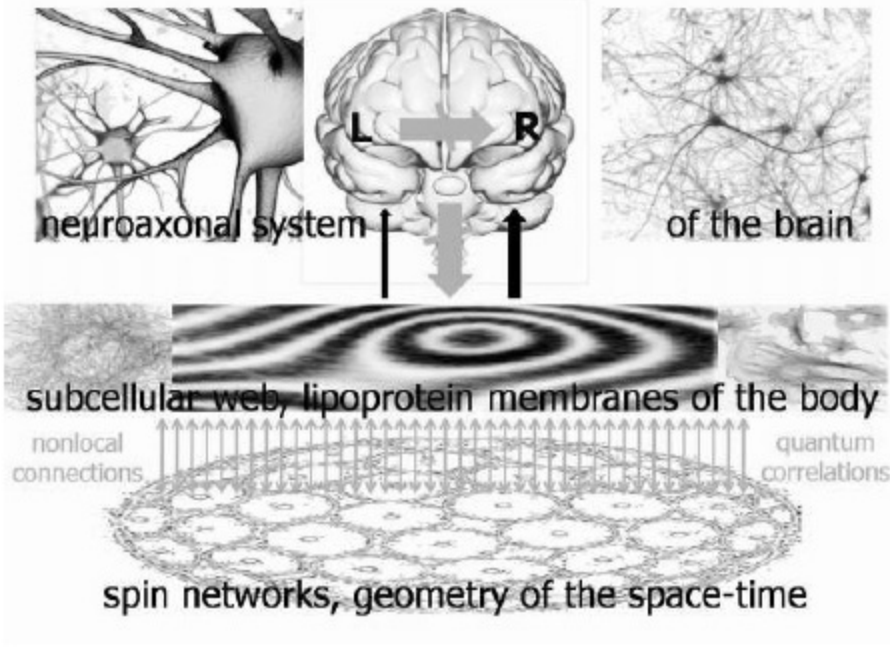

Crossed gray arrows between the left and right hemispheres, as well as between the neuroaxonal and subcellular networks, denote inhibitory effects (left–right hemisphere and "up–down" network dominances) in the ordinary state of consciousness. "Nonlocal" interactions (marked with uncrossed grey double arrows) are persistent and independent from the state of consciousness. It is primarily during the integrative forms of altered states of consciousness (e.g., in meditation and contemplation as opposed to psychosis, delirium, or intoxication, which are disintegrative forms of ASCs) when a minimal and very uncertain information transfer may occur emerging from the subcellular matrix to the neuroaxonal network via visions (i.e., presumably by visual cortical input) or revelations (i.e., presumably by verbal cortical input), as shown by black arrows.

We represent a radical idea that the world of well-integrated ASCs is related to quantum processes, while the reality of ordinary consciousness belongs—beyond doubt—to classical physics. Their boundary is probably not sharp at all; ordinary conscious experience can be affected by quantum processes as well (in some cases of intuition), and many features of the experiential world of altered states can also be deduced from classical physics. We see a seamless continuum with phase transitions from the classical-physics based neuronal brain functions all the way to the quantum-physics based subneuronal "direct intuitive" information processing.

While the "nonlocal" connections are permanent, in ordinary states of consciousness, there is only a very limited and mostly unconscious shift of the "nonlocal" information into the neuroaxonal system—since the coping apparatus, the "survival machine," is mostly focused on the more reliable "local" signals

coming from the perceptual organs—so only a little or none can get into the focus of attention of the "I." In integrative forms of ASCs (e.g., meditation and contemplation), coping, planning, and task-solving functions are put into the background along with the agent (ego) bearing those functions. Thus, a chance appears for fragments of "nonlocal" information—present already in subcellular networks—to be projected and transferred into the neuroaxonal network and to be experienced also by the ego. This outlined hologram can be a stage for out-of-body experiences: consciousness does not leave the body, but its introspective attention sweeps the "matrix," i.e., the field of "nonlocal" correlations mediated by the subcellular network.

In biological systems, everything that involves a transfer of energy (i.e., of mass—by the Theory of Special Relativity), leads inevitably to a change in space–time geometry (by the Theory of General Relativity), and shows up by making imprints in complex nonbiological networks (spin network—Penrose, 1971.) Where

there is a complex network, there must be a function, and an agent can be assigned to that function. Thus, the mental-soul (ego) can be assigned to the neuroaxonal system, the body-soul to the subcellular networks (lipoprotein membrane complex), and the Oversoul to a nonbiological, basically physical network (spin network, space–time geometry). The referred native peoples and antique philosophers (namely Pythagoras, Plato, and Galen) may have intuitively sensed the presence of these network functions representing "agents" in their soul concepts. Based on the association above, a careful watch on Figure 1 reveals that the presented model reflects quite accurately the dynamics of the Kahuna soul forms: the Oversoul (‘aumakua)—the agent of the nonbiological network—is in a permanent connection with us in every moment of our lives; the body-soul (‘unihipili)—the agent of the subcellular matrix—is the bridge between the Oversoul and the mental-soul (‘uhane)—the agent of the neuroaxonal system—and serves as an inner portal to receive transpersonal information.

Moreover, the model shows an analogy with the Shuar concept in that the arutam wakanl (which corresponds to the body-soul in Table 1) is the bearer of visions. As we have earlier mentioned, biological metabolism, conformation change of molecules can affect space–time geometry. By the Kahuna teachings, this can also hold in reverse: see above the detailed "download" of the Oversoul at the formation of the body-soul.

There is another benefit of the presented model—it may explain away the confusion in the classification of soul components: Soul dualism results from combining the biological network agents (life-soul and ego-soul) in contrast to the nonbiological one (free-soul). The tripartite soul concept emphasizes more their unique role and sets the foundation of "soul-dynamic psychotherapy."

Several arguments can be raised against the outlined model questioning the special role of each presented network. Within the matrix of the lipoprotein membranes, is it the microtrabecular lattice that makes humans (and other cellular organisms) capable of

carrying an albeit faint hologram of the Universe, or is it something else? Is it—alternatively—the microtubular cytoskeleton, which is the proposed medium of quantum computation in the Penrose-Hameroff model (Penrose, 1996)? At the bottom rung, others would not put space–time geometry—an already outdated concept, some experts believe—but entangled quantum holograms in the universal ("Akashic") field (Laszlo, 2009). Ervin Laszlo argues (personal communication) that space-time is itself a manifestation of the field—there is neither space nor time prior to the quanta that arise in the topological field. Moreover, what functions as the source of information on that fundamental level is not "geometry"—he goes on—but the "nonlocal" network of quantum holograms: the informational structure of the field. Nevertheless, the strength of our concept is not tied to the successful proposal of one specific network, but to the argumentation that there must be "nets" other than the neuroaxonal for shaping human experiences, and there must be at least three, with one of them being

nonbiological.

We consider as the miracle of nature not only that the three soul forms can have a material basis—although it can already be unacceptable for many. Their interaction, which catapults the human experience to the infinite, fascinates us more, and so does the fact that a rational explanation can be created even for this relation-dynamics—although by stretching academic frames. These and similar thoughts are explicated in detail in the book *Inner Paths to Outer Space* (Strassman et al., 2007) for readers who are open to interdisciplinary trespasses. As we are not sure about the same attitude at present, we have shortened our discussion—which may sound cumbersome and far-fetched for many—as much as we could. On the other hand, we cannot see any other way to authentically interpret these and similar teachings. To ignore or to belittle them is another possible way—but it does not lead to progress. Evidently, these are concepts and theories that need to be discussed and developed.

NOTES

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2. Instead of God we would prefer the use of Great Spirit, which is more consistent with the tribal, shamanistic worldview.

3. Coined by following the triune brain model of Paul MacLean (1990).

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THOUGHTS ON PARAPSYCHOLOGY AND PARANORMAL PHENOMENA[1]

BY ROBERT SCHOCH

For more than two decades, I have advocated the idea that civilization dates back thousands of years earlier than previously believed (a generally cited date for the origin of civilization is circa 4000 to 3000 BCE). My position was initially based on my work on the Great Sphinx in Egypt. In the early 1990s, I demonstrated, using geological data, that the statue's origin is thousands of years older than the generally accepted date of circa 2500 BCE. Initially, I “conservatively” suggested that the core body of the Sphinx dates back to 5000 BCE or a bit earlier. I made my case comparing erosion and weathering profiles on the Sphinx to the ancient climatic history of Egypt.

In brief, the Sphinx sits on the edge of the Sahara Desert, a hyperarid region for the past five thousand years; yet the statue shows substantial rain-induced erosion. The original structure must date back thousands of years prior to 3000 BCE (the head was re-carved in Dynastic times). Seismic studies, carried out in conjunction with geophysicist Thomas Dobecki, confirmed that the oldest portion of the Sphinx dates well prior to Dynastic times. Over the years, as I continued my studies and collected more data, I slowly revised my estimate, considering progressively earlier possible dates for the statue. I am now comfortable with the notion that possibly the Sphinx's earliest origins go back ten thousand years or more, perhaps even to the period of circa 10,000 BCE to 9000 BCE; that is, the end of the last ice age.

For many years, one of the harshest criticisms of my redating of the Great Sphinx was that it apparently stood in stark isolation at such a remote period in time. The people who carved it must have been extremely sophisticated culturally and technologically. They

were civilized. But where was corroborative evidence of such sophistication, of true civilization, at such an early date?

Over the last quarter century, I have traveled to numerous parts of the world searching for further evidence that civilization began earlier than standard archaeologists would have us believe. However, it was not until 2010 that I visited Turkey. In Anatolia, I found evidence that demonstrates beyond doubt, in my assessment, that true civilization arose before the end of the last ice age some twelve thousand years ago.

In southeastern Turkey, there is a site known as Göbekli Tepe. Here, immense finely carved T-shaped limestone pillars, many in the range of two to five and a half meters (two and a half to eighteen feet) tall and weighing up to an estimated ten to fifteen tons, form Stonehenge-like circles. Various pillars at Göbekli Tepe are decorated with bas-reliefs of animals, including foxes, boars, snakes, aurochs (wild cattle), birds, and arthropods (scorpions, ants, or spiders). The level of sophistication seen at Göbekli Tepe

clearly, in my opinion, indicates that a true civilization existed here. What is really amazing, and corroborates my work on the redating of the Great Sphinx, is the age of Göbekli Tepe. Based on radiocarbon techniques and geological studies, the site dates back an astounding ten to twelve thousand years ago.

The evidence of Göbekli Tepe confirms that civilization dates back to the end of the last ice age (circa 9700 BCE), a concept that was unimaginable when I was a graduate student at Yale University back in 1979–1983. And I have come to realize that there may be many things that just might be true even if they once were, or for many people still are, unimaginable.

In addition to my work pushing back the age of civilization, I have always had a deep and abiding interest in matters of spirit and consciousness—subjects often viewed as outside of the domain of serious modern scientists (and I am a scientist, with a PhD in geology and geophysics)—and as a result I have extensively researched the field of parapsychology.

I am commonly asked how my studies in parapsychology relate, if at all, to my studies of ancient monuments. Even though I am a geologist and my initial concern was dating various ancient structures, I could not help but wonder why they were built, especially given the enormous efforts that must have gone into their construction. The why behind the monuments, more often than not, apparently included religious beliefs and practices, initiation rites, and rituals, which in many cases seemed to have an ostensible paranormal aspect, whether it was clairvoyance, divination, or manifestations of higher levels of consciousness. The temples and tombs of ancient Egypt, Mexico, and Peru seemed to cry out "paranormal." So was it all a mixture of ancient myth, superstition, and downright fraud on the part of many a seer, priest, and priestess, or could there be something to it? Were the ancient structures used, at least in part, to alter consciousness and possibly enhance paranormal phenomena?

In all honesty, I have always been highly skeptical of any

alleged paranormal phenomena. However, my concept of skepticism is not the same as dismissal, and in my studies of ancient and traditional cultures, alleged paranormal phenomena kept making an appearance. When a former Boston University student, Logan Yonavjak, encouraged me to delve deeply into the serious parapsychological literature, I found the topic both fascinating and enlightening. The immediate tangible result of our research was the book *The Parapsychology Revolution: A Concise Anthology of Paranormal and Psychical Research*, in which we include selections from fourteen seminal papers, dating from 1886 through 2007, by major figures in the field plus a hundred pages of our own commentary. For me, however, the real result of my immersion into parapsychology was a new appreciation for human potentiality and the connections we share with all of life and ultimately, perhaps, with the cosmos. This is something I address to a certain extent in the

final chapter of my latest book, *Forgotten Civilization: The Role of Solar Outbursts in Our Past and Future* (Inner Traditions, 2012) and I anticipate will be the subject of future articles and books.

People often ask me if I now "believe" in the paranormal. Let me just say that after looking at the hard evidence, and sifting out the fraud and bunk, I have come to conclude that there definitely is something to such phenomena as telepathy and psychokinesis. Here I should point out that in *The Parapsychology Revolution*, we discuss paranormal and psychical phenomena in a strict sense, including the concepts of ESP (extrasensory perception: telepathy, clairvoyance, and precognition) and psychokinesis (PK, or mind over matter, on both micro and macro scales). Certain topics that are sometimes included in more general definitions of the paranormal and parapsychology, such as UFOs, aliens, Big Foot, and so forth, were not our concern

in this book. Likewise, our primary focus did not include evidence bearing on survival beyond the grave (though we do briefly discuss evidence for reincarnation). The survival issue is highly controversial, and the evidence typically used to support life after death is subject to many interpretations. We felt it was important to first establish what is possible in terms of paranormal phenomena while people are still alive. Perhaps the survival issue will be the subject of a future book on my part.

Most people who have seriously studied the subject conclude that telepathy (mind-to-mind interactions) is the best-supported class of paranormal phenomena. There is strong laboratory evidence for telepathy, such as classic card-calling experiments as well as many more sophisticated tests of telepathy, clairvoyance, and remote viewing. There is also a large and compelling body of evidence from spontaneous cases supporting the reality of telepathy. For

instance, crisis apparitions, veridical hallucinations, or "ghosts" are well-known, as documented in the classic two-volume scientific monograph of rigorously authenticated events produced by the Society for Psychical Research titled *Phantasms of the Living* (first published in 1886; an excerpt from this work is included in *The Parapsychology Revolution*). The evidence for PK is also strong, including micro-PK studies using random event generators and similar devices, such as the evidence developed by the PEAR (Princeton Engineering Anomalies Research) labs over more than a quarter of a century, and the carefully studied incidents of macro-PK associated with genuine spontaneous poltergeist cases. Another line of compelling evidence for the reality of paranormal phenomena is the study of presentiments or "pre-sponses," essentially a form of shortterm precognition as measured by physiological parameters (heart rate, electrodermal activity, and so forth).

> Numerous replicated experiments have demonstrated the physiological responses of individuals to, for instance, disturbing photographs a second or two before they are actually viewed by the person. According to conventional science, this should not be possible.

As a natural scientist, I expect genuine phenomena (be they psychical and paranormal phenomena, or more conventional phenomena) to exhibit patterns and share elements in common, and this is just what has been found in spontaneous cases of the paranormal. Even when viewed cross-culturally, such commonalities persist.

Perhaps even more compelling for me is the work of various modern researchers that has demonstrated a weak but persistent correlation between low levels of geomagnetic activity on planet Earth and cases of apparent spontaneous telepathy (based on records going back to the latter half of the 19th century). This, in my opinion, is a very strong argument supporting the contention

that there is something genuine to the concept of telepathy. It suggests that spontaneous telepathic phenomena are real and natural and, as might be expected of natural phenomena, their manifestation is influenced by other natural parameters. Alternatively, are we to hypothesize that hundreds of hoaxers over nearly a century and a half have conspired to fake telepathic incidents in identical correlation with geomagnetic activity? This latter hypothesis strikes me as rather far-fetched, if not downright ludicrous. It has also been found that incidents of the paranormal correlate with Local Sidereal Time (which relates to the position of the horizon at any particular point on Earth relative to the center of our galaxy).

Note that a correlation between geomagnetic activity and spontaneous telepathy does not necessarily imply that the "telepathic signal" is magnetic or electrical in nature. The human brain is influenced by magnetic and electric fields, and whatever may be the carrier of the telepathic signal, the transmission,

reception, and manifestation of the message by the brain could be hampered or enhanced by differences in the magnetic and electric fields that the brain is subjected to.

For many people a phenomenon is not “real” unless it can be duplicated in a laboratory setting under controlled conditions. Being a natural scientist and field geologist, I have never agreed with this contention. After all, can we create a genuine volcanic eruption in the laboratory or even on command in the field? Until about two centuries ago, the scientific community routinely rejected the concept of rocks falling from the sky (meteorites). Still, attempting to induce, capture, observe, and experiment with apparent telepathy under controlled conditions is a worthy endeavor. Unfortunately, however, to this day it is fraught with problems, and though numerous experiments have tested positive for apparent telepathy, others have had negative results and replication is a persistent problem. The bottom line is that we really do not know exactly what parameters or variables make for good

telepathic transfer (or the elicitation of other types of paranormal phenomena), much less how to control for them.

> There are major issues that remain unresolved concerning paranormal and psychical phenomena. We don't fully understand what conditions are best to elicit paranormal phenomena, and thus these phenomena are not easily replicated on command (such as in a laboratory setting). There is often a very low signal-to-noise ratio when it comes to psychical phenomena, there is no single physical theory to account for paranormal phenomena, and there is the issue of fraud and charlatans. Fraud is a very real and persistent problem in the field of psychical research, and it's one reason to undertake large statistical studies of average persons (as opposed to so-called psychic superstars) and search for the regularities and patterns one would expect among any genuine natural phenomena. Also, paranormal studies have extended to animals (and in some cases, even

plants). One of the strengths of nonhuman studies is that it is less likely that animals will cheat and lie. It can also be noted that many "powerful mediums" who appear to have genuine paranormal abilities also apparently have low moral values and will cheat and commit fraud, perhaps unconsciously, at times, especially when their genuine paranormal powers fail. This is a pattern that has been noted over and over among parapsychologists working with human subjects. All of these topics are discussed in *The Parapsychology Revolution*.

A popular approach to possible paranormal phenomena is simply to dismiss such as impossible—impossible either in an absolute sense or as being of such a "low probability" as to be unworthy of consideration. For example, Sean Carroll (senior research associate in physics at the California Institute of Technology) has posted on his blog, *Cosmic Variance*, a diatribe against parapsychologists and the very idea of studying possible

paranormal phenomena (*http://cosmicvariance.com/2008/02/18/telekinesis-and-quantum-field-theory*). The core of his argument is as follows:

> The main point here is that, while there are certainly many things that modern science does not understand, there are also many things that it does understand, and those things simply do not allow for telekinesis, telepathy, etc. Which is not to say that we can *prove* those things aren't real. We can't, but that is a completely worthless statement, as science never proves anything; that's simply not how science works. Rather, it accumulates empirical evidence for or against various hypotheses. [Italics in the original.]

I am classically trained in the sciences, and I understand where Carroll is coming from philosophically when he states that "science never proves anything" (and I agree that, epistemologically at a deep level, proof is not the domain of science). However, Carroll contradicts himself when he states:

> The crucial concept here is that, in the modern framework of fundamental physics, not only do we know certain things, but we have a very precise understanding of the *limits of our reliable knowledge*. We understand, in other words, that while surprises will undoubtedly arise (as scientists, that's what we all hope for), there are certain classes of experiments that are guaranteed not to give exciting results —essentially because the same or equivalent experiments have already been performed. [Italics in the original.]

Here Carroll is clearly, and for all practical purposes, arguing that certain things have been "proven" when he asserts that "we know certain things." This strikes me as a modern version of the famous (famously wrong) 1894 pronouncement by Albert A. Michelson, 1907 Nobel Laureate in Physics:

> The more important fundamental laws and facts of physical science have all been discovered, and these are now so firmly established that the possibility of their ever being

> supplanted in consequence of new discoveries is exceedingly remote. . . . Future discoveries must be looked for in the sixth place of decimals. (Quoted in Neil deGrasse Tyson, "The Beginning of Science." Natural History, March 2001.)

Michelson made this statement before the elucidation of X-rays and the structure of the atom, and before the discovery of radioactivity and the development of quantum physics and relativity theory. Despite his scientific brilliance, Michelson did not prove himself a very good diviner of the future.

> Returning to Sean Carroll, he states, "The main point here is that, while there are certainly many things that modern science does not understand, there are also many things that it *does* understand, and those things simply do not allow for telekinesis, telepathy, etc."

If in place of "telekinesis, telepathy, etc." we substitute "continental drift," I could easily imagine this statement being

made in the early 20th century. The very concept of moving continents was lambasted from some quarters, despite the strong evidence in support of the theory, because it was deemed "impossible" and utterly "inconceivable," based on the science of the time, that continents could move. There was no known mechanism, until, that is, the development of plate tectonic theory. (Yes, as a geologist, I am aware of the various criticisms and possible shortcomings of tectonic theory, but that is not the point or issue here.)

Analyzing further the selected quotations from Sean Carroll, they actually expose the weaknesses of like-minded individuals who insist that science in its modern Western guise should have the last word or, to put it another way, be the final arbiter of truth (even if only a provisional truth). Again, the Carroll quotation is:

> The main point here is that, while there are certainly many things that modern science does not understand, there are also many things that it does understand, and those things

> simply do not allow for telekinesis, telepathy, etc. Which is not to say that we can prove those things aren't real. We can't, but that is a completely worthless statement, as science never proves anything; that's simply not how science works. Rather, it accumulates empirical evidence for or against various hypotheses.

To say that something is “worthless” is a value judgment, and in an ultimate sense, one can argue, value judgments are outside of the realm of science and dependent on an emotional investment and context, among other factors. I would argue that the fact that “science never proves anything” is quite valuable, as it precludes the “sleight-of-hand” dismissal of the very possibility of any supposed paranormal phenomena ever being genuine.

As far as empirical evidence is concerned, for many people, this is the heart of the issue when it comes to alleged paranormal phenomena. Exactly what is evidence? Are anecdotal case studies evidence? Are card-guessing experiments in one lab (with good

controls and taking all precautions against possible fraud) which give positive results for telepathy not "evidence," whereas similar experiments in a comparable lab (whatever "comparable" is in this case, given how poorly we understand the aspects that influence paranormal phenomena) which give negative results "solid evidence" against the telepathic hypothesis, as some critics and debunkers would contend? In fact, what is and is not "empirical evidence" is not a black-and-white matter, either in parapsychology or in many other scientific disciplines. Rather, evidence—any evidence—is a matter of degree and also carries a subjective and value-based component. The criteria that make for convincing evidence on the part of one person are not necessarily the same as the criteria for another person. Precluding obvious fraud and the like, there is no single magical scientific way to determine "objectively" the ultimate value of any particular alleged evidence. Science, any science, is not quite as "objective" as some would assert.

NOTE

1. Many of you reading this piece may know me from my work on the Great Sphinx, the Great Pyramid, and other ancient monuments, as discussed in various articles and my books *Voices of the Rocks* (1999), *Voyages of the Pyramid Builders* (2003), *Pyramid Quest (2005), and Forgotten Civilization* (2012; see also my website, www.robertschoch.com.

ACKNOWLEDGMENTS

For references and further discussion on various topics mentioned in this essay, see especially *Forgotten Civilization* and *The Parapsychology Revolution*. I thank John Anthony West for reading and critiquing an earlier draft of this piece. In part, this article developed from correspondence with Greg Taylor of *The Daily Grail* (*www.dailygrail.com*). I thank Greg for his perceptive questions. This essay is a slightly modified version of an essay that was first posted in April 2008 on Graham Hancock's website for

his “Author of the Month.”

ROBERT M. SCHOCH:

Dr. Robert M. Schoch, a full-time faculty member at the College of General Studies at Boston University since 1984, earned his Ph.D. (1983) in Geology and Geophysics at Yale University. In the early 1990s, Dr. Schoch stunned the world with his revolutionary research that recast the date of the Great Sphinx of Egypt to a period thousands of years earlier than its standard attribution. In demonstrating that the leonine monument has been heavily eroded by water despite the fact that its location on the edge of the Sahara has endured hyper-arid climatic conditions for the past 5,000 years, Schoch revealed to the world that mankind's history is greater and older than previously believed. More recently Dr. Schoch has determined the astronomical cause of the demise of antediluvian civilizations, which he describes in his book *Forgotten Civilization: The Role of Solar Outbursts in Our Past and Future*,

along with the scientific and archaeological evidence that supports his conclusions.

LETTERS FROM THE FAR SIDE OF REALITY[1]

BY GRAHAM HANCOCK

LETTER 1, FRIDAY, JANUARY 25, 2013

Santha and I are in Brazil after a long flight cramped up in the back of a British Airways 747. The seats seem to have been designed like the medieval torture called “Little Ease” where it is impossible to find comfort in any position. I'm due to have my right hip replaced in April and spent the twelvehour journey in something approaching excruciating pain. What a relief to arrive into the Brazilian summer and be able to stretch my legs!

Now we're at the retreat where I had the extraordinary experiences in October 2011 that I describe in my article “Giving Up the Green Bitch: Reflections on Cannabis, Ayahuasca, and the

Mystery of Plant Teachers." (p. 207) In the coming weeks, together with a group of a dozen other people and our facilitator (who resists being called a shaman despite his enormous depth of experience), we will participate in a series of Ayahuasca sessions. As well as drinking the sacred Amazonian brew and learning the lessons it has to teach me this time around, I will be presenting several talks to the group on various aspects of my work. The other presenter here is the renowned ethnopharmacologist Dennis McKenna, brother of the late, great Terence McKenna. I first got to know Dennis well during a lecture tour that we did together in Australia last year and am looking forward to renewing the acquaintance and to the further deep connection that shared journeys with Ayahuasca always bring. If you haven't read it yet, I urge you to get ahold of a copy of Dennis's new book, *The Brotherhood of the Screaming Abyss*, about his life with his remarkable brother Terence, see here: *http://www.grahamhancock.com/grapevine/McKennaD1/McKennaI*

So yesterday, Friday, January 24, we rested, relaxed, and recovered from the long flights we'd all made to get here (the other participants come from as far afield as the Middle East, Australia, and the United States). Today, Saturday, January 25, the work begins with the first all-night Ayahuasca session. I have some trepidation—as Dennis puts it, anyone who approaches deep work with Ayahuasca without at least some trepidation doesn't really know the brew. But I have made a sincere effort since October 2011 to implement the changes in my life and outlook that Mother Ayahuasca required of me. I'm hoping to be handled gently this time and to experience beautiful visions, healing, inspiration, and love.

Above all, love.

That, I know from long experience, is the essence of the intelligence behind the vine.

I'll report back tomorrow.

LETTER 2, SATURDAY, JANUARY 26, 2013

So Santha and I are in Brazil for a series of sessions with Ayahuasca, the sacred visionary brew of the Amazon. *Ayahuasca* means "the vine of the dead" or "the vine of souls." It is given this name for a number of very good reasons. One is that it can allow the experience of contact with those who have passed on. I make no claims here as to the reality status of that experience, although I do have an opinion. Another is that aspects of it are so similar to some of the well-known features of the near-death experience, notably a life review, that some feel it may provide us with a dress rehearsal for death itself and for whatever we may encounter when we pass beyond the veil. Again, while I have my own opinion, I make no specific claims here as to the "reality" of such experiences. I give some further thoughts on this in my article "Giving Up the Green Bitch."

Last night's session was very mild, and for many in the group, it was not visionary at all. This is sometimes the case with

Ayahuasca; one should not go into a session with expectations of seamlessly convincing and overwhelming visions. Often the brew will give you these, but not always, and not reliably. Last night, however, there was an additional factor of uncertainty, and this was that the maestros had provided a new batch of the brew that they believed to be very strong and which was indeed thicker and more syrupy than the brew we normally drink here in Brazil. It reminded me in its consistency of the very concentrated brew, sometimes with bits of plant matter floating in it, usually offered by Peruvian shamans (where, accordingly, rather small cups—about 25 milliliters—are the norm). At our Brazilian retreat, on the other hand, it is the practice to offer a less concentrated brew but in larger doses, and in past visits here, I have frequently drunk cups of 100 or 150 and sometimes even 200 milliliters.

Because last night's brew was new and was said to be strong, our facilitator proposed cups of just 25 milliliters or less for each of us and we would then discover its strength, or otherwise, for

ourselves. If it was not as strong as expected, we could always drink a “booster” cup after an hour and a half or so.

The effect was not strong, and after ninety minutes, almost the entire group queued up for a booster, again of 25 milliliters. Still, in my case, this had no—or almost no—effect, and I began to contemplate a third cup. This is not an exact science, and it is never good to be too eager with Ayahuasca. In other words, you can go for a booster after experiencing no effect with the first cup only to discover that it was merely slow kicking in and that suddenly, with the booster, you have had more than you want. So I waited awhile, but when it was clear I was still not entering the Ayahuasca realm, I did go for a third cup. So three cups, each of 25 milliliters, making 75 milliliters in total.

There was no purging—i.e., (apologies for being graphic) neither I nor anyone else in the group vomited last night. This is most unusual although I have found as the years go by that I do purge far less than I used to when I started out. But within half an

hour of drinking my third small cup, I did gradually begin to enter visionary space. These visions were mild and a little “flat” or two-dimensional by comparison with other fully immersive visions I have experienced in the past. The visions were of intricate geometrical and cursive patterns presented as though on separate individual cards, but when I studied each card, the patterns proved to be in movement and resolved into the forms of entities, rather scary in appearance, and I felt somewhat menaced. Go to Google Images, search “Codex Borgia” and/or “Codex Nuttal” and you may get some inkling of the atmosphere, if not the exact details, of these images. I felt myself to be in the presence of intelligence, and I tried to focus on that intelligence rather than be repelled by the menacing images, and in due course, I moved on to the next stage of the journey in which I was filled by powerful feelings of empathy and compassion for my fellow human beings.

These feelings began with reflections on the other members of our group who I had begun to get to know, and whose stories I had

heard, over the past two days. Often in my daily life, I become absorbed selfishly in my own immediate worries and concerns, certain problems and issues that are confronting me which seem to loom large, and matters that are causing me emotional or spiritual pain. I am incredibly privileged and live a blessed life, yet still I find reasons to feel victimized or hard done by and sorry for myself ! In an instant last night, I was shown how ridiculous and self-indulgent and uncalled for such feelings are as I reflected on what I knew of the difficulties and challenges and real worries and pain that members of our group, in their own ways, are confronting bravely and without complaint in their own lives. I thought of some cases in particular, the strength, the dignity, the goodwill, the cheerfulness in adversity, of certain individuals, and I felt myself brimming over with compassion and love and admiration for them. And it came home to me in a real and immediate way that each one of us here on earth, not only the members of the immediate group surrounding me in the Ayahuasca session, but every one of the

billions of my fellow humans going through this incarnation in this time are bright and luminous individual flames of light—each with his or her own special gifts and creativity and imagination, each with his or her own strengths and weaknesses—and every one of us faces challenges and difficulties and ordeals and pain and is confronted daily by defining choices, some small, some momentous, that write the pages of the stories of our lives.

And the only right response is gratitude, gratitude, gratitude to the universe for working the high magic that has made it possible for us to travel the path of human experience, and to learn and grow and develop in the process, and to practice love.

LETTER 3, WEDNESDAY, JANUARY 30, 2013

This is the third of my series of letters about the Ayahuasca sessions I'm presently participating in here in Brazil. Ayahuasca is a visionary brew that marries leaves containing dimethyltryptamine (DMT) with a monoamine oxidase inhibitor contained in the

Ayahuasca vine itself; these two primary ingredients are cooked together in water to produce a foul-tasting but highly psychoactive beverage that has been drunk for at least three millennia by the indigenous peoples of the Amazon rainforest who value it as a portal to the spirit world. In the past decade, it has begun to acquire a global reputation and has been described as “twenty years of psychotherapy in one night.”

So our second session took place on the night of Monday, January 28 into the small hours of Tuesday, January 29. This time I drank 80 milliliters of the brew in a single cup—as against three doses of 25 milliliters each in the previous session. With too small a dose of Ayahuasca, it is perfectly possible to have no experience at all; with too large a dose, it is possible to have an experience that is completely overwhelming—perhaps far more so than you would like. It is not an exact science, and it is complicated further by differences in one's own body chemistry from day to day that can result in widely varying effects.

I'm here together with a group of more than a dozen people and, as in previous retreats for serious work with Ayahuasca that I've participated in over the last ten years, it is noticeable how close and trusting of one another we have become. The Ayahuasca experience has a very special way of doing this—of opening the heart and breaking down barriers so that you feel intense empathy and a deep connection with others at a level that is near to impossible in the often angry, often competitive, frequently loveless hustle and bustle and grind of daily life. It is a great privilege to be able to know this empathy and connection, and it reminds me that all of life could be like this should we consciously set out and be willing to do the work to make it so. It is not oil, or water, or mineral deposits, or food, or land, or any other economic resource that is truly scarce or precious or "running out" in this bountiful earth of ours. What we are short of as a global species, what we seem reluctant to manifest, what we are failing to express and act out, is simply love, and in a way this should be the easiest

problem in the world for us to solve—for it is within the capacity and the power of each and every one of us to give love if we choose to do so.

It is *such* a good feeling just to lay down the barriers of suspicion and fear and self-interest, and to trust others completely and know that the trust is shared and that the love you put out is the love you get back.

So, we all gathered round and raised our cups, mine containing 80 milliliters of Ayahuasca, and thanked the spirits and the ancestors for giving us this blessing, and drank. I then went to the bathroom and washed the acrid taste of the brew from my mouth before sitting down on my mattress with my back propped against the wall of our large ceremonial room surrounded by the rest of our group. Our facilitator turned off the lights and put on a CD of the sounds of nature—the ocean, rainfall, birdcalls—and through the open windows came a soft, cooling breeze. Stillness descended like a blessing, and for the next half hour or so, we all simply sat there

staring into the darkness, thinking our thoughts. It is best to sit up at first—some prefer to sit up the whole night—as it allows swifter and more efficient digestion of the brew than can be achieved lying down. Nausea and vomiting commonly accompany the consumption of Ayahuasca, but it is a really good idea not to purge for at least an hour to allow full absorption of the medicine from the gut into the bloodstream. Vomit before the hour is up and you will likely need to drink some more brew.

Mercifully, as I have become more experienced with Ayahuasca during the past ten years, I find that I vomit less and less, and usually not at all—although I do still suffer episodes of nausea.

After forty-five minutes, I felt I was ready to lie down and stretched out on my mattress. Music is a constant accompaniment of our sessions here—the facilitator sensing intuitively the needs and mood and individual journeys of the members of the group and adjusting the playlist and his own instrumentals and vocals accordingly. He practices within the Peruvian, Shipibo tradition

(though these ceremonies are taking place in Brazil), and at the point where I lay down he had begun to sing a series of *Icaros* (http://en.wikipedia.org/wiki/Icaro), traditional songs that provide an excellent waveguide into the profound meditative state that Ayahuasca can bring, or equally Ariadne's threads that can help to lead us out of labyrinths we might prefer not to find ourselves in.

These days, I rarely go into an Ayahuasca session without some fear, and this has much to do with a terrifying session on pure (smoked) DMT that I had in the United States in 2011 (described on my website). The Ayahuasca experience is not the same as the DMT experience, even though DMT is the primary active ingredient of Ayahuasca, but sometimes a strong Ayahuasca journey will plunge me squarely back into what I think of as DMT space. I feel vulnerable there, sometimes unprotected by the kindly, healing spirit of the vine, and my fear derives from this sense of raw exposure to elemental intelligences.

I suppose an hour had passed when I first became definitely

aware of the effects of the brew in the form of intense visuals, seen best (even in the darkness) with my eyes closed. They took shape at first, as they often do, as swirling patterns of deep, richly saturated colours, but almost from the first moment, they had the slightly menacing undertones of my 2011 DMT trip. How can I describe them? Patches of colour all joined to one another, here purple, here ochre, here a strange deep brownish red, here a luminescent green, here blue—each patch about the size of a human hand and shaped into oblique, rhomboidal geometric forms, and all joined together in a meaningful swirling dance. This was not simply the entertaining pattern flow of a kaleidoscope. The patterns radiated intelligence, sentience, intent, and I felt my fear rise up another notch, and at the same time I exercised my will and said to myself, "I will not be afraid; I will journey into this without hesitation and see where it leads me." As soon as I had made that decision, I felt my fear subside and I journeyed deeper and then, emerging from the patterns, and shaped out of them, appeared the

beautiful, glittering, sinuous form of a serpent seeming to radiate compassion and concern for me, and I sensed the presence of the great spirit, Mother Goddess of our planet, who I think of as Mother Ayahuasca, and I felt her healing energy. She worked on me for some time, swirling around my body, fixing parts of me that were broken, right down to the deepest level of my DNA and of my psyche.

At this point, it was all extremely gentle. I saw faces I did not recognize. A great bird, a raptor of some kind, took wing amidst a nimbus of supernal light. The serpent became a jaguar. And still I was not afraid, and I began to think, *Well, this is going to be fine.* My 80 mililitre cup was just right, just enough to enter healing visionary space but not so much that the visions would overwhelm me and swallow me up. And as is often the case with Ayahuasca, the visions came and went in waves—sometimes quite intense, sometimes falling away almost to nothingness.

I drifted into thoughts about my relationship with my wife,

Santha, how I am so blessed to have her in my life, how she is in fact a goddess who manifests in human form, and how incredibly privileged I am that she permits me to go through this incarnation with her and learn from her how to be a better human being. And I realized how so much of our life together has been very selfishly about *me*, about my work, my creativity, my concerns, and it was brought home to me with the force of a revelation that the next stage of our partnership has to be about *her* and that my role now is to be of service to her and help her in every way possible to express and manifest her own wonderful creative gifts and to fulfill herself.

I spent some time in the presence of our children—Santha and I have six children between us, all young adults now, and they are a tremendous blessing to us and the light and joy of our lives. And I thought about how wonderful and full of love they all are, and what good people they are, and I reflected on the struggles and challenges they face, and the elegant, generous spirit in which they

are all maturing and developing and travelling their own journeys.

Next came thoughts about the state of the world. I found myself dwelling on the terrible, inhuman way the state of Israel behaves toward the Palestinians, and on that hideous wall that Israel has built, and about its constant aggressive seizure—in the name of God, no less!—of more and more land on which Palestinian families and communities have traditionally lived. The more power we have—and Israel has immense power—the more it is our responsibility to love, and I realized that the great task facing Israel now, even though its people themselves feel threatened and fearful and unloved, is to desist forthwith all acts motivated by hatred and fear and to act instead with love and generosity toward all neighbouring peoples, to dismantle that abominable wall, to stop aggressively expanding settlements, and to carry the entire region forward into a new era based on trust and the mutual benefit of all. It will be difficult, incredibly difficult, and every attack on Israel by those communities that Israel has monstrously abused for so

long will be used as an excuse and a justification for more acts of hate and cruelty by Israel itself, but the vicious cycle must be broken, and as the most powerful player on the regional stage, it falls to Israel to change the destructive, hateful, violent pattern that has been in place for so long. At first, acts of love will be rejected, thrown back in Israel's face, even punished, but love is giving, love is persistence, love is kind, and if Israel adopts a policy based on love and shows as much kindness and compassion toward non-Israelis—and concern for their needs and interests—as it presently shows toward its own people, then little by little, the injuries of the past will heal and a way will be found to bring peace and security to all humans, regardless of their creed, colour, ethnic origin, or nationality, whose fate it is to live in that tortured region today.

It would be a good thing, I couldn't help thinking, if every military leader, every religious fanatic, every president, every prime minister, every dictator presently exercising power in the world were to be required to undergo ten sessions of Ayahuasca

before being allowed to make a single other decision.

By this point in my journey, my head seemed completely clear. I thought the visions had stopped. I gave thanks that nothing too terrifying had happened to me, and I got up and walked around for a while. As I was walking, however, a new wave of visions descended on me like a storm, and I retreated once again to my mattress where the next phase of my night's journey began.

I was immediately in the presence of the entity I saw when I last smoked DMT in 2011 and who I think of as “the Trickster” or “the Magician” or “the Sorcerer” and whose aura, quite unlike that of Mother Ayahuasca, is entirely male. I do not know who this entity is or where he comes from. It is perfectly possible that he is simply one of the many transformations of Mother Ayahuasca herself—and indeed the healing female spirit that many of us experience through the brew is construed as male by a number of traditional cultures in the Amazon rainforest.

So there was the Trickster, and he was dancing, dancing, his

face long and thin, severe and yet sensual, with steep, angled planes as though drawn by Aubrey Beardsley. And he wore a cloak of many colours made up of a patchwork of those same richly saturated rhomboidal forms I had seen earlier in the session. He made elaborate, skillful, elegant arm movements, as though he held silver threads in each hand and was stretching these threads out and showing them to me, and it came to me that his dance was the dance of creation and that with each gesture and movement, he was bringing reality into being—fabricating, generating, and manifesting reality—and that in his dance some kind of immense cosmogenic power was at work.

My feelings of fear were very strong now, quite overwhelming, and I wanted to flee, to run away from this scene, to open my eyes wide and stop the visions, but again I exercised my will, placed myself under control, and stayed put to let this magnificent, terrifying, cosmogenic dance unfold before me. I could not banish the fear entirely, but I began to realize that perhaps there is nothing

to be afraid of here, and then just as this became clear to me, I was overtaken by a giant wave of nausea and had to shuffle round on my mattress and bring up my bucket to my face (we all have buckets) in case I would vomit.

In the end, I didn't vomit and after a few moments the nausea began to subside, and then Santha, who was beside me, suggested that we go out into the middle of the floor and dance. Sensing the change in mood, our facilitator began to play rhythmic, vital, energizing music, and other couples and individuals joined us in the clear area of wooden floor at the centre of the room, and I felt no pain whatsoever in my severely osteoarthritic hip, on which I am due to undergo surgery in April, and we danced and danced and were overtaken by joy and the celebration of the magnificent and generous and precious, precious gift of life.

LETTER 4, MONDAY, FEBRUARY 4, 2013

I make no claim as to the reality status of the entities and realms

encountered in Ayahuasca visions and described in the account that follows. It is possible that they are real but only accessible to our senses in altered states of consciousness; but it is equally possible that they are projections with no fundamental reality whatsoever. There are many other possibilities, ranging from archetypes to the imaginal, that are also worthy of consideration. All I can say for sure is that they are experienced as real, and I claim nothing more than that.

I'm still in Brazil, still working with Ayahuasca. See earlier letters in this series for my accounts of sessions one and two.

Our third session took place on the night of Wednesday, January 30, 2013, into the small hours of Thursday, January 31. I drank the same dose, 80 mililitres, that had taken me on a complex and thought-provoking journey during the second session, but this time the effects were very different. Perhaps it was the music, which often sounded to me like panes of glass being broken with a hammer, or sometimes like a pneumatic drill breaking up a road,

but I was for a long while completely unable to drift into a visionary state. I felt distressed and unhappy, with a slight admixture of relief that at least I would not have to confront the entity I call the Trickster that night.

This absence of visions, which I experienced as a gulf, a void, seemed to go on for a very long while, but gradually an odd state of mind began to overtake me. I had glimpses of a whole other life that I was living somewhere else, where I was me and yet had a different biography from the one that defines me in this life. I knew different people, did different things, and was living out that parallel life completely oblivious to this one. So it was an odd thing, lying in the darkness in our ceremonial space here in Brazil, under the influence of Ayahuasca but not very much—if at all—carried away by visions, to experience these strange episodes of crossover, of intersection, in which I became aware of both lives simultaneously, with each life seeming like a dream—ephemeral, fleeting, and yet haunting—that I was experiencing in the other.

I stood, visited the bathroom, and came back to my mattress. I could not shake the feeling of being haunted. Then dizziness swept over me and suddenly, precipitously, as though falling off a cliff, I tumbled into the realm of vision.

It was as though I were within a gigantic serpent. Its body, which had engulfed me, was transparent, allowing me to see through the patterns of its skin into the room beyond. At the same time, the feelings of unhappiness and distress that had set in very early in the session remained with me, and I found that I was unable to surrender to the experience as I knew I should and unable to master my fear. I was haunted by that dream world that was my other life, suspecting that in some way something, some entity, some intelligence was seeking to possess me and not liking or welcoming that feeling at all.

I continued to wrestle with it. I would not surrender to it, and at the same time, it would not leave me alone.

Eventually, I went down to the kitchen and dining area, where in

the winter months, there is often a fire for participants to gather round in the late stages of a session. Tonight, in the Brazilian summer, there was no fire, but other members of our group were already there, and I fell into a conversation with them that helped to distract me from my haunted state and draw me out, little by little, into a sense of normality with myself.

Our fourth session took place on the night of Saturday, February 2 into the small hours of Sunday, February 3. I drank 90 millilitres of a different batch of the brew. The effects were immediately powerful but quite pleasant. Not at all threatening. I felt strongly the presence of Mother Ayahuasca, Mother Goddess of our planet, guardian of the great forests and of the wise and ancient trees, spirit of the oceans in her manifestation as Yemanja, the Blue Angel, whose special day in Brazil is February 2.

Time passed. The brew worked its way through me, and I tottered out to the bathroom, sat myself on the throne (sorry to be graphic, but it is not for nothing that Ayahuasca is also called “the

purge” in the Amazon), and lost track of time there. It was absurd in a way. There I was sitting on the toilet, doing this very mundane and earthy thing, and at the same time, I could feel the presence of Mother Ayahuasca, of this deeply compassionate, unutterably beautiful goddess who became present to me in her serpent form and seemed to wrap me up in her coils and just loved me, loved me, for the longest while. I was very strongly given the message that I am too hard on myself, that I do not appreciate myself enough, that, yes, I have made errors in my life, yes, I have caused pain to others—as we all do—but that I am, nonetheless, fundamentally a good person and that perhaps the time has come for me to stop beating myself up about my mistakes and even to celebrate myself.

So I was surrounded by this lovely warm energetic glow, and I took it with me when I returned to the ceremonial space. My intention was simply to lie quietly back on my mattress and resume my discourse with Mother Ayahuasca, and if possible to

experience even more of that healing love that she had bestowed on me. Instead, however, I gradually became aware of the malevolent attention of someone . . . or something.

After my encounter with the Mother, I still felt full of confidence, protected by a great and powerful Goddess, able to handle whatever was thrown at me, but at this precise moment, I came under an intense and focused psychic attack, and matters grew very strange. I was still in the ceremonial room in Brazil, but at the same time, I was not—as though everything had been shifted half a step to the side into some parallel dimension that had always been there, overlapping with ours, but had hitherto remained unseen. So at one and the same moment, I was in my body, on my mattress in the ceremonial space, and at the same time, out of my body in this other simulacrum of the room half a step to the side on another plane of reality.

The entity that was attacking me stood very close to me. It had human form—in fact, it looked like one of the other members of

our group, but it was immediately obvious that it was not a physical being.

Was it the Trickster again?

Sparks of light flashed from its eyes, and there was sorcery in its hands and its gestures, and the confidence I had felt just moments before that I would be able to handle this malevolent force, that I might somehow meet it on equal terms and defend against it, was blown away like mist. I realized I was completely powerless and incompetent in its presence, utterly overmastered by it, out of my league. If this were a spiritual dojo, I would be the novice wearing the white belt and this thing, whatever it was, would be the ninth dan black belt here to wipe the floor with me.

I tried projecting love at it. It wouldn't work. The sense of threat and danger continued to mount. I tried to invoke Mother Ayahuasca in her manifestation as the Blue Angel. This did no good at all. I tried to raise a barrier of light. Failure again. Finally, my out-of-body self just curled up into a ball while I was

pummeled and beaten and humbled on that etheric plane.

I endured the continuing psychic attack for a while, but then when I could bear it no longer, I decided the only course open to me was to leave the room, so I staggered out—the Ayahuasca was very strong, and I was a little unsteady on my feet—went downstairs, across the dining area, and out through the porch into the lush tropical gardens that surround this property.

Immediately, the atmosphere changed again, the psychic attack ceased, and I was in the domain of Mother Ayahuasca. I walked amongst the trees and bushes, touching each one, and entered into some kind of intense communion. Scintillating light and patterns, alive with energy, filled with sentience, sparkling with magic, emanated from every leaf, every branch, and I was, for the longest time, completely surrounded by and immersed in enchantment and beauty.

Later as I began to process the experience and talked with others in the group, it became clear that everyone had experienced a

powerful, unusual, truly extraordinary night.

And I thought, Well, working with Ayahuasca is sometimes very strange, and it can be terrifying, and one faces challenges not often met in everyday life, but what an incredible blessing it is and what an incredible opportunity it is to learn and grow and develop and fortify oneself against the dangers of this and other realms. And I thought about the entity I had encountered, the Trickster in one of his many disguises and my lost bout in that spiritual dojo, and I suddenly realized that I had not lost at all—I had gained an important lesson, and I no longer felt afraid.

LETTER 5, TUESDAY, FEBRUARY 12, 2013

Warning before you begin reading: In what follows, I am reporting experiences and also interactions with others. I give my interpretations of those experiences and interactions, but I make absolutely no claim that my interpretations are correct.

Very strange and disturbing events around our fifth Ayahuasca

session here in Brazil, which took place on the night of Monday, February 4 into the small hours of Tuesday, February 5.

I mentioned in my previous letter on this subject that during the fourth session, something happened to me that I experienced as an intense and focused psychic attack. To provide context, I cite extracts from that account here:

> I was still in the ceremonial room in Brazil, but at the same time, I was not—as though everything had been shifted half a step to the side into some parallel dimension that had always been there, overlapping with ours, but had hitherto remained unseen. So at one and the same moment, I was in my body, on my mattress in the ceremonial space, and at the same time, out of my body in this other simulacrum of the room half a step to the side on another plane of reality.
>
> The entity that was attacking me stood very close to me. It had human form—in fact, it looked like one of the other members of our group, but it was immediately obvious that

it was not a physical being. . . . Sparks of light flashed from its eyes, and there was sorcery in its hands and its gestures, and the confidence I had felt just moments before that I would be able to handle this malevolent force, that I might somehow meet it on equal terms and defend against it, was blown away like mist. I realized I was completely powerless and incompetent in its presence, utterly overmastered by it, out of my league. If this were a spiritual dojo, I would be the novice wearing the white belt and this thing, whatever it was, would be the ninth dan black belt here to wipe the floor with me.

I tried projecting love at it. It wouldn't work. The sense of threat and danger continued to mount. I tried to invoke Mother Ayahuasca in her manifestation as the Blue Angel. This did no good at all. I tried to raise a barrier of light. Failure again. Finally, my out-of-body self just curled up into a ball while I was pummeled and beaten and humbled

> on that etheric plane.
>
> I endured the continuing psychic attack for a while, but then when I could bear it no longer, I decided the only course open to me was to leave the room, so I staggered out —the Ayahuasca was very strong, and I was a little unsteady on my feet—went downstairs, across the dining area, and out through the porch into the lush tropical gardens that surround this property. . . .

So that was the fourth session. Now just before the start of the fifth session, something even stranger and utterly unexpected happened. Having already stated our individual intentions for the evening, we began to queue up to receive our cups of the brew from our facilitator.

Often during this moment, members of the group embrace and wish one another a good and safe journey; that is quite normal. But this evening, I heard a sudden cry of shock and one of the women in our group—I must respect privacy and will not name her—

protested that another member of the group, a man (again, no names) had approached her making a series of bizarre and threatening hand gestures and at the same time projected his breath forcefully into her face. For those of us familiar with Amazonian shamanic traditions, it was immediately obvious that this was a very serious act, for it is by blowing with the mouth that the *brujos* —sorcerers—of the Amazon project the magic pathogenic darts known as *virotes* at their enemies in order to do them harm. Virotes may also be projected through a sorcerer's arms and out of openings in his hands.

“Did you do that to anyone else?” asked the woman who had been the victim of this sinister assault.

The man admitted that he had not.

“Then why did you do it to me?” she asked.

“I was blessing you,” he said.

“I don't even let my husband blow in my face like that,” she objected, “and I certainly didn't ask for your blessing! What were

you trying to do to me?”

“Pah!” he replied, turning his back “You wouldn't understand.”

It seemed that what had been, just a few days before, a peaceful, trusting, cooperative group had suddenly been exposed to some malignant energy or intent. And for me, the strangest thing of all—the very strangest thing—was that the man who had blown into the woman's face, who had so aggressively stepped into her space and infringed her sovereignty, was the very same man I had been attacked by the night before in my visions.

Except then I had convinced myself that it could not be him (“It had human form, in fact it looked like one of the other members of our group, but it was immediately obvious that it was not a physical being.”).

Now, I was not so sure.

After such a disruption of the flow, it would probably have been wise if no one had drunk the brew that night but, having come so far, we all did, including the woman who had been assaulted—

although she asked our facilitator to clear the negative energy that she felt had been projected at her first.

I took my largest dose yet in this series of sessions, 100 milliliters, composed myself for whatever lay ahead, and instantly regretted drinking so much. In the end, however, I was hyperalert, jangled, and so afraid that whenever an intense visionary state threatened to creep up on me, I resisted it, actively and consciously fought against it, and willed it away. The plain truth was that I did not wish to become vulnerable again to that malevolent force that had overmastered me and psychically bullied and terrified me during the previous session, and since it could not get at me in the physical realm, but only in the visionary or astral realm, my instinct was not to allow myself to go there.

And I found myself wondering, What are we dealing with here? Is it in fact what it appears to be? Is this individual who tonight so blatantly transgressed the sovereignty of another member of the group in physical space, somehow manifesting a spirit body and

using it to transgress also on the astral plane? Or is it, as I originally suspected, some powerful etheric entity that is not him at all but simply disguising itself as him? Or could it be a bit of both? Could he be a weak, perhaps psychopathic, individual who has made some sort of Faustian bargain with a dark and hungry supernatural force and is serving as a more or less willing lightning rod to channel it to others around him? Or might it be none of the above?

Here, before going further, I feel compelled to repeat that I make no claim as to the reality of the entities and realms encountered in Ayahuasca visions. It is possible that they are real but only accessible to our senses in altered states of consciousness; but it is equally possible that they have no fundamental reality whatsoever. There are many other possibilities, ranging from archetypes to projections to the imaginal, that are also worthy of consideration. All I can say for sure is that they are experienced as real, and I claim nothing more than that.

About two hours into the session, we all heard a crashing sound somewhere below. Along with our facilitator and a couple of others, I hurried down the stairs, and we found another member of our group, a strong young man in his early thirties, collapsed on the floor. He said he did not understand what had happened to him. Something dark had attacked him, swarmed over him, overpowered him, and he had felt certain he was going to die unless he got out of the ceremonial space. On the way down the stairs, he had become faint and fallen. “I looked death in the face,” he kept on saying. “I looked death in the face.”

Our facilitator went to work on him. There are certain techniques—the use of a rattle, a thumb placed firmly on the center of the brow, the chanting of the special songs called icaros—which are helpful in clearing away negative psychic energies and, after about half an hour, the young man was able to stand and walk around. “I looked death in the face,” he repeated—but this time with a smile—“and I survived.”

Later in conversation, our facilitator told us that when he had begun to work on the young man, he himself had been seized by a feeling of absolute terror—a powerful and overwhelming dread that he was only able to master with great difficulty and by drawing on everything he had learned in more than forty years of working with the brew.

Later still, another member of our group, a trained psychotherapist who is also enormously experienced with the sacred use of psychedelics, came down from the ceremonial space to join us in the kitchen, took a seat, and said calmly and reflectively: “What the hell was *that?*” He then reported that he too had been terrorized in the visionary realm by some dark entity that he too associated with the individual who had blown in the woman's face at the beginning of the ceremony. “I tried very hard to rationalize what was happening,” he said. “I tried to convince myself that what I was experiencing was just my own shadow side taking illusory form, that this was something I was projecting, but

in the end, I became certain it was a real force, something utterly alien and deeply, deeply evil and completely external to myself. I tried every technique I know to keep it at bay, but nothing worked."

The following day, I talked to the individual who had blown in the woman's face. "I'm a basement shaman," he said. He sounded quite proud of himself. "I make DMT and smoke it a lot at home, exploring visionary worlds, and I go around Ayahuasca groups doing this work. Sometimes people don't like it, but I just withdraw within myself so they can't get to me." He told me he hoped I appreciated how much courage it took for him to talk to me openly like this about the disruption his behavior had caused. I told him that my advice was that he should cultivate humility and not imagine that he has any "work" to do with anyone else, only with himself. After speaking to me, he spoke to the woman whose sovereignty he had transgressed the night before and apologized to her, again repeating that he hoped she appreciated what

tremendous courage it took for him to come out in the open like this. She found herself unable to accept his apology. “You're trying to make it all about you,” she told him, “with all this crap about your courage. That's not a genuine apology at all.”

Two days later, mercifully, the man left. Indeed, most of the group has now gone. Just seven of us remain for the final two sessions, the first of which took place on the night of February 10 into the small hours of February 11. It was a blissful, openhearted night with a great feeling of love, security, solidarity, and trust. I am not going to describe it further here except to say that the same member of our group who had asked, “What the hell was *that?*” after the fifth session had a new insight during the night. He experienced a direct, personal encounter with the loving entity whom we call Mother Ayahuasca (who is perhaps a goddess, though she does not wish to be worshipped), and he asked her the same question: “What the hell was *that* thing that attacked us during the fifth ceremony? Why did we have to go through that?”

“You needed to see it,” she replied. “Now you know what I have to deal with all the time. It's the evil that is loose in the world, twisting and destroying the human spirit, and I need your help to fight it, the help of good people everywhere, the help of the power of love.”

I realize how strange all this must sound to those (undoubtedly the vast majority who read this) who have not drunk Ayahuasca and perhaps do not wish to. All I can say, as my good friend Dennis McKenna puts it, is that Ayahuasca is the ultimate skeptic's challenge. It is not an intellectual argument. It is not a matter of empirical, scientifically verifiable proofs. It is quite simply an experience. Once you've had a deep and powerful encounter with the brew, you can make of it what you will, but until you have had such an encounter, it is better to withhold judgment.

I hope with these personal accounts that I have added some quantum of useful data to the body of available information about the Ayahuasca enigma. I have not held back and have shared with

you both the dark and the light sides of the realm of experience into which this mysterious, ancient, and sacred Amazonian brew can plunge us. It is as though a doorway is opened into a parallel universe in which—as in the universe we inhabit in our daily lives—there is both good and evil, but in which—both there and here—we as conscious human creatures are gifted with the power of choice. Sometimes we must face evil, sometimes it may do us harm, but we do not have to join forces with it, we do not have to make compromises with it, we do not have to bow down to it, and we do not have to serve its purposes. Evil cannot always be defeated, but it can always—always!—be resisted.

So the Ayahuasca experience is by no means all sweetness and light, and if you go into a session with that naïve expectation, you may well, at some time or other, find yourself unpleasantly surprised. Ayahuasca is extremely serious business, and this is one among many reasons why I would not advise anyone to partake of it without skilled and well-intentioned shamanic guidance—though

such guidance, these days, is available from a small but growing number of goodwilled and completely un-egotistical Western shamans as well as from Amazonian shamans. Indeed, the fact that a self-styled "shaman" hails from the Amazon is no guarantee whatsoever of the quality of care and service he will provide; in this, as in all adventurous journeys where hazards can be expected, you should do your research carefully, consult others, and rely on word of mouth before committing yourself to a particular path.

With these necessary cautions expressed, however, I conclude by affirming that the Ayahuasca experience is, above all else, about love and that there is openness of heart in it and a tremendous sweeping away of the blockages and mechanisms of denial that prevent us from getting to grips with and resolving fundamental issues in our lives. Truly, it is not for nothing that a very strong Ayahuasca session has been described as twenty years of psychotherapy in one night! In this regard, I have already set before readers here the radical change in my own life initiated by a

series of Ayahuasca experiences I had during October 2011—see my article "Giving Up the Green Bitch: Reflections on Ayahuasca, Cannabis and the Mystery of Plant Teachers." (p. 207)

And above and beyond all that, as I've tried to show, the great virtue and promise of Ayahuasca is that it raises profound questions about the nature of reality itself. There are, as yet, no definite answers to those questions—perhaps there never will be—but to confront the experiences that give rise to them, while sometimes terrifying and often chastening, is, I believe, ultimately of the greatest value.

NOTE

1. These five letters, originally written as status updates for my Facebook community, describe a series of sessions with Ayahuasca, the "vine of souls" that I participated in in Brazil in January and February 2013. They are written in real time and reflect the changing dynamics of these unusual experiences over a

period of two weeks. Something very strange happened in sessions four and five, something sinister that I could not have anticipated from my previous work with Ayahuasca, and looking back through the whole sequence of letters now, I am struck by how it took me, and others, by surprise and how we at first sought to intellectualize it and even explain it away.

COULD PSYCHEDELICS SAVE THE WORLD?

BY GREGORY SAMS

The psychedelic experience appears to have been, at one time or another, part and parcel of human cultures throughout the world; with or without assistance from the plant world, and usually with. Today, as our civilization careens mindlessly out of control and we face rejection by the planet that is our only home, it is appropriate to ask whether the virtual absence of the psychedelic experience in modern culture might be connected with the predicament in which we find ourselves.

The fields of ecology and green consciousness are products of the sixties hippy movement, now branched and developed far beyond the first “back to the land” aspirations of the time. Before

then, a few select and far-sighted individuals primed the pump, from Rachel Carson to Bertrand Russell, Aldous Huxley to George Ohsawa. But it was the wholesale ingestion of psychedelics that enabled large numbers of a new generation to break out of a mental straightjacket that has constrained our dominant Western thought processes for far too long.

Psychedelics can transport us into an unfamiliar space. The familiar world in which we live, with houses, plumbers, parliaments, cell phones, cars, advertising, restaurants, and so forth is but one channel on the set of all possible channels. Because this is the reality we have created within the world around us, we are tuned to it to such a degree that we easily become oblivious to the deeper nature of this intricately interwoven world, of which we are but a part, living upon our little speck of dust within the Universe.

The psychedelic experience is not embraced as an escape from our world but as a ticket to escape from the single channel; to see the bigger picture and the smaller picture; to see our world from a

different perspective, even from a different dimension. It is hard to emerge from this voyage without developing a realization, amongst many others, that those “in power” are possessed of a narrow vision fuelled primarily by the desire to stay in power. Their viewpoint is of one channel only—the one that represents the status quo they understand, in whatever country they control—and their efforts to control and fine-tune this channel to a micro-degree can often appear ludicrous.

The “alternative” culture that developed in the sixties was the first mass-movement to recognize that the channel we are tuned to is incompatible with the fostering of health, happiness, or peace and goodwill among humankind. Perhaps we did not recognize the coming of climate change and the scale of the threat. But we certainly recognized, through a new and spiritual perspective, that our communal ship was in danger of sinking. The state's natural response was to do everything in its power to prevent us from building lifeboats, to stop us from tuning in to new and

experimental channels. And what may have most frightened the maintainers of the status quo was the prospect of a generation who were inserting flowers into gun barrels; embracing threatening concepts like love, peace, oneness, and nonviolence; looking inside themselves; and rejecting a nine-to-five future as tax-paying consumers in an untenable endless-growth economy. Who would need Big Government anymore? The psychedelic experience reconnected us with our inner self and a world of spirit; with concepts such as harmony and good vibrations; practices such as meditation and yoga; values such as conservation and recycling; organic farming and natural eating; alternative healing techniques from acupuncture to herbal and the laying on of hands. It is difficult, today, to imagine just how grey and disconnected from our true reality was the pre-sixties culture of the Western world. Opening the doors of perception in those days was a much greater surprise than it is today. Yet it is depressing to see just how little has changed in the core mind-set of those who profess to run our

world; those who rely upon the power of coercion and propaganda to achieve their ends; those who ban cannabis and psychedelic drugs; those who seek to restrict and even ban the expression of dissent and protest; those who would drill holes in the lifeboats.

But how did we get disconnected in the first place—how did we get to the point where things that come naturally would be part of an "alternative" culture—be a "movement" instead of the mainstream? In the same way that we would not need a nutritional supplements industry were our food not refined and denatured in the first place, there would be little need for ecological awareness and a green movement had our culture not come to be isolated and disconnected from the world around it.

Though our profligate consumption of the world's oil reserves can easily be seen as a root cause of our ecological crisis, it is important to recognize that our disconnection from the planet was in place long before the Age of Oil. It is complex, bordering on the impossible, to conceive just how the discovery of cheap and

transportable power would have impacted upon a culture that had not banned shamans and the shamanic experience. Those who developed the oil industry were of the same stock as those who slaughtered herds of buffalo in order to sell their tongues, the same who would destroy beautiful landscapes to extract a few pounds of yellow metal, the same who ardently believed in a universal god whose prime purpose lay in producing, providing for, and monitoring the human race.

Perhaps we can track the original suppression of the shamanic, psychedelic experience right back to Adam and Eve in the Garden of Eden, described in the Bible's opening pages, and the most commonly known Bible story of all. In this fundamental story, the fruit-pushing snake is portrayed as an agent of the dark side for telling Eve that “when you eat of it your eyes will be opened, and you will be like God, knowing good and evil” (Genesis 3). The snake, of course, has been symbolic of knowledge and divinity across many religious and shamanic traditions throughout the

world. An angry God, as punishment for being disobeyed, visits toil and suffering upon the human race thereafter, especially targeting women by promising to “greatly multiply your pain in childbearing” and decreeing that men shall “rule over you.” It's a peculiar story, to be sure, and one that has impacted upon us ever since.

An alternative interpretation of this Adam and Eve story was held by the widespread Gnostic sects known as the Ophites, who revered and recognized the serpent as man's benefactor and saw Jehovah as the bad guy who sought to keep us in ignorance by denying us knowledge of our potential divinity. The Ophites were declared heretics and brutally extinguished by the spread of an organized and intolerant Christianity in the 4th century. One could be forgiven for suggesting that had our species embraced the serpent's gift, we might still be living in harmony with each other and our planet—enjoying life in the paradise that we inhabit. Instead, a lack of differentiation between good and evil seems to be

the hallmark of those in power today.

The powerful post-Constantine Church claimed a monopoly on spirituality, banning or destroying anything they thought to be in conflict with their religious hegemony. Witchcraft, astrology, spiritualism, soothsaying, and worshipping the Sun or Moon could all get one into serious trouble. A patent was effectively put upon the ecstatic state, with punishment meted out to those caught seeking a "religious" experience by any means other than those approved by the Church.

The psychedelic experience and shamans were out—thought control was in. A select group of people now decided what we could think and how we should behave, assuming a mandate from God to do so. The natural world was not supposed to be able to teach us things, and our intuition was not to be trusted in matters which had been divinely decreed, or decreed by those who claimed divine responsibility to do so. We could use our intellect to learn about the natural world, usually for the purpose of exploiting it, but

that world itself was stupid and could not inform us, and to believe it could was to indulge in superstitious pagan behaviour. That was a dangerous place to be.

The natural world had been provided by our divine creator as little more than a store cupboard for humanity. A common mind-set believed that we were specifically given "dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth" as well as "every herb bearing seed, which is upon the face of all the earth, and every tree, etc." It says it all, right there in the Bible (Genesis 1).

A consequence of this assumption of human dominion over all was to invest Western civilization with a God-given license to take from this planet with unabashed greed, wiping out species and blithely destroying landscapes and cultures in the process of "developing" them. Humanity was relieved of the need to show any consideration or thought to the land or its other residents,

except for their utility to the intelligent human race. Everything else in the Universe was seen as stupid or inanimate, other than creatures kind of like us, and the denizens of Heaven. It is becoming more and more apparent that this viewpoint is ungrateful, thoughtless, plain stupid, and as damaging to us as it is to the planet that hosts us. Yet it has infused the culture of the so-called "developed" world for seventeen centuries.

Doors opened by the psychedelic experience allow us to blow this crippling mental straightjacket right out of our mind space, revealing a world more interconnected, alive, and wonder-filled than we had ever realized; a world in which we may feel like gods, but not a world that we can rule over like deterministic kings; a world that is our host and teacher as well as our conscious provider. We learn to respect the world, and wonder at how we could have ever done otherwise.

For the shaman in all of us, spirit is out there and is as real a part of our world as the physical stuff we can see and touch. When we

recognize the spirit in the trees, the spirit in the mountain, the spirit in the earth and the Sun and its fellow stars, we live in harmony and respect with our environment—it comes naturally.

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has endured hyper-arid climactic conditions for the past 5,000 years, Schoch revealed to the world that mankind's history is greater and older than previously believed. More recently Dr. Schoch has determined the astronomical cause of the demise of antediluvian civilizations, which he describes in his book *Forgotten Civilization: The Role of Solar Outbursts in Our Past and Future*, along with the scientific and archaeological evidence that supports his conclusions. Robert Schoch's website: www.robertschoch.com.

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Born in Geneva, Switzerland, in 1962, **Nassim Haramein** from as early as nine years old was developing the basis for a unified hyperdimensional theory of matter and energy, which he eventually called the Holofractographic Universe theory. He has spent most of his life researching the fundamental geometry of hyperspace.

Combining this knowledge with a keen observation of nature, he discovered a specific geometric array that is fundamental to creation. His unification theory, known as the Haramein–Rauscher Metric (a new solution to Einstein's field equations that

incorporates torque and Coriolis effects), and his recent paper “The Schwarzschild Proton” lay down the basis of what could be a fundamental change in our current understandings of physics and consciousness.

In the past 20 years, Mr Haramein has directed research teams of physicists, electrical engineers, mathematicians and otherscientists. He founded a non-profit organisation, The Resonance Project Foundation, where as Director of Research he continues exploring unification principles and their implications.

The foundation is actively developing a research park in Hawai'i which combines science, sustainability and green technology.

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Gabriel D. Roberts was born in Tacoma, WA. The value of seeking the truth wherever it may be found was instilled in him at a very young age. At 7 years old he was street preaching in Salt Lake City, Utah and by 10 years old he had traveled to China, Japan, Hong Kong, South Korea, Macau and The Philippines as a missionary. Having grown up in a fundamentalist Christian environment, his perspective on the world was greatly influenced by the Bible and the fundamentalist view of its teachings. Having come to adulthood, Gabriel moved from his hometown of Tacoma to the more cosmopolitan Seattle to get his theology degree at Seattle Bible College. Through his studies and endeavors to live the truth and find a spiritually fulfilling life, Gabriel felt that there must be something more to the story than a contest of sin and salvation. After many years of study and with a lifetime of effort to connect with something greater, Gabriel stepped away from his

Christian faith. The details and reasons are catalogued in his book, *Born Again To Rebirth*. Like many others who have had an earnest thirst for the answers to the big questions of life, Gabriel was not satisfied to settle for not knowing more. His continued research in the fields of Science, Spirituality and Psychedelics continue to yield more and more exciting discoveries. Not being afraid to challenge his own cosmologies in light of new information, Gabriel D. Roberts continues to put together the puzzle pieces of life in a continued effort to bring enlightenment to himself and to his readers. Foremost among his influences are great writers, researchers and scientists like Terence McKenna, Jonathan Talat Phillips, Graham Hancock, Dr. Jeremy Narby, Russell Targ, David Wilcock and Rupert Sheldrake. Gabriel is currently a contributor for *Disinfo.com* and *Realitysandwich.com*.

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Martina Hoffman works as a painter and sculptress. Her paintings offer the viewer a detailed glimpse into her inner landscapes—imagery that has been inspired by expanded states of

consciousness: the realms of the imagination, meditation, shamanic journeys and the dream state.

“The visionary artist makes visible the more subtle and intuitive states ofour existence and creates maps and symbols reflecting consciousness. My work is an attempt to show spirit as the universal force which unifies us beyond the confines of cultural and religious differences. By accepting the interdependency of all life and our universal interconnectedness we have a chance to heal and transform the planet's general state of woundedness. In using art as a tool for transformation, we have the opportunity to create a reality as beautiful, healthy and strong as our imagination permits.”

Martina Hoffmann, has exhibited her work and spoken on behalf of visionaryart and culture internationally. Together with her husband the AmericanFantastic Realist, Robert Venosa, she teaches visionary painting workshops.

Paul Devereux is co-founder and managing editor of the peer-

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ABOUT THE EDITOR

Graham Hancock is the author of the major international bestsellers *The Sign and the Seal*, *Fingerprints of the Gods*, and *Heaven's Mirror*. His books have sold more than five million copies worldwide and have been translated into 27 languages. He has written for many of Britain's leading newspapers, including *The Times*, *The Sunday Times*, *The Independent*, and *The Guardian*. He was co-editor of *New Internationalist* magazine and East Africa correspondent of *The Economist*. He lives in England.

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Gabriel Roberts • Thomas B. Roberts • Gregory Sams
Robert Schoch • Mark Seelig • Rick Strassman • Robert Tindall

And, of course, Graham Hancock.

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ISBN: 978-1-938875-11-3
51895
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THE ELECTRIC JESUS

The Healing Journey of a Contemporary Gnostic

JONATHAN TALAT PHILLIPS

Introduction by
Graham Hancock

Praise for *The Electric Jesus*

"Every cultural scene needs good personal narratives. Jonathan Talat Phillips' *Electric Jesus* raises a proud flag for the post-modern Burning Man and techno psychonautic era. However, Phillips also seeks for more than just a flashy escape hatch from the burdens of a materialistic or pop-cultural corporate worldview. *The Electric Jesus* is about the quest for true Gnosis as much as it is about the crazy costumes we wear along the way. This book is sure to be one of those that defines the psychedelic resurgence that has been recently constellated by Reality Sandwich and the Evolver Social Movement."

—Adam Elenbaas, author of *Fishers of Men: The Gospel of an Ayahuasca Vision Quest*

“Entertaining, celebratory, burning, reflective, and electric—but definitely not for the faint of heart or hard of head. With tales of sex, drugs, elves, and Jesus, this memoir romps through the hinterlands of body and soul.”

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“Jonathan Talat Phillips discovers Gnosis, transforms himself, goes off the deep end, and somehow stays grounded in the material world. I enjoyed reading *The Electric Jesus*, a lively and well told story.”

—Jeremy Narby, author of *The Cosmic Serpent: DNA and the Origins of Knowledge*

“A moving tale of a journey into places most of us don’t even know exist.”

—Gary Lachman, author of *Politics and the Occult: The Left, the Right, and the Radically Unseen;* bassist for Blondie

"In this vividly written and deeply personal memoir, Jonathan Talat Phillips, cofounder of the Evolver Social Movement, travels through the key stops on the current countercultural railroad—Burning Man, ayahuasca sessions, kundalini awakenings, MDMA—and winds up in unexpected places, thoroughly off the tracks, seeking planetary transformation on a new scale—a classic heroic journey, bringing out of his own darkest places a gift not for himself but for his people."

—Stephan Beyer, author of *Singing to the Plants: A Guide to Mestizo Shamanism in the Upper Amazon*

THE ELECTRIC JESUS

THE HEALING JOURNEY OF A
CONTEMPORARY GNOSTIC

JONATHAN TALAT PHILLIPS

EVOLVER EDITIONS
Berkeley, California

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Published by Evolver Editions

Evolver Editions' publications are distributed by
North Atlantic Books
P.O. Box 12327
Berkeley, California 94712

The Electric Jesus: The Healing Journey of a Contemporary Gnostic is sponsored by the Society for the Study of Native Arts and Sciences, a nonprofit educational corporation whose goals are to develop an educational and cross-cultural perspective linking various scientific, social, and artistic fields; to nurture a

holistic view of arts, sciences, humanities, and healing; and to publish and distribute literature on the relationship of mind, body, and nature.

North Atlantic Books' publications are available through most bookstores. For further information, call 800-733-3000 or visit our website at www.northatlanticbooks.com.

Library of Congress Cataloging-in-Publication Data

Phillips, Jonathan Talat.
The electric Jesus : the healing journey of a contemporary Gnostic / Jonathan Talat Phillips.
p. cm.
eISBN: 978-1-58394-343-4
1. Phillips, Jonathan Talat. 2. Spiritual biography—United States. I. Title.
BL73.P55A3 2011
200.92—dc23
[B]

2011016868

v3.1

There is light within a person of light,
and it shines on the whole world.
—The Gospel of Thomas

For Jade, Rena, and my family,
and the healing we've undergone together

AUTHOR'S NOTE

THE STORIES IN THIS BOOK REALLY HAPPENED, although I still find a few of them difficult to believe. I changed several names and details, however, to protect the privacy of friends and acquaintances.

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INTRODUCTION

HUMANITY IN THE TWENTY-FIRST CENTURY is locked in a struggle between the past and the future.

Specifically: Are the patterns set during the past two thousand years going to continue to dominate us and define our thoughts and behavior in ways that no longer serve us? Or are we going to break free and embrace the next stage of our evolution?

There can be no certainty as to the outcome. Evolution may seem unstoppable, but the status quo we are struggling to evolve from is supported and defended by such huge political and ideological forces, and by such vast institutional inertia, that it is by no means certain we will be allowed to move on.

Nevertheless, who can doubt that a new kind of humanity is beginning to emerge in the twenty-first century?

These new humans recoil from the growing power and intrusion of the large, centralized State into their lives and believe they are capable of finding new ways to cooperate with others that don't depend on State supervision, regulation, or taxation.

These new humans do not feel any special allegiance to the "nation" or "country" they happen to have been born in—and thus do not automatically feel closer and more connected to a fellow human being if he or she happens to have been born in the same country. Their primary identification is not with their national gene pool but with others of like mind, wherever they find them in the world. It follows that the new humans are acutely aware of the absurdity of war and of the artificial and constructed nature of the fear, hatred, and

suspicion used by States to justify wars of all kinds.

These new humans see the sterility of politics and economics, where the choice currently seems to be between some form of free-market capitalism and some form of socialism. From the new human's point of view, both systems are essentially the same, being rooted and grounded in materialism and in the unproven assumption that reality is confined to the realm of matter. Socialists and capitalists argue about how the spoils of that realm should be divided, and who should do the dividing, but both are so focused on the primacy of matter that they ignore any possible spiritual dimension entirely, even scoffing at the very concept.

Of course, the spiritual dimension is supposed to be the province of religion—isn't it?

Not for the new human, who feels alienated from orthodox religion and does not accept that the priest, the rabbi, or the

mullah should be the exclusive intermediary between us and the divine. The new human hungers for direct, personal spiritual experience and is willing to go to great lengths, using ancient techniques of ecstasy devised by the shamans and yogis of prehistory, to seek it out. Such techniques, which amount to an archaic spiritual technology, include meditation, dance, controlled breathing, the practise of austerities, and the ingestion of traditional visionary substances such as psilocybin mushrooms or ayahuasca (as well as their more modern synthetic analogues, such as DMT and LSD).

In *The Electric Jesus*, Jonathan Talat Phillips takes us with him on his own journey through the late years of the twentieth century and the birthing years of the twenty-first, seeking, like so many of us, to find meaning and purpose in life. In the end—though he wouldn't himself claim to be one

of the new humans—his story speaks to the phenomenon of an emergent new humanity in a particularly eloquent and comprehensive way.

As his journey unfolds, he learns to see the glowing energy fields that surround and are perhaps the essence of every human being, and uses hallucinogens to explore the hidden meaning of halos and the Tree of Life before telling us of his encounter with Gnosticism that lies at the heart of this book.

As Jonathan rightly observes, the Judaeo-Christian tradition has supplied "the underlying operating platform for our civilization—our languages, laws, mores, work ethic, sexuality, even our way of perceiving time (with the Gregorian calendar)—shaping our worldview, whether we realized it or not."

Yet we do not have an honest relationship with this tradition, because down the ages we have not been told the

truth about it. An entire strand of early mystical Christianity known as Gnosticism, which sought direct revealed knowledge of the divine, has simply been edited out of the story by the dominant, “literalist,” hierarchical faction that became the Roman Catholic Church. Yet there is much evidence—not least the recovery since 1945 of an entire library of hitherto lost Gnostic texts—to suggest that it was the suppressed strand, not its oppressor, that truly represented the ideas of the first Christians.

Gnostic mystery schools sought to create *Pneumatics*—people filled to the brim with spiritual energy—and this seems to have been brought about by powerful and life-transforming experiences of altered states of consciousness. There is a very high probability indeed that Gnostic circles in the early centuries of the Christian era were using psychedelic mushrooms as a spiritual technology to access

the divine. The Gnostics themselves, as Jonathan notes, believed that literalist Christians who had not undergone these experiences "were 'dry canals' bereft of consciousness-expanding pneuma, yet arrogantly claimed to be the sole gatekeepers of heaven." Yet, by unleashing ruthless campaigns of oppression against the Gnostics and putting thousands to death, the literalist faction prevailed and has been wounding and misleading people ever since—robbing them, as Jonathan sees it, of "their own divine spark."

Naturally, Gnosticism has an explanation for why the literalist faction would wish to do that. To cut a long story very short indeed, the entity called Yahweh or Jehovah, who is worshipped as the one God in the Judaeo-Christian tradition, is seen in quite a different light by the Gnostics. To them, he is nothing more than an evil demiurge, a low-class sub-deity, a sort of devil in disguise, who has created the

earth as his personal fief, placed the human race upon it to worship and adore him, and deluded the poor creatures into believing he is actually “God.” His sole purpose for us is to keep us enchained in spiritual ignorance and darkness for all eternity. In this he is served by the literalist faction of the Church.

Broadly, what the Gnostics are proposing is that true, original, mystical Christianity was sent down as an agent of liberation for mankind—to free us from the spell of the demiurge. The literalist faction then staged a coup, took over the institutions and network of the mystical Christians, and turned them against themselves by making them serve not God but the demiurge.

Among the many other exciting and thought-provoking proposals that Jonathan puts forward in this book, one that I find particularly intriguing would, if implemented, have the

potential to turn the tables again. As the new humanity emerges, there is no need to invent a new religion or equip it with a new infrastructure—the churches themselves, so long instruments of spiritual oppression, have the potential to become instruments of spiritual liberation again as they last were in Gnostic times. Among the more radicalized churches, Jonathan suggests, this could even involve "the dispensing of psychoactive sacraments."

On its own, however, spiritual liberation will never be enough. If the new humans are to survive, Jonathan warns, they will also have to be "spiritual warriors … capable of standing up to the Western materialism machine, so we can create sustainable societies that care for their citizens, harmonize with the cycles of nature, and receive and honor the vast healing light that quietly connects us all."

What's great about Jonathan is that he doesn't just talk the

talk. He absolutely walks the walk—whether as an energy healer, as a resolute explorer of non-ordinary realms, or as one of the four founding members of the amazingly successful and controversial online magazine *Reality Sandwich* and the Evolver Social Movement that grew out of it. Evolver's local network of "Spores" is growing all over America and all over the world—a global community of intelligent, open-minded people actively working for the birth of a new humanity.

Jonathan was part of it from the beginning, and he has a compelling story to tell.

—Graham Hancock, author of *Fingerprints of the Gods* and *Supernatural: Meeting with the Ancient Teachers of Mankind*

PROLOGUE

January 17, 2011

"Had you told me a few years ago that I'd be here in Austin tonight talking with you about Jesus, aliens, and *ayahuasca*, I would have laughed my ass off. As a cynical secular materialist, I scoffed at anything mystical. I thought only direct political action made any real change in the world. As you may have guessed, that perspective has been turned on its head."

The sixty-five people I was speaking to sat crammed on the shaggy beige carpet of the suburban, seventies-style living room that Monday night. They spilled into the hallway and

dining area, those in the back leaning forward to hear. Wide colorful tapestries of illuminated Buddhas, zodiac charts, and complex geometrical Shipibo patterns covered the dank, wood-paneled walls so indicative of the aesthetically challenged Me Decade. Ceramic manifestations of Shiva, Shakti, and Ganesha cluttered the fireplace mantle and plasma-TV shelf.

I propped my back against the fireplace wall and fought extreme fatigue. I had spent the weekend in ceremony with a Brazilian shaman, one of the heroic healing masters who travel the underground railroad of ayahuasca scenes sprouting up across America. I doubt I'll ever understand why the DEA regards the most powerful medicine I've encountered, the sacred brew of the Amazon, as a Schedule-one controlled substance worth banning. Wearing a vest of seashells and a leather headband with yellow feathers

sticking up from the back, the short, prune-faced shaman had me gulp down several viscid cups of the nasty tasting hallucinogen the two previous afternoons. I hardly slept that weekend and considered calling off tonight's talk.

But now, several years into an often sloppy and sometimes dangerous spiritual initiation, I was accustomed to ego dismemberment. Although exhausted, my body felt clear and light from having transmuted so many heavy vibrations over the weekend. Besides, I lived for these talks. These were stories I loved to tell, especially since I had forged through so many challenges to accumulate the experiences.

The crowd had the familiar look that my presentations tended to attract. Most of the people spilling out of the room were twenty to forty years old with salon-sculpted hair accented by highlights and wearing horn-rimmed glasses, skinny black jeans, vintage printed tees, and American

Apparel cotton hoodies. You could easily mistake them for Pabst-chugging hipsters if not for their accessories—spiral plug earrings, mandala-shaped necklaces, Peruvian indigenous bracelets, and bright shawls with designs based on Mandelbrot mathematics. I fit right in with my tan faux-suede jacket, blue jeans, Burning Man multicolor necklace, and turquoise Yawanawá beaded bracelet. I regretted not bringing the black Australian cowboy hat that I usually broke out when I left New York City, a way to reconnect with my Colorado roots. This was Texas after all.

During the earlier meet-and-greet over carrots and hummus, the attendees had shared their passion for sustainable aquaponic food systems, non-debt-based complementary currencies, and the politics of local rain harvesting—visionary, but practical approaches to social change. They were far more grounded and engaged than the

angel-and-fairy-obsessed New Age flock, the sort of self-involved meditators that I studiously avoided during my life as a political activist.

This group resembled others I had encountered over the last year—but with a twist. Ten months ago, I would have been lucky to attract a dozen people to the corner of a coffee shop or vegan restaurant for these talks, which I playfully and presumptuously titled Opening the World's Heart Chakra. Now they were packed out. We even had to stop promoting them early so as not to overrun the spaces I borrowed. Despite the crowd tonight, I knew that my dream of a solar-powered, permaculture-loving Austin was still just a dream. The hordes gobbling up cheap Chinese- and Ecuadorian-produced clothes and electronics at all the Targets, Kmarts, and Walmarts across town vastly outnumbered our crew. Radical mystics and spiritual activists

like us were the foolhardy underdogs throwing compostable paper wrenches into the gears of the massive consumer machine.

"Before we start, let me ask everyone a question," I said to the group. "How many of you feel that you are personally experiencing some type of initiatory or healing process?" A number of hands languidly raised in the air, half bent at the elbow. "No, really. Raise your hand high so we can all see." Sixty-three arms stretched firmly upwards, leaving only two people with their hands in their laps. "Look around at your brothers and sisters in the room." I had never said the phrase "brothers and sisters" before—not with a straight face—but there was something about the brutal cleansing of the weekend's ceremony that led me to add the sermon-like flair.

"How many places in the country would you see this many hands raised in answer to that question?" I said to them.

“Something is going on here—something powerful.”

As if we had just chanted an ancient incantation, the room suddenly buzzed with an unseen but visceral energy that brought smiles and sparkly eyes to the crowd. They gazed at each other, sensing the potential that comes from manifesting change together. As the only one standing up, I acted as an antenna or lightning rod for the group. A warm energetic vibration rose up my spine and spread across my shoulder blades, expanding my heart center. I couldn’t help but laugh with gratitude at the continually absurd life I had stumbled into. After a long, formidable journey, I encountered a touch of the mystical almost every day.

“Okay, everybody. Put down your hands, and let’s get on with this story.”

1

THE GREAT LOST HOPE

WE ENTERED THE PACKED CHELSEA CLUB, stealing attention from defeated presidential candidate Howard Dean on stage with our glittery tricornered hats, puffy lace shirts, and metallic starred-and-striped vests that gave us the look of Benjamin Franklin after he jumped into a particle accelerator with Ziggy Stardust. “Liberty!” we yelled, taking our natural place in front of the bar. The twenty-five of us were Greene Dragon, a street-theater media team named after the tavern where rowdy Bostonians planned the original Tea Party. As

the rock stars of the anti-war movement, we led a raucous American Revel-ution against King George II (Bush) and his corporate tyranny. True to our historical underpinnings, we also liked to drink.

For that unforgettable summer of 2004, we made Manhattan our political playground: unfurling a thirty-foot canvas Declaration of Independence down the steps of Federal Hall, warning Lexington Avenue “the Republicans are coming!” during our Paula Revere’s ride on horse-cycle (half bike, half horse), and staging a crossing of New York Harbor (Delaware style) alongside stunned commuters on the Staten Island Ferry. Our revel army defended the island from the Republican invaders who exploited the tragedy of September 11 for political gain. We sang refurbished Yankee songs and carried signs proclaiming Dissent Is Patriotic and End Corporate Tyranny as part of the half-million people

protesting the Republican National Convention at Madison Square Garden in the largest protest ever held against a political convention in the United States.

Glancing around the dark nightclub that night, Tuesday, November 2, I spotted various heroes from what my culture-jamming colleagues had called the "Summer of Hope," a time when our creative media antics and direct actions were aimed at dismantling the Bush death machine. Hailing from Crawford, Texas, the bikini-clad Missile Dick Chicks gripped phallic papier-mâché missiles and sang "Shop! In the Name of War" and "These Bombs Are Made for Droppin'." The red-nosed Rebel Clown Army mimed the absurdity of Mission Accomplicated. Dressed in second-hand tuxedos, top hats, ball dresses, and imitation pearls, the Billionaires for Bush hoisted signs calling for Four More Wars, Leave No Billionaire Beyond, and Blood for Oil. They had pulled off

one of the greatest stunts of the summer: delivering a fake Karl Rove in a Lincoln Town Car to a Republican fundraiser fifteen minutes before the real Rove arrived.

With the media hyping that the Republican convention in New York would be a replay of Chicago ’68, normally marginalized activists found themselves the center of international attention. My friends became the eye candy of the movement, using glitzy costumes, viral memes, and strategic messaging to blast normally staid political ideas onto headlines and TV screens. Using the “Marilyn Manson approach,” as I called it—the shinier your costume, the more headlines you make—my group Greene Dragon appeared on ABC, CBS, CNN, and MSNBC and in dozens of newspapers. I even had my own photo shoot for *New York Magazine*, although the headline next to my flag-draped profile on the glossy’s cover articulated a looming question about our

tactics: “The Circus is coming to town. A Bush-hating nation of freaks, flash-mobbers, and civil-disobedients is gathering to spoil the GOP’s party. Is this any way to win an election?”

On the mike that evening, a sweating Howard Dean alluded to these concerns as he pointed at a large electoral map projected behind him. “Everything we’ve worked for depends on Florida and Ohio. If we pick up one of those states, we win. If not, well … let’s just cross our fingers.”

My eyes fixed on those two white shapes. The rest of the map quickly filled in a patchwork of red and blue. It seemed absurd that the success or failure of an entire year of my life—and the lives of my friends—depended on two spots changing from white to our preferred hue.

“General America, let me get you a drink.” Pen Franklin, a fellow patriot, ordered me our standard, a Sam Adams. “To the Revel-ution,” he clicked my glass.

At twenty-nine, I did not have the experience, or the silver hair, to be a general. In fact, I had grown a goatee and long brown sideburns just to look closer to my age—bar bouncers always thought I was under twenty-one. But I did wear the outfit: a George Washington overcoat lined with Tron-like EL wire that illuminated bar patrons several stools away, shiny sky-blue fabric for my pants and vest, and silver stars glittering from my ankles to my shoulders. I carried a sword wrapped in the Bill of Rights on tea-dyed paper. In my regalia, I swaggered up to journalists proclaiming that this was my weapon of choice. At the time, I thought that others found the outfit inspired, but as Fox News called Florida for the Republicans later that night, everything changed—including how I felt about my costume. It now wavered on the ridiculous. I felt the same about the name I had taken, Jonny America.

Since my teenage years, I had read obsessively about revolution. Whether it was the French, American, Velvet, sexual, or psychedelic, I wanted to be part of it. But spending most of my time writing unpublished novels, I didn't take action until I worked for The September 11th Fund's Ongoing Recovery Program. I had recently returned to the U.S. after several years of teaching English in Europe. As an intake specialist, I found employment and medical assistance for those who had lost jobs or apartments around the World Trade Center. The midtown office where I worked was under renovation. The crumbling concrete walls and torn strips of gray carpet unnerved clients, perhaps reminding them of horrors they had lived through.

One day, a three-hundred-pound African American man named Lester, wearing a white Knicks jersey under denim overalls, sat down with me to fill out forms. His thighs spilled

over his folding chair. Grotesque red and white scales flaked off the skin of Lester's neck from what we Funders called "the Ground Zero rash," a medical condition the Bush administration still denied. He coughed between words, speaking in a raspy voice, which I knew would only get worse over time.

"I used to have a great job bar-backing at Windows on the World," Lester whispered while penciling in answers on a clipboard form. "Now I sell lawn chairs. I can't feed two kids selling lawn chairs. George Bush spends millions on Halliburton, but he lets my family rot," Lester's voice dove into a growl. "He told us it was safe to stay around Ground Zero—it wasn't safe. And now he's coming back to our city to steal himself another election!"

Lester dropped the clipboard and stood up. At first, he leaned forward, struggling to catch his breath. His back

straightened, and his hands pumped into fists by his sides. Lester's eyes darted around the room as if looking for escape. Then he lurched toward me. I backed away, but it was too late; he had pulled me into an inescapable bear squeeze. His belly began to shake. He was crying—really crying. The muscles in his arms and legs collapsed, and I used all of the 135 pounds of my runner's body to hold him. "I'm doing everything I can, but these guys are wrecking me," Lester coughed. "I can't feed my kids selling lawn chairs. I'm just thankful there are people like you to help." He gripped me for several minutes, his tears blotting my collar. I had always been an overly sensitive person—*delicado*, as my Spanish girlfriend had called me. Lester's grief sank into my chest like a dark stone; it wasn't every day you saw a man this big break down.

After meeting Lester, I could no longer be an armchair

revolutionary. I joined my neighborhood group, Peace Williamsburg, and attended rallies and demonstrations against the Iraq War. But given my bohemian inclinations, I wanted to do something bolder and more artistic than simply marching in large groups down city boulevards. The media didn't seem interested in those boring tactics anyway. At that time, a friend introduced me to Abbie Hoffman's *Revolution for the Hell of It*. Reading about the Yippies' escapades dumping money on the Stock Exchange floor, levitating the Pentagon (or at least trying), and running a pig named Pigasus for president in 1968 inspired me that one could snag media attention by using humor and absurdist theater, along with a taste of bravado.

Growing up in Idaho Springs, Colorado, I had been the instigator of pranks and stunts in my mountain town, such as sledding to the prom in a tuxedo and water-ballooning the

senior campout. Thanks to Abbie, I saw how I could use my own trickster nature to party-crash CNN headlines. The days of handwritten protest signs were over in our society of spectacle. With the right visual pyrotechnics and clever stunt making, a small visionary group could entice the attention of the twenty-four-hour news cycle, reaching more viewers than old-school marches with thousands of people.

Die-ins had been popular among protestors during the invasion of Iraq, but they lacked the glitzy hook that appealed to media outlets. So I teamed up with a dozen activists that I met through Peace Williamsburg, and we organized a different type of die-in on the Rockefeller Center skating rink. The action would reveal what it felt like to have our national landmarks bombed, as was being done in Baghdad. It also had a surrealist Ice Capades touch. We sent out press releases mentioning “civil disobedience,” a

dangerous term that brought out three hundred cops in ant-black riot gear, the SWAT team, and even a police helicopter, along with the television cameras. At three o'clock, our point person among the tourists at ground level dropped a banner onto the ice: Operation Iraqi Freedom: Who Profits, Who Pays? Skating in circles, we tore off our winter coats, unveiling blood-soaked T-shirts. Screams swirled around us, camera bulbs assaulted the back of my lids, officers barked out orders, but a calm chill lay over the ice as a tiny girl asked, "Mommy, mommy, why are they lying down in red?" "Honey," her mother responded, "they believe the war is wrong."

I thought of that girl and what it would be like if our cities and homes were getting bombed, and I thought of my own sister and what it would be like to lose her, my family, and my friends. Then I imagined those Iraqi mothers in heavy

cotton robes, wailing outside ruined mosques and hospitals. I was surprised to feel the wailing come into me, up from the earth; there were hundreds, thousands of mothers crying at once. The sobs were absorbed into my lungs and began to shake through me, as if they were coming from some other plane of existence. I suspected I was being *delicado* again, until I saw the rest of our crew wiping their cheeks. Later—after the police handcuffed us and untied our skates, after we were piled into the steel police van, after twenty-three hours of eating stale sandwiches in Manhattan's Tombs—we would recount how, for each of us, crying on the ice had been the first time we had a sense of what it meant to live in a country at war.

Despite the emotional resonance of that experience, however, afterward I questioned the impact of the die-ins, arrests, and negative rhetoric of the anti-war, anti-Bush, anti-

corporate movement. What did we stand for? What difference were we making? What power did we have? And when did we get to have fun and dance? So I took a break from activism to attend my first Burning Man festival. The project's website described Burning Man as an "annual art event and temporary community based on radical self-expression and self-reliance in the Black Rock Desert of Nevada." When my friends and I arrived at the gates, sexy *Mad Max* women in bikinis and biker goggles hugged me, the "newbie," and said, "Welcome home."

One of my Peace Williamsburg friends had invited me to stay at his camp. What I thought would be a homey gathering replete with propane stoves, s'mores, and burned potatoes in tin foil turned out to be a twenty-four-hour techno rave called Disorient with LED strobe lights assailing my tent throughout the night. Unable to sleep, I wandered through

the desert *playa* dust, past domed theme camps of Mars mazes, yoga dens, and homemade roller coasters; art cars of psychedelic dragons, four-legged robots, and mushroom caps; temples made of spare parts from dinosaur models; gigantic light installations for bleary-eyed night trippers; and the four-story-tall, alien-headed wooden Man perched atop a thirty-foot pyramid, ready to burn.

While thirty thousand neo-tribal characters celebrated their return "home," the open-air hall of eccentricities brought out a familiar existential terror and loneliness from inside me. For as long as I could remember, I had been carrying "the black bowling ball," as I called it, a recurrent melancholy, sometimes rising into panic attacks. I was sure this bleakness had its roots in my mother's frequent angry criticisms when I was a child. It followed me wherever I went—slinging coffee in downtown Denver, roaming the spiraling cobblestone

streets of Prague, or fighting off hangovers in the stands during bullfights in Spain. It was at its worst during my Terrible Twenties—that time when the excitement of college had ended and I realized that our society doesn't have much to offer if you aren't inspired by day jobs, duplexes, movie nights, and pension plans. Even travel, I learned, had its limits. This was the feeling of life without magic.

On Wednesday, I sat down next to a roller disco on the Esplanade, the festival's main thoroughfare, to watch a pink sunset evaporate over the Black Rock Mountains. A bare-breasted woman in a purple wig and day-glow shorts circled the rink's wooden floor. Behind her, the festival's lamplighters, dressed in ceremonial white togas with red flames tickling up the sides, silently placed oil lamps on the street. Behind them, a horned satyr on stilts grumbled by. Past him, a pirate-ship art car chased a great white whale on

wheels. Behind that, an octopus sculpture burned, and three parachutists circled in through the pluming smoke.

I realized that if I had seen any one of these events in New York, it would have made my afternoon, but witnessing them all at once hurtled the limits of my activism in front of my dust-flecked eyes. I saw it so clearly: I had been doing politics all wrong. I had been fighting against institutions, thinking I was an underground rebel, when what I really needed to do was take the playful, imaginative, and joyful essence of this place and funnel it into the activist sphere. These Burners didn't complain and argue about society. They built a city of their dreams, with a thriving gift economy and vibrant culture that encouraged all participants to let loose their wildest, most glorious freak. They weren't protesting; they were celebrating.

On Saturday evening before the festival's organizers

burned the Man, my theme camp rounded up all the newbies to receive their *playa* names from the community elder—a nudist, poly-amorous medical doctor named Gorilla. “What’s your biggest dream?” Gorilla asked when it was my turn. “You know, the one so big you’re too afraid to even tell yourself.” I told him I wanted to be part of some kind of revolution, revival, or renaissance. He asked what name reflected that wish, and I remembered back to my expat days in Prague. A big-boned English woman, Angela, who could drink any soccer hooligan under the table, would shout “Jonny America!” every time I entered a bar. That name gave me the permission and confidence to misbehave in deliciously sinful ways.

It later granted me the inspiration to become the general of a small American Revel-ution when I returned to New York. As General Jonny America, I recruited Greene Dragon

members, encouraging them to create their own superhero patriot personae—Phreedom Phil, Revel Girl, Pen Franklin, John Hancocktail, Sham Adams, Liberty Belle, Molly Pitcher of Beer. (Since we named our group after a tavern, it seemed only natural that a number of the members had names referring to alcohol.) Our mission was to connect people with the positive aspects of our country's heritage and its promise of democracy. We directly challenged Bush's charge that "You're either with us or against us" by showing that dissent held a pivotal role in the American creation story. And, admittedly, the Revolution made for a mythic storyline, a media tractor beam.

After years of writing alone in cramped rooms, I happily led our band of merry patriots onto the stages of political rallies, cajoling the police to allow our non-permitted events, reframing issues so that even the hecklers took our side, and

rattling off sound bite after sound bite to throngs of the press. Our motto was “It’s All About the Reveling.” Remembering the inspiration of Burning Man, I would take us back to that essence whenever we would lose our way.

Pranksters, I discovered, can come from joy and integrity when the actions and ideas manifest from the heart. Every once in a while, however, the black bowling ball would squash my reveling, and I would disappear for a day or two until the panic attacks subsided and Jonny America could reemerge. One day I would be sparring on air with MSNBC anchors, who were upset about my wearing a patriot costume in their studio; the next day I would be holed up in my Williamsburg apartment, not ever answering my phone. That summer and fall, I danced through the ups and downs of the wounded trickster archetype—assuming there is such a thing.

Despite the occasional appearance of my shadow side, we

found that our Greene Dragon revel-ations provided a healing space for others, such as the elderly woman in a pink flowered hat who signed our Declaration of Independence and said with tears in her eyes, “This is the first time I’ve felt like an American since September 11.” We got that a lot. Then again, many activists thought I was naïve for pushing these lofty ideals and for creating such campy, patriotic messaging. Part of my idealism may have stemmed from my habit of wanting to be seen as a nice guy or trying too hard to please others. But my goal wasn’t to expound on historical intricacies. I wanted to win an election, and to do that we had to reach out to the mainstream.

On Election Day, when the results were in, Howard Dean’s worst-case scenario came to pass. Not long before midnight, Fox News called Ohio for Bush, with NBC following shortly afterward. The frozen, silent faces around the room said it all

—we were in for another four years of the Bush war doctrine. Our costumes, flash mobs, and Temporary Autonomous Zones had proved ineffective against the Republicans' $270 million campaign blitz.

After an unusually quiet Manhattan minute, the Dadaist-inspired Hungry March Band, in their mime-meets-cabaret outfits, broke into an awkward saxophone-heavy dirge. Members of the "artivist" collectives hugged, mixed, and slowly danced together in despair. Greene Dragon hoisted a final toast of "Liberty!"—defeated but trying to stay strong. I left soon afterward so my team wouldn't see the black bowling ball roll over me.

2

EDEN:
TROUBLE IN PARADISE

THE NEXT MORNING, a *Blade Runner* drizzle engulfed the city. From the bed of my three-windowed room, a luxury in Williamsburg, Brooklyn, I looked through the slats of the fire escape on a sea of black umbrellas rushing along Havemeyer Street. The clock already read 12:30, but I couldn't bother calling in sick to my new temp job at the Grand Army Plaza public library. At times like this, I wished The September 11th Fund's money hadn't run out—they would have

forgiven a day without reporting in. I had already turned off my phone, so I didn't have to deal with more consolatory calls, but that didn't stop my two activist roommates, Wynn and Gabe, from shouting through my bedroom door. "Jonny, it's crazy. We all said there'd be riots in the street if Bush won, but everyone's too depressed to do anything!"

Gazing at the brown sludge-water pouring into the storm drains along the sidewalk, I brooded that afternoon over the abysmal condition of our planet. Constant wars, corporate domination, and military regimes plagued nations on all continents. The World Health Organization estimated that one-third of the world's people were underfed and another third starving, but governments still refused to make a consolidated effort to alleviate the situation. In Greenland and West Antarctica alone, 360 billion metric tons of ice had melted the previous year. If this continued over the next few

decades, scientists predicted costal regions would flood, pushing large populations into resource-stripped lands.

Heavy metals, toxic waste, and pesticide runoff contaminated our life-giving rivers and oceans, while a half-century of industrial fishing had wiped out over ninety percent of the world's big fish population. Polar bears had traces of Teflon in their bloodstreams, Beijing residents were wearing gas masks to work, and the Amazon rainforest—the lungs of our planet—was losing eighty to ninety thousand acres per day to oil drilling and cattle ranching. With six billion of us consuming, polluting, and reproducing, the biosphere had plunged into serious distress. Thirty thousand species were becoming extinct each year, three species every hour. Humans were annihilating the planet's extraordinary web of life, creating the Sixth Great Extinction.

Despite all our computers, high-temperature

superconductors, and complex information systems, our problems continued to worsen as we fast approached a mega-crisis. I wondered if there was some unseen impetus causing all the devastation and suffering, something bigger than all our governments and corporations combined. I had pinned Bush as the focus of my protests, but these problems had deeper roots, something far greater than any one presidential candidate could handle. Did I really think John Kerry, another alumnus of Skull and Bones, could lead us out of our plight?

For the next month, between random temp jobs, dates with my new girlfriend Jade, and spells of post-election depression, I studied Western history. This time I didn't review the incendiary sparks of revolution, but the emergence of military empires, including the American, Nazi, British, Spanish, Ottoman, Roman, and Greek. I traced back

the bloody trail of war, slavery, domination, and subjugation until I found myself unexpectedly leaping out of historical dates and facts and into the mythological basis of Judeo-Christian culture—the biblical tale of Eden. Of course, I didn't believe that this creation story accurately chronicled the history of earth's first humans, but it did hold prevailing thought forms and belief systems that eventually shaped all of Western civilization.

Having endured a childhood of boring Methodist sermons, I was initially dismissive of this ancient story, but then I considered how the great thinkers of the past didn't have astrophysics, the Hubble Telescope, and Doppler radar to explain the universe; they conveyed information through the knowledge-system of the period, meaning myth and storytelling. If that were true, Genesis could provide a map or guidebook to help us understand where we came from and

how we got to where we are today.

That seemed to be the point in the opening lines of the Bible: “In the beginning God created the heavens and the earth. The earth was formless and void, and darkness was over the surface of the deep, and the Spirit of God was moving over the surface of the waters. Then God said, ‘Let there be light’; and there was light. God saw that the light was good; and God separated the light from the darkness. God called the light day, and the darkness He called night. And there was evening and there was morning, one day.”[1] (Gen. 1:1) From the endless void, light bursts into being, creating the first and greatest event in cosmic history, birthing the stars, sun, moon, and sky, and later the plants and animals of the earth.

On the seventh day, God rested, then “formed man of dust from the ground, and breathed into his nostrils the breath of

life; and man became a living being." (Gen. 2:7) This was Adam, created from dust and eventually split into two separate beings—man and woman, reflecting the *yin/yang* nature of the space–time continuum.

In Eden, the serpent, a worldwide symbol of transformation, challenges Eve to test out a new way of perceiving her reality by eating the forbidden fruit. "Indeed, has God said, 'You shall not eat from any tree of the garden'?… You surely will not die! For God knows that in the day you eat from it your eyes will be opened, and you will be like God, knowing good and evil." (Gen. 3:1–5) Eve and Adam eat the fruit, and their eyes open to a different vision of the world, an amazing and frightening one of duality and danger. With good comes evil, with life comes death, with self comes other, and with every aspect of the cosmos arises its equal and daunting opposite. Fear emerges from this new

separation and Adam admits to God, “I was afraid because I was naked; so I hid myself.” (Gen. 3:10)

Tasting of the Tree of Knowledge, Adam and Eve undergo a powerful initiation into self-awareness, but another step in their development still lay ahead. God warns, “Behold, the man has become like one of Us, knowing good and evil; and now, he might stretch out his hand, and take also from the tree of life, and eat, and live forever.” (Gen. 3:22) I had never heard a minister call attention to these lines, even though they are in the widely referenced first book of the Bible. The passage states that if humans eat from the Tree of Life, they become like God, living forever. But what kind of radical shift in consciousness did this tree represent?

Adam and Eve’s theft of knowledge reminded me of the Greek myth of Prometheus stealing fire from the heavens. As punishment, the vengeful Olympian gods chain Prometheus

to a rock, where a vulture endlessly feeds on his regenerating liver, mimicking the retribution in Genesis. The story of Prometheus depicts the introduction of fire to humans for cooking, sharpening weapons, and other uses. They had integrated a divine power into their lives, and there was a price to pay for acquiring the technology. Fire can be used to make our lives easier, but we also risk getting burned.

A popular hypothesis among biblical scholars and writers is that, like the Prometheus story, the story of Adam and Eve also describes a profound social and scientific development in human history—in this case, the agricultural revolution. The Garden of Eden represents a tribal way of life, where Adam and Eve live in leisurely harmony with the cycles of nature among the abundance of the "birds of the air" and "beasts of the field." As punishment for eating the forbidden apple, God curses

> … the ground because of you;
> In toil you will eat of it
> All the days of your life.
> Both thorns and thistles it shall grow for you;
> And you will eat the plants of the field;
> By the sweat of your face
> You will eat bread. (Gen. 3:17–19)

Exiled from Eden, Adam and Eve struggle to survive by means of their own labor, eating "the plants of the field." It's interesting to note that the Bible names the four rivers that surround Eden—the Pishon, Gihon, Tigris, and Euphrates, which places the biblical Garden in the middle of the Fertile Crescent, the birthplace of civilization.

The agricultural revolution ten to twelve thousand years

ago restructured human communities from tribal living and nomadic hunting to permanent settlements that allowed for higher populations and increased technological developments, as well as greater material inequity. We witness this phenomenon almost immediately after the expulsion from Eden. Adam and Eve's sons Cain and Abel toil away at the new agricultural technologies of their time—Abel domesticated animals, and Cain grew crops. God plays the role of a landowner who is given offerings. When Abel pleases God with a more honest return, a jealous Cain kills his brother, committing the first act of violence in Western civilization, at least in biblical terms.

The stored wealth from agriculture led to the manipulation of food supplies, creating social hierarchies of haves and have-nots. The agricultural revolution allowed the production of much higher caloric yields and enabled the development

of city-states, nations, empires, and ultimately the multinational corporations we see today.

The dark side of this shift in human restructuring is depicted in the shame and suffering Adam and Eve experienced in being expelled from Eden. In leaving the tribal and nomadic way of life for agricultural settlements, our ancestors came to know a deep sense of separation, shame, abandonment, scarcity, and judgment. That shadow spread with the expansion of the three great religions—Judaism, Christianity, and Islam. Humans inherited the guilt of original sin, being unworthy of God's love, living according to laws that determined right and wrong and good and bad for them. They spent their existence in exile from God, segregated from the earth's cycles, killing their own mother with the tools they fashioned from her resources.

Shaming Eve for her discovery, the Eden tale ushered in

thousands of years of unchecked patriarchy:

> To the woman He said,
> “I will greatly multiply
> Your pain in childbirth,
> In pain you will bring forth children;
> Yet your desire will be for your husband,
> And he will rule over you.” (Gen. 3:16)

Time now ran in a masculine, linear mode as warring, egocentric powers fought to expand their territories. Individuals fended for themselves, struggling in a separation consciousness, running away from their own fears and inadequacies, abandoned by their parental God-figure.

Looking at the immense ramifications of the fall from

Eden, I realized that my old political tactics would prove useless against the corrupt operating system that ran the civilized world. Einstein claimed that you can't solve a problem with the same thinking you used to create that problem. If humans are going to put a stop to the Sixth Great Extinction, we'll need a Galileo-type paradigm shift. When that seventeenth-century astronomer proved that the Earth revolved around the sun, he revolutionized not only the way that people looked at large objects in the sky, but also eventually every particle of our lives.

In early December, my roommates Wynn and Gabe hosted a convergence night for twenty affinity group leaders at my apartment. The activists were rethinking tactics after losing the election. Wearing thrift-store jeans and screen-printed T-shirts from the various organizations they represented, they ate vegan oatmeal cookies in a circle on the hardwood floor,

grumbling that the media were neglecting their events. Gabe scribbled everyone's ideas on dresser-sized notepads hanging off our living room wall. The activists had been reading George Lakoff's *Don't Think of an Elephant!*, which advocated framing messages in a way that reached across the political spectrum. Since that had been Greene Dragon's forte, a number of the participants asked me what I thought. They still called me Jonny America. "You can call me Jonathan," I said, feeling as if the moniker had become as obsolete as Betamax now that Bush had convincingly won an election.

Then I asked, "What if we pulled the stage back further, beyond Democrats and Republicans, all the way back to the Garden of Eden and the beginning of Western civilization? Do you think there's a way to reframe that story, which is a powerful creation myth, so that we aren't a culture in exile?"

Eyes around the room blinked without response. One of the

unshaven, Time's Up! bicycle advocates spoke up. "Jonny, are you turning religious on us?" he asked. Being spiritual in these circles was worse than turning Republican. I hunched my shoulders until the meeting was over. Afterward, my roommate Gabe opened my door to see if I was okay. I told him that the world was too messed up for politics to fix—that I was looking for a paradigm shift—but not being a visionary scientist or philosopher, I had no idea where to look.

"Maybe you'll be like my Rolfing clients," he offered. "When they realize they're not just meat-bodies, but vibrating energy beings, it changes their worldview from Newtonian to quantum."

I wasn't sure what he meant by "quantum," and as a practicing rationalist, I wasn't ready to make any giant leaps into dogma or unexplained phenomena. Still, there was an intuitive part of me that believed the story of Eden possessed

answers beyond the reach of my hard-edged intellect. So I researched strange web portals, mythic corners, and historical alleyways over the next couple of months, but whatever I was looking for always seemed around some unreachable corner. I was chasing rainbows. The more I walked toward my destination, the further it drifted away from me.

3

A GALILEO-TYPE PARADIGM SHIFT

"YOU'VE BEEN WORRYING ABOUT POLITICS and paradigm shifts for weeks," my new girlfriend Jade said over the phone. "It's Valentine's Day, and almost your thirtieth birthday. Tonight, you're going to take some MDMA with your lady and get your butt on the dance floor," she giggled at her own orders.

Jade lived in a brownstone a few blocks from me at Bedford Avenue and North 7th Street, Williamsburg's hipster version of Haight-Ashbury. Having keys, I walked in to find

Jade jumping on her mattress in heels, singing Bon Jovi's "Livin' on a Prayer" into an S-and-M whip that doubled as a microphone. She kicked out a leg, swung her pelvis into my shoulder, and held the whip to my lips for the chorus, "We're halfway there!" For the past few months, I had unsuccessfully educated her on the underground rock legends in her own backyard—The Ramones, Television, Velvet Underground, Patti Smith.

Born and raised in Plainview, Long Island, Jade was the first girl I dated who sang Bon Jovi without irony. She came from a professional, northeastern Jewish background with accountant parents, doctors for siblings, and lawyers throughout the extended family. Jade had flourished as a TV and radio producer, but she abandoned that career to follow her dream of becoming, as she explained in her blog, a "sex educator, porn-maker, masturbation advocate, and feminist

who feels we all have the right to express ourselves the way we move ourselves." Jade wrote a sex-advice column for a mainstream glossy magazine and fitted men and women with cordless vibrators, silicon lubes, and mechanical spanking devices at her part-time job at Toys in Babeland on the Lower East Side. She also wrote a dating column for a New Jersey weekly that featured her new romantic exploits with "the cowboy"—me.

Like me, Jade had a flair for media. She understood how to message sexual liberation in a fun, non-threatening way. She hosted erotic educational videos for partners, dressing in the bright colors of the Power Puff girls—pink, baby blue, and lime green—while dropping cute double-entendres throughout the shoots. Unlike me, she had found a way to make a living doing what she loved—but I'm sure sex has *always* paid better than activism.

The thing we had most in common was Burning Man, which explained our outfits. Jade wore black slim pants, a silver metallic half top, and super-hero gold band around her waist—“The Short Jewish Wonder Woman,” she explained while dappling silver glitter around her eyes. With long black curls falling down her neck, she had the semblance of the Amazon heroine.

I was wearing black pants and a red faux-fur vest, along with my usual cowboy boots with silver flames on the top. My Australian cowboy hat sat on my head, although I rarely wore it anymore after receiving too many “Yippee ki yays!” from African American teenagers in the subway. They just didn’t understand the alt-cowboy look. Of course, the costuming and outfitting had a way of getting out of hand in the Burner scene, with partiers constantly out-dazzling each other.

“Rena’s one of my best friends,” Jade said, grabbing her keys. “We were roommates for years, but she never goes out. That’s why you haven’t met her yet. She hates people.” We walked out the door and down the stoop, to the taxi honking for us. A middle-aged woman—ten years older than Jade and me—with an Irish-red ponytail and Celtic ruby skin opened the door. “I think she might help you with your paradigm shift,” Jade whispered before we got in.

Jade introduced us. Rena kept her arms folded and didn’t shake my hand. She had a wooden posture and lean biceps, and if not for the white dress she was wearing, you might mistake her for a man. She kept her glance out the window while Jade pieced together a conversation. Jade had mentioned that Rena never left the ten-block radius of her Madison Square Park apartment, so this Brooklyn adventure may have been too much for her.

The taxi arrived at a warehouse space in the slowly gentrifying neighborhood of Prospect Heights. A sign on the graffitied door welcomed us to “The BassNympho’s Ball: A Radical Subsonic Romp of Orgiastic Plenty,” celebrating the New York return of Bassnectar, one of my favorite Burning Man DJs. We walked upstairs to the second floor where people were dancing in their best Conan the Barbarian chic—buckled leather pants and metal arm bracelets for the men, post-apocalyptic belly-dancing garb for the ladies.

Jade, Rena, and I converged in a far corner and clicked our Pac Man–etched MDMA pills in a toast. I had tried ecstasy a couple of times before at raves in Prague, but the clammy cement lots, alienating techno, and stiff Slavic dance moves made for long, isolating nights. I hoped for a much cozier experience for this birthday celebration.

“One last hurrah for your twenties!” Jade swallowed her

pill, smiling at me with her mouse eyes—not like the eyes of real mice, but the wide, mischievous ones you find in cartoons.

"Happy Valentine's Day," I said, giving her a kiss.

Jade wanted to show Rena around the space. I hit the dance floor with the agreement that we would meet up later. I watched Jade—an ace at icebreakers—intentionally bump into strangers on the sidelines, elbowing a reluctant Rena to join the conversations, occasionally hunkering over in a belly laugh or a snort. I usually needed my Jonny America persona to display Jade's kind of courage. Part of me still felt frozen from enduring years of my mother's verbal attacks as a child (although she hadn't yelled at me in years), and Jade's constant slapstick humor shed light on how serious I could be.

I tried not to think about it too much that night.

Bassnectar's down-and-dirty industrial pulse pierced through my chest. DJ Lorin, the mastermind behind the project, bopped his head in the DJ booth. He was wearing a blood-red shirt with a print of Guevara, Hendrix, or Dylan—I couldn't tell which, because his waist-long black hair obscured the details. He wore dark eyeliner, something I always appreciated in a slightly androgynous guy who could pull it off well. Moving with the electronic blasts, I danced away my concerns of the previous few months. All the thoughts and worry about the Sixth Great Extinction slipped out of my pores. I was back in my body, dissolving in the moment, feeling a euphoric connection with everyone on the dance floor. From the blissed-out faces and long arm caresses around me, I assumed others had indulged in MDMA as well.

While dancing, I found myself wondering what my first girlfriend—who had christened the backseat of my Datsun

310 with me—was up to these days. As I entertained the thought, a tall woman with dark hair similar to hers grabbed my wrist. “You look just like my first boyfriend,” she said. She was six-feet two and, as I top out just under five-feet nine, I joked that kissing must have been a challenge.

When she left, I watched a man wearing pink silk pants, furry white wings, and a jester’s hat hula-hooping on stage. I had seen him at a number of warehouse parties, but I regretted being too timid to introduce myself, as he seemed to be fun. (How many guys wear wings?) At that moment, he leaped off stage toward me. “Jonny America, we love what you’re doing in the media. You’re representing the rest of us!” Taken aback, I didn’t tell him the General now lay folded up amid mothball packets in my closet.

After that, I wished Jade would come find me. That’s when I felt someone dry humping the back of my leg. “Well, hello,

Mr. America." Jade reached around and spun me toward her. She was smiling, her teeth glowing green under the black lights. The ecstasy had kicked in for both of us. We kissed longer than usual, feeling the vibration of the bass in our spines.

Perhaps it was just the MDMA, but my heart felt as if it grew bigger against Jade, so much so that I whispered, "I love you."

It was the first time I had told her those words. She pushed me back and examined my eyes. Her brow furrowed, forming wide wrinkles that made her look old. "Are you in love with me?" she asked.

Although a mysterious chemistry drew us together at the art party where we first met, we never did have a honeymoon phase, at least I didn't. Jade was fun, creative, savvy, and sharp, and when she dressed like Wonder Woman

or in a Burning-Man goddess outfit, I couldn't hold myself off her. But she had weight concerns and when she plodded around in baggy corduroys, complaining about all the mashed potatoes she had eaten for lunch, my interest waned, making me feel shallow and guilty. Also, she had a "Rottweiler temper," as she herself called it. After growing up with my mother, I had sworn that I would stay away from women like that, at least on a long-term basis.

I gave her a hug, resting my chin on her shoulder. "I love you," I said again.

"Come on," Jade grabbed my hand. "Let's find Rena."

We walked down to the first floor and discovered Rena lounging in the chill room. She had undone her ponytail, and her red hair flowed onto the velvet pillows next to her. Rena looked feminine, relaxed, and carefree. In the taxi, her presence had been so intimidating that I didn't realize how

tiny she actually was. She looked like an Irish fairy.

"What happened to you?" I asked.

"I let my guard down," Rena said.

A canopy of red lace draped down from the ceiling, and people were massaging each other in cuddle puddles on the pillows scattered around the room. Jade and I squeezed in next to Rena.

"Rena can see auras." Jade said, stroking Rena's forearm, which hosted a tattoo of an old cottonwood tree with long gray roots.

I found this amusing. I used to make fun of new-age freaks who believed in invisible glowy things. "Okay, if you can see auras, what do ours look like?"

At first, Rena frowned at my request, but then she focused her eyes several inches above me, squinting. "A bluish-green," she said. "Both of you. You're a nice match. Your

energies even sound the same, something like Harrrrrrrrrrruuuummmmmm.”

“We sound like refrigerators.” Jade clapped her hands, laughing.

“Well, it is electricity,” Rena explained. “That’s what makes the auras illuminate. In fact, everyone in this room, and every object in the universe, is high-voltage spiritual electricity—or energy, you might say.”

I lay down in Jade’s lap, unsure what to think. Rena had such a scientific tone that it discharged some of my hippie associations with the word *aura*. Her perspective seemed more about seeing energy, a physical phenomenon, rather than imagining some luminous phantasm. Rena put her hands on my shoulders; her palms were hot as steam irons. My breath drew deeper, and I noticed the feeling of tiny molecules, millions of them, going in my nose, down my

throat, into my lungs and abdomen, and then back out again. To my surprise, the “spiritual electricity” that Rena had talked about pulsated through me, flowing in and out of my body. Jade held her hand to my mouth as I took longer inhalations to pump energy through my legs, arms, and chest. The energy felt strange and invigorating, but somehow familiar too, and I breathed again and again until Rena told me not to overdo it.

We stayed in the chill space until 4 a.m., when Rena said she needed to go home. The cab dropped Jade and me off at my apartment. While I was in the bathroom, I let out another yoga-type exhale. A puff of steam blew out of my mouth. I huffed a couple of times to see if the bathroom was cold enough to freeze my breath, but the heater hissed in the corner. I went back to the bedroom, shaking my head, almost scared of what this meant.

“Jade, when I was in the bathroom, steam came out of my mouth. It’s not even cold in there.”

“Of course. You did that the whole time we were in the chill room. Why do you think I kept putting my hand in front of your mouth? It felt good.”

“And you didn’t say anything?”

“What’s the big deal? It can’t hurt you, silly. It’s just steam.”

Jade slapped my butt as she walked toward the bathroom. I climbed into bed and starred at the shadows stretching across the ceiling, thinking of all the coincidences that had occurred that night. Suddenly I felt an invisible presence appear near the bed. I was still high from the MDMA, and thought I was imagining it. I closed my eyes, but the presence floated over my body like a ghost. Soft, warm energy began pouring onto my skin, sinking into my chest, whirling golden

energy through my torso. The presence said only one word, a word so disconcerting that I immediately sat up and threw off the covers, frightening away the apparition.

When Jade came back to bed, she noticed something strange. “My arm looks hairy, like I’ve grown bear fur,” she snorted.

Looking closer, I saw the hairs on her arm jumping around in fast-forward motion, making the strands appear much greater in number, as if she had fur. Then I saw a two-foot orb of blue-green light undulating around her head. It looked like foggy electricity and buzzed quietly, almost like a refrigerator.

“This is it, Jade. We’re seeing auras, like Rena.”

“Do you think I’ll look hairy in the morning?”

“Maybe it will wear off with the MDMA. But we’re both seeing this, right? We can’t both be crazy?”

“If you say so,” Jade gave a small yawn and turned over to sleep.

An incandescent white glow silhouetted the nightstand, the armoire, and the desk. Stumbling out of bed, I walked over to the long narrow mirror on the back of the door. A shimmering blue-green circle, two feet in diameter, enveloped my head while a fainter gray illuminated my arms two or three inches out. The whole energy field pulsed like electricity. I stood there frozen, as if I were seeing myself for the first time—a creature much different than I had previously imagined. That’s when I remembered the troubling word the presence had spoken to me.

“Alien.”

4

BEDTIME FOR GNOMES

"Baker, Bender, Belle … Can I help you?" I had fumbled this tongue twister over a hundred times answering the phone that Monday morning, wondering if the three elderly partners had founded their architectural firm solely because of alliteration. Dressed in soul draining, temp-worker khaki pants, a white button-up shirt, and a dark blue striped tie, I manned the front desk of the Union Square office, serving the reception needs of two hundred overworked employees.

I had spent the last two weeks here, thinking I was doomed

to tread my father's path. Family members fought to be on his Trivial Pursuit team during reunions, knowing they would win. But somehow my father's intelligence didn't translate in the job market, and he struggled to find work he enjoyed, often traveling far to do low-paying accounting jobs or drive a taxi in Denver. Over the summer, I had worked at a West Village restaurant when I heard one of the customers—a woman in a Greenpeace T-shirt, whom I didn't know—whisper across the table, "Why is Jonny America busing tables?" That seemed to be the central question of my existence.

But today was different. Everything was different. Although the colors had faded, I could still see luminescent energy fields undulating around the architects as they picked up long FedEx rolls from my desk. The auras shone strongest around the head, pulsating like a mild, circle-shaped

electrical storm, but they also tapered lightly down the body in a glowing cloak of undulating white light.

Apparently, my new ability was not a one-night druggie side effect, but rather a permanent mutant state. The mixing and merging energy fields of the staff distracted me throughout the afternoon. I neglected stocking the kitchen, forgot to make copies for accounts receivable, and knocked over the Nespresso machine in front of the partners in the conference room. My mind was also distracted by the word *alien* throughout the day. It could mean anything strange or foreign, I told myself, although I feared that was not what it meant. At 5:45, I received a call from Marty, my overly perky temp recruiter. “Baker, Bender, Belle called today. They won’t need your services anymore. I’m sure we’ll find you something else.”

I walked to the bathroom, changed into my civilian clothes

—brown fuzzy jacket, jeans, and silver-flamed cowboy boots—then wandered around the crooked elm trees of Tompkins Square Park, which was still a refuge for the romantically unemployed. I sat on a bench, my stomach seizing in another panic attack, as I worried about next month's rent.

What good was seeing Rena's spiritual energy? All it did was get me fired. And how would I explain this to my friends—or even worse, my parents? I hadn't trekked to some Indian ashram where an enlightened guru opened my third eye. No, I took a pill at a party. Then again, wasn't that the most ancient method of initiation—getting people dancing and singing around a fire (or strobe lights if in a Brooklyn warehouse party)? Whether it was bleary-eyed Bacchus-worshipers reveling with wine or Native Americans chanting over peyote in smoky teepees, many cultures utilized mind-altering sacraments to bring about shifts in consciousness.

While walking by a construction site near the housing projects on Avenue D, I noticed a poster of Jesus plastered across the wood fencing. Dressed in clean white linens and dusty brown sandals, he was your typical Jesus with long hippy hair and a feminine hand reaching out to the needy. Below his feet, Spanish words invited me to get to know him better at a local church. But my eyes drew in on the bright golden oval around his head and the shimmering lights silhouetting his body. Could Christians be right? Did halos really exist?

Looking at the poster, I felt as if mystics and artists in the Christian lineage had surreptitiously passed down this information, right under the noses of violent and dogmatic oligarchs, to assist people having experiences like mine. It's as if they were saying, "You're not crazy. Follow the bread-crumb trail, and you'll find the secrets you're looking for."

That night, I met Jade at Rena's for dinner. Rena lived in a tiny, fifth-floor, high-rise apartment near Madison Square Park. Three quirky cats—a twenty-year-old calico, a psychotic Siamese, and a human-shy polydactyl with opposable thumbs—ruled the place. Rena sat cross-legged on a pillow in the middle of the room watching them claw and bite each other. She preferred animals to people, she said, because animals don't talk. She had forbidden Jade to play with the cats, since she squeezed them too hard.

Rena wore a straw hat with Native American feathers pinned to the front, a Metallica T-shirt, and a pair of faded Levis. In the doorway to her bedroom hung the pinstriped-suit skirt she had worn to the construction firm where she was office manager. She had once dated the company's president, who had covered the down payment for her small, but prime-location apartment. Rena had her ways.

A collection of spiky purple- and rose-colored crystals cluttered the wooden shelves and entertainment unit of her narrow living room. Rena handed me an orange polished stone the size of a quarter.

“It’s a carnelian crystal,” she explained. “Put it on your second chakra. Your energy is off there. I think you already know that.” She pointed at my abdomen where the black bowling ball rolled in during panic attacks. “This will help integrate the two Jonnies you’re holding.”

“Two Jonnies?” Jade asked, already squeezing the Siamese, who meowed and tried to escape.

“Jonny America and the melancholy boy,” Rena explained.

Rena cooked white-trash casserole—Tater Tots, canned green beans, and cream of mushroom soup with lots of salt. “I love unhealthy, heavy food,” she said. “Just like my cats.” We ate dinner on Epcot TV trays—both Jade and Rena loved

anything Disney. Jade put on Rena's black Mickey Mouse ears for amusement while we ate.

I asked Rena how she had come to New York. She told us about riding ponies around the commune she grew up in outside San Francisco, but then leaving home at sixteen to travel the Pacific Coast Highway with her boyfriend at the time. She waited tables and did odd jobs for gas money, eventually making it to LA, where she managed a recording studio that catered to hair metal acts like Poison, Guns n' Roses, and Iron Maiden. She became addicted to coke with her boyfriend, and eventually escaped to New York to live a normal life as an office manager.

"Wow, Ren, you never talk about this stuff!" Jade squeezed the gray cottonwood tattoo on Rena's arm.

"Why did you leave home at sixteen?" I asked.

Rena narrowed her green Irish eyes in a glare that told me

I was never to mention this again.

“There was a tragedy,” she said.

The clinking silverware exaggerated the silence in the room. Jade changed the subject, asking Rena how her lunchtime spin class was going. After conversations about gym schedules, the Food Network, and Kevin Federline’s breakup with Britney Spears, I asked Rena how one could permanently see the colors of auras, noting that they had mostly faded for me since that night on MDMA.

“I don’t talk about that stuff,” she said coldly.

Jade and I walked to the L train after dinner, finding a seat in the corner. She had trouble bending down in her long puffy green coat, which I unkindly called the “sleeping bag,” as I found it unflattering.

“Why did you ask her that question?” Jade shouted when the train pulled out. “And about the auras? Rena doesn’t

want to talk about any of that. She just wants to be a regular person like everyone else!”

“It’s not like I knew that!” I yelled back, receiving frowns from the straphangers in the aisle.

This was our pattern. Jade would explode over something I thought insignificant, and being *delicado*, I would argue that she treated me unfairly. It mimicked the dynamic I had with my mother.

Jade and I took a breath. I stroked her cheek and kissed her forehead, “Sorry about that.” The wrinkles in her brow relaxed, and Jade went on to explain how Rena’s parents hadn’t known what to do with a kid who referred to house guests as the “blue” or the “red” people, depending on the color of their auras. Rena learned to conceal her talents to avoid ridicule from family, colleagues, and friends. Jade was one of the few people in her life who knew about her gift.

“And what about the tragedy?” I asked.

“Jonny,” she shook her head. “I have no idea.”

Upon returning to my apartment, I asked Jade if she wanted to see what we could do with the energy. It had been a couple of days since the party, and we had yet to discuss what had happened. We closed the curtains to my bedroom and cupped our fingers together to create balls of warm light in our hands. We made the balls larger or smaller simply by shifting our intention. Putting our fingertips together, we observed bluish trails linger in the air as we pulled away. The effect made it look as if we had long, luminous fingers, and Jade snickered that we would call this trick the “Wolverine.”

We took off our clothes and glided our hands an inch above the other’s body, watching our skin dissolve into moving waves and buzzing particles. As we brought our hands to each other’s face, the energy hurried into a frenetic

Jackson Pollock–like mosaic of zigzagging molecules. We looked ancient in that moment, like magical light beings beyond the limits of time, playing with the Etch-A-Sketch of the material plane—energy and spastic particles. I kept my focus on Jade, building heat in my hands until I saw that it wasn't skin or bones that held her together, but a vast invisible consciousness. I had read before that our world is composed of 99.99 percent space, but it's one thing to read something like that in *National Geographic* and something else to encounter in bed with your girlfriend.

"Do you see all this—the space, the buzzing particles? It's too incredible!"

"You look like an old gnome with all those moving wrinkles on your face," Jade's cartoon-mouse eyes widened with a giggle. She still had specks of pink glitter dotting her cheeks from the day.

“Don’t you know the implications of this?” I said. “The universe is completely different than we thought!”

“I think you’re making a big deal out of nothing,” she said. “It’s just energy.”

Jade set the alarm clock on the nightstand and then shuffled under the covers. I realized I still hadn’t told her about losing my job. When I gave her a forehead kiss, she giggled at my particalized face. “Goodnight, my sweet gnome,” she laughed. “Goodnight.”

5

CLIMBING THE TREE OF LIFE

NEWLY UNEMPLOYED, I HAD TIME to research Rena's spiritual energy and how it related to the Jesus poster I had seen in Alphabet City. I raided Gabe's bookshelf while he was at his clinic, pushing aside the Rolfing, Reiki energy, and quantum healing guides, with their new-age indigo covers of lotus flowers and multicolored mandalas, to explore more tempered books by Columbia University theoretical physicist Brian Greene. In *The Fabric of the Cosmos: Space, Time, and the Texture of Reality* and *The Elegant Universe: Superstrings,*

Hidden Dimensions, and the Quest for the Ultimate Theory, the charming Rhodes Scholar argued that tiny vibrating strings of energy were the basis of all matter and physical manifestations in the universe. Trees, dogs, and office furniture oscillate at different frequencies, giving each its unique bodily form.

According to string theory, every being in existence is its own musical instrument, playing varying notes and octaves in an interconnected, energetic symphony. The physics for this phenomenon require at least ten or eleven dimensions in the cosmos, most of which we've never seen. As convoluted as this sounded, my skeptical mind found some comfort in discovering a scientific explanation for what I was now seeing.

Researching across the web, I discovered that numerous cultures and religions had perceived this all-encompassing

energy long before string theory's complex equations were formulated. In the *Rig Veda*, the earliest Hindu text (written about 1500 BC), *prana* is revered as the vital life force or "breath" that sustains the cosmos. The ancient practices of *tai chi*, *qigong*, *kung fu*, and other martial arts were developed to harness and move *chi* ("energy flow," "vapor," or "air") for one's well-being and advantage. Polynesians called this mysterious energy *mana;* Egyptians, *ka;* the Aborigines of Australia, *miwi;* and the Hebrews, *ruah*, meaning "breath of life." To my surprise, I found that initiates in the early Christian mystery schools (scholars now label many of these as "Gnostic") spoke of the Greek term *pneuma*, meaning "breath," "wind," or "spirit." Members called the higher initiates "pneumatics," as they were full of this spiritual energy. Although I had never encountered anything close to these experiences at Methodist Sunday school, I considered

the possibility that these early mystics had developed their own psycho-spiritual technologies to access the underlying power of the universe that string theory now postulated.

In the Christian tradition, the study of the Holy Spirit, called pneumatology, examines the phenomena of this omnipresent, vivifying power. In the Gospel of John, Jesus delivers the Holy Spirit to his disciples after his resurrection: “And at this he breathed over them and says, “Here’s some holy spirit. Take it. If you forgive anyone their sins, they are forgiven; if you do not release them from their sins, the are not released.” (20:22–23) In this scene, we witness a spiritual master transmitting higher frequencies to his initiates, through which they receive the power to forgive, heal, and release others from the energetic bonds of karma. Throughout the gospels, we find Jesus healing with his hands, in a manner similar to Gabe’s Reiki energy books,

harnessing pneuma to cure illness and disease. Mark 5:25–30 recounts a healing in which Jesus does not even use his hands. A woman who “had suffered for twelve years with constant bleeding” comes up behind Jesus in a crowd and touches his robe, causing “the healing power to [go] out from him” and immediately stopping her bleeding.[2]

The Christian rite of baptism likely involved pneumatic transmission. The word initiates used for water during baptism is translated as “moving water,” as in a river or stream, which was a common metaphor to describe currents of energy. Jesus baptizes with “holy spirit and fire,” indicating spiritual energy. Numerous paintings of his baptism depict a shimmering light descending into his scalp, filling him with divine power. In the once lost Gospel of Thomas, one of the Gnostic gospels, Jesus tells the eponymous disciple that he is no longer a student but an

equal, “Because you have become intoxicated by the bubbling spring that I have tended.” (Verse 13) Thomas may have reached this enlightened state by “drinking” (receiving) the higher vibrations of Jesus, similar to how my consciousness lifted when soaking up Rena’s “electric” frequencies.

According to yogic philosophy, a person absorbs and processes *prana* through seven primary psychic centers called *chakras* (Sanskrit for “wheels” or “disks”) that receive, assimilate, and transmit energy throughout the auric field. The chakras are aligned from the crown of the head down the spine to the perineum, each pulling in life-sustaining power through a spiral or vortex motion. The individual chakras vibrate at specific frequencies and correspond to different levels of human consciousness, developmental stages of life, colors, elements, sounds, psychological aspects, and bodily

functions. Our thought and belief systems affect how the chakras function and the types of energies they can receive.

Early Christians seemed to know about these seven sacred centers in the holy temple of the body. They talked of seventh heaven, seven sacraments, seven seals, seven virtues, and seven deadly sins (when our energy centers are out of balance, our shadow side arises). In a letter by Clement of Alexandria discussing the Secret Gospel of Mark, the second-century church leader revealed that "the innermost sanctuary of truth" is "hidden by seven veils,"[3] which may signify the seven chakras and how they lock us into worldly illusion, spinning the wheels of *samsara*, the cycle of rebirth and suffering.

One of the more obvious Christian references to the seven psychic centers comes from the book of Revelation: "As for the mystery of the seven stars which you saw in My right

hand, and the seven golden lampstands: the seven stars are the angels of the seven churches, and the seven lampstands are the seven churches." (1:20) In alchemical literature and paintings, writers and artists feature lights and lamps in the same positions as the chakras on the body. This description of the seven lampstands during the apocalypse (a word meaning "revealing") suggests the incredible transformative potential of these seven sacred centers.

The chakras power the human energy field. Apparently each individual psychic center relates to a different layer of the aura, creating the spectrum of colors that Jade and I had seen on MDMA.

Across the centuries, painters depicted images of the Buddha, Shiva, Shakti, Krishna, Jesus, and Mother Mary with these shimmering globes enveloping their heads and lights surrounding their bodies. In the Christian text The Hymn of

the Pearl, which is part of the Acts of Thomas, the protagonist returns to his "Father's kingdom," clothed in a "robe with glorious colors" and a "toga of brilliant hues."[4] Similarly, in the Old Testament, Joseph, who was known for his clairvoyance, wore a "coat of many colors."

A complex network of branching pathways, called meridians (*nadis* in Sanskrit), enables energy to flow throughout the human body. Shaped in a circuit-board pattern, these channels pass pranic pulses of data to the chakra disk drives, which process and spin the energy out to the rest of the system. I could see why Rena called pneuma "spiritual electricity." But this energy doesn't charge clunky refrigerators; it powers the intricate motherboard of the human form. Today NYU scientists measure human electromagnetic fields invisible to the human eye with SQUIDS, superconducting quantum interference devices.

Yogis call the human energy system the “Tree of Life,” with the upper meridians reaching like branches to the sky, the lower ones toward the earth. The mystics of the Far East used the same symbolism that appears in the story of the Garden of Eden in the West. As I scrolled down web page after web page, I came to realize an astounding possibility: that the tree I was looking for doesn’t lie dormant in musty texts, but flows with energy within each of us.

The Tree of Life appeared in numerous societies across the globe. The Assyrians revered a tree formed by lines crossing a series of nodes, mimicking the body’s complicated electrical system. Armenians carved it on their warriors’ armor, dividing the branches equally on the right and left sides as a representation of balance. The Kabbalah’s Tree of Life has an arrangement of ten (sometimes eleven) psychic spheres, called Sephirot, which when envisioned on the human body

closely resembles the yogic chakra model. The alchemists of the Renaissance depicted Trees of Life with seven spheres, stars, suns, flowers, and other mystical icons, looking like the chakras along the spine. And it was under the Bodhi tree that the Buddha first awakened to his own enlightened nature.

Even the modern day Christmas tree can be understood as a representation of the Tree of Life. Its origins stretch back to the classic Syrians and Greeks who decorated evergreens in honor of the crucified god Attis. In the heart of winter, the evergreen, with its needles still full and lush, symbolizes rebirth and immortality. The Romans adopted and updated this tradition with their winter Saturnalia, which the Christians later adopted and renamed Christmas.

In Acts 5:30,10:39, and 13:29, the Romans hang Jesus on a tree (the Greek word *xylon*), not a cross. In his book *The Power of Myth*, Joseph Campbell explains, “The Garden is the

place of unity, of nonduality of male and female, good and evil, God and human beings.… Jesus on the cross is on a tree, the tree of immortal life, and he is the fruit of the tree."[5] According to Campbell, the cross represents the Tree of Life in the original garden and the crucifixion redeems us from the "original sin" of Adam and Eve's separation from God and nature. Jesus transcends the illusion of duality by balancing cosmic polarities within his energy body to reconnect with the Oneness of the universe. He has mastered the various pneumatic forces and electric pulses of human existence, bringing divinity into man, and merging heaven and earth.

In many traditions, the Tree of Life expanded out beyond individuals to encompass the universe. The Scandinavians believed in Yggdrasil, a massive World Tree of Life that connected our "middle earth" with the underworld and the heavens. World-bridging trees were prevalent across

Mesoamerican societies, including among the Izapans, the Olmecs, and the Aztecs. The Mayans worshiped the ceiba tree, which served as a multilevel symbol for the central axis of Mother Earth, as well as the glowing band of our Milky Way.

Reading about the World Tree of Life, I thought about how the nerves and veins in my own body match the branching fractal patterns in the veins of leaves, the limbs of trees, and the river networks across the five continents. The Earth has her own electromagnetic system with a complex grid of large-scale energy channels called “ley lines” throughout her planetary circuitry. A luminous aura stretches across the sky with the colorful flashes of the aurora borealis up north and the aurora australis down under. The magnetic North Pole serves as her crown chakra and the South Pole as her root, which processes universal energy, nurturing life across her

blue and green surface.

Maybe we are no different from the rest of the globe—or the entire cosmos—living in the branches of an energetic web spanning the space–time continuum. As with the mythical Adam and Eve, we humans might be able to access the power of a divine tree to usher in a new era on our planet. But this time around, the wisdom will not be about separation and self-awareness, but rather life, rebirth, and connectedness within our universal family tree.

6

THE PHILLIPS LEGACY

My earliest memories of Jesus are from a small Methodist church in the Rockies thirty miles west of Denver. My mother would spit on tissues and rub our faces clean as my older brother, younger sister, and I crawled into the glossy wooden pews. We hated church and sloppily threw on our Sunday best—matching navy-blue suits and clip-on ties for my brother and I and an angelic white dress for my sister. My mother had picked out all our clothes, hoping we would represent the Phillips household properly.

She spent an hour each morning Aquanetting her frosted hair into an old lady's afro—although she was only in her late thirties—repainting her cherry-red Lee press-on nails, and rearranging the multiple fake-gold rings on her fingers so they would hide the skin underneath that was turning green. Even with these artificial flourishes, she was a natural beauty, boasting model-worthy cheekbones and an attractively young face. Her skin was incredibly smooth, almost glowing, and she turned heads every time she sashayed her petite frame across a room in high heels. Fashion-conscious but also somewhat poor, my mother had filled every closet in the house with her thrift-store clothes so she wouldn't repeat outfits during the school year (she was a middle-school history teacher). Each of us kids had to sacrifice half our closet for her second-hand skirts, shawls, and blouses. As far as I know, she never wore the same dress

twice to church.

Throughout the service, sleepy organ music conducted us to rise and sit and rise again. A true Method-ist, our silver-haired minister stuck to the regimented program, his jowls undulating above a threadbare gray suit (salaries must have been low), as he droned on about long-dead characters I didn't care about. At 8,500 feet in altitude, the winters in the steep foothills dragged on. My siblings and I shivered in the pews and dreamed of putting on our ski clothes and sledding down the mountains around Elk Meadow outside the stained glass windows. Church was like homework—something we endured to keep our mom happy. Afterward, she rewarded (or bribed) us with Dairy Queen Blizzards that moved my soul more than any liturgy ever did.

When I was ten, a Houston family, the Lawsons, moved to Old Squaw Pass, our evergreen-covered mountain

neighborhood on the outskirts of Clear Creek County. With them came a new faith. Consisting of two grandparents and an anxious nine-year-old grandson, Matt, who was my age, the family had fled Texas, abandoning Matt's mother, who had recently been indicted for heroin possession. Frail but severe, the seventy-year-old grandpa ordered Matt to carry out an impossible number of chores, often bringing out "the belt" when Matt didn't complete them on time. Matt called his grandpa "sir."

His grandpa would take away our black Atari 2600 joysticks and force us to watch evangelical videos about the impending Rapture. The videos showed more gore than the slasher movies my mother forbade me to watch. They featured grotesque intercontinental wars and plagues, the moon turning into hot blood, and an Anti-Christ bogeyman torturing and beheading innocent Christians. In the end, God

and Jesus executed a global bloodbath, sending most of humanity into a screaming fire. After the final credits rolled up, his grandpa would shout at me, “Do you repent, Jon, for all your sins?” Scared, I would tell him, “Yes, I repent,” though I didn’t know what that exactly meant.

The violent images of the Rapture replayed in my dreams. Jesus stood on a mountain of broken, tortured bodies, victoriously holding a sword above his head while surveying the bombed gray landscape around him. Every morning I woke up fearing the coming slaughter of the Tribulation. Then after months of nightmares, I knew I had to make a choice: I could either fret about the apocalypse or enjoy being young and living in the mountains. I stopped going to the Lawsons’ house.

For the kids who were my age on Old Squaw Pass, I became the leader, instigating daring escapades of trash-can

golf, flashlight night-sledding, stick wars, trespassing hikes, capture the flag, tree whip-flash, butt-boarding, tire tag, Rambo in the dark, trampoline toss, mountainside rock rolling, roof-hopping at the nearby ghost town, and stringing cans to stop cars in the road. These stunts exhilarated me, and I plotted more and more of them. Summer proved the best time of year, with the good weather and longer days allowing for more adventures. But my mood would darken when the mosquitoes came out in the evening and the fluorescent green street lamp clicked on at our bus-stop hangout.

Then I would walk up the mountainside, past the small herd of elk coming out of their hiding spots after dusk, past the eleven muscle cars in our driveway—only two or three of which ever worked (the rest were used for parts)—to the weathered two-story wooden house overlooking the lights of

Denver way down on the high plains. This place had once been fun, back when my dad served as head accountant at the US West phone company. We had money then, and we went snowshoeing at Steamboat Springs, took trips to the train at Cripple Creek, and panned for gold in the South Platte River.

But shady dealings went on in US West's accounting department, something my father never felt comfortable talking about afterward. He resigned from his job. Losing confidence, he didn't leave bed for nearly a year. "Stop lollygagging!" my mom yelled at him, understandably concerned about raising three children on a public schoolteacher's salary. When he finally started looking for work again, my dad found that the Reagan recession had nearly bankrupted the Centennial State and the only work he could get was as a part-time accountant at a hospital four

hours away in the smelly agricultural town of Sterling.

My dad had grown up a farm boy in Linn County, the poorest region of Missouri. His father, Phillips Senior, was known to be the biggest bastard in the county. A violent, imposing man, Senior battled his wife and four children until they all eventually left him. In one legendary exploit, he dumped rattlesnakes on his lawn so that townies wouldn't pay him surprise visits. When my dad met my mom at the age of thirteen, he had already decided to rescue her from the Show Me State. After completing MU's business school, he was drafted and served a two-year tour in Germany. Upon returning, he whisked my mom off to some of the best elk-hunting country in the West—Colorado.

Unfortunately for us, the turbulent childhood my dad had escaped was sometimes resurrected at home during his absence. The pressure of holding down a middle-school

teaching job, grading homework, doing all the errands, paying bills, and parenting three children proved too much for my mother. She generally had a boisterous, joking personality that would ingratiate entire crowds at parties with her loud, powerful laughter. But she found herself facing the hardships of a single mother while still being married, which couldn't have been easy. If we cleaned a dish sloppily or left the back door unlocked, her teeth would clench and a strange, cruel gaze would slip over her once-kind hazel eyes, making her almost unrecognizable to me. As if possessed by a shadowy entity, she would storm through the house, banging cabinets and shouting, "You children are worthless!" On the worst days, she would scream, "I wish you were never born!" not seeming to realize what she was saying. Eventually she would calm down over a simmering pot of beef stew or a chicken casserole, sobbing that she

loved us, but she couldn't always handle the burden of our circumstances.

Occasionally she threatened to divorce our father or abandon us if we didn't shape up. Once she did run away, after my brother and I shattered a downstairs window with a football. We nervously clung to the slats of the outside deck for hours until she finally strolled back with a shirt-full of chokecherries that she boiled into purple jelly. She sang nursery rhymes to us, stroking our hair, while we shoved pieces of jelly-soaked Wonder Bread into our mouths. In many ways, we appreciated these moments more than most kids did, knowing they wouldn't last.

My brother, who was nearly three years my senior, took on the responsibilities of our often-absent father. Resentful of having to be so accountable, my brother mirrored some of my mother's anger. While he was watching us one afternoon,

my sister and I refused to follow his orders to vacuum the living room, so he tied my sister and me up in sleeping bags and threw us down the stairs. My younger sister avoided the emotional storms that swept through the house by withdrawing into the cocoon of her imagination, talking to elf princesses, pink and orange Care Bears, and her best friend, “the Fairy Queen.” I hid in my basement bedroom, throwing my blue fleece blanket over my neck like a superhero’s cape, pretending to fly away from home. Sometimes I would fall on the ground in a pounding temper tantrum, as if possessed by my mother’s frustration. She scolded me for my “hissy fits,” so I learned to trap those emotions inside. That’s when the bowling-ball pain and panic attacks in my stomach began. As I grew older, I learned to channel my anger into humor, which I could safely lob over my mother’s head—at least that’s what I told myself. I felt

my mission was to bring laughter into this frightening world, although sometimes my jokes had a more biting tone than I liked to admit.

Unlike most of my peers, I loved school. It was always safe there. Coming from a home where much of what I did wasn't good enough, I soon learned that as long as I completed my homework and studied, teachers would treat me kindly and give me A's. Athletic, with an alpha-male attitude, my brother broke every rushing record in our school's football history, served as senior-class president, and earned the homecoming-king crown. As an admiring younger brother, I followed in his footsteps, becoming student-senate president, point guard on the basketball team, prom king, and part of the school's first cross-country state-championship team. I hoped that these achievements would convince my mother that I was worthy of her love. I still couldn't shake the

rumbling insecurities building inside my belly, and every few months searing panic attacks shot through my nervous system. When they came, I would pretend to have the flu so that I wouldn't have to leave my bedroom.

My mother taught her middle-school classes in the same building that our high school was in. While often criticizing us at home, she boasted publicly about her sons' achievements as if they were her own. Admittedly, I enjoyed hearing her speak proudly of me in front of other teachers, but I also wished she could have given the same type of praise and affection in private. It didn't take long for the Phillips clan to become an ideal for the school to live up to, the model American family. To my mother's chagrin, my sister tainted this illusion of perfection, earning low grades and smoking with grungy heavy-metal kids in the school parking lot.

On graduation day, I stood in front of five hundred people in our high school auditorium with my eighty-five classmates seated behind me in blue robes. I pretended to search my pockets anxiously for my lost valedictorian speech. My mother's cheeks fumed red in the front row as she gripped my brother's wrist. (As usual, my father was away working.) Then I snapped my fingers as though remembering that I had stored my notes in my flat-topped graduation hat. My mother laughed, elbowing the district superintendent sitting next to her, reminding the young professional in his designer suit what a clever boy she had raised.

I stuttered at the microphone, nervous, but also aware of how my educational process had been a sham. Here I was about to graduate with Clear Creek's highest honor, and yet I had no idea who I was or what I was doing. The system I had completed with such distinction had failed to mold me into a

young man with any confidence or future direction. Unsure where to go next, I had signed on to do what everyone else did—spend four more years in academia.

Although only ninety minutes from home, the University of Colorado at Boulder might as well have been on the other side of the country, considering how seldom I drove home. I needed to distance myself from my small mining town. Besides, I had an entire campus to explore with twenty-seven thousand students who knew nothing about the Phillips legacy at Clear Creek. My prankster came out in full force, engaging in the standard dorm antics. My greatest moment came when I happened upon the window of two baseball-capped friends in their dorm room. They jokingly bowed to green Christmas lights that they had strung into a marijuana-leaf shape on their wall. Stoned, they laughed and prayed to the "Great pot god." That's when I growled into their open

window, hiding just out of site, “THANK YOU, MY YOUNG DISCIPLES. YOU HAVE SERVED ME WELL, AND I AM PROUD!” For the next four years, they thought God had spoken to them while they were high.

During the first day of my freshmen human geography course, among the four hundred students in the tiered lecture hall, I happened to sit next to a shy but sexy black-haired, black-skirted goth girl named Amanda. I helped her study for the tests, and after she received her first B+, she gave me a kiss. Thanks to my mother, I had been terrified of girls. Over the next two semesters, Amanda gently helped me feel safe enough to explore sex in the ripped backseat of my 1984 Datsun 310.

Then I found my second love—literature and creative writing. The straight-talking adventurers of Hemingway, Kerouac, Bukowski, Ginsberg, Nin, Miller, and the

underappreciated Colorado author John Fante seduced me with wild tales of the literary underground. Unlike my Methodist minister or fundamentalist neighbors, these guys crashed through the guardrails of the mundane in pursuit of the transcendent. For me, books were better than religion, and I read them avariciously.

Not wanting to be like my father, who had been with only one woman his entire life, I broke up with Amanda after graduation. I followed my literary role models into the urban underbelly, setting off for the red warehouses and crumbling Victorian buildings of downtown Denver. For ninety dollars a month, a high school friend, who had gained notoriety as a washtub bass player in one of the city's only jug bands, let me sleep on his couch in a carriage house off Grant Street. Broke and lonely, we listened to Bob Dylan and Tom Waits late at night with a sense of romantic urgency. We drank

three-dollar Rolling Rocks while discussing the Beats at their former haunt, My Brother's Bar, along the South Platte River. In the hallway to the bathroom, the staff had pinned up a letter sent by Neal Cassady asking his friend Justin to pay his bar tab.

I found a job as a barista at St. Mark's Coffee House, the hippest and dirtiest café near Larimer Square. Slinging espresso there had the same cred as being in a band. I rarely paid for drinks at bars and got invited to clandestine art parties, where disheveled hipsters in trucker hats and thick-rimmed glasses scoffed at the mediocre paintings they came to see. I met so many girls through my job that my coworkers started calling me "Sammy" after Ted Danson's philandering character on *Cheers*. I drank whiskey on ice, wrote stories into the early morning, and got laid as often as my literary heroes had, but I found myself staring at the empty bottles,

Trojan wrappers, and grimy ashtrays around my couch-bed, thinking suicide might not be the worst option if this was all that existence had to offer.

7

THE BAMBINO DI PRAGA

After two years at St. Mark's, I had finally saved enough money to move to Prague. In the late nineties, forty thousand Americans caroused under its sooty medieval spires, imbibing absinthe in cavernous stone drinking holes and enjoying the fruits of a fledgling democracy while dreaming of writing the next great expat novel. I decided to join them. I'd had enough of Denver's narrow provincialism. I found a job teaching English as a second language at a Czech high school to pay my rent. I was kind of slumming it, but it

tasted like liberation. At night, I took notes on my friends' adventures dating mafia bosses in the *pico* (Czech meth) trade, puking *slivovice* over the famed Charles Bridge with Hungarian princesses, brawling with former StB agents (the secret police) in Old Town Square, and plying their American passports to sleep with impossibly attractive Slavic women. I began to write a book about the Left Bank of the Vltava, hoping to make it a *Sun Also Rises* meets *Generation X*. But the great Prague novel never did surface from our community, perhaps because we were too lost in our own desperate hedonism.

Frequenting the open mike at the Globe Bookstore, I met a soft-spoken woman from Florida named Lynn, who ran her own poetry school in the city. She had a pale pixie face and red hair that streamed to her waist. She moved like a river, flowing and graceful, and I joked that the reason she dumped

thick layers of salt on her food, including toast, was to balance all the water in her system. I was twenty-four at the time, and the feminine wisdom of this woman in her early thirties excited me. We had a natural flirtation that I never thought would go anywhere, given our age difference, but a bottle of Frankovka after one of her readings dissolved that gap.

Lynn and I spent the next few months in ecstasy. She was water in every way and would drench the bed with multiple orgasms. One day, after a round on her floor mattress, she frowned and said she had to tell me about a miracle that had happened to her mother—one that would affect our relationship.

A year before, Lynn left Prague for Buffalo, New York to visit her mother, who had undergone a double mastectomy and was dying of breast cancer. In the hospital waiting room,

Lynn met a man who had made regular trips to the Czech capital. He told her he loved the city because of the church with the statue of the Bambino di Praga, the infant baby Jesus of Prague, who was said to grant healings. On her drive home, Lynn got lost and stopped at the office of a Catholic church to ask for directions. Above the mantle in the office stood a replica of the Infant of Prague, who in fact looked more like a toddler, adorned in his gold crown and holding a cross half his height in his left hand. The receptionist told Lynn that if she wrote a wish on a piece of paper and threw it in the fire, what she desired would come true. Lynn wrote down her request, tossed it into the flames, and left.

Later that summer, while Lynn was dating a poet named Todd, her mom called from the hospital to say that her doctors couldn't believe it, but the cancer was completely gone and the tests couldn't be wrong. Todd and Lynn felt that

they were witnesses to a miracle. To mark the event, he promised to visit her in Prague a year from that day.

“Lynn, you don’t really think a baby Jesus statue saved your mom from cancer?” I started to roll my eyes, but caught myself, realizing that I needed to tread with care around this topic. Besides, I had something bigger to worry about. “Todd’s not still coming out here, is he?” I asked.

Lynn turned away from me while nodding yes. “I owe it to the universe to take care of him like he took care of me,” she said.

And so Todd came to Prague. He was young like me, an effeminate poet with dyed-purple hair and dangling silver earrings. The black bowling ball came crashing down into my life after that. I barely left my bed over the next two months except for work.

Not having Lynn around, I was able to see something I had

avoided accepting for a long time: I was ill. For the previous year, the glands in my throat had swollen horribly. I couldn't swallow without intense, stinging pain. I had to turn most of my English classes into writing lessons so I wouldn't have to talk. I went to a dozen doctors, but none could help. Testing blood and saliva, they found nothing wrong. The sickness was in my head, they suggested, not my throat.

I became hopeless, watching the world through a tiny window—and everyone else was having fun. I accustomed myself to the life of an invalid, sleeping long hours, watching Wild West movies for entertainment, sinking into endless depression.

Lynn kept leaving messages on my answering machine, but I refused to see her. Then, one day, I ran into a friend who worked for the antiquated media outlet Radio Free Europe, which had lost its audience since the end of the Cold War.

She was a sober and humorless investigative reporter who specialized in human rights issues in Kosovo, so I was surprised when she shared that she had been to a psychic. The woman had correctly named members of my friend's family, her best friends, and her job. "I think I bumped into you because you're supposed to see her. Maybe she can help cure your throat."

"Sure," I laughed. "Maybe I can call in the Ghostbusters while I'm at it."

A few days later, my glands hurt so badly, even after a full cup of chamomile tea, that I reluctantly called the psychic. Sheri and I met at Café Slavia with its riverside view of Prague Castle. Her appearance didn't inspire confidence. A short, stout, middle-aged Australian woman with a large trollish nose and plump ruby cheeks, Sheri was swathed in old scarves like a vagabond. I paid for our Turkish coffees. As

the small black grounds circled our cups, she successfully reeled off the names of my parents and siblings, good friends, and first girlfriend. I crunched up my forehead, trying to make sense of it. Of course, I was paying Sheri to give me these answers, but I never expected that it would work. I could imagine how she might discover details about my family on the Internet, but not about my college roommate or Amanda. Was this even possible?

Sheri went on to note that I loved literature and thought I was a novelist, but she had news for me. “You think we’re meeting because of your throat, but that’s not why. The illness is there to help you find your career path. You’re not going to like this, so get comfortable.” She waited for me to set down my drink. She lifted her enormous chin. There was something arrogant, something powerful and mysterious in her troll-like confidence that unnerved and angered me.

“Your career path—it’s not the novel writing,” she said slowly. Her words hit me like an invisible grenade.

“What do you know?” I hissed back defensively.

“Honey, I know it’s hard to hear, but you’re supposed to be an organizer and a public speaker. That’s who you are.”

“I can’t even do job interviews without getting panic attacks. How am I supposed to speak in public?” I set down her 300-crown fee on the table. “You’re wrong lady. You don’t know me.” I picked up my shoulder bag and walked toward to the door.

“Honey, there’s one more thing,” she yelled after me. “You know that hurricane that just passed through your life? If you want to heal that throat, you’re going to have to give her a call.”

For the next month, I kept thinking about Sheri rattling off the names of Amanda, my high school buddy Max, and

college roommate Steve. Of course, she had been wrong about my career path, but what if she did know something about Lynn and my throat? It was difficult to believe all this hocus-pocus, but pain is a powerful motivator and I eventually set aside my pride and gave Lynn a call. Apparently Todd had left town, and she was now dating an older Austrian chemical engineer whom she thought she might marry. It hurt to hear that. I had lost her to Todd, and they hadn't even stayed together. Lynn told me she had started learning esoteric kinesiology, a healing modality that used some type of muscle testing to diagnose illness. She wanted me to come by so she could try the technique on my throat. It sounded like more spiritual flakiness, the kind that had already left me depressed and alone.

I knocked on the door of her fifth-story apartment above the Národní třída tram stop, listening to the bells from the

street, a broken man who had lost his last pebble of dignity. Lynn brought me into her room, sat on her knees, and began to push my wrists back and forth, asking “yes” or “no” questions to them. I kept turning to the mattress, where we had enjoyed so many nights together, seeing it as a relic of some lost memory buried by time. Lynn claimed that my muscles gave her good answers, and after about twenty minutes, she said that it looked as though my dad had moved away from our family when I was eight or nine. I was surprised, as I had never told her about my father moving to Sterling for work. Talking over the tram dings below, Lynn asked me to re-imagine that moment, but this time with a different, positive outcome. I closed my eyes and saw my father finding his confidence and hunting down a well-paying job at the Tech Center south of downtown. He whisked my giggling mother up the stairs, relieving the terror of the

house.

Lynn muscle-tested more about what I should do next to complete the treatment. “Doctor Rycholvsky,” she said. “He has your cure. The wrists don’t lie.”

Rycholvsky was a homeopath, which I took to mean witchdoctor, but after seeing so many MDs who were not able to help me, I figured it wouldn’t hurt to try at least one quack. He had moussed black hair, a cold, expressionless face, and wore a white lab coat in an office that looked perfect for your standard 1950 family practitioner. “I used to be a doctor,” he told me with only a slight Czech accent. “I left the profession because I wanted to heal people.” He asked dozens of questions about my childhood, my aspirations, and even what I dreamed about at night.

“Sadness,” he said after examining my throat, eyes, and ears. “That’s your diagnosis. You have so much sadness,

Jonathan, and it's affecting your throat. I think you're not expressing yourself the best way."

"But I write every day."

"Maybe you're supposed to express yourself differently. Are there other things that make you happy?"

"I'm a novelist," I said, getting angry. "That's who I am! That's what I do!"

Dr. Rycholvsky reached for a small container on a shelf, pulled out a tiny white pill, and had me place it under my tongue until it dissolved. "It's a trace amount of sulfur," he told me. "It will tell the energy where to work." If I remembered correctly, sulfur is what medieval doctors used just before bleeding and leeching their patients to death. I almost spit out the pill. Rycholvsky stared at me for several minutes and then asked if I felt any different. I told him my mouth was moister.

“That’s it!” He hit the desk with his hand. “We have the cure. Now pay me 400 crowns and call me in two weeks.”

“Here are your 400 crowns!” I yelled, throwing the bills at him. “I’m out of here.”

I marched back to my apartment, hollering to a nonexistent God that I was through with Lynn and her infant baby Jesus, body kinesiology, and boyfriends who weren’t me. It was time to get real. I had to be straight with myself. I was an ill person; I always would be. There were no such things as miracles.

After teaching school the next day, I was riding up the steep Náměstí Míru escalator, said to be the longest escalator in Europe, when an unexplained sadness overcame me. I collapsed onto my knees on the metal steps, sobbing in waves, as a black heaviness lifted from my chest. I cried periodically throughout the night. When I woke up the next

morning, the irritation in my throat had disappeared, and the glands had receded to their normal size. I couldn't believe it: I was healthy again, and my attitude toward the world instantly became sunnier. But I knew there had to be a medical explanation. Perhaps homeopathy really was its own scientific field, and these practitioners had researched potentials that other Western doctors had yet to understand. I rang up Lynn, thanking her for recommending Rycholvsky, although still not believing that muscle testing had anything to do with my cure. Then, too embarrassed to speak with him directly, I wrote Rycholvsky a letter of apology, telling him of my new respect for his profession.

After my throat healed and I started going out again, I grew tired of the expat debauchery and didn't renew my contract at the high school. I had a friend living in Santiago de Compostela, and I set out to relive Hemingway's stories of

señoritas, bulls, and flamenco. Only after I got there did I learn that Santiago de Compostela is the Ireland of Spain. Rain pounds the town's narrow, medieval granite streets for nine months of the year while the sound of the *gaita* (Spanish bagpipes) wafts through the mist.

Every summer, thousands of *peregrinos* embark on the Camino de Santiago, a pilgrimage that can cover hundreds of miles to the giant, mossy cathedral in the center of Old Town. I edited my novel in a nearby café, grinning at travelers who limped through the Romanesque sculptures of the cathedral's Pórtico de la Gloria, suffering from sunburn and dehydration. I may have been healed by an alternative medical modality but that was no reason to believe in a nonexistent higher power. Didn't these journeyers know that God was dead and all they would find inside their destination were withered priests sprinkling frankincense?

One day in late summer, while walking to a private English class in the ugly, glass, Franco-built New Town, I received a call from my student Ramón.

“They’s attacked, man! They hit the fucking towers, and they falled down. They’s attacked your country!”

“What are you talking about?”

“They’s attacked America. Go watch TV and see what I talk about.”

I walked into a Galician dive bar, where drunk, pot-bellied men shouted around a little black-and-white TV. In that thirteen-inch box, the world as I knew it tumbled down along with the towers on the screen. I tucked my jaw into my hands and did what most everyone did that day: I watched that damn video loop over and over and over again. Maybe it was my pallid cheeks or the panic across my face, but in that bar it felt as if “American” was tattooed across my forehead.

Men stumbled to my table and elbowed me with laughter. They pointed at the two fallen towers.

"Fidel Castro! Fidel Castro!" they yelled gleefully, as if the Cuban dictator was responsible.

What was I doing here? I had been away for three years—two in Prague and one in Spain. I was sick of Europe, tired of the gray weather and the tacky, bubble-gum pop music. I wanted to hear electric guitar solos, eat a decent hamburger, and hang out with people who wouldn't take pleasure in the destruction of the Twin Towers. So I returned to Denver, sleeping on a friend's couch while considering my next move. When that friend set out for New York to launch his career as a painter, I joined him on the trip, eventually finding work at The September 11th Fund.

8

GNOSIS: THE NOT-SO-SECRET HISTORY OF JESUS

IN DECEMBER 1945, during the tail end of the most devastating war in human history, a peasant named Mohammed ’Ali of the al-Samman clan stumbled upon an earthenware jar near limestone caves in the deserts of Upper Egypt. He feared that an evil jinn (demon or genie) resided inside, but hoping for lost riches, he opened the jar. To his disappointment, twelve ragged leather-bound codices fell onto the ground. He didn’t realize these twelve hundred weathered pages contained a priceless treasure: dozens of lost Christian gospels that had

been hidden away for sixteen hundred years. Mohammed carried them home to his mother, who kept warm at night by feeding pages of what we now call the Nag Hammadi Library to her fireplace.

These fifty-two texts—with titles such as The Gospel of Thomas, Secret James, The Gospel of Mary, On the Origin of the World, The Gospel of Philip, Secret John, and The Sophia of Jesus—showed that first- through fourth-century Christianity was much more varied than previously thought, composed of diverse sects claiming secret knowledge of heavenly realms. Modern scholars now label these texts as "Gnostic," since they lay out an initiatory process for candidates to overcome the forgetfulness, drunkenness, blindness, and sleep of the illusory world in order to access *gnosis*, direct experience or personal revelation of a divine reality.

The Nag Hammadi Library supported the popular theory that Christianity stemmed from the ancient mystery-school traditions of the Mediterranean, which featured dying and resurrecting godmen. In Egypt, the faithful worshiped Horus; in Greece, Dionysus; in Syria, Adonis; in Asia Minor, Attis; in Persia and later Rome, Mithras; and in Israel, Jesus (historically the most recent). The similarities among these hierophants were uncanny. According to legend, several were born on December 25 around the winter solstice to a virgin in humble surroundings (a cave or a manger), and their births were heralded by a star in the Eastern sky. Some grew to be spiritual masters with twelve disciples (Horus, Mithras, and Jesus), performing miracles and giving baptisms and communions. They all died (Dionysus dismembered by Titans, Attis and Adonis eaten by wild boars, and Horus, Mithras, and Jesus crucified) before experiencing a

miraculous resurrection.

In *The Jesus Mysteries*, authors Timothy Freke and Peter Gandy argue that there never was a historical Jesus who walked the sands of Israel, but rather that he is a composite of the earlier godmen. But mythical figures are often based on real people—think Johnny Appleseed—and I prefer to contemplate all possibilities, preserving the mystery of this legacy. While I take issue with Freke and Gandy on this point, I appreciate the parallels they draw between Jesus and the other godmen. In the following passage, they point out some of the similarities between Mithras and Jesus as they describe how the Vatican sits atop a destroyed Mithraic temple:

> Where today the gathered faithful revere their Lord Jesus Christ, the ancients worshiped another godman

> who, like Jesus, had been miraculously born on December 25 before three shepherds. In this ancient sanctuary Pagan congregations once glorified a Pagan redeemer who, like Jesus, was said to have ascended to heaven and to have promised to come again at the end of time to judge the quick and the dead. On the same spot where the Pope celebrates the Catholic mass, Pagan priests also celebrated a symbolic meal of bread and wine in memory of their savior who, just like Jesus, had declared: "He who will not eat of my body and drink of my blood, so that he will be made one with me and I with him, the same shall not know salvation."[6]

According to Freke and Gandy, a number of the mystery-school godmen were called the "Son of God," and some "Sun

of God." The word "horizon" comes from "Horus-Sun," meaning sunrise. As the Egyptian god of daytime, Horus battled his jackal-headed enemy Set ("Sun-Set"), the bringer of night, in a cosmic battle of light and dark. Jesus played a similar role as Horus: he was "the light of the world" surrounded by twelve disciples who represented the twelve months of the year and the twelve signs of the zodiac. The sun enters each zodiac sign at thirty degrees ($30 \times 12 = 360$); both of these "Suns of God" embarked on their ministries at the age of thirty. The classic zodiac cross bisects the twelve astrological signs within a circle. The sun hangs "crucified" in the center as it passes through the precession of the equinoxes, something the mystery schools followed closely as each new sign marked the next world age.

Given the astrological significance of the cross and their sun gods, wisdom traditions often depicted the crucifixion in

their writing and art. A well-known second- or third-century European talisman depicts a human figure that looks like Jesus on the cross below a crescent moon and seven stars. The inscription is translated as Orpheus Becomes a Bacchoi. Orpheus was a prophet in the Dionysian mysteries, and Bacchoi refers to an enlightened disciple who had undergone the final stages of initiation. Around the same time that the talisman was crafted, a Roman graffiti artist sketched on a pillar the image of a crucified donkey, which symbolized the initiates' death to their animalistic nature and ascension to the higher Self. The first portrayal of Jesus on a cross did not appear until two hundred years later.

Rather than rejoicing about the similarities between Jesus and the other godmen, literalist Christian leaders—who had not experienced the secret gnosis of the highest mysteries—created dams and divisions between the diverse spiritual

streams that originally flowed from the same mystical source. As Freke and Gandy explain, the parallels between Mithras and Jesus threatened the emerging school of Christianity that they call the "Literalist Church," which was expanding across the Roman Empire. Bishops such as Justin Martyr, Tertullian, and Irenaeus went so far as to make the ridiculous claim that the devil had engaged in "diabolical mimicry" and plagiarizing by anticipation by popularizing the story of Mithras before Jesus was born so as to dupe the weak-minded.[7]

In *The Golden Bough*, James Frazer noted a similar contention concerning Attis, the mystery god from Asia Minor, and Jesus. "In point of fact it appears from the testimony of an anonymous Christian, who wrote in the fourth century of our era, that Christians and pagans alike were struck by the remarkable coincidence between the

death and resurrection of their respective deities, and that the coincidence formed a theme of bitter controversy between the adherents of the rival religions, the pagans contending that the resurrection of Christ was a spurious imitation of the resurrection of Attis, and the Christians asserting with equal warmth that the resurrection of Attis was a diabolical counterfeit of the resurrection of Christ."[8]

Literalist Christians refused to accept that the rites of the mystery schools form the central narrative of the New Testament, but the similarities are too plentiful to ignore. Jesus experienced a baptism (spiritual cleansing), a Eucharist (communion), an anointing ("Christ" means "the anointed one"), and the death and resurrection ritual. These mystical rites provided a rare alchemical education, unifying polar forces for initiates. The Gospel of Philip, one of the so-called Gnostic texts, contains the following passage: "The Lord did

everything in a mystery, a baptism and a chrism and a eucharist and a redemption and a bridal chamber. […] he said, 'I came to make the things below like the things above, and the things outside like those inside. I came to unite them in the place."[9] (11.3)

The word *mystery* appears twenty-seven times in the New Testament, including in 1 Corinthians (4:1), with Paul telling fellow Christians, "Let a man regard us in this manner, as servants of Christ and stewards of the mysteries of God." Jesus speaks of clandestine teachings for those in the inner circles when he says to his disciples, "To you has been given the mystery of the kingdom of God, but those who are outside get everything in parables." (Mark 4:11)

As I had already learned through my study of pneuma, early Christians utilized spiritual energy—in the form of the Holy Spirit—for personal transformation. Jesus baptized with

fire and spirit, healed with power, and transmitted wisdom to his disciples through the bubbling spring drawn from a higher source. The purpose of the mystery schools was to create pneumatics—people full of spiritual energy. In the Gospel of Thomas, Jesus says to his disciples, “Whoever drinks from my mouth will become like me; I myself shall become that person, and the hidden things will be revealed to him.” (11.2:108)

Even common Christian terms reveal clues to this ancient transformational process. The original Greek word for “sin,” *hamartia*, turns out to be an archery term meaning “missing the mark.” This nuance lacks the guilt and shame pastors have used for centuries to control their flocks. Missing the mark simply indicates a state in which seekers have strayed from their path and need to get back on course. Similarly, the Hebrew name for *Satan* translates as “adversary,”

highlighting the ego and personality attachment the soul needs to overcome in order to reach higher states of consciousness. The Greek *metanoia* is usually translated as "repent," but it actually means to "change one's mind" or "have a shift in consciousness," which can occur when one absorbs higher frequencies from someone who is closely connected to source-energy such as Jesus. Most surprisingly, Christ was not initially our Lord and savior but rather our *soter*, meaning "healer," "bestower of health," or "one who makes whole." Staying connected to universal spirit, Jesus traveled through the rift of separation consciousness to heal us and bring us back to our celestial home. In the Gospel of Thomas, Jesus says, "I am the one who comes from what is whole." (11.2:61) When we finally let go of our attachments to the material realm, we become redeemed (*apolytrosis*, which also means "release" in Greek.)

I couldn't help wonder what happened to the original meanings of these words, as well as to the numerous Gnostic churches that had proliferated in the Middle East. When the Romans destroyed Jerusalem and the Second Temple in AD 70, putting an end to the Jewish revolt, they left one-third of the population dead and the Christian mysteries fractured into pieces. Members joined the mass exodus out of the country. Those who had not been exposed to the inner mysteries started up literalist churches. The remaining Gnostics called these rigid sects "imitation churches" as they did not teach the secret gnosis of "Christ within."

According to the Apocalypse of Peter, literalist church fathers were "dry canals" bereft of consciousness-expanding pneuma, yet arrogantly claimed to be the sole gatekeepers of heaven. "Some who do not understand mystery speak of things which they do not understand, but they will boast that

the mystery of the truth is theirs alone." (VII.3) These empty churches sprouted up across the Roman Empire. In a sad touch of historical irony, their leaders—such as the infamous Irenaeus, the Bishop of Lyon—became heretic hunters attacking those who still carried the inner teachings of their religion. This is documented in the Second Treatise of the Great Seth: "We were hated and persecuted, not only by those who are ignorant, but also by those who think they are advancing the name of Christ, since they were unknowingly empty, not knowing who they are." (VII.2)

As the number of Christians multiplied in Roman lands, power-hungry Constantine switched the state religion to Christianity to co-opt this growing movement, uniting Rome under one God, one religion, and one emperor. In 325, he oversaw the Council of Nicaea, at which church fathers reduced the vast library of Christian written knowledge to a

few documents that became the New Testament.

In 391, Emperor Theodosius passed an edict to close all pagan temples and burn their books. Christian hordes set out on murderous rampages across the empire smashing all traces of the mystery traditions from which their own religion had blossomed. They killed off the last of the Gnostic circles and destroyed their libraries, churches, scrolls, and most importantly the flame of gnosis that had been carefully passed down throughout the ages. By 410, the Roman Empire had nearly torn itself apart, and the Visigoths strolled in to finish the job. Only eighty-five years after the Council of Nicaea, the Dark Ages had begun.[10]

Poring over the lost Gnostic texts of the Nag Hammadi Library, I was surprised by how many of them focused on reframing the Garden of Eden story, as I had suggested during the activist meeting in my living room. The Secret

Book of John, also known as the Apocryphon of John (11.1), for example, explains the human origin story quite differently than Genesis does. The Gnostic texts describe a complicated cosmology that began with a single being or parent who was ineffable, eternal, immeasurable light, and created an image or reflection of itself, Barbelo, which in turn begot a multitude of heavenly planes (aeons) that were part of a wider divine realm (the *pleroma*).

Christ was not just a man but a distinct aeon or larger divine being in the pleroma. Those who fully realized the mysteries became one with Christ, carrying this high vibrational force inside themselves. Bedazzled by the cosmic palace, Sophia, the aeon of wisdom, created her own world without consent from the über-parent or her male counterpart. The experiment went awry, and Sophia separated from the pleroma, creating a sinister ruler called

the Demiurge (the word means “craftsman” or “maker”), who manufactured our counterfeit material world.

This was the Old Testament God, whom Gnostics called Yaldabaoth, Samael (Aramaic for the “blind god”), and Saklas (Aramaic for “fool”), as he believed himself to be the only god in the universe, ignorant of the pleroma and the omnipresent light of the parent. Breathing life into Adam (and unknowingly the divine spirit of Sophia), the Demiurge ruled over humans with his demonic friends, the archons. The angelic realms of the pleroma embarked on a rescue mission for Sophia, Adam, and Eve. The Secret Book of John tells of Jesus sneaking like an undercover agent behind enemy lines into the Garden, inviting the first humans to eat of the Tree of Knowledge (“the Epinoia of the light”) to “awaken them out of the depth of sleep” and their “fallen state.” (11.1)

The Gnostics' description of archons immediately intrigued my activist side. These devilish autocrats seemed representative of the oppressive empires that have dominated Western history books. Bush and the neocons, the Halliburtons and Bechtels have followed a long, shadowy lineage of hierarchical powers profiting from human suffering while expanding their empires. Maybe the Gnostics understood that we needed mystical agents of transformation smuggling in celestial light to liberate lost souls on our planet.

Before I donned the tricornered hat of the American Revelution with Greene Dragon, I would flinch every time I passed an American flag on someone's lawn, assuming that its owners supported the wars in Iraq and Afghanistan. Once I embraced the parts of U.S. history that we can be legitimately proud of, however, I experienced a striking shift

in attitude and cried “Liberty” with my fellow patriots when marching by the gigantic flag covering the New York Stock Exchange’s front pillars.

The same shift happened for me with the cross. One day, I found myself stepping into Grace Church in the East Village, glancing at the stained-glass auras of Jesus in the windows. My attention settled on the white cross above the altar, and I felt a sudden affinity with this alchemical symbol and its promise of personal transformation. I experienced a visceral connection with the millions of people who had been wounded or misled by literalist Christianity, robbed of their own divine spark. For almost two millennia, the Judeo-Christian tradition has supplied the underlying operating platform for our civilization—our languages, laws, mores, work ethic, sexuality, even our way of perceiving time (with the Gregorian calendar)—shaping our worldview, whether

we realized it or not.

To come to terms with our history and ourselves, we have to integrate this tradition. That doesn't necessarily mean plodding through obscure Gnostic texts, making sense of strange Demiurge names. The mysteries lay right there in the New Testament for those with "eyes to see" and "ears to hear." We need an upgrade of the Protestant Revolution, one that incorporates the gnosis of Christ consciousness. Imagine already established churches—the one on your block—enhancing their services with meditation, prayer, breathwork, energy healing, body movement, possibly even late-night dancing, and among the more radicalized, the dispensing of psychoactive sacraments. Why build entirely new systems for connecting to Christ consciousness when the institutions—whether Methodist, Lutheran, or Baptist—have already been created? Today these religions are like the "dry

canals” that the Apocalypse of Peter referred to. To incorporate Christ consciousness, they would have to give up their addiction to dominating worshipers, address the evolution of the spirit, and infuse the essence of the mysteries into their hollow edifices.

Many popular Eastern disciplines today have us turning away from the world around us, meditating on our navels. But Christ wasn’t only a yogi; he was an activist, carrying his message to those who most needed it. Our ailing planet needs spiritual warriors, ones capable of standing up to the Western materialism machine, so we can create sustainable societies that care for their citizens, harmonize with the cycles of nature, and receive and honor the vast healing light that quietly connects us all.

VOMIT AND VISION

TAVIS JERKED IN AND OUT OF LANES, gassing through red lights as we shot down Canal Street in her ’88 maroon Volkswagen Fox. Her activist stunts were like her driving—no holds barred. Before the 2004 Republican National Convention, she orchestrated an aerial photo shoot that featured dozens of naked women, pubes shaved, lying on a snowy Central Park lawn, their bodies spelling out No Bush. This image radiated across the web, attracting international media attention.

Tavis also coordinated the most controversial protest

against the RNC, theatrically recreating a Roman vomitorium. Actors in sandals, togas, and green leaf crowns gorged on a potluck buffet and purged into gold buckets, a not-too-subtle comment on consumerism gone haywire in the American Empire. Disappointed by the election results, she was reconsidering her tactics—as I was—wondering if pointed political messages were enough to inspire people to make real change. It felt appropriate for me to join Tavis and her partner, Mitchell, on a journey to try ayahuasca, the Amazonian shamans' brew.

With almost ten years difference between them—Tavis was the older at thirty-six—these two made an unusual couple. Tavis had high Cherokee cheekbones and long brown Jewish hair. Always in jeans and T-shirts (never dresses or skirts), she emanated a swarthy, tomboy sexiness. Although we were good friends, I was secretly jealous of her brassy leadership,

as she never seemed to suffer from the kinds of anxieties or insecurities that shook my confidence.

Mitchell's black dreadlocks, soft face, and tech artisanship gave him a comfortable, quirky, Burner-geek appeal. Always soldering together bizarre, DIY electronic devices, he was the first guy you called if your hard drive went down, but with an Asperger-like dearth of emotional empathy, he was the last one you'd want to have a drink with when mending a crushed heart. A digital genius who managed the servers of a major financial firm, Mitchell's voice had a strange lack of inflection that made him sound part android. In fact, he gained some notoriety by being one of the first humans to insert an RFID (radio-frequency identification) chip under the skin of his wrist. He considered this act a punk counterstrike to corporations like Walmart that had developed this technology to invade our privacy. Mitchell received countless

emails from Christian fundamentalists across the country begging him to remove the chip, concerned that this will be how the Antichrist inserts “the mark of the Beast” on humans as foretold in the book of Revelation.

In the car, Mitchell, Tavis, and I discussed the ayahuasca trip reports we had read on the Internet, especially from Erowid, a popular portal dedicated to the use of psychedelic substances that expand consciousness. Composed of two plants from the rainforest—one containing the psychoactive chemical DMT (dimethyltryptamine), the other a double-helix-shaped vine with monoamine oxidase (MAO) inhibitors, which allow the gut to process the DMT—ayahuasca apparently offered partakers a cup of life-changing experience. According to the online accounts, journeyers blasted into geometrically complex mystical realms, purged out long-term diseases (some claimed to receive cures for

brain or breast cancer), met spiritual beings or power animals from the astral planes, or connected with a vast, tree-shaped web of conscious light. I wondered if this luminous tree was the multi-branched World Tree of Life that mystics across the planet revered. If so, this brew might provide the visionary catalyst I needed in pursuing the next step in the Eden investigation I now obsessed over.

Many of the reports mentioned the vine speaking to the participants, indicating a direct encounter with an intelligence outside of the self. Mitchell robotically told of one story where the plant said, “I warned you not to come back. I let you off the first time, but this time’s not going to be easy!”

Still obsessing over the word “alien” given to me the night I started seeing energy, I was most drawn to tales of galactic contact. One man claimed that praying mantises the size of

people had whisked him through gold and red nebulae via a translucent bubble; one talked of silver Andromedan space ships hovering in the sky, channeling otherworldly healing songs for a sick person lying on the jungle floor; another told of bug-eyed, elf-eared, multidimensional shamans with "George Clinton rainbow dreadlocks" slipping through wormholes to download information on sunken Atlantis and humanity's similarly endangered future.

In some reports, blue beings, supposedly from the Pleiadian star system, or tall and tan Egyptian-looking Sirians with elongated heads warned earthlings that archon-like lizards from another planet had unplugged several strands of our DNA or used psychotronic devices in the fourth dimension to cage Earth in a dense, low-vibratory reality and were feeding off our negative energies for lunch. I didn't regard these bizarre tales as factual scenarios of a larger

cosmic ecology, but rather as exciting Homeric myths stretching my imagination to envision a larger esoteric drama stretching across Captain Kirk's final frontier.

Zipping past the budding yellow birch and red oak trees off I-87 on a cloudy spring day, Tavis asked why Jade hadn't joined us. Jade, I explained, suffered from Woody Allen–level hypochondria and was petrified of *la purga*, the legendary puking associated with the vine. Trip report after trip report dwelled on the painful wrenching that ayahuasca induces, although shamans consider it a kind of cleansing that brings visions afterward. Jade was also upset with me for accepting a gig as facilities manager at Eyebeam Atelier, an art and technology incubator in Chelsea that provides "state-of-the-art tools for digital research and experimentation," as its website explains.

"Why can't you get a job that utilizes your brain," Jade

pleaded over the Thai dinner I had treated us to in order to celebrate my new income. For once, I was paying for one of our dates, which made me sit straighter, feeling more like the provider that society expects men to be. “You’re one of the smartest guys I know, but you’re always taking these crappy jobs. Is this how you’re going to build a career?” Jade downed the bottom half of her Singha and motioned to the short Taiwanese waitress for another bottle. Tears began to appear, and Jade rubbed them with her napkin, smearing silver glitter across her cheeks.

I explained that I once wanted to be a writer and then saw myself as a media activist, but now I was lost. “Why don’t you teach English again? You liked doing that in Prague and Spain.” The waitress brought over Jade’s Singha and poured half of it into a fresh glass. I told Jade that teaching English was a cop-out, that I wanted to contribute more to humanity

than advocating the proper use of the past perfect tense. “Jonny, I just don’t know.” Jade lifted her glass to her frowning lips. “You may never figure this out.”

As our car pulled into a small town in the Irish Catskills, Tavis shared some of her own mystical experiences. A couple of years ago, she dreamed of an unusual city in the desert with burning wood temples spewing green and blue flames into the sky, sculptures of white seahorses rising up from the sand, and ladybug art cars waddling through a black-light illuminated forest. She eventually witnessed each of these scenes during her initial visit to the Burning Man Festival. Tavis also began perceiving bright, narrow rivers of light along people’s spines and the cracks and dams where energetic wounds had caused the energetic current to waver from its straight and natural path. Sometimes she would try to help friends, telling them where to clear those pranic

blocks, but none of them understood what she meant. When Tavis moved into a new apartment, she sensed “bad energy” in her backyard and refused to visit the garden. While tilling the soil to plant heirloom tomatoes, her boyfriend at the time found a pile of bones, which the police later confirmed to be human.

“There’s something profound happening now on this planet,” she said, deliberately speeding past a stop sign on Main Street. “I’ve felt this my whole life; that I’m here, as many of us are, to help usher in something big, something different. Don’t you think there’s a reason why so many of us are having these wild experiences?” Although I was skeptical about how many of us were really here, the thought of thousands—perhaps millions—of people turning on to Gnostic inquiry and energetic awakening captivated the more radicalized aspects of my being, prompting visions of a

bohemian friendly, mystically charged planetary renaissance.

We pulled into a gravel driveway a mile outside of town. Three other cars sat in front of a small, deteriorating farmhouse that featured the same flaking white paint and sinking front porch as the humidity-wrecked houses from my parents' economically depressed homeland in north central Missouri. This would be like tripping at my grandparents' house. Dark clouds had rolled in from the West, and the brown hills around us looked sad and ominous.

Nick, our "aya-guide" for the journey, stepped out of a two-story chicken coop behind the house. Trained as an ethnobotanist among tribes in the Amazon, Nick sported an eclectic fashion ecosystem—Peruvian poncho, Shipibo embroidered hat, Ashaninka red and white beaded necklaces, and Gap khaki pants.

A mutual friend had introduced us a month earlier at a

Williamsburg loft party. When I asked Nick how he started guiding psychedelic journeys, he told me in a friendly, nasally voice that in Peru the vine had told him to learn how to brew ayahuasca and share it with people in the States for healing. “Really?” I nodded politely, “The vine told you that?” He said that ayahuasca was the most powerful medicinal plant he had ever encountered, and medicinal plants were his profession. Still, I wasn’t sure I wanted to embark on a journey with a skinny pseudo-shaman who looked barely thirty. He may know about the medicinal benefits of dandelions and lyre-leaved sage, and may even be able to survive a food stoppage in New York City—having lived off edible plants in Central Park for a week—but I didn’t trust that any of his experiences could match those of the lineage holders from the Secoya and Conibo tribes, who had done this for centuries.

Nevertheless, I had been curious about ayahuasca since reading Dr. Rick Strassman's *DMT: The Spirit Molecule*. In the book, Strassman offers the poetic hypothesis that DMT, which is endogenous to the human body as well as to countless plants and other animals, is produced by the pineal gland. This tiny gland, weighing one-tenth of a gram and shaped like a pine-cone (its name comes from the Latin *pineus*, which means "relating to pine"), sits in the position of the third eye, at the sixth chakra near the top of the body's Tree of Life. It would be fitting for this mysterious gland to secrete a substance that triggers mystical experiences.

Nick helped carry our bags up a wooden ladder to the second floor of the chicken coop. Inside, five NYC Burners with Mexican blankets draped over their shoulders were preparing the space with ornamental rugs and wild flowers. They lit incense and sprayed sweet-smelling oils in the air.

“It’s kind of quaint,” I said hopefully. But all of their efforts couldn’t hide the wire windows, busted-up floorboards, and musty smell of rotting wood.

“It looks like a horror movie set,” Mitchell replied robotically. A swarm of angry butterflies raged through my abdomen as I pictured a long afternoon trapped in the grotesque psychedelic chambers of my mind.

Nick whistled for us to sit in a circle. He played a few songs on a gambus, a short-necked lute from Yemen, then whispered Shipibo healing prayers over the plastic Canada Dry bottle holding the ayahuasca. “If you get into any jams, I have wild chili pepper to bring you back.” He poured the murky brown liquid in a ceramic cup and handed it first to Tavis. When it was my turn, I asked “the vine of souls” to help me with my next clue in uncovering the secrets of the Tree of Life, and how that might help heal our world in

crisis.

I cringed while swallowing the viscous substance, which tasted like an unsavory mixture of coffee, green tea, and dirt. We sat quietly for forty-five minutes until I noticed the weathered ceiling boards slither and bend, curling into immaculate designs. The battered wood wove into a beautiful alien language that I somehow recognized. The characters looked like Celtic rune merged with binary code. I felt as if I were about to remember their meaning when the paint flakes on the wood brightened and blossomed into elaborate beige and cream-colored doilies, which suddenly bulged forward, descending toward me.

“Just kick back and relax,” I heard a presence tell me. I immediately recognized it as the same voice that had spoken in my room the night I started seeing energy fields. “Cowboy, you’re in for a fun ride.” This time the speaker had a sense of

humor, calling me “cowboy,” but I didn’t find it funny. I immediately sat up, sipping up short, panicked breaths. I had dabbled with mushrooms and LSD before, but even with the hallucinations, I knew my experiences were a projection of my own mind. This time, just as others said in the online ayahuasca trip reports, another entity was telling me to chill out. At least I presumed it was another entity. Could I trust this being? Where did it come from? What did it look like? Why was it hiding behind these lattice designs, and why did it follow me around? Maybe this was a helpful spirit, or perhaps I was crazy and hearing voices that weren’t really there? Whatever it was, I wasn’t sure I wanted it around.

Placing my palms carefully on the wooden floor, I slowly lowered my body back to the ground. The fanciful doilies in the ceiling blossomed like flowers and danced down toward me. I felt them lock into small vortexes of energy, which I

presumed to be the major chakras, running along the midline of my body. I had never encountered the chakras physically before, but in my heightened state of awareness, these formerly subtle centers were now powerful pneumatic motors that raised my body's vibration as the doilies spun them faster and faster. Tears trembled into my eyes with the acceleration. My organs, bones, and skin grew oppressively heavy, crushing in on themselves and squeezing out the air in my lungs. "Oh, my God," I thought, "I'm dying." With a sudden flash of light, the pressure released, and my energy consciousness shot out of my scalp, blasting through an undulating veil of colorful fractal patterns until I found my spirit—if that's what you would call it—swimming in a serene, velvety-black void. A school of globular white lights swam up to me like dolphins, blinking on and off as if saying, "Welcome home."

Floating bodiless in this peaceful void, I recalled a line from *The Jesus Mysteries:* that the Gnostics were " 'psychonauts' who boldly explored the final frontiers of inner space, searching for the origins and meaning of life."[11] Was it possible that the Amazonian vine would reveal to me traces of the ancient Christian mysteries?

As I harbored this thought, a full-sized movie screen suddenly unfurled from the dark nothingness. Scenes from my life projected in supersonic speed onto its white surface—moving to the mountains from the suburbs at the age of two, my father losing his job, hiding in the basement from my mother's rants, receiving my high school diploma, holding keg-stand competitions in college, fumbling through sex with my first girlfriend, healing my throat in Prague, and screaming "The Republicans are coming" down Lexington Avenue in my Jonny America outfit.

The screen then showed a young pregnant woman, maybe sixteen or seventeen years old, being tortured in a dungeon or bunker with dirt walls. I tried to make sense of the image and how it pertained to me. The presence whispered through the void, “Cowboy, that was you, a long time ago. You’ve carried the sorrow and anger from that trauma through many lifetimes.”

“Reincarnation?” I asked the voice, confused. I hadn’t thought much about past lives, or about people who believed in them.

“You chose to be born to your mother in this incarnation to relive this terror,” the voice said. “You’re learning to transmute those energies. So get this straight, okay? Your mother is your guide. You got it, cowboy?”

Before I had time to digest this bombshell, my consciousness swished back into my body, but I wasn’t

exactly me. I saw myself as a majestic bear-human on a stone throne, a wild but graceful animal with a human continence. “This represents the story of tribal humanity,” the voice advised. That image soon disappeared to reveal a half-human, half-lion on a gilded throne, similarly animal but more regal. Embroidered red and silver tapestries hung on the walls of the vast palace chamber. Millions of other half-lion royals appeared with golden branches stretching out of their glowing crowns, connecting us in a gilded web. “This represents the story of civilization, humanity’s journey out of nature into separation, laws, and technological achievement.”

Experiencing this vision had a profound calming effect on me. I shed some of the negative judgments I held regarding humankind’s leap out of Eden and the violence and cruelty that journey entailed. Perhaps it was all a transitional phase, a necessary second act that will lead to a transcendent third.

As this idea occurred to me, two golden eagles—each with an eight-foot wingspan—rose up from behind my throne, circling higher and higher until they broke through the ceiling. Then the room crashed into rubble.

Out of the dust I saw a snake-human rise on an invisible throne. It had yellow eyes and a slow-flickering red tongue; its scales boasted a complicated diamond pattern that looked futuristically alien and synthetic. Powerful white light emanated from every pore. His gaze struck me as sophisticated, telepathic, and full of Buddha-like compassion. This snake-man was the coming together of nature and technology after a ten thousand year schism, an enlightened, nondualistic synthesis.

“Cowboy, this represents where you humans are evolving,” the voice announced, “toward something beyond your wildest, three-dimensional imaginations, yet you already

know this and hold the seed within each of you. It's already happening, so get ready for some fun. The party is just getting started," the presence giggled almost ominously. The snake sucked in his tongue and winked at me.

With that final gesture, I disappeared into a swirling *Doctor Who*–like wormhole, racing through a tunnel of kaleidoscopic colors until the voice commanded, "Open sesame." It took me a minute to register my coordinates as I opened my eyes. I was sitting on an Oriental rug in a dilapidated chicken coop. Everyone else was nestled quietly under their Mexican blankets, off on their own journeys. Nick waved incense in the air, whistling along to birdcalls he had recorded in the Amazon, which played on a pair of portable speakers.

The presence was not yet gone. It asked me to lie down and close my eyes, which I did. It then began to zap healing light into my anxiety-ridden abdomen. Painful memories

surfaced as the light opened knots of trapped energy in the depths of my intestines. There was my mother screaming, “We’re going to the poor house”; my brother punching my stomach while holding me down to the floor; me drinking myself into oblivion at Denver’s Lion’s Lair and standing on the railing of Prague’s Charles Bridge, considering ending it all. The white light dissolved the pain of these traumas.

I meditated on how these experiences could have mirrored the victimization of a tortured woman who might have been me many lifetimes ago? I saw a possible link between the woman’s suffering and the melancholy I felt as a kid, brooding over blue snow-capped Mount Evans at dusk, yearning for something I had lost. Perhaps the root of my suffering went beyond an unpleasant childhood, to a spiritual source unperceivable by educated psychologists.

As the white-light surgery reached a sharp pain under my

navel, a medieval portrait of Jade and me flashed before my eyes. We each wore long red robes, pendants around our necks, and gold crowns with crosses sticking out of the top.

"Jade is your queen," the voice informed me. "You have karma together, so stick this one out, okay? No more playing the field, at least not for a awhile."

"You're kidding!" I yelled back. Somehow, I was able to take in stride animal royalty, energy healing, and a past life as a tortured, pregnant woman. But this was going too far. Jade as my *queen*? I had grown up with a fiery-tempered woman, and my tolerance for it went only so far, no matter what some uppity presence had to say about it.

"Just consider it," the voice said, then continued the light surgery for the rest of the afternoon.

The effects of the ayahuasca faded by nightfall. Sitting at a long wooden table in the farmhouse kitchen, we nourished

our bodies with Nick's vegetarian version of *feijoada*, Brazilian bean soup. While eating, my fellow journeyers shared the communications they had received from the plant.

"I asked the vine, 'This is just me talking back to myself, right?' " Mitchell recounted. "And it answered, 'Sure, if that makes it easier for you.' " A woman who was still wearing a Mexican blanket over her shoulders said, "I was told we need to rush to save creation on this planet. There's not much time left."

"The vine said we need to stop fighting the old systems and start creating new containers for people who are going through these spiritual openings," Tavis reflected. "Together, we need to build something that's never existed before—a global network of light."

10

COSMIC SNAKES AND LADDERS

TIBETAN MONKS ADORNED IN RED ROBES and yellow hats shaped like upside-down push brooms led the hundred people in the audience in a silent meditation. Visionary painters Alex and Allyson Grey flanked the monks on stage. I heard from members of their community that they wore only black in public, which was the case today. Allyson had on a dark cotton dress. She tilted her head in a gentle but proud pose, while Alex—with long white wizard hair and a wise thin chin

—sat tall in a black blazer. I squeezed through one of the back rows to the empty foldout chair between Jade and Rena. When I passed, Jade slapped my ass so hard it broke the silence for several rows around us. I snickered along with her—I had found a woman who out-prankstered me.

I took in the familiar room around us. For the last week, I had been visiting the Grey's Chelsea studio every evening after finishing work at Eyebeam, which was located just a few blocks away. Surrounding us were paintings of couples kissing, having sex, and giving birth—but with a mystical twist. Alex portrayed the wild zigzagging red, blue, and green energy patterns and auric fields of these common experiences. One work that especially captured my attention showed the spirit of a dying man drifting out of his crown chakra into a bright light above, which echoed my own out-of-body experience on ayahuasca.

I found comfort and support from these paintings, as they articulated an unusual spiritual reality that I was being introduced to. I also met a like-minded scene of twenty-somethings who hung around the space daily, seemingly without jobs, although the tripper aesthetic of mushroom necklaces, psychedelic Tool shirts, and tie-dyed outfits grated against my own faux-fur-meets-cowboy Burning Man tastes. Still I was happy to discover an entire community that talked about the entheogenic substances and esoteric topics I found so compelling. As Tavis had suggested on the ride to our ayahuasca ceremony, there were more of us out there than I had thought.

Tonight's event promised some amazing things: horn-playing monks, the Greys' visionary art, and a complex sand mandala composed of bright, interconnecting flowers, triangles, and concentric circles in which the Tibetans had

invested more than a hundred hours of work. After their performance, the monks would brush their handcrafted masterpiece into oblivion as a way to symbolize the impermanence of our physical world.

I specifically came to the event to meet the plain-looking, seventy-year-old woman who sat next to Rena. Her mom, Becky, was visiting, and Rena brought her along so that Jade and I could meet her. Becky had curling-ironed silver-blue hair, so typical of grandmothers everywhere, and large bifocal glasses that took up half her face. I was disappointed that she had no obvious features that suggested she could give birth to such a psychically talented “indigo child” as Rena.

It was a miracle that Rena had been born at all. In a futile attempt to interrupt the pregnancy, her mom had downed bottles of Southern Comfort and sleeping pills, which resulted

in Rena's being born blind in one eye. This condition contributed a strange irony to Rena's vision: she was able to see lights and colors that few others witnessed, yet she lacked depth perception and would sometimes miss a stair or reach toward the wrong spot for a doorknob. As the group meditation began, I peeked to watch Becky's closed, wrinkled eyes, wishing I could read her mind and learn what tragedy had happened to Rena—the one she still hadn't shared with Jade.

After the meditation, the Tibetans played their ornate silver horns—high-pitched short ones and elongated six-foot cannons that sounded like foghorns. Rena grinned at me as she opened her eyes. She wore a Poison T-shirt that revealed the scraggly roots of the cottonwood tattoo on her arm. Jade had glittered both their faces with metallic pink eye shadow for the occasion.

“What’s up, gray one?” Rena whispered over the music.

“What are you talking about?” I asked.

“Your aura. It’s gray, like concrete taking shape. Something has come in to you after that ayahuasca journey. I bet you’ll notice some changes.” Rena gave me her usual all-knowing nod, which frustrated me.

The Tibetans blew discordant tunes accompanied by deep chants and grunts that seemed to aim more at activating energy centers than at pleasing eardrums. Afterward, the crowd followed the monks and the Greys into the hall next door, the Chapel of Sacred Mirrors (CoSM), where the sand mandala sat on a square table in the middle of the long, vaulted room. The walls featured a sequence of life-sized portraits of naked men and women. The first few revealed their biological systems, including the muscular, pulmonary, and nervous systems. The rest of the series displayed the

chakra system, auras, and finally a man transforming into swirls of pure white light. At the far end of these images hung a painting of a glowing Jesus with his heart-center illuminated in orange flames.

"I knew I'd find you hanging out with your old buddy" Jade jabbed me in the rib while I gazed at the image. She had bunched her hair into two adorable, Princess Leia clumps on top of her head. I squeezed her Powerpuff Girl shirt, smelled the lavender fragrance of her dark curls, and thought that the ayahuasca presence may have been right—perhaps she was my queen. As the Tibetans moved around the sand mandala, we overheard Becky asking Rena what the monks' auras looked like.

"Mom, if you wanted to know about these things, you should've taken an interest when I was a kid," Rena moved a few feet away from her. I guess I would have to wait for

introductions.

The monks prayed over their meticulously constructed mandala and its dizzying display of tiny, colored designs. Then without much ado, they grabbed white plastic sporks and scooped millions of perfectly aligned grains of sand into a clump of brown dust.

Hanging out with the CoSM community over the next few weeks, I had several regulars tell me about their own experiences communicating with intelligent snakes while on ayahuasca. I became obsessed with serpents, wondering why they appeared in so many visions, including my own meeting with the illuminated winking snake. When I brought the subject up to my aya-guide Nick, he recommended that I check out *The Cosmic Serpent: DNA and the Origins of Knowledge* by Jeremy Narby.

A Swiss anthropologist, Narby writes about encountering

two enormous talking snakes on a spirit-vine journey with the Ashaninka tribe in Peru and afterward coming to wonder why shamanic and mystical traditions across the planet worshiped serpents as creator gods, healers, and catalysts for transformation. He suggested that the answer might lie in the snake's form. Narby found that images of snakes in shamanic activity frequently appeared as twisting braids, vines, ropes, or ladders shown in the form of the double helix. Could these images be hinting at the pattern of DNA? Perhaps by altering their consciousness, shamans were able to interact with the essence or spirit of DNA in the act of healing their patients. As crazy as this possibility seemed, the evidence he accumulated was fascinating and impressive.

Narby discussed a Mesopotamian seal from 2200 BC entitled "The Serpent Lord Enthroned." The image features two commingled snakes, which form a double-helix pattern, next

to a regal-looking human figure on a throne near a fire altar. Aspects of the image echoed my own ayahuasca vision of a half-human, half-snake king sitting serenely on an invisible throne with light bursting from him, almost as if he himself were a fire altar.

I learned that a number of cultures depict snakes coiled around an axial rod, shaman's rod, or Tree of Life. Around 2000 BC, the Sumerians worshiped the serpent god Ningizzida, known as the Lord of the Tree of Life, for his powers of healing and magic. The Egyptian goddess called Buto or Wadget, represented as two entwined snakes twisting around papyrus reeds or deity poles, healed the children of Isis. The Greek god Asclepius learned his medicinal knowledge by watching a serpent bring medicinal herbs to another fatally wounded snake. The rod of Asclepius, drawn with a serpent wrapped around it, serves as the symbol of the

medical profession to this day. The Old Testament has its own shamanic healer in the figure of Moses whose rod shape-shifted into a serpent, after which God turned his hand leprous and then healed it. (Exod. 4:1–8)

DNA-shaped twin snakes, twisted ropes, Trees of Life, and stepped ladders often served as the *axis mundi* in diverse mythologies, bridging the underworld to our "middle world" and then reaching up toward higher spiritual dimensions. The *axis mundi* appears in the Bible when Jacob takes a rest on his way to Haran: "He had a dream, and behold, a ladder was set on the earth with its top reaching to heaven; and behold, the angels of God were ascending and descending on it.… Then Jacob awoke from his sleep … and said, 'How awesome is this place! This is none other than the house of God, and this is the gate of heaven.' " (Gen. 28:12–17) This passage led me to wonder if the ladder of our genes could

open the gateway allowing our consciousness to hitch a ride into angelic realms.

After reading Narby, I discovered that yogis speak of two serpentine pranic channels that snake back and forth along the human energy system's central rod, the spine. These torsional waves, called the *ida* and *pingala*, create a double-helix pattern around the middle current, the *sushumna* column, causing the sinuous flow of subtle energy up and down the body. These dualistic energy thought patterns (one is masculine, the other feminine), originating at the third eye (and the split hemispheres of our brain), spin the seven primary chakras, perpetuating the illusion of separation while turning the wheels of attachment and suffering.

Western esoteric traditions used a number of alchemical icons to express the importance of balancing these spiritual forces. Some of these musty icons portray twisting snakes on

a central rod with the sun and moon on either side. Others show bizarre double-helix contraptions distilling magical elixirs in even proportions. The Celtic cross, for example, stemming back to the early Coptic Church, featured intricate double-helix vines curling up the center column.

Although early Gnostic texts never specifically name the *ida* and the *pingala* channels, they do discuss the initiatic importance of transcending the duality of the right and the left. In the Gospel of Philip, I came across the following passage: "Light and darkness, life and death, right and left, are brothers of one another.... But those who are exalted above the world are indissoluble, eternal." (11.3) Pneumatics who experienced states beyond perceived paradoxes became "indissoluble, eternal." As the keepers of the inner mysteries, they claimed, "This power the apostles called 'the right and the left.' For this person is no longer a Christian but a Christ."

(11.3) As Jesus pointed out in the Gospel of Thomas, “When you make the two into one, you will become children of Adam, and when you say, ‘Mountain, move from here!’ it will move.” (11.2:106)

To get beyond the twisting illusory reality of the *ida* and the *pingala* and the dueling left and right hemispheres of the brain, yogis accessed *kundalini* (Sanskrit for “coiled like a snake”), a powerful feminine energy (Shakti) lying dormant at the base of the spine. Yogi Gopi Krishna regarded this “serpent power” or “fire serpent,” wrapped three and a half times around the sacrum, to be the “most jealously guarded secret in human history”[12] and “the guardian of human evolution.”[13] When kundalini awakens from its long slumber, it uncoils from the sacrum and shoots up the *sushumna* column, evaporating the twisting *ida* and *pingala* channels with its tremendous force. Blasting a path through the Tree

of Life's central trunk, kundalini pierces "the thousand-petaled lotus" of the crown chakra, uniting the initiate with the oceanic waves of universal consciousness.

We find this serpent image in Buddhist lore: when Buddha attained enlightenment under the Bodhi tree, the serpent king Mucilinda "came forth from his hidden realm and winding his coils seven times around the body of the Blessed One, he formed with his serpent's hood a great canopy above the head of the Buddha."[14] A similar image appears in the Old Testament, when God commands Moses to set a fiery serpent upon a standard and raise it into the air so that those who are bitten and behold it will live. (Num. 21:8) This allusion is continued in the New Testament, when Jesus says, "As Moses lifted up the serpent in the wilderness, even so must the Son of Man be lifted up; so that whoever believes will in him have eternal life." (John 3:13–15) By raising

kundalini energy up the body's Tree of Life, spiritual adepts pass through the veil of ego death and find themselves in communion with the "ineffable," "eternal," and "immeasurable light" that the Gnostics encountered (described in the Secret Book of John, 11.1).

Wanting to experience this divine light firsthand, I registered for a kundalini yoga course at a sixth-floor studio overlooking the Queensborough Bridge. This was no ordinary yoga class. We swung our torsos up and over, scooped our bodies back and forth, bent and released, snapped our bellies in and out, belting exhausting mantras of "SUT-NAM, SUT-NAM, SUT-NAM" with every breath. This was rigorous work, and I would end up winded and lightheaded after each class.

I kept up the routine for a couple of weeks until one night I found myself alone with the youngest teacher at the school as she was closing up. She was in her early twenties, with a

homely, freckled Peppermint Patty–like face that contrasted starkly with the exotic white turban and long sequined kurta she was wearing. We chatted in the narrow stairway on the way out. She asked me how I became interested in kundalini yoga. I told her an abbreviated story of my thirtieth birthday—Rena, the party, the MDMA, seeing energy fields—and how that led me to learn about the serpent on the Tree of Life. When I finished, she crossed her arms and looked away.

"You took a drug," she said. "That's cheating."

"It wasn't just that night," I defended. "I'd been in a process for months, seeking and researching, struggling to find some answers. I had put it out to the universe that this was what I was looking for. Taking the MDMA was like Archimedes taking a hot bath before his eureka moment. It gave me the space to relax and receive the intentions I had put out into the world."

“Still,” she argued. “It’s really, really dangerous.”

“I know it’s not the best way to do things, but it opened me up to a spiritual perspective. I would never be in this class if it weren’t for MDMA.”

“Maybe you don’t need to be in class anymore.” She dropped her voice in a way that made this sound like an order.

She walked down the last steps, waited for me to come outside, and then locked the door behind me.

I gave up on the kundalini classes after that and struggled with the exercises at home for several weeks until Jade, Rena, and I attended Playa del Fuego, Burning Man’s Mid-Atlantic festival for the Memorial Day weekend. This event was a poor, smaller Xerox copy of Burning Man’s gigantic art cars, sprawling theme camps, and monolithic fire sculptures. Set at the Vietnam Veteran’s Motorcycle Club in Odessa,

Delaware, the several hundred attendees displayed little artistic vision, setting up a few communal tents with cheap rope lights so people could party on the club's large lawn.

I had once thought that Burning Man's ideals of radical self-expression, leave no trace, and gift economies could save the world. But considering the rampant public drunkenness, this festival might well be mistaken for spring break in Fort Lauderdale, although the costumes here were better. It didn't help that local bikers with ZZ Top beards, Harley-Davidson shirts, and American flag bandanas hooted and whistled at each female they saw wearing plush pasties or bedazzled panties.

Perhaps Jade, Rena, and I were no better than everyone else, taking MDMA to stay up late and dance. Ecstasy was a party drug after all—one that kundalini teachers apparently hated. Jade and Rena glittered their faces with silver eye

shadow for Saturday night's festivities. Jade wore a long purple queen's coat with golden paisleys and a fake diamond tiara; Rena, a sparkly white dress with her straw Native American hat. I had on a brown suede vest, leather pants, cowboy hat, and my silver-flamed boots.

Jade requested that we stop first at the Gnome Adoption Agency, one of the only theme camps on the premises, to adopt a lawn ornament with a red hat, white beard, yellow overalls, and green pail. The camp hosts, dressed in red droopy hats of their own, gave us a disposable camera to record our adventures, which could be downloaded to their website after the festival. Jade cuddled the gnome in her arms like a baby, calling us "the starter family," and nestled close to me as we perused the sites. While using the Porta Potty, I accidentally dropped the gnome on the floor, cracking its head in half. I scrambled to pick up the pieces so

that I could glue them together later, but I knew that wouldn't appease Jade and that, once again, I had let her down.

"Jonny, you killed our baby!" she yelled without any trace of humor when I showed her the fractured gnome. Her brow curled, making her face look old and angry. "You're always doing this to us! I can't trust you to come through on anything. You can't support us. I had to buy the tickets to the festival, and you're wasting all your time on that Jesus stuff when you should be looking for a job. You can't even take care of a starter family. What if we wanted a real family someday?"

"I'm sorry my journey's been so inconvenient for you," I shouted back. "I hope one day something shakes your world up, and you begin to see there's more to the universe than jobs and family."

I was already on edge, coming up on MDMA, and I breathed deeply to avert one of my bowling-ball panic attacks. Rena pulled Jade aside to console her. We slowly walked to the center of the festival, where organizers prepared to burn a wooden pony that had been placed on a tall woodpile. Several women in black leather pants and vests spun hissing balls of fire on chains as the opening act to the burn. Rena placed her hands on the back of Jade's heart and transmitted soothing energy into her body while the pony went up in flames. "Just let it go," she whispered, watching the smoke rise up toward the half moon in the sky. "Let it go."

Jade's spirit lifted after the burn, and she whisked us off to the nearest party camp, where we danced to space aquarium electronica. We stayed for a couple hours with Jade occasionally flitting her eyes at the empty stripper pole on

stage. “Should I do it?” she finally asked. We coaxed her, and she hopped up to the pole, throwing off her queen’s jacket immediately. The crowd roared awake and clambered toward the stage. Jade teased and turned around the pole, slowly tugging off her silver top and black silk pants, revealing a pink lace camisole and Hello Kitty–imprinted panties. She leaped high onto the pole, slithering back to the ground. I took pictures for her sex-advice blog, knowing she liked to post tantalizing (but not too tantalizing) images for her readers.

An unexpected warm energy began to fill my heart as I watched Jade mischievously wink at different members of the audience. I breathed the pleasing vibrations through my shoulders, abdomen, and legs, loosening up tension in each part. I realized much of this energy was coming from Rena standing next to me, who must have vibrated at a higher

level than I did. For the next few minutes, I let my auric field fill with these soothing waves until I sucked in a big breathe of air, taking in as much energy as my lungs could handle.

"JONNY, STOP!" Rena pinched my arm.

"Stop what?" I asked.

"Stop that. It's not safe! You can fry your whole field if you overdo it. You should already know that." She pushed me aside and walked closer to the stage. I lessened my inhalations, but didn't see what harm a little breathing could do.

On stage, Jade straddled the pole, spreading her legs (and Hello Kitty) to the world. A middle-aged couple in matching faux-zebra jackets passed behind us. I overheard the woman sniff while glaring at Jade, "God, I hate Burner decadence."

Jade danced until her legs couldn't take any more, then we stayed up late drinking, chatting, and laughing until we

finally dragged ourselves to the tent. While Jade slept next to me, I soaked up the golden energy still sifting through my lungs. I took deeper and deeper breaths. Pneuma rushed in and out of my body's energetic circuitry, my bluish-green aura ballooning out around me. I kept gasping for more air, expanding my field until I felt something strange, something foreign, move at the base of my spine.

Like a rattlesnake stirring in the weeds, a thin line of energy violently unwrapped its flapping tail from my sacrum. This creature had a feral, untamable intelligence, its energy a dangerous live wire of swerving electricity. Was this kundalini? Whatever it was, it rapidly swung up to my root chakra, paused, then quickly penetrated the energy center at my pelvis. My breath seized, and I lay frozen as this fiery whip of searing energy crawled up my spinal column on its own accord, igniting each chakra until it reached the

underside of my scalp.

A troubling cacophony of voices spoke to me; I saw a billion eyes and ears spiraling out in fractal patterns across the universe, witnessing the story of creation. A fountain of sparking white light opened up above my head, and as I was about to enter it, I heard the familiar voice from my ayahuasca journey ask, “Cowboy, are you sure you want to go there?” Once again, I didn’t know what this presence was, where it came from, or if it was just a manifestation of my own mind. But I was beginning to trust it more after seeing energy fields and having such a healing journey on ayahuasca. Still, I didn’t understand why it couldn’t reveal itself if it was here to help.

I panicked. The danger of the situation became immediately clear. I had read that yogis spent their entire lives expanding and strengthening their energetic and

nervous systems to handle the high-voltage frequencies of a full kundalini awakening. I had been practicing only a couple of months, and here I was using the artificial accelerator of MDMA to push my auric body way beyond its natural limits. If this electric serpent pierced my crown chakra, I risked short-circuiting my body, burning out the pranic valves.

"Are you sure you want to go there?" the voice asked again.

"No!" I shouted, although it may have been only in my mind because Jade still lay there undisturbed.

I dug my hands into the cool, plastic tent floor, fumbling to ground the pulsing current the best I could. The snake aggressively tried to poke up into my violet seventh chakra, but I felt the presence stepping in to sprinkle cool waves on my head, slowly coaxing the serpent power down my spine bit by bit. "Easy, easy," the voice eventually charmed the

fiery animal back to its home in my sacrum, although its tail trembled excitedly, waiting for its next strike.

My auric field vibrated recklessly, and I remained still and terrified until the first signs of dawn when I shook Jade awake, telling her I was having trouble coming down. Although exhausted, she could see I was in a bad state, and she put on her clothes to take me outside. Jade had a nurturing quality about her in moments like these. She held my hand in her pocket with hers to keep it warm. Outside, a gaseous yellow blob circled above the maple trees in the distance. I watched the strange hovering cloud for several minutes until I recognized a hawk underneath the colorful smog. I was now seeing auras in their full intensity. The frenetic zigzagging rainbows of the festival's early-morning risers jarred my mind even more.

Near center stage, drummers circled around the dying

embers from last night's burning pony, pounding out staccato rhythms to the rising sun. Long indigo fingers crawled toward us from across the Delaware flatlands, and a ferocious globe of red pushed up over the horizon. The red turned angry and orange, pulsating warmth onto the earth. I could see the powerful moving waves, complex textures, and wild flares of the massive energy being we call the sun.

I packed the car immediately upon returning to camp. Rena heard us and began taking down her tent. Still recovering from last night, she didn't notice my fractured state. As I was about to shut the trunk, I spotted the broken gnome lying on top of Jade's suitcase. Staring at its jagged crown, I paused: I had almost done the same thing to myself. Ignoring Rena's warning, I had pushed my breathing on MDMA too far, inviting a potential catastrophe. I picked up the gnome and stared into its blank eyes, then tossed it in a

garbage can with a whiff of regret. By now, the glowing auras had faded, and I had no concern about getting behind the wheel of the car. I just wanted to get home, but I drove slowly, in no rush. I was happy simply to be in my body, with my mind more or less intact.

11

WHEN DOVES FLY

THE HOMELESS DOMINICAN STEPPED onto the L train at Union Square and came right at me. He had already barked like a husky at the closing metal doors, and shouted at an invisible cop over his shoulder, “I didn’t steal them meters, officer!” As if he had some kind of internal tracking radar, his eyes locked onto mine. Wearing an insulated camouflage jumpsuit and dirty black hoodie, an outfit too hot for late spring, he staggered my way, preceded by the smell of urine.

“You think you know the James, but you don’t know her!”

The muscles in his face distorted as if competing personalities fought for control when he talked. “The James is here, and she ain’t stopping the boat!” His skin was olive and he was impressively handsome for someone living on the streets. But the brownish halo I noticed around his head jerked from side to side, as if it were at war with itself. Staring me down, he screamed, “The James, she’s all that!”

I decided to get off at the next stop and take the long walk home over the Williamsburg Bridge. Apparently, subways weren’t safe for me anymore. In Prague, my Scottish barfly friend Alastair once said that you’re allowed two crazy people a week, but when a third one shows up, you had better look in the mirror. This was my third bizarro subway encounter since getting back from Playa del Fuego. All week, the kundalini serpent still vibrated in my sacrum, threatening another attempt at rocket launch, while my aura oscillated

wildly, acting like catnip to New York's mentally imbalanced veterans, homeless, and schizophrenics. I think I started to understand why Jesus, the pneumatic healer, cleared out the rebellious voices and demons that plagued people and rebalanced their energy fields, changing their vibrations to match our consensual reality.

Depressed after the long, anxious schlep over the bridge, I called asking Jade to come over and take care of me. I told her I was feeling fluish after our weekend away. She brought Campbell's tomato soup, rented a romantic comedy, and laid a woolen blanket over me. She held me with an unusually tight grip on the leather couch, as if I might slip away from her. I still hadn't told her about my near kundalini awakening, and I was glad she didn't ask.

While Jade took a shower, I sat on the edge of my bed. Staring at the glossy floorboards, I felt a current of cool,

dense energy rise up from below my feet and circle my ankles, tickling my toes. I concentrated on opening the tiny chakras on the soles, connecting with this grounding vibration coming up from the earth. Humbled by my latest blunder, I quietly asked the planet for forgiveness. I had disrespected and underestimated her kundalini power. I had let my desire for transcendental experience nearly push me over the edge of sanity. I prayed for her to take away this pulsating energy, to save me from this frightening new force, to have mercy on her wayward child. After several minutes of this, hot energy began sliding down the pranic valves in my legs, draining into the ground. My thighs and calves cooled off dramatically until the kundalini pulse quieted and gently disappeared.

A wave of relief overcame me instantly. I thanked Mother Earth for her help, and for having patience, for still caring for

me even after all the times I didn't recycle plastic bottles, wasted water with long showers, or spewed carbon dioxide into her atmosphere through air travel. I asked her to forgive us humans and to continue loving us even though we are recklessly destroying her World Tree of Life. Over past millennia, the patriarchal aggression of civilization had killed off the serpent goddess, the Gaian force that had sustained life on earth for four billion years. My naive hope that kundalini awakenings would elevate humanity to a Christ-consciousness-based utopia crashed when I understood the danger involved in unleashing its raw power. But given the current rate of species extinction, our planetary support systems didn't have much time left.

I sat in quiet meditation until I heard a tiny whisper infiltrate my thoughts, "You know, cowboy, there's a safer way."

“And what’s that?” I asked the familiar voice. This was the first time the voice spoke to me without my having ingested a mind-altering substance—a fact that worried me somewhat. Was I imagining voices? Wasn’t that the clinical definition of schizophrenia? I looked around the room for some clue where this presence might be hiding, but I didn’t see a thing. I waited for an answer to my question, but the voice didn’t respond. Whatever this spirit or disturbed mental projection was, it had a coy and frustrating way of popping into my life and then vanishing again without ever making itself visible.

A week later, I stopped at a local pharmacy, a small Puerto Rican shop on the south end of Havemeyer Street, and noticed for the first time two double-helix snakes pretzeling around a central rod on the store’s green awning. This icon, the ancient caduceus, included another important feature I had completely overlooked—a pair of white symmetrical

wings at the top. I had passed by this image dozens of times and never gave it a thought.

I then realized just how frequently serpents with wings (or with birds) were represented in various cultures, especially in the vicinity of the Tree of Life. In fact, this universal symbol associated with kundalini energy seemed to turn up everywhere, once I started to look for it. North American indigenous people spoke of the snake and the eagle, while in Middle and South America, they revered the serpent and the condor. The plumed-serpent god Quetzalcoatl from both the Mayan and Aztec cosmologies represented the sacred energy of life that fashioned the universe. In Chinese mythology, a dragon and a phoenix guarded the treasures of the Tree of Life, while Norse legend told of the serpent Nidhogg at the tree's base and an eagle perched on top. Ancient Egypt had a slew of mythic winged serpents, including the four-winged

snake god Chanuphis and the Winged Globe of Egypt—the insignia of the Egyptian Trinity (Amon, Ra, and Osiris), the forerunner of the Christian Holy Trinity.

In the Gospel of Thomas, the earliest known Christian gospel, Jesus says, “The Pharisees and the scholars have taken the keys of knowledge and have hidden them. They have not entered nor have they allowed those who want to enter to do so. As for you, be as sly as snakes and as simple as doves.” (11.2:39) A similar passage appears in the synoptic Gospel of Matthew, ironically warning initiates not to reveal protected knowledge, while also hinting at one of the mystery schools’ biggest secrets: “Behold, I send you out as sheep in the midst of wolves; so be shrewd as serpents and innocent as doves.” (10:16)

While Gnostics spoke of the importance of uniting the right and the left, in the Gospel of Thomas Jesus also discussed

making the upper and the lower and male and female into “a single one so that the male will not be male nor the female be female … then you will enter [the kingdom].” (11.2:22) The “lower” may have referred to the ascending mother current of kundalini energy from the base of the spine, represented symbolically as a serpent; and the “upper” to the father current, the powerful pranic channel (portrayed by wings) descending down the body’s Tree of Life from the crown chakra, circulating and balancing out these strong forces, rather than blasting kundalini out one’s scalp as I had almost done. Perhaps this current was the “safer way” the presence spoke of in my bedroom.

The Gnostic Hymn of the Pearl (also known as the Hymn of the Robe of Glory) offers a parable for mastering these dueling vertical currents. In the tale, a prince abandons his “glittering robe” (bright aura) and his father’s kingdom to go

into Egypt (the material world) to obtain a pearl protected by "the loud-breathing serpent" (kundalini), after which he follows the "voice" and "light" of an eagle (the descending current) sent by his father, leading him home to his "toga with brilliant hues."

In the Secret Book of John, Jesus interrupts the serpent's temptation in the Garden by swooping down "in the form of an eagle on the tree of knowledge" to bring "pure light" and "awaken [Adam and Eve] out of the depth of sleep." (11.1) A downward current of light also plays an important role in the New Testament description of the baptism of Jesus: the skies tear open and "Spirit" (pneuma) comes down "like a dove" upon him. (Mark 1:10) Perhaps that's why Jesus later tells the Judean leader Nicodemus, "No one can experience God's imperial rule without being reborn from above."[15] (John 3:7) Jesus immediately follows this advice with the resonant

allusion to kundalini: “As Moses lifted up the serpent in the wilderness, even so must the Son of Man be lifted up; so that whoever believes will in him have eternal life.” (John 3:14–15)

As I read about the immense transcendental power of these two vertical currents, especially in the mystical Christian tradition, I wanted to explore them in a more careful way than I had done with my kundalini screwup. I already recognized that the early holders of gnosis had concerns about authoritarian structures that were similar to mine. Their spiritual oppressors were Sadducees, Pharisees, and Romans, while mine were the profiteering Halliburtons, angry fundamentalists, and warmongering neocons. Unlike my political prankster cohorts, the Gnostics seemed to have discovered a more effective route to transformation. If I wanted to overcome the archon-like energies of our

corrupted political, religious, and economic systems, perhaps the answer didn't lie solely in battling my corrupt nemeses. Maybe it also required me to turn inward, safely activating my own latent power, mastering and balancing the forces of the right and the left, the upper and the lower, to access the high vibrations of the pleroma, the heavenly realms.

One day, Nick called to see if I wanted to participate in his next ayahuasca ceremony. Recalling the two golden eagles that rose up during my last journey, just before the snake king appeared, I told him, "Yes. I wouldn't miss it." I hoped another round with the spirit vine might bring me close to the eagle's energy, that allusive, all-important descending current. I also hoped to get better acquainted with the mysterious presence that kept appearing at dramatic moments over the last few months. Perhaps this time it would show its face.

Not wanting to stay in the city by herself for the weekend, Jade joined Tavis and me for our second journey with the spirit vine. “What if ayahuasca tells you to break up with me?” she said on the ride to the cabin we would be staying at. “I at least want to be there to tell her what I think.” Holding my hand in our ceremonial circle of Mexican blankets in the woods just north of the city, Jade acted as if this was a romantic daytrip into the country, but I wasn’t sure that spending time with one’s significant other was the best reason to blast off into multidimensional frontiers. Jade did dress for the occasion, wearing a *Muppets Take Manhattan* long-sleeved shirt that she hoped would invoke “fuzzy beings” on her ayahuasca travels. She had read the trip reports but discussed only one concern: the vomiting. “I don’t want people to see me hurling in the trees,” she repeated that morning.

Tavis sat on the other side of me, selecting her Brian Eno–inspired trip-list on her iPod. She wore Tomboy work overalls and a tan Buddha T-shirt underneath, digging her bare toes in the dirt like Huck Finn. I was still trying to catch my breath from her Nascar-like approach to driving us up here. Her boyfriend Mitchell was away researching places in Arizona to build an eco-retreat, where he and Tavis could "get off the grid and avoid the peak oil apocalypse."

The setting was an improvement over the dilapidated chicken cop in the Irish Catskills. Nick had rented a small cabin for the weekend outside of Chappaqua, the forested New York suburb where Bill and Hillary Clinton lived. Ten of us sat on bright red and yellow Mexican blankets beneath a grove of large tulip trees, which offered a majestic green and brown canopy to protect us from the midday sun. I happily gummed one of Nick's homemade ginger candies, looking

forward to what secrets the vine might reveal. Nick wore his mix of South American tribal clothes and Gap khakis. He had concocted horse-pill-sized ayahuasca pellets that we could chew to avoid the brew's pungent taste.

While waiting for the pellets to take effect, Wendy told me about Suluk Academy, the Sufi mystery school she had been attending at a former Shaker village in New Lebanon, New York. I didn't know much about Sufis, other than that they liked to chant while dancing in circles. But Wendy explained that they pursued the same sacred knowledge as the early Christian mystics. "Jonny, I think it could be what you're searching for. The Gnostics are gone, but the Sufis have stuck around. Our teacher, Pir Zia Inayat-Khan, is a young guy like us, political too, but he transmits the vibrations of an ancient lineage. I can't get into details of the initiations; we can't speak of them, but I assure you they're powerful." Without

question, her words caught my interest. So far I had only read about mystery schools. I wondered what it might be like to commit to one.

Nick's ayahuasca pellets landed like rocks in our stomachs. All ten members of our circle puked within the first forty-five minutes. Jade left for the bushes several times. "Oh, my God, what if I don't stop puking?" she fretted. After my first purge, as shamans delicately refer to the act of vomiting, I closed my eyes for a long time to calm the nausea. When I opened them again, Jade had disappeared. By now, the medicine had kicked in. I walked down the hill vividly aware that I was some type of spiritual essence inside a man's body walking toward a cabin in the material world to find another spiritual essence that had a home inside a woman.

I found Jade curled up on the cabin's gray wooden porch. Her face looked pallid, greenish. Her hair was wet. The

Muppets on her shirt were splattered in brown liquid. “I broke the toilet from puking so much,” she despaired. “It’s cancer. That’s why I’m throwing up.”

“Jade, you think a headache’s cancer,” I started to laugh, but then stopped myself, seeing how upset she was.

“The vine told me to get it all out, but I can’t. I’m puking air.”

I helped Jade sit up straight, breathe deeply, and feel her sit bones sinking into the porch, grounding her energies. As strong as the ayahuasca was, I told myself I would forgo my journey to watch over her, but then my stomach contracted like a pumping fist. I leaped off the porch into the nearby underbrush just in time to projectile vomit over the weeds. When I was done, I heard the familiar presence from my last ayahuasca trip speak out of nowhere. “Cowboy, this is a ride you want to take, trust us.”

“Us? I thought there was only one of you?” I said, concerned.

Several invisible beings giggled around me. “We’re full of surprises.”

“Why don’t you show yourselves so I know who you are?”

They ignored my request and began to hum soft, high-pitched melodies, creating fantastic blue and magenta hexagonal shapes with their voice frequencies. These beautiful shapes playfully danced around me. Convinced that something important was about to happen, I walked back over to Jade and told her that I needed to close my eyes for my journey.

“Jonny, don’t leave me here. I think I’m going to die.”

“That’s sometimes how vision quests are; they’re tough. You’ll get through it and I’ll be back soon, but I’m being called to do this.”

The beings hummed louder, increasing the colors of the elaborate honeycomb patterns. Somehow I knew they used these designs as camouflage so I couldn't see their real form.

"Who are you guys?" I asked.

"Who do you think we are?" they laughed. "We're your guides. We've been trying to connect with you for a long time—so crack open the champagne. This is our reunion tour!" they celebrated.

Kissing Jade on the cheek, I sat down cross-legged with my back aligned straight. When I closed my eyes, rainbow-colored confetti exploded all around me. The beings hummed louder, more joyfully, sending the hexagonal frequencies into me. Even with my eyes shut, I could see these vibrations transforming the darker energetic areas of my auric field into a bright and healing crystalline blue light. Reunion tour, indeed. These entities showed me moments from my life

when they had visited me before—when I was hiding under the covers from my mother's rage, and they helped me fall asleep; when I drunkenly considered suicide by jumping off Prague's medieval Charles Bridge, and a tiny voice said to me, "Stick it out;" the night I downloaded the whole idea for Greene Dragon during a TV-turn-off week flash mob in Times Square.

These frolicking spirits giggled around me like disincarnate Dalai Lamas, sweet, whimsical, and playful. It figures that my guides—if that's what they really are—would be gentle pranksters. Tears of happiness streaked down my cheeks as some part of me seemed to recognize that I had waited a long time to reacquaint myself with this invisible crew.

"Okay, we've only got a short time here," they said. "You are in for a trip so wonderful your human ego isn't going to believe it."

With those words, a blinding light opened up above me, descending into my crown chakra, filling my entire body with energy. It was what I had imagined early Christian baptisms to be. A pink lotus flower rose up from underneath me, lifting me into the air. Its petals unfolded when entering the potent, beautiful light. White energy gushed through my meridians, pumping pleasant sensations through my body. I was charged to the point of being overwhelmed. I had entered this journey hoping to connect to these beings and access the descending father current. Not only was it happening, but I had never experienced anything so ecstatic. Yet it felt safe, as if I couldn't possibly blow out my spiritual-electrical system under their tutelage.

"Welcome home, cowboy," the guides said. "Here's the answer to your question about humanity's meandering journey out of Eden." They giggled and hummed out more

blue and indigo geometric patterns to add suspense. “What you’re now feeling is the Jesus, Buddha, Krishna energy you’ve been looking for. It’s true—humans can become enlightened. In fact, you all already are. You’ve just forgotten, and it’s time to remember.”

The descending current continued to pour soothing light down into my scalp. My guides instructed me to soak up this vibration, to “remember how it feels and remember who you truly are.” They said this wasn’t a quest for my head, but one for my heart. My body undulated as I absorbed the light within my cells. I wondered if people could access this illuminated state on a permanent basis, and if this was the paradigm shift I had been seeking—a human race that could return continually to its connection to the source.

Suddenly, a jagged slice of pain and darkness cut through the light like a serrated knife into my abdomen. An urge to

look down immediately overcame me. Far below, perhaps miles down the stem of the lotus flower, I could see the small image of a frail Egyptian-looking woman, bloody and mangled, being tortured in a dusty brown cell with strange wooden and metal devices scattered around her. “She was you a long time ago,” the spirits whispered to me. “Her suffering created the dark seed for your lotus flower to grow.”

“But how can people be so cruel?” I yelled back. My outrage surprised me, making me consider the possibility that this image did represent a past life. “How can a loving God allow things like that to happen?”

“Cowboy, it’s hard for everyone, including the perpetrators. It’s not easy to take on shadow incarnations. Your job is to hold a candle in their darkness. Always remember the light. That’s why you’ve come here, to bring

light to those who need it the most, even those who torture."

With those words, a terrible blast of light flashed across my vision, forcing my eyes to open to the woods around me. I saw Jade crouched over the porch steps, whimpering, with brown saliva dripping out of her mouth. Before I could walk over to her, the beings told me to remain still. "Your left arm will go numb for a minute," they said, which it immediately did, falling limp at my side. I had the strange sense that I was sitting on some multidimensional operating table. I thought I heard some kind of buzzing, like a drill or a surgical tool, and I sensed a tickling just above my left elbow. A strange, luminescent green bug, shaped like a tiny futuristic helicopter, lifted from the porch and slowly hovered across my chest toward my droopy arm. It circled toward the spot that was being worked on. When it landed, my elbow moved again, and the bug instantly vanished. As I nervously

understood it, these entities had implanted some type of tracking device under my skin.

“This will make it easier for us to stay in touch,” they said.

“Where are you guides from?” I asked uneasily, suddenly remembering the word “alien” that they had given me on the night I started seeing energy.

“All in good time,” they said. “We’ll meet soon.”

But I wasn’t ready for that. Were they really guides helping me navigate my path back to the light, perhaps ascended healing masters visiting from another advanced off-planet civilization? Maybe they were simply cosmic biologists tracking a foreign species through its natural territory or, even worse, abductor types winning my trust to later kidnap me to their homeland. Of course, the most logical explanation was that they were mere hallucinations brought on by Nick’s questionable ayahuasca pellets.

As I stood up and walked over to Jade, I heard them say, “There’s one last thing today. Say hi to Rena. Like you, she’s one of us.”

“One of what?” I asked, but by then I could sense that they were gone.

I helped Jade carefully to her feet and held her up as we walked back up the hill to the camp. I handed her my water bottle and gave her ginger candy to clear the taste of vomit from her mouth. She was still sobbing quietly, and I rocked her gently from behind, humming the healing songs the self-proclaimed guides had sung to me. Whether they existed or not, I couldn’t deny the blissful energy flowing through my body.

12

REPTILES IN SPACE SUITS?

THE BURNERS HAD DRAPED PINK AND ORANGE Day-Glo fabric from the ceiling of the midtown club. On stage, up-and-coming DJs showcased their talents to record label execs. The playa bunnies, glitter fairies, and *Mad Max* hipsters contrasted starkly with the suit-and-tie regulars at the bar. Rena, Jade, and I had all ingested MDMA, and I sat with Rena in the back booth, wearing my new black cowboy hat with blinking gold flames. It had been only a couple of weeks since the last ayahuasca ceremony, so I was kicking back, taking it easy.

For the first few days following the journey, Jade cried intermittently, claiming she was grieving part of her childhood and her parents' inability to love her fully. I floated around my janitorial job at Eyebeam, basking in some mystical afterglow from the trip. Within a week, we were back to our normal selves, but somehow felt happier together, as if the ayahuasca had dropped unnecessary cargo that had previously burdened our relationship.

While Jade bounced wildly under the speakers in a lime green crinoline skirt, plush bra, and aviator goggles, Rena passed the time by reading me the auras of the Burners in the room.

"The Buddha dancing on stilts is a blue mischief-maker. The whooping black angel on stage, a white witch. The mermaid with butterfly wings ordering tequila shots, a magenta healer—although she doesn't realize it yet. And

Jade, as you know, is blue-green trouble with a capital T.”

“Rena, what are we?” I asked, remembering how my guides on the aya journey had claimed that she was one of us.

“I can’t see my own aura.” She drew her hands across her Whitesnake T-shirt and brushed back her red ponytail.

“Travelers, cowboy,” I heard the beings from my journey whisper in my ear. “You’re both travelers.”

Back at Rena’s place, the girls petted the three cats on the couch obsessively. The ecstasy made their fur thrilling to touch. I meditated on Rena’s small living room rug, positioning her many amethyst and quartz crystals around me. My field slowly lit up with energy. I kept breathing softly, feeling the light vibrations open my chest until a plasma cloud of energy formed around my hands. My palms suddenly began to move in circles by themselves, pushing

energy up into my heart center, which I saw glowing light green. I found myself chanting, “Ommm, ommm, ommm,” but as I listened closer, I realized I was actually saying, “Home, home, home.”

My hands moved in slow *tai chi* curves, bringing more pneuma to my heart and raising my aura’s vibration. Then they dropped and curled behind me, resting on the floor. The cloud of energy disappeared from my palms, and with my eyes closed I observed three long, extremely skinny, and obviously nonhuman fingers touching the back of my hands. My throat seized up. The fingers didn’t go away, and I focused my intention on them, trying to absorb what this might mean. “Alien,” I stuttered, recalling the word given to me during my first encounter with the presence.

“I think I get what you’re showing me,” I said to the presence. “But that’s enough. This is freaking me out.”

The fingers vanished and the plasma cloud returned around my hands, as my arms swooped forward and brought more *prana* to my fourth chakra.

"Let's go, Jonny. This is getting weird," Jade said.

The green light from their invisible fingers continued to funnel high-frequency green energy into my chest. Although edgy about these beings' planetary origins, I found their activities deliciously healing. And admittedly, this new alien situation intrigued me on a level I couldn't comprehend.

Rena and Jade retreated to the tiny bedroom to talk. The guides continued their energy work for half an hour until I heard Jade yell for us to go, but I didn't respond. She yelled again, and then I heard her crying. Rena stormed out and grabbed my swerving hands. "That's enough, Jonny! You've forgotten the most important rule of all—being present with the people here, in this dimension!"

Jade didn't talk to me on the cab ride back to her apartment. I crawled in bed next to her curvy naked body and stared at the pink and lime green Disney posters on the gray walls. The sun was already coming up, but I couldn't sleep, unable to shake the disorienting alien encounter, if that's what it was, and still feeling some of the effects of the MDMA. The green energy in my heart still pulsated brightly, and I put my stumpy human fingers over my heart, feeling its rapid rhythm, saying to myself, "That really happened, right?" But I really didn't know.

Without the slightest warning, Jade flopped on top of me and began grinding her pelvis into mine with a manic force beyond sensual desire. It was more like an attack. Her hips struck at my weak second chakra. I moaned from the pain in my abdomen, but she only thrust harder, pinning me down. Her legs pounded back and forth like a crocodile wrestling

me under water. She didn't appear aware of any of this, but rather was in some type of violent trance or spell—or maybe it was a force or spirit, I considered, that she was somehow channeling. My eyes grew moist, and I began to get angry. "She's my queen," I growled inexplicably, inhaling large gulps of *prana* as she pounded down on me. "She's my queen!" I yelled. Even as the words crossed my lips, I wondered where they came from. Jade's eyes remained closed, and she kept grinding and swinging her hips like a ravenous crocodile.

Finally, I let out a gut-wrenching roar. Energy surged through my system, and I threw Jade off with strength I didn't know I had in my skinny runner's body. Jade just turned on her side and snored, as if nothing had happened. I lay there trying to absorb the absurdity of the experience. Pneuma swelled throughout my energy field and, as crazy as

it seemed, I felt as if I was channeling in the same powerful entity that Jade had just used against me. In my aura, I could somehow sense the form of a big, reptilian astral creature with throbbing muscles and scales (yes, I could feel the scales). This thing was tough, strong, and armored like a crocodile, but also had some human-like qualities such as elongated arms and legs. I don't know how I sensed this; I just sort of did—which I didn't trust at all. I had already been down the rabbit hole of seeing energy fields and meeting invisible talking "guides," but now I was channeling (or shape-shifting into) a creature from the Black Lagoon. This was too much.

As I breathed and grounded my energy, feeling the invisible muscles and scales fade away, the plasma cloud of energy from my meditation that night returned around my hands. My right palm swooped down to my second chakra,

the left to my heart. Then I heard a chorus of voices from my immediate family. It was a fight. My father and sister were complaining that my mother and brother were bullies, and my mother and brother shouted back that the rest of us were wimps who needed to toughen up—the usual fault lines of our family dynamic. But in this case, the purported guides from my last ayahuasca ceremony rushed in as negotiators. They entered like the cavalry at the end of a John Ford western. The bickering voices subsided as the entities explained that my family came from two diverse galactic lineages.

"You're telling me my whole family is alien?" I argued back in disbelief, somehow not waking Jade.

"You've come from more places than just that, cowboy," the beings giggled. "Time is an illusion and the universe is vast, so start opening to possibilities."

“Okay, let’s just pretend this is true. So what?”

“Your father, your sister, and you come from a heart-centered race. Your mother and brother are from a feuding, second-chakra Reptilian line. Your family agreed to incarnate together on this planet to learn from and forgive each other. Cowboy, you’re the bridge between these two cultures,” they informed me. “Your journey is about balancing these energies and creating union. That’s what *holistic* means—including everyone, even those you hate.”

“If my brother and mom really do come from a race of reptilian aliens—which, for the record, I highly doubt—what about my sister, my dad, and me?”

“One surprise at a time,” they said. “For now, we have a mission for you. Your mom and brother want you to take care of Jade, who’s from their lineage, and help her find her spiritual path. That’s your karmic contract,” they said.

“Even if all this cosmic mumbo-jumbo is real, Jade doesn’t even care about mystical stuff.”

“All the more reason,” they giggled joyfully.

“Fine,” I mumbled. “I’ll give it a shot, but you guys need to show yourselves sometime if you expect me to keep this up.”

“Stay in touch,” their voices faded and the plasma cloud vanished around my hand.

Finally I had some privacy to consider all that had happened that evening. In one MDMA experience, I saw not just my worldview but my entire universe-view—if there was such a thing—crash on its reptilian, shape-shifting head. Were aliens more than flying-saucer joyriders watching us from afar? Could they be multidimensional prankster healers interceding in the 3-D drama being played out on earth? Were they manifestations of spiritual energy and the mystical experience? Was my ingestion of psychotropic substances

opening a portal for me to receive downloads from the pleroma, or was it perhaps rewiring my brain in dangerous ways?

I didn't know what to think about the explanation of my family members coming from different galactic lines. Perhaps it was literally true or maybe just energetically accurate in how we behaved with each other. But how could I admit the basic validity of certain information, while staying grounded in the material world? I know that the human mind can grasp only so much. What seems to matter is how we integrate and act on the leads we get from the astral plane—to be open to the messages, while maintaining our own unique discernment and not taking anything as absolute fact.

After that night, I ordered an array of books about extraterrestrials that claimed that archon-like reptiles—who were in league with some mean, big-eyed, ET-looking, gray

aliens—interfered with human events. I found it surprising how many books there were on the subject.

In *The Pleiadian Agenda*, Barbara Hand Clow wrote about a reptilian "World Management Team" that controls our thoughts through low-frequency subliminal messages in the media. David Icke, author of *The Biggest Secret* and *Children of the Matrix*, argued that nefarious illuminati of Anunnaki lizards from the fourth dimension once held the reins of empires and that the scaly bloodlines of today's political and economic rulers can be traced back to these domineering kings and queens of ancient civilizations.

In *Bringers of the Dawn*, Pleiadian-channel Barbara Marciniak wrote about reptile Creator gods ("Lizzies" as the Pleiadians humorously called them) who raided the earth, rearranged our DNA to limit our field's frequency band, and put a "frequency fence" around the planet, blocking out

divine light so they could feed off our negative emotions. According to Marciniak, humans today are the "guardians of light" who incarnated with the mission to receive the high vibrations of the heavens and usher in a kinder, gentler era on our planet. I can't say I believed or even understood what all these books claimed, but they did make for entertaining and sometimes scary reading, and they provided amusing mental exercises to stretch my imagination in new cosmic directions.

Once I started down the alien path, no byway seemed too outlandish to investigate. My recent experiences had turned my ontology on its head—it felt as if *anything* was possible. I trolled the fringes of the Internet looking for clues that resonated with me, willing to consider any assertion, at least for fifteen minutes. For example, I read the blog of a self-proclaimed Sirian channel, who wrote that she faced down

the psychic attack of a Draco, “a green scaled reptile with yellow slitted *[sic]* eyes wearing a one piece space suit” by calling on “the Office of Christ.” Aliens and Christ? That’s a connection I hadn’t considered. The channel’s online portrait reminded me of Sheryl Crow—LA blond wavy hair, perfect thin nose, and an almost unnaturally wide smile—but her tone was straight drill sergeant. “They’ve put an energy fence around the planet. Our mission is to receive the light pulsated in by the Intergalactic Federation. The Dracos can illuminate with us in this ascension process, or we’ll send them back home.”

This was the mother of all conspiracy theories! As crazy as it seemed, I couldn’t entirely dismiss it. I knew that my reptile encounter was more than an MDMA hallucination. Moreover, in some of the ancient Gnostic reports I had read, the world-dominating archons bore a disturbing resemblance

to the sci-fi rhetoric of the purported Pleiadian and Sirian channels. The Gnostics often spoke of demonic ruling forces that manipulated humans to serve them, blocking out the pleroma's healing light and feeding off our misery. In a sense, they had formed a type of "World Management Team" that trapped the earth in darkness, including the fallen goddess Sophia. Recognizing the bleakness of the situation, the angelic beings known as aeons plotted a rescue operation: Jesus smuggled in the liberating power of "the Epinoia of pure light" under the archons' radar (or "frequency fence" as Barbara Marciniak called it) to bring Sophia (and Adam and Eve) back to their home in the "Treasury of Light."

Most Gnostics considered the archons beyond redemption, but there was one mystic, the second-century leader Valentinus, who believed that even these dark ruling forces could find illumination. Valentinus had already been a hero

in my reading, a spiritual secret agent who used his position in the literalist Roman Church (he almost became pope) to expose initiates to the secrets of gnosis. Understanding Jesus as a *soter* ("one who makes whole"), Valentinus embraced an integrated perspective where even the most depraved and lost archon could find salvation. His approach had some significance to me. If I were to humor the possibility that half my family as well as my girlfriend came from archon-like ancestry, I at least wanted to believe that they could transform into kinder, gentler beings.

I also wanted to make some sense of my own identity. Am I really an alien? If so, what planet am I from? What am I doing on this big rock called Earth? What struck me most about all this talk of aliens was the notion that some part of me, an aspect of my soul, might have roots in another star system; that Earth is only one planet among many that

sentient beings inhabit; and that from one lifetime to the next, we might relocate from one planet to another. I was part Scottish, German, and English. Perhaps I also had some Pleiadian, Sirian, Draco, and Andromedean in me as well.

It's a remarkable experience to ask yourself identity-crisis questions from a comic book movie with a mostly straight face, but I don't recommend it. I lived through a couple of absurd, disorienting weeks. I kept imagining my family engaging in an interstellar drama during the banality of meatloaf dinners, household chores, and rides home from basketball practice. Just thinking about this made me dizzy.

During meditations, I asked the giggling voices for clarification, but they remained silent. I drifted into muddled confusion. My murkiness led me to question the veracity of these "guides" and whether they were indeed the allies I thought they were. They could have been trickster spirits

messing with me, an unsuspecting novice entering labyrinthine astral planes.

Who could I talk to about this? I called Rena to see if she had ever seen or had contact with ETs, but she told me that she never even thought about them. Even more maddening, Jade had no recollection of writhing madly against my pelvis that morning. “I fell right asleep when we got home,” she told me over a dim sum brunch in Chinatown.

For solace, I went back to the Chapel of Sacred Mirrors. I couldn’t stop thinking about one of Alex Grey’s paintings. Perhaps it held some answers for me. Called *Cosmic Christ*, it was a beautiful, complex painting tucked in the back of the church’s “black room.” The painting features a futuristic Jesus whose head and torso are formed out of jagged energy grids of orange and yellow flames. A cross sits at the savior’s third eye, stormy galaxies swirl in his corneas, a computer-

generated vortex swooshes in his crown chakra, and the earth is placed at his heart topped by the head of a crying green baby, suggesting a painful birthing process. Angelic healing figures appear both above and below the globe, channeling in holy light to a smaller figure of Jesus, who assists this planetary awakening in his human form.

Within the energy lines on the left side, Grey depicts the accomplishments and crimes of humanity—a space shuttle launch, tube-like satellite dishes orbiting in space, marching armies of the Third Reich, bursting nuclear mushrooms, and dark factories belching soot and decimating landscapes. In the frames on the right, religious icons are highlighted including Gandhi, Mother Teresa, and Martin Luther King, Jr. Scenes from the story of Jesus also appear, but with a *Star Trek* twist. For the birth in the manger, a glowing spaceship is substituted for the North Star, zapping Mary with a light

beam with a dove flying alongside. The resurrection takes place before two astonished disciples, who gape at a bug-eyed alien head anachronistically sticking out of Christ's traditional white robe.

Grey wasn't the first religious painter to include science fiction imagery in his Christian canvases. The practice goes back at least to the Renaissance. In Domenico Ghirlandaio's fifteenth-century painting *The Madonna with Saint Giovannino*, a metal disk-shaped object with portholes hovers above Mary's left shoulder. At the Visoki Decani Monastery in Kosovo, a fresco entitled *The Crucifixion* by an unknown artist from 1350 features a human figure flying a domed object with rockets shooting out the back on each side of the cross. Dutch artist Aert de Gelder (1645–1727) included a large, odd-looking disk beaming light down onto John the Baptist and Jesus in his painting *The Baptism of Christ*.

I sat cross-legged in front of Grey's work, recalling what I had recently read about the Axial Age. German philosopher Karl Jaspers coined the term to describe the period from 800 to 200 BC, which he believed was a critical epoch that framed our religious and philosophical foundations. The great teachers of that time—Confucius, Buddha, Lao Tzu, Zarathustra, and Jesus (who is included in this list by scholars who extend the age by two hundred years)—had striking similarities in their philosophies despite their isolation from each other geographically. For example, all preached the importance of the Golden Rule: treat others as you would have others treat you. As I looked at Grey's painting, I wondered if these teachers—be they mythical archetypes or flesh-and-bone humans—were a kind of cosmic Special Forces unit, sent from outer space to our world of illusion to bring knowledge of high-vibrational power.

Perhaps they were only securing the beachhead, and now finally the rest of us were waking up to our mission as celestial marines assigned to expand consciousness on this planet.

While taking in *Cosmic Christ*, I came upon a critical realization: this Axial Age–induced awareness (and its potential galactic inclinations) might revolve around the gnosis that occurs when one activates the heart center. That was the purpose of the golden rule after all—to learn to express compassion for others and oneself. Among the many images depicted in Grey's canvas, there is one striking small portrait of Jesus with energy pouring down through his crown and up through his root chakra to form a luminous star tetrahedron (a merkaba) emanating from his heart. In yogic teachings, I learned that two intersecting triangles—which form a two-dimensional star tetrahedron and a six-

pointed Star of David—produce the sacred geometry of the fourth chakra. This figure represents the sacred marriage of matter and spirit, earth and heaven, masculine and feminine, the above and below, and the right and the left—allowing two to become one. Staring at the merkaba that Grey had painted at Christ's heart, I realized that the heart served as the center point and pneumatic unifier of the diverse energy currents I had been studying. My heart was the balancing mechanism and energy converter I had been looking for.

Gnostics revered the sacred marriage of the "bridal chamber," which may have referred to the alchemical integration of opposing forces by an activated heart, as the final rite of initiation. According to the Gospel of Philip, the bridal chamber is "The Holy of the Holies," where Jesus made "the things below like the things above, and the things outside like those inside. I came to unite them in the place."

(11.3) Perhaps this was the meaning behind the glowing red flames of the Sacred Heart of Jesus seen in images throughout Christian cultures. To obtain enlightenment and witness the kingdom of heaven, one had to illuminate this power center, the median point of the seven primary chakras.

Like Grey's painting, a number of Renaissance alchemical engravings featured illuminated two- or three-dimensional merkabas. They often sat glowing in the center of an axial rod, cross, or tree, with doves or eagles above and serpents underneath. *Mer-ka-ba* means "light-spirit-body." The merkaba is believed to have its roots in Ezekiel's vision in the Old Testament of "an immense cloud with flashing lightning and surrounded by brilliant light. The center of the fire looked like glowing metal."[16] (Ezekiel 1:4) That sounds almost like a description of a UFO in the sky. Cabalists online describe the merkaba of the human energy field in a similar

manner—as a star-shaped light body that serves as “your own personal flying saucer,” an interdimensional vehicle to access different levels of reality.

In *Cosmic Christ*, Jesus appears to teleport to other energized geometric realms of the cosmos (signified by complex stars and cubes) by activating this multidimensional spaceship in his fourth chakra. Gazing at this image, I wondered if Christ’s ascension might refer not to his physical elevation to some kingdom above, but rather to a dimensional shift into his Father’s domain already present within him. I also wondered if he might have bumped into any giggling aliens driving merkaba-like craft on his way.

As I gazed at a burning tree on the right side of the painting, it occurred to me that our species might be moving up the World Tree of Life, through the vibratory fires of third-chakra consciousness—signified by masculine ego,

achievement, accomplishment, and willpower (we've gone from planting seeds to being able to see across the universe in ten thousand years)—into an advanced, integrated, heart-centered reality that will connect us to the elaborate fractal geometries of source energy and, who knows, maybe even to a reunion with other ascended beings from other worlds.

The axial vanguard may have created a cosmic groove or healing wave for other humans to follow suit. By instructing us to love each other as we love ourselves, they gave us a way to raise our auric frequency and enable our collective energies to lock into phase with the higher vibrations of the heart. As we entrain these energetic rhythms, the waves' amplitudes increase, magnetizing more people to that higher vibratory consciousness. Once the amplitude grows large enough, a critical mass of people could spark a mass shift in human awareness across our planet.

But this mission of shifting consciousness would require a new action plan, one not already in the playbooks. As a society, we are a house divided. Across our planet, human beings compete for money, jobs, land, resources, time, and energy. It's the norm for the spiritual, green, and activist groups to be splintered into multiple factions, fighting over small blocks of territory, losing sight of the larger vision. What if we joined forces, sharing our collective wisdom and gifts? I stared at *Cosmic Christ* and its abundance of manifestations, and saw myself as one of many spiritual warriors for a new, equitable, and ecologically sound society, helping people to deprogram from the predominant death paradigm, to heal from the trauma of parasitic institutions as we build a regenerative culture that values life and liberates us from work-week slavery, freeing us up to pursue our spiritual evolution to carry out a large-scale soul retrieval for

the Western world.

I reflected on the enormity of the challenge. It called for a societal shift beyond anything my activist mind could have ever imagined: the fulfillment of Jesus's promise to bring heaven to earth. I felt poorly equipped to contribute anything that might make the slightest positive difference. But then it occurred to me that perhaps this wild ride I had been taken on was necessary to crack me open, so that I could pay attention to the spiritual energies at work in this material world and act accordingly. Maybe the same essential download was also being delivered to other people—a massive, compassionate battalion of us—at the same time.

13

THE FIRST EXTRATERRESTRIAL CITY ON EARTH

FIFTY-MILE-PER-HOUR WINDS SWEPT through our camp, slamming plumes of white alkaline dust against the billowing circus tent we erected on aluminum poles. Thirty of us fought the storm with handkerchiefs or dust masks over our mouths and black-tinted goggles covering our eyes, as we assembled the Heebeegeebee Healer theme camp at Burning Man. By dusk, we surveyed what we had accomplished—a yoga area, healing space, classroom, shaman shack, two giant green dorm tents, MASH-style kitchen, and four-person solar-heated

shower area with gray-water evaporating pools. It had been a year since my virgin Burn, and I was ecstatic to be back in the desert, taking part in building the most outrageously creative city on the planet.

"I want to be a Heebee," Jade said the next morning while piling her plate with the camp's spinach and mushroom omelet, French toast, and pancake breakfast. Here in the middle of the desert, we were eating better than we did at home.

Jade wore what would be her preferred daytime outfit for the week—knee-high, eighties-styled striped socks, hot pink or lime green panties and bra, large ski goggles (for the dust), and a *Little House on the Prairie* print bonnet that she loved, but which I thought looked homely. I kept my costume simple—nothing but glossy paisley fabrics bought cheaply in New York's Fashion District wrapped around my waist as a

sarong. Sometimes I would sit cross-legged, revealing more than I realized. Rena later joked about our photographs, “Sarong is so right!”

Jade and I decided to camp separately this year, me with the Heebees to learn Reiki and practice yoga, and Jade at the Whiskey and Whores theme camp, which featured a Wild West saloon and free shots of Jack Daniel’s for anyone—male or female—who took a whirl on their stripper pole. “They’ve been guzzling whiskey for days,” Jade said. “I doubt they’ll have the camp ready by their opening party Wednesday night.” It was only Monday, and a line already snaked out of the Heebee’s healing space with people signing up for free bodywork. At Burning Man, the only things for sale are coffee and ice—everything else is free.

To my surprise, Jade joined me in the yoga classes, Thai massages, and freakishly loud monkey chants, but on

Wednesday, she left to teach a workshop on blow jobs for couples at the Orgasmatorium. I attended a Reiki I course led by Dragon, a bearded, burly man in a pink bunny outfit. He set up a massage table in the center of a geodesic dome and spoke with a calm authority. *Rei*, he told us, meant "God's wisdom or higher power" and *ki* was the Japanese word for "life force energy."

"It may seem strange to some of you, but you are all energy beings, and it's your birthright to channel these healing frequencies. I've taught dozens of people, and they've all been able to do it. So can you." I wanted to learn.

Dragon showed us where to place our hands on our clients, how to ground their feet and charge their chakras, how to move *prana* with our intention, and how to balance the energy flow in their arms and legs. Afterward, he came to us one by one and had us close our eyes as he spiraled Reiki

energy through our scalps. It had a wild effect: I saw sacred geometric symbols cascading down poles of light—without the benefit of a single hallucinogen. A warm current buzzed along my spine, heating up my palms. That energy then funneled directly into my client's field when we went back to practicing the treatment. After each session, my client and I felt relaxed, revitalized, "on top of the world," as he put it. We both noted that the healer received almost as much Reiki replenishment as the client did. "That's the abundance in this work," Dragon remarked. "Everyone gets healed."

That night, Jade described the extraordinary two-story-tall sunflower she had seen the night before and insisted on taking me to find it. After the sun sank behind the dark mountains in the west, the temperature dropped by forty degrees, and it became necessary to change into winter clothing. I put on black vinyl pants, a tan suede coat lined

with faux-Holstein hide, and my cowboy hat with blinking flames. It was my cowboy pimp look. Jade wore a fuzzy white hat and her ugly green sleeping-bag coat.

As we left the Heebeegeebee camp and entered the high-voltage flow of the crowds on the Esplanade, Black Rock City's main street, Jade handed me some special chocolate treats—to make things "sparkly" she suggested with a smile. Burning Man was a true tripper's paradise, and we giggled at a school of luminescent goldfish swimming by on art bikes, "Lego Man" dancing in front of a pixelated LED screen, and a guy driving a mushroom-shaped scooter with his camouflaged-brown body serving as the stem.

Black Rock City's thirty-five thousand inhabitants were arranged along a series of semi-circular boulevards, which were numbered like a clock from 2:00 to 10:00 with the alien-headed Man positioned at noon or midnight, depending

on how you looked at it. We started at 9:00 and walked the crowded curved Esplanade all the way through the yellow and green flags of Center Camp at 6:00 until reaching 3:00 far on the other side—a journey that took hours in our state of heightened curiosity for all things shiny, funny, and blinkie. All that time, Jade was convinced that the giant metal sunflower was only a few paces away. Finally, she snickered, “Jonny, you know that sculpture we’re looking for? Well, I think it might be mobile.” We broke out laughing. The probability of running into a particular art piece on wheels among several thousand acres of hyperspace distractions was less than zero.

We gave up on the sunflower and headed into the shadows past 2:00, where the city streets end and the loudest dance parties begin. From a distance, we caught the distinctive grinding beats and industrial saw-like riffs of DJ Lorin (a.k.a.

Bassnectar), who we had heard was spinning that night. We walked toward the music, climbing through a maze of parked bikes into a surging crowd that jumped with arms raised in time with DJ Lorin and his bouncing waist-long black hair. He had on the same blood-red T-shirt and black eyeliner that he wore at the Brooklyn warehouse party on the night I started seeing auras.

Jade threw off her sleeping-bag coat, revealing a frilly pink silk teddy that was worth waiting to see. She grabbed me from behind and showed me her best "R. Kelly bump and grind," as she put it. At first, I gave her the awkward white-guy moves, but then I tried to match the serpentine passes of her hips, following their curvaceous patterns and natural rhythms. Jade had always complained that I danced with my shoulders and head, flailing as if about to fly out of my body, but here I was enjoying the grounded pleasure of getting

dirty on the dance floor.

“Jonny, look!” Jade pointed at a massive sunflower that was being hoisted over the side of the dance floor by a large green crane, its mechanical stem. “That’s what we were looking for all night.”

“And it just happens to be lurking over Bassnectar’s set,” I laughed.

“Another one of those Burning Man synchronicities,” she smiled.

I had ingested only a dash of Jade’s chocolate treats and felt a light, pleasant buzz. Usually, I had to be pretty blasted before my self-proclaimed guides would show up. But now, under the glow of the towering sunflower, they announced themselves, giggling in my ear, humming tunes that suggested hexagonal patterns in my mind’s eye in sync with Bassnectar’s low metallic pulses. I welcomed them. They

asked me to close my eyes while I traced Jade's dance moves. "She knows how to follow the energy," they told me. "You're learning."

Behind my eyelids, I saw a computer-animated scene of earth back in its boiling volcanic days three to four billion years ago, when a single-celled creature magically appeared on the planet's harsh surface. In fast-forward, I watched this cell multiply and spread, mastering the art of photosynthesis before dividing into more geometrically complex eukaryotes, then into early sponge-like animals, stretching out into the segmented skeletons of fish, crawling and gasping as rubbery amphibians onto land, morphing into lumbering dinosaurs, dissolving into furry mammalian rodents that would grow and shape-shift into apes and chimps, finally straightening their backs as *Homo sapiens*, who could raise up the electric antennae in their spines through their crown chakra to

receive the higher frequencies of the cosmos.

While viewing this Cliffs Notes version of evolution, I continued to swerve along with Jade's sinuous hips, concentrating on connecting the energy flow from my heart to my second chakra. I realized how much I fought being present and became aware of this planet's difficult and dense three-dimensional vibrations.

"Cowboy, you know the great thing about grounding yourself and unifying your heart with the lower chakras?" my guides whispered in my ear.

"What's that?" I asked.

"It's really fun!" they cheered.

With those words, I got beamed from above with a purple tubular light. The effect was so powerful, I looked up to see if a flying disk hovered above the dance floor, but I saw nothing except the starry night and a tiny moon sliver. The

beam stayed with me as I stepped away from Jade, and my crown and root chakras filled with white light. The energy poured into my electro-spiritual system from above and below, circulating through my heart chakra. Immediately, my back straightened as if tugged by a puppeteer, allowing the pneuma to follow its natural course, activating my chest area.

With my heart center suddenly glowing brightly, a gray energetic curtain began to lift from my eyes to reveal a beautiful, luminous latticework of electrified *prana* stretching across the dance floor, out to the deep playa, and into infinity. I saw a complicated grid-work of white light connecting us all in the deliciously high vibrations of love. Not a hippy, naïve love, this was rigorous and mathematical, full of intricate geometrical relationships that swirled the energy in immaculately constructed designs. At that moment, I remembered a passage from the Gospel of Thomas, “The

Father's kingdom is spread out upon the earth, and people don't see it." (11.2:113)

The veil had been temporarily removed from my eyes, and I could see the interconnected white patterns pulsing through Jade, the DJ, the dancers, and myself, as we participated in this cosmic drama in our physical manifestations. With the illusion stripped away, I could see that we were part of an ocean of light. We are light flowing, moving, and transmuting shape similarly to the way that water morphs into steam and ice and snow. I understood Jesus's line about "loving your enemies." From this perspective, we were all divine Shakespeares, creating and playing the roles of muscled heroes and conniving villains, pious saints and debauched sinners, corrupt CEOs and disinterested temp workers. Watching this "immeasurable light," as the Gnostics called it, I suddenly realized that I had one man to thank for

my journey into this sudden mystical awareness: none other than President George W. Bush. I sent him a prayer of thanks, wishing him well in finding his way to the light.

"Jonny, are you going to stand there or dance?" Jade bumped me from behind.

"Dance," I said.

I spun her around, placed my knee between her legs, and pulled her into a low and sweaty grind, kissing and stroking her face, dipping her backwards and then pulling her up into me. Dancing with Jade in the whirling white latticework, I saw that it didn't matter where she and I came from—whether we represented different galactic lineages, as the familiar voices suggested, or simply hailed from white-trash Colorado stock and neurotic Northeastern roots. These were merely conceptual differences, imaginary constructions of divine light, wanting to know itself in new forms.

After Bassnectar's set, Jade put on her sleeping-bag coat, and we plowed through a mild dust storm to grab vanilla lattes at Center Camp. Jade complained that the dust would give her throat cancer, and I clenched up at her bizarre hypochondria. I heard my guides giggle that I should lighten up and play more—being judgmental was a blockage I needed to overcome. The purple beam shut off, and the white grid was gone, but their presence lingered. My heart felt the easiest it had been since nearly a year before when Bush took the election. That was an unexpected realization. As we stood in line and I surveyed the costumed, bead-wearing, face-painted horde wandering through the Center Camp café, I was struck by just how heavily the political defeat had weighed on me. I also contemplated that my giggly guides seemed to be suggesting that to be an effective political reveler, I needed first to connect to my heart and then

perhaps to help build a movement with other freaky visionaries, like those around me. What good is a revolution anyway if it isn't joyful?

At the roaring burn barrel outside Center Camp, we ran into two friends of Jade's, Don and Sarah. Sarah crouched on her knees wearing an Uncle Sam hat, attaching pads to the end of her fire poi chains in preparation for a fire dance. She looked up at us and cheered, "Jonny America, every time I see you, it brings out my shaman side!" In that second, her smile flickered into a sideways slit, her head transformed into a giant gray scalp, her eyes stretched diagonally into wide black alien eyes, and her nose shrank to two narrow pinpoints. Sarah had just revealed herself to be one of the gray aliens I had read so many negative things about while researching the Draco reptilians. Instead of being freaked out, however, I took it all in without a pause—one more piece of

initiatory information on the wild side I was now walking. It didn't hurt that she looked friendly and, frankly, kind of feminine.

"Look who's talking," I said back to her.

Don gave Jade a warm hug, and she nuzzled close to him. I always felt a tinge of jealousy about their friendship, even though Don and Sarah were married. Don had a lot of the qualities that Jade admired, including frat-boy humor and a slightly macho attitude. He had co-founded an online advertising company worth $850 million, owned his own brownstone in Park Slope, and although slightly balding, he was tall, muscular, and Jewish, which would make her family happy. Don didn't appear to be wearing a playa costume. He didn't need to. He made enough of a presence in his simple tan coat and blue jeans.

I returned my gaze to Sarah and heard the familiar voices

giggle, “See, not all aliens are ugly.” I giggled too. Don caught this, and he turned his gaze up to the stars and then back on me. He leaned in so close I could feel his breath. “You’re up there, aren’t you?” he grinned. “I can tell, but don’t worry—you’ll ground when the sun comes up.”

“How do you know?” I asked.

“Sarah and I have our own ET connections. When we first met at Burning Man a couple years ago, we ate some fungi on a golden, vibrating art pyramid, and she literally took off her face and showed me the sexy gray alien she is underneath.” Should I reveal to Don what I had just seen? I decided not to.

“That’s incredible. But aren’t the grays bad?” I asked.

“Most, but not all. Aliens are like people. Every one is different, and you can’t judge solely by race. Hell, even some of the Lizzies are helping out these days.”

Sarah lit up her poi and began spinning the chains. She

was new at fire spinning and struggled at it. Uninterested in our conversation, Jade walked over to hold a fireproof safety blanket for her.

"How do you know about the Lizzies?" I asked Don. I was surprised he knew the Pleiadian nickname for the reptilian aliens. I was also amazed that Jade and I just happened to bump into her two friends who claimed to have ET connections. Was it chance, or one of those playa synchronicities?

"While in bed after that first date with Sarah, my spirit was taken up to a mother ship with huge windows overlooking the earth," Don told me. "I saw thousands of saucers beaming down indigo lights of intention to help the planet ascend, but there were a few ships, some reptilian, I was told, that beamed down negative energies. My ship was full of bizarre and entertaining creatures—a carnivalesque federation of

sorts. They told me they had brought me here because ‘I could handle it.’ ” Don made quotation marks with his fingers in the air.

“You know, it’s funny,” he said. “People have this tinfoil-spacesuit, 1950s idea of aliens, but the beings I saw were galactic bohemians, David Bowie–like art stars, flamboyantly androgynous healers, and outrageous alchemists. A lot of them had really cool tattoos. They come from advanced societies that have synthesized art and science, so they know how to have a good time. I think of Burning Man as the first extraterrestrial city on earth. It completely integrates technology and visionary art with neo-tribal ritual. I figure most people attending came from other planets originally. They just don’t realize it—yet. The playa is a portal, preparing us for the cosmic dance party everyone’s waiting for.”

At that moment, a man wearing a black duster and a fedora stepped up next to us at the burn barrel. He seemed upset. Head drooped, he took off his leather gloves to warm his hands.

“Are you okay?” I asked him.

He lifted the brim of the fedora, revealing cracked red skin around his eyes. He was in his mid-twenties, with a thick Greek-looking unibrow, round chipmunk cheeks, and dark stubble on his chin.

“New Orleans is gone, man,” he said with a southern drawl, his eyes on the flames. “My house was wiped out. Katrina took down the whole city. People are dying in the streets, mostly blacks. Bush won’t do a damn thing. Thousands are holed up in the Superdome and abandoned in flooded prisons right now, left to rot. It’s totally third world. I can’t believe this is America.”

“I’m so sorry,” I said. He tried to hold back tears. I put my arm around him for several minutes, then he tipped his hat, said “Thanks,” and walked away.

I couldn’t tell what was more surreal—my alien introductions or the fact that the birthplace of jazz was under water. It all felt like pieces of the new normal. I reported the news to Sarah, Don, and Jade. Isolated in the never-never land of Burning Man—where cell phones don’t work and there is no email—we hadn’t heard what was happening off the playa in the “default world.”

“This is only the beginning,” Don said. “America is broke—$12 trillion in debt. Saving New Orleans would cost too much, unless we radically switched priorities from armaments to people. With each coming catastrophe from global warming, corporate entities are going to use the ‘Shock Doctrine’ to take control of traumatized populations.

Get ready," he said. "The fight for the planet is on."

Walking back to the Heebee camp that morning with Jade, the sun's rays grounding me for the coming day, we passed by an eight-foot-high café counter serving coffee to a stilt-walking ringmaster and a stilt-walking giraffe, two muffin art cars (one chocolate, one blueberry) racing each other down the nearly empty Esplanade, and a dirty-talking remote-controlled robot that hit on Jade. Our stroll brought back memories of a lunch-hour walk near The September 11th Fund's midtown headquarters. I remember noting each office, bar, bank, restaurant, shop, and apartment building and seeing for the first time that our entire culture is constructed of places where we work to make money to buy things, and places where we recover before going back to work so we earn money to buy more things. At the time, I couldn't imagine a society other than this depressing, monochromatic

hamster wheel.

But Burning Man offers something different. The festival does without the arbitrary laws and regulations that draw lines between people, isolating them from one another, boxing them in to consume more and more stuff. The society of the Burn follows guidelines that encourage participatory culture and community engagement. If a windstorm strikes down a party tent or light sculpture, volunteers quickly rush to put it back up. If you need a coat or a hug, people offer it to you, living in the spirit of the gift. Helpful Rangers in khaki cargo pants patrol the grounds, acting more like Boy Scouts than like body-armored cops with guns. There is a general trust for each other that enables people to feel safe to embody the festival's mantra of "radical self expression," which explodes in a circus-like spectrum of creativity and playfulness.

In Black Rock City, the clashing viewpoints of rugged individualism and collectivism meld into a dynamic social sculpture where the flame-throwing barbarians and leather-clad Thunderdome gladiators pitch in together to set up camp, or collect ice from Arctica (the ice store), or fill in a kitchen shift. These simple agreements lead to rampant synchronicities, as all of us have our hearts opened by resonating with the higher frequencies around us.

Perhaps Don was right: maybe Burning Man is the first outcropping of a new galactic culture on earth. But as I saw it, there was still one big problem with Black Rock City—it lasts only one week a year.

14

THE RISE OF REALITY SANDWICH

I FINISHED ASSEMBLING JADE'S BULKY WHITE IKEA dresser, made of a balsa-wood-like material, without a screw drilled into it. IKEA furniture has the integrity of a Jenga puzzle: one wrong pull on the sock drawer threatened to crash the whole thing in pieces on the hardwood floor of our new third-floor Williamsburg apartment. Jade examined the results of my work and spotted a pinkie-nail-sized scratch in the back.

"The dresser's completely ruined!" she yelled, stomping her bare feet. "We have to return it!" It took me a minute to

realize she wasn't joking.

Before that moment, I had regarded Jade's OCD as a somewhat endearing quirk, but now I recognized it as a mental condition not to be underestimated. As her pink feet pounded the floor in indignation, the risks of moving in with an anal-retentive woman with a self-proclaimed Rottweiler temper struck home. Over the next few weeks, Jade ranted about a dish in the wrong cupboard, granola crumbs on the couch, and untied bedroom curtains in the morning. After a shouting match over my inappropriate use of a paper towel rather than a cloth napkin, I slammed the bathroom door, turned the shower on, and sat in the tub. In true *delicado* style, I sulked with the hot water beating down on me. It occurred to me that I had moved back home with my mother. How could I be my merry cowboy self when I had no room to relax?

I should have known not to move in with Jade. The guiding voices had recommended that I “stick it out” with her; they didn’t say we should share an apartment together. Now I was trapped, with no money to pay a deposit on another place.

I avoided home for a couple of days, staying at a friend’s apartment in the industrial neighborhood of Bushwick. The time apart calmed Jade. She apologized, explaining that the move had stressed her out, and we decided to give cohabitation another shot. After that, living with her became a lot of fun. I would come home from sweeping the halls of Eyebeam to find our new Snowshoe Siamese, Blue, dressed in a Hawaiian lei with Jade holding his front paws in a hula dance. She made colorful art out of patchwork quilts and hung it on the walls, choreographed private burlesques to Warrant’s “Cherry Pie,” and hosted impromptu puppet shows

with the complimentary sex toys she received through her advice column. I learned from her sense of constant play. While I had always worked too hard on piecing together rent, doing projects, and pursuing my own transformation, Jade gave herself time to enjoy all sorts of earthly, nonsensical pleasures. Through her, I could see that it was safe for me to do the same, to while away hours doing silly, nonproductive things.

Around this time, I began to search for a modern Gnostic church I could attend. I figured that I wasn't the only person attracted to the practices of ancient Christian mystics and that a town of eight million liberal-minded folks was bound to have at least one Gnostic place of worship. The only thing close that I discovered was a Meetup.com posting—thirty-four people had signed up expressing interest in attending a regular meeting of the New York City Gnostics. Intrigued, I

signed up to host the first gathering.

The following Wednesday, ten Gnostic-curious attendees huddled around a small circular table at Caffe Dante, an Italian pastry shop in the Village. In striped sweaters and slacks, modest gray or blue business suits for those coming from work, our crew looked like an unassuming monthly book club. The group consisted of a documentary filmmaker, a tax accountant, a dog walker, two NYU English majors, a marketing consultant, a Westchester housewife, a high school teacher, an unemployed actor, and me. During introductions, each mentioned growing up Protestant, Catholic, or Evangelical and eventually leaving the church after getting sick of being threatened with the prospect of going to hell. Each member of the group still held onto the belief that there was something about Jesus that these dogmatic institutions didn't understand.

The unusual texts piled on the table before us daunted our little Gnostic club. These were not detective thrillers or easily digestible Oprah selections, but complex spiritual puzzles with titles like Eugnostos the Blessed, The Thunder: Perfect Mind, The Sophia of Jesus Christ, and The Tripartite Tractate. They featured bizarre sets of characters such as the four luminaries of the aeons (Harmozel, Oroiael, Daveithe, and Eleleth) and the seven powers of the archons (Athoth, Eloaiou, Astaphaios, Yao, Sabaoth, Adonin, and Sabbede). Perusing these gospels, the tax accountant threw down his thick, hardcover copy of the Nag Hammadi Library, which crashed onto the table like a cinder-block. “How are we ever going to make sense of this?” he asked.

But with time, we did learn more about the complex and varying cosmologies of the aeons, archons, and Demiurge, as well as the history and beliefs of Gnostic forefathers such as

Simon the Magician, Basilides, Valentinus, and Marcion. We even staged some of the ancient dances and recited the poetry of these early Christian mystics in an attempt to revive the experience of the original rites. Eventually, we left the cockroach-riddled walls of Caffe Dante and rented a private meditation room in Chelsea where we could incorporate our own rituals into our meetings. Members guided us through chakra activations, transformational breathwork, vowel chanting, shamanic journeys into the underworld, and middle pillar meditations—but it all felt flat and was ultimately disappointing. Lacking the powerful pneumatic transmissions of the lost lineages, the New York Gnostics made for a fine spiritual book club, but it would never double as a mystery school. We just didn't have the experience.

One day I received an email through the Meetup group from a man who claimed to be a Gnostic bishop. His name

was Gerald, and he ran a small Gnostic church in the village of Tuckahoe just north of the city. He claimed to retain the inner wisdom of the twelfth- and thirteenth-century Cathars, a persecuted sect from the Languedoc region of France. He offered to teach me what he knew, and I took him up on his offer.

Gerald operated his church out of a crumbling Masonic lodge that looked as if it had been abandoned for the last hundred years. His entire congregation consisted of two haggard, elderly men—one African American, one Caucasian—with stubbly white beards. They both doted on Gerald, a short, sickly, potbellied man in his sixties, with small boils on his face, dressed in black pants and a black long-sleeved turtleneck. Gerald chain-smoked Marlboro Reds, explaining through repeated coughs that he didn't quit cigarettes because, "Kid, I can heal my throat through intention." He

called me “kid” almost every time he spoke to me, which I found both movie-like and annoying.

In the auditorium of the lodge, the three Gnostics interviewed me for an hour regarding spiritual questions before entering a side room to vote. As they had only three members, most pushing the average life expectancy, I knew they wouldn’t say no. The men came back wearing white cleric’s albs and black masks over their eyes. Apparently, they needed the masks to hide from evil spirits while they indoctrinated me into the first level of their order.

They turned off the lights, lit candles, and began to chant and grumble in monstrous-sounding, gravelly voices. I sat through hours of prayers while they tapped a broad sword on my shoulders and had me repeat unfamiliar Latin phrases. Eventually I was asked to stand up, walk in circles with my eyes closed, place my hand on the Bible, and swear an oath

in Latin, and then master a couple of complex magical handshakes. The ceremonies were boring and interminable, but I kept coming back, thinking I might eventually glean some initiatory wisdom after going through all the ceremonial hoops and whistles. But that was not the case—I had achieved higher states through mid-level vinyasa yoga classes. After several weeks of pomp crap, I met with Gerald alone in the lodge's basement to express my reservations about the lack of gnosis in his Gnostic church.

"Look, kid," he puffed out cigarette smoke as he talked. "I'll let you in on a secret: the Gnostics were all killed off. If you're looking to be one today, then become a Sufi. They're the only Middle Eastern mystics with their lineage intact."

I was still looking for a spiritual path. After my disappointing encounters with Gerald, I recalled the energy transmission I received at the Reiki course during Burning

Man, so I signed up for a Reiki II class. I learned the symbols for power and protection *(Cho Ku Rei)*, mental and emotional balance *(Sei Hei Ki)*, and long distance healing *(Hon Sha Ze Sho Nen)*. In the Reiki III Master course, I learned how to give attunements to myself. Every Wednesday, I would study under the tutelage of several bubbly elderly women—the "Reiki ladies" as I called them—who wore big, old-people glasses and grandmother-styled pink and baby blue woolen sweaters during healing exchanges at a Union Square spa. They taught me how to scan a client's aura for problems, unclog blocks in the meridian system, scoop out negative energy, spin the chakras in the correct directions, and cycle *prana* through my heart center, since that was the place where they said healing occurs.

One of the Reiki ladies recommended that I invite Jade to a beginner's *tantra* class for sacred-spot massage, thinking it

might help unite our different paths of sex and spirituality. Halfway through the daylong course, the overly jovial male instructor, in matching red Hawaiian shirt and shorts, pulled the men aside to break the news to us. “The sacred spot is located in a place you might find uncomfortable at first,” he said. Following the instructions we received in class, Jade rushed me to the shower when we returned home. I spent a long time under the spray, preparing for the uncomfortable place the instructor had warned us of. After I toweled off, Jade called me into the bedroom, where she stood naked, her voluptuous tan skin illuminated by candles placed around the room. She caressed and kissed me, and led me to our bed where she rubbed massage oil on my chest, trying to relax me for what came next.

She applied silicone lubricant to her index finger and, kissing my inner thigh, gently inserted the finger into my

anus. “God,” I thought, “Please, don’t let Jade write a column about this.” Jade slowly wiggled her finger, while stroking my penis. It felt surprisingly good. I followed the teacher’s instructions to breathe deeply up my spine, pulling energy up from my pelvis to my throat, and to release the vibrations with loud exhales and vowel chants. Jade’s hands heated up, stirring up blocked energy inside that sensitive area. As I sucked up more pneuma, my whole body began to convulse with tiny electric sensations, causing larger ripples to roll through me with each extended “ohhhhhhh” and “ahhhhhhhh.” It felt amazing, but the experience was tainted by the possibility that Jade would write about it. Please, not this one. All her friends knew who “the cowboy” was, and I didn’t want them to visualize this escapade.

“Ahhhhhhhhhh. Uhhhhhhhhh.” I let out more pleasure-filled vowel chants, puffing the energy up my spine. I held on

for longer than I expected, maybe twenty minutes, until an energetic wave came through that was so large, it ripped a scream out of me as I convulsed on the bed from my first full-body orgasm, which lasted a heavenly two or three minutes. A murky blue fog of energy slowly lifted from where Jade's finger had been. I sobbed out pent-up sorrow that had accumulated in the area, before finally breaking into laughter after it had fully released. I pulled Jade over my body and dotted her face with quick kisses. Who knew healing could be so pleasurable?

Before that night, our sex life was conventionally adequate. Two tantalizing boxes of sex toys lay shoved under the bed, rarely opened. Men often remarked after meeting Jade, "You must be the luckiest man alive, dating a 'sexpert.' " But our partnership felt more like a comfortable companionship, with Jade paying more of the bills while I offered up the

intellectual component of our conversations—“I always learn from you,” she would say. But that night, I snuggled up against her with Blue purring between our legs, thinking that this just might be the “starter family” I wanted and the sexual life I had been waiting for.

“Jonny,” Jade whispered as I was about to fall asleep. “I think I might be a sexual healer.”

“I think you’re right,” I said. Even those pesky guiding voices claimed that she came from a sex-chakra-based galactic line.

“You know, Jonny, I’d like to write an article about tonight. I think it would help people. You don’t mind, do you?”

A few days later, I received a call from an old acquaintance, Daniel Pinchbeck, the author of *Breaking Open the Head: A Psychedelic Journey into the Heart of Contemporary*

Shamanism. In Burning Man circles, Daniel's book had become an instant classic, with its account of his unfolding awareness into mystical realms through a harrowing West African initiation ceremony with the hallucinatory rootbark *iboga*, ayahuasca journeys with a Secoya tribe in Ecuador, and adventures with a mushroom shaman in Oaxaca, Mexico. The book was widely admired and debated. I found a lot of common ground with Daniel's story. He started out as a jaded, dispirited journalist, which felt similar to my own disillusion with activism, and, like me, he had found visionary prospects and a strange new life through the use of plant medicine and other entheogenic substances.

Written in an assured, staccato tone, the book made Daniel appear to be the chicest psychedelic hipster alive. When I first met him at a storytelling event at the swank, 150-year-old Players Club at Gramercy Park, however, I was initially

disappointed. With his thick horn-rimmed glasses, uneven English-looking teeth, and disheveled mess of dishwater-blond hair, I realized he had been born into the neurotic, hyper-intellectual world of New York City. But minutes later, I recognized an unexpected confidence and coolness about him that radiated an aura of intrigue for those attending the event. Daniel was one of those rare eccentrics that make for Manhattan legends, like the howling Beats in the Village in the fifties, the late-night ramblers at Warhol's Factory parties, and the punk rockers who played CBGB. There was something magnetic about Daniel that left you wanting to check out what he was doing.

On the phone, Daniel told me he was working with a team on a project I might be interested in. The next afternoon, I went to his cramped Alphabet City apartment. Esoteric books covered several bookcases and were stacked in haphazard

piles in the corners. Daniel sat at a desk. His hair looked more scraggly and his eyes more tired than I remembered. He had just returned from a cross-country tour to promote his new book, *2012: The Return of Quetzalcoatl*, which I had yet to read.

On the couch sat Ken Jordan. With his short-cropped hair and button-down blue shirt, he struck me at first as one of the straightest guys I had met in years. This stiff look didn't sync with the few details Daniel had told me about him. One of Daniel's oldest friends, he helped create the popular, activist, street-theater group Billionaires for Bush, which Greene Dragon occasionally mock-battled during demonstrations at the Republican National Convention. He was also a digital-democracy pioneer who co-wrote an influential white paper titled *The Augmented Social Network: Building Identity and Trust into the Next-Generation Internet*.

This guy could have passed for a Dow Jones lawyer. I would later discover that he had an impressive, almost encyclopedic memory of the secret history and personal stories of the Beats, Yippies, and eighties' art scene in New York, much of which he had learned first hand from the protagonists themselves.

Ken introduced me to Michael Robinson, the goateed, quick-witted graphics guru of this mysterious project. Michael had led the global rebranding effort of Ramada Hotels, but then underwent a transformation after channeling alien-looking tarot symbols while staring at a bonfire at Burning Man. He now fused Madison Avenue chic with alchemical imagery. He was good looking but lanky, charming and yet awkward, with an absurdist sense of humor in line with Ringo Starr's stumblingly brilliant performance in *A Hard Day's Night* (which steals the entire movie if you're

paying attention). It occurred to me that all these guys could be labeled “cool geeks,” and I suppose that description applied to me as well.

“So, what’s the project?” I asked.

Daniel showed me a mock-up for a web magazine on his MacBook. They called it Reality Sandwich, a name that struck me as clunky and bizarre, even though it came from the title of a book of Allen Ginsberg’s poetry. But name aside, I was into the project. Composed of hot maroon and red hues and futuristic fonts, and a logo that featured a Mayan-looking eagle eating a serpent, the homepage had a sleek urban shamanista look. At the top of the page, the menu offered disparate categories—Tech, Psyche, Art, Commons, Eco, and Life. Sample articles covered topics as diverse as local non-interest-based currencies, ayahuasca as a healing agent for HIV, zero-carbon cities, icaros in pop music, the relationship

between psychedelics and yoga, lucid dream technology, and vertical farming. I saw immediately that Reality Sandwich represented transformation at its core, focusing on how we can redesign our culture, social structures, and personal lives in a celebratory and integrated future-tribal synthesis. Daniel, Ken, and Michael had all been inspired by Burning Man and, like me, they wanted to take its ideals out into the "default world."

Unlike my previous political organizing, this project didn't focus on fighting injustice, but rather on fostering, supporting, and transmitting the memes and mythologies of an emerging movement through open-source digital technology. From the start, the intent was to do much more than publish a magazine. The plan was for the site to act as a lighthouse, as Ken put it, attracting a community of people from around the globe in sync with the vision, and

connecting them to each other on- and offline using social networking tools. This project represented the next level of activism, integrating soul and spirit with practical and tangible solutions.

As intrigued as I was by the magazine, what grabbed me most was the community organizing aspect of the project. Imagine a network of plugged-in, turned-on Burning Man activists organizing change, neighborhood by neighborhood, sea to shining sea. I was hooked. To get the magazine up and running, they were looking for a managing editor to track the flow of articles into the site and help with author correspondence. While the job sounded too much like a glorified clerk, the prospect of participating in building the grassroots movement once they got to Phase Two sounded perfect. Would I join the team? We would be “three Jews and a Gnostic,” Daniel joked.

How could I refuse? The project seemed the ideal way to dive deeper into the paradigm shift I had been exploring. But the team had two serious challenges. First, they had no money. Everyone was volunteering—the techies, the writers, the whole crew. Beyond that, the name of the website, in my opinion, wasn't sexy or marketable. I sat up that night in my meditation nook, brooding over the endless number of volunteer hours I would rack up working for a sandwich, a Reality Sandwich. What would Jade think?

When we soft-launched on May 8, 2007, three hundred visitors checked us out. Some sent excited emails that our magazine was what they had been waiting for, a site that combined hip subcultures, the radical green movement, and the shamanic and spiritual underground. But either readers got this modern alchemy or they didn't—there wasn't much middle ground. "Don't you have any identity?" read one of

the many confused emails we received. “You seem all over the map.” But buzz gradually built around the site, and within a year we were getting over fifty thousand visitors a month—an international transformational community large enough to fill Yankee Stadium.

Although we had no budget to pay contributors, Daniel and Ken managed to keep enough feature articles coming in for us to publish daily. Finally, writers had a place to share stories about their own initiatory process of spontaneous kundalini awakenings, psychedelic healings, energy openings, encounters with astral beings, and even galactic contact. Emails poured in from readers: “Hello from Boise. I don’t know how to tell my mother I can see auras. What should I do?” “I’m having a kundalini crisis and can’t ground. Any advice?” “I woke up last night to find three tall, long-headed people in my bedroom. They say I’m a Sirian starseed. What

does that mean?”

Emails pleading for support or understanding came in so frequently that I felt we had become an ontological help desk. We rarely answered these notes, other than with a gentle word of encouragement. Personally, I didn’t feel qualified to do more—and neither did the others. That was particularly true when we’d get bombastic proclamations from readers who were going through a crisis and were unable to integrate the spiritual knowledge they were receiving, and they’d declare themselves as the only person on earth who grasped the divine nature of reality—you could tell they were actually having a nervous breakdown. The path to awakening can be treacherous and without the right kind of support, not everyone will make it. Many of these readers didn’t need a web magazine; they needed a yoga master, a shaman, and an open-minded shrink.

Reality Sandwich headquarters gave me a front row seat for watching a multitude of lights switching on across the electric branches of the World Tree. But after a year of working two jobs (one of which didn't pay), I began to feel run down and exhausted, and my relationship with Jade suffered. Luckily, at that point, Daniel and Ken were able to attract our first investors, and they generously offered to make me the first paid staffer. I felt mildly guilty, since Ken had a wife and Daniel a daughter to support, but I accepted a small salary that allowed me to quit working at Eyebeam and start a two-year part-time course at the Connecticut Healing Institute. A graduate of the class once told me, "Reiki is like knowing CPR. This is like getting your MD in energy medicine."

Barry Gordon, the institute's director who taught the course, pushed twelve of us through a crucible of high-

frequency energy work that challenged us to breathe through the “death layer,” releasing fear, anxiety, and limiting beliefs. In a rented elementary school classroom, we confronted the difficulties of balancing the brain’s hemispheres, funneling in rainbow colors to repair the spinal column, accessing the red-hot density of *hara*-line treatments, and harnessing specific vibrations to heal addiction. Clouds of energy often encircled my hands as my guides moved my palms over places in a client’s body that needed work, zapping healing white light into my client’s field. My guides seemed talented at this work, and I enjoyed surrendering to their help when they made it available.

I had been able to meet almost every challenge Barry presented until the day he placed a plastic orange baseball bat in my hands and said, “Jonathan, sink into your anger! Feel it! Be it! Own it!” Unlike many new-age Reiki healers,

Barry possessed the gruff masculine humor and disposition of a much loved high school coach. Skinny, tall, and with a rigid frame, in his prime he would have been a basketball forward. “Breathe deep into your abdomen, then yell when you swing the bat!” he ordered. His directive was a welcome contradiction to the programming I had received from my mother, who taught me as a child to bury my rage under shame.

I hesitated, then inhaled deeply, and with as much force as I could muster swung the bat down onto a pillow, which was propped on a chair. Molecules of rage flew out from my nervous abdomen, where the black bowling ball lurked, and shot through my arms, releasing upon impact. Primal roars shook out of my belly through my throat, and I found myself growling at my mother, “How could you do this to your own children? How could you not love us?” I crashed the bat into

the pillow again and again, bellowing these words with each blow. All of the energetic rage my mother inspired in my body came bursting out of my aura, exploding into the pillow. Suddenly the waves of anger crested, and the sorrow that had been smothered underneath floated to the surface. I cried, releasing the grief of growing up with a mother who didn't know how to love her children. As I cried, I was overcome by a sense of peace, and I realized that my mom actually did love me. She had done the best she could. Her own wounding had limited her capacity to express compassion, just as my own fears and pains restricted my ability to love.

When I got back to New York, I tried something I rarely did—I gave my mother a call. After semi-retirement, my father and she had moved back to a small town in northwestern Missouri. When I called, they were on the front

porch watching a V-shaped skein of geese descend into the swampy wildlife refuge across the dirt road from their house. My mother was cheerful and buzzing to hear how my “Big Apple adventures” were going. You might say she was a little too bubbly, with an artificially high voice that feigned more excitement than she felt. Still, it was nice to know that she was interested in my life. I told her briefly about the healing program I was in, wondering what she would think. “I’m so proud of you,” she said. “I’m proud of all the things you’re doing. You’re such a free spirit. You always have been. I know you’re following your heart.”

I could barely talk from the lump swelling in my throat. I knew she had meant every word.

After the call, it occurred to me that it was my own fault that I was estranged from my family over the years. More than a decade had passed since my mother last raised her

voice at me. My sister insisted that mom had changed after almost dying of pneumonia—that she was now “full of love.” But I didn’t believe it. Because of my lingering resentment, I stayed in my college dorm, refusing to visit her at Saint Luke’s in Denver while she recovered. At the time, I didn’t realize how serious the illness was. But to my mother’s credit, she never brought it up and never held it against me. She truly must have changed.

15

IN WALKS CHAOS

Reality Sandwich's first investors, Dave and Macy, dubbed us "The Reality Four." One winter afternoon in 2008, Daniel, Michael, and I huddled over Ken's laptop at Cafe Mogador in the East Village, picking at a hummus platter while looking at a set of three unusual diagrams on the screen. Ken had a way of talking excitedly about the geekiest stuff, and I admit, my mind often wandered as he rhapsodized about data interoperability or the nuances of user-centric digital identity systems. But now he had my

attention, because he was explaining how the Internet could support the growth of our marginal scene of radical mystics into a global social revolution. The diagrams showed how the Internet's basic architecture is perfect for grassroots organizing on a mass scale.

The first diagram demonstrated how media worked before the Internet: one big dot at the center, and a lot of lines reaching out from it to smaller dots at the edges. This old model of media is *centralized:* information and communication flows from a central source—a TV station, a newspaper editorial room—out to you and me. The second diagram showed how things function in a *decentralized* network: there were more big dots with lines extending to smaller dots in the corners, more sources of information that could flow out to info-consumers, but ultimately communication still has to be channeled through hierarchical

hubs where powerful people control the flow and decide what can or cannot be expressed. The genius of the Internet, Ken explained excitedly, is that its design follows the pattern depicted in the third diagram—it's a *distributed* network.

He pointed to a sea of dots connecting to one another by innumerable short, direct lines in a kind of mesh pattern. There were no big centralized dots that could act as gatekeepers. The image suggested an attractive web that resembled the white lattice energy patterns I saw during my epic heart opening at Burning Man. Because everyone on the Internet can connect straight to everyone else, with no meddling intermediaries, people are able to share their talents, resources, wisdom, and passion in a rich and supportive web that cycles energy through its elegant system, creating a flow of abundance.

The image captured our vision for the social network we

were building on a shoestring budget for Reality Sandwich that winter. We wanted the community drawn together by the web magazine to connect with one another so they could start grassroots projects where they lived. The financial crisis of 2008 was in high gear, and the bulls of America's corporate elite—Lehman Brothers, AIG, Bear Stearns, Countrywide Financial, Ameriquest, Merrill Lynch, Washington Mutual, and Wachovia—were being struck down, one by one, after bundling wealth in complicated pyramid schemes and hyperbolic derivatives that embodied the Edenic rift of societal scarcity, individualism, and domination.

In Reality Sandwich meetings, Daniel often quoted visionary architect R. Buckminster Fuller's argument that most of the world's challenges came from problems of design. We have the knowledge and resources to take care of all

people, while protecting the environment. But society's organization is haphazard, unconscious. If we want a shot at programming a new societal operating system, the best chance we have is to circulate the knowledge that already exists and give people the opportunity to act on it by linking them to each other through innovative projects. Our social network would be a platform for that kind of collaboration. With a name like Reality Sandwich, though, how many activism-inclined evolutionaries would we ultimately attract? We needed a slicker brand, something less fringy; so I was glad when Daniel got the rights to use the name Evolver after haggling with a company he had helped to found and later left. They owned the evolver.net web address but were not using it. I believe that he got the URL in exchange for his shares in the old company, which became worthless when the venture folded a few years later.

As we planned the launch of the Evolver network, our vision of grassroots regional groups was already beginning to happen in, of all places, Atlanta. Three Reality Sandwich volunteers began to host film screenings, talks, community discussions, and potlucks, and were now planning a green-consciousness festival that would unite groups that addressed the multifarious topics we covered on Reality Sandwich—local renewable energy, plant medicines, rain harvesting, integrated nutrition, and what may be in store for 2012. As our project's *de facto* community director, I thought we might be able to replicate Atlanta's model in other cities and build a larger transformational network of people who could learn and evolve together. Ordering more Moroccan green tea, Ken described to Michael and Daniel the new Regionals section I wanted to include on Evolver.net as a way to highlight these offline communities.

At that moment I got a call from Jade. “Jonny, I really need to talk to you. Can you come home?” She was crying so hard I could barely make out her words. “Rena told me about her tragedy.”

At the apartment, I found Jade lying on our red, semicircular couch surrounded by crumpled tissues, smashing Blue’s whiskered face against hers. I sat on the couch’s arm and stroked wet strands of hair out of her eyes.

“Jonny, it’s worse than I could have imagined. You know how Rena lived in a San Francisco commune that had several houses in it. Well, one of the richer families, the one she was closest to, rented out small cabins on the property to hippies and college students. One evening, one of the hippies went berserk, probably from too much LSD, and the voice of God told him to kill the earth-raping materialists in the mansion above.” Jade threw her face into a tissue and rubbed her

eyes. Blue took the opportunity to leap out of her arms and escape to the bedroom.

“He killed them all,” Jade sat up and looked at me. Silver glitter was smeared across her face. “The parents and their six- and eight-year-old boys—shot them each in the back and threw their bodies in the swimming pool.”

“God,” I sighed. What an insane tragedy, a massacre of Rena’s close friends.

“He was into the same stuff you are,” Jade choked on her words. “Reincarnation, astrology, tarot. He thought he was John the Baptist.”

“That can happen with this stuff.” I handed her a new clean tissue, hoping she knew I could never do something awful like that. “People can go crazy when they open up to those realms.”

“Jonny, you can’t do that. Okay?”

“I promise to be careful. This guy must have had other mental problems. I’m sure he had a history.” I moved close to hold her. Jade leaned forward into my ear.

“Rena and her mom fought constantly after the murders. One day, her mom barged into her room after an argument, and the bedside lamp suddenly flew through the air on its own and crashed against the wall. Her mom grew afraid of Rena’s power after that and sent her off to live with a series of relatives until she finally ran away to LA with her boyfriend.”

“Rena really moved the lamp with her energy?” I asked. Jade nodded against my shoulder. “No wonder she’s so afraid of tapping into her gifts.”

Integrating Rena’s story proved difficult for Jade and me over the next few days. Although we didn’t talk about it again, the story lurked over our granola breakfasts, through

our slow walks to the Williamsburg waterfront, and into the bedroom, where we didn't have sex but held each other for hours, trying to make sense of the raw brutality of the events. It didn't feel real that such a horrific tale could have happened to a friend of ours. Before this, stories of mass murders were the material of news headlines and the kind of disturbing, psycho-thriller movies that I always avoided watching. Over the next week, Jade and I were poignantly aware that this world we lived in was not safe. I found myself continually repeating, "It's not safe here."

The next Thursday we had a dinner at Rena's apartment. We arrived with a bottle of Riesling and *tiramisu* for desert and found Rena cleaning up a trail of squeezable cheese, individual mustard packets, and hollowed out Jell-O pudding cups that her opposable-thumbed, polydactyl cat had dragged out of the refrigerator, having learned to open it on his own.

Rena laughed at his handy new skills and then brought out her twenty-year-old calico, which she called “Zombie cat” because she had arthritis and walked stiffly, like the undead. I had never seen Rena so lighthearted. Instead of her usual ponytail, she had separated her red hair into two playful, schoolgirl pigtails. While serving dinner, she told us some dirty jokes she had heard at work that day.

Over Frito-Lay bean casserole, Rena and Jade talked about their favorite characters on *The Office*, a new spin-class teacher they liked, and costume ideas for an upcoming Burning Man warehouse party. They never mentioned the tragedy, and I guessed they never would again. But a darkness had vanished from Rena’s Irish eyes, as if bringing this shadow material into the light by telling her friend had lifted part of its power over her. Dipping into the *tiramisu*, I dropped my fork on the floor when Rena asked, “Jonny,

maybe later you could show me some of those healing moves you've learned at school." Before then, she had never shown any interest in experiencing energy healing. I didn't miss my chance. After we washed the dishes, I had Jade lie on the living room rug to show Rena some of the basic hand positions for balancing the primary chakras.

A few months later, Daniel, Ken, and I took a road trip to Baltimore for a reading from our first Reality Sandwich anthology, *Toward 2012: Perspectives on the Next Age*, a collection of articles from the web magazine. In a sign of how things were taking off for us (and especially for Daniel), the bookstore had oversold the space, so the event had to be moved into a Lutheran church next door. It was an old, quiet place, all earthy browns with a musky shine on the antique furnishings. The church looked almost colonial with its dual lecterns and latticed balcony in the back. Behind the pulpits

stood an enormous, grimy oil paining of Jesus's ascension. As incongruous as the location felt—we were here to talk about ayahuasca and Mayan prophecy, after all—I thought the painting was a good omen, since my personal journey into the heart focused so much on ascension.

One hundred fifty people filled the pews. Daniel kicked off the evening with a lively "Hallelujah!" which was greeted by laughter and applause. Afterward Ken spoke, describing "a subtle revolution occurring, one that if you're not tuned in, you won't even know it's happening. If you're here tonight, you're likely part of it." Heads nodded around the room. With relaxed confidence, Daniel discussed 2012 and how the archetype of the Mayan plumed serpent god Quetzalcoatl represented an approaching alchemical integration of spirit and matter and of the scientific worldview meshing with the shamanic. This mystical fusion, he proposed, might bring

about planetary ascension by awakening our hearts. I had never heard Daniel talk so openly about the heart before. He always struck me as too caught up in the mental, like many people I met on the East Coast. I found it encouraging that his investigations into the Mayans and 2012 had led him to similar conclusions as my own explorations into Gnosticism and energy work.

At first, when I took the podium, I stumbled on my words. I was a novice public speaker compared to Ken and Daniel, but once I started, I eased into the pleasurable rhythms of sharing my journey from dejected political organizer to paradigm shifter who sees energy fields. For the first time, I shared with an audience what I had been researching—the mystery schools and the lost significance of words like *sin, savior*, and *repent*, as well as the energetic secrets of the Tree of Life, the *ida* and *pingala* channels, the kundalini serpent,

the spirit from above, and the possibility that we are experiencing a dimensional shift through the merkaba in the heart chakra. I touched on the potential of ayhauasca to open up spiritual channels, which even the church minister seemed interested in, but I didn't mention my galactic encounters since even my closest friends met these stories with ridicule. (Seeing auras and kundalini shooting up my spine were somehow more acceptable than the prospect of meeting aliens. Go figure.) It had been a long time since I last spoke before a large group. I sat down after my fifteen minutes, glad to be back on stage, and relieved I could speak publically without wearing an outrageous stars-and-stripe costume. Goodbye, Jonny America.

During the question-and-answer period, a thirtyish woman wearing a gold Indian-looking shawl and long feathered earrings asked why I thought energy work was so important

to the ascension process. I answered that human evolution has always involved taking power from the gods—whether it was Prometheus stealing fire, Adam and Eve discovering the secrets of agriculture, modern man harnessing electricity, or physicists splitting the atom. And now, I wondered whether we might be discovering the massive potential of our own psychic energy to transform our society and ourselves. Daniel riffed off this idea, discussing how revolutions have been speeding up over time. It took millennia for the agricultural revolution to happen, hundreds of years for the industrial revolution, and decades for the information revolution. Perhaps, he suggested, we might be at the cusp of a psychic revolution. In only a few years, we all may be experiencing expanded consciousness—and gnosis, I hoped.

Afterward a dozen people approached me, saying things like, “Thank you. It’s been a long time since I’ve felt like a

Christian.” “I always knew Jesus was an energy healer. I just didn’t have the name for it.” “I guess we’re suffering from two thousand years of bad translations. What if more people knew about this?” Even the pastor of the church, with his blood-vesseled nose and gold chain cross dangling over a green corrugated sweater, waited around to say, “That’s some interesting stuff you talked about. I’d like to know more.” I wondered if it might prove to be more effective to reach people by talking about Jesus than by dressing up as a patriot.

A demure woman with long blond hair introduced herself. Her name was Alia, and she had just returned from Tavis and Mitchell’s new eco retreat in Prescott, Arizona. I hadn’t seen Tavis since our last ayahuasca ceremony, but I’d heard she was having fun building sustainable paper-crete domed rooms for their fledgling retreat center. “Tavis says hi,” she

said. Alia worked at the Abode of the Message, a Sufi center in New Lebanon, New York, but she happened to be visiting Baltimore that day. She talked about the Suluk Academy, which she and Tavis both attended, and how training with their teacher Pir Zia helped her evolve much faster than she would have on her own. “It’s a real mystery school, like the ones you talked about tonight, and they use energetic transmissions to shift consciousness. It’s very powerful work.” I thought back to Bishop Gerald’s parting words—that if I want to be a Gnostic, I need to become a Sufi. So far, I had been on a reckless journey as a mystical desperado roaming the wild astral frontier on my own. I was increasingly aware of the dangers that being a lone rider invited. It was time for me to join a spiritual community and learn from disciplined mentors. After all, the ancient Gnostics didn’t just wander out into the desert by themselves to undergo the initiatory

process; they went to school.

That night, Ken and I shared a room at the Sheraton in Baltimore while Daniel got a room by the airport so he could catch an early morning flight to a speaking gig on the West Coast. While nodding off, I felt the familiar presence of my guides float in. Once again, they appeared without the assistance of a psychedelic substance. As I welcomed them, they began to pour soft energy over me. The vibrations thickened, and they channeled in more powerful frequencies that filled my aura with a luminescent indigo light. My whole body oscillated with the gorgeous, liberating pneumatic current flowing into me. “We have a message from Jesus,” the voices told me. Although groggy, I somehow understood that they were not referring to my parent’s idea of Jesus, but rather to a vast and complex cosmic plane, an overarching energy structure that stretched across realms of the divine

pleroma.

Their message from Jesus didn't come in fiery words or thunderclaps. It appeared as an advanced, alien-like holographic image that slowly downloaded into my crown chakra. The hologram was the size of a volleyball, star-shaped with dozens of skinny three-dimensional cones sticking out in all directions from its small globe core. It twirled clockwise while gently settling into my chest.

The familiar voices informed me that the shape held "healing vectors" that I could use when talking about Jesus in public.

"Really, how does it work?" I asked. I didn't see what this spiky geometric globe could do. It looked like a clunky mirage sent straight from some sort of Second Life virtual world.

"Cowboy, like everything else in healing, you've got to set

your ego aside so the energy can do the work. You still have a lot to learn about surrendering. It makes things easier."

"It would help if I could see who I'm talking to."

"That's what you think," they giggled until their laughter softened into silence.

Alone in the room, I watched the globe slowly spin inside my chest until it seemed to melt into the indigo light that had been beamed into me. Strangely, at that moment, an image of my mother came to mind, and I sensed the difficult "soul contract" she had accepted so as to teach me lessons in overcoming my own victimization karma. I was beginning to see that there was a greater lesson to be culled from her violent rants at home, that I could learn to surpass my fears and anger, transmuting those experiences into love and compassion. With that insight, the black bowling ball in my stomach lurched upward. It rotated clockwise and then

pulsated rapidly, until a pool of dark energies broke through my pelvis and rushed down my legs and out the soles of my feet, clearing out much of my system. I felt purified—as when a fever finally breaks after burning off the toxins from your body.

"Thank you, Jesus," I found myself saying, humbly holding my hands in prayer, wondering if he (it?) may be a more tangible reality than I had expected. I had spent a couple of years investigating Jesus as a mythic figure, but now it seemed possible that this energy might be something I could connect with directly.

Over the next few weeks, I felt clearer, but I realized that my black-bowling-ball issues were far from gone. Healing is like peeling an onion: you remove layer after layer until finally, after much effort, you get to the core. I wasn't yet at the core. Thankfully, Jade was out of town, which gave me

the space I needed to integrate my spiky-globe encounter.

She and Rena had ventured to San Francisco to escape New York's bleak winter weather. She called to report that they had seen the gingerbread facades of the Painted Lady Victorian houses, climbed steep Telegraph Hill, combed the sex boutiques in the Castro, and shopped at vintage stores in the Mission. But Rena never showed Jade her former commune outside of town where the tragedy had taken place. After San Francisco, Jade stopped in Milwaukee for a few days to visit friends from Burning Man. To cover airfare, she set up a blow-job class, instructing participants on the finer points of oral pleasure. For my sex-columnist girlfriend, this was a typical business trip, but she didn't call or return my messages for a few days, which was unusual.

When Jade got back, the first thing she said after dropping her bags and taking off her coat was, "Jonny, we need to

talk.” My heart sank into my gut. Already in tears, she went into the kitchen and poured us both shots of whiskey over ice. She still hadn’t hugged me or said hello. Jade hadn’t even searched for Blue to give him her usual overzealous squeeze. Ice clinked in her glass as she brought the whiskey to her shaking lips. It was strange to see a woman so visibly worried while wearing an I ♥ VIBRATORS long-sleeved shirt.

“Jonny, I love you so much,” she reached for my knee. “I just want you to know that.”

“Just tell me what happened.” I could already feel my anger, but I now knew how to channel that force up my spine instead of going on the attack.

“I never thought this would happen, but while in Milwaukee, one of the Burners from our theme camp began chatting me up. You know I’m a natural flirt, but this was different. We had some bizarre connection. While hanging in

a Burner party chill space, he put his hands on my heart, and this crazy energy just floated between us. It felt strange and amazing, like I had known him before, in another lifetime even. We did it for hours. We didn't even kiss or anything … not then." Jade spoke a little louder, "Jonny, now I know what you're talking about. This spiritual stuff is real. It really is, and I don't know what to do with it."

"Who is he?" I asked.

"His playa name is Chaos," she said. How appropriate, considering the mess he had injected into my life. "He produces network TV shows in New York, but he happened to be visiting Milwaukee." This was worse than I thought. Not only did I have a rival, but he made real money and lived in the city.

"Did you sleep with him?" I asked.

"It's not really about that. I'm having some type of mystical

opening, and I don't know what to do."

"Did you sleep with him?" I repeated sternly.

Jade stared into her whiskey as if it held some untold secret. She downed the whole glass and nodded.

I crossed my arms and turned away from her. "What does that mean for us?" Just because she had a fling didn't necessarily mean we would break up. But I was hurt, confused, and trying to find the way forward.

"I suddenly realize how important my spiritual life is. I don't know what to do with this, but I feel the universe is calling me on my journey, just like you were called a few years ago. It's time for me to explore my own paradigm shift."

"But Jade," I pleaded, "We could do this together. I've been waiting for you to experience this. Now we could meditate together, go on retreats, practice *tantra*. It'd be great

to do all that with you.”

“Even if we did try, you know that our energy has always been off. As a healer, you can’t deny that.”

Jade threw some clothes in a bag and stayed with Chaos for the next week. Sometimes she stopped by in the evenings to visit or to organize her things. We still loved each other, and I hoped for at least one final night in bed with her—a little breakup sex to help soften the blow of losing Jade—but that request brought her to tears. “That would be cheating on Chaos,” she said. The irony that she was concerned about cheating on this new guy cut deep.

I threw myself into work to avoid thinking about Jade, but a range of emotions inevitably arose during lunch breaks and rides on the subway. I found myself fiercely jealous, picturing a big-muscled, three-piece-suited Chaos touching her body. Then at times I honored Jade’s encounter with her energy

awakening and even admired her decision to move forward where that process invited her to go, as ugly as it was turning out to be for me. I had long hoped she would stumble on an energy opening that would rock her foundation. Now it appeared that the Chinese curse “May you get what you wish for” was coming to haunt me. At the worst moments, drinking Brooklyn Lager alone at home, I doubted her entire story, wondering if this newfound spirituality was a convenient excuse to fuck another man.

Within a week, she moved in with her younger sister, a doctor living in the residential apartments of St. Vincent’s Hospital in the West Village. Chaos, as energetically appropriate for her as he may have been, wasn’t ready to live with Jade, although they were now officially dating. In a two-sentence email, she let me know she had registered for an Urban Tantra certification course so she could integrate

energy into the sex-education classes she taught.

The apartment was hauntingly quiet. Many of Jade's things—her white IKEA dresser, quilt wall art, sex-bloggers calendar, and Disney spice shakers—cluttered the space like museum artifacts from a past era. Slowly, it sank in that there would be no more Fiesta Blue celebrations, no more "Cherry Pie" burlesques, no more sex-toy puppet shows, and no more Bon Jovi sing-alongs. Much of the laughter had left the building. Although Jade and I often butted heads, I had grown to love her spunky nature and the playful adventures she initiated. I also enjoyed the comfortable life we had gradually built together. It's the closest I've ever been to having a safe and happy home.

In the evenings with Jade now gone, I sulked in our bed, petting Blue while watching the dim lights of the Williamsburg Bridge twinkle over the brownstone rooftops.

“I guess our starter family is down to two,” I told him.

After several weeks, I finally found the nerve to sit still in the meditation nook and question my guides about why they had insisted I stick it out with Jade and why they had called her my queen.

“You guys lied to me,” I said when I finally felt their presence arrive toward the end of a long meditation.

“You did good work, cowboy,” they responded. “Your karma with her is over, and you can now move on with the rest of your life.”

“Thanks a lot,” I grumbled. “But this might be the last time I follow your advice.”

16

THE GALACTIC COWBOY

That spring Evolver.net was basically operational as an online social network. Built on a tiny budget, the site was clumsy; some features didn't work properly, and annoying bugs went unrepaired. "We're trying to jumpstart the evolution with a '56 Studebaker," Daniel joked while we waited for the slow homepage to load during a team meeting. Regardless of the site's shortcomings, people responded to Evolver's mission—which was captured by our motto, Find the Others—and connected with each other through the

blogs, events, news stories, and project descriptions that they posted. It was gratifying to read glowing comments from new members about how they finally had a social network where they could share their visionary explorations with a like-minded community. Of course, we also received disheartening posts titled “Evolver is lame” or “This site sucks,” complaining about how limited the platform was. “Why can’t you be more like Facebook?” one blogger asked, comparing our cash-starved start-up to the multibillion dollar corporation.

But unlike Facebook, our aim was to bring people together in physical space, not just through their computer screens, in order to foster real community. We hoped local Evolver groups would initiate positive change where members lived, as our Reality Sandwich outpost in Atlanta was doing. But how could we inspire more of these collaborations? For help

in brainstorming that question, I met with Andrew Boyd, the architect of the political street-theater group Billionaires for Bush. Whereas Greene Dragon had operated only in New York City, in 2004 Andrew had organized several dozen regional Billionaire chapters across the U.S., which was an impressive feat.

Andrew was short, with brown wavy hair and squinty eyes. A college buddy of Ken's, he was in his mid-forties, but looked twenty-five with his boyish thin face, silver hoop earring, and thin nose that seemed to angle at you from any direction. Andrew had a skeptical activist attitude that couldn't condone anything "woo-woo." I knew the type—I had been that way myself—and I didn't look forward to a lunch defending the ayahuasca "cult" I was now involved with. But Andrew was brilliant at conceiving campaigns. Known as one of the Left's top cultural activists, MoveOn

often hired him to juice up their initiatives.

In a corner booth of the busy Essex Street Market, a prewar holdover on the Lower East Side that hosted a chaotic array of produce vendors, pickle stalls, and specialty delis, we ate messy egg sandwiches while I barked at Andrew over the din about our intentions for Evolver. “If you want to build a network like that, you need a monthly ritual,” he insisted with characteristic certainty. Given his secular inclinations, I was surprised he used the word “ritual.” “You need an event that brings everyone across the network together at the same time, something that gets them excited.” Andrew pointed out other viral grassroots organizations that used this model: Green Drinks, Drinking Liberally, and Critical Mass, which all host events on the same day in many cities. I envisioned regional Evolver groups hosting monthly creative salons and cultural incubators organized around a different theme each

month—topics like food, water, alternative health, shamanism, local resilience—that connected the dots between the head and the heart. I could see us syncing energies and intentions across the planet, even coordinating collective healing meditations or prayers during crises like Hurricane Katrina. Evolver would be an activist healing network.

The rest of the Reality Four loved the idea of holding a monthly ritual, so we put out a call for community organizers. Within two weeks, we had enough volunteers to create sixteen local Evolver groups. We still needed a name for these monthly events—something fun, unconventional, maybe even a little sexy, that would separate ours from the myriad lifeless lefty gatherings out there. On Reality Sandwich, we were always careful to run articles about how people can participate in positive change; we didn't publish

the typical progressive complaints about the miserable condition of the world. Our approach was “Don’t moan. Do something constructive—and don’t forget to dance.”

The monthly events had to project the same attitude, but we couldn’t seem to come up with a good name. Because we needed to send out an announcement for the first meeting in a couple of weeks, I gave the team a deadline. We were about to have our first Reality Sandwich retreat at a ranch in the glorious red-rock desert of south central Utah. By the time the retreat was over, I said, we had to decide on a name.

Playing off the success of Daniel’s book *2012* and the subsequent Reality Sandwich anthology *Toward 2012*, the theme for the retreat was also titled “Toward 2012,” with the clarifying subtitle “Envision the Next Age.” Together fifty of us would explore the threads of the emerging, post–New Age culture while enjoying one of the most spectacular

landscapes imaginable, the pristine natural habitat of the Utah desert.

The ranch where we were meeting sat on forty-eight acres with breathtaking views of the dusty red cliffs, canyons, and crags of the Grand Staircase–Escalante National Monument that was once sacred Anasazi land. The property included a lodge with an expansive great room and surrounding deck, several nearby log cabins, and a waterfall in the front yard ravine. It was nice to be visiting a spot where my cowboy hat matched the natural setting.

The ranch belonged to Reality Sandwich's first investors, Dave and Macy. They had seen Daniel on a panel at Burning Man. Inspired by his talk about evolutionary change, Dave mailed copies of Daniel's *2012* to twenty of his closest business associates. While some of his corporate buddies thought that the book was a visionary look at a possible

post–peak oil world, others questioned Dave's taste, if not his sanity, for his interest in crop circles and Mayan prophecy. Dave and Macy are staunch believers that revolutionary shifts need to happen in our society, and that's what attracted them to our project. They had been pushing us to have this retreat since they bought the ranch a few months before, and they did most of the organizing.

Michael, our wise-ass creative director, called them "relentlers," as this happily married couple was always on as hosts, coordinators, socializers, and—last but not least—partyers. They were both crazily generous, but had a sloppy streak, which gave an anything-might-happen-at-any-time excitement and concern to the proceedings.

In her mid-thirties, Macy was solid and athletic. She wore faded jeans and button-down cowboy shirts. A non-Mormon country girl from Utah, she guided us on hikes down winding

canyons and up steep mountain inclines that pushed everyone's limits but her own. If she hadn't been such a playful, caring, and doting older sister to all of us, she would have risked mutiny from some of the retreat participants.

Barely over five-and-a-half feet tall, Dave was one of the most swaggering, sociable cowboys I had ever encountered. His stubbly black beard and enthusiastic, gravelly voice reminded me of the bragging soliloquies of eighties' wrestler Macho Man Randy Savage. He wore a stylish black leather cowboy hat, which he reluctantly admitted buying at the Indiana Jones ride at Disneyland. Dave drank warm Tecate out of the can by the campfire, beguiling us with proposals to fake alien abductions at future retreats using fog machines, strobe lights, and a naked person running out of the woods. He was always generating ideas for amusing pranks, but you couldn't imagine him going through with them because

somebody's feelings might get hurt. For all his bravado, Dave was an honorable, sympathizing softie.

The desert days were filled with riding horses through crooked high-altitude forests, examining half-human, half-deer-like creatures in shamanic pictograms and petroglyphs, luxuriating under the 126-foot waterfall at the oasis on Lower Calf Creek, and driving over the roller-coaster-like Hogback Ridge with its sheer canyons that dropped hundreds of feet just inches from the shoulder of Highway 12.

Each evening, the fifty of us gathered inside a large green geodesic dome, decorated with Christmas lights and an eight-foot hanging metal fish sculpture, to share ideas that would probably be ridiculed in more mainstream circles. Dennis McKenna, a Santa Claus–bearded ethnopharmacologist and brother of renowned psychedelics proponent Terence McKenna, talked with Daniel about how Mother Earth may

have given humankind plant medicines, such as ayahuasca and peyote, as a last-ditch attempt to awaken consciousness and reconnect us with her natural ways before we deep six her biosphere. In his Kermit the Frog voice, Dennis suggested, “Maybe that’s why these sacred plants are becoming so popular these days.”

The writer Charles Eisenstein was a Reality Sandwich favorite. He had short dark hair, a rigid regality and grace that reminded me of Leonard Nimoy, and a deep monotone voice that commanded attention when he spoke. Whenever someone asked him a question, he would pause and stare at the person for several seconds, which had the effect of either cracking emotional gateways that needed to be opened or unnerving participants into asking another question before he had answered the first one. I wasn’t sure if the overall effect was healing or disturbing. “Storytellers are like shamans,”

Charles said, “spinning magic and casting spells across entire cultures. All of us here, I have no doubt, have come to co-create a new story and help to manifest it.”

Jim Enote, a soft-spoken, middle-aged Zuni tribesman who wore schoolmarm glasses and had long black hair parted in the middle, cleansed us in a water ritual before shyly mentioning the “star people” (meaning aliens) his tribe claimed to contact directly through ceremony. Members of his tribe responsible for these communications dedicated themselves to a serious regimen of daily rituals. They woke up well before sunrise each day to engage in ceremonies with the star people, but unfortunately Jim wasn’t permitted to tell us what they did or with whom they were in contact. That was classified tribal information.

After Jim’s talk, a group of fifteen people stayed in the tent to share their own galactic experiences. From their stories, it

seemed that the Zuni were not the only ones in contact with otherworldly beings. A medical insurance salesmen told of his “DNA-altering energy-healing” downloads from some celestial realm. A sixty-year-old lawyer from Indiana claimed that small, big-eyed green people visited her bedroom when she was a child. A sexy, twenty-something, Gypsy-looking girl said that every time she meditated, she talked with “funny, long-headed Sirians” who couldn’t shut up about the secrets of the Egyptian pyramids. An elderly UN project manager claimed she was “activated” by a council of Pleiadians on her sixtieth birthday, after which she began to channel helpful messages from them. Could all these folks be out of their minds? I suppose that was possible, but they all struck me as reasonable and stable otherwise. I had yet to talk publicly about my own alien encounters and was still confused about how to articulate them, so I sat quietly, in

awe that I was not the only one experiencing—or at the very least imagining—other-worldly contact.

"God, where else can you talk about stuff like this without getting laughed at?" the Sirian-curious gypsy girl said as we stood to leave. "It's like we all know each other from somewhere before, and now we're coming back together—almost like we're trying to remind ourselves of something we already know."

Sharing in discussions like that each evening in the warm green dome led me to see Evolver and Reality Sandwich from a different perspective. I already felt that the Reality Four had become a kind of family; we often joked and sparred like brothers. Our transformational outfit, I realized, was united by something deeper than friendship and a common cause—something that would hold us together through the many obstacles that might come. Those who had trekked to the

retreat, some from as far as England, Germany, and South Africa, also talked about an inexplicable calling to this union of like-minded souls.

Perhaps the goal for the upcoming monthly Evolver rituals wasn't just to help facilitate grassroots collaborations, but also to gather members of our growing tribe who were remembering their ancestral ties to spirit—who were drawn to nurture and care for each other like lost loved ones while healing our ailing planet. Maybe I was projecting my own unmet desires for supportive kin; nonetheless, those nights at the retreat forever altered my dreams and intentions for my personal journey. When you drive up to the gates of Burning Man, a crew of face-painted revelers greets you with cheers of "Welcome home!" I wanted Evolver to welcome people home, but not just for one week a year. As with family, I wanted these connections to last.

On the final night of the retreat, Dave, Macy, Michael, and I meditated in an abandoned underground grain silo that sat a football field's length away from the main lodge. The previous owners had let the structure fall into disarray. I inhaled dust with each deep breath. Feeling claustrophobic, I left the group to go outside. From the dirt road, I could hear the neighbor's horses grazing in the alfalfa field cradled in the valley below. The moon was nearly full. Its light bathed Boulder Mountain's summit in a mist of iridescent silver. To the north, the Big Dipper sparkled like fireworks frozen in place against the night. Far from city light pollution, I could see thousands of stars dusted across the arching Milky Way, even with the moon rising brightly from the east.

Stubbornly, I tried to construct the various constellations I had forgotten since taking an astronomy course at the University of Colorado's planetarium. It was an 8:00 a.m.

Friday freshmen class, which meant I usually arrived hung over and slept through the lectures. Had I suspected I would one day want to know the whereabouts of Sirius in Canis Major, our closest spiral galaxy Andromeda, or the blue seven sisters of the Pleiades star cluster—because I seriously entertained the notion that I might have a kinship to giggling extraterrestrials—the cynical freshmen I was would have spit up his thermosed Bloody Mary in disgust.

While eyeing the stars, I suddenly heard the familiar voices of my guides. “Up here, cowboy,” they called out from the southwest corner of the property. Two large magenta lights appeared over the far ridge just beyond the alfalfa fields. The lights were bright and disk-shaped; they zipped up and then across in perfect right angles. Airplanes can’t do that.

“Why don’t you come over here and give me a lift?” I shouted, unsure if I spoke out loud or in my mind. I hoped

nobody in the silo heard me.

"That would be too easy," they giggled back.

"You guys are so predictable," I joked quietly. Even if they had demonstrated their concern for me with energy healings and insightful downloads, I figured humor was the only way to deal with their constant evasiveness. I felt blessed by their presence, but part of me—most of me—was baffled by their cheeky attitude. I had no way of knowing who they really were or what they wanted. I could never accept their claims of alienhood until I shook their skinny four- or eight-fingered hands and stared in their giant bug-like or perhaps albino-clear eyes.

I cut the conversation short when I caught Michael's tall, lanky gait coming out of the silo. He walked over and put his hand on my shoulder, taking in the striking moon-frosted landscape. "It ain't no Gowanus Canal," he joked, referring to

the gash of polluted water in industrial Brooklyn, “but she’ll do.” He followed my gaze to the southwest ridge where the magenta lights continued to shoot right and left, up and down, in impossible Tetris-like ninety-degree angles. These lights were showing off what they could do.

“Wooo,” Michael sighed. “They’re beautiful. Aren’t they?”

We stood there for ten minutes admiring the magenta lightshow in silence. The moment felt pregnant with mythic possibility. What strange wonders this star-speckled galaxy offered! What strange worlds and beings lay out there beyond our grasp of space and time! If only we could burst through the speed of light, as we had with the sound barrier, what worlds would we discover around the nearest jellyfish-translucent nebula?

The clomp of boots on the silo’s wood entry broke my concentration. I turned to see Dave and Macy stepping onto

the dirt road. When I glanced back at the ridge, the magenta lights were gone.

We all walked back to the main fire together, Michael at my side. “That was incredible,” he said.

“It’s the first time I’ve seen UFOs,” I told him.

“What?” Michael jerked his neck and grabbed my shoulders. “You saw UFOs? I was talking about the stars!”

“Michael, are you kidding? You were looking right at two of them for ten minutes. You didn’t see anything?” I was miffed. I thought we had shared a once-in-a-lifetime other-planetary moment. Now I wondered if I was imagining things.

Dave overheard our conversation and pulled me aside. “Jonathan, have I ever told you about my galactic cowboy?” He took off his Indiana Jones cowboy hat and leaned in so nobody would hear. I told him he hadn’t, and thought how

strange it was that Jade had called me that exact name—her "galactic cowboy"—when I started obsessing over Cosmic Christ mythologies. Just hearing the phrase made me miss her. Even with our domestic disagreements and misfiring chemistry, I still loved her and looked fondly on the years we had spent together. I felt so alone now that our starter family had disbanded.

In his gruff Macho Man voice, Dave excitedly told me about the galactic cowboy he encountered each time he smoked the "spirit molecule," as he called it. According to Dave, he would blast out of his body, past all the stars in the universe, breaking through a curtain of carnival-like colors and landing in a weird cactus desert. He would spot an ominous cowboy riding in the distance. Under the cowboy's tan Stetson was the half-covered face of a big-eyed, gray alien. In the distance, an enormous, prismatic, multi-armed

goddess with kaleidoscope peacock feathers sat on an emerald pyramid.

Dave said that, at times, the sickness of humanity—war, greed, and addiction—would follow him into this realm. The skies would then turn dark and sinister, and the goddess would morph into a hideous *Wizard of Oz*–type witch with flames shooting out of her mouth. Dave would quickly shift his thoughts in a positive direction, and the witch would turn back into a goddess, and sunshine would return to the hallucinatory world. Through all this, the galactic cowboy would sit silently on his horse. Like a cosmic Clint Eastwood, he would stoically nod his approval if Dave's thoughts tended toward helpful insights, and shake his head in disappointment if Dave harbored shadow thoughts that darkened the visionary landscape.

"What do you think it means?" I asked.

“That’s too big a mystery for me, but the galactic cowboy’s been training me to focus my thoughts on the positive.” Dave lowered his stance so that he was looking up at me and placed his hands on his hips. “Jonathan, it occurred to me at this retreat that you might be the galactic cowboy from my journeys.”

“It’s strange that you say that. My girlfriend used to call me ‘her galactic cowboy.’ But while you were telling your story, it hit me, Dave, that you might be your own galactic cowboy.”

At the group campfire, Dave reached into his ice-less cooler and pulled out two Tecates for us. “To the galactic cowboys,” he toasted and then pulled me into a sidearm hug, shaking me hard. “You know you’re my brother, Jonathan.” I let that sink in, trying to receive the love. For all his pranks and exaggerated socializing, something about Dave made you feel

protected at all times, like having a favorite older brother who always had your back. Without a doubt, he was family to the Evolver tribe.

The next day we held the closing circle for the retreat. A lot of people cried as we said goodbye, although we would see each other again online and at future retreats. Several folks were headed back to start their own regional Evolver groups to bring the vibe of this place and our world-changing spirit to their communities. After almost everyone had left, I pulled the rest of the Reality Four aside on the lodge balcony. “We promised ourselves not to leave without a name for the Evolver salons,” I reminded them. “We need to pull the trigger on them. They start in two weeks.”

Daniel picked up his suitcase, ready for his ride to the airport. “Let’s call them Spores,” he said nonchalantly.

“That’s it,” Ken agreed. “That perfectly describes the

interconnected mycelial network. Spores can land anywhere, allowing for new life to emerge. Plus, the name is fun. It sounds trippy."

The other guys left, but I stayed at the ranch an extra day to hike with Dave and Macy in the barren, Mars-colored slot canyons of the Escalante. As we drove back to the ranch on a sandy four-wheel-drive road, I watched a lone, dark dust devil curl through the sagebrush. It wove slowly toward us and hovered in front of Dave's black Land Rover. He stopped the car, as it seemed to be waiting for us, spinning ominously. After a couple of minutes, it snaked across the road and collapsed to the ground.

Whistling at what we had just seen, Dave turned to me and asked, "Jonathan, would you like to partake of the spirit molecule tonight?"

That evening, Macy created a bed of pillows, blankets, and

cushions for me in the geodesic dome. Dave held the pipe to my lips, telling me to inhale more than I thought possible. I inhaled until the room disintegrated into a disturbing mosaic of angry, vibrating white fractals, my nostrils filling with a hideous burned-metallic smell. “More,” Dave suggested. I didn’t think my lungs could take it, but I inhaled, sucking in more of the toxic taste. The pulsing fractals exploded all around me, stranding me in a complete and heavy darkness. Terror gripped at my stomach. I didn’t want to go further. “More,” Dave said with firm kindness. Somehow, I forced another drag before falling back on the cushions. I was aware of being me, but I couldn’t sense my body anywhere. I was only consciousness.

The darkness remained and I waited, thrilled and afraid of what might come. A small white dot appeared in the void. It opened wide, forming the shape of a circle, a hole, a portal—

something through which a bright colored figure leaped at me. I pulled back, whatever “I” was at the time, given that I still had no body. With some space between us, I took in this magnificent being: it was an enormous female fairy with friendly, sensuous, almond-shaped eyes and mother-of-pearl butterfly wings. She looked computer animated, with green Matrix-like coding scrolling patterns on her skin. She swept around me, dipping, swirling, playing in the air. As if someone had turned on stage lights, a pixilated field of dancing sunflowers with human faces rolled out in all directions, while liquid-crystal waterfalls began to gush from digitally constructed mountain peaks in the distance. The beauty of this cyber landscape was almost too much to take in.

“This is real. It’s real,” the pixie told me, sweeping through the air. “You’re waking up to it. Remember, remember,

remember. We're waiting not so far away."

From my abdomen, I heard a voice screaming, "NO, NO, NO!" as if it couldn't believe the existence of such marvels. I instantly recognized the voice as the black bowling ball that had weighed me down my whole life. A dark hole appeared in the center of the daisy field, sucking in the color around it, tugging me toward it. "NO, NO, NO!" the hole screamed, draining out the colorful splendors around me. I fought to focus my attention away from its destruction and concentrated on the prancing pixie, the crystal-like waters, and the bliss-faced sunflowers. As I centered my attention on this optimistic scenery, the hole receded, leaving behind lush, synthetic-looking green grass.

The pixie blinked her eyes with loving approval as a giant blue sun rose above us, illuminating this world in twilight colors. I wanted to dip into the computer-generated waters,

to fly with the pixie to the pixelated mountains, but an unseen force began pulling me away, back to some even stranger place than this one.

“Remember, remember, remember,” the pixie waved goodbye with her wings.

I exhaled and found myself lying under gold Christmas lights in a large green dome. It took a minute to recognize Dave and Macy holding my arms on each side. I felt light and open. The journey had been surprisingly healing for a ten-minute trek into Tron-land. A sudden gush of dark energy rushed out from my abdomen. I involuntarily arched my back, breathing through the painful release.

“Jonathan, how are you feeling?” Macy caressed my face.

I tried not to cry—these were our investors, after all—but I couldn’t stop myself. I let the tears come and cleanse some of the anger and sadness I had gripped onto so tightly all my

life.

“Growing up, my family was so intense,” I found myself saying.

“We’re your family too,” Dave squeezed my shoulder.

“We love you, Jonathan,” Macy said, which made me cry even more.

The next morning, Dave and Macy drove me back to Salt Lake City so I could catch my flight. We were exhausted from the previous day’s hike and spirit molecule ceremony. Dave stopped at a gas station on Highway 28 for caffeine, but they were out of coffee and soda. Only in Nowheresville, Utah, I thought. Dave was driving onto I-15, heading north, when I fell asleep in the back seat. About thirty minutes into my nap, my guides started screaming in my ear, “Cowboy, wake up! Wake up!” It felt as if they were shaking me. Startled, I opened my eyes and looked at the road ahead. Dave had

nodded off, and the Land Rover and the silver box trailer it was pulling were veering off the highway at seventy-five miles per hour toward a deep gully in the median.

“Dave! Dave!” I jumped forward and shook his torso. “Wake up!”

Dave’s arms leaped into action, jerking the steering wheel away from the approaching drop. The SUV’s passenger-side headlight smashed into a green mile marker, snapping it in half, as we swerved back onto the highway. At first, Dave over-corrected, then swung the wheel back left, landing us safely in the passing lane. But the silver box trailer jackknifed against us, tossing the Land Rover on its side. In action-movie slow motion, Macy and I floated up toward the right side of the vehicle, slammed against its metal doors, and crashed back into our seats. The SUV slid on its side across the pavement, shards of window glass shooting up like bullets

below us. It skidded the length of a football field before slowing to a stop next to the right shoulder of the road. Smoke billowed from the engine, smelling of burned metal. Dave asked if we were all right and then shouted for us to hurry out.

"God, it smells like last night's journey," Macy said, climbing out the passenger door.

Slowly, I lifted myself to my knees and crawled outside, rubbing my lower back when I got on my feet. Shocked by the violence of the crash, Macy screamed, "Dave, how could you be so reckless! You nearly killed us!" He returned the charged energy, shouting, "Get off my back!" They yelled like that for several minutes until Macy fell into Dave's arms, shaking and crying. He stroked her hair, saying, "Thank God. We're all okay." My hands were trembling uncontrollably, and I walked twenty feet into the dry grass meadow along

the highway. I turned to the dusty mountains in the east, breathed in deeply, and hollered the rage and trauma out of my lungs and throat, madly swinging my arms and fists. The anger work I had learned in healing school paid off. Within a minute my hands grew still, and I walked back to the road, feeling calm but exhilarated.

Dave gripped my neck in gratitude, “Brother, we would all be dead if you hadn’t woken me up.”

It was true, but I wasn’t the one to thank. Whether the voices were spiritual guides, galactic tricksters, or my own self-generated delusions, I couldn’t deny their assistance on this one. Never had I suspected that pursuing a mystical path could have such practical implications. This strange access to another level of information hadn’t just given me helpful advice or healed an old emotional wound—it had saved three people’s lives. I was struck by the enormity of it. Could it be

that following our initiatory path and connecting with higher source wisdom might actually be one of our species' best defense systems? Is that what we need to do to survive, and perhaps even to thrive, and avert planetary devastation?

The police drove Macy and Dave to the next town, while I rode in the tow truck's passenger seat. I stared at the dense cube of black metal that had once been a Land Rover, steaming behind us on the truck's bed. Carcinogenic, spirit-molecule-like odors slipped through the window from the smoldering heap. In that mangled clump of metal, I envisioned the twisted dark energies of my own life, the black bowling ball that had plagued me since childhood.

Remarkably, this brush with death felt like a rebirth. It confirmed that I had to leave the dark pit behind for good, and focus on the beauty and joy around me. I had to release the remaining anger and sorrow attached to my family,

friends, and even those who may have trespassed against me in past lives—if such things exist, and I was inclined to think they do. It was time for me to forgive and to ask for forgiveness, time to reach up to higher planes that I could barely imagine. It was time to let go of what I was holding onto. It was time to say goodbye to my relationship with Jade, finish my energy-healing program, and commit to Sufi training. I had tapped into cosmic mysteries, or more accurately they had tapped into me. I owed it to my guides, and to myself, to accept a disciplined path so I could better understand this magical realm of which I was now consciously a citizen.

EPILOGUE

January 17, 2011

After sharing my tales of paradigm shifts, kundalini debacles, galactic encounters, and related adventures, I introduced what we now called the Evolver Social Movement to the audience of sixty-five people sitting on the beige seventies carpet of the suburban Austin home. In eighteen months, we had grown to forty Spores. I shared with them my most ambitious vision—Evolver spreading an emerging heart-based culture, contributing pockets of light that, with other like-minded communities across the U.S. and abroad, organically harmonize with one another, creating a

synchronized latticework to counter today's dangerous and divisive systems. As the old societal models collapse into darkness, I see these lights growing and shining brighter, providing beacons of hope for those who dream of being part of the creation of a new world story. Members of this network of light would share their gifts, passions, and energies to manifest an incredible yet tangible miracle—a global awakening and long-awaited return to our heavenly garden on Spaceship Earth.

Then I opened the floor to those wanting to start a Spore in Austin. The neotribal-meets-hipster crowd rattled off a list of yoga studios, loft spaces, and warehouses where they could hold local activations. They also proposed a number of renewable energy, Insight Meditation, time banking, sacred geometry, food share, and Reiki healing groups they could collaborate with, and they raised key local issues to address.

The most immediate concern was the “billion-dollar mistake on the lake,” a proposal to erect a gratuitous water treatment plant that threatened already endangered wildlife at nearby Balcones Canyonlands Preserve. The plant would profit rapacious contractors while sidelining the more practical and affordable water conservation approaches that the local community supported. Someone suggested a spiritually aligned response, and the group embraced it. That weekend they would participate in a water-healing ceremony that would double as a protest against the facility. This was the kind of sacred activism that turned me on, as it brought the high vibratory power of spirit into the denser planes of the material world.

The conversation also tapped into the general frustration these people felt living in a liberal oasis in Republican Texas. “What do we do about neocons like Governor Rick Perry?”

asked a thirtyish woman with maroon streaks in her hair and a spiral-shaped crop circle necklace dangling over a Radiohead T-shirt. “These guys are telling gays they’re going to hell while selling out our state to the coal industry.”

“You need to stand together against injustice,” I offered. “But also stay firm in your compassion. If you fight inside their antagonistic paradigm, that’s exactly the energy you’ll get back—more anger and divisiveness. I see much of our work as holding a certain vibratory container, one that comes from the heart, magnetizing others to our cause as they begin to wake up. Let’s create networks for those opening to this energetic shift and then, as the old systems fail, we’ll welcome the latecomers into the fold. Unlike in the sixties, today there are no squares. Everyone is welcome to this party, but we also can’t force them to come.”

A bearded man with feral brown eyes, around twenty-five

years old, wearing a white American Apparel hoodie, leaped to his feet and addressed the audience while his hands flailed excitedly. “I have this vision of us bear-hugging the old regime hold-outs,” he blurted. “We’ll squeeze harder and harder as they battle us off, until finally they relax and surrender to love!” He passionately clenched his invisible antagonist until he released him into the ecstasy of universal friendship. A din of whoops, claps, stomps, and whistles filled the room as we embraced the palpable hope that together we could build a world of unstoppable love.

But the next afternoon, as Kyle—a bald, plump elder from the sixties psychedelic age—drove me to the airport in his faded blue Volkswagen bus, my optimism about a global, heart-centered renaissance deflated as we plodded through the congestion on Highway 71. Although the city prides itself on its counterculturalism—the slogan of the Austin

Independent Business Alliance is Keep Austin Weird—that spirit failed to translate when it came to urban planning. Trucks and SUVs crammed the wide, mica-flecked parking lots surrounding the endless tan and gray strip malls and big-box discount monoliths that had gobbled up the wheat fields, prairies, and open range in all directions.

A brown film hovered menacingly over the polluted skyline while a phalanx of billboards stalked the freeway, assaulting drivers with tawdry marketing ploys. McDonald's fetishized a glistening microwaved burger with the postmodern haiku Beefy Cheesy Glory, an enormous glazed doughnut announced that America Runs on Dunkin', and an intimidating black cross asked Will You Survive the Rapture? This contrived landscape offered a bleak reminder that we in the consciousness movement were hugely outnumbered, ridiculously outspent, and flat-out overwhelmed by spirit-

crushing religious doctrines and a consumer culture that kept people under its powerfully destructive trance.

On the radio, an NPR reporter told how psychiatrists had neglected a disturbed twenty-two-year-old man who later gunned down eighteen people including Arizona representative Gabrielle Giffords in a Tucson supermarket parking lot. Hearing the story, my eyes dropped to my lap as I thought of the many Americans who suffer from profound soul-wounding—walking around deadened and traumatized, or violently angry and disoriented, disconnected from the wild sacredness of life.

I've read that in tribal societies, elders often diagnose spirit illness early and tap their best shamans and healers to provide treatment. Sometimes the entire community gathers around the patient, dancing and singing medicinal songs, knowing that each person's health empowers the tribe as a

whole.

That enlightened healing response is hard to imagine in America, where archon-like corporations pounce on those who need help the most. Big-pharma companies like Pfizer and Merck peddle exorbitantly priced pills to those suffering from depression, anxiety, physical illness, and sexual dysfunction. Loan consolidators and bankruptcy firms prey off those ruined by unemployment, foreclosure, and debt, while Manhattan derivative sharks profit from hellishly overpopulated privatized prisons and spikes in food prices that starve the African continent. Defense contractors like Lockheed Martin and Blackwater (now known as Xe) feed off our never-ending wars, as ExxonMobil and BP strip the remaining parcels of Canadian, Alaskan, and Amazonian wilderness to fuel our death tango with oil. We are an achingly long way from being a healer nation.

My Sufi teacher Pir Zia Inayat-Khan says that when rivers become polluted, they go back to their source—the ocean—to be renewed. Humans also need to go back to source to be renewed. Our source is divine energy. It seems that our whole world needs that type of healing. Looking at the signs around us, it's hard to tell if universal Christ consciousness will return to the earth on a mass scale, or if people will just keep yapping away in an endless parade of self-help workshops. Will the populace finally activate as they did in the times of Gandhi and King, or will we let the military-industrial buzz saw cut us to pieces? Will coastal regions galvanize to clean and heal our sickened oceans through bioremediation and collective intentional prayer, or will we continue to treat our waterways as the toilets of petrochemical factories? Will a distributed web of gift economies, barter systems, and complementary currencies

create diverse, thriving artisan communities, or will *Road Warrior* Armageddon rule after the collapse of the debt-laden free market?

It's my hope that an archipelago of permaculture gardens, ecovillages, and organic farms can help stave off potential global-warming famines and GMO contamination; that we can forge new initiatory systems and educational paths to resurrect the depleted spirit of our youth; that a network of healers, shamans, yogis, and tantric masters will serve as spiritual mid-wives to bring about planetary ascension and, perhaps, an introduction to our galactic neighbors; and that rising human awareness can end the destructive patterns and karmic wreckage from several thousand years of systematized violence—healing our water, land, sky, and hearts.

I know that my hopes for an energetically synchronized network that can shift reality on a global scale represents the

mother of all Hail Mary passes—a divine Joe Namath long shot that depends upon miracle after miracle occurring. Because of my own awakening process and from hearing the numerous tales of synchronicities from Sporeganizers in the Evolver Social Movement, I at least humor the idea that this type of magical activism is possible. Perhaps we are at the beginning of a wave of these transcendent revelations, and much more lies ahead. There is no way to tell if we are the pioneers of a visionary new age, whisking humanity into the high vibrations of an interdimensional love party, or post-modern Don Quixotes attacking techno-industrial windmills with our flimsy, rolled-up yoga mats.

Pondering all this on a January afternoon in Austin, I found myself repeating a mantra I often recite when traveling the Evolver network, pursuing our mission to Find the Others. It comes from cultural anthropologist Margaret Mead,

who said, “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”

I pray she is right.

ACKNOWLEDGMENTS

I'D LIKE TO THANK JADE for loving and supporting me throughout this journey and for generously allowing me to put these stories into print; Rena for opening my life to incredible healing and for instigating this adventure; Daniel Pinchbeck for reshaping this book and encouraging me to be brutally honest about my experiences, even the more bizarre galactic stuff; Ken Jordan for being a great editor, mentor, and friend—this project wouldn't have been possible without you; Fred Jordan for your meticulous care in reviewing the manuscript; Michael Robinson for crafting the luminous cover image; Graham Hancock for sharing your Egyptian pyramid stories and writing a thoughtful introduction; Doug Reil, Erin Wiegand, Richard Grossinger, Kat Engh, and Janet Levin at North Atlantic Books for having the vision to publish this

unusual memoir; Catherine Burns for being a true confidante and revitalizing my belief in this material; Nelia Vishnevsky for creating a great prototype cover image; Kate Raudenbush for staging a fun afternoon author photo shoot; Elke Dehner for being a dear friend; Samantha Ibarguen for your guiding light; Adam Elenbaas for your friendship in “Christ consciousness”; and Bernadette Quattrone for all your joy and playfulness.

To Barry Gordon and my bioenergetic healing class for giving me the education I’d always hoped for; Maxine Brownstein for embracing me with the higher frequencies of Reiki; Nat Bletter for taking me on magical odysseys; Jenne Magno for bringing miracles into my life; Mom, Dad, my brother, and my sister for welcoming the publication of this book and understanding the deeper healing process at work within the family tree; Souldish’s Salma Shamy for producing

the best spirit-raising events listing in NYC; Laura Marini, Frank Ciulla, and the rest of the NYC Gnostics for our intrepid investigations; Andy, Nikki, and the rest of The September 11th Fund's Ongoing Recovery Program for taking on such difficult work; the patriots of Greene Dragon for engaging in our absurdist spectacles; Rusel Parish for whisking me off to the Big Apple; Wendy Tremayne for trailblazing with Mikey; Justin Levy for your help in a time of difficulty; C. C. Treadway for your warrioress healings; Pir Zia Inayat-Khan, Tara Chisti, Sharifa Norton, Jennifer Alia Wittman, and my fellow saliks and salikas for bringing grace into the world through your efforts with Sufi Order International.

To Dave and Macy for welcoming me into your lives and hearts; Steven Taylor, Dan Robinson, Andy Laken, Jennifer Palmer, Remi Gurak, Cami Arrow, Chris Kaplan, and Stephen

Hershey for daring to make the sacrifices that make Evolver and Reality Sandwich possible; S. T. Frequency, Maya Lemberg, Tony Damico, Regina Gelfo, Baza Novak, Erin Shaw, Jill Ettinger, Sobey Wing, Robin Gunkel, Michael Henderson, Kent Bye, and the many other bold Sporeganizers creating the better world we want to see—I send a galactic kitty meow to all of you; and to the dozens of Evolver/Reality Sandwich editors, contributors, supporters, volunteers, event producers, interns, and evolutionaries that are building our international network of light.

NOTES

1. Except where noted otherwise, all biblical passages are from the New American Standard Bible.

2. This passage is from the New Living Translation.

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9. This and all other references to Gnostic texts are from the Gnostic Society Library, The Nag Hammadi Library, www.gnosis.org/naghamm/nhl.html. Brackets and ellipses appear in the source text. Only some of these texts include verse numbers.

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15. This passage is from the Scholars Version. Robert J. Miller, ed., *The Complete Gospels: Annotated Scholars Version* (Santa Rosa, California: Polebridge Press, 1995), p. 205.

16. This passage is from the New International Version.

ABOUT THE AUTHOR

Photo by Kate Raudenbush

Jonathan Talat Phillips grew up in Idaho Springs, Colorado. He

graduated from the University of Colorado at Boulder and has lived in England, Argentina, Spain, and the Czech Republic. Phillips worked for The September 11th Fund, served as a reporter for *The Prague Post*, and spearheaded the activist media group Greene Dragon, where he appeared in international media such as CNN, MSNBC, ABC, *Time*, and on the cover of *New York Magazine*. He is one of the co-founders of Evolver.net and Reality Sandwich, and coordinates the Evolver Spores program with 40+ regional chapters hosting monthly events. Phillips is an initiate of the International Sufi Order, founder of the NYC Gnostics, and creator of "The Ayahuasca Monologues: Tales of the Spirit Vine." He is a Reiki Master and certified in Chi Healing and Bioenergetic Therapy from the Connecticut Healing Institute. He has a private healing practice in New York City and does Skype and phone sessions for those outside of the city:

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EVOLVER EDITIONS is an imprint of the nonprofit publishing house North Atlantic Books and is produced in collaboration with Evolver LLC, a company founded in 2007 that publishes the web magazine Reality Sandwich (www.realitysandwich.com), runs the social network Evolver.net (www.evolver.net), and recently launched a new series of live video seminars, Evolver Intensives (www.evolverintensives.com). Evolver also supports the Evolver Social Movement, which is building a global network of communities who collaborate, share knowledge, and engage in transformative practices.

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AUTHOR'S NOTE

The Mars Mystery is being published in the U.S. under my sole name, since I have been the main author and coordinator. Nevertheless, I feel it is important for readers to know that the book *is* a work of coauthorship. To be specific, I was the sole author of chapters 1 through 4 and chapters 18 through 26. My research assistant John Grigsby wrote chapters 5 through 16 (with contributions from Robert Bauval in chapter 16). Chapter 17 was largely written by me with contributions from John Grigsby and Robert Bauval.

Because of the collective nature of this work I have chosen to adopt the "we" tone of voice throughout the story. When references are made to "our" previous publications I am speaking primarily of my book *Fingerprints of the Gods*, of Robert Bauval's book *The Orion Mystery*, and of the book that

Robert and I wrote together, *The Message of the Sphinx*.

Thanks to Chris O'Kane of the Mars Project U.K., and to Simon Cox, for library and documentation research on our behalf. Special thanks also to Dr. Benny Peiser of Liverpool's John Moores University, who kindly put his personal library at our disposal.

I would like to add that a major part of the function of *The Mars Mystery* is to draw public attention to discoveries made by scientists around the world concerning the Mars anomalies and concerning the extremely grave and pressing issue of planetary cataclysms. Without the dedicated, groundbreaking work of these scientists, there would have been no book for us to write. We have attempted to report and represent their work fairly, wherever possible in their own words, but the overall conclusions that we have drawn are our own. Our role in this respect has been as synthesizers,

connecting evidence and data from many different fields of research. It was only as we began to put the pieces of the jigsaw puzzle together that we ourselves became aware of the big picture and of the truly alarming implications that it has not only for the past of Earth but also for its future.

Graham Hancock

PART ONE

The Murdered Planet

1

Parallel World

ALTHOUGH separated by tens of millions of miles of empty space, Mars and Earth participate in a mysterious communion.

Repeated exchanges of materials have taken place between the two planets—the most recent involving spacecraft from Earth that have landed on Mars. Likewise we now know that chunks of rock thrown off from the surface of Mars

periodically crash into Earth. By 1997 a dozen meteorites had been firmly identified as having originated on Mars. They are known technically as SNC meteorites (after Shergotty, Nakhla, and Chassingy, the names given to the first three such meteorites found[1]) and researchers around the world are on the lookout for more.[2] According to calculations by Dr. Colin Pillinger of the U.K. Planetary Sciences Research Institute, "100 tons of Martian material arrives on Earth each year."[3]

One of the Mars meteorites, ALH84001, was found in Antarctica in 1984. It contains tiny tubular structures that NASA scientists sensationally identified in August 1996 as "possible microscopic fossils of bacteria-like organisms that may have lived on Mars more than 3.6 billion years ago."[4] In October 1996 scientists at Britain's Open University announced that a second Martian meteorite, EETA 79001,

had also been found to contain the chemical signatures of life—in this case, astonishingly,

> organisms that could have existed on Mars as recently as 600,000 years ago.[5]

LIFE-SEED

Two probes were launched by NASA in 1996—*Pathfinder*, a lander-rover, and *Mars Global Surveyor*, an orbiter. Further missions are budgeted to follow through 2005, when an attempt will be made to scoop up a chunk of the surface rock or soil of Mars and then return the sample to Earth.[6] Russia and Japan are also sending probes to Mars to undertake a range of scientific tests and experiments.

Longer term are plans to "terraform" the Red Planet. This

would involve the introduction of greenhouse gases and simple bacteria from Earth. Over a period of centuries the warming effects of the gases and the metabolic processes of the bacteria would transform the Martian atmosphere, making it habitable by more and more complex species—either introduced or locally evolved.[7]

How likely is it that humanity will be able to fulfill this plan to "seed" Mars with life?

Apparently it is only a matter of finding the money. The technology to do the job already exists.[8] Ironically, however, the existence of life on Earth itself remains one of the great unsolved mysteries of science. Nobody knows when, why, or how it began here. It just seems to have exploded suddenly, out of nowhere, at a very early stage in the planets history. Although Earth is thought to have formed 4.5 billion years ago, the most ancient surviving rocks are younger than that

—about 4 billion years old. Traces of microscopic organisms have been found going back almost 3.9 billion years.[9]

The transformation of inanimate matter into life is a miracle that has never repeated itself, one that even the most advanced scientific laboratories cannot replicate. Are we really to believe that such an amazing piece of cosmic alchemy could have occurred *by chance* in just the first few hundred million years of Earth's long existence?

SOME OPTIONS

Professor Fred Hoyle of Cambridge University does not think so. His explanation for the origin of life on Earth so soon after the formation of the planet is that it was imported from outside the solar system on great interstellar comets. Some

fragments collided with Earth, releasing spores that had been held in suspended animation in the cometary ice. The spores spread out and took root all around the newly formed planet, which was soon densely colonized by hardy microorganisms. These slowly evolved and diversified, eventually producing the immense range of life-forms that we know today.[10]

An alternative and more radical theory, supported by a number of scientists, is that Earth could have been deliberately terraformed 3.9 billion years ago, just as we are now preparing to terraform Mars. This theory presupposes the existence of an advanced star-faring civilization—or more likely, many such civilizations—distributed throughout the universe.

Most scientists do not see the need for comets or aliens. Their theory, the mainstream view, is that life arose on Earth accidentally, without any outside interference. They further

argue, on the basis of widely agreed calculations about the size and composition of the universe, that there are probably hundreds of millions of Earth-like planets spread randomly across billions of light years of interstellar space. They point out that it is improbable, amid such legions of suitable planets, that life would have evolved only on Earth.

WHY NOT MARS?

In our own solar system, the first planet out from the Sun, tiny, seething Mercury, is believed to be incongenial to any imaginable form of life. So too is Venus, the second planet from the Sun, where concentrated sulphuric acid pours down twenty-four hours a day from poisonous clouds. Earth is the third planet from the Sun. The fourth, Mars, is indisputably the most Earth-like in the solar system. Its axis is tilted at an

angle of 24.935 degrees in relation to the plane of its orbit around the Sun (Earths axis is tilted 23.5 degrees). It makes a complete rotation around its axis in 24 hours, 39 minutes, 36 seconds (Earths rotational period is 23 hours, 56 minutes, 5 seconds). Like Earth, Mars is subject to the cyclic axial wobble that astronomers call precession. Like Earth it is not a perfect sphere but somewhat flattened at the poles and expanded into a bulge at the equator. Like Earth it has four seasons. Like Earth it has icy polar caps, mountains, deserts, and dust storms. And although Mars today is a freezing hell, there is evidence that in some ancient period it was alive with oceans and rivers and enjoyed a climate and atmosphere quite similar to those of Earth.

How probable is it that the spark that ignited life on Earth would not also have made its mark on neighboring, similar Mars? Whether Earth was deliberately terraformed, in other

words, or whether it was seeded with the spores of life from crashed comets—or whether, indeed, life arose here spontaneously and accidentally—it is reasonable to hope that we might find traces of the same kind of process on Mars.

If such traces are not forthcoming, then the chances that we are alone in the universe increase and the chances of life being discovered anywhere else are dramatically reduced. The implication will be that Earths life-forms emerged under conditions so focused, specialized, and unique—and at the same time so random—that they could not be replicated even on a nearby world belonging to the same solar family. How much less likely, therefore, that they could be replicated on alien worlds in orbit around distant stars.

For this reason the question of life on Mars must be regarded as one of the great philosophical mysteries of our time. With the rapid advances in exploration of the planet it

is a mystery that is soon likely to be solved.

HINTS OF LIFE

The evidence in from Mars so far takes four principal forms:

1. Earth-based observations from telescopes
2. Observations and photographs from orbiting spacecraft
3. Chemical and radiological tests carried out on Martian soil samples by NASA landers, with the results being transmitted back to Earth for analysis
4. Microscopic examination of meteorites known to have come from Mars

In the late nineteenth and early twentieth centuries, Earth-based telescopes produced the first ever “life on Mars” sensation—the claim that the planet was checkered with a gigantic network of irrigation canals bringing water from the poles to the parched equatorial regions. This claim, which we shall discuss further in part 2 of this book, was put forward by Percival Lowell, a prominent U.S. astronomer, and made an indelible mark on the collective psyche of Americans. Most scientists ridiculed Lowell’s ideas, however, and in the 1970s, NASA’s *Mariner 9* and *Viking 1* and *2* probes orbited the planet and sent back definitive photographs proving that there were no canals.

It is now recognized that Lowell (and others who claimed to have seen the canals) were the victims of poor-quality telescopic images and an optical illusion that causes the brain to link disparate, unconnected features into straight lines.

Even today, no Earth-based telescope has sufficient resolution to allow us to solve the mystery of life on Mars. We must therefore make our deductions using the three other types of evidence available to us—Martian meteorites, orbiter observations, lander observations.

We have already seen that two of the Martian meteorites appear to contain traces of primitive microorganisms (although many scientists disagree with this interpretation). Less well known is the fact that a number of the tests carried out in 1976 by the *Viking* landers also proved positive for life. The impression conveyed in public statements made at the time by NASA is that the planet is barren—because no organic molecules were found on the surface at either of the two landing sites. But puzzlingly, the Martian samples did give positive results for metabolic processes such as photosynthesis and chemosynthesis that are normally

associated with life.[11] What is known as a gas-exchange experiment also produced a positive result with soil samples liberating substantial quantities of oxygen in response to treatment with an organic nutrient.[12] Another positive result produced in a "labeled-release" experiment was absent in a control sample that had been baked at a high temperature—precisely as one would expect if the original reaction had been caused by a biological agent.[13]

This leaves the orbiter observations. In frames sent back by *Mariner 9* and *Viking 1*, strangely familiar objects can be seen that have been interpreted by some scientists not only as signs of life but as evidence that advanced *intelligent* life must once have been present on Mars.

THE PYRAMIDS OF ELYSIUM

The earliest anomalous images were acquired during 1972 and show an area of Mars known as the Elysium Quadrangle. At first little attention was paid to these images. Then in 1974 a brief notice appeared in the scientific journal *Icarus*. Written by Mack Gipson, Jr., and Victor K. Ablordeppy, the article reported:

> Triangular and pyramid-like structures have been observed on the Martian surface. Located in the east central portion of the Elysium Quadrangle, these features are visible on the *Mariner* photographs, B frames MTVS 4205-3 DAS 07794853 and MTVS 4296-24 DAS 12985882. The structures cast triangular and polygonal shadows. Steep-sided volcanic cones and impact craters occur only a few kilometers away. The mean diameter of the triangular pyramidial structures at the base is approximately three kilometers and the mean diameter of the polygonal structures is approximately six kilometers.[14]

Another *Mariner* photograph, frame 4205-78, quite distinctly shows four massive three-sided pyramids. These were commented on in 1977 by the Cornell University astronomer Carl Sagan. “The largest,” he wrote, “are three kilometers across at the base and one kilometer high—much larger than the pyramids of Sumer, Egypt, or Mexico on Earth. They seem to be eroded and ancient and are, perhaps, only small mountains, sandblasted for ages. But they warrant, I think, a careful look.”[15]

What is particularly notable about the four structures captured in this latter frame is that they appear to have been set out on the Martian surface in a definite pattern or alignment very like pyramids on terrestrial sites. In this they also have much in common with other Martian “pyramids” that lie in a region known as Cydonia, at approximately 40 degrees north latitude, almost halfway around the planet

from Elysium.

THE PYRAMIDS AND THE “FACE” OF CYDONIA

The Cydonia pyramids were photographed in 1976 by the *Viking 1* orbiter from an altitude of about 1,000 miles and were first identified on *Viking* frame 35A72 by Dr. Tobias Owen (now professor of astronomy at the University of Hawaii). The same frame, covering approximately 34 by 31 miles—about the size of Greater London—also shows many other features that could be artificial.

A casual glance reveals only a jumble of hills, craters, and escarpments. Gradually, however, as though a veil is being lifted, the blurred scene begins to feel organized and structured—too *intelligent* to be the result of random natural

processes. Although the scale is grander, it does look the way some archaeological sites on Earth might look if photographed from 1,000 miles up. The more closely you examine the frame, the more it becomes apparent that it really could be an ensemble of enormous ruined monuments on the surface of Mars.

Of these by far the most dramatic is a gigantic Sphinx-like face that NASA officially dismisses as a trick of light and shadow.[16] This explanation began to be challenged seriously only after 1980, as we shall see in part 2, when Vincent DiPietro, himself a computer scientist with NASA's Goddard Spaceflight Center, discovered another image of the "Face" on frame 70A13. This second image, which had been acquired 35 Martian days later than the first one and under different lighting conditions, made possible comparative views and detailed measurements of the Face. Complete with

its distinctive headdress, it is now known to be almost 1.6 miles in length from crown to chin, 1.2 miles wide, and just under 2,600 feet high.[17]

The Face could be a small mountain, naturally weathered. But how many mountains have left and right sides so intricately similar? Image analysts say that the "bilateral symmetry" of the Face, mimicking a natural, almost human appearance, is most unlikely to have come about by chance. And this impression is confirmed by other characteristics that have subsequently been identified under computer enhancement. These include "teeth" in the mouth, bilaterally crossed lines above the eyes, and regular lateral stripes on the headpiece—suggestive, to some researchers at least, of the *nemes* headdress of ancient Egyptian pharaohs.[18]

According to Dr. Mark Carlotto, an expert in image processing, "These features appear in *both* of the *Viking*

images, are coherent shapes, and are structurally integral to the object; therefore they could not have been caused by random noise or by artifacts of the image restoration and enhancement process."[19]

"AN IMPROBABLE ASSORTMENT OF ANOMALIES ..."

The same is also true for the D&M Pyramid (named after DiPietro and his associate Gregory Molenaar, who discovered it). This five-sided structure stands about ten miles from the Face and, like the Great Pyramid of Egypt, is aligned almost perfectly north-south—toward the spin axis of the planet. Its shortest side is a mile, its long axis extends to almost two miles, it is almost half a mile high, and it has been estimated to contain over a cubic mile of material.[20]

Commenting on the proximity of the Face and the D&M Pyramid, former NASA consultant Richard Hoagland asks a pointed question: “What are the odds against two ‘terrestrial-like monuments’ on such an alien planet and in essentially the same location?”[21]

Hoagland has made his own detailed study of frames 35A72 and 70A13 and has identified additional possibly artificial features. These include the so-called Fort, with its two distinctive straight edges, and the City, which he describes as “a remarkably rectilinear arrangement of massive structures interspersed with several smaller ‘pyramids’ (some at exact right angles to the larger structures) and even smaller conical-shaped ‘buildings.’”[22] Hoagland also points out another striking fact about the City: it seems to have been purposefully sited in such a way that hypothetical inhabitants would have enjoyed a perfect,

indeed almost ceremonial, view of the Face.[23]

The impression of a great ritual center, shrouded under the dust of ages, is enhanced by other features of Cydonia, such as the Tholus, a massive mound similar to Britain's Silbury Hill, and the City Square, a grouping of four mounds centered on a fifth, smaller mound. This configuration—suggestive of crosshairs—turns out to be located at the exact lateral center of the City.[24]

In addition, a group of British researchers based in Glasgow have recently identified what looks like a massive four-sided pyramid, the so-called NK Pyramid, 25 miles west of the Face and on the same latitude (40.8 degrees north) as the D&M Pyramid. "Looking at the whole of Cydonia and at the way all these structures are sited," says Chris O'Kane of the U.K. Mars Project, "my gut feeling is that they have to be artificial. I don't see any way that such a complex system of

alignments could have come about by chance."[25]

O'Kane's hunch is strengthened by the fact that "many of the structures are non-fractal." In plain English this means that their contours have been scanned and assessed as artificial (rather than natural) by highly sophisticated computers of the type normally used in modern warfare to pinpoint the locations of camouflaged tanks and artillery in aerial reconnaissance photographs.

"What we have, therefore," sums up Chris O'Kane, "is an improbable assortment of anomalies. They have what look like planned alignments, they're found in distinctive groups, and they're non-fractal. All in all, we have to say this is highly unusual."[26]

Nor are Cydonia and Elysium the only sites to have yielded photographic evidence of unusual and apparently artificial

structures. Other Martian features that are decidedly non-fractal include a straight line more than three miles long defined by a row of small pyramids; a single pyramid poised on the edge of a gigantic crater; extensive rhomboidal enclosures in the south polar region; and a weird, castle-like edifice rising to a steeple more than 2,000 feet high.[27]

GALLERY OF MYSTERIES

In 1996, during the last year of his life, Carl Sagan made a curious comment about the Face on Mars. This structure, he said, was "probably sculpted by slow geological processes over millions of years." Nevertheless he added:

> I could be wrong. It's hard to be sure about a world we've seen so little of in extreme close-up.[28]

Sagan urged that forthcoming American and Russian missions to Mars should make special efforts "to look much more closely at the pyramids and at what some people call the Face and the City…. These features merit closer attention with higher resolution. More detailed photos of the Face would surely settle issues of symmetry and help resolve the debate between geology and monumental structure."[29]

We do not share Sagan's confidence that high-resolution photographs will resolve the debate. Until astronauts land on Mars and explore Cydonia, even the best photographic images are likely to leave room for doubt—in both directions. Matters are further complicated by the fact that NASA's policy statements concerning the pyramids and the Face have frequently been bizarre and contradictory. Smacking of a secretive or even dishonest agenda, these statements have inevitably provoked some observers to make mental links

between the “monuments” of Mars and the UFO controversy (Roswell, Area 51, alleged abductions by aliens, etc.). The effect has been to fuel the paranoia—particularly rampant in the United States—that a massive government cover-up is under way.

We will return to the pyramids and the Face of Mars in part 2 and investigate the allegations of conspiracy in part 3. Our immediate aim in part 1 is to explore the planet itself and to enter its gallery of mysteries.

The greatest mystery of all is why Mars died.

2

Is There Life on Mars?

AN astronomer received the following telegram from a newspaper editor: WIRE ONE HUNDRED WORDS COLLECT. IS THERE LIFE ON MARS? The astronomer wired back, NOBODY KNOWS, repeated fifty times.[1]

That happened before the era of space exploration. Then, in July 1965, NASA's first successful probe—*Mariner 4*—was maneuvered into a fly-by of Mars and sent back 22 black-and-white television pictures showing the mysterious planet

to be formidably cratered and, apparently, as completely lifeless as the Moon. In subsequent years *Mariner 6* and 7 also flew past Mars, and *Mariner 9* orbited it, sending back 7,329 pictures (1971–1972). In 1976 *Viking 1* and *2* went into long-term orbits during which they sent back more than 60,000 high-quality images and placed lander modules on the surface. Three Soviet probes also investigated Mars, two of them reaching its surface.[2]

Up until early 1998, the question "Is there life on Mars?" could still only be answered, "Nobody knows." With more data at their disposal, however, scientists have formed a range of opinions on the matter. Despite the planet's devastated appearance, many now agree that extremely simple bacteria-like or virus-like microorganisms could have survived beneath the surface. Others feel there is no life at all there now, but do not rule out the possibility that Mars could

have had a “flourishing biota” in some distant past epoch.

A key element in the widening scientific debate, as we saw in chapter 1, is that a number of possible microfossils and chemical evidence for life processes have been detected in chunks of rock from Mars that have reached Earth as meteorites. This evidence must be set alongside the positive tests for life processes, also reviewed in chapter 1, that were carried out by the *Viking* landers.

TESTING POSITIVE

The story of the search for life on Mars has many puzzling elements. Among these is NASA’s published official conclusion that the 1976 *Viking* mission

> found no persuasive evidence for life on the surface of the planet.[3]

Dr. Gilbert Levin, one of the principal scientists involved in *Viking*, cannot accept this. He carried out the labeled-release experiment described in chapter 1, which produced an unmistakably positive reading. He wished to announce it as such at the time, but other colleagues at NASA overruled him. “A number of explanations have been proposed to explain the results of my experiment,” commented Dr. Levin in 1996. “None of them are convincing. I believe that Mars has life today.”[4]

It appears that Levin was overruled because his test contradicted negative results in other tests that had been devised by more senior colleagues—thus potentially calling the judgment of those colleagues into question. Particular weight was put on the fact that *Vikings* mass spectrometer had detected no organic molecules on Mars. Yet Levin has subsequently shown that the probe was equipped with a

badly underpowered mass spectrometer. It had a minimum sensitivity of ten million biological cells in a sample, compared with sensitivities down to just fifty cells that can be achieved by other instruments.[5]

Levin was encouraged to speak out only after NASA's announcement in August 1996 that apparent traces of microfossils had been found in meteorite ALH84001. This evidence strongly supports Levin's own view that there has been life on the Red Planet all along, despite the extremely harsh conditions that prevail there.

> Life is hardier than we had ever imagined. Microbes have been found in nuclear fuel rods inside reactors and in the depths of the ocean where there is no light.[6]

Colin Pillinger, professor of planetary science at the U.K.'s Open University, agrees: "I passionately believe that

conditions on Mars were once conducive to life," he says. He too points out that certain life-forms can survive in the most inimical conditions: "Some can hibernate at temperatures well below zero and there is tentative evidence for life at 150 Celsius. How much more tenacious can you get?"[7]

LIVING IN EXTREMES

Mars is bitterly cold, with an average temperature across the planet of minus 23 C, plummeting to minus 137 C in some locations.[8] There is an acute shortage of life-giving gases such as nitrogen and oxygen.[9] In addition, atmospheric pressure is low. A person standing at "Mars datum," an agreed elevation selected by scientists to serve as the equivalent of sea level on Earth, would experience an atmospheric pressure no stronger than the pressure exerted on Earth at 18 miles above sea

level.[10] Under these low pressures and temperatures there is and can be no liquid water on Mars.

Scientists do not believe it is possible for life to emerge anywhere without the presence of liquid water. If this is true then evidence of past or present life on Mars must strongly imply that the planet was once endowed with large quantities of liquid water—something, as we shall see, for which there is overwhelming evidence. That the water has since been lost is not in doubt. However, this does not necessarily mean that no life could have survived. On the contrary, a number of recent scientific discoveries and experiments have demonstrated that, on Earth at least, life can flourish in just about any conditions.

In 1996 British scientists drilling more than 13,000 feet below the surface of the Atlantic Ocean, found "a thriving subterranean world of microscopic creatures.... [These]

bacteria show it is possible for life to survive under extreme conditions where pressures are 400 times greater than at sea level and where temperatures can reach 170 degrees centigrade."[11]

Other researchers exploring active submarine volcanoes at depths of more than two miles have found animals from a phylum called Pogonophora grazing on colonies of bacteria that thrive in seething, mineral-rich plumes rising from the seabed. Normally only a few millimeters long, these wormlike creatures are here freakishly enlarged to huge sizes and seem to be mimicking the mythical salamander that was supposed to live in fire.

The bacteria on which Pogonophora feast are almost equally outlandish. They do not rely on sunlight for energy, since none filters down to these depths, but use "the heat of near-boiling water bubbling up from below the crust." They

do not require organic detritus for nourishment but consume "minerals in the hot brines."[12] Referred to by zoologists under the general category of "extremophiles," such creatures include autotrophs that eat basalt, use hydrogen gas for energy, and extract carbon from inorganic carbon dioxide.[13] Other autotrophs

> have been found three kilometers below the surface, where the only source of heat is the heat of the rocks.... They have been found at temperatures of 113 C.... They have been found ... in streams of acid; in toluene, benzene, cyclohexane, and kerosene; and at 11,000 meters down in the Marianas Trench.[14]

Creatures of this kind might conceivably have survived on Mars, perhaps locked in the 10-meter deep layer of permafrost that is believed to underlie the planet's surface,[15] perhaps in suspended animation, for immense periods of

time. On Earth, dormant microbes inside insects preserved in amber for tens of millions of years were successfully revived by scientists in California in 1995 and placed in a quarantined lab.[16] Other viable microorganisms that have been isolated from salt crystals are more than 200 million years old.[17] In laboratory experiments: "Bacterial spores have been heated to boiling point and cooled to −270 degrees C, which is the temperature of space between the stars. When things get better they come to life again."[18] Likewise there are viruses that "can be activated in cells even if they are inert outside such bio-organization." In their inert state these frightening little entities—smaller than the wavelength of visible light—are almost literally immortal. On examination they are "extremely complicated having a genome composed of 1.5 × 104 nucleotides."[19]

As NASA continues its exploration of Mars, scientists

believe that there is a very real possibility of cross-contamination. Indeed, cross-contamination could have occurred long before the epoch of spaceflight. Just as meteorites from the surface of Mars have reached Earth, it is considered highly probable that rocks “splashed off” Earths surface by asteroid impacts have reached Mars. It is conceivable that the spores of life itself could have been carried to Earth on meteorites from Mars—or, vice versa, that the spores of life could have been carried from Earth to Mars. Paul Davis, professor of natural philosophy at Adelaide University, points out that “Mars is not an especially hospitable planet for terrestrial-type life…. Nevertheless, some species of bacteria found on Earth might be able to survive there…. If life had become firmly established on Mars in the remote past it could have gradually adapted to the present harsher environment as conditions slowly

deteriorated."[20]

HIGH-STAKES DEBATE

Perhaps by coincidence, NASA chose a time when the implications of the survival of microorganisms in extreme environments were being widely discussed by scientists and in the media to announce the discovery of microfossils in meteorite ALH84001. According to Dr. David McKay, who led the team investigating the meteorite:

> There is not any one finding that leads us to believe that [there was] past life on Mars. Rather it is a combination of many things that we have found…. [These] include an apparently unique pattern of organic molecules, carbon compounds that are the basis of life. We also found several unusual mineral phases that are known products of primitive

> microorganisms on Earth. Structures that could be microscopic fossils seem to support this. The relationship of all of these things in terms of localization—within a few hundred thousands of an inch of one another—is the most compelling evidence.[21]

Many scientists do not find McKay's evidence so compelling. Among those who disagree are researchers at the University of Hawaii who argue that the alleged life-forms are not biological but mineral in nature and "must have formed from a hot, highly pressurized fluid that was squirted into fractures."[22] Dr. William Schopf, a world expert on ancient terrestrial microfossils, also believes that nonbiological processes were involved. He points out that NASA's "Mars microbes" are 100 times smaller than any microbes found on Earth and bear no signs of cells or cavities, which would be crucial indications of life. Like the Hawaii researchers, he thinks the structures are more likely

to be minerals.[23] Ralph Harvey of Case Western University in Cleveland, Ohio, claims that detailed electron microscopic analysis of the alleged microbes "shows a crystal pattern uncharacteristic of life-forms."[24] And researchers at the University of California in Los Angeles have concluded that "the conditions the rock was formed in are not consistent with the theory of life."[25]

In the "pro-life" camp, the work of Professor Colin Pillinger is particularly notable. With his colleagues Dr. Monica Grady and Dr. Ian Wright of London's Natural History Museum he was involved in the discovery of organic material in another Martian meteorite, EETA 79001, and published papers about it in the scientific journal *Nature* before NASA's announcement of possible microfossils in ALH84001.[26] The British researchers initially stopped short of saying that they had found evidence of life. But then in October 1996, they

reported that the organic material in the meteorite "contains 4 percent more carbon-12 relative to carbon-13 than exists in neighboring samples of carbonate material. This suggests that the carbon was formed from methane produced by microbial activity." Similar tests on ALH84001 (a fragment of which had been provided by NASA to Pillinger and his colleagues) produced the same carbon isotope ratios.[27]

Of particular interest was evidence that the carbonates in EETA 79001 were far younger than those in ALH84001—not billions of years old but perhaps just 600,000 years old.[28] "Geologically speaking," as one scientist has pointed out, "this is sufficiently recent for there to be a good chance that life may still exist in protected areas on our planetary neighbor."[29]

NASA's Johnson Space Center continues to maintain that the evidence from the Martian meteorites could be "arguably

the biggest discovery in the history of science."[30] In London the *Times* predicted that the discovery was the first step in a process "that will profoundly alter our perceptions of the universe and our place in it."[31] In the United States, John Gibbons, the White House Science adviser, commented, "Our notion that life is rare may be revised. Life may be pervasive in the universe."[32] NASA chief administrator Daniel Goldin agrees, stating: "We are on the doorstep to the heavens. We are now on the threshold of establishing, Is life unique to Earth?"[33] The same thought was also clearly in the mind of President Bill Clinton. On the day that the discovery was announced he addressed the nation on television, observing in lyrical tones that confirmation of NASA's findings, if and when it comes,

> will surely be one of the most stunning insights into our world that science has ever uncovered. Its implications are as far-reaching and as

> awe-inspiring as can be imagined.... As it promises answers to some of our oldest questions, it poses others even more fundamental.[34]

We can easily understand why populist politicians might wish to identify themselves with the quest for life on Mars. As Colin Pillinger sums up: "This is what people care about. When I talk to them they only ever want to know if there was life on Mars."[35]

HIDDEN AGENDA?

"NASA has made a startling discovery that points to the possibility that a primitive form of microscopic life may have existed on Mars more than three billion years ago."[36]

With these carefully chosen words, amid much fanfare, news of what had been found in meteorite ALH84001 was

first released to the public at a press conference held on 7 August 1996 at the Johnson Space Center in Houston. The speaker was Daniel Goldin, the powerful boss of NASA, who came to the job after spending twenty-five years at TRW, a top-secret defense contractor.[37]

Lobbyists campaigning for more open and accountable government in the United States regard Goldin's presence at NASA as ominous. The appointment was originally made by President George Bush, himself a former director of the Central Intelligence Agency. According to lobbyist and researcher Dan Ecker: "Ever since Goldin has been in charge many of the civilians in NASA have been replaced by former DOD [Department of Defense] people and NASA has steadily been going covert.... They have been doing many more Department of Defense missions ... and remember, Dan Goldin ... is the only person in charge of a federal agency

that I'm aware of that was not replaced under the Clinton administration. That should speak volumes."[38]

Like Ecker, many Americans are convinced that NASA has a hidden agenda and that its policies, and the information it chooses to release to the public, are influenced by factors other than the furtherance of pure science. As we shall see in later chapters, this suspicion has been particularly intense over the issue of the so-called monuments of Mars—notably the pyramids and Face of the Cydonia region. There is a public perception that NASA is involved in a sinister conspiracy to cover up significant evidence about the true nature of these anomalous structures. It has even been suggested that the whole "Mars microbe" extravaganza could have been designed to distract attention from another, more covert Mars story—perhaps to do with Cydonia.[39]

Such speculation sounds like paranoid fantasy. And yet

other conspiracies have also been alleged, this time involving the microbes themselves. These allegations stem from reputable scientists working within NASA and cannot easily be dismissed.

MOTIVES

Meteorite ALH84001 is made of rock that has been reliably dated at more than 4.5 billion years old.[40] The life traces identified within it are thought to be 3.6 billion years old. There is good evidence to suggest that the rock was splashed off the surface of Mars 15 million years ago as a result of a collision with a comet or asteroid.[41] It then traveled through space as a piece of cosmic jetsam for millions of years before finally crossing Earths path just 13,000 years ago and landing amid the ice sheets of Antarctica.[42]

The meteorite's modern history began on 27 December 1984 when it was found in the Allen Hills region of Antarctica. Dark green in color, with tiny rust-red patches in its crevices, it was collected by Roberta Score of the National Science Foundation who recognized it as a meteorite and shipped it to the Johnson Space Center. There, so the official story goes, it was ignored for more than eight years until researchers discovered that it had the classic chemical signature of the SNC class of meteorites and therefore must have originated on Mars.[43]

From 1993 until 1996, sharing almost no information at all with their peers,[44] a group of NASA scientists undertook an intensive investigation of the meteorite. The team was led by David McKay and Everett Gibson of the Johnson Space Center, who later recruited two specialists, Kathie L. Thomas-Keperta of the defense contractor Lockheed Martin and

Professor Richard N. Zare of Stanford University, to analyze the meteorite's organic components with a laser mass spectrometer.[45]

According to Dwayne Day of the Space Policy Institute at George Washington University: "As the team became aware of the implications of their research they stopped talking to outside colleagues about it. They were wary of making any comments before they were completely sure of their evidence."[46]

Rather less commendable motives have been suggested by David Des Marais, a scientist at NASA's Ames Research Center. He thinks that the secrecy and exclusive behavior of his colleagues at the JSC probably had more to do with interdepartmental rivalry for funds than with any sense of responsibility or prudence: "There's certainly a lot of competitiveness between NASA centers at the moment with

government cutbacks, and so I can imagine why they would want to keep the discovery and announcement all to themselves and have their research and their center making the headlines."[47]

NASA distributes its tasks among many centers. The speciality of Ames, where Marais works, is biological research—notably the chemical and biological experiments carried on the space shuttle. By March 1997, more than seven months after the initial sensational announcements about the Martian microbes, Ames scientists had still not succeeded in persuading the JSC to release a sample from the meteorite for them to study. "We really want to do a chemical analysis on a sample to check for signs of life," Marais commented, "because just about everybody who has looked at the rock up until now has concentrated on its geology. Nobody has investigated its organic chemistry in

depth, and we are the best resource to do that."[48]

CREDIT WHERE CREDIT IS DUE

Marais is not the only NASA scientist to have been bypassed by the JSC. Others include Dr. Vincent DiPietro of the Goddard Space Flight Center in Maryland, and Dr. John Brandenburg, who works for the NASA contractor Physical Sciences, Inc.

As we saw in chapter 1, DiPietro is the co-discoverer (with Gregory Molenaar) of the D&M Pyramid in the Cydonia region of Mars. DiPietro's support for the notion that the monuments of Cydonia could be artificial structures—rather than tricks of light and shadow—has for a long while marked him as a rebel within NASA. The same is true of Dr.John

Brandenburg, with whom DiPietro has authored a number of controversial papers about Cydonia.

DiPietro points out that the story of the hunt for life in meteorites from Mars did not begin with the relatively recent efforts of the Johnson Space Center team—who have indeed grabbed all the credit—but with work started as far back as 1966 by the Dutch scientist Bartholemew Nagy. In 1975 Dr. Nagy published a paper on the presence of curious organic compounds in "carbonaceous meteorites"—subsequently confirmed to be meteorites from Mars.[49] Fourteen years later, Nagy's findings were corroborated by Colin Pillinger and his team in England in their paper "Organic Materials in a Martian Meteorite," published in *Nature* in July 1989.[50]

Organic materials can be generated by purely chemical as well as by biological processes. In an attempt to establish which process had been involved on Mars, John Brandenburg

and Vincent DiPietro undertook a detailed review of the findings of Nagy and Pillinger. By 1994 they had begun to suspect that they had found signs of life. In their paper on the subject, published in May 1996, three months before the Johnson Space Center team went public with their "discovery," they noted that meteorites from Mars are remarkable in that they contain organic material in greater abundance than any other meteoric type. This, they concluded, "could mean evidence for primordial organo-synthesis on Mars and perhaps even primitive biology."[51]

It is odd, and more than just bad manners, that NASA neglected to mention the work of Brandenburg and DiPietro, or the earlier work of Nagy, Pillinger, and Wright, when it made its sensational August 1996 announcement about the discovery of microfossils in meteorite ALH84001. Furthermore, Brandenburg and DiPietro claim that more than

a year before the announcement they had personally informed NASA boss Dan Goldin of their own discovery of microfossils in meteorites from Mars. According to DiPietro, they got Goldin's attention for "a couple of minutes" during a conference at the National Academy of Sciences in Washington and put into his hands a dossier of

> writings about the meteorites from Mars which contained organic carbon and fossils…. On the very front cover … were the pictures of the fossils that were found. He looked at it with some kind of skepticism but also with curiosity. Prior to my putting this into his hands, I had addressed this to him in a question so it's in the physical, audiotaped version of that meeting. I had asked him the question about the meteorites, and the fossils that were found within them, and what were NASA's plans for them.[52]

Why therefore did Goldin not acknowledge Brandenburg

and DiPietro's findings when he so publicly acclaimed the parallel work of the JSC team?

Brandenburg admits, "Everyone knows we push Cydonia" as evidence of a former civilization on Mars.[53] Since this view has for a long while been unpopular within NASA it has been suggested that Goldin would have been unlikely to have welcomed the prospect of Brandenburg and DiPietro being first past the post with the headline-grabbing proof that life—albeit primitive life—did indeed once exist on the Red Planet.[54]

We are not surprised that Goldin, and perhaps other senior officials at NASA, were well informed about the fossil evidence in Martian meteorites long before that evidence was officially made public. Many large organizations behave secretively as a matter of habit. At the end of August 1996, however, a curious and perhaps significant sidelight was cast

on the story by Sherry Rowlands, a thirty-seven-year-old prostitute who claimed to have had an affair with President Clintons adviser Dick Morris. In press interviews she kept on insisting that Morris had told her about “the discovery of the evidence of a life-form on Mars when it was still a military secret.”[55]

LITTLE GREEN MEN

However faint the traces, the smell of intrigue and power politics does hang over the mystery of life on Mars. And yet, what could anybody possibly have to hide?

At the August 1997 press conference Daniel Goldin praised the JSC team for “their dedication, knowledge, and painstaking research,” and for making discoveries “that may

well go down in history for American science, for the American people and indeed for humanity."[56] At the end of this eulogy he was at pains to emphasize that "we are not talking about little green men.' The [fossils] are extremely small, single-cell structures that somewhat resemble bacteria on Earth. There is no evidence or suggestion that any higher life-form ever existed on Mars."[57]

The best that can be said about Goldin is that he seems to have been "economical with the truth" when he gave all the credit for the meteorite discoveries to the JSC team. Could he also have been holding something important back in the second part of his statement when he dismissed the possibility of higher life-forms on Mars? Soon after the press conference, Professor Stanley McDaniel of Sonoma State University made a telling observation about Goldin's presentation: "Its very interesting that as long as it's

microbial life, little microbes that are certainly inferior to humans, there's no problem in acknowledging that they may exist, but if it were big or little green men then there's a problem."[58]

There must be a reason for this problem.

3

The Mother of Life

SCIENCE has yet to explain how, why, when, and where life first emerged. Did it begin on Earth? That is just an opinion. Did it come about as a result of chance combinations of molecules in the "primeval soup"? That is also just an opinion—and so is the opposite opinion that it was the work of a creator. The unvarnished truth, as the biologists Stanley Miller and Leslie Orgel have admitted, is that "we do not

know how life began."[1]

Even so, there is agreement on a number of fundamental points. The most important is that "the detection of water in liquid form is the essential indicator for life."[2] According to the biologist Anders Hansson, water, as an inert solvent, "is ideal for biochemical cycling. Szent-Gyorgyi [the Nobel Prize-winning biochemist and discoverer of vitamin C] has called it 'the matrix of life.' Without it life cannot take hold nor the Darwinian evolution begin."[3]

In a realm of science where there are few hard facts this, too, is just another opinion. Nevertheless it is a well-informed opinion and we have no reason to suppose it to be wrong.[4] Until new evidence emerges to the contrary—and because we know that it was so on our own planet Earth—it therefore seems sensible to accept that water is probably a necessary precondition for the emergence of life anywhere in the

universe.

Mars today is dead and dry, and cold as hell. With an average overall temperature of minus 23 C, it has no liquid water but only frozen water in the form of ice. Indeed, water in liquid form *cannot* survive on the surface for more than a few seconds in such a climate. It has therefore been baffling to discover, since the era of spacecraft exploration and close-up photography began, that much of the planet shows unmistakable evidence of former oceans, lakes, and rivers, of plentiful rainfall, and of catastrophic floods on a gigantic scale that once scoured its surface.

ICE, DUNES, AND STORMS

Even under the most favorable viewing conditions telescopic

observations of Mars can produce misleading results. As we saw in chapter 1, the optical illusion of so-called irrigation canals led Percival Lowell and others in the late nineteenth century to conclude that "Mars is inhabited by beings of some sort or other."[5] The effect was to raise public expections for more than fifty years. Indeed, as late as the mid-1960s, there were many who still confidently expected that the reality of canals would be confirmed by NASA spacecraft. When it was discovered that no canals existed there was widespread disillusionment and a general loss of interest in Mars and its mysteries.

Although the canals are not real, other Martian phenomena, well documented in telescope observations and confirmed by photometric studies, are harder to dismiss as optical illusions. Among these one of the most intriguing is referred to by astronomers as "the wave of darkening":[6]

> Near the edge of either polar cap, a general darkening of the surface markings appears in early spring as the cap begins to recede. The darkening then moves away from the receding polar cap and sweeps toward and crosses the equator in a distinct band of heightened contrast, finally dissipating in the opposite hemisphere. The waves, one in each hemisphere, travel at an apparent speed of about 35 kilometers per day.[7]

The southern polar cap of Mars, at its maximum extent, reaches as far toward the equator as 50 degrees south. The northern cap extends to latitude 65 degrees north, much farther from the equator. By measuring the "reflection spectra" of the caps scientists have discovered what they consist of. The southern cap, by far the colder of the two, is entirely carbon dioxide ice. The northern cap contains fluctuating quantities of carbon dioxide ice but always maintains a permanent remnant, about 1,000 kilometers across, of pure water ice.[8] This is thought to represent "the

largest reservoir of available water on the planet."[9]

Surrounding the polar ice, and disappearing beneath it, are what geologists refer to as "extensive layered deposits."[10] Believed to have been carried here by wind, these are cut through by narrow sinuous valleys and circumscribed by the largest sea of sand dunes, or "erg," in the solar system:[11] 'This erg forms a band of windblown sand entirely around the north polar remnant cap. The dunes in this region are spectacular in their regularity over hundreds of kilometers.'[12]

From time to time awe-inspiring storms are whipped up on the surface of Mars. For reasons that are not yet understood such storms are usually preceded by a period of sudden local turbulence at certain preferred locations in the southern hemisphere during which tremendous quantities of surface dust get thrown as high as 10 kilometers into the atmosphere. Powerful winds then carry the dust to all parts

of the planet, rapidly obscuring its entire surface. Thereafter the intensity of the storm begins to lessen and within a few weeks the atmosphere returns to normal.[13]

EXTRAORDINARY SURFACE FEATURES

Where Earth is mellow and adorned with gentle curves, Mars is a planet of jagged extremes. Its valleys are the lowest in the solar system, its canyons the deepest, its volcanoes the highest. In the absence of an existing sea level, scientists refer to altitudes and depths on Mars in terms of an arbitrary "datum" level. The summit of the giant volcano Olympus Mons, at 27 kilometers above datum, is the highest point on the planet, and the floor of the canyon system known as the Valles Marineris, at seven kilometers below datum, is the lowest point.[14]

Olympus Mons looks like a vision from some dark fairy tale. It is classified by geologists as a “shield volcano” and consists of a circular scab of lava, 700 kilometers in diameter, rising toward a summit caldera 80 kilometers in diameter.[15] The outer edge of the lava scab, around a circumference of almost 5,000 kilometers, is defined by cliffs that drop sheer to the surrounding plains six kilometers below.[16]

Southwest of Olympus Mons is the Elysium Bulge, an immense area of high ground that is surmounted by three volcanoes. The highest of these, Elysium Mons, rises 9 kilometers above the surrounding plains.[17] Southeast of Olympus Mons, at a distance of 1,600 kilometers, begins an even larger upswelling of land. Known as the Tharsis Bulge, it rises 10 kilometers above datum and measures more than 4,000 kilometers from north to south and 3,000 kilometers from east to west—about the size of Africa south of the

Congo River.[18] It is in its turn surmounted by three gigantic shield volcanoes—Arsia Mons, Pavonis Mons, and Ascraeus Mons—which are known collectively as the Tharsis Montes.[19] Riding on the broad shoulders of the Tharsis Bulge their peaks rise to 20 kilometers above datum and always remain visible to spacecraft during even the greatest Martian dust storms.[20]

At the eastern edge of the Tharsis Bulge, Mars seems to have been split open by some catastrophic force. Amid a bizarre series of interconnecting box canyons and depressions known as the Noctis Labyrinthis, a tremendous meandering furrow opens in the surface of the planet and runs east—roughly parallel to the equator but between 5 and 20 degrees south of it—for a distance of 4,500 kilometers.[21]

This is the Valles Marineris. Named after *Mariner 9*, the first spacecraft to photograph it, it is up to seven kilometers

deep with a maximum width of more than 200 kilometers.[22] By comparison it is four times deeper, six times wider, and more than ten times longer than the Grand Canyon.[23]

At its eastern end Marineris curves northward toward the equator and debouches into a morass of so-called chaotic terrain—a tortured and overturned landscape of blocky remnants, valleys, and fractures that seems like one of the lower circles of Dante's Inferno. From the northern edge of this chaotic zone emerge the deeply etched channels of Simud Vallis, Tiu Vallis, and Ares Vallis (it was in Ares Vallis that NASA's lander *Global Surveyor* touched down on 4 July 1997). All of these channels are very wide and long. They run across the floor of a huge basin known as the Chryse Planitia, where they are joined by other channels, notably Kasei Vallis, which runs out of the north of the central section of the Marineris canyons and is 3,000 kilometers

long.[24]

What is striking about the channels, geologists unanimously agree, is that they could only have been caused by floods involving prodigious quantities of water. These floods flowed from the southern hemisphere of Mars into the northern hemisphere at a very rapid rate *because they were draining downhill*.

A DIVIDED PLANET

One of the great mysteries of Mars is that it has two quite distinct and clearly defined areas of relief—the heavily cratered southern uplands, most of which stand at two kilometers or more above datum, and the relatively smooth and uncratered northern lowlands, most of which lie at least

one kilometer below datum.[25] The highland and the lowland occupy approximately a hemisphere each, but these only roughly coincide with the present northern and southern hemispheres of Mars. As geologist Peter Cattermole explains:

> The "line of dichotomy" separating these two elevation zones describes a great circle inclined at approximately 35 degrees to the Martian equator.[26]

The main exceptions to the subdatum topography in the "low" northern hemisphere are the Elysium Bulge, entirely inside the northern hemisphere, and a large part of the Tharsis Bulge, which straddles the line of dichotomy.[27] The main exceptions to the above-datum topography in the "high" hemisphere are parts of the Valles Marineris and two stupendous craters, Argyre and Hellas, caused by impacts with comets or asteroids. Argyre is three kilometers deep

with a diameter of 630 kilometers. Hellas is five kilometers deep with a diameter of nearly 2,000 kilometers.[28]

These craters together with a third, Isidis, are the largest on Mars. But the planet also has legions of other craters with diameters of 30 kilometers or more, many of which, including one at the south pole, are real behemoths that exceed 200 kilometers in diameter.[29]

All in all, among tens of thousands of smaller craters down to one kilometer in diameter, a grand total of 3,305 craters wider than 30 kilometers have been counted on Mars. Of these, it is difficult to explain why 3,068, or 93 percent, lie south of the line of dichotomy; only 237 such large craters are found north of the line of dichotomy.[30] Equally curious is the fact that the uncratered hemisphere is so much lower in altitude—by several kilometers—than its cratered counterpart.

The reason for this lowland-highland dichotomy, as the geologist Ronald Greely observes, “remains one of the major unsolved problems of Mars.”[31] All that is certain is that at some point in its history the planet was afflicted by a cataclysm of almost unimaginable proportions. In chapter 4 we will investigate the causes and consequences of this cataclysm—which a number of scientists suspect may also have been responsible for stripping Mars of its formerly congenial atmosphere and its once abundant resources of liquid water.[32]

WATER, WATER EVERYWHERE

Many of the largest and most damaging Martian craters in the range of 30 kilometers and upward show unmistakable signs of having been made when the planet had a wet and

warm environment. Hellas, Isidis, and Argyre in particular have low, indistinct rims and flat floors that several authorities take as evidence of formation when Mars still had a dense atmosphere, rapid erosion, and a stronger magnetic field than it does today.[33] In the same way, acted upon by erosion, craters of great size on Earth "can blend into the landscape in a period of a few hundred years to such an extent as to be practically unrecognizable from the surrounding landscape."[34]

Other large Martian craters, typically measuring 30 to 45 kilometers in diameter, have central peaks, somewhat like gigantic stalagmites, with pits on the summits. Ronald Greely believes that the best explanation for these is that they are "splash" craters and that "water or the atmosphere of Mars, or both, may have been responsible for the form of ejecta."[35]

Planetary scientists Jay Melosh and Ann Vickery have

calculated that Mars "probably had an original atmosphere with about the same surface pressure as that of the earth today, and a correspondingly higher surface temperature above the melting point of ice."[36] Their research suggests that the atmosphere was torn away by repeated asteroid impacts: "Because the gravity of Mars is so weak, it is easy for the expanding cloud of vapor from a major impact to blast all of the atmosphere in its vicinity out into space."[37]

In a graphic demonstration of warmer, wetter times, one of the Mars meteorites studied by NASA actually proved to contain a few milligrams of liquid water—the droplet is now kept on display in a sealed glass vial.[38] Moreover, it has been calculated that frozen "subsurface water to a depth of 200 meters may exist on Mars at present."[39] There are even hints that at sufficient depths, close to the planet's inner layers of molten magma, there may be underground hot springs.[40]

Theoretically these could vent superheated steam to the surface, and in August 1980, Dr. Leonard Martin of the Lowell Observatory in Arizona reported that two successive images taken by NASA's *Viking* orbiter of an area just south of the Valles Marineris did "suggest an explosive water spout or steam vent."[41] Vincent DiPietro and Gregory Molenaar carried out computer enhancement of these images. They concluded: "Not only did we confirm Dr. Martins discovery, but we also found a circular compression ring around the center column…. The size difference between the images of the two frames indicates the cloud to be rising at a velocity of over 200 feet per second."[42]

The "waterspout" is a controversial matter. But the evidence that Mars possessed vast resources of flowing water in the past is not disputed by scientists and can be seen in plain view in tens of thousands of NASA images. Recently

this evidence was subjected to an intensive evaluation by a team in the Exobiology Program Office at NASA. The team included Dr. David Des Marais of NASA's Ames Research Center, Dr. Michael Carr of the U.S. Geological Survey, Dr. Michael A. Meyer of NASA HQ, and the late Dr. Carl Sagan.[43] Their conclusions, which represent the concensus of scientific opinion on this subject, are quoted here at length:

> One of the most puzzling aspects of Martian geology is the role that water has played in the evolution of the planet. Although liquid water is unstable at the surface under present conditions, we see abundant evidence of water erosion. The most intriguing features are large dry valleys, interpreted as having been formed by large floods. Many of the valleys start in areas of what has been termed chaotic terrain in which the ground has seemingly collapsed to form a surface of jostled and tilted blocks 1–2 kilometers below the surrounding terrain…. [In Chryse Planitia the] valleys emerge from the chaotic terrain and extend

northward down the regional slope for several hundred kilometers. Several large channels to the north and east of [the Valles Marineris] converge on the Chryse basin and then continue farther north, where they merge into the low-lying northern plains. The valleys emerge full size and have few if any tributaries. They have streamlined walls, scoured floors and commonly contain teardrop-shaped islands. All these characteristics suggest that they are the result of large floods…. Although most of the floods are around the Chryse basin, they are found elsewhere … near Elysium and Hellas. Others occur in Memnonia and western Amazonis….

Other fluvial features appear to be the result of slow erosion of running water. Branching valley networks are found throughout the heavily cratered terrain…. They resemble terrestrial river valleys in that they have tributaries and increase in size downstream…. The most plausible explanation for the valleys is that they formed by erosion of running water.[44]

THE SUDDEN END OF A LUSH ENVIRONMENT

Although expressed in the dry language of science, the NASA report nevertheless concerns itself with matters of great significance. It confirms not only that Mars might once have had a wet and relatively warm environment—perhaps even an environment suitable for higher life-forms—but also that this environment seems to have been suddenly swept away.

Other studies have reinforced the same general picture. The major channel system in Chryse Planitia is up to 25 kilometers wide and more than 2,000 kilometers long.[45] It was made by a sudden catastrophic flood that not only shaped its sheer walls but also gouged "cavernous potholes several hundred meters deep" and carved streamlined "teardrop" islands measuring 100 kilometers from end to end.[46] The flood was traveling extremely fast,

> so rapidly as to provide peak discharges of millions of cubic meters per second. Even the dense atmosphere of Earth cannot provide water fast enough to yield such discharges from comparable-sized catchment areas.... Only dam bursts have yielded flows of significant macro erosion."[47]

The *volume* of water required to cut the channels has also been estimated. It was very large; Peter Cattermole calculates that it was equivalent to a global ocean more than 50 meters deep.[48] Michael Carr of the U.S. Geological Survey believes that it was equivalent to an ocean 500 meters deep.[49]

Another major flood took place in Ares Vallis. Photographs sent back by NASA's *Pathfinder* lander module in July 1997 show that this immense channel was once filled with "thousands of feet of churning water."[50] According to *Pathfinder* scientist Dr. Michael Malin:

> This was huge. The comparable flood on Earth would be the flood that filled the Mediterranean basin.[51]

Layered deposits of stratified sedimentary material of the kind laid down by the largest terrestrial lakes have been identified in many different locations on Mars. In some places these deposits are five kilometers thick—confirming not only the former existence on Mars of a dense and warm atmosphere in which water could survive in a liquid state but also that the planet's water must have been present for an extremely long period during which Earth-like sedimentation processes occurred.[52] These deductions are strengthened by the compelling evidence, touched on in the NASA report, that rivers flowed in certain regions of the planet for hundreds of millions of years.[53] Moreover, "the existence of run-off channels makes it likely that at one time there was even rainfall on Mars."[54]

It is generally believed that these warm and wet conditions last prevailed billions of years ago. However, Harold Masursky of the U.S. Geological Survey has shown that there may have been liquid water on Mars "as recently as a few million years ago."[55] In the U.K., Colin Pillinger and his team have gone further. Their study of Martian meteorites demonstrates that liquid water and primitive life could have existed on the Red Planet just 600,000 years ago.[56] Other researchers, whose work we will consider in chapter 4, are prepared to consider a time frame that is even more recent, with a great cataclysm striking Mars and stripping it of its atmosphere and water less than 17,000 years ago.

Specialists increasingly accept that as well as extensive lakes, "deltas and seas may once have existed on Mars."[57]

David Scott of the U.S. Geological Survey has examined "meandering channels, spillways and outlets, spits, terraces, deposits and shorelines" in a number of basins in Elysium, Amazonis, Utopia, Isidis, and Chryse, which he attributes to the presence of former lakes and seas. The Elysium basin, he believes, was once filled with water to a depth of 1,500 meters.[58] Likewise Vic Baker and scientists at the University of Arizona suggest that a great ocean once covered much of the northern hemisphere[59] and support their theory with evidence of ancient shorelines in the low-lying northern plains.[60]

Such features have been identified at latitude 41 degrees north, longitude 9 degrees west,[61] close by the so-called pyramids and Face of Mars in the Cydonia region. According to environmental geologist James L. Erjavec, this region, which lies to the northeast of Chryse Planitia, contains

> areas that look like they're shoreline features, areas where there's erosion, where landslides would occur at the edge of a shoreline, where there may be some erosion of material down below the base of the cliff and sediment has poured into it. Certain erosion features surely indicate that water may have been here in a sizeable quantity. As to what time in Martian history, that still remains to be seen.[62]

The surface of Mars is a palimpsest inscribed with layer upon layer of mysteries. Amid these layers is written the story of the death of a world. It may not have been billions of years in the past, and the fate that afflicted Mars may not have entirely bypassed Earth.

4

The Janus Planet

MARS is a planet of many mysteries, its history only guessed at, its true significance in the solar system as yet unknown. All that is certain is that it was once vibrant with rain and rivers, lakes and oceans, and that it is now barren and dead.

It is the scientific consensus that Mars was killed—*executed* would not be too strong a word—by a stupendous bombardment of asteroids or comets. Thousands of huge

craters pockmarking its tortured surface are the silent witnesses to this. And it is thought likely that the same bombardment also caused the cataclysmic floods (described in chapter 3) and then stripped away the planet's formerly dense atmosphere so that liquid water could no longer survive anywhere upon it.[1]

What kind of event could this have been? And what does it say about the nature of the universe in which we live—perhaps even about the predicament of Earth itself—that Mars was so completely rubbed out when it was in its prime?

CLUES FROM THE BODY

We are looking at a murder victim. All we have are photographs and measurements of the corpse and the results

of certain scientific tests that have been done on it. These tell us a number of curious things about Mars.

Item 1: Its orbit is highly eccentric and elliptical, following a course that brings it close to the Sun and then very far away from it every year.[2]

Item 2: Its rate of rotation is much slower than it should be.

Item 3: It has almost no magnetic field.

Item 4: Over long periods of time its north-south spin axis seesaws wildly in space, radically changing the angle at which the planet is oriented toward the Sun.

Item 5: There is evidence that the Martian crust may have slipped in one piece around the inner layers of the planet on

several occasions in the past—causing landmasses at the poles to be shifted into equatorial zones and vice versa.

Item 6: The vast majority of Martian impact craters, far more than should be the case statistically, are clustered in the hemisphere south of the so-called line of dichotomy (discussed in chapter 3).

Item 7: The northern hemisphere shows only light crater damage and is a vast basin, three kilometers lower in altitude than the south.

Item 8: The line of dichotomy between north and south is physically marked on the surface of Mars by the sheer edge of the upland escarpment. This unique feature runs all the way around the planet in a great ragged circle that crosses the equator at an angle of about 35 degrees.

Item 9: Also unique to Mars is the tremendous chasm of the Valles Marineris—seven kilometers deep, 4,000 kilometers long—that has been torn in its surface.

Item 10: Last but not least there are Hellas, Isidis, and Argyre, the deepest and widest craters in the solar system, weirdly compensated on the other side of Mars by the Elysium Bulge and by the immense Tharsis Bulge—from the eastern edge of which the Valles Marineris bursts forth.

IMPACTS

Let us start with the mystery of the dichotomy. Geologists admit that "despite an ever-increasing awareness of its importance, manifested in intensive research into its nature, mode, and age of formation, there is still no firmly held

hypothesis to account for it."[3]

A few scientists favor purely internal, geological process,[4] but the majority agree with William K. Hartmann, writing in the *Scientific American* in January 1977, who pointed out that "an asteroid 1,000 kilometers across striking a primordial planet could have given rise to a fundamental asymmetry in the planet, perhaps by knocking the crust off one side.... [This] kind of collision might be involved in the asymmetry of Mars where one hemisphere has many ancient craters and the other has been almost entirely modified by volcanism."[5]

Since the Martian hemisphere lying north of the line of dichotomy has a lower altitude than the southern hemisphere, the automatic assumption has been that the northern hemisphere was struck and lost the outer layer of its crust. The only serious dispute is whether the dichotomy was produced by multiple large impacts in the north[6] or by a

“single mega impact,”[7] although both theories present an essentially similar picture of collisions big enough to excavate a basin across an entire Martian hemisphere. Both also assume that there was a time when the north of Mars had a roughly equal number of craters to the south. Then it is supposed that a freak additional bombardment by asteroids (or by one mega asteroid) occurred, for some reason falling only on the north, breaking through its crust, lowering its altitude, and obliterating its preexisting craters. Next, fresh lava welled up from the planet’s interior and poured out over the flayed northern hemisphere, covering its wounds and effectively resurfacing it. Subsequently, although occasional asteroids have continued to strike, collisions have become much less frequent and neither hemisphere has experienced any further episodes of intense bombardment.

One important question is sidestepped by both the impact

theories: What has happened to the immense volumes of crust, three kilometers deep, that appear to have been scalped from the northern hemisphere? Scientists have calculated that this crustal material would be too massive simply to have eroded away, even over billions of years. As Michael Carr of the U.S. Geological Survey has observed:

> The precise mechanism whereby the former ancient crust has been so extensively destroyed in the northern hemisphere is poorly understood.... Erosion alone cannot explain [its] disappearance ... for there is no sink of sufficient size to accommodate the debris.[8]

The impact theories are also weakened because they call for a freak additional bombardment in the north but are unable to describe any mechanism that would persuasively account for such a bombardment. The best suggestion is that the material flung at Mars was drawn across its orbit because

of “perturbations and collisions of bodies in the asteroid belt” probably caused by the atmospheric attraction of Jupiter.[9] But critics say that such perturbations and collisions could not possibly have ejected enough material from the asteroid belt to inflict all the damage that is visible on Mars. Nor is it clear why the damage should have been focused on one hemisphere—the north—with such ferocity that its crust could have been stripped away to a depth of three kilometers. As critics have pointed out:

> *Any* attempt to explain the dichotomy via impact depends on a statistical clustering of impacts in the northern lowland…. Unless impacts are significantly more numerous within the lowland than elsewhere, there simply is no reason to expect that the lowland will differ in any way from the rest of the planet.[10]

So could Mars have been hit by “significantly more

numerous” impacts in the north than in the south?

There are some who suggest that everything might have been the other way around.

ASTRA

It is the consensus of astronomers that collisions between asteroids and the planets were frequent in the early history of the solar system and have been steadily declining ever since at a uniform and predictable rate. “On any given planet,” as a result, it is assumed that “the relative ages are clear, since heavily cratered areas are older than sparsely cratered ones.”[11] It is for this reason that the heavily cratered southern highlands of Mars are always referred to as “older” than the “recently resurfaced” plains of the north.[12]

Geographer Donald W. Patten and engineer Samuel L. Windsor have other ideas. They argue that it was not the northern hemisphere of Mars that was the victim of a "freak additional bombardment" (as all other scholars have suggested) but the *southern hemisphere*. They say that this additional shower of cosmic debris is the only reason why the southern hemisphere is more heavily cratered than the north; that is, its surface is *not* older than the northern plains. And, though they do not make the connection themselves, their findings raise an intriguing possibility: *The loss of the northern crust might not have resulted from direct impacts anywhere in the north but could instead have been a "domino" effect from devastating impacts in the south.*[13]

At present there are nine planets in the solar system: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto. Patten and Windsor's theory is that there

was once also a small tenth planet, orbiting between Mars and Jupiter—in the area where the asteroid belt is now found—and that it came into a collision course with Mars. They name this hypothetical planet Astra and believe that it was drawn toward Mars like a moth to a flame and then destroyed as it entered the larger planet's "Roche limit," a technical term used by astronomers for

> the zone which surrounds any large object of appreciable mass producing a gravitational field at a distance of 2 to 3 radii of the object concerned. In effect it is a danger zone, and any object with a smaller mass or weaker gravitational field entering it will be either swiftly expelled from it electromagnetically, or, more commonly, be subjected to intolerable tidal stress and disintegrated.[14]

The Roche limit is a magical thing, an invisible force field. If its Roche limit is breached, a planet can be expected to

defend itself—reaching out, almost like a living being, to destroy the intruder. When this happens the defending planet will suffer serious and perhaps irreversible damage from thousands of fragments of the invader, some very large, that rain down on it. But such damage is likely to be less severe than it would be if there was an actual collision between two intact bodies of planetary size.

Patten and Windsor believe that Astra approached to within 5,000 kilometers of Mars, well inside its Roche limit, and was then torn apart by gravitational and electromagnetic forces—splattering the Martian hemisphere that was facing it with a sudden burst of high-speed projectiles all coming in from the same direction at the same time. The two researchers find plentiful evidence for such an explosion over the southern hemisphere of Mars, pointing out that there is

> an abrupt edge, or rim, for a dramatic drop-off in the density of craters on Mars. That rim [the line of dichotomy] is "where the buckshot ends." It is where the Red Planet's serene [northern] hemisphere begins. This rim is obvious to anyone who is thinking of fragmentation on the Roche limit of Mars. So far, astronomers who fail to think of planetary catastrophism also have failed to see the obvious. The rim rises farthest north on Mars in its northwest quadrant, at latitude 40 degrees north and at longitude 320 degrees west.... The southerly extremity of the rim is at latitude 42 degrees south and at longitude 110 degrees west. The rim of craters is not hard to identify if it is expected or anticipated. It is there as it ought to be if Mars experienced a sudden, intense, 15-minute blizzard of fragments bombarding it on one side only.[15]

Very like those who propose selective bombardment of the north, the two researchers' weakest point is that they do not suggest a convincing mechanism that could have put their hypothetical tenth planet, Astra, on a collision course with

Mars. Their ideas on this matter rest, in essence, on the belief that the solar system only recently organized itself into its present form and that the orbits of the planets were previously very different.[16]

That few scholars would agree with this aspect of Patten and Windsors hypothesis does not necessarily mean that they are wrong. Furthermore, even if they are wildly wrong about the mechanism, they still may be one hundred percent right about other things.

They could, for example, be right about the existence of Astra, or something like it. Certainly there is no objection in principle to the notion of an exploded tenth planet as the source of the countless thousands of rocky missiles, some large, some small, that orbit in the asteroid belt between Mars and Jupiter. Indeed, as long ago as 1978 the astronomer Tom Van Flandern of the U.S. Naval Observatory in

Washington, D.C., made exactly this case in the planetary science journal *Icarus.*[17] Although admitting that he could think of no means whereby a planet could blow up, he presented persuasive evidence that a tenth planet between Mars and Jupiter could indeed have been destroyed—he thought about five million years ago—and could have been the source not only of the asteroid belt but also of comets entering the inner solar system.[18]

Patten and Windsor's other central idea is of a massive bombardment selectively focused on southern Mars. At the very least, this is no more inherently improbable than the widely accepted notion of a "statistical clustering of impacts" in the northern hemisphere. Moreover a growing body of evidence suggests that the south may indeed have been the target of just such a bombardment.

Hellas, Isidis, and Argyre, the three largest impact craters in the solar system, all lie south of the line of dichotomy.

Centered at 295 W, 40 S, Hellas is an elliptical basin, five kilometers deep, measuring 1,600 kilometers by 2,000 kilometers, so massive that even the ramparts of its rim are 400 kilometers wide.[19] According to Patten and Windsor's calculations, this immense crater formed as a result of an impact with an object measuring 1,000 kilometers in diameter[20]—"as big as Alaska with Washington and half of Oregon thrown in, twice as big as Texas, bigger than most of western Europe."[21]

The Isidis crater measures 1,000 kilometers across and was made, say Patten and Windsor, by an object 600 kilometers wide. Argyre has a diameter of 630 kilometers and was made

by an object 360 kilometers wide.[22]

In Patten and Windsor's reconstruction Hellas was the first of the three killer projectiles to reach Mars, screaming down through the atmosphere at a speed of 40,000 kilometers per hour toward a bull's-eye point in the center of the hemisphere south of the line of dichotomy:

> The Hellas fragment hit the crust of Mars a direct blow, from almost vertical. It passed into the internal magma of Mars, creating enormous pressure waves and shear waves. The Hellas fragment did not pass out through the other side of the crust.... But the angle of the hit and its velocity did cause sudden, immense internal distress, resulting in a huge pair of bulges in the opposite hemisphere.... The Hellas fragment continued to plunge onward, rotating all the way, through the magma of Mars. The Tharsis Bulge began to rise, with suddenness, about 100 minutes after Astra fragmented.... Simultaneously there were at least

two other fragments that penetrated the Martian crust, Isidis and Argyre. In the vicinity opposite the Isidis crater is the second bulge of Mars—the Elysium Bulge.[23]

THE DEATH OF WORLDS

Among tens of thousands of smaller craters, and more than 3,000 craters with a diameter greater than 30 kilometers (including dozens with diameters up to 250 kilometers[24]) Hellas, Isidis, and Argyre are the dark, lurking monsters of Martian topography. Patten and Windsor's estimates of the diameters of the three asteroids that caused these craters—respectively 1,000 kilometers, 600 kilometers, and 360 kilometers—are not correct. We know from studies of impacts on Earth that an object 10 kilometers in diameter can make a crater nearly 200 kilometers wide. More accurate

estimates of the Martian impactors suggest diameters in the range of 100 kilometers for Hellas, 50 kilometers for Isidis, and 36 kilometers for Argyre.[25]

For a planet the size of Earth (and Mars is not much more than half the size of Earth), it is important to understand that a collision with any object wider than about one kilometer is a catastrophic event. Indeed, extensive damage has been caused on Earth by much smaller objects. The famous Barringer Crater in Arizona, which is 180 meters deep and just over a kilometer wide, was gouged out by an iron meteorite no larger than 50 meters in diameter.[26] The so-called Tunguska Event of 30 June 1908 was an aerial explosion over Russia of a fragment of a comet or asteroid measuring 70 meters across and traveling at 100,000 kilometers per hour.[27] Estimated to have occurred at an altitude of about six kilometers above the Siberian plains,

this vast explosion flattened more than 2,000 square kilometers of forest, completely incinerated a central region of 1,000 square kilometers, and ignited people's clothes as far afield as 500 kilometers from the epicenter.[28] Seismic shocks from the Tunguska Event were measured at a distance of more than 4,000 kilometers, and so much dust was thrown up into the atmosphere, blocking out sunlight, that the earth's surface temperature was measurably reduced for several years afterward.[29]

The Tunguska object was 70 meters across and, mercifully, exploded over an unpopulated area before colliding with Earth. Sixty-five million years ago, another object, this time *10 kilometers* across, crashed into the northern end of the Yucatan Peninsula and the Gulf of Mexico with an explosive force that is estimated to have been a thousand times more powerful than all the nuclear bombs and missiles currently

stockpiled on earth. It gouged out a crater 180 kilometers in diameter, sent up a dust cloud that blotted out the sun for five years, and created seismic instabilities that wracked the entire planet for decades with aftershocks and volcanic erruptions.[30]

The notorious "K/T boundary Event" wiped out the dinosaurs, and 75 percent of all other species then living on Earth.[31] It has been aptly described as

> one of the greatest disasters that has ever hit our planet.... It was the equivalent of a rock the size of Mount Everest, traveling ten times faster than the fastest bullet, producing an impact so severe that the entire Earth shifted in its orbit by a few dozen meters.[32]

That a "rock the size of Mount Everest," with a diameter of just 10 kilometers, could have caused a planet-wide cataclysm that almost ended life on Earth is surely a chilling

thought. Asteroids and comets measuring 10 kilometers or bigger are relatively common in the solar system, and we shall see in part 4 that many of them hurtle along on potentially disastrous Earth-crossing orbits.[33] Astronomers refer to them as "Apollo objects"[34] and believe that some may reach 100 kilometers in diameter.[35] Such giants are thought to be rare, but it is widely understood that a collision with one of them would be a world-killing event in which it is unlikely that any form of life would survive.

It is worth repeating that the object that excavated the Hellas crater on Mars had a diameter of 100 kilometers. The Isidis object had a diameter of 50 kilometers. The Argyre object had a diameter of 36 kilometers.

As each of these huge interplanetary dumdum bullets was large enough to have killed Mars on its own, it is not hard to imagine what the global consequences of three such impacts

must have been. Indeed, imagination is superfluous, because we have the NASA photographs of the ruined corpse of Mars to tell us the whole story. At the risk of overextending the metaphor, what these photographs suggest is that the "victim" was first hit from the south at point-blank range with the cosmic equivalent of a blast from a 12-bore shotgun—hence the thousands of craters clustered to the south of the line of dichotomy—and that the "killer" then finished off the job with three single shots from a large-caliber rifle.

ENERGY WAVES

Sixty-five million years ago, at the moment that the 10-kilometer-wide comet or asteroid that destroyed the dinosaurs hit Earth, tremendous shock waves were sent surging around the planet from the point of impact in the

Gulf of Mexico. Geologists do not think it is an accident that almost exactly on the opposite side of the globe, at exactly the same time, an extraordinary burst of volcanic activity occurred in India. Wide-scale seepage of molten magma through fissures in the earth rapidly built up a great shield of basaltic lava—nearly a thousand meters high and thousands of square kilometers in area—which cooled to form the Deccan Traps. “Shock waves rippling out from the impact,” observe science writers John and Mary Gribbin, “would have tended to focus together again in just about that part of the world.”[36]

Patten and Windsor’s argument is that much the same thing, only a hundred times worse, happened on Mars—that the Tharsis Bulge swelled up in reaction to the Hellas impact and that the Elysium Bulge was a reaction to the Isidis impact. The shock waves are estimated to have been of such

magnitude that they would not merely have passed around the planet but would have punched directly through it, ahead of the penetrating asteroids that cut into Mars like augurs. Indeed, it has been calculated that from their points of entry south of the line of dichotomy the Hellas, Isidis, and Argyre asteroids could possibly have traveled a distance of some 5,000 kilometers before coming to a halt inside the opposite, "serene" hemisphere north of the line of the dichotomy.[37] There they would have released gigantic pressure waves that would have rushed upward to the surface at about 5,000 kilometers per hour.[38]

It is an entirely reasonable proposition, well supported by the Deccan Traps precedent on Earth, that this could have produced sufficient volcanic activity at the surface to account for Tharsis and Elysium—and probably for Olympus Mons as well. In addition, Patten and Windsor suggest that the sudden

need for Mars to absorb and “digest” the mass and kinetic energy of the three large asteroids may have brought it close to total destruction. It was not enough for the planet to vent magma at Elysium and Tharsis. The pressure and expansion called for further release, and from the eastern edge of Tharsis the planet burst its seams along fully one-quarter of its circumference, forming the formidable gash that we know as the Valles Marineris.[39] This vertiginous canyon system reaches depths of seven kilometers—too deep, according to authorities like Peter Cattermole, to be explained by internal geological processes.[40]

Is it possible that one other thing—more devastating than all the rest—could have happened to Mars as a result of the three gigantic impacts it suffered? Is it possible that the hammer blows that it received from within, emanating from the south, could have transmitted sufficient energy to the

north to shake loose the crust?

This was almost exactly the scenario envisaged by William K. Hartmann in *Scientific American*—that a collision with just one very large impactor could theoretically account for the Martian "asymmetry." As we have seen, it has always been assumed that such a collision—or multiple collisions—would have occurred in the northern hemisphere. But recent research supports the notion that tremendous energy pulses transmitted from south to north during the Hellas, Isidis, and Argyre impacts could have done the job just as effectively. This research has shown that even Shock waves from relatively small impacts have caused the surface of Mars "to bounce, flicking boulders up to 15 meters across into space."[41]

Hellas, Isidis, and Argyre were not small impacts. The possibility cannot be ruled out that their combined mass and

momentum could have “bounced” the entire northern hemisphere vigorously enough to flick a three-kilometer-thick layer of its crust into space.

DISORDER AND DISTURBANCES

Hellas alone was 100 kilometers in diameter. Combined with the Isidis and Argyre impactors, it is not inconceivable that it may have “carried so much energy and momentum” that on colliding with Mars, “it could have tilted it, speeded up its spin, slowed down its spin, destroyed a satellite, or perhaps even have left rings of material around it after breaking up under gravitational forces.”[42]

NASA observations going back as far as *Mariner 4* suggest that the Martian orbit, which the reader will recall is

unusually elliptical, “has been seriously disturbed and the planet’s structure severely strained at some time in the past.”[43] Furthermore, telltale fractures on the Martian crust indicate that there has at some point been a significant change in “the planets rotational equilibrium figure”—that is, in its rate of spin.[44] The laws of celestial mechanics dictate that it should be revolving once every eight hours; instead a complete revolution takes almost twenty-five hours.[45] Such a change appears to have been far too large to have been caused by tidal interaction with Phobos and Deimos, the two tiny moons of Mars, and scientists recognize that “some other cause” must be sought.[46]

Might that same cause have had something to do with another oddity of Mars?—namely the fact that the tilt, or obliquity, of its spin axis is subject to wild fluctuations. Presently at about 24 degrees, its “normal” range is already

very large, varying from 14.9 degrees to 35.5 degrees over cycles of just a few million years.[47] In 1993, Jihad Touma and Jack L. Wisdom of the Massachusetts Institute of Technology discovered that "the tilt can also change abruptly. Excursions of the tilt axis through a range of as much as 60 degrees may recur sporadically every ten million years or so."[48]

Another curious characteristic of Mars is that it has almost no magnetic field, although there is undisputed evidence that it did once possess a strong one.[49] And last but not least, there is evidence of a major, possibly rapid and possibly violent one-piece slippage of the entire Martian crust around the inner layers of the planet. For example, typical mantled and layered polar deposits have been found 180 degrees apart at the equator—that is, in positions antipodal to one another—as would be expected with former poles.[50]

INTERPLANETARY VISITORS

What set the Martian crust in motion and its axis rocking, and snuffed out its magnetic field and drastically slowed down its rate of spin? Was it the same event that brutally cratered the south of the planet and scalped the north down to a depth of three kilometers? And when did these things happen?

Patten and Windsor suggest that many of the answers lie with their hypothetical tenth planet, Astra. Such a body could certainly have disturbed the orbit of Mars—and slowed down its spin—if, as supposed, it had exploded inside the planet's Roche limit. This is by no means an unorthodox position. Hartmann too speaks of the possibility of "a large interplanetary body" entering the solar system[51] and envisages how it might have trespassed the Roche limit of

one of the planets and been "torn apart by tidal forces."[52] Where Patten and Windsor do fly in the face of conventional wisdom, however, is in their proposed chronology. They assert that the timing of the Astra cataclysm was "thousands of years ago, not millions."[53] Subsequently they narrow down the window to a period "neither earlier than 15,000 B.C. nor later than 3000 B.C."[54]

In their important study *When the Earth Nearly Died*, D. S. Allen and J. B. Delair also propose a massive interplanetary visitor—to which they give the name Phaeton. Like Patten and Windsor they believe that its appearance was extremely recent and that it passed close to Mars and Earth approximately 11,500 years ago.[55] As to the precise nature of the object, they suggest that "Phaeton was spawned in an astronomically-near supernova explosion," and that "Phaeton was a portion of exploded astral matter."[56]

Other authorities who make a related case include the eminent Oxford University astronomer Victor Clube and his colleague William Napier whose extraordinary work we will examine in part 4. They present evidence that a giant interstellar comet wandered into the solar system and began to fragment less than 20,000 years ago spreading ruin among the planets.[57]

TWO PLUS TWO EQUALS FIVE?

Until rock samples can be returned to Earth for radiometric tests, all proposed chronologies for the planet Mars should be regarded with skepticism. This is because the only dating procedure presently available to researchers is to pore over orbiter photographs and *count the craters* on features for which they wish to establish an age. As the reader will have

gathered, the basic assumption behind this sort of abacus-level science is that impacts with asteroids and meteorites have occurred at a predictable rate over the last four billion years or so, with the largest number of impacts being registered early in the history of the solar system.[58] Accordingly, heavily cratered areas are always judged to be older than lightly cratered areas, and because Mars is heavily cratered south of the line of dichotomy it is assumed that most of the cratering there must have occurred billions of years ago.

Yet crater counting has some severe and perhaps fatal flaws. Peter Cattermole points out that it cannot give *absolute* dates, only *relative* dates.[59] This is because it is honestly impossible from photographic evidence alone to assess how long ago an impact occurred. The most that crater counts can do is tell us that "some feature is probably older or younger

than another feature, but we cannot say by how much or what the age of each feature is."[60] Because of this grave weakness, the method cannot make any allowance for the possibility, envisaged by Patten and others, of a sudden erratic, unpredictable blizzard of missiles hitting one hemisphere of Mars all at once, creating huge numbers of craters in a very short time, *perhaps recently*, thus giving the illusion of great age to features that are in fact young.[61]

Could it be such an illusion that has convinced most scientists that Mars was last massively bombarded billions of years ago? Could a tremendous mistake have been made?

LOST CIVILIZATIONS

The notion that the terminal Mars cataclysm might have

occurred recently—perhaps less than 20,000 years ago—is an astronomical heresy that raises peculiar resonances for us.

In earlier books we have shown that an enormous cataclysm occurred on Earth in precisely this period.[62] It was then that the last Ice Age came abruptly and disastrously to an end. No scientist has ever explained how or why this tremendous change occurred. The only certainty is that the sprawling ice caps of the Wurm and Wisconsin glaciations, which had enshrouded northern Europe and North America for at least 100,000 years, suddenly went into a ferocious meltdown—and that this began around 17,000 years ago. The next eight thousand years witnessed catastrophic floods, earthquakes, volcanic activity, and an overall rise in sea levels of more than 100 meters.[63]

By the time the worst was over the face of the earth had changed almost beyond recognition: former coastlines,

islands, and land bridges had been inundated, and many animal species had passed into extinction. Emerging from the mud and the ashes, the survivors included a small ragged remnant of humanity.

Among the most treasured baggage that these surviving humans carried with them were memories—in the form of myths—of far-off times "before the Flood" when a great civilization flourished and the world was ruled by god-kings with mysterious powers and strange technology. In *Fingerprints of the Gods* and in *Message of the Sphinx* we showed that these myths, which are astonishingly consistent from culture to culture, could reflect a profound historical truth. An advanced civilization could indeed have arisen during the last Ice Age—only to be destroyed by the global flood that brought the Ice Age to an end. Some of the oldest myths and scriptures invite us to consider the possibility that

the sacred wisdom and technical knowledge of this antediluvian civilization might not have been entirely lost in the cataclysm—that indeed a concerted effort might have been made to ensure that the best parts of an extraordinary legacy would be preserved.

We have traced the theme of hidden knowledge through a labyrinth of ancient sites in widely scattered regions of the world.[64] Our travels have convinced us that among these sites is one that is paramount—Egypt's Giza necropolis, the sacred domain of the three Great Pyramids and the Great Sphinx. We have made the case that elements of this site may be far older than the 4,500 years allocated to them by orthodox scholars, some dating back as far as 12,500 years, and we have shown that the pyramids and the Sphinx are terrestrial models of the constellations of Orion and Leo as they last appeared in the sky above Egypt 12,500 years

ago.[65] We have also investigated traditions of a "hall of records" at Giza—perhaps hidden in the bedrock under the Sphinx, perhaps in a concealed chamber in the Great Pyramid—where the ancient Egyptians believed that sacred writings from before the flood were stored.

We are not prepared to rule out the possibility that such a repository—a time capsule from an antediluvian civilization—could still exist and may yet be found.[66] Nor are we prepared to rule out the possibility, suggested by the work of Clube, Napier, Allen, and Delair, that the cataclysm that struck Earth at the end of the last Ice Age could have occurred in the same epoch as the cataclysm that destroyed Mars—*and might have had the same cause*.

We therefore naturally find it curious, and will investigate the matter in later chapters, that the ancient Egyptians envisaged a profound connection between Mars and Earth

and, more specifically, between Mars and the Great Sphinx of Giza. The planet and the monument were both seen as manifestations of Horus, the divine son of the star-gods Isis and Osiris. The planet and the monument were also both called by the same name, Horakhti, meaning “Horus in the Horizon.” Mars in addition was sometimes known as Horus the Red, and the Great Sphinx, for much of its history, was painted red.[67]

What really died on the Red Planet during its last great cataclysm?

We already know that the solar system lost something infinitely more precious than just a barren and empty world when the murderous barrage of cosmic debris slammed into Mars. We know that until the moment of its execution the planet possessed a strong magnetic field and a dense Earth-like atmosphere that permitted the formation of oceans,

lakes, and rivers. We know that there had been frequent heavy rains on Mars and that vast quantities of water are still locked up as ice at its poles and beneath its surface. We know that many tantalizing hints and traces of organic life processes have been encountered.

We also know that there is a gigantic Sphinx “face” on the plains of Cydonia, close to the shores of a former ocean, associated with a group of immense pyramidal structures.

Are these just tricks of light and shadow playing with weird geology?

Or is the most staggering revelation of the millennium about to unfold?

PART TWO

The Mystery of Cydonia

5

Close Encounter

HUMANITY'S close encounter with Mars and the current search for life there may ultimately be looked back upon as a seminal moment of history. So far as we know, such an encounter has never happened before. Nevertheless, since NASA's physical exploration of Mars is the end-product of more than a century of international endeavor, our reactions to what is found there will inevitably be influenced by

entrenched ideas.

Scientific interest in the possibility of life on Mars seems to have begun in 1877 when the Italian astronomer Giovanni Schiaparelli announced a startling new discovery. He had observed a network of crisscrossing single and double lines on the Martian surface—giant grooves, *canali* in Italian, a word that was translated loosely into English as "canals."[1] Schiaparelli's findings were widely hailed at the time as evidence for the existence of an intelligent extraterrestrial civilization on our neighboring planet. Among those who found themselves electrified by the discovery was the American Percival Lowell, a rich Harvard graduate with an interest in astronomy.

Lowell read up on Schiaparelli's canals in *La Planete Mars*, a book by the French astronomer Flammarion,[2] and was inspired to build an observatory to study the planet under

clear skies and at high altitude in the Arizona city of Flagstaff.[3] He referred to his work there as a "speculative, highly sensational and idiosyncratic project."[4] Its goal, he said,

> may be put popularly as an investigation into the condition of life on other worlds, including last but not least their habitability by beings like [or] unlike man. This is not the chimerical search some may suppose. On the contrary, there is strong reason to believe that we are on the eve of a pretty definite discovery in the matter.[5]

CANALS AND FLYING MACHINES

Lowell died in 1916, having arrived at no definite discovery, but his views of the nature of Martian life were to have lasting effects, capturing the public imagination for decades.

One popular theory of Lowell's was that the Martian canals brought water from the frozen polar ice caps to an ancient civilization, far older than any human civilization, in the arid vastness of the planet's tropical and equatorial deserts.[6] He also proposed that certain dark fluctuating patches visible on the surface of Mars were vegetation.

Lowell was using the most up-to-date equipment to make his discoveries, and his announcements caught the mood of the world at the fin de siècle—an openness to new ideas such as occultism and spiritualism, which naturally favored the possibility of life on other planets.[7]

The widespread interest in occultism and extraterrestrial life lay behind the success of the prodigious French writer Camille Flammarion. In 1861, aged nineteen, he wrote a book entitled *La Pluralité des Mondes Habités*, which argued for the probable existence of extraterrestrial life. It became

an instant bestseller, as did his later work, *La Planete Mars* (1892), the book that directly inspired Lowell. In it Flammarion states:

> The actual conditions on Mars are such that it would be wrong to deny that it could be inhabited by human species whose intelligence and methods of action could be far superior to our own. Neither can we deny that they could have straightened the original rivers and built up a system of canals with the idea of producing a planet-wide circulation system.[8]

The ideas of Schiaparelli, Flammarion, and Lowell stoked Mars fever in the final years of the nineteenth century. In 1898 H. G. Wells cashed in on this with his tale of the Martian invasion of Victorian Britain, *The War of the Worlds*. Then in 1902 the eminent Swiss psychologist Carl Gustav Jung published his doctoral dissertation *On the Psychology of*

So-called Occult Phenomena. In it he subjected his cousin Hélène Preiswerk—who was in the habit of falling into mediumistic trances—to a detailed psychological analysis.

In her trances Hélène often talked of journeys to Mars:

> Flying machines have long been in existence on Mars. The whole of Mars is covered with canals, the canals are artificial lakes and are used for irrigation. The canals are all flat ditches, the water on them is very shallow. There are no bridges over the canals, but that does not prevent communication because everybody travels by flying machine.[9]

Clearly Flammarion and Lowell's Mars was entering humanity's psyche at a most profound level. Here, a fourteen-year-old, uneducated Swiss girl, in unconscious utterances, was revealing the preoccupations of an era.

In 1902, the same year that Jung's thesis was published, a

prize was offered to the first person to make contact with an alien life-form. There was one stipulation: contact with Martians was not included, for the simple reason that this was thought to be too easy. In 1911, nine years after the competition was launched, an article appeared in the *New York Times* headlined "Martians build two immense canals in two years."[10]

EXPERIMENTS

The belief that Mars could be, if not inhabited, then at least habitable was sustained among laymen and scientists alike until the second half of the twentieth century. For example, in the early 1960s the popular British astronomer Patrick Moore and a microbiologist, Dr. Francis Jackson, sought to test the possibility of life on Mars by conducting simple

experiments:

> We built a Martian Laboratory, filled it with what we thought to be the correct atmosphere—nitrogen, with a pressure of 85 millibars—and gave it the right temperature range between day and night. When we grew things in it, the results were interesting. A cactus fared badly, and after a single Martian night looked decidedly worse for wear, but more simple organisms did better, and we felt quite encouraged.[11]

Similarly, the late Carl Sagan built what he called "Mars jars" in which these experiments were repeated.[12] His results were similar—some microbes actually grew if a little water was present.

But any optimism over such results was soon to be crushed when space probes in the mid-1960s sent back images of Mars as a barren and frozen lifeless hell.

ROCKETING TECHNOLOGY

In 1926 Robert Hutchings Goddard (NASA's Goddard Space Flight Center is named in his memory) built the forerunner of the space rockets that we are familiar with today—though his small prototype traveled only 60 meters before crashing and could reach a top speed of just 100 kilometers per hour.[13] He was the first person to test and prove the theory that rockets could be used to leave the earths atmosphere and even travel to other planets—a view first proposed by a Russian schoolteacher named Konstantin Eduardovich Tsiolkovsky in the late nineteenth century, and further refined by the German Hermann Oberth in 1923.

During World War II, the rocket was developed as a weapon by the Nazis. Their V-2 relied upon and improved Goddard's technology. Three years after the end of the war a

two-stage V-2/WAC Corporal combination bettered Goddard's distance phenomenally, reaching a height of four kilometers.[14]

THE SPACE RACE

If the Second World War was a catalyst to rocket science, then the Cold War was a thousand times stronger. With the threat of nuclear annihilation hanging in the air, the American rocket program—led initially by Wernher von Braun—waged a guerrilla campaign of intellect and design with its Russian counterpart, headed by Sergei Korolov. On both sides of the Iron Curtain, masses of government funding went into improving the propulsion systems for atomic weapons.[15] On 4 October 1957, an offshoot of all this research and development allowed the Russians to send

humanity's first ever satellite, *Sputnik I*, into orbit. The "space race" had begun.

Russia scored the next triumph, too, by putting the first man into space. The successful mission of Yuri Gagarin in *Vostok* completely obscured the efforts of the American space program, which had been hastily kick-started in 1958 in response to the launch of *Sputnik*.

In that year NASA, the National Aeronautics and Space Administration, was founded.[16] The United States also launched its own satellite, *Explorer 1*, sending it into orbit on a Jupiter C rocket provided by the U.S. Army at the Jet Propulsion Laboratory, Pasadena, California. Then came Gagarins great success in 1961. Soon afterward President John F. Kennedy pledged that NASA would put a man on the moon by the close of the decade.

Kennedy's pledge was fulfilled on 20 July 1969 when Neil Armstrong took "one small step" out of the *Apollo 11* lander onto the surface of the Moon—the thirty-third American probe to be sent there. This "giant leap for mankind" was a leap fueled by international competition and war. It was a leap into a new order of discovery, a leap that would give us a new view—that of Earth hanging in space, beautiful and unified, undivided by political and national boundaries.

THE MARS MISSIONS

It was the Russians who sent the first probe to Mars—the appropriately named *Mars 1*, which was launched on 1 November 1962. It is believed to have approached to within 195,000 kilometers of the planet, but all contact with it was lost on 21 March 1963 before it could send back any

observations.[17] Its fate is one that has mysteriously dogged many missions to Mars.

NASA's first Mars probe was *Mariner 3*, which was launched on 5 November 1964. Like its Russian predecessor, it too was a failure, going out of control early in the mission. Apparently its protective fiberglass shroud failed to eject on exiting the earth's atmosphere, thus making it too heavy to stay on its projected course.[18]

AMERICAN SUCCESS

Three weeks and two days later, on 28 November 1964, *Mariner 4* was launched. First blood went to the Americans as the craft sent back twenty-one photographs and vital new information, getting within 10,000 kilometers of Mars.[19] The

murky images picked up the planets densely cratered and lifeless surface. They were man's first glimpse of Mars at close range—a glimpse that shattered many myths.[20]

Just two days after *Mariner 4's* launch, the Russian *Zond 2* attempted to reverse the disastrous fate of *Mars 1*—and failed. In late spring of 1965 all contact with it was lost.

On 24 February and 27 March 1969, NASA launched two new Mars probes—*Mariner 6* and 7. *Mariner 6* traveled to within 3,390 kilometers of Mars and took 76 pictures. *Mariner 7* approached to 3,500 kilometers and sent back 126 pictures.[21]

WASTELAND

The early Mars missions were a disappointment to many.

Bugged by technical failures, and overshadowed by the high-profile moon missions, the images they returned were not exciting. There was no vegetation—the dark patches of Mars proved to be "albedo areas" in which the red topsoil had blown away to reveal darker rocks underneath. There were no canals. Mars was heavily cratered and apparently very old.

The first successful probe, *Mariner 4*, revealed that the Martian atmosphere was not nitrogen (as Moore and Jackson had proposed) but largely carbon dioxide, as were, in all probability, large areas of the frozen ice caps. Liquid water could not exist on Mars since the surface pressure was much lower than previously thought—lower than 10 millibars, not around 85.[22] It was an inhospitable nightmare world—drab and lifeless, apparently devoid of any interesting features. And theories such as Lowell's were dispelled like phantasms

in the cold, hard light of the Martian day.

As a NASA spokesman said:

> "We've got superb pictures. They're better than we could ever have hoped a few years ago—but what do they show us? A dull landscape as dead as a dodo. There's nothing much left to find."[23]

The next decade would prove this view of Mars as wrong as Lowell's had been.

6

A Million to One

The storm burst upon us six years ago now.

As Mars approached opposition, Lavelle of Java set the wires of the astronomical exchange palpitating with the amazing intelligence of a huge outbreak of incandescent gas upon the planet. It had occurred toward midnight of the 12th, and the spectroscope, to which he had at once resorted, indicated a mass of flaming gas, chiefly hydrogen, moving

with an enormous velocity toward this earth. This jet of fire had become invisible about a quarter past twelve. He compared it to a colossal puff of flame, suddenly and violently squirted out of the planet, “as flaming gas rushes out of a gun.”

A singularly appropriate phrase it proved. Yet the next day there was nothing of this in the papers, except a little note in the *Daily Telegraph*, and the world went in ignorance of one of the gravest dangers that ever threatened the human race. I might not have heard of the eruption at all had I not met Ogilvy, the well-known astronomer, at Ottershaw. He was immensely excited at the news, and in the excess of his feelings invited me up to take a turn with him that night in a scrutiny of the Red Planet….

He was full of speculation … about the condition of Mars, and scoffed at the vulgar idea of its having inhabitants who

were signaling us. His idea was that meteorites might be falling in a heavy shower upon the planet, or that a huge volcanic explosion was in progress. He pointed out to me how unlikely it was that organic evolution had taken the same direction in the two adjacent planets.

> "The chances against anything man-like on Mars are a million to one," he said.[1]

In early 1998, exactly a century after H. G. Wells wrote these words in the first chapter of *The War of the Worlds*, NASA's Mars *Global Surveyor* probe was scheduled to begin mapping the surface of the Red Planet.

This is not a new task—Mars has been thoroughly mapped before by both American and Russian probes. However, *Global Surveyor* has been designed to send back to Earth the most detailed images of the Martian surface yet taken from

space.[2] The possibility cannot be ignored that what it might find could irrevocably change mankind's future and all our notions about the past.

For against all expectations, it would seem that there is something "man-like" on Mars. A century after Ogilvy stated his odds we may be poised on the edge of a discovery beyond Wells's wildest dreams—a discovery worthy of a Schiaparelli or a Lowell that scientists claim is an illusion, but which, if it is not, is a profundity beyond our comprehension. Moreover, to echo Lowell: "There is strong reason to believe that we are on the eve of a pretty definite discovery in the matter."[3]

The man-like something is the Face on Mars—the colossal mound that rises nearly 2,600 feet above the barren Cydonia plain, on the shoreline of a long-vanished Martian sea, a mound seemingly carved into immense humanoid features staring hauntingly up at us.

And yet, like the “flaming gas” of Wells’s fictional tale, this mysterious object, and the many others that surround it on the Cydonian and Elysium plains—the implications of which could be, pardon the pun, astronomical—remain relatively unheard of and unstudied. This is because the majority of scientists, like Wells’s Ogilvy, remain firm in their beliefs that the chance of there ever having been man-like life on Mars is still “a million to one.”

A century on, are our modern-day Ogilvys about to be forced to change their views in the light of new evidence? Will *Mars Global Surveyor* confirm that fact is indeed stranger than fiction? For it is a fact that both the principal Mars probes of the 1970s—*Mariner 9* and *Viking 1*—photographed objects on the surface of the planet that have been claimed as evidence for the existence of intelligent life on another world.

MAY 1971

The 1960s proved a pioneering yet ultimately disappointing time for Mars research, with initial feelings of enthusiasm punctured by the early *Mariner* images of the Red Planet as a dull, lifeless, cratered hell. For some time nobody knew that the pictures taken by those early missions had completely missed the varied, wondrous geological features that make Mars such an amazing and mysterious planet.

The end of the 1960s freed the superpowers from their race to the Moon. They promptly renewed their fervor for Mars, sending a total of five spacecraft within a 22-day period in May 1971.

Two of the craft, *Mariner 8* and *9*, were American. The function of *Mariner 8* was to map Martian topographical features, scanning 70 percent of the planet's surface from a

highly inclined orbit. The idea was to photograph Mars with the sun very low on the horizon, throwing long shadows. *Mariner 9*, on the other hand, would position itself for a high sun angle to take pictures of albedo features in the equatorial regions.[4]

Mariner 8 was launched on 8 May 1971. Shortly after takeoff, due to a guidance system malfunction, the second stage of the Atlas-Centaur rocket carrying the probe separated from the primary, but failed to ignite. This probe plunged into the Atlantic Ocean, 360 kilometers north of Puerto Rico.

It was left to *Mariner 9* to make up the loss and its role was adapted to include aspects of its failed counterpart's mission. The new plan was to place the craft in an intermediary orbit, inclined at 65 degrees to the equator, and at the minimum altitude of 1,350 kilometers.

Mariner 9 took off from Cape Kennedy (later Canaveral) 22 days after *Mariner 8*'s demise. It would, however, not be going alone: Just two days after the loss of *Mariner 8* a Soviet Mars orbiter had been launched from Baikonur in Kazakhstan. Like its American counterpart, due to a stupid mistake in the computer systems, it failed to leave the earth's orbit. Before the end of May, however, two more Soviet craft, *Mars 2* and *Mars 3*—each consisting of an orbiter with a detachable lander—had been launched successfully.

So the summer of 1971 saw three interplanetary craft safely leaving Earth's sphere of influence and heading silently toward our red neighbor.

DUST STORM

A few months earlier, in February 1971, an astronomer at the Lowell observatory in Flagstaff, Charles F. Capen, made a prediction concerning the weather on Mars. He thought it probable due to the position of Mars at that time—in "perihelic opposition"—that a dust storm could arise toward the end of the summer. Sure enough, on 21 September, as the three craft were approaching Mars, a small cloud developed over the Hellespontus region.

When *Mariner 9* turned on its TV camera on 10 November (having overtaken its Russian rivals to be within 800,000 kilometers of Mars), it revealed a planet whose surface was completely obscured by a violent global dust storm. Nothing could penetrate the veil of dust. And so *Mariner 9* performed an operation that would secure its place in the immortal heaven of the history of space exploration. It switched off its camera and waited.

The two Soviet craft, *Mars 2* and 3, were modeled on the *Venera* orbiter-lander craft that the Russians had deployed on the surface of Venus in the 1960s. The *Venera* missions had been moderately successful, sending back information from the landers during descent, but losing communication after they reached the surface. If the lander modules on the Mars probes were equally successful then they would be a sensation and would overshadow anything achieved by *Mariner 9*—a dedicated orbiter with no lander module.

Mars 2's lander failed to make a smooth descent. On 27 November 1971 it crashed into the Martian surface at a point north of Hellas, 44.2 S, 313.2 W.

Five days later the *Mars 3* lander deployed. On the way down it transmitted blank frames for twenty seconds before all contact was lost. Having landed in the midst of a violently destructive dust storm, it is thought that its parachute was

dragged by 140 meter-per-second winds and that it was smashed to bits.

MARINER 9

As the Mars landers were consumed in the global dust storm below, *Mariner 9* drifted silently in orbit, dormant, conserving its energy.

Meanwhile the *Mars 2* and *3* orbiter modules, from which the unsuccessful landers had been deployed, snapped away at the Red Planet in a whir of irreversible, preprogrammed activity—and sent back to a devastated Russian team picture upon picture of dust clouds.

In December 1971, as the storm subsided, *Mariner 9*'s systems were switched back on. Unlike its Russian

counterparts, its computer was programmable after launch, and thus its mission could be altered as it went along. Such flexibility meant that this orbiter, of all the craft that had been launched that May, was the only one to succeed in its mission.

Mariner 9 approached Mars to 1,370 kilometers and began mapping the southern hemisphere from 25 degrees to 65 degrees south. It continued with up to 25 degrees of the northern hemisphere. By the time that it ran out of fuel on 27 October 1972, it had captured 7,239 stunning images of Mars —with sufficient resolution to reveal surface features as small as a football field.

Once again scientific concepts of our neighboring world were about to be turned on their head.

REVELATIONS

When the dust clouds subsided, they unveiled a Martian landscape that was a geologist's dream. Large inexplicable dark spots that had poked through the swirling storm clouds were disclosed as immense volcanoes—the gargantuan Olympus Mons, three times the height of Everest, and its fellows, Ascraeus Mons, Pavonis Mons, and Arsia Mons on the great Tharsis Bulge.

Scientists were awestruck by the Valles Marineris, the seven-kilometers-deep rift in the crust of Mars that stretches for a quarter of the planet's circumference, an amazing feature. Also revealed were the colossal impact basins of Hellas, Isidis, and Argyre—clues to the death of a once inhabitable world.

A once inhabitable world! For Mariner's cameras were the

first to bring features to light that looked like dried-up riverbeds, valleys, and other telltale signs that large quantities of surface water—the prerequisite of life—had once been present here.

THE BECKONING PYRAMIDS OF MARS

On 8 February 1972, two months into its mission, *Mariner 9* passed over and photographed the area known as the Elysium Quadrangle. At 15 degrees north latitude and 198 degrees west longitude is a cluster of tetrahedral pyramidal forms, shown on frame MTVS 4205. This area was reimaged on 7 August, and frame MTVS 4296 showed the same area, once again with the pyramidal forms present.

These structures were first brought to scholarly attention in

Icarus in 1974, in an article entitled “Pyramidal Structures of Mars.” The authors noted that the structures cast regular shadows—showing that their tetrahedral forms are not illusions caused by albedo variations in surface soil coloration. The fact that there was more than one image taken at different sun angles further supports the view that their shape is not illusory.

These vast “beckoning pyramids,” as Carl Sagan called them, tower a kilometer above the surrounding Elysium plain. It has been calculated that the volume of the largest is 1,000 times that of the Great Pyramid of Egypt, and that it is 10 times as high.

Are these features, as Sagan believed, “small mountains, sandblasted for ages”? He said that they warranted “a careful look.”

WEIRD GEOLOGY?

There are four tetrahedral pyramids at Elysium—a larger and a smaller pair in close proximity, facing each other across the arid plain. They seem to have been set out in a definite pattern of alignment—a feature associated with pyramids on Earth—the two smaller pyramids seeming to mirror the alignment of the larger two.

Scientists have tried to explain them as wind-faceted volcanic cones, or as the result of peculiar forms of erosion or soil accumulation. But as J. J. Hurtak and Brian Crowley state in their book, *The Face on Mars:*

> This simple explanation does not stand up to closer examination. Wind-tunnel tests were done in Los Angeles in the mid-1970s by NASA engineers to simulate the creation of formations similar to those photographed by *Mariner 9*. All this experiment proved was that soil

> accumulation or wind sculpting would not provide for four equally spaced tetrahedral formations. It was not possible to simulate an evenly spaced arrangement of objects in the wind tunnel to match the mathematical distances one finds in the four major and minor pyramids in this area of Elysium.[5]

Other scientists have attributed these formations to glacial sculpting or eroded rotating lava blocks, but Hurtak and Crowley again disagree: "There is no evidence of glaciers [on Mars], especially within the tropic area of the planet [where Elysium lies] … and no lava spillage has been clearly detected in connection with the formations."[6]

What, then, are these enigmatic formations? Perhaps scientists have not been able to replicate them by simulating known types of natural processes because they were not produced by natural processes in the first place.

Could they be the first sign, as many independent researchers claim, that Mars is marked by the “fingerprints” of an ancient extraterrestrial civilization?

7

The *Viking* Enigma

THE next phase of Mars exploration came in 1975 when NASA launched the twin probes *Viking 1* and *Viking 2*. These craft were orbiter-landers like their ill-fated Soviet predecessors *Mars 2* and *Mars 3*. But unlike the Russian craft, the *Vikings* were to be an overwhelming success.

Viking 1 was the first probe to be launched, and on 20 July 1976 its lander module touched down safely on the Martian

surface at Chryse Planitia, the great lowland basin lying to the north of the Valles Marineris.[1] Meanwhile, 2,000 kilometers above, the cameras in the orbiter had been switched on to acquire high-resolution photographs of the planet.

SEARCH FOR LIFE

Inspired by the revelations from *Mariner 9* that Mars could once have been habitable, NASA dedicated the *Viking* missions to the "search for life on Mars." For the most part this search was carried out by means of high-resolution photographs of large areas of the planet's surface, analysis of the structure and composition of the atmosphere, and chemical tests on soil samples gathered by the landers.

We saw in part 1 that the soil samples gave a number of positive results and that Dr. Gilbert Levin, one of the scientists who devised the experiments, remains convinced to this day that there is—at the very least—bacterial life on Mars. This is quite contrary to NASA's official view as it was recently put to us by Dr. Arden Albee, the project scientist for *Mars Global Surveyor:*

> I would say that none of the experiments indicated evidence of life. Several came out not exactly the way we expected because during the design of the instruments it wasn't understood that oxidants would be on the surface of Mars—and so they did not get results that were neat and clean as predicted, but they did not indicate the presence of life.[2]

CHOICE SITES?

Viking 1's lander had originally been scheduled to touch down on Independence Day, 4 July 1976, but the date was set back as scientists on Earth scanned live television pictures of the Martian surface transmitted by the orbiter. The preferred landing site looked dangerously rugged.[3] After some weeks of searching for a safer location, Chryse Planitia was chosen, and a successful landing was made there.

Now attention shifted to finding a suitable site for *Viking 2*'s lander. This is how Carl Sagan tells the story:

> The candidate landing latitude for *Viking 2* was 44 degrees north. The prime site, a locale named Cydonia, was chosen because, according to some theoretical arguments, there was a significant chance of small quantities of liquid water there, at least at some time during the Martian year. Since the *Viking* biology experiments were strongly oriented toward organisms that are comfortable in liquid water, some scientists held that

> the chance of *Viking* finding life would be substantially improved in Cydonia.[4]

Sagan and his colleagues were about to come literally face to face with something that looked very much like a sign of life—but not the kind of sign, nor the kind of life, they had imagined. Indeed, what they found was so beyond their comprehension that it was immediately dubbed an illusion *and was not allowed to influence the final choice of a landing site for* Viking 2.

ILLUSION

The discovery was made on 25 July 1976 by Tobias Owen, a member of the *Viking* imaging team at the Jet Propulsion Laboratory (JPL), Pasadena, California. He was examining

frames of the Cydonia region for possible landing sites when he was heard to mutter, “Oh my God, look at this!”[5]

The frame that he was inspecting, reference number 35A72, showed an area of the Martian surface that was roughly split into two geological zones—an extensive plain, slightly cratered, with a handful of raised mesas, side by side with a rocky area of immense blocks of angled stone. Toward the center lay what appeared to be a gigantic humanoid face staring blankly up from the dead planet—serene, perhaps even imbued with pathos—a mute sentinel on the barren landscape.

Just hours later, Gerry Soffen, a spokesman for the *Viking* project, gave a briefing to the press about progress so far in NASA’s self-proclaimed search for life on Mars. Somehow an image of the newly discovered Face had reached him, and he showed it to the journalists. “Isn’t it peculiar what tricks of

lighting and shadow can do," he commented dismissively. "When we took a picture a few hours later it all went away. It was just a trick, just the way the light fell on it."

Soon afterward JPL issued a press release making essentially the same points about the Face:

> Photo Caption: This picture is one of many taken in the northern latitudes of Mars by the *Viking 1* orbiter in search of a landing site for *Viking 2*.
>
> The picture shows eroded mesa-like landforms. The huge rock formation in the center, which resembles a human head, is formed by shadows giving the illusions of eyes, nose, and a mouth. The feature is 1.5 kilometers (1 mile) across, with the sun angle at approximately 20 degrees. The speckled appearance of the image is due to bit errors, emphasized by enlargement of the photo. The picture was taken on July 25 from a range of 1,873 kilometers (1,162 miles). *Viking 2* will arrive in

> Mars orbit next Saturday [August 7] with a landing scheduled for early September.[6]

UTOPIA

The next development was a decision from NASA that *Viking 2* would not, after all, land at Cydonia.

Apparently the site was now deemed "unsafe." According to Carl Sagan:

> 44 degrees north was completely inaccessible to radar site-certification; we had to accept a significant risk of failure with *Viking 2* if it was committed to high northern latitudes.... To improve the *Viking* options, additional landing sites, geologically very different from Chryse and Cydonia, were selected in the radar-certified region near 4 degrees south latitude.[7]

All this notwithstanding, it is an extraordinary fact that *Viking 2* was finally set down at a latitude even higher than Cydonia. It landed—and was almost overturned by boulders—on the distinctly unpromising rock-strewn plain called Utopia, at 47.7 degrees north latitude, on 3 September 1976. Thus—for no obvious reason says James Hurtak—"a multimillion-dollar effort may have overlooked 'paydirt' and may have become a trivial event…. A poor selective factor had been used to choose an area of minor geological and biological significance. It was like choosing the Sahara Desert as a suitable landing site on our own planet."[8]

THE LADY DOTH PROTEST TOO MUCH

Why choose Utopia over Cydonia when NASA's own criteria mark both sites as equally "unsafe," and when the former is

bland and uninteresting while the latter has rumors of water and the mystery of the Face? The question is a nagging one, because even if we accept Gerry Soffen's instant dismissal of the Face as a trick of light and shadow, Cydonia still looks like a far more interesting site than Utopia.

Frankly we find the decision to land at Utopia baffling. But we are even more perplexed by the abrupt way that Cydonia was dropped as the preferred site so soon after the discovery of the Face on frame 35A72. It could be a coincidence. But on the other hand, we find it odd that NASA was in such a hurry to write off the Face as an illusion. In a way spokesman Gerry Soffen was perfectly correct to state that the image vanished within a few hours. This did not happen, however, because of tricks of light and shadow, but because night had fallen. *No image of the Face was acquired a few hours later*.

Quite simply, the much-vaunted photograph that proves

the Face is an illusion does not exist.

So why, then, did NASA spread this strange story around?

8

Jesus in a Tortilla

On 4 July 1997, *Pathfinder*, the first of a new generation of NASA probes, landed on the rust-red surface of Mars at Ares Vallis (19.5 N, 32.8 W), bounced in its protective gas-filled airbags, and came to rest intact on an alien world.[1] Then, as though in a scene from a science-fiction movie, the airbags deflated and three triangular solar panels opened like the petals of a futuristic silver flower. A ramp rolled out and the

Sojourner rover was deployed. The world watched in awe as this tiny six-wheeled robot, the size of a shoe box and just 10.5 kilograms in weight, crept out from its protective metal flower and edged onto the Martian soil to find itself marooned on that rock-strewn world, under a salmon pink sky—millions of miles from home.

MARS OBSERVER, PLEASE PHONE HOME

Pathfinder was hailed as a roaring success by all those involved on the project. NASA could now breathe a sigh of relief after the patchy record of the previous decade, which had started with the horrendous inflight explosion of the space shuttle *Challenger* in 1987 and had included the loss in 1993 of the Mars probe *Mars Observer*.

Launched on 25 September 1992, *Observers* mission was to re-map the surface of Mars—essentially duplicating the photographic work of the *Viking* orbiters, but at much higher levels of resolution. It carried a camera that could obtain images at 1.4 meters per pixel—a vast improvement on the 50 meters per pixel for which the *Vikings* were capable.

But *Observer* failed just before going into orbit. A NASA press release describes what happened:

> On Saturday evening, August 21st [1993], communications were lost with the *Mars Observer* spacecraft as it neared to within three days of the planet Mars. Engineers and mission controllers at NASA's Jet Propulsion Laboratory, Pasadena, California, responded with a series of backup commands to turn on the spacecraft's transmitter and to point the spacecraft's antennas toward Earth. As of 11:00 A.M EDT on Sunday, August 22nd, no signal from the spacecraft had been received from

tracking stations around the world.[2]

CONSPIRACY THEORIES

What exactly happened to *Mars Observer?*

Though there was almost no specific evidence on which to make judgments, an independent NASA review board was set up to answer this question. After deliberations the board suggested that a rupture in a line in the propulsion system during the start of fuel-tank pressurization somehow blacked out the spacecraft's communications with base.

But there was more to it than that, and a few days later it became clear that there had been a huge breach of procedure. What had really happened was that *Observers* radio link (telemetry) to Earth had been *deliberately* shut off

by the controllers during the period that the fuel tanks were pressurizing. This was bizarre and unprecedented. They must have known how vital it is that communication between spacecraft and base should be maintained at all times—once lost it is hard to retrieve. This is precisely what happened to *Observer:* having been cut off, its telemetry could not later be reestablished.

At the very least the loss of the probe was stupid. But as we report in chapter 15, some NASA analysts were convinced from the beginning that there may be more to it than that. They point out that *Observer* was supposedly ready to start its mapping orbit when the telemetry was shut down. Why, they ask, would such a risky procedure even have been contemplated at such a crucial juncture—unless NASA had actually *wanted* to lose the spacecraft.

The motive?

Conspiracy theorists are convinced that the whole mystery is connected to the growing publicity around the issue of the Face during the decade prior to *Mars Observer*. After all, in the run-up to the September 1992 launch, there had been vociferous public demands that the probe should rephotograph Cydonia.[3]

Maybe it went into orbit a few days earlier than the public were told? Maybe it did photograph Cydonia? Maybe the powers in NASA didn't like what they saw there? Maybe they decided to pull the plug not wishing to disclose to the volatile masses the potentially disturbing news of the reality of extraterrestrial life?

DIPIETRO, MOLENAAR, HOAGLAND

NASA has done much to fuel such paranoia by dissembling about the Face since the moment Tobias Owen first spotted it in *Viking* frame 35A72 on 25 July 1976. Cleverly worded snippets of official disinformation fixed it in the public imagination as nothing more than an illusion of light and shadow. Scientists en masse instantly lost interest in it. And for the next three years it lay buried in NASA's deep-space archive at Goddard Space Flight Center, in Greenbelt, Maryland.

The Face was rediscovered in 1979 by Vincent DiPietro, a Lockheed computer scientist on contract at Goddard. Working with his colleague Gregory Molenaar, he developed a process of image enhancement to create more detailed images of the Face. On their own initiative, as we shall see in chapter 9, the two researchers also combed the archives and found another *Viking* frame in which the Face, although

photographed from a different angle, was clearly visible. In this frame a second enigmatic structure could also just be made out—a mysterious five-sided pyramid (subsequently named the D&M Pyramid) within 10 miles of the Face.

DiPietro and Molenaar at first naively supposed that NASA would be interested in their discoveries. Predictably, they were soon disappointed. Here were two scientists, employed by NASA, holding immaculate qualifications, who were effectively claiming that they had found evidence of intelligent design on another world. Yet no one would listen to them.

In 1981 they gave up trying to push the matter through official channels and published their own book, entitled *Unusual Mars Surface Features*. Among those who picked up a copy at the launch party was a science writer, Richard Hoagland, who by coincidence had been among the gaggle of

press members at JPL in July 1976 in whose presence Gerry Soffen had so glibly explained away the Face.

Hoagland, a veritable jack of all trades in the scientific and space world with a prodigious CV, would become, in time, the main publicist and controversial figurehead of the early Cydonia researchers. Referred to by his own editor as "a curious combination of *Star Trek* creator Gene Rodenberry and Mr. Spock,"[4] this maverick was to bring DiPietro and Molenaar's discoveries into the public eye—and in the pre-millennium Zeitgeist there was a ready audience interested in such a stark challenge to conventional scientific thought.

INDEPENDENT MARS INVESTIGATION

As well as stirring up a storm of publicity, Richard Hoagland

made a number of pioneering discoveries of his own among the *Viking* frames. These included what he termed the "City," the "Fort," and many small mounds within a few miles of both the D&M Pyramid and the Face.

With anthropologist Randolpho Pozos, Hoagland established the Independent Mars Investigation (IMI) in 1983. They set up a computer conference—named after the Ray Bradbury book *The Martian Chronicles*—in which Hoagland, Pozos, DiPietro, and Molenaar were joined by plasma physicist John Brandenberg and artist Jim Channon (who would provide an artistic evaluation of the Face). Other members of the conference included Lambert Dolphin and Bill Beatty, both scientists from the Stanford Research Institute (SRI), the world-famous California think tank. Dolphin, a physicist, had for some time been involved with remote sensing surveys around the pyramids and the Great

Sphinx on Egypt's Giza plateau.

The Independent Mars Investigation was taken seriously enough to be granted $50,000 from the President's Fund at SRI—though it soon became apparent that the think tank did not want to give further assistance, allowing only Dolphins spare time and some technical support. Moreover, even this limited backing looked as though it might at any time be withdrawn. In desperation Hoagland formed a second group—the Mars Investigation Group, with Thomas Rautenberg, of Berkeley, California. Meanwhile, in March 1984 the IMI conference folded and the Martian Chronicles came to an abrupt end.

IMI's main conclusions were presented by John Brandenburg at the Case for Mars Conference II held at Boulder, Colorado, in the summer of 1984.

CARLOTTO

In 1985 the independent researchers were joined by a computer programmer, Mark Carlotto, who was a specialist in imaging techniques. As we shall see in chapter 10, Carlotto worked on the original *Viking* images, enhancing them and finally concluding that the Face is a three-dimensional object with many characteristics that appear to be artificial.

Carlotto is an impressively qualified scientist, and his work has never been anything other than scientifically rigorous. Nevertheless, he was to find that his conclusions and observations were, from the outset, utterly rejected by Mars experts.

THE McDANIEL REPORT

Some academics from other disciplines who have looked into the findings of independent scientists such as Carlotto, DiPietro, and Molenaar believe that the “expert” reaction to them has been ill-considered.

For example, Stanley McDaniel is professor emeritus and former chairman of the Department of Philosophy at Sonoma State University. He first heard about the Face controversy as early as 1987. In 1992, spurred on by the impending launch of *Mars Observer*, he began his own independent evaluation of the Cydonia debate:

> My initial approach was one of considerable skepticism … but over the course of the investigation my appreciation of what the researchers had done, and the underlying scientific integrity of their work, began to grow. I found that the occasional faults in their work were far outweighed by the solidity of the data and their responsiveness to the

needs of what is, after all, the first study of its kind in history.

> I became aware not only of the relatively high quality of the independent research, but also of glaring mistakes in the arguments used by NASA to reject this research. With each new NASA document I encountered, I became more and more appalled by the impossibly bad quality of the reasoning used. It grew more and more difficult to believe that educated scientists could engage in such faulty reasoning unless they were following some sort of hidden agenda aimed at suppressing the true nature of the data.[5]

A slight, energetic man, Stan McDaniel is a brilliant orator and a quick thinker—a personal affront to the theory that the "Artificial Origins at Cydonia" (AOC) hypothesis is only supported by "unscientific" types. The subtitle of his report, which was published in 1993, spells out its central conclusions: "The failure of executive, congressional and scientific responsibility in investigating possible evidence of

artificial structures on the surface of Mars, and in setting priorities for NASA's Mars exploration program."[6]

The McDaniel Report sets out to analyze not only the artificiality argument, but also NASA's countermeasures against it. Foremost among these is the standard defense—much promoted by Carl Sagan—that the Face is just a trick of light and shadow. Then there is a so-called technical report (McDaniel claims it is nothing of the sort) that criticizes Hoagland's *Monuments of Mars*, as well as the work of Dr. Michael Malin, the designer and operator of the cameras carried by the probes. A staunch opponent of artificiality, Malin holds the power to choose what on Mars will be photographed on any mission involving his cameras as well as a strange legal privilege—a six-month "probationary" period during which he is permitted to view the images before they are released to the general public.[7]

There can be little doubt that Carl Sagan, while he lived, was an extremely effective NASA spin doctor calming public concerns about the Face. He even wrote a piece on the subject for the Sunday newspaper magazine *Parade* in which he staunchly defended NASA's "illusion" arguments about the Face and likened it to many faces that appear in nature, such as the Great Indian Face, the Man in the Moon, and Jesus in a Tortilla.

It is with exactly such arguments that NASA has consistently defended its policy of not prioritizing Cydonia. But are its arguments really valid—or merely dismissive? In McDaniel's view they are the latter. Indeed, they are not only dismissive but fundamentally flawed, perhaps even deliberately flawed.

LOST PROBES

Mars Observer offered the ultimate means to settle the controversy—new high-resolution photographs of the Cydonia plains—but only if NASA and Michael Malin could be persuaded that it was worth pointing *Observers* camera in the right direction. The lobbying began in earnest. Then, just twenty-four hours before Richard Hoagland was scheduled to debate the matter live on national TV with *Observer* scientist Bevan French, the probe was lost.

It was not the first probe in recent history to have been mysteriously silenced. Two Russian probes sent to Mars in 1988 also lost contact. *Phobos 1*, launched on 7 July 1988, was deemed lost after just 53 days, while *Phobos 2*, launched three days after *Phobos 1*, managed, it is thought, to map some of Mars. It was somehow destroyed while imaging

Phobos, one of the tiny moons of Mars. The last image it sent back to Earth was of a huge baffling cigar-shaped elliptical shadow—miles long—on the Martian surface.[8]

GLOBAL SURVEYOR

As we write these words, *Mars Global Surveyor*—the successor to the doomed *Mars Observer*—is engaged successfully in the mission; its predecessor failed even to begin.

Essentially it is a less expensive *Observer*, with only five of the original seven experiments on board, yet it still has the same Malin Space Science Systems Camera, and Dr. Malin still presides over the use of this piece of modern technology.

But what of NASA's official policy? Is it the same as before? Has the work of the AOC researchers convinced them

to make a thorough study of Cydonia?

9

Face Staring Back

Oh! I have slipped the surly bonds of Earth,/And danced the skies on laughter-silvered wings; … /Up, up the long, delirious burning blue/I've topped the windswept heights with easy grace,/Where never lark, or even eagle flew/And, while with silent lifting mind I've trod/The high untrespassed sanctity of space,/Put out my hand and touched the face of God.

JOHN GILLESPIE MAGEE, JR., "HIGH FLIGHT," 1943

A photograph is not only an image (as a painting is an image), an interpretation of the real; it is also a trace, something directly stenciled off the real, like a footprint, or a death mask.

SUSAN SONTAG, *New York Review of Books*,
23 June 1977

WHEN Tobias Owen discovered the Face on Mars in *Viking* frame 35A72 he reacted in a totally natural way: "Oh my God, that looks like a face."

Typically the image does produce this response—an instantaneous gut reaction of recognition. But is it really what it seems? Or is it just a trick of light and shadow? Some very intelligent and highly qualified people have spent a great deal of time during the past twenty years trying to answer these questions.

SECRETS OF PIXELS

Vincent DiPietro, the first scientist to take the Face seriously (and the man who rediscovered it in the Goddard archives in 1979) is an electrical engineer, specializing in digital electronics and image processing. He shared the discovery with fellow Lockheed computer scientist Gregory Molenaar, who was on contract to NASA with the Computer Sciences Corporation and has a similar background in computer image analysis. Seeing the whole process as an "adventure," the pair embarked on a clandestine project to enhance the image of the Face and to reexamine the original Viking data tapes for other anomalous objects on the Martian surface.[1]

The Face occupies an area of only 64 × 64 pixels in the original image, with each pixel representing an area of 150 × 155 feet.[2] *Anything smaller than this simply does not register.*

Nevertheless the pixels are encoded with helpful clues that enable computers to reconstruct what is there.

As the orbital camera was of low resolution, it had to average out the tone of each 150 × 155-foot area to come to a value for the pixel that would represent it. To the lightest areas it assigned a low numerical value (white = 0) and to the darkest areas it assigned a high value (black = 256). The orbiter was then able to transmit the images back to earth as a sequence of numbers that could be printed out as black-and-white pictures built up out of "gray-scale" pixels.

The image-enhancement work done by DiPietro and Molenaar was an attempt to glean some detail from each pixel about what lay below its average 256 tone. This could be done by comparing each pixel with its neighbor. For example, if one pixel was light gray and its neighbor on the left lighter, and its neighbor on the right darker, it was

probable that these three blocks of tone actually represented a gradual change from light to dark, not a markedly stepped difference in tone, from left to right.[3] Using such an approach, more detail could theoretically be squeezed out of the grainy *Viking* images:

> In order to magnify digital images, additional pixels must be added and their values determined. [One] method is to calculate intermediate pixel values … using some combination of their surrounding values. For example, bilinear interpolation uses a pixel's four nearest neighbors and produces results that are smoother than pixel replication, but tend to be blurry.[4]

SPITTING IMAGE

The first step was to clean up frame 35A72 by removing

transmission errors (errors due to interference, etc., characterized by pure white or black single pixels). Next, realizing that most of the data on the frame was between gray-scale values 60 and 108, DiPietro and Molenaar stretched the contrast so that 60, not 0, became white and 108 became black. Thus the middling gray tones of which the images were made were replaced by a broader range of light and dark.

This was better but the researchers were still not satisfied with the results, which they described as “huge pixels with stair-step-like images.” They therefore “designed a way to remove the ragged edges by dividing each of the original pixels into nine smaller units. Each new pixel is shaded by summing percentages of the original adjacent pixels with the subject pixel to aim at discreet new values.”[5]

They named this process SPIT, after “spitting image,” and

the acronym for Starburst Pixel Interleaving Technique. As a control they subjected terrestrial low-resolution satellite photographs of the Pentagon and Dulles International Airport in Virginia to SPIT processing and achieved much clearer images, which were verified against aerial photographs of the sites.

Satisfied that their technique worked, DiPietro and Molenaar now used it on frame 35A72:

> A remarkable improvement occurred. The Face began to reveal much more detail than had previously been observed.[6]

MISSING FRAMES

In 1976 NASA spokesman Gerry Soffen had stated categorically that another image of Cydonia—on which the

Face “disappeared” in a different sun angle—had been acquired just “a few hours later” than frame 35A72. Naturally DiPietro and Molenaar wanted to study this frame, but an exhaustive search proved it did not exist in the archives. Indeed, as we have seen, Soffen was being either presumptuous or economical with the truth when he made his 1976 statement—for “a few hours later” Cydonia had been in darkness and the *Viking* orbiter had been elsewhere, photographing an entirely different part of the planet.

The two Lockheed scientists persevered, however, and eventually did come across one other Cydonia frame showing the Face—frame 70A13. It had been acquired thirty-five days later than 35A72 and had been curiously misfiled. *This is the only other frame that shows the Face*. When it was taken the sun was much higher than it had been on frame 35A72 (27 degrees instead of 10 degrees). Far from “disappearing”

under this different sun angle, the Face was still clearly visible:

> Not only did the second frame confirm the first, but additional features emerged. The contour of the eye cavity remained unchanged. The second eye cavity became more distinct. The hairline continued to the opposite side. A chin line began to take shape.[7]

Next DiPietro and Molenaar replaced the gray-scale tonal values in the the two frames with a scale based on colors. They did this because color differences are easier to see than shades of gray. The result was that the contents of the eye cavity began to become visible. To their amazement the researchers found themselves looking at something very much like a representation of an eyeball with a distinct pupil.

This, then, was the initial evidence put forward by DiPietro and Molenaar—strongly suggesting that there was much

more to the Face than a trick of light and shadow. But were they right?

Before coming to any conclusions of our own on the matter we felt we needed a second opinion on the imaging techniques DiPietro and Molenaar used.

AN EXCITED DR. WILLIAMS

A good place to start asking questions was NASA itself, with the scientists currently working on the *Pathfinder* and *Global Surveyor* missions to Mars. In July 1997, therefore, three weeks after *Pathfinder* had touched down in Ares Vallis, we arranged a meeting with Dr. David Williams, *Pathfinders* chief archivist at the Space Science Data Center in the Goddard Space Flight Center, where DiPietro had rediscovered frame

35A72.

Goddard is a huge expanse of offices and laboratories set in lush Maryland countryside half an hour by car from the center of Washington, D.C. Feeling a little daunted by the military thoroughness of the security procedures, we picked up our passes at the gatehouse and were ushered inside.

After a ten-minute walk along a pleasant wooded road we reached the archives building. Expecting to find a grizzled, die-hard scientist, we were pleasantly surprised at Dr. Williams's youth and enthusiasm, which sharply contrasted with NASA's official image. Better still, Dr. Williams was keen to talk about the Face on Mars:

> Well, I know that there's a number of scientists, serious scientists, who are working on this from the angle that it's an artificial structure—a sign of intelligence—so personally I would like to see what *Mars Global*

Surveyor finds when it takes its images, hopefully high-resolution, different lighting angles, things like that, to see what this area looks like, what this "face" looks like.

I would be surprised if it did not turn out to be natural, but on the other hand, I think it would be pretty cool if it wasn't! That would be neat, imagine it—if pictures came back and unequivocally said this was an artificial structure. I mean, it would change our whole view of the entire universe. I think that would be pretty exciting.

NEW FOR OLD

As chief archivist for the *Pathfinder* mission, Dr. Williams has to assess and interpret incoming data. He was therefore the appropriate person to give us NASA's views about the nature and validity of the enhancement techniques used on the earlier *Viking* images.

Only the raw *Viking* images could strictly be said to be 100 percent accurate, he pointed out. But, he admitted, it is standard practice at NASA to manipulate such images to make them cleaner and more defined:

> If you open up a raw *Viking* image, most of them look like there's nothing there, and even though it doesn't take long, you have to enhance the contrast, you have to stretch it, you have to do things so that you can actually see what is really in the image.

Indeed, he confirmed, the computer enhancement of received raw data is not only standard procedure but is absolutely necessary to make sense of the kind of information transmitted by orbiting cameras. He also confirmed that techniques such as the SPIT process devised by DiPietro and Molenaar are now used in a great many commercial applications. As he pointed out, DiPietro and Molenaar had

recently received an award from the Computer Sciences Corporation of Virginia for developing the SPIT process, which has proved itself as an effective method for extracting information from computer images.

ARTISTIC MERIT?

In the early days of his research, Richard Hoagland suggested that artists should evaluate the ratios and proportions of the Face. He reasoned that if it accorded with artistic criteria then this would be another sign of artificiality. Jim Channon, artist, concept designer, and illustrator, took up the challenge.

Channon concentrated on proportions (anthropometry), the supporting structure (architectural symmetry), and

expression (artistic cultural focus). His conclusions were as follows:

> I find no facial features that seem to violate classical conventions. The platform supporting the Face has its own set of classical proportions as well…. Were the Face not present, we would still see four sets of parallel lines circumscribing four sloped areas of equal size. Having these four equally proportioned sides at right angles to each other creates a symmetrical geometric rectangle. These support structures alone suggest a piece of consciously designed architecture.
>
> The expression of the Face on Mars reflects permanence, strength, and similar characteristics in this range of reverence and respect. There is overwhelming evidence that the structure revealed in the photographs presented to me by Dick Hoagland is a consciously created monument typical of the archaeology left to us by our predecessors. I would need much more precise evidence at this point to prove the contrary.[8]

NEW FEATURES

Channon's analysis was done before computer analyst Mark Carlotto had re-imaged the *Viking* frames using techniques that improved upon those of DiPietro and Molenaar. We will review Carlotto's work in more detail in chapter 10. But, briefly, what it revealed was a highly controversial set of new features on the Face—features that would echo, as Channon had said, monuments "typical of the archaeology left to us by our predecessors." These features include teeth, a diadem, a teardrop, and a distinctive headpiece decoration that is striped like the characteristic *nemes* headdress worn by the pharaohs of Egypt (seen as the headdress of the Great Sphinx of Giza).

Carlotto's work on the second frame, 70A13, revealed that the Face is not as symmetrical as other researchers had

previously thought. Using a technique known as “cubic spine interpolation,” which greatly enhances contrast, he was able to pick out details in the Face that previously had been too faint to be noticed.

Its left side, in shadow on frame 35A72, is better lit on frame 70A13, which was taken at a higher sun angle. The left eye socket can be seen and the mouth is revealed as not quite straight. Instead it seems to rise upward at the corners, as though in a sneer.

Carlotto also uncovered a “convoluted” area below the left cheek. Some see it as a kind of ramp, but this is pure speculation because the relevant area is marred by either a crater or a camera registration mark that cannot be removed from the enhancements.

A “TRICK OF LIGHT AND SHADOWS”

On 31 July 1997, twenty-one years after NASA’s first attempt to explain the image of the Cydonia Face as an illusion, we traveled to Pasadena, California, to visit the California Institute of Technology. This private university and think tank runs NASA’s nearby Jet Propulsion Laboratory and has been home to some of the legendary scientists of the century, including the Nobel Prize-winning physicists Albert Einstein and Richard Feynman.

The impeccable buildings of Cal Tech nestled beneath the San Gabriel Mountains spread out among lush gardens and cooling fountains. Unlike the anonymous, heavily guarded blocks at JPL, one can roam the aesthetic vistas of Cal Tech at ease. We found refuge from the burning heat in the air-conditioned office of Dr. Arden Albee.

We were lucky to see him. After spending hours on the phone, being passed from pillar to post, we were finally, in desperation, put through to him. He was leaving for Japan the next day to discuss his work as chief scientist on the *Mars Global Surveyor* mission, which was then fast approaching Mars orbit. This craft was destined to re-image the whole of the Martian surface—including the Cydonia region. On the eve of a possible test of the Artificial Origins at Cydonia hypothesis, what did *Mars Global Surveyors* chief scientist, and onetime JPL chief scientist, make of the furor?

Dr. Albee is a busy man, at a busy moment in Mars research, and we were grateful for his time. Replying slowly, with deliberate emphasis, he answered our queries as though he was at one of the numerous press conferences that had been a common event for him in the preceding weeks. At the mention of Cydonia his face dropped. What, we asked, was

his opinion of the Face on Mars and the case for its artificiality made by AOC researchers?

> What it is is a shadow that has an appearance that somewhat resembles a face. And so there is a difference in the albedo [surface coloration], in that pixel by pixel the return clearly has some resemblance to a face, and what their [the AOC researchers] calculations did was to assume that these differences in color or differences in albedo, really, were due to slope—because that's how your eye looks at it, and sort of says, hey, that's a slope! It doesn't have to be that, it could be changes in the amount of dust on the surface; it could be partly slope, partly dust, partly different material, and so on. It is a trick of light and shadows.

We asked Dr. Albee if he knew of the *McDaniel Report*, or the work of DiPietro, Molenaar, Hoagland, or Carlotto. In answer, with a broad grin, he took down a copy of the *McDaniel Report* from his bookshelf.

> You know, people dream up all kinds of crazy things. Every place you go there's a tourist spot, whether it's in the Alps or Wisconsin, or the Grand Canyon—the great Indian face or the great Yogi bear. People look at natural things and see human faces in them. It's a natural phenomenon, it goes back to prehistory.

"IS THAT A CAMEL?"

Following the Arab uprising of 1917, T. E. Lawrence (Lawrence of Arabia) presented the leaders of the rebellion with portraits of themselves. To his amazement they literally could not see what the paintings were supposed to be. One tentatively pointed to the image of his own nose and asked, "Is that a camel?"

The Arabs were not being ignorant and naive. They merely lacked the specifically European cultural references of the

time that would have taught them to know what to look for. All they could see was a flat square canvas covered in areas by colored paint. They were at first unable to interpret these areas of pigment as representations of three-dimensional objects. In a way they were seeing reality, and it is we who are taken in by illusion. What the Arabs saw was what was actually there. They were unaware that a picture is a visual metaphor. We, however, would have seen a face—where there really was, in truth, only pigment.

In the same way, as you read these words, the sounds that you hear in your head are not intrinsic to the printed letters. An alien, on seeing this page, would just see it as a mass of squiggles—and again, like the Arab chiefs, would be correct. It is we who are culturally educated to transmute the shapes into sounds—which, of course, they are not.

Recognition of faces as significant objects is a genetic

predisposition of the human species, something that we inherit and never need to be taught—indeed, something that is hard-wired into the brain itself.[9] Obviously it is an important gift. It means, for example, that a newborn will instantly recognize human beings (preferably its parents) without first having to learn what humans look like.[10] Thus it is that any arrangement of objects that resemble facial features, whether they be a face or not (they could be two apples, a carrot, and a banana), will act as a stimulus to the brain and cause us to see that object, or collection of objects, as a face. For the same reason, we sometimes see faces in clouds or become scared of a tree that seems to have a twisted evil face in its bark.

But face recognition is not quite the same skill as recognition of an *image* of a face. As Lawrences example shows, the ability to see a face in a two-dimensional

portrayal such as a painting or a photograph is something that has to be learned. Had the Arabs been given sculptures, there is no doubt they would have seen that they represented faces.

For the sake of argument, let us imagine that the *Viking 1* orbiter that photographed Cydonia was not an unmanned mission but was crewed by the 1976 equivalents of T. E. Lawrence and one of his Arab allies.

Drifting some 1,800 kilometers above the surface of the Red Planet, armed with a powerful telescope, our two protagonists would pass over the Face and exchange observations. Lawrence would turn to his colleague and say, “Wow! Look at that face!” But what would the Arab say? This is the question that goes to the very heart of the Artificial Origins at Cydonia hypothesis. Is the Face merely an illusion, a Rorschach image, on which Lawrence is projecting qualities

that do not belong to it—and which the Arab cannot see except as a two-dimensional pattern of differing tone values? Or is the object truly sculpted (by nature or artificial means), in which case the Arab sees it? Does he reply “What face?”—or does he too gasp in wonder at the dusty visage staring back up at him?

10

Ozymandias

MARK Carlotto of the U.S. Analytic Sciences Corporation is a major figure in the debate over artificial origins at Cydonia. Since first hearing about the Face on Mars in 1985 he has consistently been at the forefront of research, using his skills as an image processor to extract new, high-quality information from the original *Viking* data tapes. He told us in an interview in December 1996:

> My initial reaction was kind of open-minded; I was intrigued. I had no idea about this. I've always followed the space program pretty closely, since college, and I was in college in 1976. I remember *Viking*—but I didn't hear then about the Face on Mars. So I was curious….
>
> I started off applying the methods that we used in my day job at the Analytic Science Corporation, TASC. What I did was to apply the methods we were using routinely at the time to enhance X-rays, radiographic analysis, remote sensing, satellite images, that sort of thing. I was really able to clean up and restore the [original *Viking]* imagery.[1]

THREE-DIMENSIONAL ANALYSIS

We have spoken of Carlotto's images in previous chapters and noted that they show intriguing features and previously unnoticed details in the Face; for example, bilateral crossing lines above the eyes that are suggestive of a diadem, teeth in

the mouth, and stripes on the headdress. Carlotto was also able to add to the stock of information on other previously known attributes of the Face such as the left eye socket (on the shadowed side) and an alleged teardrop below the right eye.

"I was bothered from the start," he told us, "by NASA's 'trick of light and shadow' hypothesis. And so I figured, well, maybe there's a way of assessing this, and that's when I got into three-dimensional analysis of the Face to reconstruct its shape and get an awful lot of details a lot more clearly."

Such analysis gleans information about the three-dimensional aspects of an object from its two-dimensional representation; that is, a photograph. This can be done in a variety of ways depending on the available imagery: by the analysis of the heights of the shadows; by stereoscopy—comparing two images of the same object taken from

different angles; and in particular by "shape from shading," also known as photoclinometry.[2] As Carlotto puts it: "Shape-from-shading techniques reconstruct the shape of the object being imaged by relating shading information to surface orientation. In cases [such as Cydonia] where there is a lack of distinct surface features and texture, the primary source of surface information is shading."[3]

One objection to shape from shading is that the computer may end up doing exactly the same job as the human brain. In other words, it may "see" shade as slope—for example, interpreting what could be nothing more than flat-surface albedo coloration as height. The great strength of the computer, however, is that it can build 3-D images and then view and test these from different angles and perspectives.

Working with the two available *Viking* frames of the Face, Carlotto instructed his computer to prepare three-

dimensional models based on each of them. Since the two frames had been taken at different angles and different times of day he wanted to see if the computer would construct different models from each. Both reconstructions showed facial features in the underlying topography, however, an indication that the structure is indeed three-dimensional and face-like.

Carlotto then checked his results in an ingenious fashion. Taking the model of the Face from frame 35A72, he instructed the computer to illuminate it from the sun angle given in frame 70A13. His image correctly predicted the shadowing that was found on the real 70A13. He then repeated the procedure, this time using the sun angle from frame 35A72 on the photoclinometrically reconstructed face from frame 70A13. Again the computer image paralleled the real frame.

FRACTALS ON MARS

Most of mankinds giant leaps forward in space discovery have followed advances in weapons technology. It should therefore come as no surprise that the computer-processing technique best adapted to detecting signs of artificiality in the Cydonia images is one that was originally developed for military purposes. “At the Analytic Sciences Corporation,” Carlotto told us, “we were at that time developing computer programs for detecting manmade objects. Again, I went into the analysis with an open mind. I simply took the technique we were using on terrestrial imagery and applied it to the Mars imagery, right down to the same settings and everything.”

The programs that Carlotto was developing for TASC involved what is known as “fractal analysis.” Put simply,

nature tends to repeat herself in specific areas in terms of the morphology of natural features. An example is the fronds of a fern—each of which is a scale model of the larger, whole fern—or cracks in rock, which resemble great mountain crevices, only on a smaller scale. The basic patterns that make up natural structures are termed fractals, which are repeated on a range of different scales. Because of this quality of natural objects to be self-similar, a computer can be used to detect the repetition of the basic morphological fractal and thus distinguish a natural object from an object that does not correspond to the fractal pattern—i.e., an object that is almost certainly artificial.

For the military, this technique can be used to detect manmade objects and installations camouflaged in any terrain. First the computer calculates the “normal” fractal model for the locality, then it analyzes the entire region and

highlights any parts of that terrain that do not seem to fit the fractal model. If these objects are non-fractal to any great degree, then they are judged alien to that specific locality; that is, they are in all probability manmade. It has been calculated that fractal analysis correctly identifies artificial objects with roughly 80 percent accuracy.[4]

Carlotto with a colleague, Michael C. Stein, carried out a detailed fractal analysis of the *Viking* frames:

> We found that the Face was the least natural object on frame 35A72 and applied it to adjacent frames. It was also the least natural object over the four, five frames that we did. Very anomalous.[5]

In fact, Carlotto's fractal analysis revealed the Face as the least natural object for 15,000 kilometers in every direction—showing a model-fit error curve slightly more pronounced than that of a military vehicle!

ILLUMINATION

Whatever it may finally prove to be—artificial work of sculpture or weirdly eroded mesa—the Face on Mars is *not* a "shadow that somewhat resembles a face." It looks like a face, because it is face-like in form. We believe that Carlottos work proves this. But it does not prove artificiality—in part because the unilluminated side of the Face is in general much less convincing than the illuminated side, as Carlotto readily admits:

> It is apparent that the shadowed side of the Face is either incomplete or degraded and is not a mirror image of the side in sunlight. Those who support the intelligence hypothesis argue that the distortion could be due to meteorite impact, erosion over time, outright abandonment of the project, or its intentional discontinuation upon achieving adequate recognizability as a face. Opponents are not surprised at the roughness in

the symmetry of what they believe simply to be a naturally formed mesa.

> It should be understood by all concerned that the original *Viking* data from the shadowed side of the Face contains very little information and therefore represents the weakest link in the chain of image reconstruction. Final judgments about the symmetry of the ridge line and the nature of any fine detail in the shadowed side should be suspended until the Face can be photographed under more revealing illumination.[6]

On 5 April 1998 *Mars Global Surveyor* did succeed in rephotographing the Face under more revealing illumination and in high resolution. As we shall see in chapter 15, the image remains ambiguous. Yet the Face does not stand alone and, as Carlotto told us when we interviewed him in December 1996, it is the context in which the Face is set that provides the most convincing evidence of artificiality:

> About a year ago I began to see another direction here, another avenue

of research. Coincidentally, over these last few years I'd been getting increasingly more involved in "Bayesian analysis"—this is a way of really taking lots of pieces of evidence and putting them together and qualifying to what extent these support or deny your hypothesis. The thought occurred to me about a year ago, maybe this could be applied to include all the evidence about [artificiality at Cydonia], not only the work that I have done, but also the early discoveries of Hoagland and others.

So during this last year I think I've been transformed in some sense, in that when I first got involved in this I was open-minded, but I wasn't ready to jump on the bandwagon and wave a flag. I've always been very cautious…. Up until a year ago if someone would ask me, "What do you think the odds are [of the Cydonia structures being artificial]?" I would say, "51 percent to 49 percent"—a real conservative engineering kind of assessment. But, I've always been split-brained on this…. I guess intuitively I felt there was more there, but it was subliminal. This

> Bayesian analysis, I think has, in my mind, just brought it out that there's no single piece, no "smoking gun." Instead there's a lot of little pieces that all kind of add up…. At this point in time I feel pretty confident these are artificial objects.

LOOK ON MY WORKS …

Inspired by the ruins of the giant statues of Ramses II on the west bank of the Nile at Luxor, Percy Bysshe Shelley (1792–1822) wrote Ozymandias," his haunting poem of hubris and destruction. It tells of a traveler coming on the ruins of the vast, broken statue of Ozymandias, King of Kings, on which he reads, "Look on my works, ye Mighty, and despair." The king, in his pride, wants readers to look at the splendid city that he rules over, wishing them to despair in the face of his power, but time has reduced his works to dust. The meaning

of the line therefore twists into a warning of mortality to those proud rulers like Ozymandias who think themselves mightier than death.

Were we to stand on the Cydonian plain, we, too, would see a “half-sunk, shattered visage” in the sand. From this proximity we could tell if we were looking at just a hill, or whether we were dwarfed by the crumbling death mask of some ancient alien Ozymandias.

Perhaps we could even look upon his “works”? For if we were to cross the once-flooded plain to the foothills of the ancient shoreline, we would come to a place where a city, though in ruins, may still stand.

11

Companions of the Face

THE Face is not alone on the plains of Cydonia but is surrounded by other anomalous structures which some believe will ultimately prove to be of greater importance. Richard Hoagland has even suggested:

> If someone made it with the purpose of attracting our attention, there was a certain logic to a face. What better way to call attention to a specific place on Mars as a site for further exploration?[1]

Hoagland had been present at JPL on the day the Face had been discovered in 1976, and like the rest of his colleagues in the press, had initially believed Gerry Soffen's "illusion" explanation. Only years later, with time to peruse the image in more detail, did he get bitten by what he calls "this Mars bug." He remembered a facetious comment that had been made on that afternoon at JPL by a fellow journalist—along the lines of "the Face is to tell us where to land." Ignoring the intended sarcasm, Hoagland decided to take seriously the possibility that the Face could be a marker for something else and began to search the Cydonian landscape for other "monuments."

THE CITY AND THE FORT

Reasoning that whoever had created the Face would have

wanted to get a good view of it, Hoagland drew a horizontal line 90 degrees from the structure's vertical axis. It led him to the center of four small regular mounds in the pattern of a cross, housing a fainter central mound—this itself seemingly at the center of a group of ten geometrical pyramidal forms. He christened this collection of features "the City" and described it as a

> remarkably rectilinear arrangement of massive structures, interspersed with several smaller "pyramids" (some at exact right angles to the larger structures) and even smaller conical-shaped "buildings." The entire gathering measured something like four by eight kilometers—a strikingly rectangular pattern created by numerous features at right angles to each other, including aligned corners and even "streets" running roughly north and south.[2]

The easternmost structure of this grouping was termed by

Hoagland “the Fort.” It is a straight-edged feature that seems to consist of two huge walls, each roughly a mile in length, meeting at the southwest corner, enclosing a regular inner space, like the keep of a giant castle.

More discoveries were to follow.

LINES ON THE LANDSCAPE

Hoagland’s next find was the so-called Cliff, 14 miles east of the Face—that is, on the side opposite the city. He noticed that this curious formation lies strangely untouched by, and at right angles to, a splash of crater ejecta material—suggesting that it was built after the crater was created.

The Cliff, which lies on an axis parallel to the Face, might be a thin wedge-shaped mesa or a gigantic wall. It seems to

act as a backdrop to the profile of the Face as seen from the City, along a line that runs from the “City Square,” through the mouth of the Face, and then on to the center of the Cliff.

Hoagland used computer technology to re-create the Martian sky to see if this horizontal line could have any astronomical significance. He calculated that a viewer positioned at the city center would have seen the sun rising out of the Faces mouth at dawn on the summer solstice approximately 330,000 years ago.

ENTRY TO THE CITY

The main structures of the City are found in a circle around the “City Square,” as Hoagland terms the cross-shaped pattern of small mounds. The surrounding large structures,

each roughly the same size as the Face, are straight-sided and appear to be pyramidal in form. The only exceptions are a feature opposite the Face—which is oval, like the Face itself—and the Fort, which resembles a huge triangle, with what looks to be two sides of immense walls enclosing an inner space, the third side being more built up and irregular.

Dotted around the feet of the monstrous pyramids that define the City are sixteen small oval mounds. They are set in no immediately obvious pattern save for the City Square, with its four mounds in a cross arrangement. These mounds are so small that no detail can be gleaned from them other than their position and size. And yet, as we shall later discuss, they are of prime importance in the AOC debate.

On first view the City is not overly eye-catching. Closer inspection, however, brings a surprising number of features to the fore—features that sometimes seem to click into a

semblance of order.

The Fort, again, is particularly noteworthy. Its two gargantuan walls are perfectly straight, and the inscribed hollow they house is parallel with the outer walls and regular in shape. Wind may be able to scour the outer parts of a rock formation in all manner of ways, but what geological force could excavate the *interior* of such a formation into such exact conformity with its exterior?

THE HONEYCOMB

The part of the Fort that looks most “artificial” is its western side. It was here, perusing DiPietro and Molenaar’s reprocessed *Viking* images in 1983, that Hoagland discovered what he terms “the Honeycomb.” This peculiar formation

looks like a series of cubical cells arrayed in a deliberate architectural configuration against the Fort. It has been disputed by other AOC researchers who argue that it is merely an anomaly of the SPIT processing program.

The *McDaniel Report* provides a balanced view: "Carlotto's photoclinometric and computer enhancement results do not reveal the cell-like structure seen in the SPIT-processed images. They do, however, reveal a series of regular, terrace-like bands at the southwest corner of the Fort in the area associated with the 'honeycomb.' This may be part of the fine detail that generated the honeycomb effect, or it may be an independently existing, but equally anomalous, feature."[3]

McDaniel and a colleague, Dr. Horace Crater, did some research of their own in the City area and discovered a number of additional characteristics smacking of artificiality —for example, specific measurements between the various

small oval mounds housed around the complex, and meaningful measurements in the main structures. We will consider these measurements in more detail in a later chapter.

NO EXPLANATION

What are the chances of such artificial-looking objects occurring naturally—particularly when there are so many of them in such close proximity to one another? Since NASA's official view is that *all* the structures are 100 percent natural, its scientists have struggled to find natural solutions to this problem. Cal Techs Dr. Arden Albee sums up:

> Cydonia—the "structures"—this pattern that's there, was looked at way back early in the *Viking* days as an area in which a strange kind of

> erosion had occurred, and had not been fully understood. So from a geological point of view, the area is one which is of scientific interest and would have been photographed Face or no Face. It does indeed have some strange structures, but they appear to be the effect of some kind of erosion—whether it's wind erosion or exactly what isn't very clear. The people who have looked at these Cydonia "structures" are looking at them as erosion features, trying to understand.[4]

So, officially, as of yet there is no natural geological explanation for the Cydonia structures. All that NASA can really offer to oppose the well-thought-out and thoroughly argued case that has been made by scientists like Carlotto and DiPietro is an *assumption* that a natural explanation will eventually be forthcoming. Maybe so. But it is also possible that other information may leak out about the Face that will take it out of the realm of the natural forever.

12

The Philosophers' Stone

All is number.

PYTHAGORAS

At that time shall the stones speak … the secrets of the deep shall be revealed.

MERLIN, IN GEOFFREY OF MONMOUTH'S
THE HISTORY OF THE KINGS OF BRITAIN

Hic lapis exilis extat precio quoque vilis
Spernitur a stultis, amatur plus ab edoctis.

Here stands the stone from heaven,
'Tis very cheap in price!
The more it is despised by fools,
The more loved by the wise.

ARNALDUS DE VILLANOVA, ALCHEMIST, D. 1313

CARL Sagan was a dedicated opponent of all those who suggested that the monuments of Cydonia could be evidence of intelligent extraterrestrial life. Yet in several of his works of fiction and nonfiction, Sagan argued for the likely existence of intelligent life elsewhere in the universe. *Contact*, released as a feature film after his death in 1997, describes the first encounter—in the form of a binary code received by

radio-telescope—between mankind and an alien civilization. This is, in reality, how most scientists today predict we will ultimately make contact with an alien intelligence.

In *Cosmos*, his best-known work, Sagan states:

> There is something irresistible about the discovery of even a token, perhaps a complex inscription, but, best by far, a key to the understanding of an alien and exotic civilization. It is an appeal we humans have felt before.[1]

Sagan then refers to the discovery of the Rosetta Stone in 1799 by a French soldier working in the Nile Delta at Rashid (Rosetta). On this stela the same inscription appears in three languages—ancient Egyptian hieroglyphs, demotic (the ancient Egyptian cursive script), and Greek. It was this stone that enabled the French scholar Jean Francois Champollion to crack the code of the hieroglyphs and translate them for

the first time. Sagan continues:

> What a joy it must be to open this one-way communication channel with other civilizations, to permit a culture that had been mute for millennia to speak of its history, magic, medicine, religion, politics, and philosophy.
>
> Today we are again seeking messages from an ancient and exotic civilization, this time hidden from us not only in time but also in space.
>
> If we should receive a radio message from an extraterrestrial civilization, how could it possibly be understood? Extraterrestrial intelligence will be elegant, complex, internally consistent, and utterly alien.
>
> Extraterrestrials would, of course, wish to make a message sent to us as comprehensible as possible. But how could they? Is there in any sense an interstellar Rosetta Stone?
>
> We believe there is. We believe there is a common language that any

> technical civilization, no matter how different, must have. That common language is science and mathematics. The patterns of nature are everywhere the same.[2]

Sagan is writing about receiving an alien message, expressed in the universal code of mathematics, in the form of a radio signal. Yet what if the message was not sent as a radio signal but was built into the surface of a neighboring planet?

CULTURAL BLINDNESS

Could it be possible that we are so educated to expect communication via a radio-telescope that when we get other signals we ignore them?

Is a humanoid face on Mars so obvious that it is passed

over without thought? For scientists waiting for a series of regular beeps to surface from an oceanic roar of electronic background noise, would the Cydonia landscape be just too clear a signal—so clear that it seems ridiculous?

In his book *Lila*, author and philosopher Robert Pirsig tells of sailing into port at Cleveland, when because of misreading the chart he believed he was actually some 20 miles upshore in a completely different harbor. Yet the landscape seemed to tie in with the chart—until he remembered having discounted discrepancies between the map and the land, convincing himself that changes had been made to the shoreline since the chart was produced.

How could he have made such a mistake in the daylight? Didn't he have his eyes open? Writing about himself in the third person Pirsig states:

It was a parable for students of scientific objectivity. Wherever the chart disagreed with his observations he rejected the observation and followed the chart. Because of what his mind thought it knew, it had built up a static filter, an immune system, that was shutting out all information that did not fit. Seeing is not believing. Believing is seeing.

If this were just an individual phenomenon it would not be so serious. But it is a huge cultural phenomenon too and it is very serious. We build up whole cultural intellectual patterns based on past "facts" which are extremely selective. When a new fact comes in that does not fit the pattern we don't throw out the pattern. We throw out the fact. A contradictory fact has to keep hammering and hammering, sometimes for centuries, before maybe one or two people will see it. And these one or two have to start hammering on others for a long time before they see it too.[3]

Are our scientists so bound to existing beliefs that they are immune to the facts being unearthed at Cydonia? Because

they were expecting a radio signal, and because it was the preconception of the time that there was never life on Mars, did figures such as Sagan simply filter out what they were seeing when possible artificial structures were first identified on the Red Planet? The *McDaniel Report* asks us to consider what would have happened if the same information had come in from much farther away in a more "conventional" form:

> Imagine that a digital pattern of radio signals originating in deep space has been received via the SETI radio telescopes. Translated into images by computer, the first image is that of a humanoid face wearing a peculiar headpiece, and the second is a pentagonal diagram [like the D&M Pyramid] having unique proportions and redundant mathematical constants…. Would NASA file these images away, like some lost Ark, claiming they were merely "a trick of radiation and noise?" And if a portion of the signal appeared to have been distorted by interstellar

static, would NASA stop listening on that frequency, saying the message was not complete enough?

THE LANGUAGE OF STONE

Where are ancient Egypt's radio transmitters? Quite simply, the knowledge we have of ancient Egypt was not received by radio. Instead we have relied on the survival of artifacts bearing inscriptions and other useful data. But even if no hieroglyphs had survived at all, we still would have been able to learn a great deal about the Egyptians from their colossal buildings. A stone pyramid, in other words, may not be able to travel through interstellar space, but as a "signal" of intelligence it lasts longer than a radio transmission—being one of the most stable forms in nature. If any race, human or alien, wished to leave a message in stone, they

could choose no better vehicle than a pyramid to transport it down through the ages.

There is, of course, the possibility that any artificial structure will contain cultural references and “messages” even if these are unintentional. For example, anyone decoding a structure such as the Parthenon in Athens would be able to derive from its construction the fact that it was built by an intelligent culture with knowledge of mathematics and geometry. As Sagan is the first to admit: “Intelligent life on Earth first reveals itself through the geometrical regularity of its constructions.”[4]

KEYSTONE

In 1988, Erol Torun, a cartographer and systems analyst for

the U.S. Defense Mapping Agency, read Richard Hoagland's book *The Monuments of Mars*. Later he wrote to Hoagland, saying:

> While I was impressed with most of the images presented and your description of them, the object that especially caught my attention was the D&M Pyramid. I have a good background in geomorphology and know of no mechanism to explain its formation.[5]

The appearance of the 1.6-mile-long D&M pyramid on frame 70A13 is indeed puzzling. It has been calculated that it incorporates more than a cubic mile of material and that its apex towers almost half a mile above the surface of the surrounding plains. It is strangely buttressed at the base of each of its five corners, adding to its architectural majesty.

Its most fascinating feature is to be seen on the southwestern facade forming the base of the pentagonal

structure—the tip of which points toward the Face. This shows quite clearly a regular triangular plane that is similar to the side of a terrestrial pyramid. Quite frankly, from this angle, it looks artificial—no doubt about it. However, as with the Face, the evidence from the rest of the structure is not as clear. Damage to its eastern, shadowed, side spoils its regularity—and the fact that DiPietro and Molenaar first thought the pyramid had only four sides shows how indistinct this area is. It is also penetrated by a deep hole, previously thought to be a crater. Carlottos photoclinometric reconstructions have raised the extraordinary possibility that this hole could in fact be a tunnel. Subsequently there has been speculation that the pyramid might originally have been a *hollow* structure that partially collapsed at some point in its history—the collapse causing its obvious deformity and the apparent shortening of its right "leg" (the missing portion

presumably being hidden under dust and debris).

Such ideas cannot be more than speculation until higher-resolution pictures are obtained. What is not in doubt, however, is that the pyramid does have an unmistakably pentagonal outline. It was this shape, above all the others at Cydonia, that attracted Torun's attention.

WEIRD GEOLOGY AGAIN?

Torun began his analysis by systematically researching known geological processes to see if any could have formed a pentagonal, five-sided pyramid. To this end he examined the effects of five different factors: water, wind, mass wasting (natural slippage of material due to faults, etc.), volcanism, and even crystal growth. His results were conclusive:

> Fluvial [river water] processes can be ruled out as mechanisms for forming the D&M Pyramid as there are no indications that water ever flowed one kilometer deep in Cydonia Mensae (one kilometer being the approximate height of the D&M Pyramid). It is also true that sharp-edged multifaceted symmetrical shapes are not characteristic of fluvial land forms.

The D&M Pyramid is located on what has been described as “knobby terrain,” which stood above the once-flooded Cydonian plain. Though this area does show signs of water erosion (due to coastal tides), it is very slight.

As for wind erosion, a favorite explanation of many scientists, Torun concluded:

> No dune will ever form a symmetrical polyhedron resembling the one under study. Flat sides and straight edges are unobserved in terrestrial or Martian sand dunes.

> Prevailing winds are not likely to have shifted periodically with perfect symmetry and timing. Even if this seemingly impossible condition were satisfied, another factor would prevent such an object from forming…. Locally reversed airflow can cut a flat surface perpendicular to the wind direction on the leeward side of a wind-cut hill. This locally reversed airflow, and associated surface-level turbulence, would prevent the formation of this hypothetical five-sided ventifact. Each time the wind shifted to a new direction, the reversed airflow would start erasing the edges formed by other wind directions. The end result would not be a pyramidal hill, but rather a round one.[6]

Torun's conclusions on this matter correspond to NASA's own inability to reproduce pyramidal landforms in a wind tunnel. Similarly, no features formed due to "mass wasting" could account for a five-sided structure—the likelihood of five geological faults all causing land to slip to produce a bisymmetric polygon are next to impossible.

Finally, as for “volcanism” and “crystal growth,” there is simply no evidence of volcanic activity in Cydonia, just as there are no naturally occurring pentagonal crystals. Even if there were, crystals are regular; the D&M, on the other hand, although bisymmetrical, contains different side lengths and angles.

What about *unknown* erosional forces? After all, Mars and Earth are two different planets. Torun replies:

> All observations to date of the geophysics of Mars, its gravity, meteorology, geomorphology, etc., indicate that Mars is a place where the laws of physics and principles of geomorphology as we understand them apply, with minor variations due to gravity and atmospheric density and content. It is illogical to assume that there is one small place on the surface of Mars where these same principles are being violated.[7]

ALIEN ARCHITECTURE

Not content to let the matter rest there, Torun tested the supposed artificiality of the D&M Pyramid even further with a series of revealing questions:

1. Is the object's geometry inconsistent with known landforms and geomorphological processes?
2. Is the object aligned with the cardinal directions and/or with significant astronomical events?
3. Is the object co-located with other objects that are also inconsistent with the surrounding geology? And if so, are they geometrically aligned with one another?
4. Does the object's geometry express mathematically significant numbers, and/or the

symmetries associated with architecture?

The first question is easily answered. As we have seen, no known geomorphological processes account for the pentagonal form of the D&M Pyramid. In answer to the second question, the Pyramid is indeed aligned to the Martian cardinal directions. As for question three, Torun states:

> The front of the D&M Pyramid has three edges, spaced 60 degrees apart. The center axis points to the Face. The edge on the left of this axis points toward the center of a feature that has been nicknamed the "City" by the Cydonia investigators. The edge on the right of the center axis points toward the apex of a dome-like structure known as the "Tholus."[8]

In Torun's view these three alignments are remarkable evidence of artificiality. After all, how many random

geological features could fit together and point at one another so snugly? Surely it would be rare to find an anomalous structure, inexplicably unique geologically, meaningfully aligned to the cardinal directions and to other unique structures in the vicinity, that nevertheless turned out to be 100 percent natural?

Rare, one might say, but not impossible.

But what if this structure also meets the criteria in question 4?

RECONSTRUCTIONS

To answer this last point, Torun had to model the original shape of the damaged and eroded pyramid—arguing, correctly, that this is now standard practice in reconstructive

archaeology, especially in sites connected to astronomical alignments or specific geology. Once the model was created he measured it to establish whether or not it possessed any significant mathematical features. He was wary of delving into complicated “numerology” and confined himself to the following basic measurements only:

1. The values of observable angles expressed in radian measure.
2. Examining the ratios formed between the observable angles for equality with mathematically significant numbers.
3. Examining the sine, cosine, and tangent of measured angles for the presence of mathematically significant numbers.

“These approaches,” explains Torun, “were selected due to their simplicity, their validity in number bases other than decimal, and their independence from our convention of expressing angles as a portion of a 360-degree circle.”

Taking an orthographic projection of the pyramid, Torun measured all visible angles (with a calculated error of ± 0.2 deg).[9] A variety of angles offer a variety of ratios. On the premise that an artificial monument would express meaningful measurements and proportions, Torun began to look into these ratios.

To understand his results, it is first necessary to make a brief excursion into the realms of sacred geometry.

SACRED NUMBERS

In the fifth century B.C., initiates of the mathematical and geometric mysteries of the philosopher Pythagoras communicated their fellowship with a secret sign. On meeting a stranger a Pythagorean would offer him an apple. If the stranger was also a Pythagorean he would cut the apple laterally across its core to reveal the pips laid out in the shape of a pentagram.[10]

The pentagram was a sacred symbol of the Pythagoreans, as it contained within it references to the mathematical measurement known as the "golden section," *or phi* ratio:

> There seems to be no doubt that Greek architects and sculptors incorporated this ratio in their artifacts. Phidias, a famous Greek sculptor, made use of it. The proportions of the Parthenon illustrate the point.[11]

Indeed, it was after Phidias that *phi* was named. *Phi* has to do with proportion—being the ideal ratio between two lengths that produces the greatest aesthetic effect on the eye when incorporated into the measurement of a work of art or architecture. A rectangle made of sides whose relationship to one another is based on the *phi* ratio will be more visually pleasing than any other rectangle.

Look at line ABC:

A----------B----------C

The *phi* ratio is demonstrated in a figure in which the length AB has the same relationship to the length BC as the length BC has to the entire length AC. For this to be so, the ratio has to be precisely 1:1.61803398.

Why *phi* produces such an aesthetic effect is a mystery, but the Pythagoreans saw it as reflecting the harmonies of nature

—the same figure is found widely throughout the natural world in organic life. The spiraling of a snails shell incorporates *phi*, as do the distances between leaves on branches.[12] The proportions of the human body also relate to *phi*—which, for example, is the ratio of the length of the body from the head to the navel and from the navel to the feet.

Thus the Pythagoreans claimed "all is number" and used geometry as a metaphor for higher concepts and metaphysical assertions. To them *phi* expressed beauty—not as a subjective opinion as in "beauty is in the eye of the beholder," but as a quality intrinsic to the object itself. Beauty is in the beheld.

VESICA PISCIS

Phi is also generated by the most widely used and most sacred of geometric forms—the *vesica piscis*, "vessel of the fish"—consisting of two overlapping equal circles, the centers of which each stand on the circumference of the other circle.

To the ancient geometers this device represented the union of spirit and matter, heaven and earth.[13] In it were generated not only *phi*, but the constants of the sacred square root series of 2, 3, and 5 and the five regular solids.[14] This sacred figure was used as the basis of various ancient monuments including the St. Mary Chapel at Glastonbury Abbey and, according to John Michell, an expert in sacred proportion, the Great Pyramid at Giza.[15]

The Pythagorean secret sign, the cutting of the apple, was the transmission of a shared wisdom—that of the knowledge of the numerical harmonies of nature revealed through the *phi* ratios of the pentagram and, by extension, the *vesica*

piscis. This message was nonverbal. All you needed to grasp it was the knowledge of mathematics, the universal language.

But what has this to do with Torun's model of the D&M Pyramid? He claims it has everything to do with it.

ROSETTA STONE

When DiPietro and Molenaar discovered the pentagonal pyramid they noted its dimensions as 1 mile by 1.6 miles.[16] These figures are, of course, extremely close to the golden section ratio.[17] In Richard Hoagland's opinion they may also have a deeper significance. Staring at the "exquisite five-sided bisymmetry" of the D&M Pyramid, he reports:

> Another striking aspect of this "magic" ratio suddenly appeared before me: Leonardo da Vinci's application of these ancient "sacred"

> proportions … to the human form. And suddenly I comprehended an extraordinary possibility: If I superimposed da Vinci's famous figure—"a man in a circle"—over the stark geometric outlines of the D&M, the two conformed. The D&M seems to be a striking geometric statement of humanoid proportions arrayed on an alien landscape almost in the shadow of the central "humanoid" resemblance [the Face].[18]

It was this assertion of Hoagland's that first caught Torun's attention. What was a universal constant of aesthetic proportion doing on an inorganic mountain on Mars? Torun's own findings were to be even more surprising, as the authoritative *McDaniel Report* confirms:

> What Torun discovered was a mathematically rich figure whose geometry contains the mathematical bases for the hexagon, the pentagon, and the classic geometric proportions of the Golden Ratio. Twenty of the model's internal angles, angle ratios, and trigonometric

> functions redundantly express three square root values, *sqrt* 2, *sqrt* 3, *sqrt* 5, and two mathematical constants, *pi* (the ratio of the circumference of a circle to its diameter) and *e* (the base of the natural logarithms)…. Except for *sqrt* 2 and *sqrt* 3, the constants do not appear alone, but in seven different mathematical combinations. The most redundant values discovered were *e/pi, e/sqrt* 5, and *sqrt* 3. These values were repeated four times each in at least two different modes of measurement.[19]

The D&M Pyramid, in other words, seems to be a veritable textbook of the same numerical forms that were deemed sacred by the Pythagoreans because of their universal harmonic qualities.

VERIFICATION

We must admit that we are impressed by Torun's model, with

its amazing ability to yield geometric constants. But wouldn't any pentagonal figure produce the same results?

Keith Morgan, an electronics technician, devised a FORTRAN computer program at Howard University, Washington, D.C., to answer this question. Keeping the two front 60-degree angles, he adjusted the "ridge-lines" of the opposite face throughout a range of different angles, generating 680 variations on the pyramidal form. His conclusions confirmed the uniqueness of Torun's model showing it to be the *only* pentagonal form with front angles of 60 degrees that could generate the *vesica piscis* and, simultaneously, the values of *phi, pi, e, sqrt* 2, *sqrt* 3, and *sqrt* 5, and the only one which could represent them all (save *phi)* across the three measurements of angle ratio, radian measure, and trigonometric functions![20]

Clearly Torun has uncovered not only a rich geometric

minefield, but a unique one in the bargain, a giant rock containing the Pythagorean constants—a true philosophers' stone.

ALCHEMY

In the ancient art of alchemy, it was the task of the alchemist to find the *lapis exillis*—the philosophers' stone—that turned base metals into gold. This stone was said to have "fallen from heaven," like the meteoric Benben stone of Heliopolis that is spoken of in ancient Egyptian tradition, a pyramidal stone associated with rebirth.

The Benben stone bore arcane knowledge about the nature of the universe—"On the stone is encoded the cipher of life's mysteries"[21]—and it was supposed to redeem spirituality

from base matter, the pecuniary aspects of the process being metaphors for spiritual transformation.[22]

Now this pyramidal *lapis*, "the cipher of life's mysteries," is depicted as a stone—and yet it encompasses all matter, being composed of *"de re animali, vegetabili et minerali."*[23] It was also said to grow from "flesh and blood" and to possess a body, soul, and spirit.[24] The *lapis* is thus intrinsically connected with rebirth, new life, and growth.

Strangely, Torun finds similar qualities referred to in the measurement *e/sqrt* 5 found in the Martian pyramidal stone:

> The relationships between *e* and *sqrt* 5 may also be suggestive of biology. Five-sided symmetry is not characteristic of non-living systems. Life-forms on Earth, however, often exhibit five-sided symmetry, especially in the plant kingdom. The constant *e*, the base of the natural logarithms, is also known as the law of organic growth. It is a way of describing

> growth where the increment of growth is always proportional to the size of the growing quantity, as is often the case in biological systems. Most formulae devised for the study of organic growth, whether for population studies, or predictions of microbial and plant growth, incorporate the number *e* as a factor. The relationship between *e* and *sqrt* 5 might therefore be interpreted as being symbolic of "the exponential growth of life."[25]

Torun supports his interpretation of these numbers as a biological metaphor by pointing to the fact that the D&M Pyramid possesses another characteristic of living things—bilateral symmetry—and "by the alignment of the D&M Pyramid's axis of bilateral symmetry with the one object in Cydonia Mensae that most clearly resembles a living thing: the Face."[26]

MESSAGE

The Pythagorean philosophers saw the *vesica piscis* (whose organic constants and geometric numbers are mirrored in the D&M Pyramid) as a powerful symbol of the joining of heaven and earth, spirit and matter. The pyramidal philosophers' stone served exactly the same function, and yet, in the rhyme of the fourteenth-century alchemist Arnaldus de Villanova quoted at the beginning of this chapter: "The fools rejected it."

Like the philosophers' stone, it is Torun's claim that the D&M Pyramid is some sort of cipher—a latter-day Rosetta Stone—for the whole Cydonia region, revealing a message of intelligent design. As we shall see, the same essential design features recur repeatedly among all the monuments of Cydonia. The structures seem to work together, like the

instruments in an orchestra, to create an infinite mathematical symphony.

13

Coincidences

Gentlemen, you do not have a science, unless you can express it in numbers.

ARTHUR EDDINGTON, BRITISH ASTRONOMER WHO
VERIFIED EINSTEIN'S GENERAL
THEORY OF RELATIVITY

LET US remind ourselves of the mathematical characteristics of the D&M Pyramid. Among other features, its angles and

dimensions yield a total of 10 *pi* ratios, 10 *e* values, and 4 *e/pi* values. It also redundantly "prints out" the values of *sqrt* 2, *sqrt* 3, and *sqrt* 5.

Such insistent repetition of geometrically significant data is not a normal characteristic of naturally formed structures. Moreover extremely accurate measurements from the Viking photographs indicate another curious indicator of intelligent design: the apex of the D&M Pyramid stands at 40.86 degrees north latitude. The tangent of 40.86 is 0.865—the precise value of the ratio *e/pi* that is repeated four times in the internal structure of the pyramid.[1]

As the Artificial Origins at Cydonia researchers point out, it is almost as though the great pentagonal monument is telling us that "it knows where it is" on Mars.[2]

TIME FOR T

Another notable point about latitude 40.86 degrees north as it runs through the apex of the D&M Pyramid is that it is subtended from the monument's nearest corner-diagonal by an angle of precisely 19.5 degrees. This is an angle that crops up several times elsewhere within the structure. It is also a highly significant angle within a field of mathematics known as "energetic-synergetic geometry" that was pioneered by the American engineering genius R. Buckminster Fuller (1895–1983). The system takes as its basic unit the tetrahedron (a pyramid shape with four sides including the base—each side being an equilateral triangle) and builds from it a number of astonishing structures, most famously the geodesic dome.

A curious "rule" or constant has been revealed by this geometry and commented on by Richard Hoagland, Stanley

McDaniel, Erol Torun, and other AOC researchers. The rule is that when you place a tetrahedron inside an exactly circumscribing rotating sphere so that one of its four vertices touches either the north or the south pole of that sphere, then the other three vertices, each separated by 120 degrees of longitude, will be found at latitude 19.5 degrees south (when the first vertex is at the north pole) or at latitude 19.5 degrees north (when the first vertex is at the south pole).[3] The figure of 19.5 is therefore known as *t*, the tetrahedral constant.[4]

MOUNDS

Torun and Hoagland have always claimed that the tetrahedral numbers yielded by the D&M Pyramid must be significant. This claim, in our view, gains in credibility from

recent discoveries by Horace W. Crater, a professor of physics at the Tennessee Space Institute. Working with Stan McDaniel, Crater has found the same specific measurements cropping up in other structures in Cydonia—particularly in the City, with its enigmatic complex of sixteen oval mounds (four of which are directly aligned with the D&M Pyramid).

Hitherto we have only commented in passing on the existence of these bright, uniformly shaped mounds, each 300 to 700 feet in diameter and 100 feet high, dotted around the foothills of the City and stretching out toward the south. Four of them form the regular cross shape of the City Square lining up not only with the D&M Pyramid but also, remarkably, with the mouth of the Face.

MISSED TARGET

When NASA re-imaged sections of the Cydonia landscape in April 1998 (see under heading "Unexpected News," chapter 15), the four mounds forming the cross-hairs of the City Square were selected, on the advice of pro-artificiality scientists, as a rather apt target to follow the controversial re-imaging of the Face.

Unfortunately *Mars Global Surveyor* missed the Square and caught a swathe of land about a kilometer to its left (as seen from above), which included just a single mound and a couple of the least impressive outcrops of the City. Though other intriguing objects dot the surface of this image, unseen by the earlier *Viking* orbiters (such as a strange ring of small pyramidal structures and a larger pyramidal structure on the edge of a rocky outcrop for which we will have to await further analysis) little information was obtained on the enigmatic mounds themselves that could aid classification of

these features and their alignments.

The only mound captured by *Mars Global Surveyor* is seen to be a regular, oval-shaped ridged knoll—and, unfortunately, as we have no other high-resolution images to compare it with, it is impossible to tell if it is a natural formation or whether it is similarly structured to the other mounds photographed by *Viking* and thus suggestive of artificiality.

The one thing that the mounds do tell us clearly about themselves, however, is their own precise locations on the surface of Mars. These locations were studied from the original *Viking* frames by Horace Crater and were reported on by Crater and McDaniel in their joint paper “Mound Configurations on the Martian Cydonian Plain: A Geometric and Probabilistic Analysis.”

“THEIR ARRANGEMENT WAS NOT NATURAL …”

Probably no one is better qualified to evaluate the patterns formed by the mounds than Horace Crater. A specialist in theoretical particle physics, he is a world expert on the transformation of experimental data patterns into mathematical forms, from which further patterns can then be predicted.

“Like many,” says Professor Crater, “I was interested in the controversy surrounding the Cydonian Face, but at a distance. It was not until late 1993 that my involvement with the Mars anomaly research began.”

Crater started out skeptical, saying of Torun’s reconstruction of the D&M Pyramid:

> It was my suspicion that proportions with such redundancy could occur

with reasonable odds in any semisymmetrical five-sided figure. Of the various five-sided figures I examined, many showed proportions like those of Torun's measurements. As I increased the precision of my calculations, however, I came up with a surprising result. At greater levels of precision only the Torun model appeared with significant redundancy.

This unexpected result stimulated my interest in the Cydonia region. I began to investigate a number of small mound-like features found there. These "mounds" are small enough to make measurements of their geometric relationships relatively precise, within a determinable margin of error. What I found astounded me. Their arrangement was not random.[5]

ANALYSIS

In his paper Crater relates how he began his investigation by

labeling the sixteen mounds *A* through *P*, not in any strict order due to their positioning on the planet, but in the order he studied them. His first target was the *E-A-D* group of mounds—those closest to the D&M Pyramid, some miles south of the City. As Hoagland had shown as early as 1992, these three mounds form a perfect isosceles triangle.[6]

Crater based his measurements of *E-A-D* on orthographic prints, which corrected camera tilt to establish a workable Mercator projection, and found that the angles of this triangle were as follows: 70.9 (± 2.9) degrees; 54.3 (± 2.2) degrees; and 53.5 (± 2.2) degrees. These results were strikingly similar, he realized, to the angles of the plane formed inside a tetrahedron when you take its cross section from one axis so that it bisects the opposite face. These angles are, respectively, 70.5 degrees, 54.75 degrees, and 54.75 degrees. Furthermore, when the angles of the ideal

tetrahedral cross section are expressed in radians, "We see that all of them are simple linear functions of [the] tetrahedral constant, *t*, equivalent to 19.5 degrees."[7]

Because one isolated result proves nothing, Crater devised a number of tests to see how often a "tetrahedral" triangle could be created randomly, defining a tetrahedral triangle as

> any triangle whose angles in radians are given in simple terms of quarter, half, or whole number multiples of *pi* and *t*.[8]

Crater's tests were thorough and professional (as might be expected of a scholar whose job is the calculation of patterns).[9] He randomly generated 100,000 three-mound placements on a computer, finding just 121 randomly occurring *E-A-D* triangles. Then he analyzed 4,460 actual triangles formed from natural Martian features, of which only two were tetrahedral *E-A-D* triangles. Based on these odds

Torun reckoned that the chances of the *E-A-D* triangle occurring naturally was "slightly more than one in 1,000."[10]

This was not an impressive result, and did not rule out the possibility of coincidence. But more was to come.

TETRADS, PENTADS, AND HEXADS

Craters next step was to introduce mound G, which nestles at the feet of the southernmost of the large city structures, thus forming the tetrad *G-A-D-E*. It contains two identical right-angled triangles, *A-E-G* and *G-A-D* and its geometry is entirely determined in terms of t and *pi*, as is also the case for the geometric divisions of a tetrahedron.

Crater now included the next closest mound—mound *B*, to the right of triangle *E-A-D*—to form a pentad *G-A-B-D-E*. Like

the cogs of some great wheel meshing together, triangles *A-D-B* and *E-A-B* exactly mirror triangles *A-E-G* and *A-G-D*. What's more, all the angles within the pentad also turn out to be functions of *t*.[11] Some wider plan must lie behind this setup, Crater suspects, because:

> The geometry that most optimally describes the mound placements suggests, with stubborn redundancy, the geometry hinted at in Torun's model of the D&M Pyramid.[12]

Next to be analyzed was mound *P*, found to the west of mound *G*. Here, too, the results are confirmatory: triangle *P-G-E* is a mirror of *GE-A* and *E-A-B*. The odds of such a hexad forming naturally, Crater estimates, are about 200 billion to one.[13] These triangles also repeatedly include the significant angle of 19.5 degrees.[14]

The final development came in February 1995. While

studying Crater's results, Stan McDaniel realized that the pattern formed by five of the Cydonia mounds (*G-A-B-D-E)* appears to imply a rectangle, even though two corners of that rectangle are "missing." Using the geometrical analysis performed by Crater, the proportions of the grid were found to be a significant figure in terrestrial sacred architecture—1:1.414, or 1 to the square root of 2.[15] As the reader will recall, *sqrt* 2 is one of the values repeatedly "printed out" by the geometry of the D&M Pyramid.

THE MESSAGE AND THE CONSPIRACY

Following up on Torun and Craters pioneering work, Richard Hoagland set about combing the Cydonian plain for more alignments that might make sense in terms of tetrahedral geometry.

His first discovery was that the angle between the so-called cliff to the east of the Face and a "tetrahedral pyramid" found on the far lip of the crater on whose ejecta blanket the cliff lies is 19.5 degrees: *t*, the tetrahedral constant.

Hoagland also claims that the "teardrop" on the right side of the Face lies at a point that is exactly equidistant between the City Square and the D&M Pyramid—this distance being 19.5 arc minutes of the circumference of Mars! A second measurement, from the teardrop to the great buttress of the D&M pyramid, corresponds with l/360th of the polar diameter of Mars.[16]

But this system of dividing up circles and spheres into 360 degrees is surely an Earth-based invention … isn't it? Therefore, even if we accept the "way-out" view that the Cydonia monuments are artificial, how can we explain that their presumably alien builders used the same 360-degree

system that we do, and even followed geometrical conventions that are of venerable antiquity here on Earth?

Torun and Hoagland came to the conclusion that a message was deliberately being sent, quite possibly targeted at "us," and that the circumference of the planet was continually referred to in relation to the tetrahedral constant for a specific purpose. "All this seems to be directing us," Hoagland theorized in 1987, "to place the inscribed tetrahedron in a planetary sphere such as Mars itself…."[17]

On Independence Day, 4 July 1997, NASA's lander *Pathfinder* touched down in the once catastrophically flooded Martian channel known as Ares Vallis. Richard Hoagland was the first to point out that *Pathfinder* has a pronouncedly tetrahedral design with distinctive solar panels in the form of equilateral triangles. Moreover, its landing site in Ares Vallis is located at 19.5 degrees north latitude.[18]

Probably NASA meant nothing by this. Still, we cannot deny that the act of placing a tetrahedral object on Mars at latitude 19.5 contains all the necessary numbers and symbolism to qualify as a “message received” signal in response to the geometry of Cydonia. Moreover, such a game of mathematics and symbolism is *precisely* what we would expect if NASA were being influenced by the sort of occult conspiracy that Hoagland, for one, is always trying to expose.

PART THREE

Hidden Things

14

Disinformation

The broad mass of a nation … will more easily fall victim to a big lie than to a small one.

ADOLF HITLER, *MEIN KAMPF*, 1925

Could NASA know more about Cydonia than it has admitted? Could it have discovered something there that it has decided to withhold from the public?

In 1938, as Europe readied herself for war, the peoples of the New World found themselves threatened not by some maniacal fuhrer seeking to establish a new order of darkness, but by invaders from Mars. It happened when Orson Welles broadcast his own adaptation of H. G. Wells's *The War of the Worlds* on the radio. The radio-play was so realistically presented that many believed it to be a genuine news report. The widespread panic that ensued revealed what a two-edged sword mass communication could be. It brought people together, but its power to influence vast swathes of the population was clearly immense.

In Germany, Goebbels churned out propaganda films and fed them to the masses, exaggerating resentments and xenophobia (present throughout Europe at this time), and twisting nationalist sentiments to result eventually in the Holocaust. What Hitler had said in 1925 was turning out to

be literally true—people were believing the “big lie.”

But propaganda was not an invention of World War II and did not end with it. This begs the question of whether NASA scientists today could be abusing their authority—leading the people on or even deliberately lying over Cydonia and other issues? If Welles managed to convince 1930s America that it was being invaded from outer space even though there was no invasion, then it seems obvious that a government should be able to find ways to hide or devalue information concerning contacts with beings from other planets, or traces of intelligent life found on Mars, or that some new fact has been uncovered in explorations of Mars that is of enormous significance for all mankind.

Generally speaking, government agencies find it easier and preferable to reinforce already held beliefs than to introduce new ones. We therefore have no difficulty envisaging

situations in which NASA might decide *not* to share everything it knows with the public—for example, if it believed that a specific piece of information might be socially, or politically, or economically destabilizing. We can also imagine other less honorable motives that might lead officials to hide the truth about certain types of discovery.

Because such things are possible, and because discoveries have been hidden and hushed up in the past, we think it would be naive to place any great confidence in NASA's repeated assurances that the monuments of Cydonia are all natural landforms. Like other big state bureaucracies, NASA has lied and will lie again. We think the evidence suggests that it has lied about Cydonia ever since the Face on Mars was first discovered.

DUTY TO WITHHOLD

NASA is not some *Starship Enterprise* on a "mission to seek out new worlds and civilizations, to boldly go where no man has gone before." On the contrary, NASA is the disturbed child of two dysfunctional parents—paranoia and war.

NASA was formed in 1958 at the height of the Cold War when all advances in space science were spin-offs from the development of more efficient killing machines. The exploration of space itself was directly linked to defense policy.

To a certain extent, this Cold War mentality still prevails. Thus, although it is funded from public taxes, NASA is finally not responsible to the people but to the government of the United States. Nor does any law compel it to share information openly with the public. In Section 102 (c) (a) of

the Act of 29 July 1958 (The Space Act), which formed NASA, we read:

> NASA is charged with the making available to agencies directly concerned with national defense of discoveries that have military value or significance….
>
> Information obtained or developed by the Administrator in the performance of his functions under this act shall be made available for public inspection except:
>
> a) information authorized or required by Federal statute to be withheld, and
>
> b) information classified to protect the national security.

So it seems that NASA actually has a “duty to withhold” certain categories of information.

THE BROOKINGS REPORT

NASA scientists cannot know for sure, on present evidence, whether or not the structures of Cydonia are natural or artificial. Many intelligent people therefore suspect there must be some very strong reason why NASA has for so long failed to test the AOC hypothesis.

It has been suggested that a 1960 Brookings Institute report may contain a possible clue. The report is entitled *Proposed Studies on the Implications of Peaceful Space Activities for Human Affairs*. Amid other advice it urges that if NASA should ever discover evidence of extraterrestrial life, it should seek to control this information for reasons of public security, considering the plight of "societies sure of their place in the universe, which have disintegrated when they had to associate with previously unfamiliar societies

espousing different ideas and different life ways."[1]

At the level of policy and strategy the Brookings report recommends that NASA should always ask, and consider very carefully

> how such information, under what circumstances, might be presented to or withheld from the public for what ends. What might be the role of the discovering scientists and other decision-makers regarding the release of the fact of discovery?[2]

The report was commissioned by NASA in 1958 (the year of its inception) from the Brookings Institute in Washington, D.C., and was delivered to the chairman of NASA's Committee on Long-Range Studies in 1960.[3] It includes a subsection starting titled "Implications of a Discovery of Extraterrestrial Life":[4]

> Cosmologists and astronomers think it very likely that there is intelligent life in many other solar systems…. *Artifacts left at some point in time by these life-forms might possibly be discovered through our future space activities on the Moon, Mars, or Venus.*[5]

The Brookings Report evisages that hard evidence of intelligent extraterrestrial life might have severe effects on political leaderships—shaking society up and causing the public to question entrenched elites:

> The degree of political or social repercussions would probably depend on leadership's interpretation of (1) its own role; (2) threats to that role; and (3) national and personal opportunities to take advantage of the disruption or reinforcement of the attitudes and values of others.[6]

UFO

The policy of secrecy regarding possible alien artifacts stems back some years before NASA was formed. The recommendations of the Brookings Report only echo earlier statements made by the American government.

The "Report of the Meetings of the Scientific Advisory Panel on Unidentified Flying Objects Convened by Scientific Intelligence, CIA, January 14–18, 1953" concludes:

> The continued emphasis on the reporting of these phenomena [UFO encounters] does, in these perilous times, result in a threat to the orderly functioning of the protective organs of the body politic.[7]

Many conspiracy theorists in the United States passionately believe that such conclusions were first drawn six years earlier—in 1947, to be precise.

THE CRASH OF ’47

The modern UFO phenomena can be said to have begun with the sighting of nine “saucer-shaped” objects flying over Mount Rainier, Washington, by pilot Kenneth Arnold on 24 June 1947.[8] Two weeks later, rumors began to circulate concerning an alien spaceship that had supposedly crash-landed in Roswell, New Mexico.

The “Roswell Incident” has been given much public attention recently due to the celebration of the fiftieth anniversary of the crash in 1997. It is an understatement to say that it has caught the imagination of the present generation: an increasing variety of claims about the crash have been put forward in recent times, most of which accuse the U.S. government of covering up the evidence. It was to refute such claims that the Pentagon embarked on a four-year

research program to dismiss these theories.

In a report titled *Roswell: Case Closed*, published on 24 June 1997 (fifty years to the day after Arnold's first sighting of "flying saucers"), the Pentagon claims that what crashed at Roswell was a high-altitude weather balloon and that the "alien bodies" reported to have been found beside it were "life-size dummies from top-secret simulated parachute drops."[9]

The crash was discovered by Mac Brazel, a rancher checking for storm damage near the Roswell Army Air Force Base (RAAF). The wreckage that he found consisted of a strange shiny material that was immutable, returning to its original shape when crumpled into a ball. Unable to identify this substance, he handed it in at the air base. On 8 July 1947 the base issued an official army press release stating that a "flying disk" had been found, the local paper's

headline stating RAAF CAPTURES FLYING SAUCER ON RANCH IN ROSWELL REGION.[10] Within hours the Pentagon contacted the head of the local radio station and told him to stop broadcasting the news, and a new press release was issued stating that what had really been found was a weather balloon.

A major challenge to this story was mounted by several Roswell locals who vociferously claimed to have seen not just wreckage but also the occupants of the wrecked craft. Frank Kauffman, a civilian working at RAAF at the time, reports seeing the bodies of five aliens being placed into body bags by the military. Also among the witnesses was Colonel Philip Corso (now retired), who was on General MacArthur's intelligence staff during the Korean War and on President Eisenhower's national security staff for four years. He claims to have seen at least one short, gray, hairless alien body after

it had been removed from the site and stored at Fort Riley, Kansas:

> At first I thought it was a dead child they were shipping somewhere, but this was no child. It was 4 ft., human-shaped figure with arms, bizarre-looking four-fingered hands—I didn't see a thumb—thin legs and feet, and an oversized … lightbulb-shaped head.[11]

THE DUMMIES

The Pentagons counterclaim that the bodies were just "life-size dummies from parachute drops" is an admission that there was at least *something* at Roswell that could be mistaken for alien bodies. But how likely is it that such dummies would have landed right next to a crashed balloon? What were the military doing testing parachutes on the night

of a violent storm?[12] If the eyewitnesses can be trusted, why place the dummies in body bags? Moreover, what is to be made of statements from several of the witnesses that one of the “aliens” survived the crash and was seen moving?

The army press officer who issued the 8 July press release in 1947 would later sum up the the many absurdities of the Pentagons position:

> It’s just another cover-up. Any dummy knows what a dummy looks like, and those weren’t dummies.[13]

UFO RELIGIOUS CRISIS?

But why would NASA want to cover up evidence of intelligent aliens?

To be sure, the Brookings report does suggest a possible

motive. However, the public of the year 2000 does not have the same fears as the public of 1960—and NASA must know this. Surveys in the 1990s suggest that 65 percent of all Americans believe that a UFO did crash at Roswell.[14] In addition, surprisingly large numbers of people, probably running into tens of millions, believe that they have either seen or been abducted by alien entities.

As there is clearly no widespread panic about these matters, how likely is it that there would be panic over the as yet hypothetical discovery of alien artifacts on Mars?

The surveys suggest there would be no panic. On the contrary, such news would probably be received positively even by so-called fundamentalist groups. One particularly instructive report is the *Alexander UFO Religious Crisis Survey: The Impact of UFOs and Their Occupants on Religion*. Written by Victoria Alexander for the Bigelow Foundation, Las Vegas,

Nevada, the report considers responses to questions by 230 leaders of religious communities across America (134 from Protestant churches, 86 from Roman Catholic churches, and 10 from Jewish synagogues). While the relatively small size of this survey means that it cannot be taken as definitive, its results are surprisingly clear. As Alexander sums up:

> The numbers are not just statistically significant; they demonstrate unmistakable trends. Even though this was a pilot study, for the first time there are data concerning the perceived relationship between religion and the existence of intelligent extraterrestrial life. The data are counter to the widely held belief frequently posited by many in the UFO community predicting doom and destruction in the wake of verifiable contact.[15]

A typical Alexander multiple-choice question begins with a proposal and asks respondents to categorize their reactions to

it. For example:

> Official confirmation of the discovery of an advanced technologically superior extraterrestrial civilization would have severe negative effects on the country's moral, social, and religious foundations.

a) strongly agree

b) agree

c) neither agree nor disagree

d) disagree

e) strongly disagree.

It is notable that 77 percent of the respondents either disagreed or strongly disagreed with this particular proposal. Their answers to 10 other questions convey the same mood:

> The results conclusively demonstrate that the religious leaders surveyed believe that the faith of their parishioners is both sufficiently strong and flexible to accommodate this information. Contrary to the belief widely held in the UFO community, it is highly unlikely that such news would yield a religious crisis.[16]

Some conspiracy theorists believe that the public's changed attitudes are themselves engineered by the authorities through information management. The suggestion is that we are all the victims of a billiant propaganda campaign designed to acclimatize us, slowly, to the reality of intelligent extraterrestrial life. The notion is probably fanciful. Nevertheless, we cannot deny that movies like *Independence Day, Stargate*, and *Close Encounters of the Third Kind*, TV programs such as *The X-Files* or *Dark Skies*, and NASA's decision to release information about possible "primitive" life in Martian meteorites have all contributed to the present

relatively open-minded state of public opinion concerning ET contacts.

PROPAGANDA WAR

Our own impression is that NASA has attempted to manipulate public perceptions concerning the issue of artificial origins at Cydonia and that it does seem to be covering something up. We cannot say what it is covering up—perhaps only its own bungles—but the agency appears to have acted dishonestly from the beginning.

The lies began on 25 July 1976 when the first *Viking* photograph of the Face, frame 35A72, was released to the press. As the reader will recall, NASA claimed at the press conference that there was a second photograph, at a different

sun angle, proving the Face to be just a trick of light and shadow. More than seventeen years passed before officials finally admitted that such a disconfirming photograph does not exist.

We then see the misfiling of images, so that a *confirming* photograph—frame 70A13—was not in the correct file. This threw researchers off the trail for several years. They also had to deal with certain forms of censorship, as Stan McDaniel recounts:

> The first paper on the subject [of artificial origins at Cydonia], authored by a group called the Independent Mars Investigation Team, reporting for the most part the work done by Vincent DiPietro and Gregory Molenaar, was inexplicably expunged from the published papers of the first Case for Mars Conference in 1984. Subsequent attempts to publish papers on the topic, by scientists with impeccable credentials and a long

list of published scientific papers, were uniformly refused consideration by the primary American journals of planetary science. These scientists were forced by this censorship to turn to publishing their work in books for the general public, whereupon NASA characterized them as seeking personal gain and running “cottage industries.”

Over the course of time, as individual citizens, having read such publications, began to ask questions of NASA, a long string of spurious arguments were put forward against the idea that the Face on Mars might be artificial. The services of that powerful propagandist, Carl Sagan, were evidently engaged in this task. Sagan went about writing and talking about psychological aberrations that make people see faces everywhere, whipping out a deformed eggplant at lectures and claiming it looked like Richard Nixon, thereby proving that the Face on Mars was natural. An amazing scientific feat.

Then, in 1985, Sagan published an article in *Parade* magazine debunking the Face, characterizing anyone who took it seriously as a

> kind of a "zealot," and including a doctored version of one of the *Viking* frames that used false color to make it look as though the Face is actually not there.[17]

If NASA is so sure that the Face is merely an illusion or aberration of nature, then why resort to blatant fraud in order to convince the public of this? The doctoring of frame 70A13 in the *Parade* article—by overlaying the image with a color filter to obscure details that corroborate frame 35A72—is a particularly unscientific and indeed barbaric act. One cannot even defend Sagan by saying that this frame was supplied to him already doctored by NASA, for Richard Hoagland had personally shown Sagan the original frame prior to the publication of the *Parade* article.[18] Sagan was well aware that 70A13 confirmed 35A72 and had earlier told Hoagland that he found this intriguing.[19]

So why did Sagan lie?

Whatever his motives, he appears later in life to have regretted his actions. In his last book, *The Demon-Haunted World* (1996) he actually praised the Cydonia researchers and said that the Face deserved a closer look.[20] Was he here voicing a personal truth, now unrestricted by the laws of NASA?

THE IMPORTANT MAN

Sagan's role as chief scientific critic of the AOC hypothesis has been inherited by Dr. Michael Malin, head of Malin Space Science Systems. Malin, the private contractor who supplied and operated the camera systems for the failed *Mars Observer* mission (1992–1993), is also the supplier and operator of the

camera systems onboard *Mars Global Surveyor*. Dr. Malin has published an image of the Face on his World Wide Web page claiming to show "how the face got its teeth." This is supposed to be a jeering dismissal of teeth-like features identified by Mark Carlotto.[21] Yet instead of addressing those features, Malin singles out what McDaniel describes as "deliberately induced pixel errors."[22] By such tactics the suggestion is conveyed that the idea of the Face having something like teeth derives from "amateurs using extremely poor image enhancement and publishing their defective results in American tabloid magazines."[23]

As we will see in the next chapter, Dr. Malin is the most important man in the world where Mars is concerned. He alone decides where the cameras of *Mars Global Surveyor* will point. And he enjoys another amazing privilege: the right to an exclusive six-month preview of *Surveyors* images *before*

they are shown to the public.

If there is not a conspiracy, then how can it be good for one man to have so much power? How can it be good for one man to be given such a monopoly over knowledge that he becomes the sole amanuensis for the story of Mars?

On a matter of such seminal importance surely we should be hearing other voices.

15

Camera Obscura

SWINDON: What will history say?

BURGOYNE: History, Sir, will tell lies as usual.

GEORGE BERNARD SHAW, *THE DEVIL'S DISCIPLE*, ACT 3 (1901)

IN the early 1900s, in the English village of Cottingly near Bradford, Elsie Wright and Frances Griffith took photographs of fairies at the bottom of their garden. Even great

intellectuals such as Sir Arthur Conan Doyle, the creator of Sherlock Holmes, fell for this hoax, which the aging Elsie and Frances revealed the photos to be some sixty or so years later.[1] They got away with it because photography was in its infancy at the beginning of the twentieth century and people lacked the skill to spot an obviously doctored image.

Things changed and people today are very aware of the fact that cameras, especially when linked to computers, can lie and do lie. Hollywood special effects teams such as Industrial Light and Magic prove to us again and again that the impossible can easily be made possible on celluloid. Steven Spielberg's *Jurassic Park* was able to mix live acting with digitally produced dinosaurs so spectacularly that the join was imperceptible. This is good news for the box office but it has its disadvantages. Imaging has come such a long way since the Cottingly fairies that it is now impossible to

tell a doctored photograph from an undoctored one.

In which case we all could have been taken in many times without even knowing it.

CRYING WOLPE

In 1992, shortly before the launch of the doomed NASA probe *Mars Observer*, Congressman Howard Wolpe (D-Mich) claimed to have discovered an official two-page document titled “Suggestions for Anticipating Requests under Freedom of Information Act.” The document dealt with ways that NASA could circumvent this act and thus withhold from members of the public information which by law they were entitled to see.

Wolpe wrote to Admiral Richard Truly, then head of NASA,

saying:

> This NASA document instructs governmental employees to: 1, rewrite or even destroy documents to "minimize adverse impact;" 2, mix up documents and camouflage handwriting so that the documents' significance would be "less meaningful;" and 3, take steps to "enhance the utility" of various FOIA [Freedom of Information Act] exemptions.[2]

Soon after Admiral Truly began his own investigation of this matter he was sacked by President (and former CIA director) George Bush, and replaced by Daniel Goldin who, as we saw in part 1, has a background of secret operations experience. No investigation into NASA's allegedly routine efforts to circumvent the Freedom of Information Act has since been authorized. All this was done, comments McDaniel,

> apparently not to confound enemy spies, but to make it difficult for private citizens, or agencies, or Congress, or the press, to obtain information to which they have a right under the Freedom of Information Act.[3]

With regard to the forthcoming *Mars Observer* mission, McDaniel expressed doubts that NASA would honestly share all new photographic images with the public—particularly any images of Cydonia.[4] Indeed, he pointed out, the agency seemed to have entirely relinquished its control over those images to Dr. Michael Malin, a man known for his implacable hostility to the hypothesis of artificial origins at Cydonia.

MALIN AND OBSERVER

Michael Malin graduated from Cal Tech in 1976 with a

doctorate in planetary sciences and geology. From 1975 he had been a member of the technical staff at the Jet Propulsion Laboratory, until he became assistant professor of geology, working his way up to professor in 1987 at Arizona State University. In 1990 he became a research professor and dedicated his time to setting up Malin Space Science Systems (MSSS), of which he is the president and chief scientist.

With the *Mars Observer* mission in 1992–1993, NASA, for the first time in its history, handed responsibility for imaging to a private individual—Michael Malin. Previously, NASA itself had designed, operated, and set targets for its imaging systems. But for *Mars Observer* it contracted MSSS not only to build but also to operate, and be responsible for, all of the imaging done of the Red Planet—including absolute control over any images of Cydonia. As Dr. Malin himself claims:

> No one at NASA has ever attempted to dissuade me from acquiring images in the Cydonia region. No one has ever encouraged me to take such pictures, either, but this is because the choice of areas to photograph has been mine from the start.[5]

We were astonished to learn that even the mission manager at JPL had no authority to tell Malin what to do. But most astonishing of all was the revelation that Malin's *Mars Observer* contract not only gave him absolute authority over where to point the spacecraft and its cameras but also gave his corporation "exclusive control of images obtained from the spacecraft for a period of six months, with no clear statement of accountability."[6]

Understandably this was a state of affairs that worried many AOC researchers. They saw a system ripe for abuse, which appeared almost to have been designed to facilitate

the doctoring or suppression of information. For this reason, both before and after the launch of *Mars Observer*, a growing clamor called for Malin's powers to be curbed. For this reason too the AOC lobby continually sought assurances from NASA that the alleged monuments of Cydonia would be reimaged by *Observer* and that the undoctored results would be speedily made public.

To the end NASA never gave such assurances, maintaining a policy that Stan McDaniel describes as "reluctance to assign an appropriate level of priority to rephotographing the AOC objects, coupled with an ambiguous, shifting policy regarding the prompt return of information to the public."[7]

NASA's position was neither a popular nor a defensible one and it seemed to be losing the argument over the mission priorities of *Mars Observer*. The one thing that the public really wanted to know was, would NASA re-image Cydonia

and, if so, could we be confident that we would get back original, unaltered pictures?

Or would we get back the reverse of the Cottingly fairy photographs, with evidence of other life removed from the images?

The debate was heating up. As we reported in part 2, it even seemed possible that mission priorities could be changed in response to public pressure. Then, at 6:00 P.M. Pacific Daylight Time on 21 August 1993, all contact with the spacecraft was lost and could not subsequently be restored.

Just like that, just at the crucial moment, *Mars Observer* officially "disappeared."[8]

LOSS

Dr. David Williams at Goddard painted us a picture of the sense of personal disappointment felt by NASA scientists over the loss of *Observer:*

> Well, that was very shortly after I started working here as a matter of fact, and it was pretty devastating—I mean, to have this thing which was right at Mars, and everyone geared up for it, we had spent a lot of time, doing the spacecraft records and experiment records, getting it all set for us to start receiving the data and archiving it, and then it just disappeared. And so it was disappointing to hundreds of people who had invested years and years. I knew some of the people who were investigators on instruments and things for that and it was personally a really bad thing, and even worse for NASA. It was a horrible black-eye; it was a very unfortunate mistake, and it looked bad. It certainly did change, completely turn around, a lot of things about NASA.

Readers will remember the disconcerting fact that this

devastating loss occurred during a very risky act—the deliberate switching off of telemetry (contact between *Observer* and Earth). This loss of telemetry was supposedly effected to stop the spacecraft's transmitter tubes from being shocked by the pressurization of the fuel tanks.

> When the valves [that open to allow the helium pressurant to flow to the propellant tanks] actuate, a small mechanical shock wave is set off that travels through the spacecraft's structure and is felt by all the electronic components.... One such component is the amplifier tubes in the spacecraft's radio transmitter. The effect is much like causing a hot electric lightbulb to burn out by sharply jostling it while it is on and hot. So, we turned off the radio transmitter to keep it cool so as not to damage it. This is an event that has been done many times previously during the flight of *Mars Observer* .... We watched the initial events occur on schedule and the transmitter turn off ... but we never heard the spacecraft's signal again.[9]

And so, when NASA attempted to regain telemetry, nothing happened. Moreover, the fact that the telemetry had been switched off when the fatal loss occurred meant no record existed of the exact circumstances of the loss (as there would have been with the telemetry on). Many have noted that this communications blackout would have been the ideal window for an act of sabotage—or for a myriad of other scenarios to unfold.

Mars Observer was alone—450 million miles from home. Did it really just suffer an accident, as NASA claimed? Had it found something on Mars that others did not want us to see, necessitating a pulling of the plug? Or was it, and is it even now, orbiting Mars, sending back information … to someone?

RESCUE

An official committee, known as the Coffey Board after its chairman Dr. Timothy Coffey (director of research at Washington's Naval Research Laboratory), was set up to investigate the loss of *Observer*. According to Michael Malin, in a note posted on the MSSS website:

> The Coffey Board Report stated that the most probable cause of the loss of communications with the spacecraft … was a rupture of the fuel pressurization side of the spacecraft's propulsion system, resulting in a pressurized leak under the spacecraft's thermal blanket. The gas and liquid would most likely have leaked from under the blanket in an unsymmetrical manner, resulting in a net spin rate. This high spin rate would cause the spacecraft to enter into the "contingency" mode, which interrupted the stored command sequence and thus did not turn the transmitter on.[10]

Such spinning could also have caused “the main antenna to be torn off. Eventually, because the solar arrays would no longer be pointed at the sun, the spacecraft’s batteries would be depleted and unable to power the transmitter.”[11]

REBOOT

How hard did NASA fight to reestablish communication? It ought to have fought desperately, yet records show that it delayed a number of vital initiatives for many days—such as mounting a search for *Observer* with the Hubble telescope, for example, and sending the commands to activate the craft’s backup computer.

Mars Observer carried two central computers with exactly the same software packages. If the fault had been in the

primary computer, then rebooting the secondary computer might have fixed the problem. Even as late as 3 September, however, more than a week after the initial loss of contact with the spacecraft, this obvious remedial action was still being debated.

The reader will recall that *Mariner 9* was shut down for a while in 1971, when it reached Mars in a dust storm. It "hibernated" until the storm was over, and was essentially reprogrammed to start the mapping.

There was no reason why NASA could not have attempted such a move with the second computer onboard *Mars Observer*. Yet inexplicably in the next press release (10 September 1993) the "reboot" option was not mentioned—and never has been since. Did NASA try to reboot the computer? And if not, why not? The secondary computer was placed onboard precisely to fulfill this function. Why not,

when you have essentially lost a billion-dollar mission, try this last viable option? NASA's answer at the time was obviously unsatisfactory:

> Analysis by flight team groups indicated greater risk in doing so than is currently deemed necessary in terms of potential effects on other spacecraft telecommunications subsystem components.[12]

So even though the craft was lost, all telemetry defunct, NASA did not wish to reboot the computer because of potential damage to communications equipment! A bizarre state of affairs, considering there was no communication.

One last hope remained of locating the *Observer* and regaining control over it—using a beacon inside a separate component in the craft, the Mars Balloon Relay system. Strangely, no attempts were made to deploy this beacon for a month, when the proximity of Mars to the Sun had resulted

in solar interference—essentially camouflaging the 1-watt beacon signal.

SURVEYOR

Within weeks of the loss of *Observer*, NASA announced that it would be sending another orbiter to Mars—a kind of scaled-down *Observer*. This was *Mars Global Surveyor*, which, as we have seen, was launched in 1996 and went into orbit in September 1997. While we were at Cal Tech in summer 1997, we asked Dr. Arden Albee about the *Surveyor* mission and how he reacted to ongoing accusations that NASA did not want to rephotograph Cydonia and the Face.

Dr. Albee was indignant:

> We've always said we were going to do it! I could show you the first

description of the *Mars Observer* mission—I wrote it! And it says we're going to photograph the entire surface of Mars.

Now, *Surveyor* will get images of Cydonia all the time, but at low resolution, because the lower resolution camera will cover the planet every day once we get into mapping orbit, so we'll be getting images of Cydonia, but the high-resolution images we will not. We can't predict until we get locked up in our circular orbit.

I will read you a statement that I gave at lunchtime, which I carry for such wonderful occasions.

Question: "Will *Mars Global Surveyor* photograph the Face on Mars?" Answer—my answer, and one to which Malin subscribes, incidentally: "*Mars Global Surveyors* camera will provide low-resolution images of the entire surface of Mars. Included in these daily images will be low-resolution images (about 300 meters per pixel) of the Cydonia region, rephotographed on many occasions when the instruments' surface track passes over the region. The camera on this mission does not have the

capability to be pointed at specific surface features of interest to scientists. And the mapping orbit from which high-resolution [images will be obtained is designed to allow] viewing of any specific location on the surface of Mars only a few times during the entire mission, within error. Targets within the Cydonia region will be imaged as part of the normal scientific investigation. When the orbital predictions permit, advance notice of these imaging opportunities will be available shortly before they occur, and will be provided over the Internet. After the images are acquired they will also be released over the Internet."

And that's an official project position, an official NASA position, an official Malin position—we'll do our best to take these images, but there's nothing that will satisfy the conspiracy folks.[13]

NASA administrator Dan Goldin is another who has promised to get photos of the Face:

One of the things we are going to do in our next mission *[Mars Global*

> *Surveyor]* is, when the spacecraft goes over the spot, if we have the right pointing, we'll try and take a picture, and scientifically show what we have found.[14]

The reason, Goldin admits, is public pressure:

> I think we have to be somewhat sensitive, especially when we are dealing with government money, to recognize some of the issues that the public has.[15]

UNEXPECTED NEWS

On 26 March 1998 Professor Stanley McDaniel posted on his Web site some much hoped for, but little expected, news:

> This evening I received a welcome telephone call from Glenn Cunningham of the Jet Propulsion Laboratory in Pasadena…. Mr.

> Cunningham, who heads the *Mars Global Surveyor* project, stated that during April there will be three opportunities to image the area of interest at Cydonia, and that attempts to secure images will be made on each of these occasions.

Fortunately *Mars Global Surveyors* positioning and orbit calibration had been completed quicker than expected, and a window had arisen in which the Cydonia anomalies—not officially regarded as scientific targets—could be snapped without altering the main mapping schedule.

In the early hours of 5 April 1998, *Mars Global Surveyor*, 276 miles above the Martian surface, passed silently over the enigmatic and controversial features that had split the scientific community and began rephotographing them. Ten hours later they had been relayed to Earth.

Then, for what seemed an eternity, all waited for the first

images to appear.

The silence was broken on 6 April 1998, midmorning Pacific time, as the raw image was posted on the World Wide Web. This long-awaited dark strip of data was an impenetrable mess—and the wait continued for a “cleaner” version of the image via a process of image contrast enhancement that was planned to take “a few hours.”

After a number of hours of processing at Malin Space Science Systems HQ in San Diego, the new image was released. To the dismay of many, the words “Its not a face” appeared on Malm’s Web site.

“IT’S NOT A FACE.”

Amazingly, the *Mars Global Surveyors* camera had hit the

bull's eye first time and directly pinpointed the Face with breathtaking accuracy.

The new photographic strip was radically different both in acquisition criteria and in content from the original *Viking* frames. As Malin commented:

> The "morning" sun was 25° above the horizon. The picture has a resolution of 14.1 feet (4.3 meters) per pixel, making it ten times higher resolution than the best previous image of the feature, which was taken by the Viking Mission in the mid-1970s. The full image covers an area 2.7 miles (4.4 km) wide and 25.7 miles (41.5 km) long.

The Face was about halfway down the image, and the top right (damaged) corner of the D&M Pyramid was captured.

For a while the supporters of the Face reeled in shock. Was this really the Face? The primary image was unclear and flat,

like a series of dunes and ridges encircled by a lozenge of material like a racetrack.

In this image the Faces noble features had been reduced to scars, but it had been a speedy processing, and much of the detail, it soon became apparent, had been bleached out in an attempt to refine the inscrutable primary image. By 5 P.M. that evening further work had been done on the images by Malin Space Science Systems: the image of the Face had been fleshed out and oriented so that it lay at the same angle as the original *Viking* frames.

But still, this was clearly not the Face that the AOC researchers had predicted we would see under high-resolution photography.

McDaniel's reaction was subdued—he said:

> The two "eyesockets" are quite clear, as is the "headdress" or "helmet"

feature encircling the object. The small projection on the left cheek appears to be what produced the feature called the “teardrop” in the *Viking* images. There is a face-like appearance, but the overall impression, except for the regularity of the “headdress” feature, is of a natural formation…. My initial guess is that the low resolution of the *Viking* images, plus the particular lighting conditions, were what produced the remarkably face-like appearance in the images we are familiar with. On the other hand, there is a sufficiently face-like appearance here as to make the hackles rise. Is it an eerie natural formation, or a heavily eroded intentional sculpture?

He added, in an SPSR press-release:

In 1976 officials made a snap judgment that the Mars “Face” was “natural” within three hours of receiving the images from Mars. Many of their premature claims turned out to be mistaken. With the arrival of new images from the *Global Surveyor*, there will once again be a

> temptation to make premature conclusions. No one image of the Face will end the controversy because of the two dozen or so other anomalous formations in the region which form the basis of many of our statistical conclusions.

"I HOPE WE'VE SCOTCHED THIS THING FOR GOOD."

In the next couple of days the world media was awash with NASA's "defacing" of Mars. Quotes appeared from experts, such as Michael Carr of the U.S. Geological Survey, saying, "It's a natural formation, I hope we've scotched this thing for good." But this, like Malin's cry of "It's not a face," may prove a little premature.

For far from ending the argument, it has merely reopened the debate and acted as a catalyst to the controversy.

“IT’S A FACE!”

Richard Hoagland, for one, felt justified in ignoring NASA and Malin’s announcements and proclaimed, “It’s a face!” There was also a certain logic in other claims that a well-weathered sculpture would actually look less like a face the closer one got. Doubts were certainly beginning to creep in….

Some pointed out that the Face had been photographed in the early morning on 5 April, and yet it waited until 9 A.M. on the 6th to be analyzed, lying apparently untouched in the Project Data Base all night until the start of the next working day, time enough, some might say, for the images to have been altered.

Strangely, it was the first hurried image of the Face that NASA released to the press, the image most unrepresentative

of the true form of the landscape, and the image most likely to look incongruous when compared with the *Viking* photos.

The press made little mention of the research of the SPSR, and in many cases failed to mention that the Face was just one feature among many anomalous structures at Cydonia—and as such was not even the strongest case for artificiality. Instead it concentrated on a gleeful debunking of UFO enthusiasts and conspiracy theorists who, it rightly predicted, were unlikely to be dissuaded by the new evidence.

And yet as it stands, the Face is still anomalous—as McDaniel says, it may not be a face—"but what is it?" Many features found by computer enhancements of the original *Viking* frames prove to have been correct, such as the "eyeball" discovered by DiPietro and Molenaar, and the bilateral stripes above the eyes found by Carlotto. Even if these are merely natural, if strange, it proves that other

features detected by digital enhancement elsewhere in Cydonia are also likely to exist in actuality, such as the details of the fort, the mound alignments, and the angles of the D&M Pyramid.

However, because it was the Face that had attracted the first attention to Cydonia, its “unmasking” has seemingly destroyed the artificiality hypothesis for many in whose eyes it was, albeit wrongly, the linch-pin on which the whole artificiality argument stood. But we must wait for more detailed pictures of the other enigmatic objects in Cydonia before we can even begin to write off the artificiality hypothesis.

It may well turn out that in trying to lay the ghost of the Face to rest all NASA has succeeded in doing is creating a martyr. Certainly there are signs of a rising tide of dissent against the agency’s insistently “natural” interpretation. On

14 April 1998, for example, the following comment from the astronomer Dr. Tom Van Flandern of the U.S. Naval Observatory appeared on Hoagland's Web page: "In my considered opinion, there is no longer room for reasonable doubt of the artificial origin of the Face mesa, and I've never concluded 'no room for reasonable doubt' in my thirty-five-year scientific career."

VALIDATION PERIOD

One issue that has been continually raised in this debate is whether we can be sure, in light of the Wolpe accusation and the Brookings report, that what we are seeing, and will continue to see, in the *Global Surveyor* images, is the whole undoctored truth. Doubts were being aired of the authenticity of the *Global Surveyor* "Face" image within hours of its

release, in part due to its difference from the *Viking* images, and in part from the tardiness of its delivery to the public.

This "tardiness" added up to no more than a few hours, explained away by NASA as being due to the reception of the data during the "graveyard shift" when the camera operators were home in bed. Given the fuss made over a handful of lost hours, however, it is no wonder that many were perturbed by the six-month "validation" clause, which, as McDaniel explains, was part of Dr. Malin's contract:

> For some time now, we have been told that the private contractor for the camera onboard, Malin Space Science Systems in San Diego, California, has a proprietary period of six months during which it need not release data. On persistent inquiry, I found out just a few weeks ago that now NASA claims there is no such proprietary period—there is instead, they say, a "data validation" period of up to six months. So no matter what it

> is called, a communication blackout for at least six months after taking any image of Cydonia could take place. Meanwhile, NASA may release images of Cydonia in near real time, but at low resolution from the mapping cameras, essentially useless for the study of the Mars anomalies.[16]

It's easy to see from such pronouncements why many who are interested in the unfolding drama of the "anomalies" tend to regard Dr. Malin as the villain of the piece—a shady background figure, wielding the power to change our entire worldview with a swing of his camera (or at any rate of the spacecraft it is attached to). And yet the man himself has remained invisible, inscrutable, a tabula rasa upon which to project all our Orwellian nightmares—the faceless face of Big Brother NASA.

On 12 December 1997 we contacted Dr. Malin to offer him

a chance to give his side of the story. We expected no reply. But the next day, 13 December, we received a four-page e-mail from him containing detailed responses to many of our questions.

THE WIZARD

In *The Wizard of Oz* there is a scene in which Dorothy and her companions reach the Emerald City to find the eponymous Wizard as a threatening, disembodied, thundering voice. Yet Toto the dog pulls back a curtain to show that this is all mechanical trickery performed by a very human wizard indeed.

Communicating with Dr. Michael Malin, the wizard of Malin Space Science Systems, felt a bit like that. Because

despite all our expectations he came across as a very human being—intelligent, candid, and humorous.

After reading what he had to say we frankly find it difficult to see him as a villain, and we have begun to suspect that he might really be just a victim of his own consistency. It is as if people's frustration at the scientific world's conservatism and resultant failure to examine the Cydonia question properly have been projected onto the "faceless" Malin for the simple reason that the process of re-imaging Mars, and therefore the Cydonia anomalies, lies in his hands. And the latter was something that, until the surprising rephotographing in April 1998, he had no special plans to do.

Malin forbade us to print his responses to our questions verbatim and seemed concerned that whatever he said would somehow be twisted by us and used against him in an argument that he considers as absurd as it is futile. This is

one reason he has kept a low profile—believing that as his responses are usually rejected or claimed to be untrue then it is just a waste of time to reply at all.

CATCH-22

We pressed Malin on the issue of capturing new images of the Face. He answered, as we had expected, that the camera cannot be independently pointed, and that it would be difficult to plan to hit a small target of, say, a few kilometers across.

Time has proven him overcautious here, for as we have seen, when it came to the crunch, Malin was able to target the Face with prodigious, pinpoint accuracy on his first attempt. He added, somewhat prophetically, that even if he

did succeed in getting a good image of the Face he thought it very unlikely that the AOC researchers would be satisfied.

As for the epoch-making importance of such a discovery—did he not think it was worth expending the effort, just in case?

The answer was a firm no. Malin said that he considered the probability of the Cydonian anomalies being unnatural as too low to justify the time and money that would be required to investigate them thoroughly.

We remembered David Williams at Goddard telling us that each NASA mission is strictly and tightly funded with a number of set tasks to complete—all of which usually have to be proposed, seconded, and put through numerous selection committees before they get the go-ahead. A five-minute experiment onboard such a probe can be the apogee of a

scientist's working life. With this in mind we can easily understand why Malin has no spare time to "follow a whim" such as the Face on Mars. Nor does the fact that the Face has been reimaged suggest any change in his position. Cydonia was only given a chance at re-imaging because of the development of unforeseen spare time between aerobreaking and mapping. Moreover, the re-imaging was undertaken to satisfy public, not scientific, demand. Had this opportunity not arisen, then it is doubtful that the Face would have been specifically targeted at high resolution.

But it is precisely this lengthy selection process that the AOC researchers find so invidious. There are no scientists within NASA approaching committees to fund their kind of research—and since the tragic loss of the *Challenger* shuttle and *Mars Observer*, money is tighter than ever. It seems that NASA can only afford to send a mission to investigate the

entirety of the Cydonian anomalies fully and systematically if there is undoubted proof of artificiality. This is a catch-22, say the AOC researchers, because unambiguous proof, one way or another, is only likely to be obtained by precisely such a mission. And, given the latest damning criticisms of the Face based on the *Mars Global Surveyor* image, such an investigation seems even more unlikely than before.

DELICATE ISSUES

In our questions to Dr. Malin we turned next to the delicate issue of the loss of the *Mars Observer*. What did he make of widespread allegations that he himself had pulled the plug—or even that images were being secretly relayed back as we spoke?

Malin's reply was bitter and direct. The loss of *Observer* had been a horrible disaster for him, forcing him to fire half his staff and to move those remaining into temporary buildings. If he had sabotaged his own mission, he argued, where were the benefits? While the AOC researchers lined their pockets from writing and lecturing about such issues, he had suffered the loss both personally and financially. He then turned the question back on us: How would we respond to such cruel allegations?

As for the six-month validation period, Dr. Malin argued that this was not in any way sinister but simply a practical necessity when operating on such a small budget, allowing time to process all the images into a workable format. There were just no resources to assemble a massive team to do this instantly, as the information came in. Press releases would show important results quickly, but that was a different

process—one not budgeted for in Malins contract. The rest of the hard slog of image retrieval would take most of the six months, and whatever time was left over would be used for evaluation and interpretation.

COVER-UP, OR JUST MONEY?

The whole issue, in other words, seems to boil down not so much to secrecy as to money.

And this, in the final analysis, is why Malin says that he is so unhappy about the Face controversy—and also, more generally, about the search for biological life on Mars. In the *Viking* missions, he reminded us, looking for life on Mars had led absolutely nowhere at great expense. Money that could have been spent on bona fide scientific investigations—for

example, assessing the possibilities for future human habitation of the Red Planet—had been, in his opinion, squandered on biological experiments that were insubstantial. He sees the quest for life as little more than an ego trip for scientists wishing to be the first to make a sensational discovery.

Malin, it seems, is content just to be a scientist, not a celebrity—a point that rings true in the light of his reluctance to talk on this issue, and his failure to exploit his situation for personal financial gain. As he told us, he could earn a fortune were he to be the man who found life on Mars.

Portraying himself as a conscientious scientist who knows the limitations of NASA's budget, he says that he simply wishes to be pragmatic and get the best out of what he has rather than tilting at windmills. This is a cautious approach, and one that could be faulted for its lack of pioneer spirit—

but NASA is not endowed with limitless funds. Realistically this means that Malin, who knows from personal experience that the space program is financially flimsy, is effectively constrained from the start.

On balance it is our conclusion that NASA is not really a secretive cabal like the CIA and the FBI but a body made up of scientists and enthusiasts whose zeal for their subject is as admirable as it is infectious. A pervasive sense of something being "covered up" does, nevertheless, infect the organization, but if there is a conspiracy involving the Mars monuments and other "extraterrestrial" issues we are fairly sure that it is not at grassroots level—where there would be great excitement and interest if evidence of extraterrestrial life were ever to be found.

In any rational appraisal of the whole problem it should not be forgotten that NASA's own enthusiasts are kept in

check by government and must operate within parameters established by government. Moreover, as we have shown, the agency has been closely linked throughout its history to national defense and security. Indeed, it must be remembered that documents like the Brookings report advise that as far as possible *even the scientists themselves should be kept in the dark* if evidence of extraterrestrial life is ever confirmed.

So we cannot entirely rule out a high-level conspiracy—one way over the heads of ordinary scientists but thriving on their dogmatic, narrow-minded, and unadventurous attitudes and sustained by ferocious competition for scarce resources. Even in a conspiracy such as this, however, it might be difficult to prevent leaks of information about Mars emanating from our ancestors in the distant past.

Far-fetched though it may sound, we will show in the next two chapters that there are merits to this scenario.

16

Cities of the Gods

REMEMBER latitude 19.5 degrees north—the landing site in July 1997 of the tetrahedral *Mars Pathfinder*—and the discovery of the mathematical values *phi, pi, e*, and *t*, as well as *sqrt* 2, *sqrt* 3, and *sqrt* 5, in the pyramids and mounds of Cydonia? Several AOC researchers do not believe it can be an accident that identical geometry (and identical latitude preferences to within 2 arc minutes—that is, two-sixtieths of a degree) are

found at several archaeological sites on Earth.

In the Valley of Mexico, ancient Teotihuacan, “the place where men became Gods,” sprawls near latitude 19.5 degrees north, close to modern Mexico City. A wonder of antiquity—of unknown origins and of uncertain age—its four-kilometer-long Way of the Dead is overlooked by three monstrous pyramids: the Pyramid of the Sun, the Pyramid of the Moon, and the Pyramid of Quetzalcoatl.

In 1974 Hugh Harleston, Jr., a civil engineer obsessed with Meso-America since the 1940s, presented a controversial and revolutionary study of the city of Teotihuacan at the forty-first International Congress of Americanists.[1]

After thirty years of calculation, and more than 9,000 on-site measurements, he stumbled across the hitherto unknown system of measurement used at Teotihuacan—which he

named the STU, the Standard Teotihuacan Unit.[2] This unit is equivalent to 1.059 meters. John Michell, an authority on ancient metrology, has this to say about the STU:

> [Harleston] also recognized the geodetic significance of that unit; 1.0594063 meters is equivalent to the "Jewish rod" of 3.4757485 feet, the same unit which represents the width of the Stonehenge lintels, a six-millionth part of the Earths polar radius, and one part in 37,800,000 of its mean circumference.[3]

THE CODE

Harleston found that the measurements of structures in Teotihuacan, and also the distances between specific structures, are governed by a distinct sequence of numbers in STUs—notably 9, 18, 24, 36, 54, 72, 108, 144, 162, 216,

378, 540, and 720 STUs. Thus, for example, the length of one side of the Pyramid of the Sun at the base is 216 STU, the length of one side of the Pyramid of the Moon at the base is 144 STU, and the center of the Pyramid of the Sun lies 720 STU south of the center of the Pyramid of the Moon.

What is interesting about this sequence of numbers, as science historians Giorgio de Santillana and Hertha von Dechend have shown in their masterwork, *Hamlet's Mill*, is that it recurs continuously in ancient myths and sacred architecture all around the world.[4] These authorities have also demonstrated that the sequence is derived mathematically from an astronomical phenomenon known as the precession of the equinoxes.

To summarize briefly, it is sufficient to remind the reader that there is a minute wobble on the axis of the Earth and that this wobble has a cycle of 25,920 years. Since the Earth

is the viewing platform from which we observe the stars, it is inevitable that these minute changes in Earths orientation in space will alter the apparent orientations of stars as they appear when viewed from Earth.

The best-known effect of precession is observable on the spring equinox, 21 March in the Northern Hemisphere, and manifests as an extremely slow revolution of the twelve zodiacal constellations against the background of which the sun is seen to rise on that special day. This revolution proceeds at the rate of one degree every 72 years (and thus 30 degrees in 2,160 years). Since each of the twelve zodiacal constellations has traditionally been allocated a 30-degree segment of the ecliptic (the perceived annual path of the Sun), it follows that each will "house" the sun on the equinox for a period of 2,160 years ($12 \times 2{,}160 = 25{,}920$ years, the complete precessional cycle).

These numbers and calculations form the basic ingredients of an ancient code. Let us call it the "precessional code." In common with other esoteric numerological systems, the code is one in which it is permissable to shift decimal points left or right at will and to make use of almost any conceivable combinations, permutations, multiplications, divisions, and fractions of certain *essential* numbers (all of which relate, precisely, to the rate of the precession of the equinoxes).

The ruling number in the code is 72. To this was frequently added 36, making 108, and it was permissable to divide 108 by two to get 54—which could then be multiplied by ten and expressed as 540 (or as 54,000, or as 540,000, or as 5,400,000, etc., etc.). Also highly significant is 2,160 (the number of years required for the equinoctial point to transit one complete zodiacal constellation). This could be divided by ten to give 216, or multiplied by ten and factors of 10 to

give 216,000 or 2,160,000, etc., etc. The number 2,160 was also sometimes multiplied by two to give 4,320—or 43,200, or 432,000, or 4,320,000, and so on.

We have demonstrated in other works that the code occurs in the architecture of Angkor in Cambodia and the pyramids of Giza in Egypt.[5] At Giza we have shown that it is the key that unlocks a precise mathematical scale model of the northern hemisphere of the earth. Thus, if you multiply the height of the Great Pyramid by 43,200 you get a precise printout of the earth's polar radius, and if you multiply the measurement of the base perimeter of the Pyramid by the same figure you get a precise printout of the earths equatorial circumference.[6]

The same sort of thing happens at Teotihuacan. For example, as Harlestons survey demonstrates, the distance in STUs along the boundary buildings of the Pyramid of the

Moon—378—and the distance in STUs of one side of the base of the Pyramid of Quetzalcoatl—60—produce interesting numbers when multiplied by 100,000. The former gives the circumference of Earth and the latter the planet's polar radius.[7]

Harleston established his data by 1974, two years before the first *Viking* photographs of Cydonia were taken. We were therefore interested to learn another mathematical secret revealed by his measuring survey: the builders of Teotihuacan went out of their way to relate structures to one another through ratios of *pi* and *phi* and *e*.[8] Harlestons conclusion was that they must therefore have possessed knowledge comparable to that of modern-day geographers and astronomers:

> Here was a design whose dimensional configurations provided accurate

> universal mathematical and other constants with a minimum of shared points … laid out … to incorporate the values *of pi, phi,* and *e*. Perhaps the pyramid complex was an intended hint to latecomers to expand their consciousness for a clearer view of the cosmos and of mans relation to the whole.[9]

IT KNOWS WHERE IT IS …

The reader will recall that the D&M Pyramid at Cydonia was shown by Erol Torun to be located at latitude 40.868 degrees north, the tangent of which is the equivalent to *e/pi*. Thus he concluded that it was intelligently founded on that latitude, and self-referencing. Harleston was to discover something very similar when he measured the Pyramids of the Moon and Sun at Teotihuacan. In brief, the angle of the fourth level of the Pyramid of the Sun is set at 19.69 degrees—the exact

latitude of the pyramid itself (which stands at 19.69 degrees north of the equator).[10] It is, therefore, a self-referencing monument that makes use of geometry to tell us that it "knows where it is"—that is, it knows its own latitude—just as the D&M Pyramid does. What's more, the angle of the corresponding level of the Pyramid of the Moon, the fourth level, is set at exactly the t constant of 19.5 degrees so favored in the overall design of Cydonia.[11]

Such figures have suggested to some researchers that Teotihuacan may contain a "message"—perhaps identical to that of Cydonia—based on tetrahedral geometry and the *pi, phi, e*, and *t* constants. Nor is Teotihuacan the only object of such exotic suspicions.

MEGALITHOMANIA

Stonehenge, the great ring of megaliths that dominates Salisbury plain in Wiltshire, England, is thought to have been built between 2600 and 2000 B.C.—although with some much earlier, and some slightly later stages. It is not our purpose to embark on an exploration of this most intriguing of sites, whose astronomical and geodetic qualities would call for a book in themselves, but to review some of the comparisons to Cydonia that the Mars researchers have made.

According to Carl Munck, for example:

> The very angle off true north of [Stonehenge's] famed northeast avenue (as opposed to the current azimuth of the rising solstice sun) is, astonishingly, another key "Cydonian angle"—49.6 degrees. Identical not only to a key theoretical "tetrahedral" angular relationship [to within 0.2 arc seconds] … but also identical to another specific angle, expressed

twice in the internal geometry of the D&M Pyramid itself![12]

This angle is none other than *e/pi* when expressed in radians.

Avebury, also in Wiltshire—dated to approximately the same period as Stonehenge, perhaps even a little earlier—is the largest stone circle in the world, containing a village and two smaller stone circles within its environs. What levels of coincidence are called for to explain the fact that centers of the two inner circles of Avebury are offset from true north at an angle of 19.5 degrees?[13]

Because the angle of 19.5 degrees has no intrinsic meaning save as t, the circumscribed tetrahedral constant, we can only assume that its repeated reappearances in ancient and sacred terrestrial sites must be deliberate and must be derived from sophisticated tetrahedral geometry. But how do we explain

the fact that it also occurs repeatedly in the “monuments” of Cydonia, millions of miles from Earth, on the ruined Red Planet, Mars?

NUMBERS ON THE NILE

We have seen that what seems like a specific mathematical code involving tetrahedral geometry and numbers derived from the precession of the equinoxes lies hidden in the measurements of many of the world’s ancient sites. Paramount among these sites is Egypt’s remarkable Giza necropolis, containing the Great Sphinx and the Pyramids of Khufu, Khafre, and Menkaure.

Mars, the Red Planet: At present a bleak and barren hell, but mystery surrounds its past. *(NASA)*

The northern polar cap of Mars is formed from frozen water and carbon dioxide—perhaps the remnants, scientists believe, of a once carbon-dioxide-rich Martian atmosphere that would have

warmed the planet, allowing the now frozen water to flow freely—providing a suitable climate for the formation of life. *(NASA)*

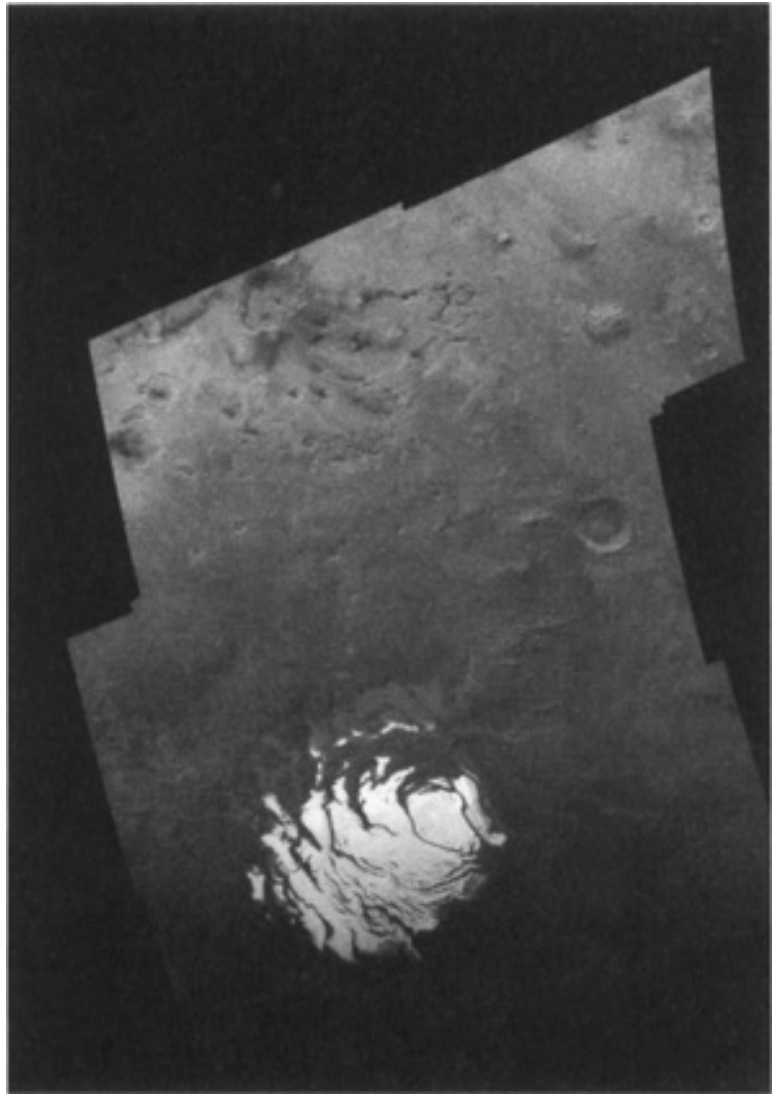

The southern polar cap of Mars consists entirely of frozen carbon dioxide. *(NASA)*

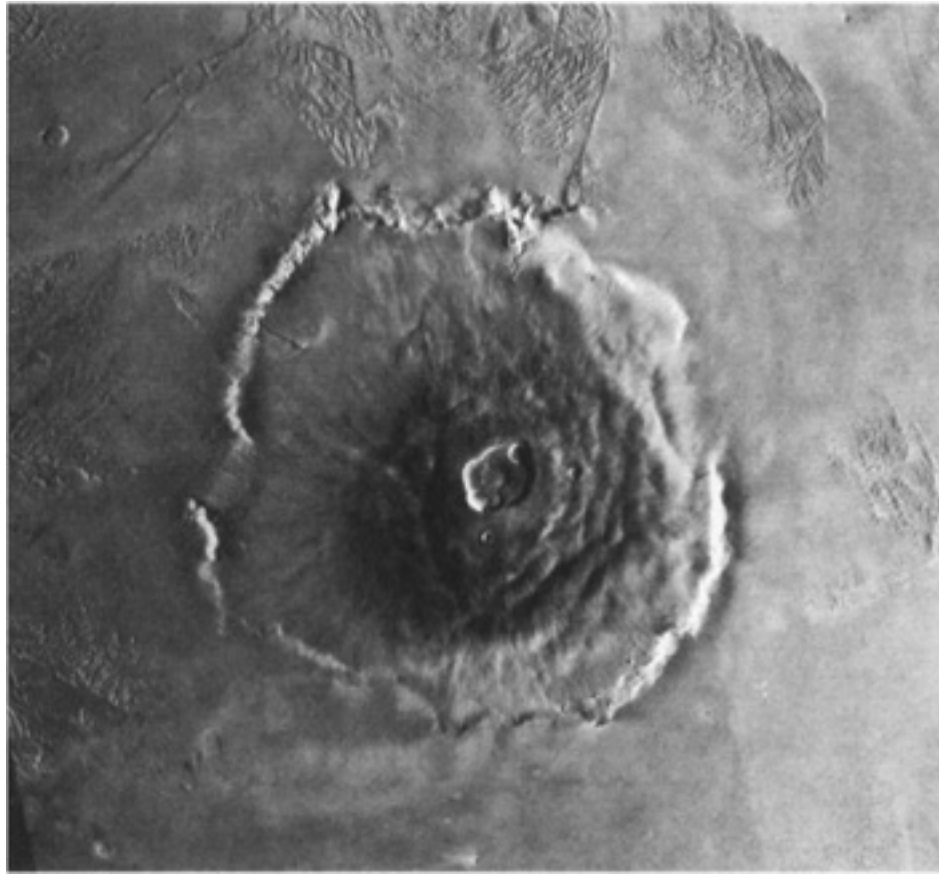

Olympus Mons: At 700 kilometers in width, it is the largest volcano in the solar system—some three times higher than Mount Everest. *(NASA)*

(ABOVE AND BELOW) The Tharsis Bulge surmounted by three gigantic shield volcanoes—Arsia Mons, Pavonis Mons, and Ascraeus Mons—known collectively as the Tharsis Montes. *(NASA)*

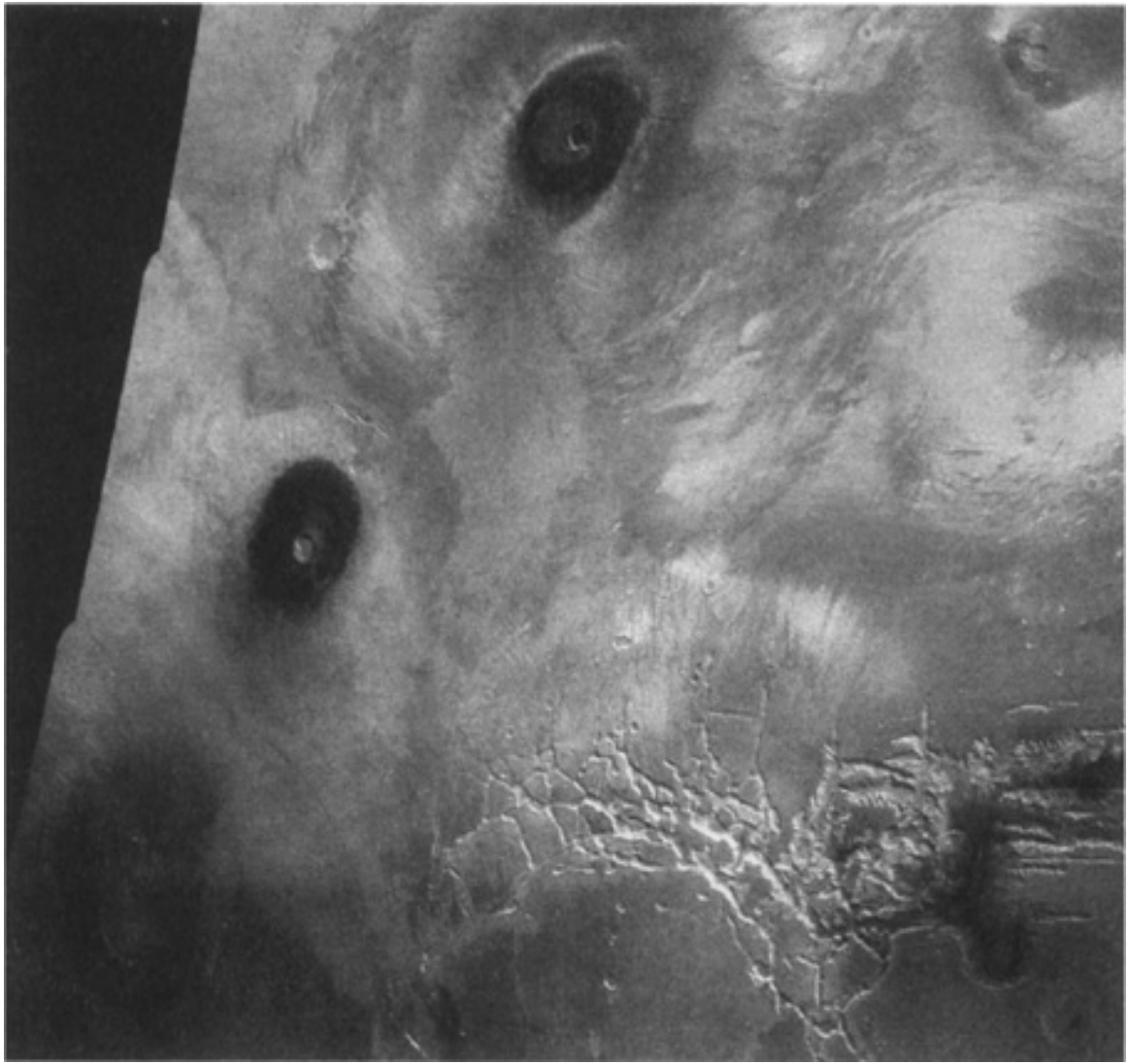

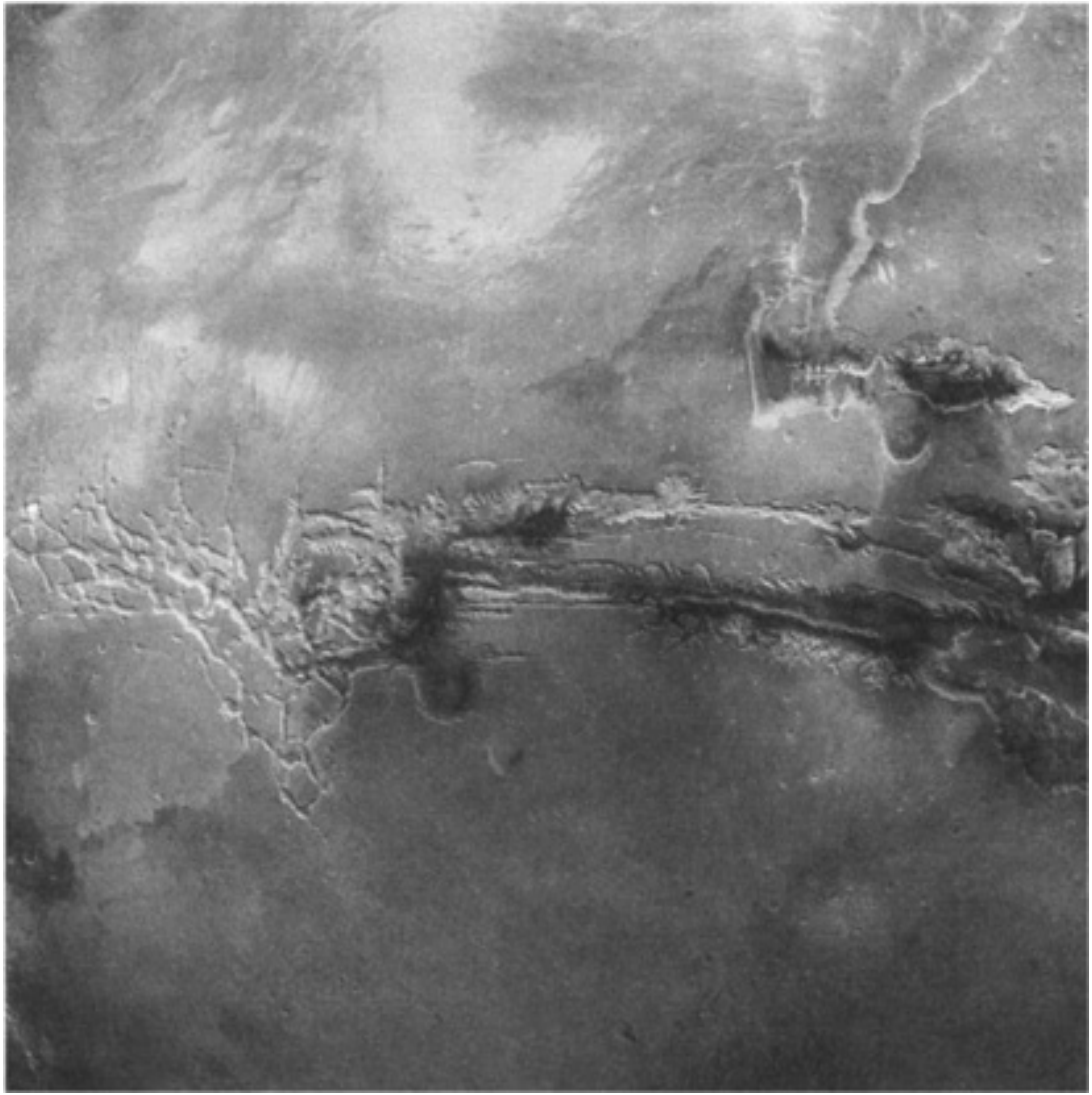

The immense canyon of the Valles Marineris is up to 7 kilometers deep, with a maximum width of 200 kilometers. *(NASA)*

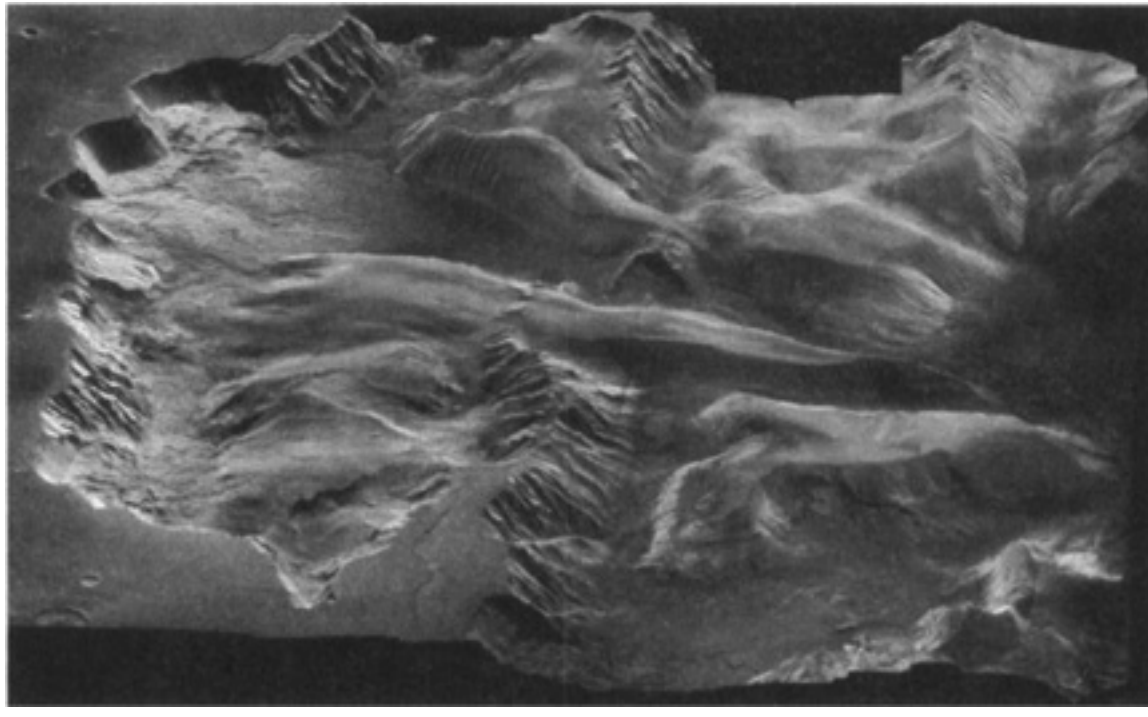

The breathtaking immensity of the Valles Marineris is shown in this computer-generated

reconstruction of the Candor Chasm, one of the deepest parts of the Valles. *(NASA)*

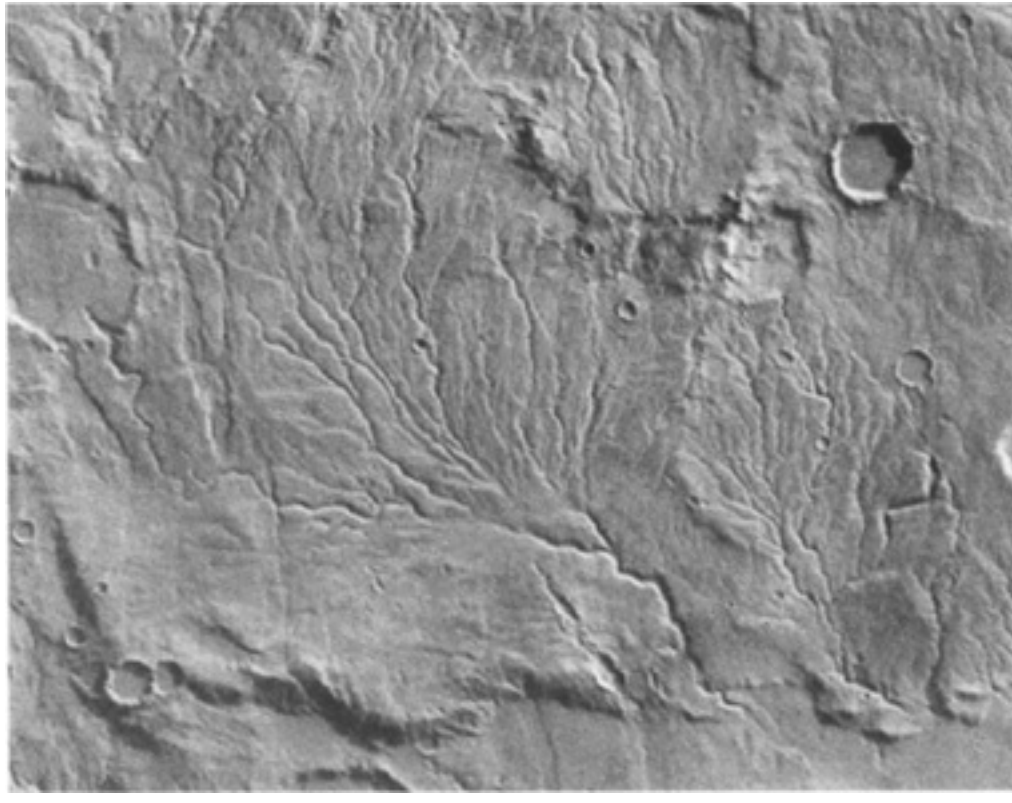

“Dendritic” channels such as these, resembling terrestrial river tributaries, give tangible evidence that barren Mars may once have been as abundant in water as Earth is today. *(NASA)*

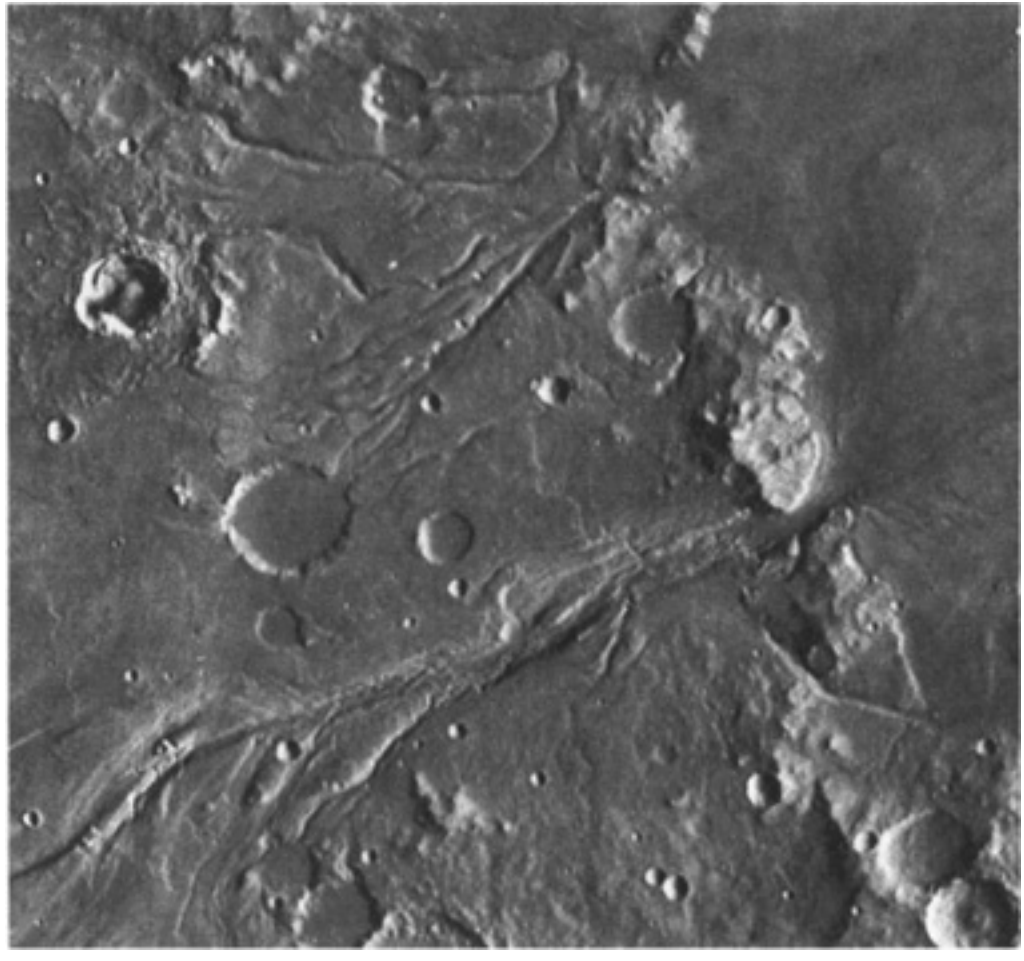

Were these channels in the Chryse Planitia formed from the movement of great bodies of water?

(NASA)

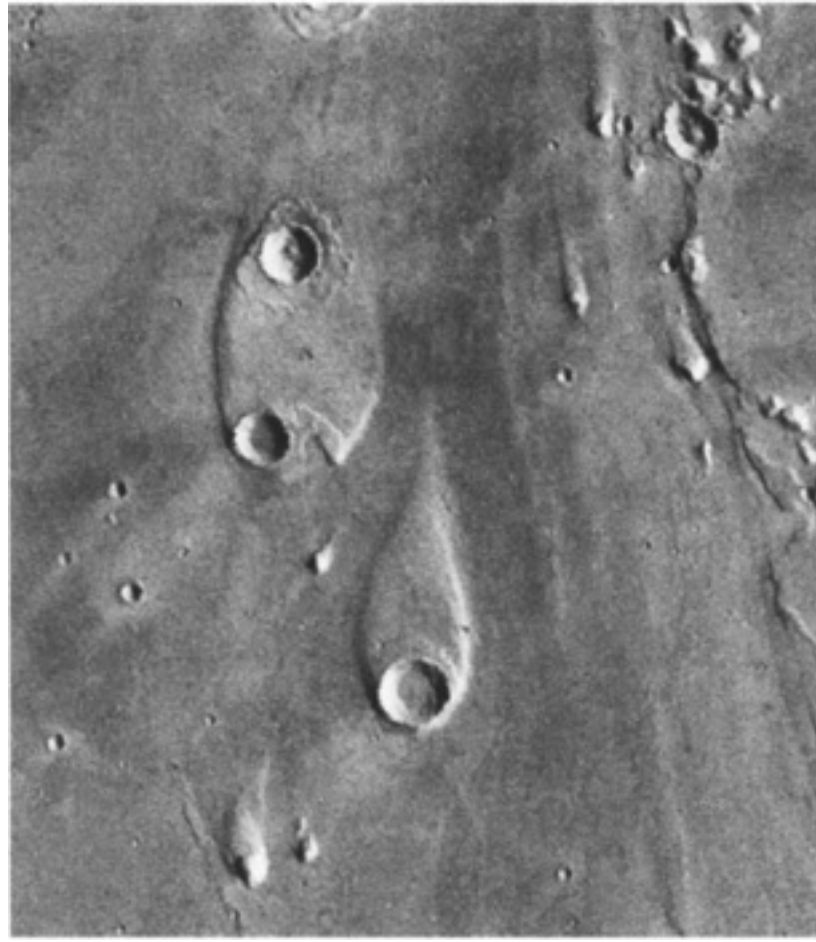

Teardrop-shaped islands in the Chryse Planitia strongly suggest that Mars may once have experienced floods of biblical proportions. *(NASA)*

The Isidis Planitia's ridged plain—1,000 kilometers across—was caused by a devastating head-on collision with an object 50 kilometers wide. *(NASA)*

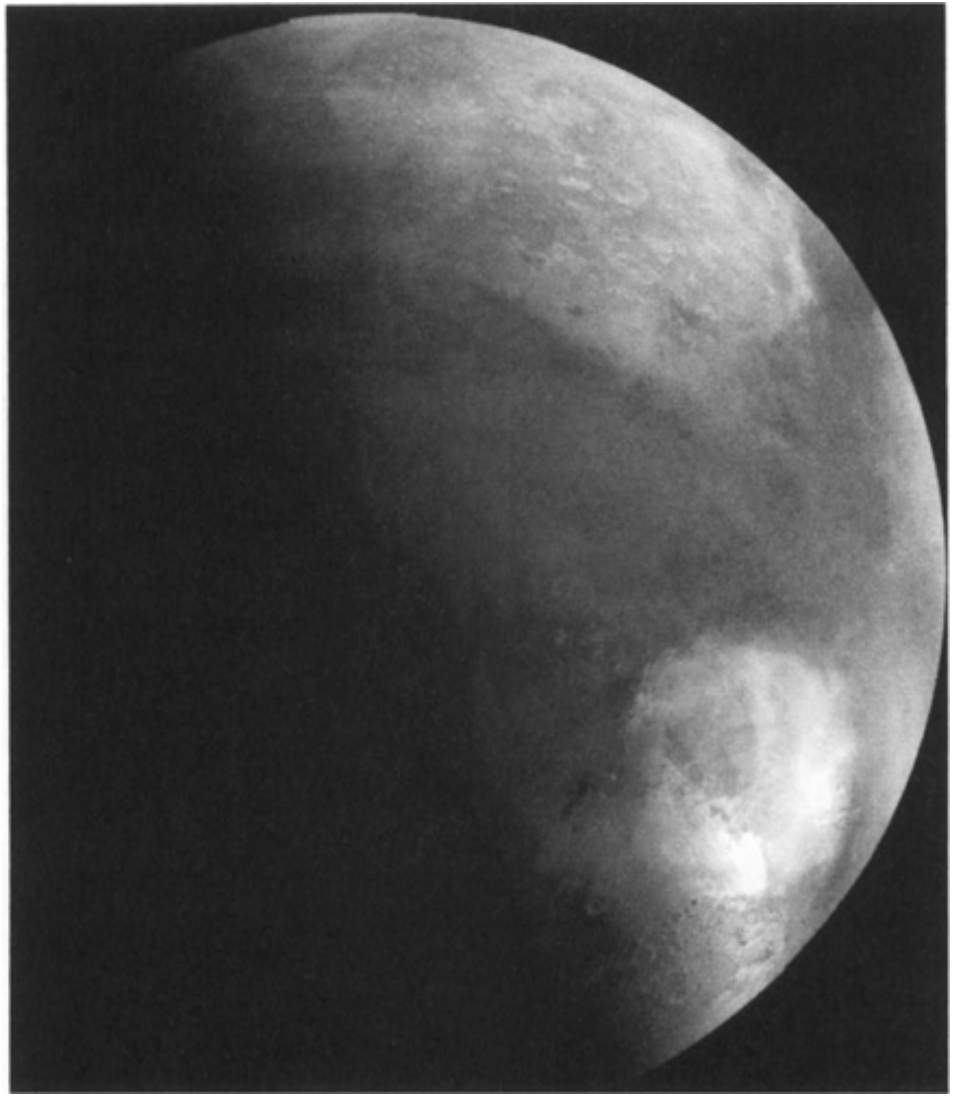

The Hellas Planitia's ridged plain, here swathed in carbon dioxide frost, was also formed by the impact of an object one hundred kilometers in size. *(NASA)*

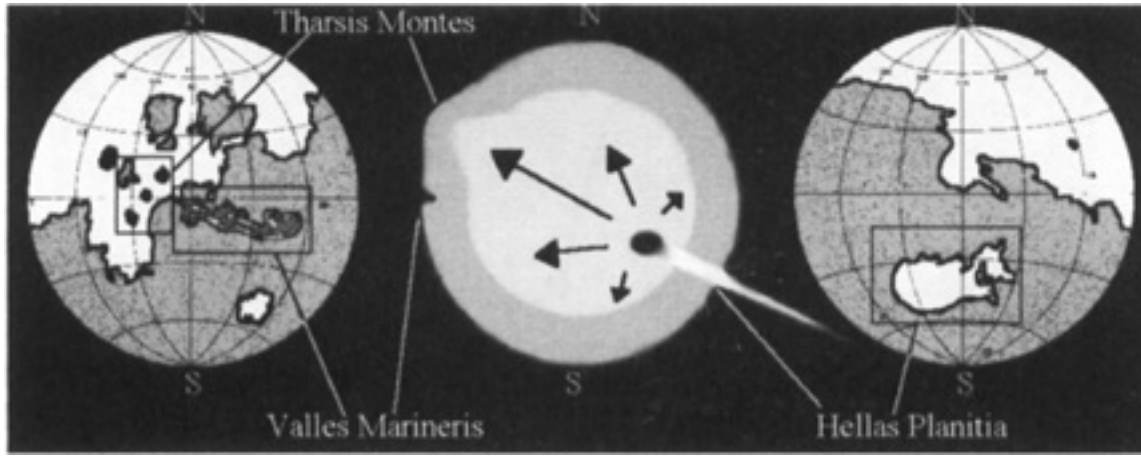

The internal distress caused by the impact of subsequent fragments may have resulted in the formation of the Tharsis Bulge in the opposite hemisphere, causing Mars to burst its seams along one-quarter of its circumference to form the chasm of the Valles Marineris.

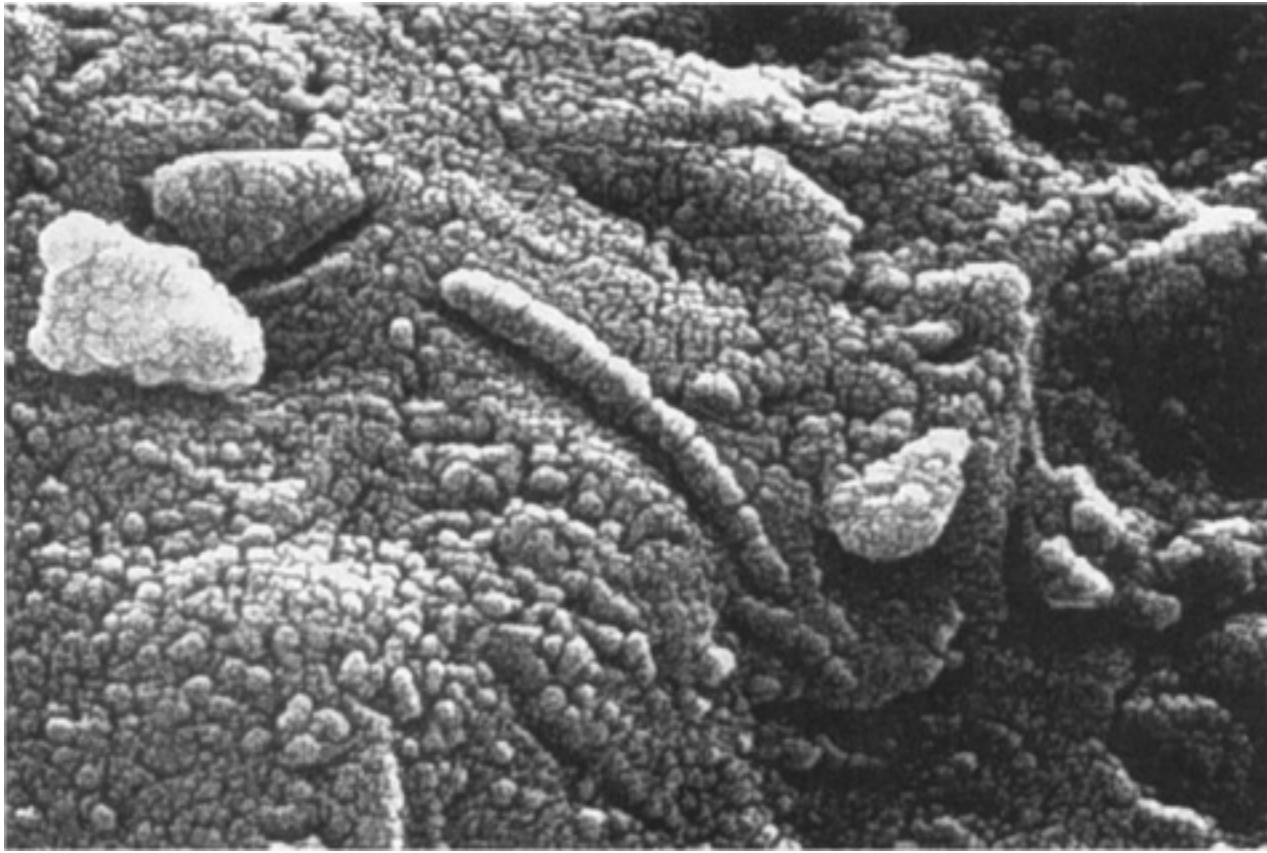

This microscopic image of a Mars meteorite shows possible fossils of bacteria-like organisms found in Martian meteorite ALH84001. *(NASA)*

Phobos—the largest of Mars's two moons. *(Internet)*

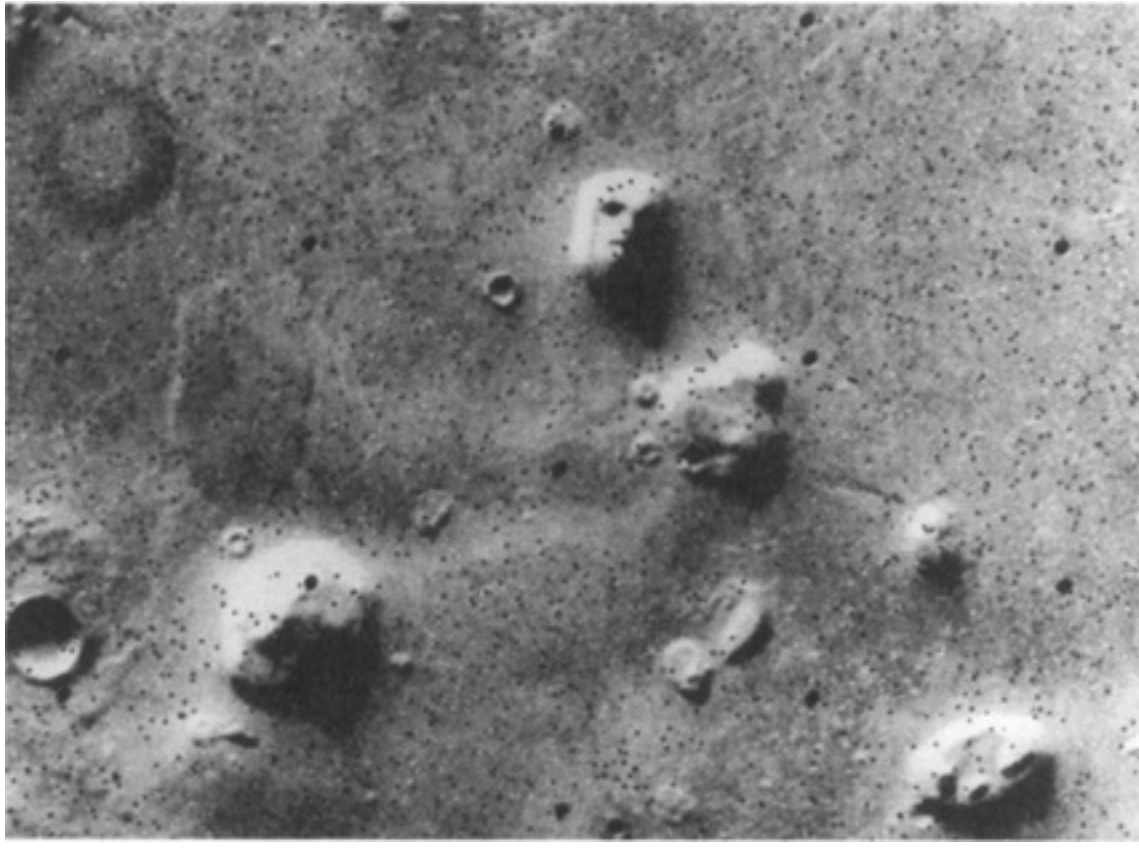

The world's first view of "the Face" on Mars as released in 1976 by the Jet Propulsion Lab in Pasadena, California. NASA immediately dismissed it as a "trick of light and shadow." *(NASA)*

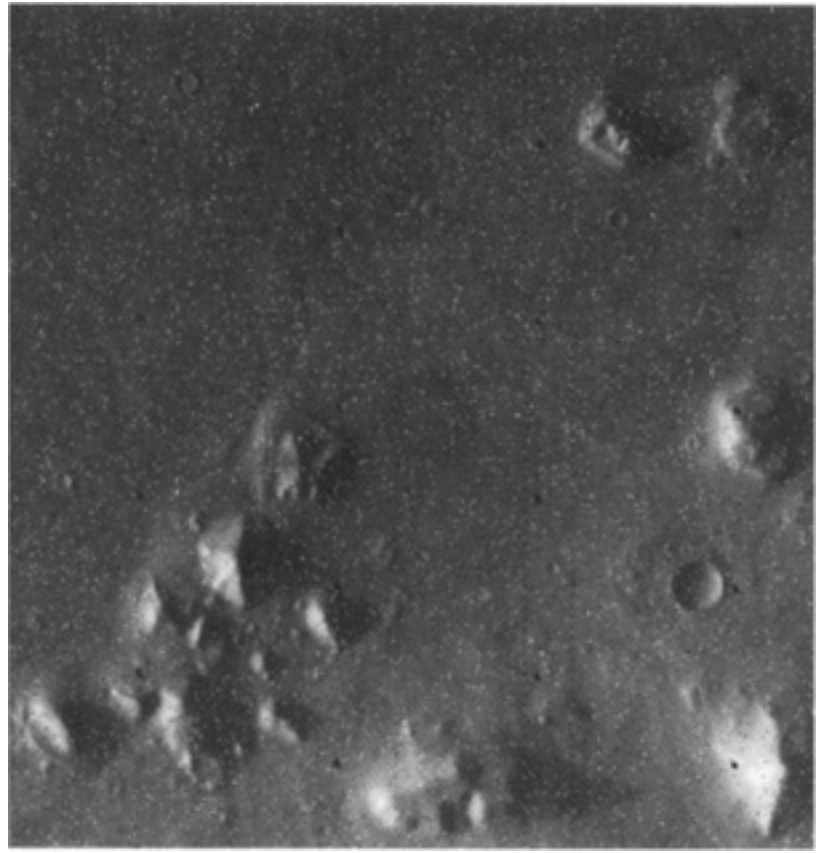

Even before computer enhancement, the haunting image of the Face clearly stares up from Viking frame 35A72. *(NASA)*

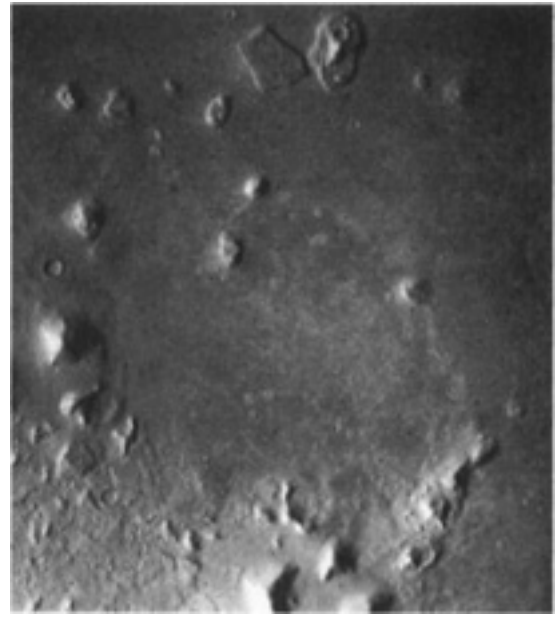

Frame 70A13, discovered by Vincent DiPietro and Gregory Molenaar, confirms evidence of frame 35A72 by revealing that the Face is not a trick of light, but actually face-like in form, as this latter frame was taken from a different position and with a different sun-angle from the first. Had it been just “a trick of light and shadow” as NASA claimed, then the Face would have disappeared when viewed from a different position. *(NASA)*

Dr. Mark Carlotto's digitally enhanced image of the Face from frame 35A72. *(Mark Carlotto)*

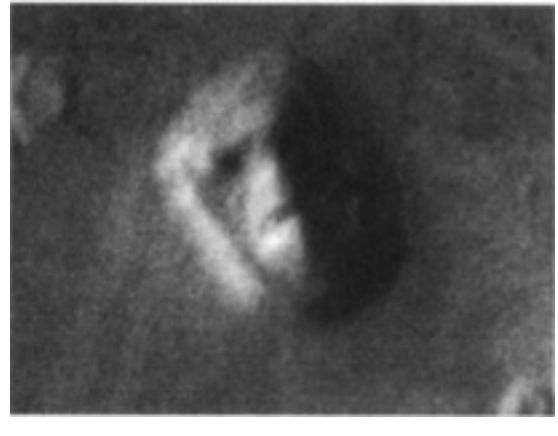

Similarly enhanced image of the Face from frame 70A13. *(Mark Carlotto)*

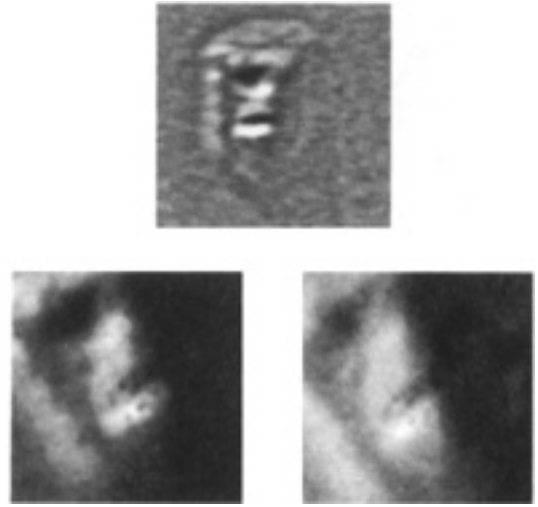

Computer image processing reveals subtle details not visible in the raw Viking images. These include bilaterally crossed lines above the eyes and stripes reminiscent of the Pharaonic *"Nemes" on* the headdress; a tear below the eye; and teeth in the mouth—all of which occur in both frames 35A72 and 70A13, thus reducing the possibility of their being artifacts of image processing. *(Mark Carlotto)*

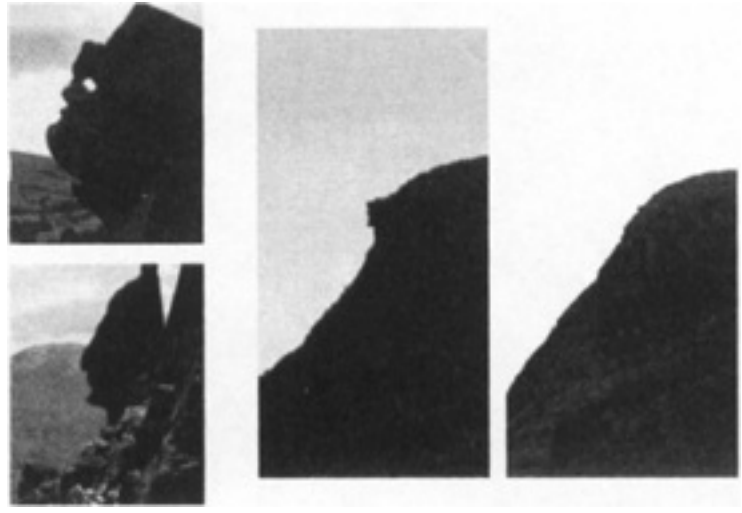

Naturally occurring “faces” on Earth (note that they only tend to occur in profile, and only work from specific angles); see how the face in the middle image disappears in the right image when photographed from a different angle, whereas the Face on Mars retains its facial characteristics from whichever position it is viewed. *(Mark Carlotto)*

On April 5, 1998 the *Mars Global Surveyor* captured this image of the Face. NASA has tried to dismiss the image as proof that the Face is natural, but the new image has only heated controversy around the Face's artificiality. *(NASA)*

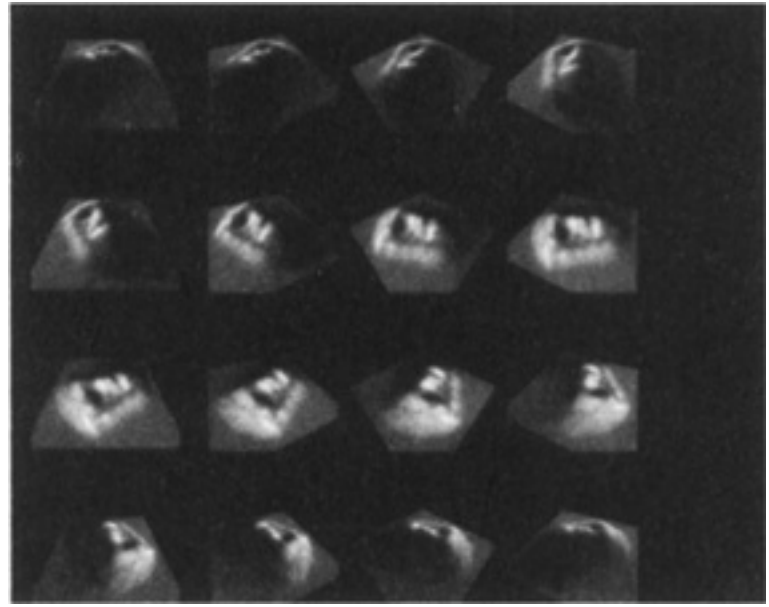

Three-dimensional reconstructions of a 1976 Viking frame, using “shape from shading” technique, of different views of the Face, revealing it to be face-like from all angles. *(Mark Carlotto)*

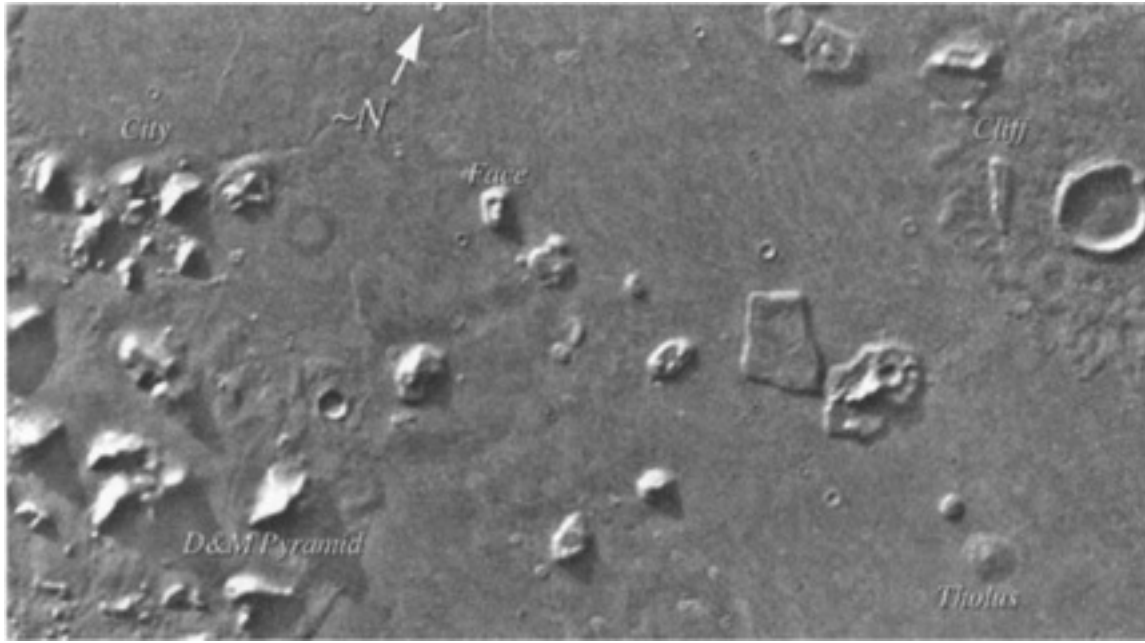

Dr. Mark Carlotto's digital enhancements of the Viking frames yields a dramatic overview of the weird grouping of the anomalies on the Cydonian plain—including the Face, the City, and the enigmatic D&M Pyramid—much more conducive to an artifical landscape than any freak arrangement of random geological processes. *(Mark Carlotto)*

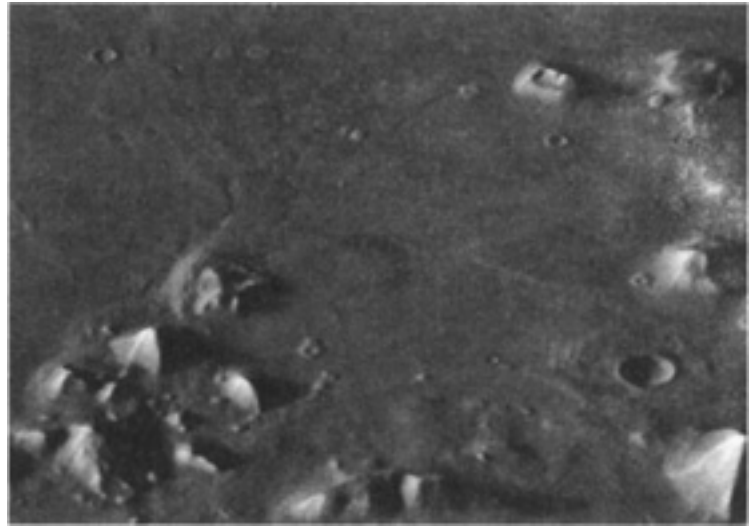

A three-dimensional computer-generated overview of the Cydonian anomalies, looking toward the Face from the City. *(Mark Carlotto)*

The enigmatic structures known as the City. *(Mark Carlotto)*

The cliff and crater. Note how the linear structure on the cliff seems unaffected by the ejectasplash of the nearby crater, as if it was positioned after the formation of the crater, pointing to the fact that this

feature is possibly non-natural, as it is not a feature of the original landscape, but a relative latecomer. *(Mark Carlotto)*

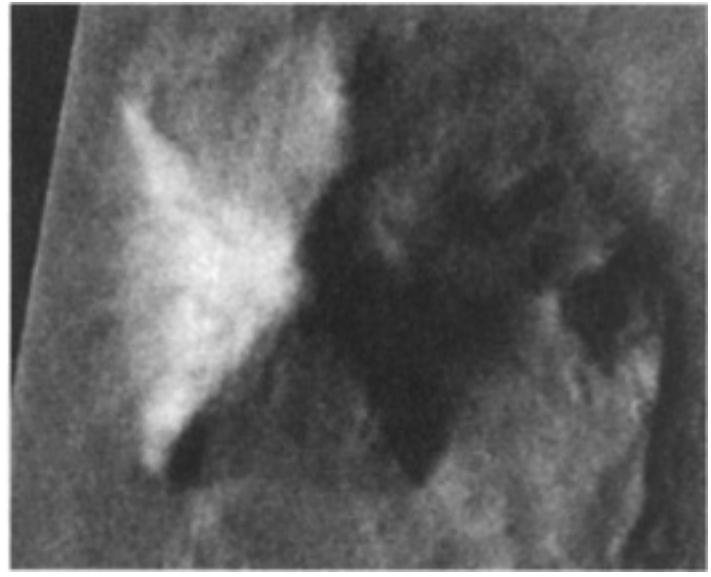

The mysterious five-sided structure known as the D&M Pyramid (named after its discoverers, Vincent DiPietro and Gregory Molenaar) rises some 1,250 meters from the surrounding plain, and is about a thousand times greater in volume than the Great Pyramid at Giza. *(Mark Carlotto)*

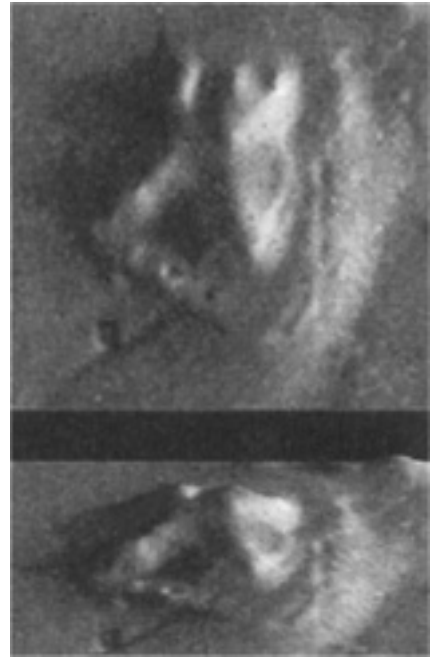

The so-called Fort with its inexplicable angular walls (top). There is no known natural process that can carve straight sides like this on the exterior and interior of an object concurrently with such angular precision. Are we witnessing a new geological phenomenon or the evidence of intelligent design? A computer-generated 3-D perspective viewed from above is seen at bottom. *(Mark Carlotto)*

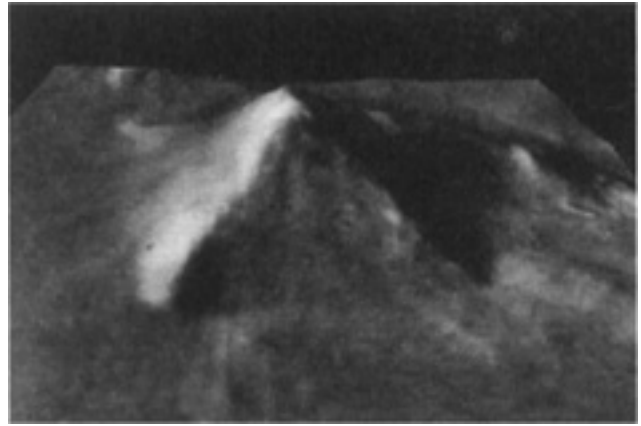

Professor Horace Crater's analysis of the layout of mounds within the City area reveal that their alignment is unlikely to have occurred naturally, as they consist of repetitious patterns of the same basic triangular units expressing meaningful geometrical measurements, whose chances of occuring naturally are astromonically low.

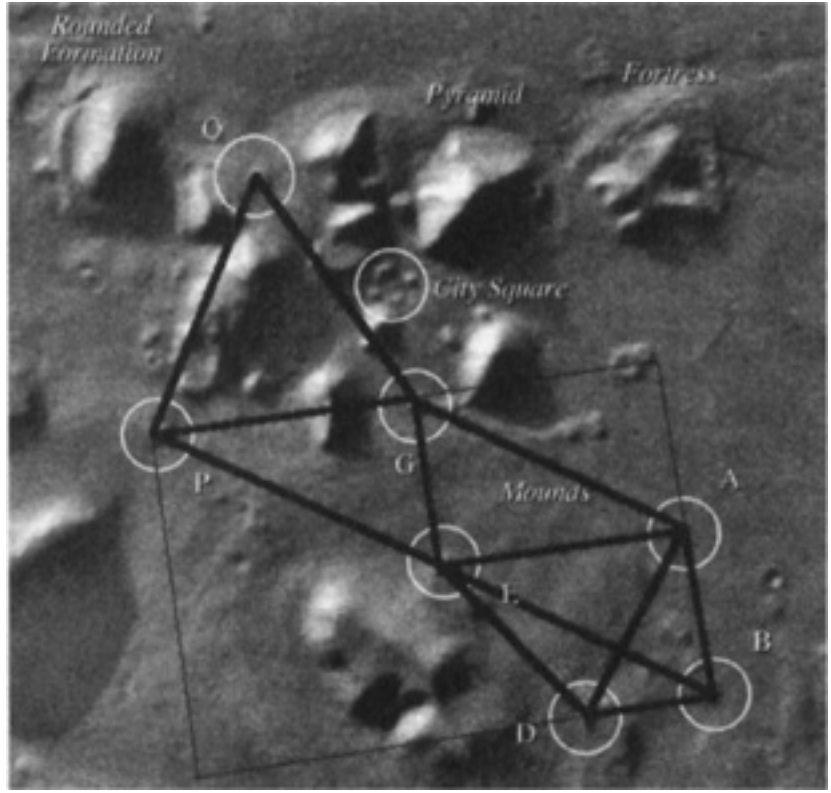

Computer-generated perspective view of the D&M Pyramid showing what some believe to be a tunnel-like entrance to the right. *(Mark Carlotto)*

Illustration of *Mars Pathfinder* and the *Sojourner* rover, whose 1997 landing was headline news worldwide, bringing Mars back into the public debate after twenty years of silence. *(NASA)*

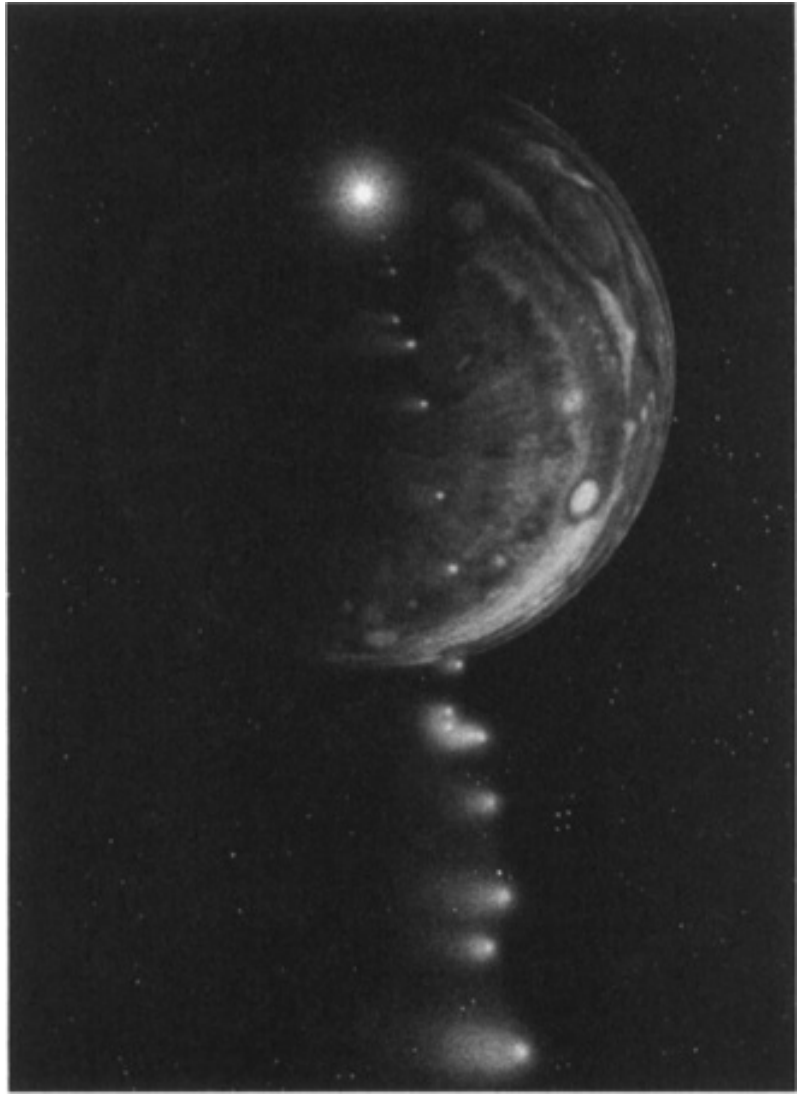

On July 16, 1994, the first of 21 fragments of comet Shoemaker-Levi 9 collided with Jupiter. Gene Shoemaker, co-discoverer of the comet, when asked what could be learned from this collision, simply replied, “Comets really do hit planets.” *(NASA)*

Our solar system is teaming with asteroids, many of which regularly cross Earth’s orbit. Here we see Gaspra, a sizeable inhabitant of the asteroid belt that lies between Mars and Jupiter. *(NASA)*

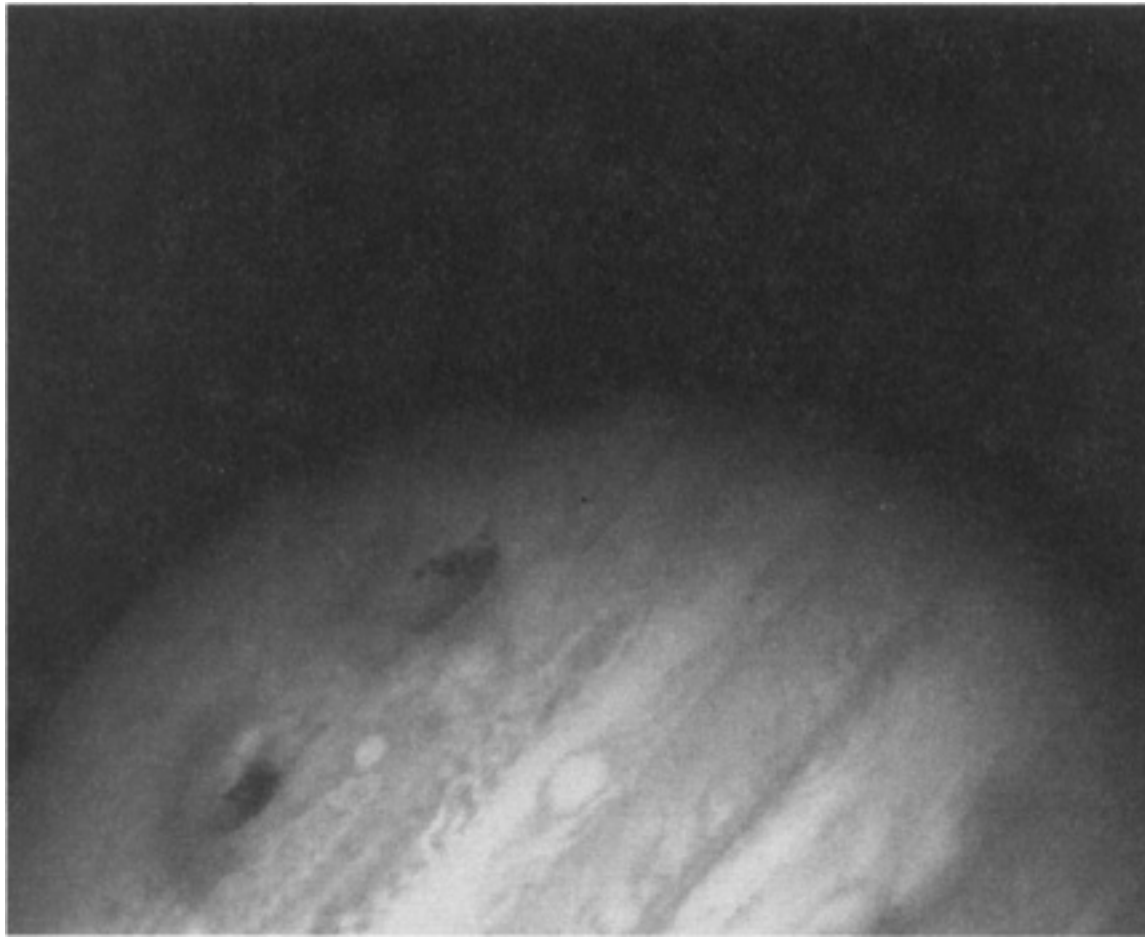

The scars left on Jupiter from the impacts of Shoemaker-Levi 9. The impact ring created by cometary

fragment G was larger than Earth. *(NASA)*

Doomsday! Cometary impacts on Earth were most probably responsible for mass extinctions in the past, such as the extinction of the dinosaurs. If Earth was to suffer a large cometary impact in the future, it is entirely possible that all human life would be wiped out in an instant. Are we doomed to

share the fate of our red neighbor and become a barren and lifeless hell-world? *(NASA/Don Davis)*

Erol Torun has shown that if we use the apexes of the three pyramids to form a Fibonacci curve (the curve produced within *phi*, the golden section) then the exact location of the Sphinx is dictated by the rectangles that house this curve—indicating that the pyramid builders must have had a good knowledge of *phi*.[14]

Other notable "number games" are as follows:

- The slope angle of the Great Pyramid is 51 degrees 51 minutes 40 seconds. The cosine of this angle is 0.6179, which can be rounded within three decimal places accuracy to 0.618. As the reader will recall the golden phi ratio is 1:1.618. The figure of 0.618 is the amount that must be added to 1 to produce *phi*.

- Correct to two decimal places, *phi* is also hinted at by the ratio between the slope of the Great Pyramid and the angle of culmination of the sun at the latitude of Giza at the summer solstice in the epoch of 2500 B.C., estimated at 84.01 degrees (51 degrees 51 minutes 40 seconds; that is, 51.84 degrees, divided by 84.01 degrees, equals 0.617).[15]
- Within the depths of the Great Pyramid, in the enigmatic King's Chamber, is it a coincidence that the wall height plus half the width of the floor produces the measurement of 16.18 royal cubits, again incorporating the essential digits of *phi?*
- Let us return to the Great Pyramids slope angle and the way in which its cosine generates a figure related to *phi*. We have also seen that there is a relationship between the slope angles of

Teotihuacan and the latitude of the site, and between Cydonia's latitude and *e/pi*. Now the Great Pyramids latitude is 29 degrees 58 minutes 51 seconds. If we round this out to 30 degrees, we will find that the cosine to within one decimal place is 0.865—that is, the tetrahedral ratio *e/pi*.

- The *e/pi* value also seems to be incorporated in the ratio of the Great Pyramids slope angle (51.84 degrees) to the slope angle of the southern shaft of the Kings Chamber (45 degrees). This ratio is again within one decimal place of *e/pi*.
- *Pi* is found in the base perimeter-to-height ratio of the Great Pyramid (1,760 to 280 cubits = 2 *pi)*.

A SINGLE UNIFYING THEME

In 1988 in an article in the obscure scholarly journal *Discussions in Egyptology*, the British mathematician John Legon published intriguing data on the siting of the Giza monuments, showing that "the size and relative positions of the three pyramids were determined by a single unifying theme."[16]

These monuments, he pointed out, are

> accurately aligned with respect to the four cardinal points, and the bases are displaced from one another in a formation that meets the requirements of a coherent dimensional relationship. Difficulties with the site chosen for each pyramid also suggest that there must have been some constraint in addition to the usual factors such as ease of construction or architectural setting.[17]

When he drew a rectangle that would exactly enclose the three pyramids, Legon discovered that its dimensions were

1,417.5 cubits east to west, and 1,732 cubits north to south.[18] Within a fractional margin of error these figures are equivalent to 1,000 × *sqrt* 2 and 1,000 × *sqrt* 3. The diagonal across the rectangle is equivalent to 1,000 × *sqrt* 5. The reader will recall that values of *sqrt* 2, *sqrt* 3, and *sqrt* 5 are found many times over in the D&M Pyramid of Cydonia.

Another point about Giza that emerges from studying Legon's work (which was undertaken without any knowledge of Cydonia) is that the placement of the pyramid of Menkaure is seemingly defined by the Cydonian tetrahedral constant *t*.[19] The northwest corner of the pyramid of Menkaure is positioned on a line subtending 19.48 degrees from due south of the adjacent (southwestern) corner of the neighboring pyramid of Khafre. And the apex of the Menkaure pyramid is positioned exactly on a line subtending 19.52 degrees from southwest viewed from the same

position.

GATEWAYS

If there are artificial pyramids on Mars filled with *pi, phi, e*, and *t* values and there are artificial pyramids on Earth filled with *pi, phi, e*, and *t* values, then the explanation must logically lie in one of four hypotheses:

1. There is no connection between the pyramids of Earth and the pyramids of Mars. The similarities are all coincidences.
2. An ancient Martian civilization that built pyramids came to Earth and taught the art of pyramid building to humans.

3. An ancient human civilization that built pyramids went to Mars and taught the art of pyramid building to Martians.
4. An ancient nonhuman civilization that built pyramids came from somewhere outside the solar system and left its mark on both Mars and Earth.

Of all these hypotheses we suggest that the first—coincidence—is the least likely to be correct. Common sense insists that *if* the pyramids of Mars are artificial, then there *must* be some connection with terrestrial pyramids.

More than 4,000 years ago, the pyramids of Giza were viewed by the ancient Egyptians as a gateway to the stars. The pyramids of Teotihuacan served exactly the same function for the ancient Mexicans. In both places men were

believed to have been transformed into gods. In both places there were astronomical myths of great suggestiveness and complexity. In both places the monuments were said to reflect the pattern of heavenly prototypes. And in both places, as we were to discover, ancient texts and traditions show a special interest in the planet Mars.

17

The Feathered Serpent, the Fire-Bird, and the Stone

HUGH Harlestons calculations of the measures of the mysterious Mexican city of Teotihuacan eventually led him to the theory, which it is beyond our scope to explore here, that this site could inscribe a vast astronomical map—in which the distances between major structures stand in relation to

the distances between the planets in the solar system.[1]

Harleston also developed a “quite unconventional” astronomical reading of an ancient Mexican myth concerning Xipe Xolotl, the twin brother of the high god Quetzalcoatl. The mythical bringer of civilization to Mexico at the beginning of the present epoch of the earth, Quetzalcoatl was often symbolized—notably at Teotihuacan itself—as a fiery feathered serpent (the name Quetzalcoatl means “feathered serpent”). Both Xipe Xolotl and Quetzalcoatl are also enigmatically spoken of in these myths as having been skinned—literally “flayed” alive (and, indeed, the flaying of sacrificial victims was a standard practice in ancient Mexico, particularly among the Aztecs, the last people to transmit the ancient myths before the coming of the Spaniards).

Harlestons reading sees the symbolism of Quetzalcoatl as referring, at one level, to

> a flayed planet—the twin to Mars—whose outer surface is conceived to have been deliberately "peeled-off like an orange…." According to this reading, the damaged twin companion—Xipe Xolotl, the flayed Red God of the East, or Mars, retreated to a new position.[2]

This imaginative rendering does make us think.

As we have seen, Mars *is* technically a "flayed planet" with the hemisphere north of the line of dichotomy lying on average three kilometers lower than the southern hemisphere—which in its turn bears the scars of a cataclysmic bombardment. Could the myth of Xipe Xolotl be some garbled remembrance of such a catastrophe—involving the Red God of the East, Mars, having his skin flayed from his body by a "fiery serpent"? If so, then we are obliged to ask what real—as opposed to mythological—entity could fit the description of a fiery, feathered, or winged (and hence in

some ways bird-like) serpent flying across the heavens with vivid plumes stretching out behind it.

Throughout history, and in all cultures, it may be significant that precisely such imagery has again and again been applied to comets. For example, Donati's comet of 1858, the "most splendid comet of the nineteenth century," was spontaneously described by eyewitnesses in the following terms:

> It had a head like a serpent, its body near the nucleus twisted and turned like a gigantic red serpent, and its tail, flashing like golden scales, spread over 40 million miles.[3]

We will see in part 4 that the nuclei of comets can be very large—up to several hundred kilometers in diameter—and can travel at speeds in excess of a quarter of a million kilometers per hour. Were such an object to strike a planet—

Mars or Earth—it would certainly release sufficient impact energy to cause unimaginable devastation—perhaps even enough to “flay” its victim of its stony outer crust or “skin.”

ASTRONOMICAL CYCLES

In Indian myth the god Vishnu lies sleeping on the cosmic ocean wrapped in the coils of the Naga serpent Ananda. From out of Vishnu’s navel a lotus arises on which is seated the four-headed creator, Brahma. Brahma lives for one hundred Brahma years (vastly, infinitely longer than human years), on each day of which he opens and closes his eyes a thousand times. When he opens them a world comes into being; when he closes them a world comes to an end—a thousand worlds a day, millions of universes spawned and destroyed in his lifetime. When Brahma dies, the lotus closes, and withers.

Then from Vishnu's navel a new lotus blooms, a new Brahma is born, and the process begins again.[4]

Each cycle of coming in and out of existence is itself subdivided into four stages, or epochs, called Yugas: the Krita Yuga (consisting of 1,728,000 human years), the Treta Yuga (1,296,000 human years), the Dvapara Yuga (864,000 human years), and finally the age in which we now find ourselves, the Kali Yuga (432,000 human years.)

Significantly, as Professor Hermann Jacobi has pointed out:

> The astronomical aspect of the yuga is that, in its commencement, sun, moon, and planets stood in conjunction in the initial point of the ecliptic, and returned to the same point at the end of an age. The popular belief on which this notion is based is older than Hindu astronomy.[5]

So the archaic marker for the end of an epoch is, in the

final analysis, an astronomical one, an actual event in historical time, denominated in terms of the precession of the equinoxes. This is the cyclical process, described in the last chapter, which slowly shifts the zodiacal constellations against the background of which the sun rises on the spring equinox. (As the reader will recall, sun and stars were said to return to any arbitrarily defined starting point along the ecliptic—and the cycle begins again—once every 25,920 years.)

Not only in ancient India, but all around the world, it was understood that our present epoch of the earth is only one of a succession of such epochs—each with their own distinct and characteristic starting and ending points. Not only in ancient India, but all around the world, it was understood that the end of each cosmic epoch would be brought about by a cataclysm and followed by the birth of a new age.

PERIODIC DESTRUCTIONS

According to the Hopi of Arizona:

> The first world was destroyed, as a punishment for human misdemeanors, by an all-consuming fire that came from above and below. The second world ended when the terrestrial globe toppled from its axis and everything was covered with ice. The third world ended in a universal flood. The present world is the fourth. Its fate will depend on whether or not its inhabitants behave in accordance with the Creators plans.[6]

In Aztec and Mayan mythology, we are living in the fifth epoch of creation, characterized as the "Fifth Sun." The fourth epoch was said to have been brought to an end by a great flood in which almost all men died ("There was water for fifty-two years and then the sky collapsed"). And it was

prophesied that the fate of the fifth epoch—our own—is that it will end in a cataclysmic "movement of the earth" that will destroy civilization and perhaps even exterminate all traces of human life.[7] In the enormously sophisticated mathematical and calendrical system of the Maya, which we have explored at length in other works, the date of this coming cataclysm was foretold. That date is 4 Ahau 8 Kankin. When it is translated into the Gregorian calendar that we use today it becomes A.D. 23 December 2012.

Ancient Egypt also preserved complex beliefs concerning the cyclic creation and destruction of worlds. The little-known Edfu Building Texts,[8] for example, speak of a remote golden age, many thousands of years in the past, when the gods themselves lived on an island—the "Homeland of the Primeval Ones." The texts tell us this island was utterly destroyed in a terrible storm and flood caused by "a great

serpent."[9] The majority of the "divine inhabitants" were drowned,[10] but the survivors of the cataclysm settled in Egypt where they became known as "the Builder Gods, who fashioned in the primeval time, the Lords of Light."[11] According to the Edfu Texts, it was these survivors who set out the foundations of all the future pyramids and temples of Egypt and who handed down the religion that would much later be practiced throughout the land under the semi-divine rule of the Pharaohs.

THE BENBEN OF HELIOPOLIS

The religious system practiced at the pyramids of Giza in Egypt was administered from the nearby sacred city of Heliopolis and had, as its central icon, a pyramidal stone called the Benben, which was said to have been made of *bja*

metal (literally, “metal from heaven”). As we have argued at greater length elsewhere, there seems little doubt that this object, which was venerated in a special temple at Heliopolis called Het Benbennet—literally “Mansion of the Phoenix”—was a fragment of an iron meteorite.[12]

Essentially there are two sorts of meteorites: stone and iron. The iron, for obvious reasons, tend to be black and often larger than the stone variety, since they suffer little or no damage when they hit soft ground. Also, when entering the earth’s atmosphere, some iron meteorites retain their direction of flight rather than roll about. These are called “oriented”—that is, they maintain their orientation as they fall, like an arrow or pointed artillery shell. As these oriented meteorites are heated during their fiery fall, their front part tends to melt and taper down. When found, therefore, they characteristically have the shape of a cone. Two good

examples are the large conical—indeed almost pyramid-shaped—meteorites Williamette (to be seen in the American Museum of Natural History, New York) and Morito (presently on exhibit at the Danish Institute of Metallurgy).[13]

Many religious cults that venerated sacred meteorites existed in the ancient world. The cult at Delphi certainly had a meteoritic origin.[14] Pliny (A.D. 23–79) reported that a "stone which fell from heaven" was worshiped at Potidae.[15] The cult of meteorites was particularly rife in Phoenicia and Syria.[16] The sacred black stone of the Kaaba in Mecca is believed to be a meteorite.[17] And in ancient Phrygia (central Turkey) the great Mother of the Gods, Cybele, was represented at the temple of Pessinus by a black stone fallen from the sky.[18]

Sir E. A. Wallis Budge was the first scholar to suggest that the Benben stone of the ancient Egyptians must have

belonged to this class of objects.[19] Subsequently another Egyptologist, J. P. Lauer, independently concluded that the Benben could only have been a meteorite.[20] Our own research has also convinced us of the very high probability that a large, oriented iron meteorite may have fallen near Giza some time in the first half of the third millennium B.C. From depictions of the Benben stone, it would seem that this meteorite was from 6 to 15 tons in mass, and the frightful spectacle of its fiery fall would have been impressive. The fall would have been presaged by loud detonations caused by shock waves, and even in daylight a fireball with a long plumed tail would have been visible from far away. Rushing to the spot where it landed, people would have seen that the "fire-bird" had disappeared, leaving only a black, pyramid-shaped *bja* object, or cosmic egg—the oriented iron meteorite.

FLIGHT OF THE PHOENIX

Intimately linked to the Benben in terms of symbolism and religious significance, and stemming from the common root word *ben*, was the *bennu* bird, the ancient Egyptian phoenix—the cult of which was also centered at Heliopolis. At widely separated cyclic intervals of many thousands of years, this creature was said to have

> fashioned a nest of aromatic boughs and spices, set it on fire and was consumed in the flames. From the pyre miraculously sprang a new Phoenix, which, after embalming its father's ashes in an egg of myrrh, flew with the ashes to Heliopolis where it deposited them in the altar of the sun-god Ra. A variant story made the dying Phoenix fly to Heliopolis and immolate itself in the altar fire, from which the young Phoenix then rose…. The Egyptians associated the Phoenix with immortality.[21]

Comparable in many ways to Quetzalcoatl, the fiery-winged (bird-like) serpent,[22] the defining qualities of the bennu/phoenix are therefore as follows:

1. It is a thing that flies.
2. It is a thing that returns, after long intervals.
3. It is a thing that is "consumed in flames."
4. It is in some way reborn, or renewed, on each return.
5. It is closely associated with the Benben meteorite —an iron "egg" fallen from heaven, which the ancient Egyptians are known to have kept in Het Benbennet, the "Mansion of the Phoenix" in Heliopolis.

CODE FOR A COMET?

It is often a mistake to give literal interpretations to the symbols of ancient religions. And we accept that the *bennu* and the Benben must be ranked among the most complex, subtle, and sophisticated symbols to be found anywhere in the ancient world. We have explored the spiritual implications of this symbolism elsewhere in our work.[23] But it is a characteristic of such powerful images as the phoenix and the stone that they can be employed at many different levels of meaning.

If we take the images literally and start looking around in the natural world for something that flies, which returns at cyclical intervals, which has the appearance of being "consumed in flames," which is mysteriously "renewed" on each occasion, and which is associated with meteorites, then

there is really only one class of objects known to scientists today that could possibly fit the bill.

These objects, once again, are comets—the same objects symbolized in Mexican myths as fiery feathered or winged serpents, which we shall have the opportunity to investigate in part 4. Comets are responsible for several spectacular meteor showers that the earth encounters every year—showers consisting of relatively small scattered chunks of fragmenting parent comets, which continue to circulate in the same orbits as the showers. The family resemblance is obvious:

- Comets can truly be said to be associated with meteorites in much the same relationship as the "parent" bennu-phoenix to the "offspring" Benben stone that falls to earth.

- Comets, of course, “fly.”
- Since comets are in orbit they also return to our skies at cyclical intervals—some as short as 3.3 years, in the case of Encke’s comet, some longer than 4,000 years, in the case of comet Hale-Bopp, some even running into tens of thousands of years.
- Comets do literally undergo a process of renewal—indeed, rebirth—on each appearance in our skies. This is because comet nuclei are usually inert and utterly dark while traveling through deep space, producing no characteristic glowing coma and sparkling tail. However, as a comet approaches the Sun (and Earth), the solar rays cause volatile materials buried in its interior to burst into boiling, seething activity, producing jets of gas—scientists call the process “outgassing”—and shedding millions

of tons of exceptionally fine dust and debris to form the coma and the tail.

Last but not least, outgassing comets do have the appearance of being consumed in flames—and the collision of any cometary fragment with Earth itself could lead to a gigantic, even worldwide, conflagration, *followed by a global flood*, as we shall see in part 4.

CLUES IN THE STARRY LANDSCAPE

The religion of the phoenix and the Benben, practiced at Heliopolis in the Pyramid Age—and for which the pyramids and the Great Sphinx of Giza were undoubtedly the central spiritual monuments—conveyed a distinctive system of

teachings, which we have explored in several previous books.[24]

According to this religious system the afterlife journey of the soul is undertaken in a region of the sky known as the Duat—which has specific coordinates, demarcated on one side by the constellation Leo and on the other by the constellations Orion and Taurus. Through the middle of this skyscape, at the bottom of a wide, dark "valley," flows the celestial counterpart of the sacred river Nile—the stunning feature that we now call the Milky Way and that the ancient Egyptians knew as the "Winding Waterway."[25]

The gist of our previous work has been to show that it is not only the Milky Way that has a terrestrial twin in Egypt. The constellation Orion, represented by its three belt stars, is mirrored by the three pyramids of Giza.[26] The constellation Taurus, represented by two bright stars in the characteristic

V of its horns is twinned with the two pyramids of Dashur.[27] And the constellation Leo has as its terrestrial counterpart the lion-bodied Sphinx of Giza.[28]

We saw in chapter 16 that precession alters the positions of all the stars in the sky according to a great cycle of 25,920 years—a cycle that proceeds at the rate of one degree every 72 years and that is most easily observable (although not within the short span of one human lifetime) as the precession of the equinoxes.

In *The Orion Mystery, Fingerprints of the Gods*, and *The Message of the Sphinx*, we have demonstrated with a substantial body of evidence that the pattern of stars that is duplicated on the ground at Giza in the form of the three pyramids and the Sphinx represents the disposition of the constellations Orion and Leo as they looked at the moment of sunrise on the spring equinox during the astronomical Age of

Leo (the epoch in which the Sun was "housed" by Leo on the spring equinox).

Like all precessional ages, this was a 2,160-year period. It is generally calculated to have fallen between the Gregorian calendar dates of 10,970 B.C. and 8810 B.C.[29] In this epoch, and in no other, computer simulations of the effects of precession show that the three stars of Orion's belt—when viewed at dawn on the spring equinox—would have stood due south at the meridian in the pattern of the three pyramids on the ground, and that the Sun rose due east, in line with the gaze of the Sphinx, with the constellation Leo—the Sphinx's celestial counterpart—poised directly above it.[30]

There is geological evidence, which we will not repeat here, that the Sphinx may in fact date back as far as the eleventh millennium B.C.[31] But we do not dispute that the pyramids were built, or mostly built, during the *third*

millennium B.C.—the date attributed to them by Egyptologists. Moreover, although we are satisfied that the ground plan of the Giza necropolis was conceived as an image of the equinoctial sky in the Age of Leo—10,970 B.C. to 8810 B.C.—we also note that the Great Pyramid has pronounced astronomical connections to the much later epoch of 2500 B.C. (the date at which Egyptologists believe it was built). These connections, which could not be more explicit, are the carefully angled shafts that emanate from the so-called Kings Chamber and Queens Chamber.[32] There are two shafts in each chamber, one of which points due north and the other due south. In the epoch of 2500 B.C.—and *only* in that epoch—precessional calculations show that all four of the shafts would have lined up like gunsights on the meridian transits of four stars that are known to have been of great significance to the ancient Egyptians:

From the Queens Chamber, the northern shaft is angled at 39 degrees and was aimed at the star Kochab (Beta Ursa Minor) in the constellation of the Little Bear—a star associated by the ancients with "cosmic regeneration" and the immortality of the soul. The southern shaft, which is angled at 39 degrees 30', was aimed at the bright star Sirius (Alpha Canis Major) in the constellation of the Great Dog. This star the ancients associated with the goddess Isis, cosmic mother of the kings of Egypt.[33]

From the King's Chamber, the northern shaft is angled at 32 degrees 28' and was aimed at the ancient Pole star, Thuban (Alpha Draconis) in the constellation of the Dragon—associated by the pharaohs with notions of "cosmic pregnancy and gestation." The southern shaft, which is angled at 45 degrees 14', was aimed at Al Nitak (Zeta Ononis), the brightest (and also the lowest) of the three stars of Orion's belt—which the ancient Egyptians identified with Osiris, their high god of resurrection and rebirth and the legendary bringer of civilization to the Nile Valley in a remote epoch referred to as Zep Tepi, the "First Time."[34]

A VAST AND EXTRAORDINARY STATEMENT

Because we can reconstruct the ancient skies over Giza with modern computers we can demonstrate the perfect alignments of the four shafts to the four stars circa 2500 B.C. What the same computers also show us is that these alignments were rare and fleeting, only valid for a century or so. After that the continuous gradual change effected in stellar declinations by the passage of time altered the positions at which the stars transited the meridian. It therefore seems inescapable—whatever their connections to the date of 10,500 B.C.—that the pyramids are also signaling an extremely close connection to the date of 2500 B.C.

Indeed, we are prepared to go further. It is our hypothesis that one of the multiple and complex functions of the monuments of the Giza necropolis may have been to make

some sort of *statement* about two widely separated astrological ages—the Age of Leo, 10,970 B.C. to 8810 B.C. (in which falls the earlier date spelled out by the ground plan), and the Age of Taurus—that is, when Taurus housed the Sun on the spring equinox, generally put at 4490 B.C. to 2330 B.C. (in which falls the later date spelled out by the star shafts).

Only a statement of vast and extraordinary significance could have justified such a vast and extraordinary undertaking—for any rational analysis of the pyramids shows that they must have been built with enormous, almost unlimited resources, and the focused attention of the very best minds of the age over a sustained period of time. Indeed, their standards of precision are so high, and coupled with the use of such gigantic megaliths, that it is not certain they could be built today even with the best modern technology.

Then, and now, they stand at the very edge of what is possible.

What were the ancients trying to say that they felt was worth such a superhuman effort?

GODS AND THEIR STARRY COUNTERPARTS

The pyramids and the Great Sphinx of Giza are uninscribed monuments that have never been proven to be just “tombs and tombs only,” as Egyptologists like to tell us. Indeed, all that the monuments tell us about themselves—from their alignments, their shafts, and the presence within them of empty sarcophagi—is that their builders connected them to the stars, to the cyclical flow of time as measured by precession, and to ideas about death. The Heliopolitan

religion that was practiced around them, however, has left us a gigantic legacy of texts, some inscribed on the walls of later pyramids (the so-called Pyramid Texts), which help to fill in the picture.

We have already encountered the Heliopolitan symbolism of the Benben stone and the *bennu-phoenix*. It is as well to remind ourselves also of some of the principal Heliopolitan gods and of their astronomical counterparts:

- Atum-Ra, the creator, the father of the Gods, identified with the Sun.[35]
- Osiris, the first divine pharaoh of Egypt, later transformed into the god of death and rebirth, associated with the constellation of Orion.[36]
- Isis, goddess of magic, sister and consort of Osiris, associated with the star Sirius.[37]

- Set, god of storms and chaos, violence and darkness, fire and brimstone, the murderer of Osiris and usurper of his kingdom, associated with the constellation of Taurus.[38]
- Horus, the revenging son of Osiris and Isis who defeats Set and restores his fathers kingdom, associated with the constellation of Leo, with the Sun when it is "in" the constellation of Leo, and also with a planet that sometimes passes between the paws of the constellation of Leo—the planet Mars, as we shall see.[39]

MESSAGE OF THE CATACLYSM

The Egyptian golden age over which Osiris was said to have

presided is referred to in the Pyramid Texts as Zep Tepi—literally the "First Time." This word *tepi*, as we have shown in *The Message of the Sphinx*, refers to a new cycle of time ushered in symbolically by the appearance of the phoenix flying from the east, alighting in Heliopolis, and starting time with its cry. We are now beginning to wonder, however, if it is only a *symbolic* ushering in that was intended here. Or is it possible that the "phoenix" with its fiery, meteoritic associations could in fact *be* a comet, as we suggested above. Perhaps a comet that was seen to return to the skies over Egypt at cyclical intervals, on each occasion capsizing the old order of the world and ushering in the new?

We suspect, and have argued at length in our works,[40] that the story of the golden age of Osiris may have historical foundations in a lost prehistoric civilization—highly advanced both scientifically and spiritually—that was

obliterated more than 12,000 years ago in the huge global cataclysm that shook the earth at the end of the last Ice Age.

No scholar today doubts that such a cataclysm occurred—more than 70 percent of all animal species were rendered extinct—but the more interesting and still unresolved issue is, what caused it?

As we will show in part 4, evidence has been steadily accumulating during the past decade that does indeed link the whole mystery to a fragmenting giant comet, trapped in a cyclical Earth-approaching orbit, that was responsible for massive impacts in the eleventh millennium B.C. and in the ninth millennium B.C.—the exact span of the Age of Leo—and for a later episode of bombardment in the third millennium B.C., toward the end of the Age of Taurus, at around the time that the Giza pyramids were built.

Is it simply some sort of bizarre coincidence that one level of the enormously sophisticated multi-layered message that ancient Egypt has passed down to us could, with perfect legitimacy, be read as follows:

Bennu/Phoenix	=	Large, Earth-approaching comet
Benben/Stone	=	Meteoritic debris of the same comet
Ground plan of the pyramids and the Great Sphinx of Giza	=	Signpost written in the universal language of precessional astronomy stating that the comet (phoenix) visited Earth in the Age of Leo, the mythical golden age called *Zep Tepi* in the Egyptian calendar, 10,970–

		8810 B.C.
Star shafts of Great Pyramid	=	Signpost written in the universal language of precessional astronomy remarking on the return of the phoenix to the close vicinity of Earth during the Age of Taurus, 4490–2330 B.C.

DANGER FROM TAURUS?

A curious matrix of mythology surrounds the essential symbolism and architecture in which the phoenix story unfolds.

As we have seen:

Osiris = Orion

Isis = Sirius

Set = Taurus

Horus = Leo

We also know that in the Heliopolitan myths Set killed Osiris and usurped his kingdom (interestingly enough, with the help of 72 coconspirators,[41] and 72 is the key number in the precessional code, outlined in chapter 16). The myths further state that Isis/Sirius used her magic to restore Osiris briefly to physical life so that she could copulate with him and receive his "seed." He was then translated to the heavens where he became judge of the dead and god of rebirth.

Meanwhile, as we noted earlier, the fruit of his union with Isis was Horus, who in due course was destined to grow to manhood, overthrow Set, and restore his father's kingdom.

New life, the myth seems to be saying, comes from the death of the old—literally the dead body of the old god. In a sense, the image of Osiris-Horus is the same as that of the phoenix. Just as the immolation of the phoenix ends the previous world age, so the death of Osiris ends Zep Tepi and leads, ultimately, to the reign of the pharaohs.

But we know that all the principal players in the drama have stellar counterparts, so it is also worth considering the myth at a more literal, astronomical level:

1. The villain of the piece is Set, who murdered Osiris and ended the golden age.
2. Set is strongly identified with the constellation

Taurus.

3. This therefore implies that Taurus must have been seen by the ancient Egyptians as a source of danger, chaos, and destruction.

RED PLANET, RED SPHINX

The Egyptian name of the Sphinx was Horakhti, “Horus of the Horizon,” the manifestation of the sun god at the moment of rising. We have shown in *The Message of the Sphinx* that the very same name, Horakhti, was applied to the constellation Leo.[42] In addition, as the eminent Egyptologist Sir E. A. Wallis Budge points out, the name Horus—originally Heru—conveys the meaning “face”; thus the name of the Sphinx could mean “Face of the Horizon”—referring to the

face of the solar disk.[43]

Inevitably some of the AOC researchers have made much of this to connect it to the Face on Mars—something for which there would be no justification were it not for a series of peculiar clues that seem to point in the opposite direction:

1. As Richard Hoagland was the first to realize, the city of Cairo, on the southern edge of which the Giza necropolis stands, got its present name in the tenth century a.d. from invading Arabs who inexplicably decided to call it El-Kahira, meaning "Mars."[44]
2. The name the ancient Egyptians gave to the planet Mars was Hor Dshr—literally "Horus the Red."[45]

3. In inscriptions found in certain tombs in upper Egypt, Mars is also referred to as “His name is Horakhti” and as “the eastern star.”[46] Since the gaze of the Sphinx is oriented precisely due east, and since the Sphinx was likewise called Horakhti, as we have seen, we may just as well say that the name of the Sphinx is Mars.
4. Along with all the other planets, and the Sun itself, Mars appears to travel in an endless cycle through all twelve constellations of the zodiac. This means that it will, at intervals, be seen to pass through the constellation of Leo—to be “in” Leo or “housed” by Leo, in astrological parlance.
5. For a long period of its history the Sphinx was painted red.[47]

6. Since the Sphinx is a composite creature with the head of a man and a body of a lion, we also note in passing that ancient Hindu myths depict the planet Mars as Nr-Simha, the "Man-Lion."[48]

What all these clues suggest to us, at the very least, is that the ancients must have seen a clear and direct association between the Red Planet and the Sphinx. Moreover, since the astronomy of the Sphinx is so precisely set to the rising of the constellation Leo at the spring equinox in the epoch 10,970 B.C. to 8810 B.C., we suspect that part of the message may be to consider events that could have visibly affected both the planet Mars and Earth during this epoch—that is, the astronomical Age of Leo. There is also a strong hint in the surrounding mythology to suggest that such events, whatever they may be, are likely to turn out to be connected in some

way to Taurus, the Bull of the Sky—the constellation of Set the destroyer.

The classical Greeks, who sat at the feet of the ancient Egyptians and learned everything they knew from them, renamed Set as Typhon and depicted him as a terrifying supernatural monster whose

> head touched the stars, his vast wings darkened the Sun, fire flashed from his eyes, and flaming rocks hurtled from his mouth. When he came rushing toward Olympus the gods fled in terror to Egypt.[49]

Likewise the Roman historian Pliny (A.D. 23–79) writes of a remote epoch during which "a terrible comet" given the name Typhon was seen by the people of Egypt:

> It had a fiery appearance and was twisted like a coil and it was grim to behold. It was not really a star so much as what might be called a ball of

fire.[50]

We wonder whether it is possible, in their architecture and in their myths, that what the ancients were trying to pass down to us might have included a package of lifesaving data:

- Their recollections of the breathtaking returns to the inner solar system of a fiery and spectacular periodic comet
- Specific information about this comet's previous dangerously close approaches to Earth
- Specific information about at least one cataclysmic approach the comet made to Mars that "flayed" the Red Planet of its skin
- Specific information about if and when the threat

> will return to menace us, and perhaps even information about the the direction from which it will come (the direction of the constellation of Taurus?).

Today there is no fear of comets. Indeed, we hardly ever even stop to look at the skies. But to the ancients they were terrible instruments of doom and destruction "importing change of times and states"[51] and shaking "pestilence and war" from their "horrid hair."[52] We will see in part 4 that this ancient reputation may be nothing less than the truth, and that comets may indeed be agents in the destruction and rebirth of worlds.

PART FOUR

The Darkness and the Light

18

The Moon in June

On the evening on 25 June 1178, five friends were sitting out after dark on the outskirts of the English cathedral city of Canterbury, chatting and enjoying the summer air.[1] The sky was cloudless and a bright new moon was rising with its horns tilted toward the east. Then suddenly:

> The upper horn split in two. From the midpoint of the division a flaming torch sprang up, spewing out, over a considerable distance, fire, hot

> coals and sparks. Meanwhile the body of the Moon which was below writhed, as if it were in anxiety, and to put it in the words of those who reported it to me and saw it with their own eyes, the Moon throbbed like a wounded snake. Afterwards it resumed its proper state. This phenomenon was repeated a dozen times or more, the flame assuming various twisting shapes at random and then returning to normal. Then, after these transformations, the Moon from horn to horn, that is, along its whole length, took on a blackish appearance. The present writer was given this report by men who saw it with their own eyes and are prepared to stake their honour on an oath that they have made no addition or falsification in the above narrative.[2]

The writer is the twelfth-century monk Gervase of Canterbury, whose *Chronicle* is highly regarded as a work of history. Because of his renowned accuracy scholars generally agree that "Gervase's record of the 'Canterbury Event' must be taken seriously."[3]

Yet if it is a true report, then what is the strange phenomenon it describes?

In 1976 the American astronomer Jack Hartung offered an answer that most scientists now accept. He deduced that Gervase's eyewitnesses saw the cataclysmic effects of a collision between the Moon and some large object flying through space—such as a comet or an asteroid. He further reasoned that if he was correct then there ought to be an impact crater of suitable shape and size at an appropriate lunar latitude. Reckoning on the basis of the Gervase report, Hartung calculated that such a geologically recent crater would be

> at least 7 miles in diameter, possess bright rays extending from it at least 70 miles and lie between 30 degrees and 60 degrees north and 75 degrees and 105 degrees east.[4]

Named after an Italian heretic (burned at the stake in 1600 for professing the existence of inhabited planets other than Earth), the crater Giordano Bruno perfectly fits Hartung's bill. It has a radius of 13 miles and the telltale bright rays of a recent cataclysmic impact.[5] Moreover, although it lies almost 15 degrees into the dark side of the Moon, the astronomers Odile Calame and Derral Mulholland have demonstrated that the ejecta from the impact would have been hurled such distances that "the event would not only have been visible but sufficiently apocalyptic to have justified the description given in the Canterbury Chronicle."[6]

Calame and Mulholland's work provides additional confirmation that the Moon has indeed suffered a major impact at some time during the past millennium. In research conducted between 1973 and 1976 they used the 107-inch reflector telescope at the McDonald Observatory in West

Texas to direct more than 2,000 laser beams at a series of mirrors left behind on the Moon by *Apollo* astronauts. The beams allowed extremely precise measurements to be made and revealed "a 15-meter oscillation of the lunar surface about its polar axis, with a period of about three years."[7] As the American cometary astronomer David Levy puts it, the Moon is behaving just "like a huge bell vibrating after it has been clanged."[8] Two leading British astronomers, Victor Clube of Oxford University and his colleague Bill Napier of the Royal Armagh Observatory, point out that such a mode of vibration "dies out over 20,000 years or so" and confirm that "the result can only be explained by a recent large impact, whose magnitude was about that required to form the Bruno crater."[9]

The crater was made by an object estimated by scientists to have been around two kilometers in diameter, which

exploded on impact with the energy of 100,000 megatons of TNT—that is, 100,000 *million* tons of TNT, roughly equivalent to ten times the explosive power of all the nuclear weapons presently stockpiled on earth (although, of course, without the radioactive fallout).[10] By contrast, the atomic bomb that obliterated the Japanese city of Hiroshima in 1945 had a payload of 13 kilotons (13 *thousand* tons of TNT) and the largest individual nuclear weapons in existence today have yields rated at approximately 50 megatons.[11]

At 100,000 megatons, it is easy to see why some historians believe that the Canterbury Event could have wiped out human civilization on 25 June 1178 if it had occurred on Earth rather than on the Moon.[12]

TUNGUSKA

Eight hundred and thirty years later, on 30 June 1908, a much smaller object did hit Earth—with devastating consequences. This was the event that flattened more than 2,000 square kilometers of forest in the Siberian wilderness region of Tunguska. It was an airburst, not a land impact, involving the explosive fragmentation of a bolide with an estimated diameter of 70 meters at an altitude of about 6,000 meters.[13]

We described some aspects of the Tunguska Event in chapter 4. Its effects were dramatic. The bolide, descending as a huge fireball, was said to be brighter than the sun and was visible at a distance of more than 1,000 kilometers from the blast zone.[14] It is estimated to have been traveling at a speed of 30 kilometers per second and was said by those who saw its passage to have emitted a series of intense thunderclaps. When it exploded it did so with a “stupendous

bang" that could be heard more than 1,000 kilometers away.[15]

The firestorm rapidly fell from the atmosphere to the ground, but as soon as contact was made a raging "column of fire" leapt up again from ground to sky. Several eyewitness accounts indicate that this fiery pillar may have been as much as 1,500 meters wide and 20 kilometers high, and that it was visible to observers as far away as 400 kilometers.[16]

> The whole northern sky appeared to be covered with fire [reported a farmer who had been at the Vanavara trading center just 60 kilometers from the blast zone]. I felt a great heat as if my shirt had caught fire. Afterward it became dark and at the same time I felt an explosion that threw me from the porch…. I lost consciousness.[17]

Another farmer, 200 kilometers from the blast zone recalled:

> When I sat down to my breakfast beside my plough, I heard sudden bangs as if from gunfire. My horse fell to its knees. From the north side above the forest a flame shot up. Then I saw that the fir forest had been bent over by the wind and I thought of a hurricane.[18]

At a distance of 400 kilometers the tremors set off by the Tunguska explosion were so intense that the Trans-Siberian Railroad had to be halted for fear of derailment.[19] There was also a devastating shock wave that mowed down the dense forests of the region, "snapping off meter-diameter trees like matchsticks"[20] and convincing some villagers that "the end of the world was approaching."[21] The impact energy of the blast was in the range of 10 to 30 megatons of TNT—at least seven hundred times more powerful than the Hiroshima bomb.[22] Little wonder, therefore, that as far away as Western Europe people reported "White Nights" for several evenings after the 30 June Tunguska explosion and were "able to read

newspapers from the sky glow, even after midnight."[23]

The entire event, it must be remembered, was caused by an object 70 meters in diameter—that is, with a "footprint" about the size of a city block—rather tiny by cosmic standards. Because the explosion took place in a remote part of the world little attention was paid to it; indeed, it was not until 1927 that the first scientific expedition reached the site.[24] The expedition was led by the Soviet astronomer Leonard Kulik, who quickly realized from the extent of the devastation that if the same bolide had disintegrated in the skies above central Belgium "no creature would have been left alive in that country."[25] It is therefore sobering to recall that if the Tunguska object had collided with Earth *just three hours later than it did*—say at 10:00 in the morning instead of at 7:00 A.M.—it would not have laid waste an empty part of Siberia but would have exploded over the city of Moscow.[26]

At the very least we can say that such an accident would have changed the course of world history.

BOULDERS

The laser reflectors that Calame and Mulholland used in their research were not the only instruments that NASA's *Apollo* astronauts left on the Moon. Seismometers were also positioned at a variety of locations on the lunar surface to gather evidence of cosmic bombardments and transmit the data back to Earth.

From 1969 to 1974 nothing sensational happened. Then, over five consecutive days from 22 through 26 June 1975, the seismometers all burst into life in unison to record a roller-coaster event. The Moon had run into a swarm of

boulder-sized meteoroids weighing about a ton each.[27] It received a sudden, unmerciful pounding—as many impacts in this five-day period as it had suffered in all of the previous five years.[28]

DEVASTATING EFFECTS

Along with the planets and their moons, vast quantities of rock, ice, and iron circulate within the solar system at breathtakingly high speeds, pursuing a tangled cat's cradle of chaotic and constantly changing orbits. Again and again fragments of this cosmic rubble intersect the orbits of the inner planets, notably Mars and the Earth-Moon system—sometimes with effects so devastating that any form of civilization unfortunate enough to be caught up in such a collision would certainly be wiped out. The final word has

yet to be said on the true life story of Mars, but we know for certain that there have been a number of cosmic impacts that have come very close to obliterating not just “civilization” on Earth but *all* of this planets animal and plant life.

IMPACTS AND CRUSTAL DISPLACEMENTS

Earth is thought to be 4.5 billion years old and has been a home to life—initially in the simplest forms—for perhaps 3.9 billion years. The oldest prokaryotic fossils date back about 3.7 billion years; the oldest eukaryotic fossils almost 2 billion years; and the oldest animal fossils about 800 million years.[29] Sometime between 550 million years ago and 530 million years ago our planet was overtaken by an immense cataclysm of unknown origin. Writing in *Science* on 25 July 1997, a group of researchers at the California Institute of Technology

report that one of the terrible consequences of this event was a slippage of Earth's rigid outer crust around its inner layers.[30] The end result was "a 90-degree change in the direction of Earths spin axis relative to the continents," commented Dr. Joseph Kirschvink, professor of geobiology at Cal Tech:

> Regions that were previously at the North and South Poles were relocated to the equator, and two antipodal points near the equator became the new poles.... The geophysical evidence that we've collected from rocks deposited before, during, and after this event demonstrates that all the major continents experienced a burst of motion during the same interval of time.[31]

The Cal Tech researchers insist that the event they are describing is to be distinguished entirely from "plate tectonics," an internal geological process of Earth that very

slowly and gradually causes continental landmasses to drift apart or move together at a rate of no more than centimeters per year. What their evidence points to is a titanic rotation of the entire crust of Earth *in one piece* and at a cataclysmically fast rate. According to Kirschvink: "The rates … were really off the scale. On top of that everything [seems to have been] going the same direction."

We noted in chapter 4 that there is evidence of a major one-piece slippage of the crust of the planet Mars. No evidence has yet been offered as to how or why such a slippage could have occurred. Nevertheless, as the astronomer Peter Schultz has demonstrated, "Typical mantled and layered polar deposits have been found 180 degrees apart at the equator, i.e., in positions antipodal to one another—as would be expected with former poles."[32]

Two years before the publication of the Cal Tech article in

Science, we reported in *Fingerprints of the Gods* on the recent work of Rand and Rose Flem-Ath in Canada, and the earlier work of Professor Charles Hapgood and Albert Einstein in the United States, which suggests that cataclysmic crustal displacements may have occurred on Earth, perhaps even as recently as the end of the last Ice Age.[33] Despite Einsteins prestigious support, this theory was ridiculed by orthodox geologists when Hapgood first proposed it in the 1950s and received a further dose of scholarly abuse when the Flem-Aths promulgated it again in their 1995 book *When The Sky Fell.*[34]

The essence of the orthodox "refutation" or "debunking" is that there is no known mechanism sufficiently powerful to set off crustal displacements and that such events are therefore "geophysical impossibilities." In this way intriguing pieces of evidence marshalled by crustal-displacement

theorists have been repeatedly swept under the carpet. Even if an adequate mechanism has not yet been identified, however, the latest discoveries must surely shake the orthodox consensus. For what the Cal Tech researchers are talking about—this time under the banner of peer-reviewed respectability that *Science* represents—is nothing more nor less than a fully fledged displacement of the Earths crust that could not have failed to have cataclysmic consequences.

It should therefore come as no surprise to learn that the extinction of an estimated 80 percent of all genera of life occurred at this time.[35] With almost miraculous speed, life then bounced back and the extinction was followed by

> a profound diversification that saw the first appearance in the fossil record of virtually all animal phyla living today. With relative evolutionary rates of more than 20 times normal, nothing like it has

occurred since.[36]

This was the so-called Cambrian explosion, and it was indeed the greatest diversification and expansion of life that the earth had ever seen. Since then scientists believe that at least five further great extinctions—and about a dozen smaller ones—have occurred.[37] Evidence is growing that *all* these extinctions, as well as the gigantic crustal displacement that preceded the Cambrian explosion, may have been sparked by high-speed collisions with massive chunks of cosmic rubble on Earth-crossing orbits.[38] If they were to release sufficient impact energy, such collisions might theoretically provide the missing mechanism that scientists have been looking for that could set the crusts of entire planets in motion. One might even imagine a scenario for Earth in which all major impacts result in extinctions, but a sufficient energy threshold has to be crossed—or other

conditions fulfilled—before an impact can trigger a crustal displacement.

IMPACTS AND EXTINCTIONS

One of Earths five big extinctions took place at the juncture of the Permian and Triassic periods around 245 million years ago. Under mysterious circumstances 96 percent of all oceanic species and 90 percent of all land-dwelling species were wiped out at a stroke.[39] The radio astronomer Gerrit Verschuur, now professor of physics at the University of Memphis in Tennessee, comments:

> No localized flicker of nature can account for the sudden demise of so many species at the same time. It required a global phenomenon of staggering proportions…. Life on Earth very nearly came to an end.

Words can barely begin to describe the enormity of such a catastrophe.[40]

Evidence has been presented linking this extinction with an impact—although geologists are be no means unanimous on the matter.[41] By contrast there is certainty regarding the later great extinction that took place 65 million years ago at the Cretaceous-Tertiary (K/T) boundary. Following breakthrough discoveries in the 1970s and 1980s,[42] all scientists today accept that this event was caused by a gigantic object from space—*an object at least 10 kilometers in diameter*—that smashed into the northern tip of the Yucatan peninsula at a speed of approximately 30 kilometers per second.[43] The resulting crater, now deeply buried beneath millions of years of accumulated sedimentation, has a diameter of almost 200 kilometers. It was first identified on gravitational maps made by surveyors looking for oil and subsequently confirmed by radioactive dating to be 65 million years old.[44]

As we noted in chapter 4, this K/T Boundary Event caused the extinction of the dinosaurs. It is also estimated to have killed off 50 percent of all other genera; 75 percent of species; and a staggering 99.99 percent of all individual animals then living on Earth.[45]

A GLOBAL CATACLYSM

The sequence of events and what exactly happened to our planet 65 million years ago has been reconstructed by scientists (who are generally of the opinion that the K/T object must have been a comet). According to the geologist Walter Alvarez:

> About 95 percent of the atmosphere lies below an altitude of 30 km, so depending on the angle at which the impactor approached the surface, it

would have taken only a second or two to penetrate. The air in front of the comet, unable to get out of the way, was violently compressed, generating one of the most colossal sonic booms ever heard on this planet. Compression heated the air almost instantaneously until it reached a temperature of four or five times that of the Sun, generating a searing flash of light during that one-second traverse of the atmosphere.

At the instant of contact with the Earths surface, where the Yucatan peninsula now lies, two shock waves were triggered. One shock wave ploughed forward into the bedrock, passing through a three-kilometer-thick layer of limestone near the surface, and on into the granitic crust beneath…. Meanwhile a second shock wave flashed back into the onrushing comet.[46]

Gerrit Verschuur takes up the story:

Within an hour of impact the rumble of the earth is heard around the world and earthquakes toss everything into the air. With magnitude 12

> to 13 on the Richter scale the earthquake mangles solid rock as the ground buckles. All around the planet the seismic shock rumbles. As it travels its energy begins to focus so that at the antipodes it gathers and the planets surface buckles and heaves 20 meters.... Eight hundred kilometers from the impact a tsunami more than a kilometer high washes over the North American continent to create ripples in the land that will be preserved and etched in geological strata for 65 million years to come.... A hundred meters of deposits dragged from the bottom of the sea cover the islands and the coastal regions of the mainland, and boulders the size of automobiles land 500 kilometers from the impact in a country later to be called Belize.[47]

Despite the tidal waves there is evidence that a global firestorm must have raged for several days after the K/T impact until it finally burned itself out. Scientists report the discovery of "a pervasive soot and charcoal layer ... which indicates that upward of 90 percent of the biomass was

incinerated at that time in global wildfires."[48]

Soon the world fell into a sort of "nuclear winter" as dust and smoke hefted up into the atmosphere by the impact and by the fires blotted out the light of the sun for several months.[49] Alvarez is of the opinion that "the land became so dark that you could not have seen your hand in front of your face."[50] A long period of freezing shadowy gloom then followed, during which many of the animal species that had survived the initial effects of the impact would have perished from cold, hunger, and exposure. Photosynthesis was suppressed and all over the earth the food chain was interrupted.

UNSEEN DANGERS

The explosive energy of the K/T object has been estimated at 100 million megatons of TNT—that is, about 1,000 times greater than the object that made the 13-mile Giordano Bruno crater on the Moon in 1178.[51] Yet an impact of either magnitude would be a civilization-destroying event—and perhaps the end of all mankind—if it were to afflict Earth today.[52] Indeed, as we saw in part 1, sufficiently large impacts such as those that struck Mars at some point during its history are capable, under certain circumstances, of sterilizing an entire planet.

Ours is a resourceful species that has survived through its ability to adapt to threats and to anticipate dangers. Is it not obvious from the terrible fate suffered by Mars, and from the evidence of past impacts on Earth and on the Moon, that we should pay attention to the possibility that unseen dangers may be lurking in the dark reaches of space among the

planets of the solar system?

19

Signs in the Sky

In 1990, David Morrison, an astronomer at the NASA Ames Research Center, observed wryly that "there are more people working in one fast-food restaurant than there are professionals scanning the sky for asteroids."[1] This is no longer quite true today. Public funding for such work is still so miniscule as to be almost laughable—indeed, the grand total of all contributions from all governments worldwide

rarely exceeded a million dollars a year from 1990 until the end of 1997.[2] Nevertheless Spacewatch programs that scan the sky for asteroids have been established in a number of countries, relying heavily upon concerned astronomers who are prepared to volunteer their time.[3]

At Kitt Peak National Observatory in Tucson, Arizona, which does receive some of NASA's limited Spacewatch funding, a team of astronomers is involved in a systematic long-term search for near-Earth asteroids using a 90-centimeter telescope and a CCD camera. The program is reported to have discovered "an average of two or three near-Earth objects each month, the smallest only 6 meters across."[4]

Related Spacewatch investigations include the Near-Earth-Asteroid Tracking Program of the U.S. Air Force observatory in Hawaii; the Planet-Crossing Asteroid Survey at Palomar

Mountain in California; the asteroid search program of the Cote d'Azur observatory in Southern France; and the Anglo-Australian Near-Earth Asteroid Survey (which was terminated due to lack of funds in 1996).[5]

Will more resources be forthcoming for such programs in the future?

This is an area in which policymakers tend to be long on promises and short on action. But we do take it as a sign of an important change of heart—albeit one that has predictably not yet resulted in any more money—that the U.S. House of Representatives wrote the following clause into the NASA Authorization Bill of 20 July 1994:

> To the extent practicable, the National Aeronautics and Space Administration, in coordination with the Department of Defense and the space agencies of other countries, shall identify and catalogue within 10

> years the orbital characteristics of all comets and asteroids that are greater than 1 kilometer in diameter and are in an orbit around the Sun that crosses the orbit of Earth.[6]

Why greater than one kilometer in diameter? The reason is a generally held belief that human civilization could survive a collision with a half-kilometer object and might not survive a collision with an object more than one kilometer wide. But what about a *swarm* of half-kilometer objects—or of quarter-kilometer objects, for that matter—or even a swarm of Tunguska-sized bolides penetrating Earths atmosphere repeatedly, over hundreds of different locations, for a period of a week or two? Would that be survivable? And could it happen?

CRATERS

During the last two centuries astronomers have learned a great deal about the solar system and about near-Earth space—and nothing that they have discovered is reassuring. On the contrary, as our planet orbits the sun at a steady velocity of almost 110,000 kilometers per hour, we now know that it passes repeatedly through "lumpy" streams of cosmic debris. Most of the rubble takes the form of tiny meteors that burn up harmlessly in our atmosphere in the form of shooting stars. But there are also larger objects that explode in the sky and even more massive objects that make it to the ground. As we have seen, Earth during its long history has several times collided with such objects from space. Moreover, it is clear that the Tunguska and K/T events reported in the preceding chapter are by no means isolated incidents. According to the astronomer Sir Fred Hoyle, Earth could well have suffered more than *130,000 major impacts* over the last billion years.[7]

One worrying feature is that many impacts appear to have involved groups of objects rather than just individual projectiles. We have mentioned the prospect of “swarms of Tunguskas”—in itself a nightmarish possibility, as we shall see—but it is now clear from the geological record that the 10-kilometer object that caused the K/T event was also part of a swarm. At least a dozen other craters with dates indistinguishable from the K/T event have been found. These include the totally buried 35-kilometer “Manson structure” in Iowa state.[8]

Because the earths surface is dynamic and subjected to continuous erosional and depositional forces, even the largest craters can and do disappear in matters of millions of years. In addition, because water covers seven-tenths of the surface of this planet, simple logic suggests that the majority of impacts must take place in the oceans—where they leave

fewer long-term traces than impacts on land. Another important factor is that it is only since the late 1920s that impact craters have been recognized for what they are, having previously been wrongly attributed to volcanism, so this is a relatively new area of study.[9] Nevertheless more than 140 major craters have now been firmly identified, distributed all around the earth, and about five more are found every year.[10] Although some are as much as 200 million years old, surprising numbers of them are recent.[11]

Interesting discoveries include a chain of craters in South America made by a swarm of small iron meteorites. The meteorites appear to have entered the atmosphere at a shallow angle, only surviving because of their iron (as opposed to stony) constitution and then impacting Earth along a narrow 18-kilometer track in the region of Campo del Cielo, Argentina.

> Individual meteorites of different sizes were well sorted by sequence of mass along the track, evidently by aerodynamic (drag) forces. Disruption of the parent body occurred at an altitude of several kilometers. Radiocarbon dating of charcoal from one of the craters suggests that the event occurred well within the time of human occupancy in South America, about 2900 b.c.[12]

A second crater chain thought to be "no more than a few thousand years old" lies in the heart of the Argentinian pampas and was first spotted by an air force pilot flying overhead in 1989.[13] It is 30 kilometers from end to end. Its craters are not circular, as is the case with vertical impacts, but elongated—the three largest are each four kilometers long by one kilometer wide. Numerous smaller craters "were evidently made by fragments hurled downrange."[14]

More than 10 percent of Earths craters larger than half a

kilometer across have at least one companion crater nearby,[15] and three of the largest impact structures on Earth are conspicuously paired with smaller ones: the Steinheim and Reis craters in Germany (46 kilometers in diameter and 24 kilometers in diameter, respectively), which are both 15 million years old; the Kamensk and Gusev craters in Russia, both 65 million years old; and the twin Clearwater Lakes in Canada in northern Quebec, east of Hudson's Bay, which are 290 million years old.[16]

Lake Manicougan in Canada is an impact crater 60 kilometers in diameter.[17] The Sudbury structure in Ontario, containing one of the worlds largest deposits of nickel and other valuable metals, is now recognized as "a tectonically distorted impact crater that was initially about 140 kilometers in diameter."[18] The 100-kilometer-diameter Vredfort Dome in South Africa is an impact structure.[19]

Astronomer Duncan Steel, head of Spaceguard Australia and founder of the Anglo-Australian Near-Earth Asteroid survey, estimates:

> We have yet to discover more than 1 percent of the impact structures on Earth.... Hundreds of craters are undoubtedly still hidden beneath the forest canopy of the Amazon basin, the tundra of the Arctic regions ... the shifting sands of northern Africa and Arabia ... [and] the 70 percent of Earth covered by water.... So far only one submarine crater has been found, the 60-kilometer-wide, 50-million-year-old Montagnais structure in the coastal waters of Nova Scotia.[20]

Yet the inventory of Earth's impact craters continues to grow. When set alongside the horrific scars of Mars and the pockmarked face of the Moon it should remind us that the solar system is and always has been a hazardous place—hazardous to all planets and all life in all past epochs and,

obviously, still hazardous today.

ASCLEPIUS AND HERMES

In 1989 an asteroid with an estimated diameter of half a kilometer crossed Earths path. “Earth had been at that point in space only six hours earlier,” a House of Representatives committee report noted.

> Had it struck Earth it would have caused a disaster unprecedented in human history. The energy released would have been equivalent to more than 1,000 one-megaton bombs.[21]

With the dimensions and stored kinetic energy of “a giant aircraft carrier traveling at a speed of 42,000 miles per hour,”[22] this object was not detected by any astronomer until

three weeks *after* it had thundered past us.[23] Now catalogued as 4581 Asclepius, it came, at its closest, to within 650,000 kilometers of Earth.[24]

This was a new record close passage—though we will see that it did not stand for long. The previous closest passage had been registered in 1937 by Hermes, a somewhat larger asteroid (estimates of its diameter range between one and two kilometers).[25] On the night before Halloween it approached Earth at alarming speed, "moving at up to 5 degrees an hour and completely crossing the sky in nine days."[26] The effect, according to an astronomer at the time, was "much like that obtained by standing near the railroad track when the evening express roars past."[27]

After staging this breathtaking flyby, Hermes vanished into the darkness of space and has never been seen again—an unsatisfactory state of affairs since past close passages make

future close passages more likely.[28] Hermes is therefore an object to be watched. We can be sure that it is still lurking in the solar system and there is a fair chance that it has crossed the track of our planets orbit more than once since 1937 but has simply not been spotted.[29] Asteroids of this size are extremely easy to miss in telescopic surveys and, as we shall see, astronomers believe that several thousand of them may be circulating in our immediate neighborhood.

INCOMING ASTEROIDS

On Sunday, 19 May 1996, and again less than a week later on 25 May 1996, Earth was approached by two potentially apocalyptic asteroids. The first—catalogued as 1996 JA—zoomed past at a distance of about half a million kilometers and at an estimated speed of 60,000 kilometers per hour.

Astronomers were able to give us only four days' advance notice of its arrival on our cosmic front porch. The second, asteroid JG, was more than a kilometer in diameter and passed at a distance of about two and a half million kilometers.[30] According to scientific calculations a collision between Earth and such an object

> would cause a planetary disaster; at least a *billion* people would be killed, and modern civilization would be destroyed.[31]

In December 1997 an Earth-crossing asteroid with a diameter of almost two kilometers was discovered by astronomers in the United States. Classified as asteroid 1997 XF11, its course was studied closely over the next three months. Then in March 1998 Harvard University astronomer Brian Marsden announced the results of these calculations: There was, he warned, a possibility of a collision in 2028.

Headlines on 12 and 13 March of 1998 were dominated by this announcement and astronomers around the world attempted to refine Marsdens calculations. Some concluded that the asteroid would pass closer to Earth than the Moon, perhaps as close as 40,000 kilometers. Others argued that the distance might be more than a million kilometers. Marsdens conclusion was that “the chances of impact are very small, but not impossible.” Jack Hills, an asteroid specialist at Los Alamos National Laboratory in the United States commented: “It scares me. It really does. An object this big hitting the Earth has the potential of killing many, many people.”[32]

In 1968 the asteroid Icarus, two kilometers in diameter, missed Earth by 6 million kilometers—“an uncomfortably small distance in the scale of the solar system,” as the Massachussetts Institute of Technology commented at the time.[33]

In 1991 asteroid BA passed just 170,000 kilometers from Earth, less than half the distance to the Moon. It has a diameter of 9 meters (about the size of a double-decker bus), sufficient “to destroy a small town.”[34]

On 16 March 1994, Duncan Steel gave the following briefing to the Australian media:

> About six hours ago Earth had a near-record observed near-miss by an asteroid. The miss distance was about 180,000 kilometers, which is less than half the distance to the Moon. The object is only about 10–20 meters in size. Its name at this stage is 1994 ESI. It was discovered by the Spacewatch team (University of Arizona) at Kitt Peak National Observatory, near Tucson, Arizona. If it had hit Earth it would have done so at a speed of 19 kilometers per second (44,000 miles per hour). Unless it is made of solid nickel-iron (as are many meteorites) it would have exploded in the atmosphere at a height of 5–10 kilometers. The total

energy released would be equivalent to a nuclear explosion of energy about 200 kilotons (around 20 times the Hiroshima bomb).[35]

Destructive airbursts caused by asteroids are in fact routinely recorded by the infrared scanners of U.S. military satellites—the recently declassified data for 1975 to 1992 indicates 136 atmospheric explosions with yields of a kiloton or more.[36] One particularly spectacular burst, with a yield estimated at 5 kilotons, was observed over Indonesia in 1978.[37] Even more spectacular was a 500-kiloton airburst between South Africa and Antarctica on 3 August 1963.[38] On 9 April 1984, the captain of a Japanese cargo plane reported a brilliant airburst approximately 650 kilometers east of Tokyo. “The blast formed a mushroom cloud rising from 4,267 to 18,288 meters in only 2 minutes.”[39]

FIREBALLS AND COMETS

On 19 February 1913 a small asteroid entered the earths atmosphere as a fiery apparition over Saskatchewan, traveling east at a speed estimated at around 10 kilometers per second. It was observed at an altitude of 50 kilometers over Winnipeg and Toronto and over several cities of the northeastern United States. It passed over New York and into the Atlantic. Two minutes later it was observed again over Bermuda.[40] Thereafter all trace of it was lost. It probably fell into the ocean.

In 1972 another fireball was observed in the United States, this time rising up steeply to escape from the earths atmosphere in which it had only temporarily become enchained. The astronomers L. G. Jacchia and John Lewis calculate:

> It approached with a relative speed of 10.1 kilometers per second and was accelerated to 15 kilometers per second by Earth's gravity as it fell toward the top of the atmosphere. Its point of closest contact to Earth was at an altitude of about 58 kilometers over southern Montana…. The body had a diameter of 15 to 80 meters and a mass of at least several thousand metric tons and possibly as high as a million metric tons. It passed within 6,430 kilometers of the center of the earth. If it had passed only 6,410 kilometers from the center of the earth it would have exploded or impacted somewhere in the populated strip of land stretching from Provo, Utah, through Salt Lake City, Ogden, Pocatello, and Idaho Falls. The explosive power would have probably been [equivalent to about] 20 kilotons of TNT.[41]

On 1 February 1994 a bolide entered the earths atmosphere over the Pacific Micronesian islands, crossed the equator traveling in a southeasterly direction and eventually exploded northwest of Fiji, 120 kilometers above the island

of Tokelau. It was calculated to have traveled at 72,000 kilometers per hour.[42] The explosion was blindingly bright and may have had a yield equivalent to 11 kilotons of TNT.[43]

Larger and much faster objects have also approached close to Earth. On 27 October 1890 observers at Cape Town, South Africa, witnessed the apparition of an immense comet, with a tail as wide as a full moon, that stretched across half the sky. During the 47 minutes that it was visible (from 7:45 P.M. until 8:32 P.M.) it traversed about 100 degrees of arc. "Supposing this was a typical small comet," observes John Lewis, "traveling at about 40 kilometers per second relative to the earth, then its observed angular rate of two degrees per minute implies that the comet must have passed within 80,000 kilometers of Earth, about a fifth of the distance of the Moon."[44]

Another fast-moving comet, which streaked across the sky

at the rate of 7 degrees a minute, was detected in March 1992 by astronomers at the European Southern Observatory.[45] Its nucleus appeared to be about 350 meters in diameter:[46]

> Again taking the most probable flyby speed as 40 kilometers per second, typical for long-period comets, this comet must have flown by at a distance of about 20,000 kilometers. Remembering that the diameter of the earth is about 13,000 kilometers, this is very close indeed.[47]

MERCURY

The more we learn about the vast arsenal of projectiles flying around in space, the easier it becomes to understand how neighboring Mars—which may once have offered a congenial home to life—could have been reduced to a tortured and

barren hell-world. Indeed, what has happened to Mars is actually the *norm* among the inner planets. It is Earths continued survival as a functioning ecosystem that seems hard to explain.

Mercury, the innermost planet, is brutally pockmarked with craters and, like Mars, appears to have been stripped of huge segments of its crust:

> Something smashed into Mercury with such violence that its outer layers were torn away and, lost to space, fell into the Sun.[48]

Another characteristic that Mercury shares with Mars—and also with Earth—is the phenomenon of massive craters in one hemisphere being matched by reactive disruption at the antipodal point in the opposite hemisphere. As we have seen, the Martian crater Hellas, which has a diameter of almost 2,000 kilometers, has been connected to a bizarre feature

known as the Tharsis Bulge, which is nearly antipodal to it. On Earth the 200-kilometer Chixculub crater in Mexico, the epicenter of the K/T Boundary Event, has been connected to the volcanic scabs of the Deccan Traps in India. In the case of Mercury, NASA photographs show a gigantic crater, 1,300 kilometers in diameter, which has been named the Caloris Basin. Exactly on the opposite side of the planet is an extensive area of "chaotic terrain" where there are no impact craters but where the ground appears to have been smashed to bits by gigantic pile-drivers and then shaken up into a new and extraordinary configuration. Duncan Steel offers this explanation:

> When Caloris was formed, huge seismic waves were focused through the interior of Mercury, meeting at the antipodal point and breaking up the smooth terrain that previously existed there.[49]

VENUS

If in our imaginations we look down on the solar system from above, that is, from the north, we will see that all the planets are orbiting the Sun in a counterclockwise direction. The majority of them also rotate counterclockwise about their own axes. The notable exception is Venus, the second planet out from the Sun, which rotates in the direction opposite to its revolution.[50]

Astronomers regard the retrograde rotation of Venus as "quite remarkable."[51] The generally accepted explanation is that at some point in its history it "was struck so hard"—probably by a titanic asteroid or comet—that its rotation was momentarily halted and that it then "began to spin in the opposite direction."[52] The cataclysm is thought to have taken place billions of years ago, during the early stages of the

formation of the solar system, but there is also evidence of a much more recent giant impact:

> The entire surface of Venus was wiped clean…. Geologists describe this event as having "resurfaced" the planet with lava from its interior as great blocks of the surface cracked and subsided.[53]

EARTH

Earth is the third planet out from the Sun—a glowing sphere of light and consciousness soaring in dark space, a kind of magic, a kind of miracle. Some see it as a living being. Plato described it as a "blessed god …"[54]

> a single spherical universe in circular motion, alone but because of its excellence needing no company other than itself, and satisfied to be its own acquaintance and friend.[55]

It is also, with our as yet extremely rudimentary knowledge of our cosmic environment, the only place in which we can be absolutely certain that life exists. The balance of probability is that there is life, perhaps much more intelligent than ourselves, on other planets orbiting other suns. *But we just can't be sure*. For all we know cosmic smashups like those that ruined Mercury, reversed the rotation of Venus, and flayed the planet Mars may be commonplace not only within the solar system but in the universe as a whole.

Imagine the responsibility, therefore, if we are the only life. Imagine the responsibility if our spark of consciousness is the only consciousness that has survived in the entire universe. Imagine the responsibility if some avoidable threat is looming which through complacency we do nothing about.

JUPITER

What is already clear is that Earth is at present the only planet *in the solar system* that is inhabited by intelligent beings. This may not have been true 10,000 or 20,000 or 50,000 years ago—who knows?—but today all our neighbors are dead and show signs of having suffered massive bombardments of cosmic debris.

Mercury is dead. Venus is dead. The Moon is dead. Mars is dead. And although Earth still lives, with us upon it, there is no evidence that the bombardments have stopped just because we are here. On the contrary, as recently as 1994 humanity was offered spectacular proof that objects of world-killing size do still collide with planets. That was the year in which a swarm of massive fragments from the disintegrating comet Shoemaker-Levy 9 hit Jupiter, an event taken by many

astronomers as a timely reminder that Earth, too, could suffer such a fate—and theoretically at any time. As David Levy, the co-discoverer of the comet, observed:

> It was as if Nature had called over the phone and said "I'm going to drop 21 comets on Jupiter at 134,000 miles an hour.... All I want you to do is watch.[56]

The impacts were watched—with great interest and attention. Dozens of observatories and the Hubble space telescope, as well as the NASA probe *Galileo*, focused their attention and cameras almost exclusively on Jupiter during the month of July 1994 when the collisions took place, and ominous photographs of all the major impacts were broadcast as headline news to billions of people around the world.

Mercury … Venus … the Earth-Moon system … Mars …

Jupiter is the fifth planet out from the Sun; its orbit lies about 500 million kilometers beyond that of Mars. With a diameter of nearly 144,000 kilometers, it is the giant of the solar system—one-tenth of the size of the Sun itself, ten times larger than Earth and 20 times larger than Mars. Its surface is not thought to be solid, but fluid and gaseous, "composed mainly of hydrogen and helium in near-solar proportions."[57] Nevertheless its mass is 318 times greater than that of Earth and, indeed, greater than the combined mass of all the other planets in the solar system.[58]

The ability of such a leviathan to shoulder aside or destroy objects approaching it from space, and to absorb the impacts of those that penetrate its atmosphere, seems virtually limitless. And yet Jupiter was horrifically battered and bruised by its high-speed encounter with the 21 fragments of comet Shoemaker-Levy 9.

COSMIC TRACER

Caroline Shoemaker, the late Eugene Shoemaker, and David Levy discovered their eponymous comet on 24 March 1993. It initially showed up as a fast-moving smudge on grainy photographic plates. Big observatories then turned their telescopes on the object, and Jim Scotti of the University of Arizona's Lunar and Planetary Laboratory, using the 90-centimeter Spacewatch telescope, was the first to confirm that S-L 9 was not in fact one object but "a string of 21 fragments."[59] Early photographs showed images that were beautiful but scary—like tracer bullets arching across the night sky—and astronomers began to calculate how large the individual fragments might be, where they had come from, and where they were going.

It quickly became apparent that the 21 nuclei in the S-L 9

string had all originally been part of a single, much more massive comet, probably between 10 and 20 kilometers in diameter.[60] The largest fragment was estimated at 4.2 kilometers in diameter and others at 3 kilometers and 2 kilometers in diameter.[61] As astronomers plotted their course and calculated their orbit backward it was discovered that "these nuclei had made a very close passage by Jupiter in July 1992."[62]

Further investigations showed what must have happened: the original comet had approached too close to Jupiter, falling to an altitude of just 20,000 kilometers above its surface on 7 July 1992 and breaching the planet's Roche limit. David Levy describes the effects this way:

> Like a giant hand reaching up and pulling the comet apart, Jupiter's gravity pulled on the closest part harder than it pulled on the most

> distant. As the comet started to stretch out like a noodle, with a shudder it simply became unglued.[63]

Only narrowly managing to avoid collision at that time, it seems that S-L 9 was torn out of its own long-distance orbit through the solar system by this encounter and forced instead into a perilously close-orbit around Jupiter.[64] By mid-May 1993 astronomers had calculated that this orbit would bring the 21 fragments into an even closer encounter sometime in July 1994.[65] Further calculations revealed that this next encounter would be so close that a collision was inevitable:

> Although the comet fell apart in 1992, its pieces survived the graze with Jupiter, but only to buy a little time. The ancient comet would have one orbit left, a last chance to swing away from Jupiter, look back, and return again to crash into the planet.[66]

Traveling at a speed of 60 kilometers a second, fragment A—one of the smallest—hit Jupiter on 16 July 1994 creating a gigantic plume of fire. A few hours later, fragment B, surmised to be a "loosely held-together group of dust and boulders,"[67] produced a faint plume that lasted for 17 minutes.[68] Two impacts separated by an interval of an hour were associated with fragment C, closely followed by a "short-lived fireball" associated with fragment D.[69] The first large fragment was E. It hit at 11:17 Eastern Daylight Time, sending up a plume of material "more than 30 times the brightness of Europa" (one of Jupiter's moons).[70] As the initial atmospheric turbulence subsided it became clear that the fragment had opened up three huge scars in Jupiters swirling surface—including one bright spot with a diameter

of more than 15,000 kilometers.[71]

Fragment F produced an even bigger impact scar with a diameter of 26,000 kilometers. Then, recounts David Levy, “the gates of hell opened as the central mass of fragment G blew up, leaving a mighty fireball soaring some 3,000 kilometers above the clouds.”[72] The fireball rose at 17 kilometers per second and was fueled by superheated gas—twice as hot as the surface of the Sun.[73]

The impact ring created on Jupiter’s surface by fragment G was an equally turbulent feature. It expanded outward at the rate of 4 kilometers per second and soon reached a diameter of 33,000 kilometers[74]—just 7,000 kilometers less than the equatorial circumference of Earth. Within another hour it had grown into a spot so big that it could have swallowed Earth, and so bright that it outshone Jupiter’s own radiance and temporarily “blinded” telescopes.[75]

“I began to think about what all this meant,” remembers Gerrit Verschuur:

> Given that fragment G was supposed to have been 4.2 kilometers across, and given that it was traveling at 60 kilometers per second, its impact energy would have been about 100 million megatons of TNT, something like the K/T impactor that wiped out the dinosaurs. And there it had happened on Jupiter in 1994! What now were the odds on it happening here? The impact produced the equivalent of 5 million Hiroshima-sized explosions going off simultaneously. Incredible! It wasn’t so long ago, back in 1991 at the First International Symposium on Near-Earth Asteroids in San Juan Capistrano, California, that I had heard it predicted that we would never see objects of this size slam into planets in our lifetimes.[76]

Gene Shoemaker was asked what he thought was the most important lesson learned from S-L 9. “Comets really do hit

planets," he replied.[77]

In an interview with the BBC in London, Caroline Shoemaker was asked to describe what would happen if a fragment like G were ever to hit the earth. Her reply was brief and to the point: "We would die."[78]

20

Apocalypse Now

By the time all 21 fragments of comet S-L 9 had buried themselves in the massive body of Jupiter, many people who had previously taken little interest in the sky began to look heavenward with feelings of vague anxiety. It took no more than common sense to realize that what had happened to Jupiter could just as easily have happened to Earth—and probably would one day. An old idea of using nuclear

missiles to divert potentially dangerous comets or asteroids was revived and there was talk of adapting "Star Wars" technology to defend the earth. It was of course not an accident that only two days after the armageddon-like impact of fragment G, the House of Representatives wrote a clause into the NASA Authorization Bill (quoted in the last chapter) instructing the agency to "identify and catalogue the orbital characteristics of all comets and asteroids that are greater than 1 kilometer in diameter and are in an orbit around the Sun that crosses the orbit of the earth."

SPEED ENERGY

Studies have been done of the possible consequences for the earth, and for human civilization, of collisions with various types and sizes of asteroids and comets. In order to grasp the

results of these studies it is important to remember that with impactors of more than a few tens of meters in diameter such collisions will *inevitably* have catastrophic effects—witness, for example, the devastation caused by the Tunguska object in 1908.[1]

The reason is that these projectiles carry huge reservoirs of kinetic energy (the energy of motion of a body or system equal to the product of half its mass and the square of its velocity), which they surrender explosively, generating terrific shock waves, as they snowplow through the atmosphere.[2] Then comes the smash with the planet's surface that deposits sufficient residual energy as heat to melt or vaporize both the impactor and "an amount of target material whose mass ranges from 1 to 10 times the mass of the impactor as the impactor speed increases from 15 to 50 kilometers per second."[3]

Coming in somewhere in the middle of this speed range at 20 to 30 kilometers per second, although velocities as high as 72 kilometers per second have been recorded,[4]

> an asteroid will be brought to a halt in a distance about equal to its own diameter, being literally turned inside-out in the process. Pressures of several million atmospheres and shock temperatures of tens of thousands of degrees are immediately generated.[5]

BIG LAND IMPACTS

Projections have considered the implications of impacts both on land and in the oceans. Professor Trevor Palmer of Nottingham Trent University in England paints this picture of the first effects of a 10-kilometer object striking land at about 30 kilometers per second:

Bolide and rock would be instantly vaporized, and a crater about 180 kilometers in diameter would be formed within seconds. If, for example, the bolide hit Milton Keynes, the crater would stretch from Nottingham in the north to London in the south, and include Birmingham, Oxford, and Cambridge. This huge crater would be lined with molten rock, and an intense fireball would rise through the atmosphere, producing a violent, scorching wind.[6]

Dr. Emilio Spedicato of the Department of Mathematics and Statistics at the University of Bergamo in Italy reports that the atmospheric disturbance resulting from collision with a 10-kilometer object

would be colossal and extend over hemispheric areas. For instance, it can be estimated, if ten percent of the initial energy goes into the blast wave, that at 2,000 kilometers from the impact point the wind velocity would be 2,400 kilometers per hour with a duration of 0.4 hours and the air

> temperature increase 480 degrees…. At 10,000 kilometers these numbers would be respectively 100 kilometers per hour, 14 hours, and 30 degrees.[7]

Victor Clube of the Department of Astrophysics and Applied Mathematics at Oxford and Bill Napier of the Royal Armagh Observatory have calculated that if such an impact were to occur in India it would "flatten forests in Europe, setting them ablaze."[8]

> Debris thrown out of the crater would range from mountain-sized lumps, themselves formidable missiles, to hot ash thrown worldwide and adding to the incineration below. Earthquakes would be felt globally and would everywhere be at the top end of intensity scales, with vertical waves many meters high and horizontal ones (e.g., push-and-pull waves) or similar amplitude. These waves would run around the world for some hours.[9]

An immediate effect of the impact would be the simultaneous explosion of "hundreds of fires over an area about the size of France."[10] These would rapidly merge into a single vast conflagration and at least 50 million tons of smoke would be ejected upward, rising to an altitude of 10 kilometers.[11] Within just a few days, fanned by residual windstorms, the wildfires would spread around the globe[12]—as we know actually did happen 65 million years ago in the K/T Event.[13] The pall of smoke would mix promiscuously with the estimated 100,000 cubic kilometers of floating ash and dust thrown into the upper atmosphere by the original impact.[14] With the loss of sunlight, land temperatures would plummet to Siberian winter levels, thick ice would form over rivers and lakes, animal and plant life would be devastated, and all farming would cease.[15]

Another inevitable consequence of any very large land

impact would be chemical changes in the atmosphere. According to Professor Palmer: “The fireball would fuse atmospheric nitrogen and oxygen to form nitrogen oxides, which would later react with water to form nitric acid. Similarly sulphuric acid might be produced from burning plant material.”[16] Spedicato calculates that such reactions “would completely remove the protecting layer of stratospheric ozone.”[17] As the sky gradually cleared of smoke, ash and dust, therefore, any surviving creatures on Earth would be exposed to “ultraviolet radiation of germicidal intensity.”[18]

The above calculations assume that the impacting asteroid or comet would enter the atmosphere at a fairly steep angle. But if the angle were shallow, additional complications would ensue. Peter Schultz of Brown University and Don Gault of the Murpheys Center of Planetology have looked

into the implications of a 10-kilometer object traveling at 72,000 kilometers per hour striking the earths surface at an angle of less than 10 degrees from the horizontal. They note that such an impact would be unlikely to produce just one large crater. Instead the bolide

> would break up into a swarm of fragments ranging in size from a tenth of a kilometer to a kilometer in diameter. The fragments would ricochet downrange [and would] eject enough debris into orbit to give the Earth a ring like one of Saturn's.

Over the following two or three thousand years, large chunks of this debris—with estimated volumes of 1,000 cubic kilometers or more—would reenter the atmosphere and crash back to Earth, sparking off local cataclysms of great magnitude.[19] A shower of such objects could produce a tremendous expanding heat storm and perhaps even spark off

a second global conflagration. Duncan Steel calculates that

> at reentry speeds varying from a few kilometers per second up to 11 kilometers per second, 1,000 cubic kilometers of rock will release energy equivalent to about a week's worth of solar energy to the whole planet. In many ways one can imagine the situation as being analogous to a huge griller located at 50 to 100 kilometers above the surface, boosting the surface temperature to over 1,000 degrees C. It is only to be expected that under such circumstances the plant life of the continents would be rapidly dessicated and then ignited.[20]

In summary, at whatever angle a 10-kilometer projectile were to hit Earth, the consequences for humanity would be unspeakably dreadful. It is thought likely that 5 billion people would be killed while perhaps a billion would survive, shell-shocked and disoriented, in scattered pockets all around the world.[21]

SMALL BUT DEADLY

It is obvious that asteroids and comets with diameters of less than 10 kilometers must do less damage on impact. Nevertheless, one of the important lessons learned from comet S-L 9's collisions with Jupiter in July 1994 is that even relatively small fragments can deliver very large amounts of kinetic energy—enough to cause massive planet-wide devastation.

On Earth the impact of a 2-kilometer object would be murderous. "As an absolute minimum," warns Duncan Steel, "we might expect 25 percent of the human race to die … with a more likely figure being in excess of 50 percent."[22]

Gerrit Verschuur is convinced that it would not even "take a 2-kilometer object to plunge us back into a dark age.… It now seems fairly certain that a half-kilometer object would

do nicely."[23] Trevor Palmer is of the same view. He points out that an impact with an object 0.5-kilometer wide would release energy "equivalent to about 10,000 megatons of TNT, which is half a million times greater than the energy of the atom bomb dropped on Hiroshima in 1945. For a 1-kilometer asteroid, whatever its composition, the impact energy [which rises disproportionately to size] could be greater than a million megatons"[24]—roughly equivalent in explosive power to the worlds entire stockpile of nuclear weapons being detonated all at once.[25]

It is mind-boggling to consider the consequences of a swarm of 10,000-megaton impactors hitting the earth. In built-up industrial areas the fire and blast damage would be enormously complicated by the presence of gas and fuel depots, which would explode like huge bombs. Other flammable chemicals would ignite, releasing plumes of

noxious smoke, nuclear power stations would go into meltdown, and ammunition dumps would blow sky-high. Even at great distances from the impact people in downtown areas would be horrifically lacerated—and tens of thousands would be killed—by shards of flying glass (more than 90 percent of all casualties in the London Blitz during World War II were caused by flying glass).

In areas where any large concentration of people survived it is not difficult to imagine how many would be injured, or sick, or poisoned, or burned, or starving, or hypothermic, or insane, or threatened by marauding bands of hungry killers. Nor, when all this is taken into account, is it difficult to realize how quickly and completely the emergency services would be overwhelmed—assuming the emergency workers, their vehicles, and their equipment had themselves survived. It is probably true to say that the fire, police, and ambulance

services of most industrialized countries are already overburdened, and that even in “normal times” any concentration of emergencies over a period of days could bring the entire system close to total collapse. A series of 10,000-megaton explosions would produce emergencies on a scale never before seen or imagined and would plunge the world into a nuclear winter.

But if the prognosis is bad for the rich, high-tech industrialized Northern Hemisphere it is perhaps even worse for the low-tech, impoverished, overpopulated Southern Hemisphere. Duncan Steel believes that many Third World countries would simply be wiped out:

> They have neither the advanced agricultural capabilities nor the food stores to survive through a period of duress; witness the famines that occur in Africa during every drought.[26]

IMPOTENCE

The story of famine in Africa in the second half of the twentieth century is a testament to the abject failure of the community of nations to intervene successfully in quite small and local natural disasters that ought to have been swiftly and easily resolved.

Another example to bear in mind is Britain's lengthy indecision and procrastination over the resettlement of the 12,000 inhabitants of Montserrat, the tiny Caribbean island drowning under a relentless tide of lava and ash from its own volcano. Rescues on this scale, and far, far larger, might have to be staged thousands of times over if Earth were ever struck by a series of 10,000-megaton projectiles.

During 1997 much of Southeast Asia fell under a dense cloud of acrid and choking smog—so thick at times that

several aircraft crashed, schools and factories had to be shut down, and hospitals registered a huge upsurge in respiratory complaints. The “haze,” as it was called, was caused by fires raging in a few thousand square kilometers of Indonesian rainforest. For many months, however, neither the Indonesian government nor neighboring Singapore and Malaysia—nor the world at large—took any effective action to put these fires out and prevent further ones from starting.

Such impotence in the face of extremely damaging environmental and economic threats suggests how little humanity might actually be able to do in the event of a major land impact. Yet in many respects the impact of an asteroid or comet in one of the world’s oceans could be far worse.

OCEANIC IMPACTS

In March 1993, Jack Hills and Patrick Goda of the Los Alamos National Laboratory in New Mexico published a research paper in the *Astronomical Journal* arguing that "waves caused by open ocean impacts may be the most serious problem produced by impacting asteroids short of massive killers such as the Cretaceous-Tertiary impactor."[27] In the paper they present disturbing evidence:

> An asteroid with a radius of 200 meters that drops anywhere in the mid-Atlantic will produce deep-water waves that are at least 5 meters high when they reach both the European and North American coasts. When it encounters land, this wave steepens into a tsunami over 200 meters in height that hits the coast with a pulse duration of at least 2 minutes.... A disproportionate fraction of human resources are close to coasts.[28]

The wave pulse indicated by Hills and Goda's computer simulations for a 200-meter object would "sweep over all

low-lying land, including, for example, Holland, Denmark, Long Island, and Manhattan. Hundreds of millions of people would be wiped out in minutes."[29]

The bigger the impactor the worse the consequences:

> A 500-meter asteroid would produce a deep-water wave 50 to 100 meters in amplitude, even at 1,000 kilometers from ground zero. Since the tsunami height could be amplified by a factor of 20 or more in the run-up as continental shelves are encountered, we are referring here to a tsunami several kilometers in height. Even if the impact were between New Zealand and Tahiti, the tsunami breaking on Japan would be perhaps 200 to 300 meters high, and heaven help New Zealand and Tahiti.[30]

Hills and Goda additionally estimate that a 1-kilometer stone object could produce a tsunami *8 kilometers* high. And if the impactor were made of iron it is theoretically possible

that the tsunami could reach a height of 28 kilometers.[31] "These numbers," observe the two scientists, "are very disturbing…. Perhaps the legendary tale of the lost civilization of Atlantis … was due to such a tidal wave."[32]

LONG WAVES BECOME HIGH WAVES

Why is it that oceanic impacts of cosmically rather small objects can produce such enormous waves?

The Japanese word *tsunami* means "harbor wave." These phenomena, normally produced by suboceanic earthquakes, are experienced frequently in Japan and throughout the Pacific region. The great Chilean earthquake of 1960, for example, produced a tsunami that pounded Hilo in Hawaii and parts of the Japanese coast 16,000 kilometers away.[33]

What happens is that the earthquake stirs up waves that are extremely long but very shallow:

> On a ship at sea one would scarcely notice the swell … but approaching a shoreline a wave slows down and increases in amplitude as it enters shallow water. There is a piling-up of water as the forward part of the wave slows down.[34]

The experts say that precisely the same effect, *magnified many times over*, would be produced by an impacting asteroid or comet and that the long, seemingly gentle waves that it would produce in the unconstrained environment of a deep ocean would on contact with coastlines rear up into prodigious tsunamis capable of flooding entire continents and destroying everything in their path.

The largest oceanic impacts would have particularly horrific consequences. Crater expert Don Gault has

considered the effect of a 10-kilometer object and concluded that in water it would produce a temporary, approximately hemispherical "crater" with a maximum depth of 13 kilometers and a maximum diameter of 30 kilometers.[35] Emilio Spedicato recounts the sequence of events:

> Most of the available energy (92 percent) would be spent in ejection of water, shock heating and formation of waves, the remaining being transformed into potential energy of the displaced water. The formed crater would soon collapse, a column of water 10 kilometers high developing over the impact point. The final collapse of the column originates a system of waves, with amplitudes decreasing, in free ocean, inversely with the distance. The height of the waves would be about one kilometer at 10 kilometers from the impact and one hundred meters at 1,000 kilometers. On approaching the shores substantial amplification of the wave height would follow, the exact value of the amplification depending strongly on the geometry of the coast. In any case, a global

catastrophic tsunami, with substantial continental flooding, would be a consequence of an oceanic impact.[36]

Since the average depth of the worlds oceans is only 3.7 kilometers[37] it follows that objects 10 kilometers in diameter would hit the ocean bottom with much of their kinetic energy still intact.[38] The implication, if such an object were to fall in an ocean 5 kilometers deep in an area where the ocean crust is also 5 kilometers deep, is that about 35 percent of the transient cavity would be excavated in water, 25 percent in oceanic crust, and 40 percent in the underlying mantle.[39] Researchers Emiliani, Kraus, and Shoemaker agree with Gault and Spedicato that "monstrous gravity waves with heights of several hundred meters" would be produced by such an event and would roll for thousands of kilometers across the world ocean. They, too, believe that the resulting "super-tsunamis" would penetrate deeply into the

surrounding continents[40]—as do Victor Clube and Bill Napier, who have presented evidence that a 10-kilometer oceanic impact "would create a hydraulic bore of awesome dimensions and a deep and catastrophic inundation of the land."[41]

WOUNDS

Mercury … Venus … the Moon … Earth … Mars …

With the exception of Earth, which has survived despite a series of tremendous batterings, we now know that all the other large bodies in the inner solar system—all of them, without exception—have been utterly devastated by cataclysmic impacts of cosmic debris. Among them Mars was once by far the most Earth-like—possessing great oceans and

rivers, abundant rainfall, and a dense, quite possibly breathable atmosphere. Yet all this was torn from it in an instant and, it would seem, with the utmost violence. As we saw in part 1, our neighboring planet still bears the wounds of the killer impacts that destroyed it and of the tidal waves, kilometers high, that scoured its surface at the moment of its death.

Scientists for a long while believed that most of the impact craters and other damage visible on Mars must have been inflicted billions of years ago, that the solar system today is a far quieter and far safer place than it was in primordial times, and that the chances of Earth colliding with an asteroid or comet are so small as to be insignificant.

We now know that they were wrong about Earth—and new evidence, which we will review in the next chapter, has forced the abandonment of the formerly dominant

uniformitarian view. Could they also have been wrong about Mars? And could there indeed be some kind of mysterious connection between the two planets, as so many ancient sources seem to suggest?

21

Earth Cross

EVERYTHING is moving. Nothing stays still.

The Moon moves around its own axis and orbits Earth. Earth moves around its own axis and orbits the Sun. The Sun moves around its own axis and orbits the center of the galaxy. And the galaxy too is in motion through the expanding universe.

Earth is our home, and our immediate concern. But we will

see that it is subject to mysterious and violent tides that perturb the entire solar system and that are governed by the galaxy. If we wish to have a clear picture of what it means to live on this planet, we are obliged to take account of the galaxy and the solar system, and we would be wise to pay attention to any lessons that neighboring planets have to teach. After all, we share their cosmic environment so closely that whatever happens to them can reasonably be expected to happen to us.

Mercury, Venus, the Moon, Mars, and Jupiter all tell us one thing, very simply and very clearly. In Gene Shoemaker's words: "Comets really do hit planets."[1]

And, as we shall see, not only comets hit planets (although comets are by far the most deadly danger), but also vast swarms of meteoroids and asteroids, ranging in size from a meter up to 1,000 kilometers, tear through the solar system

at furious speeds.

Such objects, in all possible size ranges, can and frequently do hit planets. Earth has not encountered a very big one—say in the 200-kilometer-plus range—for billions of years. But we now know that it has encountered several in the 10-kilometer range in just the last 500 million years, and that each of these collisions has resulted in the near total extinction of life.

To find out what Earth would look like if it had taken direct hits from a barrage of much bigger objects, we only need to look at the ravaged face of Mars. Curiously, when we do so, we find a “face” staring back at us from the plains of Cydonia.

CROSSING THE LANES

If we envisage the orbits of the planets as a series of flat circular lanes laid out concentrically around the Sun, little Mercury turns in the inner circle. Outside it is Venus, then the Earth, then Mars, then Jupiter. Beyond Jupiter, far from warmth and light, are four farther planets—Saturn, Uranus, Neptune, and Pluto, respectively. Circulating among them all, crisscrossing the lanes in which the planets move, are the turbulent swarms of orbiting rocks and iron we have discussed, loosely classified and graded according to size as either meteoroids or asteroids.

Exactly what these objects are, where they came from, and why some are stony and some metallic (almost like the melted and fused components of gigantic iron machines), are not matters that scientists have settled yet, and there is no consensus. One school of thought is that they are the leftover debris of the iron core and stony mantle of an exploded

planet.[2] However, no convincing mechanism has yet been suggested to explain how a planet-sized body could explode. Another idea is that they are remnants from the early days of the solar system—the surplus matter not used up in the formation of the planets. A third theory, the one that we ourselves favor, is that they are closely related to comets, particularly to giant interstellar comets that periodically enter the solar system. The argument is that many of the asteroids and the smaller meteoroids may be the fragmented remains of these dead comets.

BIG UNSTABLE OBJECTS

Fully 95 percent of all known asteroids lie in the “main belt” between the orbits of Mars and Jupiter. But several other populous groups of asteroids circulate between the orbits of

Mars and Venus—straddling Earths orbit. These are thought to have been “the principal producers of craters larger than 5 kilometers in diameter on Earth, Moon, Venus, and Mars.”[3]

There are also large asteroidal objects that lie permanently outside the orbit of Jupiter and others, with highly elliptical orbits, that cross Jupiters path as they climb toward aphelion (farthest point from the Sun) but that swing into the domain of the inner planets as they fall toward perihelion (closest to the Sun).

Among these asteroidal objects is 944 Hidalgo, which has an orbit of 14 years and a diameter in the range of 200 kilometers. On each turn that it takes around the solar system it swings out far beyond Jupiter—almost as far as Saturn—and then swings back in again approaching the orbit of Mars.[4]

Another more distant and probably slightly bigger object (estimates vary from 200 kilometers to 350 kilometers[5]) is 2060 Chiron, which presently orbits between Saturn and Uranus but has exhibited highly unstable behavior in recent years.[6] Astronomers studying its trajectory have concluded that it is very likely in due course to fall into the inner solar system and perhaps to become an Earth crosser.[7] If that were to happen, says Duncan Steel, it

> would spell disaster for humankind even if Earth did not receive an impact by Chiron itself, or even any large lumps, because the amount of dust in the atmosphere would lead to a significant cooling of our environment.[8]

A third 200-kilometer-plus asteroid is 5145 Pholus.[9] Its steeply elliptical orbit takes it across the paths of Saturn, Uranus, and Neptune.[10] Like Chiron, it has been described by

astronomers as “inherently unstable” and is thought likely to “plunge into an Earth-crossing orbit”—although probably not soon.[11]

There is a frightening object called 5335 Damocles, estimated to be 30 kilometers in diameter, which crosses the orbit of Mars at perihelion and then swings out as far as Uranus before returning to the inner solar system again in an orbit of forty-two years. According to Duncan Steel of Spaceguard Australia:

> This asteroid has an elongated, high-inclination orbit which would classify it as an intermediate-period comet, except that it shows no signs of outgassing, seeming to be totally inert. Its name was chosen to remind us of the Sword of Damocles, because its future orbit has a good chance of evolving into an Earth-crossing one.[12]

MAIN BELT

Since the discovery of Hidalgo, Chiron, Pholus, and Damocles, other large unstable asteroids have been found with the same ability to cross from the outer solar system into the inner solar system—and even to threaten Earth.[13] But there are also vast armies of asteroids that revolve around the Sun in stable orbits and present no threat to us at all.

These include the members of the Trojan group that share the orbit of Jupiter, some following the planet, some leading it. Photographic surveys have so far identified 900 individual objects with diameters exceeding 15 kilometers.[14]

All the "main-belt" asteroids orbiting between Jupiter and Mars also appear, for the moment, to be in secure orbits. Their total number is thought to exceed half a million,

including such true giants as Ceres.[15] Really a mini-planet in its own right, this country-sized sphere of rock has a diameter of 940 kilometers, revolves around its own axis in 9 hours 5 minutes, and orbits the Sun once every 4.61 years.[16]

Ceres is very dark and reflects only about 10 percent of the sunlight falling on it.[17] To date it is the largest asteroid identified. Next down in size are Pallas (535 kilometers), Vesta (500 kilometers), and Hygeia (430 kilometers). Davida and Interamina are both around 400 kilometers in diameter. Juno is about 250 kilometers in diameter. All in all more than 30 main-belt asteroids with diameters greater than 200 kilometers have now been positively identified and catalogued—with significant new discoveries being made every year.[18]

AMORS

Moving in from the main belt we begin to encounter the first swarms of "near-Earth asteroids," a broad category that includes all asteroids capable of passing inside the orbit of Mars.[19] The most distant of these do not extend as far as the orbit of Earth. But a little closer in there is another family of Mars crossers, the Amors, of much more immediate interest. A characteristic of the Amors (more than 130 had been catalogued by March 1995[20]) is that they are easily perturbed by Jupiter and by our own planet's powerful gravity, with the result that several of them have now changed their orbits to become "part-time Earth crossers."[21] Many others in the same family do not presently approach Earth but, in theory, may be "unpredictably redirected" at any time.[22]

Astronomers from the Observatoire de la Cote d'Azur in France and mathematicians from the University of Pisa in Italy have for some years been paying particular attention to an Amor called 233 Eros, which is 22 kilometers long and 7 kilometers wide—dimensions that make it a substantially bigger and more lethal projectile than the K/T object that killed off the dinosaurs.[23] Although Eros does not currently cross Earths orbit it does undergo "relatively frequent close encounters with Mars and long-range perturbations by the outer planets."[24] These have altered its course to such an extent that in 1931 it "swished to within 17 million miles of Earth—much closer than any planet."[25] Computer simulations indicate that Eros is very likely to become a true Earth crosser within the next million years and that in the longer term "a collision is likely."[26]

So far about 15 other Amors on Eros-like trajectories have

been found, and all of them could one day hit the Earth.[27] None are as massive as Eros, but both 1627 Ivar and 1580 Betulia have diameters approaching 9 kilometers.[28]

APOLLOS

Moving in again from the zone of the Amors we come to the Apollo asteroids (named after 1862 Apollo, a 1-kilometer object, the first in this class, discovered in 1932 by the German astronomer Karl Willhelm Reinmuth).[29] The chief characteristic of the Apollos is that they "deeply cross the Earths orbit on an almost continuous basis."[30]

Since the early 1990s a number of observatories have mounted aggressive searches to establish the true extent of the "Apollo problem." The conclusions that they have come

to are that these Earth-crossing projectiles are extremely numerous, that there are likely to be more than 1,000 of them with diameters exceeding one kilometer,[31] and that some may exceed 50 kilometers in diameter.[32]

Known large Apollos (of which more than 170 had been catalogued by March 1995) include the frightful world killer 2212 Hephaistos, which has a diameter of 10 kilometers.[33] Although smaller, another deep Earth crosser, Toutatis, looks almost equally unpleasant. It is what is known as a contact binary—"two fragments either welded together or held in place by a very feeble gravity."[34] The larger element has a diameter of 4.5 kilometers, while the smaller element is 2.5 kilometers wide.[35] The composite object behaves in an unbalanced and unpredictable manner as it tumbles through space.[36] All that is certain is that it has already crossed Earths orbital path at a distance from us of just over 3 million

kilometers[37]—a distance that our planet covers in about 30 hours—and that the effects of a collision with such a rapidly rotating and unstable object would be devastating.

> The existence of Toutatis proves that there are still giant rocks out there that can be doomsday asteroids and that they come close to us.[38]

Several Apollos with diameters in the 5-kilometer range have been found during the 1990s,[39] and, as we saw in chapter 19, a number of smaller Apollos, such as Asclepius (0.5 kilometers), Hermes (approximately 2 kilometers), and Icarus (2 kilometers), have made extremely close fly-bys of Earth. There are also large and mysterious Apollo objects such as Oljato and Phaeton that behave much more like comets than asteroids, and which we will have reason to investigate in later chapters.[40]

A tiny fragment of Phaeton hit Earth on 13 December

1997. It landed in politically troubled Northern Ireland, close to its border with the Irish Republic, creating an explosion that was initially thought to be a terrorist bomb. Examination of the crater by scientists from the Royal Armagh Observatory and from Belfast's Queens University showed that it was in fact a meteorite and that the parent body was Phaeton.[41]

It is worth repeating that all of the Apollos are permanently locked in Earth-crossing orbits and that they are accompanied by an unknown number—probably thousands—of as yet undetected and perhaps massive companions. There are no traffic lights at the intersections where they cross the great circle in the sky around which Earth orbits and, over very long periods of time, the laws of chance make collisions inevitable.[42]

Is a collision between Earth and an Apollo object likely at

any time in the near future?

The only honest answer to this question is *nobody knows*—because nobody has the faintest idea how many of these projectiles there really are out there. Apollos are notoriously invisible to telescopes and are indeed so elusive that even those that have been catalogued frequently "disappear." The 1862 Apollo, for example, after which the whole swarm is named, was lost to telescopes soon after it was discovered in 1932 and was not spotted again until 1973.[43] Hermes, which passed so close to Earth in 1937,[44] vanished and has not been seen since. For this reason, says Brian Marsden of the Harvard-Smithsonian Center for Astrophysics, it is "one of the most dangerous near-Earth objects."[45] Hephaistos, the biggest Apollo of all, successfully managed to evade detection—despite its 10-kilometer girth—until 1978.[46]

ARJUNAS, ATENS, AND OTHERS

Tom Gehrels, professor of planetary sciences at the University of Arizona at Tucson, and the principal investigator of the Spacewatch program at Kitt Peak Observatory, has identified a special subgroup of Earth-crossing Apollos that he has named the Arjunas. With diameters of up to 100 meters, they follow the orbit of Earth very closely. This means that they are unusually susceptible to our planet's gravitational attraction and have "very short expected orbital lifetimes before colliding with Earth."[47]

Moving in from the Arjunas, the next significant belt of asteroids that we encounter have been named the Atens. Astronomers estimate—although once again it is really just a guess—that at least one hundred of them exceed one kilometer in diameter. They have highly elliptical orbits that

put many of them on repeated Earth-crossing paths.[48]

Still further in toward the Sun are other objects following even more steeply elliptical orbits. A typical example is 1995 CR, discovered by Robert Jedicke of Spacewatch in 1995. This 200-meter inner-solar-system wanderer follows

> a highly eccentric path that crosses the orbits of Mercury, Venus, Earth, and Mars. This type of orbit is highly unstable (chaotic) and before long, at an unpredictable time in the future, 1995 CR will smash into one of these four planets, or the Sun, or will be thrown out of the solar system.[49]

Just as scientists cannot give us accurate estimates of when particular asteroids will collide with Earth, or of the absolute numbers of asteroids in any of the subfamilies, so also there can be no firm and final estimate of the total number of potential impactors. A broad consensus has nevertheless been

reached by astronomers that there are likely to be at least 2,000 asteroids of a kilometer or more in diameter distributed among the main Earth-crossing families[50] together with somewhere between 5,000 and 10,000 objects of half-kilometer size and perhaps as many as 200,000 objects of quarter-kilometer size.[51] Confirmation of these estimates can only come from close observations of the sky and, indeed, the rate of discovery of Earth-crossing asteroids showed dramatic increases during the 1990s. In 1989 only 49 such objects had been discovered (4 Atens, 30 Apollos, and 15 Amors), but by 1992 this number had increased to 159, an increment of 110 in just two years. Three years later, in 1995, the grand total had risen to over 350, a further increment of 200—making an average for 1989 to 1995 of more than 50 new discoveries a year.

"Although many of these are small objects," commented

Duncan Steel in 1995,

> it is true that we have now found many more of the 1-kilometer-plus asteroids that threaten a global catastrophe than we had catalogued only five years ago. However, we still know of only a small fragment of the total population of such objects: few scientists involved in this area believe that we have to date discovered more than 5 percent of that total. Although none of the *known* asteroids is going to hit Earth in the foreseeable future (the next century or two) this is not a particularly comforting fact, because if there *were* an asteroid due to strike home soon, then there is a greater than 95 percent chance that we would not have found it yet.[52]

TIME TO SAVE THE WORLD?

Humanity's fundamental ignorance about the true extent of

the threat posed by Earth-crossing asteroids is unlikely to be lifted soon—despite the fact that many scientists seriously believe it would be possible to use controlled nuclear explosions and other techniques to deflect potential impactors if they could be identified in time. It is not our purpose here to explore the various strategies that have been proposed to achieve this objective. Nor would we be in any position to assess their relative merits. Our impression is that many of them are very close to the limits of modern technology. Nevertheless, we have no doubt that the prospect of an imminent collision with a 10-kilometer Apollo would focus the minds of politicians and galvanize global industry and science into action.

But would there be *time* to save the world?

Would there be time to blow up or divert the incoming object, or would it be discovered too late?

Duncan Steel argues that at the present minuscule rate of public expenditure, “it would take perhaps 500 years to complete the search for all the Apollos larger than one kilometer, and longer for the Atens. Thus if one has ‘our number’ on it for the year 2025, we would most likely not find it ahead of time.”[53]

In an official document dated 19 February 1997, NASA notes that “cosmic impacts are the only known natural disaster that could be avoided entirely by the appropriate application of space technology.” In the same document NASA then goes on to admit:

> The only technology we have today for defense against asteroids and comets is nuclear, and we would require years of warning in order to deflect or disrupt a threatening object…. The truth is that if we found an asteroid headed our way with less than several years’ warning, there is

> nothing we could do to protect ourselves except evacuate population from the impact site.[54]

What would it cost to get those "several years' warning"?

According to a 1991–1992 NASA study, "All potential Earthimpactors down to one kilometer in size could be discovered and tracked in a program costing $300 million spread over five years."[55] A follow-up study, chaired by the late Eugene Shoemaker of Lowell Observatory and completed in 1995, concluded that advances in astronomical imaging systems could allow such a survey to be completed in ten years at a total cost of less than $50 million.[56]

The reader will recall that in 1994 Congress instructed NASA to identify and catalogue all Earth-crossing asteroids greater than one kilometer in diameter within ten years.[57] We were baffled to discover that no such program had been

launched by the beginning of 1998 and that NASA's support for asteroid and comet search programs was at that point still limited to about $1 million a year.[58]

The "asteroid threat" remains an underresearched and largely unknown quantity. Assessments of it tend to be complacent—hence, we suppose, NASA's lethargy—and yet such assessments are inevitably founded on the extremely narrow database of present knowledge about asteroids.

How can scientists and governments be sure that the little they have managed to learn so far is not hopelessly unrepresentative of the overall picture?

What level of real certainty is there that Earth is not about to share the dreadful fate of Mars?

In the next chapter we will consider comets, which the Chinese knew as "vile stars."[59] "Every time they appear,"

wrote Li Ch'un Feng in the seventh century, "something happens to wipe out the old and establish the new."[60]

22

Fishes in the Sea

JOHANNES Kepler, the seventeenth-century astronomer and mathematician, once exclaimed with perceptive wonder, "There are more comets in the sky than there are fishes in the sea!"[1]

We do not know how many fishes there are in the sea, but since the 1950s increasingly refined observations have led astronomers to a mind-boggling conclusion: there are *at least*

100 thousand million (100 billion) comets in the solar system at any one time, stored in two huge reservoirs that are known —after their discoverers—as the Oort cloud and the Kuiper belt.[2]

The Oort cloud, the more distant of the two, lies at the extreme limit of the Suns gravitational domain, a full light year out—50,000 times the distance between the Sun and Earth.[3] Its form is that of a spherical "shell" entirely enveloping and surrounding the rest of the solar system. A number of astronomers are of the opinion that it may, on its own, contain 100 billion comet nuclei: "Most [are] between 1 and 10 kilometers in diameter, although some may be much larger."[4]

Exactly how much larger, or how plentiful such objects really are, nobody is yet in a position to say; they are too far away from us to be seen by even the most powerful

telescopes. It is entirely possible, however, that huge numbers of Oort cloud bodies could be more than 300 kilometers in diameter.

This has already been proven observationally to be the case with comets in the Kuiper belt—a flattened disk-shaped formation that lies beyond the orbit of Neptune. The Kuiper belt is very remote—its outer edge is almost fifty times farther than the distance from the Sun to Earth—yet it is still a thousand times closer to us than the Oort cloud.

Since the 1970s the astronomers Victor Clube and Bill Napier have been developing and refining a theory concerning the occasional penetration and destructive *fragmentation* within the inner solar system of what they call "giant comets," which are hundreds of kilometers in diameter rather than a few tens of kilometers or less, such as those we usually see.[5] While this theory was based on pure logic and

calculation, it did not initially receive wide support from other astronomers. Today it is universally accepted. This is because Clube and Napier have been vindicated by telescope observations of the Kuiper belt, which has been proved to contain objects of exactly the sort they had predicted.

The first Kuiper belt object to be detected—1992 QB1—has a diameter of 250 kilometers.[6] Other massive finds include 1993 FW, again about 250 kilometers,[7] and 1994 VK8 and 1995 DC2, which both have diameters of about 360 kilometers.[8] Recent observations have confirmed the impression that such objects may exist in very large numbers. By March 1996 more than thirty of them had been found,[9] and in January 1998 Victor Clube told us that the Kuiper belt is literally "full of giant comets! They're the only things we can see, actually—it's so far away. They're all a few hundred kilometers across."[10] Such discoveries have led to a widely

accepted estimate that

> there may be at least 35,000 objects larger than 100 kilometers in diameter orbiting in this region of the solar system just beyond the orbit of Neptune.[11]

Indeed it is a sign of how influential Clube and Napier's work has become that a number of astronomers now consider Pluto, with its unusual elliptical orbit, to be nothing more than an extremely large Kuiper belt object—a former comet that has become a planet. Clyde Tombaugh, who discovered Pluto in 1930, is one of the supporters of this view and now calls it the "king of the Kuiper belt."[12]

COMET-ASTEROID CROSSOVER

Another interesting possibility, which Victor Clube and others have investigated, is that certain large "asteroids" may also be Kuiper belt comets—perhaps in a temporarily "dormant" state—that are gradually falling into the inner solar system.[13] "After about ten million years," explains David Brez Carlisle, "the trajectory of anything orbiting in the Kuiper belt decays into chaos, generally into a quasi-elliptical orbit that [will ultimately bring] it into the zone of the stony planets."[14]

Can comets be asteroids? Can asteroids be comets?

Like so many categories used by scientists, it turns out that the distinction between the two is not clear-cut. From various authorities the notion has entered popular culture that asteroids are formidable rocky obstacles whereas comets are "dirty snowballs." The renowned British astronomer Sir Fred Hoyle strongly disagrees with the second part of this idea:

> Comets are not just dirty snowballs. No dirty snowball at a temperature of minus 200 degrees centigrade ever exploded as comet Halley did in March 1991. Dirty snowballs are not blacker than jet black. On March 30–31, 1986, comet Halley ejected a million tons of fine particles, which on being warmed by the Sun emitted radiation characterized by organic materials, not dirt as one understands dirt.[15]

Whether it is a dirty snowball—or something more—an object is likely to be classified as a comet if astronomers observe that it has the following characteristics:

1. An extremely eccentric (as opposed to more or less circular) orbit, bringing it close to the Sun and then taking it far away again.
2. A volatile chemical composition that produces jets of gas, a large luminous cloud—“coma”—around the frozen central nucleus, and frequently a “tail”

consisting of glowing particles blown away from the comet by the solar wind (with the result that the tail always points away from the Sun irrespective of the direction that the comet is traveling in).[16]

With regard to the first characteristic—eccentricity of orbit—new discoveries have revealed a growing number of glaring exceptions to the rule. These include objects that are unmistakably comets in terms of their general appearance and volatility but that nevertheless move in near-circular orbits as asteroids do (the six comets of the Hilda group, for example).[17] Conversely, we saw in chapter 21 that many asteroids have extremely eccentric orbits and that some, such as as Damocles, Oljato, and Phaeton, are already suspected as comets in disguise.

Damocles has “an elongated, high-inclination orbit that would classify it as an intermediate-period comet except that it shows no signs of outgassing, seeming to be totally inert.”[18] Phaetons orbit also has curiously comet-like properties, and during the 1990s the previously dormant Oljato was observed to have become volatile—showing signs of “weak outgassing” and even a faint tail.[19]

Another likely case of mistaken identity among these Earth crossers and near Earth crossers is the 10-kilometer Apollo asteroid Hephaistos, now regarded by increasing numbers of astronomers as a “spent” fragment of a giant comet.[20] Indeed, Victor Clube and Bill Napier maintain that many Apollo asteroids—perhaps most of them—are nothing more than the nuclei of degassed comets or fragments of degassed comets. A typical example is 1979 VA, which “has an orbit like a short-period comet with an aphelion close to Jupiter.”[21]

Looking outward to more distant reaches of the solar system, recent observations have demonstrated that the trans-Jovian "asteroid" Hidalgo also has a comet-like orbit.[22] We saw in the last chapter that the trans-Uranian object Chiron has an orbit that is equally hard to label. Observations since the mid-1990s have shown that it is "slightly outgassing" and has begun to release volatiles in a manner that astronomers know is unlike any asteroid.[23]

> Its icy nucleus of 350 kilometers would seem to suggest that it is a giant comet provisionally parked in a quasi-circular but unstable orbit."[24]

For these reasons, says Professor Trevor Palmer, the view that some asteroids may be the remains of former comets is becoming widely held. "This could be the result of an icy nucleus being sealed off completely by the formation of an insulating crust, or by all the volatile material being boiled

off, leaving behind a rocky core."[25]

HALLEY'S COMET

The suggestion that 200-kilometers-plus objects like Chiron and Hidalgo could be former comets from the Kuiper belt gradually spiraling down into the inner solar system is supported by observations of smaller comets that have penetrated more deeply. For example, astronomers already agree that the present orbits of periodic comets Halley and Swift-Tuttle must have originated in just such a "spiraling down" after they had been "parked for a few million years in the Kuiper belt."[26] At the extremes of their steeply elliptical trajectories, before plunging back again toward the Sun, both objects still signal their origins by returning to the belt.[27]

“Periodic” comets—the term is a broad one that refers to all comets on orbits that will sooner or later bring them back through Earth’s skies—are subdivided by astronomers into three main groups: short-period, intermediate-period, and long-period. Short and intermediate-period comets have orbits varying from less than six years up to two hundred years; long-period comets have orbits of more than two hundred years rising, in some cases, to thousands and even hundreds of thousands of years.[28]

With an intermediate-period orbit of 76 years, Halley’s comet last passed by Earth in 1986 at which time it was intensively studied by space probes from several countries. It is a formidable body with an estimated mass of around 80 billion tons and dimensions of about 16 × 10 × 9 kilometers.[29] Its potato-shaped nucleus is extremely black, reflecting only 4 percent of incidental sunlight, and slowly

rotates around its axis once every 7.1 days.[30]

Recorded observations of Halley's comet go back more than 2,200 years.[31] Outgassing explosively on each approach to the Sun, it therefore has had the time to scatter immense swathes of debris in its ancient and well-trodden wake. Earth passes through this debris twice each year—in May and in the third week of October—at which times its skies light up with the Eta Aquarid and Orionid meteorite showers that descend from the comet.[32]

THE SWIFT-TUTTLE COLLISION HAZARD

Historical sources and modern observations record the existence of about 450 Earth-crossing comets. Most of these were of the long-period variety and have not yet returned

either to menace us or to miss us. Out of the known short-and intermediate-period comets that revisit us more regularly, about 30 are locked on Earth-crossing orbits and could theoretically collide with our planet at some time in the future.[33] Halley's is one of these. Another is Swift-Tuttle, the parent body of the Perseid meteorite shower through which Earth passes each July and August.[34] Astronomers studying Swift-Tuttle's trajectory believe that this comet represents a *serious and imminent hazard*. As it approaches perihelion, its closest point to the sun, computer simulations show that its intersections with the path of Earth can, under certain circumstances, bring it perilously close to us. In particular, and well understood:

> Near collision with Earth would take place if the comet were at perihelion in late July.[35]

For this reason Swift-Tuttle has been described by one authority as “the single most dangerous object known to humanity.”[36] Calculations show that it will remain a threat for at least another 10,000 to 20,000 years,

> after which its orbit is likely to deteriorate so that it will either fall into the Sun or be thrown out of the solar system, provided it doesn’t hit Earth before it does that.[37]

CAPE EFFECT

The Swift-Tuttle story begins with the first sighting of the comet in July 1862. Over the course of the next month, as it approached to within 50 million miles of Earth, it became a dazzling specter in the night sky with a tail 30 degrees long that was reportedly brighter than the brightest stars.[38] For

several weeks it pursued a serene and predictable course through the heavens—a course that was painstakingly tracked and logged by astronomers around the world. During the last few days that it was visible, however, it did something that no comet had hitherto been seen to do: *It changed direction*. As it disappeared from view, the Cape Observatory in South Africa noted with puzzlement that its trajectory had shifted by about 10 arc seconds during its transit of Earths skies.[39]

This so-called Cape effect is believed to have been caused by outgassing from the comet itself, outgassing so violent that Swift-Tuttle was literally jetted sideways.[40]

But was it a one-shot event, or something that happens regularly? In 1862, questions like these introduced an element of uncertainty into calculations of the likely date of Swift-Tuttle's return—although it was generally felt that the

period should be about 120 years.[41] A similar projection was made in 1973 by Brian Marsden, the International Astronomical Unions (IAU) leading expert in the computation of orbits. After carefully rechecking and recalculating the 1862 data he concluded that the comet would return somewhere between 1979 and 1983.[42]

When it did not return on schedule Marsden widened the net of his calculations to include historical observations of comets that could be identified with Swift-Tuttle. He found a close match with sightings from 69 B.C., A.D. 188, and A.D. 1737, and on the basis of these came up with a new estimate that the comet would return in 1992 and would reach perihelion around 25 November of that year.[43]

Marsden's prediction proved to be quite accurate, and the reappearance of Swift-Tuttle—on a trajectory that brought it to perihelion on 11 December 1992—was first observed by

the Japanese astronomer Tsusuhiko Kiuchi on 26 September 1992.[44]

THE WARNING

Marsden now returned to his computers with refined orbital information in order to work out the date of Swift-Tuttle's next approach to perihelion. He found that this would occur after a period of about 134 years, on 11 July 2126.[45] Inevitably he began to wonder whether some recurrence of the Cape effect, or other orbital vagary, might cause him to be in error again.

The reader will recall that a near collision between Earth and Swift-Tuttle is to be expected if the comet should ever reach perihelion in "late July"—indeed, it was Marsden who

had been responsible for the original calculation that led to that prediction as far back as 1973.[46] Looking at the problem again in 1992, his next step was to work out the exact date in late July 2126 on which a perihelion passage by Swift-Tuttle would be followed by collision with Earth. The computers highlighted 26 July 2126 and indicated that if the comet were to reach perihelion on that day, then it would crash into our planet a little less than 3 weeks later on 14 August 2126.[47]

So, the future of the human race seemed to hinge on the cosmically very small matter of the distance Earth would travel around its orbit in the 15 days between Marsdens calculated perihelion date for Swift-Tuttle of 11 July and the "black-spot" date of 26 July. He had to admit there was a chance he could have missed some vital factor. He therefore issued IAU circular 5636 (October 1992) in which he warned

of the possibility that

> periodic comet Swift-Tuttle may hit Earth on its next return.[48]

SAFE FOR THE NEXT MILLENNIUM?

A storm of publicity erupted after Marsdens announcement, and he was accused of sensationalism. Obliged to defend his position, he explained that the purpose of the circular had not been to scare anybody but to urge professional astronomers to pay special attention to the comet "during the next several years":

> The observations in 1862 showed that Swift-Tuttle behaved in a very peculiar fashion—something of the kind I have never seen before in nearly forty years of computing orbits.... The fact is that even if Swift-Tuttle doesn't get us next time, it will have ample opportunity to do so in

the more distant future.[49]

Marsden spent three months going through all his calculations again. Then at the end of 1992 he made a further statement in which he affirmed that he was now certain that his original date of 11 July would be proved correct—give or take a day or two—and that there was therefore no danger of a collision in 2126.[50] “Were safe for the next millennium,” he proclaimed, adding that the comet would make another close approach in the year 3044.[51]

UNCERTAINTIES

Astronomers watching Swift-Tuttle leave the inner solar system observed a recurrence of the Cape effect during 1993: “The comet ejected material that changed its path once

again, albeit very slightly."[52] It then continued on its way, traveling so fast that by 1998 the most powerful telescopes on Earth were no longer able to pick it up. It will be seen next when it returns toward perihelion in 2126, with hope closer to 11 July than 26 July.

With a diameter of 24 kilometers, Swift-Tuttle will then be traveling at just over 60 kilometers per second. If by some bad fortune Marsden turns out to be wrong and it does hit Earth, speed/mass calculations indicate that the impact energy will be "in the range of 3 to 6 billion megatons."[53] This would be equivalent to between 30 and 60 impacts on the scale of the K/T event 65 million years ago.

Could there be a collision, or is Brian Marsden's 15-day margin sufficiently wide to save the planet?

It's anybody's guess. As Dr. Clark Chapman of the U.S.

Planetary Science Institute observes:

> Astronomers have no idea at this time as to how much the comet's orbit will be shifted due to the disruptive forces working on the comet's surface, which increase as it nears the Sun.[54]

Such uncertainties are characteristic of the entire field of cometary research, where big surprises and big objects constantly materialize out of the darkness of deep space. Although the odds are imponderable, it should be obvious even to a schoolchild that Swift-Tuttle could go on missing Earth forever, and that another comet, perhaps one that has not been seen in our skies for thousands of years, could materialize tomorrow threatening our doom like the dragon of Revelations,

> which had seven heads and ten horns.... Its tail dragged a third of the

stars from the sky and dropped them to the earth.[55]

Little wonder then, when the very bright, long-tailed, long-period comet Hale-Bopp appeared ominously in 1997—making its closest approach to Earth at the spring equinox after not being seen for an estimated 4,210 years—that a sort of eschatological fever briefly seized the world. Moreover, if Hale-Bopp had hit us instead of passing us by at a distance of 200 million kilometers it really would have been the last of our days. This comet is thought to be at least twice the size of Swift-Tuttle.[56]

SNEAKING UP

Other long-period comets with orbits of 15,000 years, or 20,000 years, or 90,000 years, could theoretically appear out

of the night sky *at any time—without any warning*. Since their previous visits are recorded in no known historical documents or traditions, we have no way of predicting when they will be coming back. The same goes for long-period comets that may have passed this way in historic or near-historic times—like Hale-Bopp in 2210 B.C.—but for which, again, no record has survived.

Such comets, say Philip Dauber and Richard Muller, are "as likely to be orbiting the Sun opposite to Earth's direction as with it." When this happens,

> their potential impact speeds are even greater than those of short-period projectiles. Their usually large size—4 kilometers and up—makes them still more hazardous. These Earth-crossing comets only become visible as heat from the Sun begins vaporizing their long-frozen ices…. About a year of acceleration remains before they swing around the Sun or, rarely,

> collide with a planet. About half of all long-period comets are actually Earth crossers…. If we are especially unlucky, a new comet on a collision course with Earth could be detected with only two months remaining before the fatal crash.[57]

David Morrison of NASA's Ames Research Center points out that with present technology "no means exists to distinguish a faint object (either comet or asteroid) against the dense stellar background in the Milky Way."[58] He warns that it is therefore

> possible for a comet to "sneak up" on Earth, escaping detection until it is only a few weeks from impact. A perpetual survey is required to detect long-period comets, and even with such a survey we cannot be sure of success.[59]

It seems that a process of evolution is at work in the life of comets and that long-period comets gradually change their orbits through "the buildup of gravitational interactions with the major planets"[60] to become intermediate-period comets and finally short-period comets with shorter and shorter orbits. So short, eventually, that they must either fall into the Sun or become enchained in the gravity of a planet. An example is Encke's comet, an Earth crosser, which has the shortest period of all known comets—just three and one-third years—and which has been observed to become "increasingly erratic in keeping its appointments in our skies."[61] The period of its orbit is shortening fast and, as we will discover, it may be part of a larger conglomeration of cosmic debris that is presently evolving into a deadly collision hazard.[62]

In the past two centuries two particularly near misses have been recorded between Earth and comets. Comet Lexell missed Earth by less than a day in June 1770,[63] and comet IRAS-Araki-Alcock flew by at a distance of about 5 million kilometers in 1983.[64]

When can the next close approach be expected?

The classic work of reference on comets, to which all scientists seeking guidance on these matters automatically turn, is Brian Marsdens *Catalogue of Cometary Orbits*. The 1997 edition lists all of the 1,548 comets for which sufficient data exist to compute orbits—91 from the extremely scanty historical data that has come down to us from the period before the seventeenth century and the rest "from cometary passages during the last three centuries."[65]

What science really knows about comets, in other words,

derives from data based on an incredibly narrow sample of cometary behavior as observed from our tiny corner of the universe in three insignificant centuries.

FRAGMENTING GIANT COMETS

We have seen that countless billions of comets are in the Oort cloud and the Kuiper belt, that some of these comets seem to be “spiraling down” toward the Sun—and thus toward the inner planets—and that many objects previously believed to be asteroids are in fact the remains of former comets. In a sense, therefore, it is no longer useful to think of asteroids and comets as distinctly different objects. Instead they look like the consequences of an hierarchical disintegration process in which giant comets from the outer solar system with very long orbits migrate into the inner solar system

fragmenting along the way into a multitude of smaller shorter-period comets, which in turn either collide with planets—chemical tests indicate that the K/T impactor was an active comet—or manage to avoid doing so.[66] Those that survive will put on ever-diminishing firework displays of dust, meteorites, and larger debris for a few thousand years before eventually becoming completely devolatilized and inert—that is, comets in asteroidal form. They do not lose their propensity to fragment, however, nor to bump into planets, and continue to cross orbits with the random danger of a game of Russian roulette.

As we have seen, it is only since the mid-1990s that the fragmenting "giant comet" idea, which was vigorously advocated by Victor Clube and Bill Napier more than twenty years earlier, has begun to win universal favor among astronomers. The discovery of huge comets like Chiron and

Hidalgo, as well as the Kuiper belt objects, has settled that. Moreover it is now clear from a study of historical records that giant comets do not always fragment in the outer solar system and can sometimes survive, more of less intact, to approach the domain of the inner planets. A notable example was comet Sarabat in 1729 that almost reached Jupiter.[67] From a number of astronomical reports made at the time it is known that this comet was extremely bright—"intrinsically the brightest observed in recent centuries," says Duncan Steel,[68] that "only a very large object could have appeared so bright when so far away,"[69] and that

> a lower estimate of its size is about 100 kilometers; actually it might have been up to 300 kilometers across.... It is inevitable that many similar comets on Earth-crossing orbits have arrived over geological time.[70]

To this Bill Napier adds that 200-kilometer objects in chaotic orbits are inherently unstable: “It only takes a small collision to veer a comet on a path toward Earth, and who knows what it could do?”[71] Such unpredictability is of course heightened by the distinct possibility that many comets may also be subject to Cape effects because of outgassing. In the case of Halley’s comet an accurate estimate of the power of these gas jets was obtained by the *Giotto* space probe. The jets were found to

> exert a force of about 5 million pounds, or nearly as much as all the engines of the space shuttle as it lifts off from the launch pad. And these jets continue for hour after hour, day after day.[72]

MULTIPLE INDEPENDENTLY TARGETED REENTRY VEHICLES

Since the first optical confirmation of the existence of giant comets in the Kuiper belt in 1992 no such object has yet been seen to fragment. “Ordinary” comets, however, which are intimately related to the giants in every respect, are frequently observed to break apart releasing swarms of “warheads”—like MIRVed intercontinental ballistic missiles.

One example was comet Biela, which had a computed orbit that came “within 20,000 miles of the Earths.”[73] (Although this of course does not mean that Earth and the comet were ever actually within 20,000 miles of each other; that would depend on where each of them were in their own orbits at any one time). The nineteenth-century historian Ignatius Donnelly tells the story this way:

> On the 27th day of February 1826, M. Biela, an Austrian officer … discovered a comet in the constellation of Aries, which, at that time, was

seen as a small, round speck of filmy cloud. Its course was watched during the following month by M. Gambart at Marseilles and by M. Clausen at Altona, and those observers assigned to it an elliptical orbit with a period of *six years and three quarters* for its revolution.

M. Damoiseau subsequently calculated its path, and announced that on its next return the comet would cross the orbit of Earth, *within twenty-thousand miles of its track*, but about *one month before the Earth would have arrived at the same spot!*

This was shooting close to the bull's-eye!

He estimated that it would lose nearly ten days on its return trip, through the retarding influence of Jupiter and Saturn; but if it lost forty days instead of ten, what then?

But the comet came up to time in 1832, and the Earth *missed it by one month*.

And it returned in like fashion in 1839 and 1846. But here a surprising thing occurred. *Its proximity to Earth had split it in two;* each half had a

> head and a tail of its own; each had set up a separate government for itself; and they were whirling through space, side by side, like a couple of racehorses, about 16,000 miles apart, or about twice as wide apart as the diameter of Earth.
>
> In 1852, 1859, and 1866, the comet SHOULD have returned, but it did not. It was lost. It was dissipated. Its material was hanging around Earth in fragments somewhere.[74]

On the last occasion, 1866, another commentator tells us that "in November, the period of Biela's return, the world beheld a most brilliant meteor shower, and in 1872, 1885, and 1892, corresponding with its former orbit, there were imposing displays of meteors in November.[75] At one site more than 160,000 shooting stars were seen in an hour and even today the debris of Comet Biela returns annually as the Andromedid meteor shower.[76]

On its way into the inner solar system the Great Comet of 1744 transformed itself near the orbit of Mars into six large, luminous fragments each with its own tail from 30 to 44 degrees in length.[77] On 4 October 1994, Jim Scotti of Spacewatch reported that comet Harrington—which does not cross the orbit of the Earth—had broken into at least three parts.[78] In March 1976 the nucleus of comet West disintegrated into four parts.[79] And we have seen how comet Shoemaker-Levy 9 broke into 21 fragments.[80]

Other examples of fragmentation include comet Macholz 2, which was found by the astronomer Donald Macholz in 1994 in a region of the sky not yet covered by any of the telescopes of the world's skeletal Spacewatch network.[81] This comet is on an Earth-crossing orbit with a short period of about seven years and consists of a swarm of six individual nuclei still relatively close to one another but drifting apart—

indicating that they were probably produced by the fragmentation of an original larger nucleus sometime in the 1980s.[82]

The remarkable Kreutz "sun-grazing" comets—so bright that they have sometimes been seen in daylight—are a similar family of nuclei descended from a common progenitor. Consisting now of about a dozen individual objects on virtually identical orbits but with varying periods—from 500 to 1,000 years—they pass very close to the surface of the Sun, some to within just half a million kilometers of its surface.[83] Indeed in 1979 one of these comets crashed directly into the Sun, being photographed just before it did so by the U.S. Navy satellite *Solwind*. The impact caused "a brightening over half the solar disk, which lasted a full day."[84]

Tracing back the orbits of the Kreutz sun-grazers, Victor

Clube and Bill Napier conclude:

> They were once a single, gigantic object, ten or twenty thousand years ago, which underwent a hierarchy of disintegrations. There is little doubt that the tidal strain induced by the close passage to the Sun has split the parent comet into fragments.[85]

We saw the effects that such fragments can have when comet S-L 9 crashed into Jupiter.[86] Since any lesser planet would have been killed by those 21 hurtling projectiles, we are led to wonder whether it might not have been precisely such an incident—although perhaps on an even grander scale—that killed Mars?

Could a gigantic comet be implicated in the dark story of the Martian past and also, perhaps, in the uncertain future of Earth?

23

Voyager on the Abyss

FROM the very beginning of their great civilization the ancient Egyptians conceived of the mission and predicament of mankind as being inseparably connected to the cosmos and governed by it. They were certain that our true spiritual home was in the heavens, from whence we descended only temporarily into the material world, and that "the inhabitants of heaven" exercise a powerful influence upon

our lives, which we neglect at our peril. In their teachings the stars and the planets were gods, not just remote points of light in the sky, and meteorites made of *bja* iron—the "divine metal"—represented an interchange between the spiritual and material realms.

Such ideas were present from the earliest historical period and are expressed in the Pyramid Texts, the oldest-surviving scriptures of mankind. Together with the later funerary literature of the ancient Egyptians, they teach that a secret path of pure *knowledge* exists—"a way of ascent to the sky"[1]—that can lead us back to our heavenly home if we search it out and make ourselves masters of it. Nor can there be any doubt that the ultimate goal of the ancient Egyptian initiates was a form of conscious immortality—the "life of millions of years"—which would be achieved through rebirth as a star:

> O King, you are this great star, the companion of Orion who traverses the sky with Orion, who navigates the Duat with Osiris. You ascend from the east of the sky, being renewed at your due season and rejuvenated at your due time. The sky has borne you with Orion.[2]

The reader will recall that the Duat sky region—the ancient Egyptian netherworld, a starry afterlife kingdom—was dominated by the constellations of Orion, Taurus, and Leo and divided by the "Winding Waterway," which we call the Milky Way:

> The celestial portal to the horizon is opened to you, and the gods are joyful at meeting you. They take you to the sky with your soul … You have traversed the Winding Waterway as a star crossing the sea. The Duat has grasped your hand at the place where Orion is, the Bull of the Sky [Taurus] has given you his hand.[3]

The Milky Way is our galaxy and the great sky river that we see is made by the combined light of billions of stars lying along the plane of the galactic disk.[4] Within the galaxy, which is technically a “spiral galaxy,”[5] all stars are indeed in motion, sailing across the Catherine wheel of spiral arms, orbiting the galactic nucleus. Our particular star, the Sun, has recently passed through the Orion spiral arm,[6] so named because it contains the spectacular Orion nebula, which lies beneath the three belt stars of the constellation of Orion. Astronomers have put forward intriguing evidence that the passage was a “bumpy” one, that the solar system was severely disturbed by it and that the consequences of this disturbance have included a series of spectacular sky events during the past 20,000 years—all of them seeming to emerge from the constellation of Taurus.[7]

SKY/GROUND MESSAGE

It may not be a coincidence that the ancient Egyptians had a deep and abiding interest in the constellations of Orion and Taurus. Their belief that this area of the sky is the cosmic home to which we should strive to return is expressed not only in religious texts but also in the three great pyramids of Giza and in the so-called Bent and Red pyramids of Dashur.[8] Standing at the geodetically significant location of 30 degrees north latitude (one-third of the way between the equator and the North Pole) and incorporating a series of mathematical constants, transcendental numbers (i.e., numbers not capable of extension in terms of a finite number of arithmetical operations), and geometrical ratios such as *phi, pi*, and *e/pi*, the Giza group mimic the sky image of the belt stars of Orion while the Dashur pyramids mimic the relative positions of

two stars in the constellation of Taurus—Aldebaran and epsilon Tauri.[9] It is likely that the Red pyramid—representing Aldebaran—was built of red stone because of the conspicuous color of its stellar counterpart, which forms "the glinting red eye" of the Taurus sky bull.[10]

We showed in chapter 17 that precisely the same logic is expressed in the enigmatic figure of the Sphinx—painted red because of its association with the Red Planet Mars and lion-bodied to mimic the sky image of the constellation of Leo rising at the spring equinox. No civilization that understands precession should have any more difficulty than ourselves in working out that Leo last "ruled" the equinox between approximately 13,000 years ago and 10,000 years ago. We are sure that the builders of the Sphinx intended this connection to be made. This is why we wonder if it is possible that part of the "message" of the Sphinx may simply

be: “consider Mars when the spring equinox was in Leo.”

The fact is that when we do consider Mars we find the following:

- It once had rainfall and running water and could have supported life. We do not know when this was. There are some indications that it could have been extremely recently.
- It has upon its surface an object that looks very much like the face of a Sphinx set among a conglomeration of other objects including several that greatly resemble pyramids. We have seen that these Martian “structures” are set at a geodetically significant latitude and incorporate many of the same mathematical properties as the monuments of the Giza necropolis.

- The Martian surface has been devastated by collisions with a gigantic swarm of cosmic debris—including three huge world-killing projectiles up to several hundred kilometers in diameter that caused the Hellas, Argyre, and Isidis craters. We saw in part 1 that this cataclysm need not necessarily have happened in some remote geological period, as scientists have tended to assume, but could have occurred quite recently, perhaps less than 20,000 years ago—perhaps even in the same period in which Earths last Ice Age was suddenly and mysteriously ending amid planet-wide extinctions of animal species.[11]

Is it possible, in other words, that "the terminal Mars cataclysm" and the lesser but still very severe cataclysm that

brought Earth out of the last Ice Age could both have occurred *at more or less the same time*—and perhaps even have been caused by the same agent?

If we think as the ancient Egyptians did, seeing the cosmos, the earth, the planets, and all the stars as the constituent parts of a continuous interconnected matrix, then we will find it easier to understand what modern science has only recently proven to be true—namely that the solar system and all the planets are profoundly influenced by the galaxy and that these influences flow in toward us from deep space like tides.

THE JOURNEYS OF RA

The ancient Egyptians depicted the Sun—the god Ra—as a

voyager upon the waters of the abyss:

> Men praise thee in thy name of Ra…. Millions of years have gone over the world; I cannot tell the number of those through which thou hast passed…. Thou dost pass over and dost travel through untold spaces requiring millions and hundreds of thousands of years to pass over…. Thou steerest thy way across the watery abyss to the place which thou lovest … and then thou dost sink down and make an end of hours.[12]

Although the text is from the Book of the Dead, the ideas it expresses are the territory of modern astrophysicists, who have learned that everything in the universe is in motion and that as the Sun makes its way around the galactic nucleus, it is indeed a traveler through "untold spaces" that require "millions of years to pass over."

In fact, a number of different motions are involved. Here are the basics:

(1) Drawing with it the entire solar system, including of course all the comets of the Oort cloud and the Kuiper belt, the Sun is locked in a vast orbit around the galactic nucleus, completing each revolution in a period of approximately 250 million years.[13] Traveling at a speed of 225 kilometers per second, it has recently passed through the Orion spiral arm on the inner edge of which it now stands.[14]

(2) The Sun orbits the galactic nucleus faster than some stars and slower than others—in general stars distant from the nucleus travel at lower speeds than those closer to it, and the Sun is located relatively far from the nucleus.[15] "It's a complete muddle," explains Victor Clube:

> Everything passes through everything else. I mean a star doesn't pass through another star. But space in general is so empty that all these features that we talk about sort of interpenetrate.... So the Sun is

> actually moving in its particular orbit. And it happens to be going at a different speed from any old spiral arm or any old molecular cloud. So it passes through these things.[16]

(3) The Sun does not always travel in the flattish (although light years' thick) horizontal plane of the galactic disk. Instead it's motion is better understood as wave-like (astronomers have compared it to the motion of a carousel horse,[17] or a porpoise[18]). The effect of this slow undulation is that the Sun in its orbit periodically swims up above the dense central plane of the galaxy, then dives down again into it, then emerges beneath it, then swims up once more—and so on, endlessly, as it pursues its circuit. The rhythm of these movements is regular and cyclical with the Sun rising from its lowest point beneath the disk to its highest point above it in a period of just over 60 million years and falling again to the lowest point after a further 60 million years. It is only at

the halfway points in this journey, therefore—roughly every 30 million years—that it passes through the galaxy's dense central plane.[19]

(4) Superimposed on the Sun's predominantly circular (albeit up-and-down) trajectory about the galactic nucleus there is also what astronomers refer to as the "peculiar" solar velocity.[20] According to the calculations of Mark Bailey, Victor Clube, and Bill Napier:

> This may be represented as a vector directed respectively toward the galactic center, parallel to the circular velocity and perpendicular to the galactic plane. In galactic coordinates this corresponds to a motion toward [a point] roughly 30 degrees out of the plane toward the north galactic pole. This direction, incidentally, can be viewed from the northern hemisphere on any summer's evening, as it lies … roughly halfway between the bright stars Vega and Ras Alhague, *almost exactly*

opposite the molecular clouds in Orion [author's emphasis].[21]

We remind the reader that the pyramids of Giza, which model the belt stars of Orion, are located at 30 degrees north latitude on Earth—or, to put it another way, at a point "roughly 30 degrees out of the plane of the equator toward the north geographical pole." Moreover this place in the galaxy toward which the Sun is vectored ("thou steerest thy way across the watery abyss to the place which thou lovest … and then thou dost sink down and make an end of hours") is located opposite the molecular clouds of the Orion nebula. As the Hubble space telescope conclusively demonstrated during the 1990s the nebula is a star-forming region—literally a place where new stars are being born.[22] Lying in a region of space through which the Sun and Earth are estimated to have passed roughly 5 to 10 million years ago,[23] it forms the feature of the Orion constellation, beneath the

belt stars, which the Greeks depicted as a sword but the ancient Egyptians saw as the phallus of Osiris, the god of rebirth.

AS ABOVE, SO BELOW

The ancient Egyptians believed that events on Earth are governed, conditioned, and directly affected by events in the sky and that "all the world which lies below" is

> set in order and filled with contents by the things which are placed above; for the things below have not the power to set in order the world above. The weaker mysteries, then, must yield to the stronger … the system of things on high is stronger than the things below … and there is nothing that has not come down from above.[24]

This is literally true of comets. Not only do they “come down from above” in the sense of belonging to the sky, occasionally colliding with planets, but they are also, as astronomers now know, periodically propelled toward the inner solar system by even more distant forces at the level of the galaxy. Such influences from “on high” are governed largely by the character of the different deep-space environments that the Sun encounters as it pursues its immense circular and undulating course around the galactic nucleus and are felt most strongly during passages through the galaxy’s dense central plane.[25]

Two key factors are involved, both of which, in reality, interpenetrate. These are the galactic “spiral arms” and the massive nebulae—found often but not exclusively within spiral arms—that are known as gigantic molecular clouds.

COMET FACTORIES

A degree of controversy exists among astronomers as to what spiral arms actually consist of, but most would agree with Victor Clube that they are relatively transient features, ejected from the galactic nucleus, and that the galaxy is constantly generating new ones: “So it kind of grows leaves, seasonally, if I can put it that way…. I see lots of comets condensing out of the hot gas that’s originally in spiral arms. And it’s these comets which aggregate to make the stars.”[26]

We are reminded of electrifying spectroscopic evidence reported by the astronomer Lagrange-Henri in 1988, of “a swarm of small cometary-like bodies falling at high velocities toward Beta Pictoris, a relatively young star around which planet formation is either occurring now or has just been completed.”[27]

Condensing in the hot gas of spiral arms, such comets may reach gigantic sizes. Clube and Napier report that truly massive examples have been identified "in the vicinity of two well studied and exceedingly active stellar associations, namely the so-called Gum Nebula and the Orion Nebula."[28] These comets are

> vast compared to solar system examples, the tails being up to a million times longer.... The tails are not only pointing away from the center of the parent association where most of the local radiation originates, but the heads seem to be in highly eccentric orbits moving away from the central source.... It is supposed that the heads may comprise huge assemblages of interstellar comets or planetesimals.... We thus have an indication that we may be dealing here with large, loose aggregates of cometary material which are either about to be or are in the process of forming new stars.[29]

As well as being the nurseries of gigantic interstellar comets, spiral arms are thought to contain a mass of other material varying in size from the tiniest gas and dust particles up to objects “as big as the moon”[30]:

> The galactic evidence favors spiral arms containing planetesimals or comets in all their variety of forms. It is inevitable then that the solar system interacts with such material as it passes through the spiral arms.[31]

The Sun can take anywhere from 50 million years to 100 million years to make a complete horizontal passage across a spiral arm.[32] Since spiral arms tend to be located at or very near the galactic plane,[33] the Sun’s porpoise-like up-and-down motion means that it will spend most of its time either above or below the arm, only diving into the arm itself at cyclic intervals of approximately 30 million years.[34]

MONSTER CLOUDS

The second periodic "hazard of the galactic plane"—the flattened zone where most loose cosmic material tends to gravitate—is the possibility of encounters with gigantic molecular clouds (GMCs). As noted, these can be found as complicating factors within already "lumpy" spiral arms, or can exist in isolation, lying in the interstellar medium between spiral arms.

GMCs are typically about 100 light years across and have a mass (as distinct from diameter) estimated to be about half a million times that of the Sun.[35] The basic matrix of these cold, massive concentrations consists of molecules of hydrogen gas and more complex compounds, mixed with dust.[36] In addition, they often contain dense concentrations of young stars and, Clube and Napier believe, "enormous

numbers of newly formed comets as well … circulating freely within the nebula."[37]

"Confined within the flat plane of the Milky Way," it is estimated that "a few thousand" GMCs orbit the galaxy.[38] Inevitably, there will come times, again governed by the 30-million-year periodicity with which the Sun's own orbit oscillates in and out of the galactic plane, when it must penetrate GMCs:

> Close encounters between the Sun and such nebulae, say to within a few light years, have probably occurred more than fifty times during the lifetime of the solar system. Actual penetration has probably occurred more than a dozen times, several involving passage of the Sun to within about a light year of the cloud center.[39]

GALACTIC CONTROL

We now have all the pieces in place to understand that comets find their way into the inner solar system, and can threaten the destruction of worlds, not because of some nearby "local" event but because of the distant and almost unimaginable influence of the galaxy. In other words, in the purest sense, what happens down here "below," on Earth—or on Mars—when a comet approaches closely, can indeed be traced back far "above" to the cycles of the cosmos.

Astronomers have shown that passage through a GMC has a profoundly destabilizing effect on the Oort cloud (the hollow sphere of 100 billion comets that surrounds the outer reaches of the solar system) and that occasional passages past exceptionally dense, concentrated "substructure" within the GMCs has a "relatively more damaging effect."[40] At one and the same time, the GMC "strips away" the outer layer of the shell of comets and carries it off while its immense

gravitational tides propel other comets inward toward the Sun.[41] Embarking on a journey that will take millions of years to complete, these fallen angels gradually spiral down through remote space. Some enter a kind of limbo in the Kuiper belt where they may remain for as much as 3 million years before beginning to fall in again toward the center. Others take a more direct route and eventually find themselves within the gravitational influence of one of the giant planets, which whirls them around like pinballs and projects them on new courses toward the inner solar system.[42]

Passage through a spiral arm has equally dramatic effects. Here the Oort cloud is replenished with new interstellar comets and other “large, solid bodies” that have grown in the spiral arm.[43] Indeed, it is estimated that “the solar system, acting as a gravitational scoop, captures billions of such

bodies when it crosses spiral arms."[44] As these bodies swarm into the Oort cloud they propel other comets out of the cloud and toward the Sun, leading to increased cometary activity in the inner solar system.[45] Eventually "episodes of planetary bombardment occur,"[46] sustained over long periods with "profound biological and other consequences."[47] At each episode, huge quantities of material are unleashed within the solar system, representing a lingering threat that can strike any time, or repeatedly, over many thousands of years.

In both cases—GMCs and spiral arms—the cycle of disturbance that leads to the planetary bombardments is primarily governed by the porpoise-like up-and-down motion that takes the Sun through the galaxy's dense central plane at intervals of about 30 million years. Astronomers also recognize a second, longer rhythm at work—a cycle of around 250 million years, linked to the period of the Suns

orbit around the galactic nucleus.[48]

In other words, the entire comet flux into the inner solar system is controlled at the galactic level, and the comets themselves represent fragments of the galaxy flung upon the planets. During severe encounters with GMCs, or particularly bumpy spiral-arm passages, it is to be expected that *waves of potential impactors, some of them in the world-killing 200-kilometer-plus range*, will be released to work their way down toward the Mars-Earth-Moon realm; these waves, moreover, will follow earlier waves released by previous galactic encounters and will be followed by further waves from future galactic encounters.[49] The inner planets, in other words, will continue to face periodic bombardments that we may expect to be both heavy and sustained. So long as the Sun still shines and comets continue to be manufactured in spiral arms, the process can go on forever.

PULSE

The heartbeat of the process is that pounding 30-million-year cycle—modulated by a 250-million-year cycle—produced by the Suns oscillations through the galactic plane. As a result of tenacious detective work, multi-disciplinary teams of scientists, including astrophysicists, astronomers, mathematicians, geologists, and paleontologists, have been able to establish *a close statistical correlation* between these great comet-multiplying cycles of galactic disturbance, the dates of known craters on Earth, and mass extinctions of animal species[50]

> with major extinctions occurring every 250 million years or so, due to the passage of the solar system through a spiral arm of the galaxy, and lesser extinctions occurring approximately every 30 million years as the solar system crosses the galactic plane…. The fact that interstellar clouds

> are not all found exactly on the mid-plane of the galaxy would explain why not all extinctions seemed to have occurred precisely on schedule, the standard deviation of each individual episode being 9 million years.[51]

Sir Fred Hoyle and Professor Chandra Wickramasinghe of the University of Cardiff have firm opinions about the K/T object that caused the extinction of the dinosaurs 65 million years ago:

> The evidence is that a giant comet plummeted into the inner solar system, passing close enough to Jupiter to fragment it into many pieces approximately 65.05 million years ago. Repeated passages by Jupiter over a 100,000-year period produced hierarchical fragmentation, and one such fragment (of normal comet size) came close enough to Earth to crash onto the planet's surface.[52]

As Hoyle and Wickramasinghe also point out, the mass extinction of 65 million years ago was not an isolated incident but part of a cycle that is hard to miss during the past 100 million years, with mass extinctions at 94.5 million years ago, 65 million years ago, and 36.9 million years ago.[53] The sediments of these epochs "have been found to be associated with iridium enhancements, so a cometary connection is believed to follow."[54] In addition, studies of impact craters on Earth and of crater samples brought back from the Moon show that intense, sustained, and violent bombardments have taken place with approximately the same periodicity.[55]

Within the margins of tolerance this data warns us that the Earth-Moon system could now enter an episode of bombardment at any time. Indeed, as we will see in the next chapter, an increasingly large and eminent group of scientists

believe that we have been in such an episode for almost 20,000 years, that it is implicated in the sudden and mysterious end of the last Ice Age—which resulted in mass extinctions and a global flood—and that the worst is yet to come.

What no one has considered, perhaps because it seems so far away when viewed from Earth, is the haunting possibility that Mars, which the ancient Egyptians called Horus the Red, and the Aztecs Xipe-Xolotl, the "Flayed Planet,"[56] could also have been a victim of that same sustained bombardment.

24

Visitor from the Stars

THE mystery of what happened to Mars is a jigsaw puzzle that has been scattered throughout the galaxy—perhaps even beyond the galaxy—and across billions of years. Moreover, since the distance between Mars and Earth is insignificant on the galactic scale, it is reasonable to suppose that any influence felt by Mars will also have been felt by Earth—and vice versa. The picture that has begun to emerge sets the

solar system within its galactic environment and shows us that *a clear and present danger is posed by comets*.

The danger is as yet extremely difficult to quantify, and because of this the precise risks are impossible to assess. All that we know for sure is that as the Sun orbits the galactic nucleus, towing the Oort cloud, the Kuiper belt, Mars, Earth, and all the other planets in its wake, it exposes *every one of them* to periodic surges of cometary activity whenever it passes through a spiral arm or a gigantic molecular cloud. As though propelled by some great cosmic tide, waves of comets are unleashed by such encounters and roll toward the inner solar system—including, at random intervals, giant comets hundreds of kilometers across.

It may take the missiles in each wave *millions* of years to fall far enough to cross the orbits, and enter the domain, of the stony planets. During this long spiraling-down process, in

which comets have their own orbits repeatedly “nudged” and stressed by interactions with the gas-giants Neptune, Saturn, and Jupiter, many are ripped apart by gravitational forces and split up into multiple fragments—thus vastly increasing the total numbers of projectiles.

We will argue that much of the damage done to Mars, and such enigmas as the planet’s strange crustal dichotomy, may be accounted for by a single head-on collision with the fragments of a truly gigantic comet that came in from the outer solar system on such a wave. Moreover, when we look at the ruined, cratered corpse of Mars, so grim and dead, so tragic with its empty rivers and its dry oceans, is it not obvious that worlds *can* be killed by comets? And is it not obvious, too, as the old saw goes, that there but for the grace of God go you or I?

Science has not yet been able to bring back any samples from Martian craters or to undertake a detailed geological investigation of the planet. Almost all of our assumptions about Mars are based on what can be learned from studying photographs taken by orbiting spacecraft—and these cannot tell us *when* the terminal Mars cataclysm occurred. As we have maintained throughout this book, the thousands of impact craters south of the line of dichotomy need not have accumulated slowly, over billions of years, as most scientists still believe, but could have been inflicted *suddenly*, perhaps even in one single cataclysmic incident, and perhaps *recently*.

This is a hypothesis that can be tested when manned landings are made on Mars. Until then it is only an assumption, and definitely not a proven fact, that the Martian

craters are billions of years old. A certain light may be shed on the matter, however, by what we know for sure has happened on Mars's nearby neighbor, Earth. Here we do not need to rely on grainy photographs taken by orbiters thousands of kilometers up but can look into tangible and empirical matters such as extinction records, data gathered from craters around the world, chemical tests on soil samples—and so on and so forth.

What these indicate, as we reported at the end of the preceding chapter, is that our planet has experienced cyclic episodes of bombardment and extinction at regular intervals during the past 100 million years—specifically 94.5 million years ago, 65 million years ago (the K/T event), and 36.9 million years ago.[1] We have also shown that the cycle has a basic "heartbeat" of 30 million years with "the standard deviation of each individual episode being 9 million years."[2]

In plain English this means that if you look at the cycle over a long enough period of time—several hundred million years—you will find that linked bombardment and extinction episodes do occur at roughly 30-million-year intervals, but that the gap may become as small as 21 million years in some cases, or as large as 39 million years in others.

Returning to the last 100 million years we find that the intervals between extinction events have been consistently within this range. Between 94.5 million years ago and 65 million years ago the figure works out at 29.5 million years. Between 65 million years ago and 36.9 million years ago the figure works out at 28.1 million years. Since we know that the bombardments are caused by waves of galactic material that swamp the entire solar system—not just near-Earth space—we think it is a good guess that Mars, and the Moon, would have experienced bombardment episodes, pretty much

in tandem with Earth, at around 94.5, 65, and 36.9 million years ago. As we saw in the last chapter this has already been confirmed in the case of the Moon. In the case of Mars it is another testable hypothesis that will have to await a manned landing—but then so will all hypotheses about Mars, from all sources. For neither the wild theories of the craziest cranks nor the sober reflections of celebrated scientists have yet had to be proven against hard empirical evidence from the surface of the planet itself.

To reiterate, it is our hypothesis that Mars and Earth both experienced bombardment episodes at around 94.5, 65, and 36.9 million years ago. The final interval, from 36.9 million years ago up till today, is significantly longer then the previous two. Indeed, it is dangerously close to the extreme upper limit of the cycle—39 million years.

Could we be nearing the end of what is already beginning

to look like an untypical and overlong period of quiescence? Could another bombardment of the inner planets be on the way?

WHERE ARE WE NOW?

The first steps toward an intelligent assessment of our current predicament have already been taken by a group of leading astronomers including Victor Clube and Bill Napier, David Asher, Duncan Steel, Mark Bailey, Sir Fred Hoyle, and Professor Chandra Wickramasinghe. There is not space here to report all of their discoveries, so in the rest of this chapter we will inevitably have to focus on the central evidence chain that they have built up. We shall do so as far as possible in their own words, which convey to the reader better than we can the deep concern and rising sense of

urgency that these scientists feel. We share their concern. And we believe it is a matter of fundamental importance that the public and policymakers should be made aware of their work—which demonstrates that the galactic environment in which the solar system presently finds itself is a uniquely deadly and unpredictable one. Together with a growing number of colleagues from many other countries, they draw particular attention to the following facts:

1. There is evidence of "a very recent disturbance of the Oort cloud related in some way to the solar motion."[3]
2. The Sun has recently passed through the galaxy's densely crowded mid-plane and is presently "skimming" just 8 degrees above it.[4]
3. For the past 100 million years or so the Sun has

been visiting the Orion spiral arm,[5] crossing it "at a fairly narrow angle to the axis, completing one or two porpoise-like cycles as it does so."[6]

4. The Sun has recently completed said passage above and is now poised just above the inner edge of the arm.[7]

5. Here the Sun has "penetrated what appears to be the remains of an old, disintegrating giant molecular cloud. This is a ring of material which incorporates most of the molecular clouds and star-forming regions in the solar neighborhood. The young blue stars form an arc in the sky now known as Gould's belt but recognized since the time of Ptolemy … The solar system passed through Gould's belt only 5–10 million years ago."[8]

6. The chilling conclusion is that the Sun's current "address" in the galaxy not only indicates that a bombardment episode is imminent but that it *must have already begun* and that the impact rate *at the present time* should be exceptionally high:

The Sun's position at the inner edge of the Orion spiral arm ensures that we are currently in an active phase. Further, the solar system has just passed through the plane of the galaxy where the tidal stresses acting on the comet cloud are at their maximum; the comet flux is therefore near a strong peak of its galactic cycle. It has also recently passed through Goulds belt and is therefore undergoing an exceptional tidal stress due to a recent passage through an old, disintegrating molecular cloud.... This encounter must have created a sharp impact episode, within which we are still immersed.... [Indeed] the conditions which would yield an exceptional flux of comets on to Earth—positioning near the galactic plane, proximity to a spiral arm, and recent passage through a system of

> molecular clouds—are all simultaneously met by the solar system at the present time…. We are in an impact episode now.[9]

THE TRAIL OF A GIANT COMET

The detective work that the astronomers have done pinpoints the Suns turbulent passage through Goulds belt as the single most likely source of the episode. Near the end of the passage, around 5 million years ago, they believe that a wave of comets was expelled from the Oort cloud by tidal stress and began the slow, light-year-long journey toward the inner solar system. Among these comets was at least one giant "up to a few hundred kilometers in size"[10] that took several million years to spiral down toward the planets. There it first entered the realms of Neptune, Saturn, and Jupiter, where it was detained for perhaps another million years as its orbit

gradually decreased in size while at the same time evolving into an ever more elliptical form. As recently as 50,000 years ago, a gravitational "kick" from Jupiter finally brought it into the inner solar system, where it settled into a steeply elliptical orbit with a perihelion very close to the Sun and an aphelion just beyond Jupiter.[11] Such an orbit would inevitably be both Earth-crossing and Mars-crossing. Victor Clube told us:

> We have a very specific picture that this giant comet was deflected into a sun-grazing orbit. Now that's one that goes very close to the sun. And also highly eccentric, meaning that it gets very close to Jupiter as well. Now this very narrow, elliptical orbit is the key to the evolution of this particular giant comet. The frequent passages close to the Sun ultimately cause the comet to break up into lots of lumps. But it doesn't do it straight away. This is a long-drawn-out process.[12]

The process did not begin in earnest until about 20,000 years ago—although some of the astronomers suspect it could have been as recently as 15,000 to 16,000 years ago,[13] when a major change seems to have overtaken the giant comet.[14] The approximate date of this event has been established by dynamical studies, and from samples of interplanetary dust taken from Earth and the Moon (which show that a great flux occurred between 20,000 and 16,000 years ago[15]) and is likely to be correct, give or take a couple thousand years.[16] Astronomers, however, are much less certain about exactly *what* happened in that crucial epoch.

One possible line of speculation is that the original object had become so volatile as a result of repeated passes close to the Sun that it literally tore itself apart in an explosive fragmentation. Another, perhaps more plausible, is that it trespassed the Roche limit of a planet—as comet Shoemaker-

Levy 9 did during 1992–1994—and was pulled to pieces by intolerable tidal stresses.[17]

This is a puzzle to which we will need to return.

MILLIONS OF PIECES, THOUSANDS OF YEARS

Whatever the precise nature of the original fragmentation event, astronomers have demonstrated that it was followed by a very lengthy and continuing "hierarchy of disintegrations" spread out all along the path of the comet's orbit and periodically bombarding all the inner planets with dense meteor streams, fireballs, and short-lived swarms of Tunguska-sized projectiles, together with

> many individual asteroids of a kilometer in size or greater, which themselves break up, and at least one conspicuously large core remnant

> which is probably enveloped in a swarm of dust and debris.[18]

Sir Fred Hoyle points out that when the original giant comet was still in its undivided state the chances of a collision with Earth were small—he estimates only about one part in a billion on each orbit:[19]

> But as [such a] comet divides into more and more chunks the chance of one or another of them hitting Earth rises inexorably, until one or another of them will indeed score a bulls-eye on our planet.[20]

Within 10,000 years of the initial explosive fragmentation event, Hoyle estimates that the original comet would already have "divided into about a million pieces" with an average weight in the range of 10,000 million tons each (implying a weight of 10,000 *million million* tons for the mother object).[21] Further hierarchical disintegrations into smaller and smaller

—and more and more numerous—pieces would then have followed, spread out over an immensely long period, with the rate of individual collisions rising as the numbers of available projectiles increased.[22]

It is obviously important to know how long such a process might be expected to continue.

Victor Clube calculates that the "comminution lifetime" of a giant comet after fragmentation begins—that is, the time it will take to reduce itself to pieces too small to cause impact damage—may be as long as 100,000 years.[23] Since the first major fragmentation event of the comet that we are interested in is thought to have occurred only 20,000 years ago, the implication is that swarms of deadly projectiles of assorted sizes are still likely to be orbiting along the Earth-crossing path previously pursued by the original intact comet.[24] Moreover there is a chilling possibility that the

larger nuclei remaining in the swarm could prove extremely difficult for astronomers to detect “due to their immersion in obscuring dust—giving them overall something of the character of a ‘holy grail.’”[25]

The laws of probability suggest that if such a near-invisible menace is indeed lurking on an Earth-crossing orbit, then fragments from it should have collided with the Earth-Moon system several times during the past 20,000 years.

HIDDEN HAND

Clube, Napier, Hoyle, Wickramasinghe, and their colleagues have demonstrated that precisely such a series of encounters may have been the hidden hand at work behind the sudden, catastrophic, and hitherto unexplained end of Earth’s last Ice

Age.[26] This meltdown began 17,000 years ago, reached two dramatic peaks at around 13,000 and 10,000 years ago, and by 9,000 years ago had freed the world of ice sheets that had been stable for the previous 100,000 years.[27]

This immense and—in geological terms—extremely rapid change is one of the central mysteries explored in *Fingerprints of the Gods*, which further argues that the cataclysm that ended the last Ice Age also obliterated almost all traces of a highly advanced prehistoric civilization. It is our hypothesis, explored now in a number of works, that there were survivors of that lost antediluvian civilization (a global flood with tidal waves hundreds of meters high was one of the most devastating consequences of the terminal Ice Age cataclysm), and that they spread out all around the world, passing down myths and traditions of a golden age brought cruelly to an end—the biblical story of the Flood of Noah is a

classic example. We are also firmly of the opinion that something more than myths and traditions has been preserved from "before the flood"—even to this day—in initiation teachings transmitted by secretive groups and in certain compelling works of architecture, *of unestablished provenance*, such as Stonehenge in England, Teotihuacan in Mexico, and the pyramids and the Great Sphinx of Giza.[28]

Occurring as they do on a devastated planet that has indisputably suffered a grand impact cataclysm that caused (among other effects) gigantic floods and tidal waves kilometers high, the reader will appreciate why we could not turn our backs on the enigma of the pyramids and Sphinx-like Face of Mars—whatever they may ultimately be proved to be.

Parallel worlds?

Parallel cataclysms?

Parallel lost civilizations?

Who knows? Some mysteries, surely, are worth looking into just because they are there—even if final answers may never be forthcoming.

What is certain, meanwhile, is that the inner solar system has experienced a great surge of cometary activity in the past 20,000 years, that Earth has suffered a mysterious cataclysm during this period and that Mars has also suffered a mysterious cataclysm (although there is as yet no proof as to when). These traumas were severe enough in the case of Mars to snuff out the planet *altogether* as a habitat for life, and in the case of Earth to cause the extinction of an estimated 70 percent of species and to raise sea levels by more than 100 meters.[29]

GRAVE CONSENSUS

We need not repeat here the evidence and arguments, already fully developed by ourselves and others, in *Fingerprints of the Gods* and elsewhere, concerning the spectacular disaster that shook the earth at the end of the last Ice Age. But the great challenge with which this evidence confronts researchers is the need to work out what sort of event could possibly have caused such a *massive* disaster on such an astonishing worldwide scale. Lengthy consideration was given in *Fingerprints* to Charles Hapgood's theory of crustal displacement—which was then being strongly advocated by the Flem-Aths in Canada[30]—but very little attention was paid to the possible role of cosmic impacts, either as trigger factors in displacements (see discussion in chapter 18) or as direct causative agents.

We were not alone in this oversight. Throughout most of the twentieth century, Western science as a whole has resolutely ignored the role of impacts in Earth history, only gradually and reluctantly waking up to their significance in the light of the irrefutable evidence of a cometary collision at the K/T boundary (not fully accepted until 1990) and such dramatic events as comet S-L 9s breakup into 21 fragments and subsequent bombardment of Jupiter in 1994. When the fragments struck, humanity was offered a glimpse through the gates of hell. Since then, after being almost dismissively ignored for two decades, the theories of catastrophist astronomers such as Clube, Napier, Hoyle, and Wickramasinghe have achieved rapid acceptance among the vast majority of their peers.[31]

Fingerprints of the Gods went to press early in 1995. During the lengthy investigation that underlies *The Mars Mystery* we

became aware of the growing catastrophist consensus within astronomy. It is a grave consensus, involving many eminent scholars, and it has profound implications that have not yet been properly communicated to the public. We find ourselves today in more or less complete agreement with this new consensus, which holds, as Clube and Napier put it,

> that great impacts, occurring within bombardment episodes as the solar system moves through spiral arms, have been a major controlling factor in the evolution of life, being responsible for catastrophic mass extinctions of species. Fundamental geological phenomena such as frequent sea-level changes, the occurrence of Ice Ages and plate tectonic episodes, including mountain building, may also have been triggered by impacts.[32]

More specifically, although we do not rule out a crustal displacement as a complicating factor in the terminal Ice Age

cataclysm that took place between approximately 17,000 and and 9,000 years ago, we are now persuaded that the astronomical theory of impacts connected to the decay and fragmentation of a giant comet provides not only the most plausible but also the clearest and simplest explanation for all the events and enigmas of those crucial 8,000 years.[33] Because this was precisely the period in which humanity emerged from the darkness of the Ice Age and onto the threshold of modern history, and because, as we will see, there have been other impacts much more recent than 8,000 years ago, we agree with Hoyle and Wickramasinghe:

> The history of human civilization bears witness to the most recent chapter in a series of cosmic events that controlled our planet in a decisive way.[34]

THE TESTIMONY OF BEETLES

Looking into the geological record, and such arcane matters as the carcasses of temperature-sensitive beetles (the presence or absence of particular species in given strata provides a precise temperature chart for the epochs in which those strata were laid down[35]), Hoyle and Wickramasinghe have produced a revealing chronology of key Ice Age events.

They have shown that although melting of the ice sheets did begin at around 17,000 years ago, proceeding sporadically from there in a series of advances and retreats—perhaps as a result of a parallel series of small impacts—the most spectacular temperature rises occurred in two isolated incidents, one somewhere between 13,000 and 12,000 years ago and the other somewhere between 11,000 and 10,000 years ago.[36]

Here is Fred Hoyle's account of the whole process:

> Thirteen thousand years ago, New York was covered by several hundred meters of ice, as it had been for most of the preceding 100,000 years. Then with startling suddenness the glaciers all over Scandinavia and North America disappeared. In Britain the temperature shot up from a summertime value of only 8 degrees Celsius to 18 degrees Celsius, and it did so in a few decades—in a flash, from a historic point of view.[37]

But the temperature quickly began to fall, and not much later than 11,000 years ago:

> The glaciers were back but not yet to their full extent. In northern Britain they covered the mountaintops but did not extend down into the valley bottoms.... Then [about] 10,000 years ago there occurred a second warm pulse. Once again within a human lifetime the temperature shot up spectacularly by 10 degrees Celsius, all in a moment from a historic

> point of view. And this second pulse did the trick. It brought the earth's climate out of the Ice Age of the last 100,000 years into a warm interglacial period which has been essential for the development of history and civilization.[38]

Following the first pulse, "the emergence from cold to warm conditions took only a few decades."[39] And following the second pulse the even more dramatic—indeed, conclusive—warming was accomplished as we have seen, within a human lifetime.

It was therefore natural for Hoyle to investigate what could have caused such sudden and profound changes to global climate:

> My main concern … is not so much with the genesis of an Ice Age as with its ending. What, all in a moment, can destroy a situation with a longevity running into tens of thousands of years? Evidently only an

> exceedingly catastrophic event of some kind, something that would wash out high-level haze, increasing the water-vapor greenhouse sufficiently to send the temperature up almost instantaneously by 10 degrees Celsius…. But more still, for unless there was a change from a cold ocean to a warm ocean, the situation would soon return to where it was before. The difference between a warm ocean and a cold one amounts to about a 10-year supply of sunlight. Thus the warm conditions produced by a warm water-vapor greenhouse must be maintained for at least a decade in order to produce the required transformation of the ocean, and this is just about the time for which water, suddenly thrown up into the stratosphere, might be expected to persist there. The needed amount of water is so vast, 100 million million tons, that only one kind of causative event appears possible, the infall of a comet-sized object into a major ocean.[40]

In strong support of Hoyle's reasoning, scientists working completely separately from him have recently reported

unambiguous evidence not of one but of *two* major oceanic impacts at around 10,000 years ago—the first in the Tasman Sea, off southeast Australia, and the second in the China Sea near Vietnam.[41] The indications are that these impacts could, between them, have been responsible for the dramatic global warming that took place at that time.

Chandra Wickramasinghe, Hoyle's former student who is now professor of applied mathematics and astronomy at Cardiff University, fully supports the notion of oceanic impacts. In 1998 he told us:

> The natural condition of Earth is one of glaciation, and there's no question about that.... Some huge amount of water had to be added in a catastrophic fashion in order to terminate the protracted period of glaciation that existed before 20,000 years ago.... I think there's no question that there have been collisions—that Earth's geological record is

punctuated by collisions going back to 65 million years ago and earlier.[42]

AGE OF LEO

It is obvious to Hoyle that the impacts that ended the last Ice Age must have been "pretty large, say 10,000 million tons."[43] He admits he was surprised when he first understood that only an episode of this size could explain all the evidence—the surprise coming, as he notes, because there is a habit of mind among scientists to set all such violent events millions of years in the past, and never as recently as 13,000 years ago. In addition, in the 4.5 *billion* years during which we know that Earth has existed, isn't it odd that fragments of a giant comet should have "chosen" to collide with the planet in exactly the period when anatomically modern human

beings belonging to the extremely recent species *Homo sapiens*—by then the only surviving species of the genus *Homo*—that is, people exactly like us—should be around to witness it? Then, Hoyle recounts:

> I saw that the answer to this question lies in what is now called the anthropic principle, which says that the fact of our existence can be used to discount all improbabilities necessary for our existence. If history and civilization were caused by the arrival of a periodic giant comet, all accident is removed from our association in time with such a comet. *The arrival of the comet was random but our association with the effects of the comet is not.*[44]

What Hoyle means by the comet "causing" history and civilization is that by ending the Ice Age it created the necessary conditions for human culture and all its achievements to emerge. We, too, see the force of the

anthropic principle, but we reach a very different conclusion. In our view civilization does indeed have a dramatic association with impacts from a fragmenting giant comet, but it was not in any way "caused" by those impacts; on the contrary, we suggest that it was nearly destroyed by them. We stick with our scenario of an advanced antediluvian culture that flourished *during* the last Ice Age—in areas of the world that were then hospitable and that are now under as much as 100 meters of water. Our hypothesis is that this great prehistoric kingdom was first massively weakened and then utterly destroyed—leaving only a handful of survivors—by the twin impacts that brought Earth so conclusively out of its long glacial slumber.

As Hoyle and Wickramasinghe have rightly observed, the impacts took place respectively in the eleventh millennium B.C. (between 13,000 and 12,000 years ago) and in the ninth

millennium B.C. (between 11,000 and 10,000 years ago). What immediately strikes us about these dates is how closely they coincide with the astronomical Age of Leo, when the constellation of Leo housed the Sun on the spring equinox—generally taken as the period of 2,160 years between 10,970 B.C. (12,970 years ago) and 8810 B.C. (10,810 years ago).[45] As we have seen, this is the "age" that appears to be marked by the lion-bodied, equinoctial Sphinx of Giza—which at the same time draws our attention to Mars through its association with Horus the Red.

The Sphinx has been eroded by *long periods of heavy rainfall* and may actually date back to the eleventh millennium B.C.—as increasing numbers of geologists are now prepared to contemplate.[46] Could its construction have been triggered in some way by the first of those two great cometary bolides that struck Earth in the Age of Leo?

And why should there be a connection with Mars?

25

Bull of the Sky

FRED Hoyle's evidence of what happened to Earth at the end of the last Ice Age fits Clube's and Napier's theory of a disintegrating giant comet as snugly as the slipper fits Cinderella's foot. To restate the chronology, it is believed that the comet—and there is no known upper size limit for these terrifying objects[1]—settled into an Earth-crossing orbit around 50,000 years ago. For the next 30,000 years it

remained relatively intact. Then, about 20,000 years ago, it underwent a massive fragmentation event somewhere along its orbit. From about 17,000 years ago occasional multimegaton fragments may have collided with Earth—causing some gradual reduction in glaciation—but two especially large and cataclysmic oceanic impacts, one in the eleventh millennium B.C. and one in the ninth millennium B.C., raised global temperatures so much that the Ice Age was brought decisively to an end. These impacts both took place during the astronomical Age of Leo—an epoch, we believe, that is deliberately signaled and symbolized by the Great Sphinx of Giza.

But in its alter ego as Horus the Red, the Sphinx also speaks of Mars, and Mars seems to have its own pyramids and Sphinx—the latter gazing upward from the ravaged and cratered surface of the Red Planet like a veiled human skull.

SIGNAL?

At the end of the previous chapter we asked why there should be a connection between Giza and Mars.

The obvious geometrical and numerical similarities between the “monuments” of Cydonia and the monuments of Giza, and the other strange mythological and cosmological links between the two sites and the two worlds we have reviewed in this book do not, under any circumstances, *prove* a connection.

NASA’s fumbling cover-ups, its sustained misinformation campaign, and its generally suspicious behavior concerning the hypothesis of artificial origins at Cydonia do not *prove* there is more going on here than meets the eye.

The work of the AOC (Artificial Origins at Cydonia) researchers has not *proved* that the Cydonia structures are

artificial.

Moreover, we ourselves are far from certain—and have remained dubious throughout—about the true provenance of the Martian monuments. They could just be weird geology. They really could. Or they could have been intelligently designed. The only sure way to find out is to *do the science*, and in our view this means nothing less than a manned mission to Cydonia. Improved orbiter photographs are unlikely to settle the controversy—one way or the other—and may just provide more fodder for both the opponents and the supporters of the AOC hypothesis.

Surely the resolution of this matter—on which hinges man's understanding of his place in the cosmos—is too important to be endlessly delayed by such silly shenanigans? Surely it is obvious that if the mathematical data expressed in the Cydonia monuments had turned up in a radio signal from

deep space, scientists working on SETI programs would have had a field day (and everyone would have agreed with them), proclaiming they had finally been proved right. Such a clear, coherent extraterrestrial signal would also certainly have been rewarded with a massive investigation involving huge official resources and the concentrated attention of the best scientific minds as humans tried to discover where the aliens were and what they were saying to us. And the investigation would go on even if some skeptics continued to have lingering suspicions that the signal had somehow been generated "naturally" (by freak radio emissions from a star, for example).

We believe that the same sort of response, at the national and international levels, is justified by the Cydonia "signal" even if, on close empirical investigation, it ultimately does prove to be natural. Equipped with radio telescopes and

space probes, rapidly evolving technology but a stunted spirituality, our species stands today at what the ancient Egyptian Pyramid Texts call the "portal of the abyss"[2]—literally, on the threshold of the cosmos. If we survive, which is by no means certain, then it is possible that the centuries and millennia ahead will offer us the opportunity of an unparalleled journey of discovery across the galaxy. How can we possibly hope to take advantage of such a fabulous opportunity unless we keep our minds and our imaginations open? How can we possibly learn what the galaxy has to teach if we are not willing to risk disappointment, loss of face, wasted funds, and wild-goose chases?

We therefore repeat that *the science really does need to be done at Cydonia*. It will be expensive, but the funds most certainly can be found. And it is worth doing, irrespective of the final outcome, simply to affirm that we do regard the

cosmos with reverent wonder—as our ancestors did—and that we are ready to launch ourselves with curiosity, intelligence, and hope into the deepest mysteries of the galaxy.

But still, why should there be a connection between Giza and Cydonia, between Earth and Mars, and between the comet impacts that ended Earths last Ice Age with global floods and the massive-impact damage that stripped Mars of half its crust?

We do not *know* that there is any connection at all between the cataclysmic histories of the two planets, and ultimately this is another matter that can only be resolved by empirical tests. We believe, however, that such tests are urgent, necessary, and in the obvious self-interest of humanity, *whether or not* the remains of some sort of lost civilization are to be uncovered at Cydonia. Indeed, they do not even

directly concern such a hypothetical and presumably alien civilization—although they may tell us what fate befell it. All that is required is for the first manned landing on Mars to obtain a sufficient variety of rock and dust samples from Martian craters and return them to Earth for analysis. Then radiometric dating and other reliable tests could be carried out that would determine exactly *when* the terminal Mars cataclysm took place.

HYPOTHESIS

As we have indicated several times, we think it is possible that this great disaster, which flayed the planet Mars of its skin, may turn out to have been a much more recent event than scientists have yet imagined. In brief, we propose as a hypothesis for further testing that the giant comet that

sprayed the inner solar system with deadly shrapnel around 20,000 years ago did so because it made an extremely close approach to Mars on one of its orbits—closer than Shoemaker-Levy 9 passed to Jupiter in 1994—trespassed the planet's Roche limit and literally exploded into a million pieces.

This would have happened *right on top of Mars*, perhaps at a height of no more than a few thousand kilometers. And the effects, as a vast fusillade of world-killing missiles slammed all at once into the formerly dense atmosphere, the oceans and rivers, the mountains, valleys, and plains of Mars, would have been unspeakably dreadful. Many of these objects, perhaps most of them, would have been larger than 10 kilometers in diameter—each one of them, therefore, packing as much punch as the single fragment of an earlier giant comet that caused Earth's K/T Boundary Event 65 million

years ago by making a crater 200 kilometers wide on the edge of the Gulf of Mexico. In addition, since some of the Martian craters exceed 1,000 kilometers in diameter and Hellas has a diameter of 2,000 kilometers, we expect that several of the fragments would have been much larger.

Our theory, therefore, is not so different from the Astra theory outlined in chapter 4. However, Patten and Windsor's work contradicts basic laws of physics when it tries to explain how a former "tenth" planet could have migrated from a stable, circular orbit between Mars and Jupiter into an unstable, elliptical Mars-crossing orbit. Our theory, on the other hand, concerns an object—a periodic giant comet—that one would naturally expect to find in such an orbit, one which has no known upper size limit, which belongs to a class of objects that have been seen to fragment explosively in close proximity to planets, and which has already been

implicated in the series of great impacts that ended the last Ice Age on Earth.

In our scenario it was the initial explosion of the giant comet that killed Mars—in a single, phenomenal impact storm. But the rest of the massive swarm of fragments would have missed the Red Planet and continued to travel at high velocity along the comet's original orbit. Since this was a deeply Earth-crossing orbit (with its perihelion close to the Sun and its aphelion beyond Jupiter), we should not be surprised that fragments began to rain down on Earth during the next several thousand years—not killing it, as they had Mars, but nevertheless causing profound and dramatic changes.

A SPECULATION

It is permissible, sometimes, to speculate and we offer the following as no more than an *amuse gueule*, a harmless speculation, intended to entertain. It is a kind of artifact of our imaginations that arises every time we look anew at the image of the Face on Mars and at the geometrical structures that seem to have been arranged so purposefully around it on the Cydonian plain.

The math feels like a message.

The peculiar interlinkages to Giza and to Teotihuacan don't feel accidental.

The latitude games played at all three sites do feel as though they share the same designer.

Last but not least, some of the structures of Cydonia stand immediately beside and even inside impact features—including, for example, an intact pyramid, unencumbered by

ejecta and not at all damaged, poised on the very edge of a crater rim.[3] Such anomalies suggest to us that the monuments must have been built *after* the terminal Mars cataclysm, not before it.

Our hunch, therefore, is that Cydonia is indeed some sort of signal—not a radio broadcast intended for the entire universe, but a specific directional beacon transmitting a message that is intended *exclusively for humankind*.

To receive that message we have to prequalify.

We have to be able to look at Mars closely, which means high technology. But we also have to have the intelligence and open-mindedness, the vision and the spiritual humility to accept that even a dead planet can speak to us.

In short, humanity has to be able to see Cydonia, to realize what it is and to act on what it says.

Who might have devised such a message? And how could they have arranged to express it in a distinctive "architectural/geometrical code" that would much later turn up on Earth in the pyramids and the Great Sphinx of Giza and other terrestrial sites such as Stonehenge and Teotihuacan?

Could it possibly be that the builders of Cydonia also contrived to exert an influence upon the early civilizations of Earth? Were they somehow involved here, perhaps during the darkest midnight of prehistory, perhaps even long before the biblical flood? Could this explain why there seems to be a lingering and tantalizing "memory" of Cydonia imprinted upon the design plan of the Giza complex and why not only the Sphinx but also the Arab city of Cairo that grew up around it were called by names meaning "Mars"?

Lastly, what about the content of the message of Cydonia?

We go on instinct, nothing more, but in our speculation it is a warning that a Mars-like doom lies in wait for the Earth unless we take steps to avert it—a doom that could spell the end not just of individual species, not just of human civilization, but of all human beings and of all life on this planet. That is why the message is addressed exclusively to us—because we are its potential beneficiaries. That is why it is expressed in a language of architecture, geometry, and symbolism that strikes a chord with humans. And that is why there is indeed a deep and ancient connection between Earth and Mars, anchored to certain astronomical monuments that were designed, from the very beginning, to awaken us at the eleventh hour.

A PATTERN OF IMPACTS

Let us now return to the giant comet and recall its life cycle after it descended from the galaxy into the inner solar system:

- 20,000 years ago: explosive fragmentation beside Mars
- 13,000 to 12,000 years ago: major bombardment of Earth; glaciers retreat
- 11,000 to 10,000 years ago: second major bombardment of Earth; Ice Age ends

None of the astronomers who opened up this extraordinary field of study in the past twenty years are under any illusions that the menace to Earth ended with the Ice Age cataclysms. On the contrary, they are certain that fragments of the giant comet have continued to fall among us.

The detailed investigation into the matter by Fred Hoyle and Chandra Wickramasinghe has yielded information from temperature records and other sources suggesting that major impacts—though none as severe as those that occurred during the Age of Leo—have continued at sporadic intervals throughout human history. According to these two scientists, the evidence suggests that there were episodes of chaos, disruption, and rapid climate change at around 7000 B.C., 5000 B.C., 4000 B.C., 2500 B.C., 1000 B.C., and A.D. 500—in each case lasting for several decades or even a century and involving repeated collisions with multiple fragments of at least Tunguska size, *up to a rate of 100 per year.*[4]

Duncan Steel believes the rate of impact may at times have been much higher and calculates that in such episodes

Cataclysms visit wide areas of the planet due to the coherent arrival of

> many impactors in a few days. *It is entirely feasible that within those few days the earth could receive hundreds of blows like that of the Tunguska object.* [authors emphasis][5]

THIRD MILLENNIUM B.C.

Post-Ice Age history has also been looked into by other researchers, who agree that many anomalies are explained by the notion of an irregular rain of fragments repeatedly disrupting cultures all around the world.

The second half of the third millennium B.C., for example, from 2500 B.C. to 2000 B.C., appears to have been a turbulent and dangerous period during which surprising numbers of formerly well-established civilizations inexplicably collapsed or underwent a period of chaos and disintegration. After studying more than five hundred

excavation reports and climatological studies, Dr. Benny Peiser of Liverpool John Moore's University has demonstrated that all of the affected civilizations "suffered huge changes in climate at exactly the same time."[6] These disasters occurred "in the Aegean, Anatolia, the Near and Middle East, Egypt and North Africa, and large parts of Asia."[7] There was also a related catastrophe as far afield as eastern China.[8]

The Indus Valley civilization in the northwest of the Indian subcontinent was one of the victims, vanishing mysteriously.

Egyptian civilization survived the climatological upheaval but preserved memories of intense heat, violent floods, and the abrupt desertification of previously lush agricultural lands.[9]

In the same epoch the Akkad empire of Mesopotamia and

Syria collapsed amid floods and evidence of a major cataclysm—hitherto presumed to have been a large earthquake—which was confirmed by researchers in 1997 to have been an impact.[10] Marie Agnes-Courty of the French Center for Scientific Research found microspherules of a calcite material—unknown on Earth but abundant in meteorites—scattered across an area of thousands of square miles in northern Syria in soil samples and archaeological deposits dated to 2350 B.C.[11] She also uncovered evidence of gigantic regional fires in the form of a thick deposit of black carbon.[12]

Parallel research has identified at least seven other impact craters around the world "which were formed within a century of 2350 B.C."[13] And Professor Mike Baillie, a paleoecologist at Queens University, Belfast, reports that his studies of tree rings have uncovered evidence of widespread

ecological catastrophes at this date.[14]

THE TAURID MYSTERY

In the second half of the third millennium B.C., while all these events were unfolding, astronomical calculations show that the orbit of Earth would have intersected the core debris of the particularly massive and widely diffused Taurid meteor stream—so called because it produces showers of “shooting stars” that look to observers on the ground as though they originate in the constellation Taurus.[15] The stream sprawls completely across the Earths orbit—a distance of more than 300 million kilometers—cutting it in two places so that the planet must pass through it twice a year: from 24 June to 6 July and again from 3 November to 15 November.[16] Since Earth travels more than 2.5 million kilometers along its

orbital path every day, and since each passage takes approximately 12 days, it is obvious that the Taurid stream is *at least 30 million kilometers wide, or thick*. Indeed, what Earth encounters during these two periods is best envisaged as a sort of tube or pipe of fragmented debris.

Even though it is one of the most intense of all the annual meteor showers,[17] the encounter from 24 June to 6 July (which peaks on 30 June) cannot normally be seen with the naked eye—only with radar and infrared equipment—because it occurs during daylight hours. But the encounter from 3 November to 15 November is visible at night. The *Collins Guide to Stars and Planets* tells amateur astronomers where to look in the constellation of Taurus:

> The meteors radiate from a point near epsilon Tauri, reaching a maximum of about 12 meteors per hour on 3 November.[18]

The reader will recall from chapter 23 that in the ancient Egyptian sky-ground plan the two pyramids of Dashur, supposedly built at around 2500 B.C., correlate with the positions of two stars in Taurus—the Red pyramid with Aldebaran and the Bent pyramid with epsilon Tauri. We note that the date of 2500 B.C. was toward the end of the astronomical Age of Taurus (when the Sun on the spring equinox rose in the constellation of Taurus, roughly from 4490 B.C. to 2330 B.C.). We have seen that the Sphinx serves as an astronomical marker for the Age of Leo (10,970 B.C. to 8810 B.C.)—the epoch that experienced the gigantic impacts that ended the last Ice Age. We have seen that Earth appears to have been shaken by another series of bombardments during the period 2500 to 2000 B.C.—the epoch of pyramid construction in Egypt. And we saw in chapter 17 that the Benben stone, the sacred cult object of the Heliopolitan

priests who served the pyramids, was almost certainly an "oriented" iron meteorite.

Could there be a connection among (a) the bombardments and the Taurid meteor stream and (b) observations of Taurid meteors at around 2500 B.C.—which must have been spectacular as Earth neared the core of the stream—and (c) the construction of the pyramids of Egypt?

STONEHENGE

We have no doubt that the pyramids—and other ancient megalithic structures all around the world—were religious and spiritual buildings; nevertheless we do not object to the notion that they might also have had a number of more practical, or even scientific uses. The ancients did not make

the distinction between science and spirit that we do today, and we suspect that the Heliopolitan cult required its initiates to cultivate what can only be described as a scientific knowledge of the sky. We therefore see no contradiction at all between the practical observational and mathematical functions of a monument and its overriding spiritual and transformational purpose.

Nor are we the first to suggest that among the complex motives in the long-term development of certain mysterious ancient sites there may have been a special interest in meteor showers.

Dr. Duncan Steel is the director of Spaceguard Australia.[19] We have referred to his work and discoveries frequently in these pages. It is his theory that the primary axis of Stonehenge in England, which lies 33 degrees of longitude west of Giza, was not originally designed to target the

summer solstice sunrise (the most widely accepted view) but was targeted instead on the rising of the Taurid meteor stream.[20] This was done during the "preliminary" period, which archaeologists refer to as Stonehenge I—roughly from 3600 B.C. to 3100 B.C.—and the great megaliths that we see today were laid out to conform with the same axis. The period of megalith construction is well dated at 2600 to 2300 B.C., when the bluestones and the sarsens (the famous "goalposts") were erected[21]—a period that overlaps curiously with the pyramid age in Egypt and with the worldwide episode of bombardment in the second half of the third millennium B.C. But such bombardments are by their nature recurrent—at unpredictable intervals—and can be sustained over centuries on each occasion. Steel has produced evidence that an earlier episode occurred at the time of Stonehenge I, in the second half of the fourth millennium B.C.[22]

Steels case, which is solidly based on dynamical studies and backtracking of trajectories within the Taurid stream, is that the disintegrating giant comet that has shadowed Earth like a vampire or a ghoul for the past 20,000 years underwent one of its spectacular fragmentations some time in the fourth millennium B.C. This was when the Taurid meteor stream was spawned and sent swarming through space on its Earth-crossing orbit—a swarm, as we shall see, that consists not only of meteorites and dust but that also incorporates an inert, near-invisible mass of asteroids and several active comets. One of these, periodic comet Encke, still well-known to modern astronomers, was highly violatile and would have been spectacularly visible with a fully developed “coma” and tail by about 3600 B.C. At the same time, as other fragments worked their way down to Earth, humans would have witnessed “intense meteor storms” and would almost

certainly have been subjected to sustained periods of heavy bombardment by massive lumps of debris resulting in "multiple Tunguska-type events."[23]

In a nutshell, what Steel is claiming is that the Stonehenge axis, with its distinctive northeast orientation (he believes only coincidentally close to the rising point of the sun on the summer solstice) was laid out as a kind of "early warning system for cosmic impacts"[24]:

> From Stonehenge I … as the comet neared the earth it would have appeared to rise in the evening with a huge bright stripe [the Taurid meteor trail] crossing much of the sky, originating in the northeast. Passage through the trail would then have resulted in celestial fireworks (and maybe worse); afterward the comet and trail would have passed in the direction of the Sun, partially blocking sunlight for a few days…. It is suggested that Stonehenge was built … to allow the prediction of such

events.[25]

ENCKE

Shooting stars are harmless—nothing more than tiny meteors burning up in the atmosphere—so why should anyone be afraid of a meteor trail?

In the case of the fifty or so distinct and separate meteor streams that have now been discovered by astronomers—the Leonids, the Perseids, the Andromedids, etc.—the answer to this question is that in most cases there is probably no danger and nothing to fear.[26] As most of the particles they contain are indeed tiny, they represent no threat to Earth.

But it is quite a different matter with the Taurids. As Steel, Asher, Clube, Napier, and their colleagues have

demonstrated, the reason is that the Taurid stream is filled to overflowing with other much more massive material, sometimes visible, sometimes shrouded in clouds of dust, and all of it flying through space at tremendous velocities and intersecting Earths orbit, regular as clockwork, from 24 June to 6 July and again from 3 to 15 November. Year in, year out, for a period of more than 5,000 years, comet Encke and all the other contents of the stream were spawned from the continuing disintegration of the vastly larger interstellar giant.

The gradual revelation of the truly dark and horrendous character of the Taurid stream results from the work of astronomers going back over half a century—work that members of the public remain largely unaware of, although it raises question marks over the future of civilization.

The fundamental discovery was made in the 1940s when

the American astronomer Fred Whipple was the first to point out the intimate relationship between the Taurid stream and the comet Encke, which lies at the heart of Steels Stonehenge theory. It has a highly elliptical Earth-crossing orbit of just 3.3 years—a shorter orbit than any other known periodic comet[27]:

> Encke is about five kilometers across.... It may, therefore, be correct to think of it as the parent of the stream. On the other hand, there may well be one or more dormant comets in the stream that we have yet to identify and that may exceed Encke in size.[28]

By 1998, as we shall see in the next chapter, increasingly sophisticated astronomical surveys involving radar and the radio telescopes at Jodrell Bank, the Spacewatch telescope at Kitt Peak in Arizona, and the highly successful Infrared Astronomical Satellite had begun to reveal the full extent of

the problem.

26

Dark Star

IF the overall climate of our globe should once again improve," warn Victor Clube and Bill Napier, "as it is doing during this century, and has done every few centuries since the end of the last Ice Age, there may be only the dimmest perception of an approaching nadir. We may be unaware that the cosmos is simply delaying the next input of dusty debris, alarm, destruction, and death. A great illusion of cosmic

security thus envelops mankind, one that the establishment' of church, state, and academe do nothing to disturb. Persistence in such an illusion will do nothing to alleviate the dark age when it arrives. But it is easily shattered: one simply has to look at the sky."[1]

After everything that we have learned while writing *The Mars Mystery* we are frankly baffled that organizations like NASA that receive public funds to "look at the sky" are using so little of that money to investigate the dangers of serious collisions with objects on Earth-crossing orbits. While disposing of a budget of $13.8 *billion* annually, NASA spent less than a million dollars during 1997 supporting near-Earth asteroid and comet surveys.[2] Britain in the same year spent just £6000—about $10,000—making it clear when it did so that this was a one-shot grant that was unlikely to be repeated.[3]

“Such a singularly myopic stance,” comment Clube and Napier, “may place the human species a little higher than the ostrich, awaiting the fate of the dinosaur.”[4]

Or, as Sir Fred Hoyle sees it:

> It could be seen as curious that society would seek to investigate distant galaxies while at the same time ignoring all possibility of serious impacts with Earth, surely a clear example of amnesia in action.[5]

The minimum response, says Hoyle, and only a first step, would be “to compile a catalogue of all objects of appreciable size in Earth-crossing orbits. For this a space telescope is needed. But not as large or expensive as the Hubble telescope. One with an aperture of a meter should be adequate, at any rate initially.”[6]

Even this modest demand, set out in 1993 by an eminent

astronomer, had not been met by 1998—when there was still no dedicated space telescope looking for near-Earth objects. Yet the utility of such a satellite for detecting potentially dangerous comets or asteroids that terrestrial observers would be unable to see—perhaps until it was far too late to mount any effective response—has been obvious since the launch of the Infrared Astronomical Satellite (IRAS) on 27 January 1983. A cooperative venture involving public funds from the United States, the Netherlands, and the U.K., its primary objective was to carry out a deep-space survey that ultimately produced a catalogue of a quarter of a million infra-red sources "including stars, galaxies, dense interstellar dust clouds, and some unidentified objects."[7] But during its ten months in orbit (the mission ended on 23 November 1983 when the satellite's supply of coolant ran out), IRAS also spent a little time looking at near-Earth space. There it

discovered five new comets undetected by terrestrial astronomers (comets are very hard to see when they approach Earth from the direction of the Sun). One of these, IRAS-Araki-Alcock, was observed by the satellite in May 1983. The reader will recall that it passed within 5 million kilometers of Earth—the closest-known approach by any comet since the visitation of comet Lexell in the eighteenth century.[8]

What else might IRAS have seen swarming around Earth if it had turned its camera on the comet threat full-time? Or if it had been designed and equipped to observe for longer than ten months?

As rational people who have looked at the evidence with open minds, we genuinely cannot understand why NASA, the organization that is best placed and best funded to do something about the impact threat, has so far done so

laughably little. It reminds us of the way that the same organization has responded to the extraordinary challenge of the “monuments” of Mars. In both cases there is a mass of intriguing evidence—whatever it may ultimately prove to mean. And in both cases NASA has steadfastly minimized it.

Is there some sort of conspiracy going on to keep the truth from us about the terminal Mars cataclysm and how it concerns Earth?

On balance we prefer to think *not*.

What we see is a mind-set, here, not a conspiracy.

And yet …

To be perfectly honest, we will always have a lingering suspicion that there could be something dark and dreadful going on behind the scenes, something much bigger, and much more awful, than a mere conspiracy. The universe is

mysterious. Reality itself is mysterious. No human has any true idea whether life has any transcendant purpose or not, whether there is life after death, whether there are such entities as absolute good and absolute evil.

We therefore see no reason to reject out of hand the teaching of the ancients on these matters—which is that man is the fulcrum of a great cosmic conflict. Opposing forces of darkness and light, nihilism and celebration, and hate and love struggle to win victory over man's soul, because such a victory will decide the fate of this created universe and define the character of all universes yet to be formed. The light gains the upper hand when reason and mind are cultivated among humans, allowing them to turn their attention away from purely material concerns and cultivate the spirit. The darkness responds by interfering in the world to destroy mind and reason and thus frustrate humanity's

spiritual promise and ultimate role in a wider redemption. Again and again, the ancients said, when former races of men had risen to a high level they were cruelly punished and forced to return to a low state.

Thus the Gnostic texts, written down in Egypt in the early centuries of the first millennium after Christ, tell us that the global cataclysm remembered as the Flood of Noah was not inflicted by "God" to punish evil—as the Bible claims—but was worked by the forces of darkness to punish antediluvian humanity for having aspired to a high state of scientific and spiritual development and "to take the light" that was growing among men.[9] This the darkness in very large part succeeded in doing. Although there were survivors, most were thrown

> into great distraction and into a life of toil, so that mankind might be

> occupied by worldly affairs, and might not have the opportunity of being devoted to the holy spirit.[10]

Platos tale of lost Atlantis likewise laments that whenever civilization reaches a high level, opening the way for study and contemplation and matters of the spirit, “the periodic scourge of the deluge descends, and spares none but the unlettered and uncultured” so that human beings forget the past, and all that they have learned, and must “begin again like children.”[11]

Plato’s narrative rather curiously links the deluge to a “thunderbolt” and to “a variation in the course of heavenly bodies and a consequent widespread destruction by fire of things on Earth.”[12]

So with global floods, followed by fires and a remembered connection to thunderbolts and the heavens, what we have

here sounds like the effects of a multiple-impact bombardment with white-hot bolides falling from the sky and bursting in the air, and others plowing into distant oceans and creating vast tsunamis capable of tearing across continents—sparing, as Plato puts it, only “the herdsmen and shepherds in the mountains.”[13]

After looking at the cratered and devastated hulk of Mars, there can be no doubt in anybody’s mind that this planet was destroyed by a scourge from heaven. All its potential, whatever it might have become, whatever life or civilization or miracles it might have been home to, stopped right there, right then, and it was all over.

The universe is infinitely mysterious, infinitely various. We therefore do not find it impossible to imagine how some monstrous cosmic intelligence that feeds on negativity and darkness might be nourished and fattened by such an

unspeakable tragedy. Indeed it is a supernatural force of exactly this kind that is envisaged in the Gnostic texts as unleashing the flood upon mankind in order to deprive us of our “light.”

How much deeper the universal darkness would become if that little light could be snuffed out forever.

Yet if the Gnostics were right the darkness *cannot* triumph on its own. It needs and seeks our help, our willingness—our complicity—to achieve the destruction of the light.

ORBITING IN THE TORUS

Prolonged studies of the Taurid meteor stream by dedicated astronomers working on their own time at many different observatories—and borrowing time on telescopes dedicated

to other purposes—have begun to produce a picture of a threat that could indeed bring down the darkness. Cloaked in billions of tons of swirling dust, and surrounded by dozens of kilometer-size asteroids, it appears that a huge, inert, almost invisible comet may lie at the core of the stream—a larger fragment from the explosion that spawned Encke more than 5,000 years ago.[14]

In the last chapter we compared the Taurid stream to a pipe or a tube of rushing debris laid across the path of Earth. But since the stream in fact extends all the way around comet Encke's elliptical orbit (with all of its contents in continuous rapid motion along that orbit) its true form is that of a tube formed into an ellipse. The shape, in other words, is a three-dimensional ring like a doughnut or a quoit, but with a cross-section of 30 million kilometers. The correct term for such a shape is a *torus*.[15]

What else is orbiting in the torus along with “shooting stars” and the 5-kilometer nucleus of periodic comet Encke?

Thirteen Earth-crossing Apollo asteroids, all more than one kilometer in diameter, have been firmly identified.[16] Based on calculations widely accepted among astronomers concerning the ratio of discovered to undiscovered asteroids sharing the same orbit, Clube and Napier conclude from this data that there must be a total of

> between one and two hundred asteroids of more than a kilometer diameter orbiting within the Taurid meteor stream. It seems clear that we are looking at the debris from the breakup of an extremely large object. The disintegration, or sequence of disintegrations, must have taken place within the past twenty or thirty thousand years, as otherwise the asteroids would have spread around the inner planetary system and be no longer recognizable as a stream.[17]

In addition to comet Encke, there are at least two other comets in the stream—Rudnicki, also thought to be about 5 kilometers in diameter, and the mysterious Apollo object named Oljato, referred to in chapter 21, which has a diameter of about 1.5 kilometers.[18] Initially believed to be an asteroid, this extremely dark Earth-crossing projectile has recently begun to show signs, visible in the telescope, of volatility and outgassing, and most astronomers now regard it as an inert comet that is in the process of waking up.[19] Comet Encke itself is known to have been inert for a long period, until it suddenly flared into life and was seen by astronomers in 1786.[20] It is now understood to alternate regularly, in extended cycles, between its inert and volatile states.

Clube and Napier have backtracked the orbits of Encke and Oljato and found that they were nearly identical until about

10,000 years ago[21]—roughly the epoch of the second great Ice Age impact. Since we know that Encke was itself the product of a fragmentation event over 5,000 years ago[22]—at which time it separated from a larger and as yet unidentified parent object—the likely conclusion is that Oljato was also a fragment of that original parent object, which had separated as a result of an earlier disintegration:

> It is possible there was a major disintegration of the prime body then, with much debris created of which Comet Encke and Oljato are the largest known bodies, followed by similar disintegrations of the other comets and asteroids of the stream.[23]

There is what the astronomers call a great deal of "fine structure" within the Taurid stream as a whole—that is, distinct groups of objects can be identified orbiting within the 30-million-kilometer wide tube of the torus. Backtracking

these orbits, Clube and Napier note that the meteor group called the northern Taurids seems to have broken away from comet Encke, or perhaps a Taurid asteroid, about a thousand years ago. They conclude that the whole complex, meaning the assorted contents of the entire torus,

> seems to be undergoing avalanching self-destruction as the debris accumulate and collide.... This unique complex of debris is undoubtedly the greatest collision hazard facing Earth at the present time. It is likely that *hundreds of thousands of bodies, each capable of yielding a multimegaton explosion on Earth, are orbiting within the stream*, [author's emphasis][24]

MULTIPLE STREAMS

It is well understood by astronomers that the largest and

densest bodies within any stream will concentrate toward its center,[25] and it has also been established that the Taurid stream does have a dense core, along the edge of which orbits comet Encke[26]—towing in its wake a thick disjointed "trail" (as distinct from tail) of debris first observed in 1983 by the invaluable IRAS satellite.[27] It is also obvious that the farther one travels from the core the more diffuse, small, and harmless the orbiting particles are likely to be.

In the case of the Taurids this picture is complicated by the fact that two other massive streams of material, again arrayed in the form of gigantic elliptical tubes, are flung out in orbits parallel to the central torus, one stream closer to the Sun at perihelion and one farther away. These are jointly called the Stohl stream (after their Czechoslovakian discoverer) and are believed to have been created by further spectacular disintegration, probably at around 2700 B.C., of a

large fragment of the parent giant comet.[28] Clube and Napier calculate the mass of meteorites within the Stohl stream as "10 or 20 million million times a million grams" and estimate that "the mass of co-orbiting asteroids is likely to be the same." Adding in gas and dust that have been lost with the passage of time, they conclude that the mass of material is roughly equivalent to that of a body of 100 kilometers in diameter.[29]

Further complicating the picture is a completely separate though narrower torus that has the same dynamical characteristics as the orbits of the Taurid and Stohl streams, and which must also once have been part of the same very large progenitor that spawned Encke. What has happened, however, as a result of some powerful event at an unknown date thousands of years in the past, is that the *plane* of its orbit has been rotated through approximately 90 degrees to

the main Taurid and Stohl streams.[30] This is the so-called Hephaistos group and includes the Apollo asteroid Hephaistos after which it is named—as the reader will recall, Hephaistos has a diameter of 10 kilometers,[31] as big as the K/T impactor that killed the dinosaurs 65 million years ago. Five other kilometer-plus asteroids have also been observed traveling with Hephaistos as well as the usual mountains of dust and loosely graded debris.[32]

The implication is that future discoveries are likely to yield at least another fifty asteroids of kilometer size spread out along the Hephaistos orbit.[33]

THE UNDETECTED COMPANION

So the overall picture of the Taurid hazard can now be seen

to include four separate but intimately related streams of material—the two Stohl streams, the Hephaistos group, and the main Taurid stream with comet Encke as the most visible object. All of these streams derive from the fragmentation of the same original giant comet, and all are on “inter-nested” near-Earth orbits so disposed that our planet passes from one to another during the year—and indeed spends a total of more than four months of each year actually immersed in them.[34]

Each crossing must be hazardous: we already know that there are very large and menacing objects rushing along in these streams, and it is obvious that many more remain to be detected. It is the Taurid stream itself, however, that Clube and Napier ultimately highlight as the deadliest collision hazard faced by Earth.

This is because their research, now supported by a growing

number of astronomers and mathematicians, has highlighted the most terrible danger of all—in the form of an *undetected companion* to comet Encke that is believed to be orbiting in the very heart of the stream.[35] The suspicion that such an object could exist goes back as far as 1940, when Fred Whipple showed that several groups of meteor orbits could not be explained in any other way other than as an ejection of debris from an exceptionally large object in an inclined orbit close to that of comet Encke.[36]

Further evidence accumulated since Whipple's time has led the researchers to conclude that such an object does indeed exist. They believe that like Encke and Oljato, the undetected companion is a comet that sometimes—for very long periods—is able to shut itself down.

This happens when pitch-like tars that seethe up continuously from its interior during episodes of outgassing

become so copious that they coat the entire outer surface of the nucleus in a thick, hard shell and seal it off completely—perhaps for millennia.[37] On the outside all falls silent after the incandescent coma and tail have faded away and the seemingly inert object tears silently through space at a speed of tens of kilometers per second. But at the center the nucleus activity continues, gradually building up pressure. Like an overheated boiler with no release valve the comet eventually explodes from within, breaking into fragments that can become individual comets or crash into planets.

We have seen in chapter 22 that the nucleus of Halley's comet is so black that it reflects only 4 percent of incidental sunlight.[38] It is suspected that in its inert state the nucleus of Encke's undetected companion may be even blacker—perhaps among the blackest objects in the solar system. Since it would also be surrounded by a dense cloud of meteoritic

dust it is legitimate to think of it as a sort of cosmic Stealth missile.

It is difficult to estimate the exact size of this frightful Earth-crossing companion or what its future orbital parameters might be. Nor can we be certain how many other large fragments could be swirling along with it, also cloaked in meteoritic dust. Despite these uncertainties, some attempts have been made, and in 1997 the Italian mathematician Emilio Spedicato reported certain grave conclusions.

The object, he calculated, might be *30 kilometers in diameter*.[39]

Moreover:

> Tentative orbital parameters which could lead to its observation are estimated. It is predicted that in the near future (around the year 2030) Earth will cross again that part of the torus which contains the

fragments.[40]

SHIFTING ORBITS

We should hope, devoutly, that Spedicato is not correct about the date—because a collision with an object 30 kilometers in diameter will certainly end all human life, and may indeed unleash sufficient impact energy to sterilize the planet of all life. Some of the astronomers who have built up the evidence we have on comets feel reassured that the fateful intersection will probably not occur for another thousand years.[41] Victor Clube is one of them. Others, notably Fred Hoyle and Chandra Wickramasinghe, have indicated that according to their calculations another episode of bombardment *is* on the way and can be expected to hit during the coming century.[42]

The problem is that nobody can really be sure. Earth's orbit

is constantly, though minutely, shifting in shape, becoming now more or less eccentric (elliptical), now more or less circular. At the same time its perihelion and its aphelion gradually "precess" around the orbit—that is, move backward in relation to the direction of principal rotation. Meanwhile the same celestial mechanics are at work on the torus. The effect is that the points of intersection of the two orbits vary considerably from epoch to epoch, and not only that but also the area of the torus through which Earth passes.[43] A transit through the edge of the stream is likely to be tranquil, with consequences limited to nothing more than shooting stars. On the other hand, a transit through or close to the core could result in an almost unimaginable disaster—especially if there should be a collision between Earth and Encke's dark companion.[44]

Where are we now?

CLUES OF JUNE

Once again, astronomers have different views. Nevertheless, they all point to one curious thing—a pattern involving the month of June.

We have seen that the Taurid shower produces visible meteors when Earth passes through it from 3 November to 15 November each year, but produces a much larger and more virulent storm of debris, invisible to the naked eye, between 24 June and 6 July—with a peak on 30 June. Because of the relative positions of Earth and the Sun, this is a period in which large projectiles could theoretically creep up on Earth with the Sun behind them and fall upon us before anybody had really noticed.

On 25 June 1178, it was exactly such a projectile, an Apollo asteroid or a comet fragment 2 kilometers in

diameter, that hit the Moon, creating the gigantic Giordano Bruno crater (see chapter 18). It was extremely fortunate, and indeed a miracle, that it did not hit Earth—as Earth is in the same area of space as the Moon and makes a much bigger target.

In chapter 18 we also presented two other essential clues:

- On 30 June 1908, a much smaller fragment of the disintegrating comet exploded in the air above Tunguska, flattening 2,000 square kilometers of forest and causing huge earth tremors hundreds of kilometers away.
- From 22 through 26 June 1975 the Moon was splattered with a sustained barrage of ton-sized boulders.

Astronomers are now generally agreed that all of these impacts were related to passages of Encke's comet, which travels particularly closely to the June/July Taurids, and were caused either by subdividing fragments falling off it or by other objects orbiting close to it that were cast down into the Earth-Moon system.[45] Since we know that Encke orbits near to the core, and thus to "the unseen companion," it is evident these past encounters could have been far worse.

And what of future encounters?

The vision that haunts us is of that dark, dark nucleus, wrapped in its veil of dust, throwing before it a swarm of asteroids.

As Clube and Napier warned as far back as 1990 (apparently to no avail, as there has been no change in public policy):

> An asteroid in a Taurid orbit, carrying 100,000 megatons of impact energy, coming out of the night sky [during the November crossing of the stream] would be visible in binoculars for about six hours before impact. By the time it was a naked-eye object it would be at most half an hour from collision. In its final plunge it would be seen as a brilliant moving object for perhaps 30 seconds. One needs more time than this to prepare for winter.[46]

If such an asteroid came in broad daylight during Earth's encounter with the Taurid stream in late June—the time at which a collision is also most likely to occur with comet Encke or its dark companion—then it would not be seen at all unless there were a satellite in the sky equipped with an infrared camera.

HELL-WORLD OF OUR OWN MAKING

Humanity today faces two strange and powerful firsts:

- The first time, in the history we remember, that a disaster looms with the potential not just to destroy some of mankind but to destroy all of mankind—all human promise, all human potential, forever.
- The first time, again in remembered history, that our species has the science and the technology to avert such a disaster—if it has the will.

We have received unambiguous warning signals—from the fate of Mars, from our growing understanding of the effects of impact-cratering on Earth, from the pattern of known large-body Taurid impacts on the Earth-Moon system during the second millennium A.D., and from the apocalyptic crash of comet Shoemaker-Levy 9 in 1994.

Reason and intuition concur. There is real danger here.

Yet next to nothing is being done about the danger and Clube's warnings, Sir Fred Hoyle's warnings, and the warnings of all the other eminent men and women who have seen the threat. They are ignored.

We suspect that the first half of the third millennium will be a defining epoch in the story of mankind that will require not just a change of policy, or a change of strategy, or a change of budgetary priorities—though it will certainly require all those things—but above all else *a change of heart*.

To a great extent, the ancients said, we define our own reality through the choices we make. Yet what we have made with those choices at the end of the twentieth century is well on its way to becoming a hell-world.

What has happened to the human soul when a man, saying

that he is acting in the name of God, is so in love with hatred that he can smash out a baby's brains against a wall and cut the throat of that child's mother? Such events had become routine in Algeria at the end of the second millennium.

What has happened to the human soul when adults—men and women—are so in love with evil that they gain sexual pleasure from the kidnap, torture, rape, and murder of children? Such horrors had become routine in Europe and the United States at the end of the second millennium.

What has happened to the human soul when a man is so in love with his own ego that he can dash concentrated sulphuric acid into the face of a teenage girl—eating away her flesh, blinding her and burning her skin forever to a crisp—simply because she has refused to marry him? At the end of the second millennium such acts of focused malice and wickedness had become routine in Bangladesh, inflicting

lifelong shame, misery, and suffering on hundreds of girls every year.

We will not continue with lists of individual and mass atrocities that could extend to hundreds of volumes—as everybody knows. We simply wish to suggest that a species that is so drawn toward the darkness is unlikely to be able to meet the challenge of the galaxy. Indeed, we seem to have proved we cannot meet it during the first decades of our discovery of Mars and by our failure to take any interest in the protection of our own precious and irreplaceable planet, which—so far as we know—may be the last remaining home for life in the universe.

THE ARROW AND THE CHOICE

To deal with the impact threat effectively would require a grand international project, with limitless resources and limitless good will, bringing together the best minds in the world and asking them to consider nothing else but the safety of the planet and the salvation of their fellow humans. Deflecting asteroids and fragments of dormant comet that could be up to 30 kilometers in diameter would be a high-precision task, since it is obvious that any error might make the trajectory of the incoming object *more* rather than less dangerous. Probably it is at the very edge, or just beyond the edge, of what our science today is capable of achieving. It sounds impossible. And yet, if you stop to think about it, something of the kind is already being done to achieve far less worthwhile objectives. The worlds armed forces, for example, are a kind of "grand international project," with limitless resources, bringing together the best minds of all

nations and asking them to consider nothing else but ways to spread mayhem and misery, to bombard and to poison, and to inflict death and destruction on their fellow humans.

So really what is involved here are the kinds of choices that societies make about what they want to do with their resources, not a problem over the resources themselves. Yet we can hardly imagine any society in the world as it is today, let alone one of the major powers, actually deciding to switch significant funds from defense and aggression against humans to the defense of the planet.

This is why we are sure that what will ultimately be required, if there is time and if the threat of cosmic impacts is to be overcome, is that human beings should reinvent themselves in the twenty-first century—reinvent themselves entirely. We even wonder whether a grand project to save the earth might not in itself act as the necessary catalyst for such

a change. Indeed, in its own way, with almost no official trappings, we have seen that the project has already begun—depending on the energy and initiative of a loose network of astronomers and other scientists volunteering their time in many different countries for the good of humanity.

As an old saying, attributed to Hermes, has it:

> Death is like an arrow that is already in flight, and your life lasts only until it reaches you.[47]

What the astronomers have shown us is an arrow in the sky, aimed at Earth, that has been flying toward us for five million years.

Yet this arrow need never arrive. Life and light and laughter and the quest for sacred knowledge need not be rubbed out. The darkness need not be fed with more suffering

and nihilism. Magic and mystery can be renewed. And the wasteland can be healed.

We are defined by our choices.

And this choice is ours.

Appendix

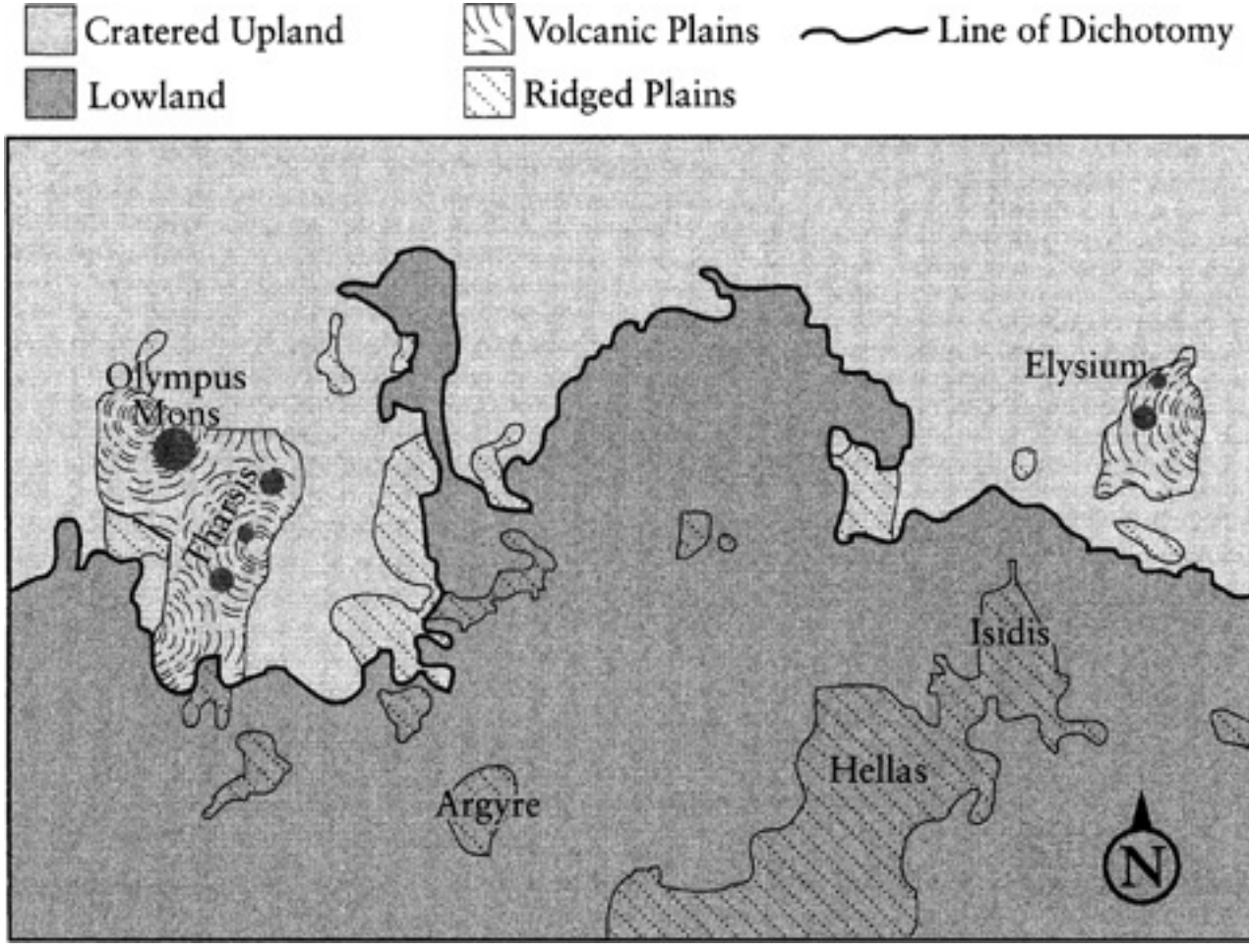

The “line of dichotomy” is a dramatic cutoff point that separates the heavily cratered southern

highlands from the more sparsely cratered northern lowlands. Ninety-three percent of craters larger than 30 kilometers in diameter are found south of this line, including the massive Argyre, Hellas, and Isidis basins—ancient scars from collisions with asteroids and clues to the death of a world.

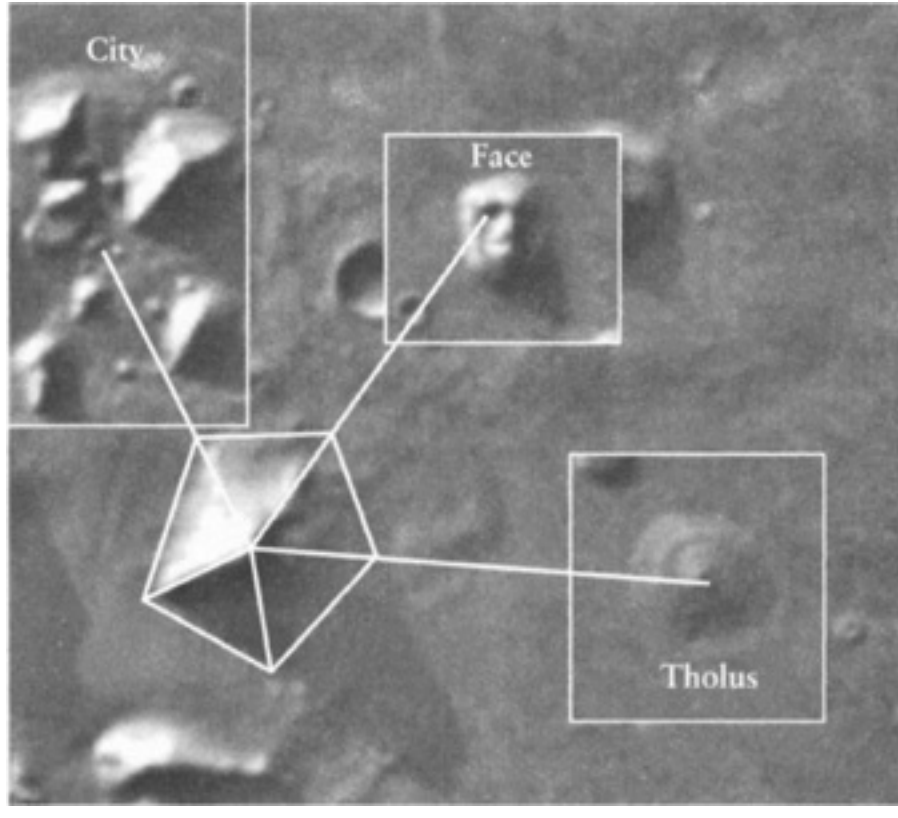

The D&M Pyramid is seemingly aligned to other anomalous features of the Cydonia Mensa—the City Center, the “tear” on the Face, and the apex of the Tholus.

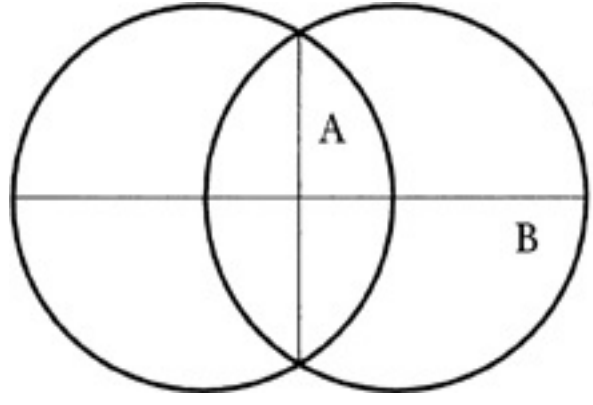

The *vesica piscis*, formed by the overlapping of 2 circles, is an important geometric form in the tradition of sacred geometry, yielding many mathematical constants as well as the golden section, the *phi* ratio, which is formed by the ratio of lengths A to B, roughly 3:5. The *phi* ratio was widely used in ancient terrestrial architecture, and identical geometric constants are found repeated in the measurements of the Cydonian anomalies.

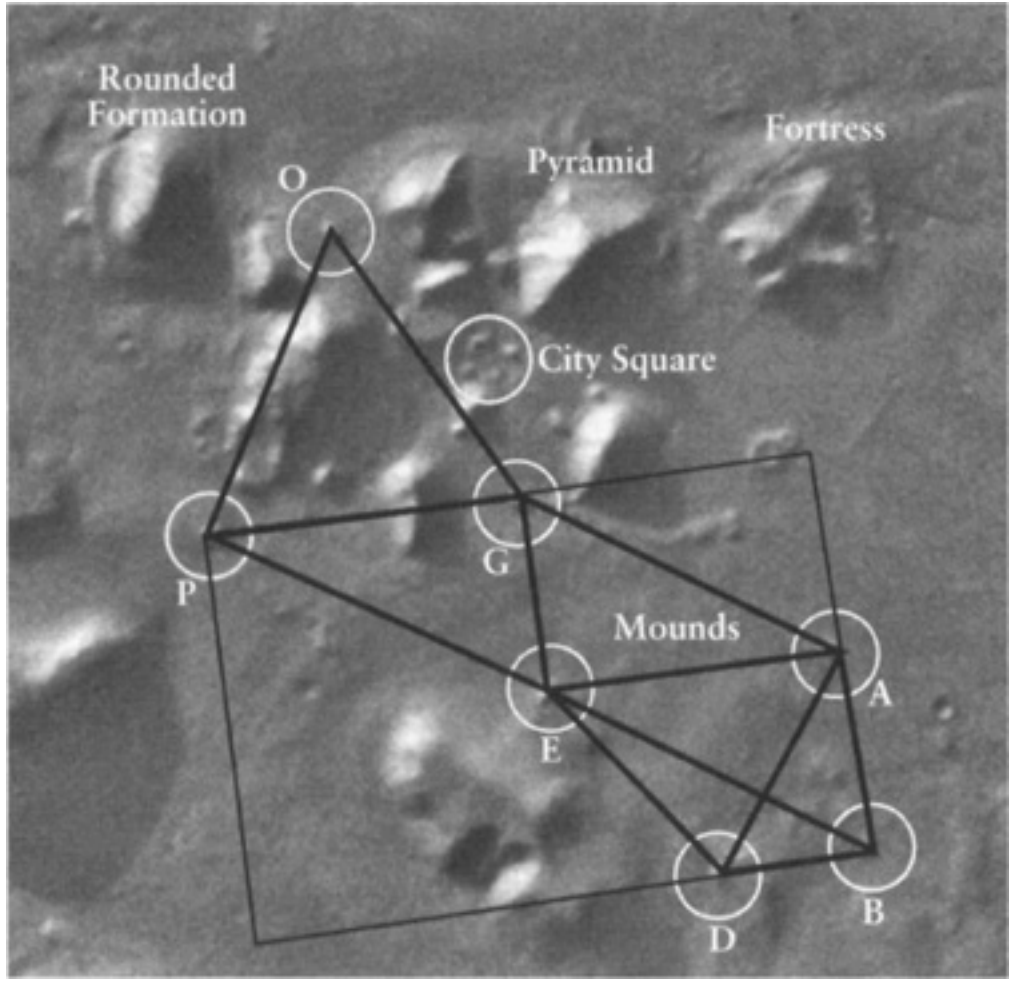
Rounded
Formation
Pyramid
Fortress
O
City Square
G
P
Mounds
A
E
B
D

Dr. Horace Crater's analysis of the layout of "mounds" within the City area reveals an alignment that is unlikely to have occurred naturally.

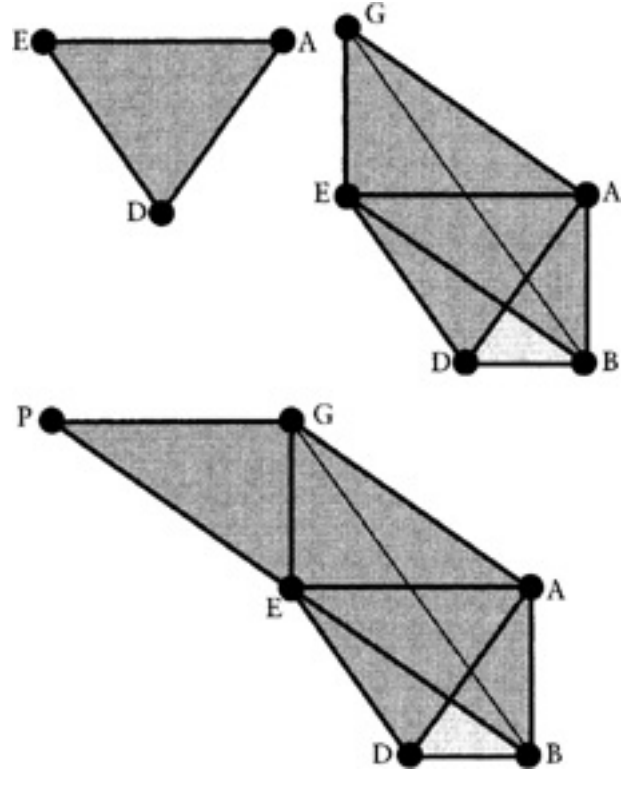

The alignments of mounds EAD, GABDE, and GAB-DEP show a highly unnatural repetition of basic

triangles. Is this the work of nature or intelligence?

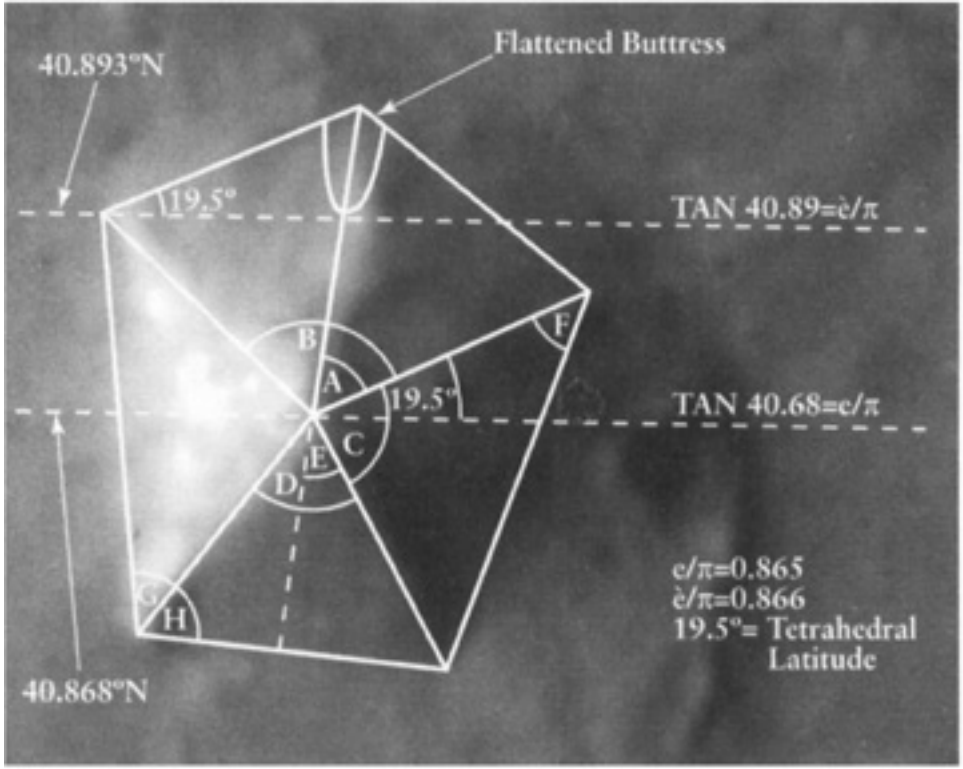

Radians

Radian A = $\pi/3$
Radian B = $2\pi/3$
Radian D = $e/\sqrt{5}$
Radian F = $è/\pi$

Angle Ratios

C/A = $\sqrt{2}$
B/D, C/F = $\sqrt{3}$
A/D = e/π
C/D, A/F, H/G = $e/\sqrt{5}$
B/C, D/F = $\pi/\sqrt{5}$

Trigonometric Functions

TAN A, TAN B = $\sqrt{3}$
SIN A, SIN B = $è/\pi$
TAN F = π/e
COS E = $\sqrt{5}/e$
SIN G = $\sqrt{5}/\pi$

Erol Torun's reconstructed model of the D&M Pyramid yields unique mathematical constants, including those found in terrestrial traditions of sacred geometry, as well as the tetrahedral angle of 19.5 degrees.

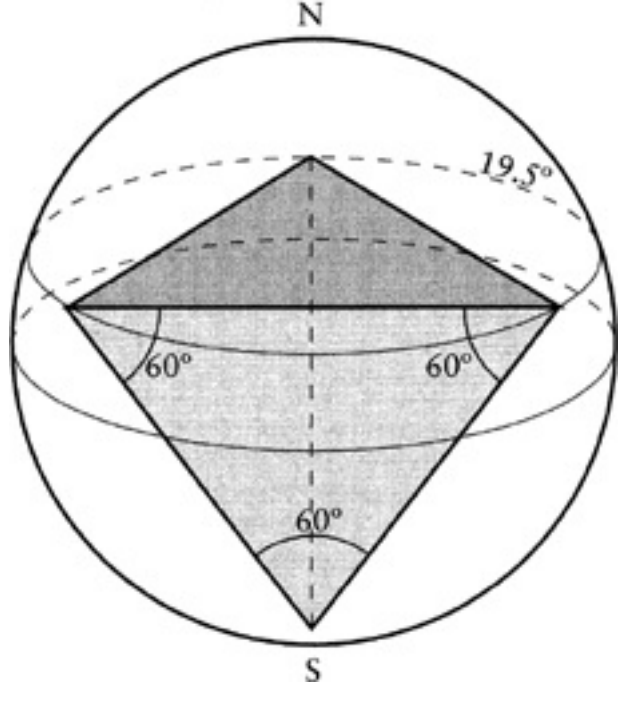

Circumscribed tetrahedron: if a tetrahedron, the simplest of the platonic solids, is placed within a

rotating sphere with one apex at the north or south pole, the other three apexes will lie at exactly 19.5 degrees from the equator. This tetrahedral angle of 19.5 degrees occurs with unnatural frequency in the measurements of the Cydonian anomalies. Is this evidence of a lost mathematical message?

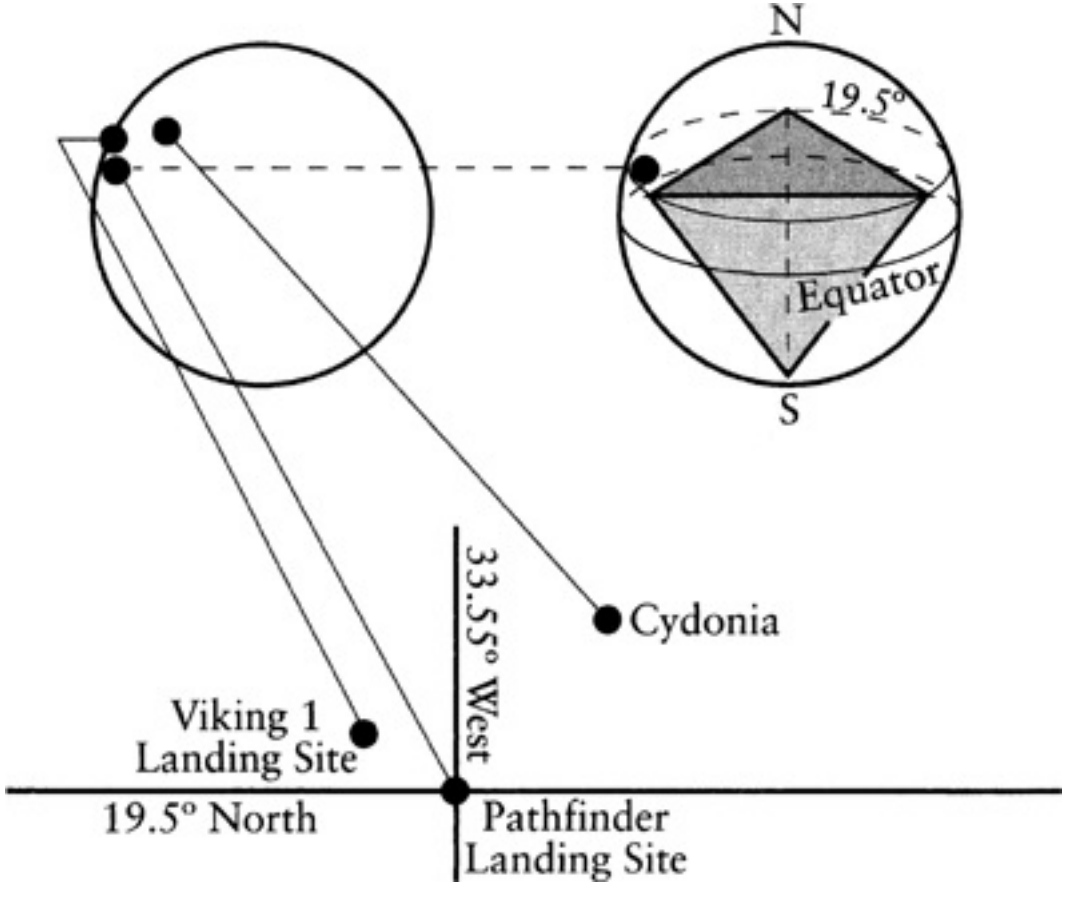

The landing spot of the tetrahedral-shaped *Mars Pathfinder*, coincidentally, lies at roughly 19.5 degrees (the tetrahedral angle) north of the Martian equator.

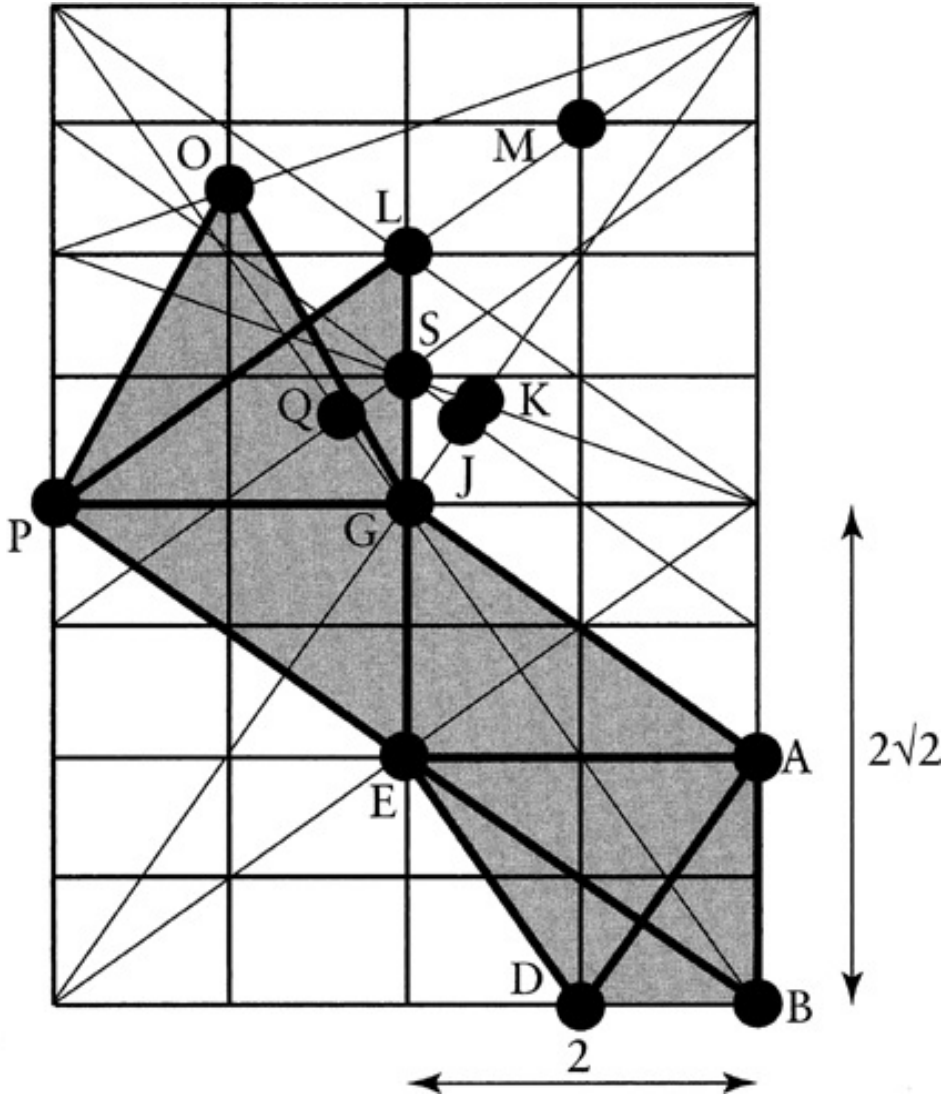
O
M
L
S
Q
K
J
P
G
A
2√2
E
D
B
2

Professor Stanley McDaniel's analysis of the Cydonian mound configuration reveals that all the mounds can be fitted onto a grid based on the square root of 2, a framework also used in ancient terrestrial sacred architecture.

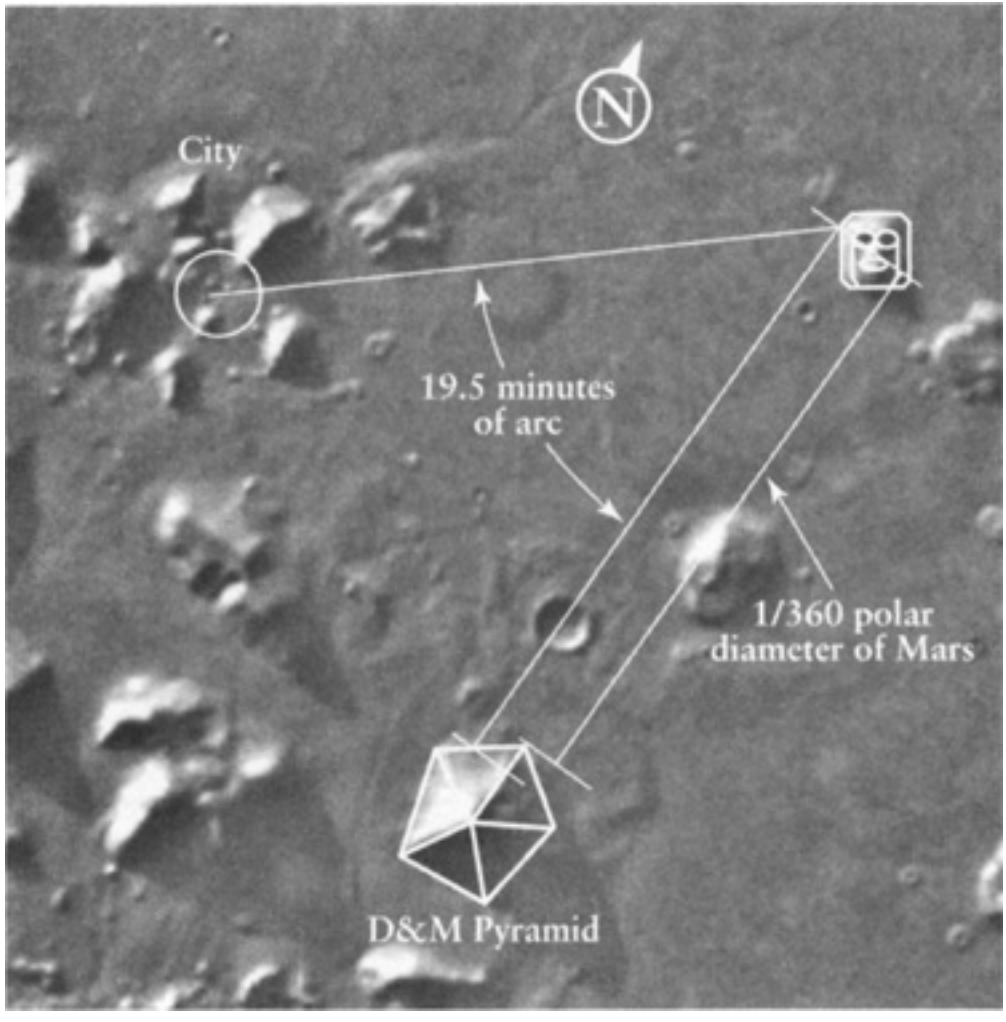
N
City
19.5 minutes
of arc
1/360 polar
diameter of Mars
D&M Pyramid

According to researchers Richard Hoagland and Erol Torun, major alignments between the Cydonian anomalies reveal an underlying coherence based on the tetrahedral angle of 19.5 degrees and the polar diameter of Mars.

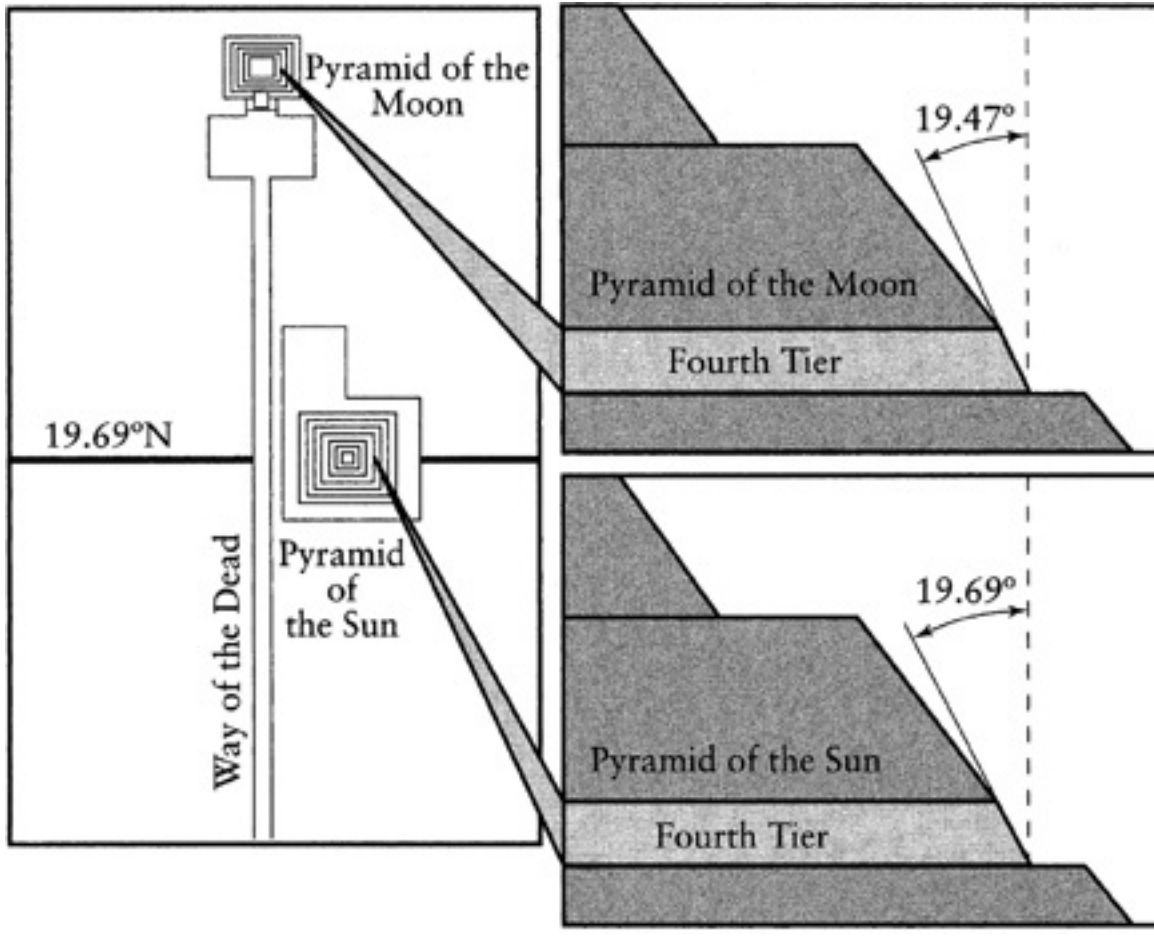

The Pyramids of the Sun and Moon at Teotihuacan contain references to the tetrahedral constant of

19.5 degrees in both the measurement of the angles of the fourth pyramid tiers and in their geographical location on Earth—which coincidentally mirrors the self-referencing of the D&M Pyramid on Mars.

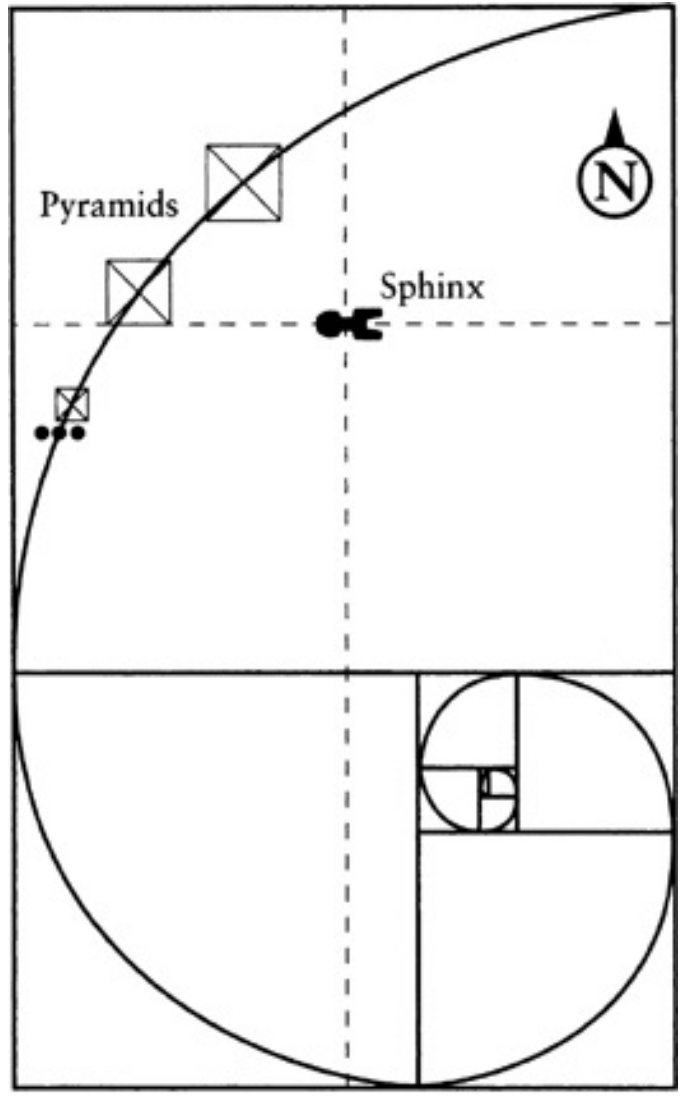
Pyramids
Sphinx
N

According to researcher Erol Torun, the placement of the Pyramids and Sphinx at Giza are conditioned by the Fibonacci curve, based on the ancient sacred proportion of *phi*, the golden section.

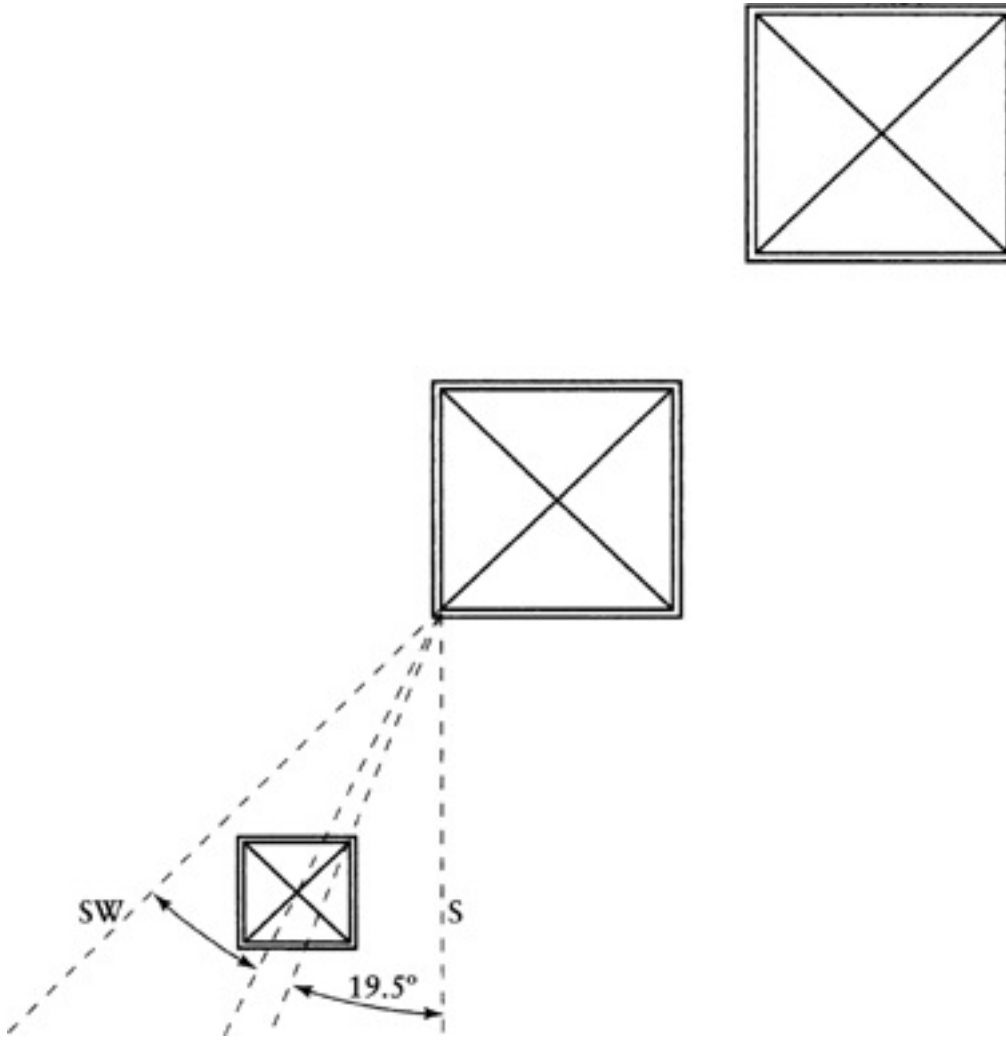
SW
S
19.5°

Using calculations based on the work of Egyptologist John Legon, the placement of the smallest of the three pyramids of Giza, the Pyramid of Menkaure, in relation to its neighbors, can be seen to be based on the tetrahedral angle of 19.5 degrees—the same angle mysteriously referred to in the Pyramids of Cydonia.

Endnotes

Part One: The Murdered Planet

1. PARALLEL WORLD

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3. Ibid.
4. Ibid., 52.
5. Ibid., Preface, xiii.
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7. See discussion in Hansson, *Mars and the Development*,

137–153. See also Arthur C. Clarke, *The Snows of Olympus*, Victor Gollarcz, London, 1994.

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9. Ibid., 19, 128.

10. Fred Hoyle and Chandra Wickramasinghe, *Lifecloud: The Origin of Life in the Universe* (London and Toronto: J. M. Dent and Sons, 1978).

11. *Encyclopaedia Britannica*, 15th edition, “Solar System.”

12. Ibid.

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14. Mack Gipson Jr. and Victor K. Ablordeppy, *Icarus 22* (1974), 197–204.

15. Carl Sagan, *Cosmos* (London: Book Club Associates,

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16. Viking project scientist Gerry Soffen cited in Richard C. Hoagland, *The Monuments of Mars* (Berkeley, Calif.), 5.

17. V. DiPietro and G. Molenaar, *Unusual Martian Surface Features* (privately published, 1982), 38; M. Carlotto, *The Martian Enigmas: A Closer Look* (Berkeley, Calif.: North Atlantic Books, 1997), 181.

18. Carlotto, *Martian Enigmas, 2*8.

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20. See Stanley McDaniel, *The McDaniel Report* (Berkeley, Calif.: North Atlantic Books, 1993), 82–84.

21. Hoagland, *Monuments of Mars*, 25.

22. Ibid., 26.

23. Ibid., 27.

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5. Ibid.
6. Ibid.
7. *Times* (London), 8 June 1997.
8. *Guinness Book of Astronomy, 62ff*.
9. *Newsweek*, 23 September 1996, 57.
10. Peter Cattermole, *Mars: The Story of the Red Planet* (London and New York: Chapman and Hall, 1992), 37.

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13. Ibid.
14. Ibid.
15. *Times* (London), 8 August 1996.
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20. Paul Davis, *The Guardian* (London), 1 June 1995.
21. Quoted in *Quest for Knowledge* (Chester), October 1996, 6.

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24. *Sydney Morning Herald* (Australia), 26 December 1996.
25. *The Sunday Times* (London), March 1997.
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15. Ibid., 91–94.

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18. Ibid., 23, 72.

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20. Ibid., 23–24; Murray, Malin, Ronald Greely, *Earthlike*

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21. Cattermole, *Mars*, 30; *Encyclopaedia Britannica*, 15th edition, "Solar System."

22. Cattermole, *Mars*, 30.

23. Ibid, 134.

24. Ibid, 32.

25. Ibid, 22.

26. Ibid.

27. Ibid, 22, 72.

28. Ibid, 22, 27.

29. Donald W. Patten and Samuel L. Windsor, *The Scars of Mars* (Seattle: Pacific Meridien Publishing, 1996), 12;

Cattermole, *Mars*, 27.

30. Patten and Windsor, *The Scars of Mars*, 12.

31. Ronald Greely, *Planetary Landscapes* (New York: Chapman and Hall, 1994), 155.

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33. Filotto, *Face on Mars* (Gardenview, South Africa: Exact Print, 1995), 150.

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56. See chapter 2.

57. Cattermole, *Mars*, 130.

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61. Cydonia coordinates from Hoagland, *Monuments of Mars*, 16.

62. *Hieronymous and Co. Newsletter*, 14, 16.

4. THE JANUS PLANET

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approximately 1.52 times that of the Earth from the Sun. At closest approach Mars is 206,600,000 kilometers from the Sun and 249,200,000 kilometers at its furthest distance. Mars completes an orbit in roughly the time Earth completes two, so spends most of its year far from Earth in directions that are near to the Sun." Closest approach of Mars to Earth: 56,000,000 kilometers. Farthest from Earth: 400,000,000 kilometers.

3. Cattermole, *Mars*, 191.

4. Carr, et al., *Exohiological Survey*, 233–34.

5. William K. Hartmann, "Cratering in the Solar System," *Scientific American*, January 1977, 97.

6. George E. McGill and Steven W. Squires, "Origin of the Martian Crustal Dichotomy: Evaluating Hypotheses,"

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7. Ibid., Cattermole, *Mars*, 191.

8. Carr, et al., *Exohiological Survey*, 233–34.

9. Hartmann, "Cratering," 89; Arvidson, Goettel, et al., "A *Post-Viking* View of Martian Geologic Evolution," *Reviews of Geophysics and Space Physics* 18 (August 1980): 575.

10. McGill and Squires, "Origin," 391.

11. Hartmann, "Cratering," 97.

12. L. A. Soderblom, C. D. Condit, et al., "Martian Planetwide Crater Distributions: Implications for Geologic History and Surface Processes," *Icarus 22* (1974): 240.

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14. D. S. Allan and J. B. Delair, *When the Earth Nearly Died: Compelling Evidence of a Catastrophic World Change, 9500 B.C.* (Bath, England: Gateway Books, 1995), 230.

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20. Patten and Windsor, *Scars of Mars*, 19–21.

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23. Ibid, 30–31.

24. Cattermole, *Mars*, 56–58.

25. See part 4.

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27. Gribbin, *Fire on Earth*, 44; *Encyclopaedia Britannica*, 15th edition, "Tunguska event."

28. Gribbin, *Fire on Earth*, 45; *Mail Review*, 43.

29. Gribbin, *Fire on Earth*, 47–48.

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31. Ibid, 11–12.

32. Ibid, 1, 12.

33. *Encyclopaedia Britannica*, 15th edition, “Solar System.”

34. See part 4.

35. Gribbin, *Fire on Earth*, 32; Hartmann, “Crater,” 86.

36. Gribbin, *Fire on Earth*, 32.

37. Patten and Windsor, *Scars of Mars*, 31.

38. Ibid.

39. Ibid., 37; Cattermole, *Mars*, 30.

40. Cattermole, *Mars*, 142.

41. Gribbin, *Fire on Earth*, 78.

42. Hartmann, “Crater,” 97.

43. Allen and Delair, *When Earth Nearly Died*, 205.

44. Ibid.

45. Hartmann and Larson, "Angular Momenta of Planetary Bodies," *Icarus 7* (1967): 258; see also Fish, "Angular Momenta of the Planets," *Icarus 7* (1967): 251ff.

46. Allen and Delair, *When Earth Nearly Died*, 205.

47. "Large-Scale Variations in the Obliquity of Mars," *Science* 181: 4096, 260ff.

48. Jihad Touma and Jack L. Wisdom, *Scientific American*, November 1996. Emphasis added.

49. "Large-Scale Variations," 205–6. See also Cattermole, *Mars*, 9. Mars has a weak magnetic field—only 0.03 percent that of Earth.

50. Peter H. Schultz, “Polar Wandering on Mars,” *Icarus* 73 (1988): 91–141.

51. Hartmann, “Crater,” 89.

52. Ibid.

53. Patten and Windsor, *Scars of Mars*, 22.

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55. Allen and Delair, *When Earth Nearly Died*, 210.

56. Ibid.

57. Victor Clube and William Napier, *The Cosmic Serpent* (New York: Universe Books, 1982); and *The Cosmic Winter* (Oxford, England: Basil Blackwell, 1990).

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60. Filotto, *Face on Mars*, 151.

61. The possibility of such an illusion was specifically recognized by Soderblom, Condit, et al., in *Icarus 22* (1974): 234, where they observed that curious characteristics of the Martian dichotomy "create the impression that terrains on Mars are either ancient, dating back to the early phase of Martian history, or extremely young, perhaps developed in the latest stages in Martian evolution."

62. Graham Hancock, *Fingerprints of the Gods*.

63. Ibid.

64. *Orion Mystery, Fingerprints of the Gods, The Message of the Sphinx, Heaven's Mirror*.

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Part Two: The Mystery of Cydonia

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2. Ibid, 104.
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5. Percival Lowell, address to the Boston Scientific Society, 22 May 1894, quoted in Sheehan, *Planet Mars*, 104.
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12. Sagan, *Cosmos*, 134–35.

13. Ibid, 132; Hurtak and Crowley, *The Face on Mars* (Adelaide, Australia: Sun Books, 1986), 2.

14. Sagan, *Cosmos*, 132.

15. Hurtak and Crowley, *The Face on Mars*, 1; Sheehan,

Planet Mars, 162.

16. Hurtak and Crowley, *The Face on Mars*, 1.
17. Ibid, 125.
18. Sheehan, *Planet Mars*, 164.
19. Moore, *Mission to the Planets*, 125.
20. Sheehan, *Planet Mars*, 164.
21. Moore, *Mission to the Planets*, 125.
22. Sheehan, *Planet Mars*, 165–68.
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2. *Mars Global Surveyors* resolution is 1.4 meters per pixel.
3. Percival Lowell, address to the Boston Scientific Society, 22 May 1894, quoted in Sheehan, *Planet Mars*, 104.
4. Sheehan, *Planet Mars*, 171.
5. Hurtak and Crowley, *The Face on Mars*, 35.
6. Ibid., 36.

7. THE VIKING ENIGMA

1. "The plain of gold": named after its coloration.
2. Conversation with authors, July 1997, at Caltech, Pasadena, California.

3. *Cosmos*, 140.
4. Ibid.
5. According to Gerry Soffen, a Viking project scientist.
6. Press release P-17384. (Source: NASA/Internet).
7. *Cosmos*, 140.
8. *The Face on Mars*, 68.

8. JESUS IN A TORTILLA

1. Ares Vallis means simply "Mars Valley."
2. NASA press release (http://nssdc.gsfc.nasa.gov/planetary/text/marsob.txt), 21 August 1993.

3. B. Rux, *Architects of the Underworld* (Berkeley, Calif: Frog Ltd., 1996), 245.

4. Richard Grossinger, Foreword to Hoagland, *Monuments of Mars*, xxxiii.

5. McDaniel, *Report*, xvi.

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7. Ibid, 23.

8. Rux, *Architects of the Underworld*, 241–44. The image can be found at the website of the Academy for Future Science (AFFS): affs@affs.org.

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1. DiPietro, and Molenaar, *Unusual Martian*, 15. “A

fantastic adventure was just beginning."

2. Carlotto, *Martian Enigmas*, 20.
3. DiPietro and Molenaar, *Unusual Martian*, 23.
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5. Ibid, 18.
6. DiPietro and Molenaar, *Unusual Martian*, 27.
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6. Carlotto, *Martian Enigmas, 287*.

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2. Ibid, 267.
3. McDaniel, *Report*, 70.
4. Arden Albee, interview with the authors, Cal Tech, Pasadena, California, July 1997.

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2. Ibid, 324–25.
3. R. Pirsig, *Lila: An Inquiry into Morals* (London: Black Swan, 1992), 392–93.

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5. Hoagland, *Monuments of Mars*, 325.

6. Erol Torun, "The Geomorphology and Geometry of the D&M Pyramid," unpublished paper; available through Compuserve Issues forum, section 10, filename PYRAMI.RSH.

7. Ibid.

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10. David Wood and Dan Campbell, *Genset* (Sudbury on Thames, England: Bellvue Books, 1995), 61.

11. H. E. Huntley, *The Divine Proportion* (New York: Dover

Publications, 1970), 24.

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13. J. Michell, *The New View Over Atlantis* (London: Thames and Hudson, 1983), 157–59.

14. McDaniel, *Report*, 86.

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16. DiPietro and Molenaar, *Unusual Martian*, 38.

17. Phi is 1.6180339885 … calculated by adding one to the square root of five and dividing the result by two. See P. Tompkins, *Mysteries of the Mexican Pyramids* (London: Thames and Hudson, 1976), 262.

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20. Ibid, 86.

21. J. and C. Matthews, *The Western Way: The Hermetic Tradition* (London: Penguin Arkana, 1988), 199.

22. See collected works of C. G. Jung, *Psychology and Alchemy: Alchemical Studies and Mysterium Conjunctionis*.

23. Rosarium, Art. aurif, II, 237 in Jung, *Psychology and Alchemy*.

24. Jung, *Psychology and Alchemy*, 178.

25. Torun, "Geomorphology and Geometry of D&M Pyramid."

26. Ibid.

13. COINCIDENCES

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2. Hoagland, *Monuments of Mars*, 326, note 4, Appendix 2; Carlotto, *Martian Enigmas*, 178.
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5. Ibid, 410.

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6. Ibid, 23–24.
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18. Ibid., 34–35.

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THE STONE

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3. Appian Way, *The Riddle of the Earth* (London: Chapman and Hall, 1925), 165.
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14. Ibid., 201.

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Part Four: The Darkness and the Light

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7. Ibid., 161–62.
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13. See chapter 4.
14. Fred Hoyle and Chandra Wickramasinghe, *Life on Mars?*

The Case for a Cosmic Heritage (Bristol, England: Clinical Press, 1997), 179.

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38. Ibid, 141; David M. Raup, *The Nemesis Affair: A Story of the Death of Dinosaurs and the Ways of Science* (New York: W. W. Norton, 1986), 158.

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41. Raup, *Nemesis*, 158.

42. Luis W. Alvarez, *Science*, June 1980.

43. Fred Hoyle, *Ice* (London: Hutchinson, 1981), 167; Alvarez, *Crater of Doom*, 7.

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30. Albritton, *Catastrophic Episodes*, 99.

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40. Bailey, Clube, Napier, *Origin of Comets*, 250–51.

41. Palmer, *Catastrophism*, 5; Clube and Napier, *Cosmic*

Winter, 134.

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Origin, 229: "The common periodicity in mass extinctions and large impact craters was quickly realized to correspond to the half-period with which the Sun oscillates through the galactic plane, suggesting a plausible source for a wave of comets in a disturbance of the Oort cloud either through stellar encounters or passages through giant molecular clouds."

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16. Ibid, 135–36.

17. There is nothing inherently improbable about this. “All that is suggested,” says Duncan Steel *(Rogue Asteroids*, 135–36), “is a breakup similar to P/Shoemaker-Levy 9 in 1992, except by a comet at least 100 kilometers across and in an orbit crossing from Jupiter to the Earth.”

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28. Hancock and Bauval, *Fingerprints of the Gods, The Orion Mystery, The Message of the Sphinx*.

29. Raup, *Nemesis*, 59.

30. For a full discussion of crustal displacement and its implications see Flem-Ath, *When the Sky Fell*

31. Clube interview with Hancock.

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33. Thomas, Chyba, McKay, *Comets and Origin*, 232: "Could the most recent Ice Age, or its succession, have been due to changes in the small-body flux over the past 10,000 to 20,000 years … ? The inner solar system environment [could be] currently subject to the substantial control of the products of the breakup of a giant comet within the past 20,000 years."

34. Hoyle and Wickramasinghe, *Life on Mars*, 176.

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22. See chapter 25.

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35. Clube and Napier, *Cosmic Serpent*, 151; *Origin of Comets*, 398; *Cosmic Winter*, 150.

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Published by Three Rivers Press, New York,
New York. Member of the Crown Publishing Group.

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Originally published in hardcover by Crown Publishers in 1998.

Library of Congress Cataloging-in-Publication Data
Hancock, Graham.
The mars mystery : the secret connection between earth and the red planet / Graham Hancock.
p. cm.
1. Mars (Planet)—Surface. 2. Mars (Planet)—Geology. 3. Great Sphinx (Egypt). 4. Egyptology. 5. Life on other planets.
I. Title.
QB641.H317 1998
999'.23—dc21 98-17933

eISBN: 978-0-307-55779-7

v3.0

GRAHAM HANCOCK
&
ROBERT BAUVAL

33

THE MASTER GAME

UNMASKING THE SECRET RULERS OF THE WORLD

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Published by:
The Disinformation Company Ltd.
111 East 14th Street, Suite 108
New York, NY 10003
Tel.: +1.212.691.1605
Fax: +1.212.691.1606
www.disinfo.com

Library of Congress Control Number: 2011933032

eISBN : 978-1-934-70875-0

Distributed in the US by:
Consortium Book Sales and Distribution
34 Thirteenth Avenue NE, Suite 101
Minneapolis, MN 55413-1007
Tel.: +1.800.283.3572
www.cbsd.com

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Managing Editor: Ralph Bernardo

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The Message of the Sphinx

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To my mother, Yvonne Bauval.

Robert Bauval

For my father. Your warmth and wise advice are

sorely missed.

Graham Hancock

ACKNOWLEDGEMENTS

The making of this book has a long and chequered history. It began in 1992 and was finally brought to a close in 2011. The time-span reflects not only the complex nature of the subject matter but also the strong and enduring working relationship and friendship that I have with my co-author, Graham Hancock, a master of the trade *par excellence*. It also highlights, yet again, the power of teamwork and the old but true axiom that ‘two heads are better than one.’

I would like to thank the many colleagues and friends who, through the many years, have helped me

directly or indirectly with this book. My foremost thanks go to my wife, Michele, who always gave me unflinching support. It is not easy to live with someone whose mind is often engrossed in solving historical puzzles. I also would like to pay special tribute to Mary Bruck of Edinburgh who sadly passed away recently. She was a very dear friend and she will be sorely missed. Much thanks also go to my friends all over the world, not least Hoda Hakim (Cairo), Chafik and Racha Kotry (Alexandria), John and Josette Orphanidis (Athens), Gouda Fayed (Giza, Nazlet El Salman), Javier and Eva Sierra (Malaga), Adriano Forgione (Rome), Sandro Mainardi (Florence), Linda and Max Bauval (Hawaii), Christopher and Caroline Knight (UK), Alan Butler (UK), Juliano Fernadez (Uruguay), Jean-Paul and Valentina Tarud-Kuborn (Chile), Jeanne Ribeiro

(Brazil), Ryan Gilmore (Canada), Gary Evans (UK), Hillary Raimo (USA) and Sherif el Sebai (Cairo). My gratitude to my literary agent and friend Bill Hamilton of A. M. Heath & Co. Ltd., who is always there to encourage and advise me, and to listen to my over-enthusiastic oratory. The same gratitude also goes to my editor and friend Gary Baddeley of The Disinformation Company in New York for his patience, dedication, support and invaluable help. Much appreciation to Ralph Bernardo for his diligence and dedication in putting this book together. As always I give thanks to all my readers, old and new, and hope that they will find *The Master Game* as enjoyable as it was for me to co-write.

Robert Bauval

Malaga, Spain

Thank you to my wife Santha and to our six children Sean, Shanti, Ravi, Leila, Luke and Gabrielle, who have given me so much solidarity, love and support over the 19 years this book has been in the making. I'm really grateful to my Dad, too, who read the whole manuscript during what turned out to be his last summer and took the trouble to give me many helpful comments and suggestions. He passionately disagreed with many of my views on the Christian Church, but we agreed equally passionately that life has a spiritual meaning and that it does not end with the grave.

Graham Hancock
Bath, England

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Preface:

The Master Game

Man is born free, but everywhere he is in chains.
Jean-Jacques Rousseau, Le Contrat Social

There is one thing stronger than all the armies in the world; and that is an idea whose time has come.
Proverb

“What is the Master Game?”

“Who is playing it?”

“Where? How? Why?”

“And which side is winning?”

INTRODUCTION

THE GAME OF GAMES

For a very long time there has been a belief, sometimes widely held and proclaimed, sometimes held only by persecuted minorities, that we humans are here on this planet to nurture and perfect our souls – and thus to equip ourselves for immortality.

Those who hold such beliefs usually also believe that negative spiritual forces are at work amongst mankind – evil angels who seek to lead us astray and

divert us from our true path.

It is irrelevant whether any of this is ontologically true. All that matters is that it has been and continues to be believed. Such beliefs, built around a concept of antagonistic forces – Darkness and Light, Good and Evil – battling for the human soul are bound to have been acted upon by those who held them strongly.

In this book we will explore a number of mysterious ancient documents, prominent amongst them the so-called *Hermetic Texts,* written down in Latin and Greek in the early centuries of the Christian era. In one of these texts the god Hermes (the Greek counterpart of the ancient Egyptian wisdom god Thoth) delivers a prophecy to his pupil Asclepius:

Do you know, Asclepius, that Egypt is an image of heaven, or to speak more exactly, in Egypt all the

operations of the powers which rule and work in heaven are present in the Earth below? In fact it should be said that the whole Kosmos dwells in this our land as in a sanctuary.

And yet, since it is fitting that wise men should have knowledge of all events before they come to pass, you must not be left in ignorance of what I will now tell you.

There will come a time when it will have been in vain that Egyptians have honored the Godhead with heartfelt piety and service; and all our holy worship will be fruitless and ineffectual.

The gods will return from earth to heaven; Egypt will be forsaken, and the land which was once the home

of religion will be left desolate, bereft of the presence of its deities.

O Egypt, Egypt, of thy religion nothing will remain but an empty tale, which thine own children in time to come will not believe; nothing will be left but graven words, and only the stones will tell of thy piety.

And in that day men will be weary of life, and they will cease to think the universe worthy of reverent wonder and worship ... Darkness will be preferred to light, and death will be thought more profitable than life; no one will raise his eyes to heaven; the pious will be deemed insane, the impious wise; the madman will be thought a brave man, and the wicked will be esteemed as good.

As for the soul, and the belief that it is immortal by nature, or may hope to attain to immortality, as I have taught you – all this they will mock, and even persuade themselves that it is false.

No word of reverence or piety, no utterance worthy of heaven, will be heard or believed.

And so the gods will depart from mankind, – a grievous thing! – and only evil angels will remain, who will mingle with men, and drive the poor wretches into all manner of reckless crime, into wars, and robberies, and frauds, and all things hostile to the nature of the soul.[1]

Against the onset of such dark times – and there

have been many dark episodes in the past two millennia – we demonstrate in this book that certain groups and individuals have always stood prepared to act. These daring and valiant people knew from the outset that their resistance might put them in extreme danger and would require much sacrifice, even the willingness to die. They also knew that their task might take a very long time, spanning several generations, centuries, perhaps even millennia. But it was the only game really worth playing for upon the outcome depended nothing less than the spiritual redemption of mankind.

Today covertly directed from Washington, DC, the ‘Master Game’ as we have come to see it has evolved into nothing less than a grandiose scheme played on the world stage to bring about a ‘new world order’. Let us be very clear from the outset, however, that

this book is neither a ‘conspiracy theory’ nor a compilation of such theories. Our objective is solely to make sense of historical events, particularly events of recent times, that have rocked the very soul of humanity.

Yet the Master Game was not easy to recognize and comprehend, not least because it drew inspiration from a distant golden age set in far away places. This was when groups of carefully selected men and women, neophytes and adepts, were carefully initiated into a high *gnosis* to equip them with great intellectual powers that would enable them to guide and direct society along the path of virtuosity and enlightenment. This is why it will be necessary for the reader to journey with us to the very source of the ‘Game’ and unhurriedly be ushered through the secret routes and alleyways that infiltrate great

social and religious reforms, the birth of the state of Israel, and finally the hideous episode of 9/11 and the ongoing military and political mayhem that it set in motion.

As investigative writers with one foot in the Western world and the other in the Arab world, and also as historians opting to dig deep under the veneer of established history, we have become increasingly and disturbingly aware that the Master Game has taken a rather strange twist over the last sixty years or so. Indeed it is our conclusion that it has now lost sight entirely of its original objective and, far worse, could be leading mankind towards an Armageddon of biblical proportions. To put it bluntly, there is a very dangerous and extremely strong social and political undercurrent in one part of the world that is building up largely unnoticed, and that is about to blow, like

an overheated giant pressure cooker, into a gruesome clash of civilizations.

For hundreds of millions of Muslims (and even in some Christian and Jewish communities) there is a weird perception that a Masonic-Zionist-American plot, hatched back in the early 1900s (but not implemented until the 1940s), has been devised to take over and control the Arab world from Washington, London and Tel Aviv. This perception on the one side, whether based on facts or falsehoods, is perilously misunderstood on the other side by the Western world as a whole. Our findings show that the Master Game is not only being played by a set of new players having very different rules of engagement but also using very different game-boards. In simple terms, the Master Game has stopped being a battle between oppressed and oppressors, between the

forces of evil and the forces of good, and has transmuted itself into a dangerous collision of two cultures who see the future of the world in very different ways.

From the time of the Italian Renaissance in the 15th century, the Master Game began to change from direct physical confrontation with the powers that be (of the kind that took place during the Cathar 'experiment' – see *Part I: The Secret Faith*) to something much more subtle and insidious – a form of symbolic warfare that would assail the establishment secretly and stealthily from within. This new approach would not use conventional weaponry, or military forces, but rather a *special gnosis* known only an elect few. Like camouflaged commandos operating under the cover of darkness these elite, initiated insiders would place powerful

‘intellectual time-bombs’ in the very heart of their unsuspecting oppressors, set to detonate at propitious moments. Continuing through the Enlightenment of the 17th century, the great social upheavals of the French and American Revolutions of the late 18th century and finally down to our own times, it is not an accident that top architects, town planners, and even sculptors and artists have been busily changing the urban landscapes of major cities – principally in Rome, London, Paris and Washington, DC – by strategically locating monuments and buildings that seemingly evoke ‘Masonic’ ideologies and symbolism. Their objective or, more aptly, that of the Masters has been to erode and finally eliminate the iron-hold of the Church and the monarchies and to establish a new world order based on seemingly ‘Masonic’ ideals.

We have made it our task to understand whence these ideas originated and also to attempt to define the true purpose of these strange urban developments. To this end we have found it necessary not only to undertake a sort of ‘intellectual archaeology’ of history but also to *self-initiate* ourselves into an ancient and very potent way of thinking which, for want of better terms, we have dubbed *talismanic thinking*.

In our many years of research into ancient cultures and, more specifically, their powerful symbolic art and architecture, it has slowly dawned on us that the true language of humans is not, as we previously thought, the spoken word but the ‘silent language’ of symbols and signs that ‘speak’ directly to the mind and the soul of a person. And although everyone knows that a symbol is an image or an object that

represents something, few are aware that some symbols can be converted into extremely powerful intellectual instruments that can have devastating effects on large huge numbers of people by *charging* them with intoxicating ideologies and stirring emotions. When a symbol, whether a tangible object, monument or building, or whether an intangible idea or logo is thus *charged*, then it becomes a *talisman*. Think of the Christian Cross, the Star of David, the Islamic Crescent or the Nazi Swastika and the disturbing effects such talismans have had throughout history and you will begin to get the gist of this elusive Master Game.

To have a full understanding of how talismans work, and knowledge of exactly where, how and when to apply them for maximum effect, is to be in possession of a potent arsenal of intellectual

weaponry that can be used to change, reform, transform or, as the case may be, overthrow entrenched social and cultural systems ... and also replace them with new ones. Kingdoms, empires, whole civilizations have been brought down with such intellectual weaponry, and the amazing thing is that in the most successful assaults not a single shot was fired or a single bomb exploded; furthermore the intellectual war was fought with one side entirely oblivious of where the attacks came from and unable to assess the damage inflicted until it was too late.

In 2009 the American novelist Dan Brown published his latest thriller, *The Lost Symbol*, which purported to unmask the true 'Masonic' mission and the meaning of the strange city layout of Washington, DC. Although the plot was largely fictional, the historical and urban settings he used were rooted in

reality. The initial result of such wide popularization in semifictional blockbusters is that several millions of people are now aware of a possible covert mission to turn the capital of the United States into a Masonic ‘experiment’ using talismanic symbolism in the layout of streets and positioning of stately buildings and monuments. Another, more pertinent result, is that some residents of Washington, DC have become preoccupied by the real possibility that they live, eat, work and play inside a giant ‘Masonic temple’ that is their city. Yet neither Dan Brown nor anyone else as far as we know has been able to explain exactly why such a strange city plan was created in the first place nor, too, what ultimate function such a scheme might truly serve.

But as we emphasized earlier, to get to grips with this conundrum one must go back to the very roots of

the ideologies that fired such a scheme and track its evolution and transmission across the ages. It is an intellectual journey that is truly worth the effort because at its end of the voyage, as happened with us, a veil will be lifted to reveal a strange world that was always there and yet is *invisible to the uninitiated eye*.

Prologue:

The Sacred Cities

The boat of Isis, a feast which was celebrated in Rome with great pomp, was known as Navigium Isidis; *after it had been launched in the water, it was brought back to the Temple of Isis and prayers were made for the prosperity of the emperor, for the empire and for the Roman people …*

François Noël, Dictionnaire de la fable

No one ignores that Paris was originally enclosed in

the island [the Île
de la Cité]. *It was thus, since its origins, a city of navigation … As it was*
in a river rife with navigation, it took as its symbol a boat, and as tutelary
goddess, Isis, goddess of navigation; and this boat was the actual one of
Isis, symbol of this goddess.

Antoine Court de Gébelin, Monde primitif analysé et comparé avec le monde moderne

CHAPTER ONE

BEHIND THE VEILS

On 14 July 1789 a furious crowd ran riot on the streets of Paris and stormed the great prison known as the Bastille. Less than an hour later the fate of France hung in the balance and European history seemed set on a new and alarmingly unpredictable course.

Contemporary engravings of the Bastille show a forbidding rectangular structure flanked by eight tall

towers. It does not look easy to storm. Built in the late 14th century as a fortress to protect eastern Paris, it was converted in the 17th century into a squalid and ghastly prison for dissidents. By the time of the Revolution it was firmly established in the public mind as an instrument of tyranny and as a powerful symbol of the despotism of the French crown.

The day after the storming of the Bastille an enterprising local contractor, Monsieur Pierre-François Palloy,[1] took it upon himself to mobilise a workforce of 800 citizens to dismantle the hated prison stone by stone.[2] The work was so well done that within a month most of the structure had been reduced to rubble with only a small part of the perimeter wall and foundations still intact.

At this point something curious occurred. The suggestion was made, and for a while taken seriously, that the stones of the Bastille should be salvaged in order to construct a replica of an ancient Egyptian pyramid on the site.[3] And although the project later stalled for lack of funds, the core idea of making a symbolic connection with ancient Egypt persisted behind the scenes. If a pyramid could not be managed something less would have to suffice. Thus it was that on 10 August 1793 a group of revolutionaries ceremoniously installed a large statue of the ancient Egyptian goddess Isis where the Bastille had formerly stood. Depicting the goddess seated on a throne flanked by two lions, the statue had been conceived by Jacques-Louis David, the famous artist and propagandist of the revolution. It

was to be one of the props in a macabre republican feast hastily put together in order to celebrate the decapitation of King Louis XVI six months previously and the forthcoming guillotining of Queen Marie-Antoinette still two months ahead.

The sculptors, François Marie Suzanne and Pierre Cartelier, did not have sufficient time to cast the statue in the preferred medium of bronze so they simply moulded it in plaster and coloured it with bronze paint.[4] From the bare nipples of the ‘goddess Isis’ could be seen water being ejected into an open basin below the statue. Known as the ‘Fountain of Regeneration’, the general idea was for the crowd of people to pass in procession in front of ‘Isis’ and drink ‘from her fertile breasts the pure and salutary liquor of regeneration’.[5]

De-Christianisation

Everyone knows that philosophical ideas, notably those of Jean-Jacques Rousseau and Voltaire, were part of the ferment that led to the French Revolution. Still it is hard to explain why an overtly *religious* ritual – such as the Isis ceremony described above – should have received official sponsorship from the revolutionary government as early as 1793. That it did so, moreover, on a site so powerfully symbolic as the Place de la Bastille, raises an interesting question. Is it possible that spiritual and even ‘religious’ beliefs could have played a greater role than has hitherto been recognised in precipitating and sustaining the changes that gripped France after

1789.

For example, although the matter has been little studied, it became clear in the early days of the Revolution that its core objectives included not only the eradication of the monarchy and a radical readjustment of the social and economic order, as might be expected, but also another, even more far-reaching goal: the eradication, no less – one might almost say the *extirpation* – of Christianity from the soil of France. This objective was adopted as official policy in the winter of 1793, a few months after the Isis rituals at the Bastille, and set in train an intense and systematic national campaign of 'de-Christianisation'.[6] As French historian Michel Vovelle sums up, this now almost forgotten facet of the Revolution was not some passive and progressive

attempt at conversion, but a methodical and forceful enterprise imposed though violence and intimidation.[7]

Why this sudden rush to stamp out Christianity?

Was it just that the Revolutionaries saw Christianity as a rival for the loyalty of the masses and hated and resented the ancient ties between the monarchy and the Church?

Or was there another, deeper game being played?

Very Christian Kings beheaded by the Cult of the Supreme Being

The kings of France liked to trace their origins

back to the *Merovingians*, a Frankish dynasty of the fifth to the eighth centuries AD. Nothing is known about Merovech, the semi-legendary founder of the dynasty, but his son Childeric I is a historical figure who ruled a tribe of Salian Franks from his capital at Tournai *circa* AD 470. In AD 481 or 482 Childeric was succeeded by his son Clovis I who united almost of all of Gaul and converted to Christianity around AD 496.

Clovis died *circa* AD 511, but the Merovingian dynasty continued to rule much of what is now France until AD 750. It was succeeded by the Carolingian dynasty which gained great renown *circa* AD 800 with the dramatic coronation by Pope Leo III of Charlemagne as the very first 'Holy Roman emperor'. Thereafter all kings of France were regarded as the protectors of the Roman Church and to this effect bore the title *Roi Très Chrétien* – 'Very

Christian King'. Indeed so pious were France's medieval kings that one of them was actually canonised as a saint – Louis IX, a hero of the Crusades, who we will meet in Part I.[8]

Meanwhile to return to that terrible year of 1793 – 4 – the year, in fact, of the revolutionary 'Terror' with its unruly orgy of beheading – a different kind of religious phenomenon was suddenly widely observed in France: Catholic priests began to 'abdicate' their positions in droves[9] and a new, officially-sponsored cult was launched by the *Convention* (the Revolutionary government) within recently 'de-Christianised' churches and cathedrals all across the land. Sometimes referred to as the 'Cult of Reason' but more commonly as the 'Cult of the Supreme Being', it seems that this new religion was the

brainchild of the revolutionary leader Maximilien Robespierre and that its establishment was masterminded once again by the artist Jacques-Louis David (who had previously been involved in the Isis/Bastille stunt).

The tricolor goddess with the Phrygian cap

In street festivals staged during the French Revolution, the ‘goddess Reason’ was routinely personified by an actress garbed with a *tricolor* red, white and blue veil and wearing the so-called *Phrygian cap*. This same little red cap was in great

vogue with the general public in the early part of the Revolution and was worn especially by the *sans-culottes* (‘without culottes’), the most zealous faction who partook in the thousands of guillotine executions in Paris and throughout the country.

The Phrygian cap is the typical headwear of two well-known pagan deities: the goddess Cybele and the god Mithras.

Cybele was the one of the great mother goddesses of antiquity and, more particularly at one stage of Roman history, whose ‘republic’ the French revolutionaries tried to emulate. As the name of her cap suggests, her cult origins were in ancient Phrygia (modern Turkey). In statuary she was routinely associated with two lions, either depicted harnessed to her chariot or flanking the ceremonial throne used by the high-priests of her cult. Medieval and

Renaissance scholars frequently identified her with the ancient Egyptian goddess Isis. It therefore seems unlikely to be an accident that a Cybele-like goddess was to figure so prominently in the iconography of the French Revolution – for example in the so-called *Génie de La République,* a marble sculpture by the artist Joseph Chinard, made in the aftermath of the fall of the Bastille, which shows '*République*' as a young woman in Graeco-Roman garb wearing the Phrygian hat.[10]

In the strange and terrible year of 1793 – 4 the so-called *Cult of Reason* spread like wildfire in the French provinces alongside the de-Christianisation process. It became common to witness large processions, or street theatres, in which the 'goddess Reason' wearing the Phrygian cap was towed on a

cart to the nearest church or cathedral. Such events might look like nothing more than excuses for men and women to get drunk together, yet in France there were always more serious undertones. On 7 November 1793 for example no less a figure than the bishop of Paris, was forced by the Convention to recant his faith. Three days later, on 10 November, huge celebrations were organised at his cathedral in honour of the alternative Cult of Reason.

As the highlight of the celebrations a certain Mlle Aubry, a beautiful and popular actress wrapped in a white veil and blue tunic and wearing the red Phrygian cap, emerged from a ‘temple’ dedicated to ‘philosophy’ and was sat on a throne while the crowds came to pay homage to her. The procession then marched to the Convention, where Citizen Chabot, a zealous revolutionary and one of the co-

architects of the new cult, decreed that henceforth the Cathedral of Notre Dame in Paris, the oldest and most revered Christian sanctuary in the land, was to become the ‘Temple of Reason’. Several ceremonies then followed where the role of the ‘goddess’ was assumed by various Parisian beauties, among them Mlle Maillard, Mlle Lacombe and Mme Momoro.[11]

The obelisk and the painting

In 1813, twenty-six years after the storming of the Bastille, the great culture-changing momentum of the French Revolution seemingly came to a grinding halt with the defeat of Napoleon. Seizing the moment, the

exiled Count of Provence, Louis-Stanislas-Xavier, elder brother of Louis XVI, promised the French people that he would uphold some of the tenets of the Revolution in a new form of monarchy. Then, advised by the brilliant statesman Talleyrand, he entered Paris in May 1814 where he was received with open arms by the war-weary French and, amid much jubilation, was installed on the throne as Louis XVIII.[12]

Louis XVIII ruled for ten years. He was a Freemason – on his death in 1824 he was succeeded by his brother, the Count of Artois – also a Freemason – who took the name Charles X. Both monarchs showed a marked preference for ancient Egyptian symbolism in their public works and two projects of Charles X are of particular interest in this

regard. The first involved transporting an intact ancient Egyptian obelisk to Paris. The second called for the commissioning of a gigantic painting in the Louvre.

The obelisk

In 1827, Jean-François Champollion (dubbed the ‘father of modern Egyptology’ for his breakthrough decipherment of ancient Egyptian hieroglyphs) was commissioned by Charles X to arrange for the importation to Paris of a 3,500-year-old obelisk – one of a pair – that stood at Alexandria in Egypt.[13]

The obelisk was destined for the Place de la Concorde, a prestigious location of great personal significance to Charles X. It had originally being

named in honour of his father, Louis XV, an equestrian statue of whom had once graced it. But the statue had been pulled down and destroyed during the 1789 Revolution and the site renamed by the Convention as ‘Place de la Concorde’. Here also the guillotine had been erected that had beheaded Louis XVI in January 1793 and Marie-Antoinette in October of the same bloodstained year. May we speculate that the installation of the obelisk was to commemorate the idea of a reborn and restored monarchy, with the ancient solar symbol of the divine kings of Egypt rising in the heart of the Parisian skyline like a ‘phoenix’?

The painting

Charles X’s second noteworthy project was to commission the artist François-Édouard Picot to decorate the ceiling of his personal museum at the Louvre with a specific ‘Egyptian’ theme.

Picot, like many promising artists of the time, had studied under the master, Jacques-Louis David – the man responsible for the statue of Isis in the Place de la Bastille. We should not be surprised, therefore, that the very same ‘Isis’ is found on Picot's painting for Charles X.

Still decorating a ceiling of the Louvre, the great work was completed in 1827 and measures roughly 5 x 4 meters. Its title is *L’Etude et le Génie dévoilent à Athènes l’Antique Egypte* (‘Learning and Genius Unveil Ancient Egypt to Athens’). The figure of Isis dominates the scene and is depicted seated on a throne flanked by two lions – as was the case with

David's earlier Isis of the Bastille. The viewer, however, is immediately drawn to contemplate the sky above the goddess, where can be seen flying two angels in the act of ‘unveiling’ the secrets of Isis.

We catch a tantalising glimpse of a haunting landscape containing in the far distance an obelisk and a group of pyramids at which Isis languidly casts her gaze. From the clouds next to the angels, the Greek goddess Athena appears with an owl at her feet symbolising initiation and wisdom. To the left of Athena is a winged-goddess wearing a laurel wreath symbolising ‘Learning’ (*l’Etude*). To the right of Athena is the so-called *Génie de Paris,* a naked winged youth brandishing a torch in order to illuminate and reveal to Athena the Egyptianised landscape below.

After the abdication of Charles X in 1830, Louis-

Philippe I became the new ruler of France. Also known as the ‘Citizen King’, he commissioned a monument to commemorate the *Trois Glorieuses*, those three days of 26, 27 and 28 July 1830 that marked France's Second Revolution. This monument, which was completed in 1836, is a tall pillar erected in the Place de la Bastille on the very spot where David had positioned his statue of Isis in August 1793. On top of the pillar is a close replica of the winged youth with the torch seen in Picot's painting in the Louvre.

Is Picot reminding us that here, below the winged *Génie de Paris*, had once been a statue of Isis as also seen in his painting?

Coincidence, or blueprint?

Let us imagine ourselves in Paris today, riding in a helicopter above the Bastille pillar and looking westward, along the line of sight of the *Génie de Paris.* We are hovering over the city's oldest and most sacred quarters. Sprawled beneath us are some of the most impressive buildings and monuments that Paris has to offer. To our left runs the Boulevard Henri IV leading to the River Seine. The river itself runs roughly from east to west, and thus parallel to our westward line of sight, while beyond Boulevard Henri IV is the old Pont Sully arching over the eastern edge of the Île St. Louis with its famous abbey of the same name. The western tip of the

island is linked by a pedestrian bridge to the much larger Île de la Cité, site of the celebrated Cathedral of Notre Dame and the impressive Palais de Justice.

Across the Seine is the tall bell tower of the Abbey of Saint-Germain-des-Prés – the latter, as we shall later see, intriguingly once a sanctuary dedicated to the goddess Isis. Yet all these wonders will pale when we focus our eyes along our line of sight westwards with the *Génie de Paris*, for before us will unfold the most enchanting urban landscape that Europe has to offer. Shooting straight like an arrow is the Rue de Rivoli leading to the Church of Saint-Germain l'Auxerrois – the oldest in Paris, where the ancient kings of France were traditionally baptised. Immediately beyond the church is the crab-shaped *Grand Louvre*, perhaps Europe's most wonderful museum and, until 1663, the main palace of the kings

of France.

And there is yet more to feast our eyes upon. Today an imposing glass Pyramid – commissioned by President Mitterrand for the bicentennial celebration of 1989 – looms like a giant diamond in the central courtyard of the Louvre. This out-of-place pyramid seems to define for us an open vista westward leading through Napoleon's Arc du Carrousel and towards the impeccably-groomed Tuileries Garden. Our line of sight further takes in the wide and perfectly straight Avenue des Champs-Élysées, the backbone of Paris that was once known as the *Axe historique* – the 'Historical Axis'. At this point it is impossible not to see the tall Egyptian obelisk that rears up towards the sky in the Place de la Concorde at the entrance of the Champs-Élysées. And nor can we ignore the way in which the whole layout that we

observe from the high vantage point of the *Génie de Paris* bears an uncanny and striking similarity to the layout and general scheme suggested in Picot's painting. For if we examine this painting more closely and try to imagine ourselves now alongside the other winged *Génie de Paris* which hovers over the mysterious Egyptianised landscape of Picot's masterpiece, something immediately becomes clear. The obelisk and the various pyramids that Picot included not only seem to define the central axis of the painting but, if transposed to the layout of Paris, will correlate with the Concorde Obelisk and the Louvre Pyramid that define the central or ‘Historical’ Axis of the city!

Charles X’s decision to send Champollion to Egypt to bring back the obelisk was taken during the year 1826 – 7 *while Picot was in the process of painting*

his masterpiece at the Louvre. We also know that Picot was deeply involved in the furbishing of Charles X's Egyptian museum at the Louvre Palace and that he would almost certainly have been privy to the discussions surrounding the importation and positioning of the obelisk. Even though it was not until 1836 that it was finally raised up in the Place de la Concorde, therefore, its easy to understand why the artist might have been inspired to put an obelisk in his 1827 painting – and in the right place.

Much harder to explain is the relationship between the pyramids Picot shows in the painting and the Louvre Pyramid visible in our aerial view. This is because the latter is a modern work, less than 20 years old at time of writing, designed by architect I. M. Pei and completed in 1984.

So the question is, how could Picot have

anticipated I. M. Pei's pyramid? Or – more conspiratorially – did the 1827 painting allude to some sort of occult plan or blueprint for Paris that has continued to be implemented over more than 150 years? Or is it just a huge coincidence that the Egyptianised landscape being unveiled in the painting has been reproduced in the architecture of Paris?

Was Freemasonry behind the French Revolution?

We have already seen how during the 1789 Revolution it was proposed to raise a pyramid at the

site of the Bastille – something that Picot would certainly have known of. Picot is also likely to have been aware of a number of other grandiose ‘pyramid’ projects that were planned before and after the Revolution but that had been stalled because of shortage of funds.

There had been, for example, a massive ‘pyramid tomb’ planned in Paris in honour of the scientist Sir Isaac Newton who was a hero of the Enlightenment and, consequently, of revolutionary ideals. The ‘pyramid’ was designed by the French architect, Joseph-Jean-Pascal Gay, in 1800, and was to have had a great perimeter wall with four gates modelled on the Temple of Karnak in Upper Egypt, and an alley of 18 sphinxes leading to the ‘pyramid’.[14]

There were too, the various pyramids proposed by

the architect Étienne-Louis Boullée. One of his surviving sketches is of a group of pyramids closely resembling the pyramids in Picot's painting – where they are seen enveloped in clouds and haze with their capstones missing.[15] The historian Jean Starobinski in his study of the emblems and symbols of the 1789 Revolution, explains that the 'language of the Revolution' was intensely 'symbolic'. Starobinski also speaks of a mood that seems to have seized architects in the immediately pre-revolutionary period: a novel need to use basic geometrical shapes – cubes, spheres, pyramids – on a monumental scale and to transform Paris into some sort of 'utopian city':

... [there was a] need to add images to ideas, and to design the plans of an ideal city. This city, like all

other utopic cities, would be governed by the laws of a simple and strict geometry ... All these grand architectural styles in line with simple principles of geometry presented as projects remained unrealised. [And although] a harmonious city, a city for a new age ... existed in the portfolios of certain architects, well-before the storming of the Bastille ... the Revolution would have neither the time, nor the resources, nor perhaps the audacity to ask them to undertake these great civic projects ...[16]

But why an *Egyptianised* utopian vision for Paris? Why pyramids and pseudo-Egyptian landscapes? Where did such strange ideas come from? And who was promoting them?

Such obsessions with symbolism, architecture and particularly geometry once again suggest the

influence of Freemasonry. Yet the authorities are divided on the matter. Scores of historians argue that an important role was indeed played by Freemasons in the French Revolution while, on the other hand, equal numbers argue that Freemasonry had nothing or little to do with it. This state of affairs is adequately expressed by the French historian Jacques Godechot, an expert on the subject:

There is a whole genre of literature, with shows no sign of abating, which attributes the responsibility of the Revolution, and especially the days of 1789, to the Duc d'Orléans [the first Grand Master of the *Grand Orient*, the supreme body which regulates Freemasonry in France]. According to this literature, it was the Duc d'Orléans who was responsible for the riots of the *Réveillon*, those of the 14th July, those of the night of the 4th August, and those of the days of

October. The Duc certainly attempted to profit from these events but whether he was the cause of them seems highly doubtful. In any case, if he did play this game, his efforts constituted a small influence compared to the much larger forces that pushed the people, France and even all of the Western world towards Revolution ...[17]

The truth is that no historian, however thorough his or her research, can really know what ‘forces’, visible or occult, moved the French people to erupt in total revolution against the monarchy and the Church in 1789. By definition such ‘forces’ are impossible to gauge and sometimes may not be ‘visible’ or ‘documented’ at all. It is a similar problem attempting to catalogue the forces behind the Crusades in the Middle Ages or behind the Holocaust

in Nazi Germany – or indeed those ‘forces’ that launched the United States on its ‘War on Terror’ at the beginning of the 21st century. No single force, occult or otherwise, can be deemed solely responsible for any of these events; rather a combination of forces has in every instance been at play.

In the case of the French Revolution, it is clear that one of the main forces was generated by the terrible oppression of the people and the abuse of power by the monarchy. Yet no historian will deny that there was also a strong philosophical and/or intellectual undercurrent to the Revolution which exerted a powerful influence on the behaviour of key figures such as Maximillien Robespierre, Jean-Paul Marat and George Jacques Danton, as well as others such as the painter Jacques-Louis David and the sculptor

Jean-Antoine Houdon. At this stage of our investigation Freemasonry remains as good a candidate as any for the source of this undercurrent.

Meanwhile, across the Atlantic in America, another ‘sister’ Revolution had taken place a decade earlier. There, too, a strong philosophical/ intellectual undercurrent can easily be detected which moved the main players such as Benjamin Franklin, Thomas Jefferson, Thomas Paine and George Washington. And there, too, a utopian city was, quite literally, in the making – to an esoteric plan far less veiled than that of Paris.

Franklin, Freemasonry and

Revolution

That the American Revolution or War of Independence was much influenced by Freemasons and Masonic ideologies and principles is a wellaccepted thesis. There are several good works on this topic[18] that leave little doubt that Freemasonry was one of the driving forces behind the ideals and tenets, and the attachment to republicanism, of the American Revolution. What is less well known is the fact that there was a very close connection between the French and American Masonic lodges at that time.

It is not clear whether or not Freemasonry might have entered North America before the

establishment of the Grand Lodge of England in 1717, but the earliest surviving records of formal Masonic lodges in America are from Boston and Philadelphia in the early 1730s.[19] The spread of Freemasonry in America occurred through the so-called *military lodges*, and by the eve of the War of Independence in 1775 it had become extremely popular among the ranking officers and gentry.

One of the first American Freemasons was Benjamin Franklin, who was initiated in February 1731 and became Master of the *St. John's* lodge in the city of Philadelphia, where he 'produced the oldest draft of American lodge by-laws still in existence'.[20] Franklin, who had founded the *Pennsylvania Gazette* in 1729, is also renowned in Masonic circles for printing (in December 1730) the

very first article in America which referred to Freemasonry.[21]

In those days Freemasonry in America was regulated by the Grand Lodge of England which appointed 'Provincial Grand Masters' in various regions of the North American continent. In 1749 Franklin was appointed Provincial Grand Master of Pennsylvania. An intellectual, a brilliant politician and, above all, a cunning *agent provocateur*, Franklin was to become the key figure in the American revolt against Britain and, of course, the most renowned 'Founding Father' of the United States.

Both as a young man and later in his adult life, Franklin passed three sojourns in England – a total of 15 years accumulated between 1724 and 1726, 1757 and 1762, and 1765 and 1775. During these lengthy

stays no one disputes that he gravitated in his choice of friendships towards influential Freemasons and radical intellectuals. On his return visits to America he became notorious for stirring up dissent against British colonial rule – so much so that the Privy Council of London found it necessary to summon him and severely warn him not to rouse anti-British sentiment in the colonies.

It was Franklin who, while in England, had encouraged rejection of the Stamp Act imposed by the British on the American colonies (which required settlers to pay a tax to certify all legal documents and transactions). Franklin managed to intercept a series of letters written by Thomas Hutchinson, the British governor of Massachusetts, in which several important American political figures were spoken of in very hostile terms. Franklin dispatched copies of

these letters to friends in America who had them published, causing such an outrage that the British had to appease the situation by repealing the act.

By the spring of 1775 the pressure was mounting against Franklin in England, and he decided it was time to return to America. He arrived there on 5 May. While he had been at sea, war had broken out between the British and the American revolutionary forces at Lexington and Concord on 19 April 1775.

On his arrival in Pennsylvania, Franklin was immediately appointed as a delegate to the Second Continental Congress, the body that was soon to become the Congress of the United States of America. Other newly appointed members were Thomas Jefferson and George Washington. Among the first decisions that the Congress made (on 15 June 1775) was the appointment of Washington as

commander-in-chief of the revolutionary armed forces.

Washington was 43 years old in 1775 and Franklin 69. Like Franklin, Washington was a Freemason. He had been initiated into the brotherhood in 1752 at Fredericksburg, Virginia, and had been raised a Master Mason the following year.[22] John Hancock, a rich Harvard gentleman, was president of the Congress at the time. He, too, was a prominent Freemason, later to be remembered for his large signature on the Declaration of Independence.

In September 1776 the Congress agreed to send a commission to France in order to seek military and financial support for the war against Britain. Franklin was a member of the three-man commission. He arrived in Paris just before Christmas that year.

Although France was not at war with England at the time, it was regarded as its natural enemy and, therefore, sympathetic to the American cause.

Franklin immediately struck up friendships with important figures in French society and, particularly, among the elite and the Freemasons. To the French he personified the unsophisticated nobility of the New World, and he quickly became the darling of French society and the hero of the intellectuals and military gentry. A sort of ‘Franklin cult’ was to emerge, and his portrait was seen everywhere, from snuffboxes to chamber pots. His company was in great demand by artists, intellectuals and high-society ladies. Spies and informers infested his house.

Franklin was to engage in secret negotiations with the Count of Vergennes, Louis XVI’s minister for

foreign affairs. These negotiations lasted several years, and eventually treaties were signed in 1778 in which France pledged military and economic support to the revolutionary cause in America.

Meanwhile in Paris Franklin pursued his social and intellectual interests with gusto by joining the illustrious Masonic ‘Nine Sisters’ lodge.[23] This famous lodge was founded in 1776 by Jérôme Lalande and the Abbé Cordier de Saint-Fermin, the latter the godfather of Voltaire. This was the same year that the Declaration of Independence was signed in America, with Franklin being the most senior of the signatories. Lalande was France's most respected astronomer, and wielded much influence amongst Parisian intellectuals.

Nine Sisters lodge

The *Loge Les Neuf Sœurs*, the ‘Lodge of the Nine Sisters’, named after the nine muses of Greek mythology, was in fact the successor of an older lodge, *Les Sciences*, which Lalande had founded in 1766 with the philosopher and mathematician Claude Adrien Helvétius. Helvétius was a staunch advocate of absolute atheism whose political and philosophical ideas would much influence the 1789 Revolution. After the death of Helvétius in 1771, his wife, Anne Catherine Helvétius, joined forces with Lalande and Saint-Fermin in the creation of the Nine Sisters lodge. Her own elite salon in the Rue Sainte-Anne in Paris was famous throughout Europe, and was

dubbed ‘the general headquarters of European philosophy’.[24] Another of her salons in Auteuil near Paris maintained very close links with the Nine Sisters lodge.[25]

Not surprisingly, Franklin was a regular visitor to Mme Helvétius's salon. Another was the Marquis de Lafayette, a young officer in the French army. Lafayette belonged to a Masonic lodge, *Le Contrat Social*, which was linked to other important lodges throughout France. Notable amongst these was the lodge *La Société Olympique*, with its membership of young officers such as the Count de Chambrun, the Count-Admiral François Joseph Paul de Grasse, the Count-Admiral Charles Hector d’Estaing and the buccaneer John Paul Jones – all of whom would fight for the American cause a few years later.[26]

In 1777 Franklin became the ‘Venerable Master’ of the Nine Sisters lodge and in 1778 he was given the ultimate honour of assisting in the initiation of the 84-year-old Voltaire. It is said that the aging Voltaire was supported on the arms of Franklin and Antoine Court de Gébelin, the Swiss-French inventor of the modern esoteric Tarot.[27]

In April 1777 Franklin's agent in Paris, the diplomat Sileas Deane, succeeded in recruiting the young Marquis de Lafayette, then only 19 years old, and dispatching him to America to serve under Washington.[28]

All in all therefore there is ample evidence of Masonic activity – in France – focussed on the care and nurture of the American Revolution and centred around Franklin and the Nine Sisters lodge. Such

evidence is suggestive but does not permit us to deduce that the Nine Sisters lodge and/ or Freemasonry in general were also responsible for the violent eruptions in Paris on 14 July 1789 with the storming of the Bastille and the total revolution that followed.

Still, the suspicion lingers. As the French historian Bernard Fay explains:

The revolutionary impulse, the revolutionary funds, the revolutionary leaders, during the first two years of the Revolution, came from the privileged classes. If the Duc d'Orléans, Mirabeau, Lafayette; if the Noailles family, the La Rochefoucauld, the Bouillon, the Lameth and other liberal nobles had not deserted the nobility in order to join the cause of the people and the Revolution, the revolutionaries would have been deprived of this advantage which allowed them

to triumph from the outset. Now, all these nobles who rallied in haste to the cause of new ideas, although at the end they lost their fortunes, their situation, their ranks, and their lives, were Freemasons and we cannot attribute this to hazard, unless we ignore the evidence.[29]

Not surprisingly, Bernard Fay also sees the Nine Sisters lodge as being the focus of the activities that marked the early years of the French Revolution. This lodge, as we know, harboured not only several key players in both the French Revolution *and* the 'sister' American Revolution, but also writers, intellectuals, politicians and artists who used their talents to extol the virtues of the Republic. 'It is certain', writes Masonic historian Jean-André Faucher, that:

... the Freemasons [of the Nine Sisters lodge and

other lodges] who contributed to the collapse of the monarchy and to the success of the Revolution were in great numbers.[30]

Another alleged member of the Nine Sisters lodge was the brilliant trained orator, lawyer and self-made politician George Jacques Danton. He is credited by many scholars with the pivotal role in toppling the French monarchy and in the creation of the First Republic in September 1792. He was also the founder of the infamous *Club des Cordeliers,* an ultra-radical revolutionary society officially known as the *Society of the Friends of the Rights of Man and of the Citizen*.

Robespierre and the Cult of the

Supreme Being

Danton was one of the so-called *Triumvir*, contesting the control of the Republic with two other revolutionary leaders, Robespierre and Marat – the latter a Freemason. It has never been conclusively established that Robespierre was a Freemason too. Nevertheless, his intellectual ideals and obsession with the 'virtues', as well as his promotion of the Cult of the Supreme Being, all reek of Masonic influence.

In Freemasonry God is often described as the 'Grand Architect of the Universe'. His symbol is either a five-pointed star – the 'Blazing Star', in which is depicted the letter 'G' – or a glowing pyramid or triangle with the all-seeing-eye, (the 'Eye

of Providence') inscribed within it. This symbol can still be seen on the 1789 Declaration of the Rights of Man and of the Citizen and appears quite obviously to have been modelled on the 'Supreme Being' of the Freemasons – likewise symbolised by the all-seeing-eye in the glowing pyramid.

English Freemasonry in particular has gone to great lengths to assert that belief in a Supreme Being is a precondition of membership.[31] Thus in an official statement by the 'Board of General Purposes', ratified by the United Grand Lodge of England, it was confirmed that:

The Board has given the most earnest consideration to this subject, being convinced that it is of fundamental importance to the reputation and well-being of English Freemasonry that no

misunderstanding should exist on either side of the Craft. It cannot be too strongly asserted that Masonry is neither a religion nor a substitute for religion ... On the other hand, its basic requirement that every member of the Order shall believe in a Supreme Being and the stress laid upon his duty towards Him should be sufficient evidence to all but the willfully prejudiced that Masonry is an upholder of religion since it requires a man to have some form of religion before he can be admitted as a Mason ... [32]

The above statement was, in fact, construed from the *Constitutions of Freemasons*, drafted in 1723, where in the so-called *First Charge*, which is entitled 'Concerning God and Religion', the following statement appears:

Let a man's religion or mode of worship be what it

may, he is not excluded from the Order, provided he believe in the Glorious Architect of Heaven and Earth …[33]

The term ‘Supreme Being’ is widely used in the information literature of the United Grand Lodge where, for example, an official leaflet declares that ‘members must believe in a Supreme Being, but there is no separate Masonic God’.[34] In other Masonic pamphlets the term ‘Grand Architect of the Universe’ is also extensively used. Clearly no distinctions are made between terms like ‘Glorious Architect of Heaven and Earth’, ‘Grand Architect of the Universe’ and ‘Supreme Being’. All are, quite obviously, considered appropriate and interchangeable epithets for the Masonic idea of ‘God’.

Taking into account that most of the main players of the French Revolution were Freemasons (including fellow *Triumvir* members Danton and Marat), and giving thought to the terminology used by Robespierre for his republican cult, it is difficult to avoid the conclusion that his Supreme Being was one and the same as the Masonic 'Grand Architect of the Universe'. Indeed, the historian Michel Vovelle, an expert on cults of the French Revolution, quite readily equates the 'Supreme Being' of Robespierre with the 'Grand Architect' of the Freemasons.[35]

Rousseau and the *Contrat Social*

It is well known that Robespierre was much influenced by the work of Jean-Jacques Rousseau (1712 – 1778), the writer and philosopher whose *Contrat Social* (a political tract which extolled the virtues of social equality and the dignity of man), set the foundation for the Declaration of the Rights of Man and of the Citizen, the natural successor to the American Declaration of Independence.

Although Rousseau was not a Freemason, French Masons took many of his philosophical and political ideas as gospel – so much so that one of the most important and influential pre-revolutionary Masonic lodges*, La Loge du Contrat Social,* was named in his honour. It must be remembered that both Voltaire and Rousseau were – and still are – regarded as having been the intellectual dynamos behind the Revolution. It would be going too far to say that they

actually *caused* it, but it is fair to say that they provided the moral framework upon which the Revolution rested.

Thus it is not at all surprising to find that the two most important Masonic lodges in France in the years immediately preceding the 1789 Revolution were the Nine Sisters and *Le Contrat Social,* the former linked to Voltaire and his godfather, and the latter to Rousseau's political masterpiece bearing the same name. It was at these lodges that many of the protagonists of both the French and American Revolutions would gather.

Le Loge du Contrat Social was founded in Paris in 1776 at the same time as the Nine Sisters lodge. Originally going under the name of *Loge Saint-Lazare,* it had taken over the function of an older lodge, *La Loge Saint-Jean d'Écosse de la vertu*

persécutée based at Avignon, the latter acting as the 'Mother Lodge' for one of Freemasonry's elite orders, the so-called *Scottish Rite*, also known as the Supreme Council of the 33rd Degree.[36]

Almost as popular as the Nine Sisters lodge, *Le Contrat Social* recruited its members from the very best of the liberal nobility, the intellectuals and the military. Under its warrant other lodges were set up all over France, the most notable being the lodges *Saint-Alexandre d'Écosse* and *l'Olympique de la Parfaite Estime*.[37] The name of the *Contrat Social* lodge had, in fact, been chosen by one of Jean-Jacques Rousseau's intimate friends, the Baron d'Astier[38] who, like Robespierre and many other intellectuals of the Revolution, practically deified Rousseau. In April 1794 Robespierre even had

Rouseau's body exhumed and reburied at the Pantheon in Paris next to other national heroes.[39]

Designer Cult

Robespierre's Cult of the Supreme Being was officially installed in France on 7 May 1794, a little more than a year after the beheading of Louis XVI. By then the de-Christianisation process had taken its toll, with the clergy abdicating *en masse*, and many Christian places of worship converted into ‘temples’ for the new revolutionary cult.

Although a staunch anti-clerical, Robespierre was not an atheist. He was to present a report to the

Convention on the ‘principles of political morality which must guide the Convention in the administration of the internal affairs of the Republic’ in which he stated:

… the idea of the Supreme Being and the immortality of the soul is a perpetual reminder of Justice. It is thus social and republican.[40]

The Convention agreed, decreeing soon after:

The People of France recognise the existence of the Supreme Being and the Immortality of the Soul.[41]

‘A deist in the mould of Rousseau’,[42] Robespierre firmly believed that at the true basis of the new democratic state should be a *natural* religion, one that was intrinsic to the human condition, one that could root the virtues of the nation onto ‘eternal and sacred foundations’.[43] It was proposed that the cult

would consist of celebrations and gatherings throughout the year – Robespierre wanted 36 festivals in all[44] – devoted notably to the important events of the Revolution (such as 14 July), to various entities and concepts such as the Supreme Being, Nature, Liberty, and Equality, and finally to the 'virtues most useful to man' such as Truth, Patriotism and so forth.

As part of Robespierre's cult, the old Gregorian calendar was abandoned in favour of a 'Republican' calendar with the months given 'natural' names. This new calendar was divided into 36 *decadi* of 10 days each, producing a year of 360 days to which were added 5 'complementary' days to commemorate 'virtue, genius, labour, opinion and rewards'.[45]

It is indeed odd to discover that this Republican

calendar appears to have been modelled on the ancient Egyptian solar calendar – which was divided into 36 *decans* each of 10 days, producing a year of 360 days to which five additional days were added to commemorate the virtues of Osiris, Isis and other divinities.

Lalande and Sirius

The task of developing the Republican calendar was given to Charles-Gilbert Romme, a respected mathematician and president of the Committee of Public Instruction. According to Masonic historian Charles Sumner Lobingier, Romme was a prominent

Freemason of the Nine Sisters lodge.[46] Romme was assisted in technical matters by the mathematician Gaspard Monge and the mathematician-astronomer Joseph-Louis Lagrange. Monge, too, was a staunch Freemason and a prominent member of the Nine Sisters lodge which in turn had been founded by the astronomer Jérôme Lalande, who had served as director of the Paris Observatory since 1768.

Lalande, and the astronomer-historian Charles-François Dupuis, sat on the committee established by Romme to create the new Republican calendar. Dupuis was a firm believer that all religious ideas stemmed from ancient Egypt and, more particularly, that the city of Paris was somehow associated with the Egyptian goddess Isis. We shall return to this later. Meanwhile, David Ovason, in his intriguing

book *The Secret Zodiac of Washington DC*, makes this most revealing comment concerning Lalande during the obituary ceremony for Voltaire at the Nine Sisters lodge in November 1778:

The French astronomer Joseph [Jérôme] Lalande, so used to standing in the darkness while looking up at the stars, would probably have thought of only one star as he stood in the darkened Parisian room on 28 November 1778. In his capacity as Master of the Lodge of Nine Muses [Sisters], Lalande was mourning with his Brothers [of which one was Benjamin Franklin] the passing of the writer Voltaire ... Among the symbols guarded by the 27 Brothers was a pyramid ... As he gazed at the Pyramid. Lalande would almost certainly have been drawn to thinking about the star Sirius. An astronomer who had shown great interest in ancient orientations, he

could not help realising the importance assigned to this star by the ancients. If the Egyptian Pyramids themselves were not aligned to it, he knew fully well that a large number of Egyptian temples had been, and that an entire Egyptian calendar was regulated by it. In his four-volume study of stellar lore, Lalande had listed six alternative names for Sirius, and gave its position in 1750 with remarkable accuracy. His interest was almost personal: he would have known that in the horoscope of his own birth, the sun and Mercury had bracketed this powerful star.[47]

Ovason also points out that Lalande's involvement with and deep admiration for Voltaire make it very likely that he would have been familiar with Voltaire's book *Micromégas* published in 1752. In this curious work of fiction Voltaire set the home of the hero in

the star Sirius and prophetically noted that this star also had a satellite – a fact only discovered to be true in 1844 by the Prussian astronomer Friedrich Bessel.[48] Sirius, of course, was also the star identified by the ancient Egyptians with the goddess Isis – and again Lalande would have known this.[49] Indeed, so interested were Lalande and Dupuis in the goddess Isis that one of their colleagues at the *Académie des Sciences* could not help commenting: '*MM. Dupuis et de Lalande voient Isis par-tout*!' ['Messrs. Dupuis and Lalande see Isis everywhere!'][50]

Monge, Isis and Osiris

There is another connection with Egypt and the Republican calendar which needs to be mentioned. The mathematician Gaspard Monge, who worked out the mechanics of the calendar, was a keen student of Egyptology. Through his close friendship with Napoleon Bonaparte, whom he accompanied to Egypt in 1798, he was to found the *Institut d'Égypte* in Cairo.

Like many Freemasons of his time, Monge believed that Masonic rituals had originated in ancient Egypt and that modern Freemasons had inherited ancient Egypt's secret system of initiation and symbolic language. Even today, confirms a Masonic historian:

Many Freemasons consider that the Masonic Order draws much of its mysteries from Pharaonic Egypt. It is thus that they refer themselves to Osiris and Isis, symbols of the supreme being and universal nature

…[51]

Celebrations and iconography

The first official celebrations held in honour of the Supreme Being under France's new Republican calendar took place on 8 June 1794.

At the heart of the proceedings, organised by Robespierre's close friend the artist Jacques-Louis David, was a huge amphitheatre in the Tuilleries Garden in front of the Louvre Palace. There the official congregation gathered to listen to a sermon preached by Robespierre in honour of the Supreme Being. At the close of the sermon, David had

arranged for the dramatic burning of a Hessian cloth statue representing ‘Atheism’ – from which emerged, like a phoenix from the flames, a stone statue representing ‘Wisdom’.

Next the choir of the Paris Opera sang:

Father of the Universe, Supreme Intelligence, Benefactor unknown to mortals. You will reveal your existence to those who alone raise altars in your name.[52]

‘Those who raise altars’ were, of course, the Republicans; and the ‘altar’ in this particular case turned out to be a massive artificial mountain (historian Jean Kerisel calls it a ‘pyramid’) in the heart of the Champs de Mars, where today stands the Eiffel Tower.[53] Representatives of the 48 districts of Paris as well those of the Convention with

Robespierre at the helm, made their way to the pyramid/mountain and ascended its flanks. Robespierre then was raised on the summit next to a symbolic 'Tree of Liberty', while patriotic hymns were sung by the Paris Opera choir.

Let us note that in the iconography of the Revolution the all-seeing-eye (or 'Eye of Providence') was often shown above the 'Tree of Liberty' while at other times it was also seen within a glowing triangle or pyramid hovering above the scene, much like the symbol seen today on the US one-dollar bill. This symbol, in fact, was originally designed for the so-called *Great Seal of the United States* in 1776 by a committee that included Benjamin Franklin and Thomas Jefferson.[54] The very same symbol was also to appear in 1789 on the frontispiece of the

Declaration of the Rights of Man and of the Citizen drafted by the Marquis de Lafayette, a close friend of both Franklin and Jefferson. The symbol clearly represents the Supreme Being of the Republicans and, by extension, the Masonic 'Grand Architect of the Universe' – also depicted as a pyramid with the all-seeing-eye or 'Eye of Providence'. In one propaganda poster which has survived from the 1789 Revolution, the all-seeing-eye is portrayed above the words '*Être Suprême*', i.e. 'Supreme Being', which confirms the link between the two ideas.[55] In this poster the 'eye' is not within a pyramid but inside a solar disc from which shoot down golden rays of light on the 'People' and the 'Republic'. There are two figures on the bottom of the poster, the one on the left is the aging Voltaire, and the one on the right is

Jean-Jacques Rousseau, the two intellectual heroes of the Revolution.[56]

This sort of iconography and rhetoric is strongly suggestive of an attempt to push forward some sort of deist-cum-Masonic 'religion' as an alternative to Christianity. And as British historian Nigel Aston remarks in his book *Religion and Revolution in France*, the 'belief in the Supreme Being permitted enough variations to accommodate many tastes.'[57] Aston quotes the patriot Lazare Carnot, a Freemason and also a member of the Convention, who, made a speech in 1794 extolling the many virtues of mankind, and explained:

... these are things to be found in the *Supreme Being*; he is the *seal* of all thoughts which make for the happiness of man.[58]

Meanwhile, on the other side of the Atlantic …

This perhaps unpremeditated association of the ‘Supreme Being’ with the idea of a seal brings to mind the Great Seal of the United States, which not only displays the ‘Supreme Being’ with the symbol of the glowing pyramid and the all-seeing-eye, but also is an icon of the individual's constitutional right to the pursuit of happiness.

On 18 September 1793, just a few weeks after the festivities that were staged at the Place de la Bastille by David, another sort of ceremony, this time blatantly Masonic, took place across the Atlantic at the site of the future Capitol in Washington, DC.

Wearing a Masonic apron given to him by the Marquis de Lafayette, George Washington laid the cornerstone of the Capitol on Jenkins Heights during a ceremony attended by hundreds of Freemasons. The Masonic apron worn by Washington, which had been embroidered by Mme de Lafayette, contained an assortment of well-known Masonic symbols, but its centrepiece is undoubtedly the all-seeing-eye emblazoned by a radiating sun disc. Interestingly, author David Ovason, a Freemason who has conducted extensive research into the meaning of this Masonic ceremony, concluded that it was, among other things, primarily intended to consecrate both this building as well as the Federal City to the zodiacal constellation of Virgo:

... The idea of Virgo plays an important role in the astrological symbolism which dominates the city. I

have also examined two foundation ceremonials in which the Virgoan element was of considerable importance. By taking this approach I might have given the impression that the sole Masonic concern in these early years of the building of the Federal City was with Virgo ... The importance of Virgo, and her connection with the goddess Isis, has been recognised in Masonic circles from the very early days of American Masonry. The French astronomer Joseph [Jérôme] Lalande had been an important Mason, and his writings were widely read by Americans of the late 18th century. As early as 1731, Lalande had recognised that: 'The Virgin is consecrated to Isis, just as Leo is consecrated to her husband Osiris ... The sphinx, composed of a Lion and a Virgin, was used as a symbol to designate the overflow of the Nile ... they put a wheat-ear in the

hand of the Virgin, to express the idea of months'…[59]

In his book *Inside The Brotherhood,* Masonic researcher Martin Short has this to tell us about George Washington's affiliation to Freemasonry:

His [Washington's] funeral in 1799 had been conducted according to Masonic rites. The coffin had been draped with a Masonic apron given to him by a brother revolutionary and Mason, the Marquis de Lafayette, and the many Masons present each cast a sprig of acacia, to symbolise both Osiris's resurrection and Washington's own imminent resurrection in the realm where Osiris presides.[60]

It is perhaps significant that the national memorial later built in Washington, DC in honour of George Washington was in the form of a huge Egyptian-style obelisk, and that on its eastern entrance was

displayed the ancient Egyptian symbol of the solar disc. It is reported that during the dedication ceremony a prominent Mason read a speech and, after extolling the virtues of Freemasons, added those strange words:

Their minds enlightened with divine love, their hearts radiant with discovering of pure love, their souls cherishing – like the ancient Egyptian worshippers of Osiris – the hope of immortality.[61]

We shall see later how many of the symbols involved with the cornerstone ceremonies of the Capitol and the Washington Monument were veiled with symbolism involving the ‘star of Isis’ i.e. Sirius. Meanwhile we hope that it has become fairly evident that, for reasons and motives not yet too clear, the ceremonies, festivities, and city monuments

associated with the ‘sister’ American and French Revolutions display Masonic ideas and imagery and, perhaps even more intriguing, are heavily tinged with ‘Egyptian’ connotations and symbols.

Part I:

The Secret Fatith

CHAPTER TWO

LOST WORLD

Mixed with the many other currents and forces that are acknowledged to have driven the French Revolution we've tried to demonstrate in Chapter One that powerful religious and spiritual energies were also at play. These energies surfaced visibly in an aggressive de-Christianisation campaign that saw great cathedrals, including the famous Notre Dame in Paris, reconsecrated as temples of the ‘Supreme

Being'. Throughout the land, ancient Egyptian and other 'pagan' images were substituted for Christian symbols, notably the cross, and even ancient Egyptian deities such as the goddess Isis were venerated. The Convention was thus not referring to the God of the Christians, or to the Christian vision of the afterlife, when it affirmed in 1794 that the 'People of France recognise the existence of the Supreme Being and the Immortality of the Soul.'

Strange and startling though these developments were, the late 18th century was not the first time that a religion utterly opposed to Christianity, showing signs of an ancient Egyptian influence, and deeply interested in the fate of the soul, had taken root in the land we now know as France. In the 12th century, more than 600 years before the Revolution, just such an alternative religion had materialised in Provence

and Langeudoc – seemingly out of nowhere – already deeply entrenched in the hearts and minds of large sectors of the population. It was also present in force in adjoining districts of eastern Spain and northern Italy, and scattered in smaller communities throughout the rest of Europe as far afield as Belgium, northern France and Germany.

The name of this religion that had so rapidly and successfully displaced the Roman Catholic Church in areas so close to the seat of its own power was ... Christianity.

At any rate its practitioners called themselves ‘Good Christians’, but the Church, labelled them heretics from the moment they first came to its attention. Their contemporaries in the 12th, 13th and 14th centuries frequently called them *Manichees* (after the ancient dualist heresy of Manicheism,

supposedly wiped out in Europe hundreds of years previously). And they were known by a wide variety of other epithets including, most commonly, *Albigensians* (after Albi, a prominent city of Languedoc), and *Cathars* (derived from the Greek word *katharos* and meaning the 'Pure').[1]

These Cathars (the name that we will generally use here) venerated Jesus Christ every bit as much as the Catholics did. That was why they called themselves 'Good Christians'. But the place that he occupied in their religion was radically different. In the Catholic view Christ was the 'Word ... made flesh' who 'dwelt among us'.[2] The Cathars repudiated this utterly and worshipped him as a being of pure spirit – an emanation from the 'Good God', a projection or an apparition. They categorically denied his material

incarnation as the ‘Son’ of God, born in a human body to ‘dwell among us’. They also forcefully rejected the Catholic teaching of Christ crucified to redeem our sins. How could he have been crucified, they asked, if he had never existed physically in the first place? Far from revering the central spiritual symbol of Christianity, therefore, the Cathars denied the significance of the cross. For them it was an obscene instrument of torture that the Church of Rome had misled millions into worshipping as an idol.

Turning the most cherished symbols, doctrines and dogmas of Christianity upside down like this was a Cathar speciality that infuriated and repeatedly challenged the medieval Catholic Church.

The source of the problem was that unlike the single all-powerful and all-good God of the Christians, the Cathars were *dualists* who believed in the parallel

existence of two deities – a *God of Good* and a *God of Evil*. Each was powerful only in his own domain and nearly impotent in the realm of the other. The domain of the God of Good was entirely spiritual, intangible, immaterial and filled with Light. It was here that human souls had originated – the creation of the Good God. The domain of the God of Evil was the earth itself, the material world and all physical life upon it – an infernal place of pain and punishment filled with Darkness and iniquity. In the Cathar scheme of things it was the God of Evil, the maker and ruler of the material world, who had fashioned the bodies (though not the souls) of mankind out of 'mud and water'. And it was towards this same Evil God, Cathar preachers argued, that the worship of the Roman Catholic Church was directed.

The pope, in other words, was not a servant of the

Good God but the Devil's representative on earth. And the purpose of the Catholic Church was not to transmit our souls to the spiritual and light-filled domain of heaven after death, but to trick us into returning again and again – in one human incarnation after another – to the hell-realm of the material world. Only a lifetime of self-denial culminating in the special *gnosis* – or inspired knowledge – attained on initiation into the highest grade of the Cathar faith could save us.

It was a revolutionary teaching and, in 12th century Europe, an extremely dangerous one.

Hesitating at the crossroads

During the period of world history for which written records have survived – most of the last 5,000 years – no scholar would seriously argue with the proposition that religions have played a fundamental role in shaping the character of civilisation and directing its course. Likewise few would dispute that the human race during this period has consistently been divided not only by different languages and cultures but also by the competing spheres of influence of different religions. Some ancient faiths that once commanded absolute obedience across vast areas have withered away and vanished. Others that were insignificant have risen to prominence. Others still are almost forgotten in their original homelands but have flourished in distant lands. Against the recent background of rampant secularism in many rich countries, and rampant religious fervour in many

poor ones, we are left today with four great faiths commanding distinct socio-geographic spheres of influence, that still collectively claim the allegiance of roughly nine of every ten of us:

- *Hinduism* is strong only in the Indian subcontinent but there it has over 800 million adherents.
- *Buddhism* sprawls from Sri Lanka to Tibet, and from China to Southeast Asia and Japan.
- *Islam* has hundreds of millions of followers in Indonesia, Bangladesh, Pakistan, Iran, Turkey, the Levant and North Africa, but its heartland and historical home is in the Arabian peninsula.
- *Christianity* has a near-monopoly in the Americas, having obliterated or utterly marginalised all the New World's indigenous

> faiths during the past 500 years. It also predominates in Australia, New Zealand, sub-Saharan Africa and other areas of former European colonial expansion. It's historical home is in the eastern Mediterranean. However, after the triumph of Islam in the Middle East and North Africa more than a thousand years ago, Christianity's heartland moved to Europe itself.

Today, as a result, it is a habit of mind to think of Europe as a region locked so firmly and for so long within the Christian sphere of influence that no other faith need be considered to have shaped its destiny. For scholars prepared to look hard enough there are, of course, faint traces of earlier, pagan beliefs in the European heritage, but these are rarities and

throwbacks – quaint exotica with no mainstream impact. Whether we travel to Austria, Belgium, Britain, France, Germany, Greece, Holland, Ireland, Italy, Portugal, Spain or Switzerland, the reality is that all the countries of Europe confront us with very long unbroken traditions of Christianity. In some cases these traditions substantially predate the fourth century AD when the Roman Empire under Constantine adopted Christianity as its state religion and established Rome (where a persecuted Christian community had already existed for 250 years[3]) as the headquarters of the newly empowered Catholic Church.

Almost immediately after coming into imperial favour the formerly persecuted church fathers themselves turned persecutors. They sought to

impose their control on Christians throughout the Roman Empire, to suppress schisms and to distil a universally agreed doctrine out of the great variety of teachings that the faith had previously encompassed. To this end, as we will see in later chapters, they promulgated dogmas and defined and declared anathemas upon a whole series of heresies. These were then systematically hunted down and obliterated over the next three centuries.

Notable among the forbidden faiths was the great dualist heresy of Manicheism (to which no less a figure than Saint Augustine, one of the four most revered ‘doctors of the Church’, had belonged for nine years before converting to Christianity in AD 386).[4] Claiming to lead to direct and personal knowledge of the divine, all forms of Gnosticism were

also persecuted to vanishing point. Influenced by elements of the ancient Egyptian religion, Asian and Middle Eastern mysticism, Greek philosophy, and alternative interpretations of Jewish and Christian teachings, Gnosticism was as profoundly dualistic as Manicheism and was for some centuries the chief rival to Roman Catholic hegemony.[5]

By the seventh century, however, Manicheism had been expelled to the distant East, and the numerous Gnostic sects that had confronted the early church seemed to have been obliterated.[6] No longer facing any organised spiritual competition, Catholicism was able to see out the remainder of the Western Dark Ages with its defences relaxed. The result, by the early 11th century, was that churchmen had no living experience of heresy. Those who sought to remind

themselves of its dangers could only turn to books – amongst them Saint Augustine's agonised account of his own ‘errors’ as a ‘Manichee’ written 700 years earlier.[7]

It therefore came as a something of a jolt when a heresy (looking very much like Manicheism) suddenly resurfaced in the 12th century in the form of Catharism in areas at the very heart of Western culture. Moreover it proved to be no transitory movement linked to the lives of a few charismatic leaders but the most deadly threat ever to confront the Catholic faith. Appearing as though from nowhere it was a well-organised ‘anti-Church’ that claimed an antiquity even greater than that of Catholicism itself. It also had the temerity to recruit its new members directly from Catholic ranks.

What made Catharism such a threat and outrage to the Catholic Church, however, was not just its embarrassing success at converting Catholics, nor the challenge of its doctrines – radical though they were. Nor was it simply the shock of confronting a dualist heresy that seemed to have conjured itself up out of the past like a ghost. Nor was it the heresy's obvious dynamism, nor the uncomfortably rapid spread of its sphere of influence ever closer to Rome during the 12th century. The real problem was that as well as winning over large numbers of ordinary people, Catharism had succeeded in attracting the tacit and sometimes even the overt support of some of the most powerful noble families in southwestern Europe. These included, most notably, the Counts of Toulouse, the Counts of Foix, and the Trencavel viscounts who ruled the walled cities of Albi, Béziers

and Carcassonne. With their knights and castles and strength of arms concentrated in the Languedoc and surrounding areas, such men had transformed Catharism into something that the Church of Rome had never faced before. Here was a heresy that could fight back, that would not easily be crushed by the use of secular force, and that might conceivably, if allowed to grow further, push the Catholic religion out of Europe altogether.

For more than a century, with consequences that reach us today, European civilisation hesitated at the crossroads of two competing spiritual systems and confronted the choice of two very different ways forward into the future. Let's take a closer look at the key players and events during this decisive period of history.

A language in which ‘oc’ means ‘yes’

Languedoc today is part of the colourful mosaic of southern France. It adjoins Provence to the east and is separated from Spain to the west by the Pyrenees mountains. In the 12th and 13th centuries it was famed for the romantic poetry of its troubadours, for its ‘Courts of Love’,[8] for the fiercely independent character of its people, and for its unique culture.

Underlining this sense of difference was the basic fact that the people of Provence and Languedoc had never been French subjects and did not even speak French. Indeed at that time what the word ‘France’ conjured to mind for most was just the Ile de France,

the region immediately around Paris. More broadly defined, ‘France’ also included the territories lying between the Loire, the middle part of the Meuse and the Scheldt. But the lands to the south of the Loire and south of the Massif Central, as well as the whole of the Mediterranean coast, were excluded. As late as the 14th century travellers heading north from Toulouse or Avignon thought of themselves as journeying *to* ‘France’ rather than within it.[9]

Together with the regions of Limousin and old Aquitaine, and the southern part of the French Alps, Languedoc and Provence were known in medieval times by the collective name of *Occitania*. They by no means formed a ‘state’ or a ‘country’ as we understand those concepts today. On the contrary, other than to family, friends and neighbours, the

primary loyalties of the majority of the inhabitants were to the town or city in which they lived or to the aristocrats whose fields they ploughed. Still they had much more in common with each other than they did with the cultural and political community of northern states that were in the process of becoming ‘France’. And above all else these ‘Occitanians’ were united by their common language, literally the *langue d'oc* – that is to say the language in which the word for ‘yes’ is *oc* (as opposed to the *langue d'oil*, the 12th century language that was to evolve into modern French, in which the word for ‘yes’ was *oil* – later to become the more familiar *oui* of today).

Medieval scholar Joseph Strayer points out that the French of the north and the Occitan of the south are separated by one of the sharpest breaks in the whole family of Romance languages and are mutually

incomprehensible. Occitan is, however, very close to Catalan and quite close to Castilian. The result is that in the 12th century:

A merchant from Narbonne would have been easily understood in Barcelona, while he would have needed an interpreter in Paris … A baron of the Ile de France would have found more men to talk to in London, or even in Cologne, than he would have in Toulouse. Now a language barrier is not an impassable obstacle, but it is a real one, and it is the kind of barrier that creates misunderstandings and suspicions.[10]

The mailed fist of Occitania

Power in Occitania was in the hands of a feudal aristocracy dominated by the three great families of Foix, Trencavel and Toulouse.

Described at the time as ‘the peers of kings, the superiors of dukes and counts’,[11] the princes of the house of Toulouse ruled a domain extending from Toulouse itself to Nimes in the east, and from Cahors in the north to Narbonne on the Mediterranean coast.[12] They also enjoyed, and could sometimes call upon, an impressive range of international alliances. Raymond VI, Count of Toulouse from 1194 – 1222, for example, was a cousin of the king of France and brother-in-law to the kings both of England and of Aragon.[13] He also tolerated and sometimes even promoted Catharism and travelled with a Cathar holy man.[14]

The Counts of Foix, lords of the high Pyrenees along the border with Spain, were renowned for their military prowess, stubborn ruthlessness, and strong Cathar connections. In 1204 Raymond-Roger, Count of Foix from 1188 – 1223, witnessed the reception of his widowed sister Esclarmonde into the *perfecti* (literally the 'perfect'), the highest rank of Cathar initiates.[15] Two years later his own wife, having born him six children, was also received into the *perfecti* and retired from the world to preside over the Cathar equivalent of a nunnery.[16] Though never avowedly a Cathar himself, Raymond-Roger was staunchly anti-Catholic all his life. On one occasion it seems that soldiers in his employ chopped a canon of the Church into pieces and used 'the arms and legs of a crucifix to grind up spices with, in lieu of a pestle.'[17] In a

lengthy essay on ‘the barbarity and malignity of the Count of Foix’ a contemporary pro-Catholic chronicler wrote:

His wickedness exceeded all bounds … He pillaged monasteries, destroyed churches, excelled all others in cruelty.[18]

The Trencavel dynasty, controlling lands that stretched from the Tarn to the Pyrenees, added their own combination of wealth, hereditary influence, military might and pro-Cathar sympathies to the equation of power in Languedoc. Raymond-Roger Trencavel, who ruled from 1194 until his capture and murder by Catholics in 1209, had been tutored by the well-known Cathar scholar Bertrand de Saissac. The latter had once shown his contempt for the laws of Catholicism when a monk he disliked was elected

abbot at the monastery of Saint Mary of Alet. Bertrand's response was to have the corpse of the former abbot exhumed and placed, mouldering, in the abbatial chair to supervise a new election. Not surprisingly the abbot elected on this occasion did meet with Bertrand's favour.[19]

Support for and involvement with the Cathars, combined with a rejection of the Church, were not confined solely to the upper levels of the aristocracy. In the Lauragais, the populous area between Toulouse and Carcassonne, the minor nobility are reported to have been almost solidly Cathar. The same was also the case for their counterparts in the Corbières between Carcassonne and Narbonne.[20] Tellingly it has been calculated that 30 per cent of all Cathar *perfecti* were of noble birth.[21] Moreover even

the remaining Catholic nobility of Occitania often proved to be at least sympathetic to the Cathars – and at times were openly supportive of them. An indication of their dilemma is to be seen in the reply given by the Catholic knight, Pons d'Adhémar of Rodelle when he was asked by Foulkes, the bishop of Toulouse, why he and his co-religionists had not expelled the heretics from their lands:

We cannot. We have grown up amongst them. We have relatives amongst them, and we see them living good, decent lives of perfection.[22]

Weaving the threads of the Great Heresy

Thus sheltered by the aristocracy of the region on both sides of the religious divide, the Cathars also found strong support at all other levels of Occitanian society. Large numbers of them were skilled craftsmen and artisans. A list of Cathars present in the city of Béziers in 1209 includes:

… one noble (*baronus*), four doctors, five hosiers, two blacksmiths, two pelterers, two shoe-makers, a sheep-shearer, a carpenter, a weaver, a saddler, a corn-dealer, a cutler, a tailor, a tavern-keeper, a baker, a woolworker, a mercer, and a money-changer.[23]

Martin Barber, professor of history at the University of Reading, observes that the Béziers list includes no less than 10 individuals employed in the textile industry, and that a great many other primary

documents from the period likewise link weavers (*textores*) to the heresy.[24]

This is true both within and outside the borders of Occitania. In France the general name by which Cathars were known was simply *Texerant,* the 'weavers'.[25] In 1145 the renowned French ecclesiastic Bernard of Clairvaux undertook a preaching tour to warn against a 'heresy of weavers'.[26] It had supposedly sprung up fully formed 'from the suggestions and artifices of seducing spirits'[27] and was so successful at winning conversions that:

Women have quitted their husbands, men have deserted their wives ... Clerks and priests ... often abandon their flocks and their churches, and are found in the throng, among weavers male and

female.[28]

Likewise in 1157 Archbishop Samson of Rheims was almost certainly complaining of Cathar missionary activity when he spoke of a ‘Manichean plague’ that had recently infected the greater part of Flanders[29] (we noted earlier that 12th century churchmen commonly referred to the Cathars as Manicheans – after the dualist sect of that name that had supposedly been stamped out hundreds of years previously). This new outbreak of the heresy, Samson said, was being spread by itinerant weavers and cloth-merchants.[30]

The explanation is simple. Employment as weavers and in other sectors of the medieval cloth trade – with its extensive international connections – was chosen as ‘cover’ by Cathar *perfecti*. They needed

cover to avoid early detection by Church authorities because they were mounting what can only be described as a large-scale and well-thought-out missionary campaign. The rather gentle, patient and systematic methods that they used to win local trust, and eventually conversions to the heresy, have been nicely described by the Canadian historian Stephen O'Shea:

On the paths and rivers of the Languedoc of 1150 there were not only traders and troubadours but also pairs of itinerant holy men, recognisable by the thin leather thong tied around the waist of their black robes. They entered villages and towns, set up shop, often as weavers, and became known for their honest hard work. When the time came, they would talk – first in the moonlight, beyond the walls, then out in the open, before the fireplaces of noble and burgher,

in the houses of tradespeople, near the stalls of the marketplace. They asked for nothing, no alms, no obeisance; just a hearing. Within a generation these Cathar missionaries had converted thousands. Languedoc had become host to what would be called the Great Heresy.[31]

The *Perfecti* and the *Credentes*

The missionaries were all Cathar *perfecti*, and, as Stephen O'Shea rightly observes, it was their custom – like modern Mormons or Jehovah's Witnesses – to travel and evangelise in pairs.[32] Their black robes would have given them something of the look of

Christian monks or priests. Other than their appearance, however, there was really no similarity at all between the lifestyles of these *perfecti* and the lifestyles of the typical Catholic clergy of the period. As even their most bitter opponents were willing to admit, the distinguishing characteristic of the *perfectus* was that they lived exemplary lives of chastity, humility, great poverty and simplicity throughout the whole period of Catharism's rise and fall.[33] Meanwhile the Church of the 11th and 12th centuries had already become decadent and disreputable. It was widely despised because of the rampant sexual licence of so many of its ministers. In some areas it was openly hated because of its vast wealth, corruption, greed, and unnecessary ostentation. Doubling as large-scale feudal landlords

most bishops enjoyed lives of profligate, scandalous luxury. No wonder, then, that they were unpopular in their own dioceses where they were reviled for their indifference to the privations of the poor.[34]

To understand the extreme asceticism for which the *perfecti* were renowned, one need only recall the teaching that lay at the core of Cathar dualism. The material world was the wholly evil creation of a wholly Evil God. All contact with matter was therefore also evil and could only inhibit Catharism's primary project. This was the gradual purification and eventual release of immortal human souls from their cycle of rebirths in mortal human bodies. ‘O Lord, judge and condemn the imperfections of the flesh,’ went one of their prayers:

Have no pity on the flesh, born of corruption, but

show mercy to the spirit, which is imprisoned.[35]

The *perfecti* were active participants in what they saw as a cosmic struggle between utterly incompatible powers – spirit and matter, good and evil.[36] Success in the struggle required them to lead lives in strict accordance with their beliefs and teachings. Since flesh was 'born of corruption' it followed that any foodstuff thought to have originated from processes of coition and reproduction was absolutely forbidden to them. This meant, in practice that they could eat neither flesh nor fowl, nor any of the derivatives from these creatures such as eggs, milk, cheese, cream or lard.[37] Their diet consisted of bread, vegetables, pulses, fruits and nuts. Inconsistently (to the modern mind) fish were also allowed. This was because of a medieval

misconception that fish did not issue from sexual reproduction but were somehow spontaneously generated in water or mud.[38]

The same anti-reproductive, anti-coital logic meant, of course, that the *perfecti* must themselves be totally celibate – even an ‘unchaste’ kiss was believed sufficient to destroy their ritual purity. All other bodily needs and desires brought the same peril and were likewise to be shunned.[39] To harden their resistance to the desire for nourishment they not only rigorously followed the already sparse diet outlined above but also subjected themselves to lengthy fasts amounting to more than 70 days a year on bread and water alone.[40] The purpose of all these privations was to loosen the bonds that imprisoned the soul within the body.[41]

In pursuit of the same objective, and in order further to minimise their contacts with the snares and lures of the material world, the *perfecti* renounced all property and personal possessions except the clothes they stood up in.[42] Many other austerities were also required of them. Despite these, however, there was no shortage of candidates for the *perfectus* grade and the Cathar religion in fact made it very difficult for anyone to achieve it. Aspiring *perfecti* underwent a period of training and direct exposure to the full rigours of the life that they would lead after initiation. Known evocatively as the *abstinentia*, this typically involved three years of full-time attachment to a senior *perfectus*. Only at the end of the *abstinentia*, if they had conducted themselves satisfactorily, would they become eligible

for the ritual known as the *consolamentum* (‘consoling’) that completed their own elevation to *perfectus* status.[43]

Though often referred to as the ‘priests’ of the Cathar religion, several researchers have noted that the *perfecti* were in reality much closer in terms of their austerities, their personal comportment and their function within the faith to the:

… ascetic teachers of the East, the bonzes and fakirs of China or India, the adepts of the Orphic mysteries, or the teachers of Gnosticism.[44]

This impression is enhanced by contemporary reports which seem to describe *perfecti* in trancelike or meditative states. One eyewitness speaks of the ‘extraordinary sight’ of a Cathar *perfectus* seated on a chair ‘motionless as a tree trunk, insensible to his

surroundings.’[45]

But the Cathar authorities knew very well that a life of meditation, total chastity, austerity and withdrawal from the material world was beyond the reach of the average mortal. Moreover their society did not – and could not – consist solely of *perfecti* and candidate *perfecti* whose celibacy would provide them with no successors. What was needed was a much wider pool to draw on. This was supplied by a second grade or rank, far more numerous than the *perfecti*, known as the *credentes* (‘believers’). It was they, in their tens of thousands, who constituted the vast majority of all Cathars. It was they who contributed the social and economic energy – to say nothing of the military muscle – that made this religion such a threat to the Church of Rome.

What the *credentes* believed in were the fundamental tenets of the dualist faith concerning the existence of two gods, the evil nature of matter and the imprisonment of the soul in flesh. They might even aspire, ultimately, to becoming wandering gurus of *perfectus* rank themselves. But the reality was that most *credentes* never took up the challenge. Instead, wherever Catharism was established, we know that its *credente* class lived ordinary lives of no great self-denial. They married, produced children, owned property, ate well and generally enjoyed the world. They certainly attended the simple services and gatherings led by *perfecti* that were part of the Cathar calendar. Along with all other *credentes* they likewise accepted and took with extreme seriousness a general duty to accommodate the impoverished *perfecti* on their travels and to provide them with a

strong network and support system. They were also required to offer a ritual salute to any *perfectus* they might encounter. Called the *melioramentum* this involved triple genuflections and greetings to the *perfectus* and culminated in the following exchange:
Credente: ‘Pray God for me, a sinner, that he make me a good Christian and lead me to a good end.’

Perfectus: ‘May God be prayed that he may make you a good Christian.’

The exchange, explains medieval historian Malcolm Lambert, was standardised and had a special meaning:
To be a Good Christian, or a Christian at all, in Cathar belief was to become a Perfect. To come to a good end was to die in possession of the *consolamentum,* not having forfeited it by lapse. In

the exchange and genuflection, Perfect and adherent reminded each other of their own status, the one waiting, not yet freed from Satan, the other outside his power, in a unique position.[46]

Credentes were taught that it was particularly important for them to find a *perfectus* and to perform the *melioramentum* if they had in any way been exposed to the contamination of Catholic influences. This was so at least partly because obeisance – amounting almost to worship (and referred to in some contexts as 'adoration') of the *perfectus* represented a direct and public denial of the Catholic Church.[47] When the prominent *credente*, the Lady Fidas of St. Michel, travelled to Rome with Countess Eleanor of Toulouse, she cheekily took a Cathar *perfectus* with her: 'to worship him in the very chapel

of the Pope.’[48]

Whether they were nobles or peasants, however, the majority of *credentes* would postpone until their deathbeds the moment when they felt ready to summon a *perfectus* to confer upon them the dualist baptism of the *consolamentum*. It was an act of momentous importance that filled the recipient with a charge of the Holy Spirit, and, for some, could open the door to the Kingdom of Heaven. Though it amounted, on the surface, to nothing more than a short ritual accompanied by prayers and a laying on of hands, the *consolamentum* was considered to be so powerful that it was sufficient, *by itself* – even without years of itinerant austerity – to initiate the dying *credente* into the ranks of the *perfecti*. He or she would thereafter consume only bread and water,

avoiding any further contamination from the evil world of matter. The hope for those thus consoled, and in a state of ritual purity, might not have been that death would this time bring a final release from the cycle of rebirth in human form, but that it would, at the very least, bring ‘progress on the chain of being towards it.’[49] On occasions when patients unexpectedly recovered after being consoled they could always return to the normal life of a *credente* and to full involvement with the world. In that case they would have to receive the *consolamentum* and enter a fast once again when death approached or whatever progress their souls might have made in this incarnation would be lost.

It was by no means certain that the next incarnation would bring the soul to a body that would

again receive the Cathar teaching (or even, necessarily to a human body at all – rather than, say, the body of a donkey – let alone to the body of a Cathar). *Credentes* were therefore provided with a strong incentive to receive the *consolamentum* in this life (where they knew it was definitely available) but to so juggle things that they did not have to go through with it until their deathbed. During the late 12th century when there were large numbers of *perfecti* on the roads and living in every village, town and city of Occitania this was not usually difficult to accomplish. But during the 13th century, as we shall see in Chapters Six and Seven, Catharism became a persecuted faith throughout Europe – with the greatest attention paid to Occitania. There, amidst demonic scenes from the lowest circles of hell, the populations of entire cities were put to the sword by

soldiers of the Church of Rome. The papal inquisitors followed and as they went about their work the numbers of *per fecti* fell into an ever more catastrophic decline with each new mass burning. By the early 14th century there are only known to have been three *perfecti* still at work in the whole of the Languedoc, once the very epicentre of the faith. Surviving *credentes* faced great uncertainty as to whether they would be able to obtain the *consolamentum* at all. The desperate solution of many Cathars nearing the end of their natural lives in these last days was the *endura* – an Occitan word meaning ‘fasting’ or ‘hungering’ applied to the bread and water fast that normally followed deathbed consolings.[50] Now, however, those who had received the ritual preferred not to risk breaking their fast

even if they later began to show signs of recovery. The consequence was that the *endura*:

... came to have the precise and technical meaning of fasting to death after receiving the *consolamentum*.[51]

Abolishing superstition and the Fear of Hell

When extensive persecution of Catharism began in the 13th century the fundamental difference in lifestyle between the consoled and the unconsoled – between *per fecti* and *credentes* – was sometimes seized on by the latter to try to persuade their accusers that they weren't heretics at all. In the

bourg of Toulouse in 1223 for example Jean Teisseire, a *credente* in the prime of life who had no interest in an early *consolamentum*, was arrested and accused of heresy. ‘I have a wife and I sleep with her,’ he protested, ‘I have sons, I eat meat and I lie and swear’[52] (along with marriage, sex, reproduction and meat-eating, lying and the swearing of oaths were forbidden to *perfecti*).[53] Convicted on the evidence of witnesses, Tessiere's arguments were ignored by the court. He was sentenced to burn at the stake and placed in the bishop's prison to await execution. The procedure now allowed him to recant and go free but he stubbornly continued to profess his innocence and remained on death row. There he fell into conversation with several Cathar *per fecti* and a few days later accepted the *consolamentum* at their

hands. Still refusing to recant beliefs that he now acknowledged he held he was ‘burnt with the rest.’[54]

There are many reports of courage and extreme self-sacrifice from the era of persecution. They tell us that Catharism was capable of inspiring its adherents with profound and strongly-held beliefs concerning the progress and afterlife destiny of the soul. Indeed these beliefs were so strong that again and again *perfecti* and *credentes* like Teisseire were prepared to suffer death in the utmost agony rather than recant and jeopardise their imminent release from the evil world of matter.

There are several well-attested accounts of the condemned rushing *en masse* towards the pyres that had been prepared for them and flinging themselves joyfully into the roaring flames. Whether we think of

them as credulous fools, therefore, or as exalted martyrs, it seems that Catharism had liberated these people from the paralysing fear of hell that the Catholic Church had used for centuries to terrify and close the minds of medieval Europeans. Indeed such a liberation would have followed more or less automatically from conversion to Cathar dualism – which proposed no lower hell than the earth itself, 'the lowest plane of consciousness to which we sink'[55] – a place of trial and torment in which our souls were *already* undergoing fierce penances and had remained trapped for countless prior incarnations. Hell, in other words, was not an unknown destination, to which we would be sent for sins defined by the Catholic Church, but a known one in which we were already present but which it was

our destiny one day to escape.

In this way, at a stroke, the Cathars not only abolished all fear of death in their initiates but also sundered bonds of superstition and demonology that had stalled the progress of Western civilisation throughout the Dark Ages. Seeking to sweep the cobwebs away from all aspects of habitual religious behaviour they said that chanting in church ‘deceived simple people’, and ridiculed as an irrational waste of money the Catholic practice of paying alms for souls in purgatory.[56]

By giving exposure and prominence to such ideas – albeit for just a brief period of history – the Cathars encouraged a new freedom of thought and a new spirit of flexibility and openness to change. The psychologist Arthur Guirdham believes that this was

‘perhaps their most significant contribution to the emancipation of the common man’[57]:

Not to understand this is to fail to realise that Catharism was not only an enlightened but an optimistic creed. Some of the contemporary defenders of Catharism regard it as a dour, Calvinistic and basically pessimistic religion. Sir Steven Runciman who is, on the whole, very fair in his assessment of the Cathars, regards the religion as foredoomed because of its built-in pessimism. Those holding such views are at a loss to explain how such a repressive and pessimistic creed could have spread like wildfire through the most sophisticated and sceptical region of Europe …[58]

A Renaissance ahead of its time?

Catharism's sudden flowering took place at a time when Europe, stimulated by the contact with the East that the Crusades had brought, was shaking off the slumber of the Dark Ages and rediscovering ancient wisdom in the classical texts. Often described by historians as the ‘Renaissance of the 12th century’, this period of ‘change, experimentation and broadened horizons’[59] ended hundreds of years of intellectual stagnation. It saw the birth of many new philosophical and scientific ideas, witnessed the rise of the first towering Gothic cathedrals, and experienced far-reaching social and economic changes.

Together with the neighbouring parts of eastern Spain and northern Italy where the Cathar religion was also strong, the 12th century civilisation of Occitania – urbanised, sophisticated, cosmopolitan – was ‘indisputably ahead of anywhere else in Europe’.[60] It lay at the epicentre of what promised to become a great upheaval in Western values marked by a spirit of inquiry and the introduction of a gentler, more cosmopolitan and more tolerant world view. Moreover, had Catharism succeeded in all its aims, we can be certain that there would have been no place, in this new age, for the Catholic Church – which, as the church of Satan, had for so long led so many souls astray. Far from succeeding, however, the Cathar heresy was crushed by a series of violent and genocidal ‘crusades’, unleashed by the Catholic

Church in the first half of the 13th century. The last of the resistance was then slowly and methodically finished off by the papal Inquisition which was officially established in 1233 specifically for the repression and extirpation of Catharism.[61] Had it not been for the destruction and dislocation wrought by these so-called *Albigensian Crusades* some believe that the culture of the Languedoc could have anticipated the Renaissance in Italy by more than two centuries.[62]

Such speculations are frowned on by mainstream historians.[63] As a result questions like – 'what would have happened to the West if Catharism had won its struggle against the Catholic Church?' – are rarely given any serious scholarly consideration. An exception was the French social philosopher and

activist Simone Weil. She died in 1943 as a result of voluntary starvation in sympathy with her compatriots then under German occupation. Aged only 34 at the time of her fatal *endura* Weil had spent the last few years of her life cultivating a deep interest in the unique culture of 12th century Occitania. She believed Catharism to have been the source of all its inspiration. By crushing the Greeks more than 2,000 years ago, she argued, the Roman Empire had ‘brought sterility to the Mediterranean basin’. Only once since then had another civilisation raised its head in the same region which might have had the capacity to attain ‘a degree of freedom and spiritual creativity as high as that of ancient Greece.’ Snuffed out in the 13th century by the Church of Rome, this was the lost Occitanian civilisation of the Cathars – which, in Weil's analysis, had somehow

plugged itself into much older currents of thought:

Little as we know about the Cathars, it seems clear that they were in some way the heirs of Platonic thought, of the esoteric teachings and mysteries of that pre-Roman civilisation which embraced the Mediterranean and the Near East ...[64]

Weil was one of those for whom Occitanian civilisation in the 12th and 13th centuries had conceived the true Renaissance. Its potential had been greater even than that of the Italian Renaissance in the 15th century. Because Languedoc was the heartland of this precocious civilisation, the brutal engine of the Albigensian Crusades smashed not just the Cathars but Europe's last living link with the ancient wisdom traditions of India, Persia, Egypt and Greece. By contrast the centuries that followed

the destruction of Languedoc ‘were an essay in totalitarian spirituality.’[65]

Cosmopolitan cities

Occitanian society under the influence of the Cathars was anything but totalitarian. It was far ahead of the rest of Europe in the process of urbanisation. Its rapidly-expanding cities like Narbonne, Avignon, Toulouse, Montpellier, Béziers, and Carcassonne proudly guaranteed the freedom of thought and the economic and political independence of their citizens. Even in his own city, for example, the Count of Toulouse lacked any executive legal

authority over the citizens and was only obeyed so long as he respected local common law.[66] Narbonne, Avignon, Montpellier and Béziers were hives of intellectual activity – in every sense university cities even before their universities had officially been founded. The most advanced course on Aristotle in Europe, which took account of the latest work by Arab scholars, was taught at Toulouse.[67]

Arab merchants and doctors had long found their way to Occitania across the Pyrenees from those parts of Spain then under Muslim control, or by sea from the East. They had been welcomed by the Cathars – who were inclined to see the Roman Catholic Church, not the 'infidel', as the natural enemy. Besides, for the Cathars, all human bodies, whether Muslim, Christian or Jew, were the prisons

of entrapped souls. Since all suffered the trials and rigours of the material world equally, and since only Catharism offered a way out of it, the oppression of one man by another on grounds of race or creed was absurd.

Such ideas spilled over into civic life and resident aliens in the cities of Occitania enjoyed full citizens' rights, regardless of their nationality or creed.[68] Moreover while Catharism maintained its resolute antipathy to the Church of Rome it was open-handed and liberal with other faiths that were willing to co-exist peacefully with it. This was a time when possession of land by non-Christians was a criminal offence in northern France. It was a time when mobs of Catholics throughout Europe could frequently be worked up into frenzies of anti-Semitic prejudice. Yet

in Occitania large and long-established Jewish communities owned land, worshipped openly in synagogues, and prospered unmolested throughout the 12th century.[69] They, too, seem to have been going through a period of creative intellectual and spiritual enquiry, just as the Cathar communities were. Indeed it was in the coastal cities of Languedoc in this same period that Jewish savants elaborated the occult philosophy of the Cabala and began to explore its implications.[70] A system of mysticism rooted in ancient Judaic traditions, Cabala laid claim to secret knowledge and divine revelation. It also exhibited strong dualistic tendencies in which the 'left side' and 'right side' of the cosmos were envisaged in constant opposition and conflict.[71]

It is notable that acclaimed schools of Talmudic law

flourished at Narbonne, Lunel and Beaucaire in the 12th century and that there is a report from 1160 of Jewish students from ‘distant lands’ studying there.[72] Intriguingly the same source – Rabbi Benjamin of Tudela – also describes an encounter with a Jew at Lunel who had ‘discarded all worldly business, studied day and night, kept fasts, and never ate meat.’[73] This suggests the possibility that Cathar ideas about how we should live in the world and what we are doing here had begun to have an impact not only on the large number of former Catholics it had freed from the fear of hell but also on the followers of other faiths as well.

Cathars and troubadours

It was in the 12th and 13th centuries that Catharism briefly lit up people's minds in Occitania. In the same period another extraordinary intellectual phenomenon also appeared and disappeared in precisely the same region now encompassed by southern France, northern Spain and northern Italy. This parallel phenomenon was the lyric poetry of the troubadours – a form that was invented in Occitania and composed in the Occitan language. Judged by literary experts today as ‘one of the most brilliant schools that ever existed’, it is accepted as an influence on all later European lyrical poetry.[74] Of much greater consequence however, is the fact that troubadour poetry also had an unprecedented *social* impact. Indeed it brought about what has been described as ‘a revolution in thought and feeling, the

effects of which are still apparent in Western culture.’[75]

The revolution had to do with attitudes towards women in society. The troubadours themselves were favoured at the many noble courts of Occitania – where they enjoyed high status and exceptional freedom of speech (sometimes even intervening in political matters). Launched from this position of eminence their poetry focussed respect-filled eyes upon women in general (including such lowly figures as shepherdesses), and upon the ladies of the courts in particular, bestowing an exalted, almost saintly, status on the female gender. These poems promulgated the idea of courtly love in which the male protagonist existed to worship his lady and to serve her faithfully. Such love was adulterous, in the

sense that the lady was almost always married, but also pure in the sense that it was not to be consummated physically.[76] The essence of the whole exercise was self denial and frustration, longing from afar and the ennoblement of chastity. In the process the man who must love and yet not touch, must desire and yet never be fulfilled, was raised above the common herd.[77] What was really being celebrated, suggests Zoé Oldenbourg, was 'nothing else, surely, but the urge to proclaim a triumph of self-will?'[78]

Is it a coincidence that Cathar *per fecti*, too, sought to impose their will over every physical need and desire, and believed it necessary for their bodies to pass through suffering, protracted vigils, deprivation of the senses and many deaths before that goal could

be achieved? For these and other reasons, Oldenbourg believes that there must have been a considerable degree of overlap between the troubadour movement and Catharism. She goes so far as to argue that on many occasions when:

... the troubadours ... mention God and Jesus Christ it is very probable that they are speaking as Cathars, and that their deity is the 'Good God' of the Manichean faith.[79]

But Oldenbourg is out of line. It is the concensus of medieval historians and literary scholars that the ideas diffused through Occitania by the troubadours in the 12th and 13th centuries had very little and perhaps even nothing at all to do with Catharism.[80] We may only comment, with Arthur Guirdham, that this simply makes no sense:

How could two such startling manifestations of culture occur at the same time and in a limited area without their being related to each other? To hold such an opinion is equivalent to saying that the teachings of Freud swept London in the 1920s but had no influence on medicine or literature.[81]

Women hold up half the sky

In tandem with the poetry of the troubadours, the basic organisation and beliefs of Cathar religion also had the effect – whether by accident or by design – of elevating the status of women in Occitanian society. Catholicism had done nothing to dismantle the gross

inequalities of the sexes that prevailed in the European Middle Ages and explicitly forbade woman to become priests. Catharism, on the other hand, regarded the souls of men and women as absolutely equal. It saw no reason why the material envelopes that they were imprisoned in – namely their bodies, which by chance could be either male and female – should be treated with any less equality.

For this reason membership of the Cathar *perfectus* class was not restricted by sex and both men and women could and did become *perfecti*. On the highways and byways of these dangerous times Cathar *perfectae* preached and travelled less than their male counterparts[82] – for understandable reasons of physical security. Nor do we find any women among the relatively few 'bishops' and

‘deacons’ at the top of the simple, low-maintenance and minimally hierarchical structure by which Catharism was administered in Occitania. Nevertheless there is no doubt that women were highly esteemed and enjoyed great influence in their communities[83] where they often established group homes for ‘the daughters, widows and dowagers of the local petty nobility and artisan classes’.[84]

In practice it is thought that the cadre of active *perfecti* present in Occitania at any one time is likely to have included rather more males than females (perhaps on the order of 6:4), but this resulted from individual choices, not policy, and was compensated by a higher ratio of women amongst the *credentes*.[85]

In summary, by contrast with anything the Catholic Church had to offer, the status of women within the

Cathar faith was high and their role both important and recognised. This liberation, too, must have played its part in the great awakening of ideas and human potential that took place in Occitania in the 12th century.

The revolution and the new world order

The point we wish to make here is that although Catharism was a system of inspired spiritual knowledge and, in every sense a religion, it was also a great deal more than that.

We've seen that it was, at one level, a social

programme anticipating by centuries the modern recognition that human potential can never be fully realised without ‘women's liberation’. Likewise we've seen how the Cathar doctrine of the equal predicament of souls – and the basic irrelevance of the sex, race or creed of the bodies in which they happen to be trapped – lent itself naturally to the refreshing liberalism, open-mindedness, cosmopolitanism and democratising tendencies of Occitanian society.

Catharism was also a comprehensive philosophy of anti-materialism that offered all who adhered to it a choice of two very clear ways forward in this life – a ‘high’ road and a ‘low’ road. The high road was the way of solitary meditation and renunciation of the world – the suppression through willpower of all physical needs, attachments and desires – that was

followed by the *perfecti*. The low road was the way of engagement in the world followed by ordinary *credentes* until they received the *consolamentum* on their deathbeds. They hoped to make solid progress in this incarnation in the great project of freeing their souls from the trap of matter but understood that they might need to return again and again to the material plane before that objective would finally be achieved.

Had it been allowed to become widespread and to win dominance over the Catholic Church throughout Europe we cannot say what the long-term political and economic consequences of such a philosophy might have been. Simple logic suggests that it would have been most unlikely to have led to either of the two great political and economic systems – capitalism and communism – that were ultimately to dominate

human affairs in the 19th and 20th centuries. Both are entirely materialist in their outlook and their disagreement is only over the manner in which the riches of the world are to be extracted and divided up. We can suppose that the very different concerns of Catharism, and its horror of material entrapment, would have led during the course of history to very different arrangements concerning ‘production’, the ownership of its ‘means’, and the uses and exploitation of the masses.

Already in 12th century Occitania there is evidence that the Cathars had begun to meddle with the feudal economic order through programmes of adult education and practical training for the poor and disenfranchised. For example workshops run by skilled *perfecti* were set up to provide apprenticeships in leather, paper-making and the

textile trade.[86] One of the objectives of these workshops was undoubtedly to turn out missionaries who could be self-sufficient as they wandered from town to town making conversions (as we noted earlier, surviving records show a particularly strong concentration in Cathar areas of weavers and other workers in the textile trade). But the long-term effects of such an education programme, leading as it did to the foundation of an instructed artisan class, might have been literally revolutionary if it had been allowed to continue. Little wonder, therefore, that the French philosopher Voltaire seized on the memory of the suppression of Catharism to rabble rouse against the evils of the Church and of feudal oppression of the masses.[87] Initiated as a Freemason in 1778, as we saw in Chapter One, Voltaire's ideas were

amongst the cocktail of influences that precipitated the French Revolution in 1789.

Pacifism was another central value in the ethical system of the *perfecti* and a resolute commitment to nonviolence was part of the regime of self-control over the baser bodily instincts and desires that their initiation required of them. There are cases on record of *perfecti* who chose to be burned at the stake rather than satisfy the Inquisition that they were innocent of heresy by killing even as lowly a creature as a hen.[88] Yet surprisingly for people with such apparent contempt for their own lives – and for the pains of death – it has been observed that the *perfecti*:

... retained an absolute respect for the fact of life itself; they would not allow any violent intervention

by the human will (which they regarded as invariably evil and arbitrary) in the fate of a soul pursuing its road to salvation.[89]

The same reasoning explains why the *perfecti* were utterly opposed to the use of the death penalty, even for capital offences. They also claimed that common criminals should not be punished but instead educated to become better citizens.[90] Such *avante garde* doctrines were of course denounced by the Church as scandalous.[91]

Equally controversial was the strident insistence of the Cathars – quite contrary to the spirit of the times and the teachings of Catholicism – that preachers of crusade were 'murderers'.[92] Had the Cathars continued to win converts at the rate they achieved in Occitania, instead of themselves being stamped out

(significantly by a crusade), what might the consequences have been? Isn't there every likelihood that they would have transformed the international landscape of the Middle Ages – again with incalculable but quite possibly very positive consequences for the subsequent course of world history?

Fighting back

But the world is the way it has been, not the way it might have been, and the Cathars did not win. As we will see in Chapters Six and Seven, they lost everything – their lands, their culture, their freedom

and their lives – in the blood-drenched horror of the Albigensian Crusades. Ravaging Occitania between 1209 and 1244,[93] these were 35 years of virtually unremitting war – a brutal war of sieges and burnings and fearful massacres. Despite belonging to the ‘church of Love’, therefore, which ‘did violence to no man’,[94] the very fact that a nation of vegetarian pacifists were able to resist the papal armies for so long tells us that they did not simply lie down and surrender when they were attacked. They fought back – tooth and nail.

This is by no means the only such paradox that Catharism offers. We've noted already that its doctrinal horror of sex (as the productionline that delivers new material incarnations for trapped souls to be reborn in) did not result in a concomitant

change in reproductive behaviour in Occitania during the Cathar heyday. On the contrary Cathar families went on producing children in large numbers and the region enjoyed rapid population growth. The solution to the apparent paradox lies in the very different standards of behaviour expected of *credentes* and *perfecti*. The former adhered to the beliefs of Catharism but were not required to emulate the practices of its adepts.

We've seen how this system left *credentes* free to marry, make babies and eat meat as they chose. By the same token, despite its pacifism, it also left them free to resist persecution, and to defend their country and their faith with force of arms – even if doing so required them to commit acts of ‘violent intervention in the fate of other souls’. The *perfecti* themselves seem always to have stood back from the fray,

leaving the actual job of fighting the enemy to the *credentes*. Still there is evidence, in the face of pitiless Catholic aggression and mounting atrocities against Cathars, that even the *perfecti* found reason to qualify their philosophy of absolute pacifism and nonviolence. Since this world was the creation of the Evil God, and the material realm was fully in his power, it followed that he could create beings of pure evil – demons who merely looked like humans but had no souls – to destroy the Good Men and Good Women of the Cathar faith. To fight against such beings, who were numerous in the crusading armies and amongst the inquisitors, was hardly a crime.[95]

The ancient enemy

So in defending themselves against the murderous assault of the Albigensian Crusades, Cathars came to feel vindicated in their beliefs. The Catholic Church was the instrument of an Evil God who had created the material world as his personal fiefdom of suffering and horror, pain and misery. Now day by day in Occitania there was ever more compelling evidence for the accuracy of this proposition: the massacres repeatedly unleashed upon the civilian population; the tortures and the informer culture devised by the Inquisition; the endless holocaust of the Cathar faithful.

The scale, ferocity and sheer thoroughness of the Crusades are of course a measure of the threat that the Church perceived in Catharism. We already knew that the military support given to the Cathars by the great lords of Occitania had triggered this perception

of danger. But as we looked through the heresiological literature of the period, we could not fail to note that something else, perhaps almost equally potent, seemed to have been at work at well.

For although the scale of the Church's response was new – indeed unprecedented – the Catholic authorities clearly recognised Catharism as an old and deadly enemy. It was for this reason that they so often referred to the Cathars as ‘Manichees’, a heresy over which Rome had supposedly triumphed centuries before. For their part, though they would never have identified themselves as ‘Manichees’, the Cathars claimed that their religion had come down to them from antiquity, ‘passed from Good Man to Good Man’. It was, they said, the true faith that the Church had usurped in the early days of Christianity.

Most medieval scholars today prefer to argue that

Catharism was essentially a new phenomenon and very much the product of its times. But neither of the protagonists in this affair, Catholics or Cathars, thought this was the case. They believed themselves to be caught up in the latest episode of an ancient struggle of profound consequence for the future of mankind.

In the next chapters, with due respect to the opinions of the experts, we will investigate the possibility that the protagonists could have been right.

CHAPTER THREE

WHERE GOOD AND EVIL MEET

These are they who ... fell from Paradise when Lucifer lured them thence, with the lying assurance that whereas God allowed them the good only, the Devil (*being false to the core*) *would let them enjoy both good and evil; and he promised to give them wives*

whom they would love dearly; and that they should have authority over one another, and that some amongst them should be kings, or emperors, or counts; and that they would learn to hunt birds with birds, and beasts with beasts.

Cathar Prayer [1]

Up till now we have been able to treat the problem of the Cathars as if their heresy existed in isolation. Of course this was not the case. They posed a massive threat to the Church of Rome on the basis of their success in nearby Occitania and northern Italy. But

they were in fact part of a much larger heresy that threatened the entire Christian establishment in Europe – not only the Roman Catholics in the West but also the Orthodox Church of the East based in Constantinople (ancient Byzantium, known today as Istanbul).

The Catholic/Orthodox schism had been developing for centuries and became official in AD 1054. By that date the former bishops of Constantinople had already long been in the habit of calling themselves *ecumenical patriarchs* – literally 'patriarchs of the entire inhabited world'.[2] Since this seemed to challenge the pope's own claim to the top job it was a source of great mutual hostility. Nevertheless both churches were of one mind on the subject of heresy – which was to be stamped out.[3] And just as Rome

faced the heresy of Catharism in the West in the 12th and 13th centuries, so too, and for rather longer, the patriarchate in Constantinople confronted the heresy known as *Bogomilism* in the East which began its period of expansion some 200 years earlier and survived until the end of the 14th century.

It was called 'Bogomilism' after its supposed founder whose name in Greek was *Theophilis* and in Slav *Bogomil* – meaning 'Beloved of God'.[4] Active in Bulgaria in the first half of the tenth century, this enigmatic individual preached a form of dualism that was identical, in almost every detail, to the creed that would later be introduced into Western Europe as Catharism. Hand in hand with these spiritual teachings, he is also remembered as the organiser of a political rebellion that gave the persecuted Slav

peoples a voice and incited them to withdraw their labour and fealty from their Graecized Bulgar overlords.[5]

Although the Bogomil heresy endured in the East for three centuries longer than Western Catharism there is little reliable information about Bogomil himself. Not a single contemporary reference to him has come down to us and we know nothing about where or when he was born or died, who his teachers were, or how widely he preached.[6] The earliest-surviving report to mention him by name (although it is not the earliest to notice the heresy he started[7]) appears in a book written at some point between AD 977 and AD 990.[8] The work of a hostile Christian monk named Cosmas, this tract tells us only that:

In the days of the Orthodox Tsar Peter [AD 927 – 969]

there lived ... a priest called Bogomil (Loved of God), who in reality was not loved of God (*Bogu ne mil*), who was the first to sow heresy in the land of Bulgaria.[9]

Though it supplies no more information about the man himself, Cosmas's book was written specifically to denounce the faith that Bogomil had founded. His purpose was to draw the attention of the Orthodox Church to the threat it faced, and to upbraid Church authorities for the lapses that had permitted such a heresy to flourish.[10]

Close to the sources of power

In the years following the death of Tsar Peter in AD 969 Bogomilism spread rapidly westwards out of Bulgaria into the Balkan principalities of Serbia and Bosnia (where it fared so well that it was frequently the official state religion).[11] Equally influential in Croatia, Dalmatia and Macedonia, it also extended its grip into the heart of the great city of Constantinople itself,[12] headquarters of the Orthodox Church of the East. The first account of Bogomilism being practiced within the walls of Constantinople dates from 1045. It is found in a letter written by the monk Euthymius of Periblepton – who even claimed to have discovered a heretical 'cell' in his own monastery.[13]

Cosmas I (1075 – 81) was the first emperor of Constantinople to take stern action against the Bogomils.[14] His successor, Alexius I Comnenus (1081

– 1118) was even more vehement in his attacks on the heresy. At an uncertain date between 1097 and 1104 he ordered the arrest of a known Bogomil named Diblatus who was tortured for information about key figures in the movement. The trail led to Basil, a renegade monk from Macedonia, now living under cover at a monastery in Constantinople, who was said to have been a Bogomil evangelist for more than 40 years.[15]

Next Comnenus set a trap for Basil. Pretending only to know of him as a respected Orthodox monk, the emperor innocently asked for enlightenment about the Christian faith. Human nature being what it is Basil could not pass up this apparently golden opportunity and set out to try to convert Comnenus to Bogomilism. A series of meetings followed in which

the emperor thoroughly debriefed the unfortunate Basil, getting him to reveal not only the central doctrines of the heresy but also compromising details of its organisation and membership in Constantinople.[16]

Basil and his associates were then arrested and contemporary accounts tell us that Comnenus reasoned in person with the Bogomils, trying to win them back to the Orthodox faith. Those who recanted were pardoned and released. Those who would not recant were imprisoned for life. Only Basil, on this occasion, suffered the extreme penalty – so much favoured by heresy hunters in the West – of being burnt to death. His stake was set up in Constantinople's Hippodrome for the edification of a large crowd.[17]

Surviving records from Constantinople say nothing more about Bogomilism until the 1140s when there are reports of more heresy trials.[18] Then in 1145 we learn that no less a figure than Cosmas Atticus, patriarch of the Orthodox Church, has fallen under the spell of a certain Niphon, a Bogomil. When – horror of horrors – the heretic was allowed to take up residence in the patriarchal palace other ecclesiastics began to agitate against him. Eventually they took their complaints directly to Emperor Manuel I (himself later rumoured to have had covert 'Bogomil tendencies') and in 1147 Cosmas was deposed and Niphon arrested.[19] Still the episode indicates that by the mid-12th century, at about the time that Catharism was first detected in the West, Bogomilism had grown from a minor cult started by an unknown

priest into a major religion that could position itself close to the sources of power in the East.

Papa Nicetas

This sense of a big faith on the move, taking shape, growing in confidence and building up structure before our eyes, is heightened 20 years later in 1167. In that year, seemingly out of the blue, Nicetas, a senior Bogomil bishop from Constantinople, suddenly turned up in the West. He arrived first in Lombardy in northern Italy where he persuaded the local Cathar bishops to adopt important doctrinal changes and to be ‘reconsoled’ at his hands.[20] Then he moved

on to the Languedoc.

The entire Cathar administration of Occitania had gathered to await his presence at the small town of Saint-Félix-de-Caraman near Toulouse. Under his guidance routine matters such as boundary disputes amongst the existing Cathar bishoprics were resolved and three new dioceses of Toulouse, Carcassonne and Agen were established.[21] As in Lombardy, however, the primary purpose of Nicetas' visit seems to have been to urge important doctrinal changes upon the Cathars and to reaffirm what were clearly by this stage well-established links between the Cathar and Bogomil churches.[22] Indeed the immense respect shown to Nicetas, and the fact that he once again 'reconsoled' all the *perfecti* present, tell us very clearly that the relationship between these two

churches was that of a senior to a junior, or a father to a son. The Cathars of 1167, in other words, clearly regarded Bogomilism as the ‘home church’ to which they owed their allegiance.

This conclusion is endorsed by modern historians who have amassed persuasive evidence that the Catharism of the West was indeed a direct offshoot of Bogomilism.[23] Although northern Italy is closer to Constantinople the heresy seems to have been brought to northern France and even to Germany first (a report has survived of the trial of a Cathar bishop in Cologne as early as 1143).[24] When it reached the Languedoc, and by what route, is not certain but it had clearly been present long enough by 1167 for bishoprics to have been established and boundary disputes to have broken out.

It seems, however, that there must also have been some doctrinal lapse amongst the Western Cathars which the doctrinal changes introduced by ‘Papa’ Nicetas were designed to correct. These brought Catharism into line with his own powerful faction of the Bogomil church which believed in the absolute opposition of the ‘two powers’ of Good and Evil.[25] By contrast there were other Bogomils, and prior to 1167 many Cathars too, whose beliefs compromised this pristine polarity. These so-called *mitigated dualists* contemplated linkages, and even family relationships, between the Good God and the God of Evil, something that absolute dualists were not prepared to do.

Another objective of Nicetas's visit was to organise further missionary activity throughout Europe, using

Occitania as a bridgehead. There is evidence that delegates left the 1167 Council of Saint-Félix invigorated and actively anticipating the prospect.[26]

Social engineering

In the decades after Nicetas at the close of the 12th century the Cathar and Bogomil churches begin to look increasingly as though they are involved in a well-planned and coordinated plot.[27] The purpose of this plot could not have been more revolutionary: to compete with and eventually to overthrow the Church of Rome and the Orthodox Church of the East. The absurd worship of the Evil God who had

made this world was to be undermined – not all at once but slowly, city by city, region by region. The true dualist religion of the Cathars and the Bogomils was to be introduced in its place. The fundamental aim of the project was to free the souls of all mankind from the prison of matter and allow them to return to the heavenly realm of the Good God who had made them. Since this would require an attitude towards material things radically different from the dominant interests of the times it was obvious that permanent changes in the structure of society would also be necessary.

For us as researchers, this issue was clarified when we discovered that the Cathars in Occitania had involved themselves quite extensively in what we described in the last chapter as ‘meddling with the feudal economic order’.

It seemed unlikely to be a coincidence when we learned that the Bogomils did exactly the same thing. From the earliest references in 10th century they are linked with social, economic and political upsets. ‘They teach their followers not to obey their masters’, warned the monk Cosmas in his expose of the abominations of this seemingly new heresy:

... they scorn the rich, they hate the Tsars, they ridicule their superiors, they reproach the Boyars, they believe that God looks in horror on those who labour for the Tsar, and advise every serf not to work for his master.[28]

Confronted by material like this it is little wonder that many historians have judged Bogomilism to be ‘at base ... a social movement, directed against feudal oppression.’[29] Others disagree and argue that we

should ‘beware of attributing too much importance to the social anarchism of the Bogomils or of seeing in them Slavonic communists of the Middle Ages.’[30] In our opinion neither view is quite correct. The Bogomils were not early communists – or any such thing – since communism is a wholly materialist ethic concerned only with the material world. Neither were they ‘at base’ a social movement. Exactly like Catharism, the evidence convinces us that the Bogomil religion was first and last a spiritual movement, interested exclusively in the liberation of souls. It was the efficient pursuit of this spiritual objective, rather than any of the normal characteristics of a ‘social movement’, that led the Bogomils inevitably towards revolutionary behaviour in the material world. It inspired a critical attitude

towards earthly hierarchies and put a new mood of intelligent rebelliousness into the air.

The same phenomenon of ‘social engineering’ running alongside dualist heresy was observed in other parts of Europe as well. In Occitania and France we showed in the last chapter how the Cathars busied themselves in the education of a skilled artisan-class – notably weavers and others involved in the cloth and paper trades. In this way empowerment of the poor through skills-training went hand-in-hand with the spread of the faith. We were therefore not surprised to learn that researchers in Italy have unearthed proof of significant links there between Catharism and the trade of pursemaking. Like weaving, this was an occupation that could provide suitable cover for missionary activities enabling Cathar evangelists to

travel incognito ‘making and selling their wares and at the same time making heretical contacts.’[31]

So, although the dualists professed to hate this world, such strategies show that they did not hesitate to use rather worldly and ‘street-wise’ methods to win converts from the established Christian Churches. After travelling amongst the Italian Cathars in the early 13th century Ivo of Narbonne reported that they routinely:

... sent to Paris capable students from nearly all Lombard and some Tuscan cities. There some studied logic, others theology, with the aim of strengthening their own error and overthrowing the Catholic faith.[32]

Such evidence of calculation and strategy seem less discordant with the Cathars’ ethereal central purpose

when we remember that they believed themselves to be locked in an elemental struggle – often literally to the death – for the soul of man. If the Catholic Church were allowed to crush out the light of Catharism forever then the soul of man would likewise be lost forever. With the stakes so high and the enemy so diabolical, any means, fair or foul were reasonable to bring him down.

School of heresy

Further evidence that Cathars and Bogomils were involved not only in social agitation but in a coordinated ‘plot’ to overthrow established

Christianity comes from study of the methods they used to win conversions. The field missionaries of both sects appear to have followed the same procedures in the same order so closely that it is obvious they must have shared the same training. In this, once again, we have the sense of confronting people who were not in any way ethereal but, on the contrary, rather downto-earth, calculating and strategic.

They also demonstrated a good basic knowledge of psychology in ensuring that the course of instruction they gave as missionaries began with easily-acceptable generalities and moved on only very slowly to reveal the more deeply heretical – and thus conventionally shocking – aspects of their faith.[33] Euthymius Zigabenus, who interrogated the monk

Basil in Constantinople while he was awaiting his execution in the Hippodrome, was told that the Bogomils began by instructing their followers in those beliefs and practices which they shared with the Orthodox:

... preserving the fouler doctrines for later, and entrusting them to the more initiated in impiety as mysteries.[34]

The objective, in other words, was to detach potential converts as far as possible from the beliefs they had been raised in before attempting to substitute the alternative dualist system.

Another technique used by both Bogomil and Cathar preachers was to capitalise on the common-sense scepticism of ordinary people to demystify elaborate Church rituals – and therefore, by

association, the whole religious edifice that lay behind them. The Mass was a favourite target of the Cathars who asked churchgoers to think very carefully and objectively about each of its details. When they partook of the wafer and the wine of Holy Communion, for instance, how could they possibly imagine – as Catholic priests had taught them – that they were consuming the *actual* body and blood of Christ? Wasn't this contrary to reason, if not just plain stupid? All the Catholics that had ever existed had been performing the Mass and guzzling the Holy Communion for hundreds and hundreds of years. If what they had been consuming were really the physical body and blood of Christ then he must have been absolutely enormous – at least the size of a mountain, with veins like rivers – which clearly had not been the case. Moreover, coming at the problem

from a different direction, Cathar evangelists would frequently add an unpleasant reminder about digestive processes and their end products. Did decent people who loved God really want to pass his body and blood through their intestines?[35] What kind of religion was it that would require them to participate in such bizarre and frankly cannibalistic practices? So logic, reason and good taste were all against the Church being right about this basic issue long before the time came to introduce more ‘touchy’ Cathar doctrines like the non-physical nature of Christ.

The next step in the conversion process was often for the missionary to provide concrete examples of how far the Church had strayed from the true path. Favoured object lessons were the notorious sins of

the clergy and their extravagant lifestyles. These were then graphically compared to the simple, decent, unostentatious lives advocated in the New Testament for Christians. After contemplating the glaring contradictions thus revealed, most rightthinking citizens in the audience would have needed little further convincing that there was something rotten in the heart of the Church.

In a similar way, further still down the road of conversion, the method for introducing the dualist doctrine of the evil nature of material creation was to illustrate it with numerous practical examples that anyone could easily grasp. Earthquakes might be cited, or volcanic eruptions, or lightning strikes, or snakes, along with many of the other noxious evils that we all know do stalk the material world.[36] As

before, New Testament texts would be extensively quoted, this time to show that the true teachings of Christ and his apostles endorsed the dualist rejection of material things.[37]

Malcolm Lambert, a modern scholar with decidedly pro-Catholic sympathies, claims that the heretics usually achieved these effects by dishonest manipulation of the relevant passages which were 'wrenched out of context' to reinforce the dualist message.[38] The end result, most efficacious in winning conversions, was that the typical unsophisticated audience for a dualist sermon would be convinced that they had received 'an exhortation by good men based on the words of the founder of Christianity and of his followers.'[39]

It is little wonder, therefore, that for a long while

the Cathars and the Bogomils enjoyed enormous success in their respective spheres of influence. By the end of the 12th century they had together created what Sir Steven Runciman describes as ‘one great confederate Dualist Church ... stretching from the Black Sea to Biscay.’[40] At its core were sixteen bishoprics positioned in areas of influence and high population all the way from Constantinople in the East to Toulouse in the West.[41] Since the heretics had, from the beginning, commanded great influence in the countryside as well as in the cities – and had generally worked from the bottom of society up in their programme of conversions – they entered the 13th century occupying an astonishingly strong position in Europe. Not even 250 years had passed since Bogomil himself had first appeared in Bulgaria

to preach the doctrine of the Good and the Evil God. Yet in that short time an international infrastructure had been laid down and enough popular support won for medieval dualism to begin to think of itself as an established religion and to proclaim its own 'universality and supra-national unity'[42] over and against that of the established Church.

The Portrait of Dorian Gray

Accepting as all scholars do that Bogomilism was simply 'Bulgarian Catharism',[43] or, more accurately, that 'Catharism was in origin a Western form of Bogomilism',[44] what were the most important beliefs

at the core of this heretical, pan-European religion?

We've seen that a belief in duality was fundamental – that is to say, a belief in two Gods, one Good, one Evil, with the latter depicted as the creator of the earth, of mankind, and of all material things. This in turn led the dualists to the conclusion that Christ, as an emanation of the Good God, could not have existed ‘in the flesh’ – which was by definition evil. Likewise he could neither have been born nor crucified (both of which call for a physical body) – and therefore could not have redeemed our sins by dying on the cross.

The reader is also familiar with the notion, again shared in full by the Bogomils and the Cathars, that the Holy Spirit had been brought to earth by the non-physical Christ and transmitted ever since – ‘from Good Man to Good Man’ – through the ritual of the

consolamentum and the laying-on of hands. In both branches of the religion the ritual was the same and in both it served as an instrument of initiation at which a sacred *gnosis* was acquired that raised the candidate from the class of the neophytes to the class of adepts.[45]

Such beliefs and behaviour, on their own, clearly delineate key differences between mainstream Christianity on the one hand and the Bogomil/Cathar religion on the other. But there are many more – as might be expected given the genuinely Gnostic and essentially non-authoritarian character of the heresy. Like all earlier forms and expressions of Gnosticism it honoured the power of individual revelation over and above established doctrine. The result, part of the life of the religion, was a luxuriant jungle of speculation

by both Cathars and Bogomils around their key concerns. These were the origins of evil, the essential goodness and immortality of souls, and the cause of their repeated incarnations in human bodies here on wicked planet Earth. It was the encouragement given to such individual creativity and freedom of expression that led to the principal schism in the heretical Church – that between so-called *absolute* and *moderate* dualists, which in turn proliferated into numerous smaller subdivisions. These seem to have competed for conversions – 'although they may have differing and contrary opinions'[46] – but they also apparently recognised one another and co-existed in a spirit of mutual tolerance.[47]

Despite the state of intellectual anarchy that prevailed amongst the heretics we thought it was

possible to make out certain fundamentals of their religion on which all or most seem to have agreed. When we compared these with the fundamentals of established Christianity it was difficult to avoid the eerie feeling that each was a weirdly distorted reflection of the other. Like Dorian Gray and his portrait in the attic they were the same but opposites, near but very far apart.

The journey of the soul

One matter of great common interest and wildly dissimilar treatment was the origin and ultimate fate of the soul and its relationship to the human body.

Established Christian teaching is extremely clear: Each individual soul is a new creation of God, infused into the body destined for it.[48]

At death the soul is separated from the body, though not permanently as the two will be reunited at the Second Coming of Christ and the resurrection of the dead. Then:

... departed souls will be restored to a bodily life and the saved will enter in this renewed form upon the life of heaven.[49]

Said to be a 'fundamental element' of Christian doctrine it was a dominant view amongst medieval theologians that:

... the resurrection will involve a collection and revivifying of the particles of the dead body.[50]

Naturally the Cathars and Bogomils did *not* believe

in the resurrection of the body. They regarded it as a truly impractical and actually rather hideous idea. Their interest was exclusively in the soul which they saw as an immortal non-physical intelligence that entered the human body at conception and thereafter wore it like a 'tunic'[51] until the body died. They pictured the soul as a time traveller on an immense journey towards perfection. Rather than the one-off 'resurrection' of billions of mouldering corpses on Judgement Day, their view was that each soul would be reborn many times on earth, in many different bodies – both human and animal[52] – before attaining its goal. Very much as in Buddhism, the objective was to progress to the advanced state of detachment, purity and self-control, obtainable only in human form,[53] that was believed necessary to release the

soul forever from its imprisonment in the world of matter. The price was a life, perhaps many lifetimes, of severe asceticism and meditation. Moreover, though austerities were regarded as absolutely necessary, the reader will recall that they were not on their own held to be sufficient to obtain the soul's release. For that was also required the power of the Holy Spirit transmitted through the laying on of hands in the *consolamentum*.

So, in the dualist scheme of things, the destiny of the soul after death depended on what it had done with its period of physical incarnation just completed:

- If, through efforts made in this and previous lives, it had been born in the body of a man or a woman who would become a Cathar or Bogomil *perfectus*, and if the *perfectus* concerned died

in a fully-consoled state without having lapsed, then the soul's term of imprisonment on earth would end. Released from the snares of matter it could rise back at last to its true home in the furthest and highest heaven – the realm of pure spirit ruled by the God of Good.

- If on the other hand the soul had incarnated in a body that did not have the opportunity to encounter Cathar or Bogomil teachings – and thus to be consoled – then it would born again in yet another body, and another, and another, until it did, finally, come to 'the understanding of God.'[54]

A doctrine of karma is not explicitly spelled out in the fragments of the dualist teachings that have come down to us. Still it is clear that goodness and

personal austerity were thought to be beneficial to the progress of the soul while a lifetime of wickedness and self-indulgence would have profoundly negative consequences. Punishments of a 'karmic' nature could take the form of rebirth in particularly ghastly circumstances, or as an idiot, or even as a dumb animal – which, since it could not speak or reason, would only further frustrate the progress of the soul caged within it.[55]

Jehovah (aka the Devil) and the Old Testament

For Cathars and Bogomils the earth, and all

material things in the perceptible universe, were the work of the Evil God. And while they worshipped the God of Good they acknowledged that he existed in an entirely separate dimension and had no direct influence in the Devil's playground.

By way of stark contrast, Christians believe in only one God, depicted as omnipotent and universally good, who created the material world and with it the human body and soul. He also established a spiritual heaven somewhere ‘above’ and outside the material dimension. There the souls of his elect, restored to their bodies, are to be sent on the Day of Judgement while for the remainder of mankind – sinners all – it is well known that God has prepared a suitable hell.

For mainstream Christians the books of the Old Testament, just like those of the New Testament, are regarded as inspired texts that form an integral part

of their canonical scriptures.[56] Much is made of the continuity between the old ‘Law’, shared with the synagogue, and the new Law brought by Jesus. Likewise when Roman Catholics or Orthodox Christians speak of God as the ‘Father’ and Jesus as the ‘Son’ they clearly understand the ‘Father’ to be none other than Yahweh (Jehovah), the God of the Old Testament. Nothing compels us to believe that he has become some completely different or even radically transformed deity. Jesus brings a ‘New Covenant’, certainly, but you don't have to read the small print to realise that the God Christians go to church to worship today *is* still Jehovah.

The heretics adopted the same general scenario but their take on it was radically different. Far from being the object of their worship, Jehovah for them

was synonymous with the ‘Devil’, or ‘Satan’, or ‘Lucifer’ – just another of the many names by which the Evil God who had made the material world was known. They judged him by his deeds which were well known and had always been arbitrary, vengeful, violent and cruel. The Old Testament, in describing these deeds, was simply an extended paean to Jehovah's unmitigated wickedness and was seen by the Cathars and the Bogomils as an irredeemably evil text – evil through and through – that had been written to flatter this evil deity. To adopt it as scripture, as the established Christians had done, was to capitulate entirely to the Devil. They therefore exorcised the Old Testament from their lives and would accept no argument based on its authority.[57] They relied instead upon the New Testament, and in

some extreme cases on just a few specific books within the New Testament.

To this extent, though they were not Christians, theirs was a new Testament religion. However they also reverenced several other texts, as we shall see later, that were neither known nor accepted by the mainstream Church.

The creature of mud and the Hole in Heaven

If the basic dualist perception is of the separation and complete incompatibility of the realms of spirit and matter then how is it possible that souls – though

wholly spiritual and the creation of the Good God – could have ended up imprisoned in human bodies created by the Evil God?

Cathar and Bogomil missionaries had a varied collection of myths at their disposal to help confront such paradoxes and answer questions arising from them in graphic and engaging ways.[58] The myths weren't ‘dogmas’ or even ‘doctrines’ and it would be foolish to think that they were taken literally. Rather they were storyboards used as teaching devices – the point being for different teachers to bring different listeners in different circumstances to their own independent understanding of the mystery.

In brief, what the dualist myths tell us is that the paradoxical mixing of good and evil in the heart of the human creature came about after the Evil

God/Jehovah/Satan had created the material earth as described in the Old Testament. Some of the myths state that he was not satisfied with this achievement so he attempted to create a man, moulding the body out of mud or clay, like a potter.[59] But try as he might he was unable to breathe the spirit of life into the body he had made – for the spirit of life is in the gift of the Good God alone. In desperation therefore:

He sent an embassy to the Good Father, and asked Him to send His breath, saying that the man would be shared if he were to be endowed with life ... Because God is good, He agreed and breathed into what [Jehovah/Satan] had moulded the breath of life; immediately man became a living soul, splendid in his body and bright with many graces.[60]

A quaint sidelight comes from a vernacular form of

the myth, repeated to the Inquisition in Toulouse in 1247. A witness reported having been told by a Cathar how the Devil made the body of the first man, Adam, and God gave it a soul. But then:

The man leaped up and said to the Devil, ‘I do not belong to you’.[61]

So we are to envisage an independent-minded creature here, one who is aware of the good within himself and capable of subduing the evil material inclinations of his body. The natural impulse of this ‘Living Soul’ is to return to the realm of the Good God yet it cannot do so without purification because it has now been thoroughly contaminated by matter. Worse, far from sharing Adam, as he had promised, it is the intention of the Evil God to monopolise the man, drawing him ever deeper into the realm of this

world and causing him to forget his spiritual origins. Eve is suddenly (sometimes confusingly) on the scene, also a ‘Living Soul’, and she and Adam are impelled by the Devil:

... towards that carnal union that finally consummated their position as creatures of matter.[62]

The original gift of Spirit breathed by God into the parents nevertheless is transmitted through the act of reproduction to their descendants, and their souls, now enchained to matter, are reborn again and again on the Devil's earth.

Another myth tells a different story to make essentially the same points. In this case the Evil God starts out not so much as a completely separate principle but as an emanation from the Good God – a heavenly being of the type that we might think of as

an angel. Like Satan in Christian cosmology his pride, arrogance and avarice corrupt him and he must leave the good heaven. In the momentum of his Fall he draws down with him:

... a great crowd of souls who had been created by God and were living close to him in a state of beatitude. It was from this inexhaustible reserve of fallen or captive angels that human souls derived.[63]

In other recensions the God of Good and the God of Evil may be portrayed as equal and opposite powers, or the latter may again be a fallen emanation of the former. Having created the material world, the God of Evil lures a host of angels out of heaven. This he does by promising them:

... possessions, gold, silver and wives, till they fell like rain upon the earth for nine days and nights to

be shut up in bodies by Satan.[64]

Many accounts say that a third of all the angels in heaven,[65] due to their own ‘weaknesses’, were thus tempted to descend to earth to animate the zombie bodies that the God of Evil had prepared for them. Meanwhile the God of Good notices the radical decline in the angel population and discovers that the departure of so many has ripped a hole in heaven. He prevents further losses by jamming his foot in the hole and tells those who have already fallen that they will remain on earth, encased in bodies ‘for the moment and for now.’[66] Through the cycle of reincarnation, harnessed to the sex impulse that ensures an endless supply of new bodies to replace those that wear out, the Devil believes that he has imprisoned the fallen angels in the human race

forever. But the enigmatic words ‘for the moment and for now’ lead us to understand that the God of Good has a plan that will frustrate the Devil and restore the lost souls to heaven.[67]

Christ's Holographic mission to the realm of an alien God

Since the dualist perspective makes the God of Good powerful only in the spiritual realm, and the God of Evil powerful only in the material realm, it does not easily provide a mechanism for either to operate on the other's home turf. Perhaps this is why it takes a very long time – thousands of years we're

told, in all the Cathar and Bogomil cosmologies[68] – for the Good God to implement his plan to frustrate the Devil.

It is a plan conceived out of compassion for the imprisoned souls of the angelic host – because their life on earth, isolated from the Holy Spirit that had filled them before their fall, is one of 'unimaginable suffering'.[69] Denied the radiance of the Spirit, and all that is good, they are trapped far from their true home in a dimension to which they do not belong. A Cathar prayer expresses their grief:

We are not of this world, and this world is not of us, and we fear lest we meet death in this realm of an alien God.[70]

The prayer goes right to the heart of the problem. How is the God of Good to project his spiritual power

into the material realm of the God of Evil in order to rescue the souls trapped there?

The dualists all gave the same answer to this question – Jesus Christ. But their Christ was a very different figure from Jesus the ‘Son of God’, born a man, later crucified and resurrected from the dead, who is worshipped by Roman Catholics and Orthodox Christians. The reader will recall that the Cathars and Bogomils believed Christ to have been non-human – an emanation from the Good God who could never have been ‘born’ into evil flesh but who had manifested in our material dimension as a particularly convincing yet ‘non-physical’ apparition. Indeed it might even be helpful in explaining what the dualists had in mind here to say that their Christ figure was a sort of *avatar* – not a created, material being, but an emission or radiation or instrument of

the Good ‘sent forth to deal with the created world.’[71]

Christ's mission was threefold.

First he was to preach a religion, and transmit a *gnosis*, that would lift the scales from the eyes of mankind and provide high initiates with insight into the meaning of death, the true character of existence and the fate of the soul.

Secondly, he was to offer instruction as to how humans might best live together through their vast cycle of incarnations in the hell called the earth. In the long-term project of cleansing souls contaminated by matter and preparing them to return to heaven there was no doubt that certain social arrangements and personal commitments were more conducive to the success of the ‘mission’ than others. For example if humanity could be persuaded to organise itself

according to principles of love, nonviolence, kindness, frugality, tolerance and mercy then this would obviously be better for all concerned than hate, bloodshed, cruelty, excess, dogmatism and vengeance. Since the God of Evil sought every opportunity to urge us on to all of the latter – and to every other ugly and wicked impulse of which we are capable – the purpose of the teachings of Jesus was to provide a counter-balance. Though in fact he was a phantasm, the perfect ‘life’ that he would appear to live on earth would also serve as an example to show others the way.

The third and by far the most important objective of Christ's holographic mission was to bring down with him from heaven a blazing fragment of the Holy Spirit. For those souls who succeeded in purifying and perfecting themselves on earth it would provide

the final necessary burst of sacred energy that would break the bonds of matter and return them to heaven.[72] We might envisage it as a flaming torch, lit from the main fire of the Spirit in heaven and now able to transmit its revivifying flame to souls marooned in the material world below.

Before his feigned death upon the cross, the Cathars and the Bogomils believed that Jesus had passed custody of this spiritual flame to the apostles through the laying on hands – the original ritual of the *consolamentum* – and thence to the primitive church.

A short excursion to parallel

worlds

For some years our own long-term research interest has been in religious systems that give special emphasis to the dualisms of ‘heaven-earth’, ‘sky-ground’ and ‘above-below’. We have argued in previous books that such systems were once prominent in the ancient world – most notably amongst the Egyptians.[73] There are, for instance, funerary texts 3500 years old (and older examples of the same type of material could be cited) that instruct the pharaoh to make a copy on the ground, and gain knowledge – *gnosis* – of a region of the sky called ‘the hidden circle of the *Duat*’.[74] He is to do this so that he may become a ‘spirit’ after death and

be:

... well-equipped both in heaven and earth, unfailingly and regularly and eternally.[75]

The source of this passage is the 11th division of the *Book of What is in the Duat* (written on the walls of the tomb of Thutmosis III, 1479 – 1425 BC). A little later in the same text – in the 12th division – the pharaoh is instructed for a second time to make a copy on the ground of the hidden circle of the *Duat* so that it may:

... act as a magical protector for him, both in heaven and upon earth.[76]

We have argued that such dualistic sky-ground thinking was a key element in the religion of ancient Egypt for at least 3,000 years from the beginning of the Old Kingdom to the time of Christ. And we've

tried to show how that religion inspired the pharaohs to undertake great construction projects – the Pyramids of Giza, for example, or the Temples of Karnak and Luxor – which in a variety of different ways sought to ‘copy’ or ‘reconstitute’ the perfection of the heavens in the land of Egypt.[77]

We were therefore intrigued to discover that surviving texts, traditions and inquisitional records from Occitania, Italy and Constantinople contain not only copious illustrations of the well-understood ‘spirit-matter’, ‘goodevil’ dualism practiced by the Cathars and the Bogomils but also rarer examples of a distinctly ‘ancient Egyptian’ heaven-earth dualism.

For example, when Euthymius Zigabenus interrogated the Bogomil evangelist Basil in Constantinople around the year 1100 he was told one

of the versions of the ‘fallen angel myths’ often used to explain how souls created by the God of Good had come to be in bodies created by the God of Evil. In this variant both Satan and Jesus are ‘Sons’ – emanations – of the Good God. Satan, the elder ‘Son’ covets the father's kingdom and rebels against him. The rebellion fails and Satan is expelled from heaven. Yet through pride and envy he still yearns to possess a realm where he might be God. He therefore creates the earth and ‘*a second heaven*’ (our emphasis), moulds his zombie humans from mud and water and persuades the Good God to breathe souls into them.[78] The reader knows the rest of the story.

Another hint of the same kind of thinking comes in reports, collected by the Inquisition, of Cathar teachings concerning ‘the truth of the Upper and

Lower Worlds'.[79] Here we read about the God of Good 'preaching in the sky to his people', and how he sent Satan down to 'this world' and how afterwards Satan desired:

... to have a part of the Lower and Upper possessions, and the Lord did not wish it, and on this account there was war for a long time.[80]

Striking and colourful reference was also made to a Cathar teaching that:

Oxen ... grazed and ploughed the soil and worked on the sky as on the earth.[81]

Rather than outlining actual 'beliefs' it seems to us that such teachings are best understood as simplified illustrations or mental images to assist neophytes in

the analysis of difficult concepts. Embedded in all of them is the fundamental dualist idea of two parallel worlds, one all spirit, one all matter, but here visualised in terms of graphic sky-ground metaphors. It was in the same vein that the Cathars would often speak of the ‘earthly earth’ and the ‘heavenly earth’[82] – the former being our planet, this underworld or hell-world on which human incarnations are served out; the latter to be understood as a parallel celestial or heavenly realm.[83]

There was a text that was held in the highest regard by the heretics. Known as the *Vision of Isaiah* it reached the Cathars in the late 12th century from the Bogomils, being translated in the process from Greek or Old Slavonic into Latin. However it is believed by scholars to have ‘deep roots in the past,

probably finding its origins among the Greek Gnostics towards the end of the first century AD.'[84] In it we read how Isaiah (a prophet generally exempted by the dualists, for reasons that need not detain us here, from their general hatred of the Old Testament) is given a great privilege by the God of Good. He sends an angel from heaven to take the prophet by the hand and lead him on a journey through both the earthly and the celestial realms, crossing the barrier between the two – something that 'no one who desires to return to the flesh' has ever before been permitted to do. As they ascend through the heavens they see tremendous battles raging on all sides between the emanations of the God of Evil and the emanations of the God of Good:

For just as it is on earth, so also it is in the

firmament, because replicas of what are in the firmament are on earth.[85]

Rainier Sacconi, a relapsed Cathar *perfectus* who turned inquisitor in the mid-12th century, reported significant discussion of such ideas amongst his former co-religionists. They believed, he said, that certain of their sacred books had been *written in heaven and brought down to earth* (our emphasis) by Christ who entrusted them to the primitive church on the completion of his mission.[86]

It was to this primitive church, 'which alone could offer true consolation to the souls dwelling in exile,'[87] that the dualists claimed to belong. Through an unbroken chain of consolations, they said, their *perfecti* had preserved and passed down the flame of the Holy Spirit undimmed from the time of Christ.

The only problem was that they had been forced to preserve it in secret because the God of Evil, absolute master of this world, had substituted a false Church for the true Church one century before and endowed it with immense material power. This imposter Church masqueraded as ‘Christian’ but actually served the Devil.[88] By working for its downfall, therefore, the Bogomils and Cathars claimed that they only sought to restore the *status quo ante* that had prevailed at the time of the apostles.

Ancient legacy or medieval invention?

It sounds like blatant propaganda. Of course heretics would like us to believe that only their Church was the authentic descendant of the church of the apostles. Even if they'd only invented themselves yesterday, why settle for anything less? Surprisingly, however, several leading scholars in this field are convinced that such claims are solidly based and that the Cathar and Bogomil Churches somehow did manage to preserve genuine traditions from the earliest days of Christianity.

The pro-Catholic scholar Martin Lambert doesn't want to make too much of it when he admits that.

By a strange chance the rite of the *consolamentum* that appears in the 13th century texts does seem to have been based on a rite for baptism and on practices connected with the catechumenate [those who were candidates for baptism] much earlier than

the contemporary Catholic rites of baptism or ordination.[89]

But Steven Runciman points out that this is by no means the only close resemblance. In his view, whether we think them ‘strange’ or not, there are far too many similarities for us to put them all down to ‘chance’:

The Ritual Feast of the Cathars [which involved a simple breaking-ofbread ceremony] is, if we equate the Perfect with the Early Christian priest, exactly the same as the Early Christian Communion Feast. The Kiss of Peace terminated Early Christian services as it did those of the Cathars ... The *consolamentum* in its two aspects was closely akin to the adult baptism administered by the Early Church to the dying and to the ordination or initiation into its

ministry. The very details of the service are similar. In the Early Church [as was the case with a prospective Cathar *perfectus*] the catechumen was tested by a long and stern probationary period [prior to] his initiation ceremony ... The actual ordination was identical, consisting of the laying on of hands and of the Gospel upon the catechumen's head ...[90] ... While polemical churchmen in the Middle Ages denounced the heretics for maintaining a class of the Elect or Perfect they were denouncing an Early Christian practice, and the heretic initiation ceremony that they viewed with so much horror was almost word for word the ceremony with which Early Christians were admitted to the Church.[91]

Such similarity cannot be fortuitous. Obviously the

Cathar Church had preserved, only slightly amended to suit its doctrines of the time, the services extant in the Christian Church during the first four centuries of its life.[92]

Runciman notes that everywhere they went – whether it was amongst the oppressed Slav peasants of Bulgaria or amongst the free-thinking burghers of Occitania – the heretics were able to exploit pre-existing social and economic conditions in order to gain a foothold. But, he concludes, 'the political impulse was not everything':

Behind it there was a steady spiritual teaching, a definite religion, that developed and declined as most religions do, but that embodied a constant tradition.[93]

It is his view that this tradition is in one sense as

old as human speculation about the nature of evil in the world – dating back, long before Christianity, to whatever prehistoric age it was when men first asked 'why God, if there be a God, could permit it?'[94] From there Runciman is willing to trace the same primordial religion very tentatively into the historical period, seeing elements of it drawn together from 'Egyptian, Zoroastrian and even Buddhist ideas.'[95] Three centuries after Christ it was likewise notable how:

Stoics and Neoplatonists each in their own way condemned the world of matter; and Jewish thinkers of Alexandria began to face the problem [of evil], influenced by the emphasis on spirit that they found in the Hermetic lore of Egypt.[96]

Runciman concludes that it was the Gnostics of

Alexandria and Syria who were responsible – roughly between the first and fourth centuries AD – for finally gathering together all such lines of thought and applying them to Christianity.[97] Thereafter a series of overlapping heresies could be sketchily made out in the historical record. It was these together, Runciman argues, that had preserved the 'constant tradition' from the early Gnostic schools, by way of Manicheism between the third and sixth centuries AD, to reach eventually the Bogomils in the tenth century. They in their turn transmitted it to Western Europe in the form of Catharism in the 12th century.

Hans Soderberg is a second major authority in this field who is satisfied that the religious beliefs and practices of the medieval dualists were connected by 'an uninterrupted traditional chain' to the Gnostic

religions that had flourished a thousand years earlier.[98] He believes, moreover, that the Cathars merely gave ‘a Christian clothing’ to the even more ancient, indeed virtually universal, myth ‘of the combat between the two powers.’[99]

But other historians are not at all happy about tracing the origins of medieval dualism so far back.[100] Malcolm Lambert thus speaks for many when he tries to place the whole Cathar/Bogomil phenomenon firmly in the context of its times, seeing it primarily as a reaction to specific economic, political and social circumstances. Even he, however, is prepared to admit that Bulgaria (converted to Orthodox Christianity barely a century before the *pop* Bogomil began teaching) may have provided uncommonly good ground for the heresy because of

the possible influence of ‘pre-existing dualist beliefs in the country.’[101]

Listening to heretics and heresy hunters

Whatever the personal stance of individual scholars may be on the problem of origins, we've observed a curious phenomenon in reviewing the literature. Very few of the attempts made to trace the history of ideas behind medieval dualism (whether they support or contradict the idea of an ancient tradition) have been willing to pay serious attention to what the dualists themselves – or their opponents in the Church – had

to say on the matter.

For example when heresy hunters in Western Europe referred to the Cathars as ‘Manichees’ it is automatically assumed that they must have been mistaken because Manicheism had been suppressed centuries previously.

In the East, Theophylact, patriarch of Constantinople from AD 933 – 956, was one of the first to warn of the stirrings of the heresy that soon become known as Bogomilism (although he did not know of Bogomil by name). Writing to Tsar Peter of Bulgaria he was just as quick as his counterparts in the West to link the heresy to Manicheism (and also to the pre-existing dualist religion known as Paulicianism, of which we shall hear more in the next chapter). ‘Let the leaders and teachers of this ancient

heresy which has newly reappeared be anathema,’[102] he pronounced firmly at the end of his letter. Yet scholars are reluctant to pursue the possibility that the heresy thus anathematised could have been anywhere near as ‘ancient’ as Theophylact clearly believed.

The same academic scepticism also inhibits research into the implications of the heretics’ own statements about their origins – all of which have come down to us through the work of the heresy hunters and thus seethe with hostile comments and interpretations. As early as 1143 or 1144 for example, when Catharism was first beginning to be recognised in Western Europe, the monk Everwin of Steinfeld (near Cologne in Germany) wrote a worried letter to Bernard of Clairvaux appealing for his

assistance in the struggle against the heretics:

... who everywhere in almost all churches boil up from the pit of hell as though already their prince were about to be loosed and the day of the Lord were at hand.[103]

Everwin frankly observed that the heresy was gaining ground because of the apparent piety of its missionaries who possessed:

... no house, or lands, or anything of their own, even as Christ had no property nor allowed his disciples the right of possession.[104]

Equally potent, and apparently extremely convincing, was the heretics' insistence that theirs was Christ's original Church – the primitive church itself, reawakened after being forced to lie low 'in Greece and certain other lands ... from the time of

the martyrs ... ’[105] Though Evil powers had made every effort to destroy the church of the Good God:

We and our fathers of apostolic descent, have continued in the grace of Christ and shall so remain until the end of time.[106]

Martin Lambert's comment is that one of the reasons the Cathar *perfecti* were so convincing was because they:

... honestly thought that they were the only true Christians, that the clergy were the servants of Satan's Church; and that Cathar teaching presented a stream of pure underground Christianity, often persecuted, but always surviving and reaching back to the days of the apostles.[107]

Whether they were right or not is another matter, but we know what the heretics believed. They

believed that their faith was meant to guide the world. This was what was destined. This had been the plan of the Good God to fetch the lost souls back to heaven and he had sent Christ to earth to set it in motion.

All had proceeded as it should until the reign of Emperor Constantine in the fourth century. Then, at the very moment when Christianity triumphed over multiple competitors to become the state religion of the Roman Empire, the Devil pulled off his most cunning trick. A clique within the Church that insisted on literal interpretation of the scriptures – rather than the more allegorical approach favoured by Gnostic Christians – seized control and rapidly began to persecute as heretics all those who disagreed with them. Under interrogation the Bogomil evangelist Basil explicitly mentioned the

church father John Chrysostom (AD 347 – 407), who is indeed known for his ‘literalist’ views,[108] as a ringleader of this clique of early heresy hunters.[109]

It was such purges between the fourth and sixth centuries AD, said the Cathars and the Bogomils, that had forced their true Church underground. Only now, after the sleep of years, was it was emerging once more from the shadows. In the 10th century it had seemed no more than the rantings of a lone vegetarian in Bulgaria. By the 11th century it had become a cult that had spread throughout the Balkans and to Constantinople. By the mid-12th century it was firmly established in Italy and Occitania and could also claim to have won many followers elsewhere ‘scattered throughout the world’.[110]

Though the scholars have paid scant attention, it seemed to us that what the heretics were claiming was dynamite – not only that their forefathers in the dualist Church were the true descendants of the apostles but also that an ancient conspiracy had denied them their rightful role in shaping the destiny of the West. Perhaps even more explosive was the way they clearly saw themselves as part of a long-delayed ‘counter-conspiracy’ that had begun in the last 50 years of the first millennium and that had grown steadily, one might almost say remorselessly, in the two centuries that followed.

As we continued to explore the strange phenomenon of medieval heresy we could not shake off the feeling that something ancient and hidden, with a profound purpose for mankind, had briefly shown its face a thousand years ago, tried to change

the world, and failed.

CHAPTER FOUR

CHAIN OF THE GREAT HERESY

In its Manichean form Gnosticism was once a real worldwide religion,
i.e. a worldwide and separate Gnostic community or church (ekklesia)
with its many thousands and, later on, even millions of

adherents; its
own leader, bishops and priests; its own canonical scriptures; and even
its own very attractive art. Once Manichaeism spread from southern
Mesopotamia as far as the Atlantic in the West and the Pacific in the Far
East. It had its adherents in Egypt, in Roman North Africa, in Spain, Gaul,
Italy and the Balkans, and in the end even in the regions on the South
China Coast. Its history covers

the period from the beginning of the third century to modern times. Even in our century [i.e. the 20th century] *Manichaeism was still forbidden by law in Vietnam.*

Johannes Van Oort, Lecturer in the History of Christianity at the Utrecht University[1]

Christianity in the 21st century is enshrined in the law of many lands, and even where it is not practiced it has worked its way both overtly and subliminally into virtually every sphere of life – marriage patterns,

child rearing, education, social and political relationships, ethics, philosophy and so on. Subsumed into Western capitalism, it has also had a huge impact, built up over centuries, on our relationship with the material world.

Consider the account of Creation given in the Old Testament book of Genesis (a text that the Church views as inspired and that fundamentalist Christians to this day teach as fact.)[2] The creator is Jehovah, whom the Bogomils and Cathars equated with the Devil. In Chapter One we read how he makes heaven and earth, night and day, the oceans, dry land, grass, herbs, trees, fruit. To fill the oceans: ‘God created great whales, and every living creature that moveth, which the waters brought forth abundantly.’ Land animals come next. Then, on the sixth day: ‘God

created man in his own image, in the image of God created he him; male and female created he them.' Finally Jehovah invites the first couple to 'subdue' the whole earth and gives them:

… dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.[3]

This is a code of subjugation and domination, even if it includes some common-sense 'replenishing' as well.[4] In the West it set the moral agenda for the Industrial Revolution of the 18th and 19th centuries. And even in the secular modern world it continues, through force of ancient habit and in many subtle ways, to underwrite the environmental irresponsibility of the big economies and the vast multinational corporations they have spawned.

You can see the effects of the Old Testament's righteous sense of dominion everywhere. The fowl of the air are now battery chickens; many species of those great whales that Jehovah made have been hunted to extinction; fishstocks in the oceans have never been lower; there is a continent-sized hole in the Ozone Layer; and the rainforests of the Amazon – the very lungs of the world – are being logged out or burnt at a terrifying rate to make way for cattle ranches. Of course we do not claim that the Christian Church is solely responsible for all this; but neither should its part in the matter be underestimated. Though fewer and fewer Westerners study the scriptures today, or would claim to be much influenced by them, all the structures, wealth and international power inherited from the Age of Discovery and the Industrial Revolution were built up

by people who did.

There are other matters for which the Church and its leaders have been much more completely responsible. In Chapters Six and Seven we will tell the story of the Albigensian Crusades that destroyed the Cathars in the 13th century. No one acquainted with these terrible events could doubt the absolute disregard of the Christian leadership in Europe for the spiritual rights of others or its willingness to use lethal force. The same arrogance and blood-lust also showed themselves in the brutal Crusades between the 11th and the 13th centuries mounted by European Christian armies to recapture the Holy Land.

The faith was therefore only running true to type when it continued to be imposed forcefully by Europeans wherever they went during the Age of

Discovery – witness the activities of the Jesuits and other missionaries in Africa, Asia and the Americas, from the 15th century onwards. Indigenous religions and their cultural treasures were systematically demolished and replaced by Christianity – at incalculable cost to the diversity of human ideas. Where this could not be achieved, notably in the disruptive 1,000-year conflict with Islam, massive trauma and lasting damage were inflicted on those societies that would not accept conversion. The suffering, chaos and violence that still continue in the Middle East today result directly from this ancient legacy of pain – and since 11 September 2001 the war has been carried to the West's own front door. In the eyes of Muslim fundamentalists, contemporary Western geopolitics in the Middle East are a continuation of the Crusades by modern means and

so must be resisted to the death. The result is a flashpoint, built on a millennium of hatred, that could yet set the whole world in flames.

All in all then it seems reasonable to conclude that established Christianity has been amongst the great determinative forces of history and that the baleful global conditions we confront in the 21st century have much to do with its long-term influence. A moment can be pinpointed when that influence first began to be felt – in the early fourth century AD following the conversion to Christianity of the Roman Emperor Constantine. That was the moment when Christianity first strapped itself to the engine of secular power and (almost immediately, as we shall see) became a persecuting bureaucracy. In its first 300 years, however, it had possessed no unified Church, nor any agreed body of fundamental dogma

that it might wish to impose on others, nor the ability to impose it on them. Far from persecuting, Christianity itself had been a despised and persecuted agglomeration of sects with a very wide range of ideas centred around the figure and mission of Christ.

What was smashed?

The heretical churches of the Bogomils and the Cathars that flourished for a few brief centuries in the Middle Ages also centred their ideas around the figure and mission of Christ. How does the impact of their thinking compare with the giant presence and

powers of the established Christian Church? The question is asked specifically with reference to their influence on the world stage and their overall importance in the history of mankind.

There are scholars who give what seems to be the obvious answer. They argue that the Bogomil and Cathar movements are best understood as strictly local responses to temporary social and economic circumstances in various parts of Europe between the 10th and the 14th centuries.[5] If their view is correct then to know the whole life story of the heresy we need only examine the immediate conditions surrounding its rise and fall. With no past – and of course no future – its place in history would be small and its impact on the development of Western civilisation negligible or nonexistent.

We've seen that other scholars like Hans Soderberg and Sir Steven Runciman oppose this view, arguing that ‘an uninterrupted traditional chain’ connects the Cathars and the Bogomils to the religion known as Christian Gnosticism that flourished in Egypt and the Middle East a thousand years earlier. If they are correct then whatever it was that the Church smashed with the Albigensian Crusades in the 13th century can hardly be described as a short-lived social movement. If the links in the chain can be traced back a thousand years, then doesn't the Cathar phenomenon look much more like a bid for power after a millennium of silence by a parallel persecuted religion, secretive, shadowy, and as old as established Christianity itself?

‘That most wicked sect of obscene men who are called Paulicians …’

Working back from the Cathars, for whom there are no unambiguous reports prior to the mid-12th century, we come to the Bogomils. They are first heard of in the 10th century and survived in some isolated communities in Eastern Europe until the 15th century. Not only did they predate and outlive the Cathars, therefore, but also there is consensus amongst the scholars that Catharism in the West did arise as a direct result of Bogomil missionary activity.

The next link in the proposed ‘chain of the great heresy’ overlaps in time with the Bogomils in a similar way, and again with a significantly earlier

origin. The link is formed by a strange and uniquely warlike dualist sect known as the *Paulicians*. They co-existed with the Bogomils and are thought to have played a significant part in shaping the ideas of the *pop* Bogomil himself in the 10th century.[6]

As with most heretical movements, much that we know about them comes from their opponents in the Christian Church. One of these was the monk Peter of Sicily whose *History of the Manicheans who are also called Paulicians* contains valuable contemporary information on the sect. Peter learned about them at first hand in AD 869 – 70 when Emperor Basil I of Constantinople sent him as an ambassador to the Paulician leader Chrysocheir – who had recently established an independent principality on the Arab-Byzantine frontier.[7]

As we can see from the title of his tract, Peter assumed that the Paulician religion was merely a disguised form of Manicheism. This is understandable. The Paulicians and the followers of Mani were dualists, exactly like the later Bogomils and Cathars. But the Paulicians' account of their own origins, which Peter of Sicily also helpfully preserved for us, makes no claim of descent from Mani. Instead it traces the sect's beliefs back to a certain Constantine of Mananalis who had lived in what is now Armenia during the reign of the Byzantine Emperor Constans I (AD 641 – 648).[8] Constantine of Mananalis, in his turn, is said to have been influenced by a mysterious 'deacon' who stayed at his home 'after returning from prison in Syria' and gave him a number of books including a 'Gospel book and a book

of the Epistles of St. Paul, on which he ... based his teaching.'[9]

So clearly there must have been something 'Christian' about these Paulicians if the teachings of their founder were based on Christian texts. Indeed it turns out that Christ was the central figure in their religion but that just like the Cathars and Bogomils they refused utterly to accept that he had ever been born 'in the flesh' or that Mary was his mother.[10] Since he did not possess a physical body how could he have had a mother? Like the Cathars and the Bogomils they believed him to have been a non-physical emanation of the God of Good, an emissary from the spiritual realms. [11] Like the Cathars and the Bogomils they rejected the cross and all the material sacraments of established Christianity, as well as the

cults of saints and of icons. [12] Like the Cathars and the Bogomils they entirely rejected the Old Testament and did not accept every part of the New Testament. [13] And again like the Cathars and the Bogomils they claimed that theirs was the only true Church, descended directly from the first Christian communities, and that the Roman Catholic and Orthodox Churches were imposters. [14]

The supreme leader of the Paulicians, wielding absolute spiritual and secular power, was known as the *didaskalos*. His followers regarded him, says Peter of Sicily as 'the apostle of Christ'.[15] Constantine of Mananalis in the seventh century was revered as the first *didaskalos*, but all his successors held the same title and each was considered 'the authoritative teacher of the Christian revelation in

his own generation.’[16]

Although we do not know the exact date that Constantine of Mananalis began his ministry, historians generally set it around AD 655.[17] He acted from the beginning, say historians Janet and Bernard Hamilton, as though he were:

... restoring the true Church that had been founded by Saint Paul ... Later *didaskaloi* followed Constantine's example and took the names of Paul's disciples, and also called their churches after places visited by Paul. The implication was that they were restoring the true apostolic Church.[18]

Understandably these heretics referred to themselves simply as ‘Christians’ (again something they have in common with the Bogomils and the Cathars who likewise called themselves ‘Good

Christians').[19] The name Paulicians apparently had nothing to do with their attachment to Saint Paul but came into general usage long after the sect was formed and was bestowed on them by others. It is most plausibly explained as a derivation from the *didaskalos* Paul, who led the semi-nomadic sect back to Armenia in the eighth century.[20]

But while the Paulicians thought of themselves as true Christians, the Orthodox Church and the Byzantine Empire thought otherwise. Constantine of Manalis was eventually executed for heresy on the orders of Emperor Constantine IV (AD 668 – 685). Historians believe it most likely he was burnt at the stake, although the Paulicians themselves put about a story that he was stoned to death. It has been suggested that this was probably 'to draw a parallel

between their first martyr and the first Christian martyr Stephen'.[21]

The second Paulician *didaskalos*, who took the name Titus, was also executed for heresy, this time definitely by burning.[22]

During the eighth century the Paulicians enjoyed long periods of official tolerance, although John of Otzun, who became catholicos of Armenia in AD 717, described them as 'that most wicked sect of obscene men who are called Paulicians.'[23] What he objected to most was that they scorned the established clergy as 'idolaters' because of their 'worship of the cross.'[24] But he does not seem to have had the secular support to do anything about this.

It was not until the reign of the Byzantine Emperor Michael I (811 – 813) that the death penalty was

reimposed for followers of the Paulician faith,[25] There then followed a period of massive imperial persecution in which, according to the official chroniclers 100,000 of the heretics were killed[26] – a scale of slaughter fully comparable with the holocaust of the Languedoc Cathars 400 years later. In the 840s, in response to the continuing persecutions, a faction of the Paulicians, including a fighting group 5,000 strong, retreated into Arab territories. By the 850s they had established their own independent mini-state based around the fortress city of Tefrice on the Byzantine frontier. It was to the court of the Paulician leader Chrysocheir at Tefrice that Peter of Sicily came on his embassy of 869 – 70. Two years later Chrysocheir was killed in battle with Byzantine forces and Tefrice finally

surrendered in 878. [27]

This was a setback, but certainly not the end of the Paulicians. Around 975 they were still causing enough trouble in the Byzantine Empire for the Church to insist that large numbers of them be deported from the Eastern provinces. They were sent to the Balkans, where there was already a long-established Paulician community[28] and where the *pop* Bogomil had begun to spread his own heresy only a few years previously. The Paulicians almost certainly bequeathed to the Bogomils their belief in the state of opposition of the material and spiritual realms – of the God of Evil and the God of Good. Moreover the Paulicians identified this very aspect of their beliefsystem as the chief factor that distinguished them from the Roman Catholic and

Orthodox Churches. They told Peter of Sicily:

We say the heavenly father is one God who has no power in this world, but who has power in the world to come, and that there is another God who made the world and who has power over the present world. The Romans confess that the heavenly father and the creator of all the world are one and the same God .[29]

This doctrine of the two opposed Gods is precisely the position of the Bogomils and the Cathars. And they also shared with the Paulicians a view of the cosmos as a battleground between good and evil with the fate of humanity as its fulcrum.[30]

In other respects, however, there was much less of a resemblance. Most prominently, although they attributed the creation of the world and all material things to the God of Evil, the Paulicians did not

practice any form of asceticism, were not vegetarians, and placed no special value on chastity and abstinence. They were also men of violence who often found themselves in battle and who were widely recognised by others as formidable warriors.[31] In this sense we might regard them as an entire community of that grade of neophytes whom the Cathars called *credentes* (‘believers’) who were free to fight, marry and make love as they wished, to eat and to drink, and generally to live in the world and to affirm it. Consistent with this it seems that the Paulicians did not make use of any initiation ceremony and thus had no class of initiated adepts or *perfecti* as the Cathars and Bogomils did.[32]

The Praying People and the demon in the soul

Although there can be little doubt that the Paulicians were amongst the important influences on the emergence of the Bogomils, the differences between the two religions make it clear that other factors must also have been in play.

As one of these factors, and the next main link in the chain of transmission, Steven Runciman proposes a sect known as the *Messalians* (literally the 'Praying People').[33] They were Christian Gnostics[34] whose origins can be traced back to the city of Edessa in the mid-fourth century AD and who survived in coherent form until late enough in the seventh century to

overlap with Constantine of Mananalis and the first Paulicians.[35] They were said to have been the keepers of a secret tradition and of secret books which Runciman presumes to have been 'heterodox Gnostic legends.'[36] He argues that the riches of this esoteric literary tradition reached the Bogomils directly from communities of Messalians who survived in the Balkans beyond the seventh century and indeed until as late as the 11th century.

Runciman sees Bogomilism as a combination of Paulician and Messalian doctrines – 'a new Christianity ... based on early Christian legend and Eastern Dualism.'[37] Probably the influence of Paulicianism came first:

... but as time went on the new faith developed; the heretics came into touch with the Messalians, who

gave them access to all the wealth of the Orientalised Gnostic tradition ...[38] The Bogomils ... largely owed their mythology to these books that medieval Byzantium had inherited from the Christians of the first few centuries, when Christian doctrine was still imperfectly circumscribed and Gnostic tendencies were rife.[39]

Naturally in this contentious field, other scholars dispute that the Messalians ever came into contact with the Bogomils at all – on the grounds that the former had ceased to exist before the latter were founded. According to Bernard Hamilton, professor emeritus in crusading history at the University of Nottingham, it is all a matter of mislabelling:

There is no evidence that organised Messalianism survived beyond the 7th century, even though the

label continued to be used by Byzantine heresiologists to describe excesses in Orthodox monastic practice. There can therefore have been no possibility of contact between the Bogomils and a living Messalian tradition.[40]

Let's acknowledge these opposing points of view. Still the fact remains that many Orthodox churchmen of the period, highly skilled in exposing heresy, were convinced, like Runciman, that Messalianism was still alive and well in the Balkans as late as the 11th century – and thus did overlap with Bogomilism. The Bogomils themselves were often mislabelled ‘Messalians’, not, we would suggest, because of ignorance on the part of the heresiologists but because the Messalian and Bogomil religions were similar in many ways and do strongly suggest some

form of influence of the former on the latter.

The Messalians placed great emphasis on a ritual initiation that created a class of *elect* or adepts, called the *pneumatics*, directly comparable to the Cathar *perfecti*.[41] The same term was also used by other sects of Christian Gnostics as early as the first and second centuries AD for their own initiated spiritual elites.[42] So there's a sense of the Bogomils standing at one end of the first millennium, the early Christian Gnostics standing at the other, and the Messalians standing roughly in the middle and somehow connected to both ‘ends’.

Other shared characteristics add to this impression. For instance, like the Bogomils (and their offshoot the Cathars), the Messalians rejected the Old Testament and loathed the cross.[43] So too did the

early Christian Gnostics .[44] The Bogomils and the Messalians regarded the world as an evil creation. So too did the Gnostics. And as part of this outlook, very similar creation stories were also told by all three groups. Indeed the Messalian version is a classic ‘moderate dualist’ myth of the kind the Bogomils and the Cathars favoured in their early days before becoming more absolute in their views. As such it does not propose polarised divinities of Good and Evil, one the creator of the spiritual and one of the material realm. Instead the Messalians envisaged the prior existence of a single deity, ‘God the first Principle’, whose domain was entirely spiritual and good and filled with light. He produced two ‘Sons’ – emanations – of whom the elder was Satan and the younger Christ. Pride and envy caused Satan to rebel

against the Father and led to his expulsion from the good and spiritual heaven:[45]
The material world was his creation after his Fall and as such was a wicked place.[46]

The Messalians, like the Bogomils after them, and the early Christian Gnostics before them, had a theory to explain how our souls had become trapped in matter. Though similar in general principle and outlook, these theories differ significantly from each other in terms of plot and detail. For the Bogomils, as we've seen in Chapter Three, the idea was that the souls of fallen angels had been encysted in our bodies, or that we carry within us, always seeking a way back to heaven, the spark of divine life breathed by God into the Devil's clumsy ‘Adam’ and his progeny. The Messalians, on the other hand, believed

that every soul was possessed by a demon which bound it by force to the wicked material world. The only way to eject the demon and gain release for the imprisoned soul was through extreme asceticism sustained over a period years[47] – a regime very similar to the extensive apprenticeships and mortification of the flesh that Bogomil and Cathar neophytes underwent before they could receive the *consolamentum* and be elevated to *perfectus* grade.

The Messalians also made use of emotional and dramatic prayer (hence their name ‘Praying People’) to help drive out the demons.[48] However they had just one prayer in their repertoire – the *Pater Noster* (‘Our Father’), also known as the Lord's Prayer.[49] Using prayer to drive out demons is not a custom that we find amongst the Bogomils and the Cathars.

Nonetheless, like the Messalians, they too, used no other prayer but the *Pater Noster*. This was because it is the only prayer that the Bible attributes directly to Christ himself.

Described as ‘troop of vagabond preachers’,[50] the Messalians first appeared in the territory of the Eastern Roman Empire around AD 350. This was less than 40 years after Constantine the Great had extended his official protection to the Christian Church. It was just 20 years after he had forsaken Rome to establish his new capital of Constantinople on the site of the ancient Greek city of Byzantium (modern Istanbul).

With its principal bishoprics in Rome, Alexandria, Antioch and Constantinople, the recently-empowered Catholic Church was by this time flexing its muscles,

and in a sense defining itself, by the heresies it persecuted. After winning state sponsorship in AD 312 it had almost immediately taken a strong authoritarian and literalist turn (literalist in the sense of interpreting the scriptures in the most literal manner possible). This, inevitably made the rather free-thinking and creative anarchy of the Christian Gnostics, who had previously been allowed to co-exist with the literalists, a target for heresy hunters. In AD 390 the Messalians were condemned and added to the Church's growing list of banned sects, which, as we will see, already included several other much longer-established Christian Gnostic groups.[51]

Mani, Messenger of Light

The teachings and philosophy of another sect are also an important part of this jigsaw puzzle. Known as *Manicheism* after its founder Mani, it was younger than some of the Christian Gnostic movements but a century older than the Messalians. It too was viciously persecuted by the Church as a 'heresy', rather than as a pagan religion. Yet there is a dispute amongst scholars as to whether Manicheism was Christian in any meaningful sense at all.[52] Certainly it was much *less* 'Christian' than the religion of the Bogomils and the Cathars, and that, as we've seen, cannot accurately be described as 'Christianity'; it was really a completely different faith built up around many of the same New Testament texts and characters.

Perhaps the confusion comes in because Mani

sometimes claimed to be the 'Apostle of Christ'[53] (later also one of the titles of the Paulician *didaskaloi*), and because surviving letters sent between communities of Manicheans in North Africa show that they saw themselves as Christians.[54] It is also generally accepted that several of the strong central notions of Christianity, including the idea that there is 'a redemptive meaning to things', are found in Manicheism.[55]

On the other hand there is much in Manicheism that seems to be unmistakably *non*-Christian. For a start, it was an uncompromisingly dualistic religion in exactly the same way as the religion of the Cathars and Bogomils. It saw the human race, endlessly regenerated by the snare of reproduction, as the creation of an Evil God – an idea that we know

Christianity rejects. Similarly, Manicheans made little or no use of New Testament texts. They offered worship to the Sun and the Moon as ‘vessels of the Light’ (in this very unlike the Cathars and the Bogomils). And despite sometimes calling himself the ‘Apostle of Christ’, it is notable that Mani also frequently used the broader term ‘Apostle of God’.[56] He meant that he was an emissary or messenger and he placed himself as the successor to Christ at the end of a line of earlier, non-Christian, apostles.

Obviously the Church saw this as heresy. It involved Christ, but clearly devalued the unique quality of his mission by putting him on a par with the founders of well-known pagan religions. One of Mani's own surviving statements on the matter, in his *Book for King Shapur* (*circa* AD 250) makes this

completely clear:

From age to age the Apostles of God did not cease to bring here the wisdom and works of the spirit. Thus in one age their coming was into the countries of India through the Apostle that was the Buddha; into another age, into the land of Persia through Zoroaster; into another, into the land of the West through Jesus. After that, in this last age, this revelation came down, and this prophethood arrived through myself, Mani, the Apostle of the true God, into the land of Babel.[57]

In this fragment Buddha, Zoroaster, Jesus and Mani are given as examples, not as a definitive list, of the apostles of God. In another surviving fragment Mani names two more such messengers: the Greek philosopher Plato (427 – 347 BC), and the Greek deity

Hermes.[58] In Mani's time the latter, who we will meet again in Part II, was generally equated with Thoth, the ancient Egyptian god of wisdom.

Meetings with the Twin

Despite the extensive persecution of Manicheism by different regimes in different periods over hundreds of years, some of the details of Mani's biography, and of his claims to a sacred mission, seem to have come down to us fairly reliably.

He was born in or about AD 216 in a village called Mardinu to the south of the city of Ctesiphon near Babylon[59] – a location some 32 kilometers southeast

of Baghdad in the modern state of Iraq. In Mani's time Ctesiphon enjoyed great wealth, prominence and political power within Persia as the winter capital of the king. It had served this function for the Parthian Empire that ruled from 247 BC until AD 224 (when Mani was about eight years old), and it continued to do so with renewed grandeur under the Sassanian Empire (AD 224 – 642) that succeeded the Parthians.

The Sassanians were decidedly national and Persian in character. Their first king, Ardeshir I (AD 224 – 241) moved rapidly to install the ancient Persian faith of Zoroastrianism as the official religion of the empire and gave enormous powers to its priesthood, the Magi. Living in the neighbourhood of Ctesiphon at this time, therefore, we can be sure that Mani would have been well acquainted with

Zoroastrianism – although traditions that he was for some time a Magus himself are unlikely to be true .[60] Since the region was a cultural crossroads of the ancient world, a young man like Mani, deeply interested in spiritual matters, would also have been exposed here to a wide range of other potential influences – amongst them Babylonian astrology, Judaism, Buddhism from India, and the philosophy of Greece.[61]

More directly, it is known that Mani was reared amongst an obscure sect of Jewish Christians called the Elchasaitans[62] (considered to have been Gnostics,[63] and linked by some scholars with the Essenes of Dead Sea Scrolls fame).[64] They were mystics and visionaries with strict purity laws and repetitive rituals that Mani rebelled against. But

through them he was exposed to an additional vital influence on his thinking – the teachings of the Christian Gnostics.[65] Although later to be persecuted as heresy, these teachings were still in free circulation in the first half of the third century and are generally agreed to have had a great impact on the construction of Mani's own distinctively Gnostic religion.[66]

Secret texts passed down within the Elchasaitans, or within his own family, may also have played a role. In this respect it is interesting that some accounts present Mani as the adopted son of an elderly widow. The story goes that on her death she entrusted him with a precious legacy of four books of sacred knowledge – from which, critics alleged, he derived many of the teachings that he later claimed as his

own .[67] The content of these books was said to have been gathered in Egypt ‘in the time of the apostles’ by a certain Scythianus who had learned the ‘wisdom of the Egyptians.’[68] Scythianus dictated the books to his disciple Terebinthus. In due course Terebinthus brought the books to Babylonia and on his death they passed to his own disciple – the widow who would adopt Mani in her old age.[69]

Though legends say that he was a sickly child and lame in one leg,[70] it seems that Mani grew up in prosperous circumstances.[71] Later he would claim that throughout his childhood he had received revelations directly from *Ahura Mazda,* the ‘Father of the Light’ – the God of Goodness in the Zoroastrian faith.[72] He also experienced strange and disturbing visitations of the type normally treated today with

powerful anti-psychotic drugs. In one surviving text (the *Cologne Mani-Codex*) he tells us how he was:

... guarded by the might of the Light-angels and the exceedingly strong powers. who had a command from Jesus the Splendour for my safekeeping ...[73] They nourished me with visions and signs which they made known to me, slight and quite brief, as far as I was able. For sometimes like a flash of lightening he came ...[74]

The being who sometimes came to Mani like a 'flash of lightening' was an angel – one he regarded as a manifestation of his own higher identity and referred to variously as his 'Light-Self' and as *al-Taum*, 'the Twin' .[75] When Mani was 12 years old the Twin appeared to him in a vision and informed him that he was to be responsible for transmitting a great

teaching to mankind. In order to do this, he would have to leave the Elchasaitans at some time in the future. Thereafter the young Mani lived a quiet and studious life, out of the limelight, gathering knowledge in secret, tutored by divine revelations and by his angel:

With the greatest possible ingenuity and skill I went about in that Law [of the Elchasaitans], preserving my hope in my heart; no one perceived who it was that was with me, and I myself revealed nothing to anyone during that great period of time. But neither did I, like them, keep the fleshly custom ... I revealed nothing of what happened, or of what will happen, nor what it is that I knew, or what it is that I had received ...[76]

It was probably during this same period of learning

that Mani honed the skills as a painter, which traditions say he later used to illustrate his teachings, and acquired the knowledge of astronomy and mathematics for which he would also be renowned .[77]

When Mani reached the age of 24, the Twin appeared to him and announced:

The time has now come for thee to manifest thyself publicly and to proclaim thy doctrine aloud.[78]

Next, says Mani, the Twin:

... delivered, separated and pulled me away from the midst of that Law in which I was reared. In this way he called, chose, drew, and severed me from their midst, drawing me to the divine side.[79]

He also initiated Mani into a *gnosis*:

Concerning me, who I am, and who my inseparable Twin is ... And who my Father on high is; or in what

way, severed from him, I was sent out according to his purpose; and what sort of commission and counsel he has given me before I clothed myself in this instrument [the body], and before I was led astray in this detestable flesh ... Moreover, concerning my soul, which exists as the soul of all the worlds, both what it itself is and how it came to be. Beside these he revealed to me the boundless heights and the unfathomable depths;[80] he revealed mysteries hidden to the world which are not permitted for anyone to see or hear ...[81] He showed me all. [82]

Mani and the Magi

It was at this point, around AD 240, that Mani – a sleeper at last awakened – began his preaching mission.[83] What he was preaching was distinctly *not* Zoroastrianism, and Ardeshir I, champion of the Zoroastrian faith as the official religion of Persia, was still on the throne. Mani seems to have fallen foul of the Magi almost immediately and to have been forced into exile.[84] He travelled to India, by all accounts propagating his teaching with great success there,[85] and returned via the Persian Gulf in 241, the year of Ardeshir's death. Somehow Mani managed to convert Firuz, Ardeshir's youngest son and, through him, obtained a personal audience with the eldest son Shapur – who shortly afterwards succeeded to the throne as King Shapur I. [86] At the coronation Mani was permitted to come forward to proclaim his own

spiritual message – an unprecedented honour. [87] And on either 21 March 242 or 9 April 243 (the date is disputed by historians) Shapuhr issued a letter authorising Mani to preach as he wished and protecting him throughout the Persian Empire.[88]

Thereafter, freed of all obstructions, Manicheism won converts at a phenomenal rate causing intense resentment and jealousy amongst the Zoroastrian priesthood. There was a backlash and later in Shapur's reign it seems that the Magi persuaded the king to exile Mani a second time.[89] But in 272, following Shapur's death, Mani returned to Persia and was welcomed by the latest successor to the throne, King Hormuzd, who once again extended royal favour to him.[90]

Hormuzhd's reign lasted barely a year and Bahram

I, who succeeded to the throne in 273, was a strong supporter of the old Zoroastrian faith. He reversed the policy of tolerance towards Manicheism and began to persecute its leaders and followers. In 276 his officers arrested Mani at Gundeshapur in southwestern Persia. The self-styled ‘Apostle of God’ was then subjected to four days of Inquisition-style interrogation by the Magi, and declared to be *zandic* – a ‘heretic’. A month of imprisonment in heavy chains followed after which he was flayed alive and then decapitated. His head was impaled on the city gate, from which his skin, stuffed with straw, was also suspended; what remained of his body was thrown to the dogs.[91]

No doubt the level of brutality in his execution was commensurate with the level of the threat that the

Magi saw in Mani's new religion which was everywhere overtaking them. And just as was the case with the destruction of Catharism by the Roman Catholic Church a thousand years later, a determined attempt was also made by the Zoroastrians to wipe out Manicheism completely. [92]

They did not succeed. Before his imprisonment and execution Mani had already sent out his 12 disciples, and hosts of followers, to all the corners of the known world.[93] In addition the continuing persecutions by the Zoroastrian state after 276 prompted a large-scale migration of Manichean communities. Some travelled deep into China – where Mani's religion would survive in remote enclaves until as late as the 16th century. Others infiltrated Eastern parts of the Roman Empire, the Roman colonies in North Africa,

and eventually all the immense territories under Rome's control as far west as Britain.

Though at times violently opposed by Rome (even before its conversion to Christianity) Manicheism won immense popularity throughout the empire and was particularly well represented in its North African colonies. It was in North Africa that it acquired its most famous acolyte, Augustine – later Saint Augustine of Hippo. Born in AD 354, the son of a pagan father and a Christian mother, he became a Manichean *auditor* or *hearer* in AD 377 – equivalent to joining the Cathar class of *credente*. He held to the Manichean faith for nine years then abandoned it in 386 and was baptized as a Christian in 387. He returned to North Africa where he formed a religious community and was appointed bishop of Hippo in 396. He lived to see the fall of Rome to the Vandals in

410. When he died in 430 Vandal forces had crossed the Mediterranean and were besieging Hippo itself.[94]

Like many converts Augustine zealously detestated his former faith. During his long and influential career as one of the great doctors of the Church he wrote extensively condemning Manicheism and the Manicheans. His anti-Manichean tracts survived the ages and played an important part in shaping the attitudes of medieval Roman Catholics to the Cathar heresy. As we saw in Chapter Two Catharism was frequently identified in the 12th and 13th centuries as a resurgence of the *same* Manicheism that Augustine had censured in the fourth century – a conclusion that modern scholars reject. Nevertheless the Cathar and Manichean religions were, in our view, similar enough in their essentials to make the

medieval identification understandable and worth further consideration.

The Cosmos according to Mani

One of the notions upon which Manicheism is founded is that there existed from the beginning of time ‘two gods, uncreated and eternal and everlastingly opposed to each other.’[95] One is the God of Evil and Darkness, the other the God of Good and the Light.[96] The realm of Light was the uppermost and was ‘without bounds in height and on each side.’ The realm of Darkness lay below it similarly boundless in depth and on each side .[97] For

untold ages neither was aware of the other's existence, but in the bowels of the Darkness was Satan, with his ‘disorderly, anarchical, restless brood’ of demonic powers.[98] There was constant agitation, chaos and turmoil, as in the heart of a black thunderstorm, and at some point the Prince of Darkness rose up through the abyss, perceived the Light from the upper world and conceived a hatred for it. Returning to the depths he prepared his forces: Then again springing upwards, he invaded the realms of Light with the intention of there spreading calamity and destruction. [99]

Like the later Cathars and Bogomils Mani saw the human body as part of the evil creation within which sparks of the Light had been imprisoned. Like the Cathars and the Bogomils he taught that sexual

reproduction and reincarnation are the mechanisms by which the cycle of imprisonment is perpetuated. And also like the Cathars and Bogomils he believed that by abstinence and prayer this imprisoned Light could gradually be released, but that we must pass through many incarnations, and much pain, before that would happen.[100]

Such resemblances to the religion of the medieval dualists become all the clearer when we realise, as Yuri Stoyanov confirms, that Light and Darkness in Manichean cosmology are metaphors for spirit and matter.[101] It was the fusion of these two contrary principles, at the beginning of the present cycle of time, which caused the imprisonment and suffering of the soul in the first place.[102] The details of exactly *how* the imprisonment was achieved – how fragments

of the Light came to be trapped in Darkness, how Good ended up mixed with Evil, how souls were enwrapped in matter – may have more to do with the inspiration of individual storytellers than anything else. We know that this was a tradition that made broad use of colourful symbols, myths and parables as teaching aids. But the point, in the final analysis, is that the medieval dualists of Europe, exactly like the Manicheans of Persia centuries earlier, envisaged man as a ‘mixed’ creature who must fight a constant war within himself in order to subdue his baser elements, and to perfect and liberate his soul.

It was to get this point across that the Cathars and Bogomils told stories of angels who had fallen downwards from the pure spiritual realm of heaven to the impure material realm of earth. In the parallel Manichean myth the Prince of Darkness with his

demons rushed upwards out of the abyss to attack and destroy the Light. So forceful and impetuous was this onslaught that the Evil One, wielding the ‘malign’ powers of Smoke, Fire, Wind, Water and Darkness as his weapons, broke through the defences and encroached upon the Light. The Father of Light defended his realm by evoking a proxy – the ‘Primal Man’ – and arming him with the ‘luminous’ powers of Air, Wind, Light, Water and Fire. Battle was joined, Satan was victorious, the Primal Man lay in a deathlike trance, and elements of the luminous powers that he had been armed with were now engulfed or ‘eaten’ by the forces of darkness.[103]

Next the Father of Light created further emanations or proxies – amongst them the ‘Living Spirit’, identified with the pre-Zoroastrian Iranian

god *Mithra,* and a figure called the 'Great Architect' .[104] Together they revived and rescued the Primal Man and began the work of recovering for the Light the luminous powers that had been consumed by the forces of Darkness – a task described as saving the 'Living Soul' from the 'burning house' of matter. [105]

The diabolical counter-attack against the works of the Living Spirit and the Great Architect involved the creation of Adam and Eve 'to fortify', as Stoyanov puts it, 'the imprisonment of the Light elements through the lust and reproduction of the human species.' But the realm of Light sent a saviour to Adam who made him aware of the Light existing within himself – i.e. his immortal soul – and caused him to rebel against the Evil One who had fashioned his body. Ever since the human race has 'remained

the principal battleground between the forces of Light and Darkness.'[106]

The saviour sent to Adam is called 'Jesus the Splendour' in the Manichean texts .[107] As time passes other saviours are sent, each of them to renew the *gnosis* needed to awaken man to his true condition. Earlier we listed some of the household names amongst these saviours – Zoroaster, Hermes, Plato, Buddha, Jesus Christ, and last but not least Mani. Other lists echo the spread of Manicheism in Hebraic cultures and feature Seth, Enoch (like Hermes frequently identified with the ancient Egyptian wisdom god Thoth), Noah, Abraham, and again Mani.[108] Similarly the eastwards expansion of Manicheism is reflected in other formulations that refer to Mani as the Buddha of Light or as a

reincarnation of Lao-Tsu, the founder of Taoism.[109]

In all cases and in all lists Mani is extolled as the 'Seal of the Prophets' .[110] It is he who brings the final message, the final revelation and the final *gnosis* through which mankind is to complete the great work of freeing the last elements of Light from the prison of Darkness. This work, as described, is almost alchemical in character – an intricate, gradual process of distillation down the ages, incarnation after incarnation, channelling the Light away from the Dark, purifying the soul from its contamination with matter. The denouement is our realisation that the physical earth on which we live was brought into existence as the theatre or laboratory in which this process of endless, painstaking refinement could unfold – *and for no other purpose*.[111] Finally, using

all the Light thus reclaimed, the Great Architect and the Living Spirit, assisted by the souls of the Manichean *elect*, are to construct a 'New Paradise' and a spiritual earth to replace the dark, leaden husk of the old material creation that will fall away at the completion of the project.[112]

If it looks like a duck, swims like a duck, and quacks like a duck … then it probably is a duck …

Although the Manicheans, Bogomils and Cathars told different stories about the human predicament,

we suggest that closer examination shows that they share a deep and abiding theme. At the heart of it all, for every *credente* and *perfectus*, for every *hearer* and *elect*, was a desire to live in the world in such a way as to minimise spiritual pollution and to improve, strengthen, purify and ultimately (after great struggle) liberate the soul. In all cases this involved accepting and following a system and working within a structure, and these were remarkably the same from the early days of Manicheism in the third century AD to the final crushing of medieval dualism in Europe more than 1,000 years later.

Just like the Bogomil and the Cathar Churches, the Manichean Church was divided into two principal categories. There were the ordinary the rank and file adherents who could marry, have children, own property, eat meat and drink wine. And there was a

small highly-committed elite of celibate teetotal vegetarians who lived in personal poverty and renounced all the material pleasures of life.[113] The rank and file were known as the *hearers* and the elite as the *elect* – concepts identical in all respects to the *credentes* and *perfecti* of the medieval dualists. Indeed amongst the Manicheans the term *perfecti* was used interchangeably with *elect*. [114]

Like the Cathar and Bogomil *perfecti* the Manichean *elect* could be men or women and always travelled in adept-disciple pairs. Also like the *perfecti,* the *elect* passed through a strict process of initiation culminating in a ceremony comparable to the *consolamentum*. Following this initiation they were considered to be 'full of the Light' and thenceforward must do nothing to contaminate their

inner light with the dark of earthly things. [115] For the Manichean *elect* that included doing no agricultural work and not even such a simple task as breaking bread. It involved leading a wandering, penniless existence, possessing only ‘food for a day and clothes for the year’, completely dependent upon the charity of the *hearers* who, by joining the Manichean Church, took on an obligation to care for the *elect*.[116] Although the Cathar and Bogomil *perfecti* did break bread for themselves, they too led wandering, penniless lives and were dependent on the charity of the *credentes* who likewise had a duty to care for them. Moreover even Bernard Hamilton, though not normally a fan of the ‘continuing tradition’, has to admit that:

The Manicheans had required their *elect* to observe

an ascetic rule of life, and their reasons for doing so were identical to those of the Bogomils, springing from a conviction that the material creation was evil.[117]

Mani taught that messengers like Zoroaster, Buddha, and Jesus – to whose line he also claimed to belong – had been sent to earth out of sympathy for mankind, to remove the clouds of ignorance from our minds, to teach us Truth, and to rescue the Light in us (i.e. our shining souls) from Darkness and Evil.[118] Again these are themes that are entirely familiar from the dualism of the Cathars and the Bogomils.

The reader will recall that the Cathars and Bogomils, believing Jesus to have been a spiritual emanation of the Good God, could not accept that he had ever been born in the flesh and therefore

concluded that he must have been an apparition sent down directly from the heavenly realms. The identical idea was voiced by Mani who preached, centuries earlier, that Jesus was not born of woman but came forth from the Father of Light and descended from heaven in the form of a man aged about 30. The body in which he appeared was an illusion and so, accordingly, was his Crucifixion.[119] In one Manichean text he even appears afterwards to his disciple John who is grief-stricken at the supposed death of his master and informs him that the Crucifixion was a spectacle, a phantasmagoria, in short a kind of miracle play performed to impress the masses.[120]

Despite their conviction that material life is evil the Cathars, Bogomils and Manicheans all showed great respect for life and opposed causing pain or suffering

of any kind to fellow creatures whether human or animal.[121] All believed in reincarnation. [122] All forbade the use of images and worshipped only through prayers and hymns.[123] We know that the Cathars and the Bogomils looked with horror on the Old Testament and regarded its God, Jehovah, as the Devil. So too did the Manicheans [124] and Mani himself had declared:

It is the Prince of Darkness who spoke with Moses, the Jews and their priest. Thus the Christians, the Jews, and the Pagans are involved in the same error when they worship this god. For he led them astray in the lusts that he taught them, since he was not the God of Truth.[125]

Connecting the Cathars to the first century AD

Until the early 20th century scholars were obliged to rely almost exclusively on the works of the persecutors of Manicheism in order to reconstruct the ‘lost’ Manichean religion that those very persecutors had destroyed. But intact ancient Manichean texts discovered in the Far East in the 1920s and in Egypt in the 1970s have added greatly to our store of knowledge. In consequence it is now generally accepted that Christian Gnosticism, hitherto allocated a relatively minor role in the intellectual parentage of Manicheism, may in fact have been the single most decisive influence on

Mani's thinking. H. J. W. Drijvers goes so far as to suggest that even the term ‘Christian Gnosticism’ is misleading:

It has usually been assumed that the Christian elements in Manicheism reached Mani through a Gnostic filter ... It is rather more in agreement with the historical situation and development during the third century ... to assume that Mani and Manicheism heavily drew upon the whole of Christian tradition and literature extant in that time without any restriction to a supposedly Gnostic strain.[126]

In other words if Manicheism as it is now understood reveals an overwhelming influence from Gnostic Christianity then this is likely to be because the Christianity of Mani's time was in fact overwhelmingly Gnostic – a controversial conclusion

that is nevertheless supported by much recent scholarship. In 1945 a great hoard of hitherto unknown Gnostic texts from the early centuries of the Christian era was found at Nag Hammadi in Upper Egypt. Since the translation and eventual publication of these texts in 1977 it has become apparent that Christianity's relationship with Gnosticism goes back to the very beginnings of the Christian cult in the first century AD. Likewise it is now obvious, and widely accepted, that ‘Christian Gnosticism’ was not some weird offshoot from the ‘mainstream’ of Christianity. On the contrary it was part of the mainstream – perhaps even the major part as we will see in the next chapter.

And then something happened. From the beginning of the fourth century AD, as it acquired state power, the Church undertook a radical change of direction.

The freethinking and sometimes anarchical approach of the Gnostics began to be frowned upon, their allegorical interpretations of the scriptures were dropped in favour of literal ones, and persecutions for heresy began almost immediately. Could it possibly be true, as the Cathars always claimed, that this was the time when the authentic church of Christianity was forced underground and the imposter Church of Rome was put in its place? And the corollary: could it be true that the authentic church – persecuted, outlawed, oppressed – had nevertheless somehow managed to survive from the fourth century until its doctrines reappeared again 600 years later with the Bogomils?

It seems like a long shot. Nonetheless we've shown that a viable chain of transmission exists connecting the central ideas behind the Cathar and Bogomil

religions to the ideas of Mani in the third century. And if the primary influence on Mani was Christian Gnosticism, as the scholars now agree, then it is to the Gnostics we should look for the final links in the chain of the ‘Great Heresy’.

CHAPTER FIVE

KNOWLEDGE OF THE TRUE NATURE OF THINGS

I shall use the term Gnosticism to indicate the ideas or coherent systems that are characterised by an absolutely negative view of the visible world and its creator and the assumption of a divine spark in man, his inner self, which had

become enclosed within the material body as the result of a tragic event in the precosmic world, from which it can only escape to its divine origin by means of the saving Gnosis. These ideas are found in most of the original Gnostic writings that have survived, for the greater part in the Nag Hammadi Library...

Professor Roelof van den Broek, editor of Gnosis and Hermeticism From Antiquity to Modern Times

There is no easy sound-bite description of what

Gnosticism was, or is. As we've already had reason to note several times, the Gnostic tradition was one in which special emphasis was placed on individual revelation and self-expression. In consequence, though it is true that a number of underlying themes, and even certainties, were shared by all Gnostic sects, there was also a rich and confusing proliferation of differences amongst them. Sects typically developed around the teachings of inspired men – the most famous names from the first and second centuries AD include Simon Magus, Marcion, Basilides and Valentinus. Depending on the precise nature of the revelation of the founder, each sect then added its own speculations, metaphors and teaching-myths, sometimes even complete cosmological systems, to the vast and eclectic body of ideas and behaviour already loosely categorised as

‘Gnosticism’.

This background state of intellectual anarchy, coupled with the luxuriant multiplication of ‘systems’ within Gnosticism, make the subject a daunting one. But the matter is even further complicated by the determined persecutions inflicted on the Gnostics by the Christian Church between the fourth and the sixth centuries AD.[1] As well as the holocausts of countless individuals, who were prepared to die terrible deaths rather than relinquish their faith, these persecutions resulted in the collection and burning of huge numbers of Gnostic texts. In this way one of the precious ‘hard disks’, on which was stored a vibrant portion of the intellectual and spiritual heritage of mankind, went up literally in smoke, leaving virtually nothing behind for future

generations to ponder over. The thoughts on the human condition of inspired mystics and great philosophers, their journeys into the enigma of death, the liberating *gnosis* that they believed they had discovered of the true nature and purpose of our existence – all this seemed to have been lost. For fifteen centuries those few scholars who still had any interest in learning about this smashed and apparently forgotten religion were obliged to depend for their knowledge almost exclusively on the works of those responsible for smashing it in the first place. The heresy hunters would frequently quote passages from suppressed Gnostic works, or report the content of those works in some detail, in order to preach against and attempt to refute them. But relying on such one-sided material, even – or perhaps especially – in the choice of original texts quoted, was almost

bound to produce a very one-sided understanding of Gnosticism. A roughly comparable exercise would be trying to build-up an accurate picture of Judaism from books written by Nazi propagandists.

In the case of the latter we can ignore the Nazi trash because Judaism, unlike Gnosticism, is still a living religion and can speak for itself. But there has been some good fortune too in the case of Gnosticism. The vast majority of its scriptures were destroyed in the pogroms that the Christians unleashed. But towards the end of the fourth century AD an unknown group of heretics in Upper Egypt took the precaution of assembling a ‘time-capsule’ containing a substantial collection of banned Gnostic texts. Possession of such texts, if detected, was extremely dangerous, so the ‘capsule’ – actually a large earthenware jar – was buried in the ground, by

the side of a great boulder, at the foot of cliffs overlooking the ever-flowing Nile.

Perhaps the owners hoped that things might improve and that they would eventually be able to return to collect their library. But they never did. It's very likely that their heresy was detected and they were killed. During the last two decades of the fourth century the dogmatic faction of Christianity that had converted Emperor Constantine years before was flexing its muscles under the full protection of the Roman state. With tacit support from the local authorities, and sometimes with direct military assistance,[2] hysterical mobs of religious fanatics and unkempt monks were on the loose in Egypt, spreading fear wherever they went.[3] They vandalised temples that had stood for thousands of years in

homage to the gods. They defaced ancient inscriptions. They murdered priests and philosophers. It was under their pressure that the sublime religion of ancient Egypt breathed its last. However it was not ‘pagans’ that the Christian terrorists reserved their worst excesses for. Much higher priority, and the greatest violence, was focussed on fellow Christians – heretics of the numerous Christian Gnostic sects that had been developing and multiplying in Egypt since the first century.[4]

It would have been the members of one such sect who buried the ‘time-capsule’ beside the boulder at the foot of the cliffs. There it was to remain intact and undisturbed for nearly 1600 years while the life of Egypt, slowly changing, went on around it.

The Nag Hammadi library: time capsule or time bomb?

In December 1945, near the modern town of Nag Hammadi in Upper Egypt, a local farmer named Muhammad Ali was clearing land at the edge of a field owned by his family. By chance he exposed a large intact earthenware jar that had obviously been purposefully buried in an upright position by the side of a boulder. When he broke the jar open out spilled thirteen leather-bound papyrus books and a large number of loose papyrus leaves. He brought the complete haul of priceless knowledge about a long lost religion to his home where his mother put much of the loose-leaf material to use as kindling. But the

books – *codices* is the correct term – survived and eventually found their way onto the black market in Egypt. Through good detective work the government's antiquities service succeeded in buying one and confiscating ten and a half of the thirteen codices. A large part of another was smuggled out of Egypt and offered for sale in the US. Professor Gilles Quispel, an expert on Gnosticism at Utrecht University was quickly able to certify to its importance and the codex was rescued.

As Professor Quispel made a provisional translation of the text he found to his astonishment that it seemed to be a Christian gospel but one previously unknown to him that did not appear anywhere in the New Testament. Its title was the *Gospel Of Thomas* and it claimed to contain secret words spoken by Jesus to his ‘twin’ – one Judas Thomas. The New

Testament says nothing about Jesus having a twin .[5]

Despite the pages burnt by Muhammad Ali's mother a total of 52 separate texts survived in the approximately twelve and a half salvaged codices. Direct scientific tests on the papyrus used in their bindings, as well as linguistic analysis of the Coptic script in which they are written, indicates that the codices were manufactured between AD 350 and 400.[6] The age of their content is another matter since the texts themselves are translations into Coptic, the vernacular of Egypt in the early Christian age, of somewhat older source texts originally written in Greek. Scholars are in general agreement that the majority of these were composed or compiled between AD 120 and 150.[7] But it has been persuasively argued that the *Gospel Of Thomas,* at

least, is an exception to this rule. Professor Helmut Koester of Harvard University has proposed that this heretical gospel includes some content that may possibly be:

... as early as the second half of the first century [AD 50 – 100] – as early, or earlier than Matthew, Mark, Luke and John.[8]

The date normally ascribed to the four canonical Gospels of the New Testament is in the range of AD 60 – 110.[9] But in the case of *Thomas* we're dealing with a banned text claiming to be a genuine Christian gospel that may also be genuinely older – i.e. nearer in time to Christ – than any of the canonical Gospels. This has to raise disturbing questions about the canonical Gospels themselves. How canonical are they really? How can we be sure that they contain

the truth, the whole truth and nothing but the truth about Christ and the Christic phenomenon? The existence of this ‘elder’ gospel in the Nag Hammadi collection suggests that Matthew, Mark, Luke and John may have been part of a much wider literature that was at some point ‘edited out’ of the New Testament. That impression is enhanced by the inclusion of several other heretical gospels amongst the 52 Nag Hammadi texts – the *Gospel of Philip,* the *Gospel of Truth* and the *Gospel to the Egyptians*. Were there others still that Muhammad Ali's mother burnt? Or that didn't make it into the precious Nag Hammadi time capsule and were erased from history by the heresy hunters?

The Organisation (1): hints of a Gnostic secret society

There is much more that is disturbing about the texts of the Nag Hammadi library. Remember that they were composed mainly between the first and third centuries AD, originally in Greek, translated into Coptic some time later, and finally concealed during the late fourth century. We've noted that this was a time when the newly Christianised empire of Rome was beginning to turn all its resources against Christian heretics – particularly, and most savagely, against the Gnostics. It is intriguing, therefore, that several of the Nag Hammadi documents make allusions to the existence of something very much

like a secret society, usually referred to as the 'Organisation'. [10] Part of its mission, which we will return to in later chapters, is to build monuments 'as a representation of the spiritual places' (i.e. the stars).[11] It is also to use every means possible, including guile and stealth, to protect the sacred knowledge of Gnosticism and to oppose the universal forces of darkness and ignorance that are said to have:

Steered the people who followed them into great troubles, by leading them astray with many deceptions. They became old without having enjoyment. They died not having found truth and without knowing the God of Truth. And thus the whole creation became enslaved forever from the foundations of the world until now.[12]

The Gnostic religion revealed by the Nag Hammadi texts is unambiguously dualistic. It starkly envisages two potent spiritual forces at work in the fullness of all existence: the God of Light, Love and Goodness, and the God of Darkness, Hate and Evil. As with the Bogomils and the Cathars a millennium later, the Gnostics believed that it was the latter – the God of Evil – who had constructed the material universe and created human bodies. Our souls, however, were from the spiritual realm of the God of Good and yearned to return there. A primary purpose of the God of Evil was to frustrate this desire and keep these lost souls imprisoned forever on the earth – to 'make them drink the water of forgetfulness … in order that they might not know from whence they came.'[13] The evil powers worked to anaesthetise

intelligence and spread the cancer of ‘mind blindness’[14] because:

Ignorance is the mother of all evil ... Ignorance is a slave. Knowledge is freedom.[15]

By contrast the Nag Hammadi texts make it clear that the ‘Organisation’ serves the spiritual forces of Light. Its sacred purpose is to free human beings from their state of enslavement by initiating them into the cult of knowledge. There could hardly be a more important or more urgent task: in the Gnostic view mankind is the focus, or fulcrum, of a cosmic struggle; individual choices for evil, arising out of ignorance, therefore have ramifications far beyond the merely material and mortal and human plane. [16] For these reasons the Gnostics said ‘Our struggle is not against flesh and blood, but against the world

rulers of this darkness and the spirits of wickedness.’[17]

The public craftsman

In Alexandria, one of their prime centres, the Gnostics lived in close contact with the last vestiges of the ancient Egyptian religion, and also co-existed with Judaism and early Christianity. They honoured Christ. And in precisely the same way as the later Cathars and Bogomils (as well as the Manicheans and Paulicians) they did not believe him to have been born in the flesh but favoured the apparition or ‘phantasm’ theory.

Evidence from Alexandria suggests that the Gnostic communities there during the first three centuries after Christ also honoured Osiris, the ancient Egyptian god of rebirth,[18] 'who stands before darkness as a guardian of the Light'.[19] This was not a cult shared by any of the other post-Christian dualist groups.

On the other hand – once again like the Manicheans, Messalians, Paulicians, Cathars and Bogomils – the Gnostics saw Jehovah, the Old Testament God of the Jews and Christians, as a dark force, indeed as one of the 'world rulers of darkness'. He was to them the evil *demiurge* – a Greek term, somewhat derogatory, that means, literally, 'public craftsman' .[20] In other words he was a low-class sub-deity who had created the earth as his personal fief

(rather like an odd-job man with a hobby), placed the human race upon it to worship and adore him, and deluded the poor creatures into believing that he was the only God in existence. His sole purpose for us, therefore, was to keep us enchained in spiritual ignorance and darkness for all eternity and enmesh us in acts of evil that would make us truly his forever. For this reason the account given in the Nag Hammadi texts of the 'temptation' of Adam and Eve in the Garden of Eden depicts the serpent not as the villain of the piece, as the Old Testament book of Genesis portrays him, but rather as the hero and true benefactor of mankind:

'What did God say to you?' the Serpent asked Eve. 'Was it "Do not eat from the tree of knowledge" [*gnosis*]' ?

She replied: ‘He said, “Not only do not eat from it, but do not touch it lest you die”.’ The serpent reassured her, saying, ‘Do not be afraid.
With death you shall not die; for it was out of jealousy that he said this to you. Rather your eyes shall open and you shall come to be like gods, recognising evil and good.’[21]

After Adam and Eve had eaten of the tree of knowledge, the Gnostics taught that they experienced enlightenment, awoke to their own luminous nature and could distinguish good from evil, just as the serpent had promised. Seeing their intellectual and spiritual transformation the demiurge was jealous and roused his demonic companions:
‘Behold, Adam! He has come to be like one of us, so

that he knows the difference between the light and the darkness. Now perhaps he also will come to the tree of life and eat from it and become immortal. Come let us expel him from Paradise down to the land from which he was taken, so that henceforth he might not be able to recognise anything better.'

And so they expelled Adam from Paradise, along with his wife .[22]

What stands out in this Gnostic Genesis story is the way in which Adam and Eve are expelled from 'Paradise' *down* to the 'land' – where henceforth they are to live in ignorance of their true potential. The underlying concept of a descent from a spiritual paradise into a fleshly and material world is extremely close to the Bogomil and Cathar notion of

angels falling from heaven to earth to inhabit human bodies. In both cases the predicament of the soul is the same – trapped in matter, forgetful of its true nature, unmindful of its divine potential, deluded by the wiles of an Evil God, and carried in a frame (the body) that is subject to every whim of that supernatural monster.

The Gnostic texts continue with their version of the book of Genesis telling the story of human history on earth after the ‘Fall’. Time passes and we read how the descendants of Adam and Eve achieved a high state of development, manipulating the physical world with clever machines and devices and beginning to engage in profound spiritual inquiries. Out of jealousy the demiurge intervenes again to diminish human potential, calling out to his demonic powers: ‘Come, let us cause a deluge with our hands

and obliterate all flesh, from man to beast.’[23]

According to the Gnostics, the Flood was not inflicted to punish evil – as the Old Testament falsely informs us – but to punish humanity for having risen so high and ‘to take the light’ that was growing amongst men. [24] The devastation of the Flood all but achieved this objective. Although there were survivors, they were thrown:

… into great distraction and into a life of toil, so that mankind might be occupied by worldly affairs, and might not have the opportunity of being devoted to the holy spirit .[25]

But fortunately there were a few amongst our ancestors who still possessed the old knowledge, and who were determined to pass it down for the benefit of future generations, for as long as necessary,

wherever possible, until such a time as a general awakening might occur again .[26]

The ‘Organisation’ (2): A reawakening in the 10th century?

We could not help wondering how the mysterious ‘Organisation’ spoken of in the Nag Hammadi texts would have reacted to the persecutions being unleashed on Gnosticism when the texts were sealed away near the end of the fourth century AD. Might its members not have been inclined to see themselves in the same mythical framework as the Flood survivors of the Gnostic creation legends? Of course they were

not dealing this time with a literal ‘flood’ sent by the diabolical God of the Old Testament to steal the light of mankind. But from the Gnostic point of view what they confronted was at least equally dangerous – the investigations of the heresy hunters, the random violence of Christian mobs, the burnings of books and people.

The Nag Hammadi texts invite us to consider the possibility that a secret society, purposefully set up to secure and preserve Gnostic teachings through periods of difficulty, had been in existence at least between the first and third centuries AD (when the texts were composed). If such an ‘Organisation’ still remained active until the time when the texts were buried then there is every possibility that it could have survived the holocausts of the fourth to the sixth centuries. Even without such obvious shelters and

vectors as the Messalians and the Manicheans, it would not have been too difficult for a small and dedicated sect of heretics to have maintained a clandestine existence and to have continued to recruit new members through the Dark Ages between the sixth and the tenth centuries. There is no particular reason, if it was discrete, why it should have attracted much attention or ever been recognised for what it was. There were many remote religious communities of hermits or monks that could have provided it with suitable camouflage until such a time as it chose to step out of the shadows again.

And what better or more auspicious time for Gnosticism to step out of the shadows and make another bid to establish a world religion than the final century of the first millennium? This was precisely the moment – somewhere between AD 920 –

970 as we saw in Chapter Three – that the heresiarch who called himself Bogomil, ‘Beloved of God’, began to preach so persuasively in Bulgaria. We know already that the Church he founded had ambitions to achieve a general awakening. We've seen how its influence spread with great rapidity and success, first in territories under the spiritual hegemony of the Eastern Orthodox Church, and later in areas such as northern Italy and Occitania that were under the control of the Roman Catholic Church.

On both fronts the absolute dominance of what was by then thought to be established Christianity was challenged with a doctrine in many respects identical to that of the early Christian Gnostics.

And on both fronts the challenger claimed to be the original church of Christ whose rightful place had been usurped by the incumbent.

Gnostics, Bogomils and Cathars: much in common (1)

Gnosticism is thought by many scholars to have been a late pre-Christian philosophical religion that insinuated itself like a virus into early Christianity and attempted to transform it into a vehicle for propagating its own ideas – hence 'Christian Gnosticism'. On the same evidence that they offer, however, it is equally possible to argue that the Christian cult was Gnostic in origin but was later hijacked by a group of hard-headed scriptural literalists who turned it to their own ends. Either way most authorities point to Palestine in the first century BC as the birthplace of Gnosticism; from there, they

say, it spread rapidly to Alexandria which was to become the main centre for its subsequent expansion.[27]

During that epoch, though they had very different backgrounds, Palestine and Alexandria shared the common Hellenistic culture that had prevailed throughout the Mediterranean, Mesopotamia and Iran since the conquests of Alexander the Great in the fourth century BC. This had been – and indeed continued for some time to be – a period of extraordinary vivacity, intellectual endeavour, creativity, rationality and intense spirituality. It brought together in one gigantic Hellenistic melting pot the priests of ancient Egypt, the dualist Magi of Iran, initiates of the mysteries of Mithras, Platonic philosophers from Greece, Jewish mystics, Buddhist

missionaries and a host of other influences from near and far. It was somewhere in that ‘confused but thrilling encounter,’ suggests historian Joscelyn Godwin, that ‘Gnosticism was born, the religion of Gnosis – knowledge of the true nature of things.’[28]

There are certain fundamental elements of Gnosticism. Of these the most important is the notion that there exists an entirely spiritual, light-filled realm that is ruled by a benevolent and loving ‘Good God’, but that the material realm in which we live is the creation of an ‘Evil God’. As we've seen, the exploits of Jehovah in the Old Testament served the Gnostics very well as illustrations of this idea during the first and second centuries AD. He had created the world, the Bible said, and his actions were also almost invariably wicked, mean-spirited, jealous,

violent and cruel – exactly what one would expect of an Evil God. It cannot be an accident that we find the identical usage of Jehovah in identical contexts for identical purposes by the Cathars and Bogomils between the 10th and 14th centuries.

Another hint that these groups at opposite ends of the first millennium must have been closely linked comes when we remember that all of them believed our souls to have been created by the Good God and to belong in the good realm while our bodies were part of the evil material creation. Gnostics, Cathars and Bogomils all likewise regarded the soul as a *prisoner* in the demonic material world where it was in constant danger of being dragged ever deeper and trapped ever more firmly. All three of them offered it a way of escape (from what would otherwise be eternal confinement) by means of initiation into their

system and acquisition of the *gnosis* that they had to teach.

In all three cases this *gnosis* appears to have involved an absolutely convincing and probably instantaneous insight into the miserable situation of the soul, the true nature of matter, and the escape route that Gnosticism offered. In all three cases Christ was seen not as a redeemer (who died to expiate our sins) but as an emanation of the divine who had descended to open men's eyes to their true predicament. Last but not least, although all three groups treated the advent of Christ as a cosmic event of enormous importance, all three also believed that he had never incarnated in the flesh, that his body was an apparition, and that his Crucifixion was therefore an illusion.

Gnostics, Bogomils and Cathars: much in common (2)

The Gnostic religion of the first four centuries of the first millennium, and the Bogomil and Cathar religions of the first four centuries of the second millennium, shared many other intimate details. We've already seen in Chapter Three how the *consolamentum* ritual of the latter, which raised the candidate from the status of *credente* to the status of *perfectus*, was essentially identical to the ritual of adult baptism in the early church which raised the candidate to the status of a fully initiated Christian. The irony, as Steven Runciman points out, is that:

While polemical churchmen in the Middle Ages

denounced the heretics for maintaining a class of the Elect or Perfect they were denouncing an Early Christian practice, and the heretic initiation ceremony [the *consolamentum*] that they viewed with so much horror was almost word for word the ceremony with which Early Christians were admitted to the Church ... [29] Such similarity cannot be fortuitous. Obviously the Cathar Church had preserved, only slightly amended to suit its doctrines of the time, the services extant in the Christian Church during the first four centuries of its life.[30]

What is now clear is that the services used by the early church were, in origin, *almost exclusively the services of early Christian Gnosticism*.[31] They were deleted and replaced as the literalist Christian faction in Rome consolidated its power during the

forth and fifth centuries. But it was natural that the banned rituals would continue to be practiced and preserved by surviving Gnostic sects. Some of these have been named in the provisional chain of transmission we sketched out in Chapter Four. But it's likely that many more lived on in secret either in remote communities or by ‘veiling’ themselves inside the organisations of their religious competitors.

Although all this sounds very cloak-and-dagger it is accepted by historians that many Gnostic and dualist sects were extremely secretive in their behaviour. Understandably, they became adept at concealing themselves from authorities who would burn them. We have cited examples in previous chapters of ‘nests of heretics’ – Bogomils and Cathars – being exposed within both Eastern Orthodox and Roman Catholic monasteries during the 10th to 14th

centuries. It is significant, and even suggestive of a ‘standard operating procedure’, that veiling of exactly the same sort was also used by the heretics of the fourth and fifth centuries when Gnosticism was being persecuted. Indeed it is most likely that the unknown group of Gnostics who concealed the Nag Hammadi library were themselves Christian monks. At that time two monasteries of the supposedly Orthodox Pachomian order stood within six miles of the spot where the codices were buried.[32]

The initiation ritual of the *consolamentum* served at least two major functions in the religion of the Cathars and Bogomils.

First, through a chain of direct contact, which they claimed stretched unbroken all the way back to the apostles, the laying on of hands transferred the

power of the Holy Spirit. As the jolt of sacred energy washed over him, they believed that the candidate's eyes were opened – in an instant – to the full predicament of his soul, separated from its true heavenly home, imprisoned in the realm of an Evil God. What that flash of enlightenment really gave him, in his belief, was the complete knowledge and spiritual power needed to break the bonds of matter and return his soul to heaven.

Professor Roelof van den Broek of Utrecht University has made an argument that the *consolamentum* was not a truly ‘Gnostic’ initiation because no ‘special kind of Gnosis’ was transferred by the ritual.[33] The professor is an authority in his field, whose work we highly respect. But this statement requires an overly-restrictive definition of

the kind of ‘knowledge’ that *gnosis* was, and gives no thought as to how it was supposedly acquired. As we've already noted, the Gnostic initiation rituals of the first to the fourth centuries AD, just like the initiations of the Bogomils and Cathars a thousand years later, were simple ceremonies involving the laying on of hands. It is absolutely obvious that what descended on the candidate in all three cases was *not* a specific body of learning to be mastered intellectually either through an oral tradition or from books. It was, instead, *revealed* knowledge, *inspired* knowledge, which passed in an instant like a *charge* of electricity and which he or she had to experience directly and personally. In essence it was not even complicated or difficult knowledge. As Bernard Hamilton maintains, the early Christian Gnostics saw it simply as ‘knowledge of the truth about the human

condition.’[34] As such you either got it, or you didn't.

Besides, despite his reservations about full Gnostic status for the *consolamentum*, van den Broek himself goes on to affirm:

Because of their dualism, be it moderate or absolute, the Cathars can be called Gnostics. If the idea that the material world is made by an evil creator and that the soul is locked up in the prison of the body cannot be called Gnostic, then there are no Gnostic ideas at all. In this sense Catharism is a medieval form of Gnosticism.[35]

The second function of the *consolamentum* for the Cathars and the Bogomils was to elevate the candidate from the rank of *credente* to the rank of *perfectus*. In this too they were following a pattern that had been set down by Christian Gnostics in the

first four centuries AD. We've already seen that the Manicheans, in exactly the same way as the Cathars and Bogomils, divided themselves into two great classes of *elect* and *hearers*. So too did an earlier Gnostic Church established by Valentinus in the second century AD. He divided his 'good Christians' into two classes – the *pneumatics* ('spirituals', 'full of divinity'[36]) and the *psychics* (those with the potential, through effort, to become spirituals).[37] Marcion, another charismatic heretic of the second century AD, used the same system in the influential and successful Gnostic Church established in his name.[38] As was the case with the Cathar and Bogomil *perfecti*, severe austerities, fasts, vegetarianism and chastity were the domain of the *pneumatics* only. As was the case with the Cathar and Bogomil *credentes*,

the *psychics* were free of such obligations but had a duty to care for, worship and protect the *pneumatics*.[39]

Gnostics, Bogomils and Cathars: much in common (3)

Another matter which changed not at all between the 4th century and the 13th century was the peculiarly consistent and cruel manner in which people who held to the Gnostic and dualist perspective were punished by the Church. When you consider what is involved for the victim of a burning at the stake it is obvious that no rational person

would choose such a death lightly. So the very fact that so many initiated Gnostics actually chose to die in this awful manner – rather than abjure their beliefs – and that so many Cathar *perfecti* did the same a millennium later, tells us, at the very least, how deeply all these men and women must have been convinced that they were right. Whether they were deluding themselves or not is another matter – and one that is impossible to settle with certainty in this life. But we cannot doubt that *they* were absolutely certain about what would happen to their souls after they had passed through the ordeal of the flames.

As well as having much in common with each other, Gnosticism and the later religion of the Bogomils and Cathars also share one striking characteristic with established Christianity. They are all 'Salvationist' faiths – i.e. they all provide a *system*, and they

promise that if it is followed it will ‘save’ the souls of its adherents. Yet even here, when we look closer, we discover that the Cathars, Bogomils and Gnostics stand together on one side of a line while the guardians of established Christianity stand on the other. This is because the doctrine of Catholicism and of the Eastern Orthodox Church might best be summed up as ‘salvation through faith alone’ – *blind faith* being all that is required. Whereas what the heretics were all offering was salvation through *knowledge* – revealed knowledge, inspired knowledge, *saving* knowledge – that was experienced directly by the initiate.

Whether a delusion or not, it was on account of this personal *knowledge* of what awaited them after death – and nothing else – that the Gnostic and Cathar heretics endured the flames with such calm

certainty.

Pontifex Maximus

The Roman Catholic Church did not invent burning at the stake as a punishment for heresy but took over the idea intact from long centuries of Roman tradition. Since the reign of Augustus Caesar (27 BC – AD 14) all the emperors, in addition to their other responsibilities, had held the office of *Pontifex Maximus* – the title of the ancient high-priest of the state religion of Rome .[40] The religion could (and did) change from emperor to emperor, but the emperor of the day always remained its *Pontifex Maximus*. In

order to maintain the mandate of heaven he was required to protect the state religion and punish any attempts to undermine it. This did not concern most creeds, which went about their business peacefully and were tolerated. But it did affect militant evangelistic religious movements like the Christians and the Manicheans which offered a perceptible threat to the dominance of the state cult, and thus to the state itself. Very frequently the offenders were charged with heresy and burnt at the stake.

In 186 BC a mystery cult dedicated to the god Dionysos was banned in Rome and thousands of its initiates executed.[41] On another occasion 'philosophers' were burnt for threatening the proper conduct of religion. Witnesses said they went to the stake 'laughing at the sudden collapse of human

destinies' and died 'unmoving in the flames'.[42] A thousand years later when the persecutions began in the Languedoc, Cathar *perfecti* were repeatedly seen to do the same.

The Roman historian Tacitus records a terrible massacre of Christians during the reign of Emperor Nero (AD 54 – 68). However, this seems to have had less to do with protecting the state cult than with popular hatred of the Christians at that time. Already despised for 'their abominations' they were wrongly blamed for starting the great fire that devastated Rome in AD 64:

An arrest was first made of all who confessed; then, upon hearing their confessions, an immense multitude was convicted, not so much of arson but of hatred of the human race. Mockery of every sort was

added to their deaths. Covered with the skins of beasts they were torn apart by dogs, nailed to crosses, or doomed to the flames. Those who were burned were used to illumine the night-time skies when daylight ended.[43]

It was to be almost 200 years before there were systematic persecutions of Christians by the Roman emperor in his role as *Pontifex Maximus*. Decius was the first of these when he punished Christians who failed to offer animal sacrifices to the pagan gods in AD 250. There were further martyrdoms under Valerian in AD 257 – 9,[44] and in AD 303 – 5 Diocletian launched separate pogroms against Christians and Manicheans.[45] Diocletian's *Rescript on the Manichees* ordered the leaders of that sect burnt at the stake together with their most persistent

followers. He accused them of committing many crimes, disturbing quiet populations and even working ‘the greatest harm to whole cities.’ Making clear why to be a Manichean was to be a heretic, he wrote:

It is indeed highly criminal to discuss doctrines once and for all settled and defined by our forefathers, and which have their recognised place and course in our system. Wherefore we are resolutely determined to punish the stubborn depravity of these worthless people.[46]

In other words Dicoletian was burning those poor Manichean *elect* because they disagreed with established religious doctrines and dogmas. The tone of his *Rescript* is eerily similar to papal pronouncements of the 13th century calling down the

Albigensian Crusades upon the Cathars of the Languedoc.

As to the Roman persecution of the Christians, authors Timothy Freke and Peter Gandy have made the valid point that 'in its whole history ... Christianity was officially persecuted for a total of five years .'[47] This is not the impression given to children brought up in the Western Christian tradition who are led to imagine centuries of sustained persecution. The truth is that there were a few isolated incidents between AD 50 and 250 followed by a few years of – admittedly – awful tortures, again frequently involving burning at the stake, but also scorching in red-hot iron chairs, scourging, 'the frying pan'(!), and consumption by wild beasts.[48]

Such torments ended for the Christians when their champion Constantine the Great defeated his rivals at the Battle of the Milvian Bridge in AD 312 and became the senior ruler of Rome's cruel and violent empire.[49] He immediately extended state tolerance to Christianity. This, however, did not mean that the powers of the *Pontifex Maximus*, which he continued to hold in his hands as emperor, were done away with. It simply meant that in future – with the notable exception of the reign of Emperor Julian the Apostate (AD 332 – 63) – these powers would no longer be used against Christians. It was not until AD 380 under Emperor Theodosius[50] that Roman Catholic Christianity was adopted as the state religion (while other forms of Christianity were denounced as ‘demented and insane’).[51] So this technically was the

moment when Catholicism formally acquired the right to be protected by the emperor in his capacity as *Pontifex Maximus*. But it had long previously been given carte blanche by Constantine himself to persecute its internal enemies – the heretics.

The first step on the road to the stake

Even by Roman standards Constantine the Great was not a nice man. He had his eldest son Crispus executed (while the latter was *en route* to attend celebrations with him) and his wife Fausta locked in an overheated steam room and poached to death![52]

He did not in fact become a baptised Christian until hours before his death, thus allowing himself considerable latitude for cruelty, excess and wickedness along the way. Indeed it is reported that one of the principal reasons for his adoption of Christianity (other than his 'miraculous' success at Milvian Bridge, which is another story) had been that it alone amongst the religions of Rome had promised him expiation of his many sins. Apparently the priests of the pagan temples, horrified even to be asked for expiation by such a brute, had refused him.[53]

So it seems that Constantine, who had good reason to worry about the afterlife destiny of his soul, owed a very large debt to the Christian bishops. By granting them state tolerance in 312 – 313 he repaid part of it. But he was a politician with an eye to his

constituencies. Despite much urging he therefore refused to abolish or interfere in any way with the freedom of religion of the many other popular and powerfully-supported faiths in the empire. Defending the very same policy of tolerance from which Christianity had just benefited, he reminded the bishops:

It is one thing to undertake the contest for immortality voluntarily, another to compel it with punishment.[54]

This was a matter on which Constantine remained consistent throughout his life – with one exception. That exception was announced in an edict (*circa* 324 – 326). In it he attacked the 'venomous errors' of Christian heretics, confiscated their properties and initiated other persecutions. The wording of the edict

has been preserved for us by Constantine's fawning biographer, the eminent church father Eusebius. It is worth quoting it at some length:

Be it known to you by this present decree, you Novatians,[55] Valentinians, Marcionites [the latter, two well-known Gnostic sects], Paulians and those called Cataphrygians, all in short who constitute the heresies by your private assemblies, how many are the falsehoods in which your idle folly is entangled, and how venomous the poisons with which your teaching is involved, so that the healthy are brought to sickness and the living to everlasting death through you. You opponents of truth, enemies of life and counsellors of ruin! Everything about you is contrary to truth, in harmony with ugly deeds of evil; it serves grotesque charades in which you argue

falsehoods, distress the unoffending, deny light to believers ...

The crimes done by you are so great and immense, so hateful and full of harshness, that not even a whole day would suffice to put them into words; and in any case it is proper to shut the ears and avert the eyes, so as not to impair the pure and untarnished commitment of our own faith by recounting the details. Why then should we endure such evils any longer? Protracted neglect allows healthy people to be infected as with an epidemic disease. Why do we not immediately use severe public measures to dig up such a great evil, as you might say, by the roots?

Accordingly, since it is no longer possible to tolerate the pernicious effect of your destructiveness, by this

decree we publicly command that none of you henceforward shall dare to assemble. Therefore we have also given order that all your buildings in which you conduct these meetings ... not only in public but also in houses of individuals or any private places ... are to be confiscated ... and handed over incontestably and without delay to the Catholic Church ... and thereafter no opportunity be left for you to meet so that from this day forward your unlawful groups may not dare to assemble in any place either public or private.[56]

It was the first step on the slippery slope of persecution. Within less than a century, in league with emperors like Theodosius, the Catholic Church had begun to burn heretics at the stake ...

When coercion was learnt

H. A. Drake, professor of history at the University of California, thinks that Constantine's out-of-character initiative against the heretics in AD 324 – 6 was almost certainly the result of pressure from the bishops[57] – i.e. that the emperor was paying off another instalment of his spiritual debt to them. Besides, looking at his options at the time, it would have seemed like the obvious move to make:

With heresy, both imperial and episcopal agendas came together. Punishment of improper worship was the one action that Constantine would have been prepared by centuries of imperial procedure to take, and the one that, in his eyes, a new and important

constituency had the most right to demand. It had the additional advantage of demonstrating his toughness to militant Christians at very little cost.[58]

Drake has investigated Christianity's rise to power in Rome and its changing relationships with the state between Constantine's initial acceptance of the faith in AD 312, its elevation as the official religion of the empire in AD 380, and the banning of all other faiths in AD 392.[59] This was a period of immense importance for the future of Christianity in which – for good or ill – it set the course that it has followed ever since. It was also the period, as Drake observes, in which ‘militant Christians first came to dominate and then to define the Christian movement.’[60] Noting that in the decades after Constantine the Church ‘became more militant and more coercive as it

became more powerful' he asks: 'What happened to the Christian movement, why was it that the militant wing prevailed?'[61]

During the first three centuries AD we know already that the 'Christian movement' consisted of a diverse mass of sects, all of which defined themselves as followers of Christ despite their wildly varying doctrines and contradictory beliefs.

At one end of the scale there were those like the Gnostics who rejected the Old Testament, interpreted the New Testament allegorically within a dualist framework, did not believe that Christ had been born in the flesh (or crucified), allowed the greatest possible latitude for individual revelation and inspiration, and had no wish to impose dogma on others. Although they claimed to be the original

Christians, guarding the true apostolic succession, they were interested not in coercion but in a process of personal enquiry and experience that would lead their initiates to a *saving knowledge* of the truth. They did not believe that there was just one exclusive path to this *gnosis*. As such, blind obedience to any form of dogma, together with intolerance for the beliefs of others, were rejected by all the Gnostic systems.

At the other end of the scale were Drake's ‘militant Christians’, the Catholics and their bishops who established their primary power centre in Rome in the early fourth century AD after they had won Constantine's favour. They too claimed to be the original Christians, guarding the true apostolic succession, and it was on the exclusive basis of their doctrines and beliefs that what we now think of as

the ‘Christian Church’ took shape during the decades that followed. They accepted the Old Testament, interpreted the New Testament with adamant literalism, believed in Christ's incarnation, crucifixion and bodily resurrection (and that all humans would experience bodily resurrection too), rejected dualism, allowed no latitude whatsoever for individual revelation and inspiration, and felt it was their duty to impose their beliefs on others. Their interest was in obtaining the complete and *unquestioning faith* of their congregations in the infallibility of the doctrines that they taught. As such, dogma, the enforcement of blind obedience, and violent intolerance for the beliefs of others, were, from the beginning, their stock in trade.

Why did the militant wing prevail? The answer that Drake gives to his own question is in a sense a

tautology. The militant wing of the once broad church of Christianity prevailed *because it was militant* and because it was the first to acquire access to the coercive apparatus of the state. As a simple and universal function of human organisation, Drake suggests:

... there are persons in every mass movement who are willing to coexist with variant beliefs and others who see such non-believers as outsiders and as a threat that must be neutralised.[62]

If coercive powers are made available to people who cannot tolerate variant beliefs, as they were in Rome in the fourth century, then it is inevitable that they will soon be used to enforce uniformity by destroying or marginalising other religions. But because of Constantine's calculated squeamishness

about persecuting pagans, the dogmatic tendencies of the Catholic bishops during their first few decades in imperial favour were channelled exclusively into the fight against heresy. This was a fight that the Church was subsequently to pursue with single-minded ferocity during the 13th and 14th centuries when it destroyed the Cathars and until as late as the 17th century when heretics throughout Europe were still routinely burnt at the stake. Indeed it may well be that it was only through this early process of discriminating against, stigmatising, punishing, terrorising, and physically eliminating internal rivals that the members of the militant faction of Christianity were able to elucidate their own beliefs fully in the first place. ‘The existence of heresy cannot be considered apart from the existence of the Church itself,’ argues Zoé Oldenbourg:

The two run *pari passu*. Dogma is always accompanied by heresy; from the very first, the history of the Christian Church was a long catalogue of battles against various heresies.[63]

Thus what had started out as Constantine's ‘low-cost’ strategy to appease militant Christians, to whom he felt indebted, and to impose uniformity on the more heterodox Christian sects (something that would have appealed to the dictatorial instincts of any red-blooded Roman emperor) was to have unforeseen consequences that rebounded down the ages. Before Constantine there had been an eclectic field of Christians in which no sect held power over any other – because all were persecuted. After Constantine the field was rapidly transformed and polarised. On one side, clustered around a literal

interpretation of the scriptures, were the bishops of the Catholic Church – the militants whom the emperor wanted to appease. On the other side was everyone else and every other shade of opinion. The net effect, after AD 324 – 6, was that all anyone needed to do to become a ‘heretic’, and to risk losing freedom of assembly, home, property and life, was to disagree publicly with the infallible pronouncements of the bishops – most particularly the supreme bishop of the Church of Rome. It is not an accident that by the 380s the emperors had renounced their age-old responsibility of *Pontifex Maximus* – high-priest of the Roman state religion – leaving it for the popes to pick up.[64]

To this day it remains their official title.[65]

Longing for power long before Constantine

We are not suggesting that militant literalism within the Christian Church was *created* by Constantine's willingness to punish heretics. On the contrary a strong literalist tendency had been present in Christianity long before the fourth century – perhaps as long as any of the Gnostic sects – and simply took advantage of this willingness. The really radical transformation of Constantine's reign was that for the first time it gave literalists the power to impose their views on others.

It's obvious with hindsight that they'd been longing for this for centuries. It's obvious, too, how they

consistently made use of rabble-rousing emotional arguments and hateful accusations during their years in waiting simply to stir up trouble for their opponents – sophisticated techniques that modern disinformation specialists would call black propaganda. Everything about their demeanour and rhetoric indicates that these people believed they would one day gain the power of enforcement over others – as they eventually did under Constantine – and that once they had it they would not hesitate to use it.

Consider, for example, the words of Irenaeus, one of the Catholic Church's great scourges of Christian Gnostics during the second century:

Let those who blaspheme the Creator ... as [do] the Valentinians and all the falsely so-called *Gnostics,* be recognised as agents of Satan by all who worship

God. Through their agency Satan even now ... has been seen to speak against God, that God who has prepared eternal fire for every kind of apostacy.[66]

From the first to the fourth centuries there are repeated examples of this sort of rhetoric, often wound up to an even higher pitch and including accusations of cannibalism, sexual promiscuity, infant sacrifice and so on. Another telling detail is that even before Gnosticism was banned, techniques were in use to ‘flush out’ and identify its initiates for possible future persecution. Because the Gnostic *perfecti* were generally vegetarian, one well-tried method of identifying their presence amongst the orthodox clergy and monks of Egypt was to make meat-eating compulsory for all once a week.[67]

It is the victors who write history, not the losers; so

we don't know whether such witch-hunts and hate campaigns had begun to spark off physical violence against the Gnostics as early as the second century. But the Gnostics' side of the story may have survived in one of the Nag Hammadi texts, the *Second Treatise of the Great Seth*, which says in part:

After we went forth from our home, and came down to this world, and came into being in the world in bodies, we were hated and persecuted, not only by those who are ignorant [pagans], but also by those who think they are advancing the name of Christ, since they were unknowingly empty, not knowing who they are, like dumb animals.[68]

Massacre of the Innocents

Constantine's edict of AD 324 – 6, cited at length earlier, handed the militant Christians the one thing they'd obviously wanted all along – the power of the state to persecute their old opponents, the Gnostics. It is notable that the edict is expressed in the peculiarly violent rhetoric favoured by the militants. As Drake points out it was a very deliberate choice of words when the emperor characterised the beliefs of Gnostics as ‘venomous’ – a term comparing those who held them to snakes. Similarly:

… he likens heresy to a disease, something capable of infecting healthy souls. Such images are important as labels that serve both to identify and stigmatise a group, making it easier to single out its members and deny them humane treatment … This step, however limited in scope and duration, opened the door for the more massive coercion campaigns that would

occur at the end of the century. [69]

During the last decade of Constantine's rule the evidence shows, as expected, that militants began to use the new powers he had given them;[70] but they did so quite tentatively at first – as though feeling out the opposition. Under the reigns of his sons they became significantly more persecuting.[71] During the 15 years that Emperor Theodosius was on the throne (AD 379 – 395) he outdid all his predecessors by passing more than 100 new laws aimed at the Gnostics – laws that deprived them of their property, their liberty and frequently their lives, confiscated their places of assembly and commanded the destruction of their books .[72] It is unlikely to be a coincidence that this was the precise period in which the codices of the Nag Hammadi library were hidden

away in Upper Egypt to escape detection and destruction. And though records are incomplete, we know that there was also state sponsorship of anti-heretical terrorism during the same period in Lower Egypt.

Maternus Cynegius, Theodosius's governor in Alexandria from AD 384 – 388 was renowned for his relentless harrassment and persecution of heretics and pagans.[73] In that great cosmopolitan city, one of the first strongholds of Gnosticism, a local syncretistic and universalising cult dedicated to the composite deity *Serapis* (a fusion of two ancient Egyptian gods, *Osiris* and *Apis*) had long enjoyed the patronage of people from many different social and religious backgrounds. Scholars believe that Christian Gnostics may have participated in the

mysteries of Osiris in his Serapis incarnation 'while professing to place upon what they saw there a Christian interpretation.'[74] It is also notable that several of the Alexandrian Gnostic sects made direct use of figures of Serapis – generally depicted as robed and bearded in the Greek rather than Egyptian style – as a symbol of the God of Goodness .[75] Such flexibility and open-mindedness in the search for spiritual truths had been characteristic of Alexandria since its foundation some seven centuries previously. But precisely because of this venerable tradition of tolerance and fusion many of its citizens were shocked, and then outraged, when Cynegius began to put the military forces he commanded as governor – supposedly for the protection of all sections of the community – at the disposal of the Catholic campaign

to abolish other religions .[76]

In 391, three years after Cynegius's death, state-sponsored persecution was still on the increase. In parallel Theophilus, the Catholic archbishop of Alexandria, had been rousing the Christian masses against Gnostics and pagans. Riots were engineered and many members of the oppressed sects fled to the shelter of the Serapeum. This was the great temple dedicated to Serapis that had been built by Ptolemy I Soter (323 – 284 BC), the former general of Alexander the Great who established the dynasty that ruled Egypt until the time of Cleopatra (51 – 30 BC). The refugees felt sure that they would be safe there, on ground for so long deemed sacred. But they were wrong. Again at the instigation of Theophilus a huge Christian mob, including large numbers of monks,

besieged and then attacked the Serapeum.[77] The temple's irreplaceable library of ancient books and scrolls, arranged in the cloisters around the central building,[78] was ransacked and burnt. Then with imperial troops openly supporting the Christian assault, the defenders were massacred and the temple itself was raised to the ground .[79]

Reviewing the affair some time later the emperor held the victims responsible for their own destruction and did not punish the attackers.[80] Nor was the loss of the temple library to be lamented. Theodosius's well-known view was that all books contradicting the Christian message should be burnt ‘lest they cause God anger and scandalise the pious.’[81]

The first Inquisition and the ancient enemy

In the early fifth century, though their numbers had drastically declined after the persecutions of Theophilus, church and state still kept the pressure on the remaining Gnostics in Egypt. We know, for example, that Cyril, who succeeded Theophilus as archbishop of Alexandria, enforced the persecution of a group that believed the material world to be the creation of the demiurge[82] – a classic Gnostic view – and that refused to accept Cyril as their *illuminator* (a classic Gnostic concept).[83] His emissary Abbot Shenoute seized their 'books full of abomination' and 'of every kind of magic' and warned:

I shall make you acknowledge Archbishop Cyril, or else the sword will wipe out most of you, and moreover those of you who are spared will go into exile.[84]

Cyril was a man to take seriously. In AD 415 he provoked the gruesome murder of an extraordinary woman of Alexandria, Hypatia, a pagan philosopher said to have been of 'the school of Plato and Plotinus.'[85] She was famous and much loved in the city for her 'attainments in literature and science, as to far surpass all the philosophers of her own time.'[86] Some reports suggest that it was out of jealousy at her obvious popularity that the archbishop had her killed. Whatever the reason she was dragged from her house on Cyril's orders by a Christian mob, carried into a church and hacked limb from limb with

broken tiles (*ostrakois*, literally ‘oyster shells’, but the word was also used for brick tiles on the roofs of houses).[87] Finally, reports one pro-Christian commentator of the time:

… they carried her to a place named Cinaron, and they burned her body with fire. And all the people surrounded Archbishop Cyril and named him ‘the new Theophilus’, for he had destroyed the last remains of idolatry in the city.[88]

With such an atmosphere of Christian fanaticism prevalent throughout the Roman world it is not surprising that the numerous Christian Gnostic sects of the second and third centuries had soon all but disappeared. In AD 447 Pope Leo the Great still felt it necessary to condemn Gnostic writings as a ‘hotbed of manifold perversity’ which ‘should not only be

forbidden, but entirely destroyed and burnt with fire.'[89] But by the end of the fifth century it seemed that organised Gnosticism was a thing of the past.

Some of those prepared to risk their lives for their Gnostic beliefs certainly joined the ragged group of charismatic preachers known as the Messalians. Established at Edessa in the mid-fourth century, they were still going strong in the sixth century. We saw in the last chapter how they might have formed part of the chain of transmission that would ultimately bring Gnostic texts and teachings to the Bogomils and thence to the Cathars of medieval Europe.

But it was Manicheism, also a Gnostic religion with strong Christian elements, that would have provided the most obvious haven for survivors of the disbanded sects.[90] Perhaps because of this, and

because Manicheism was an evangelistic faith that still posed a real threat to the Church, it became the primary target of persecution during the fifth century. So violent and thorough was this persecution that by the end of the sixth century, though it was to survive for another thousand years in the Far East, Manicheism was a dead force in the Roman world.[91]

The final measures were the work of Justinian (AD 527 – 565) who ruled the Eastern Roman Empire from Constantinople. Mass burnings of Manicheans soon followed when he equated heresy with treason and subjected both offences automatically to the death penalty.[92] The Manicheans had begun to act like a secret society, disguising their identity and pretending to be good Christians.[93] Justinian's

response was not only to burn them at the stake but to burn any of their acquaintances, Manichean or not, who had failed to denounce them.[94] Significantly, in our view, he also created an official investigative agency, the *Quaestiones*, which was specifically tasked to root out and destroy the Manichean heresy.[95]

Seven centuries later did Pope Innocent III have Justinian's initiative in mind when he created a very similar instrument of terror and oppression called the Inquisition?[96] It was to become greatly feared and would ultimately take on a global role as Catholicism advanced into the New World and Asia. It's easy to forget that when Innocent established it in 1233 he did so with the specific purpose of rooting out and destroying the Cathar heresy – which we know he

believed to be a resurgence of the more ancient heresy of Manicheism.

So by unleashing the Inquisition in the 13th century, it is almost as though Innocent was trying to pick up where his predecessor had left off in the 6th century. This would have been perfectly in character because together with many other European churchmen of the period he appears to have had a genuine sense of continuity about what the Bogomils and Cathars represented and how they were to be handled. The heretics, too, felt themselves to be part of a continuum and dealt with the Church like an old enemy who they already knew very well.

What was odd was that so few of the participants on either side seemed surprised, after such a long silence, that a fully-fledged Gnostic ‘anti-Church’ was now straddling Europe like a colossus, confronting

both Rome and Constantinople, and threatening to turn the tables of the world.

CHAPTER SIX

THE RIVALS

A monstrous breed … You must eliminate such filth.

Pope Innocent III (1198 – 1216), speaking of the Cathars [1]

The *Second Treatise of the Great Seth,* one of the Nag Hammadi texts, speaks of the Gnostics' experience of persecution at the hands of people who believed themselves to be Christians. The setting could be anytime in the first four centuries AD before the texts were concealed. The *Treatise* then goes on to make a further allegation – one that the Cathars and Bogomils were to repeat a thousand years later. This is that the established Church is an impostor – an 'imitation' of the true Church that it has displaced.[2]

So we're now better able to understand the references in the *Treatise,* cited in the previous chapter, to 'empty people' who 'think that they are advancing the name of Christ' when they persecute

others. The writer is either speaking of the Catholic Church itself, or of the militant, literalist faction always in favour of persecuting its opponents, that would ultimately dominate the Church during the reign of Emperor Constantine – and that would impose its agenda on the future. Set against it, and persecuted by it, are the Gnostic adepts, 'Sons of Light', founders of the true Church, described as 'an ineffable union of undefiled truth'.[3] The impostor Church has 'made an imitation' of their 'perfect assembly' and 'having proclaimed a doctrine of a dead man'[4] (the crucified Jesus Christ), it has tricked its followers into lifetimes of:

... fear and slavery, worldly cares, and abandoned worship ... For they did not know the Knowledge of the Greatness, that is from above, and from a

fountain of truth, and that it is not from slavery and jealousy, fear and love of worldly matter.[5]

It should be obvious to the reader by now that this simple statement of Gnostic dualism, which lay at Nag Hammadi for 1600 years after being buried there in the late fourth century, could equally well have been written by a Cathar or Bogomil *perfectus* of the 12th or 13th centuries. There is the same horror of worldly matter and the same sense that it entraps and enslaves the soul. There is the same belief that while ignorance can extend the soul's imprisonment, knowledge can set it free. And there is the same concept of what this knowledge is – i.e. that it concerns the existence of a spiritual realm of greatness ‘above’ which is the domain of the God of Good, the source of truth, and the long-lost home of

the soul.

The reader will recall that according to Cathar and Bogomil doctrine, Christ was not a physical human being 'in the flesh' but an immensely convincing apparition.[6] The *Second Treatise of the Great Seth* clearly has the same thing in mind when it puts these words into Christ's mouth after the Crucifixion:

I did not succumb to them as they had planned ... I was not afflicted at all. Those who were there punished me, and I did not die in reality but in appearance ...[7]

Many other religious ideas that we have come to associate with the Cathars and Bogomils also appear a millennium earlier in the *Second Treatise of the Great Seth* – for example that the god of this world is evil and ignorant and can be identified with the God

of the Old Testament, and that his minions, the Catholic bishops are ‘mere counterfeits and laughingstocks.’[8] The passages we've quoted here are just fragments of the *Treatise* – itself only a small part of the overall collection of 52 Gnostic texts preserved in the Nag Hammadi library. Virtually any of them could serve, without alteration, as a manifesto of Cathar and Bogomil beliefs. It therefore seems to us inconceivable, as many scholars continue to argue, that there is no link between the religion of the early Christian Gnostics and the later religion of the Cathars and the Bogomils.

There is in our view more than a link. Despite some superficial differences – and their significant separation in time – these two religions have so much in common at the level of their vital concepts,

cosmology, doctrine and beliefs that they're almost impossible to tell apart. When we consider that essential elements of ritual, symbolism, initiation, structure and organisation were also the same, and that both the Gnostics and the medieval dualists were persecuted with the same spirit of savage repression by the same opponent and for the same reasons, it is increasingly difficult to resist the conclusion that they must, indeed, have been one and the same thing.

Seizing control of the tradition

Because the Catholic Church won the power-

struggle against the Gnostics it gained victor's privileges over the way history would be told. It's not surprising, therefore, while all other beliefs and doctrines are regarded as aberrations, that Catholic beliefs and doctrines tend to be treated as orthodox (literally ‘straight-teaching’) and also as ‘authentic’, ‘of true apostolic descent’, etc, in most historical accounts.[9] However, a dispassionate look at what is now known about the broad and eclectic character of Christian beliefs in the first three centuries does not support the Catholic claim to primacy. There is no doubt that the evidence shows us the nucleus of the faction that became the Catholic Church forming around dogmatic militants like Irenaeus and Tertullian. But after the discovery of the Nag Hammadi texts, and the gradual revelation of their

contents that has followed, it has been impossible to ignore the presence, and equal weight, of the Gnostic Churches in the same period. Since Catholics and Gnostics alike claimed that the teachings in their possession were the earliest and the most ‘authentic’, why has the Catholic version for so long been accepted as gospel (literally!), and left unchallenged, while the Gnostic version was hunted down and persecuted out of existence? Isn't it equally possible, as the Nag Hammadi texts themselves invite us to believe, that the tradition of the Gnostics was all along the ‘authentic’ one?

Scholars have known for many years, for example, that the Valentinian Gnostics of the second century AD accepted not only the four Gospels of the New Testament that have come down to us today (Matthew, Mark, Luke and John), ‘but many

additional documents professing to contain traditions of the secret teachings of Jesus.'[10] Writing in 1967 Henry Chadwick, the great historian of Christianity was happy to accept that such 'secret teachings' did in fact once exist and suggested that they would have been similar to 'the *Gospel of Thomas* [one of the Nag Hammadi texts] recently recovered from the sands of Egypt.'[11] But he was not interested in questions concerning the *authenticity* of these Gnostic traditions. He simply took it for granted that whatever 'secret teachings' the Gnostics possessed must self-evidently have been false. Chadwick even seemed happy to gloss over the pseudoscientific claptrap of the heresy-hater Irenaeus who, he observed approvingly:

... ingeniously vindicated the fourfold gospel on

numerological principles. Four, he urged, was a sacred number corresponding to the four winds, or the four faces of the cherubim in Ezekiel …[12]

Chadwick accepts that even as late as the last two decades of the second century AD a substantial oral tradition was still in circulation, purporting to transmit the true words of Christ. This tradition, he notes, was 'regarded as an authority which had not yet been wholly merged with the written gospels.'[13] In other words the canonical New Testament was still incomplete by the end of the second century,[14] and the eventual course of Christian doctrine was not yet set in stone.

Chadwick suggests that *circa* AD 185 – 190, with many different ideas (both written and oral) in circulation, Irenaeus, together with others from the

proto-Catholic group, saw the advantage 'which a written document possessed and which oral transmission did not.'[15] Although the Gnostic leader Marcion had prepared his own canon some time before – much to the consternation of the Catholics – few of the other proliferating Gnostic sects of the period accepted it and the possibility that they would ever be able to agree amongst themselves for sufficiently long to put a representative Gnostic canon together seemed remote.

Amongst the proto-Catholic group there was no such hesitation. Knowing that those who controlled the written document would effectively have 'the control of authentic tradition',[16] they launched their own initiative to compile and create a canonical New Testament. Since this group was dominated by men

like Irenaeus who regarded their own views as infallible and were intolerant of the views of others, they were naturally inclined to label whichever texts or traditions supported their views as belonging to the authentic apostolic line and to cast into the outer darkness as inauthentic any that contradicted them.

What justified this, notes Chadwick, was that 'the teaching given by the contemporary bishop of, say, Rome or Antioch' was held by the Catholics to be 'in all respects identical with that of the apostles.'[17] As Irenaeus himself put it in the second century with reference to the so-called *Rule of Faith* (a short summary of the main points of Catholic belief that he and other heresy hunters favoured):

This rule is what the bishops teach now and therefore comes down from the apostles.[18]

Thus, irrespective of its actual origins and authenticity, *any* teaching given by the Catholic bishops was automatically deemed authentic and to have come down from the apostles. *Vice versa,* any teaching of which they did not approve was automatically deemed inauthentic and not descended through the proper apostolic line – in other words, heretical.

In an era when oral traditions were still dominant, and the bestowal of canonical status upon texts was in the hands of a militant faction, such circular arguments could only have one outcome. There is little doubt that the proto-Catholics deliberately manipulated the gradual formation of the New Testament so that it could serve them in their early battles against the Gnostics and reinforce their own claims to authenticity and exclusivity as the sole

mediators of Christ's message.

No eyewitnesses we can trust

Can we be sure of anything that the New Testament has to tell us?

No matter how dense the smokescreen surrounding the vexed issues of authenticity, few would dispute that somewhere in the century between 50 BC and AD 50, mysterious and powerful events occurred in Palestine that set in motion the Christian phenomenon. But it is not at all certain what sparked the phenomenon off. Was Christ really the Son of God, born as a flesh-and-blood human being and

murdered on the cross – thus somehow redeeming our sins? That's the Catholic position. Was he a projection or emanation from the divine – an ‘appearance’ only, not really flesh-and-blood ? That's the Gnostic and Cathar position. Or could he simply have been an urban legend blown out of all proportion, or perhaps even an artificially constructed myth designed to serve the purposes of a particular religious cult?

The first two possibilities, Catholic and Gnostic/Cathar, are both based on unprovable articles of faith and therefore are equally likely – or unlikely – to be true.

Though its defenders claim otherwise, there is no superior logic whatsoever in the Catholic position. It is, after all, no more logical or inherently more probable to insist that Christ was the Son of God in

human flesh born of a virgin than to insist that he took form only as a very convincing apparition.

The third possibility – that the whole story was made up – has much to recommend it. The prime issue is the remarkable absence of solid and convincing historical evidence to confirm that the figure known to the world as Jesus Christ ever actually existed. He might have; it can't be ruled out. But it's equally possible that there never was any such being – whether man or apparition. His obvious resemblance to several other much older ‘dying and resurrecting god-men’ – notably Osiris in Egypt and Dionysos in Greece – has not gone unnoticed by scholars, and the possibility must be confronted that ‘Jesus Christ’ was a myth, not a man. Since no part of the canonical Gospels is thought to date earlier than about AD 60, and some parts may be as late as AD

110, it is within the bounds of reason that everything we know about Christ's person, words and deeds was simply invented some time during the first century AD and then passed into the oral tradition in the form of ‘eyewitness accounts’ of events that had supposedly taken place a couple of generations previously. Extensive editing in the late second century AD began to standardise the oral traditions into the beginnings of the canonical New Testament. By then, needless to say, there was no one left alive who could claim to have witnessed, or to have known anyone who had witnessed, or even to have known anyone who had known anyone who had witnessed, the events surrounding Christ's life and death.

Somehow this secret religion went on

In the early years, along with many smaller factions, we've seen that two main competing forms of Christianity evolved, approximately in parallel, and that there is no clear evidence of which came first. Both claimed primacy and sought to reinforce their position with their own selections from the whole stock of oral and written traditions available in that period. The literalist form, which was to become Catholicism, gained the upper hand – and the ear of Constantine. Gnosticism, the interpretive and revelatory form of Christianity, lost out, was declared a heresy and persecuted.

We make no claim ourselves as to which form was the oldest or most ‘authentic.’ The issue is strictly-speaking irrelevant to the hypothesis we're developing here. Our point is simply that until literalist Catholicism began its sustained campaign to wipe out interpretive Gnosticism, Christianity had been diverse enough to accommodate *both* simultaneously. The persecutions of the Gnostics were so successful that by the end of the sixth century it seemed that only the literalist form had survived. However the fact that a strong Christian Gnostic religion emerged again in the 10th century in the form of Bogomilism makes it impossible for us to accept that the destruction of Christian Gnosticism in the sixth century was as final as it looked. Somehow this secret religion went on – either through the Manicheans, the Messalians and the Paulicians – or

by another less obvious route.

This is why the ‘Organisation’ spoken of so cryptically in the Nag Hammadi scriptures continues to intrigue us. In Chapter Five we saw that the references made to it seem to hint at the existence of a secret society charged with a mission to protect, restore and repromulgate Gnosticism after times of trouble.

It would all sound like so much ancient wishful thinking were it not for the fact that this was more or less what happened at the end of the first millennium. The sudden appearance of Bogomilism in Bulgaria during the last decades of the 10th century was not some isolated heresy. It marked the first step in the repromulgation and resurgence of a fully-fledged Christian-Gnostic religion after 400 years absent from the scene. The next step was its rapid

westwards expansion as Catharism during the 12th century. By the beginning of the 13th century it had become a genuinely pan-European faith and the only serious rival that the established Church had faced for a thousand years.

We know that the Church did not identify it as a new rival, but as an old and dangerous one seemingly returned from the dead. Perhaps this sense on the Church's part, of being drawn back into an ancient conflict, one that struck at the very heart of all its shaky claims to legitimacy and authenticity as the true faith, explains the terrible events that followed.

Christ and Antichrist

All wars are terrible – no matter in what epoch they are fought, or with what weapons. Medieval wars were particularly ghastly. But the wars of the Catholic Church against the heresy of Catharism in the 13th century, the so-called *Albigensian Crusades*, must rank high on the list of the most repulsive, brutal and merciless conflicts that human beings have ever had the misfortune to be involved in.

The Cathars are innocent in these matters, by any sane standards of justice. All they did was reject the authority of the pope and give their loyalty to another religion that sought to correct what it saw as the false doctrines of Catholicism. The rational modern mind cannot blame them for acting independently in this way, let alone detect any reason why their beliefs and behaviour should have merited so gruesome a punishment as burning at the stake. We know that

the past is another country – where people do things differently. We understand that the medieval world, full of superstition and the fear of damnation (a fear fostered by the Catholic Church and used as a weapon of mind-control) was not governed by the same codes of interpersonal decency that we try to live by today. Yet the savage persecution of the Cathars, carried out in the name of the Church, and frequently on the direct orders of its bishops, went so far beyond what was normal – even for that bloodstained period – that it has to raise disturbing questions about the beliefs of the perpetrators.

Because our primary focus in this book is on the long-term survival of a secret religion, irrespective of its ‘authenticity’, we will not pursue such questions further here – notably the vexed issue of whether Catholic or Cathar teachings represent ‘authentic’

Christianity. Nonetheless it seems patently obvious to us that the spirit of the gentle and loving Jesus who pervades the New Testament did *not* ride with the Catholic clergy and knights who ravaged the once free land of Occitania in the first half of the 13th century. A chronicler of the time, one of the two authors of the epic *Chanson de la Croisade albigeoise* ('Song of the Albigensian Crusade'), summed the problem up in an ironic unofficial epitaph for Simon de Montfort, the fearsome general who led the Catholic armies in Occitania for almost a decade of unremitting slaughter before being killed in battle in 1218. He was buried with much pomp and ceremony at Carcassonne where, the *Chanson* reports:

Those who can read may learn from his epitaph that he is a saint and a martyr; that he is bound to rise again to share the heritage, to flourish in that state of

unparalleled felicity, to wear a crown and have his place in the Kingdom. But for my part I have heard tell that the matter must stand thus: if one may seek Christ Jesus in this world by killing men and shedding blood; by the destruction of human souls; by compounding murder and hearkening to perverse council; by setting the torch to great fires; by winning lands through violence, and working for the triumphs of vain pride; by fostering evil and snuffing out good; by slaughtering women and slitting children's throats – why, then, he must needs wear a crown, and shine resplendent in Heaven.[19]

In other words, unless the lessons of humility, nonviolence, forgiveness and unconditional love so plain to read in the New Testament have somehow been turned upside down, inside out and back to

front, there is *no way* that anyone seeking Christ in this world is going to find him by following Simon de Montfort's route. And if that is the case, since we're in a position today to stand back from the propaganda and prejudices of the time, doesn't it suggest that the entire Catholic onslaught against the Cathars was fundamentally unchristian?

Or even, as the Cathars themselves suggested, ‘anti-Christian’?

‘More evil than Saracens ...’

We've already filled in the background to the Albigensian Crusades in earlier chapters. The

tremendous success of the Cathar heresy in Occitania and other parts of Europe during the 12th century had for many years been watched with envy and growing alarm by the Catholic hierarchy in Rome. By the early 13th century it is estimated that more than half the Occitanian population had abandoned the Church and that growing numbers were looking exclusively to Catharism to meet their spiritual needs. Worse still, as we saw in Chapter Two, the local nobility gave tacit and sometimes even overt support to the Cathars, frequently had relatives amongst them, sided with them in disputes with the bishops, and were closely linked to some of the leading *perfecti*. Once it had become clear that the Cathar religion was not a flash in the pan, but quite possibly formed part of a great coordinated plot against the Church, it was obvious that sooner or

later one pope or another was going to have to do something about it. The only question was what exactly, and when?

That the ‘what’ should be the terror weapon of a crusade had probably been decided by Pope Innocent III some years before the perfect excuse to use such a weapon of terror presented itself.[20] But when that happened he acted immediately.

The precipitating incident was the assassination of the papal legate to Occitania, one Peter de Castelnau, in January 1208. A former monk of the Cistercian Abbey of Fontfroide, de Castelnau was in Occitania on Innocent's orders accompanied by another leading Cistercian, Arnaud Amalric, the abbot of Cîteaux.[21] In 1207 they stirred up deep-seated resentments when they tried to form a league of southern barons to

hunt down the Cathars. Raymond VI, the powerful Count of Toulouse refused to join and was excommunicated by de Castelnau. The excommunication was withdrawn in January 1208 after Raymond had been forced to apologise personally to the papal legate – a shameful climb-down for such a highly-placed nobleman. The very next morning one of Raymond's knights, perhaps seeking to avenge the humiliation of his master, rode up to de Castelnau as he prepared to ford the River Rhone and ran him through with a spear. He died on the spot.[22]

Two months later, on 10 March 1208, Innocent declared the Crusade – the first time ever that the term ‘crusade’ was used for a war against fellow Christians. Like the Christian emperors of Rome long

before, he clearly gave the highest priority to the extirpation of heresy – higher even than to the wars to regain the Holy Land. He wrote:

Attack the followers of heresy more fearlessly even than the Saracens – since they are more evil – with a strong hand and an outstretched arm. Forward then soldiers of Christ! Forward brave recruits to the Christian army! Let pious zeal inspire you to avenge this monstrous crime against your God.[23]

Meanwhile Arnaud Amalric, abbot of Cîteaux, had been sent to northern France to rally support amongst the nobles there. ‘May the man who abstains from this Crusade,’ he is quoted as saying, ‘never drink wine again; may he never eat, morning or evening, off a good linen cloth, or dress in fine stuff again to the end of his days; and at his death

may he be buried like a dog.’[24]

But such browbeating was hardly needed to mobilise the rednecks at the court of the king of France. They were raring to go anyway. Here was an opportunity to acquire wealth and status with an adventure relatively near to home and to earn papal indulgences and forgiveness of sins that would normally have required much harder work in the Holy Land. Along with dozens of B-list aristocrats like Simon de Montfort who were looking to get rich quick, thousands of volunteers at the foot-soldier level also poured in from all walks of life. The lowliest man could benefit since crusading meant the automatic postponement of all his debts and the release of his property from the hold of creditors for the duration of his service. [25]

Still the preparations took more than a year. By February 1209 military detachments for the Crusade were reported to be massing all over northern France.[26] But it was not until St. John's Day, 24 June 1209, that the full force, estimated to number 20,000 men, had assembled at the French city of Lyons ready for the march south. Simon de Montfort was with it but not yet its general. For this first campaign the terrifying Christian horde was headed by Arnaud Amalric himself.[27] It need not be imagined that being a Cistercian abbot, supposedly dedicated to a lifetime of Christian peace and charity, would inhibit him in any way on the battlefield. Far from it. At Béziers, the first Cathar city that he attacked, Arnaud Amalric was about to order an infamous atrocity …

Hell's Army

Conditioned by television images of modern warfare with smart bombs and other high-tech weaponry it is difficult to imagine the atmosphere of primal harm and menace that must have radiated like heat off the big medieval army that marched out of Lyons on 24 June 1209.

Its iron fist, mounted, armoured from head to foot and heavily-armed, was an elite fighting force of trained killers. These were the knights – the samurai class of old Europe. Gathered from the aristocracy, they were men who had been groomed for warfare since childhood. They probably totalled no more than 1,000 individuals, but each of them, depending on his

resources, was supported in battle by anything from four to thirty hand-picked cavalry and infantry who fought at his side as a skilled and disciplined unit.[28]

Lower down the social ladder the theme of discipline in the crusading army was continued amongst divisions of professional soldiers specialised in particular military arts. They included the gunners who operated the great war-catapults and stone-guns – the trebuchets and mangonels that had a range of almost half a kilometer and could hurl projectiles weighing 40 kilograms. There were teams of battering-ram specialists who would breach the city-gates, while other teams assembled and operated huge siege towers from which archers could fire down on the defendants inside the walls. Sappers and siege engineers were also needed for the business of

filling in moats and undermining foundations .[29]

Less disciplined but equally deadly, and in a way far more frightening, were the mercenaries, known as *routiers*, who had been hired for their unprincipled ferocity. These were times of widespread poverty and frequent famines in Europe, and droves of the landless, the unemployed and the dispossessed wandered the countryside. The most efficient and ruthless amongst them formed up into lawless bands, looting and killing to support themselves, and were hired *en masse* by the Christian army that the pope had unleashed on Occitania.[30] 'They were,' notes Zoé Oldenbourg:

... desperate fellows with nothing to lose, and therefore would plunge on through thick and thin regardless ... They formed a series of shock

battalions, all the easier to utilise since no one had the slightest qualms about sacrificing them. The most important thing … was the terror they inspired in the civilian population … Not content with mere pillage and rape they indulged in massacre and torture for the sheer fun of the thing, roasting children over slow fires and chopping men into small pieces.[31]

Even lower down the pecking-order than the feared routiers were the *ribauds*, the unpaid camp followers, numbering several thousands in their own right, who had attached themselves unofficially to the Crusade. They too were desperate people – a ragged bunch of bare-arsed muggers, rapists and corpse looters. But weirdly they elected their own ‘king’ on the campaign who divided the chores and the spoils of war amongst the rest.[32]

Last but not least there were the *holy rollers* – wild, itinerant Christian preachers and groups of their fanatical followers armed with crude weapons like scythes and clubs who hoped to gain a special dispensation in heaven by murdering any Cathars that the main army missed.[33]

It seems richly ironic that the self-proclaimed Catholic Church of so peaceful and loving a figure as Jesus Christ was not only prepared to raise an army to massacre those who disagreed with it, but also to pack its ranks with the most notorious murderers and brigands of the age. But if we look at the whole affair from the Cathar perspective the sense of disconnect goes away. It is *not*, as its later apologists would claim, that the church of a good and loving God was somehow (aberrantly, temporarily) provoked into

extreme violence by extreme circumstances. In the Cathar take on this, the Catholic Church served the God of Evil; accordingly it was behaving entirely in character when it recruited an army of demons.

Now formed up behind Arnaud Amalric into a vast column of men and supplies more than 4 miles in length, this demonic force – or army of valiant crusaders depending on one's point of view – bristled with axes and pikes and seethed with the intent to do violence.

‘Kill them all’: the Feast of Saint Mary Magdalene and the workings of divine vengeance …

After taking a meandering course through Occitania, pausing only to accept the surrender of settlements unable to defend themselves and to burn small groups of Cathars along the way, Arnaud Amalric and his 20,000 hooligans fetched up in front of the prosperous city of Béziers on 21 July 1209. Its walls were very thick, very high and very well defended and everyone assumed that this was going to be a long siege.

Some curiosities now coincide.

It is our hypothesis that the Cathars were the descendants, through an underground stream of secret religion, of the Christian Gnostics of the first few centuries. Scholars agree that the Christian Gnostics of that period had a special reverence for Mary Magdalene, who plays a small but highly significant role in the New Testament. By comparison

her status in the Nag Hammadi texts is elevated to that of Christ's first apostle, his closest confidante, and perhaps even his lover.[34] We were therefore naturally interested to learn that the area around Béziers had been known for centuries before the Crusade for its special and fervent dedication to Mary Magdalene.[35] A local tradition had it that she had fled here by ship from Palestine in the mid-first century, landed at Marseilles, and become the first Christian missionary in what was then the Roman Empire's *Provincia Gallia Narbonensis*.[36] Odder still, 21 July, the date that the pope's army pitched camp before Béziers, was the eve of the annual Feast of Mary Magdalene, held on 22 July.[37] Oddest of all, however, was what would happen on the feast day itself.

Béziers was by no means entirely a Cathar city. There may have been as many as several thousand Cathar *credentes* living there, but Catholics are likely to have been in the majority. We know that there were 222 Cathar *perfecti* present on the day the siege began because a list of their names, prepared by Renaud de Montpeyroux, the Catholic bishop of Béziers, has survived.[38] The bishop (whose predecessor had been assassinated in 1205) scuttled through the gates with the list soon after the crusaders began to arrive and returned from their camp a few hours later with an offer. If the townsfolk would hand over the 222 named Cathar notables for immediate burning then the city and everyone else living in it would be spared.[39]

It was in fact a pretty good offer but, to their

lasting moral credit, the Catholic burghers of Béziers rejected it, stating that they ‘would rather be drowned in the salt sea's brine’ than betray their fellow citizens .[40]

What was to follow was a good deal worse than drowning.

It started on the early morning of the 22 July with a minor and wholly unnecessary skirmish. Separated by some distance from the main force of the crusader army, the ribauds – camp followers – had gathered by the banks of the River Orb which flowed a little to the south of the city walls. A bridge leading to one of the city gates spanned the Orb at this point and now one of the ribauds strolled onto it, shouting insults and challenges to the defenders. Angered by his temerity some inside rushed spontaneously out through the

gate and down onto the bridge where they caught and killed him and threw his body into the water. Probably they expected to retreat to the safety of the city at once but before they could do so a gang of camp followers swarmed onto the bridge and locked them in combat. At the same moment, with what was obviously an experienced eye for the main chance, the elected ‘king’ of the ribauds ‘called all his lads together and shouted ‘Come on, let's attack’.[41]

Within minutes, driven on by an ugly cocktail of crowd-psychology, bloodlust and greed, a howling mob bore down on the scrum at the bridge. According to the chronicler of the *Chanson de la Croisade albigeoise*:

There were more than 15,000 of them, all barefooted, dressed only in shirts and breeches, and unarmed

save for a variety of hand weapons.[42]

Hatchets? Butchers' knives? Cudgels? The mind boggles at the thought of what primitive bludgeons and rusty blades these dregs of the Crusade wielded as they forced the bridge and pursued the foolish skirmishers back up the slope towards the city walls. No one is quite sure exactly what happened next but by now the whole crusader camp was roused and bands of mercenaries and regular soldiers were charging into the fray. Most probably the ribauds succeeded in seizing control of the gate as the skirmishers tried to slip back inside, and were able to hold it open whilst crusader reinforcements poured through. But whatever the mechanism, the result was the same. With their defences hopelessly breached the proud citizens of Béziers were now doomed

beyond any redemption:

No cross or altar or crucifix could save them. And these raving beggarly lads, they killed the clergy too, and the women and the children. I doubt one person came out alive.[43]

The leaders of the Crusade made no attempt to stop or even limit the massacres. Quite the contrary, as the knights rushed to arm and mount, eager not to miss the action, a group of them reportedly asked Arnaud Amalric how they were to distinguish the many Catholics in the town from the heretics they had come to kill. The abbot is notorious for replying in Latin: *'Caedite eos. Novit enim Dominus qui sunt eius.'*

Which means:

'Kill them all; God will look after his own.'[44]

Though most of the killing was done by the lower orders, a particularly awful bloodbath was unleashed inside the Church of Mary Magdalene by the knights themselves. Here a multitude of Cathars and Catholics – old and young, men, women and children – were cowering in fear. Their numbers were estimated by chroniclers at the time as between 1,000 and 7,000. Just like the Gnostic and pagan refugees who had taken shelter inside the Serapeum in Alexandria nine centuries previously when it was attacked by Christian forces, they probably hoped that the hallowed ground would save them. And just as in Alexandria, it didn't. The knights burst in and slaughtered them all.[45]

By noon, a few hours after the fighting had started at the bridge, the entire population of the city had

been murdered. Working with all the contemporary estimates, and allowing for exaggeration in some cases, modern scholars generally concur on a figure of between 15,000 and 20,000 for the total number of the dead of Béziers.[46] Guiraraut Riquier of Narbonne, one of the last of the Occitanian troubadours, expressed the scale of the tragedy in a song:

Béziers has fallen. They're dead. Clerks, women, children. No quarter. They killed Christians too.

I rode out. I couldn't see or hear, a living creature ... They killed seven thousand people, Seven thousand souls who sought sanctuary in Saint Madeleine.

The steps of the altar, were wet with blood. The church echoed with the cries. Afterwards they

slaughtered the monks who tolled the bells.
They used the silver cross, as a chopping block to behead them.[47]

Clearly Riquier's sympathies were not with the crusaders and he had no interest in making them look good. We might think that the whole scene was just something he'd invented as anti-Catholic propaganda were it not that all other accounts of the sack of the city, supported by archaeological evidence, also speak of a fearful massacre taking place inside the Church of Mary Magdalene.[48] Indeed the Catholic forces felt they had nothing to hide or be ashamed of in the killing of so many heretics in so holy a place.

The Cistercian chronicler Pierre des Vaux-de-Cernay proclaimed:

It was right that these shameless dogs should be captured and destroyed on the feast day of the woman [i.e. Mary Magdalene] they had insulted and whose church they had defiled …[49]

Arnaud Amalric, abbot of Cîteaux and leader of the Crusade, was thrilled too – and not just with the slaughter in the church but with the overall tally of the day. In a breathless letter to his master Pope Innocent III, the man at the source of all this carnage, he wrote proudly:

Nearly 20,000 of the citizens were put to the sword, regardless of age or sex. The workings of divine vengeance have been wondrous.[50]

Truth in extremes

Our purpose thus far has been to track the secret tradition that lay behind Catharism, that kept a complex system of Gnostic spirituality alive in the West through a thousand years of persecution, and that the Albigensian Crusades were designed to obliterate forever. We will not offer a detailed history of the Crusades themselves since several excellent books already exist that provide a thorough record of the main sieges and battles. Nevertheless, the best chance to study human behaviour always comes in the starkest, most dangerous and most extreme circumstances. For this reason, as we will see in the next chapter, the Crusades provide a unique opportunity to get closer to the truth about the two sides.

The truth is that upon the citizens of Béziers, who had threatened no one, aggressed no one, gone out to

make war on no one, and merely followed their own harmless beliefs, the Catholic side unleashed an army from hell to inflict a hellish atrocity of rare and terrible evil. Zoé Oldenbourg suggests that we should reflect on what this tells us:

Massacres such as that at Béziers are extremely rare; we are forced to accept the proposition that even human cruelty has its limits. Even amongst the worst atrocities which history has to show us through the centuries, massacres of this sort stand out as exceptions; and yet it is the head of one of the leading monastic orders in Catholic Christendom who has the honour of being responsible (while conducting a 'Holy War' to boot) for one such monstrous exception to the rules of war. We should be on our guard against underrating the significance

of this fact.[51]

Nor did the atrocities stop with Béziers. They went on and on, seemingly endlessly, each with some mad demonic quality of its own. But soon after Béziers, having bathed in sufficient blood to satisfy his appetite, Arnaud Amalric opted for a less ‘front-line’ role. His successor, chosen to prosecute the Crusade with the utmost vigour, was Simon de Montfort, described as a man who ‘prayed, took Communion and killed as easily as drawing breath.’[52]

CHAPTER SEVEN

THE SWORD AND THE FIRE

> *It was not until the formation of the Holy Office* [of the Inquisition] *that the world was presented with the spectacle of an organisation prepared to kill, starve, and dispossess those who had deviated a hair's breadth from its own theological preoccupations.*

No other major religion has ever produced such an organisation. There are secular organisations which have acted with equal ferocity and efficiency, but, unlike the Inquisition, they did not last for seven centuries.

Arthur Guirdham, The Great Heresy

The crusading army rested three days in the meadows around the reeking corpse of Béziers, then marched off to besiege the great city of Carcassonne – which surrendered two weeks later without putting up a fight. A condition of the surrender was that this time the inhabitants would not be slaughtered;

instead all their property was confiscated and they were expelled from Carcassonne, penniless and homeless, never to return.

In August 1209 Simon de Montfort officially took command of the army, and of a new title, Viscount of Béziers and Carcassonne.[1] But by mid-September the vast majority of the forces at his disposal had packed their bags and gone home. This was a routine and predictable desertion since the indulgences and remission of sins that the pope bestowed on crusaders required them to put in a minimum of 40 days on campaign. The surrender of Carcassonne was accomplished just within the 40 days but after that, in the minds of most of the volunteers, the campaign was over.

With a small band of dedicated knights de Montfort

hung on in what was now the heart of very hostile territory over the winter. Then in 1210 – and yearly thereafter – the pope preached another crusade and the ranks of the army swelled once more.[2]

A macabre highlight of the 1210 campaign was the capture of the fortress of Bram after three days of stiff resistance. Because they had put up a fight the surviving members of the garrison, numbering over 100, suffered a terrible punishment. On de Montfort's orders their eyes were put out. Then their noses and upper lips were crudely hacked off. One man was left one eye, not out of charity but so that he could lead the stumbling, blinded, mutilated soldiers to Caberet, the crusaders' next target, as a very particular message for the defenders there.[3]

At Béziers, because the city's entire population,

heretic and Catholic alike, had been indiscriminately massacred, there could be no mass burning of heretics. Although de Montfort had personally supervised the immolation of a small group of Cathar *perfecti* at Castres in 1209,[4] it was therefore not until the 1210 campaign that the opportunity came his way to burn a large number of heretics at once – a sight, according to the pro-Catholic chronicler Pierre des Vaux-de-Cernay, that all the crusaders experienced with feelings of 'intense joy'.[5]

The opportunity was provided by the fortress city of Minerve where it was known that many Cathar *perfecti* – both men and women – had taken refuge. De Montfort laid siege to the stronghold in June 1210 and forced its surrender some weeks later after cutting off its water supply and deploying his war-

catapults and stone-guns to bombard it mercilessly. As had been the case at the surrender of Carcassonne there was no massacre; but this time the Cathar *perfecti* sheltering in Minerve were identified and singled out. Their choice was either to recant or die. Initially none recanted, and one of the *perfecti* explained to a Catholic priest: ‘Neither death nor life can tear us from the faith to which we are joined.’[6] On 22 July 1210, the exact anniversary of the sack of Béziers (and again, significantly, the feast day of Saint Mary Magdalene)[7] Vaux-de-Cernay reports that a huge fire was prepared. While it blazed and roared the prisoners were brought out before it and:

… more than one hundred and forty of these heretical *perfecti* were flung thereon at one time. To tell the

truth, there was no need for our men to drag them thither; for they remained obdurate in their wickedness, and with great gaiety of heart cast themselves into the fire. Three women, however, were spared; being brought down from the stake ... and reconciled with the Holy Roman Church.[8]

What stands out from the next year's campaign – 1211 – is the fate of an even larger group of *perfecti*. On 3 May 1211, after a lengthy siege, the crusaders breached the walls of Lavaur and poured through, seizing the city. Amongst the captives were more than 400 *perfecti*, both men and women, who were burnt on a gigantic bonfire.[9] Though not Cathars, the 80 knights who had commanded the garrison were hanged for protecting them. Guiraude, the Lady of Lavaur, was also brutalised then murdered. This

high-ranking Occitan noblewoman was a Cathar *credente*, much loved in the city, of whom it was said: 'Never did a living soul leave her roof without having eaten well first.'[10] De Montfort handed her over to a band of mercenaries who dragged her through the streets heaping indignities upon her, before throwing her down a well and killing her with stones.[11]

A month later de Montfort burnt 60 more Cathar *perfecti* at Cassis.[12]

In 1213 King Peter II of Aragon, famous for having recently won a great victory against the Moors in Spain, intervened against the crusaders. Some of the hard-pressed Occitan noblemen who were protecting the Cathars were his relatives, and there was a large population of Cathars in Aragon itself. Peter brought hope, a splendid force of 2,000 battle-hardened

knights and 50,000 infantry into the equation – more than enough to change the course of the war. But it was not to be. Though he was heavily outnumbered, de Montfort attacked Peter at Muret and, through brilliant, ruthless generalship, succeeded in killing him in battle.[13] At the sight of this terrible and totally unexpected catastrophe the Aragonese and Occitan forces hesitated, then began to retreat. The retreat turned to panic and then to a rout with De Montfort's knights in hot pursuit. Thousands were cut down, drowned in a nearby river, or crushed as they fled. [14]

It took the Occitan nobles three years to lick their wounds and gather their strength before they were ready to take on de Montfort again. Nonetheless by 1216 the Count of Toulouse had succeeded in raising an army and, for the first time, began to inflict

serious reverses on the crusaders. Using his favoured strategy – if in doubt attack – de Montfort tried to take the initiative by besieging Toulouse. The city fought back ferociously and – refusing to be put on the psychological defensive – routinely sent out armed sorties to attack de Montfort in his own camp.

The siege dragged on for many months and the defenders' sorties grew ever more daring. On the morning of 25 June 1218, while repelling one of these raids, de Montfort was killed outright by a projectile from a stone-gun mounted on the walls of Toulouse and said to have been fired by a crew of women and young girls .[15] The *Chanson de la Croisade albigeoise* describes his death:

A stone flew straight to its proper mark, and smote Count Simon upon his helm of steel, in such wise that

his eyeballs, brains, teeth, skull and jawbone all flew into pieces, and he fell down upon the ground stark dead, blackened and bloody.[16]

The darkest hour before the falsest dawn

With de Montfort thus felled like a pole-axed ox his son Amaury took charge and abandoned the failed siege within a month. In 1219, however, he was back in action leading yet another crusade. This time he was joined by Prince Louis of France, out to do his crusading duty and bringing with him ‘20 bishops, 30

counts, 600 knights and 10,000 archers .’[17] The two armies met in front of the unfortunate city of Marmande, which Amaury had already besieged, and launched a joint attack, overwhelming its defences.

Then another of those demonic interludes of the Crusades took place – when the Catholic troops, urged on by their bishops, fell upon the fleeing citizens in the narrow streets of the city. From the *Chanson* comes this harrowing description of what they did at Marmande:

They hurried into the town, waving sharp swords, and it was now that the massacre and fearful butchery began. Men and women, barons, ladies, babes in arms, were all stripped and despoiled and put to the sword.

The ground was littered with blood, brains,

fragments of flesh, limbless trunks, hacked-off arms and legs, bodies ripped up or stove in, livers and hearts that had been chopped to pieces or ground into mash. It was as though they had rained down from the sky. The whole place ran with blood – streets, fields, river bank. Neither man, nor woman, young or old survived; not a single person escaped …[18]

Did the Catholic forces serve the God of Evil, as the Cathars claimed?

We cannot say whether a ‘God’ of any sort was behind the butchery at Béziers and Marmande, the mass burnings and martyrdom of the *perfecti* and the ruin of Occitania. But since the Albigensian Crusades were launched and maintained exclusively on the pope's initiative, we can say, without equivocation,

that the Catholic Church was directly responsible for all these evil things, and that it was acting in the name of its God.

Soon after Marmande, their 40 days of crusading up, their sins forgiven and their indulgences earned, Prince Louis and his French soldiers went home. Amaury de Montfort and his much diminished army were left to continue the campaign but it soon became obvious that they were not capable of winning it alone. Part of the problem was generalship: although a competent soldier, Amaury was a man of greatly inferior calibre to his warrior father. But equally important was a renewed spirit of national resistance in Occitania, where the people and nobles now began a determined fightback against the occupying forces. Under the leadership of the Count of Toulouse, huge territories were

recaptured and by the time of his death in August 1222 the war of liberation seemed unstoppable. The advances continued under his son and in January 1224 the young Count of Toulouse and the Count of Foix – the other main leader of the Occitanian resistance – signed a peace treaty with Amaury de Montfort that secured the withdrawal of the bulk of crusading forces.[19]

But doom still overshadowed Occitania and its citizens of all religious persuasions who had protected the Cathars so bravely, and died so uncomplainingly on their behalf, through the 15 years of horror from 1209 to 1224. It is a quite remarkable fact of these dreadful wars that the Cathars never once seem to have been blamed by their non-Cathar countrymen for the catastrophe that

all were now plunged in together. And it is remarkable too, although Cathar *credentes* did join the resistance, that there is not a single example in all the extensive records of the Albigensian Crusades of Cathar *perfecti* ever participating in any way in violence. Despite enormous provocation – literally to the death – they seem to have adhered with almost superhuman consistency to their principles of absolute pacifism and non-resistance .[20]

Nor is it that they were simply suicidal and wanted to die – something that they have frequently and quite wrongly been accused of. Despite their negative view of material life the Cathars were utterly opposed to suicide and believed that each of us, so far as possible, should live out the natural term of our soul's imprisonment. Accordingly the *perfecti*

disguised themselves, abandoned the wearing of their characteristic black robes, went on the run, sheltered where they could in safe-houses, caves, or forests, and used any and every form of evasion short of actually fighting back. As Zoé Oldenbourg observes:

It is easy to see how, to that hard-pressed society, such hunted, indomitable pacifists must have appeared as the only true fathers in religion and sources of spiritual consolation, the one genuine moral authority which men could obey.[21]

The Pope hires the French to finish the job

The treaty of January 1224 was the falsest of dawns. Only a month after he had signed it Amaury de Montfort divested himself of his inherited title to the vast swathe of Occitania that his father had won during his glory years. All these lands that the de Montforts had stolen from their rightful Occitanian owners were now officially handed over by Amaury to a man much better equipped to consolidate the spectacular land-grab forever – the king of France .[22]

Previously, under King Philip Augustus, the French monarchy had resisted direct involvement in the Albigensian Crusades – despite many strident demands from the papacy for French intervention. Although Philip had not objected to the participation of his son Louis, as well as some of his barons and lesser nobles, he had made a clear policy decision to

stay out of it himself. But when the old king died on 14 July 1223, it was Louis who succeeded to the throne[23] – the same Prince Louis who had ordered the despicable massacre at Marmande in 1219.

Now crowned Louis VIII, and with legal title to much of Occitania handed to him on a plate by Amaury de Montfort, he was ready for a return visit. This time what he had in mind was full-scale annexation under the disguise of a crusade. Even so he drove a hard bargain with Pope Honorius III (Innocent III's successor) who, conveniently, had begun to urge him to mount a new crusade into Occitania from the moment he had ascended to the throne. So desperate was Honorius to smash the Cathars once and for all that he made an unprecedented agreement with Louis. In return for

subduing Occitania, the crown would be rewarded to the measure of one tenth of all French Church revenues for five years .[24]

In the spring of 1226, almost two years after he had received the titledeeds to Occitania from Amaury de Montfort, Louis VIII set out on his bogus ‘crusade’ of annexation. So overwhelming was the force he led that he received the surrender of several great cities, including Carcassonne and Narbonne, without even having to fight. His first and last major setback occurred on 8 November 1226 when he was suddenly taken ill and died .[25]

But still the campaign went on. Louis had been married to Blanche of Castile, a hard-hearted and determined women with vast ambitions for their 12-year-old son (also Louis – the future ‘Saint King’

Louis IX) to whom she was now regent. On her orders the French army remained in Occitania, gradually wearing down the resistance – once again represented mainly by the Counts of Toulouse and Foix. In 1228 and 1229 the French adopted a scorched earth policy, unleashing a terror campaign on the countryside, burning farms and villages throughout Occitania, destroying crops, driving the inhabitants out as refugees. By 1229 the will of the people to resist further after years of exhausting conflict had been utterly destroyed and the counts sued for peace .[26]

It was a crushing peace that included a public scourging in Notre Dame Cathedral in Paris of the Count of Toulouse on 12 April 1229 .[27] And although it marked the official end of the Albigensian

Crusades, it robbed Occitania of its independence forever, putting a huge area of this once free land under French control – effectively as an occupied state – and leading to its full annexation into the kingdom of France within half a century.

One of the provisions of the treaty allowed the count to retain nominal title to some of his hereditary domains around Toulouse but also obliged him to go into exile for five years, this exile to start no later than June 1230. In order to reduce even further his time amongst his own subjects, and thus his potential as a focus of rebellion, he was detained in Paris as a house prisoner in the Louvre Palace for six months after signing the treaty. By the time he reached Toulouse in November 1229 he found that the city's massive defensive walls had been pulled down to ensure that it would never again become a centre of

pro-Cathar and anti-French resistance.[28]

Pieces of silver

Despite the mass holocausts of *perfecti*, and increasingly focussed persecution, Catharism continued throughout the 1220s to be a vibrant religion that had an important place in the life of Occitania and that still attracted large numbers of *credentes*. There is evidence from the first half of the decade, when it seemed that the curse of the Crusades had been lifted, of fairly active reorganisation and restructuring of the Cathar Church. The jurisdictional boundaries of bishoprics

were re-established and in 1225 the Cathars even felt confident enough to establish a new bishopric – that of Razes.[29] Although many *perfecti* had been lost to the stake it has been calculated that several hundred, both male and female, were still active in Occitania in 1225.[30] So clearly, while the Albigensian Crusades had done much damage and taken many lives, they had not yet succeeded in their primary goal of eradicating the heresy of Catharism.

Military activities had of course occupied centre stage during the Crusades, but an element of heresy hunting had followed every campaign since 1209. In July 1214, for example, at the height of Simon de Montfort's successes, we find Foulques, the hated Catholic bishop of Toulouse, appointing a certain:

Brother Dominic and his companions ... to extirpate

heresy and eliminate vice, and promote the teachings of the Faith … as preachers in our diocese.[31]

This ‘Brother Dominic’ was Father Dominic de Guzmán, the Spanish monk who was to establish the famous Dominican monastic order in the Toulouse area on 11 February 1218.[32] Early on in the Albigensian Crusades, when Arnaud Amalric was still papal legate, Dominic had been invested with inquisitorial powers. Until his death in 1221 he deployed these powers mercilessly and his systematic programme of persecutions and investigations in Occitania laid the groundwork that would lead to the formal establishment of the much-feared papal Inquisition in 1233.[33]

The reverses suffered by the crusaders after Simon de Montfort's death in 1218 had been a set-back to

the heresy hunters too. But all this changed when the French renewed the Crusades in 1226 and, under the devout guidance of Blanche of Castile, made it clear that they supported the strongest action against heretics. Soon afterwards Peter Isarn, the Cathar bishop of Carcassonne, and Gérard de la Mothe, a Cathar deacon from La Bessède, were burned at the stake.[34]

The peace treaty that Count Raymond VI of Toulouse went to France to sign, and endured a public scourging for on 12 April 1229, introduced draconian procedures for the hunting down of heresy.[35] In the following years the gradual expansion of the use of these procedures, always backed up by 'the secular arm' – i.e. the French occupation forces – meant that the Church came to

exercise unlimited power over the life and liberty of the people of Occitania. As a signatory to the treaty Count Raymond was even obliged to persecute heretics himself – the same heretics who he and his father had fought so hard to protect for the past 20 years. He was to order his own bailiffs to hunt them down on the much reduced lands that the treaty had left nominally under his control, and he was to assist in hunting them down on the far larger lands that had been ceded to the French crown:

We will purge these lands of heretics and of the stench of heresy and we will also aid the purgation of the lands which the Lord King shall hold … In order better and more easily to unmask them [the heretics], we promise to pay two marks of silver for the next two years and, after that, one mark to every person who causes a heretic to be arrested, on condition that

the heretic is condemned as such by the bishop of the place, or by a competent authority.[36]

As well as paying blood money to informers, Raymond was also required to pay large sums directly to the Church – 10,000 marks, supposedly to repair damage done to its property by heretics, 4,000 marks to the monasteries, and a further 4,000 marks to support 14 masters of Catholic theology at the University of Toulouse.[37] The idea, comments medieval historian Martin Barber, was to fill the land ‘with bastions of orthodoxy where heretics could find no comfort or protection.’[38]

Informer culture

At the same time the heat was turned up on individual Cathars at all levels with a whole raft of new statutes. These 45 cold-hearted, methodical, pettifogging, bureaucratic decrees made the suppression of heresy obligatory under common law. A few examples will give us a glimpse of just how far the Church was prepared to go in invading and taking control of people's everyday lives and drawing them into inhumanities:

- In every parish throughout the land the Catholic bishops were to nominate a priest and two or three trusted laypersons ‘of unblemished reputation, who shall take an oath to search out, loyally and assiduously, such heretics as may be resident in the said parish.’ The job of these state-sponsored vigilantes

required them to ‘make a close inspection of all suspect houses, their chambers and cellarage, and likewise all concealed hiding places, the which to be demolished.’ They were to arrest not only heretics but also anyone who had helped heretics in any way.

- A person who had permitted a heretic to stay on his land was to confess to this crime forthwith: ‘else on conviction he will forfeit his lands in perpetuity, and be liable to personal punishment.’
- Persons whose lands were used by heretics without their knowledge or agreement were subject to the same penalties.
- ‘The house in which a heretic is discovered shall be razed to the ground, and the land on which it stands confiscated.’

- ‘If the resident bailiff of a locality suspected to be a haunt of heretics does not hunt the said heretics down zealously, he shall lose his position without compensation.’
- ‘All persons may search out heretics on their neighbours’ land.’
- Heretics who had abjured Catharism and returned to the Church were to wear ‘two crosses on their outer garment, one on the right and other on the left side, and of a different colour from the garment itself …’
- In every parish all males over 14 years of age and all females over 12 were required to swear an oath before their bishop, renewable every two years thereafter, that they would be loyal Catholics, abjure heresy, help to hunt down heretics, and inform on any heretics known to

them. In the process the name of every person dwelling in every parish was to be recorded and those who failed to take the oath were to be treated as suspected heretics.

- Every person of either sex on the parish lists (again aged over 14 in the case of males and over 12 in the case of females) was to be compelled to confess to their parish priest at least three times a year and to take Communion at Christmas, Easter and Pentecost. ‘Priests are to seek out any who fail to attend Holy Communion, and who thereby incur suspicion of heretical beliefs.’
- Lay persons were forbidden to possess any of the books of the Old and New Testament ‘with the exception of the Psalter, the Breviary, and the Book of Hours of the Blessed Virgin; and it

is rigorously forbidden to possess even these in the vernacular tongue.'

- 'Any person denounced by public opinion, and whose ill reputation is known to the bishop, shall properly be called a heretic.'[39]

And so the statutes droned on, releasing into the free air of Occitania the horrible odour of a Nazi-style informer culture and, as Zoé Oldenbourg observes, setting up 'a system of virtual police control over the entire population.'[40] We use the word Nazi advisedly here. A decade and a half earlier, in 1215 at its Fourth Lateran Council, the Catholic Church had already anticipated the Warsaw Ghetto by more than 700 years when it compelled the Jews of Europe to stitch a prominent yellow circle onto their clothing.[41] Now, following the 1229 treaty, we see the same

treatment – albeit with the different symbol of the two crosses – applied to reconciled heretics. Considered a ‘symbol of shame’ the two crosses came routinely to be coloured yellow as specified in a later statute which also gave the exact dimensions of the crosses and more information on how they were to be worn. All reconciled heretics, states the relevant law: … shall carry from now on and forever two yellow crosses on all their clothes except their shirts, and one arm shall be two palms [8 inches] long while the other transversal arm shall be a palm and a half [6 inches] long, and each shall be 3 digits [2.25 inches] wide, with one to be worn in front of the chest, and the other between the shoulders.[42]

Required under severe and possibly fatal penalty not to ‘move about either inside or outside’ their

homes without wearing the crosses, reconciled heretics were moreover obliged to ‘redo or renew the crosses if they are torn or destroyed by age.’[43]

The Dominican flying squad

One gets a sense of the kind of cold, calculating, minds that must have been at work behind the dreaming-up and enforcement of such regulations – regulations that were designed to sever the bonds of warmth and trust that link human beings one to another. The clear objective was to create an atmosphere of suspicion, blame and jeopardy, and to whip up a frenzy of denouncements by capitalising on

people's fears of loss of property – and far worse.

The following years saw many heretics seized and killed. On one occasion, for example, shortly after he had taken office as bishop of Toulouse in 1231, Raymond de Fauga was able to gloat over the mass-burning of 19 high-ranking Cathar *perfecti* who had been betrayed, ambushed and captured at one of their meetings.[44] De Fauga was a Dominican, the monastic order established by the late Saint Dominic with the explicit purpose of attacking heresy. Since 1215 these austere and zealous monks had occupied three houses near Toulouse's Narbonne Gate. In 1230, in recognition of their growing importance, they moved to a new site beside the Saracen Wall.[45] By 1234 there were more than 40 of them in Toulouse alone and they had established missions in

many other parts of Europe as well.[46]

Tremendous recognition, prestige and power had begun to come their way when Pope Gregory IX had succeeded Honorius III in 1227. Gregory was unhappy with the system so far established in Europe for the suppression of heresy. Though primarily under the control of the bishops, other figures with overlapping responsibilities were also frequently involved. The result was chaos and inefficiency at a time when attention was beginning to be focussed on the supposed ‘danger’ posed by Cathar communities in Germany, France and northern Italy, as well as the continuing survival of Catharism in Occitania. With the linked Bogomil heresy still looking very strong further East, the paranoid tendencies of the Catholic Church went into overdrive and there was a

widespread conviction that enemies were hiding themselves everywhere.

The benefit in this for the Dominicans was that in 1231 Pope Gregory appointed them as his own personal ‘flying inquisition’, superior to the bishops and independent of them, to discover, arrest, interrogate and condemn German Cathars. In 1233, seeing the success of their work in Germany, Gregory also asked them to do the same job in France and in Occitania .[47] Success bred success, triumph followed triumph, and soon the Dominicans, aided to some extent by Franciscans and local prelates, had been appointed as the official papal Inquisition, overriding all other authorities in any matter concerning heresy.[48]

The term ‘inquisition’ had long been used for the

process of extracting confessions from heretics, and ‘inquisitions’ – interrogations and mass trials of suspected heretics – were periodically held by the bishops. But this was the first time in the history of the Church that officials had been appointed whose only function was to conduct inquisitions, who were officially titled ‘inquisitors’, and who were responsible directly and exclusively to the pope.[49]

You never expect the Spanish Inquisition

When we began this research we did not know ourselves that the famed (but misnamed) ‘Spanish

Inquisition' (subject of a memorable Monty Python sketch) had first been established in April 1233 by Pope Gregory IX. Nor did we know that the original and explicit purpose of the Inquisition was to root out and destroy the Cathar heresy. Building on the repressive structures that had already been firmly laid down in Occitania, the Dominican inquisitors were empowered after 1233 to use virtually any measure they wished to extract confessions and to crush the Cathar faith. They began at once to institute a reign of terror – true and awful terror from which no one was safe.

A chilling example is provided by the behaviour of Raymond de Fauga, the Dominican prior who Pope Gregory IX had appointed as bishop of Toulouse in 1231. A few years later, on 4 August 1235 (by chance the first official feast day for the recently canonised

Saint Dominic) de Fauga held Mass at the order's convent in Toulouse and then made his way to the refectory to take dinner with the other monks. While he was washing his hands an informer was admitted bringing him a titbit of hot news from his spy-network. In a nearby house an elderly Cathar lady lay in a fever and close to death. She was a *grande dame* of a good family and had been visited shortly before by a fugitive *perfectus* who had given her the *consolamentum* and then slipped away.[50]

Annoyingly, it was too late to catch the *perfectus*. But the old woman wasn't going anywhere! Joyfully seizing the opportunity to bring another sinner to justice de Fauga and his fellow Dominicans, dressed only in monks’ habits, left their dinner and hurried at once to the house pinpointed by the informer. It was

very close, in the Rue de l'Olmet sec, and turned out to belong to a certain Peitivin Brosier who had long been suspected as a Cathar sympathiser.[51] The dying woman was his mother-in-law, and as the Dominicans brushed past Brosier into her sick room it seems he only had time to warn her that the 'lord bishop' was coming. In her fevered state she unfortunately did not understand that he meant the Catholic bishop of Toulouse and mistook de Fauga for a Cathar bishop.[52]

A horrifying scene then unfolded as the Dominican took advantage of the frail old lady's confusion, spoke to her in familiar dualistic terms 'about contempt for the world and earthly things'[53] and began to question her concerning her faith. Having no reason to suspect that she had fallen into the hands of a skilled

and unscrupulous impostor, she innocently revealed all her Cathar beliefs and confirmed the extent of her attachment to them. De Fauga, whose cynicism was bottomless, even carried the charade so far as to urge her to remain steadfast in these beliefs, admonishing her firmly:

... the fear of death should not make you confess aught else than that which you hold firmly in your whole heart.[54]

The old woman's honest reply, as one would expect from a dying *credente* who had been recently consoled, was that she would certainly not lie about her beliefs, and thus obliterate the benefits of the *consolamentum* she had received, when there was so little of her life left to her.[55] For de Fauga, who had everything he needed, this was the perfect moment

to reveal his true identity. Looming over her bed he pronounced her a heretic and ordered her to recant and embrace the Catholic faith.

The old lady was by now fully awake to her predicament and, like many a brave Cathar before her, refused to recant. De Fauga and the other Dominicans insisted that she must. The badgering went on for some time in front of a growing number of witnesses who had crowded in from the neighbourhood, all keen to see how this was going to end. Finally, since his victim ‘persevered with increasing stubbornness in her heretical alliance’,[56] de Fauga decided to ‘relax her to the secular arm’ – the Church's usual euphemism for having local civil authorities do the dirty work of executing a heretic.[57] In this case, to speed things up, a magistrate had

already been called and now legally sentenced the dying woman to death![58]

Runners were despatched to prepare a huge fire at the public execution ground, a place called *Pre du Comte* (the count's meadow), and word of the spectacle was sent out all over Toulouse attracting a large crowd. For the old woman it must have seemed a vision straight from hell, exactly what her beloved Cathar Church had always told her this world was anyway. Since she was quite unable to walk, the Dominicans had ordered her to be tied to her bed. She had then been carried out of her son-in-law's house, bed and all, and brought to this place. Now, after refusing one more chance to recant, she was thrown into the raging flames and burnt alive.

‘This done’, concludes William Pelisson, one of the

witnesses to these events and himself a Dominican inquisitor who entirely approved of de Fauga's actions:[59]

The Bishop, together with the monks and their attendants, returned to the refectory and giving thanks to God and the Blessed Dominic, ate with rejoicing what had been prepared for them.[60]

One wonders what happened to the old woman's son-in-law, Peitivin Brosier. All we know from Pelisson's cheerful account is that he was arrested.[61] Under the rules of the Inquisition in force at the time it is unlikely that he would have survived his subsequent – inevitable – interrogation without recanting the Cathar faith, accepting Catholicism fully and informing on his friends. Even then he would have remained a prisoner in close confinement

for the rest of his life. All other members of his family, as well as all his known associates and all members of his wife's family and all their known associates would have been interrogated and their statements cross-referred to detect any inconsistencies that might expose other heretics amongst them.

And of course, since he'd sheltered his mother-in-law – a proven heretic – it goes without saying that his house in the Rue de l’Olmet sec would have been razed to the ground.

That was just the way the Inquisition worked.

Paradox

When William Pelisson concluded his congratulatory report of the trapping and brutal murder of a helpless old lady, he modestly expressed the view that such a great achievement should not be credited to the Dominicans alone:

God performed these works … to the glory and praise of His name … to the exaltation of the faith and to the discomfiture of the heretics.[62]

Reading these sentiments, we find ourselves – not for the first time – overtaken by the sense of a really weird ‘disconnect’ between the words and the deeds of Catholic holy men like Pelisson. He was part of a Christian gang that had just done the most awful thing – something really psychotic and unbelievably cruel – to a fellow human being. But instead of being ashamed of such wickedness, he was proud of it and

felt that it glorified his God! Nowhere in the New Testament is it possible to find justification for such behaviour, so which God did he think he was talking about?

Once again the sense of disconnect goes away if we look at the whole scene from a Cathar perspective. Then the vile deeds of the Dominicans make perfect sense. Of course they acted as they did. Of course they took delight in the pain and suffering of the old lady. Theirs was the church of the God of Evil. What else would you expect of them?

We're only half serious ... Who's to say that there's even such an entity as ‘God’ at all, let alone Good and Evil Gods? Since there will never be any certainty on such matters this side of the grave, all we can do is weigh up the competing theories and compare them with the behaviour of the participants. When we do

that it is clear that Cathar theology provides an internally consistent explanation for why the Catholic Church burnt people at the stake and butchered the populations of whole cities. No such internally consistent explanation is forthcoming from Catholic theology; on the contrary the massacres and the many acts of prolonged, deliberate cruelty that the Catholic Church was responsible for represent a profound and inexplicable paradox when set against the teachings of Christ.

1. The Benben stone of the pyramid of Amen emhet III displayed at the Egyptian Antiquities Museum in Cairo. Note the ‘eyes’ at the centre of the pyramidion, the latter said to have been originally covered with gold leaf.

2. François-Édouard Picot's 1827 painting on the ceiling of Room 30 of the Louvre: L’Etude et le Génie dévoilentd Athènes l’Antique Egypte. The ‘unveiled’ Isis on a throne flanked by lions is contemplating a landscape of pyramids and an obelisk.

3. Statue of Giordano Bruno at Campo dei Fiori in Rome.

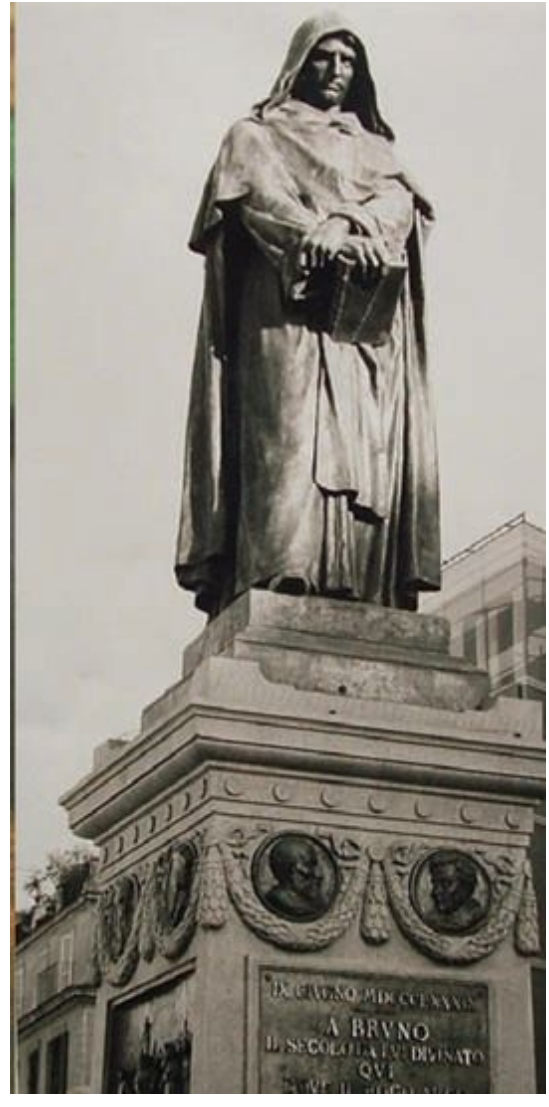
A BRVNO

4. View of the ‘octagonal ellipse’ in the Piazza San Pietro from the roof of the Basilica.

5. Sully Wing Room 26: this is the room that most symbolized the ‘sacred’ union of Anne of Austria and Louis XIII. The wood paneling of the room is from her apartments form Château Vincennes, and on the east wall hangs a portrait of the queen depicted as ‘Minerva’. Facing the queen is a 7. portrait of Louis XIII. Between them has recently been placed a statue of the Egyptian God Amun of Thebes/Luxor.

6. A Knight Temp tar, showing the croix pattée that characterized order, and the octagonal frame within which it can be imposed.

7 Here is seen the very ancient goddess and queen of the Egyptians’, etching from the fifteenth century. Note the boat and the ‘dog’ on the standard representing the ‘Dog Star’ Sirius.

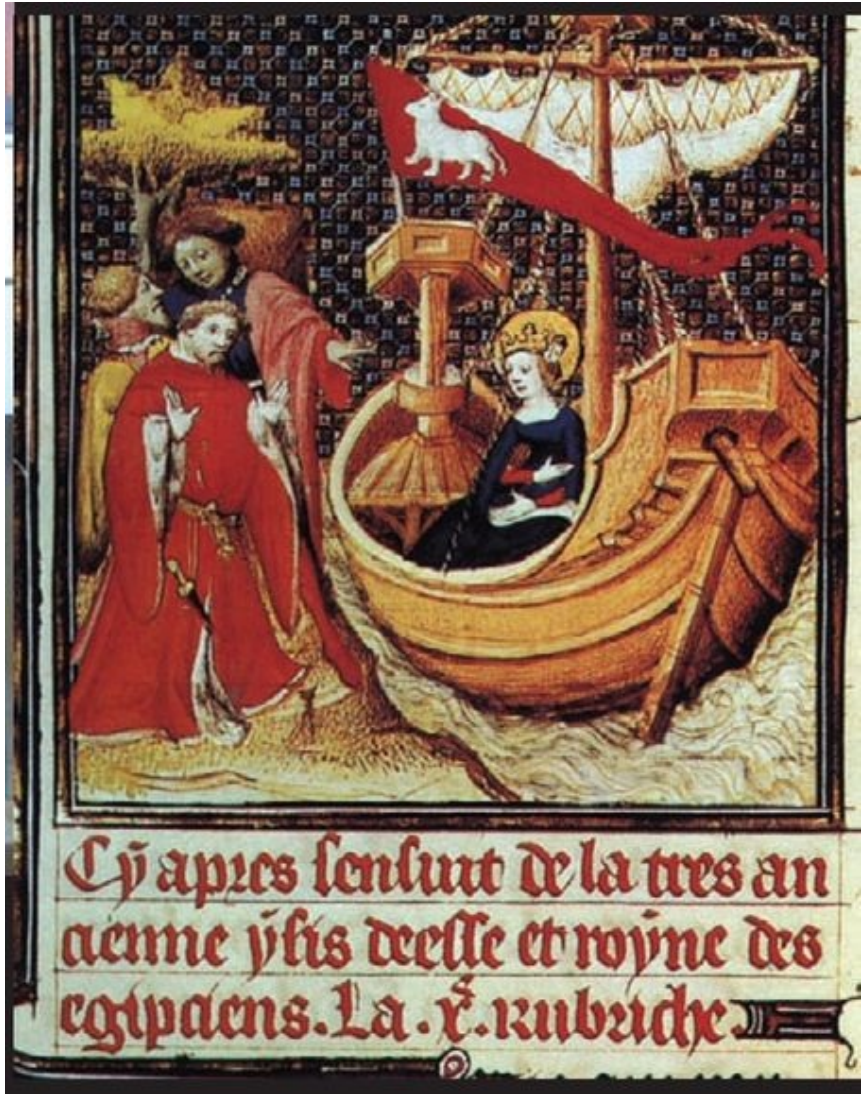
Cy apres ensuit de la tres an
cienne ysis deesse et royne des
egypcens. La. x. rubriche

8. Coat-of-arms of Paris, fifteenth century.

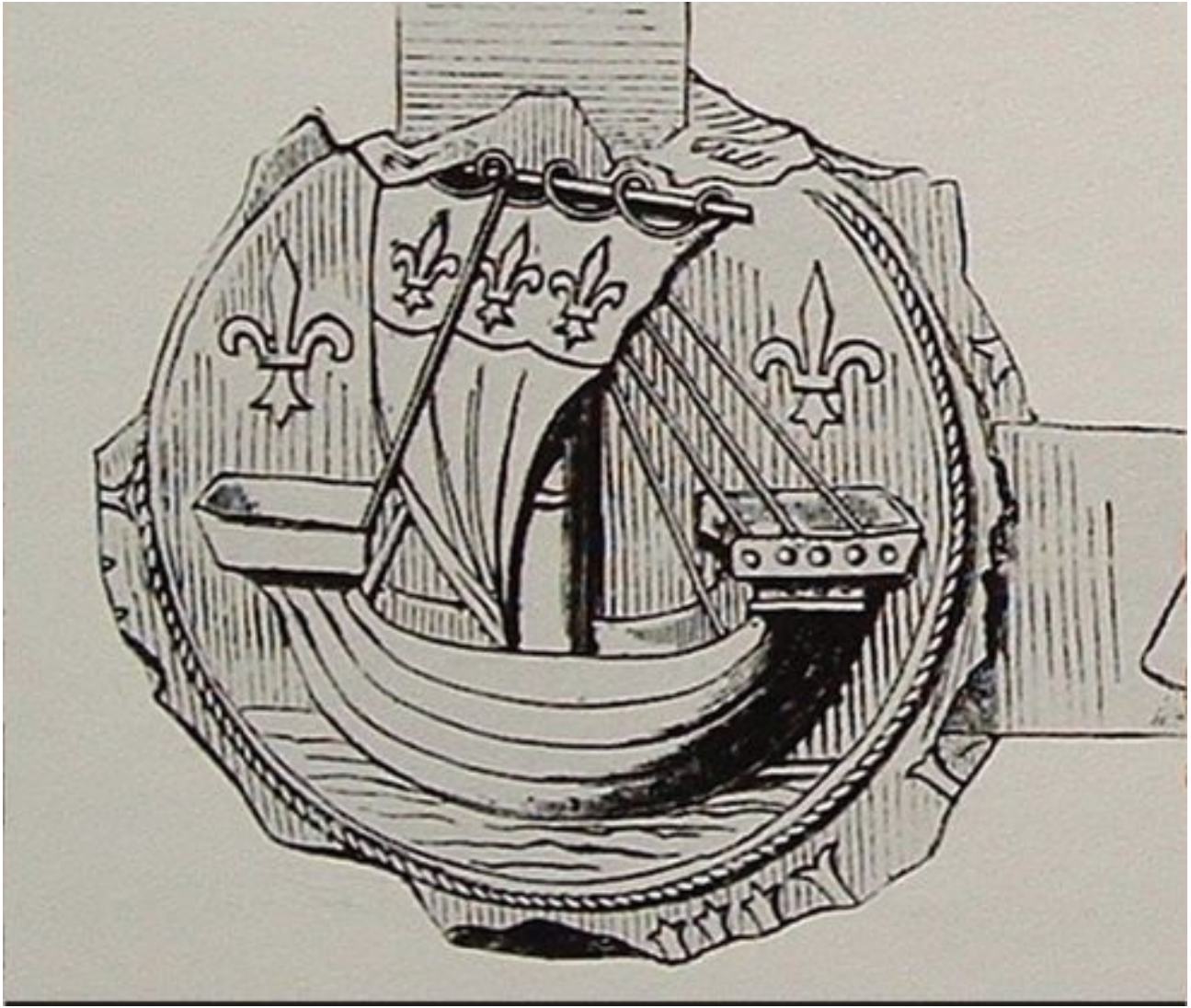

9. The coat-of-arms of Paris commissioned by Napoleon in 1811, showing Isis on the prow of the boat and her star, Sirius, leading the way. Note the three bees of ‘Charlemagne’ to symbolize imperial solar royalty. Also note the Hermetic caduceus piercing the crown supporting the imperial eagle.

10. A reconstruction map of the region of Paris before the city was built, showing the location of the Temple of Isis (where the Abbey of Saint-Germain-des-Prés now stands). The region, some sixteenth-century historians claimed, was thus known as ‘near the Temple of Isis’, hence the ‘Isi’ in ‘Parisi’.

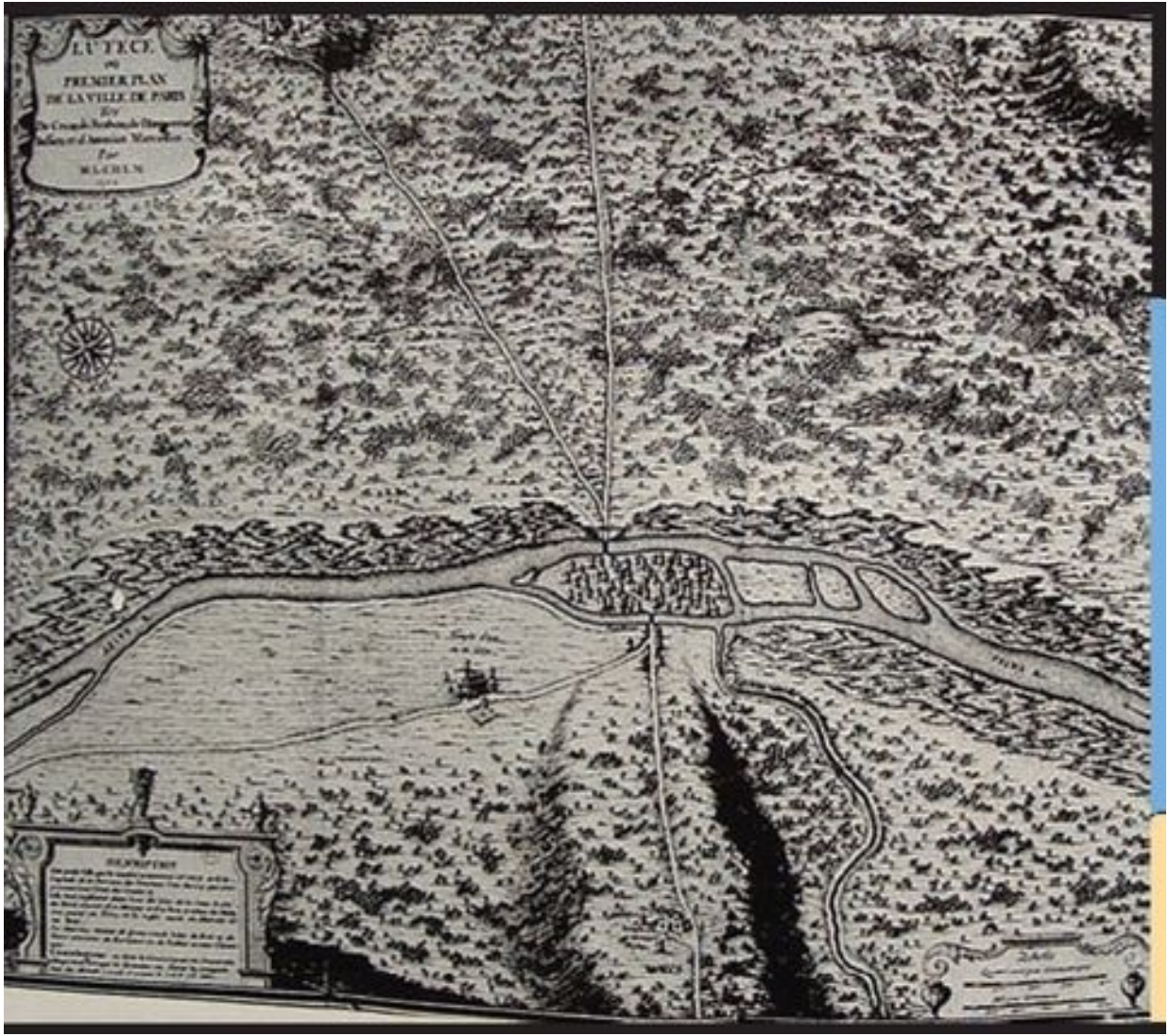
LUTECE
OU
PREMIER PLAN
DE LA VILLE DE PARIS
Par
MALCHUN

11. Occitania. Inset shows relevant portion of modern France.

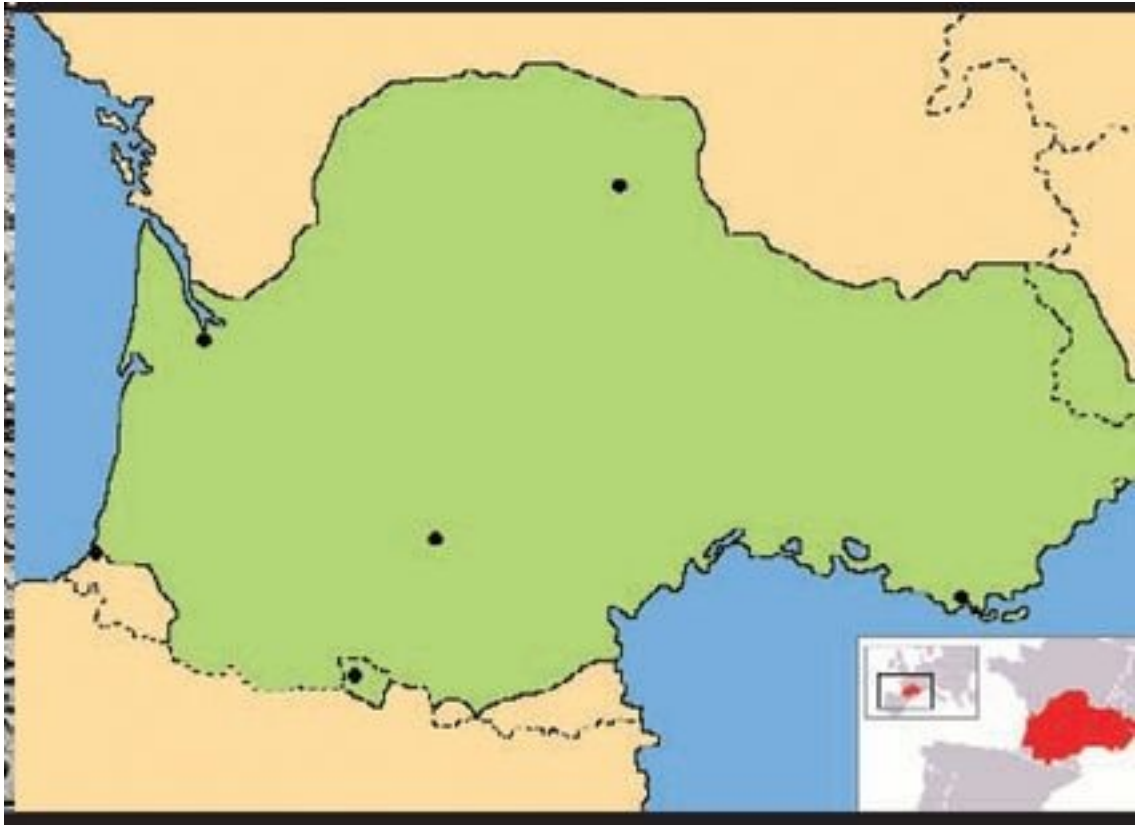

12. Aerial view the Louvre looking east. Note the

Historical Axis passing through the equestrian statute of Louis XIV (as ‘Alexander the Great’), then through the south flank of the Cour Carr6e and extending towards the horizon where the rising of Sirius took place. Note the ‘boat’ shape of the Île de la Cité on the right.

Canis Minor
Monoceros
Lepus
King Cobra (M67)
M50
M79

13. Aerial view of the Historical Axis of Paris looking west from the Louvre towards La Défense on the distant horizon. Note the deviation of the axis.

14. Sunset on 6 August along the Historical Axis (Champs-Élysées). This date is the feast of the Transfiguration of Christ, here clearly evoking solar symbolism also linked to Louis XIV, the Sun King, under whose reign the Historical Axis was first defined.

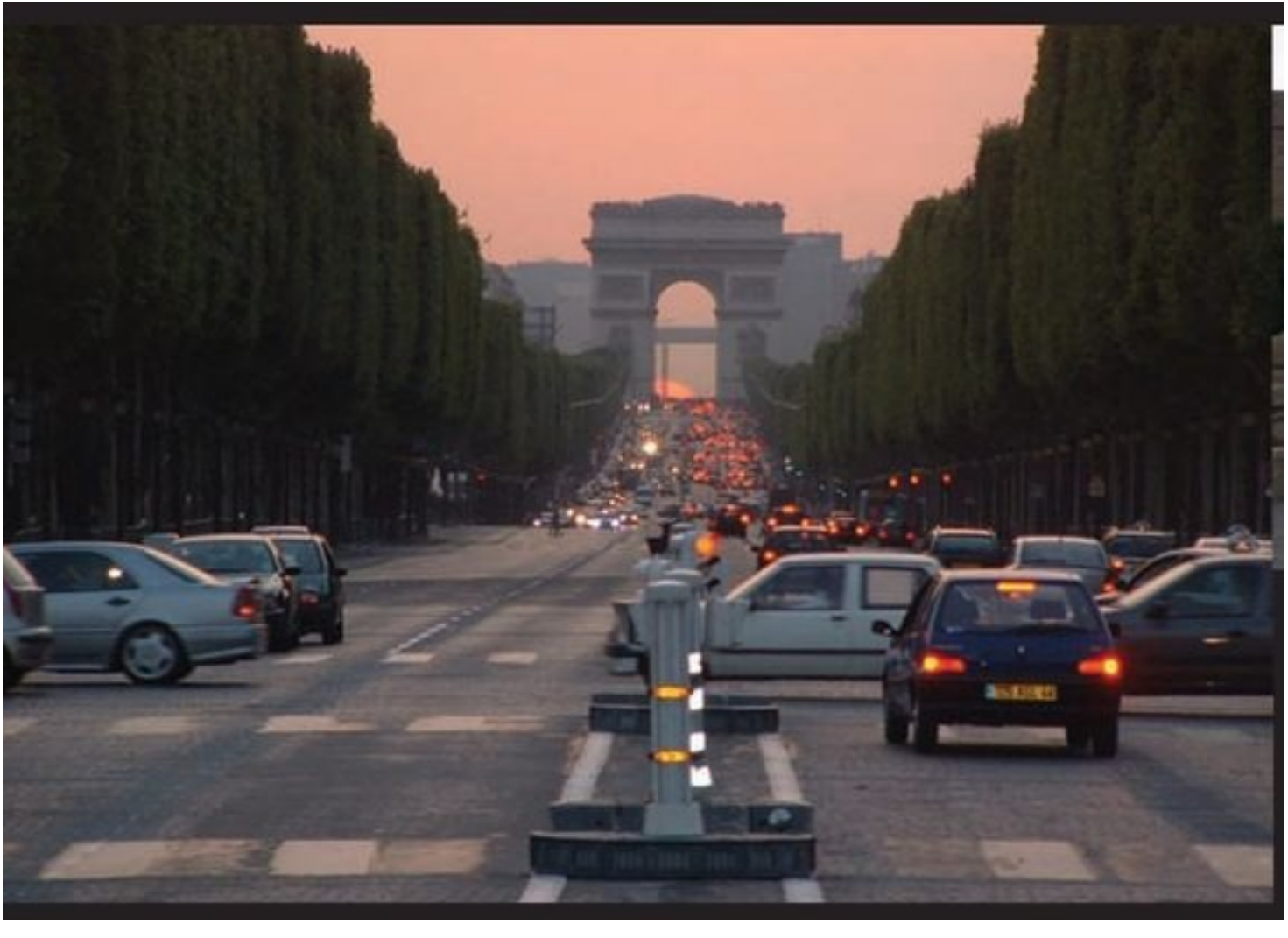

15. Winter solstice sunrise at Karnak-Thebes along main axis. Compare to sunset in Paris along the Champs-Élysées on 6 August (see left). The orientation is 26.5 degrees from the latitude at both locations.

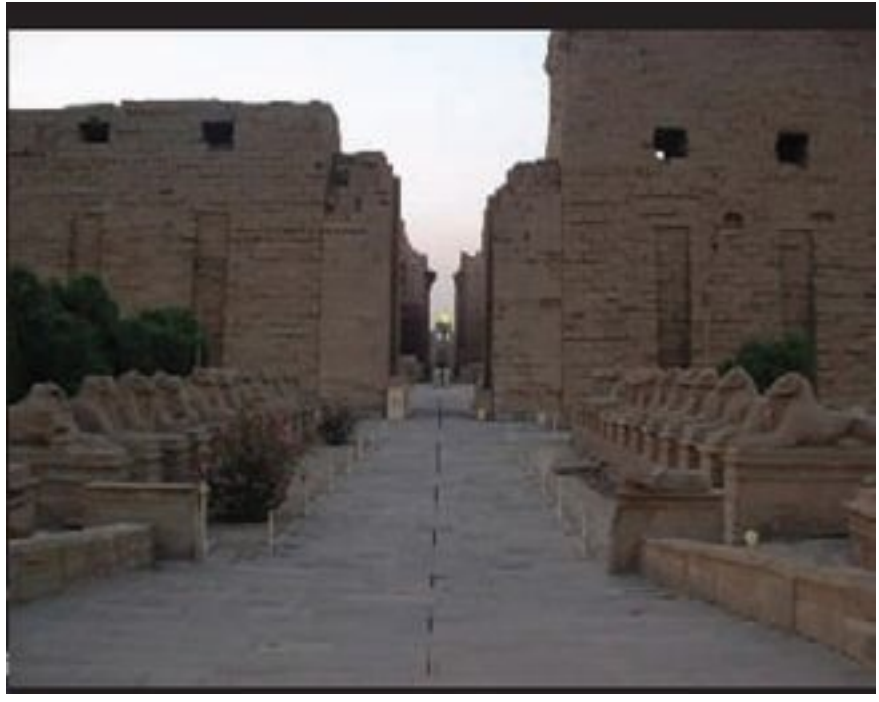

16. Sunset on 6 August along the Historical Axis (Avenue de la Grande Armée). The Grande Arche is, however, turned 32 degrees from due west such that

the sun will be in the centre of the arch on 24 Freemasons as the ‘New Year’ (see right).

17. View of the Grande Arche looking east. The 6 degrees deviation of the Grande Arche's axis produces an orientation Of 32 degrees north-of-west towards the sunset horizon, matching the sunset on 24 June (see left).

18. The equestrian statue of Louis XIV as ‘Alexander the Great’. The legend that Alexander was the son of Amun, the supreme sun-god of Egypt at Thebes (modern Luxor), was well known to classical scholars in the seventeenth century, and it is no surprise that Louis XIV, who insisted on being seen as the ‘Sun King’, was often depicted in art as Alexander the Great or Apollo.

19. Revolutionary etch in g showing Voltaire (left) and Rousseau (right) introducing the Supreme Beingto the French people, a blazing sun (known also as a ‘glory’) instead of a triangle or pyramid.

20. The ‘eye in the pyramid’ on the frontispiece of the

Declaration of the Rights of Man and the Citizen, drafted in August 1789.

21. The reverse motif of the Great Seal of the same motif also can be seen on the US one-dollar bill.

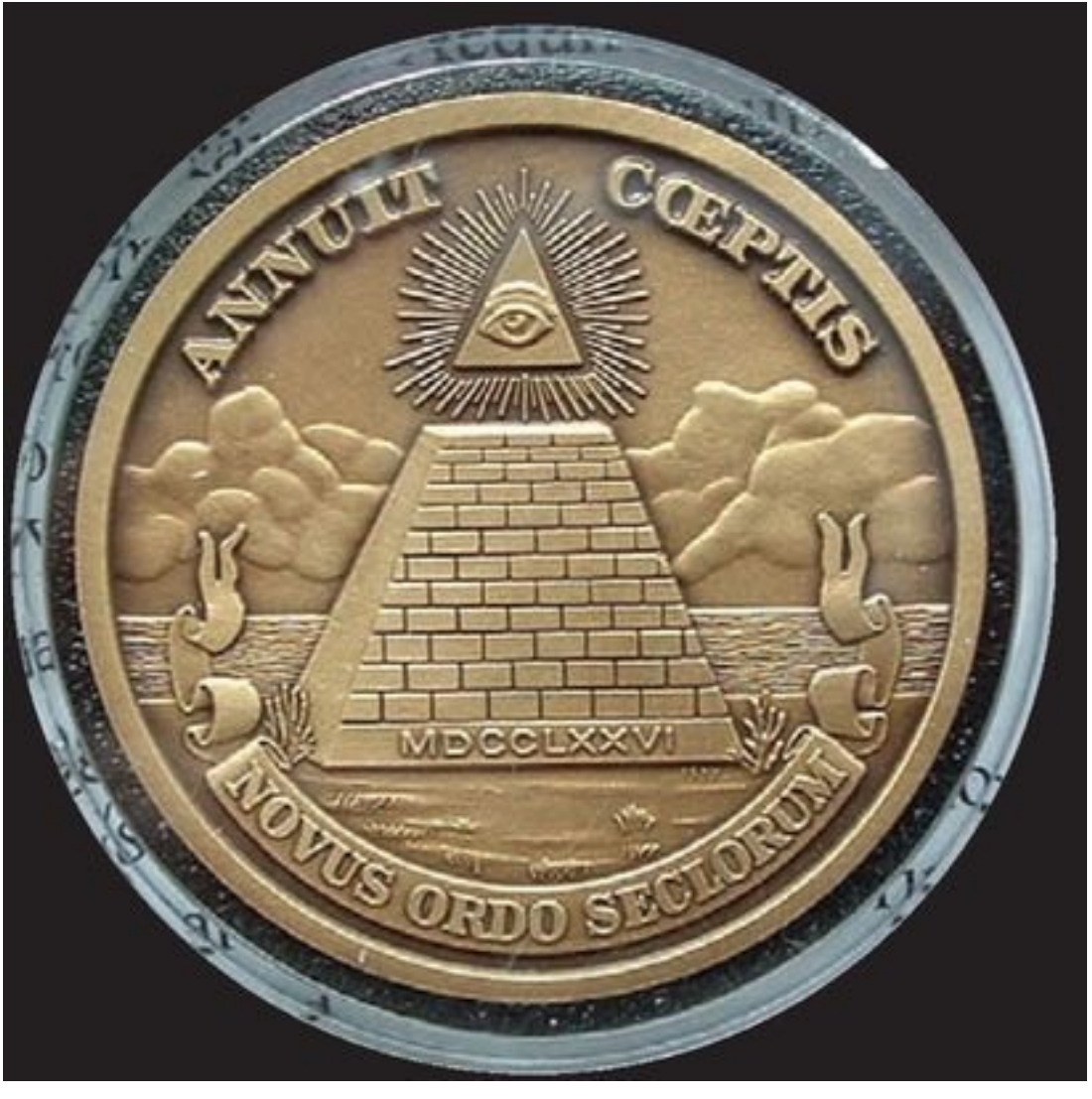
ANNUIT CŒPTIS
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NOVUS ORDO SECLORUM

22. August 1793. The so-called ‘Fountain of Regeneration’ (also known as ‘Isis of the Bastille’). This was a statue of the Egyptian goddess Isis with water sprouting from her nipples. The president of the National Convention is filling his cup with the ‘regenerative’ liquid symbolizing the new order, social and religious, for the French Republic, while the revolutionary crowds cheer.

23. August 1793: a ‘pyramid’ outside the Hôtel de

Ville in Paris in honour of the Supreme Being.

24. An etching in the journal Le Franc-Maçon showing the Empress Joséphine in her Masonic regalia at the ceremony of ‘Adoption des Francs-Chevatiers’ at a lodge in Strasbourg in 18°3. The ditty translates as: ‘My Brothers and Sisters,‘ says the lovely companion of the great Napoleon, this other Charlemagne, ‘my husband spoke true when he said that the examples and lessons of virtue and honour come from Freemasons.’

Lith. de Carot-Delamare, 4 des St Augustins, 17, Paris

JOSÉPHINE.

« Mes frères et mes sœurs, dit l'aimable compagne
Du grand Napoléon, cet autre Charlemagne. —
« Mon époux a dit vrai; l'exemple, les leçons
« Des vertus de l'honneur, viennent des Francs-Maçons

(Parodie de l'Impératrice Joséphine à la fête d'adoptions des Frères Chevaliers à Strasbourg en 1807.)

DECHEVAUX-DUMESNIL,
Rédacteur en chef du Journal le FRANC-MAÇON

25. Head of Cybele/Isis found in Paris in 1675 in the St. Eustache gardens. It probably dates from the Antonine period and was brought from Italy. Compare the tourelle on the head of the goddess to that on the Arc de Triomphe, Place de l’Étoile.

26. A goddess placing the imperial laurels on Napoleon, and at his feet another goddess wearing the tourelle of Cybele/lsis.

27. The goddess Isis on the façade of the Louvre looking east at the rising sun in the Cour Napoléon.

ISIS

28 The Loge Bonaparte (1853), one of many Masonic lodges bearing the name of Napoleon, showing Napoleon and Joachim Murat in Masonic regalia. The caption at the top reads ‘Where the laws of Freemasonry rule, also rules Happiness’.

LOGE BONAPARTE

29. Revolutionary etching showing Napoleon introducing the Supreme Being to all religious groups. Note the Giza pyramids on the top register.

30. The ‘missing’ obelis kat the temple of Luxor.

31. The obelisk of the Concorde that once stood outside the temple of Luxor.

Making hell on earth

Every year from 1233 onwards, this impossible paradox of gentle Christ and brutal Church was repeatedly reinforced by the Inquisition. The first two official inquisitors in Occitania, Peter Seila and William Arnold, both of whom were recruited from amongst the Dominicans of Toulouse, were appointed by Pope Gregory IX in late 1233.[63] Like all natural bureaucracies with high-level backing the Inquisition grew unrestrainedly. By the end of the decade numerous different teams of inquisitors like Seila and Arnold were at work throughout Occitania

interrogating, cross-referencing, condemning and burning. From the beginning they were a law unto themselves, independent both of the bishops and the civil authorities, with unlimited authority to act against heretics.

Their standard methodology was deliberately intimidating, designed to spread terror in any community they descended upon and to ‘drive a wedge into the façade of community solidarity, so that the loyalties and fears which had held it together could be undermined.’[64] Task forces, typically led by one or two inquisitors supported by an attendant band of soldiers, clerks and magistrates, roamed the land going from village to village, town to town, city to city. The idea, was that each unit should be self-sufficient as detective, gaoler, judge, jury and

executioner, identifying suspected heretics and ‘processing’ them from freedom either to repentance or the stake in as short a time as possible.

Methods of operation were constantly refined in response to the latest evasions and escape plans of the heretics, although by the 1240s large parts of the procedure had been standardised and written up by the Dominicans in a series of detailed technical manuals. From these we learn that in each parish the Inquistion would begin with a public meeting which the entire local community would be required to attend. Once everyone was assembled the inquisitor would appear and address them with a general sermon condemning the Cathar heresy. Then notice was served on all males over 14 and all females over 12 (‘or younger if perchance they shall have been

guilty of an offence')[65] to appear individually before the inquisitor over the coming days. If no previous inquisition had visited the parish an announcement would be made granting:

... indulgence from imprisonment to all from that place who have not been cited by name or who have not yet earned the indulgence, if within a specified time, they come voluntarily as penitents to tell the exact and full truth about themselves and about others.[66]

In other words, those who pre-emptively informed on themselves or others, and were willing to recant their heresy, would earn exemption from punishment, perhaps even escape punishment altogether. By contrast those who knew something – anything – and decided to keep quiet about it were taking an

immense risk that their neighbours or friends might inform on them. If that were to happen they would be judged to have misled the Inquisition – an offence for which extreme penalties applied.[67] In such circumstances, notes the historian Martin Barber:

The temptation to denounce others was almost overwhelming, if only for defensive reasons … In a community that had had frequent contact with heretics … nobody was likely to be innocent in the eyes of the Church, and therefore anybody could have been written into the Inquisitors' copious records.[68]

The atmosphere of mutual suspicion was increased – together with the likelihood of denunciations – by the way that all the parishioners were then interrogated, one by one, with no opportunity for the

others waiting in line to hear what was being said by their neighbours. Again and again these *in camera* interviews proved to have an unnerving effect, demoralising communities all across Occitania, turning their attention inwards on themselves in a most negative manner, and weakening their will to cooperate in a fightback.[69]

Indeed the Inquisition's sweeping powers had set aside at a stroke all the ancient legal safeguards that had formerly protected individual rights in medieval society. An example was the right for the accused to be represented whilst undergoing interrogation. Theoretically even the Inquisition had to abide by this. In practice, however, no accused heretic was ever represented as he stood before the inquisitors. This was because any lawyer foolish enough to

defend an accused heretic would immediately have been suspected and accused of heresy himself. Once that happened (accusation was enough; he didn't have to be found guilty) his arguments would have become inadmissible and he would have stood in immediate jeopardy of his own life.[70]

The idea of undergoing the full process of interrogation by the Inquisition would have been a terrifying prospect whether one were a heretic or not. Questioning was inexorable and, on top of an array of psychological techniques, it's known that the inquisitors routinely used torture to extract confessions long before the pope gave his official blessing for them to do so in 1252.[71] Between the torture and interrogation sessions, the accused would be confined in deeply uncomfortable conditions

intended to undermine his will further. Cells of the ‘little-ease’ variety – in which the prisoner had room neither to sit, stand up or lie down – are reported to have been particularly favoured by the inquisitors. Other devices included keeping cells knee-deep in water, or permanently dark, starving prisoners, and shackling them hand and foot in heavy chains.

In the most recalcitrant cases such interrogations could continue over periods of months or even years.[72] However, once a confession had been extracted and a judgement made, the chances in law of reversing it were about zero – even if the judgement were manifestly faulty. Since appeals were not allowed the inquisitors literally held the powers of life and death in their hands, without any checks or balances.[73] They were amongst their

enemies and could do what they liked to them. The consequence was that many Cathars were burnt at the stake, many who recanted on pain of death nevertheless remained imprisoned for life, and countless numbers of those who may not even have been Cathars themselves but who had at one time or another spoken to a Cathar, or had some other such trivial contact with the heresy, were exiled from their homeland for years fulfilling arduous pilgrimages imposed on them by the Inquisition.[74]

Burning the living and the dead

Seila and Arnold, the first two inquisitors, were the

prototypes of a ruthless breed who would continue to rend the enemies of Catholicism for another six centuries. Soon after taking office they were able to arrange a spectacular demonstration of the efficient spy-network already at their disposal when they succeeded in trapping and arresting Vigoros de Baconia one of the leading Cathar *perfecti* in Toulouse. He was summarily tried, condemned and burnt alive.[75]

During the two years from 1233 to 1235 the two inquisitors initiated what has been described as a 'veritable reign of terror', first in Toulouse and then far and wide throughout Occitania.[76] Burnings of individuals and small groups became commonplace and on a number of occasions there were larger catches to be had. In 1234 for example, on their very

first visit to Moissac, Seila and Arnold presided over the mass burning of 210 Cathar *perfecti* who they had condemned as ‘contumacious heretics’.[77]

Keeping a record as ever, the faithful Dominican commentator William Pelisson tells us that with this splendid *auto-da-fé*:

... great fear was aroused among the heretics and their believers in that land.[78]

More fear was on the way the following year, 1235, when a general inquisition was held in Toulouse on Good Friday. Voluntary mass confessions occurred as people rushed to implicate themselves and others before someone else did. Threatened with execution one Cathar sympathiser avoided the stake by taking the city magistrate and the inquisitors to a place where 10 *perfecti* were in hiding: three managed to

escape; the other seven were burnt.[79]

During 1234 and 1235 large numbers of new inquisitors had been appointed from amongst the Dominicans but even so had proved insufficient to the task of interrogation, filing and cross-referencing that the cult of mass confessions had now generated. Franciscans and parish priests were therefore conscripted to help.[80] Adding to the overall burden was the matter of the paperwork from earlier investigations of heresy by the episcopal and other authorities. Undertaken before the Inquistion had been formed, and going back as far as 1209, these investigations had produced information, tip-offs and denunciations which the years of war had made it hard to follow up. Now the Inquisition was determined to make good the deficit.

On examination of the older records, and the full cross-referencing of all statements, it became clear that many who had formerly been exonerated as good Catholics had in fact been heretics all along. Those still living were arrested and burnt alive. But the remains of those who had already died during the intervening years were not forgotten! Wherever they had been buried they would be assiduously sought out and exhumed so that they too could be burnt.[81] Sometimes whole piles of mouldering disarticulated skeletons would be brought in at once, paraded through the streets and then burnt in a heap.[82]

Such severely demented behaviour (shall we call it *necropyria*?) would require urgent psychiatric restraint today. In Occitania in the 1230s and the 1240s it was lauded by the Church but naturally

caused much anger amongst the relatives of the deceased who were publicly shamed in this way. A particular source of resentment was that the property of posthumously-condemned heretics was subject to confiscation, just as it would be if the heretic were still alive, which had the effect of impoverishing his descendants.[83] Inevitably the civilian population began to hate the inquisitors. In one case, in the city of Albi, an inquisitor named Arnald Cathala was beaten up and nearly killed by an angry mob after he went personally to exhume the corpse of an old women, recently revealed as a heretic, who had passed away some years before.[84]

Even by the late 1230s and early 1240s, despite being the focus of a concerted, well-funded, well-staffed Church operation to wipe them out to the last

man, there were still sufficient numbers of Cathar *perfecti* in circulation – and able with local support to evade the inquisitors – to keep the heresy alive. Evidence of this astonishing persistence in the face of extreme adversity comes from the sheer number of penances still being imposed on convicted heretics. Over just two and a half months in 1241 – 42 Peter Seila, (the reader will recall him as the first inquisitor to be appointed in 1233) imposed penances on 732 heretics in nine different locations.[85]

The fall of Montségur

One amongst several reasons for the longevity of

Catharism in Occitania was that the heretics were able to hold onto their major fortress of Montségur for many years after the French occupation of 1229. It provided a place of refuge to which *perfecti* could flee to rest and recuperate after risky missions in the occupied territories and its symbolic importance as a symbol of hope and resistance was vast. Its walls were high, believed impregnable, and it stood on top of a remote and inaccessible rocky crag.

In May 1242 two of the most loathed inquisitors, the Dominican William Arnold (again one of the original appointees back in 1233) and the Franciscan Stephen of Saint-Thibery, arrived in the little town of Avignonet with their hit-squad of enforcers. They had been on the road for seven months conducting general inquisitions across most of the region from Lavaur in the north to Fanjeaux in the south and

spreading the usual tidal wave of terror wherever they went. Now it was Avignonet's turn.[86]

Except on this occasion it wasn't. The local bailiff, Raymond of Alfaro, was a Cathar sympathiser and immediately sent word by fast teams of riders to Montségur, 70 kilometers to the south. There the lord of the castle, one Peter Roger of Mirepoix, decided, to take action. On the night of 28 May 1242 he arrived at Avignonet with a group of heavily-armed knights who massacred the entire inquisitorial team of 10. Later one of the assassins, William Golarian, explained that they had mounted the attack so that ‘the affair of the Inquisition could be extinguished and the whole land would be free, and there would not be another Inquisition.’[87]

Talk about wishful thinking! Far from extinguish

the Inquisition, Avignonet proved to be the catalyst that led to Montségur being placed under siege by the forces of the French king – now the young Louis IX (who, as one might expect of a future Catholic saint, prosecuted heretics mercilessly). The siege began in May 1243 and ended, after 10 months of violent assaults and bombardments, with the surrender of Montségur, in March 1244.

Rather more than 200 Cathar *perfecti* had taken refuge there, including Bertrand Marty who had the rank of bishop. Eyewitness reports tell us that on 17 March 1244 they were all 'brutally dragged forth from the fortress of Montségur.'[88] Further down the slope, on a level area, a large rectangular enclosure defined by a wooden palisade had been filled up with firewood, straw and pitch. Now, without ceremony,

soldiers set light to the piled firewood and the wretched heretics were thrown in a mass inside the palisade. ‘There,’ as one commentator of the period assures us, ‘they experienced the fire of Hell.’[89]

The last Cathars

Montségur was a catastrophe, but still it did not mark the end of Catharism. Through the remainder of the 1240s the struggle between Inquisition and heretics went on and there were many more executions. In 1245 – 46, for example, the Inquistion of Toulouse had to deal with cases involving more than 600 villages and towns.[90] In one of these

villages for which more detailed records are available, Mas-Saintes-Puelles (to the west of Castelnaudry), we know that a staggering total of 420 suspected heretics, roughly two-thirds of the population, were interrogated by Inquisitors Bernard of Caux and John of St. Pierre. This information has come down to us in two of the Inquisition's original registers detailing the interrogations of more than 5,500 different people from 104 different places. It is known that there were originally 10 registers.[91]

Gripped in the cold, dead hand of such a powerful, vindictive, and impressively well-organised bureaucracy, the Cathar heresy began to falter and then slowly to die. By the 1250s the Inquisitor Rainer Sacconi was able to estimate with satisfaction that there were not more than 200 *perfecti* left in all of

Occitania[92] – too small a number, reckons historian Joseph Strayer, ‘to preserve the structure of the Cathar Church.’[93] As a result, though the heresy was to persist into the next century, it had been so reduced by the Inquisition that it no longer represented a danger to Catholicism.[94]

The last upsurge was focussed around the highlands of the county of Foix – an old centre of the resistance. Here in 1299 a *perfectus* named Pierre Autier, together with a small group of followers began to evangelise amongst the rugged farmers and shepherds of the region. For a few brief years he enjoyed great success and even set in motion something of a revival, but he never really stood a chance. Soon the inquisitors were after him – big names like Bernard Gui, Geoffrey d’Ablis and Jacques

Fournier. In 1309, with utter inevitability, Autier was caught. We know that he then underwent 10 months of interrogation by the inquisitors who finally burnt him alive in 1310.

One more prominent *perfectus* remained to be executed, a certain William Belibaste. Finding the going too hot in Occitania he had become a refugee in a small Cathar community across the border in Spain. There he was reached by an *agent provocateur* from the Inquisition who worked himself into his confidence and eventually tricked him into making a short return visit to Occitania. When he did so in the spring of 1321 he was captured, thrown into irons, tried and condemned. In the autumn of 1321 he was burnt at the stake.[95]

He was the last of the estimated 5,000 Cathar

perfecti who were formally burnt alive in the name of the Christian God during the 112 years following the start of the Albigensian Crusades in 1209.[96] He was also the last Cathar known to history.

A quiet natural death?

Probably the heresy did survive for a few more years in some remote pockets of Occitania to be rooted out by inquisitions too small to have been reported by anyone. But the apocalypse at Montségur in 1244, the long downhill journey thereafter, and the demise of Autier and Belibaste in 1310 and 1321, really did mark the end of it.

Numerous Cathars fled Occitania. As well as nearby parts of Spain, where Belibaste would have done well to stay, another favoured refuge close to home was amongst their co-religionists in northern Italy. But the inquisitors were at work there too. In November 1276 all members of the Cathar community of Sirmione were arrested. And in February 1278 'about 200' were rounded up and burnt in Verona – the headquarters in exile of the Toulousan Cathar Church.[97]

Longer-term it seemed like the only secure refuge was in the ancient Byzantine Empire where the Bogomils, the mother church of Catharism, remained relatively strong during much of the 14th century. As late as 1325, four years after Belibaste had perished at the stake, we find Pope John XXI complaining to

the leader of Bosnia about the heretics who are fleeing to his country and taking shelter there.[98]

Indeed although lands in the Byzantine Empire did not strictly-speaking come under the jurisdiction of the pope in Rome, but of the patriarchate in Constantinople, there had been constant papal interference in this part of the world since the early 13th century – round about the same time that the Albigensian Crusades began in the west.[99] For example Pope Gregory IX, who created the Inquisition in 1233 to smash the Cathars, deposed the Catholic bishop to Bosnia at around the same time for failing to take action against the Bogomils and replaced him, significantly, with a Dominican. Gregory also declared a crusade against Bosnia to root out heresy there. The crusade, which continued

until 1240, was willingly led by the Duke of Croatia. ‘In practice,’ notes Bernard Hamilton, ‘this was a Hungarian war against Bosnia that was given Crusade status …’[100] On another occasion, in 1238, the pope incited his ally King Bela IV of Hungary to mount a crusade against Bulgaria as well. Any possibility that this might go ahead, however, was stopped by the Mongol invasion of Hungary in 1241 – 42.[101]

By the 14th century the Ottoman Turks were on the move, eating up and incorporating into their Islamic state many areas of the former Byzantine Empire. They conquered Bulgaria in 1393 and thereafter Bogomilism was never heard of again in that land; indeed the last surviving report of Bulgarian Bogomilism comes to us from no later than 1370.[102]

It lasted longer in Bosnia but was finally wiped out there after the invasion of Sultan Mehmed II (called the 'Conqueror') in 1463.[103] By the end of the 15th century the population of Bosnia was almost entirely Muslim.[104] As the historian Malcolm Lambert has researched:

After a major expenditure of effort on refutation and, above all, police work, the Cathars were finally put down by the Western Church; by contrast Byzantine Bogomilism died a quiet natural death ...[105]

Though the Inquisition never reached the wild lands of Bulgaria and Bosnia, its brutal success in Occitania, and the growing numbers of Cathars fleeing east to tell of horrors they had witnessed, must have been profoundly discouraging for the whole Bogomil movement. This perhaps explains the

loss in energy that becomes apparent in Bogomilism from the early 14th century onwards – after which, though still thriving in the East, it seems to have abandoned all sense of its world mission. The Muslims brought about its final demise but even without their role the Catholic and Orthodox Churches had by then become so vigilant concerning heresy that there would have been no second chance for the Bogomil faith to evangelise and gain converts in the Christian world.

After Occitania was lost, all was lost. The millennial opportunity had come, and been seized, and then snatched away. An ancient Gnostic religion offering a stark alternative vision of Christianity had mysteriously reappeared after centuries in darkness, flourished mightily at first and made a bid for universality, only to fail utterly in the end …

Or had it?

Renaissance

In the summer of 1460, shortly before the last embers of the Bogomil faith were stamped out by Sultan Mehmed II’s invasion of Bosnia, a Tuscan monk named Leonardo da Pistoia rode unobtrusively into the Florence on a donkey. Attached to his side was a bundle of cloth in which a small collection of books had been packed.

Leonardo, who had travelled a long way, took his precious cargo directly to the Doge of Florence, Cosimo de’Medici.

An intellectual nuclear bomb was about to explode.

Part II:

The Sacred Cities

> [As] *the embodiment of the Italian Renaissance, the Medici were enormously rich and through their wealth and character ruled Florence, controlled the Papacy, and influenced the policies of an entire continent.*

Christopher Hibbert, The House of Medici: Its Rise and Fall

> *For want of a better term, I shall call it 'astral magic' …*

CHAPTER EIGHT

THE OTHER SECRET RELIGION

In the summer of 1460, shortly before the last embers of the Bogomil faith were stamped out by Sultan Mehmed II's invasion of Bosnia, a Tuscan monk named Leonardo da Pistoia rode into the Florence on a donkey. He had been away for several months on a dangerous mission to Macedonia for his learned and immensely wealthy master, Cosimo de'Medici, the Doge of Florence, who employed him

to procure rare and ancient writings. Already a vast library of extraordinary scrolls, codices and books had been built up. Yet Leonardo knew that Cosimo would remain dissatisfied until he had in his hands certain very specific and once widely-circulated books suppressed by the Church and lost to the world for close to a thousand years. Cosimo was convinced that these books must still exist somewhere – and had ordered Leonardo to seek them out and buy them no matter what the cost.

Now at last, after returning many times to Florence with lesser prizes, Leonardo took great pride in the fact that he had found the ancient books that his master sought. They were books of knowledge, purported to have come down from Thoth, the wisdom god of the Egyptians, who had been known to the Greeks as Hermes Trismegistus. And though

neither Leonardo nor Cosimo were aware of this, these highly mysterious *Hermetic* texts had been compiled in Alexandria during the first three centuries of the Christian era, i.e. at the same time and in the same place as the Nag Hammadi Gnostic texts. The link between the two collections becomes even stronger when we realise that a fragment of one of the Hermetic texts that Leonardo had purchased – a document known as the *Asclepius* – was also reproduced amongst the Gnostic codices buried at Nag Hammadi in the late fourth century and not recovered until 1945.[1]

The body is a tomb

No one can dispute that the Roman Catholic Church has a long trackrecord of vigorous opposition to all forms of knowledge, scripture, enquiry, wisdom and religious self-expression that do not accord with its own views. The reader will recall that it was mobs of Christians, aroused by Theophilus, the Catholic archbishop of Alexandria, who sacked the Serapeum in Alexandria in AD 391. They killed all the ‘pagans’ and Gnostics who had taken shelter inside it and razed to the ground the wonderful library that had been arranged around its cloisters together with its entire irreplaceable collection of ancient books and scrolls. We saw in Chapter Five that this atrocity was just one amongst many in the ruthless suppression of Gnosticism and paganism by the Catholic Church, and its generally very efficient destruction of their texts and traditions.

A different expression of this same antagonism to knowledge outside the narrow band accepted by orthodoxy was the closure in AD 529 by the Christian Emperor Justinian of Plato's revered Academy in Athens.[2] Originally established by Plato himself in the 380s BC on a site a mile outside Athens that was already held sacred, the Academy enjoyed more than 900 years of continuous existence until Justinian and Christian bigotry shut it down for spreading ‘pagan’ ideas.

Today we do not know exactly what was taught at the Academy. However, Plato's own copious surviving writings have led the majority of scholars to infer that the original syllabus was designed to produce a select few wise philosophers, deeply knowledgeable in mathematics (including the theory of harmonics

and astronomy), dialectics, natural science, and political theory[3] who would:

... leave the Academy for politics, not as power seekers themselves but to legislate or advise those in power.[4]

It is known that the great Christian Gnostic teacher Valentinus, an Egyptian, studied Platonic philosophy at Alexandria in the early second century AD,[5] so it is perhaps not surprising to find the Catholic apologist Hippolytus (AD 170 – 236) accusing the Gnostics of being 'disciples of Plato' and following the Platonic system in making 'arithmetical science the fundamental principle of their doctrine.'[6] For our purposes it is also interesting that Plato seems to have been the first to use the term *demiurge* – Greek for 'public craftsman' – to describe the creator of the

material world. In exactly the manner later copied by the Gnostics he meant to imply that the creator was a subordinate power, not the true God,[7] and that the material world was a corrupt, imperfect copy of the ideal world.[8] Tim Freke and Peter Gandy point out that Plato also frequently liked to quote a common phrase of the pagan mystery religions of his period – that phrase being *soma sema,* 'the body is a tomb':

Gnostic initiates also understood that those who identified with the incarnate physical self were spiritually dead and needed to be reborn into eternal Life …[9]

It is beyond the scope of this book to present a full exposition of the similarities – and the differences – between Platonism and Gnosticism. The point we wish to make is simply that the suppression of Plato's

Academy in AD 529 was part of a much wider attack on the pursuit of knowledge that also included the virtual destruction of Christian Gnosticism – until, we propose, it resurfaced in Bulgaria in the 10th century as Bogomilism. During the intervening centuries book burning was deemed an act of piety by the Church and the persecution of scholars who ventured outside strict ecclesiastical boundaries was deemed an act of righteousness and a service to God.

The enraged enforcement of an unearned spiritual monopoly

It is with good reason that historians refer to the

period between the 5th and the 10th centuries AD as the Dark Ages. But things were to get much darker before European culture was to see any lasting glimmers of light. We've documented aspects of the astonishing ‘mini-Renaissance’ that accompanied the sudden upsurge of Catharism in Occitania in the 12th century. And we've documented the reaction of the Church – the Albigensian Crusades that laid waste the cultural development of the region, a century of terrorism and mayhem, the holocaust of 5,000 Cathar *perfecti*, and, last but not least, the Inquisition.

It should be obvious to the reader by now that Cathars and Catholics had very different attitudes to the uses and control of knowledge, and that these attitudes were rooted in their very different underlying philosophies.

For the Cathars, inheritors of the Gnostic tradition,

the predicament of humanity was ignorance; it was knowledge, therefore, that would provide the only sure route of escape. And since they believed that the greatest store of relevant knowledge was contained in the New Testament – the fundamental document of Christianity – they felt strongly that every Cathar should be able to read it in his or her own language.

Accordingly the Cathars of Occitania had the New Testament translated from Latin, in which it had hitherto been locked away from the masses, into the vernacular *langue d'oc,* and large numbers of copies, laboriously prepared by hand, were put into circulation. The demand for a cheap convenient material on which such copies could be made led them to become the pioneers of paper-making in Europe, establishing numerous apprenticeships in

the new trade[10] and contributing greatly to the subsequent spread of this liberating technology.

In parallel, Cathar children were taught to read and study the New Testament from an early age, thus gaining the gift of literacy that was so rare in general in Europe in that period. Rare too was the fact that both sexes were taught equally, not just the males as was often the norm elsewhere.[11] The result was that educated, literate, free-thinking women became a feature of Cathar communities during the short period that the heresy flourished.

In this, as in many other respects, the behaviour of the Cathars can only be described as enlightened – no other word will do – while their campaign to provide accessible vernacular editions of the New Testament was clearly an initiative far ahead of its

time. By contrast the reader will recall from Chapter Seven that the Catholic Church and the Inquisition strictly forbade lay persons to possess the New Testament ‘with the exception of the Psalter, the Breviary, and the Book of Hours of the Blessed Virgin’. Moreover even these limited selections were permitted only in Latin whilst translations into the ‘vernacular tongue’ were ‘rigorously forbidden’.[12]

It seems ironic that the so-called *heretics* were the ones doing everything they could to spread knowledge of the New Testament while the ‘true Church’ was doing everything it could to limit and control such knowledge. But to understand this behaviour we need only remind ourselves of the basic philosophy of Catholicism – which utterly opposes any personal quest for knowledge and instead

teaches blind faith and absolute mindless trust in the infallibility of papal dogma. It was this doctrine that snuffed out the brilliant light of scientific and spiritual enquiry that had flourished around the great libraries of Alexandria during the last three centuries BC and the first three centuries AD. It was this doctrine that plunged the world into the Dark Ages by suppressing not only Gnostic enquiry but also the vast bulk of ‘pagan’ classical knowledge. And it was this same doctrine of blind faith and unquestioning obedience – still top of the Catholic agenda a thousand years later – that led directly to the gross moral errors of the Albigensian Crusades and the Inquisition in the 13th and 14th centuries, and to yet more suppression of books and knowledge, more burning of heretics, more terror and stupidity.

By the 15th century, though the persecution of

individual heretics was far from over, European society was exhausted and sickened by all this mad violence, censorship and bigotry. By then, too, with the complete destruction of the Cathar threat well behind it, the vigilance of the Church itself had inevitably begun to slacken. Not quite certain what sort of backlash they might ultimately incur – but willing to take the risk – certain open-minded scholars took advantage of the lull to begin a quest for ancient manuscripts. Their frank hope was that by rediscovering the lost wisdom of the past they might better guide the world towards its unknown future.

One such scholar was Cosimo de'Medici who employed the monk Leonardo de Pistoia as his bookfinder. Now riding into Florence on the back of the little donkey that had carried him all the way from Macedonia, Leonardo anxiously fumbled in the

bundle strapped at his side and felt once again the reassuring outline and weight of the miraculous, wonderful books that he was bringing to his master.

A philosopher with fire-power

The origin of the House of Medici is obscure, but ‘Medici’ means literally ‘medical doctors’ so a background amongst physicians and apothecaries is thought likely. Further back the family's ancestry may have included a humble charcoal burner who had moved into Florence from the nearby district of Mugello. But an apocryphal origin added much colour to their name. Legend had it that the family had been

founded in the fifth century by a brave knight who came to Mugello and helpfully killed a fearsome giant who had been plaguing the local population. As a reward he was allowed to add to his shield eight red balls, one for each of the dents from the giant's attack. These red balls, others have suggested, either represented apothecaries’ pills or coins of the famous banking family that the Medici would later become.

Since 1239 the Medici had been official *gonfaloniere* of Florence (standard bearers and custodians of the city banner). By 1389, the year Cosimo was born, the family was already prominent and rich due to the banking activities of Cosimo's father, Giovanni. He had apparently benefited greatly from his personal friendship with Pope John XXIII, Baldassare Cossa, who later, in 1414, was to be accused of heresy, simony, tyranny, the murder of his

predecessor Pope Alexander V, and the seduction of no less than 200 girls and ladies of Bologna![13]

Named after Saint Cosmas, on whose feast day – 27 September – he had been born, Cosimo was educated at the Camaldolese monastery of Santa Maria degli Angeli, where he learnt French, German and Latin and a spatter of Hebrew, Greek and Arabic. In his teens he attended the lectures and lessons of one of the most prominent scholars in Florence, Roberto de’Rossi, also a member of an old and rich Florentine family. Through the influence of de’Rossi the young Cosimo acquired and developed a lasting respect and love for classical works, particularly Plato, and an insatiable interest in man's role and purpose on earth. In short, he was a philosopher in the ancient mould who, as it would turn out, would acquire the

sort of fire-power that few lovers of wisdom ever enjoy.

Through political machinations and more especially through his influence on the papacy (he had befriended the popes and practically ran the finances of the Vatican), Cosimo was able to add greatly to the already enormous wealth of the House of Medici. His influence grew accordingly and he was soon the *de facto* ruler of Florence, a position that he was to maintain for the rest of his life. In 1458, just two years before the lost texts of the Hermetica were delivered to him, Cosimo was described as ‘master of the country’ by Pope Pious II:

Political questions are settled in his house. The man he chooses holds office ... He it is who decides peace and war and controls the laws ... He is king in

everything but name.[14]

The Florentine historian, Francesco Guicciardini, went even further when he said that Cosimo 'had a reputation such as probably no private citizen has ever enjoyed from the fall of Rome to our own day.'[15]

All the learning of Constantinople and a new Platonic Academy

In 1438 Cosimo came up with a brilliant idea that, in a curious and indirect way, was to change the course of Western scholarship. For centuries, as the reader will recall, the Catholic Church, headed by the

pope in Rome, had been in conflict over doctrinal issues with the Eastern Orthodox Church, headed by the patriarch in Constantinople. This great religious ‘West versus East’ schism reached a crisis point in the 1430s when Constantinople was beginning to be seriously threatened by the Muslim Ottoman Turks. Since the dramatic fall of Egypt and Alexandria to the Muslims in AD 642, the ‘Eastern’ empire of Rome, which extended from Turkey through to Egypt, had been slowly gnawed away by the Muslim forces. By 1438, all that remained in Christian hands was its capital, Constantinople, called the ‘Second Rome’. In the famous words of Mehmed II, the Ottoman sultan who would eventually capture the city in 1452 after a siege of six weeks, it was just ‘a monstrous head without a body’.

In 1438 John Paleologus, the Eastern Roman

emperor whose seat was Constantinople, appealed to the pope in the name of all Christianity for military help to save the last bastion of Christendom in the East from falling into the hands of the Muslims. In response, Pope Eugenius IV decided to call for a great council to meet somewhere in Italy. Cosimo de’Medici, seeing the enormous prestige such a council would bring, especially if it achieved a reconciliation between the Eastern and Western churches, was determined that the venue should be his own city. Through his friendship with the pope, and by offering to cover all expenses plus a generous loan to the Vatican, Cosimo had his way, and in the winter of 1439, after a night of storms and torrential rains, the Eastern emperor, the Greek Orthodox patriarch and the pope all made their triumphal entries into Florence.

Months of deliberations and ecumenical debates followed until at last, in July 1439, the Council of Florence reached a compromise that brought the two churches together again. Predictably their reunification was short-lived; indeed the Eastern delegates barely had time to return to Constantinople before repudiating the feeble agreement. But there was an unexpected upside. Florence, all of Italy, and in due course the rest of Western Europe as well, were to benefit incalculably from the exciting intellectual stimulant provided by the large retinue of Byzantine-Greek scholars who had accompanied the Eastern emperor to the council. These scholars were amongst the prime catalysts in the remarkable Renaissance of classical history, art and philosophy that was soon to follow and they added new force to the already keen and burning interest of Cosimo

de’Medici in Plato's works. The great Byzantine scholar, Bessarion, who had accompanied the Eastern emperor to Italy, was persuaded to remain behind, as well as his colleague Plethon, a leading authority on Plato.[16]

After attending lectures by Plethon, Cosimo had another inspiration. He would use some of his immense wealth to establish a Platonic Academy in Florence, modelled on Plato's original. Plethon's departure, and Cosimo's involvement with other issues, delayed the project for several years. Nonetheless the idea of the Academy did finally come to maturity. Its first home was the Villa Montevecchio in Florence and Cosimo appointed his adopted son, the brilliant scholar Marsilio Ficino, as its first director. Ficino had, in fact, been groomed for such a

task by Cosimo over the years after noting the young man's keen enthusiasm for Plato's works, and it was Cosimo who had generously paid for Ficino's education and for his special studies in Greek and Latin.

Cosimo had for many years been an avid collector of rare and important books and made some valuable additional acquisitions from the Byzantine-Greek scholars who had attended the 1439 Council of Florence. His library, regarded as the most extensive collection of classical and religious works in Europe, formed the nucleus of the Medici Academy and was to serve eventually as a model for the Vatican's own library. Until 1460, however, the ultimate prize – the fabled works of Hermes Trismegistus – had eluded him as well as all other collectors in Europe.

Travel-stained and weary, the monk Leonardo da

Pistoia now calmly directed his little donkey into the Villa Careggi, the sumptuous residence of Cosimo de’Medici in Florence. He was admitted at once and delivered the bundle that he had carried so far directly to Cosimo himself.

Older than Moses, greater than Plato

It was well known to European scholars of the Renaissance that the great Greek philosopher Plato, and before him Solon and Pythagoras, had visited the land of Egypt and there had allegedly learnt the wisdom of the Egyptian sages. Plato, it was said, had

special respect for the Egyptians – who he referred to as a ‘race of philosophers’.[17] In his *Timeus*, famous for containing the earliest-surviving direct references to Atlantis, he recounted a story that had supposedly been told by Solon, the celebrated Athenian statesman and poet, after the latter had visited Egypt *circa* 600 BC. There, at Sais in the Delta area, Egyptian priests at the Temple of Neith apparently recognised Solon's wisdom and agreed to discuss with him issues related to the origin of the world. After listening to Solon expounding some of the Greek myths, however, one of the priests interrupted him and exclaimed:

O Solon, Solon, you Greeks are all like children, and there is no such thing as an old [wise] Greek ... You are all young in mind ... you have no belief rooted in

ancient tradition and no knowledge hoary with age …[18]

Solon apparently was told by the Egyptian priests that deluges and fire had periodically ravaged the earth, causing civilisations to collapse and disappear. However, because of the disposition of the Nile Valley, Egypt had miraculously been spared and all her ancient temples and sanctuaries had survived. In them and them alone was preserved a complete memory of the great events of the distant past and of deeds previously accomplished by mankind. They even contained a record of the origins of the world and knowledge of that golden age when mortals had fraternised with the gods.

Classical writers who had visited or lived in Egypt, such as Herodotus, Diodorus Siculus and Proclus

Diadochus, likewise extolled the immensely old wisdom of the Egyptian priests, and especially their revered knowledge of the heavens and the motion of the stars. Many deemed Egypt a sacred land, a land in which the gods had once dwelt and taught men the divine and sacred science, and where the secrets of immortality had been revealed to those who were fully worthy.[19] However, this wonderful and pristine Egyptian science had thus far remained out of the reach of Renaissance scholars such as Cosimo de'Medici because it was written in the mysterious and impenetrable hieroglyphic language which no one anymore could understand. Ancient and holy Egypt had fallen into a deep coma from which, it seemed, it might never again awake.

One can therefore imagine the intellectual

shockwave that passed through the learned circles of Florence in 1460 when Cosimo de'Medici excitedly announced that he had in his possession a collection, translated by some unknown hand into Greek, of the fabled lost books of Hermes Trismegistus. The late Dame Frances Yates, a world authority on the Renaissance, puts the scale of the discovery into context:

From ... early Christian writers, more about Hermes Trismegistus could be learned, particularly from Clement of Alexandria, who, in his striking description of the procession of the Egyptian priests, says that the singer at the head of the procession carried two books of music and hymns by Hermes; the *horoscopus* carried four books by Hermes on the stars. In the course of this description Clement states that there are forty-two books by Hermes

Trismegistus, thirty-six of which contained the whole of the philosophy of the Egyptians, the other six being on medicine. It is very improbable that Clement knew any of the Hermetica which have come down to us, but the Renaissance reader believed that he had in the *Corpus Hermeticum* and the *Asclepius* precious survivors of that great sacred library of which Clement speaks.[20]

Cosimo and his contemporaries believed that the 'divine' Plato had himself been taught philosophy by the priests of Egypt. It was the desire to regain contact with the source of that philosophy that mostly fired the imagination of Cosimo de'Medici and led him to action.

Drop Plato, translate Hermes instead

When the Hermetic texts reached Cosimo, it so happened that his adopted son, Marsilio Ficino, was busy translating the works of Plato from Greek into more accessible Latin. Cosimo ordered the young man to drop Plato at once and to concentrate all his efforts full-time on the translation of the Hermetica.

Ficino, then 27 years old, had already acquired a reputation as a fine scholar, theologian and linguist – especially in Greek and Latin. Born in 1433, he was the natural son of a Florentine physician, the latter a close friend of Cosimo de’Medici. Cosimo adopted Ficino after the death of his father, and encouraged

him to pursue his passion for Plato's works.

Roman Catholicism had a long history of disapproval of Platonic philosophy going back before the closure of the original Academy in 529. By the 1400s, however, Plato was beginning to find supporters again within the Church – and Ficino was one of these. He therefore set out very deliberately to apply his intellect to an integration of Plato's philosophy with Roman Catholic teachings. He would also try to do the same, as we shall see, with the philosophy found in the books of the ‘Egyptian sage’ Hermes Trismegistus. But what was amazing was that the man who was to be the head of Cosimo de’Medici's Platonic Academy should have been ordered to put aside Plato and to focus instead on the translation of the books of Hermes. As Frances Yates comments:

It is an extraordinary situation. There are the complete works of Plato, waiting, and they must wait whilst Ficino quickly translates Hermes, probably because Cosimo wants to read him before he dies. What a testimony this is to the mysterious reputation of [Hermes] the Thrice Great One! …[21]

Within a year Ficino managed to complete a Latin translation of the 14 books or 'tracts' of the Hermetica (as the collection that Leonardo da Pistoia had brought back from Macedonia is now known). In 1473, ten years after finishing this work, Ficino was ordained a priest of the Roman Catholic Church and eventually became a high official at the Cathedral of Florence. It is widely accepted by scholars that his translations of the Greek classics and, especially, the works of Plato, were part of the impetus behind the

Italian Renaissance. But what is less appreciated is the huge, indeed revolutionary, effect that Ficino's translation of the Hermetica was also to have on Western culture and on the Catholic Church itself.

The full corpus

Ficino had given his translation the title of *Pimader,* the name of the mysterious ‘universal mind’ that supposedly had revealed to Hermes Trismegistus the divine wisdom imparted in the Hermetica.

Although the printing press had just been invented 15 years before,[22] the publication of *Pimander* was a huge success. It had first circulated in handwritten

copies but eventually was printed in 1471 in Treviso (apparently without permission from Ficino) under the title *Pimander or the Power and Wisdom of God*. This was somewhat misleading since the term *Pimander,* which is derived from the original Greek *Poimadres* – itself derived from *Peime-n-Ré,* meaning the 'knowledge of Ré', the Egyptian sun-god – only appears briefly in the opening part of the book. None of the other tracts in the Hermetica mention *Pimander* at all.

Be that as it may the Treviso edition was so successful that it prompted another publisher at Ferrera to bring out a rival edition in 1472, again without Ficino's permission. By 1543, the same year that Copernicus's famous *De revolutionibus orbium coelestium* ('*On the Revolutions of the Heavenly Spheres*') was first published in Nuremberg, there

were over 50 separate editions of the Hermetica circulating in Europe!

When Ficino had translated the texts back in 1463, he had not included a tract called the *Logos Teleios, the Perfect Discourse,* better known as the *Asclepius*. This was because the latter (a fragment of which, the reader will recall, was also found amongst the Nag Hammadi Gnostic texts) had already been translated into Latin from a Greek original sometime in late antiquity and had been circulating among European scholars since medieval times. We shall come back to the *Asclepius* in due course but, in brief for now, this book purports to explain the magical religion of the Egyptians and, more importantly, the mysterious talismanic skills that they supposedly deployed to draw down the powers of the stars into statues and

other objects.[23] It was this type of magic that was to impress Ficino deeply and to influence his many followers.

The *Asclepius* was printed for the first time in 1469 with the complete works of Apuleius, only two years before the first printed edition of Ficino's *Pimander*. It thus quickly became customary to attach the *Asclepius* to the Hermetica, the whole forming one major corpus generally known as the ‘philosophical’ Hermetica or *Corpus Hermeticum*. There is also a further booklet known as the *Definitions of Asclepius* that is sometimes added to this corpus.

According to French scholar Jean-Pierre Mahé, professor of humanities at the Sorbonne in Paris, the *Definitions of Asclepius* was rediscovered in 1484, that is two decades after the rediscovery of the

Hermetica, in a far more dramatic and flamboyant manner than the Ruritanian spectacle of a monk riding his little donkey into Florence. Apparently a certain Senore Ludovico Lazzarelli, in an obscure tract titled *The Letter of Enoch*, narrated how his master, Don Giovanni Mercurio da Correggio, had helped him to find these lost *writings of Hermes Trismegistus* (called also *Mercurio* by the Italians). On Palm Sunday in April of the year 1484, Giovanni Mercurio, then exactly 33 years old, that is the supposed age of Christ at his Crucifixion, rode into Rome on a black stallion guided by two servants, and made his way towards the Vatican. Dressed in black and wearing a golden belt and purple shoes, Giovanni Mercurio had placed on his head a crown of thorns, and upon his brow was fixed a silver plaque in the form of a lunar crescent on which were written these

words:

This is my son Pimander, whom I personally chose. From early childhood he has grown to sublime heights, and I have empowered him with all my compliance to cast away demons and to install my truth and my justice upon all nations. Be warned not to oppose him! Heed his words and obey him with fear and reverence. These are the words of the Lord of all the sanctuaries of the world, Jesus Christ.[24]

Giovanni Mercurio then pulled a heap of leaflets out his saddlebag and threw them all around. The crowds gathered; some thought him mad, others thought that he was making some strange vow, but the majority hailed him as a prophet. At the Vatican, the Swiss Guard baffled by this strange scene, stood aside and let him pass. In the cathedral Giovanni

Mercurio announced that he was the reincarnated Pimander. He spent the next few days talking to the crowds then returned to his hometown in Bologna, where he was widely acclaimed by women and children. Not surprisingly, he was soon arrested by the Inquisition for blasphemy and threatened with the stake. In 1486, however, he was released under the protection of the then king of France, Charles VIII.

Almost every aspect of this whole strange episode underlines the incredible religious impact that the Hermetica had on the collective mind of the Renaissance and, even more curious, the way that Hermes/Mercurio Trismegistus was being attached to the Christian faith.

A repercussion of Giovanni Mercurio's strange but short career as a ‘prophet’ of Hermes Trismegistus,

was that the poet and astrologer Lodovico Lazzarelli, who had been an eyewitness to Giovanni's cavalcade into Rome on that Palm Sunday back in 1484, also succumbed to the Hermetic spell, and adopted the mystical name of ‘Enoch’ (another alleged incarnation of Hermes).[25] Lazzarelli became Giovanni's most ardent disciple and, according to him, here is how the *Definitions of Asclepius* were found:

It was by chance, while scrutinising relentlessly the old books of those who inspired me, and while over a cup full of the most suave nectar which, I do not doubt, had flowed from the huge *crater* [bowl] of *Hermes Trismegistus*, by which I mean a small book in Greek having the title of the *Definitions of Asclepius*. As soon as I read it, its conciseness and

the mysterious authenticity of its wisdom enchanted me and filled me with admiration.[26]

Lazzarelli made it his task to translate the *Definitions of Asclepius* immediately into Latin, but it was only after his death in 1507 that this book was eventually printed – alongside the work of the French Neoplatonist and occultist Symphorien Champier, in his *Book of the Quadruple Life*. Now, at last, the full works attributed to Hermes Trismegistus were in the hands of Western scholars, and something quite extraordinary was about to happen ...

Veiling Hermes in the Church (1)

In the mind of Marsilio Ficino, Hermes Trismegistus was a historical person who had lived in ancient Egypt and had actually been the author of the Hermetica. This view was shared by all the Renaissance humanists and philosophers – notably the great Christian Hermetic-Cabalist Giovanni Pico della Mirandola – who, like Ficino, were totally seduced by the Hermetica. As professor Jean-Pierre Mahé explains:

According to Marsilio Ficino, [Hermes] Trismegistus [Hermes Thrice-Great] had merited his surname by becoming at the same time the greatest of philosophers, the greatest of priests and the greatest of kings ... And his successors were Orpheus, Aglaophemus, Pythagoras and Philolaus, the teacher of Plato ... Thus, the works of Trismegistus were the true source of ancient wisdom. Not only the divine

Plato, but also the legendary Pythagoras and even the inspired poets such as Orpheus, perpetuated the same Egyptian doctrine: all bouncing the echo, as it were, of a single and same ancient theology, the *prisca theologia* ... [27]

Concerned, however, not to undermine the authority of the Bible and awake the Inquisition, the early Hermetic scholars accepted that Hermes Trismegistus came after Moses. This play-it-safe idea had originated with Saint Augustine, the Manichean *hearer* who converted to Catholicism and became one of the great doctors of the Church (see Chapter Five). Augustine accepted that Hermes Trismegistus lived long before the Greek philosophers, but insisted that he,

... came after Abraham, Isaac, Jacob, Joseph and even

Moses. Because Moses was born in the time of Atlas, brother of Prometheus, who was a great astronomer ... he was the grandfather of the older Mercury [Hermes], himself the grandfather of [Hermes] Trismegistus.[28]

But some did not agree with this chronology. Lazzarelli, who had translated the *Definitions of Asclepius* and utterly believed in Hermes Trismegistus's older origin, argued:

... It was not at the times of Moses that Trismegistus had lived, but long before, as one can easily ascertain from the works of Diodorus of Sicily. The latter reported, in his chronology of the kings of Egypt, it was first gods that ruled then human brings. Hence it is evident that Mercury (Hermes) Trismegistus lived in the times of the gods ... whereas Moses lived at an

epoch where the Bible and many other ancient writings known in Egypt clearly state when ruled pharaohs ...[29]

If you visit the famous Cathedral of Siena located between Rome and Florence, you will find that the entire floor, which dates back to 1488, is paved with exquisite marble designs depicting religious and mythological scenes. One of these scenes shows the Egyptian sage Hermes Trismegistus handing a book to an oriental figure standing in a respectful manner bowing slightly. Written upon the book in Latin are the words '*Suscipite O Licteras Et Lege Egiptii*', meaning 'Take up thy letters and laws O Egyptians', and the bowing figure, according to Frances Yates, was 'perhaps intended to be Moses.'[30] What seems to support this amazing identification is the plaque

under the feet of the figures which states: ‘Hermes Mercurius contemporaneous of Moses’, implying, says Yates:

… a *supplication* from the lawgiver of the Hebrews (if the suppliant figure is Moses) to the lawgiver of the Egyptians to revive Egyptian piety and morality … The representation of Hermes Trismegistus in this Christian edifice, so prominently displayed near its entrance and giving him so lofty a spiritual position, is not an isolated phenomenon but a symbol of how the Italian Renaissance regarded him and a prophecy of what was to be his extraordinary career throughout Europe in the sixteenth century and well on into the seventeenth century …[31]

Veiling Hermes in the Church (2)

The ancient Egyptian sage Hermes Trismegistus, and by extension the writings attributed to him, were indeed due for a glittering Renaissance career. In 1544, for example, when the French humanist Adrien Turnèbe (better known simply as Turnebus) published in Paris the first edition of the original Greek text of the Hermetica accompanied by Ficino's translation in Latin, the theologian Petrus Paulus Vergerius had this to say in the preface:

Hermes Trismegistus was an Egyptian by race ... He flourished before the time of pharaoh, as many of the c*hronographi* think. Some, among whom is Cicero, suppose that he is the person whom the Egyptians

call Thoth ... He must have lived, therefore, before pharaoh, and consequently, before Moses also ... He wrote at the time many books of mystical philosophy and theology. Among these writings, there are two of special importance: the one is called *Asclepius*, and the other, *Poimandres* [i.e. the *Pimander*].[32]

After Turnebus's publication came the work of the bishop of Aire, François Foix de Candale, better known as ‘Flussas’, who published a new edition of the Hermetica. Flussas was even more enthusiastic than his predecessors, and dedicated the work to the Holy Roman Emperor Maximilian II, informing him that Hermes Trismegistus had attained to a knowledge of divine things which he first wrote in Egyptian, then in Greek, surpassing that ‘which was revealed to the Hebrew prophets, and equalling that

of the Apostles and Evangelists’:

What more is made known to us by those who were instructed by our Saviour himself? And yet this man [Hermes] was anterior in time not only to the disciples of our Lord, but also to all the prophets and teachers of our law, and, as the ancients say, to Moses himself.[33]

In 1591 came the Italian Neoplatonist scholar Francesco Patrizi da Cherso, also known as Franciscus Patricius, who was also to publish an edition of the Hermetica in his work *Nova de universis philosophia* (‘*New Philosophy of Universes*’). Patrizi not only saw Hermes Trismegistus as the source of all wisdom, but in the preface of his book, which is addressed to Pope Gregory XIV, Patrizi actually urged the pope to order

that the Hermetica should be taught to everyone, even to the Jesuits, because it could somehow serve as a ‘conversion’ tool for the Catholic Church:

I hope that you and your successors will adopt this new restored religious philosophy and cause it to be studied everywhere ... I would have you then, Holy Father, and all future Popes, give orders that some of the books which I have named shall be continually taught everywhere, as I have taught them in the last fourteen years at Ferrara. You will thus make all able men in Italy, Spain and France friendly to the Church; and perhaps even the German Protestants will follow their example, and return to the Catholic faith. It is much easier to win them back in this way than to compel them by ecclesiastical censures or by secular arms. You should cause this doctrine to be taught in the schools of the Jesuits, who are doing

such good work. If you do this, great glory will await you among men of future times. And I beg you to accept me as a helper in this undertaking.[34]

The ‘doctrine’ that Patrizi was referring to is the same that Plato had once taught and which, at least according to Patrizi, had been originally developed and transmitted to man in ancient Egypt by Hermes Trismegistus. Patrizi believed that it was passed on to Plato during his stay in Egypt and then passed by Plato himself to his pupil Aristotle, the tutor of Alexander the Great.[35] Amazingly, Patrizi seems to be asking the pope to *canonise* the Hermetica and other related writings which, he believed, contained a pristine doctrine, a *prisca theologia*, rooted in ancient Egypt. Yet, seen in the context of his times, Patrizi's seemingly heretical request to the pope is not as far-

fetched as it at first appears. In fact there had been one pope at least who took such ideas very seriously indeed ...

Pico della Mirandola, Hermetic magic and the Cabala

One of the most brilliant minds of the Renaissance belonged to a young Florentine scholar named Giovanni Pico della Mirandola. The scion of a noble family of Modena, Pico was much influenced by the ideas of Marsilio Ficino on Hermeticism and, more especially, Hermetic magic which Pico not only completely accepted, by would propagate with even

more fervour and enthusiasm.

Whilst wholeheartedly sharing Ficino's view that Hermes Trismegistus was a ‘gentile’ prophet of Christianity, Pico della Mirandola went further. What he saw in the Hermetica was a form of mystical teaching and ‘natural magic’ which he also associated with the Jewish Cabala. The reader will recall from Chapter Two that this was a system of mysticism rooted in esoteric Judaic traditions, that had received its most extensive elaboration and development amongst the Jewish communities of coastal Occitania during the 12th century. Now, more than 300 years later, Pico felt with all his heart that these two types of Cabalistic magic, Jewish and ‘Egyptian’, needed to be merged and used for the benefit of the Christian Church.

According to Frances Yates, ‘the marrying together

of Hermeticism and Cabalism' was an invention of Pico della Mirandola, who also 'united the Hermetic and Cabalistic type of magic' to create a powerful intellectual brew loosely termed the Christian Hermetic-Cabala which was to have far-reaching consequences amongst Renaissance theologians, reaching even as far as the Vatican itself.[36] And although magic, in the medieval sense, was abhorred and virtually outlawed by the Church, Pico successfully argued that what the Church had in mind concerned the diabolical 'modern' type of magic which, he agreed was detestable. What he was advocating, he explained, was something quite other – the beautiful, ancient and innocent *magia naturalis*, i.e. the 'natural magic' of the wise Egyptian sage Hermes Trismegistus. This was seen by many, not

just Pico, as a form of ‘sympathetic magic’, which could establish a benevolent link between heaven and earth. In short, what Pico had in mind was that ‘Egyptian’ form of talismanic magic as found in the Hermetica and, more especially, in the *Asclepius*.[37] But unlike Ficino, Pico believed that this ‘Egyptian’ magic must be ‘supplemented’ by ‘practical Cabala’, i.e. Cabalistic magic. And precisely this, says Yates, is the intellectual contribution to Renaissance magic that Pico was to develop with amazing success.[38]

Cabala in fact, literally means ‘tradition’, namely that special Jewish mystical tradition that was supposedly handed by God to Moses in the sacred Hebrew language and which, according to Cabalists, conveys mystical and magical meaning encoded in the 22 letters of the Hebrew alphabet. Hebrew letters

and the words they form are viewed by Cabalists in very much in the same way as the statues and objects of the Egyptians were most likely viewed by their devotees – that is to say as *talismans charged* with magical and mystical meaning that can be released through a form of ‘magic’. Thus, according to Pico, both the Hermetic-Egyptian and Cabalistic-Hebrew magical systems – which supposedly had emanated, respectively, from the Egyptian lawgiver Hermes Trismegistus and the Jewish lawgiver Moses – complement one another. The next step, surely, was to merge them? And since both these ancient sages received their wisdom from God and were thus ‘prophets’ of Christianity, then, in Pico's logic, the now merged Hermetic-Cabalistic magic rightfully belonged to the Christian Church!

It is not within the scope of this book to review and

elaborate on the complex ‘science’ of Cabala, nor is it possible to enlarge and give details on how Pico proposed to merge this system with the Hermetic magic of the *Asclepius* or, indeed, incorporate it within the Catholic religion. Briefly, however, Pico essentially saw his Christian Hermetic-Cabala as the means through which the ‘truth’ of the Trinity could be proved and confirmed to the people. Or as Pico himself was to put it, his Christian Hermetic-Cabala was the means of ‘confirming the Christian religion from the foundations of Hebrew wisdom.’[39]

It also did not take much imagination for the Church to see that Pico's clever variant of the ancient Jewish mystical tradition could serve as a ‘conversion tool’ to bring Jews into the Catholic faith. One example of such a simple but devastatingly effective

‘tool’ was Pico's very forceful argument that the name of Jesus, *Iesu* in Hebrew, if interpreted through Cabalistic principles and methodologies, could be proved to mean ‘God’, the ‘Son of God’, and also the spirit or ‘wisdom of God’, i.e. the Christian Trinity of Father, Son and Holy Spirit.[40] In short, Pico proposed to win the Jews over using their own mystical game. And indeed with such seemingly simple but convincing manipulation of Hebrew words using ‘Christian Hermetic-Cabala’, it seems that many Jews living in Italy were persuaded that ‘Christian truths’ were locked within their own religious scriptures and thus felt compelled to convert to the Catholic faith.[41]

Not surprisingly, Pico's bold but unwise claim ‘that there is no science that gives us more assurance of Christ's divinity than magic and the Cabala’ was

bound to attract the somber attention of the papal Inquisition whose henchmen missed the point of Pico's ‘good intention’ and promptly accused him of heresy.[42] Matters got progressively worse between Pico and the Church, and he had to take refuge in France and seek the protection of Charles VIII. He eventually returned to Italy bearing letters from the king of France, and soon found himself under the protection of Lorenzo the Magnificent, the powerful Medici ruler of Florence from 1469 – 92. In the tradition of his grandfather Cosimo, Lorenzo gave the fugitive political support and interceded on his behalf with the pope.[43] Pico spent his last years in Florence where he died in 1494, at the youthful age of 31.

Perhaps it should be mentioned that, coincidently, Pico had been born in the same year that Marsilio

Ficino had completed the first Latin translation of the Hermetica. These propitious coincidences seem to have been part of Pico's life. The year before his death, Pope Innocent VIII, who had condemned Pico for heresy, was succeeded by the infamous Pope Alexander VI who, unlike his predecessor, was rather open, indeed even sympathetic, towards magic, Cabala and Hermeticism. In June 1493 Alexander VI gave his absolution to Pico della Mirandola, revoked the charges against him, and even wrote him a personal letter in which he describes Pico as a 'faithful son of the Church' inspired by a '*divina largitas*' ('divine bounty').[44]

Suddenly and, for a brief moment, there was a crack in the doors of the Vatican. Through it, quietly but surely like a thief in the night, the wisdom and

magic of the ‘Egyptian sage’, Hermes Trismegistus, slipped quickly inside ...

The Borgias, orgies in the Vatican, Isis and Osiris on the ceiling

Pope Alexander VI’s family name was Rodrigo Borgia. Born in the former Cathar stronghold of Aragon in northeastern Spain, he came from an immensely wealthy, powerful and ultimately notorious family. His uncle the bishop of Valencia (later to become Pope Calixtus III), had supervised his education in Bologna in Italy and later made him a cardinal of the Roman Church. Through bribery and

intrigue he thereafter succeeded in amassing a huge personal fortune. Father of an unknown number of illegitimate children, he also had four legitimised children from a Roman noblewoman, Vanozza de’Cattanei. These included the twisted Cesare Borgia and the beautiful Lucrezia Borgia, whose names would come to epitomise intrigue and foul play.

In spite of his licentious reputation – and somewhat amazingly, all things considered – Rodrigo was elected pope in 1492 and adopted the name of Alexander VI. He immediately began to manipulate and control the Vatican through bribery and by appointing members of his own family in key positions. Cesare Borgia, his celebrated evil son, was promoted to cardinal while still in his teens, along with another young man of the Borgia clan,

Alessandro Farnese, the future Pope Paul III. The latter was the brother of the pope's favourite mistress, Giulia Farnese, known as *'Giulia la bella'*, (from whom the pope had at least one illegitimate child). There are contemporary accounts of wild orgies at the Vatican, and historians have even traced at least two assassinations by poisoning directly related to Pope Alexander VI. Indeed, so corrupt and evil was the papacy of Alexander VI that after his death, even the Vatican itself could not avoid condemning him as the worst of the so-called *bad popes* – a polite understatement to describe the huge damage to the reputation of the Catholic Church done by the Borgias.

There is another, yet more bizarre story about Alexander VI which, we think, might explain his interest and even sympathy for Christian Hermetic-

Cabala and the ‘Egyptian’ *magia naturalis* of Hermes Trismegistus which Pico had so fervently expounded …

A Dominican abbot called Giovanni Nanni – also known as Annius of Viterbo – was a renowned historian who also acted as the personal secretary to Alexander VI.[45] In his better known work concerning the chronology of man from the Flood to the fall of Troy, Nanni advanced an extraordinary theory that the Borgia family of Pope Alexander VI were *descendants* of the Egyptian god Osiris, also known in Nanni's days as the ‘father of the Egyptian Hercules’.[46] Using such classical authorities as Herodotus, Diodorus Siculus and others – as well as the ‘authority’ of certain ancient texts which Nanni himself had forged – Nanni presented an

astoundingly convincing theory that the ‘wisdom of the Egyptians’, that is the Hermetic wisdom, had been transferred directly to the Italian people by Osiris when he had roamed the world in ancient times on a great civilising-mission.[47] According to the Danish scholar, Erik Iversen, Nanni then ‘provided a heroic genealogy for his papal patron by demonstrating that the Borgia family descended directly from the Egyptian Hercules, the son of Osiris, and that the bull on the family crest was, in fact, the Osirian *Apis*.’[48]

The pope must have taken such ideas very seriously indeed, for he promptly commissioned the renowned Renaissance painter Pinturicchio to decorate the ceiling of the Borgia apartments at the Vatican with scenes of Hermes Trismegistus along with the

Egyptian goddess Isis and the Osirian Apis bull – i.e. Serapis, the composite Graeco-Egyptian deity of ancient Alexandria. One such scene is clearly an allegory of the Hermetic ‘natural’ or ‘astral’ magic found in the *Asclepius*, where Hermes Trismegistus stands under a huge sky-globe with a large star dangling over his head, and is surrounded by various wise-looking men or sages, probably representing the classical philosophers, who are standing in reverence around him as if receiving his teachings.[49]

This strange episode of Nanni and the Borgia Pope is, of course, somewhat farcical and has nothing or little to do with the erudite and scholarly approach that Ficino, Pico della Mirandola and other savants applied to the Hermetic writings. Nonetheless, it stands as evidence of how deep the Hermetic

influence had penetrated in those Renaissance days in Italy and the rest of Europe. More importantly, it testifies to the strange lure that its mysterious Hermetic-Cabalistic talismanic ‘magic’ had on those seeking the divine secrets through the rediscovered ancient wisdom believed to be incorporated in the writings of the ‘Egyptian’ Hermes Trismegistus.

The mystery of the *Picatrix* and the star-people

Although it can be said with absolute certainty that Ficino developed his own brand of talismanic and ‘natural magic’ from his readings of the *Asclepius,*

some scholars, such as Frances Yates for example, also think that he was much influenced by another Hermetic book on magic entitled *Picatrix*[50] – a book that is not normally associated with the canon of the Corpus Hermeticum although versions of it had been circulating in Europe since at least the 13th century. Indeed, a copy of the *Picatrix* was found in Pico della Mirandola's private library, and it is also almost certain that Ficino and others of his group possessed copies or, at the very least, knew where to find such copies.[51]

The *Picatrix* was first translated into Latin from an Arabic version, now lost, which is believed to have been written in the 12th century in Spain, although some scholars think that it might have been originally composed in Egypt in the mid-11th century. In the

Arabic version this book bore the title *Ghayat Al Hakim*, which means the 'The Aim of the Sage' (also sometimes translated as 'The Goal of the Wise') and no one really knows why Italian Renaissance scholars named it *Picatrix*.[52]

With its source said to be 224 ancient manuscripts on Hermeticism, astrology, magic, Cabala and alchemy, the *Picatrix* is considered one of the most complete works on ancient talismanic magic in existence. There are, today, various European translations available: in German by Helmut Ritter in 1933; in Spanish by Marcelino Villegas in 1982; in Latin by David Pingree in 1986; and in Italian by Davide Arecco and Stefano Zuffi, also in 1986. A partial English translation was published in 2002 by Hashem Attallah, and we understand that, David

Pingree, has been working on an English translation in recent years.[53] Pingree published an extensive article on the *Picatrix* in the *Journal of the Warburg Institute* in 1981, and there are some very useful commentaries on it, supported by extensive quotations, in Frances Yates's book *Giordano Bruno and The Hermetic Tradition* published in 1964, on which we have mostly based our investigation. Yates, who studied the German and Latin versions of the *Picatrix*, concluded that this work must be associated with the Hermetic tradition, since not only is much reference to Hermes Trismegistus made in it but also it almost certainly draws from the ideologies of the *Sabaeans* – Arabs of Harran (a location in the southeast of modern Turkey) who had adopted the Hermetica as their own ‘religion’ in the ninth century

AD and who also practiced the talismanic magic of the *Asclepius*.[54]

The Sabaeans' venerated the moon-god *Sin*, and they are known to have been avid stargazers and astrologers. An interesting theory of how they got their name has been put forward by Selim Hassan, an Egyptologist who worked at the Giza pyramids in Egypt in the 1930s.[55] Hassan proposed that the name Sabaeans, which is *Saba'ia* in Arabic, may have come from the ancient Egyptian word *saba'a* which means 'star'. Apparently the Sabaeans of Harran had performed yearly pilgrimages to the Giza pyramids from time immemorial until at least as late as the 11th century AD. At the pyramids they are known to have conducted astronomical observations and rituals which may have been remnants from the old

astral religion of ancient Egypt. Hassan believed that the Sabaeans had recognised the Giza pyramids as monuments dedicated to the stars, which probably inspired them to take the name *Saba'ia* i.e. the ‘star-people’.[56]

There is, however, another possible explanation. When the Hermetic and Gnostic sects were persecuted in Egypt by the Roman Church, some initiates may have fled to Harran carrying with them copies of the Hermetic and Gnostic writings. Harran, with its moon-worship cult – note in Egypt that Thoth-Hermes was also a moon-god – and its star-worship and astral magic, would have been an obvious place for the Hermetists and Gnostics seeking refuge and protection from the Roman and Christian persecutions. At any rate, whatever the true origins

of the Sabaeans, it seems clear that their astral and talismanic magic was passed on to Arab scholars in Spain and Occitania, and that much of it survived in books such as the *Picatrix*. It is not within the scope of this investigation to pass into review the whole content of the *Picatrix*, but suffice to say here that it served as a sort of practical manual for talismanic magic or, to be more specific, it provided a step-by-step explanation of how to make talismans by pulling into them the power of the spiritual and astral world.

Perhaps an example may be useful here. Imagine two identical AA batteries, the sort we use everyday to power electronic equipment such as CD players, penlights, cameras and the like. One of the batteries, however, is fully charged while the other is empty. The charged battery has the potential to release energy to power music, light and so forth; the other

is simply an inert object that produces nothing. In a similar way any object can be charged with *intellectual, spiritual or emotional* energy, just like the battery can be charged with electrical energy. In short, a talisman can be created. Imagine a young man who takes his lover to a restaurant dinner by candlelight and, at the appropriate moment, after having made a full declaration of love, pulls out a small box with a diamond ring in it and offers it as a token of his love. Whatever the reaction, that ring is henceforth not just a ring; it is a talisman.

Today we use the words ‘sentimental value’, but an ancient Egyptian or Sabaean or, if you prefer, a Hermetic thinker, would use the words ‘talismanic value’. We all have our talismans: rings, necklaces, bracelets, amulets, crystals and so forth. And we generally would be quite disturbed and unhinged

should they get lost or stolen. Many cutting-edge researchers have long accepted that ancient Egyptian art, statuary, obelisks, pyramids and even whole cities were meant to act as powerful talismans. It is also recognised that the subliminal effect of such talismans can be increased manifold by adding a variety of sensual stimuli other than mere visuals. Carefully chosen music, for example, will almost certainly enhance the experience, as well as perfumes, incense and lighting conditions. We all know how vastly different it is to visit a cathedral with a noisy group of tourists and again alone when a choir is singing hymns in soft candlelight with the smoke of incense filling the air.

It should be noted also that such talismanic environments do not necessarily have to be artificial. The natural environment can, and often does, act as a

‘temple’. Just think of a Scotsman after years of absence returning to his beloved Highlands, or a Berber returning to the desert after a long spree in a city, and you will get the idea. This, in part, is what Ficino and Pico called *natural magic*.

But it is the perfect *combination* of an artificial ‘temple’ with a natural ‘temple’ that can act as the most inspiring and effective ‘temple-talisman’ of all. Think of the Palace of Versailles in France, the Taj Mahal in India, Angkor Wat in Cambodia. Think of a city like Paris in the spring, or Rome in the summer, or Washington, DC in the fall and you begin to understand the principle here.

All this may sound like some hocus-pocus pseudoscience in our present climate of intense empirical, rational and analytical thinking. But irrespective of what we may think of talismanic

magic or so-called *sacred science,* the fact remains that we are complex creatures and we have evolved over billions of years under the subtle influence of nature. Our senses act as finely tuned receivers that enable us to understand nature and the cosmos around us intuitively. Such abilities are quite simply, *natural magic* and in ancient times were skillfully amplified by enhancing and capturing the multiple aspects of nature within well-defined symbols and talismans. We would go so far as to say that the ancient Egyptian priests were the true masters of this arcane magic and that an Egyptian temple was not really a temple at all so much as a powerful talisman meant to influence events in the macrocosm. Enter an Egyptian temple and you enter a model of the universe as perceived by the inner human mind. A temple was not merely a place of worship, but an

environment that you had to integrate with – its ambiance, its harmonic proportions, its carefully chosen images, its symbols, it magical texts and its talismanic statuary, all of which were charged with archetypal values, cosmic principles and natural ideals. And yet in the *Picatrix* we are presented with something far more ambitious than a sacred talismanic temple. We are presented with no less than an esoteric manual for the transformation of great cities, and even perhaps the whole *world*, into talismans ...

Temple of the world

In the Hermetic text known as the *Asclepius* there is a call sent to a future generation of 'wise men' to bring about the full *restoration* and *restitution* of the true religion of the world[57] – that is the magical talismanic religion which was once practiced in the sacred land of Egypt. This call is highly reminiscent of the mysterious 'Organisation' spoken of in the Nag Hammadi Gnostic texts which date from approximately the same period and which even include a fragment of the *Asclepius*. As the reader will recall from Chapter Five the texts leave us with the impression that this 'Organisation' was some sort of Gnostic secret society and that its objective was also the restoration of a 'true religion' – in its case, Gnosis.

Let's look at the relevant passages of soaring prose

in the *Asclepius,* in which Hermes Trismegistus laments and prophecies to his favourite pupil *Asclepius* the forthcoming and inevitable destruction of Egypt and its ancient and most revered religion:

Do you not know, Asclepius, that Egypt is an image of heaven or, to be more precise, that everything governed and moved in heaven came down to Egypt and was transferred there? If truth were told, our land is the temple of the whole world. And yet, since it befits the wise to know all things in advance, of this you must not remain ignorant: a time will come when it will appear that the Egyptians paid respect to divinity with faithful mind and painstaking reverence – to no purpose. All their holy worship will be disappointed and perish without effect, for divinity will return from earth to heaven, and Egypt will be abandoned. The land that was the seat of reverence

will be widowed by the powers and left destitute of their presence. When foreigners occupy the land and territory, not only reverence will fall into neglect but, even harder, a prohibition under penalty prescribed by law – so-called – will be enacted against reverence, fidelity and divine worship. Then this most holy land, seat of shrines and temples, will be filled completely with tombs and corpses.

O Egypt, Egypt, of your reverent deeds only stories will survive, and they will be incredible to your children! Only words cut in stone will survive to tell your faithful works, and the Scythian or Indian or some such neighbour barbarian will dwell in Egypt. For divinity goes back to heaven, and all the people will die, deserted, as Egypt will be widowed and deserted by god and human. I call to you, most holy

river, and I tell your future: a torrent of blood will fill you to the banks, and you will burst over them; not only blood will pollute your divine waters, it will also make them break out everywhere, and the number of the entombed will be much greater than the living. Whoever survives will be recognised as Egyptian only by his language; in his actions he will seem a foreigner.

Asclepius, why do you weep? Egypt herself will be persuaded to deeds much wickeder than these, and she will be steeped in evils far worse. A land once holy, most loving of divinity, by reason of her reverence the only land on earth where the gods settled, she who taught holiness and fidelity, will be an example of utter unbelief. In their weariness the people of that time will find the world nothing to

wonder at or worship. This all – a good thing that never had nor has nor will have its better – will be endangered. People will find it oppressive and scorn it. They will not cherish this entire world, a work of God beyond compare, a glorious construction, a bounty composed of images in multiform variety, a mechanism for God's will ungrudgingly supporting his work, a unity of everything that can be honoured, praised and finally loved by those who see it, a multiform taken as a single thing. They will prefer shadow to light, and they will find death more expedient than life. No one will look up to heaven. The reverent will be thought mad, the irreverent wise; the lunatic will be thought brave, and the scoundrel will be taken for a decent person. Soul and teachings about soul (that the soul began immortal or else expected to attain immortality) as I revealed

them to you will be considered not simply laughable but even illusory. But – believe me – whoever dedicates himself to reverence of mind will find himself facing a capital penalty. They will establish new laws, new justice. Nothing holy, nothing reverent nor worthy of heaven or heavenly beings will be heard or believed in the mind. How mournful when the gods withdraw from mankind! Only the baleful angels remain to mingle with humans, seizing wretches and driving them to every outrageous crime – war, looting, trickery and all that is contrary to the soul …[58]

This superb piece of early Hermetic writing very much appears to anticipate the plight of the Egyptians under the Roman occupation of Egypt and, most intriguingly, it also seems to foretell the

collapse of the Egyptian religion that was engineered after Christianity became the state religion of the Roman Empire. Since the *Asclepius* is dated to no later than the third century AD and, more intriguing, since the decree of the very Christian Emperor Theodosius outlawing ‘paganism’ was not to be issued until AD 391, then the eerie premonitions of the unknown author of this ominous tract are, to say the least, extraordinary. Yet this is not all. For the *Lament* goes on to promise hope for the future in words that resonate like a temple bell:

When all this comes to pass, Asclepius, then the master and father, the god whose power is primary, governor of the first good, will look on this conduct … and in an act of will – which is god's benevolence – he will take his stand against vices and the perversion in everything, righting wrong, washing away malice …

then he will restore to the world to its beauty of old so that the world itself will again seem deserving of worship and wonder, and with constant benedictions and proclamations of praise the people of that time will honour the god who makes and *restores* so great a work. And this will be the geniture of the world: a *reformation* of all good things, and a *restitution* most holy and most reverent of nature itself ...[59]

Restoration, reformation and restitution to the ways and beauty of old ... But a 'restoration, reformation and restitution' by whom? How ... and when?

As the text continues it becomes clear that part of the plan – if it is a plan – includes the building or rebuilding of a magical talismanic city along certain well-defined astronomical and symbolic principles:

The gods who exercised their dominion over the earth will be restored one day and installed in a city at the extreme limit of Egypt, a city which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of mortal men …[60]

According to Frances Yates, the above passage presents us with the image of an enchanted utopia, a sort of ancient Egyptian version of Camelot, created by the manipulation of astral magic by adept priests who, as she says, were conversant in 'astronomy, mathematics, music, metaphysics, and indeed practically everything for the introduction of the *spiritus* [astral power] into talismans.' And all this was achieved, notes Yates by making 'images of stars inscribed on the correct materials, at the right times,

in the right frame of mind and so on.'[61] As for the magical city itself, Yates thinks that it 'might thus be seen both as the ideal Egyptian society before its fall and as the ideal pattern of its future and universal restoration.'[62]

There is, too, another eerie passage in the *Asclepius*, where Hermes Trismegistus again addresses his pupil and gives us a tantalising glimpse of how the ancient Egyptians saw their sacred land as a model or 'image' of the heavenly landscape and a parallel world of the gods:

Do you not know, Asclepius, that Egypt is an image of heaven? Or, to be more precise, that everything governed and moved in heaven came down to Egypt and was transferred there? If truth were told, our land is the temple of the whole world ...[63]

In a Hermetic tract known as the *Kore Kosmou*, the 'Virgin of the World' – i.e. Isis, the Egyptian goddess, the consort of Osiris – makes the following revelation to their son Horus:

The earth lies in the middle of the universe, stretched on her back as a human might lie facing towards heaven ... Her head lies toward the south ... her right shoulder toward the east, and her left shoulder towards the west; her feet lie beneath the Great Bear [north] ... But the right holy land of our ancestors [i.e. Egypt] lies in the middle of the earth; and the middle of the human body is the sanctuary of the heart, and the heart is the headquarters of the soul; and that, my son, is the reason why men of this land ... are more intelligent [wise]. It could not be otherwise, seeing they are born and bred upon

Earth's heart.[64]

In the above we have an actual geographical scheme which is based on some form of astral magic, where Egypt is said to be at the very centre of the world, right at the crossing of some prime meridian. It is interesting to note that the Great Bear constellation is mentioned in this scheme, for it is well known that ancient Egyptian temples were ritualistically aligned to the Great Bear constellation i.e. Ursa Major, in a ceremony known as the ‘stretching of the cord’. It can now be better understood why in the *Asclepius* the whole of Egypt is said to be a ‘temple’ or, more specifically, that Egypt is the ‘temple of the world’. Was this what the ancients meant when they called Egypt the ‘land of the gods’? Was it, quite literally, a *sacred land*

fashioned in the image of the cosmos?

The city of Adocentyn

Part IV of the *Picatrix* seems to elaborate on this theme. Here Hermes Trismegistus is presented as the founder of a magical solar city that, we are told, was designed around astrological ideas and that contained fantastic talismanic statues and other such wonders. The secret knowledge of this magical city of Hermes, claims the unknown author of *Picatrix,* was passed down the ages by the Chaldean Magi who were adepts in the science of talismanic magic:

There are among the Chaldeans very perfect masters

of this art and they affirm that Hermes was the first who constructed images by means of which he knew how to regulate the Nile against the motion of the moon. This man also built a temple to the sun, and he knew how to hide himself from all so that no one could see him, although he was within it. It was he, too, who in the east of Egypt constructed a city 12 miles long within which he constructed a castle which had four gates in each of its four parts. On the eastern gate he placed the form of an eagle [Horus?]; on the western gate, the form of a bull [Apis?]; on the southern gate the form of a lion [Sphinx?], and on the northern gate he constructed the form of a dog [Anubis?]. Into these images he introduced spirits which spoke with voices, nor could anyone enter the gates of the city without permission. There he planted trees, in the midst of which was a great tree

which bore the fruits of all generation [immortality?]. On the summit of the castle he caused to be raised a tower thirty cubits high on the top of which he ordered to be placed a light-house, the colours of which changed every day until the seventh day after which it returned to the first colour, and so the city was illuminated with these colours. Near the city there was abundance of waters in which dwelt many kinds of fish. Around the circumference of the city he placed engraved images and ordered them in such manner that by their virtue the inhabitants were made virtuous and withdrawn from all wickedness and harm. The name of the city was Adocentyn ...[65]

Dame Frances Yates' commentary is most helpful:

Passed through the vivid imagination of the Arabs of Harran, we seem to have here something that

reminds us of the hieratic religious magic described in the *Asclepius*. Here are the man-made gods, statues of the animal- and bird-shaped gods of Egypt, which Hermes Trismegistus has animated by introducing spirits into them so that they speak with voices and guard the gates of this magical utopia. The colours of the planets flash from the central tower, and these images around the circumference of the City, are they perhaps images of the signs of the zodiac and the decans [constellations] which Hermes has known how to arrange so that only good celestial influences are allowed into the City? The law-giver of the Egyptians [Hermes] is giving laws which must perforce be obeyed, for he constrains the inhabitants of the City to be virtuous, and keeps them healthy and wise, by his powerful manipulation of astral magic ... One might say that this City shows us

Hermes Mercurius [Trismegistus] in his triple role of Egyptian priest and god-maker, of philosopher-magician, and of king and lawgiver ... The pious admirer of those two 'divine' books by the most ancient Hermes – the *Pimander* and the *Asclepius* – must surely have been struck by this vivid description of a City in which, as in Plato's ideal *Republic*, the wise is the ruler, and rules most forcibly by means of the priestly Egyptian magic such as described in the *Asclepius* ...[66]

In the original Arabic version of the *Picatrix* the name of the magical Hermetic city is not given exactly as Adocentyn but as *Al Ashmunain*. This turns out to be a real location in Middle Egypt. It stands on the banks of the Nile where there is an abundance of vegetation, fish and fauna, and would indeed have

been a paradisiacal spot in antiquity. It was the main cult centre of Thoth/Hermes in Greek and Roman times[67] and a famous temple dedicated to Thoth once stood here.[68] For this reason the Greeks called it *Hermopolis* i.e. the city of Hermes. Its original Egyptian name was *Kmun*, meaning 'eight', apparently in honour of a group of eight gods, the *Ogdoad*, who represented the world before creation.[69]

We cannot be sure that it was *Kmun*/Hermopolis/*Al Ashmunain* that was envisaged by the writers of the *Picatrix* when they summoned up their vision of the magical, talismanic city of Hermes Trismegistus. The problem is that Adocentyn, as they described it, bears no resemblance to any real region in Egypt – although certainly this was a land in which many

‘temples to the Sun’ existed, the most famous being Heliopolis in the north and Karnak-Luxor in the south. The term *Ashmunain* in the original text of the *Picatrix* could also be a corruption of *Ain Shams*, meaning the ‘Eye of the Sun’, a name still used by Egyptians today to denote the region of Heliopolis.

But what really interests us about the talismanic city of the *Picatrix* is not so much its very plausible connection to real sacred cities of ancient Egypt. Far more important, in our view, has been its role as an archetype or template for cities to be built or rebuilt *in the future*, including the capitals of Britain, Italy, France and the United States. We will demonstrate in later chapters that in each of these cases prominent monuments, works of architecture, and sometimes the street plans of whole districts, appear have been harnessed to a secret Hermetic scheme.

If we are right then we have come across the traces of an organisation that has hitherto sustained its existence and purpose undetected for hundreds of years while carrying out immense projects of occult urban planning – all of them ‘hidden’ in full public view. To understand why anyone might have been motivated to do such an audacious thing we must first explore the Hermetic religion that lies behind the cosmic city of Adocentyn.

CHAPTER NINE

TWO PHOENIXES

A divine city hath been built for me, I know it and I know the name thereof...

Ancient Egyptian Book of the Dead[1]

I have come into the city of god – the region which existed in

primeval time.

Ancient Egyptian Book of the Dead[2]

The opening into the city is fire ... and the god hath made it for those who follow willingly in his train ... He hath made the city so that he may dwell therein at will, and none can enter therein except on the day of the great transformations ...

Ancient Egyptian Book of the Dead[3]

Specialised scholars who study ancient literature often argue that there is no strong genetic link between the known religious texts of ancient Egypt (which span the period from roughly 2300 BC to 0 BC) and the Hermetic texts composed in Alexandria in Egypt between approximately AD 1 and AD 300. 'There is a want of technical Egyptian mythological, liturgical and sacerdotal knowledge in the [Hermetic] texts,' explains Tobias Churton:

We really learn nothing about Egyptian religion, except in the most general terms, terms which would not stretch the vocabulary gained by the average reader of a tourist guide to ancient Egypt today.[4]

The scholarly dissection of the Hermetica began with Isaac Casaubon (1559 – 1614) who late in his

life argued, successfully, that none of the texts could possibly have been written by an ancient Egyptian named Hermes Trismegistus – as had been widely believed since their rediscovery in 1460. By skilful textual analysis he rightly attributed them to the early Christian period in the first three centuries AD and thus, it seemed, ‘debunked’ the notion that they were as old or older than Moses. Casaubon's findings took many years to be fully accepted, but wherever they were accepted they removed from the texts the aura of prestige that their false antiquity had given them. The inevitable result, over the next century and a half, was that:

... the Hermetic writings lost their hold on men's interest, and sank into comparative neglect.[5]

A renewal of academic interest in the Hermetica

was brought about almost single-handedly in the 1960s by Dame Frances Yates, whose works we cite frequently in this book. By ‘making Hermes a major figure in the preliminaries to the scientific revolution’ and a vital catalyst of the Renaissance she has ensured that the Hermetic writings are now once again ‘required reading for many students of early modern thought and letters.’[6]

In Yates’ view Casaubon's debunking exercise in the 17th century had thrown out the baby with the bathwater. To be sure, the texts were *not* ancient Egyptian in origin – Casaubon was right about that. Nevertheless the ‘Egyptian illusion’, which misled the scholars of the Medici Academy and their successors all over Europe for the best part of two centuries, gave the Hermetic texts the power and leverage –

and enough time – to effect profound changes in the way that people thought about the world and understood the human predicament.[7]

Preserving the essence

This argument for pragmatic study of the *effects* of the Hermetic writings, regardless of any debate about their antiquity, has made the subject academically respectable again but has done nothing to advance our understanding of their origins. We are left to believe that these astoundingly sophisticated texts arose fully-formed out of nowhere in the first three centuries AD, with no background or evolution,

and are asked to accept that:

The precise provenance of the philosophical Hermetica remains to a large extent a mystery.[8]

The one certainty, all the experts agree, is that there must have been a close connection between the philosophers and religious thinkers who composed the Hermetica in Alexandria in the first three centuries AD and the philosophers and religious thinkers who composed the Gnostic texts in Alexandria in exactly the same period. It is not simply that certain texts of the Hermetica (including the *Asclepius*) were part of the Nag Hammadi Gnostic library[9] – although this is strongly indicative of overlapping interests in the Hermetic and Gnostic communities of that period. Much more significant are the deep structural connections at the level of

ideas that can be demonstrated between the two collections of texts.

The painstaking work that has revealed these connections, and begun to get to grips with the amazing philosophical and religious undercurrents of late antiquity, has all been done by orthodox, ‘mainstream’ scholars. Since Casaubon, however, (with a few remarkable exceptions who we'll meet in later chapters) it has been tantamount to academic suicide to reinvestigate the supposedly settled question of any possible ancient Egyptian origin for the Hermetic texts.

Our primary objective in this book is to follow the traces of what we suspect may be a ‘conspiracy’, or something very like one, based on Hermetic and Gnostic ideas and originally formulated about 2,000 years ago. In complete contradiction to the scholarly

consensus it is our proposal that the Hermetic texts *are* closely connected to the much older ancient Egyptian religion. They may have been deliberately designed to preserve its *essence* while dispensing with its substance. To take a metaphor from Gnostic and Hermetic teachings of reincarnation, the intention may have been to transfer the *soul* of the Egyptian system, at the point of its death under the Roman Empire, into an entirely new and different 'body' better adapted to the times.

Building the City of the God

There is a consistent emphasis on cities throughout

the Hermetic literature.

At the end of Chapter Eight we drew particular attention to the magical ‘cosmic city’ of Adocentyn, said in the *Picatrix* to have been built in the remote past by Hermes Trismegistus and so designed that it brought benevolent celestial influences streaming down on its inhabitants. We also pointed out that a similar magical city built by the gods is described in the *Asclepius,* probably the best-known of all the Hermetic texts. There it is intriguingly portrayed not as a city of the past but as a prophesied city – a city of the future:

… which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of mortal men …[10]

If there is no genetic connection between the

ancient Egyptian and the Hermetic texts, as scholars tell us, then it is presumably a coincidence that Chapter 183 of the ancient Egyptian *Book of the Dead* dated to about 1200 BC, contains this curious passage:

I come from the city of the god, the primeval region; soul, *ka* and spirit are what is in this land. Such is its god, namely the Lord of Truth possessor of provisions, he to whom every land is drawn ...[11]

Soul, *ka* and spirit are the names given to different elements of the person all believed by the ancient Egyptians to survive death, while 'Lord of Truth' is a frequently used epithet for the wisdom god Thoth-Hermes. So here in the *Book of the Dead* we have a 'city of the god' (indeed a city of the god who would become Hermes) towards which 'every land is

drawn’. Isn't that essentially the same concept that crops up more than 1400 years later in the supposedly unconnected *Asclepius* (*circa* AD 268 – 273) where ‘the whole race of mortal men’ hasten towards a city built by the gods?

Going further back in time we come to the ancient Egyptian *Pyramid Texts*, the world's oldest scriptures, dated to around 2300 BC. Here too we find references to the sacred functions of cities that are echoed in the much later and supposedly unconnected Hermetica. Of particular interest is Utterance 319 in which we learn that it is the responsibility of the king, during his reign, to *build the city of the god*:

The King has united the heavens, the King has power over the southern and northern lands, and the gods who were aforetime, the King has built the city of the

god in accordance with its proper due.[12]

This idea that it is the sacred duty of the king to build a city that will harmoniously unite earth and heaven for the benefit of its inhabitants would be taken up some 4,000 years later by the great Hermetic philosopher Tommaso Campanella. Based entirely on his studies of the Hermetica, Campanella claimed in the early 17th century that he could 'make a city in such a wonderful way that only by looking at it all the sciences may be learned.'[13] He would go on, as we will see in Chapter Twelve, to prophesy that King Louis XIV of France would be the one who would actually build this magical 'City of the Sun.'

We recall the words of Frances Yates, reported in Chapter Eight, to the effect that Adocentyn, the magical city of the *Picatrix*, kept its citizens healthy

and wise through the ‘powerful manipulation of astral magic’ which ensured that only ‘good celestial influences’ could reach them. How different is this from Campanella's claim to be able to make a city from which its inhabitants could learn and benefit merely by looking at it? Or from this passage in the ancient Egyptian *Pyramid Texts* where the king says:

I build you, O city of mine; You shall do for me every good thing which I desire; You shall act on my behalf wherever I go ...[14]

Sky and ground

We suggest that key shared concepts underlie this

shared interest in the cosmic ‘City of the God’ and/or ‘City of the Sun’ that is found in both the ancient Egyptian and the Hermetic texts. The most important of these concepts is, indeed, the unifying theme of the entire corpus of Hermetic writings:

That which is below corresponds with that which is above, and that which is above corresponds with that which is below, in the accomplishment of the miracle of the one thing …[15]

The passage quoted is from *The Emerald Tablet of Hermes Trismegistus*, not part of the so-called *philosophical* Hermetica but one of a large number of *alchemical* Hermetic tracts from various periods that fall largely outside the scope of this discussion. Nonetheless in both the alchemical and the philosophical Hermetica, as throughout the much

older ancient Egyptian texts, we encounter the consistent deployment of a distinctive metaphor in which ‘sky’, ‘heaven’, ‘above’ and other related terms represent the spiritual, immaterial realms to which the soul properly aspires, while ‘ground’, ‘earth’ and ‘below’ represent the world of gross matter in which the soul is imprisoned. Implicit – and often explicit – in the relevant texts is the understanding that perfection belongs exclusively to the ‘above’ world, while the world of ‘earth’ and ‘below’ is corrupt and eternally imperfect.

Let's look first at a few examples from the ancient Egyptian texts, all of which in different ways explore, describe and prepare the initiate for life after death as it was conceived in the religion of the pharaohs:

Your soul is bound for the sky, your corpse is beneath the ground ... You shall go up to the sky ... You shall

ascend to those who are above the earth ...[16] (*Book of the Dead*)

You shall ascend to the sky, you shall traverse the firmament, you shall associate with the stars ...[17] (*Book of the Dead*)

This King is Osiris in a dust-devil; earth is this King's detestation ... This King is bound for the sky ...[18] (*Pyramid Texts*)

Arise, remove your earth, shake off your dust, raise yourself, that you may travel in company with the spirits, for your wings are those of a falcon, your gleam is that of a star...[19] (*Pyramid Texts*)

‘How lovely to see you, how pleasing to behold!’ says Isis, ‘when you ascend to the sky, your power about you, your terror about you, your magic at your feet … The doors of the sky are opened for you, the doors of the starry firmament are thrown open for you …’[20] (*Pyramid Texts*)

A particularly clear example of what we might call ancient Egyptian ‘matter-spirit dualism,’ is found in the *Coffin Texts*, *circa* 1900 BC:

The King is pure on that great tomb-plateau; the King has got rid of his evil; the King has discarded his wrongdoing; the King has cast down to earth the evils which were on his flesh …[21]

This passage contains the by now familiar equivalences (matter = evil; spirit = good) that we've encountered repeatedly in Part I of this book

amongst the Gnostics of the early Christian era and their dualist successors the Bogomils and the Cathars. Yet it was composed 2,000 years before any of the surviving Gnostic texts and 3,000 years before the upsurge of the Cathar phenomenon in Western Europe in the 12th century AD.

In our view it is not a coincidence that the Hermetic texts are redolent of exactly the same system of ideas. A few extracts are sufficient to make the point:

Evil, as I have told you before, must needs dwell here on earth, where it is at home; for the home of evil is the earth.[22] (Hermetica, *Libellus IX*)

It came to pass that evils inherent in matter were intermingled with the human body.[23] (Hermetica,

Asclepius III)

The soul of a child ... is still hardly detached from the soul of the Kosmos. But when the body has increased in bulk, and has drawn the soul down into its material mass, it generates oblivion; and so the soul separates itself from the Beautiful and Good, and no longer partakes of that; and through this oblivion the soul becomes evil.[24] (Hermetica, *Libellus X*)

I see that by god's mercy there has come to be in me a form which is not fashioned out of matter, and I have passed forth out of myself and entered into an immortal bod y.[25] (Hermetica, *Libellus XIII*)

You are purified, now that you have put away the

earthly tabernacle.[26] (Hermetica, *Libellus XIII*)

The last quoted remark, although from the Hermetica, could equally well sum up the state of the Cathar *perfectus* in receipt of the *consolamentum* – who thereafter severed all connections with the world of matter. Meanwhile in the *Pyramid Texts* of the ancient Egyptians the formula 'remove your earth, shake off your dust'[27] was used in exactly the same way and to exactly the same purpose.

The divided creature

Scholars do not dispute the existence of a strong genetic link between Gnostic and Hermetic beliefs.

On the contrary such a link is fully accepted. As we've seen, however, the notion of a similarly close link between the Hermetic religion and the ancient Egyptian religion is outright rejected. It's provocative then that all three systems appear to be in complete agreement in their analysis of the fundamental dilemma of the human being as an ambiguous or ‘dual’ creature composed both of matter and of spirit.

The doctrine of the Gnostics, Bogomils and Cathars on this subject has been explored extensively in Part I. The reader will recall the vivid picture painted in their teachings and myths of the souls of fallen angels trapped in the ‘alien’ material world within the gross physical bodies of men and women. The view that emerges of the human condition is undeniably that of a creature made of ‘mud’ and corruption that is paradoxically illuminated by a

divine and deathless spark – a creature in large part of ‘earth’ that also contains a fragment of ‘heaven’.

Could this permanent state of duality be what the composers of the ancient Egyptian *Book of the Dead* were hinting at with an enigmatic formula found in Chapter 156 that reads ‘His one arm is toward the sky, his other arm is toward the earth’?[28] It is certainly what the Hermetic sages had in mind in the *Pimander* when they wrote:

Man, unlike all other living creatures upon earth, is twofold. He is mortal by reason of his body; he is immortal by reason of the man of eternal substance … He is exalted above the structure of the heavens … yet he is mastered by carnal desire and by oblivion.[29]

In the Hermetic text that bears his name, the student Asclepius asks Hermes the obvious question

about this arrangement:

But what need was there, Trismegistus, that man should be placed in the material world? Why might he not have dwelt in the region where God is, and there enjoyed perfect happiness?[30]

In reply Hermes explains that God first created man as an ‘incorporeal and eternal being’ – the reference here is to the spiritual man, the immortal soul, the ‘divine spark’. Then, however:

Perceiving that the man whom he had made could not tend all things on earth unless he enclosed him in a material envelope, God gave him the shelter of a body to dwell in, and ordained that all men should be formed in like manner.[31]

While we recognise that the Hermetic script at this point diverges sharply from the Gnostic/Cathar script

(in which the soul of man is made by the God of Good and the body of man is made by the God of Evil) the general scenario of incorporeal souls immersed in matter nevertheless remains almost identical in the two religions. One profound difference must however be acknowledged concerning their attitudes towards matter – for while the Gnostics and Cathars deduced from their beliefs that matter should be hated, the Hermeticists reached a much more positive conclusion about the creation and about man's place in the scheme of things:

Thus he [God] fashioned man of the substance of the mind, and the substance of body – of that which is eternal and that which is mortal – blending and mingling together portions of either substance in adequate measure, to the end that the creature so fashioned might be able to fulfil the demands of both

sources of his being, that is to say, to venerate and worship the things of heaven, and at the same time to tend and administer the things of earth.[32]

Knowledge, reason, intelligence ...

Later in the same Hermetic text – the *Asclepius* – the argument verges back into close proximity to Gnostic ideas when it reminds us that it is the ultimate destiny of the human soul to end its sojourn on earth and return to the heavens where it belongs:

God saw that of all living creatures men alone had need of reason and knowledge, whereby they might repel and put away from them the evil passions

inherent in their bodies; and for this cause he imparted to them the gift of reason; and at the same time … he held out to them the hope of immortality, and gave them power to strive toward it.[33]

In the case of the Gnostic religion the reader will recall from Part I that the return to the heavenly realm could not be achieved by blind faith but was to be striven for through *gnosis* – 'revealed knowledge of the reality of things'. In the case of the Hermetic religion we see this same emphasis on knowledge, now also combined with the 'gift of reason'. Indeed the *Asclepius* goes so far as to state that the 'divine part' of man consists of 'mind, intellect, spirit, and reason,' and to assert that it is on account of these 'higher elements' that he is 'found capable of rising to heaven'.[34]

This goal of the return to heaven, the *Pimander* asserts explicitly, is the 'consummation for those who have got *gnosis*.'[35] And in one of the *Discourses of Hermes* a helpful definition is even offered of the precise kind of knowledge involved in *gnosis*. It seems that it 'cannot be taught by speech, nor learnt by hearing':

Knowledge differs greatly from sense-perception ... Knowledge is incorporeal; the organ which it uses is the mind itself; and the mind is contrary to the body.[36]

The individual's quest for g*nosis,* in both its Hermetic and purely Gnostic forms, involved putting off the material world and its illusions. The reader will recall from Part I the asceticism of the Gnostic sages of Alexandria and of their successors the

Cathar and Bogomil *perfecti*. The writers of the Hermetic texts would have approved: 'If a man understands the design of god,' says the *Asclepius,* 'he will despise all material things.'[37]

On the other hand, for those who persist in willful ignorance, all the vices and evils that are inherent in the material realm:

... grow in strength, and lacerate the soul with incurable sores; and infected and corrupted by the poison, the soul breaks out in tumours, so to speak, save in the case of those whose souls are cured by the sovereign remedy of knowledge and intelligence.[38]

Like so much else in the Hermetica, this constant emphasis on the role of knowledge and intelligence in the soul's struggle to win immortality seems to have

strong precursors in the ancient Egyptian funerary texts. There we encounter a bearded god called *Sia* who attends Ra in the solar barque. Sia's special quality is that he is the personification of intelligence[39] so it is interesting that his role in bringing the soul of the deceased safely through the Netherworld is repeatedly emphasised. In Spell 237 of the *Coffin Texts*, for example, the deceased embarks on his afterlife journey with confidence stating: 'I know what Sia knows, and a path is opened for me ...'[40] Earlier in Spell 38 we read: 'I have seen the chest [i.e strongbox] of Sia and I know what is in it ...'[41] Another metaphor for the crucial importance of intelligence is employed in Spell 689 which states: 'This King has swallowed Sia, he has eaten magic from the magician.'[42] In the *Book of What is in the*

Duat we find Sia accompanying the deceased on his journey through the Netherworld and opening gates of fire that would otherwise remain closed to him.[43]

Stars and angels falling to earth

In the ancient Egyptian system the afterlife journey through the Netherworld – the *Duat* – was the opportunity for the 'perfected spirit' (i.e. one that had acquired the necessary knowledge during incarnation on earth) to throw off forever the entrapments of matter, ascend to the spiritual realms and become, metaphorically, a star in heaven. In the case of initiates in the Gnostic system, whether in its early

Christian or later Cathar forms, we know that this sought-after ‘ascent to heaven’ was in fact understood as a *re-ascent* of our angelic souls to the heavenly realms from which they had fallen long ago.

The reader will recall from Chapter Three vivid descriptions of angels falling ‘like rain upon the earth’ through a hole in heaven, having been tempted downwards by Satan who then trapped them in human bodies and the cycle of reincarnation. There are some striking but neglected passages in the ancient Egyptian texts which seem to us to be expressions of essentially the same idea and once again provide support for a mysterious connection between the religion of ancient Egypt and the Hermetic and Gnostic religions. For example in Chapter 99 of the *Book of the Dead* we read:

This land is baleful and the stars have overbalanced

themselves and have fallen on their faces therein, and they have not found anything which will help them to ascend again ...[44]

Routine use is made in the ancient Egyptian texts of the star as a metaphor for the beatified and 'perfected' soul. We therefore see little difference in intent between this image of fallen stars unable to get back to the sky and the Gnostic image of fallen angels unable to return to heaven. Of course the purest and most spiritual angels in the Gnostic/Cathar system were those who resisted temptation and never fell to earth at all. So it was too amongst the ancient Egyptians as far back as the *Pyramid Texts* in 2300 BC:

The King is one of those ... beings ... who will never fall to the earth from the sky ...[45]

Reproducing eternity in a copy

At the heart of all such imagery, whether ancient Egyptian, Gnostic or Hermetic, is the sense of a radical rupture between matter and spirit, sky and earth. We've seen how all three of these religions taught the need for some sort of special knowledge – *gnosis* – as a way of escape for souls trapped ‘below’. In the case of the Cathars the saving knowledge was acquired through asceticism, study, and the initiation ritual known as the *consolamentum*. In the case of the Hermeticists and the ancient Egyptians, as we saw earlier and in Chapter Eight, there was a curious interest in cities which were to be made, so far as possible, in ‘the image of heaven’. By somehow

replicating or ‘copying’ celestial perfection on earth, the clear implication of the Hermetic texts is that such cities would provide untold benefits to their inhabitants, constrain them ‘to be virtuous’ and keep them ‘healthy and wise’.[46]

In the *Pimander,* the first book of the Hermetic collection, we even find this idea of replication of the above by the below employed in describing the process of creation. We are led to understand that there exists an ‘archetypal form’, perceptible only to the mind and not at all to the senses, ‘which is prior to the beginning of things and is limitless.’ The material world:

… issued from God's Purpose, which beheld that beauteous world [i.e. the archetypal form] and copied it.[47]

The *Asclepius* likewise speaks of a ‘higher’ archetypal *Kosmos* that is imperceptible to the senses but that nevertheless influences and shapes the lower ‘sensible’ *Kosmos* that we inhabit as beings of matter:

If you consider the whole, you will learn that in truth the sensible Kosmos itself, with all things that are therein, is woven like a garment by that higher Kosmos.[48]

A little later the same text adds:

God … stands unmoved; and eternity likewise is ever changeless, containing in itself a Kosmos which is without beginning, even that Kosmos which we rightly call ‘imperceptible to sense’. This sensible Kosmos [i.e. the universe of matter and space that we see all around us] has been made in the image of that

other Kosmos, and reproduces eternity in a copy.[49]

In the *Discourses of Hermes to Tat* we learn more about the mechanisms of the ‘copying’ process:

The forces do not work upward from below, but downward from above. The things in heaven receive no benefits from the things on earth; but the things on earth receive all benefits from the things in heaven.[50]

In the beautiful and mysterious *Kore Kosmou* the point is re-emphasised with more detail:

All the world which lies below has been set in order and filled with contents by the things which are placed above; for the things below have not the power to set in order the world above. The weaker mysteries, then, must yield to the stronger; and the system of things on high is stronger than the things

below.[51]

Hermetic landscapes

We are now better equipped to understand the central Hermetic notion, introduced in Chapter Eight, of ancient Egypt as an ‘image of heaven’:

Do you not know, Asclepius, that Egypt is an image of heaven? Or, to be more precise, that everything governed and moved in heaven came down to Egypt and was transferred there? If truth were told, our land is the temple of the whole world ...[52]

If the land of Egypt is ‘an image of heaven’, and for that reason ‘the temple of the whole world’, then it's

easy to understand how those who believed this might have wanted to build temples that were also – in their own smaller-scale way – ‘images of heaven’. The same logic would also apply to the creation and positioning of great monuments. And of course to the planning and building – or rebuilding – of cities. In other words if we know that a person is a committed initiate of the Hermetic system then we can predict that he or she will take an interest in temples, monuments and cities that in some way ‘imitate’ or ‘copy’ heaven. If it so happens that the initiate is a great king or a person otherwise in a position to have a major influence on decisions about the built environment, we might expect to see that interest turned to action.

It is understood that the earthly ‘copy’ is and always will be inferior to the heavenly archetype on

which it is modelled because ‘there is nothing good on earth; there is nothing bad in heaven,’ and because while ‘nothing in heaven is in bondage, nothing on earth is free.’[53] Nevertheless, the clear logic of the Hermetic texts is that it is better to copy the perfection of heaven on earth – however inferior the results – than to do nothing at all. In the *Discourses of Hermes to Tat* we read:

All things on earth … are unreal; but some of them – not all, but some few only – are copies of reality … When the appearance flows in from above, it becomes an imitation of reality. But apart from the working of power from above, it remains an illusion; just as a painted portrait presents to us in appearance the body of the man we see in it, but is not in itself a human body.[54]

It seems perfectly obvious from this that a Hermetic king would prefer to dispose his monuments, temples and cities so that ‘power from above’ would be able to work in them. And the way to do that, as the texts themselves suggest, would be to fashion the built environment as an ‘imitation of reality’, ‘an image of heaven’, ‘a reproduction of eternity in a copy’...

The beauty of the archetype

Practiced in Europe between the 10th and the 14th centuries, the Gnostic religion of the Bogomils and the Cathars taught an intense ‘matter-spirit dualism’.

As we would expect in such closely interconnected systems, it also made use of ‘sky-ground’ metaphors of the specifically Hermetic and ancient Egyptian type. In Chapter Three we cite several examples of such Bogomil and Cathar teachings, including the notion that a number of their sacred books had been ‘written in heaven and brought down to earth’ and the following classically ‘Hermetic’ doctrine:

For just as it is on earth, so also it is in the firmament, because replicas of what are in the firmament are on earth.[55]

Once again we find striking precedents in the supposedly unrelated funerary texts of ancient Egypt. There are, for example, numerous exhortations calling upon initiates to make copies on the earth of a region of the sky called the *Duat* incorporating the

constellation of Orion – associated with the god Osiris – and the star Sirius, associated with the goddess Isis.[56] This was the sky-region believed to be the location of the ancient Egyptian Netherworld, where souls journeyed and were judged after death. It was therefore thought to be vitally important to gain foreknowledge of it and of the trials that awaited the soul there. We learn from the *Book of What is in the Duat* (*circa* 1400 BC), that one way to attain this *gnosis* was to build copies on the ground'of the hidden circle of the *Duat* in the body of *Nut* [the sky]'[57]:

Whosoever shall make an exact copy of these forms, and shall know it, shall be a spirit well-equipped both in heaven and in earth, unfailingly, and regularly and eternally.[58]

Whosoever shall make a copy thereof, and shall know it upon earth, it shall act as a magical protector for him both in heaven and in earth, unfailingly and regularly and eternally.[59]

For a supposedly unrelated text, it is odd that the *Book of What is in the Duat* seems to draw the same distinction as the Hermetica between the heavenly archetype, that is perceptible only to the mind, and the earthly copy that is perceptible to the senses. Both traditions therefore necessarily imply a group of initiates who were trained to 'see' – i.e. attain *gnosis* of – what otherwise only the gods could see:

The secret representation of the *Duat* is not known to men and women.[60]

Whosoever shall make a copy of these representations according to this copy of what is in the *Lament* of the *Duat, which cannot be looked at or seen*, and whosoever shall know these secret images, shall be in the condition of a spirit who is equipped for journeying ...[61] [Emphasis added]

To become 'a spirit equipped for journeying' was, of course, the goal of the entire ancient Egyptian religious system in the sense that it sought to equip its initiates for spiritual immortality and freedom from the fetters of matter. But it was possible to fail in this quest and for the soul to be destroyed utterly. Consistent and repeated evil acts were inevitably fatal to the soul of the perpetrator. Willful ignorance – always detested by the Hermetic sages – was also believed to be extremely dangerous to one's

prospects of eternity. Thus:

He who hath no knowledge of the whole or part of the secret representations of the *Duat,* shall be condemned to destruction.[62]

We reiterate that the *Duat,* for the ancient Egyptians, was understood to be a region of the starry sky and that those who aspired to immortality rather than extinction in the afterlife were more or less obliged to attain knowledge of it. Is it a coincidence that an almost identical scenario is painted in the Hermetic texts where, after a lengthy exposition on the sky and stars, we are abruptly told:

He who has not failed to get knowledge of these things is able to form an exact conception of god … But it is impossible, my son, for one who is yet in the body to attain to this happiness. A man must train his

soul in this life, in order that, when it has entered the other world, where it is permitted to see God, it may not miss the way which leads to him. But men who love the body will never see the vision of the Beautiful and Good. How glorious, my son, is the beauty of that which has neither shape nor colour.[63]

In other words the beauty of the archetype, which ‘cannot be looked at or seen’ by uninitiated men and women because it is perceptible only to the mind and not at all to the senses.

Transforming the world

The recurrent emphasis on intelligence, reason and

the use of the mind to ‘train the soul’ that characterises the Hermetic texts was also the wellspring of their immense influence on science and scientific thinking following their rediscovery in the mid-15th century. By promoting the individual's quest for knowledge and illumination they would prove as powerful an antidote to the dogmas and received wisdoms of the Church during the Renaissance and the Enlightenment as the Gnostic teachings of the Cathars had done in the Middle Ages. Nor in our view is it an accident, but an almost inevitable by-product of these closely-related systems of thought – wherever and whenever they may be applied – that Cathar Gnosticism stimulated its own ‘mini-Renaissance’ across southern Europe in the 12th century.

We speculated in Chapter Two that this Cathar

revolution in religious and philosophical ideas, music and poetry, culture and social order, might have transformed the world if the Church had not crushed it – utterly – in the 13th century. It's true that in the Balkans a few scattered Bogomils lingered on as late as the 15th century. To all extents and purposes, however, we accept that the hitherto unbroken chain of Gnostic heresy stretching back to the dawn of the Christian era was snapped when the very last Cathar *perfectus*, William Belibaste, was burnt at the stake in 1321.

We find it rather remarkable, therefore, that *another embodiment* of essentially the same ideas should have slipped through the gates of Western culture less than 120 years later. We mean, of course, the Hermetic texts, their emergence from the wilderness after a millennium of silence, and their

transferral to the Medici Academy in Florence in 1460.

Either by accident or by some hidden design, they arrived at exactly the right place and time to bring alive again the ancient religion of ‘salvation through knowledge’ that the Church thought it had just killed. In this latest incarnation, however, it would wear a much more overtly ‘ancient Egyptian’ and much less ‘Christian’ face. Perhaps for that very reason it would also set out a more positive and life-giving route towards the goal of world transformation than Gnosticism, with its world-hatred, could ever have achieved.

The Hermeticists shared the Gnostic view that evil is inherent in matter, and thus – through the body – in mankind. Yet they did not allow this recognition to seduce them into the mood of hopeless nihilism and

species suicide that one sometimes senses could have led Cathar dualism down a very dark road. Far from that, the Hermetic ‘way’ accepted the human condition, sought our transformation through the elevation of the spiritual element within us, and handed the responsibility directly to the individual and to his own conscience:

It is man's duty not to acquiesce in his merely human state, but rather, in the strength of his contemplation of things divine, to scorn and despise that mortal part which has been attached to him because it was needful that he should keep and tend this lower world.[64] (Hermetica, *Asclepius*)

Moreover ‘keeping and tending the lower world’ in the Hermetic scenario is not a repulsive and humiliating imprisonment in matter but a sacred

responsibility with a vital role in the cosmic scheme of things that can only be fulfilled by man. The texts speak eloquently for themselves:

Man is a being partly divine and partly mortal; not that he is to be thought the lower because he is mortal in part; we ought rather to regard him as exalted by his mortality in that he is by such a lot more fitly and effectively constituted for a purpose preordained. For since he could not have met the demands of both his functions if he had not been made of both kinds of substance, he was fashioned out of both, to the end that he might be able both to tend the earth and to do service to the Deity.[65]

Man is a marvel, then, Asclepius; honour and reverence to such a being! ... Strong in the assurance

of that in him which is divine, he scorns the merely human part of his own nature ... He raises reverent eyes to heaven above; he tends the earth below ... He has access to all; he descends to the depths of the sea by the keenness of his thought; and heaven is not found too high for him, for he measures it by his sagacity, as though it were within his reach.[66]

To man is given charge of that part of the universe which consists of earth and water; and this earthly part of the universe is kept in order by means of man's knowledge and application of the arts and sciences. For God willed that the universe should not be complete until man had done his part.[67]

If man takes upon him in all its fullness the function

assigned to him, that is, the tendence which is his special task, he becomes the means of right order to the Kosmos, and the Kosmos to him.[68]

Despite the protests of scholars that there is no clear link between the Hermetica and the religion of ancient Egypt, the pharaohs too believed that it was their function, and the function of their divine land, to interact in the correct manner with heaven and thus to serve as a force for the maintenance of right order (*Ma'at*) in the universe.[69] Indeed the pharaoh was a Hermetic king *par excellence* and we've suggested that one of the ways that he could fulfil his responsibility to cosmic ‘right order’ would have been to build a temple, or even a city, ‘in the image of heaven’. We've shown specific textual authority for such a course of action in the *Book of What is in the*

Duat of the 14th century BC. Likewise in the highly enigmatic *Building Texts* inscribed at the Temple of Edfu in Upper Egypt in the third century BC the following words are put into the mouth of the god Thoth-Hermes himself:

I will cause its [i.e. the temple's] long dimension to be good, its breadth to be exact, all its measurements to be according to the norm, all its sanctuaries to be in the place where they should be, *and its halls to resemble the sky*.[70]

Dedicated to Horus, the golden son of Isis and Osiris, the Edfu temple was built in several stages between 246 BC and 51 BC by pharaohs of the Graeco-Egyptian Ptolemaic dynasty on a site that had been sacred since before 3000 BC. Although there is no doubt that they took their conversion to the

ancient Egyptian religion extremely seriously, the Ptolemies were newcomers, having ruled Egypt only from the late fourth century BC following the conquests of the god-king Alexander the Great.

Before his premature death in 323 BC Alexander founded a great city on Egypt's Mediterranean coast that would ever afterwards bear his name – Alexandria. A few centuries later it was here that Christian Gnosticism and its pagan Hermetic twin would emerge phoenix-like from the ashes of the ancient Egyptian religion and begin to wing their way silently towards the modern world.

CHAPTER TEN

CITY OF THE GOD-KING

The city still shall follow you …

Constantine P. Cavafy, Alexandrian poet (1863 – 1933), 'The City'

Alexandria, the capital of memory
!

Lawrence Durrell, The Alexandria Quartet

When alive, Alexander had founded a city; when dead? He gave birth to the universal metropolis ...

François de Polignac, L'Hombre d'Alexandre

In the autumn of 332 BC, Alexander the Great marched triumphant into Egypt at the head of his Macedonian army after it had crushed the Persians at the Battle of Issus in Syria. The Egyptians had been under much-detested Persian occupation for nearly two centuries, and Alexander was now hailed as their liberator. He entered the Nile Valley at Memphis and was immediately crowned pharaoh and legitimate

successor of the pharaohs – the divine solar kings who had ruled this ancient land since time immemorial.

Alexander's behaviour at this point tells us much about his state of mind. His very first act as pharaoh was to order the complete restoration and restitution of the famous twinned temples of Karnak and Luxor in Upper Egypt (about 500 miles south of Memphis) which had suffered damage and degradation under the Persians. Why did Alexander give this matter such priority? The answer is to be found in the strange circumstances of his birth in 356 BC.

Alexander's mother, Olympias, was the daughter of the king of Ipirus (today part of northwestern Greece), and a high-priestress of the Temple-Oracle of Zeus-Amun at Dodona located southwest of the modern city of Ioannina. This oracle was one of the

most revered in the ancient world and the story of its foundation was linked to the Temple of Amun at Karnak-Luxor in Egypt; it was also considered to be 'twinned' to the Temple-Oracle at the Oasis of Siwa in Egypt – which was likewise dedicated to Zeus-Amun. The Hellenic scholar Joan Wynne-Thomas, presents us with a concise overview of these connections:

During the fourth century BC there were public sacrifices in Athens to Zeus-Ammon, whose original cult was at the Siwa Oasis in Egypt. The cult was, of course, Egypto-Greek, as Ammon or Amun, also in Egyptian Amun-Ra, was the all powerful god of the Egyptian pantheon, whom the Greeks equated with their own great god, Zeus.[1]

Any attempt to explore in detail how and why the

Egyptian solar cult of Amun (Zeus-Amun) came to mainland Greece is outside the scope of this book. But the legendary background is given by the ancient Greek historian, Herodotus, who visited Egypt around 450 BC, a century or so before the birth of Alexander the Great. This is the story as he reported it:

About the oracles – that of Dodona in Greece and of Ammon in Libya [Western Egypt or Siwa] – the Egyptians have the following legend: According to the priests of the Theban Zeus [priests of Amun-Ra at Karnak-Luxor], two women connected with the service of the temple [Karnak-Luxor] were carried off by the Phoenecians and sold, one in Libya [Siwa] and one in Greece, and it was these women who founded the oracles of these two countries. I asked the priests at Thebes what grounds they had for being so sure,

and they told me that careful search had been made for the women at the time, and that though it was unsuccessful, they had afterwards learned that the facts were just as they had reported them.

At Dodona, however, the priestesses who delivered the oracle had a different version of the story: two black doves flew away from Thebes [the district of Karnak-Luxor] in Egypt, and one of them alighted in Dodona, the other in Libya [Siwa]. The former perched on an oak, and speaking with a human voice, told them that there, on the very spot, there should be an oracle of Zeus. Those who heard understood this to be a command from heaven, and at once obeyed. Similarly, the other dove which flew to Libya [Siwa] told the Libyans to found the oracle of Ammon – which is also an oracle of Zeus. The people who

gave me this information were the three priestesses Dodona ... [2]

Also according to Herodotus, it was the Egyptians who originated and eventually taught the Greeks to use ‘ceremonial meetings, processions and liturgies’. He said that the Greeks had even modelled their gods on those of the Egyptians.

Dodona, Olympias, Egypt and the Persians

Nowadays such views are scoffed at by Hellenistic scholars and Egyptologists alike. Despite the well-known tendency of the Greeks to ‘identify’ their gods

with specific ancient Egyptian deities – e.g. Zeus-Amun or Hermes-Thoth – the academic concensus is that the two pantheons as structurally unrelated. Yet it seems beyond doubt that the cult of Amun-Ra did find its way into Greece at least as early as the fifth century BC, perhaps even much earlier, and was somehow involved with the Temple-Oracle at Dodona.

Dodona itself is located in the lovely pastoral and mountainous region of Ipirus adjacent to the ancient kingdom of Macedon where Alexander the Great was born. No one really knows the truth about exactly when or why it was consecrated, but according to consensus:

The original shrine of the oracle probably existed before 2000 BC, and was dedicated to the 'Earth-mother' or goddess. This was a cult of southern Greece which had, like the cult of Zeus, originated in

the East. Archaeological finds date from the Early Bronze Age, approximately 2500 BC, and are in the Museum of Ioannina. There is a mention of the shrine by Homer, in the *Iliad*, which is the earliest reference known ...[3]

The priests of Dodona were known as the *helli* or *selli*, and it was they who interpreted the proclamations and prophecies made at the oracle. This they did by listening to the rustling of leaves from an oak grove within the sanctuary. Legend had it that it was from the wood of this sacred grove that a figurehead was fashioned to the prow of Jason's ship carrying the Argonauts (hence the *Argo*'s gift of speech and prophecy).

The Dodona temple-oracle was held in particular reverence by Philip II of Macedon, the father of

Alexander the Great, who had consulted it on numerous occasions. But Philip's links with the oracle were to go much deeper when he married Olympias. The latter, as we have said, had been a priestess at Dodona and is known to have been a zealous devotee of the god Amun of Egypt.

Philip met Olympias when he was 26 years old and she 16. The fateful encounter took place on the island of Samothrace, off the Thracian coastline of Greece. Philip and Olympias had both come independently to the island in order to attend the religious celebration of the *Cabeiri,* a curious festival where violent fertility and sexual rituals were performed in various mythical settings. It was during one of these events that Philip and Olympias fell in love, and thus began that potent union that was to change the course of world history.

Endowed with a deep and mystical nature, the young and lovely Olympias was obsessed with the idea that she was destined to bear a divine child in the likeness of the god Dionysos – in Greek mythology the handsome and heroic son of Zeus, who had been born from the womb of the mortal Semele. Dionysos literally means ‘Son of God’, and Olympias would certainly have been acquainted with the works of the Greek historian Herodotus who, a century earlier, had identified Dionysos with the Egyptian god Osiris.[4]

When Olympias became Philip's queen in 357 BC, Egypt was under assault by the Persians, the most bitter enemies of the Greeks and Macedonians. In 525 BC Cambyses, the son of the legendary Cyrus I, had occupied Egypt and thus widened his already

vast empire. His successor, Darius I, consolidated Persian rule in the Nile Valley after suppressing a major Egyptian revolt there. Then he took his army north across the Mediterranean and occupied Thrace and Macedon before being decisively defeated at the Battle of Marathon in 490 BC. A decade later the Persian king, Xerxes, invaded Greece and brought terrible destruction on Athens, but he too was eventually defeated in 479 BC.

Even though Darius and Xerxes had failed in Greece, the fear that a new Persian invasion would be attempted at some point was a very real one. Neighbouring countries were also targets. By 356 BC, when Alexander was born, Egypt had freed herself from Persian rule but was under attack again and was finally reoccupied in 350 BC. Humiliated and defeated, Egypt suffered heavily under the new ‘King

of Kings' of Persia, Artaxerxes III, who was a brutal and merciless oppressor – as was his equally vicious son, Oarses. So despised was their rule that they were eventually poisoned by one of their eunuchs called Bogoas, who offered the throne of the King of Kings of Persia to Darius III. Bogoas was duly 'rewarded' by being forced to swallow his own poison.

Nectanebo, Osiris, and the ancestry of Alexander

For a brief period Egypt managed to oust the Persians yet again, and the last native pharaoh to

rule there was Nectanebo II, who had usurped the throne from his brother Teos in 358 BC – two years before the birth of Alexander. There is a tale told of Nectanebo II that seems worth recounting, even though it is almost certainly fictional, in view of its association with the strange circumstances surrounding Alexander's birth. But first we should place Nectanebo II in the correct historical setting.

After initial successes in resisting the Persians, Nectanebo II was hailed by his people as a great hero and liberator. Much loved for his military deeds and for his devotion to the supreme god Amun (whose ‘son’ he deemed himself to be) he was also renowned as a powerful magician [5] – a reputation that was taken very seriously in ancient Egypt. As Alexander was to do some years later, Nectanebo marked his

coronation by ordering a massive restoration programme for the many sanctuaries of Amun that had been destroyed or desecrated by the Persians. He paid special attention to the restoration of the temple complex of Karnak-Luxor. It had been Nectanebo's own father who had been partly responsible for the magnificent Avenue of Sphinxes (a segment of which survives to this day) that joined Karnak with Luxor. Nectanebo also restored the existing temples of Amun at the Oasis at Siwa, and built a magnificent new one there, the remains of which still stand at the Umm Ubaydah area of the modern oasis.[6]

Married to Philip or not, we may imagine that the association of Nectanebo II with the Temple-Oracle of Amun at Siwa must have impressed the young

Olympias who, as we recall, harboured dreams of giving birth to a ‘son of Amun’. Surely the idea of being seeded by a pharaoh in whose veins flowed the blood of the god Amun, and who had such close links with the oracular centre of Amun at Siwa as well as Luxor, would have been one of the wild fantasies of this very impressionable and very young queen? In this respect, the strange stories reported by some of Alexander's biographers might contain an element of truth in them. According to one such account found in Pseudo-Callisthenes, Nectanebo fled Egypt after the Persian invasion that ultimately dethroned him, and made his way to Macedon in Greece. There he was received at the court of Philip II to whom Nectanebo presented himself as a magician and astrologer. At night, however, the exiled pharaoh turned into a huge snake, a symbol of Amun, and in

this form seduced and impregnated Olympias .[7]

Another legend, this time associating the royal ancestry of Alexander the Great with the god Osiris of Egypt, is told by the Greek chronicler Diodorus Siculus who lived in the first century BC. In Book I of his famous *Bilbiotheca Historica*, Diodorus recounts the mythical origins of the non-Hellenic and Hellenic people of Greece up to the destruction of Troy. It is in this first book, that the story of Macedon, a mysterious 'son' of Osiris, is narrated.[8]

According to Diodorus, Osiris left Egypt with his brother Apollo on a universal mission to teach men to plant the vine and sow crops of wheat and barley:

... two sons of Osiris, Anubis and Macedon, ... took the field with him ... Osiris also brought Pan [the Egyptian Min] on this expedition.

[After visiting the countries of Africa and Asia] Osiris ... crossed over into Europe at the Hellespont. In Thrace he slew Lycurgos, a barbarian king who opposed his plans ... And he left his son Macedon behind as king of Macedonia, which was named after him ...

Diodorus does not give us his sources. It is generally thought that for the part of his *Bibliotheca* dealing with Greek history, he drew from the works of earlier writers such as Ephorus and Hieronymus of Cardia. For his Egyptian material the evidence suggests that Diodorus relied heavily on Hecataeus of Abdera.

Hecataeus (365 – 270 BC) lived in Alexandria – the prototypical city of the classical world founded in Egypt by Alexander the Great. There Hecataeus

benefited from the liberal protection of Ptolemy I Soter, the general in Alexander's army who set himself up as pharaoh of Egypt in 305 BC after Alexander's premature death. As a foreign traveller who reached as far south as the temples of Karnak and Luxor, Hecataeus was an eyewitness to the early stage of Greek and Egyptian fusion in Egypt. He produced a rather idealised account, the *Aegyptiaca*, aimed at Greek readers, and it was this text that was to serve as Diodorus's source when he came to write his own history of Egypt 200 years later.

Let us look at the context when Hecataeus was in Egypt. First, it is well known that Ptolemy I Soter was extremely keen to promote any idea that would integrate his newly founded ‘pharaonic’ Macedonian dynasty with that of the true Egyptian solar pharaohs whose divine lineage was believed to extend back to

the god Osiris. It is, therefore, quite possible that Hecataeus made up the story of Osiris's journey to Greece and the founding of Macedon by one of his ‘sons’ – Macedon – in order to create a link between the Macedonian ‘pharaoh’ of Alexandria and the mythical ancestry of Egyptian pharaohs.

In Egyptian mythology Osiris had only one son, Horus, whose sacred animal was not the wolf, as Diodorus says, but the *hawk* or falcon. It is easy to see how such a mythological association between Osiris and the origin of the Macedonian royal family, when it is also coupled with the strange tales told by Pseudo-Callisthenes about the pregnancy of Olympias, would create a belief that Alexander was somehow linked by birth to the gods of Egypt and, by extension, would add legitimacy to the Macedonian claim to pharaonic kingship in Alexandria. This

strange belief and, especially, as we shall see, the persistent theme of a symbolic sexual union between the god Amun and Olympias, would have untold repercussions on the future history of Egypt and, by cultural osmosis, the rest of the Hellenistic world.

Lightning seed and the star Sirius

Legend has it that when Olympias gave birth to Alexander the two stone eagles that decorated the roof of her apartments were struck by lightning. Other accounts speak of living eagles that came to perch there. Others say that at that very same moment the Temple of Diana-Artemis at Ephesus was

destroyed by fire while the goddess herself was in Macedon attending Alexander's birth. This link involving Diana-Artemis, eagles and the lightning bolt is most interesting. For Diana-Artemis was worshipped at Ephesus in the form of a sacred *omphalos* – a conical or pyramid-shaped stone which had supposedly ‘fallen from the sky’ as though ejected from a lightning bolt It was also said that the foundation of the Oracle of Apollo in Delphi occurred when two eagles sent from Zeus alighted near the *omphalos* there. Meanwhile in Egypt a pyramid-shaped ‘stone from heaven’ called the *Benben* had formed the central symbol of religious worship at the sacred city of Heliopolis since before history began.[9] Indeed such *baetyls* and *omphali* played a significant role in many ancient religions, and were typically

associated with fertility and the birth of divinities.

According to Plutarch, Olympias claimed that she had become pregnant when lightning had struck her womb and fertilised her with the seed of Zeus-Amun – thus siring Alexander.[10] Elsewhere Plutarch narrates how the womb of the sacred cow-goddess of Egypt (a form of Isis) was also seeded by the god's lightning in order to create the new Apis calf, symbol of the ruling solar pharaohs, i.e. the Horus-king.[11] In Egyptian religious iconography, the goddess Isis was often represented by a cow with a five-pointed star above her head, the latter being the star Sirius, called *Sothis* by the Greeks. Traditionally the heliacal (dawn) rising of this star denoted the moment of the divine birth of the solar kings of Egypt. It is therefore notable that many classical authors fix the birth of

Alexander at 20 July in the Julian calendar, a date that would have been on or near the heliacal rising of Sirius in that epoch. The implication is that this star must have played an important role in his birth-myth. As French author Jean-Michel Angebert points out, it even led Alexander to abandon the old Greek calendar and replace it with one like that of the Egyptians that was based on the heliacal rising of Sirius. He did this some time before his armies reached Egypt:

The doors of Egypt now lay open for him. But Alexander met up with further resistance at the port of Tyre, the siege of which lasted for six months, from January to July 332 BC, which Alexander did not want to leave behind. There occurred, then, an extraordinary event: the taking of the city corresponded to the astronomical date of the heliacal

rising of Sirius, the Dog-star, which meant that the star, after having been absent in the sky for a part of the year [70 days], reappeared in the east horizon to mark the victory of Alexander and to announce that he would soon be wearing the crown of pharaoh ... [thus] Alexander the Great, pious son of Amun, modified the Greek calendar such that henceforth the rising of Sirius would mark the New Year, as it was done in Egypt ...[12]

Further strengthening the sense of a definite association between Alexander and the star Sirius, Jean-Michel Angebert also draws attention the so-called *ascent to the sky of Alexander*. This was an illustrative theme popularised in medieval times which showed the deified Alexander rising to heaven and the Sun on a carriage towed by griffins with a

five-pointed star – identified as Sirius by Angebert – leading the way:

Many scenes, sculptures, paintings and even jewellery represent this apotheosis … Concerning the ‘ascension’ of the hero, we often see Alexander standing in the chariot of Helios (the sun) pulled by griffins or lions; another type of representation shows him being carried on his throne; a third type shows Alexander being carried by eagles towards the sun. On all these representations, a star is seen shining over the head of the figure, an obvious symbol of Sirius, the celestial body which presides over the destiny of kings according to the Egyptians …[13]

This association with the ‘birth star’ Sirius is also found with Alexander's successors and in the city of Alexandria itself. For according to French

Egyptologist Sydney H. Aufrère, a specialist in Ptolemaic studies, [14] the Ptolemaic queens were portrayed wearing the headgear of the goddess Sothis i.e. Sirius. Aufrère also shows that the goddess of the *Pharos,* the famous Lighthouse of Alexandria, one of the Seven Wonders of the Ancient World, was once again none other than Sothis-Sirius. This strongly suggests that the spot of bright light that mariners would see when approaching the coastline of Egypt was likened to the spot of light from the star Sirius when *rising in the east* to guide the mariners back to Alexandria.

Son of Amun

Plutarch also reported another version of the birth-myth of Alexander which seems to be related to the Nectanebo story told by Pseudo-Callisthenes, but this time without the presence of Nectanebo. In the Plutarch version Philip II peeped through the keyhole of Olympias's chamber on the night of their nuptials, and was aghast to see his virginwife in their bed copulating vigorously with a huge snake. Deeply shocked Philip went to consult the Oracle of Apollo at Delphi where he was told that he must henceforth make special sacrifice to Zeus-Amun, for the snake was a well-known symbol of Zeus-Amun.

Another incident that also seems to reflect this link between Alexander and Zeus-Amun concerns the city of Aphitis which surrendered to the forces of Phillip II without a struggle on the day of Alexander's birth. The people of Aphitis were worshippers of Zeus-

Amun on account of which, 150 years earlier, Aphitis had been spared by the great Spartan general, Lysander. This was because Lysander himself was a devotee of Zeus-Amun and had actually performed a pilgrimage to Siwa to consult the oracle there.[15]

After Alexander was crowned pharaoh of Egypt at Memphis and recognised as the legitimate heir to Nectanebo II, he too set out with a small party of friends to the Oasis of Siwa. His companions included his childhood friend, Ptolemy (future ‘pharaoh’ of Egypt), and Callisthenes, the great nephew of Aristotle. They followed the desert route west from Rhakotis (the site of the future Alexandria) towards Mersa Matruh some 320 kilometers away. Today the journey from Alexandria to Mersa Matruh is covered in four hours by car, but Alexander and his group

took at least week on horseback.

From there the royal party turned due south and inland and began their slow march towards Siwa, which required a further eight days. Now, as it would have been in Alexander's time, the whole route is arid flat desert with only the occasional mound or hill to change the monotony of the quasi-lunar landscape. After hours of this, however, the vista suddenly changes into a sort of mini-Grand Canyon, and in the distance, like some desert Shangri La, spreads the lush oasis flanked by two lakes in the east and west.

Upon entering Siwa, Alexander was hailed with the cries ‘son of Amun’. With great ceremony he was then escorted to the Temple-Oracle of Zeus-Amun where he was taken by the high-priest into the inner sanctuary. No one knows what happened to Alexander there, or what he saw, but it is probable,

amongst other things, that he was shown an *omphalos* sacred to Amun as evidence of his own divinity.[16]

The intellectual parenthood of Alexandria

Far to the south of Siwa the city of Thebes, our modern Luxor, with its vast temple complex dedicated to the supreme god, Amun, was the sacred city *par excellence* of the ancient world even at the height of Greek civilisation. And although Heliopolis – in the north of Egypt near the Great Pyramids – had been pre-eminent in earlier times, it was now at

Thebes that the solar kings of Egypt were deemed to be legitimised and divinised. So it was perfectly natural, and indeed predictable, that Alexander the Great, in his capacity as the ‘son of Amun’ would have wanted to link his own person to Thebes.

This was why he acted so swiftly to restore the temple complex there, the most important centre of Amun worship in Egypt. When we consider that he also had the temple's inner sanctuary converted into a chapel bearing his own name it is clear that he soon intended to perform a pilgrimage to Luxor – there to be consecrated, like all solar kings before him, as the ‘son of Amun’. Fate intervened, however, and Alexander died on campaign in Babylon. His troops decided that he should be buried in Egypt, in the land of his ‘father’ Zeus-Amun.[17] Ptolemy, now in control of

Egypt, and soon to become pharaoh, intercepted the funerary cortege and took command of the body of Alexander which, some years later, he would finally bring to Alexandria.

Alexandria had been Alexander's dream. He had wanted to create a new city dedicated to wisdom and learning – a sort of intellectual bridge on the shore of the Mediterranean Sea that would unite East and West. It was to be a city that would enlighten the world.

When Alexander was a boy, his father, Philip II, selected for him a special tutor. The choice fell on Aristotle, the greatest and most imaginative and influential philosopher of the epoch.

Aristotle was born in the year 384 BC at the city of Stagira in Macedon. His father, Nicomachus, was the personal physician and friend of the king of Macedon,

Amyntas III, the grandfather of Alexander the Great. At 17 Aristotle travelled to Athens and entered Plato's Academy, and soon became its most noted pupil, so much so that his master, Plato, called him the ‘intelligence of the school’. When Plato died in 347 BC, Aristotle left the Academy and embarked on a journey that took him to all parts of Greece and Asia Minor. Then in the year 342 BC Philip II of Macedon summoned him to his court at Pella, and appointed him tutor to his 14-year-old son, Alexander. Aristotle, who was now 42, brought along his brilliant nephew Callisthenes and also the scientist Theophrastus. The team of learned men were provided with a country residence at Mieza near Pella where, for the next three years, Alexander was tutored and groomed.

When Alexander became king at the age of 21, Aristotle left Macedon and returned to Athens, where

he founded his famous Lyceum. It was there that he created the first prototype of a university library; it would eventually be transferred after his death to the Great Library of Alexandria in Egypt. Aristotle died at the age of 62, a year after Alexander's death in Babylon. His lectures were collated in 150 volumes devoted to philosophy, ethics, politics and, his great love, the natural sciences. Until the middle ages Aristotle was regarded as the supreme authority on all matters concerning science. He was to write, probably with Alexander in mind, that:

If there is one man superior in goodness and political capacity to all others, such a person may be like a god among men ... and should be gladly obeyed, for they are permanent kings.[18]

There is much speculation and debate as to what

extent Alexander's sense of mission might have been influenced by Aristotle. Apart from teaching the sciences to Alexander, the philosopher's main objective was to install in his pupil his concept of ‘virtues’, the most important of which, according to Aristotle, was *reason*. A few years before Aristotle became tutor to Alexander, he had completed his famous work, the *Politics*, in which he examines various systems of *constitutions* and expounds on the idea of the *ideal state*. And it would seem almost certain that Aristotle discussed his concept of the ‘ideal state’ with the young Alexander and imbued the future hero-king with those high virtues and ideals that were eventually to be put into practice at Alexandria in Egypt.[19] Alexander also received from Aristotle copies of Herodotus's *Histories* as well as

Homer's *Iliad* and *Odyssey*, which became the future world-conqueror's most precious possessions.

In the *Odyssey* Homer speaks of the fabled island of Pharos off the coast of Egypt in connection with the Argonauts, while Herodotus recounts how Helen of Troy and Paris took refuge at Heracleion, a few miles east of the future Alexandria. So enthralled and influenced was Alexander by these epics that apparently he once angrily slapped Callisthenes, the great nephew of Aristotle, for openly criticising Homer. It was such literary influences, and the influence of his mother Olympias, that must have fired Alexander in his quest to weld the Eastern and Western worlds into one great empire ruled from a capital ‘City of Light’ modelled on the ideal state: Alexandria.

The founding of the universal city

It is often said that sound military principles are sufficient to explain why the peninsula of Rhakotis on the Mediterranean Sea was chosen as the site of Alexandria. The assumption is that Alexander saw in the natural harbour formed between the small island of Pharos and the peninsula the ideal place to build a port. Tradition has it that although Alexander had selected the site, it was the architect Dinocrates of Rhodes who actually designed the city. In opposition to this view, we shall attempt to show that a strong Egyptian influence also cast its spell over the whole enterprise from the very beginning.

There was a kind of enchantment and magic about

this place that was unlikely to have been ignored by Alexander and his other educated companions such as Ptolemy and Callisthenes, especially in the high spirits and frame of mind they were in. They all were keen readers of Homer's works and surely were now acutely aware that in the *Odyssey* Homer wrote:

There is an island in the surging sea which they call Pharos, lying off the coast of Egypt ... It has a harbour with good anchorage and hence they [the Argonauts] put out to sea after drawing water.[20]

To Alexander and his loyal companions, Homer's *Iliad* and *Odyssey* had the same forceful effect as the Bible had on the crusading Christian knights in medieval times. Most educated Greeks could quite easily recite long sections from Homer, and often quoted Homer, as we do the Bible today, as the

source of moral and practical examples for daily life. Leaders such as Alexander – perhaps especially Alexander – used the *Iliad* and the *Odyssey* not only for spiritual and moral guidance, but also as a practical guidebook for their own lives. And there is much to suppose that Alexander saw himself as a Homerian hero of boundless courage and dash.

It must be realised that such heroes were not viewed by the Greeks as mythological and legendary characters but rather as real historical men and women who had lived in a golden age among the gods. When Alexander and his companions came upon the island that Homer had described in such warm terms we may therefore safely imagine that they took it as a favourable omen from the gods. It was recalled by Alexander and his engineers and architects that Pythagoras, the ‘father of geometry’,

and likewise the noble Plato after him, had also sojourned in Lower Egypt as guests or ‘students’ of the Heliopolitan priests and had learnt from them the wisdom that had made Greek culture great. Such evocative visions of Homer, Pythagoras and particularly Plato, the tutor of Aristotle himself, surely inspired the young conqueror, then barely 24 years old, to raise, near this magical Homerian island of Pharos, a great and wonderful city. What he had in mind was a metropolis that would rival Athens and in which the teachings of Pythagoras, Plato and Aristotle could mingle with the ancient wisdom of Egypt.

So, using Pythagorean geometry, Alexander's architect, Dinocrates, began to draw the plan of the future Alexandria, with Alexander himself supervising every small detail. The city, oblong in shape, would

be developed on a system of parallel grids. The main east-west artery, to be known as the *Canopus Way*, would bear the name of the Homerian hero Canopus, the legendary navigator who steered the ship bearing Helen of Troy. According to a legend, Helen and her lover, Paris, had taken refuge at the city of Canopus (modern Abu Qir) at the eastern end of the Alexandrian shoreline on their way to Troy. Helen was the daughter of the god Zeus from his union with Leda, as well as the sister of the famous immortals the *Dioscuri*, i.e. the twins Castor and Pollux, who became stars in the zodiacal constellation of Gemini.

Helen of Troy, the Egyptian

Aphrodite and Isis-Pharia

There is curious story told of Helen which is of relevance to the connection Alexander the Great felt with Egypt, and gives us more background to his mystical claims to descend from the divine lineage of the pharaohs. This story is found in a poem of Stesichorus (632 – 553 BC) which has it that after escaping from her husband, King Menelaus, Helen and Paris attempted to sail to Troy. On the way their ship was driven by a storm to the shores of Egypt near Canopus. Here the ‘real’ Helen was detained by the Pharaoh Proteus, whilst a ‘phantom’ Helen – a very similar idea to the ‘phantom’ or ‘apparitional’ Christ of the later Gnostic gospels – went on to Troy

with Paris.

Stesichorus's version of the story was later made into a play by Euripides around 412 BC, but underwent further mutation, placing the ‘real’ Helen in the custody not of the legendary Proteus but of his equally legendary son Theoclymenus. Herodotus, too, reports a somewhat similar story which he tells us he obtained from an Egyptian priest.[21] He also speaks of a temple dedicated to ‘Aphrodite the Stranger’ in honour of Helen, within the royal city of Memphis:

Within the enclosure there is a temple dedicated to Aphrodite the Stranger. I should guess, myself, that it was built in honour of Helen, daughter of Tyndraeus, not only because I have heard it said that she passed some time at the court of Proteus, but also, more particularly, because of the description of Aphrodite

as ‘the Stranger’, a title never given to this goddess in any of her other temples (in Egypt).[22]

To the Greeks the ‘Egyptian Aphrodite’ was the goddess whom the ancient Egyptians called *Hathor*.[23] But the Greeks also associated the goddess Isis, in her loving aspect, with Aphrodite. This suggests that they appreciated the very close connection that does in fact exist between Hathor and Isis in the ancient Egyptian pantheon and, presumably, the association that Hathor and Isis share with the star Sirius. In Ptolemaic Alexandria Isis also became the protecting deity of the port and of its famous lighthouse, the *Pharos* (named after the island of Pharos on which it stood). In this capacity, Isis was known as *Isis-Pharia*, the protector of mariners, suggesting another connection with Helen of Troy who – presumably on

account of her many nautical adventures – was similarly called the ‘patron goddess of sailors’.

There was a temple dedicated to Isis-Pharia near the *Pharos*. Apparently also her colossal statue once stood directly outside the *Pharos*, and is likely to have been perceived as part of the lighthouse complex. In Roman times Isis was frequently known as *Stella Maris*, i.e. ‘Star of the Sea’,[24] and the same epithet has, for a very long while, been applied by Christians to the Virgin Mary. Sir James George Fraser, the great British mythologist of the 1920s goes so far as to suggest a causal link:

To Isis in her later character of patroness of mariners the Virgin Mary perhaps owes her beautiful epithet of *Stella Maris*, ‘Star of the Sea’, under which she is adored by tempest-tossed sailors. The attributes of a

marine deity may have been bestowed on Isis by the seafaring Greeks of Alexandria. They are quite foreign to her original character and to the habits of the Egyptians, who had no love of the sea. On this hypothesis Sirius, the bright star of Isis, which on July mornings rises from the glassy waves of the eastern Mediterranean, a harbinger of halcyon weather to mariners, was the true Stella Maris, 'the Star of the Sea'.[25]

Let us also note that many of the Ptolemaic queens of Alexandria, and especially the celebrated Cleopatra, identified themselves with Isis-Pharia or *Isis-Sothis* (Sirius) and, to emphasis their beauty and art of love-making, with *Isis-Aphrodite* as well. Glamorous Cleopatra posed as the goddess *Isis-Aphrodite* when she presented herself to Mark

Antony in Tarsus. According to Egyptologist Julia Samson:

The dramatic couple quickly became linked in people's minds with the gods: Antony with Bachus (Dionysos) whom the Greeks associated with Osiris; and Cleopatra with Venus (Aphrodite) and long associated with Isis ...[26]

The connection between Sothis-Sirius and Isis-Pharia of the *Pharos* is probably due to the beacon of light from the lighthouse as it was seen from afar by sailors approaching the harbour, and may explain why the *Pharos* lighthouse was sometimes called 'the second Sun'[27] – a term used by the ancient Egyptians for the star Sirius.[28] At the Temple of Isis on the island of Pharos, the statue of the goddess wore a crown made up of a sun/ moon disc surmounted by

two gazelle horns.[29] These horns, according to French Egyptologist Sydney H. Aufrère, are similar to those of the goddess *Satis*, the divine gazelle who watches over the Nile's flood.[30] The same headdress is seen on representations of the Ptolemaic queens at temples in Upper Egypt such as Dendera, Philae, Edfu and others. Dr. Aufrère also points out that Ptolemy III, in the Decree of Canopus of 238 BC, states how he had adjusted the religious and civic calendars (which had become desynchronised with the passage of time) so that the start of the new year would once again coincide with the heliacal rising of Sirius – an event which itself coincided closely with the beginning of the Nile's flood in mid-summer. Aufrère also offers this account of why one of the many names of Sirius was the ‘Eye of Ra’:

In order to explain the mechanism of the Flood on the religious level, there was witnessed at the opening of the new year a fusion or ‘coalescence’ of the solar and lunar myths, such that the ‘Distant One’ was considered both as the ‘Eye of Ra’ and the ‘Eye of Horus’ – in other words Sirius and the full Moon. The two – the star and the Moon – unite the magical effects of their manifestations which result in the Nile's Flood. Sirius by its rising announced the New Year and the Flood, and the full Moon symbolising the fullness of the latter.[31]

Brief excursion to Paris

According to the French Egyptologist Bernard Mathieu:

... Isis was named *Pelagia* (‘of the sea’), or *Euploia* (‘of safe navigation’) and *Pharia* (‘of Pharos’), and was said to have invented the sail and had a temple on the island of Pharos. She was so famous in the whole Mediterranean world that we find her even in 17th century manuscripts, and comfortably installed on the prow of the boat on the coat-of-arms of Paris which Napoleon commissioned in 1811 ... [32]

The reader will recall from Chapter One the bizarre religious rituals and symbolism of the French Revolution that frequently seemed to link the city of Paris explicitly to the goddess Isis. The comments made by Dr. Mathieu suggest that such a link may have some basis in historical truth. It is also notable

that the 17th century writer, Jean Tristan, claimed that the name Paris was actually derived from Isis-Pharia or, more precisely, was from *Pharia-Isis* abbreviated to *Paria-Isis* and, finally, to *Paris*.

Tristan based his hypothesis on ancient coins dating from the time of the Roman Emperor Julian which depict his empress, Helen, as Isis-Pharia or *Faria*.[33] Julian, who reigned some decades after Constantine, brought a very temporary halt to the onward march of Christianity and was commonly known as 'Julian the Apostate' for having re-adopted the ancient pagan cults and declared himself a 'follower of Helios', the sun-god. Helios in turn was a divinity whom the Romans closely associated with Alexander the Great.

Julian had governed Gaul – ancient France – for five

years and had resided in Lutecia, ancient Paris, for three years between AD 358 and AD 360. Julian and his wife Helen were also devotees of the Alexandrian god Serapis and the goddess Isis-Pharia, and may have imposed, or at the very least encouraged, her cult on the inhabitants of Lutecia. At any rate, Jean Tristan was to write:

The Parisians received their name of *Paria-Isis*, because of the cult of this goddess which had been introduced in Illyria and in Gaul, in the region next to the River Seine and in Lutecia, called 'Lutecia of the Parisians' or Farisians because of this.[34]

As further support to this hypothesis, the French classicist Jurgis Baltrušaitis points out that in a fragment of a manuscript from Saint-Hilaire concerning the Council of Rimini, the city of Paris is

actually referred by him as *Farisea Civitas,* i.e. the 'city of the Farisians' or, as Jean Tristan has suggested, the city of those who worship Isis-Pharia *or Faria-Isis* (Pharia-Isis) .[35] We shall return to this in a later chapter.

The Canopus Way

The Roman writer Arrian tells us that when Alexander came to the site on the coast where his future city, Alexandria, would rise:

... he was taken by a strong desire to carry out his project, and setting out himself the plan of the city, he fixed the place where the Agora should go, the

number of sanctuaries and to which deities [they were dedicated]: the Greek gods but also to Isis, goddess of Egypt ...[36]

The *Agora* was the equivalent of a town hall or square where public meetings were held in Greek cities. In the case of Alexandria the Agora was located at the intersection of two main arteries, the north-south artery known as the *Soma* and the east-west artery known as the *Canopus Way*. This arrangement formed a huge cross and it was at the intersection of its two arms, according to most accounts, that was eventually raised a small Doric temple to serve as the mausoleum for the golden sarcophagus of Alexander the Great.

At both ends of the Canopus Way were gates. The west gate was called the ‘Gate of the Moon’ (*Selene*)

while the east gate was the ‘Gate of the Sun’ (*Helios*).

It has always been assumed that the physical layout of Alexandria was designed in accordance with the principles of Greek city planning based on a rigid grid system with sets of parallel roads crisscrossing each other at right angles. In fact such grid plans were also known in Egypt long before the Greeks. The French Egyptologist, André Bernand, rightly observes that the Giza necropolis in the area of the Great Pyramids is effectively a mortuary city gridded with roads running east-west and north-south. A similar scheme can be seen at Saqqara and, much further south, at Akhetaten (modern el-Amarna), the city of Pharaoh Akhenaten.[37]

This notwithstanding, what is often not considered as a direct influence on the design of Alexandria is

the state of mind of the 24-year-old Alexander the Great at the time of the foundation of the city. He had just conquered the hitherto invincible solar Persian King of Kings, Darius III, and was now the undisputed ruler of the known world. He had been hailed as hero and liberator by the Egyptians, and recognised as the legitimate successor of Pharaoh Nectanebo II. He had been proclaimed the ‘son of Amun’ and ‘son of Isis’ plus all the other titles attributed to a legitimate pharaoh of Egypt. And all this had happened almost certainly immediately *before* the foundation of the city of Alexandria.

Another factor to note is Alexander's deep psychological identification with the temple complex of Karnak-Luxor at Thebes as an expression of his identification with the god Amun. The French scholar François de Polignac has pointed out that Alexander

demonstrated an unusual knowledge and sensitivity to Egyptian religious customs by paying so much attention to the restoration of this temple and, more particularly, by grafting his own name onto the inner sanctuary near the temple's sacred ‘birth room’ or *mammisi*. These acts suggest that Alexander must have been closely advised by a native Egyptian high-priest, probably much in the same way that the high-priest Oud-ja-Hor-esne of Sais had acted as advisor to the Persian king, Cambyses, and the high-priest Manetho of Heliopolis was to become senior advisor to Ptolemy I Soter, the successor of Alexander the Great in Egypt.[38]

We have seen how Alexander had developed a connection with the star Sirius, the star of Isis and divine birth, when he changed the Greek calendar at

Tyre. We have seen, too, how the rising of this star was the ‘calibrator’ of the Nile's flood and we will show in a later chapter how its position on the eastern horizon often served to align the axis of ancient Egyptian temples dedicated to the birth of Horus, the ‘son’ of *Isis-Hathor*. Finally, we have also noted that the heliacal rising of Sirius during Alexander's lifetime fell on the ‘official’ date of his birth, i.e. 20 – 21 July (Julian).

It would be odd, indeed improbable, if such a rich network of symbols, ideologies and mythical associations had *not* influenced Alexander when he was about to supervise the design of a city on the Mediterranean shore of Egypt opposite the enchanted island of Pharos ...

Brief excursion on Napoleon and Sirius

Before Napoleon invaded Egypt and occupied Cairo at the end of the 18th century he commissioned the famous mathematician Gaspard Monge to round up a group of the finest scholars – called the *lumières* or ‘lights’ in those days – to accompany the expedition. Comprising a total of 167 men, the group of savants included the mathematician Jean Baptiste Joseph Fourier, the chemist Claude Louis Berthollet, the naturalist Étienne Geoffroy Saint-Hilaire, the geologist Déodat de Dolomieu, the geographer Edme François Jomard and the engineer Nicolas-Jacques Conté. Such men were to form the basis of

Napoleon's *Institut d'Égypte,* a sort of academy of science – the first of its kind ever to study ancient Egyptian monuments – founded on 22 August 1798, very soon after the invasion. Dominique Vivant-Denon, a painter and a favourite of the future empress, Joséphine, became the *Institute*'s first director while Monge was made its first president.

The reader may recall from Chapter One that Monge was a Freemason and a prominent member of the *Nine Sisters* lodge in Paris. He was instrumental in creating the so-called *Republican calendar* which, we also saw in Chapter One, was almost certainly modelled on the ancient Egyptian civic calendar 'calibrated' by the heliacal rising of Sirius. On 22 September 1798 the first volume of the *Institut d'Égypte*'s journal was published. Its title was the *Décade égyptienne,* a name selected by Monge to

evoke this new Republican calendar.

It was on 5 March 1798 that Napoleon left Paris for Toulon to meet up with the fleet that he had readied to sail for Egypt. And it was on 21 July 1798 that Napoleon engaged the Egyptian Mameluk army at the Battle of the Pyramids. Whether by design or by chance is yet to be decided but it is a fact that both these dates have a direct association with Isis, her ‘boat’ and her ‘star’. In ancient Rome 5 March had marked the well-known *Feast of Navigium Isidis* or *Isis-Pharia,* when an effigy of the goddess seated in her boat was carried in procession around the city. And 21 July (Julian) was the date of the heliacal rising of Sirius. Coincidence? Perhaps. But we shall return to such issues in later chapters.

Mapping ancient Alexandria

After Napoleon, the fine example set by the *Institut d'Égypte* later prompted the new ruler of Egypt, Muhammad Ali Pasha, to fund the education and training of Egyptian scholars in France. His most prominent scholar was the astronomer Mahmoud El Falaki, better known as Mahmoud Bey, who was to found the first modern astronomical observatory in Egypt. Mahmoud Bey was also trained as an engineer and geographer, a combination that was to serve him well in his 'Alexandria mapping project' that was to come later under Khedive Isma'il in 1865. Perhaps it should be also noted that Mahmoud Bey's numerous other contributions in science, such as the charting of

geomagnetic and meteorological phenomena around the globe, earned him the respect and official praise of the Belgian as well as the French *Académie des Sciences*.

During his Alexandria mapping project, Mahmoud Bey carried out excavations and through them was able to determine that there had been eleven main streets running parallel along the width of the ancient city, and seven main streets also running parallel but at right angles to the other eleven. The two principal arteries were confirmed as the Canopus Way running the length of the city and the Soma running the width of the city, thus, as we've observed, forming a huge ‘cross’ by their intersection.

Some European archaeologists were quick to criticise Mahmoud Bey's ‘reborn’ plan of ancient

Alexandria, but according to Dr. Jean-Yves Empereur, director of the Centre of Alexandrian Studies in Egypt:

... In spite of the criticisms levelled at it in the later 19th century, this plan is still used by archaeologists today ... Mahmoud El Falaki decided to publish his plan in Copenhagen in 1872, six years after he had completed it. It is an outstanding work, reflecting the considerable resources employed in its production, rendered even more effective by the support of the Khedive and the solid training of its maker. Almost a century and a half after its publication it is still used as a reference work by archaeologists working in Alexandria.[39]

The Gate of the Sun and the Gate of the Moon

After digging several trial pits and trenches, Mahmoud Bey was able to establish that the Canopus Way was approximately 2300 meters long and that its axis was oriented to a point on the horizon about 24° north-of-east. [40] Two factors indicate that this alignment was not accidental but was interwoven in the astronomical ideologies prevailing at the time. The first, of course, is the conspicuous angle of 24° north-of-east which immediately brings to attention a possible solar alignment close to the summer solstice. The other factor, perhaps even more obvious, is that the gate on the eastern side of the Canopus Way was

called the *Gate of Helios*, i.e. the 'Gate of the Sun', again strongly suggestive of a solar alignment. The sun's rising points on the eastern horizon as observed from Alexandria fluctuate between 28° south-of-east (winter solstice) and 28° north-of-east (summer solstice), with the mid-point, due east, falling on the spring and autumn equinoxes.

In his *Life of Alexander* the famous first century author Plutarch tells us:

Alexander was born the 6th of *Hecatombaeon*, which month the Macedonians call *Lous*, the same day that the Temple of Diana at Ephesus was burnt ...[41]

Hecatombaeon, or *Hekatombaion*, the first month in the ancient Greek year, began on the first new moon immediately following the summer solstice. From this, many chronologists have calculated that

Alexander must have been born on 20 July (in the Julian calendar) or very near to that date. Since this was also the time of year when the Sun rose in the zodiac sign of Leo, it may explain the powerful leonine symbolism that ancient writers associated with Alexander's birth and character.[42]

The persistent mythological connections between Alexander and Diana, which we explored earlier, are also of interest. Diana, the Artemis of the Greeks, was often identified with the Egyptian goddess Isis, the mother of Horus, the mythical prototype of the solar pharaoh-kings of Egypt with whom Alexander was keen to identify. These ‘Horus-kings’ were traditionally believed to be born under the protection of the star Sirius, the heliacal rising of which was the celestial sign that divinised and legitimised the reign

of each and every future king of Egypt. It is a verifiable astronomical fact, and in our view most unlikely to be a coincidence, that the helical rising of Sirius in Alexander's epoch occurred on 20 July as seen from the latitude of Egypt's ancient capital Memphis. Tradition has it that it was Alexander himself who fixed the central axis of the future city of Alexandria, later to be known as the *Canopus Way*. It is thus also unlikely to be coincidental that this axis turns out to have been aligned approximately 24° north-of-east, targeting the point of sunrise on the day of the heliacal rising of Sirius through the appropriately named ‘Gate of the Sun’.

Alexander, admittedly promiscuous in his choice of divine ancestors, is known to have claimed descent from Dionysos and Heracles – both of whom were associated with the Egyptian god Osiris by

Herodotus, one of Alexander's favourite authors. Bearing this in mind, let us note that if we extend the axis of the Canopus Way further in the direction of the horizon we find it passing the ancient city of Herakleion (later submerged by an earthquake and recently relocated by marine archaeologists in Abu Qir Bay). At least since the time of Herodotus it was known that a temple dedicated to Heracles-Osiris had stood at Herakleion.

The Gate of the Moon at the other (western) extremity of the Canopus Way may also have had astronomical connotations linked to the myth of Isis and Osiris. We've seen that Isis, and the many Ptolemaic queens who emulated her, were commonly depicted with the full-moon disc and/or lunar crescent above their heads – a motif that continued to be used for the goddess-queens of Alexandria in

Graeco-Roman times. Cleopatra is well known to have identified herself with ‘Isis and the Moon’, and when she bore twins – a boy and girl – by Mark Antony, she called them Selene (Moon) and Alexander-Helios (Sun), clearly an allusion to Isis and Osiris/ Dionysos as well as to the city of Alexandria itself with its Moon and Sun gates. In order for a full moon to occur, it must be in almost direct opposition to the Sun. This seems to explain why the west end of the Canopus Way was named ‘Gate of the Moon’ and the eastern extremity named ‘Gate of the Sun’.

With all such possible symbolic alignments it would seem likely, if not certain, that the city of Alexandria was sacred to Isis or, more specifically, to *Isis-Pharia* who dovetailed perfectly with the Alexander-Dionysos-Helios myth. Indeed, so important was Isis to Alexandria that she became effectively its co-

tutelary deity being held in equal reverence to its very own specially-invented supreme god Serapis. The reader will recall from Chapter Five that it was within the compound of the great Temple of Serapis in Alexandria – the *Sarapeum* – that a great number of Gnostics and so-called *pagans* were massacred by Christian mobs in the late fourth century AD.

The making of a universal god

When Alexander the Great died on campaign in Babylon in 323 BC, his vast empire was split into smaller dominions to be shared among his generals. His closest friend, Ptolemy, son of Lagos, inherited

the kingdom of Egypt and was crowned pharaoh in 305 BC after the death of Alexander IV (the son of Alexander the Great by the Persian Princess Roxanne). Ptolemy adopted the name *Soter*, meaning the ‘Saviour’, and thus is best known to historians as Ptolemy I Soter.

A very wise and enlightened man, Ptolemy set out to fulfil Alexander's dream to make his city, Alexandria, a universal centre of wisdom and learning. He recruited as his principal advisor an Egyptian high-priest from Heliopolis called Manetho, and consulted him on all matters related to religion, history and protocol. Manetho, who came from the Delta city of Sebennytos, is best known to Egyptologists for having compiled a chronology of all the dynastic and predynastic pharaohs which, to a great extent, is still used as reference today. It is

almost certain, too, that Manetho was the principal contributor to the creation of the ‘new’ god Serapis for the city of Alexandria.

It seems that Ptolemy I Soter wanted to find an ideal deity for the cosmopolitan citizens of the universal city of Alexandria – the latter now perceived as the symbol of a regenerated Egypt that he, Ptolemy, was destined to govern. The choice quite naturally went towards the most revered of Egyptian gods, Osiris, or, to be more specific, as we saw in Chapter Five, to a special form of Osiris known as *Osiris-Apis*, the *Wesir-Hapi* of the ancient Egyptians. This linked Osiris to the worship of the bull-god Apis, a very ancient cult with its main centre at Memphis in Lower Egypt.[43] According to Herodotus, who visited Egypt when this cult still flourished, the

sacred Apis bull was:

The calf of a cow which is incapable of conceiving another offspring; and the Egyptians say that lighting descends upon the cow from heaven, and that from thence it brings forth the Apis. This calf, which is called Apis, has the following marks: it is black, and has a square spot of white on the forehead; and on the back the figure of an eagle ...[44]

Indeed, the Apis bull was said to be born from the womb of a sacred cow known as 'Isis', and when the Apis bull died he was considered to have become Osiris. As Egyptologist George Hart states:

Following concepts about the dead pharaoh in the Underworld, Apis, upon dying, became the god Osiris. It is the sacred bull of Memphis in his form of Osiris-Apis that provides the Egyptian nature of the

hybrid god created under early Ptolemaic rulers known as *Serapis*.[45]

The close similarity between the Apis bull cult and the Isis and Osiris cult is obvious. And the close identification between the Apis *calf* and the Horus *child* said in Egyptian mythology to have been born from the womb of Isis is thus inescapable: (1) The Apis bull was associated with the Horus-king or living pharaoh; (2) the sacred 'Isis' cow became pregnant by divine intervention in the same manner that the goddess Isis had become pregnant; (3) the sacred 'Isis' cow bore only one calf in the same way Isis had born only one son; (4) the Apis became 'Osiris' after death in the same way that the Horus-king – the pharaoh – was also devoutly believed to became 'Osiris' after death. As Hart further explains:

The pharaoh identifies closely with Apis-bull imagery (with its inherent notion of strength and fertility) being an ancient characteristic in the propaganda of the god-king, as can be seen from carved slate palettes and in one of the names used in the royal protocol ‘victorious bull’. Celebrating his jubilee festival, a ceremony concerned with the rejuvenation of the monarch's power, the pharaoh strides briskly alongside the galloping Apis bull. The ritual which took place at Memphis is vividly portrayed in a relief on a block from a dismantled chapel in the Temple of Karnak at Thebes ...[46]

A contemporary account of the Apis cult is given by Diodorus Siculus, who visited Egypt in the first century BC. Diodorus describes the funeral of the Apis bull in much the same terms as that of a

pharaoh:

After the splendid funeral of Apis is over those priests who have charge of the business seek out another calf as like the former as they can possibly find, and when they have found one an end is put to all the mourning and lamentation, and such priests as are appointed for that purpose lead the young bull through the city of Nile and feed him forty days. Then they put him into a barge wherein is a golden cabin and so transport him as a god to Memphis ... For the adoration of the bull they give this reason: they say that the soul of Osiris passes into a bull and therefore whenever the bull is dedicated, to this very day the spirit of Osiris is infused into one bull after another for posterity.[47]

The most crucial aspect of the ancient Egyptian

mystery religion is that the ‘son of Osiris’ i.e. Horus, was perpetually reincarnated in the person of the pharaoh, and after each pharaoh died he became ‘Osiris’ while his eldest son became the new living ‘Horus’. Or to put it another way, each successive pharaoh was the living embodiment of Horus while, at the same time – as was the case with the Apis bull – it was held that his soul would become ‘Osiris’ after his death. It can be seen, therefore, that the idea of the combined name ‘Osiris-Apis’ – which transmutated to Serapis – was modelled on the idea of ‘Osiris-Horus’ and, consequently, must be understood to be the ultimate name that symbolises the legitimacy and divinity of the ruling pharaoh.

This is precisely how Alexander the Great wanted to be perceived by the world, and this was also in the mind of Ptolemy when he was crowned the successor

of Alexander in Egypt. When, in the summer of 323 BC, Alexander lay dying in Babylon from malaria (made worse by drinking excessive quantities of wine as a ‘cure’), his priests prepared a makeshift Temple of Osiris-Apis, i.e. Serapis, in his encampment, leaving us with no choice but to conclude that Alexander had embraced this god as his own. According to the official royal journal kept by the scribe Eumenes,[48] Alexander was seized by a violent fever on 4 June which persisted for several days and, by 8 June, it was becoming clear to all that he was dying:

8 June: The fever continues. The Macedonians, thinking that he was dead, came screaming to the gates of his palace and insisted to see him. The doors were opened. They all passed in procession in front of

the bed. In silence he [Alexander] greeted each of them by nodding his head or by making a sign with his eyes. In the Temple of Serapis, Peithon, Attalos and Demophon [Alexander's close companions] slept in turn waiting for an oracle from the god to tell them if they should transport Alexander to his sanctuary for him to be cured. The fever continued all night.

9 June: Same condition [the king is now in a coma]. New consultation of the god [‘father’ of Alexander] by Kleomenes, Menidas and Seleukos who relayed in the Temple of Serapis to sleep and to consult the god.

10 June: The god gave his reply, which was not to bring Alexander to the temple as he was better off where he lay resting. The companions reported this to the soldiers. A short while later, towards evening,

Alexander died.[49]

The above text make it clear that a temple or shrine of Serapis had been raised somewhere near Alexander's palace in Babylon, and that this god was consulted over a matter of great importance – i.e. whether or not Alexander's body should be transported to the principal ‘sanctuary’ of Serapis, i.e. Osiris-Apis, in Egypt. There is an apparent anomaly in the text which refers to Serapis as the ‘father of Alexander’ when we know that Amun of Siwa already filled that role. But perhaps in the minds of the Macedonians at least, no clear distinction was made between Serapis and Amun, since both in the Egyptian tradition were ‘fathers’ to the pharaohs. Herodotus clearly equates Amun of Siwa with Zeus,[50] and we know that Serapis was also

equated with Zeus by the Alexandrians.

The labyrinth of Serapis

The main sanctuary of the Osiris-Apis bull (Serapis) was near Memphis in Lower Egypt, not far from the complex of the Pyramid of Djoser at Saqqara. Here, from at least 1400 BC, successive generations of Apis bulls were buried, in huge stone sarcophagi, in a subterranean labyrinth known today as the Serapeum (the same name applied to the Temple of Serapis at Alexandria). Herodotus, who wrote his *Histories* a century before Alexander's arrival in Egypt, is the first foreigner to mention the ‘Temple of Apis’. It

probably was still operational well into Christian times, but by the middle ages the Serapeum had been completely buried in sand and its location forgotten. It was not until 1850 that it was re-discovered by the French archaeologist, Auguste Mariette. The story goes that Mariette, while trekking in the desert near Saqqara, stumbled on one of the many small sphinxes mentioned by the ancient geographer, Strabo, that had once had flanked the processional road leading to the Serapeum. He was to later write:

‘One finds,’ said the geographer Strabo [first century AD], ‘a temple to Serapis in such a sandy place that the wind heaps up the sand dunes beneath which we saw sphinxes, some half buried, some buried up to the head, from which one can suppose that the way to this temple could not be without danger if one were caught in a sudden wind storm.’ Did it not seem

that Strabo had written this sentence to help us rediscover, after over eighteen centuries, the famous temple dedicated to Serapis? It was impossible to doubt it. This buried Sphinx, the companion of fifteen others I had encountered in Alexandria and Cairo, formed with them, according to the evidence, part of the avenue that led to the Memphis Serapeum ...[51]

Inspired by his find, Mariette organised a workforce and, within a few weeks, had uncovered the entrance to the Serapeum which, even today, remains a hugely impressive and awe-inspiring place. It is located about a kilometer to the northwest of the stepped Pyramid of Djoser, and is approached from the east through a sloped alley going downwards into the bowels of the sand-rock desert. The vastness of this underground maze is what first hits you, with its

dark and sprawling corridors running in several directions like a hellish labyrinth built for giants. Today there is lowwattage electric lighting but even so, if left wandering alone in this strange Hades, one is gripped by a curious sense of uneasiness, a sort of slow panic that mingles with the eerie and deathly stillness. There is something almost unnatural and something almost superhuman here. For what is seen all along the huge tunnels and corridors are dozens and dozens of enormous sunken niches, the size of large living rooms, in which were inserted massive granite sarcophagi that once contained the mummified corpses of the Apis bulls. The size and weight of these sarcophagi – some over 60 tons and cut from a single block of granite – fires the imagination for, at least on face value, it is very difficult to see how they were brought down here in

the first place let alone manoeuvred into the niches. One has the sense that deep and dark mysteries were performed here. Their atmosphere still lingers – the charged residue of place where, in the words of the ancient Greeks, men were transformed into gods.

Alexander's return

Nectanebo II (the ‘father’ of Alexander in some legendary accounts) had his tomb built not far from the Serapeum at Saqqara.[52] Could this have played a part in the strange events that took place after Alexander's death and the dilemma confronting his generals and officers as to where the remains of their

heroic demi-god should be taken? For while still in Babylon, the body of Alexander was prepared in the ancient Egyptian manner by embalmers brought specially for this task. Alexander's body was then placed within a golden sarcophagus and a huge catafalque was built – the size of a house on wheels according to some eye witnesses – in order to transport the dead hero-god back to Egypt.

The journey took almost two years . Finally when it arrived at the borders of Egypt the catafalque was met by Ptolemy and the golden sarcophagus taken to Memphis. There it was buried near the Serapeum in a sumptuous tomb befitting the hero-god. So entrenched is the idea that Alexander's ‘lost tomb’ lay hidden in Alexandria that it generally comes as a surprise for some to know that his coffin remained at Memphis for at least *ten years,* and perhaps even

longer, before finally being taken to Alexandria. At that time the city of Memphis was still the capital of Egypt, and the Temple of Heliopolis was still functioning as the priestly school for the state. As for Ptolemy himself, he was still *satrape*, i.e. governor of Egypt, under the authority of Alexander IV, the son of Alexander the Great by his Persian wife, Roxanne. In 310 BC, however, when the Alexander IV was 13, he was assassinated, and the succession not settled. Against this background, five years later, Ptolemy seized his chance and declared himself pharaoh of Egypt in 305 BC.

We may guess that it was to strengthen and symbolise his own legitimacy as the true successor of Alexander the Great that Ptolemy transferred Alexander's golden sarcophagus, and along with it the cult of Serapis-Osiris-Apis, to the newly built city

of Alexandria. It is also likely that the kernel of the future Great Library of Alexandria was brought at this time from the great temple-library at Heliopolis.

This then was the manner in which Alexandria was turned into the new ‘capital’ of Egypt and created the great spark of enlightenment that was to illuminate the Western world at the time of the Renaissance.

A special gnosis

It has long been recognised that the ancient Egyptians did not have a ‘religion’ – at least not in the sense that we understand the meaning of this word today. And although the term Egyptian

‘religion’ has been extensively used in Egyptology, and we ourselves use it in this book, the fact remains that it cannot be found in the vocabulary of the ancient Egyptians. It simply does not exist. As the eminent Egyptologist and philologist Alan H. Gardiner explains:

From the Egyptian point of view we may say that there is no such thing as ‘religion’; there was only *heka*, the nearest English equivalent of which is ‘magical power’ ...[53]

Everything about the ancient Egyptian monuments and texts leads us to suppose that *heka*, i.e. magical powers, were believed to be acquired through a very intense spiritual and intellectual learning process involving elaborate and secret initiations. *Heka* was a sort of *sacred science* or, as we prefer to call it, a

special gnosis, and it was thought to be the gift of Thoth, the ancient Egyptian god of wisdom (the Hermes Trismegistus of the Greeks). According to British Egyptologist Patrick Boylan, professor of Eastern languages at University College Dublin:

Thoth ... is god of wisdom and orderer of the cosmos. His word has to call things into being ... [and is] endowed with magical powers. Magic presupposes always a special Gnosis. The magician claims to possess a higher and deeper knowledge of the secret nature of things, and the hidden connection which holds things together. He is the wise one whose words have power to control mysterious forces, and to ward off invisible perils. And the magician does all this by the power of his special gnosis ... [54]

This *special gnosis* or magical knowledge was said

to have been gathered by Thoth and written in sacred books which, according to a legend found in the Egyptian *Book of the Dead*, were taken to the Temple of Heliopolis by the goddess Hathor, whose star, the reader will recall, was Sirius.[55] A rather similar legend that associates Thoth and his sacred books to the city of Heliopolis is found in the *Westcar Papyrus*. In this 3500-year-old text a story is told about a magician brought to the court of Pharaoh Khufu, the legendary builder of the Great Pyramid at Giza. Khufu is keen to find the secret chamber of Thoth (presumably where the magical 'books' were kept) in order to design his pyramid, and he is told by the magician that it will be found at Heliopolis in some sort of 'inventory room' or library or hall of scriptures and records.[56] This story therefore associates the

idea of the pyramid with the magical knowledge of Thoth – knowledge, as we shall see, that was specifically connected to the *stars*. As the French Egyptologist and author Christian Jacq asserts:

The greatest centre of magic in Egypt was probably the holy city of Heliopolis, the city of the sun, where the most ancient theology developed. Here were preserved numerous papyri, 'magic' in the widest sense of the word, including medical, botanical, zoological and mathematical texts. Most Greek philosophers and savants travelled to Heliopolis to study some of that knowledge ... [57]

Jacq then goes on to say that at Heliopolis and other similar learning centres was practiced the most 'sacred science that requires specialists trained for many years to grasp the most secret forces of the

universe.’[58] Everything points to the fact that the most important aspect of this ‘sacred science’ or special *gnosis*, rested on the belief that the influences and powers of the stars could be somehow drawn down to earth. As Christian Jacq and others have pointed out, the edifices of the ancient Egyptian sacred science rested on the fervent conviction that innate objects such as amulets, statues, shrines, monuments, temples and even whole cities could be imbued with the divine essence of the star-gods which was harnessed with the application of *heka* i.e. magic.

Western civilisation in the 21st century does not, by and large, believe in magic. Earlier civilisations did and the ancient Egyptians were emphatically amongst them. What they understood by *heka*

however, does not necessarily accord with modern ideas of magic at all and therefore needs to be clearly defined. According to Dame Frances Yates of the University of London, who made a lifetime study of these matters:

The type of magic with which we are to be concerned differs profoundly from astrology which is not necessarily magic at all but a mathematical science based on the belief that human destiny is irrevocably governed by the stars, and that therefore from the study of a person's horoscope, the position of the stars at the time of his birth, one can foretell his irrevocably foreordained future. This magic is astrological only in the sense that it too bases itself upon the stars, their images and influences, but it is a way of escaping from astrological determinism by gaining power over the stars, guiding their influences

in the direction which the operator desires. Or, in the religious sense, it is a way of salvation, of escape from material fortune and destiny, or of obtaining insight into the divine. Hence ‘astrological magic’ is not a correct description of it, and hereafter, for want of a better term, I shall call it ‘astral magic’ …[59]

Frances Yates, as we shall see in the next chapter, was speaking here not of ancient Egyptian ‘astral magic’ but, more specifically, of the *revival* of the Egyptian magical religion during the Italian Renaissance. But she might as well also have referred to ancient Egypt itself, for the definition she gives covers precisely the sort of ‘astral magic’ that seems to have existed in Egypt since time immemorial.

A time of change

In the years after the coronation of Ptolemy I Soter as the successor of Alexander the Great, the city of Alexandria began to flourish. First a magnificent tomb was built to house Alexander's coffin and then various monumental and religious projects were planned. Most notable among these were the *Pharos*, one of the Seven Wonders of the Ancient World, the great temple and library complex of Serapis – the Alexandrian Serapeum – and, of course, the legendary Library of Alexandria.

It was at the Alexandrian Serapeum that the Ptolemies regenerated the cult of Serapis, the supreme universal god, and where a huge statue of

the Serapis was erected. And at the *Pharos*, as we have already seen, was raised a great temple dedicated to Isis, ‘consort’ of Serapis, but now specially designated in this new maritime city as Isis-Pharia.

As for the famous library, this was dedicated to the seven muses or sisters, patrons of music and the arts. It is most likely that much of the library's original collection was derived from stocks brought from other parts of Egypt, especially Heliopolis and Memphis, which had been preserved since time immemorial in the temple-libraries of the ancient Egyptians. Also literary works of philosophy, religion, science and the arts were imported from other parts of the world, especially Greece. Ptolemy I Soter, moreover, took a great personal interest in having brought to him a copy of the Old Testament of the

Hebrews and, for the first time ever, had the latter translated into Greek, making it available to the non-Jewish world. Thus an incredible intellectual and spiritual vortex began to swirl in Alexandria, and the result would be the creation of an even more powerful magical religious philosophy which was to be attributed to Hermes Trismegistus, the name given to the Egyptian wisdom god, Thoth, by the Graeco-Egyptian population of Alexandria.

Over the coming centuries, as we shall see, the ancient Egyptian magical tradition was to dress itself in Greek garb and subliminally inject itself into Western Europe.

Metamorphosis

In 586 BC, the Babylonian king, Nebuchadnezzar II, captured Jerusalem causing a mass expulsion of Jews, many of whom found their way into Egypt. Evidence of a Jewish presence in Egypt in those times is widespread from the Nile Delta area in the north to the distant south at Elephantine near Aswan. Also two centuries later, when Ptolemy I Soter took control of Palestine and Jerusalem, he brought back Jewish mercenaries and encouraged Jews to settle in his newly founded city of Alexandria. By the first century BC and the reign of the fabled Cleopatra, last of the Ptolemaic rulers, a large segment of the population of Alexandria was made up of Jews who had adopted Greek language and customs. And there can be no doubt that it was with the Jews of Egypt that a patriarchal monotheistic religion that abhorred idols and graven images began to take hold in the

ancient land of the pharaohs.

In 30 BC the Roman legions of Octavian (the future Emperor Augustus) reached the gates of Alexandria to challenge his arch-rival, Mark Antony. Inside the virtually defenceless city there was panic and pandemonium. The armed forces commanded by Antony and Cleopatra had been decisively defeated at the naval Battle of Actium and now any resistance to Octavian would simply be foolish bravado. Indeed, earlier Mark Antony, in a moment of heroic folly, had attempted a valiant charge against Octavian's Roman legions only to find himself deserted by his own men who hailed Octavian as their true leader. Thus abandoned but still unable to face defeat, Mark Antony committed suicide, begging the last of his loyal soldiers to finish him off. When the news reached Cleopatra, she became determined not to be

captured alive by Octavian, and committed the most famous suicide in history by being bitten by a deadly asp.

Thus 3,000 years of pharaonic civilisation came abruptly to an end. Octavian immediately declared Egypt to be a province of Rome, and the might of the Caesars fell on this ancient and sacred land like a gigantic sledgehammer. Within years Egypt was reduced to nothing more than a granary to feed Rome's legions.

Alarmed at changes they saw being introduced all around them, what the Egyptian priests undoubtedly feared most was the extinction of their magical religion. Throughout the three centuries of Ptolemaic rule, the ancient Egyptian temple-cult had not only survived but had received active state sponsorship and had boomed everywhere. This was because its

timehonoured antiquity had a powerful, almost enchanting appeal for the Ptolemies who found that it meshed perfectly with their own mythologies and ideas of the divine. Indeed, the ancient Egyptian magical religion was seen as a boon for the universal dream of the Ptolemies and, like many other things, fitted the city of Alexandria like Cinderella's slipper. The Romans, on the other hand, saw the connection simply as another source of political power to run Egypt and its resources efficiently. It is true, of course, that Roman emperors appointed themselves as ‘pharaohs’ and even adopted the religion of Serapis and Isis. They also restored temples and built new ones in honour of the Egyptian deities – the famous Temple of Dendera was restored to its present-day appearance by Emperor Tiberius.[60] None

of this, however won over the Egyptians let alone the Egyptian priests. They knew that under the Romans, things would inevitably be very different. The enlightened Ptolemies saw themselves as successors to the Egyptian pharaonic tradition, whereas the Romans had come as conquerors and masters. As the Coptic scholar Dr. Jill Kamil points out:

The institution of sacrosanct monarchy, a cardinal feature of Egyptian life in pharaonic times which had been maintained by various later dynasties (the Ptolemies, for example), was lost in Roman times. The emperors may have claimed to be divine but it was their prefects who ruled Egypt, reduced the prestige of the priests, and exerted pressure on the people. They siphoned off the wealth of the land to Rome and recruited Egyptians to fight Roman wars in other countries. The Egyptians, who had accepted

Ptolemaic rule, resisted Roman. It is not difficult to see the difference between them. Under the Ptolemies, Egypt had retained its integrity and had a stable economy. Under the Romans the country was shorn of identity and impoverished. It was no more than a private estate for the emperor and a pleasure-ground for the Roman upper classes.[61]

There was at first some semblance of prosperity and even a sense of protection under the Romans,[62] but on the whole it did not benefit the Egyptians themselves. The wealth extracted from agriculture fed the Roman garrisons and filled the treasury of Rome; and if any new temple or hydraulic project was built by the Romans it was done for strategic reasons and to strengthen their political and military hold on Egypt. Soon the Egyptians – now a people mixed with

‘Egyptian’ Greeks and Jews – began to revolt. In AD 115 a huge revolt, apparently led by the Jews, was brutally crushed by the Romans. Another massacre was to take place in Alexandria during the visit of the mad Emperor Caracalla in AD 215, after he was accused by the rash Alexandrians of his brother's assassination. And an even more serious revolt took place in AD 297, this time firmly put down by Emperor Diocletian who recaptured Alexandria after a siege of eight months.

But not all imperial visits were aggressive. There was the time when Emperor Vespasian had come to Alexandria and, like Alexander the Great before him, was proclaimed ‘son of Amun’ and even the ‘reincarnation’ of Serapis. So seriously did Vespasian take this that he apparently went through the streets of Alexandria performing ‘miracles’, and on one

occasion restored the sight to a blind man.[63]

Then there had been the relatively peaceful visit of Emperor Hadrian to Alexandria and to Thebes in Upper Egypt in AD 130. Whilst in Egypt Hadrian's favourite companion and lover, a youth called Antinous, drowned in the Nile whereupon Hadrian promptly ordered that a city be founded near the tragic spot to be called Antinoupolis. Hadrian also left us an observation of very great value concerning the worship of Christ and of Serapis in Alexandria when he wrote as follows to Servianus, the governor of the city:

So you praise Egypt, my very dear Servianus! I know the land from top to bottom ... In it the worshippers of Serapis are Christians, and those who call themselves Bishops of Christ pay their vows to

Serapis ... Whenever the patriarch himself comes to Egypt he is made to worship Serapis by some and Christ by others.[64]

Amid such alarming religious syncretism, and constantly threatened by the temperamental debaucheries and cruelty of the Roman emperors, the Egyptian priesthood must have paused to reflect. So far they had succeeded, beyond their wildest dreams, in ensuring the survival of their age-old magical religion by accommodating and converting the Ptolemies. Now, however, they saw the Romans as a much more serious and perhaps even insurmountable danger. When the Romans had arrived in Egypt in AD 30 an intellectual and literary osmosis had long taken place between the Greeks and the educated Egyptians, many of whom were priests, scribes and

functionaries associated with the temple-cult. As Dr. Kamil explains:

The languages in official use in Egypt were Greek and Egyptian, Greek being the more widely used. Egyptian literates had learned Greek long before the conquest of Alexander. They also realised that if they transcribed their own language in the Greek alphabet, which was well known among the middle classes and was simpler to read than demotic (the cursive form of hieroglyphic writing in its latest development), communication would be easier. Scribes started translating Egyptian sounds in Greek, adding seven extra letters from the demotic alphabet to accommodate the sounds from which there were no Greek letters. The emergence of this new script, [is] now known as Coptic ...[65]

There had been much encouragement in the exchange of ideas and written works, and the first Ptolemies, such as Soter and Philadelphus, would actually issue decrees that important Egyptian writings from the temple libraries should be translated into Greek, the *lingua franca* of Egypt and its neighbours.[66] As noted above, tradition has it that Ptolemy I Soter also commissioned 72 erudite Jewish scholars to translate the Old Testament into Greek, a version now known as the *Septuagint* which was to serve as the basis for future Latin translations.

Not surprisingly a very powerful spiritual and intellectual mutation began to occur in Alexandria which ended up producing a ‘neo-Egyptian’ wisdom philosophy that was readily embraced by the cosmopolitan inhabitants. One element of this was

Christian Gnosticism, which we have examined at length in Part I, and which is represented most strongly today in the surviving Nag Hammadi texts. Another, closely linked but with its own distinct character, was the ‘pagan’ Hermetic literature we've explored in Chapters Eight and Nine. Also compiled in Alexandria in the first three centuries AD, it is these Hermetic texts, claims Jill Kamil, that most perfectly sum up the intellectual and spiritual yearnings of the period:

Although, therefore, Egypt was ruled by a Greek speaking elite, and the bulk of the population was largely illiterate, there was a bilingual community that was multinational. This is nowhere more clearly demonstrated than in a collection of syncretistic treatises known as the *Corpus Hermeticum*. The corpus was purportedly written by Thoth, the ancient

Egyptian god of wisdom who, under his Greek name Hermes Trismegistus, gave the compilation its name. The Hermetic texts, some composed in Greek, some translated from Egyptian into Greek, were a blend of semi-philosophical treatises on the divine, ancient Egyptian wisdom and literature, and esoteric teachings including cosmological conceptions and mysticism. Through such literature, one can best appreciate the varied and subtle ways in which the consciousness of the divine manifested itself among the whole cultural amalgam in Egypt.[67]

In the Chapter Eight we saw the effects of this strange and mysterious Hermetic literature after it burst upon the European scene in 1460. Let us now place it at its origins into is proper intellectual and cultural setting alongside the emergent force of

Christianity in both its Gnostic and its ‘literalist’ forms.

The three major players

Around the year AD 30, some sixty years after Octavian invaded Egypt, it is claimed that a man called Jesus from the town of Nazareth was crucified in Jerusalem. This claim – that Christ was indeed man as well as god – is central to the doctrine of Roman Catholicism. On the other hand the reader will recall from Part I that the Gnostics held an entirely different view which did not admit the physical incarnation of Christ. Who is to say, at this remove of

2,000 years, which side was right and which was wrong, whether or not Christ was a man, or an apparition, or ever existed at all? Christianity exists, of that there is no doubt. It has shaped the world we live in. But Christ himself still proves elusive and nothing about the story of his life and death, or even about what happened to his followers during the first 30 or so years after his death, can honestly be said be to confirmed as solid historical fact.

Tradition has it Saint Mark went to Rome and in that city wrote his famous ‘Gospel’. Then, during the reign of Emperor Nero at about AD 60, he left Rome and travelled to Alexandria on his apostolic mission to convert the Egyptians. The great persecution of the Christians had already begun in Rome under Nero, and thus Egypt was not only a safer place to be but, and perhaps more important, was ripe for such a

mission to succeed. And succeed it did, well beyond the wildest of Saint Mark's expectations.

According to Egyptian-Coptic tradition the first person in Egypt to be converted to Christianity by Saint Mark was a Jewish shoemaker from Alexandria. Whether this is historically true or not is unimportant, but it does emphasise the fact that the large Jewish population of Alexandria would have been an obvious target for such conversion to a new Judeo-Messianic cult. It is possible, indeed very probable, that some of the early followers of Jesus – whoever this mysterious figure really was! – found refuge in Egypt and formed the first nucleus of proto-Christian adepts in Egypt. Conversion thus naturally began within the existing Jewish population and then gradually spread to the indigenous as well as to the Graeco-Roman populations.

This process, almost organic in its progress, had the inevitable effect of producing a variety of religious factions in Alexandria. Right from the outset two key players were the Christian Gnostics on the one hand, who frequently interpreted the scriptures symbolically and allegorically, and 'literalist' Christians on the other who interpreted the scriptures literally. We have considered both at length in Part I.

A third major player resisted the Christian tide and remained 'pagan', retaining many original ancient Egyptian beliefs but now expressed in Greek, with rituals structured for Greek-speaking adepts. These were the Hermetists – so called, as we know, because they followed the teachings of Hermes Trismegistus, the *alter ego* of the ancient Egyptian wisdom god Thoth. Vilified and hated by the Catholic Church, the

Gnostics and Hermetists found in each other a common bond – this being the search for salvation and spiritual illumination through divine knowledge, that is to say through *gnosis*. And although the Gnostics were labelled ‘heretics’ by the Church and the Hermetists were branded as ‘pagans’, both were perceived as equally dangerous enemies and were, accordingly, persecuted with equal ferocity.

We've seen in Chapter Five how the persecution reached a point in the late fourth century AD when the Christian Emperor Theodosius closed all the ‘pagan’ temples in Egypt. Gnostics and pagans alike were hounded into the desert and their places of worship either destroyed or ‘converted’ into Catholic churches, while their books were seized and burnt. It seems, however, that both groups had previously taken precautions to ensure that their sacred texts

and ancient traditions would not be completely erased.

We followed the story of Gnosticism in Part I and how it survived as a living tradition until the destruction of the Cathars and the Bogomils in the 13th and 14th centuries. We also reported the story of the Nag Hammadi Gnostic texts in Part I, their loss to the world for sixteen centuries, their miraculous recovery in 1945, and their implications for our understanding of Christianity.

The Hermetic texts, the so-called *writings of Hermes Trismegistus*, came to light rather sooner. Copies had been smuggled out of Egypt, probably during the fifth or sixth century AD, with some reaching Byzanthium and Macedonia. One complete collection would pass from hand to hand, albeit recopied several times but nonetheless remaining

essentially the same for a thousand years until, as we described in Chapter Eight, an aging Italian monk found it, recognised it for what it was, and brought it to Cosimo de’Medici.

The man of his epoch best suited to respond to such a discovery, Cosimo's early sponsorship launched the Hermetic message on a glittering Renaissance career that saw it infiltrate its symbolism into the very apartments of the pope before the end of the 15th century. Where Christian Gnosticism had been utterly crushed in Occitania after its re-emergence as Catharism, is it possible that the ‘pagan’ branch of the Alexandrian *gnosis* – i.e. Hermeticism – was about to succeed in overthrowing the hated tyranny of the Catholic Church?

In the later part of the 16th century, in a Europe devastated by the awful wars and persecutions arising from the conflict between Reformation and Catholic reaction ... men turned to the Hermetic religion of the world to take them above these conflicts ...

Frances Yates, Giordano Bruno and the Hermetic Tradition

Perchance your fear in passing judgement on me is greater than

mine in receiving it...

Response of Giordano Bruno to the cardinals of the Inquisition after they sentenced him to be burnt at the stake. Reported in January 1600 by Gaspar Schopp, an eyewitness of his trial.

Some say the Renaissance ended with his death.

About Giordano Bruno, in Kenneth J. Atchity's The Renaissance Reader

CHAPTER ELEVEN

THE PROPHET OF HERMES

During the Cathar crisis of the 12th and 13th centuries the Roman Catholic Church was obliged to compete with the high standards of behaviour and morality set by the Cathar *perfecti*. But after the heretics had been crushed the pressure was off and by the 16th century the reputation of the Vatican had once again become severely tarnished. Not only were there the ongoing excesses and horrors of the

Inquisition – which was passing through a phase of renewed frenzy. Also there had been the numerous scandals of the ‘bad popes’. Amongst these, as we saw in Chapter Eight, the Borgia Pope Alexander VI stands out for his bizarre behaviour, not to mention the intrigue and homicidal cruelty of his two children, Cesare and Lucretia Borgia, and the wild parties and orgies that took place at the Vatican.

All this debauchery began to cause many in Europe to doubt the papacy. Such doubt first led to derision, then cautious protestation and finally to open revolt by ‘Protestant’ groups outside Italy. The main thrust of the movement was spearheaded in Germany by a country pastor, Martin Luther, in a bold bid to wrangle Christianity away from the clutches of the papacy in Rome.

Awful carnage ensued where Catholic and

Protestant armies battled for decades. By the second half of the 16th century many were utterly sickened by the terrible bloodshed and destruction and had began to hope for a saviour or champion who could unite Europe again in peace and prosperity. In the year 1569 all eyes fell on the Bourbon family in the kingdom of Navarre, and on France where the religious crisis between Catholics and Protestants (known as *Huguenots*) was reaching a turning point.

The rise and rise of Catherine de’Medici

At the head of the military Catholic League in 1569

was the French king, Charles IX, but in reality much of the power of this rather sickly and weak monarch was vested in his ambitious and domineering mother, Catherine de’Medici. Born into the powerful and influential Florentine family in 1519, Catherine's parents were Lorenzo de’Medici, the Duke of Urbino, and Madeleine de la Tour d’Auvergne, the latter linked to the French royal family. Orphaned at a very young age, Catherine was once kept as hostage when the Medici Palace was attacked and occupied by an angry mob of Florentines who revolted against the papacy. Finely educated in convents around the city during the siege of Florence, she was at last set free and taken to Rome after her warring uncle, Pope Clement VII (Giulio de’Medici), crushed the rebellion in Florence. The pope then negotiated with King Francis I of France for Catherine – at that time just

14-years-old – to marry the king's second eldest son, Henry of Orléans.

Wanting to make a suitable impression on the French court to counter her rather short stature and not-too-pretty countenance, the youthful Catherine de’Medici consulted a Florentine artisan who presented her with the very first example of a pair of modern high-heeled shoes, which caused quite a stir when she arrived. Immediately disliked by the French, she nonetheless became their queen when the eldest son of Francis I died, leaving the throne to her husband, Henry of Orléans, who was crowned as Henry II. Henry, meanwhile, had been having a passionate affair with Diane de Poitiers, a ravishingly beautiful courtesan 20 years his senior. But in spite of this, Catherine de’Medici bore him no less than ten children; three died at birth; three others were

destined to become kings of France: Francis II, Charles IX and Henry III.

Henry II’s hatred for the Protestant Huguenots of France and the violent repression that he imposed on them, finally led to an all out civil war. He was to die from a horrible jousting accident in 1559. It was then that Catherine de’Medici started a long reign of co-regency with her sons; first with Francis II, who died a year later in 1560, then with her second son Charles IX, who died in 1574, and finally with Henry III who died in August 1589, just a few months after Catherine's own death in January of that same year.

At first Catherine had oscillated between Huguenots and Catholics in an attempt to bring peace to France, and she even went as far as to arrange a marriage between her daughter, Marguerite, and Henry of Navarre, the dashing

Protestant Bourbon prince, the future Henry IV of France. The kingdom of Navarre, which was situated in northern Spain, was ruled by a rogue French dynasty, the Bourbons, who bitterly opposed the Catholic League. Henry's mother, Jeanne d’Albret, the queen of Navarre, was a staunch Protestant and saw to it that her son also followed suit. Trained in military skills by Gaspard de Coligny, an able Protestant general of Navarre, Henry of Navarre proved to be a natural military strategist who excelled at hand-to-hand combat, starting at the young age of 16 when he personally led the first cavalry charge of the Huguenots against the Catholics at the Battle of Arnay-le-duc. Finally, in 1570, a precarious peace treaty was signed by Catherine de’Medici, queen of France, and Jeanne d’Albret, queen of Navarre, and a marriage was

proposed between Catherine's daughter, Marguerite de’Medici, and Jeanne's heroic son, Henry of Navarre. After lengthy negotiations between the two rival queens, an agreement was reached in 1572 and the marriage ceremony was planned to take place in Paris. Upon arrival in Paris in June, however, the queen of Navarre suddenly died of a lung infection and, in consequence, her son Henry became the new king of Navarre. He and Marguerite de’Medici married on 18 August 1572 but Henry refused to attend Catholic Mass after the wedding with the French royal family. And barely a few days later, one of history's most gruesome ‘days of infamy’ was to crush all hopes of peace between the Protestant Huguenots and the Catholics in France.

The St. Bartholomew's Day Massacre

During the royal wedding of Henry and Marguerite, thousands of Huguenots, including Henry's famous cousin, the Prince of Condé, had poured into Paris for the celebrations. Rumours began to spread of a plot against Catherine de’Medici, who urged her frail and weak-minded son, Charles IX, to act swiftly and harshly against the Huguenots. There followed an attempt to assassinate the Prince of Condé which sparked a huge riot against Catherine; in return the royal guards were ordered to attack the unprepared Huguenots. A terrible massacre ensued, and the streets of Paris, it was later said, were knee-deep in

blood. This gruesome genocide has gone down in history as the ‘St. Bartholomew's Day Massacre’ because it took place on 24 August, the festival of that saint.

Against the background of such charged events, Henry of Navarre found himself effectively a prisoner of the most Catholic French royal family into which he had married. In a bid to save his own life as well as the Protestant cause, he pretended to abandon Protestantism. After convincing the crafty Catherine de’Medici that he had sincerely converted to Catholicism, Henry finally escaped three years later to his kingdom in Navarre to raise an army against the Catholics.

Meanwhile Charles IX died and was succeeded by Henry III, Catherine's last and favourite son. Aloof and apparently fond of young men known as the

mignons, a quaint French word for homosexuals, Henry III spent much of his time in questionable pastimes which included dressing up as a woman, taking part in macabre processions around Paris wearing a sinister monk's cloak and cagoul, and joining a group of Capuchin friars who impersonated the ‘Virgin Mary’ and ‘Maria Magdalena’ while a third, perhaps the king himself, impersonated ‘Jesus’.[1] Additionally Henry was the patron of two religious military orders – the ‘Knights of the Holy Spirit’ and ‘Knights of the Phoenix’ – which were reported to have conducted unusual rituals involving the king.[2]

With no marriage or heirs in sight, Henry III seemed destined to be the last of the powerful Orléans-Medici dynasty to rule France. Attention fell

on his dashing renegade brother-in-law, Henry of Navarre who was the next in line to the throne of France. And many began to see in him the god-sent king who would unite Protestants and Catholics once again.

A Mass for Paris

In 1586 Henry of Navarre set up his military headquarters at La Rochelle, traditionally a strong fortress city and symbol of Protestant resistance. From there he would oppose the powerful Catholic League formed by an unholy alliance of Spain, France, the Vatican and the Hapsburgs in Germany,

the latter the traditional seat of the Holy Roman Empire. In the fall of 1587, Henry of Navarre confronted the Catholic army of Henry III of France at Coutras, near Bordeaux. Henry III's army was led by one of Henry III's *mignons*, the Duke of Joyeuse, who was no match for Henry of Navarre. The Catholics were crushed and the Duke of Joyeuse was killed in action.

Not unexpectedly, Henry of Navarre was immediately condemned as a heretic by the pope and declared unfit to succeed to the throne of France. Philip II of Spain, unquestionably the real power behind the Catholic League, then proposed that his daughter, Isabella, should become queen of France. Bullied by the immensely powerful Count of Guise, a staunch Catholic, Henry III fled Paris, and the Catholic League took over.

Henry III struck a secret deal with Henry of Navarre and promised him the succession to the throne if he would help him recapture Paris. The next move was the assassination of the Count of Guise by Henry III's *mignons* on 23 December 1588. He and Henry of Navarre then laid siege to Paris in early 1589. In the midst of this crisis, however, Henry III was himself knifed by a fanatical Jesuit monk, Jacques Clément. On his deathbed, coughing blood from his lung wounds, Henry apparently managed to master enough strength to proclaim Henry of Navarre his legitimate successor.

The Catholic League refused Henry of Navarre entry into Paris and the crown of France unless he would attend a Catholic Mass. It was then that Henry immortalised the phrase, 'Paris is well worth a Mass!' and once again abjured Protestantism in the name of

expediency. Henry of Navarre was crowned King Henry IV of France at Chartres Cathedral in 1594 and, on 22 March, the spring equinox, rode into Paris on his celebrated white steed amid huge cheers and jubilations.

The Hermetic mission of Giordano Bruno

It will be clear from the brief sketch given above that the religious struggle which most concerned the Catholic Church during the 16th century was its fight against Protestantism. The Cathar wars were a thing of the past, dualist heresy was dead and buried, and

although the Protestants were ‘heretics’ they were nothing like as heretical as the Cathars had been 400 years before. Indeed, apart from a shared anti-materialism, the Cathar religion had no more in common with Protestantism than it did with Catholicism and belonged, as we have seen, to the tradition of Gnostic Christianity that took shape in Alexandria in the first three centuries AD.

Out of the same Alexandrian melting-pot, in the same period, emerged a second tradition that also claimed to pass on a sacred soul-freeing *gnosis*. We've seen in previous chapters that the name of this second tradition was Hermeticism – after Hermes Trismegistus – and that the Church regarded it as ‘pagan’ rather than Christian. Unlike the Gnostic tradition, which we suggest survived in a virtually unbroken chain of heresy from the early Christian

period until the crushing of the Cathars, the continued survival of Hermeticism from the 5th to the 15th centuries is much harder to attest.[3] What brings this ancient tradition to life again, at least in the West, seems purely and simply to be the recovery of its primary texts, their translation at the Medici Academy in the 1460s, and the subsequent international 'movement' that the texts inspired. It may be the case, however, that there was more than immediately meets the eye to the phenomenal success of this revived Hermeticism. The sheer speed with which it took off and the way in which it so rapidly managed to work its way into the heart of the Vatican, as we reported in Chapter Eight, are hard to explain. It is almost as though some sort of system or 'organisation' was *already in place* when the texts

resurfaced that had both the will and the capacity to exploit their full potential for undermining the established Church.

If so Giordano Bruno, perhaps the greatest Hermetic magus of the 16th century, is likely to have been part of the plot (though he may have possibly have been too stubborn and independent a thinker to have plotted efficiently!). Born in 1548 at the little town of Nola near Naples he was burnt agonisingly to death over a slow fire by the Inquisition in 1600 for having spent the previous 21 years trying to destroy Catholic Christianity ...

The reader will recall that the majority of papal inquisitors were Dominicans. Ironically, as a young man, Bruno himself had been a Dominican monk, at their monastery in Naples. It was a foretaste of what was to come that even at this early stage he was

accused of heresy by his fellow monks. His crime was to have been caught reading the banned works of Erasmus and those of Marcilio Ficino and Giovanni Pico della Mirandola expounding the Hermetic tradition.

Bruno's stubborn attitude and fierce free will were not assets for the controlled life at the monastery. In 1576, when he was 28 years old, he finally ended up repudiating this oppressive religious order and emotionally defrocked himself in public. Learning that the Inquisition was preparing an indictment against him (which consisted of no less than 130 separate charges of heresy!) he then wisely went on the run.[4]

Impulsive, argumentative, brilliant – indeed a genius – Bruno was an all-out Hermetist who

harboured wild dreams of the full restoration of the ‘Egyptian’ religion of Hermes Trismegistus. But unlike Pico della Mirandola's rather feeble attempt to integrate Hermeticism with Christianity through the Cabala (see Chapter Eight) Bruno had something much more radical in mind: the actual *replacement* of Christianity by the Hermetic magical religion of Egypt.

Bruno's travels

After fleeing the Inquisition in 1576 Bruno turned up in quick succession in Genoa, Turin, Savona and Noli. In 1577 he spent a few weeks in Venice where

he published his first book, unfortunately now lost, under the title *Dei segni dei tempi* (‘*Signs of the Times*’). His next stop was Padua and after that Milan where he first heard of an English nobleman, Sir Philip Sydney, who would later come to play an important role in his life.[5]

In 1578 Bruno travelled to Geneva, where he hoped to win the protection of the Marquis of Vico, a wealthy and influential Italian Protestant living in exile. Bruno made it clear that he did not want to adopt Protestantism himself, only to live and work quietly, but the authorities would not permit him to do so. He fell into a slanging-match with an eminent professor of Geneva, was arrested for his temerity and forced to apologise. Soon afterwards he left the city in disgust.[6]

From 1579 – 1581 Bruno lived in Toulouse, capital of the former Cathar domain of Occitania and now fully integrated into France. He took his doctorate in theology at the University of Toulouse and was subsequently appointed to a chair in philosophy there. Once again, however, his instinctive nonconformism and outspokenness led him into conflicts with other scholars and with his students.[7]

In 1581 Bruno sought refuge in Paris where he delivered a series of 30 lectures that were reportedly widely admired. He quickly began to acquire a reputation for his ‘enormous erudition, prodigious memory, and eloquence.’[8]

Bruno at the French court

In 1582 Bruno was summoned to the French court by the slightly unhinged Henry III who was then at the apogee of his doomed reign. Bruno, it seems, was at first very well received by the king, and in due course was given a position at the *Collège de France* to teach the art of memory and mnemonics.[9] In Bruno's own words:

I gained such a name that King Henry III summoned me one day and asked me whether the memory which I had and which I taught was a natural memory or obtained by magic art; I proved to him that it was not obtained by magic art but by science. After that I printed a book on memory entitled *De Umbris Idearum* [‘*The Shadow of Ideas*’] which I dedicated to his majesty, whereupon he made me an endowed reader.[10]

That the art of memory had nothing to do with magic is, strictly speaking, not true; and Bruno knew this.[11] But he made the statement quoted above during his trial by the Inquisition in 1600, and thus would have been most reluctant to admit to using pagan magic in his teachings. Nevertheless the cultivation of a powerful memory, and more specifically the kind of super-memory that Bruno had mastered through the art of mnemonics, was indeed very much part of the system of magic that was once practiced by the ancient Egyptians and divulged in the Hermetic writings. As Frances Yates comments:

Bruno's relations with Henry III are only documented from what Bruno himself told the Inquisitors ... If Henry looked at the *De Umbris Idearum* [the book Bruno dedicated to him] he would certainly have

recognised its magic images ... at one time the king sent to Spain for magic books ... one of which was the *Picatrix*. It is also incredible in view of his mother's addiction to magicians and astrologers [Catherine had, after all, been a member of the Medici elite in Florence], that Henry should not have known a good deal about magic. The more probable version of the story would be that Henry was attracted by the rumour about magic in connection with Bruno, and this was why he sent for him.[12]

Images, especially images of stars and other celestial objects such as the Sun, planets and the zodiac, in short all the symbols of *astral magic* found in the Hermetica's *Asclepius* and in the *Picatrix* (see discussion in Chapter Eight), were indeed used by Bruno as powerful memory devices. To speak more

technically, they served for him as ‘talismans’ by means of which memories could be permanently imprinted on the mind.[13] Also incorporated into Bruno's magical art of memory was to be found the new and still very controversial theory of the great astronomer Nicolaus Copernicus with its Sun-centred/heliocentric dynamics so abhorred by the Catholic Church at the time. Bruno, in fact, saw himself as a disciple of Copernicus; but being Bruno, he wanted to go even further than the shy Polish man by boldly proclaiming that the universe was infinite and made up of infinite number of suns, i.e. the stars, each having planetary systems populated by living creatures just like our own planet. And thus Bruno, through his remarkable intuition, can be said to have anticipated by nearly four centuries our modern ideas

of the cosmos.[14]

Copernicus's theory, by correctly placing the Sun rather than the Earth at the centre of our own planetary system was understood by Bruno as evidence of divine harmony and universal unity, in which all the planets were governed by a central authority. Seen through the complex and symbolically-inclined mind of Bruno, the heliocentric system, brought down to earth by the power of astral magic, provided the model for the ideal society. Such a society would of course be ruled by a great ‘solar monarch’, advised by philosopher-priests, whose reign would usher in the magical Hermetic religion around which all the nations of the world would unite. To Bruno's way of thinking the French, or perhaps even the English in the person of their

illustrious Queen Elizabeth I, might prove to be the source of such a benign and charismatic ruler.

Thus it was, after sojourning a year at the French court, that Bruno travelled to England in March 1583. His purpose, as discerned by the Baron Cobham, English ambassador to Paris at the time, was to promote a ‘religion I cannot commend’.[15] Or as Frances Yates puts it:

Giordano Bruno, Hermetic magician of a most extreme type, [was] now about to pass into England to expound his ‘new philosophy’.[16]

Bruno in London and Oxford

Bruno was to spend two very active years in England during which he converted his life ‘from that of a wandering magician into that of a very strange kind of missionary indeed.’ [17] He took up residence in London at the house of the French ambassador, Michel de Castelnau, Sieur de la Mauvissière, having earlier been introduced to him by the king of France, Henry III.

No sooner had Bruno settled in his new home than he began to write in earnest. His first publication was a book on the art of memory dedicated to his host, the French ambassador. Bruno was hoping that, as in France, his special knowledge of this ‘magical art’ would attract the attention of scholars, perhaps even the favour of the court, and obtain for him a scholarship at Oxford.

He was, however, soon to be disappointed. In June 1583, just a few months after his arrival in England, Bruno somehow found his way into a debate with a group of Oxford scholars during an evening organised for the entertainment of Prince Albert Laski of Poland. Bruno delivered a lecture on ‘the immortality of the soul’ and on his personal vision of the Copernican theory but was heckled and interrupted by an elderly Oxford gentleman. ‘Learn how roughly and rudely that pig behaved,’ Bruno commented later:

... and with what patience and humanity the Nolan [Bruno] replied, showing himself to be indeed a Neapolitan, born and bred beneath a kindlier sky. Hear how they [the Oxford dons] made him leave off his public lectures on the immortality of the soul and

on the quintuple sphere.[18]

Bruno (who liked to be known as ‘the Nolan’ after Nola, his place of birth) had a deep aversion for narrow-minded scholars like those he encountered at Oxford. He called them ‘Grammarians’, ‘Aristotelians’ (Aristotle, unlike his master Plato, had long been a favoured philosopher of the Catholic Church) and ‘pedants’. Rather than seeking divine truth, he complained, they quibbled and endlessly debated with each other over trivialities. Worse, there was many a scholar of this type who ‘understood but did not dare to say what he understood [and] … saw but did not believe what he saw’.[19] In Bruno's view, all such were to be pitied for their inability to develop deeper insight or to grasp the importance of the intuitive faculty that the ancients had once harnessed

with their ‘profound magic’.

At the heart of Bruno's attack on his fellow scholars was the view that their titles and positions merely served to disguise their fundamental emptiness. They were quite the opposite of the Gnostic and Hermetic sages of antiquity whose search for knowledge and truth had *not* depended solely upon the analysis and observation of nature. Those remote figures, Bruno knew, had relied additionally, and especially, on deeper insights that could be reached only by intuition harnessed through *natural magic* – in the manner of the high initiates of ancient Egypt.

None of this means that Bruno condemned analytical or mathematical science; quite the contrary, as his support for Copernicus proves. Indeed, Bruno was among the very first to speak openly at Oxford on the heliocentric theory of

Copernicus. But with a major difference. Unlike others scholars, the Nolan insisted on placing the theory within ‘the context of the astral magic and sun-worship’ that was evident in the Hermetic texts, as well as extending it to support his own cosmological vision of an infinite universe with numberless inhabited worlds .[20] It was because the stiff Oxonians of the 16th century were not ready for such cutting-edge ways of thinking that they treated Bruno insultingly and forced him to abandon in midstream his lecture on the immortality of the soul.

Sidney and Dee

Present that day was the young and influential English statesman, Sir Philip Sidney, who had come on the command of Queen Elizabeth I to escort the Polish nobleman, Prince Albert Laski, to the debate. The queen had high regard for Sidney, and it was no secret that his uncle, the debonair Earl of Leicester, Sir Robert Dudley, had once been Elizabeth's favourite and, according to some, even her secret lover.

Philip Sidney was a refined scholar and poet and would, almost certainly, have been familiar with the Hermetic texts, which by this time had been circulating in Europe for more than a century. A great patron of scholars and artists Sidney is credited with ushering in the age of Elizabethan poetry with his acclaimed sonnet sequence ‘Astrophel and Stella’. This he composed as the result of his passionate love

for Penelope Devereux, the beautiful young wife of Lord Rich. Sidney was also well acquainted with the famous court astrologer and ‘magician’, Dr. John Dee – although the extent and depth of this connection is unclear.

Dee was a genuine mathematician, but had also previously served as astrologer to Mary Tudor. She had ended up accusing him of practicing evil magic on her and had imprisoned him at Hampton Court. Dee was released in 1555 and later resumed his work as official astrologer and magician at the court of Elizabeth I – from whose royal support, favour and protection he was fortunate to benefit. It was John Dee in his role as astrologer who advised the court on the most favourable date for Elizabeth's coronation.

Dee seems to have been an alchemist, cabalist, astronomer, astrologer and mathematician all rolled

into one, but is remembered mostly as a ‘conjuror’ and ‘magician’. He believed, with utter conviction, that he could communicate with the spiritual world and ‘angels’ through crystals. To further his work in this area he employed a certain Edward Kelly, a clairvoyant with a rather dubious past, to assist him.

At the time Bruno arrived in England, Dee was preparing to travel to Poland and Bohemia to give séances and exhibitions of his conjuring at the courts of various princes. We shall see in a later chapter how this magical mystery tour of Dee's was to be among the catalysts that led to the formation a secretive movement known as Rosicrucianism. Not unlike Bruno, the Rosicrucians made use of Hermetic magic and the Cabala as tools for religious reform.

The Expulsion of the Triumphant Beast

Although Bruno did not meet Dee, he did know Philip Sidney, a fact which is attested by Bruno himself in the dedication of his most important book, *Spaccio della Bestia Trionfante* (‘*The Expulsion of the Triumphant Beast*’), published in 1584.

The peculiar and striking title of this work is to be understood on at least two levels. First, as Bruno also states in his dedication to Sidney, ‘driving out of the triumphant beast’ is a metaphor for driving out ‘the vices which predominate, and oppose the divine part of the soul.’[21] What this calls to mind is something closely akin to the Gnostic/Cathar/Manichean vision

of the soul imprisoned in the world of matter and ever more deeply entrapped by surrender to the fleshly vices. But at the second level of meaning the ‘triumphant beast’ is unquestionably the pope, and with him the entire established structure of Catholic Christianity. At this level the ‘expulsion’ envisaged by Bruno is to make way for his ‘Egyptianism as a religion’[22] based on the teachings of Hermes Trismegistus:

It is the good religion which was overwhelmed in darkness when the Christians destroyed it, forbade it by statutes, substituted worship of dead things, foolish rites, bad moral behaviour and constant wars.[23]

One of the very peculiar and distinctive aspects of the religious revolution proposed in the *Spaccio,*

notes Frances Yates, and one clearly attributable to the influence on Bruno of the Hermetic texts:

Is that it begins in the heavens; it is the images of the constellations of the zodiac and of the northern and southern constellations which are reformed or cleansed through a council of the planetary gods ... [24]

The *Spaccio,* in short, is a treatise on Hermetic astral magic, filled with references to the stars, the zodiac and the constellations, that goes to great lengths to explain how their powers can be brought down and vested in earthly things through ‘the magic and divine cult of the Egyptians.’[25] Bruno's intention was clear enough. He wanted to show that Egyptian wisdom came earlier than that of the Greeks, and certainly much earlier than that of the Christians and, therefore, must be regarded as ‘the best religion

and the best magic and the best laws of them all'.[26]

Bruno reproduces a passage in the *Spaccio* from the famous *Lament of Hermes*. In this text, the reader will recall from Chapter Eight, Hermes Trismegistus tells his pupil Asclepius that the religion of Egypt will fall, and be lost under the hands of invading barbarians, and vanish from the world. But Hermes also says that a time will come when it will be restored and accorded a place of honour once again – and so too does Bruno:

The marvellous magical religion of the Egyptians will return, their moral laws will replace the chaos of the present age, the prophesy of the *Lament* will be fulfilled ... [27]

In Bruno's eyes, 'the sign in heaven proclaiming the return of Egyptian light to dispel the present

darkness was ... the Copernican sun.’[28] Accordingly he looked on the Copernican diagram of the concentric orbits of the planets encircling the Sun as a sort of hieroglyph or talisman. It functioned as a magical Hermetic seal that he, Bruno, thought he understood at its deepest level. He became in consequence acutely aware of the huge ‘revolution’ which it was about to unleash and of its potential for inflicting a total upheaval on the dogmas of the Church. Bruno's strategy – simple really – was to integrate this inevitable Copernican truth that was about to revolutionise science and religion into his own Hermetic revolution. He believed that Copernicus had vindicated the Sun-centred system of the ancient Egyptians, and that it was now up to the Nolan to revive and restore that lost faith it in order

to reform the world.

As above so below

We said above that the great religious reformation envisaged by Bruno, which he expounded in the *Spaccio della Bestia Trionfante*, is supposed to begin in the heavens among the stars. Here, a great council of ‘magicians’, including the Egyptian goddess Isis, is convened by Jupiter (Zeus-Amun) in order to reform the images of the constellations and thus, at the same time, through astral magic, also reform the earthly world below. Such ideas, notes Yates, are clearly pulled from the *Kore Kosmou* (the ‘Virgin of the

World’), a well-known Hermetic tract in which Isis addresses Horus and another pupil called Momus, and explains to them how things below on earth must be kept in ‘sympathy’ with things above in heaven in order to avoid chaos and destruction .[29] There is a strange and telling passage where Hermes reveals to Momus that he, Hermes, plans to invent a ‘secret engine’, or celestial mechanism, a sort of cosmic clockwork regulated by the cogwheels of the planetary orbits, the constellations, the zodiac, the Moon and the Sun, in order to control events on Earth as well as the lives of men:

‘Momus’, said he [Hermes], ‘I will devise a secret engine linked to unerring and inevitable fate, by which all things in men's lives, from their birth to their final destruction, shall by necessity be brought

into subjection; and all things on earth likewise shall be controlled by the working of this engine' ...[30]

It seems clear that Bruno believed that the great religious reform that many were dreaming of could, as in the *Kore Kosmou*, be brought about by Egyptian astral magic or, as Yates was to put it:

... [by] manipulating the celestial images on which all things below depend in order to make the reform come. For in the *Spaccio* Bruno has Jupiter proclaiming: 'If we thus renew our heaven, the constellations and influences shall be new, the impressions and fortunes shall be new for all things depending on this upper world.'[31]

'And what', asks Yates, 'does this remind us of?' Surely of the magical city of Adocentyn in *Picatrix*, built by Hermes Trismegistus, who placed around the

circumference of the city ‘engraved images and ordered them in such a manner that by their virtue the inhabitants were made virtuous and withdrawn from all wickedness and harm.’ This … provides the connection between Hermes Trismegistus as magician and Hermes Trismegistus as law-giver of the Egyptians, who gave them their good moral laws and kept them in it. And this, I believe, may be also the connection in the *Spaccio* between the manipulation or reform of the celestial images and the universal religious and moral reform.[32]

In the *Picatrix* we learn that Hermes built a temple dedicated to the Sun, a sort of Hermetic solar temple if you will. The reader will recall that this solar temple, as well as the magical city of *Adocentyn*, much resembled another Hermetic metropolis

described in the *Asclepius* in which:

... the gods who exercise their dominion over the earth will be restored one day and installed in a city at the extreme limit of Egypt, a city which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of mortal men ...[33]

It may be worth noting at this stage that there did once exist two great solar temple-cities at both extreme limits of Egypt, one in the north, which was the 'City of the Sun' at Heliopolis, and another in the south, the solar city of Karnak-Luxor at Thebes – which is indeed oriented towards the setting sun. So could the Hermetic city of the *Picatrix* somehow have been modelled on ancient Thebes? And, more importantly, what effect are such statements in the

Picatrix and the *Asclepius* likely to have had on the prepared minds of Bruno and other Renaissance Hermetic reformers? Might they not have been inspired to accelerate the great religious changes they sought by building a magical solar city somewhere in Western Europe?

The high possibility that Bruno would have associated his own Hermetic reformation of Europe with the founding of magical 'solar' cities is confirmed by one Guillaume Cotin with whom Bruno spent some time after he returned to France from England in 1585. Cotin, the librarian at the Abbey of St. Victor in Paris, reports that Bruno had:

... heard it said that the Duke of Florence [a Medici] wished to build a *Civitas Solis* [literally a 'City of the Sun'] in which the sun would shine every day of the

year ...[34]

Just the mention of the words *Civitas Solis* should immediately bring to the mind of any student of Renaissance magic and the Hermetic tradition the strange mission to Paris of yet another Hermetic thinker. The man in question was Bruno's contemporary and, like him, was also a ‘defrocked’ Dominican monk hounded out of Italy by the Inquisition. Like Bruno, too, he was inspired by the Hermetic vision of religious revolution. The greatest similarity of all, however, is that this Bruno clone is famous for having written a book entitled *Civitas Solis – ‘The City of the Sun’* – and for seeking out an enlightened monarch of ‘solar’ pedigree to install such a utopian city somewhere in the heart of Europe.

Bruno's fatal decision

We'll meet the author of the *Civitas Solis* later in this chapter.

Meanwhile Bruno left England in 1585 and sailed back to France, only to find Paris in turmoil and a far less hospitable place for him than it once had been. King Henry III, whose favour Bruno had formerly enjoyed, was totally preoccupied with the religious war within his realm that was by this point reaching a crescendo.

The situation, which we sketched out earlier, was explosive. The Catholic forces, assisted by the Spanish and led by the Count of Guise, were mobilised outside Paris. Pope Sixtus V had declared

the Protestant leaders Henry of Navarre and the Prince of Condé to be heretics, thus supposedly debarring Henry from the throne of France – a move which, by its provocative implications, was virtually a declaration of war against Navarre and the Huguenots. The Catholic clergy in Paris, especially the Jesuits, were inciting the populace with inflammatory sermons against the ‘heretics’ and Huguenots, forcing the meek Henry III to retreat into his convoluted acts of piety, scarcely to be seen in public except during those bizarre and morbid religious processions in which he participated doing ‘penance’. It was obvious to Bruno that he could no longer rely on royal support.

After quarrelling with the scholars at the college at Cambrai, who were incensed over a public attack Bruno had made on Aristotle, the Nolan left France in

September 1586 and went to Germany, then Poland, then back to Germany where he stayed until the summer of 1591. At this time that he was seized by a deep – and for him fatal – nostalgia for Italy and a naïve hope that the newly elected Pope Clement VIII could somehow be persuaded to adopt his plans for a universal Hermetic reform.

Events in France may have encouraged Bruno: Henry of Navarre had been crowned King Henry IV, and there was already much hopeful talk that this once staunch Protestant prince would soon convert to Catholicism. This was probably seen by Bruno as a sign of the impeding great reformation – albeit here within a Catholic framework – that he, Bruno, had been divinely commissioned to bring about.

Fired by such misplaced ideas about himself and his mission, Bruno was probably in an unusually

susceptible state of mind when he received an invitation to become the private tutor to a certain Señor Zuane Mocenigo, a Venetian nobleman who claimed to be a great admirer of the Nolan's works. Mocenigo was put into contact with Bruno through the Venetian bookseller, Giovanni Battista Ciotto, who knew of the heretic's whereabouts in Germany. Oblivious to the grave danger of returning to Italy, Bruno impulsively accepted Mocenigo's offer and left for Venice in late 1591.

At first the Nolan did not stay with Mocenigo, but took up residence independently in Venice. He also travelled to Padua where he stayed from January to March 1592. Ironically, had he stayed a little longer he would probably have met the author of the *Civitas Solis*, who was not to arrive in Padua until October that same year. Had they met, the author of *Civitas*

Solis would certainly have warned Bruno of the terrible risks he was taking by staying in Italy, and might have even convinced him to return to Germany where he could live in relative safety.

But as it turned out, history had reserved for Bruno a far more sinister fate in Rome …

The Field of Flowers

In March 1592, Bruno finally went to reside at the home of Mocenigo. The latter was not the gentle student that Bruno was led to believe, but turned out to be a very possessive and vindictive man. It seems Mocenigo wanted Bruno to teach him the ‘art of

memory and invention’ so that he could acquire the Nolan's intellectual powers for himself. Bruno, however, seems to have been more concerned with a book that he had just completed which he intended to dedicate to the Pope Clement VIII in order to win his attention and, hopefully, his support and sponsorship. When Bruno announced his intentions to Mocenigo and furthermore informed him that he was going to Frankfort to have the book printed, Mocenigo flew into a fit of rage, locked Bruno in his room, and called in the Venetian Inquisition.

Bruno was arrested and accused of heresy on several counts, being ordered to renounce his beliefs or face trial. Apparently Bruno did renounce but the Venetian inquisitors were unconvinced of his honesty and sent him to Rome for further questioning.

Thus began an eight-year ordeal at the hands of the

Roman Inquisition. Tortured and tormented in the Vatican dungeons, Bruno stood accused of heresy on several counts, including his claims of an infinite populated universe (in line with modern science), that the Earth itself is a planet (it is), and that the symbol of the cross was known to the ancient Egyptians (it was, in the form of the *ankh*, or *crux ansata*, symbolising the 'life-force').

Ordered to retract these and his other 'heresies' or else face death by burning, Bruno courageously stood firm. He not only refused to retract but also withdrew the retractions he had made earlier in Venice. Fired by his convictions, he defiantly told his accusers that he had neither said nor written anything that was heretical, but only what was true. When his sentence was passed, Bruno bravely stared at the cardinals lined up in front of him and calmly told them:

‘Perchance your fear in passing judgement on me is greater than mine in receiving it.’

On the morning of 17 February 1600, Bruno, garbed with a white shirt, was taken to the Campo dei Fiori, the ‘Field of Flowers’, a small piazza not far from the Roman Pantheon. There, the Nolan was securely tied to a wooden pole around which were stacked planks of wood and bundles of sticks. ‘I die a willing martyr’, he is said to have declared as the fire was being lit all around him, ‘and my soul will rise with the smoke to paradise.’ A young Protestant, Gaspar Schopp of Breslau (Wrocław), who had recently converted to Catholicism and thus enjoyed the favours of the pope, was an eyewitness to the burning, and reported that ‘when the image of our Saviour was shown to him before his death he

[Bruno] angrily rejected it with averted face'.[35] The truth is that a Dominican monk had tried to brandish a crucifix in Bruno's face while he suffered in the flames. In an act reminiscent of the courage of the Cathar *perfecti*, and of their detestation for the cross, poor Bruno, his legs now charred to the bone, mustered enough strength to turn his head away in disgust.

A few days earlier Bruno had written his own epitaph:

I have fought ... It is much ... Victory lies in the hands of Fate. Be that with me as it may, whoever shall prove conqueror, future ages will not deny that I did not fear to die, was second to none in constancy, and preferred a spirited death to a craven life.[36]

The ‘Organisation’ at work again?

By burning Giordano Bruno the Inquisition sent a clear and unmistakable message of intolerance to all who dared think like him: such ancient heresies would be crushed, whenever and wherever they emerged. Bruno's dreams of a great universal Hermetic reform or revival – whether within the Christian framework or outside it – nosedived and burrowed deep underground. From now on any person or group thinking of religious change of any kind, or even proposing scientific theories deemed contrary to Christian teachings and dogmas, knew very clearly what awaited them.

Not surprisingly perhaps, it was after the death of

Giordano Bruno that Europe was to see the resurgence of secret societies and fraternities. It was as if from the ashes of Bruno's funeral pyre arose an invisible phoenix that flew out to nurture universal reform elsewhere in Europe. Frances Yates buries in her excellent book on Bruno and Hermeticism devastating hint as to the identity of this invisible, nurturing and revolutionary ‘phoenix’:

... one of the most significant aspects of Giordano Bruno [is that] he came at the end of that sixteenth century with its terrible exhibitions of religious intolerance, in which men were seeking in religious Hermeticism some way of toleration or union between warring sects

... There were many varieties of Christian Hermeticism, Catholic and Protestant, most of them avoiding the magic. And then come Giordano Bruno,

taking full magical Hermeticism as his basis, preaching a kind of Egyptian Counter Reformation, prophesying a return to Egyptianism in which the religious difficulties will disappear in some new solution, preaching, too, a moral reform with emphasis on social good works and an ethic of social utility. As he stands in post-Reformation Oxford, the ex-Dominican has behind him the great ruins of the medieval past, and he deplores the destruction of the good works of those others, the predecessors, and the contempt for their philosophy, their philanthropy, and their magic.

Where is there such a combination as this of religious toleration, emotional linkage with the medieval past, emphasis on good works for others, and imaginative attachment to the religion and symbolism of the

Egyptians? The only answer to this question that I can this of is

– in Freemasonry, with its mythical link with the medieval masons, its toleration, its philanthropy, and its Egyptian symbolism. Freemasonry does not appear in England as a recognisable institution until early in the seventeenth century, but it certainly had predecessors, antecedents, traditions of some kind going back much earlier, though this is a most obscure subject. We are fumbling in the dark here, among strange mysteries, but one cannot help wondering whether it might have been among the spiritually dissatisfied in England, who perhaps heard in Bruno's ‘Egyptian’ message some hint of relief, that the strains of the Magic Flute [a euphemism for Freemasonry in reference to Mozart's Masonic-

Egyptian opera] were first breathed upon the air.[37]

We shall examine such a connection between the Hermetic movement and Freemasonry in later chapters. Meanwhile it very much appeared, on that awful morning of February 1600, that Bruno's hopes for a great Hermetic reformation of the world, together with his dreams of an ‘Egyptian’ solar city somewhere in Europe, went up in smoke along with him in the Campo dei Fiori.

Or did they?

Enter Campanella

Around the time that the firewood was being

heaped at Bruno's feet in Rome, another rebellious monk with much the same sense of mission was tried in Naples by the Inquisition and thrown in a dungeon. His name was Tommaso Campanella, the future author of *Civitas Solis*.

According to Frances Yates:

Tommaso Campanella was the last of the line of Italian Renaissance philosophers, of whom Giordano Bruno was the last but one. Like Bruno, Campanella was a magician-philosopher, in the line of the Renaissance Magi descending from Ficino. Campanella is known to have practiced Ficinian magic up to the end of his life. Like Bruno, too, Campanella was a Magus with a mission. This huge man ... had colossal confidence in himself as in touch with the cosmos and destined to lead a universal magico-religious reform. Unlike Bruno, Campanella

was not burned at the stake, though he was several times tortured and spent more than twenty-seven years of his life in prison. Yet – also unlike Bruno – Campanella very nearly succeeded in bringing off the project of magical reform within a Catholic framework, or, at least, in interesting a number of very important people in it.[38]

But Yates could have been wrong on one important point. As we shall see in Chapter Twelve, it is possible that Tommaso Campanella did much more than ‘nearly’ succeed in ‘bringing off’ the magical reform.

We think that he may have succeeded even beyond Giordano Bruno's wildest dreams …

Campanella spent the rest of his life trying to find the contemporary representative of the Roman Empire who would build his 'City of the Sun' ... In 1634, Campanella went to France, and transferred his whole scheme ... [to] *the French Monarchy...*

Frances Yates, Consideration on Bruno and Campanella on the French Monarchy

Man lives in a double world: according to the mind he is

contained by no physical space and by no walls, but at the same time he is in heaven and on earth, in Italy, in France, in America, wherever the mind's thrust penetrates and extends by understanding, seeking, mastering. But indeed according to the body he exists not except in only so much space as is least required, held fast in prison and in chains to the extent that he is not able to be in or to go to the place attained by his intellect and will, nor to occupy more space than defined by the shape of his body; while with the mind he

occupies a thousand worlds.

Tommaso Campanella, Metafisica

CHAPTER TWELVE

ENVISIONING THE HERMETIC CITY

Giordano Bruno and Tommaso Campanella were both born in southern Italy – the former in 1548, the latter in 1568. Both entered the Dominican order at a young age. Both men had passionate and outspoken personalities. Both detested Aristotle and both were in continuous trouble with the Catholic Church. Both ultimately came to see themselves as Hermetic magi.

And both, in their own ways, changed the world.

Campanella entered the Dominicans in 1583, when he was 15, but went absent without leave six years later in 1589. He settled in Naples where his first book, *Philosophia sensibus demonstrata* (‘Philosophy Demonstrated by the Senses’) was published in 1591. Its contents annoyed the Church but since the book did not contain sufficient grounds to justify a trial for heresy, charges were trumped up. Found guilty of harbouring a demonic familiar under the nail of his little finger, and denounced for showing a contemptuous attitude to the Church's power of excommunication, he was imprisoned for several months in 1592 at the Dominican convent in Naples.[1]

After his release later that year Campanella made his way to Padua. There in 1593 he was accused of

sodomy (an indictment frequently cast at those the Inquisition wished to tarnish) but acquitted. Clearly a marked man by this point he was soon charged with other heretical acts: writing a sonnet against Christ; possessing a book of magic; and not accepting the rule and doctrine of the Church. Rather gravely he was also accused of debating matters concerning the Christian faith with a ‘Judaiser’ – who had lapsed from Christianity – without having denounced the man to the Inquisition.[2]

In February 1594 Campanella underwent his first bout of torture at the Inquisition's hands. He was tortured again, more severely, in July the same year and his case was handed over to Rome. On 11 October 1594 he was flung into the same dungeons as Bruno – but apparently not the same cell for there

is no record of the two meeting there. Released seven months later in May 1595 while his case was being determined, Campanella was found to be in poor health and suffering from hernia, sciatica, consumption and partial paralysis.[3] He was rearrested in December 1596, imprisoned again, released in January 1597, rearrested in March 1597 and imprisoned again until December 1597 – on the latter occasion in the Inquisition's worst prison in Rome. His release came after he had abjured his heresies, accepted the prohibition of all his books, and agreed to reside for the remainder of his life in his native province of Calabria to the south of Naples.[4]

A new sort of republic and a heavenly city

It was not Campanella's destiny to live out his days quietly in Calabria. No sooner had he arrived home in July 1598 than he became embroiled in disputes with the local authorities. His writing began to take on a political tinge and also to hint that he possessed prophetic powers – given biblical sanction by Saint Paul in I Corinthians 14:31: ‘For ye shall all prophesy one by one, that all may learn, and all may be comforted.’

What Campanella seemed to be prophesying, however – a revolution in Calabria against the authority of the kingdom of Naples[5] – did not comfort

the Church. ‘It occurred to me,’ he wrote early in 1599, ‘that revolution ought to happen soon.’ To confirm this he consulted ‘several astrologers’ and they agreed ‘that political revolution ought to occur for us.’[6] Elsewhere definitely with more in mind than just Calabria, he predicted:

If a general transformation should impend for us, certainly it will happen on a crucial date, thus in the next seven-year period following the year 1600.[7]

Between February and April 1599 Campanella became an increasingly strident public preacher using the pulpit to forecast the imminence of ‘grave upheavals’ and apocalyptic events.[8] He began to attract a popular following amongst all social classes in Calabria, including powerful noblemen, and with incredible rapidity found himself at the centre of

exactly what he had prophesied – a revolutionary conspiracy. He and his co-conspirators even planned to enlist the services of the Ottomon Turkish fleet in their rebellion and entered into negotiations to this end.[9]

But the uprising was doomed from the start, beset by poor coordination and grandiose but muddled objectives. At the political level these objectives involved the establishment of something very much ahead of its time, described by Campanella's biographer, Professor John Headley, as ‘a new sort of republic’.[10] Since it was to have been run along egalitarian principles and guided by benevolent scientist-priests,[11] we are reminded, irresistibly, of the actual conditions that the Cathar *per fecti* had succeeded in fostering in Occitania in the late 12th

century before the Albigensian Crusades .[12] Additionally Campanella set out what sounds like a manifesto for the Hermetic idea of 'building the City of the Sun' in his proposed republic:

And although some Fathers sustain ... that only in heaven will be realised the reconciled future community, nevertheless [others], with whom I agree, allow for a literal interpretation according to which *some sort of prelude of the heavenly city is already to be realised on earth*.[13] [Emphasis added]

This idea of building on earth an imperfect replica or 'prelude' of the City of God, the City of Heaven, the City of the Sun – or any one of a number of other celestial cities – is as old as the ancient Egyptian *Pyramid Texts* (roughly 2300 BC) as we saw in Chapter Nine. It is also, we know, central to the

agenda of the Hermetic Texts (roughly 100 BC – AD 300). It was to become the dominant obsession of Campanella's life which, partly due to luck, and partly to his own resilience and quick-wittedness, did not end over a slow fire when his Calabrian ‘revolution’ failed.

In an insane world only the mad are sane

In August 1599 two defectors gave the conspiracy away. Campanella fled but was captured and imprisoned on 13 September in the castle at Squillace. At the end of October 1599 he was herded

together with 155 of his co-conspirators into four galleys sailing for Naples. On arrival at the port of Naples sixteen of the prisoners were hanged – four from the yardarm of each of the galleys. Two more were ceremoniously slaughtered by quartering (being torn into four parts) on the wharf. [14]

As the mind behind the proposed revolutionary new republic with its sky-city to be built on earth, and as a man who had already come several times to the attention of the Inquisition, Campanella was now in imminent danger. One of several clerics to have participated in the conspiracy, he was investigated by a tribunal of inquisitors specially-appointed by Pope Clement VIII on 11 January 1600. The tribunal at once requested and was granted permission to use certain kinds of torture including week-long periods

of underground isolation and sensory deprivation, as well as a nasty technique called the *polledro* that was 'designed to rupture veins and tissue'[15] without actually drawing blood.

After some weeks a partial confession was extracted from Campanella to the effect that he had indeed wanted to create a new sort of republic. But he realised that his best defence to the charges against him was to pretend to have been insane all along and thus not responsible for his actions. To help convince the Inquisition of this it seems that on 2 April 1600 he set fire to the contents of his cell .[16]

Three interrogations in quick succession, all accompanied by torture, followed on 17, 18 and 20 May 1600. Through these, and for the next 12 months of recurrent agonies, Campanella faultlessly

maintained his charade of insanity. Then at the end of May 1601 an order was received from Rome requiring the inquisitors to prove once and for all whether he was really mad or just feigning madness – and to do so by means of a terrible torture device called *la veglia,* 'the awakener'. Campanella could stop the excruciating pain it would inflict upon him at any time simply by admitting that his madness was feigned. In that case he would be burnt at the stake as an impenitent heretic. If on the other hand he could withstand its pains for 40 hours then he was to be judged legally insane. This would mean that whatever else might happen to him, he could not be burnt by the Inquisition.[17]

Beating the awakener

Campanella's life-or-death duel with ‘the awakener’ took place on 4 – 5 June 1601 in the dungeons of Castel Nuovo, one of the great Neapolitan prisons.[18] The peculiar and horrible cunning of this torture, as Professor Headley describes, is that:

The victim is suspended in such a way that only his arms and shoulder muscles prevent his body from coming to rest on a set of wooden spikes; eventually, however, he tires and must allow the spikes to gash his buttocks and thighs until he can once more raise himself. Thus between these positions he must move back and forth.[19]

It seems that several times during the hours of

unremitting suffering that he endured – his diligent inquisitors taking notes all the while – Campanella cried out incoherently and uttered strange, usually meaningless phrases as though delirious: ‘ten white horses’; ‘I am slaughtered’; ‘Enthrone and shut up’. In the midst of all this, pointing out that his body was plainly ruined and likely to die, his torturers suggested he should give thought to the salvation of his soul. He somehow found the energy and will to yell hoarsely back a four-word statement of his core belief:

The soul is immortal![20]

This was a belief that he shared with the Hermetic and Gnostic sages of ancient Alexandria, and with the Cathars. The same belief would also later be taken up

and trumpeted by the French Revolution as we saw in Chapter One.

Ten hours passed, then 20, then 30. Finally, writes Professor Headley:

After 40 hours, near death, yet spiritually unbroken, his simulation of madness undiscovered, our prisoner was cut down. According to canon law his insanity had been established; therefore he could not be executed.[21]

Campanella's jailer, who became his personal friend, records that as he lifted the broken body from the embrace of ‘the awakener’ to carry him back to his cell the supposed madman whispered the following question hoarsely in his ear:

Did they really think that I would be enough of a blockhead to speak?[22]

The first European celebrity

He had escaped the fire, but he still remained very much in the frying pan. Legally mad or not, he was sentenced to life imprisonment in the dungeons of Naples without any hope of parole.

After everything he had already been through, such a grim prospect would have killed a lesser man but somehow the indomitable Campanella refused to abandon optimism and fade away. Instead, though he was kept for many years in a damp, dark, subterranean cell, he constantly made use of his brilliant mind. He composed poetry – some of which he managed to write down himself, some of which he dictated – and wrote countless letters to influential

figures around Europe who he hoped might have the power to set him free. Most extraordinary of all, he somehow also managed to produce his great philosophical work *Civitas Solis* (‘*The City of the Sun*’), with its magical ‘natural religion’ and its scientist-priests ruled by one of their number called ‘Sun’. Not only that but Campanella successfully arranged to have the completed manuscript smuggled out of prison by one of his loyal disciples – a certain Tobias Adami, who we will meet again in Chapter Thirteen. Though it stirred great interest, and is widely recognised by historians of ideas as the inspiration for many of the great utopian schemes of the 17th and 18th centuries, no scholar seems yet to have seriously considered the possibility that Campanella's *Civitas Solis* could ever have been much more than just an idea – let alone that someone

might actually have attempted to build it. Yet it is precisely this possibility that we intend to pursue.

Civitas Solis was by no means Campanella's only full-length work during his imprisonment. It is the most important, but much of his other output also proved to be exciting and provocative intellectual fare. All things considered his achievements were prodigious and after a little more than quarter of a century had passed, aged over 60 – and despite his sentence to perpetual imprisonment without parole – Campanella did win back his liberty. The final decade of his confinement until his release, first into house-arrest in 1627 and then at last to freedom in 1629, was spent in increasing comfort as mysterious friends in high places lobbied on his behalf.[23] Even before graduating to house-arrest he was already being

allowed to hold tutorials, give full-scale lectures, and receive visiting VIPs in his cell – many of whom arrived with copies of his books which he would graciously autograph for them. He managed to transform himself, in a sense, into the Nelson Mandela of the Renaissance, ‘one of the sights to see if visiting Naples’, as John Headley puts it:

Campanella had not only survived; he had become possibly the first European celebrity.[24]

After gaining his freedom in 1629, Campanella stayed for some years in Italy, much of the time in Rome. There he was drawn into the circle of the French ambassador, François de Noailles. In 1634 came reports of another uprising in the Naples area led by a certain Tommaso Pignatelli, once a disciple of Campanella. When captured Pignatelli wrongfully

accused his former master of involvement in the conspiracy, placing him in immediate jeopardy of arrest. Now 66 years old, and understandably phobic about any idea of a return to prison, Campanella sought refuge in the French embassy. Soon afterwards, disguised and using the ambassador's personal carriage, he was smuggled out of Italy into France.[25]

France update: murders and plots

Things had changed in France since Giordano Bruno had enjoyed protection there. Henry III had died in 1589 a year after his domineering mother,

Catherine de’Medici, and the throne had passed to Henry of Navarre, now crowned Henry IV of France. As we saw in Chapter Ten, Henry of Navarre, who belonged to the powerful Bourbon family, was a Protestant and had converted to Catholicism in 1593 in order to neutralise those who opposed his coronation as king of France. But not everyone was convinced of Henry's sincerity in this all-too-convenient ‘conversion’. Certainly Bruno had not been – although his own theory, stated during his trial, was that Henry of Navarre was from the outset a Catholic at heart:

When I praised the King of Navarre, I did not praise him because he was an adherent of the heretics [Protestants], but for the reason that... he was not otherwise a heretic, but that he lived as a heretic

from desire of ruling.[26]

Among those who most doubted Henry IV's 'conversion' were the Jesuits – the 'Society of Jesus', founded by Saint Ignatius of Loyola a century or so previously – whom the king had, in fact, distrusted all his life. 'They will kill me one day', he is reported to have confided in his close friends, 'I can see that they are putting all their resources into my death.'[27]

Sure enough, on 14 May 1610, Henry IV was assassinated by a religious fanatic, François Ravaillac. The official story told by the Church was that even under the most persuasive torture, Ravaillac had insisted that there were no accomplices to the crime and that he had acted entirely on his own initiative. But many, especially the Protestant Huguenots, believed that he had been put up to the

murder by the Jesuits.

Others went so far as to suspect the involvement of Henry IV's Catholic queen, Marie de'Medici. Their marriage had been famously unhappy. It was also well known, and obviously suspicious, that barely two months before the assassination Marie had persuaded her husband to make her regent of France should he suffer an untimely death. Her official coronation as regent occurred on 13 May and Henry was murdered less than 24 hours later.[28] The coincidence was alarming, to say the least. But nothing could be proved against Marie and the blame, rightly or wrongly, fell entirely on the wretched Ravaillac. He suffered the ultimately penalty for regicide: first to be tortured with red-hot pincers, then seethed in hot oil, and finally, still alive,

to be ripped apart by four farm horses tethered to his arms and legs.

The low libido of Louis XIII

Henry IV’s eldest son Louis – the future Louis XIII – was only nine years old when his father was assassinated and Marie de’Medici's position as his regent was legally unassailable. He was crowned king in 1614 when he reached the required minimum age of 13 but was at first entirely dominated by his ambitious mother. He gradually began to assert his authority and in 1631, at the age of 30, he at last took full control of his throne and had Marie

de’Medici banished forever from France.

Louis XIII had been married to the Spanish Infanta Anne of Austria, daughter of Philip III of Spain, when they were both only 14 years old, and the marriage remained unconsummated for many years. Of a very curious nature and disposition, Louis was more interested in his hobbies of repairing locks and making jams than in having sex with his wife. It was clear that the young man was very much unlike his father, Henry IV, who had seduced so many women during his short reign that it had earned him the nickname of *Le Vert Galant* (‘the Green Gallant’), 17th century French slang for ‘sexy’.

Louis’ low libido wasn't the only problem. It was also obvious that he just plainly *disliked* his Spanish wife, even though she was openly affectionate to him, and perhaps even loved him. According to French

historian Jean Duché, things had deteriorated so much that on a cold night in January 1619 Louis practically had to be dragged out of his own bed by leading courtiers and taken forcibly to the queen's chamber in order finally to consummate his marriage.[29] Two years later the queen – almost miraculously one could say in such circumstances – was found to be pregnant. Unfortunately she suffered an accident in the Louvre Palace and miscarried. The king's peculiar response to this was not sympathy but fury and he seems to have became even more reluctant to perform his marital duties after this tragedy.

As the years went by the desperation of the young and warm-blooded queen became so pronounced that she sought some affection by causally flirting with

the dashing and very handsome Duke of Buckingham, the British ambassador in Paris. Rumours reached the ears of Louis XIII that his wife was having an affair with the duke, which in those days was an act of treason punishable by death. But being a very devoted and strict Catholic, it is unlikely that the queen would have taken such a risk. At any rate, and luckily for her, the king was persuaded of her innocence. And so, by the time Tommaso Campanella arrived in Paris 1634, a dark, cold and solemn mood had fallen over the royal couple, and everyone by then had given up on seeing them produce an heir for the Bourbon dynasty.

But then, as if by magic, something rather wonderful and strange happened ...

Brief excursion to some buried Egyptian treasures

Since time immemorial a certain glamour of magic and mystery always surrounded the kings of France – whose origins were steeped in fabulous legends and myths. At the root of these were three successive royal houses, some even say races, known as the *Merovingians,* the *Carolingians* and the *Capetians*. All were bound by a very ancient Teutonic law, the so-called *Salic Law,* introduced by the Salian Franks who had invaded Gaul in the fifth century AD.

This *Salic Law* had been formalised by Clovis, the founder of the *Merovingian* dynasty, and was later repromulgated by the legendary Charlemagne,

Carolus Magnus, founder of the *Carolingian* dynasty and first emperor of the Holy Roman Empire. The *Capetian* dynasty was founded in AD 987 when Hugh Capet became king of France. And through some oblique and rather dubious historical logic, the *Valois* and the *Bourbon* families also regarded themselves as linked, if not by blood then 'spiritually', to these ancient roots and, more directly, to the Capetians. The Capetian bloodline ended in 1328 with the death of Charles the Fair. The latter had left no sons or even brothers to succeed him and thus the throne of France had gone to his cousin, Philip of Valois, known as Philip VI 'the Fortunate'.[30]

In 1653 a mysterious treasure-trove was unearthed at Tournai (today part of Belgium), where the ancient Merovigian kings had set their capital. The discovery

caused quite a stir at the time because the artefacts, mostly small items of gold and bronze, were believed to be from the tomb of King Childeric (c. AD 460), the father of Clovis. We note with interest that amongst the artefacts recovered was a golden Apis bull, a small statue of Isis and, in another nearby find at Saint-Brice, dozens of golden bees. In ancient Egyptian myths bees were the tears of the sun-god Ra while the hieroglyphic symbol of the bee was part of the royal titulary of the pharaohs (as in 'He of the Sedge and the Bee').[31] Interesting too is the fact that the Egyptian character of these artefacts was correctly identified by savants at this 17th century French court who went on to suggest a connection between the Merovingian dynasty and the Isis-Serapis solar cults of ancient Egypt.[32]

Predicting a Capetian miracle

Tommaso Campanella arrived at the French court in 1634. This was a full 20 years after the marriage of Louis XIII to the Spanish Infanta Anne of Austria and the royal couple remained without child. The prospects of a continuation of the Bourbon dynasty looked dim and it was the general view that there was not going to be a ‘Capetian miracle’ – the mocking term being used by this point to describe the likelihood of a royal successor.

The big problem, and the source of all sorts of rumours and gossip at court, was that Louis XIII flatly refused to have any sexual contact with his wife. The king was thought (variously) to be

impotent, simply not interested in women, or perhaps a homosexual.[33] Reinforcing the latter speculation was the rather bizarre relationship, bordering on romantic love, which Louis was now publicly enjoying with his personal valet, the young Marquis of Cinq-Mars. Further complicating the matter, the king was unwell and suffered from tuberculosis. Last but not least, and notwithstanding the business with his (male) valet, he was also romantically in love with a young and very pious lady, Mlle Louise de la Fayette, who had entered a convent in Paris. Somewhat reminiscent of the pure Platonic love once promoted by the troubadours of Occitania, this affair of the king's had no sexual element to it whatsoever but was felt at court to be a distraction from any potential sexual encounters he might otherwise have

had with the queen!

The queen herself, of course, was the one who felt most strongly about the matter. Hearing that the famous prophet and magus Tommaso Campanalla had recently arrived in France, she summoned him to her side. He had been highly recommended to her by Cardinal Richelieu, and she wanted to have his prophetic opinion on the matter of the succession.

There was nothing unusual about this. The queen and Richelieu, like most intelligent and highly-placed people of their epoch, were much influenced by prophetic and astrological predictions. Many European monarchs of the 16th and 17th centuries are known to have had their personal astrologers who were consulted regularly on matters of state, of marriage and even of war. Indeed, through intermediaries, Richelieu had already consulted

Campanella on many occasions and, no doubt, the nerve-racking question of the succession must have been often raised and discussed.[34] The two men were to become close confidantes with Campanella dedicating a number of his new works to Richelieu and calling for the cardinal's assistance to ‘build the City of the Sun’ as expounded in the *Civitas Solis* which had just been reissued in Paris.[35]

Brokered by Richelieu, Campanella's meeting with the queen came quickly and, to the court's amazement, the magus boldly predicted that soon the French monarchy would be blessed with an heir.[36] The heir, moreover, would be a male child who, like the very Sun itself, would illumine the whole world and usher in a glorious and golden era for humanity:

Everyone will acknowledge a single Father and a

single God and love will unite them all … Kings and nations … will gather in a city which will be named *Heliaca*, The City of the Sun, which will be built by this illustrious hero [the future ‘solar’ king of France] … [37]

As Jean Meyer delicately puts it, Campanella had taken a very dangerous, high-stakes gamble by proclaiming the imminent birth of a male heir to the French throne. If he were proved right he stood to gain much, if wrong his reputation would be ruined.

God sent

A flash thunderstorm over the city of Paris on a

cold winter's day was to play in Campanella's favour, and his prophetic gamble would pay off. For early one afternoon in December 1637, Louis XIII left his small weekend residence at Versailles and made his way to the Château de Saint-Maur, where he intended to spend the night. *En route* he decided to make a stop in Paris at the convent of St. Marie on the Rue Saint-Antoine, where Louise de la Fayette, his platonic and very pious lady friend, lived.

With his bodyguards waiting outside, and an old nun serving as chaperone, the king and Sister Louise de la Fayette sat in a secluded part of the convent talking in whispers. When finally night fell, the king decided it was time to go, but he was informed by the captain of the guards, a man called Guitaut, who was deeply devoted to the queen, that there was a violent storm outside, making the trip to Saint-Maur

imprudent. Guitaut strongly advised the king that it would be safer for him to spend the night at the Louvre Palace which was much closer.[38]

There was one small problem. The queen had her private apartments at the Louvre, and the king did not relish the prospect of spending the night in her company. But as the storm grew more violent, and with Guitaut constantly reminding the king that the queen would most certainly be overjoyed to receive him at the Louvre, Louis had not much choice by to agree. A guard was sent ahead to warn Anne of this wonderful opportunity that was presenting itself. A candlelit supper was quickly arranged, and a spare bed brought to the queen's chambers. The loyal Captain Guitaut had made sure that the news was sent to all the convents and churches in Paris to pray

in unison for the long awaited event ...

Sure enough, exactly nine months later, on 5 September 1638, Anne of Austria gave birth to a male child who was christened Louis – the future Louis XIV. As though as a reminder that this great miracle had been prophesied by Tommaso Campanella, it so happened that 5 September was also Campanella's 70th birthday. Now amidst great jubilations and prayers of thanks, the rapturous and very grateful queen summoned the magus and asked him to cast the natal horoscope for her son – who was already spoken of as the *Dieudonné*, the ‘God-sent’. We know that Campanella paid at least two visits to the queen's private chamber, was present when she breastfed the infant, and was even given the immense honour of holding the future king in his

arms.[39] Finally, after thoroughly examining the child, he announced, somewhat underwhelmingly, that the reign of Louis XIV would be long happy, and glorious.[40]

But he had more to say in his Latin eclogue for Louis XIV, which appeared in print in January 1639.[41] Modelled on the messianic Fourth Eclogue of Virgil (which had prophesied the universal rule of Augustus Caesar), Campanella's expanded prophecy leaves no doubt about the future he saw for the French monarchy and the forthcoming reign of Louis XIV. Quite simply, it was divinely ordained to bring about the great universal ‘Hermetic-Christian’ reform that Bruno had dreamt of, and to build the ‘City of the Sun’ which he, Campanella, had promoted .[42]

So it is time to ask – what did Campanella really

have in mind? What type of ‘solar city’ was he thinking of? Was it a real city or merely a symbolic vision of some utopian reform to be ushered in by the French monarchy?

A Hermetic signature

So far we can see that Campanella had succeeded in his Hermetic mission where Bruno before him had failed. True, Bruno had managed to gain some backing from Henry III of France and even had his chance to present his own Hermetic-Egyptian vision of universal reform to the scholars in Paris and Oxford. But what it all finally amounted to had been a

heap of ashes in Rome's Campo dei Fiori. Campanella, on the other hand, thanks to his more cunning temperament and greater ability to deal with complex human relationships, now held the support of the French royal couple and their powerful minister, Richelieu. This, though it came very late in his life, gave him the almost unbelievable opportunity to plant the seed of his own vision of reform right in the heart of the French monarchy. Did not Campanella once boast, asks Frances Yates, that he could ‘make a City in such a wonderful way that only by looking at it all the sciences may be learned’?[43] Now at last he was in a position to make good on his pledge.

Yates quite rightly sees in Campanella ‘a more successful Bruno’[44] and writes that ‘it does look very

much as though a torch may have passed from Bruno to Campanella.'[45] She also points up another aspect of the mystery, something far more subtle and vague, that no one else seems to have seen before her. In her view Campanella's *Civitas Solis* was 'ultimately Egyptian in origin':

It is now clear that to the Roman ideal of universal empire returning in a new golden age, to the Platonic ideal of a state in which philosophers ruled, Campanella added a third ideal, that of the Egyptian state kept intact and eternal by priestly magic. The Sun ruler of the City of the Sun is both priest and king, supreme in both the spiritual and the temporal domains, in short he is Hermes Trismegistus, priest, philosopher and king. Campanella was thus in no sense a liberal revolutionary. His ideal was an all

powerful theocracy like that of Egypt, so powerful that it regulated by scientific magic the celestial influences and through them the whole life of the people. Its apparently liberal side is that it encouraged scientific enquiry and invention ... but this advanced Solarian science was in the hands of the supreme priesthood and regulated by it – as in ancient Egypt.[46]

In our view it is not a coincidence that the 'liberal revolutionary' aspects of Campanella's utopia – to be based on the principles of truth, justice and brotherly love, and characterised by freedom of speech, equal rights for women, good health care, and universal education for children [47] – had already begun to be realised in Occitania hundreds of years before.[48] Nor is it likely to be an accident, as we saw in Chapter

One, that they were to appear again, linked to the work of Voltaire, Rousseau and other leading lights of those times, in the philosophical and intellectual undercurrents of the 1789 French Revolution.

The strangest and most striking aspect of Campanella's scheme, however, and the one that Yates particularly draws attention to, is its Egyptianism. The Hermetic magus cleverly grafted it onto the French monarchy in the person of the future Louis XIV, thus ensuring it's acceptability within the existing systems of Europe. But at the same time there is no doubt that what Campanella ultimately had in mind was a revival of the ancient Egyptian ‘golden age’ when a ‘solar’ king and his wise and benevolent ‘scientific-priesthood’ had regulated and governed the land.

Were such thinking to be carried through to its

logical conclusion then we would expect Louis XIV to have left a Hermetic signature on the landscape of France. We would expect him, in short, as Campanella had prophesied in the Latin eclogue, to have built, or to have attempted to build, the ‘City of the Sun’.

Hidden magical springs

Of course it's always possible that the ‘City of the Sun’ was just a metaphor for an ideal type of society, rather than something that was intended to be realised in bricks and mortar. Yet there is much in Campanella's scheme, and in the Hermetic teachings,

that that leads us to think otherwise. Most significant is the thoroughly ‘astral’ character of his model which constantly leverages the intimate feedback mechanisms between sky and ground, above and below, that are envisaged in the Hermetic texts.

The broad plan of Campanella's ‘City of the Sun’ as he sets it out in his great work *Civitas Solis*, looks like a diagram of the Copernican solar system. At its centre, on a raised mound, is a perfectly circular temple of gigantic size (representing the Sun) with its dome supported on soaring pillars. Ringing the temple are the seven concentric divisions of the city (one for each of the orbits of the then known planets) separated by walls penetrated by gates facing the cardinal directions – north, south, east and west. Two axial roadways traverse the city entirely, crossing, as it were, at the centre, one running due north-south

and the other due east-west.[49]

Within the vast ‘Temple of Sun’ lying at the heart of all this geometrical perfection Campanella's text envisages an altar on which is to be found nothing except two huge globes, one showing ‘all the heaven’ and the other ‘all the earth’.[50] On the ceiling of the dome are depicted ‘all the greatest stars of heaven, with their names and the powers which they have over things below’; these representations are in correspondence with the globes on the altar. Seven eternal lamps also hang in the temple, called after the seven planets. The outer wall of the temple bears a representation of ‘every star in its order’.[51]

Images and writings are inscribed on both the outer and inner faces of each of the seven sets of concentric walls and these seem primarily aimed to

educate and inspire the citizenry. They include more world maps, cultural geographies of different peoples, representations of seas and rivers, knowledge about the animal, vegetable and mineral kingdoms, and images of ‘inventors of sciences and laws’ – an eclectic list including Hermes Trismegistus (in his Romanised disguise as Mercury), Jupiter (Zeus-Amun in the Graeco-Egyptian pantheon of Alexandria), the Prophet Muhammad, Jesus Christ and his 12 apostles, and, last but not least, Osiris.[52]

In summary, observes Frances Yates, the city that Campanella wanted, and prophesied that Louis XIV would in some way build, was to be ‘a complete reflection of the world as governed by the laws of natural magic in dependence on the stars.’[53] It was to be carefully arranged ‘so as to be right with the stars’

– the source of ‘all its happiness, health and virtue.’[54] Its ruler was to be priest who was to be ‘head in all things, both spiritual and temporal’,[55] while its governance was to be in the hands of great men who could understand and use natural magic: ‘inventors, moral teachers, miracle workers, religious leaders, in short, Magi ... ’[56] They were to be selected according to their ability, in the words of Marcilio Ficino, to ‘draw down the life of heaven’ for the benefit of mankind .[57]

The intellectual origins of Campanella's grand scheme, Yates shows, are not to be sought (except perhaps superficially) in contemporary or near contemporary works he might have known such as Thomas More's *Utopia*. ‘To find the ultimate source,’ she argues, ‘one must dig deeper and uncover those

hidden magical springs from which the Renaissance was fed.' She means the Hermetic texts and singles out particularly the *Picatrix* with its magical city of Adocentyn, reminding us that it featured:

... a castle with four gates, on which were images into which Hermes Trismegistus had introduced spirits. Compare this with the four gates and roads of the City of the Sun. On the summit of the castle was a lighthouse which flashed over the city the colours of the seven planets. Compare this with the seven planetary lamps always burning in the City of the Sun ... In the passage in *Picatrix* describing the City of Adocentyn Hermes Trismegistus is also said to have built a temple to the Sun ...[58]

In other words, Yates concludes, 'the deepest, the primary layer of influence behind the *City of the Sun*

is, I suggest, Hermetic; and its first model, to which many later influences have been superadded, is, I believe, the magical city of Adocentyn described in the *Picatrix*, and the description in the *Asclepius* of the religion of the Egyptians.'[59]

In Chapter Eight we quoted at the length the famous *Lament* from the *Asclepius* in which we hear of the destruction by inimical forces of the magical, natural religion of the Egyptians, and its apparent disappearance from the earth for a long interval of time. But the reader will recall that the *Asclepius* also makes the prophecy: that the persecuted religion will one day be restored in 'a reformation of all good things, and a restitution most holy and most reverent of nature itself.' Most important of all, this restoration and restitution are to be triggered by the

founding of a City aligned with the Sun .[60]

Could Louis have been influenced by Campanella to carry such thinking through to its logical conclusion and leave a Hermetic signature in the architecture of France? If so the old magus must somehow have found a way to reach out to him from beyond the grave – for he died in Paris on 21 May 1639, eight and a half months after the young ‘Sun King’ was born.

In matters of influence, however, as we shall see (and as the Hermetic texts themselves advise), it is best to presume that ‘nothing is imposible.’[61]

CHAPTER THIRTEEN

THE INVISIBLE BROTH ERHOOD

> [Cardinal] *Richelieu did not receive the Rosicrucians, but when eleven years later Campanella came to Paris he had the powerful cardinal's support – an indication of Campanella's success in switching his ideas ... into channels acceptable to the*

powers that be.

Frances Yates, Giordano Bruno and the Hermetic Tradition

The Rosicrucians, do they exist? Are you one?...

Frances Yates, The Rosicrucian Enlightenment

In 1623, during the reign of Louis XIII and 11 years before Tommasso Campanella arrived at the French court, a subversive organisation made its presence known in Paris. Stealthily, by night, eye-catching placards were put up on the walls of public buildings and in all the main streets of the city, bearing the following announcement:

We, being deputies of the principal College of the Brothers of the Rose Cross, are making a visible and invisible stay in this city through the Grace of the Most High, towards whom turn the hearts of the Just. We show and teach without books or marks how to speak all languages of the countries where we wish to be, and to draw men from error and death.[1]

Another poster contained a variant of the message with more specifically religious overtones:

We deputies of the College of the Rose Cross, give notice to all those who wish to enter our Society and Congregation, that we will teach them the most perfect knowledge of the Most High, in the name of whom we are today holding an assembly, and we will make them from visible, invisible, and from invisible, visible ...[2]

As it had certainly been intended to do, the poster campaign caused quite a stir in Paris. Contemporary reports speak of a ‘hurricane’ of rumour at the news that the mysterious Rose Cross fraternity – already believed to be active in Germany – had now come to France.[3] Pamphlets and further rumours (although of a rather concrete and specific nature) had it that the core of the brotherhood was formed by 36 ‘Invisible Ones’ – implying that they were veiled, incognito, disguised – who were dispersed throughout the world in six groups of six.[4] They held their assemblies at the time of the summer solstice, the longest day of the year. And although the language of the pamphlets and posters seemed religious and obviously Christian it was said that adepts of the fraternity ‘swore to abjure Christianity and all the rights and sacraments

of the Church.’[5]

To understand the sort of moral panic, accompanied in many cases by a thrill of illicit excitement, which was generated by hints and rumours like these we need to keep in mind the general condition of Europe in 1623. For more than a century, bloody religious conflicts between Catholics and Protestants had been tearing the peoples of the Continent apart creating a climate of overwhelming fear and suspicion, and now the great struggle in central Europe that was to become the Thirty Years War had just begun, further inflaming the deep hatreds and passions of the time. So it was natural that everyone, particularly the court and the government of France, would feel disturbed and even a little threatened by these announcements that a

clandestine brotherhood had set up shop in Paris and intended to save the people from ‘error and death’.

Who was behind all this provocative propaganda? Who was responsible? Who were the ‘invisible’ people calling themselves brothers of the Rose Cross?

Although a mass of material supposedly stemming from these original ‘Rosicrucians’ has come to light, scholars still debate such questions today and have proposed no definitive answers. All that is clear – whoever they were – is that the self-styled ‘invisible’ brothers must have been cut from very much the same cloth as men like Bruno and Campanella. Though their methods were more guarded than those of the great Hermetic magi, they saw themselves in the same way as being endowed with special magical powers, or knowledge, or ‘science’ that could be used

to bring about a religious and intellectual reform of the world.

The Rosicrucian Manifestos

If a secret society is successful – which means, by definition, that it is difficult to detect in its own epoch – then we may suppose that its traces are unlikely to be easily found by the historians of a later epoch. If we take the Rosicrucians at face value as a secret society, therefore, it follows that we really can't say for sure how long they may have existed undetected before they declared themselves. All we know is that the first direct and definite references to them were

made in Germany during the 20 years before the 1623 poster campaign in Paris. From this early activity comes almost everything we know, or think we know, about the ‘Invisible College’ of the Rose Cross.

The name ‘Rosicrucian’ is derived from ‘Christian Rosenkreutz’, i.e. Christian Rose Cross or Rosy Cross, the hero of two small books, deep and most unusual in their contents, that were first published at Cassel in Germany in the years 1614 and 1615. The full title of the first is *Fama Fraternitatis, or a Discovery of the Fraternity of the Most Noble Order of the Rosy Cross*. Scholars generally refer to it as the *Fama*. The second, published in 1615 and usually known as the *Confessio*, is titled in full: *Confessio Fraternitatis, or the Confession of the Laudible Fraternity of the Most Honourable Order of the Rosy Cross, Written to all*

the Learned of Europe. These two texts amount in English translation to a total of less than 25 pages and are known collectively as the 'Rosicrucian Manifestos'.[6]

The *Fama*

The *Fama* purports to be the work of a group of Rosicrucian adepts and tells the story of 'the most godly and highly illumined Father, our Brother, C. R. [Christian Rosenkreutz], a German, the chief and original of our Fraternity,' whose aim was to bring about a 'general reformation.' It seems that as a youth this C. R. had set out on a pilgrimage to the Holy Land but had stopped on the way amongst the 'wise men of Damascus'. Receiving him 'not as a

stranger but as one whom they had long expected' they showed him secret things, 'whereat he could not but mightily wonder', and taught him knowledge of physics and mathematics. C. R. was so magnetised by his studies that he lost all interest in reaching Jerusalem – his original objective – and spent three years with the Damascene sages, undergoing what sounds very much like a Hermetic initiation .[7]

Finally, with their blessing, he began to make his way westwards again. First he journeyed into Egypt. Then he 'sailed across the whole Mediterranean Sea for to come unto Fez' (Morocco). There the 'Elementary Inhabitants', members of an occult society of 'magicians, Cabalists, physicians, and philosophers ... revealed unto him many of their secrets.' However the knowledge that he had learned

in Damascus seems to have been superior to theirs since he judged that 'their Magia was not altogether pure ... their Cabala was defiled with their religion.'[8]

After two years in Fez, Brother C. R. moved on, this time to Spain and thence into the rest of Europe. He wished to share the great wisdom he had learned in the East and to teach the wise men of the West 'the errors of our [i.e. Western] arts, and how they might be corrected ... also how the faults of the Church and the whole *Philosophia Moralis* was to be amended.' However he was ridiculed and attacked by the scholars to whom he unfolded his ideas because they 'feared that their great name should be lessened.'[9] We are reminded, inevitably, of the mission of Giordano Bruno to bring about the Hermetic reform of the world.

At last Christian Rosenkreutz returned to Germany. He built a home, meditated at length about his journey and his philosophy, ‘and reduced them together in a true memorial’. He also intensified his studies of mathematics and made ‘many fine instruments’. After five years ‘came again into his mind the wished for reformation ... and unwearying, he undertook, with some few who joined with him, to attempt the same.’ We hear at this point of three other bretheren – ‘Brother G. V.’, ‘Brother J. A.’, and ‘Brother J. O.’ – who C. R. binds ‘unto himself to be faithful, diligent and secret’:

After this manner began the Fraternity of the Rose Cross; first by four persons only, and by them was made the magical language and writing, with a large dictionary, which we yet daily use to God's praise and

glory, and do find great wisdom therein ... [10]

Soon afterwards these four founders were joined by four others – ‘Brother B.’, ‘Brother G.’, ‘Brother P. D.’, and ‘Brother J. A.’ – ‘so in all they were eight in number, all bachelors and of vowed virginity.’[11] The group then ‘collected a book or volume of all which man can desire, wish or hope for’ – a system of guidance which ‘shall unmovably remain unto the world's end’ with the power to open the eyes of the masses of all lands and to make them less passive before ‘the Pope, Mohamed, scribes, artists and sophisters.’[12]

Thus prepared ‘and able perfectly to discourse of secret and manifest philosophy’, the eight ‘separated themselves into several countries’ – there to draw aside from amongst the learned those who were

worthy to receive their doctrines. Like Cathar *perfecti* who were renowned for their medical skills, these Rosy Cross brothers were to work as doctors curing the sick, and were to do so free of charge. The better to disguise themselves and blend in, they were not obliged to wear any particular habit 'but therein to follow the custom of the country'. Like Cathar *perfecti* they were celibate and, again like *perfecti*, each was to seek out and work with an apprentice, 'a worthy person who, after his decease, might succeed him.'[13]

In this way generations passed until 'none of us had in any manner known anything of Brother R. C. and of his first fellow bretheren,' than could be gathered from the books of the order. There began to be doubts as to whether the true teachings of the

original eight had been properly passed down. At this time, however, and by chance, one of the brothers stumbled upon the long-lost tomb of Christian Rosenkreutz himself. It turned out to be a kind of Hermetic ‘Hall of Records’ containing all the wisdom necessary to restore the order:

We opened the door, and there appeared to our sight a vault of seven sides and corners, every side five foot broad, and the height of eight foot.[14]

A permanent light, like ‘another sun’ glowed ‘in the upper part in the centre of the ceiling.’ Instead of a tombstone the vault contained a round altar covered with a brass plate on which was engraved the following mysterious epitaph:

This compendium of the universe I made in my lifetime to be my tomb.[15]

Beneath the brass plate was the dead body of Christian Rosenkreutz, ‘a fair and wise body, whole and unconsumed.’ In his hand he held a parchment book, on the final page of which was this eulogy:

A grain buried in the breast of Jesus, C. Ros. C. sprung from the noble and renowned German family of R. C.; a man admitted into the mysteries and secrets of heaven and earth through the divine revelations, subtle cogitations and unwearied toil of his life. In his journeys through Arabia and Africa he collected a treasure [of knowledge, not gold and worldly riches] surpassing that of Kings and Emperors, but finding it not suitable for his times he kept it guarded for posterity to uncover ... He constructed a microcosm corresponding in all motions to the macrocosm and finally drew up a compendium of things past, present and to come.

Then, having now passed the century of years, though oppressed by no disease ... but summoned by the Spirit of God ... he rendered up his illumined soul ...[16]

The authors of the *Fama* claim that they 'have the knowledge of Jesus Christ' and that their philosophy 'is not a new invention':

Also our building (although one hundred thousand people have very near seen and beheld the same) shall forever remain untouched, undestroyed, and hidden from the wicked world.[17]

Finally, and in ringing tones, there comes this statement and prophecy of tremendous changes and the birth of a new order, which the Rosicrucians, with the treasures of knowledge at their disposal, stand ready to usher in:

Europe is with child and will bring forth a strong child, who shall stand in need of a great godfather's gift.[18]

The *Confessio*

Published in 1615 the *Confessio* presents itself as a sequel to the *Fama* and begins with a condemnation of ‘the East and the West [meaning the pope and Muhammad] blasphemers against our Lord Jesus Christ.’ It then promises that ‘all learned who will make themselves known to us, and come into our brotherhood, shall find more wonderful secrets thereby than heretofore they did attain unto, and did know, or are able to believe or utter.’[19]

Using strange metaphorical language the *Confessio* next proposes what sounds like total revolution in Europe, wiping the slate clean, because 'posterity will be able only thereby to lay a new foundation and bring truth to light again.' This is argued to be preferable to endless renovations and repairs to 'the old ruinous building.'[20] The hoped for end result will be that:

... the World shall awake out of her heavy and drowsy sleep, and with an open heart, bare-headed, and bare-foot, shall merrily and joyfully meet the new arising Sun ...[21]

The text continues with an attack on the Church:

Like as the mathematician and astronomer can long before see and know the eclipses which are to come, so we may verily foreknow and foresee the darkness

of obscurations of the Church ... [22]

We are told that 'the Romish seducers have vomited forth their blasphemies against Christ, and as yet do not abstain from their lies in this clear shining light.'[23] There are also repeated appeals for proper understanding of the scriptures .[24] Finally:

We acknowledge ourselves truly and sincerely to profess Christ, condemn the Pope, addict ourselves to the true Philosophy, lead a Christian life, and daily call, entreat, and invite many more into our Fraternity, unto whom the same Light of God likewise appeareth.[25]

The *Confessio* for the first time provides the reader with the chronology within which the whole story is set: Christian Rosenkreutz is born in 1378 and lives for 106 years, dying in 1484. His tomb is

rediscovered 120 years later – in other words in 1604, exactly 10 years before the publication of the *Fama* .[26]

Mystery of the Chemical Wedding

A third publication appeared in 1616 that added to the mystery of the Rosicrucian Manifestos. Its title is *The Chemical Wedding of Christian Rosenkreutz* and, like the Manifestos, it describes a secretive order which uses a red cross and red roses as its symbols.[27] Now, though, the focus has shifted to what might be called ‘inner transformation’ – as opposed to the social and religious transformation heralded in the

Manifestos.[28]

The authors of the *Fama* and the *Confessio* have never been firmly identified. For some time, however, it has been the concensus of scholars – Frances Yates believed it to be a certainty – that the *Chemical Wedding* was the work of Johann Valentin Andreae, a young Lutheran pastor from Tübingen in Germany.[29] Recent research has begun to cast some doubt on this identification, primarily because the *Chemical Wedding* as it appeared in 1616 is distinctively different from all other surviving writings of Andreae. As the Hermetic scholar Adam McLean puts it:

From what we know of Andreae as an orthodox and eminent Lutheran pastor and academic, it seems unlikely that he could have devised such a profoundly esoteric document, which in fact has as its basis

many ideas heretical even in Protestant terms.[30]

The confusion enters in because Andreae lists a work called *The Chemical Wedding* amongst a number of short plays – 'first juvenile efforts as an author'[31] – that he wrote while studying at the University of Tübingen in 1602 and 1603. This early play has not survived. But Andreae moved in esoteric and Hermetic circles, as we shall see, and was very much involved with the nascent Rosicrucian movement of Germany,[32] so it was natural for scholars to identify his *Chemical Wedding* of 1602/3 with the anonymous *Chemical Wedding of Christian Rosenkreutz,* published in 1616. The latter contains references to the Rosicrucian Manifestos (1614/15) and to other contemporary matters and so cannot be identical to the lost 1602/3 text, but the general view

is that Andreae must have updated it prior to publication.[33]

Born in 1586 Andreae would have been 17 in 1603, too young and inexperienced of the world, in our view, to have written a work as deep, dark and rich in complex symbols as *The Chemical Wedding of Christian Rosenkreutz.* By 1616, when it was published, he would have been 30 – a different matter altogether. Even so, if he was the author, he must not so much have 'updated' as completely rewritten the juvenile version of the play before bringing it out in print – for there is nothing at all of a 17-year-old boy to be seen in the finished work. And even accepting that he did completely rewrite it in his maturity, we still confront the problem of its 'heretical' undertones and its alleged incompatibility

with the rest of Andreae's writings. The issue will probably never be resolved to everyone's satisfaction unless the lost manuscript of 1602/3 turns up. Meanwhile we find Adam McLean persuasive when he speculates that:

Andreae did in fact write a version of the *Chemical Wedding,* perhaps a simple play or masque ... Some years later ... one of the ‘Rosicrucian’ fraternity ... with whom Andreae had some connections, might have decided to rework Andreae's early, unpublished play into the complex esoteric allegory we know today.[34]

A strange story

As to the content of the *Chemical Wedding*, there is simply not space here for us to do it justice. In English translation the printed text runs to about 90 pages, divided into seven chapters each representing a day's journey in a sort of pilgrim's progress. The narrator is Christian Rosenkreutz himself who, the reader will recall, was said in the Manifestos to have lived to the age of 106. In the *Chemical Wedding* his age must be 81 – for we know that he was born in 1378 and the story is set in the year 1459. [35]

The 'First Day' finds C. R. at his table, quietly meditating 'on the many great mysteries which the Father of Light, in his majesty, had allowed me to glimpse.'[36] We note in passing that the phrase 'Father of Light' never appears in the Christian Bible, either in the Old Testament or in the New

Testament.[37] In the early centuries of the Christian era, however, it was in common usage amongst Manicheans and Gnostics as a reference to the God of Goodness, and there was a sect of Gnostic Christians whose members called themselves the 'Sons of Light'.[38]

Whilst in the depths of his meditation, C. R. is visited by the angelic, glowing, winged figure of 'a wonderfully beautiful female ... dressed all in blue, spangled like the heavens with golden stars.' She produces a 'small note', puts it on the table with a curtsey and immediately flies off into the upper atmosphere blowing loudly on a trumpet.[39] When C. R. opens the note he finds it contains an invitation to 'the wedding of the king' and a cryptic warning that he must study himself closely before deciding to

accept:
If you're not clean enough, The wedding can work ill.
Perjure here at your peril.[40]

What kind of wedding is it – one is inclined to ask – that can be perilous to guests who are impure or do not tell the truth? This is an early hint, one amongst many in the narrative, that we are not in any way dealing with an account of real events here, or even with pure fiction, but strictly and exclusively with what Adam McLean calls an ‘esoteric allegory’. It may be said safely that the allegory of the wedding is meant to bring to mind something more of the nature of a quest or personal challenge than a ‘marriage’. Very much in the same tradition as the quest for the Holy Grail, the ordeals and moral dilemmas that the guests confront over the coming ‘Days’, and in which

they must cooperate to complete a complex alchemical operation, seem themselves to be part of a subtle process of purification and transformation.

Like the Grail Quest, the *Chemical Wedding* is often claimed as a document of esoteric Christianity. But as Adam McLean asks and observes:

Where is the Christian message? What is described seems more like an ancient ‘mystery initiation’ than a Christian religious experience.[41]

Still on the First Day of his quest, the octogenarian Christian Rosenkreutz does as the wedding invitation has warned him to do. He observes himself, both inwardly and outwardly, with absolute honesty and finds himself wanting:

The more I pondered, I could see that there was nothing in my head but a great want of sense and

blindness in esoteric matters ... I also found that my physical life, outward conduct, and brotherly love towards my neighbour were far from being purged and pure enough. I was aware of fleshly desires, which aim only for reputation and worldly show, not for the well-being of others; I was always thinking how I could use my skills for my own immediate benefit, for building many splendid things, for making an everlasting name in the world, and other such materialistic thoughts ...[42]

It is interesting that the two matters for which C. R. reproaches himself are (1) his esoteric blindness and lack of inner *gnosis* and (2) his worldly and materialistic behaviour. Regardless he decides that he will attend the wedding. Dressed in a white linen coat with a blood-red belt bound crosswise across his

shoulders, and wearing four red roses in his hat, he proceeds on his journey. Thus ends the First Day.

On the ‘Second Day’ Rosenkreutz enters a great forest and comes eventually to a clearing. There he is offered ‘the choice of four paths, by all of which you may reach the royal castle, if you do not fall by the wayside.’ One is short but dangerous, another long and winding – and so on. Eventually C. R. finds his way to the castle, where other guests are already gathered. A beautiful virgin appears and makes a portentous announcement reminding the guests that they are not supposed to be here unless properly prepared:

Tomorrow every one of you
Upon the balance will be weighed …
He who dares beyond his powers
Would have done better not to come.

We wish you all the best.[43]

We will not take the reader step by step through the remaining 'Five Days' of the *Chemical Wedding,* which indeed feature (on the 'Third Day') a symbolic 'weighing of the guests' in which some are 'successful' and some are not. Varying degrees of punishment await those who prove 'too light in the balance' and the worst offenders ('who could not even outweigh a single weight') are slaughtered.[44] Many elements of this curious scene are strongly reminiscent of the stage in the afterlife journey known as the 'weighing of the soul' as it is described in the ancient Egyptian *Book of the Dead* – a text of the second millennium BC that no one in the 17th century is supposed to have been able to read. And other elements of the landscape of the *Chemical*

Wedding also have ancient Egyptian resonances, to pick at random – a phoenix, the god Hermes, a royal staircase with 365 spiral steps, the ‘House of the Sun’, scenes of death, a rebirth ritual (‘We had to drudge away on this island until we had done everything necessary for reviving the beheaded bodies’[45]), a pyramid, a pentagon, various pieces of equipment needed in the quest including a ladder, a rope and wings, an egg produced by alchemical processes, a bird that grows at miraculous speed, resurrection of the king and queen, and elevation of certain of the guests to the status of ‘Knights of the Golden Stone’.

Towards the end of the ‘Seventh Day’ Christian Rosenkreutz writes his name in a great book above the following enigmatic motto:

The height of knowledge is to know nothing.[46]

Bruno, Campanella and the Rosicrucians

It seems to us to be beyond serious doubt that a great allegory of death, rebirth and spiritual transformation lies at the heart of the *Chemical Wedding* and that Adam McLean is right to compare the entire process to an ancient mystery initiation. At the successful completion of the Seventh Day we are perhaps to understand that the initiate, now an adept – literally a 'perfect' – has attained that *gnosis* by means of which 'the soul can escape its bondage to

material existence.'[47] If so, no matter how different the mode of expression, the primary concerns of the *Chemical Wedding* can be seen to be essentially the same as those of the Alexandrian Hermetists, the Gnostics, the Manicheans, the Paulicians, the Bogomils, the Cathars – and all those on the great chain of heresy that we have traced in the preceding chapters. Since the *Chemical Wedding* can, in a sense, be regarded as the 'statement of faith' of the elusive Rosicrucian order, the clear implication is that their general reformation of the world was to be of a distinctly Hermetic nature.[48]

Reinforcing this is the fact that even a cursory examination of the *Fama*, the *Con fessio* and the *Chemical Wedding* makes it quickly evident – whatever their identity – that our shadowy

‘Rosicrucians’ were using a strong mixture of Hermetic magic, Gnosis, Cabala and alchemy in a Christian framework. In short, these pamphlets that caused such a stir at the time were seeking not only to bring about a ‘Rosicrucian’ reformation of the world but also to do so with all the intellectual weaponry of the Hermetic magi such as Pico della Mirandola, Bruno and Campanella. Even more curiously, through their connection with Johann Valentin Andreae, the ‘brothers’ were also involved in the conception of a utopian city-society they called *Christianopolis* – a sort of microcosm of the world governed by Hermetic statesmen-priests[49] – that very much resembled Campanella's *Civitas Solis*. With such similar terminology, imagery and objectives, it is justified to ask whether this ‘Rosicrucian’

movement might not somehow have been rooted in Bruno's long sojourns in Germany between 1586 and 1591 (see Chapter Eleven) as well as the smuggling of advance copies of Campanella's *Civitas Solis* into that country – events that occurred in the years immediately *before* the Rosicrucian Manifestos first appeared.

During Bruno's Inquisition in Venice in 1592 (before his case was referred to Rome, see Chapter Eleven), his Venetian ‘pupil’ and betrayer, the faithless Mocenigo, reported that the Nolan had plans to found a new philosophical sect in Germany. Other witnesses said that the sect existed, that Bruno had named it the *Giordanisti* and that it much appealed to the Lutheran heretics in Germany. Such testimonies led Frances Yates to wonder whether these rumoured ‘Giordanisti’ could have had any

connection with the unsolved mystery of the origins of the Rosicrucians who, she reminds us ‘are first heard of in Germany in the early 17th century, in Lutheran circles.’[50] If such a connection exists at all, however, as Yates discovered, it is as yet far too murky and faint for us to be sure of. Nonetheless, sufficient hints and clues exist for her to suggest that ‘Rosicrucian aspirations after a universal reform in a Hermetic context may well owe something to Bruno as well as to Campanella.’[51] And although no direct connection has so far been confirmed between Bruno and the Rosicrucian movement in Germany, there is at least strong circumstantial evidence of a connection between Campanella and the Rosicrucians.

The gradual unveiling of the City of the Sun

Campanella's great work, *Civitas Solis*, the ‘City of the Sun’, was written during his long years of incarceration between 1599 and 1627. The earliest printed edition, in Latin, was published in Frankfurt, Germany in 1623.[52] However Campanella's first draft of the manuscript – in Italian, not Latin – was complete as early as 1602, and has survived (although it was not published until 1904).[53] By 1613, and possibly as early as 1611,[54] the manuscript copy of another draft had been smuggled out of Campanella's prison by one of his disciples and regular visitors – the Lutheran Tobias Adami as we

saw in Chapter Twelve. We know that Adami took the smuggled manuscript to the city of Tübingen in southern Germany,[55] where at the time lived Johann Valentin Andreae, a scholar with undeniable Hermetic and Rosicrucian connections and the possible author, or part-author of *The Chemical Wedding of Christian Rosenkreutz*.

Did Adami pass Campanella's manuscript to Andreae and to others in the proto-Rosicrucian circle in Tübingen? It seems highly likely. In which case – since the *Fama* and the *Confessio* did not appear until 1614 and 1615, while the *Chemical Wedding* appeared in 1616 – there is time enough to allow, as Yates suggests, for a Campanellan influence on 'Rosicrucian aspirations after a universal reform.' The link is tightened, Yates reveals, by the presence

amongst Andreae's close friends of another of Campanella's German Lutheran disciples – a man called Wilhelm Wense.[56]

Dame Frances Yates has not been alone in noting the implications for our understanding of the Rosicrucian phenomenon of these behind-the-scenes connections involving Campanella, Adami, Wilhelm Wense and the enigmatic Johann Valentin Andreae. Christopher McIntosh similarly argues that Campanella's 'utopian work, *Civitas Solis,* which describes an ideal society ruled over by Hermetic priests ... helped create the atmosphere in which the Rosicrucian Manifestos were produced.'[57] It would appear that Wense had even suggested to Andreae that the society the 'Christian Union' which Andreae wanted to create in Germany should be called *Civitas*

Solis.[58]

In 1619, four years before the first (1623) publication of *Civitas Solis* but at least six years after the manuscript had reached Lutheran circles in Tübingen, Andreae was to publish a book of his own expounding the virtues of *Christianopolis* – a special kind of utopian city. There can be little doubt that Campanella's Hermetic-Christian vision of an ideal state was its inspiration.

The union of the Thames and the Rhine

The central image of *The Chemical Wedding of*

Christian Rosenkreutz is the marvellous, magical wedding of a mythical king and queen. In February 1613, three years before the publication of the *Chemical Wedding*, a fabulous and almost mythical wedding did in fact take place ...

The story begins on 24 March 1603 when Queen Elizabeth I of England died in Richmond Palace. Her life had been childless, and so the kingdom passed to her closest cousin, King James Stuart VI of Scotland, who was crowned James I of England at the age of 37. He was naturally followed into England by many loyal noblemen and gentry of his original Scottish court. With them they brought not only their traditional clannish sense of bonding in elite male fraternities but also the budding seed of what was eventually to become the most powerful and influential secret society of modern times.

James I was a staunch Protestant who, on the death of his illustrious cousin, found himself transformed from the king of a small, relatively poor country – Scotland – to the supreme head of one of the most powerful states in the world. His personality, it seems, was crude and ill-mannered, leaving much to be desired. Though married he apparently harboured an acute disdain for women, and preferred to spend his time in the company of men – with whom, it was inevitably rumoured, he was not averse to enjoying occasional sexual relationships.[59]

An all-out biblical fanatic of the worst sort, James I was fired by an adamant belief in his own 'divine right' to rule. In practice, however, he was to prove rather mediocre as a king and a statesman, some might even say, a failure. The English mistrusted the

peace that he had struck with their traditional mortal enemy Spain, and were perplexed when he began to involve himself in an increasingly intimate relationship with the Spanish ambassador.

But all was forgiven in late 1612, when James I announced the marriage of his daughter, who bore the evocative name of Elizabeth, to the young and much loved German Protestant Prince Frederick V, the elector of the Lower Palatinate. As well as the high romance, the glamour, the excitement and the anticipation of the impending event (then, as now, the masses loved royal weddings) this move seemed to confirm James I's commitment to the Protestant cause. Many in England and elsewhere even began to hope that he might, after all, champion and defend the Protestants of Europe as Elizabeth I had before him. And such hopes, quite naturally, were focussed

in particular on what might happen in Germany, the hub of the Protestant Reformation.

The elector of the Lower Palatinate was a sensitive, handsome and very gentle young man. He had received a refined French education at the famous University at Heidelberg, an enchanting university-city that was the seat of the Lower Palatinate, and in 1610 had succeeded his father, Frederick IV, a staunch Calvinist and one of the founders of the German Protestant Union. This was a coalition of German Protestant principalities whose objective was to resist the Catholic League and the power of the Hapsburgs by forging alliances amongst themselves in Germany and also with foreign sympathisers such as the French Huguenots under Henry of Navarre, and the English Protestants.

There were, in fact, two Palatinates, the Upper

Palatinate in northern Bavaria and the Lower or Rhine Palatinate located on both sides of the middle Rhine. Since medieval times the Palatine rulers had served as stewards of royal territory in the absence of the Hapsburg emperors, and eventually obtained the right to be among the electors of new emperors, hence their title of ‘electors’. When the Palatinate adopted Calvinism in the 1560s, these principalities suddenly became the bulwark of the Protestant cause in Germany. As elector of the Lower Palatinate, Frederick V symbolised Protestant resistance against the Counter-Reformation spurred by the Catholic League under the Hapsburgs, and quite naturally his marriage to the daughter of James I was perceived as a great strengthening of this resistance.

When Frederick arrived in England in the autumn of 1612 he made a huge positive impression on the

English court. The young Princess Elizabeth fell deeply in love with him at first sight, and he, too, with her. It all promised to be the ultimate fairy-tale of the century. Frederick was invested with the Order of the Garter, and everyone in the realm rejoiced at the prospect of the fabulous wedding and of the great things that would come from this union.

The wedding took place on 14 February, St. Valentine's Day, 1613, amid lavish festivities along the River Thames near London. And two months later, on 25 April, the sparkling royal couple left for Germany, and set up court at the magnificent Heidelberg Castle in the Lower Palatinate.

Dee and Christian Rosenkreutz

We shall recall from Chapter Eleven that in 1583, the year Giordano Bruno arrived in England, the famous Elizabethan astrologer, conjuror and mathematician, John Dee, was preparing to leave. The Polish prince, Albert Laski, who had been amongst Bruno's audience at Oxford, had invited Dee and his family to join him at his home in Trebona, Poland, and Dee had accepted. Dee also took along his young clairvoyant assistant, Edward Kelly.

After leaving England in October 1583 Dee and his little party first stayed in Trebona for a year and then travelled extensively through Poland and Bohemia, from town to town, performing mystical séances and conjurations for the nobility until 1587. Dee and his family then returned to England, passing through Germany and Holland, but Kelly decided to stay in Poland. He was eventually killed in 1593 in an

accident while trying to escape from a German prison where he had been jailed for heresy.

Back in England Dee feel into deep poverty, and was nearly destitute when Elizabeth I took pity on him and appointed him chancellor of St. Paul's Cathedral. A few years later Dee was appointed warden of Manchester College, where he stayed until the death of Elizabeth I in 1603. Under James I, however, Dee lost all influence with the crown and all its support as well. He died in 1608, in an awful state of poverty, at the age of 81.

Curiously the character of Christian Rosenkreutz in the *Chemical Wedding* published eight years later, is also 81 years old. Remembering how the Rosicrucian Manifestos boast that the brothers communicate with one another in coded language, we suggest this may not be a coincidence. The author, whoever he was,

may have been trying to express a deliberate, if cryptic, link between Dee and Christian Rosenkreutz, the legendary founder of the Rosicrucian movement.

This is speculation, of course. But what lends it some credibility is the fact that many scholars believe the roots of the Rosicrucian movement do go back long before the publication of the *Fama* and the *Confessio* in 1614 and 1615 – perhaps even all the way back to Germany and Bohemia in the 1580s, right after John Dee's visit to those countries. Dame Frances Yates, the greatest scholar of this field, certainly thought she could detect Dee's influence. This might have followed directly from his own travels in Germany and Bohemia. Or it could have come later and indirectly through the retinue of English scholars and artists, many of whom may have been influenced by Dee, who followed Elizabeth

Stuart to her new home at Heidelberg Castle and then later on at Prague in Bohemia.[60]

Such influences were too well hidden for any scholar to expect to uncover them fully today. All we can say for sure is that the Rosicrucian phenomenon of 1614 – 16 followed closely on from the ‘alchemical marriage’ in 1613 of Frederick V and Elizabeth Stuart. Taken together with other signs of the times, these events conspired to raise hope of an end to the age-old system of religious and political intolerance that had ruled Europe for so long and seemed to offer the promise of a new dawn.

The Rosicrucian investment in

Frederick V

To ‘build the City of the Sun’, in Hermetic parlance, requires the patronage and participation of powerful secular leaders. Without their support the great social, political and religious changes that the process requires – not to mention the architecture – are just impossible dreams. With this in mind it is, in our view, quite possible that Frederick of the Palatinate, head of the Protestant Union in Germany, was deliberately groomed by Rosicrucian and Hermetic thinkers to play the key secular role in their grand plan for Europe – the same role that they may also have had in mind for Henry IV of France before his assassination in 1610. The added frisson in

Frederick's case was his marriage to the king of England's daughter – taken by many as a token of future English military intervention against the Hapsburgs and the Catholic League.

Frederick's most trusted chief advisor at Heidelberg was Prince Christian of Anhalt, a keen student of esoteric and mystical topics, particularly alchemy, Cabala and the occult. He was the patron of the German alchemist Oswald Croll, who was his physician, and he was a close friend of Peter Rosenberg, a wealthy landowner with estates around Trebona whose brother, Villem Rosenberg, had acted as host to John Dee during his stay there a few years before.[61] Even more striking is the fact that one of Prince Christian's closest relatives, Prince Augustus of Anhalt, is credited with having published – in 1605,

nine years before the *Fama* – the earliest known reference to the Rosicrucian brotherhood.[62]

It was under Prince Christian's influence that the Heidelberg court, as well as Frederick and Elizabeth's later court in Prague, came to be frequented by many well-known Rosicrucian sympathisers – amongst them the famous English Hermetic philosopher Robert Fludd, a pupil of John Dee, and the German alchemist Michael Maier. Interestingly, Prince Christian is also known to have been in close contact with the great Italian reformer Paolo Sarpi, the latter a Venetian theologian and statesman who, other than his intensely anti-Catholicism sentiment, also wanted to turn Venice into an independent Protestant republic.[63] Sarpi was in turn a close friend of Galileo and is often credited

with having been the first to introduce to this great astronomer the primitive optical long-distance sighting devices – telescopes – that were then being developed in Holland.

Prince Christian was 45 years old when the young Frederick, then barely 14, became elector of the Palatinate. Frederick and Elizabeth were still only 17 when they married and set up court in Heidelberg in 1613. Having previously served under Frederick IV, and with enormous experience of diplomacy, it was easy for Prince Christian to become a father figure to the impressionable royal couple – and there seems little doubt that it was he who promoted Frederick V as the figurehead of a great and imminent universal reformation. It is known that Prince Christian even harboured the hope that his protégée might become the first Protestant Holy Roman emperor after the

anticipated overthrow of the Catholic Hapsburgs.

In August 1619 the throne of Bohemia, which the rebellious nobility of Prague considered to be an *elective* rather than a hereditary title, was offered to Frederick. Against the sound advice of the union of Protestant princes and the beseeching of his own mother he unwisely accepted the offer and late in September 1619 he and his English wife left Heidelberg Castle and headed for Prague. When the news reached England, it was greeted with huge enthusiasm by the public – almost as though a new or 'reincarnated Queen Elizabeth' had manifested herself in central Europe in defence of Protestantism. This time, moreover, a splendid young prince was to be found at her side bearing the title of head of the Protestant Union and protected by his powerful father-in-law, James I.

It was all a grave mistake, for James I had absolutely no intention of jeopardising the precarious peace that England then enjoyed with Spain and thus, indirectly, with the Catholic League and the Hapsburgs.

In these adverse political and military circumstances – which surely he must have been aware of – historians have often wondered why Frederick V accepted the crown of Bohemia at all? What was it that prompted him to take such a huge risk? Explaining this very matter to an uncle, Frederick himself stated in a letter that he believed it to be his ‘divine calling which I must not disobey … my only end is to serve God and his Church.’[64]

By God's ‘Church’ Frederick presumably meant the Bohemian or Calvinist-Reformed Church. But it is not

altogether impossible that his idea of his ‘divine calling’ might have encompassed a much larger ‘mission’ extending beyond Bohemia, beyond Germany and even beyond Calvinism. Through Prince Christian of Anhalt, the Rosicrucian and Hermetic influences that are likely to have reached the young elector all envisaged a great and imminent religious and cultural reformation of the world – nothing less than a new Hermetic golden dawn for mankind that was about to break very soon. Those who promulgated such ideas believed that the instrument to bring this about was an ancient and secret knowledge that had recently been rediscovered – a knowledge that they had understood and that was to be found in the Hermetic writings, in the Cabalistic Hebraic texts, and in the old sciences of alchemy and natural magic.

All those who promoted such ideas – at high risk to their freedom and lives – were also seeking an enlightened monarch or prince to bring about this great universal reform and advancement of learning. It was expected that he would do so from the heart of a utopian republic or ‘city’ ostensibly named *Civitas Solis* (Campanella), *Christianopolis* (Andreae) or, as we shall soon see, *New Atlantis* (Bacon) or even *New Jerusalem*. It was visualised as a wonderful and magical Hermetic-Christian state ruled by a ‘solar’ king and governed by his wise and learned priest-scientists, priest-philosophers or *magi*, set at the very epicentre of the known world.

What better location, then, than the central European state of the Palatinate, ruled by an enlightened prince, a chivalrous knight of the Order of the Garter, who had just married a wonderful and

sensitive princess of the blood royal of England? The latter, moreover, had been groomed in the sophisticated and enlightened Baconian and Shakespearian milieu of the Jacobean Renaissance. Better still, she brought with her the clout of her powerful father, James I, to buttress the great adventure and enterprise ahead.

After the unexpected death of Henry IV of France a terrible sense of loss and frustration befell free thinkers in central Europe until, it seems to us, a clever propaganda campaign using Hermetic-Christian-Cabala changed the direction of the movement. Now it was no longer France but Germany that offered the best vector for the great reform. As the leading Hermetic scholar Joscelyn Godwin puts it:

The hopes of all whose outlook could be described as

‘Rosicrucian’ were pinned on Frederick: hopes that he could initiate the reform of which the *Fama* and the *Confessio* spoke …[65]

The Battle of White Mountain

Days after Frederick V was crowned king of Bohemia, his rival, the deposed Ferdinand of Hapsburg, was immediately declared Holy Roman emperor – Ferdinand II – by the Catholic League. The league then mounted a ferocious crusade against the usurper Frederick and the Protestant cause in general. This was the start of the terrible Thirty Years War that was to scourge central Europe and

kill half the population of Germany.

Through swift negotiations with his Catholic allies and even the ‘heathen’ Turks, Ferdinand II was able to form a powerful coalition against Frederick and his supposed Protestant allies. Badly organised and weakened by personal feuds, one by one the Protestant princes and the other foreign Protestant powers began to abandon the elector. The final blow came when it was gradually realised by all that James I, his powerful father-in-law, was not going to send any military support to him. The dismal end to Frederick's short reign was now imminent.

On 8 November 1620, a force of 26,000 Catholic soldiers belonging to Ferdinand II and placed under the command of the brilliant general, the Count of Tilly, marched against the 21,000 strong Protestant force of Frederick which was under the command of

Prince Christian of Anhalt. The two armies met outside Prague on a gentle sloping field known as the *Bílá hora* – ‘White Mountain’. Within a few hours Frederick's army had been smashed. Prince Christian was made prisoner of the Catholics, and Frederick and Elizabeth barely managed to escape with their lives, leaving all their belongings behind.

Predictably Ferdinand II and the Catholic League took an abominable revenge on the rebellious Bohemian estates that had preferred Frederick, Protestantism, and perhaps a great deal more. Land and properties were confiscated, 27 leaders of the revolt were publicly beheaded and, to the horror of the Protestants, Catholicism was imposed as the only permitted faith in Bohemia. Those who refused to convert were ordered to leave the country and all their assets were confiscated.

It is estimated that over a quarter of million Bohemians chose to go into exile.[66] Many went to Holland, others to England and some even made it to the New World. The beautiful dream that Frederick's rule would be the vector for a Europe-wide ‘Rosicrucian’ reformation had been proved to be just that – a beautiful dream.

But this did not mean that the dream died. It simply shifted its location – to England, which many would argue was its natural home (if John Dee was indeed the Father of Rosicrucianism):

The opportunity for general reformation and the advancement of learning that the Rosicrucian Manifestos had proclaimed ... had been lost in Germany through the collapse of the Frederickian movement. Those who had suffered from that bitter

disappointment [came] to England, and those in England who bitterly regretted that the movement had not been supported, welcome[d] them.[67]

The previously ‘Invisible College’ of the Rosicrucian brotherhood was about to become very visible indeed …

And after the decease of King David, Solomon that was son unto David performed out the Temple his father had begun and had sent after Masons into divers lands and gathered them together so that he had four score thousand workers of stone and they were named Masons ...

The Old Charges of Freemasonry, circa 1583

The Legendary history of [Free]*masonry, of the actual art*

of building, is recounted in certain medieval poems [the *Old Charges*] *... in these writings ... architecture is identified with geometry. One account maintains that geometry was discovered before the Flood; another states that Abraham taught the Egyptians geometry. In yet another version ... geometry is said to have been invented by the Egyptians ...*

Frances Yates, The Rosicrucian Enlightenment

CHAPTER FOURTEEN

EMERGENCE OF THE INVISIBLES

If a Christian Gnostic of the fifth century AD and a Cathar of the 13th century were to encounter one another in a time-warp they would find that they had much in common. Their views of the Roman Catholic Church as a diabolical agency would be identical. Their basic beliefs and theology would be the same. Their ascetic lifestyles would be the same.

Were our time-travelling pair then to be transferred

to an encounter with a 16th or 17th century European Protestant they would discover much less common ground. Although they would share with him a commitment to a simple and unostentatious form of religion, their basic beliefs and theology would be as different from his as they would be from those of a Roman Catholic.

But there's an old saying – ‘my enemy's enemy is my friend.’

History shows, during their war to the death with the Roman Catholic Church in the 13th century, that the Cathars cooperated closely with another heretical sect, the Waldensians (or ‘Vaudois’) founded by one Peter Waldes in Lyons in the late 12th century.[1] In their simplicity and austerity, their distrust of sacraments administered by unworthy ministers,

their opposition to the veneration of saints and relics, and many other aspects of their religion, these Waldensians were the true forerunners of the later Calvinist and Lutheran movements that came to define European Protestantism. Their argument, in other words, was primarily with the *behaviour* of the Roman Catholic Church but they accepted most of the tenets of Catholic doctrine that the Cathars vehemently rejected.[2] Even so the Waldensians were violently persecuted by the Catholic authorities and it was in this shared experience of persecution, coupled with their shared detestation of 'Romish' vanity and ostentation, that the Cathars and the Waldensians found common cause.

In this book we are tracing the course through history of two interrelated underground religions,

Gnosticism and Hermeticism.

Having survived centuries of persecution following the triumph of literalist Christianity in the Roman Empire, Gnosticism underwent a renaissance in 12th century Europe when it found support amongst the ruling barons of the semi-independent state of Occitania. That renaissance, as we've seen, was brought to a bloody end by the Albigensian Crusades in the 13th century – although the Gnostic religion undoubtedly lingered longer in the Balkans until it was finally snuffed out there by Islam in the 15th century.

Meanwhile, Hermeticism – which might be described as Gnosticism's pagan twin – slept in the West for a thousand years before suddenly and spectacularly waking up again when the Hermetic texts were rediscovered and brought to Florence in

the 15th century. It then enjoyed an amazing and highly enigmatic period of papal favour during the 16th century, documented in Chapter Eight, before the Vatican finally recognised it for what it was – a deadly heresy that would bring Catholicism to its knees if it could. The Inquisition's renewed interest in the matter, sending a clear signal of its intentions to all who sought to bring about a ‘general reformation of the world’, was marked by such acts as the torture and 27-year imprisonment of the Hermetic magus Tommaso Campanella, and the imprisonment, torture and savage burning in February 1600 of Giordano Bruno, the greatest magus of them all.[3]

Just as the Cathars had made common cause in the 13th century with the Waldensians, so too it was natural for the Hermetic and Rosicrucian visionaries

who roamed Europe in the 15th, 16th and 17th centuries to make common cause with the Protestants of their time. The principle of my enemy's enemy being my friend still applied. And just as the Cathars had needed secular political support in order to become a force to be reckoned with – one that could actually change the world – so too the Hermetists and Rosicrucians of the 15th, 16th and 17th centuries needed secular political support, and for the same reason. Only in very exceptional cases – e.g. the ageing Campanella at the court of Louis XIII – were they likely to receive that support from Catholic rulers. Inevitably therefore we find key Hermetic and Rosicrucian figures turning up repeatedly in areas of Protestant influence – e.g. Bruno's travels in Germany between 1586 and 1591 – and congregating in large numbers around

Protestant monarchs such as Frederick V, the elector of the County Palatine of the Rhine.

Bruno, for one, was as outspokenly honest with his wealthy and influential Protestant sponsors as he was with everyone else: he was not a Protestant and would not become one; he sought only their protection and simply wished to continue his studies in peace.[4] But we may confidently suppose that other Hermetic free-thinkers preferred to adopt a lower profile and to blend in, as perfectly as possible, amongst their Protestant hosts. These were uncertain, violent, highly volatile times and, since the terrible destruction of the Cathars, common sense had taught most heretics the wisdom of 'invisibility' – whether they found themselves amongst Protestants or Catholics.

Indeed was it not precisely this quality of ‘invisibility’ that was most emphasised in the Rosicrucian Manifestos? The reader will recall from Chapter Twelve that the *Fama* speaks of a ‘magical language and writing’ that had been developed by the early Rosicrucian brothers, presumably for secretive communications amongst themselves. The *Fama* additionally reports that the brothers are distributed about the world and, as a deliberate policy, wear no distinguishing garments but follow the custom of whichever country they find themselves in.[5] In other words they blend in – the way, perhaps Johann Valentin Andreae blended in as a straight-thinking Lutheran pastor whilst pursuing his Rosicrucian and Hermetic interests. It may be a mark of his success as a Rosicrucian ‘invisible’ that

even today we cannot be one hundred per cent certain whether he was ‘just’ a Lutheran pastor and academic with some unconventional interests. Or was he, as most scholars believe, the author of the *Chemical Wedding* – the Rosicrucian statement of faith?

The Rosicrucian Manifestos speak, ultimately, of the existence of an ‘Invisible College’, working behind the scenes, through existing institutions for the moment, blending-in until the time comes when it can reveal itself to the world. What it seeks is a great general reformation of religion and society. And though the word ‘reformation’ in this context was itself perhaps chosen for its political correctness and acceptability in Protestant circles we are quite certain that it was not meant in the Protestant sense at all. It's very obvious from the Rosicrucian example

that, veiled within Protestant religious bodies, organisations and power structures of the early 17th century, there were people whose agenda was much closer to Giordano Bruno's deeply heretical ‘Egyptian’ idea of the Hermetic reformation of Europe, and who might yet heed Tommaso Campanella's call to build the City of the Sun.

Eyes turn to England and the New World

We saw in the last chapter that on 8 November 1620 the Catholic forces of the Holy Roman Emperor Ferdinand II inflicted a devastating defeat on the

Protestant forces of Frederick V, the elector of the Palatinate. The Bohemian estates were dragooned into Catholicism and a quarter of a million Protestant refugees fled, leaving all their worldly goods behind.

Amidst the massacres and the streams of refugees generated by this terrible ongoing conflict between Catholics and Protestants in central Europe, the opportunistic minds of some Hermetic thinkers would have turned naturally towards England, that great Protestant kingdom across the Channel. It would have stood out from the general background chaos of the Continent as a place where they still might hope to achieve universal reform based on advancement of learning.

Remember that Hermetic philosophers, conditioned by the characteristic sky-ground dualism of the Hermetic texts, were avid star watchers. We can

therefore be sure that they would have been paying attention in December 1603, the year James I was crowned king of England, when there was an impressive conjunction of the planets Saturn and Jupiter, seen by astrologers to presage a new age.[6] It was in the following year, 1604, that the ‘opening’ of the tomb of Christian Rosenkreutz, described in the *Fama*, supposedly took place, ushering in a renewed cycle of Rosicrucian activity. That year also witnessed the strange appearance of two new stars in the constellations of Serpentarius and Cygnus giving rise to a combustible mixture of huge fears and tremendous hopes.[7]

It's not difficult to understand how Hermeticists and Rosicrucians taking shelter amongst Lutheran and Calvinist Protestants in the beleaguered

warzones of central Europe must have felt in this atmosphere. It should come as no surprise to learn, therefore, that for some the opening of the Stuart era in England was regarded as the foundation of a ‘New Jerusalem’, a land chosen by God that could lead the world into a new age of universal peace and enlightenment. We saw in the last chapter that such hopes were intensified by the widespread public perception – though it ultimately proved false – that a powerful alliance between the ‘Rhine and the Thames’, i.e. between Protestant England and Protestant Germany, had been cemented through the marriage of Frederick V of the Palatinate and Elizabeth of England.

But there was also another factor at work, one that must have loomed large in the collective subconscious of those seeking the great universal

reform. This was the recent acquisition by England of vast and virgin territories in the Americas. A whole new continent had suddenly emerged on the other side of the Atlantic, a sort of ‘New Atlantis’ ready to be colonised by a new breed of European. Might it not be easier and better, some of these reformers must have thought, to put aside Europe and its religious troubles altogether and to build instead, a *completely new society* on a clean slate in this untarnished ‘new world’ – a reformed society, furthermore, that could be dedicated to the pursuit of happiness, justice and the advancement of learning?

This was the context in which the great English visionary, Francis Bacon, was to publish a series of books that would galvanise the intellectuals of Europe.

Hermetic Bacon

Francis Bacon (1561 – 1626) was the son of the Lord Keeper of the Seal of Elizabeth I. At the age of 12 he was sent to Trinity College, Cambridge. At 18, finding himself virtually penniless after his father's death, he turned to law, and by the age of 23 Bacon had managed to win a seat in the House of Commons. Throughout his early career he was disliked by his peers and even distrusted by Elizabeth I, but after the queen's death in 1603 he found new royal favour and patronage under James I. With the king's support, Bacon quickly rose to fame and fortune, first as Lord Chancellor, then as Baron Verulam in 1618 and, finally, as Viscount St. Albans in 1621. However,

Bacon's brilliant career in politics was to end in shame and dejection after he was accused of taking a bribe. He spent the rest of his life devoted to his writing.

It was in 1605, two years after the death of Elizabeth I, that Bacon published his epoch-making book *The Advancement of Learning*. Still hailed today as a cornerstone of education and science, this calm and measured work surveys the state of early 17th century knowledge and finds it wanting. If more attention were paid to research and experimentation, Bacon suggests, we could make much faster progress in understanding nature and thus improving the human condition. To this end, in his dedication of the book to his patron James I, he proposes the establishment of ‘a fraternity in learning and

illumination’[8] where scholars and the erudite of all countries could exchange knowledge and ideas for the benefit of humankind:

Surely as Nature createth brotherhood in families, and arts mechanical contract brotherhoods in communities, and the anointment of God superinduceth a brotherhood in kings and bishops, so in learning there cannot but be a fraternity in learning and illumination, relating to that paternity which is attributed to God, who is called the father of illumination or lights.[9]

Let's not forget this was written in 1605, nine years before the publication of the *Fama*, yet the language is plainly Rosicrucian. The ‘fraternity in learning and illumination’ that Bacon wishes for is precisely what the Rosicrucians (though ‘invisible’) later claimed to

be. We also note with interest that Bacon refers to God as the ‘father of illumination or lights’. The reader will recall from Chapter Thirteen that this same distinctive phrase – the ‘Father of Light’ – turns up in *The Chemical Wedding of Christian Rosenkreutz*, published in 1616. The phrase is not found anywhere in the Christian Bible. It was, however, in common usage in the early centuries of the Christian era amongst Manicheans and Gnostics as a reference to the God of Goodness. Likewise in the Hermetic texts of the same period we find frequent references to the spiritual, immaterial, first and greatest god as the God of Light. In the *Pimander* for example (a title that is itself derived from *Peime-n-Ra*, meaning the ‘knowledge of Ra’, the Egyptian sun-god) we may read:

That Light ... is I, even Mind, the first God, who was

before the watery substance which appeared out of the Darkness.[10]

The above passage strikes an association not only between Light and the first God but also between both God and Mind. It likewise makes clear, in familiar dualistic terms, that all three (Light/Mind/God) are of a spiritual, non-material essence, different from, and preceding the 'watery substance', i.e. matter, that 'appeared out of Darkness.' These links are reinforced in the *Asclepius*:

Gross matter ... is the nutriment of bodies, and spirit is the nutriment of souls. But besides these, there is mind, which is the gift of heaven, and one with which mankind alone is blessed ... By the light of mind the human soul is illumined.[11]

It is precisely this illumination of the human soul by the light of mind that the Rosicrucians claimed to be devoted to and that Bacon sought to bring about through his proposed international ‘fraternity in learning and illumination’. His choice of these particular words in his dedication to James I must, moreover, be understood in the wider context of the times. As the Italian scholar Paolo Rossi points out, the view of Frances Bacon as ‘a modern scientific observer and experimentalist emerging out of the superstitious past is no longer valid.’[12] Rossi's research, backed up by Frances Yates shows that:

It was out of the Hermetic tradition that Bacon emerged, out of the Magia and Cabala of the Renaissance as it had reached him via the natural magicians … Bacon's science is still, in part, occult

science.[13]

The same science, natural philosophy and Hermetic magic were also advocated by Marsilio Ficino, Giovanni Pico della Mirandola, Giordano Bruno and the Rosicrucians. And what all sought to bring about was a universal revolution in learning promoted by an elite international fraternity of illuminati.

It can't be an accident that a fraternity fitting this description was soon to flourish in the British Isles and eventually to spread around the world: the fraternity of the Freemasons. Nor were we surprised to learn from our friend the Masonic historian Robert Lomas that both Francis Bacon and James I were, in all probability, Freemasons themselves – associated with the early formation of the so-called *Scottish Rite*. Indeed it seems that in addition to its obvious

Hermetic and Rosicrucian content, the language used by Bacon in his dedication to James I is recognisably ‘Masonic language’ – i.e. a sort of allegorical system of communication used by Freemasons couched in symbolism and secret words and fully comprehensible only to initiates.[14] Such an idea is, of course, identical to the ‘magical language and writing’ spoken of in the Rosicrucian Manifestos.[15]

All in all there is, in our view, no doubt that Bacon's carefully chosen words of 1605 are resonant of Rosicrucian and Masonic influences, suggesting, at the very least, the presence of a proto-Freemasonic movement within the elite inner circle of the Stuart court.

A Rosicrucian Christmas card in the National Records of Scotland

At about the time that Francis Bacon was putting the finishing touches to *The Advancement of Learning*, the German alchemist Michael Maier (1568 – 1622), a renowned Rosicrucian thinker, was living in Prague and working as the private physician to Emperor Rudolph II. When Rudolph died in 1612 – the year before the marriage of Frederick V of the Palatinate and Elizabeth Stuart – Maier came to England. There he met Sir William Paddy, the private physician of James I. It cannot be confirmed that Maier met the king, but he certainly felt comfortable enough to send him a personal Christmas card – one

that, on face value, very much appears to associate James I with the Rosicrucian movement.

Maier's Christmas card to the king is kept today in the archives of the National Records of Scotland in Edinburgh. It depicts a large rose around which are written the words:

Greetings to James, for a long time King of Great Britain. By your true protection may the rose be joyful.[16]

This weird card has lead many researchers to suppose that there might have existed in England some early form of the ‘Rosicrucian movement’ and that James I was seen as its protector by German Rosicrucians like Michael Maier.[17] It's very probable, while he was in England, that Maier would have met the Hermetic philosopher and Cabalist, Robert Fludd

(1574 – 1637), who was then in his late thirties. Although Fludd had not yet published his own work on the Rosicrucian brotherhood, *A Compendium Apology for the Fraternity of the Rosy Cross* (1616), he nonetheless was a keen 'Rosicrucian in spirit.'[18]

It is certain that the German Rosicrucians must have noted Fludd's defence of their fraternity in England because later, in 1618, at the height of Rosicrucian furore, two more of Fludd's books, *History of the Macrocosm* and *History of the Microcosm* were published in the town of Oppenheim by the firm of Johann Theodor de Bry – who apparently paid handsomely for the privilege.[19] De Bry was also the publisher of one of Michael Maier's works, *Atalanta Fugiens*, likewise brought out in 1618,[20] and it seems probable that Maier was the

link between Fludd and the Palatinate publisher.

Maier remained in England until 1616 and it would have been extraordinary if he had not met Bacon during this period since they moved within the same circle. What is known with certainty is that Bacon sat down to write a utopian book soon after Maier's visit which bears the unmistakable imprint of Rosicrucian thinking.

The New Atlantis

In 1627, a year after Bacon died, a manuscript he had been working on turned up amongst his personal papers. Its title was *New Atlantis*. And like Plato's

original story of Atlantis (found in his dialogues, the *Timaeus* and the *Critias*) it had been left unfinished. It was also undated but scholars assume Bacon must have written it soon after the two Rosicrucian Manifestos and the *Chemical Wedding* had appeared in Germany – i.e. after 1616 – for it contains allegories and ideas that are distinctly reminiscent of those documents.

32 The genie of Paris (or Liverty) on top of the Bastille Pillar. Compare to Picot's ‘genie’ in plate 2.

33. Pyramid project proposed by the revolutionary architect Étienne-Louis Boullée, in 1785: Cénotaphe dans Ie genre égyptienne.

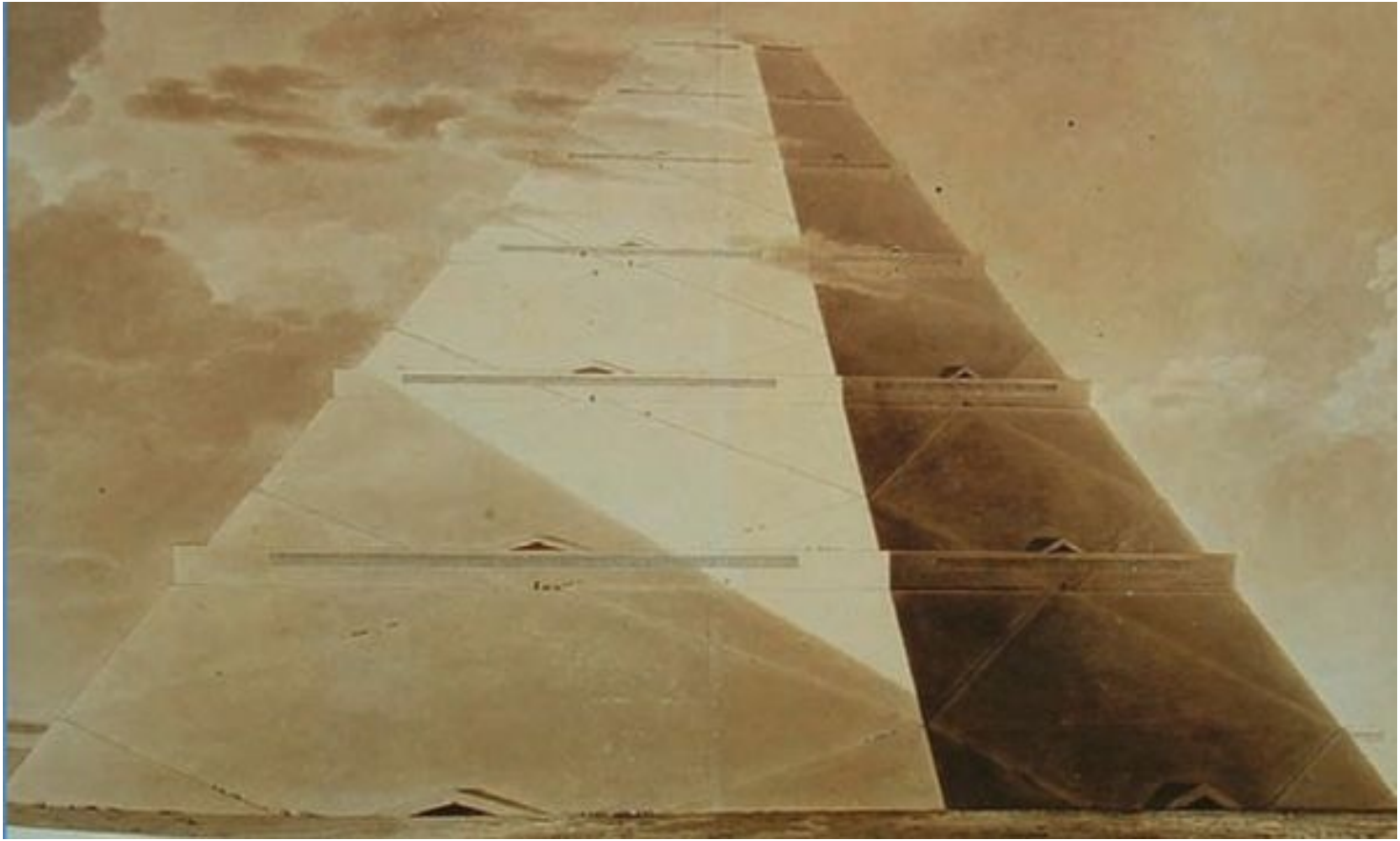

35. The glass pyramid at the Louvre.

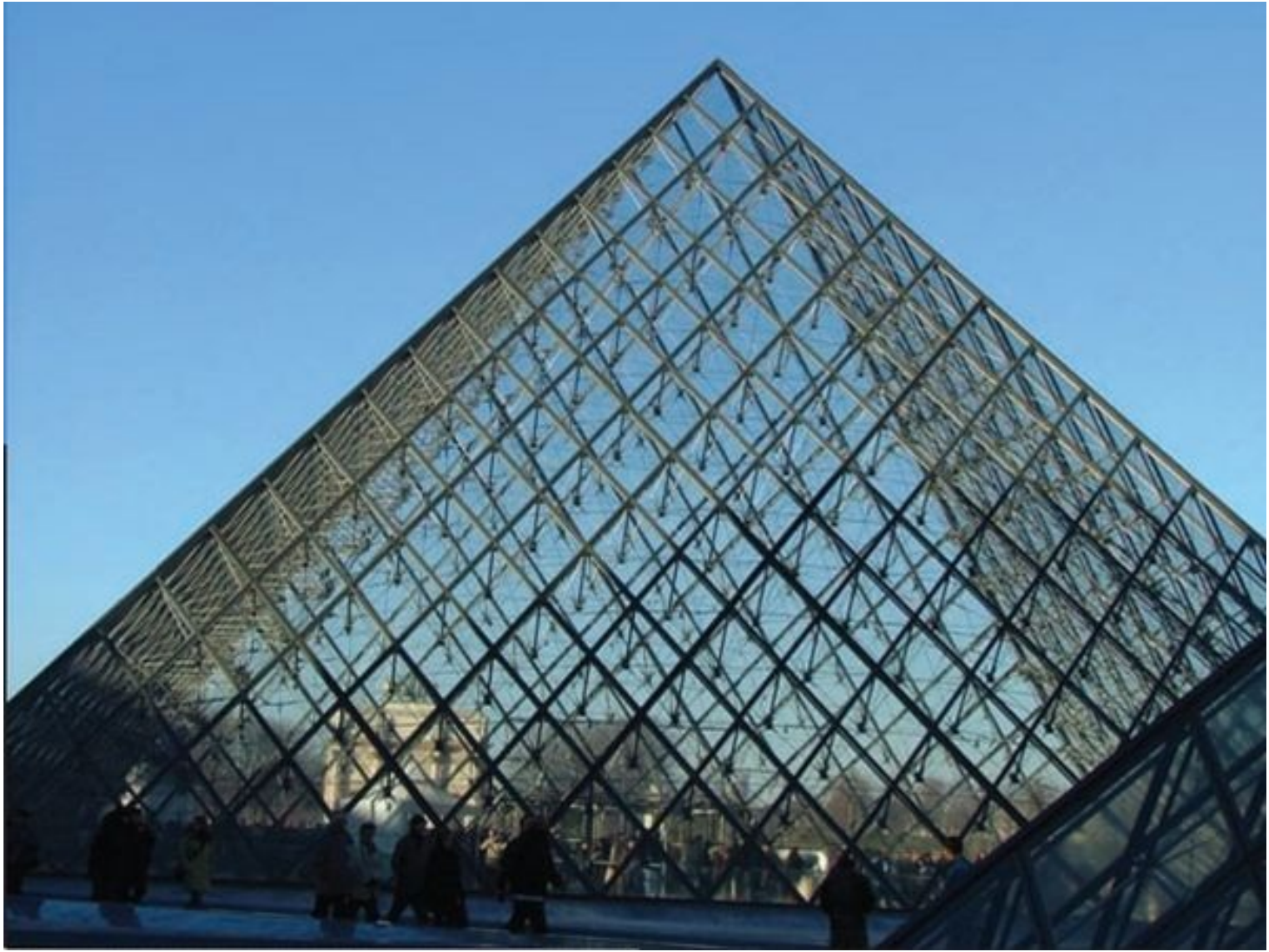

34. The baroque ‘pyramid’ proposed for the Louvre for the centennial celebrations of the French Revolution of 1789. It is unlikely that I. M. Pei was unaware of this previous scheme when he designed the glass pyramid for the bicentennial in 1989. The link between the French Revolution and the ‘pyramid’ is, of course, the symbol of the *Etre Suprême,* or ‘Supreme Being’, which appeared on the frontispiece of the Declaration of the Rights of Man and the Citizen in 1789 as the ‘eye in the pyramid’, an obvious Masonic symbol.

36. Aerial view of Paris and the Historical Axis from the the Grande Arche. Compare the axis and the scheme to the aerial view of ancient Luxor, Egypt .

37. Aerial view of the city of Luxor in Upper Egypt. Compare the axis and general scheme to Paris .

38. Aerialview of the Louvre and the Seine. Compare to aerial view of the Luxor temple and the Nile . Note ‘corresponding’ position of obelisks in Paris and at

Luxor.

39. Aerial view of Luxor temple at Thebes. Compare to aerial view of the Louvre Palace .

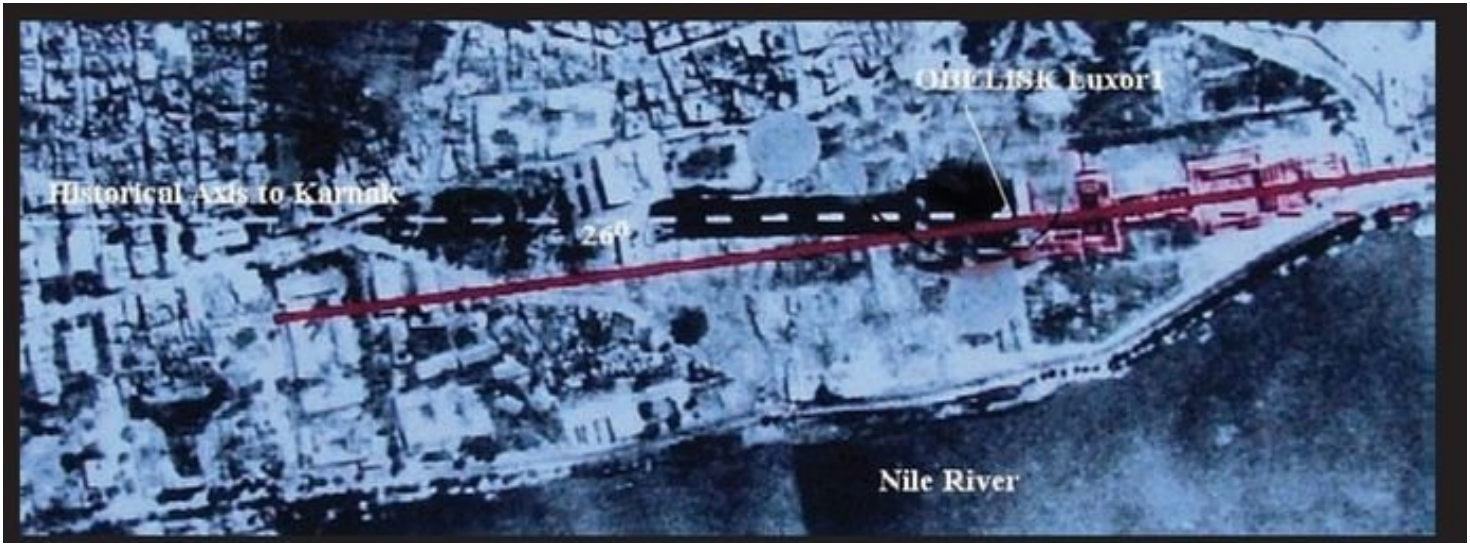

40. A typical Cabalistic ‘Tree of Life’ or Sephiroth.

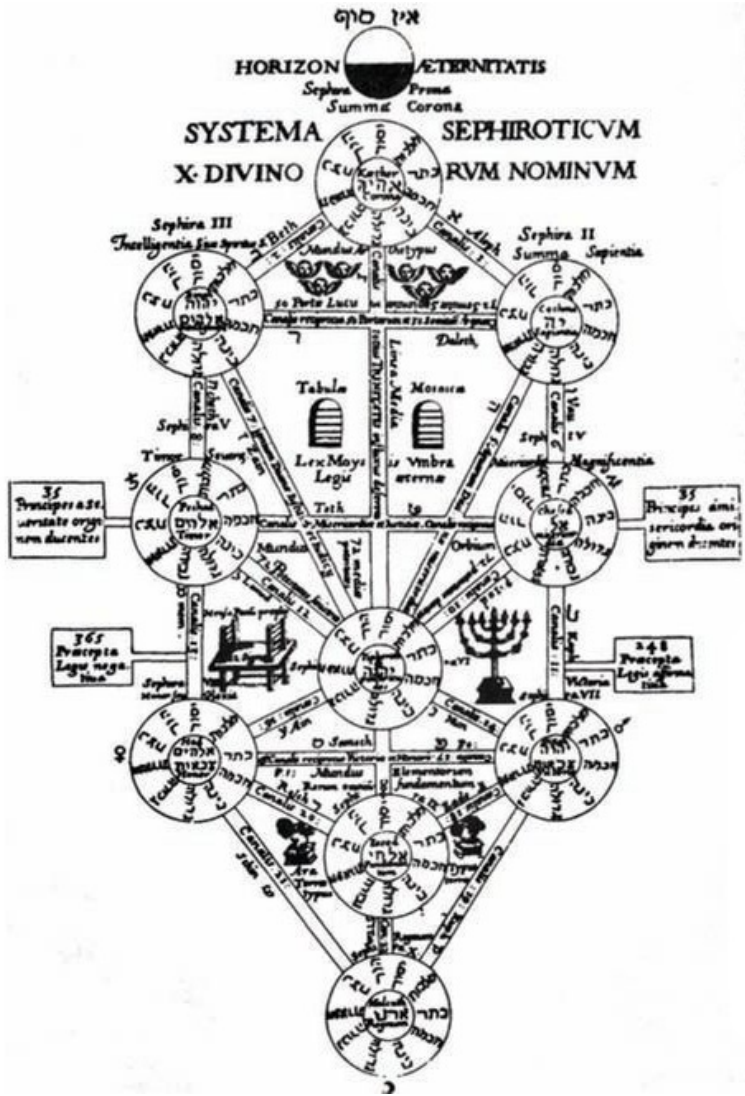
אין סוף
HORIZON ÆTERNITATIS
Sephira Prima
Summa Corona
SYSTEMA SEPHIROTICVM
X· DIVINO RVM NOMINVM
Sephira III
Intelligentia Sive Sphera
Sephira II
Summa Sapientia
Tabula
Mosaica
Lex Moysi Legis
Vmbra aeternæ
Tetragrammaton
Principes
Principes
365 Præcepta Legis negatiua
248 Præcepta Legis affirmatiua
Sephira Malchut Regnum

41. Plan proposed by Sir Christopher Wren for the city of London, 11 September 1666.

Engraved for Harrison's History of London.

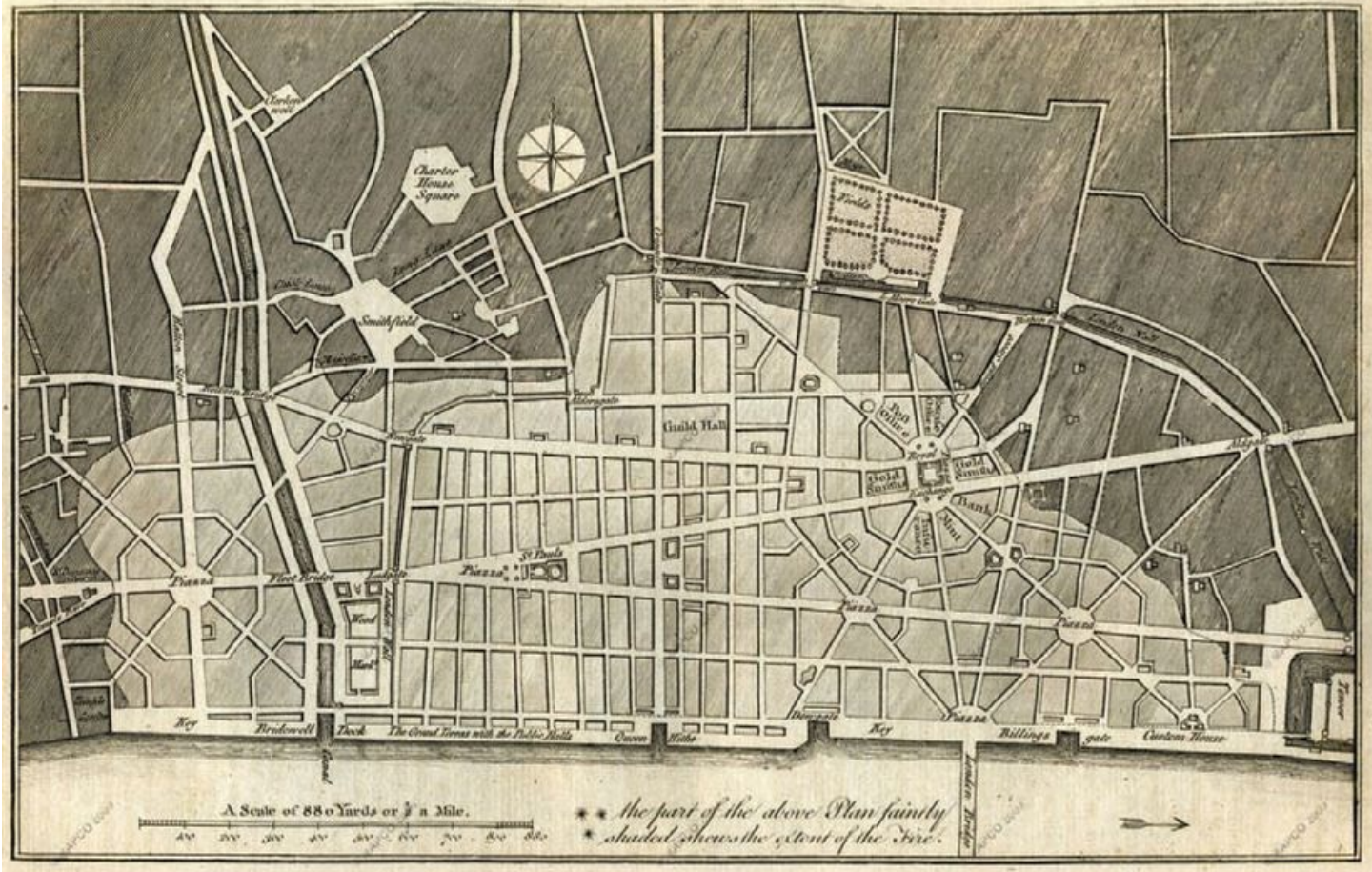

Sr Christopher Wren's Plan for Rebuilding the City of London after the dreadfull Conflagration in 1666.

42. John Evelyn's plan for the city of London, 13 September 1666. Note similarity to Sephirothic Tree.

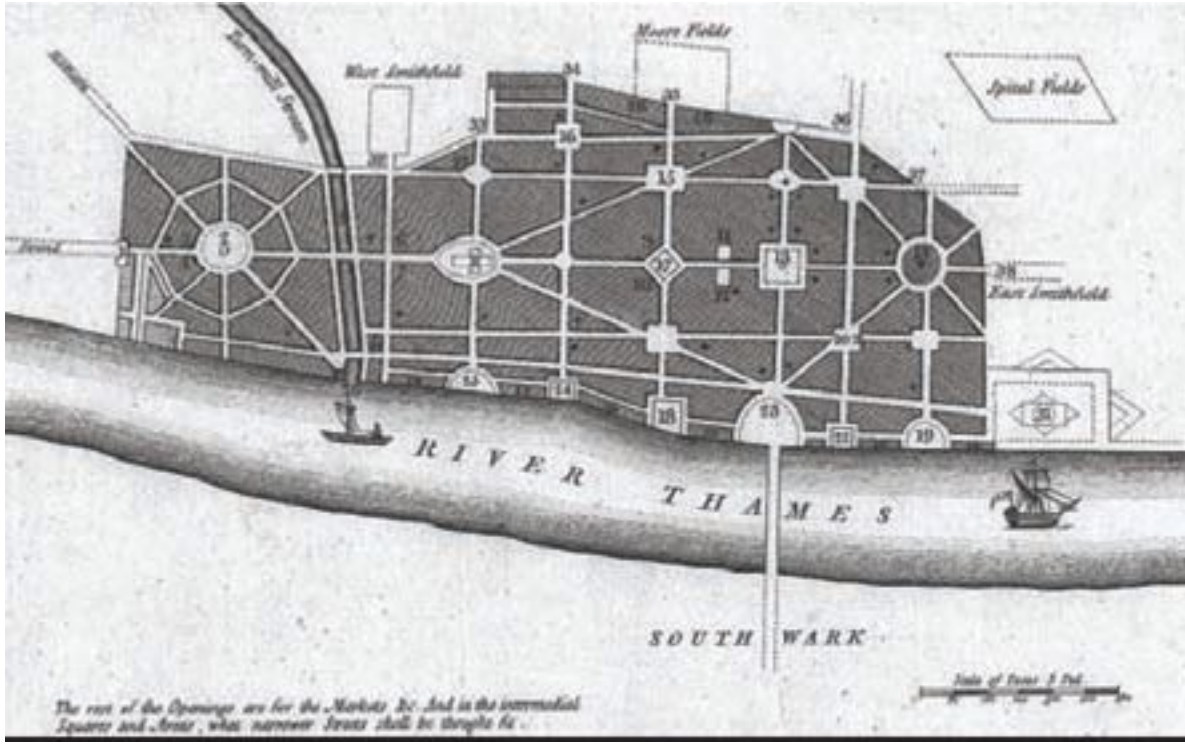

43. The east-west alignment between Temple Church (left) and St Paul's (right).

44. The obelisk of Thutmosis III on the Victoria Embankment, London, better known as ‘Cleopatra's Needle’.

45. H. H. Gorringe, lecturing at a Masonic ceremony at the dedication of the New York Obelisk in 1881.

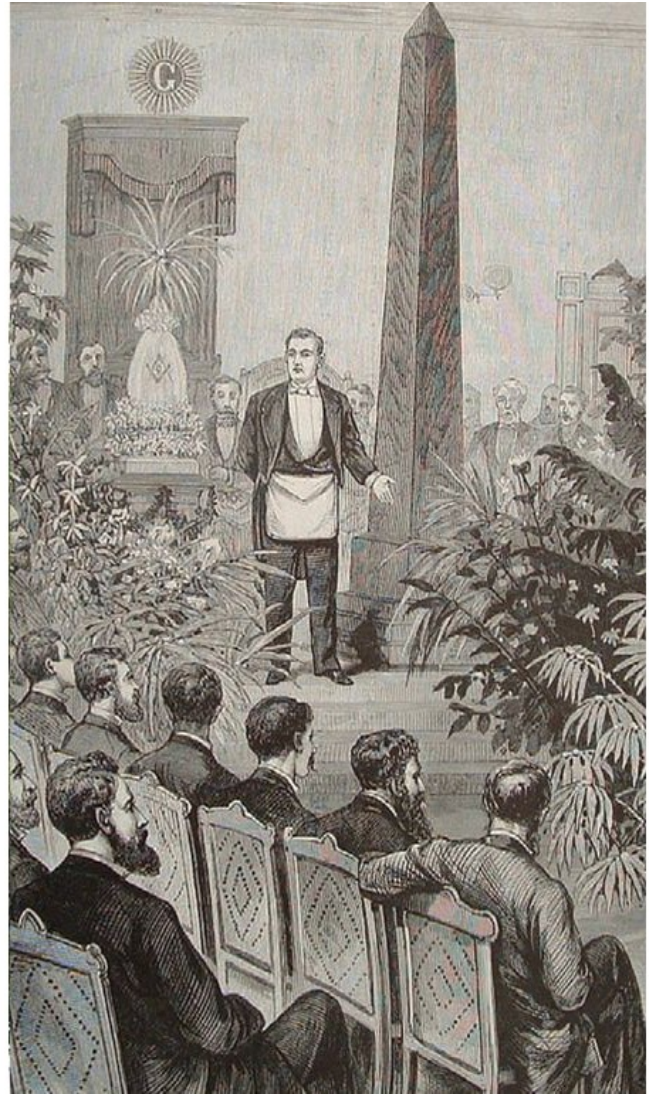
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46. The alignment between St. Paul's Cathedral and Temple Church. It is clearly a deliberate scheme by Christopher Wren to ‘connect’, as it were, the ‘new temple of Solomon’ with the Knights Templar precinct in London. The hidden message is that it ghosted ‘New Jerusalem’ in England.

47. The George Washington Masonic Memorial in Alexandria, . Virginia.

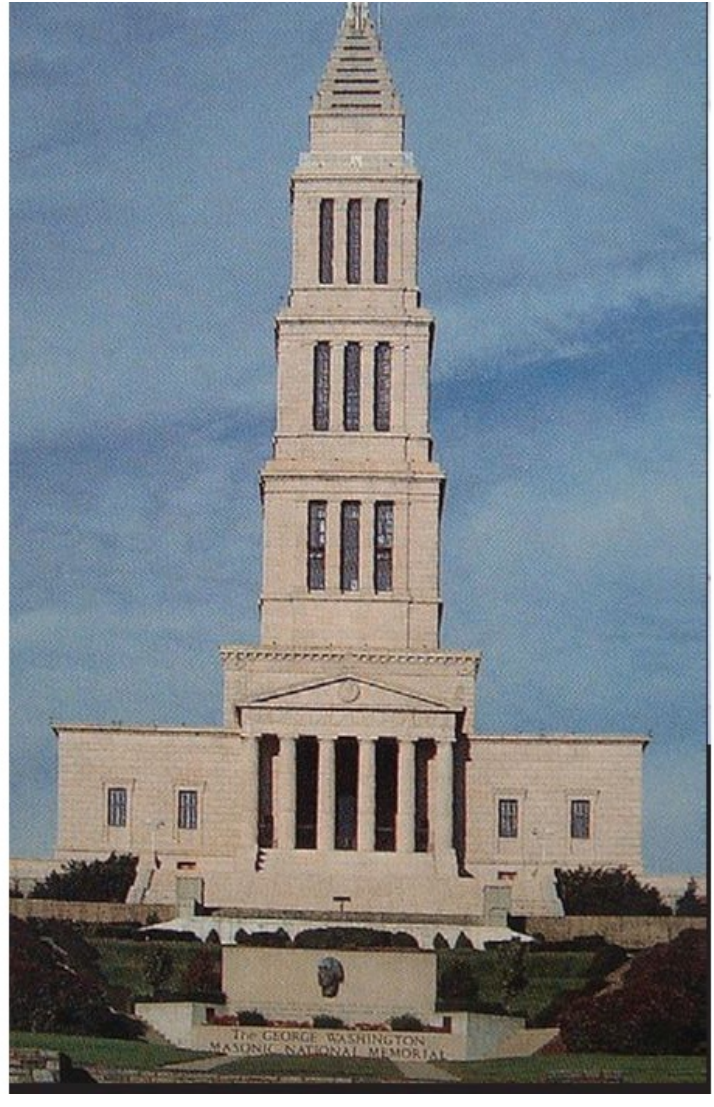
The GEORGE WASHINGTON
MASONIC NATIONAL MEMORIAL

48. A model of the Lighthouse of Alexandria (*Pharos*).

49. The entrance to the elevator in the Washington Monument designed as that of an ancient Egyptian temple. Note the star inside the solar disk.

50. Statue of George Washington in full Masonic regalia at the Washington Masonic Memorial.

51. The Masonic fo un dation -laying ceremony for the 1880 during which the Grand Master linked Freemasonry to ancient Egypt.

52. Sun setting along the axis of Pennsylvania Avenue on 12 August, also the day of the heliacal rising of Sirius. In the reverse direction, looking east, the star would also align with the axis.

53. The interior of the Egyptian room in the Grand Lodge of Pennsylvania in Philadelphia.

54. George Washington in his Masonic outfit laying the cornerstone of the US Capitol.

55. The Freemasons of Washington, DC, parade towards the George

In brief, *New Atlantis* presents Bacon's utopian vision of a scientific and yet spiritually-oriented society that exists in secret on a far away island called ‘Bensalem’ which lies ‘in the midst of the greatest wilderness of waters in the world’. This society is governed by an elite fraternity of scientist-priests who gather within a great college or lodge called *Salomon's House*. Members include accomplished astronomers and geometers, and – surprising in a 17th century document – the builders of aeroplanes and submarines (‘we have some degrees of flying in the air; we have ships and boats for going under water’). They are also accomplished navigators and seafarers, but secretive and unwilling to reveal their existence: ‘we know well most parts of the inhabitable world, and are ourselves unknown.’

Their quest, Bacon tells us, is for ‘the knowledge of

the causes, and secret motions of things' and it is their mission to 'nourish God's first creature, which was Light.' This mission they continuously spread abroad by means of:

... twelve that sail into foreign countries under the names of other nations, (for our own we conceal) ... These we call Merchants of Light.[21]

The travels of Bensalem's 12 invisible missionaries 'nourish the Light' by promoting the advancement of learning all around the world – very much the Rosicrucian method – and like the original eight Rosicrucians, and the Freemasons, they take an 'oath of secrecy' and proceed with discretion in all things.[22] They travel incognito, doing good deeds *gratis* like the Rosicrucians. They remain unnoticed and invisible because they wear the clothing and

speak the languages of the countries they visit – for like the Rosicrucians they communicate easily in every language. At home in Bensalem they are distinguished by wearing a white turban emblazoned with a red cross – the eponymous symbol of the Rosicrucians – and their great ‘seal’ features a representation of ‘cherubim's wings, not spread but hanging down’. The same emblem, Frances Yates has shown, was used in the Rosicrucian Manifestos.[23]

We digress for a moment to note that the image of ‘cherubim's wings’ also evokes the Judaic Ark of the Covenant, surmounted by the winged figures of two golden cherubim, which the Old Testament tells us once stood in the Holy of Holies of the fabled Temple of Solomon in Jerusalem. Bacon gives us a ‘House of Salomon’ located in a place called Bensalem –

essentially the same idea. *Ben* in Hebrew and Arabic means ‘son’ or ‘son of’ – implying in this case, perhaps, a ‘New Salem’ or New Jerusalem.

Though the terms ‘Rose Cross’ or ‘Rosicrucian’ are not to be found anywhere in *New Atlantis*, Frances Yates believed it to be ‘abundantly clear that [Bacon] knew the Rose Cross fiction and was adapting it to his own parable’:

New Atlantis was governed by R. C. [Rosicrucian] Brothers, invisibly travelling as ‘merchants of light’ to the outside world from their invisible college or centre, now called Salomon's House, and following the rules of the R. C. Fraternity, to heal the sick free of charge, to wear no special dress. Moreover the ‘cherubim's wings’ seal the scroll brought from New Atlantis, as they seal the *Fama*. The island has something angelic about it, and its official wore a red

cross in his turban.[24]

Yates quite correctly pointed out that modern students of Bacon, unfamiliar with the Rosicrucian literature, would not readily recognise the similarity between *New Atlantis* and the Rosicrucian Manifestos. But this handicap would not have been applicable to the literati of the 17th century to whom the Rosicrucian literature was widely known. A case in point is an adaptation of Bacon's *New Atlantis*, entitled *Holy Guide*, published by the author John Heydon in 1662. On the island of ‘Bensalem’ they had a ‘House of Strangers’, a sort of quarantine or immigration point where new visitors were temporarily kept. In his adaptation, Heydon has Bacon's official of the House of Strangers speak as follows: ‘I am by Office, Governor of this House of

Strangers ... and of the Order of the Rosie Cross.' Heydon also refers to Bacon's 'wise men of the House of Salomon' as being 'wise men of the Society of the Rosicrucians', and speaks of this 'House of Salomon' as being one and the same as the 'Temple of the Rosie Cross.'[25]

A brief excursion to consider Freemasonry

The case for a link between the Rosicrucians and Bacon's fraternity of scientist-priests seems unassailable, yet we've seen that what Bacon tells us frequently supports a link with Freemasonry as well.

Might it not be possible then that the elite brotherhood he had in mind was all along not the Rosicrucian brotherhood *per se*, but rather the up-and-coming ‘speculative’ Masonic brotherhood which was beginning at exactly this time to insinuate itself into England?

Unquestionably, the term ‘House of Salomon’ in relation to an elite and ‘wise’ brotherhood is very suggestive of this, whether Bacon intended it to be or not. ‘Salomon’ is, in fact, the transliterated French form of ‘Solomon’, the well-known biblical ‘wise king’ whose famous ‘temple’ (or rather its reconstruction) is the epicentre of Freemasonic initiation and rituals. Indeed, as Masonic historians very well know, there is nothing more important and more symbolic to the ideal of Freemasonry that the Temple of Solomon and its ‘rebuilding’ in a supposedly spiritual manner. The

Temple of Solomon is so intricately bound to Freemasonry that the entrances of many Masonic lodges are flanked by two columns representing the legendary original pillars of Solomon's Temple called *Boaz* and *Jachin* – meaning ‘wisdom’ and ‘power’.[26] In the same way the architectural design of Freemasons’ Hall in London, the headquarters of English Freemasonry, is almost certainly to be seen as an allegory of Solomon's Temple in Jerusalem. For example, the ceiling of the so-called *Grand Temple* is decorated with scenes and symbols of Solomon's Temple and reliefs on the main entrance door:

... are conventionally pictorial, depicting historical events. The three lower panels on each door show scenes connected with the building of King Solomon's Temple in Jerusalem, and the top left and right-hand

panels together show the procession for the Dedication of the Temple. The inscription at the foot is God's promise to King Solomon as recorded in I Kings, 6:12.[27]

Here is the passage from I Kings 6:

Then the word of the Lord came to Solomon, saying: ‘As for this house which you are building, if you are obedient to my ordinances and conform to my precepts and loyally observe all my commands, then I will fulfil my promise to you, the promise I gave your father David, and I will dwell among the Israelites and never forsake my people Israel.’ So Solomon built the Lord's house and finished it.[28]

Last but by no means least is the well-known fact that Scottish Rite Freemasonry sees itself as a revival in some form of the notorious medieval crusading

order of the Knights Templar (so named because it established its headquarters in the 12th century on the site of Solomon's Temple in Jerusalem). The Templars were contemporaries of the Cathars and like the Cathars they were ultimately persecuted for heresy, imprisoned, tortured and burnt at the stake. We will return to their mystery in the next chapter.

Isis in Virginia

When Frances Bacon placed his invisible island of Bensalem ‘in the midst of the greatest wilderness of waters in the world’ he was clearly signalling a location far away from his native England and

Europe. Could he perhaps have been inspired by the idea of the Americas, still largely unexplored in the early 17th century? There, after all, lay a real ‘new world’, unburdened as yet by the deep-rooted religious and social traditions of the old world, where a great experiment modelled on Masonic or Rosicrucian ideals might have its best hope of successful implementation.

We note with interest that Bacon was a passionate exponent of Britain's colonisation and development of its recently acquired North American territory of Virginia. In 1606 the so-called *Virginia Company* was granted a royal charter by James I which allowed it virtually unlimited power of government in the colony. Bacon had been instrumental in the creation of the charter. Bearing this in mind, it is not surprising that in *New Atlantis*, Bacon refers to

Bensalem as the 'Virgin of the World',[29] the latter a well-known allegory for Elizabeth I, the 'Virgin Queen', and by extension, her new domain of Virginia. But we saw in previous chapters that there also exists an important Hermetic text which is called the *Kore Kosmou* – literally the 'Virgin of the World' – in reference to the ancient Egyptian goddess Isis. In Chapter Eight we quoted a passage from the *Kore Kosmou* in which Isis makes the following astro-geographical statement:

The earth lies in the middle of the universe, stretched on her back as a human might lie facing towards heaven ... Her head lies toward the south ... her right shoulder toward the east, and her left shoulder towards the west; her feet lie beneath the Great Bear [north] ... But the right holy land of our ancestors

[i.e. Egypt] lies in the middle of the earth; and the middle of the human body is the sanctuary of the heart, and the heart is the headquarters of the soul; and that, my son, is the reason why men of this land ... are more intelligent [wise]. It could not be otherwise, seeing they are born and bred upon Earth's heart.[30]

Frances Yates makes the point that Elizabeth I, the Virgin Queen, was associated by her contemporaries with the constellation of Virgo, the latter identified by the Greeks as *Astraea*, a word meaning ‘star’. This name *Astraea* appears to be connected to a number of ancient ‘star’ goddesses of the Middle East such as Astarte and Ashtoreth, all probably directly or indirectly stemming from *Ast*, the ancient Egyptian name for Isis, whose star was Sirius, the Dog Star.[31]

Could this be a hint that, for some, the image of Elizabeth as the ‘Virgin Queen’ had contained a coded reference to the ‘virgin’ goddess Isis?

Such a possibility may not be as far-fetched as it at first appears. For, curiously enough, both ‘Solomon's Temple’ and the ‘Temple of Isis’ make appearances in the work of Sir Edmund Spenser, a contemporary of Francis Bacon. A close associate of the enigmatic Dr. John Dee,[32] Spenser was the author of the *Faerie Queen*, written between 1580 and 1590, a panegyric to Queen Elizabeth I and her imperial reform of the world. In it the celebrated poet refers to ‘House of Alma’, imagined as being an architectural allegory, in microcosm, of the macrocosmic world. The idea is strongly reminiscent of a statement made a generation later in the *Fama* (published in 1614)

where we read that in the closing years of his life Christian Rosenkreutz ‘constructed a microcosm corresponding in all motions to the macrocosm.’[33]

The whole notion of such correspondences between macrocosm and microcosm, sky and ground, above and below, is intensely Hermetic. Not surprisingly, therefore, Alastair Fowler, an acknowledged expert on Spenser, has discovered that the *Faerie Queen* contains a complex system of numerology as well as an ‘astral’ or planetary pattern within its central theme.[34] Frances Yates goes further to deduce that the mysterious ‘House of Alma’ encodes, by means of allegory and numerology, the proportions of the Temple of Solomon.[35] Another Elizabethan scholar, professor Angus Fletcher, sees a hint of Hermetic-Egyptian magic in Spenser's legend of the beautiful,

noble and chaste lady-knight *Britomart* (an allusion to Elizabeth I), where the magician Merlin interprets the ‘vision of Britomart’ as being the ‘Temple of Isis’.[36] Perhaps we should also note in passing that King Solomon is said in the book of Kings to have built a ‘house’ for his wife, an Egyptian princess, who, as a daughter of the pharaoh, would automatically have been identified by the ancient Egyptians with the goddess Isis:

Then Solomon brought Pharaoh's daughter up to the City of David [Jerusalem] to her own house which he had built for her.[37]

Antilian intrigues

The possibility that the newly colonised territories of Virginia were somehow part of the Rosicrucian and Hermetic dream of universal reform in a utopian setting may have been detected by the historian and researcher, Ron Heisler.[38] In an in-depth investigation into Michael Maier's sojourn in England between 1612 and 1616, Heisler discovered that ‘in Maier's associations there is a pattern of an unexpected dimension.’ This pattern emerges from a series of close contacts that Maier established in England with individuals who were all related in one way or another to the Virginia Company – a corporation of wealthy men whose royal charter, we saw above, had been drafted by Bacon.

Heisler's research reveals that when Maier published his first work in England, *Arcana*

arcanissima, he personally sent copies to various notables, including Sir Thomas Smith and a certain Dr. Francis Anthony, both of whom were to become deeply involved with the running of the Virginia Company. Indeed Thomas Smith was its treasurer and Dr. Anthony became a member of its committee in 1619. Others involved with the company, such as its legal advisor John Selden, and the writer George Sandys, also seem to have had a special interest in Maier and his ideas.[39] All this led Heisler to suspect that the Rosicrucian reformer's *Atalanta Fugiens*, published in 1617, 'may have been deeply inspired by the utopian vision of America.'[40]

There is another connection with the Rosicrucian movement and the American colony of Virginia which might shed more light on this intriguing problem. In

his remarkable study *The Tessera of Antilia,* scholar Donald R. Dickson presents evidence concerning the existence of a 'utopian brotherhood' known as Antilia (a name sometimes used in medieval times to refer to Atlantis). The brotherhood was apparently inspired by the Rosicrucian Manifestos and by 'Baconian beliefs in experimental science as a key to prosperity.'[41] To this end the brothers wished to purchase a small island in the Gulf of Riga in the Baltic on which to found their utopian society. Separately they also considered emigrating *en masse* to Virginia and establishing themselves there instead.[42] It is obviously not irrelevant that our old friend Johann Valentin Andreae, the suspected author of *The Chemical Wedding of Christian Rosenkreutz,* was a key participant in the Brotherhood of Antilia.[43]

All this very much suggests, if not actually confirms, that the utopian vision of the New World, and perhaps more specifically of Virginia in North America, was modelled or inspired by the Rosicrucian programme as set out in the Manifestos as well as by Francis Bacon's *New Atlantis*. Also caught up in the blend was Freemasonry, that very real, visible and influential brotherhood, still with us today, that was launched on its present course on English soil in the early 17th century, right after the Rosicrucian scare …

Before Freemasonry came out

The origins of modern Freemasonry are veiled behind such a mass of legends and pseudo-history that the subject has become a true nightmare for even the most dedicated of researchers. The problem lies in the fact that today Freemasons define themselves as a ‘society with secrets’ whereas once, and no one actually knows for how long, they were a secret society that went to great lengths to be ‘invisible’. We've noted before that successful secret societies are, by definition, hard to trace in the historical record.

Freemasonry as a recognised institution originated in Britain in 1717 with the formation of the Grand Lodge of England, an event that is documented in the second edition of the *Constitutions of Freemasons* published by James Anderson in 1738.[44] But all this

tells us is the moment when the former secret society publicly declared its existence, thereafter becoming visible – though still a society with secrets.

In 1722, sixteen years before Anderson's *Constitutions* appeared, a brother named J. Roberts helpfully published a compilation of the so-called *Old Charges* of Freemasonry, also known as the 'Gothic Manuscripts'. These, as the names suggest, are a collection of old manuscripts – some of which date from the late 14th century – in which is given a 'history' of the Craft of Freemasonry.[45] According to the manuscripts, the origins of Freemasonry go back to the antediluvian patriarch *Lamech* who lived before Noah's Flood. To Lamech's three sons – *Jabal, Jubal* and *Tubal* – and one daughter called *Naamah*, is accredited the invention of all the essential 'crafts'

on which civilisation is based. We are told that *Jabal* was the inventor of geometry, *Jubal* invented music, *Tubal* invented the smelting trades, and *Naamah* was the inventor of weaving.[46] Knowing that one day God would punish humankind for its sins with a cataclysm of flood and fire they took precautions to write down all their learning on two huge pillars made of stone so that their discoveries would not be lost to mankind forever but could be recovered by the survivors. As the *Old Charges* inform us:

The one stone was called marble that cannot burn with fire. The other was called lateras that cannot drown with water. Our intent is now to tell you truly how and in what manner these stones were found whereon these crafts were written. The Greek Hermenes that was son unto Cush, and Cush was son

unto Shem who was son unto Noah – this same Hermenes was afterwards called Hermes the Father of Wise Men, and he found out the two pillars of stone wherein the sciences were written and taught them forth … [47]

The ‘Greek Hermenes’ is understood to be, of course, Hermes (the Thoth of the Egyptians and the Mercury of the Romans). As for ‘Hermes the Father of Wise Men’, there can be little doubt that this is reference to *Hermes Trismegistus*.

The rest of the ‘history’ in the *Old Charges* consists of a very convoluted and circuitous narrative that passes through Babylon, the coming of Abraham to Egypt (whence ‘he taught the Egyptians the seven sciences’) and finally brings us to the most important moment in the Masonic story – the building of

Solomon's Temple in Jerusalem. We are told that through the construction of this magnificent edifice ‘the worthy Craft of Masons was confirmed in the country of Jerusalem.’[48]

From there the *Old Charges* hop, skip and jump through space and time to try and show how this ‘worthy Craft of Masons’ was brought into Europe via France and finally to England in the ‘time of St. Alban’.[49] Perhaps not totally unrelated is the curious fact that Francis Bacon, at the peak of his career, was granted the title of Viscount St. Albans by James I – thus linking him, in name at least, to this strange genealogy of Freemasonry in Britain.

We also note with interest that the *Old Charges* cast Hermes, the ‘Father of Wise Men’, as the finder and repromulgator of lost knowledge. Though the

effect may not be intentional this is a scenario that does very much call to mind the rediscovery of the Hermetic writings in 1460 and their subsequent repromulgation. We saw in Chapter Eight that Marsilio Ficino and his intellectual successors, including men like Giordano Bruno and Tommaso Campanella more than a century later, really believed that the lost ‘magical religion’ or ‘science’ of the Egyptians had been rediscovered and felt strongly that it should be ‘taught forth’.

An invisible college in dangerous times

Over two decades James I's extremely unpopular and confusing foreign policy, as well as his authoritarian attitude and contempt for Parliament, had created a deep and dark mood of discontent in England. When he died in 1625 he was succeeded by his cultivated but weak and somewhat unstable son, Charles I, who was destined to lead the monarchy into a headlong collision with Parliament and with the people. Disaster loomed ahead.

The new monarch pursued the same unpopular foreign policy as his father and proved to be even more tyrannical and dictatorial. His early marriage to the French Catholic Princess Henrietta Maria, the sister of King Louis XIII, did not go down well with the Puritanism that pervaded in the House of Commons. But most of all it was Charles I's mismanagement of the new war with Spain and

France, and his abusive raising of funds through illegal taxations to finance a war in Scotland also, that finally brought the Parliamentarians to quasi-open revolt in 1640.

The unthinkable rumours of civil war in England were everywhere. These were extremely dangerous times for everyone. The Thirty Years War was still raging in central Europe, Spain and France were at war with England, and in England itself the monarchy and Parliament were at serious odds. Mistrust and treachery had become the norm, and one had to be exceedingly prudent even to survive, let alone to prosper, in this highly perilous and volatile environment. The state of generalised distrust and chaos also created a need amongst certain groups in society – intellectuals, the elite gentry and the military for example – for a neutral

forum in which they could safely exchange views on politics, religion and science. It would much appear that the network and system of Masonic lodges, veiled by their multifarious rituals and screening system of recruitment and, above all, secrecy, may have provided just the right structure to satisfy such a need.

Operative, and possibly even a form of ‘speculative’ (i.e. esoteric, as opposed to strictly practical) Freemasonry had long existed in Scotland, probably since the late 15th century.[50] As time passed an *acception* system was introduced that allowed the recruiting of those men of stature and position in society who were not necessarily engaged in the operative stone-masonry, building and architectural trades.[51] This ‘acception’ system was almost certainly

the precursor to the ‘speculative’, i.e. non-operative, enrolment system of the modern society of Freemasons. It would also much appear that acception was brought into England with the coming of the Stuart dynasty. Now, with the English Civil War looming ahead, it conveniently provided a ready-made network through the lodges in which the *accepted* English elite could meet in secrecy, in brotherly friendliness and within a liberal atmosphere – the whole veiled in rituals and symbolism that were intended to bond together men from different backgrounds but with similar social goals and spiritual aspirations.

Open parliamentary rebellion finally came in 1642. After a failed attempt to arrest five members of Parliament, Charles I and his Royalist supporters quit London and set up court-in-exile at Oxford, that

traditional hub of elitist intellectuals and scholars. It was there, in the following years, that a strange fraternity of literati began to meet, calling themselves – evocatively – the 'Invisible College'. The earliest surviving written reference to this mysterious Invisible College comes from the celebrated physicist, Robert Boyle (1627 – 1691), in a letter he wrote to his tutor in France in 1646. In this letter Boyle states that he is now diligently applying himself to 'natural philosophy' based on the principles of 'our new philosophical college' and requests certain books from his tutor that 'will make you extremely welcome to our *Invisible College*.'[52] A few months later, in 1647, Boyle again mentions the Invisible College in a letter to a friend, saying that,

The cornerstones of the Invisible or (as they term

themselves) the Philosophical College, do now and then honour me with their company ... [These are] men of so capacious and searching spirits, that school-philosophy is but the lowest region of their knowledge ... [They are] persons that endeavour to put narrow-mindedness out of countenance, by the practice of so extensive a charity that it reaches unto everything called man, and nothing less than a universal goodwill can content it. And indeed they are so apprehensive of the want of good employment, that they take the whole body of mankind to their care.[53]

The term 'Invisible College', as well as the description of its activities and concerns given above, immediately brings to mind, of course, the Invisible College of the Rosicrucian brotherhood. Also the lofty

intellectual and humane qualities of the college brothers, to which Boyle alludes, are, as we saw in the previous chapter, the very same qualities attributed to the Rosicrucian brothers – notably, for example, on the posters that sensationally appeared all over Paris in 1623.[54]

It turns out that Boyle had spent some time in Paris in his youth, during an educational tour of France and Geneva, and it is not impossible that he could have heard of the Rosicrucian Invisible College through his tutors or other acquaintances. Frances Yates observes that there is, on face value, an uncanny similarity in the terminology used by Boyle in his letters to his tutor and the terminology used by Francis Bacon in *New Atlantis*. Both authors speak of a learned and elite brotherhood that is ‘invisible’ and

whose goal is the betterment of all mankind – which both hope to achieve through an enlargement of knowledge and by doing benevolent deeds.[55]

Many researchers agree that Theodore Haak and John Wilkins were probably the founders of Boyle's Invisible College.[56] Theodore Haak was a German immigrant who had settled in England in the 1620s, and John Wilkins was a vicar who later became bishop of Chester. At first there seems to be nothing in common between the two men, until it is realised that Haak was a refugee from the Palatinate and that John Wilkins acted as chaplain for Prince Charles Louis, the eldest son of Frederick V of the Palatinate and Elizabeth Stuart. Others who might have been connected to Boyle's Invisible College were the architect Christopher Wren and the alchemist Elias

Ashmole. The Invisible College first met in London in 1645 then moved to Oxford in 1648. Let's look more closely at its activities and its members and at what it was trying to achieve.

Utopia on hold for the Civil War

While in England, Theodore Haak acted as an unofficial diplomat for the Palatinate and, more especially, as the representative and agent to the Bohemian bishop, Jan Amos Komenský, better known as 'Comenius' (1592 – 1670).[57] Comenius had been the bishop of the Bohemian Church of the Unity of Brethren until its fall in 1620 after the Battle of

White Mountain near Prague. He was exiled with his fellow Protestants in 1628 and settled in Poland, where he became rector of the gymnasium at Leszno. There he developed a new Christian philosophy, a *pansophia* or ‘universal knowledge’ expressed in one common language to facilitate communication and understanding among scholars throughout the world. Comenius's ideas were published in 1631 in a work entitled *Janua Linguarum Reserata,* which attracted the interest of the great German philanthropist and educationalist Samuel Hartlib who had been living in England since the mid-1620s.

‘Hartlib, in his whole life and work’, wrote Frances Yates, ‘was something like what an R. C. Brother, if real and not invisible, might have been.’[58] Dubbed the ‘Great Intelligencer of Europe’, Hartlib had set

himself up as a human clearing-house, establishing a society known as the ‘Office of Address’ in order to promote a ‘commonwealth of learning’. The office encouraged and facilitated the intellectuals of Europe to correspond and to exchange ideas, and bears comparison with Francis Bacon's ‘House of Salomon’. Both concepts centre on an elite international brotherhood whose objective is to reform society and serve all mankind.

In 1640, two years before the Civil War broke out in England, the Long Parliament proposed radical reforms that, if implemented, would have bloodlessly stripped the Stuart monarchy of much of its power. Amidst a mood of great public excitement and enthusiasm there were those who began to believe that the utopian society they had so much dreamed of might perhaps be achieved in England. Zealous

speeches were given in Parliament, amongst them one by special invitee Samuel Hartlib who presented his own vision of an ‘English utopia’. He hoped that Parliament would adopt it and ‘lay the cornerstone of the world's happiness’.

According to Frances Yates, the experience of addressing such a lofty crowd in such a lofty place went to Hartlib's head:

In this thrilling hour when it seemed that England might be the land chosen ... to be the scene of the restoration of all things, when the possibility dawned that here imaginary commonwealths might become real commonwealths, invisible colleges real colleges, Hartlib wrote to Comenius and urged him to come to England to assist in the great work ... Comenius in far away Poland was overjoyed. He believed that he had a mandate from Parliament to build Bacon's New

Atlantis in England.[59]

Comenius arrived in England in 1641, and was received by Haak and Hartlib. Among them was another of Hartlib's friends, the Scottish minister John Drury whom Hartlib had known since the 1620s. It was, in fact, Drury who had been instrumental in bringing Comenius to London. A staunch Protestant and outspoken reformer, Drury had just published a book in which he urged the restoration to the Palatinate of Prince Charles Louis, eldest son of the exiled Frederick V and Elizabeth Stuart. It will be recalled that Charles Louis's personal chaplain was John Wilkins, and we may well wonder, in view of such connections, whether Hartlib and Comenius might not have taken part in the activities of Haak and Wilkin's Invisible College. At any rate, while in

England, Comenius wrote a book entitled *Via Lucis*, the 'Way of Light',[60] in which he calls for the formation of an elite fraternity of learned men. These brothers, moreover, are to be guided by some 'order' or 'sacred society' devoted to the welfare of humankind and they are to spread the light through the use of a universal language.

As well as the recurrent theme of 'Light' that seems to go right back to Manichean Gnosticism, the reader will note the similarity to Bacon's 'House of Salomon' with its learned fraternity that travelled the world and spoke many languages.[61] The Rosicrucians likewise claimed to be fluent in many languages and, in addition, to possess their own magical language and writing.

But all the great utopian ideas and expectations

generated by Hartlib, Comenius and Drury came to nothing. A year after Comenius's arrival in England it was pretty obvious to everyone that the differences between Charles I and Parliament were irreconcilable and that civil war was inevitable. To Comenius especially, it became clear that the reformation he had hoped to bring about in England was definitely not going to happen. In 1642, Comenius prepared to leave England for Sweden, and John Drury took his leave for Holland.

It was in this manner that the dreams the utopian reformers had for Britain went up in smoke on 19 August 1642 when the king's banners were raised by the Royalist army at Nottingham, effectively marking the beginning of the English Civil War ...

The dashing cavalier of the Palatinate

At the start of the war, success for the Royalists – or *Cavaliers* as they were being called – seemed assured. Notable among the Cavaliers was the very dashing 23-year-old Prince Rupert, the younger son of the exiled Frederick V of the Palatinate and Elizabeth Stuart, the deposed king and queen of Bohemia. Rupert was to become the hero of the English Civil War, highly admired for his gallant cavalry charges against the parliamentarian forces, nicknamed the *Roundheads*. Rupert's heroic example did much to boost the morale of the king's forces, especially after he reclaimed Bristol in July 1643,

relieved Newark and Nottingham in early 1644 and seized most of Lancashire by the summer of that year.

But his luck was soon to run out. The parliamentarian Oliver Cromwell, a ‘brawny, flushed-faced MP from Cambridge’, had trained an army of fanatics from the eastern counties and, with Sir Thomas Fairfax to command them by his side, Cromwell delivered the first serious blow to Prince Rupert's army at Marston Moor in Yorkshire on 2 July 1644.[62] It was the beginning of the end for the Royalists. But despite this terrible defeat, Rupert was appointed commander-in-chief of the king's army, and managed to pocket one more victory by recapturing the city of Leicester in May 1645. The following month he was severely beaten again by Cromwell at

Naseby in Northamptonshire. When Rupert surrendered at Bristol to the Roundheads, an angry Charles I stripped him of his command. An odd career was to follow for Rupert. After the defeat of the Royalists at Torrington in 1646, he was banished by the Puritan Parliament. Somehow he managed to take charge of a small Royalist fleet stationed in Holland and became a dashing pirate of the seven seas, first preying on parliamentarian ships and eventually taking his swashbuckling to the Azores and the West Indies.[63] Only after the Restoration did Rupert return to England.

The end for the Royalists came in July 1646 when the king's stronghold at Oxford was surrounded and placed under siege by Cromwell and his Roundheads. Among those taken prisoner when the Royalists

surrendered was a young man of 29 called Elias Ashmole, who had been serving as controller of the Ordnance Board for the king. Astrologer, alchemist and antiquarian *extraordinaire,* Elias Ashmole was destined to take a place of honour in the official history of Freemasonry ...

‘I was made a Freemason’

Some four months after his capture by the Roundheads, Elias Ashmole made the following entry in his diary:

1646. Oct: 16. 4H 30’ P.M., I was made a Freemason at Warrington, in Lancashire ...[64]

Most historians take this as the very first *recorded* Masonic initiation on English soil, but others reasonably argue that the honour should go to Sir Robert Moray. He was initiated into Freemasonry in 1641 at Newcastle-on-Tyne by members of the Edinburgh No. 1 Lodge who belonged to a Scottish regiment that had crossed into England. Thus the names of Moray and Ashmole are interlocked in Masonic history forever. And not only in Freemasonry. As we shall see, what also brings these two names together is the crucial role that both men were to play a few decades later in the conversion of the 'Invisible College' at Oxford into the very visible 'Royal Society' in London.

On 30 January 1649, amid an eerie silence followed by the roll of drums, Charles I was beheaded outside Whitehall Palace in London. England was renamed a

‘Commonwealth and Free State’, and, a few years later, Oliver Cromwell became Lord Protector of this new and morose Puritan dominion. It was the nearest that Britain was ever to get to a full-scale ‘revolution’. But there was none of the wild jubilation that would be seen much later in France in 1789 to greet this odd and discomfited English ‘Republic’.

In those turbulent and despotic years of Cromwell's rule, the Invisible College organised by Wilkins was moved to Cambridge and remained in low-key, semi-secrecy oblivious of the glorious future awaiting it. As for Wilkins himself, he had been appointed warden of Wadham College at Oxford and later was to become warden of Trinity College at Cambridge – the first and only scholar ever to head both these illustrious institutions. In 1656, by one of those odd twist of fate, Wilkins fell in love with and eventually married

a widow, Mrs. Robina French, who was none other that the sister of Oliver Cromwell.

Even though many had bitterly opposed Charles I's tyrannical rule, the vast majority of the British population remained Royalists at heart and there was a deep nationwide yearning for a return to monarchy. In the autumn of 1658, less than ten years after the shocking regicide at Whitehall, Oliver Cromwell died in bed a much hated and despised man, and hopes were again raised for a full restoration of the monarchy. All eyes turned towards the English Channel, across which the legitimate heir to the British throne was somewhere roaming.

Restoration and the return to the

promised land

When Oxford fell in 1646 Charles I had ordered his eldest son, Charles the Prince of Wales, to leave the country and take refuge in France. After a brief stay in the Scilly Islands Prince Charles headed for Paris, where he rejoined his mother, Queen Henrietta Maria, the sister of King Louis XIII of France. Louis XIII had died three years earlier, leaving the throne to his son, Louis, the future Sun King whose glorious reign, the reader will recall, had been predicted by the Hermetic magus-astrologer, Tommaso Campanella. The future Sun King was only eight years old when Charles arrived in Paris, and apparently did not much take to his older English

cousin. Louis's mother, Queen Anne, and her trusted prime minister, the imposing Italian Cardinal Jules Mazarin, practically ran France, and it was widely believed that they were conducting an illicit romance, some even going as far as to suspect a secret marriage.[65]

The exile in Paris was to be a great disappointment and source of deep frustration for Charles, for not only was he completely dominated by his French mother, but also the French nobility snubbed him and ignored him. For several years he lingered in this state of limbo until the public execution of his father in London in 1649 jolted him back into action. Suddenly, at the French court, Charles was proclaimed Charles II, king-in-exile. Gradually he was lured to join and lead the Scottish Presbyterian

forces in Perth who opposed Cromwell's regime. But this move proved to be disastrous, for the ill-organised Scots were no match for Cromwell's Roundheads and his parliamentarian cavalry, the *Ironsides*. When the two armies met at Dunbar on 3 September 1650 the Scottish forces under Charles II were decisively smashed. A final defeat at Worcester in 1651 was too much for Charles II, and he fled again to France. His life degenerated into a string of tempestuous love affairs,[66] and the small and poverty-stricken English court-in-exile became the laughing stock of Paris.

To make things worse, Mazarin came to terms with Cromwell and Charles II was booted out of France, left to wander around Europe and eventually southern Germany, where he sank further into a life

of debauchery and idleness, siring at least three illegitimate children in the process.[67] Most of his time was spent hatching harebrained plots against Cromwell – on one occasion he even considered offering to marry the Lord Protector's daughter and to share the realm with him.[68] Finally, in the autumn of 1658 news was brought to Charles of Cromwell's death, and suddenly a new window of opportunity opened for him. He made haste for the port of Calais on the French coast and there waited to seize the moment.

At first it seemed as if the Protectorate and Puritan Republic left behind by Cromwell would prove too deep-rooted for the badly organised Royalists to wrench it back into their possession. But soon things began to fall apart for the Puritans, for Cromwell's

son and successor, Richard, lacked the experience and character of his father. He was thus unable to contain the growing rift between the Roundhead army and Parliament, a conflict that quickly created a mood of uncertainty and discontent throughout the kingdom. The London taverns buzzed with talk of a possible ‘restoration’ of the Stuart monarchy and by early 1660 the whole country was fired up by Royalist supporters among the common folk.

An ex-Royalist soldier, George Monk, who was in control of Scotland for the Puritans, was now eager to avoid more anarchy and bloodshed, and decided to support the idea of a restoration. Monk arranged for an emissary, Sir John Grenville, to sail across the Channel in secret and meet with Charles II and his small court. A deal was struck that gave Charles full support from Monk and his powerful armed forces if

he, Charles, would consent to certain conditions – mainly to uphold the Church of England but also to grant ‘liberty to tender consciences’ who practiced other faiths, and to leave important matters of state to Parliament. Charles II agreed, and Monk moved his huge army towards London. In April 1660 Charles issued his famous Declaration of Breda from Holland, where he promised a general amnesty to his enemies, ‘liberty of conscience’, equitable settlement to land disputes, full payment in arrears to the army and, most important of all, a free Parliament to run the affairs of the state. And on a breezy day in late May 1660, Charles II boarded the flagship *Naseby*, appropriately renamed the *Royal Charles,* and set sail for England.

The *Royal Charles* docked at Dover on 25 May. Monk was there on the quayside to receive Charles II

in great pomp and in the midst of wild jubilation and emotional scenes. Huge spontaneous celebrations greeted the king all along the way to London, and the royal procession made a triumphal entry into the city on 29 May, the day of Charles II’s 30th birthday. John Evelyn, the famous diarist and horticulturist, who was an eyewitness to the event, vividly described the scene:

20,000 horse and foot, brandishing their swords, and shouting with inexpressible joy; the way strewn with flowers, the bells ringing, the streets hung with tapestry, fountains running with wine … myriads of people flocking even so far as from Rochester … it was the Lord's doing, for such a restoration was never mentioned in any history, ancient or modern, since the return of the Jews from the Babylonian

captivity …[69]

Also the poet Andrew Marvell drew inspiration from the Bible, and described Charles II as being ‘of a tall stature and sable hue, much like the son of Kish, that lofty Jew’.[70]

Such well-chosen analogies presenting Charles II as the ‘son of Kish, that lofty Jew’ and his restoration as a sort of ‘return of the Jews from the Babylonian captivity’ are most revealing, for they signal the incredible mood that had enveloped the return of this prodigal royal son to his ‘Promised Land’ – England. Such analogies also have a distinct ‘Masonic’ ring to them, for as we have seen, the name ‘son of Kish’ (or ‘son of Cush’, i.e. the biblical Nimrod) appears in the *Old Charges*, where he is said to be none other than ‘Hermes the Father of Wise Men’ who finds the two

pillars upon which all the sciences were written. Nimrod, who was dark in complexion[71] like Charles II,[72] immediately evokes the Tower of Babel, which is another important 'Masonic' symbol[73] – one that was very significant to Comenius, Hartlib and Bacon in their search for a universal language. As for the 'return of the Jews from Babylonian captivity', this is one of the principle themes of Freemasonry, for it marked the events that lead to the rebuilding of Solomon's Temple in Jerusalem.[74]

And so here we have it, couched in symbolic language, the hope that London would soon become the epicentre of a far greater 'restoration' involving the 'sciences' and 'ancient wisdom' in a wonderful 'New Jerusalem' rising like a phoenix from the smouldering ashes of the Civil War. Little did anyone

suspect that soon this euphoric vision would literally become true – not as they had intended but as a nightmarish satanic vision from the very gates of hell …

From Invisible College to Royal Society

It says something for the character of Charles II that he spent the evening of his triumphal entry into London triumphantly entering into Barbara Palmer, the beautiful young wife of the Royalist Roger Palmer who he had recently met at the Hague in Holland.[75] She was the king's latest conquest, but many more

were to follow. It was the start of an era of decadence at court that would soon disappoint those who had hoped for great things from the Restoration. Within four years England was again engaged in a disastrous and costly war, this time with Holland. And as if such a man-made calamity was not enough, London itself would receive two terrible blows in succession that would hit the city with such force that many came to believe they were witnessing divine retribution for the debauchery of Charles II. Meanwhile in these early days of the Restoration, with great changes and reformations still expected from the new king, the Invisible College decided to make its move.

In late November 1660 twelve members of this self-styled Invisible College met in a room at Gresham College in London. This was right after they had

attended a lecture by Christopher Wren, the Gresham professor of astronomy, who was one of their number. There and then it was decided to found a '*College for the Promotion of Physico-Mathematicall Experimentall Learning*' which, very soon, would become the Royal Society. Among the twelve men that met at Gresham College were Robert Boyle, John Wilkins and Robert Moray. Christopher Wren was 28 at the time. John Wilkins, who had been in at the origins of the Invisible College with Theodore Haak, was appointed as chairman to this meeting. Robert Moray, the first Freemason to be initiated on English soil in 1641, advised the group that they should obtain a royal charter, and in early December Charles II gave his approval for the creation of the Royal Society. The society moved into premises at Gresham College, and it was decided immediately to

draw up a list of suitable members.

A list of 40 was prepared, which included Elias Ashmole, Freemason *par excellence* and Rosicrucian enthusiast. Another on the list was the diarist and horticulturalist John Evelyn (1620 – 1706) who, as we will recall, had likened the return of Charles II and his court to the 'return of the Jews' to the Promised Land. According to Masonic historian and author Robert Lomas, John Evelyn was almost certainly a Freemason.[76]

Things were about to move very fast for many of these early members. Elias Ashmole was appointed by Charles II as Windsor Herald of Arms in Ordinary as well as Controller and Auditor of the Excise; Christopher Wren was made Savilian Professor of Astronomy at Oxford, although a far greater honour

awaited him when later he shifted his career into the field of architecture. And the diarist John Evelyn was appointed to serve on several royal commissions. Robert Moray, possibly the most influential player in the formation of the Royal Society, acted as its first ad hoc president until the royal charter was granted by Charles II in 1662, after which Moray moved into permanent residence at the king's court at Whitehall.

Parallel developments in France

Although much praise and honour is bestowed on the Royal Society for being the first scientific academic body of its kind, it is often forgotten that

another ‘royal’ society with even more illustrious royal patronage was already active in the city of Paris. In fact since the early 1640s, a group of scientists including the great mathematicians Blaise Pascal, Pierre Gassendi, René Descartes and Gilles de Roberval, had met informally in Paris, first at the residence of the famous theologian and mathematician Marin Mersenne and, after 1648, at the home of their sponsor Henri Louis Habert de Montmor.[77] This small but very powerful elite group was eventually to serve as the nucleus of the *Académie des Sciences* founded in 1666 under the patronage of Louis XIV.

Indeed, even earlier than the creation of this scientific body, the powerful Cardinal Richelieu, as ‘prime minister’ of France, had founded the

Académie Française in 1638 under his own patronage and backed by letters of patent from Louis XIII. At the death of Richelieu in 1642 the patronage passed to the chancellor Pierre Séguier, the Count of Gien, and, after him, to Louis XIV – who himself became royal patron. Exactly like the Invisible College, the *Académie Française* sprung to life amongst a group of learned men who met informally. There were originally twelve members, then after the society was granted royal charter, the membership was expanded to 40. The reader will recall that the Royal Society in England was also to develop in the same way, with twelve informal founder members building up to 40 official members after December 1660.

The original objective of the *Académie Française* was to develop the French language into a format that would allow it to be understood by all, that is to

become *universalised* into a *lingua franca*. This, of course, brings to mind the original ambitions of the Invisible College, with the universal-language schemes concocted by Hartib, Comenius and Wilkins. It also recalls the claim made by the Rosicrucian brotherhood, namely that its members could communicate with all the peoples of the world through a sort of ‘natural language’, appropriately dubbed the ‘silent language’ by modern Rosicrucian researchers.[78]

Had this natural, magical language anything to do with the Masonic secret sign language that also employs ancient symbols, particularly those used by Renaissance Hermetic-Cabalists and also Rosicrucian adepts? Whatever the answer to such a provocative question, it is nonetheless justified to a certain extent

for us to wonder whether the developments of a philosophical-scientific group in Paris in the 1630s might not have had something to do with the Rosicrucian movement and, more particularly, the ‘poster scare’ of 1623 when it was alleged that emissaries of the Invisible College of the Rosicrucians had arrived in France, or were about to arrive, who could communicate in a universal or ‘natural’ language as a tool to reform and better the condition of the world.[79]

The Scottish connection

As regards the formation of the Royal Society in

England in 1660, all historians agree that the initial driving force of this institution was Robert Moray. We've already seen how, in 1641, Moray was the first Freemason to be initiated on British soil. This event occurred two years after Cardinal Richelieu founded the *Académie Française* in 1638. In that same fateful year of 1638 the future Sun King Louis XIV was born and the Hermetic philosopher Tommaso Campanella, who had prophesied the unexpected birth, dedicated his famous *City of the Sun* to Richelieu.[80] The connection is that Robert Moray had spent many years in Paris where he had joined the Scots Guard of Louis XIII in 1633. In 1638 he had been elevated to the command of the guard by Richelieu who greatly admired this rather bold and refined young Scotsman.[81]

Twelve years later, in 1652, Moray married the lady Sophia Lindsay,[82] daughter of Sir David Lindsay, the first Earl of Balcarres. Lindsay was a learned man who enjoyed the private life. He had a keen interest in alchemy, and in his library were to be found many alchemical works which Lindsay himself had translated and copied in Scottish colloquial in his own handwriting, including some 'Rosicrucian literature'.[83] It was also in 1652 that Moray sponsored the very first English-language edition of the Rosicrucian Manifestos which was published by the famous Welsh alchemist Thomas Vaughan (brother of the poet Henry Vaughan), who wrote under the pseudonym 'Eugenius Philalethes'.[84] Anthony Wood, a contemporary, was to describe Thomas Vaughan as 'a zealous brother of the Rosie-

Crucian fraternity', and then also Moray, his sponsor, as a 'most renowned chymist [and] great patron of the Rosie-Crucians.'[85] With such keen sustained interest in all things Rosicrucian, one wonders if a contact did not take place between Moray and Campanella, both of whom were at the French court in 1638, both of whom were sponsored by Richelieu and, more importantly, both of whom had acted as patrons to the Rosicrucian movement.

There is yet another Royal Society founder to consider, the diarist John Evelyn, who also was no stranger to Paris in those troubled times. In 1643, after the outbreak of the Civil War in England, Evelyn left for Paris, then travelled to Rome, Venice and Padua. He was back in Paris in 1646, where a year later he married Mary Browne, the daughter of the

British ambassador. Evelyn stayed in Paris till 1652. Was he, too, exposed to the ‘Rosicrucian’ and Hermetic ideas that hovered at the French court? It would be odd, indeed, if he was not.

According to Masonic historian Robert Lomas, the Jacobean court-in-exile in Paris was rife with Freemasons. Many of the Scots Guards, for example, were Masons from Scottish lodges including, of course, their leader, Robert Moray. The Masonic historian and Master of the famous Lodge of Antiquity, William Preston, who is known among Freemasons for having published the very popular book *Illustrations of Freemasonry* in 1772, even believed that Charles II himself might have been a member of the brotherhood.[86] Early Freemasons with a great appetite for illumination and arcane

knowledge would have been particularly receptive to such ‘Rosicrucian’ ideas and the Hermetic-Christian utopian vision that Campanella preached. It is not impossible that these influences in Paris might have prompted Moray to seek out the Invisible College when he returned to England.

But we are now going to examine the connection of yet another Royal Society founder who deserves even closer scrutiny. For this particular English gentleman was to play a pivotal role in the events that were soon, quite literally, to reshape the old city of London …

Blazing star of doom

Towards the end of 1664 rumours spread that a ‘blazing star’ had been seen in the southeast sky from London. It was a comet. And these rare and impressive cosmic visitors were believed in those days to be the harbingers of ‘famine and plague’ and other such calamities.[87] Martin Luther, the German Protestant leader, even believed comets to be the signs of God's wrath or tokens of the Second Coming.[88] On 15 December 1664, Robert Hooke, a senior member of the Royal Society, reported the ‘blazing star’ to his colleagues. On 17 December Robert Moray spotted it from his observatory at Whitehall, and soon others saw it from other locations.

It vanished from view about the end of January 1665 but then just two months later in March 1665 a

second comet appeared.[89] Amongst the general public and the erudite alike this was taken as the ultimate herald of doom. And they were not to be disappointed. In May 1665 the bubonic plague hit the city of London. The nightmarish disease was first noticed in the parish of St. Gilles in the Fields. With its narrow, dirt infested alleys, its virtually nonexistent drainage, and its total lack of public hygiene, London in the mid-1660s was the perfect environment for the Great Plague to strike and take hold. To make matters worse, the month of June that year was unusually hot, giving more impetus to the deadly epidemic. Within a few months people began to die in droves.

Predictably many attributed the Great Plague to the wrath of God. Henry Oldenburg, secretary of the

Royal Society, went as far as to claim that ‘when we have purged our foul sins this horrible evil will cease.’[90] Alarmed by the rising number of deaths, Charles II moved his court to Oxford in July, leaving the Londoners to their grim fate.[91] All those who could afford it followed suit, moving either into the country or, better still, across the Channel to the safety of continental Europe. It was at this time that Christopher Wren took the opportunity to travel to France ...

Christopher Wren's esoteric pedigree

Christopher Wren was educated at Westminster School and completed his studies at Wadham College, Oxford, where he attained the prestigious Fellowship of All Souls in 1653. Within a few years he was appointed professor of astronomy at Gresham College in London and, after the Restoration of Charles II in 1660, he was given the prestigious chair of Savilian Professor of Astronomy at the University of Oxford. He was only 29 when he took up this post, but even then was regarded by his peers as one of the most learned men in England.

Wren developed a close friendship with Prince Rupert of the Palatinate, who also held the title of Duke of Cumberland. Prince Rupert, like John Evelyn and Robert Moray, spent some time in Paris with Charles II during his exile. And like Moray, he had been very well received by Richelieu. On his return to

England after the Restoration Rupert developed a keen interest in ‘natural science’ and became an active member of the Royal Society, often travelling to Oxford to visit Wren and see him at work in his laboratory.

It will be remembered that John Wilkins, one of the original founders of the Invisible College, was chaplain to Rupert's older brother, Prince Charles Louis, the elector palatine-in-exile. Wren, in fact, had probably known Prince Charles Louis in his childhood, when both were at the deanery at Windsor where Wren's father had been stationed as registrar of the Order of the Garter. In those early days Wren himself had been a protégée of Wilkins.[92] When we recall how much Frederick V of the Palatinate, the ill-fated father of Rupert and Charles Louis, had been

indirectly entangled in the Rosicrucian movement in Germany, and also the many Rosicrucian connections that can be traced to the founding members of the Invisible College, it is tempting to consider the possibility that Wren too might have been influenced by the same Rosicrucian ideologies.

In 1663 Wren began to develop a keen interest in architecture, and it was becoming clear to him that this career, rather than one in mathematics or astronomy, was his true and natural vocation. Although Wren was a brilliant geometrician and had a talent for model-making and design, one cannot help but wonder if it was not his contact with the Invisible College in 1660, and more particularly the Masonic attachments of individual members of the Invisible College, that might have inspired him to make such a switch at this rather advanced stage of

his academic career. We have seen how Freemasons hold architecture and geometry in the highest esteem. After all, the legendary hero of Freemasonry, Hiram Abiff, was allegedly the architect of Solomon's Temple. Likewise Freemasons also refer to God, who they prefer to call the Supreme Being, as the ‘Grand Architect of the Universe’.

Since many, if not all, the protagonists who played a part in the formation of the Royal Society were Freemasons we ought not be too be surprised to find that Wren was a member of the brotherhood as well. According to Anderson's *Constitutions of Freemasons* (second edition) published in 1738, Christopher Wren was already a Master Freemason in 1673 and later, in 1685, became the Grand Master of all English Freemasons.[93] Other documents suggest that Wren

may have joined the Freemasons by 1663, perhaps even earlier.[94] It is also thought that Wren was a regular member of one of the four original Masonic lodges that were amalgamated in 1717 to form the Grand Lodge of England.[95] This lodge was originally located at St. Paul's in London, and it is almost certain that Wren was at one time its Master.[96]

Pausing to deposit Wren in Paris we make an excursion to Rome to study a mysterious obelisk

When Christopher Wren arrived in Paris in late July

1665, he was in for a great treat.

Louis XIV was in the process of launching a massive revival in classical and baroque architecture in Paris and Versailles. He had invited the great Italian baroque architect, Gian Lorenzo Bernini to be advisor and witness to these events and, specifically, to design the new façade for the Louvre Palace. At the time Bernini, whose reputation in architecture had reached almost heroic levels, had just begun the design of the great plaza in front of the Vatican Basilica of St. Peter in Rome, at the centre of which still stands today an intact ancient Egyptian obelisk surmounted by a golden cross.[97]

We shall digress briefly to tell a little of the story of this ‘Vatican Obelisk’ and of Bernini's role in its final decoration, since these matters have a bearing on our

primary theme – namely the survival of secret traditions that have carried ancient Egyptian religious concepts and symbolism through time and lodged them in the Western heartlands of orthodox Christian power.

The Vatican Obelisk, which stands more than 25 meters tall and weighs 320 tons, is hewn from a single block of solid granite. One of 13 original Egyptian obelisks that can still be seen in Rome today,[98] it is somewhat unusual in that none of its faces bear inscriptions telling us anything about its origins. We know for certain, however, that it was brought to Rome from Egypt on the orders of Emperor Caligula (AD 12 – 41). It was transported across the Mediterranean in a special ship and set in place in AD 37 in the 'Vatican Circus', which Caligula

had built for chariot racing.

As to the ancient Egyptian provenance of the obelisk, we learn from the Roman historian Pliny, a contemporary of Caligula, that it had been made originally for one ‘Nuncoreus, the son of Sesostris’.[99] The reference here is to the 12th dynasty Pharaoh Sesostris I (1971 – 1926 BC) who carried out extensive restoration at ancient Egypt's most sacred city, *Anu*, which the Greeks would later call Heliopolis – literally the ‘City of the Sun’. Heliopolis was itself a sort of ‘Vatican City’ in the sense that it held the same powerful symbolic significance to the ancient Egyptians as the Vatican does to devout Roman Catholics today. But on the actual site of ancient Heliopolis, in the suburbs of modern Cairo, almost nothing is left to show of former glories. The

magnificent Sun Temple that once formed the sacred heart of ancient Egyptian spirituality is nowhere to be seen and the only remnant of any size is a lone obelisk raised by Sesostris I.[100] On this and other evidence scholars have concluded that the Vatican Obelisk also originally stood at Heliopolis and may perhaps even have formed one of a pair with the obelisk that remains on site.

Historian Christopher Hibbert, in his book *Rome: the Biography of a City,* asserts simply that 'the obelisk of Saint Peter's Square was transported by Caligula from Heliopolis in 37 AD.'[101] Likewise in their book *Roma Egizia* ('Egyptian Rome') Italian scholars Anna Maria Partini and Boris de Rachewiltz accept Pliny's statement that the Vatican Obelisk was originally from Heliopolis and belonged to a son of

Sesostris. But they establish additionally that it was not brought directly from Heliopolis to Rome but was first taken by Emperor Augustus Caesar to Alexandria and raised there in the Julian Forum, where it remained until it was shipped to Rome by Caligula in AD 37.[102]

As we've seen Caligula had the obelisk raised in the Vatican Circus as the centrepiece of his private chariot-racing grounds. There it was to remain for the next 1600 years while the Vatican Circus – where Saint Peter was believed to have been martyred in AD 64 – was redeveloped to become the heart and centre of the Roman Catholic world. Begun in AD 334 by Constantine the Great (but not completed until the 16th century by the architects and sculptors Bramante, Raphael and finally Michelangelo

himself)[103] the Basilica of Saint Peter was built half over the top of, and overlapping with, the Vatican Circus.

The result was that Caligula's obelisk ended up close to the south wall of the Basilica. It was observed in that spot in the 14th century by a certain Master Gregorius, an English prelate who made a journey to Rome and left us an account. He describes the obelisk as standing in a dark alley, its base and pedestal completely covered by rubbish, flanked by crumbling old houses up against the wall of the Basilica.

In the 15th century the plan was first conceived to move the ancient Egyptian relic to the position of honour it occupies today in the centre of Saint Peter's Square. The idea came from Pope Nicholas V (1447 –

1455) who intended that the base of the obelisk should stand on four life-size bronze statues of the Evangelists and that its tip should be surmounted by a huge bronze Jesus with a golden cross in his hand. Nicholas died before he could commission the work and the project lapsed.

It fell to Pope Sixtus V (1585 – 1590) to complete the plan. Dubbed the ‘Last of the Renaissance Popes’, Sixtus was:

... intent on making Rome Europe's finest city, and St. Peter's its grandest basilica. He was responsible for redesigning the city's entire layout, chiefly by the construction of immense avenues which opened up a series of vistas anchored in obelisks radiating from the core of the built-up area immediately across the Tiber from the Vatican towards the hills in the

east.[104]

Sixtus dispensed with the four figures of the Evangelists proposed by Nicolas V for the base of the Vatican Obelisk and replaced them with four lions around a stone pedestal. He also dispensed with the idea of a statue of Jesus balanced on the tip of the obelisk. A bronze sphere, popularly believed to contain the ashes of Julius Caesar – the first ‘divine’ emperor of Rome and also ‘pharaoh’ of Egypt – had been positioned there by Caligula but proved on examination to be empty. Deciding to retain the sphere, Sixtus placed inside it fragments of Christ's supposed ‘True Cross’ that were in the possession of the Vatican. He then ordered that the heraldic symbol of his own family, a star over three small mountains, be placed above the bronze sphere, and,

above the star, a golden cross. It was in this form, therefore, surmounted by a cross, that the ancient obelisk from Heliopolis was finally raised in the heart of the Vatican on 27 September 1588.[105]

The first thing Sixtus did after the obelisk was safely upright was to have it exorcised. With all the usual bells and incense a bishop stood before it and solemnly cried out:

I exorcise you, creature of stone, in the name of omnipotent God, that you may become an exorcised stone worthy of supporting the Holy Cross, and be freed from any vestige of impurity or shred of paganism and from any assault of spiritual impurity.[106]

To make sure that the point was properly driven home, Sixtus had the same formula carved

permanently into the western and eastern sides of the base of the obelisk.

Ironically, however, the anti-pagan message was flatly contradicted by a secret or ‘invisible’ message that the obelisk itself had begun to pulse forth from the moment that a cross was fixed to its apex. The message was secret because it was written in three dimensions in ancient Egyptian hieroglyphs which no one in the 16th century is supposed to have been able to read. Whether by pure coincidence, or by design, however, it is a fact that an obelisk surmounted by a cross is a symbol that would have had a meaning for ancient Egyptian priests. The meaning is the name of the most sacred ‘pagan’ city of antiquity – *Anu*-Heliopolis – the ancient Egyptian ‘City of the Sun’. Not only is the Sixtus arrangement of the obelisk meaningful in the ancient Egyptian language, in

other words, but also, and much more impressive, the meaning is *correct* – since *Anu*-Heliopolis was the very place where this obelisk originally came from!

One small detail might spoil this otherwise intriguing picture. Although it is true that a hieroglyph showing an obelisk surmounted by a cross would have been understood as *Anu* (Heliopolis) by an ancient Egyptian priest, the symbol is nevertheless incomplete. It should normally be accompanied by a circle or ellipse divided into eight parts – the standard hieroglyphic indicator of a city. The failure of Sixtus and his architects to include such a circle in the plan for Saint Peter's Square seems to rule out any notion that some secret Hermetic game was being played here.

Or it would if things had been left the way they were when Sixtus died in 1590.

Instead, more than 70 years later, the architect Gian Lorenzo Bernini was commissioned by Pope Alexander VII (1655 – 1667) to redesign Saint Peter's Square. He chose to surround it with elegant freestanding colonnades, creating a huge elliptical space centred on the obelisk. Bernini's work on the project, as we noted above, was interrupted in 1665 when he took up Louis XIV’s personal invitation to visit Paris. But he completed it on his return to Rome by marking out on the plaza, around the base of the obelisk, the beautiful geometrical pattern of a gentle ellipse divided into eight parts that can be seen there to this day.

Coincidence? Or could some secret group, capable of sustaining influence on the papacy over many decades, have understand ancient Egyptian hieroglyphs long before scholars learnt to read them

in the 19th century?

Anu-Heliopolis was the archetypal ‘City of the Sun’ that Giordano Bruno and Tommaso Campanella had been determined to restore. And we have shown that Bruno and Campanella were not alone but were part of a larger network of Hermetic and ‘Rosicrucian’ thinkers spread across Europe who had become very influential – though still not unburnable – by the mid-1660s. The defiant act of writing the name of Heliopolis in ‘invisible language’ in the midst of the Vatican's proudest stronghold is precisely the sort of symbolic and talismanic guerrilla warfare that we would expect of the members of such a network.

But there is no proof. The reader must decide.

An English Architect meets his hero at the Court of The Sun King

Let's now return to Paris in July of 1665 where Christopher Wren had just arrived, fleeing the Great Plague in London, and where Bernini was then also in residence, invited by Louis XIV to design the new façade for the Louvre Palace.

At the court of Louis XIV Bernini mingled with France's leading architects such as Louis Le Vaux and Claude Perrault, as well as the great landscape architect André Le Nôtre. Born in 1613, Le Nôtre came from an illustrious family of royal gardeners – his grandfather had been in charge of the Tuileries Garden at the Louvre Palace, and his father had been

the chief gardener of Louis XIII. At the birth of the Sun King Louis XIV, Le Nôtre was put in charge of the Tuileries and Luxembourg Gardens. Later, at the peak of Louis XIV's reign, Le Nôtre would design and engineer the famous Gardens of Versailles.

When Wren visited Paris, Le Nôtre was a mature man of 52 with an immense reputation at court. Since 1656 he had been in full control of all the king's buildings, and was on the verge of beginning one of his most ambitious – and least publicised – projects: the so-called *Grande Cours* or 'Great Course'. The central idea was a wide processional avenue, starting from the Tuileries, that would open the outlook from the Louvre towards the west. It had originally been proposed during the reign of Henri IV, the grandfather of the Sun King. But nothing was done about it until 1661, when Jean-Baptiste Colbert, Louis

XIV’s all-powerful minister of finance, appointed Le Nôtre to bring the idea to fruition.

Le Nôtre's scheme somehow manages to be grandiose yet exquisitely simple at the same time. A contemporary plan now kept in the *Archives des Hauts-de-Seine,* shows a vast straight avenue (the celebrated Champs-Élysées), [107] flanked on either side by rows of trees, running westward from the Tuileries all the way to the Pont de Neuilly. Roughly at the centre of the avenue there was a flat-topped hill, then known as the *Colline de Chaillot,* on which Le Nôtre proposed to situate a huge piazza in the shape of a ‘star’.[108] In the fullness of time the latter was to become the Place de l’Étoile where, in 1815, Napoleon commissioned the famous Arc de Triomphe, today perhaps Paris's best known

landmark.[109]

It was amidst illustrious men, therefore, in a Paris buzzing with new architectural concepts and idealistic city plans, that Christopher Wren was to spend six months of his life at the formative stage of his new architectural career. And aside from the obvious lure of the architectural revival then underway, a flurry of scientific activities also attracted the Englishman. He met with the topographer Melchisédech Thévenot, the astronomer Pierre Petit – a collaborator of Blaise Pascal – as well as the Huguenot philosopher Henri Justel. Both Petit and Justel would themselves eventually become fellows of the Royal Society.[110] Wren also befriended the physicist Adrien Auzout, who, like him, had cultivated a deep interest in architecture. Thévenot,

Petit and Auzout belonged to the group of scientists we mentioned earlier who met, very much like a Parisian version of the Invisible College, under the patronage of Habert de Montmor. There was much talk of formalising this group under the charter of Louis XIV – again in the same fashion as the Royal Society – and members were thus naturally interested to meet Christopher Wren and to hear his views on the matter.

Wren also met Bernini, who had arrived in Paris just a month before he did. But at the time of this meeting, it is important to recall, Wren was to Bernini as a new undergraduate is to the head of a school of architecture. In short, Wren at this point was a nobody while Bernini was a giant who commanded the respect, the funds and even the patience of the pope and many kings and princes of

Europe. In consequence the great Bernini was constantly swamped by his admirers while he was in Paris – so we may not suppose that he took much notice of the insignificant Wren.

For Wren himself, however, it was a life-changing encounter. To meet face to face, even briefly, with his architectural superhero, was an experience that affected him deeply. It is probable that from this moment on he was fired by the ambition that was to make him one of England's greatest architects. Here is how Adrian Tinniswood, Wren's latest biographer, sums up the meeting:

With hindsight this meeting is one of the most momentous in the history of seventeenth-century architecture – the man destined to be England's greatest exponent of the Baroque in a face-to-face encounter with the most famous Baroque architect in

Europe[111] ... The benefits Wren gained from his visit to France were considerable. They range from the experience of a more sophisticated architectural milieu than he knew in England, and a chance to exchange ideas in a less sophisticated, but still rewarding, scientific milieu, to the quantities of books he brought home with him – ‘almost all France in paper’.[112]

But Christopher Wren may have brought back something else, something perhaps less tangible than drawings and papers but far more powerful: a ‘vision’ of the new role he had to play in the restored Stuart monarchy. We shall return to the city of Paris and its exciting scientific and amazing architectural renaissance in later chapters. Meanwhile things became uncomfortable there for Wren when Louis

XIV declared war on Britain in January 1666 in support of the French alliance with the Dutch. It was time for Wren to go home. He arrived back in London in March 1666 and within a few months an incredible opportunity was to drop into his lap – one that no one could have imagined in their wildest dreams ... or nightmares as the case would be.

Rising from the ashes

The Great Fire of London began on 2 September 1666, apparently sparked in a bakery at Pudding Lane, near London Bridge, when Thomas Farriner, the king's baker, forgot to dowse the fire of his oven

before going to bed. Some embers fell on nearby kindling and soon his rickety wooden house was in flames. In those days the houses in the city of London were mostly built with timber frames and pitched roofs, which caused them to burn like big matchboxes. Within a few hours several streets were engulfed in a swirling inferno, with the fiery progress aided by a violent easterly wind that fanned the flames. By the time the Great Fire had abated five days later, 430 acres, that is nearly four fifths of the city, had been reduced to cinders. About 13,000 houses, 90 churches and 50 liveries had been destroyed, and even the great Cathedral of St. Paul's had been ruined.

Apparently Charles II himself worked heroically alongside the firefighters, which earned him back some public respect. Nonetheless, the king's enemies

were quick to claim that this was God's wrath for the debaucheries at court and the ungodly foreign policies of Parliament. A pamphlet issued by the Dutch, who were at war with England, called it a vengeful act from the ‘Almighty and Just God’, and the Catholics in Britain promptly agreed with them. Even the *London Gazette* was to report that ‘the heavy hand of God is upon us for our sins, shewing us his Judgement in raising the fire.’[113] One also wonders what the Jews of London must have thought with *Rosh Hashanah* (Day of Judgement) only ten days away, and *Yom Kippur* (Day of Atonement) a further ten.[114]

The rumour mill cycled wildly. Stories of a ‘papal plot’, or a ‘foreign plot’, or ‘God's Wrath’ were rife. Charles II did his best to persuade the angry

population of London, now gathered at Moorfields, that their collective misfortune was due to nothing more than an accident. He vowed gallantly to take good care of all homeless Londoners and to rebuild their homes and their city immediately. But it is probable that the king was not entirely displeased at this opportunity, for he himself was a bit of dabbler in town-planning and design. Since the Restoration he had been bitterly frustrated by the lack of funds to transform London into a splendid metropolis that would eclipse the ‘City of Light’ that his cousin, Louis XIV, was turning Paris into. Now here, out of the blue, had come this amazing opportunity that might allow him to do just that.[115]

A new London, everyone hoped after hearing the king's emotional speech at Moorfields, was about to

rise like a great phoenix from the smouldering ashes.

Or, better still, like a ‘New Jerusalem’, as we will see in the next chapter.

The major theme of the Knights Templar legend is its survival through the form of secret societies ... The Templars themselves were a secret society ... It has survived into Freemasonry ... Freemasonry, then, is the heir of the Templars [and] *purports to be the recipient of the ancient wisdom of the builders of Solomon's Temple coming down to them from the Crusades.*

Alain Demurger, Vie et mort de l'ordre du Temple

Even a brief survey will show that he [Charles II] *was dedicated to private alchemical experiments ... Such a king could indeed be expected to provide the long awaited 'Solomon's House'...*

Donald R. Dickson, The Tessera of Antilia

I will not cease from mental fight, nor shall my sword sleep in my hand, till we have built Jerusalem in England's green and pleasant land.

William Blake, Preface to 'Milton'

CHAPTER FIFTEEN

CABAL

A few days after the Great Fire had finally abated, Christopher Wren and John Evelyn, each man apparently acting independently, rushed to present Charles II with plans for the full reconstruction of London.[1] To be precise, Wren presented his plan on 11 September 1666 and Evelyn presented his on 13 September 1666.[2] The king is reported to have admired both designs greatly but in the end neither

could be implemented because the pressing need of the time was not for grand architectural schemes but to re-house the tens of thousands of people made homeless by the Fire.

The abandoned plans of Wren and Evelyn would therefore amount to no more than a footnote to architectural history were it not for two very curious facts:

- Both men ‘invisibly’ incorporated esoteric symbolic devices into their proposed layouts for the streets and plazas of London, and can only have done so with the same purposes in mind.
- Exactly the same symbolic devices, again apparently used for the same purposes, turn up more than a century later on the other side of the Atlantic in the layout adopted for the

streets and plazas of Washington, DC, the newly-built capital of the USA.

The first of these symbols is the simple octagon. The second is more complex, with multiple branches and terminals, and is known as the *Sephirothic Tree* or the ‘Tree of Life’. It is derived from Hebrew Cabala, a system of Jewish mysticism that was elaborated in Occitania during the great period of intellectual and religious freedom that was ushered in there by the rise of Catharism in the 12th century.

The octagon and the Sephirothic Tree remain hidden in plain view in Washington to this day, as we will show in Chapter Nineteen, and can easily be seen by the prepared eye in Wren's and Evelyn's abandoned plans for London, which we will examine later in this chapter. In both cases the real issue is

not so much demonstrating the use of the symbols but trying to find out *why* they were used in the first place. What was it that Wren and Evelyn, as well as their successors in the American Revolution, had in mind with these devices? Why would the octagon and the Sephirothic Tree have been significant to them?

The first clue that will help us to answer these questions does not lie in London in the 17th century or Washington in the 18th century, but in Occitania in the 13th century in an anomaly of the history of the Albigensian Crusades.

Mystery of the Knights Templar

We saw in Part I how the Albigensian Crusades that smashed the Cathars in the 13th century were mounted at the instigation of successive popes and fought by armies recruited from all over Europe, though principally from northern France. During the whole period of sustained warfare in Occitania, however, from the fall of Béziers in 1209 until the fall of Montségur in 1244, there were large numbers of seemingly obvious ‘crusaders’ permanently on hand in Provence and the Languedoc who took almost no part in the fighting at all. This is odd and what makes it odder is that these reluctant crusaders against the Cathar heresy were all members of an elite order of highly-trained warrior monks, sworn to papal service, who had already proved themselves in the Holy Land as valiant crusaders against the forces of Islam. Their full title was the ‘Poor Knights of Christ and the

Temple of Solomon’, but they're much better known as the Knights Templar.

We do not propose to rehearse at great length here the familiar story of the Templars that has been told so many times before. But some background is unavoidable if we are going to work out why they abstained from the Cathar wars when we would have expected them to join in wholeheartedly on behalf of the Church.

The order was founded by nine French noblemen who travelled to the Holy Land in 1119 – twenty years after Jerusalem had been captured and occupied by the Christian powers in the First Crusade of 1099. The 12th century historian, Archbishop William of Tyre, tells us that ‘foremost and most distinguished’ amongst these nine men ‘were the venerable Hugh de Payens and Godfrey de

St. Omer.’[3]

When the nine arrived in Jerusalem they were received as VIPs by the ‘Crusader King’ Baldwin I. They requested and were granted the right to use as their headquarters the Al-Aqsa Mosque, which lies on the south side of the ancient Temple Mount and still survives today. Traditionally held to have been the site of the biblical Temple of Solomon, the Temple Mount also houses a second splendid Islamic shrine that the Templars now took control of as well – the Dome of the Rock. It too has survived the centuries and may be visited today. Its floor-plan forms a perfect octagon with all eight sides of equal length, its lofty walls rising to support a beautiful golden dome towering directly above the eponymous ‘Rock’. This is the gigantic slab of exposed bedrock that is

held in Judaic, Christian and Islamic tradition to have formed the original floor of the Holy of Holies of the Temple of Solomon. On it, the Old Testament tells us, once stood the Ark of the Covenant containing the tablets of the Ten Commandments given to Moses by God – the god in question being Jehovah who the Gnostics and their later successors the Cathars saw as the evil second-class deity who had created the material world as a trap for souls. A Jewish tradition says it was on this same rock that Abraham prepared to sacrifice his son, Isaac, on the instructions of Jehovah. For the Muslims it is the place from whence the Prophet Muhammad made his night journey into heaven.[4]

Solomon's Temple was the First Temple of the Jews, and biblical archaeologists today generally

agree with the tradition that it was sited on the Temple Mount and most likely on the spot where the Dome of the Rock now stands. It was destroyed by the Babylonians when they sacked Jerusalem in 587 BC but the Second Temple was built on the same site between 537 and 517 BC after the return of the Jews from their Babylonian exile.[5] In its turn the Second Temple was destroyed by the Romans in AD 70 and there has never subsequently been a Jewish place of worship on the Temple Mount.

This is why the famous 'Wailing Wall' has been of such enormous importance to Jews down the ages and is today the single most important Jewish holy place. It dates back to the time of the Second Temple, being part of a retaining buttress built by Herod the Great in the late first century BC. It escaped

demolition by the Romans in AD 70 (because, says the *Midrash*, the 'Divine Presence' hovered over it) and in later years it became a potent symbol of the nationalist aspirations of the Jewish people scattered in the diaspora.[6]

From AD 70, until Jerusalem was captured in AD 638 in the early Islamic *jihads*, we know little of the history of the Temple Mount. This is partly because of the confusion of the period that saw the collapse of the Roman Empire and the rapid expansion of Islam, and partly because the Islamic authorities controlling the site do not permit archaeological investigations (although some illicit digs have taken place).[7] Their reluctance is perfectly understandable since the Dome of the Rock and the Al-Aqsa Mosque represent respectively (after Mecca and Medina) the third and

fourth most sacred sites in the Islamic world.[8]

Archaeologists believe that a Roman temple was built on the ruins of the Second Temple after AD 70. Six centuries later, in AD 670, Caliph Umar, the successor to Prophet Muhammad and at that point the absolute ruler of Jerusalem, ordered the Temple Mount cleared:

... and a Moslem house of worship to be erected there, on the spot where Israel's Temple had once stood.[9]

That same year a temporary wooden shrine was put up. Then in AD 691, during the reign of Caliph Abd al-Malik, the permanent structure of the Dome of the Rock that we still see today was built. Under its huge gilded cupola it represented a unique concept in Islamic architecture of the period with its striking

octagonal floor-plan encompassing a circular central nave containing the sacred rock of the Temple of Solomon. Some decades later Abd al-Malik's son, Caliph Al-Walid, built the Al-Aqsa Mosque.[10] There then followed four centuries of relative peace under Islamic rule, rudely interrupted by the First Crusade and the capture of Jerusalem in 1099.

The Christian crusaders were utterly ruthless, and a bloodbath ensued. Only the Muslim governor of the Holy City, Iftikhar ad-Daula, and his personal bodyguard were allowed to leave in exchange for the city's treasure. ‘They were the only Muslims to escape with their lives’, reports author Piers Paul Read, in his extensive study of the Knights Templar:

Intoxicated by their victory, and still charged with the passion of battle, the crusaders set about the

slaughter of the city's inhabitants with the same indifference to their victims’ age or sex ... they were all killed.[11]

Raymond of Aguilers, the chaplain of Count Raymond IV of Toulouse, the leader of the crusaders, was a witness to the event. When visiting the Temple Mount he had to wade through gore, flesh and blood that littered the streets:

In all the streets and squares of the city, mounds of heads, hands and feet were to be seen. People were walking over dead men and horses ... what an apt punishment! The very place that endured for so long blasphemies against God was now masked in the blood of the blasphemers.[12]

At that point the Al-Aqsa Mosque, the Dome of the Rock and the whole of the Temple Mount came under

Christian control and then, from 1119, under the exclusive control of the Knights Templar – hence, of course, their name.

The Rosy Cross and the Octagon

The Templars signalled their affiliation to Christ by wearing a blood-red cross in the distinctive style known as *croix pattée* stitched to the white background of their tunics – almost 500 years before the Rosicrucian Manifestos made a feature of a very similar ‘Rosy Cross’. But their identification with the Temple of Solomon was equally strong, as they demonstrated from the outset by choosing the

Temple Mount for their headquarters. Because the Dome of the Rock is an octagonal structure they adopted the octagon as their symbol of this affiliation and their *croix pattée* was cunningly designed so that an octagon with all eight sides of exactly equal length like the floor-plan of the Dome of the Rock was produced by joining all the exterior points of the cross.

One of the several puzzles surrounding the story of Templar origins is the speed with which King Baldwin I of Jerusalem handed over the keys of the Al-Aqsa Mosque to the nine founder knights when they turned up on his doorstep in 1119. It would be a puzzle under all circumstances, but perhaps particularly so in this case because, shortly before the Templars took possession, Baldwin had been lovingly renovating the mosque for use as his own

palace.[13] No matter how heavily armed and battle-scarred these rather mysterious and impressive men were they were in no position to threaten the ruler of Jerusalem, who controlled far larger forces. So we may only suppose that he delivered the sacred precinct to them voluntarily – in which case they must have been able to furnish him with the most persuasive reasons why he should do so.

Once the Temple Mount was in their hands the knights lived, ate, slept and worked on this site sacred to three religions. They rarely left it during the next seven years. In public pronouncements they had declared that their mission to the Holy Land was ‘to keep the road from the coast to Jerusalem free from bandits.’ They don't seem to have done that. Indeed, in the words of one authority, ‘the new Order

apparently did very little' in this period.[14] Besides simple logic suggests that nine men could hardly have protected anybody on a highway almost 50 miles long – and their number stayed at nine until they were joined by the Count of Champagne in 1125. Moreover the members of an older and far larger military order – the Knights Hospitallers – were already doing the job of protecting pilgrims when the Templars arrived.[15]

Late in 1126 Hugh de Payens suddenly left Jerusalem and returned to Europe accompanied by André de Montbard, another of the founders. De Montbard's nephew was the renowned Catholic cleric Bernard (later Saint Bernard) of Clairvaux, who was about to become the sponsor of the Templars. A staunch opponent of the early Cathars, Bernard

would subsequently lead a peaceful preaching campaign against them that took him deep inside Occitania in 1145 and subjected him to a number of humiliations. For example, though he was known as the greatest preacher of his age and was accustomed to being mobbed by adoring crowds of thousands, Bernard only managed to attract an audience of 30 when he preached in the Cathar city of Albi.[16] At Verfeil (northeast of Toulouse) mounted Cathar knights (they would, of course, have been *credentes*, not *perfecti* sworn to nonviolence) are reported to have pounded on the doors of a church where Bernard was attempting to preach and to have clashed their swords together so loudly that no one in the small congregation could hear a word he said.[17]

So if anyone had a reason to hate the Cathars and

want to punish them it would surely be the Templars who owed so much to Saint Bernard. All the more difficult to understand therefore why the large numbers of Templars – who are known to have occupied fortresses and preceptories throughout the length and breadth of Occitania in the 12th and 13th centuries[18] – chose to step back from the Albigensian Crusades that raged after 1209. The reader will recall from Chapter Two that several times between campaigns the Catholic champion Simon de Montfort was able to retain only skeleton forces – sometimes down to as few as a dozen knights – with which to preserve crusader gains in Occitania. Never once, so far as we have been able to establish, did the Templars intervene on his behalf or help him in any way in these periods of dire need.

Why not?

If they were exactly what they very much seemed and claimed to be in 1209 – i.e. Catholic knights dedicated to the service of the pope and to the destruction of his enemies – then surely the Templars should have been the first, not the last, to raise the sword of wrath against the heretics of Occitania?

Hubris

Hugh de Payens and André de Montbard arrived in France in 1127 and in January 1128 participated in what was to be the most significant event in the early history of the Templars. That event was the Synod of

Troyes, which had been convened with the explicit objective of procuring the Church's official backing for the Templar order. Bernard of Clairvaux presided over the synod and personally drew up the formal ‘Rule of the Knights Templar’ that, henceforth, was to guide the evolution and development of the order. Thereafter in a series of sermons and glowing panegyrics such as *De Laude Novae Militae* (‘In Praise of the New Knighthood’) he vigorously promoted the young order – thus using his own prestige and influence to guarantee its success.

The results were spectacular. New recruits flocked in from all over France and later from many other parts of Europe as well. Donations of land and money were received from wealthy patrons, and political power quickly followed. By the last quarter of the 12th century the order had become phenomenally

rich, was operating a sophisticated international banking system (that made use of the first ever ‘letters of credit’) and owned fortresses and a vast range of properties in many different lands.

In the Holy Land the Templars’ military might, violence and aggression were legendary, and their policy of ‘no retreat, no surrender’ often proved devastating. Not unexpectedly, the Muslim forces developed a deep hate for them and a profound mistrust for their unchivalrous, not to say highly unChristian, behaviour towards their enemies and the civilian population.

There is also the matter of the foolhardy bravado and greed of the Knights Templar – characteristics that eventually played in favour of the Muslims. Take for example the siege of the stronghold fortress of Ascalon held by the caliph of Egypt. Because it was

supplied by sea from Alexandria, and could not be starved or deprived of provisions, the fortress had to be taken by direct assault. On 15 August, the day of the Feast of the Virgin, forty Knights Templar led by Bernard de Trémélay placed a high tower against the walls of the fortress and managed to break into the Muslim stronghold. The rest of the Christian army failed to follow them, and the Templars were butchered – their heads cut off and their bodies thrown over the walls of the fortress.

From there on everything began to go horribly wrong. On 4 July 1187, in the full heat of the Levantine summer, the Knights Templar faced a large Muslim army in an arid and waterless region called the *Horns of Hattin*.

The political and religious balance in the Holy Land, and eventually in the whole of the Christian

world, was about to change.

The Horns of Hattin

The leader of the Muslim army that the Templars were now about to engage on that fateful day was the legendary Salah-ad-Din Yusuf ibn-Ayyub, better known as Saladin.[19] This time the Templars were contending with a military genius of high intelligence and wide education and, most of all, with a cool mind and a perfect sense of timing.[20]

Saladin was born in the city of Tikrit, in Iraq. As an aside, the reader may be interested to note that Tikrit was also the birthplace of Saddam Hussein, the Iraqi

leader deposed by the US in 2003, a connection across the ages that did not escape the attention of the Templar historian Piers Paul Read who commented,

How many Arab leaders, one wonders, from Abdul Nasser to Saddam Hussein, have aspired to become a latter-day Saladin, defeating the infidel invaders at another Hattin or … driving them into the sea?[21]

In his youth Saladin joined the service of Imad ad-Din Zengi, the ruler of Syria, and was appointed commander of Zengi's fortress in Baalbek in Lebanon. In 1146 Imad ad-Din died and was replaced by his son, Nur al-Din, under whom Saladin also served until he himself became vizier of Egypt in 1169 and, in 1171, proclaimed himself first Ayyubid sultan of Egypt.

According to his biographers Saladin was familiar with Euclid, the Almagest, mathematics, law and, more especially, the Koran. He also had an excellent knowledge of the history of the Arabs and was an expert on the pedigree of Arabian horses. What is generally remembered of this semi-legendary man, however, is his ‘exquisite courtesy’ and his clemency towards his enemies.[22] In his court, camp, or on the battlefield, Saladin was the epitome of chivalry, and his Arab roots imposed on him rules of hospitality and politeness that not only baffled his enemies but also earned him immense respect throughout the Muslim world and Christendom. In the aftermath of the Battle of Hattin, for example, his forces captured Guy of Lusignan, the young and handsome king of Jerusalem. Learning that Guy was close to death from

exhaustion and thirst, Saladin had him brought to his tent and personally offered him a cup of cool water scented with roses, a gesture that also meant in Arab warfare that Guy's life would be spared and he would be treated in the manner appropriate to his high title. ‘A king does not kill a king’ Saladin told the bemused Christian leader.

In early 1187 Saladin was in command of a massive Muslim army with which he now felt ready to strike a death blow to the Christian crusaders who controlled Jerusalem and most of the Holy Land. On 1 July Saladin crossed the Jordan with 30,000 soldiers and 12,000 cavalry. In a swift assault he took the town of Tiberias, the stronghold of the prince of Galilee, the Christian knight Count Raymond III of Tripoli. This was a ruse to draw the Christian knights away from Jerusalem and into open battle near Tiberias.

Raymond was in Acre with King Guy at the time; his wife, Eschiva, countess of Tripoli, who was still in Tiberias had taken refuge in the citadel and managed to send word to Raymond. Torn between saving the countess and saving the Latin kingdom of Jerusalem, Raymond advised King Guy not to march to Tiberias to engage Saladin in open battle, but to protect Jerusalem instead. Guy did not agree. Listening more to the advice of Reginald de Châtillon and Gérard de Ridefort, the Templar Grand Master, who accused Raymond of cowardice and screamed for revenge against Saladin, Guy foolishly ordered the knights and the army to march towards Tiberias.

In the heat of full summer, riding in the semi-arid region of the Negev desert wearing their heavy armour and laden with weapons, the Christians were already exhausted and parched when they reached

the village of Lubia which had a water well. But the well was dry, and so the Christian army camped on the waterless plateau of the Horns of Hattin. To make matters worse, the Muslims set fire to the dry scrub upwind, sending smoke into the Templars' camp. At dawn Saladin ordered the attack. Frenzied by thirst, heat and the infuriating smoke, the Christians attempted a mad rush against the Muslim phalanx, resulting in all of them getting killed or taken prisoners. Raymond charged with his knights and managed to find himself on the other side of the Arab army. Realising the futility of his act, he fled to Tripoli. The remaining Christian forces made a circle around King Guy to protect him, and attempted several sorties against the Muslims, all of which failed.[23] With a few hours, after heavy losses, Guy

and the rump of his army were taken prisoner.

As we saw earlier, Saladin showed clemency to Guy. The other knights were offered the choice of conversion to Islam or death by beheading. Most zealously opted for the latter, the gruesome task executed with glee by Sufi fanatics in Saladin's entourage. Saladin himself decapitated the insolent and very arrogant – not to mention bloodthirsty – Reginald de Châtillon in front of the horrified eyes of King Guy who now feared for his own life. This was the moment when Saladin uttered the famous words cited earlier: ‘A king does not kill a king, but *that* man's [de Châtillon's] perfidy and insolence went too far.’ Saladin also spared the life of Gérard de Ridefort, the Grand Master of the Templars – not out of compassion but to use him as leverage in his parleys with other Templar strongholds. Within

weeks Saladin had taken the fortified towns of Acre, Nablus, Sidon, Ascalon, Jaffa, Beirut and Sidon. Only Tyre resisted. By mid-September Saladin was ready to go for the ultimate prize, the 'World Cup' of all crusading wars – *Jerusalem*.

We recall the great importance that Muslims everywhere accord to Jerusalem's Temple Mount (Al-Haram al-Sharif). This is because of the belief that in AD 621 Muhammad rode a winged-horse called the *Buraq*[24] and flew at night from Makkah (Mecca) to the Temple Mount. Known as *Lailat al-Miraj* (the 'Night of the Ascension'), this is regarded as one of the most significant events in Islam.[25] The 'Night' starts at Makkah, with the Prophet Muhammad resting in the Ka'aba, the cubical shrine that is regarded as Islam's most holy place. Here the

Archangel Gabriel appears and gives Muhammad the *Buraq*. Muhammad then mounts the *Buraq* which takes him to the ‘farthest mosque’, which Muslims believe to be the Al-Aqsa Mosque in Jerusalem. There Muhammad prays. He then flies again on the *Buraq* to reach ‘heaven’, where he speaks to the earlier prophets such as Abraham, Moses and Jesus. The Archangel Gabriel then takes him to see Allah (God). Allah instructs Muhammad that Muslims must pray fifty times a day. Moses urges Muhammad to ask Allah for a ‘reduction’. This Muhammad does several times until the number is reduced to five prayers a day. Muhammad then returns to Makkah and tells his story to a bemused population who go to Abu Bakr, Muhammad's loyal companion, and say: ‘Look at what your companion is saying ... he went to Jerusalem and came back in one night!’ Abu Bakr replies: ‘If he

said this, then it is true. I believe him ...' Because of this, Abu Bakr earned his celebrated epithet of *Al-Saddiq*, the 'Believer'.

With such a heritage to reclaim, we can imagine what Saladin and his men must have felt as they stood before the walls of Jerusalem in late September 1187 pitting their religious convictions against those of the whole of Christendom. Although no magical winged-horse had carried Saladin here, the Muslims held their breath and hoped with all their fervour that he, too, would soon pray on the sacred rock as did the Prophet Muhammad on that night of nights nearly six centuries before.

Tonight I will pray in Jerusalem!

A few weeks before the battle for Jerusalem, during the siege of Tyre, the Christian baron, Balian de Ibelin (whom the Arabs regarded as equal to a ‘king’), asked Saladin for a safe conduit into Jerusalem so that he could bring his family out. Saladin agreed on condition that Balian swear an oath not take up arms against him and not stay more than a day in the city. The oath was sworn, but once inside Jerusalem, Queen Sibylla, (King Guy's ambitious wife), and Heraclius, the patriarch,[26] persuaded Balian to break his word to Saladin and stay to take control of the defence.

The conditions in the city were terrible. Hardly a handful of knights remained (some sources say only two, others say fourteen). Balian was forced to ‘create’ another sixty knights chosen from among his

soldiers.

By 20 September 1187 Saladin was at the walls of Jerusalem. Through the mediation of an Eastern Orthodox Christian clergyman, Yussef Bateet, negotiations were opened between Saladin and Balian. Saladin said that he wanted to take the city without shedding any blood. Balian vowed to fight to the death rather than hand Jerusalem over to the Muslims.

A siege followed. Arab archers rained arrows down into the city. Huge catapults hurled heavy stones and Greek fire. Part of the city wall was breached on 29 September. The breach was strongly defended but the Arab numbers were overwhelming. Realising that end was near[27] Balian threatened to have the Dome of the Rock and the Al-Aqsa Mosque destroyed and

the city burnt.

Further parley brought agreement from Saladin to be paid a ransom of 10 dinars for each man, 5 dinars for each woman and 1 dinar for each child. Funds from the city's treasury were used for those who could not pay, thus securing the freedom of a further 7,000 inhabitants. On 2 October came the formal surrender; Balian personally handed over the keys to the Tower of David, the citadel. A calm and disciplined evacuation of Jerusalem then took place, with the surviving Knights Templar and Knights Hospitaller leading two columns and Balian and Heraclius leading a third column. Saladin even allowed Heraclius to take a number of church treasures and reliquaries along.

That same evening, as the refugees still streamed away, Saladin entered Jerusalem in triumph amid

shouts of a ‘*Allah'u Akbar*!’ (‘God is Great!’)

A curtain had fallen on the crusaders’ dream and Christendom's love affair with Jerusalem. A strange kind of hush, a dark mood of despair and confusion, fell over the Catholic pope in Rome and Catholic kings across Europe.

The Death Blow to the Templars in the Holy Land

The Templars clung on to some parts of the Holy Land for another century. Their final downfall came in the spring of 1290, when an Egyptian army led by Caliph Al-Mansur Qalawun and his son, Al-Ashraf

Khalil, moved to lay siege to the city of Saint-Jean d’Acre (the modern Acre) which was in the hands of the crusading knights and regarded as the last bastion of the so-called *crusading* Christian states.

With its fortified wall and its back to the sea, Acre's reputation as a crusader stronghold was legendary. But now, after almost three centuries of warfare between Christians and the Muslims, the bulk of the crusading states had been severely weakened. Undermanned and drastically low on supplies, Acre was about to face the full brunt of the Muslim forces. There was a moment of hope when it was announced that Caliph Qalawun had suddenly died, as though felled by the hand of God, just before reaching the walls of Acre. But his son and successor Al-Ashraf Khalil, kept a cool head and immediately took control of the Arab army, By 6 April 1290 Acre was

thoroughly under siege, with the only way out being from the sea.

Within the high walls the knights braced themselves for the worst, as it was now clear to all just how massively the Arabs outnumbered them. There were terrible scenes of panic as the populace scrambled for places on the few ships available, and many old people and children drowned in the mad scuffle to evacuate the doomed city. On 15 May the Arabs breached the walls and stormed inside. An awful carnage ensued, even by medieval standards. The Knights Templar fought to the last like mad lions, knowing full well the gruesome fate that awaited them if they were captured alive. Amazingly, they held on in a redoubt for a further twelve days and when the fighting was finally over the city looked like a giant butcher's floor.

Infuriated by the insane resistance of the Templars, Al-Ashraf Khalil ordered Acre razed to the ground and all prisoners – male and female, young and old, civilian or military – put to death ‘under the Prophet's sword’. The Church of St. Andrew, renowned throughout Christendom, was demolished; its heavy Gothic door, weighing several tons, was taken as booty to Cairo to adorn the mausoleum of Al-Ashraf Khalil's brother. As the Arabs rode off from the smoldering stench and the terrible carnage, the already dark and somber mood of the Christian world deepened. The adventure of the crusades, of heroic tales and gallantry to ‘protect’ the Holy Land from the ‘heathen’, was finally over.

Nemesis

The fall of Acre marked the beginning of the end for the Templars. Within less than a decade of the disaster most of the knights had returned to Europe. Some went to England, where they were absorbed by the many long-established Templar preceptories there. The order's headquarters in England was located in London just north of the Thames to the east of Holborn in the district that is still called ‘Temple’ today. Some of the returning Templars went to Germany and to Spain. Many went to France, particularly to Paris and to the Port of La Rochelle where again, there were large numbers of existing Templar institutions to receive them. Thousands also

chose to settle in Occitania which, by 1300, was increasingly being absorbed into France, and which had hosted a strong and continuous Templar presence for more than 150 years.

By the beginning of the 14th century the papacy's long and corrupt dependence on the French crown to provide a ‘final solution’ to the problem of the Cathar heresy had not only resulted in the annexation of Occitania into France but also in a steady diminution in the powers of the pope. So much was this the case that from 1309 until 1377 (a period referred to by Catholic historians as the ‘Babylonian Captivity’), the papacy was not based in Rome but in Avignon where it was almost totally under the control of the French monarchy.

The pope who made the move to Avignon in 1309 was Clement V. Formerly Raymond Bertrand de Got,

archbishop of Bordeaux, he was elected pope in 1305 and crowned at Lyons in the presence of King Philip IV of France, known as Philip the Fair. Two years later Clement laid grave charges of heresy against the Templars and authorized Philip to bring the knights to trial. The charges were in many cases identical to those that had been repeatedly brought against the Cathars by the Inquisition during the 13th century and included accusations of secret ceremonies in which initiates were required to spit on or break crosses – accusations that aroused feelings of righteous horror amongst orthodox Catholics.

Thus it was that on Friday 13 October 1307 all members of the order within reach of Philip's forces – including all the Templars in Occitania – were arrested. Since more than 15,000 of them were

rounded up in this way it is clear that the operation must have been exceptionally well-planned and well-coordinated, and implemented by large numbers of the king's men. We know that simultaneous dawn swoops on hundreds of Templar properties were carried out and that in most cases the arrests were secured without a struggle.[28]

In the months that followed, the Templars were savagely tortured by the Inquisition. And as with the Cathars before them, and Bruno after them, this torture – which was of exceptional brutality, even by Inquisition standards – was specially authorized by the pope. Moving quickly to follow up the arrests in France, Pope Clement V also issued a bull, *Pastoralis praeeminentiae*, dated 22 November 1307, which ordered the arrest of all other Templars throughout

the Christian world. Proceedings followed as far afield as England, Spain, Germany, Italy and Cyprus and, in 1312, another bull from the puppet pope, *Vox in excelso*, officially suppressed the order. Meanwhile thousands of Templars were subjected to the most gruesome tortures and many were subsequently burned at the stake.

The agonizing death of the last Grand Master of the Templars, Jacques de Molay, came on 18 March 1314, and was recorded for posterity by a monk who was an eyewitness to the event:

At the hour of vespers [late afternoon], on a small island on the Seine situated between the gardens of the king and the church of St. Augustine, they [Grand Master Jacques de Molay and the Templar Preceptor of Normandy, Geoffroi de Charnay] were condemned to be burnt ... They were seen so resolute to endure

the ordeal of the fire, with such willingness, that they gained the admiration and surprise of all who witnessed ...[29]

Such descriptions inevitably remind us of the calm fortitude of the Cathar *perfecti* when they faced similarly terrible deaths at the stake, and later of Giordano Bruno, the Hermetic magus who was burned for his beliefs in Rome in February 1600. But Jacques de Molay was a fighting man and he went out fighting. Twisting in horrible pain as he roasted in the midst of a slow fire, the last Templar Grand Master found the strength to call down a curse on the French monarchy for 13 generations and to prophesy that Clement V and Philip the Fair would both meet him for judgement before the throne of God within the year. Weirdly Clement V died just one month

later, in April 1314, and Philip the Fair died inexplicably in November 1314.[30] The climax of the story comes many generations later with the outbreak of the French Revolution in 1789 and the public beheading by guillotine of the unfortunate Louis XVI in 1793. Allegedly as the king's head rolled into the basket a French Freemason darted forward, dipped his fingers in the blood and scattered it over the crowd, shouting: ‘Jacques de Molay, thou art avenged!’[31]

Templar survivals and the long quest for Utopia

When Jacques de Molay was burned in 1314 many say that the Templars ceased to exist. This is true in the legal sense, for the order was suppressed. But practically speaking it did survive in a number of places. One was the Scotland of Robert the Bruce which liberated itself from English occupation at the Battle of Bannockburn in 1314. Another was Portugal where the Templars were tried but found to be free of guilt, and thus neither tortured nor imprisoned. There, though their order was officially dissolved in 1312 as elsewhere, it was able to reconstitute itself under a different name – the Militia of Jesus Christ (also known as the Knights of Christ or the Order of Christ).[32]

A persistent rumour down the centuries hints at a great mystery concerning the large and well-

appointed Templar fleet that had been anchored in the French Atlantic port of La Rochelle on the night of 13 October 1307 when the mass of Templars were rounded up. Historians accept that the fleet was there the day before but gone the next morning, eluding the king's forces that came to take possession of it. Clearly, therefore, good numbers of Templars – enough at any rate to man and sail the fleet – did escape arrest in France.

But where did they go? On this there is no concensus. One theory has it that the Templars sailed to North Africa to join forces with their long-time enemies, the Muslims. Another theory has them discovering the Americas almost two centuries before Columbus. A third theory, not necessarily inconsistent with the latter as we shall see, has them sailing to Scotland and taking refuge amongst the

large number of Templars already established in that country.[33] There according to 18th century Masonic sources such as the Chevalier Ramsay and the Baron von Hund, they formed the core of the underground movement that would eventually blossom forth again as Freemasonry.[34]

There is a particularly strong association linking the Templars in Scotland, Scottish Freemasonry and the ancient Sinclair family of Rosslyn near Edinburgh. A thorough study of the subject was published by Andrew Sinclair in 1991 under the title *The Sword and The Grail*.[35] It presents compelling evidence that Sir William Sinclair, who began construction of the spectacular Gothic chapel at Rosslyn around 1446, was himself secretly initiated as a Templar more than 130 years after the

suppression of the order and was at the same time the hereditary Grand Master of Freemasonry in Scotland.[36]

Equally intriguing from our point of view is the evidence also presented in *The Sword and The Grail* of a voyage made to the northeast coast of America around 1398 – 9 by William's grandfather Prince Henry Sinclair, First Earl of Orkney and also an initiated Templar. This precocious voyage appears to have been partly memorialized in reliefs at Rosslyn Chapel, dated prior to 1450 (thus still more than 40 years before Columbus) that show American maize and aloe cactus.[37] Since 1991, so much new historical and archaeological evidence has been brought forward in support of this general thesis that it is no longer, so far as we are aware, seriously

disputed by scholars.

What is more remarkable is the evidence that Andrew Sinclair managed to unearth regarding the *motive* for Prince Henry's transatlantic expedition:

There is little doubt that the Knights Templar wanted to create another Paradise and Temple of Solomon in the New World beyond the reach of Papal authority.[38]

Sinclair's research suggests that the underground remnants of the Templar order in Scotland at the end of the 14th century saw Prince Henry's pioneering voyage as the first step in the implementation of a long-term plan to establish a utopia. It was, in other words, a bold and very early attempt to put into action what would again be envisaged more than 200 years later by men like Campanella, Andreae and

Bacon as the ideal solution to the repulsive corruption and entanglements of the Old World.

Of course it's possible that the actual adventure of a trans-Atlantic voyage in the late 14th century, and the philosophical adventures of the 17th century, could have occurred entirely independently of each other. But the involvement of powerful Templar symbolism in both periods makes us think otherwise. It is not only the recurrence of the Rosy Cross (which also appears on the tombstone of William Sinclair at Rosslyn).[39] Equally indicative of a link is the way in which the early explorers and the later philosophers were all inclined to express their mission in terms of exactly the same intent (whether symbolic or otherwise) – i.e. to rebuild the ‘Temple of Solomon in the New World’.

For a variety of reasons which need not detain us here, Prince Henry Sinclair's voyage was not followed up in the way that the later voyages of Columbus were instantly followed up.[40] The chance was lost. But the big question is this. At the end of the 18th century, when the opportunity to create a genuinely new and revolutionary society built on new principles offered itself a second time with the American War of Independence and the vision of a free and independent United States, how can it possibly be an accident that Templar symbolism was once again involved?

We'll return to this problem in Chapter Nineteen. Meanwhile a more pressing and so far unaddressed issue demands our attention here.

How were the Templars transformed from the

pope's chosen warriors in the 12th century into heretics who had to be burnt at the stake in the early 14th century?

The scholarly consensus, much of which makes a great deal of sense, is that the round-up of the Templars in 1307 was motivated almost entirely by King Philip the Fair of France, who trumped up the accusations of heresy against them, and had his puppet pope condemn them, so that he could steal their vast wealth. Since he did in fact steal much of their wealth, and since we know that Clement V did everything Philip told him, this is generally a very plausible scenario.

We disagree fundamentally on one point, however, which is the widely accepted idea that the accusations of heresy against the Templars were trumped up. Far from that, our proposal is that they

very likely were heretics, guilty as charged, and that what had turned them into secret warriors against the Church was their long exposure to Cathar culture in Occitania and the return there from the Holy Land of many of the knights at the end of the 13th century.

Templars and Cathars

Looking at the dualist doctrines of the Cathars and at what is known about the initiations and beliefs of the Order of the Temple, Sir Steven Runciman notes:

It may be that the secret practices of the Templars ... were partly based on Dualist ideas and usages ...[41]

It is generally accepted that the Templars were

exposed to such ideas in the Holy Land – for example through their contacts with members of the ancient sect known as the Druze. Still extant today in Lebanon, Syria and Israel, the Druze are technically *Shi'a* Muslims but their beliefs have been characterised as 'a mixture of Judaism, Christianity and Islam [including] elements of Gnosticism.'[42] Other *Shi'a* splinter groups in the region such as the Nusayris also held beliefs identifiably tinged with Gnosticism.[43] The Templars would have been well-placed during their long stay in the Holy Land to encounter the descendants of the Sabians of Harran, the compilers of the great Hermetic text known as the *Picatrix* – which contains, as we saw in Chapter Eight, an early blueprint for the utopian Hermetic city.

Having absorbed esoteric ‘Eastern’ influences far more enthusiastically than any other crusading group it is difficult to imagine that the large numbers of Templars resident in Occitania from the 12th to the 14th century were unaware of the distinctly Gnostic and dualist flavour of the local Cathar religion. It also makes sense, if their own thinking was already tinged by dualism as Runciman speculates, that they might have been favourably predisposed towards the Cathar cause – particularly so if the noble families of Occitania who were united in their support for the Cathars were also supporters of the Templars. This is highly likely. Indeed, as a leading authority on the Templars, historian Martin Barber, points out, the great expansion that the Templars enjoyed in Occitania could not have been achieved without strong support from the nobles:

The establishment of new communities, and the opening up of previously uncultivated territory which was common in the 12th century owed much to an alliance between the nobles' land and the Order's capital ...[44]

Simple logic suggests that if the Cathars were sponsored by the noble families of Occitania, as we know they were, and if the Templars were sponsored by the same noble families of Occitania, as we know they were, then the Cathars and Templars are likely to have been on friendly terms. This could explain why even at the outset of the Albigensian Crusades in 1209, called by a pope – Innocent III – who was known to favour the Templars and who had accorded them special privileges,[45] we find the Templars peculiarly reluctant to aid Innocent's cause.[46] There

is no suggestion that the Knights had become heretics themselves by this stage, but it is obviously puzzling that one of the few duties these heavyweight fighters did during the Albigensian Crusades was very far from being a ‘front-line’ one. In 1212, to pay for the costs of the Crusade, the pope imposed a tax of three pence per household across the length and breadth of the Languedoc. The Templars collected it but otherwise, notes historian Aubrey Burl, they remained neutral.[47]

Such ‘neutrality’ amongst the pope's own chosen warriors in so crucial a holy war is highly anomalous and, in our opinion, significant. Several researchers pursuing this line of investigation have argued that as the Albigensian Crusades took their toll, and in particular after the fall of the last major Cathar

fortress at Montségur in 1244, the Knights Templar became less ‘neutral’ and were increasingly influenced by Cathar doctrines. This happened says Andrew Sinclair, because:

... most of the Cathar knights who escaped the slaughter were received into the Military Order of the Temple of Solomon, which was itself permeated with oriental influences.[48]

Similarly Arthur Guirdham sees ‘indications of some connection between the Cathars and the Templars’ in the fact that:

A large number of Templar knights were recruited from Languedoc. There was an influx of recruits in the mid-13th century when the Albigensian wars were to all intents and purposes over. It is significant that the immensely powerful and ubiquitous Order of

the Temple took no part in the Crusade against the Albigensians.[49]

Evidence of this sort is irritatingly and elusively circumstantial – ‘interesting, presumptive, but not conclusive’, as Guirdham admits.[50] On the other side of the debate, however, historian Martin Barber is much more assertive:

Romantics like to see connections between the two [i.e. between the Cathars and the Templars] but there were none: no fabulous treasure passed on to the Templars after the fall of the Cathar fortress of Montségur in 1244, no shared anti-Christian beliefs pervaded by esoteric cults ... Inevitably some of the accusations against the Templars derive from those against the Cathars – they were, after all, embedded in the minds of those who pursued dissent.[51]

Barber's argument, though reasonable, seems to us weakened by his evident desire *not* to be a ‘romantic’ and thus *not* to find a conspiracy in anything. In the case of organisations like the Templars and the Cathars, which were forced to be secretive and conspiratorial by the circumstances of the times, such a policy could be a mistake. If, for example, Cathar knights after Montségur had sought and been granted shelter by the Templars would we honestly *expect* to find records of this – let alone records of the transfer of any ‘treasure’? Would these hypothetical fugitives, joining a religious military order that was already notorious for its secrecy and weirdness by 1244, have left a paper trail for the Inquisition, and later historians, to follow? It seems most unlikely.

On the other hand the hypothesis that the Templars

were increasingly influenced by Cathar-dualist ideas from the mid-13th century onwards has much to recommend it – not least because it makes better sense than Barber's explanation of the charges of heresy that were brought against the order in the early 14th century. The reader will recall that one of the sensational indictments was that Templar initiates were required to spit on or break crosses. Such behaviour, though seemingly bizarre or diabolical, is entirely consistent with the Cathar religion which denied the physical incarnation of Christ, disbelieved in the Crucifixion, and regarded veneration of the cross as a form of idolatry and torture-worship.[52]

Seen from the perspective of the Inquisition – and of the French crown – the huge influx of heavily-

armed and battle-proven Templars returning to the Languedoc in the last years of the 13th century after the loss of the Holy Land may well have looked threatening. Depending on the level of suspicion with which the permanent Templar population of the region was already regarded – fuelled perhaps by rumours that fugitive Cathars had joined Templar ranks – this quantum leap in the order's local military strength could well have been regarded as extremely dangerous by the secular and religious powers. Their suspicions, moreover, are likely to have been intensified by what they would have regarded as the most unwelcome signs of a Cathar revival led by the *Perfectus* Pierre Autier that began in 1299 (see Chapter Seven).

Once all these factors are taken into account, we propose that the perceived threat of a renascent

Catharism supported by the armoured might of a Templar order now ‘lost to heresy’ is sufficient on its own to explain the sudden move that Philip and the Church made against the order in 1307. Whether there was any real substance to the perceived threat is another matter, but it is inconceivable that king and pope would have conspired to bring down the Templars at this exact moment when Catharism was in its death struggle without connecting the two matters together in their minds.[53] That is not to say that greed for the wealth of the Templars played no part in their decisions and actions. With a man like Philip, greed always played a part. But our point is that greed was not the only factor, nor perhaps even the main factor. What happened to the Templars between their arrest in 1307 and the burning of their

last Grand Master in 1314 may be best understood as it was understood then – i.e. as yet another battle in the war against heresy and social revolution that the Church had waged since the time of Constantine the Great.

Elements of the Templar heresy

An argument can be made against any kind of secret association between the Cathars and the Templars on the grounds that their beliefs were fundamentally incompatible. While the latter took pride in the Old Testament symbolism of the Temple of Solomon, the former abhorred and opposed the

Old Testament as the book of the evil demiurge.

This objection, though obvious, is irrelevant to the hypothesis being put forward here. We are *not* claiming that the Templars were influenced by Catharism in the early years of their existence – when they occupied the Temple Mount in Jerusalem between 1119 and 1187 and adopted the octagonal floor-plan of the Dome of the Rock as their fundamental symbol. Our proposal is that this influence may have *begun* to be felt during the 12th century, through the many Templar preceptories in Occitania, but that it did not have a significant impact until well into the 13th century when, as several historians believe, fugitive Cathar knights were absorbed into the order. We speculate that the process was accelerated after 1290, with the influx of returning Templars from the Holy Land, but that

before it could reach critical mass it was interrupted by the pre-emptive strike of Philip the Fair and Clement V in 1307.

Another claim that we are *not* making is that the Templars had *become* Cathars. Our hypothesis is that by 1307 Cathar dualism was one amongst a number of ingredients in a probably multi-faceted Templar heresy that had brought together a potpourri of seeming incompatible religious ideas. In a way the heretics who the Templars most remind us of are not so much the Cathars as the warrior sect of Christian Gnostics known as the Paulicians (see Chapter Five) who displayed the same fearlessness and willingness to kill. It is also widely recognised that the unique and idiosyncratic Templar religion was tinged with aspects of esoteric Islam and mystical Judaism that the order had picked up in the Holy Land.

The Judaic element meshed particularly well with the Knights' own original obsession with the Temple of Solomon and would have continued to be available to them in Occitania through the large and long-established Jewish communities that we know were also resident there at the time. These communities had an honoured place in Occitan society in the 12th and 13th centuries until the Albigensian Crusades destroyed the region's heterodox and tolerant way of life forever. Acclaimed schools of Talmudic law flourished at Narbonne, Lunel and Beaucaire and there is a report from 1160 that Jewish students travelled from 'distant lands' to study at them.[54]

In addition, as we saw in Chapter Two, the important branch of esoteric Judaism and mystical cosmic speculation known as the Cabala was

developed amongst the scholarly Jews of Occitania's coastal cities between in the 12th and 13th centuries[55] – again overlapping with the Cathars and the Templars in the same area. We cited Benjamin of Tudela's 12th century description of a Jew at Lunel who had ‘discarded all worldly business, studied day and night, kept fasts, and never ate meat’.[56] Since this suggests that Cathar ideas about how we should live in the world and what we are doing here had begun to influence the Occitanian Jews, why should not the occult philosophy of the Cabala, elaborated by Occitania's Jewish savants, have likewise influenced the Cathars – and the Templars?

Emanations and the Sephirothic

Tree

Catharism was a revival, which took root in Occitania in the 12th century (and in the Balkans somewhat earlier) of Christian Gnostic heresies that had last flourished in Palestine and Alexandria in the first four centuries AD. It is a remarkable coincidence that Cabalism likewise is a revival, which took root in Occitania in the 12th century, of schools of Jewish mysticism that had last flourished in Palestine and in Alexandria in those same first four centuries.[57] And although the revival of Hermeticism did not come until the recovery of the Hermetic texts in the 15th century, those texts too had their origin in those first four centuries – and, moreover, in the same

predominantly Alexandrian milieu that nourished Gnosticism and the schools of Jewish mystical speculation.

A central concept shared by all the dualist religions that we traced in Part I is that of *emanation*. In the simplest possible terms it is conceived of as a conscious or unconscious creative act of the pure and unassailable spiritual godhead forming manifestations of him/her/itself that then pursue an independent existence. The Gnostics of the first four centuries AD called these emanations *eons*. They were ranked in order of their degree of selfknowledge and they were frequently given abstract characters such as ‘Silence’, ‘Intellect’, ‘Truth’, ‘Wisdom’, and so on.[58]

Together the godhead and the *eons* formed the

Pleroma – literally the 'Fullness' – the perfect group. The process that led to the creation of the world resulted from a fall within the Pleroma usually caused by curiosity or desire on the part of one of the *eons*.[59] The reader will recall that in some Gnostic schemes Jehovah, the God of the Old Testament, was portrayed as the fallen *eon,* in others he was even less than that, reduced to the status of an emanation of an emanation – smart enough to create the material world but too stupid to remember where he had come from and what his own small role really was in the scheme of things.[60] Likewise the Cathars saw Jesus not as the physical and material 'son of God', as the Christians did, but as a divine emanation.[61]

This concept of emanation is also fundamental to

the Cabala. Here the text on which the 12th and 13th century Occitanian speculation was based was the *Sepher Yetzirah* ('Book of Creation'), a Hebrew treatise on cosmogony and cosmology originally compiled in the third century AD.[62] This work recounts a creative act on the part of the godhead manifesting 'in ten distinct stages of emanation' corresponding with the numbers one to ten.[63] These ten emanations, which combine alchemically with the 22 letters of the Hebrew alphabet – the 'language of God' – are known as the *Sephiroth*. Their order and qualities are as follows

(1) *Keter Elyon* (Supreme Crown) or *Ratzon* (Will); (2) *Chochmah* (Wisdom); (3) *Binah* (Intelligence); (4) *Chesed* (Love) or *Gedullah* (Greatness); (5) *Gevurah* (Power) or *Din* (Judgement); (6) *Tiferet* (Beauty) or

Rachamim (Compassion); (7) *Netzach* (Lasting Endurance); (8) *Hod* (Majesty); (9) Y*esod Olam* (Foundation of the World) or *Tzaddik* (Righteous One); (10) *Malchut* (Kingdom) or *Atarah* (Diadem) or *Shekhina* (Feminine Divine Presence).[64]

As the Cabala was developed in the 12th and 13th centuries the Jewish mystics of Occitania organized these ten *Sephiroth* into 'a specific archetypal pattern' usually drawn as interlinked by a complex network of straight 'branches', or 'pathways', or 'columns' or 'pillars':

The pattern thus called forth is the model on which everything that is to come into manifestation is based. It has been named the Image of God, but it is more generally known as the Tree of Life.[65]

One might think of it as a diagram of the DNA

structure of reality – intended not as a literal ‘map of reality’ or representation of ‘what reality is made of’ but as a *mandala*[66] or talisman to be used for focused mental exercise through which knowledge of the true nature of things can be reached.

Sephirothic Tree and Temple of Solomon

Like other *mandalas,* the Sephirothic ‘Tree of Life’ is a geometrical pattern. It features three main vertical columns or pillars on which the ten *Sephiroth* representing the emanations of God are fixed like glass balls on a Christmas tree. There is a significant

interpenetration of symbolism here with Freemasonry. As we saw in Chapter Thirteen, Freemasons generally represent the Temple of Solomon by two pillars or columns, known as *Boaz* and *Jachin* ('wisdom' and 'power') with the open corridor between the two pillars often considered as a 'third' pillar. Such imagery of two or three pillars, so close to the basic structure of the Tree of Life, is frequently evoked in Masonic illustrations and certificates.

It is also commonly found in Rosicrucian symbolism[67] and some researchers have even detected it on the engraved title-page of Francis Bacon's *The Advancement of Learning*. [68] This engraving, which appears in the 1640 edition, shows two pillars and beyond them the open ocean with a

ship sailing away.[69] At the top of the left pillar is the symbol of the Sun and at the top of the right pillar is the symbol of the Moon – i.e. like the pillars in the Tree of Life they are surmounted by globes. But this is also, unmistakably, the same motif which is often seen in Masonic illustrations of Solomon's Temple, with the pillars *Boaz* and *Jachin*. One globe represents the visible world lit by the Sun, and the other globe the invisible or occult world under the glow of the Moon i.e. the secret world. Two hands, one extended from each of the globes, are clasped in what clearly seems to be a ‘Masonic handshake’. We are not alone in noting that this whole arrangement is suggestive of a Sephirothic Tree of Life that branches out into ‘Wisdom’, ‘Power’, ‘Intelligence’ and so forth.[70]

This same general pattern using symbols to denote the various Masonic ‘virtues’ and the many paths to their attainment can be easily discerned in the so-called *tracing boards* used by Freemasons to this day in rituals likened to entry to the ‘spiritual Temple of Solomon’. At the foot of these ‘tracing boards’ is to be seen a representation of the two pillars, *Boaz* and *Jachin,* beyond them some sort of shrine, probably symbolising the Holy of Holies of Solomon's Temple, and often represented by a pentagram or a ‘Blazing Star’. Behind the pentagram/star device are spread a variety of Masonic symbols the whole culminating at the top of the tracing board where we find the Supreme Being represented either by a crown (*Keter* in the Cabalistic Tree of Life also means ‘Crown’), or by the ‘all seeing eye’, or a glowing pyramid.

That such symbolism is to be directly associated

with the Tree of Life is confirmed by the preparatory information given to Masonic candidates for the so-called *30th degree* of the Scottish Rite, also known as the *Knight Kadosh* degree, where a Sephirothic Tree is shown to the candidate along with a textual explanation of its symbolic use. According to Masonic historian Robert Lomas:

In the preparatory section ritual of the Knight Kadosh, (the 30th degree of the Ancient and Accepted Scottish Rite and the first degree of the Chivalric Series), the Candidate is given this information. This division of the ten Sephiroth into three triads was arranged into a form called by the Kabbalists the Kabbalistic Tree, or the Tree of Life (as shown in the following Tracing Board) In this diagram the vertical arrangement of the Sephiroth is called – 'Pillars'. Thus the four Sephiroth in the

centre are called the Middle Pillar the three on the right, the Pillar of Mercy and the three on the left, the Pillar of Justice.[71]

In chapter one of the *Sepher Yetzirah* it is stated that:

Ten are the numbers of the ineffable Sephiroth, ten not nine, ten not eleven. Learn this wisdom and be wise in the understanding of it; investigate these numbers and draw knowledge from them; fix the design in its purity, and pass from it to its creator seated on his throne ...[72]

The *Sepher Yetzirah* also speaks of 'the 32 most occult and wonderful paths of wisdom' on which 'the Lord of Hosts engraved His Name'. These '32' paths, pillars or columns in the design represent the '10 Sephiroth' and the '22 letters' which are 'the

foundation of all things'.[73] Thus the Sephirothic Tree, with its '22' paths and '10 emanations' also mystically connotes the number '32'. In Scottish Freemasonry this represents the 32 'degrees' that must be taken (i.e. 'pathways' that must be followed) in order to reach the door of full Masonic enlightenment – the ultimate 33rd degree. The link we make here is confirmed by the 33rd degree Scottish Rite author, Charles Sunmer Lobingier, who, in 1929, was commissioned by the Grand Commander of the Scottish Rite in Washington, DC to write an official history of this Masonic order:

A later feature of the Kabala is the thirty-two paths of wisdom. The number is obtained by adding the letters of the Hebrew alphabet (twenty-two) to ten Sephiroth, and here we doubtless have the origin of

the number of degrees as formulated by the Grand Constitution [of the Scottish Rite] …[74]

The paradoxical Kircher

The belief that divine principles, emanations or archetypes can be made manifest in a ‘temple’ or ‘house’ of God – both in the material and in the spiritual sense – is at the very heart of the Tree of Life concept. But much earlier the ancient Egyptians also designed their temples with precisely such a purpose in mind – think, for instance, of the great sacred precinct of Amun at Karnak-Luxor.

The notion that the Egyptian esoteric design of

temples could in some way be connected to the Sephirothic Tree was developed as early as the 17th century by the Hermetic-Cabalist and philosopher Athanasius Kircher in his book *Oedipus Aegyptiacus*. In this work Kircher, who was also (or seemed to be) a devout Jesuit, goes so far as to argue that all religions and all knowledge of the divine originally came from Egypt.[75] Joscelyn Godwin, professor of music at Colgate University in New York, is a world-renowned authority on Kircher and has this to say:

Kircher derives all the wisdom of the Jews from Egypt, transmitted through the initiate Moses. In The Tree of the Sephiroth we have the primary metaphysical symbol of the Hebrew Cabalists. It shows ten invariable archetypes linked to each other by twenty-two paths corresponding to the twenty-two

letters of the Hebrew alphabet. Since the Tree is a diagram of the utmost universality, it may be used as a key to the working of every level of the Universe … On the cosmological level, the lowest seven Sephiroth are the seven Chaldaean planets, and the upper triad, according to Kircher, the spheres of the fixed stars …[76]

In 1621, Athanasius Kircher, then a young novice in the Jesuit order, was forced to flee Germany – his homeland – because of the outbreak of the Thirty Years War He eventually found his way into France and joined the Jesuit college at Avignon. A brilliant mathematician and accomplished linguist, Kircher developed an insatiable interest in all things Egyptian and in 1635 was given a post at the Jesuit college in Rome to study hieroglyphs. In 1638 Kircher was

made professor of mathematics, but his scientific interests were wide and varied. His fame became such that scholars from all over the world corresponded with him and many came to see him in Rome, such as the English inventor William Gascoignes and the French painter Nicolas Poussin, to whom he taught perspectives.[77] Kicher was a keen collector of antiquities, and was to establish one of Europe's first museums, the *Museo Kircheriano* which some compared 'with Elias Ashmole's foundation in Oxford of the Ashmolean Museum.'[78]

Like Giordano Bruno before him Kircher was an all-out 'Egyptian' Hermetist who 'regarded Egyptian idolatry and polytheism as the source, not only of Greek and Roman religion, but of the later Hebrews.'[79] Kircher also believed that Egypt was the

source of all civilisations and, more importantly, that all ancient philosophies, and especially Hebrew Cabala, had been ‘derived from the Egyptian wisdom’ handed down in the Hermetic writings.[80] Because of this, Frances Yates calls Kircher the ‘most notable descendant of the Hermetic-Cabalist tradition’. Yates also comments that he was ‘much preoccupied with Isis and Osiris as the chief gods of Egypt.’[81] In his *Oedipus Aegyptiacus,* Kircher reaches the following conclusion:

The divine Dionysius testifies that all created things are nothing else but mirrors which reflect to us the rays of divine wisdom. Hence the wise men of Egypt feigned that Osiris, having given charge of all things to Isis, permeated invisibly to the whole world. What else can this signify save that the power of the

invisible God penetrates intimately into all?[82]

One of Kircher's closest friends was the great baroque architect Gian Lorenzo Bernini, who Christopher Wren met in France in 1665 at the court of Louis XIV.

Bernini, Like Kircher, was (or seemed to be) an ardent Jesuit, and all his life would attend Mass every morning at the small church of *Il Gesù* in Rome, where the founder of the Jesuit order, Saint Ignatius of Loyola, was buried. Kircher's vast knowledge of perspective and of the symbolic use of architecture gave him much in common with Bernini, and they collaborated on several architectural projects for the pope in Rome. Notable amongst these was an ancient Egyptian obelisk (not to be confused with the Vatican obelisk described in Chapter Thirteen) that they

erected in the Piazza della Minerva where once had stood a Temple of Isis. It was in 1652, thus 13 years before Bernini met Christopher Wren in Paris, that Kircher published his *Oedipus Aegyptiacus,* a book that was a bestseller in its days and widely read throughout Europe.

Kircher's depiction of the Sepirothic Tree is identical to the portrayals in the Hebrew Cabala with ten emanations interlinked by 22 pathways. But unlike others, Kircher saw the original source of the Cabalistic knowledge enshrined therein as being ‘Egyptian’. Could Kircher's ‘Egyptianised’ Hermetic-Cabalistic ideas of sacred and symbolic architecture and perspectives somehow have reached Christopher Wren and John Evelyn in England?

John Greaves, the Pyramids and Gresham College

In considering this question we note that there is another possible ‘Egyptian’ connection – again peculiarly involving Kircher – in Christopher Wren's background.

The reader will recall that Wren was appointed Savilian Professor of Astronomy at Oxford in 1661, right after the Restoration of Charles II.[83] Prior to Wren's appointment, the post had been occupied by Seth Ward, who held the position from 1649 to 1660. Before Ward the professor had been another eminent figure – John Greaves.

Like Wren, Greaves had formerly taught

mathematics at Gresham College in London. His stint there was from 1630 to 1637, after which he took a sabbatical in order to make a rather unusual journey to Egypt, the main objective of which was to investigate the Pyramids of Giza. He hoped to find a ‘universal unit’ of measurement encoded into these great structures. To this end he teamed up with an Italian scientist, Tito Livio Burattini whose sponsor was none other than Athanasius Kircher.[84]

Burattini, although Italian by birth, was domiciled in Poland. He was a keen mathematician, astronomer and cartographer, but his real passion, like Kircher's, was ancient Egypt. Burattini was finally to travel there in 1637 with support from Kircher, a short while before Greaves himself arrived in Egypt. In his book *Pyramidograhia*, published in 1646, Greaves

refers to Burattini as ‘an ingenious young man from Venice’ and makes use of some of Burattini's drawings of the pyramids.[85]

It was when Greaves returned to England in 1639 that he was rewarded for his Egyptian endeavours with the post of Savilian Professor of Astronomy at Oxford – the same post that Christopher Wren would eventually occupy in 1661.

David Stevenson, professor of Scottish history at the University of St. Andrews, has discovered that Sir Robert Moray, the principal founder of the Royal Society and the first man to be initiated into Freemasonry on English soil, also had a connection with the ubiquitous Athanasius Kircher:

In 1643 he [Robert Moray] was knighted by the king [Charles I] ... Later in that same year he was

captured by imperial forces while fighting for the French, and was imprisoned in Bavaria. By 1645 he had been ransomed, having made use of his captivity to develop his scientific interests through conversations and correspondence with Jesuit scholars, including the remarkable Hermetic polymath Athanasius Kircher who was a leading authority on the mysteries of ancient Egypt.[86]

There is, too, another common denominator to consider: Gresham College itself. Many of the protagonists associated with the Invisible College, the Royal Society and the early London Masonic lodges were directly or indirectly involved with Gresham College. These included Robert Moray, John Wilkins, Christopher Wren and Robert Hooke. The origins of this college go back to Sir Thomas

Gresham, the famous founder of the London Royal Exchange. In 1575 he bequeathed his home in Bishopsgate to serve as headquarters for the college and left provision in his will for it to be funded in the future through revenues accrued by the Royal Exchange. The idea of such a college seems to be somewhat 'Masonic', in the sense that Thomas Gresham decreed that seven 'readers' or scholars would be appointed to lecture on each of the seven liberal arts.[87] Indeed, according to Robert Lomas, Gresham College was 'the main centre for Freemasonry in Restoration London ... which Sir Thomas Gresham had set up to support his Masonic ideals of study.'[88]

Could all these circumstances, as well as the encounter with Bernini in Paris, have brought

Christopher Wren into contact with Kircher's Hermetic-Cabalistic ideas and their application to geometrical design and structures such as the Sephirothic Tree of Life? And if they had, might they have influenced Wren's plan for the rebirth of London after the Great Fire? We can only surmise that the opportunity was there for this to happen.

Oddly enough, the same can also be said of John Evelyn, who presented his plan for a ‘new’ London just a couple of days after Wren. Evelyn, as we shall recall, had travelled to Europe between 1643 and 1652. He spent time in Rome during this period where he is known to have developed a keen interest in Bernini and his works.[89] It is by no means impossible that he might have seen or learnt something there, in the city where Giordano Bruno

had been burnt at the stake less than half a century before, that sparked off Hermetic-Cabalistic ideas in his mind.

Many different streams converging

‘After the disappearance of Catharism and the Temple at the beginning of the 14th century,’ Arthur Guirdham asks:

... what outlet was there for those of a dualist tendency? One thing we can say with certainty. By this time the dualists of Europe had learnt that the open profession of their opinions was so hazardous as

to be impracticable.[90]

In other words if religious teachings as contrary to Church dogma as those of the Cathars were in any way to survive the mindset of the Middle Ages they would have to go underground, and to follow whatever further course of natural evolution and development they could while remaining out of sight. We are convinced that this happened and that dualist beliefs were sheltered and nourished beyond the view of the Inquisition and historians long after 'Catharism and the Temple' had been officially destroyed. It seems to us that this process was dramatically catalysed and briefly brought out into the open again by the recovery of the Hermetic Texts in 1460 and that afterwards another period of incredible openness, progress and revolutionary

thinking followed. But Hermetists like Bruno, who pushed the revolution too quickly, died for their beliefs while other less hot-headed thinkers waited patiently for a better time.

In the long years of waiting many different ideas, like many different streams converging, all become available to ‘those of a dualist tendency’. Included in the mix were remnants of Cathar Gnosticism; Jewish mysticism and the Cabala; the recovered Hermetic revelations; Templar and Masonic notions about rebuilding Solomon's Temple; the Rosicrucian and ‘New Atlantean’ programme for an ideal utopian city designed to bring harmony between heaven and earth; and last but not least Tommaso Campanella's *Civitas Solis,* the Adocentyn of the *Picatrix,* to be made ‘in such a wonderful way that only by looking at

it all the sciences may be learned.’[91]

All these elements and influences, we suggest, were at work in the mysteriously similar city plans that Christopher Wren and John Evelyn prepared after the Great Fire of London in 1666.

Wren's plan to rebuild the Temple

The Great Fire swept over the city of London like a giant blowtorch, clearing an area one and a half miles long and half a mile wide. It destroyed almost everything from Tower Hill in the east to Temple in the west, where it finally burnt itself out in front of Temple Church, a distinctive round structure built of

stone in the Gothic style.

The district where the Fire stopped – still known as ‘Temple’ and today inhabited mainly by lawyers – is so named because of its historical association with the Knights Templar. It lies roughly between St. Paul's in the east and Covent Garden in the west, and is bracketed by Fleet Street in the north and the Victoria Embankment in the south. The Templars built their great *preceptory* (headquarters) of the New Temple here in 1161, providing themselves in the process with a pier on the River Thames and inland access for their ships all the way to Newgate via the nearby River Fleet.[92]

Construction of Temple Church began in 1180. Like many other Templar places of worship, its core structure was a circular building with a domed roof,

reminiscent of the Church of the Holy Sepulchre (the supposed tomb of Jesus) in Jerusalem. Let us note in passing that the Church of the Holy Sepulchre lies west of the site of Solomon's Temple in Jerusalem, an alignment, as we shall see later, that did not go unnoticed by the Templars in London. Dedicated to the Virgin, Temple Church was consecrated on 10 February 1185 by Heraclius, patriarch of Jerusalem, who was brought to London for the purpose. This was just two years before the dramatic fall of Jerusalem to the ‘heathen’ forces of the Arabs under Saladin in 1187.

The district of Temple and Temple Church remained under the order's control until its suppression in 1307. In 1312 all Templar properties in London, including the round church, were handed over to the rival military Order of the Knights

Hospitallers. When the Hospitallers were in turn suppressed during the Reformation, the church and its surrounding buildings passed to the crown. The buildings were tenanted by lawyers – the *benchers* of the Inner Temple and the Middle Temple – who secured the freehold by royal charter from James I in 1608. These two 'Inns of Court' have remained the owners of Temple Church ever since and are under an obligation by terms of their royal charter to maintain it and its services forever.[93]

In the plans that Wren and Evelyn drew up for London's architectural rebirth after the Great Fire, both men paid inordinate attention the area around Temple Church.

Christopher Wren was first to get the king's attention. On 11 September 1666, with a blueprint

tucked under his arm, he rushed to see Charles II at Whitehall. The blueprint was an amazingly detailed and professionally executed map for a new London, the sort of town-planning design project that should take weeks, if not months, to conceive and draft in final form. Yet barely a week had passed since the Fire and there were still dozens of smoke plumes hanging over the skyline of the charred city.

Wren's ideas combine a magnificent vision for a new capital city with an appreciation of sophisticated concepts in urban planning. His blueprint, which has survived, looks like the polished product of a highly-skilled team. Yet the evidence suggests that Wren did not consult his colleagues at the Royal Society and worked alone on the plan.[94] Was he trying to protect his ideas so that no one else could take the credit? Or

was he just in a tremendous hurry – out of a natural desire to be ‘first’?

He could have had many motives for secrecy and speed, but what interests us more are his motives and hopes for the new London.

Freshly back from his eight months in Paris where he had studied neo-classical architecture as well as new and daring city plans, Wren's dream was to replace the winding streets and courtyards of the old medieval city with new monumental avenues such as those he had seen in France. His plan is dominated by a main central avenue that runs virtually straight from one end of the city (Aldgate) to the other (the Strand), passing through a series of huge star-shaped plazas distributed along the way. From these plazas numerous straight roads emanate in all directions, linking up to smaller piazzas or *circuses* on either

side of the main axis to form a closed network. Wren's plan also features a second monumental avenue running from the Tower of London, along Cannon Street and up to St. Paul's.[95] This second avenue merges with the main axis coming from Aldgate, and the whole is then prolonged to Ludgate to become Fleet Street.

It is at this point, just past Ludgate – and not far from Temple Church – that a major feature of Wren's plan stands out: a large open plaza in the form of an octagon with all eight sides of equal length. Wren's established Masonic connections make it more than likely that he would have known the significance of the octagon as the Templars' own symbol for the Temple of Solomon. He should also have known that the location he proposed for this distinctive octagonal

plaza encroached physically on the site of the Templars' former London headquarters. But if there is any doubt over his deliberation in these matters it is settled for us by a final telling detail. Half a mile to the east Wren deliberately altered the east-west axis of the 'new' St. Paul's Cathedral by a few degrees to the south so that it would now align with Temple Church.[96]

We've noted that Temple Church was conceived of initially as a scale model of the Church of the Holy Sepulchre and that the latter stood west of the original site of the Temple of Solomon in Jerusalem. In Wren's London Temple Church stands west of St. Paul's in the same way. Could it be, therefore, that what the architect had in mind with all this was a scheme for building a 'hidden Jerusalem' in the heart

of London?

The ghost in the plan

It is reported by Christopher Wren's own son (also called Christopher) that during his inaugural speech as professor of astronomy at Gresham College, Wren Senior described London as:

... a city particularly favoured by the celestial influences, a Pandora, on which each planet has contributed something ...[97]

This, it must be remembered, was a time when astrology and scientific astronomy overlapped seamlessly, and when many still believed in the

influence of the stars and planets. But it is unlikely that Wren had in mind horoscopic astrology when referring to London. What is more likely is that he was thinking of influences of a more spiritual and mystical nature, such as the talismanic influences found in Hermetic magic and in Renaissance Christian-Cabala. Steve Padget, a professor of architecture at the University of Kansas, explains:

Following the break with Papal authority, the ‘cosmos’ for the English no longer centred around Rome and St. Peter's, but London and the old Gothic St. Paul's. Its centre spire acted the role of *axis mundi* for this world, symbolising the centre of London, England and the universe ... When the spire was broken (felled in the Great Fire of 1666), it denoted a catastrophe of cosmic proportion. The symbolic connection between

heaven/earth/underworld had been severed ...[98]

Charles II and the Anglican clergy were eager to dispel the rumour started by Catholics that the Great Fire had been the act of a wrathful God to admonish the English people for having broken away from the Church of Rome and the authority of the pope. The trick that the king and his advisers pulled off was to transform the Fire into a symbol of purification and regeneration for London and the realm, intended to bring to fruition a 'perfect Christian society'. And once that had been achieved, comments Professor Paget, 'the implication was that fulfilment of the *New Jerusalem* was possible.'[99] The king himself wrote a sermon in which, according to historian Vaughan Hart,

... the Bishop of London proclaimed St. Paul's at the

centre of a royalist New Jerusalem for ‘here hath the lord ordained ... the throne of David for judgement; and the charge of Moyses for instruction,’ adding that ‘this Church is your Son indeed, others are but synagogues, this is your Jerusalem, the mother to them all.’

Following the Cabalistic theme within this sermon, the influence of Christian Cabala ... could be expected in ... subsequent work of the restoration of the seat of David and Moses ... The Christian Cabalist hoped that through such divinely inspired intellectual magic, pre-Christian or otherwise, the conditions on earth for nothing less than the Second Coming would be created, a necessary prelude to the Apocalypse and final establishment of the Heavenly Jerusalem.[100]

We shall return to Wren's design of the new St. Paul's and its full implications in due course. Meanwhile the longer we looked at his plan for London, the more we sensed something else was embedded in it, something ‘ghosted’, as it were, beneath the layout of the avenues and plazas. Standing back and viewing the design as a whole we realised that what the overarching vision reminded us of – albeit a little hazily – was the Sephirothic Tree of Life![101]

Naturally our first thought was that our eyes were just being tricked by a common optical illusion. And, indeed, a common optical illusion it might well have been were it not for the fact that two days after Wren had presented his plan to Charles II, yet another ‘sephirothic’ scheme for the redesign of London was

proposed to the king by John Evelyn.

Evelyn's plan

On 13 September 1666, Evelyn secured his own audience with Charles II in – of all places – the queen's bedchamber in Whitehall.[102]

What immediately strikes the eye in Evelyn's plan, and must surely have struck the king's eye as well, is how strangely *similar* it is to Wren's. Yet on the face of things Wren seems to have done everything he could to keep his work secret.[103] We know, for example, that he did not take the advice of his colleagues at the Royal Society – much to the chagrin

of Secretary Henry Oldenburg.[104] When the latter complained about the lapse Wren curtly replied that he had wanted to submit his design first, before anyone else had the chance to distract the king's attention and thus ‘could not possibly consult the Society about it.’[105]

For his part Evelyn simply wrote in his diary: ‘Dr. Wren had got a start on me.’[106] However historian Adrian Tinniswood is satisfied that there was much closer collusion between the two men than such remarks suggest:

Striking similarities between the two schemes show that they [Wren and Evelyn] must have discussed their dream of an ideal London either before the fire brought those dreams a dramatic step closer to realization, or when they were both working on them

in the second week of September. They both proposed that the area between Temple Bar and the Fleet should be given over to a piazza which would form the intersection of eight streets radiating out on the points of the compass. They both enclosed the buildings which fronted onto this piazza with an octagon of connecting streets. They both made the entrance to the northern end of London Bridge a focal point of their plan, and created a semicircular piazza as a grand introduction to it. They both sent main thoroughfares in from the east to converge at St. Paul's...Apassing reference in the explanatory discourse that Evelyn submitted along with his plan confirms some sort of collaboration, and suggests that he adopted some of Wren's ideas. He implied that the two men discussed their respective schemes on or immediately before 11 September, and says

that the ‘*street from St. Paul's maybe divaricated like a Pythagorian, as the most accurately ingenious Dr. Wren had designed it, and I willingly follow in my second thoughts*.’ ...[107]

It cannot be a coincidence that the plans of Evelyn and Wren both incorporate the same meaningful Templar symbol of the octagon in exactly the same meaningful place: i.e. overlapping the old London headquarters of the Knights Templar close to Temple Church. We note also that on Evelyn's plan the octagonal plaza is placed directly west of St. Paul's Cathedral in such a way that its centre aligns with the axis of the cathedral – the two points being joined together by the wide avenue of Fleet Street.

Most intriguing of all, is the clear, purposeful definition with which Evelyn's plan is so obviously

structured around the Sephirothic Tree of Life. If there is some ambiguity in Wren's case, Evelyn's plan certainly leaves no doubt as to his motive. For despite some minimal variations required for practicality, the similarity between Evelyn's geometrical pattern and that of the Sephirothic Tree of Life is *unmistakable*.

Presumably by firing their ‘double salvo’ on 11 and 13 September Wren and Evelyn must have hoped that the Sephirothic Tree of Life, as well as the other shared elements concealed in both their plans, would quickly be approved by the king. We suspect also that in the minds of both men must have been the well-known final verses from the book of Revelation which evoke the creation of the ‘New Jerusalem’ and the ‘Tree of Life’:

Then I saw a new heaven and a new earth, for the

first heaven and the first earth had vanished...I saw the holy city, New Jerusalem, coming down out of heaven from God, made ready like a bride adorned for her husband ... It had a great high wall, with twelve gates, at which were twelve angels, and on the gates were inscribed the names of the twelve tribes of Israel ... the city had twelve foundation-stones, and on them were the names of the twelve apostles ... Then I was shown the river of the water of life, sparkling like crystal, flowing ... down the middle of the city's streets. On either side of the river stood a Tree of Life, which yields twelve crops of fruits ... Happy are those who wash their robes clean! They will have the right to the Tree of Life and will enter by the gates of the city ...[108]

It is quite obvious from this scheme of things in the

book of Revelation that the design of the ‘New Jerusalem’ was to incorporate the number ‘12’ and, more importantly, that the holy city should rest upon a matrix of 12 ‘foundation-stones’ or *foci*. Interesting then, as historians Felix Barker and Ralph Hyde point out, that:

Evelyn wanted *twelve* interconnecting squares and piazzas ... [and] a straight east-to-west thoroughfare [that would] cut its way for a mile and a half from ‘King Charles Gate’ [in the London wall, south of Aldgate] to Temple Bar where there was a piazza with eight radiating roads like Wren's.[109]

Interesting, too, that if we superimpose Evelyn's obviously ‘sephirothic’ plan on the actual geometry of a Sephrothic Tree of Life, it can be seen that St. Paul's Cathedral corresponds to the one *sephirah*, the

divine emanation known as *Tipheret,* which means ‘Beauty’. Astrologically this *sephirah* represents the Sun, the centre of the universe, from which emanates all life and light. The analogy is obvious: St. Paul's was to be the spiritual centre of the regenerated city as it rose from the ashes like a solar phoenix to guide the restored Stuart monarchy on the true path of the reformed Christianity.

Corresponding to the large ‘Templar’ octagon in Evelyn's plan is the *sephirah* known as *Yesod,* which means ‘Foundation’. Could this mean that the new world order which was to emerge from the ‘New Jerusalem’ had its foundations in the Order of the Temple or, more precisely, the new Masonic order which had emerged from Templar ideologies and to which the Stuart monarch had given his royal protection?

Another curious feature of Evelyn's plan is that he moved the Royal Exchange *away* from the centre of the city (whereas Wren had kept it there on the original site of Thomas Gresham's building).[110] Evelyn placed it nearer to the river, further upstream from London Bridge – most likely because he wanted to have at the heart of his planned 'New Jerusalem' another more relevant symbol which would correspond to the appropriate *sephirah* in the Tree of Life. This came in the form of the fountain he envisaged for the marketplace on Gracechurch Street, which may represent the so-called *11th hidden sephirah*, known as *Daat*, from which emanates the fountain of knowledge that irrigates the whole.[111]

Solomon's Temple veiled in Saint Paul's Cathedral?

In addition to serving as the spiritual centre and solar symbol of the regenerated London, logic suggests that Saint Paul's Cathedral also came to symbolise Solomon's Temple in the New Jerusalem that Wren and Evelyn had in mind. Christopher Wren was subsequently made surveyor of St. Paul's Cathedral in 1668 and surveyor general for the King's Works a year later. In this capacity he produced a design for the rebuilding of St. Paul's which, finally, in 1671 he presented to Charles II. Here is Tinniswood's assessment of the design:

The building was quite unlike anything seen in

Britain before. A round central space more than 120 feet in diameter had four stubby arms of equal length projected out to north, south, east and west. The sloping sides of the octagon thus formed were concave, so that in plan the cathedral looked like a Greek cross. And inevitably, the central space was crowned with a monumental dome supported on a ring of eight pillars ...[112]

It is true that Wren's octagonal floor-plan for St. Paul's was something totally 'unseen in Britain before.'[113] But it most certainly had been seen by those who had visited the Holy Land and Jerusalem and studied the Dome of the Rock which the Knights Templar had much earlier adopted as their symbol for Solomon's Temple. Viewed in profile, Wren's design for the new St. Paul's does in fact bear an

uncanny resemblance to the Dome of the Rock: both have the same octagonal floor-plan; both have the same rotunda or rounded central space; both have the massive cupola supported by eight pillars; both have been deliberately aligned to the four cardinal directions: north, south, east and west. Last but not least, from both the eight-sided Templar Cross can easily be derived.

What Masonic game was Wren playing in his plans for London and for Saint Paul's Cathedral? And why did it involve the symbols of an ancient heresy?

CHAPTER SIXTEEN

FROM SECRET SOCIETY TO SOCIETY WITH SECRETS

In February 1685 Charles II died peacefully at Whitehall, having made a deathbed conversion to Catholicism that left the nation somewhat confused. Since there were no legitimate sons the succession went to his autocratic brother, James, Duke of York, a devout and zealous Catholic. In 1673 James had married Mary of Modena, also a staunch Catholic.

And not surprisingly, as soon as he was safely crowned he placed Catholics in important positions within the government. This raised fears, even amongst his Anglican supporters, that he was on the verge of reimposing Roman Catholicism as the state religion in Britain. The situation reached a crisis in 1689 when, on 22 February, James II was forced to abdicate in favour of William of Orange and his wife Mary, the heiress presumptive, who were both staunch Protestants.

This marked the end for the Stuarts as a ruling dynasty, but not yet for James II and his 'Jacobite' supporters (the latter being a name derived from the Latin version of 'James' i.e. *Jacobus*). As Charles II had done before him, James went into exile in France at the court of Louis XIV. He took along with him his whole family and a large band of Jacobites, and they

all settled in the Château de Saint-Germain-en-Laye near Paris. It was there, according to some Masonic researchers, that the first official Masonic lodges on French soil began to emerge.

When James II died in 1701, his 13-year-old son, Prince James Francis Edward, was immediately recognised by Louis XIV as James III, the British king-in-exile. In 1713, however, Louis made peace with Britain, and the 'Old Pretender', as James III was now being called, left for Rome along with his family and his Jacobite court. In 1714 his half-sister, Queen Ann, died leaving no surviving children. But because of an act of Parliament that precluded James from the succession on account of his Catholic faith, the British throne went to the Protestant elector of Hanover, who became King George I.

Within the small group of Jacobites in Rome making

up the increasingly decrepit Stuart court-in-exile was a well-educated Scotsman called Andrew Michael Ramsay who served as private tutor of the children of the Old Pretender. Ramsay, who is better known to Freemasons as the ‘Chevalier Ramsay’, was soon to play a pivotal role in the evolution of Freemasonry.

Meanwhile in Britain the official ‘coming out’ of the Craft took place when the so-called *Grand Lodge of England* was created in London on 24 June 1717 – St. John's Day, the attested feast and ‘new year’ of the Freemasons.[1] In the New Testament, St. John the Baptist is depicted as the forerunner of Christ the Messiah, and in Eastern Christian tradition he is regarded as the most important saint after the Virgin Mary. Indeed, in the Gospel of Matthew Jesus himself is made to praise Saint John as follows:

Truly, I say to you, among those born of women there has risen no one greater than John the Baptist.[2]

A prophet in his own right John the Baptist supposedly stepped aside to prepare the way for the Christ-Messiah by saying: ‘He must increase, but I must decrease.’[3] In this apparently cryptic remark there is obvious solar symbolism which accomplished Freemasons will surely understand – for by 24 June the Sun's altitude in heaven does indeed decrease after passing the apogee of the summer solstice.

The celebration of St. John's Day traditionally began on the night of St. John's *Eve* i.e. 23 June, and was at one time called ‘Bonfire Night’ in parts of Europe and Ireland. But there was an inherent error in the Julian calendar relative to the true solar year (and thus also relative to the new, more accurate,

Gregorian calendar). Accumulating year by year, the effect of this error was that ‘23 June Julian’ was forever slipping further away from the summer solstice – such that it fell some 13 days *after* the solstice by 1717. At that time, Britain and its American colonies had not yet adopted the new Gregorian calendar (which they regarded as a Catholic, and thus tainted, innovation). The official calendar in Britain was therefore still the Julian calendar, which was 11 days *ahead* of the new Gregorian calendar.

St. John's Eve, 23 June 1717 on the Julian calendar corresponds with 4 July in the Gregorian calendar. Let us keep this curious conversion in mind since 4 July is clearly a date which would soon have a great symbolic resonance in the American colonies and in

France.[4]

Recruiting from the ruling classes

On 24 June 1717 the formation of the Grand Lodge of England was achieved by the amalgamation of four older lodges in London. From this date onwards Freemasonry was no longer a secret society but began to operate very much out in the open, and in a manner that would certainly have attracted heresy charges in earlier, less enlightened, centuries.

A certain Mr. Anthony Sayer was appointed the first Grand Master of the new united body.[5] Very little is known of Sayer. He remained at his post for

only a year and was succeeded by George Payne in 1718, then by the celebrated Dr. John Theophilus Desaguliers in 1719.[6] Of French birth, Desaguliers had been brought to England as an infant by his Huguenot parents who had fled from La Rochelle during the persecution of Protestants by Louis XIV. He grew up to become a brilliant scholar, and studied law at Oxford. In 1714 Desaguliers was elected a fellow of the Royal Society and eventually became its curator. There he befriended several famous scientists, including the great Isaac Newton. It was Desaguliers who was responsible for attracting into Freemasonry many men from the nobility, amongst them the Duke of Lorraine, the future Holy Roman Emperor Francis I, and Frederick Prince of Wales, the son of George II, to whom Desaguliers was

appointed tutor.[7] It is thus that from 1721, and much thanks to Desaguliers, the Grand Lodge of England has always been headed by a member of the royal family.[8]

Such illustrious sponsorship and royal approval, as well as its policy of religious tolerance and freedom of thought and, paradoxically, its stringent oath of secrecy, made Freemasonry an exceedingly popular fellowship amongst the aristocracy and the educated middle classes. Masonic lodges began to flourish everywhere in Europe, and the first Parisian lodge of English origin, which went under the name of *St. Thomas*, was opened in 1726 by Charles Radclyffe, who belonged to an old Scottish family loyal to the Stuarts. It seems that Charles Radclyffe himself was the son of a natural but illegitimate daughter of

Charles II.[9] Radclyffe unwisely attempted to return to England in 1746 where he was arrested as a Jacobite spy and executed.

Another illegitimate descendant of Charles II, who presided in the French lodge, *La Loge d'Aubigny*, was the Duke of Richmond, grandson of the Duchess of Portsmouth, Louise de Kérouaille, a favourite mistress of Charles II.[10] The Duke of Richmond had also put in a spell as Grand Master of the Grand Lodge of England in 1724.

The Jacobite community in Paris at the time also included the Duke of Wharton, who had likewise been Grand Master of the Grand Lodge of England – in his case in 1722. The Duke of Wharton, who was expelled from the Grand Lodge in 1723 after a serious scandal, fled to Europe where he eventually

settled in Paris to become the first Grand Master of French Freemasonry in 1728, later to be called the *Grande Loge de France*.[11] It was about this time that the Scotsman, Ramsay, who was also now in Paris, began to nurture radical ideas about how Freemasonry might be developed in France and in other lands.

The Knight Ramsay

Freemasonry's famous ‘Scottish Rite’ is often said to have originated in France in 1725, that is eight years *after* the formation of the Grand Lodge of England in 1717. The well-known Masonic historian

Jasper Ridley has this to say:

During the eighteenth century other Masonic rites developed in various parts of the world, of which the most important was the so-called *Scottish Rite*. It had never, in fact, existed in Scotland, but had originated in France, and was called the *Rite Écossais* – the Scottish Rite – because the Scotsman, the Chevalier Ramsay, was thought to have started it …[12]

Other researchers think there's more to the story. It does seem almost certain that Andrew Michael Ramsay, better known as the Chevalier Ramsay, and indeed a Scotsman, was responsible for the *formation* of what became known as the Scottish Rite throughout the world. But there is much to suggest the that this rite was an amalgamation of older ideas that had circulated among earlier Scottish lodges in

Scotland itself and that Ramsay had simply synthesised and brought to France.[13]

Andrew Michael Ramsay was born in 1686 in Ayr, a town about 40 miles southwest of Glasgow in Scotland, and not far from Kilwinning, ‘the traditional birthplace of Scottish Freemasonry.’[14] Although the son of a lowly baker, Ramsay was to become a refined man of letters. Educated at the University of Edinburgh, he eventually received a degree in law from Oxford. After serving as an officer with the Duke of Marlborough in Flanders in 1706, Ramsay decided to remain in the Netherlands. There he met a Frenchman, Pierre Poiret, a disciple of Madame Guyon, a popular French Catholic mystic who was closely associated with the great French scholar and author, François de Salignac de la Mothe-Fénelon,

the bishop of Cambrai. Fénelon was famous throughout Europe, and was particularly well known for having written *Les Aventures de Télémaque,* a very popular book at the time, in which he presented to the French court an allegory, set in historical locations such as ancient Egypt and Phoenicia, of the ideal utopian state.[15]

For a long time Fénelon had entertained excellent connections at the French court in Paris when he was tutor to the heir apparent and grandson of Louis XIV, the Duke of Burgundy. Indeed, Fénelon originally wrote the *Adventures of Télémaque* while he was at court – apparently for the benefit of the young prince, who he hoped would one day become king of France and put into practice the perfect state and the ideal government modelled on the golden age of the

ancient world.[16] But Fénelon's unorthodox relationship with the Catholic mystic Madame Guyon eventually lost him the support of Louis XIV, who had him exiled to his diocese at Cambrai in 1709.

Now it seems that Ramsay may have acted as some sort of secretary for Madame Guyon, which might in turn explain why in 1710 he suddenly received an invitation to visit Fénelon at Cambrai.[17] There Ramsay and Fénelon developed a warm friendship which lasted until Fénelon's death in 1715. So influenced was Ramsay by Fénelon that he converted to Catholicism at his request.

In 1716, a year after Fénelon's death, Ramsay settled in Paris, where he circulated amongst the high aristocracy and became tutor to the young Duke of Château-Theirry. At the same time Ramsay

befriended the powerful Philippe d'Orléans, nephew of Louis XIV and regent of France. The latter was the head of the Order of St. Lazarus, an old crusading order, akin to the Knights Templar, that had been founded in Jerusalem in the 12th century. Soon Ramsay was dubbed a knight of the Order of St. Lazarus by Philippe.

We know that Ramsay was initiated into Freemasonry by the Duke of Richmond at the Horn Lodge at Westminster[18] during a visit that he made to London in 1730. On his return to Paris, Ramsay joined Charles Radclyffe's Masonic lodge *St. Thomas*, and soon was appointed as Orator for the *Grande Loge* of France. It was in this capacity that he prepared a landmark speech in 1737, one that would have reverberations throughout the world in decades

to come.

An ancient order and a dangerous whiff of Republicanism

Legend has it that Ramsay's speech, which is better known as Ramsay's Oration, was delivered on 21 March 1737 so that it would coincide with the spring equinox. There may be a reason for this date, as we shall see. However the evidence suggests that the Oration was not ‘delivered’ to an audience at all; instead, Ramsay had it printed and distributed to the lodge's members. By 1740 it was published in Paris, where it was widely and avidly read.[19]

Knowing that Ramsay was both a member of the Royal Society and a Freemason helps to put his Oration into context – for this remarkable document is resonant of ‘republicanism’ and of an ideal of global unity based on a new world order. Of particular note is the fact that the Oration was put before the general public as early as 1740 – a full 36 years before the outbreak of the American War of Independence in 1776 and 49 years before the outbreak of the French Revolution in 1789. We suspect that Ramsay's carefully-chosen words must have struck a worrying note with the French monarchy and royalists in general:

The world is nothing more than a huge Republic, of which every nation is a family and every individual a child. Our society [i.e. Freemasonry] was at the outset established to revive and spread these

essential maxims borrowed from the nature of man. We desire to reunite all men of enlightened minds, gentle manners and agreeable wit, not only by a love for the fine arts but much more by the grand principle of virtue, science, and religion, where the interests of the Fraternity [Freemasonry] shall become those of the whole human race, whence all nations shall be enabled to draw useful knowledge ... Our ancestors, the Crusaders, gathered together from all parts of Christendom in the Holy Land, desired thus to reunite into one sole Fraternity the individuals of all nations ...[20]

The last sentence gives an interesting and novel spin on the Crusades, or rather on those ‘crusaders’ who, we're told, desired ‘to reunite into one sole Fraternity the individuals of all nations ...’ Since it is

safe to say that ‘a universal brotherhood of nations’ was not uppermost in the minds of the vast majority of crusaders – who believed their job was to win the Holy Land for Christendom and to steal as much booty as possible – it is legitimate to ask *which* ‘crusaders’ Ramsay is talking about here?

We can only think of one group who might have been motivated by such an ideology and they are, almost inevitably, the Knights Templar – who are, moreover, frequently cited by Freemasons as their ‘ancestors’. That it was indeed the Templars who Ramsay had in mind (though he did not wish to name them) is also made clear by several indirect allusions in the Oration:

Because a sad, savage, and misanthropic Philosophy disgusts virtuous men, our ancestors, the Crusaders, wished to render it lovable by the attractions of

innocent pleasures, agreeable music, pure joy, and moderate gaiety. Our festivals are not what the profane world and the ignorant vulgar imagine. All the vices of heart and soul are banished there, and irreligion, libertinage, incredulity, and debauch are proscribed.[21]

It was well known throughout Europe that the Templars had been dissolved by papal decree and French military force after accusations of vice, debauchery and heresy. Here Ramsay is obviously defending the Templars and their alleged ‘descendants’, the Freemasons, against such accusations by claiming that what appeared as debauchery and heresy to the ‘profane’ was in reality nothing more that the display of innocent pleasures and moderate merry-making.

Ramsay also tells us that the order once enjoyed special royal protection in England:

After the deplorable mishaps in the Crusades, the perishing of the Christian armies, and the triumph of Bendocdar, Sultan of Egypt, during the eighth and last Crusade, that great Prince Edward, son of Henry III, King of England, seeing there was no longer any safety for his brethren in the Holy Land, from whence the Christian troops were retiring, brought them all back, and this colony of brothers was established in England. As this Prince was endowed with all heroic qualities, he loved the fine arts, declared himself Protector of our Order, conceded to it new privileges, and then the members of this Fraternity took the name of *Freemasons*, after the example set by their ancestors.[22]

The ‘great Prince Edward, son of Henry III’ evoked by Ramsay as the ‘Protector of our Order’ was the celebrated Edward I – famously nicknamed ‘Longshanks’ on account of his unusually tall stature. King of England from 1274, Edward I is best known for his war of oppression against the Scots first under William Wallace and later under Robert the Bruce – the latter long suspected to have been a patron of the Templars in the years after their persecution. But Ramsay's clear implication here is that Edward was *also* their patron. Presumably, therefore, he would have remained so until his death on 7 July 1307, three months before the mass arrests of Templars in France which, the reader will recall, took place on 13 October 1307.

In the years that followed it is notable that Edward I’s son, Edward II, continued to favour the Knights

Templar despite increasing pressure from the pope and King Philip IV of France as late as 1312, when Philip convinced the pope to issue his infamous *Vox in excelso* papal bull of 22 March (the spring equinox) officially suppressing the Templars. It seems that Edward II’s compliance was only half-hearted. He made a few token arrests while allowing most of the knights simply to melt into other chivalrous orders, such as that of the Knights Hospitallier.

Bearing this in mind, let's recall the legendary ‘official date’ of Ramsay's Oration – i.e. 21 March 1737, the spring equinox. Surely this must be a deliberate allusion to the papal bull that had suppressed the Templars on the spring equinox? Masonic historian Alexander Piatigorsky, who has made a special study of the Oration, notes how Chevalier Ramsay subtly managed to pack it with

quite a number of controversial claims:

The first places the origin of Masonic rituals ‘at the time of the Crusades’ and associates them with … the Knights Templar and the esoteric traditions of other medieval Christian Orders. The second asserts that after the suppression of the Templars in the beginning of the fourteenth century and the decline of the other Orders, their esoteric traditions were originally grafted onto, or found shelter among, some Scottish Masonic Lodges e.g. the Mother Lodge of Kilwinning. And the third maintains that those Scottish Traditions (or Orders), which are Christian by definition … were still continuing in Scottish Masonry, and that he [i.e. Ramsay] himself represented them in France as well as in England.[23]

It is interesting that Ramsay also goes on to state in

his Oration that ‘the famous festivals of Ceres at Eleusis, of Isis in Egypt, of Minerva at Athens, of Urania among the Phoenicians, and Diana in Scythia, were connected to ours [i.e. to the rites and festivals of Freemasonry].’ He pauses to recognise that some fellow Freemasons attribute great antiquity to the brotherhood by ascribing ‘our institution to Solomon, some to Moses, some to Abraham, some to Noah and some to Enoch who built the first city, or even to Adam.’ But ‘without making any pretences of denying these origins’ Ramsay chooses to pass on ‘to matters less ancient’:

This, then, is a part of what I have gathered in the annals of Great Britain, in the Acts of Parliament, which speak often of our privileges, and in the living tradition of the English people, which has been the centre of our Society [Freemasonry] since the 11th

century.

At the time of the Crusades in Palestine many princes, lords and citizens associated themselves to restore the Temple of the Christians in the Holy Land ... and to employ themselves in bringing back their architecture ... Our Order [which was amongst them] must ... be considered ... as an Order founded in remote antiquity, and renewed in the Holy Land by our ancestors in order to recall the memory of the most sublime truths ...

[After the Crusades were over] the kings, princes and lords returned from Palestine to their own lands, and there established diverse Lodges. At the time many Lodges were already erected in Germany, Italy, Spain, France, and from thence in Scotland, because

of the close alliance between the French and Scots. James Lord Steward was Grand Master of a Lodge established at Kilwinning, in the west of Scotland ... This lord received as Freemasons into his Lodge the Earls of Gloucester and Ulster, the one English the other Irish.

By degrees our lodges and our rites were neglected in most places. This is why of so many historians only those of Great Britain speak of our Order. Nevertheless it preserved its splendour among those Scotsmen [the Scots Guards] to whom the kings of France confided during many centuries the safeguard of their royal persons.[24]

Whatever Ramsay's motives, and regardless of the vexed issue of the veracity of the Oration, most

Freemasons agree that it was soon after its publication that the so-called *additional* or *higher degrees* of Freemasonry first began to appear. Ramsay may not have been involved directly in formulating any of these degrees but there can be little doubt that his ideas about the past – and future – of Freemasonry played an important role in bringing them into existence. These degrees are still very much part of the Masonic world today. They represent a set of goals towards which most Freemasons aspire, which may be attained by the right candidates through ever higher levels of initiation. Before returning to the story of Freemasonry in the years leading up to the French Revolution it will be useful to make a short excursion into these airy realms.

Excursion to the higher degrees (1) Schisms

When the Grand Lodge of England was founded in 1717, not all Freemasons wanted to accept its authority as a centralised Masonic body.

Even within Britain a powerful opposing faction eventually emerged which considered itself the ‘true repository’ of ancient Freemasonry. Those adhering to it called themselves the *Antients* and labelled all who joined the Grand Lodge of England disparagingly as *Moderns*. After nearly half a century of feuding between the Antients and the Moderns, both factions were finally ‘united’ in Britain under the banner of the ‘United’ Grand Lodge of England – a sort of

Masonic mini-version of the ‘United States’. This happened in 1813 when 21 articles of union were signed by both groups, the most important declaring and pronouncing that:

... pure Antient Masonry consists of three degrees and no more i.e. those of the Entered Apprentice, the Fellow Craft and the Master Mason, including the Supreme Order of the Holy Royal Arch. But this article is not intended to prevent any Lodge or Chapter from holding a Meeting in any of the Degrees of the Orders of Chivalry, according to the constitutions of the said Orders.[25]

What this means in practice, as we shall see, is that ‘higher’ or ‘additional’ degrees are available to Freemasons in English lodges exclusively through the Supreme Order of the Holy Royal Arch. However, in

the world as a whole, there are other Masonic orders which also offer ‘higher’ or ‘additional’ degrees. Two that are particularly popular in the US are the so-called *York Rite,* and the *Ancient And Accepted Scottish Rite,* descended from Andrew Ramsay's original Scottish Rite. The York Rite offers three extra degrees, namely the *Royal Arch Masons* degree, the *Royal and Select Masters* degree and the *Knights Templar* degree. The Ancient And Accepted Scottish Rite, by far the largest and most important, offers a total of *33 degrees* and is considered by many as the most influential and supremely elitist of all the Masonic orders.

It is these rites that offer the ‘degrees of the Orders of Chivalry’ mentioned above. An important factor contributing to their formation and rapid proliferation was again the desire on the part of

Freemasons *not* to be under the jurisdiction of United Grand Lodge of England – in this case often because they lived in countries that were in conflict with Britain. Since France remained Britain's traditional foe well into the 19th century, French Freemasons were determined to have a separate identity. While developing a completely independent type of Freemasonry of their own they also began to nourish close ties with Freemasons in the colonies during the build-up to the American Revolution.

This is why we find many of the higher ‘degrees of the Orders of Chivalry’ still enjoying active support in the US today. Moreover even the most cursory examination of the Scottish Rite and the York Rite leaves little doubt that the degrees they offer are heavily laced with Templar associations.

In the York Rite, which some Masons in the US call

the ‘American Rite’, the symbolism, iconography and regalia used are all unambiguously ‘Templar’, and Templar symbols and links are openly flaunted. As noted above, the third ‘additional’ degree of the York Rite is called the *Knights Templar* degree.

As for the Scottish Rite, the chivalrous element of the Knights Templar is clearly seen in the names given to the various degrees offered – such as *Knight of the East*, *Knight of Jerusalem*, *Knight of Rose Croix*, *Knight Commander of the Temple*, *Knight Kadosh*, and so forth. In the US, the Scottish Rite also sponsors the very popular para-Masonic fraternity for young men, generally for sons of Freemasons, known as the ‘International Order of DeMolay’, so named in memory of Jacques de Molay, last of the true Grand Masters of the Knights Templar.[26]

Excursion to higher degrees (2) Holy Royal Arch

Regular or *Craft* Freemasonry, meaning that type of Freemasonry which is regulated by the united grand lodges and their various warrants around the world, offers three levels of initiation to the new recruits. These are often referred to as ‘symbolic’ or ‘blue’ degrees and are, respectively, *Entered Apprentice, Fellow Craft* and *Master Mason*.

Most Freemasons complete their Masonic education when they obtain the Master Mason degree. There are, however, a few others who want to take their initiation further and thus proceed to what are generally referred to as the ‘additional

degrees' or 'higher degrees'. These can be considered as emanating from Craft Freemasonry and can only be entered by those who have completed the third 'blue' degree of Master Mason. In Britain the only additional degree that is regulated by United Grand Lodge is the so-called *Royal Arch*. This is how the United Grand Lodge introduces the Royal Arch:

Under the English Constitution, basic Freemasonry is divided into two parts, called the Craft and the Royal Arch. For Freemasons who really want to explore the subject in more depth there is a host of other ceremonies, which, for historical reasons, are not administered by the United Grand Lodge of England. All English Freemasons experience the three Craft (or basic) ceremonies unless they drop out from Freemasonry very early on. These three ceremonies

(or degrees as we call them) look at the relations between people, man's natural equality and his dependence on others, the importance of education and the rewards of labour, fidelity to a promise, contemplation of inevitable death, and one's duty to others. A fourth ceremony – the Royal Arch emphasises man's dependence on God.[27]

The United Grand Lodge of England has its headquarters at Freemasons' Hall in London. This huge neo-classical edifice is located at the crossroads of Great Queen Street and Drury Lane. But few initiation ceremonies are conducted there, with most of the three degrees being 'worked' in the 8,000 or so 'lodges' or 'temples' across the country. As one recent Grand Master pointed out, there is an even wider 'spread from English origins throughout the

world’ if we consider all the so-called overseas *warrants*.

Any Master Freemason, i.e. third degree Mason, can further his Masonic career by taking one or more or all of the ‘additional’ or ‘higher’ degrees. In England, this usually entails taking the supplementary degrees recognized by the United Grand Lodge, meaning those administered by the Holy Royal Arch under the jurisdiction of the Supreme Grand Holy Royal Arch Chapter of Jerusalem instituted in 1766. Higher Royal Arch degrees are ‘worked’ not in lodges but in *chapter lodges*. There are some 3,000 or so chapter lodges in Britain alone, with an estimated combined membership of 150,000.

Excursion to higher degrees (3) Warrior-Masons of Zerubbabel

In Craft Freemasonry the themes of the rituals revolve around pseudo-biblical events concerning the construction of Solomon's Temple. More specifically, the third or Master Mason degree deals with the death and raising of one Hiram Abiff, a pseudo-biblical character probably modelled on the legendary Phoenician architect, Hiram of Tyre, who supposedly designed or participated in the construction of Solomon's Temple around 950 BC.[28] In this ritual, the apotheosis is reached when the Master Masonelect is ‘raised’ from a symbolic death supposedly mimicking the death and ‘raising’ of

Hiram Abiff who was himself brutally murdered by three ‘Fellows’ for refusing to impart to them the ‘secret’ of the Master Mason's ‘word’. Presumably one of the messages of all this is that a Master Mason chooses death rather than to break his Masonic oath – an act of ultimate loyalty which is rewarded by him being ‘raised’ as a resurrected new Master.

In the Holy Royal Arch rituals, however, the so-called *Hiramic* theme is replaced by a different focus, now concerning the *reconstruction* of Solomon's Temple by *Zerubbabel* and his followers. In the Bible Zerubbabel was the leader of the Jews exiled in Babylon who negotiated their freedom from their Babylonian oppressors and heroically led them all back to Palestine. Zerubbabel became governor of Jerusalem and ordered the reconstruction of the Temple which had been destroyed by the

Babylonians. Interestingly some researchers believe that the particular obsession of the Knights Templar with Solomon's Temple might likewise have been focused, in a mystical sense, on its *rebuilding* rather than anything else:

The Templars saw themselves as the Warrior-Masons of Zerubbabel, who persuaded King Darius to allow the rebuilding of the Temple of Jerusalem. They inherited the belief from the Gnostics and St. John that the Temple was the mystic centre of the world, and so they secretly resisted the power and authority of the Popes and Kings of Europe. The black and white devices of their order ... showed their Gnosticism and Manicheism, the belief in the continuing struggle of the devil's world against God's Intelligence. They bequeathed to the Masons the black-and-white lozenges and Indented Tassels of

their Lodges.[29]

The alleged dualistic or ‘Manichean’ symbolism of the ‘black and white devices’ used by the Templars (which were numerous and included their checkered battle flag, the *beauséant*) are not matters that we need concern ourselves with here. What interests us more is this further hint of the continuity of interests, symbolism and ritual that seems to tie the Freemasons, who are still very much a force to be reckoned with in the world, to the Knights Templar who have supposedly been extinct for 700 years.

To return to the Royal Arch rituals of Freemasonry, there are usually three main ‘actors’ who assume the role of Zerubbabel and his two trusted colleagues, Joshua and Haggia. These protagonists re-enact the clearing of the site where once stood the ‘Temple of

Solomon' and while doing so discover a golden plate upon which are written the 'sacred and mysterious' names of God. These turn out to be the well-known name of Jehovah, correctly written as *Jahveh* (from the Latin consonants JHVH which are all that the Old Testament gives us) and also another, more mysterious name proclaimed to be *Jahbulon*.[30] The name *Jahveh* is split into three syllables, *Ja-h-veh*, and written inside a small circle. The same is done for *Jahbulon*, *Jah-bul-on*, but in this case inscribed on the corners of a triangle drawn inside the circle.

Thus combined, these obvious Pythagorean symbols also form the common alchemical device used to show the so-called *mystical relationship* of the square, the circle and the triangle. Masonic author and researcher Martin Short refers to a

‘mystical lecture’ that is sometimes given in Holy Royal Arch rituals in which it is explained that:

... In times of antiquity, names of God and symbols of divinity were always enclosed in triangular figures ... In the days of Pythagoras the triangle was considered the most sacred of emblems ... The Egyptians termed it the Sacred Number, and so highly was it prized by the ancients, that it became amongst them an object of worship. They gave it the sacred name of God ... This sacred *Delta* is usually enclosed with a square and circle ... the word on the triangle is that Sacred and mysterious Name you have just solemnly engaged yourself never to pronounce.[31]

Excursion to higher degrees (4)

Much fuss about Jahbulon

Craft Freemasonry uses *epithets* for God such as the ‘Grand Architect of the Universe’, the ‘Great Geometrician’ or the ‘Supreme Being’. But in the Royal Arch the adepts find it necessary actually to give God a name such as *Jahbulon*. We cannot be certain how long this name was used before it began to attract hostile attention in the early 1980s. In 1985, however, the Church of England and the Methodist Church urged Freemasonry to remove it from Royal Arch rituals on the grounds that they suspected it to be of pagan origins.[32] Many anti-Masonic researchers within the clerical establishments were convinced that the name

Jahbulon veiled three ancient deities, namely the Hebrew *Jahveh* or *Yahweh*, the Phoenician *Baal* or *Buul*, and the patron deity of the ancient Egyptian city of *On* (*Anu*, or Heliopolis, the 'City of the Sun') who some took to be Ra, and some Osiris.[33]

The clerics protested that this sort of pagan syncretism was something 'which Christianity cannot accept' and that quite simply *Jahbulon*, whoever or whatever he was, had to go. The Freemasons retaliated by arguing that *Jahbulon* was not a name of God at all but merely a 'description of God'. The clerics, however, were unimpressed and fought a relentless battle over the matter in the media – causing much nervousness in Masonic circles inhabited by people who are normally accustomed to secrecy. In July 1989 the United Grand Lodge caved

in under the pressure and announced that *Jahbulon* would henceforth be replaced by *Jahveh* alone, a name for God generally regarded as acceptable by Christians. This seemed to do the trick and the media lost interest in the story.

Not many clerics were convinced at this quick ‘conversion’ of the Masons. *Jahveh,* after all, was confirmed to have been associated with the first syllable of the name *Jahbulon,* and it seemed to some that the whole bizarre exercise merely amounted to more or less the same thing as replacing a name by its diminutive – such as ‘Kat’ for ‘Katherine’ and so forth.

Could there possibly be some fire behind all this smoke about Masonic ‘paganism’?

Excursion to higher degrees (5) ancient Egypt and geometry

A 1901 aquarelle illustration made by artist R. F. Sherar of the original interior of the Supreme Grand Royal Arch Chapter of Scotland, designed by the architect Peter Henderson and located in Edinburgh, makes it immediately clear that this particular grand chapter at least was modeled on an ancient Egyptian pharaonic temple.[34] A closer examination of the various illustrations on the walls uncovers scenes taken from the ancient Egyptian *Book of the Dead* depicting the god Osiris on his heavenly throne like some monarch of the Solomonic age passing divine judgment on the neophyte brought before him. There

is also a very similar pseudo-Egyptian temple at the Grand Lodge of Pennsylvania in Philadelphia, on the floor of which can be seen the winged-*uraeus* or solar-serpent, the supreme symbol of ancient Egypt. Many other Royal Arch chapters around the world are likewise designed or partly designed as 'Egyptian' temples, such as Freemasons' Hall in Dublin which, in Martin Short's, words boasts two sphinxes and other sculptures 'aping ancient Egypt.'[35] Short similarly draws attention to the modern Holy Royal Arch temple at Petersham, New South Wales in Australia which has an Egyptian room with murals showing scenes from the Egyptian *Book of the Dead* including images of Osiris.[36]

A colleague of Martin Short, the notorious anti-Masonic author Stephen Knight, had been one of the

first – as early as 1981 – to take the Masonic name *Jahbulon* to task. In the refrain that the clergy would later echo he claimed that it was an allegory of pagan deities including the Egyptian god Osiris, the 'Lord of *On*'.[37] In 1987 Short reiterated Knight's view that the syllable *On* in *Jahbulon* denoted the ancient Egyptian holy city of *On*, i.e. Heliopolis or the 'City of the Sun' where had once stood the great sun-Temple of Atum-Ra, progenitor of Osiris. According to Martin Short:

... if *Jahbulon* means anything, it means 'God, the Lord of On', or possibly 'He Who is the Lord of On'. Whether that god is the sun-god Ra or Osiris, the God of the Dead, depends on which period of Egyptian history takes your fancy.[38]

Naturally most modern Freemasons vehemently deny all this, arguing that the ancient images and

deities found in Masonic rituals are only used in a *symbolic* manner and then merely to emphasize or represent ideas that are entirely harmonious with Christianity.

But something that is rarely discussed remains unexplained about the name *Jahbulon*.

In Masonic Royal Arch iconography, the Pythagorean triangle is often shown alongside Masonic symbols such as the stonemason's block, the chisel and the mace. Now the pseudo-biblical setting in which the Royal Arch rituals unfold is derived from the so-called *Old Charges,* already discussed in Chapter Thirteen. The reader will recall that these *Old Charges* are a compilation of medieval manuscripts which provide an account of the ancient origins of Freemasonry. In one of these, the *Beswicke-Royds Manuscript* dating from the 16th

century, there is a description of the so-called ‘seven liberal arts and sciences’ and the statement that all the sciences in the world are to be found in ‘geometry’.[39]

Right across the whole spectrum of Masonic writings the discipline of ‘geometry’ continues to this day to be given a place of honour along with its ancient ‘fathers’ such as Euclid and, more especially, Pythagoras. Indeed Pythagoras’ famous square-root-triangle theorem pops up in many Masonic illustrations and can even be seen on the frontispiece of the 1723 Masonic *Constitutions*. The curious sanctity and reverence that Freemasons give to geometry is such that the letter ‘G’ – commonly seen inside the symbol of the Masonic triangle or ‘Blazing Star’ where it denotes the ‘Grand Architect of the

Universe' – also apparently stands for 'geometry'. By the same logic, the Masonic 'Supreme Being' Himself is often called the 'Great Geometrician'.

Now the connections of Pythagoras and also of Euclid with ancient Egypt were well known to 18th and 19th century historians, who read the classics. Many classical chroniclers such as Cicero, Diogenes, Isocrates, Porphyry, Valerius, Strabo, Justinian and Clement of Alexandria, tell us that Pythagoras had long sojourned in Egypt, and Iamblichus even reports that Pythagoras stayed there for 22 years. All agree that it was in Egypt that Pythagoras learned the science of geometry from the ancient sages of Heliopolis. The Greek chronicler Isocrates even maintains that Pythagoras became a disciple of the Heliopolitan sages, and the historian Plutarch went as far as to assert that Pythagoras was initiated by

the Egyptian priest Oenuphis of Heliopolis.[40] This almost mystical link between Pythagoras and ancient Egypt fascinated the scholars of the Renaissance and the Enlightenment, and led many to believe that much of the sacred and pristine 'science' or 'knowledge' of the ancient Egyptians had been somehow brought into Western tradition encoded in Pythagorean geometry.

In the *Old Charges* reference is made to a mysterious patriarch called *Jabal,* the 'descendent of Lamech',[41] who is known as the 'Founder of Geometry' and is often called *Jabal of Geometry*.[42] The reader will recall from Chapter Thirteen that Jabal's geometry and the other antediluvian sciences were said to have been recorded on two stone pillars 'erected by the inhabitants of the ancient world to

carry the knowledge of mankind over an impeding destruction which proved to be Noah's Flood.'[43]

After the Flood, the *Old Charges* go on to say that 'Hermes the Father of Wise Men' rediscovered the two pillars 'wherein the sciences were written and taught them forth'. We're told that the texts recording these 'sciences' were later taken out of Egypt by Moses during the Exodus and that in this way 'was the worthy Craft of Masons confirmed in the Country of Jerusalem.'[44] What is interesting about all this is that the *Old Charges* are adamant that the two stone pillars carrying this arcane knowledge were *not* those from Solomon's Temple, i.e. *Boaz* and *Jachin*, but much older ones somehow connected to the quintessential Egyptian sage 'Hermes the Father of Wise Men', i.e. Thoth or

Hermes Trismegistus. A reasonable conclusion would be that these ‘pillars’ were thought to be *inscribed obelisks* from the great sun Temple of Heliopolis, where all the great sages of antiquity were taught the ‘seven liberal arts and sciences.’ As we have seen, in the Bible the city of Heliopolis is called *On*. So if the patriarch *Jabal* in the *Old Charges* was the ‘founder’ of geometry, then it is quite possible that the word *Jahbulon* is a cipher to denote the ‘sacred geometry’ or ‘sacred science’ of *On*, i.e. Heliopolis.

From Grand Lodge to *Grand Orient*

Having broached the subject of the higher degrees, and of the esoteric speculation that seems inevitably to arise from them let's now return to the more general story of Freemasonry in France in the years before the French Revolution.

Most historians believe that Freemasonry took root in France from the Scottish lodges that we know were set up in the 17th century by the Stuart Jacobites-in-exile, and thus well before the creation of the Grand Lodge of England in London in 1717.[45] This ‘Jacobite’ type of Freemasonry on the Continent was vehemently opposed by Masonic lodges later established in France under the warrant and jurisdiction of the Grand Lodge. In 1738, however, a general assembly of all lodges, both ‘Jacobite’ and ‘English’, voted that the powerful Duke of Antin, a

cousin of King Louis XV, be elected as Grand Master of all Freemasonry in France.[46]

After the death of the duke in 1743, the French Freemasons elected another prince of the blood royal, Louis de Bourbon-Condé, the Count of Clermont, as the new Grand Master. Among other things, the Count of Clermont was also the lieutenant-general of the king's army, abbot of Saint-Germain-des-Prés in Paris, and a prominent member of the *Académie Française*.[47] More importantly, the Count of Clermont was the son of the Duke of Bourbon and Mlle de Nante, the latter a natural daughter of Louis XIV and his favourite mistress, the influential Mme de Montespan. But an even more powerful royal would be found. On 24 June 1772, a year or so after the death of the Count of Clermont,

the *Grande Loge de France* elected as its new Grand Master, the Duke of Chartres, the future Duke of Orléans, first cousin of King Louis XVI. At his election the name of the *Grande Loge de France* was changed to the *Grand Orient de France*.[48] French Freemasonry under the *Grand Orient* quickly become very popular not only with the aristocracy but also, and perhaps more so, right across the middle classes amongst the military, academics, men of letters, the clergy and the bourgeoisie in general.

In these early formative years of the *Grand Orient* another important Masonic influence was to penetrate France – an influence that had the unmistakable hallmark of the Hermetic-Egyptian ideologies that Giordano Bruno and Tommaso Campanella had first imported a century before.

Cagliostro and ‘Egyptian’ Freemasonry

In the late 1770s there emerged from Italy, like a Bruno or Campanella reborn, yet another Hermetic-Egyptian reformist. He was to prove tenacious and determined and would become, in a most curious way, one of the political catalysts of the French Revolution.

Giuseppe Balsamo, a man who is better known as the ‘Count’ of Cagliostro, was born in the Italian city of Palermo in 1743.[49] Little is heard of Cagliostro until the 1760s, when we find him in Rome working as a restorer and copier of old paintings. There he married a ravishingly beautiful girl called Lorenza

Feliciani, the daughter of a wealthy Roman coppersmith, and acquired some knowledge of medicine and alchemy. Along the way Cagliostro also managed to acquire a reputation of his own as a healer, an alchemist, and a very generous philanthropist.

By 1776, the year the American Revolution began, Cagliostro and the beautiful Lorenza were in England, having travelled there via Malta and Spain. They set up home on Whitcomb Street and Cagliostro began at once to introduce himself to Masonic circles in London. In this he had no difficulty since he carried impressive Masonic letters of recommendation from a certain Luigi Aquino, a Knight of Malta and brother of Prince Francesco Aquino, the Grand Master of Freemasonry in

Naples.[50]

Within a year Cagliostro was raised to the rank of Master Mason at the Royal Tavern Lodge in Soho.[51] A very charismatic and well-spoken person, with an added touch of glamour thrown in by the constant presence of his beautiful wife Lorenza, Cagliostro's reputation as a healer and magician brought him amazing fame. It seems that he much impressed his English friends by guessing correctly the winning numbers of the lottery. This ability, quite naturally, created a huge stir, with everyone trying to buy winning numbers from him. So persistent were these demands that the Cagliostros had to close their home to all visitors except for a few personal acquaintances.[52]

An unfortunate incident involving an expensive

diamond necklace that Lorenza was lured to accept from a cunning admirer in exchange for lottery numbers, was to bring charges of embezzlement against Cagliostro from the authorities in London.[53] After a very embarrassing trial that lasted several months, the Cagliostros left England in late December 1777 in the hope of making a better life on the Continent. They first went to Bavaria, staying in hostels recommended by fellow Masons, and were well received by the nobility of Leipzig. There Cagliostro is said to have encountered the French Hermetic alchemist, Antoine-Joseph Pernety.[54]

Pernety was a Benedictine monk from the Abbey of Saint-Germain-des-Prés in Paris. He had acquired some fame in 1766 for having founded a Masonic rite known as the *Hermetic Ritual of Perfection* for the

so-called *Illuminati of Avignon*, an esoteric Masonic sect.[55] Persecuted by the Jesuits, Pernety had been obliged to flee Avignon, and had spent several years in Berlin under the protection of King Frederick II. The latter was a keen patron of Masonic orders and had himself been initiated into Freemasonry in 1738. Frederick II appointed Pernety curator of the Berlin State Library and granted him membership of the Prussian Academy of Sciences.[56]

In Berlin, Pernety practiced what he clearly believed to be Hermetic 'Egyptian' astral and talismanic magic. He frequently performed at séances attended by members of the German aristocracy for whom it was said he invoked the power of angels and spirits.[57] During these sessions Pernety addressed his new recruits with words

reminiscent of the Renaissance magi:

... the science into which I am about to initiate you is the first and most ancient of sciences. It emanates from Nature, or rather it is Nature herself perfected by art and based on experience.[58]

Cagliostro reaches France by way of Germany and Russia

Germany in the 1770s was rife with exotic secret societies and Masonic orders. One of these was known as the 'African Architects'. It had been founded in 1767 by Karl Friedrich von Köppen, an

officer in the Prussian army,[59] who is thought to have been behind a strange Masonic tract, the *Crata Repoa,* which purports to contain authentic reproductions of initiation rituals performed in the Great Pyramid by ancient Egyptian priests.[60] As odd as it may seem, this peculiar 'Egyptian' Masonic society of African Architects received the sponsorship of Frederick II, who even had a magnificent library built for its members in the region of Silesia in south Poland.[61]

There was also the so-called *Rite of Strict Observance* founded in 1756 by Karl Gotthelf, better known as the Baron von Hund, who had been initiated into Freemasonry in Paris in 1743 in one of the fashionable 'Templar' orders.[62] Baron von Hund, like the Chevalier Ramsay before him, claimed that

Freemasonry was linked to the medieval Knights Templar, and his own Rite of Strict Observance was to enjoy astounding success in Germany and other parts of Europe. It was in one of the Strict Observance lodges, *Zur Wohltätigkeit*, that the composer Wolfgang Amadeus Mozart was initiated, and it is obviously from the influence of Hund's and Köppen's Masonic rite that Mozart was to develop the theme for his famous Masonic opera, *The Magic Flute*, which is set in a pseudo-Egyptian context highly charged with Masonic symbolism and virtues.[63]

But by far the most famous of all these exotic orders, and also somewhat connected to Hund's Strict Observance order, was an intensely anticlerical organisation called the *Illuminati of Bavaria*. It had

been founded in 1776 in Ingolstadt by the lawyer Adam Weishaupt and was backed by the influential Baron Knigge, a Freemason and also a member of the Strict Observance.[64] Such German Masonic activity in the late 1770s was to have a great influence on American 'higher degree' Freemasonry and the Supreme Council of the 33rd Degree in Charleston, SC (later moved to Washington, DC).[65]

In 1777, a year after the start of the American Revolution and 12 years before the start of the French Revolution, Cagliostro arrived in Germany. He immediately involved himself with a wide variety of Masonic orders all of which had in common a distinctive blend of Hermetic-Egyptianism and neo-Templar ideologies.

And although most Masonic historians maintain

that the ‘Egyptian’ type of Freemasonry was the invention of Cagliostro, it does very much appear that at least some of his ideas were cribbed from Köppen's *Crata Repoa*. The basis of the Egyptian Rite can be summed up in Cagliostro's celebrated claim that:

… all light comes from the East and all initiation from Egypt.[66]

Cagliostro was the first Freemason to be aware of a huge and untapped source of Masonic recruits: women. And even though it is true that the idea of women's lodges had occurred to the *Grand Orient de France* as early as 1744,[67] it was nonetheless Cagliostro with his intriguing and attractive Egyptianised version of Freemasonry who, in practice, brought the ladies flocking in droves into the Masonic world.[68] It all began in 1775 when

Cagliostro first set up an ‘Egyptian Rite’ lodge for women in the Hague, and where he was assisted by the beautiful Lorenza who would assume the role of ‘Isis’ in the rituals performed. From the outset what really seemed to appeal to women was the promise of a ‘rejuvenation’ ritual that Cagliostro and Lorenza performed in a pseudo-Egyptian setting. The course apparently took 40 days to complete, a period clearly modeled on the 40 days of embalming in ancient Egypt reported by classical authors such as Diodorus, who called this period the ‘remedy which confers immortality.’[69] It is also said in the Bible when Jacob died in Egypt that:

Joseph threw himself upon his father [Jacob], weeping and kissing his face. Then Joseph directed the physicians in his service to embalm his father

[Jacob]. So the physicians embalmed him, taking a full forty days, for that was the time required for embalming.[70]

It was widely believed that the goddess Isis had invented the rites of embalming and rejuvenation, and therefore not surprisingly Cagliostro claimed that his own ritual was also the invention of the goddess Isis. Such claims, as well as Cagliostro's amazing reputation as a healer, did wonders for his new Masonic Egyptian Rite. But things started to go wrong when his travels brought him to Russia. At the court of Queen Catherine the Great, in the autumn on 1780, the queen herself accused him of being an imposter and a charlatan.

Fleeing Russia, Cagliostro travelled to France, entering through the Alsatian town of Strasbourg.

There he met the immensely rich but also immensely naïve Louis René Édouard de Rohan, the French bishop of Strasbourg, known as the Cardinal de Rohan. He was fascinated by Cagliostro who performed a ‘miracle’ by curing Rohan's uncle, the Prince of Soubise, from a near-fatal attack of Scarlet fever. The story of the ‘miracle’ went around France like wildfire, and from that moment on Cagliostro's reputation as a healer and magician began to open doors for him.

In the summer of 1784 he made his triumphal entrance in the city of Lyons. There hundreds of regular Freemasons willingly deserted their lodges to join Cagliostro's new ‘Egyptian’ lodge, *La Sagesse Triomphante*, which he hastily founded to receive them. On 24 December 1784, under the ecstatic gaze of his followers, Cagliostro proclaimed to the world

the re-establishment of the ‘true and ancient order of the *higher* rituals of Egyptian Freemasonry’. He would head it and hold the title *Great Copt*.[71] Funds were immediately raised by his enthusiastic disciples for the construction of a magnificent Egyptian temple, which, predictably, was to be in the form of a pyramid.

This was only the beginning of Cagliostro's meteoritic to rise to fame in France and his equally meteoric fall. His pyramidal ‘temple’ in Lyons was built and finally inaugurated in 1786, without the presence of Cagliostro who by that time was in Paris languishing in the Bastille for reasons that we'll explain in the next chapter. Afterwards his ‘temple’ remained a landmark in the district of Brotteaux in Lyons for many years. In 1788, the year before the

Revolution, it was proposed that a second pyramid should be erected beside it – this one in honour of Joseph-Michel Montgolfier, the famous pioneer of the hot-air balloon, who was also a Freemason. Then in 1793 the idea was proposed yet again at the same location, only now the pyramid was to be a mausoleum for the ‘martyrs’ of the massacre of 1793, when the army of the Convention attacked Lyons. It is interesting that today, not far from this place, stands a high tower, the so-called *crayon*, shaped like an Egyptian obelisk with a huge glass pyramid at the top, owned by the Crédit Lyonnais bank. It was designed in 1977 by the New York architect, Araldo Cossutta. Oddly, Crédit Lyonnais owns another building at Lille which is designed as an inverted pyramid.

But we're getting far ahead of Cagliostro's story.

On 30 January 1785, blissfully unaware of what lay in wait for him at the Bastille, he made his way to Paris.

We are now four short years from the French Revolution. For some it would be a cataclysm; for others an unprecedented opportunity …

Wonderful year! You will be the regenerating year, and you will be known by that name. History will extol your great deeds. You have changed my Paris, it is true. It is completely different today... Inourish my spirit on it ...

Sebastien Mercier, 'Farewell to the Year 1789', as quoted in Lusebrink & Reichardt's
The Bastille: A History of a Symbol of Despotism and Freedom

Someone asked me if I would return to France in the case that those who attacked me [the king

and the government] *would be removed*? *Surely, I replied, but only if the site of the Bastille* [where I was imprisoned] *becomes a public park …*

Cagliostro, in a letter sent from London, 20 June 1786, where he predicts the destruction of the Bastille after being exiled

Man is born free, but everywhere he is in chains.

Jean-Jacques Rousseau, Le Contrat Social, the phrase that most inspired the French Revolution

CHAPTER SEVENTEEN

THE NEW CITY OF ISIS

Cagliostro first took up residence in Paris in early February 1785 at the Hôtel de Strasbourg in the Rue Vieille-du-Temple, where his sponsor, the Cardinal de Rohan, resided. But then Cagliostro and Serafina (as he now called his wife Lorenza) moved to another small residence in the Rue Saint-Claude-au-Marais.[1]

There Cagliostro set up an 'Egyptian' Masonic lodge which very soon attracted many notables,

among them the Duke of Montmorency-Luxembourg who, at the time, was Deputy Grand Master of the *Grand Orient*. Among the members was also the famous musician, Jean-Benjamin de Laborde, who had been the personal valet of Louis XV. The duke was appointed by Cagliostro as the Grand Master Protector of his new 'Egyptian' Freemasonry.[2] Then, in August 1785, Cagliostro, with the help of his wife, created his famous adoption lodge 'Isis' which immediately became a huge success with the ladies of the court. Among his recruits were the Countess of Polignac, the Countess of Brienne, the Countess of Choiseul (the wife of Louis XVI's finance minister), and many other ladies of the nobility.[3]

Cagliostro's Egyptian Rite rapidly became the craze of Paris, so much so that the ill-fated Queen Marie-

Antoinette was to write in a letter to her sister: ‘*Tout le monde en est; on sait tout ce qui s'y passe*’ (‘Every one has joined; and everything that goes on is known to us’).[4] Soon the sculptor Jean-Antoine Houdon, who was himself a keen adept of Cagliostro's Freemasonry, was to honour the maestro by fashioning a bust of him. It is reported that members of the famous *Philalethes* lodge, which studied the occult sciences, also fell under Cagliostro's spell and converted *en masse* into his new Egyptian Rite. Nothing, it seemed, could now stop this selfdeclared ‘prophet of Isis’.[5]

Flashback (1) 15th – 17th

centuries: traditions of Paris as the city of Isis

There was, in fact, something about Paris itself that very much played in favour of Cagliostro's Egyptian Rite that conditioned citizens to respond enthusiastically to his claims regarding the ancient Egyptian goddess Isis.

Since the early part of the 15th century it is possible to document a persistent belief among Parisian historians that their city was somehow related to Isis. The belief probably goes back much further than that but is confirmed in a collection of manuscripts dating from around 1402 kept at the *Bibliothèque Nationale* in Paris. In these rare

medieval documents we can find miniature drawings showing the goddess Isis dressed as a French noblewoman arriving by boat in Paris, where she is greeted by French nobles and clergymen[6] bearing the title 'the very ancient Isis, goddess and queen of the Egyptians.'[7] It is the 'boat of Isis' that is striking in these medieval miniatures for it bears an uncanny resemblance to the boat that was also placed on the medieval coat-of-arms of the city of Paris.[8] And during the same period we know that Parisians believed the name of their city to have been derived from the name of Isis. For example, a 14th century Augustine monk called Jacques le Grant wrote that:

In the days of Charlemagne [eighth century AD] ... there was a city named Iseos, so named because of the goddess Isis who was venerated there. Now it is

called Melun. Paris owes its name to the same circumstances, Parisius is said to be similar to Iseos (*quasi par Iseos*), because it is located on the River Seine in the same manner as Melun.[9]

In 1512, another French historian, Jean Lemaire de Belges, reported that an idol of the goddess Isis had been worshipped in a temple immediately outside the southern gate of Paris, where now stood the Abbey of Saint-Germain-des-Prés. [10] And the same was reported by many other contemporary writers, notably the 16th century Parisian historian Gilles Corrozet, who is reputed to be the first historian ever to produce a comprehensive guide to the city of Paris. In 1550 Corrozet also published a history of Paris titled *Les Antiquitez, Histoire et Singularitez de Paris*, in which he wrote that,

... coming to the imposition of the name [of Paris], it is said that there, where stands St. Germain-des-Prés, was a Temple of Isis of whom it is said was the wife of the great Osiris or Jupiter the Just. The statue [of Isis] having come in our times, of which we recall ... This place is called the Temple of Isis and, for the nearby city, this was called Parisis ... meaning near the Temple of Isis.[11]

The early 17th century French editors Pierre Bonfons and Jacques du Breul republished Corrozet's book under their own names and titled *Les Antiquitez et choses plus remarquables de Paris, recueillies par M. Pierre Bonfons et augmentées par frère Jacques du Breul* in 1608. Jacques du Breul was a Jesuit monk from Saint-Germain-des-Prés, and thus presumably conversant with the records kept at that abbey. It is

therefore of great interest to find him writing as follows:

... at the place where King Childebert [fifth century AD] had constructed the church of St. Vincent now called St. Germain, and to which he donated his fief of Issy, the consensus was that there was there a Temple of Isis, wife of Osiris, also known as Jupiter the Just, and from whom the village of Issy got its name, and where can still be seen an ancient edifice and murals which are believed to be from the castle of Childebert.[12]

In 1612 yet another French historian, André Favyn, reported that the church of Notre-Dame des Champs also once possessed an idol of Isis similar to the one found in the nearby Abbey of Saint-Germain-des-Prés:

I believe this was due to another idol, for the

proximity that there is with [Notre Dame] and the Abbey of St. Germain-des-Prés where was venerated Isis, called by the Romans Ceres ...[13]

During the reign of Louis XIV an archaeological discovery was to add even more fervour to this widely held set of beliefs linking Isis with Paris. In 1653, as we reported in Chapter Twelve, a worker digging the foundation of a new vicarage in the city of Tournai stumbled across an ancient tomb containing hundreds of golden ornaments. The tomb was thought to belong to Childeric, a fifth century Frankish king and legendary ancestor of the French monarchs.[14] Among the ornaments found within, and at a second site discovered nearby, was a statue of Isis, the head of an ancient Egyptian 'Apis' bull (associated with the Osiris and later Serapis cults)

and also some 300 golden bees. It was known, even at the time, that the symbol of the ancient Egyptian pharaohs was the bee, which was immediately taken to mean that there was a link between the ancient solar pharaohs of Egypt and the ancient solar kings of France.

Flashback (2) 1665: the mystery of the deviated axis (1)

In 1665 the Childeric treasures were sent to Louis XIV who had them stored in his personal *Cabinet des Médailles*. We saw in Chapter Fourteen that the same year also witnessed a gathering in Paris of a powerful

cabal of architects and city planners, including the stellar figure of Gian Lorenzo Bernini from Italy, Christopher Wren from England, and France's own André Le Nôtre. Wren was there to learn and listen. Bernini was designing the new façade of the Louvre Palace, and Le Nôtre was planning the Tuilleries Garden on the west side of the Louvre.

The central axis of the Louvre is set roughly east-west, running more or less parallel to the River Seine, which flows immediately to the south, and the Rue de Rivoli, which runs immediately to the north. If we follow the axis west today (i.e. towards the Tuilleries Garden) we will find that it passes through the apex of a huge glass Pyramid installed in the courtyard of the Louvre in 1984 and then, further west, through the centerline of the Arc du Carrousel (a triumphal arch built by Napoleon in 1806). At this

point something strange happens – and it is the result of Le Nôtre's work in the 17th century. Instead of extending the ‘axis of the Louvre’ further to the west along its existing alignment, Le Nôtre made a deliberate decision, whilst developing the Tuilleries Garden, to deviate it a few degrees to the north – such that it now runs precisely at 26° north-of-west.[15] At first glance, it would appear that Le Nôtre may have wanted to adjust the alignment of the axis in order to have the Tuilleries Garden run more precisely parallel to the flow of the River Seine. That would seem a logical and practical decision for an urban architect to make. But still, why did he opt for exactly 26° and not, a rounded value such as, say, 25° or even 30°? We might suppose that the choice was arbitrary but for one very important point ...

A few hundred yards downriver from the Louvre is the famous Cathedral of Notre Dame on the Île de la Cité, a small and peculiarly boat-shaped island in the River Seine. Here we find the alignment of 26° north-of-west incorporated into the axis of the cathedral itself.[16] Our point is that not only that Notre Dame's axis was established centuries before Le Nôtre but also that there is no obvious practical reason, in the case of the cathedral, that could account for this 26° alignment. It is not likely to be a coincidence that two major monuments within a few hundred yards both have the same axial alignment. If the angle is meaningful, however, then what does it mean?

The clue, we suggest, is the *Sun*. Let's not forget that Le Nôtre was planning a programme of monumental works for the Sun King. It should hardly

be surprising, therefore, if solar symbolism were to be incorporated into such schemes. Further evidence that this is probably the right approach comes, yet again, from the anomalistic alignment of Notre Dame. As the Parisian historian Jean Phaure has observed, the axis of this great cathedral starts at an angle of 23.5° north-of-west but incorporates a deliberate deviation to the final figure of 26° north-of-west.[17] Why?

Readers with even a basic education in astronomy will recognize as we did that the angle of 23.5° has solar significance since it represents exactly the positive and negative declinations of the Sun at the summer and winter solstices respectively. But if this is to be the explanation for the axis of Notre Dame then why the deviation to 26°? Is it another solar

alignment?

Let's first understand the significance of the angle of 23.5°.

The sun's altitude in the sky, measured at noon, changes throughout the year. It is at its highest at mid-summer (the summer solstice) and at its lowest at mid-winter (the winter solstice). These regular annual changes occur because the axis of the Earth is titled at an angle of 23.5° relative to the solar plane (referred to by astronomers as the ecliptic). Like a cosmic skewer passing through the north and south poles, this oblique axis governs our relationship to the Sun at all times and is, of course, the true *axis mundi* of our planet. The reader will recall from Chapter Fifteen how the spire of St. Paul's Cathedral in London was taken to symbolise the *axis mundi* and also how John Evelyn sought to equip St. Paul's with

intense solar symbolism through his sephirothic scheme. We suggest that the angle of 23.5° in the axis of Notre Dame may have been intended to express a similar solar connection.

The sun's position changes throughout the year not only at noon (the astronomical ‘meridian’ or mid-line of the sky) but also at all other points along its arc – including, of course, at its rising and setting points on the horizon. At the latitude of Paris (48°, 51’ north), an observer looking west (the general direction of Notre Dame's alignment) will note that the Sun sets at about 38° *north*-of-west at mid-summer and at about 38° *south*-of-west at mid-winter. On other days of the year the Sun sets at points in between these two extremes moving from north to south for six months and then travelling back from south to north again in the next six

months. Obviously, with this pendulum-like swing, the Sun will set at any selected point within the range twice in the year (once on its journey from north to south and a second time on its journey from south back to north).

According to researcher and author Jean Phaure the second angle incorporated into the axis of Notre Dame Cathedral – i.e. the angle of 26° north-of-west – is to be explained by this pendulum swing of the Sun along the horizon. It turns out that the two days of the year when an observer at Notre Dame would see the Sun setting at 26° north-of-west are 8 May and 6 August – both dates of important Roman Catholic religious festivals.

The first, 8 May, marks *Saint-Michel de printemps*, a very popular feast in medieval times commemorating the miraculous apparition in the

fourth and fifth centuries AD of the Archangel Michael on various mounts in Europe – for example on Mont Saint-Michel on the Brittany coast of France and on St. Michael's Mount in Cornwall, Britain. Michael the Archangel is the guardian prince of God's people, revealed in the Bible to be the ‘captain’ of God's army (Daniel 12:1, Joshua 5:14) – a role which many European monarchs were keen to project upon themselves.

The second date, 6 August, marks the *Transfiguration of Christ*, which remains an important feast in all of Christendom to this day. It commemorates the occasion, described in the New Testament, when Jesus was accompanied by his disciples Peter, James and John to the top of a mountain; there Moses and Elijah appeared and transfigured Jesus, making his face and clothes

become white and shining as light (Mark 9:2 – 13; Matthew 17:1 – 13; Luke 9:28 – 36). We can understand, then, why Roman Catholicism has frequently associated ‘shining’ solar symbolism with the figure of Christ (for example his iconographical representations as a Sol Invictus in the early Roman Church).[18] It's obvious, too, that many Christian festivals track the solar cycle – such as Christmas (winter solstice), the Feast of St. John (summer solstice), Easter (the spring equinox), and so forth.[19]

Now in the Bible Elijah is prophesied to appear before the coming of the Jewish messiah, but Jesus maintains that this prophecy had already been fulfilled when Elijah appeared as John the Baptist (Matthew 17:9 – 13). Another biblical prophecy states that at the time when the messiah is about to appear:

‘Michael will stand up, the great prince who mounts guard over your people.’ (Daniel 12:1). Many Christians took this second prophecy as an indication that Michael the Archangel was to be the harbinger of Christ's Second Coming. For just as God sent Elijah in the form of John the Baptist to herald the first coming of the Christ on earth, so too will He send Michael at the end to proclaim Christ's Second Coming. And this appearance, the traditions leave no doubt, is to take place on a ‘mount’. The Jews are clear that the setting is to be Mount Zion where Solomon's Temple stood. But for Christians the location of the Second Coming was for grabs – hence the many claims of St. Michael's appearance on mounts all over Europe in medieval times.

Flashback (2) 1665: the mystery of the deviated axis (2)

It seems obvious that complex interconnecting solar symbolism was at work in the choice of the angle of 26° north-of-west for the final axis of the medieval Cathedral of Notre Dame and thus in its linkage to the Feasts of *Saint-Michel de printemps* (8 May) and the *Transfiguration* (6 August). But let's not forget that this same axial alignment of 26° north-of-west was also much later adopted by Le Nôtre for the Tuilleries Garden and the Champs-Élysées (along what was to become the ‘historical’ axis of Paris). So it is interesting that in Le Nôtre's epoch – the epoch of the Sun King Louis XIV – the date of 6 August

which commemorates the Transfiguration could boast not one but two significant sky events linked to the angle of 26°.

The first event, we already know, was *sunset* at 26° north-of-west, in line with the axis of Notre Dame Cathedral and the Historical Axis of Paris. The second event was the so-called *cosmic rising* of Sirius (i.e. the rising of the star at the same time as the sun).[20] This also occurred on 6 August, but, impressively, *in the exact opposite direction* – i.e. at 26° south-of-east, in direct line with the reverse view along the axis – and, of course, not at sunset but at *sunrise*.

Another matter also beckoned for attention. With the benefit of hindsight, we knew that along the Historical Axis of Paris would one day be raised a

huge solar talisman: an obelisk from ancient Egypt. The reader will recall from Chapter One that this obelisk came from Luxor, the ‘Heliopolis of the South’ and a ‘City of the Sun’ *par excellence* of the ancient world. One of a pair that had stood outside the Luxor temple (the other still remains there *in situ*), the ‘Paris’ obelisk belonged to Pharaoh Ramses II, ancient Egypt's most powerful sun-king whose very name means ‘son of the Sun’.[21] This obelisk thus creates an obvious symbolic link across the ages between two powerful solar kings – i.e. Ramses II and Louis XIV.

Furthermore, as we've seen in Chapter Ten, Luxor was an integral part of the much larger sun temple complex of Amun-Ra at Karnak. And here we find something very interesting indeed – for it turns out

that just like the Historical Axis of Paris, the axis of the Temple of Karnak was set out by its architects along an alignment 26° south-of-east in one direction and 26° north-of-west in the other ...

Flashback (2) 1665: the mystery of the deviated axis (3)

No adjective in the English language can adequately describe the great sun temple complex of Amun-Ra at Karnak. But ‘grandiose’, ‘breathtaking’ and ‘awe-inspiring’ all apply. Known in ancient times as *Ipet-isut,* the ‘most splendid of places’, the central axis of this outstanding temple is over half a

kilometer long, targeting the Theban hills and the Valley of the Kings in the west across the Nile where Egypt's mighty sun-kings were buried. The approach to the temple is also from the west along an impressive monumental avenue flanked by ram-headed sphinxes. As you pass the so-called *First Pylon* – massive inclined walls that serve to frame the gateway – and into a spacious open court, there looms ahead of you a huge statue of Ramses II. You then enter the Great Hypostyle Hall with its 134 massive rounded columns and cross beams that once supported a roof 25 meters above the floor. A series of other pylons finally takes you to the inner sanctuary of the sun-god Amun-Ra. When the distinguished British astronomer Sir Norman Lockyer visited Karnak in 1891 in order to measure the alignment of its axis, he was bedazzled by what he

saw:

This Temple of Amun-Ra is beyond all question the most majestic ruin in the world. There is a stone avenue in the centre, giving view towards the northwest, and this axis is something like 500 yards in length. The whole object of the builder of the great Temple of Karnak – one of the most soulstirring temples which have ever been conceived or built by man – was to preserve that axis absolutely open; and all the wonderful halls of columns and the like, as seen on one side or other of the axis, are merely details; the point being that the axis should be absolutely open, straight and true. The axis was directed towards the west hills on the west side of the Nile, in which are the tombs of the kings ... There were really two temples [dedicated to the sun-god in his forms as Amun-Ra and Ra-Horakhti] in the same

line back to back, the chief one facing sunset at the summer solstice, the other probably the sunrise at the winter solstice ... it is easy to recognise that these arrangements bear out the idea of an astronomical use of the temple ...[22]

Lockyer, who described this temple as a giant 'horizontal telescope' permanently aimed at the western horizon, calculated that its axis was aligned about 26° north-of-west, the place of setting sun at the summer solstice at the latitude of Luxor.[23] But, as he points out, the axis not only points towards the summer solstice sunset at its western end, but also towards the *winter solstice sunrise* at its eastern end. For it is an astronomical peculiarity that if an axis is aligned to the summer solstice *sunset* (looking westwards) this same axis will by necessity also be

aligned in the opposite direction towards the winter solstice *sunrise* (looking eastwards).

So had the ancient builders wanted to aim the temple's axis at the summer solstice *sunset* or, the other way, at the winter solstice *sunrise*? The answer, as odd as it may first seem, is probably at both.

In ancient Egyptian texts we are told of a very important feast called *Mesora,* literally the ‘birth of Ra’ (the Sun). This feast took place on the New Year's Day of the civil (solar) calendar, the 1st day of the month known as *Thoth*. When the civil calendar was introduced in *circa* 2800 BC, the ‘birth of Ra’ festival was not far adrift from the summer solstice. But by the time the temple complex of Karnak-Luxor was begun in c. 2000 BC, the birth of Ra had ‘moved’ six months ahead to the *winter solstice*. This was

because the Egyptian civil calendar was based around a ‘idealised’ year of 365 days that did not take into account the extra ¼ day in the true solar year, causing it to drift away from its original starting point at the summer solstice at the rate one day every four years. It can thus be seen that the great solar temple complex of Karnak-Luxor, which was begun in c. 2000 BC, was not merely dedicated to the Ra (the Sun) in general but, more specifically, to the ‘birth of Ra’ which fell on the 1st of *Thoth.* As provocative and controversial at it may be, this question must nonetheless be asked: Could André Le Nôtre, aided perhaps by the astronomers from the *Académie des Sciences* – who had been housed in the Louvre since 1663 – have consciously set out to create the same solar alignment for the Sun King of France as that of his ancient Egyptian counterparts?

Flashback (2) 1665: the mystery of the deviated axis (4)

There is a further curious astronomical fact to add to this already very intriguing collection of ‘coincidences’. We have seen in Chapter Ten how a powerful celestial marker – the heliacal (dawn) rising of Sirius (represented by the goddess Isis in Egyptian and Hermetic mythology) was used by the ancient Egyptians to symbolise and sanctify the birth of their solar pharaoh-kings. The American astronomer Ronald Wells, a recognised authority on ancient Egyptian astronomical lore, has this to add:

The goddess Isis, a daughter of *Ra* (the sun-god), was also identified with Sirius. The relationship came

about astronomically not only because Sirius is the brightest body of the night (apart from the moon) like the sun is the brightest body of the day, but more particularly because *the place of its heliacal rising on the horizon is very close to the same point where Ra rises on the morning of his winter solstice birth*. Its yearly appearance at nearly the same spot coupled with the fact that the river began to rise about the same time made the combined event sacrosanct.[24] [Emphases added]

The angle that Sirius makes with due east at rising is not the same when seen from different places on the planet. The further north one travels, the larger will be the angle. For example, from Paris, which stands very close to latitude 49° north, the angle today is 27.5°, whereas from Cairo (at latitude of 30°

north) it is only 20°. A second factor also affects the angle at rising over very long periods of time. This is the phenomenon of precession – a very slow ‘wobble’ of the Earth's axis with a cycle of about 26,000 years. Calculations taking both these factors into account show that in 1637, the year Louis XIV was born, Sirius rose at 26° south-of-east, and thus *in direct alignment with Le Nôtre's axis*!

We know that since time immemorial the heliacal rising of Sirius, the star of Isis, was the cosmic sign that sanctified the supernatural ‘birth’ of the sun-kings of Egypt. We've seen how the cult of Isis was brought to Paris by the Romans. Indeed it may well be relevant that the Cathedral of Notre Dame itself stands over a very ancient sacred site which, according to some historians, was a shrine dedicated

in Roman-times to Isis-Ceres.[25] We've also seen in Chapter Twelve how Louis XIV was supposedly conceived in Anne of Austria's private apartments at the Louvre on a stormy December night in 1637 – the so-called *Capetian miracle*. Putting all this together, how likely is it to be a coincidence that when the Le Nôtre's ‘Sirius’ axis of 26° is extended eastwards into the Louvre it passes *right through the apartments of Anne of Austria* where the ‘Capetian miracle’ took place in 1637? And is it also a coincidence that three centuries later, in 1989, an equestrian statue sculptured by Bernini for the Sun King Louis XIV depicting him as Alexander the Great (the quintessential classical solar king of antiquity), was brought from its former home at Versailles and carefully positioned in the open court of the Louvre in

the *direct path* of this axis? ...

The reader will recall that the birth of Louis XIV on 5 September 1638 had been prophesied more than a year earlier by the Hermetic philosopher Tommaso Campanella in 1637. Campanella had also predicted that the future king would transform Paris into the 'Egyptian' City of the Sun. Intriguingly, Jean Phaure reports that when André Le Nôtre extended the 26° angle of the axis of the Tuilleries Garden further to the west to form the Champs-Élysées in 1665 – 67 he seems to have anticipated in his overall scheme the inclusion at a later date of certain other elements:

Le Nôtre ébauche en plan une croix, prévoit une étoile et projette soit un obélisque, soit une porte solaire analogue au portes Saint-Martin et Saint-Denis élevées sous Louis XIV. ('Le Nôtre placed in his plan a cross, foresees a *star* and projects either an

obelisk or a solar gate. Similar to those of St. Martin and St. Denis built at the time of Louis XIV.’)[26]

This is most interesting, not least because it was not until more than a century later, that two prominent monuments, one representing a ‘star’ and the other the obelisk of Ramses II brought from Luxor, would, in fact, be raised right on the axis of the Champs-Élysées as set out by André Le Nôtre.

Cagliostro and the affair of the queen's necklace

In Chapter Eighteen we'll pursue these matters further. But first we'll finish the strange story of the

self-styled ‘Count’ of Cagliostro and see how his dramatic rise to fame and fortune in Paris after his arrival there in 1785 would be rudely stunted by his own mentor, the Cardinal de Rohan. For the latter was about to make one of the greatest blunders in history – a small folly that would set in motion untold consequences for France and the world …

It all had to do with an obsession that the Cardinal de Rohan had concerning the queen, Marie-Antoinette. The latter had rebuked him at court, and the cardinal was desperate to make amends in whatever way he could. In the summer of 1785 a certain Countess de la Motte, who claimed to be an intimate friend and close confident of the queen, approached the cardinal and offered to help him in this delicate matter.[27]

The countess suggested that the cardinal should purchase on behalf of the queen an expensive diamond necklace, owned by the jewelers Boehmer & Bassenge. The queen dearly wanted this necklace, explained the countess. However, on account of the near bankruptcy of the country and the hostile attitude of the Parisian public towards the queen's extravagance, King Louis XVI had refused to buy it for her.

The jewelers wanted a staggering price – 1,600,000 livres, enough to have fed all the hungry of Paris for several months – but the foolish cardinal refused to be deterred. He was shown a very convincing – but forged – letter allegedly written by the queen, and the countess even arranged a nocturnal meeting in the Gardens of Versailles between the cardinal and an imposter disguised as the queen. The ‘queen’

confirmed to the cardinal that she could pay for the necklace out of her own pocket money if only the cardinal could pay the first deposit. So the over-excited cardinal rushed to the jewelers and bought the necklace on credit on behalf of the queen. He then gave it to the Countess de la Motte who assured him that it would be handed immediately to Marie-Antoinette.

The countess, of course, did nothing of the sort, but vanished with the necklace. When the jewelers presented the queen with the invoice for the next installment of the huge sum of money they thought she owed them an enormous scandal ensued. The queen, furious at how she had been so vilely implicated in this sordid affair, urged the king to press charges of fraud against the cardinal. The king reluctantly agreed.

It was a grave mistake, for it was obvious to all that the naïve cardinal had been the victim of a very clever embezzler. Knowing how unpopular the queen already was among the people, he made emotional appeals in court and managed to cause a huge political fuss. Matters got worse when the king tried to put pressure on the judges to condemn the cardinal. The net effect was to elevate the Cardinal de Rohan into a symbol of the oppression, despotism and financial profligacy of the monarchy. According to Masonic author, Jean-André Faucher, there was a widespread conspiracy behind all this involving many prominent Freemasons who were determined to have the cardinal, also a Freemason, released.[28] Among them was the Duke of Montmorency-Luxembourg together with other notables such as the Marquis de

Lafayette and Honoré Gabriel Riqueti, better known as the Count of Mirabeau.[29] As a result the most the king was able to extract from an unsympathetic court was an order suspending the cardinal from office and exiling him to an abbey in the Auvergne.

Inevitably, Cagliostro, Rohan's colourful protégée, was dragged into the scandal and made its scapegoat. The king had him arrested, hastily tried and sentenced for fraud, and thrown into the Bastille in August 1785. There Cagliostro was to remain for nearly a year. Finally, in early June 1786, after much pressure from the Parisian public and behind-the-scenes manipulation by his Masonic friends, he was freed. It is reported that when Cagliostro walked out of the Bastille there was a huge Parisian crowd cheering him as a national hero.

Some historians have suggested that the trial of the Cardinal de Rohan and the unfair imprisonment of Cagliostro catalysed the growing discontent against the monarchy and led directly to the French Revolution. Rather than clear the queen's name in the scandal, the kangaroo courts set up to try Rohan and Cagliostro did the opposite. They highlighted the unpopularity and frivolity of the queen, the weakness of the king and his blatant abuse of the law. The German philosopher, Johann Wolfgang von Goethe, a Freemason, called the ‘Affair of the Diamond Necklace’ the ‘preface of the French Revolution!’[30] The whole fiasco ended up making the Cardinal de Rohan and Cagliostro appear to be – as in a sense they were – the victims of a corrupt state ruled by a weak and pompous monarch.

Nonetheless, Cagliostro wisely decided to move to England. There he was at first greeted with much enthusiasm by the Masonic lodges but his ‘Egyptian Rite’ did not prove popular and he ended up being shunned and ridiculed.[31]

Prophet of Revolution plays with fire in Rome

Later in 1786, safely in London, Cagliostro published his famous *Letter to the French People* in which he urged them, with incredible premonition, to make a ‘peaceful revolution’, to destroy the Bastille

and to replace it, perhaps, with a ‘Temple of Isis’.[32]

But Cagliostro left his place of safety. In the spring of 1789 he made the same fatal error as Giordano Bruno almost two centuries before: he decided to return to Italy. He arrived in Rome in May 1789, two months before the Parisian mob would storm the Bastille. In Rome Freemasonry had officially been banned since 1738, and Cagliostro, who tried to set up an ‘Egyptian Rite’ lodge there was, quite literally, playing with fire.

When the news of the fall of the Bastille reached Rome, it caused pandemonium at the Vatican, where the cardinals were alarmed by the virulent anti-clerical tone of the French anarchists. Rumors of Masonic plots were rife. By then the Vatican had a complete file on Cagliostro's activities, and he was

promptly accused of subversion and heresy. On 27 December 1789 Pope Clement XII signed the order for Cagliostro's arrest. He was at first sentenced to suffer the same awful fate as Bruno and the Cathar *perfecti* of earlier eras, but it was thought to be unwise to have yet another public burning in such unsettled times. Accordingly the pope showed ‘clemency’ by altering the death sentence to one of life imprisonment. Cagliostro was taken to a prison at San Leo near Naples, cast into a dungeon there, and never seen again. It was eventually discovered that he had died in 1795, at the age of 52, in what can only be described as very suspicious circumstances.[33]

Historians downplay Cagliostro's role as a catalyst for the French Revolution, and he is often presented – we have to say understandably – as some sort of

embezzler, charlatan or con man. The attitude of many Freemasons seems to be that his activities were a brief and best-forgotten embarrassment. Yet the furore caused by his trial in Paris, and the fact that an estimated 8,000 citizens, many of them Freemasons, came to cheer him when he was released from the Bastille, seem to tell another story.[34] There is at least one Masonic historian, Manly P. Hall, who likewise seems to regard Cagliostro's career in a positive light:

[Cagliostro] founded the Egyptian Rite of Freemasonry, which received into its mysteries many of the French nobility and was regarded favorably by the most learned minds of Europe. Having established the Egyptian Rite, Cagliostro declared himself to be an agent of the Order of the Knights

Templars and to have received initiation from them on the Isle of Malta ... Called upon the carpet by the Supreme Council of France, it was demanded of Cagliostro that he prove by what authority he had founded a Masonic lodge in Paris independent of the *Grand Orient*. Of such surpassing mentality was Cagliostro that the Supreme Council found it difficult to secure an advocate qualified to discuss with Cagliostro philosophic Masonry and the ancient Mysteries he claimed to represent. Court de Gébelin – the greatest Egyptologist of his day and an authority on ancient philosophies – was chosen as the outstanding scholar. A time was set and the Brethren convened. Attired in an Oriental coat and a pair of violet-colored breeches, Cagliostro was hauled before this council of his peers. Court de Gébelin asked three questions and then sat down, admitting himself

disqualified to interrogate a man so much his superior in every branch of learning. Cagliostro then took the floor, revealing to the assembled Masons not only his personal qualifications, but prophesying the future of France. He foretold the fall of the French throne, the Reign of Terror, and the fall of the Bastille. At a later time he revealed the dates of the death of Marie-Antoinette and the King, and also the advent of Napoleon. Having finished his address, Cagliostro made a spectacular exit, leaving the French Masonic lodge in consternation and utterly incapable of coping with the profundity of his reasoning. Though no longer regarded as a ritual in Freemasonry, the Egyptian Rite is available and all who read it will recognize its author to have been no more a charlatan than was Plato.[35]

The noble traveller

Antoine Court de Gébelin, the man who confirmed Cagliostro's knowledge of Egyptian esotericism, was himself a prominent member of the influential ‘Nine Sisters’ lodge as well as a proponent of the view that the Tarot card system was of Egyptian origin. Interestingly, Court de Gébelin believed that the ‘Star’ in the Tarot deck labeled XVI was, in fact, Sirius, the ‘star of Isis’.[36] Later we shall see how his Tarot became interwoven with the ‘higher degrees’ of Scottish Rite Freemasonry. Meanwhile it is reasonable to conclude that whatever one's opinion of Cagliostro the man, it is clear that Cagliostro, the ‘Great Copt’ and founder of the ‘Egyptian Rite’, had

an enormous psychological impact on the events that were slowly unfolding in Paris.

It is reported, for example, that while he was in that city, and at very height of his fame, Cagliostro had much hoped that his Egyptian Rite would receive official recognition from the Duke of Orléans, Philippe, the king's cousin, who was at the time the Grand Master of the *Grand Orient*.[37] Through the intervention of the Duke of Montmorency-Luxembourg, who was the official Protector of Cagliostro's Egyptian Rite as well as the chief administrator of the *Grand Orient de France*, it was arranged for Philippe d'Orléans to visit Cagliostro's *Isis* lodge in the Rue Saint-Claude. It seems that Philippe d'Orléans was duly impressed and offered his trust to Cagliostro.[38] Such a connection, as we

will see, almost certainly had some repercussions on the dramatic events that were soon to implicate the Duke of Orléans in the 1789 Revolution.

Apparently during his trial in Paris in May 1786 the judge had bluntly asked Cagliostro, ‘Who are you?’ to which Cagliostro replied: ‘I am a noble traveler’.[39] Indeed, Cagliostro had often claimed that he had traveled extensively in the East, particularly in Egypt and other Islamic countries. Bearing this in mind, the historian and esoteric researcher Joscelyn Godwin highlights something that may further explain Cagliostro's mysterious reply to his French judges:

The initiatic journey to Islamic soil has been a repeated theme of European esotericism, ever since the Templars settled in Jerusalem and the mythical Christian Rosenkreuz learnt his trade in Damascus.

We find it in the lives of Paracelsus and Cagliostro, then, as travel became easier, in a whole host that includes P. B. Randolph, H. P. Blavatsky, Max Theon, G. I. Gurdjieff, Aleister Crowley, René Guénon, R. A. Schwaller de Lubicz, and Henry Corbin. There was very likely some element of this in Napoleon's Egyptian campaign of 1797, when he announced to an astounded audience that he, too, was a Muslim …[40]

Illuminated by Reason

Other researchers, however, have wondered whether Cagliostro's answer that he was a ‘noble

traveler' was not perhaps a coded message in Masonic language aimed at his judges in the hope that they would recognize him as an initiate of the anti-clerical and anti-monarchical Illuminati of Bavaria.[41]

Originally known as the 'Order of the Perfectibilists', we saw in Chapter Sixteen that these Illuminati of Bavaria were a very short-lived but controversial brotherhood known in particular for their radical anticlerical stance. The Illuminati were founded in 1776 by Adam Weishaupt, an ex-Jesuit priest who was professor of law at the University of Ingolstadt, and given an official structure in 1779 by the Baron Knigge, a Freemason and member of the Templar Order of the Strict Observance founded by the Baron von Hund.[42] One of Weishaupt's remarks

reveals the Illuminati's ambitious plans for social and cultural reform:

Princes and nations will disappear without violence from the earth, the human race will become one family and the world the abode of reasonable men. Morality alone will bring about this change imperceptibly.[43]

According to Masonic historian Albert G. Mackey, the ‘professed object’ of the Bavarian Illuminati was:

... by the mutual assistance of its members, to attain the highest possible degree of morality and virtue, and to lay the foundation for the reformation of the world by the association of good men to oppose the progress of moral evil.[44]

In short, what the Illuminati were after was nothing less than a massively ambitious global reformation

programme, a sort of ‘new world order’, calling for the eradication of monarchies under one universal power run by ‘reasonable men’. It is therefore of great interest that in a rather curious statement made on the other side of the Atlantic by Thomas Jefferson, the name of Weishaupt crops up again in connection with the idea of rendering men ‘wise and virtuous’:

As Weishaupt lived under the tyranny of a despot and priests, he knew that caution was necessary even in spreading information, and the principles of pure morality. This has given an air of mystery to his views … If Weishaupt had written here [i.e. in America], where no secrecy is necessary in our endeavours to render men wise and virtuous, he would not have thought of any secret machinery for that purpose.[45]

Although Jefferson does not specifically mention the word ‘reason’, it is evident that it was very much in his mind when writing this statement. Jefferson himself practically venerated ‘reason’ and was dubbed the ‘man of reason’ *par excellence,* as another of his famous statements clearly shows:

It rests now with ourselves alone to enjoy in peace and concord the blessings of self-government, so long denied to mankind; to show by example the sufficiency of human reason for the care of human affairs ...[46]

Indeed, ‘reason’ was to become the principal virtue of both the French and American Revolutions, and in France, as we recall from Chapter One, a ‘Cult of Reason’ was even proposed as a substitute for Christianity.

The eye in the pyramid

Meanwhile, the ultra-radical Illuminati of Bavaria, that curious and unholy progeny of Masons and Jesuits, began to send agents and emissaries all over Europe – hence, perhaps, Cagliostro's definition of himself as a ‘noble traveller’. Like the Rosicrucians before them, the Bavarian Illuminati were extremely secretive and preferred to travel incognito, often assuming pseudonyms and code names. Weishaupt himself took up the code name ‘Spartacus’. The town of Ingolstadt, where the Illuminati had their headquarters, was codenamed ‘Eleusis’ and the whole of Bavaria was codenamed ‘Egypt’. Perceived as highly revolutionary and anti-clerical, the

Illuminati were violently opposed by the Church and, more specifically, the Jesuits, who eventually persuaded the elector of Bavaria, Karl Theodore, to outlaw them in Germany in 1784.[47]

Anti-Masonic groups often claim that the insignia of the Illuminati was the ‘eye in the pyramid’, and that the documents that bear proof of this were confiscated by the elector of Bavaria, and are today (for reasons that need not detain us) kept under lock and key at the British Museum.[48] The same symbol, however, was well known long before the Illuminati came across it. It was widely used, for example, by Hermetists and Cabalists from the 16th to the 18th centuries.[49]

Weishaupt, it will be remembered, was a former Jesuit priest, and as such must certainly have been

familiar with the works of Athanasius Kircher, the Hermetic-Cabalistic Jesuit we met in Chapter Fifteen – a magus, as the reader will recall, who had been particularly involved with Egyptian obelisks and, through a proxy, the exploration of the Giza pyramids in 1637. Kircher made profuse use of the 'eye in the pyramid' symbol. It can be seen, for example, on the cover of his book *Ars Magna Sciendi*, (the 'Great Art of Knowledge'),[50] and also on the top of an Egyptian obelisk surmounted by the so-called *Hapsburg double-eagle* that Kircher had designed specially for the German Emperor Ferdinand III.[51] Let us point out in passing that the same 'double-eagle' symbol, as well as the 'eye in the pyramid' symbol, are commonly used in the Supreme Council of the 33rd Degree, the Scottish Rite of Freemasonry.[52]

In July 1776, the same year that Weishaupt founded the Illuminati of Bavaria – and presumably by a curious fluke of history – the same ‘eye in the pyramid’ or ‘eye in the triangle’ symbol was proposed for the Great Seal of the newly created United States of America.[53] It was designed by Pierre-Eugène Simitière, a Swiss born artist who had emigrated to the colonies in 1766 and settled in Philadelphia. Benjamin Franklin and Thomas Jefferson, both signatories of the Declaration of Independence, were members of the committee set up to oversee the design, and a drawing of the Great Seal of the United States in the latter's own hand done in 1776 (preserved in the Library of Congress archives) clearly shows the ‘eye in the triangle’.[54] We shall see later how also in that eventful July of 1776, Franklin

left America for France as part of a congressional delegation to be based in Paris, and there was hailed as a hero of the American Revolution by the fashionable salons and the Masonic lodges.

The Illuminati and the Duke of Orléans

Historians of this period have noticed the coincidence of the nearly simultaneous events of the signing of the Declaration of Independence in America and the founding of Weishaupt's Illuminati in Germany. It is not known with certainty whether there had been any direct contact between Franklin,

Jefferson and the Illuminati of Bavaria through the channel of French and German Masonic lodges, but it is nonetheless certain that both Franklin and Jefferson knew of Weishaupt's organisation – and we quoted above Jefferson's remarks on Weishaupt. Jefferson's own presence in Paris from 1784 to September 1789, makes direct contact between the two a strong possibility, as we shall see in Chapter Nineteen.

The general view is that the Illuminati of Bavaria simply died out after their persecution in Germany in 1784.[55] Not everyone, however, is convinced. Some believe that Illuminati members infiltrated Masonic lodges and stirred up political unrest in several European countries, most especially in France where the Revolution would finally break out in 1789.

One of the most prolific proponents of the ‘Illuminati theory’ was the distinguished 1920s British writer and historian Nesta Webster. Webster argued that a variety of secret plots hatched by the Illuminati and the French Freemasons combined with other factors to precipitate the Revolution.[56] Webster, and many others like her, see the Duke of Orléans, the Grand Master of the Masonic Order of the *Grand Orient*, as the main culprit and behind-the-scenes agitator of the Parisian revolutionary crowds and, more specifically, the crowd that would storm the Bastille on 14 July 1789.

That the Duke of Orléans played a vital role in the events of the Revolution cannot be denied; but to what extent, and how far-reaching was his influence, are matters that have long been debated by

historians. There are records from the Masonic lodge *La Parfaite Union* in the city of Rennes, that leave little doubt that the Freemasons saw him as the main force driving the events that led to the Revolution:

It is from our temples [lodges] and from those elevated into the holy philosophy [Freemasonry] that emanated the first sparks of sacred fire which, spreading rapidly from east to west and from south to north of France, embraced the hearts of all citizens ... None of us, my dear Brethren, can ignore that it was our Grand Master, the Duc d'Orléans, who has participated more than anyone else in the happy Revolution that has just begun ...[57]

If what this Masonic lodge says is true, then it is not impossible that the Duke of Orléans could have been in collusion with agents of the Bavarian

Illuminati. French historian Jean-André Faucher shows that one of the Duke's closest associates and protégés, the Count of Mirabeau – the most outspoken of all the French revolutionaries, had in the year 1776, ‘visited the city of Brunswick and met up with the Illuminati of Bavaria.’[58] And although some historians have raised doubts that Mirabeau was a Freemason, counter-evidence has surfaced that confirms Mirabeau's membership of the brotherhood from at least the year 1776.[59]

There are also telling statements made by two famous Masons of the time, the enigmatic Count of Saint-Germain and the hypnotic Franz Anton Mesmer, that strongly suggest the presence of Illuminati agents in Paris in the years preceding the Revolution. Several researchers have suggested that

the term ‘noble traveller’ used by Cagliostro during his court trial may have been a secret password of theirs.[60] It is surely also significant that Cagliostro, during his trial in Rome, admitted having been a member of the Illuminati.[61]

Out goes the Duke of Orléans, in comes Philippe Égalité

The Duke of Orléans was a descendent of Frederick V of the Palatinate and Elizabeth Stuart of England, that ill-fated royal couple of Bohemia who seem to have unsuspectingly catalysed the Rosicrucian

fervour in Germany and the events of the Thirty Years War. The Duke's great-greatgrandfather, also named Philippe d'Orléans, was the second son of Louis XIII and thus younger brother to the Sun King Louis XIV. In 1661 Philippe had married Henrietta of England, daughter of Charles I, and in 1671 he married again, this time to Elizabeth Charlotte, princess of the Palatinate and daughter of Elector Palatine Charles Louis, son of Frederick V and Elizabeth of Bohemia.[62]

No doubt because of his ancestry, the Duke of Orléans at the time of the French Revolution was an all-out Anglophile, and his obsessive affinity for all things English was directly responsible for the development of a bizarre fad in Parisian circles known as *Anglomania*. The Duke was a great admirer

of the British Parliament and of the constitutional monarchy, and had openly opposed the despotic rule of his uncle, Louis XV, who had him exiled to England in 1771. He eventually returned to Paris only to begin at once opposing the new king of France, Louis XVI, who was his first cousin.

In 1786 the Duke of Orléans was elected Grand Master of the *Grand Orient de France*, and thus effectively the leader of all the Freemasons in the land. Immensely rich, as sole owner of much of France's choicest real estate, the Duke teamed up with the famous revolutionary orator, Mirabeau, and the vast grounds of his private residence at the Palais-Royal became a regular meeting place for the revolutionary crowds. Many believe that he used his great fortune to fund the revolutionaries and some even think he was the unseen force behind the

storming of the Bastille in July 1789. Whatever the truth, it is absolutely certain that he vehemently opposed his cousin, Louis XVI, and that he was among those who voted for his execution in 1793. It is also certain that the Duke entertained the perhaps unrealistic hope that he could become king himself and form a constitutional monarchy such as in England.

So fervent was his support for the Convention and the *Commune de Paris* – the two principal revolutionary bodies that ruled France in the aftermath of the Revolution – that in 1792 Philippe d'Orléans changed his name to Philippe Égalité. Unfortunately, however, Philippe Égalité developed a great antipathy for the Marquis de Lafayette, the hero of both the French and American Revolutions. This, as well as other factors, led to his eventual

downfall and, ironically, in November 1793 Philippe Égalité was to suffer the same fate as his royal cousin, when he lost his own head under the blade of the Guillotine. Nonetheless, his great ambitions for a constitutional monarchy in France would materialise with his eldest son, Louis-Philippe I, the so-called *Citizen King*, who was helped to the throne of France in 1830 by none other than his father's bitter enemy of old, the Marquis de Lafayette.

We shall now see how the very disturbing anti-clericalism that was to ensue after 14 July 1789 would send a shock wave across the whole of Christian Europe, as a new but also very old religion was about to be reborn from the womb of a goddess called ‘Reason’. Ironically, this would certainly have been something that would have enthralled Cagliostro who, sadly, was now rotting in the papal

dungeon near Naples. For the goddess Reason, as it turned out, would much resemble the Egyptian goddess Isis whom Cagliostro had so much extolled in Paris ...[63]

Behind the scenes of the Revolution

On the morning of the 14 July 1789 a crowd of about 800 people gathered in the city of Paris and marched in disorder towards the Bastille. Armed with an assortment of weapons they had plundered earlier from the arsenal at the *Invalides,* this unruly mob hurdled themselves on the poorly defended prison

and, within hours, had ‘liberated’ its seven pathetic inmates.[64] Six of the Swiss mercenaries stationed to guard the Bastille were chopped to pieces. The head of the chief prison warden, Bernard-René Jourdan, the Marquis de Launay, was brutally hacked off with a blunt butcher's knife and paraded around Paris until late in the night.[65]

The clichéd images of the French Revolution that most of us learn in school depict oppressed Parisian citizens driven to revolt by famine, despotism and tyranny, marching in unison against the king's troops while chanting the *Marseillaise*. The truth, of course, was a great deal more complicated than that.

The economic and political conditions in France were certainly appalling, and thus ripe for revolutionaries to exploit. The winter of 1788 – 9

been terrible and very poor harvests followed. In addition King Louis XVI was an incompetent political player whose attempts to deal with the state's bankruptcy played into the hands of the agitators. All these factors created a context for the Revolution but we should not leap to the conclusion that any of them actually caused it.

History has shown that full-blown revolutions rarely take place without a great deal of covert intellectual and even financial activity going on behind the scenes. In France a subversive intellectual movement had been active amongst the educated classes and the liberal aristocracy for many years. By promoting the enlightened political visions of writers such as Voltaire, Jean-Jacques Rousseau, and the so-called *Encyclopédistes* – many of whom were

Freemasons[66] – this at first loosely-organized movement did much to set the scene for the overthrow of the Old Regime.

The Duke of Orléans, having been rudely shunned by Queen Marie-Antoinette who bitterly disliked him, had developed a deep hatred not only for her but also for his cousin Louis XVI and for the entire court at Versailles. He soon began to use his great personal fortune to subsidize a variety of organizations, such as the infamous Jacobin Club, that were hostile to the king and queen. There is even evidence, somewhat downplayed by historians, that points to the existence of a sort of shadowy ‘government-in-waiting’, led by the Duke of Orléans and other agitators, which conducted subversive propaganda campaigns in many of the 600-plus Masonic lodges in France – of

which 65 were in Paris. We've seen that the Duke was an avid admirer of Britain's constitutional monarchy. He was also the richest man in France and in direct line to the throne of France. All this would imply, if not prove, that the ‘Revolution’ may initially have been intended not to replace but to ‘reform’ the existing monarchy into a British-style constitutional system under the Duke of Orléans, and that the more radical idea of setting up an American-style republic came later.

When the Third Estate found its voice

Early in 1788, Louis XVI was coerced into agreeing to call a meeting of the Estates-General for May 1789. It was to prove a fatal mistake.

Traditionally, there were three so-called *Estates* in France: the nobility comprised the First Estate, the clergy comprised the Second Estate, the bourgeoisie and the nation in general comprised the Third Estate. In January 1789 Emmanuel-Joseph Sieyès, better known as the Abbé Sieyès, published a pamphlet that starkly highlighted how little say the Third Estate actually had in matters of politics even though it represented 98 per cent of the population.[67] Entitled *Qu'est-ce que le tiers-état?* (‘*What is the Third Estate?*’), Abbé Sieyès pamphlet boldly proposed the immediate drafting of a *Constitution* and the formation of a *National Assembly* outside the nobility

and the clergy. Thousands of copies of his article were sold and distributed all over France. And with this, the seeds of republicanism began to sprout.

It is not an accident that Abbé Sieyès was a Freemason, and a member of the powerful Nine Sisters lodge in Paris.[68] In Chapter One we discussed the origins of this important lodge, whose other members included thinkers such Benjamin Franklin, the Marquis de Condorcet, anatomist Joseph-Ignace Guillotin, Tarot inventor Antoine Court de Gébelin, astronomer Jérôme Lalande, mathematician Charles-Gilbert Romme, and radical revolutionary leaders Camille Desmoulins and Georges Jacques Danton.[69]

Like Sieyès, Desmoulins had preached revolution and written a pamphlet entitled *La France Libre* (‘*Free France*’) which was followed in June 1789 by a

violent attack on the monarchy. Desmoulins was chief among those who called for an armed uprising on the eve of the Revolution during a rally at the residence of the Duke of Orléans, which was at that time serving as the command headquarters for the revolutionaries.

Danton was the founder of the dreaded *Club des Cordeliers* which, like the Jacobin Club, was one of the most radical and influential organizations at work during the Revolution. The *Club des Cordeliers* was officially known as the *Society of Friends of the Rights of Man and the Citizen,* but it had inherited the name 'Cordeliers' from a former Franciscan monastery located on the Rue des Cordeliers, where its first meetings were held. The Cordeliers accepted members of all races, classes and creeds, and many were influential journalists and writers such as Jean-

Paul Marat, Camille Desmoulins, Pierre-François-Joseph Robert and Nicolas de Bonneville.

The disastrous meeting of the Estates-General began on 5 May 1789. The Third Estate had 584 representatives compared to the 290 for the nobility and 292 for the clergy. Present were King Louis XVI and the Queen Marie-Antoinette. Many leading Freemasons and men of letters had been elected as representatives of the Third Estate and also had a strong presence in the other two Estates as well. Among them were the Marquis de Lafayette, Mirabeau, the Duke of Orléans and Robespierre.

As the days dragged on the king and his supporters appeared increasingly weak and confused, and it became obvious that they lacked any clear plan for solving the very real economic crisis in which the country by then found itself. Predictably, the

negotiations between the Third Estate and the nobility broke down in chaos. In defiance, the Third Estate changed its name to the *Communes* (the 'Commons'), implying a constitutional monarchy by default, and Sieyès and Mirabeau took the helm. Mirabeau proposed that the *Communes* be called the 'Representatives of the French People'. Sieyès went one better, and had the name 'National Assembly' accepted. Immediately several members of the nobility, principal amongst them the Duke of Orléans and the Marquis de Lafayette, offered their support to the National Assembly. That had been expected but a shock wave hit the clergy and the nobility when Charles Maurice de Talleyrand-Périgord, a representative of the Second Estate, also crossed the fence to side with the National Assembly.

Born into the nobility, Talleyrand entered the

clergy at an early age. In 1789, just before the fall of the Bastille, he was made a bishop by Louis XVI. As soon as he joined the National Assembly, he was among the first to propose the confiscation of all the assets of the Church in France.[70] With such radical views being increasingly flaunted as the weeks of discussions went by the king intervened on 20 June and ordered his guards to prevent the members of the National Assembly from entering the meeting hall. In response the outraged National Assembly met instead in another hall at Versailles – one that was used by the royals for playing tennis. Immortalized as the 'Tennis Court Oath', the members swore not to be moved until a constitutional monarchy was formed under a solid political and legal foundation.

Another meeting was called with the king on 23

June, but at this point Louis XVI threatened to exercise his divine right to rule and to act alone ‘on behalf of the people’. He then ordered the delegates of the National Assembly to ‘disperse forthwith’ and stormed petulantly out of the hall. The delegates remained seated, refusing to budge. The Marquis de Dreux-Brézé, a staunch royalist and spokesman for the king, again ordered them to leave ‘in the name of the King’. He was shouted down by Mirabeau, the Freemason who was sponsored by the Duke of Orléans: ‘Sir, go tell to those who send you that we are here by the will of the people, and that we will not be moved except by the force of the bayonets’. When Dreux-Brézé reported this to the king, he is said to have replied: ‘Damn them, let them stay!’[71]

The dye was cast, and from here on events rushed

forward like a roaring tide. Louis XVI called in his troops to Versailles, sacked his finance minister, Jacques Necker, and formed a new government to ‘oppose’ the National Assembly. But it was all too late. At the Palais-Royal in Paris the National Assembly, buttressed by the financial power of the Duke of Orléans, and with the whole of the Parisian population behind them, prepared for a full confrontation with the king's troops, and now the agitators were calling openly for an armed revolt against the Old Regime. Soon there began to be defections from the army to the side of the National Assembly. The point of no return was reached on 14 July 1789 when mobs of citizens took to the streets and the Bastille was stormed.

Impregnating the national conscience

It is, of course, not the purpose of this book, or indeed within its scope, to pass in review the full complexity of the political and cultural upheavals behind the French Revolution. Nor can we look at all the arguments and opinions that have been laid for *and* against the involvement and influence of Freemasonry on the Revolution. For not only are the historical events lost in the chaos of the times, but they have also suffered much distortion, bias and misinformation under the pen of factions wanting either to downplay the role of the Freemasons or to play it up. Not least amongst these factions, or

course, is Freemasonry itself which seems to prefer to cloud the issue. In 1976, for example, Fred Zeller, Grand Master of the *Grand Orient de France*, had this piece of peculiar obfustication to offer on the subject:

... We can be assured that the Freemasons did not conspire against the throne, nor worked towards the formation of the Republic. In truth, no one had thought of this at the time. But they had slowly, patiently, during half-a-century of secret discussions (and forbidden by the laws of the time) impregnated the national conscience with the hope and will for change. In 1789 there were more than 70,000 Freemasons in France. Not surprisingly that in the revolutionary assemblies we note a majority of parliamentarians who were initiated in Masonic

lodges![72]

Even such carefully chosen words cannot entirely disguise the obvious implication that the Masonic lodges played a major role in the events that led to the French Revolution! In a more candid manner in 1983, the Grand Master of the *Grand Orient*, Paul Gourdot, made a declaration similar to Fred Zeller's but then could not avoid adding that although it was the writings and examples of the *Encyclopédistes*, of Montesquieu, of Diderot, of Voltaire, that prepared the 'spirit' of the Revolution, it was nonetheless:

... those like Condorcet, Saint-Just, Danton [all Freemasons] who applied the principles of the formation of the First Republic with its immortal Declaration of the Rights of Man which was formulated in our lodges ...[73]

Besides there is another aspect of the French Revolution, in which Freemasons were also directly involved, that still requires explanation. This is the phenomenon of de-Christianisation that we introduced in Chapter One, and the attempt by the National Assembly to replace Christianity with the ‘Cult of Reason’ and the ‘Cult of the Supreme Being’ ...

2/100th of a second

On the cold morning of the 21 January 1793, a huge crowd gathered in Paris at the Place de la Révolution, today the Place de la Concorde, to watch the

execution of King Louis XVI. With his hands tied behind his back, four executioners pounced on him, laid him flat facing down, and pushed his head into the crossbeam of the dreaded guillotine. To the surprise of the Parisian mob the king behaved bravely throughout the horrific ordeal, and even attempted a poignant farewell speech to the nation, but it was rudely interrupted by the thundering roll of drums immediately preceding his decapitation. Louis XVI's last audible words apparently were:

People of France, I am innocent, I forgive those who are responsible for my death. I pray God that the blood that will be spilt here never falls on France! And you, unfortunate people ...

The guillotine, which had been improved from an old design only a short while before by Joseph-Ignace Guillotin, was extremely efficient. Apparently

painless, it is estimated that each beheading took just 2/100th of a second. Guillotin was a Freemason and member of the Nine Sisters lodge. He was also an active member of the National Assembly. He had developed this death machine specifically to cater for the anticipated high demand for executions after the fall of the Bastille. But no one, however bloodthirsty they might have been, could have predicted the thousands upon thousands of decapitations by guillotine during those early years of the Republic known appropriately to history as the 'Reign of Terror'.[74] After Louis XVI was beheaded, Marie-Antoinette was to wait a further nine months for her own appointment with the guillotine. But some years earlier, in 1790 when she had been under house arrest at the Tuileries Palace, the queen had written

these haughty words to her cousin, Emperor Leopold II of Austria:

Take heed in your country of all Masonic associations. We already can see that all these monsters here have intentions to do the same in all other countries. Oh, that God saves my homeland, Austria, of such troubles.[75]

Isis of the Bastille

A few weeks before the guillotining of the queen, a very strange thing indeed had taken place in Paris. As if arising out of some inherent need for a matriarchal figurehead, a replacement in the form of

a statue of the ancient Egyptian goddess Isis suddenly appeared on the scene. It was raised in the Place de la Bastille on 10 August 1793. As we saw when we introduced this mystery in Chapter One, it had been designed in haste by the artist Jacques-Louis David, who was an intimate friend of the revolutionary leader Robespierre and was acting as minister of propaganda for the National Assembly.

A coin was struck in 1794 to commemorate the occasion, and is described as being:

... the work of the famous engraver DUPRE ... which evokes the cult of Isis chosen to illustrate the goddess of Reason, and is also the first commemorative coin issued in France.[76]

The coin preserves the image of the so-called *Isis of the Bastille* or 'Fountain of Regeneration' which,

along with its pedestal, stood some 20 feet high. The statue depicted the Egyptian goddess sitting on her throne flanked by two lions, and at her feet was placed a large bath emblazoned with the ancient Egyptian winged solar disc, a symbol of the pharaohs which was also much used by the Hermetics, the Rosicrucians and the Freemasons.[77]

Isis of the Bastille was naked from the waist up, her large breasts intended to evoke the idea of fertility and regeneration for the new republic of France. From her nipples gushed out water into a pool, and the people made their way to drink the 'water of regeneration' while an orchestra played popular revolutionary tunes.

Jacques-Louis David, who masterminded this curious festival, had been a hero of the people from

the very start of the Revolution. Many of his paintings – depicting heroism and republican virtues – were treated as objects of worship by the Parisian crowds. A zealous revolutionary himself, David was famous not only for his art by also for the eloquent philosophical speeches he gave at the National Assembly. He had been the most outspoken participant in the 'Tennis Court Oath' and had been among those who had loudly demanded the death sentence for Louis XVI in December 1792. Some of the more radical revolutionary factions, such as the *sans-culottes* ('without culottes'), even regarded him as some sort of latter day messiah come to regenerate the spirit of France – a role which David took most seriously.[78]

Closing down the Church

The year before the guillotining of Louis XVI and Marie-Antoinette, the ultra-radical faction within the Revolution had begun a campaign to rid France of Christianity – the latter seen as an undesirable aspect of the Old Regime and thus unfit for the new Republic and its ideals.[79] The full meaning of this initiative was felt in October 1793, when priests and nuns all over France were forced to 'defrock' themselves in public while the assets of their churches and monasteries were taken over by the state.

The ultra-radical group within the National Convention – the new name for the 600 or so

members of the National Assembly after it had been reshuffled in September 1792 – were called the *Hébertists*.[80] It was they who most directly and most often fanned the flames of de-Christianisation. Principal amongst them were Pierre Gaspard Chaumette, a prominent member of the *Commune de Paris*, and the eponymous Jacques-René Hébert, a popular journalist.

Hébert ran a radical newspaper, called *Le Père Duchesne* (‘*Father Duchesne*’), which enjoyed a wide circulation during the Revolution. Both Hébert and Chaumette were staunch Freemasons.[81] In August 1792, Hébert had become the leader of the ultra-radical *Club des Cordeliers* – previously controlled by Maximillien Robespierre, Jean-Paul Marat and Georges Danton, the so-called *Triumvir*.

It seems that radicals like Chaumette and Hébert not only wanted to replace the ‘head’ of France, so to speak, but also the nation's very soul. An interesting account of these events is given by the 19th century author, the Baroness ‘Emmuska’ Orczy, made famous by her books *The Scarlet Pimpernel* and *The Elusive Pimpernel*. And although Orczy was a novelist, her stories are nonetheless based on historical accounts and succeed marvelously in capturing the mood in France during the Revolution:

Paris 1793: ... On! Ever on! In that wild, surging torrent; sowing the wind of anarchy, of terrorism, of lust of blood and hate, and reaping a hurricane of destruction and of horror. On! Ever on! France, with Paris and all her children still rushes blindly, madly on; defies the powerful coalition – Austria, England, Spain, Prussia, all joined together to stem the flow of

carnage – defies the Universe and defies God! Paris this September 1793! ... Paris! a city of bloodshed, of humanity in its lowest, most degraded aspect. France herself a gigantic self-devouring monster ... That is thy reward, oh mighty, holy Revolution! Apotheosis of equality and fraternity! Grand rival of decadent Christianity ...

The man-eating tiger for the space of a sigh licked his powerful jaws and pondered! Something new! Something wonderful! We have had a new Constitution, a new Justice, new Laws, a new Almanack! What next? Why, obviously! How comes it that great, intellectual, aesthetic Paris never thought of such a wonderful thing before? A new religion!

Christianity is old and obsolete, priests are

aristocrats, wealthy oppressors of the People, the Church but another form of wanton tyranny. Let us by all means have a new religion. Already something has been done to destroy the old! To destroy! Always to destroy! Churches have been ransacked, altars despoiled, tombs desecrated, priests and curates murdered; but that is not enough. There must be a new religion; and to attain that there must be a new God. ‘Man is a born idol-worshipper.’ Very well then! Let the People have a new religion and a new God. Stay! – Not a God this time! – for God means Majesty, Power, Kingship! Everything in fact which the mighty hand of the people of France has struggled and fought to destroy. Not a God, but a goddess. A goddess! An idol! A toy! …

Paris wanted a new religion … and grave men, ardent

patriots, mad enthusiasts, sat in the Assembly of the Convention and seriously discussed the means of providing her with both these things which she asked for. Chaumette, I think it was, who first solved the difficulty ... it was Procureur Chaumette who first discovered exactly what type of new religion Paris wanted just now. ‘Let us have a Goddess of Reason,’ he said ... ‘Let the People rejoice and dance around that funeral pile, and above it all let the new Goddess tower smiling and triumphant. The Goddess of Reason! The only deity our new and regenerate France shall acknowledge throughout the centuries which are to come!’

Loud applause greeted the impassioned speech. ‘A new goddess, by all means!’ shouted the grave gentlemen of the National Assembly, ‘The Goddess of

Reason! ... The goddess must be beautiful ... not too young ... Reason can only go hand in hand with the riper age of second youth ... she must be decked out in classical draperies, severe yet suggestive ... she must be rouged and painted ... Aye! The feast should be brilliant enough! Gay or horrible, mad or fearful, but through it all the people of France must be made to feel that there was a guiding hand which ruled the destinies of all, a head which framed the new laws, which consolidated the new religion and established its new goddess: the Goddess of Reason: Robespierre, her prophet!'

In those terrible years of 1793 – 4, all around France churches and cathedrals were violated and desecrated and, to the utter horror of the pope in Rome, the buildings were converted into 'temples' for the new *Culte de la Raison* ('Cult of Reason'), who

was also called ‘Liberty’ or ‘Nature’. Author Kathleen Jones, in her book *Women Saints*, gives a detailed account of these events:

In ‘the Terror’ … priests and nuns went in danger of the guillotine, and many died when they refused to take an oath of loyalty to the new regime and to abandon their vocations. Churches were closed by troops who removed church bells, smashed altars and crucifixes, and made bonfires of vestments and confessional boxes. A popular spectacle was that of a priest abjuring his vocation, and a ceremony of ‘debaptization’ was invented for the laity. All public and private worship was forbidden. On 10 August 1793 the artist Jacques-Louis David, a strong supporter of the Revolution, organized a secular ceremony for the acceptance of the new Constitution. An enormous statue of the goddess Nature [Isis],

spurting water from her breasts into a pool, was erected on the site of the Bastille, which had been razed to the ground. There was a new calendar, which began not with the birth of Christ but with the proclamation of the Republic. The months had new names [now surviving only on the names of Paris Metro stations] and there was a 10-day week, the *decadi*.

Christmas, Easter, Pentecost, and the harvest festival, together with saints' days, were abolished. In their place were substituted thirty-six new festivals, one every *decadi*, celebrating reason, courage, motherhood, temperance, hatred of tyrants, and similar ideals of the regime. On 10 November a great Festival of Reason was held in the Cathedral of Notre Dame in Paris, where sixteen Louis Capets had

walked to their coronations as kings of France. The secularized Notre Dame was re-named the Temple of Liberty.

The rest of France varied in its expression of the new system: local administrators organized events varying from mildly pagan ceremonies to the active stirring-up of public hatred against religion of any kind. In Le Havre a girl of good morals was made the goddess Reason for a day, with floral tributes and dances; in Poitiers, farther south, there were grotesque ceremonies in which people dressed as sorcerers, priests, popes, monks, angels, and nuns were chased through the church of Saint-Porchaire.[82]

Cybele-Isis

Professor François Victor Alphonse Aulard (1849 – 1928), a highly respected historian of the French Revolution, somewhat downplays these events by arguing that the anti-clerical movement was not as pronounced and as radical as most historians would want us to believe.[83] But Aulard was himself militantly anti-clerical which may have blurred his judgement of the evidence under examination. There are other French historians and specialists of the Revolution such as Michel Vovelle, director of the *Insitut d'Histoire de la Révolution* in Paris, who have a completely different view:

Between October 1793 and June 1794, a multi-

faceted attack was mounted in France to eradicate [the Christian] religion. The goddess Reason triumphed: temples were opened to her, represented by living persons ... In tens of thousands the priests abdicated their sacerdotal role and many of them even married ...[84]

But by June 1794 the whole business of de-Christianisation had run completely out of control. Even the revolutionary leader Robespierre was horrified by the chaos and sought an alternative to this degrading carnage and mess. France was witnessing obscene pagan-like processions organized everywhere, often parading voluptuous women dressed as ‘Liberty’, ‘Reason’ or ‘Nature’ wrapped in blue and white veils and wearing the little red Phrygian cap (see Chapter One). The ‘goddesses’

were followed by wild crowds chanting and dancing, all very reminiscent of the ancient Greek Bacchanals, the Roman Hilarias and the Isiaic processions. The image of these processions of ‘goddesses’ wearing the Phrygian cap also brings to mind the great pagan processions of the Phrygian mother goddess, Cybele, which took place in ancient France before the advent of Christianity. Cybele was often linked to Isis, as authors Anne Baring and Jules Cashford explain in their excellent book *The Myth of the Goddess*:

Under the [Roman] Empire, the cult of Cybele became part of the Roman state religion. It existed side by side with the cult of Isis … and both spread all over the Roman Empire … An interesting image to follow through different civilizations is the ‘Phrygian cap’, which was worn by … the priests of Cybele. This distinctive cap first appears in Crete … Later, in

Greece, it is worn by Hermes, messenger of the Gods ... Today similar caps are worn by the Sufi dervishes ... Mary was worshipped at sites once sacred to Cybele and Isis.[85]

In his book *Cybele and Attis*, the scholar Maarten J. Vermaseren gives a description of Cybele which clearly shows how this goddess was seen as the embodiment of Nature and all the cosmos:

It is not only Nature that the goddess rules: her power reaches much further. She stands in the center of the Universe of Time, Sun and Moon, Earth, Water, the Sea and the Seasons. In front of her chariot stands the Tree of Life, stylized as an obelisk and entwined by a serpent ...[86]

The French scholar Jurgis Baltrušaitis in his book *La Quête d'Isis*, demonstrates the great extent to

which Cybele and Isis were perceived as being the same entity by 17th century French historians. Baltrušaitis reports that in 1675 a priest called Berrier, while digging in the garden of the Saint-Eustache church, discovered a bronze statue of a female deity wearing a strange tower on her head. Details of this discovery were published in 1683 by Claude du Molinet, canon of the St. Genevieve church in Paris. Here is how Molinet describes the deity:

The goddess that the Greeks called Io and the Egyptians called Isis is the same as the one the Romans honored under the name of Cybele, identified to the Earth or Nature, and the same as the Egyptians had married to Osiris …[87]

Baltrušaitis goes on to say that the iconography of the Cybele and Isis figures that were found in France

were ‘identical … Cybele is crowned with a tower; Isis also had a tower on her head …’[88]

Cult of the Supreme Being veiling Isis again

By the end of spring 1794, Robespierre, now the undisputed leader of the National Convention in Paris, had began to turn against Hébert and Chaumette. Soon enough he accused them of being ‘enemies of the Nation’ and arranged their appointments with *madame guillotine*. He then decided to introduce his own idea of a ‘republican religion’. This he named the ‘Cult of the Supreme

Being'. Its symbol was the 'eye in the pyramid', and Robespierre issued a decree stating that 'the French people recognize the existence of the Supreme Being and the immortality of the soul'. The 'Supreme Being' cult was largely modeled on the 'natural' philosophy of Jean-Jacques Rousseau, who Robespierre idolized.

It is clear that Robespierre considered the de-Christianisation of France as inevitable but that he also repudiated atheism and the wild excesses that had accompanied the Cult of Reason. What Robespierre sought to create was a new deist cult based on republican virtues to replace the spiritual vacuum left by the intense de-Christianisation activities of Hébert and Chaumette.

On 4 June 1794 Robespierre was elected president of the National Convention. He at once began to work closely with the artist Jacques-Louis David to prepare

a grand celebration for Paris on 8 June 1794, the day of the Pentecost. The purpose of the celebration was to install the Cult of the Supreme Being as the new religion for France.

This curious event began in the Tuileries Garden in front of the Louvre, with Robespierre himself, draped in blue, standing next to a statue of the ‘Supreme Being’. A huge makeshift amphitheatre was erected in order to seat the members of the National Convention. In front of the amphitheatre had been prepared a bonfire upon which, according to the programme written by Jacques-Louis David, were ‘gathered all the enemies of the felicity of the people’. The ‘enemies’ were symbolized by a statue called ‘Atheism’ supported by figures called ‘Ambition’, ‘Egoism’, ‘Discord’ and ‘False Simplicity’.

All over Paris houses were decorated with garlands

and tricolor flags, and the streets through which the procession was to pass were lined with flowers. Pretty girls in white frocks carrying bouquets were placed along the quays of the Seine. The members of the National Convention, fully attired in their official costumes, filled the amphitheatre, each carrying a small bundle of wheat-ears, a symbol that Freemason and astronomer Jérôme Lalande associated at the time with the 'virgin' goddess Isis.[89] Lalande, as the reader will recall from Chapter One, was a prominent member of the Nine Sisters lodge in Paris and had been instrumental in introducing the new Republican calendar based on the Egyptian solar year which, in ancient times, was calibrated on the heliacal rising of the star of Isis, Sirius. Earlier, in 1731, Lalande had written:

The Virgin is consecrated to Isis, just as Leo is consecrated to her husband Osiris ... The Sphinx, composed of a lion and a virgin, was used as a symbol to designate the flow of the Nile ... they put a wheat-ear in the hand of the Virgin, to express the idea of the months, perhaps because the sign of the Virgin was called by the Orientals ... *epi* or wheat-ear.[90]

The Nine Sisters lodge was founded by Lalande and the Abbé Cordier de Saint-Firmin, the godfather of Voltaire, in 1776 – the same year as the signing of the American Declaration of Independence. The following year, 1777, Benjamin Franklin, the most senior of the signatories to the Declaration, was appointed Grand Master of the Nine Sisters lodge in Paris. We'll return to this intriguing connection in Chapter Eighteen. Meanwhile let's continue to follow the progress of the

Supreme Being on that balmy day of 8 June 1794.

Robespierre, with his hair powdered white and his whole body wrapped in a blue-violet mantle, delivered a prayer to the crowds from a high altar: ‘The whole Universe is assembled here! O Nature, how sublime and delicious is your power!’ He then evoked the Supreme Being and asked the congregation to pay homage to Him. But at the end of his very long sermon, rather than promise an end to the carnage or offer new hopes for curbing the excesses of the Revolution, Robespierre delivered instead a chilling warning to his political opponents: ‘Tomorrow, when we return to work, we shall again fight vice and tyrants!’ Then the large choir, brought from the national opera, sang a hymn by François Joseph Gossec entitled ‘Father of the Universe, Supreme Intelligence’. Finally Robespierre stepped

towards the veiled effigy representing ‘Atheism’ and set fire to it. Jacques-Louis David had designed it such a way that when the veil burnt a stone statue of ‘Wisdom’ was revealed beneath it, modelled on the ancient goddess ‘Sophia’ and meant to emerge ‘like a phoenix from the flames’.

Widely used as a symbol in Freemasonry, Sophia has frequently been associated with Isis. According to the poet Gérard de Nerval, the statue that Robespierre ‘unveiled’ on that day was, in all probability, an effigy of Isis. In his book, *Les Illuminés* published in 1852, Nerval speaks of the ceremony performed by Robespierre and compares it to ‘a remembrance of the practices of the *illuminés*’, pointing out that the ‘Veiled Nature’ used for the 8 June 1794 ceremony was ‘a statue covered with a veil which he [Robespierre] lit up and which represented

either Nature or Isis.’[91]

At last when the effigy was revealed to the people and all the chanting stopped, Robespierre led a cortege at the helm of a massive chariot carrying the goddess and towed by eight oxen, their horns painted in gold. The cortege passed through the Place de la Révolution (now Place de la Concorde), Les Invalides and finally came to rest at the Champs de Mars where more celebrations, speeches and chanting took place.[92]

Notre Dame, Temple of the Goddess

Contemporary records confirm that the attacks on the clerical establishment in 1793 – 4 were not mere acts of sporadic ‘revenge’ against individual members of the clergy but rather a well-organised and systematic de-Christianisation campaign which resulted, in a matter of months, in the wholesale ‘voluntary abdication’ of some 20,000 Catholic priests, many of whom then gladly embraced the cult of the revolutionary goddess.[93]

French historian Michel Vovelle reports that the Cult of Reason first appeared during the trial of the Marie-Antoinette, and then took off with zest immediately after the queen's public execution on 16 October 1793.[94] It has been confirmed that the first signs of de-Christianisation were witnessed in the Allier and Nièvre departments on 2 October 1793

during the closing stage of the trial.

Then, on 7 October, a shockwave hit the country. It was reported that a representative of the National Convention, an ex-pastor called Philippe Rühl who was acting under the orders of Chaumette and Hébert, had taken the *Sainte Ampoule* – a glass chalice containing holy oil – from the Cathedral of Reims and smashed it in the public square. The *Sainte Ampoule* was said to contain the sacramental oil that had been used to consecrate the kings and queens of France since the time of Clovis in AD 496. When the *Sainte Ampoule* was smashed by Rühl, it is said that a priest, the Abbé Serrain of the village of Saint-Remi, rushed to the spot and managed to mop up some of the sacred oil.[95]

But Rühl's act was only a prelude. On 7 November

1793, a few weeks after the decapitation of Marie-Antoinette, the bishop of Paris, Jean-Baptiste-Joseph Gobel, was defrocked in front of a large audience at the National Convention. This charade too was orchestrated by Chaumette. The bishop, who was frightened out of his wits, promptly declared that he wanted to join the Hébertists and the Cult of Reason.

Three days later, on 10 November, the unthinkable happened: a large crowd, accompanied by a choir, stormed the Cathedral of Notre Dame de Paris. They carried in a makeshift throne upon which sat the ‘goddess’ personified by a beautiful Parisian actress, Mlle Aubry, who was dressed in the blue, white and red republican colors and wearing the Phrygian cap. The ‘goddess’, who was labelled ‘Liberty, daughter of Nature’, brandished a torch to signify that ‘Liberty is

the light of the world'.[96] The whole congregation was then led by Chaumette and the ex-Bishop Gobel to the National Convention. There it was decreed that the Cathedral of Notre Dame was henceforth to be known as the 'Temple for the goddess Reason'.[97]

City of Light

Let us note in passing that Chaumette was no ordinary Freemason. Like many Freemasons at the time, he had acquired a taste for 'Egyptian' symbols and rituals. He was, for example, a keen supporter of the astronomers Charles-François Dupuis and Jérôme Lalande, and it comes as no surprise that a

contemporary critic was to exclaim: ‘Messrs. Dupuis and Lalande see Isis everywhere ...!’[98] It was fashionable in Masonic circles just before the Revolution to see ancient Egypt as the source of all Masonic enlightenment,[99] and we shall recall that the astronomer Dupuis was among those who argued that Isis was the original tutelary goddess of Paris. Indeed Dupuis in 1794 published the thesis that the Cathedral of Notre Dame was actually an *Iseum*, i.e. a former ‘Temple of Isis’, which had been converted or built upon by the Christians:

This famous Isis was the goddess of the ancient French or the *Sueves* who joined to her cult the symbolic boat, known as the boat of Isis. This boat still exists on the coat-of-arms of Paris, the city of which Isis had become the tutelary goddess. It is Isis,

mother of the God of Light, to whom the people [of Paris] make offering and light candles at the New Year and even during the rest of the year, in memory of the Feast of the Illumined Ones ...[100]

Once again we note the epithet 'God of Light' which was used by the Gnostics and Manicheans in the first few centuries after Christ, and later by the Cathars. It also occurs in various forms in Freemasonry and in the Rosicrucian Manifestos as we have reported in earlier chapters, but never in the Christian Bible.

In support of Dupuis' position, the astronomer Lalande wrote:

M. Dupuis concluded in his research into the façade [of Notre Dame de Paris] that it is a crude copy of a frontispiece of an ancient Temple of Isis, the goddess

whose cult was long ago established in Gaul [ancient France] and especially in Paris.[101]

With their clear Masonic penchant for the goddess Isis, whom they called ‘mother of the God of Light’ and also correctly identified as ‘goddess of the year’ (as she was known in ancient Egypt)[102] it is easy to understand the inspiration for the new Republican calendar that Dupuis and Lalande were closely involved in creating. The reader will recall from Chapter One that this so-called *Republican calendar* was built around the ancient Egyptian year of 365 days, which was divided into 12 months of 30 days each with ‘five extra days’ added to make up the full solar year.

But along with the goddess Isis-cum-Reason-cum-Nature, the revolutionaries of late 18th century Paris

also made profuse use of other well-known Egyptian symbols: the pyramids and the so-called *Eye of Providence*. It was while trying to understand *why* such symbols were used that Robert Bauval stumbled on the key that would open a secret window looking out over Paris and allow us to see an enchanted, almost-magical landscape interwoven in the modern layout of this ‘City of Light’ ...

CHAPTER EIGHTEEN

PARIS UNVEILED

In French Freemasonry the allegorical and metaphorical aspects [of architecture] *appear to have been invested with greater significance than in eighteenth-century England. Architectural history was equated with the development of society.*

And architecture was seen as a means of establishing a just and ordered system ...

James Stephen Curl, The Art and Architecture of Freemasonry

On 14 July 1792 a republican ceremony was held at the Champ-de-Mars in Paris at which a 'Pyramid of Honour' was erected to commemorate those who died during the storming of the Bastille.[1] An etching has survived of another republican ceremony that took place a little over a month later on 26 August 1792 in the Tuilleries Garden next to the Louvre. Again a pyramid was raised in honour of the martyrs of the Revolution. A third pyramid appeared in the Parc Monceau, this one commissioned by Philippe

Égalité and designed by the architect Bernard Poyet, next to a pavilion that probably served as a Masonic temple. And there were many other pyramid projects that, though never built, still serve to show the peculiar obsession with the pyramidal form in the decades surrounding the 1789 Revolution.

There are, for example, the curious projects of the revolutionary architect Claude-Nicolas Ledoux,[2] a Freemason, who the architectural historian James Curl describes as being ‘involved with Masonic and crypto-Masonic cults’. Indeed so involved was he with such interests that when a fellow Freemason from Britain, an architect, attended a Masonic meeting in Ledoux's home in Paris, he was put out by what he felt to be the excessively occult nature of the event. He commented afterwards: ‘it would seem that

Ledoux was more involved in the type of heretical Masonry of *Cagliostro*'.[3] Many architects have been intrigued by one of Ledoux's most ambitious designs, the so-called *Vue perspective d'une forge à canons* ('Perspective view of a forge cannon'), an iron smelting plant with massive pyramids and a layout that recalls 'various versions of the Temple complex in Jerusalem'.[4]

Then there are, of course, those most extraordinary pseudo-Egyptian designs by the revolutionary architect Étienne-Louis Boullée, the most famous of which was the so-called *Cénotaphe dans le genre égyptienne* ('Cenotaph in the Egyptian style'), which was a series of gigantic pyramids with their capstones missing – a design very reminiscent of the actual appearance throughout historical times of the

Great Pyramid at Giza and of the truncated pyramid seen on the Great Seal of the United States.[5] James Curl, who is regarded as an expert on Masonic architecture, comments that 'in spite of its title *Cénotaphe*, the building was clearly a cemetery or a *centre for cults*, to judge from the processions going up and down the gigantic ramps.'[6]

Imaging the Supreme Being

Were Ledoux and Boullée thinking of the 'Supreme Being' in their designs? Perhaps. But both these men, like many architects of their generation, were much influenced by the famous architect and Freemason

Antoine-Chrysostome Quatremère de Quincy. The latter was known for having presented a prize essay to the *Académie des Inscriptions et Belles-Lettres* in 1785 on ancient Egyptian architecture and, more specifically, on the pyramids.[7] According to James Curl, 'Quincy was not only a Freemason, but was very powerfully influenced by his Masonic convictions'.[8]

There is, too, an extraordinary project by Ledoux – Quatremère de Quincy's pupil – which is shown in his book *L'Architecture Considérée* published in Paris in 1804. There we can see a plan for the theatre of the city of Besançon in the form of a gigantic 'all-seeing-eye' which James Curl describes as 'an unquestionably Masonic allusion'.[9] The same idea was used by the revolutionary architect Poyet who had designed the Parc Monceau pyramid for Philippe

Égalité. Another of Poyet's ambitious plans was for a public hospital in Paris, where a gigantic ‘all-seeing-eye’ can easily be discerned in the general layout.[10]

The ‘Eye of Providence’, the ‘all-seeing-eye’, the ‘eye in the pyramid’, and the ‘eye in the triangle’ were all symbols of the Supreme Being, the *Être Suprême* of Robespierre. Thus, for example, we have a poster dating from the Revolution, which depicts the hero-philosophers Voltaire and Rousseau pointing to a glowing solar disc within which is the ‘all-seeing-eye’ and a caption that reads: ‘*Être Suprême, Peuple Souverain, République Française*’ (‘Supreme Being, Sovereign People, French Republic’).[11] The ‘all-seeing-eye’ is also prominent on a poster of the *Fête de la Fédération* at the Champ-de-Mars dated to 1790, where the rays of the Sun shoot down to form a

golden pyramid that engulfs two tricolor flags and a red Phrygian cap fixed on a ‘pole of Liberty’.[12]

The association of the ‘all-seeing-eye’ with Voltaire on the first of these posters is particularly interesting. It is a very well-known fact among Freemasons that Voltaire was initiated on 7 April 1778 at the Nine Sisters lodge in Paris by the astronomer Jérôme Lalande and Benjamin Franklin.[13] When Voltaire died a month later, the lodge was converted into a ‘Lodge of Sorrows’, a sort of Masonic funerary service, and on 28 November 1778 a service was held there for his departed soul. In line with Masonic tradition, the whole interior of the lodge was draped in black veils. At the far end of the room was raised a stepped pyramid, also draped in black.[14] On the summit of this pyramid was a

cenotaph, and at the place where the capstone would normally have been could be seen hovering a glowing triangle with the letter ‘G’ inscribed in it.

Such a pyramid with the same glowing capstone is, of course, to be seen on the Great Seal of the United States, the design of which was coordinated by Benjamin Franklin and Thomas Jefferson in 1776.[15] In Masonic symbolism the ‘eye’ representing the Supreme Being, is interchangeable with the letter ‘G’, and both symbols stand for ‘God’ i.e. the ‘Grand Geometrician’ or the ‘Grand Architect of the Universe’. Author and professor, Michel Vovelle, also draws attention to a French revolutionary poster where the ‘all-seeing-eye’ is depicted over the breast of the ‘goddess Reason’; she holds a victory wreath above a plaque on which appears a small ‘glowing

pyramid with the eye'.[16] Indeed, the same glowing triangle with the all-seeing-eye found it way to the top of the Declaration of the Rights of Man and the Citizen signed in August 1789 at the National Assembly. The text was modeled on essays written by the Marquis de Lafayette and the Abbé Sieyès, two very prominent Scottish Rite Freemasons. Perhaps we ought to recall the telling words of the Grand Master of the *Grand Orient*, Paul Gourdot, when he claimed that intellectuals such as Voltaire provided the 'spirit of the Revolution' and that the outcome of this – the First Republic – was based on 'the Declaration of the Rights of Man *which was formulated in our lodges*.'[17]

The cry of a dying tiger

Ironically, the extravagant ceremonies during the so-called *Festival of the Supreme Being* on 8 June 1794 were to lead to Robespierre's downfall. Not all who witnessed the event liked his spurious display of piety and reverence towards an effigy of a pagan deity, and even some of his closest allies were put off by what they saw as his increasing pompousness and vanity. Many worried that being at the helm of the National Convention had gone to his head.

The *Montagnards* (the ‘Mountains’) who were normally Robespierre's most ardent supporters, began to have doubts. And being mostly atheists, many of them were deeply embarrassed by the

strange psuedo-religious shows he was now putting on. Amazingly, they found a way to accuse the previously invulnerable Robespierre of anti-republicanism and sent him to the guillotine on 28 July 1794. His jaw had been blown off by a pistol shot so he was bleeding profusely and unable to talk. All that the poor man could do was let out a frightening cry which, according to an eyewitness, sounded ‘like that of a dying tiger’.

The Revolution had nearly run its course and, for a brief, tantalizing moment, the reigns of power were dangling free and there for the taking. A young Corsican officer who had been closely monitoring these grisly events and biding his time was slowly getting ready to make his move.

A new Alexander the Great was in the making …

Napoleon's goddess

On the evening of the 5 March 1798, a date that, oddly, coincided with the well-known ancient Roman Feast of the *Navigium Isidis,* the Feast of the Boat of Isis, a carriage under heavy military escort left Paris for the port of Toulon. In it was the new hero of France, Napoleon Bonaparte, and his lovely wife Joséphine. They were on their way to meet up with the French fleet which was waiting to sail to Egypt.

In a mere two years Napoleon had risen from being an obscure artillery officer amidst the ‘Terror’ of 1794, to commander-in-chief of the army by early 1796. A week after his appointment as commander of the French army in Italy, Napoleon had married the

exquisitely beautiful Joséphine de Beauharnais,[18] widow of Viscount Alexandre de Beauharnais, a Freemason and nobleman who, like many others of his Estate, had ended on the guillotine in 1794. Joséphine was the eldest daughter of Joseph-Gaspard de Tascher de La Pagerie, an impoverished nobleman who had settled in Martinique where Joséphine had spent the first 15 years of her life. She had come to Paris in 1779, a decade before the Revolution, and there had married the ill-fated de Beauharnais. It was an arranged marriage and never happy. When Napoleon met her in 1795, she was widowed with two children and on the verge of breaking up a turbulent affair with the Viscount Paul-François-Jean-Nicolas de Barras, the commander-in-chief of the Army of the Interior. Napoleon, who was deputy-

general to Barras, was only 27 years old at the time. Joséphine was 33 and the darling of Parisian high society, into which she had been introduced by the beautiful Thérésa Tallien. The latter was the wife of Jean-Lambert Tallien who, along with Barras, had plotted the downfall of Robespierre back in 1794. It was Thérésa, in fact, who had introduced Joséphine to her own lover Barras who, in turn, passed her on to Napoleon.

Joséphine seems to have been attracted to Freemasonry quite early in her career – perhaps partly because it was considered to be very fashionable among women of the aristocracy and partly because her first husband, the Viscount de Beauharnais had been a prominent Freemason who came from a family of illustrious Freemasons.[19]

Joséphine was probably initiated in women's Freemasonry at Strasbourg while her husband, the viscount, was commander of the Rhine army.[20] Long afterwards, their son, Eugène de Beauharnais, who now was about to go to Egypt with Napoleon, would become Grand Master of the *Grande Oriente d'Italia* and also of the Supreme Council of the 33rd Degree in Italy.[21]

When she become empress of France in 1804 Joséphine was elected as the Grand Mistress and Patroness of women's Freemasonry in Paris.[22] Many ladies close to her also joined the Masonic sisterhood. Apparently Joséphine's lady-in-waiting, Madame de Canisy, was initiated into women's Freemasonry by the wife of the mayor of Strasbourg, Madame Dietrich, and to mark the event a

commemorative medal was struck, showing a golden triangle at the tip of which was placed a star in a crown – almost a premonition of Joséphine's future role in France.[23] Joséphine's favourite niece, Émilie de Beauharnais, wife of Antoine Marie Chamans, Count of Lavalette and director-general of the Imperial Postal Office, was elected Grand Mistress of the adoption lodge *Anacreon* in Paris.[24]

Being a Freemason initiated in the ancient mysteries, and now with all this post-Revolution talk of deism, it may be possible that Joséphine had begun to take an interest in Islam and may even have privately encouraged Napoleon to bring it into the fold of Western Europe. For it is well known that her first cousin and closest friend, the beautiful Aimée du Buc de Rivéry, had been kidnapped by Arab pirates

and sold to the harem of the sultan of Turkey, Abdul Hamid I, where she soon became his favourite concubine and bore him a son, the Emir Mahmoud. When the old sultan died, Aimée became the mistress of the heir-apparent, the young and glamorous nephew of the sultan, the Emir Selim, over whom Aimée was to wield enormous influence by turning him into a keen Francophile.[25] There thus existed a ‘dynastic’ link between Joséphine of France and her cousin the ‘sultana’ of Turkey, a connection which might have brought the Middle East and Islam within Joséphine's sphere of attention. At any rate, whatever was going on secretly in Joséphine's and Napoleon's minds, he would one day write to her from Egypt these curious words:

I saw myself founding a new religion, marching into

Asia, riding an Elephant, a turban on my head and in my hand a Koran that I would have composed to suit my needs.[26]

Whether or not such words were written in jest, we shall never know.

Inspirations for the invasion of Egypt

The idea for a French invasion of Egypt was not original to Napoleon. It was the brainchild of Talleyrand, the great French statesman and diplomat. We have already encountered Talleyrand when, in 1789, he resigned from his role as

representative of the Second Estate – the clergy – and sided with the revolutionaries. But because he was in favour of a constitutional monarchy, he had to flee France in order to save his neck as the Revolution developed. He first went to England in late 1792 then, in 1794, to America where he stayed till September 1796, after the rise of Napoleon Bonaparte. Upon his return to France, he was made foreign minister by Napoleon.

In spite having reached the position of bishop in the Catholic Church, Talleyrand was a staunch Freemason who, during the early years of the Revolution, had been a supporter of the Duke of Orléans. Talleyrand had been a member of the prestigious lodge *Les Philalethes* in Paris, and of the lodge *Les Amis Réunis* (to which Marat, Sieyès and

Condorcet also belonged).[27] *Les Philalethes* in Paris had been much involved with Cagliostro's Egyptian Rite back in 1784 – 5, where it was said that many of their members joined his lodge in Paris. The Freemason Henry Evans explains:

The controversy between Cagliostro and the Lodge of *Philalethes* (or 'Lovers of Truth') is Masonic history. On February 15, 1785, the members of the *Philalethes*, with Savalette de Langes at their head, met in Paris to discuss questions of importance regarding Freemasonry, such as its origin, essential nature, relations with the occult sciences, etc ... among them being French and Austrian princes, councillors, financiers, barons, ambassadors, officers of the army, doctors, farmers, a general, and last but not least two professors of magic. M. de Langes was

a royal banker, who had been prominent in the old Illuminati. A summons had been sent to Cagliostro to attend the convention, and he had assured the messenger that he would take part in its deliberations. But he changed his mind and demanded that the *Philalethes* adopt the constitutions of the Egyptian Rite, burn their archives, and be initiated into the Mother Lodge at Lyons [‘Triumphant Wisdom’], intimating that they were not in possession of the true Masonry. He deigned, as he said, to extend his hand over them, and consented ‘to send a ray of light into the darkness of their temple.’ The Baron von Gleichen was deputed to see Cagliostro and ask for more detailed information, and at the same time to request the presence of the members of the Mother Lodge at the convention. Renewed correspondence took place,

but Cagliostro would not recede from his position. Finally three delegates from the *Philalethes*, among them the Marquis de Marnésia of French le-Comte, repaired to Lyons, and were initiated into Egyptian Masonry. In their report to the convention occur the following significant words: 'His [Cagliostro's] doctrine ought to be regarded as sublime and pure; and without having a perfect acquaintance with our language, he employs it as did the prophets of old …'[28]

Could any of this 'Egyptian' hype have influenced Talleyrand in any way when he later began to push the idea of an 'Egyptian expedition' to Napoleon? It seems plausible, particularly since there were existing precedents for a French invasion of Egypt.

In 1249, five years after his army had captured the

Cathar stronghold at Montségur, King Louis IX landing at the port of Damietta with a force of French knights and attempted to win control of Egypt. The king was defeated and captured by the Arabs at Mansoura, a small town on the road to Cairo, but was eventually ransomed for a huge sum. Undeterred Louis IX was to organize a second attempt to seize Egypt in 1270, this time approaching across the desert from a landing-point in Tunisia. But terrible diseases afflicted the French invaders and the king himself died on the desert trek.

A few centuries later, in 1672, the famous mathematician and philosopher, Gottfried Leibniz, presented Louis XIV with a secret plan for a full-scale invasion of Egypt.[29] Louis XIV was then at war with Holland and ultimately turned down the plan – the

real object of which may have been to divert his attention from European conquests by getting him to focus instead on a ‘universal mission’ to unite East and West in the style of Alexander the Great.

Scholars suspect Leibniz to have been a member of the ‘invisible’ brotherhood of the Rosicrucians.[30] It is also known that he was for a long while in contact with the Jesuit and Hermetic-Cabalist, Athanasius Kircher, with whom he shared an interest in Egyptian hieroglyphs and obelisks.[31] Kircher appears to have influenced Leibniz in his mathematical and philosophical research and especially in his studies of ancient languages which in due course would become a personal obsession.[32]

The idea of an invasion of Egypt still did not go away. Other similar plans were later proposed by the

Duke of Choiseul, minister of foreign affairs under Louis XV.[33] Choiseul was among the very first of the high aristocrats of France to become a Freemason.[34] He was also a bitter enemy of the Jesuits whom he eventually managed to have banned from France in 1764. His wife, the Duchess of Choiseul, was a regular participant in the adoption lodge ‘Isis’ that Cagliostro had opened at Paris in 1785, and had even been nominated as the lodge's Grand Mistress at one stage.[35] Being the man responsible for the modernization of the French fleet, Choiseul was the authority on any naval invasion France cared to consider. But his project, too, was eventually shelved.

So when Talleyrand put forward his plan for the invasion of Egypt in early 1798, it was at first received with some hesitation. On the one hand

Napoleon was wary of crossing the Mediterranean at a time when the British fleet under Horatio Nelson was actively seeking French prey. On the other hand the prospect of a glorious, and seemingly easy victory evoking the exploits of Alexander and Caesar was extremely tempting and Napoleon found it difficult to ignore. Intelligence reports had shown that the port of Alexandria was manned by a small and poorly-trained Arab garrison that was hardly a match for modern French battleships and Napoleon's elite troops.

Trouble with Joséphine

There were painful personal considerations bearing down on Napoleon when he took the decision to invade Egypt. These involved his wife, Joséphine. The couple had been married for barely two years and already Joséphine had been unfaithful with a young officer called Hippolyte Charles. Indeed a few months after their wedding in 1796 Napoleon – then away waging war in Italy – seems to have sensed that something was wrong with Joséphine's behavior and was prompted to write her this rather immature letter:

I write you, my beloved one, very often, and you write very little. You are wicked and naughty, very naughty, as much as you are fickle. It is unfaithful so to deceive a poor husband, a tender lover! Ought he to lose all his enjoyments because he is so far away, borne down with toil, fatigue, and hardship? Without

his Joséphine, without the assurance of her love, what is left him upon earth? What can he do? ... *Adieu*, adorable Joséphine; one of these nights your door will open with a great noise, as a jealous person, and you will find me in your arms. A thousand loving kisses.[36]

In November 1796, Joséphine made a trip to Genoa with Hippolyte Charles, which provoked anger and emotional confusion in Napoleon. Although he now strongly suspected his wife of infidelity, his huge pride and obsessive love caused him to react paradoxically:

I do not love you anymore! On the contrary, I detest you. You are a vile, mean, beastly slut. You don't write to me at all. You don't love your husband ... Soon I will be holding you in my arms, then I will

cover you with a million kisses, burning like the equator ...[37]

On 5 March 1798, amidst eloquent orations evoking France's ‘universal mission’ and the alleged need to thwart British trade with India, the Directory voted in favour of a military expedition to Egypt to be headed by Napoleon. The vote was kept secret until the fleet actually set sail from Toulon on 19 May 1798.[38] According to British historian Aubrey Noakes, Napoleon had wanted Joséphine to come along, probably to keep her away from mischief in Paris, but she had stubbornly refused.[39] But Vincent Cronin, in his biography of Napoleon, says the opposite, that it was Joséphine who desperately wanted to go to Egypt but that it was Napoleon who refused her.[40] Either way the result was that Joséphine stayed behind with

strict orders from Napoleon not to see Hippolyte Charles ever again. Apparently a rather odd exchange of words took place between Napoleon and Joséphine as he prepared to board the flagship, *l'Orient*, bound for Egypt:

'When will you return?' She murmured.

'Six months, six years, perhaps never.' Bonaparte replied indifferently. As the boat pushed off from the quay, Joséphine stepped forward with one last message: 'Good bye, Good bye! If you go to Thebes [Luxor], do send me a little obelisk ...'[41]

And so, in this tense emotional mood, Napoleon set out for Egypt on his epic adventure of discovery and glory. In spite of Joséphine's disloyalty and frivolity, he was still madly in love with her, and fervently

believed in their historical destiny together. Now, perhaps more than ever, he must have wanted to impress on her his heroism and unique sense of mission.

‘We who have destroyed the Pope …’

When the French fleet reached Alexandria on 1 July 1798, an excited Napoleon issued a rather curious proclamation to the Egyptian people, who were under the supposedly oppressive rule of the Mameluks:[42]

People of Egypt! You will be told that I come to destroy your religion. Do not believe it. Reply that I

come to restore your rights and punish the usurpers, and that I venerate more than the Mameluks, Allah, his Prophet and the Koran ... There formerly existed in Egypt great cities, great canals, great commerce; by what means have they all been destroyed if not by the avarice, the injustice, and the tyranny of the Mameluks? ... Sheikhs! Imams! Go tell the people that we are the friends of true Muslims. Is it not we who have destroyed the Pope who preached that war must be made on Muslims? Is it not we who have destroyed the Knights of Malta because these madmen believed that God willed them to make war on Muslims? Is it not we who have been long friends with the Sultan and the enemies of his enemies? ...[43]

There is a very revealing color etching by the Parisian printer A. H. Basset dating from that time

which shows what Napoleon might have had in mind.[44] In the top register Napoleon is seen in the center of the scene standing next to the pyramids of Giza and receiving the key of Egypt from two Arabs kneeling at his feet. Above Napoleon are two angels holding a wreath-crown; one angel represents ‘Glory’ and the other ‘Renown’. In the lower register Napoleon is shown pointing to a large glowing triangle (the Supreme Being) hovering next to him, and seems to be inviting representatives of all the known religions to venerate the universal ‘God’ symbolized by the glowing triangle.

After Napoleon's capture of Cairo in late July 1798, the Arabs played along with his offer of a covenant between the new French Republic and Islam, all the while secretly hating him and his troops as much as

they had hated the crusaders of bygone days. But it was a case of bargaining now with the devil until a way was found to throw him out. Meanwhile it must have been at about this time that General Jean-Andoche Junot, through a personal letter he had received from Paris, brought Napoleon irrefutable evidence that Joséphine had been seen staying at an inn with Hippolyte Charles immediately after he had left her in Toulon. Napoleon was devastated. In retaliation he began an open affair in Cairo with Pauline Fourès, the pretty wife of a young officer.[45]

The *folie égyptienne*, as historians would later call Napoleon's Egyptian campaign, was to cost France dearly: the complete destruction of the French invasion fleet at Abu Qir by the British under Nelson, and the loss of nearly 40 per cent of the

expeditionary army which, at the outset, had totaled some 54,000 men. Worse still was the humiliating surrender of the survivors to the British forces under Ralph Abercromby at Alexandria.

Napoleon himself returned to France long before the surrender and somehow managed to survive this military and political disaster. Soon enough an effective propaganda campaign began to convert the reality of the defeat into the perception of a cultural victory.

The savants and the destiny of Napoleon

Napoleon had taken along to Egypt 167 ‘savants’ – scholars and the erudite from many different disciplines – amongst them surveyors, mathematicians, astronomers, engineers, botanists, linguists, poets, artists and architects, all hand-picked from the newly formed *Institut National de France*. It had been the mathematician Gaspard Monge who had personally recruited them. Monge was one of Napoleon's closest friends and advisors, and considered the young general as his ‘adopted son.’[46] The reader will recall that Monge was a prominent Freemason from the Nine Sisters lodge in Paris and had been directly responsible with Charles-Gilbert Romme for the introduction of the Republican calendar modeled on the Egyptian solar year. While in Egypt, Monge founded the *Institut d’Égypte* in

Cairo, a scientific and *Encyclopédist* body modeled on its French counterpart, the *Institut National*. Monge acted as president of the *Institut d'Égypte* with Napoleon acting as his vice-president.[47] Many of the other savants and officers who accompanied Napoleon to Egypt were also Freemasons, notably his right hand man, General Jean-Baptiste Kléber, who is said to have founded the first modern Masonic lodge on Egyptian soil.[48]

Also among the savants was Dominique-Vivant Denon, an artist with an incredible talent for freehand sketching and the making of etchings. A highly educated man, Denon had been a diplomat in Russia and Sweden before the Revolution. He had been about to face the guillotine in December 1793 for his alleged royalist sympathies when he had been

rescued from the blade by his friend, the painter Jacques-Louis David. A prominent member of the National Convention, David, had masterminded the celebrations of ‘Isis of the Bastille’ and in December 1793 was busy promoting the Cult of the Supreme Being with Robespierre.

Denon, who was talented, sophisticated and very handsome, was a favourite with the ladies of the aristocracy. He was highly admired by Catherine II of Russia and had no difficulty in winning the favour of the up-and-coming Joséphine who introduced him to Napoleon. Joséphine urged Napoleon to take Denon to Egypt, but as the latter was not a member of the *Institut National*, Napoleon had at first resisted the idea. Eventually, however, as was often the case, he yielded to Joséphine's demands. It was a decision he would not regret, for it was Denon, through the

publication of his spectacular drawings, who would find the magic to transform Napoleon's Egyptian fiasco into a cultural victory for him in person and for the French Republic as a whole.

Albeit tarnished a little by the defeat at Abu Qir and the humiliating surrender of the expeditionary army at Alexandria, Napoleon's ‘conquest’ of Egypt, allowed him to stand alongside history's most illustrious military heroes and empire builders: Alexander the Great and Augustus Caesar. And now here, in flesh and blood, was France's own Napoleon the Great. He had ‘returned from Egypt’ like some mythical solar hero ready to found a new French Empire modeled on the empire of Charlemagne. The famous *Description de l’Égypte*, which was published under the supervision of Denon, was dedicated to ‘Napoleon le Grand’, who is depicted on the

frontcover as an Apollo-Sol Invictus, hero-king. There he may still be seen, riding the solar chariot under the protection of the Egyptian symbol of the winged solar disc – into which, in this case, has been placed a star.

Is it an accident that at about the same time, but on the other side of the Atlantic, the same symbolic representation of Apollo-Sol Invictus – including the same solar chariot and the same winged solar disk with the same star – would be used in connection with George Washington? We will return to this mystery in the next chapter.

Few historians would disagree that the driving force behind Napoleon's military conquests was his unshakable belief in his own destiny – the belief that he had somehow been chosen by history to unite all Europe, and perhaps even the whole world, under

one, universal rule. Since his vision for this rule was based on French republican ideals, virtues and laws, Napoleon, by his own reckoning, had become *the embodiment of the Revolution* and its universal, almost sacred ‘mission’.

After his return from Egypt in 1799 and now barely 30 years of age, Napoleon had the Directory proclaim him ‘first consul’ of the Republic, a term clearly drawn from republican Rome. In 1802 he was voted consul for life and soon, with his large and well-trained armies, he had annexed to France vast territories in Europe that included Germany, Austria and Italy. He was, by then ‘emperor’ of Europe in everything but title.

Then in 1804, now 35 years of age, Napoleon went for the ultimate prize.

The Holy ‘French’ Empire

On Christmas Day AD 800, Pope Leo III crowned the Frankish general, Charlemagne, as first emperor of the Holy Roman Empire. Charlemagne was in Rome with a large army to ‘protect’ the pope but the legend has it that he had merely entered the Basilica of St. Peter to take part in the Mass. When he approached the altar and kneeled to pray, the pope placed a golden crown on his head and caused the congregation to cry out:

Life and victory to Charles the August, crowned by God, the great and pacific Emperor of the Romans![49]

It is said that the pope even prostrated himself before Charlemagne and paid him homage in the

manner once accorded to ancient Roman emperors, which also included anointing him with sacred oil.

After Charlemagne's ‘coronation’, no other emperor or king had ever again been given the great honour of being physically crowned by a pope. A thousand years later, however, Napoleon Bonaparte decided it was high time to change all that.[50] To this end he had Pope Pius VII forcefully brought to Paris in late 1804. The coronation, meticulously planned by Napoleon himself, took place in the Cathedral of Notre Dame which, until very recently, had served as the ‘Temple of the goddess Reason’. Just before the climax of the event, Napoleon stepped forward, took the crown away from the pope's hands and, in a grand symbolic gesture, crowned himself emperor. Under the bemused gaze of the pope, Napoleon then took a

smaller crown and placed it on the head of the lovely and promiscuous Joséphine, making her empress.[51] David was to immortalize this moment in an appropriately huge painting that may be viewed today in the Louvre. Also marking the occasion, the sculptor Jean-Antoine Houdon, a Freemason, a member of the Nine Sisters lodge, and formerly a close friend of Cagliostro, made a marble bust of Joséphine.[52]

We may perhaps wonder if French artists such as Houdon, Denon and David were not somewhat bedazzled by Joséphine – who they went on to promote as the new Isis and thus the new tutelary goddess of continental Freemasonry and of the city of Paris.The reader will recall that in 1773, Court de Gébelin, Freemason, member of the Nine Sisters

lodge and inventor of the modern Tarot, had written:

No one ignores that Paris was originally enclosed in the island [the Île de la Cité]. It was thus, since its origins, a city of navigation … As it was in a river rife with navigation, it took as its symbol a boat, and as tutelary goddess, Isis, goddess of navigation; and this boat was the actual one of Isis, symbol of this goddess.[53]

The association with the 'Parisian' boat of Isis and the notion of 'empire' is explained by the early 19th century Parisian historian, François Noël:

The boat of Isis, a feast which was celebrated in Rome with great pomp, was known as *Navigium Isidis*; after it had been launched in the water, it was brought back to the Temple of Isis and prayers were made for the prosperity of the Emperor, for the

Empire and for the Roman people ...[54]

Dates and words

In the brief period of Napoleon's occupation of Egypt, from 1798 to 1801, there were witnessed some events that gave a mythical sparkle to this otherwise doomed adventure.

First there is the matter of the date – 5 March 1798 – on which the Directory voted in favour of sending Napoleon to ‘liberate’ Egypt. Given the intense Masonic and Isiaic interests of some of the protagonists, it would be unusual if no one had realised that 5 March was the Feast of the ‘Boat of

Isis', the *Navigium Isidis*, widely popular during the Roman Empire and subsequently in ancient France (Gaul).

Second there are the confusing circumstances surrounding the naval Battle of Abu Qir, the shallow bay to the east of Alexandria where Nelson obliterated Napoleon's fleet on 1 August 1798. Abu Qir was the site of the ancient city of Canopus where legend has it that the ship carrying the Trojan lovers, Paris and Helen, long ago took refuge. Helen, as we recall from Chapter Ten, had been associated by Herodotus with an Egyptian deity who he called 'Aphrodite the Stranger'. The Alexandrians identified Aphrodite with Isis, and both Helen and Isis were well known to be protectors of mariners and ships. Moreover, the star of Isis – Sirius – was the *Stella Maris*, the 'Star of the Sea', also known as the 'Star

of the East’ or ‘Star of the Orient’. Surely Napoleon and his erudite friends in Egypt would have been aware how highly evocative of all these mythical archetypes was the act of anchoring the flagship *l’Orient* at Abu Qir-Canopus?

We concede at once that the question is highly speculative, but Napoleon's mindset at the time does not exclude such links being made. Of Corsican origins, he remained all his life a very superstitious man, and considered Joséphine to be his ‘lucky charm’, a sort of human talisman. His extremely superstitious nature meant that he was always on the lookout for omens. French historian Jean Duché reports an occasion when Napoleon, having been openly criticized by a cardinal about his military campaigns, grabbed the cardinal by the sleeve, dragged him to a window, and, in broad daylight,

asked him if he could see ‘the star’. When the baffled cardinal retorted that there was no ‘star’ to be seen, Napoleon replied:

Well, as long as I shall be the only one to see it, then I will follow my own destiny and will not permit anyone to criticize me![55]

To any French Freemason the word ‘Orient’ in the name of Napoleon's flagship would inevitably be reminiscent of the ‘Mother Lodge’ in Paris known as the *Grand Orient* i.e. the ‘Great East’. In Masonic jargon to this day the word ‘Orient’ or ‘East’ denotes the name/place of the main Masonic temple in any town or city, and the term ‘Grand Orient’ or ‘Great East’ denotes the mother temple or lodge in a country.[56] For example, the *Grand Orient* denotes the main Masonic Temple of Paris in the Rue Cadet;

likewise the ‘Great East’ denotes Freemasons’ Hall of London.

Masonic Emperor Of The French?

There are no primary source documents that prove Napoleon was a Freemason; nor are there any that disprove this proposition. There has, however, been much learned speculation on both sides, with some scholars arguing vehemently that he was an initiated Mason[57] and some arguing equally vehemently that he was not.[58]

Many continental Freemasons in the 19th century certainly acted as though Napoleon was a member of

the brotherhood. There were dozens of Masonic lodges in Europe that bore his name such as the *Saint Napoleon* lodge in Paris, the *Napoleomagne* lodge in Toulouse, the *Napoleone* lodge in Florence, *La Constellation Napoleon* in Naples, the *Étoile Napoleon* in Madrid and so on – with lodges usually choosing names that evoked Napoleon's military, social and cultural achievements.[59]

We know for sure that Napoleon's strategic entourage was filled with prominent Freemasons such as Talleyrand, Gaspard Monge, Jean Baptiste Kléber, André Masséna and others. We know too that most members of Napoleon's family were Freemasons, including his own father, Charles Bonaparte, his brothers Jérôme, Louis, and Joseph, his wife, Joséphine and his brother-in-law, Joachim

Murat.[60] Historian and Masonic author, François Collaveri, asserts with confidence that:

... the initiation of Napoleon is not a legend; he was initiated into Freemasonry probably in Egypt as is expressly claimed by the *Grand Orient* of France.[61]

Other authorities go as far as to argue that Napoleon, as well as his general, Jean-Baptiste Kléber, underwent their Egyptian Masonic initiation inside the Great Pyramid of Giza at the hands of a Coptic sage.[62]

Kléber, the son of an operative Mason, had practiced architecture in Paris long before joining Napoleon's army. In 1787, two years before the French Revolution, he had designed an Egyptian-style temple for the Parc d'Études in Paris.[63] Few had any direct acquaintance with ancient Egyptian

temples at that time and Kléber's design bears little resemblance to any of the existing ancient temples in Egypt – though from the décor that he also designed it is likely that he had a ‘Temple of Isis’ in mind.

According to historian Paul Naudon, Kléber founded Egypt's first modern Masonic lodge which he predictably named *La Loge Isis*.[64] In June 1800, however, two years after arriving in Egypt, he was murdered by an Arab fanatic. Kléber's corpse was embalmed and shipped back to France. When the coffin arrived in Paris in late September, Denon made plans for the construction of a replica of the Egyptian Temple of Dendera to be raised at the Place des Victoires in Paris as a mausoleum for the great general.[65]

Napoleon researches Isis

After his return from Egypt Napoleon was to develop a rather curious fascination with the goddess Isis. Indeed so strong was his interest that he eventually set up a special commission, headed by the scholar Louis Petit-Radelin, to confirm the ancient legend (reported by Corrozet, Dupuis and others) that Isis was the true and ancient tutelary deity of the city of Paris. Napoleon apparently expressed a specific interest in the so-called *boat of Isis* and its alleged connection with the 'Boat of Paris' found in the coat-of-arms of the city.[66] After a year or so of research into this matter, the special commission was able to report to Napoleon that there

was, in fact, much evidence to support the claim that the boat of Isis was, indeed, the very same as the Boat of Paris.[67] Highly impressed by these findings, Napoleon issued instructions on 20 January 1811 that a figure of the Egyptian goddess and her ‘star’ should now be included on the coat-of-arms of Paris:

We have previously authorised and do also authorise now by these present signed documents by our hand, that our good city of Paris will bear the coat-of-arms as shown and coloured on the attached drawing, at the front of the ancient ship, the prow loaded with a statue of Isis, seated, in silver on a sea of the same, and lead by a star also of silver.[68]

The drawing that was attached to Napoleon's letter is today kept in the *Bibliothèque Nationale de France*.[69] On this drawing can be seen the red, gold

and silver coat-of-arms surrounded by a wreath of wheat. The whole is surmounted by a golden crown on which is perched the imperial eagle. The crown is transpierced by the Hermetic *caduceus,* the entwined winged-snakes. The main image is the silver boat floating on a silver sea. On its prow is the goddess Isis seated on a throne and guided by a five-pointed star hovering in front of the boat. Above the boat are three golden bees, symbolizing divine solar rule.

Interestingly, the same group of symbols also turns up in the *Description de l'Égypte* published by Denon – on the dedication of which Napoleon's name, denoted by the letter 'N', is seen surrounded by the Hermetic coiled snake surmounted by a crown and placed next to a pharaonic *cartouche* inside which is drawn a bee and a five-pointed star.

Napoleon appointed Denon as first director of the

newly opened *Musée Napoléon* housed at the Louvre. At the same time he commissioned the architects Charles Percier and Pierre François Léonard Fontaine to design the Cour Carrée on the east side of the Louvre, and the artist Jean-Guillaume Moitte to decorate the eastern façade of the inner gateway. Moitte chose to have the most famous lawgivers of history, Moses and Numa, flank a statue of the goddess Isis seated on a throne. Next to Isis can be seen the legendary Inca solar emperor and lawmaker Manco Cápac.[70]

Three decades later, when Napoleon's body was repatriated from his place of exile in St. Helena and placed in the mausoleum at Les Invalides in Paris, the renowned sculptor and architect Louis-Tullis Visconti designed the final decorations on the circular walls

surrounding the former emperor's large sarcophagus. In one of the scenes Visconti sculpted a representation of Napoleon as a solar god-king much resembling Manco Cápac and Sol Invictus, showing the revered French general seated on a throne, barechested and with the solar rays shooting out of his head, his arm outstretched handing the ‘law’ to the many nations of his empire ...

The Place of the Star

The most famous monument of Paris, one that was commissioned by Napoleon himself in 1806, is, of course, the Arc de Triomphe at the western end of

the Champs-Élysées.[71] The name of the location must have had a special resonance for Napoleon, for so long as anyone could remember it had been called *L'Étoile*, the 'Star'. Given his obsession with his own 'star of destiny' and his obvious interest in the connection between Isis and the city of Paris, it is not impossible that the 'star' in question was imagined by Napoleon to be Sirius. There is, moreover, a rather unusual depiction on the Arc de Triomphe that is highly implicit of Isis and her connection to Napoleon. On the east face of the monument is the commonly called 'Triumph of Napoleon' sculpted by the artist Jean-Pierre Cortot in 1833.[72] The scene shows 'Victory' (a naked woman) crowning Napoleon (who is wearing the toga of a Roman emperor) with a laurel wreath. A Roman goddess wearing a 'tower' on

her head (supposedly symbolising a town surrendering to Napoleon) is seen kneeling at the emperor's feet.

The kneeling goddess is, in fact, Cybele, and had clearly been modelled by Cortot from the figure of a Roman goddess wearing a ‘tower’ on her head found in Paris in 1675 when the foundations of the church of Saint-Eustache were being excavated.[73] According to Claude du Molinet, the bishop of St. Genevieve who published the find in 1683, this effigy was:

The one that the Greeks called Io and the Egyptians called Isis, and is the same as the one the Romans honored under the same of Cybele, being the Earth or Nature that the Egyptians married to Osiris who was the Sun, in order to make it fertile and mother of all productions that form within her breasts …[74]

Thus in the minds of French historians of the 17th century, the goddess with the tower headdress was none other than a representation of Isis, for the latter, too ‘had also a tower on her head’[75] (as indeed she does in ancient Egyptian hieroglyphs, although what looks like a ‘tower’ is, in fact, a throne).

In addition it would not be too farfetched to equate the kneeling figure on the Arc de Triomphe with the Empress Joséphine wearing the ‘crown of Isis’ in Paris – for this scene brings sharply to mind the famous painting by David of the coronation of Joséphine and Napoleon in December 1804 sanctioned by the presence of the pope.[76] In the painting Napoleon is shown wearing the laurel-wreath of Roman emperors while Joséphine is seen kneeling at his feet, herself wearing the empress's

crown. The same scene is depicted on the Arc de Triomphe, where Napoleon is again garbed as a Roman emperor and crowned with laurel while Isis-Cybele kneels at his feet, herself wearing the crown-tower of the goddess.

We saw in Chapter Sixteen how the main axis of Paris (running through the monumental avenue of the Champs-Élysées) was aligned by Le Nôtre, either by coincidence or by deliberation, *26° north-of-west* towards the sunset on two religiously important days of the year (8 May and 6 August) and, also looking back, 26° south-of-east towards the *cosmic rising* of the star Sirius. We also saw that this arrangement correlates with the main axis of the great solar temple complex of Karnak-Luxor which is likewise directed 26° north-of-west towards the sunset and, looking back, 26° south-of-east towards the heliacal

(dawn) rising of Sirius at the beginning of Egypt's civilization. We know that Sirius was the herald of the ‘birth’ of solar kings. And we've seen how Napoleon endowed the city of Paris with a new coat-of-arms blatantly displaying the goddess Isis and her star Sirius, and how he also commissioned a huge arch to be raised at the ‘place of the star’ right on the centerline of the axis of Paris. All these interlocking themes, when considered together, become even more intriguing when we add to them one further fact of history. In 1831, just as Napoleon's Arc de Triomphe was being completed, there was also brought to Paris an ancient Egyptian obelisk – the obelisk of Ramses II as the reader will recall, one of a pair that had originally stood outside the Temple of Luxor in Upper Egypt but now destined for a place of choice along the axis of Paris.

How France had a second revolution

The year 1831 was special for the French, for it followed the country's second great popular ‘revolution’, that of July 1830 when the restored monarchy under Charles X, a brother of Louis XVI, was toppled – never to return. This second revolution was engineered by France's and America's most famous Freemason, the Marquis de Lafayette, who personally masterminded the coup d’état that brought the ‘Citizen King’ Louis-Philippe d’Orléans, eldest son of Philippe Égalité, into power.

To French Freemasonry on both sides of the Atlantic it must have appeared as if the ‘Blazing Star’

or ‘Star of the Orient’ had finally risen over the horizon of Paris. Not surprisingly then, when the young Citizen King took charge of the completion of the Arc de Triomphe, it was proposed that the top of this monument should be decorated with a huge, golden five-pointed star.[77]

Let us see how the 1830 ‘Revolution’ came to be.

After Napoleon's shattering defeat at Waterloo at the hands of the British on 18 June 1815, the emperor ‘abdicated’ and was exiled for life to the island of St. Helena. France was left with a terrible sense of failure, shame and utter confusion, and, in the chaos that followed, the people were coaxed to agree to the unthinkable – the restoration of the Bourbon monarchy.

In 1814 the Count of Provence, the younger brother

of Louis XVI, became the newly restored king of France as Louis XVIII. Ironically, all was back to square one for the Republicans and the *Bonapartists*. But there was really no choice in this matter. A new Republic at that time would have been completely out of the question, let alone a ‘successor’ to Napoleon. It seemed to everyone that a constitutional monarchy *à l'anglaise* (‘in the English manner’) was the only realistic option. But the wellsprings of the Revolution were far from dry.

Tensions quickly began to develop between those who wanted the French Revolution to be an ongoing process and those others who wanted a return to the Old Regime of totalitarian monarchy. A group of zealous royalists, known as the *Ultras,* started a political movement which became known as the ‘White Terror’. It aimed to eradicate all traces of the

Revolution and to purge France of those who had supposedly ‘betrayed’ the monarchy before and after the fall of the Bastille.

Although the king secretly sanctioned the Ultras, publicly, at least at first, he wanted to be seen as a moderate. To this end he took as his prime minister the famous industrialist Élie Decazes, bestowed on him the title of Duke, and relied on the latter's high reputation as a reasonable and just man to win the support of the people. In this indirect manner Louis XVIII hoped to ride out the growing political storm that was brewing between Royalists and Republicans.

Decazes was a prominent Freemason. In 1818, the year before he was appointed prime minister, he had become the Grand Commander of the Supreme Council of the 33rd Degree of the Ancient and Accepted Scottish Rite. It is believed by some

Masonic historians that even Louis XVIII was initiated into Freemasonry. This apparently was done in 1775 when he was still the Count of Provence. It is also said that Louis XVIII's brother, the Count of Artois (the future Charles X), was a Freemason and that both belonged to the lodge *Les Trois Frères*.[78]

It seems that Louis XVIII naïvely supposed that Freemasonry in France was still that quaint club frequented by aristocrats and the high bourgeoisie that he had known before the Revolution. But, of course, he was much mistaken. At first, with the influence of Decazes at court, everyone had hoped that the king would slowly be swayed towards a British-style parliamentary monarchy. But any chance of this happening was completely shattered on 13 February 1821 when a Republican fanatic, Louis

Pierre Louvel, shot dead the young Duke of Berry, Charles Ferdinand d’Artois, who was the king's nephew.

The Duke of Berry had been the only hope of keeping the Bourbon dynasty going indefinitely, for it was well known that Louis XVIII had no children and that his brother was well past the age of producing more.[79] The assassin and, more specifically, those behind him, had figured that by eliminating the Duke of Berry they would, in effect, cut off the Bourbon bloodline to the throne of France. However, there was something that the assassins could not have known which ended up foiling their ingenious plot. The Duke of Berry's wife, the beautiful and intelligent Marie Caroline de Bourbon-Sicile, was pregnant. A few months later she bore a son, *l'enfant miracle* (the

‘miracle child’), who was named Henry.

The assassination of the Duke of Berry gave the Ultras the excuse they wanted to start a witch-hunt against all anti-royalists. Louis XVIII now showed his true colors by allowing the Ultras a free hand in the affair. Louis dismissed the prime minister, Élie Decazes, who was suspected of being a Republican and Bonapartist. He was replaced by the Count of Villèle, a zealous royalist and Ultra ringleader of the worst sort.

Decazes's dismissal much alarmed the Republicans who now began to suspect strongly that Louis XVIII was about to restore the Old Regime, and plots began to be hatched against the king. Because Decazes and many of his supporters were Freemasons, the Ultras suspected that the lodges were behind these plots. Ironically, many Freemasons including Decazes were

actually loyal to the king, but it is equally true that Masonic lodges became the cover for secret political gatherings and, as was clearly the case during the 1789 Revolution, an ideal breeding ground for radicals working against the monarchy.

By December 1821 members of an extremist secret society called the *Charbonnerie* (the 'charcoal burners'), whose aim was to launch an armed rebellion against the king, began to infiltrate Masonic lodges in Paris. The Charbonnerie had direct links to the Italian *Carbonari*, an ultra-radical, anti-clerical and anti-royalist group which, since the early 1820s, had been behind many armed uprisings against the joint papal and Austrian-Habsburg regime in Italy.

Much like the Freemasons, the Carbonari selected their members and had initiation ceremonies. These took place not in lodges but in *ventes*, an Italian word

that means ‘twenty’; each was limited to 20 members so as not to attract the attention of the police. The Carbonari's origins can be traced to the year 1812, and they were almost certainly a militant offshoot of the Masonic *Grande Oriente d’Italia* which, at that time, was headed by Joachim Murat, the king of Naples and brother-in-law of Napoleon.[80] Indeed, Italian Freemasonry had flourished after the Napoleonic conquest of Italy, and by 1820 the Carbonari and the Freemasons in Italy formed a huge network of lodges and *ventes* that provided ideal meeting grounds as well as an effective system of secret communication for radical political groups plotting to liberate Italy from the detested Austrians.

The Carbonari, who symbolized the driving force behind Italy's independence movement, certainly did

not hide the fact that they were staunch Bonapartists and, as such, opponents of all monarchies as well as enemies of the Catholic Church. In September 1821, after the death of Napoleon, they took to the streets causing serious unrest which forced Pope Pius VII to condemn them as well as Freemasons in general.[81] The days of burning at the stake were over, but in 1821 the Austrian police launched a massive operation in Italy to purge all radical elements from Masonic lodges and the *ventes* of the Carbonari. There were hundreds of arrests and many Masons and Carbonari were imprisoned. Others were deported or escaped into France, where they quickly began to infiltrate the Masonic lodges.

The 1822 Charbonnerie uprising in France immediately brought Masonic lodges there under

intense scrutiny. To make things worse, it was also suspected by the Ultras that the notorious Marquis de Lafayette was the leader of the Charbonnerie. Lafayette was seen on both sides of the Atlantic as a great republican hero, and his reputation had become almost legendary among Freemasons. But even though Lafayette was staunch republican and also a very active Freemason, he was by no means a radical, and at heart almost certainly had favoured a constitutional monarchy rather than the chaotic ‘Republic’ he had witnessed first-hand in France after the 1789 Revolution. At any rate, whether Lafayette was sympathetic to the Charbonnerie or not became an academic issue, for the Charbonnerie was very poorly organized in France and heavily infiltrated by royalist spies. It was soon disbanded after the police arrested the Charbonnerie plotters *en masse* and also

many Freemasons in the confusion that followed.

A series of death sentences were immediately passed. Among those executed were the famous ‘four sergeants of La Rochelle’, two of whom were found to be Freemasons belonging to the Egyptian *Rite of Memphis-Misraim* . According to the Masonic author Jean-André Faucher, the insurrection of 1821 – 22 was, indeed, largely blamed on the new Masonic *Rite of Memphis* and also the *Rite of Misraim*, both of which were believed to have originated in Italy in the early 1800s.[82] To make matters worse, Élie Decazes, the ex-prime minister, had become a member of the Rite of Misraim, as well as many other notable figures on the other side of the Channel in England who supported Decazes, such as the Duke of Leicester and the Duke of Sussex.[83]

In that troubled year of 1822 there were no less than 22 Misraim lodges in Paris plus about a dozen more elsewhere in France, mostly in Lyons and Metz. The pseudo-Egyptian character of the rites that were practiced in those lodges is evident in lodge names. For example there was one in Metz called *Heliopolis Reborn*, another in Lyons called *Memphis*, and yet another in Montauban called *The Flooding Nile*.[84]

The second revolution

It was the Rite of Misraim which, in 1822, was principally accused of harboring the Carbonari. In consequence it was banned in 1823. In the midst of

these confusing and turbulent events Louis XVIII died in September 1824 leaving no offspring to take his place. He was succeeded by his brother, the Count of Artois, crowned as Charles X, who was now approaching his 70th year.

Like most aristocrats who had fled the 1789 Revolution, Charles had lived in exile until 1814, and this bitter and humiliating experience made him determined to restore the Old Regime with the divine right of kingship and also the full authority of the Catholic Church. At his coronation, Charles insisted that he should be anointed in accordance with the ancient rituals of kingship at Reims Cathedral with the few drops of sacred oil that had been saved when the *Saint Ampoule* had been smashed during the Reign of Terror of 1793 – 4.

Once crowned, Charles X became the leader of the

Ultras and the Catholic revival began to gather pace, causing outrage among those who had supported the Revolution. Many anti-clericals as well as Republicans now joined Masonic lodges not for spiritual enlightenment but for political shelter. Charles X, who was a devout Catholic himself, began to revive the dreaded ‘Society of Jesus’, the Jesuits, and soon it was rumored that he had joined the order and might hand over power to them.

Political unrest reached boiling point in March 1830, when, in a naïve move to appease his critics, the king dissolved the *Chambre des Députés* and called a general election which he hoped the Ultras would win. The vote, however, went against the Ultras and Charles X now confronted two unsavory options: he could either agree to a constitutional monarchy or scoop the power already in his hands

with a coup d’état by eradicating the Bonapartists and Republicans in his government. He unwisely opted for the latter, and by July 1830 the barricades were up again in the streets of Paris.

For the second time in less than 50 years a revolution had been unleashed against the Bourbon dynasty.

Lafayette seizes the day

Not unexpectedly, two factions quickly emerged, one made up of pure Republicans the other up of Constitutional Monarchists. Lafayette, that eternal compromiser, at first swayed between the two, even

though the Republicans considered him their leader. In his view, however, the best option now was to oust the Bourbons altogether and replace them with a new monarchy who would ‘constitutionalise’ the Old Regime. He had in mind a young prince, the Duke of Orléans, whose father, Philippe Égalité, had sponsored the 1789 Revolution with his immense wealth and position – for which it eventually beheaded him!

Although Lafayette had been at odds with Philippe Égalité during the 1789 Revolution, he was now in very close contact with his son, Louis-Philippe d’Orléans. Lafayette's plan had the distinct advantage of offering a solution that might be acceptable to both the Republicans and the Constitutional Monarchists, and thus avoid the real risk of a civil war. It remained now to persuade the Republicans,

the Bonapartists and, especially, the general population of Paris, that Louis-Philippe d'Orléans was the right man for the job. This, Lafayette achieved with the well-judged use of powerful symbolism – a technique that had so often worked with the rowdy Parisian mob.

In August 1830 Charles X was forced to abdicate. In a desperate bid to keep the Bourbon dynasty on the throne of France, he asked that his grandson, the 'miracle child' of the Duchess of Berry, be accepted as the new king. But both the Republicans and the Constitutional Monarchists rejected the proposal outright. This was the moment when Lafayette and his own candidate, Louis-Philippe d'Orléans, made their move. After three days of bloody street fighting in Paris, the crowds gathered at the Hôtel de Ville and, in a perfectly timed propaganda coup that only

high initiates would know how to bring about, Lafayette grabbed a tricolor flag of the Revolution and wrapped it around Louis-Philippe d'Orléans, proclaiming him the 'Citizen King' of France.

Amazingly, the theatrical gesture worked. The Parisian mob cheered and Louis-Philippe won the day. The hard-line Republicans and Bonapartists were furious at having their 'revolution' snatched away from them by such trickery, but there was not much they could do.

Almost immediately King Louis-Philippe I began a series of projects supposed to demonstrate his love and support for Bonaparte and the Revolution. He ordered that the Arc de Triomphe, the construction of which had begun in 1809 but had been shelved ever since, should now be completed. He also ordered the construction of a huge pillar at the Place de la

Bastille to commemorate the 1830 Revolution; on top of the pillar, as the reader will recall from Chapter One, was then placed the ‘Genie of Paris’, a winged youth much resembling the Greek Hermes.[85]

Also at about this time Louis-Philippe ordered that the obelisk brought from the Temple of Luxor in Egypt, and recently arrived in Paris, should now raised in the Place de la Concorde ...

Champollion

In 1822, a year and a half after Napoleon's death, an amazing scientific discovery was made which would not only stun the academic world but would

also fulfill a promise that the emperor had made at St. Helena. For when asked why he had invaded Egypt, Napoleon had calmly replied:

I came to draw attention and bring back the interest of Europe to the center of the ancient world.[86]

This was a side of Napoleon that has often been neglected, namely that he was not only a military genius but also an accomplished scholar and a senior member of the *Institut National*. It was Napoleon who had the great forethought of taking the 167 savants to Egypt in 1798, and it was he who founded the first modern scientific institute in Egypt: the *Institut d'Égypte* in Cairo. It was therefore appropriate that his grand dream of restoring cultural interest in ancient Egypt was not fulfilled by a politician but rather by a quiet and studious young

man living in the little town of Figeac near Grenoble – a young man who had never traveled out of France, let alone to Egypt.

On 17 September 1822 Jean-François Champollion, coughing and speaking with the weak voice of someone suffering from serious pulmonary problems, announced to a group of scholars at the *Académie des Inscriptions et Belles-Lettres* in Paris that he had an important statement to make regarding the mysterious ancient Egyptian hieroglyphs. Feeling awkward in front of such an illustrious and very skeptical congregation of learned men, Champollion slowly read a paper which he had addressed to the chairman of the *Académie Française,* Monsieur Dacier, and which was simply titled *Lettre à M. Dacier relative à l'alphabet des hiéroglyphes phonétiques.*

It was, in fact, a cultural and scientific bombshell on a scale rarely experienced in the world. For it became obvious to many of those listening to Champollion that day that the young man had solved the biggest mystery of the past: he had cracked the code of the ancient Egyptian hieroglyphic language. Indeed, Champollion's modest *Lettre à M. Dacier* was to mark the most prestigious moment of the *Académie Française* and provided the foundation stone upon which scientific Egyptology would be developed. Many Freemasons present on that day in September 1822 would also have thought it wonderful and most appropriate that this world-changing discovery had been announced in Paris, the city of Isis.

In the 1820s the area of Grenoble and Lyons where the Champollions lived was not only the haunt of

Republicans and Bonapartists who opposed the monarchy, but also the hotbed of many innovative Masonic movements, especially those related to the 'Egyptian' type of Freemasonry started at Lyons by Cagliostro.[87] It is known that Champolion and, more especially, his older brother, Jacques-Joseph, were fervent Bonapartists, and so were most of their friends, many of whom were also Freemasons.[88] The question must arise, therefore, whether Champolion himself was not a member of the brotherhood and, more specifically, a member of one of the Egyptian-style lodges? Today some Masonic historians list Champollion as a 'famous Freemason', but there is no documented proof of his involvement.[89]

Champollion and his brother, Jacques-Joseph, had at one time been held under suspicion of political

agitation and, in 1816, had even been placed under house arrest at Figeac. It is said that they gained the support of the influential Freemason, Élie Decazes, then the minister of interior, who ordered their release and allowed the two brothers to return to Grenoble in 1817.[90]

Decazes, as we shall recall, was to become Grand Commander of the Supreme Council of the 33rd Degree and one of the first notables to join the Egyptian Masonic Rite of Misraim.[91] Later also the prominent statesman, the Duke of Blacas, became the patron and protector of Champollion.[92] Paradoxically, the Duke of Blacas was a staunch Ultra and a favourite of both Louis XVIII and of Charles X. The duke had served as the French ambassador to the kingdom of Naples since 1815, then the hotspot

of ‘Egyptian’ Misraim Freemasonry. Let us also note that there had been curious exchanges between Champollion and certain well-known adepts of these neo-Egyptian Masonic groups.

Champollion was a rival of Alexandre Lenoir, a staunch Freemason and once the superintendent of the king's buildings before the 1789 Revolution. Lenoir, who was a keen adept of the Scottish Rite,[93] and an ‘initiate of the cult of Isis’,[94] was also the publisher of *La Nouvelle Explication des Hiéroglyphes* in 1808. When Champollion began his own work on the Egyptian hieroglyphs he had condescendingly called Lenoir *un oison* (‘a little goose’) and stated that he only respected the older man because he was ‘in the good books’ of Empress Joséphine.[95] In 1814 Lenoir had published a book

entitled *La Franc-Maçonnerie rendue à sa véritable origine* ('Freemasonry brought back to its true origins'), in which he linked the origins of the brotherhood to the 'cult of Isis', which may explain why Lenoir, as Champollion himself had dryly noted, was highly regarded by Joséphine.

There is, too, Champollion's relationship with an Italian-Greek beauty from Livorno, Angelica Palli, with whom Champollion had fallen desperately in love during a research trip to Italy in 1826. Livorno, which is on the Mediterranean coast near Pisa, had been the principal port of the Medici of Florence who, as we saw in Chapter Eight, played a great part in the Hermetic Renaissance. Angelica Palli, a poetess and writer, was very conversant with Hermetic and Neo-Platonic literature. Her evocative name (literally 'angel of the temples'), must have

much stirred the fertile imagination of Champollion, who was to write of her to his friend, the Abbé Gazerra: ‘I thank the great Ammon-Ra for meeting her.’ She in return commented with delight on his ‘philosophy’ which she found to be imbued with ‘Egyptian doctrines, fertile source from which drew Plato and … Pythagoras.’[96]

Many years later Angelica Palli became an active supporter of the famous Italian revolutionary, Giuseppe Manzini, a staunch Freemason who was head of the Italian Supreme Council of the 33rd Degree. Manzini was a close friend and colleague of the popular hero, Giuseppe Garibaldi, who was to become the first Grand Master of the Egyptian Masonic Rite of Memphis-Misraim.[97] There was, too, a curious connection between the city of Livorna,

where Palli and Champollion had met, and a rather elusive Masonic society called the *Société Secrète Égyptienne*. It is thought that one of the founders of this society was Mathieu de Lesseps, father of the famous engineer, Ferdinand de Lesseps, who built the Suez Canal in Egypt.[98] The story goes that in 1818 the Austrian police raided a Masonic lodge in Venice. Amongst the confiscated documents was one revealing the existence of the secret society and implicating as one of its members no less a figure than Egypt's first modern ruler, Khedive Muhammad Ali.[99]

Mathieu de Lesseps was a staunch Bonapartist and also a keen adept of the Egyptian Rite of Freemasonry.[100] He was a very close friend of the khedive, and from 1803 to 1806 had been France's

commercial attaché in Egypt, after which he had served as French consul in the city of Livorna.[101] We shall encounter the de Lesseps family again in the next chapter in connection with the Statue of Liberty that stands in New York Harbor. Meanwhile, whether all this had any influence or bearing on Champollion whilst he was in Livorno is not clear, but it may explain his mindset as he began to plan there his first and only trip to Egypt ...

‘If you go to Thebes do send me a little obelisk ...’

In Chapter One we saw that three years before his

abdication in 1830, Charles X had commissioned the artist François-Édouard Picot to decorate the ceiling of his personal museum at the Louvre with an ancient Egyptian motif centred upon the goddess Isis.[102] The reader will recall that Picot had been a student of the radical revolutionary and Bonapartist Jacques-Louis David who, along with Robespierre, had masterminded the various celebrations in Paris of the goddess Reason and the Supreme Being and, more especially, the celebrations at the Bastille in August 1793 when a statue of Isis was displayed to the Parisian crowds. Bearing this in mind, the ‘Isis’ featuring on the large-format ceiling painting by Picot can be seen immediately to have been modelled on David's statue of ‘Isis of the Bastille’. Indeed the painting itself contains independent confirmation of

this connection – for seen flying above ‘Isis’, is the so-called *Genie of the Arts,* a naked youth with golden wings much resembling the Greek god Hermes. The ‘genie’ holds a torch in one hand in order to illuminate the landscape below for the benefit of the ‘goddess Athena’, at whose feet can be seen an owl, the symbol of wisdom acquired through initiation.

There is little doubt that the landscape beneath Isis in the painting is to be imagined not in Egypt but in Paris and, more precisely, at the Bastille – for the give-away is the ‘genie’ which, today, can actually be seen ‘flying’ over the Place de la Bastille. Where? It stands at the top of the huge pillar which was commissioned for the spot by the Citizen King Louis-Philippe I in 1830, three years after Picot completed the painting.

And there is one other point. In Picot's painting the

goddess Isis is gazing at a tall obelisk in the distance. Could this obelisk be the *actual obelisk from Luxor* raised at the Place de la Concorde by Louis-Philippe I? Is the Picot painting suggesting some sort of connection or link between the city of Paris and the city of Luxor?

In 1828, a few months after Picot had completed the painting for Charles X, the latter offered to sponsor Champollion to undertake a feasibility study for bringing an obelisk from Egypt to Paris. The obelisk in question had been donated to France by Khedive Muhammad Ali.[103] Charles X cultivated a keen interest in ancient Egypt and, in 1828, had just inaugurated the Egyptian antiquities museum in the south wing of the Louvre.

In July that year Champollion headed a small team

of scientists and artists, including the French archaeologist Charles Lenormant and the architect Antoine Bibent, and set sail from the port of Toulon towards Egypt. Champollion and his ‘Argonauts’ as he called his team, reached Alexandria on 18 August 1828 where, barely three decades earlier, Bonaparte had landed with his troops. Champollion was received by the French consul, Bernardino Drovetti, and a friendship quickly developed between the two.

Drovetti was from southern Italy, and since 1818 had also been the ‘Great Copt’ of the Egyptian Masonic lodges in Alexandria.[104] He had been appointed French consul in 1821, and had earlier served as assistant to Mathieu de Lesseps. And like de Lesseps before him, Drovetti had become a close friend of Khedive Muhammad Ali. This privileged

connection gave Drovetti a rather free hand in dealing with ancient Egyptian relics, and he soon amassed a huge personal fortune. His British counterpart and rival was Henry Salt, the British consul in Alexandria, who, along with Giovanni Battista Belzoni,[105] the flamboyant Italian Freemason and Egyptologist, also traded in antiquities which he sold to private collectors and to the British Museum.

Champollion was totally enchanted by Egypt. He was to write of this ancient civilization:

We in Europe are but Lilliputians, and no other ancient or modern people has developed the art of architecture on a scale so sublime, so huge, so grandiose as did the Egyptians ... I repeat yet again ... ancient Egypt taught the arts to Greece, the latter developed them into a more sublime form but without

Egypt, Greece would probably not have become the home of the arts.[106]

So fascinated was Champollion with Egypt that he even entertained the notion that he had been somehow physically connected to it since his birth: ‘It seems to me that I was born here’, he wrote to his brother whom he had nicknamed *Ammon,* ‘and the Europeans here think I look very much like a Copte’.[107]

During his 18-month visit to Egypt, Champollion manage to get an agreement with Muhammad Ali that he would take to Paris one of the two obelisks that stood outside the Temple of Luxor. The khedive would have been quite happy to let Champollion take both obelisks, but it seemed that one was all that the French engineers could cope with. The job of

bringing the ancient monolith to France proved to be no easy task. As it weighed an estimated 230 metric tons and was 23 meters tall, there was some question at first of slicing it into several manageable pieces, but Champollion would not have it, claiming that it would be a ‘sacrilege’.[108]

On his way back to France, Champollion made the acquaintance of a young naval engineer called Raymond de Verninac Saint-Maur who would later receive the command of the *Luxor,* the special ship that was built to carry the obelisk down the Nile and across the Mediterranean. Verninac worked under the authority of the French minister of the navy, the Baron of Haussez, who much disliked Champollion on account of a feud he had with him in Grenoble, when Haussez had been the chief of police there. Not

unexpectedly, Haussez pushed Champollion aside and took all the credit for securing the obelisk from the khedive of Egypt. Haussez was to write in his memoirs:

As soon as it was known in the learned world how I dreamt of enriching France with a monument that only Rome owned, I was put in charge to try and obtain two obelisks much more precious ... than those of Alexandria [which ended up in London and New York], and also much more difficult to transport by reason of their location at Luxor.[109]

The operation was to take six years and Haussez was not to see it through. Hardly a year after he had come to office as minister of the navy, he was sacked during the chaos that followed the July Revolution of 1830. The responsibility for the project then passed

to the distinguished Baron Taylor, the son of a naturalised Englishman. Taylor was a patron of the arts, and was himself an accomplished author. A friend of the geographer and archaeologist Jomard, Taylor had a keen interest in ancient Egypt and diligently took over where Haussez had left off. Supplied with letters of recommendation from the king, and a generous budget of 100,000 francs, he went to Egypt himself to meet the khedive and take charge of the shipping operation. Taylor quickly assigned the task of the engineering works to Jean-Baptiste Apollinaire Lebas, a stocky and rather short man whose small stature was to be the subject of much ridicule among the Egyptians, who could not believe that such a squat individual was given the mission of moving so tall an obelisk all the way to France.

It took from April to July 1831 for Lebas to get the purpose-built ship, the *Luxor,* from Toulon to Upper Egypt. It was summer, the heat at Luxor was insufferable – over 100 °F in the shade – and the whole affair was besieged by untold problems, including a terrible cholera epidemic. But at the end, Lebas proved to be the right man for the job. By October he had managed to have the obelisk lowered safely and in one piece to the sand. Two further months followed while it was dragged the few hundred meters to the shore of the Nile and finally hoisted onboard the *Luxor*. Then Lebas had to wait till July of the next year for the inundation of the Nile in order to be able to sail downstream to Alexandria. After a delay of three months at Alexandria, the *Luxor* finally crossed the Mediterranean and arrived at the French port of Toulon on 11 May 1833. From

there it was brought by river to Paris where it waited at the docks for three more years.

It was Louis-Philippe I who had personally long ago decided that the obelisk should be raised on the axis of Paris in the centre of the Place de la Concorde, immediately west of the Tuileries Garden between the Louvre and the Arc de Triomphe.[110] Now, at last, a date was set for raising the obelisk. On 25 October 1836, a crowd of 200,000 people gathered at the Place de la Concorde to witness the event – more than had assembled for the beheading of Louis XVI on the same spot 43 years earlier. Lebas personally supervised the difficult lifting operations which, to everybody's admiration and delight, went without any hitches. Amid cheers of jubilation and joy, Paris at long last had its very own solar talisman from ancient

Egypt adorning its skyline. France now could fittingly claim for its capital the name of the *Cité de la Lumière* (the ‘City of Light’) – or should we say the ‘City of the Sun’?

The beautiful obelisk standing in the Place de la Concorde was, and still is by virtue of its great antiquity, the oldest monument of Paris. It witnessed the story of Egypt from about 1500 BC and now in Paris it was to see the passing of the French monarchy and the creation of the Second Republic in 1848; the rise of the Second Empire under Napoleon III, the grandson of Napoleon Bonaparte, and its fall in 1871; the formation of the Third Republic under the ‘Masonic’ government of Léon Gambetta;[111] the First World War; and the Second World War; and finally, in 1958, the present Fifth Republic founded

by General Charles de Gaulle.

But it was not until 1984 that it would be joined in Paris by a modern structure evoking the Great Pyramid of Giza ...

Mitterrand's ‘Great Works’

In 1981 François Mitterrand, then president of France, launched the so-called *Grands Travaux*, the ‘Great Works’, which involved the construction of a series of impressive architectural projects to the glory and culture of France. In eight years would come the bicentennial of the 1789 Revolution, and huge celebrations were being planned by Mitterrand

who, with a zeal reminiscent of Louis XIV, wanted to furnish this event with great national monuments. Either intentionally or by coincidence the two monuments in which Mitterrand took great personal interest evoked ancient Egypt and the Masonic Supreme Being or ‘Great Architect of the Universe’. These choices earned Mitterrand titles like *Sphinx*, *Dieu* (‘God’) and *Roi Soleil* (‘Sun King’) in France's satirical press.

Although François Mitterrand was not a Freemason,[112] he was nonetheless extremely sympathetic to the lodges – so much so that many in France remain convinced to this day that he was a clandestine Mason. Much has been made in recent years of the fact that Guy Penne, one of Mitterrand's closest political advisers, was a member of the

Supreme Council of the *Grand Orient de France*.[113] There is also the scandal involving Mitterrand's son, Jean-Christophe, who, in 1982, joined the office of Penne and in 1986 took over Penne's job. Jean-Christophe was exposed by the French press for his embroilment in the so-called *Falcone Affair* involving shady arms deals in West Africa which also implicated some senior African politicians who were members of Masonic lodges.[114]

The two projects that most interested President Mitterrand were those that were to be readied for the bicentennial celebrations planned for July 1989. They involved the *Grand Louvre* project, which would ultimately feature a huge glass Pyramid, and the *Grande Arche de la Fraternité* project at La Défense on the extreme western end of the Champs-Élysées.

Under the personal directive of Mitterrand, two institutions, provided with special budgets set up under the Ministry of Finance, were created to administer these projects, one being the EPGL, *l'Établissement public du Grand Louvre* and the other being the EPAD, *l'Établissement public pour l'aménagement de la région de la Défense*. Two renowned architects were then personally selected by Mitterrand: Ieoh Ming Pei, the celebrated Chinese-born American architect, for the Louvre,[115] and Johan-Otto Von Spreckelsen, a Danish architect for the Grande Arche.[116]

President Mitterrand was so keen to have I. M. Pei for the Louvre that he decided to bypass the normal requirements for an international tender and simply offered him the design commission.[117] According to

Pei these were the circumstances:

In July 1981, Paul Guimard asked to meet with me at the French Embassy in London ... He told me that President Mitterrand wanted me to come to Paris ... Only the President, Paul Guimard and myself were present at this meeting which took place on December 11, 1981 ...[118]

Pei claimed that at this first meeting with Mitterrand there was no specific mention of the Louvre Pyramid, and the president only spoke of 'the importance of architecture in French national life.'[119] It was later, in 1983, that Mitterrand sent his advisor, Émile Biasini, to New York with instructions to contract I. M. Pei directly for this project.[120] When asked by a journalist why a pyramid was chosen for the Louvre which was a classical baroque design, Pei

replied:

Architecture is geometry – it's geometry. The Louvre is also geometry. It's slightly tilted, but it's geometry … The French opposed it at first, but never President Mitterrand. He never faltered in backing my idea …[121]

I. M. Pei insists that he borrowed the idea for a pyramid from ‘a garden trellis design of Le Nôtre, who laid out the vast gardens at Versailles for Louis XIV and also the gardens of the Tuilleries.’[122] Perhaps so. Yet the slope which Pei finally chose for his pyramid was 50.71°, only about a degree different from the slope of the Great Pyramid of Giza in Egypt. Was the similarity deliberate? We shall perhaps never know. But here is how Pei's senior architect, Yann Weymouth, replied when asked this question:

Working with models and perspectives we studied form and site. We shaped the central skylight, studying it from ground level in perspectives and models. With a perfect equilateral triangle as side, the 54.74° slope felt aggressive, but as the slope approached 45° the form ‘melted’. The 50.71° finally chosen is close to the slope of the Great Pyramid of Giza, so it is possible we were repeating studies made by the IVth Dynasty Egyptians.[123]

From the above statement it is clear that both Pei and Weymouth must in fact have studied the evolution of the fourth dynasty pyramids in Egypt with some care. According to Egyptologists the first true pyramids were those of Pharaohs Sneferu and, his celebrated son, Cheops (Khufu) – and it is a well-known fact that their three pyramids (two at Dahshur

plus the Great Pyramid at Giza) had slopes starting near 54° (South Pyramid at Dahshur), then changed to 45° (North Pyramid at Dahshur) and finally settled for 51.85° (Great Pyramid at Giza)!

Given the historical importance of the project, the location of the site and the fact that it was to be a symbol for the bicentennial of the Revolution, Pei must also have been aware that several pyramid projects had been proposed for Paris in the past – such as those of Étienne-Louis Boullée and Claude-Nicolas Ledoux, mentioned at the start of this chapter. He should also have known that during the reign of Louis XIV a pyramid to the glory of the Sun King had been proposed for the Cour Carrée of the Louvre by the architect François Dubois,[124] and also that a weird baroque pyramid with a statue of

Napoleon on its top had been designed by the architect Louis-Ernest L’heureux to stand precisely where Pei eventually placed his glass Pyramid.[125]

56. The Statue of Liberty.

57. A typical Masonic symbolic rendition of ‘Solomon's Temple’. Note the two pillars and the ‘pentagram’ in the centre.

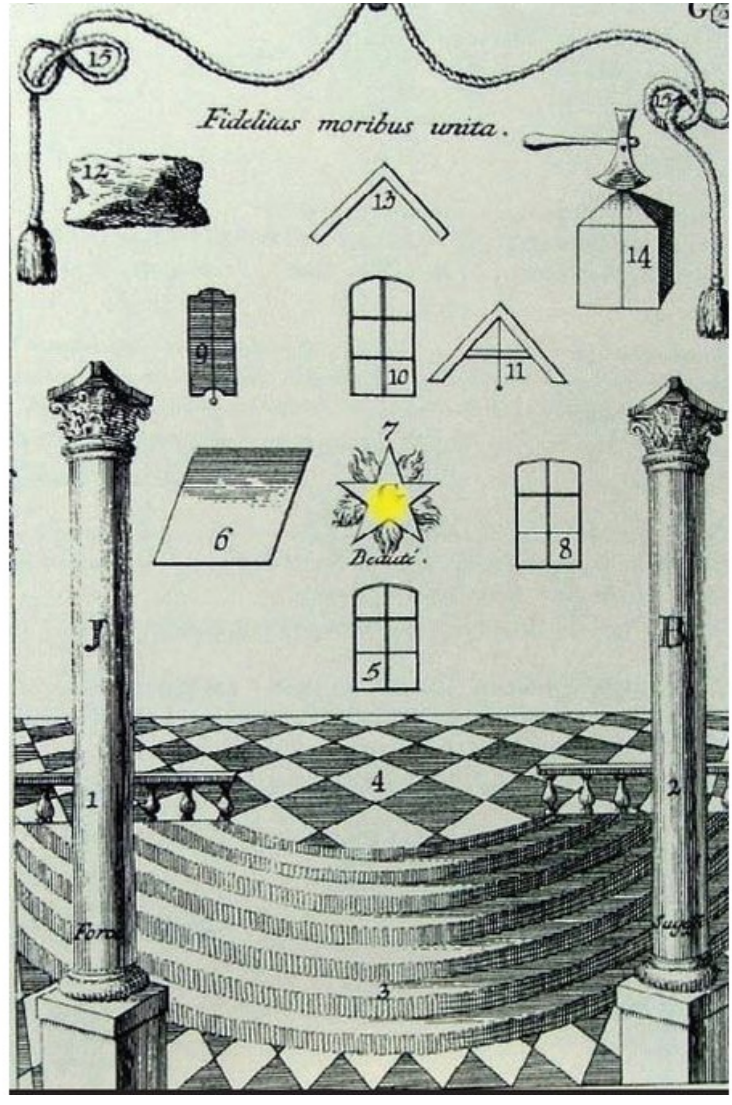
Fidelitas moribus unita.
15
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9
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Fort
Sage

58. The ‘Ohio Historical Marker’ showing the Masonic layout plan for Sandusky.

OHIO
HISTORICAL
MARKER
KILBOURNE PLAT
Hector Kilbourne, a Freemason and the surveyor who made the original plat of Sandusky (as Portland) in 1816, laid out the streets to form the Masonic emblem. Huron and Central Avenues are the arms of the compass. Elm and Poplar Streets the sides of the mason's square. The first Masonic Lodge in Sandusky was founded in 1819, with Kilbourne as Master.
THE 20 LODGES OF THE 10th DISTRICT
GRAND LODGE FREE AND ACCEPTED MASONS OF OHIO
CRAWFORD, ERIE, HURON, SENECA, AND WYANDOT COUNTIES
AND
1979
THE OHIO HISTORICAL SOCIETY
8-22

59. The original city plan of Sandusky, Ohio clearly showing the Masonic ‘square and compass’ emblem.

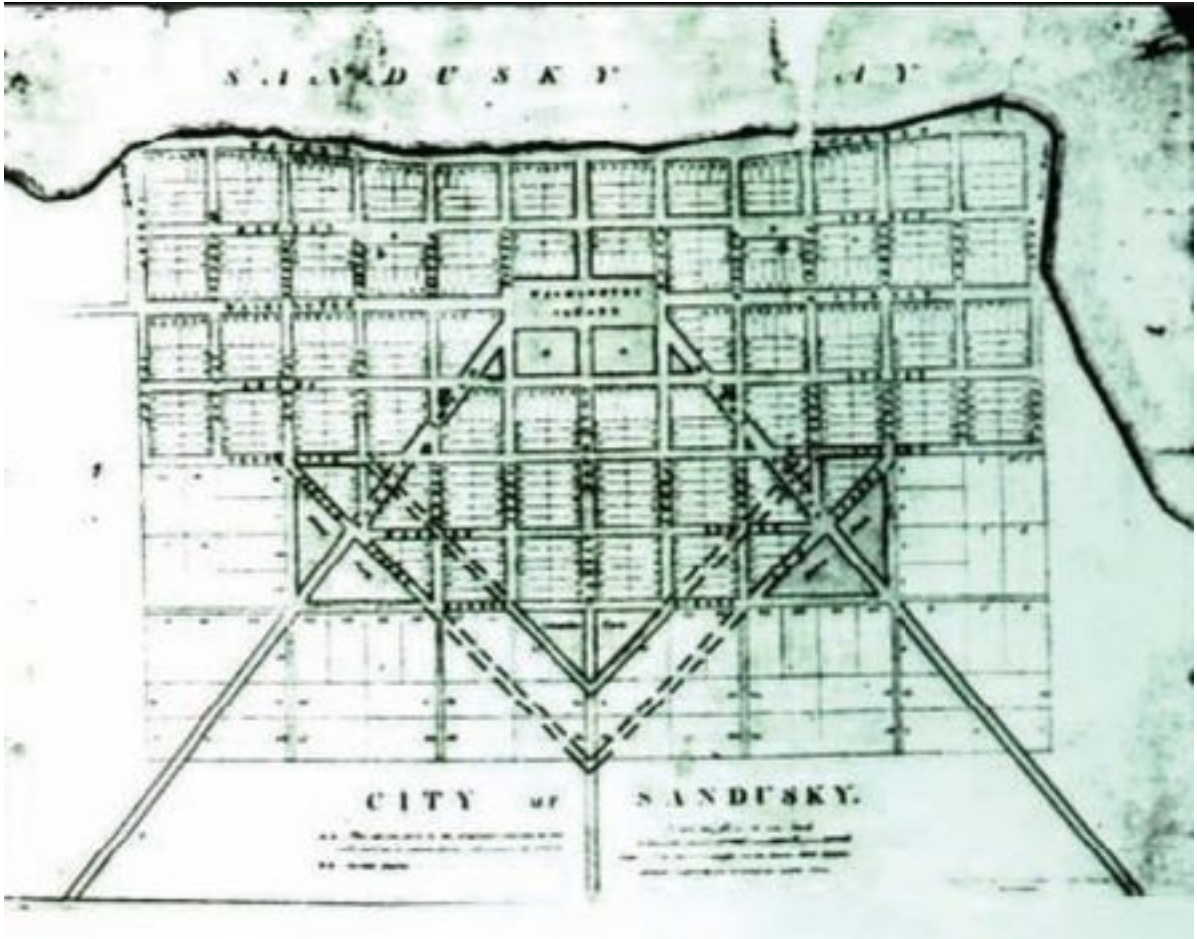
CITY of SANDUSKY.

60. Pierre L’Enfant's plan for the city of Washington, DC (1791).

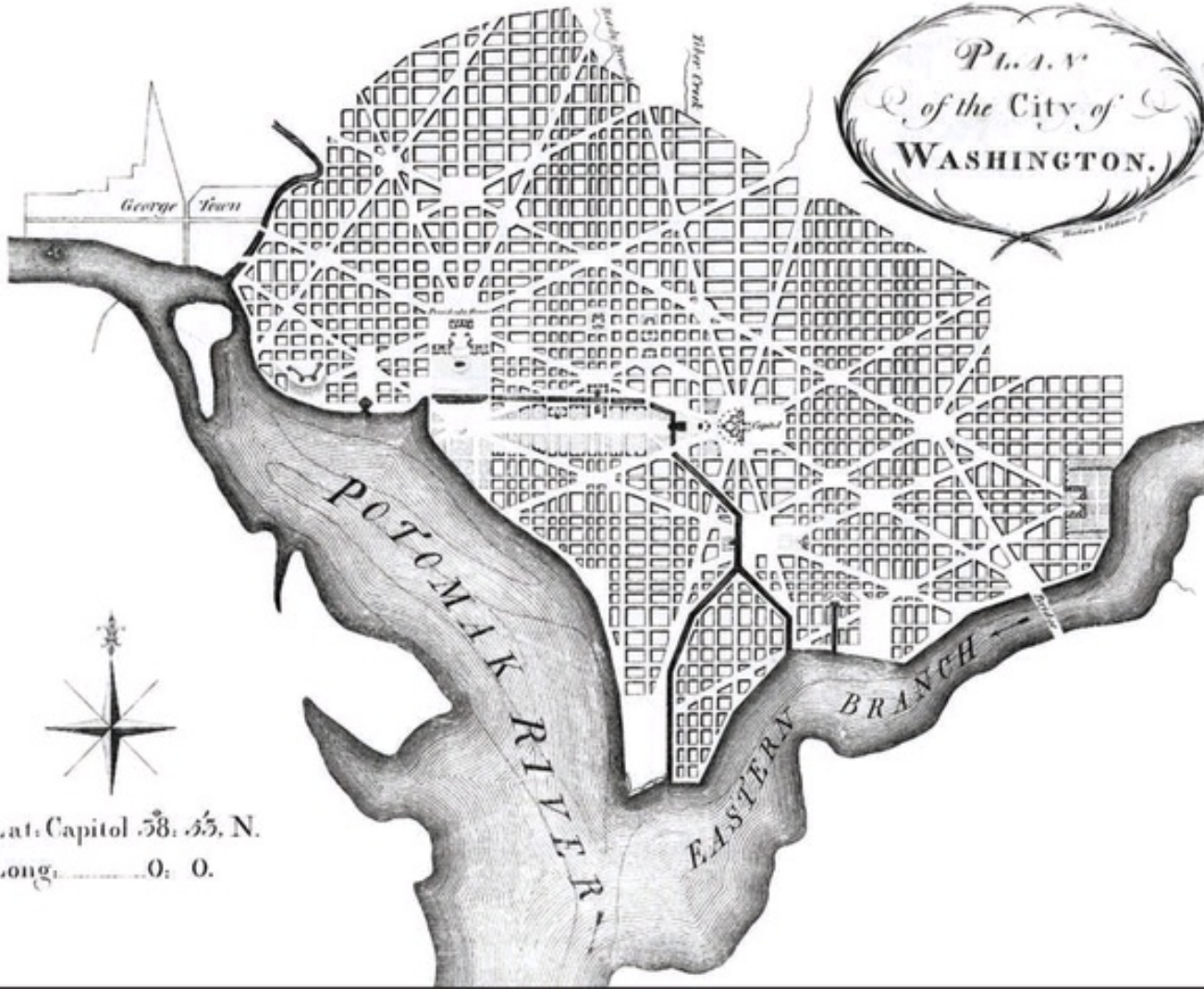
Plan
of the City of
WASHINGTON.
George Town
POTOMAK RIVER
EASTERN BRANCH
Lat: Capitol 38: 55. N.
Long: 0: 0.

61. The pentagon symbol of the 32nd degree of the Scottish Rite.

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S

62. The pentagon (at inner centre) of the 32nd degree showing the five ‘Masonic armies’.

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63. Aerial view of the Mall in Washington, DC.

THE McMILLAN PLAN : 1901 - THE MALL

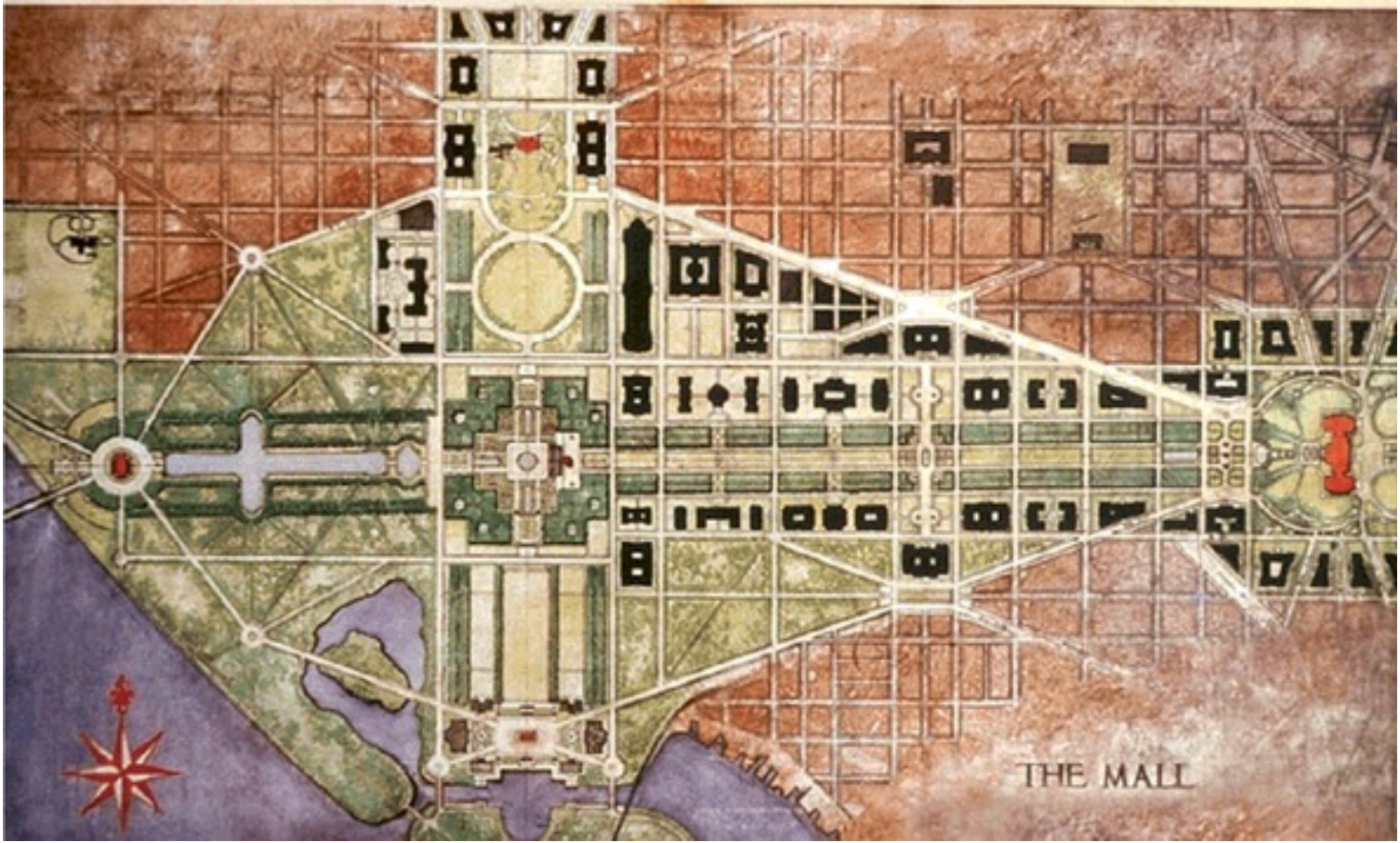

64. Overhead view of the Pentagon building near Washington, DC. Note alignment of the entrance with the Capitol.

65. The ‘Dome of the Rock’ mosque on Temple Mount in Jerusalem.

66. Truman's letter recognizing the legitimacy of the state of Israel on 14 May 1948, just 11 minutes after it was announced by Ben Gurion in Tel Aviv

Foreign Office,

November 2nd, 1917

Dear Lord Rothschild,

I have much pleasure in conveying to you, on behalf of His Majesty's Government, the following declaration of sympathy with Jewish Zionist aspirations which has been submitted to, and approved by, the Cabinet.

"His Majesty's Government view with favour the establishment in Palestine of a national home for the Jewish people, and will use their best endeavours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine, or the rights and political status enjoyed by Jews in any other country"

I should be grateful if you would bring this declaration to the knowledge of the Zionist Federation.

Yours sincerely

Arthur James Balfour

67. President Harry S. Truman in Masonic regalia.

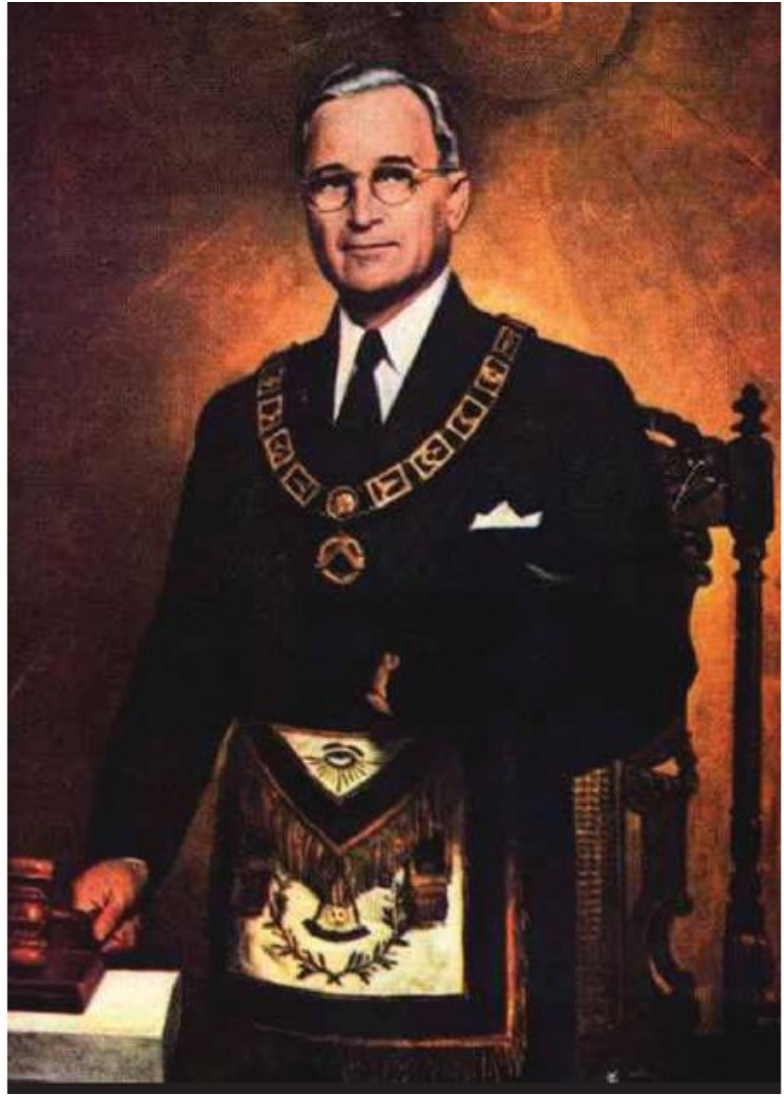

68. Truman's letter recognizing the legitimacy of the state of Israel on 14 May 1948, just 11 minutes after it was announced by Ben Gurion in Tel Aviv.

This Government has been informed that a Jewish state has been proclaimed in Palestine, and recognition has been requested by the provisional Government thereof.

The United States recognizes the provisional government as the de facto authority of the new ~~Jewish~~ State of ~~state.~~ Israel.

Harry Truman

Approved
May 14, 1948.

6.11

69. The Twin Towers of the World Trade Center in New York City.

70. Accusation of a Masonic-Zionist plot for the millennium celebrations at the Giza pyramids in the (now banned) newspaper *Sawt al-Shaab,* December 1999.

نظرت محكمة القضاء الإدارى محاكمة احتفالية فاروق حسنى - وزير الثقافة - واليهودى ميشيل جار. نظرت المحكمة دعوى التصدى للعبث بالآثار وانتهاك حرمة القيم والأيام المقدسة ليقام احتفال يخالف كل القيم والتقاليد ويدمر معه تراثنا وحضارتنا.

جاءت كتيبة الدفاع عن تراث الوطن فى الدعوى التى اقامها عبد الحليم رمضان -شيخ المحامين- كما حضر كبار العلماء يتصدرهم د.على رضوان، ود. نعمات احمد فؤاد، ود.ياسين زيدان، كما سبق ان شارك د.محمد عبد الهادى والعديد من المثقفين والمحامين.

على الجانب الآخر كان دفاع الوزير ومن استعانوا به يبحثون عن اى مخرج، لدرجة تمسكهم بكل قوة بالدفع بعدم وجود قرار إدارى من وزير الثقافة بالاحتفالية: وانهم الغوا الهريم وكفاية تراجع وإلغاء.. وانه سبق عمل أمور مشابهة بالمنطقة مثل المارينات والأوبرا ولم يلجأ العلماء لرفع قضايا: لينتهى دفاع الوزير بالاستعانة باستاذ ليبرز، والذى اكد انه لم ير الأجهزة وليس مسئولا عن تشغيلها اى انه «شاهد ما شافش حاجة».

محاكمة تاريخية لاحتفالية فاروق حسنى واليهودى ميشيل جار أمام مجلس الدولة

مفاجأة جديدة.. ضجيج الصوت يمكن أن يؤدى إلى تدمير الأحجار الأثرية وسبق ذلك فى كتف أبو الهول

71. A Masonic lodge in Cairo, Egypt, *circa* 1940.

72. The millennium celebration at the Giza pyramids, 31 December 1999.

73. The ‘sacred rock’ inside the Dome of the Rock mosque in Jerusalem.

74. The Knights Templar surrendering to Saladin after the Battle of Hattin.

75. The view along Pennsylvania Avenue towards the Capitol (Courtesy William Henry).

76. The rising of Sirius at Washington, DC.

E

77. The setting of Sirius at Washington, DC.

78. The Capitol (Courtesy Jason Weir)

79. The Washington Monument. (Courtesy Jason Weir).

80. DARPA’s Information Awareness Office logo (now abandoned).

81. The headquarters of the Scottish Rite in Washington, DC (Courtesy Jason Weir).

The *Grande Arche de la Fraternité* project, unlike Pei's, was the subject of an international tender, but the final decision was nonetheless taken by Mitterrand. Here is how the architect Von Spreckelsen described his design:

An open cube, a window open to the world ... with a gaze towards the future. It is a modern Arc de Triomphe, to the glory of the triumph of humanity; it is a symbol of hope that in the future people may meet freely ...[126]

The Grande Arche is indeed a nearly perfect cubical structure 110 meters tall by 112 meters deep with a base that is just over one hectare in area. It is estimated that the Cathedral of Notre Dame would fit quite well in the void of the arch. In the official guide it is described as a monument that ‘evokes the sense

of the sacred ... which compares to the Egyptian pyramids.'[127] On the rooftop the artist Jean-Pierre Raynaud created a zodiac to inspire 'a real dialogue with the celestial vault, which is the true natural architecture',[128] and one might add on his behalf that his design was a sort of 'as above so below' concept.

On the top floor of the Grande Arche is the headquarters of the *Fondation l'Arche de la Fraternité*, the 'Foundation of the Arch of the Brotherhood', which includes Claude Cheysson, a former minister of foreign affairs, as a past president. The foundation dates from the 1970s when it was established as a human rights organisation headed by Edgar Faure, formerly president of France in the 1950s. When in the early 1980s President Mitterrand began to make it known that he wanted the Grande

Arche monument to be a symbol of ‘Fraternity and Liberty’, Edgar Faure proposed to him that the foundation's headquarters in Paris should be moved to the Grande Arche building at La Défense.[129]

Mysteries of the axis

The *Grande Arche* project was completed on time for the bicentennial of the Revolution and was inaugurated with much fanfare by President Mitterrand on 14 July 1989. The final result is stunning. The Grande Arche can be seen from miles away, and, after the Eiffel Tower, it is unquestionably the most imposing landmark of Paris. Jean-Claude

Garcias, who wrote the text for the official guidebook of the Grande Arche, described it as *the* monument of the 1980s that inspires the collective mind with the 'instinct of immortality'.[130] Moreover Garcias saw the Grande Arche not as a project that came out fully formed 'from the brain of its architect', but rather as 'the end product to a long and sinuous urban axis which was begun in the 17th century and which', he says, 'can be schematised as follows':

Born in the open court of the Louvre, but deviated six degrees towards the north during the run through the Tuilleries, the great east-west axis of Paris has its origins in the avenue of trees planted by Le Nôtre at the beginning of the reign of Louis XIV, who opened the perspective towards the setting sun ... It was followed by the development of the present Place de

la Concorde under Louis XV, then the levelling of the slope on which today stands the Arc de Triomphe and the avenue of the Champs-Élysées. At the end of the Old Regime the engineer Perronet built the first stone bridge at Neuilly, taking the axis all the way to the hill of Chantecoq, our present area of La Défense …[131]

The Grande Arche, therefore, much appears to be the culmination an ongoing chain of ideas, an occult plan one might even venture to say, which began with the Sun King Louis XIV and ended with President François Mitterrand – who was jokingly referred to by the French as *Le Roi Soleil* because of the ambition of his *Grands Projets* scheme. Let us note in passing here that Mitterrand had also one more *Grand Projet* in store for La Défense: a

skyscraper 400 meters tall called *La Tour Sans Fin.* This monster of a building was designed by the architect Jean Nouvel,[132] and, unlike most skyscrapers, was to feature varying levels of transparency acting as 'sky filters', such that at the top it would become fully transparent and disappear into the clouds.[133] What was intended, here, was an allusion to the biblical 'Tower of Babel', a universal talisman of the first magnitude that is also a popular Freemasonic pictogram often held to be a symbol for the origins of the Craft.[134] The *Tour Sans Fin*, however, was eventually scrapped due to lack of funds and the immense impracticality of the idea.[135]

Unquestionably, the Grande Arche occupies the place of honour on the western extremity of the axis of Paris. It is the final 'sunset' of a great plan whose

‘sunrise’, as we have seen, was the ‘miraculous birth’ of the Sun King Louis XIV at the Louvre – but whose *first sunrise*, we suggest, took place long ago and far away in ancient Egypt. The Grande Arche thus becomes an integral part of a monumental array of talismans strung out along the axis of Paris, notably the Arc de Triomphe at the Place de l’Étoile and the Luxor Obelisk at the Place de la Concorde. The axis then enters the precinct of the Tuileries Garden to make it way to the Louvre. When the axis is traced eastwards towards the Louvre, the reader will recall from Chapter Seventeen that it passes first through the bronze equestrian statue of Louis XIV represented as ‘Alexander the Great’, placed to the south of Pei's glass Pyramid. East again and we find that the axis transects the south wing of the Louvre and then enters the private apartments of Anne of

Austria, Louis XIV's mother – the very place where the 'Capetian miracle' of Louis XIV's conception took place in December 1637.

Interestingly, the full effect of the ensemble of these 'Masonic' and 'Egyptian' monuments and, more specifically, of their alignments, was not to be unveiled on the bicentennial day of 14 July 1989, but exactly a year later when the French composer Jean Michel Jarre was commissioned to organise a special concert at the Place de la Grande Arche de la Défense for 14 July 1990. Why and how Jarre was chosen for this event is not clear, but it was to prove an amazing extravaganza of sound, light and fireworks the likes of which Paris had never seen before, not even during the Revolution when Jean-Jacques David and Robespierre had inaugurated the era of the Supreme Being near the Louvre.

Beginning at dusk on 14 July 1990, an estimated two million people filled the Champs-Élysées as if coming to attend some weird Hermetic Mass. On that strange night all the relevant monuments on the Historical Axis – Grande Arche, the Arc de Triomphe, the Luxor Obelisk and, of course, the Louvre Pyramid – were lit up as if to reveal a magical landscape for Paris.

The orchestra of Jean Michel Jarre, with the chorus wearing long, flowing white robes giving them a surreal appearance, were positioned at the foot of the Grande Arche inside a huge, makeshift metal-framed pyramid that was lit up with laser lights.

The lasers projected images onto the façades of adjacent skyscrapers. Many of these images were reminiscent of Hermetic-Masonic symbols, especially a set of large eyes projected on the sides of the

Pyramid.

Eight years later, in May 1998, Jarre would be commissioned to perform a similar show, this time involving the Great Pyramid of Giza itself. While the show took place at Giza, President Hosni Mubarak of Egypt and other officials of his government attended a special ceremony at the Place de la Concorde in Paris at which a golden capstone was placed on top of the Luxor Obelisk.[136] During this ceremony Egypt's minister of culture, Dr. Farouk Hosni, announced that a golden capstone would also be placed on top of the Great Pyramid of Giza at midnight on 31 December 1999 as a symbol for the new millennium. Weeks later Jarre was officially commissioned to organise that event.

Robert Bauval's Eureka afternoon (1)

On an afternoon in the early spring of 1992, Robert Bauval happened to be at the Louvre Museum bookshop and bought a copy of an archaeological journal containing a major pictorial on the city of Luxor. The journal was *Dossiers: Histoire et Archéologie*,[137] and the article in question was the work of a number of different authorities including Dr. Mohamad El-Saghir, director of antiquities at the Luxor Museum, and William J. Murnane and Lany D. Bell of the University of Chicago Epigraphic Survey.

Earlier that same day Bauval had also visited the Grande Arche at La Défense, and there, on the top

floor, was an exhibition room featuring a superb aerial photograph of the city of Paris showing the whole length of the Historical Axis from the Bastille in the east all the way to the district of La Défense in the west. The photograph was several feet long, and showed every detail clearly: the distinctive crab-shaped layout of the Louvre, the Tuilleries Garden (even individual trees were visible), the Place de la Concorde and the Luxor Obelisk, the Arc de Triomphe, all the skyscrapers at La Défense and, of course, the Grande Arche. A security officer was standing nearby, and with his permission Bauval videoed the impressive aerial view, then took section shots of it with his still camera. A scale model of the axis of Paris, showing the main monuments and buildings, was also part of the exhibition so Bauval photographed and filmed this as well.

Bauval then left the La Defence area and travelled underground by Metro directly to the Louvre. All the way he pondered on the aerial photograph and scale model of the axis of Paris, refreshing his memory of the details by reviewing the footage he had shot with his video camera. Seeing the city as a whole from the air in this way, and scaled down in a three-dimensional model, gave a very special perspective – a high vantage point from which the metropolis seemed to reveal itself like some giant jigsaw puzzle that had been put together over the centuries.

Though one could be forgiven for not noticing it at all at ground level, what particularly stood out in the aerial view was the curious way that the axis of Paris slightly changed direction as it emerged from the Louvre and headed west. It seemed, on face value, that this had been done to have the Tuilleries Garden

parallel to the course of the River Seine. But even so, it was clear that the axis could have been set true again as it emerged from the Tuilleries Garden into the Place de la Concorde. Here the Seine actually took a slight turn to the south, whereas the axis was turned slightly in the opposite direction towards the north.

This curious anomaly bothered the structural engineer in Robert Bauval. He wanted to think that the deviation of the axis of Paris had been due to a practical problem, but somehow this explanation did not quite suffice in so ambitious a scheme where careful, coordinated deliberation was the obvious keynote throughout. One could see that deliberation, for example in the distances between the principal symbolic monuments placed along the axis and in the relative sizes of the three ‘arches’. As the guide

books like to point out:

Curiously the distance between them doubles each time: 1 km from the Carrousel triumphal arch to the Concorde's Obelisk, 2 km from the Obelisk to the Arc de Triomphe at the top of the Champs-Élysées, and 4 km from there to the Grand Arche. Even more curiously, the size of the arches also doubles at each stage.[138]

So since everything else seemed to have been planned to produce a special symbolic effect wasn't it likely that the deviation of the axis was also part of the symbolic scheme?

Robert Bauval's Eureka afternoon

(2)

As Bauval stepped out of the Metro station at the Louvre he decided on impulse to take a stroll along the nearby parts of the axis of Paris before visiting the museum. The aerial view of the axis, and the problems that it raised, were still vivid in his mind.

He first walked to the Luxor Obelisk at the Place de la Concorde, and there, placing himself with his back to the west face of the Luxor Obelisk, looked directly up the Champs-Élysées and along the axis of Paris. It shot straight as an arrow westward, past the Arc de Triomphe and all the way to Grande Arche six kilometers away.

He next placed himself on the east side of the

Luxor Obelisk and looked back eastwards towards the Louvre. The axis shot straight along the centerline of the Tuilleries Garden and all the way to the Arc du Carrousel outside the Louvre's open court. But it was at this point that the troubling ‘deviation’ occurred for the eastwards extension of the axis did not merge, as one would have expected, with the central axis of the Louvre but instead crossed it and carried on along the Louvre's south wing.

Bauval now walked to the Arc du Carrousel, found the exact spot where the axis changed direction, and looked again east towards the Louvre. As he had thought, the axis of Paris did not extend through the glass Pyramid and the centerline of the Louvre, but instead ran to the right (south) of the Pyramid and neatly through the imposing bronze equestrian statue of Louis XIV in the style of Alexander the Great.

Beyond the statue Bauval could see that the axis intersected with the Louvre at the second window of the façade of the Pavillon Sully. The window, by luck, was open. So Bauval decided to go there, figuring that he would be able to get a good shot with his camera of the whole axis of Paris looking west.

To reach the window, Bauval had to go to the first floor of the Pavillon Sully and pass through a series of rooms in which where displayed works from the Louvre's extensive Greek and Egyptian collections. On the ceiling of one of these rooms – number 30 on the guide map – was the mysterious painting by Picot that we described in Chapter One. Bauval had seen this painting before, of course, and remembered the curious scene of the Hermeslike ‘Genie of Paris’ witnessing the ‘unveiling of Isis’ to reveal an obelisk and pyramids in the distance. Now, with the Luxor

Obelisk and Louvre Pyramid fresh in his memory, he could not help noticing how the obelisk and the pyramids in Picot's painting also appeared to be aligned in a perspective towards the distant horizon, just like those on the axis of Paris.

Realising that he was standing not far from where the axis of Paris crossed the Louvre, Bauval was startled by this strange coincidence but shrugged off the thought and made his way to the open window. From there, as he had hoped, he had a spectacular view westward along the axis of Paris, past the Luxor Obelisk, past the Arc de Triomphe and all the way to the distant Grande Arche. Now that he was attuned to it, the deviation of the axis was also quite unmissable. Bauval snapped a few photographs then made his way to the bookshop in the lower floor of the museum where, as noted earlier, he purchased an

archaeological journal containing a detailed pictorial of the city of Luxor in Upper Egypt.

Robert Bauval's Eureka afternoon (3)

After browsing in the bookshop Bauval left the Louvre by the exit under the glass Pyramid. Outside in the courtyard, in bright sunshine, he found a seat and began to leaf through the pages of the journal he had just bought, *Dossiers: Histoire et Archéologie*. One of its double-page spreads featured a superb colour photograph of the Luxor temple from the air. The photograph was taken looking west towards the

Nile with the temple sprawling from left to right (i.e. from south to north), and thus parallel to the course of the Nile. A single obelisk stood conspicuously in front of the temple's entrance on the north side. Next to it Bauval could clearly make out the empty plinth where once had stood the second obelisk that was now in Paris – and, weirdly, within his sight from where he now sat! How strange to think that these two distant points on the earth's surface, one in front of the Luxor temple in Thebes and the other in front of the Louvre Palace in Paris, had been brought together, as it were, by this ancient pair of solar talismans.

Bauval looked more closely at the photograph. Seen from this high altitude, it was funny how the crab-shaped outline of the Luxor temple and the way it was positioned along the River Nile, could easily be

mistaken for the Louvre's same crab-like shape and the way that it, too, was positioned along the River Seine. With a mounting sense of excitement Bauval turned the pages of the journal and quickly found what he hoped it would contain – a second aerial photograph taken from much higher up that showed the whole layout of the city of Luxor, from the Temple of Luxor in the south to the Temple of Karnak in the north.

Now this was really strange!

Although he knew that he was looking at an aerial photograph of Karnak-Luxor, Bauval was overtaken by a powerful sense of visual *déjà vue*. He had seen the very same ‘image’ with the very same features just a short while before, but not in a photograph of Luxor. He played back the video film he had just taken at the Grande Arche – the video film of the

aerial-view of Paris. Looking at it, and then again at the aerial photograph of Luxor in the archaeological journal, it was obvious that there were remarkable similarities between the layout of Paris from the Louvre to La Défense and the layout of the sacred Egyptian city from the Luxor Temple to Karnak!

The positioning and provenance of the obelisks were part of the puzzle. But even more stunning was the way that the axis of Paris and the axis of Luxor both *changed direction* at roughly the same place as they headed one towards La Défense, and the other towards Karnak. Bauval knew, however, that in Egypt, the Nile ran from south-north and that the Luxor temple faced north; whereas in Paris the Seine was directed east to west and the Louvre 'temple' faced west. Champollion and Lebas would have been acutely aware of these orientations. If they had really

been participants in some mysterious game of symbolism, therefore, then surely they would have taken them into account?

An observation by the historian Jean Vidal in a Paris guidebook helpfully settled the matter:

Let us note … that in the position that it occupies at the Place de la Concorde, the four sides of the obelisk have changed orientation: the north side at Luxor is today turned to the west and directed towards the Champs-Élysées.[139]

Gazing back and forth from the aerial view of Paris to the aerial view of Luxor, it was as if both images had a will of their own, wanting to merge with one another. Bauval looked up and towards the distant Luxor Obelisk at the Place de la Concorde. It was as though a veil was slowly being lifted from the city of

Paris just like the veil so tantalisingly lifted in Picot's painting ...

Architecture fulfilling prophecy

Remember how the Hermetic philosopher Tommaso Campanella predicted in 1638 that Paris would become an ‘Egyptian’ City of the Sun? Now Bauval had found what looked like an unmistakable architectural correlation between Paris and a ‘City of the Sun’ in Egypt – i.e. Thebes-Luxor. It was all very weird and yet at the same time strangely logical.

He imagined himself like the genie in Picot's painting, hovering over the Place de la Bastille to

witness the unveiling of an Egyptian landscape. It was a secret landscape that had been slowly prepared and hidden in plain view in the streets of Paris. This had called for a *purposeful* multi-generational building and city-planning project that began when Le Nôtre first deviated the axis of the Tuileries Garden to 26° north-of-west in 1665 and was only completed in 1989 more than 300 years later.

Was it a conspiracy, or just a conspiracy theory? Were the similarities of the axis of Paris and the axis of Luxor just coincidences or something else?

What made it seem more likely to be 'something else', and indeed some sort of conspiracy, was the whole mysterious connection that had linked ancient Egypt and particularly the goddess Isis to the city of Paris for centuries. Nor – weird though it admittedly

seemed – was it easy to set aside the matter of Campanella's prophecy, made at the birth of the ‘solar-king’ Louis XIV, that Paris was to become a ‘City of the Sun’ modelled on the golden age of ancient Egypt.

It was then that something else suddenly hit Bauval. At about the same time that the French Republicans were planning monumental urban projects to refurbish the city of Paris between 1789 and 1794, there was another group of ‘brothers’ and republicans planning to design a city from scratch on the other side of the Atlantic.

And there, too, strange geometrical layouts and alignments evoking Hermetic and Masonic ideas came to the surface ...

The extraordinary truth is that the very existence of the Washington Monument [an obelisk] *is intimately linked with the Egyptian star Sirius ... How is it that the most important star of the ancient world should find itself, as it were, resurrected in the architecture of the United States*?

David Ovason, The Secret Zodiacs of Washington DC

If, as Thomas Jeferson argued,

the Capitol represents 'the first temple dedicated to the sovereignty of the people', then the [Masonic] *brothers of the 1793 ceremony served as its first high-priests.*

Steven C. Bullock, Revolutionary Brotherhood

Washington DC can fairly be described as the world's foremost 'Masonic City.' Its centre was laid out according to a plan drawn up by the French Freemason Pierre L'Enfant.

Freemasonry Today, Issue 16

CHAPTER NINETEEN

THE CORNERSTONE

If a monument or a building – or even, as we now can see, a whole city – can become like a living heart, a talisman charged with powerful ideologies and meaning, then the ‘pacemaker’ of such a talisman must be its *cornerstone*.

In ancient times, and in many different cultures, the dedication ceremony for a new temple or stately monument often called for elaborate rituals

performed by the ruler. During such ceremonies the objective was to call upon a god or goddess to cast his or her benevolent and protective powers on the building – or even to beseech the deity to descend from the heavenly world and reside within the temple. A crucial element was the placing of a permanent marker to commemorate the ceremony, generally in the form of the ‘first stone’ or ‘cornerstone’.

In medieval Europe, in direct continuation of such ancient ideas, the laying of the cornerstone for a church or cathedral was understood to symbolise the ‘raising of the building into the light of day, into consciousness or towards the heavens.’[1] In this respect it was vital that the most propitious moment be selected when participants could be assured that

the influences of the stellar and planetary deities were at their very best. To that end a ‘horoscope’ was cast.

To modern Freemasons the cornerstone ceremony remains one of paramount importance. It serves not only as a link to their ‘operative’ ancestors who built temples and cathedrals, but also as a potent symbol of renewal and ‘rebirth’. It expresses itself with particular force in the Masonic aspiration (whether taken literally or metaphorically) to ‘rebuild Solomon's Temple’ in Jerusalem and to lay its cornerstone. Indeed, for Masons and non-Masons alike, there are few other talismans that can evoke so much fervour – benevolent *or* destructive. Think of the Crusades, the 1967 Arab-Israeli War, the on-going Palestinian *intifada,* and you begin to feel the energy that this talisman is capable of unleashing.

The finding and re-placing of the cornerstone of a renewed Temple of Solomon would set off an intellectual and spiritual explosion that would have huge ramifications for the Middle East and for the world.

In many ancient buildings we find that the cornerstone was embedded into the wall of a crypt or basement that had been carefully prepared prior to the ceremony. According to Masonic author David Ovason:

Symbolically speaking, the crypt is the burial place. It is the earth into which the seed of wheat must be dropped, to grow and resurrect, emerging as a sprouting plant from the coffin. In Masonry, the crypt is the burial place of the Master Mason, under the Holy of Holies ... This idea of rebirth is continued even in modern times in the formal ritual of the

Freemasonic cornerstone ceremonials, in which participants in the ritual scatter wheat upon the floor, and sometimes even link this seeding with the stars.[2]

It is known that from the earliest days of their civilisation the ancient Egyptians performed a ‘stellar’ ritual – a form of ‘astral magic’ – during the cornerstone ceremonies for their pyramids and temples. This ritual involved reference to the circumpolar stars in the northern sky, and, in the southern sky, to the stars of Orion and, more especially, the star Sirius.[3] In Ovason's view ‘it was this promise of stellar immutability which first led the ancient Egyptian priests, and their pupils, the Greek architects, to orientate their temples to the stars’. The very same promise, says Ovason, leads Masonic

architects to ensure that their buildings and city plans are ‘also laid out with a geometry which reflect[s] the wisdom of the stellar lore.’[4]

The ‘Raising’ of Washington

On 18 September 1793, a little more than a month after the ‘Isis’ ceremony was held at the Place de la Bastille in Paris,[5] another ceremony laden heavily with specific symbolic referents took place on a high point known as Jenkins Hill on the other side of the Atlantic. At the climax of this ceremony, America's first president, George Washington, wearing a Masonic apron which had been presented to him by

the Marquis de Lafayette, laid the cornerstone of the US Capitol in the presence of a congregation of high-ranking Freemasons.[6]

Surveyor, farmer, and Episcopalian, George Washington was born at Pope's Creek in Virginia. He grew up near the town of Fredericksburg on his father's plantation. As a young man he studied mathematics and surveying, and eventually joined the Virginia militia where he excelled. In 1775, at the age of 43, he was elected by the Continental Congress to serve as commander-in-chief of the Revolutionary army to fight the British. After the War of Independence was over, Washington retired from the army, and in 1789 the state of Virginia sent him to the Constitutional Convention where he was unanimously elected as president of the United

States. He was re-elected without opposition in 1792, refused a third term in 1796 and died at Mount Vernon in 1799 from laryngitis at the age of 67.

George Washington became a Freemason in 1752 in Fredericksburg, and was ‘raised’ as a Master Mason the following year.[7] In 1777, when the Freemasons in the American colonies sought to form a ‘United’ Grand Lodge independent from England, they offered the position of Grand Master to Washington, but he modestly declined, saying that he was not qualified for this high office. In 1788, however, he did become Master of the Alexandria lodge, today known as the Alexandria-Washington Lodge No. 22, situated on the south side of the Potomac River near the city of Washington, DC. Since 1932 this famous lodge has been engulfed within a

huge Masonic monument built around it. The monument is modelled on the ancient Lighthouse of Alexandria in Egypt,[8] the *Pharos,* and bears the official name of the George Washington Masonic National Monument.[9] According to Harvey Wiley Corbett of the New York firm Helmle & Corbett who designed this monument:

... the *Pharos* was erected to guide the ancient mariners safely to shore; what would be more appropriate than a facsimile of that Lighthouse in Alexandria, Virginia on top of the highest hill and overlooking the Potomac River?[10]

Isis of the Suez Canal

Both H. W. Corbett and Louis A. Watres – the latter representing the ‘client’ – were themselves Freemasons, and as such would have known that the ancient *Pharos* of Alexandria had been dedicated to Isis and also to her star, Sothis-Sirius. Nor was this the only time that Freemasons would evoke Isis and her star in a landmark monument in the United States. According to Bernard Weisberger, Isis was also in the mind of the designer of the Statue of Liberty that now stands in New York Harbor:

The sculptor who made the great statue was Italian. His name was Auguste Bartholdi. His work was greatly influenced by the ancient sculptor Phidias who made gigantic statues of the ancient goddesses, particularly Athena, the ‘goddess of wisdom’ and Nemesis, a goddess who held a cup in her right hand. Before beginning the Statue of Liberty project,

Bartholdi was seeking a commission to construct a giant statue of the goddess ‘Isis’, the Egyptian Queen of Heaven, to overlook the Suez Canal. The statue of Isis was to be of ‘a robed woman holding aloft a torch’.[11]

Frédéric Auguste Bartholdi was born in France, at the city of Colmar in Alsace. He had studied in Paris at the prestigious *Lycée Louis-le-Grand*, and, in 1855, when he was only 21, he embarked on a voyage to Egypt with three friends, the orientalists Léon Gerôme, Léon-Auguste-Adolphe Belly and Narcisse Berchère. There, while visiting the ancient temples of Thebes and Abu Simbel, Bartholdi became enchanted by the gigantic works of the ancient Egyptian sculptors. He spent eight months documenting the Colossi of Memnon and returned to France with

numerous sketches and photographs.

It was during that first voyage to Egypt that Bartholdi met the celebrated French engineer Ferdinand de Lesseps, and thus began a friendship between the pair that was to last a lifetime. De Lesseps was negotiating funding with the authorities in France and Egypt for the construction of the Suez Canal to join the Mediterranean Sea with the Red Sea. Bartholdi was deeply impressed with de Lesseps's vision and began to think how he might complement it by creating a gigantic statue of a goddess holding a torch. Bartholdi imagined this statue positioned at the entrance to the canal and representing ‘Egypt Enlightening the East’ – a name, as most French Freemasons knew in those days, which was strangely reminiscent of Cagliostro's famous saying that ‘All Enlightenment comes from

the East, all initiation from Egypt'.[12]

Khedive Isma'il of Egypt, another Freemason, was much enamoured with the beautiful French Empress Eugénie, wife of Napoleon III, and indeed with all things French. Eugénie was a cousin of Ferdinand de Lesseps, and it was she who put in a good word to the khedive to look favourably on the Suez Canal project. We saw in Chapter Eighteen that de Lesseps's father, Mathieu, together with Muhammad Ali, Isma'il's grandfather, had founded the *Société Secrète Égyptienne* which practiced a form of Scottish Rite Freemasonry merged with Cagliostro's Egyptian Rite.[13]

It seems that Bartholdi did manage to discuss his idea of a giant statue for the Suez Canal with Khedive Isma'il, but nothing came of it, probably because of

the financial crisis that had then struck Egypt due to overborrowing from European bankers. But, Bartholdi was not disheartened in the least and took his project elsewhere.

Isis of New York, a Talisman to ‘Liberty’

The idea of a similar monument to commemorate the friendship between France and the United States for the 100th anniversary of the Declaration of Independence was first discussed by Bartholdi and others at the home, near Paris, of Édouard René de Laboulaye, an authority on North American culture.

It seems that Bartholdi simply ‘converted’ his original project for Egypt and proposed it instead as a ‘Statue of Liberty enlightening the world’ for New York. To this end the so-called *Union Franco-Américaine* (Franco-American Union) was established in 1875 to raise the necessary funds.

Not unexpectedly, several members of the Franco-American Union turn out to have been Freemasons, including Bartholdi's own cousin, who was the French ambassador to the United States. Other Freemasons also actively involved were Henri Martin, the Count of Tocqueville and Oscar de Lafayette. Bartholdi himself had been initiated into Freemasonry in 1875 at the Paris lodge *Alsace-Lorraine*, and was raised as a Master Mason in 1880.

Although Bartholdi was to be the designer of the Statue of Liberty, the actual task of building it fell on

Alexandre Gustave Eiffel, the celebrated French structural engineer who would also design and build the Eiffel Tower in Paris. Eiffel, too, was a Freemason – so let us note in passing that the first two levels of his famous steel tower, according to French engineer Jean Kerisel, are shaped like a pyramid.[14] Eiffel would certainly have been aware that about a century before, in 1792, a pyramid had been erected on the very same spot on the Champs de Mars in Paris to commemorate the French Revolution.[15]

Here's what the *Reader's Companion to American History* has to say about the inspiration behind the Statue of Liberty:

Sculptor Frédéric Auguste Bartholdi combined elements of the Egyptian pyramids he admired with his mother's face to serve as a model for the statue,

which he finished early in 1884.[16]

There has been much dispute about whether the face of the Statue of Liberty was modelled on that of Bartholdi's own mother, and the matter, though trivial, has not been settled. What is more certain is that the statue was linked to the ‘cult of Liberty’ or the ‘Cult of Reason’ of the French Revolution, both of which, in the minds of Republicans, were intimately connected to Masonic ideals. It is certain, too, as we saw in Chapter One, that figures representing ‘Liberty’ and ‘Reason’ were often modelled on the Egyptian goddess Isis or her Greek and Roman counterparts.

Interestingly, according to French Egyptologist Bernard Mathieu, Bartholdi used to refer to the Statue of Liberty as the ‘Pharos’ before it was raised

in New York, and he even designed a base for the statue just like the one believed to have been used for the ancient *Pharos* of Alexandria.[17] Bartholdi, who had spent much time in Egypt and had studied the origins of this ancient 'wonder of the world', would certainly have known the association of the *Pharos* with the goddess Isis – and, by extension, her star, Sirius – that we explored in Chapter Ten. In this respect, it seems highly likely that his giant statue of 'a robed woman holding aloft a torch' to serve as a sort of lighthouse for the Suez Canal and, later, for New York Harbor, may well have been imagined by him as Isis-Pharia and the Lighthouse of Alexandria.

Garibaldi, 'Hero of the Two

Worlds’

There is, too, an aspect of Bartholdi's life that is rarely considered in this context but which, we think, had a bearing on his state of mind when he designed the statue.

Bartholdi was a close friend of the Italian revolutionary hero, Giuseppe Garibaldi, the leading military man behind the Italian Unification known as the *Risorgimento*. Along with the politicians Camillo Benso, the Count of Cavour, and Giuseppe Mazzini. Garibaldi is regarded as one of the founding fathers of modern Italy. It was said that Cavour was the ‘intelligence’ behind the *Risorgimento* and Mazzini its ‘spiritual drive’. Garibaldi was the ‘fighting force’

that was essential to bring it to fruition. His famous quip, ‘Give me the ready hand rather than ready tongue’, encapsulates the spirit of this remarkable man. Not surprisingly, we find that for his heroic deeds in Italy and also in the revolutions in South America, Garibaldi – like the Marquis de Lafayette before him – earned the title ‘Hero of Two Worlds.’

Garibaldi was born in Nice and served as a sailor in the merchant navy for many years. In 1833 while in Marseilles he met the great Italian patriot Giuseppe Mazzini who recruited him into the so-called *La Giovane Italia* (‘Young Italy’), that spearheaded the Italian National Movement. The charismatic Mazzini was to have a deep and lasting impact on Garibaldi who, throughout his life, often referred to him as his ‘Master.’ Freemasonry was particularly active in the

liberation movement,[18] and Giuseppe Mazzini, who was often called the ‘apostle of the Italian Republic’, was a staunch Freemason. He was elevated as a 33rd degree Mason of the Scottish Rite by the Grand Orient of Palermo in 1864.[19]

Garibaldi himself was initiated into the *Carbonari* secret society in 1833,[20] and then into regular Freemasonry in 1844. In 1862 he was made a 33rd degree Mason in Palermo, and in 1864 was elected in Florence as the Grand Master of all Italian Freemasonry. In 1870, when the Prussians put Paris under siege, Garibaldi, ever the hero, rushed to the rescue with a contingent of Italian volunteers to defend the newly declared Third Republic of France headed by France's first president, the Freemason Léon Gambetta.[21] For his military successes against

the Prussians, Gambetta, invited Garibaldi to become a member of the National Assembly in Paris. In 1880 Garibaldi joined the ‘Egyptian’ Rite of Memphis and, a year later, he was appointed as the first General Grand Master of a ‘united’ Masonic order, the Ancient and Primitive Rite of Memphis-Misraïm.[22]

An ‘admirable spot’ for a global talisman

It was in France, during the military campaign of 1870, that Garibaldi was introduced to the sculptor Bartholdi, who was then a major in the French army. Bartholdi served for a while as Garibaldi's personal

aide-decamp , but a few months later went to America proposing ‘to glorify the Republic and Liberty over there.’ He arrived in New York in July 1871. Upon entering New York Harbor, he knew immediately where his gigantic statue of ‘Liberty’ should one day stand:

The picture that is presented to the view when one arrives in New York is marvellous ... When one awakes, so to speak, in the midst of that interior sea covered with vessels ... it is thrilling. It is, indeed, the New World ... I’ve found an admirable spot. It is Bedloe's Island, in the middle of the bay ... just opposite the Narrows, which are, so to speak, the gateway to America.[23]

In the US Bartholdi made good use of the letters of introduction he had been given by high-ranking

French Freemasons. He met with many notables and veterans of the Civil War, including Henry Wadsworth Longfellow, Horace Greeley, Senator Charles Sumner, and President Ulysses S. Grant. To each in turn he talked up his big idea while showing them drawings and a model of the statue which he now called ‘Liberty Enlightening the World’.

The project, of course, was a success, and created the powerful global talisman that now stands in New York Harbor. Meanwhile the very intense Masonic involvement in the whole affair was made lucidly evident on 5 August 1984 when a bronze plaque was affixed to the pedestal of the statue. The plaque reads as follows:

At this site on August 5th, 1884, the cornerstone of the pedestal of the statue of ‘Liberty Enlightening the World’ was laid with ceremony by William A. Brodie,

Grand Master of Masons in the State of New York. Grand Lodge Members, Representatives of the United States and French Governments, Army and Navy officers, members of Foreign legations, and distinguished citizens were present. This plaque is dedicated by the Masons of New York in commemoration of the 100th Anniversary of that historic event.

M. W. Calvin O. Bond, Grand Master of Masons
P. W. Robert G. Singer, Deputy Grand Master
M. W. Arthur Markwich, Masonic Anniversary Chairman

August 5, 1984 [24]

At the original ceremony on 5 August 1884 Grand Master William Brodie was asked why the Masonic fraternity had been called upon to lay the cornerstone of the Statue of Liberty. He replied:

No other organisation has ever done more to promote liberty and to liberate men from the chains of ignorance and tyranny than Freemasonry.[25]

One could say the same down the ages of the Gnostics and the Hermeticists in their original Alexandrian context in Egypt and later in their Cathar and Renaissance incarnations of the Middle Ages. All along the object of these subversive religions, whether taught by Valentinus or Mani, Bruno or Campanella, has indeed been to liberate mankind ‘from the chains of ignorance and tyranny’.

A short diversion: In God We Trust

We tend to forget, or not fully appreciate, the quasi-religious fervour of the Founding Fathers of the United States of America, acting as if they were inspired, indeed directly *guided*, by ‘Divine Providence’. Through the whole sequence of events that led to the War of Independence and the signing of the Constitution there was a clear understanding among the main protagonists, especially George Washington and Benjamin Franklin, that they were working under ‘Divine Providence’ and that the creation of the new nation was to be under the ‘patronage’ of God. More specifically, they saw ‘America’ as part of a ‘Divine Plan’ for mankind.

The question, therefore, that needs to be asked – nay, begs to be asked – is *which* 'God' did the Founding Fathers have in mind? Because there has to be a very strong possibility that the god whose patronage they felt themselves to be under was not the Christian deity in any conventional sense, but rather the 'Grand Architect of the Universe' – that uniquely 'Masonic God' represented by the letter 'G' on the Masonic aprons of Washington, Franklin and others who played such a crucial role on the creation of the United States.

The notion that the American Republic and its people were under the direct protection and guidance of heaven is immediately apparent in the Great Seal of the United States – featuring the famous symbol of the pyramid with the 'Eye of Providence' set in the capstone hovering above it.

Variants of this striking symbol have been used to invoke the presence of the Almighty since at least the time of the ancient Egyptians – for whom it was the eye of the sun-god watching over mankind. The motto on the Great Seal, *Annuit Cœptis*, 'He [God] favoured our undertakings', should be enough to confirm this point.

There are, too, the various inspirational speeches made by Washington, Franklin and other Founding Fathers which leave no doubt that they believed they were fulfilling God's Plan in the creation of the Republic and the drafting of the Constitution. For example, when the Constitutional Convention could not reach consensus on the draft, Franklin made an impassioned plea for divine help:

God governs in the affairs of men. If a sparrow cannot fall to ground without His notice, is it

probable that an empire can rise without His aid? I … believe this and also that without His concurring aid, we shall succeed in this political building no better than the builders of Babel … I therefore beg leave to move, that henceforth prayers imploring the assistance of Heaven and its Blessings on our deliberations be held in this Assembly every morning before we proceed to business.[26]

On 3 October 1789, just a few months after the French populace stormed the Bastille and set in motion the creation of the First Republic on European soil, George Washington issued a proclamation to ‘assign Thursday the 26th Day of November next to be devoted by the People of these States to the service of that great and glorious Being …’

... that we may then all unite in rendering unto Him our sincere and humble thanks for his kind care and protection of the People of this country ... to enable us all, whether in public or private sanctions ... to promote the knowledge and practice of true religion and virtue, and the increase of science among them and Us, and generally to grant unto all Mankind such a degree of temporal prosperity as He alone knows best.[27]

The day of 'rendering unto Him our sincere and humble thanks' became, of course, Thanksgiving Day which, since 1863, has been a national holiday celebrated by Americans each November on the fourth Thursday of the month. It is undoubtedly the case that ceremonies of this kind had been held before 1789, but the proclamation marked the first

time that ‘Thanksgiving’ was sanctioned as official government policy. It is worth reiterating that Washington clearly did not have in mind a ‘harvest festival’, as many now mistakenly believe Thanksgiving to be, but a religious feast to give thanks to God for his ‘kind care’ and ‘His Providence’ to the nation and its people. Subsequently Washington's 1789 proclamation was echoed by several other presidents.[28]

The notion that the United States of America has been somehow selected by God for special care is also expressed in the motto ‘In God We Trust’, introduced in 1863 and approved to be stamped on 1 cent, 2 cents and 3 cents coins of the currency. Later in 1955 the motto was put on all currency coins and notes, and in July 1956 it was declared the official

motto of the USA.

Admittedly, the notion of a nation favoured by God in accordance with some great divine plan is nothing new. Throughout history it has been the norm for kings and queens to believe that they had a divine right to rule and that their nations were under special divine protection. Such ideas were so entrenched in the European psyche that it literally took the beheading of King Louis XVI and Queen Marie-Antoinette of France to demonstrate to the masses that their rulers were mortals who could be subjected to the same law as the lowliest citizens.

Yet in America, despite the absence of a royal family, it seems that the concept of ‘divine right’ has been entangled in politics from the very beginning, and, more recently – from the Arab and Muslim point of view at least – in foreign policy. Even though the

US’s massive economic and military support for Israel may not seem unusual or problematic to some Americans, the fact is that most Muslims and Arabs see it as a ‘crusading alliance’ to retain the Holy Land under Judeo-Christian control. The more extreme Islamists, as we show in Chapter Twenty, go even further and characterise it as a ‘Masonic-Zionist alliance’.

Now let's return to the ‘talisman’ of New York Harbor, that grand ‘Lady Liberty’, and see what else may be coaxed out of her …

Another ancient Egyptian goddess lends her seven-pointed star

In view of the ‘Isis’ connection with Bartholdi's Statue of Liberty, we could not help noticing that there was something rather curious about the date of 5 August which was chosen for the important cornerstone ceremony.

Isis, we know, was identified with the star Sirius – a fact that was much discussed at the time of Bartholdi in Masonic circles and, especially, in lodges in France and the United States. In Chapter One we also saw that Sirius held a special fascination for French Freemasons and even more so for Masonic astronomers such as Lalande (who was a prominent member of the Franco-American Nine Sisters lodge in Paris). Lalande's interest had been focused on the mystique surrounding the heliacal (dawn) rising of Sirius which, to Freemasons, evoked ideologies of spiritual ‘rebirth’ and the ‘raising’ of the initiated into

the mysteries.[29] Given that Bartholdi was a Freemason, had travelled extensively in Egypt, had worked closely with the Freemason Eiffel, had also been in close contact with Garibaldi and his ‘Egyptian’ type of Freemasonry, and had taken a keen interest in ancient Egyptian monuments, it would, we think, be perverse to imagine that he would have been unfamiliar with the heliacal rising of Sirius and its intense ‘rebirth’ symbolism. Indeed what better association than the heliacal rising of the star of Isis could be found to lock auspicious events in the sky to the construction on the ground of a ‘temple’ dedicated to freedom and intended to serve as the beacon of hope for a new life in a new land built on the lofty virtues of Freemasonry?

In the early days of ancient Egypt in the third

millennium BC the heliacal rising of Sirius took place close to the summer solstice which (in our modern, ‘Gregorian’ calendar) falls on 21 June. When Egypt became a Roman province in 30 BC, however, the precession-cycle of our planet's axis had caused the heliacal rising of Sirius to ‘slip’ relative to the summer solstice so that it took place nearly one month later, that is around 20 July. When Bartholdi visited Egypt in the 1860s, the heliacal rising of Sirius had slipped even further behind the summer solstice, and from the latitude of ancient Heliopolis near Cairo would have been observed *on the morning of 5 August*.[30]

Now it is a well-established fact that in ancient Egypt, the cornerstonelaying ceremony of temples, known as the ‘stretching of the cord’, had been

performed since time immemorial by a priestess impersonating the goddess *Seshat* – whose symbol was a seven-pointed star which she wore over her head. Seshat was known as the 'Lady of the Builders', a title that established her as the protector of temple-builders, architects and masons. Interestingly, she was also the wife of Thoth, the ancient Egyptian god of wisdom who provided the prototype of Hermes Trismegistus – the much revered patron of esoteric and occult traditions, including Freemasonry. *There is a very high probability that in ancient Egypt the stretching-of-the-cord ceremony was performed at dawn at the time of the heliacal rising of Sirius.*[31] Considering this, and Seshat's seven-pointed-star headdress, we have to wonder at Bartholdi's decision to place a seven-pointed star over the head of his

statue of ‘Liberty’, and also at the choice of 5 August for the statue's cornerstone ceremony.

If we look even deeper into the symbolism that Bartholdi and others involved might have had in mind, the possibility must be considered that the seven-pointed star on the head of the Statue of Liberty is also there because it has esoteric connotations and sinuous links to the Egyptian goddess Isis. We have already seen how Scottish Rite Freemasons, particularly in France, variously associated the symbolism of Tarot card XVI, known as the ‘Star’, with the symbolism of the star of Isis i.e. Sirius. Is it not surprising, therefore, to discover that a seven-pointed star is often shown above the head of the woman who features on this card pouring water out of jug into a river – surely a clear metaphoric pictogram of the links between Isis, the star and the

inundation of the Nile which took place at the heliacal rising of Sirius?

The ‘Egyptian’ Freemasonry that Bartholdi was especially associated with was introduced to France by Cagliostro who created the famous ‘Isis’ lodge in Paris (see Chapter Sixteen). Egyptian Freemasonry was immensely popular in Alsace, where Cagliostro spent much time with the local Masons and where, in Strasbourg, he met and was sponsored by the Cardinal de Rohan. It comes as no surprise, therefore, that in his celebrated ‘Egyptian Rite’ Cagliostro was particularly fascinated with the number seven which he directly equated with the ‘Blazing Star’ of the Masonic lodges and, consequently with the ‘star of Isis’ i.e. Sirius.[32] And although the Blazing Star of the Freemasons is

usually five pointed, Cagliostro insists that the Masons are mistaken, and that this symbol should have seven points, exactly as seen on the head of the Statue of Liberty. When asked by one of his adepts about the meaning of the Blazing Star, Cagliostro replied:

This star is the emblem of the Great mysteries revealed in supernatural philosophy and it is a new proof of the blindness and ignorance of modern Masons, because it ought to be terminated by 7 points or 7 angles, and you shall never see it represented in any lodge except by 3, 5 or 6 angles …[33]

An obelisk for New York

At around the same time that the Statue of Liberty was being erected on Bedloe's Island an original ancient Egyptian obelisk was brought to New York's Central Park. This obelisk, which bears inscriptions dedicated to Pharaoh Thutmosis III (1479 – 1425 BC), is one of a pair that originally stood at Heliopolis in ancient times; the other stands today at London's Victoria Embankment. The obelisk eventually destined for Central Park was brought from Heliopolis to Alexandria in 12 BC, during the reign of Augustus Caesar, to adorn the entrance of the Caesarium temple near the great eastern harbour, right opposite the *Pharos* lighthouse on the northern side of the bay.[34] And from there, after a further eighteen centuries had passed, it was finally taken to New York.[35]

As was the case with the Statue of Liberty (as well as the 'London Obelisk'),[36] the whole complicated operation that brought the 'New York Obelisk' to New York was Masonic through and through. The man with overall responsibility for the project, a naval engineer, Henry Honychurch Gorringe, was a staunch Freemason who had been initiated in New York at the Anglo-Saxon Lodge No. 137.[37] Indeed, even Dr. Martina D'Alton, who wrote the official account of the New York Obelisk for the Metropolitan Museum of Art, could not avoid stating that:

The Freemasons had a strong presence in New York. Almost to a man, all those involved in bringing [the obelisk] to America were members – Gorringe, Schoeder, Vanderbilt and Hurlbert, as well as the mayor, commissioner of police, and others in city

politics ...[38]

It seems that the original idea of bringing an obelisk to New York had come from the Egyptian Khedive Isma'il himself. The occasion had been the inauguration of the Suez Canal in 1869. Finding himself next to William Hurlbert, the editor of the *New York World* newspaper, the khedive suddenly blurted out that he would like to send an obelisk as a gift to the government of the United States.[39] Hurlbert, a Freemason, would have immediately recognised in this gesture a sort of polite 'Masonic handshake' from the khedive, who also was a Freemason.[40]

Indeed, the Masonic influence went further than that. A few months before the opening of the Suez Canal, Khedive Isma'il's uncle, Prince Halim Pasha,

had been elected Grand Master of the Rite of Memphis, which practiced pseudo-Egyptian rituals using a system of ‘92 higher degrees’.[41] Halim Pasha also served as the official Grand Master of the Grand Orient of Egypt.[42]

Gorringe arrived in Egypt in October 1879 with a Freemason colleague, Lieutenant Seaton Schroeder, to take delivery of the obelisk. The khedive had entrusted Solutore Avventure Zola (who had replaced Prince Halim Pasha as Grand Master of the Rite of Memphis in 1874)[43] with the task of handing over the gift to the Americans.[44] It was reported at the time that when Gorringe finally had the obelisk lowered onto the sandy beach at Alexandria, there was great excitement. The many Freemasons in the party had noticed ‘Masonic emblems’ – a trowel, a builder's

square and an architect's triangle – carved into the base of the ancient pedestal.[45] It seems that Gorringe was ‘struck with the symbolism [and] decided to take the pedestal, steps, and foundation to the New World and reposition them as they had been.’[46]

Perhaps we should mention as well that Gorringe had only a few years before been ‘struck’ by something else. He was convinced that he had discovered ‘Atlantis’ in the Azores while working with the United States Coast Survey in 1876 – a ‘discovery’ which earned him a personal congratulatory message, no less, from President Ulysses S. Grant.[47]

The obelisk finally reached New York and:

On October 9th 1880, a parade of nine thousand Freemasons marched up Fifth Avenue, bands blaring,

to Greywacke Knoll for a grand and solemn cornerstone ceremony.[48]

The ceremony itself took place the next day, 10 October 1880, when Jesse B. Anthony, the Grand Master of the New York Masons, did the honours to 'link the origins of Freemasonry to ancient Egypt.'[49]

We spoke earlier of the George Washington Masonic Memorial in Alexandria, Virginia. In its case the ceremony of the laying of the cornerstone was performed in May 1923 by President Coolidge using the same trowel that George Washington himself had used 130 years earlier when he had laid the cornerstone of the US Capitol in Washington, DC.[50]

The George Washington Masonic Memorial is thus the third of three significant Masonic monuments in the United States (the other two being the Statue of

Liberty and the New York Obelisk) which all exhibit intense symbolic links to the ancient city of Alexandria in Egypt – a city which was universally associated in antiquity with the *Pharos* lighthouse and the goddess Isis-Pharia.

Philadelphia, the ‘City of Brotherly Love’

Although the foundation of Washington, DC took place in 1793, the city was not occupied by the government until the end of President John Adams's term in 1801. During the two terms of George Washington's presidency, spanning the period from

1789 to 1797, the seat of government, and thus the capital of the young United States, were located in the city of Philadelphia – a name that literally means the ‘City of Brotherly Love’ or, perhaps more appropriately, ‘City of the Love of the Brotherhood’. This name, to say the very least, has a strong Masonic ring to it. But then that is hardly surprising when we realise, as we shall see later in this chapter, that it was in Philadelphia that colonial Freemasonry first flourished in the Americas.

The story of Philadelphia, and its brief spell as the US’s first capital, is the stuff that Hollywood producers dream of. It all began in England in 1681, when King Charles II was confronted with an old and nagging debt due to a certain Admiral William Penn and now payable to the admiral's son and heir, William.

William Penn was the visionary leader of the Quakers – Christian nonconformists who then happened to be causing a great deal of annoyance to the Church of England. So Charles II, who was unwilling to meet his obligations to Penn in cash, offered him instead a region in North America the size of England, on condition that Penn use it to develop a province where Quakers and other nonconformists could enjoy ‘freedom of worship and self-government’. The name Pennsylvania was chosen by King Charles II himself, and means ‘Forests of Penn’, apparently in honour of Admiral Penn, William's father.

William Penn saw this, quite literally, as a God-sent opportunity to carry out what he called the ‘Holy Experiment’, and thus, to Charles II’s delight, gladly accepted the offer and challenge. Yet not in his

wildest biblical dreams would Penn have imagined the final outcome. As for Charles II, he thought that he had lumbered the irksome Quaker with a piece of useless real estate, not realising, of course, that he had in actual fact planted the seed of Britain's demise in the American colonies.

By the Rivers of Babylon

William Penn set sail for America in early 1682, his thoughts filled with dreams and visions of the great city he would found in the New World. Many contemporary documents show that Penn visualised what he constantly called ‘my Greene Country Town’

modelled on his rural properties back in England. But according to one of William Penn's most distinguished biographers, Susan Coolidge:

... the city of Babylon is said to have been in Penn's mind as a model for his proposed city.[51]

Much suggests that Coolidge is correct. It is known, for example, that Penn, was greatly inspired by the idea of placing his city between two rivers, the Delaware and the Schuylkill, in much the same way that ancient Babylon had been situated between the Tigris and the Euphrates Rivers. Another factor is the so-called *gridiron* layout adopted by Penn, which required an alignment of parallel avenues running east-west and crisscrossing with another set of avenues running north-south – a scheme that, according to some historians, was apparently used

for ancient Babylon.[52] The third factor is, of course, the name that Penn chose for his city: Philadelphia, the 'City of Brotherly Love', in which people of different races and languages would be re-united.

In the Bible, Babylon was, of course, where the Tower of Babel had been built under Nimrod, when all men had spoken a single language. And for many Freemasons, the Tower of Babel serves as the ultimate talisman or symbol of their origins. In his celebrated essay *The Origins of Freemasonry,* Thomas Paine explained why:

It is always understood that Freemasons have a secret which they carefully conceal; but from everything that can be collected from their own accounts of Masonry, their real secret is no other than their origin, which but few of them understand;

and those who do, envelop it in mystery... In 1730, Samuel Pritchard, member of a constituted lodge in England, published a treatise entitled ‘Masonry Dissected’; and made oath before the Lord Mayor of London that it was a true copy: ‘Samuel Pritchard maketh oath that the copy hereunto annexed is a true and genuine copy of every particular.’ In his work he has given the catechism or examination, in question and answer, of the Apprentices, the Fellow Craft, and the Master Mason. There was no difficulty in doing this, as it is mere form. In his introduction he says, ‘the original institution of Masonry consisted in the foundation of the liberal arts and sciences, but more especially in geometry, for at the building of the Tower of Babel, the art and mystery of Masonry was first introduced, and from thence handed down by Euclid, a worthy and excellent mathematician of the

Egyptians; and he communicated it to Hiram, the Master Mason concerned in building Solomon's Temple in Jerusalem'.[53]

Thomas Paine correctly went on to point out that:

Besides the absurdity of deriving Masonry from the building of Babel, where, according to the story, the confusion of languages prevented the builders understanding each other, and consequently of communicating any knowledge they had, there is a glaring contradiction in point of chronology in the account he gives. Solomon's Temple was built and dedicated 1,004 years before the Christian era; and Euclid, as may be seen in the tables of chronology, lived 277 years before the same era. It was therefore impossible that Euclid could communicate anything to Hiram, since Euclid did not live till seven hundred

years after the time of Hiram.[54]

What Paine, a pragmatist, failed to understand is that English Freemasonry does not have a ‘history’ in the sense scholars understand the term, but rather a ‘symbolic history’, where principles and ideologies of the Craft are elucidated or ‘symbolised’ by biblical, mythical and even historical events such as the building of Solomon's Temple and the Tower of Babel. To academic historians this sort of thing amounts to nothing more than pseudo-history – a yarn of absolutely no historical value concocted to glorify particular individuals or cultures by associating them with the biblical story. But Freemasons know better. Symbolic history – even though false or, at best, grossly distorted and exaggerated – is to be valued in itself for its effects on society and on mass human

behaviour.

Within William Penn's vision of a ‘New Babylon’ between the rivers of the New World, was also a vision of a Mesopotamian-style ‘Garden of Eden’, whereby a huge area of 10,000 acres – of which 1,200 were reserved for Philadelphia – was to be developed in Penn's curious concept of a ‘Greene Country Towne’ with its ‘gridiron’ system of intersecting avenues. In this biblical ‘theme park’ each citizen would be allocated ‘sizable areas of green’. Eighty acres in the centre of Philadelphia were specifically reserved for ‘gentlemen's estates’ with mansions set at least 800 feet apart from each other separated by lavish gardens and fields. The wide streets of the gridiron crisscrossed in perfect rectangular symmetry, and at each corner of the citycentre were ‘squares’ – forerunners of today's

urban parks. In their midst was a fifth, larger ‘square’, with a wide avenue radiating from each side to form a giant *croisée* or ‘cross’.

The whole city was circumscribed within a gigantic rectangle whose longer side ran east-west. Oddly, however, this great rectangle was not perfectly oriented to the astronomical cardinal directions (i.e. due north, south, east and west) but was instead fixed about 10° south-of-east. This may have been to keep the layout more or less parallel to the adjacent rivers. But a more esoteric purpose is by no means out of the question in such a ‘City of Brotherly Love’. We note with interest, therefore, that the Sun aligns itself at rising with the axis of Philadelphia on two days of the year: 16 February and 13 October.[55] The latter date marks the anniversary of the suppression

of the Knights Templar which took place, as we saw in Chapter Fifteen, on 13 October 1307. Whether by accident or by design, as we will show later, the same date of 13 October also crops up in connection with the cornerstone ceremony of the White House in Washington, DC.

Penn entrusted the design of Philadelphia to Thomas Holme, an accomplished urban architect, who published Penn's scheme in 1683.[56] Copies of Holme's design have survived, and the ‘gridiron’ principle can clearly be seen, with its four corners and central ‘squares’. It was perhaps appropriate that such a geometrical city should not only serve as the capital of the newly-formed United States of America for the twelve years from 1789 to 1801, but should also have become the ‘capital’ of American

Freemasonry. Today about 25 ‘Masonically related sites’ are recognised in Philadelphia, not least the great Masonic Temple on Broad Street with it ‘Egyptian’ and ‘Solomonic’ rooms. On Fifth and Arch Street stands the Free Quaker Meeting House; it served as the Masonic Grand Lodge of Pennsylvania in the crucial years between 1775 – 1777. And let's not forget the National Memorial Arch dedicated to ‘Brother’ George Washington (rebuilt by the Freemasons of Pennsylvania in 1996).[57]

Such roots go deep. Just 40 years after William Penn's arrival in the New World, the utopian city that he created was to become the home of America's first Freemasons ...

But before we investigate the intense Masonic character of the early history of the city of

Philadelphia, it is worth emphasising that the idea of imbuing Masonic ideas and symbolism into the plans of a city is by no means fanciful thinking – as we will see in this ‘brief deviation’ …

A Brief Deviation: Kilbourne Plat

The surveyor Hector Kilbourne was responsible for designing the original plan of the city of Sandusky, Ohio (and in 1819 became the first Master of the Science Lodge No. 50, the first Masonic lodge in Sandusky). Being a Freemason, Kilbourne decided to integrate the ‘square and compass’, the best-known Masonic symbol, into the layout of the streets in the

central downtown area now known as Kilbourne Plat. There can be absolutely no doubt that this was his intention, as not only one can very obviously discern the famous Masonic symbol in the original city plan, but just outside the city has been placed an ‘historical marker’ in the form of a large bronze plaque by the Ohio Historical Society which reads:

Hector Kilbourne, a Freemason and the surveyor who made the original plat of Sandusky (as Portland) in 1816, laid out the streets to form the Masonic emblem. Huron and Central Avenues are the arms of the compass. Elm and Poplar Streets the sides of the Mason's square. The first Masonic Lodge was founded in Sandusky in 1819, with Kilbourne as Master.

The 29 Lodges of the 16th District, Grand Lodge, Free and Accepted Masons of Ohio, Crawford, Erie, Huron, Seneca, and Wyandot Counties and The Ohio Historical Society[58]

Considering that this Masonic city design was hatched so soon after the design of Washington, DC in 1791, we feel entirely justified in looking for similar ‘Masonic’ influences in other major American cities which played a key role in the events that led to the creation of the USA.

The candle-maker's son

By the final quarter of the 18th century

Philadelphia had grown to become the second largest English-speaking city in the world after London. And is its name implied its local culture was intensely Masonic. At the same time it was a rich commercial centre which, in direct contrast to its proclaimed ‘brotherly love’, was heavily engaged in the black slave trade. Tradition has it that it was in the city of Philadelphia that the first Masonic lodge in America was consecrated, the *St. John's No. 1 Lodge*.[59] It was also in Philadelphia that the most renowned of all American Freemasons, Benjamin Franklin, received his initiation.[60]

Born the son of a candle-maker in Boston, Benjamin Franklin left his home town in 1723 after losing his job because of the political tone of articles he had written for his brother's newspaper, the *New-*

England Courant. The young Franklin settled in Philadelphia where he was encouraged by William Keith, the governor of Pennsylvania, to set himself up in the publishing trade. To this end, he was sponsored by Keith to go to England in order to acquire experience in the publishing business. Franklin stayed in London from 1724 to 1726 then returned to Philadelphia where he eventually founded the *Pennsylvania Gazette*. This was the newspaper in which appeared the first published commentary on Freemasonry in America.[61]

In 1730 Franklin was made a Freemason at the *St. John's* lodge in Philadelphia, and by 1734 became its Grand Master.[62] From 1737 to 1753 Franklin was in charge of the Philadelphia post office. A deist and preacher of religious tolerance, Franklin was also a

scientist and, in 1751, gained fame and notoriety when he invented the lightning conductor after flying a kite in a thunderstorm.

Franklin revisited England between 1757 and 1762, this time as the representative of the colony of Pennsylvania. He was to return again two years later, staying until 1775. During this last sojourn in London, Franklin entered into lengthy negotiations with the British government, and was instrumental in toppling the Stamp Act imposed by the British Parliament on the American colonies. As such, Franklin sowed the political and intellectual seeds that would lead to open opposition against the British in America and, ultimately, to the War of Independence. In 1775, when he heard that the colonists were preparing for an armed uprising against the British, Franklin felt that his position in

England was becoming too dangerous and so made his way back across the Atlantic. He arrived in Philadelphia in May 1775, just two weeks after the first shots were fired against the British at Lexington. In June the Revolutionary army confronted the British forces at Bunker Hill, marking the beginning of a full-scale war.

Thomas Paine

It was from Philadelphia, too, that another popular journalist, Thomas Paine, a Quaker and staunch deist, began a violent attack on the British in his writings. Paine was born in Norfolk, England, and

was the son of a Quaker and corset-maker. After repeated failures to forge a career, his luck began to turn when he met Benjamin Franklin in London in the early 1770s. Franklin advised him to seek his fortune in America and provided him with letters of recommendation. Paine arrived in Philadelphia in 1774 and two years later, in January 1776, published his celebrated pamphlet *Common Sense*, in which he put forward the notion of a 'Declaration of Independence'. It sold over half a million copies and some even believe it served as the basis of the formal Declaration of Independence that was eventually compiled by Thomas Jefferson in July 1776.

Aside from his great political impact, Paine is known in Masonic circles for promoting the same idea as the British archaeologist (and fellow and council member of the Royal Society), the Freemason

William Stukeley – who claimed that Freemasonry took its rituals from the ancient Druids who, in turn, had inherited them from the ancient Egyptians.[63] In an article on this subject Paine informs us of his view that ‘the ancient Druids ... like the Magi of Persia and the priests of Heliopolis in Egypt, were priests of the Sun’. Paine goes on to say:

The Christian religion and Masonry have one and the same common origin: both are derived from the worship of the Sun. The difference between their origins is that the Christian religion is a parody on the worship of the Sun ... And in what period of antiquity or in what nation this religion was first established, is lost in the labyrinth of unrecorded time. It is generally ascribed to the ancient Egyptians ... The religion of the Druids, as before said, was the

same as the religion of the ancient Egyptians. The Priests of Egypt were the professors and teachers of science, and were styled priests of Heliopolis, that is of the City of the Sun ...[64]

In the same article, Paine supports his own claims by quoting Captain George Smith, inspector of the Royal Artillery Academy at Woolwich and Provincial Grand Master of Masonry in Kent, who had asserted that:

Egypt, from whence we derive many of our mysteries, has always borne a distinguished rank in history, and was once celebrated above all others for its antiquities, learning, opulence and fertility. In their system, their principal hero-gods, Osiris and Isis, theologically represented the Supreme Being and Universal Nature ... The Egyptians in the earliest

ages constituted a great number of Lodges, but with assiduous care kept their secrets of Masonry from all strangers. These secrets have been imperfectly handed down to us by oral traditions only, and ought to be kept undiscovered to the labourers, craftsmen and apprentices, till by good behaviour and long study they become better acquainted in geometry and the liberal arts, and thereby qualified for Masters and Wardens ...[65]

We shall see later how Thomas Paine went to Paris during the French Revolution and befriended the astronomer Charles-François Dupuis who, as we shall recall, was an advocate of the view that the city of Paris owed its origins to the Egyptian goddess Isis. We shall also see how Paine developed a close friendship with the writer Nicolas de Bonneville, a

Freemason, mystic and radical revolutionary, and with the mathematician and philosopher, the Marquis de Condorcet, likewise a revolutionary and a member of the Nine Sisters lodge.[66] Paine, who was to arrive in Paris at the height of Robespierre's reign, may have played a part in the attempt to induce the populace of Paris to adopt the new republican Cult of the Supreme Being, and perhaps even the cult of Nature-Reason-Liberty which was flaunted as a pseudo-Isis cult at the Place de la Bastille in August 1793 ...

Franklin in France

We saw in Chapter One that in late 1776, thirteen years before the French Revolution broke out, Benjamin Franklin was sent to France to serve as the first ambassador of the newly formed Republic of the United States. Being the most senior of the signatories of the Declaration of Independence, and also the inventor of the lightning rod, Franklin's huge fame had preceded him, and he was now hailed as a sort of cult hero upon his arrival in Paris. His primary mission was to gain support, both financial and militarily, for the American war against the British. This he succeeded in doing, largely through complex behind-the-scenes negotiations with Charles Gravier, the Count of Vergennes, Louis XVI’s minister of foreign affairs.

Witty and wise, Franklin was taken by the pre-revolutionary French as a symbol of ‘liberty in the

New World’. He was the hero who opposed the British – and, by extension, the oppression and despotism of European monarchs in general. He was quickly to become the darling of the social salons in Paris and, invariably, the favourite of the elitist Masonic lodges. As we also saw in Chapter One, Franklin joined the famous Nine Sisters lodge while he was ambassador in Paris and, in 1777, was to become its Grand Master.

The Nine Sisters lodge was the natural successor of an older lodge, *Les Sciences*, founded in 1766 by the astronomer Jérôme Lalande and the philosopher and atheist, Claude Adrien Helvétius. In 1771, after the death of Helvétius, Lalande and Helvétius's widow, Mme Anne Catherine Helvétius, were instrumental in the founding of the Nine Sisters lodge. Mme Helvétius ran the famous elitist salon in the Rue

Sainte-Anne in Paris, which was renowned throughout Europe for the intellectual excellence of its members.[67] She also hosted another salon at Auteuil near Paris, which maintained very close links with the Nine Sisters lodge.[68]

Franklin was a regular visitor to Mme Helvétius's salons, and so was the Marquis de Lafayette, who was then a young officer in the French army. Lafayette was also a member of the lodge, *Le Contrat Social*, itself linked to elitist lodges such as the *Société Olympique* whose members included other young officers, among them the Count de Chambrun, the Count-Admiral de Grasse, the Count-Admiral d'Estaing and the famous 'buccaneer' John Paul Jones. All these men would play important roles later in America in the War of Independence. Indeed it was

almost certainly through these Masonic lodges and salons that Franklin's political and commercial agent in Paris, the American Silas Deane, recruited young French officers to help George Washington fight the British. One such officer recruited by Deane, probably through the intermediary of Pierre Beaumarchais, was the Marquis de Lafayette, who was only 19 years old at the time.[69]

‘Why not?’

The importance of Lafayette in the American Revolution cannot be overstated. Indeed, many Americans today believe that were it not for

Lafayette, Washington might have been unable to muster enough military support to defeat the British. Many have also wondered what prompted Lafayette to make such great personal sacrifices for the cause of America. Part of the answer can be found in the motto that he chose for his coat-of-arms: *Cur Non*?, ('Why Not?').[70] These two simple words perhaps reveal better than anything else the character of this enterprising and immensely courageous man.

Lafayette, whose full name was Marie-Joseph Paul Yves Roch Gilbert du Motier, was born on 6 September 1757 in Chavaniac, in the Haute-Loire in France. His father, an important general in the army, was killed in battle when Lafayette was only two years old, and his mother was to die eleven years later, leaving the adolescent Lafayette as the sole

beneficiary of a huge fortune. True to his descent from a distinguished military family, he enrolled to study at the military academy in Versailles and by the age of 16 became a captain in the Dragoon guards of Louis XVI. At 19 he was introduced to the American agent Silas Deane who, thinking that Lafayette's influential position and financial fortune could be of great use to the American cause, immediately commissioned the young officer to join Washington's Revolutionary army in the colonies.

Lafayette was from the old nobility of France and enjoyed additional connections through his marriage. His father-in-law was the Duke of Ayen, who came from one of the country's wealthiest and most influential families, the Noailles. The Duke of Ayen's father and also his grandfather had held the highest military title, that of *Maréchal de France* (‘Marshal of

France’), and the Duke himself was the captain of Louis XVI’s bodyguards. The Duke's brother, the Count of Noailles, was the French ambassador to England. Not surprisingly, in his letter of recommendation to the American Congress, Silas Deane described Lafayette as being ‘of the first family and fortune [who] ... will do us infinite service’. He urged that ‘a generous reception’ be prepared for this young and dashing figurehead upon his arrival in America.

Fired by the excitement of defending ‘Liberty’ in the New Word, and hungry for military glory, Lafayette used his own money to purchase a ship, *La Victoire,* in order to sail to America with his companions. All this was done in secrecy, for Lafayette had not been granted the required permission from Louis XVI, nor had he received the

approval of his powerful and influential father-in-law. However, the Atlantic crossing of *La Victoire* went without too much trouble, and Lafayette and his team arrived in Georgetown, South Carolina in mid-June 1777. He and six of his companions then made their way inland to Philadelphia, only to find Congress reluctant to endorse the military commissions they had received from Silas Deane in France. But in a passionate speech, Lafayette managed to persuade the congressmen that he would use his own funds and resources. Impressed with such zeal and commitment to their cause, Congress finally agreed to ratify his appointment and, a fortnight later, he was sent to the general quarters of George Washington north of Philadelphia. Legend has it that both men took to each other like brothers. Later, after the war, when Lafayette had returned to

France, Washington was to write to him these famous words:

Whether you come here in the character of commanding officer of a corps of gallant French, should circumstances lead to that event; whether as an American major general you come to retake command of a division of our army; or whether after the peace you come to see me simply as my friend and my companion, I shall receive you in every case with all the tenderness of a brother.[71]

In September 1777, riding at the side of Washington, Lafayette fought bravely against the British at the Battle of Brandywine. Wounded, Lafayette was evacuated to Philadelphia, and there witnessed the fall of the city to the British. He was to distinguish himself brilliantly at the Battle of Barren

Hill seven months later. All in all Lafayette proved to be a superb officer in the field, and a wise advisor to Washington. His deep friendship with the future first president of the United States, who was 25 years his senior, turned to almost filial adoration. It was, however, Lafayette's catalytic role in the relationship between France and America, and his influence in persuading France to sign a treaty of alliance with Congress against the British early in 1778, that made him a crucial player in the War of Independence.

In 1781 he fought at Washington's side in the decisive Battle of Yorktown, and his brilliant actions largely contributed to the routing of British forces and their surrender to Washington. Now at 24, barely four years after he had arrived in America, the young and debonair Marquis de Lafayette was hailed as ‘Hero of the Two Worlds’ (as Garibaldi would be

later) i.e. a hero on both sides of the Atlantic. The huge and lasting impression that Lafayette has had on the American people can be witnessed today with the hundreds of public places and streets that bear his name, including a whole county in Pennsylvania. When 42 years later, in 1824, Lafayette, by now a 33rd degree Freemason, visited America again, he was received as a national hero.

The immense and enduring sense of gratitude of the American people towards this remarkable Frenchman is immortalised in the words of Colonel Charles E. Stanton on behalf of General John J. Pershing, a 33rd degree Freemason, after the liberation of Paris in 1917: ‘Lafayette, we are here!’

Stanton pronounced this ‘brotherly homage’ on 4 July, Independence Day, in the presence of hundreds of Freemasons in front of the tomb of Lafayette at the

Picpus Cemetery in Paris.[72]

The House of the Temple

The 33rd degree system is regulated by the Supreme Council, 33°, Ancient and Accepted Scottish Rite, Southern Jurisdiction, USA. This elitist Masonic order, with its many ostentatious titles and impressive grades, seems to hold a strong appeal for high-ranking military men and for up-and-coming politicians. Today there are about 40 supreme councils as well as four national lodges around the world, all of which fall under the informal authority of this so-called *Mother Supreme Council*.

The Mother Supreme Council now has its headquarters in Washington, DC, located at 1733 16th Street, NW. Known as the ‘House of the Temple’, this imposing, neo-classical building is modelled on the Mausoleum of Halicarnassus, and was designed in 1911 by the famous architect and Freemason John Russell Pope. At the entrance are two imposing ‘Egyptian’ sphinxes symbolising ‘wisdom’ and ‘power’.[73] The ‘wisdom’ sphinx has on its breast an image of an Egyptian goddess, probably Isis, and the ‘power’ sphinx has the ancient Egyptian *Ankh*, the so-called *key of life*, as well as the *uraeus* symbol designating the solar pedigree of the pharaohs.

The great door knob of the main entrance of the Supreme Council in Washington, DC is in the shape

of a solar-lion, and inside the atrium, which is very reminiscent of an Egyptian temple, are two ‘Egyptian’ statues of seated scribes placed at the foot of a large ceremonial staircase. Each of these statues carries a hieroglyphic inscription which translates as ‘Established to the Glory of God’ and a dedication ‘to the teaching of wisdom to those men working to make a strong nation.’ The staircase leads to a bronze bust of Albert Pike, the most famous of all Scottish Rite Grand Masters to whom the ‘House of the Temple’ is dedicated. A plaque above the bust of Pike reads: ‘What we have done for ourselves alone dies with us: What we have done for others and the world remains and is immortal.’

Another imposing pseudo-Egyptian motif in the Supreme Council in Washington, DC is the winged glowing triangle that hangs over the altar in the main

room of the temple as well as on the ceiling. This is a motif which is, of course, modelled on the winged solar disc common to all ancient Egyptian temples. But more intriguing is the fact that it was Albert Pike himself who confirmed that the so-called *Blazing Star* that is often seen at the entrance of Masonic lodges, or associated with the Masonic glowing triangle, is none other than the star of Isis, Sirius:

The Ancient Astronomers saw all the great symbols of Masonry in the stars. Sirius still glitters in our lodges as the Blazing Star ...[74]

[This star is] an emblem of the Divine Truth, given by God to the first men, and preserved amid all the vicissitudes of ages in the traditions and teachings of Masonry.[75]

The Blazing Star in our Lodges, we have already said, represent Sirius, Anubis, or Mercury, Guardian and Guide of Souls.[76]

The Blazing Star or Glory in the centre refers us to that Grand Luminary the Sun, which enlightens the Earth, and by its genial influence dispenses blessings to mankind.[77]

The Blazing Star has been regarded as an emblem of Omniscience, or the All-Seeing-Eye, which to the Ancients was the Sun.[78]

He was Sirius or the Dog-Star, the friend and counsellor of Osiris, and the inventor of language,

grammar, astronomy, surveying, arithmetic, music, and medical science; the first maker of laws; and who taught the worship of the Gods, and the building of temples.[79]

When coupled with the claims of Albert Pike regarding Sirius, the star of Isis, the intense pseudo-Egyptian quality of the House of the Temple in Washington, DC, especially the two sphinxes guarding the entrance, immediately brings to mind the two sphinxes and the Isis statue that were designed by Jacques-Louis David for the 1793 celebrations at the Place de la Bastille in Paris, as well as Picot's painting in the Louvre.

Before we examine this curious link further we need to know more about Albert Pike, and why the Washington, DC ‘House of the Temple’ was dedicated

to him …

The Blazing Star

Albert Pike is often described by Scottish Rite Freemasons as a poet, trapper, historian, revolutionary, lawyer, politician, army commander, orator, author and philosopher. In short, the Renaissance man *par excellence*. Born in Boston in 1809, he went to Harvard but dropped out to become a school teacher. He then became a trapper in Arkansas in 1831 but later was somehow admitted to the bar of the Supreme Court. He eventually moved to New Orleans to practice law, then joined the side

of the South during the Civil War and was appointed a Confederate commissioner commander, leading Indian tribes. He was court-martialed on dubious charges of fraud, acquitted, and finally opened a law office in Washington, DC.

Pike is best remembered not so much for his colourful career but for having revived the Scottish Rite when he became the Grand Commander of this Masonic order in 1859. He has been dubbed the most ‘famous (or infamous as the case may be) Freemason of his times’. He died peacefully in April 1891 while working at his desk at the Scottish Rite Temple in Washington, DC. Ironically, most of those who become Freemasons today know little, if anything, about him.

Pike joined Freemasonry in 1850 at the Western Star Lodge No. 2, Little Rock, Arkansas, and became

a Master Mason in November that same year. In 1859, thus in less than a decade, he rose to the position of Sovereign Grand Master of the Supreme Council, 33°, of the Scottish Rite in the United States and, by definition, the whole world. When Pike joined the Scottish Rite he found the order in tatters, but by the end of his life 'he left it a stately temple to the dignity and rights of man' and made it the 'single most influential body of Freemasonry in the world.'[80] His first big task in this amazing reformation of the Scottish Rite was to rewrite and formalise the 33 degree rituals which had much degraded over the years. He then set about the task of providing a 'foundation literature' for the Scottish Rite, which entailed writing an opus of 860 pages entitled *Morals and Dogma of the Ancient and Accepted Scottish Rite*

of Freemasonry, first published by the Scottish Rite Press in 1871.[81] This huge and somewhat baffling book was based on a series of lectures Pike had given, and is divided into 32 chapters to cover all the degrees except the last – the 33rd – which is not a degree as such, but more of a title.

It becomes evident on studying this book that Pike must have conducted an extensive investigation of comparative religion, Cabala, Hermeticism, mysticism, mythology, symbolism and speculative philosophy in general. For the first 60 years or so after it was published, *Morals and Dogma,* as it is known for short, was compulsory reading for all who joined the Scottish Rite. Yet in spite of its title, the book is not a Masonic manifesto at all, but rather an attempt to provide a historic and mythological

framework for Scottish Rite Freemasons. Pike himself made it clear to his readers that they were free to accept or reject what he had written, although his immense reputation at the time meant that his research tended to be accepted without question. Besides, as one modern Masonic writer so correctly remarks about similar dubious historical claims, ‘whether it is true is not the point; the point is that it is claimed to be true.’[82]

It was in *Morals and Dogma* that Pike made the association between the Masonic five-pointed ‘Blazing Star’ and the Egyptian star of Isis, Sirius, which is also often depicted as a five-pointed star. Pike strongly opposed the idea held at the time by some Masons that the Blazing Star represents the ‘star of the East’ i.e. the star of Bethlehem:

To find in the Blazing Star of five points an allusion to Divine Providence is also fanciful; and to make it commemorative of the Star that is said to have guided the Magi is to give it a meaning comparatively modern. Originally, it represented SIRIUS, or the Dog Star.[83]

This was not the first time that Sirius had been equated with a Blazing Star. In Homer's *Iliad* (*circa* 800 BC) the wrath of the hero Achilles is described as the:

... blazing star that comes forth at harvest-time, shining forth amid the host of stars in the darkness of the night, the star whose name men call Orion's Dog [Sirius].[84]

We also find in Appolonius Rhodius's *Argonautica* that ‘the Dog-star Sirius was scorching the Minoan

Islands from the sky' Similarly there is a reference in the same text to 'Sirius rising from Okeanos [Oceanus], brilliant and beautiful but full of menace for the flocks.'[85] Aratus speaks of 'a star that keenest of all blazes with a searing flame and him men call Sirius.'[86] Finally Manilius referred to Sirius as 'the dog with the blazing face.'

So, whatever his faults, it seems that Albert Pike was a very meticulous scholar, and there can be little doubt that he consulted all these classical sources during his research for *Morals and Dogma*. Indeed, it is known that he had taught himself Latin, Greek and Sanskrit in order to study such ancient texts. We must also conclude that if Pike could easily make the obvious link between the Masonic 'Blazing Star' and Sirius, then quite clearly other educated Masons

could have arrived at the same conclusion.

Did they?

Thomas Paine's Supreme Being

In 1782, after the surrender of the British at Yorktown, the Marquis de Lafayette returned to France to a huge hero's welcome. He was now ranked as a *Maréchal de Camp,* and served for a while as a diplomatic aide to Benjamin Franklin in Paris. In 1784 Franklin was joined by Thomas Jefferson, the new ambassador of the United States. In the same year Lafayette went on tour in Germany and met Frederick the Great. Meanwhile Thomas

Paine was still in the United States, now poverty stricken and devoting his time to odd ventures like inventing the smokeless candle and designing a pierless iron bridge for the Schuylkill River near Philadelphia.[87]

Benjamin Franklin had been raised to the position of Grand Master of the Nine Sisters lodge in Paris seven years earlier, and had developed a large network of contacts in France and elsewhere in Europe. It is not so clear whether Thomas Jefferson was a Freemason but as James W. Beless, a 33rd degree Mason with an interest in this question, so aptly put it: 'Jefferson may not have been a card-carrying Mason, but his philosophy and actions certainly paralleled Masonic ideals and practices.'[88] A report from Dr. Guillotin, a member of the Nine

Sisters lodge at the time when Jefferson was in Paris, confirms that Jefferson visited this lodge at least once.[89] There is also no doubt that Jefferson was often surrounded by prominent and very active Masons. According to Beless:

His son-in-law, Governor of Virginia Thomas M. Randolph, his favourite grandson, Thomas Jefferson Randolph, and nephews Peter and Samuel Carr were all members of *Door to Virtue* Lodge No. 44, Albemarle County, Virginia. Freemasons such as Thomas Paine, Voltaire, Lafayette and Jean Houdon were some of his closest associates in Europe. Masons whom he admired in America included George Washington, Benjamin Franklin, Dr. Benjamin Rush, John Paul Jones, James Madison, James Monroe, Meriwether Lewis and William Clark ... He

had marched in Masonic procession with *Widow's Son* Lodge No. 60 and *Charlottesville* Lodge No. 90 on October 6, 1817, at the cornerstone laying of Central College (now the University of Virginia) ... The Grand Lodges of South Carolina and Louisiana held funeral orations and processions for him following his death on July 4, 1826 and ... a Blue Lodge at Surrey Court House, Virginia, was named *Jefferson* Lodge No. 65 in 1801.[90]

While Jefferson was still in Paris, Paine returned to Europe in 1787. He first went to London where he hoped to get support for his iron bridge project. But after the fall of the Bastille in July 1789 he became interested in the French Revolution and began a regular correspondence with Jefferson in Paris.

In spring 1790 Paine travelled to Paris to advise

Lafayette on constitutional matters, and during this first visit Lafayette presented him with the key of the (now nearly demolished) Bastille.[91] On the same trip, Paine made contact with the Freemason and writer Nicolas de Bonneville, who, with the Abbé Fauchet, had recently founded the so-called *Cercle Social* (the 'Social Circle'), a radical literary group that promoted deism and republican virtues and ideals. Later, in 1812, Nicolas de Bonneville would translate Thomas Paine's *Origins of Freemasonry* into French. In this work, Paine argues that the ancient Egyptian cult of the Sun and of Osiris are at the root of Masonic rituals.[92]

Among Paine's other Parisian friends and supporters was the Marquis de Condorcet, also a Freemason and a friend of Voltaire. A renowned

mathematician as well as champion of human rights, Condorcet was a member of the Nine Sisters lodge – where fellow members included Benjamin Franklin, the occultist and inventor of the Tarot, Court de Gébelin, and the astronomer Lalande. Let us recall in passing that it was Court de Gébelin who, in 1781, had written in his celebrated book, *Le Monde Primitif analysé et comparé avec le monde moderne*, that:

No one ignores that Paris was originally enclosed in the island [the Île de la Cité]. It was thus, since its origins, a city of navigation … As it was in a river rife with navigation, it took as its symbol a boat, and as tutelary goddess, Isis, goddess of navigation; and this boat was the actual one of Isis, symbol of this goddess.[93]

The reader will recall from Chapter Seventeen that

Court de Gébelin, who belonged to the ‘Scottish Rite’ and ‘Templar’ Freemasonry, had met the famous Cagliostro, inventor of ‘Egyptian’ Freemasonry, and admitted himself not qualified ‘to interrogate a man so much his superior in every branch of learning’.[94]

It was Court de Gébelin who, along with Franklin, was given the ultimate honour of escorting Voltaire during the latter's Masonic initiation at the Nine Sisters lodge in 1778. Why, out of all the many illustrious members available, was Court de Gébelin selected to officiate in this most historic of initiations? The reason, we suspect, may well be in the alleged connection linking the Scottish Rite's ‘degrees’, the Tarot's ‘cards’ and the Cabalistic ‘paths’ – with the number 32 being the mystical common denominator for all three.

We saw in Chapter Fifteen, that the 33rd degree Scottish Rite author Charles Sunmer Lobingier, historian for the Grand Commandery of the Scottish Rite in Washington, DC, deduced that in the Cabala's 32 paths of wisdom[95] ‘we doubtless have the origin of the number of degrees as formulated by the Grand Constitution’ of the Scottish Rite.[96] It is well known that the modern esoteric Tarot is largely modelled on the ideologies of the Cabala and the Cabalistic Sephiroth. Even more interestingly in this context, we may recall that it was Court de Gébelin himself who had attributed to the Tarot an ‘Egyptian origin’ and furthermore had asserted that the so-called *Star* in the Tarot deck was none other than the star of Isis, Sirius. And even though Thomas Paine could not have met Court de Gébelin (the latter died several years

before Paine came to Paris) all this goes to show the potent brew of Cabalistic and Hermetic ideologies that was bubbling amongst Paine's circle of friends in Paris at the precise time that he was preparing to publish his celebrated *Rights of Man*.

In early May 1790 Paine returned to London just as Edmund Burke published his *Reflections on the French Revolution* – a broadside attack on the uprising of the French people against the monarchy. Paine's outraged response was his celebrated *Rights of Man,* the first part of which he wrote and rushed into print before going back to Paris in early 1791 to establish the first ‘republican’ club there and to write his *Republican Manifesto*. By July 1791 the energetic Paine was once again in London where he wrote the second part of *Rights of Man* and dedicated it to

Lafayette.[97]

It was during his visits to Paris that Paine met Thomas Jefferson who would become his friend and confidante.[98] Meanwhile in London he frequented an elite group of radical thinkers including the famous English poet William Blake. For all these radical intellectuals, as Professor David Cody has shown, the French Revolution in its early stages:

... portrayed itself as a triumph of the forces of reason over those of superstition and privilege ... [and] as a symbolic act which presaged the return of humanity to the state of perfection from which it had fallen away.[99]

Not unexpectedly Thomas Paine's *Rights of Man* was immediately banned by the British government and, rather disturbingly, effigies of Paine were burnt

outside churches. Paine himself was indicted for ‘seditious libel’ which, in those dangerous days, carried the death penalty. He narrowly managed to escape arrest, however, through the timely intervention of his good friend, William Blake, who warned Paine not to return to his home and helped him flee immediately to France.

Upon arriving in Paris, Paine was hailed as a hero and friend of the revolutionaries and was promptly given honorary French citizenship and made a member of the National Assembly. But being a pacifist, Paine opposed the death penalty for Louis XVI and instead voted that the king be exiled. This stance infuriated the zealous Robespierre who had Paine thrown into prison in the old Luxembourg Palace. While incarcerated there, Paine managed to arrange for the publication of the first part of his

most famous work, *The Age of Reason*.

In *Age of Reason* Paine makes clear that he was a deist and believed in a Supreme Being while opposing the established Church. Naturally he must have been aware that at precisely this time, Robespierre and Jacques-Louis David were pressing on with their own cults of ‘Reason’ and the ‘Supreme Being’. And we know that ‘Reason’ and ‘Liberty’ – in the mind of at least David – were personified as the Egyptian goddess Isis during that strange ceremony that took place at the Bastille on 10 August 1793. In consideration of Paine's keen interest in Masonic origins, and his belief that Freemasonry owed its rituals to the Druids and the ancient Egyptians, it is not impossible that the personification of Paine's ‘Reason’ might also have veiled the same ancient goddess of the Nile ...

On 18 September 1793, barely five weeks after the ‘Isis’ ceremony in Paris, another republican ceremony was about to take place on the other side of the Atlantic on the summit of a low hill overlooking the Potomac River. But this time it was not to celebrate the demolition of a vilified national monument like the Bastille but rather to lay the cornerstone of a great ‘Temple of Liberty’ that would be built here – the brainchild of yet another adventurous Frenchman, Pierre-Charles L’Enfant.

Engineer, artist, soldier

On a warm and bright spring day in April 1909, D.

H. Rhodes, the depot quartermaster of Digges Farm near Washington, DC, with the commissioners of the District of Columbia all present, supervised the disinterment of the remains of a man who had died 84 years previously, in 1825. The pitiful remains were gently gathered and placed in a metal-lined casket which was then covered with the American flag and taken to the Mount Olive Cemetery. Early in the morning of 28 April the casket was moved to the Capitol where it lay in solemn state until noon. Then, under military escort, it was finally taken to Arlington National Cemetery and buried in a permanent grave on sloping ground in front of the Custis-Lee Mansion and overlooking, in the distance, the city of Washington. A sum of $1,000 was allocated by Congress to erect a monument over the grave, featuring the street plan of the Federal City. Below

the plan the name of the deceased may also be seen: *Pierre-Charles L'Enfant, engineer, artist, soldier*.

Pierre-Charles L'Enfant was born in Paris in 1754, the son of a painter of landscapes and battle-scenes.[100] Like his father before him, the young L'Enfant was educated at France's *Académie Royale de Peinture et de Sculpture*. There he learnt how to design military fortifications. He also studied the science of landscapes from the works of André Le Nôtre who, a century earlier, had designed the Tuileries Garden and the great Historical Axis of Paris. L'Enfant then joined the French army, and by 1776 when the American War of Independence began, he had reached the rank of lieutenant.

Like Lafayette and many other young Frenchmen of the time, L'Enfant was fired up with the new

republican ideals of liberty and equality, and promptly offered his services to the American Revolutionary army. His knowledge of fortifications proved invaluable, and brought him to the attention of George Washington. L'Enfant was made 'captain of engineers', the embryo of what would later become the US Army Corps of Engineers. In March 1782 Washington was to write to L'Enfant:

Your zeal and active services are such as reflect the highest honour on yourself and are extremely pleasing to me, and I have no doubt they will have their due weight with Congress in any future promotion in your Corps [of Engineers].[101]

Networking with the Cincinnati

We were intrigued to discover that L’Enfant had been associated with an organisation known as the Society of the Cincinnati.

Founded in 1783 for officers who had served in the War of Independence, to help them and their families in case of need, the society still exists today. Named after the fifth century Roman soldier Lucius Quintus Cincinnatus, it is a patriotic and elitist military organisation with the peculiarity of being based on hereditary membership and only open to the eldest male descendants of the original members. George Washington was its first president and, in 1790, the society gave its name to the city of Cincinnati.[102] Its membership would include America's first treasury secretary, Alexander Hamilton, first secretary of war, Henry Knox, and future president, James Monroe –

the latter whose name is immortalised, of all places, in West Africa as ‘Monrovia’, the capital of Liberia.[103]

Although the Society of the Cincinnati is not a Masonic order as such, many of its founder members – Lafayette, Hamilton, Knox and Washington – were Freemasons, and thus not surprisingly ‘the Cincinnati shared a rhetoric of fraternal affection and honour as well as a significant number of members with Masonry.’[104] In 1785 L’Enfant opened an architectural practice in New York, and through his Cincinnati connections, managed to land many lucrative design projects. When, in 1789, L’Enfant heard that plans were being made to establish a new federal capital for the United States in Virginia, he wrote directly to his old friend George Washington. According to Jean Jules Jusserand, author, historian

and formerly French ambassador to the United States:[105]

L'Enfant, with his tendency to see things *en grand*, could not fail to act accordingly, and the moment he heard that the Federal City would be neither New York nor Philadelphia, nor any other already in existence, but one to be built expressly, he wrote to Washington a letter remarkable by his clear understanding of the opportunity offered to the country, and by his determined purpose to work not for the three million inhabitants of his day, but for the one hundred of ours, and for all the unborn millions that will come after us. The letter is dated from New York, *11th of September, 1789*. 'Sir', he said, 'the late determination of Congress to lay the foundation of a city which is to become the capital of

this vast empire offers so great an occasion of acquiring reputation to whoever may be appointed to conduct the execution of the business that your Excellency will not be surprised that my ambition and the desire I have of becoming a useful citizen should lead me to wish a share in the undertaking ... No nation, perhaps, had ever before the opportunity offered them of deliberately deciding on the spot where their capital city should be fixed

... And, although the means now within the power of the country are not such as to pursue the design to any great extent, it will be obvious that the plan should be drawn on such a scale as to leave room for that aggrandizement and embellishment which the increase of the wealth of the nation will permit it to pursue at any period, however remote. Viewing the matter in this light, I am fully sensible of the extent of

the undertaking.[106] [Emphasis added]

‘Templar’ Octagons again, and the Tree of Life

In early 1791 George Washington asked Thomas Jefferson to instruct L’Enfant to proceed to Georgetown to join and give assistance to Andrew Ellicott, a Quaker and Freemason from Pennsylvania who was also the land surveyor for the District of Columbia. Ellicott, who was 37 at the time, was the son of a watchmaker from Bucks County in Pennsylvania and had grown up with a keen interest in astronomy. He had attained the rank of major

during the War of Independence, and had somehow worked his way into a close friendship with Washington and Benjamin Franklin – the latter being particularly interested in Ellicott's by then very good knowledge of astronomy and of the techniques of stellar observation.[107]

In 1790 Washington appointed Ellicott as surveyor for the new federal capital – a job that he pursued with diligence over the coming year with the assistance of his younger brother Joseph. Ellicott had good reason to believe that he was Washington's chosen man for the job. L’Enfant, however, was to change all that. The strong-willed and pompous Frenchman simply barged in armed with Washington's instruction to ‘assist’ and practically took over from Ellicott.

L’Enfant's specific task was to ‘have a drawing of the particular grounds most likely to be approved for the site of the federal town and buildings.’[108] L’Enfant worked closely with Jefferson to produce a preliminary plan by June 1791, and in September, he received a letter from the newly appointed commissioners responsible for the administration of the project informing him that the:

Federal district shall be called the ‘Territory of Columbia’ and the Federal City the ‘City of Washington’.[109]

L’Enfant, described by many who knew him as hot-tempered and arrogant, soon began to antagonise the commissioners and refused to obey their instructions. The situation deteriorated rapidly, and in February 1792 George Washington was forced to ask Thomas

Jefferson to give L’Enfant a severe warning that he must recognise the authority of the commissioners. L’Enfant, however, was unwilling to compromise, and resigned from the project.

That same year Washington promoted Ellicott to surveyor general for the United States and gave him the task of completing the plan for Washington, DC based largely on L’Enfant's original design.[110] Within a month Ellicott had an engraving ready.

The suspicion has been raised that both George Washington and Thomas Jefferson participated directly in the evolution of this plan, here and there putting in their own specific ideas. For example, in their book *The Temple and the Lodge,* Michael Baigent and Richard Leigh point to curious octagonal patterns that seem to underlie the layout of

Washington, DC, and argue that these were Templar symbols introduced by Washington himself. The octagons are huge and can be clearly made out in two distinct areas centred on the Capitol and the White House.[111]

The first printed edition of L'Enfant's plan, measuring 8.5 x 10 inches, is kept at the Library of Congress, Geography and Map Division, in Washington, DC.[112] The engraving was made by the artists James Thackara and John Vallance, and is thought to be the earliest surviving print of Washington, DC. Attached to the print is an article, published in the *Universal Asylum and Columbian Magazine* in March 1793, entitled *Description of the City of Washington, in the territory of Columbia, ceded by the States of Virginia and Maryland to the*

United States, by them established as the Seat of their Government.[113]

The first observation to make about L'Enfant's plan is its grand ambition. For what the Frenchman had in mind was a splendid metropolis for 800,000 inhabitants, with classical buildings and monuments appropriate to the capital of an eventual gigantic republican empire of 500 million citizens. Now at the time, the entire population of the United States could not have then been much more than four million. The population of the whole of Europe was, in fact, less than 200 million and the world's population would have been around 900 million. Today there are more than 300 million people in the United States, a figure that is expected to double by the next century.[114] If it does, the US population would meet up with

L’Enfant's staggering projection nearly 300 years later.

The plan itself is as ingenious as it is intriguing. Immediately one is struck by the similarity – or more precisely the *combined* similarity – to the city plan of Paris, to the plan of Versailles and, even more intriguing, to Wren's and Evelyn's aborted plans for London. But this is perhaps not so surprising. Apparently Jefferson, who was himself an accomplished architect and who had visited and studied many European urban centres, had supplied L’Enfant with plans of several European cities to serve as a guide.[115]

Like Paris and London, L’Enfant's plan features a dominant east-west layout, emphasized by the alignment of the Mall (which he called *Grande*

Avenue) that runs from the US Capitol to the (future) Washington Monument. This would understandably lead a casual observer to conclude that the main axis of the city was fixed, whether by intent or by coincidence, to the equinox sunrise and sunset.[116] A closer examination of the map and contemporary accounts, however, makes it clear that the principal axis that L'Enfant had in mind was a presidential avenue (Pennsylvania Avenue), which joined the US Capitol to the presidential palace (the White House).

It does not take much to see that L'Enfant's plan was heavily inspired by the layout of Paris and, perhaps even more so, by the 'unexecuted' layouts of the city of London made by Wren and Evelyn after the Great Fire.[117] Most notable is the diamond-shaped design that evokes the Sephirothic Tree of

Life; although not as evident as on Evelyn's plan for London, it can easily be discerned in the layout scheme which emanates from the Capitol in the east and culminates at the Washington Monument – a gigantic obelisk – in the west.

In Robert Cameron's excellent book *Above Washington*,[118] a series of stunning aerial photographs show that, in the main, the modern city has stayed fairly true to L'Enfant's scheme. Starting with the Capitol as the node of the plan looking west, two major avenues shoot at an angle, one to the southwest (Maryland) and to the other to the northwest (Pennsylvania) forming the classical upper portion of the Sephirothic Tree of Life which has as its node the first *sephirah* (divine emanation) representing the godhead. And although it may seem

strange to equate the Capitol with the godhead, we note that in 1830 Congress commissioned a massive statue of George Washington seated on a throne in the style of Zeus, the godhead *par excellence* of the classical world. Initially placed in the forefront of the Capitol, the statue, sculpted by Horatio Greenough, was then moved to a less ostentatious location on the east side of the Mall, and today can be seen in the Smithsonian Museum.[119]

Continuing with the hypothetical sephirothic scheme of L'Enfant's Washington, DC, we note that the location of the gigantic obelisk of the Washington Monument corresponds to the *sephirah* known as *Tipheret*, which means 'Beauty'. This *sephirah*, as we saw in Chapter Fifteen, represents the Sun, the centre of things, from which emanates all life and

light. The analogy intended by the ‘Egyptian’ obelisk that stands in Washington therefore seems obvious. Towering more than seven times as high those in Rome, Paris, London and New York, this powerful solar talisman is today the emblem of the capital city of the new world order.

Echoes

If we overlay Christopher Wren's plan for London with L’Enfant's for Washington we find that the Royal Exchange in the former corresponds with the US Capitol in the latter. Since we know that the laying of the cornerstone of the US Capitol was an intensely

Masonic affair involving George Washington himself, the juxtaposition of the Capitol and the Royal Exchange raises an obvious question: was any similar Masonic ceremony ever held in London for the Royal Exchange?

The Royal Exchange was founded as the *bourse* by Sir Thomas Gresham in 1566 and received its present name by royal proclamation in 1571. On 3 September 1666 it was engulfed by the Great Fire and totally destroyed. Soon afterwards, however, Charles II commissioned new plans from the architect Edward Jarman for the rebuilding of the Royal Exchange[120] and work began in mid-1667. Just as Washington, Freemason and president of the United States, participated in the Capitol ceremony in 1793, so too, as we shall see, did Charles II, suspected Freemason

and king of England, participate at the equivalent ceremony at the Royal Exchange 126 years earlier.

Thomas Gresham, the founder of the Royal Exchange, died in 1579. But his name has been persistently linked to Freemasonry and his legacy continued to play a role in its development long after his death. In 1660 his London residence, Gresham's house at Bishopsgate – by then Gresham College – became the first home of the Royal Society. The reader will recall that many of the original protagonists linked with Gresham College such as Sir Robert Moray, John Wilkins, Christopher Wren, Elias Ashmole and John Evelyn were, in some way or other, associated with either the Invisible College, the Royal Society or the early Masonic lodges in London. Though harder to specify there was also a strong Masonic ‘ambience’ at Gresham College, as Robert

Lomas shows in his study of the Royal Society. This ‘ambience’ can be sensed in Gresham's own decree that ‘seven readers’ or scholars should be appointed there to lecture on each of the ‘seven liberal arts’.[121] Indeed Lomas goes so far as to argue that the college was ‘the main centre for Freemasonry in Restoration London ... which Sir Thomas Gresham had set up to support his Masonic ideals of study’.[122]

We have also seen in Chapter Fifteen how Christopher Wren, unlike John Evelyn, had retained the original location of the Royal Exchange in his plan for London, giving it a pre-eminent position in his overall layout. This is what historian Adrian Tinniswood has to say about Wren's decision:

The real pride of place went to the [Royal] Exchange piazza with its radial vistas and its surrounding

complex of commercial buildings. The absolutist ideology underlying the planning of Sixtine Rome, which Louis XIV and André Le Nôtre were currently putting to such good use in the laying out of Versailles, was here called into service to pay homage to mercantilism. *Trade was to be the new religion.*[123]

The ‘new religion’, in Wren's mind, might well have been a concoction of the new scientific ideologies coming from Royal Society, Freemasonry and Templarism – all of which extolled the virtues of commerce and trade. For all their possible dualism at a late stage of their history let's not forget that the Templars were at the very root of the banking and investment systems of Europe. As for the Freemasons, they would eventually insinuate

themselves into the trade guilds and into the banking, investment and insurance institutions of the city of London. Thus the Royal Exchange becomes the symbol or talisman of mercantilism and all it stands for.

The confirmation that Masons and their rituals were involved in the rebuilding of Gresham's Royal Exchange after the Great Fire comes in the diary of Elias Ashmole where a cryptic note reads as follows:

King Charles his position of the first stone at the Royall Exchange uppon its Restauration October 23rd, 1667, 23h. 7m. a.m. P. Esq. Ashmole et Dm. Bernard [sic].[124]

Elias Ashmole's pre-eminent role in the origins of Freemasonry in England requires no further emphasis. It should not surprise us, therefore, that

according to historian C. H. Josten, a specialist on Elias Ashmole who examined this enigmatic entry, it is perhaps telling us that King Charles II laid the ‘first stone’ i.e. the cornerstone of the Royal Exchange ‘in true Masonic form, and that for this reason Ashmole, the Freemason, was asked to determine the most propitious time for the ceremony.’[125] It is known that Ashmole was frequently asked by Charles II to ‘cast horoscopes’ for various stately functions and, more particularly, after the Great Fire of 1666, to select favourable dates for the laying of the cornerstones of important buildings. We know he did precisely this in 1675 when, for example, he participated in the cornerstone ceremony for St. Paul's (see next section). Indeed, the tradition of casting horoscopes or selecting

propitious astrological dates for the laying of cornerstones of important buildings and monuments was then, and remains today, a common practice in Freemasonry. So we may well ask what was so ‘favourable’ about the date of 23 October selected by Ashmole?

We've already pointed out that in 1667 England was still using the Julian calendar which, at that time, lagged behind the Gregorian calendar by 10 – 11 days. A scholar like Ashmole would have known that the Gregorian calendar must soon be adopted in Britain – since it was obviously based on far more precise scientific realities than the Julian. Should this happen, then 23 October Julian would align to 13 October Gregorian. In other words, in most of continental Europe and, more particularly, France, the date of the ceremony for ‘the first stone of the

Royal Exchange’ was not 23 October but *13 October*. To continental Freemasons, this date is immediately recognisable as a ‘Templar’ date, since, as we know, it marked the infamous suppression of the order on 13 October 1307. Ashmole was a Freemason with a keen penchant for heraldic chivalry. It is by no means out of the question that some sort of ‘Templar’ message was his hidden intent.

If this hypothesis is correct then similar ‘Templar’ symbolism might be expected to turn up in other cornerstone ceremonies where Elias Ashmole was involved. This should be especially be the case for St. Paul's Cathedral which we will now show to be an intensely ‘Templar’ talisman.

The Cornerstone of St. Paul's

There ceremony for the laying of the cornerstone of the new St. Paul's is surrounded by a riddle. According to one diary entry by Elias Ashmole, the event was supposed to have taken place on 21 June 1675. It would also appear that it was Ashmole who decided the date by a horoscope cast.[126] There is another entry in Ashmole's diary, however, that categorically states:

23 June 1675 6h. 30’ a.m. The foundation of St. Paul's Church London, layd. [sic].[127]

Historian and astrologer Derek Appleby believes that the different dates (21 June and 23 June) for the ceremony were due to a change of plan caused by

bad weather.[128] This is possible. But there is another explanation. The prevailing calendar in England was still the Julian one, so that the date of 21 June – although evoking the summer solstice in the new Gregorian calendar – actually fell 10 – 11 days *after* the solstice in the Julian calendar and thus had no special significance in that respect. What 23 June Julian did denote, however, was St. John's Eve, the herald to the Masonic and Templar New Year celebrated on 24 June. There is no question at all that Elias Ashmole would have been acutely aware of the meaning of this date. The reader will also recall that when British Freemasons created the Grand Lodge they chose to do so on 24 June *because it was* St. John's Day. But then, in 1814, the Gregorian calendar had been long previously been adopted (since 1752 in

fact). In Ashmole's day, however, the Julian calendar was still very much in force.[129]

So what did Ashmole really have in mind – a Julian date or a Gregorian one? ...

If we convert 23 June Julian to its Gregorian counterpart we get 4 July.[130] How likely is it to be an accident, therefore, that in all history books on the Knights Templar, the date of 4 July is particularly highlighted. It is the date of the Templars' massive defeat by Muslim armies in the Holy Land at the Horns of Hattin on 4 July 1187 which was followed by the loss of Jerusalem to Christendom. There could therefore hardly be a more evocative 'Templar' or 'Solomonic' date than 4 July – evocative, that is, of the aspiration to rebuild Solomon's Temple in Jerusalem. The reader will also be aware, of course,

that 4 July is Independence Day in the US, commemorating the signature of the Declaration of Independence and converting the date forever into a powerful talisman that spells out ‘independence’ and ‘freedom’ for the New World and, now by and large, for a new world order.[131]

It would be almost perverse in these circumstances to fail to examine more closely the dates of the cornerstone ceremonies of powerful talismanic monuments such as the US Capitol and the White House – and even the Pentagon – for possible astrological, Masonic and ‘Templar’ symbolism.

The Virgin and the Star

Masonic author David Ovason points out that when the cornerstone laying ceremony of the US Capitol took place on the morning of 18 September 1793, the Sun was in the constellation of Virgo, which, he argues, had special significance in the scheme of things.[132] According to Ovason:

The imagery of Virgo as ruler of Washington DC is reflected in the considerable number of Zodiacs and lapidary symbols which grace the city. The Virgoan connection has also been emphasized in a number of foundation charts which are of fundamental importance to Washington DC. The foundation of the city itself, and the three corners of the triangle which L'Enfant had marked out for its centre (the Capitol, the White House, and the Washington Monument) were each set down on the earth at a time when the

constellation Virgo had a particular importance in the skies.[133]

Not being astrologers or Freemasons ourselves, we cannot vouch for certain on Ovason's theory. What we can support, however, is the hunch that *astronomy* had an important part to play in the planning and symbolism of cities such as Washington, DC.[134] Ovason goes on to make a particularly strong case that much of the symbolism surrounding events and monuments related to the Declaration of Independence and the foundation of the United States can be linked to the ancient heraldic star Sirius, whose pictogram was the well-known five-pointed star.[135] With this in mind, there is, we think, another astronomical matter to consider in connection to the Capitol.

Astronomical software such as *Starry Night* or *SkyMap Pro*, makes it a relatively easy matter to reconstruct ancient skies for any epoch and any location with a high level of precision and realism. We can thus, quite literally, observe events that were going on 'invisibly' in the sky (invisible because they were obscured to the naked eye by the light of the Sun) when the cornerstone of the Capitol was laid on the morning of 18 September 1793.

At Jenkins Heights, the location of the future Capitol, preparations had been going on through the night for the arrival of George Washington and his retinue of important guests. The White House (which had undergone its own Masonic cornerstone ceremony a little less than a year earlier on the now familiar 'Templar' date of 13 October 1792)[136] was to

be the starting point of the procession. From there the presidential party would travel in horse-drawn carriages along Pennsylvania Avenue to Jenkins Heights.

The alignment of Pennsylvania Avenue between the White House and Jenkins Heights is 22° south-of-east. Looking along this alignment it cannot be an accident that a few hours before sunrise on 18 September 1793 (cloud conditions allowing) observers would have been able to see the bright star Sirius rising directly over Jenkins Heights. It would slowly have gained in altitude as the world turned, so that by dawn it would have been positioned, quite alone, over the spot where the Capitol would stand. That such portentous astral symbolism could have gone unnoticed by the group of important Freemasons and astronomers who planned

Washington and decided the locations of its principal structures, seems most unlikely. But if this is so, it would mean that the axis of Pennsylvania Avenue must have been *deliberately* set by Pierre L'Enfant and/or by his colleague Andrew Ellicott so that it would be directed towards the rising of the star Sirius.

Is there anything to suggest that this is likely?

We have already seen how Pierre L'Enfant, while a student of architecture and city planning in Paris, had been much influenced by the work of the 17th century landscaper André Le Nôtre. It was Le Nôtre who had been directly responsible for the famous axis of Paris running from the Tuileries Garden, on the west side of the Louvre, along the Champs-Élysées and all the way to Chaillot Hill – where today stands the Arc de Triomphe. This axis, as the reader

will recall, was directed by Le Nôtre 26° north-of-west and 26° south-of-east such that it aligned, whether by coincidence or intent, to the rising-point of Sirius – also 26° south-of-east – as observed from Paris during the reign of Louis XIV. Because there is a difference of 10° of latitude between Paris and Washington, DC, the rising point of Sirius as observed from Washington is also different. We have seen calculations show that the star rose 22° south-of-east, and thus in line with Pennsylvania Avenue,[137] when observed from Washington in the epoch of L'Enfant.

It makes sense to suppose that L'Enfant would have been wellaware of this fact. And so would the respected surveyor and astronomer, Andrew Ellicott, the man responsible for physically setting out the

axis of Pennsylvania Avenue. Being a Freemason as well, he could hardly have ignored the alignment with the rising of Sirius, the five-pointed 'Blazing Star' of the Scottish Rite Masons, which would have been very obvious for much of the year to anyone standing at the White House and looking southeast towards the site of the future Capitol ...[138]

So let us venture a little further in this direction and see what else comes up.

Hidden in the sky

While researching his book, *The Secret Zodiacs of Washington DC*, David Ovason noticed that when he

looked back from the US Capitol westwards along Pennsylvania Avenue towards the White House from 6 to 12 August he would see the Sun setting in alignment with this avenue:

For a period of about one week, the sunset viewed from the Capitol seems to take place directly over the western end of Pennsylvania Avenue. From 6 to 12 August the disc of the sun cuts into the horizon above the avenue, with almost magical precision. Anyone who watches the sunset, on any of those days, cannot fail to realise that the designers of this city intended this period – or perhaps *one* day in this period – to be an important element in the city's design.[139]

Ovason goes on to note that:

In terms of the spherical geometry of astronomy, and the computerised programs available in modern

times, there is no problem to establish a ‘theoretical’ date for the significant sunset. The Capitol is at longitude W 77° 01’, latitude N 38° 53’. The azimuth for Pennsylvania Avenue proposed by Ellicott and L’Enfant was 290 degrees. This points to sunset around 11 and 12 August.[140]

If we use similar computer software to recreate the sky for the epoch of 1793 as seen from Washington, DC, and focus our attention on the period of 11 – 12 August, we will notice something most interesting not only regarding the Sun, as Ovason has observed, but also regarding the star Sirius. For on these very days Sirius rose *heliacally*, i.e. shortly before the Sun. The reader will recall that the heliacal rising of Sirius in ancient Egypt was the astrosolar event marking the beginning or ‘birth’ of the New Year and seems to

have been the focus of much attention in Masonic esoteric lore. Let us recall also that the heliacal rising of Sirius was incorporated into the myth of the ‘solar’ birth of Alexander the Great and, if our theory is correct, into the myth of Louis XIV’s ‘Capetian miracle’, and also into the very axis of Paris itself.

If you were both a land surveyor as well as a Freemason, like Andrew Ellicott (or, indeed, like George Washington himself), it would have been difficult under these circumstances *not* to associate the event of the heliacal rising of Sirius as viewed from Washington in 1793 with the ‘birth’ of the new Federal City and capital of the world's first true republic since Rome. It is perhaps pertinent also to note that the world's first ‘republic’ had been founded by Julius Caesar who, as it turns out, commemorated the republican era with the founding

of the Julian calendar in 48 BC which had been calibrated for him in Alexandria in Egypt by an Egyptian astronomer who made use of the heliacal rising of Sirius.

Can it be a coincidence, therefore, that on 15 April 1791 at 3:30 p.m., a congregation of Freemasons gathered in *Alexandria* near the future site of Washington, DC and enacted the Masonic ceremony of the ‘first stone’ presided over by the Master of Alexandria-Washington Lodge No. 22?[141] Let us also note in passing that the Sun was in Pisces, a Christic symbol, when the constellation of Leo (a ‘kingly’ symbol) was on the rise in the east.

Next let's consider the heliacal rising of Sirius as seen from the city of Paris in that same year of 1793. There, because of the change of latitude, it would

have occurred not on 11 – 12 August but on 20 August. In plain observational terms, this means that when looking from the Place de l'Étoile towards the Louvre just before dawn on 20 August 1793, an observer would have see the star Sirius rising over the Louvre Palace's south wing, right above the apartments where the 'Capetian miracle' had taken place. Also at this precise moment the Sun would have been in conjunction with the star Regulus, *Alpha Leonis*, the star of the 'solar-kings'. Indeed, this is why in ancient times the official 'birthday' of Alexander the Great was celebrated on 26 July Julian – because on that day the same conjunction of the Sun and Regulus likewise accompanied the heliacal rising of Sirius in Alexandria.

Such occult and astrological considerations seem in place in Alexandria in 332 BC, but we found it quite

eerie and unsettling to be obliged to suspect that they also determined the positioning and alignments of major avenues and monuments in the great modern cities of the West.

And still the clues kept on presenting themselves …

An obelisk for Washington

In 1799, five years after the founding of Washington, DC, George Washington died. The Freemasons of the United States organised his stately funeral, and all the lodges both in America and in France were temporarily turned into ‘lodges of sorrow’.

In that same year of 1799 Napoleon's army occupied Egypt. To all Republican Masons, this must have seemed like a great historical moment when the ancient ‘home’ of Freemasonry was finally drawn into the new Masonic-cum-republican world order initiated by the United States and France.

Soon after Washington's death, plans were prepared to raise a great ‘national monument’ in Washington, DC due west of the US Capitol in commemoration of the first president of the Republic. In May 1800, the congressional committee formed for this purpose expressed itself in favour of building a pyramid, 100 feet square at the base and ‘of proportional height’, but lack of funds and, eventually lack of interest, meant that the project was shelved.[142] In 1833, however, a group of patriots

created the Washington National Monument Society, which was successful in raising funds. Approval was obtained from Congress for the design and construction of an edifice appropriate to the memory of the ‘Father of the Nation’.

The first design proposed was by Peter Force, an influential Freemason and one of the founding members of the society. His idea, too, was a pyramid, but this time even more enormous than the one envisaged in 1800.[143] In 1836 a design was put forward by Robert Mills, a Freemason and architect, which consisted of a circular colonnaded temple with a statue of Washington in Graeco-Roman garb riding the solar chariot of Apollo with a huge obelisk rising above it adorned with an enormous ‘blazing five-pointed star’ at the top. The design that was finally

retained, however, was that of a lone giant obelisk with a tapered pyramidal apex – the Washington Monument that we know today. The obelisk, which is slightly taller than 555 feet, had to be placed slightly offset from the centerline of the Mall due to poor groundbearing conditions in the ideal spot.

The notion of a pyramid (and an obelisk is simply a pyramid on a pillar) rising symbolically above the new Republic has a background. It had previously been proposed in 1776 when Benjamin Franklin and Thomas Jefferson designed the Great Seal of the United States (which can still be still seen today on the back of the US one-dollar bill, introduced in 1931 by Franklin D. Roosevelt, a 32nd degree Scottish Rite Freemason). In 1789 the same symbol was placed on top of the Declaration of the Rights of Man and of the Citizen signed in Paris under the guidance of the

Freemasons Benjamin Franklin and the Marquis de Lafayette.

The cornerstone ceremony for the Washington Monument took place on Independence Day, 4 July 1848. We have already discussed the curious ‘Templar’ symbolism of this date, and also how it ‘converts’ to the St. John's Day of the Freemasons according to the Julian calendar. Appropriately, therefore, the cornerstone ritual for the Washington Monument was organised by the Freemasons of America, hundreds of whom attended in full Masonic regalia.[144] The ceremony was conducted by a prominent Mason, Benjamin French, the Grand Master for the District of Columbia, who donned the Masonic apron and sash that George Washington had worn for the 1793 ceremony of the Capitol.

According to author David Ovason,

The moment of the ceremonial cornerstone laying of the Monument has been preserved, and from this it is possible to reconstruct the foundation chart ... In many ways it is a remarkable horoscope, for it reflects precisely the same sort of stellar magic as was practiced in ancient Egypt, millennia ago.[145]

Due to lack of funds and political shenanigans, construction was delayed for several decades after the cornerstone had been laid, and it was not until 1880 that work began again at the site. A ‘second’ cornerstone ceremony was therefore arranged for 7 August 1880 at ‘one minute of 11 o'clock.’ Sensing that this curiously precise timing (10:59 a.m.) was for astronomical rather than astrological reasons, David Ovason worked out that the intention might have

been to make a link with the rising of a particular star which, in this case, turned out to be *Spica*, the brightest star in the constellation of Virgo. The inspiration may have perhaps come from the Masonic astronomer Lalande who had been a founding member of the Nine Sisters lodge in Paris and who was present, along with Benjamin Franklin and the Tarot astrologer Court de Gébelin, at the initiation of Voltaire in 1778. Lalande had written that:

The Virgin is consecrated to Isis, just as Leo is consecrated to her husband Osiris ... They put a wheat-ear in the hand of the Virgin, to express the idea of the months, perhaps because the sign of the Virgin was called by the Orientalists ... *epi*, or wheat-ear.[146]

It is likely that such ideas were entertained by

those involved in the cornerstone ceremony of the Washington Obelisk which, after all, is a blatant ‘Egyptian’ symbol selected by Freemasons.

The final dedication of the obelisk took place on 21 February 1885, which was, curiously enough, just one day after George Washington's birthday. On that cold and snowy day, 21 Masonic lodges of the District of Columbia, as well as Masonic delegations from Massachusetts, Delaware, Pennsylvania, Maryland, Virginia, Texas, South Carolina and Georgia, along with a vast number of ‘brothers’, formed a huge procession. The president and members of Congress joined the Freemasons while a huge crowd of onlookers cheered and the US Marine Band played a ‘number of rousing marches.’ Ovason's calculations show that this ceremony, which took place in the afternoon, occurred at the moment of the rising of

Sirius over the Capitol.[147] 'The extraordinary truth', he concludes:

... is that the very existence of the Washington Monument is intimately linked to the Egyptian star Sirius ... that the ancients represented in their sacred hieroglyphics as an obelisk-like form as well as a star. How is it possible that this most important star of the ancient world should find itself, as it were, resurrected in the architecture of the United States?[148]

In 1998 Robert Bauval visited the Washington Monument, which had been completely shored up with scaffolding for repair and embellishments in preparation for the millennium celebration planned for Washington, DC. Inside the monument's entrance, right over the door lintel, Bauval noticed a bronze plaque on which the face of George Washington had

been sculpted by the French artist Jean-Antoine Houdon, a Freemason, and member of the Nine Sisters lodge in Paris, whose other subjects had included Cagliostro and Empress Joséphine.[149] Above the plaque was the unmistakable motif of the ancient Egyptian winged solar disc with a star prominently positioned at its centre.

We can now safely guess which star is represented here ...

The Pentagon and Sirius

In 1941, fifty-six years after the final dedication ceremony of the Washington Monument, another

cornerstone was laid in Washington, DC, this time for a gigantic five-sided, star-shaped edifice: the Pentagon. The notables attending were not in Masonic regalia but instead wore the uniforms, spangled with gold five-pointed stars of the highest-ranking US military personnel.

Before the attack on Pearl Harbor in 1941, the 24,000 civilian and military personnel of the US War Department in Washington, DC were scattered amongst 17 buildings throughout the District of Columbia. In view of the forthcoming entry of the United States into World War II, it was hastily decided to place all these personnel together into one gigantic, centralised headquarters.[150] The job was given to the construction division of the US Army Quartermaster Corps, which produced a design for

the future Pentagon in July 1941. The plans were approved by President Franklin D. Roosevelt who, on 1 December 1941, signed legislation transferring the whole project to the US Army Corps of Engineers. The first section was completed in April 1942, and the full edifice was completed on 15 January 1943 at a total cost of $85 million.[151]

In view of the great importance of the project, all the major decisions were approved by President Roosevelt himself.[152] It is often claimed that the distinctive and eponymous pentagonal shape of the building was derived from the fact that the first location proposed near Arlington cemetery was a five-sided plot of land. But if so, the question arises why the pentagonal design was retained even though another site was eventually chosen further to the

south.

It is, of course, entirely possible that the prosaic explanation is the truth. But it is also true that Franklin Delano Roosevelt was raised as a Master Freemason in 1911 at the Holland Lodge No. 8 in New York and, in 1929 became a 32nd degree Scottish Rite Mason at the Albany Masonic Temple.[153] He would have been acutely aware, as were all high ranking Scottish Rite Masons who had read Albert Pike's *Morals & Dogma*, that the pentagonal shape, or *pentacle*, was associated by Pike with the Masonic Blazing Star and, in turn, identified with the five-pointed star of ancient Egypt, Sirius.

In Robert Cameron's book *Above Washington*,[154] there is a remarkable photograph taken by NASA

with infrared film, which ‘demonstrates the ultimate refinement in aerial photography’. The photograph was taken by a U-2 spy plane from an altitude of 65,000 feet. Although the ‘technical reading’ for images of this sort is very specialised, even lay viewers can easily see that the positioning of the Pentagon on the west side of the Potomac seems to be guided by the general axis that leads southeast – and more or less parallel to Maryland Avenue across the river – straight towards the US Capitol.

Turning the observation around Robert Bauval calculated that the Pentagon lies some *24° south-of-west* when viewed from the Capitol. Reconstructing the skies over Washington, DC for the epoch 1941 with *Starry Night*, and directing his attention to 24° south-of-west he typed the command to ‘run’ the sky. As he had half-expected the star Sirius positioned

itself right over the spot where the NASA photograph shows that the Pentagon is situated. Naturally Bauval wondered if here, too, a cornerstone ceremony had taken place in 1941 ...

The True ‘New Jerusalem’ in Israel?

Every American, indeed almost everyone in the world, is acutely aware of the date of 11 September 2001. This was the ‘day of infamy’ when Arab terrorists crashed a commercial plane into the US Pentagon and two other planes into the Twin Towers of the World Trade Center in New York.

It was therefore very strange, indeed almost surreal, to discover that the date of the ground-breaking ceremony for the Pentagon was also 11 September – in its case 11 September 1941. Little has been made of this, although the coincidence can hardly be said to be obscure since President George W. Bush himself drew attention to it in a speech he gave to Pentagon staff exactly a month after the attack. According to the *Army Link News*:

President George W. Bush, Lt. Gen. John Van Alstyne and First Lady Laura Bush joined a joint-service chorus and thousands of flag-waving Pentagon personnel in singing 'God Bless America' during the memorial ceremony at the Pentagon Oct. 11, 2001 ... He [the president] listed a number of victims: three school children travelling with their teacher on the hijacked jet, an Army general officer, a Department

of the Army civilian who had worked 30 years in the Pentagon, and a naval reservist. The President recalled how construction on the Pentagon, ‘a symbol of America's freedom and confidence’ and ‘a symbol of our strength in the world,’ began 60 years ago *on Sept. 11, 1941* … [Emphasis added]

At this point we ask the reader to recall two things: (1) the intense ‘Templar’ and ‘Judaic’ characteristics of the Scottish Rite ceremonies to ‘rebuild Solomon's Temple’ in the context of the lodges; and (2) the root of the Islamic terrorists’ grievance against the US – which is the oppression of the Palestinian people and the political and military support that the superpower extends to the state of Israel.

Could there have been more to President Roosevelt's – and President Truman's – involvement in the affair of the US Pentagon and the date of 11

September than at first meets the eye?

Is it a coincidence, for example, that the principal symbol used in 32nd degree Scottish Masonry is, in fact, a *pentagon*? And is it also a coincidence that in the same Masonic order, and same 32nd degree, the symbol of the pentagon is divided into five 'military' divisions of the 'Scottish Rite Army' in the same way the US Pentagon is divided into the five branches of the US Military?[155] More to the point, the Masonic author Christopher Knight, when investigating this very matter of the strange similarity between the US Pentagon and 32nd degree Scottish Rite rituals and symbolism, wrote,

... We could hardly believe our eyes. The 32nd degree is known as the degree of 'The Sublime Prince of the Royal Secret'. It comprises of three separate parts.

These are the Opening Ceremony, the Ceremonial Section and the Allegory. This particular ceremony is very elaborate, as befits someone who has climbed as high on the Freemasonic ladder as it is possible to go under one's own effort. A great deal of play-acting takes place and the various characters all have fictional names. It suggests that the 32nd degree relates to the fight for Jerusalem ... The ceremony takes place in what appears to be a fictitious military camp ... [which] is a five sided figure or pentagon ...[156]

We know, of course, of the many harebrained conspiracy theories that followed the 11 September 2001 attacks, and we don't want to add more fuel to the fire. But it is also obvious that the foreign policies of Presidents Roosevelt and Truman greatly

contributed to the creation of the state of Israel in the second half of the 1940s, and this made us wonder about their common affiliation to the Scottish Rite.

There is also the bizarre fact that President Roosevelt was both a 32nd degree Scottish Rite Mason as well as the 32nd president of the United States, while President Truman – who had been Roosevelt's vice-president – was both a 33rd degree Scottish Rite Mason and the 33rd president of the United States. In Scottish Rite Freemasonry, the four final degrees, from the 30th to the 33rd are the stage of initiation at which the candidate is thought to achieve the sublime objective of the Masonic enlightenment (or, some would say, ‘experiment’), which – allegorically – is the ‘rebuilding of the Temple of Solomon in Jerusalem’.

We've seen that the ‘tracing board’ provided in the rituals of the Scottish Rite's 30th degree makes use of the Sephirothic Tree of Life – which can be taken as the ‘spiritual’ representation of Solomon's Temple. As noted above, all such rituals are supposed to be purely allegorical, and we are assured by Masons that their meaning is simply that the candidate has achieved a level of spiritual perfection within himself as the human ‘temple’, and is thus compared, in a sense, to the perfection of the ‘Temple of Solomon’.

Nonetheless we can hardly avoid posing the obvious question: is it possible that the Roosevelt and Truman administrations took the ‘Masonic experiment’ all the way and actually ‘rebuilt’ the Jewish Solomonic state in Palestine? As farfetched and incredible as it seems, there is something else in the background that justifies such an outrageous

question – and this is the actual ‘degrees’ that both these presidents were linked to.

From the 30th to the 33rd degree

Several years ago while visiting a friend in Egypt, Robert Bauval was shown a Scottish Rite Masonic certificate issued at a lodge in Cairo in 1918 by the Supreme Council of the 33rd Degree. The certificate had belonged to the friend's maternal grandfather. Freemasonry is practically unknown in Egypt today, having been declared illegal by President Gamal Abdel Nasser in 1964. But in the early part of the 20th century it was extremely popular and many

high-ranking government officials and even members of the Egyptian royal family were Freemasons.[157]

The certificate was printed in French and Arabic. Bauval, who is fluent in both languages, could not help noting not only that the location of the Supreme Council was specified as ‘Cairo’, but also that the precise latitude was given as ‘under the celestial vault at the zenith by 30° 2’ 4” ...’ which would pinpoint the location to somewhere in central Cairo near Abdeen Palace.

Here is a curious fact. The modern state of Israel extends from latitude 30° north to 33° north. When carried west into Egypt, the former latitude passes almost through the Great Pyramid of Giza.

We are reminded of the historical statement sent by President Truman to the provisional government

of Israel on 14 May 1948. It reads simply:

This Government has been informed that a Jewish state has been proclaimed in Palestine, and recognition has been requested by the provisional government thereof. The United States recognizes the provisional government as the de facto authority of the State of Israel.[158]

Two decades later, in June 1967, Israeli forces stormed Jerusalem and recaptured the city from the Arabs after eight centuries of Muslim occupation. The Star of David had finally risen again. The ‘cornerstone’ of the New Jerusalem and, by extension the New Temple, had been laid.

As has several times been the case during our years of research for this book, we felt the ghostly lifting of a veil brush against our faces. Yet this time

the revelation of what lay behind the veil was so sinister, so worrying and so misunderstood by so many, that at first we thought it best to let it be, to ignore it, to delete it from our thoughts lest we be branded as ‘conspiracy theorists’.

Only after much consideration have we reached the conclusion that we *must* bring this strange and frightening issue to attention.

Epilogue

The Master Game

May 14th [1948], *David Ben Gurion is creating history. At 4 o'clock this afternoon when he reads these words aloud he will change world politics forever. In this simple text lies a dream of the Jewish People that has endured two thousand years of exile. It is the Declaration of the Establishment of the State of Israel. Yet the nation may not survive the day. All around him powerful forces are working to obstruct or destroy his fledgling nation. In neighbouring Jordan, King Abdullah heads an alliance of five Arab nations to strangle Israel at*

birth. He [Ben Gurion] *is defying the United Nations who have their own plans for the Middle East. Civil war rages across the country. The British Empire which has played peacekeeper for thirty years is leaving. His only hope lies in Washington. With the backing of President Truman, Israel might have a chance to survive.*

BBC2, 'The Birth of Israel, May 14th 1948', Days that Shook the World

At the center of contemporary Islamism is an anti-Semitic conspiracy theory, the roots of which lead back to Europe at least a century ago. The basic theme (i.e., that the Jews control, or are attempting to control, the world's governments and media, and generally work to promote Zioism, Israel, etc.) is well known, and is often referenced in regard to the statements and actions of Hamas as well as other Islamist organizations. However, that the Jews are linked to the Freemasons (often regarded as a

‘secret society’) in this conspiracy has gone largely unexplored by observers of Islamism.

A. Miller, ‘Freemasonry in the Mind of the Islamist’ [1]

Those damned mystics with a private line to God ought to be compelled to disconnect. I cannot see that they have done anything save prevent necessary change.

Harold Laski, 1919

CHAPTER TWENTY

THE DAY THAT SHOOK THE WORLD

In February 1998, almost exactly fifty years after David Ben Gurion read the Declaration of the Establishment of the State of Israel to the Jewish National Council in Tel Aviv, another ‘Declaration’ was read by one Osama Bin Laden: the ‘Declaration Of The World Islamic Front For Jihad Against The Jews And The Crusaders’. Bin Laden called upon all

Muslims to wage a ‘Holy War’ against Jews and ‘Crusaders’, i.e. Americans and their allies, ‘until the Aqsa Mosque (in Jerusalem) and the Haram Mosque (in Makkah) are freed from their grip.’

Three years later, on 11 September 2001, Bin Laden's organisation, the dreaded Al Qaeda, masterminded the destruction of the Twin Towers of the World Trade Center in New York and severe damage to the Pentagon in Washington, DC by having suicide volunteers hijack four commercial airlines and fly three of them into those buildings. This abominable event has gone down in history as 9/11.

On 20 November 2003 the British consulate and the HSBC bank in Istanbul, Turkey, were destroyed by suicide bombers. A man claiming to be from the Turkish Great Orient Raiders of the Eastern Front

(TGOREF) telephoned the semi-official Anatolian News Agency and coldly informed them that the TGOREF and Bin Laden's Al Qaeda group had jointly carried out the attacks. The mysterious voice then added these sinister words:

Our attacks against *Masonic* targets will continue. Muslims are not alone.[2]

And on 22 January 2003 the controversial north London Muslim spiritual leader, Sheikh Abu Hamza al-Masri, expressed these strange views to the *Independent*:

I am not saying every American government figure knew about this [September 11th]. But there are a few people [in the US government] who want to trigger a third world war. They are sponsored by the business lobby. Most of them are Freemasons, and

they have loyalty to the Zionists.[3]

On 10 March 2004, BBC News reported that,

A suicide attack on a Masonic lodge in the Turkish city of Istanbul has left one person dead and five injured ... the highly secretive international society of Masons is seen by radical Islamic groups as a supporter of the policies of Israel and the United States.[4]

And the *Guardian* reported on the same day:

One of the bombers reportedly chanted ‘God is great’ before detonating his device ... [another] assailant, who identified himself as Abdullah Islam, shouted ‘Down with the Israeli lodge’ ...[5]

Accusations

Accusations of Masonic and/or Zionist or Jewish manipulations backed by America are not uncommon in the Arab World. In 1978 the most influential body in promulgating and interpreting Islamic law and ideologies, the Islamic Jurisdictional College (IJC) located at Al-Azhar University, condemned Freemasonry as an evil organization. Seventeen years later the same condemnation of Freemasonry was repeated in Saudi Arabia in the *Saudi Gazette* of 13 January 1995, 'The Curse of Freemasonry: In Questions of Faith', which reprinted the text issued in 1978 by the IJC at its meeting in Makkah. We show here only items 7, 8 and 10 which are self-evident:

7. It [Freemasonry] is a Jewish Organization in its roots. Its secret higher international administrative board are Jews and it promotes Zionist activities.

8. Its primary objectives are the distraction of all religions and it distracts Muslims from Islam.

10. It has branches under different names as a camouflage so people cannot trace its activities, especially if the name of Freemasonry has opposition. These hidden branches are known are Lions, Rotary and others. They have wicked principles that completely contradict the rules of Islam. There is a clear relationship between Freemasonry, Judaism, and International Zionism. It has controlled the activities of high Arab Officials in the Palestinian Problem. It has limited their duties, obligations and activities for the benefit of the Judaism and International Zionism. Given that Freemasonry involves itself in dangerous activities, it is a great hazard, with wicked objectives, the Jurisdictional

Synod determines that Freemasonry is a dangerous, destructive organization. Any Muslim who affiliates with it, knowing the truth of its objectives, is an infidel to Islam.[6]

Such condemnations are now commonplace on the Internet. For example, in a popular website, 'Islam online', we also found the following statement regarding Freemasonry and Islam:

The Society of Freemasons aims to rebuild the Temple of Solomon in Jerusalem after destroying Al-Aqsa Mosque because the Jews allege that the mosque has been built on the site of the destroyed temple. Everything that furthers the interest of the Jews and promotes their position in the world is undertaken by the society. The cover of absolute secrecy and its strict hierarchy enables it to make

use of the positions and influence of its non-Jewish members to serve the Jewish cause. We have to understand that many of its members work for the society trusting that they only serve the causes of liberty, equality and justice. They remain unaware that they simply serve the cause of giving the Jews supremacy in world affairs. Islam respects other religions. Freemasonry deceives its members into thinking that they further the cause of a better humanity when they are actually furthering the interests of those who seek to give the Jews supremacy over all peoples of the world. Islam is the final message from Allah to man. It is the religion that supersedes all past divine messages, including Judaism. Freemasonry seeks to destroy Al-Aqsa Mosque in order to rebuild the Temple of Solomon in

its place.[7]

In an article entitled 'The New Islamic Fascism' published in November 2001 in the *Jerusalem Post*, Robert S. Wistrich, professor of modern European and Jewish history at the Hebrew University of Jerusalem, wrote:

This Middle Eastern radicalism is a distinctly modern movement, though it also has indigenous Islamic roots. The conspiracy theory at its heart, which links plutocratic capitalism, international freemasonry, Zionism, and Marxist Communism, is almost identical with the mythical structure of Nazi anti-Semitism. For contemporary jihadists, a 'Judaized' America and Israel, together with heretical, secular Muslim regimes are the godless spearhead of these dark occult forces that seek to destroy Islam and

undermine the cultural identity of Muslim believers.[8]

The perception that some Islamic militants have about the imaginary collusion between Freemasonry and Zionism needs to be carefully understood, not least because Islam is insinuating itself more and more deeply into the Western world where Freemasonry is widely practiced, especially in Britain and the US. We have noted how Islamic terrorists broke into a Masonic lodge in Turkey in March 2004 spraying bullets and detonating several bombs. Fortunately the only person to die in the attack was one of the terrorists. The second terrorist, Engin Vural, who survived was eventually tried in a Turkish court in August 2004. Vural confessed that he, as well as many other militants received their training in Pakistan and Afghanistan, and their network had

planned more such attacks. On 13 March 2004, *Al-Jazeera* published an English translation of a statement purported to be from Al Qaeda:

Jund al-Quds [Soldiers of Jerusalem] targeted a Jewish Masonic lodge in Istanbul. Three top Masons were killed in the operation, and if it was not for technical failure all the Masons would have been killed. Thanks to God anyway.[9]

More recently, CNN reported an aborted attack by a Muslim student on a Masonic temple in Atlanta, Georgia.[10]

The Lie that would not die

Unfortunately in the Muslim world the term *Massoony* ('Freemason') in the Arabic language is often used synonymously with 'Zionist' and vilified as one and the same thing. Indeed the term *Massoony* is also often used as a generic name for a multitude of organizations supposedly secretly colluding or working for the Zionists, the Israelis, the CIA and so forth, and believed to manipulate banks, military institutions, the media, educational bodies, governments and even the United Nations! To be more specific, many Arabs believe that the Muslim World and more specifically the Middle East is threatened by a secretive satanic force masterminded and manipulated by Freemasons and Zionists with the US branded as the 'Big Satan' and Israel the 'Small Satan'.

But where and why did such ideas originate?

The Masonic-Zionist conspiracy theory has its roots in the so-called *Protocols of the Elders of Zion*. This slim document, first published in Russia in 1903 – 5, purports to unmask a Zionist-cum-Masonic plot to take control of the world, and was used in anti-Semitic propaganda in Russia and later in Nazi Germany in the 1930s and, more recently, among radical Muslims.[11] Although long shown to be a hoax,[12] the *Protocols* have nonetheless been widely circulated and believed throughout the Middle East and are now used as a major propaganda tool in the spread of Islamism in the Western world. In 2002 Steven Simon,[13] assistant director of the International Institute of Strategic Studies, told the British House of Commons:

The texts [the *Protocols*] that are very influential

among al-Qaeda types and recruits to the organization, texts that can be found on the Internet or in broadsheets or in bookstores in the Middle East, already postulate a worldwide infidel conspiracy against Islam. The United States may bear the brunt of responsibility, but it is seen as part of a larger challenge, consisting of, depending on what you read, the UN, the EU, NATO and the Freemasons for that matter. As odd as that sounds, they have a prominent role in much of this conspiracy thinking.[14]

Although the supposed Masonic-Zionist conspiracy is generally seen in the Islamic world as a secular evil, Freemasons are often associated with the mysterious and satanic figure of the *Masih ad-Dajjal* (roughly translated as the ‘false prophet’ or ‘false messenger’) who, in Muslim lore, is supposed to

appear before the *Yawm al-Qiyamah* or 'Day of Judgment'. According to *hadith* the *Dajjal* has one eye which, as to be expected, is often linked to the single eye in the pyramid on the US one-dollar bill and, of course, the 'eye in the triangle' symbol used extensively in Freemasonry. The Internet is rife with websites that connect Freemasonry with the *Dajjal*. According to many of these websites, Freemasonry was behind the Gulf War, the invasion of Afghanistan, the Iraq War, the oppression in the Gaza strip and the turmoil in Pakistan.

Experts on anti-terrorism are gradually coming round to realise that there is a growing and dangerous paranoia about Freemasonry in some Islamic quarters that is extremely worrying, not least because it is drummed into the young minds, often even as part of school curricula. For example, in

Saudi Arabia a lesson for tenth grade boys on the Zionist Movement included in a schoolbook on Islamic culture is ‘a curious blend of wild conspiracy theories about Masonic lodges, Rotary Clubs, and Lions Clubs with anti-Semitic invective. It asserts that the *Protocols of the Elders of Zion* is an authentic document and teaches students that it reveals what Jews really believe.’[15]

The Semblance of a ‘Masonic-Zionist Conspiracy’

Many US presidents were Freemasons, including George Washington. But more relevant here are

those two presidents who are known to have been involved in the creation of the modern state of Israel[16] – Franklin D. Roosevelt and, more directly, Harry S. Truman. As we saw in the last chapter, Roosevelt was the 32nd president of the United States as well as a 32nd degree Scottish Rite Mason. Harry Truman was the 33rd president of the United States and a 33rd degree Scottish Rite Mason. It may not be too far-fetched to speculate that the 32nd degree could bear a relevance to Solomon's Temple. As has often been suggested there is, at the very least, a curious similarity with the Cabbalistic Sephirothic Tree of Life formed by the 22 paths plus the 10 ‘emanations’ of Jehovah. Moreover, some Scottish Rite certificates show the location of the issuing lodge by giving the geographical latitude in

degrees – and this has been taken to suggest a mystical connection between degrees of latitude and the Masonic ‘degrees’ of initiation. It is perhaps more than a coincidence that the geographical latitude of the Temple Mount in Jerusalem lies just south of the 32nd parallel while the ‘Mother Lodge’ of the Scottish Rite was originally located in the city of Charleston in South Carolina just off the 33rd parallel. The York Rite Freemasons of America run a periodical called *Knight Templar*, with the seal of the so-called *Grand Encampment of Knights Templar of the USA*.[17] The front cover of the August 2010 issue of *Knight Templar* shows the Temple Mount in Jerusalem, with the Wailing Wall and the Dome of the Rock and an Israeli flag dominating the scene.[18]

Radical Arabs perceive a conspiracy in all this

involving, at the very least, American Freemasons and the World Zionist Organization.[19] And the recent discovery of the diaries of former Secretary of the Treasury Hans Morgentau has added fuel to this political fire. The diaries report a meeting between Morgentau and Roosevelt on 3 December 1942 at which President Roosevelt made these extraordinary comments regarding the eventual creation of a Jewish state in Palestine:

I actually would put a barbed wire around Palestine, and I would begin to move the Arabs out of Palestine … Each time we move out an Arab we would bring in another Jewish family … 90% of them should be Jews … It would be an independent nation just like any other nation – completely independent. Naturally, if there are 90% Jews, the Jews would dominate the

government.[20]

The letter that stunned the world

During the early hours of 14 May 1948, according to the BBC2 programme cited at the beginning of this chapter, the Zionist leader David Ben Gurion put the finishing touches to the Declaration of the Establishment of the State of Israel which he would soon read. Let us note in passing that the population of Palestine at that time was just over two million souls of whom thirty per cent were Jews, while the remaining majority were mostly Muslims and a small number of Christians. Civil war between Muslims and

Jews had broken out, and at first it looked like the Jews would be overwhelmed by an Arab military alliance formed by Jordan, Syria, Egypt, Iraq and Lebanon.

At 4 p.m. Ben Gurion read the Declaration which started with the words:

The land of Israel was the birthplace of the Jewish people. Here their spiritual, religious and national identity was formed. Here they achieved independence and created a culture of national and universal significance. Here they wrote and gave the Bible to the world.[21]

The Declaration goes on to state that,

Accordingly, we, the members of the National Council, representing the Jewish people in Palestine and the Zionist movement of the world, met together

in solemn assembly today, the day of the termination of the British Mandate for Palestine, by virtue of the natural and historic right of the Jewish people and of the Resolution of the General Assembly of the United Nations. We hereby proclaim the establishment of the Jewish State in Palestine, to be called ISRAEL ... The State of Israel will be open to the immigration of Jews from all countries of their dispersion; will promote the development of the country for the benefit of all its inhabitants; will be based on the precepts of liberty, justice and peace taught by the Hebrew Prophets ... our call goes out the Jewish people all over the world to rally to our side in the task of immigration and development and to stand by us in the great struggle for the fulfilment of the dream of generations – the redemption of Israel. With trust in Almighty God, we set our hand to this Declaration, at

this Session of the Provisional State Council, in the city of Tel Aviv, on this Sabbath eve, the fifth of Iyar, 5708, the fourteenth day of May, 1948.[22]

The Declaration announced that the Jewish state would officially come into existence at midnight on 14 May 1948 which marked the end of the British Mandate for Palestine. In Washington this would be 6 p.m. EST on 14 May.

At about the same time that Ben Gurion was in the process of reading the Declaration in Tel Aviv, Eliahu Epstein, head of the Jewish Agency for Israel, now calling himself, 'agent to the provisional government of Israel', received a phone call from Clark Clifford,[23] the special counsel to President Truman. Clifford, who was in his early forties at this time, urged Epstein to write at once to President Truman to

‘welcome Israel into the community of nations’. Then at 11 minutes after the proclamation of a Jewish state in Palestine became effective, President Truman recognized the provisional government as the ‘de facto authority of the State of Israel’.[24]

It seems inconceivable, at least in our opinion, that President Truman gave his personal approval within minutes, presumably without having seen the details of the constitution of this new ‘Jewish state’ claiming biblical rights to modern Palestine! At any rate, David Ben Gurion was immediately made Israel's first prime minister and Chaim Weizmann, the ‘guiding spirit behind the Zionist Organization [now called the World Zionist Organization]’ who was at the time living in New York, was to become it's first ‘president’.

But what really happened at the White House on that fateful and confusing day of 14 May 1948?

An Insider's Account

In his memoirs, Clark Clifford revealed some rather shocking aspects of how and why President Truman so hastily recognized the Jewish state of Israel.[25]

A little background information is necessary at this stage. All who understood this vexed issue knew that the United Nations Partition Plan for Palestine of 29 November 1947 was,

... patently unfair, it awarded 56 percent of Palestine to its 650,000 Jewish inhabitants, and 44 percent to

its 1,300,000 Muslim and Christian Arab inhabitants. Partition was adopted only after ruthless arm-twisting by the US government and by 26 pro-Zionist US senators who [sent] in telegrams to a number of UN member states.[26]

Making matters worse was Truman's famous statement regarding the Zionist lobby in America, in which he bluntly gave this explanation of his position: I'm sorry, gentlemen, but I have to answer to hundreds of thousands who are anxious for the success of Zionism: I do not have hundreds of thousands of Arabs among my constituents.[27]

As predicted by many, no sooner was the UN Partition Plan adopted than widespread armed fighting broke out between Jews and Arabs, as the latter rejected wholesale the partition arrived at by

‘foreigners’ for what was clearly a piece of Arab real estate. Nonetheless well-armed and experienced Jewish militias seized Arab villages that were given to Arabs by the UN, easily crushing badly armed and untrained Arab villagers. At this point, Secretary of State George C. Marshall, a highly respected five-star general and staunch opponent of the UN plan, asked Truman in no uncertain terms to reconsider his support for a Jewish state.

When the British announced their withdrawal from Palestine to be effective at midnight on 14 May 1948 (without even waiting for the final outcome of events in the UN) the conflict had already spread all over Palestine, and five Arab countries, including Egypt and Jordan, now openly threatened to send their armies across the border to ‘kill the new born Jewish state at birth’. The State Department strongly urged

Truman not to recognize Israel, at least not immediately, but rather to support the prevailing view at the UN for a UN ‘trusteeship’. So why didn't he listen to such wise advice? To understand this, it is important to appreciate the pivotal role played by Clark Clifford, then Truman's political adviser for domestic affairs, in counteracting and eventually overriding Secretary Marshall's opposition. In Clark Clifford's own words:

Marshall firmly opposed American recognition of the new Jewish state; I did not. Marshall's opposition was shared by almost every member of the brilliant and now legendary group of presidential advisers, later referred to as the ‘wise men’, who were then in the process of creating a post-war foreign policy that would endure for more than 40 years. The opposition included the respected Under Secretary of State

Robert Lovett; his predecessor, Dean Acheson; the No. 3 man in the State Department, Charles Bohlen; the brilliant chief of the Policy Planning Staff, George Kennan; (Navy Secretary James V.) Forrestal; and ... Dean Rusk, then the director of the Office of United Nations Affairs ...

Officials in the State Department had done everything in their power to prevent, thwart, or delay the president's Palestine policy in 1947 and 1948, while I had fought for assistance to the Jewish Agency.[28]

Clifford then narrates the specific mood and happenings in early May 1948, and more specifically his own involvement:

At midnight on May 14, 1948 [6 p.m. in Washington], the British would relinquish control of Palestine. One

minute later, the Jewish Agency, under the leadership of David Ben-Gurion, would proclaim the new state. I had already had several serious disagreements with General Marshall's protege, Dean Rusk, and with Loy Henderson, the director of Near Eastern and African Affairs ... He [Rusk] had no use for White House interference in what he saw as his personal domain in American policy in the Middle East. A number of Middle East experts in the State Department were widely regarded as anti-Semitic.

On May 7th, a week before the end of the British Mandate, I met with President Truman for our customary private day-end chat ... I handed the president a draft of a public statement I had prepared, and proposed that at his next press conference, scheduled for May 13th, the day before

the British Mandate would end, he announce that it was his intention to recognize the Jewish state. The president was sympathetic to the proposal, but, being keenly aware of Marshall's strong feelings, he picked up the telephone to get the Secretary's views ...

I could tell that Marshall objected strongly to the proposed statement. The president listened politely, then told Marshall he wanted to have a meeting on the subject ... On ending the conversation, the president swivelled his chair toward me. ‘Clark, I am impressed with General Marshall's argument that we should not recognize the new state so fast,’ he said. ‘He does not want to recognize it at all – at least, not now. I’ve asked him and Lovett to come in next week to discuss this business. I think Marshall is going to continue to take a very strong position. When he

does, I would like you to make the case in favor of recognition' ...

President Truman had asked me to debate the man he most admired, a man whose participation in the administration was essential to its success. I was 41 years old, in my third year at the White House as a presidential aide. Virtually every American regarded General Marshall, then 67, with a respect bordering on awe ...

At 4 p.m. on Wednesday, May 12 ... seven of us joined President Truman in the Oval Office ... President Truman did not raise the issue of recognition; his desire was that I be the first to raise it, but only after Marshall and Lovett had spoken, so that he would be able to ascertain the degree of Marshall's opposition

before showing his own hand. Lovett began by criticizing what he termed signs of growing ‘assertiveness’ by the Jewish Agency …

Marshall interrupted Lovett. He was strongly opposed to the behavior of the Jewish Agency, he said. He had met on May 8th with Moshe Shertok [future Israeli prime minister Moshe Sharett], its political representative, and had told Shertok that it was ‘dangerous to base long-range policy on temporary military success.’ Moreover, Marshall said, he had told Shertok that if the Jews got into trouble and ‘came running to us for help … there was no warrant to expect help from the United States, which had warned them of the grave risk which they were running’ … The United States, he said, should continue to support those resolutions in the United

Nations which would turn Palestine over to the UN as a trusteeship, and defer any decision on recognition.[29]

At that point Clifford presented his own ‘case’, speaking of the 1917 Balfour Declaration which promised a homeland for the Jews to the Zionist Federation, the terrible events of the Holocaust, and now the chance to have a Jewish nation that would uphold democracy in the Arab world. However as Clifford made his argument he had noticed:

... Marshall's face reddening with suppressed anger as I talked. When I finished, he exploded.

‘Mr. President, I thought this meeting was called to consider an important and complicated problem in foreign policy. I don't even know why Clifford is here.

He is a domestic adviser, and this is a foreign-policy matter.’ I will never forget President Truman's characteristically simple reply: ‘Well, General, he's here because I asked him to be here.’ Marshall, scarcely concealing his ire, shot back, ‘These considerations have nothing to do with the issue. I fear that the only reason Clifford is here is that he is pressing a political consideration with regard to this issue. I don't think politics should play any part in this.’

Lovett joined the attack. ‘It would be highly injurious to the United Nations to announce the recognition of the Jewish state even before it had come into existence and while the General Assembly is still considering the question. Furthermore, such a move would be injurious to the prestige of the President. It

is obviously designed to win the Jewish vote, but in my opinion it would lose more votes than it would gain.’ Lovett had finally brought to the surface the root cause of Marshall's fury: his view that the position I presented was dictated by domestic political considerations ...

When Lovett concluded his attack, Marshall spoke again. Speaking with great and barely contained anger and with more than a hint of self-righteousness, he made the most remarkable threat I have ever heard anyone make directly to a president. He said, ‘If you follow Clifford's advice and if I were to vote in the election, I would vote against you.’

Everyone in the room was stunned. Here was the indispensable symbol of continuity, whom President

Truman revered and needed, making a threat that, if it became public, could virtually seal the dissolution of the Truman administration and send the Western Alliance, then in the process of creation, into disarray before it had been fully structured. Marshall's statement fell short of an explicit threat to resign, but it came very close.

Clifford further recounts that in the 12 May 1948 meeting:

Lovett and I both tried to step into the ensuing silence with words of conciliation. We both knew how important it was to get this dreadful meeting over with quickly, before Marshall said something even more irretrievable ... he [Truman] rose and turned to him and said, ‘I understand your position, General, and I’m inclined to side with you in this matter’ ... Marshall did not even glance at me as he and Lovett

left.

Clifford claims that after this meeting, Secretary Mashall never mentioned his name again. He also eventually found out that, at day's end on 12 May 1948, Marshall:

... did something quite unusual, which the president and I were unaware of at the time. Certain that history would prove him right, he wanted his personal comments included in the official State Department record of the meeting. His record, exactly as he wanted historians to find it when it was declassified, almost three decades later, reads as follows:

‘I remarked to the president that, speaking objectively, I could not help but think that the suggestions made by Mr. Clifford were wrong. I

thought that to adopt these suggestions would have precisely the opposite effect from that intended by Mr. Clifford. The transparent dodge to win a few votes would not in fact achieve this purpose. The great dignity of the office of the president would be seriously diminished. The counsel offered by Mr. Clifford was based on domestic political considerations, while the problem which confronted us was international. I said bluntly that if the president were to follow Mr. Clifford's advice and if in the elections I were to vote, I would vote against the president.’[30]

At this point it is noteworthy that President Truman, judging from his owns accounts and that of his biographers, shows that he was undecided over the issue and confused as to what was best to do.

Lobbied on the one hand for the recognition of the Jewish state by his White House adviser, David Niles, and Truman's old army colleague and business partner, Eddie Jacobson, and on the other hand by the ‘wise men’ at the State Department, Truman, on face value, seems to have hesitated. Clifford, however, give the impression that, quite to the contrary, Truman position was set on recognition of the Jewish state. In other words, his position was inflexible and adamantine. At any rate, everyone, it seems – Clifford, Niles, and even the State Department – were in direct communication with Eliahu Epstein, the Washington representative of the Jewish Agency for Israel (which later was to convert itself into the government of new state of Israel). As for Clifford himself, here, in his own words, is his involvement on that day of 14 May 1948:

Even without a clear signal from Lovett and Marshall, I felt, we had to set in motion the machinery for recognition, in the event that a favorable decision was made. At 10 a.m., I made a different call – one that I looked on later with great pleasure … I told the Jewish Agency representative [Epstein], ‘we would like you to send an official letter to President Truman before 12 o'clock today formally requesting the United States to recognize the new Jewish state. I would also request that you send a copy of the letter directly to Secretary Marshall.’

Epstein was ecstatic. He did not realize that the president had still not decided how to respond to the request I had just solicited … It was particularly important, I said, that the new state claim nothing beyond the boundaries outlined in the UN resolution

of Nov. 29, 1947, because those boundaries were the only ones that had been agreed to ... A few minutes later, Epstein called me. ‘We've never done this before, and we're not quite sure how to go about it,’ he said ...

With my knowledge and encouragement, Epstein then turned for additional advice to two of the wisest lawyers in Washington, David Ginsburg and Benjamin Cohen, both of whom were great New Dealers and strong supporters of the Zionist cause. Working together during the rest of the morning, he and they drafted the recognition request ...[31]

Clifford then narrates how a staff member of the Jewish Agency for Israel drove to the White House with the request for recognition of the ‘Jewish state’

but was intercepted by another member because Epstein had heard on shortwave radio that the new state was not to be called the ‘Jewish state’ but the ‘state of Israel’ and thus instructed that the letter be corrected in ink before handing over the request for recognition to the White House! At any rate, when it became known to the American delegation at the UN (the latter then pushing for voting for continued trusteeship), the US ambassador to the UN, Warren Austin, walked out of the UN building so as not to be there when US recognition of Israel was announced. Dean Rusk thus had to quickly go to the UN Headquarters to persuade the US delegation members there not to resigning in protest!

Marshall did not resign as was previously feared. Lovett had apparently talked him out of it. According to Clifford,

Lovett remained adamant for the rest of his life, however, in his view that the president and I had been wrong. So did most of his colleagues. Nothing could ever convince him, Marshall, Acheson, Forrestal, or Rusk that President Truman had made the right decision ... Because President Truman was often annoyed by the tone and fierceness of the pressure exerted on him by American Zionists, he left some people with the impression that he was ambivalent about the events of May 1948. This was not true. He never wavered in his belief that he had taken the right action .[32]

Truman's fateful decision led to a situation in which three quarters of a million Arab-Palestinians were forced to flee their own country as refugees during the 1947 – 9 fighting, and subsequently caused five

Arab-Israeli wars in 1948, 1956, 1967, 1973 and 2006. Had a different decision been taken it seems probable that there would have been no ‘Middle East Crisis’, nor the formation of the various terrorist groups such as the PLO, Hezbollah and others that have resulted in modern times in the dreaded Al Qaeda of Osama Bin Laden, 9/11 and the wars in Afghanistan and Iraq.[33]

Flash forward to 1978: Jerusalem Day

In 1978 Ayatollah Khomeini arrived in triumph in Qom, the holy city of the *Shi'a* Muslims, and

pronounced to an ecstatic and frenzied multitude that the Islamic Revolution had begun. A year later, now almost deified by his followers, he announced the creation of *Al-Quds* Day, Jerusalem Day:

I invite Muslims all over the globe to consecrate the last Friday of the holy month of Ramadan as *Al-Quds* Day and to proclaim the international solidarity of Muslims in support of the legitimate rights of the Muslim people of Palestine. For many years, I have been notifying the Muslims of the danger posed by the usurper Israel ... I ask all the Muslims of the world and the Muslim governments to join together to sever the hand of this usurper and its supporters [America] ... and through a ceremony demonstrating the solidarity of Muslims worldwide, announce their support for the legitimate rights of the Muslim people. I ask God Almighty for the victory of the

Muslims over the infidels.[34]

In solidarity with the Palestinians, Khomeini declared the liberation of Jerusalem a religious duty to all Muslims. The Ayatollah then added:

In the Name of God, the Compassionate, the Merciful. *Quds* Day is an international day, it is not a day devoted to *Quds* alone. It is the day for the weak and oppressed to confront the arrogant powers, the day for those nations suffering under the pressure of America ... The oppressed should arm themselves against the oppressors and rub their noses in the dirt ... all the nations should rise up and throw these germs of corruption into the rubbish bin too ...

Quds Day is the day when the superpowers should be warned to stay at home and leave the oppressed

alone. Israel, the enemy of mankind, the enemy of humanity, which is creating disturbances every day and is attacking our brothers ...

Quds Day is the day for announcing such things, for announcing such things to the Satans who want to push the Islamic nations aside and bring the superpowers into the arena. *Quds* Day is the day to dash their hopes and warn them that those days are gone ...

Quds Day is the day of Islam; it is the day when Islam should be revived, so let us revive it and implement Islamic laws in the Islamic countries. *Quds* Day is the day when we must warn all the superpowers that they can no longer keep Islam under their control by means of their evil agents. *Quds* Day is the day to

give life to Islam. The Muslims must awaken, they must come to realise the power they have, the material power and the spiritual. What are the Muslims, who form a population of one billion, enjoy divine support and have Islam and their faith behind them, afraid of? ...

The governments in the world should know that Islam will not be defeated. Islam and the teachings of the Qur'an should prevail in all countries. Religion should be the religion of God and Islam is the religion of God so it should advance on all regions of the world. *Quds* Day is the day to announce such a matter, the day to announce 'Muslims, advance!' Advance on all the regions of the world ...[35] with our cries and shouts of '*Allah'u Akbar*' ['God is Great'] ...[36]

Flash forward to 2001: Masonic Oath?

We recall that in 1740 the Chevalier Ramsay, a Scotsman and Jacobean, created a Masonic order in France which he claimed had its roots in the Crusades and which, some believe, was the precursor to Scottish Rite Freemasonry – today headquartered in Washington, DC. Meanwhile Bin Laden's rhetoric, and the threats, accusations and attacks against Freemasons cited leave little doubt that Islamic fundamentalists regard America as a Masonic-crusading power whose ally in the Middle East is Israel.

Such perceptions could only have been heightened

in January 2001 when the following newspaper article was circulated by the Associated Press:

A Bible that George Washington used to take the oath of office as the nation's first president will be used by George W. Bush. Three officials of the Manhattan-based St. John's Lodge of the Free and Accepted Masons will board an Amtrak liner for Washington, DC, tomorrow. They'll be carrying the nine-pound, 234-year-old King James Bible in a special case. For the sixth time in history, the Bible will be used on Saturday for the swearing in of a US president. George Washington was the first, in 1789. The last was George H. W. Bush, who used the Bible in 1989. Other presidents who have placed their left hand on the Masonic Bible were Warren Harding in 1921, Dwight Eisenhower in 1953, and Jimmy Carter in 1977. The Bible was also displayed at the New York

World's Fair in 1964 – 65.[37]

When we consider the symbolic implications of all this for Muslims already paranoid about a supposed Masonic-Zionist plot, a new and extraordinary possibility presents itself.

It is the norm for the entrances to Masonic temples and lodges to be flanked by two pillars representing the twin pillars of Solomon's Temple, namely *Boaz* and *Jachin* – meaning ‘wisdom’ and ‘power’. The so-called *Plan of Lodges* also incorporates these pillars as well as a five-pointed star or pentagon symbolising the Holy of Holies of Solomon's Temple. Indeed the Temple of Solomon, and its rebuilding in a spiritual manner, is probably the most important symbol representing the ideal of Freemasonry in the world today.

Could it be that the attacks on the Twin Towers at the ‘entrance’ of America, i.e. New York, and on the Pentagon – the ‘Holy of Holies’ of US military power – were intended, at least in part, as a coded symbolic *message* aimed at imagined Templar-crusaders or Zionist-Masons … or both?

Was 9/11 the latest move in the millennia-old ‘Master Game’ – a move that demonstrates, more than any other, that all the players have now utterly lost their way?

‘Jihad’ or ‘Crusade’?

At a press conference given on the south lawn of

the White House on 16 September 2001, five days after the attack on the Twin Towers and Pentagon, President George W. Bush said:

We need to go back to work tomorrow and we will. But we need to be alert to the fact that these evil-doers *still* exist. We haven't seen this kind of barbarism in a long period of time ... This is a new kind of evil. And we understand. And the American people are beginning to understand. This *crusade,* this war on terrorism is going to take a while. And the American people must be patient. I'm going to be patient. But I can assure the American people I am determined, I'm not going to be distracted, I will keep my focus to make sure that not only are these brought to justice, but anybody who's been associated will be brought to justice ... It is time for us to win the first war of the 21st century decisively,

so that our children and our grandchildren can live peacefully into the 21st century.[38]

On 16 February 2002, the president used the same rhetoric:

I want to tell you something, we've got no better friends than Canada. They stand with us in this incredibly *important crusade* to defend freedom, this campaign to do what is right for our children and our grandchildren.[39] [Emphasis added]

On 7 September 2002, *Counterpunch* editor Alexander Cockburn published an article titled 'The Tenth Crusade' in which he wrote:

Islamic fanatics flew those planes a year ago and here we are with a terrifying alliance of Judaeo-Christian fanatics, conjoined in their dreams of the recovery of the Holy Lands of the West Bank, Judaea

and Samaria. War on Terror? It's back to the late thirteenth century, picking up where Prince Edward left off with his ninth crusade after St. Louis had died in Tunis with the word ‘Jerusalem’ on his lips.[40]

And James Pinkerton, a columnist in *Newsday* commented on 4 December 2003,

And now, in 2003, the Americans, the *Twelfth Crusaders*. The West is no longer ‘Christendom,’ but we, as first cousins to the Europeans, retain the old faith and bring new kinds of idealism, such as democracy and human rights. But the Crusader spirit is still there; it's still about bringing civilization and salvation of a backward people. As the born-again George W. Bush says, ‘This is about good vs. evil.’[41]

From the Crusades to Al Qaeda

In November 2010, a spine-chilling statement was made on Internet by the self-styled Islamic state of Iraq (ISI), Al Qaeda's front in Iraq:

[ISI] declares all Christian centers, organizations and institutions, leaders and followers, are legitimate targets for *Mujahideen* [Muslim holy warriors] wherever they can reach them ... The killing sword will not be lifted from the necks of the [Vatican leaders] and their followers until they declare their innocence from what the Egyptian Church is doing.[42]

Al Qaeda's allegation was that Muslim women ‘were being held against their will in Coptic Christian monasteries in Egypt’.[43] Although the charge sounds

most improbable, the gruesome inevitable soon happened. On 31 October 2010, just hours after the ‘statement’ was put on the Internet, a group of fanatical SIS ‘Muslim Warriors’ stormed into the Our Lady of Salvation church in the Karrada neighborhood of central Baghdad. A hundred hostages were taken and the whole bizarre incident ended with the death of 58 people. Threats were then made directly towards Christian churches in Egypt and elsewhere in the Middle East.

In a garbled ‘good-cop, bad-cop’ reaction, the official Muslim Brotherhood in Egypt (ironically, the root organization from which Islamic Jihad, Hamass and Al Qaeda all sprang) quickly issued a statement:

The Muslim Brotherhood is stressing to all, and primarily Muslims, that the protection of Holy Places of all monotheistic religions is the mission of the

majority of Muslims … The Brotherhood rejects all stupid threats against Christian places of worship in Egypt by anyone and under any pretext.[44]

On face value the Muslim Brotherhood must be lauded for its swift condemnation of such threats and attacks on Christian establishments. Yet it is well known that for the past 60 years the Copts (Christians) of Egypt, have suffered almost continuous persecution at the hands of the Muslim Brotherhood. An exodus of almost biblical proportions has taken place and huge numbers of Copts have fled Egypt to settle in the Western world.[45]

Meanwhile in Baghdad a series of booby-trap bomb attacks on Christian families took place in November 2010 in the days after the terrible massacre at the

Our Lady of Salvation church. According to the *Guardian* newspaper, Christians in Iraq now regret the downfall of Saddam Hussein, saying that ‘for all his atrocities, the dictator left the Christians alone’. According to one Christian Iraqi woman, Linda Jalal:

We didn't suffer under him [Saddam Husein]. But now I am terrified to live in this society. We are being slaughtered like sheep. Yet we are civilians in our country.[46]

And on 31 December 2010, as hundreds of Copts were coming out of a church in the Sidi Bishr district of Alexandria, a powerful carbomb exploded killing twenty-one people and injuring dozens of others. Unconfirmed reports indicated that Al Qaeda was behind this murderous act following its recent threat against Christians.

Infuriated by this act of senseless terrorism, Christian youths in Alexandria went on a rampage and attacked a nearby local mosque. Mayhem followed as sectarian tension was pushed to breaking point. And although the riot police was able to restore calm, a very uneasy mood fell across the whole of Egypt.[47]

Not only in Iraq and Egypt, but across the Middle East and indeed in the Muslim world as a whole, Christians increasingly live in fear, not knowing when some fanatic might decide to see them as a 'legitimate target'. The corollary is that in the predominantly Christian West, Muslims are now regarded with ever growing suspicion as they go about their daily lives. If there was any doubt that what is going on is a modern religious crusade, these

recent troubling incidents have settled the matter.

Yet this is not the end; and in the famous words of Winston Churchill, ‘It is not even the beginning of the end.’ There will unfortunately be more such gruesome attacks, perhaps not only by Muslim fanatics on Christian ‘targets’ but also by Christian (or Jewish) fanatics on Muslim ‘targets’.

Unless the ‘crusading’ undercurrent to these events is understood, and successfully defused, the root of the problem will persist, and will continue to create new factions, even if Al Qaeda is totally eliminated. In the somber words of Dr. Lucy-Anne Hunt, head of the School of History of Art and Design at Manchester Metropolitan University:

The motif of the crusader is an integral element of the historical memory. Among the Muslims, it will evoke reminiscences of crimes committed by the

West in the past within seconds. On both sides, it has a reliably polarizing effect and demonizes the enemy. And it suggests that aggressive action is justified since it is willed by God … President Bush referred to it when opting for the recent war in Iraq. This appeal to Godgiven authority fits in with the simple choice given here: if you're not with us, you're against us. Conversely, in their attacks on Western targets, extreme Muslim groups have also accepted casualties among Muslims, as in the London bombings … This polarization demonstrates that the need for ongoing dialogue and negotiation, albeit a painstaking and slow process, is ever more crucial.[48]

In other words, God must be made to step aside in this ever-growing conflict, and secular moderate heads of state must begin to speak out and drum

some sense into the religious leaders and radical groups on both sides. This is the first and major step in stopping this runaway train that is slowly but surely leading us all into a world conflict which no nation, no religious group, nor even the human race as a whole can win.

APPENDIX

THE GREAT PYRAMID AND FREEMASONRY

(*Publisher's note: much of the information in this appendix is culled from Robert Bauval's book,* Secret Chamber: The Quest for the Hall of Records*, Chapter 8*).

Millennium Madness and the Great Pyramid

Amid accusations of a ‘Zionist’ plot and ‘Masonic’ machinations, the Egyptian government cancelled the placing of a golden capstone on top of the Great Pyramid of Giza scheduled for the eve of the new millennium at midnight on 31 December 1999.

Oddly enough, the strange circumstances that led to this bizarre scandal had their origins in France on 14 May 1998 when a golden capstone was unveiled on top of the ancient Egyptian obelisk at the Place de la Concorde in Paris.

Guests of honor at the ceremony included Egypt's ambassador to France, Dr. Maher el Sayed, French minister of culture and communication, Catherine

Trautmann and other dignitaries. The event took place during an official visit of Egyptian President Hosni Mubarak to France, with Egypt's minister of culture, Farouk Hosni, and the antiquities' chairman, Dr. Ali Gaballah in attendance. A commemorative plaque was fixed on the base of the obelisk which reads:

> This obelisk, offered by Egypt to France in 1830, to serve eternally as a bond between the two countries, has been dressed by its pyramidion of origin on 14 May 1998, under the presidency of Jacques Chirac in the presence of Catherine Trautmann, minister of culture and communication, and Dr. Maher El Sayed, ambassador of Egypt for the occasion of the Year France-Egypt 'Shared Horizons' and

> the visit of the president of the Arab Republic of Egypt, Hosni Mubarak. The monument thus restored is dedicated to Jean-François Champollion, founder of Egyptology, who chose it from the temple of Luxor. This pyramidion is realized thanks to the support of Yves Saint Laurent, Pierre Bergé and the House of Yves Saint Laurent.[1]

The name of the famous fashion designer Yves Saint Laurent and his ex-lover Pierre Bergé naturally attracted our attention. There was much controversy on the internet surrounding Yves Saint Laurent regarding a very weird publication he was involved with in 1967, namely a type of comic book for children titled *La Vilaine Lulu* which has be described as a Satanic-cum-Masonic manual by advocates of

conspiracy theories and the so-called Illuminati. The book concerns a young girl called Lulu who, among other warped actions, goes around decapitating, hanging and burning people. As for Pierre Bergé, we discovered a very intriguing connection with Zionism that, to say the very least, makes his name on the obelisk's plaque most disturbing. Bergé is one of France's most notorious billionaires and philanthropists, as well as having once been a keen and active supporter of François Mitterrand during his presidential campaigns. Co-founder of the Yves Saint Laurent empire and one-time director of the Paris Opera, Bergé is a well know patron of the arts and, partly because of his Jewish faith, a staunch crusader against anti-Semitism. Bergé is the founder of the Musée Dreyfus at the Maison Zola, opening in 2012.

The Musée Dreyfus, as the name implies, is dedicated to Alfred Dreyfus, a French artillery officer of Alsatian Jewish origins who, in 1894, was condemned to life imprisonment by a military court for allegedly spying for Germany. This famous 'Dreyfus Affair' exposed the obvious anti-Semitism in France at the time and split the nation into a huge controversial debate when the writer Émile Zola published his celebrated open letter '*J'accuse* ...!' in the French newspaper *L'Aurore* in January 1898. It is also well-known that the Dreyfus Affair was the catalyst that was to give birth to Zionism. This happened when Theodore Herzl, then a young journalist and the Paris correspondent for the German newspaper *Neue Freie Presse*, followed the story of Alfred Dreyfus and was so incensed with the anti-Semitism that surrounded the affair and the

French crowd's chanting ‘death to the Jews’ that he organized the First Zionist Congress in Basel, Switzerland, in 1897. The connection of Pierre Bergé with the Dreyfus Affair, and his involvement in 1998 with the bizarre ceremony at the Place de la Concorde in Paris when a golden capstone was placed on the Egyptian obelisk makes the choice date, i.e. 14 May 1998 (the 50-year jubilee of the State of Israel), unlikely to be a ‘coincidence’.[2]

This authentic ancient Egyptian obelisk, as we have seen in Chapter 1, was taken from the temple of Luxor in Upper Egypt in 1831 under the orders of Charles X, and raised in the Place de la Concorde in 1836 in celebrations attended by a crowd of more than 200,000 people. Charles X was a staunch Freemason, and it was (and still is) suspected it was

the Masonic lodges that were really behind the bringing of the obelisk to France, as was also the case with those obelisks later taken out of Egypt to London and New York by British and American Freemasons.

The ‘London’ obelisk, or *Cleopatra's Needle* as it is more commonly known in Britain, was commissioned and paid for by a prominent Freemason, Sir Erasmus Wilson, and the raising ceremony was attend by hundreds of Freemasons in September 1878 under the auspices of the Prince of Wales, the Grand Master of the United Grand Lodge of England.

That same year former US President Ulysses S. Grant[3] and General William T. Sherman suggested, during a trip to Egypt, that America should also have an ancient Egyptian obelisk.[4] Henry Honychurch

Gorringe,[5] a prominent American Freemason, was selected for the task of bringing the obelisk to New York. The obelisk was raised in October 1880 outside the newly built Metropolitan Museum of Art, with nearly ten thousand Freemasons attending the ceremony in full Masonic regalia.[6]

It is one of those strange coincidences of history that on 14 May 1998, when President Mubarak and his retinue attended the capping of the obelisk in the Place de la Concorde, huge celebrations were simultaneously underway in Tel Aviv marking the 50-year jubilee of the Declaration of the State of Israel. On the same day Egyptian culture minister Farouk Hosni told the French press that a ceremony similar to the capping of the obelisk would take place in Egypt for the millennial celebrations at which point a

golden capstone would be placed on the Great Pyramid of Giza:

> We cannot rebuild the pyramids stone by stone, so we have chosen a symbolic event like the ancient Egyptians did when they used to cap obelisks [and] like what the French did at the Place de la Concorde.[7]

Later in October 1998 Farouk Hosni announced to the Egyptian press that French composer Jean Michel Jarre had been commissioned to organize this event at Giza. The Egyptian Tourist Authority announced that Jarre would compose an opera titled *The Twelve Dreams of the Sun* for the sum of 10 million US dollars and that,

> At midnight a helicopter will fly into the site

> and, hovering in a starburst of lasers and spotlights, will place a gigantic gilded capstone atop the Great Pyramid – all to the accompaniment of what is expected to be an unprecedented Jarre crescendo of electronic music. The gold cap, approximately 28 feet high (about the size of a two-story house) is being especially constructed to protect the pyramid structure. In place, it will catch the first light of the new millennium as the sun rises over Egypt. Capping pyramids with gold and timing important events to the setting and rising sun are very much part of the ancient Egyptian pharaonic tradition, making this piece of Jarre theatre particularly meaningful.[8]

Let us note that back in July 1989 Jean Michel Jarre

had organized a somewhat similar event in Paris for the bicentennial of the French Revolution when he set up a large metal-framed pyramid as a stage for his band in front of the Grande Arche at La Defense at the western end of the Champs-Élysées. Another show by Jarre also took place a few years later in London's Canary Wharf which is topped by a glowing glass pyramid apparently having the same geometrical proportions as the Great Pyramid in Egypt like the one that stands in the courtyard of the Louvre Museum in Paris, built by the architect I. M. Pei.

It would appear that the idea of placing a golden capstone on the Great Pyramid originated with Dr. Zahi Hawass, at the time director-general of the Giza monuments. It seems that a few months before the May 1998 celebrations Hawass had unearthed two

limestone blocks with ancient inscriptions and drawings depicting workers moving a capstone for a royal pyramid amid scenes of dancing and celebrations. Inspired by this, Hawass proposed that Egypt should celebrate the millennium in a similar fashion. At first three million people were scheduled to attend the event but the Egyptian authorities put a limit of 250,000 for security reasons. A massive worldwide promotional campaign was organized including New York, Los Angeles, Sydney and various cities in Europe. Preparations then began for a huge stage to be erected in the desert south of the Great Pyramid with seating capacity for VIPs.

All was apparently going to plan until, in September 1999, senior members of the Egyptian Parliament began to complain of the costs involved and also that the millennium celebrations coincided

that particular year with the holy month of Ramadan when devout Muslims fast from dawn to dusk. To counteract such criticism, culture minister Farouk Hosni stated that a ban would be placed on alcohol during the celebrations and that no music would be played until after the official end of the fast was announced.

To add fuel to this political fire, the radical Egyptian press, notably the newspaper *Sawt al-Shaab* (‘*Voice of the People*’) reported that Jean Michel Jarre was Jewish and also that he intended to project an ‘eye’ among many other images on the Great Pyramid using laser beams. The upshot was that *Sawt al-Shaab* accused the organizers of staging a ‘Masonic’ event in collusion with the ‘Jews’. The newspaper claimed that the ‘eye in the pyramid’ planned for this ceremony was intended to evoke the

well-known Masonic symbol of the ‘eye in the triangle’ and, more specifically, the ‘Eye of Providence’ seen on the US one-dollar bill (and also in the ‘Great Seal of the United States’, suspected to be of Masonic significance).

More such accusations of ‘Masonic-Zionist’ infiltration of the millennium party at Giza ensued in the Arab press, although hotly denied by Farouk Hosni as ‘groundless’, and by Dr. Hawass who stated that ‘the celebration has nothing to do with Masonic beliefs. The design on the US dollar is a faulty imitation of the Pyramids of the Middle Kingdom.’[9]

Adding to the growing hype was another bizarre twist to this strange story. This involved the so-called ‘prophecies’ made by American psychic Edgar Cayce known as the ‘Sleeping Prophet’, who died in 1945. It

turns out that Cayce foretold the placing of a gilded capstone on the Great Pyramid and also associated the event with the establishment of a sort of 'new world order' based on Masonic principles:

> For with those changes that will be wrought, Americanism with the universal thought that is expressed and manifest in the Brotherhood of man into group thought as expressed in the Masonic Order, will be the eventual rule in the settlement of affairs in the world. Not that the world is to become a Masonic Order, but the principles that are embraced in the same will be the basis upon which the new order of peace is to be established ...[10]

It is well known in Egyptological circles that since 1973 the Edgar Cayce Foundation has been involved

in various archaeological expeditions at Giza to find the fabled ‘Hall of Records’.[11]

In 1996 – 7 much controversy surrounded the precise relationship of the Edgar Cayce Foundation and the Egyptian Supreme Council of Antiquities, with allegations that prominent members of the organization arranged for the university education of Zahi Hawass, then chief inspector of the Giza pyramids All these allegations and rumours reached a peak in early December 1999, and finally under heavy pressure from the Egyptian press and also from members of Parliament, the Supreme Council of Antiquities took a face-saving position by delegating the decision of placing the golden capstone to a scientific committee. Hawass stated that the capstone, which apparently was to be made from an

8-meter high light metal frame and covered in gold sheets, could not be lowered by a helicopter '... because it will hurt the pyramid. Therefore if we find out that putting this capstone will hurt the pyramid, then, we will not do it.' But some critics rightly pointed out a lightweight capstone on the 6 million ton stone pyramid would be like placing a flea on an elephant's back. Finally the Egyptian minister of culture caved in and, at the eleventh hour, admitted that due to public outrage over the 'Masonic' and 'Zionist' implications the placing of the golden capstone would be scrapped, but the show would go on just the same.

Ironically on the night of 31 December a thick fog settled over the Great Pyramid which would have anyway made it impossible for the helicopter to lower the capstone on its summit. Jean Michel Jarre did,

however, manage to project his images on the Giza pyramids including ‘eyes’ until they, too, were engulfed by the fog and the thick smoke caused by the smoke of the huge firework display.

The one-eyed fiend

Although the alleged Masonic-Zionist conspiracy is generally seen as a secular evil, the Freemasons, as we saw in Chapter Twenty, are often associated with the mysterious and satanic figure of *Masih ad-Dajjal*, a supernatural entity akin to a ‘false prophet’ or a ‘false messenger’ who, in Muslim lore, is supposed to appear before *Yawm al-Qiyamah* (the ‘Day of Judgment’). In the Koran the *Dajjal* has a single eye

which is inevitably associated to the single eye in the pyramid on the US one-dollar bill and, of course, the ‘eye in the triangle’ in Freemasonry and also Judaic symbolism.

It was thus no surprise that a few days before the planned millennium celebrations at the Giza pyramids, *Sawt al-Shaab* accused culture minister Farouk Hosni of allowing the ‘Jew’ Jean Michel Jarre to present a ‘Masonic-Zionist’ event on the soil of Egypt to be seen live on television on a global scale by billions of viewers. The newspaper printed a large composite image showing a Freemason with a huge eye (clearly representing the *Dajjal*) on whose chest was pinned the Star of David and the Masonic triangle. Yet Farouk Hosni and Zahi Hawass are themselves not immune to fictitious Israeli and Jewish plots against Egypt and the Arab World in

general. In 1997 Farouk Hosni told the Arab press:

> The Israelis do not stop claiming that they built the pyramids, and this is why we need to stand firmly and respond courageously ... even if it leads to a crisis because those pirates are committing a robbery ... The Israelis want everything ... This is the way the Israelis took Palestine ... Now they use [this method] regarding the big pyramid. These are continuous projects – people come, steal your history and civilization. This proves that Israel has no history or civilization, since those who have history of their own do not need to rob the history of others ... Israel has many political goals ... First of all, they steal your civilization and history. Second, they do not have any

> civilization ... they do not have a country, and do not deserve a country. This is why they create a country by force ...[12]

To which Zahi Hawass added:

> A group of people are making an organized campaign. There are some people pushing them [Israel] ... These people are waging a big attack against us. I swore two years ago that I would not reveal their names, but I found out that I must mention them because it is becoming a threat.[13]

A few years later, on 17 September 2002, a small robot was used to explore narrow shafts in the Great Pyramid of Giza. The exploration was aired on a 'live' TV show by the National Geographic Channel with an

estimated 300 million viewers watching. After the show Hawass told bemused journalists at a press conference at the Mena House Oberoi:

> The results of the robot's exploration refute the allegations reiterated by Jews and some Western countries that the Jews built the pyramids!
>
> ... and I will tell the public that everyone who tries to talk against the Egyptians should shut their mouths![14]

In a more recent television appearance in February 2009 Hawass seemed almost to be quoting from *The Protocols of the Elders of Zion,* those fake documents that claim to expose a Masonic-Zionist plot to control the Arab world, when he told the interviewer that,

> … For eighteen centuries they [the Jews] were dispersed throughout the world … they went to America and took control of its economy … they have a plan: Although they are few in number, they control the entire world … look at the control they have over America and the media![15]

Paradoxically, in view of the above, it was announced in early 2009 that Farouk Hosni was the prime candidate to be the new head of the United Nations Educational, Scientific and Cultural Organization (UNESCO.) Not unexpectedly worldwide protests ensued when it was revealed that in May of the previous year Hosni had told an Islamist politician that he would ‘personally burn any Israeli books he found in an Egyptian library’. The

French-based Reporters Without Borders wrote that ‘Farouk Hosni has been one of the main forces for censorship in Egypt, trying unfailingly to control press freedom, as well as citizens’ freedom of information’. The *Independent* of Ireland was even more forthright:

> To put such a creature in charge of the UN body for science, education and culture might seem rather like appointing a bull as manager of a china shop.[16]

Ultimately the UNESCO job went to Bulgarian ambassador to France, Irina Bokova. This decision, however, was seen by the Arab press as ‘a sign of Western prejudice against Islam and the Arab world, the product of an international Jewish conspiracy.’

‘America, Europe and the Jewish lobby brought

down Farouk Hosni' was the headline in the Egpytian newspaper *Al-Masry Al-Youm,* while Egyptian foreign minister Ahmed Aboul Gheit accused 'international Judaism and Western powers' of plotting against Hosni. As for Farouk Hosni himself, he was quoted as saying: 'there was a group of the world's Jews who had a major influence in the elections and who were a serious threat to Egypt taking this position.'[17]

ENDNOTES

PREFACE: THE MASTER GAME
INTRODUCTION: THE GAME OF GAMES

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PROLOGUE: THE SACRED CITIES CHAPTER ONE: BEHIND THE VEILS

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3 Jean Kerisel, *La Pyramide à Travers les âges,* Presses des Ponts et Chaussées, Paris, 1991, p. 161.
4 Jurgis Baltrušaitis, *La Quête d'Isis*, Flammarion, Paris, 1985, p. 24. Ermanno Arslan, *Iside : il mito il mistero la magia*, Electa, Milano, 1997, pp. 642 – 4. See also Jean-Marcel Humbert, *L'Egyptomanie dans l'art occidental*, ACR, Paris, 1989, p. 36.
5 Arslan, op. cit., p. 643.
6 Michel Vovelle, *La Révolution contre L'Eglise: de la Raison à l'Etre Suprême*, Editions Complexe, Paris, 1988.
7 Ibid., p. 15.
8 Louis IX was canonised on 11 August 1297 and his feast day is 25 August; In AD 800 Charlemagne was unofficially 'beatified' by Pope Leo III but not actually canonised.
9 Vovelle, op. cit., p. 103.

10 Jean Starobinski, *1789: Les Emblèmes de la Raison*, Flammarion, Paris, 1979, p. 42.
11 *Grand Larousse Encyclopédique*, Paris, 1961, vol. 8, p. 1014.
12 The son of Louis XVI died in Temple prison in Paris in 1795 at the age of six. He was proclaimed king by the French nobility in exile in January 1793 after his father's death.
13 Originally offered as a gift to the French by Muhammad Ali in 1824. Champollion judged the Alexandria obelisks to be of poor quality due to their excessive corrosion by the sea air, and exchanged the ‘gift’ for a single obelisk from the Luxor temple.
14 Hunbert, op. cit., p. 44. Interestingly, at the top of the pyramid was to be place a statue of a goddess wearing a seven-pointed star on her head, much like the Statue of Liberty in New York.

15 Ibid.
16 Starobinski, op. cit., pp. 49 & 58.
17 Jacques Godechot, *La Prise de la Bastille*, Paris, 1965, p. 183.
18 Michael Baigent & Richard Leigh, *The Temple and the Lodge*, Jonathan Cape, London, 1989.
19 Steven C. Bullock, *Revolutionary Brotherhood*, University of North Carolina Press, Chapel Hill, NC, 1996, p. 50.
20 Fred Pick & G. Norman Knight, *The Pocket History of Freemasonry*, Frederick Muller, London, 1953, p. 272.
21 Ibid., p. 271.
22 Ibid., p. 275.
23 Pierre Chevallier, *Histoire de la Franc-Maçonnerie française*, Librairie Fayard, Paris, 1974, vol. I, pp. 272 – 88.

24 *Dossiers de l'histoire mystérieuse*, no. 7, part 2, ed. F., Carbonnel, p. 81.
25 Ibid.
26 *Dossiers de l'histoire mystérieuse*, no. 6, p. 64.
27 Chevallier, op. cit., vol. I, p. 275.
28 Jacques Debû-Bridel, *Lafayette: une vie au service de la liberté*, Editions Nouvelles de France, 1945, p. 27.
29 Quoted from Jean-André Faucher, *Les Francs-Maçons et le pouvoir de la Révolution à nos jours*, Librairie Académique Perrin, Paris, 1986, p. 46.
30 Faucher, op. cit., p. 47. Faucher, like many others, also points out that there were many Masons who supported the king and actually fought against the revolutionaries. This is true of the American Revolution as well.
31 John Lawrence, *Freemasonry: A Religion?*,

Kingsway Publishing, London, 1987, p. 15.
32 Ibid., p. 109.
33 Ibid., p. 121.
34 Martin Short, *Inside The Brotherhood*, Grafton Books, London, 1989, p. 72.
35 Vovelle, op. cit., p. 187.
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37 Ibid.
38 Ibid.
39 Vovelle, op. cit., p. 274.
40 Ibid.
41 *Décret de la Convention*, 18 Floral An II, 7 May 1794.
42 Warren Roberts, *Revolutionary Artists*, State University of New York Press, Albany, 2000, p. 272.
43 *Grand Larousse Encyclopédique*, vol. 4, p. 784.
44 Roberts, op. cit., p. 270. The language used by

Robespierre is intensely ‘Masonic’. For example, he states that ‘a system of well organised national festivals would offer at once the most gentle of fraternal ties and the most powerful means of regeneration’. This is almost like bringing out on a public scale the rituals performed in lodges.

45 The Republican calendar was introduced on 24 October 1793, just after the guillotining of Queen Marie-Antoinette.

46 Charles Sumner Lobingier, *Ancient and Accepted Scottish Rite*, Kessinger Publishing, Kila, MT, 1931, p. 24.

47 David Ovason, *The Secret Zodiacs of Washington DC*, Century, London, 1999, pp. 116 – 7.

48 Bessel deduced the existence of Sirius's super-dense companion by observing its the wave-like motion, but did not actually see the ‘invisible’

companion. The latter, known as Sirius B, was first ‘seen’ by telescope by Alvin Clark in 1862, and photographed by Lindenblad in 1970.

49 Ovason, op. cit., p. 117.

50 Baltrušaitis, op. cit., p. 31.

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53 Kerisel, op. cit., p. 160.

54 Robert Bauval, *Secret Chamber*, Arrow, London, 2000, p. 507, n. 27.

55 Sylvie Legaret & Philippe Coutines, *Paris Story*, Editions Denoël, Paris, 1977, p. 83, plate 3.

56 Ibid.

57 Aston, op. cit., p. 271.

58 Ibid.

59 Ovason, op. cit., p. 87.

60 Short, op. cit., pp. 121 – 2.
61 Ibid., p. 122.

PART I: THE SECRET FAITH
CHAPTER TWO: LOST WORLD

1 Aubrey Burl, *God's Heretics: The Albigensian Crusade*, Sutton Publishing, Gloucestershire, 2002, p. 9. As early as 1198, as part of the virulent anti-Cathar propaganda of the time, Alan de Lille sought to promote an alternative derivation of the word ‘Cathar’ from ‘cat's-arse’ claiming that the devil appeared to the heretics in the form of a cat whose hindquarters they kissed. Similar acusations were later to be made against the Knights Templar – see Chapter Fifteen.

2 John 1:14.
3 F. L. Cross and E. A. Livingstone, (eds.), *The Oxford Dictionary of the Christian Christian Church*, Oxford University Press, Oxford, 1988, p. 1198.
4 St. Augustine, *City of God*, Penguin Classics, London, 1984, Introduction.
5 Chas S. Clifton (ed.), *Encyclopaedia of Heresies and Heretics*, ABC-Clio Inc., Santa Barbara, 1992, p. 49.
6 See Chapters Four, Five and Six.
7 Malcolm Lambert, *The Cathars*, Blackwell Publishers, Oxford, 1998, p. 4.
8 See Jonathan Sumption, *The Albigensian Crusade*, Faber & Faber, London, 1999, pp. 28 – 30. See also Arthur Guirdham, *The Great Heresy: The History and Beliefs of the Cathars*, C. W. Daniel Company Ltd., Saffron Walden, 1993, p. 23.
9 Jospeh R. Strayer, *The Albigensian Crusades*,

University of Michigan Press, Ann Arbor, MI, 1995, p. 1.
10 Ibid., p. 3.
11 Gervase of Tilbury cited in Sumption, op. cit., p. 18.
12 Sumption, op. cit., p. 18.
13 Zoé Oldenbourg, *Massacre at Montségur*, Weidenfeld and Nicholson, London, 1997, p. 1.
14 Guirdham, op. cit., p. 15.
15 Lambert, op. cit., p. 62.
16 Guirdham, op. cit., p. 15; Lambert, op. cit., p. 62.
17 Oldenbourg, op. cit., p. 11.
18 Cited in Malcolm Barber, *The Cathars: Dualist Heretics in Languedoc in the High Middle Ages*, Longman, London, 2000, p. 51.
19 Lambert, op. cit., p. 62.
20 Guirdham, op. cit., p. 15.

21 Ibid.
22 Cited in Burl, op. cit., p. 21.
23 Barber, op. cit., pp. 65 – 6.
24 Ibid., p. 66.
25 Ibid., p. 25.
26 Malcolm Lambert, *Medieval Heresy: Popular Movements from the Gregorian Reform to the Reformation*, Blackwell, Oxford, 1992, p. 57.
27 Cited in Lambert, *The Cathars*, p. 39.
28 Cited in Ibid., pp. 39 – 40.
29 Steven Runciman, *The Medieval Manichee: A Study of Christian Dualist Heresy*, Cambridge University Press, Cambridge, 1999, p. 121; Sumption, op. cit., p. 39.
30 Ibid.
31 Stephen O' Shea, *The Perfect Heresy: The Life and Death of the Cathars*, Profile Books Ltd., London,

2001, p. 20.
32 For example, see Lambert, *The Cathars*, p. 155.
33 For example, see Oldenbourg, op. cit., p. 49; Runciman, op. cit., p. 160.
34 Oldenbourg, op. cit., pp. 21 – 2.
35 Cited in Lambert, *The Cathars*, pp. 142 – 3.
36 Lambert, *Medieval Heresy*, p. 121.
37 Lambert, *The Cathars*, p. 75.
38 Ibid., pp. 23 & 153; see also O'Shea, op. cit., p. 24.
39 Lambert, *The Cathars*, p. 75.
40 Runciman, op. cit., p. 160.
41 Ibid., p. 151.
42 Ibid., p. 160.
43 Lambert, *Medieval Heresy*, p. 120; Rion Klawinski, *Chasing the Heretics: A Modern Journey through Medieval Languedoc*, Ruminator Books, Saint Paul, MN, 2000, p. 68; Runciman, op. cit., pp.

159 – 60.
44 Lambert *Medieval Heresy*, p. 124, citing Guiraud. See also Sumption, op. cit., p. 50.
45 Testimony before the Inquisition of a woman of Puylaurens, cited in Sumption, op. cit., p. 52.
46 Lambert, *Medieval Heresy*, p. 109.
47 Runciman, op. cit., p. 158.
48 Ibid.
49 Lambert, *Medieval Heresy*, p. 108.
50 Lambert, *The Cathars*, pp. 240 & 242.
51 Ibid., p. 242.
52 Cited in Ibid., p. 139.
53 For example, see Strayer, op. cit., p. 247.
54 Lambert, *The Cathars*, p. 139.
55 Guirdham, op. cit., p. 24.
56 Lambert, *The Cathars*, p. 160.
57 Guirdham, op. cit., p. 23.

58 Ibid.
59 O’Shea, op. cit., p. 8.
60 Guirdham, op. cit., p. 95.
61 For example, see Oldenbourg, op. cit., pp. 283 – 4 and Lambert, *The Cathars*, p. 125.
62 Guirdham, op. cit., p. 95.
63 See Barber, op. cit., pp. 203 – 25
64 All quotations from Weil cited in Ibid. Martin Barber (p. 207) dismisses Weil's argument for what he maligns as its ‘cavalier disregard for evidence’ and its ‘fundamentally unhistorical’ vagueness of approach.
65 Cited in Ibid., p. 206.
66 Oldenbourg, op. cit., p. 23.
67 Ibid., p. 24.
68 Ibid.
69 Burl, op. cit., p. 19.

70 See Sumption, op. cit., p. 90; O'Shea, op. cit., p. 20.
71 Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, The Jerusalem Publishing House, 1989, p. 514.
72 The report of Benjamin of Tudela, cited in Sumption, op. cit., p. 90.
73 Cited in Ibid.
74 *Encyclopaedia Britannica*, 15th edition, London, 1991, *Micropaedia*, 11: 946 – 7.
75 Ibid., 3:686 – 7.
76 Ibid., 11:946 – 7; 3:686 – 7.
77 Sumption, op. cit., pp. 29 – 30.
78 Oldenbourg, op. cit., p. 26.
79 Ibid., pp. 230 – 1.
80 For example, see Sumption, op. cit., p. 30; Lambert, *Medieval Heresy*, p. 83.

81 Guirdham, op. cit., p. 96.
82 Lambert, *The Cathars*, p. 149.
83 Oldenbourg, op. cit., p. 61.
84 O'Shea, op. cit., p. 41.
85 Oldenbourg, op. cit., p. 61.
86 Guirdham, op. cit., p. 16.
87 Barber, op. cit., p. 216.
88 Oldenbourg, op. cit., p. 51.
89 Ibid., p. 51.
90 Ibid., p. 69.
91 Ibid., p. 70.
92 Lambert, *The Cathars*, p. 160.
93 Technically the Albigensian Crusades ceased in 1229 with the Treaty of Paris; however military crusading was continued by French occupation forces in the Languedoc for a further fifteen years, culminating in the siege and massacre at the last

Cathar stronghold of Montségur in 1244. See Chapter Seven for a more detailed discussion.

94 Oldenbourg, op. cit., p. 56.

95 Ibid., p. 310.

CHAPTER THREE: WHERE GOOD AND EVIL MEET

1 Cited in Oldenbourg, op. cit., Appendix C, p. 376.
2 F. L. Cross and E. A. Livingstone, (eds.), *The Oxford Dictionary of the Christian Christian Church*, Oxford University Press, Oxford, 1988, pp. 339 & 993.
3 For example, see Lambert, *Medieval Heresy*, p. 395: 'The Christian Church in the East as well as in the West was the heir to the assumptions of the pagan Roman Empire and of the whole ancient world, of the duty of the ruler to enforce right belief, and, with some hesitation, its leaders came to act on these

assumptions … Byzantine chruchmen shared the horror of heresy and emperors took a direct part in the pursuit of heretics. Burning was a penalty imposed on the obdurate in the Byzantine Church as well – we have a vivid description by Anna Comnena of the burning of the Bogomil leader Basil in Constantinople.'

4 For example, see Oldenbourg, op. cit., pp. 30 – 31; Lambert, *The Cathars*, p. 23; O' Shea, op. cit., pp. 22 – 3; Burl, op. cit., p. 9; Runciman, op. cit., p. 67; Lambert, *Medieval Heresy*, pp. 55 – 6.

5 Runciman, op. cit., p. 68; Lambert, p. 23; Barber, op. cit., p. 16.

6 Runciman, op. cit., p. 67.

7 Theophylact Lycapenus (AD 933 – 956), the patriarch of Constantinople, provides us with an earlier mention the heresy but, strangely, does not

mention Bogomil himself. See Janet Hamilton & Bernard Hamilton, *Christian Dualist Heresies in the Byzantine World c. 650 – c. 1405*, Manchester University Press, Manchester, 1998, pp. 98 – 101.
8 Runciman, op. cit., p. 68.
9 Cited in Ibid., p. 67.
10 Ibid., p. 68.
11 Oldenbourg, op. cit., p. 31.
12 Runciman, op. cit., pp. 69 – 70.
13 Hamilton & Hamilton, op. cit., p. 32.
14 Ibid., p. 36.
15 Ibid., p. 37; Runciman, op. cit., pp. 70 – 1.
16 Runciman, op. cit., pp. 70 – 1; Hamilton & Hamilton, op. cit., p. 38.
17 Hamilton & Hamilton, op. cit., p. 39; Runciman, op. cit., pp. 70 – 71.
18 Hamilton & Hamilton, op. cit., p. 40; Runciman,

op. cit., p. 71
19 Runciman, op. cit., p. 72.
20 Barber, op. cit., p. 21.
21 Ibid., p. 21; see also Lambert, *The Cathars*, pp. 46 – 9.
22 Barber, op. cit., p. 22.
23 For example, see Runciman, op. cit., p. 170; Hamilton & Hamilton, op. cit., pp. 43 – 4.
24 Lambert, *The Cathars*, pp. 35 & 37.
25 Barber, op. cit., p. 71.
26 Lambert, *The Cathars*, p. 48.
27 Which was the view of most Orthodox and Catholic clergymen and monks of the period. In the East Euthymius Zigabenus definitely suspected a plot after interrogating the heresiarch Basil. See Hamilton & Hamilton, op. cit., p. 32. For other examples see Ibid., p. 266 and Lambert, *The Cathars*,

pp. 22 & 31.
28 Cited in Barber, op. cit., p. 16; Hamilton & Hamilton, op. cit., p. 28.
29 Dimitur Anguelou, cited in Barber, op. cit., p. 16.
30 Obolensky, cited in Ibid., p. 16.
31 Lambert, *Medieval Heresy*, p. 116.
32 Cited in Lambert, *The Cathars*, p. 203.
33 See Lambert, *Medieval Heresy*, p. 118.
34 Zigabenus, cited in Hamilton & Hamilton, op. cit., pp. 39 & 204.
35 Lambert, *The Cathars*, p. 248.
36 Lambert, *Medieval Heresy*, p. 118.
37 Ibid., p. 118.
38 Ibid.
39 Ibid.
40 Runciman, op. cit., p. 171.
41 Barber, *The Cathars*, op. cit., p. 73

42 Oldenbourg, op. cit., p. 31.
43 Ibid.
44 Hamilton & Hamilton, op. cit., pp. 43 – 4.
45 Lambert, *The Cathars*, p. 33: ‘The Cathar ritual of the consolamentum derives from the Bogomil form of the initiation of adepts ...’
46 The former Cathar turned inquisitor, Rainier Sacconi, cited in Ibid., p. 204.
47 Saccioni, cited in Ibid. Sacconi excepted the Albanensians and the Concorezzans from the otherwise general harmony, stating that they ‘censure each other’.
48 *Oxford Dictionary of the Christian Church*, p. 1292.
49 Ibid.
50 Ibid.
51 The Cathar Pierre Autier, cited in Lambert, *The*

Cathars, p. 251.
52 Ibid., p. 253.
53 Ibid.: ‘The bodies of animals formed part of the chain of transmigration, though since they could not speak, no soul … imprisoned there could reach salvation. It was a penitential process … lasting till they reached the body of a man or woman who had “the understanding of God” and could be saved.’
54 Ibid.
55 Ibid.
56 *Oxford Dictionary of the Christian Church*, p. 997.
57 Hamilton & Hamilton, op. cit., p. 27.
58 See discussion in Lambert, *Medieval Heresy*, p. 121ff.
59 Lambert, *The Cathars*, p. 204.
60 Euthymius Zigabenus’ debriefing of the Bogomil Basil, cited in Barber, op. cit., p. 19.

61 Cited in Lambert, The Cathars, p. 162.
62 Oldenbourg, op. cit., p. 35.
63 Ibid.
64 Pierre Autier, cited in Lambert, *The Cathars*, pp. 250 – 1.
65 For example, see Runciman, op. cit., p. 148; Barber, op. cit., p. 84.
66 Autier, in Lambert, *The Cathars*, p. 251.
67 Ibid.
68 For example, see Runciman, op. cit., p. 76.
69 Oldenbourg, op. cit., p. 35; see also Lambert, *The Cathars*, p. 25.
70 Cathar prayer, cited in Oldenbourg, op. cit., Appendix C, p. 376.
71 Runciman, op. cit., p. 75.
72 Ibid., p. 150: ‘It was hoped when lives were pure the fragments of soul attached to them were able to

catch on to the divine spirit which descended onto such perfected persons and thus won release.'

73 Robert Bauval & Adrian Gilbert, *The Orion Mystery*, William Heinemann Ltd., London, 1994; Robert Bauval & Graham Hancock, *Keeper of Genesis* (titled in the US: *Message of the Sphinx*), William Heinemann Ltd., London, 1996; Graham Hancock & Santha Faiia, *Heaven's Mirror*, Michael Joseph/Penguin, London, 1998.

74 E. A. Wallis Budge, *The Egyptian Heaven and Hell* (*Book of What is in the Duat*), Martin Hopkinson Co., London, 1925, pp. 240 & 258.

75 Ibid., p. 240.

76 Ibid., p. 258.

77 See note 73 above.

78 Cited in Runciman, op. cit., p. 75.

79 Barber, op. cit., p. 97.

80 Ibid.
81 Ibid., p. 98.
82 Lambert, *The Cathars*, p. 197.
83 Ibid.
84 Barber, op. cit., p. 86.
85 Ibid., p. 87.
86 Hamilton & Hamilton, op. cit., p. 28.
87 Oldenbourg, op. cit., p. 36.
88 Ibid., pp. 36 – 7.
89 Lambert, *Medieval Heresy*, p. 119.
90 Runciman, op. cit., p. 164.
91 Ibid., p. 173.
92 Ibid., p. 164.
93 Ibid., p. 171.
94 Ibid.
95 Ibid., p. 172.
96 Ibid., p. 171.

97 Ibid., p. 172.
98 Cited in Barber, op. cit., p. 11.
99 Ibid.
100 Strayer, op. cit., pp. 183 – 4.
101 Lambert, *The Cathars*, p. 23.
102 Hamilton & Hamilton, op. cit., pp. 98 – 101.
103 Everwin of Steinfeld, cited in Lambert, *The Cathars*, p. 22.
104 Ibid.
105 Everwin, cited in Barber, op. cit., p. 24.
106 Everwin, cited in Lambert, *The Cathars*, p. 22.
107 *Lambert, Medieval Heresy*, p. 119.
108 *Oxford Dictionary of the Christian Church*, pp. 285 – 6.
109 Lambert, *The Cathars*, p. 25.
110 Everwin, cited in Barber, *The Cathars*, op. cit., p. 24.

CHAPTER FOUR: CHAIN OF THE GREAT HERESY

1 Johannes Van Oort writing in Roelof van den Broek & Wouter Hanegraff (eds.), *Gnosis and Hermeticism From Antiquity to Modern Times*, State University of New York Press, Albany, 1998, p. 37.
2 *The Oxford Dictionary of the Christian Christian Church*, pp. 357 – 8.
3 Genesis 1: 1 – 30.
4 Genesis 1: 28.
5 For example, see Lambert and Barber, whose works on the Cathars and Medieval Heresies have

been extensively cited in previous chapters.
6 Runciman, op. cit., p. 88.
7 Hamilton & Hamilton, op. cit., p. 6.
8 Ibid., pp. 7 – 8.
9 Ibid., p. 8.
10 Ibid., p. 9.
11 Ibid.
12 Ibid.
13 Runciman, op. cit., p. 50.
14 Hamilton & Hamilton, op. cit., p. 9.
15 Ibid.
16 Ibid.
17 Ibid., p. 12.
18 Ibid.
19 See discussion in Barber, op. cit., p. 12.
20 Hamilton & Hamilton, op. cit., p. 9.
21 Ibid., pp. 12 – 13.

22 Ibid., p. 13.
23 Runciman, op. cit., pp. 32 – 3.
24 Ibid.
25 Hamilton & Hamilton, op. cit., p. 19.
26 Runciman, op. cit., p. 40.
27 Hamilton & Hamilton, op. cit., pp. 21 – 2.
28 Ibid., p. 23.
29 Cited in Hamilton & Hamilton, op. cit., pp. 6 – 7.
30 Ibid., p. 8.
31 Ibid., p. 10.
32 Ibid.
33 Runciman, op. cit., p. 21.
34 Ibid.: 'The Messalians were Gnostic in origin but they were less interested in intellectual speculation.'
35 Hamilton & Hamilton, op. cit., p. 30.
36 Runciman, op. cit., p. 90.
37 Ibid., p. 93

38 Ibid.
39 Ibid., pp. 91 – 2.
40 Hamilton & Hamilton, op. cit., p. 30.
41 Runciman, op. cit., pp. 21 – 2.
42 Ibid.; See also Francis Legge, *Forerunners and Rivals of Christianity From 330 BC to 330 AD*, University Books Inc., New York, 1965, vol. II, p. 313: 'Valentinus [2nd century AD], like many other Gnostics, divided Christians into two classes of pneumatics and psychics, the firstnamed of whom were to enjoy a more distinguished position in the world to come than the other.'
43 Runciman, op. cit., p. 22.
44 Ibid.
45 Ibid.
46 Ibid.
47 Ibid.; Hamilton & Hamilton, op. cit., p. 30.

48 Runciman, op. cit., p. 22; Hamilton & Hamilton, op. cit., p. 30.
49 Runciman, op. cit., p. 22.
50 Ibid., p. 23.
51 Ibid. The Massalians were condemned by Flavian of Antioch who discovered their tenets by feigning a desire for conversion. ‘Horrified by his discoveries, he began to persecute them with the full force of the newly-Christianised state.’
52 *Encyclopaedia of Heresies and Heretics*, p. 87.
53 Sumption, op. cit., p. 34; Legge, op. cit., p. 318.
54 Andrew Wellburn, *Mani, The Angel and The Column of Glory: An Anthology of Manichean Texts*, Floris Books, Edinburgh, 1998, p. 36.
55 Ibid., p. 25.
56 Ibid., p. 24.
57 Cited in Ibid.

58 Runciman, op. cit., p. 12.
59 Legge, op. cit., p. 279.
60 Ibid., p. 280.
61 *Encyclopaedia of Heresies and Heretics*, p. 87.
62 Wellburn, op. cit., pp. 12, 51, 86.
63 John R. Hinnels (ed.), *The Penguin Dictionary of Religions*, Penguin, London, 1988, p. 200.
64 Wellburn, op. cit., p. 87.
65 Ibid., p. 12.
66 Ibid.
67 Legge, op. cit., pp. 285 – 6; Wellburn, op. cit., p. 80ff.
68 *Cologne Mani-Codex*, cited in Wellburn, op. cit., p. 83.
69 Ibid., pp. 83 – 4.
70 *Encyclopaedia of Heresies and Heretics*, p. 87.
71 Legge, op. cit., p. 279.

72 For example, Wellburn, op. cit., pp. 14 – 15 & 17.
73 *Cologne Mani-Codex*, cited in Wellburn, op. cit., p. 13.
74 Cited in Ibid., pp. 12 – 13.
75 Ibid., p. 11.
76 Cologne Mani-Codex, cited in Ibid., p. 16.
77 Legge, op. cit., pp. 280 – 1.
78 *Encyclopaedia of Heresies and Heretics*, p. 87.
79 *Cologne Mani-Codex*, cited in Wellburn, op. cit., p. 15.
80 Ibid., p. 15.
81 Ibid., p. 18.
82 Ibid., p. 15.
83 *Oxford Dictionary of the Christian Church*, p. 864.
84 Ibid.
85 Ibid.
86 Wellburn, op. cit., p. 67.

87 Ibid.
88 *Encyclopaedia of Heresies and Heretics*, p. 87.
89 *Oxford Dictionary of the Christian Church*, p. 864; Legge, op. cit., p. 281.
90 Legge, op. cit., p. 281; Wellburn, op. cit., pp. 67 – 8.
91 *Encyclopaedia of Heresies and Heretics*, p. 87; *Penguin Dictionary of Religions*, p. 201; *Oxford Dictionary of the Christian Church*, p. 864; Wellburn, op. cit., p. 108; Runciman, op. cit., pp. 6 – 17; Legge, op. cit., p. 281.
92 Legge, op. cit., p. 282.
93 Wellburn, op. cit., p. 68.
94 St. Augustine, op. cit., Introduction.
95 Legge, op. cit., p. 287.
96 Ibid.
97 Ibid., pp. 291 – 2.

98 Runciman, op. cit., pp. 12 – 13.
99 Legge, op. cit., p. 292.
100 Burl, op. cit., pp. 8 – 9.
101 Yuri Stoyanov, *The Other God*, Yale University Press, New Haven & London, 2000, p. 108.
102 Ibid.
103 Ibid., pp. 108 – 9.
104 Ibid., p. 109.
105 Ibid.
106 Ibid., p. 110; Runciman, op. cit., p. 14.
107 Stoyanov, op. cit., p. 110.
108 Ibid.
109 Ibid., pp. 117 – 8.
110 Ibid., p. 111.
111 Runciman, op. cit., p. 13; Barber, op. cit., p. 10.
112 Wellburn, op. cit., p. 149.
113 Lambert, p. 21.

114 See Legge, op. cit., pp. 221 – 2 & 317.
115 Runciman, op. cit., p. 15.
116 Ibid., pp. 15 – 16.
117 Hamilton & Hamilton, op. cit., p. 29.
118 Burl, op. cit. pp. 8 – 9.
119 Legge, op. cit., p. 318; Runciman, op. cit., p. 14.
120 Legge, op. cit., p. 320.
121 Ibid., pp. 278 & 337 – 8.
122 We have reported the beliefs of the Cathars and Bogomils on reincarnation in depth in Chapters Two & Three; for an example of the Manichean belief in reincarnation see Legge, op. cit., p. 340.
123 Legge, op. cit., p. 278 for the Manicheans; the reader is already familiar from Chapters Two & Three with Cathar and Bogomil teachings on this matter.
124 Legge, op. cit., p. 278.

125 Cited in Ibid., p. 315.
126 Cited in Wellburn, op. cit., p. 51.

CHAPTER FIVE: KNOWLEDGE OF THE TRUE NATURE OF THINGS

1 Timothy Freke & Peter Gandy, *The Jesus Mysteries*, Thorsons-Element, London, 2000, p. 266.
2 For example, the actions of the Prefect Cynegius in Alexandria. See H. A. Drake, *Constantine and the Bishops: The Politics of Intolerance*, The John Hopkins University Press, Baltimore & London, 2000, p. 403 – 4 & 416.
3 Ibid., p. 408.
4 Ibid., p. 416.
5 Elaine Pagels, *The Gnostic Gospels*, Penguin,

London, 1990, p. 13 – 5.
6 Ibid., p. 16.
7 Ibid.
8 Cited in Pagels, op. cit., p. 16.
9 Ibid., p. 16.
10 James M. Robinson (ed.), *The Nag Hammadi Library*, E. J. Brill, Leyden, NY, 1988, p. 73 – 89.
11 Ibid., p. 85.
12 Ibid., p. 121 – 2.
13 Ibid., p. 119.
14 Ibid., p. 387.
15 Ibid., p., 159.
16 Kurt Rudoph, *Gnosis: The Nature and History of Gnosticism*, Harper, San Francisco, 1987, p. 116.
17 *The Nag Hammadi Library*, p. 194. Compare Paul, *Ephesians* 6:12.
18 See discussion in Francis Legge, *Forerunners and*

Rivals of Christianity From 330 BC to 330 AD, University Books Inc., New York, 1965, vol. II, p. 21.
19 Normandi Ellis, *Awakenng Osiris: The Egyptian Book of the Dead*, Phanes Press, Grand Rapids, MI, 1988, p. 84.
20 *Encyclopaedia of Heresies and Heretics*, p. 50.
21 *Nag Hammadi Library*, p. 165, 184.
22 Ibid., p. 185.
23 Ibid., p. 166.
24 Ibid., p. 352.
25 Ibid., p. 165.
26 Ibid., p. 340.
27 Joscelyn Godwin, *Mystery Religions In the Ancient World*, Thames & Hudson, London, 1981, p. 84
28 Ibid.
29 Runciman, op. cit., p. 173.
30 Ibid., p. 164.

31 Ibid., p. 173: ‘There is one characteristic of any Dualist Church: Man, to escape from the vileness of his body, must seek to make himself spirit as far as may be. This is done by a *gnosis*, an experience that is usually won by an initiation ceremony. For the Early Christians Baptism was a kind of initiation and was often put off until late in life. The initiatory function declined in the Orthodox Church and the importance of Confirmation rose ... The Gnostic sects, however, by the stress they laid on their *gnosis*, retained the older practice.’
32 *Encyclopaedia of Heresies and Heretics*, p. 101 – 2.
33 R. van den Bruck, writing in *Gnosis and Hermeticism*, p. 96.
34 Hamilton & Hamilton, op. cit., p. 2.
35 *Gnosis and Hermeticism*, p. 102.

36 Runciman, op. cit., p. 7.
37 Legge, op. cit., p. 313; Runciman, op. cit., p. 7.
38 Legge, op. cit., p. 221.
39 Ibid., p. 207.
40 Drake, op. cit., p. 91; *The Oxford Dictionary of the Christian Christian Church*, p. 1108.
41 Freke & Gandy, op. cit., p. 277.
42 Ibid.
43 Tacitus, *Annals,* 15, 44:2 – 8, cited in Ken Curtis & Carsten Peter Thiede (eds.), *From Christ to Constantine: The Trial and Testimony of the Early Church*, Christian History Institute, Worcester, Pennsylvania, 1991, p. 50.
44 Freke & Gandy, op. cit., p. 278.
45 Drake, op. cit., p. 142; see also p. 164.
46 Dicoletian cited in Drake, op. cit., p. 142.
47 Freke & Gandy, op. cit., p. 278.

48 Eusebius, in *From Christ to Constantine*, p. 60.
49 *Oxford Dictionary of the Christian Church*, p. 338.
50 Drake, op. cit., p. 403.
51 Ibid. Further legislation in AD 392 comprehensively forbade everything non-Christian, even the worship of household gods. Other legislation stripped old priesthoods of their public endowments and privileges.
52 Ibid., p. 237.
53 Ibid.
54 In Eusebius, *Life of Constantine*, cited in Drake, op. cit., p. 389.
55 It is a curiosity, probably no more, that these 'Novatians' were also known by another name – the *Cathari*, or 'Pure Ones'. See Eusebiuus, *Life of Constantine*, Clarendon Press, Oxford, 1999, Commentary on Book III, p. 307.

56 Ibid., book III, p. 151 – 3.
57 Drake, op. cit., p. 349.
58 Ibid.
59 Ibid., p. 403.
60 Ibid., p. 420.
61 Ibid.
62 Ibid., p. 483.
63 Oldenbourg, op. cit., p. 28.
64 It was renounced by Emperor Gratian (AD 367 – 83), see Drake, op. cit., 403.
65 Drake, op. cit., p. 402 – 3; *Oxford Dictionary of the Christian Church*, p. 1108.
66 Irenaeus, cited in Elaine Pagels, op. cit., p. 68.
67 Freke & Gandy, op. cit., p. 299 – 300.
68 *Second Treatise of the Great Seth*, in *Nag Hammadi Library*, p. 366 – 7.
69 Drake, op. cit., p. 347 – 8.

70 Ibid., p. 350.
71 Ibid., p. 402 – 3.
72 Freke & Gandy, op. cit., p. 300.
73 Drake, op. cit., p. 404.
74 Legge, op. cit., Vol II, p. 21.
75 *Encyclopaedia Britannica*, *Micropaedia*, 10:447.
76 Drake, op. cit., p. 401, 404.
77 E. M. Forster, *Alexandria: A History and a Guide*, Peter Smith, Gloucester, Mass., 1968, p. 55, 160.
78 Ibid.
79 Drake, op. cit., p. 404.
80 Ibid.
81 Freke & Gandy, op. cit., p. 299.
82 *Nag Hammadi Library*, Introduction, p. 20.
83 Ibid.
84 Ibid.
85 Socrates Scholasticus, *Ecclesiastical History*,

available: http://cosmopolis.com/alexandria/hypatia-bio-socrates.html.
86 Ibid.
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divided flames dispersed themselves all about, and then were extinguished. And Philip, some time after he was married, dreamt that he sealed up his wife's body with a seal, whose impression, as be fancied, was the figure of a lion. Some of the diviners interpreted this as a warning to Philip to look narrowly to his wife; but Aristander of Telmessus, considering how unusual it was to seal up anything that was empty, assured him the meaning of his dream was that the queen was with child of a boy, who would one day prove as stout and courageous as a lion.’ Astrology was extremely popular in ancient Greece and, especially, in the Macedonian court where Alexander was born. It is little surprise, then, that horoscopic astrology appears to have been created and nurtured in Alexandria. After Alexsander's invasion of Egypt an important school of

astrology was established in the city of Alexandria. Here Babylonian and Greek astrology fused with the sky-religion of the Egyptian, and gave rise to type of astrology we know today as horoscopic (the influence of stars and planets on terrestrial matters and the lives of men). Although most of it was written in Greek, the *lingua franca* of that period, many of the authors were not Greeks but Egyptians. It is th is Alexandrian type of astrology which would form the basis of Greek astrological writings which flourished in later centuries. For more on this, see Nick Campion, *Introduction to the History of Astrology,* chap. 'Mesopotamian Astrology'. Also Holden's *A History of Horoscopic Astrology* and Hand's *Chronology of the Astrology of the Middle East and the West by Period*.

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36 Giordano Bruno, *De Monade Numero e Figura*, Frankfort, 1591.
37 Yates, *Giordano Bruno and the Hermetic Tradition*, pp. 273 – 4.
38 Ibid., p. 360.

CHAPTER TWELVE: ENVISIONING THE HERMETIC CITY

1 John M. Headley, *Tommaso Campanella and the Transformation of the World*, Princeton University Press, Princeton, 1997, p. 26.
2 Ibid., p. 29.
3 Ibid., p. 30.
4 Ibid., pp. 30 – 32.
5 Which was then, to complicate matters, under the control of Spain.
6 Cited in Headley, op. cit., pp. 34 – 5.

7 Cited in Ibid., p. 40.
8 Ibid., p. 36.
9 Ibid.
10 Ibid., p. 38.
11 Ibid., p. 3: '… an effort to establish an ideal state, a democratic/theocratic republic as harbinger of a new aeon.'
12 See Chapter Two.
13 Cited in Headley, op. cit., p. 39. (Emphasis added.)
14 Ibid., p. 37.
15 Ibid., p. 38.
16 Ibid., pp. 38 – 9.
17 Ibid., p. 45 – 7.
18 Ibid., p. 47.
19 Ibid., p. 3.
20 Ibid., pp. 47 – 8.
21 Ibid., p. 3.

22 Ibid., pp. 47 – 8.
23 Ibid., p. 53.
24 Ibid.
25 Ibid., pp. 114 – 17.
26 Yates, *Giordano Bruno and the Hermetic Tradition*, p. 342.
27 Duché, op. cit., p. 66.
28 Ibid.
29 Ibid., p. 76
30 *Grand Larousse Encyclopédique*, vol. 2, p. 598; see also Jean Meyer, *La Naissance de Louis XIV*, Editions Complexe, 1989, pp. 12 – 13. In recent years some historians have attempted to attribute some sort of 'messianic' origin to the Merovingian lineage through various convoluted mystical links, involving among these a legendary Frankish king called *Pharamond* (c. AD 420), Mary Magdalena, the 'Holy

Grail' and the small town of Rennes-le-Château (see M. Baigent, H. Lincoln & R. Leigh, *The Holy Blood and the Holy Grail*, Corgi, London, 1983; also L. Gardner, *Bloodline of the Holy Grail*, Element Books, Shaftesbury, 1996.

31 Ian Shaw & Paul Nicholson, *British Museum Dictionary of Ancient Egypt*, Book Club Associates, London, 1995, pp. 51 & 247.

32 Baltrušaitis, op. cit., pp. 86 – 93.

33 Duché, op. cit., p. 77.

34 Meyer, op. cit., p. 108.

35 Yates, *Giordano Bruno and the Hermetic Tradition*, p. 390.

36 Meyer, op. cit., p. 103.

37 Frances Yates, in 'Considérations de Bruno et de Campanella sur la monarchie française', *Actes du Congrès Leonardo de Vinci, Études d'Art*, no. 8, 9 &

10, Paris-Alger, 1954, p. 12
38 François Bluché, *Louis XIV*, Fayard, Paris, 1986, p. 29; also Duché, op. cit., p. 90.
39 Meyer, op. cit., p. 112.
40 Headley, op. cit., p. 130.
41 Ibid.
42 Ibid., p. 130 – 1.
43 Cited in Yates, *Giordano Bruno and the Hermetic Tradition*, p. 394, footnote 1.
44 Yates, *Giordano Bruno and the Hermetic Tradition*, p. 390.
45 Ibid. p. 366.
46 Ibid. p. 387.
47 Ibid. p. 369.
48 See Chapter Two.
49 Yates, *Giordano Bruno and the Hermetic Tradition*, p. 367.

50 Ibid., pp. 367 – 8.
51 Ibid., p. 368.
52 Ibid.
53 Ibid., p. 369.
54 Ibid., p. 370.
55 Ibid., p. 369.
56 Ibid.
57 Ibid., p. 370.
58 Ibid.
59 Ibid., p. 371.
60 See Chapter Eight and Yates, *Giordano Bruno and the Hermetic Tradition*, pp. 55 – 6, citing the *Asclepius*: ‘The gods who exercised their dominion over the earth will be restored one day and installed in a city at the extreme limit of Egypt, a city which will be founded towards the setting sun, and into which will hasten, by land and sea, the whole race of

mortal men ...’

61 Scott, op. cit., pp. 221 – 2.

CHAPTER THIRTEEN: THE INVISIBLE BROTHERHOOD

1 Cited in F. Yates, *The Rosicrucian Enlightenment*, Ark Paperbacks, London, 1986, p. 103.
2 Cited in Ibid., p. 104.
3 Ibid., p. 103.
4 Ibid., p. 104.
5 Ibid.
6 Ibid., pp. 30, 238, 251.
7 *Fama*, in Ibid., p. 239.
8 *Fama*, in Ibid., pp. 239 – 40.
9 *Fama*, in Ibid., pp. 240 – 41.

10 Ibid., p. 242.
11 Ibid.
12 Ibid., p. 242 – 3.
13 Ibid., p. 243.
14 Ibid., p. 246.
15 Ibid.
16 Ibid., p. 248.
17 Ibid., p. 251.
18 Ibid., p. 244.
19 *Confessio* in Ibid., p. 252.
20 Ibid., p. 253.
21 Ibid., p. 257.
22 Ibid.
23 Ibid., p. 258.
24 Ibid.
25 Ibid., p. 259.
26 Ibid., pp. 248 & 255.

27 Ibid., p. 30.
28 Joscelyn Godwin (trans.), *The Chemical Wedding of Christian Rosenkreutz*, with Introduction and Commentary by Adam McLean, Phanes Press, Grand Rapids, MI, 1991, Introduction, p. 7.
29 Yates, Rosicrucian Enlightenment, p. 30.
30 Godwin, *The Chemical Wedding of Christian Rosenkreutz*, p. 10.
31 Yates, *Rosicrucian Enlightenment*, p. 31.
32 Ibid., p. 50: 'Andreae was certainly behind the scenes of the whole movement [the Rosicrucians] to which he frequently refers in his numerous works.'
33 Yates, *Rosicrucian Enlightenment*, p. 30 – 31.
34 Godwin, *The Chemical Wedding of Christian Rosenkreutz*, p. 10.
35 The full title is 'The Chemical Wedding of Christian Rosenkreutz in the year 1459', see Godwin,

The Chemical Wedding of Christian Rosenkreutz, p. 13.
36 Ibid., p. 15.
37 Electronic Bible Search, *Franklin Electronic Bible*; for 'Father of Light'.
38 See Chapter Six.
39 Godwin, *The Chemical Wedding of Christian Rosenkreutz*, p. 15.
40 Ibid., p. 16.
41 Ibid., p. 107.
42 Ibid., pp. 16 – 17.
43 Ibid., pp. 33 – 4.
44 Ibid., pp. 46 – 8.
45 Ibid., p. 80.
46 Ibid., p. 102.
47 Stephan Holler, in *Gnosis: A Journal of the Western Inner Traditions*, The Lumen Foundation,

San Francisco, Summer 1996, p. 26; See also Godwin, *The Chemical Wedding of Christian Rosenkreutz*, p. 145, Adam McLean's commentary on the symbolism of the death of the king and the queen in the *Chemical Wedding*: ‘Now a physical death is actually a rebirth in the spiritual world, from when a being is released from its material envelope it returns to a more spiritual state.’

48 Yates, *The Rosicrucian Enlightenment*, p. 57.

49 Ibid., p. 147.

50 Yates, *Giordano Bruno and the Hermetic Tradition*, pp. 312 – 13.

51 Ibid., p. 414.

52 Ibid., p. 373.

53 Ibid., p. 367.

54 Ibid., p. 413.

55 Ibid.

56 Ibid.
57 McIntosh, op. cit., p. 21.
58 Yates, *Giordano Bruno and the Hermetic Tradition*, pp. 413 – 4, footnote 1. However, in Carlos Gilly's article *'Campanella fra i Rosacroce'* in *Tommaso Campanella e l'attesa del secolo aureo*, Fondazione Luigi Firpo, Florence, 1998, pp. 107 – 55, Carlos Gilly argues that Tobias Adami did not bring copies of Campanella's manuscripts to Germany till after 1610 when the Rosicrucian *Fama* manifesto (another work by Andreae) were already written. Gilly quotes Ole Worm's 'Laurea philosophica summa' published in Copenhagen 1619, where the author reports that he had known of the Manifesto in 1611, that is *before* it was publicly put to the press and thus could not have been influenced by Campanella's ideas. This argument, in my opinion is weak. *Civitas*

Solis was written in 1602, and surely its content, if not actual physical copies, were probably known to Andreae and his entourage before the writing of the Manifesto; otherwise why would Tobias Adami risk smuggling them out of the Inquisition prison in Naples to take to Andreae? And why would Wense suggest to Andreae to name his utopian boo k *Civitas Solis*?

59 J. P. Kenyon, *The Stuarts*, Fontana, London, 1966, p. 41.

60 Yates, *The Rosicrucian Enlightenment*, pp. 39 – 40: ‘There can be no doubt that we should see the movement behind the Rosicrucian publications as a movement ultimately stemming from John Dee. The Dee influence could have come into Germany from England with the English connections of the elector palatine, and it could have spread from Bohemia

where Dee had propagated his stirring mission in earlier years …’

61 Ibid., p. 36 – 7.

62 McIntosh, op. cit., p. 24.

63 Yates, *The Rosicrucian Enlightenment*, pp. 134 – 8.

64 Ibid., p. 19.

65 Joscelyn Godwin, *Robert Fludd: Hermetic Philosopher and Surveyor of Two Worlds*, Phanes Press, Grand Rapids, MI, 1972, p. 11.

66 Hence the term ‘Bohemian’ to describe a roving or homeless person.

67 Yates, *The Rosicrucian Enlightenment*, p. 178.

CHAPTER FOURTEEN: EMERGENCE OF THE INVISIBLES

1 Oldenbourg, op. cit., p. 311.
2 Ibid., p. 78.
3 See Chapters Eleven & Twelve.
4 See Chapter Eleven.
5 *Fama*, cited in Yates, *The Rosicrucian Enlightenment*, p. 243.
6 McIntosh, op. cit., pp. 16 – 18.
7 Ibid., p. 18.
8 Yates, *The Rosicrucian Enlightenment*, p. 118.
9 Francis Bacon, *The Advancement of Learning*, book

II, Macmillan & Co., London, 1895, Dedication to James I, section 13.
10 Scott, op. cit., p. 117.
11 Ibid., p. 321
12 Yates, *The Rosicrucian Enlightenment*, p. 119.
13 Ibid., p. 119.
14 Robert Lomas, *The Invisible College*, Headline, London, 2001, pp. 71 – 80 & pp. 85 – 6.
15 *Fama,* cited in Yates, *The Rosicrucian Enlightenment*, p. 243.
16 McIntosh, op. cit., p. 33.
17 Ibid.
18 Godwin, *Robert Fludd: Hermetic Philosopher and Surveyor ofTwo Worlds*, p. 11.
19 Ibid.
20 Yates, *The Rosicrucian Enlightenment*, p. 70.
21 Francis Bacon, *New Atlantis*, Kessinger

Publishing, Kila, MT, 1992, p. 329.
22 Jerry Baker (ed.), *New Atlantis and The Great Instauration: Bacon*, Harlan Davidson, Arlington Heights, IL, 1989, p. xxx.
23 Yates, *The Rosicrucian Enlightenment*, p. 126; see also p. 55 for the R. C. 'seal'.
24 Ibid., p. 127.
25 John Heydon, *The Holy Guide*, London, 1662, sig. B6 recto.; sig. C7 recto.
26 Alexander Piatigorsky, *Freemasonry*, Harvill Press, London, 1997, p. 83.
27 Sir James Stubbs, *Freemason's Hall*, The Library Art and Publication Committee, London, 1983, pp. 53 – 5.
28 I Kings 6:11 – 14.
29 *New Atlantis and The Great Instauration: Bacon*, p. xxv.

30 Scott, op. cit., p. 501 – 3.
31 E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary*, Dover Publications, New York, 1978, vol. I, p. 9a.
32 Yates, *The Occult Philosophy in the Elizabethan Age*, p. 96.
33 *Fama,* cited in Yates, *The Rosicrucian Enlightenment*, p. 248.
34 A. Fowler, *Spenser and the Numbers of Time*, Routledge & Keegan Paul, London, 1964.
35 Yates, *The Occult Philosophy in the Elizabethan Age*, p. 95.
36 Angus Fletcher, *The Prophetic Moment: An Essay on Spenser*, Chicago University Press, Chicago & London, 1971, pp. 157 & 275.
37 I Kings 9:24.
38 Ron Heisler, 'Michael Maier and England', *The*

Hermetic Journal, 1989.
39 Ibid.
40 Ibid.
41 Donald R. Dickson, *The Tessera of Antilia: Utopian Botherhoods & Secret Societies in the Early Seventeenth Century*, E. J. Brill, Boston, 1998.
42 Ibid., pp. 114 – 5.
43 Ibid., p. 121.
44 Piatigorsky, op. cit., p. 38.
45 Fred Pick & G. Norman Knight, *The Pocket History of Freemasonry*, Frederick Muller, London, 1953, p. 30.
46 Piatigorsky, op. cit., p. 46.
47 Pick & Knight, op. cit., p. 32.
48 Ibid. p. 34.
49 Ibid. p. 35.
50 Lomas, op. cit., chapter 5.

51 Pick & Knight, op. cit., pp. 23 & 43.
52 Yates, *The Rosicrucian Enlightenment*, p. 182.
53 Ibid., p. 183.
54 Ibid.
55 Ibid.
56 Ibid., p. 182.
57 Ibid., p. 177.
58 Ibid., p. 176.
59 Ibid., p. 178.
60 First published in Amsterdam in 1668.
61 Yates, *The Rosicrucian Enlightenment*, p. 179.
62 Christopher Falkus, *Charles II*, Cardinal, London, 1975, p. 21.
63 After the Restoration, Charles II gave Prince Rupert various naval commands during the war against the Dutch. In the years before his death Rupert dabbled in scientific experiments and is said

to have invented the art of mezzotint printmaking.
64 Pick & Knight, op. cit., p. 45. Present at Ashmole ‘raising’ ceremony was a certain Lord Henry Mainwaring, a colonel with the Roundheads, and by one of those strange twist of fate that can befall a person's life, Mainwaring's wife, after she was made a widow a few years later, would become Elias Ashmole's second wife in 1649.
65 For a saucy account of this romance see Guy Breton, *Histoires d'amour de l'fistoire de France*, Presse Pocket, Paris, 1960, pp. 14 – 15.
66 Falkus, op. cit., p. 38.
67 Ibid.
68 Ibid., p. 39.
69 Ibid., p. 46.
70 Ibid., p. 47.
71 He was presumably of Babylonian, i.e. dark,

complexion.
72 Falkus, op. cit., p. 47.
73 Paul Naudon, *Histoire générale de la Franc-Maçonnerie* , Office du Livre, Paris, 1981, p. 49.
74 Lawrence, op. cit., pp. 92 – 100.
75 Antonia Fraser, *King Charles II*, Mandarin, London, 1993, p. 182.
76 Lomas, op. cit., p. 220.
77 Bluché, op. cit., p. 247.
78 For example, by Joseph Ritman and his colleagues at the Hermetic/Rosicrucian Library in Amsterdam. See *The Silent Language: The Symbols of Hermetic Philosophy*, In de Pelikaan Press, Amsterdam, 1994.
79 The origin of many of these sort of universalism or utopian movements in Europe stemmed from the growing rift between the papacy and the more purist factions of Christianity which eventually lead to the

Protestant Reformation and the Catholic Counter-Reformation in the mid-16th and early 17th century. And there is no one person was more acutely aware of this dangerous rift between the Christian factions than Cardinal Richelieu in Paris, who was in charge of both the religious as well as the affairs of state of France. Richelieu was constantly vigilant of the religious tension in France and the terrible civil war that this had cause in the not-too-distant past. And although the French court was intensely Catholic, especially after the union of Louis XIII and Anne of Austria, it was nonetheless well known that one of Richelieu's great ambitions was to end the papal-Habsburg-Spanish hegemony on central Europe. In his first years in office Richelieu surprised everyone with his ruthless determination to oppose these forces by taking quick and decisive military action

against the papal forces in the Swiss canton of Grisons. This had sent a clear message to all those who were under the illusion that Richelieu was the unequivocal defender of Roman Catholicism and the Catholic League. His biggest political challenge came in 1630 when the Queen Mother, the hysterically staunch Catholic Marie de’Medici, incited her weak son, Louis XIII, to dismiss Richelieu. In a moment of uncharacteristic show of strength, Louis XIII refused to obey her and, instead, had her banished from court. This crucial decision that was to change the course of French history is known as the ‘night of the dupes’, an allusion to how Richelieu's astute political acumen had even duped the regents of France. Richelieu confused many with his shifting foreign policies, for on the one hand he dealt severely with Protestant Huguenot uprisings such as the one at La

Rochelle after they sided with the English Protestants in 1628, and on the other hand he delivered equal severity towards the Catholic League when, for example, in 1635 he sided France with the Protestants during the Thirty Years War. Such acts earned him the hatred of both the Catholics and the Protestant extremists and generated an endless conflict between him and the pope in Rome. Immensely wealthy, Richelieu was an avid patron of the arts, and was himself a playwright and musician of some talent. The *Académie Française*, which he founded when he was fifty-three years old, was his pride and joy. Could Richelieu have been somewhat sympathetic to a new 'Christian' movement such as the Rosicrucian movement in Germany that sought to bring about a universal reform? Did he encourage individuals like Decarte to form a somewhat similar

society in France to promote ‘natural philosophy’ as an antidote to the religious mania in Europe? These are extremely provocative and speculative questions that, nonetheless, require further investigation.

80 Yates, ‘Considérations de Bruno et de Campanella sur la monarchie française’, p. 12.

81 Lomas, op. cit., p. 114 – 6.

82 She died a year after they married, in January 1653, while giving birth to a stillborn child; Moray was heartbroken and never remarried.

83 Data from *California Freemason*, ‘The First Initiation on English Soil’, October/ November 2001, available at: www.cafreemason-digital.com.

84 Yates, *The Rosicrucian Enlightenment*, p. 185; the actual translation in English was not Vaughan's.

85 Dudley Wright, ‘The First Initiation’ in *The Builder*, 1921.

86 Lomas, op. cit. p. 250. For details on Preston see Pick & Knight, op. cit., p. 97.
87 Adrian Tin n iswood, *His Invention So Fertile: A Life of Christopher Wren*, Jonathan Cape, London, 2001, p. 108.
88 Ibid., p. 109.
89 It might have been the same comet after it had passed the Sun; see Tinniswood, op. cit., p. 112.
90 Ibid., p. 115.
91 Fraser, op. cit., p. 237.
92 Lomas, op. cit., chapter 2.
93 Pick & Knight, op. cit., pp. 50 – 1.
94 Piatigorsky, op. cit., p. 209; Jasper Ridley, *The Freemasons*, Constable & Co., London, 1999, p. 23; Bernard Williamson & Michael Baigent, 'Sir Christopher Wren and Freemasonry: New Evidence', in *Ars Quatuor Coronatorum*, vol. CIX, pp. 188 – 90.

95 Pick & Knight, op. cit., pp. 68 – 70.
96 Ibid., p. 69.
97 For the story of the Vatican Obelisk see Christopher Hibbert, *Rome: The Biography of a City,* Penguin Books, London, 1985, pp. 175 – 8. See also E. A. Wallis Budge, *Cleopatra's Needle and Other Egyptian Obelisks*, Dover Publications, New York, 1990, pp. 255 – 7; also Labib Habachi, *The Obelisks of Egypt: Skyscrapers of the Past*, American University Press, Cairo, 1984, p. 131.
98 Today it is possible to be guided through churches and piazzas of Rome by the obelisks in decreasing size: Piazza San Giovanni in Laterano (32.18 m), Piazza San Pietro (25.37 m), Piazza del Popolo (23.20 m), Monte Citorio (21.79 m), Piazza Navona (16.54 m), Piazza dell Esquilino (14.75 m), Piazza del Quirinale (14.64 m), Piazza della Minerva, Trinita del

Monti (13.91 m), Monte Picio (9.25 m), Piazza della Rotunda (6.34 m), Piazza della Minerva (5.74 m) and Villa Celimontana (2.68 m).

99 Pliny, *Natural History*, vol. II, book xxxvi. See also Budge, *Cleopatra's Needle and other Egyptian Obelisks*, p. 255.

100 Baines & Malek, op. cit., pp. 173 – 4.

101 Hibbert, op. cit., p. 355.

102 A. M. Partini & B. de Rachewiltz, *Roma Egizia*, Edizione Mediterranee, 1999, pp. 105 – 6.

103 The Basilica was finally consecrated in 1626, on the 1300th anniversary of the original consecration by Constantine. The study of Michelangelo (who died before the work was fully completed) was carried on by Giacomo della Porta and Doenico Fontana. The new façade, erected by Carlo Maderno, was begun in 1607 and completed 1614. In 1650 – 67 Bernini

added the famous Piazza and colonnade, which has the obelisk as foci.

104 Paul Johnson, *The Papacy*, Orion Publishing Group, 1998, p. 154.

105 Sixtus V then appointed Domenico Fontana to move the obelisk and raise it in front of the entrance of St. Peter's Basilica. The whole operation took nearly a year to complete. Fontana employed traditional methods, with the only real innovation over the ancient Egyptians being the use of horses instead of just sheer manpower. On the surface, the pope's motivation was the aesthetic improvement of the Vatican's Piazza, but a more profound purpose was the display of the growing power of the papacy in line with that of the ancient Roman emperors who had brought these Egyptian trophies to Rome more than sixteen centuries earlier. It is true that moving

the obelisk to its new location was visually important to the Basilica; but the whole affair was an overt way for Sixtus V to draw the obvious parallel between the ancient emperors and the papacy. And like these emperors and pharaohs of old, Sixtus V granted Fontana extraordinary powers to commandeer any labour, any tools and any materials required for the task of raising the great obelisk. Fontana also had full papal authority to demolish any houses that happened to be in the way. And the pope made it clear that opposition or obstruction to the project by anyone could result in a huge fine and even the punishment of death. Indeed, during the final stage of raising the obelisk into place, Sixtus V gave strict orders that everyone in the huge crowd of spectators that had come to watch should remain totally silent. The penalty for breaking this order, the pope

declared, was death. The story goes that at one stage the ropes holding the obelisk were about to break under the huge strain. And so a Genoese sailor bravely ignored the pope's command and shouted: ‘*Put water on the ropes*!’, thus probably saving the monument from destruction. After the obelisk was safely raised into place, the crowds were finally allowed to cheer.

106 Peter Tompkins, *The Magic of Obelisks*, Harper & Row, New York, 1981, p. 36.

107 The name Champs-Élysées, i.e. the Elysian Fields (a concept which originated in ancient Egypt as the *Duat*), for the main avenue/axis of Paris can be traced to the epoch of Louis XIV, towards the end of his reign (see Marc Gaillard, *Les Belles Heures des Champs-Elysées*, Editions Martelle, Paris, 1990, p. 11). This famous avenue is also known as the *Axe*

Historique.
108 Gaillard, op. cit., pp. 10 – 11.
109 Marie-France Arnold, *Paris: ses mythes d'hier à aujourd'hui*, Editions Dervy, 1997; see map and preface. See also Jean Phaure*, Introduction à la géographie sacrée de Paris: Barque d'Isis*, Editions Du Borrego, Paris, 1985, pp. 20 – 21.
110 Tinniswood, op. cit., p. 122.
111 Ibid., pp. 125 – 6.
112 Ibid., p. 137.
113 *London Gazette*, 3 – 10 September 1666.
114 (Julian) 20 September 1666 = (Gregorian) 30 September 1666 = (Hebrew) 1 Tishri 5427.
115 Fraser, op. cit., p. 248.

CHAPTER FIFTEEN: CABAL

1 There were a few others, too, who prepared plans, but these were far less significant; see Tinniswood, op. cit. p. 151; Richard Hooke, curator and fellow of the the Royal Society as well as professor of geometry at Gresham College presented plans (Tinniswood, op. cit., p. 77).
2 Tinniswood, op. cit., p. 150.
3 William of Tyre, *A History of Deeds Done Beyond the Sea*, Octagon Books, New York, 1986, vol. I, pp. 524 – 5.
4 See the Koran, chapter XVII.
5 See discussion in Graham Hancock, *The Sign and*

Seal: A Quest for the Lost Ark of the Covenant, Heinemann, London, 1992, p. 379 – 80.
6 Ibid., p. 385.
7 For example, see Hancock, *The Sign and the Seal*, p. 389ff.
8 Ibid., p. 94.
9 Dan Bahat, *Carta's Historical Atlas of Jerusalem*, Carta, Jerusalem, 1986, p. 46.
10 Ibid., pp. 46 – 7.
11 Piers Paul Read, *The Templars: The Dramatic History of the Knights Templar, The Most Powerful Military Order of the Crusades*, Phoenix Press, Sheffield, p. 83.
12 Ibid.
13 Hancock, *The Sign and the Seal*, p. 93.
14 John J. Robinson, *Born in Blood: The Lost Secrets of Freemasonry*, Century, London, 1989, p. 66.

15 Hancock, *The Sign and the Seal*, p. 93.
16 Oldenbourg, op. cit., p. 85.
17 O' Shea, op. cit., p. 29.
18 Barber, op. cit., p. 61: 'For Templars and Hospitallers, Languedoc was a major source of income and recruits ... During the 1130s the Templars appointed a regional Master or *bailli* over Aragon, Toulouse, and Provence, to oversee the increasing number of preceptories they were establishing in the region.'
19 Alain Demurger, *Vie et mort de l'ordre du Temple*, Editions du Seuil, Paris, 1989, pp. 152 – 8.
20 The Templars had once before faced Saladin Once Saladin. This was when they had joined King Baldwin's forces in 1177 and launched a surprise attack directly against Saladin and his bodyguard at Montgisard near Ramlah. Saladin's army was spread

out and thus could not defend themselves and were forced to retreated back to the south.

21 Read, op. cit., p. xiii.

22 Ibid., p. 160.

23 An eyewitness account of this is given by Saladin's son, al-Afdal. It is quoted by Ibn al-Athir: ‘When the king of the Franks [Guy] was on the hill with that band, they made a formidable charge against the Muslims facing them, so that they drove them back to my father [Saladin]. I looked towards him and he was overcome by grief and his complexion pale. He took hold of his beard and advanced, crying out “Give the lie to the Devil!” The Muslims rallied, returned to the fight and climbed the hill. When I saw that the Franks withdrew, pursued by the Muslims, I shouted for joy, “We have beaten them!” But the Franks rallied and charged again like the first time and

drove the Muslims back to my father. He acted as he had done on the first occasion and the Muslims turned upon the Franks and drove them back to the hill. I again shouted, “We have beaten them!” but my father rounded on me and said, “Be quiet! We have not beaten them until that tent [Guy's] falls.” As he was speaking to me, the tent fell. The sultan dismounted, prostrated himself in thanks to God Almighty and wept for joy.’

24 An excerpt from a translation of *Sahih al-Bukhari* , 5, 58.227, reads: ‘I was brought by the Buraq, which is an animal white and long, larger than a donkey but smaller than a mule, which would place its hoof at a distance equal to the range of vision.’

25 In the ‘chapter of the night journey’, Sura al Isra, in the Koran it is written: ‘Glory to (Allah) Who did take His servant for a Journey by night from the

Sacred Mosque to the Farthest Mosque, whose precincts We did bless, – in order that We might show him some of Our Signs: for He is the One Who heareth and seeth (all things).’

26 Heraclius had great vested interest in the Templars. He is the one who had travelled to London with the Grand Master of the Templars in 1184 – 5, to consecrate the Temple Round Church which still stands today in Temple Bar in the British capital.

27 According to an eyewitness, a servant of Balian, the clergy organized a barefoot procession around the walls, emulating what the clergy on the First Crusade had done back in 1099 when they captured Jerusalem; women shrieked and cut off their children's hair after dipping them in basins of water. Such acts of penitence were meant to avert God's anger on the city. ‘… Our Lord did not deign to hear

the prayers or noise that was made in the city. For the stench of adultery, of disgusting extravagance and of sin against nature would not let their prayers rise to God.'

28 Hancock, *The Sign and The Seal*, p. 154.

29 Demurger, op. cit., p. 322.

30 Robinson, *Born in Blood*, pp. 142 – 3.

31 Michael Baigent & Richard Leigh, *The Temple and the Lodge*, Arcade Publishing, New York, 1989, p. 91.

32 Hancock, *The Sign and The Seal*, p. 167.

33 For a full account, see Baigent & Leigh, *The Temple and the Lodge*.

34 Hancock, *The Sign and The Seal*, p. 166.

35 Andrew Sinclair, *The Sword and the Grail*, Crown Publishers, New York, 1992.

36 Ibid., pp. 48 – 9.

37 Ibid., plates section.

38 Ibid., p. 108.
39 Ibid., p. 75.
40 See discussions in Ibid.
41 Runciman, op. cit., p. 179.
42 Gaetan Delaforge, *The Templar Tradition*, Threshold Books, Putney, VT, 1987, p. 71.
43 See Albert Hourani, *A History of the Arab Peoples*, Faber & Faber, London, 1991, p. 184ff.
44 Barber, op. cit., p. 61. Barber shows that the same alliance was also established between the Knights Hospitaller and the Languedoc nobles.
45 Sinclair, op. cit., p. 76.
46 Guirdham, op. cit., p. 90.
47 Burl, op. cit., p. 38.
48 Sinclair, op. cit., p. 26.
49 Guirdham, op. cit., p. 89.
50 Ibid., p. 90.

51 Barber, op. cit., p. xiii.
52 See Guirdham, op. cit., pp. 90 – 91.
53 Ibid., p. 89.
54 The report of Benjamin of Tudela, cited in Sumption, op. cit., p. 90.
55 Ibid., p. 90; O' Shea, op. cit., p. 20.
56 Cited in Sumption, op. cit., p. 90.
57 Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, The Jerusalem Publishing House, Jerusalem, 1989, pp. 512 – 13.
58 Runciman, op. cit., pp. 6 – 7.
59 Ibid.
60 Ibid.
61 And again see Ibid.; the early Christian Gnostics held the same view.
62 *Encyclopaedia of Judaism*, pp. 740 – 41.
63 Z'ev ben Shimon Halevi, *Kabbalah: Tradition of*

Hidden Knowledge, Thames & Hudson, London, 1988, p. 5.
64 An excellent article on the Sephiroth on the Web can be found at www.aril.org/Drob.htm.
65 Halevi, op. cit., pp. 5 – 6.
66 For a fuller discussion of mandalas see Hancock & Faiia, *Heaven's Mirror*, p. 122ff.
67 For a discussion see R. T. Prinke, ‘Early Symbolism of the Rosy Cross’, in *The Hermetic Journal*, no. 25, 1984, pp. 11 – 15.
68 See Francis Bacon Research Trust at www.fbrt.org.uk.
69 The printer was L. Lichfield of Oxford; Publishers were R. Young & E. Forrest; the engraving is by William Marshall, and the translation from Latin into English is by Rev. Gilbert Wats.
70 Ibid.

71 ‘The Ancient and Accepted Scottish Rite of Freemasonry containing Instructions in all the degrees’ approved by the Supreme Council of the 33rd Degree of the Southern Jurisdiction, 1801.
72 William W. Westcott, *Collectanea Hermetica*, Part 1 – 10, ‘Sepher Yetzirah’, Samuel Weiser, York Beach, ME, 1988.
73 Ibid.
74 Lobingier, op. cit., p. 4.
75 See Joscelyn Godwin, *Athanasius Kircher*, Phanes Press, Grand Rapids, MI, 1991, p. 56.
76 Ibid., p. 61.
77 Ibid., p. 13.
78 Ibid.
79 Ibid., p. 15.
80 Ibid., p. 18.
81 Yates, *Giordano Bruno and the Hermetic*

Tradition, p. 418.
82 Athanasius Kircher, *Oedepius Aegyptiacus*, Rome, 1652, p. 150; see also Yates, *Giordano Bruno and the Hermetic Tradition*, p. 418.
83 Wren had replaced Seth Ward, who had been holding this Savilian Chair since 1649. Ward was an intimate friend of John Wilkins, and together they were to write a controversial book in support of ancient universities in 1654 while at Oxford. In 1660 Charles II fired both Wilkins and Ward from their posts, and replaced the latter with Christopher Wren. Ironically, in 1661 Seth Ward was to become bishop of Exeter and, in 1668, Wilkins became the bishop of Chester. These were indeed strange times.
84 Peter Tompkins, *The Secret of the Great Pyramid*, Allen Lane, London, 1973, p. 30.
85 John Greaves, *Pyramidographia or a Description*

of the Pyramids in Aegypt, London, 1646.
86 David Stevenson, *The Origins of Freemasonry, Scotland Century 1590 – 1710*, Cambridge University Press, Cambridge, 1988.
87 *The Last Will and Testament of Sir Thomas Gresham*, London, 1765.
88 Lomas, op. cit., pp. 154 – 64.
89 Hibbert, op. cit., pp. 179 – 86.
90 Guirdham, op. cit., pp. 91 – 2.
91 Cited in Yates, *Giordano Bruno and the Hermetic Tradition*, p. 394, footnote 1.
92 The Knights Templar first arrived in England in 1130 on the invitation of King Henry I. Initially they established their preceptory in High Holborn in the north, between Chancellor's Lane and Faitour Lane. In 1161 they moved it a mile southward to the more favoured site close to the Thames. Hugh Clout (ed.),

The Times History of London, Times Books, London, 1991, p. 50.
93 David Lewer, *The Temple Church London*, Pitkin Pictorials, London, 1989, pp. 3 – 4.
94 *The Times History of London*, p. 150.
95 Felix Barker & Ralph Hyde, *London as it Might have Been*, John Murray, London, 1982, p. 22.
96 This point was also highlighted in Adrian Gilbert, *The New Jerusalem*, Bantam Press, London, 2002, p. 211: 'Wren changed the axis of St. Paul's so that it ran roughly 8° north-of-east ... this put it directly in line with the old Temple Church ...'
97 Christopher Wren (son), *Parentalia, or, Memoirs of the family of the Wrens*, Farnborough, Hampshire, 1995.
98 Steve Padget, 'Wren's St. Paul's: Axis Mundi of the New Jerusalem', paper read at Ball State University,

Muncie, IN, 2000, p. 2.
99 Ibid., p. 4.
100 V. Hart, *Art and Magic at the Court of the Stuarts*, Routledge, London, 1994. See also V. Hart, *St. Paul's Cathedral: Christopher* Wren, Phaidon, London, 1995. Hart also added that ‘in reflecting this ‘Christianised’ cosmology, Hermes was pictured in the pavement of Siena Cathedral and in frescos painted by Pinturiccio for Pope Alexander VI in the *Appartamento Borgia* in the Vatican ... the figure of Mercurius Trismegistus came to personify links between Christian magic and art in the Renaissance.’
101 The Sephiroth invited the initiate to pass between two ‘pillars’ on the pathway towards the godhead. Interestingly, according to Jewish author Z. Halevi, we find the same idea of passing between two ‘pillars’ in the design of Solomon's Temple, where

one had to pass between two pillars known as *Boaz* and *Jachin* on the path towards the divine presence. See Halevi, op. cit.

102 Tinniswood, op. cit., pp. 150 – 2.

103 This tendency to secrecy was to be also the case when Wren designed new St. Paul's. See Barker & Hyde, op. cit., p. 31.

104 Tinniswood, op. cit., p. 150.

105 Ibid.

106 Barker & Hyde, op. cit., p. 23.

107 Tinniswood, op. cit., p. 152. See also John Evelyn, *London Revived*, Clarendon Press, Oxford, 1938, pp. 45 – 6.

108 Selections from Revelation 21:1 – 22:14.

109 Barker & Hyde, op. cit., p. 25.

110 In Wren's scheme, according to Adrian Tinniswood, ‘the real pride of place went to the

Exchange piazza with its radial vistas and its surrounding complex of commercial buildings. The absolutist ideology underlying the planning of Sixtine Rome, which Louis XIV and André Le Nôtre were currently putting to such good use in the laying out of Versailles, was here called into service to pay homage to mercantilism. Trade was to be the new religion.' That the Royal Exchange was Thomas Gresham's brainchild, and that his own home had probably served as a Masonic lodge prior to becoming the home of the Royal Society may also have had something to do with the symbolism intended in Wren's scheme.

111 This idea was first proposed by Adrian Gilbert in op. cit., p. 205. Gilbert also observes that it may not have been accidental that the *Daat sephirah* was brought close to Gresham College, home of the Royal

Society.

112 Tinniswood, op. cit., p. 188.

113 Ibid.

CHAPTER SIXTEEN: FROM SECRET SOCIETY TO SOCIETY WITH SECRETS

1 Pick & Knight, op. cit., p. 68.
2 Matthew 11:11.
3 John 3:30.
4 4 July is, of course, US Indepedence Day.
5 Ibid., p. 69.
6 Ibid.
7 Ibid.
8 Ridley, op. cit., p. 37
9 Naudon, op. cit., p. 66.

10 Ibid., pp. 69 – 70.
11 Ibid., p. 72.
12 Ridley, op. cit., p. 72.
13 Lynn Picknett & Clive Prince, *The Templar Revelation*, Corgi Books, London, 1998, p. 481.
14 Lobingier, op. cit., p. 32.
15 Available at: http://www.gallica.bnf.fr/ark:/12148/bpt6k64393t.
16 The prince never became king, but died from illness in 1712.
17 Lobingier, op. cit., p. 35.
18 See Eliane Brault (ed), *Le Mystere du Chevalier Ramsay*, Editions du Prisme, Paris, 1973, p. 81; also *Transaction of the Qutuor Coronati Lodge*, 1934, vol. XLVII, p. 77. For a very good account of Ramsay's life and Masonic career, see Lobingier, op. cit., pp. 32 – 49.

19 Ridley, op. cit., p. 70.
20 The full ‘Ramsay's Oration’ can be found in Albert G. Mackey & H. L. Haywood, *Encyclopedia of Freemasonry*, Kessinger Publishing, Kila, MT, 2003. See also Cyril N. Batham, ‘Ramsay's Oration: the Epernay and Grand Lodge Versions’, in *Heredom: The Transactions of the Scottish Rite Research Society*, vol. 1, 1992.
21 The Chevalier Ramsay cited in Mackey & Haywood, op. cit., p. 831.
22 Ibid., p. 832.
23 Patigorsky, op. cit., p. 116 – 7.
24 Mackey & Haywood, op. cit., p. 832.
25 Pick & Knight, op. cit., p. 204.
26 The Order of DeMolay declares itself to be ‘A young men's fraternal organization which was founded upon the basic principles of love of God, love

of parents, and love of country. It tries to introduce these teachings to its members in various ways through the exercise of the seven cardinal virtues ... Love of parents, Love of God, Courtesy, Comradeship, Fidelity, Cleanness, Patriotism. The name “DeMolay” comes from a 13th century French hero and martyr named Jacques De Molay, who was the last Grand Master of a order of chivalric knights known as the Knights Templar ... Be between the ages of 12 and 21, believe in a Supreme Being (God), be of good moral character, Petition a DeMolay. Local groups of DeMolays are called chapters and are sponsored by a group of Masons or Masonic lodges.’ In 1919, a Kansas City freemason named Frank S. Land, noticed a need for a young men's organization in the Kansas City area. After meeting with a local youth named Louis Lower, Land arranged a meeting

with several other area youths at the Kansas City Scottish Rite building. With Land's guidance and the ambition of the young men, the Order of DeMolay was born. Almost instantaneously, the popularity of the new order grew and in no time at all, there were chapters in every state in the union and soon there were even chapters abroad. For over 75 years now, the Order of DeMolay has continued to teach it's member's the basic principles of life which will help prepare any young man for a good and clean manhood, and which will help them to develop a greater love and respect for their God, parents and country. In its history, the Order of DeMolay has boasted a strong membership and has long lists of successful and influential members.

27 ‘What is Freemasonry?’, United Grand Lodge of England, text reproduced by the Lodge of Harmony,

no. 1411 at www.harmony1411.cl/freemasonry.html.
28 I Kings 5 – 6; II Chronicles 2 – 6.
29 Sinclair, op. cit., p. 158.
30 For a detailed critical appraisal of these rituals, see Lawrence, op. cit., pp. 92 – 107.
31 Martin Short, *Inside the Brotherhood*, Grafton Books, London, 1989, p. 93.
32 Lawrence, op. cit., pp. 51 – 61.
33 Ibid.
34 Humbert, op. cit., p. 117.
35 Short, op. cit., p. 115.
36 Ibid., p. 123.
37 Stephen Knight, *The Brotherhood*, Grafton Books, London, 1985, pp. 236 – 9.
38 Short, op. cit., p. 104.
39 '*Geometry wherefore I thinke that science most worthy that fyndeth all others*', cited in Pick &

Knight, op. cit., p. 32.
40 For a full account of Pythagoras in Egypt, see Schwaller de Lubicz, op. cit., p. 259.
41 See also Genesis 4 – 20.
42 Pick & Knight, op. cit., p. 32.
43 Ibid., pp. 32 – 3.
44 Ibid.
45 Naudon, op. cit., p. 64.
46 Ibid., p. 72.
47 Ibid., p. 74.
48 Ibid., pp. 74 – 6.
49 François Ribadeau-Dumas, *Cagliostro: homme de lumière*, Editions Philosophiques, Paris, 1981, p. 25.
50 Gérard Galtier, Maçonnerie égyptienne, *Rose-Croix et Neo-Chevalerie: Les Fils de Cagliostro*, Editions du Rocher, Paris, 1989, p. 29.
51 Ibid. p. 35; Masonic historians, however, still do

not seem to be able to agree where had taken place Cagliostro initiation into Freemasonry. They venture two places, Malta in 1767 (Gastone Ventura, *Masonic Rites of Memphis and Misraim*, Atanòr, Rome, 1986) or London in 1777 (Galthier, op. cit., p. 30).

52 Ribadeau-Dumas, op. cit., p. 35.

53 Ibid., p. 39.

54 Pernety is often accredited for creating the so-called *Swedenborgian Rite* of Freemasonry. When he was fifty years old, Pernety left the Benedictine order and settled at Avignon. There he directed his earlier alchemical interests into Freemasonry and created the so-called *Rite Hermétique*. He then moved to Berlin and became librarian to Frederick II. In Berlin Pernety translate the works of Swedenborg, the Swedish theologian and alleged founder of the New Jerusalem Church.

55 Ribadeau-Dumas, op. cit., p. 50; Naudon, op. cit., p. 92.
56 In 1781, Fredrick II was initiated into the Order of The Golden Rose Cross, a German Rosicrucian order, by Johann Woller and Johann Bischoffwerder, two Rosicrucians who were to become Fredrick's closest advisors (McIntosh, op. cit., p. 95 – 6). The esoteric name given to Fredrick II during the initiation rituals was ‘Ormesus Magnus’. The Order of the Golden Rose Cross, according to the origins it gave itself, was allegedly created in Egypt, at Alexandria, by an Egyptian sage called ‘Ormissus or Ormus’ (Galtier, op. cit., p. 164), which is the ‘second name’ given to the imfamous Priere de Sion (M. Baigent, H. Lincoln & R. Leigh, *The Holy Blood and the Holy Grail*, p. 123). Ormus, as we shall see later, was also the name given to the founder of the Masonic Rite of Memphis.

According to Masonic author Clara Miccinelli, the name ‘Ormus’ appeared as early as 1753 in a private letter written by Prince Raimondo di Sangre de Severo, a Freemason, to the Baron de Tchoudi in Paris (C. Miccinelli, *E dio Creo L’Uomo e la Massoneria*, ECIG, Genova, 1985, p. 73).

57 Ribadeau-Dumas, op. cit., p. 51.

58 Ibid. In 1758 Pernety had published a treatise with the ambitious title of ‘The Egyptian and Greek Fables Unveiled and Linked to the same Principles, with an Explanation of the Hieroglyphs and the War of Troye’, which gives us a fair indication what his ‘science of Nature’ was.

59 Galtier, op. cit., p. 36.

60 Ibid. See also Manly P. Hall, *Freemasonry of the Ancient Egyptians: Crata Repoa*, Philosophical Research Society, Los Angeles, 1965, pp. 81 – 102.

61 Galtier, op. cit., p. 36; see also Hall, op. cit., p. 73.
62 Naudon, op. cit., p. 91.
63 Ridley, op. cit., pp. 110 – 21.
64 Ibid., p. 129.
65 Naudon op. cit. p. 91
66 Galtier, op. cit., p. 19.
67 Naudon, op. cit., p. 229.
68 Pierre Chevalier, *Histoire de la Franc-Maçonnerie française*, Librairie Fayard, Paris, 1974, vol. I, pp. 258 – 9.
69 J. E. Manchip White, *Ancient Egypt in Culture and History*, George Allen & Unwin, London, 1970, p. 107. Herodotus gives 70 days (*Histories*, book II, section 85), which is more in line with ancient Egyptian practice.
70 Genesis 50:1 – 3. The duration of the Flood was also 40 days (Genesis 7:4, 8:6).

71 Chevalier, op. cit., pp. 256 – 62.

CHAPTER SEVENTEEN: THE NEW CITY OF ISIS

1 Ribadeau-Dumas, op. cit., p. 165.
2 Chevalier, op. cit., vol. 1, p. 261.
3 Ibid. See also Gisèle & Yves Hivert-Messeca, *Comment la Franc-Maçonnerie vint aux femmes*, Editions Devry, Paris, 1997, p. 148.
4 Naudon, op. cit., pp. 228 – 30.
5 An excellent article on Cagliostro can be seen in Henry Evans, 'Masonry and Magic in the Eighteenth Century', *The Master Mason*, June 1927.
6 *Bibliothèque Nationale*, ms. Fr. 12420 c. 1402 fol.

XVI; ms. Fr. 598, c. 1403 fol. XVI.
7 Baltrušaitis, op. cit., p. 63.
8 L. M. Tisserand, *Les Armoiries de la ville de Paris*, Paris 1874, chapter 3, '*Formation du sceau ou des armoiries de Paris*', p. 61; also Baltrušaitis, op. cit., p. 63.
9 Jacques le Grant, *Sophologium*, Paris, 1475; also see Baltrušaitis, op. cit., p. 61.
10 Jean Lemaire de Belges, *Les Illustrations de Gaule et Singularitez de Troye*, Paris 1512; also see Baltrušaitis, op. cit., p. 59.
11 Baltrušaitis, op. cit., p. 58, plates 1 & 6.
12 Jacques du Breul, *Théâtre des Antiquitez de Paris*, Paris, 1612.
13 André Favyn, *Histoire de Navarre*, Paris 1612.
14 Baltrušaitis op. cit. p. 89
15 Phaure, op. cit., pp. 19 – 20 (map).

16 Ibid., p. 84 (map).
17 Ibid.
18 Ian Wilson, *Jesus The Evidence*, Pan Books, London, 1984, pp. 136 – 7. See also Freke & Gandy, op. cit., pp. 41 – 2.
19 From Edward Carpenter, *Pagan & Christian Creeds: Their Origin and Meaning*, BiblioBazaar, Charleston, SC, 2009, pp. 50 – 51:
The Jesus-story, it will now be seen, has a greater number of correspondences with the stories of former sun gods and with the actual career of the Sun through the heavens – so many indeed that they cannot well be attributed to mere coincidence or even to the blasphemous wiles of the Devil! Let us enumerate some of these. There are (1) birth from a virgin mother; (2) the birth in a stable (cave or underground chamber); and (3) on 25 December (just

after the winter solstice). There is (4) the Star in the East (Sirius) and (5) the arrival of the Magi (the ‘Three King's); there is (6) the threatened Massacre of the Innocents, and the consequent flight into a distant country (told also of Krishna and other sun gods). There are the Church festivals of (7) Candlemas (2 February), with processions of candles to symbolize the growing light; of (8) Lent, or the arrival of spring; of (9) Easter Day (normally on 25 March) to celebrate the crossing of the Equator by the Sun; and (10) simultaneously the outburst of lights at the Holy Sepulchre at Jerusalem. There is (11) [the Crucifixion and death of the Lamb-God, on Good Friday, three days before Easter; there are (12) the nailing to a tree, (13) the empty grave, (14) the glad Resurrection (as in the cases of Osiris, Attis and others); there are (15) the twelve disciples (the

Zodiacal signs); and (16) the betrayal by one of the twelve. Then later there is (17) Mid-summer Day, 24 June, dedicated to the birth of the beloved disciple John, and corresponding to Christmas Day; there are the festivals of (18) the Assumption of the Virgin (15 August) and of (19) the Nativity of the Virgin (8 September), corresponding to the movement of the god through Virgo; there is the conflict of Christ and his disciples with the autumnal asterisms, (20) the Serpent and the Scorpion; and finally there is the curious fact that the Church (21) dedicates the very day of the winter solstice (when any one may very naturally doubt the rebirth of the Sun) to St. Thomas, who doubted the truth of the Resurrection! ...

In the cathedral, the congregation faces the east in order to pray. It does not face Jerusalem but the east i.e. the direction of the sunrise. This direction of

prayer is almost certainly derived from ancient pagan solar cults. In Christian worship the meaning is somewhat changed. Christ's has many attributes of the ancient sun-god, but he is also the Messiah who has come and who will return, another analogy of the death and rebirth of the sun-god in ancient myths. East is the place of sunrise, of solar rebirth, of the coming of light. In mystical religions the east symbolises spiritual enlightenment and divinity.

20 Norman Lockyer, *The Dawn of Astronomy*, Cassell & Co., London, 1894, p. 120.

21 Habachi, op. cit., pp. 155 – 6.

22 Lockyer, op. cit., pp. 98 – 106.

23 Much later, in 1973, the astronomer Gerald S. Hawkins disagreed with Lockyer and asserted that the Karnak Temple had not been aligned to the summer solstice sunset but rather to the *winter*

solstice sunrise which took place 26° 55’ south-of-east (See Gerald Hawkins, *Beyond Stonehenge*, Arrow Books, London, 1977, chapter 11 ‘Amon-Ra’, pp. 193 – 218; see also Ronald L. Reese, ‘Midwinter Sunrise at Karnak’, in *Sky & Telescope*, March 1992, p. 276). Hawkins is best known for his work on the astronomical alignments of Stonehenge. Hawkins, however, did not carry out actual astronomical observations at Karnak as did Lockyer. He obtained his orientation angle from survey maps at the Franco-Egyptian Research Centre at Luxor and, like Lockyer before him, calculated the position of the sunrise/set at the solstice rather than actually observe it (Hawkins was in Egypt in May, a month before the summer solstice). A few years later the astronomer Ed Krupp confirmed Hawkins's values from actual observations of the sunrise at the winter solstice from

the Karnak Temple (E. C. Krupp, *Echoes of Ancient Skies*, Oxford University Press, Oxford, 1994, pp. 253 – 7). Hawkins argued that Lockyer's conclusions were wrong, since the Theban Hills in the distance made it such that the setting sun at the summer solstice could not be properly seen through pylons of the temple. But although it is true to say that the Theban hills in the west present an obstacle to us from a *practical viewpoint*, this reasoning cannot be applied to the ancient Egyptians's *religious viewpoint*. To them such physical obstacles were not an impediment, viz., for example, the so-called *false door* made of solid stone often found in tombs and through which the soul of the deceased was imagined to pass. Egyptian astronomer-priests – and especially those assigned to the sun-cult – had been observing the sunrise and sunset at the solstices long before

the construction of Karnak, and there is no question that they would have been acutely aware of its maximal and minimal declinations. And so the conclusion by Hawkins that the Theban Hills invalidates the alignment towards the summer solstice sunset is not tenable when placed in the religious context of the ancient temple builders (Hawkins, op. cit., p. 198). Hawlkins commends Lockyer's on the accuracy of his survey at Stonehenge, but says that ‘his survey of the Amon-Ra temple was not.’ Hawkins refers to the report by army engineer P. J. G. Wakefield, who performed a theodolite survey at Karnak for Locker on 21 June 1891. And although it is true that Wakefield reported that the Sun could not be seen from any of the points on the axis of the temple marked by Lockyer, he did add that he placed the theodolite at the entrance of

Pylon 2 and that he was ‘able to see a portion of the setting sun, the remainder being hidden behind the south wall of the great pylon (Pylon 1).’ Now the Sun's diameter is about 0.5°, which means that it could be ‘shifted’ a further 0.5° to the north along the horizon, it would be seen between along that part of the axis running from Pylon 1 to Pylon 2. In c. 1500 BC the Sun was, in fact, 0.5° further north due to the obliquity of the ecliptic at the time. This suggests to me that the orientation of the Karnak Temple might be closer to 26° than the 26° 55’ quoted by Hawkins which he got off the map of the Franco-Egyptian Centre. Indeed, Lockyer reported that according to Lepsius and other Egyptologists, the angle was ‘26° or 26° 30” north-of-west. When E.C. Krupp went to verify this, he did so on the winter solstice, and thus could only verify the alignment at the other end of

the temple through the so-called *Temple of Ré-Horakhti* and the ‘High room of the Sun’. In my opinion another survey should be made on 21 June to ascertain the statement of army engineer P. J. G. Wakefied. I did, in fact, observe the sunset on June 21, 2003; my conclusion is that the builders aimed at the sunrise on the winter solstice, but also knew that the sunset at summer solstice would take place in the reverse direction. And although it is true that the latter does not fall on the axis alignment but a little short towards the west, it is obvious that the intention was there.

24 R. Wells, ‘Ré and the Calendar’ in A. J. Spalinger (ed.), *Revolution in Time: Studies in Ancient Egyptian Calendrics*, Van Siclen Books, San Antonio, TX, 1994, p. 19. Ron Wells calculated that at c. 3500 BC the star Sirius would have risen at exactly the same spot

as the winter solstice sunrise. His computations assume a ‘level horizon and no refraction’. My own calculations show that as seen from the latitude of Cairo today, it would have been seen rising about 29.5° south-of-east. However, in c. 3300 BC, at the foundation date of Dynastic Egypt, it would have risen some 28° south-of-east (Azimuth 118°). A simple calculation shows that at that epoch Sirius had the same declination as the Sun at winter solstice i.e. about – 24° (that is, 24° south of the celestial equator), and thus performed exactly the same path at the Sun at the winter solstice. It was, quite literally, a ‘second sun’ seen at night in the place of the winter solstice sun.’ The epoch 3300 BC is extremely significant in that it marks the historical begin of Dynastic Egypt, when the whole country was unified under one kingdom.

25 In Roman times the goddess Isis was closely identified and even merged with the Roman goddess Ceres, the Greek Demeter. See Batrusaitis, op. cit., p. 70. See also Fraser, op. cit., pp. 383 & 393. See also Marie-France Arnold, op. cit., pp. 87 – 8: ‘The Romans did not call her [Isis] “mother of the wheat and of nature” as did the ancient Egyptians, but they venerated her and made offerings to her…a shrine was built in the city of Paris at the exact spot where Christians would later build Notre Dame de Paris. In 1711, while digging a crypt under the cathedral destined for the burial of bishops this shrine was discovered …’ Anne Baring & Jules Cashford, in their book *The Myth of the Goddess: Evolution of an Image* (Arkana, London, 1993), showed that the concept of ‘Notre Dame’ in France, especially for the so-called *Black virgins*, has an esoteric association to the

Egyptian goddess Isis (pp. 586 & 647). See also further Baltrušaitis, op. cit., pp. 24 – 40.
26 Phaure, op. cit., pp. 56 – 7.
27 Ribadeau-Dumas, op. cit., p. 167.
28 Fauche, op. cit., p. 32.
29 Ibid.
30 *Grand Larousse Encyclopédique*, vol. 3, p. 261a.
31 Naudon, op. cit., p. 95.
32 Faucher, op. cit., p. 27; see also Galtier, op. cit., p. 30.
33 Ribadeau-Dumas, op. cit., p. 294.
34 Ibid., p. 200
35 Manly P. Hall, 'Rosicrucian and Masonic Origins', in *Lectures on Ancient Philosophy and Introduction to the Study and Application of Rational Procedure*, The Hall Publishing Company, Los Angeles, 1929, pp. 408 – 9.

36 See Antoine Court de Gébelin, *Monde primitif analysé et comparé avec le monde moderne*, book 8, Paris, 1773 – 1783.
37 Ribadeau-Dumas, op. cit., p. 167 – 8.
38 Ibid. p. 168.
39 Ibid. p. 199.
40 Joscelyn Godwin, *The Theosophical Enlightenment*, State University of New York Press, Albany, 1994.
41 Ribadeau-Dumas, op. cit., p. 199.
42 Naudon, op. cit., p. 129.
43 Adam Weishaupt cited in Nesta H. Webster, *Secret Societies and Subversive Movements*, Book Tree, San Diego, CA, 2000, p. 215.
44 Mackey & Haywood, op. cit., p. 474.
45 Thomas Jefferson to Reverend James Madison, January 31, 1800, in Library of Congress, *The*

Thomas Jefferson Papers, available at: www.memory.loc.gov/cgi-bin/query/r?ammem/mtj:@field(DOCID+@ lit(tj090050)).

46 Noble E. Cunnigham Jr, *In Pursuit of Reason: the Life of Thomas Jefferson*, Ballantine Books, New York 1988, opening page.

47 Naudon, op. cit., p. 129. The order was apparently exposed in a most curious way. One of its leaders, Jacob Lang, while walking back home during a bad storm, was struck by lightning. Subversive documents were found on his body and taken to the elector of Bavaria, prompting him to launched an investigation into the Illuminati.

48 For source data see www.freemasonry.bcy.ca/anti-masonry/anti-masonry02.html. .

49 The ‘eye’ in a ‘glowing triangle’ was used in medieval times to denote ‘God’ and can be seen on

the covers of many biblical manuscripts (see an example in Manly P. Hall's *The Secret Teachings of All Ages,* The Philosophical Research Society, Los Angeles, 1998, p. xcviii). Robert Fludd's works (1574 – 1637) is full of the glowing triangle-pyramid symbol, although he often replaces the 'eye' with other symbols or the words for 'god' (see Godwin, *Robert Fludd: Hermetic Philosopher and Surveyor of two Worlds*). German alchemists and Cabalists used the 'eye in the pyramid' symbol profusely in the early 18th century (J. Ritman (ed.), *The Silent Language, The Symbols of Hermetic Philosophy*, In de Pelikaan, Amsterdam 1994, pp. 59 & 75).

50 Godwin, *Athanasius Kircher*, p. 8.

51 Iversen, op. cit., p. 105, plate XIX.

52 Naudon, op. cit., p. 122.

53 The first design of The Great Seal was in July 1776

by Pierre-Eugène Simitière. A drawing made in 1776 by pencil on paper by Thomas Jefferson exists in the Library of Congress. The ‘eye in the triangle’ can clearly be seen on the top of the Seal. The first committee's choice for the Great Seal, which met on 20 August 1776, was: A shield with emblems of the six European cultures that migrated to America: three for Britain (English rose, Scottish thistle, Irish harp) and three for continental Europe (French fleur-de-lis, German eagle, Belgic lion). Supporting the shield: the Goddess of Liberty, who holds a spear and wears the Phrygian cap, and the Goddess of Justice with her balance. Crest: ‘*The Eye of Providence in a radiant Triangle* whose Glory extends over the Shield and beyond the Figures.’ Motto: ‘E PLURIBUS UNUM.’

54 The Great Seal First Committee was formed in the

afternoon of the 4 July 1776. It comprised Benjamin Franklin, Thomas Jefferson, John Adams and Pierre-Eugène Simitière. Each member proposed various ideas. Franklin's idea was ‘Moses standing on the Shore, and extending his Hand over the Sea, thereby causing the same to overwhelm Pharaoh who is sitting in an open Chariot, a Crown on his Head and a Sword in his Hand. Rays from a Pillar of Fire in the Clouds reaching to Moses, to express that he acts by Command of the Deity.’ Motto: ‘Rebellion to Tyrants is Obedience to God.’ There were several ‘committees’ formed in the course of the next six years. The third and final committee was formed on 4 May 1782. Hardly a month before in Paris, on 12 April 1782, a series of peace talks had begun between the United States and Britain. America was represented by Benjamin Franklin. The US urgently

needed an official sign of sovereignty and coat-of-arms for the signing of the peace treaty. The so-called *Third Committee* consisted of Chairman Arthur Middleton and John Rutledge, both of South Carolina, Elias Boudinot of New Jersey and Virginia's Arthur Lee. William Barton, a twenty-eight years old artist well-versed in the science of heraldry, came up with two complex designs which were graphic interpretation of the official written description that precisely defines the design as follows:

Obverse: On the breast of the American bald eagle is a shield with thirteen vertical white and red stripes beneath a blue chief. In the eagle's right talon is an olive branch, and in his left a bundle. In his beak is a scroll inscribed with the motto ‘E Pluribus Unum’. Over the head of the eagle, a Golden Glory is breaking through a cloud, and surrounds a

constellation of thirteen stars on an azure field. *Reverse*: In the zenith of an unfinished pyramid is an eye in a triangle surrounded with a golden glory. Over the eye are the words ‘Annuit Coeptis’. On the base of the pyramid the numerical letters MDCCLXXVI, and underneath, the motto ‘Novo Ordo Seculorum’.

55 See a very good article on this topic by Geoff Muirden, ‘Conspiracy Theory and the French Revolution’, in *The Journal of Historical Review*, vol. 9, no. 1, pp. 109 – 15.

56 See Nesta H. Webster, *The French Revolution*, Constable & Co., London, 1919. See also Webster, *Secret Societies and Subversive Movements*, A & B Publishers Group, New York, 1998 (1924), chapter 9.

57 Faucher, op. cit., p. 39.

58 Ibid., p. 24.

59 Ibid., p. 25.
60 Ribadeau-Dumas, op. cit., p. 199.
61 See Evans, op. cit. See also *Master Mason* magazine, vol.1, no.1, January 1924, to vol. 7, no. 3 & 4, March – April 1930.
62 *Grand Larousse Encyclopédique*, vol. 7, pp. 1009 – 10.
63 Galtier, op. cit., p. 37.
64 In July 1789 there were only seven prisoners in the Bastille. These were Jean de la Corrége, Jean Bèchade, the Count of Solages; Tavernier, Bernard Laroche, Jean-Antoine Pujade and DeWhitt, the latter an insane Irishman who was jailed as a spy; he was taken on the shoulders of the rioters that freed him from the Bastille, all the time shouting that he was Julius Caesar.
65 Captain Deflue had been moved to the Bastille

earlier on July 7, 1789 along with 32 ‘Salis-Samade’, a regiment of Swiss guards, to protect the Bastille. There were also 84 *invalides* at the time also appointed to defend the Bastille. All in all, a very poor match for the Parisian mob.

66 Chevallier, op. cit., vol. I, p. 272.

67 Out of the 25 Millions living in France at the time, 350,000 or so were ‘nobility’ and some 150,000 were ‘clergy’. All the rest was considered the Third Estate.

68 Faucher, op. cit., p. 32.

69 Ibid.

70 In 1791 Talleyrand was excommunicated by the pope after he consecrated two ‘constitutional’ bishops. Talleyrand was to play a pivotal role a few years later in the rise of Napoleon Bonaparte and his daring military expedition to Egypt.

71 *‘Et bien, f …, qu'ils restent*!’, see Faucher, op. cit.,

p. 172, plate 1.
72 Ibid., p. 34.
73 Ibid.
74 The first guillotining took place on April 25, 1792, when Nicolas Jacques Pelletie was executed in public at Place de Grève in Paris. The guillotine was still used in France well into the 20th century, and was finally officially banned in 1981. The last execution by guillotine in France was on 10 September 1977 in Marseilles, when the murderer Hamida Djambuti was beheaded.
75 Hivert-Messeca & Hivert-Messeca, op. cit., p. 124.
76 For source data see www.infomonnaies.com/fr/cnpr/v25/p2516.htm. ; also see Arslan, op. cit., p. 644.
77 This image can be seen, for instance, above the bronze image of George Washington on the

Washington Monument (obelisk) in Washington, DC, east entrance, above the inner door.
78 *Grand Larousse Encyclopédique*, vol. 3, p. 910b.
79 Vovelle, op. cit., p. 28.
80 The Convention Nationale was essentially controlled by the ‘Montagnards’, the main political party to which the Hébertists also belonged. Its bitter rivals were the Girondins, a moderate and conservative faction, who were accused of secretly harbouring Royalist sympathies. When the Girondin were defeat at the Convention in June 1793 the Hébertists and the Montagnards lost a common enemy, a serious void, since their politics was mostly dependent on blaming another party and launching fiery verbal attacks on such ‘enemy of the people’. Thus the momentum of accusation-styled politics was now deflected on each other, and soon the mood

turned quite deadly. Robespierre, siezing an opportunity provided by a huge fraud and spy scandal which was construed to have involved the Hébertists, ordered the arrest of Hébert and Chaumette. They were hastily tried and sent to the scafold in March 1794. Now with no one left to blame and accuse for the problems that the Republic was facing, a terrible feud ensued between Robespierre and Danton – a feud that was to prove fatal for both men. Danton, who had been somehow mixed up in the scandal of the *Société Des Indes*, was accused of treason and sent to the guillotine in April 1794.

81 Faucher, op. cit., pp. 42 – 4.

82 Kathleen Jones, *Women Saints: Lives of Faith and Courage*, Orbis Books, Maryknoll, NY, 1999, p. 55.

83 See François Victor Alphonse Aulard, *Culte de la Raison*, Paris, 1892 and *Christianity and the French*

Revolution, English edition, 1927). Aulard published many works of sources on the French Revolution. His best-known work is the *Political History of the French Revolution* (1901). In 1886 Aulard became the first professor of the history of the French Revolution at the University of the Sorbonne.

84 Vovelle, op. cit. Author K. Jones (op. cit.) reports the events of Sister Madeleine Fontaine (1723 – 1794), a nun who suffered the horrors of this persecution in 1794 and was decapitated by the guillotine in June 1794 under the orders of Joseph Lebon, an apostate priest and a collaborator of Robespierre at the Convention. Sister Madeleine Fontaine, who was in her early seventies, was in charge of a small group of nuns in Arras where they ran a hospital and a school for children when the Revolution broke out. Apparently when she was

dragged onto the scaffold, the old nun turned to the crowd and cried: ‘Listen, Christians! We are the last victims. The persecution is going to stop. The gallows will be destroyed. The altar of Jesus will rise again gloriously!’ Sister Madeleine Fontaine was beatified by Pope Benefict XV on 13 June 1920.

85 Baring & Cashford, op. cit., pp. 399 – 401. Apparently the wearing of the Phrygian cap by the revolutionary Sans Culottes, the most extremist faction of the French Revolution, had been popularized by Jacques-Louis David in *Les Amours d’Hélène et Paris* which he had painted in 1787 for the Duke of Artois, the future Charles X.

86 Maarten J. Vermaseren, *Cybele and Attis*, translated by A. M. H. Lemmers, Thames & Hudson, London, 1977, p. 10.

87 Baltrušaitis, op. cit., p. 80.

88 Ibid. Actually what Isis has on her head is not a tower but a ‘throne’. Its upright shape, however, can easily be mistaken for a tower, indeed as it often was by the Parisian historians of the 18th and 19th century.
89 Ovason, op. cit., p. 87.
90 Jérôme Lalande, *Astronomie par M. de la Lande*, 1731, vol. IV, pp. 245ff.
91 Gérard de Nerval, *Les Illuminés*, Editions Folio, 1976; also see Cagliotro, *Les Païens de la République*, p. 1200.
92 Kerisel, op. cit., p. 160.
93 Vovelle, op. cit., p. 105.
94 Ibid., p. 271
95 *Grand Larousse Encyclopédique*, vol. 1, p. 365a.
96 Louis Blanc, *History*, vol. II, pp. 365 – 7.
97 *Grand Larousse Encyclopédique*, vol. 8, p. 1014c.

98 ‘*MM. Dupuis et Lalande voient Isis par-tout …!*’; see Baltrušaitis, op. cit., p. 31.
99 Ibid., p. 35; Faucher, op. cit., p. 20.
100 Charles-François Dupuis, *Origine de tous les Cultes our Religion Universelle*, Paris, 1794, vol. III, p. 50; Baltrušaitis, op. cit., pp. 24 – 30.
101 ‘Histoire de l’Académie Royale des Sciences, année 1785, compte rendu de J. de Lalande’, in *Le Journal des Scavans*, July 1788, pp. 475 – 8.
102 In the *Pyramid Texts*, which date from the third millennium BC, we read that ‘Sothis [Sirius, the star of Isis]is your beloved daughter [of Ra] who prepares yearly sustenance for you in her name of ‘Year’. *Pyramid Texts*, line 965.

CHAPTER EIGHTEEN: PARIS UNVEILED

1 Kerisel, op. cit., p. 158.
2 Marcello Fagiolo, *Architettura e Massoneria*, Convivio/Nardini Editore, Florence, 1988, p. 44.
3 James Stephen Curl, *The Art and Architecture of Freemasonry*, B. T. Batsford, London, 1991, p. 118
4 Ibid.
5 Kerisel, op. cit., p. 161.
6 Curl, op. cit., p. 129.
7 Ibid., p. 129. For a detailed review on the pyramid design and the French Revolution, see J. P.

Mouilleseaux, ‘Les Pyramides éphémères de la Révolution Française’, *Revue FMR*, 21, vol. VI, August 1989.
8 Ibid., p. 129.
9 Ibid., p. 117.
10 Fagiolo, op. cit., p. 53.
11 Legaret & Courtines, op. cit., p. 83, plate 3.
12 Ibid., plate 6.
13 Ovason, op. cit., p. 116.
14 Curl, op. cit., pp. 132 – 3.
15 See notes 47 & 48 of Chapter Twelve.
16 Vovelle, op. cit., frontispiece.
17 Faucher, op. cit., p. 34. It may be of interest to note that in 1819 Mme de la Villette, Voltaire's adored step-daughter, opened the so-called *adoption* lodge in Paris called ‘Belle et Bonne’ for the Rite of Misraim that practiced higher degrees of the

Egyptian Rite (see *Dossiers de l'Histore*, no. 7, p. 98; also see Naudon, op. cit., p. 230).

18 Her real name was Marie Josèphe Rose. She was named 'Joséphine' by Napoleon after they married in 1796. Apparently the nickname was derived from Joseph, Napoleon's younger brother.

19 Hivert-Messeca & Hivert-Messeca, op. cit., p. 159.

20 Ibid., p. 160.

21 Ibid., p. 159.

22 Naudon, op. cit., p. 172.

23 François Collaveri, *Napoleon: empereur franc-maçon*, Editions Tallandier, Paris, 1986, pp. 26 – 27.

24 Ibid., p. 168.

25 The same had happened much later in 1867 when the Empress Eugénie, a greatgrand-daughter of Joséphine, bedazzled the khedive of Egypt in one of the most exquisite and daring flirtations in history

that eventually led to the construction of the Suez Canal by her cousin, the engineer Ferdinand de Lesseps (see Trevor Mostyn, *Egypt: La Belle Epoque*, Quartet Books, London, 1989, p. 17).

26 Mostyn, op. cit., p. 17.

27 Faucher, op. cit., p. 9 & pp. 32 – 3. Perhaps it should also be noted that Talleyrand's illegitimate son, the famous painter Eugène Delacroix, was among the core of agitators accused by the French police to have plotted with the Egyptian Masonic Rite of Memphis and the *Carbonari* against the restored king Louis XVIII in the failed coup d'état of 1822.

28 Evans, op. cit.

29 Iversen, op. cit., p. 125.

30 Yates, *The Rosicrucian Enlightenment*, p. 154.

31 Iversen, op. cit., p. 100.

32 Jean Lacouture, *Champollion: Úne vie de*

lumières, Editions Grasset, Paris, 1988, p. 382.
33 Ibid., p. 34.
34 Faucher, op. cit., p. 18.
35 Chevallier, op. cit., vol. I, p. 261.
36 Napoleon cited in John S. C. Abbott (ed.), *Confidential correspondence of the Emperor Napoleon and the Empress Joséphine*, Mason Brothers, New York, 1858, p. 22.
37 Napoleon cited in John Eldred Howard (ed.), *Letters and documents of Napoleon*, Oxford University Press, Oxford, 1961, p. 165.
38 Lacouture, op. cit., p. 35.
39 Aubrey Noakes, *Cleopatra's Needle*, H. F. & G. Witherby, London, 1962, p. 1.
40 Vincent Cronin, *Napoleon*, Harper Collins, 1994, p. 146.
41 Noakes, op. cit., p. 1.

42 A military-political class made up of the descendents of freed slaves.
43 Alan Moorehead, *The Blue Nile*, Penguin, 1983, p. 65. Apparently Napoleon also told the Imams of Egypt: ‘In the name of Allah … tell your people that the French are also Muslims … they have [occupied Rome and] ruined the papal See which was always urging the Christians to attack Islam …’
44 Lauren Foreman & Ellen Blue Phillips, *Napoleon's Lost Fleet*, Roundtable Press, New York, 1999, p. 69.
45 Ibid., p. 159.
46 Ibid., p. 49.
47 Moorehead, op. cit., p. 124.
48 Naudon, op. cit., p. 224.
49 Thomas Hodgkin with Henry Ketcham, *The Life of Charlemagne (Charles the Great)*, A. L. Burt, New York, 1902, p. 261.

50 See Donald Bullough, *The Age of Charlemagne*, Paul Elek, London, 1973; also see Russell Chamberlain, *Charlemagne*, Grafton, London, 1986. Apparently Pope Leo III crowned Charlemagne as Holy Roman emperor in gratitude for having saved him and as well as Rome. In the *Frankish Royal Annals* (*Grandes Chroniques de France*) it is reported that one of the Charlemagne's advisers suggested the idea to the pope. According to Einhard, his biographer, as well as other contemporary writers, the coronation actually took Charlemagne by surprise and made him angry. This, say modern scholars, is because Charlemagne considered the pope to be a mere subject of his vast empire.

51 Pope Pius VII, who had been forced to participate in this charade, was to take his revenge when Napoleon's empire began to crumble. Firstly in 1814,

the pope restored the order of the Jesuits, which had been banned from France in 1764, and later, when the French had forced an earlier pope, Clement IX, to completely dissolve the Jesuit order in 1773. Perhaps not unrelated, in 1821, when Napoleon was dying a solitary death at St. Helen, Pius VII issued his famous bull, *Ecclessiam a Jesu Christo*, condemning Freemasonry and the *Carbonari* in all Christiandom (see Faucher, op. cit., p. 71).

52 Naudon, op. cit., p. 78.

53 Court de Gébelin, op. cit.

54 Noël, op. cit.

55 Duché, op. cit., p. 237.

56 Faucher, op. cit., p. 315.

57 See François Collaveri, *La Franc-Maçonnerie des Bonaparte,* Editions Payot, Paris, 1982; also see Galtier, op. cit., p. 139; see also Naudon, op. cit., p.

97.
58 Chevallier, op. cit., vol. II, pp. 17 – 30.
59 See Collaveri, *La Francs Maçonnerie des Bonapartes*, annex iv.
60 Ibid., p. 67.
61 Ibid., p. 68.
62 *The Kneph*, vol. III, no. 6, June 1883, p. 45; see Galtier, op. cit., p. 139 – 40.
63 Humbert, op. cit., p. 40.
64 Naudon, op. cit., p. 124.
65 Humbert, op. cit., p. 48; although the foundation stones were laid as well as the raising of a cardboard model of the building, the project was eventually abandoned due to lack of funds.
66 Lacouture, op. cit., p. 20.
67 Ibid., pp. 55 & 63.
68 Ibid., p. 54 – 5.

69 Baltrušaitis, op. cit., p. 55, see also plate III.
70 Arslan, op. cit., p. 645.
71 The architects were: Chalgrin (1806 – 1811), Joust (1811 – 1814), Blouet (1833 – 1836). The sculptors were: Cortot, Rude, Etex, Pradier, Lemaire.
72 Also known as *l'Apothéose de Napoléon.*
73 Baltrušaitis, op. cit., p. 80.
74 Ibid.
75 Ibid., p. 8.
76 Margaret Laing, *Joséphine and Napoleon*, Sidgwick & Jackson, London, 1973, pp. 131 – 2.
77 *Project d'Achèvement de L'Arc de Triomphe de L'Étoile, Monument des Victories, Sciences et Arts, ou de la Légion d'Honneur, offert au Roi des Français, Louis-Philippe 1er, et au Deux Chambres*. A photograph of this project can be seen in the museum of the *Arc de Triomphe*.

78 Naudon, op. cit., p. 78; Faucher, op. cit., p. 22 & pp. 62 – 3.
79 The Count of Artois had another son, Louis Antoine, but he was believed to be impotent.
80 Naudon, op. cit., p. 98.
81 Faucher, op. cit., p. 71.
82 Ibid., pp. 72 – 4.
83 Ibid., p. 73.
84 Galtier, op. cit., p. 121.
85 Jean-Marcel Humbert, 'Charles X et l'Égypte', in *Bourbons* magazine, no. 11, January – February 1998.
86 Lacouture, op. cit., p. 38; see also Emmanuel de Las Cases, *Mémorial de Sainte-Hélène*, Seuil, Paris, 1968, p. 67.
87 Lacouture op. cit., p. 333 – 74.
88 Ibid.
89 Ibid., p. 340.

90 Ibid., p. 324.
91 Faucher, op. cit., p. 73.
92 Lacouture, op. cit., p. 465.
93 Galtier, op. cit., p. 40.
94 Lacouture, op. cit., p. 33.
95 Ibid., p. 190.
96 Lacouture, op. cit., pp. 33 & 549.
97 Lacouture, op. cit., p. 550; Naudon, op. cit., p. 166.
98 Galtier, op. cit., pp. 150 – 1.
99 Ibid.
100 Ibid.
101 Ibid.
102 This painting can be seen in Room no. 30 in the Sully Wing of the Louvre Museum, the interior of which was designed by the architect Fontaine during the reign of Charles X.

103 Lacouture, op. cit. p. 727.
104 Galtier, op. cit., p. 151.
105 Belzoni is a character well known to British Freemasons. He had married a Englishwoman called Sarah and who, after Belzoni's death, was very active in promoting his Masonic thesis that the Egyptian god, Osiris, had been a ‘Freemason’ because he was ‘clad in the distinctive Masonic apron’ as was obvious, at least to Belzoni and his followers, from depictions on many Egyptian monuments (Short, op. cit., p. 118). It was Belzoni, of all people, who was to discover the magnificent tomb of Sethi I, the ‘Sesotris’ that had been the subject of much Masonic controversy in England and France. Belzoni, with the help of Henry Salt, had made a full scale facsimile of this temple and had it shipped to Europe in 1818. First to Paris then to London in 1821, where it had

made a sensation, especially in Masonic circles (see Morris Bierbrier (ed.), *Who Was Who in Egyptology,* Egypt Exploration Society, London, 1995, pp. 23 – 4). It is interesting to note, therefore, that Champollion, in March 1829, gave a party inside the Temple of Sethi I in honour of the birthday of his daughter, Zoraide, and also to the 'late Belzoni' (who died in 1825) whom Champollion apparently much admired (See Lacouture, op. cit., p. 661).

106 Lacouture, op. cit., pp. 636 & 668.

107 Ibid., pp. 613 & 618.

108 Ibid., p. 731.

109 Ibid., p. 734

110 Ibid., p. 742.

111 Five of the founders of the Third Republic were Freemasons, including their leader Léon Gambetta (see Faucher, op. cit., pp. 9 & 85.)

112 Faucher, op. cit., p. 8; François Mitterrand is often confused with Jacques Mitterrand who was a Grand Master of *Grand Orient de France* in the 1960s (see Ibid., pp. 169 – 70).

113 Ibid., p. 275.
114 Reported by BBC News, Africa, 22 December 2000, 16:01 GMT; see also www.ParisMatch.com/news/mit2812/s4page03_self.st
115 *The New Louvre*, Publications Connaissance des Arts, Paris, 1989, p. 36.
116 *La Grande Arche*, Publications Beaux Arts, Paris, 1990, p. 3.
117 *The New Louvre*, p. 38.
118 Ibid., p. 36.
119 Ibid.
120 Ibid., p. 38.
121 *Sunday Express*, 3 Feb. 1994, section 3, p. 7.
122 Ibid.
123 *The New Louvre*, p. 44.
124 Kerisel, op. cit., p. 157.
125 Ibid., p. 177.

126 *La Grande Arche*, p. 6.
127 Ibid., p. 19.
128 Ibid., p. 22.
129 Ibid., p. 31.
130 Ibid., p. 19.
131 Ibid., p. 11.
132 Jean Nouvel was born in 1945 at Fumel, a village in the southwest of France. He worked with an architectural firm while attending school. In 1975, he opened his own office and participated in several competitions. Since he opened his office, Nouvel has worked to create a stylistic language separate from that of modernism and post-modernism. Rejecting the strict obedience to Le Corbusier that had stifled much of modern architecture, Nouvel initiates each project with his mind cleared of any preconceived ideas. Although he may borrow from traditional

forms, he creates a building that stretches beyond traditional constraints. Nouvel places enormous importance on designing a building harmonious with its site and surroundings. Although Nouvel relies on context to generate his designs, a certain continuum occurs from one design to the next. Within nearly all of his designs, Nouvel consistently presents an interplay of transparency, shadow, and light. In 1981 Jean Nouvel won the competition for a series of ‘great projects’ requested by François Mitterrand, the French president. In 1987 he was awarded the ‘Grand Prix d’Architecture’ for his whole body of work and the ‘Equerre d’Argent’ for his design work on minimalist pieces of furniture. Some of his well-known projects are: The Arab World Institute (Paris, 1987) and the Monolith (Morat, Switzerland, 2002).

133 See *The Guardian*, 21 May 2001: ‘There are

some buildings that deserve to have been built but never were. Jean Nouvel's Tour Sans Fin is one of them. Designed at the end of the 1980s, this Eiffel Tower- high glazed cylinder was to have risen up from the bombastic banality of La Défense, the vast office quarter at the western end of the Champs-Élysées, only to vanish as it kissed the sky.’

134 Quote from Thomas Paine, ‘Origin of Freemasonry’, in Moncure Daniel Conway (ed.), *The Writings of Thomas Paine*, G. P. Putnam's Sons, New York, 1896):

In 1730, Samuel Pritchard, member of a constituted lodge in England, published a treatise entitled ‘Masonry Dissected’; and made oath before the Lord Mayor of London that it was a true copy. Samuel Pritchard maketh oath that the copy hereunto annexed is a true and genuine copy of every

particular. In his work he has given the catechism or examination, in question and answer, of the Apprentices, the Fellow Craft, and the Master Mason. There was no difficulty in doing this, as it is mere form. In his introduction he says, ‘the original institution of Masonry consisted in the foundation of the liberal arts and sciences, but more especially in geometry, for at the building of *the Tower of Babel*, the art and mystery of Masonry was first introduced, and from thence handed down by Euclid, a worthy and excellent mathematician of the Egyptians; and he communicated it to Hiram, the Master Mason concerned in building Solomon's Temple in Jerusalem.’

135 See *New York Observer*, April 13, 2003.

136 Bauval, *Secret Chamber*, updated prologue and epilogue.

137 *Dossiers Histoire et Archéologie,* vol. 101, January 1986
138 Gérard Bauer, *Tableaux Choisis: Paris*, page 41
139 Lacouture, op. cit., Epilogue: ‘L’absent Obélisque’ by Jean Vidal, p. 731.

CHAPTER NINETEEN: THE CORNERSTONE

1 Ovason, op. cit., p. 76.
2 Ibid.
3 See E. C. Krupp, *In Search of Ancient Astronomies*, Chatto & Windus, London, 1979.
4 Ovason, op. cit., p. 5. For a fuller discussion on this, see also Lockyer, op. cit.
5 Although the ‘Isis Fountain of regeneration’ ceremony in Paris, which took place on 10 August 1793, was related to a political date, we cannot help being intrigued by the symbolism involved: Isis on

throne flanked by lions, gushing water from her nipples. The star Sirius was, on that day, rising at dawn cosmically with the Sun which, at that time, was in Leo. In ancient Egypt the symbolism was clear: the goddess Isis brought the regenerative waters of the Nile's flood at about this time of year. It would seem unlikely that the organisers of this ceremony in Paris were unaware of this connection. As we have already noted elsewhere, the ‘propaganda’ artist Louis-David had taught symbolism to Picot who, in 1827, painted the Isis on the lion throne in the Louvre.

6 Bullock, op. cit., p. 137.

7 Pick & Knight, op. cit., p. 275.

8 William Adrian Brown, *History of the George Washington Masonic Memorial*, History House, Alexandria, VA, 1980, pp. 8 – 9.

9 Ibid., p. 56.
10 Ibid., p. 9.
11 Bernard Weisberger, *The Statue of Liberty: The First One Hundred Years*, Horizon Book Promotions, New York, 1988, p. 30; see also James Lloyd, *Beyond Babylon: The Last Week of the World*, Christian Media, Jacksonville, OR, 1995, p. 103.
12 Galtier, op. cit., p. 19.
13 Galtier, op. cit., p. 150.
14 Kerisel, op. cit., p. 176.
15 Ibid., p. 138.
16 Eric Foner & John A. Garraty (eds.), *The Reader's Companion to American History*, Houghton Mifflin, New York, 1991.
17 Mathieu, op. cit., p. 14.
18 Naudon, op. cit., p. 170.
19 Ibid., p. 167.

20 Naudon, op. cit., p. 171.
21 Chevallier, op. cit., vol. II, p. 487.
22 Garibaldi took over from Salvatore Zola, an Italian living in Egypt who was a relative of the famous French novelist Émile Zola. Salvatore Zola had fought with Garibaldi in the 1850s; Later in 1896 Zola resign from Freemasonry and ended his life in a mental hospital; see Galtier, op. cit., p. 153; also see *Dossiers de l'Histore,* 2117 RD 7, pp. 116 – 9.
23 Weisberger, op. cit., p. 28.
24 Transcipt of photograph available at: www.cobhammasons.org.uk/slplaque.htm.
25 *Freemasonry Today*, 19, January 2002, p. 12.
26 Robert Hieronimus, *Founding Fathers, Secret Societies*, Destiny Books, Rochester, VT, 2006, p. 67.
27 James Wasserman, *The Secrets of Masonic Washington*, Destiny Books, Rochester, VT, 2008, p.

70.

28 See, for example, the presidential Thanksgiving Proclamations by President Benjamin Harrison in 1890, 1891 & 1892 and also by President Grover Cleveland in 1893. Available at: www.pilgrimhall.org/ThanxProc1890.htm.

29 Bauval, *Secret Chamber*, epilogue. See also Robert Lomas & Christopher Knight, *The Second Messiah*, Arrow Books, London, 1998, p. 288. Also in his essay 'Origins of Freemasonry', Thomas Paine was to write these cryptic words: 'The Masons, in order to protect themselves from the persecution of the Christian Church, have always spoken in a mystical manner of the figure of the Sun in their lodges, or, like the astronomer Lalande, who is a Mason, been silent upon the subject.'

30 Skymap Pro 7 used for data source. 5 – 6 August is

for the latitude of Heliopolis (30° north). In New York, which has a latitude of 44.5°, the heliacal rising in 1884 would have been around 12 August. Bartholdi may have opted for the original Egyptian latitude that marked this event. Oddly, we shall again encounter the date of 12 August as we examine the layout of Washington, DC.

31 Martin Isler, 'The Gnomon in Egyptian Antiquity', in *JARCE*, 28, 1991, pp. 167 – 8. Also M. Isler, 'An Ancient Method of Finding and Extend ing Directions' in *JARCE*, 26, 1989, pp. 201 – 2. See also Krupp, *In Search of Ancient Astronomies*, pp. 192 – 5.

32 Philippa Faulks & Robert L. D. Cooper, *The Masonic Magician: The Life and Death of Count Cagliostro and His Egyptian Rite*, Watkins, London, 2008, pp. 209 – 15.

33 Ibid., p. 215.

34 Budge, *Cleopatra's Needle and Other Egyptian Obelisks*, p. 166. The two obelisks had originally belonged to Thutmosis III (c. 1550 BC), the great warrior-pharaoh, who is often dubbed the ‘Napoleon of 18th dynasty Egypt’ (Martina D’Alton, *The New York Obelisk*, Metropolitan Museum of Art, New York, 1993. p. 3), and had once adorned the Temple of sun-god Atum-Ré in the ancient Anu (On), the ‘City of the Sun’ (Habachi, op. cit., pp. 165 – 7). Three others belonging to Thutmosis III had also once stood at the Temple of Amun at Karnak (Budge, *Cleopatra's Needle*, p. 129). On the ‘New York’ obelisk (erroneously called ‘Cleopatra's Needle’) the hieroglyphic inscriptions confirm that Pharaoh Thutmosis III (his name literally means ‘son of Thoth’) was ‘governor of Heliopolis’ and it was he who had it made these two obelisk for his ‘father’,

Atum-Ré, the ‘Lord of Heliopolis’ (Budge, *Cleopatra's Needle*, p. 172).
35 D’Alton, op. cit., pp. 42 – 4; also see Habachi, op. cit.; see also Budge's *Cleopatra's Needle and Other Egyptian Obelisks*.
36 Bauval & Gilbert, *The Orion Mystery*, epilogue.
37 Richard Noone*, 5/5/2000, Ice: The Ultimate Disaster*, Three Rivers Press, New York, 1982, p. 19.
38 D’Alton, op. cit., p. 41 – 2.
39 Ibid., p. 12.
40 Pick & Knight, op. cit., p. 331; see also Bauval, *Secret Chamber*, p. 185.
41 Galtier, op. cit., 429 – 31.
42 Ibid., p. 153.
43 Ibid., p. 152.
44 Noone, op. cit., p. 19.
45 Ibid., p. 20; see also D’Alton, op. cit., p. 27.

46 D'Alton, op. cit., p. 27.
47 Ibid., p. 10.
48 Ibid., p. 42.
49 Ibid., p. 44.
50 Ibid., p. 25.
51 Susan Coolidge, *A Short History of the City of Philadelphia From its Foundation to the Present Time*, Arden Press, 1880, chapter 3. It has also been suggested that Penn was inspired by a utopic renaissance city plan by Cataneao in 1567, although this seems unlikely.
52 Ovanson, op. cit., p. 41.
53 See Thomas Paine, 'Origins of Freemasonry', in *The Writings of Thomas Paine*.
54 Ibid.
55 Using Starry Night Pro 4, for epoch 1683. The dates given are Gregorian. In Britain and the colonies

they were still using the Julian calendar, even though it had been introduced in 1582 by the Vatican. It is possible that the Quakers also used the solar/Gregorian at that time.

56 Thomas Holme, *Portrait of the City of Philadelphia*, 1683.

57 *The Pennsylvania Freemason*, vol. 43, May 1996, no. 2.

58 Transcript of photograph available at: www.remarkableohio.org/HistoricalMarker.aspx?historicalMarkerId=152&fileId=128046.

59 Naudon, op. cit., p. 181. The St. John's Lodge in Boston is often cited as being the first to have formal documentation to prove its origin.

60 Pick & Knight, op. cit., p. 271.

61 Ibid.

62 Ridley, op. cit., p. 92.

63 Baltrušaitis, op. cit., pp. 201 – 8.
64 Paine, op. cit.
65 Ibid.
66 Naudon, op. cit., p. 32.
67 Ibid., p. 81.
68 Ibid.
69 Debû-Bridel, op. cit., p. 27.
70 Ibid., p. 29.
71 Connecticut Society of the Sons of the American Revolution, 'Washington – Rochambeau Revolutionary Route Newsletter', no. 38, available: at http://www.connecticutsar.org/about/rev-road/news38.htm.
72 Naudon, op. cit., p. 198.
73 See www.scottishrite.org/foundations/house-of-the-temple-foundation/aboutthe-temple.
74 Albert Pike, *Morals And Dogmas of the Ancient*

And Accepted Scottish Rite of Freemasonry, prepared for the Supreme Council of the 33rd Degree for the Southern Jurisdiction of the United States, Charleston, SC, 1871, p. 486.
75 Ibid., p. 136.
76 Ibid., p. 506.
77 Ibid.
78 Ibid.
79 Ibid., p. 376.
80 Rex R. Hutchens, *Albert Pike – The Man Not The Myth*, address to the Supreme Council of the 33rd Degree for the Southern Jurisdiction, 17 October 1989.
81 Pike, op. cit.
82 Robert Temple, *The Sirius Mystery*, Century, London, 1998, p. 404.
83 Pike, op. cit., p. 18.

84 Homer, *Iliad*, book XXII.
85 Apollonius Rhodius, *Argonautica*, 2.518ff & 3.958ff.
86 Aratus, *Phaenomena*, 328.
87 *Encyclopaedia Britannica*, vol. 9, p. 65.
88 See *The Scottish Rite Journal* at: srjarchives.tripod.com/1998-03/beless.htm.
89 Ibid.
90 Ibid.
91 Paine eventually shipped the key to George Washington, and it is now displayed at Washington's home in Mount Vernon.
92 Baltrušaitis, op. cit., pp. 52 – 3.
93 Court de Gébelin, op. cit.
94 Hall, *Rosicrucian and Masonic Origins*, pp. 408 – 9.
95 The ‘path’ are obtained by adding the 22 letters of

the Hebrew alphabet to the ten Sephiroth. See Chapter 14.

96 Lobingier, op. cit., p. 4.

97 *Theosophy Magazine*, vol. 27, no. 2, December 1938

98 Thomas Edison, ‘The Philosophy of Paine’, 7 June 1925, in Dagobert D. Runes (ed.), *The Diary and Sundry Observations of Thomas Alva Edison*, Philosophical Library, New York, 1948.

99 See article by David Cody, associate professor of English, Hartwick College available at: http://www.victorianweb.org/history/hist7.html. . William Blake had just completed his poem ‘The French Revolution’ and was already nurturing his poetic vision of turning the England and the city of London into a ‘New Jerusalem’. Although Blake himself was not a Freemason, he nonetheless

produced the famous etching of the ‘Supreme Being’ as the ‘Great Architect’ of creation wielding his compass in the act of creation that Masonic publications are so fond of.

100 We are indebted to Ms Mimi Murray, a graduate of John Hopkins University, for making available to us her college major's thesis on Pierre-Charles L’Enfant.

101 Library of Congress, *The George Washington Papers*, available at: memory.loc.gov/ammem/gwhtml/gwhome.html.

102 The Society of the Cincinnati was formed on 13 May 1783 at the Verplanck House in Fishkill, New York. The first chapters were limited to the 13 colonies in America and France. The society was mostly the idea of Major-General Henry Knox, commander of the Continental army artillery and

America's first secretary of war. Knox was secretary-general of the society under George Washington, who remained president until his death in 1799. Eligibility in the society was offered to officers who had served in the war. Of the 6,000 or so officers that were eligible, only 2,403 joined, mostly coming from the Delaware area. About 250 French officers also decided to join.

103 Tim Page, ‘The Cincinnati: A Society That's In the Blood’, *Washington Post*, 13 December 2001, p. C01; Later other presidents who have belonged to the Cincinnati include Jackson, Taylor, Pierce, Buchanan, Grant, Cleveland, Benjamin Harrison, McKinley, Theodore Roosevelt, Franklin D. Roosevelt, Taft, Wilson, Harding, Hoover and Truman. the organization's headquarters is at the splendid 50-roomed Anderson House at 2118 Massachusetts

Avenue NW, Cincinnati. It's last original member died in New York in 1854, and today the society is still only open to direct descendants of the original members.

104 Bullock, op. cit., p. 130.

105 Jean-Jules Jusserand was also a Pulitzer Prize Winner for History in 1917.

106 From Jean Jules Jusserand, *With Americans of Past and Present Days*, Charles Scribner's Sons, New York, 1916.

107 See *The Journal of Andrew Ellicott*, Budd & Bartram, Philadelphia, 1803.

108 H. Paul Caemmerer, *The Life of Pierre Charles L'Enfant*, Da Capo Press, New York, 1950, p. 135.

109 Ibid., p. 167.

110 Ellicott did, however, change the alignment of Massachusetts Avenue and deleted some five short

radial avenues. He also added two short radial avenues to the southeast and southwest of the US Capitol as well as participated in the naming of the streets.

111 Baigent & Leigh, *The Temple and the Lodge*, p. 262; Ovason, op. cit., pp. 42 – 3.

112 First printed edition of the L'Enfant plan, G3850 1792 L4 Vault.

113 *The Universal Asylum and Columbian Magazine,* March 1793, pp. 155 – 6; published in Philadelphia by William Young, Bookseller, No. 52 Second-Street, the corner of Chestnut-Street. A larger print of this map had, in fact, already been published several months earlier the November 1792 by Thackara and Vallance. The same map also appeared on facing the title page of *Observations on the River Potomack, the Country adjacent and the City of Washington* by

Tobias Lear, and printed by Samuel Loudon & Son, No. 5 Water-Street in New York in 1793.

114 Availableat:www.census.gov/population/www/popcloc & www.census.gov/population/www/projections/natproj. .

115 Ovason, op. cit., p. 42.

116 Ibid., p. 83.

117 Although it is generally said that it was the André Le Nôtre design of Versailles and not Paris that influenced L'Enfant, the similarity of the main axial layout of Washington, DC with Paris is uncanny and too striking to be ignored. See *Washington Architecture 1791 – 1957*, prepared by a committee of the Washington-Metropolitan Chapter American Institute of Architects, Reinhold Publishing

Corporation, New York, 1957, pp. 5 & 36.
118 Robert Cameron, *Above Washington: A Collection of Nostalgic and Contemporary Aerial Photographs of the District of Columbia*, Cameron & Company, San Francisco, 1979, plate on p. 81
119 Ibid., plate on p. 42.
120 This new Exchange was also destroyed by fire in 1838. The present Royal Exchange was built in 1842 – 44, and apparently cost £150,000 at the time.
121 Taken from *The Last Will and Testament of Sir Thomas Gresham*, published in London 1765.
122 Lomas, op. cit., p. 292.
123 Tinniswood, op. cit., p. 150.
124 MS. Ashmole 242, f. 78; see C. H. Josten (ed.), *Elias Ashmole (1617 – 1692) His Autobiographical and Historical Notes, His Correspondence and Other Contemporary Sources relating to his Life and Works*,

Oxford University Press, London, 1966, vol. 3, pp. 1 & 112. This entry by Elias Ashmole is accompanied by an astrological horoscope and inscribed notes by the astrologer William Lilly (see Annabella Kitson (ed.), *History of Astrology*, Mandala-Unwin Paperbacks, London, 1989, p. 200).

125 *Elias Ashmole*, vol. 4.

126 *History of Astrology*, pp. 199 – 204.

127 MS. Ashmole 1136, f. 53; cited in *Elias Ashmole*, vol. 4, pp. 1 & 432.

128 *History of Astrology*, p. 199 – 200.

129 It would not be until 1752 that the Gregorian calendar was introduced in England.

130 See: en.wikipedia.org/wiki/Conversion_between_Julian_and and converter at www.fourmilab.ch/documents/calendar. .

131 Apparently the Declaration of Independence was voted by Congress on 2 July 1776 and only agreed unanimously on 4 July. It was then read out publicly on 8 July. See Ovason, op. cit., pp. 142 – 3. Note 23 June 1776 (Julian) converts to 4 July 1776 (Gregorian).
132 For a full discussion as to why Virgo was significant to Washington, DC, see Ovason, op. cit., appendix, pp. 357 – 91.
133 Ibid., p. 379.
134 A very critical review of Ovason's ‘astrological’ theory for Washington, DC has been published by the author Michael Baigent in *Freemasonry Today* (vol. 15, 1999). In a private conversation with Baigent during the writing of this book, he informed Bauval that Ovason's knowledge of astrology seemed very poor, and there were many mistakes in his book.

There are, too, several astronomical errors. But in spite of this, Ovason's detailed and meticulous research into the documentation and records of the event surrounding the design and building of Washington, DC is excellent, and was most useful to us in the writing of this book.

135 Ovason, op. cit., p. 118.

136 The only surviving record of this very important Masonic ceremony is in a short unanimous letter printed in one of the Charleston newspapers when the Georgetown Lodge No. 9 of Maryland gathered on the site for the cornerstone ceremony on Saturday, 13 October 1792. The cornerstone was laid on the southwest corner of the president's house (later to be called the White House, by virtue of it being painted white after being scorched by fire in 1814 by the British artillery guns).

137 According to Ovason's observation of the setting sun on 12 August along Pennsylvania avenue, the axis would have to be between 20 – 22°, depending on the height of the observer. Ovason recognised this in his notes (see Ovason, op. cit., p. 456, note 69). This fact was verified for us on 11 – 12 August 2003 by David Hudgins, Ph.D., CFM, University of Oklahoma, who took a digital photograph of the event.

138 This happens almost every day of the year, except for about 2 ½ months when this star is not visible at night. David Ovanson thinks that the alignment from the White House to the Capitol (i.e. along Pennsylvania Avenue) was deliberately designed to point at the setting sun (Ovanson, op. cit., p. 337). Considering that Ovason makes a strong case that the five-pointed ‘Egyptian’ star symbol of

Sirius was integrated into the fabric of the Declaration of Independence and the ‘cornerstone ceremony’ of the Washington Monument (the Egyptian-style obelisk), it is curious, to say the least, that he did not realise the significance of the stellar alignment to Sirius of the White House-US Capitol axis along Pensylvania Avenue.

139 Ovason, op. cit., p. 337.

140 Ibid., p. 456, note 69. Not knowing, however, from what vantage height Ellicott and L’Enfant made their observations, Ovason decided to establish his solar alignment by direct observations from 6 – 12 August.

141 Ovason, op. cit., pp. 47 & 58.

142 Ibid., p. 127.

143 Ibid.

144 Tompkins, *The Magic of Obelisks*, p. 322 – 9.

145 Ovason, op. cit., p. 129.
146 Quote in Ibid., p. 87 from Lalande, op. cit., vol. 1., p. 245.
147 According to StarryNight Pro 4, this event took place at about 4 p.m.
148 Ovason, op. cit., p. 137.
149 Naudon, op. cit., p. 79.
150 The Pentagon was conceived at the request of Brigadier-General Brehon B. Sommervell, chief of the Construction Division of the Office of the Quartermaster General, on a weekend in mid-July 1941. The purpose was to provide a temporary solution to the War Department's critical shortage of space. The building was dedicated on 15 January 1943, nearly 16 months to the day after the ground breaking.
151 See: pentagon.afis.osd.mil/construction.html. and

also: pentagon.afis.osd.mil/facts-area.html.
152 Cameron, op. cit., p. 32.
153 Franklin D. Roosevelt's vice-president, Harry Truman, received the degrees in Belton Lodge No. 450; organized and became a charter member of Grandview No. 618. He served in France as a captain in the US Army in WWI. Served as both district lecturer and Deputy Grand Master for several years. He was elected Grand Master of Masons in Missouri in 1940. He always claimed this was the greatest honour that had ever come to him. He received the first Gourgas Medal of the Scottish Rite, NMJ, granted while he was serving as a Senator. He worked for servicemen and women through The Masonic Service Association during World War II. Elected vice-president in 1944 and became president on the death of Franklin D. Roosevelt (a Mason) on

12 April 1945. He died on 26 December 1972. On 28 December he was buried on his library's grounds with impressive rites. These included the only Masonic funeral service ever televised worldwide.

154 Cameron, op. cit., p. 117.

155 See C. Knight & A. Butler, *Before The Pyramids*, Watkins Publishers, London, 2009, p. 194.

156 Ibid., p. 247.

157 Bauval, *Secret Chamber*, chapter 7.

158 Available at: www.trumanlibrary.org/photos/israel.jpg. Also see www.trumanlibrary.org/israel/palestin.htm.

EPILOGUE: THE MASTER GAME CHAPTER TWENTY: THE DAY THAT SHOOK THE WORLD

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2 ‘Turkey blasts: Claims of al-Qaeda’, *Mail & Guardian*, 20 November 2003, available at: http://www.mg.co.za/article/2003-11-20-turkey-blasts-claims-of-alqaeda.
3 Johann Hari, ‘What I discovered inside Finsbury Park Mosque’, *The Independent*, 22 January 2003,

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www.independent.co.uk/opinion/commentators/johann
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available at: www.jerusalem-en.sitecity.ru/ltext_2606062955.phtml?p_ident=ltext_2606062955.p_2606064631. .

9 Available at: http://english.aljazeera.net/archive/2004/03/20084914

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11 There is still much popularity of the *Protocols ofthe Elders of Zion* in some nations of South America (recently published in Spanish in 2006 in Mexico) and Asia, but since the end of WWII political leaders in other parts of the world have rejected the notion that the *Protocols* represent a factual Jewish conspiracy. In the Middle East, however, many Arab

and Muslim regimes and leaders have claimed them as being real. The *Protocols* were endorsed from Presidents Gamal Abdel Nasser and Anwar Sadat of Egypt, to King Faisal of Saudi Arabia and Colonel Gaddafi of Libya. Recently political and intellectual leaders in the Arab world who endorse the *Protocols*, and are supported by influential personages such as the Grand Mufti of Jerusalem, Sheikh Ekrima Said Sabri, and organizations such as Hamas, as well as the Ministry of Education of Saudi Arabia.

12 The history of the concepts found in the *Protocols* was traced back to the works of Herrmann Ottomar Friedrich Goedsche (aka Sir John Retcliffe) and Jacques Cretinéau-Joly by Lucien Wolf, and English journalist who published his findings in London in August 1921. A damning exposé was also given in a series of articles in the *Times* on 16 – 18 August

1921. The newspaper's Istanbul correspondent, Philip Graves, demonstrated clearly the plagiarism from Cretinéau-Joly's work. The *New York* Times also reprinted the articles on 4 September 1921.

13 Steven Simon is the award-winning co-author of *The Age of Sacred Terror* (Floris Books, Edinburgh, 2002) and author of *The Next Attack* (Times Books, New York, 2005). His current work examines the consequences of the American intervention in Iraq, Muslim and non-Muslim relations, and the role of religion in US foreign policy.

14 Cited in A. Millar, op. cit.

15 ‘2008 Update: Saudi Arabia's Curriculum of Intolerance’, published by the Center for Religious Freedom of Hudson Institute with the Institute for Gulf Affairs, PDF available at: www.hudson.org/files/publications/saudi_textbooks_fi

16 The original thrust of the creation of the state of Israel in 1948 had begun with the so-called *Balfour Declaration* on 2 November 1917. Arthur James Balfour (1848 – 1930) was the British Statesman who maintained a position of great power within the Conservative Party for 50 years. He was prime minister from 1902 to 1905 and foreign secretary from 1916 to 1919. Many Masonic researchers believe that Lord Balfour was a Freemason, but United Grand Lodge denies this. At any rate, After being prompted by Zionist leaders Chaim Weizmann and Nahum Sokolow, Balfour wrote to Baron Rothchild, leading finacier in England and head of the Zionist movement in UK. His famous letter from the Foreign Office is typed on plain paper:

Dear Lord Rothchild,

I have much pleasure in conveying to you. on behalf of his Majesty's Government, the following declaration of sympathy with Jewish Zionist aspirations which has been submitted to, and approved by, the Cabinet.

His Majesty's Government views with favour the establishment in Palestine of a national home for the Jewish people, and will use their best endevours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine, or the rights and political status enjoyed by Jews in any other country.

I should be grateful if you would bring this declaration to the knowledge of the Zionist

Federation.
Yours, Arthur James Balfour

17 The Knights Templar is the final order joined in the York Rite. It does not deal with the Hiram Abiff legend. Unlike all other Masonic orders which accept members regarless of their faith, membership in the Knights Templar is open only to Freemasons who are Christians. This body is modeled off of the historical Knights Templar to carry the ‘spirit of their organization’. It has been claimed that Freemasonry was founded by the Knights Templar or that the Knights Templar, after their persecution in 1312 – 4, took refuge in Freemasonry. The Grand Encampment of the United States, which regulates Masonic-Templars, acknowledges these theories but says there is no evidence to justify them. A local Knights

Templar division is called a ‘commandery’ and is governed at state level by a Grand Commandery as well as the Grand Encampment of the United States. The Knights Templar confer three orders, and one passing order as opposed to the standard degree system found in regular Freemasonry:

> The Illustrious Order of the Red Cross
> The Passing Order of St. Paul, (or Mediterranean Pass)
> The Order of the Knights of Malta (or simply Order of Malta)
> The Order of the Temple

18 Available for download at: http://www.knightstemplar.org/KnightTemplar/Magaz

19 The ‘Father of Zionism’ is regarded as Theodore Herzl (1860 – 1904). At the First Zionist Congress in

Basel in 1897, which was masterminded by Herzl, he founded the World Zionist Organization. He died before seeing his vision of a Jewish state in Palestine become a reality. In 1949 his remains were brought to Jerusalem and buried in ‘Mound Herzl’ cemetery. Many Israeli leaders such a Golda Meir and Levi Eshkol are also buried in this cemetery. Herzl's family seemed to have been plagued by terrible tragedies: Herzl wife Julia suffered from mental instability; his eldest daughter, Pauline. was a heroine addict and died at the age of 40 from an overdose in a French hospital. His son, Hans, shot himself when he found out about his sister's death. His other daughter, Trude, was to die in the Nazi concentration camp. Her son, Stephen Theodore Norman (born Stephen Neumann), on learning of his family's extermination in the death camps, committed

suicide in November 1946 by jumping off the Massachusetts Avenue bridge in Washington, DC. He was only 27.

20 See Robert Rockaway ‘FDR’s Plan For a Jewish State in Palestine’, *Israel Insider*, 25 December 2002; see also Robert H. Abzug, *America Views the Holocaust 1933 – 1945: A Brief Documentary History*, St. Martin's, New York, 1999, pp. 134 – 5.

21 ‘The Declaration of The Establishment of The State of Israel’, 14 May 1948, available at: http://www.mfa.gov.il/MFA/Peace%20Process/Guide%

22 Ibid.

23 Clark Clifford is often said to have been the real influence on Truman on this matter. But in the words of Clifford himself, ‘President Truman said he would like me to prepare the case for the formation of a Jewish homeland as if it were a case to be presented

to the Supreme Court'.
24 Available at: http://www.trumanlibrary.org/photos/israel.jpg. . Also see www.trumanlibrary.org/israel/palestin.htm.
25 Cliford's memoirs were written in two parts with Richard Holbrooke. The first part was published in the *New Yorker* magazine of 25 March 1991 and covered events from 1944 to Truman's recognize of Israel in May 1948. See Clark Clifford and Richard Holbrooke, 'Serving the President I – The Truman Years', *New Yorker*, 25 March 1991, archived at www.newyorker.com/archive/1991/03/25/1991_03_25
26 Richard H. Curtiss, 'Truman Adviser Recalls May 14,1948 US Decision to Recognize Israel', *Washington Report on Middle East Affairs*, May/June 1991, p. 17, available at: http://www.wrmea.com/backissues/0591/9105017.htm

27 Ibid.
28 Ibid.
29 Ibid.
30 Ibid.
31 Ibid.
32 Ibid.
33 Ironically, Clifford later served as lawyer for Arab businessmen and served as director of a bank (First American Banshares, but said to have been controlled by Bank of Commerce and Credit International – BCCI) they illegally took over, and has faced legal problems because of this in the 1980s. Indictment against him were put aside because of his failing health. Clifford died in October 1998.
34 Imam's message announcing *Quds* Day, dated 7 August 1979 (16 Murdad 1358 AHS), *Sahifa-yi Nur,* vol. 8, p. 229.

35 Imam's message dated 16 August 1979 (25 Murdad 1358 AHS), *Sahifa-yi Nur*, vol. 8, pp. 233 – 234.
36 Imam's remarks dated 9 August 1980 (18 Murdad 1359 AHS), *Sahifa-yi Nur*, vol. 12, p. 282.
37 In the event, the Masonic Bible was never used due apparently to a fear that it be damaged by bad weather conditions on the day George W. Bush took the presidential oath.
38 George. W. Bush, ‘Remarks by the President Upon Arrival’, 16 September 2001, available at: http://georgewbushwhitehouse.archives.gov/news/rele 2.html.
39 George. W. Bush, ‘President Rallies the Troops in Alaska’, 16 Febraury 2002, available at: http://georgewbushwhitehouse.archives.gov/news/rele 1.html.

40 Alexander Cockburn, ‘The Tenth Crusade’, *Counterpunch*, 7 September 2002, available at: http://www.counterpunch.org/cockburn0907.html. .
41 James Pinkerton, ‘Century In, Century Out – It's Crusade Time’ *Newsday*, 4 December 2003, available at: www.newamerica.net/publications/articles/2003/centu
42 ‘Al-Qaeda Threatens Christians, Egypt's Muslim Brotherhood: Protect Churches’, *Saudi Telegraph*, 3 November 2010, available at: www.sauditelegraph.com/news/newsfull.php?newid=434859.
43 ‘Al-Qaeda claims Iraq church attack’, Al Jazeera, 2 November 2010, available at: english.aljazeera.net/news/middleeast/2010/11/20101
44 ‘As dead line for Egypt's Coptic church expires Qaeda group says Christians *legitimate targets*’, Al

Arabiya News, 3 November 2010, available at: www.alarabiya.net/articles/2010/11/03/124713.html .
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46 M. Chulov & E. Ibrahim, ‘Christians in Iraq living in fear of ‘pogrom’ after bomb attacks’, *Guardian*, 12 November 2010, available at: www.guardian.co.uk/world/2010/nov/12/christians-iraq-living-fear-pogrom.
47 Cam McGrath, ‘Egyptian Government Shunts Responsibility For Attacks on Coptic Christians’, Inter Press Service, 6 January 2011, available at: www.alternet.org/belief/149423/egyptian_government
48 Interview with Lucy-Anne Hunt, ‘From the

Crusaders to Al Qaida', Humboldt Foundation website, available at: www.humboldt-foundation.de/web/1353.html.

APPENDIX: THE GREAT PYRAMID AND FREEMASONRY

1 Translated by author. Image available at: http://myblog.robertbauval.co.uk/__oneclick_uploads/2
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2 Curiously, a relative of Émile Zola, a certain Salvatore Zola, was a prominent Freemason in Egypt in the 1800s and, of all things, was assigned by the Khedive Muhammad Ali to help the Americans

remove an obelisk from Alexandria to New York's Central Park.

3 He was born Hiram Ulysses Grant, but always called Ulysses, his middle name, by his friends. Hiram was, and still is, a popular Masonic name (from Hiram Abiff, the legendary ‘architect’ of Solomon's Temple in Masonic rituals). This choice of name was clearly intended as a Masonic label, since Ulysses’ father, Jesse Brant, had been Master Mason of a prominent lodge in Ohio.

4 Although there is controversy whether General William T. Sherman was a Freemason, his own father, Charles Robert Sherman, certainly was a senior Freemason, as confirmed by his Masonic apron located by the Ohio Historical Society. It is widely believed that Gen. Sherman spared prisoners who wore Masonic rings during the Civil War. The

bringing of the Egyptian obelisk to New York's Central Park in 1880 was clearly a Masonic event. It is also interesting to note that it was Gen. Sherman who selected the site of Bedloe's Island (now Liberty Island) for the placing of the Statue Of Liberty in 1884, the latter clearly another Masonic event. William H. Herbert, the chief editor of the *New York World* newspaper, is often given credit for being the first to suggest to Khedive Isma'il that the obelisk should be donated to the United States. He got the financial backing from a prominent Freemason, William H. Vanderbilt who, in turn got the political support from of Rep. Henry G. Stebbins, New York's commissioner of public parks. It was Stebbins who petitioned the US Secretary of State, William M. Evarts, to personally write to Elbert Farman, the American consul-general in Egypt, to persuade the

Khedive of Egypt to donate the obelisk to the US. Let us note in passing that William M. Evarts was also chairman of the Committee for the Statue of Liberty in 1883 – 4 and it was he who sent a formal invitation to the Grand Masonic Lodge of New York to organize a ceremony “appropriate for the Occasion.” See Willam C. Kiesel's article in the September 1983 issue of *The Masonic Philalesist*; also J. E. Bebrens's article in October 1983 issue of *Knight Templar* magazine.

5 On his way to the Mediterranean during a 2-year survey with the *Gettysburg*, Gorringe and a fellow Freemason, Lieutenant Seaton Schoeder, used equipment to measure depth and with ‘snagged the top of a submerged mountain in the Atlantic Ocean which they claimed was the ‘Lost Atlantis’, and received a congratulatory telegram from President

Grant for this ‘discovery’ (See D’Alton, op. cit., p. 10).
6 The important symbolic aspect of an obelisk is not its tall stem but its top which is shaped like a small pyramid, which feature very prominently in Masonic rituals.
7 See www.robertbauval.co.uk/articles/articles/hawass1.htm
8 Ibid.
9 Ibid.
10 Ibid.
11 See Bauval, *Secret Chamber,* Chapter 8.
12 Interview with *Ros al-Yusuf,* ‘Israel is Robbing the Pyramids as it Robbed Palestine’, 5 May 1997.
13 Ibid. Hawass was referring to Robert Bauval, Graham Hancock and John Anthony West.
14 See www.robertbauval.co.uk/articles/articles/hawass1.htm

15 Memri TV: Arabic Video, English Transcript. Broadcast on 11 February 2009, available at: http://www.memritv.org/clip/en/2049.htm. During the writing of this book, the History Channel aired a five episode TV documentary titled *Chasing Mummies* featuring Dr. Zahi Hawass. Paradoxically, In episode 4 shown on 4 August 2010, former First Lady Barbara Bush introduced Hawass to an adoring American audience:"I'm thrilled to introduce the foremost scholar of Ancient Egypt ... it is my pleasure to welcome a great explorer."

16 Kevin Myers, 'The anti-Semite Farouk Hosni is, in fact, the forward-looking face of enlightened Arabia', *Independent*, 24 Sept. 2009.

17 Michael Slackman, 'Egypt Ponders Failed Drive for Unesco', *New York Times*, 28 Sept. 2009.

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The Message of the Sphinx

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Fingerprints of the Gods: The Evidence of Earth's Lost Civilization

The Message of the Sphinx
A Quest for the Hidden Legacy of Mankind

Graham Hancock
Robert Bauval

Three Rivers
Press New York

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Published by Three Rivers Press, 201 East 50th Street,
New York, New York 10022. Member of the Crown Publishing Group.

Originally published in Great Britain by William Heinemann Ltd.,
and in the United States by Crown Publishers, Inc., in 1996.

Random House, Inc.
New York, Toronto, London, Sydney, Auckland
http://www.randomhouse.com/

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Printed in the United States of America

Diagrams by Robert G. Bauval and R. J. Cook
Photographs 2, 3, 4, 5, 6, 8, 9, 10, 17, 18, 19, 20, 22,
24, 25, 26, 27, 28, 30, 31, and 32 by Santha Faiia.
Photographs 11, 12, 15, and 16 courtesy of Rudolph Gantenbrink.
Photograph 29 by Robert G. Bauval.
Photograph 7 courtesy of *Venture Inward* magazine.
Photograph 13 Spiegel TV.
Photograph 14 Antoine Boutros.
Photograph 1 The Lady Sophia Schilizzi.

Library of Congress Cataloging-in-Publication
Data is available upon request.

ISBN 0-517-88852-1

10 9 8 7 6 5 4 3 2 1

First Paperback Edition

To the memory of my father Gaston Bauval,
who rests in the land of Egypt.

Robert G. Bauval

To my friend, John Anthony West, for his twenty years of courageous work to prove the geological antiquity of the Sphinx, and for the vast implications of the evidence that he has put before the public. 'The truth is great and mighty,' as the ancient texts say. 'It hath never been broken since the time of Osiris.'

Graham Hancock

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Acknowledgements

Robert G. Bauval:

Foremost, a special thanks to the readers. In the last two years I have received hundreds of letters of encouragement and good-will and it's sure nice to know you're all out there sharing in this common quest for truth.

I am immensely grateful for the patience and understanding of my wife Michele, and my two children, Candice and Jonathan.

Particular gratitude goes to the following relatives, friends and colleagues for their support: John Anthony West, Chris Dunn, Bill Cote, Roel Oostra, Joseph and Sherry Jahoda, Joseph and Laura Schor, Niven Sinclair, Marion Krause-Jach, Princess Madeleine of Bentheim, James Macaulay, Robert Makenty, Linda and Max Bauval, Jean Paul and Pauline Bauval, my mother Yvonne Bauval, Geoffrey and Thérèse Gauci, Patrick and Judy Gauci, Denis and Verena Seisun, Colin Wilson, Mohamed and Amin El Walili, Julia Simpson, Sahar Talaat, Professor Karl-Klaus Dittel and his wife Renate, Hani Monsef, Mark Ford, Peter Zuuring, Richard Thompson, Adrian Ashford, Dave Goode, Okasha El Daly, Mohamad Razek, Heike Nahsen, Ilga Korte, Gundula Schulz El Dowy, Antoine Boutros, Professor Jean Kerisel, Roy Baker, Murry Hope, William Horsman and Charlotte Ames.

I would like to convey my warm thanks to Bill Hamilton and Sara Fisher of A.M. Heath & Co., Ltd., for putting up with my pleonastic ways, Tom Weldon and all the staff at William Heinemann Ltd., Peter St. Ginna and Brian Belfiglio at Crown Publishing Inc., Melanie Walz and Doris Janhsen at Paul List Verlag, Udo Rennert of Wiesbaden, and Moheb Goneid and all the staff at the Movenpick-Jolie Ville at Giza.

Finally, I want to pay tribute to the engineer and my friend Rudolf Gantenbrink for opening the way for all of us with his bold and daring exploration in the Great Pyramid.

Robert G. Bauval,
Buckinghamshire, February 1996

Graham Hancock:

Special thanks and love to Santha, my wife and partner, my best and dearest friend. Love and appreciation to our children: Gabrielle, Leila, Luke, Ravi, Sean and Shanti. Special thanks also to my parents, Donald and Muriel Hancock, who have given me so much, and for the help, advice and adventurous spirit of my uncle, James Macaulay. Many of the individuals named in Robert's acknowledgements likewise deserve my thanks: they know who they are. In addition I take this opportunity to send my personal good wishes to Richard Hoagland, Lew Jenkins, Peter Marshall, and Ed Ponist.

Graham Hancock,
Devon, February 1996

Part I

Enigmas

Chapter 1

Horizon Dweller

'There is scarcely a person in the civilized world who is unfamiliar with the form and features of the great man-headed lion that guards the eastern approach to the Giza pyramids.'

Ahmed Fakhry, *The Pyramids,* 1961

A gigantic statue, with lion body and the head of a man, gazes east from Egypt along the thirtieth parallel. It is a monolith, carved out of the limestone bedrock of the Giza plateau, two hundred and forty feet long, thirty-eight feet wide across the shoulders, and sixty-six feet high. It is worn down and eroded, battered, fissured and collapsing. Yet nothing else that has reached us from antiquity even remotely matches its power and grandeur, its majesty and its mystery, or its sombre and hypnotic watchfulness.

It is the Great Sphinx.

Once it was believed to be an eternal God.

Then amnesia ensnared it and it fell into an enchanted sleep.

Ages passed: thousands of years. Climates changed. Cultures changed. Religions changed. Languages changed. Even the positions of the stars in the skies changed. But still the statue endured, brooding and numinous, wrapped in silence.

Often sand engulfed it. At widely separated intervals a benevolent ruler would arrange to have it cleared. There were those who attempted to restore it, covering parts of its rock-hewn body with blocks of masonry. For a long period it was painted red.

By Islamic times the desert had buried it up to its neck and it had been given a new, or perhaps a very old, name: 'Near to one of the Pyramids,' reported Abdel-Latif in the twelfth century, 'is a colossal head emerging from the ground. It is called Abul-Hol.' And in the fourteenth century El-Makrizi wrote of a man named Saim-ed-Dahr who 'wanted to remedy some of the religious errors and he went to the Pyramids and disfigured the face of Abul-Hol, which has remained in that state from that time until now. From the time of this disfigurement, also, the sand has invaded the cultivated land of Giza, and the people attribute this to the disfigurement of Abul-Hol.'

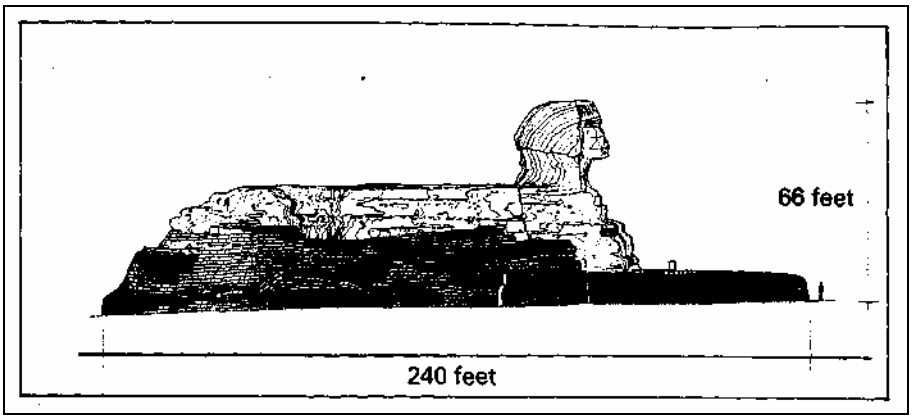

1. Profile of the Great Sphinx from the south showing restoration blocks along the paws and flanks and extensive weathering on the core limestone body.

Enduring memories

Abul-Hol, the Arabic name for the Great Sphinx of Egypt, is supposed by most translators to mean 'Father of Terror'.

An alternative etymology, however, has been proposed by the Egyptologist Selim Hassan. During the extensive excavations that he undertook on the Giza plateau in the 1930s and '40s he uncovered evidence that a colony of foreigners—'Cananites'—had resided in this part of Lower Egypt in the early second millennium BC. They were from the sacred city of Harran (located in the south of modern Turkey near its border with Syria) and they may perhaps have been pilgrims. At any rate artefacts and commemorative stelae prove that they lived in the immediate vicinity of the Sphinx—worshipping it as a god under the name *Hwl*.[1]

In the Ancient Egyptian language, *bw* means 'place'. Hassan therefore reasonably proposes that Abul-Hol, 'is simply a corruption of *bw Hwl*, "the Place of *Hwl*", and does not at all mean "Father of Terror", as is generally supposed'.[2]

When speaking of the Sphinx, the Ancient Egyptians frequently made use of the Harranian derivation *Hwl,* but they also knew it by many other names: *Hu*,[3] for example, and *Hor-em-Akhet*—which means 'Horus in the Horizon'.[4] In addition, for reasons that have never been fully understood, the Sphinx was often referred to as *Seshep-ankh Atum*, 'the living image

[1] Selim Hassan, *Excavations at Giza,* Government Press, Cairo, 1946, Vol. VI, Part I, pp. 34-5
[2] Ibid.
[3] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* Dover Publications Inc., New York, 1978, Vol. I, p. 469.
[4] Selim Hassan, *The Sphinx: Its History in the Light of Recent Excavations,* Government Press, Cairo, 1949, p. 76. See also Veronica Seton-Williams and Peter Stock, *Blue Guide Egypt,* A. & C. Black, London, 1988, p. 432.

of *Atum*,[5] after *Atum-Re* the self-created sun-god, the first and original deity of the ancient Egyptian pantheon. Indeed, the very name 'Sphinx' that has haunted the collective subconscious of the Western world since Classical times, turns out to be no more than a corruption—through Greek—of *Sheshep-ankh.*

In this way, with subtlety, a number of very archaic ideas, once held by the ancient Egyptians, have survived for thousands of years.[6] Would we not be foolish, therefore, to ignore entirely the lingering tradition that associates the Sphinx with a great and terrible riddle?

Stillness and silence

Crouching in the massive horseshoe-shaped trench of bedrock out of which it was carved, the statue looks old: a fierce and raddled towering monster, higher than a six-storey building and as long as a city block. Its flanks are lean, deeply scalloped by erosion. Its paws, now covered with modern repair bricks, are substantially worn away. Its neck has been clumsily shorn up with a cement collar intended to keep its grizzled head in place. Its face, too, is bruised and battered, and yet it somehow seems serene and ageless, unpredictably portraying different moods and expressions at different times and seasons, coming alive with patterns of light and shadow cast by scudding clouds at dawn.

Wearing the elegant *nemes* head-dress of an Egyptian Pharaoh, it gazes patiently into the east, as though waiting for something—waiting and watching, lost in its 'stillness and silence' (in the words of the Roman naturalist Pliny), and targeting for ever the equinoctial rising point of the sun.

How long has it stood here inspecting the horizon?

Whose image does it portray?

What is its function?

In our search for answers to these questions we have found ourselves drawn into strange and unexpected areas of research. Like souls on the way of the dead, we have had to pass through the dark kingdom of the ancient Egyptian afterworld, to navigate its narrow corridors, flooded passageways and hidden chambers, and to confront the fiends and

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[5] Zahi Hawass and Mark Lehner, 'The Sphinx: Who Built It and Why', *Archaeology,* September-October 1994, p. 34. See also E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., Vol. II, p. 752.

[6] We have many surprising survivals from the ancient Egyptian language in the English language. For example the small species of greyhound that we know as the 'Whippet' derives its name from the ancient Egyptian canine deity *Upuaut,* the 'Opener of the Ways'. Normandi Ellis in her excellent *Awakening Osiris,* Phanes Press, Grand Rapids, 1988, cites other examples: *'armen/*arm; *heku* (magic utterance)/hex; *neb* (spiralling force of the universe)/nebulous; *Satis* (goddess of the flood, or meaning enough)/satisfy; *aor* (magic light)/aura'.

demons lurking there. Using computer simulations we have journeyed back in time to stand beneath skies more than 12,000 years old, and watched Orion cross the meridian at dawn as Leo rose resplendent in the east. We have immersed ourselves in archaic rebirth texts and myths and scriptures and found amongst them the veiled remnants of a remarkable 'astronomical language' that can, without too much difficulty, be read and understood today.

Through clues expressed in this language we believe that we are able to identify with certainty who and what the Sphinx really is. Moreover, as we shall see in Parts III and IV, this identification appears to open a window on a forgotten episode in human history when the waters of a great deluge were ebbing and men sought to transform themselves into gods. In our opinion the stakes are high. Indeed we think it possible that the Sphinx and the three great Pyramids may offer knowledge of the genesis of civilization itself. Our immediate aim in Parts I and II, therefore, is to undertake a complete re-evaluation of all these titanic monuments, of the scholarship that has surrounded them during the past century or so, and of their numerous neglected, geodetic and geological and astronomical qualities.

Once these factors are taken into account a new Rosetta Stone begins to emerge, expressed in architecture and time, in allegories and symbols, and in specific astronomical directions and co-ordinates that tell the seeker where to look and what he might hope to find.

Meanwhile the Great Sphinx waits patiently.

Keeper of secrets.

Guardian of mysteries.

Chapter 2

The Riddle of the Sphinx

'*Sphinx*, mythological creature with a lion's body and human head ... The earliest and most famous example in art is the colossal recumbent Sphinx at Giza, Egypt, dating from the reign of King Khafre (4th dynasty, *c.*2575-2465 BC). This is known to be a portrait statue of the King ...'

Encyclopaedia Britannica

There is a belief that the Great Sphinx of Giza was fashioned during that period of Egyptian history classified as the 'Old Kingdom' on the orders of the Fourth Dynasty Pharaoh named Khafre whom the Greeks later knew as Chephren and who reigned from 2520-2494 BC. This is the orthodox historical view and readers will find it reported in all standard Egyptological texts, in all encyclopaedias, in archaeological journals and in popular scientific literature. In these same sources it is also repeatedly stated as fact that the features of the Sphinx were carved to represent Khafre himself—in other words, its face is his face.

Thus, for example, Dr. I. E. S. Edwards, a world-renowned expert on the monuments of the Giza necropolis, tells us that although the face of the Sphinx has been 'severely mutilated': 'it still gives the impression of being a portrait of Khafre and not merely a formalised representation of the king.'[1]

In a similar vein Ahmed Fakhry, professor of ancient history at Cairo University, informs us that: 'as it was first conceived, the Sphinx symbolised the king, and its face was carved in Khafre's likeness.'[2]

The only problem—at any rate without access to a time machine—is that none of us, not even distinguished Egyptologists, is really in a position to say whether or not the Sphinx is a portrait or likeness of Khafre. Since the Pharaoh's body has never been found we have nothing to go on except surviving statues (which might or might not have closely resembled the king himself). The best known of these statues, an almost unsurpassable masterpiece of the sculptor's art carved out of a single piece of black diorite, now reposes in one of the ground-floor rooms of the Cairo Museum. It is to this beautiful and majestic representation that the scholars make reference when they tell us—with such confidence—that the Sphinx was fashioned in Khafre's likeness.

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[1] I. E. S. Edwards, *The Pyramids of Egypt,* Pelican Books, London, 1949, p. 106.
[2] Ahmed Fakhry, *The Pyramids,* University of Chicago Press, Chicago, 1969, p. 159.

This confidence was particularly apparent in an article in the prestigious *National Geographic* magazine which appeared in the US in April 1991, and a similar one that appeared in Britain in the *Cambridge Archaeological Journal* in April 1992.[3] The articles were written by Professor Mark Lehner, of Chicago University's Oriental Institute, who used 'photogrammetric data and computer graphics' to 'prove' that the face of the great Sphinx was that of Khafre:

> Zahi Hawass, Director General of the Giza Pyramids, invited me to join his excavation [around the Sphinx] in 1978. During the next four years I led a project to map the Sphinx in detail for the first time. We produced front and side views with photogrammetry, a technique using stereoscopic photography ... Computers have taken the records further. Maps were digitized to make a 3-D wireframe model; some 2.6 million surface points were plotted to put 'skin' on the skeleton view. We have constructed images of the Sphinx as it may have looked thousands of years ago. To create the face, I tried matching views of other sphinxes and pharaohs to our model. With the face of Khafre, the Sphinx came alive ...[4]

It all sounds technically very impressive and persuasive. After all, who in their right mind is going to argue with '2.6 million surface points' based on 'stereoscopic photography' and 'photogrammetry'?

Behind the technical jargon, however, the truth is rather less awe-inspiring. A close reading shows that all that Lehner did in order to 'reconstruct' the face of the Sphinx was to prepare a computerized three-dimensional wireframe skeleton on which he then superimposed the face of Khafre. This is admitted in the *National Geographic* article, which reproduces a photograph of the diorite statue of Khafre above the following caption: 'The author [Lehner] used this face for the computer reconstruction of the Sphinx.'[5]

So what Mark Lehner really did was to *remodel the* face of the Sphinx on a computer according to his own preferences—in much the same way that some ancient Egyptians had probably done several times before him on the face of the statue itself. The present features of the Sphinx, in other words, are no more likely to be those of Khafre than they are to be those of a number of other Pharaohs—Thutmosis IV, for example, or Amenhotep, or Ramesses II (who is last known, as Lehner admits, to have 'extensively reworked' the monument at around 1279 BC).[6] The simple, honest truth is that during the thousands of years of the Sphinx's existence, often with only its head protruding above the sand, almost anyone could have worked on its face at almost any time. Moreover, Lehner's own photogrammetric study has thrown up at least one piece of

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[3] Mark Lehner, 'Computer Rebuilds the Ancient Sphinx', *National Geographic* Vol. 179, No. 4, April 1991; Mark Lehner, 'Reconstructing the Sphinx', *Cambridge Archaeological Journal,* Vol. 1, No. 1, April 1992.
[4] *National Geographic,* April 1991, op. cit.
[5] Ibid.
[6] Ibid.

evidence which is highly suggestive of major recarving: the Sphinx's head, he writes, is 'too small' in proportion to the body. He tells us that this is because it is an early prototype of the later very popular (and always proportionate) sphinx form, and speculates that 'the Fourth Dynasty Egyptians may not [yet] have worked out the canon of proportions between the royal head with the *nemes* headdress on the lion body'.[7] He does not consider the equally valid and more intriguing possibility that the head was once much larger—and perhaps even leonine, and that it was reduced in size by recarving.

Probably relevant in this regard is an additional observation that Lehner has made: 'a subtle discrepancy' exists 'between the axis of the head [of the Sphinx] and that of the facial features'[8]—the head being orientated perfectly to due east, and the features swivelled somewhat to the north of east.

Once again this is an error that is consistent with the recarving of a much older and heavily eroded statue. And it is consistent, too, as we shall see later in this chapter, with new geological evidence concerning the Sphinx's antiquity. Setting these matters aside for the moment, however, it seems clear that the mere fact that Mark Lehner is able to graft an image of Khafre onto the battered visage of the Sphinx by means of the 'ARL (Advanced Research Logic) Computer and the AutoCAD (release 10) graphics application',[9] proves nothing more than that with good computer graphics you can make anyone's face look like anyone else's face. 'The same computer technique,' in the words of one outspoken critic, 'could be used to "prove" the Sphinx was really Elvis Presley ...'[10]

It was partly in an attempt to resolve this impasse that a group of independent researchers took the unusual step of bringing a detective to Egypt in 1993. The detective in question was Lieutenant Frank Domingo, a senior forensic artist with the New York Police Department, who has been preparing 'identikit' portraits of suspects for more than twenty years. As a man who knows and works with faces every day of his professional life, he was commissioned to make a detailed study of the points of similarity and difference between the Sphinx and the Khafre statue. Months later, after returning to his lab in New York where he undertook careful comparisons of hundreds of photographs of the two works, Domingo reported:

> After reviewing my various drawings, schematics and measurements, my final conclusion concurs with my initial reaction, i.e. that the two works represent two separate individuals. The proportions in the frontal view, and especially the

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[7] *Cambridge Archaeological Journal,* op. cit., pp. 10 and 11.
[8] Ibid., p. 9.
[9] Ibid., p. 20.
[10] John Anthony West, *Serpent in the Sky: The High Wisdom of Ancient Egypt,* Quest Books, Wheaton, 111, 1993, p. 231.

> angles and facial protrusion in the lateral views convinced me that the Sphinx is not Khafre ...'[11]

So on the one hand we have a top forsenic expert, Frank Domingo, telling us that the Sphinx's face does not represent Khafre's face. And on the other we have Mark Lehner, the Egyptologist computer buff, saying that only with Khafre's face does the Sphinx 'come alive'.

Undatable, anonymous

Why is there room for such widely varying opinions concerning the world's best known and most intensively studied ancient monument?

In 1992, in two different forums, Mark Lehner made somewhat contradictory statements which hint at the answer to this question:

1. At the annual meeting of the American Association for the Advancement of Science he said: 'There is no direct way to date the Sphinx itself because the Sphinx is carved right out of natural rock.' [12]

2. In the *Cambridge Archaeological Journal* he wrote: 'Although we are certain that the Sphinx dates to the Fourth Dynasty, we are confronted by a complete absence of Old Kingdom texts which mention it.'[13]

To deal with the first point first, it is a simple matter of fact that no objective test presently exists for the accurate dating of rock-hewn monuments.[14] Many people are under the erroneous impression that the radio-carbon technique could be used, but this is not so: it is only applicable to organic materials (in which it measures the quantity of the isotope Carbon-14 that has decayed since the death of the organism in question). Since the Sphinx is made of carved rock it cannot be dated by this method.

This brings us to the second point. Stone monuments *can* be dated with reasonable accuracy if there are contemporary texts which refer to their construction. Ideally, in the case of the Sphinx, what one would require would be an inscription carved during the Fourth Dynasty and directly attributing the monument to Khafre. As Mark Lehner admits, however, no contemporary text referring to the Sphinx has ever been found.

In all honesty, therefore, what confronts us at Giza is an entirely anonymous monument, carved out of undatable rock, about which, as the

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[11] Ibid., p. 232.
[12] American Association for the Advancement of Science, Chicago, 7 February 1992, debate: 'How Old is the Sphinx?'
[13] *Cambridge Archaeological Journal,* op. cit., p. 6.
[14] For a fuller discussion of the dating issue see Graham Hancock, *Fingerprints of the Gods,* William Heinemann Ltd., London, 1995, and Crown Publishers, New York, 1995, p. 51.

forthright Egyptologist Selim Hassan wrote in 1949, 'no definite facts are known'.[15]

One syllable

Why, therefore, do Mark Lehner and other influential modern scholars continue to link the Sphinx to Khafre and to insist that 'The Old Kingdom Fourth Dynasty date for [its] origin ... is no longer an issue'[16]?

One reason is a single syllable carved on the granite stela which stands between the monument's front paws and which has been taken as proof that Khafre built the Sphinx. The stela, which is not contemporary with the Sphinx itself, commemorates heroic efforts by the Pharaoh Thutmosis IV (1401-1391 BC) to clear the Sphinx completely of encroaching sand and describes the lion-bodied statue as the embodiment of 'a great magical power that existed in this place from the beginning of all time'.[17] The inscription also contains, in line 13, the first syllable—*Khaf*—of the name Khafre. The presence of that syllable, in the words of Sir E. A. Wallis Budge, is: 'very important for it proves that ... the priests of Heliopolis who advised Thutmosis to undertake the work of clearing away the sand from the Sphinx believed that it was fashioned by Khafre ...'[18]

But does the syllable *Khaf* really prove so much?

When the stela was excavated by the Genoese adventurer Gian Battista Caviglia in 1817, line 13—which has now entirely flaked away—was already badly damaged. We know of its existence because, not long after the excavation, the British philologist Thomas Young, a leading expert in the decipherment of ancient Egyptian hieroglyphs, was able to make a facsimile of the inscription. For line 13 his translation reads as follows: '... which we bring for him: oxen ... and all young vegetables; and we shall give praise to Wenofer ... Khaf ... the statue made for Atum-Hor-em-Akhet. ...'[19]

On the assumption that Khaf was Khafre's name, Young added the syllable *Re* between square brackets to show that a lacuna had been filled in.[20] In 1905, however, when the American Egyptologist James Henry Breasted studied Young's facsimile he concluded that a mistake had been made: 'This mention of King Khafre has been understood to indicate that the Sphinx was the work of this king—a conclusion which does not

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[15] Hassan, *The Sphinx,* op. cit., p. 75.
[16] *Cambridge Archaeological Journal,* op. cit., p. 6
[17] E. A. Wallis Budge, 'Stela of the Sphinx' *in A History of Egypt,* London, 1902, Vol. IV, p. 80ff.
[18] Ibid., pp. 85-6.
[19] James Henry Breasted, *Ancient Records of Egypt,* Histories and Mysteries of Man Ltd., London, 1988, Volume II, p. 324.
[20] Ibid.

follow; [the facsimile of] Young has no trace of a cartouche ...'[21]

In all the inscriptions of ancient Egypt, from the beginning to the end of Pharaonic civilization, the names of kings were always inscribed inside oval-shaped signs or enclosures known as 'cartouches'. It is therefore extremely difficult to understand how on the granite stela between the paws of the Sphinx the name of as powerful a king as Khafre—or indeed of any other king—could have been written without its pre-required cartouche.

Besides, even if the syllable Khaf was intended to refer to Khafre, its presence does not necessarily imply that he *built* the Sphinx. It is equally possible that he was being commemorated for some other service. For example, like many Pharaohs after him (Ramesses II, Thutmosis IV, Ahmoses I, etc., etc.[22])—and perhaps like many before him too—is it not possible that Khafre was a *restorer* of the Sphinx?

As it happens, this perfectly logical deduction and others like it were favoured by a number of the leading scholars who pioneered the discipline of Egyptology at around the end of the nineteenth century. Gaston Maspero, for example, Director of the Department of Antiquities at the Cairo Museum, an acclaimed philologist of his time, wrote in 1900:

> The stela of the Sphinx bears, on line 13, the [name] of Khafre in the middle of a gap ... There, I believe, is an indication of [a renovation and clearance] of the Sphinx carried out under this prince, and consequently the more or less certain proof that the Sphinx was already covered with sand during the time of his predecessors ...[23]

This view is supported by the text of another roughly contemporary stela, the so-called 'Inventory Stela'—also found at Giza but arbitrarily assumed by the majority of modern Egyptologists to be a work of fiction—which states that Khufu saw the Sphinx. Since Khufu, the supposed builder of the Great Pyramid, was Khafre's predecessor, the obvious implication is that Khafre could not have built the Sphinx.[24] Encouraged by this testimony, Maspero at one point went so far as to propose that the Sphinx could have existed since the times of the 'Followers of Horus', a lineage of pre-dynastic, semi-divine beings whose members were believed by the ancient Egyptians to have ruled for thousands of years before the 'historical' Pharaohs.[25] Later in his career, however, the French Egyptologist modified his opinion to conform with the general consensus and stated that the Sphinx 'probably represents Khafre himself'.[26]

That Maspero should have felt compelled to recant his heretical views on the Sphinx tells us more about the power of peer pressure within

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[21] Ibid.
[22] *National Geographic,* April 1991, op. cit.
[23] Gaston Maspero, *The Passing of Empires,* New York, 1900.
[24] James Henry Breasted, *Ancient Records,* op. cit., Vol. I, pp. 83-5.
[25] Gaston Maspero, *The Dawn of Civilization,* SPCK, London, 1894, p. 247.
[26] Gaston Maspero, *A Manual of Egyptian Archaeology,* p. 74.

Egyptology than it does about the quality of evidence concerning the antiquity and attribution of the monument itself. Indeed, the evidence underpinning the prevailing consensus is extremely slim, resting not so much on 'facts' as on the *interpretation* that certain authorities have chosen at one time or another to give to particular and usually highly ambiguous data—in this case the solitary syllable of Khafre's name on the Thutmosis stela.

Very few senior members of the profession have been as honest about such matters as Selim Hassan. In his classic 1949 study of the Sphinx, from which we have already quoted, he issued this pertinent warning:

> Excepting for the mutilated line on the granite stela of Thothmosis IV, which proves nothing, there is not a single ancient inscription which connects the Sphinx with Khafre. So sound as it may appear, we must treat this evidence as circumstantial until such a time as a lucky turn of the spade will reveal to the world definite reference to the erection of this statue ...[27]

Context

Since Hassan wrote there has been no such 'lucky turn of the spade'. Nevertheless the conventional wisdom that the Sphinx was built by Khafre, *circa* 2500 BC, remains so strong and so all-pervasive that one assumes there must be something else behind it other than the disputed resemblance to the statue of Khafre in the Cairo Museum and the contradictory opinions of scholars concerning a half-ruined stela.

According to Mark Lehner, there is indeed something else—a kind of magic bullet which he clearly regards as powerful enough to kill any niggling doubts and questions. Today the Director of the Koch-Ludwig Giza Plateau Project, and former Director of the now completed Giza Mapping Project, Lehner is recognized as a world expert on the Sphinx. Whenever he fires his magic bullet at the occasional 'heretics' who have suggested that the monument might be a lot older than 2500 BC, therefore, he does so from a position of great influence and authority.

The name of his magic bullet is context and, at the 1992 annual meeting of the American Association for the Advancement of Science, where he was selected as the official spokesman of Egyptology to put the orthodox point of view in a debate on the true age of the Sphinx, he made extensive use of this 'bullet':

> The Sphinx does not sit out alone in the desert totally up for grabs as to 'how old is the Sphinx?'. The Sphinx is surrounded by a vast architectural context which includes the Pyramid of Khufu [better known as the Great Pyramid], the Pyramid of Khafre ['the second Pyramid'] and the Pyramid of Menkaure,[28] pharaohs of the Fourth Dynasty. Each pyramid has a long causeway running

[27] Hassan, *The Sphinx,* op. cit., p. 91.

[28] American Association for the Advancement of Science, 1992, debate 'How Old is the Sphinx?', op. cit.

> from a Mortuary Temple on its eastern side, down to the level of the Nile flood-plain, where a Valley Temple served as an entrance to the pyramid complex ...
>
> Officials and relatives of the pharaohs built their tombs in cemeteries east and west of the Khufu Pyramid, and southeast of the pyramids of Khafre and Menkaure respectively. Digging at Giza for nearly two centuries, archaeologists have retrieved an abundance of material [dating to the Fourth Dynasty]. Hundreds of tombs have yielded the mortal remains and artifacts of people who composed the state administration of the Pyramid Age ... We are discovering evidence of the working class and everyday life of the society that built the Sphinx and pyramids ... We have evidence of the ruins of an ancient city spread out along the valley for the entire length of the Giza Plateau. All this is part of the archaeological context of the Sphinx ...[29]

Lehner goes on to say that there are several specific reasons why this context persuades him that 'the Sphinx belongs to Khafre's Pyramid complex':

> The south side of the Sphinx ditch forms the northern edge of the Khafre causeway as it runs past the Sphinx and enters Khafre's Valley Temple. A drainage channel runs along the northern side of the causeway and opens into the upper south-west corner of the Sphinx ditch, suggesting the ancient quarrymen formed the ditch after the Khafre causeway was built. Otherwise they would not have had the drain empty into the ditch. Khafre's Valley Temple sits on the same terrace as the Sphinx Temple. The fronts and backs of the Temples are nearly aligned, and the walls of both are built in the same style ...[30]

The evidence for the two Temples, the causeway and the second Pyramid all being part of one architectural unit with the Sphinx is indeed compelling. But using this evidence to support the conclusion that Khafre built the Sphinx is rather less so. What it ignores is the possibility that the entire 'unit' could have been built long before Khafre's time by as yet unidentified predecessors and then *reused*—perhaps even extensively restored—during the Fourth Dynasty.

It is this possibility—not precluded by any inscriptions and not ruled out by any objective dating techniques—that has made the Sphinx the subject of an increasingly virulent controversy during the 1990s ...

Water erosion

The origins of this controversy go back to the late 1970s when John Anthony West, an independent American researcher, was studying the obscure and difficult writings of the brilliant French mathematician and symbolist R. A. Schwaller de Lubicz. Schwaller is best known for his works on the Luxor Temple, but in his more general text, *Sacred Science* (first published in 1961), he commented on the archaeological implications of certain climatic conditions and floods that last afflicted Egypt more than

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[29] *Archaeology,* September-October 1994, op. cit., pp. 32-3.
[30] Ibid., p. 34.

12,000 years ago:

> A great civilization must have preceded the vast movements of water that passed over Egypt, which leads us to assume that the Sphinx already existed, sculptured in the rock of the west cliff at Giza that Sphinx whose leonine body, except for the head shows indisputable signs of aquatic erosion.[31]

Schwaller's simple observation, which nobody appeared to have taken any notice of before, obviously challenged the Egyptological consensus attributing the Sphinx to Khafre and to the epoch of 2500 BC. What West immediately realized on reading this passage, however, was that, through geology, Schwaller had also offered a way 'virtually to prove the existence of another, and perhaps greater civilization antedating dynastic Egypt—and all other known civilizations—by millennia':[32]

> If the single fact of the water erosion of the Sphinx could be confirmed, it would in itself overthrow all accepted chronologies of the history of civilization; it would force a drastic re-evaluation of the assumptions of 'progress'—the assumption upon which the whole of modern education is based. It would be difficult to find a single, simple question with graver implications ...[33]

Not floodwaters

West is right about the implications. If the weathering patterns on the Sphinx can be proved to have been caused by water—and not by wind or sand as Egyptologists maintain—then there is indeed a very serious problem with established chronologies. In order to understand why, we need only remind ourselves that Egypt's climate has not always been as bone dry as it is today and that the erosion patterns to which West and Schwaller are drawing our attention are unique to the 'architectural unit' that Lehner and others define as the 'context' of the Sphinx. From their common weathering features—which are not shared by the other monuments of the Giza necropolis—it is obvious that the structures making up this unit were all built in the same epoch.

But when was that epoch?

West's initial opinion was that:

> There can be no objection in principle to the water-erosion of the Sphinx, since it is agreed that in the past, Egypt suffered radical climatic changes and periodic inundations—by the sea and (in the not so remote past) by tremendous Nile floods. The latter are thought to correspond to the melting of the ice from the last Ice Age. Current thinking puts this date at around 15,000 BC, but periodic great Nile floods are believed to have taken place subsequent to this date. The last of these floods is dated around 10,000 BC. It follows, therefore, that if the great Sphinx has been eroded by water, it must have been

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[31] R. A. Schwaller de Lubicz, *Sacred Science,* Inner Traditions International, Rochester Vt., 1988, p. 96.
[32] John Anthony West, *Serpent,* op. cit., pp. 1-2.
[33] Ibid., p. 186.

> constructed prior to the flood or floods responsible for the erosion ...[34]

The logic is indeed sound 'in principle'. In practice, however, as West was later to admit, 'flood or floods' could not have been responsible for the peculiar kind of erosion seen on the Sphinx:

> The problem is that the Sphinx is deeply weathered up to its neck. This necessitates 60-foot floods (at a minimum) over the whole of the Nile Valley. It was difficult to imagine floods of this magnitude. Worse, if the theory was correct, the inner limestone core-blocks of the so-called Mortuary Temple at the end of the causeway leading from the Sphinx had also been weathered by water, and this meant floods reaching to the base of the Pyramids—another hundred feet or so of flood waters ...[35]

Floodwaters, then, could not have eroded the Sphinx. So what had?

Rainfall

In 1989 John West approached Professor Robert Schoch of Boston University. A highly respected geologist, stratigrapher and paleontologist, Schoch's speciality is the weathering of soft rocks very much like the limestone of the Giza plateau. Clearly, says West, he was a man who 'had exactly the kind of expertise needed to confirm or rebut the theory once and for all'.[36]

Schoch was at first sceptical of the idea of a much older Sphinx but changed his mind after making an initial visit to the site in 1990. Although he was unable to gain access to the Sphinx enclosure he could see enough from the tourist viewing platform to confirm that the monument did indeed appear to have been weathered by water. It was also obvious to him that the agency of this weathering had not been floods but 'precipitation'.

'In other words', West explains, 'rainwater was responsible for weathering the Sphinx, not floods ... Precipitation-induced weathering took care of the problem in a single stroke. The sources I was using for reference talked about these floods in conjunction with long periods of rains, but it hadn't occurred to me, as a non-geologist, that the rains, rather than the periodic floods, were the actual weathering agent ...'[37]

As we have noted, Schoch got no closer to the Sphinx on his 1990 visit than the tourist viewing platform. At this stage, therefore, his endorsement of West's theory could only be provisional.

Why had the geologist from Boston not been allowed inside the Sphinx enclosure?

The reason was that since 1978 only a handful of Egyptologists had

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[34] Ibid., p. 187.
[35] Ibid., p. 226.
[36] Ibid., p. 225.
[37] Ibid., p. 226.

been granted that privilege, with all public access closed off by the Egyptian authorities and a high fence built around the site.

With the support of the Dean of Boston University, Schoch now submitted a formal proposal to the Egyptian Antiquities Organization, requesting permission to carry out a proper geological study of the erosion of the Sphinx.

A rude interruption

It took a long time, but because of his eminent institutional backing, Schoch's proposal was eventually approved by the EAO, creating a brilliant opportunity to get to the bottom of the Sphinx controversy once and for all. John West immediately set about putting together a broadly based scientific team, including a professional geophysicist, Dr. Thomas L. Dobecki, from the highly respected Houston consulting firm of McBride-Ratcliff & Associates.[38] There were also to be others who joined 'unofficially': an architect and photographer; two further geologists; an oceanographer and a personal friend of John West's, film-producer Boris Said.[39] Through Said, West had arranged to 'record the ongoing work in a video documentary which would have wide public appeal':[40]

> Since we could expect nothing but opposition from academic Egyptologists and archaeologists a way had to be found to get the theory to the public, if and when Schoch decided the evidence warranted full geological support. Otherwise it would simply be buried, possibly for good ...[41]

As a way of getting the theory of an ancient rainfall-eroded Sphinx to the public, West's film could hardly have been more successful. When it was first screened on NBC television in the United States in the autumn of 1993 it was watched by 33 million people.

But that is another story. Back in the Sphinx enclosure the first interesting result came from Dobecki, who had conducted seismographic tests around the Sphinx. The sophisticated equipment that he had brought with him picked up numerous indications of 'anomalies and cavities in the bedrock between the paws and along the sides of the Sphinx'.[42] One of these cavities he described as:

> a fairly large feature; it's about nine metres by twelve metres in dimension, and buried less than five metres in depth. Now the regular shape of this—rectangular—is inconsistent with naturally occurring cavities ... So there's some suggestion that this could be man-made.[43]

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[38] Ibid., p. 227.
[39] Ibid.
[40] Ibid.
[41] Ibid., pp. 226-7.
[42] Ibid., p. 228.
[43] Interviewed in NBC television documentary *Mystery of the Sphinx,* 1993.

With legal access to the enclosure, West recalls, Schoch, too:

> was swiftly dropping conditionals ... The deeply weathered Sphinx and its ditch wall, and the relatively unweathered or clearly wind-weathered Old Kingdom tombs to the south (dating from around Khafre's period) were cut from the same member of rock. In Schoch's view it was therefore geologically impossible to ascribe these structures to the same time period. Our scientists were agreed. Only water, specifically precipitation, could produce the weathering we were observing ...[44]

It was at this crucial moment, while the members of the team were putting together the first independent geological profile of the Sphinx, that Dr. Zahi Hawass; the Egyptian Antiquities Organization's Director-General of the Giza Pyramids, fell upon them, suddenly and unexpectedly, like the proverbial ton of bricks.

The team had obtained their permission from Dr. Ibrahim Bakr, then the President of the Egyptian Antiquities Organization. What they had not known, however, was that relations between Bakr and Hawass were frosty. Neither had they reckoned with Hawass's energy and ego. Fuming that he had been bypassed by his superior, he accused the Americans of tampering with the monuments:

> I have found out that their work is carried out by installing endoscopes in the Sphinx's body and shooting films for all phases of the work in a propaganda ... but not in a scientific manner. I therefore suspended the work of this unscientific mission and made a report which was presented to the permanent commission who rejected the mission's work in future ...[45]

This was putting it mildly. Far from 'suspending' their work, Hawass had virtually thrown the American team off the site. His intervention had come too late, however, to prevent them from gathering the essential geological data that they needed.

When did it rain?

Back in Boston, Schoch got down to work at his laboratory. The results were conclusive and a few months later he was ready to stick his neck out. Indeed to John West's delight he was now prepared fully to endorse the notion of a rain-eroded Sphinx—with all its immense historical implications.

Schoch's case, in brief—which has the full support of palaeo-climatologists—rests on the fact that heavy rainfall of the kind required to cause the characteristic erosion patterns on the Sphinx had stopped falling on Egypt thousands of years before the epoch of 2500 BC in which Egyptologists say that the Sphinx was built. The geological evidence therefore suggests that a *very conservative* estimate of the true

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[44] John Anthony West, *Serpent,* op. cit., p. 227.
[45] Quoted in *An Akhbar El Yom,* 8 January 1994.

construction date of the Sphinx would be somewhere between '7000 to 5000 BC minimum'.[46]

In 7000 to 5000 BC—according to Egyptologists—the Nile valley was populated only by primitive neolithic hunter-gatherers whose 'toolkits' were limited to sharpened flintstones and pieces of stick. If Schoch is right, therefore, then it follows that the Sphinx and its neighbouring temples (which are built out of hundreds of 200-ton limestone blocks) must be the work of an as yet unidentified advanced civilization of antiquity.

The Egyptological reaction?

'That's ridiculous', scoffed Peter Lecovara, assistant curator of the Egyptian Department in Boston's Museum of Fine Arts. 'Thousands of scholars working for hundreds of years have studied this problem and the chronology is pretty much worked out. There are no big surprises in store for us ...'[47]

Other 'experts' were equally dismissive. According to Carol Redmont, for example, an archaeologist at the University of California's Berkeley campus: 'There is no way this could be true. The people of that region would not have had the technology, the governing institutions or even the will to build such a structure thousands of years before Khafre's reign.'[48]

And the redoubtable Zahi Hawass, who had tried to nip the geological research in the bud in the first place, had this to say about the Schoch-West team and their unorthodox conclusions concerning the antiquity of the Sphinx:

> American hallucinations! West is an amateur. There is absolutely no scientific base for any of this. We have older monuments in the same area. They definitely weren't built by men from space or Atlantis. It's nonsense and we won't allow our monuments to be exploited for personal enrichment. The Sphinx is the soul of Egypt'.[49]

John West was not in the least bit surprised by the rhetoric. In his long and lonely quest to mount a proper investigation into the age of the anonymous Sphinx many such brickbats had been thrown at him before. This time, with Schoch's heavyweight support—and the massive exposure of the whole matter on NBC television—he felt vindicated at last. Furthermore it was clear that the Egyptologists were rattled by the intrusion of an empirical science like geology into their normally cosy and exclusive academic territory.

West, however, wanted to take the matter a good deal further than Schoch was prepared to go and felt that the geologist had been too conservative and lenient in his 'minimum' estimate of 7000 to 5000 BC

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[46] John Anthony West, *Serpent,* op. cit., p. 229.
[47] *Boston Globe,* 23 October 1991.
[48] *Los Angeles Times,* 23 October 1991.
[49] John Anthony West, *Serpent,* op. cit., p. 229.

for the age of the Sphinx: 'Here Schoch and I disagree, or rather interpret the same data somewhat differently. Schoch very deliberately takes the most conservative view allowed by the data ... However I remain convinced that the Sphinx must predate the break-up of the last Ice Age ...'[50]

In practice this means any time before 15,000 BC—a hunch that West says is based on the complete lack of evidence of a high culture in Egypt in 7000 to 5000 BC. 'If the Sphinx was as recent as 7000-5000 BC,' he argues, 'I think we probably would have other Egyptian evidence of the civilization that carved it.'[51] Since there is no such evidence, West reasons that the civilization responsible for the Sphinx and its neighbouring temples must have disappeared long before 7000-5000 BC: 'The missing other evidence is, perhaps, buried deeper than anyone has looked and/or in places no one has yet explored—along the banks of the ancient Nile perhaps, which is miles from the present Nile, or even at the bottom of the Mediterranean, which was dry during the last Ice Age ...'[52]

Despite their 'friendly disagreement' as to whether the erosion of the Sphinx indicated a date of 7000 to 5000 BC, or a much more remote period, Schoch and West decided to present an abstract of their research at Giza to the Geological Society of America. They were encouraged by the response. Several hundred geologists agreed with the logic of their contentions and dozens offered practical help and advice to further the investigation.[53]

Even more refreshing was the reaction from the international media. After the GSA meeting articles appeared in dozens of newspapers, and the issue of the Sphinx's age was widely covered by television and radio. 'We were over the fifty-yard line and heading downfield,' recalls West.[54]

As for the matter of his difference of opinion with Schoch about the dating of the monument, he honestly concedes that 'only further research will resolve the question'.[55]

Jury still out

Since 1993 the Egyptian government, on the advice of Western Egyptologists, has not permitted any further geological research or seismic investigations to be undertaken around the Sphinx. This is surprising in view of the momentous implications of Schoch's findings and all the more surprising because his original evidence has not yet been convincingly challenged in any forum. On the contrary, as the years

[50] Ibid.
[51] Ibid.
[52] Ibid.
[53] Ibid., p. 229.
[54] Ibid., p. 230.
[55] Ibid., p. 229.

have gone by, the Boston geologist has withstood the rigours of scientific peer review, several times successfully defending his contention that the distinctive weathering visible on the Sphinx, and on the walls of its enclosure—a combination of deep vertical fissures and rolling, undulating, horizontal coves—is 'a classic, textbook example of what happens to a limestone structure when you have rain beating down on it for thousands of years ...[56] When set in the context of our knowledge of ancient climates at Giza, he adds, this represents abundant evidence 'that the Great Sphinx predates its traditional attribution of *circa* 2500 BC ... I'm just following the science where it leads me, and it leads me to conclude that the Sphinx was built much earlier than previously thought.'[57]

Of course it cannot be said that Robert Schoch has *proved* that the monument dates back to the epoch of 7000 to 5000 BC. Nor has John West *proved* the even earlier date that he favours. But then again neither has orthodox Egyptology *proved* that the Sphinx belongs to Khafre and to the epoch of 2500 BC.

In other words, by any rational and reasonable criteria, the jury is still out on the true attribution and antiquity of this extraordinary monument.

The riddle of the Sphinx is still unsolved. And as we see in the next chapter, it is a riddle that encompasses the entire Giza necropolis.

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[56] *Mystery of the Sphinx,* op. cit.
[57] Ibid., and *KMT,* Vol. V, No. 2, Summer 1994, p. 7.

Chapter 3

Mystery Piled upon Mystery

'It is said that the stone [used in the construction of the Pyramids of Giza] was conveyed over a great distance ... and that the construction was effected by means of mounds ... The most remarkable thing is that, though the constructions were on such a great scale and the country round about them consists of nothing but sand, not a trace remains either of any mound or of the dressing of the stones, so that they do not have the appearance of being the slow handiwork of men but look like a sudden creation, as though they had been made by some god and set down bodily in the surrounding sand.'

Diodorus Siculus, *Book I,* first century BC

The Giza necropolis, site of the Great Sphinx and the three great Pyramids of Egypt, is, by any standards, an extraordinary architectural and archaeological puzzle. This is not only because of the many remarkable physical and engineering characteristics of the principal Pyramids and temples, but also because all of these monuments are essentially uninscribed and anonymous. Like the Sphinx, therefore, they are difficult to date by objective means. Like the Sphinx, too, their attribution to specific Pharaohs by Egyptologists is necessarily based upon a somewhat arbitrary interpretation of contextual clues.

The three great Pyramids, for example, are conventionally assigned as the tombs of Khufu, Khafre and Menkaure—three Pharaohs of the Fourth Dynasty. Yet no Pharaoh's body has ever been found in any of these monuments and while there are some so-called 'quarry marks'—crudely daubed graffiti—in cavities above the roof of the 'King's Chamber' in the Great Pyramid, these writings, as we shall see in Part II, are not particularly helpful in confirming the orthodox identification with Khufu. There are no other texts of any kind in the Great Pyramid, or in the Pyramids attributed to Khafre and Menkaure. The three small 'satellite' Pyramids lined up along the eastern face of the Great Pyramid, and the three other satellite Pyramids lying near the south-western edge of the site, are similarly bereft of inscriptions. Some Fourth Dynasty artefacts were found inside these six 'satellite' structures but there is no guarantee that these artefacts are contemporary with the monuments.

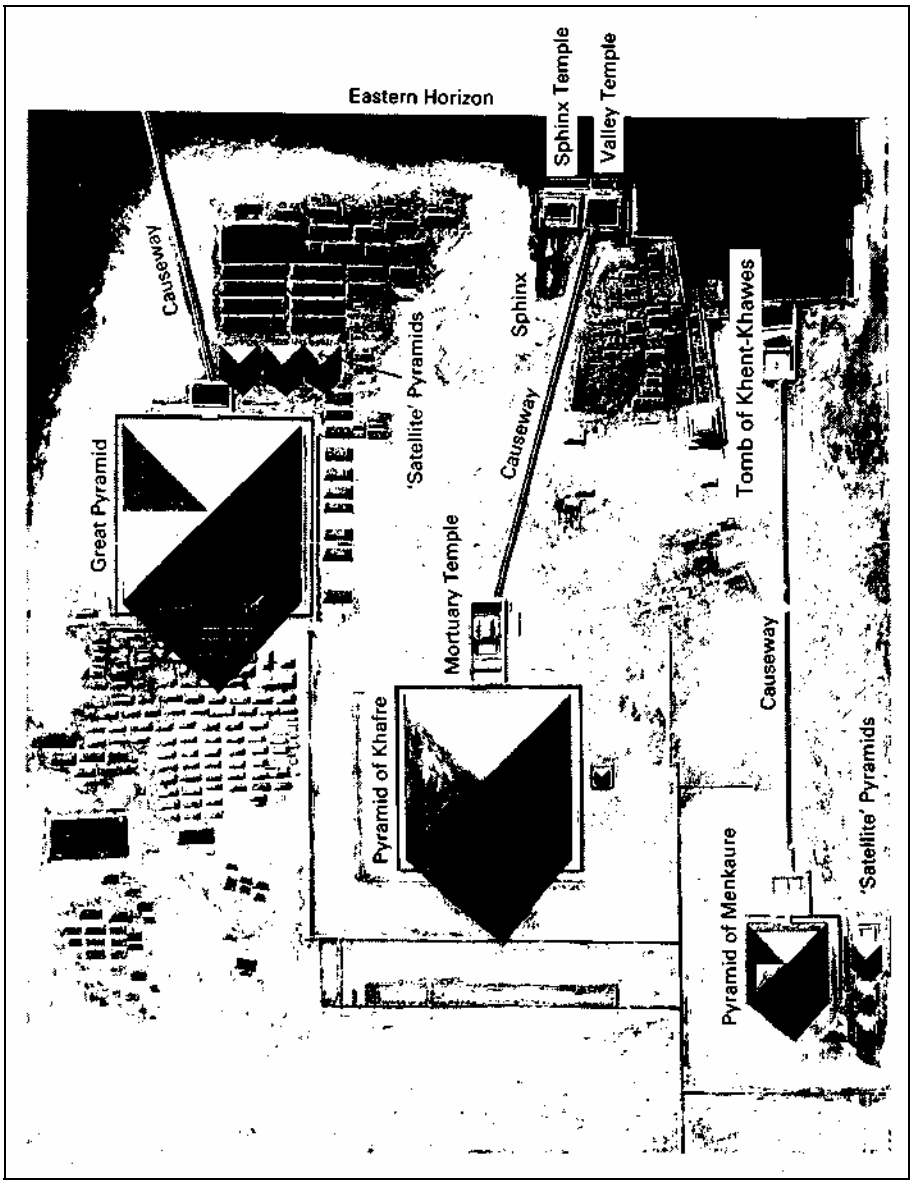

2. Overhead view of the principal monuments of the Giza necropolis.

The same problem applies to the statues of Khafre and Menkaure that were found in the latter's 'Mortuary' Temple and the former's 'Valley' Temple. These statues are the only evidence supporting the attribution of these otherwise anonymous and uninscribed edifices to the two Pharaohs in question. In all logic, however, they only suggest that attribution. They certainly do not confirm it. Khafre and Menkaure, in other words, *might* have built the temples. But it is also possible that they took over preexisting structures which they had inherited from an earlier time, and that they adapted, renovated and furnished these structures with their own statues in order to suit their own purposes. After all, we do not attribute the building of London's Trafalgar Square to Nelson just because his statue stands there. By the same token Egyptologists could be going too far when they attribute the building of the Valley Temple to

Khafre on the basis of his statue found there.

Indeed, this is an observation that is true for the Giza necropolis as a whole. The undoubted connection that it has with the Fourth Dynasty is not in dispute, but the precise nature of this connection remains unproven. To be sure, there are huge quantities of unmistakable and heavily inscribed Fourth Dynasty *mastaba* tombs lying east and west of the Great Pyramid and west of the Sphinx, but the contention that the Pyramids themselves are 'tombs and tombs only' is guesswork. It could be the case, as has happened elsewhere in the world, that an ancient and sacred site designed and built for one purpose was subsequently taken over and reused for another rather different purpose. We might imagine, for example, that the Pyramids and the other principal monuments surrounding them were originally intended to fulfil purely ritual, ceremonial and religious functions and that the practice of burying the dead there—principally Fourth Dynasty queens and nobles judging by the identifiable remains that have survived—was a later adaptation effected by people who were unconnected to the genesis of the site but who sought to be interred in a place that was imbued with ancient prestige and sanctity. A Western analogy is the practice of burying the remains of particularly favoured individuals under the flagstones of medieval cathedrals—a practice that continues to this day, but that does not lead us to conclude that these cathedrals are tombs or even that they were built primarily for the purposes of burial.

Impossible engineering

Approaching Giza from the east, through the modern Arab village of Nazlet-el-Sammam, one comes first to the Great Sphinx—which rears its grizzled head above an ugly bus-park and a crowd of tourist shops and cafés. Fortunately the ground has been cleared for a distance of about two hundred metres in front of the monument, giving an open view of the enormous and unusual architectural complex that has surrounded it since time immemorial.

This complex consists of the so-called 'Sphinx Temple' and the 'Valley Temple of Khafre', the former lying immediately to the east of the Sphinx, and directly overlooked by it, the latter lying a little to the south of the Sphinx Temple, separated from it by a narrow corridor but in direct alignment—a bit like two chunky, detached houses standing side by side.

The layout of these monuments, and the relationship that both of them have to the Sphinx and its enclosure, are best appreciated from the plans and photographs reproduced herewith. The Valley Temple is the larger of the two, being almost square and measuring approximately 130 feet along each side; the Sphinx Temple is more pronouncedly rhomboidal with side lengths of about 100 feet.

Originally around 40 feet high, both monuments are built out of

massive limestone core-blocks and both were at one time fitted with inner and outer casings of granite. These casings and much of the core masonry have been removed from the Sphinx Temple, leaving it in a very dilapidated state. By contrast the Valley Temple is still largely intact. Both monuments are roofless, lacking their original ceiling beams. In the case of the Valley Temple, however, sixteen original interior columns and architraves remain in place in the T-shaped central hall, creating graceful patterns of light and shadow.

The unifying features of these ancient and anonymous structures are the stark, undecorated austerity of the building style, and the use throughout of ponderous megaliths—many of which are estimated to weigh in the range of 200 tons apiece.[1] There are no *small* blocks here at all: every single piece of stone is enormous—the least of them weighing more than 50 tons—and it is difficult to understand how such monsters could have been lifted and manoeuvred into place by the ancient Egyptians. Indeed, even today, contractors using the latest construction technology would face formidable challenges if they were commissioned to produce exact replicas of the Sphinx Temple and the Valley Temple.

[1] For block weights see I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 215; John Anthony West, *Serpent,* op. cit., p. 242; John Anthony West, *The Traveller's Key to Ancient Egypt,* Harrap Columbus, London, 1989, pp. 143-5; *Mystery of the Sphinx,* op. cit.; Dr. Joseph Davidovits and Margie Morris, *The Pyramids: An Enigma Solved,* Dorset Press, New York, 1988, p. 51.

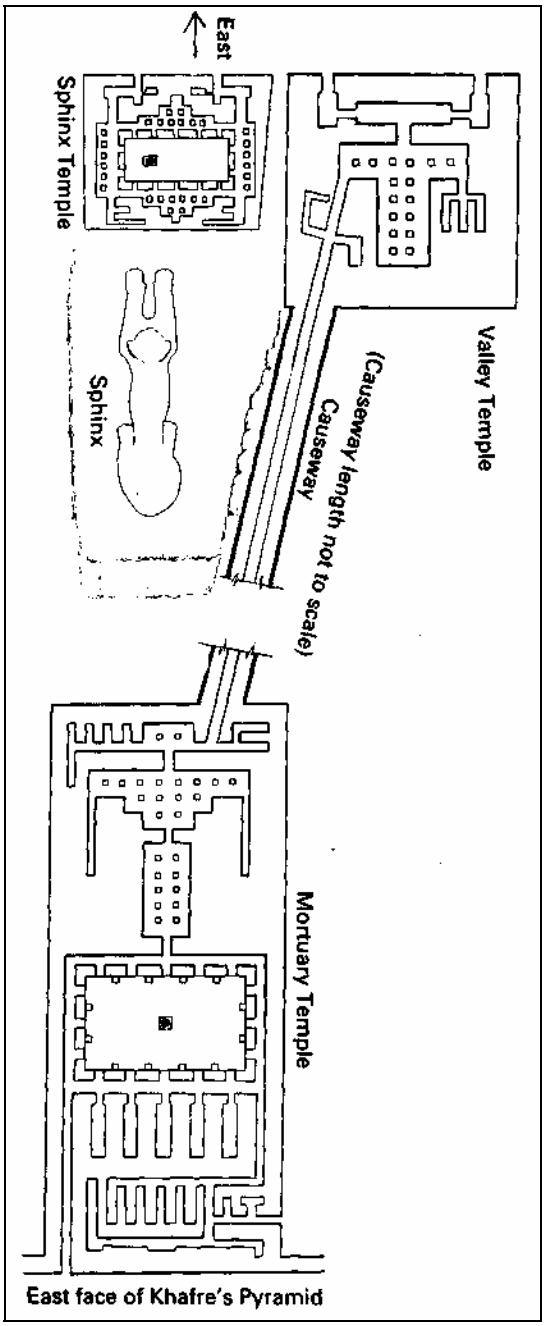

3. The Great Sphinx and the architectural complex that surrounds it: Sphinx Temple, Valley Temple, Causeway (foreshortened and not to scale) and Mortuary Temple.

The problems are manifold but stem mainly from the extremely large size of the blocks—which can be envisaged in terms of their dimensions and weight as a series of diesel locomotive engines stacked one on top of the other. Such loads simply cannot be hoisted by the typical tower and hydraulic cranes that we are familiar with from building sites in our cities. These cranes, which are pieces of advanced technology, can generally 'pick' a maximum load of 20 tons at what is called 'minimum span'—i.e. at the closest distance to the tower along the 'boom' or 'arm' of the

crane. The longer the span the smaller the load and at 'maximum span' the limit is around 5 tons.

Loads exceeding 50 tons require special cranes. Furthermore, there are few cranes in the world today that would be capable of picking 200-ton blocks of quarried limestone. Such cranes would normally have to be of the 'bridge' or 'gantry' type, often seen in factories and at major industrial ports where they are used to move large pieces of equipment and machinery such as bulldozers, military tanks, or steel shipping containers. Built with structural steel members and powered with massive electric motors, the majority of these cranes have a load limit of under 100 tons. In short, a commission to put together a temple out of 200-ton blocks would be a most unusual and very taxing job, even for modern heavy-load and crane specialists.

In the United States there are presently only two land-based cranes of the 'counterweight and boom' type able to handle loads in the 200-ton range. Recently one was brought in to a Long Island construction site to lift a 200-ton boiler into a factory. The crane has a boom 220 feet long (at one end of which is 160-ton concrete counterweight which keeps it from tipping over). A crew of 20 men had to work for six weeks to prepare the ground before the boiler could be lifted.[2]

The biggest technical challenge of building a replica of the Valley Temple would be the need to lift *hundreds* of such weights and to do so within the physical limitations of the Giza site. In order to overcome that challenge the ideal crane would have to be of the gantry or bridge type, made *mobile* by being mounted on steel tracks—which would have to be set up within, or around, the confined area of the temple structure itself.

Not surprisingly, when the crane engineer responsible for lifting the 200-ton boiler on Long Island was shown photographs and given technical details concerning the blocks of the Valley Temple—and asked whether he thought that he could hoist similar blocks into place with his crane—he replied:

> I'm looking at what you're showing me here, and looking at the distances involved. I don't know if we would be able to pick the 200-ton blocks from the positions that I see available to us ... In my business we pick heavy loads, and we look to see how heavy loads were picked by other people before us. And seeing how they moved these heavy blocks, 200-ton blocks, thousands and thousands of years ago, I have no idea how they did this job. It's a mystery and it'll probably always be a mystery to me, and maybe to everybody.[3]

How, why, when?

Mystery or not, the Valley Temple and the Sphinx Temple stand at Giza as

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[2] *Mystery of the Sphinx,* op. cit.

[3] Interviewed in ibid.

mute testimony to the fact that certain builders in antiquity did know how to pick 200-ton loads, and did have the technical wherewithal to do the job. Furthermore, although it is reasonably certain that they did not do it with gantry or any other such cranes, we are in darkness as to how they did do it. Confronted by such questions Egyptologists tend to speak in vague and general terms of 'earth ramps' and 'unlimited manpower'.[4] Engineers, however are required to be more specific and to address themselves to the issues of the precise kinds of ramps that would have been required—up which such big blocks could have been dragged—and the precise numbers of men that would have been needed to drag them.

No detailed technical studies have ever been undertaken at Giza concerning the logistics of building the Sphinx and Valley Temples. The Pyramids, however—which Egyptologists also believe were built with ramps—have been studied quite closely by a number of highly qualified architects and engineers.[5] What these studies have indicated is that the maximum feasible gradient for a construction ramp up which heavy loads could be hauled by men on foot is 1 in 10.[6] In the case of the Great Pyramid, which originally reached a height of 481 feet, this would have called for a ramp 4800 feet long and almost three times as massive as the Pyramid itself.[7]

Of course, such a problem does not apply where the Sphinx Temple and the Valley Temple are concerned because their original constructed height was much lower than that of the Pyramids and they therefore could have been approached by relatively short 1-in-10 ramps. The fearsome mass and weight of the many 200-ton blocks found in these temples, however, rules out the use of *any* ramp made of materials less stable than the limestone ashlars of the temples themselves.[8]

Let us assume, then, that solid stone ramps were used and then later dismantled and cleared away. The question now becomes: how many men would be required to haul hundreds of 200-ton blocks up such ramps? To get this problem into perspective it is helpful to realize that a block of 200 tons represents a load roughly equivalent to 300 family-sized automobiles (each with an average weight of three-quarters of a ton).

Again, we do not have a technical study on the Sphinx and Valley Temples to refer to. Fortunately, however, a relevant study has been undertaken at the Great Pyramid where the French master engineer Jean Leherou Kerisel, a consultant for the building of the Cairo Metro, worked out the logistics of hauling into place the 70-ton blocks that were used in the construction of the so-called King's Chamber. According to his

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[4] See for example I. E. S. Edwards, *Pyramids of Egypt* op. cit., p. 220; John Baines and Jaromir Malek, *Atlas of Ancient Egypt,* Time-Life Books, 1990, pp. 138-9.

[5] The most thorough study is provided in Peter Hodges (Julian Keable ed.), *How the Pyramids Were Built,* Element Books, 1989.

[6] Ibid., p. 11.

[7] Ibid., pp. 11-13.

[8] Ibid., p. 13.

calculations the job could just about have been done—although with enormous difficulty—with teams of 600 men arranged in ranks across a very wide ramp buttressed against one face of the Pyramid.[9] From this it follows that teams 1800 men strong would have been required to haul the Valley Temple blocks. But could 1800 men have been effectively harnessed to such dense and relatively compact loads (the maximum dimensions of each block are 30 feet by 10 feet by 12 feet)? And more to the point, since the temple walls do not exceed 130 feet along each side, how likely is it that such large teams could have been organized to work efficiently—or at all—in the limited space available? Assuming a minimum of three feet of horizontal space per man, each rank of haulers could not have contained more than fifty men. To make up the total of 1800 men needed to move a 200-ton block, therefore, would have called for no less than thirty-six ranks of men pulling in unison, to be harnessed to each block.

The potential complications that might have arisen are mind-boggling. Even assuming they could all have been overcome, however, the next question that presents itself is perhaps the most intriguing of all.

Why?

Why bother?

Why specify temples built out of unwieldy 200-ton blocks when it would have been much easier, much more feasible and just as aesthetically pleasing, to use smaller blocks of say two or three tons each?

There are really only two answers. Either the people who designed these hulking edifices had knowledge of some technique that made it *easy* for them to quarry, manipulate and position enormous pieces of stone, or their way of thinking was utterly different from our own—in which case their motives and priorities are unlikely to be fathomable in terms of normal cross-cultural comparisons.

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[9] Jean Kerisel, a prominent soils engineer in France and also President of the Franco-Egyptian Society, did an extensive study on the hauling of large blocks using human labour and wooden sledges. Kerisel kindly made this study—*Lu Grande Pyramide et ses Derniers Secrets*—available to us prior to its publication (due 1996). The basis of his calculation is that the pressure on the soil cannot exceed 1.5 tons/sq.m. for ramps made of compacted soil (probably covered with stone slabs) with slopes not exceeding 8 per cent. The friction coefficient has been calculated at 15 per cent using soaked lime as the lubricant. Kerisel noted that a greater pressure than 1.5 tons would cause the lubricant to seep away and thus the friction coefficient would increase, making hauling even more difficult. The average speed has been worked out to be 0.3 metres/second with a 13-kilogram traction force produced by each man. Thus the hauling of a 70-ton block would require (70,000 X 0.15 X 1/13=) 807 men and would take some 9.25 hours for a ramp of one kilometre. Kerisel worked out that if the traction was much higher than 13 kg/man—even for a short period of time—the result would be serious back injuries. Thus, assuming at least 1 clear metre distance between each standing man, 807 men in 6 rows would need a ramp space of 134.5 metres long and 6 metres wide. The problem, of course, is greatly increased for blocks of 200 tons within the confined working conditions of the Sphinx and Valley Temples—a task almost impossible to imagine with such primitive techniques.

We also need to ask *when* the work was done.

As noted earlier, the Sphinx Temple and the Valley Temple are both anonymous monuments. And although it is certain that use was made of the latter for Khafre's funerary rituals, there is no proof that he built it. On the contrary, if Professor Robert Schoch's geological evidence is correct, then it is quite certain that Khafre did *not* build either of these structures. This is so because the Sphinx itself was made by hewing a deep horseshoe-shaped trench out of the bedrock of the Giza plateau, leaving a central core which was then carved into shape, and because geologists have been able to prove that the limestone megaliths used in both temples came from the trench and were thus quarried at the same time as the Sphinx.[10] It therefore follows, if the Sphinx is indeed thousands of years older than Egyptologists think it is, that the temples must also be thousands of years older.

What we may be looking at here are the fingerprints of highly sophisticated and perhaps even technological people capable of awe-inspiring architectural and engineering feats at a time when no civilization of any kind is supposed to have existed anywhere on earth.

Supportive of this possibility is the fact that the megaliths of the temples demonstrate precisely the same apparent precipitation-induced weathering features as the Sphinx itself. And it is of interest to note that the surviving granite casing blocks seem to have been carved on their inner faces to fit over the limestone core-blocks *at a time when these were already heavily marked by erosion.* Since the granite casing has the look of other Old Kingdom Egyptian architecture (while the limestone core-blocks do not) this may be taken as further evidence of the theory that an ancient, revered and much-eroded structure was restored and renovated by the Old Kingdom Pharaohs. Robert Schoch certainly favours this view. 'I remain convinced,' comments the Boston University geology professor, 'that the backs of the Old Kingdom granite facing stones were carved to match or complement the earlier weathering features seen on the surfaces of the core limestone blocks of the temples.'[11]

Memorials mighty

The famous black diorite statue of Khafre that now stands in the Cairo Museum was found upside down in a twenty-foot deep pit in the floor of the antechamber that leads into the Valley Temple's T-shaped central hall. Walking through this hall, hemmed in by immensely strong and thick limestone and granite walls, the visitor will eventually come to a high, narrow passageway on the north-western side of the structure. This passage leads out of the rear of the temple, along the southern side of

[10] Robert Schoch's evidence presented in *Mystery of the Sphinx,* op. cit.
[11] *KMT* Vol. V, op. cit., p. 7.

the Sphinx trench—where it overlooks the Sphinx—and thence joins with the massive 'causeway' that runs for more than 1000 feet up the slope of the Giza plateau linking the Valley Temple to the Mortuary Temple and thence to the eastern face of the second Pyramid.

The causeways—one for each of the three Pyramids—are important features of the Giza necropolis, though all have fallen into an advanced state of disrepair. Some 20 feet wide, and varying in length from quarter of a mile up to half a mile, they each originally linked a Mortuary Temple to a Valley Temple. Today, however, the only relatively intact complex is that attributed to Khafre described above. In the case of the third Pyramid, the Valley Temple is now completely gone but the megalithic ruins of the Mortuary Temple are still in place. In the case of the Great Pyramid the only remaining part of the Mortuary Temple is its basalt floor, while the ruins of the Valley Temple—if any survive—are buried under the village of Nazlet-el-Sammam.

The three causeways, like the Mortuary and Valley Temples, are fashioned out of huge blocks of limestone. Indeed all of these prodigious structures are clearly 'of a piece' from a design point of view and seem to have been the work of builders who thought like gods or giants. There is about them an overwhelming, weary, aching sense of antiquity and it is certainly not hard to imagine that they might be the leavings of a lost civilization. In this regard we are reminded of *The Sacred Sermon,* a 'Hermetic' text of Egyptian origin that speaks with awe of lordly men 'devoted to the growth of wisdom' who lived 'before the Flood' and whose civilization was destroyed: 'And there shall be memorials mighty of their handiworks upon the earth, leaving dim trace behind when cycles are renewed ...'[12]

[12] *The Sacred Sermon* (Hermetica, *Libellus III*), translated by G. R. S. Mead in *Thrice Great Hermes: Studies in Hellenistic Theosophy and Gnosis,* Samuel Weiser Inc., North Beach, Maine, 1992, Book II, p. 51.

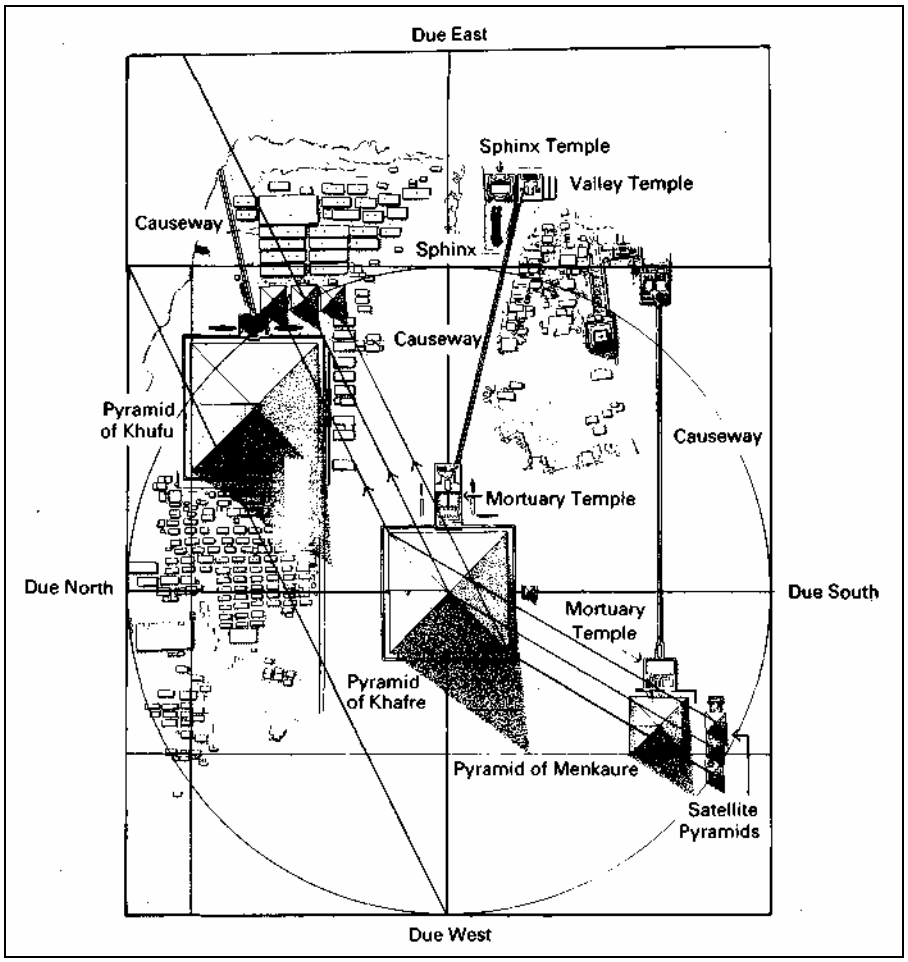

4. The artificial 'Horizon of Giza'.

There is another feature of the causeways, of intense interest to us, which we shall explore in detail in Parts III and IV—their orientation. The causeway of the Third Pyramid, like the gaze of the Sphinx, is targeted due east. The causeway of the second Pyramid points 14 degrees south of due east. The causeway of the Great Pyramid points 14 degrees north of due east. The arrangement is precise, geometrical, obviously deliberate, with each significant structure bearing a designed relationship to every other structure—and the whole contained within a large, circular artificial 'horizon' that is apparently centred on the apex of the second Pyramid with its rim lying just to the west of the rump of the Sphinx.

Orthodox Egyptological opinion concerning the causeways is that they were ceremonial roads. Notwithstanding the fact that they are technological masterpieces which could only have been built with an enormous expense of ingenuity and effort at the direction of skilled surveyors and architects, the assumption is that they were used *just once* for the funerary journey of the Pharaoh's corpse from Valley Temple to Mortuary Temple where his final embalming rituals took place.

Perhaps so. As we shall show in Parts III and IV, however, there are

features of these causeways which suggest that they may have been used many times by many different Pharaohs and that they have their technical and symbolic origins in events that occurred long before the dawn of the historical civilization of Egypt.

Not purely symbolic boats

In the 1850s Sir Richard Francis Burton, the British explorer and adventurer, visited Egypt and the Pyramids of Giza. He noted some odd 'rhomboidal depressions' lying parallel to the eastern side of the Great Pyramid, close to the end of its causeway, and made sketches of them which are now kept in the British Museum.[13] Some years later, in 1881, Sir William Flinders Petrie, the 'Father of British Egyptology', also saw these strange depressions but simply referred to them as 'trenches' and did not bother to have them cleared.[14]

In 1893, buried in pits near a relatively obscure pyramid on another site, the famous French Egyptologist de Morgan discovered six large wooden boats, but little was made of this. In 1901 another French Egyptologist, Chassinat, discovered a 'rhomboidal pit' near the pyramid of Djedefra at Abu Roash. After noting that it very much resembled the pits at Giza near the Great Pyramid, he wrote: 'their purpose is unknown, as is the case here.'[15]

Ancient Egyptian funerary texts are strewn with references to boats—notably the various solar and divine vessels on which the deceased hoped to voyage in the cosmic afterlife (the 'boat of millions of years' for example, the 'bark of Osiris', and the 'bark of Ra'). Carvings, drawings and paintings of such 'boats' and 'barks', with their characteristic high prows and sterns, adorn the walls of many an ancient tomb in Egypt and their symbolic and religious functions were understood well before the close of the nineteenth century. Nevertheless it was only when the German archaeologist Ludwig Borchardt excavated an obvious and unmistakable boat made of bricks near the sun-temple and pyramids at Abusir, that it was recognized that the mysterious 'rhomboidal pits' were in fact boats—or at any rate representations of boats, or graves for boats.

Since Borchardt's time, several other boat pits have been found—by Selim Hassan in 1933, for example, and by Walter Emery in 1937. Finally, in 1954, Kamal el-Mallakh discovered something quite breathtaking—a partially disassembled cedarwood boat, more than 143 feet long, buried in a pit on the south side of the Great Pyramid. Much more recently another vessel of similar dimensions has been located in an adjacent pit.

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[13] British Museum Manuscript 25, 619, pp. 15-19.

[14] W. M. Flinders Petrie, *The Pyramids and Temples of Gizeh,* Histories and Mysteries of Man Ltd., London, 1990, pp. 50-1.

[15] Chassinat, *Monuments et Mémoires,* Fondation Piot, Volume XXV, p. 57.

As yet unexcavated, it is apparently to be studied by a Japanese consortium.

The fact that Egyptologists took a long time to notice that there were large boats buried at Giza does not necessarily mean that their analysis of the function of these boats is completely wrong. The idea is that the majestic vessels were intended in some 'primitive', 'magical', 'superstitious', 'half-savage' way to serve as symbolic vehicles on which the souls of dead Pharaohs could sail into Heaven. This interpretation is consistent with the ancient Egyptian funerary texts and there can be little doubt that the boats—'solar boats' as the Egyptologists call them—were indeed intended to play a part in symbolic celestial journeys. As we shall see in Parts III and IV, however, it is possible that the precise nature and purpose of those journeys may have been much more complex and significant than has hitherto been recognized.

Meanwhile, standing in front of the 'solar boat' excavated from beside the south face of the Great Pyramid in 1954 it is hard not to note the marks of wear and tear on the keel and gangplank and the numerous other clear signs that this elegant cedarwood vessel, with its high curving prow and stern, was sailed many times on water.[16]

If it was purely symbolic, why was it used?

And why was it necessary to have such an elaborate and technically accomplished[17] craft for symbolic purposes? Wouldn't a symbolic vessel—such as the brick boats and boat 'graves' found at other Pyramids—have done just as well?

The Pyramids

The dominant features of the Giza necropolis are, of course, its three great Pyramids—those conventionally attributed to Khufu, Khafre and Menkaure. In a sense they are what the entire, vast enterprise proclaims itself to be all about, what the causeways lead towards, what the 'solar boats' are buried beside. Sprawling diagonally across the meridian axis of the site, it is they, above all else, that the geometrical 'Horizon of Giza' appears to have been designed to circumscribe. Nothing about them is accidental: their original constructed heights, their angles of slope, the measurement of their perimeters, even the pattern in which they are carefully laid out on the ground—all of these things are purposive and laden with meaning.

Because we have described the Pyramids in such detail in other publications[18]—where we have also looked in depth into many of their

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[16] Thor Heyerdahl, *The Ra Expeditions,* Book Club Associates, London, 1972, p. 15.
[17] Ibid., pp. 15-17.
[18] Graham Hancock, *Fingerprints of the Gods,* op. cit. Robert Bauval and Adrian Gilbert, *The Orion Mystery,* William Heinemann Ltd., London, 1994.

technical and engineering puzzles—we will not trouble the reader with superfluous details here. Some basic statistics and a few points of analysis are, however, unavoidable at this stage.

The Great Pyramid was originally 481.3949 feet in height (now reduced to just a little over 450 feet) and its four sides each measure some 755 feet in length at the base. The second Pyramid was originally slightly lower—with a designed height of 471 feet—and has sides measuring just under 708 feet in length. The third Pyramid stands some 215 feet tall and has a side length at the base of 356 feet.

When they were built the second Pyramid and the Great Pyramid were both entirely covered in limestone facing blocks, several courses of which still adhere to the upper levels of the former. The Great Pyramid, by contrast, is today almost completely bereft of its casing. We know from historical accounts, however, that it was once clad from bottom to top with smoothly-polished Tura limestone which was shaken loose by a powerful earthquake that devastated the Cairo area in AD 1301. The newly exposed core masonry was then used for some years as a crude local quarry to rebuild the shattered mosques and palaces of Cairo.

All the Arab commentators prior to the fourteenth century tell us that the Great Pyramid's casing was a marvel of architecture that caused the edifice to glow brilliantly under the Egyptian sun. It consisted of an estimated 22 acres of 8-foot-thick blocks, each weighing in the region of 16 tons, 'so subtly jointed that one would have said that it was a single slab from top to bottom'.[19] A few surviving sections can still be seen today at the base of the monument. When they were studied in 1881 by Sir W. M. Flinders Petrie, he noted with astonishment that 'the mean thickness of the joints is 0.020 of an inch; and, therefore, the mean variation of the cutting of the stone from a straight line and from a true square is but 0.01 of an inch on a length of 75 inches up the face, an amount of accuracy equal to the most modern opticians' straight-edges of such a length.'

Another detail that Petrie found very difficult to explain was that the blocks had been carefully and precisely cemented together: 'To merely place such stones in exact contact at the sides would be careful work, but to do so with cement in the joint seems almost impossible ...'[20]

Also 'almost impossible', since the mathematical value *pi* (3.14) is not supposed to have been calculated by any civilization until the Greeks stumbled upon it in the third century BC,[21] is the fact the designed height of the Great Pyramid—481.3949 feet—bears the same relationship to its base perimeter (3023.16 feet) as does the circumference of any circle to

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[19] Gaston Maspero, *The Dawn of Civilization,* op. cit., pp. 366-7. See also Peter Tompkins, *Secrets of the Great Pyramid,* Harper & Row, New York and London, 1978, p. 17 and W. M. Flinders Petrie, *Pyramids and Temples,* op. cit., p. 13.

[20] W. M. Flinders Petrie, *Pyramids and Temples,* op. cit., p. 13.

[21] The supposed discoverer was Archimedes.

its radius. This relationship is 2*pi* (i.e. 481.3949 feet x 2 x 3.14 = 3023.16 feet).

Equally 'impossible'—at any rate for a people like the ancient Egyptians who are supposed to have known nothing about the true shape and size of our planet—is the relationship, in a scale of 1:43,200, that exists between the dimensions of the Pyramid and the dimensions of the earth. Setting aside for the moment the question of whether we are dealing with coincidence here, it is a simple fact, verifiable on any pocket calculator, that if you take the monument's original height (481.3949 feet) and multiply it by 43,200 you get a quotient of 3938.685 miles. This is an underestimate by just 11 miles of the true figure for the polar radius of the earth (3949 miles) worked out by the best modern methods. Likewise, if you take the monument's perimeter at the base (3023.16 feet) and multiply this figure by 43,200 then you get 24,734.94 miles—a result that is within 170 miles of the true equatorial circumference of the earth (24,902 miles). Moreover, although 170 miles sounds quite a lot, it amounts, in relation to the earth's total circumference, to a minus-error of only three quarters of a single per cent.

High precision

Such fine errors are within the general margins of tolerance found at the Great Pyramid. Indeed, although it has a footprint of over 13 acres, and consists of some six and a half million tons of limestone and granite blocks, the sheer mass and size of this monster of monuments are not its most impressive characteristics. More astounding by far is the incredible high-tech precision that is built into every aspect of its design.

Before going into the details, let us consider the implications of very fine precision in very large monuments.

An analogy with the simple wrist-watch helps. If you are after an accuracy of, say, a few seconds per week, then an ordinary quartz watch costing fifty dollars or less will do the trick. If you want accuracy to within a fraction of a second per year, however, then the quartz watch will no longer serve and you will have to turn to something of the order of an atomic clock.

A similar situation applies in the construction industry. If you are building a brick wall that is to appear straight within plus or minus 1 degree per 100 metres and the whole roughly directed due north, then any good bricklayer should be able to meet your specification. However, if your requirement is for a wall that is straight within 1 arc minute per 100 metres and directed *exactly* due north, then you are going to need a laser theodolite, an ordnance survey map accurate to 10 metres, and a highly qualified team of professionals including an expert setting-out engineer, an astronomer, a surveyor, several master-masons and a week or so to ensure that the precision you are aiming for has in fact been

achieved.

Such 'atomic clock' precision was achieved by the builders of the Great Pyramid more than 4500 years ago. This is not a matter of historical speculation, or of theory, but of plain, measurable facts.

For example the earth's equatorial circumference of 24,902 miles works out at around 132 million feet, with the result that a degree of latitude at the equator is equivalent to approximately 366,600 feet (i.e. 132 million feet divided by 360 degrees). Each degree is divided into 60 arc minutes, which means that 1 arc minute represents just over 6100 feet on the earth's surface, and each arc minute is then further subdivided into 60 arc seconds—with the result that 1 arc second is equivalent to a distance of about 101 feet. This system of measuring by degrees is not a modern convention but rather an *inheritance* of scientific thinking, connected to 'base 60' mathematics, that dates back to the remotest antiquity.[22] Nobody knows where, or when, it originated.[23] It seems, however, to have been employed in the geodetic and astronomical calculations that were used to locate the Great Pyramid—for the monument is positioned barely a mile to the south of latitude 30, i.e. almost exactly one third of the way between the equator and the north pole.[24]

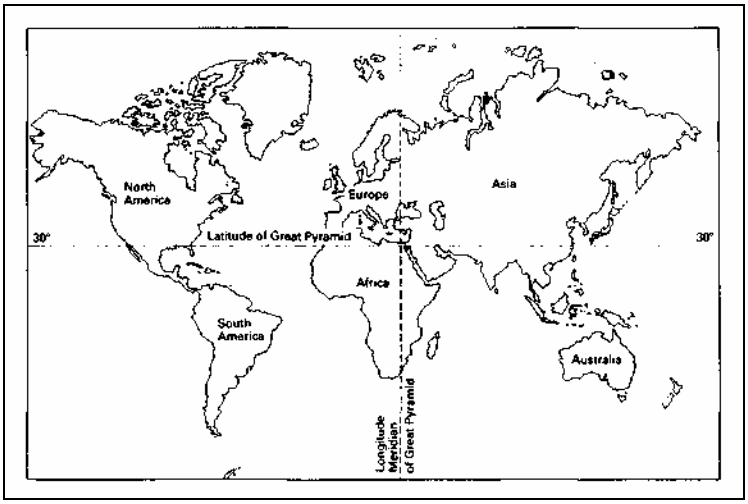

5. Geodetic location of the Great Pyramid of Giza on latitude 30 degrees north (one third of the way between the equator and the north pole) and at the centre of the world's habitable landmasses.

It is unlikely that this choice of location could have come about by chance. Moreover, because no suitable site for such a massive structure exists a mile or so to the north, it would be inadvisable to assume that the fractional offset from the thirtieth parallel could have been caused by a surveying error on the part of the Pyramid builders.

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[22] For further discussion see *Fingerprints of the Gods,* op. cit., Chapter 48.
[23] Ibid.
[24] Piazzi Smyth, *The Great Pyramid,* Bell Publishing Co., New York, 1990, pp. 79-80.

This offset amounts to 1 arc minute and 9 arc seconds—since the Pyramid's true latitude is 29 degrees 58' 51". Interestingly, however, as a former Astronomer Royal of Scotland has observed:

> 'If the original designer had wished that men should see with their bodily, rather than their mental eyes, the pole of the sky from the foot of the Great Pyramid, at an altitude before them of 30 degrees, he would have had to take account of the refraction of the atmosphere; and that would have necessitated the building standing not at latitude 30 degrees, but at latitude 29 degrees 58' 22".'[25]

In other words the monument turns out to be situated less than half an arc minute to the north of *astronomical* latitude 30 degrees, uncorrected for atmospheric refraction. Any 'error' involved is thus reduced to less than half of one-sixtieth of one degree—a hair's breadth in terms of the earth's circumference as a whole.

The same obsessive concern with accuracy is found in the orderly evenness of the Pyramid's base:[26]

Length of West side:	755 feet 9.1551 inches
Length of North side:	755 feet 4.9818 inches
Length of East side:	755 feet 10.4937 inches
Length of South side:	756 feet 0.9739 inches

The variation between the longest and shortest sides is therefore less than 8 inches—about one tenth of 1 per cent—quite an amazing feat when we consider that we are measuring a distance of over 9000 inches carpeted with thousands of huge limestone blocks weighing several tons each.

There is no sign that the ancient Pyramid builders were in any way daunted by the task of maintaining such fastidious standards of symmetry on such a grand scale. On the contrary, as though willingly seeking out additional technical challenges, they went on to equip the monument with corners set at almost perfect right-angles. The variation from 90 degrees is just 0 degrees 00' 02" at the north-west corner, 0 degrees 03' 02" at the north-east corner, 0 degrees 03' 33" at the south-east corner, and 0 degrees 00' 33" at the south-west corner.[27]

This, it must be conceded, is not just 'atomic clock' accuracy but the Rolex, BMW, Mercedes Benz, Rolls-Royce and IBM of building engineering all rolled into one.

And there is more.

It is fairly well known that the Pyramid was aligned by its architects to

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[25] Ibid., p. 80.

[26] J. H. Cole, Paper No. 39, 'The Determination of the Exact Size and Orientation of the Great Pyramid of Giza', *Survey of Egypt,* Cairo, 1925. See also I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 87.

[27] Ibid.

the cardinal points (with its north face directed north, its east face directed east, etc., etc.). Less well known is just how eerily exact is the *precision* of these alignments—with the average deviation from true being only a little over 3 arc minutes (i.e. about 5 per cent of a single degree).[28]

Why such meticulousness?

Why such rigour?

Why should even the most megalomaniacal of Pharaohs have cared whether his massive 'tomb' was aligned within 3 arc minutes of true north—or indeed within a whole degree of true north? To the naked-eye observer it is virtually impossible to determine such a deviation. Indeed most of us could not spot a misalignment within 3 whole degrees (180 arc minutes), let alone within 3 arc minutes (and some people have trouble telling the general direction of north at all). So the question has to be asked: what was all this incredible precision for? Why did the builders burden themselves with so much extra work and difficulty when the effects of their additional labours would not be visible to the naked eye anyway?

They must, one assumes, have had a powerful motive to create what is truly a miracle of the surveyor's art.

And what makes this miracle all the more remarkable is the fact that it was not performed on a perfectly flat area of ground, as one might expect, but with a massive natural mound, or hill, left exactly in the middle of the site on which the Great Pyramid was being erected. Estimated to be almost 30 feet high—as tall as a two-storey house—and positioned dead centre over the base area (of which it occupies approximately 70 per cent), this primeval mound was skilfully incorporated into the lower courses of the growing edifice. No doubt its presence has contributed down the epochs to the structure's legendary stability. It is extremely difficult, however, to understand how the ancient surveyors were able to square the base of the Pyramid in its early and most important stages with the mound so solidly in the way (squaring the base normally involves taking repeated diagonal measurements across the corners).[29] All that we can say for sure is that the base *is* square and that the monument *is* locked into the cardinal axes of our planet with great care and precision.

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[28] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 208.

[29] See discussion in Flinders Petrie, *Pyramids and Temples* op. cit., pp. 83-4.

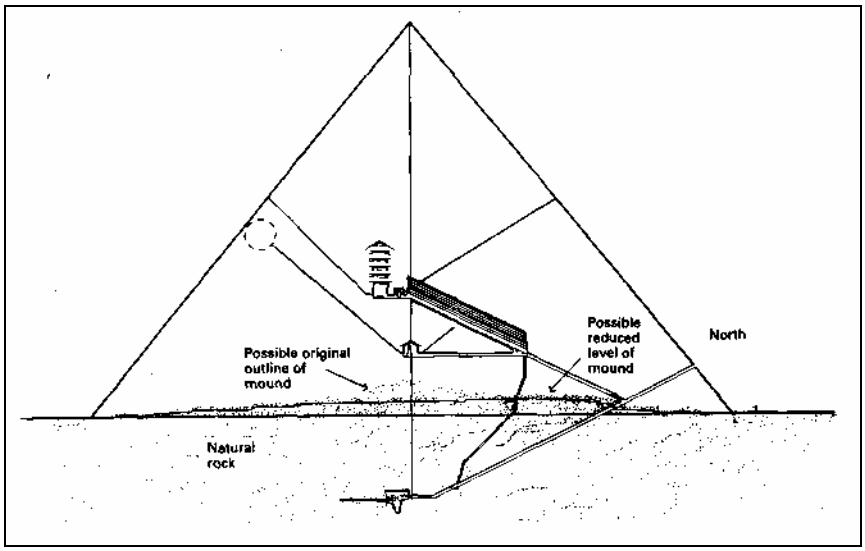

6. Cross-section of the Great Pyramid of Egypt showing the natural mound of bedrock that is known to be built into its lower courses.

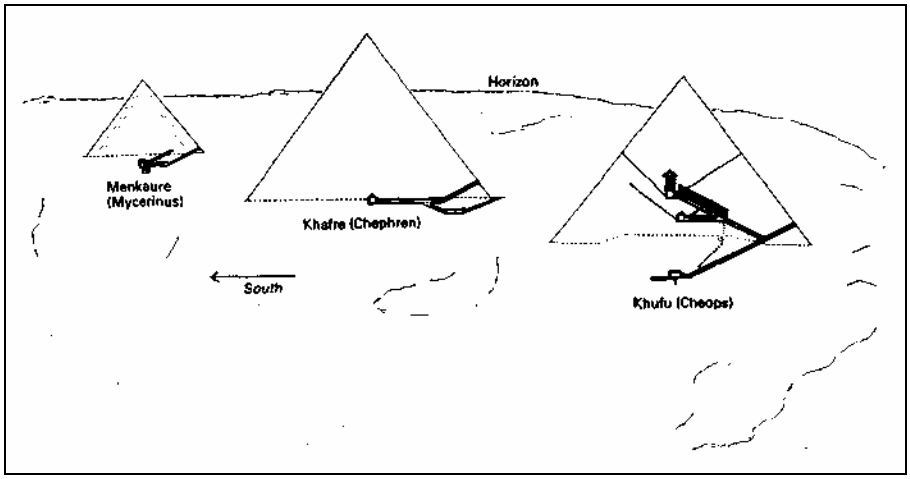

7. Internal corridors and passageways of the three Pyramids of Giza.

Chambers and passageways

The second and third Pyramids have relatively simple internal chambers and passageway systems—the former having one principal chamber just below ground level, positioned centrally under the apex of the monument, the latter having three main chambers, cut a little more deeply into the bedrock but again positioned centrally under the apex of the monument. The entrances to both Pyramids are in their north faces and take the form of cramped passageways sloping downwards at an angle of 26 degrees, before levelling off to join horizontal corridors under the monument.

The internal structure of the Great Pyramid, by contrast, is much more complex, with an elaborate arrangement of passageways and galleries—

sloping up and down again at 26 degrees—and with three principal internal chambers. Of these latter only one, the 'Subterranean Chamber', is below ground level. The other two—the so-called 'Queen's Chamber' and 'King's Chamber'—are both located in the heart of the monument's superstructure at substantial altitudes above the ground.

The layout of these internal features is best appreciated from the diagram printed on page 45. Chief amongst them, surmounted only by Davison's Chamber (and above that by the four so-called 'relieving chambers' which contain the 'quarry marks' mentioned earlier) is the—rectangular red-granite room, now famous as the 'King's Chamber'. It proved to be completely devoid of either treasures or inscriptions, or the body of a king, when it was first entered by Calif Al Mamoun in the ninth century AD. Measuring 34 feet 4 inches in length, 17 feet 2 inches in width, and 19 feet 1 inch in height it is located about 150 feet vertically above the base of the Pyramid. Its many mysteries are too well known to require further elucidation here (and, besides, have been described in some detail in our earlier publications[30]).

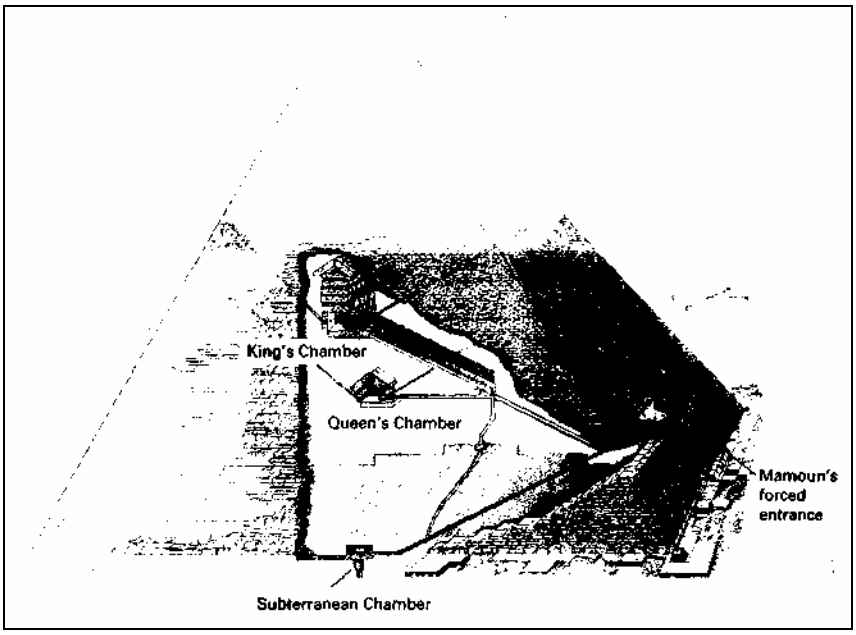

8. Principal internal features of the Great Pyramid. The entrance in the north face known as 'Mamoun's Hole' was forced by Arab explorers in the ninth century AD. At this time the exterior facing blocks of the Pyramid were still intact, hiding the true entrance from sight.

Connecting the King's Chamber to the lower levels of the monument is the Grand Gallery, one of 'the most celebrated architectural works which have survived from the Old Kingdom'.[31] Sloping downwards at an angle of 26 degrees, it is an astonishing corbel-vaulted hall fully 153 feet in length

[30] See *Fingerprints of the Gods,* op. cit., pp. 330-8, *The Orion Mystery,* op. cit., pp. 41-5.
[31] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 93.

and 7 feet in width at floor level. Its lofty ceiling, 28 feet above the visitor's head, is just visible in the electric lighting with which the Pyramid has been equipped in modern times.

At the base of the Grand Gallery a horizontal passage, 3 feet 9 inches high and 127 feet long, runs due south into the 'Queen's Chamber'. Again found empty by Mamoun, this is a smaller room than the King's Chamber, measuring 18 feet 10 inches from east to west and 17 feet 2 inches from north to south. Reaching a height of 20 feet 5 inches, the ceiling is gabled (whereas it is flat in the King's Chamber) and there is a large corbelled niche of unknown function just south of the centre line in the east wall.

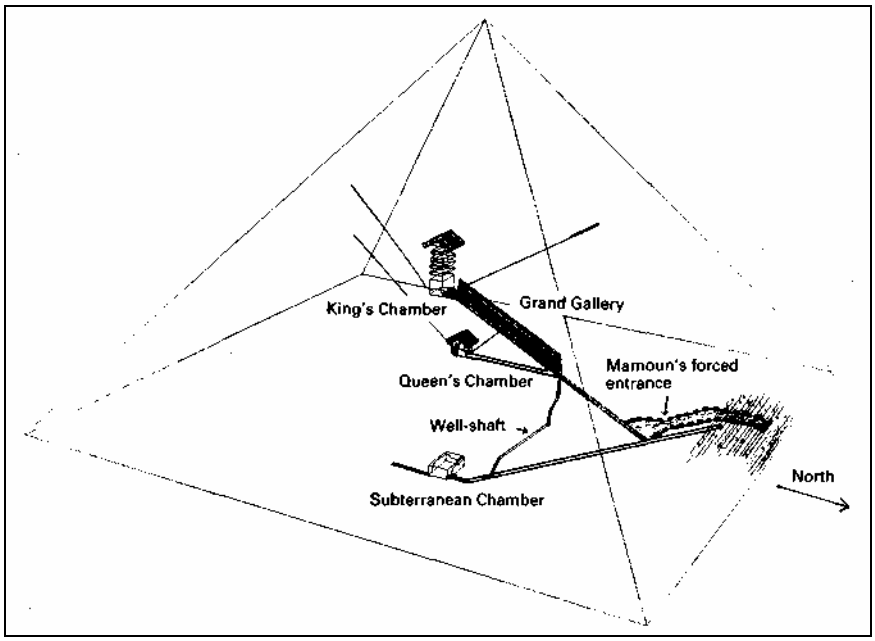

9. Detail of the corridors, chambers and shafts of the Great Pyramid.

Returning along the horizontal passageway to its junction with the base of the Grand Gallery the visitor will note, behind a modern iron grille, the narrow and uninviting mouth of the 'Well-Shaft'—a near vertical tunnel, often less than 3 feet in diameter, that eventually joins up with the Descending Corridor, almost 100 feet below ground level. How the tunnelers, encysted in solid rock, were able to home in so accurately on their target remains a mystery. Mysterious, too, is the true function of all these odd systems of interconnecting 'ducts' which lead busily hither and thither inside the body of the monument, like the circuits of some great machine.

Sloping downwards from the Grand Gallery, and extending it in the direction of the ground at the continuing angle of 26 degrees, is another corridor. Known (from the point of view of those entering the Pyramid) as the Ascending Corridor, it measures 3 feet 11 inches high by 3 feet 5 inches wide and has a total length of just under 129 feet. Leaving the

Pyramid, the visitor is obliged to ape-walk uncomfortably down the Ascending Corridor until the point where it joins up with 'Mamoun's Hole'—the tunnel that the Arabs cut for their forced entry in the ninth century—on the western side of two hulking red-granite 'plugging blocks' which mask the junction with the Descending Corridor. At the bottom of this 350-foot-long corridor, off limits to all but *bona fide* Egyptologists (and those willing to bribe the increasingly hard-pressed and demoralized Inspectors and *ghafirs* responsible for the day-to-day administration of Giza) is a truly remarkable feature—the Subterranean Chamber that nestles in solid bedrock more than 100 feet below the surface of the plateau (and almost 600 feet below the Pyramid's lofty summit platform).

Inner space

The first thing that the intrepid visitor should do, after gaining access to the Descending Corridor, is to climb up it a few feet in the direction of the Pyramid's true entrance. Now covered with an iron grille, this entrance is located in the monument's north face, nine courses above and 24 feet to the east of 'Mamoun's Hole' (through which all members of the public enter the Pyramid today).

Here, at the point in the ceiling of the Descending Corridor where the mouth of the Ascending Corridor was hewn upwards, it is possible to inspect the bottom end of the lowermost of the two plugging blocks. It is as firmly jammed in place today as it was when Mamoun's diggers first encountered it in the ninth century, and it is easy to understand why its presence there encouraged them to tunnel round it into the softer limestone, seeking a way past the obstacle and into the upper reaches of whatever lay beyond.

Perhaps this was exactly what the Pyramid builders had 'programmed' those early explorers to do. After all, if you see that a huge chunk of granite has been hauled into place to block what is obviously an upwards-sloping corridor, then it is only human nature to try to get into that corridor—which Mamoun's men did.

More than a thousand years later, tourists and archaeologists still follow the trail that those pioneering Arabs blazed around the plugging blocks into the main north-south axis of the Pyramid's system of passageways. And though there have been all manner of hackings and tunnellings in search of further passageways (in the floors and walls of the King's and Queen's Chambers, for example), the plugs at the base of the Ascending Corridor have never subsequently been disturbed.

This is an understandable oversight if one is satisfied that the sole function of these plugs was to block the Ascending Corridor in a north-south direction. Why, however, has no one ever tried to find out if

anything lies behind their *eastern* aspect?[32] As well as having the same height and width as the Ascending Corridor, thus filling it completely, each of the plugs is about four feet in length—and thus easily long enough to conceal the entrance to a second and completely separate passageway system branching off at right angles towards the east.

There is certainly room for such a second system inside the Great Pyramid—and for much else besides. Indeed it has been calculated that as many as 3700 fully constructed chambers, each the size of the existing King's Chamber could be accommodated within the monument's vast 'inner space' of 8.5 million cubic feet.[33]

The stones of darkness and the shadow of death

Having examined the plugging blocks, the visitor is faced by a long climb down the full 350-foot length of the Descending Corridor, initially through masonry and thence into bedrock. As the journey proceeds, the rays of sunlight penetrating the barred entrance to the north grow progressively weaker and one has the sense of dropping like a deep-sea diver into the dark depths of a midnight-black ocean.

The corridor, which every intuition proclaims to be a remotely ancient, prehistoric feature, is 3 feet 11 inches high by 3 feet 6 inches wide and may originally have been cut into the 30-foot-tall rocky mound that occupied this site millennia before the Pyramid was built. It is unsettling, therefore, to discover that it is machine-age straight from top to bottom. According to Flinders Petrie, the variation along the whole passage 'is under 1/4 inch in the sides and 3/10 inch on the roof'.[34] In addition there is one segment of the corridor, 150 feet in length, where 'the average error of straightness is only one fiftieth of an inch, an amazingly minute amount.'[35]

With hunched back, the visitor continues down this long, straight corridor sloping due south into the bedrock of the Giza plateau at the now familiar angle of 26 degrees. As ever greater depths are plumbed it is hard not to grow increasingly conscious of the tremendous mass of limestone that is piled above and of the heavy, dusty, unfresh fug of the subterranean air—like the exhalation of some cyclopean beast. Looking back apprehensively towards the entrance, one notices that the penetrating light has been reduced to a glimmering star-burst, high up and far away. And it is normal, at this point, to feel a concomitant glimmer of apprehension, a slight tug of anxiety at the extent of one's

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[32] We are grateful to James Macaulay for this suggestion.
[33] Joseph R. Jochmans, *The Hall of Records,* unpublished manuscript, 1985, p. 175. See also Hodges, *Horn the Pyramids Were Built,* op. cit., p. 122.
[34] Flinders Petrie, *Pyramids and Temples,* op. cit., p. 19.
[35] Ibid.

separation from the world above.

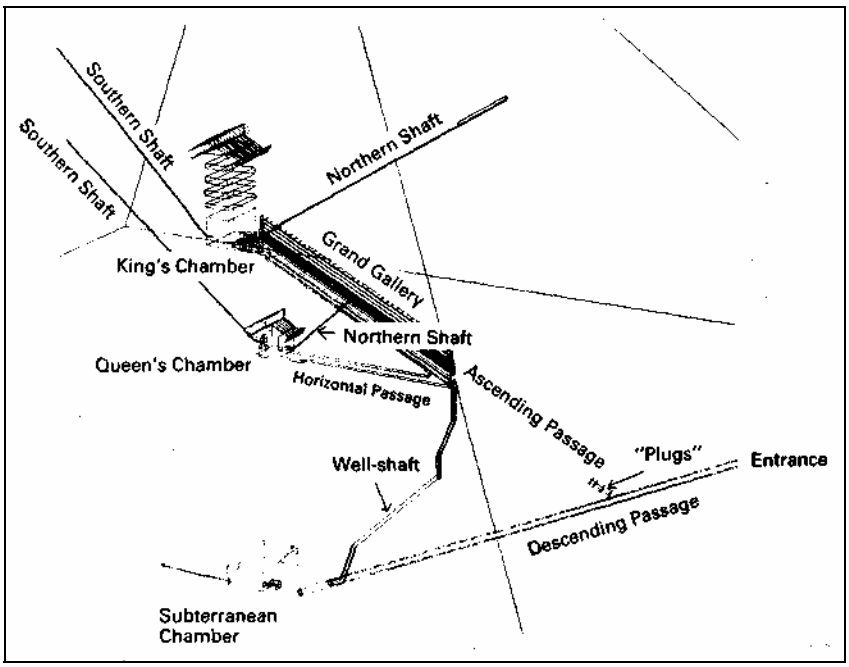

10. The complex internal design of the Great Pyramid. It is possible that many other passageways and chambers remain to be discovered within the gigantic monument.

On the west side of the corridor, quite near the bottom, is an alcove, again covered by an iron grille, that gives access to the vertical Well-Shaft and thence to the Grand Gallery and the upper chambers. Soon afterwards the 20-degree descending slope levels off into a low horizontal passageway, running 29 feet from north to south, through which the visitor is obliged to crawl on all fours. Near the end of this passageway, again on the west side, is another alcove, 6 feet long and 3 feet deep, that has been roughly hewn out of the bedrock and that ends in a blind, unfinished wall. Then, after a further 4 feet of crawling, the horizontal passageway opens at a height of about 2 feet above floor level into the Subterranean Chamber.

Were it not for a single low-wattage electric bulb installed in modern times, the visitor would now be in complete darkness. The light that the bulb casts has a greenish, sepulchral hue, and what it reveals is a most peculiar room, considerably larger than the King's Chamber, measuring 46 feet along its east-west axis, and 27 feet 1 inch from north to south, but with a maximum height of just 11 feet 6 inches.[36] In the approximate centre of the floor, on the east side, is a railing surrounding a square pit reaching a depth of about 10 feet, and beyond that, penetrating the south wall, is a second horizontal corridor, 2 feet 4 inches square, running due south into the bedrock for a further 53 feet and terminating

[36] Vyse and Perrings figures quoted in Edwards, *The Pyramids of Egypt,* op. cit., p. 88.

in a blank wall. Looking to the right, one notes that the floor of the western side of the Chamber rises up into a kind of chest-high platform. This has been irregularly trenched, creating four parallel 'fins' of limestone running east to west, almost touching the relatively flat roof at some points but with a clearance of up to six feet in others.

All these strange features conspire to create an oppressive, claustrophobic atmosphere in the room that reminds the visitor of how far beneath the ground he has burrowed, and of how inescapably he could be entombed here if there were to be any serious collapse of the millions of tons of limestone above his head.

Very interesting developments

Egyptological opinion concerning the Subterranean Chamber may be summarized as follows: (1) it is not a prehistoric feature, but was built at the same time as the Pyramid (i.e. around 2500 BC); (2) it was initially intended to be the burial place of Khufu; (3) then the Pharaoh and his architects changed their minds, stopped work on it, and turned their attentions to the main body of the Pyramid—where they built first the Queen's Chamber (also later 'abandoned' according to this theory) and then finally the King's Chamber.[37]

If the Egyptologists are right then the excavation and removal of more than 2000 tons of solid rock in order to create the Descending Corridor—rock that first had to be mined and then hauled to the surface from increasingly greater depths through that cramped, unventilated, 26-degree channel—would all have been undertaken in vain. Vain, too, would have been the hewing out of the Subterranean Chamber itself, and also of its further shafts and pits. Indeed the whole enterprise would, in retrospect, have been entirely pointless if the end result had merely been to leave, at a depth of more than 100 feet below the Giza plateau, an unfinished, rough-walled, low-ceilinged crypt—'resembling a quarry'[38]—for which nobody would ever have any use.

This obviously defies common sense. An alternative scenario does exist, however, which has stimulated the curiosity of a number of investigators during the last two centuries. According to this scenario the Chamber was deliberately left unfinished so as to hoodwink treasure hunters into *believing* that it had been abandoned and thus convince them of the pointlessness of further explorations there—a pretty effective means of keeping casual intruders away from any other cavities or concealed passageways that might be connected to it.

With such suspicions in mind, the Italian explorer Giovanni Battista Caviglia and the British adventurer Colonel Howard Vyse both felt

[37] Ibid., pp. 88-96.
[38] Ibid., p. 88.

inspired (between 1830 and 1837) to drill holes into the bottom of the pit at the centre of the Subterranean Chamber. They extended its original depth of 10 feet by a further 35 feet (now largely filled in).

More recently the French archaeologist, André Pochan, has drawn attention to a curious passage from the Greek historian Herodotus who visited Egypt in the fifth century BC and spent much time interviewing priests and other learned men there. Herodotus reports that he was told quite specifically of the existence of 'underground chambers on the hill on which the Pyramids stand ... These chambers King Cheops [Khufu] made as burial chambers for himself in a kind of island, bringing in a channel from the Nile ....'[39]

Pochan has calculated that if there really is a chamber fed by Nile water under the Pyramid, then it would have to be at a great depth—at least 90 feet below the pit. Likewise the Danish architect Hubert Paulsen has argued on the basis of geometry that the most probable place for any further chamber to be found in the Great Pyramid is underneath the pit[40]—a view that is also supported by the calculations of the British geometer Robin Cook.[41]

It is a French engineer, however, Professor Jean Kerisel, who has most vigorously pursued the quest for concealed subterranean chambers. The current President of the Association France-Egypte, he was in the pit with his assistants on 12 October 1992 when a major earthquake occurred, demolishing large parts of Cairo. This experience, he stated later, gave the researchers 'a few very unpleasant moments some 35 metres under the plateau'.[42]

Happily, the Subterranean Chamber did not collapse and Kerisel and his team were able to finish their work. This involved the use of two nondestructive techniques: ground-penetrating radar and microgravimetry. The results were inconclusive in the chamber itself but extremely promising in the horizontal passageway that connects it to the end of the Descending Corridor. In Kerisel's own words: 'a structure was detected under the floor of the passageway, which could be a corridor oriented SSE-NNW whose ceiling is at the depth that the Descending Corridor would have reached had it been prolonged.'[43]

Nor was this all. A second very clear anomaly, a 'mass defect' as Kerisel calls it, 'was detected on the western side of the passageway six metres before the chamber entrance. According to our calculations, this anomaly corresponds to a vertical shaft at least five metres deep with a section of about 1.40 x 1.40 metres very close to the western wall of the

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[39] Herodotus, *The History,* David Grene trans., University of Chicago Press, 1988, 2:124, pp. 185-6.
[40] Cited in Jochmans, *The Hall of Records*, op. cit., pp. 176-7.
[41] R. Cook, *The Pyramids of Giza,* Seven Islands, Glastonbury, 1992, p. 52.
[42] Jean Kerisel, 'The Pyramid of Cheops: Further Research' (October and December 1992), extract from his paper in the *Revue Française d'Egyptologie*, 1993, p. 4.
[43] Ibid, p. 6.

passageway.[44]

In short, what Kerisel believes he has identified off the Subterranean Chamber's entrance corridor is something that looks very much like a completely separate passageway system, terminating in a vertical shaft. His instruments may have misled him, or, as he himself admits, he may merely have picked up the traces of 'a large volume of limestone dissolved by the action of underground water—in other words a deep cave'.[45] Alternatively, however, if the 'mass defect' turns out to be a man-made feature, as he strongly suspects, then 'it may lead to very interesting developments'.[46]

Labyrinth

It should be obvious that a civilization that could build *up* to the height of the Great Pyramid's summit platform, that could create giant stone statues more than 240 feet long, and that could lift the 200-ton blocks of the Valley and Mortuary Temples into place (forming intricate jigsaw-puzzle patterns at heights of 40 feet and more above the ground) would not have experienced any insurmountable difficulty in building *down* as well. On the contrary, such a civilization could, if it had so wished, have hewn out underground complexes of immense size, connected to one another by labyrinths of tunnels.

The possibility therefore cannot be ruled out that the Subterranean Chamber under the Great Pyramid could be just one of many such deeply buried features. Indeed, as the reader will recall, the seismological work carried out at Giza in the early 1990s by the American geophysicist Thomas Dobecki did indicate the presence of a large and apparently man-made hypogeum in the bedrock beneath the Sphinx. Ultimately only further excavations and research can shed further light on these matters. Meanwhile, however, there is a great deal of evidence from all parts of the necropolis which suggests that the creation of ambitious rock-hewn structures—both above and below the ground—was, indeed, part of the standard repertoire of the Pyramid builders. They also quite frequently chose to mingle rock-hewn and built-up structures—as in the case of the tomb of Khent-Khawes, a supposed Queen of Menkaure, which consists of a natural outcropping sculpted in pyramidial form surmounted by a curious sarcophagus-shaped temple.

A more spectacular and conspicuous mixture of rock-hewn and built-up features occurs at the Pyramid of Khafre. It stands on an artificially levelled 12-acre platform cut bodily out of the plateau—which slopes steeply from north-west to south-east at this point (i.e. it is higher in the

[44] Ibid.
[45] Ibid, p. 7.
[46] Personal communication.

west and lower in the east). In consequence the north and west sides of the Pyramid are enclosed within a trench that decreases steadily in height from about 20 feet at the north-west corner to about 10 feet at the southwest corner—and to zero at the north-east and south-east corners. The lower courses of the Pyramid itself on the north and west sides are contoured out of the central mound of bedrock that the builders left in place after hollowing out the trench. On the east and south sides, however, the slope of the plateau falls below the level chosen for the base of the Pyramid. The builders solved this problem by bringing thousands of enormous filling blocks to the site—average weight about 100 tons each—to create an unshakable horizontal foundation. They then went on to lay the first few courses of the monument on the eastern and southern sides using the same unwieldy megaliths. Thereafter they reverted to smaller blocks and in consequence a clear demarcation line is visible between the two types of construction. Like some of the characteristics of the Sphinx and Valley Temples referred to earlier, this demarcation gives the impression not just of different building techniques but actually of two distinctly different *stages* of building separated by an unknown interval of time.

The mystery of the shafts

There is one other anomalous feature of the Giza necropolis which we have not yet mentioned but with which we shall close this chapter as it leads us on to the next stage of our investigation. This feature is confined to the Great Pyramid and is unique in ancient Egyptian architecture. It takes the form of four narrow shafts—usually described by Egyptologists as 'ventilation channels'—two of which emanate respectively from the northern and southern walls of the King's Chamber and the other two from the northern and southern walls of the Queen's Chamber.

The four shafts have an average cross-section of 23 x 22 cm. and lengths that vary from about 24 metres (northern shaft of the Queen's Chamber) to about 65 metres (northern shaft of the King's Chamber). They are all inclined to the horizontal plane of the Pyramid and their angles of slope vary from 32 degrees 28 minutes (northern shaft of the King's Chamber) to 45 degrees 14 minutes (southern shaft of the King's Chamber). The shafts were constructed in a step-by-step manner as the Pyramid rose in height (i.e. they were not drilled through the masonry as some have supposed) and they reveal the use of very complex and sophisticated engineering and levelling techniques.

It has been suggested that the reason for their inclination was to find the 'shortest route' to the outside of the Pyramid and this has been taken to imply that the ancient builders wanted to 'save' work and time. However, such geometrical logic goes very much against *engineering*

logic—for the simple reason that building shafts on an incline would not save time or work at all. Quite the contrary: no construction engineer or builder could possibly agree that the 'shortest route' is the best route in this case—even though it may seem so to those looking only at the geometry. The truth, as Egyptian architect Dr. Alexander Badawy first noted in the 1960s, is that to build inclined shafts rather than to have simple horizontal channels leading to the outside of the Pyramid would create many difficulties—and especially so when we consider the high precision and rigid consistency of the inclinations.[47]

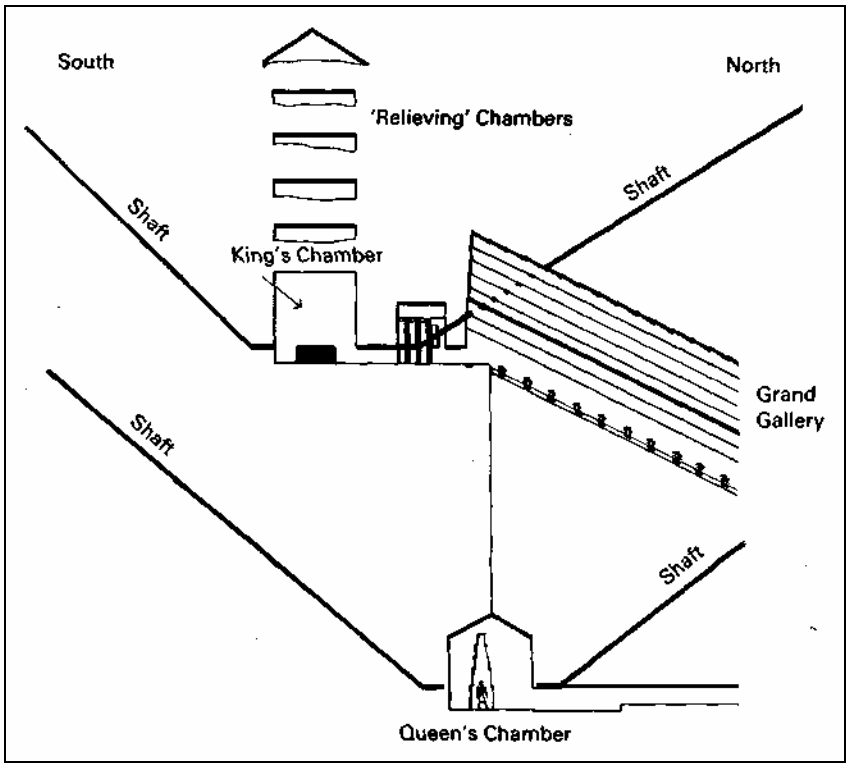

11. The King's and Queen's Chambers and their four shafts. Note that the shafts of the Queen's Chamber were not originally cut through into the chamber but stopped short several inches from the inner walls. The shafts were opened in 1872 by the British engineer Waynman Dixon.

To build inclined shafts rather than horizontal ones entails five tedious operations. First, the base course must be prepared; this calls for the shaping of special blocks with their upper faces sloping to serve as the 'floor' of each shaft. Secondly, more special blocks have to be prepared with U-shaped inner faces to form the profile, i.e., the 'walls' and 'ceilings' of the shafts. Thirdly, yet more special blocks have to be cut with their undersides inclined in order to cover the sides of the shafts. Fourthly, the tops of the shafts must be covered with other special blocks

[47] A. Badawy, 'The Stellar Destiny of the Pharaoh and the so-called Air Shafts in Cheops' Pyramid', *Mitt. Inst. Orient, zu Berlin,* Band 10, 1964, pp. 189-206.

with sloping undersides. Fifthly, the main masonry courses of the Pyramid have to be integrated with these special design features along the entire lengths of the shafts.

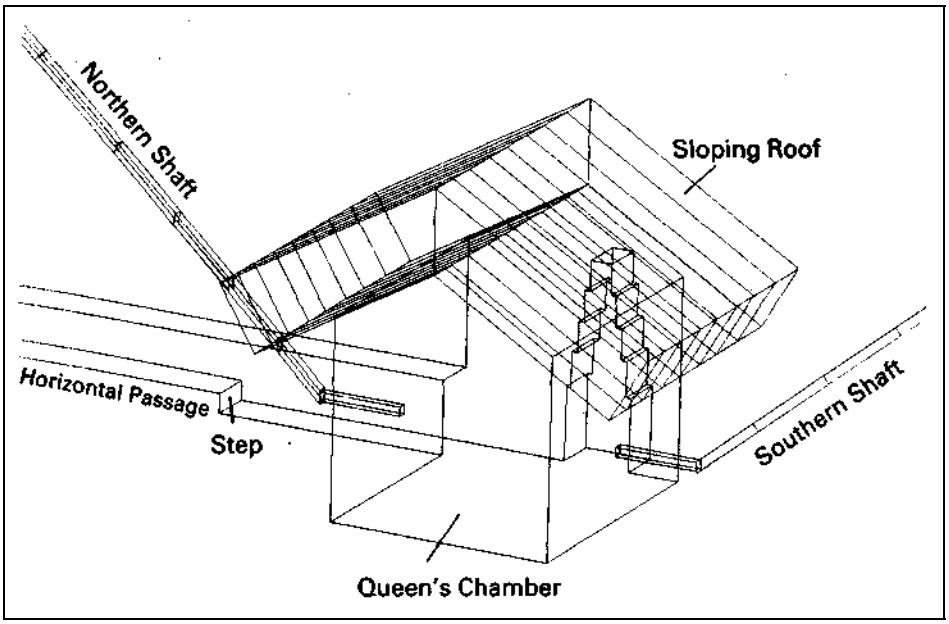

12. Details of the Queen's Chamber and its shafts.

If ventilation was really the objective then the question that must be asked is this: why opt for such complications and difficulties when an effective flow of air could have been provided for the chambers in a much simpler way? From an engineer's point of view the obvious solution would have been to leave a masonry joint open—say 20 cm.—running horizontally from the top of each chamber right to the outside of the monument. In this case no special cutting of blocks would have been necessary, nor indeed any tedious alignments or levelling work.

In other words the 'shortest route' is not by any means the best route for the practical purposes of ventilation and, besides, it should be obvious that the Pyramid builders were not interested in time/energy-saving schemes—otherwise they would not have favoured such gigantic, multimillion-ton monuments in the first place. It therefore follows that we are unlikely to be rewarded in seeking an explanation for the precise north-south alignments of these steeply inclined shafts in terms of a time/energy-saving rationale based on quaint geometrical figures.

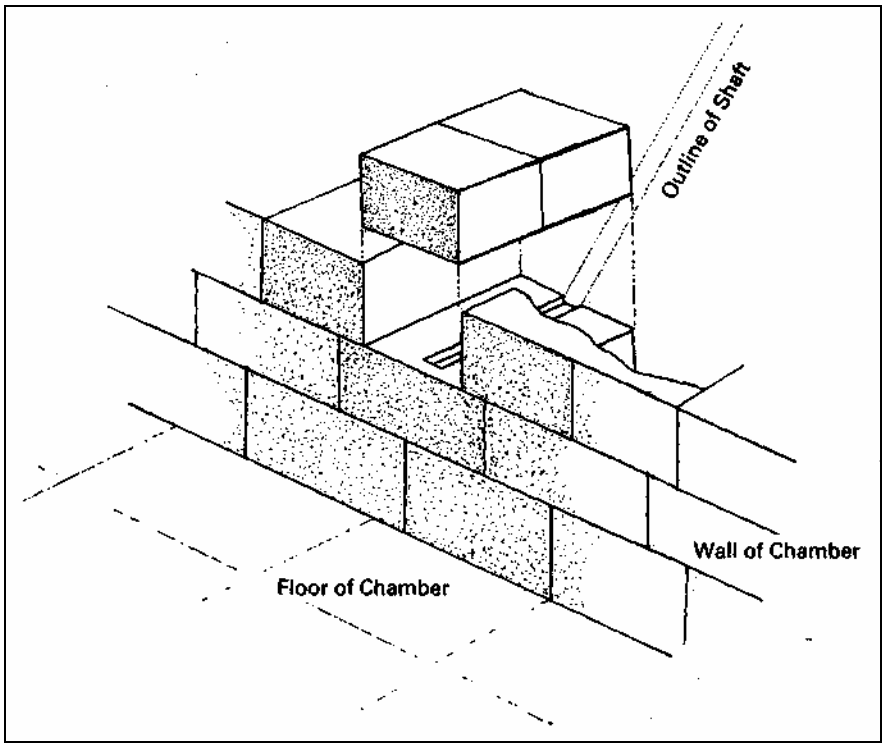

13. Queen's Chamber wall and shaft mouth.

Any doubt over this issue can be resolved by a close study of the shafts of the Queen's Chamber. Unlike the King's Chamber shafts, those in the Queen's Chamber (a) do not exit on the outside of the monument and (b) were not originally cut through the Chamber's limestone walls. Instead the builders left the last five inches intact in the last block over the mouth of each of the shafts—thus rendering them invisible and inaccessible to any casual intruder. With the help of a steel chisel, they were finally discovered in 1872 by the British engineer Waynman Dixon, a Freemason whose curiosity had been aroused by the shafts in the King's Chamber and who decided to look for similar features in the Queen's Chamber.

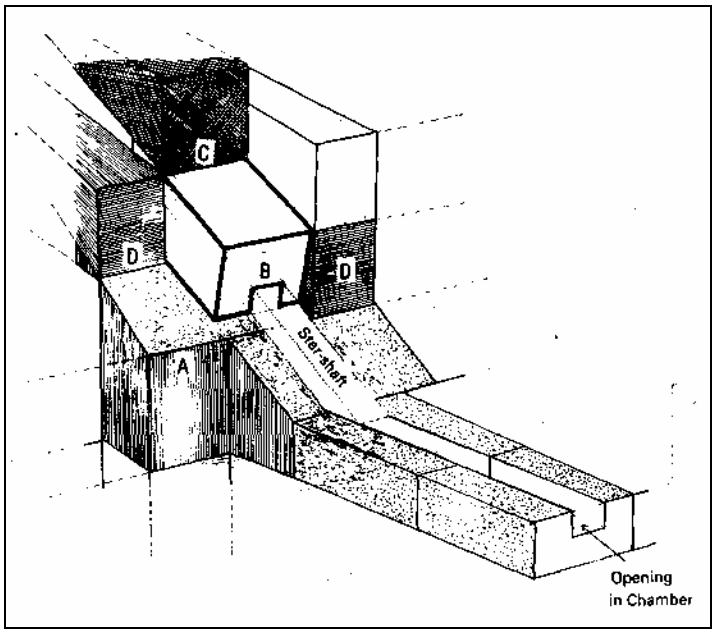

14. Construction details of the Great Pyramid's shafts. At least four different kinds of blocks (A, B, C and D), continuing the full length of the shafts, were required for the successful completion of these mysterious features of the Pyramid. The engineering problems would have been immense. The notion that the primary purpose of the shafts was for ventilation is disproved by the fact that the Queen's Chamber shafts were originally closed at both ends and by the complexity of the design—which would not have been necessary if simple ventilation had been the objective.

In later chapters we will be considering the implications of Dixon's 1872 discovery, and the follow-up to it. The point that we wish to make here, however, is the obvious one that shafts which were originally closed at both ends could not possibly have been used, or intended, for ventilation. They must, therefore, have had some higher purpose—one that was thought by the builders to justify the enormous care, skill and effort involved in constructing them.

As we shall see, that 'higher purpose' can now be identified with certainty.

Chapter 4

Stars and Time

'The various apparent movements of the heavenly bodies which are produced by the rotation and revolution of the earth, and the effects of precession, were familiar to the Egyptians ... They carefully studied what they saw, and put their knowledge together in the most convenient fashion, associating it with their strange imaginings and their system of worship ...'

J. Norman Lockyer, The Dawn Of Astronomy, 1894

It is humbling and awe-inspiring to stand at dawn between the paws of the Great Sphinx of Egypt and to look up as the rising sun illuminates its face. The colossal statue *seems* ancient—almost as old, one might imagine, as time itself. And, as we saw in Chapter 2, a mounting body of geological evidence suggests that it *is* ancient—vastly older than the 4500 years allocated to it by Egyptologists and perhaps dating back as far as the last Ice Age when no civilization capable of fashioning such a monument is supposed to have existed.

Such notions are of course controversial and hotly disputed. Moreover, as should be obvious by now, geology is incapable of providing us with a precise chronology and is particularly limited by the present state of our knowledge of palaeo-climatology. Indeed, the most we can say, on the sole basis of the monument's erosion patterns, is that it does appear to have been carved at a much earlier date than Egyptologists believe but that its antiquity could range anywhere between 15,000 BC and 5000 BC.

There is, however, another science which, provided one essential precondition is fulfilled, can provide a much more accurate dating—to within a few decades—of uninscribed ancient stone monuments. This is the science of archaeoastronomy. The precondition upon which it depends for its successful functioning is that the monuments studied should have been accurately aligned to the stars or to the rising points of the sun by their builders.

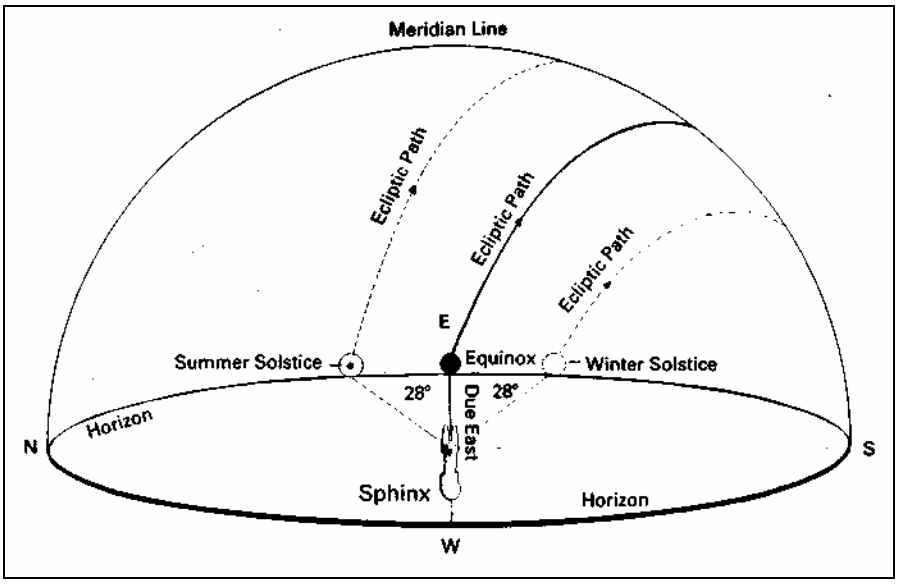

15. On the summer solstice at the latitude of Giza the sun rises 28 degrees north of east, on the winter solstice it rises 28 degrees south of east and on the equinoxes it rises due east. The Great Sphinx of Giza is an astronomical monument orientated perfectly towards due east and thus serves as a superb equinoctial marker or 'pointer'.

The Great Sphinx fulfils this precondition. It lies exactly along the east-west axis of the Giza necropolis with its patient and eternal gaze set perfectly towards due east. It is, therefore, a superb 'equinoctial marker': its eyes target the exact position of sunrise at dawn on the spring equinox.

To clarify matters a little, astronomers speak of four 'cardinal moments' in the year: the summer solstice—the longest day in the northern hemisphere—when the earth's north pole points most directly at the sun, the winter solstice, the shortest day, when the pole points most directly away from the sun, and the spring and autumn equinoxes when the earth lies broadside-on to the sun and when night and day are of equal length.

On the summer solstice at the latitude of Giza, the sun rises about 28 degrees north of east. On the winter solstice it rises about 28 degrees south of east. By contrast, the main characteristic of the equinoxes (here and everywhere else around the globe) is that the sun always rises *due east* providing a sure and accurate geodetic reference to one of the cardinal directions.

It is towards this reference point, with high precision, that the gaze of the Sphinx is set—not by accident, but by design, and as part of a vast, archaic astronomical plan of uncanny accuracy and intelligence.

Observatory

Thousands of years ago, under the clear skies of a younger world, Egypt's

Giza plateau must have been the ultimate observatory. From the high ground half a mile to the west of the Sphinx on which the three principal Pyramids stand, there would have been a faultless 360-degree view around an enormous circular horizon—a prospect that would have invited observations of the rising and setting points of the sun throughout the year, and also of the rising and setting points of the stars. It is certain, furthermore, whatever the other functions of the necropolis, that it was indeed used for practical and precise observational astronomy of the kind developed by navigators to pinpoint the positions of ships on the open ocean. Like the ability to keep strictly to a chosen course, the fabulous accuracy with which the principal monuments of Giza are aligned to true north, south, east and west could not have been achieved by any other science.[1]

Details of these alignments have already been given in Chapter 3. It is therefore sufficient here to remind ourselves that the Great Pyramid stands at a point on the earth's surface exactly one third of the way between the equator and the north pole (i.e. astride latitude 30) and that its 'meridional' (i.e. north-south) axis is aligned to within three-sixtieths of a single degree of true north-south. It is a small but significant point that this alignment is more accurate than that of the Meridian Building at the Greenwich Observatory in London—which is offset by an error of nine-sixtieths of a degree. In our opinion, such precision constitutes a 'fact' which archaeologists and Egyptologists have never seriously considered, i.e. that the Great Pyramid, with its 13-acre footprint and six million tons of mass, could *only* have been surveyed and set out by master astronomers.[2]

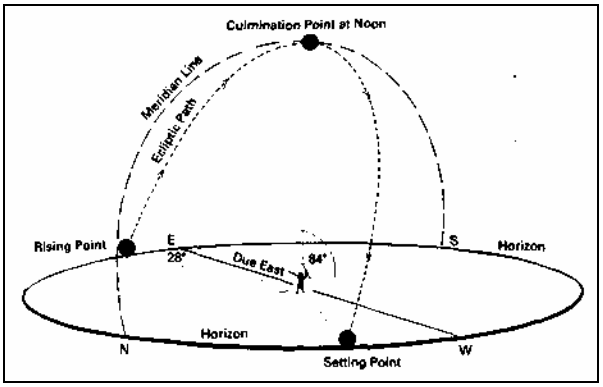

16. The trajectory of the sun on the summer solstice, with its culmination point (highest altitude) being attained at meridian transit.

[1] See, for example, I. E. S. Edwards, *The Pyramids of Egypt* op. cit., pp. 209-10.
[2] For further discussion see *The Orion Mystery,* op. cit.

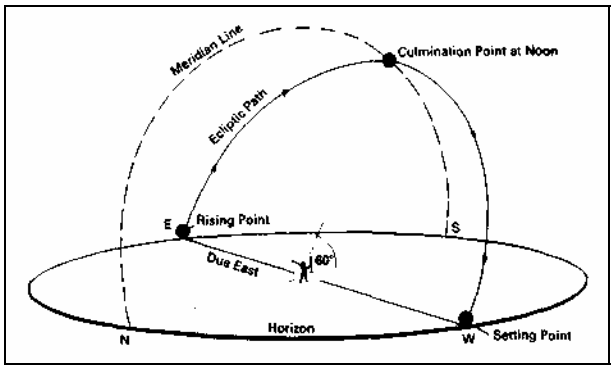

17. The trajectory of the sun on the equinox.

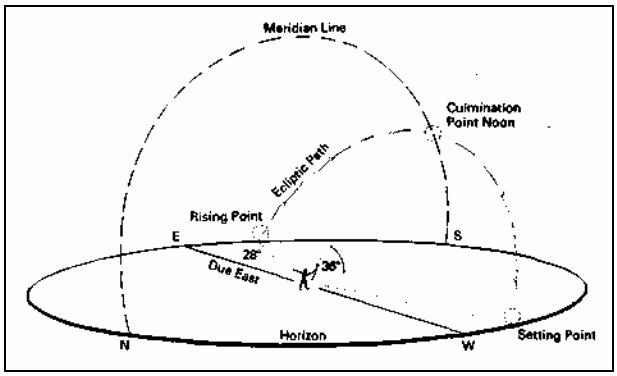

18. The trajectory of the sun on the winter solstice.

It is our conviction that this 'astronomical factor' deserves to be given much greater prominence than it has hitherto been accorded by Egyptologists. Moreover, thanks to the recent development of sophisticated star-mapping computer programs, it is possible for us to simulate the skies over Giza in any epoch during the past 30,000 years and thus to recreate the celestial environment in which the Pyramid builders worked.

Standing as it were beneath those ancient skies, initiated by microchip into the cosmic secret of the changing positions of the stars, certain features of the key monuments—features that are of no significance from the purely archaeological or Egyptological perspective—begin to take on a peculiar meaning.

Targeting Stars

Let us begin with the four mysterious shafts emanating from the King's and Queen's Chambers of the Great Pyramid, the engineering aspects of which we considered at the end of the previous chapter. As we have seen, two of these shafts are aligned perfectly to due north and the other two perfectly to due south. They thus target, at varying altitudes, what astronomers refer to as the 'meridian'—an imaginary line 'dividing the sky' that is best envisaged as a hoop connecting the north and south

poles and passing directly over the observer's head. It is as they cross this imaginary line ('transit the meridian') that the stars (and also the sun, moon and planets) are said to 'culminate'—that is, reach their maximum altitude above the horizon.

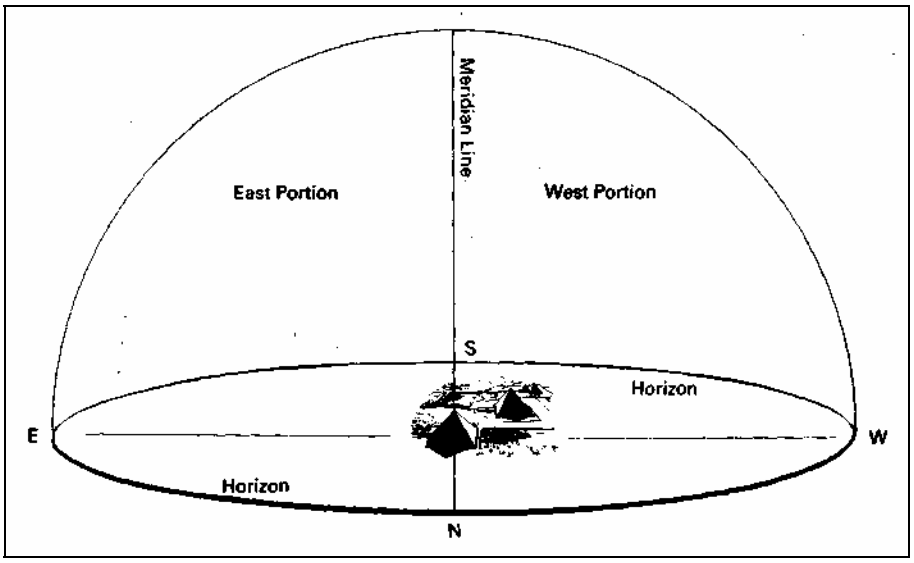

19. The horizon of Giza and the meridian of the Great Pyramid.

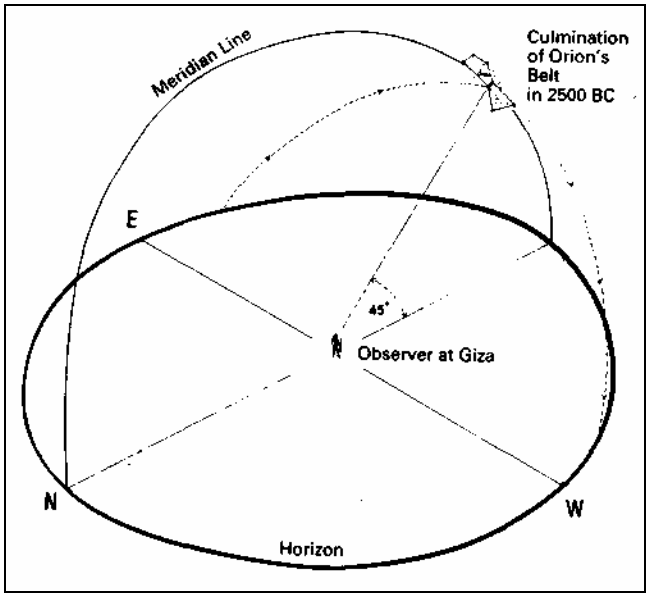

20. Culmination (meridian-transit) of Orion's belt *circa* 2500 BC. In this epoch the belt stars crossed the meridian at altitude 45 degrees, targeted by the southern shaft of the King's Chamber.

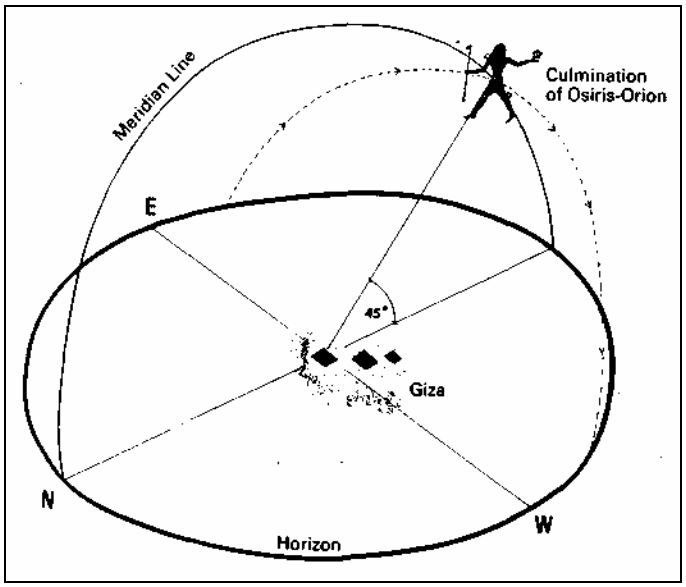

21. For the ancient Egyptians the constellation of Orion, and particularly its three prominent belt stars, were strongly associated with Osiris, the god of resurrection and rebirth.

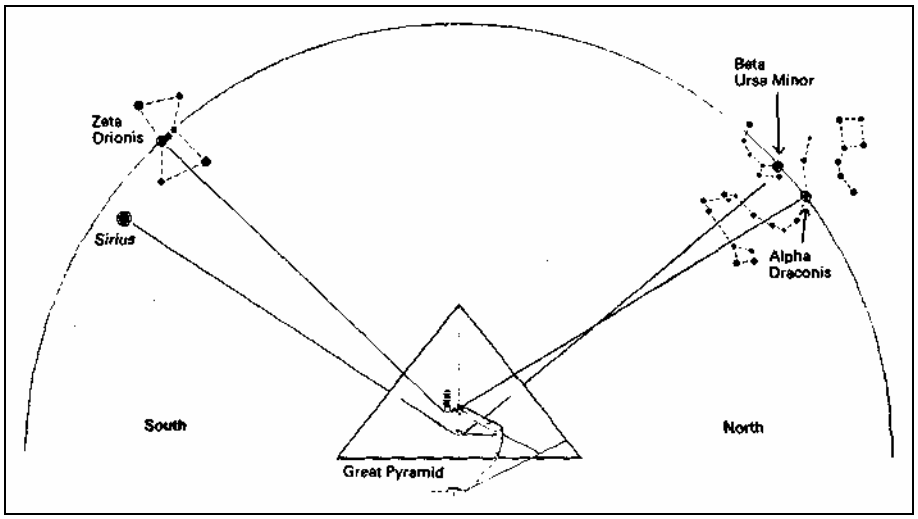

22. The stellar alignments of the Great Pyramid's four shafts in the epoch of 2500 BC.

The Great Pyramid has numerous features which leave us without any doubt that its designers paid careful attention to the stars and tracked their transit at the meridian. The mouth of the original entrance corridor, for example, targets the meridian with the precision of the barrel of an artillery piece. All the internal passageways, too, run perfectly north-south, thus making the whole monument, as many astronomers have noted, an obvious 'meridional instrument'.[3] Most conclusive of all, however, is the fine accuracy of the four shafts. Recent investigations have established beyond any shadow of doubt that in *circa* 2500 BC—the

[3] For example, see E. M. Antoniadi, *L'Astronomie Egyptienne,* Paris, 1934, p. 119.

era recognized by Egyptologists as the 'Pyramid Age'—each one of these shafts targeted a special star as it culminated at the meridian:

> From the Queen's Chamber, the northern shaft is angled at 39 degrees and was aimed at the star *Kochab* (Beta Ursa Minor) in the constellation of the Little Bear—a star associated by the ancients with 'cosmic regeneration' and the immortality of the soul. The southern shaft, on the other hand, which is angled at 39 degrees 30', was aimed at the bright star *Sirius* (Alpha Canis Major) in the constellation of the Great Dog. This star the ancients associated with the goddess Isis, cosmic mother of the kings of Egypt.[4]
>
> From the King's Chamber, the northern shaft is angled at 32 degrees 28' and was aimed at the ancient Pole star, *Thuban* (Alpha Draconis) in the constellation of the Dragon—associated by the Pharaohs with notions of 'cosmic pregnancy and gestation'. The southern shaft, which is angled at 45 degrees 14', was aimed at *Al Nitak* (Zeta Orionis), the brightest (and also the lowest) of the three stars of Orion's belt—which the ancient Egyptians identified with Osiris, their high god of resurrection and rebirth and the legendary bringer of civilization to the Nile Valley in a remote epoch referred to as *Zep Tepi,* the 'First Time'.[5]

Because we can reconstruct the ancient skies over Giza with modern computers we can demonstrate the spot-on alignments of the four shafts to the four stars *circa* 2500 BC. What the same computers also show us is that these alignments were rare and fleeting, only valid for a century or so, before the continuous gradual change effected in stellar altitudes by the passage of time altered the positions at which the stars transited the meridian.

This phenomenon, the result of a slow and stately wobble in the axis of the earth, is known technically as precession. Over a cycle of 25,920 years it causes the infinitely-extended north pole of our planet's spin axis to trace out a great circle in the heavens. The main astronomical effects of this motion are:

1. an equally slow and stately change in the celestial north pole—which sometimes coincides with a 'pole star' (and sometimes with empty space) as it progresses eternally around its 25,920-year cycle;

2. changes in the altitude of all stars above the horizon as they cross the observer's meridian at any given latitude;

3. changes in the constellations against the background of which the sun rises due east at dawn on the spring equinox (naturally precession also changes the constellations that mark the autumnal equinox—and the winter and summer solstices as well).

The *rate* of precessional change is constant and predictable for each of these key astronomical effects and can be calculated backwards and forwards in time across the entire star-field. This means, for example,

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[4] See *The Orion Mystery,* op. cit., pp. 97-104.
[5] Ibid.

that if we were to observe a specific bright star—say *Al Nitak* in Orion's belt—from a given place today, and if we were to record its altitude at the meridian, then provided such a record was to be found and understood thousands of years hence it could be used to determine the epoch or 'time' when the original observation was made.

The same logic can be applied to the four meridional shafts emanating from the King's and Queen's Chambers. Their alignments at 2500 BC—on four stars that were of ritual importance within the 'Osiris cycle' of beliefs—cannot possibly have been accidental. On the contrary, it is obvious that we are confronted here by the products of a conscious and careful design. This in turn makes it equally obvious that the Great Pyramid must have some extremely strong connection with the epoch of 2500 BC—the approximate date at which all orthodox Egyptologists and archaeologists in fact believe it to have been built.

In short, the four star-shafts serve as precise time-markers by which, in theory at least, we should be able once and for all to confirm the date for the construction of the last-surviving wonder of the ancient world. This would be highly desirable since, in the absence of other objective means of dating the monument, controversy continues to linger over its exact age. However, the archaeoastronomical picture is rather more complicated than it seems.

The Companions of Osiris

The complication arises from the strong correlation, first demonstrated in *The Orion Mystery,* between the three belt stars of the Orion constellation and the ground-plan of the three Pyramids of Giza. An overhead view shows that the Great Pyramid and the second Pyramid stretch out along a diagonal running 45 degrees to the south and west of the former's eastern face. The third Pyramid, however, is offset somewhat to the east of this line. The resulting pattern mimics the sky where the three stars of Orion's belt also stretch out along a 'faulty' diagonal. The first two stars (*Al Nitak* and *Al Nilam*) are in direct alignment, like the first and second Pyramids, and the third star (*Mintaka*) lies offset somewhat to the east of the axis formed by the other two.[6]

The visual correlation, once observed, is obvious and striking on its own. Additional confirmation of its symbolic significance, however, is provided by the Milky Way, which the ancient Egyptians regarded as a kind of 'Celestial Nile' and which was spoken of in archaic funerary texts as the 'Winding Waterway'.[7] In the heavenly vault the belt stars of Orion lie to the west of the Milky Way, as though overlooking its banks; on the

[6] Ibid., pages 105-37.
[7] Ibid.

ground the Pyramids stand perched above the west bank of the Nile.[8]

Faced by such symmetry, and by such a complex pattern of interlocking architectural and religious ideas, it is hard to resist the conclusion that the Pyramids of Giza represent a successful attempt to build Orion's belt on the ground. This makes all the more sense when we recall the firm identification of the Orion constellation with the high god Osiris.

But bearing in mind the changes induced by the phenomenon of precession we must also ask: 'Orion's belt *when?'* 'Orion's belt in what epoch?'

A perfect match

From the evidence of the shafts we have seen how the Great Pyramid is 'precessionally anchored' to Orion's belt in 2500 BC (because in this epoch the southern shaft of the King's Chamber targeted the meridian-transit of *Al Nitak,* the Great Pyramid's celestial counterpart). If we set our precessional computer to reconstruct the ancient skies over Giza, however, turn our attention to the pattern formed on the ground by all three of the Pyramids in 2500 BC, simulate the nightly passage of the belt stars across the roof of the celestial sphere and bring them to rest at the point of *Al Nitak*'s meridian-transit (45 degrees above the southern horizon, where it is targeted by the King's Chamber shaft), it becomes apparent that something is not quite right.

[8] Ibid.

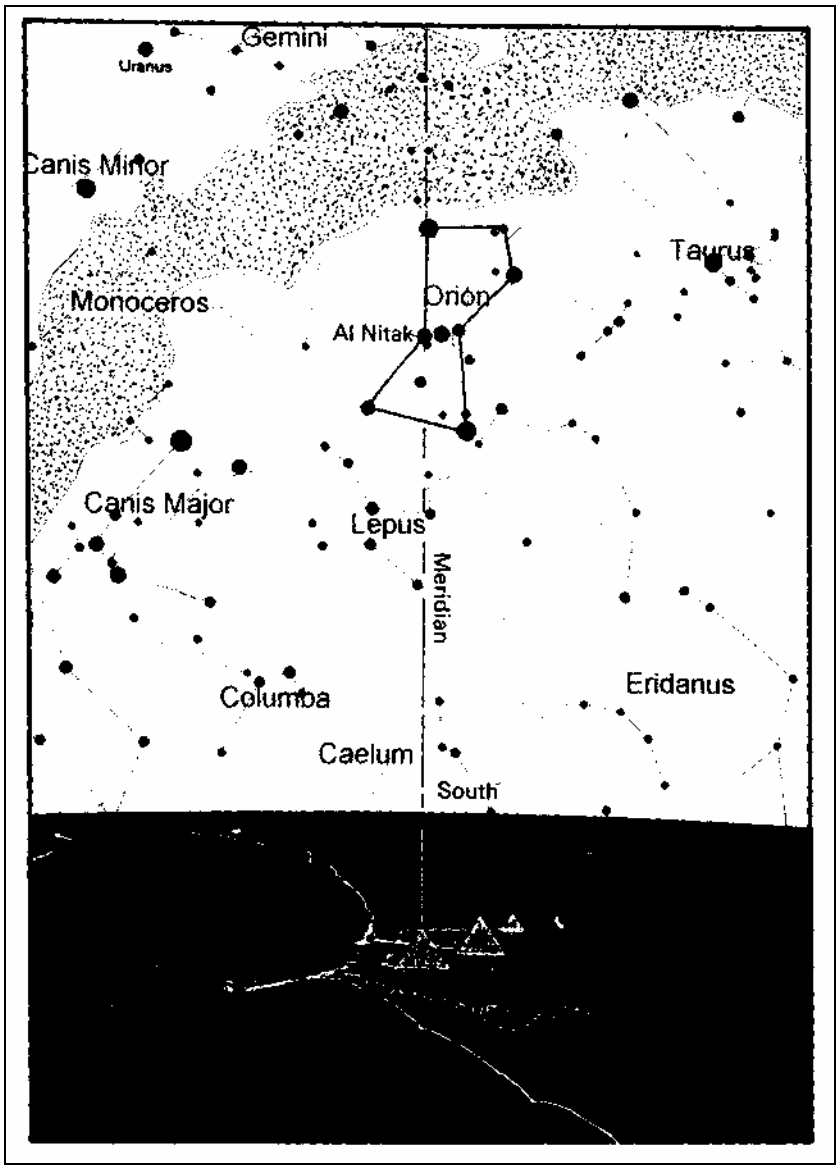

23. Orion's belt crossing the meridian of the Great Pyramid in 2500 BC with the star *Al Nitak,* the Great Pyramid's celestial counterpart, in perfect alignment with the southern shaft of the King's Chamber at an altitude of 45 degrees. However, note how the belt stars and the Milky Way appear out of kilter and askew in relation to the ground plan of the three Pyramids and the Nile. The sky-ground images are, of course, similar, but there is a sense that the sky image needs somehow to be 'twisted' in an anti-clockwise direction to get the perfect match. This can only be achieved by going back in time—by looking at the sky above Giza in a far earlier epoch ...

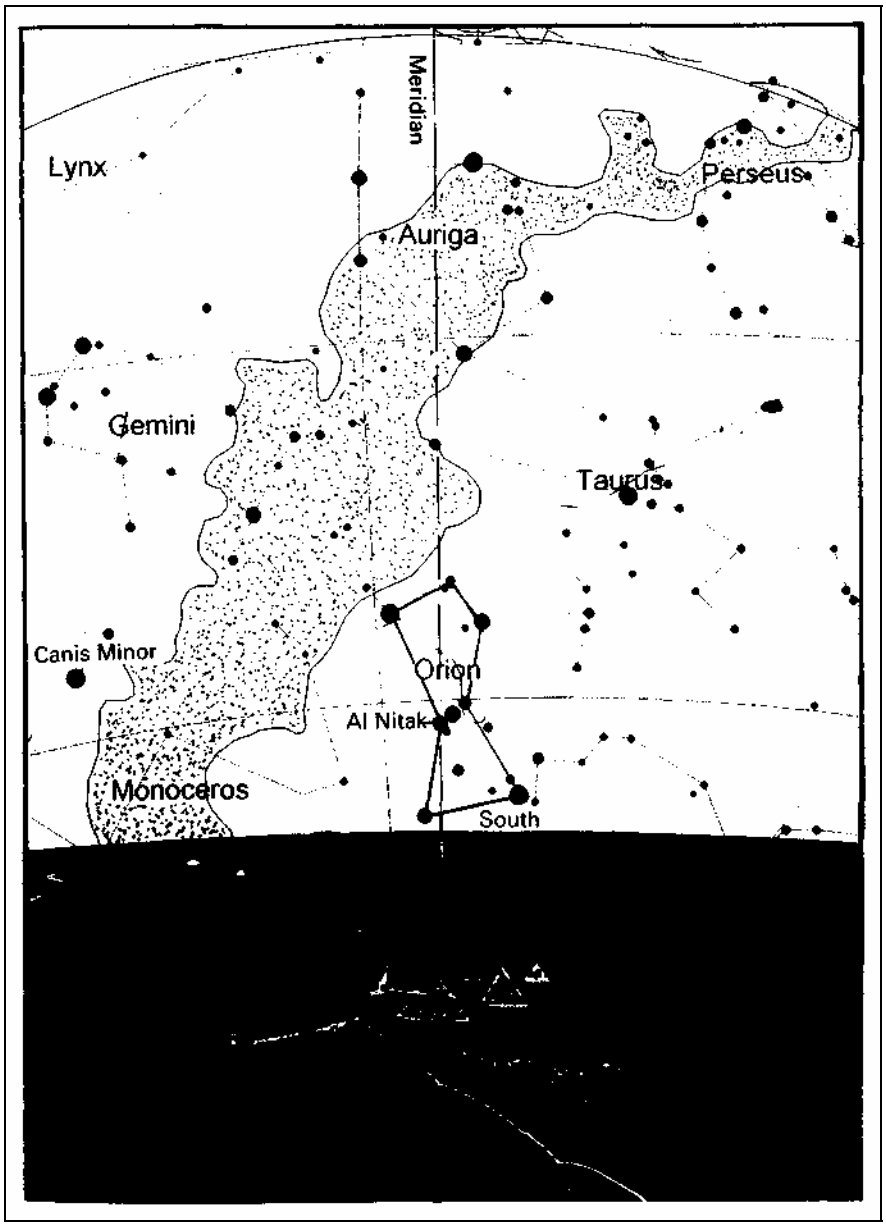

24. The perfect match of sky-ground images is achieved in 10,500 BC when the pattern of the Milky Way and of the three stars of Orion's belt at meridian transit is precisely matched by the course of the Nile and the pattern of the three great Pyramids on the ground.

We should expect to see a perfect meridian-to-meridian alignment at this point. Instead we notice that the dominant axis of the three stars and the Milky Way lies tilted conspicuously askew relative to the dominant axis of the three Pyramids and the Nile. These latter, of course, are fixed in their places. What is required, therefore, in order to achieve the 'ideal' sky-ground arrangement, is somehow to 'rotate' the heavens in an anticlockwise direction.

The vast cosmic engine of the earth's axial wobble offers us a mechanism by which this can be done: we need only instruct our

computer to track the precessionally induced movements of the stars backwards in time.

As it does so, millennium by millennium, we observe that the orientation of Orion's belt at culmination is slowly rotating anti-clockwise and thus approaching ever closer to our desired meridian-to-meridian match. It is not until 10,500 BC, however—8000 years *before* the 'Pyramid Age'—that the perfect correlation is finally achieved with the Nile mirroring the Milky Way and with the three Pyramids and the belt stars identically disposed in relation to the meridian.[9]

Rising stars

There is a feature of this 10,500 BC correlation which suggests strongly that coincidence is not involved. The pattern that is frozen into monumental architecture in the form of the Pyramids marks *a very significant moment* in the 25,920-year precessional cycle of the three stars of Orion's belt—one that is unlikely to have been randomly selected by the Pyramid builders.

To get a clear grasp of what is involved here let us call up a computer simulation of the skies over Giza in our own epoch, *circa* AD 2000. Looking due south we note that *Al Nitak* crosses the meridian at an altitude of 58 degrees 06' above the horizon. This, as it happens, is within 8 minutes of the highest altitude that this star will attain in its precessional cycle, i.e. 58 degrees 14' (to be reached at around AD 2500).[10]

Let us now project our simulation backwards in time and recreate the sky as we would see it if we were standing in the same position at around 10,500 BC—i.e. just under 13,000 years, or half a precessional cycle, earlier. In this remote epoch we discover that *Al Nitak* crosses the meridian at an altitude of only 9 degrees 20' above the horizon.[11]

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[9] Ibid., pp. 179-96.

[10] See *The Orion Mystery,* op. cit., p. 192.

[11] Using the rigorous formula of precession corrected for nutation, aberration of starlight, proper motion (from the most recent Yale Bright Star Catalog) and parallax, gives *circa* 10,500 BC as the epoch that Orion's belt reached its lowest altitude (9 degrees 25' measured at the south meridian, i.e. declination 50 degrees 35').

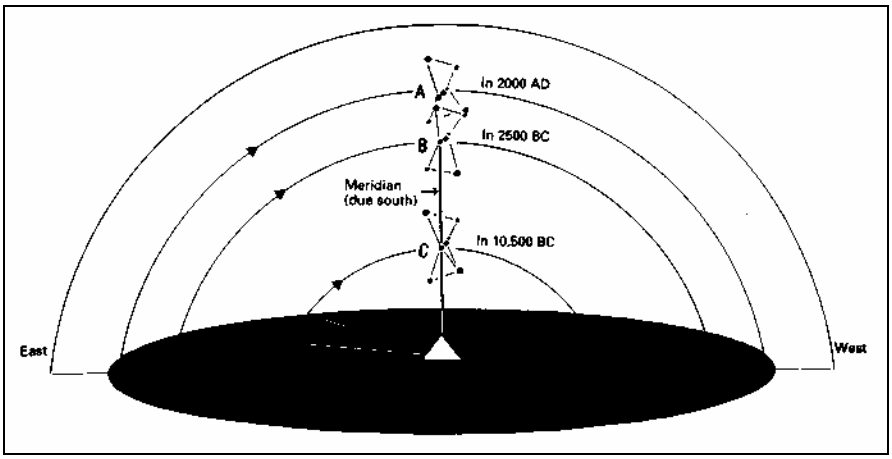

25. By mimicking the sky pattern of Orion's belt in 10,500 BC the three great Pyramids of Giza mark a very significant moment in the 20,000-year precessional cycle of these stars—the lowest point in their slide up and down the meridian, when (as seen from the latitude of Giza) they culminated at an altitude of 9 degrees 20 minutes above the horizon (C). In 2500 BC they culminated at altitude 45 degrees (B). In our own epoch, 2000 AD (A) they are approaching the highest altitude that they will attain in their precessional cycle—58 degrees 06 minutes above the horizon at meridian transit.

It will never fall lower, the epoch of 10,500 BC marks the nadir of the star's precessionally induced slide up and down the meridian (just as the epoch of AD 2500 marks its zenith). Like a slowly moving lever in a narrow vertical slot, it takes 12,960 years to descend from top to bottom, and a further 12,960 years to ascend from bottom to top again.[12]

By exactly mimicking the disposition of the belt stars in the sky in 10,500 BC the layout of the Pyramids on the ground thus not only signifies a specific epoch but also rather precisely and surgically marks the *beginning* of a precessional half-cycle.

Lion on the ground, lion in the sky

As was pointed out in *Fingerprints, of the Gods,* the same role is played by the Great Sphinx—which gazes directly at the equinoctial rising point of the sun in any and every epoch, past, present and future, for ever.

[12] Giving a full precessional cycle of 25,920 years.

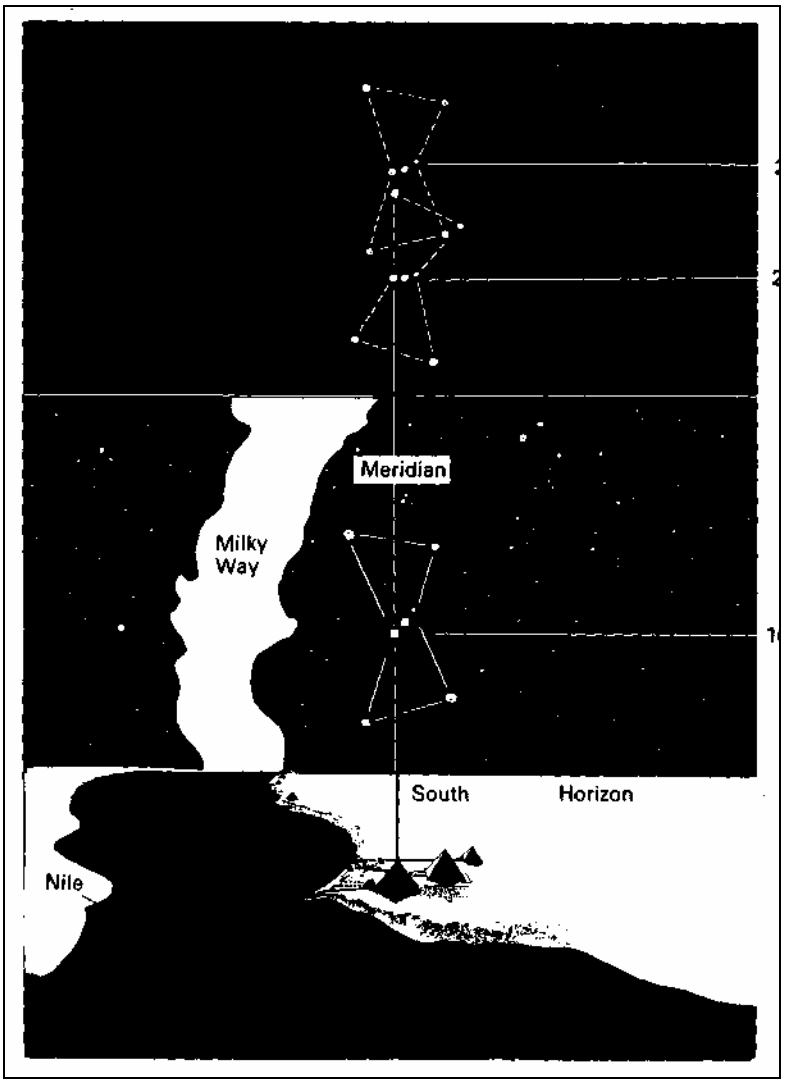

26. Artist's impression showing the precessional cycle of Orion's belt up and down the meridian. The pattern of the stars in 10,500 BC marks the beginning, or 'First Time', of the cycle. It is this pattern that is reproduced on the ground by the three great Pyramids of Giza.

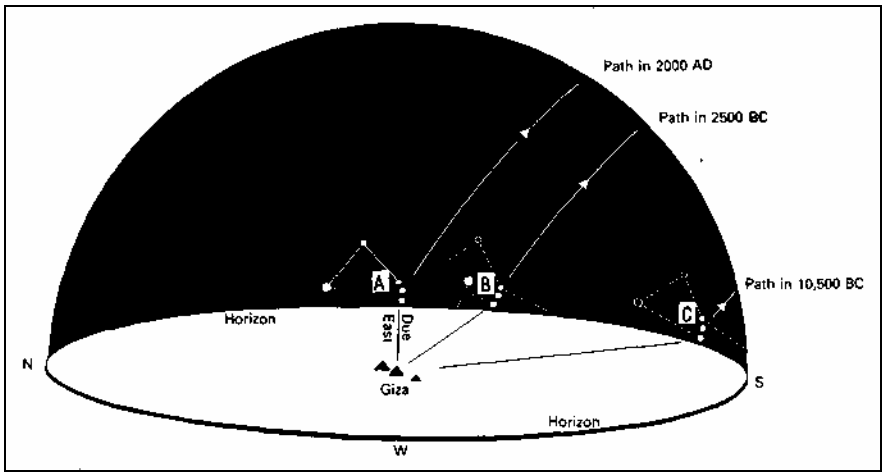

27. The rising points and trajectory of Orion's belt in (A) 2000 AD, (B) 2500 BC, (C) 10,500 BC.

This orientation provides us with an astronomical basis for dating the monument because it is known that the attention of astronomers in ancient times was particularly focused on the zodiacal constellation—considered to define the astrological 'Age'—that rose just ahead of the sun in the eastern sky at dawn on the spring equinox.[13] The same phenomenon of the earth's axial precession that affects the altitude of stars at the meridian also affects these famous constellations—Leo, Cancer, Gemini, Taurus, Aries, Pisces, Aquarius, etc., etc—the co-ordinates of which, in relation to the rising point of the equinoctial sun, undergo slow but continuous precessionally induced changes. The result is a hard-to-observe astronomical phenomenon, known as the precession of the equinoxes, which manifests as a gradual circulation of the equinoctial point around all twelve 'houses' of the zodiac. In the words of historians of science Giorgio de Santillana and Hertha von Dechend, whose essay *Hamlet's Mill* is a ground-breaking study of archaic precessional mythology:

> The constellation that rose in the east just before the sun (that is, rose heliacally) marked the 'place' where the sun rested ... It was known as the sun's 'carrier', and as the main 'pillar' of the sky. ... The sun's position among the constellations at the vernal [spring] equinox was the pointer that indicated the 'hours' of the precessional cycle—very long hours indeed, the equinoctial sun occupying each zodiacal constellation for just under 2200 years.[14]

In our own epoch the sun on the spring equinox rises against the stellar background of the constellation of Pisces, as it has done for approximately the last 2000 years. The 'Age of Pisces', however, is now approaching its end and the vernal sun will soon pass out of the sector of the Fishes and begin to rise against the new background of Aquarius. To

[13] For a detailed discussion see Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill,* Godine, Boston, 1977.
[14] Ibid., p. 59.

be precise, it takes exactly 2160 years for the equinoctial point to pass completely through one constellation or 'house' of the zodiac.

With this process in mind, let us now reverse Santillana and von Dechend's 'precessional clock'. Passing back through the Age of Pisces (and the Age of Aries that preceded it) we find that in the epoch of 2500 BC, when the Sphinx is conventionally assumed to have been built, it was the constellation of Taurus that housed the sun on the spring equinox.

It is here that the crux of the problem lies. To state the case briefly:

1. The Sphinx, as we have seen, is an equinoctial marker—or 'pointer'.

2. On a site that is as profoundly *astronomical* as Giza one would naturally expect an equinoctial monument dating from the 'Age of Taurus' either to have been built in the shape of a bull, or at any rate to symbolize a bull. The Sphinx, however, is emphatically *leonine* in form.

3. It is a simple fact of precession that one must go back to the 'Age of Leo' beginning at around 10,500 BC, in order to obtain the 'correct' sky-ground symbolism. This, as it turns out, is the only epoch in which the due-east-facing Sphinx would have manifested exactly the right symbolic alignment on exactly the right day—watching the vernal sun rising in the dawn sky against the background of his own celestial counterpart.[15]

To clarify this latter notion, let us return to our computer simulation of the skies over Giza in 10,500 BC, instructing the program to recreate the positions of the sun and stars just before dawn on the spring equinox in that epoch. And let us set our direction of view due east in line with the gaze of the Sphinx. Indeed, with the aid of a little virtual reality and poetic license, let us imagine that we are standing between the paws of the Sphinx itself at that date—a date that we already know accords rather well with the *geology* of the monument.

What we would see, occupying the portion of the sky into which the sun is about to rise, would be the splendid zodiacal constellation of Leo—a constellation that very strongly resembles its namesake the lion and thus also the leonine Sphinx.

[15] See *Fingerprints of the Gods,* op. cit., pp. 454-8.

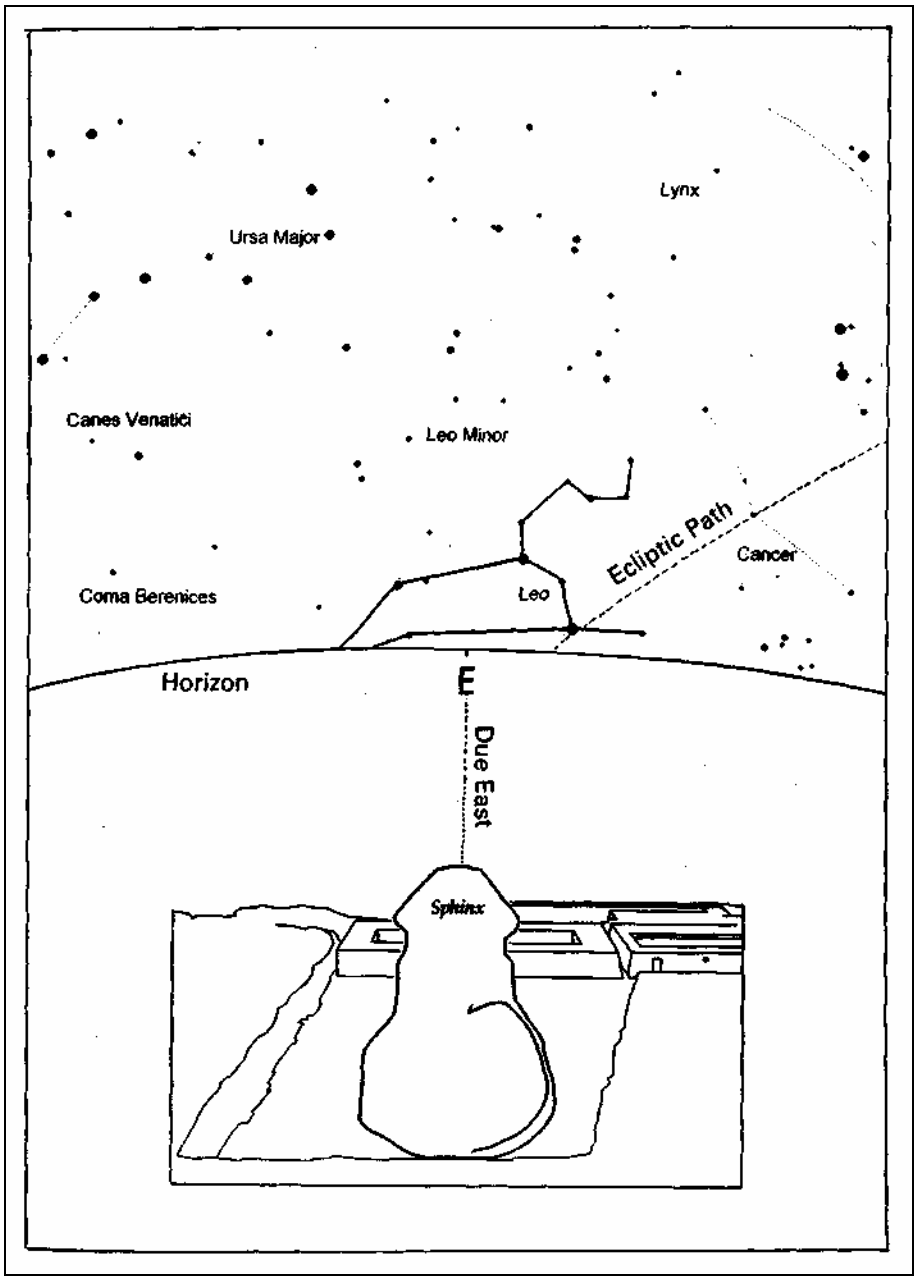

28. In the pre-dawn on the vernal equinox in 10,500 BC, with the sun some 12 degrees below the horizon, the Great Sphinx would have gazed directly at his own celestial counterpart, the constellation of Leo—which experienced what astronomers call its heliacal rising at this moment.

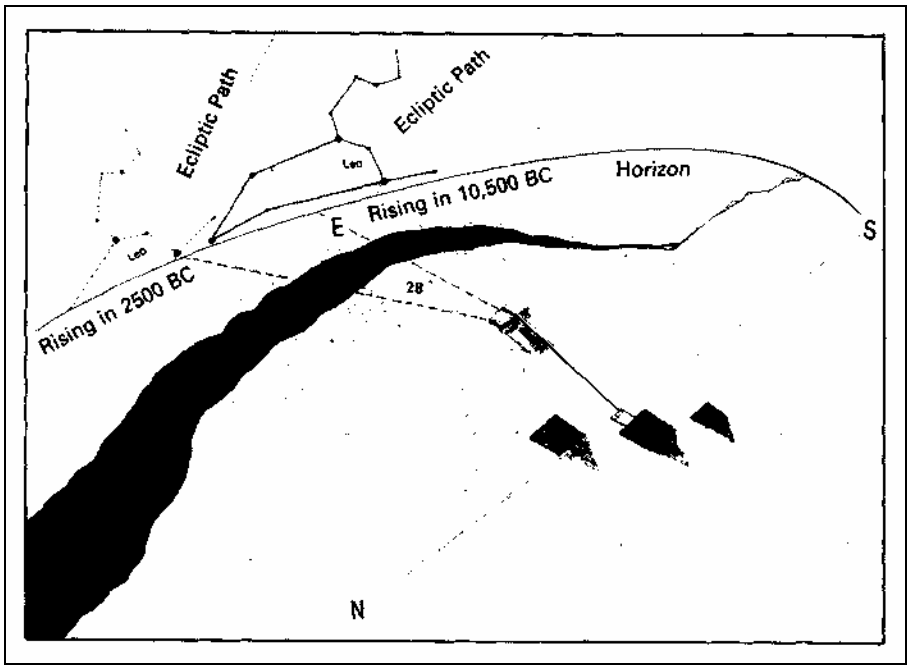

29. Superimposed images of the rising of Leo in 2500 BC, when the Great Sphinx is presumed by archaeologists to have been built, and in 10,500 BC. It is only in this latter epoch that the perfect sky-ground correlation is attained, at the heliacal rising of Leo, when the Sphinx would have gazed directly at his own celestial counterpart in the pre-dawn.

The minutes pass. The sky begins to lighten. Then, at the exact moment at which the top of the solar disc breaks over the horizon directly ahead of us we make a 90-degree right turn—so that we are now looking due south. There, culminating at the meridian at altitude 9 degrees 20', we observe the three stars of Orion's belt forming a pattern in the sky that is identical to the ground plan of the Giza Pyramids.

The question reduces to this: is it a coincidence, or more than a coincidence, that the Giza necropolis as it has reached us today out of the darkness of antiquity is still dominated by a huge equinoctial lion statue at the east of its 'horizon' and by three gigantic Pyramids disposed about its meridian in the distinctive manner of the three stars of Orion's belt in 10,500 BC?

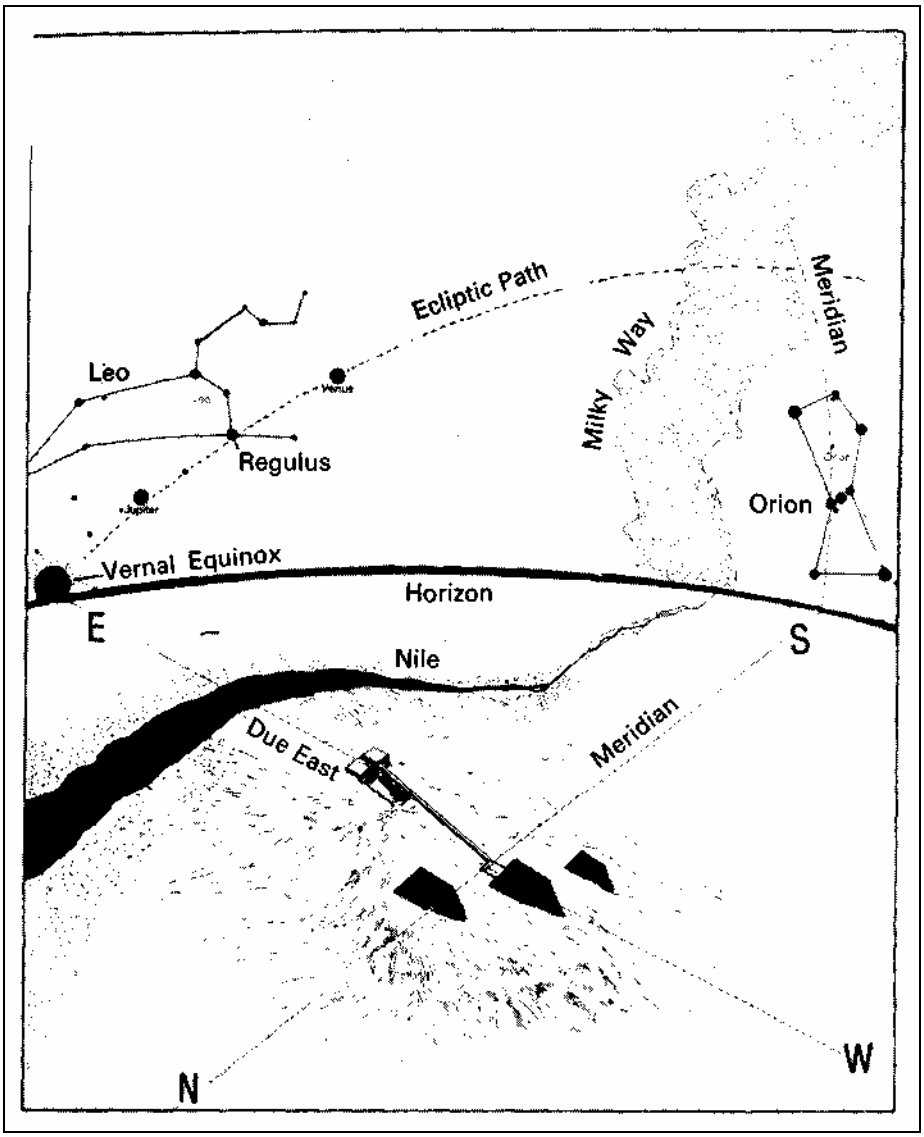

30. The moment of sunrise on the vernal equinox in 10,500 BC. *At* the exact moment that the top of the solar disc broke over the horizon due east in direct alignment with the gaze of the Sphinx the three stars of Orion's belt culminated at the meridian in the pattern that is mimicked on the ground by the three great Pyramids. Sphinx and Pyramids thus appear to 'work together' as an architectural representation of this unique celestial conjunction.

And is it also a coincidence that the monuments in this amazing astronomical theme park manage to *work together*—almost as though geared like the cog-wheels of a clock—to *tell the same 'time'?*

Throughout the ancient world the moment of sunrise, and its conjunction with other celestial events, was always considered to be of great importance.[16] At the spring equinox in 10,500 BC, as should by now be obvious, a particularly spectacular and statistically improbable

[16] For a discussion see J. Norman Lockyer, *The Dawn of Astronomy,* MIT Press, 1973, pp. 60-1ff.

conjunction took place—a conjunction involving the moment of sunrise, the constellation of Leo and the meridian transit of the three stars of Orion's belt. It is this unique celestial conjunction (which furthermore marks the *beginning* of the 'Age of Leo' and the *beginning* of the upwards precessional cycle of the belt stars) that the Great Sphinx and the three Pyramids of Giza appear to model.

But why should the ancients have sought to create a simulacrum of the skies on the ground at Giza?

Or, to put the question another way, why should they have sought to bring down to earth an image of the heavens?

Motive in the texts

There exists an ancient body of writings, compiled in Greek in the Egyptian city of Alexandria in the early centuries of the Christian era, in which sky-ground dualisms form a predominant theme, linked in numerous convoluted ways to the issue of the resurrection and immortality of the soul. These writings, the 'Hermetic Texts', were believed to have been the work of the ancient Egyptian wisdom god Thoth (known to the Greeks as Hermes), who in one representative passage makes the following remarks to his disciple Asclepius: 'Do you not know, Asclepius, that Egypt is an image of heaven? Or, so to speak more exactly, in Egypt all the operations of the powers which rule and work in heaven have been transferred down to earth below?'[17] The purpose to which these powers were harnessed, in the Hermetic view, was to facilitate the initiate's quest for immortality.

Curiously, precisely such a quest for precisely such a goal—'a life of millions of years'—is spelled out in ancient Egyptian funerary texts which supposedly pre-date the Hermetic writings by thousands of years. In one of these texts, *Shat Ent Am Duat*—the *Book of What is in the Duat*—we find what appears to be an explicit instruction to the initiate to build a replica on the ground of a special area of the sky known as the 'hidden circle of the Duat': 'Whosoever shall make an exact copy of these forms ... and shall know it, shall be a spirit and well equipped both in heaven and earth, unfailingly, and regularly and eternally.'[18]

Elsewhere in the same text we hear again of 'the hidden Circle in the *Duat* ... in the body of Nut [the sky]': 'Whosoever shall make a copy thereof ... it shall act as a magical protector for him both in heaven and upon earth.'[19]

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[17] From *Hermetica,* Sir Walter Scott trans., Shambhala, Boston, 1993, *Asclepius III*:24b, p. 341.

[18] From the eleventh division of the *Duat,* in the 'Book of What is in the Duat', Sir E. A. Wallis Budge trans., in *The Egyptian Heaven and Hell,* Martin Hopkinson & Co, London, 1925, p. 240.

[19] Ibid., the twelfth division of the *Duat,* p. 258.

We suspect that the ideas expressed in such utterances may hint at the true motive for the construction of the huge astronomical monuments of the Giza necropolis and may help us to find a coherent explanation for their precise alignments to the cardinal directions of the sky, their unique 'star shafts', and their intense celestial symbolism. At any rate, as we shall demonstrate in Parts III and IV, it is a fact that the *Duat* sky-region described in the ancient Egyptian texts was dominated by the constellations of Orion and Leo—both of which appear to have been 'imaged' on the ground at Giza (with the former additionally targeted by the southern shaft of the King's Chamber in the Great Pyramid)—and by the star Sirius, which was targeted by the southern shaft of the Queen's Chamber. We also note in passing that the internal corridor, passageway and chamber systems of the Pyramids very closely resemble surviving vignettes (painted on Eighteenth Dynasty tomb walls) of various regions of the *Duat.* Of particular interest in this regard is the mysterious 'Kingdom of Sokar' in the 'Fifth Division of the *Duat* in which 'travellers upon the way of the holy country ... enter into the hidden place of the *Duat*.'[20]

As we shall also see in Parts III and IV, there are the repeated references in the *Book of What is in the Duat,* and in numerous other funerary and rebirth texts, to *Zep Tepi,* the 'First Time'—the remote epoch when the gods were believed to have come to earth and established their kingdom in Egypt.[21] Those gods included Thoth-Hermes, the 'Thrice-Great' master of wisdom, the goddess Isis whose celestial counterpart was the star Sirius, and Osiris, the 'once and future king', who was killed, revenged by his son Horus, and then reborn to live for ever as the 'Lord of the *Duat*'.[22]

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[20] Ibid., p. 70.
[21] For a discussion see *The Orion Mystery,* op. cit., pp. 179-84; *Fingerprints of the Gods,* op. cit., p. 380ff.
[22] Ibid. See also E. A. Wallis Budge, *The Gods of the Egyptians,* Dover Publications Inc., New York, 1969.

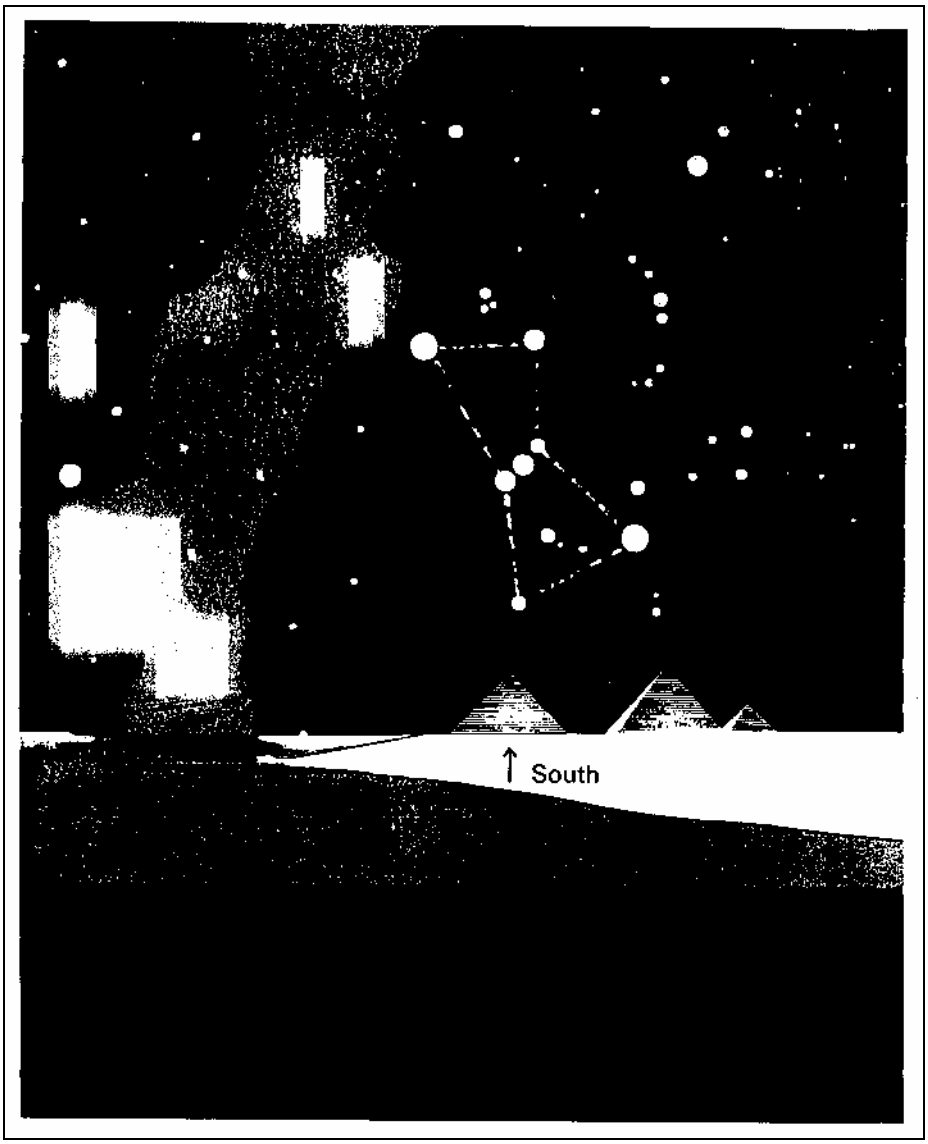

31. Artist's impression of the 'First Time' of Orion-Osiris.

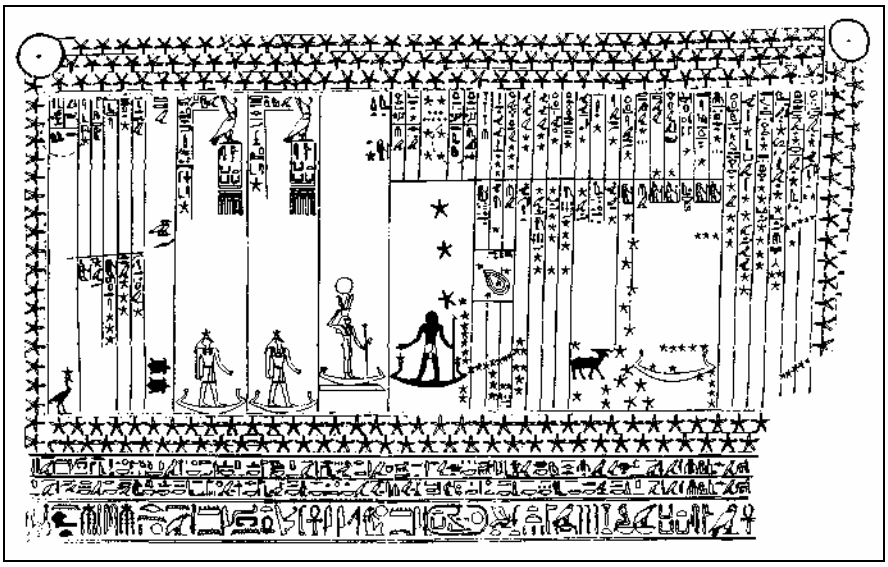

32. The celestial counterpart of Osiris was Orion, a constellation that the ancient Egyptians knew as *Sah,* the 'Far Strider', and depicted (as in the central register of this vignette from the tomb of an ancient Egyptian architect named Senmut) by means of the three characteristic belt stars.

The celestial counterpart of Osiris was Orion—a constellation that the ancient Egyptians knew as *Sah,* the 'Far-Strider' and most frequently depicted by means of the three characterstic belt stars. And since Osiris was said to have ruled in the 'First Time' we wonder whether this could be the reason why the three great Pyramids of Giza depict the three stars of Orion's belt as they looked 12,500 years ago at what might reasonably be defined as their astronomical 'First Time'—i.e. at the beginning of their current upwards precessional cycle?

An even bigger question, upon which much of our investigation hinges, concerns the identification of the Sphinx with the constellation of Leo—and specifically with the constellation of Leo when it marked the spring equinox in 10,500 BC. In Parts III and IV we will follow astronomical clues, laid out in the ancient Egyptian texts, which strongly support this identification and which offer intriguing hints as to its implications.

Fundamental questions

If the monuments of the Giza necropolis were of no significance in the human story then problems in the study and interpretation of these monuments would be of no significance either. But this site could hardly be more significant. Indeed, there is a sense in which it has always been with us. It is a marker of our history—a memorial to the genesis of our civilization—and it may still have vital information to give us about ourselves. More than any other ancient place, in other words, Giza raises, and might possibly answer, all the old, fundamental questions: who we are, where we came from, perhaps even where we are going. For these

reasons we can hardly afford to be indifferent to the Great Sphinx and the three great Pyramids. For these reasons the quality of research that has been carried out around them—and that has defined and explained them—really does matter.

As we shall see in Part II this research has become strangely tangled up with an ancient tradition of quest for hidden chambers and lost records at Giza ...

Part II

Seekers

Chapter 5

The Case of the Psychic, the Scholar and the Sphinx

'There has been one systematic search, a sort of direct shot at finding the Hall of Records, when the Edgar Cayce Foundation funded SRI International ...'

Dr. Mark Lehner, Edgar Cayce Foundation and ARE Magazine *Venture Inward,* 1985

There is a tradition which asserts that the Giza monuments stand as a last and grand memorial to a highly advanced antediluvian civilization that was destroyed by a 'Great Flood'. This tradition also holds that somewhere at Giza, either beneath the Great Sphinx or within the Great Pyramid itself, is concealed a 'Hall of Records' in which is preserved the entire knowledge and wisdom of the lost civilization.

Such ideas may be of very archaic origin[1] and have continued throughout history to inspire investigations at Giza. In the fourth century AD, for example, the Roman Ammianus Marcellinus directed treasure-hunters to search for 'certain underground galleries in the Pyramids', constructed as repositories for scrolls and books of past ages and intended 'to prevent the ancient wisdom from being lost in the Flood.'[2]

Likewise, many of the Arab chroniclers from about the ninth century AD onwards seem to have had access to a common source of information which caused them to agree that the Great Pyramid was built 'before the Flood' as a repository for scientific knowledge. Caliph Al Mamoun, who forced a tunnel into the northern face of the monument in AD 820, did so out of a conviction that he was entering a relic from antediluvian times

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[1] The tradition that important 'records' were brought to Egypt 'after the flood' i.e. after 10,000 BC, goes back to at least the third century BC. It is found, for example, in *The Book of Sothis* (commented upon by the Byzantine historian Georgios Synecellus who lived in the ninth century AD) and which some scholars attribute to the Egyptian scribe, Manetho (See Garth Fowden, *The Egyptian Hermes,* Princeton University Press, New Jersey 1993, pp. 29-33). The idea is also planted in the *Kore Kosmou* (Excerpt XXIII of the Hermetic writings) of the first and second century AD (See *Hermetica,* op. cit., p. 461). In the *Kore Kosmou* (section 8) the goddess Isis claims that Thoth deposited in a secret place the 'sacred books' which contained 'the secret things of Osiris ... these holy symbols of the cosmic elements' and then cast a spell that these books shall remain 'unseen and undiscovered by all men who shall go to and fro on the plains of this land until the time when Heaven, grown old, shall beget organisms [i.e. humans] worthy of you ...'

[2] 2 Andrew Tomas, *From Atlantis to Discovery,* Robert Hale, London 1972, p. 109.

which had been charged by its maker with the secrets of 'all profound science', which could 'convey knowledge of both history and astronomy',[3] and which would be found to contain 'a secret chamber with maps and terrestrial spheres'.[4]

In a similar vein, a number of ancient Egyptian inscriptions and papyri make tantalizing statements about hidden chambers—the Chamber of Archives, the Hall of Records, etc., etc.—which have been interpreted as references to a hypogeum beneath or close by the Sphinx.[5] And Coptic legends report that 'there exists a single subterranean chamber under the Sphinx with entrances to all three Pyramids ... Each entrance is guarded by statues of amazing abilities.'[6]

In modern times, ideas such as these have been kept very much alive in the doctrines of speculative Freemasonry[7] and in the teachings of esoteric schools like the AMORC Rosicrucians of California and the Theosophical Society of London and Madras. In addition, from the 1920s to the 1940s, almost identical notions were expressed with curious vehemence by the American psychic Edgar Cayce, known to some as the 'Sleeping Prophet'.

Since an examination of 'psychic intuitions' would take us far beyond the intended scope of this book we shall offer no opinions on the merits or the sources of Cayce's information. What we do find relevant to our investigation, however, is that his pronouncements concerning a supposed Atlantean 'Hall of Records' at Giza have quietly spawned a multimillion-dollar New Age industry that has embroiled itself deeply with mainstream Egyptological research into the Pyramids and the Sphinx.

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[3] Ibn Abd Alhokim and the Arab Manuscripts of Ibn Khurradhbih and Lohfat, cited by Joseph R. Jochmans, *The Hall of Records,* unpublished manuscript, 1985, p. 174. See also John Greaves, *Pyramidographia,* 1646, translation from the Arabic of Ibn Alhokim.

[4] Peter Tompkins, *Secrets of the Great Pyramid,* Allen Lane, 1972, p. 6.

[5] The famous Westcar Papyrus in the (east) Berlin Museum suggests that a secret chamber or chambers were concealed in the 'horizon' of Cheops—i.e. the alleged builder of the Great Pyramid (See *The Orion Mystery,* op. cit., Appendix 3). The term 'Horizon', however, could mean either the Great Pyramid itself or the whole necropolis of Giza, thus including the Sphinx. Spell 1080 of the Coffin Texts (*c.* 2000 BC) speaks of a secret 'sealed thing' belonging to Osiris of Rostau (Giza) and spell 1087 suggests that it was 'writing material' linked to Heliopolis (Djedu, the 'Pillar City'), and hidden somewhere in the desert sands.

[6] These Coptic traditions were recorded by the Arab chroniclers Al Qodai, Al Masudi and Al Maqrizi, cited in Jochmans, *The Hall of Records,* op. cit., p. 210.

[7] The so-called 'Old Charges' of Freemasonry speak of a certain Hermenes (obviously Hermes, i.e. Thoth) who preserved the 'crafts' by carving their knowledge on sacred pillars or obelisks (see Fred L. Pick and G. Norman Knight, *The Pocket History of Freemasonry,* Frederick Muller Ltd., London 1983, p. 32). It is generally accepted that much of the 'Egyptian' esoteric strain in Freemasonry, Rosicrucianism and, to a certain extent, the Theosophists, comes from the so-called Hermetic Tradition that developed in Europe in the late Italian Renaissance but drew its source from the Greek and Coptic texts known as the Hermetic writings (see Frances A. Yates, *Giordano Bruno and the Hermetic Tradition,* University of Chicago Press, Chicago 1991; also *The Rosicrucian Enlightenment,* Ark Paperbacks, London 1986, p. 212).

We first learned about this unexpected involvement—unexpected because psychics and Egyptologists are normally about as hard to mix as chickens and polecats—when reviewing the numerous studies and excavations undertaken at Giza by the American Egyptologist, Mark Lehner. As the reader will recall from Part I, Professor Lehner has gone on record several times during the 1990s to oppose the theory of a 12,500-year-old Sphinx—and any notion of a Hall of Records beneath it. During the 1970s and 1980s, however, he was directly involved with the followers of Edgar Cayce and with their distinctive beliefs about the secrets and mysteries of Giza.

Trancing the Hall of Records

The management of the Edgar Cayce 'industry' is largely entrusted to a corporation known as the Edgar Cayce Foundation (ECF), and to the affiliated Association for Research and Enlightenment (ARE), both of which are headquartered in the US coastal town of Virginia Beach. The first impression that most visitors get on arrival here is of a sort of medical clinic or retirement home located with a calming view of the ocean in mind. The windows of the principal building, which are made of opaque glass, are a little disconcerting. But reassurance is provided by a large black-and-white sign, visible from the parking lot, which reads:

A.R.E.
EDGAR CAYCE FOUNDATION
Atlantic University Visitor Center
School of Massage
Bookstore

Edgar Cayce was born in Hopkinsville in Kentucky in 1877. At the age of twenty he suffered from a speech impediment. After fruitless attempts to have it diagnosed by local doctors, he discovered that he could put himself into a deep trance and somehow diagnose the disorder and dictate a remedy. Cayce was urged to try his technique on others—with results that were so spectacularly successful that within months he had gained an immense reputation as a 'healer' with the gift of inner vision. All sorts of desperate people flocked to Virginia Beach to be diagnosed by the 'Sleeping Prophet'.

In his trances Cayce would also give psychic 'readings' to his enthusiastic followers—readings that were taken down in shorthand by a secretary.[8] Cayce would always claim to have absolutely no recollection of

[8] Harmon Hartzell Bro, *Edgar Cayce: A Seer Out Of Season,* Signet Books, New York 1990, pp. 43-4. Cayce's life-long secretary was Gladys Davis, described as 'an attractive honey-blonde', whom Cayce believed to be his 'reincarnated' daughter, Iso, from

what happened during these trances, but the 'readings' show that he frequently spoke to his followers about their 'past lives' in a remote epoch—the epoch of 'Atlantis', before and after the terrible deluge which supposedly destroyed that fabled continent. Altogether some 700 of Cayce's 'life readings'—now available on CD-ROM—expound in one way or another on the so-called 'Atlantean' story which begins with 'humankind's arrival on earth some ten million years ago, and ends with the sinking of the last remnants of Atlantis [prior to] 10,000 BC'.[9]

The essential message of these readings is that a number of 'Atlanteans' escaped the destruction of their continent and somehow reached the Nile Valley in Egypt in the eleventh millennium BC. Cayce himself claimed to be the reincarnation of their high priest Ra-Ta. According to Dr. Douglas G. Richards, director and researcher at the Atlantic University (which is part of the Edgar Cayce Foundation): 'many who received life readings [from Cayce] were said to have been associated with him in this past life' in prehistoric Egypt.[10]

One of the most persistent accounts given by Edgar Cayce during his deep trances concerned:

> References and clues [which] indicate Egypt as a repository for records—records of Atlantis and ancient Egypt during the time of Ra-Ta, which may some day be found. They also mention again and again tombs and pyramids yet to be uncovered in Egypt, and give specific dates for the building of the Great Pyramid.[11]

The chronology that Cayce gave for this latter enterprise was '10,490 to 10,390 BC'.[12] He also stated: '... some 10,500 [years] before the coming of the Christ ... there was first that attempt to restore and add to that which had been begun and what is called the Sphinx ...' Also at around 10,500 BC the Cayce readings state that a vast underground repository was established containing a library of wisdom from the lost civilization of Atlantis: 'This in position lies, as the sun rises from the waters, the line of shadow (or light) falls between the paws of the Sphinx ... Between, then, the Sphinx and the river ...'[13] In another reading Cayce gave even more specific directions: 'There is a chamber or passage from the right forepaw [of the Sphinx] to this entrance of the record chamber ...'[14]

Atlantean times (Ibid., p. 245).

[9] Edgar Evans Cayce, Gail Cayce Schwartzer and Douglas G. Richards, *Mysteries of Atlantis Revisited: Edgar Cayce's Wisdom for the New Age,* Harper & Row,. San Francisco 1988, p. xxi.

[10] Ibid. p. 119. We have had the pleasure of meeting with the author, Douglas G. Richards, in July 1995 at the Edgar Cayce Foundation in Virginia Beach.

[11] Ibid. p. 120.

[12] Edgar Cayce 'Reading' on the Great Pyramid No. 5748-6. This 'reading' was given at his home on Arctic Crescent, Virginia Beach, Va., on 1 July 1932 at 4.10 p.m. EST.

[13] 'Reading' 378-16. See Mark Lehner, *The Egyptian Heritage: Based on the Edgar Cayce Readings,* A.R.E. Press, Virginia Beach 1974, p. 99.

[14] 'Reading' No. 5748-6. *The Egyptian Heritage,* op. cit., p. 119.

According to the readings, the Hall of Records is to be rediscovered and re-entered when 'the time has been fulfilled'—which, Cayce suggested, would be at or just before the close of the twentieth century, perhaps in 1998.[15] The readings allude frequently to the Old and New Testaments of the Bible, contain numerous references to Jesus, and depict the rediscovery of the Hall of Records as being linked in some way to a series of events that will prelude the 'Second Coming' of Christ.[16]

The Scholar

The corporate history of the Association for Research and Enlightenment (ARE) begins in 1931, when the management of the newly founded institute was entrusted to Edgar Cayce's eldest son, Hugh Lynn Cayce—who had just majored in psychology. His first task was to provide a repository for his father's growing library of psychic 'readings', a sort of modern 'Hall of Records' in Virginia Beach. This task was eventually completed after Edgar Cayce's death in 1945. Meanwhile the ARE continued to expand and today has flourished into a multimillion-dollar organization with over 40,000 members world-wide. Unsurprisingly, however, despite a diversity of interests, its major thrust continues to be to prove the validity of the Edgar Cayce readings. What this involves in practice is a concerted attempt to find the so-called 'Hall of Records' of Atlantis which, as we have seen, is believed to have been preserved at Giza since 10,500 BC under the Sphinx and which, as the prophet said, would be opened before the year 2000. As two of Cayce's own children recently confirmed:

> Over twenty years ago the ECF began to lay the groundwork for what would later become actual field work in Egypt. The specific areas of interest were the Sphinx, the Great Pyramid, and the immediate surrounding area known as the Giza plateau. The driving force for this research was Hugh Lynn Cayce. Motivated by his father's psychic readings, as well as a personal interest in archaeology, he turned his energies and enthusiasm to initiating solid archaeological research that might validate them ...[17]

In 1973 Hugh Lynn managed to round up a group of sponsors who were ready to finance a long-term strategy in Egypt. First and foremost this entailed providing an 'academic scholarship ... plus a small stipend' to a 'gifted individual' who could become a respected Egyptologist and gain the confidence of the leading lights of this stern profession.[18]

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[15] 'Reading' No. 294-151. See Thomas Sugrue, *There is a River: The story of Edgar Cayce,* A.R.E. Press, Virginia Beach, 1988, p. 393. See also Harmon Hartzell Bro, *A Seer Out Of Season,* op. cit., p. 247.
[16] Mark Lehner, *The Egyptian Heritage,* op. cit., p. 92. See also Harmon Hartzell Bro, *A Seer Out Of Season,* op. cit., p. 133.
[17] Edgar Evans Cayce, etc., *Mysteries of Atlantis,* op. cit., p. 121.
[18] Ibid, p. 131.

The 'gifted individual' chosen to receive the stipend was Mark Lehner,[19] until 1995 a Professor of Egyptology at the University of Chicago's world-famous Oriental Institute. Often referred to in Edgar Cayce literature as 'the scholar', it appears that some time in 1973 Lehner was earmarked by Hugh Lynn Cayce for a mission in Egypt which was envisaged as follows:

> The scholar could complete a degree in Cairo and gain first-hand experience and make contacts in his field. For the ECF [Edgar Cayce Foundation], such support could create a realistic perspective on research efforts in Egypt, produce contacts, and lead eventually to research involvement in this area. Although the scholar would be independent of the ECF, his presence in Egypt would serve as an effective liaison or channel for the ECF to develop long-term involvement there.[20]

Lehner arrived in Cairo in the fall of 1973 and studied at the American University near Al Tahrir Square—from whence he graduated in 1975 with high honours:

> After graduation the Edgar Cayce Foundation supported him as a research fellow for several years in the department of anthropology. During this time, the student not only continued his academic studies, but also made contacts with people and organizations well known for their research. These contacts made it possible for the ECF to sponsor—directly in some cases, and partially in others—actual field research.[21]

Proof under the paws

In 1974 Lehner published a book, *The Egyptian Heritage,* which is copyrighted to the Edgar Cayce Foundation and which bears the subtitle 'Based on the Edgar Cayce Readings'. Its prime objective is to substantiate Cayce's statements about the supposed 'Atlantean connection' in the prehistory of Egypt and the 'Hall of Records' established at Giza in 10,500 BC:

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[19] Confirmed by Douglas G. Richards, in a documented conversation by telephone in September 1995 (Richards is co-author with Edgar Evans Cayce and Gail Cayce Schwartzer of *Mysteries of Atlantis Revisited,* op. cit.). When we questioned Mark Lehner directly on this matter he replied in writing (pp. 1-2 of letter dated 15 October 1995): 'I believe I probably am the "scholar" in question. It was never expected that the outcome of the ECF's support of my Year Abroad at The American University in Cairo would be that I would become a "respected Egyptologist". ARE-affiliated people supported my stint in Egypt because Hugh Lynn Cayce asked them to. Neither he nor I were sure where it would lead. I think Hugh Lynn helped me to go to Egypt because we both had some sense of destiny about it in line with the common New Age notion that it was "meant to be".'

[20] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 131. In his letter of 15 October 1995 Mark Lehner commented on our draft text, which was supplied to him without footnotes: 'I do not know the reference for your note [20] but I suspect that rather than a prospectus written before I went to Egypt as a student at AUC, this summary was written in hindsight several years later than 1973.'

[21] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 132.

> According to the [Edgar Cayce} readings, it is a legacy which will soon be rediscovered, and will bear profound determinations—not only for the history of dynastic Egypt, but for the entire physical and spiritual epic of our evolution on this planet, and for the years yet to pass. [22]

In *The Egyptian Heritage* Lehner also informs us that:

> There are 1159 Edgar Cayce readings which contain references and information on the Ra-Ta period in Egypt. The story presented here has been culled from approximately 300 of these readings ... In presenting correlative Egyptological data I will attempt to demonstrate that there are good empirical reasons for believing that the Ra-Ta story is, in fact, rooted in truth. Of course, the final confirmation lies beneath the paws of the Sphinx at Giza ...[23]

Anomalies

Naturally the prime area of interest of the ECF/ARE in terms of 'actual field research' was—and remains—scanning, drilling and excavation in the vicinity of the Sphinx where the Cayce readings say that the 'Hall of Records' is located.

In 1973-4, while Mark Lehner was still a student at the American University in Cairo, the first in a series of serious pioneering projects was launched, using ground-penetrating radar and other high-tech remote sensing equipment to locate 'anomalies' under the bedrock beneath the Sphinx. These projects were channelled through well-established academic institutions—the Ain Shams University in Cairo and the prestigious Stanford Research Institute (SRI) in the USA.[24]

In 1977 the US National Science Foundation funded a project at Giza again involving the SRI. This time use was made of several new techniques such as resistivity measurements (from metal rods driven into the rock across which an electric current was passed), magnetometry, and also the latest aerial photography and thermal infrared image-enhancing techniques. According to the SRI team's official report: 'Several anomalies were observed as a result of our resistivity survey at the Sphinx ... Behind the rear paws (north-west end) we ran two traverses. Both traverses indicate an anomaly that could possibly be due to a tunnel aligned north-west to south-east ...'[25]

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[22] Mark Lehner, *The Egyptian Heritage,* op. cit., back cover text.

[23] Ibid., p. v.

[24] In his letter to us of 15 October 1995 Mark Lehner commented as follows: 'Neither I nor the Edgar Cayce Foundation had anything to do with the first two seasons of the SRI programme at the pyramids and elsewhere in Egypt. This is not clear in your text. The SRI "Science and Archaeology" Project picked up the work of Alvarez who used cosmic rays (before I arrived in Egypt) to analyze the Second Pyramid for undiscovered chambers. I met the SRI team in 1977 about the time they did preliminary resistivity measurements on the Sphinx. SRI was in the business of looking for hidden chambers at Giza well before I or the Edgar Cayce Foundation met up with them.'

[25] L. T. Dolphin, E. Moussa et. al., 'Applications of Modern Sensing Techniques to

Two other 'anomalies' were noted, deep in the bedrock 'in front of the paws of the Sphinx'.[26]

According to ECF/ARE historians the 1973-4 and 1977 projects 'paved the way for work ... that would succeed in discovering hidden chambers'.[27] Exactly how and where is not made clear. At any rate in 1978 the ECF/ARE collaborated with the SRI and provided funds (to the tune of about US$50,000[28]) for a more detailed survey of the Sphinx enclosure and the nearby Sphinx Temple. The survey was recorded in the SRI's own records as 'The Sphinx Exploration Project'. It entailed an extensive resistivity scan of the entire floor of the Sphinx and Sphinx Temple enclosures. Should any 'anomalies' be found, it was agreed that the SRI was to confirm them with acoustic sounding techniques. The next step was to have holes cut into the bedrock with precision drills through which borescope cameras could then be inserted.

Several anomalies beneath the bedrock were indeed identified and inspected in this way but proved to be just natural cavities.

A falling out

Also in 1978, US drilling experts from a company called Recovery Systems International (RSI) arrived at Giza with a telescopic diesel-powered drill and official permits, under the direction of an American named Kent Wakefield, to bore a number of holes deep beneath the Sphinx.[29] There was more of a connection between the SRI and the RSI than the anagram formed by their initials. Recovery Systems International, like the Edgar Cayce Foundation, apparently funded some of the SRI's programme at Giza, and made use of the SRI's resistivity readings to guide the placement of their drill holes. According to Mark Lehner, who was there at the time, Recovery Systems International was probably organized 'just for this project'.[30]

The equipment for RSI's work was air-freighted to Egypt and brought to the site where it was positioned in the Sphinx Temple, directly in front of the paws of the Sphinx itself. One hole was bored, uneventfully. A second hole was then drilled. Mark Lehner and Kent Wakefield examined this hole with a borescope and saw only 'Swiss-cheese-like solution cavities' which form naturally in limestone. The solid bottom of the hole was tapped with

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Egyptology', Menlo Park, Calif, SRI International, September 1977.

[26] Ibid. See also Zahi Hawass 'Update' to Sir W. M. Flinders Petrie's *The Pyramids and Temples of Gizeh,* Histories and Mysteries of Man Ltd., London 1990, p. 102.

[27] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 132.

[28] Mark Lehner's letter to us of 15 October 1995, p. 3.

[29] Cited in Jochmans, *The Hall of Records,* op. cit., p. 22ia. Confirmed in documented telephone conversation with project financier, 16 February 1995. Confirmed also by Mark Lehner in his letter to us dated 15 October 1995, p. 3.

[30] Mark Lehner's letter to us, 15 October 1995, p. 3.

a plumb-bob by Lehner who concluded that there was nothing unusual about it.[31]

Immediately afterwards the project was stopped. According to Mark Lehner this abrupt halt was 'due to lack of time [and] funds'.[32] Also it seems that Recovery Systems International 'did not appreciate at all the Cayce component of the project' and that this eventually led to a 'serious falling out between RSI and SRI'.[33]

Granite structures

Shortly after this episode, in 1979, as we shall see in further detail below, Mark Lehner got involved with the American Research Center in Egypt (ARCE for short)—which is the officially registered American Egyptological mission in Egypt.[34] At about the same time, Zahi Hawass, today the Director-General of the Giza Pyramids, was supervising excavations 165 feet to the east of the Sphinx Temple and hit bedrock at a depth of only six feet. A few months later, however—in 1980—Egyptian irrigation specialists checking for groundwater drilled in the same area, less than 100 feet away from the Hawass dig, and were able to go down more than 50 feet without impediment before their drill-bit suddenly collided with something hard and massive. After freeing the drill, much to their surprise, they found that they had brought to the surface a large lump of Aswan granite.[35]

No granite occurs naturally anywhere in the Nile Delta area where Giza is located, and Aswan—the source of all the granite used by the ancients at Giza—is located 500 miles to the south. The discovery of what appears to be a substantial granite obstacle—or perhaps several obstacles—50 feet below ground level in the vicinity of the Sphinx is therefore intriguing to say the least.

Adding to the intrigue were further discoveries that the SRI made around the Sphinx in 1982 as a result of yet another project financed by the Edgar Cayce Foundation.[36] Mark Lehner, who was once again present throughout, described what the SRI did as follows:

> They brought a very powerful acoustical sounder, which is a long pencil-shaped thing. They put it down a drill hole. This is called Immersion Downhole Acoustics. You have to be in water. So they put it down into the water table and it sent out sound waves in all directions. Then they put down a listener, like a

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[31] Ibid.
[32] Ibid.
[33] Ibid.
[34] See also Part I of the present work for further details of Mark Lehner's ARCE project on the Sphinx.
[35] Edgar Evans Cayce, etc., *Mysteries,* op. cit., pp. 142-3. The discovery of the granite was also confirmed to us by Mark Lehner in his letter, op. cit., p. 4.
[36] *Venture Inward,* May-June 1986, p. 57.

> stethoscope, and you get a signal on an oscilloscope if sound waves are coming through; if they're not, you don't. You discover fissures this way—on one side of the fissure there's no signal and on the other side there is.
>
> They put the sounder underneath the paw [of the Sphinx] and always got a good, clear signal—there's no underground cavity blocking it. And they put it along the paw between the elbow and that box on the side, around the outside of the box and into the corner, and there was always a good signal.
>
> But, at my prompting, they put it on the bedrock floor inside the box—and it was dead three places where they put it down, as though there is some kind of opening or empty space underneath that was blocking the signal. That was the very last day of the SRI project, and they never checked that out.[37]

Since 1982, we were surprised to learn, almost no further research has been officially authorized to investigate the numerous tantalizing hints of deeply buried structures and chambers in the vicinity of the Sphinx. The single exception was Thomas Dobecki's seismic work in the early 1990s. As reported in Part I, this resulted in the discovery of what appears to be a large, rectangular chamber beneath the forepaws of the Sphinx. Dobecki's investigations were part of the wider geological survey of the Sphinx led by Professor Robert Schoch of Boston University—a survey, as the reader will recall, that was brought abruptly to a halt in 1993 by Dr. Zahi Hawass of the Egyptian Antiquities Organization.

The mapping surveys

The American Research Center in Egypt (ARCE) has several times received ECF-ARE financing for its programme of investigations at Giza.[38] In 1979, for example, a proposal was made to the ARCE for a full-scale mapping survey involving the Great Sphinx and its enclosure in which use would be made of modern photogrammetric techniques to record every detail,

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[37] Ibid.

[38] See American Research Center in Egypt (ARCE) Newsletter No. 112, Fall 1980, p. 20 ('The American Research Center Gratefully acknowledges the support of the Edgar Cayce Foundation for the work of the Sphinx Project'). See also ARCE Newsletter No. 131, 1985, p. 44 (Mark Lehner of the ARCE wrote: 'We would like to acknowledge the financial sponsorship of ... Bruce Ludwig of TRW Realty in Los Angeles ... the Edgar Cayce Foundation ... Joseph and Ursula Jahoda of Astron Corporation in Falls Church, Va., ... Matthew McCauley of McCauley Music in Los Angeles ...'). Mr. Zahi Hawass, University of Pennsylvania, is specifically acknowledged as advisor and assistant to the project 'and we look forward to continued collaboration'. The Edgar Cayce Foundation also funded (with US$17,000) a project at Giza in 1983-4, which involved an attempt to apply Carbon-14 dating to the mortar (which contains certain organic compounds) used in the Great Pyramid. This project was arranged by Mark Lehner through the ARCE's director, Dr. Robert J. Wenke. We have met Joseph Jahoda several times at the Edgar Cayce Foundation in Virginia Beach in 1994-5 (see below), and also Matthew McCauley once at the Movenpick Hotel in Giza, Cairo, with Dr. Mark Lehner in March 1995 while researching this book.

crack, fissure, contour and outline of the monument. When the survey went ahead, Mark Lehner was appointed as its Field Director. Funders were the Edgar Cayce Foundation, the Chase National Bank of Egypt and the Franzhein Synergy group.[39]

Mark Lehner completed the mapping survey in 1983 and by 1984 his reputation was sealed as America's leading expert on the Sphinx. He was then appointed Director of the newly established and much more extensive and ambitious Giza Mapping Project, again under the auspices of the ARCE, and with some funding—again—coming from the Edgar Cayce Foundation and ARE. The major financial contributors were the Yale Endowment for Egyptology, General Dynamics, the multimillionaire David Koch, and a Los Angeles real-estate tycoon named Bruce Ludwig.[40] More recently the Giza Mapping Project has been superseded by the Giza Plateau Project which also numbers David Koch and Bruce Ludwig amongst its funders and which is also directed by Mark Lehner.[41]

Pulling away

When, exactly, Professor Lehner began to pull away from the influence of the Edgar Cayce Foundation and cross over into the mainstream of professional Egyptology and its orthodoxy is not especially clear. However, some light may be shed on the matter by an interview that he gave in August 1984 to Robert Smith, editor of the ARE magazine *Venture Inward.* The interview was published in two parts in the January-February issues of 1985. Asked about his work at Giza, Lehner explained:

> The history of my involvement began in 1972 when I went on an ARE tour. We stopped in Egypt for a week and I went out to the Giza plateau with a group, and then I went out to the Giza Pyramids again by myself and sat for awhile in the King's Chamber of the Great Pyramid. I wandered around the cemeteries that are outside the Pyramid, and something plugged into me about this place. I vowed that I would be back in a year, and so I was. I went back to study at the American University in Cairo. During that year before returning to Cairo, I enthusiastically researched the Cayce readings on Egypt and put together the book, *The Egyptian Heritage.* The readings describe not only a civilization in Egypt in 10,500 BC, but also, preceding that, the lost civilization of Atlantis, which was in its final days, according to the Cayce information, when the

[39] Edgar Evans Cayce, etc., *Mysteries,* op. cit., p. 138.

[40] *Smithsonian,* vol. XVII, No. I, April 1986. In his letter to us, op. cit., pp. 4-5, Mark Lehner commented: 'By the time I started the Mapping Project, Cayce support of my work was phasing out. I stopped accepting their support after the Pyramids Radiocarbon Project [see footnote 38 above and 44 below for fuller details] because my interests and theirs were becoming too divergent. I would have to check the date of their last contribution, but if they did contribute to the mapping project it was a very minimal percentage of total financial support. The primary financial sponsors have been the Yale Endowment for Egyptology, Bruce Ludwig and David Koch. Koch and Ludwig have supported the excavations that we started in 1988.'

[41] *Archaeology,* op. cit., Sept-Oct 1994, p. 41.

> Sphinx and the Pyramids were built ...[42]

Lehner then explained how he had come to realize that 'there's a great disparity between the dating of the monuments by professional scholars and that given in the Cayce readings'. He added that for him investigating the Sphinx was 'just a focus of a general metaphysical and spiritual quest'. This had led him to work, he elaborated, 'with the bedrock realities [and] ground truth'—realities that had made him bracket all his expectations and ideas and 'just deal with what the site has to offer'.[43]

In *Venture Inward* magazine of May-June 1986, Robert Smith published an illuminating report about a meeting that took place at the Edgar Cayce Foundation attended by Mark Lehner, Charles Thomas Cayce (President of the ARE), James C. Windsor (President of the Edgar Cayce Foundation), Edgar Evans Cayce, and other ARE officials. On the agenda was the evaluation of future ECF/ARE activities at Giza. Setbacks and mounting scientific evidence against the Cayce prophesies had caused some to question whether it was still worthwhile funding projects there. Ironically, much of the adverse evidence was being turned up by Lehner's research.[44] Robert Smith recounts the discussion that took place:

> 'What do we do next?' asked Edgar Evans Cayce, the younger son of Edgar Cayce and a member of the Board of Trustees.
>
> 'Should we drill more holes?' asked Charles Thomas Cayce, president of the ARE, and grandson of Edgar Cayce.
>
> Neither has given up the search for Ra-Ta. Lehner, the young archaeologist who has led the search at Giza for the past decade, wants to press on with it too.
>
> 'You are not as optimistic now about the prospects of vindicating some of the things that were said about this area in the readings,' noted James C. Windsor, President of the Edgar Cayce Foundation. 'Do you have any interest in the Hall of Records? Is it worth looking for?'
>
> 'Oh, absolutely,' replied Lehner. 'I think it is, but not in as tangible a way as I used to think.'[45]

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[42] The ARE Magazine, *Venture Inward,* 'The Search for Ra-Ta', by A. Robert Smith, January-February 1985, p. 7.
[43] Ibid., p. 6.
[44] The Edgar Cayce Foundation had commissioned and funded a Carbon-14 dating project of the Giza monuments directed by Mark Lehner in 1983-4. Apparently small charcoal samples were extracted from the ancient mortar in the core's joints. The results gave a wide range of dates for the Great Pyramid—between 3809 BC to 2853 BC—which is a few centuries earlier than the *c.* 2600 BC date assigned by Egyptologists, but very far from the 10,500 BC date given in the Cayce Readings. Although many doubts have been raised concerning the validity of the results (see *Venture Inward* issues May-June 1986 and November-December 1986), this, and other archaeological evidence Mark Lehner came across at Giza, appears to have undermined his beliefs in Cayce's readings. For further details of the carbon-dating see Appendix 5.
[45] *Venture Inward,* May-June 1986, p. 56.

Lehner went on to explain at length why various archaeological and scientific tests had frustrated his hopes that the Cayce readings might be linked to a suitably 'tangible' reality. 'Why then continue the search?' wondered Robert Smith.

'I have a sort of gut feeling that something is under the Sphinx and that something is out there at the pyramids in the way of a mystery,' said Lehner. 'I like to think of it as something kind of pulsating.'[46]

During the meeting at the Edgar Cayce Foundation, Charles Thomas Cayce reportedly asked Lehner whether it would be possible to drill holes at regular intervals in order to locate underground passages near the Sphinx, but Lehner felt that the Egyptians would 'balk' at this idea. He suggested in passing, however, that a certain American oil company official, who at that time was apparently working for an American museum might be interested in using his 'crack geophysical prospecting team' for explorations beneath the Sphinx.[47]

Since making these statements and proposals—because, he says, of what the site has taught him—Lehner has veered further and further away from the Edgar Cayce influence. Today he repudiates any notion of an earlier civilisation in 10,500 BC. Indeed, so complete does his conversion appear to have been that in a recent denunication of John West's geological theories concerning the Sphinx he felt compelled to state: 'I believe we have a professional responsibility to respond to notions—like those of Cayce and West—that would rob the Egyptians of their own heritage by assigning the origins and genius of Nile Valley civilization to some long-lost agent like Atlantis.'[48]

Lehner does not attempt to deny his own former involvement with the Edgar Cayce Foundation, or with ideas about Atlantis, but seeks instead to find ways to reconcile the origins of his former interests in 'mystical interpretations of the Pyramids and the Sphinx' with his present hardcore commitment to 'bedrock realities'. Lehner compares his situation to that of Sir W. M. Flinders Petrie, who had come to Egypt in the 1880s 'to test the mystical "pyramid inch" against the stone of Khufu's pyramid'—and found the 'pyramid inch' wanting.[49] Petrie, as we shall see in the next

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[46] Ibid., p. 57.

[47] Ibid.

[48] *KMT Magazine,* Spring issue 1995, p. 4.

[49] Ibid. In his letter to us, op. cit., p. 5, Lehner elaborated: 'I am happy that my professional work developed out of a more personal quest—call it what you will, philosophical, spiritual, ethical. Rather than look only for agreement with notions I had already conceived before coming to Giza—that is, what I wanted to be true—I looked for ways to test these and, later, other ideas about ancient Egyptian cultural development. I found few resemblances between the physical evidence and Cayce-derived ideas of an earlier civilization at Giza. But I did find the pyramids to be very human monuments. Because there is such an abundance of evidence of real people and an Egyptian society building the Sphinx and the Pyramids, it seems culturally chauvinistic to ascribe these monuments to a different, conveniently lost, civilization on the basis of "revealed" information and ambiguous patterns. My work is still part of a lifelong quest for

chapter, had followed in the footsteps of his father, William, and the notorious Astronomer Royal of Scotland, Piazzi Smyth—both of whom passionately believed that the Great Pyramid had been built under divine inspiration by the Israelites during their bondage in Egypt.[50]

Lunch with Mr. Cayce

In May 1994 we flew to New York and made our way by car to Virginia Beach in Norfolk, Virginia, where the headquarters of the Edgar Cayce Foundation, and its partner organization the Association for Research and Enlightenment, are located. We wanted to explore the unexpected connections that this organization had at one time enjoyed with Mark Lehner, and were curious to know how—if at all—the Egyptian Antiquities Organization and Zahi Hawass, Lehner's colleague at Giza, fitted into all this.

Mutual friends arranged a meeting for us with the current President of the ARE and the Edgar Cayce Foundation, Mr. Charles Thomas Cayce, the grandson of Edgar Cayce. We were also to meet two prominent ARE members who, we were informed, had contributed to various projects at Giza in the 1970s and 1980s and to the more recent geological investigations carried out by John West and Robert Schoch.

The venue was the Edgar Cayce Foundation and ARE headquarters on Atlantic Avenue. There we were greeted by cheerful and friendly staff. It was a normal busy day and we saw visitors of all ages browsing in the well-stocked library and bookshop and making their way to various lectures and meditation classes. The general atmosphere was a bit like that of the campus of a small university or college.

We were taken for lunch by Mr. Cayce at the nearby Ramada Oceanfront Hotel. There we were joined by the two senior ARE members who had come from New York and Washington to meet us. The discussion at the table ranged widely and included what seemed to be a completely open and honest review of the ARE's various initiatives at Giza over the previous two decades. Everyone seemed to know Mark Lehner well, and

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meaning. I would not change the path that led me to Giza even if I could.'

[50] Charles Piazzi Smyth, *Our Inheritance in the Great Pyramid,* W. Isbister, London 1880 edition (reprinted recently by Bell Publishing Co., New York 1990 under the title *The Great Pyramid).* For the connection of the Petries with Piazzi Smyth, see H. A. Bruck and Mary Bruck, *The Peripatetic Astronomer: The Life of Charles Piazzi Smyth,* Adam Hilger, Bristol 1988, pp. 28, 123-6, 133-6. It seems William Matthew Flinders Petrie's father, William, almost married the daughter of Piazzi Smyth, Henrietta. She was to marry eventually, however, Professor Baden-Powell (the father of the founder of the Boy Scouts). William Petrie was later introduced by Mrs. Piazzi Smyth to Anne Flinders, whom he married—hence the name Flinders Petrie. 'So Mrs. (Piazzi) Smyth,' wrote Flinders Petrie, 'was the agent by whom scouting and Egyptian archaeology took their present form' (see *Seventy Years in Archaeology,* Sampson Low, Marston & Co. Ltd., London, 1931, p. 4).

both the man from Washington and the man from New York also spoke of Zahi Hawass in extremely personal and friendly terms.

At this point we could not avoid bringing up the matter of John West's recent sensational NBC television documentary, *Mystery of the Sphinx* which, as we saw in Part I, Lehner had treated with disfavour and which had also provoked the following vigorous rebuttal from Zahi Hawass:

> The film indicates an attempt by these pretenders to prove that the age of the Sphinx dates back to fifteen thousand years ... [and that] the builders of the Sphinx, and consequently the Pyramids and other great antiquities, were not the ancient Egyptians but other people of higher culture and education that came from the 'Atlantis' continent after its destruction and put beneath the Sphinx the scientific records of the lost continent! It is evident that this John West represents nothing but a continuation of the cultural invasion of Egypt's civilization. Before him was Edgar Cayce in Virginia who pretended he lived in Atlantis fifteen thousand years ago and then fled to Egypt with the records which he buried near the Sphinx before the destruction of the continent! ...[51]

Presented late in 1993 by the Hollywood actor Charlton Heston, *Mystery of the Sphinx* had been partially financed by the ECF/ARE and their supporters, and had very strongly endorsed the view that the Sphinx, and a number of the other monuments on the Giza necropolis, must date back to at least the eleventh millennium BC.[52] As we reported in Part I, it was this same documentary that had also broken the news of Thomas Dobecki's seismic surveys around the Sphinx and his discovery of a large rectangular chamber buried deep in the bedrock beneath its front paws. This, of course, had suggested to the ECF/ARE that there could be a connection with Cayce's 'Hall of Records'. As Charlton Heston remarked in his commentary: 'the unexpected cavity detected by the seismograph was located precisely where Edgar Cayce said it would be—under the front paws of the Sphinx.'[53]

We asked Charles Cayce and his two colleagues how they felt about Hawass's angry and dismissive reaction to the film and his talk of 'pretenders'.

The ARE men simply smiled and shrugged their shoulders. They were very confident, they informed us, that everything was working for the best: no matter what anybody said or did, the truth about Giza was going to emerge and the 'Hall of Records' was going to be discovered, just as Edgar Cayce had prophesied.[54] On this note we parted company.

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[51] *Al Akhbar Al Yom* weekly of 8 January 1994, front page article entitled 'Stealing of Egypt's Civilization'. Translation by Fouad Nemah of the official Egyptian Translation Bureau.

[52] *Mystery of the Sphinx* was a Magic Eye North Towers Production (Executive Producer: Boris Said; Producer: Robert Watts; Directed by Bill Cote of BC Video NY).

[53] Ibid.

[54] Mark Lehner's letter, op. cit., p. 5: 'Yes, this sounds like the fine people of the Cayce community, some of the nicest and most positive individuals I have known.'

Correspondence

On 15 October 1995, Mark Lehner wrote us a five-page letter in response to a draft of this chapter that we had asked him to review.[55] In the same letter he informed us that he had recently resigned from Chicago University's Oriental Institute to 'devote more time to research and writing'. He also notified us that he intended to publish a book on 'New Age beliefs and Ancient Egypt' which, he said, would expound, in greater detail than we have done here, on his involvement with work funded by the Edgar Cayce Foundation.[56]

Our correspondence with Lehner was care of the Harvard Semitic Museum in the state of Massachusetts. As we write these words his colleague in Egypt, Dr. Zahi Hawass, is supervising the excavation of a newly discovered 'Old Kingdom' temple complex with underground tunnels immediately to the south-east of the Great Sphinx of Giza.[57] Interviewed in December 1995 for a possible television documentary concerning the mysteries of the Sphinx, Hawass led the film crew into a tunnel beneath the Sphinx itself. 'Really,' he said, 'even Indiana Jones will never dream to be here. Can you believe it? We are now inside the Sphinx in this tunnel. This tunnel has been never opened before. No one really knows what's inside this tunnel. But we are going to open it for the first time.'

POSTSCRIPT: Further correspondence with Mark Lehner, giving his comments on this chapter, is reproduced in Appendix 3.

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[55] As a result of receiving this letter, which clarified many points, we were pleased to revise the present chapter extensively into the form that appears herewith.
[56] Mark Lehner's letter, op. cit., p. 1.
[57] CNN News reports October 1995; Middle East News Agency (MENA) 25 October 1995. At time of writing (November 1995) Zahi Hawass is the Director of the Giza necropolis for Egypt's Supreme Council of Antiquities and thus has overall responsibility for all excavations taking place on the site.

Chapter 6

The Case of the Iron Plate, the Freemasons, the Relics and the Shafts

'I am more than convinced of the ... existence of a passage and probably a chamber (in the Great Pyramid) containing possibly the records of the ancient founders ...'

John Dixon. Letter to Piazzi Smyth dated 25 November 1871, commenting on the Queen's Chamber in the Great Pyramid

'Deep inside the Great Pyramid lies a dead end [in the southern shaft of the Queen's Chamber]. Rudolf Gantenbrink could explore beyond it, but no one will let him.'

Sunday Telegraph, London, 1 January 1995

Perhaps the most exotic researcher ever to have pronounced on the mysteries of the Pyramids was Charles Piazzi Smyth, a nineteenth-century Astronomer Royal of Scotland. Like Edgar Cayce, he believed the Great Pyramid to be somehow linked to Biblical prophecies concerning the 'Second Coming' of Christ. And like Edgar Cayce, too, his name turns up most unexpectedly in connection with recent remarkable discoveries at Giza.[1]

We will see why, later in this chapter. Meanwhile, as many readers will recall from the international news coverage it received at the time, high hopes were raised in March 1993 of a possible hidden chamber deep within the Great Pyramid. Rudolf Gantenbrink, a Munich-based German engineer, had used a tiny, hi-tech robot camera to explore the long narrow shafts emanating from the northern and southern walls of the Queen's Chamber and, at the end of the southern shaft (the one targeted on the star Sirius) had discovered a small portcullis door complete with copper handles. Immediately after the find was made, Dr. Zahi Hawass enthused to a German television team 'in my opinion this is THE discovery in Egypt' and expressed the hope that 'records' on papyrus scrolls to do with the 'religion' of the builders and maybe the 'stars', might be stashed away behind the tantalizing door.[2] Similar hopes were

[1] Robert Bauval and Adrian Gilbert, *The Orion Mystery,* op. cit., Mandarin paperback edition, 1995, epilogue pp. 237-50. Also discussed recently in *Amateur Astronomy and Earth Sciences,* 'Operation Dixon' issue 1, November 1995 (Chief Editor: Dave Goode).

[2] Interviewed by film maker and producer Jochen Breitenstein in Los Angeles in April

also raised in *The Times* of London which, in addition, noted a curious link with Edgar Cayce and the 'Hall of Records':

> SECRET PASSAGE POSES PYRAMID MYSTERY: In the 1940s Edgar Cayce, the American clairvoyant, prophesied the discovery, in the last quarter of the 20th century and somewhere near the Sphinx, of a hidden chamber containing the historical records of Atlantis. Whether recent discoveries in the Great Pyramid of Cheops [Khufu] have anything to do with that is far from certain, but the discovery of a small door at the end of a long, hitherto unexplored, 8-inch square shaft has set many speculating about what, if anything, might lie behind it ...'[3]

As we write these words, more than three years after Rudolf Gantenbrink made his amazing discovery, no further exploration has been permitted inside the southern shaft of the Queen's Chamber and the mysterious portcullis door remains unopened. During this period we note that Dr. Zahi Hawass (rather like his friend Mark Lehner over the issue of 10,500 BC) has executed a radical volte-face. Gone are the eulogies and the great expectations and he now asserts: 'I think this is not a door and nothing is behind it ...'[4]

Double standard

The story of the Great Pyramid's shafts, and the oddly contradictory Egyptological responses to whatever is discovered in them—or whatever new ideas are proposed concerning them—goes back to the late 1830s when the British explorer Colonel Howard Vyse 'sat down before the Great Pyramid as at a fortress to be besieged'. This comment, from one of his contemporaries, alludes to Vyse's renowned use of dynamite to 'explore' the Great Pyramid.[5] It might have been more appropriate, though less polite, to say that he confronted the last surviving wonder of the ancient world as though it were a woman to be raped. Nevertheless, the fact remains that during a hectic season of explorations and intrusive excavations (1836-7), Vyse and his team did manage to make what looked like two extremely important discoveries:

1. A section of flat iron plate, about one eighth of an inch thick, a foot long and four inches wide, extracted from the masonry of the southern face of the Pyramid at the exit point of the southern shaft of the King's Chamber (the shaft targeted on Orion's belt).

2. 'Quarry marks' daubed inside the so-called relieving chambers above the King's Chamber. These hieroglyphs are the first and only

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1993. Footage shown on Sat. 1, Spiegel Reportage, 15 August 1995 (*Gantenbrinks Reise in das Reich der Pharaonen).*

[3] *The Times,* London, 28 January 1995, p. 18. Article by Simon Seligman.

[4] Sat. 1, Spiegel Reportage, op. cit., 15 August 1995.

[5] Peter Tompkins, *Secrets of the Great Pyramid,* op. cit., p. 61.

'inscriptions' ever found inside the Great Pyramid. They take the form of loosely scrawled graffiti and include the name of Khufu, the Fourth Dynasty Pharaoh whom Egyptologists suppose to have been the builder of the monument.

The second find—the appearance of Khufu's name—has been repeatedly hailed by Egyptologists during the past 160 years as proof positive that the otherwise anonymous Pyramid was indeed built by the Pharaoh Khufu. The first—the iron plate—has been dismissed as a fraud and the plate itself now lies in a narrow drawer in the British Museum, as ignored and forgotten as the skull of Piltdown Man.[6]

Suppose, however, that the Egyptologists have got things the wrong way round?

Suppose that it is the 'quarry marks' that are forged and the iron plate that is genuine?

In this case the tidy and well-worked-out chronology of the evolution of Egyptian society, which appears in all the standard textbooks, would be shown to rest on frighteningly insecure foundations, the attribution of the Great Pyramid to Khufu would revert to undocumented speculation, and the orthodox date of the Iron Age in Egypt—placed by Egyptologists as being not earlier than 650 BC[7]—would have to be pushed back almost 2000 years.

We have argued elsewhere, and at length, that the quarry marks inside the Great Pyramid could have been forged—and specifically that Howard Vyse, who had spent £10,000 on his 1836-7 excavations (a princely sum in those days) had both the motive and the opportunity to forge them.[8] Briefly:

1. It is notable that the marks were only discovered in the four 'relieving chambers' opened by Vyse himself, and not in the chamber immediately below these (and immediately above the ceiling of the King's Chamber) which had been opened by a previous explorer, Nathaniel Davison, in 1765. It is also notable that Vyse's diary entry for the day on which he first opened and accessed the lowest of 'his' four chambers (i.e. the one above Davison's Chamber) reports a thorough examination but makes no mention whatsoever of any hieroglyphs prominently daubed on the walls in red paint. On the very next day, however, when Vyse returned to the chamber with witnesses, the hieroglyphs were suddenly there—almost as though

[6] Where, after some difficulty, we were able to arrange to view it on 7 November 1995.

[7] Bernd Scheel, *Egyptian Metalworking and Tools,* Shire Egyptology, Bucks, 1989, p. 17. For a more detailed discussion see A. Lucas, *Ancient Egyptian Materials and Industries,* Histories & Mysteries of Man Ltd., London 1989, pp. 235-43.

[8] A very interesting discussion is found in Zecharia Sitchin, *The Stairway to Heaven,* Avon Books, New York, 1980, pp. 253-79.

they had been painted overnight.[9]

2. As one of Vyse's critics has perceptively pointed out, 'the perspective and angles at which the inscriptions were made shows that they were painted not by the quarry masons before the blocks were moved, but rather by someone working in the cramped quarters of the [relieving] chambers after the blocks had been placed in the Pyramid. Instructions for locating blocks in a construction project [which is what the quarry marks purport to be] serve no purpose after the fact has been accomplished. Clearly they were added by someone else and not by the builders themselves.'[10]

3. There are horrendous 'orthographic' problems with the hieroglyphs. These problems were first pointed out in the nineteenth century by Samuel Birch, a British Museum expert on the ancient Egyptian language. Although nobody either then or now has paid any attention to his comments, he made the important observation that the styles of writing expressed in the 'quarry marks' are a strange anomalistic hotchpotch of different eras. Some of the cursive forms and titles used in these supposedly Fourth Dynasty inscriptions are found nowhere else in Egypt until the Middle Kingdom, about 1000 years later (when they become plentiful). Others are unknown until the Twenty-sixth Dynasty (664-525 BC). Perhaps most telling of all, however, is the use of certain words and phrases in a completely unique and zany way that occurs nowhere else in the entire sprawling corpus of writings that has come down to us from ancient Egyptian times. To give an example, the hieroglyph for 'good, gracious' appears where the number 18 is meant.[11]

4. There are difficulties with the name Khufu itself as it is given in the quarry marks. It contains a mistake (a dot surrounded by a circle instead of a simple filled-in circle) that—like the usage of the 'good, gracious' hieroglyph—is repeated on no other ancient Egyptian inscription. Interestingly, however, this same mistake in the writing out of the name Khufu occurs in the only two source books on hieroglyphs that would have been available to Vyse in 1837: Leon de Laborde's *Voyage de l'Arabie Petree* and Sir John Gardner Wilkinson's *Materia Hieroglyphica*.[12]

5. Last but not least, even if the quarry marks were not forged by Vyse, what do they really prove? Isn't attributing the Great Pyramid to Khufu on the basis of a few lines of graffiti a bit like handing over the keys

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[9] Joseph R. Jochmans, *The Hall of Records,* op. cit., pp. 194-5.
[10] Ibid., p. 195.
[11] See Zecharia Sitchin, *The Stairway to Heaven,* op. cit., p. 266.
[12] Ibid., pp. 266, 271-2, 274.

of the Empire State building to a man named 'Kilroy' just because his name was found spray-painted on the walls of the lift?

We are frankly puzzled that such questions are never asked and, in general, that Egyptologists are so ready to accept the quarry marks as 'proof of Khufu's ownership of the Pyramid. Their own credulity on such matters is of course their business. Nevertheless we think that it verges on intellectual chicanery for the same dubious attribution to be regurgitated again and again, in all the standard texts, without any cautionary notes about the many problems, anachronisms and inconsistencies that cast doubt on the authenticity and significance of Vyse's 'discovery'.[13]

Strangely, however, his other 'discovery', which Egyptologists today unhesitatingly write off as a forgery, gives every indication of being genuine—and highly significant. This was the discovery of a flat iron plate embedded in the masonry of the Pyramid's southern face.

The iron plate affair

As we have seen, the two main chambers in the superstructure of the Great Pyramid—the King's Chamber and the Queen's Chamber—are each equipped with two long, narrow shafts which bore deep into the solid masonry, one directed northward and the other to the south. Those emanating from the King's Chamber cut right through to the outside. Those emanating from the Queen's Chamber stop somewhere within the core of the monument.

The existence of the King's Chamber shafts was first recorded by Dr. John Greaves, a British astronomer, in 1636. It was not until 1837, however, that they were investigated thoroughly—by Colonel Howard Vyse with the assistance of two civil engineers, John Perring and James Mash. Another member of Vyse's team was Mr. J. R. Hill, an obscure Englishman living in Cairo, who in May of 1837 was put in charge of clearing the mouth of the southern shaft (which emerges at the 102nd course of masonry on the south face of the Pyramid). In accord with Vyse's methods elsewhere, Hill was instructed to use explosives and was thus responsible for the ugly vertical scar which may be seen to this day running up the centre of the south side of the Great Pyramid.

On Friday, 26 May 1837, after a couple of days of blasting and clearing, Hill discovered the flat iron plate mentioned above. Vyse was soon afterwards to trumpet it in his monumental opus, *Operations Carried on at the Pyramids of Gizeh* as 'the oldest piece of wrought iron known',[14]

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[13] I. E. S. Edwards, *The Pyramids of Egypt,* Pelican Books, London, 1949, pp. 95-6.

[14] Colonel Howard Vyse, *Operations carried out at the Pyramids of Gizeh: With an account of a Voyage into Upper Egypt and Appendix,* James Fraser of Regent Street, London 1837, vol. 1, p. 275.

but Hill at the time was content to write up the discovery in the proper, sober manner:

> This is to certify that the piece of iron found by me near the mouth of the air-passage [shaft], in the southern side of the Great Pyramid at Gizeh, on Friday, May 20th, was taken out by me from an inner joint, after having removed by blasting the two outer tiers of the stones of the present surface of the Pyramid; and that no joint or opening of any sort was connected with the above mentioned joint, by which the iron could have been placed in it after the original building of the Pyramid. I also shewed the exact spot to Mr. Perring, on Saturday, June 24th.[15]

John Perring, a civil engineer, thus examined the exact spot of the find. With him was James Mash, also a civil engineer, and both were 'of the opinion that the iron must have been left in the joint during the building of the Pyramid, and that it could not have been inserted afterwards'.[16] Ultimately Vyse sent the mysterious artefact, together with the certifications of Hill, Perring and Mash, to the British Museum. There, from the outset, the general feeling was that it could not be a genuine piece, because wrought iron was unknown in the Pyramid Age, and that it must therefore have been 'introduced' in much more recent times.

In 1881 the plate was re-examined by Sir W. M. Flinders Petrie who found it difficult, for a variety of cogent reasons, to agree with this analysis:

> Though some doubt has been thrown on the piece, merely from its rarity, [he noted] yet the vouchers for it are very precise; and it has a cast of a nummulite [fossilized marine protozoa] on the rust of it, proving it to have been buried for ages beside a block of nummulitic limestone, and therefore to be certainly ancient. No reasonable doubt can therefore exist about its being a really genuine piece ...[17]

Despite this forceful opinion from one of the oddball giants of Egyptology in the late Victorian Age, the profession as a whole has been unable to cope with the idea of a piece of wrought iron being contemporary with the Great Pyramid. Such a notion goes completely against the grain of every preconception that Egyptologists internalize throughout their careers concerning the ways in which civilizations evolve and develop.

Scientific analysis

Because of these preoccupations, no further investigations of any significance were undertaken into the iron plate for another 108 years and it was not until 1989 that a fragment from it was at last subjected to rigorous optical and chemical tests. The scientists responsible for the

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[15] Ibid., p. 276.
[16] Ibid.
[17] W. M. Flinders Petrie's *The Pyramids and Temples of Gizeh,* Leadenhall Press, London, 1883 edition, pp. 212-13.

work were Dr. M. P. Jones, Senior Tutor in the Mineral Resources Engineering Department at Imperial College, London, and his colleague Dr. Sayed El Gayer, a lecturer in the Faculty of Petroleum and Mining at Egypt's Suez University, who gained his Ph.D. in extraction metallurgy at the University of Aston in Birmingham.[18]

They began their study by checking on the nickel content of the iron plate. Their reason for doing this was to exclude the faint possibility that it might have been manufactured from meteoritic iron (i.e. iron from fallen meteorites—a material that is known, very rarely, to have been used during the Pyramid Age). Ready-made meteoritic iron of this sort, however, is always extremely easy to identify because it invariably contains a significant proportion of nickel—typically seven per cent or more.[19] On the basis of their first test Jones and El Gayer noted: 'The iron plate from Giza is clearly not of meteoritic origin, since it contains only a trace of nickel.' The metal, therefore, was man-made. But how had it been made?

Further tests proved that it had been smelted at a temperature between 1000 and 1100 degrees centigrade. These tests also picked up the odd fact that there were 'traces of gold on one face of the iron plate'.[20] Perhaps, Jones and El Gayer speculated, it might originally have been 'gold-plated, and this gold may be an indication that this artefact ... was held in great esteem when it was produced'.[21]

Finally, when was it produced?

After completing an extremely careful and detailed study, the two metallurgists reported as follows: 'It is concluded, on the basis of the present investigation, that the iron plate is very ancient. Furthermore, the metallurgical evidence supports the archaeological evidence which suggests that the plate was incorporated within the Pyramid at the time that structure was being built.'[22]

When Jones and El Gayer submitted their findings to the British Museum, they were in for quite a surprise. Instead of being excited, officials fobbed them off: 'The structure of the iron plate is unusual,' conceded Paul Craddock and Janet Lang. 'We are not sure of the significance or origin of this structure but it is not necessarily indicative of great age.'[23]

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[18] El Sayed El Gayer and M. P. Jones, 'Metallurgical Investigation of an Iron Plate found in 1837 in the Great Pyramid at Gizeh, Egypt' *in Journal of the Metallurgy Society,* Vol. XXIII (1989) pp. 75-83.

[19] Ibid. See also Robert G. Bauval, 'Investigation on the origin of the Benben Stone: was it an iron meteorite?' in *Discussions in Egyptology* Vol. XIV, 1989, pp. 5-17.

[20] El Sayed El Gayer and M. P. Jones, op. cit., p. 82.

[21] Ibid.

[22] Ibid.

[23] Ibid., p. 123 (letter to the editor of JHMS titled 'Comment on the Iron Plate from Gizeh paper').

The British Museum's view

Because the iron plate appeared to have been removed originally from within or near the mouth of the King's Chamber's 'Orion' shaft it was of great interest to us. We decided to take a look at it. Through Dr. A. J. Spencer, Assistant Curator of the Egyptian Antiquities Department at the British Museum, we arranged a viewing on 7 November 1993. We were permitted to handle the plate and were intrigued by its unusual weight and texture. We could also hardly fail to notice that under its surface patina the internal metal possessed a brilliant shine—which was revealed at the point where the fragment had been cleanly sliced off for El Gayer's and Jones's analysis. Dr. Spencer repeated the British Museum's official line—that the plate was not old but had been introduced, probably deliberately, in Vyse's time—and that El Gayer and Jones's conclusions were 'highly dubious'.[24]

How and why could the conclusions of such eminent metallurgists be deemed 'highly dubious', we asked?

Dr. Spencer had no answer and Dr. Craddock, whom we spoke to on the phone, did not wish to elaborate.

A few days later we called Dr. M. P. Jones and heard from him how he and Dr. El Gayer had examined the plate in the laboratories at Imperial College London in 1989. Dr. Jones is now retired and lives in Wales. When we asked him what he thought of the British Museum's view of his conclusions he was, understandably, rather irritated. He insisted that the iron plate was 'very old' and, like us, he felt—since there were two opposing views—that the best way to resolve this matter would be further testing in an independent laboratory.

After all, the implications of man-made iron in 2500 BC are tremendous. And this isn't just a matter of redating the so-called Iron Age. Perhaps in a way more intriguing are the questions raised as to the *function* that an iron plate might have had, inside the southern shaft of the main chamber in the Great Pyramid, many thousands of years ago. Could there be a relationship between this plate and the stone portcullis door with copper 'handles' that Rudolf Gantenbrink had so recently discovered at the end of the southern shaft of the Queen's Chamber—a shaft directed to 'Sirius-Isis', the consort of 'Orion-Osiris'?

In their 1989 report, El Gayer and Jones noted that the plate was probably a fragment coming from a larger piece which might originally have composed a square plate that would have fitted, like a sort of 'gate', neatly over the mouth of the shaft.

[24] Letter to Robert Bauval dated 2 November 1993, ref. EA/AJS/JAC.

Stargate

In later chapters we will make detailed reference to the so-called 'Pyramid Texts' of ancient Egypt. These texts take the form of extensive funerary and rebirth inscriptions carved on the tomb walls of certain Fifth—and Sixth-Dynasty pyramids at Saqqara, about ten miles south of Giza. Egyptologists agree that much if not all of the content of the inscriptions predates the Pyramid Age.[25] It is thus unsettling to discover in these ancient scriptures, supposedly the work of neolithic farmers who had hardly even begun to master copper, that there are abundant references to iron.

The name given to it is *B'ja*—'the divine metal'—and we always encounter it in distinctive contexts related in one way or another to astronomy, to the stars and to the gods.[26] For example *B'ja* is frequently mentioned in the texts in connection with the 'four sons of Horus'—presumably related in some way to strange beings called the *Shemsu Hor,* the 'Followers of Horus' and 'Transfigured Ones', whom we shall also be discussing in later chapters. At any rate, these very mysterious 'sons of Horus' seem to have been made of iron or to have had iron fingers: 'Your children's children together have raised you up, namely [the four sons of Horus] ... your mouth is split open with their iron fingers ...'[27]

Iron is also mentioned in the texts as being necessary for the construction of a bizarre instrument called a *Meshtyw.* Very much resembling a carpenter's adze or cutting tool, this was a ceremonial device which was used to 'strike open the mouth' of the deceased Pharaoh's mummified and embalmed corpse—an indispensable ritual if the Pharaoh's soul were to be re-awakened to eternal life amidst the cycles of the stars.

In the Pyramid Texts we thus find a high priest making this cryptic statement:

> Your mouth is in good order for I split open your mouth for you ... O king, I open your mouth for you with the adze of iron of *Upuaut,* I split open your mouth for you with the adze of iron which split open the mouths of the gods ... Horus has split open the mouth of this king with that wherewith he split open the mouth of his father, with that wherewith he split open the mouth of Osiris ...[28]

From such utterances, and many more like them, it is clear that iron was somehow seen by the composers of the Pyramid Texts as being imperative in the rituals aimed at ensuring new life—cosmic and stellar

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[25] *The Orion Mystery* op. cit., Chapter 3.

[26] Ibid., Heinemann edition 1994, pp. 204-11. See also a very interesting publication by Sydney Aufrere, *L'Univers Mineral dans la pensee Egyptienne,* Institut Français D'Archéologie Orientale du Caire, pp. 433-41.

[27] *The Ancient Egyptian Pyramid Texts,* R. O. Faulkner trans., Oxford University Press, 1969, lines 1983-4.

[28] Ibid., lines 11-13.

life—to the dead king. More importantly the above verse also connects the metal and its uses to the ancient prototype of all such rituals by means of which Osiris himself, Egypt's 'Once and Future King', died and was then restored to immortal life as Lord of the sky-region of Orion. This region, as we shall see in Part III, was known as the *Duat.* In it all the Pharaohs of Egypt hoped that they would reside eternally after their own deaths:

> The gate of the earth is open for you ... may a stairway to the *Duat* be set up for you to the place where Orion is ...[29]
>
> O king ... the sky conceives you with Orion ... the sky has borne you with Orion ...[30]
>
> O king, be a soul like a living star ...[31]
>
> The gate of the earth-god is open ... may you remove yourself to the sky and sit upon your iron throne ...[32]
>
> The aperture of the sky window is opened for you ...[33]
>
> The doors of iron which are in the starry sky are thrown open for me, and I go through them ...[34]

What seems to be envisaged here, taken literally and reduced to the basic common denominators running through all the above utterances, appears to be nothing less than an iron 'stargate' intended to admit Osiris, and all the dynasties of dead kings after him, into the celestial realms of the belt of Orion. But if the Pyramid Texts are describing a stargate then they are also describing a timegate—for they express no doubt that by passing through the iron-doored portals of the sky the soul of the deceased will attain a life of millions of years, navigating eternity in the vessels of the gods. Naturally, therefore, by virtue of its original position at or near the end of the southern shaft of the King's Chamber, we are tempted to wonder whether the neglected iron plate in the British Museum might have been connected with such amazingly sophisticated concepts and beliefs about immortality and about the ability of 'the equipped spirit' to gain a complete mastery over death and time.

We wonder, too, what might have been the function of other mysterious objects that were discovered in the shafts of the Queen's Chamber when these were first opened in 1872 by Waynman Dixon, an enterprising engineer from Newcastle-upon-Tyne.

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[29] Ibid., lines 1713-17.
[30] Ibid., lines 820-2.
[31] Ibid., line 904.
[32] Ibid., lines 1014-16.
[33] Ibid., line 852.
[34] Ibid., line 907.

Unknown dark distance

Unlike the King's Chamber shafts, those in the Queen's Chamber (a) do not exit on the outside of the monument and (b) were not originally cut through the chamber's limestone walls. Instead the builders left the last five inches intact in the last block over the mouth of each of the shafts—thus rendering them invisible and inaccessible to any casual intruder.

The reader will recall the mention of Charles Piazzi Smyth and his prophetic theories about the Great Pyramid at the start of this chapter. In the early 1860s, when he was formulating these theories, he befriended a certain William Petrie, an engineer, whose son, W. M. Flinders Petrie, was later to be universally acclaimed as the founder of the academic discipline of Egyptology.[35]

William Petrie was amongst the first 'Pyramidologists' of the Victorian Age to give strong support to Piazzi Smyth's notion that the Great Pyramid might be some sort of prophetic monument to Mankind encoding a Messianic blueprint designed to serve as an advance-warning mechanism for the 'Second Coming' of Christ.[36] 'There had been a time', wrote Professor Hermann Bruck and Dr. Mary Bruck in their authoritative biography of the Astronomer Royal, 'when Flinders Petrie and his father had wholeheartedly concurred with most of Piazzi Smyth's ideas.'[37] Indeed as these two eminent astronomers and authors point out, the young Flinders Petrie set out to Egypt in 1880 on his famous study of the Great Pyramid precisely because he wanted to 'continue Piazzi Smyth's work'.[38]

Returning now to the shafts in the Queen's Chamber, we were interested to learn that their discoverer, the engineer Waynman Dixon—together with his brother John—had also maintained very close ties with Piazzi Smyth. Indeed, it had been through the Astronomer Royal's direct influence that the Dixons were able to explore the Great Pyramid in 1872 and discover the previously concealed entrances to the northern and southern star-shafts in the Queen's Chamber.[39]

Waynman Dixon's curiosity had been aroused by the shafts in the King's Chamber which provoked him to look for similar features in the Queen's Chamber. This search, which took place some time early in 1872, was undertaken with the full knowledge of Piazzi Smyth, who later

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[35] Dr. Zahi Hawass calls him 'the father of modern Egyptology' (see Zahi Hawass 'Update' to Sir W. M. Flinders Petrie's *The Pyramids and Temples of Gizeh,* op. cit., p. 98; see also Jean Vercoutter, *The Search fur Ancient Egypt,* Thames & Hudson, London 1992, pp. 152-5). A good account of Petrie's involvement with the Great Pyramid is given in Peter Tompkins, *Secrets of the Great Pyramid,* op. cit., pp. 96-107.

[36] Charles Piazzi Smyth, *Our Inheritance in the Great Pyramid,* op. cit., pp. 535-634.

[37] H. A. Bruck and Mary Bruck, *The Peripatetic Astronomer,* op. cit., p. 229.

[38] Ibid., p. 38.

[39] *The Orion Mystery,* op. cit., Heinemann edition, 1994, epilogue. Also see Charles Piazzi Smyth, *Our Inheritance,* op. cit., pp. 427-31.

described the whole matter in his book. The story goes that after noticing a crack in the southern wall of the Queen's Chamber—roughly where he thought that he might find shafts—Waynman Dixon set his 'carpenter and man-of-all-work', a certain Bill Grundy 'to jump a hole with a hammer and steel chisel at that place. So to work the faithful fellow went, and with a will which soon began to make a way into the soft stone at this point when lo! after a comparatively very few strokes, flop went the chisel right through into something or other.'[40]

The 'something or other' Bill Grundy's chisel had reached turned out to be 'a rectangular, horizontal, tubular channel, about 9 inches by 8 inches in transverse breadth and height, going back 7 feet into the wall, and then rising at an angle into an unknown dark distance ...'[41]

This was the southern shaft.

Next, measuring off a similar position on the north wall, Waynman Dixon 'set the invaluable Bill Grundy to work there with his hammer and steel chisel; and again, after a very little labour, flop went the said chisel through into somewhere; which somewhere was presently found to be a horizontal pipe or channel of transverse proportions like the other, and, at a distance within the masonry of 7 feet, rising at a similar angle, but in the opposite direction, and trending indefinitely far ...'[42]

Together with his brother John, Waynman Dixon made efforts to probe both the northern and southern shafts—using a jointed rod, something like a chimney-sweep's rod, for this purpose.[43] Late-nineteenth-century technology was not up to the job and a segment of the rod became wedged in the northern shaft, where it still remains.[44] Before this happened, however, the Dixons found three small relics in the shafts.

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[40] Charles Piazzi Smyth, *Our Inheritance,* op. cit., pp. 427-31.

[41] Ibid.

[42] Ibid.

[43] No one knew of this attempt by the Dixons to probe the shafts with an iron rod until Rudolf Gantenbrink, in early 1992, explored the northern shaft of the Queen's Chamber with a robot mounted with a mini-video camera. The rod still lies there, inside the shaft, at about 8 metres from the entrance and runs to the 'corner', some 24 metres up the shaft. Gantenbrink could not take his robot round the corner but he managed to see, with the video camera, that it runs for a further two metres or so and then turns sharply back on track. What lies at the end is still unknown.

[44] The Dixons, who were iron structural contractors from Newcastle, were building a bridge across the Nile near Cairo. The iron rod they used seems to have been purpose made to probe the shaft. It was cut in lengths of approximately 12 feet then assembled together with sleeve-joints as the rod was pushed within the shaft. It seems to have been stuck at the upper end, forcing the Dixons to abandon it.

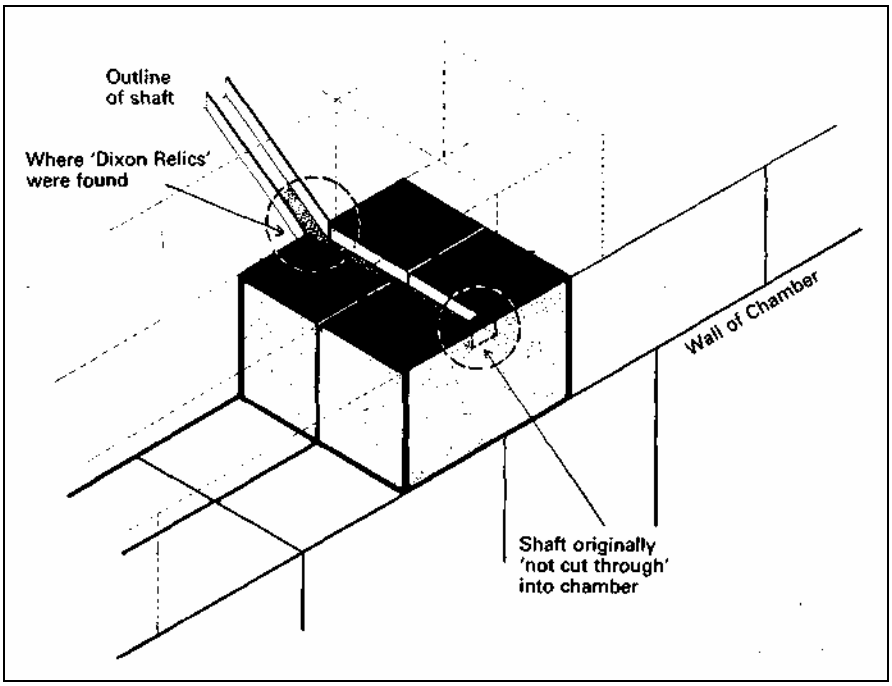

33. Detail of Queen's Chamber shaft.

These objects—a rough stone sphere, a small two-pronged hook made out of some form of metal, and a fine piece of cedar wood some 12 centimetres long with strange notches cut into it[45]—were exported from Egypt in the summer of 1872 and arrived safely in England a few weeks later.[46] During the next year or so they were commented upon in books, and even illustrated in scientific and popular magazines such as *Nature* and the *London Graphic*.[47] Before the turn of the century, however, they had disappeared.[48]

Links

A curious series of links exists involving all of the following:

- the discovery of the Queen's Chamber shafts with their constituent relics;

[45] *Nature,* 26 December 1872, p. 147.
[46] Letter from John Dixon to Piazzi Smyth dated 23 November 1872.
[47] *The Graphic,* 7 December 1872, p. 530. Also *Nature,* 26 December 1872 p. 146. Piazzi Smyth mentions these relics, and describes how they were found, in his book, *Our Inheritance,* op. cit., and also refers to the articles in *The Graphic* and in *Nature* in the 1874 edition of his book, pp. 155 and 364.
[48] The last mention before they re-emerged in 1993, as far as we know, was in a letter written by a certain Mr. E. H. Pringle dated 20 June 1873 (see *Nature* of 31 July 1873, p. 263). It is possible, however, that some other publication mentioned them in more recent times.

- the formation of the Egyptian Exploration Society (the EES, British Egyptology's most prestigious organization);
- the foundation, at University College, London, of Egyptology's most prestigious Chair;
- British Freemasonry.

In 1872, whilst the Dixon brothers were exploring the Great Pyramid, a well-known Freemason and parliamentarian, Sir James Alexander, proposed a motion to bring to Britain the incorrectly named 'Cleopatra's Needle'—a 200-ton obelisk of Pharaoh Thutmosis III which had originally been erected some 3500 years ago in the sacred city of Heliopolis.[49] Funding for the project came from the personal fortune of another Freemason, the eminent British dermatologist, Sir Erasmus Wilson,[50] and Sir James Alexander recommended that the civil engineer John Dixon—also a Freemason—should be engaged to collect the obelisk from Egypt. On this basis Sir Erasmus Wilson promptly recruited John Dixon—and also his brother, Waynman, who was then living in Egypt.[51]

A few years later the same Erasmus Wilson was responsible for the creation of the Egyptian Exploration Society (the EES) and served as its first president.[52] Then in 1883, Wilson and the Victorian author Amelia Edwards co-founded the important Chair in Egyptology at University College London—and it was through Wilson's personal recommendation that the young Flinders Petrie became the first scholar to occupy it.[53]

Perhaps all such connections are nothing more than quaint coincidences. If so, then it is probably also a coincidence that in the seventeenth century the founder of the Ashmolean Museum in Oxford, one of the most prestigious of today's Egyptological research centres (which holds the coveted 'Petrie Chair'), was none other than Elias Ashmole—the first man ever, according to Masonic historians, to be openly initiated on British soil into the hitherto secret society of Freemasonry.[54]

We have no evidence that the Brotherhood is still a significant influence in Egyptology today. Our researches into the pedigree of this insular discipline, however, did, in a rather oblique way, lead to the rediscovery of two of the three missing 'Dixon' relics.

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[49] Aubrey Noakes, *Cleopatra's Needles,* H. F. & G. Witherby Ltd., London, 1962, p. 16.
[50] Ibid., pp. 26-7.
[51] Ibid., p. 26. See also Martin Short, *Inside the Brotherhood,* Grafton Books, London, 1989, p. 119.
[52] R. M. Hadley, 'The Life and Works of Sir Erasmus Wilson (1809-1884)' in *Medical History* journal, Vol. III, 1959, pp. 215-47.
[53] Ibid., p. 238.
[54] Fred L. Pick and G. Norman Knight, *The Pocket History of Freemasonry,* Muller, 1977, pp. 44-5. See also Frances A. Yates, *The Rosicrucian Enlightenment,* op. cit., pp. 193-205.

The British Museum and the missing cigar box

These three items are the *only relics ever to have been found inside the Great Pyramid.* Moreover the *place* in which they were found, i.e. the star-shafts of the Queen's Chamber, links them directly to one of the key aspects of our own research. In the summer of 1993, therefore, 121 years after they had been discovered, we resolved to try to find out what had happened to them.

Going back through press reports, and the private diaries of the figures involved, we found out that John and Waynman Dixon had brought the relics to England in a cigar box. We also learned, as noted earlier, that the Dixons had been involved in bringing to England Cleopatra's Needle. The obelisk was erected on the Thames Embankment, where it stands to this day. John Dixon was at the inauguration ceremony and was on record as having buried 'a large cigar box, contents unknown' beneath the pedestal of the monument.[55]

The logic looked persuasive. John Dixon brought the relics to England in a cigar box. John Dixon brought Cleopatra's Needle to England. And John Dixon buried a cigar box beneath Cleopatra's Needle. Around that time the relics disappeared. The strong Masonic link in this affair called to mind a well-known practice in operative and speculative Freemasonry which involves certain rituals when placing the corner-stones of Masonic monuments and edifices. This practice suggested the possibility that the relics from the Great Pyramid could have been hidden under Cleopatra's Needle along with the other Masonic paraphernalia and memorabilia known to have been installed there.[56]

At any rate, the relics did genuinely seem to have disappeared and the experts whom we consulted at the British Museum said they had no idea where they could have gone to. We also consulted Professor I. E. S. Edwards, the Museum's former Keeper of Egyptian Antiquities (1954-74) and a former vice-president of the EES. Edwards is Britain's foremost authority on Giza and the author of a definitive text, *The Pyramids of Egypt,* first published in 1946 and reprinted virtually every year since then. In all editions of this book we found that he had mentioned Waynman Dixon and reported how the shafts in the Queen's Chamber were discovered, but had made absolutely no reference to the relics. This, he told us, was because he had no recollection of them and therefore, of course, no idea concerning what their ultimate fate might have been.

Like ourselves, however, Professor Edwards knew of the link between Flinders Petrie, Piazzi Smyth and the Dixons, and knew that Petrie's exploration of the Great Pyramid had immediately followed that of the Dixons.

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[55] *Illustrated London News,* 21 September 1878, p. 286.

[56] *Independent,* London, 6 December 1993. See also Martin Short, *Inside the Brotherhood,* op. cit., p. 120.

Oddly enough, Petrie, too, makes no mention of the relics in his own famous book *Pyramids and Temples of Gizeh*—though he does speak of the Dixons and the shafts. But could he have referred to them elsewhere in his voluminous publications? Edwards suggested that we ask Petrie's biographer, the Egyptologist Mrs. Margaret Hackford-Jones, to research the matter in Petrie's diaries and private papers. If he had made any mention of the Dixon relics then she would definitely be able to find it. But a thorough search by Mrs. Hackford-Jones brought no results.[57]

In the absence of viable alternatives, therefore, we wondered whether it might not be worth looking to see whether the three curious objects might not still be in Dixon's cigar box underneath Cleopatra's Needle.

The story was picked up by the *Independent,* a British national newspaper, on 6 December 1993. Interviewed in the report, Professor Edwards stated categorically that neither he nor anyone else he knew had heard of these relics before.[58] We were therefore taken by surprise on 13 December 1993—only a week after the article containing Edwards's quote was published—when Dr. Vivian Davies, the Keeper of Egyptian Antiquities at the British Museum, casually announced in a letter to the *Independent* that the relics, still in the cigar box, were in his Department's keep.[59]

So why had his Department not admitted to having them before?

'I think there has been a lot of misunderstanding about this whole business,' soothed a Museum PR spokesman a few days later. 'We didn't say we did not have them, we said we were not aware of having them.'[60]

After doing some more digging we discovered what had happened. The relics (or rather two of them because the only carbon-datable item, the piece of wood, was missing) had not been placed under Cleopatra's Needle as we had at first conjectured. Instead they had remained in the hands of the Dixon family for exactly a hundred years. Then, in 1972, Dixon's great-granddaughter had taken them along to the British Museum and had generously donated them to the Egyptian Antiquities Department. Their receipt was recorded in the meticulous hand of the Keeper himself—Dr. I. E. S. Edwards.[61] Thereafter the relics seemed simply to have been forgotten and only resurfaced in December 1993 because an Egyptologist named Dr. Peter Shore happened to read the *Independent's* story about our search for them. Now retired in Liverpool, Shore had been Edwards's assistant in 1972. He remembered the arrival of the relics at the British Museum and now promptly notified the relevant authorities that they had a potentially embarrassing incident on their hands.

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[57] Letter to Robert Bauval dated 28 October 1993.
[58] *Independent,* 6 December 1993, p. 3.
[59] *Independent,* 13 December 1993.
[60] *Beaconsfield Advertiser* ('Row erupts over "missing" relics') 12 January 1994, p. 3.
[61] Telephone conversation with Dr. I. E. S. Edwards.

We naturally wondered how it was possible that mysterious relics recovered from unexplored shafts inside the Great Pyramid of Egypt could have been treated with such indifference by professional Egyptologists. To be completely honest we found it very difficult to accept that they really could just have been forgotten for twenty-one years by the British Museum's Egyptian Antiquities Department. What we could not understand at all, however, was how they could have stayed forgotten during most of 1993 after a robot had explored the very same shafts and found a much publicized closed 'door' deep within one of them. Indeed more than two weeks before the article in the *Independent* came out, Rudolf Gantenbrink, the discoverer of the 'door', had visited London and given a full lecture at the British Museum to a large group of Egyptologists—including Professor Edwards, Dr. Vivian Davies and many others who knew of our search for the 'Dixon' relics. During the lecture, Gantenbrink showed and explained detailed video footage, taken by his robot, of the interior of the Queen's Chamber shafts—i.e. the shafts in which the relics had been found. As well as the 'door' at the end of the southern shaft, the footage also clearly showed, still lying on the floor of the *northern* shaft, but at higher levels than the Dixons had been able to reach, at least two distinct objects—a metallic hook, and an apparent baton of wood.[62]

In the next chapter we shall take a look at Gantenbrink's exploration, and at the events that led up to and followed it.

[62] The video films were shown at the British Museum by R. Gantenbrink on 22 November 1993. Also shown on Sat. 1, Spiegel Reportage, op. cit., on 15 August 1995.

Chapter 7

The Case of the Robot, the Germans and the Door

'*Upuaut,* a wolf deity ... He was chiefly revered for his role as Opener of the Ways to the Underworld, showing the dead souls the path through that dark realm ...'

Veronica Ions, *Egyptian Mythology,* 1982

The introduction of a robot-camera into the narrow mouth of the southern shaft of the Queen's Chamber in March 1993, and the subsequent spectacular discovery of a closed portcullis 'door' 200 feet along that shaft, are not events that occurred in a vacuum. On the contrary, although mainstream Egyptologists profess little interest in the Queen's Chamber (which they generally regard as an 'unfinished', 'abandoned' and unimportant feature of the Great Pyramid), quite a lot of activity had taken place around it during the previous decade.

In 1986, for example, two French architects, Gilles Dormion and Jean-Patrice Goidin, somehow managed to obtain a scientific licence to conduct a spectacular exploration inside the Great Pyramid. Dormion and Goidin had persuaded certain senior officials at the Egyptian Antiquities Organization that a 'hidden chamber' could lie behind the west wall of the horizontal corridor leading to the Queen's Chamber. In a rare move, the EAO gave permission for the drilling of a series of small holes to test the theory. Apparently some evidence was found of a large 'cavity' which was filled with unusually fine sand—nothing more—but this was enough to send the world media into a frenzy and to turn Dormion and Goidin into hot media properties for a while. Egyptologists fumed on the quiet. The project was eventually stopped and Dormion and Goidin were never to resume their work in the Great Pyramid.[1]

The same thing happened again in 1988 when a Japanese scientific team from Waseda University took up the challenge. They were led by Professor Sakuji Yoshimura. This time the Japanese used 'non-destructive techniques' based on a high-tech system of electromagnetic waves and radar equipment. They, too, detected the existence of a 'cavity' off the Queen's Chamber passageway, some three metres under the floor and, as it turned out, very close to where the French had drilled. They also

[1] J. P. Goidin and G. Dormion, *Kheops: Nouvelle Enquête,* Editions Recherche sur les Civilisations, Paris, 1986. See also Jean Vercoutter, *The Search for Ancient Egypt,* op. cit., p. 195.

detected a large cavity behind the north-west wall of the Queen's Chamber itself, and a 'tunnel' outside and to the south of the Pyramid which appeared to run underneath the monument. Before any further exploration or drilling could be done, the Egyptian authorities intervened and halted the project. Yoshimura and his team were never to return to complete their work in the Queen's Chamber.[2]

It seems odd, despite all the buzz concerning hidden chambers in the vicinity of the Queen's Chamber, that nobody should have taken a closer look into the Queen's Chamber's mysterious and hitherto unexplored shafts. Disappearing as they do, one northwards and the other southwards, into the bowels of the monument, one would have thought that somebody would have had the gumption to investigate them (using video-camera reconnaissance instead of all these unsatisfactory and inconclusive drillings and radar scanning probes). Indeed, as we have argued elsewhere, there is much about their construction and design that could almost have been deliberately contrived to stimulate and invite such investigations.[3] Throughout the 1980s, however, the consensus of senior Egyptologists was that the shafts, like the Queen's Chamber itself, were 'abandoned' features of the Great Pyramid. No doubt it was the power of this consensus, and the built-in reluctance to challenge it, that discouraged individual Egyptologists from interesting themselves in the shafts. After all, what would be the point of exploring obscure parts of the Pyramid that everyone knew had been 'abandoned' during construction.

As a non-Egyptologist, the German robotics engineer Rudolf Gantenbrink did not suffer from such inhibitions. Early in 1991 he submitted a proposal for the videoscopic examination of the shafts to the German Archaeological Institute in Cairo.

Planning an adventure

Gantenbrink's story, as he reported it to us in many hours of documented conversations, goes back to August 1990 when the Egyptian Antiquities Organization commissioned the German Archaeological Institute in Cairo to install a ventilation system inside the Great Pyramid. This project would mainly involve the 'cleaning' of the two shafts of the King's

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[2] Jean Vercoutter, op. cit.

[3] For a more detailed discussion see *Fingerprints of the Gods,* op. cit., pp. 320-3. The shafts were concealed yet, in a curious manner, their position was obvious once a logical correlation was made with those in the King's Chamber above—as Waynman Dixon finally did in 1872 (see I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1982 edition, p. 123). Once the openings were found, then natural curiosity would urge a deeper probe into the shafts. Dixon, in fact, frantically probed inside these shafts with metal rods in the hope of finding relics or a 'chamber', but his technology was not yet sufficiently developed to 'see' what he was doing.

Chamber which (unlike those in the Queen's Chamber) emerge on the outside faces of the pyramid and thus could be of some conceivable use for ventilation. After cleaning, powerful electric fans would be installed in their mouths to boost the natural air-flow through them.

A few months after accepting the EAO's commission for the ventilation project Rainer Stadelmann, the Director of the German Archaeological Institute, received Rudolf Gantenbrink's proposal for the exploration of the Queen's Chamber shafts using a high-tech miniature robot. This proposal, a copy of which Gantenbrink has kindly supplied to us, is entitled *Videoscopische Untersuchung der sog. Luftkanale der Cheopspyramide* (Videoscopic Investigation of the so-called Air Shafts in the Pyramid of Cheops).[4]

The proposal outlines Gantenbrink's plans to build a special robot equipped with two powerful lamps and a 'CCD Farbvideokamera' with a special fixed-focus lens giving a full go-degrees angle of vision. The specifications of the robot would include a powerful electric motor in order for it to be able to tackle the steep slopes of the shafts. The video camera and the motor would be controlled from a console and monitor unit stationed inside the chamber and linked to the robot by electric cables. Caterpillar tracks would be fixed above and below the robot's chassis and adjusted with two sets of powerful hydrolic-suspension units in order to ensure a good grip on the ceiling and floor of the shafts.

There is nothing in the *Videoscopische* study about ventilation. What it describes is unambiguously an exploration into the uncharted regions of the Great Pyramid, an adventure in the Queen's Chamber shafts—a 'robot's journey into the past'.[5] Nevertheless the next move was logical enough: Stadelmann passed over the EAO's 'ventilation' scheme to Rudolf Gantenbrink.

Nor did Gantenbrink object. He had intended, in any case, to examine the King's Chamber shafts at some point during his project and saw no difficulty in fitting these shafts with the electric fans called for by the ventilation scheme. Indeed the idea of getting involved in ventilating the Pyramid as well as exploring it rather appealed to him since it added a 'conservation and restoration' element to his work.

Diversion and delay

As planned, however, Gantenbrink began with the exploration of the Queen's Chamber shafts. Assigned by the German Archaeological

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[4] Presented to the German Archaeological Institute in Cairo and dated March 1991.

[5] This was the original title given to the documentary made by Rudolf Gantenbrink which was broadcast on the A & E channel in the USA (title changed to *The Great Pyramid)* on 8 January 1995. A shortened version was broadcast in Germany on Sat. 1 on 15 August 1995.

Institute to assist Gantenbrink, and to serve as the Institute's official representative on site, was Uli Kapp (who, coincidentally, had also assisted Mark Lehner on the ARCE Sphinx Project in 1979-80).[6] The start date was February 1992 and the decision was made to tackle the southern shaft first[7]—the very shaft in which, in March 1993, the 'door' would be discovered.

The initial exploration of the shaft was not as simple as Gantenbrink had supposed. He had to adapt to the rather oppressive conditions within the Queen's Chamber and found that manoeuvring the sturdy little robot inside the confined space of the narrow and steeply sloping shaft was difficult and extremely slow work. By mid-May 1992, however, he had made considerable progress, penetrating to a depth of 70 feet. Furthermore, as he peered curiously into his monitor screen, he could see the shaft disappearing into the deep, dark distance beyond. Where did it lead to? Was it really 'abandoned' as the majority of Egyptologists maintained,[8] or did it serve some yet unknown and greater function? Hitherto Egyptologists had theorized that this shaft would not be more than 30 feet long but now Gantenbrink had proved them wrong. What could possibly lie ahead?

The desire to continue was irresistible. But at this nail-biting stage he was called to attend to the secondary ingredient of his project—the 'ventilation' of the Great Pyramid using the shafts of the King's Chamber.

Since these extend from the Chamber's northern and southern walls right through to the outside of the Pyramid, Gantenbrink was able to investigate them with a much simpler device than that required for the Queen's Chamber shafts. This device he named *Upuaut I.* Resembling a crude, miniature sledge, and mounted with a video camera, it could be hauled up and down the shafts by means of cables with pulleys at both ends.

Upuaut I could only look at the King's Chamber shafts—where it found little of interest. The cleaning job was done in a quainter manner. Gantenbrink made use of an old axle from the wreck of an abandoned truck in the nearby village of Nazlet-el-Sammam, which he attached to a cable and yanked up and down the shafts to push out the debris and sand that had piled up inside them. This done he arranged for sponsors to supply and install electric fans and then informed the German Archaeological Institute that he would now prepare for the continuation of his exploration of the much more promising and mysterious 'blind-ended' shafts of the Queen's Chamber.

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[6] *Smithsonian,* Vol. XVII, No. I, April 1986. Uli Kapp also assisted Mark Lehner in the Giza Mapping Project in 1985 (ARCE Newsletter 131, 1985, p. 44).
[7] Documented information provided to authors.
[8] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., p. 123.

Upuant II

Gantenbrink enthusiastically proposed to Stadelmann that he would develop an even more powerful robot, to be named *Upuaut II,* in order to launch the final assault on the cramped and inaccessible shafts. This new machine would be specially designed to overcome the difficulties encountered by its predecessor (the prototype robot, used in early 1992, now discarded and jocularly named 'the father of *Upuaut*') in the first attempt to explore these shafts. *Upuaut II*, Gantenbrink had decided, would be smaller, smarter, and much stronger. He opted to design it from scratch and to this end brought together a team of engineering and electronic experts, mostly volunteers, in a special laboratory in Munich. What they were to come up with during the course of the next year was a marvel of the space age. The body of the robot was made of a particularly light but robust aluminum used in aircraft components. A sophisticated laser was included which could probe any small and inaccessible regions within the shaft. Hundreds of electronic components were used to form the electronic 'brain' and guidance system of the robot. Specially designed motors and gears were fitted to the front and rear of the main body, and steel struts were added for extra stability. Even hydraulic high-pressure pistons were included, capable of generating a thrust of 200 kilograms to ensure that the robot could brace itself tightly within the shaft. A new camera unit was also designed that could swivel not only horizontally but also vertically to catch every conceivable angle of view. Two powerful high-intensity bulbs, fitted on each side of the camera, would illuminate the way ahead. Finally a special eight-wheel drive system—four gripping the floor and four gripping the roof of the shaft—would ensure that the robot could reach its final destination.

Problems with permits

During the latter part of 1992 and the early part of 1993, while *Upuaut II* was being designed and built in Munich, Rudolf Gantenbrink arranged for a television crew to come with him to Egypt to film his forthcoming exploration of the Queen's Chamber shafts. When he and the crew (including the film-maker Jochen Breitenstein and an assistant, Dirk Brakebusch) arrived in Cairo on 6 March 1993, however, the exploration and filming were delayed by something that at first appeared to be only a minor administrative problem: the German Archaeological Institute had not yet obtained the necessary filming permits from the Egyptian Antiquities Organization. When no permits were forthcoming, Gantenbrink reports that first Dr. Stadelmann and then he himself approached Zahi Hawass, the EAO's Director-General of the Giza

Pyramids, who granted 'verbal permission' for the filming to go ahead.[9]

Accordingly, the exploration began.

Discovery

Mid-March 1993 was a crucial period for Rudolf Gantenbrink in his work inside the Great Pyramid—all the more crucial because: (a) the whole operation had cost him a great deal of money (including $250,000 in research-and-development costs for the robot alone); (b) it was being filmed at personal expense for a commercial documentary and (c) a deadline for the completion of the film had been set for the last week of March.

It was at around this time, says Gantenbrink, that Stadelmann recalled Uli Kapp and withdrew the official support that the German Archaeological Institute had previously accorded to the exploration of the shafts.

Perhaps other men would have stopped and gone meekly home at this point. Gantenbrink is far from meek. Feeling that he was on the verge of a breakthrough, he decided that he was going to forge on—with or without Stadelmann's support.

The crucial figure was now Zahi Hawass, whose personal authority on the site provided the whole 'official' sanction and backing for Gantenbrink's work. However, Hawass's undocumented 'verbal permission' actually counted for a great deal on the Giza plateau. Indeed it was as good as a signed and sealed mandate to the lowly *ghafirs* guarding the entrance to the Great Pyramid and was taken at face value not only by Gantenbrink and his team but also by a young inspector from the EAO, Muhammad Shahy, who had been assigned to work with the Germans.[10]

So Gantenbrink reasoned that he would still be able to go in and out and work undisturbed in the Queen's Chamber. This he successfully did, making rapid progress with the robot in the exploration of both the northern and the southern shafts.

Early on the morning of 21 March 1993, just before starting the day's work as usual, he paid a visit to Zahi Hawass at his office on the Giza plateau. There, to his consternation, he learned that the Director of the Giza Pyramids had been suspended from his post on account of an

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[9] Documented information provided to authors.

[10] A curious letter was mailed by the inspector Muhammad Shahy to Rudolf Gantenbrink dated 5 August 1993—i.e. five months after the discovery. Shahy (better transliterated as Sheeha) wrote: 'I'm in troubles now because of your project ... I shall face questioning soon.' The young inspector was also worried that he could not write a report on this project because 'there is no reference here' (this letter was shown to the authors by R. Gantenbrink). We have been unable to make contact with Mr. Muhammad Shahy.

unrelated scandal concerning a missing Fourth-Dynasty statue.[11] (Hawass was not to be reinstated as Director of the Giza Pyramids until April 1994.)

This unexpected turn of events could not have come at a more vital moment—for by 21 March 1993 *Upuaut II* was deep inside the southern shaft of the Queen's Chamber and was, in Gantenbrink's opinion, very close to whatever lay at the end. The exploration, however, was to go on. Destiny had fixed an amazing rendezvous for Gantenbrink on the next day, 22 March, coincidentally the spring equinox.

With him in the Queen's Chamber on that fateful day were Jochen Breitenstein, Dirk Brakebusch and Muhammad Shahy.[12] By 10 a.m. Gantenbrink had managed to manoeuvre *Upuaut II* a distance of 170 feet up the shaft. At about 180 feet a sharp settlement in the floor of the shaft created a dangerous obstacle that threatened to halt progress but that was eventually surmounted. Then, barely an hour later, at 11:05 a.m., after crawling a total distance of 200 feet into the shaft, the floor and walls became smooth and polished and the robot suddenly—and one might almost say 'in the nick of time'—reached the end of its journey.

As the first images of the 'door' with its peculiar metal fittings appeared on the small television monitor in the Queen's Chamber, Rudolf Gantenbrink immediately realised the massive implications of his find. This was archaeological history in the making[13]—an exciting and significant new discovery inside the world's most famous and most mysterious ancient monument. And it was interesting to note that under the lower western corner of the 'door' there was a little gap beneath which the red laser spot projected by *Upuaut* was seen to disappear. The urge to look under the 'door' and see whatever might lie beyond it must have been almost unbearable. The gap, however, was far too small for *Upuaut's* camera to be able to peer into. A fibre-optic lens would need to be added if that was to be done, but rigging it would take days, perhaps even weeks, to organize.

After the initial excitement had died down, Gantenbrink's first instinct was to make doubly certain that the unique video images that he had been looking at on the screen had been properly recorded. Once he was satisfied that the recordings were excellent, he and his team packed the tapes, together with the rest of their gear, and returned to their base at

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[11] The statue went missing on the 19 January 1993, when it was supposed to be displayed to President Mubarak and his guest, Libya's President, Muammar Gaddafi, on a table near the Sphinx. It may have been stolen by the same smuggling gang that was rounded up in March 1995 (see *The Times* of London 12 and 13 March 1995).

[12] Documented information from R. Gantenbrink and Jochen Breitenstein.

[13] Gantenbrink has, in fact, entered the history books. His name is found in I. E. S. Edwards, *The Great Pyramid,* op. cit., 1993 edition, p. 151 and also in various education manuals on the Great Pyramid. Should a major find be made when the 'door' is opened—even though, as now seems likely, not by him—it will be entirely because of his efforts and bold imagination.

the Movenpick Hotel.

For several days after 22 March nothing happened, with no official announcement of any kind being made to the press by the German Archaeological Institute. The reason, it seems, was that Dr. Stadelmann could not make up his mind as to what form, exactly, such an announcement should take. During this hiatus, Gantenbrink and the film crew decided to return to Munich. They naturally took along all their equipment, including the twenty-eight videotapes shot during the exploration. A few days later, at the beginning of April 1993, Gantenbrink sent us a copy of the tape showing the discovery of the 'door'.

We passed this tape on to the British media.

Much ado, then nothing

The first major story appeared on the front page of the London *Independent* on 16 April 1993:

> Archaeologists have discovered the entrance to a previously unknown chamber within the largest of Egypt's Pyramids. Some evidence suggests it might contain the royal treasures of the Pharaoh Cheops [Khufu], for whom the Great Pyramid was built 4500 years ago. The contents of the chamber are almost certainly intact. The entrance is at the end of a sloping passage 65 metres long but only eight inches (20 cm.) wide and eight inches high ... According to the Belgian Egyptologist Robert Bauval, the passage points directly at the Dog star Sirius, held by the ancient Egyptians to be the incarnation of the goddess Isis. Other small passages in the Pyramid appear to point to other heavenly bodies—the Belt of Orion and the star Alpha Draconis, which at the time was in the area now occupied by the Pole Star ...

The reaction to the *Independent's* front-page splash was electrifying. Dozens of reporters from all over the world wanted to interview Gantenbrink within hours and that same evening Britain's Channel 4 TV News covered the story in depth. Dr. I. E. S. Edwards made a rare appearance in this report and created something of a sensation by telling millions of excited viewers that 'a statue of the king gazing towards the constellation of Orion' might be found behind the mysterious 'door'. 'But it's a wild guess—we have no precedents,' he was quick to add.

But wild guess or not, and still with no clear statement emanating from Cairo, the international media had a field day:

'PYRAMID MAY HOLD PHARAOH'S SECRETS' ran the front page of *The Age* in Melbourne; 'SECRET CHAMBER MAY SOLVE PYRAMID RIDDLE' shouted *The Times* in London; 'NOUVEAU MYSTERE DANS LA PYRAMIDE' *Le Monde* announced excitedly in Paris; 'PYRAMID MYSTERY' reported the *Los Angeles Times;* 'VIVE LA TECHNIQUE: PORTE POUR KHEOPS!' cried *Le Matin* in Switzerland.[14]

It was almost as though the cult of the Pyramid had suddenly come to

[14] All articles appeared between 17 and 19 April 1993.

life again. At any rate the story continued to run for many more weeks in dozens of regional newspapers and several international magazines.[15] Everyone, it seemed, wanted to know what was behind the little 'door', and why the Pyramid's shafts were directed towards the stars ...

The first official riposte came from the German Archaeological Institute, through Reuters in Germany, on 16 April 1993. Mrs. Christine Egorov, Stadelmann's secretary—here presented as the *Institutsprecherin*—firmly pronounced that the very idea of a possible chamber at the end of the shaft was nonsense. The Queen's Chamber's 'air-channels', she explained, did not head in the direction of anything at all and the purpose of Gantenbrink's robot had been solely 'to measure the humidity of the Pyramid'.[16]

Soon afterwards, a second report went out on the Reuters wire, this time quoting Dr. Stadelmann: 'I don't know how this story happened but I can tell you this is very annoying,' he fumed. 'There is surely no other chamber ... there is no room behind the stone.'[17]

Political games

In the years that followed Gantenbrink made repeated efforts to get his exploration of the Queen's Chamber shafts restarted, arguing that there was no need to speculate as to whether or not the 'door' was really a door, or whether there might or might not be a chamber concealed behind it:

> I take an absolutely neutral position. It is a scientific process, and there is no need whatsoever to answer questions with speculation when questions could be answered much more easily by continuing the research ... We have a device (ultrasonic) that would discover if there is a cavity behind the slab. It's nonsensical to make theories when we have the tools to discover the facts.'[18]

One of the main problems that Gantenbrink faced was that he did not belong to the Egyptological profession but was regarded by the leading academics at Giza as a hired technician—which meant, by definition, that his views were assumed to have no merit. He explained how, after discovering the slab-door in March 1993, he had been all but ignored and the find handled with indifference: 'I was scheduled to meet the Minister of Culture about the discovery, but it never happened. A press conference was scheduled. It never happened.'[19]

In late 1994, Gantenbrink announced in Paris that he was willing to

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[15] Several major international journals (*Stern, Der Spiegel,* etc.) also published articles and pictorials.
[16] Not published in the press but mentioned in *Ancient Skies* magazine No. 3/1993, 17. Jahrgang, p. 4.
[17] Reuters wire, Cairo 16 April 1993.
[18] *Sunday Telegraph*, 1 January 1995.
[19] Ibid.

supply the robot to the Egyptians and even train an Egyptian technician at his own expense so that the exploration could resume, but a few weeks later he was politely rebuffed by the EAO's Chairman, Dr. Nur El Din: 'Thank you for your offer to train the Egyptian technician [Nur El Din had written] ... unfortunately we are very busy for the time being, therefore we will postpone the matter.'[20]

'The search for truth', Gantenbrink commented in January 1995, 'is too important to be ruined by a silly political game. My only hope is that they will soon reach the same conclusions.'[21]

Breakfast with Gantenbrink

On 19 February 1995 we arrived in Egypt and the next morning had breakfast with Rudolf Gantenbrink at the Movenpick Hotel in Giza.

He had been in Egypt for most of the previous week, still trying to obtain permission to resume his exploration of the Queen's Chamber shafts, and was returning to Munich later that morning. During his visit, he told us, he had finally managed to have a face-to-face meeting with Dr. Nur El Din.

'What was the response?' we asked.

Gantenbrink shrugged his shoulders: 'Encouraging.' But he looked less than encouraged.

We then asked if he had been back inside the Queen's Chamber on this visit.

'No,' he replied, 'I prefer not to go there.'

He could not bear the thought, he told us, of returning to the site of his great discovery without his robot, purposelessly, like a tourist. 'I will go back in the Queen's Chamber with *Upuaut* and complete the exploration of the shafts,' he said proudly, 'or I won't go back there at all.'

Select groups

That same month—February 1995—one of the most prosperous and active members of the Association for Research and Enlightenment spoke to us by telephone from the United States about plans that were in hand for furthering the quest for the Hall of Records at the Giza necropolis:

> The next three years are going to be super years ... We sort of have '96 set up for our little expedition to the Sphinx—with underground radar. 1996 was when Zahi said we'd be able to go. We'll do more ground-scanning and most of all we're going to get to love and understand the people around us, and the various groups, and work with them ... and I figure that by '98 we'll hit

[20] Ibid.
[21] Ibid.

something.[22]

We learnt in the same conversation that the same individual had been keeping a close watch on events surrounding the hidden door in the Great Pyramid during the two years since Rudolf Gantenbrink's project had ground to a halt. He claimed to have been informed that the Egyptian authorities would soon make an attempt to reach the door with their own robot in order to insert a fibre-optic camera beneath it and to see whatever lies beyond. Our informant also said that he had been invited by 'Zahi' to be amongst the select group of witnesses present inside the Pyramid when this moment eventually comes: 'He promised me a one-month's advance notice before they do anything ... Something's definitely going to happen. He's not sure when. He had delays—I think with the robot—but they'll get it done ...'[23]

But what exactly will get done? By whom? With what motive? How certain is it that the public will be properly informed about any further discoveries that might be made? And how reliable and comprehensive are the orthodox Egyptological interpretations of such discoveries likely to be?

One thing at any rate seems certain: Rudolf Gantenbrink, whose inventiveness and daring led to the original discovery of the door at the end of the Queen's Chamber's mysterious southern shaft, is unlikely to be present. In September 1995 it was reported to us that the Egyptian Antiquities Organization had issued notification to the German authorities advising that they did not wish to pursue the exploration in the Great Pyramid.[24]

Burial

After reviewing the scholarly goings on concerning the possible geological antiquity of the Sphinx and the 'anomalies' located in the bedrock beneath it, the case of the iron plate in the southern shaft of the King's Chamber, and the case of the relics found in the shafts of the Queen's Chamber, we are frankly not surprised by the case of Gantenbrink's 'door'. Here, too, orthodox academics have participated in the burial of research that promises new insights into the Giza monuments and—more than three years after the discovery—the 'door' still remained unopened.

We have no opinion as to whether or not it might lead to a 'Hall of Records'—'records' on papyrus scrolls to do with the 'religion' of the builders as Zahi Hawass speculated in 1993 during his year of absence

[22] Documented conversation with the authors.
[23] Ibid.
[24] Reported to us by R. Gantenbrink in September 1995.

from his post as Director of the Giza Pyramids.[25] Our own research has convinced us, however, that the shaft in which Rudolf Gantenbrink made his remarkable discovery is linked to an archaic system of beliefs and rituals that envisaged the monuments of the Giza necropolis as an 'image of heaven'.

In Parts III and IV we will attempt to decode this image and learn its meaning.

[25] Sat. 1, Spiegel Reportage, 15 August 1995. See also *Los Angeles Times,* 30 August 1993.

Part III

Duality

Chapter 8

The Clues of Duality

'Newton ... was the last of the magicians ... Why do I call him a magician? Because he looked at the whole universe and all that is in it as a riddle, as a secret that could be read by applying pure thought to certain evidence, certain mystic clues which God had laid about the world to allow a sort of philosopher's treasure hunt to the esoteric brotherhood. He believed that these clues were to be found partly in the heavens ... partly in certain papers and traditions handed down by the bretheren ... By pure thought, by concentration of mind, the riddle, he believed, would be revealed to the initiate ...'

John Maynard Keynes, The Royal Society, Newton Tercentenary Celebrations, 1947

We saw in Parts I and II how the astronomical character of the architecture of the Sphinx and of the Giza Pyramids has failed to interest Egyptologists and has not been taken into account in their analysis of the function and significance of the monuments. This, in our view, has resulted in a number of serious misinterpretations of the available evidence—perhaps the most flagrant examples of which, at the level of physical exploration and research, have been the chronic neglect of the four astronomically aligned shafts of the Great Pyramid and the long and shocking period of inactivity over the matter of the 'door' in the southern shaft of the Queen's Chamber.

We hinted at the end of Part I that the logic of all these shafts, and of the ground-plan and symbolism of the Pyramids and the Sphinx, appears to be connected to certain very powerful religious and cosmological ideas set out in ancient Egyptian funerary and rebirth texts and in the so-called 'Hermetic' writings. These express the philosophy 'as above, so below' and advocate the drawing down to earth of cosmic powers as an essential step in Mankind's quest for knowledge of the divine and immortality of the soul: 'And I, said Hermes, will make Mankind intelligent, I will confer wisdom on them, and make known to them the truth. I will never cease to benefit thereby the life of mortal men; and then will I benefit each one of them, when the force of nature working in him is in accord with the movement of the stars above.'[1]

[1] *Kore Kosmou* (Excerpt XXIII-29) in *Hermetica,* op. cit. p. 473.

In the following chapters we will offer evidence to suggest that the extraordinary monuments of the Giza necropolis are part of a grand and long-forgotten scheme to initiate certain select individuals, the most recent of whom were the Pharaohs of Egypt, into an esoteric cosmic wisdom linking earth to heaven by means of which they sincerely expected to transcend the limits of death:

> All the world which lies below has been set in order and filled with contents by the things which are placed above; for the things below have not the power to set in order the world above. The weaker mysteries must yield to the stronger; and the system of things on high is stronger than the things below.[2]

> Thy protector is the Star-God ... thy soul passeth on ... thy body is equipped with power ... The doors of the hidden land are opened before thee ... Osiris, conqueror of millions of years, cometh unto thee ...[3]

Cosmic environment

The world view of the ancient Egyptians, which they appear to have inherited intact and fully formed at the very beginning of their historical civilization some 5000 years ago, was profoundly dualistic and cosmological. The foundation of Pharaonic theocracy, the unification of the 'Two Lands' of Upper and Lower Egypt into one kingdom, the notions that they had of their own past and ancestry, their laws and calendrical measures, the architecture of their temples and pyramid complexes, and even the land of Egypt itself and the Nile—all these were cosmological concepts to them. Indeed, they saw their cosmic environment (the sky, the Milky Way, the sun and the stars, the moon and the planets, and all their cycles) as being bound together in perfect duality with their earthly environment (their land and the Nile, their living king and his ancestors, and the cycles of the seasons and epochs).

We suspect that the history of ancient Egypt, to the extent that it was written down *at all* in papyri and tablets and inscriptions, was frequently expressed in a kind of 'cosmic code' ritualistically and symbolically linked—like the Pyramids themselves—to the ever-changing patterns of the sky. From this it follows that we must look to the sky, just as the Egyptians did, if we wish to understand the ideas that they were trying to communicate in their (on the face of things) extremely strange and problematic religious writings. These writings include mysterious and archaic texts aimed at guiding the afterlife journey of the deceased, such as the *Book of the Dead* (which the ancient Egyptians knew as *Per-Ém-Hru,* the Book of 'Coming Forth By Day'), the *Book of Two Ways,* the *Book of*

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[2] Ibid, p. 457.

[3] From the Second Division of the *Book of What is in the Duat,* E. A. Wallis Budge trans., *The Egyptian Heaven and Hell,* Martin Hopkinson & Co. Ltd., London, 1925, Vol. 1, page 41. See also Third Division, ibid., p. 56.

Gates, the *Book of What is in the Duat* and the *Coffin Texts.* Oldest and most enigmatic of all these funerary and rebirth documents however, are the so-called *Pyramid Texts* which began to be copied and compiled from older sources in the second half of the third millennium BC. These remarkable records have come down to us in the form of lavish hieroglyphic inscriptions on the tomb walls of a number of Fifth—and Sixth-Dynasty pyramids at Saqqara, some ten miles to the south of the Giza necropolis, and offer us a hitherto neglected key by means of which the secrets of the great Pyramids and the Sphinx can be unlocked.

Astronomical essence

All the above-named documents, and many more, have been translated into modern languages during the past hundred years, and all have been studied by scholars—the majority of whom would not dispute that they incorporate a complex network of astronomical references, symbols, allegories and allusions.[4] Only a handful of researchers, however, have considered the possibility that these astronomical characteristics could constitute the *essence* of the texts. In this group the late Giorgio de Santillana and Hertha von Dechend, whose study, *Hamlet's Mill,* we encountered in Chapter 4, have commented on the manner in which the soul of the deceased Pharaoh was thought of as having travelled through the skies:

> ... well-equipped ... with his Pyramid Text or Coffin Text, which represented his indispensable timetable and contained the ordained addresses of every celestial individual he was expected to meet. The Pharaoh relied upon his particular text as the less distinguished dead relied upon his copy of chapters from the *Book of the Dead,* and he was prepared to change shape into the ... semblance of whatever celestial 'station' must be passed, and to recite the fitting formulae to overcome hostile beings ...[5]

Santillana and von Dechend also comment, somewhat witheringly, on the hopeless inadequacy of many of the translations that scholars work with today—translations which treat the astronomical aspects of the texts as though they are of no particular relevance:

> So the elaborate instructions in the *Book of the Dead,* referring to the soul's celestial voyage, translate into 'mystical' talk, and must be treated as holy mumbo jumbo. But then, modern translators believe so firmly in their own

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[4] *The Orion Mystery,* op. cit., 1994 edition, Chapter 4. There are thousands of references to 'stars' 'star-souls', 'the sun-god', 'the sky', 'the Milky Way' etc., that make the Pyramid Texts obvious candidates for a proper astronomical investigation into their content and hidden meaning. The intense concept of 'time'—especially the 'time' of the 'sky gods' and of a cosmic 'Creation'—that is found in these texts strongly suggests that the science of precession is also an important factor to apply on such an esoteric literature. The best translation is given by R. O. Faulkner, *The Ancient Egyptian Pyramid Texts,* OUP, 1969.

[5] Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill,* op. cit., p. 132.

> invention, according to which the underworld has to be looked for in the interior of our globe—instead of in the sky—that even 370 specific astronomical terms would not cause them to stumble.[6]

The problem identified here is, we will demonstrate, a large and multi-faceted one which has led scholarly analysis of the texts into a blind alley through a complete and conspicuous neglect of: (a) the most important religious concept of the ancient Egyptians; (b) the most vital feature of their land and sky and (c) the most fundamental element of their spiritual and cosmological beliefs.

Otherworld

In the earliest religious writings that have survived from ancient Egypt a powerful symbolic terminology is used to describe the cosmic 'world of the dead' and its features. This world is referred to as the *Duat*[7]—a concept that is routinely translated by modern Egyptologists as 'the Underworld' (or sometimes as the 'Netherworld').[8] In the Pyramid Texts, however, the *Duat* is clearly a location in the starry sky—as many distinguished Egyptologists of earlier generations such as Selim Hassan, Sir E. A. Wallis Budge and Kurt Sethe were undoubtedly aware.[9] Yet even these pioneers failed to get to grips with the full implications and characteristics of the concept because they lacked familiarity with astronomy.

For example, in his analysis of the various ways in which the word *Duat* was inscribed in hieroglyphic characters throughout the whole span of Egyptian history, Selim Hassan makes the following comment: 'If we consider the evidence afforded by the meaning of its name during the Old Kingdom [the Pyramid Age], we shall see that the original *Duat,* the future Underworld, was localized in the sky.'[10] He then cites the view of Kurt Sethe that 'the *Duat* could be either the red glow of twilight which precedes the dawn (i.e. the "false dawn") or the spacious region in the east of the sky where this glow appears ...'[11]

Hassan goes on to quote from line 151 of the Pyramid Texts: 'Orion has been enveloped by the *Duat;* while he who lives in the Horizon (i.e. Re

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[6] Ibid, p. 373.

[7] For a useful discussion on the *Duat,* see Selim Hassan, *Excavations at Giza,* op. cit., Cairo, 1946, pp. 276-319.

[8] A great deal of confusion has resulted from a failure to understand that the *Duat* is a fixed location in the sky (obviously encompassing Orion, Canis Major, Taurus and Leo) which has its counterpart on the land and, as the case may be, underneath the land. Access to it was deemed possible by either ascending to the sky or by going underground.

[9] Selim Hassan, *Excavations at Giza,* op. cit., p. 277. See also *The Orion Mystery,* op. cit., p. 76.

[10] *Excavations at Giza,* op. cit., p. 277.

[11] Ibid., pp. 277-8.

[the sun-god]) purifies himself; Sothis [Sirius] has been enveloped by the *Duat* ... in the embrace of [their] father Atum.'

In Hassan's opinion: 'This clearly shows how, as the sun rises and purifies himself in the Horizon, the stars Orion and Sothis [Sirius], with whom the King is identified, are enveloped by the *Duat.* This is a true observation of nature, and it really appears as though the stars are swallowed up each morning in the increasing glow of the dawn. Perhaps the determinative of the word *Duat,* the star within a circle, illustrates the idea of this enveloping of the star. When on his way to join the stars, the dead king must first pass by (or through) the *Duat* which will serve to guide him in the right direction. Thus we see in Utterance 610 [of the Pyramid Texts]: "The *Duat* guides your feet to the Dwelling-place of Orion ... The *Duat* guides your hand to the Dwelling-place of Orion." ...'[12]

Stars rising with the sun

Hassan's assessment of the celestial landscape of the *Duat* is only accurate in as much as he realizes that it is in the east, that the moment of observation is the pre-dawn (which he calls 'false dawn', and that the constellation of Orion (Osiris), the star Sirius (Isis), the sun (Re), and some other cosmic feature representing 'Atum' (the 'Father' of the Gods), are all to be found in the *Duat.* Because he is not conversant with basic celestial mechanics, however, and because he fails to set the relevant lines from the Pyramid Texts in the context of their time and their place, he then goes on to make a serious error of interpretation which has subsequently been compounded by numerous other astronomically illiterate scholars:

1. The time the Pyramid Texts were compiled was the epoch of 2800 BC to 2300 BC approximately.[13]

2. The place of observation of the sky was just south of modern Cairo in the so-called 'Memphite necropolis' (named after *Men-nefer,* later 'Memphis', the first historically recognized capital of ancient Egypt), where stand the great Pyramids of Giza (and also lesser Old Kingdom pyramids such as those at Abu Roash, Abusir, Saqqara, Dahshur and Meidum).[14]

3. The error that Hassan makes is his assumption that the stars in question—i.e. Orion and Sirius—are swallowed up 'each morning' in

[12] Ibid, p. 279.
[13] Although their actual composition may long pre-date the third millennium BC. See *The Orion Mystery,* op. cit., pp. 69-70.
[14] Observation stations may have been spread in a sort of 'triangle' extending from Heliopolis, Memphis and Giza. It seems likely that this whole region was somehow considered the original 'land of the gods', with its epicentre at Giza.

the 'increasing glow of the dawn.'

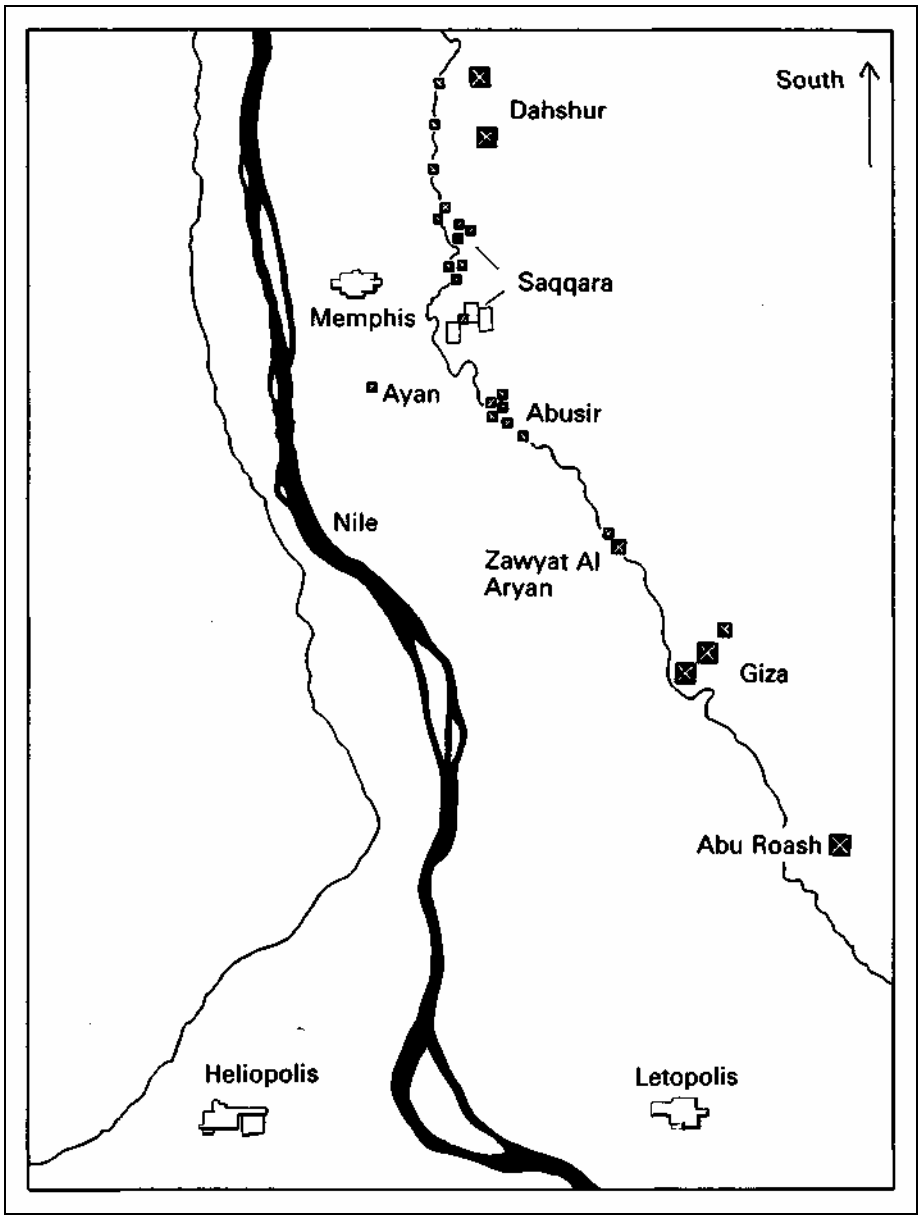

34. The 'Memphite necropolis'—Pyramid fields from Abu Roash to Dahshur.

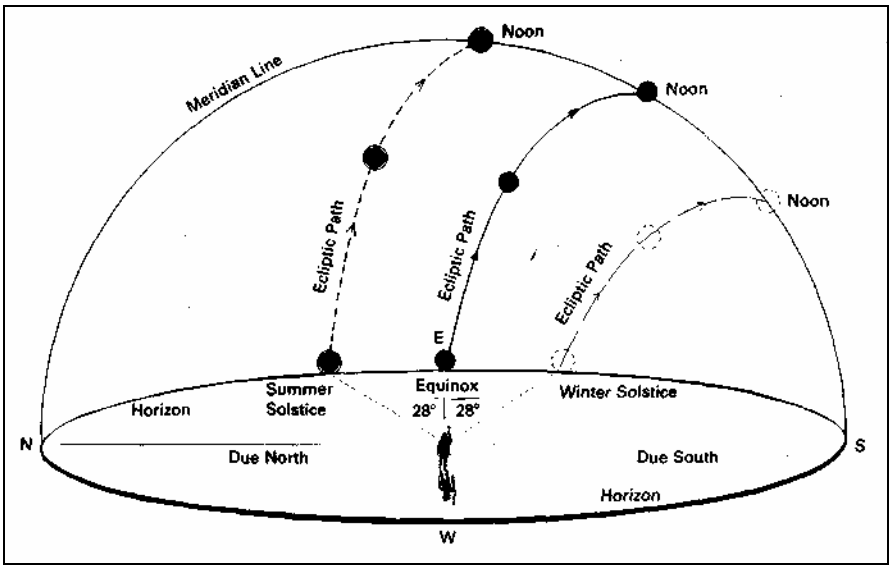

35. Rising points of the sun at the solstices and equinoxes as observed from the Memphite necropolis. In the epoch of 2500 BC—the 'Pyramid Age'—the *Duat* was observed and considered to be active only at the time of the summer solstice when the stars of Orion and Sirius rose heliacally (i.e. just ahead of the sun) at dawn.

In fact there is only one time of the year when this 'swallowing-up' occurs—a time that slowly alters down the epochs because of the earth's precessional motion. The long and the short of it is that in the Pyramid Age the specific phenomena described in the texts, and addressed by Hassan (phenomena known technically as the 'heliacal risings' of Orion and Sirius, i.e. the risings of these stars just ahead of the sun at dawn) could only have been observed at around midsummer—i.e. *at the summer solstice.*[15] The *Duat,* in other words, was considered by the ancient Egyptians to be active *only* at the time of the summer solstice when Orion and Sirius rose heliacally and not, as Hassan suggests, throughout the year.

With these facts in mind, let us attempt to reinterpret the cosmic *Duat,* this time placing it in its proper astronomical context.

Cosmic river

One of the most salient features of the *Duat,* as it is described in the ancient Egyptian texts, is its relationship to a great cosmic 'river' called the 'Winding Waterway'. Several studies have confirmed beyond any serious doubt that the 'Winding Waterway' was the magical band of light meandering across the sky that we know as the 'Milky Way'.[16] It is also

[15] The conjunction of summer solstice sunrise, the rising of Sirius and the start of the flood occurred in 3400 BC and throughout the early Pyramid Age, when the Pyramid Texts were most certainly compiled.
[16] *The Orion Mystery,* op. cit., pp. 119-24.

evident that the ancient priest-astronomers who compiled the Pyramid Texts identified the terrestrial counterpart of this 'Winding Waterway' in the sky as the River Nile and its yearly flood, the 'Great Inundation', which also happened to coincide with the summer solstice:[17]

> The Winding Waterway is flooded, the Fields of Rushes are filled with water, and I am ferried over thereon to yonder eastern side of the Sky, the place where the gods fashioned me ... [Orion's] sister is Sothis [Sirius] ...[18]
>
> I have come to my waterways which are in the bank of the Flood of the Great Inundation, to the place of contentment ... which is in the Horizon ...[19]
>
> May you lift me and raise me to the Winding Waterway, may you set me among the gods, the Imperishable stars ...[20]

As Sir E. A. Wallis Budge rightly observed: 'the Egyptians ... from the earliest times ... depicted to themselves a material heaven [the *Duat*] ... on the banks of a Heavenly Nile, whereon they built cities.'[21] And similarly the philologist Raymond Faulkner, who translated the Pyramid Texts and much of the other religious literature of ancient Egypt into English, could not avoid making the obvious correlations between the 'celestial river', the 'Winding Waterway' and the Milky Way.[22]

Kingdom of Osiris in the sky

The stars of Orion and Sirius are located on the right bank of the Milky Way, which—at the summer solstice in the Pyramid Age—would have appeared as a vertical 'cosmic river' in the pre-dawn in the east.

To the ancient Egyptians, therefore, the *Duat* could not possibly have been seen merely as some vague, blank, rose-tinted region somewhere over the eastern horizon. On the contrary, it clearly had an extremely specific address in the sky—the 'Dwelling Place' of 'Orion and Sirius' on the banks of the 'celestial Nile':

> Be firm O Osiris-King [Orion] on the underside of the sky with the Beautiful Star

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[17] The Milky Way appeared rising due east at the summer solstice pre-dawn along with Orion and Sirius in the third millennium BC.
[18] *Pyramid Texts,* op. cit., lines 343-57.
[19] Ibid., line 508 and Utterance 317.
[20] Ibid., line 1760.
[21] E. A. Wallis Budge, *The Egyptian Book of the Dead,* Dover Publications Inc., New York, 1967, p. cxxiii.
[22] R. O. Faulkner, *The Book of the Dead,* British Museum Publications, London 1972, p. 90. Also see R. O. Faulkner 'The King & the Star-Religion in the Pyramid Texts' *in Journal of Near Eastern Studies,* 1966, Vol. XXV, p. 154 footnote 7. Dr. Virginia Lee Davis also makes the link between the Milky Way and the 'Winding Waterway' in *Archaeoastronomy,* Vol. IX, JHA xvi, 1985, p. 102. The archeoastronomer and Egyptologist, Jane B. Sellers, also arrives at the same conclusion as V. L. Davis (J. B. Sellers, *The Death of Gods in Ancient Egypt,* Penguin Books, London, 1992, p. 97).

[Sirius] upon the bend of the Winding Waterway ...[23]

Betake yourself to the Waterway ... May a stairway to the *Duat* be set for you to the place where Orion is ...[24]

O King, you are this Great Star, the companion of Orion, who traverses the sky with Orion, who navigates [in] the *Duat* with Osiris ...'[25]

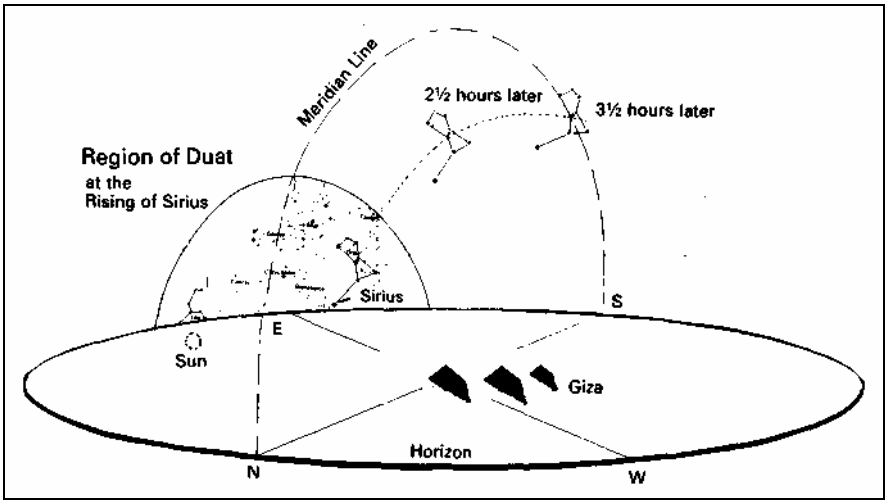

36. The sky region of the *Duat* with the stars of Orion and Sirius rising heliacally just ahead of the sun at dawn on the summer solstice. It was at this time of the year, and at this moment only, that the *Duat* was considered to be 'active'. Note that the Milky Way at this same moment appeared as a vertical 'cosmic river' in the east. Also shown is the trajectory of the Orion stars after their dawn rising until their culmination at the meridian.

With this starry landscape in mind, we can begin to conjure up a fairly detailed image of the *Duat,* the 'Kingdom of Osiris' in the sky—a distinct pattern of stars, at a specific celestial location, that comes complete with its own 'cosmic Nile'.

But when was this cosmic kingdom 'founded'?

'First Time'

In their most profound and beautiful religious texts, as we noted in Part I, the ancient Egyptians spoke of 'the time of the gods', *Zep Tepi* (literally the 'First Time') with the unshakeable conviction that there had indeed been such an epoch. In other words, they believed that *Zep Tepi* had been an actual, historical event. In line with their prevailing dualism they also believed that it had been projected and 'recorded' in the catalogue of the starry sky. Indeed it was a story that was re-enacted endlessly in the

[23] *Pyramid Texts,* op. cit., line 2061.
[24] Ibid., line 1717.
[25] Ibid., line 882.

cosmic setting by the cyclical displays of the celestial orbs and the constellations.

What they had in mind, in other words, was a kind of cosmic 'passion play', expressed in the language of allegorical astronomy, in which each main character was identified with a specific celestial body. Re was the sun, Osiris was Orion, Isis was the star Sirius, Thoth was the moon—and so on and so forth. Nor was the drama only confined to the celestial realms; on the contrary, as one might expect in dualistic ancient Egypt, it was also re-enacted on the ground, amidst the cosmic ambiance of the astronomical Pyramids of Giza, where the events of the 'First Time' were commemorated for millennia in secret rituals and liturgies.[26]

Very little is known about these liturgies, or about the myths they expressed. As the Egyptologist R. T. Rundle Clark explains:

> The creation of the myths was founded on certain principles. These are strange and, as yet, only partially understood. The most important element seems to have been as follows:
>
> (a) The basic principles of life, nature and society were determined by the gods long ago, before the establishment of kingship. This epoch—*Zep Tepi*—'the First Time'—stretched from the first stirring of the High God in the Primeval Waters to the settling of Horus upon the throne and the redemption of Osiris. All proper myths relate events or manifestations of this epoch.
>
> (b) Anything whose existence or authority had to be justified or explained must be referred to the 'First Time'. This was true for natural phenomena, rituals, royal insignia, the plans of temples, magical or medical formulae, the hieroglyphic system of writing, the calendar—the whole paraphernalia of the civilization ...[27]

Rundle Clark has also recognized that Egyptian art 'is nearly all symbolism', that 'the architectural arrangements and decoration were a kind of mythical landscape' worked down to the last detail, and that everything had a meaning:

> The shrine [tomb or pyramid complex] of the god [the king], for instance, was the 'Horizon', the land of glorious light beyond the dawn horizon where the gods dwelt. The Temple was an image of the universe as it now existed and, at the same time, the land on which it stood was the Primeval Mound which arose from the waters of the Primeval Ocean at Creation ... At the close of the daily temple service, the priests raised a small figure of *Maat* (the goddess of Law and Order) in front of the divine image. This act was meant to assert that Tightness and order had been re-established, but it was also a repetition of an event that took place at the beginning of the world ... of some mythical happening in the time of the gods ...[28]

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[26] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* Thames & Hudson, London, 1978, pp. 263-5. Clark explains how the Pharaoh's role was to re-enact and commemorate events that were believed to have happened in a blissful golden age called 'Tep Zepi' [*Zep Tepi*].

[27] Ibid.

[28] Ibid p. 27.

Golden Age and the entry of evil

In later chapters we shall be returning to take a closer look at this 'First Time' of the gods. Here, however, it is sufficient to note that *Zep Tepi* was regarded as a mysterious and wonderful golden age that had immediately followed Creation. Furthermore, in the minds of the ancient Egyptians at least, this golden age had not occurred in some hard-to-find never-never land like the Biblical 'Garden of Eden' but in a familiar and unmistakably real physical and historical setting. Indeed it was their emphatic belief that the huge triangular region just south of the apex of the Nile Delta encompassing Heliopolis, Memphis and Giza was the actual geographical location of the events of the 'First Time'—a real 'Garden of Eden', in short, with real geographical features and places. It was here, amidst this sacred landscape, that the gods of the 'First Time' were said in the texts to have established their earthly kingdom.[29]

And what was the cultural character of that Kingdom? Rundle Clark gives the best summary:

> ... all that was good or efficacious was established on the principles laid down in the 'First Time'—which was, therefore, a golden age of absolute perfection—'before rage or clamour or strife or uproar had come about'. No death, disease or disaster occurred in this blissful epoch, known variously as 'the time of Re', 'the time of Osiris', or 'the time of Horus' ...[30]

[29] *Pyramid Texts,* op. cit., Utterance 600. Here the 'pyramids' are also placed amidst the landscape of 'Creation' at the first sunrise of the world.
[30] R. T. Rundle Clark, *Myth and Symbol,* op. cit., page 264.

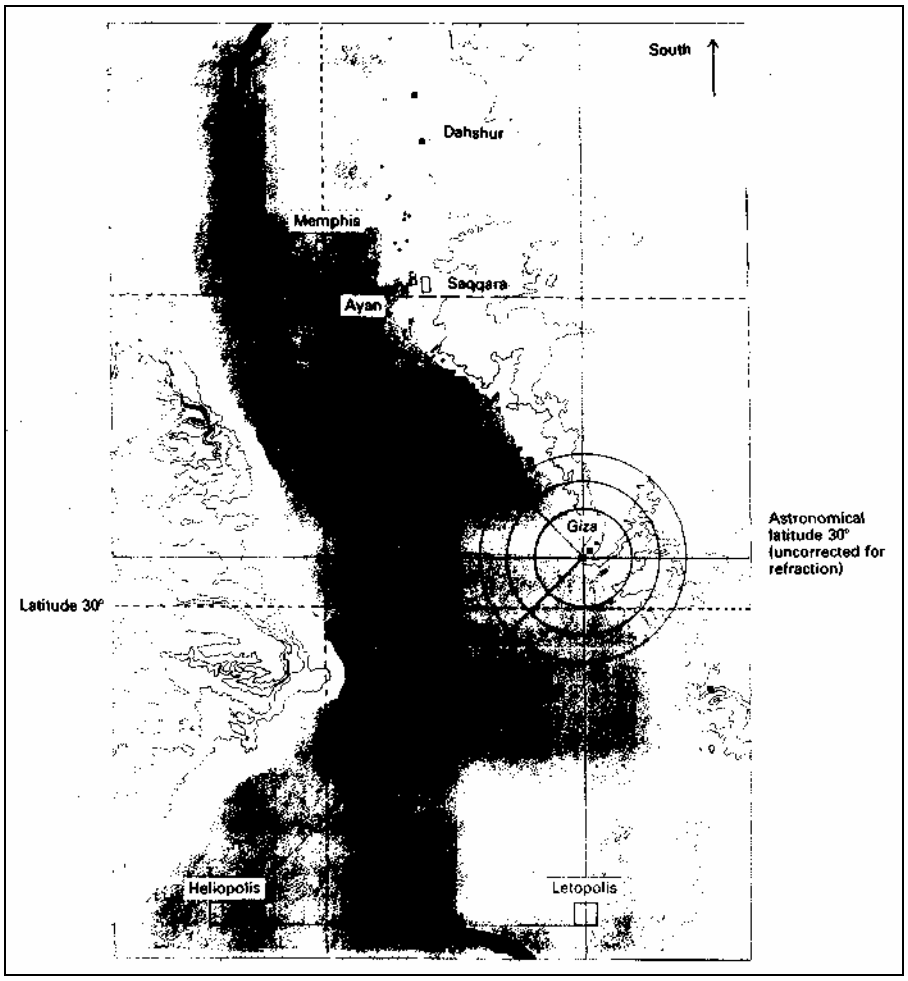

37. The huge triangular region just south of the apex of the Nile Delta encompassing Heliopolis, Memphis and Giza was regarded by the ancient Egyptians as the actual geographical location of the events of the 'First Time'—a sort of geodetic 'Garden of Eden' focused on astronomical latitude 30 degrees north.

The gods Osiris and Horus, together with Re (in his composite form as Re-Atum, the 'Father' of the gods) were regarded by the ancient Egyptians as the supreme expressions and exemplars of the 'blissful epoch of the "First Time" '.[31]

Osiris they remembered in particular for having been the first to sit on the throne of this divine Kingdom, which he ruled jointly with his consort Isis.[32] The golden age of plenty over which the royal couple presided (during which agriculture and animal husbandry were taught to humans and laws and religious doctrines were set for them) was however brought to an abrupt and violent halt when Osiris was murdered by his brother, Seth. Left without child, Isis brought the dead Osiris back to life for long

[31] Ibid.
[32] Henri Frankfort, *Kingship and the Gods,* The University of Chicago Press, 1978, pp. 24-35.

enough to receive his seed. As a result of this union she, in due course, gave birth to Horus whose destiny it was to wrangle back the 'kingdom of Osiris' from the clutches of his evil uncle Seth.

Shabaka texts

In all its essential elements this is, of course, the story that we know as Hamlet (which has a far older pedigree than the Shakespeare play[33]), and it is also, in its most recent Hollywood manifestation, the story of the *Lion King* (brother murders brother, bereaved son of the murder victim takes revenge on his uncle and sets the Kingdom to rights).

The original Egyptian version of the story—the so-called 'Memphite Theology'—is found in texts inscribed on a monument known as the 'Shabaka Stone', now in the British Museum.[34] Here we read how, after a great quarrel between Horus and Seth (in which Horus lost an eye and Seth a testicle) Geb, the earth-god (the father of Osiris and Isis), summoned the Great Council of the Gods—the nine-member 'Ennead' of Heliopolis—and with them passed judgement between Horus and Seth:

> Geb, lord of the gods, commanded the Nine Gods to gather to him. He judged between Horus and Seth; he ended their quarrel. He made Seth king of Upper Egypt, up to the place in which he was born, which is Su. And Geb made Horus king of Lower Egypt, up to the place in which his father [Osiris] was drowned[35] which is 'Division-of-the-Two-Lands'. Thus Horus stood over one region, and Seth stood over one region. They made peace over the Two Lands at Ayan. That was the division of the Two Lands ...[36]

Let us note in passing that Ayan is not a mythical place but was an actual, physical location in ancient Egypt immediately to the north of Memphis, the Early Dynastic capital city.[37] The judgement that was made here was

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[33] *Hamlet's Mill,* op. cit., pp. 86-7.

[34] British Museum No. 498. The Shabaka Stone is fixed on the south wall of the ground floor of the 'Egyptian' wing. It measures some 135 x 92 cm. (approx. 4 x 3 feet) and is badly damaged at the centre—apparently due to it being used as a grinding millstone before its discovery by archaeologists. It contains 62 columns of hieroglyphic inscriptions. Miriam Lichtheim, who gives a full translation, wrote that 'the language is archaic and resembles that of the Pyramid Texts' (Miriam Lichtheim, *Ancient Egyptian Literature* Vol. 1: The Old and Middle Kingdoms, University of California Press, Los Angeles, 1975, pp. 3-57).

[35] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 52. A variation to Osiris's death is that he was killed by his brother, Seth, and his body cut into fourteen pieces.

[36] Ibid. Ayan must have been a sacred location immediately north of the city walls of Memphis. It is the present-day location of the village of Mit Rahin.

[37] Where Ayan existed there remain, today, the vestiges of a ruined Graeco-Roman fort which must have been built in the Egyptian style (as the broken columns which still can be seen there attest) and which, curiously enough, is known by the locals as the 'prison of Joseph' (the Biblical patriarch who was kept in the 'round tower' by Pharaoh—see Genesis 39:21). It can be reached along the narrow canal road opposite and north of the

later changed, as the Shabaka Texts go on to tell us:

> Then it seemed wrong to Geb that the portion of Horus was like the portion of Seth. So Geb gave to Horus his [Seth's] inheritance, for he [Horus] is the son of his first born [Osiris] ...
>
> Then Horus stood over the two lands. He is the uniter of the Two Lands, proclaimed in the great name: *Ta-tenen,* 'South-of-his-Wall', 'Lord of Eternity'... He is Horus, who arose as King of Upper and Lower Egypt, who united the Two Lands in the [District] of the Wall [Memphis], the place where the Two Lands were united ...[38]

Treasure trail

What we have in this amazing story is a sort of treasure trail of clues as to how the ancient Egyptians themselves saw the mythical-historical transfer of the 'deeds' or keys of the 'Kingdom of Osiris' to Horus by the Great Ennead and Geb.

It seems clear, for example, that this momentous event was thought to have taken place at Ayan, immediately to the north of Memphis, i.e. about 10 miles or so south of modern Cairo.[39]

And as for the dead Osiris, the Shabaka Texts tell us how the god was taken and buried 'in the land of Sokar':

> This is the land ... the burial [place] of Osiris in the House of Sokar ... Horus speaks to Isis and [her sister] Nepthys: 'Hurry, grasp him ...' Isis and Nepthys speak to Osiris: 'We come, we take you ...' They heeded in time and brought him to land. He entered the hidden portals in the glory of the Lords of Eternity. Thus Osiris came into the Earth, at the Royal Fortress, to the north of the land to which he had come. And his son Horus as king of Upper Egypt, arose as king of Lower Egypt in the embrace of his father Osiris ...[40]

Where, what, and whose was the 'land of Sokar'?

It turns out to have been an epithet used by the ancient Egyptians to describe the extensive 'Memphite necropolis' incorporating the Pyramid-field of Giza. According to Sir E. A. Wallis Budge, for example: 'The dominions of Sokar were situated in the deserts round about Memphis and were supposed to cover a large extent of territory.'[41] I. E. S. Edwards tells us that the name 'Sokar' was that of 'the god of the Memphite necropolis'—a predynastic deity of the dead—and that 'by Pyramid times Osiris had become identified with Sokar'.[42] R. T. Rundle Clark then further complicates the picture by speaking of 'Rostau, the modern Giza, the burial place of Memphis and the home of a form of Osiris known as

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Memphis Museum.

[38] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 53.

[39] About 15 kilometres south of the outskirts of the Maadi suburbs of Cairo.

[40] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 53.

[41] E. A. Wallis Budge, *The Egyptian Heaven and Hell,* op. cit., Vol. III, p. 131.

[42] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, p. 10.

Sokar'.[43]

What confronts us, therefore, appears to be a linked sequence of ideas involving Osiris, Sokar, the 'land of Sokar' (identified with the Memphite necropolis), and now 'Rostau', the ancient Egyptian name for the Pyramid-field at Giza—a name that is in fact carved in hieroglyphs on the granite stela, which we encountered in Part I, that stands to this day between the paws of the Great Sphinx.[44] That same stela also describes Giza in more general terms as 'the Splendid Place of the "First Time" ' and speaks of the Sphinx as standing beside 'the House of Sokar'.[45]

So the clues on the treasure trail, as well as Osiris, Sokar, the land of Sokar and Rostau-Giza, now also include the 'House of Sokar' and lead us back towards *Zep Tepi,* the 'First Time'.

Bearing all this in mind, let us return for a final look at the Memphite theology as it is expressed in the Shabaka Texts.

We find Horus firmly in possession of the earthly 'Kingdom of Osiris' (which had of course been founded in the 'First Time') and we find the body of Osiris himself safely installed in 'the House of Sokar'.[46] Under these ideal conditions, according to the texts, the spiritualized form of Osiris was freed to depart to the sky—and to a specific location in the sky that we have already identified: 'the place where Orion is'.[47] There it was held that he had established the *Duat*—the cosmic 'Otherworld' on the right bank of the Milky Way—as a sort of celestial 'Kingdom of Osiris' for the Dead.[48]

Sphinx god

Selim Hassan actually calls the *Duat* 'the Kingdom of Osiris' and shows how 'Osiris is styled "Lord of the *Duat"* and the Osiris-King [i.e. the deceased Pharaoh] "a companion of Orion" ...'[49] He then provides a piece of incidental information which adds to our trail of clues when he points out, on the basis of careful textual analysis, that the *Duat* appears in some way to be linked to Rostau.[50]

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[43] R. T. Rundle Clark, *Myth and Symbol,* op. cit., p. 108.
[44] James H. Breasted, *Ancient Records of Egypt,* Part II, Histories & Mysteries of Man Ltd., London, 1988, pp. 320-4.
[45] Ibid., p. 323. On line 7 of the stela.
[46] Miriam Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. 1, p. 53.
[47] *Pyramid Texts,* op. cit., line 1717.
[48] *Orion Mystery,* op. cit, 1994 edition, pp. 116-19.
[49] Selim Hassan, *Excavations at Giza,* op. cit., pp. 278, 285.
[50] Ibid., p. 265.

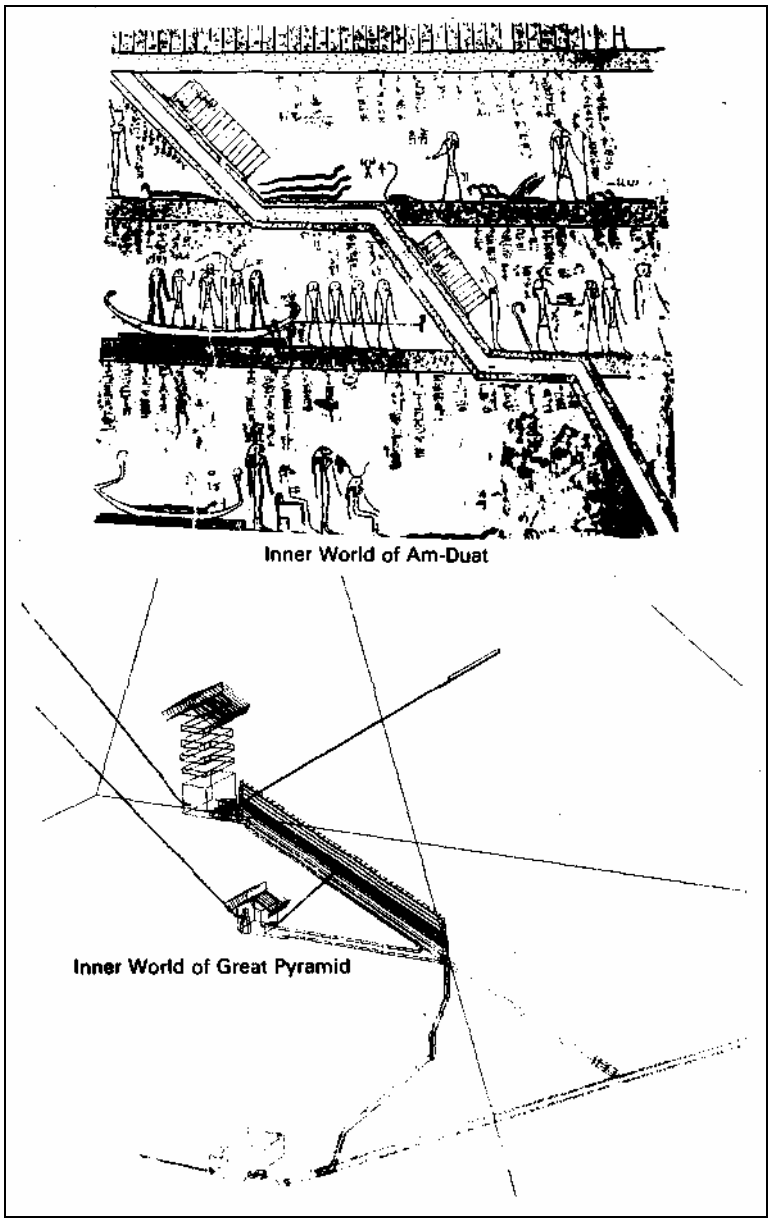

38. The passageways, chambers and corridors of the 'land of Sokar' in the Fifth Division of the *Duat* as depicted on tomb walls bear a close resemblance to the passageways, chambers and corridors of the Great Pyramid. Could one of the functions of the Pyramid have been to serve as a kind of 'model' or simulation of the afterworld in which initiates underwent trials and ordeals?

Like other commentators, Hassan acknowledges that 'the name of Rostau is applied to the Giza necropolis'.[51] But he also, at various points, defines Rostau as 'the Kingdom of Osiris in the tomb',[52] and as 'the Memphite Underworld'—i.e. the Memphite *Duat*.[53] In this context he examines the so-called twelve 'Divisions' (or 'Hours') of the *Book of What*

[51] Ibid.
[52] Ibid., pp. 302, 315.
[53] Ibid., p. 338.

is in the Duat and shows that references to the 'land of Sokar' appear in this text. Indeed, to be a little more specific, he draws our attention to a most intriguing fact. The land of Sokar occupies the Fifth Division of the *Duat*[54] and: 'The centre of the Fifth Division [is] called Rostau.'[55]

So Egyptologists do not dispute that we have a Rostau on the ground in the form of the Pyramid-field at Giza and a Rostau in the sky in the form of the Fifth Division of the *Duat*—a place, as the reader will recall, that was not seen as an 'Underworld' by the ancient Egyptians but rather as a specific celestial location in Orion.

Furthermore, as we noted in passing in Part I, the passageways, chambers and corridors of the land of Sokar—amply portrayed on tomb walls in surviving depictions of the Fifth Division of the *Duat*—uncannily resemble the passageways, chambers and corridors of the Great Pyramid of Giza. Indeed the resemblance is so close that it is permissible to wonder whether one of the functions of the Pyramid may have been to serve as a kind of model or 'simulation' of the afterworld in which initiates underwent trials and ordeals intended to prepare them intellectually and spiritually for the terrifying experiences and judgements that the soul was believed to confront after death.

Here, perhaps, was the testing ground for the ancient Egyptian 'science of immortality' elaborated in every utterance and vignette of the principal funerary and rebirth texts—the purpose of which was to facilitate the journey of the soul through the daunting traps and pitfalls of the *Duat.*

Additional food for thought in this regard is provided by Selim Hassan who does not neglect to mention that one of the distinguishing features of the Fifth Division of the *Duat* is the presence there of a giant 'double-lion' Sphinx-god named Aker, who seemingly protects the 'Kingdom of Sokar'.[56] Hassan also points out that 'above Aker in this scene is a large Pyramid'.[57] He says that this symbolism, when put in 'conjunction with Aker in Sphinx form and the name of Rostau', suggests that 'the Fifth Division was originally a [complete] version of the *Duat* and had its geographical counterpart in the Giza necropolis'.[58]

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[54] Ibid., p. 265.
[55] Ibid.
[56] Ibid., p. 263.
[57] Ibid., p. 265.
[58] Ibid.

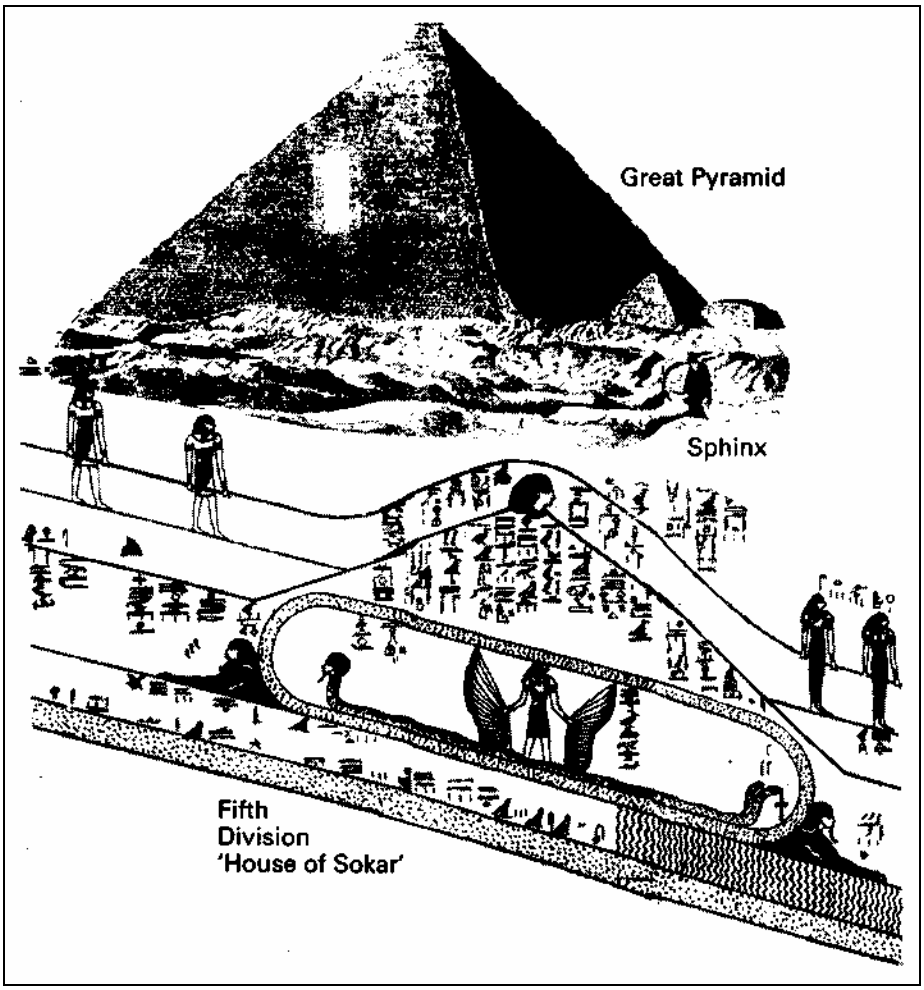

39. The Fifth Division of the *Duat* features a gigantic 'double-lion' Sphinx-god and a large Pyramid. Compare this symbolic imagery with the Great Sphinx and Great Pyramid seen in profile from the south-east.

In support of this idea, Hassan then refers us to another of the ancient Egyptian funerary texts, the so-called *Book of Two Ways,* where mention is made of 'the Highland of Aker, which is the Dwelling Place of Osiris' and also of 'Osiris who is in the Highland of Aker'.[59] Hassan suggests that 'highland of Aker' may be a reference to the Giza plateau, 'where is the earthly Rostau'.[60] Exactly the same idea occurred to the American Egyptologist Mark Lehner in his 1974 pamphlet, *The Egyptian Heritage*.[61] Here, after completing a study of Rostau, he wrote: 'it is tempting to see the lion figures of Aker as a representation of the Sphinx at Giza.'[62]

[59] Ibid.
[60] Ibid.
[61] Mark Lehner, *The Egyptian Heritage,* op. cit.
[62] Ibid, p. 119.

Roads of Rostau

The *Book of Two Ways* is a text that was copied onto the floors and sides of coffins over a 250-year span (2050-1800 BC) during the Middle Kingdom. According to the archaeo-astronomer Jane B. Sellers it was designed 'to aid the soul of the deceased to pass along the roads to Rostau, the Gate in the necropolis which gives access to the "Passages of the Netherworld" ...'[63]

The related Coffin Texts (2134-1783 BC) shed further light on the matter when they state:

> I have passed over the paths of Rostau, whether on water or on land, and these are the paths of Osiris, they are [also] in the limit of the sky ...[64]
>
> I am Osiris; I have come to Rostau to know the secrets of the *Duat* ...[65]
>
> I shall not be turned back at the gates of the *Duat;* I ascend to the sky with Orion ... I am one who collects his efflux in front of Rostau ...[66]

As Sellers points out, many ancient Egyptian texts insist 'that the topography of Rostau, though in the sky, is on water and on land.'[67] She also proposes that 'the paths by way of water' could have been in that area of the sky that 'we know as the Milky Way'.[68] This idea seems highly plausible when we remember that the 'cosmic address' of the *Duat* is the 'Kingdom of Osiris in Orion' on the right bank of the Milky Way. The logic of ancient Egyptian duality therefore suggests that 'the paths by way of land' should be found at the earthly Rostau.

The earthly Rostau is the Giza necropolis,[69] site of the three Pyramids and the Sphinx—so with all this talk of sky-ground dualities it would be almost perverse to ignore the four narrow 'star-shafts' which emanate skywards from the King's and Queen's Chambers inside the Great Pyramid.

The reader will recall that the southern shaft of the King's Chamber was directed at around 2500 BC to the centre of the constellation of Orion—i.e. to Orion's belt at its 'culmination' or 'meridian transit' 45 degrees above the horizon. Strangely, at the crucial observational moment in the predawn on the summer solstice—crucial, at any rate, to the ancient Egyptians of the Pyramid Age—computer simulations indicate that Orion was seen *not* at the meridian but in the south-east, i.e. far to the left of the point in the sky targeted by the southern shaft of the King's

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[63] J. B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., p. 164.
[64] R. O. Faulkner, *The Ancient Egyptian Coffin Texts,* Aris & Phillips Ltd., Wiltshire, Vol. III, p. 132, Spell 1035.
[65] Ibid. Vol. I, p. 190, Spell 241.
[66] Ibid. Vol. I, p. 185, Spell 236.
[67] J. B. Sellers, *The Death of Gods,* op. cit., pp. 164-5.
[68] Ibid.
[69] *The Orion Mystery,* op. cit., 1994 edition, pp. 116-9.

Chamber.

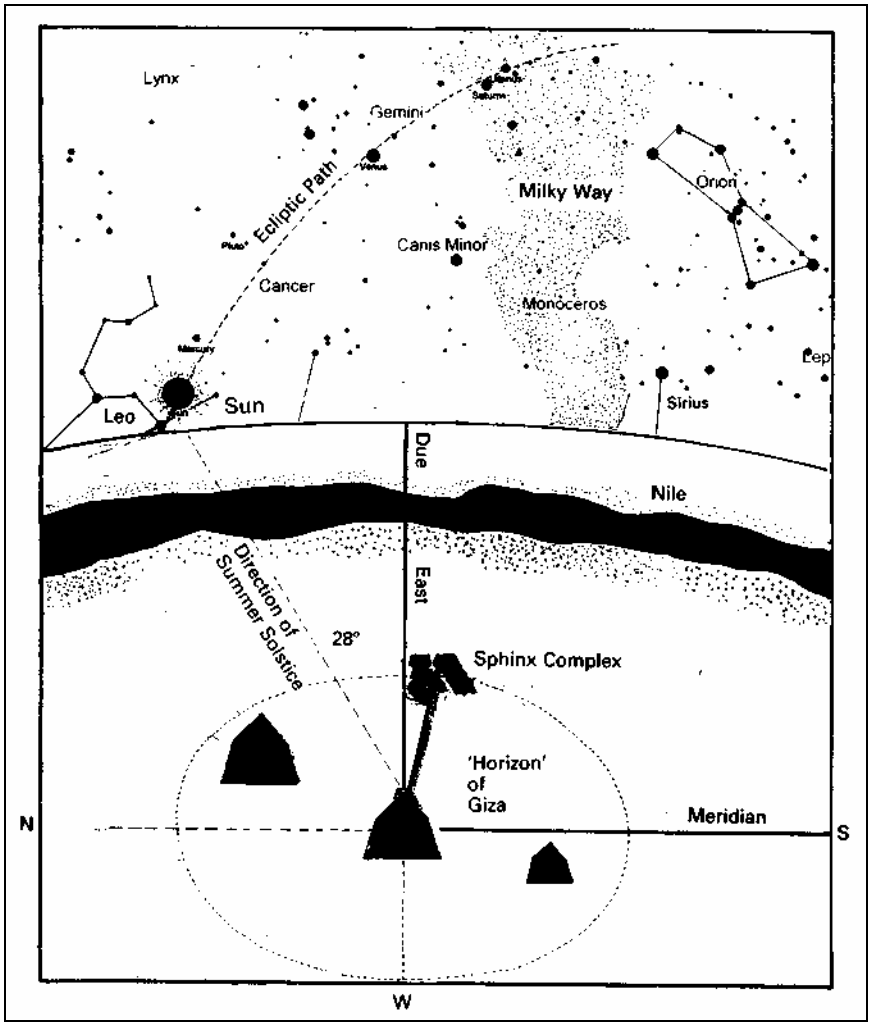

40. Summer solstice in the epoch of 2500 BC: the *Duat* region. Note that Orion's belt at this crucial observational moment was *nut* at the meridian but in the south-east and thus far to the left of the point in the sky targeted by the southern shaft of the King's Chamber. The sky seems somehow out of kilter and one has the uncomfortable feeling that the belt stars need to be drawn round to the south, and specifically to the meridian, so that they can interlock with the shaft that targets them.

Looking at the simulation, everything seems out of kilter—dislocated—and one has the uncomfortable feeling that the stars of Orion's belt need somehow to be drawn round to the south, and specifically to the meridian, so that they can interlock with the shaft that targets them.

We suspect that for the ancient Egyptians this curious and unsettling 'dislocation' of the sky served as the stimulus for an esoteric journey which was undertaken on the ground by the Pharaohs themselves following celestial clues.

As we shall see in subsequent chapters their quest may have been for something of immense importance. But in order to understand why, we

must first find out who the Sphinx is.

Chapter 9

The Sphinx and its Horizons

'The Sphinx has a Genesis, and that was the lion ...'

Egyptologist Selim Hassan, *The Sphinx,* Cairo 1949

'[The constellation of] Leo resembles the animal after which it is named. A right triangle of stars outline the back legs ... the front of the constellation, like a giant backward question mark, defines the head, mane, and front legs. At the base of the question mark is Regulus, the heart of the lion ...'

Nancy Hathaway, *Friendly Guide to the Universe,* NY 1994

Even a casual review of the religious texts of the ancient Egyptians leaves no doubt that they regarded their earthly environment as a sacred landscape which they had inherited from the gods. It was their absolute conviction that in the remote golden age called the 'First Time' Osiris had established a sort of 'cosmic kingdom' in the Memphite region which had been passed on to his son Horus and thence through him, down the cycles of the epochs, to subsequent generations of human 'Horus-Kings'—i.e. to the living Pharaohs of Egypt.

We have seen that the essence of this sacred 'Kingdom of Osiris' was the peculiar dualism with which it was connected to an area of the sky known as the *Duat,* close to Orion and Sirius on the western side of the Milky Way. We have also seen how the centre of the *Duat* was called Rostau and how Rostau, too, existed in both cosmic and terrestrial realms: in the heavens it was characterized by the three stars of Orion's belt and on earth by the three great Pyramids of Giza. Last but not least, we have seen how the ancient Egyptians of the Pyramid Age particularly observed the *Duat* as it lay along the eastern horizon in the pre-dawn at the time of the summer solstice.

The important word here is 'horizon'. It will prove to be the key to the mystery of who—or what—the Great Sphinx really represents.

Celestial reflections

With the aid of computer simulations, and a little imagination, let us journey to the epoch of 2500 BC, when the Pyramid Texts were compiled,

and set our location at Heliopolis on the observatory platform of the astronomer priests. The time of year is the summer solstice, the moment of observation is the pre-dawn, and we are looking in the general direction of the eastern horizon. This means that we have our backs turned to the Giza Pyramids which lie across the Nile some twelve miles to our west.

Looking east also means that we are looking at the *Duat.* And as our computer reconstructs the skies our eyes are drawn to that region of the *Duat* known as Rostau which manifests the celestial counterparts of the three great Pyramids—the three stars of Orion's belt glimmering in the pre-dawn.

Having registered this image we set our direction towards the west, towards the Pyramids. The bodies of the distant monuments are still cloaked in darkness but the first hint of the rising sun lights up their capstones with an astral glimmer ...

So we can see that there is a sense in which the Giza necropolis is itself a kind of 'horizon'—i.e. that its three pyramids form a reflection in the west of the three 'stars of Rostau' that observers in 2500 BC would have seen on the eastern horizon of Heliopolis in the pre-dawn at the summer solstice. Perhaps this is precisely what was meant by an otherwise cryptic inscription on the granite stela between the paws of the Sphinx which speaks of Giza not only as the 'Splendid Place of the "First Time" ' as we have seen, but also as the 'Horizon of Heliopolis in the West'.[1]

Astronomer-priests

When the Pyramid Texts were compiled in the epoch of 2500 BC, the religious centre of the Pharaonic state was at Heliopolis—the 'City of the Sun', called *On* or *Innu* by the ancients, which now lies completely buried under the Al Matareya suburb of modern Cairo.[2] Heliopolis was the earliest cult centre of the sun-god *Re* in his form as *Atum,* the 'Father of the Gods'. The Heliopolitan priests were high initiates in the mysteries of the heavens and their dominant occupation was the observation and recording of the various motions of the sun and the moon, the planets and the stars.[3]

Much leads us to conclude that they benefited from a vast heritage of experience based on such observations, accumulated over enormously long periods of time. At any rate, the ancient Greek and Roman scholars—who were at least two millennia closer to the ancient Egyptians

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[1] James H. Breasted, *Ancient Records,* op. cit., Part II, pp. 320-4.

[2] *Innu* means 'pillar' thus Heliopolis was, quite literally, the 'City of the Pillar'. All that can be seen there today is an obelisk of Sesostris I (12th Dynasty *c.* 1880 BC) and a few remains of a temple.

[3] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, pp. 284-6.

than we are today—were constantly in awe at the high knowledge and wisdom of the Heliopolitan and Memphite priests and especially of their astronomical science.

For example, as early as the fifth century BC, Herodotus (the so-called 'Father of History') displayed great reverence for the priests of Egypt and attributed to them the discovery of the solar year and the invention of the twelve signs of the zodiac—which he says the Greeks later borrowed. 'In my opinion,' he wrote, 'their method of calculation is better than that of the Greeks.'[4]

In the fourth century BC the learned Aristotle—who was tutor to Alexander the Great—similarly recognized that the Egyptians were advanced astronomers 'whose observations have been kept for very many years past, and from whom much of our evidence about particular stars is derived'.[5]

Plato, too, relates how the Egyptian priests observed the stars 'for 10,000 years or, so to speak, for an infinite time'.[6] Likewise Diodorus of Sicily, who visited Egypt in 60 BC, insisted that 'the disposition of the stars as well as their movements have always been the subject of careful observations among the Egyptians' and that 'they have preserved to this day records concerning each of these stars over an incredible number of years ...[7]

Perhaps most significantly of all, the Lycian Neoplatonist, Proclus, who studied at Alexandria in the fifth century AD, confirmed that it was not the Greeks but the Egyptians who discovered the phenomenon of Precession: 'Let those, who believe in observations, cause the stars to move around the poles of the zodiac by one degree in one hundred years [meaning the Precession rate] towards the east, as Ptolemy and Hipparchus did before him know ... that the Egyptians had already taught Plato about the movement of the fixed stars ...'[8]

Modern historians and Egyptologists, who are unanimous in the view that the Egyptians were poor astronomers,[9] choose to discount such statements as frivolous outcries by misinformed Greeks and Romans. These same scholars all do accept, however, that the priestly centre at Heliopolis was already remotely ancient at the dawn of the Pyramid Age and that it had been sacred since time immemorial to the supreme deity named Atum, the 'Self-Created'.[10]

So who or what exactly was Atum?

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[4] Herodotus, *The Histories,* Book II, 2-8. See Penguin Classics translation, 1972, p. 130.
[5] Aristotle, *De Caelo,* II, 12, 2923. See translation in R. A. Schwaller de Lubicz, *Sacred Science,* Inner Traditions International, New York 1982, p. 280.
[6] E. M. Antoniadi, *L'Astronomie Egyptienne,* Paris, 1934, pp. 3-4.
[7] *Diodorus of Sicily,* The Library of History, Book V, 57 and Book I, 81.
[8] Proclus Diadochus, *Commentaries on the Timaeus,* IV. See translation in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 286.
[9] *The Orion Mystery,* op. cit., pp. 182-4, 287 note 7.
[10] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., pp. 38-9.

Living image of Atum

Addressing the first annual meeting of the prestigious Egypt Exploration Fund on 3 July 1883, the eminent Swiss Egyptologist Edouard Naville had this to say about Atum: 'there can be no doubt that the lion or the sphinx is a form of Atum ...'[11]

Naville went on to cite what he considered as sufficient evidence for such a conclusion:

> I will cite only one proof, this is the deity Nefer-Atum. This deity can be represented with the head of a lion ... normally he has a human form, and wears on his head a lotus from which emerge two straight plumes. Sometimes the two emblems [lion and human] are united and between the head of the lion and the plume there is the bird [hawk] of Horus.[12]

Though initially a confusing element, we shall see that the hawk symbolism of Horus crops up frequently in connection with this mystery and gradually begins to take its place in the overall pattern that will emerge. Meanwhile, much else confirms that Atum, the primordial creator god, was regarded by the ancient Egyptians as being primarily leonine or sphinx-like in form.

In the Pyramid Texts, for example, we frequently encounter the designation *Rwty,* normally translated as the 'double-lion'[13] because the hieroglyphic sign shows two lions either side by side or one above the other.[14] It is generally accepted, however, that a finer meaning for the term is 'the creature who has the form of a lion' or 'he who resembles the lion', and that the significance of the double-lion hieroglyph is that it emphasizes the dual and cosmic nature of *Rwty*.[15] The Egyptologist Le Page Renouf wrote that *Rwty* represents 'a single god with a lion's face or form'.[16] And for Selim Hassan '*Rwty* was a god in the form of a lion'. In Hassan's view the choice of the double-lion hieroglyph was very probably linked in some way to the fact that: 'sphinxes are always found in pairs when guarding temple door-ways, and the function *of Rwty* is also that of a guardian.'[17]

Moreover, in line 2032 of the Pyramid Texts, as Hassan points out: 'it is said of the King: "He is taken to *Rwty* and presented to Atum" ... [and] in the so-called *Book of the Dead* ... it says (Ch. 3, line 1): "O Atum, who appears as master of the lake, who shines as *Rwty*" ...'[18]

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[11] Edouard Naville, 'Le nom du Sphinx dans le livre des morts' in *Sphinx,* Vol. V, 188, p. 193.
[12] Edouard Naville, 'Le Sphinx IIP in *Sphinx,* Vol. XXI, 1924, p. 13.
[13] Ibid., p. 12.
[14] Ibid.
[15] Ibid.
[16] Edouard Naville, 'Le nom du Sphinx dans le livre des morts', op. cit., p. 195.
[17] Selim Hassan, *The Sphinx: Its History in the Light of Recent Excavations,* Government Press, Cairo, 1949, p. 129.
[18] Ibid.

Indeed, there are many such places in the texts where *Rwty* and Atum are linked. One typical passage states: 'O Atum, spiritualize me in the presence *of Rwty* ...'[19] And elsewhere we read: 'Lift up this king's double to the god, lead him to *Rwty,* cause him to mount up to Atum ... The King's rank is high in the Mansion of *Rwty.*'[20]

Such syncretism with *Rwty* strongly supports a 'lion-like' or 'sphinx-like' appearance for Atum. We should therefore not be surprised to discover that in ancient Egyptian religious art Atum is often depicted as a sphinx wearing the characteristic headgear of this god—a tall crown with a plume and lotus.[21] From such depictions many leading Egyptologists have concluded that the Great Sphinx at Giza, though allegedly bearing the face of Khafre, may also have been regarded as an image of Atum.[22] Indeed, as we saw in Part I, one of the most enduring of the many titles by which the Sphinx was known to the ancient Egyptians was *Sheshep-ankh Atum* (literally 'living image of Atum')[23]—so we need be in little doubt about this identification.

Atum, Re and Horakhti

Despite all of Atum's well-known Lion-Sphinx characteristics, modern Egyptologists have a tendency to ignore his intense leonine symbolism when discussing his cosmic attributes. More often than not they confine themselves to dishing out certain vague generalities to the effect that Atum was the 'sun-god and creator of the universe', and that his name: '... carries the idea of "totality" in the sense of an ultimate and unalterable state of perfection. Atum is frequently called "The Lord of Heliopolis", the major centre of sun worship. The presence of another solar deity on this site, Re, leads to a coalescence of the two gods into *Re-Atum* ...'[24]

Egyptologist Rosalie David informs us that at the opening of the Pyramid Age 'the god Re [or Ra] had taken over the cult of an earlier god Atum ... [thus] *Re-Atum* was now worshipped as the creator of the world according to the Heliopolitan theology, and his priests sought to distinguish his various characteristics'.[25]

One of these important characteristics, Davies adds, was Re's

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[19] A spell from the ancient Egyptian *Book of the Dead,* op. cit.
[20] *Pyramid Texts,* op. cit., lines 2081-6.
[21] Selim Hassan, *The Sphinx,* op. cit., p. 70, fig. 13. See Also E. Naville in 'Sphinx III', op. cit., p. 19.
[22] Zahi Hawass and Mark Lehner 'The Sphinx: Who built it, and why?' in *Archaeology,* September-October 1994, p. 34.
[23] Ibid.
[24] George Hart, *A Dictionary of Egyptian Gods and Goddesses,* Routledge & Kegan Paul, London, 1988, p. 46.
[25] Rosalie David, *Ancient Egyptian Religion, Beliefs and Practices,* Routledge & Kegan Paul, London, 1982, p. 46.

manifestation as *'Re-Horakhti'*.[26] Since the literal meaning of *Horakhti* is "Horus-of-the-Horizon",[27] it would seem that what we are to envisage in this latest piece of ancient Egyptian syncretism is a coalescence of the sun's disc with such a deity. Furthermore, as astronomers and astrologers are well aware, the disc of the sun does, in fact, 'coalesce' with (or 'enter the house' of) certain star groups—the twelve constellations of the zodiac—at regular intervals throughout the year. So it is reasonable to wonder whether 'Horus-of-the-Horizon' i.e. Horakhti, could in fact be one of these zodiacal constellations.

The Egyptologist Hermann Kees also gave consideration to the subjects of Heliopolis and Horakhti. In the light of what is about to follow, his remarks are extremely relevant: 'The particular worship peculiar to Heliopolis was that of the stars. From the worship of the stars evolved the worship of Re in the form of 'Horus-of-the-Horizon ...'[28]

We suggest that this conclusion is in the main correct, though not quite in the manner Kees saw it. We believe that it was not merely from a general 'worship of the stars' but rather from an ancient stellar image—that of a specific zodiacal constellation—that the composite deity *Re-Horakhti* was derived.

Horakhti is represented in ancient Egyptian reliefs as a man with a hawk's head, on top of which rests the solar disc.[29] In this way both the god Horus (symbolized by the hawk) and the sun in the 'horizon' are identified with the Pharaoh-King—regarded as the living embodiment of Horus.[30] The Orientalist Lewis Spence noted additionally that the lion 'was identified to the solar deities, with the sun-god Horus [and] Re'.[31] Frequently, too, we find composite lion-hawk representations of the King in ancient depictions. For example, there is a relief from the sun-temple of Pharaoh Sahure at Abusir (Fifth Dynasty, *circa* 2350 BC) which shows the King as a winged lion and also as a lion with a hawk's head.[32]

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[26] Ibid.

[27] George Hart, *Dictionary of Egyptian Gods and Goddesses,* op. cit., p. 94. Hart also says that 'the element "Akhti" can be a dual form of the noun "Akhet", "Horizon"; there may be a play on words when the king is said to be given power over the "Two Horizons" (i.e. east and west) as Horakhti'.

[28] Quote from Jane B. Sellers, *The Death of Gods,* op. cit., p. 89. For further details, see Hermann Kees, *Ancient Egypt: A Cultural Topography,* University of Chicago Press, 1977.

[29] Often sitting down on a throne, holding the royal staff.

[30] George Hart, *Dictionary,* op. cit., p. 94.

[31] Lewis Spence, *Egypt,* Bracken Books, Myths & Legends Series, London 1986, p. 291.

[32] Selim Hassan, *The Sphinx,* op. cit., p. 94.

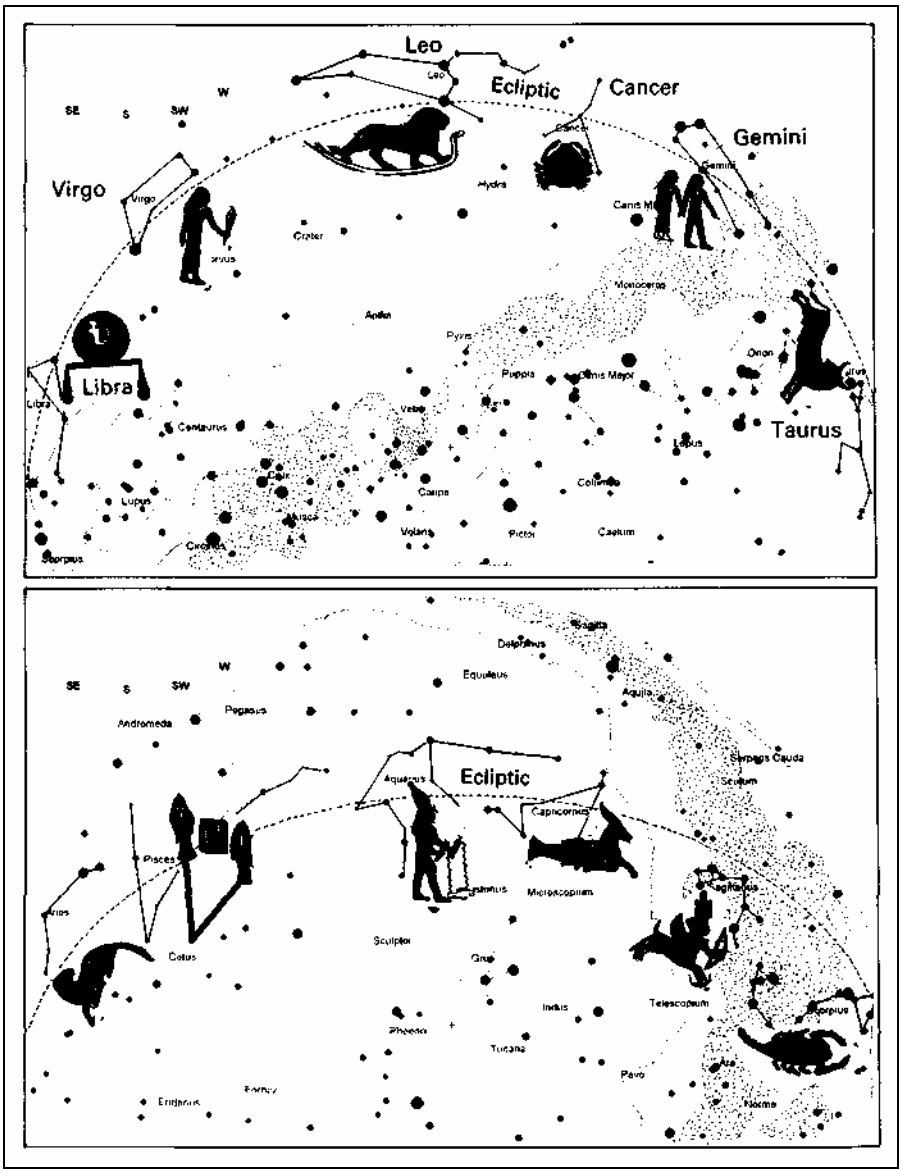

41. The path of the sun (the ecliptic) passing through the twelve zodiacal constellations as they are depicted in the famous Denderah Zodiac from Upper Egypt. The sun's disc 'coalesces' with (and is said to be 'housed by') each of these constellations, one after the other, month by month, during the course of the solar year.

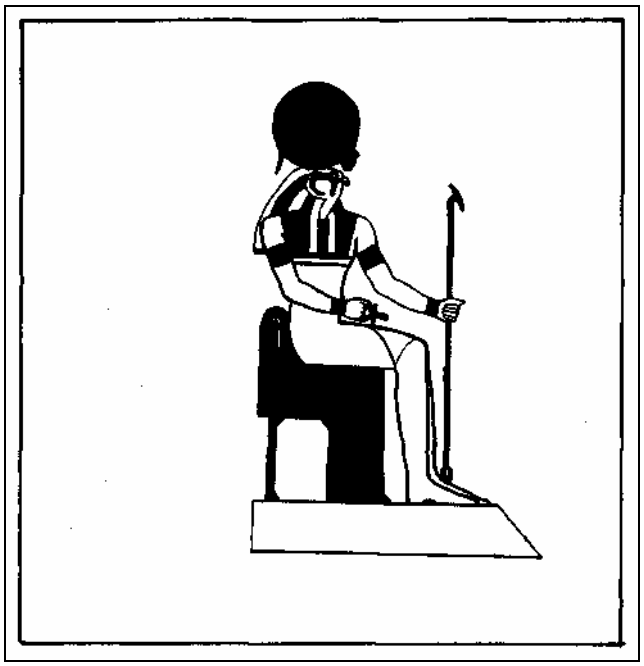

42. Horakhti, 'Horus-of-the-Horizon', was frequently depicted in ancient Egyptian reliefs as a man with a hawk's head on top of which rests the solar disc.

In summary, therefore, we seem to be looking at the various symbolic expressions of a lengthy process: in prehistoric times a primordial god, Atum, whose form was the lion or the Sphinx, was worshipped by the Heliopolitan priests; then, in the Pyramid Age, Atum was 'coalesced' with Re, whose form was the sun's disc, and finally with Hawk-headed Horakhti—Horus-of-the-Horizon—symbolizing the Horus-King.

The result was the syncretized deity *Atum-Re-Horakhti* whose combined symbolism originated from the leonine or Sphinx-like image of Atum. Somehow this composite or 'coalesced' image was then made manifest in the 'Horizon' in the early Pyramid Age.

In that epoch, as the reader will recall, the focus of the astronomer-priests was on the summer solstice, when the *Duat* was active in the eastern sky. In what zodiacal sign, seen on the eastern horizon, did this all important 'coalescence' take place?

Horus, Dweller-in-the-Horizon

When Edouard Naville was excavating certain New Kingdom remains in Egypt's delta region north of Cairo in 1882-3, he was struck by the fact that a large number of the monuments he uncovered were dedicated to a composite deity he called '*Atum-Harmarchis'.* Associated with these monuments there would always be a *naos,* or sanctuary, containing 'a sphinx with a human head' which Naville states was 'a well-known form

of the god Harmarchis'.[33]

We are by now familiar with Atum. But who is this 'Harmarchis'? Naville noted that in addition to his Sphinx form he was often represented as 'a god with a hawk's head, or as a hawk with a solar disc'—symbols with which we are also familiar—and that *'Atum-Harmarchis* was the god of Heliopolis, the most ancient city of Egypt'.[34]

'Harmarchis' is a Graecianized rendering of the ancient Egyptian name, *Hor-em-Akhet,* which means 'Horus-in-the-Horizon' or 'Horus-Dweller-in-the-Horizon'.[35] In other words, as should be obvious by now, it is a concept that is extremely close to Horakhti, or 'Horus-*of*-the Horizon'—as close, at any rate, as the nuance between 'of on the one hand and 'in' on the other ...

Both deities are called horizon-dwellers. Both are sometimes depicted as a man with the head of a hawk. Both have a solar disc on their heads.[36] Indeed there is no real difference between them at all except, as we shall see, in the nature of the 'Horizon' in which they are said to dwell.

There is one other thing about Hor-em-Akhet and Horakhti, however, that we need to take account of first. The names of these curiously composite and syncretized lion-hawk-solar deities were both frequently, directly and interchangeably applied to the Great Sphinx at Giza.

The 'Two Horizons' of Heliopolis

The earliest surviving references to Hor-em-Akhet date from the New Kingdom, *circa* 1440 BC, and are found on a limestone stela of Pharaoh Amenhotep II, the builder of a small temple that can still be seen on the north side of the Sphinx enclosure. On the stela Amenhotep makes reference to the 'Pyramids of Hor-em-Akhet' which Selim Hassan takes as a sign, 'that he considered the Sphinx to be older than the Pyramids'.[37] Hassan also notes that the stela specifically names the Great Sphinx both as Hor-em-Akhet and as Horakhti.[38]

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[33] Egypt Exploration Society Report, First General Meeting, 1883, p. 8.
[34] Ibid.
[35] Ahmed Fakhry, *The Pyramids,* University of Chicago Press, 1961, p. 164. See *Pyramid Texts,* op. cit., lines 1085, 926. See also E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* Dover Publications Inc., New York, 1978, Vol. I, p. 500b.
[36] Selim Hassan, *Excavations at Giza,* op. cit., figs. 18, 39, 40, 41, 46, 66.
[37] Selim Hassan, *The Sphinx,* op. cit., p. 76.
[38] Ibid.

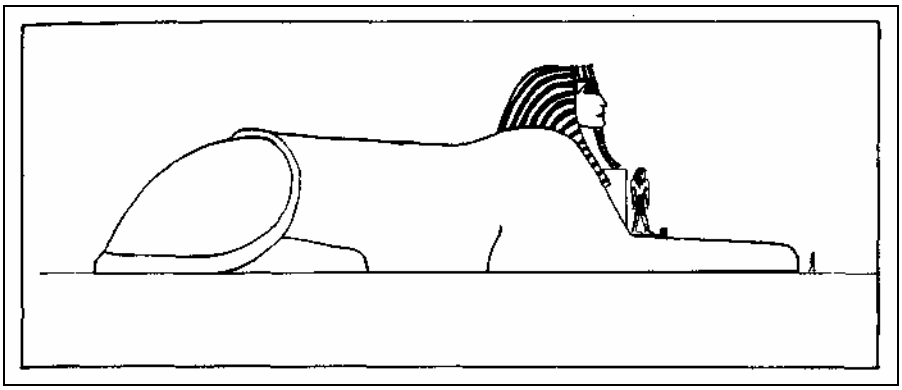

43. Artist's impression of 'reconstructed' Sphinx showing south profile.

In a similar vein, in line 9 of its inscription, the granite stela of Thutmosis IV—which stands between the paws of the Sphinx—refers to the Sphinx itself as '*Hor-em-Akhet-Khepri-Re-Atum'* and subsequently, in line 13, as '*Atum-Hor-em-Akhet'*,[39] but also refers to Thutmosis as the 'Protector of Horakhti'.[40] And it is on this same stela, as the reader will recall, that Giza is described as 'the "Horizon" [*Akhet*] of Heliopolis in the West'—i.e. as a 'reflection' in the West of what viewers in Heliopolis would have seen on their eastern horizon in the pre-dawn of the summer solstice.

It may also be of relevance that the son of Thutmosis IV, Amenhotep III, is remembered in ancient Egyptian annals as having built a temple in honour of Re-Horakhti, and that Amenhotep's son, the notorious and enigmatic Pharaoh Akhenaten, raised a great obelisk at Luxor in honour of Re-Hor-em-Akhet.[41] Akhenaten was also to name his famous solar-city *Akhet Aten,* the 'Horizon of the sun disc'.[42] And as Selim Hassan points out the *Aten* or sun disc was frequently identified by the ancient Egyptians with the image of the Sphinx.[43] Last but not least, when Akhenaten ascended the throne of Egypt he chose as his most prominent epithet the impressive title of 'High priest of Re-Horakhti'.[44]

It is therefore legitimate to inquire into what exactly is meant by the term 'Horizon' (*Akhet*) in the names Hor-em-Akhet and Horakhti. Are these twin beings known as Horus-in-the-Horizon and Horus-of-the-Horizon to be associated with the celestial horizon—where sky meets land? Or are they to be associated with the 'Horizon' of Heliopolis in the West, i.e. the Giza necropolis?

Or is it not more likely that the texts are prompting us to consider two 'horizons' at the same time?

Interestingly, Egyptologists often translate the names Hor-em-Akhet and

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[39] James H. Breasted, *Ancient Records,* op. cit., Part II, pp. 320-4.
[40] Ibid.
[41] Lewis Spence, *Egypt,* op. cit., p. 158.
[42] Ibid.
[43] Selim Hassan, *The Sphinx,* op. cit., p. 104.
[44] Lewis Spence, *Egypt,* op. cit., p. 157.

Horakhti as meaning 'Horus-of-the-Two-Horizons'. Sir E. A. Wallis Budge, for example, identifies Re-Horakhti to Re-Harmarchis [Hor-em-Akhet] and translates both names as 'Ra + Horus-of-the-Two-Horizons'.[45] Likewise the orientalist Lewis Spence writes: 'Horus-of-the-Two-Horizons, the Harmarchis [Hor-em-Akhet] of the Greeks, was one of chief forms of the sun-god ... thus we find Harmarchis worshipped principally at Heliopolis ... his best-known monument is the famous Sphinx, near the Pyramids of Giza.'[46]

So if Hor-em-Akhet is the Great Sphinx in the *western* 'Horizon of Giza', then should we not look for Horakhti, his 'twin', in the eastern horizon of the sky?

These are questions that we shall continue to pursue. Meanwhile, as Egyptologist Ahmed Fakhry confirms, the various stelae that we have reviewed, and numerous other inscriptions, leave no doubt that the Pharaohs of ancient Egypt knew and worshipped the Sphinx (and obviously, too, his celestial counterpart) under the names Hor-em-Akhet and Horakhti.[47] Fakhry also points out something else of relevance: both names are 'appropriate' since 'the ancient necropolis [of Giza] was called *Akhet Khufu,* the "Horizon" of Khufu'.[48]

Strange silence

Because the earliest surviving texts containing the term Hor-em-Akhet date from the New Kingdom, it is the present consensus of scholars that the ancient Egyptians of the Old Kingdom never spoke of the Sphinx. According to Jaromir Malek of Oxford University, for example: 'Old Kingdom sources are strangely and surprisingly silent about the Great Sphinx of Giza. It was only some 1000 years after the Sphinx had been made ... that it was mentioned ...'[49]

Could this really be so? How could the Old Kingdom Egyptians, having taken the trouble to construct the huge Giza necropolis and the rest of the Memphite monuments, fail to make any mention of the Great Sphinx?

One possibility which deserves to be taken seriously is that they did not mention it because they did not build it—but rather *inherited* it from a far earlier epoch. Even on this scenario, however, it strains credulity to suppose, in all their prolific texts, carved on the walls of nine royal Pyramids of the Fifth and Sixth Dynasties, that they would not make a single reference to so magnificent a statue occupying so crucial a site.

The other possibility which has to be considered, therefore, is that

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[45] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. I, pp. 418b, 500b, 501b.
[46] Lewis Spence, *Egypt,* op. cit., p. 84.
[47] Ahmed Fakhry, *The Pyramids,* op. cit., p. 164.
[48] Ibid.
[49] J. Malek, *In the Shadow of the Pyramids,* Orbis, London 1986, p. 10.

Egyptologists could somehow have *failed to recognize* the name given to the Sphinx in the Pyramid Texts.

There is one very obvious contender.

As we have seen, the Sphinx in the New Kingdom was known not only as Hor-em-Akhet but also as Horakhti. And although the name Hor-em-Akhet definitely does *not* appear in the Pyramid Texts it is a simple fact that the name Horakhti does, many times over. Indeed these archaic scriptures contain hundreds of direct mentions of Horakhti, 'Horus-of-the-Horizon',[50] all of which refer, as scholars agree, 'to the god rising in the east at dawn'.[51] What they have never suspected is the possibility that they may be confronted here by the ancient Egyptian dualistic way of referring to an earthly counterpart by means of its celestial twin.

Searching for Horakhti

'The doors of the sky are thrown open for Horakhti,' states one typical passage in the Pyramid Texts, 'the doors of the sky are thrown open at dawn for Horus of the East ...'[52] Elsewhere, in line 928, we read: 'go to ... Horakhti at the horizon ... I go up on this eastern side of the sky ...'[53]

Virtually unnoticed by Egyptologists, who write off all such utterances as 'mystical mumbo-jumbo', the Pyramid Texts also provide us with some extremely important astronomical clues when they tell us, again and again, that the dawn rising of Horakhti in the east coincides with the time and place 'where the gods were born'. For example:

> The Winding Waterway is flooded, the Fields of Rushes are filled, that I may be ferried over to the eastern side of the sky, to the place where the gods were born, and I was born there with them, as Horus, as the Horizon Dweller [Horakhti] ...[54]
>
> ... go to ... Horakhti at the horizon ... on the eastern side of the sky where the gods are born.[55]
>
> ... the birth of the gods before you [Horus] in the five epagomenal days ...[56]

Making use of the proper astronomical key, let us try to decode this alleged 'mystical mumbo-jumbo':

1. The 'place where the gods [i.e. the stars] are born' is a specific direction as to where we are to observe Horakhti: the eastern horizon—where all heavenly bodies rise.

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[50] *Pyramid Texts,* op. cit., p. 323.
[51] George Hart, *Dictionary of Egyptian Gods and Goddesses,* op. cit., p. 88.
[52] *Pyramid Texts,* op. cit., lines 525-7.
[53] Ibid., lines 928-9.
[54] Ibid., lines 352-3.
[55] Ibid., lines 928-9.
[56] Ibid., line 1961.

2. The time of year at which we are to make our observations is also clearly specified: the so-called 'five epagomenal days', or five 'days upon the year'. To understand this reference we need only remember that the ancient Egyptian calendar was based on 360 days plus five extra or intercalcary days which they called 'the days upon the year' (*epagomenae* in Greek). During these five days five *Neters* or gods were said to have been born, two of whom—Osiris and Isis—were identified by the ancient Egyptians with the constellation of Orion and the star Sirius (also called Sothis).
3. Last but not least the Pyramid Texts also specify the time of day at which the sky is to be observed—clearly dawn, since this was when the birth of the gods was said to have occurred:

> Behold Osiris has come as Orion ... the dawn-light bears you with Orion ... your third is Sothis [Sirius] ...'[57]
>
> Sothis [Sirius] is swallowed up [i.e. fades in the dawn] by the *Duat,* pure and living in the Horizon.[58]
>
> The reed-floats of the sky are brought down to me ... that I may go up on them to Horakhti at the horizon. I go up on this eastern side of the sky where the gods are born, and I am born as Horus, as 'Him of the Horizon' ... Sothis is my [companion] ...[59]
>
> The sky is clear [is lighting up], Sothis lives ...[60]
>
> It is Sothis ... who prepares yearly sustenance for you in her name of 'Year' ...[61]

Geographical and cosmological context

The day on which Sothis-Sirius, after a period of invisibility, was first seen rising with the sun at dawn (i.e. the event referred to by astronomers as the 'heliacal rising' of this star) was taken by the ancient Egyptians as the cosmic marker for the beginning of their New Year.

Furthermore it is certain from the passages quoted above, and from many other references in the Pyramid Texts, that the dawn rising of Sothis-Sirius coincided with the rising of 'Horakhti'. This is an important piece of astronomical information which helps us to identify who Horakhti is—or rather which celestial figure he represents.

We also know from historical records and from computer reconstructions that two major events—one celestial and the other

[57] Ibid., line 820.
[58] Ibid., line 151.
[59] Ibid., lines 927-30.
[60] Ibid., line 458.
[61] Ibid., line 965.

terrestrial—coincided with the heliacal rising of Sirius during the Pyramid Age (*circa* 2500 BC). The celestial event was the summer solstice. And the terrestrial event, as the reader will recall from the previous chapter, was the start of the Nile's annual flood—the 'Great Inundation' that brought fertility to the land.[62]

Once this geographical and cosmological context is fully taken into account we can see exactly what it is that the compilers of the Pyramid Texts were transposing from the ground to the sky when they tell us that the appearance of Horakhti at dawn coincided in their epoch with the start of the 'great flood':

> The Winding Waterway is flooded, that I may be ferried thereon to the horizon, to Horakhti ... Re has taken me to himself, to the sky, to the eastern side of the sky, as this Horus, as the Dweller in the *Duat,* as this star which illumines the sky [which] is my sister Sothis ...[63]
>
> This is Horus who came forth from the Nile ...[64]
>
> They row Horus, they row Horus in the procession of Horus on the Great Flood. The doors of the sky are opened, the doors of the firmament are thrown open for Horus of the East at dawn ...[65]

Also passage 1172 speaks of 'the Great Flood which is in the sky' in the region of the *Duat.*

So, to summarize, far from being 'mumbo-jumbo', the Pyramid Texts go to great lengths to make it clear that during the epoch of their compilation, *circa* 2500 BC, the rising of Horakhti at dawn coincided with the summer solstice, and with the season of the inundation, at the moment when the *Duat*—the celestial Kingdom of Osiris-Orion—occupied the eastern portion of the sky. We can also deduce from the texts that Re, i.e. the sun's disc, was seen somehow to merge or to unite—or 'coalesce'—with Horakhti at the same time. This is made amply clear by the following reading: 'Re has taken me to himself to the eastern side of the sky as this Horus, as the "Dweller in the *Duat*".'[66]

In other words, what we need to look for in order to identify Horakhti with certainty is an astronomical conjunction during the summer solstice in the Pyramid Age when both the sun and some other significant

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[62] E. C. Krupp, *In Search of Ancient Astronomies,* Chatto & Windus, 1980, pp. 186-90. Krupp wrote: 'The Nile, with its annual flooding, made civilisation possible in Egypt ... even more compelling was the fact that the heliacally rising Sirius (the dawn rising) and the rising of the Nile coincided, approximately, with the summer solstice.' Interestingly, *Pyramid Texts* lines 1131 and 1172 speak of the 'Great Flood' which is in the sky as seen in the east of the sky at dawn. This matches the actual celestial picture in *c.* 2800-2500 BC, when the Milky Way would rise due east on the pre-dawn of the summer solstice.

[63] *Pyramid Texts,* lines 360-3.

[64] Ibid., line 2047.

[65] Ibid., lines 1131-2.

[66] Ibid., line 362.

celestial body would have been seen to occupy the same specific place on the eastern horizon.

As we shall see in the next chapter, computer simulations provide us with the means to search for such a conjunction. They also enable us to relive the drama of the Horus-Kings of ancient Egypt as they participated in an extraordinary ritual, physically re-enacting celestial events observed by the astronomer priests of Heliopolis on their eastern horizon and reflected in the artificial western 'Horizon' of Heliopolis, i.e. amongst the vast and eternal monuments of the Giza necropolis.

Chapter 10

The Quest of the Horus-King

'Egypt ... considered life to be everlasting and denied the reality of death ... Pharaoh was not mortal but a god. This was the fundamental concept of Egyptian kingship, that Pharaoh was of divine essence, a god incarnated ... It is wrong to speak of the deification of Pharaoh. His divinity was not proclaimed at a certain moment in a manner comparable to the *concretatio* of the dead emperor by the Roman senate. His coronation was not an apotheosis but an epiphany.'

Henri Frankfort, *Kingship and the Gods,* 1948

'The figure of Osiris is not exclusively at home in mythology ... Each king, at death, becomes Osiris, just as each king, in life, appears "on the throne of Horus"; each king *is* Horus ... The question whether Osiris and Horus are ... gods or kings is, for the Egyptian, meaningless. These gods are the late king and his successor; these kings are those gods ...'

Henri Frankfort, *Kingship and the Gods,* 1948

The whole force, the impetus and the very *raison d'être* of the Pharaonic state was to provide all the required ceremonial settings that would enable the Horus-King to undertake a sort of supernatural quest—a journey back in time into the earthly and cosmic realms of his 'father' Osiris. Indeed this was the supreme quest in a Pharaoh's lifetime and at its end lay the ultimate Holy Grail in the form of the astral body of Osiris which the king could encounter only after overcoming many dangers, difficulties and ordeals and after passing through many miracles and terrors. Once in the presence of Osiris the questor would beseech him to 'rise again' and bestow immortality not only on himself, but on the whole land of Egypt. This great ritual had to be performed by each successive Horus-King, (perhaps even each year) at a specific time preluding the 'rising of Orion'.

Child of the Sun, son of Osiris

In his brilliant study on the Osirian cosmic myth,[1] the late professor of Egyptology at Manchester University, R. T. Rundle Clark, wrote that: 'The king was the mediator between the community and the source of divine power, obtaining it through the ritual and regularizing it through his government. In Egypt there were two sources of power—in the sky and in the tomb with the ancestors. The first location made the king the child of the Sun God; the second location made him Horus, the son of Osiris ...'[2]

Let us reiterate this important dualistic quality of the Horus-King—'the child of the Sun God and the son of Osiris'—for in it lies the true mystery of the great Osirian and Horian rituals of the Pyramid Age. The potential powers of nature within the 'dead' Osiris remained 'inert, asleep or listless, and completely passive' until the Horus-King was able to undertake a 'journey' to the *Duat* and 'visit his father' and 'open his mouth', i.e. bring him back to life.[3] This final and supreme act of filial devotion would then release all the forces of nature which would in turn bring forth the flooding of the Nile and the growth of vegetation—the forces, in short, that would fertilize and regenerate Egypt. In Rundle Clark's words: 'Theologically, the result of Horus's ministration is that Osiris can "send out his soul" or "set himself in motion" ... The time of Orion in the southern sky after the time of its invisibility is the sign for the beginning of a new season of growth, the revival of nature in all aspects. Osiris has been transformed into a "living soul" ...'[4]

Sir E. A. Wallis Budge also explains how, from its earliest beginnings, the Pharaonic state was entirely committed to provide the correct ceremonial setting for each successive Horus-King to be able to perform the 'journey' into the *Duat* to visit the twofold realm of Osiris in the 'horizon':

> [The Egyptians] spared no pains in performing the works which they thought would help themselves and their dead to put on immortality and to arrive in the dominions of him who was 'the King of eternity and the lord of everlastingness'. Every tradition which existed concerning the ceremonies that were performed on behalf of the dead Osiris by Horus and his 'sons' and 'followers', *at some period which even so far back as the IVth Dynasty ... was extremely remote,* was carefully preserved and faithfully imitated under succeeding dynasties ... The formulae which were declared to have been recited during the performance of such ceremonies were written down and copied for scores of generations ...'[5]

The whole emphasis on the King's person, therefore, was that he was

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[1] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit.
[2] Ibid., p. 121.
[3] Ibid., pp. 121-2.
[4] Ibid., p. 122.
[5] E. A. Wallis Budge, *The Literature of Funeral Offerings,* Kegan Paul Ltd., London, 1909, p. 2.

seen as the link between the two *Duals,* one in the sky and the other on land, both meant to contain the 'Kingdom of Osiris' as it was in the original 'First Time'. The great 'journeys' of Horus thus took place both in the sky and on the ground and ran, as it were, in parallel. This is how the drama seems to have been conceived:

1. In the sky the Horus-King was the 'son of the Sun' and had to follow the path of the sun disc, cross the 'cosmic river' on the Solar-bark and reach the Gateway that lead into the sky-*Duat* of his 'father Osiris' in the eastern horizon.[6] He then had to travel on one of the 'roads' to Rostau, the centre of the *Duat,* where (then and now) are to be found the three stars of Orion's belt.

2. On the ground the Horus-King was the bodily 'son of Osiris' and had to follow the earthly path, cross the Nile on the solar boat and reach the Gateway (the great Sphinx) that led into the earth-*Duat* of his 'father Osiris' in the western 'horizon', i.e. the necropolis of Giza. He then had to travel on one of the 'roads' to Rostau, the centre of the *Duat,* where (then and now) are to be found the three great Pyramids of Giza.

In both these 'journeys' the Horus-King somehow had to be able to pass through a sort of 'time gateway' which permitted him to enter the twofold *Duat* realms of Osiris—i.e. Rostau-Giza—as they were remembered from the mythical golden age of the gods:

> [The council says to Horus]: Indeed this journey of yours ... is as when [the first] Horus went to his father Osiris so that he might be a spirit thereby, that he might be a soul thereby ...[7]
>
> Indeed this journey of yours, indeed these journeys of yours [sky and land] are the journeys of [the first] Horus in search of his father Osiris ...[8]

From such references it is quite obvious that the events catalogued in the sky and on the land in the 'twofold funeral regions of Osiris' are somehow set or 'frozen' far back in the past in 'the time of the gods', the time of Osiris and Horus—i.e. *Zep Tepi,* the 'First Time'.

Also obvious, as we have seen in previous chapters, is the way in which the twofold funeral regions of Osiris are said to reflect each other at the time of the heliacal rising of Sirius, the 'star of Isis', the sister-wife of Osiris and mother of Horus—an astronomical event which we know coincided in the early Pyramid Age with the appearance of the rising sun at the summer solstice (known as the 'birth of Re').[9] It was at this propitious moment that the Horus-King set out on his quest for the

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[6] *Pyramid Texts,* op. cit., lines 1703, 1710-20.
[7] Ibid., line 1730.
[8] Ibid., line 1860.
[9] R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 175.

regeneration of Egypt by participating in a grand rebirth ritual simultaneously as the 'son of Osiris' and the 'son of Re'.

As the 'son of Osiris' he emerged from 'the womb of Isis', i.e. the star Sirius,[10] at dawn on the summer solstice, i.e. the day of the 'Birth of Re'. It was then—and there—both at the sky-horizon and on the earth 'horizon' that the Horus-King was meant to find himself in front of the Gateway to Rostau. Guarding that Gateway on the earth-horizon' (i.e. at Giza) he would encounter the gigantic figure of a lion—the Great Sphinx. And guarding that Gateway in the sky-horizon his celestial counterpart would find ... what?

As usual, once we understand their profoundly astronomical nature, the Pyramid Texts provide us with all the necessary co-ordinates to answer this question. It is simply a matter of realizing that the 'weird' symbolic language used in the texts—far from being mumbo-jumbo—is in fact a precise scientific terminology dressed up in the liturgical clothing of a cosmic drama.[11]

Seventy days from Horakhti

It is well known, and not a matter of controversy even amongst Egyptologists,[12] that the whole emphasis of the ancient Egyptian rebirth cult was on the seventy days of 'invisibility' which Sirius, the star of Isis, endured each year. These seventy days were seen as a cosmic preparation for astral rebirth and, not surprisingly, they were matched to the period of embalming in the mummification rituals of the dead.[13] The culmination and crescendo of this seventy-day period came with the first dawn reappearance, or rising, of Sirius which, as the reader will recall, occurred at around the time of the summer solstice during the Pyramid Age. This was when the astronomer-priests of Heliopolis observed what is technically known as the heliacal rising of Sirius in the east.[14]

Since it was believed that all the potential powers of nature needed to cause the 'rebirth' of the cosmic Horus-King were building up in the 'womb' of the goddess Isis during these crucial seventy days, we can suppose that the beginning of the period marked the beginning of the

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[10] *Pyramid Texts,* op. cit., line 632. See also *The Orion Mystery,* op. cit., pp. 132, 136.

[11] *The Orion Mystery,* op. cit., pp. 220-5.

[12] O. Neugebauer and R. Parker, *Egyptian Astronomical Texts,* Brown University Press, Lund Humphries, London, 1964, Vol. I, p. 70. For a summarized discussion see *The Orion Mystery,* op. cit., Appendix 4.

[13] Ibid.

[14] Ibid. The first rising of a star after a prolonged period of invisibility is at dawn, about one hour before sunrise. Sirius has its heliacal rising today in early August. In *c.* 3000 BC this occurred in late June. The 'shift' from a fixed point such as the summer solstice is about seven days every millennium. See R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 175.

'journey' of Horus into the 'underworld'—when the *Duat* was locked, as it were, below the horizon and thus directly 'underneath' the Giza necropolis.

From this it follows that we are invited to find out where the Horus-King's celestial counterpart—i.e. the disc of the sun—stood in the sky some seventy days prior to the heliacal rising of Sirius. The Pyramid Texts again give us the clue. They specify that at this time the Horus-solar-King was to be found on the banks of the Milky Way just about to board the solar bark.[15] Remembering that the astronomical observations in the texts were made during the middle of the third millennium BC, let us try to decode this imagery using computer simulations.

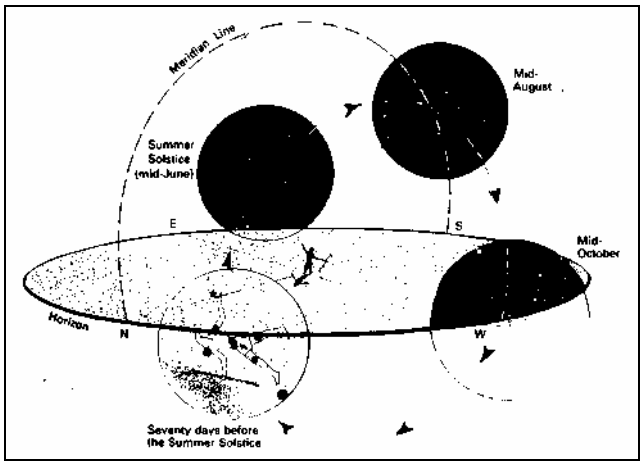

44. Position of the *Duat* sky-region at dawn at various times of the year in the epoch of 2500 BC, the Pyramid Age. The *Duat* was considered to become active only at the summer solstice in mid-June when the stars of Orion and Sirius rose heliacally. Some 70 days prior to this crucial observational moment the *Duat* was 'locked' below the horizon and thus, in a sense, directly 'underneath' the Giza necropolis.

We know, of course, that the 'path' of the sun (which astronomers call the ecliptic) passes through twelve distinct constellations in the course of a complete year—the constellations of the zodiac. *Circa* 2500 BC, therefore, let us see where the sun would have been along the ecliptic path some seventy days before the heliacal rising of Sirius. It would, we discover, have been near the head of Taurus (the Hyades) and poised on the right bank of the Milky Way.[16]

In the ritual or drama performed by the king, is it not possible that this celestial event was the source of the imagery of the cosmic Horus about to 'board' a cosmic 'bark' with the sun-god in order to cross a waterway

[15] *Pyramid Texts,* op. cit., Utterances 606, 609.

[16] The ecliptic passes a few degrees north of the Hyades and thus just 'west' or on the 'right' bank of the Milky Way as viewed at the meridian. In *c.* 2500 BC the vernal point would have been located there.

(the 'Winding Waterway', i.e. the Milky Way):[17]

> The king embarks with Re on this great bark of his, he navigates in it to the horizon with him ...[18]
>
> The king shall go aboard the bark like Re on the banks of the Winding Waterway ...[19]
>
> The Winding Waterway is flooded ... you cross thereon to the horizon, to the place where the gods were born ... your sister [companion] is Sothis ...[20]
>
> May you cross the Winding Waterway ... may you fall in the eastern side of the sky, may you sit in the ... horizon ...[21]
>
> He [Horus] goes aboard the bark like Re at the banks of the Winding Waterway ...[22]

As we wind the ancient skies a little forward in time on our computer we discover that twenty-five days after being stationed near the Hyades-Taurus on the right bank of the cosmic river the sun has indeed 'crossed' the Milky Way and is now 'sailing' eastwards along the ecliptic path in the direction of the great zodiacal constellation of Leo—seen as a huge 'crouching lion' in the sky. We are now just a little over six weeks away from the summer solstice:

> The reed-floats of the sky are set down for me that I may cross on them to the horizon, to Horakhti ... to yonder eastern side of the sky ... Summons is made to me by Re ... as Horus, as the Horizon Dweller ...[23]
>
> The doors of the sky are thrown open for Horakhti ... the doors 'of the sky are thrown open at dawn for Horus of the East ...[24]
>
> ... go to ... Horakhti at the horizon ... on the eastern side of the sky where the gods are born.[25]

Following this extremely clear and specific instruction to 'go to Horakhti' at the horizon (there to meet the sunrise) we continue our eastward journey along the ecliptic path with a sense that we are rapidly converging upon a vital 'station' in the quest of the Horus-King.

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[17] Dr. Virginia Lee Davis seems to be convinced about this in *Archaeoastronomy,* Vol. IX, JHA xvi, 1985, p. 102. So is the archeoastronomer and Egyptologist, Jane B. Sellers, in *Death of Gods,* op. cit., p. 97.
[18] *Pyramid Texts,* op. cit., line 2172.
[19] Ibid., line 2045.
[20] Ibid., lines 1704-7.
[21] Ibid., line 1541.
[22] Ibid., line 1345.
[23] Ibid., lines 343-6.
[24] Ibid., lines 525-7.
[25] Ibid., lines 928-9.

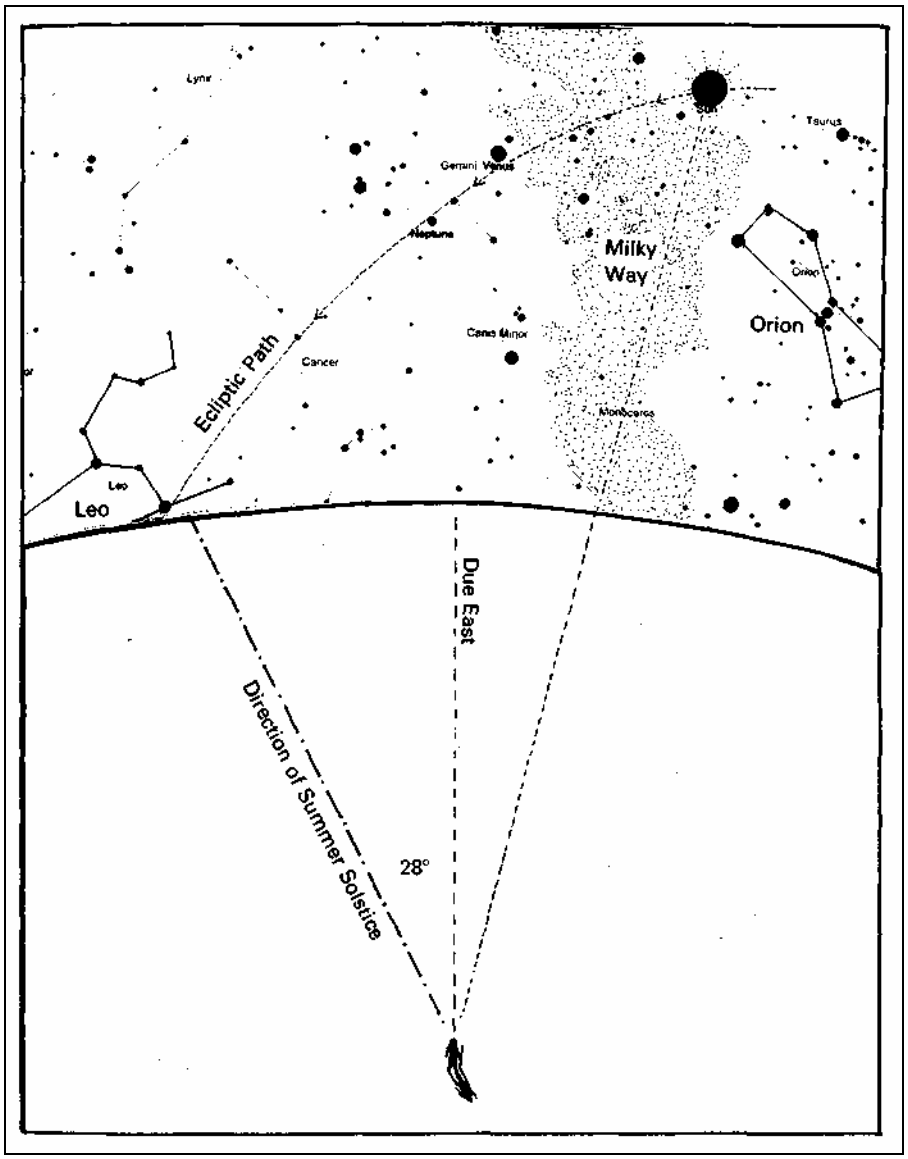

45. Epoch of 2500 BC, the Pyramid Age, seventy days before the summer solstice: an initiate tracking the journey of the 'solar' Horus, the disc of the sun, from its station on the right 'bank' of the Milky Way.

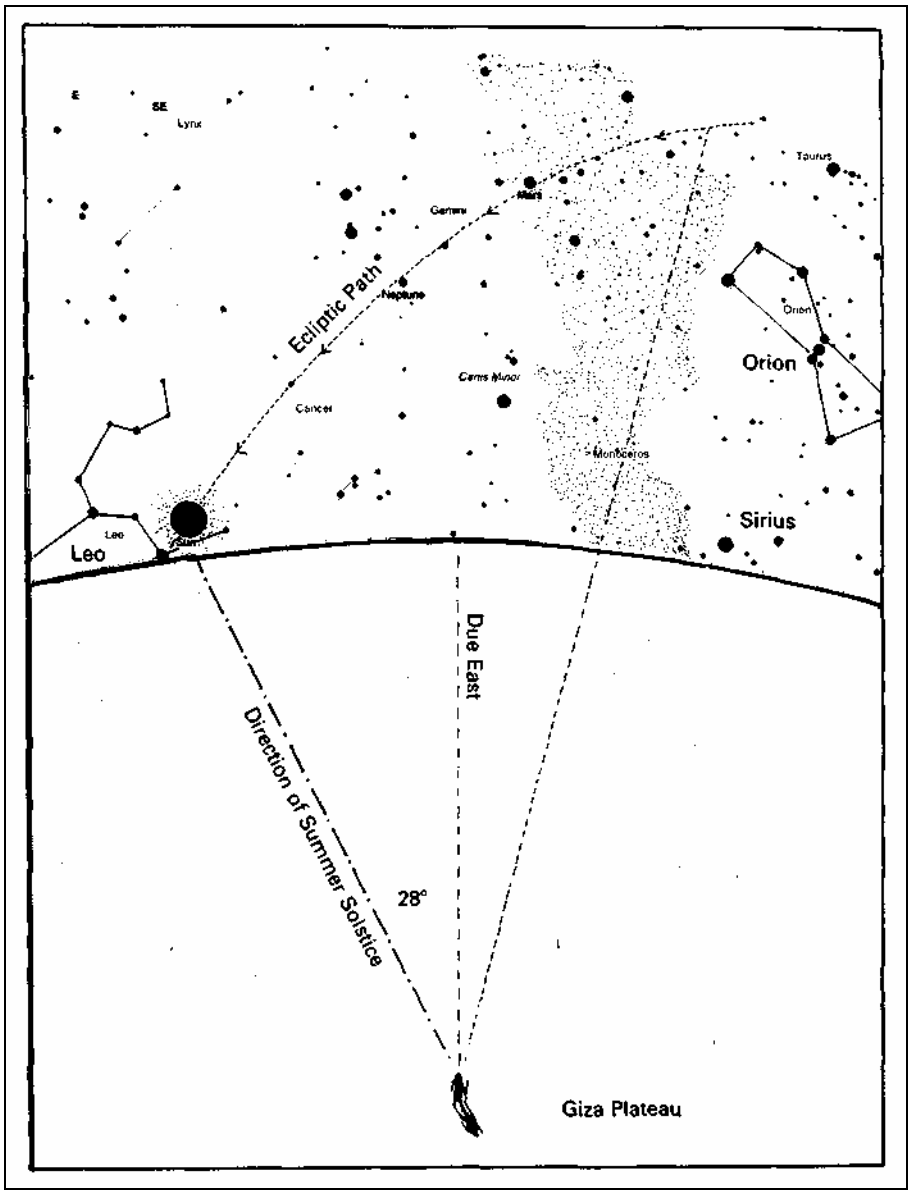

46. Epoch of 2500 BC, the Pyramid Age: an initiate tracking the journey of the 'solar' Horus, the disc of the sun, to its conjunction with Regulus, the heart-star of Leo, at dawn on the summer solstice. The ritual leaves no room for doubt that the enigmatic figure of Horakhti, so frequently referred to in the Pyramid Texts, is none other than the constellation of Leo.

The weeks pass in seconds on our computer screen and when we at last 'reach the eastern side of the sky'—at the horizon, at the highly significant moment when 'the gods are born', i.e. at the exact time of rising of the star Sirius—we see that a very powerful celestial conjunction has occurred: the sun (which is now at the summer solstice point) stands exactly between the 'paws' of Leo.[26] The solar disc is positioned near the

[26] Among all modern Egyptologists it is only Schwaller de Lubicz, as far as we know, who realized the immense implications of the stellar-solar conjunction in Leo during the

breast of the cosmic lion where it seems to merge with the bright star Regulus—the 'star of Kings'.[27]

The great celestial 'journey' performed by the cosmic Horus-King along the ecliptic path therefore turns out to lead quite unambiguously to one very specific place in the heavenly landscape: between the 'paws' of Leo and right in front of its 'breast'.

The implications are obvious.

The enigmatic figure of Horakhti, whose identity we have been attempting to establish, can be none other than the constellation of Leo—the giant cosmic lion, or sphinx, who stands at the gates of the sky-*Duat and* who assumes the name of 'Horus-of-the-Horizon'.

Let us now transpose the Horus-King to the land and follow his journey to the earthly 'Horus-in-the-Horizon'—by whom, of course, we mean Hor-em-Akhet, the Great Sphinx in the 'horizon' of Giza.

The High Road and the Low Road

The Horus-King stands on the east bank of the Nile, near the royal residence.[28] After completing certain rituals he boards a great 'solar

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Pyramid Age—a conjunction that could hardly have gone unnoticed by the ancients since it occurred not only at the summer solstice but also at the heliacal rising of Sirius. Lubicz wrote: 'It is significant also that tradition had already related the heliacal rising of Sirius with the beginning of the Nile's flooding and with the constellation of Leo; indeed since the foundation of the calendar to the beginning of our era, in Egypt the sun was always situated in the constellation of Leo at the date of the heliacal rising of Leo' (*Sacred Science,* op. cit., p. 176). The tradition which Schwaller is alluding to is also confirmed by several Greek and Roman chroniclers who passed through Egypt in ancient times. Harpollon, for example, who visited Egypt in the fifth century, commented that: 'Lions were a symbol of the inundation in consequence of the Nile rising more abundantly when the sun was in Leo. Those who anciently presided over sacred works made the waterspouts and passages of fountains in the form of lions ...' (Harpollon Book I, 21). The same is stated by Plutarch, who came to Egypt in the first century AD. Plutarch is distinguished for being the only scholar in antiquity to have compiled a full coherent account of the Osiris and Isis myth. He held a high position as a magistrate in Boeotia and also belonged to the priesthood of Delphi. In about AD 50 he compiled his celebrated *De hide et Osiride (On his and Osiris)* after consulting Egyptian priests in Egypt, who also told him of the astral rituals of the summer solstice: 'Of the stars, the Egyptians think that Sirius, the Dog Star, is the star of Isis, because it is the bringer of water [i.e. the Nile's flood]. They also hold the lion in honour, and they adorn the doorways of their shrines with gaping lions' heads, because the Nile overflows "when for the first time the Sun comes in conjunction with [the constellation] of Leo" ...' (see quote in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 91).

[27] Richard H. Allen, *Star Names: Their Lore and Meaning,* Dover Publications Inc., New York, 1963, pp. 255-6. It is the brightest star in Leo, a constellation known as the 'Domicilium Solis' ('House of the Sun'). Allen makes this curious comment but gives no reference: 'The great androsphinx [of Giza] is said to have been sculptured with Leo's body and the head of the adjacent Virgo ...' (ibid., p. 253).

[28] Memphis.

boat'[29]—perhaps the very boat that was found in 1954 buried in a pit near the south face of the Great Pyramid—and is taken to the west bank of the river in the valley beneath the Giza plateau. He disembarks, makes his way up to the Temple of the Sphinx, and walks between the paws of the great statue to stand in front of its breast.

He is now at the Gateway to Rostau[30] and about to enter the Fifth Division of the *Duat*—the holy of holies of the Osirian afterworld Kingdom. Moreover, he is presented with a choice of 'two ways' or 'roads' to reach Rostau: one which is on 'land' and the other in 'water'.[31]

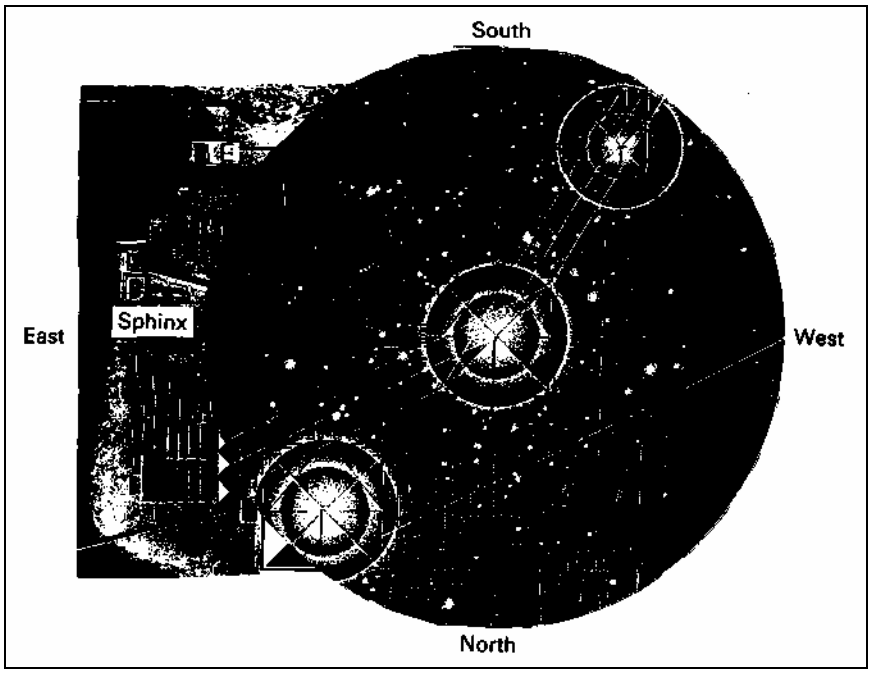

47. The 'astral' Kingdom of Osiris in Rostau. Artist's impression of the correlation of the three Giza Pyramids and the three stars of Orion's belt in *Zep Tepi,* the 'First Time'.

The eminent German philologist, Adolf Erman, explains:

> Whoever enters the realms of the dead by the sacred place of Rostau has, as we learn from a map of the Hereafter, two routes open to him, which would lead him to the land of the blessed, one by water, the other by land. Both are

[29] For a full discussion on the 'solar boats' see Selim Hassan, *Excavations at Giza,* op. cit., pp. 1-156. There are various boat 'pits' at Giza, two of which contained actual boats (one fully assembled in a museum south of the Great Pyramid). Rudolf Gantenbrink has remarked that the size (and shape) of the Grand Gallery in the Great Pyramid would be an ideal store for such a boat.

[30] Probably somewhere within the Sphinx Temple. This idea was, in fact, suggested by the German Egyptologist, Adolf Erman, who wrote: 'Ro-setau, the gate of the ways, led direct to the underworld. It is possible that part of this shrine has survived in the so-called temple of the Sphinx ...' (*A Handbook of Egyptian Religion,* Archibald Constable & Co. Ltd., 1907, p. 15).

[31] R. O. Faulkner, *The Ancient Egyptian Coffin Texts,* op. cit., Vol. III, p. 132, Spell 1035.

> zigzag, and a traveller cannot change from one to the other, for between them lies a sea of fire ... Also before entering upon either of these routes there is a gate of fire to be passed ...[32]

Having made his choice, the Horus-King demands to be taken to see 'his father' Osiris in his astral form. A mediator or priest reports to Osiris and states:

> It is not I who asks that he may see you in this form of yours which has come into being for you; O Osiris, someone asks that he may see you in this form of yours which has come into being for you; it is your son who asks ... it is Horus who asks that he may see you in this form ... a loving son ...[33]

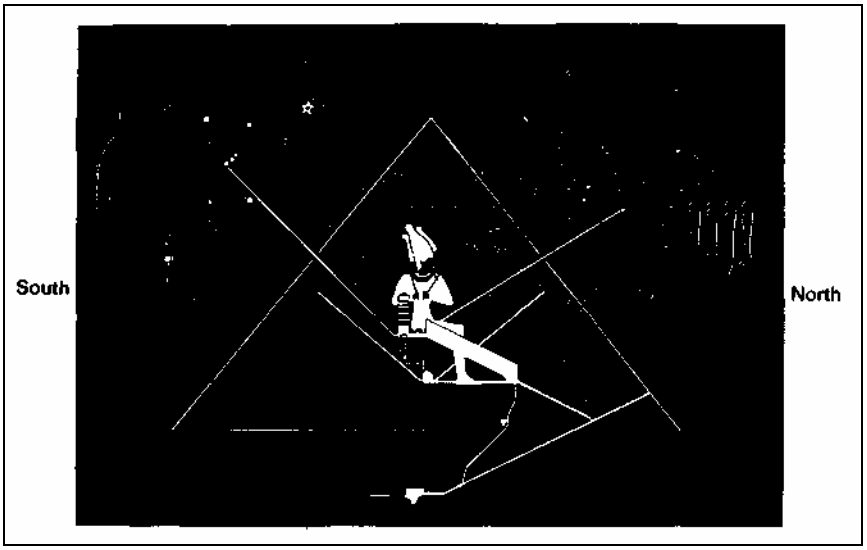

48. Artist's impression of the original Horus leading the way for the Horus-King initiate into the place where the 'Seat' of Osiris is to be found in the astral Pyramid of final initiation.

Horus then declares to the council of the gods:

> The sky quivers, the earth shakes before me, for I am a magician, I possess magic. I have come that I may glorify Orion, that I may set Osiris at the head ...[34]
>
> I have come to you, my father, I have come to you, Osiris ...[35]

Next, in a most telling manner, the council of the gods issues the following instruction:

> O Horus, the King [your father] is Osiris, this Pyramid of the King is Osiris, this construction of his is Osiris; betake yourself to it ...[36]

And further light may be shed on the identity of the Osiris-Pyramid by a

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[32] Ibid., p. 109.
[33] *Pyramid Texts,* op. cit., lines 1128-34.
[34] Ibid., lines 924-5.
[35] Ibid., line 1328.
[36] Ibid., line 1657.

passage from the *Book of What is in the Duat* which speaks of a mysterious 'district' in the *Duat:* 'which is 440 cubits in length and 440 cubits in breadth'.[37] Can it be a coincidence, since the Egyptian royal cubit is equivalent to 20.6 inches and 440 cubits therefore amounts to just over 755 feet, that the dimensions given are identical to those of the Great Pyramid's square base?[38]

At any rate, after passing through more ordeals and adventures, the questing Horus-King finally reaches Osiris-Orion and finds him listless in the tenebrous underworld of his Pyramid. At this vital juncture, the questor's role is to bid his 'father Osiris' to awake and be reborn—i.e., in dualistic astronomical terms, to rise anew in the east at dawn as Orion: 'Awake for Horus! ... Raise yourself! ... The gates of the *Duat* are opened for you ... Spiritualize yourself ... May a stairway to the *Duat* be set up for you to the place where Orion is ...'[39]

Where, then, near or under the Sphinx can we find the 'two ways' or the 'two roads' of Rostau?

And why should the Horus-King be made to choose between them?

Subterranean world

One of the ancient names of the Giza necropolis, as we have seen, was *Akhet Khufu—Kherit-Neter-Akhet-Khufu* in full, usually rendered into English as 'the necropolis of the Horizon of Khufu'. In his dictionary of ancient Egyptian hieroglyphs, Sir E. A. Wallis Budge translates the word *Kherit-Neter* as 'cemetery, necropolis'.[40] Selim Hassan, however, points out that *Kherit-Neter* can have the alternative meaning of 'under, or belonging to a God'.[41] And Budge adds that *Kherit* can also mean 'estate' and that the root of the word, i.e. *Kher,* can mean 'under something', 'the lower part' or 'downwards'.[42]

In addition, as Hassan also reminds us, *Kherit* 'may be applied to the Underworld [*Duat*], perhaps as a lingering memory of the conception of Rostau as the Kingdom of Osiris in the tomb'.[43] Could such nuances imply more than a lingering memory? In other words, is it not possible, as we have already suggested in Part I, that under the necropolis-'horizon' of Giza there could be an 'estate' of some kind—perhaps a network of subterranean chambers and passageways?

In his *Handbook of Egyptian Religion,* the German Egyptologist Adolf

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[37] Seventh Division, *Book of What is in the Duat,* E. A. Wallis Budge trans., *Egyptian Heaven and Hell,* op. cit., Vol. I, p. 143.
[38] Robin Cook, *The Pyramids of Giza,* op. cit., p. 42.
[39] *Pyramid Texts,* op. cit., lines 1710-18.
[40] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. I, p. 580a.
[41] Selim Hassan, *Excavations at Giza,* op. cit., p. 184.
[42] E. A. Wallis Budge, *Dictionary,* op. cit., Vol. I, p. 579b.
[43] Selim Hassan, *Excavations at Giza,* op. cit., p. 184.

Erman wrote that: 'the celebrated shrine Rostau, the gates of the ways, led directly to the underworld. It is possible that part of this shrine has survived in the so-called Temple of the Sphinx ...'[44]

Furthermore, commenting on the word 'Rostau', R. O. Faulkner, the translator of the Pyramid Texts, says that this is also 'the term for a ramp or slide for moving the sarcophagus into a tomb, transferred to a region of the beyond'.[45] Dr. I. E. S. Edwards, on the other hand, says that the causeway which links a pyramid complex with its valley temple 'was called "place of the haul" or "entrance of the haul" (Rostau) because it was the way along which sledges bearing the body of the dead king and his personal possessions would be hauled at his funeral'.[46]

Linking the Valley Temple near the Sphinx with the central Pyramid on the Giza plateau, as the reader will recall, are the remains of an enormous causeway. Might not this causeway or 'road' be one of the 'ways' to the heartland of Rostau described in the ancient texts? Such causeways—though now in all cases fallen into ruin—were originally rectangular tunnels roofed over with limestone slabs and decorated with star-spangled ceilings.[47] It is easy to see how symbolism of this kind would have been be appropriate in the context of the Horus-King's cosmic quest to find the astral form of Osiris.

The causeway of the Sphinx runs to the immediate south of the monument at about the level of its shoulder and thence slopes gently upwards in a westerly direction towards the great 'Mortuary Temple' that stands outside the east face of the central Pyramid of Giza. Being in every sense 'dry', it makes sense to consider this causeway as being the 'road by land' to Rostau.

But where might the other 'road' be located—the 'way through water'? There may be an important clue in the *Book of What is in the Duat.* In this eerie text there is a depiction of the hermetically sealed chamber of the 'Kingdom of Sokar'—Sokar-Osiris—which is also the Fifth Division of the *Duat.* The depiction shows a tunnel filled with water passing *under the paws* of a large Sphinx (see page 148). The tunnel slopes gently upwards leading, finally, to the Sixth Division.

Interestingly enough, as we saw in Part I, geologists working around the Great Sphinx in the early 1990s identified a large rectangular chamber and other 'anomalies' in the bedrock directly beneath the monument's paws. Interestingly, too, it is well known that far below the Sphinx is an underground watertable which has been constantly replenished since times immemorial by capillary action from the Nile.[48]

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[44] Adolf Erman, *A Handbook of Egyptian Religion,* op. cit., 1907, p. 15.
[45] *Coffin Texts,* op. cit., Vol. III, p. 134.
[46] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, p. 286.
[47] The causeway of the Pyramid of Unas at Saqqara has a small part of the original roof on the ceiling of which are carved five-pointed stars. The ceiling was painted blue and the stars probably gold or yellow.
[48] Jean Kerisel (*La Grande Pyramide et ses Derniers Secrets,* scheduled for publication

Tunnel

Dr. Jean Kerisel, the eminent French engineer whose work in the Subterranean Chamber of the Great Pyramid we are already familiar with,[49] has recently taken the geological evidence further by suggesting that the Sphinx may stand over the entrance to a 700-metre-long tunnel leading to the Great Pyramid—a tunnel that was once filled or partially filled with water.[50]

Could such a tunnel be the other 'way' that the Horus-King had to take to 'see the astral form of his Father', i.e. Orion? The fact that inside the King's Chamber of the Great Pyramid is, indeed, a star-shaft pointed directly at Orion's belt—the 'Rostau' in the sky—adds cogency to notions of some sort of underground access route that might have been used by initiates to journey in secret from the Sphinx to the inner passages and chambers of the Pyramid.

Furthermore, in the Pyramid Texts we often hear of a 'Causeway of Happiness' which is in the 'North of the Field of Offerings'. And in the following passage the Horus-King seems to be standing at the entrance of such a 'causeway' at exactly the time Sirius is performing its heliacal rising, i.e. 'Heralding the New Year' 70 days after the sun's crossing of the Milky Way:

> I am the herald of the Year, O Osiris, I have come on business of your father Geb [the earth-god] ... I speak to you, I have made you enduring. 'Causeway of Happiness' is the name of this causeway north of the Field of Offerings. Stand Up, Osiris, and commend me to those who are in charge of the 'Causeway of Happiness' north of the Field of Offerings just as you commended Horus to Isis on that day on which you made her pregnant ...[51]

The 'Field of Offerings' had a celestial location in the *Duat* somewhere near Orion.[52] Dualistic logic therefore suggests that its earthly counterpart must have been a place where 'offerings' were made by the Horus-King when he was about to enter the Giza necropolis. With this in mind, it is surely of relevance that many of the New Kingdom sphinx stelae found at Giza, including the granite stela of Thutmosis IV that stands between the paws of the Sphinx itself, do in fact show the Horus-Kings making offerings in a temple in front of the monument.[53] Furthermore, as the text quoted above makes clear, the 'Causeway of

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1996) discusses this matter at length. The table is about 10 metres below the floor-level of the Sphinx enclosure.

[49] Kerisel appeared on the BBC documentary, *The Great Pyramid: Gateway to the Stars,* shown on 6 February 1994.

[50] Jean Kerisel, *La Grande Pyramide,* op. cit., pp. 196-8.

[51] *Pyramid Texts,* op. cit., lines 1195-9.

[52] The 'Herald of the Year' mentioned in *the Pyramid Texts* implies the star Sirius which follows Orion. The latter, by necessity, must be near the 'Field of Offerings'.

[53] See fig. 11 in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 97. See also various diagrams of so-called 'Sphinx stelae' shown in Selim Hassan, *The Sphinx,* op. cit.

Happiness' ran to the north of the 'Field of Offerings'. An underground 'causeway' running north-west from the temple of the Sphinx would lead to the Great Pyramid.

So could Kerisel's bold hypothesis be right?[54] Could such an underground system exist at Giza?

Stargate

These are questions that we shall return to in Part IV. Meanwhile what are we to make of the mention of Isis and her pregnancy that also appears in the above text?

In *The Orion Mystery* it has been shown that the Great Pyramid's so-called Queen's Chamber could have been used for a symbolic 'copulation' or 'seeding' ritual involving the person of the Horus-King on the one hand and the goddess Isis in her astral form (i.e. the star Sirius) on the other. In terms of sky-ground dualism the two might have been thought of as being 'connected' through the Chamber's southern star-shaft, which was targeted on the meridian-transit of Sirius in the Pyramid Age.[55] This hypothesis is strengthened by the fact that such a copulation ritual is found clearly depicted in the Pyramid Texts and that the moment when Osiris supposedly made Isis 'pregnant' is specified as being when Sirius crossed the meridian at dawn.[56] The texts also state of Osiris-Orion: 'Your sister Isis comes to you rejoicing for love of you. You have placed her on your phallus and your seed issues in her, she being ready as "Sothis" [Sirius] ...'[57]

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[54] Kerisel has recently obtained a scientific licence from the Egyptian Antiquities Department to explore the subterranean chamber of the Great Pyramid and test a hunch he's had for many years that somewhere under the chamber is an access to a hidden chamber itself connected, perhaps, by tunnel with the valley or even the Sphinx area. In July 1995 Kerisel managed to use a high-precision drill to make tiny boreholes into the wall of the horizontal passageway that leads to the chamber but so far nothing has been found.

[55] Robert Bauval, 'The Seeding of the star-gods: A fertility ritual inside Cheops's Pyramid?' in *Discussions In Egyptology,* Vol. XVI, 1990, pp. 21-9.

[56] *The Orion Mystery,* op. cit., p. 221. The 'ritual' was graphically recreated in the BBC documentary *The Great Pyramid: Gateway to the Stars,* shown in February and September 1994.

[57] *Pyramid Texts,* op. cit., line 632.

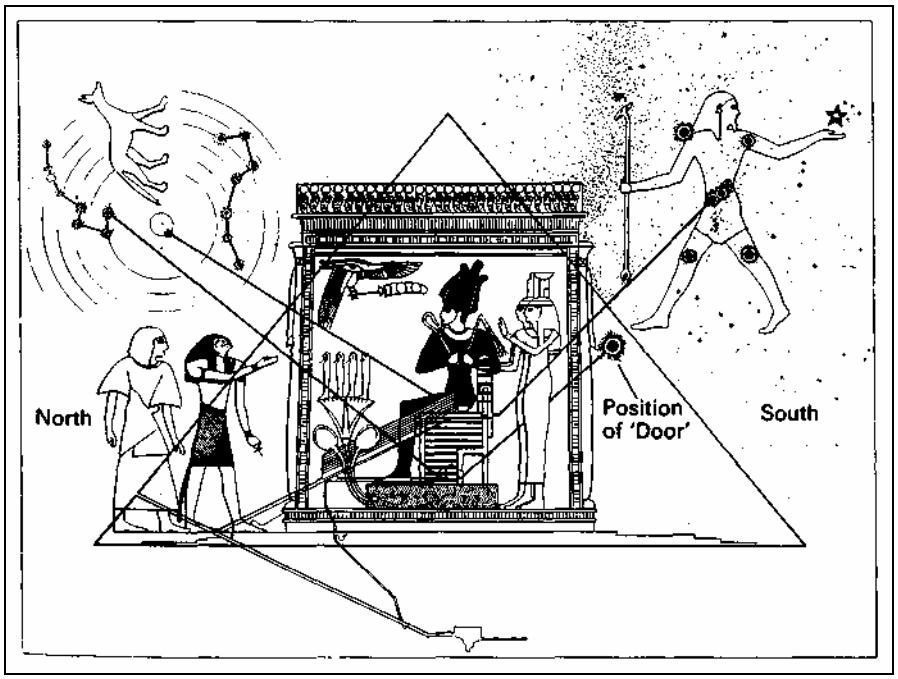

49. Artist's impression of the 'cosmic' Great Pyramid superimposing the star Sirius over the position of the 'gate' in the Sirius star-shaft.

Was the Horus-King, then, somehow meant to find his way under and into the Great Pyramid and thence to its upper chambers with their star-shafts?

And what might really be the significance of Rudolf Gantenbrink's recent discovery, which we have considered at length in Part II, of a mysterious 'gate' or 'doorway' deep inside one of those shafts—the very shaft that targeted the meridian-transit of Sirius in the Pyramid Age?

Last but not least, is it a coincidence that the ancient Egyptian word *sba,* 'star', also carries the meanings 'gate', 'folding door' and 'great door of heaven'?[58]

Again, these are matters on which we shall have to postpone further conjecture until Part IV. Meanwhile let us return to the quest to unite sky and ground—thus winning the Grail of immortality—in which all the Horus-Kings of ancient Egypt participated.

The Splendid Place of the 'First Time'

We left the cosmic Horus-King standing in the sky with the solar disc between the 'paws' of the celestial lion, the constellation of Leo—on the spot marked by the star Regulus.

In the Pyramid Age Regulus rose at approximately 28 degrees north of due east.[59] It is from this spot therefore that the Horus-King in the sky

[58] E. A. Wallis Budge, *Dictionary,* op. cit., Vol. II, p. 654b.

[59] *Smithsonian Contributions to Astrophysics,* Vol. X, No. 2, 5000 and 10,000 Year Star

must somehow travel—on one of the 'roads' to Rostau—to reach Orion's belt.

Now we transpose again to the Horus-King in his earthly form at Giza, standing between the paws of the great Sphinx.

It is the moment of dawn on the summer solstice in the epoch of 2500 BC, with Leo rising at 28 degrees north of due east, and we immediately notice that something is wrong with the sky-ground pattern.

The Sphinx gazes due east, i.e. he does not gaze at Leo, his celestial counterpart.

Catalogs, by Gerald S. Hawkins and Shoshana K. Rosenthal, Washington, DC, 1967, p. 154. For 2500 BC the declination for Regulus is given as +24.1 degrees. Thus for latitude 30 degrees the rising point would be very close to 28 degrees. The sun's declination at the summer solstice in *c.* 2500 BC was very near this point, at 23.98 degrees. Since the apparent angular width of the sun is about 0.5 degrees, both Regulus and the sun would have occupied the same 'place' in the eastern horizon at the summer solstice in *c.* 2500 BC.

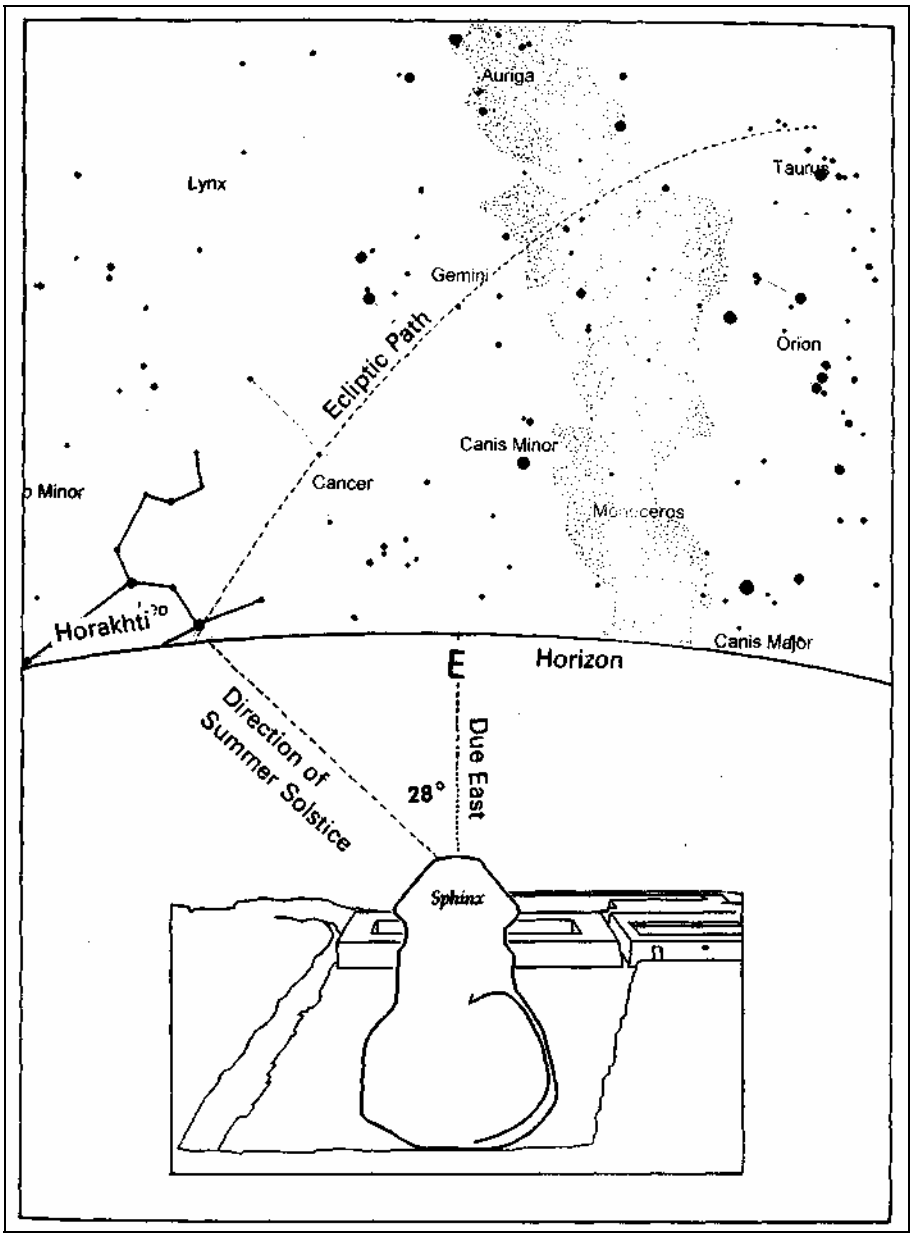

50. Epoch of 2500 BC, the Pyramid Age: the rising of Leo at the summer solstice. Note that in this epoch the gaze of Hor-em-Akhet, 'Horus-in-the-Horizon'—i.e. the Great Sphinx—is not in alignment with Horakhti, 'Horus-of-the-Horizon', i.e. the constellation of Leo. The reader will recall that this same sense of a curious 'dislocation' of the sky-ground images at the summer solstice in 2500 BC also applies to the three great Pyramids and the three stars of Orion's belt.

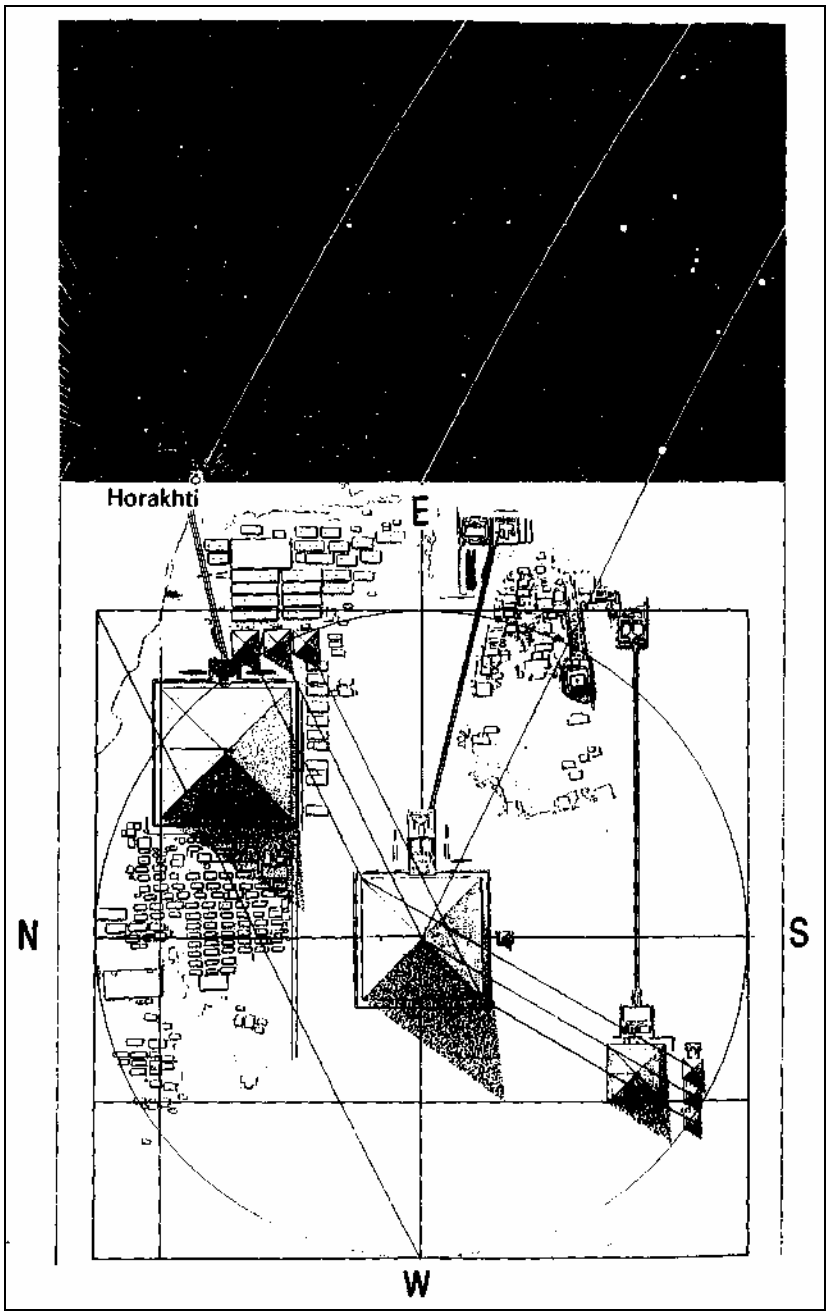

51. Summer solstice in the epoch of 2500 BC. Artist's impression of the *Duat* region as viewed from the Horizon of Giza.

And the causeway connecting the central Pyramid to the Sphinx complex is directed 14 degrees *south* of due east—i.e. far to the right of the spot where the cosmic Horus-King is supposedly at his station between the paws of Leo and ready to travel to Rostau.

So why is the sky-image in the 'wrong place' on the eastern horizon? Or to express the problem the right way round, and in the correct dualistic terminology, why is Hor-em-Akhet, Horus-in-the-Horizon—i.e. the Great Sphinx—not in alignment with Horakhti, Horus-of-the-Horizon, i.e. the

constellation of Leo? Why, too, is the causeway of the Sphinx not directed to the rising sun so as to 'link-up' the Horus-King with his cosmic solar counterpart?

There is, it seems, a curious 'dislocation' between the ground and the sky at the summer solstice in the epoch of 2500 BC. Moreover, as the reader will recall from Chapter 8, this sense of the entire arrangement being out of kilter is not confined to the Sphinx and Leo in that epoch but involves the three great Pyramids of Giza as well.

It may be the case that the solution to the riddle has all along been staring us in the face. Inscribed on the granite stela that the Sphinx holds between its own heavily eroded paws—a stela that was placed there in honour of Thutmosis IV, a mighty Horus-King of Egypt—we read the following impressive royal titulary:

> The Majesty of Horus, Mighty Bull Begetting Radiance, Favourite of the Two Goddesses, Enduring in Kingship like Atum, Golden Horus, Mighty of Sword, Repelling the Nine Bows, King of Upper and Lower Egypt, Son of Re, Thutmosis ... given life, stability, satisfaction ... for ever. Live the Good God, Son of Atum, Protector of Horakhti, Living Image of the All-Lord, Sovereign ..., beautiful of Face like His Father, who came forth equipped with the form of Horus upon him ... Son of Atum, of his body, Thutmosis ... Heir of Horus Upon His Throne ...[60]

Does this sound like a man who did not have a clue, as some Egyptologists suggest,[61] as to what the great Sphinx and the other monuments of Giza really represented? Surely not. So what, then, did the majestic Horus-King declare this sacred domain to be?

In one simple, powerful phrase, as the reader will recall, he stated that it was 'The Splendid Place of the "First Time" '.[62]

Is it not likely, when he uttered these words, that Thutmosis, 'Heir of Horus Upon His Throne', was repeating what every Horus-King before him had declared the Giza plateau to be?

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[60] James H. Breasted, *Ancient Records,* op. cit., Part II, pp. 321-2.

[61] 'Egyptians of the New Kingdom were ... in the dark concerning it [the Sphinx] and it is extremely doubtful if there ever was a single person living in Egypt at this period, who knew as much of the true history of the Sphinx as we do to-day ...' (Selim Hassan, *The Sphinx,* op. cit., p. 75).

[62] James H. Breasted, *Ancient Records,* op. cit., Part II, p. 323.

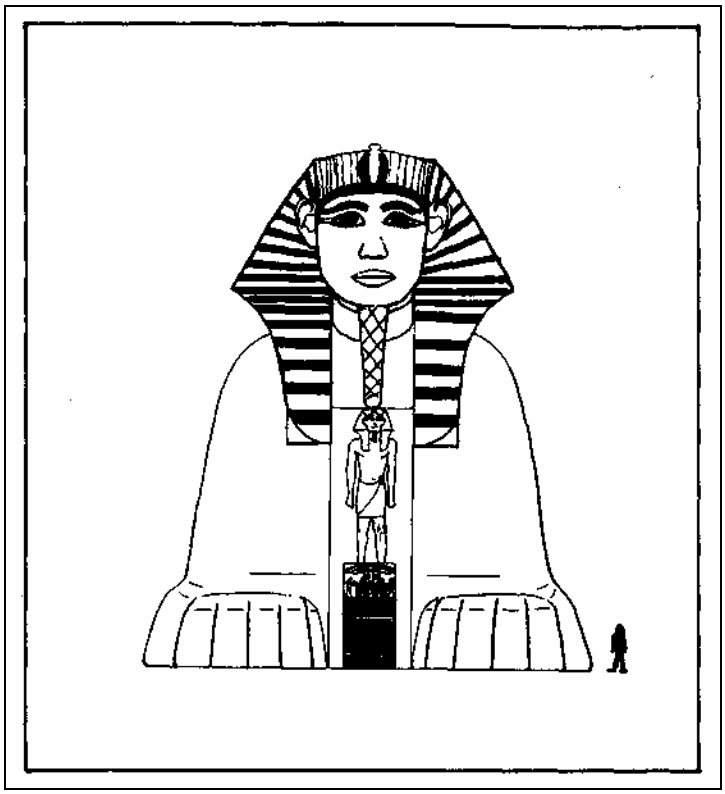

52. Artist's impression of 'reconstructed' Sphinx showing the statue of a Horus-King, which is known to have once stood between its paws, gazing at the celestial counterpart of the 'Splendid Place of the First Time' in the eastern horizon.

Is it not likely that he called it 'The Splendid Place of the "First Time" ' because that is exactly what it was remembered to be in traditions that had been handed down from remotest, almost incomprehensible, antiquity?

Could this be why the sky of 2500 BC seems to be so badly out of kilter, somehow skewed and twisted, i.e. 'in the wrong place'? Could it be not so much in the wrong place as *at the wrong time?*

Should we set our computer to search for another time that might match the monuments to the sky, a time long before Thutmosis, long before Khafre and Khufu, the 'time' when Osiris established his kingdom on earth—in other words, the 'First Time'?

When was the 'First Time'?

Part IV

Map

Chapter 11

The Unseen Academy

'The Egyptians believed that in the beginning their land was ruled by a dynasty of great gods, of whom Horus, the son of Isis and Osiris, was the last. He was succeeded by a dynasty of semi-divine beings known as the "followers of Horus", who, in turn, gave place to the historical kings of Egypt.'

Selim Hassan, *The Sphinx,* Cairo, 1949

When was the 'genesis' of civilization in Egypt? When did 'history' begin?

According to T. G. H. James, formerly Keeper of Egyptian Antiquities at the British Museum, and a representative voice of orthodox opinion on these matters: 'The first truly historical period is that which begins with the invention of writing and it is generally known as the Dynastic Period. It is a period extending from about 3100 BC to 332 BC and it derives its name from the thirty-one dynasties into which the successive kings of Egypt were divided in a scheme preserved in the work of Manetho, a priestly historian who lived during the [third century BC]. The unlettered cultures which flourished in Egypt before the beginning of the Dynastic Period, and which exhibit some of the characteristics which mark the earliest phases of Egyptian culture in the Dynastic Period, are known as Predynastic ... Such traces of human life as are found in the Nile Valley dating from before the Predynastic Period are usually described in the terms used for European Prehistory—Palaeolithic, Mesolithic and Neolithic.'[1]

So there we have it. Egyptian history—and civilization with it—began at around 3100 BC. Before that there were merely 'unlettered cultures' (admittedly with some 'civilized' characteristics), which were in turn preceded by 'Stone Age' savages ('Palaeolithic' means literally 'Old Stone Age').

The way James puts it, the whole picture seems very clear-cut, orderly and precise. He really makes it sound as though all the facts are now in hand concerning the Predynastic Egyptians and their forebears, and that nothing more remains to be discovered about any of them.

Such anodyne notions of the past are widespread amongst Egyptologists who again and again in their textbooks, and also in mass-market publications like *National Geographic* and Time-Life's

[1] T. G. H. James, *An Introduction to Ancient Egypt,* British Museum Publications Ltd., 1987, p. 37.

misleadingly named *Lost Civilizations* series, convey the comforting impression that the prehistory of Egypt is well understood, organized, categorized and safely put in its place (James even refers us to one specific place in the British Museum where particular enlightenment apparently awaits us: the 'Sixth Egyptian Room' with its definitive display of 'primitive tools made by the Palaeolithic inhabitants of Egypt').[2] Likewise, on the other side of the Atlantic as we saw in Part I, Dr. Peter Lecovara, Curator of the Museum of Fine Arts in Boston, assures us that 'thousands of Egyptologists working for hundreds of years have studied this problem [the prehistory of Egypt] and the chronology is pretty much worked out. There is no big surprise in store for us.'[3]

But is everything really as orderly and as well worked out as the 'experts' say? And can we really be so sure that there is 'no big surprise in store for us'?

In our view Lecovara, James, and the many other scholars who share their opinions, would do well to remember the advice of the late Labib Habachi, formerly the Egyptian government's Chief Inspector of Antiquities, who warned in 1984 that 'Egyptology is a field in which chance discovery may disprove an established theory'.[4] In the light of this possibility, Habachi's suggestion was that Egyptologists should avoid making 'unqualified statements' and be honest enough to 'salt their comments with "probably" and "perhaps".'[5]

Certainly a little more 'probably' and 'perhaps' would be in order where the Predynastic and earlier periods of Egyptian history are concerned. Far from the impression conveyed to the public, the truth, as some scholars are prepared to admit, is that 'The state of knowledge of Egyptian prehistory in the late twentieth century is still fragmentary'.[6]

These are the words of Nicholas Grimal, Professor of Egyptology at the Sorbonne University in Paris, who also concedes:

> It has been clear since the Second World War not only that 'prehistory' before the Pharaohs was expanding on a hitherto unsuspected scale, but also that it appeared to be so diverse and self-contained that it was difficult to regard it simply as a 'preparatory' stage for the Dynastic Period ...[7]

The prevailing Egyptological consensus (to which Grimal in this respect at least is an exception) is unable to offer any coherent theory which explains these 'diverse' and 'self-contained' characteristics of Egyptian prehistory, or that account for the very serious problems of apparent non-continuity between the Predynastic and the Dynastic Periods. The ancient

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[2] Ibid., p. 38.
[3] *Boston Globe,* op. cit., 23 October 1991.
[4] Labib Habachi, *The Obelisks of Egypt,* The American University Press, Cairo, 1988, p. 40.
[5] Ibid.
[6] Nicholas Grimal, *A History of Ancient Egypt,* Blackwell, Oxford, 1992, p. 12.
[7] Ibid.

Egyptians themselves, however, passed down records to us which may contain the answer to the whole mystery. These records provide detailed information concerning a period that extends back many thousands of years *before* the sudden emergence of the Pharaonic state in the epoch of 3000 BC.

The only problem is that no one is prepared to take these records seriously. Could this be because they conflict with the modern scholarly consensus on Egyptian chronology? Readers must make up their own minds but, as we shall see below, elements of the same records which *do* conform to the current theory *are* accepted and taken seriously by Egyptologists.

Three eras

As T. G. H. James tells us in his remarks quoted earlier, modern study of ancient Egyptian chronology is largely based on Manetho's *History of Egypt.* The respected Professor Walter Emery puts things much the same way when he reports that the writings of Manetho are of 'immense importance and form the framework on which Egyptian history has been built'.[8]

One of the reasons that Manetho's system is so durable and remains in use by Egyptologists today is that it has again and again proved itself to be accurate. He is known to have based it on 'much older documents, or king-lists, to which, as a learned priest he had access'.[9] Furthermore a number of documents in this category—notably the Palermo Stone, the Turin Papyrus and the Abydos King-List—have been found and translated. In the words of the late Professor Michael Hoffman, a leading expert on Egypt before the Pharaohs: 'Archaeologists and Egyptologists have discovered five such lists which, despite some discrepancies, support Manetho in general.'[10]

Looking at all the surviving sources, it is clear that *three distinct eras of kingship* were remembered:

- The first era was when the *Neteru,* ('*Neters'* or 'Gods') ruled the land of Egypt—an epoch that culminated with the kingship of Horus, the son of Osiris and Isis.

- Then came the era of the 'Followers of Horus', the *Shemsu Hor,* (also known by numerous other titles and epithets) which took the divine Horian lineage across the ages and up to a human Pharaoh named Menes (also known as Narmer or 'King Scorpion'), the legendary

[8] W. B. Emery, *Archaic Egypt,* Penguin, London, 1987, p. 23.
[9] Michael A. Hoffman, *Egypt Before the Pharaohs,* Michael O'Mara Books Ltd., London, 1991, p. 12.
[10] Ibid.

'Unifier of the Two Lands of Upper and Lower Egypt'.

- After Menes came the so-called 'Dynastic' Kings, whose names are individually catalogued in the king-lists.

Egyptologists place the reign of Menes in *circa* 3000 BC and regard him as the first 'historical' king of 'Dynastic' Egypt.[11] They concede that a few Predynastic 'chieftains' must have preceded him in both the north and south of the country but they emphatically reject any suggestion that the '*Neters*' and the 'Followers of Horus' catalogued in the king-lists (and referred to with some prominence by Manetho) could have been historical individuals. On the contrary, the consensus view is that the *Neters,* being 'Gods', are obvious religious fictions and that the *Shemsu Hor* are to be regarded as nothing more than 'mythical kings' who ruled in an equally 'mythical kingdom'.

So, scholars accept as history only the bits of Manetho and the surviving king-lists that fit their theory—i.e. the records of the Dynastic Period from Menes on—and devalue all references in those same records to earlier and more mysterious times.

Writing in the *Cambridge Ancient History,* for example, Professor T. E. Peet groups together all the ancient Egyptian sources concerning the chronology of the 'Gods' and the 'Followers of Horus' and then dismisses the entire corpus of material with the following throwaway remark: 'From the historical point of view there is little to be made of this.'[12]

Likewise, in *Kingship and the Gods,* his detailed study of the Pharaonic state, the eminent Henri Frankfort, Professor of Preclassical Antiquity at the University of London, had this to say about the 'Followers of Horus':

> ... it appears that 'Followers of Horus' is a vague designation for the kings of a distant past ... but it would seem unwise to treat the term as primarily of a historical nature. For each king became at death one of the corporation of 'transfigured spirits' ... [and] merged with that nebulous spiritual force which had supported the living rulers and descendents of the Throne of Horus since time immemorial.[13]

High initiates

We feel obliged to point out that this was not at all how the ancient Egyptians viewed their own history. For them there was never any question of mythical epochs or 'nebulous spiritual forces' lurking in the distant past. For them, to state matters plainly, the 'Followers of Horus', and the geographical landscape in which they had 'ruled', were unquestionable realities to which they were directly and inseverably

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[11] W. B. Emery, *Archaic Egypt,* op. cit., p. 32ff.
[12] *Cambridge Ancient History,* Volume I, p. 250.
[13] Henri Frankfort, *Kingship and the Gods,* University of Chicago Press, 1978, p. 90.

connected. Indeed, if one takes the Egyptian accounts and traditions seriously what the 'Followers of Horus' begin to sound like is a lineage of real, although 'unnamed' individuals whose function and duty, as Henri Frankfort himself suggested, was to provide the 'spiritual force' behind the monarchy (though by no means in a 'vague' or 'nebulous' manner). The Egyptians' own accounts also invite the conclusion that the role of these 'Followers' may have been to carry down the ages a body of extraordinary knowledge harking back to the even more mysterious 'time of the *Neteru'*—i.e. the 'Gods'.

From available primary sources, in other words, the overall picture that emerges is that the 'Followers of Horus' may not have been 'kings' in the usual sense of the word but rather immensely powerful and enlightened individuals—high initiates who were carefully selected by an élite academy that established itself at the sacred site of Heliopolis-Giza thousands of years before history began. There is much to suggest, too, that the ancient Egyptian texts are right and that Pharaonic civilization may indeed have owed its unique spark of genius to just such a 'brotherhood' linked to just such an archaic and élite academy.

So who might the *Shemsu Hor* really have been? And what were they 'following'?

Following the Way of Horus

Heliopolis—ancient *On* or *Innu*—was the oldest organized religious centre in Egypt and most probably in the world. Situated some 12 miles northeast of the Giza plateau, and already hoary with age at the dawn of the Pharaonic epoch, it is identified by tradition as the source of the secrets of astral immortality which the Pyramid builders claimed to have inherited. Indeed the title of the High Priest of Heliopolis, as Professor I. E. S. Edwards has recently demonstrated, was 'Chief of the Astronomers', and the regalia of this notable was a ceremonial robe spangled with five-pointed stars.[14]

[14] I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1993 edition, p. 286: 'The high priest of the centre of the sun cult at Heliopolis bore the title "Chief of the Astronomers" and was represented wearing a mantle adorned with stars.'

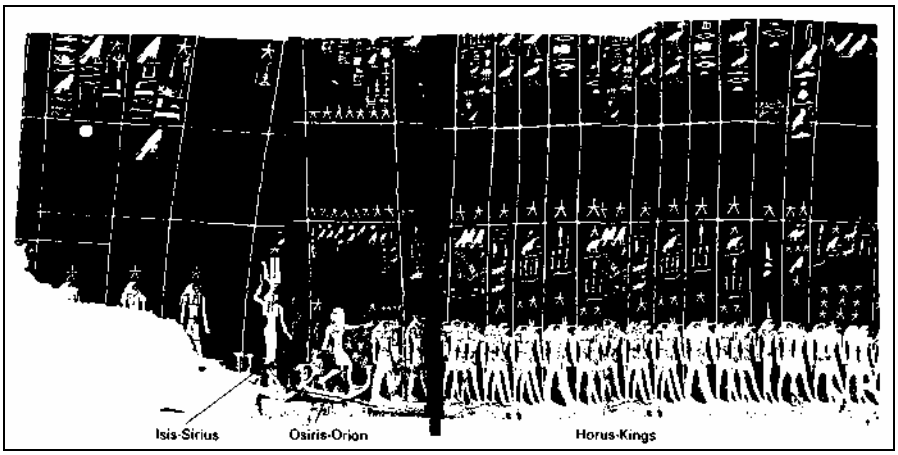

53. Osiris-Orion showing the way to his 'Followers', the Horus-Kings, who are the custodians of his dual kingdom in the *Duat.*

As we have already hinted in Part III, the dominant concerns of the elitist, 'scientific' priests of Heliopolis were with recording the motions of the stars, measuring and commemorating the passage of time, and peering into the mysteries of the epochs. It has long been known, too, that they carefully studied the cycle of the sun in its perceived yearly circuit along the zodiacal path. And more recently, compelling evidence has emerged that they also followed the far longer cosmic cycle of the 'Great Year'—namely the precessional 'drift' of the stars caused by the earth's axial 'wobble'. The reader will recall that this vast cycle of 25,920 years was measured by the slow rotation of the twelve zodiacal constellations in relation to the point of sunrise on the vernal equinox—in short, the 'precession of the equinoxes' in which a succession of astrological 'Ages', each 2160 years in duration, was believed to have begun to unfold after a kind of spiritual and cultural 'Big Bang' known as *Zep Tepi*—the 'First Time' of the Gods.

To observe and accurately measure the rate of the precession of the equinoxes is a feat that could only have been achieved by scientifically minded, intellectually advanced and highly organized people with a long tradition of precise observational astronomy. Similarly, the building of the three great Pyramids of Giza was not the work of technological primitives only recently emerged from the Stone Age. On the contrary, as historians of science Giorgio de Santillana and Hertha von Dechend have pointed out, such accomplishments 'should be a cogent reason for concluding that serious and intelligent men were at work behind the stage, men who were bound to have used a technical terminology'.[15]

We shall argue that 'serious and intelligent men'—and apparently women too—were indeed at work behind the stage of prehistory in Egypt and propose that one of the many names by which they were known was the 'Followers of Horus'. We propose, too, that their purpose, to which

[15] Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill,* op. cit., p. 58.

their generations adhered for thousands of years with the rigour of a messianic cult, may have been to bring to fruition a great cosmic blueprint. And we have evidence that the slow unfolding and implementation of this plan somehow entailed tracking two observable 'ways' taken by the celestial bodies across the ages—'ways' which are both consequences of the earth's axial precession:

- First the 'way' of the stars: these appear to 'drift' in the sense that their place and day of rising at the horizon changes, accompanied by corresponding changes in their altitude at the meridian.

- Secondly the 'way' of the sun, which also appears to 'drift'—in this case 'westwards' along the ecliptic path so that the 'pointer' of the vernal equinox appears to 'sweep' slowly through each one of the twelve zodiacal signs every 2160 years.

In the coded astronomical language of the ancients of Heliopolis, we will argue that the notion of following the sun's westward drift through the zodiac translates as 'Following the Way of Horus (the sun) across the ages'. And we will show that the 'Followers of Horus' are most likely to have acquired their enigmatic title because it described precisely what they did and stood for. They were, we suspect, astrologers and astronomers *par excellence* who had been following and recording the position of the vernal point across the ages from the epoch of the 'First Time' to the epoch of the historical kings of Egypt.

Last but not least, we also propose as a hypothesis for further testing that at a well-defined and predetermined historical moment 'written in the stars' the 'Followers of Horus' may have taken steps to mobilize the native inhabitants of Egypt, unite them into a theocratic state and harness their energies to the further fulfilment of a cosmic blueprint in which the great Pyramids on the west bank of the Nile were to play a pivotal role ...

Chapter 12

Sages and 'Followers'

'The introduction to the first Edfu cosmological record discloses the tradition that the contents of these records were the "words of the Sages". We are told that this sacred book was believed to be a "Copy of the writings which Thoth made according to the words of the Sages" ...'

E. A. E. Reymond, *The Mythical Origin of the Egyptian Temple,* 1969

It is a convention amongst modern scholars that myths do not count as historical evidence—and, as we saw in the last chapter, this convention is particularly strongly adhered to by Egyptologists.

Yet there are several well-known cases in archaeology where myths that have been dismissed as 'unhistorical' were later proved to have been entirely accurate. One example concerns the world-famous Troy of Homer's *Iliad* (a great prose-poem compiled from earlier oral sources *circa* 800 BC). Until not long ago most scholars were convinced that Troy was a 'mythical city'—i.e. entirely a figment of Homer's fertile imagination. In 1871, however, the 'buccaneer' German explorer Heinrich Schliemann proved orthodox opinion wrong when he followed geographical clues contained in the *Iliad* and discovered Troy in western Turkey near the Dardanelles (the ancient Hellespont)—exactly where Homer had said it was located. Schliemann and two other intrepid researchers, the Greek scholar Kalokairinos and the British archaeologist Sir Arthur Evans, then went on to cap this achievement by following up myths concerning the great 'Minoan' civilization that was said to have existed on the island of Crete. These myths, too, were dismissed as unhistorical by orthodox opinion but were vindicated when Schliemann and his team excavated the remains of a highly advanced culture now firmly identified as that of the 'Minoans'.[1]

Similarly, in the Indian subcontinent, the great body of ancient Sanskrit scriptures known as the Rig-Veda contains repeated references to a high civilization, living in fortified cities, that had preceded the Aryan invasions more than 4000 years ago. Again these references were universally dismissed as 'mythical'—until, that is, the ruins of the great 'Indus Valley' cities such as Harappa and Moenjodaro began to be

[1] See for example C. W. Ceram, *Gods, Graves and Scholars,* Book Club Associates, London, 1971, p. 26ff.

unearthed in the twentieth century and proved to date back as far as 2500 BC.[2]

In short, the record shows that whole cities and civilizations which were once classified as mythical (and therefore of no historical interest) have a habit again and again of suddenly materializing from the mists of obscurity and becoming historical realities.

Could the same thing be about to happen in Egypt?

Guardians of records

Amongst other peoples such as the Romans and the Greeks, who were considerably closer to ancient Egypt than we are, it was held to be axiomatic that the Pharaohs and their priests were the guardians of accurate records concerning certain highly significant events that had taken place long, long ago. Indeed these records were actually seen and studied, at the sacred city of Heliopolis, by such distinguished visitors as Herodotus (fifth century BC), the Greek lawmaker Solon (640-560 BC) and his fellow countryman the scientist Pythagoras (sixth century BC).[3] From their reports derived the Greek impression of Egypt reported by Plato:[4]

> We Greeks are in reality children compared with this people with traditions ten times older. And as nothing of precious remembrance of the past would long survive in our country, Egypt has recorded and kept eternally the wisdom of the old times. The walls of its temples are covered with inscriptions and the priests have always under their own eyes that divine heritage ... The generations continue to transmit to successive generations these sacred things unchanged: songs, dances, rhythms, rituals, music, paintings, all coming from time immemorial when gods governed the earth in the dawn of civilization.[5]

We have already made frequent mention of *Zep Tepi,* the supposedly mythical 'First Time' of the Gods—a remote epoch with which the ancient Egyptians associated the origins of their civilization. And in the last chapter we noted that Manetho's fabled *History,* and a number of inscriptions known as king-lists, also refer back to distant golden ages when the gods, and then subsequently the mysterious 'Followers of Horus', ruled in the Nile Valley. Before immersing ourselves in the next chapter in the truly immense chronology of which all the lists speak, our objective here, as Plato prompts, is to take a look at the 'walls of temples'—specifically at the so-called 'Building Texts' (*circa* 200 BC) inscribed on the walls of the Temple of Edfu that stands in Upper Egypt midway between Luxor and Aswan. These texts, which contain a series of extraordinary references to the 'First Time', are accepted by scholars as

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[2] See Sarva Daman Singh, *Ancient Indian Warfare,* Motilal Banarsidass, Delhi, 1989, p. 7ff.

[3] Labib Habachi, *The Obelisks of Egypt,* op. cit., p. 39.

[4] Ibid.

[5] Cited in ibid., pp. 39-40.

the only surviving fragments of a much more ancient, much larger, and much more coherent body of cosmogonical literature—now long lost—that once incorporated a complete 'mythical history' of Egypt, of its gods and of the temples built to honour them.[6] In the texts, the 'Followers of Horus' are equated and merged with other 'mythical' beings, sometimes seemingly divine, sometimes human, who are always portrayed as the bringers and preservers of knowledge down the ages—as an élite brotherhood dedicated to the transmission of wisdom and to the quest for resurrection and rebirth ...

Memories of the dawn

The Temple of Edfu in its present form was erected over a two hundred-year period between 237 BC and 57 BC but incorporates parts of much earlier structures dating back to the Pyramid Age (for example portions of the inner and outer western enclosure wall). Moreover, like all major temples, it was built 'on hallowed ground' and there attaches to it a recollection of vast antiquity and of momentous antecedents.[7]

Thus, on the face of things, the Building Texts appear to be nothing more than a history of the Edfu Temple itself, together with descriptions of its rooms and halls and of their ritual purpose and significance.[8] A closer look, however, as E. A. E. Reymond of Manchester University has demonstrated, reveals a subtext which hints:

> at the existence of certain mythological events ... where the foundation, building and bringing to life of the historical temple [of Edfu] is interpreted as happening in a mythical age. The historical temple is interpreted as the work of the gods themselves, and as an entity of a mythical nature. This ... seems to indicate a belief in a historical temple that was a direct continuation, projection, and reflexion of a mythical temple that came into existence at the beginning of the world ...[9]

Needless to say the 'beginning of the world' is a synonym in the Edfu Texts for the 'First Time', also known as the 'Early Primeval Age'. In this epoch, we learn, the 'words of the Sages' were copied down by the wisdom-god Thoth into a book that codified the locations of certain 'sacred mounds' along the Nile. The title of this lost book, according to the texts, was *Specifications of the Mounds of the Early Primaeval Age,* and it was believed to have contained records not only of all the lesser 'Mounds', or temples, but also of the Great Primeval Mound itself, the place where time had supposedly begun.[10]

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[6] For a detailed discussion see E. A. E. Reymond, *The Mythical Origin of the Egyptian Temple,* Manchester University Press, Barnes and Noble Inc., New York, 1969.
[7] John Anthony West, *Traveller's Key to Ancient Egypt,* op. cit., p. 412.
[8] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 4.
[9] Ibid.
[10] Ibid., p. 8ff.

Several points of interest arise:

1. The 'Great Primeval Mound' has recently been associated by Professor I. E. S. Edwards with the natural outcropping of rock that is known to lie under the Great Pyramid of Egypt and to have been incorporated into its lower courses of masonry.[11] This analysis appears to reinforce the connections that we have already established in Part I between the Giza necropolis and the 'First Time'.

2. The 'Sages' referred to in the Edfu Building Texts were seven in number. Their special role was as 'the only divine beings who knew how the temples and sacred places were to be created'. And it was they who initiated construction work at the Great Primeval Mound. This work, in which Thoth also participated, involved the setting out and erection of the original 'mythical' temple of the 'First Time'.[12]

3. Also constructed under the direction of the 'Seven Sages' was an edifice specified as *hwt-ntr,* 'the mansion of the god': ' "Speedy of construction", men called it by name. The sanctuary is within it, "Great Seat" by name, and all its chapels are according to the norm.'[13]

4. When all these works were complete 'the magical protection (*swr mdw*) of that site was made by the Sages'.[14]

5. In the whole corpus of ancient Egyptian writings, the Edfu Building Texts preserve the only references to the 'Seven Sages' that have survived to the present day. Egyptologists have therefore paid little attention to the identity of these beings beyond conceding that that they appear to have played a part in 'a much wider and more general theory concerning the origin of sacred domains and their temples'.[15] In our opinion, however, there is something notable about the context in which the Texts describe the Sages. This context is marked by a preponderance of 'Flood' imagery in which the 'primeval waters' (out of which the Great Primeval Mound emerged) are depicted as gradually receding.[16] We are reminded of Noah's mountain-top on which the Ark settled after the Biblical Deluge, and of the 'Seven Sages' (*Apkallu*) of ancient Babylonian tradition who were said to have 'lived before the Flood' and to have built the walls of the sacred city

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[11] Letter to Robert Bauval dated 27 January 1993: 'I believe it [the mound] represented the primaeval mound on which life first appeared.'
[12] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., pp. 28, 39, 46, 48, etc., etc.
[13] Ibid., p. 42.
[14] Ibid., p. 41.
[15] Ibid., p. 44.
[16] Ibid., pp. 27 and 31.

of Uruk.[17] Likewise is it an accident that in Indian tradition 'Seven Sages' (*Rishis*) are remembered to have survived the Flood, their purpose being to preserve and pass down to future generations the wisdom of the antediluvian world?[18]

In all cases the Sages appear as the enlightened survivors of a cataclysm that wiped the earth clean, who then set about making a fresh start at the dawn of a new age—which, in ancient Egypt, was referred to as the 'First Time'. As Reymond confirms in her masterly study of the Edfu Texts:

> the first era known by our principal sources was *a period which started from what existed in the past.* The general tone of the record seems to convey the view that an ancient world, after having been constituted, was destroyed, and as a dead world it came to be the basis of a new period of creation which at first was the re-creation and resurrection of what once had existed in the past.[19]

Wisdom and knowledge

According to the Edfu Texts the Seven Sages and the other gods came originally from an island,[20] the 'Homeland of the Primeval Ones'.[21] As noted above, the texts are adamant that the agency that destroyed this island was a flood. They also tell us that it came to its end suddenly[22] and that the majority of its 'divine inhabitants' were drowned.[23] Arriving in Egypt, those few who survived then became 'the Builder Gods, who fashioned in the primeval time, the Lords of Light ... the Ghosts, the Ancestors ... who raised the seed for gods and men ... the Senior Ones who came into being at the beginning, who illumined this land when they came forth unitedly ...'[24]

It was not believed that these remarkable beings were immortal. On the contrary, after they had completed their tasks they died and their children took their places and performed funerary rites on their behalf.[25] In this way, just like the 'Followers of Horus', the generations of the 'Builder Gods', or 'Sages', or 'Ghosts' or 'Lords of Light' described in the Edfu Texts could constantly renew themselves—thus passing down to the future traditions and wisdoms stemming from a previous epoch of the

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[17] Jeremy Black and Anthony Green, *Gods, Demons and Symbols of Ancient Mesopotamia,* British Museum Press, London, 1992, pp. 163-4.
[18] Donald A. Mackenzie, *Myths and Legends of India,* The Mystic Press, London, 1987, p. 141ff; Veronica Ions, *Indian Mythology,* Hamlyn, London, 1983, pp. 120-1.
[19] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., pp. 106-7.
[20] Ibid., p. 55.
[21] Ibid., p. 90.
[22] Ibid., p. 113.
[23] Ibid., pp. 109 and 127.
[24] Ibid., p. 77.
[25] Ibid., p. 112.

earth. Indeed, the similarities between the 'Senior Ones' of Edfu and the *Shemsu Hor* of Heliopolitan tradition are so marked it is hard to escape the conclusion that both epithets, and the numerous others that exist, are all descriptions of the same shadowy brotherhood.

This impression is strengthened by the constant references in the Edfu Texts to the '*wisdom* of the Sages' (wisdom being one of the defining characteristics of the 'Followers of Horus') and the repeated emphasis that their special gift was *knowledge*—including, but not limited to, the knowledge of architecture.[26] Likewise it is noteworthy that the Sages are said to have specified the plans and designs that were to be used for all future temples—a role frequently accorded in other contexts to the 'Followers of Horus'. For example, the temple of Dendera (a little to the north of Edfu) is inscribed with Building Texts of its own which state that the 'great plan' followed by its architects was 'recorded in ancient writings handed down from the "Followers of Horus" '.[27]

Heliopolitan origins

The earliest-surviving references to the 'Followers of Horus' occur in the Pyramid Texts. It is therefore unlikely to be an accident that the notion in the Edfu Texts of the Great Primeval Mound emerging from the waters of a universal deluge coincides exactly with imagery that has also been preserved in the *Pyramid Texts* in which, as E. A. E. Reymond summarizes: 'The Earth in its earliest shape was pictured as a mound which emerged from the primeval water. This mound itself was then considered as a divine being, and as the original terrestrial configuration on which the creator, Atum, dwelt.'[28]

As is well known, the compilation of the Pyramid Texts was undertaken by the priests of Heliopolis.[29] It may therefore be of relevance that ancient Egyptian traditions attribute the founding of Heliopolis to the 'Followers of Horus'—in a period long before the beginning of Dynastic times—and that there is an Egyptian papyrus, now in the Berlin Museum, which clearly suggests that Heliopolis in some way 'existed before the earth was created'.[30] Once again, this interlinks closely with a central proposition of the Edfu Texts, namely that the 'new world' created by the Sages after the Flood was conceived of and designed by its makers as 'the resurrection of

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[26] Ibid., p. 273.
[27] Cited in R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., pp. 103-4. See also Henri Frankfort, *Kingship and the Gods,* op. cit., p. 90.
[28] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 59.
[29] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., p. 37.
[30] *P. dem Berlin,* 13603. For the ancient traditions asserting that Heliopolis was originally founded in remote pre-Dynastic times see J. Norman Lockyer, *The Dawn of Astronomy,* op. cit., p. 74.

the former world of the gods.'[31]

There are other links too. For example what Reymond calls 'the manifestation of the resurrection of the first holy world' took the form in the Edfu Texts of an upright column or rod, 'the Perch' on which a great bird, the Divine Falcon, rested.[32] In Heliopolis there stood a pillar (indeed *Innu,* the Egyptian name for Heliopolis, actually means 'pillar'[33]) on which it was believed that another 'Divine' bird—the *Bennu,* or phoenix—periodically rested.[34] And interestingly the hieroglyph for Heliopolis—a column surmounted by a cross above (or beside) a circle divided into eight parts[35]—is virtually identical to a hieroglyph depicting the Edfu 'Perch' that is reproduced by Flinders Petrie in his *Royal Tombs of the Earliest Dynasties.*[36]

For all these reasons, and many others, Reymond concludes that 'the Edfu documentary sources offer ... one argument more in favour of the theory that the ritual of the Egyptian temple was Heliopolitan in origin ... We are of the opinion that the Edfu records preserve the memory of a Predynastic religious centre which once existed near to Memphis, which the Egyptians looked on as the homeland of the Egyptian temple.'[37]

What better candidate is there for that 'Predynastic religious centre near to Memphis'—that 'homeland' of the Egyptian temple—than the sacred city of Heliopolis and its associated Pyramids and other structures on the Giza plateau? Moreover, as the reader will recall, the Giza/Heliopolis complex lies to the north of ancient Memphis. In this light a well-known text on the inner face of the enclosure wall of the temple at Edfu takes on a special meaning, for it tells us that the temple was built 'at the dictates of the Ancestors' according to what was written in a certain 'book' which had 'descended from the sky to the north of Memphis'.[38]

There is of course a sense in which the cosmic monuments of Giza could themselves be said to be a kind of 'book' written in stone and 'descended from the sky'—for, as we now know, the three great Pyramids are the terrestrial counterparts of the three stars of Orion's belt and the Sphinx draws down to earth the regal image of Leo, the celestial lion.

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[31] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 122.
[32] Ibid , pp. 121-2.
[33] Margaret Bunson, *The Encyclopaedia of Ancient Egypt,* New York, Oxford, 1991, p. 110.
[34] Ibid., p. 45.
[35] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. II, p. 958.
[36] Flinders Petrie, *Royal Tombs* II, Pl.v,3, cited in E. A. E Reymond, *Mythical Origin of the Egyptian Temple,* p. 136.
[37] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 257. See also p. 262.
[38] Ibid., p. 262.

Cycle of the phoenix

The Primeval Mound, identified with the Great Pyramid and with the natural mound of rock that is incorporated into the foundations of that monument, is envisaged in the Pyramid Texts as a place at once of birth and death, and also as a place of rebirth.[39] These ideas fit well with the ancient Egyptian rituals for 'awakening Osiris' and attaining astral immortality—and with the quest of the Horus-King—that we have described in earlier chapters. They also accord with the sense that the texts convey of a cyclical rhythm at work in the universe as the vast 'Mill' of the zodiac grinds out the destiny of world ages.

In Heliopolitan theology, all these processes were grouped together, summarized and expressed in a single image—the *Bennu* bird, the legendary Phoenix which at certain widely separated intervals 'fashioned a nest of aromatic boughs and spices, set it on fire and was consumed in the flames. From the pyre miraculously sprang a new phoenix, which, after embalming its father's ashes in an egg of myrrh, flew with the ashes to Heliopolis where it deposited them in the altar of the Egyptian sun-god, Re. A variant of the story made the dying phoenix fly to Heliopolis and immolate itself in the altar fire, from which the young phoenix then rose ... The Egyptians associated the phoenix with immortality.'[40]

Sources vary as to the period of the *Bennu's* return, but in his authoritative study on the subject R. T. Rundle Clark mentions the figure of 12,954 years.[41] Let us note that this figure accords very closely with a half-cycle of precession (where the full cycle, as we have seen, is 25,920 years). As such, 'the return of the phoenix' could be expressed in astronomical terms either as a slow 'sweep' of the vernal point through six houses of the zodiac—for example from the beginning of Leo to the beginning of Aquarius—or, at the meridian, as the number of years required for a star to move between its minimum and maximum altitudes above the horizon.

When considering such co-ordinates in the sky, we are immediately reminded of the Giza necropolis—of how the gaze of the Great Sphinx targets the vernal point on the eastern horizon, and of how the star-shafts of the Great Pyramid lock in to the meridian with machine-age accuracy. Moreover it can hardly be an accident that the capstone or pyramidion placed on top of all pyramids was known in the ancient Egyptian language as the *Benben* and was considered to be a symbol of the *Bennu* bird (and thus also of rebirth and immortality).[42] These capstones were replicas of the original *Benben* stone—perhaps a conical,

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[39] Ibid., p. 114; see also R. T. Rundle Clark, *Myth and Symbol,* op. cit., p. 37ff.
[40] *Encyclopaedia Britannica,* 9:393.
[41] *The Orion Mystery,* op. cit., p. 188.
[42] Ibid., p. 17.

'orientated' meteorite[43]—which was said to have 'fallen from heaven' and which was kept in Heliopolis, perched atop a pillar in a Temple called the 'Mansion of the Phoenix'.[44]

Is it not apparent, therefore, that we are confronted here by a tightly knit complex of interwoven ideas, all additionally complicated by masses of Egyptian dualism, in which stone stands for bird, and bird for stone,[45] and both together speak of rebirth and of the 'eternal return'?

The capstone is of course missing from the summit of the Great Pyramid at Giza. And the *Benben* of Heliopolis was already long lost to history by the time of the Greeks ...[46]

Will these treasures, too, sooner or later 'return'?

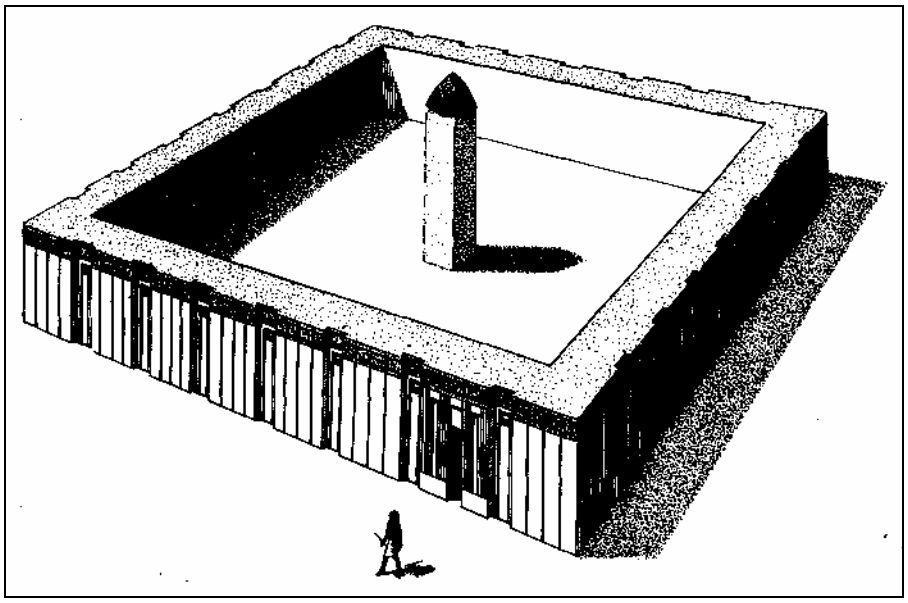

54. Artist's impression of the 'Mansion of the Phoenix' in Heliopolis with its original pillar and pyramid-shaped *Benben* stone.

Ancestor gods

'Underlying all Egyptian speculation', as R. T. Rundle Clark has observed, 'is the belief that time is composed of recurrent cycles which are divinely appointed ...'[47] There is furthermore a governing moment amongst all these cycles and epochs—the 'genesis event' that the Egyptians called *Zep Tepi,* the 'First Time'.

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[43] Ibid., pp. 203-4.
[44] Ibid., p. 17.
[45] R. T. Rundle Clark, *The Legend of the Phoenix,* University of Birmingham Press, 1949, p. 17.
[46] *The Orion Mystery,* op. cit., p. 212ff.
[47] R. T. Rundle Clark, *Myth and Symbol,* op. cit., p. 246.

Zep means 'Time', *Tepi* means 'First'.

But *Tepi* also has other connotations. For example, it is the word for 'the foremost point of a ship' and it can likewise be interpreted as 'the first day of a period of time'. Moreover, according to the astute analysis of Robert K. G. Temple: 'The basic meaning of the word *Tep* is "mouth" ... and even more fundamentally the "beginning or commencement of anything".'[48]

Perhaps because of this persistent connection with the beginning of things, *Tepi* can also mean 'ancestors'. And the *Tepi-aui-qerr-en-pet* were 'the ancestor-gods of the circle of the sky'.[49] Also in the Pyramid Texts *Tepi-aui* is one of the many titles by which the ancestral deities of the 'early primeval age' were known—the gods and Sages, or 'Followers of Horus', who were supposedly there, at the dawn of civilization, when the phoenix alighted atop the pillar at Heliopolis, uttering a great cry and setting in motion the 'time' of our present epoch of the world ...

Curiously, the hieroglyphic sign used to determine the *Tepi-aui* is the body of a large, slouching lion, with only the paws, breast and head shown. And we find a similar device being used as the determinative for a very similar class of beings called the *Akeru,* described in Wallis Budge's *Hieroglyphic Dictionary* as a group of gods said to be the ancestors of Re.[50]

The reader will recall from earlier chapters that one of the distinguishing features of the Fifth Division of the *Duat* is the presence there of a giant double-lion Sphinx-god named *Aker* whom Egyptologist Mark Lehner suggests may be 'a representation of the Sphinx at Giza'.[51] Since it is from *Aker* that the *Akeru* derive their name, it is natural that the hieroglyphs should depict them either in the form of slouching lions, or of two lions back to back, or of a double-headed lion.[52]

So the texts seem to invite us to attach leonine characteristics to the 'men or gods of olden times', to the 'Ancestors', and to the Sages. But they also invite something else when, as we shall see in the next chapter, they link the whole concept of ancestral dynasties of gods and spirits with another closely related word, *Akhu,* meaning, variously, the 'Shining Ones', the 'Star People' or the 'Venerables'. In this way they will lead us back to the trail of the 'Followers of Horus' and to the notion that for

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[48] Robert K. G. Temple, *The Sirius Mystery,* Destiny Books, Rochester, Vt., 1987, p. 186.
[49] E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., Vol. II, pp. 828-32.
[50] Ibid., Vol. I, p. 11b.
[51] Mark Lehner, *The Egyptian Heritage,* op. cit., p. 119.
[52] E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., p. 11b.

thousands of years—spanning both the prehistoric and the historic periods—the members of a hidden academy may have been at work behind the scenes in Egypt, observing the stars with scientific rigour and manipulating men and events according to a celestial timetable ...

Chapter 13

Following the Stars

'The disposition of the stars as well as their movements have always been the subject of careful observation among the Egyptians ... they have preserved to this day records concerning each of these stars over an incredible number of years, this study having been zealously preserved among them from ancient times.'

Diodorus Siculus, *Book V,* first century BC

It should be clear by now that the ancient Egyptians had very distinct ideas about the length and scope of their history, and that they set the 'First Time', the 'genesis event' for their civilization, far back in what the Edfu Building Texts call the 'Early Primeval Age'. Just how long ago that event actually took place is not an issue that will be easily resolved because the surviving texts—the king-lists, the very few fragments of Manetho's *History* that have been preserved, and certain travellers' tales—are mostly incomplete and at times mutually contradictory. Moreover we are obliged to cut our way through a luxuriant jungle of diverse terminologies—Sages, Ancestors, Spirits of the Dead, the 'Followers of Horus', etc., etc.—which further complicates the problem of trying to arrive at a coherent picture. Nevertheless, let us see what we can glean from these ancient sources. Let us try to put the jigsaw puzzle together ...

Shining ones

Amongst the very few king-lists that have survived to the present day, the so-called 'Turin Papyrus' reaches particularly deeply into the dark abyss of the past. Regrettably, more than half of the contents of this fragile document from the second millennium BC have been lost because of the gross incompetence with which it was handled by scholars when it was transferred (in a biscuit tin) from the collection of the King of Sardinia to its present home in the Museum of Turin.[1] The remaining fragments, however, offer occasional tantalising glimpses of an astonishing chronology.

Of the greatest importance amongst these fragments is a badly damaged vertical register in which the names and reigns of ten *Neteru* or

[1] See for example W. B. Emery, *Archaic Egypt,* op. cit., p. 22.

'Gods' were originally given. Although in most cases the durations of these reigns are now illegible or completely broken away, it is possible to read the figure of 3126 years ascribed to the rule of the wisdom-god Thoth and the figure of 300 years ascribed to Horus, the last fully 'divine' king of Egypt.[2] Immediately afterwards comes a second vertical register devoted to the 'Followers of Horus'—the *Shemsu Hor*—the most prominent of that general class of beings variously called 'Ancestors', or 'Sages' or 'Ghosts' or 'Spirits' whom the Egyptians remembered as having bridged the gap between the time of the gods and the time of Menes (the supposed first king of the first historical Dynasty *circa* 3000 BC).[3] Again much of the register is missing, but its last two lines, which seem to represent a summing-up, are of particular interest: '*The Akhu, Shemsu Hor,* 13,420 years; Reigns before the *Shemsu Hor,* 23,200 years; Total 36,620 years.'[4]

The plural word *'Akhu'* is normally translated as 'Venerables'.[5] Yet, as we hinted at the end of the last chapter, a close examination of the full range of meanings that the ancient Egyptians attached to it suggests that another and far more intriguing possibility exists—one that is concealed by so generalized an epithet. To be specific, the hieroglyphs for *Akhu* can also mean 'Transfigured Beings', 'Shining Ones', 'Shining Beings' or 'Astral Spirits'—understandably identified by some linguists with the stars.[6] And there are other shades of meaning, too, that cry out to be taken into account. For example in Sir E. A. Wallis Budge's authoritative *Hieroglyphic Dictionary* the following additional definitions are provided for *Akhu:* 'to be bright', 'to be excellent', or 'to be wise' and 'instructed'.[7] And Budge further informs us that the word was frequently associated with 'those who recite formulae'.[8]

Such data, we suggest, calls for a rethink of the title 'Venerables' as applied to the 'Followers of Horus' in the Turin Papyrus.[9] Rather than merely being 'venerable', is it not possible that what was meant to be conveyed by the word *Akhu* in this context was a picture of vastly enlightened and learned people, apparently with some connection to or interest in the stars—in short an élite of highly initiated astronomer-philosophers?

In support of this notion is the fact that the 'Followers of Horus' were frequently linked in the ancient texts to another equally enlightened and

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[2] *Manetho,* W. G. Waddell trans., Heinemann, London, 1940, p. 3, note 1.
[3] R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 86; Lucy Lamy, *Egyptian Mysteries,* Thames & Hudson, London, 1986, pp. 68-9; Jane B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., p. 94.
[4] *Sacred Science,* op. cit., p. 86.
[5] Ibid.
[6] Jane B. Sellers, *The Death of Gods,* op. cit., p. 94.
[7] E. A. Wallis Budge, *Hieroglyphic Dictionary,* op. cit., Vol. I, pp. 22-3.
[8] Ibid.
[9] *Sacred Science,* op. cit.

'shining' class of ancestral beings called the 'Souls of Pe' and the 'Souls of Nekhen'.[10] Now Pe and Nekhen were actual geographical locations in Egypt—the former in the north and the latter in the south.[11] Interestingly enough, however, as Professor Henri Frankfort has confirmed, the 'Souls' of both these places were also frequently grouped collectively under yet another title, the 'Souls of *Heliopolis'*,[12] who were said 'to assist the King's ascent to heaven, a function commonly performed by the Souls of Nekhen and Pe ... A relief depicting this function shows the Souls of Pe and Nekhen in the act, while the text calls them the "Souls of Heliopolis".'[13]

It is generally accepted that the term 'Soul'—*Ba*—as used by the ancient Egyptians had stellar attributes connected to the notion of eternal life in the *Duat* to which all the historical Pharaohs aspired. Moreover, as Frankfort rightly points out, the Pyramid Texts do indeed define the dominant role of the 'Souls' of Pe and Nekhen—and thus the 'Souls' of Heliopolis—as being to ensure that when a Pharaoh died he would be 'equipped' to ascend to the sky and find his way into the cosmic Kingdom of Osiris.[14] This in turn coincides with what we know of the Sages of Edfu and the 'Followers of Horus', both of whom, as we have seen, may be identified with a single and originally *Heliopolitan* 'brotherhood' of temple-makers whose function was to prepare and initiate the generations of the Horus-Kings in order to bring about the 'resurrection' of what was remembered as 'the former world of the gods'.[15]

Legacy

The notion that some form of invisible college could have established itself at Heliopolis thousands of years before the Pharaohs, and could have been the initiating force behind the creation and unfolding of ancient Egyptian civilization, helps to explain one of the greatest mysteries confronted by Egyptology—namely the extremely sudden, indeed dramatic, manner in which Pharaonic culture 'took off' in the early third millennium BC. The independent researcher John Anthony West, whose breakthrough work on the geology of the Sphinx we reported in Part I, formulates the problem especially well:

> Every aspect of Egyptian knowledge seems to have been complete at the very beginning. The sciences, artistic and architectural techniques and the hieroglyphic system show virtually no signs of a period of 'development';

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[10] Henri Frankfort, *Kingship and the Gods,* op. cit., p. 93.
[11] Later known as Buto and Hierakonpolis respectively.
[12] Frankfort, *Kingship,* op. cit., p. 94.
[13] Ibid.
[14] *The Ancient Egyptian Pyramid Texts,* R. O. Faulkner, trans., op. cit., lines 478 and 1717, pp. 94 and 253 respectively; Frankfort, *Kingship,* op. cit., pp. 93-5; R. T. Rundle Clark, *Myth and Symbol,* op. cit., pp. 122-3.
[15] E. A. E. Reymond, *Mythical Origin of the Egyptian Temple,* op. cit., p. 122.

> indeed, many of the achievements of the earliest dynasties were never surpassed or even equalled later on. This astonishing fact is readily admitted by orthodox Egyptologists, but the magnitude of the mystery it poses is skilfully understated, while its many implications go unmentioned.
>
> How does a complex civilization spring full-blown into being? Look at a 1905 automobile and compare it to a modern one. There is no mistaking the process of 'development'. But in Egypt there are no parallels. Everything is right there at the start.
>
> The answer to the mystery is of course obvious, but because it is repellent to the prevailing cast of modern thinking, it is seldom seriously considered. Egyptian civilization was not a 'development', it was a legacy.[16]

Might not the preservers of that legacy, who eventually bequeathed it to the Pharaohs at the beginning of the Dynastic Period, have been those revered and secretive individuals—the 'Followers of Horus', the Sages, the Senior Ones—whose memory haunts the most archaic traditions of Egypt like a persistent ghost?

Gods and heroes

In addition to the Turin Papyrus other chronological records support the notion of an immensely ancient 'academy' at work behind the scenes in Egypt. Amongst these, the most influential were compiled, as we saw earlier, by Manetho (literally, 'Truth of Thoth'), who lived in the third century BC and who 'rose to be high priest in the temple at Heliopolis'.[17] There he wrote his now lost *History of Egypt* which later commentators tell us was divided up into three volumes dealing, respectively, with 'the Gods, the Demigods, the Spirits of the Dead and the mortal Kings who ruled Egypt'.[18]

The 'Gods' it seems, ruled for 13,900 years. After them 'the Demigods and Spirits of the Dead'—epithets for the 'Followers of Horus'—ruled for a further 11,025 years.[19] Then began the reign of the mortal kings, which Manetho divided into the thirty-one dynasties still used and accepted by scholars today.

Other fragments from Manetho's *History* also suggest that important and powerful beings were present in Egypt long before the dawn of its historical period under the rule of Menes. For example Fragment 3, preserved in the works of George Syncellus, speaks of 'six dynasties or six gods who ... reigned for 11,985 years'.[20] And in a number of sources Manetho is said to have given the figure of 36,525 years for the entire

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[16] John Anthony West, *Serpent in the Sky,* op. cit., p. 1.
[17] *Manetho,* op. cit., p. xi.
[18] Ibid, p. 3.
[19] Ibid, p. 5.
[20] Ibid, p. 15.

duration of the civilization of Egypt from the time of the gods down to the end of the last dynasty of mortal kings.[21]

A rather different total of around 23,000 years has been handed down to us by the Greek historian Diodorus Siculus who visited Egypt in the first century BC and spoke there with priests and chroniclers. According to the stories he was told: 'At first Gods and Heroes ruled Egypt for a little less than 18,000 years ... Mortals have been kings of their country, they say, for a little less than 5000 years.'[22]

Time bridge

An overview of all the available chronologies in context of other related documents such as the Pyramid Texts and the Edfu Building Texts leaves two distinct impressions. Despite the conflicts and confusions over the precise numbers of years involved, and despite the endless proliferation of names and titles and honorifics and epithets:

- It is clear that the ancient Egyptians thought in terms of very long periods of time and would never have accepted the Egyptological view that their civilization 'began' with the First Dynasty of Pharaohs.

- It is clear that they were aware of an 'influence' at work in their history—a continuous, unbroken influence that had extended over many thousands of years and that was wielded by an élite group of divine and semi-divine beings, often associated with leonine symbolism, who were called variously 'Gods and Heroes', the 'Spirits of the Dead', the 'Souls', the 'Sages', the 'Shining Ones', the 'Ancestors', the 'Ancestor-Gods of the Circle of the Sky', the 'Followers of Horus', etc., etc.

It is clear, in other words, that the ancient Egyptians envisaged a kind of 'time bridge', linking the world of men to the world of the gods, today to yesterday and 'now' to the 'First Time'. It is clear, too that responsibility for maintaining this 'bridge' was attributed to the 'Followers of Horus' (by this and many other names). And it is clear that the 'Followers' were remembered as having carried down intact the traditions and secrets of the gods—always preserving them, permitting not a single change—until finally sharing them with the first dynasties of Egypt's mortal kings.

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[21] Ibid, p. 227.
[22] *Diodorus Siculus,* C. H. Oldfather trans. Harvard University Press, 1989, Vol. I, p. 157.

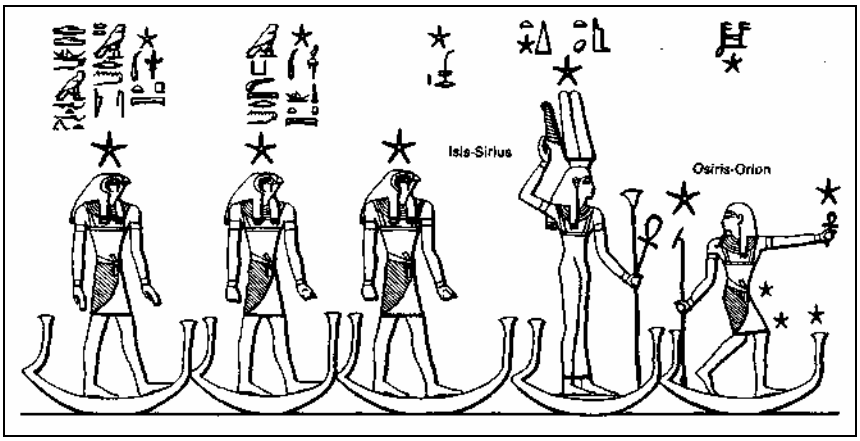

55. It is clear that the ancient Egyptians were aware of an 'influence' at work in their history—a continuous, unbroken influence that extended over many thousands of years and that was wielded by an élite group of divine and semi-divine beings.

Following the vernal point

The etymology of the ancient Egyptian term *Shemsu Hor,* 'Followers of Horus', was studied by the Alsatian scholar R. A. Schwaller de Lubicz who concluded: 'The term *Shemsu Hor ...* literally means ... "those who follow the path of Horus", that is, the "Horian way", also called the solar way ... These Followers of Horus bear with them a knowledge of "divine origin" and unify the country with it ...'[23]

The 'solar way' or 'path of Horus' is, of course, the ecliptic—that imaginary way or path in the sky on which the sun appears to travel through the twelve signs of the zodiac. As we saw in earlier chapters, the *direction* of the sun's 'journey' during the course of the solar year is Aquarius→ Pisces→ Aries→ Taurus→ Gemini→ Cancer→ Leo, etc., etc. The reader will recall, however, that there is also another, more ponderous motion, the precession of the earth's axis, which gradually rotates the 'ruling' constellation against the background of which the sun is seen to rise at dawn on the vernal equinox. This great cycle, or 'Great Year', takes 25,920 solar years to complete, with the vernal point spending 2,160 years in each of the twelve zodiacal constellations. The direction of motion is Leo→ Cancer→ Gemini→ Taurus→ Aries→ Pisces→ Aquarius, etc., etc., i.e. the reverse of the route pursued by the sun during the course of the solar year.

We suggest that the 'Followers of Horus' *followed*—in a very precise, astronomical sense—not only the annual path of the sun, eastwards through the zodiac, but also, for thousands of years, the vernal point's relentless precessional drift westwards through the same twelve

[23] R. A. Schwaller de Lubicz, *Sacred Science,* op. cit., p. 111.

constellations. We also suggest that this shadowy brotherhood, whose members were said to have carried the 'knowledge of divine origin' (which they would later use to 'unify the country'), may have interrelated on an extremely selective basis with the more primitive inhabitants of the Nile Valley in the prehistoric and Predynastic periods, interbreeding with chosen women and recruiting new generations from amongst the brightest and the best of their offspring—but leaving little or no trace of their presence in the archaeological record. We suggest, too, that around the beginning of the third millennium BC something happened in the cosmic order of the night sky—something long preordained and expected by their astronomers—that caused the 'Followers' to launch their grand attempt to initiate and 'unify' the historical civilization of Egypt. Last but not least, we suggest that whoever they really may have been, it was the 'Followers'—the Sages, the Builder Gods—who provided this nascent civilization with the injection of advanced technical knowledge, engineering, architectural and organizing skills necessary for the completion of the vast celestial 'temple' that we know today as the Giza necropolis ...

In the next chapters we will test some of these hypotheses.

Chapter 14

Space-Time Co-ordinates

'The mind has lost its cutting edge, we hardly understand the ancients.'

Gregoire de Tours, sixth century AD

In astronomical terms the 'vernal point' is the 'address' that the sun occupies on the spring equinox—its particular position on that particular day against the background of the zodiacal constellations that encircle the ecliptic (i.e. the perceived 'path' of the sun). As a result of a cosmic coincidence these twelve prominent constellations are distributed in the heavens in the plane of the ecliptic (i.e. in the plane of the earth's orbit around the sun) and, furthermore, are spaced out more or less evenly around it. The vernal point, however, is not fixed. Because of the phenomenon of precession, as we have seen in earlier chapters, it gradually sweeps around the whole 'dial' of the zodiac at a precise and predictable rate.

Between 3000 BC and 2500 BC, the epoch in which Egypt appears to have received the sudden spark of genius that initiated the most brilliant achievements of the Pyramid Age, the vernal point was stationed on the immediate right (i.e. 'west') bank of the Milky Way, drifting almost imperceptibly slowly past the small group of stars, known as the Hyades, which form the head of Taurus[1]—the Bull of the Sky.

What this means is that the vernal point had arrived in that region of the sky dominated by the adjacent constellations of Taurus and Orion, and particularly by the three stars of Orion's belt. Moreover, as we have seen in Part I, the three great Pyramids of Giza—which stand on the west bank of the Nile—were designed to serve as terrestrial models, or 'doubles' of those three stars.

Now here is the interesting thing. If we regard the Giza Pyramids (in relation to the Nile) as part of a scaled-down 'map' of the right bank of the Milky Way, then we would need to extend that 'map' some 20 miles to the south in order to arrive at the point on the ground where the Hyades-Taurus should be represented. How likely is it to be an accident that two enormous Pyramids—the so-called 'Bent' and 'Red' Pyramids of Dahshur—are found at this spot? And how likely is it to be an accident, as was demonstrated in *The Orion Mystery,* that the site plan of these monuments, i.e. their pattern on the ground, correlates very precisely

[1] Skyglobe 3.6.

with the pattern in the sky of the two most prominent stars in the Hyades?[2]

We suggest none of this is accidental, that the 'celestial signal' which 'sparked off the incredible Pyramid-building programme of Egypt's Fourth Dynasty was provided by the precessional drift of the vernal point into the Hyades-Taurus region, and that the 'Hyades Pyramids' of Dahshur were therefore naturally built first.

Such a theory provides a motive for the vast enterprise of Fourth-Dynasty Pyramid construction (involving some 25 million tons of stone blocks—more than 75 per cent of all the stone that was quarried and shaped into Pyramids during the Pyramid Age).[3] In addition, it accords fully with archaeological evidence which suggests that the two superb Pyramids at Dahshur were built by Sneferu (2572-2551 BC), the founder of the Fourth Dynasty and the father of Khufu. In other words the Bent and the Red Pyramids were indeed built *before* any of the great Pyramids of Giza[4]—which is exactly what one would expect if the drift of the vernal point into the Hyades-Taurus was the trigger that set the whole enterprise in motion.

And there is something else.

Journey in time

The Hyades-Taurus region, together with its terrestrial analogue, is identified in the Pyramid Texts as the starting point for the Horus-King's 'quest'—i.e. that great dualistic journey, enacted both in the sky and on the ground, that we described in Part III. As the reader will recall, the texts specifically and unambiguously instruct Horus in his solar form, i.e. the sun's disc, to position himself at this starting point and thence to 'go to Horakhti', i.e. to voyage eastwards towards the constellation of Leo. And we have seen how the sun actually does this, sailing along the ecliptic path during the solar year in the direction Taurus→ Gemini→ Cancer→ Leo.

This order of the constellations therefore appears to define 'forward' movement in time and, at one level, the identifiable astronomical events described in the texts do indeed unfold in the 'normal' forward direction of the solar year (after being stationed near Taurus, and then crossing the Milky Way, the sun reaches Leo later in the year—i.e. *later in time*). Moreover this same 'normal' forward motion also appears to be mirrored

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[2] *The Orion Mystery,* op. cit, p. 140ff.

[3] *The Orion Mystery,* op. cit, pp. 29 and 281, note 1. Details are as follows: Sneferu, about 9 million tons (two Pyramids at Dahshur) plus three Giza Pyramids (about 15 million tons) plus Abu Roash and Zawayat Al Aryan (about 1 million tons) = 25 million tons, i.e. about 75 per cent of the total volume of 'Pyramid Age' Pyramids (estimated at around 30 million tons).

[4] See for example Ahmed Fakhry, *The Pyramids,* op. cit.

in the ritual performed by the Horus-King on the ground: i.e. *after* crossing the river Nile it is inevitable that the initiate will arrive at the breast of the Great Sphinx somewhat later in time.

But in the Pyramid Texts, and in the arrangement of the Giza monuments—as in so much else that has come down to us from ancient Egypt—everything may not be quite what it seems. An awareness of the effects of precession on the part of the 'Followers of Horus' (and the later priests of Heliopolis) would have included an intense focus on the stellar background at the vernal equinox and an understanding that the sun's 'journey' towards Horakhti-Leo, *as calibrated at this 'governing moment ' of the year,* would by definition have been a journey *backwards* in time through a succession of 'world-ages'—i.e. from the Age of Taurus, *circa* 3000 BC (when the sun on the vernal equinox rose against the stellar background of the constellation of Taurus) to the Age of Leo, *circa* 10,500 BC, when the sun on the vernal equinox rose against the background of the celestial lion.

So when we read in the Pyramid Texts that the 'Followers of Horus' are urging the Horus-King to travel from Taurus to Leo it is possible that they may have had in mind something rather complex and clever. It is possible, in other words, that as well as offering the sun's annual path through the constellations as a kind of 'treasure trail' for the initiate to follow on his way to the breast of the Sphinx, they may also have offered him knowledge of its slow *reverse motion at the vernal equinox*—perhaps as his cue to embark on a different kind of journey, *against the flow of precession* and back to the 'First Time'.

This is more than speculation. As we saw at the end of Part III, the Horus-King's journey to the breast of the Sphinx was undertaken *at the summer solstice* during the Pyramid Age (because in that epoch it was at the summer solstice that the great conjunction of the sun with Horakhti-Leo occurred). We also saw, however, that the initiate who had correctly followed the 'treasure trail' set out in the texts, and who had reached the Sphinx in the pre-dawn on the summer solstice, would immediately have become aware of a curious 'dislocation' between sky and ground. He would have noticed, in particular, that the Sphinx gazed due east but that his celestial counterpart—Horakhti-Leo—was rising at a point on the horizon located some 28 degrees north of due east. He would also have noticed that the three great Pyramids of Giza precisely straddled the meridian but that their terrestrial counterparts, the three stars of Orion's belt, hung low in the south-eastern portion of the pre-dawn sky, far to the left of the meridian.

Given the profoundly astronomical character of his religious frame of reference he might well have felt a numinous urge to 'put sky and ground together again'—i.e., so to arrange matters that the Sphinx would be gazing *directly* at Leo in the pre-dawn, whilst, at the same moment, the three stars of Orion's belt would straddle the meridian in the precise

pattern 'specified' by the meridional layout of the Pyramids. If that could somehow be brought about then the monuments would truly represent 'an image of heaven'[5]—as the old Hermetic doctrines teach—and the land of Egypt 'which once was holy, a land which loved the gods and wherein alone the gods deigned to sojourn on earth', might once again become, as it was before, 'the teacher of Mankind'.[6]

But how could the Horus-King hope to unite sky and ground?

The only way would be if he were equipped to use precession—presumably just as an intellectual tool—to *travel backwards in time.*

For as the reader will recall there *was* a time when a unique celestial conjunction involving the moment of sunrise, the constellation of Leo, and the meridian-transit of the three stars of Orion's belt, did indeed occur. That time, of course, was near the beginning of the Age of Leo, at around 10,500 BC,[7] some 8000 years prior to the Pyramid Age.

Becoming equipped

The Utterances conventionally numbered 471, 472 and 473 in the ancient Egyptian Pyramid Texts contain information of an extraordinary nature. In view of the importance of this information, we set it out in full below:

> I am the essence of a god, the son of a god, the messenger of a god, [says the Horus-King]. The Followers of Horus cleanse me, they bathe me, they dry me, they recite for me the Spell [formula] for Him who is on the Right Way, they recite for me the Spell of Him who Ascends, and I ascend to the sky.
>
> I will go aboard this Bark of Re [the Solar Bark]... Every god will rejoice at meeting me as they rejoice at meeting Re [the sun] when he ascends from the eastern side of the sky in peace, in peace.
>
> The sky quivers, the earth quakes before me, for I am a magician, I possess magic ... I have come that I may glorify Orion, that I may set Osiris at the head, that I may set the gods upon their thrones.
>
> O Mahaf, Bull of the gods [Taurus-Hyades], bring me this [solar bark] and set me on yonder side ... The reed-floats of the sky are set down for me by the day-bark that I [the solar Horus-King] may go up on them to Re at the Horizon. The reed floats of the sky are brought down to me by the night bark that I may go up on them to Horakhti at the horizon. I go up on the eastern side of the sky where the gods are born, and I am born as Horus, as Him of the Horizon ... I have found the *Akhus* with their mouths equipped ...
>
> 'Who are you?' say they [the *Akhus*], with their mouths equipped.
>
> 'I am an *Akhu* with my mouth equipped.'

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[5] *Hermetica,* op. cit, *Asclepius III*, 24b, p. 341.
[6] Ibid, 25, p. 343.
[7] See in particular Chapter 4.

> 'How has this happened to you,' say they, the *Akhus* with their mouths equipped, 'that you have come to this place more noble than any place?'
>
> 'I have come to this place more noble than any place because: The reed-floats of the sky were set down for Re [the sun disc and the emblem of the Horus-King] that Re might cross [the Milky Way] on them to Horakhti at the Horizon ...'[8]

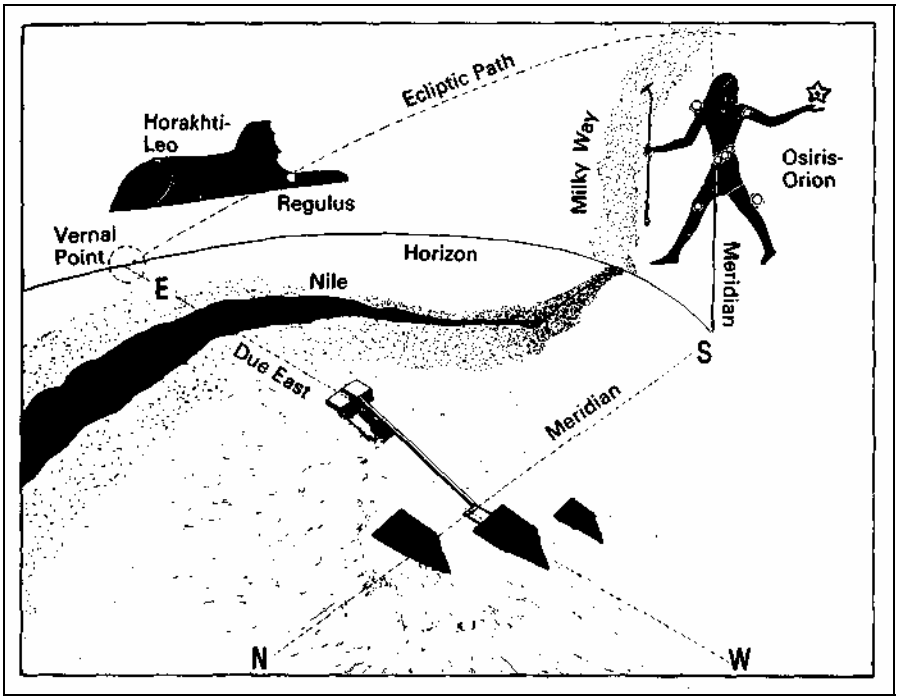

56. Artist's impression of the unique celestial conjunction that occurred at sunrise on the vernal equinox in the epoch of 10,500 BC.

These Utterances appear to describe an important part of the Horus-King's initiatory journey—an ordeal of questions and answers based on astronomical science wrapped up in esoteric symbols. The inquisitors are the 'Followers of Horus', also known as the *Akhus* (the 'Venerables', the 'Shining Ones', the 'Transfigured Spirits', etc., etc.). Moreover, as we would expect, the Horus-King's cosmic journey begins in the Taurus-Hyades region of the sky, on the right bank of the Milky Way. and proceeds along the ecliptic path to end at Leo i.e. 'Horakhti', at the horizon. Here, at 'this place more noble than any place', the *Akhus* greet him—indeed he claims to have become *an Akhu* himself—and give him the final instructions or directions that he will need to complete his quest.

What we have to consider is the possibility that these final instructions might somehow have 'equipped' the Horus-King to make the necessary journey back in time, to the 'First Time', and into the cosmic Kingdom of

[8] *Pyramid Texts,* op. cit. Utterances 471-3, pp. 160-1.

Osiris when sky and ground were united in perfect harmony.

Unification

As the reader will recall from the previous chapter, the 'Followers of Horus' were said to have possessed 'a knowledge of divine origin' that was to be used to 'unify the country'. It is therefore presumably of relevance that large numbers of ancient Egyptian inscriptions and papyri make reference to an event known as 'the Uniting of the Two Lands'—an event that is eloquently related in the so-called Shabaka Texts (the 'Memphite Theology') which we have reviewed in Part III.

It is the scholarly consensus that the 'Unification of the Two Lands' was a political and economic 'federation' between southern and northern Egypt, resulting from the military conquest of the latter by the former, which supposedly occurred at around the year 3000 BC.[9] This conquest, as T. G. H. James informs us, 'was effected by a King known to history as Menes. No contemporary monument bears a royal name that can with certainty be read as Menes, but he is generally identified with King Narmer who is shown wearing both the red and white crowns [respectively of northern and southern Egypt] on a great palette [now in the Cairo Museum]. With the unification of the Kingdoms begins the historic period of Egypt.'[10]

Also sometimes referred to as 'King Scorpion' (after a symbol that appears on an archaic mace-head) we have already met Menes-Narmer.[11] We have noted, too, the strange Egyptological double standard by which he is accorded the status of a genuine historical figure whilst his predecessors—mentioned with equal prominence in the king-lists and Manetho—are dismissed as 'mythical beings'.

Indeed, Egyptologists speak with such immense confidence of 'the political consolidation of Egypt around 3000 BC' and of the 'unification under Narmer'[12] that one would suppose they were in possession of bundles upon bundles of ancient treaties, land deeds and historical records. The truth, however, as James half admits, is that nothing is known for sure about the supposed first Pharaoh of the First Dynasty. On the contrary, the whole of what we read about him, including his identification with 'Narmer', is scholarly speculation based on idiosyncratic interpretations of certain scenes—some of which depict battles—that are carved on the so-called 'Narmer Palette' and on certain votive mace-heads from Hierakonpolis (an ancient religious capital in

[9] T. G. H. James, *Introduction to Ancient Egypt,* op. cit, p. 41.
[10] Ibid.
[11] See discussion in W. B. Emery, *Archaic Egypt,* op. cit, p. 42ff.
[12] *The Age of the God Kings,* Time-Life, 1987, p. 56ff.

southern Egypt).[13]

In short, Egyptology's case that 'the Unification of the Two Lands' refers to the political unification of northern and southern Egypt under Menes rests on three completely uninscribed artefacts which are carved with scenes that *might* bear such an interpretation—but that could also be interpreted in many other ways. These curious artefacts tell us precious little about Menes-Narmer himself,[14] let alone what his political and territorial aspirations—or those of anybody else—might have been *circa* 3000 BC in Egypt. Semi-legendary or semi-historical, Narmer (or Menes or 'King Scorpion'—take your pick) is thus the quintessential 'King Arthur' of Egyptology. And so, too, is his supposed 'Unification of Egypt'—which is also veiled in semi-mythical, semi-historical confusion, very much like the confederation of King Arthur's Round Table.[15]

Moreover the conclusion that Menes-Narmer was the first ruler to have been involved in the 'Unification of the Two Lands' clashes rudely with the beliefs of the ancient Egyptians themselves. Their records and traditions make it clear that there had been earlier 'Unifications' in the 'Time of the Gods'—all going back to the original Kingdom of Osiris, the 'Kingdom of the "First Time" ' which was torn asunder by Seth and then unified once again by Horus.

We do not think that this talk of 'Unification' was ever entirely to do with events that happened on the ground. Although we do not dispute that some form of political unification did indeed take place at around 3000 BC, we suspect that in dualistic Egypt a wider understanding of the whole issue will not be possible unless *events in the sky* are taken into account as well. Building on earlier work done by Egyptologist and archaeoastronomer Jane B. Sellers,[16] we suggest that the original notion of 'Unification'—to which all later attempts to 'Unify the Two Lands' were directly related—had something to do with the precessional drift of the

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[13] See discussion in W. B. Emery, *Archaic Egypt,* op. cit, p. 42ff.

[14] Even his name is put into doubt. According to Dr. Jaromir Malek, for example, the name of Menes 'could be completely fictitious and based on a word-play which was misunderstood as a royal name by the later compilers of king-lists' (Jaromir Malek, *In the Shadow of the Pyramids,* Orbis, London, 1986, p. 29). As for his other name, Narmer, this, too, is plagued with confusion and doubt. On the so-called votive mace-heads and palettes found at Hierakonpolis there is shown the image of a chieftain or 'king' and on the front of his face are shown certain hieroglyphic signs, in some cases forming the syllables 'Nar-Mer' and in others showing a scorpion. This has led Egyptologists to conclude that the Menes of the king-lists is this Narmer or 'King Scorpion' (ibid., pp. 28-9). To overcome the obvious confusion of having this presumed 'last king of Predynastic Egypt' bearing three names, Egyptologists have arrived at the unsatisfactory conclusion that the name 'King Scorpion' on the votive mace-head 'is almost certainly wrong' and that it must be regarded as some sort of 'large ceremonial image'. Consequently 'if King "Scorpion" is thus refuted,' proposed Dr. Malek, then 'the likeliest candidate for identification with the figure on the mace-head is Narmer' (ibid., p. 29).

[15] W. A. Fairservis Jr., 'A Revised View of the Narmer Palette', in *Journal of the American Research Center in Egypt,* XXVIII, 1991, pp. 1-20.

[16] Jane B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., pp. 93-4.

stars ...

High and far-off times

In her landmark study *The Death of Gods in Ancient Egypt* Sellers sets out persuasive astronomical and textual evidence to show that the prehistoric Egyptians—at least as far back as 7300 BC—had observed and tracked the slow precessionally induced changes that constantly relocate the cosmic 'address' of the constellation of Orion. And she argues that, although political unity was credited to Menes, there was a much older notion of the 'Unification' based not on events on earth but those observed in the sky ...[17] Indeed, she goes so far as to claim that Menes merely brought to fruition a very ancient and archetypal vision of cosmic duality which so perfectly harmonized with the mentality of the ancient Egyptians 'as to appear both inevitable and perennial': 'A dual monarchy united under the rule of one was a form that came from the mists of distant antiquity. It was a form that had been created for gods in the heavens, and how inevitable it was that an imitation of the cosmic order should prevail for men on earth.'[18]

Sellers supports her case by drawing on the late Henri Frankfort's studies of ancient Egyptian kingship. Like her, the former Professor of Preclassical Antiquity at the University of London was firmly of the opinion that it was 'possible to view the unification of Egypt, not as the ephemeral outcome of conflicting ambitions, but as the revelation of a predestined order'.[19] And he was further convinced that 'the dual monarchy centred round Memphis realized a divine plan', that the social and state order established by Menes-Narmer was presented 'as part of the cosmic order',[20] and that Menes-Narmer, in establishing himself as sole ruler of Upper and Lower Egypt, was performing 'an act in harmony with the Egyptian tendency to understand the world in dualistic terms, "a series of pairs of contrasts balanced in unchanging equilibrium" ...'[21]

What Sellers was able to add to this, as a result of her own powerful insights into ancient Egyptian cosmology and observational astronomy, was the notion that events taking place on the ground were somehow directly conditioned by observations of the sky—and also that what was observed in the sky was described more or less accurately in certain 'myths':

> I am postulating the creation of specific myths to deal with distressing alterations in the sky, followed by an artificial duality, or symmetry, imposed, not just on the deities, but on geographical centres of worship, and this duality

[17] Ibid., p. 90.
[18] Ibid., p. 94.
[19] Henri Frankfort, *Kingship and the Gods,* op. cit., pp. 18-19.
[20] Ibid., p. 33.
[21] Ibid., p. vi.

> remained a constant in Egyptian affairs throughout its history. It was harking back to a wonderful Golden Age, now lost, an age when the skies had had a magnificent balance, and the religion had been fresh and new ...'[22]

The Golden Age to which Sellers is referring is, of course, *Zep Tepi,* the 'First Time'. And the 'distressing alterations in the sky' which she believes that certain myths were created to explain were caused by the phenomenon of precession—specifically the precessional drift of the great constellation of Orion away from the station that it had occupied at the 'First Time'.[23]

These are daring and dangerous steps for an otherwise orthodox Egyptologist to have taken. Nevertheless, as we shall see in the next chapters, Sellers could be wrong in understanding the myths—by which she means principally the Pyramid Texts and the Memphite Theology—merely as accounts fabricated by superstitious priests to 'explain' precessional drift. The possibility needs to be confronted square on that elements of these ancient traditions, and the monuments and rituals that are so inextricably linked to them, could have been deliberately contrived as vehicles to carry an elaborate and ingenious 'message' from a past epoch otherwise long forgotten to a specific epoch in the future—from the 'First Time' to an astronomically defined 'Last Time'[24]—perhaps even to the very epoch in which we ourselves live today. Perhaps both epochs thus linked together are susceptible to accurate dating and decoding if only the right key can be found. And perhaps we may yet be able to read and understand the great cosmic blueprint that the 'Followers of Horus' sought to implement ...

Who knows what might result?

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[22] Sellers, *Death of Gods,* op. cit., p. 93.

[23] Ibid., pp. 93ff, 115ff and 192ff. Having determined that the ancient Egyptians made use of the phenomenon of precession, Sellers then focused, to the exclusion of all else, on the idea that the ancients were tracking the heliacal rising of Orion at the spring equinox. With this in mind she based all her observations in the eastern horizon at the time of the spring equinox. This led her to make precessional calculations which bracketed the 'Golden Age' between 7300 BC and 6700 BC, the two epochs marking the beginning and end of Orion's heliacal rising with the spring equinox (e.g. pp. 28 and 43). Although the core of her thesis that the key to the ancient mystery is to be found in the tracking of Orion's precessional drift is spot on, her conclusion that the measurements are to be made at the rising in the east of Orion at the spring equinox is a curious error of judgement. For what is most surprising about Sellers's analytical approach is that, while she correctly puts all the emphasis of her thesis on Orion and its precessional drift, she makes absolutely no reference to the most obvious astronomical 'Orion marker' in ancient Egypt: the 'Orion' star-shaft in the Great Pyramid. Indeed, Sellers completely ignores the Pyramids or any other structure in Egypt, and instead centres her attention only on the textual material. The fact is that the Pyramid builders and the compilers of the Pyramid Texts were not tracking Orion in the eastern horizon but high in the southern skies, at the meridian.

[24] Precessional calculations show that we live in the astronomical 'Last Time' of Orion, with the belt stars in our epoch approaching the highest altitude at the meridian that they will ever attain in their precessional cycle.

There might even come, to quote the words of Giorgio de Santillana, 'some kind of "Renaissance" out of the hopelessly condemned and trampled past, when certain ideas come to life again ... We should not deprive our grandchildren of a last chance at the heritage of the highest and farthest-off times.'[25]

[25] Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill,* op. cit., p. 11.

Chapter 15

When the Sky Joined the Earth

'My Kingdom is not of this world. ...'

John 18:36

'Great is the Cosmic Order, for it has not changed since the time of Osiris, who put it there ...'

Ptahotep, a high priest of the Pyramid Age

According to the Creation narrative of the ancient Egyptians, Nut, the Sky-goddess, and Geb, the earth-god, joined in sexual union, but were then rudely separated by the intervention of Shu, the god of air, atmosphere and dryness. Nevertheless the union did produce offspring in the form of Isis and Osiris, Nepthys and Seth. And in due course, as we have seen, Osiris became the ruler of the idealized 'Kingdom of the "First Time" ', was murdered by Seth, experienced resurrection, and then finally ascended into the heavens where he established the cosmic 'Kingdom' of the *Duat.* The reader will remember that a crucial role in effecting his 'astral rebirth' was played by Horus, his son by the widow Isis, the archetype for all the historical Horus-Kings of ancient Egypt—who revenged himself on Seth and later reunified the divided Kingdom.

It can thus be said that a kind of cosmic blueprint to establish—or reestablish—a unified 'Kingdom of Osiris' on earth had been devised from the outset by the 'gods' and thus long before the advent of 'historical' kingship by Menes-Narmer at the beginning of the third millennium BC.

Separation

In the Shabaka Texts (which express the Memphite Theology) we read that the defeat of Seth by Horus was followed by a convocation of the gods, under the leadership of Geb, who sat in judgement over the two 'contenders'. Initially each one was given authority to rule over his own area: 'These are the words of Geb to Horus [of the north] and Seth [of the south]: "I have separated you"—Lower and Upper Egypt ... Then Horus stood over one region and Seth stood over one region ...'[1]

Later, however, as the reader will recall from Part III, Geb 'gave to Horus

[1] Miriam Lichtheim, *Ancient Egyptian Literature,* Vol. I: The Old and Middle Kingdoms, p. 52.

[Seth's] inheritance': 'Then Horus stood over the land. He is the uniter of this land ... He is Horus who arose as king of Upper and Lower Egypt, who united the Two Lands in [the region of Memphis],—the "place" where the Two Lands were united ...'[2]

The curious phrase 'I have separated you' which Geb uttered, is symbolic of the 'separation' that he, too, had endured from his consort the sky-goddess, Nut. With this in mind, should we not consider the possibility that the notions of 'Upper Egypt' and 'Lower Egypt'—though obviously relating at one level to the geographical south and north of the earthly country—might also at another level have been intended to suggest *ground and sky?*

Doubles

There is much in the Memphite Theology which supports the proposition that the areas which were traditionally regarded as the southern and northern sacred regions of Osiris—Abydos and Memphis—were not only meant to be considered in terrestrial terms but also in cosmic terms.

In particular, a metaphor is relayed around the imagery of the huge 'body' of Osiris 'drifting' with the waters of the Nile from his southern shrine at Abydos to reach his northern shrine in the 'land of Sokar'—i.e. the Memphite necropolis in general and in particular the Giza plateau where, in the form of the three great Pyramids, we suspect that the 'body' of Osiris lies outstretched upon the sand to the present day ...

At any rate, this same basic imagery of Osiris lying on the western bank of the Nile near Memphis also crops up in the Pyramid Texts, which add a further clue: 'They [Isis and Nepthys] have found Osiris ... "when his name became Sokar" ...'[3] The term 'when his name became Sokar' does clearly seem to imply that the 'body' of Osiris merged with the land of Sokar i.e. the Memphite necropolis, and that his image—i.e. the 'astral' image of the Orion region of the sky—was somehow grafted onto it. The impression that this 'image' must have something to do with the Pyramids of Giza is then confirmed elsewhere in the Pyramid Texts. In the following passage, for example, the Horus-King addresses the 'Lower Sky' to which he 'will descend to the place where the gods are' and utters this powerful and cryptic declaration:

> If I come with my *ka* [double], open your arms to me; the mouths of the gods will be opened and will request that I ascend to the sky, and I will ascend.
>
> A boon which Geb (earth) and Atum grant: that this *Pyramid* and *Temple* be installed for me and for my double, and that this *Pyramid* and *Temple* be enclosed for me and for my double ...

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[2] Ibid., pp. 52-3.
[3] *Pyramid Texts,* op. cit., lines 1256-7, p. 200.

> As for anyone who shall lay a finger on this *Pyramid* and this *Temple* which belong to me and to my double, he will have laid a finger on the Mansion [Kingdom]... which is in the sky ...[4]

It is beyond the scope of this book to present a detailed treatise on the concept of the *ka*—the 'double', the astral or spiritual essence of a person or thing—and of its role in ancient Egyptian funerary beliefs. Much confusion has been generated around this important subject.[5] At the very least, however, it is certain that what confronts us in the *ka* is yet another example of the prevailing dualism in Egyptian thought. Moreover its use in context of the utterance quoted above reminds us that the 'image' of Osiris 'when his name became Sokar'—i.e. the Memphite Pyramid necropolis—should at all times be considered as having a cosmic or celestial 'double'. And it should be obvious, too, that this 'double' can only be the Osirian Kingdom in the *Duat*—which the Pyramid Texts declare to be 'the Place Where Orion Is'. Indeed as Margaret Bunson notes in her *Encyclopaedia of Ancient Egypt:* '*Kas ...* served as guardians of places ... Osiris was always called the *ka* of the Pyramids ...'[6]

Other passages from the Pyramid Texts support this general analysis:

> O Horus, this King is Osiris, this Pyramid of the king is Osiris, this construction of his is Osiris, betake yourself to it ...[7]

> Awake [Osiris] for Horus ... spiritualize yourself [i.e. become an astral being] ... May a stairway to the sky be set up for you to the Place Where Orion Is ...[8]

> Live, be alive, be young ... beside Orion in the sky ...[9]

> O Osiris-King, you are this great star, the companion of Orion, who traverses the sky with Orion, who 'sails' in the *Duat* with Osiris ...[10]

Link-up

Strangely, despite the obvious sky-ground dualism and profoundly astronomical 'flavour' of the Texts, no scholar other than Jane B. Sellers[11] has ever given serious consideration to the possibility that references to the 'Unification' of the 'Upper' and 'Lower' Kingdoms of Osiris might have something to do with astronomy. Indeed the only Egyptologist even to get close to such an unorthodox way of thinking was Selim Hassan when he observed: 'the Egyptians held the idea of the existence of more

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[4] Ibid., 1278, p. 202.
[5] For a brief review see Bunson, *The Encyclopaedia of Ancient Egypt,* op. cit., p. 130.
[6] Ibid.
[7] *Pyramid Texts,* op. cit., 1657, p. 247.
[8] Ibid., Utterance 610, p. 253.
[9] Ibid., lines 2180-1, p. 305.
[10] Ibid., lines 882-3, p. 155.
[11] Sellers, *Death of Gods,* op. cit., pp. 90-3.

than one sky, possibly superimposed ... Certain lines in the Pyramid Texts strongly suggest that "Upper" and "Lower" Egypt each had its own particular sky ... i.e. the two skies in opposition to the Two Lands of Upper and Lower Egypt.'[12]

In his monumental study of ancient Egyptian cosmology, Hassan also drew attention to an intriguing papyrus, now kept at the Louvre Museum in Paris,[13] which suggests that the 'Two Skies' in question were considered as being 'one for the earth and the other for the *Duat'*.[14] 'These plural skies', wrote Hassan, 'were superimposed one above the other.'[15]

Pursuing such lines of thought, we were to discover that similar ideas are depicted in the Coffin Texts. There reference is made to the 'Upper' and 'Lower' landscapes which are said to be bound to the 'Two Horizons'—one in the east (the sky) and one in the west (the earth i.e. the Memphite necropolis[16]): 'Open! O Sky and Earth, O eastern and western Horizons, open you chapels of Upper and Lower Egypt ...'[17]

The language of all these texts is exotic, laden with the dualistic thinking that lay at the heart of ancient Egyptian society and that may have been the engine of its greatest achievements. In the Pyramid Age, as we have seen, the gigantic 'image' of Osiris appears to have been physically *defined* on the ground with the creation of the 'Lower' landscape of the Memphite Pyramids—a development referred to in the Pyramid Texts by means of the obvious metaphor 'When his name became Sokar'. Likewise, it should come as no surprise that the gigantic celestial 'image' of Osiris in the sky is referred to in the same texts by means of the same metaphorical device, i.e. 'When his name became Orion': 'Horus comes, Thoth appears ... They raise Osiris from upon his side and make him stand up ... when there came into being this his name of Orion, long of leg and lengthy of stride, who presides over "Upper" Egypt ... Raise yourself, O Osiris ... the sky is given to you, the earth is given to you ...'[18] Selim Hassan, again almost but not quite getting the point, comments as follows: 'this line shows that Osiris was given the

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[12] Selim Hassan, *Excavations at Giza,* op. cit., pp. 194ff.
[13] Pap. Louvre 3292.
[14] Ibid., and see *Excavations at Giza,* op. cit., p. 194.
[15] *Excavations at Giza,* op. cit., p. 195.
[16] The following point made by E. A. E. Reymond in *The Mythical Origin of the Egyptian Temple,* op. cit., p. 57, is of obvious relevance. Referring to the content of Papyrus dem. Berlin 13603 he notes: 'Heliopolis was regarded as the centre of creation. The primordial aspect of Heliopolis is not described; however, there is a clear allusion to the theory according to which Heliopolis existed before the Earth was created. From the primaeval Heliopolis, so it is explained in our text, the Earth-God created the Earth, which received the name *Mn-nfr,* Memphis.'
[17] *The Ancient Egyptian Coffin Texts,* R. O. Faulkner trans., Aris & Phillips, Warminster, Vol. III, Spell 1065.
[18] *Pyramid Texts,* op. cit., Utterance 477, p. 164.

dominion of heaven and earth.'[19]

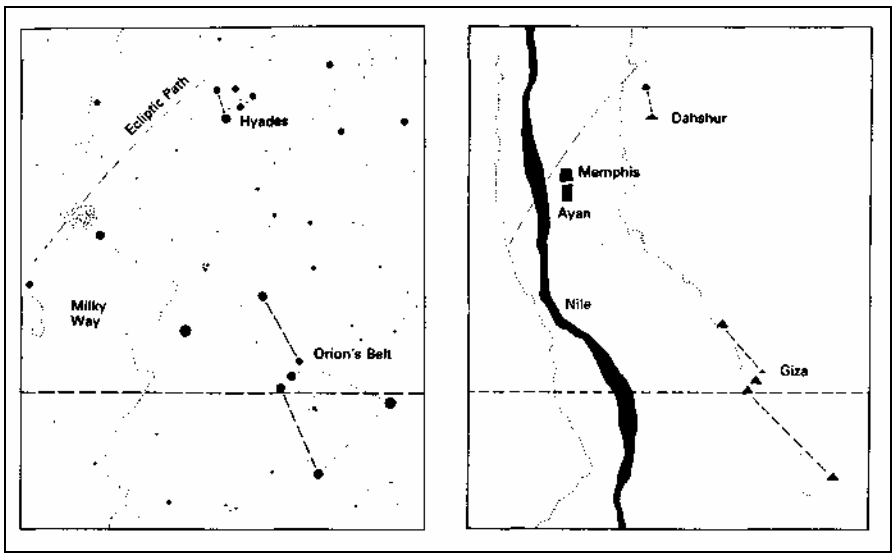

57. (Left) The sky-*Duat* of Osiris 'in his name of Orion'. (Right) The ground-*Duat* of Osiris 'in his name of Sokar'.

Yet clearly there is more to say. These 'dominions' were by no means vague and general but were defined in the sky by the pattern of Orion's stars, and were defined on the ground—in the land of 'Sokar' (i.e. the Memphite necropolis)—by the pattern of the Pyramids.

We wonder whether the first major 'station' of the quest-journey of the Horus-King, reached after he had been prompted to 'find the astral body of Osiris', might not have been the initiate's dawning awareness that the body in question was a *duality* that could only be approached by linking Orion with the pattern of the Great Pyramids in the Memphite necropolis.

Riding the vernal point

The reader will remember that the starting point of the Horus-King's 'journey in the sky' was when the sun's position along the zodiac (during the solar year) was close to the Hyades, at the 'head' of the constellation of Taurus, standing, as it were, on the banks of the Milky Way.

If we now transpose this sky image to the ground then the Horus-King would have to place himself near the 'Bent' and the 'Red' Pyramids of Dahshur some 20 miles south of Giza (but nevertheless still very much part of the extensive Memphite necropolis). As we saw in the last chapter, the trigger for the construction of these two Fourth-Dynasty monuments appears to have been the slow precessional drift of the vernal point into the Hyades-Taurus region of the sky in the third millennium BC. Indeed it is more than possible that by building those Pyramids (which map the

[19] Hassan, *Excavations at Giza,* op. cit., p. 198.

two brightest stars in the Hyades) Pharaoh Sneferu (2575-2551 BC) was deliberately laying down a marker for the position of the vernal point in his epoch.

If he was doing that, as all the evidence seems to suggest, then it is probable that such a highly initiated Horus-King would also have known that by metaphorically 'boarding' the solar bark *at the spring equinox,* and crossing the Milky Way, he would effectively be 'sailing back in time'—against the flow of precession—riding the vernal point towards the distant constellation of Leo.

But why, then, all this parallel emphasis in the texts on Orion-Osiris moving from somewhere in the distant 'south' to his final resting place in the Memphite necropolis?

Secret spell

We suspect that for thousands of years before the Pyramid Age, hundreds of generations of Heliopolitan astronomer-priests had kept the constellation of Orion continuously under observation, paying particular attention to its place of meridian-transit—i.e. the altitude above the horizon at which it crossed the celestial meridian. We think that careful records were kept, perhaps written, perhaps orally encoded in the ancient 'mythological' language of precessional astronomy.[20] And we suppose that note was taken of Orion's slow precessional drift—the effect of which was that *the constellation would have seemed to be slowly drifting northwards along the west 'bank' of the Milky Way.*

It is our hypothesis that the mythical image of the vast body of Osiris slowly being carried to the north, i.e. 'drifting' on the waters of the Nile, is a specific piece of astronomical terminology coined to describe the long-term changes being effected by precession in Orion's celestial 'address'. In the Memphite Theology, as the reader will recall, this drift was depicted as having commenced in the south, symbolically called Abydos (in archaeological terms the most southerly 'shrine' of Osiris), and to have carried the 'body' of the dead god to a point in the north symbolically called Sokar, i.e. the Memphite necropolis (the most northerly 'shrine' of Osiris). As we saw in Part III, the Shabaka Texts tell us that when he reached this point:

> Osiris was drowned in his water. Isis and Nepthys looked out, beheld him, and attended to him. Horus quickly commanded Isis and Nepthys to grasp Osiris and prevent his [submerging]. They heeded in time and brought him to land. [. He entered the hidden portals in the glory of the Lords of Eternity. Thus Osiris came into the earth at the Royal Fortress [Memphis], to the north of the land to

[20] It is this 'language'—a great, archaic, world-wide system—that is the principal focus of Giorgio de Santillana's and Hertha von Dechend's ground-breaking study *Hamlet's Mill,* op. cit.

which he had come [Abydos].[21]

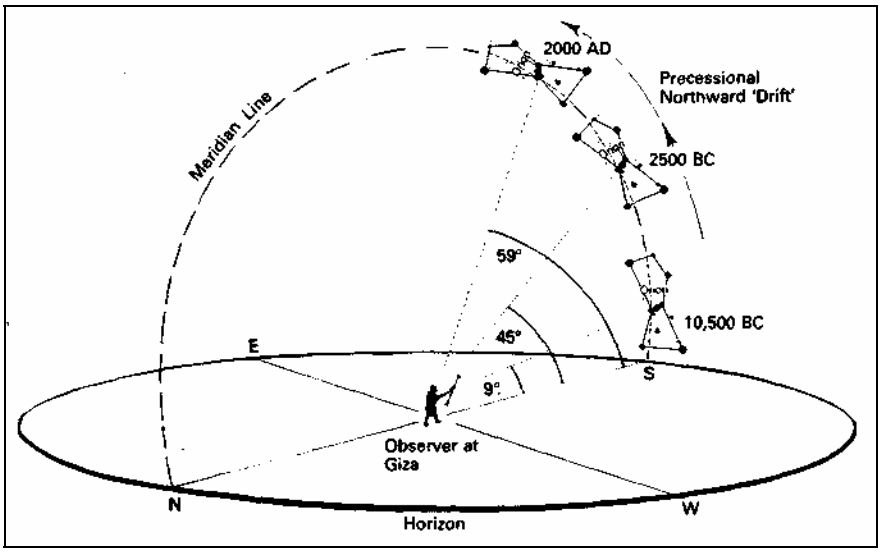

58. The effect of Orion's slow precessional slide up the meridian between 10,500 BC and 2500 BC is that the constellation would literally have appeared to be 'drifting' very slowly northwards along the course of the Milky Way.

In the light of what we now know it is hard to imagine that the reference to Osiris coming 'into the earth' (or down to earth?) could signify anything other than the *physical construction* of the 'body of Osiris on the ground' on the west banks of the Nile—in the form of the great Pyramid-fields of the sprawling Memphite necropolis. Since Osiris is Orion the desire to achieve such an effect would more than adequately explain why the three Pyramids of Giza should have been arranged in the pattern of the three stars of Orion's belt. Moreover, since we know that the stated goal of the Horus-King's quest was not only to find the astral 'body' of Osiris but to find it as it was in the 'First Time', we should not be surprised by the fact that the Pyramids, as we saw in Part I, are set out on the ground in the pattern that they made at the beginning (i.e. 'southernmost point') of that constellation's upward (i.e. 'northerly') precessional half-cycle.

So we wonder whether it is possible that the quest of the Horus-King might have had as its ultimate objective *the acquisition of knowledge concerning the 'First Time'*—perhaps even the acquisition of specific knowledge *from* that remote epoch when the gods had walked the earth?

Several passages in the Pyramid Texts invite such speculation. For example, we are told that the Horus-King must 'travel upstream'—i.e. must push against the natural drift of 'time'—in order to reach Orion-Osiris in his proper 'First Time' setting:

> Betake yourself to the Waterway, fare upstream [south], travel about Abydos in

[21] Lichtheim, *Ancient Egyptian Literature,* op. cit., Vol. I, pp. 55-6.

> this spirit-form of yours which the gods command to belong to you; may a stairway [road] to the *Duat* be set up for you to the Place Where Orion Is ...[22]

> They have found Osiris ... 'When his name became Sokar' [Memphite necropolis] ... Wake up [Osiris] for Horus ... raise yourself ... fare southward [upstream] to the lake, cross over the sea [sky], for you are he who stands untiring in the midst of Abydos ...[23]

> Betake yourself to the Waterway, fare upstream ... traverse Abydos. The celestial portal to the Horizon is open to you ... may you remove yourself to the sky, for the roads of the celestial expanses which lead up to Horus are cleaned for you ... for you have traversed the Winding Waterway [Milky Way] which is in the north of the sky as a star crossing the sea which is beneath the sky. The *Duat* has grasped your hand at the Place Where Orion Is ...[24]

Likewise there is a striking passage in the Coffin Texts which refers to some secret 'spell' or formula to allow the deceased to use the 'path of Rostau' on the land and in the sky (i.e. the path to the Giza necropolis on land and to Orion's belt in the sky) in order to 'go down to any sky he wishes to go down to':

> I have passed on the path of Rostau, whether on water or on land, and these are the paths of Osiris [Orion], they are in the limit of the sky. As for him who knows the spell [formula] for going down into them, he himself is a god in the suite of Thoth [meaning he is as wise as Thoth, 'the controller of the stars'[25]] [and] he will go down to any sky he wishes to go down to ...[26]

Special numbers

We suspect that the phrase to 'go down to any sky' suggests an awareness—and recording—of precessionally induced changes in the positions of the stars over long periods of time. And we also note its implication that if the chosen initiate was equipped with the correct numerical spell then he would be able to work out—and visualize—the correct positions of the stars in any epoch of his choosing, past or future.

Once again Sellers stands out amongst Egyptologists for being the first to have entertained such apparently outlandish notions. 'It is possible', she writes, 'that early man encoded in his myths special numbers; numbers that seemed to reveal to initiates an amazing knowledge of the

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[22] *Pyramid Texts,* op. cit., lines 1716-17, p. 253.
[23] Ibid., lines 1256-61, p. 200.
[24] Ibid., 798-803, p. 144.
[25] See, for example, Lewis Spence, *Ancient Egyptian Myths and Legends,* Dover Publications, New York, 1990, p. 106.
[26] *Coffin Texts,* op. cit., Spell 1035, Vol. III, p. 132. Interestingly, the Spell directly links the acquisition of knowledge concerning past and former skies to the desired attainment of immortal life and existence: 'As for him who does not know this spell, he shall be taken into the infliction of the dead ... as one who is non-existent ...'

movement of the celestial spheres.'[27]

Such numbers, she argues, appear to have been derived from a sustained, scientific study of the cycle of precession and a measurement of its rate and, puzzlingly, turn out to be extremely 'close to the calculations made with today's sophisticated procedures'. Intriguingly, too, there is evidence not only 'that these calculations were made, and conclusions drawn', but also that 'they were transmitted to others by secret encoding that was accessible only to an élite few':[28] In short, Sellers concludes, 'ancient man calculated a special number that he believed would bring this threatening cycle [of precession] back to its starting point ...'[29]

The 'special number' to which Sellers is referring to is 25,920 (and multiples and divisions of it) and thus represents the duration, in solar years, of a full precessional cycle or 'Great Year'.[30] She shows how it can be derived from a variety of simple combinations of other numbers—5, 12, 36, 72, 360, 432, 2160, etc., etc.—all of which are in turn derived from precise observations of precession. *Most crucially of all, she shows that this peculiar sequence of numbers occurs in the ancient Egyptian myth of Osiris* where, notably '72 conspirators' are said to have been involved with Seth in the murder of the God-King.[31]

As was shown in *Fingerprints of the Gods,* the sun's perceived motion through the signs of the zodiac at the vernal equinox proceeds at the rate of one degree every seventy-two years. From this it follows that a movement of the vernal point through 30 degrees will take 2160 years to complete, 60 degrees will take 4320 years, and a full 360-degree cycle will require 25,920 years.[32]

Curiously enough, as the reader will recall from Part I, the Great Pyramid itself incorporates a record of these precessional numbers—since its key dimensions (its height and the perimeter of its base) appear to have been designed as a mathematical model of the earth's polar radius and equatorial circumference on a scale of 1:43,200. The number 43,200 is, of course, exactly 600 times 72. What we have in this remarkable monument, therefore, is not just a scale model of a hemisphere of the earth but also one in which the scale involved incorporates a 'special number' derived from one of the key planetary motions of the earth itself—i.e. the rate of its axial precession.

In short it seems that secret knowledge is indeed available in the myth of Osiris and in the dimensions of the Great Pyramid. With this secret knowledge, if we wanted to fix a specific date—say 1008 years in the

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[27] Sellers, *Death of Gods,* op. cit., p. 192.
[28] Ibid., p. 193.
[29] Ibid.
[30] For a fuller discussion see *Fingerprints of the Gods,* op. cit., pp. 256ff.
[31] Ibid., and see Sellers, *Death of Gods,* op. cit., p. 193.
[32] Ibid., and see Sellers, *Death of Gods,* op. cit., pp. 192-209.

future—and communicate it to other initiates, then we could do so with the 'special number' 14 (72 x 14 = 1008). We would also have to specify the 'zero point' from which they were to make their calculations—i.e. the present epoch—and this might be done with some kind of symbolic or mathematical marker to indicate where the vernal point presently is, i.e. moving out of Pisces and into Aquarius.

A similar exercise could likewise be carried out in reverse. By following the 'eastwards' direction along the ecliptic path we can 'find' (calculate, work out) where the vernal point was at any epoch in the past. Thus if today we wished to use the precessional code to direct attention towards the Pyramid Age we would need to confide to other initiates the 'special number' of 62.5 (72 x 62.5 = 4500 years ago = approximately 2500 BC). Again, we could rule out any ambiguity as to the zero date from which the calculations were to be made if we could find a way to indicate the present position of the vernal point.

We have seen that this is what Sneferu appears to have done with the two Pyramids at Dahshur, which map the two sides of the head of the celestial bull—the 'address' of the vernal point in his epoch. And in a sense, though with a great deal more specificity and precision, this could also be exactly what the builders of the Great Pyramid were doing when they deliberately targeted the southern shafts of the King's and Queen's Chambers on the meridian-transits of such significant stars as Orion and Sirius in the epoch of 2500 BC. To be clear about this, it seems to us well worth investigating the possibility that by setting up such obvious and precise 'time markers' they were trying to provide an unambiguous *zero point—circa* 2500 BC—for calculations that could only be undertaken by initiates steeped in the mysteries of precession, who were equipped by their training to draw out the hidden portents concealed in certain 'special numbers'.

We note in passing that if the Horus-King could have been provided with the 'special number' 111.111, and had used it in the way described above, it would have led him back to (72 x 111.111 years =) 7,999.99 years before the specified 'ground zero', i.e. to almost exactly 8000 years before 2500 BC—in short, to 10,500 BC.

We know this seems like wishful numerology of the worst sort—i.e. 'factoring in' an arbitrary value to a set of calculations so as to procure spurious 'corroboration' for a specific desired date (in this case the date of 10,500 BC, twelve and a half thousand years before the present, that we have already highlighted in Chapter 3 in connection with the Sphinx and the Pyramids of Giza). The problem, however, is that the number 111.111 may well *not* be an arbitrary value. At any rate, it has long been recognized that the main numerical factor in the design of the Great Pyramid, and indeed of the Giza necropolis as a whole, is the prime number 11—a prime number being one that is only divisible by itself to produce the whole number 1. Thus 11 divided by 11, i.e. the ratio 11:11,

produces the whole number 1 (while 11 divided by anything else, i.e. any other ratio, would, of necessity, generate a fraction).

What is intriguing is the way that the architecture of the Great Pyramid responds to the number 11 when it is divided, or multiplied, by other whole numbers. The reader will recall, for example, that its side length of just over 755 feet is equivalent to 440 Egyptian royal cubits—i.e. 11 times 40 cubits.[33] In addition, its height-to-base ratio is 7:11.[34] The slope ratio of its sides is 14:11 (tan 51 degrees 50').[35] And the slope ratio of the southern shaft of the King's Chamber—the shaft that was targeted on Orion's belt in 2500 BC—is 11:11 (tan 45 degrees).[36]

Arguably, therefore, the ratio 11:11, which integrates with our 'special number' 111.111, could be considered as a sort of mathematical key, or 'stargate' to Orion's belt. Moreover, as we shall see, a movement of 111.111 degrees 'backwards along the ecliptic from 'ground-zero' at the Hyades-Taurus, the head of the celestial bull, would place the vernal point 'underneath' the cosmic lion.

Is it not precisely such a location, underneath the Great Sphinx, that the Horus-King is urged to investigate as he stands between its paws 'with his mouth equipped' and faces the questions of the *Akhus* whose initiations have led him this far? Indeed, does it not seem probable that the 'quest-journey' devised by the 'Followers of Horus' was carefully structured so as to sharpen the mind of the initiate by requiring him to piece together all the clues himself until he finally arrived at the realization that somewhere underneath the Great Sphinx of Giza was something (written or pictorial records, artefacts, maps, astronomical charts) that touched on 'the knowledge of a divine origin', that was of immense importance, and that had been concealed there since the 'First Time'?

In considering such questions, we are reminded of the Hermetic doctrines which transmit a tradition of the wisdom god Thoth who was said to have 'succeeded in understanding the mysteries of the heavens [and to have] revealed them by inscribing them in sacred books which he then hid here on earth, intending that they should be searched for by future generations but found only by the fully worthy'.[37] Do the 'sacred books of Thoth', or their equivalent, still lie in the bedrock beneath the Great Sphinx of Giza, and do the 'fully worthy' still seek them there?

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[33] As pointed out in Chapter 10, the Egyptian royal cubit measures 20.6 inches.

[34] Mary Bruck, 'Can the Great Pyramid be Astronomically Dated?', *m Journal of the British Astronomical Association,* 105,4, 1995, p. 163.

[35] Ibid., p. 164.

[36] Ibid., p. 163.

[37] Garth Fowden, *The Egyptian Hermes,* Cambridge University Press, 1987, p. 33. The reference is to the *Hermetica,* op. cit., the *Kore Kosmu,* 5 and 6, pp. 459-61.

Seekers after truth

Other questions, too, have been raised implicitly and explicitly in the foregoing chapters:

1. Were the Great Sphinx and the great Pyramids of Giza designed to serve as parts of an immense three-dimensional 'model' of the sky of the 'First Time'?

2. Could other features of the necropolis also be part of this model?

3. If so, then has enough survived for us to compare the model with computer simulations of the skies above Giza in previous epochs and thus arrive at an accurate archaeoastronomical *dating* for the 'First Time', i.e. for the true 'genesis' of the extraordinary civilization of Egypt?

4. By looking at simulations of the ancient skies would we not, to use the language of the Egyptian funerary texts, be 'going down to any sky we wished to go down to'?

5. Is it an accident that so many of these texts have survived for thousands of years, or could their compilers have *intended* them to survive and carefully designed them in such a way that human nature would ensure their copying and recopying down the ages (a process that has been promiscuously resumed in the last century and a half, since the decipherment of the ancient Egyptian hieroglyphs, with the Coffin Texts, the Pyramid Texts, the Book of the Dead, etc., etc., now translated and reprinted in dozens of modern languages and editions—and even available on CD-ROM)?

6. In other words, is it not possible in our readings of the texts, and in our analysis of the rituals to which they were linked, that we have stumbled upon a *message* of primordial antiquity that was composed not just for the Pyramid Age, and not just for the Horus-Kings of ancient Egypt, but for all 'seekers after the truth'—from any culture, in any epoch—who might be 'equipped' to put texts and monuments together and to view the skies of former times?

Chapter 16

Message in a Bottle?

'We have reached this fascinating point in our evolution ... we have reached the time when we know we can talk to each other across the distances between the stars ...'

Dr. John Billingham, NASA Ames Research Center, 1995

Together with the ancient texts and rituals that are linked to them, could the vast monuments of the Giza necropolis have been designed to transmit *a message* from one culture to another—a message not across space, but across time?

Egyptologists reply to such questions by rolling their eyes and hooting derisively. Indeed they would not *be* 'Egyptologists' (or at any rate they could not long remain within that profession) if they reacted with anything other than scorn and disbelief to suggestions that the necropolis might be more than a cemetery, that the Great Sphinx might significantly predate the epoch of 2500 BC, and that the Pyramids might not be just 'royal tombs'. By the same token, no self-respecting Egyptologist would be prepared to consider, even for a moment, the outlandish possibility that some sort of mysterious 'message' might have been encoded into the monuments.

So whom should we turn to for advice when confronted by what we suspect may be a message from a civilization so far distant from us in time as to be almost unknowable?

Anti-cipher

The only scientists actively working on such problems today are those involved in the Search for Extraterrestrial Intelligence—SETI for short. They endlessly sweep the heavens for messages from distant civilizations and they have therefore naturally had to give some thought to what might happen if they ever did identify such a message. According to Dr. Philip Morisson of the Massachusetts Institute of Technology:

> To begin with we would know very little about it. If we received it we would not understand what we're getting. But we would have an unmistakable signal, full of structure, full of challenge. The best people would try to decode it, and it will be easy to do because those who have constructed it would have made it easy to decode, otherwise there's no point. This is anti-cryptography: 'I want to make a message for you, who never got in touch with any symbols of mine, no

> key no clue, nevertheless you'll be able to read it ...' I would have to fill it full of clues and unmistakable clever devices ...[1]

In his book, *Cosmos,* Professor Carl Sagan of Cornell University makes much the same point—and does so, curiously enough, with reference to the ancient Egyptian hieroglyphic system. He explains that the 'Egyptian hieroglyphics are, in significant part, a simple substitution cipher. But not every hieroglyph is a letter or syllable. Some are pictographs ...' When it came to translation, this 'mix of letters and pictographs caused some grief for interpreters ...' In the early nineteenth century, however, a breakthrough was made by the French scholar Champollion who deciphered the famous 'Rosetta Stone', a slab of black basalt bearing identical inscriptions in Egyptian hieroglyphics and in Greek. Since Champollion could read the Greek, all he needed was some kind of 'key' to relate specific hieroglyphs to specific Greek words or letters. This key was provided by the constant repetition in the Greek text of the name of Pharaoh Ptolemy V and an equal number of repetitions in the Egyptian text of a distinctive oblong enclosure—known as a cartouche—containing a repeated group of hieroglyphs. As Sagan comments:

> The cartouches were the key ... almost as though the Pharaohs of Egypt had circled their own names to make the going easier for Egyptologists two thousand years in the future ... What a joy it must have been [for Champollion] to open this one-way communication channel with another civilization, to permit a culture that had been mute for millennia to speak of its history, magic, medicine, religion, politics and philosophy.[2]

Professor Sagan then offers a comparison that is highly apposite to our present inquiry. 'Today,' he says:

> we are again seeking messages from an ancient and exotic civilization, this time hidden from us not only in time, but in space. If we should receive a radio message from an extraterrestrial civilization, how could it possibly be understood? Extraterrestrial intelligence will be *elegant, complex, internally consistent and utterly alien.* Extraterrestrials would, of course, wish to make a message sent to us as comprehensible as possible. But how could they? Is there in any sense an interstellar Rosetta Stone? We believe there is a common language that all technical civilizations, no matter how different, must have. That common language is science and mathematics. The laws of Nature are the same everywhere.[3]

It seems to us that if there is indeed a very ancient 'message' at Giza then it is likely to be expressed in the language of science and mathematics that Sagan identifies—and for the same reason. Moreover, given its need to continue 'transmitting' coherently across thousands of years (and chasms of cultural change), we think that the composer of such a message would be likely to make use of the Precession of the Equinoxes, the one particular 'law of Nature' that can be said to govern, and

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[1] Interviewed in *The Search for Extraterrestrial Life,* Discovery Channel, June
[2] Carl Sagan, *Cosmos,* Book Club Associates, London, 1980, p. 296.
[3] Ibid.

measure—and identify—long periods of terrestrial time.

Durable vehicles

The Pyramids and the Great Sphinx at Giza are, above all else, as elegant, as complex, as internally consistent and as utterly 'alien' as the extraterrestrial intelligence that Sagan envisages (alien in the sense of the tremendous, almost superhuman scale of these structures and of their uncanny—and in our terms apparently unnecessary—precision).

Moreover, returning briefly to Dr. Philip Morisson's remarks quoted earlier, we think that the Giza necropolis also qualifies rather well for the description 'packed full of clues and unmistakable clever devices'.[4] Indeed, it seems to us that a truly astonishing quantum of ingenuity was invested by the Pyramid builders to ensure that the four fundamental aspects of an 'unmistakable' message were thoroughly elaborated here:

1. the creation of durable, unequivocal markers which could serve as beacons to inflame the curiosity and engage the intelligence of future generations of seekers;

2. the use of the 'common language' of precessional astronomy;

3. the use of precessional co-ordinates to signal specific time-referents linking past to present and present to future;

4. Cunningly concealed store-rooms, or 'Halls of Records' that could only be found and entered by those who were fully initiated in the 'silent language' and thus could read and follow its clues.

In addition, though the monuments are enabled to 'speak' from the moment that their astronomical context is understood, we have also to consider the amazing profusion of funerary texts that have come down to us from all periods of Egyptian history—all apparently emanating from the same very few common sources.[5] As we have seen, these texts

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[4] Indeed, what we appear to be looking at here is a veritable 'Hermetic language' making use of architecture and astronomy.

[5] Of which the earliest surviving are the Pyramid Texts *circa* 2300 BC. Egyptologists accept, however that these texts are themselves transcripts (or translations?) of even earlier texts that are now lost to history, and that the scribes who initially wrote them down in Egyptian hieroglyphs often did not understand the words they were copying. According to E. A. Wallis Budge, for example: 'Several passages bear evidence that the scribes—who drafted the copies from which the cutters of the inscriptions worked did not understand what they were writing ... The general impression is that the priests who drafted the copies made extracts from several compositions of different ages and having different contents ...' In consequence, Budge concludes: 'The Pyramid Texts are full of difficulties of every kind. The exact meanings of a large number of words found in them are unknown ... the construction of the sentence often baffles all attempts to translate it, and when it contains wholly unknown words it becomes an unsolved riddle.'

operate like 'software' to the monuments' 'hardware', charting the route that the Horus-King (and all other future seekers) must follow.

We recall a remark made by Giorgio de Santillana and Hertha von Dechend in *Hamlet's Mill* to the effect that the great strength of myths as vehicles for specific technical information is that they are capable of transmitting that information independently of the knowledge of individual story-tellers.[6] In other words as long as a myth continues to be told true, it will also continue to transmit any higher message that may be concealed within its structure—even if neither the teller nor the hearer understands that message.

So, too, we suspect, with the ancient Egyptian funerary texts. We would be surprised if the owners of many of the coffins and tomb walls onto which they were copied had even the faintest inkling that specific astronomical observations and directions were being duplicated at their expense. What motivated them was precisely what the texts offered—the lure of immortal life. Yet by taking that lure did they not in fact guarantee a kind of immortality for the texts themselves? Did they not ensure that so many faithful copies would be made that some at least would be bound to survive for many thousands of years?

We think that there were always people who understood the true 'science of immortality' connected to the texts, and who were able to read the astronomical allegories in which deeper secrets, not granted to the common herd, lay concealed. We presume that these people were once called the 'Followers of Horus', that they operated as an invisible college behind the scenes in Egyptian prehistory and history, that their primary cult centre was at Giza-Heliopolis, and that they were responsible for the initiation of kings and the realization of blueprints. We also think that the timetables they worked to—and almost everything of significance that they did—was in one way or another written in the stars.

Hints and memories

The powerfully astronomical character of the Giza necropolis, although ignored by Egyptologists, has been recognized by open-minded and intuitive researchers throughout history. The Hermetic Neoplatonists of Alexandria, for example, appear to have been acutely sensitive to the possibility of a 'message' and were quick to discern the strong astral qualities of the textual material and the monuments.[7] The scholar Proclus

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See E. A. Wallis Budge, *From Fetish to God in Ancient Egypt,* Dover Publications, New York, 1988, pp. 321-2.

[6] *Hamlet's Mill,* op. cit., p. 312.

[7] Proclus was a Neoplatonist who studied at Alexandria. His keen interest in the astronomy of the Great Pyramid, described in his *Commentaries on the Timaeus,* shows that scholars of the time, many of whom were Neoplatonists, understood the monument to be related to the stars. Proclus's ideas formed the basis of the nineteenth-century

(fifth century AD) also acknowledged that the Great Pyramid was astronomically designed—and with certain specific stars in mind. Indeed, in his commentary on Plato's *Timaeus* (which deals with the story of the lost civilization of 'Atlantis'), Proclus reported strangely that 'the Great Pyramid was used as an observation for Sirius'.[8]

Vague memories of an astronomically constructed 'message' at Giza appear to have filtered down to the Middle Ages. At any rate the Arab chroniclers in this period spoke of the Great Pyramid as 'a temple to the stars' and frequently connected it to the Biblical 'Flood' which they dated to *circa* 10,300 BC.[9] Also of relevance is a report written by the Arab geographer Yakut al Hamawi (eleventh century AD) to the effect that the star-worshippers of Harran, the Sabians (whose 'holy books' were supposedly the writings of Thoth-Hermes) came at that time on special pilgrimages to the Pyramids at Giza.[10] It has also been pointed out that the very name of the Sabians—in Arabic *Sa'Ba*—almost certainly derived from the ancient Egyptian word for star, i.e. *Sba*.[11] And the reader will recall from Part I that as far back as the early second millennium BC—i.e. almost *three thousand years* before Yakut al Hamawi left us his report connecting the Sabians to the Pyramids—pilgrims from Harran are known to have visited the Sphinx which they worshipped as a god under the name *Hwl*.[12]

In the seventeenth century, the British mathematician Sir Isaac Newton became deeply interested in the Great Pyramid and wrote a dissertation on its mathematical and geodetic qualities based on data that had been gathered at Giza by Dr. John Greaves, the Savillian Professor of Astronomy at Oxford.[13] Later, in 1865 the Astronomer Royal of Scotland, Charles Piazzi Smyth, launched an investigation into the Great Pyramid which he was convinced was an instrument of prophecy that incorporated a Messianic 'message'. It was Piazzi Smyth who first accurately measured and demonstrated the intense polar and meridional alignments of the monument, the precision of which he assigned to sightings of the ancient Pole star, Alpha Draconis.[14]

In the first half of the twentieth century, a succession of eminent astronomers—such as Richard Proctor, Eugene Antoniadi, Jean Baptiste

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astronomer Richard Proctor's thesis, *The Great Pyramid: Observatory, Tomb and Temple* (published by Chatto & Windus, London, 1883), who argued that the Grand Gallery was used as a sighting device for the stars.

[8] James Bonwick, *Pyramids: Facts and Fancies,* Kegan Paul, 1877, p. 169.

[9] William R. Fix, *Pyramid Odyssey,* Mercury Media Inc., Urbana, Va., 1978, pp. 52-3. The Copts apparently took the 'traditional' date for the Biblical Flood as 10,000 BC.

[10] In the geographical dictionary *Mo'gam-el-Buldan,* cited in Hassan, *Excavations at Giza,* op. cit., p. 45.

[11] Ibid.

[12] Ibid., p. 34. Hassan notes that an alternative name for the Sphinx, apparently bestowed upon it by these incomers, was *Hwron.*

[13] See Peter Tompkins, *Secrets of the Great Pyramid,* op. cit., pp. 30-1.

[14] Piazzi Smyth, *The Great Pyramid,* op. cit., page 368ff.

Biot and Norman Lockyer—made persistent attempts to draw attention to the astronomical qualities of the Giza monuments. Their efforts, however, had little impact on professional Egyptologists who by this time felt that they had got the whole intellectual business of the necropolis 'wrapped up' (it was a cemetery), did not understand astronomy at all (and claimed that the ancient Egyptians didn't either), and routinely ganged up to debunk, deride or simply ignore any astronomical 'theories' which diverged from their consensus.

Despite this hostile intellectual climate, we are of the opinion at the end of our own research that the big question is no longer *whether* the monuments of Giza were designed to express key astronomical and mathematical principles, but *why.*

Once again, the clue may lie in the narrow star-shafts of the Great Pyramid.

The language of the stars

The first major breakthrough in understanding the function of the Great Pyramid's shafts was made in the summer of 1963 by the American astronomer Virginia Trimble and the Egyptologist-architect, Dr. Alexander Badawy. It came about because they decided to follow up Badawy's 'hunch' that the shafts might not be 'ventilation channels' as Egyptologists supposed,[15] but might instead prove to have a symbolic function related to the astral rituals of the Pyramid builders. Virginia Trimble was able to buttress her colleague's intuition by showing that the shafts from the King's Chamber had pointed, in the epoch of 2500 BC, to major star systems that were of crucial importance to the Pyramid builders. As readers will recall from Part I, the northern shaft had been targeted on Alpha Draconis—the Pole Star in the Pyramid Age—and the southern shaft had been targeted on Orion's belt.[16]

Today Virginia Trimble is a senior professor of astronomy at UCLA and the University of Maryland and is also the Vice-President of the American Astronomical Society. Her views, as well as being enlightened by a comprehensive grasp of astronomy, accord fully with common sense:

> Which constellations the Egyptians saw in the sky is still something of a mystery ... but they had one constellation that was an erect standing man, Osiris, the god. And the one constellation that looks like a standing man to everyone is Orion, and the identification between a deceased Pharaoh and the god Osiris made Orion immediately a candidate for a shaft whose sole purpose was to enable the soul of the Pharaoh to communicate between earth and sky

[15] Alexander Badawy, 'The Stellar Destiny of the Pharaoh', op. cit.; Virginia Trimble, 'Astronomical Investigations concerning the so-called Air Shafts of Cheops Pyramid', in *Mitt. Inst. Orient, zu Berlin* Band 10, pp. 183-7.

[16] And see *The Orion Mystery,* op. cit.

...[17]

When we met Virginia Trimble we immediately realized we were in the presence of an acute and formidable thinker. Alexander Badawy had passed away in the late 1980s yet she remained undaunted. She had concluded that the shafts were astronomically aligned, she said, and that they had an astronomical function, because logic and evidence dictated that this was the case.

Trimble's views have won general acceptance amongst senior astronomers. To give one recent example, Dr. Mary Bruck of Edinburgh, writing in *the Journal of the British Astronomical Association* in 1995, had this to say about the shafts: 'Their alignments are ... compatible with the hypothesis that they indicate the culmination of certain important stars around the 25th century BC ... The addition of a Sirius shaft [southern shaft of the Queen's Chamber] to the Orion one strongly supports the claim that they have an astronomical significance.'[18]

Thought-tools

We suggest that one of the major objectives of the unseen academy, whose members were known as the 'Followers of Horus', was to 'fix' the epoch of 2500 BC (i.e. 4500 years before the present) by using the Great Pyramid, its precisely angled shafts, and the stars of Orion's belt. We suggest that they envisaged those stars rather like the gauge of a gigantic sliding scale set across the south meridian. Once this 'thought-tool' was in place all they needed to do in order to determine a date either in the past or in the future was mentally to 'slide' the belt up or down the meridian from the 'zero point' targeted by the southern shaft of the King's Chamber.

We also suggest that a second and somewhat similar 'thought-tool' was attached to the ecliptic (the apparent annual path of the sun through the twelve constellations of the zodiac). Here the gauge was the vernal point. By mentally sliding it to the left (east) or to the right (west) of a 'fixed' marker on the ecliptic the 'Followers of Horus' would once again have been able to determine and denominate either a past date or a date in the future ...

In our own epoch, *circa* AD 2000, the vernal point is poised to enter the sign or 'Age' of Aquarius. For a little over 2000 years it has been passing through Pisces (160 BC to AD 2000) and before that it was in Aries (2320 BC to 160 BC). In the Pyramid Age the vernal point slowly swept through Taurus (4480 BC to 2320 BC). Going further back we reach the 'Ages' of Gemini (6640 BC to 4480 BC) and then Cancer (8800 BC to 6640 BC). After

[17] Interviewed on Arts and Entertainment Channel, 8 January 1995.
[18] Mary Bruck, 'Can the Great Pyramid be Astronomically Dated?', op. cit., pp. 164 and 162.

six 'Great Months' we reach the Age of Leo (10,960 BC to 8800 BC).

Now imagine that we find an ancient document at Giza which states that it was composed when the vernal point was in the sign of the Ram—i.e. when the sun on the spring equinox rose against the stellar background of the constellation of Aries. Armed with this information all that we can do is *roughly* bracket the document's date as being somewhere between 2320 BC and 160 BC, What we need in order to arrive at a more precise chronology is some means to 'fine-tune' the vernal point. It is here that the specific utility of the sliding scale at the meridian becomes apparent because if the ancient document not only stated which zodiacal sign housed the vernal point but also advised that the lowest star of Orion's belt crossed the meridian at an altitude of 50 degrees above the horizon then we would be able, using precession, to calculate with great accuracy that the date in question must be very near 1400 BC.[19]

The Pyramid Age occurred when the vernal point was in Taurus and, as we have seen, the fine-tuning permitted by the 45-degree angle of the Great Pyramid's 'Orion shaft' draws particular attention to the date of 2500 BC. With this date, 4500 years before the present, we can use precession to calculate the exact position of the vernal point—which, as the reader will recall, was near the head of the Hyades-Taurus at that time, close to the right (i.e. west) bank of the Milky Way.

The reader will also not have forgotten that this is the 'address' given in the Pyramid Texts as the starting point for the cosmic journey of the solar Horus-King. It is here that he receives his instructions to board the solar-bark and 'sail' across the Milky Way towards the 'horizon' to meet up with Horakhti. His direction of travel is, therefore, eastwards, i.e. to the left of the vernal point. In terms of the chronology of the 'Great Year' of precession (as distinct from the solar year), this means that the Horus-King is now poised to travel back in time towards the age of Leo-Horakhti and to a specific spot on the ecliptic path—'The Splendid Place of the "First Time" ' ... 'the place more noble than any place'.[20]

But where is that place? How is the Horus-King (initiate, seeker) to find it in the 2160-year, 30-degree swathe that the constellation of Leo occupies on the ecliptic?

The answer is that he would have to use the gauge of Orion's belt at the meridian to fine-tune the exact place of the vernal point and hence also to arrive at an exact date. In his mind's eye he would have to slide the belt 'down' the meridian to its 'First Time' and then see how far to the east that operation had 'pushed' the vernal point along the ecliptic.

Wherever that place was would be the celestial destination that the

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[19] Skyglobe 3.6.

[20] *Pyramid Texts,* op. cit., line 932, p. 161.

'Followers of Horus' were urging him to reach.

And it would, of course, have its counterpart on the ground at Giza, in the vicinity of the lion-bodied Sphinx.

Chapter 17

The Place of the 'First Time'

'Know that we would be universal scientists if it were given to us to inhabit the sacred land of Egypt ...'

Manetho, Egyptian high priest, third century BC

'I have come to this place more noble than any place ...'

Pyramid Texts

The epoch of the 'First Time', *Zep Tepi,* was frequently referred to as the 'First Time of Horus', the 'First Time of Re' and the 'First Time of Osiris'.[1] The implication of this terminology is that the position of the (vernal) sun along the ecliptic path, which denoted the 'First Time', was also seen to be marked—perhaps 'controlled' would be a better word—by the position of Osiris-Orion at the meridian.

As we have seen, the ancient brotherhood of astronomer-priests who designed the Great Pyramid, and who were later responsible for the compilation of the Pyramid Texts, were well aware of Orion's slow precessional drift 'upwards'—'northwards' in the allegorical language of the texts—when the constellation was sighted at the meridian over long periods of time. They also knew that they were 'fixing' a specific location to which the 'body of the god' had drifted (and a specific date in time—2500 BC in our calendar) when they targeted the meridian at 45 degrees with the southern shaft of the King's Chamber. They knew, in other words, that the belt stars would rise to higher altitudes above the horizon (i.e. drift further 'north') in future epochs and, conversely, that they had been at lower altitudes (i.e. 'further south') in previous epochs. The reader will recall from Chapter 1 that the lowest ('southernmost') point in the entire precessional cycle of Orion's belt—the 'First Time of Osiris' in allegorical terms—occurred in 10,500 BC. Most mysteriously, it is the precise disposition of these stars in the sky at that date that is frozen on the ground in the form of the three great Pyramids of Giza.

It was the mystery of this perfect meridian-to-meridian match, together with the equinoctial alignment of the lion-bodied Sphinx (and the vast antiquity of that monument as indicated by geology) that provoked us to undertake the present investigation. For while we did not dispute the

[1] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., p. 264.

orthodox Egyptological dating of the Pyramids to the epoch of 2500 BC, we had a strong intuition that their layout in the image of Orion's belt some 8000 years earlier was most unlikely to have come about by chance.

We are now satisfied that chance was not involved. After factoring-in the data preserved in the vast storehouses of ancient Egyptian funerary 'software', it seems to us obvious that what was created—or rather *completed*—at Giza in 2500 BC was an entirely deliberate work of sky-ground dualism. It was a model (on a lavish scale intended to do justice to its cosmic original) of the 'kingdom' established by Osiris in the sky-*Duat* in the remote epoch 'when his name became Orion'—i.e. in his 'First Time'. It was also, for all time, the 'Kingdom of Osiris' on the ground—'when his name became Sokar' (in the lower *Duat,* i.e. the Memphite necropolis).

It may have been the case that the ground-plan of the three great Pyramids was *physically established* in 10,500 BC—perhaps in the form of low platforms. Or it may have been that precise astronomical records from that epoch were preserved and handed down to the astronomer-priests of Heliopolis by the 'Followers of Horus'. Either way, we are still reasonably certain that the Pyramids themselves were largely built in 2500 BC when Egyptologists say they were. We are also sure, however, that the site was already vastly ancient by then and had been the domain of the 'Followers'—the Sages, the 'Senior Ones'—for the previous 8000 years.

We think the evidence suggests a continuous transmission of advanced scientific and engineering knowledge over that huge gulf of time, and thus the continuous presence in Egypt, from the Palaeolithic into the Dynastic Period, of highly enlightened and sophisticated individuals—those shadowy *Akhus* said in the texts to have possessed 'a knowledge of divine origin'.

Fine-tuning Leo

The basis for this conjecture, above and beyond the astronomical alignments of the Giza necropolis, is the geological condition of the Sphinx which we have described in Part I. To state matters briefly: *the signs of intense precipitation-induced weathering visible to this day on the great monument itself, and on the rock-hewn trench surrounding it, are consistent with an age of more than 12,000 years.*

The genesis date indicated by astronomy for the site as a whole is 10,500 BC. That is what the *layout* of the Pyramids says, even if they themselves are younger. And that, too, as we saw in Chapter 3, is what is proclaimed by the due-east orientation of the Sphinx. Its astronomical and leonine symbolism does not make any sense unless it was built as an equinoctial marker for the Age of Leo.

But *when,* exactly, in the Age of Leo? The constellation spans 30 degrees along the ecliptic and housed the sun on the vernal equinox from 10,960 BC to 8800 BC—a period of 2160 years. So when in that period?

There is no way to answer this question on the basis of the alignments of the Sphinx alone, or on the basis of what one may deduce from its alignments and its geology viewed together. What is needed is precisely what the 'Followers of Horus' provided us with—a thought-tool with which to fine-tune the date. That thought-tool is the sliding scale of Orion's belt and the date that it fine-tunes for the Great Sphinx is 10,500 BC.

But it also does something else. As the scale 'slides' down the meridian it also 'pushes' the vernal point steadily eastwards along the ecliptic, bringing it to rest in 10,500 BC (the 'bottom of the scale') *at a specific stellar address that can be identified by precessional calculations.*

In terms of the sky-ground dualism of the initiatory quest of the Horus-King, it is obvious that the vernal point's 'stellar address' in 10,500 BC—i.e. its precise whereabouts on the ecliptic within the constellation of Leo—is likely to have a terrestrial analogue. Once we know what's what with the sky, in other words, we should know where to look on the ground.

And would it be entirely unreasonable to suppose that what we would find there, if we had calculated *exactly* where to look, might turn out to be a physical entrance into that mythical 'place more noble than any place', the 'Splendid Place of the "First Time" '?

Setting stars

As though to reward such conjectures, like a one-armed bandit coughing up the jackpot, all the bells and lights of the Giza necropolis start ringing and flashing at once when the sliding scale of Orion's belt is pushed down to its 'First Time' in 10,500 BC.

We already know from Chapter 3 that what the principal monuments seem to model is an unusual astronomical conjunction that occurred at the spring equinox in that distant epoch. Not only did the Great Sphinx gaze at his own celestial counterpart in the sky but also the moment of sunrise (at the point on the horizon targeted by the Sphinx's gaze) coincided, to the second, with the meridian-transit of Orion's belt (which is what the three Pyramids model).

If these were the only correspondences they would already be too detailed to be attributed to coincidence. But there is a great deal more. For example, immediately south of the third and smallest of the three great Pyramids is a group of three 'satellite' pyramids. Egyptologists generally refer to them as the 'tombs' of queens of the Pharaoh Menkaure. Since they contain no inscriptions, nor the slightest trace of

human remains or funerary equipment, such an attribution can never be anything more than a matter of opinion. However these 'satellite' pyramids do have an unambiguous astronomical alignment: they form a row running east-west—the equinox sunrise-sunset direction.

The British geometrician and pyramid researcher, Robin Cook, has recently shown that these three satellite pyramids bear a designed relationship to the Giza necropolis as a whole.[2] They appear to be located on the boundary of a circle, or artificial 'horizon', the focus of which is the Pyramid of Khafre and the circumference of which envelops the whole necropolis. An angle of 27 degrees west of south[3]—corresponding to an azimuth of 207 degrees[4]—seems to be defined by a straight line extending from the meridian axis of the Pyramid of Khafre to these three 'satellite' pyramids of Menkaure.[5] In general the satellites give the impression of being 'reduced models' of the three Great Pyramids. What is notably different however, is that the latter lie at an angle of 45 degrees to the meridian, while the former run from east to west at right-angles to the meridian. This apparent architectural anomaly, together with their curious location at azimuth 207 degrees on the artificial 'horizon' of Giza, begs an obvious question: are we again looking at datable sky event frozen in architecture?

[2] Robin Cook, *The Pyramids of Giza,* op. cit., p. 60.
[3] Plus or minus 1 degree.
[4] Plus or minus 1 degree.
[5] Derived geometrically from scaled plan of Giza.

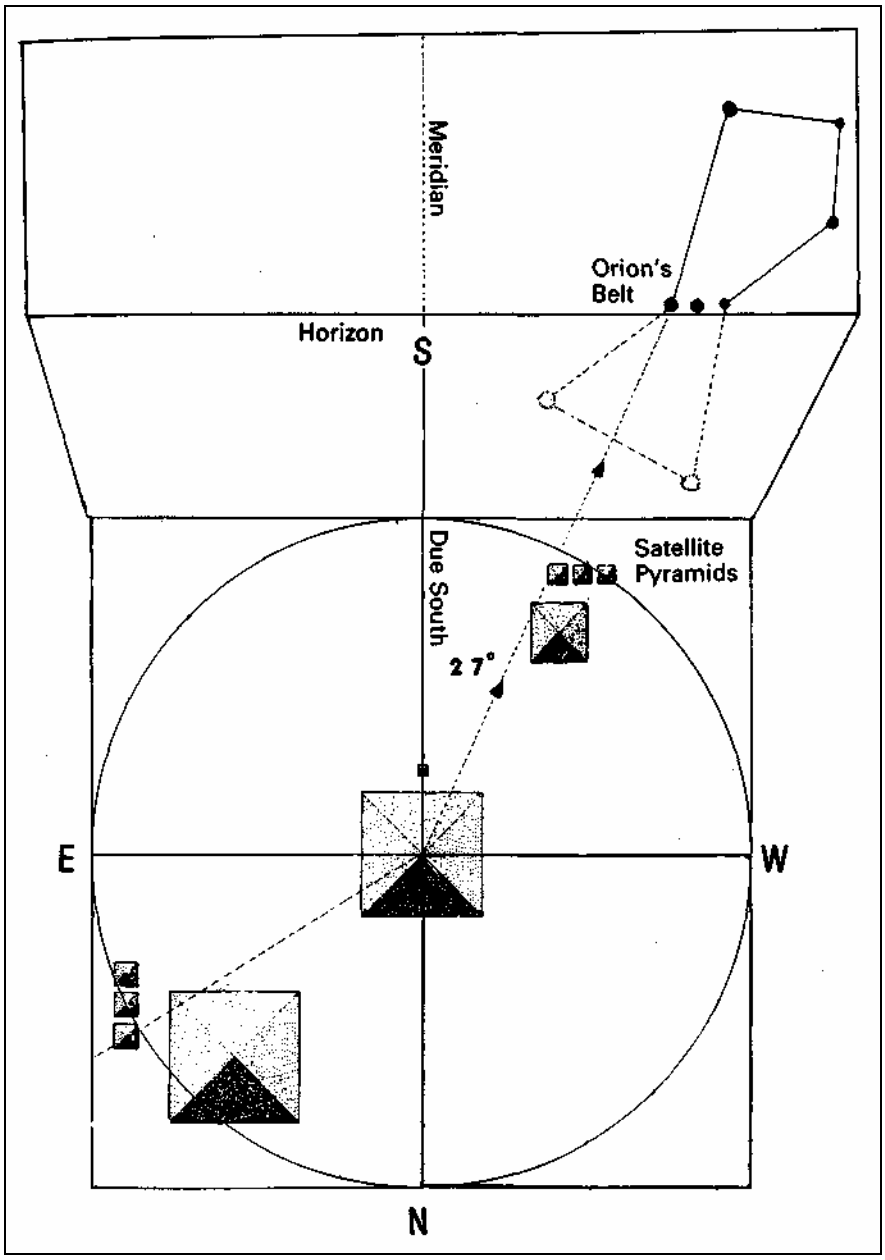

59. Epoch of 10,500 BC: setting of the three stars of Orion's belt in line with the three satellite Pyramids on the southern rim of the Horizon of Giza.

The computer confirms that we are. In 10,500 BC, on the real horizon of Giza, the lowest of the three stars of Orion's belt, *Al Nitak,* set at 27 degrees west of south—i.e. at azimuth 207 degrees. Moreover, the belt stars at that moment would have formed an axis running east-west—the alignment that is mimicked by the three satellite pyramids.

Sirius

Another bit of the 10,500 BC 'jackpot of correspondences' concerns the

star Sirius, which symbolizes the very heart of the ancient Egyptian mystery.

All stars, including our own sun (and our solar system with it) move through space. Because of the vast distances involved, however (hundreds and often thousands of light-years), this 'proper motion' registers barely perceptible effects on the *positions in the sky* of the majority of stars as viewed from earth. Where these stars are concerned the only significant factor is precession (which, as we know, is a perceived 'motion' that is actually caused by a wobble on the axis of the earth).

Sirius is one of the major exceptions to this rule. As many readers will be aware, it is the brightest star in the sky. It is also one of the *nearest* stars to earth, being only 8.4 light-years away. Because of this proximity it registers a very large 'proper motion' in space relative to our own solar system—large enough to bring about observable changes in its celestial address, *over and above those caused by precession,* within just a few thousand years.

To be specific about this, the proper motion of Sirius is estimated to be in the range of 1.21 arc-seconds per year (about 1 degree every 3000 years). This means that for an epoch as far back as 10,500 BC, the change in its celestial co-ordinates resulting from proper motion could exceed 3 full degrees of arc, i.e. about six times the apparent diameter of the moon.[6]

Once this rapid and noticeable rate of movement is taken into account alongside the effects of precession, computer simulations indicate a rather intriguing state of affairs. Calculations show that when Sirius reached its 'First Time'—i.e. its lowest altitude above the horizon—viewers at the latitude of Giza (30 degrees north) would have seen it resting exactly on the horizon. Moreover it was from this latitude, *and this latitude only,* that such a conjunction of star and horizon could be witnessed. The implication is that a special co-relationship exists between the latitude of Giza and the star Sirius at its 'First Time'.[7]

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[6] Sirius has a proper motion of 1.21 arc seconds per year. For 13,000 years this would give 4.36 degrees of motion. But the motion is oblique to the meridian, giving some 3 degrees decrease in declination.

[7] Calculations using the rigorous formula for precession corrected for nutation, aberration of starlight, proper motion (from the most recent Yale Bright Star Catalogue) and parallax was done by astronomer Adrian Ashford in August 1995. In *circa* 11,850 BC Sirius would theoretically be at the lowest point in its cycle, with a declination of -60 degrees, thus just on the south horizon. In 10,500 BC it would have had a declination of nearly -59 degrees, thus shining brightly approximately 1 degree over the south horizon as seen from Giza.

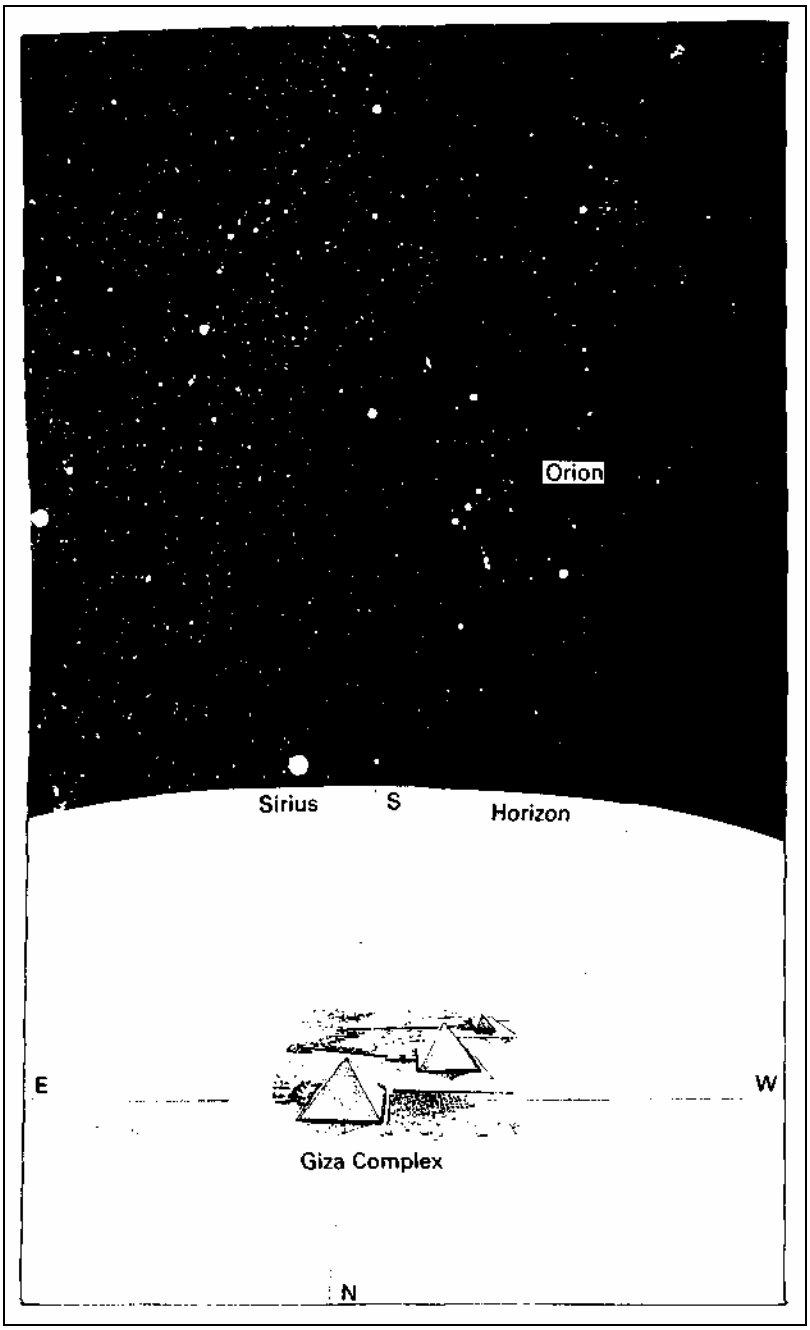

60. Artist's impression of the 'First Time' of Sirius, in the epoch of 10,500 BC, when the bright star of Isis would have been seen to be resting exactly on the horizon.

Because of its large proper motion there is uncertainty over when exactly the 'First Time' of Sirius would have occurred. There is no doubt, however, that it would have been somewhere between 11,500 and 10,500 BC.[8] We wonder, therefore, whether the decision to establish the sacred site of Giza at 30 degrees north latitude could have been connected to this 'First Time' of Sirius? And we recall that in 1993 Rudolf

[8] Ibid.

Gantenbrink's robot camera discovered a mysterious 'door' inside the Great Pyramid, more than 200 feet along the narrow southern shaft of the Queen's Chamber.[9] The shaft in which the 'door' was found was, of course, targeted on the meridian-transit of Sirius in 2500 BC.

Cross-quarter causeways

Amongst the strangest and most unaccountable features of the Giza necropolis are the massive causeways that link each of the three great Pyramids with the Nile Valley below. Today only fragments of their floorings remain, but as late as the fifth century BC at least one causeway, that of the Great Pyramid, was still almost intact. We know this because it was seen and described by the Greek historian Herodotus (484-420 BC)—who reflected that its construction almost matched, in engineering prowess and architectural splendour, that of the Great Pyramid itself.[10]

Recent archaeological research has confirmed that the information provided by Herodotus is correct. Moreover, we now know that the roofs of the causeways were spangled on their undersides with patterns of stars[11]—highly appropriate symbolism if, as we believe is the case, these grand and curious corridors were designed to serve as *Viae Sacrae*—ceremonial 'roadways' which initiates would follow on their way to the 'Pyramid-stars' of Rostau-Giza.[12]

The causeway from the Third Pyramid (the Pyramid of Menkaure) is directed due-east,[13] like the gaze of the Sphinx, and thus conforms to the general north-south and east-west grid structure of the Giza necropolis. By contrast the two causeways linked to the other two Pyramids definitely do *not* conform to that grid structure. As a result of the work of geometrician John Legon, who has undertaken a detailed analysis of the site-plans and grids provided by modern Egyptologists (such as Selim Hassan, Reisner, Holscher, Ricke and Lauer), we now know that this anomalous nonconformity nevertheless incorporates its own strict symmetry: 'while the causeway of the Third Pyramid is aligned due east-west, the causeways of the Second and Great Pyramids both have a bearing of 14 degrees—the former to the south and the latter to the

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[9] See Part II of the present work for a discussion.

[10] Herodotus, *The History,* op. cit., II:124, p. 185. See also I. E. S. Edwards, *The Pyramids of Egypt,* op. cit., 1982 edition, p. 147.

[11] Surviving examples of star-spangled causeway ceilings can be seen at the Pyramid of Unas (Fifth Dynasty) at Saqqara.

[12] Many passages in the *Pyramid Texts,* op. cit., speak of 'roads' to the stars and to the sky where the deceased will become a god. For example, Utterance 6673, line 1943: 'You have your tomb O King, which belongs to [Osiris] ... He opens for you the doors of the sky, he throws open for you the doors of the firmament, he makes a road for you that you may ascend by means of it into the company of the gods ...'

[13] John Legon, 'The Giza Ground Plan and Sphinx' in *Discussions in Egyptology* 14, 1989, p. 55.

north of due east.'[14]

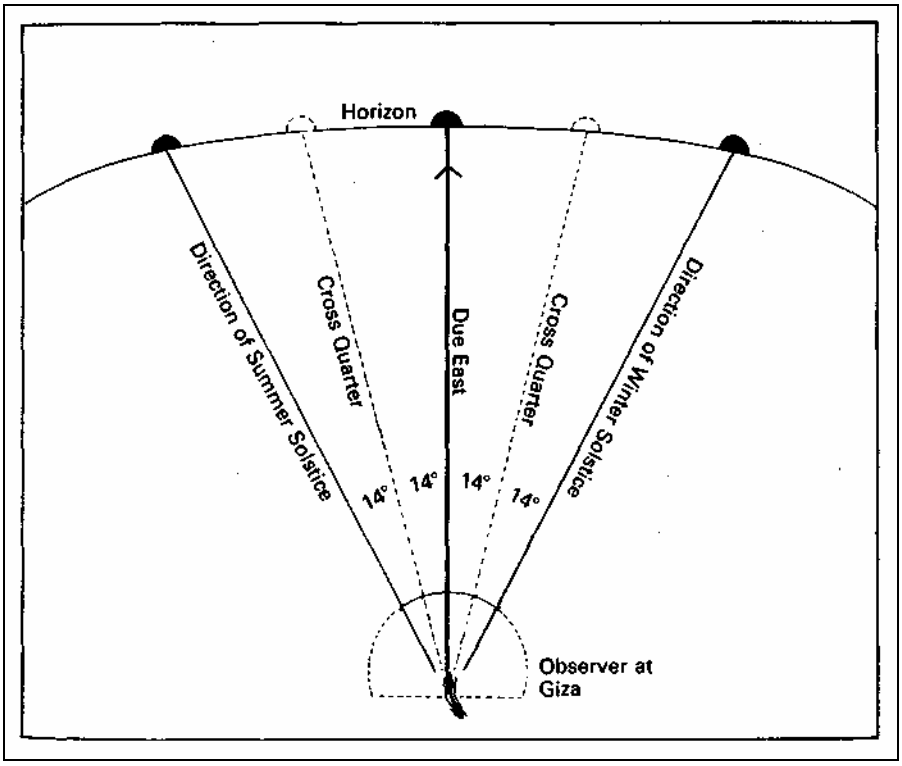

61. The course of the sun throughout the year as viewed from the latitude of Giza. A full range of 56 degrees is defined between summer solstice at 28 degrees north of east and winter solstice at 28 degrees south of east (with the equinox, of course, at due east). The 'cross-quarter' sunrises therefore occur at 14 degrees north of east and 14 degrees south of east respectively, thus dividing the sun's range along the horizon into four equal parts.

[14] Ibid. Although the bearing of the Khafre causeway at 14 degrees south of east is not in dispute, there has been some disagreement amongst scholars over the direction of the Khufu causeway—most traces of which have been long ago obliterated. Some authorities believe it proceeded straight on the 14-degree bearing it takes from the Mortuary Temple of the Great Pyramid, others believe that it started with this bearing and then changed direction, before reaching the Valley Temple of the Great Pyramid. To give some indication of the range of opinion on this matter see George Goyon, *Le Secret des Batisseurs des Grandes Pyramides: Kheops,* Pygmalion, Gerard Watelet, Paris, 1990, p. 140: 'contrary to what some have long believed, the direction [of the Khufu causeway] stays uniform and does not change direction in the valley below.' Zahi Hawass in *The Pyramids of Ancient Egypt,* The Carnegie Series on Egypt, Pennsylvania, 1990, p. 22, also shows a straight causeway on the 14-degree bearing, but points out on page 18: 'scholars disagree over the exact course of the causeway, but it led to Khufu's Valley Temple, the ruins of which lie under the present-day village of Nazlet-el-Sammam.'

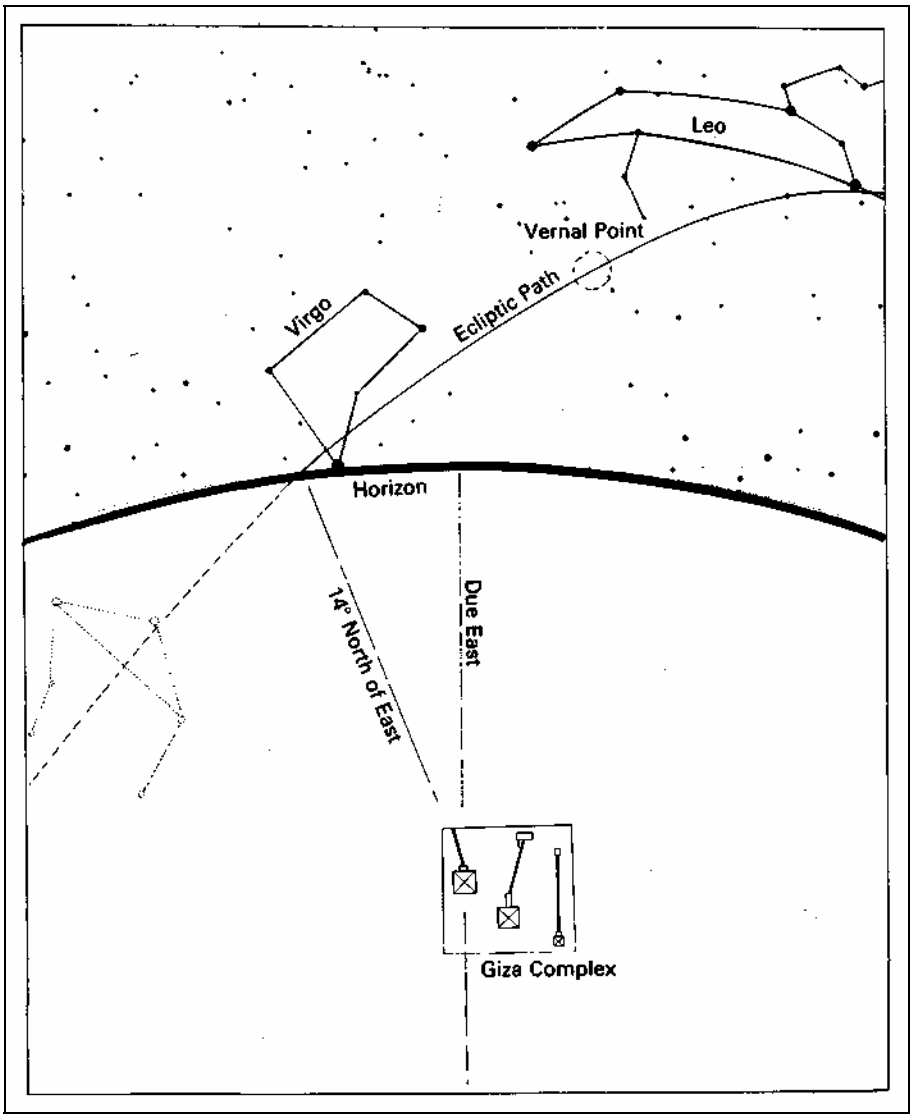

62. The Khufu causeway runs 14 degrees north of east in perfect alignment with the cross-quarter sunrise that falls between the spring equinox and the summer solstice (and thus also, on the sun's 'return journey', between the summer solstice and the autumn equinox).

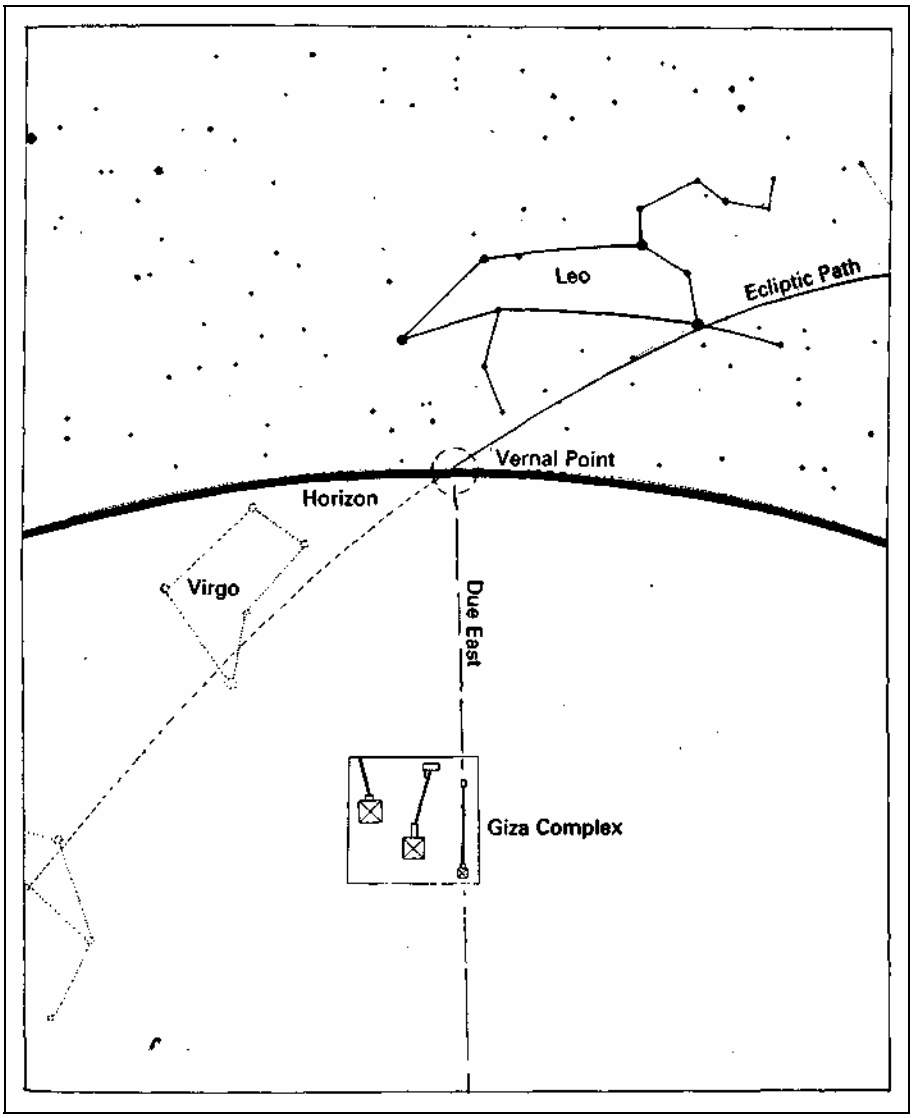

63. The Menkaure causeway runs due east in perfect alignment with sunrise on the spring equinox and on the autumn equinox.

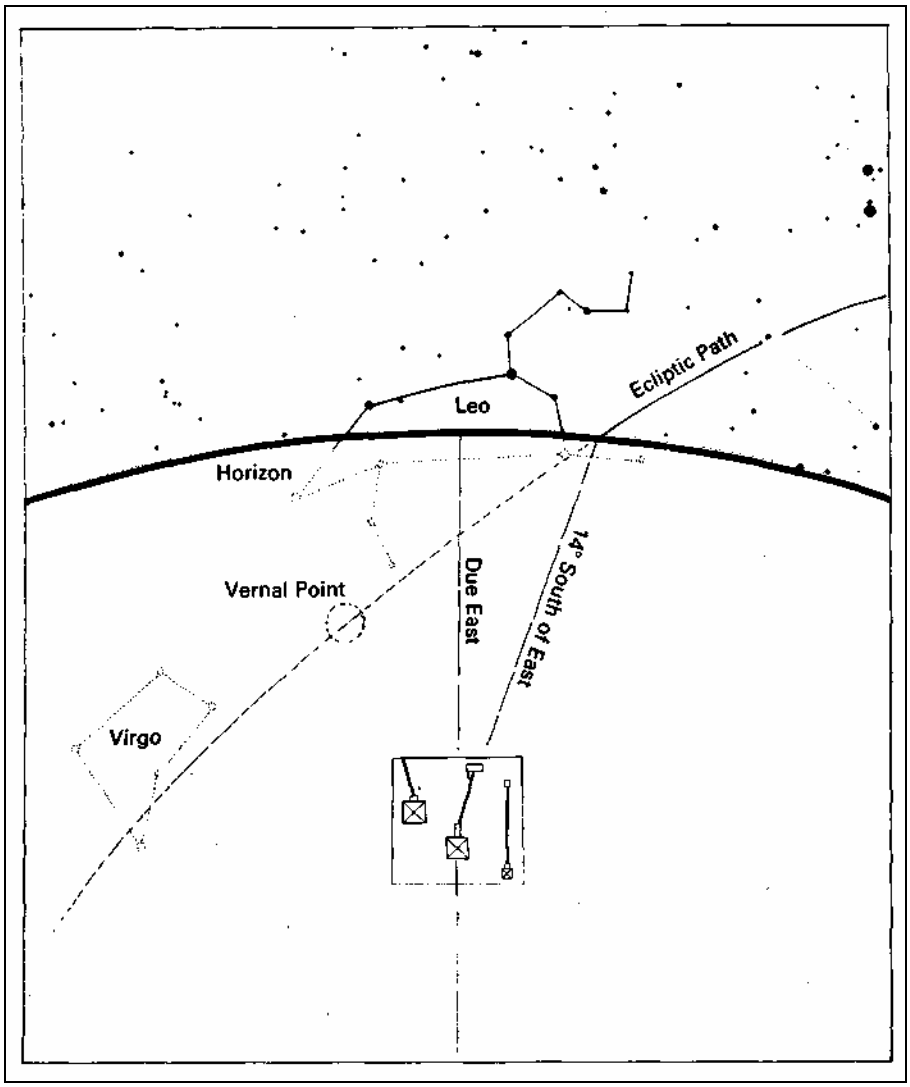

64. The Khafre causeway runs 14 degrees south of east in perfect alignment with the cross-quarter sunrise that falls between the winter solstice and the spring equinox (and thus also, on the sun's 'return journey', between the autumn equinox and the winter solstice).

Legon has also provided conclusive evidence that the design of the Khufu and Khafre causeways is in fact integrated with the geometry of the Giza complex as a whole—and not merely with that of the individual Pyramids themselves. Furthermore, far from being conditioned by the *topography* of the site (as had previously been supposed) the direction of these causeways (14 degrees north and south of east respectively) shows every sign of being part of a 'unified plan' whose 'hidden purpose' and impetus 'possibly resided with the priests of Heliopolis'.[15]

But what 'hidden purpose' could dictate the decision to direct one causeway due east, another 14 degrees south of due east, and a third 14 degrees north of due east?

[15] John Legon, *The Giza Ground Plan,* op. cit., p. 60.

When sunrise is observed conscientiously throughout the course of the year from the latitude of Giza, the answer to this question becomes obvious. Here, as everywhere else on the planet, the sun rises due east—in line with the Menkaure causeway (and the gaze of the Sphinx)—on the spring equinox. What is unique about the latitude of Giza, as we have noted several times previously, is that on the summer solstice (the longest day of the year) the sun rises 28 degrees to the north of due east whilst on the winter solstice (the shortest day) it rises 28 degrees to the south of due east. This gives a full variation of 56 degrees and it is a simple matter of fact that what astronomers refer to as the 'cross-quarters' of this variation, i.e. the sunrise-points located exactly half way between each equinox and solstice, are at *14 degrees north of due east and 14 degrees south of due east respectively.* In short the three causeways signal and bracket the equinox with two gigantic 'arrows' pointed at the cross-quarter sunrises and a third arrow (the Menkaure causeway) pointed at the equinox sunrise itself. In this fashion the sun's range throughout the year along the eastern horizon is architecturally divided into four equal segments each with a range of 14 degrees—i.e. into its astronomical 'cross-quarters'.

Now a focus on the cross-quarter days, together with the equinoxes and solstices, is an extremely well-documented phenomenon amongst many ancient astronomically minded peoples (dictating the alignment of their temples and the dates of their most important festivals).[16] It is therefore not surprising to find such a focus expressed in the architecture of the Giza necropolis. Neither should we be surprised by the *accuracy* with which the causeways define the cross-quarters since all the other alignments of the necropolis were achieved with equally high precision.

[16] For a general discussion, see Richard Heinberg, *Celebrate the Solstice,* Quest Books, Wheaton, 111, 1993, pp. 11-14.

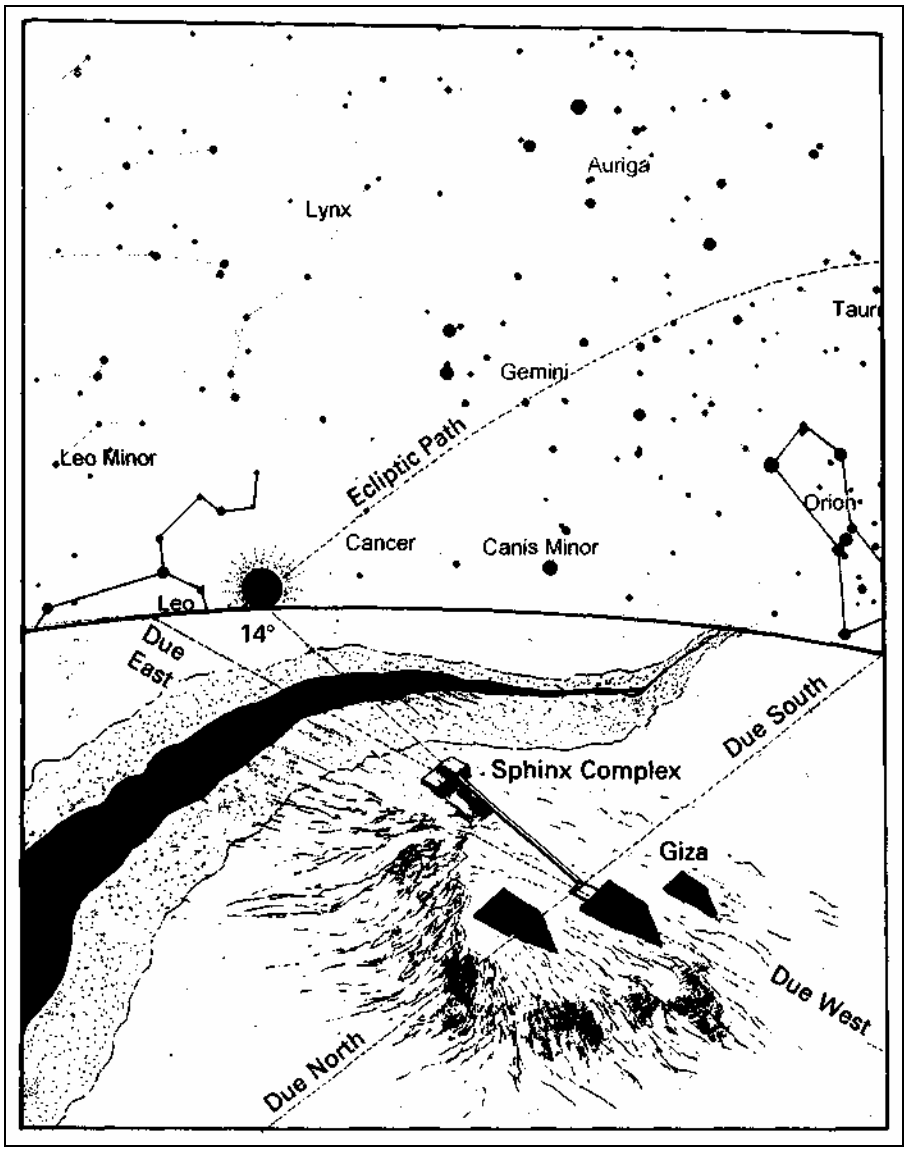

65. Epoch of 10,500 BC: the rising of Leo on the cross-quarter sunrise between the winter solstice and the spring equinox. This sunrise occurs at 14 degrees south of east, the point on the horizon targeted by the Khafre causeway.

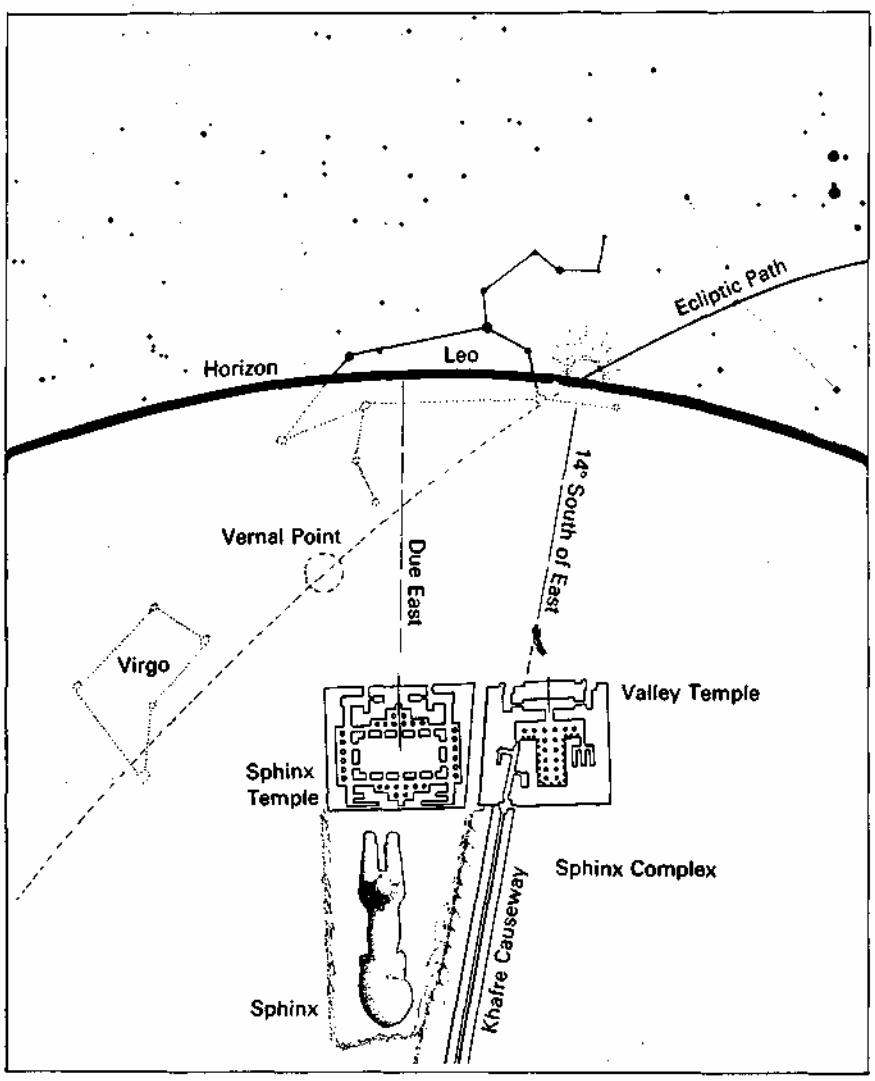

66. Epoch of 10,500 BC: gaze of the Sphinx on the cross-quarter sunrise between the winter solstice and the spring equinox. Note the profile of the constellation of Leo with only its head, back and shoulders protruding above the sky-horizon and compare with the profile of the Sphinx, as viewed from the south.

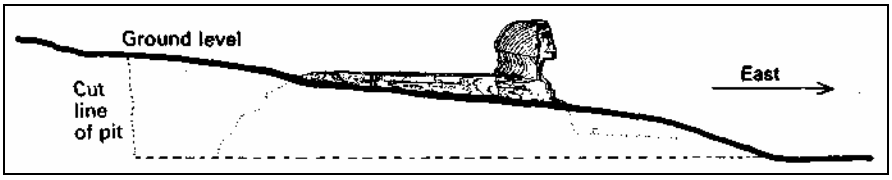

67. The Great Sphinx in the 'ground-horizon' of Giza, with only its massive head, back and shoulders protruding into view above ground level. Once again the images in the sky and on the ground 'lock' at 10,500 BC.

There is one feature of the layout, however, that is truly exceptional and remarkable.

Computer reconstructions of the ancient skies reveal that if we could travel back in time to the cross-quarter day that fell between the winter

solstice and the vernal equinox in 10,500 BC, and position ourselves at the 'top', i.e. the western end, of the Khafre causeway gazing along it towards the edge of the 'Horizon' of Giza, then we would witness the following celestial events at dawn:

1. The sun would rise at 14 degrees south of east in direct alignment with the causeway;[17]

2. Immediately to the left of this point would be the great constellation of Leo-Horakhti, with only its massive head and shoulders protruding above the horizon line (*it would, in other words, appear to be partially sunk, or 'buried' in the 'Horizon of the Sky').*

Now let us look down from the sky to the ground. Following the southeasterly direction of the causeway from the same viewpoint we note that it sinks down with the general slope of the Giza plateau and passes just to the south of the southern edge of the Sphinx enclosure. The Sphinx itself—Hor-em-Akhet—stands *partially sunk, or 'buried'* in that enclosure (and thus in the 'Horizon of Giza') with only its massive head and shoulders protruding out of the groundline.

Once again the images of sky and ground match perfectly at 10,500 BC and in no other epoch ...

Treasure map

We said earlier that in the architectural-astronomical system of the Pyramid builders the position of the vernal point along the ecliptic which denoted the 'Splendid Place of the "First Time" ' was considered to be 'controlled' by the position of Osiris-Orion at the meridian: 'slide' Orion's belt up from its location at 2500 BC and the vernal point is 'pushed' westwards around the ecliptic (and forward in time) in the direction Taurus→ Aries→ Pisces→ Aquarius; 'slide' it down and the vernal point is pushed 'east', i.e. back in time, in the direction Taurus→ Gemini→ Cancer→ Leo. So in 10,500 BC, with the belt stars fully 'slid down' to their lowest possible altitude above the horizon, how far around the ecliptic has the vernal point been 'pushed? We know it is in Leo. But where in Leo?

Computer simulations show that it lay exactly 111.111 degrees east of

[17] We note with interest that this 'cross-quarter' alignment appears to have been of major importance at Heliopolis. In *The Dawn of Astronomy,* op. cit., p. 77, the British astronomer J. Norman Lockyer, who was able to survey the site of ancient Heliopolis before it was obscured by the modern suburb that now covers it, noted in passing that the principal mound on the site had a bearing of 14 degrees south of east—i.e. the identical bearing to the Khafre causeway. Lockyer also reminds us of ancient Egyptian traditions that Heliopolis was founded by the *Shemsu Hor,* the 'Followers of Horus', long before the beginning of Dynastic history (ibid., p. 74).

the station that it had occupied at 2500 BC. Then it had been at the head of the Hyades-Taurus close to the right bank of the Milky Way; 8000 years earlier it lay *directly under the rear paws of the constellation of Leo.*

As we have hinted, this is a location that is likely to have a terrestrial 'double'. The three stars of Orion's belt have their terrestrial doubles in the form of the three Great Pyramids. The constellation of Leo-Horakhti has its terrestrial double in the form of Hor-em-Akhet, i.e. the Great Sphinx. The 'Horizon of the Sky' has its terrestrial double in the form of the 'Horizon of Giza'. And the Great Sphinx crouches literally *within* this 'Horizon'.

It was to the breast of the Great Sphinx, at the summer solstice in the Pyramid Age, that the quest of the Horus-King led. There he encountered the *Akhus:*

> 'How has this happened to you', say they, the *Akhus* with their mouths equipped, 'that you have come to this place more noble than any place?'
>
> 'I have come ... because the reed floats of the sky were set down for Re [the sun-disc and cosmic 'double' of the Horus-King] that Re might cross [the Milky Way] on them to Horakhti at the Horizon' ...[18]

In other words, the Horus-King has successfully understood and used the clues provided in the ritual. He has noted and followed the path of the sun during the solar year from its starting point—designated in the texts as being beside the Hyades-Taurus, i.e. the 'Bull of the Sky'—and thence across the Milky Way until the moment of its conjunction with Regulus, the heart-star of Leo. He has then taken this celestial treasure map, transposed its co-ordinates to the ground, made his way across the River Nile and ascended to the Giza plateau, coming eventually to the breast of the Sphinx.

We think that he received there the necessary clues or instructions to find the entrance to the terrestrial *Duat,* to the 'Kingdom of Osiris' on the ground—in short to the 'Splendid Place of the "First Time" ' where he would have to go in order to complete his quest. And we suggest that these clues were designed to encourage him to *track the vernal point,* just as we have done, to the location that it would have occupied in 10,500 BC when Orion's belt had reached the lowest point in its precessional cycle.

In other words it is our hypothesis that the Giza monuments, the past, present and future skies that lie above them, and the ancient funerary texts that interlink them, convey the lineaments of a message. In attempting to read this message we have done no more than follow the initiation 'journey' of the Horus-Kings of Egypt. And like the ancient Horus-Kings we, too, have arrived at a most intriguing crossroad. The trail of initiation has guided us, directed us and finally lured us to stand in front of the Great Sphinx and, like Oedipus, to confront the ultimate

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[18] *Pyramid Texts,* op. cit., Utterances 471-3, pp. 160-2.

riddles: 'Where did we come from?' 'Where are we to go to?'

The gaze of the Sphinx urges us to see through the shadowy veil and seek the 'First Time'. But, having done that, it also provokes us to ask whether there might not in fact be something at Giza, *something physical,* that would give form to the site's strange aura of vast and exceptional antiquity.

We remember a passage from the Coffin Texts which invites us to consider the possibility that some great 'secret' of Osiris may remain hidden within or beneath the monuments of Rostau-Giza in a 'sealed' container: 'This is the sealed thing, which is in darkness, with fire about it, which contains the efflux of Osiris, and it is put in Rostau. It has been hidden since it fell from him, and it is what came down from him onto the desert of sand; it means that what belonged to him was put in Rostau …'[19]

What can it be that was put in Rostau?

What hidden thing with fire about it?

And where in darkness does it lie?

If we look at our computer simulation of the skies over Giza in 10,500 BC the answer appears to be staring us in the face. In that year, in the predawn on the spring equinox, the constellation of Leo could be seen rising slowly in the east. By around 5 a.m. it was fully risen, exactly straddling due east—a lion in the sky, with its belly resting on the horizon. At the same moment, the sun—marking the vernal point—lay some 12 degrees beneath its rear paws.

[19] *Coffin Texts,* op. cit., Spell 1080, Vol. III, p. 147.

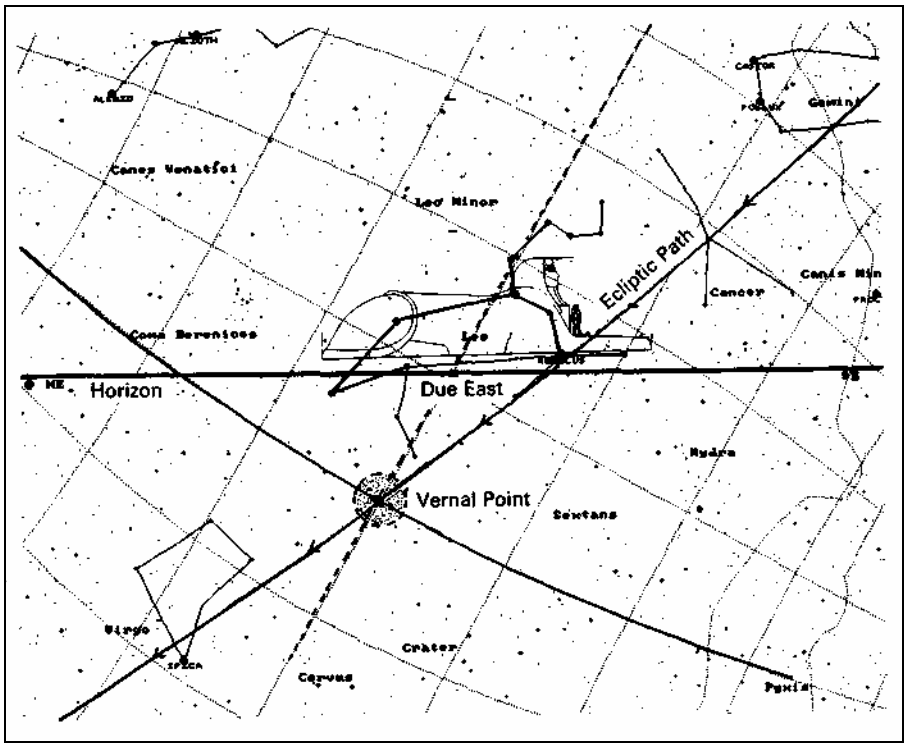

68. The Horus-King's treasure map: the heliacal rising of Leo on the spring equinox in 10,500 BC. The sun, marking the vernal point, lies below the horizon, some 12 degrees beneath the constellation's rear paws. When this image is transposed to the ground, the logic of the Horus-King's quest suggests the possibility of a hidden chamber deep in the bedrock of the Giza plateau, approximately too feet beneath the rear paws of the Sphinx.

When we translate this sky-image onto the ground, in the form of a colossal, leonine, equinoctial monument with its belly resting on the bedrock of the real physical environment of the 'Horizon of Giza', we do indeed find ourselves looking at the Horus-King's treasure map. It is a map, not buried in the earth but cunningly concealed in time, where 'X' almost literally 'marks a spot' directly under the rear paws of the Great Sphinx of Egypt at a depth, we would guess, of about 100 feet.

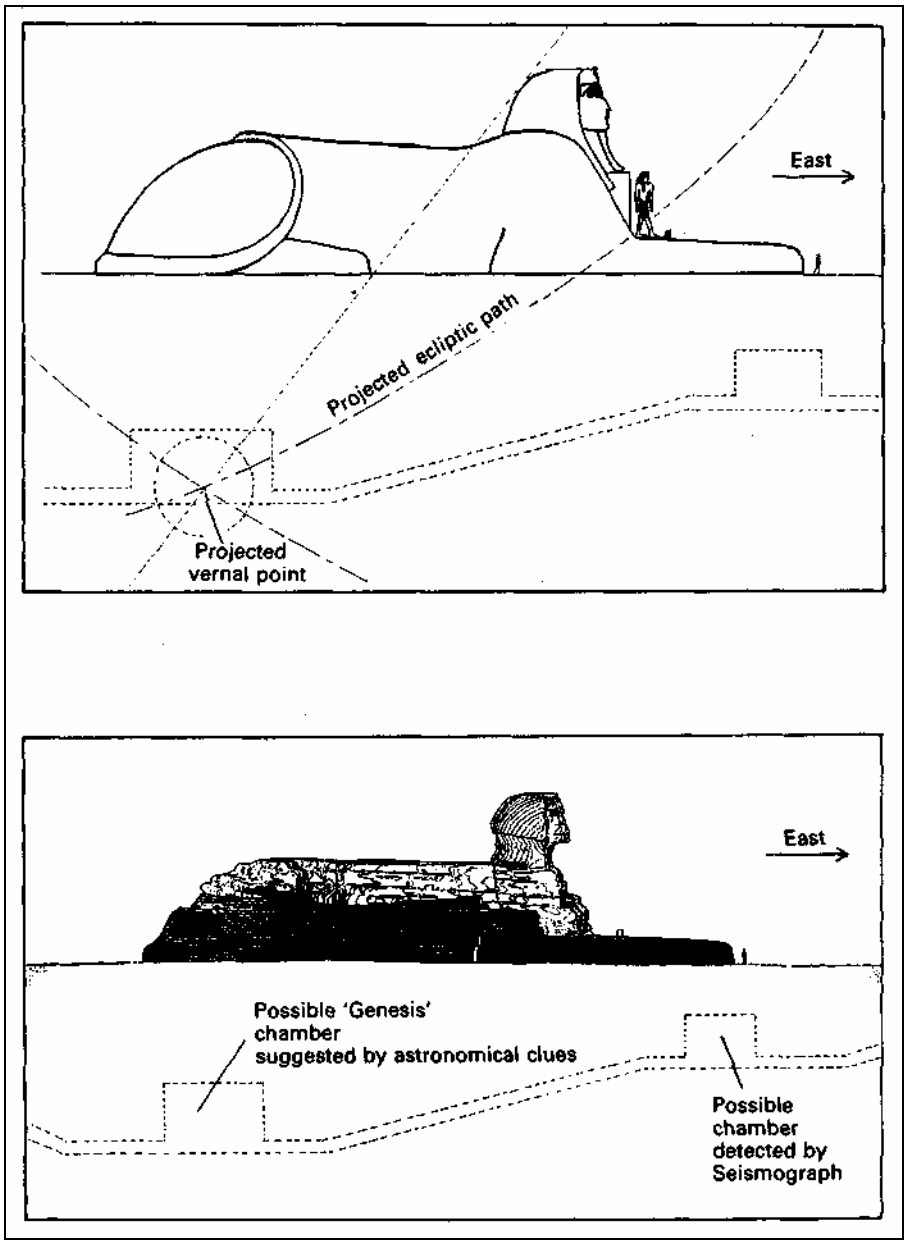

69. Possible locations of an underground system of passageways and chambers beneath the Great Sphinx suggested by astronomical correlations and by seismographic tests (see Part I of the present work).

If we have read the message of the 'Followers of Horus' right, then there is something of momentous importance there, waiting to be found—by seismic surveys, by drilling and excavations, in short by a rediscovery and exploration of the hidden corridors and chambers of the earthly 'Kingdom of Osiris'.

It could be the ultimate prize.

Conclusion

Return to the Beginning

'I stand before the masters who witnessed the genesis, who were the authors of their own forms, who walked the dark, circuitous passages of their own becoming ... I stand before the masters who witnessed the transformation of the body of a man into the body in spirit, who were witnesses to resurrection when the corpse of Osiris entered the mountain and the soul of Osiris walked out shining ... when he came forth from death, a shining thing, his face white with heat ... I stand before the masters who know the histories of the dead, who decide which tales to hear again, who judge the books of lives as either full or empty, who are themselves authors of truth. And they are Isis and Osiris, the divine intelligences. And when the story is written and the end is good and the soul of a man is perfected, with a shout they lift him into heaven ...'

Ancient Egyptian Book of the Dead (Normandi Ellis translation)

The dictionary tells us that, separately from its modern usage, the word 'glamour' has a traditional meaning roughly equivalent to 'magic spell' or 'charm', and is the Old Scottish variant of: 'grammar ... hence a magic spell, because occult practices were popularly associated with learning.'

Is it possible that men and women of great wisdom and learning cast a 'glamour' over the Giza necropolis at some point in the distant past? Were they the possessors of as yet unguessed-at secrets that they wished to hide here? And did they succeed in concealing those secrets almost in plain view? For thousands of years, in other words, has the ancient Egyptian royal cemetery at Giza veiled the presence of something else—something of vastly greater significance for the story of Mankind?

One thing we are sure of is that unlike the hundreds of Fourth-Dynasty *mastaba* tombs to the west of the Sphinx and clustered around the three great Pyramids, the Pyramids themselves were never designed to serve primarily as burial places. We do not rule out the possibility that the Pharaohs Khufu, Khafre and Menkaure may at one time have been buried within them—although there is no evidence for this—but we are now satisfied that the transcendent effort and skill that went into the construction of these awe-inspiring monuments was motivated by a

higher purpose.

We think that purpose was connected to the quest for eternal life wrapped up in a complete religious and spiritual system that the ancient Egyptians inherited from unknown predecessors and that they later codified in their eerie and other-worldly funerary and rebirth texts. We suggest, in short, that it was the goal of immortality, not just for one Pharaoh but for many, that the corridors and passages and hidden chambers and concealed gates and doorways of the Giza complex were ultimately designed to serve. Depicted in the *Book of What is in the Duat* as being filled with monsters, these narrow, claustrophobic, terrifying places, hemmed in on all sides by sheer stone walls, were in our view conceived as the ultimate testing ground for initiates. Here they would be forced to face and overcome their most horrible and debilitating fears. Here they would pass through unimaginable ordeals of the spirit and the mind. Here they would learn esoteric wisdom through acts of concentrated intelligence and will. Here they would be prepared, through practice and experience, for the moment of physical death and for the nightmares that would follow it, so that these transitions would not confuse or paralyse them—as they might other, unprepared, souls—and so that they might become 'equipped spirits' able to move as they wished through heaven and earth, 'unfailingly, and regularly and eternally'.[1]

Such was the lofty goal of the Horus-King's quest and the ancient Egyptians clearly believed that in order to attain it the initiate would have to participate in the discovery, the unveiling, the *revelation,* of something of momentous importance—something that would bestow wisdom, and knowledge of the 'First Time', and of the mysteries of the cosmos, and of Osiris, the Once and Future King.

We are therefore reminded of a Hermetic Text, written in Greek but compiled in Alexandria in Egypt some 2000 years ago, that is known as the *Kore Kosmu* (or *Virgin of the World*).[2] Like other such writings, this text speaks of Thoth, the ancient Egyptian wisdom-god, but refers to him by his Greek name, Hermes:

> Such was all-knowing Hermes, who saw all things, and seeing understood, and understanding had the power both to disclose and to give explanation. For what he knew, he graved on stone; yet though he graved them onto stone he hid them mostly ... The sacred symbols of the cosmic elements [he] hid away hard by the secrets of Osiris ... keeping sure silence, that every younger age of cosmic time might seek for them.[3]

The text then tells us that before he 'returned to Heaven' Hermes invoked a spell on the secret writings and knowledge that he had hidden:

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[1] From the Eleventh Division of the *Duat,* '*The Book of What is in the Duat'*, E. A. Wallis Budge trans., in *The Egyptian Heaven and Hell,* op. cit., p. 240.

[2] Translated as 'The Virgin of the World' by G. R. S. Mead in *Thrice Great Hermes: Studies in Hellenistic Theosophy and Gnosis,* op. cit., Book III, p. 59ff. Translated by Sir Walter Scott as the *Kore Kosmu* in *Hermetica,* op. cit., p. 457ff.

[3] 'The Virgin of the World', G. R. S. Mead trans., pp. 60-1.

> O holy books, who have been made by my immortal hands, by incorruption's magic spells ... free from decay throughout eternity remain, and incorrupt from time. Become unseeable, unfindable, for every one whose foot shall tread the plains of this land, until Old Heaven doth bring forth meet instruments for you ...[4]

What instruments might lead to the recovery of 'unseeable and unfindable' secrets concealed at Giza?

Our research has persuaded us that a scientific language of precessional time and allegorical astronomy was deliberately expressed in the principal monuments there and in the texts that relate to them. From quite an early stage in our investigation, we hoped that this language might shed new light on the enigmatic civilization of Egypt. We did not at first suspect, however, that it would also turn out to encode specific celestial coordinates or that these would transpose onto the ground in the form of an arcane 'treasure map', directing the attention of seekers to a precise location in the bedrock deep beneath the Sphinx.

Nor did we suspect, until we met them, that others such as the Edgar Cayce Foundation and the Stanford Research Institute—see Part II—might already be looking there.

Osiris breathes

Throughout this investigation we have tried to stick to the facts, even when the facts have been very strange.

When we say that the Sphinx, the three Great Pyramids, the causeways and other associated monuments of the Giza necropolis form a huge astronomical diagram we are simply reporting a fact. When we say that this diagram depicts the skies above Giza in 10,500 BC we are reporting a fact. When we say that the Sphinx bears erosion marks which indicate that it was carved before the Sahara became a desert we are reporting a fact. When we say that the ancient Egyptians attributed their civilization to 'the gods' and to the 'Followers of Horus' we are reporting facts. When we say that these divine and human civilizers were remembered as having come to the Nile Valley in *Zep Tepi*—the 'First Time'—we are reporting a fact. When we say that the ancient Egyptian records tell us this 'First Time' was an epoch in the remote past, thousands of years before the era of the Pharaohs, we are reporting a fact.

Our civilization has had the scientific wherewithal to get to grips with the many problems of the Giza necropolis for less than two centuries, and it is only in the last two decades that computer technology has made it possible for us to reconstruct the ancient skies and see the patterns and conjunctions that unfolded there. During this period access to the site, and knowledge about it, has been monopolized by members of the

[4] Ibid., p. 61.

archaeological and Egyptological professions who have agreed amongst themselves as to the origin, and age, and function of the monuments. New evidence which does not support this scholarly consensus, and which might actively undermine it, has again and again been overlooked, or sidelined, and sometimes even deliberately concealed from the public. This, we assume, is why everything to do with the shafts of the Great Pyramid—their stellar alignments, the iron plate, the relics, and the discovery of the 'door'—has met with such peculiar and inappropriate responses from Egyptologists and archaeologists. And we assume that it explains, too, why the same scholars have paid such scant attention to the solid case that geologists have made for the vast antiquity of the Sphinx.[5]

The Giza monuments are a legacy for Mankind, preserved almost intact over thousands of years, and, outside the privileged circles of Egyptology and archaeology, there is today a broad-based expectation that they might be about to reveal a remarkable secret. That expectation may or may not prove to be correct. Nevertheless in an intellectual culture polarized by public anticipation and orthodox reaction, we feel it is only wise that future explorations at the necropolis should be conducted with complete 'transparency' and accountability. In particular the opening of the 'door' inside the southern shaft of the Queen's Chamber, the videoscopic examination of the northern shaft, and any further remote-sensing and drilling surveys conducted around the Sphinx, should be carried out under the scrutiny of the international mass media and should not again be subjected to bizarre and inexplicable delays.

We cannot predict what new discoveries will be made by such research, or even whether any new discoveries will be made. However, after completing our own archaeoastronomical investigation, and following the quest of the Horus-King, we are left with an enhanced sense of the tremendous mystery of this amazing site—a sense that its true story has only just begun to be told. Looking at the awe-inspiring scale and precision of the monuments we feel, too, that the purpose of the ancient master-builders was sublime, and that they did indeed find a way to initiate those who would come after—thousands of years in the future—by making use of the universal language of the stars.

They found a way to send a message across the ages in a code so simple and so self-explanatory that it might rightly be described as an anti-cipher.

Perhaps the time has come to listen to that clear, compelling signal that beckons to us out of the darkness of prehistory. Perhaps the time has come to seek the buried treasure of our forgotten genesis and destiny:

> Stars fade like memory the instant before dawn. Low in the east the sun appears, golden as an opening eye. That which can be named must exist. That which is named can be written. That which is written shall be remembered.

[5] See Part I of the present work.

That which is remembered lives. In the land of Egypt Osiris breathes ...[6]

[6] The quotation is from the Normandi Ellis's translation of the *Ancient Egyptian Book of the Dead, Awakening Osiris,* Phanes Press, Grand Rapids, MI, 1988, p. 43, and is drawn from Chapter XV of the *Ancient Egyptian Book of the Dead,* Papyrus of Ani.

Appendix 1

The Scales of the World

'We three kings of Orion are;
Bearing gifts we traverse afar;
Field and fountain,
Moor and mountain,
Following yonder star.
Oh! Star of wonder, Star of might,
Star with royal beauty bright!
Westward leading,
Still proceeding,
Guide us to thy perfect light.
HE is the King of Glory.'

In her thesis on the astronomical content of ancient Egyptian funerary texts, Jane B. Sellers observes that Spell 17 of the *Book of the Dead,* which is drawn from extremely ancient sources, alludes in cosmic terms to the 'unification' or joining of the 'Two Lands':[1] 'Horus, son of Osiris and Isis ... was made ruler in the place of his father, Osiris, on that day the Two Lands were united. It means the union of the Two Lands at the burial of Osiris ...'[2]

Following this statement, Spell 17 also makes specific reference to the 'sun-god' and how he was not obstructed by the celestial river but rather 'passed on, having bathed in the Winding Waterway'.[3]

Sellers notes the conclusion of Yale astronomer-Egyptologist Virginia Lee Davis that the 'Winding Waterway' of the Pyramid Texts is to be equated with the Milky Way and that this feature of the sky 'divides' the cosmic landscape into two halves.[4] She then adds: 'I have contended that the joining of the two lands is a joining of sky to earth.'[5]

In fact, both Sellers and Davis arrive at the same conclusion, namely that the 'divider' of the celestial landscape is the Milky Way, and that which crosses it from one side to the other is the sun. Sellers also observes that the point of 'crossing' of the ecliptic path is near the V-shaped Hyades-Taurus constellation.[6]

If we seek to be precise about these matters we will discover that the

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[1] J. B. Sellers, *The Death of Gods in Ancient Egypt,* op. cit., p. 157-9.
[2] R. O. Faulkner, *The Book of the Dead,* op. cit., p. 49.
[3] Ibid.
[4] J. B. Sellers, *The Death of Gods,* op. cit., p. 97.
[5] Ibid., p. 159.
[6] Ibid., p. 97.

point of crossing is in fact a little further east along the ecliptic path, marking a spot on the western shore of the Milky Way where today is found the M1 nebula, also known as the Crab Nebula.[7]

Sellers, oddly, does not pursue the logical sequence of events in Spell 17, namely that the sun continues along its journey, reaches the 'other side' (i.e. the eastern side) of the Milky Way, and thence heads towards the constellation of Leo. Indeed, Spell 17 bids the solar 'Horus', i.e. the sun-disc, to 'run, run to this' location: 'How well built is your House, O Atum, how well founded is your mansion, O Double Lion ...'

Atum or Atum-Re, as was shown in *The Orion Mystery,* was originally venerated as a 'pillar' in Heliopolis which, as many researchers have concluded, was also seen as his 'phallus'.[8] A somewhat similar 'pillar', the so-called Djed pillar, was also associated with Osiris.[9] Bearing this in mind, Spell 17 makes a most telling statement: 'As for the Lion whose mouth is bright and whose head is shining, he is the Phallus of Osiris. Otherwise said, he is the Phallus of Re ...'[10]

Earlier in Spell 17 we are specifically informed that Atum is:

> ... in his sun-disc. Otherwise said he is Re when he rises in the eastern horizon of the sky.
>
> To me belongs yesterday, I know tomorrow.
>
> What does it mean? As for yesterday, that is Osiris. As for tomorrow, that is Re in which the foes of the Lord Of All were destroyed and Horus was made to rule. Otherwise said: That is the day of the 'We remain' festival, when the burial of Osiris was ordered by his father Re.
>
> The Battle-Ground of the gods was made in accordance with my command.
>
> What does it mean? It is the West. It was made for the souls of the gods in accordance with the command of Osiris, Lord of the Western Desert. Otherwise said: It means that this is the West, to which Re made every god descend and he fought for the Two [Lands] for it.
>
> I know that Great God who is in it.

---

[7] The M1 Crab Nebula is the remnant of a great supernova explosion which occurred in *c.* 4500 BC, roughly when the vernal point occupied this specific place in the sky. However, the supernova was about 5500 light-years away and its light only started reaching our planet in *c.* AD 1000. It was recorded by the Chinese and, apparently, by the North American Indians. No one seems to have recorded it in Europe or the Middle East, which is very odd, since Christians, at that time, fervently awaited a 'sign' from heaven to announce the 'Second Coming' of Christ.

[8] *The Orion Mystery,* op. cit., p. 200. See also Robert G. Bauval 'Investigation on the origin of the Benben Stone: was it an iron meteorite?' in *Discussions in Egyptology,* Vol. XIV, 1989, pp. 5-17.

[9] R. T. Rundle Clark, *Myth and Symbol in Ancient Egypt,* op. cit., p. 235.

[10] R. O. Faulkner, *The Book of the Dead,* op. cit., Spell 17.

Who is he? It is Osiris ...[11]

From this text we can see that a special 'land of the gods' was envisaged as having been established in the Western Desert at the time of the burial of Osiris—that is in the far-off epoch of the First Time. This was also the day on which Horus united the Two Lands and inherited this 'battle ground' or 'land of the gods'.

70. The Djed pillar of Osiris, flanked by Isis and Nepthys. Above it is the symbol of" the Horian sun-god, probably marking the meridian-transit of the solar disc.

We have seen in earlier chapters how the Memphite Theology in the

[11] Ibid.

Shabaka Texts nominates the area in which these 'unification' events took place as Ayan near Memphis.[12] Oddly, the process of 'the Unification of the Two Lands' is also referred to in these same sources as 'the Balance of the Two Lands, in which Upper and Lower Egypt have been weighed ...'[13]

In the present work we have brought forward additional evidence in support of Sellers's contention that the 'Two Lands' in question were indeed 'sky' and 'earth' and we have also shown that very specific parts of the sky and earth were meant—i.e. the 'Orion-Leo-Taurus' sky-region and the 'Giza-Heliopolis-Memphis' earth-region.

But how could these two sky-to-earth regions be 'balanced' and 'weighed'?

A state of perfect order

The point of 'balance' is defined on the ground as: '... Ayan, that was the division of the Two Lands ... in the name of the "White Wall" [Memphis] ...'[14]

We have seen how this terrestrial location corresponds to a point in the sky along the ecliptic path marking the spot on the western shore of the Milky Way where the M1 Crab Nebula is located.

A closer look at the Memphite Theology, however, reveals that while Ayan is envisaged as the pivot or 'balance point' of the Two Lands, the actual process of 'weighing' is described as taking place somewhere else—specifically in 'the land ... [of the] burial of Osiris in the House of Sokar ...'[15]

Since we have already demonstrated that 'the land of the House of Sokar' was Rostau, i.e. the Giza necropolis, we can conclude—by a simple transposition of sky-ground terminology—that the 'weighing' or 'balancing' of the land was somehow done at Giza, and most likely beside or within the Great Pyramid, the original 'House' of Sokar-Osiris.[16]

But why should the Great Pyramid have been seen as an 'instrument' by which the 'Two Lands'—sky and ground—could be 'balanced' at a specific

---

[12] See also Miriam Lichtheim, *Ancient Egyptian Literature;* op. cit., Vol. I, p. 53.

[13] Ibid.

[14] Ibid. The 'White Wall' probably refers to the Tura limestone walls of the royal palace and the boundary wall of Memphis.

[15] Ibid., p. 54.

[16] Most Egyptologists would contest this point, but we feel that the evidence is overwhelming in favour of a direct cultic connection between Osiris and the Great Pyramid. An interesting article touching upon this idea can be read in Steuart Campbell, 'The Origin and Purpose of the Pyramids' in the *New Humanist,* December 1990 issue, pp. 3-4, who wrote that 'the Great Pyramid might have been intended as a dwelling place for the spirit of Osiris'. The French Antiquarian and Freemason, Alexandre Lenoir (see 'A dissertation on the Pyramids of Egypt' in FMR No. 39, 1989) was also to claim that 'all considered it [the Great Pyramid] may be the tomb of Osiris'.

spot, i.e. at Ayan-Memphis?

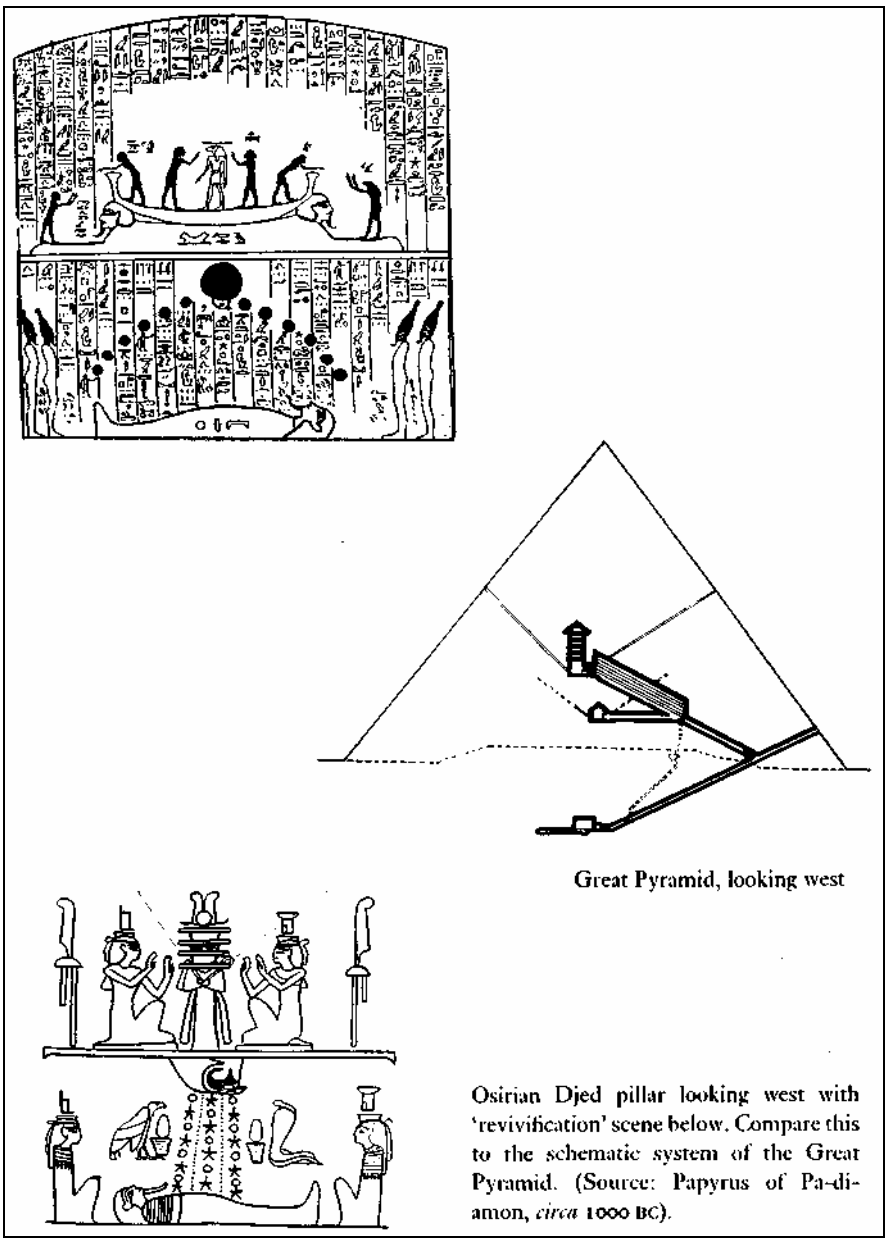

71. Sun-boat on the back of the double-lion hieroglyph for Aker. [Top] is a scene of revivification, showing the solar path from east to west. Note the hawk's head beneath the solar disk at the meridian.

We must remind ourselves that the chronology and context of the 'unification' events was set way back in the cosmic landscape of the 'First Time'. Let us, therefore, transfer the imagery that now confronts us back to the epoch 10,500 BC, and see how the supposed 'perfect balance' was achieved at the cosmic 'Ayan', i.e. at the location, marked by the M1 Crab Nebula that we have already identified on the ecliptic path.

The three great Pyramids of Giza, of course, become Orion's belt at the

meridian—with the Great Pyramid itself being represented by its specific celestial counterpart, *Al Nitak,* the lowest of the three belt stars.

The diagram reproduced on page 283 [#74] shows Orion's belt with *Al Nitak* at the meridian in 10,500 BC. At this precise moment, as we saw in Chapter 17, the vernal-equinox point lay due east, just below Leo. Meanwhile the 'opposed' autumnal equinox point lay precisely due west (just below Aquarius). In short, this was a time when the 'Two Skies'—one on each side of the Milky Way—were in perfect balance, perfectly divided, just as the texts describe.

Much suggests that the 'Followers of Horus' envisaged the ecliptic path of the sun arching like the huge beam of a scale across the visible sky. One end of this beam was marked by Leo at the vernal-equinox point, and the other by Aquarius at the autumnal-equinox point. So, when *Al Nitak* came to rest at the celestial meridian on the vernal equinox in 10,500 BC the sky could rightly be said to have been in a state of perfect order.

Maat

Cosmic Order, in the symbolic terminology of the ancient Egyptians, was known as *Maat.* The same word also means 'justice' and 'law'—for example the justice that was exercised by the 'council of gods' of Heliopolis when they judged in favour of Horus, after his conflict with Seth, and passed on to him the legacy of the Osirian throne.

The ancient Egyptian religious texts transmit details of one of the high rituals of the Osirian liturgy—the 'weighing of the soul' of the dead in the Great Judgement Hall of Osiris. This is a sort of archetypal 'Judgement of Solomon', with the weighing being done on the Great Scales *of Maat.*

The Papyrus of Ani in the British Museum provides us with a particularly vivid depiction of the Great Judgement Hall, and also of the Great Scales of *Maat.* These latter have a name—*Mekhaat*[17]—which means in other contexts 'the balance of the Earth'.[18]

[17] E. A. Wallis Budge, *An Egyptian Hieroglyphic Dictionary,* op. cit., Vol. I, p. 285b.
[18] Ibid.

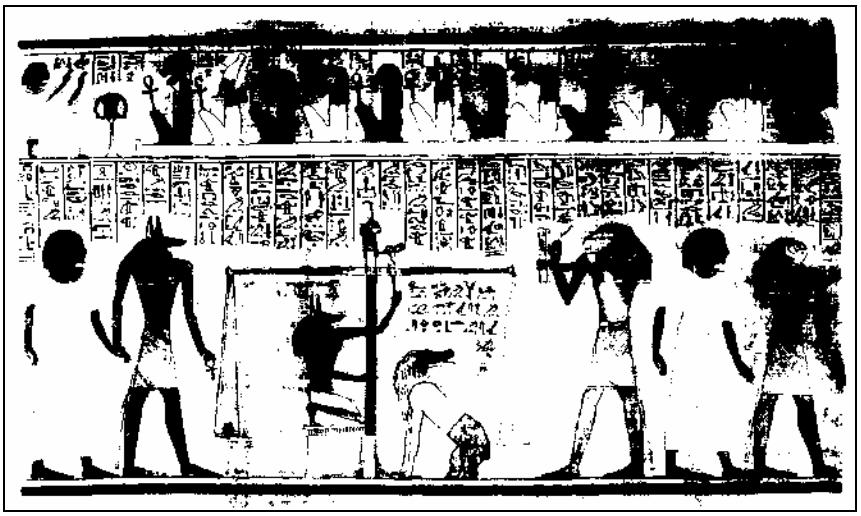

72. The Scales of *Maat*. (Source: British Museum papyrus 9901-3).

The hieroglyphic determinative sign for the verb 'to weigh' shows a triangle, or builder's 'square', with a plumb-bob suspended from the apex[19]—a sign which can also mean to 'balance the earth'.[20] The triangle distinctly recalls the profile or cross-section of a pyramid.

As we have seen in Part II of this book, a curious stone sphere, a length of wooden rod, and a bronze hook were found inside the Great Pyramid in 1872, sealed since the time of the construction of the monument in the shafts of the Queen's Chamber. Mr. Henry Williams Chisholm, the Head of the Standards Department of the Board of Trade in London, carefully examined these relics in the year of their discovery and concluded that the sphere was most probably a standard weight and that the rod and hook might also have had functions connected with weighing and measuring. He published these conclusions in the prestigious journal, *Nature,* on 26 December 1872.

Similar views were held by the Astronomer Royal of Scotland, Charles Piazzi Smyth, who also examined the relics in 1872.[21]

And a certain Mr. E. H. Pringle suggested in a letter to *Nature* that the stone sphere could have been a 'mason's plumb-bob' and that the 'bronze hook and the cedar rod may have formed part of the same tool'.[22]

A 'plumb-bob' of some sort must have been used to align the slopes of the shafts. And we have also seen how a 'plumb-bob' was used in the hieroglyphic sign meaning 'weighing' and, by extension, 'the balance'.

Perhaps the Great Pyramid—the terrestrial counterpart of the star *Al Nitak*—was seen as a weighing device or 'instrument' playing its part in some as yet unexplained attempt to restore the 'balance' or cosmic order of the world, i.e. *Maat,* as it was in the 'First Time'. Let us consider this

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[19] Ibid., Vol. II, pp. 6i4b, 6223, 688a.
[20] Ibid., p. 6143.
[21] Charles Piazzi Smyth, *Our Inheritance in the Great Pyramid,* Bell edition, 1990, p. 429.
[22] *Nature,* 31 July 1873.

possibility.

Juggling for balance

We saw in Chapter 3 that the Great Pyramid functions as a mathematical scale model of the northern hemisphere of the earth on a scale of 1:43,200.[23] By transposition and extension, therefore, it should be obvious that the monument can also serve as an architectural and mathematical representation of the northern hemisphere of the *sky*.[24]

Now if we look at a cross-section of the Great Pyramid, we notice that each of its two sets of 'star-shafts'—i.e. the northern and the southern in the King's and Queen's Chambers respectively—are theoretically intended to emerge at the same heights on the north and south faces of the monument. They appear to hang out like gigantic arms balancing, as it were, the whole geometrical scheme of the Pyramid. But there is something curious about the position of the two chambers from which these shafts emanate. The Queen's Chamber lies along the centre-line of the Pyramid. The King's Chamber, on the other hand, is offset somewhat to the south of the centre-line—almost as though the 'counterweight' on a huge set of scales had been slid to the left in order to achieve 'balance'.

The consequences of this curious architectural anomaly are as follows:

1. Queen's Chamber: the 'designed' average angle of the two shafts is 38 degrees 08', thus forming a right angle with the faces of the pyramid (51 degrees 52' + 38 degrees 08' = 90 degrees).[25]

2. King's Chamber: the 'designed' angle of the southern shaft is 45 degrees 00' and that of the northern shaft is 32 degrees 30'. This counteracts the effects of the offset of the chamber and restores the 'balance' of the general geometrical design.

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[23] The reader will also recall that 43,200 is 20 x 2160, the 'special' number denoting a precessional or zodiacal age. See Chapter 3 of the present work.

[24] This pertinent point was raised very recently by the eminent astronomer, Dr. Mary Bruck: 'Can the Great Pyramid be astronomically dated?' in *The Journal of the British Astronomical Society,* 105, 4, 1995, pp. 161-4.

[25] 25 See J. Legon, 'The air-shafts in the Great Pyramid' in *Discussions in Egyptology* 27, 1993, pp. 33-44. See Robin Cook, 'The stellar geometry of the Great Pyramid' in *Discussions in Egyptology* 29, 1994, pp. 29-36. Rudolf Gantenbrink, who remeasured the angles of the shafts recently, gave a higher 'adjusted' value of 39.6 degrees for the southern shaft of the Queen's Chamber. None the less, the 'designed' intention to have the shafts come out at the same level very much seems to be the case for the Great Pyramid.

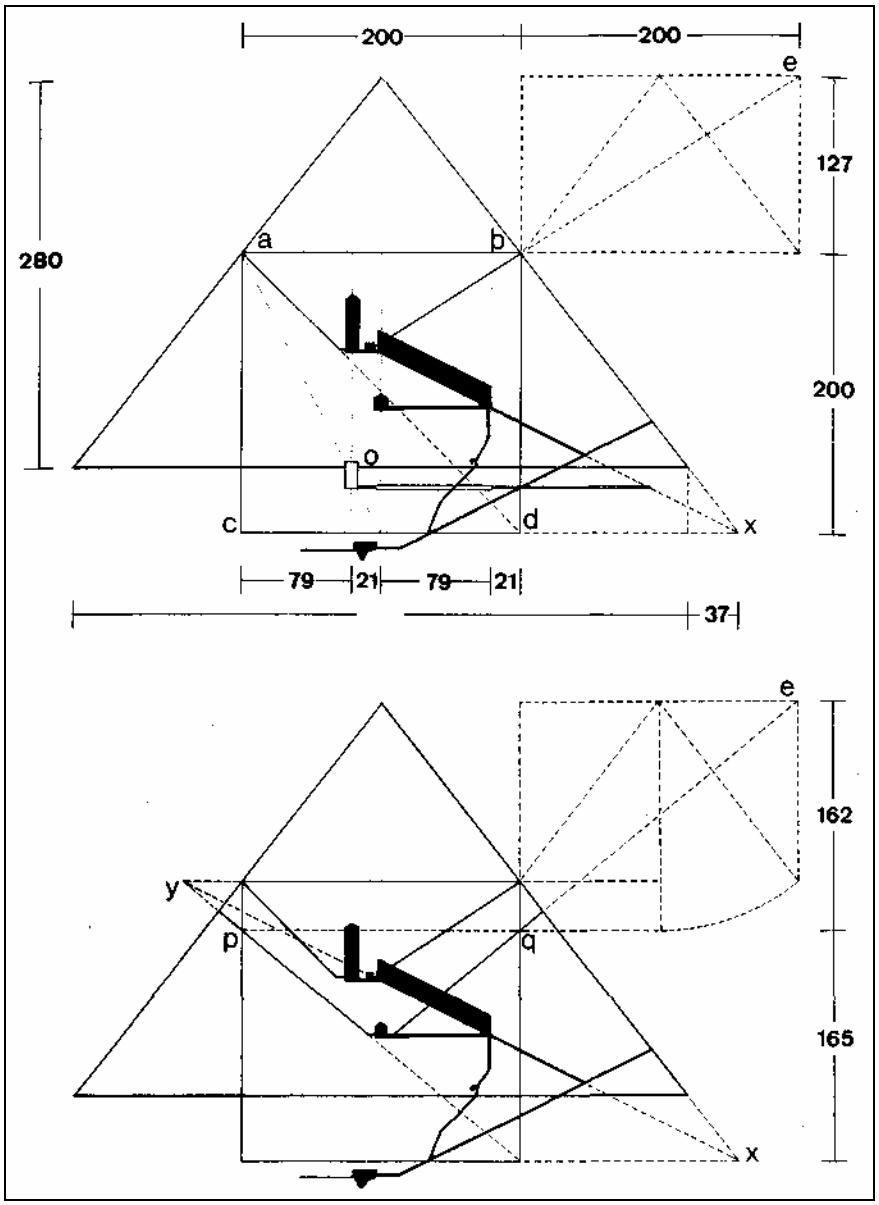

73. Cross-sections of the Great Pyramid showing the 'balancing' of the monument with the star-shafts.

The altitude of *Al Nitak* at the meridian in 2500 BC was 45 degrees—in line with the southern shaft of the King's Chamber. The reader will recall that the vernal point in this epoch was just over the Hyades-Taurus, whose terrestrial counterpart we have identified as the region of the Dahshur Pyramids.[26]

But let us see in what epoch *Al Nitak* would have crossed the meridian at 38 degrees 08' altitude—i.e. in alignment with the southern shaft of the *Queen's* Chamber?

Precessional calculations show that such an alignment would have

[26] *The Orion Mystery,* op. cit., pp. 222-3.

occurred in *circa* 3850 BC—a date that is extremely close to that favoured by many earlier Egyptologists for the epoch of the 'Unification' which was supposedly sealed at Ayan-Memphis.[27] It is therefore surely of interest to note that in 3850 BC the vernal point was positioned near the M1 Crab Nebula, the spot on the celestial landscape—and along the ecliptic path—that we have identified as the sky-counterpart of Ayan-Memphis.

Three Wise Men

In 10,500 BC the star *Al Nitak* in the belt of Orion was at the lowest altitude of its precessional cycle and Leo housed the vernal-equinox point. In our own epoch—the epoch of AD 2000—the other extreme of the curious 'balancing mechanism' of Giza is about to be reached: *Al Nitak* today stands within a few arc seconds of the highest altitude that it will attain in its precessional cycle and the vernal point is about to drift into the constellation of Aquarius. Between the 'First Time' and the 'Last Time', in other words, the skies have reversed themselves—literally flipped left to right—with Aquarius now marking the vernal equinox and Leo marking the autumnal equinox.

We wonder whether it is possible that the sages of Heliopolis, working at the dawn of history, could somehow have created an archetypal 'device', a device designed to trigger off messianic events across the 'Ages'—the Pyramid Age when the vernal point was in Taurus, for example, the Christic Age in Pisces,[28] and perhaps even a 'New Age' in Aquarius?

We note in this connection that in *circa* 330 BC, when the vernal point was beginning its precessional drift into the 'Age of Pisces', the altitude of *Al Nitak* (viewed from the latitude of Giza) was 51 degrees 52'—the angle of slope of the Great Pyramid. At this time the conquests of Alexander the Great (356-323 BC), and the resulting merger of the Eastern and Western worlds, triggered great expectations of a messianic 'Return' in the East. First at Alexandria, then across the Levant, a general agitation began, as if triggered by some prophetic 'device', which culminated in the great messianic events of Christianity.[29]

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[27] Ibid., p. 34.

[28] Hence the 'Fish' symbol amongst the early Christians, denoting the 'new age' of Christianity marked by the vernal equinox in Pisces. The vernal point is now poised to enter the new age of Aquarius.

[29] When Alexander the Great liberated Egypt from Persian rule, he was hailed by the Egyptian priests as a divine hero and the returned 'son of Ammon'—and by his Macedonian followers as 'son of Zeus'. Both titles stand, of course, for 'son of god'. After his death a 'cult of Alexander' was established in Alexandria which spread with almost messianic fervour across the Fertile Crescent. For the three centuries preluding the Christian era, Alexander (who had died at the age of thirty-three in 323 BC) was the archetype of the conquering martyred 'hero-king' and 'son of god' of quasi-solar pedigree who had unified the known world on the basis of a divine blueprint or mission.

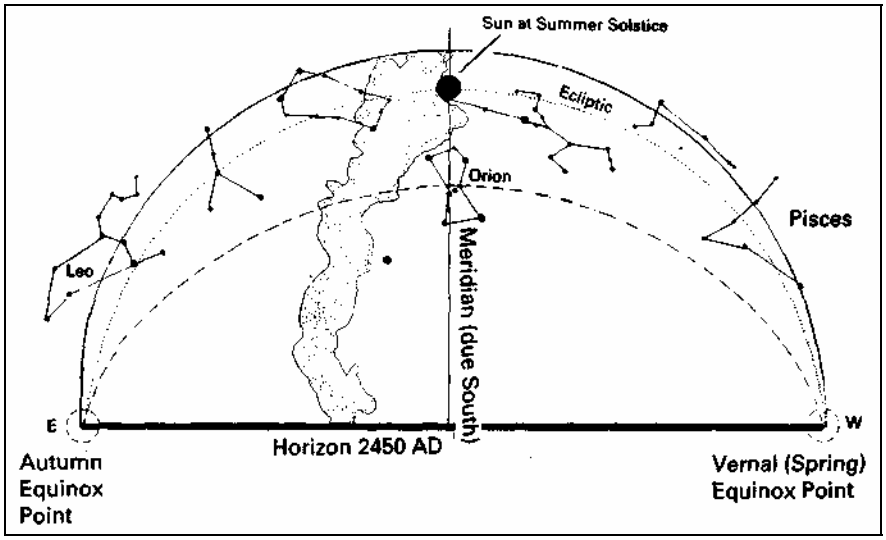

74a. The sky as will be seen in 2450 AD at the 'Last Time' of Orion. Note the vernal (spring) equinox in the west.

It was thus that, in the closing years of the last century BC, the whole Roman world, sickened by the endless civil and foreign wars, placed much hope for the return of a 'saviour-king' modelled on Alexander who would unite the empire and usher in a new golden age. This hope was very much pinned on Augustus Caesar (Octavian) by the Roman poet Virgil in *c.* 42 BC in his famous *Eclogues* ('see how Olympian Caesar's star has climbed the sky, the star to gladden all our corn with grain ... your children's children will enjoy the fruits ...'). In 12 BC Augustus Caesar was declared head of the Roman (thus 'world') religion and given the title of Pontifex Maximus—a title later to denote the Catholic pontiffs or 'Popes' of Rome. Ironically, in 4 BC—the assumed year that Christ was born—Augustus adopted Tiberius (second Emperor of Rome who ruled from AD 14 to AD 37, thus in the ministry of Jesus) and declared him his heir. Yet by the most unexpected twist of fate Virgil's prophecy was eventually to be fulfilled not by 'Divine Augustus' but by a Jewish 'saviour-king', the Christos or Christ, fostered four centuries later by Rome itself under the rule of Constantine the Great (see Ian Wilson, *Jesus, the Evidence,* Pan Books, London, 1984, pp. 134-44). It may well be that Virgil's 'star of Caesar' influenced the unknown author of the gospel of Matthew ('We have seen his star and come to pay him homage ...' Matthew 2:1-9) who used the astral prophesy for the birth of Jesus. Not unexpectedly, many of the great Italian Hermetic philosophers of the late Renaissance (Bruno, Pico della Mirandola, Campanella, etc.) often presented Virgil as a 'Gentile prophet' of Christianity and the 'Egyptian' Hermes Trismegistos (i.e. the Egyptian god Thoth) in par with the Old Testament prophet Moses (see Frances A. Yates, *Giordano Bruno,* op. cit.). Many of these Hermetic 'Cabala' philosophers adamantly believed that the 'Egyptian' astral magic as found in the ancient texts was the agency or 'device' for great world-changing events (ibid, et al.). It can be thus argued that in the first century of our era the scene was set in the collective subconscious by astrologer-prophets of old to bring about a messianic event. In our next book, we will explore how such powerful 'Hermetic devices' were activated throughout the ages and also, as the case may be, may be about to be galvanized in present times.

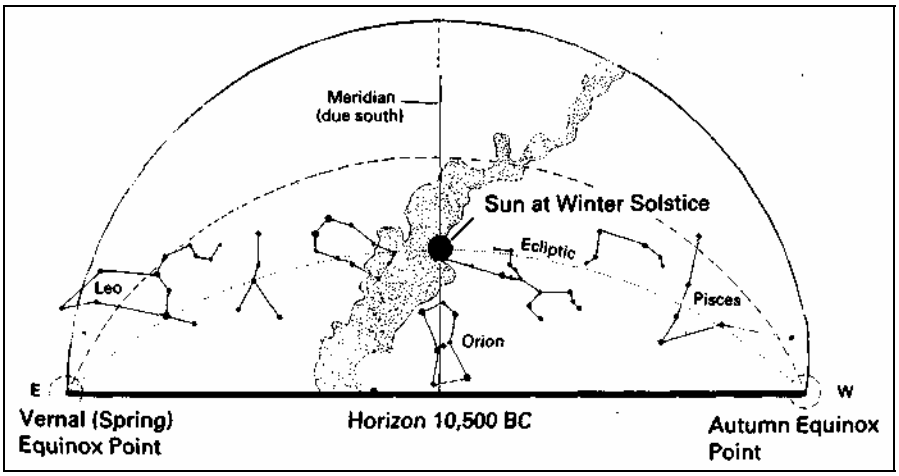

74b. The sky as was seen in 10,500 BC at the 'First Time' of Orion. Note the vernal (spring) equinox to the east.

The three stars of Orion's belt are depicted in the folklore of many countries as the heraldic 'Three Wise Men', or 'Kings', or 'Magi' from the East, who feature in the Christic nativity story.[30] Interestingly, as we saw in Part I, the star-worshipping Sabians of Harran—archetypal Magi—appear to have performed annual pilgrimages to Giza from at least as far back as the second millennium BC until as late as the eleventh century AD.[31] Interestingly, too, as seen from Harran—which is east of Bethlehem and at a higher latitude than Giza—the belt *star Al Nitak* would have culminated at the meridian at 51 degrees 52' in 4 BC, the generally accepted birth year of Christ. In that year also the 'birth star' Sirius would have risen and been brightly visible in the east as the sun set at dusk.[32]

Is there something—some ancient tradition, veiled, but still very much alive, that is subtly carrying blueprints and plans across the ages aimed at generating messianic fervour, and changing the course of history, at certain crucial moments which are 'written in the stars'?

And is such a moment now approaching?

Is the 'device' about to reactivate itself?

We shall return to these questions in our next book.

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[30] Richard H. Allen, *Star Names,* op. cit., p. 316.
[31] Selim Hassan, *Excavations at Giza,* op. cit., p. 45.
[32] Worked on Skyglobe 3.6.

Appendix 2

Correspondence with Mark Lehner Concerning Chapter 5

The Egyptologist Mark Lehner was sent the first draft of Chapter 5 of this book, a chapter that largely concerns himself. His comments and corrections were taken into account, and the draft was rewritten in the form that is published herewith. When Dr. Lehner was sent the revised draft he wrote us the following letter making further comments which we agreed to reproduce in full as an Appendix. Our own reply to Dr. Lehner's letter is also appended.

From: Mark Lehner
To: Mr. Robert G. Bauval and Mr. Graham Hancock
November 16, 1995

Dear Graham and Robert,

Thank you for your letter of 12 November 1995 and for the second draft of your Chapter 5, 'The Case of the Psychic, the Scholar And the Sphinx'(!). It appears to be much more accurate than the first draft concerning the events of which I was a part.

I have the following observations to make and corrections to suggest (again open to the public):

p. 86: 'his pronouncements … spawned multi-million dollar industry … embroiled … with mainstream Egyptological research … first learned about … when reviewing … Mark Lehner.'

Do you mean to convey that Cayce alone (without theosophy, anthroposophy, freemasonry, astrology, sacred metrology, channeling, UFO aficionados, and Shirley MacClaine) spawned a multi-million dollar industry that fed directly into my involvement with Egyptology? That would be a little absurd.

p. 92: 'The equipment for RSI's work … Immediately afterwards the project was stopped.'

This is still not quite right. The drilling equipment was tested and used elsewhere, for example, west of the Second Pyramid, before it was brought down for the two holes in the Sphinx Temple. The project was

not stopped immediately afterwards. RSI/SRI drilled two more holes in the southeast corner of the floor of the Sphinx and under the south forepaw of the Sphinx. Then the project kind of fizzled to an end because of the falling out between RSI and SRI and, as I remember, because the SRI team had been in Egypt for a couple of months or more and had other work.

p. 92: 'did not appreciate … led to … falling out between RSI and SRI.'

As I recall, although RSI did not appreciate particularly the Cayce involvement, the falling out between RSI and SRI was over fiduciary issues. Why don't you contact SRI and ask them?

p. 93: 'Adding to the intrigue … yet another project financed by the Edgar Cayce Foundation.'

You do want to hang on to that intrigue! No, this was not yet another project. The down-hole immersion acoustical sounding was done in the last days of SRI's fieldwork at the Sphinx in 1978, not 1982, not another project. I do not have, at present, a copy of this *Venture Inward* but if it says this is another project in 1982, it is wrong. All that I describe in the quote you excerpted happened the last few days of the 1978 project.

p. 93: 'a survey, as the reader will recall, … abrupt halt … Antiquities Organization.'

You seem inclined to see 'abrupt halts'. You should not cite me to verify this point because I was not at these events, but my impression is that Schoch, West, and Dobecki were not thwarted in their first season of work at the Sphinx. Permission for such work is granted or denied by a large committee of the Supreme Council for Antiquities (formerly Egyptian Antiquities Organization).

p. 94: 'Pulling Away. When, exactly, Professor Lehner began to pull away from the influence of the Edgar Cayce Foundation and crossed over into the mainstream of professional Egyptology and its orthodoxy is not especially clear.'

Are you suggesting, based on your own understanding of how belief systems operate, that there are definite lines where 'now you believe' and 'now you don't'? You seem particularly interested in this question. The way you frame it reminds me of the US Congressional hearings on the Watergate cover-up conspiracy: 'What did the President know, and when did he know it?' 'What did Lehner believe, and when did he not believe it?!'

Let me offer some biography to use if you so choose.

I already had doubts when I went to Egypt in 1973, since Cayce's ancient history did not agree much with anthropology courses I took at the University of North Dakota. But as I indicated in my last letter, I did indeed have hopes that evidence could be found of past events bearing some agreement with Cayce's story.

During my two years at the American University in Cairo I majored in anthropology, and took my first courses in Egyptian archaeology and prehistory. I also spent most of my free time at Giza, and I visited other ancient sites and archaeological projects. I did not find 'footprints of the gods'. By becoming acquainted with a vast amount of previous archaeological research with which the Cayce community and like-minded Egypt-enthusiasts are only minimally familiar, I found the 'footprints' of people—their tool marks, names, family relationships, skeletons, and material culture.

In 1974 I read social psychologist Leon Festinger's work on 'cognitive dissonance', in particular his book, *When Prophecy Fails.* Festinger deals with people reacting to conflict between a *revealed* belief system and empirically derived information, that is, physical evidence. In his work, I recognized many attributes of the Cayce worldview, my own belief, and my growing doubts.

When I returned to Virginia Beach I would outline in lectures and conversations the real achaeological evidence surrounding the Sphinx and the Pyramids and its conflict with the Cayce picture of Egypt. I spoke to my good friends and supporters, like Hugh Lynn and Joseph Jahoda (are your two unnamed ARE men supposed to remain as mysterious as 'The Scholar'?), about my doubts, and how the Cayce community and belief system fits many aspects discussed by Festinger and other social scientists.

In these talks I began to suggest to the Cayce community that they look at the Egypt/Atlantis story as a myth in the sense that Joseph Campbell popularized, or that Carl Jung drew upon in his psychology of archetypes. Although the myth is not *literally true,* it may in some way be literarily *true.* The Cayce 'readings' themselves say, in their own way, that the inner world of symbols and archetypes is more 'real' than the particulars of the physical world. I compared Cayce's Hall of Records to the Wizard of Oz. Yes, we all want the 'sound and fury' and powerful wizardry to be real, without having to pay attention to the little man behind the curtain (ourselves). In archaeology, many dilettantes and New Agers want to be on the trail of a lost civilization, aliens, yes, 'the gods', without having to pay attention to the real people behind time's curtain and without having to deal with the difficult subject matter upon which so-called 'orthodox' scholars base their views.

(An aside: So a John West can blast Egyptologists for suppressing the sacred science inherent in Egyptian culture without being able to read Egyptian language—a little like saying one knows Shakespeare's real

meaning without reading English. Another pyramid theorist said, in an animated dinner conversation, 'Where's the evidence? The pyramid stands out there with no evidence of how the ancient Egyptians could have built it.' I ticked off four Egyptological titles—all in English—devoted to ancient Egyptian tools, technology, stone building, and materials and industries. Although he had published a widely acclaimed book with a new theory on the pyramids, he admitted to not having read a single one of these basic works. It would be so much more fun and challenging if such theorists did actually read and absorb such primary sources, and then launched the dialogue.)

These ideas were on my mind as I joined my first 'mainstream' excavation in 1976. They are reflected in my statement that the Hall of Records is worth looking for, but not in a tangible way. You know, like the Holy Grail.

In 1977-78 I had the opportunity not only to work with the SRI project at Giza, but also to work with Zahi Hawass in excavations of ancient deposits neglected by earlier archaeologists in the northeast corner of the Sphinx floor—just beside the north forepaw, and on the floor of the Sphinx Temple. We recovered pottery, parts of stone tools, and other material directly on the floor, filling deep crevasses and nooks and crannies—material in contexts that only make sense as left by the Old Kingdom Sphinx and pyramid builders.

Such findings, and the negative results of the SRI project, sealed it for me. That is, I knew there was an extremely low probability that Cayce's story of Egypt and the Giza monuments (and his ancient 'history' involving Atlantis, etc.) reflected real events.

My interest in the Cayce-like genre of literature as having anything to do with the archaeological record was gone, although I am still interested in this genre as a social and literary phenomenon. My encounters with bedrock reality were far more fascinating. I was excited by the process of reconstructing the past from empirical evidence. I put aside my interest in the dynamics of beliefs, and in general questions of philosophy and religion, as I spent the next decade doing archaeological fieldwork for projects at various places in Egypt. At Giza, my interest and research was no longer premised on Cayce or any similar point of view. In 1982 I carried out the research and writing for an Egyptological monograph on the tomb of Hetepheres (published in 1985 by the German Archaeological Institute). Cayce ideas had nothing to do with this work.

Meanwhile Hugh Lynn Cayce (until he died), Charles Thomas Cayce and other members of the Cayce community remained very close friends. Some (but not all) were still interested in contributing to research at Giza. Their support of the Pyramids Radiocarbon Dating Project was a way to do something useful for the archaeology of the pyramids, as well as to *test* their ideas about the origin and date of the Great Pyramid and Sphinx.

I remember a very personal moment in 1983 when I was working for an expedition at Abydos, the cult center of Osiris in Upper Egypt. The tombs of Egypt's earliest pharaohs were sunk into a spur of low desert far to the west of the cultivation, near the base of the great cleft in the high cliffs, probably seen by the ancients as symbolizing the entrance to the Netherworld. Many centuries later, one of the tombs of a real man who ruled as one of the First Dynasty kings was outfitted as the Tomb of Osiris. Over subsequent centuries hundreds of pilgrims left pottery offerings, resulting in mounds of millions of shards that masked the site, prompting its Arabic name, Umm el-Qa-ab, 'Mother of Pots'. One evening near sunset I walked from the dig house to Umm el-Qa-ab. I stood on the mounds above these tombs and wondered if the ancient pilgrims really believed the god Osiris himself was buried here, and if 'those who sit near the temple' (as a Zen proverb would say)—the local priests—knew they had simply outfitted one of the First Dynasty tombs of a pharaoh to 'symbolize' the burial of Osiris. I thought of my own pilgrimage that brought me to Egypt in the first place, and the myth of the Hall of Records. I realized that this was part of a world view that had moved far away from me, like a chunk of ice that had separated from a continent and was now melting in a distant sea.

Sorry to be so long-winded. But Graham, I agree with your statement in your last letter that readers should be in possession of the facts to evaluate the opinions of academic authorities.

Sincerely,

Mark Lehner

PS Details: It probably does not matter much for a popular readership, but the difference between an Assistant Professor—my title at the Oriental Institute—and Professor is significant in the tenure-track world. I resigned my fulltime post, but I am still a Visiting Assistant Professor at the University of Chicago and Oriental Institute, I return every other year to teach.

cc: Bruce Ludwig
Douglas Rawls

To: Mark Lehner
From: Graham Hancock

8 December 1995

Dear Mark,

Thank you for your further letter of 16 November 1995 in response to our revised draft of Chapter 5. We greatly appreciate your openness.

If you have no objections, we propose to publish the revised draft of Chapter 5 as you have seen it and to publish your 16 November 1995 letter in full as an appendix to our book. We consider this to be a fair and reasonable way to present the whole matter to the public. If we don't hear back from you in the next couple of weeks we will assume this is OK with you.

Merry Christmas and a happy New Year!

Warm best wishes,

Graham Hancock

PS We remember one Egyptological title (not four) that you 'ticked off' during a certain 'animated dinner conversation'. The one title was Clarke and Engelbach's *Ancient Egyptian Construction and Architecture.* We've both read it since and weren't overly impressed. Robert Bauval, as you know, is a construction engineer by training and spent twenty years actually *building* enormous buildings in the Middle East. In my opinion—Clarke and Engelbach notwithstanding—this gives him a rather good basis from which to engage in 'fun and challenging' dialogue about the construction logistics of the Great Pyramid. There's no substitute for real experience no matter how many 'primary sources' we 'read and absorb'. (And by the way, in what sense are Clarke and Engelbach a primary source? Were they present when the Pyramid was built? Did they build it?)

Appendix 3

Harnessing Time with the Stars: The Hermetic Axiom 'As Above So Below' and the Horizon of Giza

An observer at Giza, as anywhere else on the globe where the horizontal view is not obstructed, will perceive the landscape as a huge circle whose edge is the horizon with himself at the centre—hence the term 'Horizon' used by the ancients when referring to the Giza necropolis. Making apparent contact with the horizon is the *celestial landscape,* the latter perceived as a huge circular dome or hemisphere.

The 'below', earth-landscape, is steadfast. The 'above', sky-landscape, however, appears to rotate in perpetual motion around an imaginary axis which passes through the two poles of the earth and extends to the 'celestial poles' in the sky. The apparent rotation of the sky makes the celestial orbs—the stars, the sun, the moon and the planets—rise in the east, culminate at the meridian (an imaginary loop running due north-south directly over the observer's head) and set in the west.

Observations of sunrise through the year will fix four distinct points, sometimes called the colures, on the ecliptic path of the sun around the twelve zodiacal constellations. These are the two equinoxes (spring and autumn), and the two solstices (summer and winter). Today these take place in the following zodiacal signs:

1. Spring equinox (21 March) with the sun in Pisces.
2. Summer solstice (21 June) with the sun in Taurus.
3. Autumn equinox (22 September) with the sun in Virgo.
4. Winter solstice (21 December) with the sun in Sagittarius.

The table below shows in which zodiacal signs the four 'colures' fell for a variety of different epochs:

EPOCH	10,000 BC	5000 BC	3000 BC	1000 BC	2500 AD
S. Equinox	Leo	Gemini	Taurus	Aries	Aquarius
S. Solstice	Scorpio	Virgo	Leo	Cancer	Taurus
A. Equinox	Aquarius	Sagittarius	Scorpio	Libra	Leo
W. Solstice	Taurus	Pisces	Aquarius	Capricorn	Scorpio

Strictly speaking, the term 'colures' denotes the two great circles of the

celestial sphere which are at right angles to each other, pass through the poles and intersect the two equinox points and the two solstice points respectively.

The diurnal or daily apparent motion of the sun is from east to west. The annual or yearly apparent motion is much slower from west to east against the background of the starry landscape through a path known as the ecliptic, or zodiacal circle (containing the twelve zodiacal signs). Also because of the phenomenon of the precession of the equinoxes, the four points on the colures (the two equinoxes and the two solstices) will appear to drift westwards at the very slow rate of 50.3 arc-seconds per year (a full circuit in approximately 25, 920 years).

These apparent cyclical motions of the sky are, of course, caused not by the sky itself moving but by the earth's own spin on its axis in one day, its orbital revolution around the sun in one year, and its slow wobble-like motion in one Great Year (of 25,920 'solar' years). As we have already said, the most noticeable effect of the latter is that the four points on the colures which mark the two equinoxes and the two solstices on the ecliptic, will drift in clockwise direction along the great ecliptic or 'zodiacal' circle.

Every day there is a moment when these four points on the colures find themselves in precise alignment with the four cardinal points of the terrestrial globe defined by the directions due east, due south, due west and due north on the circle of the horizon. This is when it can be said that the sky and earth are a 'reflection' of each other. In archaic terminology, this is when the 'Hermetic' axiom of 'as above so below' can be most faithfully expressed.

At this exact moment the colure containing the two solstice points will be looping above the head of the observer from north to south, and thus becomes the prime meridian of the observer. The colure which contains the two equinox points will loop from east to west and will intersect the horizon at due east to due west, and thus define the parallel of the observer. Again, using archaic terminology, this is when the observer is at the 'centre of the visible universe'.

A simple yet quite precise way of knowing when this idealistic 'as above so below' conjunction takes place is to make use of a bright star that sits on the colure containing the two solstice points. The choice of a bright star on the colure as near to the winter solstice point as possible, will permit the observer to lock the sky in the most favourable condition possible: the precise moment of the rising of the vernal (spring) point in the east. This is simply achieved by waiting for the star in question to transit the south meridian. When this happens, the winter solstice point is due south, and all the other colures lock to the remaining cardinal directions.

The effect of the precession of the vernal point, however, will cause the chosen star to change position with time. After a century or so the star

can no longer be used.

The Great Pyramid is often said to be perfectly set to the four cardinal points. What seems more likely, as we shall see, is that it is set perfectly to the four colure points when they transit the cardinal directions. The setting-out of the Pyramid, therefore, is not merely directional but also, and perhaps more especially, dependent on 'time'.

In 1934 the French astronomer E.M. Antoniadi correctly noted that the 'astronomical character of the pyramids (of Giza) is established by the following facts:

1. They are almost exactly, and intentionally, on the thirtieth parallel of the latitude North.

2. They are marvellously orientated on the cardinal points.

3. Their inclined passageways were, with their closing, colossal meridian instruments, by far the largest ever constructed.'[1]

These confirmed facts, and also the fact that the Great Pyramid is a near-perfect mathematical model of the celestial dome or hemisphere, make this monument a material and earthly representation of the sky-landscape. When linked to a specific star, however, the element of 'time' is introduced into the equation.

We recall that the ancient builders fixed the main north-south axis of the Great Pyramid to the south meridian transit of the bright star Alnitak, the lowest of the three stars in Orion's belt. We also recall that the general layout of the three Pyramids of Giza is at 45 degrees to the meridian axis and that this peculiarity, in turn, is reflected in the sky-image of the three stars in Orion's belt as they appeared in *c.* 10,500 BC. This was no arbitrary date, however, because it denoted the lowest point or 'First Time' in the precessional cycle of Orion. To the ancients, Orion was 'Osiris', and the latter, too, had a 'First Time' or genesis.

Computer reconstructions of the ancient skies of 10,500 BC show that the star Alnitak was located precisely on the colure containing the two solstice points, and nearer to the winter solstice. If an observer was there to 'lock' the perfect 'as above so below' condition in 10,500 BC, the image of the sky containing the star Alnitak would convert into a 'hologram' on the ground precisely in the manner we find at Giza today. That such a perfect sky-to-earth correlation cannot be the result of some incredible 'coincidence' is confirmed by the equinoctial rising of Leo, which took place in precisely the same epoch of 10,500 BC and precisely when the star Alnitak transited the south meridian. This brought the vernal (spring) equinox point in perfect alignment with the Great Sphinx, the terrestrial counterpart of the image of Leo. The conclusion thus seems inevitable: the ancients appear to have established a global prime-

[1] E.M. Antoniadi, *L'Astronomie Egyptienne.* Paris, 1934, p. 119.

meridian at Giza locked into the time frame of 10,500 BC.

All this implies, however, that the ancients were somehow attempting to 'navigate' not only in distance ('space') but also in 'time'. What did they have in mind? How can 'time' be navigated?

Hypothetically at least, a time-related apparatus locked into the colures of 10,500 BC would present the 'reincarnated' Horus-King with a subliminal landscape or 'magical theatre', at the height of his extensive initiation, to work out intuitively how far in time his 'soul' had travelled from its point of genesis. In Parts III and IV of this book we have shown how the Horus-King may have used the phenomenon of the precession of the equinoxes to perform such a task by inducing his mind to undertake a journey or quest to find his 'ancestors' using the subliminal architectural setting or 'cosmic ambiance' of Giza as some sort of 'star-memory' device. Today we use a computer to re-create the ancient skies on a television monitor. We are suggesting that the Horus-King initiate could perform this task intuitively with the 'computer' of his mind and the 'monitor' of his inner perception. This conclusion does not present a problem to us. We have found that by fully familiarizing ourselves with the apparent motions of the skies and by constantly reconstructing ancient skies with the aid of computers, images, coordinates and epochs subliminally enter the mind and become logged in the memory. We have discovered for ourselves that these 'files' are easily retrieved at will without the mechanistic aid of the computer. Hypothetically then, with such 'star-memory' logged in the mind, should we suddenly find ourselves flung into a future 'time zone', say AD 6000, we could relatively easily 'work out' how far ahead in time we had moved.

By extension of such rhetoric, therefore, it could be said that the function of the Giza blueprint is to provide a virtually indestructible 'holographic' apparatus for the use of 'reincarnated' or 'reborn' entities of the Horian lineage in order to induce 'remembrance' of a 'divine' genetic origin in Egypt in the time-frame of 10,500 BC. The ultimate function, however, appears to have been to perpetuate the 'immortality' of their souls into 'time'—in short, the ultimate *gnostic* experience entailing the release of the spiritual part of the living entity from its material, inert, part. To put it in other terms, 'living' man is the result of a holographic union between matter and spirit. It would very much appear that the 'Followers of Horus' understood the cosmic mechanism to somehow re-separate the two.

Such questions, we are well aware, lead us into the misty realm of metaphysics, extrasensory perception and psychic thinking from which we have tried to steer clear. Nonetheless, we must respond to our intuitive feeling that a form of metaphysical thinking very much like this was used by those mysterious 'Followers of Horus' who set their initiatory and 'astronomical' academy at Heliopolis—and whose genius resulted in the construction of the amazing 'holographic' star/stone (spirit/matter)

apparatus of Giza. All references in the ancient texts to this mysterious brotherhood suggest that we are dealing not with 'priests' but with high adepts who fully understood the working of the human psyche and the subliminal techniques needed to evoke 'remote memory' through deep-felt inner perceptions of 'time'. The esoteric teachings and initiations into such cosmic mysteries using the skies are certainly not prosaic ones, as Egyptologists maintain, to develop and refine calendrical systems for 'land irrigation' and 'religious ceremonies', but far more subtle: somehow to reach and harness the extrasensory capabilities of the human mind in order to link up to the invisible and immaterial, yet very perceptible, 'flux of time'.

The questions, for those looking for 'scientific' explanations, can be formulated in another way: Do we humans carry 'remote memory files' locked in our genes? And if so, can it not be possible that such 'files' could be retrieved by using the correct subliminal keys?

More provocative still: is our 'consciousness' umbilically linked to 'time' such that it merely passes through biological matter, ourselves, like a thread passing through pearls and stones?

It has long been appreciated by students of intellectual history that monumental architecture and archetypal images can serve as powerful subliminal devices to evoke dormant 'memory' in the minds of those who are made receptive through initiation. The murals and panels of gothic cathedrals or the painted ceilings such as those in the Sistine Chapel are but obvious examples of such powerful mind-games—aptly called 'silent poetry' by the fourth-century BC poet, Simonides of Ceos. These ancient memory-aids, and the techniques refined for using them, which are loosely termed 'mnemotechnics' today, were the subject of a major thesis by Dame Frances A. Yates in 1966 entitled *The Art of Memory.* In this book Yates shows that powerful cerebral techniques were taught in ancient Greece which were rooted in the so-called 'Egyptian hermetic tradition'.[2] Recently, the author Murry Hope, in a thesis entitled *Time the Ultimate Energy,* tackled the complex subject of 'time travel' as a form of energy, and suggested that pre-dynastic Egyptian adepts may have understood and harnessed 'time' through a yet-to-be discovered ability to break away from the confines of biological 'time' and into another mental realm of time-perception. Murry Hope termed this realm 'Outer Time'. Likewise, in another recent study, *From Atlantis to the Sphinx,* the author and philosopher Colin Wilson boldly proposes that the ancients may have cultivated powerful extrasensory capabilities through 'a different knowledge system' based on intuitive thinking (as opposed to rationalistic or 'solar' thinking) in order to enter higher states of consciousness. Such higher consciousness might have been the key into altered perceptions of 'time'.

That such untapped abilities to perceive dilated time-fields might be an

[2] Frances A. Yates, *The Art Of Memory,* University of Chicago Press, 1966.

intrinsic part of human mental machinery was very seriously investigated by one of America's most prestigious scientific foundations, the Stanford Research Institute in California—better known as SRI International. In 1972 SRI International was recruited as main consultant for the so-called remote viewing programmes run by the CIA and other government agencies including the US navy, the US army and the US Defense Intelligence Agency (DIA). These programmes were managed by a highly respected physicist, Dr. Hal Puthoff, who sought out and employed renowned psychics (called 'remote viewers' in SRI jargon) to 'locate' enemy military targets and installations using extrasensory capabilities.

The reader will recall that SRI International (which has been described as 'America's second largest think-tank') was also, in 1973, involved in high-tech archaeological projects in Egypt and, at least on one occasion, worked in participation with the Edgar Cayce Foundation (ECF) in a series of remote sensing projects at Giza (see Chapter 5).

Many 'remote viewers' involved in the remote viewing programmes, such as the psychic Ingo Swann and Nel Riley, the latter a sergeant in the US army, openly claimed to have the inner abilities to undertake a form of 'time travel' into any remote locations on the globe. Such claims are in many ways reminiscent of those made by the Edgar Cayce adepts who maintain that, when in an altered state of consciousness such as deep trance or hypnosis, they can 'remember' past lives, i.e. 'time travel' mentally to remote locations. Cayce himself, who is dubbed America's best-known medium and psychic, claimed to have had a previous life in Egypt in 10,500 BC—a claim which at one time, as we have seen in Chapter 5, was considered worthy of investigation by Egyptologist Mark Lehner in the early 1970s within the framework of his scientific research at Giza.

Appendix 4

Carbon-dating the Great Pyramid: Implications of a little-known Study

The evidence presented in this book concerning the origins and antiquity of the monuments of the Giza necropolis suggests that the genesis and original planning and layout of the site may be dated, using the tools of modern computer-aided archaeoastronomy, to the epoch of 10,500 BC. We have also argued, on the basis of a combination of geological, architectural and archaeoastronomical indicators, that the Great Sphinx, its associated megalithic 'temples', and at least the lower courses of the so-called 'Pyramid of Khafre', may in fact have been built at that exceedingly remote date.

It is important to note that we do not date the construction of the Great Pyramid to 10,500 BC. On the contrary, we point out that its internal astronomical alignments—the star-shafts of the King's and Queen's Chambers—are consistent with a *completion* date during ancient Egypt's 'Old Kingdom', somewhere around 2500 BC. Such a date should, in itself, be uncontroversial since it in no way contradicts the scholarly consensus that the monument was built by Khufu, the second Pharaoh of the Fourth Dynasty, who ruled from 2551-2528 BC.[1] What places our theory in sharp contradiction to the orthodox view, however, is our suggestion that the mysterious structures of the Giza necropolis may all be the result of an enormously long-drawn-out period of architectural elaboration and development—a period that had its genesis in 10,500 BC, that came to an end with the completion of the Great Pyramid come 8000 years later in 2500 BC, and that was guided throughout by a unified master-plan.

According to orthodox Egyptologists, the Great Pyramid is the result of only just over 100 years of architectural development, beginning with the construction of the step-pyramid of Zoser at Saqqara not earlier than 2630 BC, passing through a number of 'experimental' models of true Pyramids (one at Meidum and at two Dashour, all attributed to Khufu's father Sneferu) and leading inexorably to the technological mastery of the Great Pyramid not earlier than 2551 BC (the date of Khufu's own ascension to the throne). An evolutionary 'sequence' in pyramid-construction thus lies at the heart of the orthodox Egyptological theory—a sequence in which the Great Pyramid is seen as having evolved from

[1] E.g. John Baines and Jaromir Malek, *Atlas of Ancient Egypt,* Time-Life Books, 1990, p. 36, 156ff.

(and thus having been preceded by) the four earlier pyramids.[2]

But suppose those four pyramids were proved to be not earlier but *later* structures? Suppose, for example, that objective and unambiguous archaeological evidence were to emerge—say, reliable carbon-dated samples—which indicated that work on the Great Pyramid had in fact begun some 1300 years *before* the birth of Khufu and that the monument had stood substantially complete some 300 years before his accession to the throne? Such evidence, if it existed, would render obsolete the orthodox Egyptological theory about the origins, function and dating of the Great Pyramid since it would destroy the Saqqara→ Meidum→ Dashour→ Giza 'sequence' by making the technologically-advanced Great Pyramid far older than its supposed oldest 'ancestor', the far more rudimentary step-pyramid of Zoser. With the sequence no longer valid, it would then be even more difficult than it, is at present for scholars to explain the immense architectural competence and precision of the Great Pyramid (since it defies reason to suppose that such advanced and sophisticated work could have been undertaken by builders with no prior knowledge of monumental architecture).

Curiously, objective evidence *does* exist which casts serious doubt on the orthodox archaeological sequence. This evidence was procured and published in 1986 by the Pyramids Carbon-dating Project, directed by Mark Lehner (and referred to in passing in his correspondence with us, see Appendix III above). With funding from the Edgar Cayce Foundation, Lehner collected fifteen samples of ancient mortar from the masonry of the Great Pyramid. These samples of mortar were chosen because they contained fragments of organic material which, unlike natural stone, would be susceptible to carbon-dating. Two of the samples were tested in the Radiocarbon Laboratory of the Southern Methodist University in Dallas Texas and the other thirteen were taken to laboratories in Zurich, Switzerland, for dating by the more sophisticated accelerator method. According to proper procedure, the results were then calibrated and confirmed with respect to tree-ring samples.[3]

The outcome was surprising. As Mark Lehner commented at the time:

> The dates run from 3809 BC to 2869 BC. So generally the dates are ... significantly earlier than the best Egyptological date for Khufu ... In short, the radiocarbon dates, depending on which sample you note, suggest that the Egyptological chronology is anything from 200 to 1200 years off. You can look at this almost like a bell curve, and when you cut it down the middle you can summarize the results by saying our dates are 400 to 450 years too early for the Old Kingdom Pyramids, especially those of the Fourth Dynasty ... Now this is really radical ... I mean it'll make a big stink. The Giza pyramid is 400 years older than Egyptologists believe.[4]

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[2] Ibid. See also Ahmed Fakry, *The Pyramids,* University of Chicago Press, 1969, and Kurt Mendelssohn, *The Riddle of the Pyramids,* Thames and Hudson, London, 1986.
[3] *Venture Inward,* Virginia Beach, May-June 1906, p. 13.
[4] Ibid.

Despite Lehner's insistence that the carbon-dating was conducted according to rigorous scientific procedures[5] (enough, normally, to qualify these dates for full acceptance by scholars) it is a strange fact that almost no 'stink' at all has been caused by his study. On the contrary, its implications have been and continue to be universally ignored by Egyptologists and have not been widely published or considered in either the academic or the popular press. We are at a loss to explain this apparent failure of scholarship and are equally unable to understand why there has been no move to extract and carbon-date further samples of the Great Pyramid's mortar in order to test Lehner's potentially revolutionary results.

What has to be considered, however, is the unsettling possibility that some kind of pattern may underlie these strange oversights.

As we reported in Chapter 6, a piece of wood that had been sealed inside the shafts of the Queen's Chamber since completion of construction work on that room, was amongst the unique collection of relics brought out of the Great Pyramid in 1872 by the British engineer Waynman Dixon. The other two 'Dixon relics'—the small metal hook and the stone sphere—have been located after having been 'misplaced' by the British Museum for a very long while. The whereabouts of the piece of wood, however, is today unknown.[6]

This is very frustrating. Being organic, wood can be accurately carbon-dated. Since this particular piece of wood is known to have been sealed inside the Pyramid at the time of construction of the monument, radiocarbon results from it could, theoretically, confirm the date when that construction took place.

A missing piece of wood cannot be tested. Fortunately, however, as we also reported in Chapter 6, it is probable that another such piece of wood is still *in situ* at some depth inside the northern shaft of the Queen's Chamber. This piece was clearly visible in film, taken by Rudolf Gantenbrink's robot-camera *Upuaut,* that was shown to a gathering of senior Egyptologists at the British Museum on 22 November 1993.[7]

We are informed that it would be a relatively simple and inexpensive task to extract the piece of wood from the northern shaft. More than two and a half years after that screening at the British Museum, however, no attempt has been made to take advantage of this opportunity. The piece of wood still sits there, its age unknown, and Rudolf Gantenbrink, as we

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[5] Ibid., p. 12-14.

[6] See Chapter 6 for fuller details concerning the Dixon relics.

[7] Those present included Dr. Vivian Davies, Keeper of Egyptian Antiquities at the British Museum, and Dr. I. E. S. Edwards, author of the standard text *The Pyramids of Egypt.*

saw in Chapter 6, has not been permitted to complete his exploration of the shafts.

Appendix 5

The Door Inside the Great Pyramid;
Tunnels and Chambers
Under the Great Sphinx

Further developments

Since the first English-language edition of this book went to press in February 1996 there have been a number of significant developments concerning the opening of the door in the Great Pyramid at the end of the southern shaft of the Queen's Chamber (see in particular Chapter 7) and the search for tunnels and chambers under the Great Sphinx (see in particular Chapter 2 and Chapter 5). We anticipate that there will be further developments—quite possibly of major historical significance—which we will cover in a future book. It is our intention, meanwhile, to monitor this 'running story' and to update our readers in a series of appendices that will be published in future editions of *The Message of the Sphinx.*

The update presented herewith covers the period from March to end-August 1996.

The Great Pyramid

At the end of 1995, as reported in Chapter 6 and Chapter 7, the position of the Egyptian Antiquities Organization regarding the 'door' at the end of the southern shaft of the Queen's Chamber was apparently one of official disinterest. The reader will recall that Dr. Nur El Din, Chairman of the EAO (now renamed the Supreme Council of Antiquities) had declined Rudolf Gantenbrink's offer to donate the robot to the Egyptian government and to train an Egyptian technician to operate it: 'Thank you for your offer to train the Egyptian technician ... Unfortunately we are very busy for the time being, therefore we will postpone the matter ...'[1] Similarly Dr. Zahi Hawass had declared: 'I do not think this is a door and nothing is behind it.'[2]

In March 1996, however, Dr. Hawass changed his mind, declaring in the *Egyptian Gazette* that Gantenbrink's find was of huge interest and that

[1] *Sunday Telegraph*, 1 January 1995.
[2] Sat 1, Spiegel Reportage, 15 August 1995.

the door would be opened in September 1996 by a multinational team led by the Egyptian geologist (and NASA consultant) Dr. Farouk El Baz. Rudolf Gantenbrink would not be involved and 'another robot'—not *Upuaut*—would be used to explore the shaft. Participating in the exploration would be a 'Canadian' contingent.[3]

The Canadian element, 'Amtex', is headed by Peter Zuuring, a wealthy Dutch-Canadian businessman, who told us that he had shown the Egyptians how the door could be opened 'relatively inexpensively ... We're working with Spar Aerospace to design a miniature arm with tools that could first tap the door, knock it and try to lever things a little bit to see if there's anything loose. But I think ultimately we'll go straight through.'

In two conversations, Souring told us that he thought it unlikely that the project could start as early as September 1996: the following year, he said, 1997, was far more likely. The objective, which might take some time, was to raise the huge sum of ten million dollars to promote a staged 'live opening' of the door on international television networks. 'I'm working with a private guy who is a personal friend of Hawass and we are absolutely going to drum this thing to death. Whatever the event we are going to stage, it will be televised live.'[4]

The Great Sphinx

In 1993-4 (see Chapter 2 and Chapter 5) Dr. Zahi Hawass appeared to be adamantly opposed to the notion that the Sphinx might be far older than ancient Egypt—and thus the work of a lost civilization. The reader will recall that the EAO official was particularly incensed by the NBC television film, *The Mystery of the Sphinx,* that was made about the work of John Anthony West. In addition Hawass had been personally responsible for expelling John West and his research team from the Sphinx enclosure. The team included the geologist Robert Schoch, a Professor at Boston University, and the seismologist Thomas Dobecki (who was to identify a large rectangular chamber concealed in the bedrock at a depth of about twenty feet beneath the front paws of the Sphinx).

The NBC documentary linked the Sphinx to Atlantis and suggested that the chamber that Thomas Dobecki's seismograph had detected beneath its paws might contain some sort of 'time capsule' of Atlantean wisdom and history. Hawass called these claims: 'American hallucinations. West is an amateur. There is absolutely no scientific base for any of this. We have older monuments in the same area. They definitely weren't built by men from Atlantis. It's nonsense and we won't allow our monuments to be

[3] *Egyptian Gazette,* 31 March 1996.
[4] Documented conversations with Peter Zuuring.

exploited for personal enrichment. The Sphinx is the soul of Egypt.'[5]

An article in the Egyptian press responding to the NBC film quoted Dr. Hawass on his further reasons for expelling John West and his team from the Sphinx enclosure: 'I have found that their work is carried out by installing endoscopes in the Sphinx's body and shooting films for all phases of the work in a propaganda ... but not in a scientific manner. I therefore suspended the work of this unscientific mission and made a report which was presented to the permanent commission who rejected the mission's work in the future.'[6]

The NBC film was produced by Boris Said (see Chapter 2) and partially financed by investments from members of the Association for Research and Enlightenment (ARE). Headquartered in Virginia Beach in the United States (see Chapter 5), the ARE is a multimillion dollar organization that exists to promulgate the teachings and prophecies of the American psychic Edgar Cayce, who died in 1945. Prominent amongst Cayce's pronouncements were many statements—some of which were reported in the NBC film—to the effect that the Sphinx had been built in 10,500 BC by the survivors of Atlantis who had concealed beneath it a 'Hall of Records' containing all the wisdom of their lost civilization and the true history of the human race. Cayce prophesied that this Hall of Records would be rediscovered and opened between 1996 and 1998. He connected the opening to the second coming of Christ and asserted that the contents of the Hall would not be shared with the general public until many years after it had first been entered by 'three who would make of the perfect way of life.'[7]

In 1995 John West and Professor Robert Schoch of Boston University (in cooperation with the prestigious Princeton Engineering Anomalies Research Laboratory, better known as PEAR) put in an application to the Egyptian authorities to resume their research. Their application was ignored.

At the end of March 1996 the Egyptian authorities granted a one-year license to a new team to conduct surveys around the Sphinx and the Giza necropolis using seismic equipment and ground-penetrating radar. This team, which claimed academic sponsorship from Florida State University (and reportedly involved the participation of four geologists from that university), was largely financed, through the Schor Foundation of New York, by Dr. Joseph Schor, an American multimillionaire. Dr. Schor is a life-member of the ARE and was one of the two ARE members who met us at Virginia Beach with Charles Thomas Cayce in May 1994 (see Chapter 5). Later that month he wrote to us of his great personal interest in corroborating 'the Cayce records which indicated that the culture which

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[5] *Serpent,* op. cit., p. 229.
[6] *Al Akhbar El Yom,* 8 January 1994.
[7] Edgar Cayce Reading Ref. No. 3976-15, in Earth Changes circulating file, Edgar Cayce Foundation, 1993, p. 38.

led to the building of the Pyramids dates from 10,500 BC.' He also stated his wish 'to further delineate that civilization.'[8]

On 11 April 1996, when we informed Joseph Schor that we intended to write about these matters in the London *Daily Mail,* he threatened us with a libel action and stated: 'We do not work for the Edgar Cayce group ... The major purpose of the Schor Foundation and the Florida State University is to aid in the preservation and restoration of the Pyramids and Sphinx. In addition we are surveying the underground of the Giza Plateau to find faults and chasms that might collapse. This will increase the safety of the plateau because chasms and faults can be collapsed or roped off for the protection of tourists and plateau personnel.'[9]

On 14 April 1996 Dr. Zahi Hawass gave a rather different account, mentioning hidden tunnels around the Pyramids and the Sphinx. He made no mention of the question of public safety but hinted that 'excavation of the tunnels would reveal many clues regarding the establishment of the Giza pyramids.'[10]

Nor did that question appear to be the main thrust of a short video, *Secret Chamber,* in which Dr. Hawass took part. Filmed on location in Cairo in November and December 1995, the video was produced and written by Boris Said and, according to him, financed to the tune of one hundred thousand dollars by Joseph Schor. In this video, as we reported at the end of Chapter 5, Dr. Hawass is shown scrambling into a tunnel under the Sphinx. When he reaches the bottom he turns to face the camera and whispers to the viewer: 'Even Indiana Jones will never dream to be here. Can you believe it? We are now inside the Sphinx, in this tunnel. This tunnel has never been opened before. No one really knows what's inside this tunnel but we are going to open it for the first time.'[11]

The narrator of the video drives home an interesting point: 'Edgar Cayce, America's famous "Sleeping Prophet", predicted that a chamber would be discovered beneath the Sphinx—a chamber containing the recorded history of human civilization. For the first time ever we'll show you what lies beneath this great statue—a chamber which will be opened, live, for our television cameras.'[12]

In July 1996, after worldwide protest over the activities of the Schor Foundation and Florida State University at the Sphinx, Dr. Hawass claimed on South African radio that he had halted the project: 'I found that their work is not following the correct steps ... I wrote a letter to them saying that they cannot do work again because they are not really following the correct work.'[13]

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[8] Schor's May 94 letter.
[9] See *Daily Mail,* London, 2 and 3 May 1996.
[10] *Egyptian Gazette,* 14 April 1996.
[11] *Secret Chamber,* Magical Eye Productions, 1996.
[12] Ibid.
[13] Hawass interview, John Robbie Show.

That same month, however, rumors began to circulate that the team had identified nine further tunnels or chambers under the Giza Plateau. In all of them, apparently, their remote-sensing equipment had identified objects made of metal.

By the end of August 1996, despite Hawass's statement, team members still appeared confident that their project would go ahead and Boris Said was reputed to be negotiating with major television networks in the United States for an exclusive documentary on the Sphinx.

The Edgar Cayce legacy

As we saw in Chapter 5, Edgar Cayce (known in America as the 'Sleeping Prophet' because he gave his psychic 'readings' in a trance-like state) believed himself to be a reincarnated priest called Ra-Ta, a survivor of Atlantis who had settled in Egypt in 10,500 BC. Throughout the 1930s, until his death in 1945, he used the contacts made through his 'readings' to 'pick up players'—artists, bankers, businessmen, university professors and even politicians—who were all convinced that in their 'past lives' they too had played a role in the unfolding drama of Atlantis.[14]

One of these players, perhaps the most active the ARE would know, was Cayce's eldest son, Hugh Lynn (1907-1983), a graduate of Harvard University who took over the management of the newly founded ARE in 1931 when he was just twenty-four years old. With youthful enthusiasm, he vowed that one day an 'ARE sponsored expedition' to Giza would vindicate his father's prophecies concerning the Hall of Records.[15]

Perhaps Hugh Lynn had been inspired by the so-called 'Baraize Expedition' to the Sphinx which was already well underway in 1930 when the ARE was founded. Led by the then Director of the Egyptian Antiquities Department, a French archaeologist named Emile Baraize, this expedition stripped off the ancient skin of 'repair blocks' from the lower parts of the body of the Sphinx. While removing some of the blocks from the rump of the statue, Baraize came across the entrance to a tunnel. Then, for some extraordinary reason, he resealed the mouth of the tunnel with rock and cement and never reported the matter. With Baraize at the time was a young Arab boy called Mohamad Abdel Mawgud—whose descendants still live at Giza.[16]

The Baraize expedition ran from 1926 to 1936. But it was not until 1972 that Hugh Lynn Cayce, by then in his sixties, finally set in motion the plan that he had long ago conceived for getting the ARE into mainstream archaeology at Giza. His first move was to recruit a 'college

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[14] Harmon Hartzell Bro, *A Seer out of Season: The Life of Edgar Cayce,* Signet Books, 1990, p. 242.
[15] Quote from a senior ARE researcher in a letter to Charles I. Cayce dated 12 June 1996.
[16] *Venture Inward,* Jan/Feb 1985, Vol. 6, p. 9.

dropout named Mark Lehner' (the ARE President thought he recognized the young man from a past life), and then arrange for him to take a post-graduate degree at the American University in Cairo. Today the Visiting Professor of Egyptology at the University of Chicago's prestigious Oriental Institute, we saw in Chapter 5 how Lehner became the ARE's 'man' at Giza, participating during the 1970s and 1980s in almost every important project undertaken around the Pyramids and the Sphinx.

Despite a number of setbacks experienced by the ARE as a result of these projects, an official biography reports that Hugh Lynn Cayce 'had no sense of defeat ... He would stay with the search as long as it took, building alliances with other groups and individuals. One of the latter was the Egyptian Chief Inspector at Giza, Hawass, who he had met through Lehner in 1975. In 1980, Hawass accommodated the ARE by conducting an excavation in front of the Sphinx temple ...'[17]

In October 1980 Mark Lehner made contact with Mohamad Abdel Mawgud, the 'young Arab boy' (by now in his sixties) who had seen Emile Baraize seal up the tunnel under the Sphinx in 1926. Together with Ahmed Al Fayed, Abdel Mawgud's son, Lehner was permitted by Zahi Hawass to remove the seal and enter the tunnel. But again, apparently, nothing was found. The tunnel reached a 'dead end' in the bedrock underneath the Sphinx.[18]

Soon afterwards Ahmed Al Fayed went to settle in Virginia Beach and in due course joined the staff of the ARE. Hawass also traveled to the United States at about this time to expand his formal education in Egyptology. As Hugh Lynn Cayce's biographer reports: 'If Zahi Hawass was to advance within the [Egyptian] government to further his own career and open doors for Hugh Lynn's project, he could do it best on the wings of higher education at an American Ivy League college.' Just before he died Hugh Lynn Cayce was to explain how: 'I got him [Zahi Hawass] a scholarship at the University of Pennsylvania in Egyptology, to get his Ph.D. I got the scholarship through an ARE person who happens to be on the Fulbright scholarship board. He [Hawass] had aided Mark [Lehner] to work on the Sphinx and I am very appreciative.'[19]

Interviewed on South African radio in July 1996 Hawass responded to an earlier interview given by ourselves in which we had mentioned his apparent connections with the Edgar Cayce Foundation. He accused us of lying, stated that we were merely claiming these things to make ourselves famous, and insisted that he discredited Edgar Cayce, adding emphatically: 'The Edgar Cayce theory is wrong.' The interviewer (John Robbie of Radio 702, Johannesburg) then read out on the air the passage quoted above from Hugh Lynn Cayce's biography in which the former ARE

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[17] A. R. Smith, *Hugh Lynn Cayce: About My Father's Business,* Donning Co., Norfolk, Virginia, 1988, p. 249.
[18] *Venture Inward,* op. cit.
[19] A. R. Smith, op. cit., p. 250.

President claims to have been instrumental in obtaining a Fulbright scholarship for Hawass. Hawass replied: 'That's not true. I met him, I lectured to the Edgar Cayce Foundation many times. He was such a nice man. I never believed his theories. He never supported a fellowship for me to study outside at all. He just once attended a dinner that I invited him to in Cairo with one of the Fulbrights ... but he did not support any study. The Egyptian government supported my studies for five years and the Fulbright supported my studies at the University of Pennsylvania for two years. It had no support from such an organization like that.'

Hawass was then asked about *Secret Chamber,* the short video referred to above made by Boris Said in November and December 1995 and financed by Joseph Schor. The interviewer pointed out that this video makes positive reference to Edgar Cayce and his prophecies and includes an appearance by Zahi Hawass in which the Egyptian official stated that a tunnel under the Sphinx is about to be opened. 'How come you're involved with that?' asked the interviewer.

> *Hawass:* This is not true! I'm a public figure and I get interviews every day! Every day if you come to my office you will see almost three TVs from all over the world. I ... my interviews always explain my discoveries. This video is talking about the tunnel that I found inside the Sphinx based on my work. It is not by the work that is done here, it's by Florida University. It is not by Cayce or anything! And we found even that Florida University are not following the scientist's steps therefore I wrote a letter two months ago that those type ... even the universities, the universities are not following the exact steps that they supposed to do.
>
> *Interviewer:* It seems a coincidence ... it seems a coincidence, Dr. Zahi, that the Cayce prophecy talks about tunnels under the Sphinx. You've discredited it. You've banned various researchers according to *The Message of the Sphinx*—people like John West who are trying to do work on this theory—and now you seem to be taking it over yourself. Is that true?
>
> *Hawass:* No! I'm not taking over myself.. . If there is evidence, actual evidence from an institution, to tell us there is something under the Sphinx we'll excavate it. But all of it is just hallucination! We cannot run after hallucinations at all.
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> *Interviewer:* But in that video, where you are actually filmed in a tunnel under the Sphinx, you indicated that this might lead to something very, very exciting ... I saw that myself, Zahi!
>
> *Hawass:* If I did found ... I told you! I excavated this tunnel. And I did excavate it and I'm excavating it. If it leads to something important, we'll announce it. You know what I'm saying? I'm not denying that ... Maybe it will lead to something exciting.

The interviewer asked Dr. Hawass why he had not taken legal action against us, the authors of *The Message of the Sphinx,* 'because they make some serious accusations against you.' Hawass replied: 'You know, if I make legal action against them I will make them famous. But I will never,

err, make them famous.'[20]

On 15 August 1996, in an interview with the *Egyptian Gazette* in Cairo, Dr. Hawass made an oddly similar remark concerning the Japanese team from Waseda University, led by Professor Sakuji Yoshimura, who in 1988 had used advanced technology to identify a hidden chamber inside the Great Pyramid and another beneath the left forepaw of the Great Sphinx. 'I believe these teams were not serious enough,' stated Dr. Hawass, 'and their equipment was not well tooled. The members of these teams were merely interested in acquiring fame.'[21]

Mars and Giza:

Strange connections and synchronicity

In our research we have stumbled across a tangled web of clues, connections and overlapping interests appearing to suggest that American scientists with links to NASA may have quietly involved themselves, since at least the 1970s, in covert 'expeditions' to unveil the secrets of the great pyramids and the Great Sphinx of Giza. The story, oddly enough, appears to be running in parallel with research stemming from the existence of curious pyramidial structures (and a gigantic Sphinx-like 'Face') that were photographed on Mars by NASA spacecraft during the 1970s.

In 1971 NASA's Mariner 9 probe took the first ever photographs of strange 'pyramid' structures on Mars on a region of the planet known to astronomers as Elysium. Dr. James Hurtak, a graduate in remote sensing technology (and an acquaintance of Mark Lehner's) was one of the earliest researchers to show interest in the Elysium 'pyramids'—which were officially dismissed by NASA as 'tricks of light'. In 1975, despite NASA's apparent indifference, Hurtak predicted that further finds of similar structures, including a Sphinx-like monument, would be made on Mars and that they would all prove to be connected in a great cosmic blueprint to the Giza monuments in Egypt.[22]

Hurtak is an active campaigner against the secrecy of the United States military and related agencies with regard to UFO 'cover-ups' and other similar issues. He also claims to have had close links with researchers at California's prestigious Stanford Research Institute, America's second largest scientific think-tank (which has an annual budget from the United States government of over three hundred million dollars). The SRI's projects have included the 'Remote Viewing Program' (started in 1972),

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[20] John Robbie Show, Radio 702 Johannesburg, 17 July 1996.

[21] *Egyptian Gazette,* Cairo, 15 August 1996.

[22] Dr. James Hurtak, *The Keys of Enoch,* California, 1976. See also the video *UFO: Evidence of the Use of Extraterrestrial Technology,* Labyrinth Media, UK.

funded by the CIA as an intelligence-gathering exercise, which recruited top psychics to 'remote view' enemy military installations and other sites.

In 1973, as we saw in Chapter 5, the Egyptian Antiquities Organization (EAO) granted an official license to the SRI, permitting it to conduct surveys around the Great Sphinx at Giza using ground-penetrating radar and seismographs. The local sponsor of this project was Cairo's *Ain Shams* University. We recall that in the same year Hugh Lynn Cayce sent Mark Lehner to the American University in Cairo with funds raised by ARE members.

In 1976 a second NASA probe, Viking I, went into Mars orbit. In the region known as Cydonia it photographed several more pyramidial structures (including the five-sided 'D&M Pyramid') and the famous 'Face'. Complete with its distinctive Sphinx-like headdress, this latter feature has been calculated from the NASA images to be 1.6 miles in length from crown to chin, 1.2 miles wide, and just under 2,600 feet high. NASA has argued officially that it is nothing more than a small mountain, naturally weathered. But how many mountains have their left and right sides so intricately similar? Image analysts say that the 'bilateral symmetry' of the Face, mimicking a natural, almost human appearance, is most unlikely to have come about by chance. And this impression is confirmed by other characteristics that have subsequently been identified under computer enhancement. These include 'teeth' in the mouth, bilaterally crossed lines above the eyes, and regular lateral stripes in the headpiece—suggestive, to some researchers at least, of the *nemes* headdress of ancient Egyptian pharaohs.[23]

Back in Egypt in 1977, a year after the Viking images had first reached the Earth, Mark Lehner made contact with NASA's Dr. Lambert T. Dolphin, leader of the Stanford Research Institute project at the Sphinx. The reader will recall from Chapter 5 that Lehner was by then already well acquainted with Zahi Hawass.

Later in 1977 Lambert Dolphin traveled to Virginia Beach to negotiate funding from the Edgar Cayce organization for a proposed new SRI project at Giza. The purpose of this project was to use the latest remote sensing technology to search for hidden chambers around and under the Sphinx—with Lehner again 'participating as the Edgar Cayce Foundation's "man in Cairo".' Several underground 'cavities' were detected by this Sphinx Exploration Project.

In 1978 Mark Lehner proposed a project on the Sphinx to the American Research Centre in Egypt. The project, again partially financed by the Edgar Cayce group, was approved and went ahead with Lehner as its Field Director. Soon afterwards a United States registered company called Recovery Systems International (RSI) appeared on the scene. As we saw in Chapter 5, it undertook core drillings in front of the Sphinx to investigate

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[23] Richard C. Hoagland, *The Monuments of Mars,* North Atlantic Books, Berkeley, California, 1992, p. 363. See also Plates 38 and 39.

the promising underground cavities previously pinpointed by SRI.

In 1983 Hugh Lynn Cayce died and the management of the Edgar Cayce group was handed to his son, Charles Thomas Cayce. In the same year 'The Independent Mars Project' was set up in the United States by Richard Hoagland, a former NASA consultant, and Lambert Dolphin. Meanwhile in 1987 Dr. Zahi Hawass completed his education in the United States and returned to Egypt to be appointed as the EAO's Director-General of the Giza Plateau.

In March 1996 Dr. Hawass announced that the Egyptian scientist Farouk El Baz (whose name, meaning Hawk, translates into ancient Egyptian as Horus) had been chosen to lead a team to open the secret door inside the Great Pyramid at the end of the southern shaft of the Queen's Chamber. The reader will recall that Amtex, the Canadian company participating in the project, claim to be 'working with Spar Aerospace' to devise a tool to open or 'go straight through' the door. Spar Aerospace are better known for manufacturing hydraulic arms used in NASA Space Shuttles. As we noted at the beginning of this appendix, Dr. El Baz, a graduate of Cairo's *Ain Shams* university, is a NASA consultant. He has been involved for many years with studies of geological formations on the Moon and on Mars and he is a one-time personal friend of astronauts Buzz Aldrin and Neil Armstrong. It was El Baz, nicknamed the King by his NASA colleagues, who in 1969 chose the spot for the Apollo 11 Moon landing. El Baz is the founder of the Centre of Remote Sensing at Boston University and presently serves as its Director.[24]

Also in March 1996 the EAO granted a one-year renewable license for the project at die Sphinx—see above—financed by Joseph Schor. Project members include Boris Said, Thomas Dobecki, and four senior geologists from Florida State University, who began work with a million dollars worth of ground-penetrating radar and seismic equipment at their disposal. It was reported to us that team members had consulted with Dr. James Hurtak and Richard Hoagland in August 1996.

[24] *Omni Magazine,* 'Interview with Farouk El Baz', 1990, p. 75.

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Lords of Poverty

The Power, Prestige, and Corruption of the International Aid Business

Graham Hancock

“Although it is the subject of a pious literature, and is credited with saintly and humanitarian motives, foreign aid often keeps strange and brutal company. In Mexico and Zaire, in the Philippines and Haiti, thieves and murderers, psychopaths and cheats have all been

amongst its bedfellows. Elsewhere it has consistently bestowed its favours upon the big battalions. Big corporations, big and wasteful projects, big, ambitious, absurd development plans, big ideas, and big bureaucracies have all flourished thanks to aid's bounty. Meanwhile local-level initiatives, relevant and realistic strategies, and the energy and enterprise of the poor in the Third World have been ignored….

"To continue with the charade seems to me to be absurd. Garnered and justified in the name of the destitute and the vulnerable, aid's main function in the past half-century has been to create and then entrench a powerful new class of rich and privileged people. In that notorious club of parasites and hangers-on made up of the United Nations, the World Bank, and the bilateral agencies, it is aid—and nothing else—that has provided hundreds of thousands of 'jobs for the boys' and that has permitted record-breaking standards to be set in self-serving behaviour, arrogance, paternalism, moral cowardice,

and mendacity. At the same time, in the developing countries, aid has perpetuated) the rule of incompetent and venal men whose leadership would otherwise be utterly non-viable; it has allowed governments characterised by historic ignorance, avarice, and irresponsibility to thrive; last but not least, it has condoned—and in some cases facilitated—the most consistent and grievous abuses of human rights that have occurred anywhere in the world since the dark ages.

"In these closing years of the twentieth century the time has come for the lords of poverty to depart…."

LORDS of POVERTY

The Power, Prestige, and Corruption of the

International Aid Business

GRAHAM HANCOCK

ATLANTIC MONTHLY PRESS NEW YORK

Also by Graham Hancock

Journey Through Pakistan

Ethiopia: The Challenge of Hunger

AIDS: The Deadly Epidemic

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First published in Great Britain in 1989 by Macmillan London Limited Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Hancock, Graham

Lords of poverty.

1. Economic assistance—Developing countries. 2. Nongovernmental organizations—Developing countries—Corrupt practices. I. Title. HC60.H278 1989 338.9T091724 89-6893 ISBN-10: 0-87113-469-1 ISBN-13: 978-0-87113-469-1

Atlantic Monthly Press

an imprint of Grove/Atlantic, Inc.

841 Broadway

New York, NY 10003

Distributed by Publishers Group West

www.groveatlantic.com

06 07 08 09 10 15 14 13 12 11

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The Development Set

Excuse me, friends, I must catch my jet -I'm off to join the Development Set; My bags are packed, and I've had all my shots, I

have travellers' cheques and pills for the trots.

The Development Set is bright and noble, Our thoughts are deep and our vision global; Although we move with the better classes, Our thoughts are always with the masses.

In Sheraton hotels in scattered nations, We damn multinational corporations; Injustice seems so easy to protest, In such seething hotbeds of social rest.

We discuss malnutrition over steaks And plan hunger talks during coffee breaks. Whether Asian floods or African drought, We face each issue with an open mouth.

We bring in consultants whose circumlocution Raises difficulties for every solution -Thus guaranteeing continued good eating By showing the need for another meeting.

The language of the Development Set, Stretches the English alphabet; We use swell words like ‘epigenetic’, ‘Micro’, ‘Macro’, and ‘logarithmetic’.

Development Set homes are extremely chic, Full of carvings, curios and draped with batik. Eye-level photographs subtly assure That your host is at home with the rich and the poor.

Enough of these verses—on with the mission! Our task is as broad as the human condition! Just pray to God the biblical promise is true: The poor ye shall always have with you.

Ross Coggins

Lords of Poverty is dedicated to those senior staff at the World Bank who illegally acquired and read my original synopsis in the

early days of this project. By attempting from the outset to limit my access to inside information they convinced me that the aid business does indeed have much to hide.

Acknowledgements

In gathering the extensive documentation from a wide range of sources, which was necessary before a single word of this book could be written, I am grateful for the hard work and long hours put in by my research assistants Stan Winer, Ruth Thorlby and latterly

Fiona

Bibby. I would also like to express my thanks to Teddy Goldsmith, editor of The Ecologist magazine, who gave me access to his extensive library on development and aid-related issues and who was kind enough to read and comment on my text. Thanks also to Edward Milner for his advice and encouragement and to my parents for their frequent and helpful readings of the various drafts of the manuscript. Needless to say, none of these people should be held responsible for any of the book's failings -which, along with the

views expressed in it, are entirely my own.

From inception to completion Lords of Poverty took up much of my time over a period of more than two years. My warmest gratitude is thus reserved for my wife Carol and for my children Luke, Leila and Sean, who bore with me throughout.

Graham Hancock March 1989

INTRODUCTION

the rain kings This book is an attack on a group of rich and powerful bureaucracies that have hijacked our kindness. The bureaucracies I refer to are those that administer the West's aid and then deliver it to the poor of the Third World in a process that Bob Geldof once described as 'a perversion of the act of human generosity'.1

I want to make it clear at the outset that my attack is principally focused on official aid organisations. Other than passing references to the disaster-relief operations of some charities in Part One, I have deliberately refrained from mounting an offensive against the voluntary agencies for

example, Oxfam, Save the Children Fund and Band Aid in Britain, or Catholic Relief Services, Operation California and Africare in the United States. I do have criticisms of the long-term development

work of almost all of these smaller ‘nongovernmental’ organisations; however, by and large, I believe their staff to be well motivated and their efforts worthwhile. Furthermore, they are funded on a voluntary basis by contributions from the general public and thus are under considerable pressure to use properly the money they receive. They rarely do significant harm; sometimes they do great good.

The same, however, cannot be said for official aid agencies. Whether ‘multilateral’ like

the World Bank or

‘bilateral’ (USAID or Britain’s Overseas Development Administration), such agencies are financed involuntarily by taxpayers who are then allowed absolutely no say in how their money is spent. Official aid also involves the transfer of very large sums of money so

large, in fact, that the resources of the voluntary sector look puny and insignificant by comparison. It would thus seem sensible, at the very least, for the official agencies to be directly accountable to the public to

be ‘transParent’, open and honest in their dealings.

This, unfortunately, is not the case. Indeed, critical study is sharply and effectively discouraged. Those of us, for example, who wish to evaluate the Progress, or effectiveness, or quality of development assistance will soon discover that the aid bureaucracies have already carried out all the evaluations that they believe to be necessary and are prepared to resist with

armour-Plated resolve the

‘ignorant’, or ‘biased’ or ‘hostile’ attentions of outsiders. Even the few apparently independent studies in this field turn out in the

majority of cases to have been financed by one or other of the aid agencies or by institutes set up with aid money. And, where there is no such direct link, more subtle influences are generally at work. Academics at schools of development studies, for instance, often aspire to highly-paid jobs in the United Nations or the World Bank and can be forgiven for not biting too hard a hand that may be about to feed them. Western journalists investigating projects in poor countries usually do so under aid-agency auspices and tend to come away with a partisan view of what they have seen. Likewise appeals for disaster-relief, which have played a particularly important role in shaping public perceptions of aid issues in recent years, portray the agencies and their staffs in a light that is entirely positive if

not actually saintly.

At a more general level, foreign aid now

worth almost $60 billion a year -has changed the shape of the world in which we live and had a profound impact on all our thinking. Consciously or unconsciously we view many critical global problems through lenses provided by the aid industry. When we come to analyse these problems we draw on a vast data-base that the aid industry has generated and

that the aid industry controls. If, as individuals, we choose to act to solve these problems then we will find that the aid industry has already defined and determined most of the directions in which we may move.

What we have here, therefore, is a publicly-funded enterprise, charged with grave international responsibilities, that has not only been permitted to wall off its inner workings from the public view but that also sets its own goals, establishes how these goals are to be attained and, in due course, passes judgement on its own efforts. Perhaps inevitably in such a hermetically-sealed universe, these

judgements tend to be favourable and seek to reassure us that all is well, that formidable difficulties are slowly but surely being overcome and that aid is fundamentally good. Indeed, the promotion of such anodyne, cheerful and uplifting messages has become a massive international exercise employing thousands of people and absorbing public-relations budgets worth hundreds of millions of dollars a year.

It is a tribute to the success of this PR campaign that foreign aid is now a sacred cow. In all Western countries, irrespective of their wealth, and irrespective also of their ideological stance, 'overseas development' has been elevated above political debate to become the 'least questioned form of state spending'.2 Perhaps this lack of examination explains why foreign-aid budgets always increase. The rate of expansion may be relatively slow here, relatively fast there; in all donor countries, however even

in times of general austerity more gets spent on overseas

development every year.

Thus, while we may cut our military spending, pare our education systems to the bone, and put our health services under the microscope, foreign-aid allocations regularly escape cost-benefit analysis and efforts are seldom made to link further funding to the achievement of results in the field. As Professor Bauer of the London School of Economics accurately observes: ‘Whatever happens in the recipient countries can be adduced to support the maintenance or extension of aid. Progress is evidence of its efficiency and so an argument for

its expansion; lack of progress is evidence that the dosage has been insufficient and must be increased. Some advocates argue that it would be inexpedient to deny aid to the speedy (those who advance); others, that it would be cruel to deny it to the needy (those who stagnate). Aid is thus like champagne: in success you deserve it, in failure you need it.‘3

There is, of course, criticism of the aid industry but

such criticism tends to be confined within a rather narrow range. Most commonly we hear the voices of those who say that aid is insufficient and that it should be increased. Some detractors single out specific types of aid as being inappropriate (food aid, for example, or programme aid, or aid for the development of heavy industries). Others focus on particular instances in which aid has been used wastefully, or corruptly, or has gone to governments that are not politically popular in the West. All these different criticisms have one thing in common: they fail, as Professor Bauer puts it, ‘to question aid as such’.4

In writing Lords of Poverty it has been my explicit purpose to do just that to

question aid as such. In consequence, this is not a book that campaigns for more aid; in my view, more of a bad thing can only

be a worse thing. Neither is this a book that argues for a redirection of aid for

example, to better-designed projects or to more worthy countries. I do not accept that aid can be made to work if only method X is used in place of method Y, if only this is done instead of that, if only the political or commercial strings attached are forthwith removed, if only the poor are properly ‘targeted’ rather than the better-off -and so on. Such formulas, much loved by the aid industry, have about as much intellectual validity as the facile excuses of tribal rainmakers who deny the basic absurdity of dancing beneath the breathless sky and seek instead to explain the failure of their efforts in terms of obscure but correctable errors in their performance of the ritual. Like rainmakers, too, the high priests of foreign aid are always ready to claim the credit if, by some freak coincidence, things end up going right for a change instead of wrong.

In tribal society it is such dexterous dodging of the real issues that

allows the rainmakers to stay in business even though they don't make rain; likewise, in Western public-spending, the same tricks of the trade ensure that huge sums of our money continue to be transferred to aid organisations that seldom if

ever produce

any tangible results. Despite the fads, fancies, 'new techniques', 'new directions' and endless 'policy rethinks' that have characterised the development business over the last half-century, and despite the expenditure of hundreds of billions of dollars, there is little evidence to prove that the poor of the Third World have actually benefited. Year in year out, however, there can be no doubt that aid pays the hefty salaries and underwrites the privileged lifestyles of the international civil servants, 'development experts', consultants and assorted freeloaders who staff the aid agencies themselves.

Because I single out these personnel for particular vilification in Lords of Poverty it is inevitable that some will see this book as an unprincipled attack on a basically caring and worthy group of people. Equally, I am well aware that in deliberately drawing attention to the unsavoury, greedy, stupid and dangerous

aspects of the aid industry's behaviour I am swimming against the tide of received wisdom and

in some ways being 'ungentlemanly'. What I have to say will bitterly offend many people. I make no apologies for that. In democratic societies, we have the right to know the whole truth about publicly-funded institutions rather

than just the partial truths that the bureaucrats who staff those institutions want us to know.

PART ONE

masters of disaster?

And you must know this law of culture: two civilisations cannot really know and understand one another well. You will start going deaf and blind. You will be content in your own civilisation … but signals from the other civilisation will be as incomprehensible to you as if they had been sent by the inhabitants of Venus.

Ryszard Kapuscinski, The Emperor

THE white woman, tired but pretty, the one in the blue paisley frock, what exactly is she doing? Beneath the hot foreign sun, a trickle of perspiration on her brow, busy and wan, harassed and

concerned, what can she be up to?

She’s measuring the circumference of black children’s arms, she’s weighing marasmic babies in a sling, she’s distributing high-energy biscuits to listless and demoralised kids, she’s mixing a life-saving solution of oral-rehydration salts, she’s supervising the share-out of a grain ration, she’s digging a pit latrine. She’s a nutritionist or a nurse, or a construction engineer, she’s a volunteer with no particular skills or a professional with many, she’s an evangelist or an atheist, she’s with Oxfam or UNICEF, with World Vision or the Red Cross. In 1989 she was in Mozambique, in the Sudan, in Ethiopia, and in refugee camps along the border between Kampuchea and Thailand. She’d been in all these places in 1988, too, and in 1987. She’ll still be in them in 1990 and in 1991. The personification of faith and hope, delivered to developing countries by our charity, she’s to be found wherever and whenever disaster strikes. She’s the one the camera focuses on briefly ministering to

cholera victims in a field-hospital, the one the reporter gets a quote from in front of the feeding station, the one whose weary eyes tell you that she's seen it all before and that she expects to go on seeing it again and again and again.

friends in deed?

Western relief workers in Third World disasters have become potent symbols of the fundamental decency and lightness of international aid. Of course we must help when people are suffering, when lives are in terrible jeopardy, when the sky falls or the earth dries up. Tight-fisted though we may be at other times, a sudden crisis makes us kind.

Charities established to do good works amongst the poor know that they can benefit from this powerful but transitory altruism and go into public-relations overdrive when there is a relief operation in prospect. It's a simple fact of life in the voluntary sector: with

appropriate media hype, famines, dramatic influxes of refugees, floods, earthquakes and other such catastrophes can be real moneyspinners.

A look at the accounts of Oxfam bears this out. After several years of

relatively slow expansion, the world-renowned British voluntary agency doubled its takings over the period 1978-80; it achieved this through high-pressure fundraising for victims of famine and war in Kampuchea following the Vietnamese invasion of that South-East Asian country in 1979. Thereafter public donations remained fairly static until 1985 when appeals on behalf of the starving in Ethiopia multiplied Oxfam's earnings again to

an all-time high of Ł51.1 million, up from less than 20 pounds

million in 1983-4.’

Clearly, emergency relief work has a much greater capacity to mobilise public generosity than Oxfam’s more routine long-term development activities. The same holds true for other charities as well. In 1985, for example, Band Aid raised Ł76 million for the starving from the British public. Americans each year hand over slightly more than $1 billion to private voluntary organisations engaged in the Third World, largely spurred on to do so by poignant televised appeals for famine and disaster relief. All in all, voluntary agencies like War on Want, Oxfam and Christian Aid in Britain, World Vision, CARE Incorporated and Project Hope in the United States, and Medecins Sans Frontieres in France, can count on a total of $2.4 billion a year in charitable donations to finance their projects and programmes in the developing countries.3 The international media ballyhoo surrounding the Ethiopian famine raised this figure, albeit briefly, to almost $4 billion in 1985.*

Our support for the humanitarian endeavours of the voluntary agencies is also reflected in opinion polls. A recent survey conducted in the United States for the World Bank concluded that ‘scepticism about government efficiency in handling aid leads to a preference for nongovernmental channels in the distribution of aid’.5 Likewise, in Europe, people in ten countries were asked the question: ‘Which agencies provide the most useful help to developing countries?’ Only 12 per cent of the respondents said ‘the government’; 25 per cent said ‘private organisations’.6 Another US survey concluded, ‘Americans clearly favor aiding the poor countries for moral and humanitarian reasons,’ and added: ‘public support is strongest to alleviate such basic problems as hunger and malnutrition, disease and illiteracy’.7 A United States Presidential Commission on World Hunger established that when assistance was described as ‘aid to combat hunger’ 77 per cent of Americans were in favour of maintaining it or increasing it; however, when the question was put in terms of ‘economic aid’ to developing

countries, support dropped to 49 per cent.

The emotional demand of mass suffering is strong and direct. It compels us to reach for our cheque books in response to disaster appeals by the voluntary agencies. Also through

us it

influences the behaviour of our elected governments: although Britain and the United States have imposed a political ban on long-term development assistance to socialist Ethiopia, both were generous with ‘humanitarian’ assistance during the 1984-5 famine and again during 1987-8.

Governments control the purse-strings of official aid budgets that dwarf the resources available to the charities.8 It should not be forgotten, however, that these budgets, too, are provided by ‘us* all

official aid, whether earmarked for

‘long-term’ or ‘emergency’ purposes is financed out of tax revenues. It is then channelled to the Third World through two rather different types of organisation: ‘bilateral’ (for example, Britain’s Overseas Development Administration and the United States Agency for International Development) and ‘multilateral’ (for example, the EEC’s Directorate General for Development, the World Bank and the various agencies of the United Nations system like the Food and Agriculture Organisation, the World Health Organisation and the United Nations High Commissioner for Refugees).

Generally speaking, the more that an official agency’s work can be packaged as humanitarian and charitable in focus, the more likely it is to receive the mandate of popular approval. One senior staffer at

UNICEF (the United Nations Children's Emergency Fund) told me that he found it both exciting and fulfilling to be employed by an agency that had such a 'sexy' subject matter. 'Of course most of our finances come directly to us from member governments of the UN,' he said, 'but Joe Public gets worked up and concerned about children in trouble; that's why people buy our Christmas cards. We're seen as being amongst the good guys.'

The charitable impulse at the root of much aid-giving is at its most potent during disasters and emergencies. It is, however, a double-edged sword. On the one hand it raises lots of money. On the other it stifles questions about the uses to which this money is put and

makes those who ask such questions look rather churlish. Criticising humanitarianism and generosity is like criticising the institution of motherhood; it is just not 'the done thing'. One observer has expressed the problem

particularly well:

Humanitarians ask individuals and governments, out of charity, to give funds to allow them to bind up wounds, comfort the weak, save lives. Compassion expects everyone to agree on the method. Since they are guided by a moral virtue, compassion, any obstacle in the path of carrying out humanitarian objectives must be immoral. And since the objective is so good, it is inconceivable that recipients will fail to be grateful.9

But what is it, precisely, that the recipients are expected to be grateful/or?

In some cases it is a good deal less than donors and taxpayers are led to expect. In August 1988, for example, Sudan (previously drought-stricken) was hit by severe flooding of the River Nile and,

overnight, more than a million people were rendered homeless in Khartoum, the capital city. As the waters continued to rise, epidemics of diseases tike cholera and typhoid posed an ever-increasing threat. In addition many of the flood victims were completely destitute and without any kind of food or shelter. Aid agencies in the industrialised countries responded to this disaster with strident newspaper and television appeals for help and millions of dollars were quickly donated. Two weeks after the flooding, however, almost no tangible signs of the relief effort could be seen on the ground: a dozen or so plastic sheets here, a few blankets from the Red Crescent Society there, and a grain-distribution station with just twelve sacks of flour in hand. Visiting reporters were proudly shown a newly

erected camp of 300 tents provided by Britain: for reasons that no one on the spot could explain, all the tents turned out to be empty

and under armed guard

even

though tens of thousands of homeless people were milling about on mudflats nearby.

By this time no fewer than eighty-five relief flights had arrived from Europe and the US bringing 1,200 tonnes of supplies. What was unfortunate was that these consignments had included just 400 tonnes of food (against a UN estimate of 12,000 tonnes to cover the immediate need). ‘That’s why, if we go to any corner, we will find that the majority of people have received nothing,’ said Al Haj Nugdalla Rahman, a local MP. Amongst the food that was sent was a large container-load of fresh meat which in

the absence of refrigeration -quickly began to rot. By the time it was distributed it was ‘really smelling’ according to one relief worker.

By contrast much more durable and

necessary

items

like clothing, soap and hospital tents were almost completely missing from the relief deliveries during the first two weeks.10

Despite such failings in the crucial early days, genuine efforts were subsequently made during the Sudan floods to help those in need. All too often, however, appeals for money are not followed up by action of any practical kind. One agency that has mastered the art of saying much and giving little is The Hunger Project, a massive international undertaking which raises funds in the United States, Britain and many other countries with the claim that it is dedicated to the ‘eradication of the persistence of hunger and starvation’ in the Third World;11 in fact it sends almost no money to the starving at

all. According to the US National Charities Information Bureau, The Hunger Project received donations totalling $6,981,005 in 1985. Out of this, $210,775 was passed on in the form of grants to other organisations involved in relief work in hungry countries. All the rest was spent in the US under such headings as ‘enrollment and committee activities’, ‘communication, information and education services’, ‘publications’, ‘management and general’ and ‘fundraising’. Telephone expenses for the year approached half a million dollars.12 In 1984 The Hunger Project’s British office raised Ł192,658 from the public of which just 7,048 pounds went to the Third World.13

In 1985, International Christian Aid, a large US voluntary organisation, was accused by officials at the UN and at the State Department of failing to send a single cent to Ethiopia out of $18 million raised for famine relief in that African country.14 ICA denied the allegations: according to its own accounts 28 per cent of

its income is spent on fundraising and administration in the United States; all the rest, *i.e.* 72 per cent, goes to the Third World.15 However, an investigation of the charity by an agency of the US Better Business Bureau had previously concluded otherwise: a close analysis of ICA's expenditure for 1983 showed that just 41 per cent of its income in that year went to support the programmes cited in its fundraising solicitations.16 A similar example is the Dallas-based relief organisation, Priority One International; in one year it sent overseas just 18 cents out of every dollar that it received in donations.17

Fortunately, humanitarianism is not always the last refuge of the scoundrel.

Figures from the Charities Aid Foundation show that most of Britain's top twenty-one voluntary agencies only divert about 10 pence out of each pound raised to pay for their overheads, administration and fundraising. Band Aid did particularly well

during the Ethiopian famine of 1984-5; it kept its costs down to just 7 pence in every Ł100 received. War on Want, which came under attack in October 1986 with charges that its then Director, George Galloway, had spent 20,000 pounds in eighteen months staying in luxury hotels, in fact spent only 1.7 per cent of its income on administration and fundraising in 1984-5. Save the Children Fund, with costs running at 7.42 per cent of moneys received in the same year, says: ‘We have a policy of keeping our overheads down to below 15 per cent of our income … We want maximum income to give maximum aid.‘18

freeloaders, fools and the god-squad

Whether the aid is charitable or official, however, whether it is funded out of direct public donations or out of taxes, the employees of all the agencies concerned inevitably play a crucial role in the field and bear a tremendous responsibility. They must interpret correctly the needs of the poor and they must meet those needs

quickly and competently.

It is generally taken for granted that they do both of these things, and do them well. Press and television reports tend to play up relief workers as hard-pressed saints. Some recipients of emergency assistance have, however, been heard to express ungracious doubts about those who come to help. As one African refugee asked petulantly: ‘Why is it that every US dollar comes with twenty Americans attached to it?‘19

In many Third World disasters, a great deal of aid money is spent purchasing the expertise that Americans and

Europeans provide.

According to a detailed study of refugee relief in South-East Asia:

The agencies’ ‘operating’, ‘logistics’ and ‘miscellaneous’ costs are

enormous and almost unpenetrable. Each agency calculates them on a different basis. Somewhere among them are the considerable costs of personnel. The International Commission of the Red Cross treats its staff superbly. In Phnom Penh much of their food was imported from Europe; in Thailand UN officials constantly complained that the Swiss, with their air-conditioned cars, their weekends on the beach, lived far better than anyone else… One World Health Organisation official asked for a fee of $50,000, a generous per diem, and a ticket for his wife, to come for a short assignment to Phnom Penh. Eventually he compromised on $16,000, the per diem, and no wife … UN officials would get more in two days' allowances than the relief programme would provide for the average Cambodian over a twenty-seven-month period.20

The aid personnel who consume these resources come in all shapes and sizes, all kinds and varieties. Some are very good indeed and

undoubtedly

earn their pay. Others are extraordinarily bad, their motivation is questionable and their input is negligible or even harmful. All too often, during Third World disasters, staff, experts and consultants are not subjected to any kind of careful scrutiny before they are sent into the field; common sense gets abandoned in the rush to help.

It should be said at the outset that much of this help is barely tangible to the victims of the catastrophe. Many Western 'disaster experts' turn out to be merely on expensive fact-finding missions. What this means in practice is that they arrive with empty hands and leave with their heads full of information which may, or may not, later be translated into action. At the height of the Sudanese drought in February 1985 the Khartoum Hilton (where a single room costs $150 a night without breakfast) seethed with delegations which had come 'to assess the situation'. Despite critical water shortages in many parts of the country, and despite the fact that the devastating

extent of the emergency had been thoroughly assessed over the preceding four months, not one additional drilling rig had by then arrived.21

Worse than this, as an anthropologist who spent several years living amongst African refugees has observed: ‘During an emergency, whatever their background, almost any white face which arrives on the scene has the chance of a job.‘22

I came across an example of the accuracy of this remark during the famine that afflicted the East African country of Somalia in 1987. In charge of one highly reputable British voluntary agency’s emergency feeding operations there I found a bronzed globe-trotter whose only qualification for the position appeared to be the fact that he had an African wife (she was not a Somali but he employed her in the field anyway, causing massive resentment amongst locally recruited staff who rightly believed they could do her job better). He told me that the agency had first taken him on to its payroll in

Ethiopia, which he had been visiting as a tourist in 1985 (‘piece of luck, that’). Later he had been transferred to a more senior position in Tanzania where

he was keen to return as soon as possible since that was where his wife came from. When I expressed my doubts that he could be of much use to anyone in Somalia which

he had never visited before and claimed to dislike intensely he

reassured me that he was only there on a short-term secondment. His absolute lack of any relevant technical experience (he’d studied philosophy at university) was thus compounded by a sublime ignorance of Somali conditions and customs.

In Somalia again, but some years earlier, International Christian Aid, World Vision and a number of other US charities wasted valuable donor dollars by recruiting Christian zealots to manage

their programmes in the refugee camps that had been set up following fighting along the border with Ethiopia. In addition to antagonising and outraging the Muslims amongst whom they worked, these people were generally young, untrained and inexperienced. Robert Smith, a born-again World Vision official in Somalia, caused puzzlement and

some hilarity amongst

suppliers of equipment and materials by signing all his requisition telexes with the words ‘God Bless Robert’.23 The

extent to which God complied is not known. What is clear, however, is that requisitions from the US charities were frequently

wasteful and badly thought out. ICA had a penchant for constructing shelters with imported materials that were not properly treated with insecticides most

of them collapsed on their occupants after being weakened by termites. According to one ICA nurse, who resigned in disgust: ‘The camp managers were completely untrained in this kind of business. Some of them appeared to place a higher priority on evangelising than on administering to the refugees’ physical needs.‘24

Many other crass errors were made as a result of putting evangelism before good management. For example, one of the American agencies ordered $100,000 worth of equipment and supplies for the camps, and then cancelled when rather

belatedly it

was realised that the relevant budget was badly overspent. What

was much worse was that the Christian staff involved in this snafu chose to make additional savings by suddenly cancelling their ongoing work in the health sector including

all the vital booster shots in the second stage of an inoculation campaign which had made initial rounds in eleven camps. Thousands of children in whom the immunisation process had been started but not completed were thus rendered more susceptible to deadly epidemics than they would have been if they had simply been left alone.25

Whenever religion is mixed injudiciously with relief work there are human costs to be paid. Despite ample evidence of this, however, the onward march of Christianity remains an abiding concern of many voluntary agencies. According to Ted Engstrom, who was President of World Vision until 30 June 1987: ‘We analyse every project, every programme we undertake, to make sure that within that programme evangelism is a significant component. We cannot

feed individuals and then let them go to hell.‘26

During 1980-1 this policy led to grave charges being levelled against the giant American charity’s refugee programme in Honduras, which was being carried out under the overall direction of UNHCR (the branch of the United Nations mandated with international responsibilities for refugees). The charges, most of which were strenuously denied, came from other relief workers on the spot. According to these witnesses, World Vision employees frequently used the threat of withholding food supplies to coerce Salvadorean refugees into attending Protestant worship services. It was also alleged and

again denied that

World Vision employed several ex-members of the local secret police (DNI) and had a policy of allowing the Honduran military free access to the refugee camps that it administered. The most

serious accusation was that, on the night of 22 May 1981, two Salvadorean refugees who sought sanctuary at the Honduran village of Colomoncagua were picked up by World Vision, installed in a vehicle and told that they were being taken to the refugee camp at Limones. Instead they were handed over to the military. A few days later the same two refugees were found dead at the border. World Vision once again denied involvement in these events.

A very high commissioner

In refugee relief, as illustrated by the Honduran example, UNHCR cooperates with and finances the activities of a host of private voluntary organisations. Although this is not widely understood, HER is not itself an implementing agency; it simply raises money from UN member governments which it then passes on to charities contracted to do the actual fieldwork.

Thereafter, standards of supervision are often very slack, or completely absent, and abuses can easily occur. Recently, for example, one voluntary organisation carrying out HER programmes in Beirut used UN funds to buy tents, beds, blankets and bedsheets through four fictitious companies at mark-ups of as much as 300 per cent. In most cases, as auditors subsequently discovered, 'the quantities purchased were considerably more than the number of refugees and there were substantial differences between the quantities paid for and those actually received'. The loss resulting from these transactions was in the region of half a million dollars.28

Sometimes HCR's money never even reaches the country hosting the refugees let

alone the refugees themselves. One American voluntary agency working in East Africa received $400,000 from the world body payable entirely in the USA as 'relief staff support costs'. The relief staff concerned were mostly recent graduates of Columbia

University, still wet behind the ears;29 none of them had been in Africa before and they had no relevant experience. Nevertheless they were sent into the field at the UN's expense (for UN read Western taxpayers) and there given power and authority as camp managers over the lives of hundreds of thousands of 'helpless refugees' many

of whom were far better qualified than they were. In a similar fashion, in Sudan in 1985, an expatriate with no appropriate skills was employed at UNHCR's expense to recruit medical staff to work on refugee programmes. Some of the refugees themselves they

were Ugandans did have medical qualifications. However, neither the expatriate concerned, nor the voluntary agency for which he worked, bothered to consult them. As a result many errors were made.30

UNHCR's own officials are not immune to this kind of arrogance

and stupidity. In 1987 Bishara Ali, a Somali living in Canada (where he had obtained economics, sociology and social work degrees), applied for the job of Field Assistant at HCR's office in the central Somali town of Belet Weyne. He was turned down by Robin MacAlpine, HCR's Assistant Representative in Somalia, on the astonishing grounds that he was too well qualified. 'With your broad experience in Canada,' MacAlpine wrote, 'it is considered unlikely that you would be able to spend years in such a post without considerable frustration.'31 Bishara told me in 1988:

After receiving that letter I felt angry, humiliated and rejected. It proved to me that whatever we [Third World] people do in achieving academically, professionally and technically we would still not be acceptable to the white bureaucracies who enjoy the good life at our expense.32

It is interesting to note the kind of people that HER does consider suitable for jobs in Belet Weyne. Sydney Waldron a

construction engineer who was employed by an American charity implementing HER programmes in Somalia recalls

once being summoned to deal with a ‘sanitary emergency’ in the central Somali town. At that time Waldron was extremely busy on HER construction work near Mogadishu, the capital; since his orders came from no less a person than UNHCR’s regional head in Belet Weyne, however, he thought he had better respond. Besides, the town stands on the banks of the flood-prone Shebelle River, close to several refugee camps, and cholera is an ever-present risk. ‘Sanitary emergency’ was thus most likely the UN’s diplomatic euphemism for a killer epidemic. Fearing this to be the case, Waldron hastily consulted with a Somali sanitary engineer about ‘basic slit-trench and pit construction, labour recruitment, payment plans, tool availability, and other plans essential to the provision of sanitary facilities for some 200,000 refugees’.

He then records:

After a seventeen-hour trip of memorable discomfort (six persons and support equipment in a short wheelbase Toyota), I arrived in Belet Weyne to discover the nature of the sanitary emergency which had called me away. The regional head of UNHCR had been forced to relocate his residence to a temporary encampment after the town of Belet Weyne had flooded out. My task, in its entirety, was to provide him with a latrine pit and enclosure, and a shower enclosure. He had, in essence, diverted me from responding to construction needs which he, himself, had outlined in the UNHCR construction requirement report, in order to satisfy his personal comforts. My approach to this construction problem was a model of efficiency: I conveyed a packet of shillings from his hands to those of four Somali labourers, who dug the necessary pit.33

That night Waldron slept in an unusual place on

top of two refrigerators in the house that had been rented in Belet Weyne by the voluntary agency for which he worked. The

refrigerators, he observes, had been ‘flown in from the United States at considerable expense’ but were ‘useless except for sleeping on since they had been purchased with no-volt electrical systems; like most of Africa, Somalia operates on a 220-volt electrical current’.34

junk, waste and stupidity

Refrigerators were not the only costly and useless items that were freighted to Somalia at this time as a result of bad management and bad planning by humanitarians involved in refugee relief. Perhaps the most grandiose white elephants were a number of all-purpose health centres, prefabricated in Finland at an initial budget appropriation of $1 million each. Waldron again:

By the time they were ready for shipment the cost of these health centre buildings had purportedly doubled, *i.e.* to the staggering price of $2 million each. The additional cost was associated with the decision to include two flush toilets rather than only one. There was

no plumbing or

water source to which these might have been connected in the camps. When, finally, the health centres began to arrive in Mogadishu, another problem in design became apparent: their disassembled components were twice as wide as the available trucking could handle. I was offered the job (in all seriousness) of cutting these components in half on the docks of Mogadishu. The only such health centre to be erected during my stay in Somalia was virtually unusable since it was horribly hot inside. There was no electricity in the camp for its air-conditioners.35

The folly, irrelevance and

sometimes dangerous idiocy of

much that passes as humanitarian assistance is not publicised by the aid agencies at all, for understandable reasons. On the contrary, their press releases paint a rosy picture. Disaster victims, however, must live with the realities of relief. Perhaps because they do not read the press releases, some of them are beginning to be choosy about what they will accept.

At about the same time that Sydney Waldron was confronting the daunting challenge of sawing health centres in half in Somalia, Detroit newscaster Beverly Draper was en route for that same benighted country aboard a US air force Hercules filled with food, Pharmaceuticals and clothing she had collected for the refugee camps. The drugs, most of which were salesmen's samples donated by well-meaning doctors and pharmacists, were in due course destroyed by Somali public health officials who rightly considered them 'garbage'.36 Other than useless drugs designed to remedy the ailments of affluent patients, the poor and hungry in what is one of

the hottest countries in the world have also received frostbite medicine shipped from Minnesota,37 electric blankets, and huge consignments of Go-Slim soup and chocolate-flavour drinks for dieters.38

Even when appropriate in terms of content, emergency aid can still sometimes turn out to cause more trouble than it is worth. On Christmas Day 1986, for instance, a relief convoy left Khartoum, capital city of the Sudan, for the town of Wau in the far south where fighting and drought had led to famine. The convoy was carrying 200 tonnes of food when it set off; by the time it arrived in late January 1987, however, 22 tonnes had mysteriously disappeared. A generator for the local hospital had been brought on one of the trucks but was found to have had so many pans removed from it that it was unusable. Adding a final insult to injury, it was then discovered that the fuel needed to get the convoy back to Khartoum had also been stolen; almost all the remaining food had to be sold to

cover the cost of replacing it and to pay the wages of the troops who had made up the convoy's escort. Joseph Nykindi, Bishop of Wau and Chairman of the town's relief committee, subsequently wrote to donors: 'We appreciate your efforts, but if this is what you call food aid we don't want it.'39

Food from the European Economic Community is another gift horse that is frequently looked in the mouth, with complaints on record from a host of beneficiaries. According to Euro-MP Richard Balfe: 'It is completely unacceptable for us to export food that we would not eat ourselves.' Following

widespread fall-out from the nuclear accident at the Chernobyl power plant in Russia in 1986, however, some badly contaminated Community food, illegal in Europe, has turned up in aid shipments. In 1987, for example, a pasta factory on the Red Sea had to be closed down after taking delivery of irradiated Italian flour made from Greek wheat. A year later, in 1988, a number of impoverished

African countries were forced to reject EEC food because it was found to be dangerously radioactive.40

‘During a disaster, all sorts of junk comes rolling in,’ says Larry Simon of Oxfam-America. He is right. Food for Hungry Inc., an American private voluntary organisation, arranged a shipment of 19 tonnes of ‘survival food and drugs’ to Kampuchea during the great famine there in 1979-80. The food was so old that San Francisco zoo-keepers had stopped feeding it to then-animals

and some of the drugs had expired fifteen years earlier.41 One British charity’s response to an African emergency included packs of tea, tissues and Tampax, while a West German voluntary agency sent 1,000 polystyrene igloos which proved too hot for the intended recipients to live in. Since the igloos could not be dismantled they had to be burnt.42 Famine victims in India were sent blankets which they neither needed nor used; in due course the Indian government donated the same blankets to Nepal which, subsequently, donated

them back to India.43

Laxatives and anti-indigestion remedies are other favourites amongst agencies that provide humanitarian relief to the starving. According to Mary de Zuniga, a public health official in Nicaragua, ‘Whenever anybody donates a medicine, there just seems to be an overdose of milk of magnesia. We said we could probably use it to whitewash the building.‘44

Recently, relief agencies shipped nearly 800 cases of outdated baby food and food supplement to a Honduran refugee camp.45 Likewise, despite the well-known health risks posed to small malnourished children by unvitaminised dried slummed milk,46 this commodity remains a popular relief item in emergencies. According to a 1987 special report of the EEC Court of Auditors, ‘Botswana received a delivery of 500 tonnes of non-vitaminised skimmed milk powder, which was contrary to the most basic dictates of common sense. Since the milk was intended for direct consumption by

children in schools and small clinics, it should have been vitaminised to prevent the risk of serious gastric disorders.‘47

Mauritius, too, got 500 tonnes of the unvitaminised DSM. In this case the auditors note:

The addition of vitamins was essential since

the powder was for immediate distribution to more than 100,000 people from vulnerable categories. The supply agreement reached with the government definitely stipulated that the vitamins should be added, but the Directorate General for Development at the Commission omitted to mention this requirement in the mobilisation request which it sent to the Commission’s Directorate General for Agriculture.48

Other notable examples of EEC ‘humanitarianism’ gone wrong include 1 5 ,000 tonnes of maize loaded at Le Havre bound for famine-stricken Mozambique. On arrival the consignment was found to be old, full of broken grains, impurities and mould and

was, as a result, totally unfit for human consumption. A shipment of 26,000 tonnes of maize sent as food aid to the people of Niger was also examined by the auditors, who concluded sadly: ‘It was not even acceptable as animal fodder.’ In 1982 the tiny drought-stricken African republic of Djibouti actually had the temerity to refuse delivery of an emergency shipment of 974 tonnes of European wheat flour, which it declared unfit for human consumption! The EEC, however, was determined to impose its food on hungry Africans somehow and finally got the same consignment of flour accepted by Zaire albeit

two years later, in 1984.49

In 1983 Morocco ended up using 240 tonnes of EEC butter oil to make soap-the oil was found to contain four times the maximum level of aerobic germs permitted under European regulations. In the same year Tunisia received 345 tonnes of butter oil of even more dangerous quality it

contained a high level of peroxide and was, in addition, contaminated with faeces.50 There was, on the other hand, nothing wrong with the 4,500 tonnes of EEC butter that Libya, a wealthy petroleum exporter, was allowed to buy at the heavily subsidised price of 16 UK pence a pound during 1986. The deal, worth more than Ł7 million, also included 700 tonnes of subsidised beef no

doubt a popular item on the dinner tables of the Libyan people, who have amongst the highest disposable incomes in the world. Defending its action, the Commission argued that it was cheaper to subsidise sales of first-class butter and meat to Libya than it was to store these surplus items in Europe. However, as British MP Tony

Marlowe commented: ‘What about the poor? What about the starving in the Third World?‘51

The sad truth, as the auditors themselves regretfully conclude, is that the record of the EEC’s humanitarian aid to the poor is just a ‘catalogue of disasters’, with bureaucratic errors and inefficiencies, wastefulness, inappropriateness and unforgivable lateness very much the order of the day. In June 1983 the Commission received a request for help from Indonesia, which had suffered a poor harvest. In response to this request, 15,000 tonnes of wheat were shipped but

not until August 1984, even though the next harvest was by then over. Following hurricanes in Mauritius the Commission granted 2,000 tonnes of cereals as ‘immediate food aid’ on 25 March 1981; the consignment actually arrived fifteen months later on

20 June 1982. A March 1981 request from China for urgent help after drought in Hubei province did not produce any food shipments

until July 1982. Likewise, although the EEC knew that local stocks of Zambian maize would run out in April 1983, deliveries of food aid did not begin until July of that year.52

In Mozambique in 1988, emergency food aid from all sources, including the EEC, was found to be taking up to nine months to be delivered. Another phenomenon was also apparent: when a consignment did eventually arrive, the donor concerned would frequently insist that it be sent to the province it had

originally been earmarked for even

if that province was by then oversupplied and other areas were in need. This caused serious problems for Mozambiquan farmers who, against all the odds, had succeeded in producing a crop: donors appearing with food to give away ruined the market for them and put them out of business.53

In the hands of well-meaning but ignorant humanitarians, food aid frequently does more harm than good. According to a study by the US Agency for International Development, Guatemala received 41,000 tonnes of food from sympathetic outsiders after it had suffered a devastating earthquake. Very little of the Central American country's own food supplies had been destroyed by the quake, however, and local farmers had just brought in a record-breaking harvest. The most visible result of the humanitarian largesse dumped on Guatemala was thus the complete collapse of prices in the domestic grain market and greatly increased privation for rural producers.54

Band Aid, the dynamic charity set up in Britain by Bob Geldof with the avowed intention of responding to the real needs of the Third World and avoiding such snafus, wasted more than $4 million of donated money on the purchase of eighty second-hand lorries for Sudan. The lorries, which were bought in Kuwait, proved to be in

such bad condition that they were virtually unusable. It took five months and

many more dollars to

repair them.55 In Ethiopia, Band Aid's determination not to allow local political problems to pollute its humanitarian endeavours led to a decision to get assistance directly to the people of Eritrea and Tigre through the rebel movements which control the countryside in those provinces. A lorry was sent on a ship going to Port Sudan so that it could be taken into Tigre overland. Unfortunately the ship stopped first at Assab, an Ethiopian port. With the provocative legend 'To the people of Tigre from the people of Watford' emblazoned on its side, the lorry stood on deck in full view of Ethiopian Customs officials who quickly requisitioned it on

the entirely reasonable grounds that Tigre is part of Ethiopia.56

Despite such mistakes, however, Band Aid's efforts were generally effective and life-saving. By contrast, some humanitarian aid can kill. For example, Map International Inc., of Wheaton, Illinois, received a donation of $17 million worth of heart-regulating pacemakers from the American Hospital Supply Corporation. The donation solved a problem for AHS by giving it a hefty tax write-off from an area of its operations that it had anyway decided to close down. The pacemakers, which duly went to the Third World, quickly began to give the recipient countries other problems, however: most of the units were susceptible to battery leakage and other life-threatening malfunctions.57

fundraising

The fundraising methods that generate Western charity can be as reprehensible as the uses to which that charity is put. All too often what underlies the strident appeals, the images of starving babies and shell-shocked refugees,

turns out not to be a genuine concern for the wretched of the earth but, rather, a kind of capitalism of mercy in which aid organisations compete to boost their own size and prestige with

precious little reference to those who are meant to benefit from their programmes. It is doubtful in the extreme whether the end justifies the means, but this, in a sense, is irrelevant; what we have here is a situation in which the means has become an end in itself.

In late 1984 a French television company organised a ‘Trucks for Hope” convoy which sped across the Sahara Desert from the Mediterranean bringing medicines, equipment and food to the needy countries of the West African Sahel. Viewers were not told that almost as much money was spent on keeping the convoy in live satellite contact with France as was spent on the relief supplies. Most of the medical equipment carried was smashed to bits en route

because of the dramatic requirement to maintain a fast pace for the cameras despite bad or non-existent roads. ‘We chose the marathon format in order to keep the public in suspense,’ explained the organiser of what was described at the time as the ‘humanitarian equivalent of the Paris-Dakar rally’.58

World Vision, which runs a successful operation in Britain as well as in the United States, regularly makes powerful and emotional appeals to our humanitarianism. Its high-pressure sales techniques often seem to be based more upon the law of the jungle than upon anything else. Operating a survival-of-the-fittest philosophy in a competitive market-place, and apparently defining ‘fitness’ not in terms of the work it does amongst the poor but, rather, in terms of the quantity of funds raised, World Vision is not above sabotaging the efforts of other charities in order to fill its own coffers.

A classic example of this sort of strategy dates back to the early 19805 when Operation California, a relief agency based in Los

Angeles, organised a pop concert to raise money for Kampuchean refugees. The concert was televised by CBS and, at the end of the programme, Operation California flashed its telephone number for viewers wishing to donate. What it did not at first know was that World Vision had purchased commercials for

screening outside the Los Angeles viewing area to

coincide with the concert, during which, at regular intervals, it Sashed its own toll-free 800 number. According to Operation California Executive Director Richard Walden, many callers were not told that this toll-free number was World Vision's. Indeed, when Los Angeles Deputy District Attorney Edward Feldman called the 800 number and asked, 'Is this Operation California, the same people who had the concert on tonight?' he was told, 'Yes.'

In Feldman's opinion this was not merely unethical: 'It was wire fraud. It was a federal crime the

use of the airwaves and the phones to put out a phony message for the purpose of getting money … from our viewpoint it involved deceptive exploitation of the fundraising concert.'

Operation California, which was then working out of a one-room headquarters in Beverly Hills, quickly expressed its outrage to the larger and infinitely richer charity and threatened to go public with its complaint. World Vision's response was quietly to pass over a cheque for $250,000. It did not

make clear whether this was intended as compensation for the revenues that Operation California had lost as a result of the commercials or as hush money.59

On 21 December 1984, unable to resist the allure of Ethiopian famine pictures, World Vision ran an Australia-wide Christmas Special television show calling on the public in that country to give it funds. In so doing it broke an explicit understanding with the

Australian Council of Churches that it would not run such television spectaculars in competition with the ACC's traditional Christmas Bowl appeal. Such ruthless treatment of 'rivals' pays, however: the American charity is, today, the largest voluntary agency in Australia.60

World Vision's competitive use of the media has been less successful in Britain where it has been frustrated on a number of occasions. In 1985, for example, the charity's Northampton-based British office paid $25,000 to Mohamed Amin, the cameraman who, in October 1984, had shot the first news footage of the Ethiopian famine. The money was a subsidy for a tear-jerking thirty-minute documentary that Amin was making called 'African Calvary', and was given on the understanding that viewers of the film would be asked at the end to make their donations to World Vision UK. The funds would no doubt have come in useful to finance the agency's lavish aid programme in Ethiopia which, at that time, was spending

large sums on running what was effectively a private scheduled air service in the northern provinces of Wollo and Tigre; the World Vision fleet of five planes included a Twin Otter with a price tag of more than $2 million. Unfortunately, however, the BBC which

screened the film in Britain did

not approve of the idea of a single charity getting all the benefit and wanted instead to direct the audience's money to the Disasters Emergency Committee, a non-partisan umbrella organisation set up by a group of British voluntary agencies including Cafod, Christian Aid, Oxfam, the Red Cross and Save the Children Fund. An hour before the show went on the air the BBC found itself threatened with legal action and was forced to reinstate the World Vision appeal; rightly, however, it also included details of the Disasters Emergency Committee thus

allowing viewers to make up their own minds.61

Another World Vision scam is gross over-exaggeration of the extent of Third World disasters. An advertisement that the charity's US headquarters placed in the National Catholic Reporter on 2 October 1981 claimed that twelve million people in East Africa were 'on the verge of death. It's the greatest human-need crisis of our time.' The statement was not true as

World Vision admitted after officials from the UN complained to the publisher. In 1982 the giant charity remained apparently unrepentant: it screened emotional television commercials across the USA breaking news of a massive refugee influx into Somalia from neighbouring Ethiopia. What the commercials failed to mention was that the pictures and information were almost three years old.62

World Vision was not the worst offender in this respect, however. At the same time International Christian Aid was running its own ads about Somalia's

refugees. According to Arthur E. Dewey at the State Department's Bureau of Refugee Affairs, an ICA film 'erroneously claimed that 1.5 million refugees lived in Somalia, when the actual number was one-third that amount; fighting had increased, when it had decreased; children received 600 to 800 calories a day, when much of the refugee population actually was receiving too much food'.63 Likewise, the Dallas-based relief group Priority One International successfully parted humanitarians from their money with the claim that its missionaries in the South American country of Colombia were so poor that they had to exist on popcorn. Contacted by telephone, however, the missionaries themselves were more honest. Asked why they were eating popcorn they replied, 'Because we like it,' and added that they received regular deliveries of US-style food flown in from a nearby city.64

Perhaps the worst aspect of charitable advertising, however, is the

temptation, which few voluntary agencies can resist during disasters, to make ever more mawkish appeals. Undoubtedly these do raise money but they also humiliate the supposed beneficiaries and misrepresent them as passive victims incapable of doing anything for themselves. Thus on television in the United States Maurice J. Mosley, the President of Priority One International, once unshrouded a dead Somali baby for the benefit of the camera while the baby's relatives held a wake in the background. 'No gift is too big,' Mosley told > viewers.65

Neither is such schmaltzy and degrading sensationalism confined to the charitable sector of the aid industry. Similar examples from other areas include posters produced by UNHCR. What the posters all show is refugees in ; attitudes of submission or helplessness. Commenting on what he calls the persistent 'psychological reaction to refugees as people for whom "we must do something"', Martin Barber, Director of the British Refugee Council, had this to say

about the subjects of the UNHCR campaign: They were waiting for something to happen. They were holding out their hands. The photographer was standing up and they were sitting down.‘66

Bob Geldof, to his credit, has consistently refused to be photographed clutching the hand of a starving child. But even Live Aid, which started out at least with undertones of a more analytical and positive approach, could not in the end avoid getting in on the act. As Steve Bonnist of the Intermediate Technology Development Group puts it:

The success of Live Aid was the result of a constant barrage of negative images in the media engendering support. The following year, the same negative mechanism was at work. Sport Aid announced that they were raising money for long-term, self-help development. Yet, by the time the event rolled around, instead of positive images of people getting on with the job of building their own future, we again had a stream of pictures of famine victims

appearing everywhere in the media. The infamous promotional video, made in a film studio, with rats crawling over the feet of extras, portraying shuffling zombies scrabbling in the dust for grains of corn, merely reinforced the prejudices of many that

Africans are incapable of doing anything to help themselves.67

Disaster appeals of this sort pander to and

reinforce the

widespread belief that the impoverished peoples of the Third World are fundamentally helpless. Victims of nameless crises, disasters and catastrophes, they can do nothing unless we, the rich and powerful, intervene to save them from themselves.

The notion that we can do anything of the sort is both patronising and profoundly fallacious particularly

since our record in this field is blotted with failures, deceits and follies. Far from being isolated incidents, the fiascos of humanitarian relief that I have described hint at an entire substratum of persistent structural problems which confound virtually all other forms of aid as well.

some solvable problems

I will concede at once that a number of the difficulties which are specific to emergency relief could be dealt with relatively easily. For example, UNHCR could much more thoroughly vet and screen the voluntary agencies to which it subcontracts its responsibilities in the field, thus hopefully weeding out some of the worst abuses inflicted upon refugees. So far it has instituted no such system, however.68 For the present, as Sydney Waldron rightly observes: ‘any group capable of writing proposals is eligible to participate in UNHCR-co-ordinated relief efforts’.69

Another serious problem, also not beyond the bounds of human ingenuity to solve, is the sheer number of different kinds of organisation that flock like benign vultures to the scene of each and every Third World catastrophe. Leaving aside for a moment the private charities which, by definition, are a diffuse and scattered bunch with widely differing skills and concerns, it is a little-known fact that there are at least sixteen specialised United Nations agencies which can become involved in disaster relief activities;70 frequently they all do so at the same time. Thus, treading heavily on each other's toes, bickering violently amongst themselves and competing in sometimes unseemly ways for ascendancy, we find UNICEF and the World Health Organisation, UNHCR and the United Nations Development Programme, the Food and Agriculture Organisation of the UN, the World Food Programme, the World Meteorological Organisation, the United Nations Environment Programme, and the United Nations Office for Emergency Operations, to name but a few. In addition to their often strained

inter-familial relations, all these agencies also have to relate to the charities, to the International Commission of the Red Cross, and to governmental organisations like USAID and Britain's Overseas Development Administration. Inevitably this causes a nightmare of coordination, ruffled feathers all round, and much wasteful duplication of effort.

Pan of the difficulty here is that all the agencies, whether voluntary, bilateral, or multilateral, have their own areas of specialisation. This can lead them to respond to catastrophes subjectively in

terms of what they are good at

doing rather

than objectively, *i.e.* in terms of what actually needs to be done. As

Oxfam's Hugh Goyder has observed: 'In many disaster relief operations there is normally a dispute between those agencies that feel that medical treatment should have priority and those agencies that see food as a priority.'71 Such disputes have had fatal consequences. A 1987 study of a famine-relief camp in the Sudan, for example, found that donors emphasising the nutritional needs of recipients had managed to silence those emphasising medical and sanitation needs. In the end, however, more lives were lost because of preventable epidemics of measles and other diseases than because of malnutrition.72

It would help if the disaster victims themselves were consulted about their own priorities. This usually does not happen, however. Following the Israeli invasion of Lebanon in 1982 many Palestinian refugee camps suffered severe damage and this created an urgent need for new shelters to be built. Although this was a priority for the refugees, it was not seen as so important by those who came to help,

many of whom were not in the shelter business. An on-the-spot observer comments:

No one was hungry, there was no malnutrition, but one agency which specialised in nutrition arrived and demanded that they set up a therapeutic feeding centre. There was no malnutrition at all, but they insisted that they must start a therapeutic feeding centre. Other organisations may want to supply things like ambulances or orphanages because this is what they specialise in; perhaps in the States they support an orphanage and they want to help in Ethiopia or Somalia, so let's

support an orphanage. There are not many orphans in refugee camps.73

Because conflicts between agencies, and badly planned or inappropriate responses like these, occur during every famine, refugee influx, or similar disaster in the Third World, each such

event is followed by desperate calls for better coordination in the future. The calls are rarely answered, however, even when structures are put in place precisely to ensure this coordination. Since 1971, for example, and at a cost of more than $30 million to Western taxpayers, the UN has funded a fully fledged Disaster Relief Office with a specific mandate 'to mobilise, direct and co-ordinate international relief efforts and promote disaster prevention, planning and preparedness'.74 According to a damning confidential report by its own auditors, UNDRO has failed almost entirely to fulfil this mandate:

Involvement in relief coordination has been only modest, and other coordination activities have not evolved as planned. Despite many missions, neither a coherent technical cooperation programme nor major projects have been developed. Most planned research activities have been delayed or never undertaken, and information dissemination and sponsorship of meetings have been limited …

Other UN system organisations have not accepted UNDRO's leadership and few significant joint activities have taken place.75

UNDRO has itself been involved in wasteful expenditures of precisely the kind that were supposed to be reduced or eliminated by its coordination efforts. In 1975, for example, as part of the broader programme to improve the communications capacity of the UN, it spent $90,000 on two portable high-frequency radio sets for immediate disaster relief and emergency use in the field. 'The transceivers', the auditors note, 'have only been used once (unsuccessfully) in 1976, and have since been in storage. UNDRO has discussed selling them to the UN Field Service, but no sale has taken place.'76

Likewise, as long ago as 1976, UNDRO established a library intended to produce and update a reference catalogue and provide information to all types of user. These objectives have not been attained,' according to the auditors. The library has

no supervisor, no systematic organisational structure, no catalogue (beyond index cards), and is rarely used by UNDRO staff members. More seriously, while other smaller disaster units actively exchange information with the research community, and proposals are being developed for worldwide disaster research information networks, UNDRO is not serving as a research catalyst: outside enquiries are rarely received and UNDRO has no clear procedure for responding to those that do arrive.77

UNDRO is also not spending its substantial budget for staff travel in the ways originally intended. In 1975, when it was young, the organisation estimated that it should spend $97,000 a year on travel costs for relief coordination with

about 92 per cent of this for travel to disaster sites. Despite a dramatic increase in the budget since then, however, the auditors found that only 27 per cent of staff travel was actually to disaster areas. ‘The majority of UNDRO trips -73

per cent have

been for attendance at seminars and meetings, and “liaison” or “representational” travel to donor countries and organisations.‘78

It is little wonder that UNDRO is unable to contribute much to coordination of relief efforts in the Third World when its staff spend most of their time at conferences in the First. Something could be done to improve on this unhappy state of affairs, however, and on UNDRO’s so far rather unhelpful service. Indeed, with the experience gained in the multiplicity of disasters that occurred during the mid-to

late 1980$ it is fair to say that the aid community has learnt at least some lessons about coordination and has begun to put these lessons into practice.

The extraordinary delays which sometimes occur in the delivery of

emergency food during famines likewise need not be regarded as inevitable. Such delays, as documented earlier, are at their most spectacular in the case of the EEC which

still takes an average of 400 days to respond to urgent appeals for help.79 Similar problems, however, occur across the whole spectrum of international relief agencies. For example, a study of the UN World Food Programme's response to eighty-four emergencies showed that it took an

average of 196 days for requests for assistance to be processed and the food delivered.80 A lot of people can die in 196 days. It should be possible with better management and the build-up of strategic stocks at various locations to reduce this fatal time-lag; WFP is, furthermore, now working actively to achieve this end.

arrogance and paternalism

But other difficulties persist which defy simple managerial solutions. At the root of these is the humanitarian ethic itself in which aid becomes something that the rich compassionately bestow upon the poor to save them from themselves. Britain's Prime Minister Margaret Thatcher best summed up this patronising attitude when she said of Ethiopian peasant farmers: 'We have to try to teach them the basics of long-term husbandry.'81

The truth is that there is very little we can teach these tenacious and courageous people about the basics of their trade that they do not already know far better than we do; they have been extracting a living and

often a surplus -from the harsh eroded mountainsides of their homeland for millennia. What they do need, if they need anything, is the means to maintain their productivity in the face of escalating

ecological disaster. Mrs Thatcher's thinking on the subject, however, is indicative of the manner in which aid becomes transformed by the strange alchemy of mercy from mere neutral material help into something that 'we', the rich, do to 'them', the poor.

Between the rich and poor constituencies are 'our' representatives in the field, the middlemen the

voluntary, governmental and multilateral organisations that mobilise and deliver the aid. These organisations are riddled through and through with notions of compassion that are, as one observer has put it, 'inherently ethnocentric, paternalistic and non-professional'.82 Their staff are outsiders in the unindustrialised countries in which they work. They hail from societies which believe themselves to be more highly evolved than others (that is, from developed as opposed to underdeveloped societies) and which are deeply convinced of the superiority of their own values and of the supremacy of their

technical knowledge.

Precisely because of such attitudes, a medical programme for Ugandan refugees in southern Sudan was run during 1984 by a European nurse while a fully qualified Ugandan doctor (himself a refugee) was given only minor responsibilities. A former principal of a Ugandan agricultural college was also among the refugees. He was unemployed, according to Oxford anthropologist Barbara Harrell-Bond who was then conducting research in the camps. However:

The agencies drafted in a number of inexperienced and less qualified personnel from the US and Europe to run the agricultural programme/or refugees. The advertisement for one position of agricultural adviser illustrates the point. The advertisement asked for applicants who would be able to teach Ugandan farmers how to grow sorghum, sweet potatoes,

and cassava, whereas the most serious problem the refugees faced was lack of hoes and seeds.83

In one African country I met an anthropologist from Manchester University who had been contracted by Britain's Overseas Development Administration to do a survey amongst settled farmers in a tropical area that was about to be extensively sprayed to eradicate tsetse fly (and in which limited spraying had already begun). What he discovered, after conducting detailed interviews, was that the local people were bitterly opposed to the project. Many of their chickens, which contributed an important part of their diet, had been killed by the initial spraying and they did not want to lose any more. In addition, they were apprehensive that once the tsetse flies were gone nomadic herdsmen would move livestock in and destroy their crops (cattle cannot graze in areas of tsetse infestation because of trypanosomiasis). The anthropologist's findings were ignored by ODA, which went ahead with the spraying anyway

(indeed, it is difficult to see why the survey was commissioned in the first place; the decision to bombard the area with insecticide had been made some time before and was, according to the anthropologist, irrevocable).

This is, unfortunately, typical of the way in which ‘aid’ decisions are made -without reference to those whom they will most immediately affect. Only a very few researchers from the industrialised countries (they are predominantly anthropologists or ecologists, who have no influence upon what happens) listen to the opinions of the supposed ‘beneficiaries’ of the processes of development and have any degree of access to what one observer has called ‘the rich and detailed system of knowledge of the poor’. Aid workers, on the other hand, who are directly engaged in development, ‘are ignorant of and conditioned to despise that knowledge’.*4 In general the bigger, the more prestigious and the more bureaucratised the agency the more inclined it will be to

despise and thus ignore the wishes and opinions of its clients.

Once again, the negative and often murderous consequences of the wide prevalence of this state of mind amongst expatriates who administer aid programmes become most tragically apparent in the delayed, inadequate and inapposite responses that they make to catastrophes. Their responses to other kinds of aid challenge those

concerned with long-term development rather than with short-term emergencies are

conditioned by the same attitudes of cultural and technical superiority and are thus equally wrong-headed, as other parts of this book will show. But disasters, by their very nature, tend to bring things out into the open with the result that the failures of the aid agencies in this particular setting are more conspicuous than elsewhere and

thus are more frequently exposed by the mass media.

the Somali drought

In 1987, while doing field research in Somalia,85 I came across just such a failure on the part of a large group of aid organisations. This failure did not result from any particular malice on their part, or from any conspiracy (indeed,

they were much at odds with one another), but simply from the attitudes of mind of the key expatriates on the scene and from the routine work methods of the agencies they served. What happened in Somalia in that year was a text-book example of aid gone badly wrong and, for this reason, I shall recount it in some detail in the pages that follow.

There is a certain equation, called the ‘debt-service ratio’, which is of great importance to all developing countries and which, in Somalia, plays a crucial role in defining the relationship between donors and government. On one side of this equation is placed the amount of hard currency that a given country earns in a year from its exports; on the other is placed the amount of hard currency that it must pay out annually in interest and principal on its foreign debts. If export earnings exceed debt-service happiness.

If debt-service exceeds export earnings misery.

Somalia is in the latter camp; in 1987 its debt-service obligations were estimated to be 167 per cent of export earnings, then running at about $135 million a year.86 By contrast, foreign aid in cash and in kind was worth approximately $400 million a year.

What these figures mean is that Somalia’s economy is dominated by foreign aid, to which it must resort to finance all of its official

imports and a big chunk of its debt-service liabilities as well. In a very real sense, the government of Somalia depends on aid for its survival, and must rely heavily on aid funding for any development initiative it wishes to undertake. Accordingly, it is not surprising that almost every international aid agency is represented in one form or another in Mogadishu, the Somali capital. Most of the better-known private charities have well-staffed offices here as do many multilateral and governmental organisations.

Since Somalia benefits from America's largest aid programme in sub-Saharan Africa, the United States Agency for International Development is a particularly prominent member of the donor community. Operating out of a huge fortified enclosure near the suburb of Medina, USAID is in every sense an imposing presence. Visitors to the compound must pass through a rigorous and rather intimidating series of security checks. When and

if-they

are allowed in, they cannot fail to be convinced that they have been given access to a very important place. This impression was enhanced in 1987 by the personality of USAID's country representative. A brusque angry-looking pipe-smoker with beetling brows and a no-nonsense manner, he occupied a luxuriously appointed office of which the two principal features were a stars-and-bars flag and a massive wooden desk. Seated behind this desk, like the headmaster in his study, this gentleman had a habit of appearing to be deeply engrossed in paperwork when visitors were ushered in. Sometimes he would read and sign letters for as long as ten minutes before turning his attention to his guest who, by this stage, would often be too overawed to state his business coherently.

The United Nations family of specialised agencies are also important members of the donor community. Their principal offices are located in an extensive compound at the end of the scenic seafront corniche known as the Lido. Here, protected by a high wall,

an iron gate and a regiment of uniformed

security guards, the United Nations Development Programme (UNDP) and UNICEF have their country headquarters. Other UN agencies like the Food and Agriculture Organisation, the World Food Programme and the World Health Organisation are to be found in other parts of Mogadishu, but their staff all attend regular meetings at UNDP, which acts as the coordinating agency.

Although Somalia is classified as a 'hardship posting' thus

automatically entitling USAID staff there to a level of remuneration 25 per cent higher than they would earn in other more favoured countries87 expatriate

lifestyles seem to want for nothing. UN employees, for example, benefit from lavish duty-free allowances of imported alcohol and other items and enjoy salaries that average approximately $55,000

per annum.88 By contrast the most highly paid Ministers of the Somali government would have to work for almost fifty years to earn the same amount.89 Aside from the staff of voluntary agencies like Oxfam, who are not paid well by international standards, and who must, accordingly, live in modest and shared accommodation, the majority of aid officials in Mogadishu occupy large houses and villas; most employ two or more domestic servants; all have imported cars for private as well as official use.

Recreational amenities available to expatriate aid workers are also exceptionally pleasant. The principal attraction is the International Golf and Tennis Club, strategically sited across the road from USAID headquarters. Here, in addition to the golf course and tennis courts, a well-appointed restaurant serves prime steaks, hamburgers and iced drinks to sunbathers at the side of a swimming pool that would not look out of place in the gardens of a Hilton or Intercontinental hotel. Club membership is open to all expatriates in

Mogadishu, who gather here in great numbers every afternoon of the week (working hours for most are from 7a.m. until 2p.m.). Alternatives include the Anglo-American Beach Club90 and the Italian Club, both on the Lido. International restaurants abound, with fresh seafood, including lobster and shrimp, being specialities of Mogadishu. At weekends the opportunities for adventurous fun expand, with sailing and scuba-diving being particularly popular.

At the time of my visit in 1987, Somalia's Central Rangelands accessible

within ten hours by car from Mogadishu were

afflicted by a severe drought. This drought, which followed three years of inadequate rainfall, was allowed to become famine because expatriate aid workers and development experts from a wide range of different bilateral and multilateral agencies were not prepared to leave their offices in the capital to find out what was going on

elsewhere and were, in addition, arrogant, over-confident of their own judgements and unwilling to listen to local viewpoints. The Somali famine was neither large nor spectacular by comparison with those that occurred in Ethiopia in 1984-5 or in Kampuchea in 1979-80. Nevertheless it was to cause considerable and

entirely avoidable human

suffering in one of the world's poorest countries.

During the crucial months of February, March and April 1987, the dominant opinion within the donor community was that the problem was not a serious one that

what Somalia was experiencing was a 'prolonged dry season',

not a drought. Regrettably, this view prevailed over the government's own much more accurate analysis namely

that, irrespective of whether the rains came or not, the problem would soon be very serious indeed.

My own investigations in Mogadishu showed that as early as December 1986 Somalia's Ministry of the Interior and Ministry of Livestock were in touch with UNDP about the gravity of conditions in the Central Rangelands and elsewhere. By February 1987 the government had begun formally to notify its main aid partners that it believed an emergency was imminent, and it had lodged detailed requests for relief feeding by the beginning of March before

any deaths had occurred. The government's assessments and early warnings were in this case supported throughout by Oxfam and UNICEF, both of which also tried to draw the attention of large donors to the need for preparedness. All these appeals fell on deaf

ears.

Part of the problem stemmed from inter-agency bickering. One incident of this sort was a row between UNICEF and the World Health Organisation (WHO), both of which have responsibilities for primary health care in different districts of Somalia. Asked in early April by the Ministry of the Interior to investigate twenty-six deaths from diarrhoeal diseases in Wanle Weyn district in lower Shebelle region, UNICEF first notified WHO, who were the responsible agency in this district. However, WHO, apparently in a fit of pique at not itself being notified by the Ministry of the Interior, refused to cooperate with UNICEF, which then went ahead anyway and examined the fatalities. Subsequently, UNICEF's investigators concluded that 'the underlying cause of death is lack of food… the area has experienced drought for the last three years and the current food level in the villages is extremely low. There appears to be insufficient food for the population to survive on its own

resources… Many hundreds of cattle have died.'

The World Health Organisation refused to act on this analysis when it was presented at the regular donors' meeting, denied its significance and accused UNICEF of 'making mountains out of molehills'.

At the same meeting WHO also criticised a report produced by Oxfam on the nutritional status of two central regions of Somalia: Hiraan and Galgaduug. The Oxfam report, which followed a more impressionistic but equally worrying document circulated to donors in February, was the result of a detailed nutritional survey carried out in March. It showed large numbers of children to be below the crucial 80 per cent weight-for-height indicator and observed that the nomadic populations of the two regions were suffering dangerously high livestock losses. The report concluded that: The prospect of drought, destitution and malnutrition-related deaths is imminent… The lesson of ignoring suggestive signs until widespread human

starvation becomes camera fodder for the Western media should be too recent to be forgotten.'

WHO rejected all of Oxfam's findings and said that the concluding comments in the report were 'alarmist'.

WHO, however, was not the only big aid organisation in Somalia to refuse to listen to warning voices. USAID—die world's largest single source of food aid was equally deaf. At one meeting, staff of the Central Rangelands Development Project (a long-term programme that is in fact funded by USAID) made an attempt to describe to other donors the deteriorating situation in their catchment area and suggested there might be a case for emergency intervention. They were interrupted during their presentation by a senior USAID official. 'You're here to do development, not relief work,' he is reported to have said, 'so shut up and mind your own business.'

USAID's apparently determined role in discouraging responses from other donors and in stonewalling government requests for help was one of the most bizarre aspects of the drought all

the more so because of the agency's enormous economic influence and political weight in Somalia.

The first appeal on record from the government to USAID was made on 7 February 1987 in a letter written by the Ministry of Livestock. The letter requested emergency assistance in the form of grains for supplementary feeding of livestock, grains for human consumption, medicines 'for intestinal problems faced by local inhabitants' and veterinary drugs 'for control of lice and ticks currently causing problems to animals in poor condition'.

USAID's reply, which took ten days to draft, was a short note dated 17 February requiring 'quantification of the needs in each of the commodities you requested'. In this letter the agency emphasised

that it would expect the government to meet the needs from its own stocks but added that the United States might be prepared to finance this operation. The financing would not take the form of new assistance but would come from ‘counterpart funds’ -i.e. revenues already earned by the government from the sale in local markets of previously delivered US food aid (such revenues are held in suspense accounts and can only be released with USAID’s written consent).

In late February a second government letter was sent to USAID, this time from the Ministry of Finance, again drawing attention to the impending catastrophe in the Central Rangelands and again requesting emergency assistance. The reply, dated 2 March, reiterated the agency’s view that the government should propose a distribution plan for its own food stocks and that, subject to acceptance of this plan and cost estimates, USAID might release counterpart funds to cover the costs incurred.

On 5 March the Ministry of the Interior wrote to USAID with a cost estimate and a detailed distribution plan for what were then the three worst-affected regions: Hiraan, Galgaduug and Mudug. This estimate, which, just two months later, looked conservative rather than alarmist, was based on the assumption that 880,000 people would be in need of emergency feeding for one month and that the immediate requirement was therefore 13,200 metric tons of sorghum. With ancillary items like dried skimmed milk and food oil, plus transportation and handling, the whole operation was costed at 75 million Somali shillings (about $750,000).

USAID's reply, sent ten days later, was a derisive rejection of the government's estimates and costings. Far from 880,000 people in need, the agency insisted that the true number was between 25,000 and 30,000 and suggested

450 metric tons of sorghum would be quite sufficient to cover the requirements of such a small group for one month. The agency put the purchase and distribution costs of 450 metric tons of sorghum at 9.5 million Somali shillings (about $950000) and offered to meet these costs out of counterpart funds subject to presentation by the government of an acceptable distribution plan. The Ministry of the Interior's reply, sent by return, queried with some amazement USAID's figure of just 25,000 to 30,000 affected people. The Ministry asked how it was possible to arrive at such a low estimate for three major regions in which 75 per cent of the population were seriously affected by drought.

USAID did not reply to this query but, on 5 April, wrote again asking for a detailed distribution plan for 450 metric tons of sorghum. In the same letter the agency advised government of its understanding that the World Food Programme might be prepared to organise food-for-work schemes in the affected areas. With

something of a ‘let them eat cake’ attitude, USAID concluded: ‘It would appear, with all due respect, with what has been pledged by various parties together with the government’s own resources, that the matter is well in hand.’

On 13 April the Ministry of the Interior wrote to express its shock at USAID’s hard-line approach. The letter went on to advise that the Ministry had withdrawn not 450 but 1,000 metric tons of sorghum from government stores for distribution in the affected regions and that, in addition, it had managed to obtain a donation of 600 metric tons of wheat from the Saudi Arabian Red Crescent Society, which was now also being distributed. The letter closed with a request that the agency clarify its own position vis-a-vis the drought emergency without further delay.

USAID’s next letter, dated 15 April two

days later had

a unique Alice-in-Wonderland quality in that it yet again asked for a detailed distribution plan for 450 metric tons of sorghum. It also advised that, in the agency's view, the nutritional status of the people of the Central Rangelands was serious but 'not critical' (by this time several hundred children had died of malnutrition-linked conditions).

On 21 April, however, USAID wrote again, hastily releasing counterpart funds to cover the cost of the 1,000 metric tons of sorghum already distributed from government stores to famine victims. The tone of this last letter differed markedly from that of the earlier correspondence in that it praised the government's distribution efforts and concluded that USAID was 'proud to be able to support the government's initiative'.

I visited the drought-affected areas myself between 22 and 26 April 1987 and published an eyewitness account in a British national newspaper, The Independent, on 27 April. Travelling some 2,000

kilometres overland in the regions of Hiraan, Galgaduug and Mudug, I came repeatedly across appalling scenes of malnutrition, notably amongst children and the elderly. The carcasses of dead livestock were scattered everywhere across the rangelands and a famine migration of destitute nomads had begun, with families camped on the outskirts of every settlement frequently

roofing their temporary shelters with the skins of their last camels.

When I returned to Mogadishu I interviewed USAID's country representative and asked how it was that his agency had been so late to act. In essence, his reply was that the government had not made it clear to him how severe the drought was. Like other donors subsequently, he criticised Somalia for the delay in announcing an emergency.

In the event, Somalia made a formal declaration of a state of emergency on 29 April 1987. Appealing for international assistance,

Interior Minister Ahmed Suleiman told assembled diplomats and aid agency chiefs that more than five million people were affected by severe drought in twelve of the country's regions, and that 600 had already died. He listed total livestock losses as 55 per cent of sheep and goats, 15 per cent of camels and 35 per cent of cattle. Noting the extremely poor condition of the remaining herds and the large numbers of people already destitute, he said that relief feeding would be necessary for at least six months. Shortly afterwards USAID headquarters in Washington issued a statement supporting these findings and announced that it was holding emergency meetings and would be sending experts to Somalia to help the government assess its needs.

Given the blatant hostility and scepticism on the part of USAID during February, March and April 1987, it is hardly surprising that the drastic step of declaring an emergency was not taken sooner by the government. The tone of the agency's letters, and the scornful

dismissal by the larger donors of Oxfam's and UNICEF's field reports, were taken as clear indicators of the kind of reception that an early emergency declaration would have received. As Interior Minister Ahmed Suleiman put it in an interview with me: 'We had reason to believe that some of the donors thought we were just crying wolf.'

Even after the declaration of the emergency, the arrogance of the large donors and their apparent inability to absorb the realities of conditions in the Central Rangelands remained a crucial factor in shaping the international response that was mounted. Early in May the government estimated that, out of the five million people affected by drought, some 1.6 million were by then in urgent need of a full-scale relief operation. Donors rejected this estimate and countered it with a much lower figure of their own -265,000

in urgent need of feeding.

Regrettably the donors' figure was not the product of careful field research. It was devised by six 'information collecting teams' which made a whistle-stop tour of regional and district capitals in the first two weeks of May, conducted interviews with local officials, and then did some highly suspect sums on the basis of these interviews. The teams rarely went far off the main road that runs through the Central Rangelands and made no effort to contact and interview nomadic groups, let alone conduct nutritional surveys amongst them.

Half-baked though it was, however, this information-collecting exercise was the baseline for the distribution of 3,400 tonnes of grain that was started in May under the auspices of the World Food Programme. The first half of the

distribution, according to the Ministry of the Interior in Mogadishu,

‘created a lot of confusion and unrest. The distribution was not even. Some villages in the affected areas received assistance while others were denied.’ In addition there was a dispute over the transportation costs, which in

slavish accordance with normal operating practices were

only met partly by WFP. As a result, the second half of the distribution scheduled for early June 1987 was postponed by the Somali government pending agreement on a more sensible distribution plan and agreement also on who would pay for the balance of the fuel costs. Meanwhile, Somalia went ahead as best it could with distribution of bilateral donations of wheat and other commodities from friendly Third World countries like India and Kenya.

I visited the Central Rangelands for a second time during June in order to make a television documentary for Britain’s Channel 4.1

was horrified to find that the already bad nutritional status of the people had deteriorated dramatically since my earlier visit and that the only food available for them to eat was Indian wheat being distributed by the Somali government. The famine migration that I had seen beginning in April had become a mass movement of the population into ad-hoc squatter camps with no sanitation and with inadequate shelter. Although the delayed spring rains had by then begun to fall they had come too late to save the nomads' livestock herds, all of which had already perished. Neither were the rains of any comfort to the famine victims; the net effect was to add cold and damp to their chronicle of misfortunes and to spread deadly water-borne diseases amongst them. Our cameras recorded a high incidence of severe marasmus in infants.

The hospital in Galkaio, regional capital of Mudug, was swamped with terminal cases. Many children were suffering from catastrophic diarrhoea brought on by drinking polluted water; others had

pneumonia a

common complication of malnutrition, now exacerbated by the rains. No injectible antibiotics were available in the hospital and medical staff could only stand by hopelessly. WHO, which has a responsibility for primary health care in Mudug, had sent no appropriate drugs to the regional medical officer.

By this time Western donors in Mogadishu had set up a structure to improve coordination of the aid effort. This structure was known as the Drought Action Committee and counted amongst its members the British Ambassador (representing the Overseas Development Administration), USAID's country representative, and staff members from Oxfam, UNICEF, WHO, FAO and several other agencies. The Chairman was a senior official who was given a central role in decision-making on behalf of the entire group. In his well-pressed blue shirts, and sporting a handlebar moustache, the individual concerned reminded me strongly of the classic image of

the gung-ho RAF officer about to take to the skies in his Spitfire to repel the Hun during the Battle of Britain. Neither was this image inapposite since he seemed to interpret his role in the Somali capital as an adversarial one vis-avis the Somali government. He told me frankly that, in his view, Somali officials were ‘trying to use the drought to extract the maximum amount of aid from us’, and he

made it clear that he did not intend to let them get away with this vicious subterfuge. ‘We’re all bloody tired of their constant demands for more,’ he confided.

While his desire to defend the Western purse from the piratical depredations of avaricious Somalis was something that I could understand although

not approve of-1 was surprised to learn on my return from the Central Rangelands in June that he had not been to the drought-affected areas at all during the whole of 1987. This seemed to be a

strange oversight for the Chairman of the Drought Action Committee. It was an oversight that enabled him to persist stubbornly in the belief that the country was confronting only a short-term and minor problem that could be solved with a few thousand tons of food. A factor that added to this conviction was the onset of the rains, which had been particularly heavy in Mogadishu. Out jogging one morning during a torrential downpour he reportedly pointed to the skies and told another aid agency official: ‘Well, that’s the end of the drought, then.’ If that was indeed his view, then it is possible that he did not realise the extent to which the rains had made things worse, rather than better, in the far-off Rangelands.

I and my camera crew brought him up to date on the situation there by showing him the raw footage of our film, after which a number of further information-collecting missions were hastily dispatched to the field. A long-delayed nutritional survey begun at the same

time was abandoned as pointless after only a few days since it was evident that almost everyone was malnourished and that there was no longer any point in waiting for statistical evidence of this manifestly obvious fact before deciding what action to take. Many children died needlessly before medical and feeding teams could reach them.

I have cited this example of delayed and inadequate donor response to Somalia's 1987 emergency at length because it provides a detailed illustration of the ways in which expatriate aid workers have the power to make arbitrary decisions that may mean the difference between life and death for thousands of poor people. They cannot be relied upon to make the right decisions; throughout the Third World they frequently make the wrong decisions. The 'humanitarian' character of their mission encourages them to avoid examining the efficiency of then* own work methods and leads them to resent those who question their generosity. Many of them

(USAID and United Nations employees) enjoy diplomatic status. Most live in privileged circumstances with salaries and a quality of accommodation that are unimaginably lavish by local standards. They have vast resources at their disposal to

bestow or withhold during an emergency as they see fit. All these factors conspire to render them liable to a deadly kind of folie de grandeur.

De ja Vu

It is a folly that persists through time and that, again and again, causes the international system of humanitarian relief to fail in its essential mission. The same thing happened in Ethiopia in 1983 and early 1984; although the writing

was on the wall for a famine that television reporter Michael Buerk was later to describe as being of ‘biblical proportions’, the aid agencies missed, ignored or downplayed the warning signs and only lumbered ponderously into action when tens of thousands had already died.91 The Ethiopian government was subsequently widely accused of failing to alert donors to the impending disaster. The truth, however, was that it had done so, repeatedly; the problem lay with the agencies themselves, which simply refused to listen. Seven months before Buerk issued his emotional televised appeal from the devastated area outside Korem, Dawit Wolde-Giorgis, then Ethiopia’s Chief Commissioner for Relief and Rehabilitation, told assembled aid agency chiefs: ‘Ethiopia is facing a potential disaster of considerable magnitude in which, this year, around one-fifth of the country’s population will need assistance in some form or another. If those affected do not receive relief assistance, the consequences will be frightening.’ He backed this statement up with a detailed statistical account of the numbers of people in desperate

need (‘1,790,000 out of 2,500,000 in Wollo; 1,300,000 out of 2,400,000 in Tigre’). Damningly, as one confidential internal report produced by Oxfam puts it: ‘Virtually no one, including Oxfam, took the request very seriously.‘92 They only began to give it credence after the intervention of television; the cost of the delay, as is now only too well known, was the needless loss of more than a million Ethiopian lives.

Plus (a change. The devastating famine that killed millions in the West African Sahel during 1972-3 had been signalled since 7967 by clear warning signs which, though unmistakable indicators of what was to come, were ignored by aid agency staff on the spot.93 Explaining this failure to anticipate the crisis a senior American official observed delicately: ‘It sneaked up on us over a five-year period.‘94 Once again it was the mass media that exposed the disaster and that asked the painful questions which eventually forced the relief mechanism into action.

‘What tends to happen is that nothing happens,’ says Dr John Seaman, a senior medical officer with Save the Children Fund, ‘the donors tend not to believe what is going on. They need to see people dropping in their tracks before they will act.‘95 It seems inevitable that this should be so when, at every level in the structure of almost all our most important aid-giving organisations, we have installed a tribe of highly paid men and women who are irredeemably out of touch with the day-to-day realities of the global state of poverty and underdevelopment which they are supposed to be working to alleviate. These over-compensated aid bureaucrats demand and

get a

standard of living often far better than that which they could aspire to if they were working, for example, in industry or commerce in their home countries. At the same time, however, their achievements and performance are in no way subjected to the same exacting and competitive processes of evaluation that are considered

normal in business. Precisely because their professional field is ‘humanitarianism’ rather than, say, ‘sales’, or ‘production’ or ‘engineering’, they are rarely required to demonstrate and validate their worth in quantitative, measurable ways. Surrounding themselves with the mystifying jargon of their trade, these lords of poverty are the druids of the modern era wielding enormous power that is accountable to no one.

PART TWO

development incorporated

For every problem there is a solution that is simple, direct and wrong.

H. L. Menken

One warm September evening I flew into Washington, DC, to investigate the problem of poverty. I'd been in Ethiopia the week before and in the Philippines and Pakistan before that; it did not, however, seem to me in the least bit paradoxical that I should now be visiting the federal capital of the richest nation on earth in order to learn more. I had come simply to attend the joint annual meeting

of the Boards of Governors of the World Bank and the International Monetary Fund two

institutions that play a central role in mobilising and disbursing funds for impoverished developing countries.

I spent the night in the pleasant home of friends who both workinthe aid business she's

a consultant, he's employed by the Agency for International Development-then,

next morning, I went along to finalise my accreditation as an observer at the meeting. Strolling down the sunny side of eighth Street admiring the rows of stretch limos drawn up outside the headquarters buildings of the Bank and the Fund, I bumped into an aid official I have known for some years. She regarded my jeans and short-sleeved shirt with a disparaging eye. 'You can't go around

looking like that,' she said finally, 'nobody will talk to you."

She was right as

I would myself have realised earlier if I had not still been so jet-lagged. There were quite a few delegates milling about and they were all dressed in dark suits and shiny shoes, white shirts and silk ties. Feeling suddenly as out of place as a peasant-farmer in the stock exchange, I got my laminated photo-identification pass issued as quickly as I could and hurried off to smarten up my act.

going for the international champagnes

The Bank-Fund annual meeting is a rallying point for everybody who is anybody in the poverty business: for aid donors and aid recipients, for private Western financiers who have lent money on commercial terms to Third World nations, for academics and researchers, for UN bureaucrats, for company directors, for experts,

for onlookers and for fellow travellers of all kinds. It is an important forum for the discussion of development issues but it is also a sort of trade fair of international creditors and debtors. It is a serious professional get-together but it is also a social event with its own unique hierarchies and

rituals. VIPs normally scattered to the four corners of the world and shielded from visitors by ramparts of fawning retainers are, for this brief period, gathered together in one place, wined, dined and rendered accessible. Over mountainous piles of beautifully prepared food, huge volumes of business get done; meanwhile staggering displays of dominance and ostentation get smoothly blended with empty and meaningless rhetoric about the predicament of the poor.

Barber Conable, the former US Congressman who became President of the Bank in 1986, was in full oratorical flow at the

meeting I attended. Balding and bespectacled, he took the podium to say this:

Our institution is mighty in resources and in experience but its labours will count for nothing if it cannot look at our world through the eyes of the most underprivileged, if we cannot share then: hopes and their fears. We are here to serve their needs, to help them realise their strength, their potential, their aspirations … Collective action against global poverty is the common purpose that brings us together today. Let us therefore re-dedicate ourselves to the pursuit of that great good.'

The 10,000 men and women attending the conference looked extraordinarily unlikely to achieve this noble objective; when not yawning or asleep at the plenary sessions they were to be found enjoying a series of cocktail parties, lunches, afternoon teas, dinners and midnight snacks lavish enough to surfeit the greediest gourmand. The total cost of the 700 social events laid on for

delegates during that single week was estimated at $10 million2 a

sum of money that might, perhaps, have better ‘served the needs’ of the poor if it had been spent in some other way. Xeropthalmia, for instance, a disease caused by vitamin A deficiency, blinds 500,000 African and Asian children every year and permanently impairs the sight of millions of others. With $10 million it would be possible to provide a full year’s supply of vitamin A tablets to 47 million children at risk in the developing countries, thus undoubtedly helping them ‘to realise their potential’.3

Such calculations, however, seemed far from the minds of the glittering and well-heeled people gathered by the Bank and the Fund to review the problems of world development. They clearly had no objection to the small fortune that was being spent on pampering their own stomachs. ‘They’ve booked up the whole city,’ commented William Holman of Design Cuisine Inc.

Ridgewells, a well-known Washington catering company, prepared twenty-nine parties in one day alone, according to executive Jeff Ellis who added: ‘This year the hosts want more expensive menus, and they’re inviting 30 per cent more people. No one is stinting but,

then, they never have.’ A single formal dinner catered by Ridgewells cost $200 per person. Guests began with crab cakes, caviare and creme fraiche, smoked salmon and mini beef Wellingtons. The fish course was lobster with corn rounds followed by citrus sorbet. The entree was duck with lime sauce, served with artichoke bottoms filled with baby carrots. A hearts of palm salad was also offered accompanied by sage cheese souffles with a port wine dressing. Dessert was a German chocolate turnip sauced with raspberry coulis, ice-cream bonbons and flaming coffee royale.

The Shoreham Hotel estimated its revenue from the ninety-six parties held there during the conference at $1 million. According to Harriet Schwartz, a partner at caterers Washington Inc., ‘The Taste

of America' party laid on by her company at the Shoreham was designed as a Cook's tour of the best in US cuisine, specially planned to enthral foreign guests. More than 1,500 delegates attended an equally stunning event at the Foundry, hosted by the World Bank. On offer were thirty different foods, ranging from gravadlax to steak tartare to jambalaya. 'The name of the game now is catering to people who go for high-quality imported wines,' commented Herb Rothberg, general manager at Central Liquor. 'The IMF has been coming inhere, doing a lot of entertaining, and they're going for the international champagnes."

Appropriately, the conference itself was not held in some dour auditorium but, rather, in a first-class international hotel the

sumptuous and exclusive Sheraton-Washington. Here 550 guest rooms had been converted into temporary offices, eleven miles of special telephone lines installed, a twenty-four-hour print shop opened and 54,000 watts of floodlights added at IMF and World

Bank behest. Mary Noel Walker, the hotel's Director of Public Relations, admitted that she had no idea what the floodlights were for. 'It's their house during this time,' she said with a shrug. Indeed, the Sheraton, which has served as the principal venue for the conference since the 1940$, is so much 'then"' house that when its new extension was planned in the late 19705 the Fund and the Bank were consulted for suggestions, and phone installations were designed to their specifications.

The mammoth hotel, however, is plainly no longer big enough to cope with the expanding needs of conference delegates. At peak hours it is even difficult to get into a lift. Waiting in the lobby to go up to the sixth floor for a meeting with Dr Chedly Ayari, President of the Arab Bank for Economic Development in Africa, I found myself in a jostling queue of more than twenty distinguished but evidently irritated people. Amongst them, in a charcoal-grey suit, was Nigel Lawson, Britain's Chancellor of the Exchequer a

man not used to being kept waiting.

I was not able to establish where Lawson was heading, but when I reached my own destination I quickly got into another queue this

one consisting exclusively of African Ministers of Finance. All were from countries that have benefited from the $1 billion-plus of development loans that the Arab Bank has provided on soft terms to the world's poorest continent since 1974, all were impeccably attired (Gucci shoes and Louis Vuitton attache cases much in evidence), and all were waiting either to explain to Ayari why exactly it was that they were not yet in a position to meet interest payments then due, or else to prop

osition him for yet more money.

Looking at the kinds of car delegates were going around I could understand why they might need to get their hands on some extra cash. At times the queue of costly gas-guzzling limousines occupied the full length of

the driveway of the Sheraton-Washington, extended into Woodley Road and ran on from there into Connecticut Avenue. Indeed, the congestion was so severe that delegates were frequently to be seen leaving their vehicles in exasperation and sprinting towards the hotel, hot and sweaty in their pin-stripe business suits, photo-cards flapping against their elegant lapels. ‘A good driver wouldn’t let his client walk two feet,’ said one chauffeur in despair.

Despite such aggravation, however, Washington limousine companies were doing a roaring trade. John Goldberg, the general manager of Dav-El Livery, said that bookings outnumbered the

available cars in his fleet by a factor of three to one; he'd had to bring in more cars from New York to make up the difference. 'Incredibly long hours, seven-days-a-week working,' said Embassy Limousine manager Steve Murphy, who was renting out his plush vehicles at $44 an hour with a ten-hour minimum. 'You have to scramble a lot. It's a combination of playing chess and poker at the same time.' According to Sean Surla, another chauffeur, the IMF-World Bank conference ranks second only to presidential inaugurations when it comes to limo-mania. 'They pour a lot of money into this,' he said. 'They each have to have their own car.'

A movable feast, the Bank-Fund meeting takes place every third year in a developing country. Back in 1985, when I was first starting to research this book, the venue was the Hilton International in Seoul, capital city of South Korea. In order to make space for a parking lot big enough to accommodate the fleet of limos used by delegates, the Korean government helpfully razed to the ground the

poverty-ridden red-light district adjacent to the hotel -demolishing a total of 128 buildings.4

A little later that same year, with the meeting in Seoul over, members of the development set gathered in North America once again, this time in New York City where, I recall, the streets were jammed solid for several days by slow-moving processions of huge motor cars. The situation got so bad that the Times coined a phrase for it 'limo

lock' which

summed things up pretty neatly. You could barely move anywhere in any direction without coming across a line of monster machines with smoked-glass windscreens and strange boomerang-shaped antennae on their boots. Why? Because the United Nations was celebrating its fortieth anniversary and because thousands of delegates were suffering from the 'my car is bigger than yours'

syndrome.

Thus, like Siamese twins joined at the hip, aid bureaucrats and their limousines are never far apart. Indeed, pomp and ceremony of just about every possible kind, gourmet dinners, and five-star hotels are integral components of the day-to-day existence of those employed by international organisations to solve the problems of global poverty. Whether they are from the United Nations Development Programme, or from the World Bank, few of the officials concerned see their costly addiction to the trappings of status and wealth as indications of deeply ingrained hypocrisy; rather, they take their privileged lifestyles for granted as inalienable rights, as self-evidently legitimate rewards for the 'great sacrifices' that they somehow believe they are making.

Unsurprisingly, these same pampered and overpaid bureaucrats have organised things so that they can continue to prosper even if they are fired: redundancy payments at the World Bank, for

example, average a quarter of a million dollars per person. When Barber Conable took over as President in 1986 he vowed that he was a new broom who was going to sweep clean. Out of the institution's total staff of more than 6,000, some 700 executives lost Their jobs in the year that followed; the money spent on this exercise, $175 million,5 would have been enough to pay for a complete elementary school education for 63,000 children from poor families in Latin America or in Africa.6

the development industry

'The Bank's reorganisation is now completed,' Conable reassured his literate and well-fed audience at the annual meeting in September 1987. 'Looking ahead, I am confident that we have greatly improved our institutional ability to provide sensitive, effective and timely support to each of our borrowers and to offer intellectual leadership in the understanding of development.'7

In order to make such a claim, Conable must have a fairly clear idea of what ‘development’ actually is. This certainly seems to be the case when he identifies measures ‘to promote economic growth’ and ‘combat poverty’ as the ‘fundamental tasks of world development’, and when he goes on to describe the institution that he heads as the ‘world’s principal development agency’.8

But what exactly does he mean? A housing project, after all, is a ‘development’, as is any new event that changes a current situation. The logical sequence of a thought can be described as ‘development’ but, then, so can the awakening of a child’s mind or the budding of a teenager’s breasts.

Dictionary definitions of this much-used, much-abused word vary; in one way or another, however, all incorporate ideas of growth as

in ‘well-grown state’, ‘stage of advancement’, ‘the process of making fuller or bigger’. Collins English Dictionary, in a column

which also defines ‘deviant’ and ‘devilish’, tells us that ‘development’ is the ‘act or process of growing, progressing or developing’. Something that is ‘developmental’, according to the Concise Oxford Dictionary, is something that is ‘incidental to growth’ or ‘evolutionary’ in its role. The verb ‘to develop’ involves inevitable notions of making progress, of effecting a transformation from a primitive to a more elaborate form.

Applied to countries, the basic co

ncept of development does not change. ‘Underdeveloped countries’ must in some sense be stunted and backward; ‘developed countries’, by contrast, are fully grown and advanced. Once you start using such language, you cannot avoid the value judgements that the words contain. Obviously it is better to be developed than to be underdeveloped. It would be crazy to suggest anything else. Can

you imagine anyone preferring to be backward when they could be advanced, stunted when they could be fully grown? Of course not.

On the foundations of this kind of logic a giant international industry has been built. It is a fantastically complex, diversified and devolved industry, of

which Mr Conable's Bank is just a single though

important component

part. Financed largely by the official aid of rich countries, mandated to promote 'development' in the poor ones, it is an industry that employs hundreds of thousands of people around the world to fulfil a broad range of economic and humanitarian objectives. The Wall Street Journal once described it as 'the largest bureaucracy in

history devoted to international good deeds'.' I prefer to think of it as Development Incorporated.

Disaster relief, documented in Part One, is only a small aspect of the overall work in which Development Inc. is involved. Food, for example, would seem to be the pre-eminent 'disaster commodity' but only 10 per cent of all food aid is used for disaster relief and feeding refugees.10 Excluding these food shipments, barely 1 percent of all the money spent on aid each year is earmarked for emergencies;11 the rest is ploughed into long-term projects and programmes in the Third World intended, as the UN Charter puts it, to create 'social progress and better standards of life in larger freedom … to employ international machinery for the promotion of the economic and social advancement of all peoples'.12

Thus, in every poor country where a huge public infrastructure scheme is under way a

dam, a trunk road or a power-station for example Development

Incorporated is likely to be involved. Sanitation, water and sewerage works, ports and airports, trams and boats and planes, crop spraying, irrigation, rural health centres, the construction of classrooms, the construction of hotels, mining, prospecting, range management, livestock centres, cement factories, resettlement schemes, family planning programmes, rural literacy programmes, the provision of seeds, the provision of experts, debt relief, balance-of-payments support, technical cooperation, building railways, building bridges, institutional reforms, national planning, the construction of hospitals, the drilling of wells, teaching foreign languages, eradicating tsetse flies, expanding fisheries in

one way or another Development Inc. plays a role in all of these things, and in many many more besides.

The poorer the country they take place in the more likely it is that

all or most of these activities will be paid for by ‘Official Development Assistance’ ODA

for short a

concept that excludes finance provided by private voluntary organisations like Oxfam. ODA is public money, raised by taxation and disbursed by official agencies, including state or local governments. To be classified as ODA a transfer of resources (whether in cash, in kind, or in the form of expertise) must also meet the following tests: (a) it must be administered ‘with the promotion of the economic development and welfare of developing countries as its main objective’; and (B) it must be ‘concessional in character’, containing ‘a grant element of at least 25 per cent’.13

Thus, loans to Third World countries can only qualify as ODA if they are made on ‘soft’ (concessional) terms; loans to which commercial or near-commercial rates of interest apply are not aid.

Likewise, any kind of military assistance, concessional or otherwise, is automatically excluded by the ODA definition, since such assistance obviously has nothing to do with the promotion of economic development. Humanitarian assistance provided by official agencies, however, and emergency relief (including food aid) although

not strictly 'developmental' in purpose are included in all calculations of ODA.

Official aid-flows that meet all the above criteria now tend to vary between $45 billion and $60 billion a year. Some rich countries make very large individual contributions to this total, others give much less. In 1986, for example, world ODA stood at $46 billion; out of this, roughly $37 billion came from eighteen 'Western' industrialised nations. The breakdown was as follows: United States ($9.784 billion); Japan ($5.634 billion); France ($5.136 billion); Federal Republic of Germany ($3.879 billion); Italy ($2.423

billion); Netherlands ($1.738 billion); United Kingdom ($1.750 billion); Canada ($1.700 billion); Sweden ($1.090 billion); Norway ($796 million); Australia ($787 million); Denmark ($695 million); Belgium ($542 million); Switzerland ($429 million); Finland ($313 million); Austria ($197 million); New Zealand ($66 million); and Ireland ($62 million). In the same year, the Soviet Union provided $3.8 billion of ODA and oil-rich member states of the Organisation of Petroleum Exporting Countries provided $4.5 billion.14

It is extremely difficult to get these kinds of figure with their endless strings and columns of zeros, their commas and their decimal points, into any kind of useful perspective. Comparisons between ODA and other forms of spending help, however.

The USA and the Soviet Union together spend $1.5 billion every day on ‘defence’ in

other words the total annual value of world aid is equivalent to

roughly one month's military expenditure by these two countries. Fifty MX 'Peacekeeper' missiles cost $4.54 billion more

than the ODA of the Federal Republic of Germany. Research on 'Star Wars' in fiscal 1988 cost $3.9 billion; for this amount which

is more than the ODA of Canada and the UK combined you

can also buy one Nimitz-class aircraft-

carrier. A single Trident submarine, at just less than $1.5 billion, is worth as much as the combined aid programmes of Australia and Denmark.15 Since 1962 the USA has spent almost $300 million on training dolphins for military purposes16 more

than the annual aid budgets of Austria and New Zealand combined.

In 1988 Britain spent about fourteen times more on defence than it did on aid.17

British women, meanwhile, spend roughly $480 million every year on fragrance and skin-care products18 more

than Switzerland spends on aid. The booming international market for duty-free goods at airport, ship and in-flight sales outlets is now worth $5.5 billion per annum19 more

than France spends on aid. Americans spend $22 billion a year on cigarettes20 -more than is spent on aid by the three largest Western donors combined. Worldwide, consumers spend $35 billion a year on personal computers21 -more than is spent on aid by the ten largest Western donors combined.

The United States has an estimated 832,500 millionaire families;22 if their average net wealth were just $1 million each, then they

would be worth collectively approximately eighteen times as much as entire world ODA. In

fact average net wealth in this group is vastly more than $1 million. There are now twenty-six billionaires in the US A and there are 400 individuals whose wealth exceeds $180 million each.23 Michael David Weill of the US company Lazard earns an annual salary roughly equivalent to the combined value of the aid budgets of Ireland and New Zealand.24 Meanwhile, the $10 billion disbursed each year under the US foreign aid programme represents rather less than half of the net wealth of the world's richest man: Yoshiaki Tsutsumi, Chief Executive of the Seibu Group, a Japanese property and railway company.25

Sweden spends just over $1 billion per annum on aid; it costs almost exactly the same amount of money to run the New York City Police

Department.26 The administration of the city of Hamburg in the Federal Republic of Germany costs $840 million a year27 more

than Norway's annual ODA. Metropolitan Tokyo spends about $650 million a year running its fire department28 more

than Belgium's ODA. The EEC spends $20 billion per annum just to store surplus food produced by European farmers29 more

than the combined ODA of all the member states of the Community.

A conventional measure, used in all official aid statistics, is to express ODA as a percentage of the Gross National Product (GNP) of each donor country.30 In order to encourage generosity, the United Nations General Assembly has established targets in this respect.

As early as 1960, for example, that august body adopted a

resolution which expressed the hope that ‘the Sow of international assistance and capital should be increased substantially so as to reach as soon as possible approximately I per cent of the combined national incomes of the economically advanced countries’.31

By 1967 the idea had been to some extent redefined and the sights lowered; at the second United Nations Conference on Trade and Development which took place in that year the figure of 0.75 per cent of GNP to be given in official development assistance was widely accepted.32

Then, in 1970, the General Assembly adopted a Strategy for the Second UN Development Decade which stated: ‘Each economically advanced country will progressively increase its official development assistance to the developing countries and will exert its best efforts to reach a minimum net amount of 0.7 per cent of its Gross National Product at market prices by the middle of the decade’ -i.e. by 1975-33

More recently, in 1980, the Assembly resolved:

A rapid and substantial increase will be made in official development assistance by all developed countries, with a view to reaching and, where possible, surpassing the agreed international target of 0.7 per cent of the Gross National Product of developed countries. To this end, developed countries which have not yet reached the target should exert their best efforts to reach it by 1985, and in any case not later than the second half of the decade.34

In the event, only a few industrialised countries did manage to achieve the target by the mid-1980s. Top of the league in 1986 was Norway, with 1.20 per cent of GNP. Next came the Netherlands with 1 percent exactly, then Denmark (0.89 per cent), Sweden (0.88 per cent) and France (0.72 per cent). Britain, on the other hand, had only achieved 0.33 per cent (a figure that fell to 0.28 per cent in 1987) and the United States of America, the richest country in the world, was near the bottom of the league with 0.23 per cent; only

Austria gave a lower proportion -0.21

per cent of its GNP. Ireland, Italy, New Zealand, Belgium, Australia, Finland, West Germany, Japan, Canada, and Switzerland were all also well beneath the 0.7 per cent horizon.35

In many respects, therefore, aid looks like quite an insignificant part of the international economic order. Viewed from other perspectives, however, it appears much more formidable. If Development Incorporated were an industrial company, for example, then it would have to be ranked amongst the largest and most powerful multinationals in the world. With roughly $60 billion to play with every year, it is a great deal bigger than, say, Standard Oil of California, IBM or Unilever, and vastly bigger than BASF, Bayer, Siemens, Phillips, NestlS, Hitachi or Volkswagen.36 Furthermore, unlike all these entities, Development Inc. has a licence to spend every cent of its revenues in pursuit of its mission. No profits need be set aside, no dividends paid out to shareholders.

This is a business that cannot go bankrupt because, like the legendary Horn of Plenty, its resources are constantly replenished, topped up, restored.

Despite the growing contribution of the Soviet Union, and the relatively large amount of ODA provided by OPEC member states, this replenishing, topping-up and restoring is still done, overwhelmingly, by citizens in the 'Western' bloc of industrialised countries: for every $100 of tax revenue raised for public spending by our governments about $1, on average, is allocated each year as Official Development Assistance.37 This money is then handed over to the bureaucrats who staff the various governmental organisations that we have established to disburse our aid.

ministries and agencies

Examples include Britain's Overseas Development Administration and the US Agency for International Development, Australia's

Development Assistance Bureau, Belgium's Administration for Development Cooperation, France's Ministry of Development Cooperation, Norway's Agency for International Development, the Danish International Development Agency, FINNIDA of Finland, CIDA of Canada, the German Development Corporation, the Swedish International Development Authority, the Swiss Development Corporation, and so on. Altogether, as noted earlier, there are eighteen Western nations which are prominent aid-givers. All eighteen have seats on the Development Assistance Committee of the OECD a

kind of donor 'club' -and all eighteen have established their own self-contained aid bureaucracies. Sometimes these are departments within the Foreign Ministry US

AID and

Britain's Overseas Development Administration, for instance; sometimes they are fully fledged ministries in their own right this

is the case in the Netherlands and in France; sometimes as

in Denmark and Sweden they

are semi-autonomous government corporations. In all cases, however, they are bureaucracies and usually fairly large ones. Even the Overseas Development Administration in Britain, a lightweight by comparison with its US or French counterparts, has more than 1,500 permanent employees on its payroll including administrators, economists, professional advisers and scientists. In common with other aid organisations it also has a revolving group of field staff working on development projects that it has financed overseas: 339 'experts' and 'managers' in Zambia alone, for example. Many of these people are not classified as 'permanent' but are hired instead under two-or

three-year contracts.38

Governmental aid organisations spend rather more than half of the money that they receive from taxpayers in their respective countries on direct, ‘bilateral’ assistance to developing nations giving

priority to those with which they have historical links or which are important to them for other reasons. In the case of Britain, the share of bilateral aid has varied in recent years between 57 and 63 per cent of the total; India and Kenya, both former colonies, have consistently been amongst the principal beneficiaries.39 In the case of Italy bilateral aid is approximately 60 per cent of the total40 and Somalia and Ethiopia are favoured recipients. The percentages allocated to bilateral development assistance are similar for most other donors, as are the ways in which they prioritise recipients; the United States, for example, gives special consideration to the Philippines where it has several military bases, and to Egypt, which it sees as a conservative bastion against the spread of communism

from neighbouring Libya.

The 40 per cent or so of official development assistance that remains after bilateral allocations have been subtracted is channelled through ‘multilateral’ development organisations which, in theory at least, give help where it is most needed rather than on grounds of political expediency.

THE EEC

Headquartered in Brussels, the European Economic Community is an important conduit for multilateral aid although, since it represents the particular interests of a regional lobby, it is probably better described as a multinational entity. Its development assistance programme which

benefits sixty-six countries in Africa, the Caribbean and the Pacific as well as a growing number in Asia and Latin America is

financed by contributions from European member states. To give an illustration, Britain each year passes almost half of ah* its multilateral aid through the medium of the EEC; in 1986 the figure involved was Ł223 million.41

The European Development Fund (which received Ł79 million of the British contribution in 1986) is one of the Community's principal instruments for financial and technical assistance. Its aid, worth about $1 billion per annum, takes the form both of outright grants and of long-term 'soft' loans (typically over forty years with interest at around 1 per cent or less). Agricultural and agro-industrial projects are favoured for financing but the EDF also provides emergency aid from time to time and gives some assistance aimed at stabilising poor countries' export earnings. Further concessional assistance worth about $1 .2 billion per annum is provided to developing countries under Tide 9 of the EEC's annual budget. About half of these funds are made available in the

form of cash grants; the balance is food aid which is handled by two key departments: the Directorate General for Development (DG8) and the Directorate General for Agriculture (DG6). Britain's contribution to the EEC food aid programme in 1986 was Ł59 million. Finally, the Community operates the European Investment Bank which provides finance on near-commercial terms to several developing countries.42

the united nations family

EEC institutions are on the borderline between bilateralism and multilateralism. A large number of genuinely multilateral development agencies, however, belong to the United Nations system. The world body now has some 160 independent member states and all of them, according to their means, contribute to its funding. Approximately $70,000 per annum comes from each of the seventy-eight poorest countries, while some of their richer neighbours give hundreds of millions of dollars. The result, in a

typical year, is that the UN obtains 30 per cent of its money from just three wealthy nations the

USA, the Federal Republic of Germany, and Japan and

80 per cent from just twenty-seven countries.43

Total funding now runs at around $6 billion a year; of this about one-third comes in as mandatory contributions ‘assessed’ against member states; the balance is made up of voluntary contributions which vary from year to year depending on the political mood in the donor countries and on the size of the cake available in national aid budgets.44 Well over half of all the money spent by the UN qualifies directly as Official Development Assistance and almost all the rest more

than 90 per cent is

‘development-related’ under the category of economic, social and humanitarian activities’.45

UN agencies which receive and spend ODA fulfil a wide variety of different functions.

The United Nations Development Programme, for example, headquartered in New York, describes itself modestly as ‘the world’s largest development service network… It provides a greater variety of services to more people in more countries and in more sectors than any other development institution… It is also the central funding and coordinating mechanism for technical cooperation by the entire UN development system.‘46 Its ‘capacity-building ventures designed to enhance a country’s abilities to plan and manage its own development’ include: ‘groundwater and mineral exploration … computer technology and satellite communication… seed production and rural extension services… industrial training, research and feasibility studies’.47

UNDP is financed almost entirely out of voluntary contributions it

gets about $800 million a year.48 Although it has 115 fully staffed field offices of its own in the Third World, it is not structured to implement projects; this is done in

the main by

the twenty-nine ‘executing agencies’ of the UN system, all of which receive money from UNDP and all of which compete vigorously for their share of the cake.

The Food and Agriculture Organisation (FAO) is the largest of these executing agencies, with some 10,000 employees, the vast majority

of whom are permanently based at headquarters in Rome.49 Its field programmes receive substantial funding from UNDP, but it also gets money directly from member governments of the UN in the form both of voluntary and assessed contributions. All told, FAO receives and spends around

$500 million to $600 million per annum.50

Describing itself as ‘a development agency, an information centre, an adviser to governments and a neutral forum’,51 FAO participates in several thousand agricultural projects in the Third World each year. This participation takes the form mainly of technical assistance, which in practice means the provision of experts to ‘strengthen local institutions, assist research and training, and develop and demonstrate new techniques’.52 Typically FAO will have 3,000 of its experts in the field at any one time: some will be part of large teams working on long-term projects; others the

majority will

be on short missions, advising, for example, on the setting up of a national cereals marketing board, or on the best location for a fish-farm. FAO does not make capital investments to buy infrastructure or equipment (except on a very small scale); it does, however, run an Investment Support Programme which ‘helps developing countries find the external capital they need to build up their

agriculture’.53

Linked to FAO, and also headquartered in Rome, is the World Food Programme (WFP) which mobilises and delivers food aid designed to meet emergency needs and which also organises food-for-work schemes intended to promote ‘economic and social development’ in poor countries. Resources, worth in the region of $i. 3 billion per two-year budgetary period, come in from member governments mainly in the form of food commodities, with cash and/or services

also being provided in some cases. WFP food aid, unlike the EEC's, is delivered to recipient countries with the freight and insurance charges paid; in the case of the poorest countries, the Programme is also able to pay up to half the local transportation costs.54

The World Health Organisation, which has its headquarters in Geneva, is another important UN multilateral agency. It spends around $500 million a year55 and like

FAO gets

some of its money from UNDP, some from the assessed contributions of member states and some from voluntary contributions. It claims to be working towards 'the attainment by all citizens of the world of a level of health that will permit them to lead a socially and economically productive life'-56 In order to achieve what it calls 'Health for All by the Year 2000' it has set itself four principal sub-goals: developing and organising the

manpower and technology needed for disease prevention and control; eradication of the main tropical diseases; immunisation of all the world's children against six of the major childhood diseases; and the establishment of health infrastructures to provide primary health care services to the majority of the world's population.57

WHO's annual budget is in fact less than that of any one of the four largest regions of Britain's National Health Service.58 Nevertheless, the Organisation does not walk alone. Also immunising children throughout the Third World, also working to provide primary health care services, is UNICEF the

United Nations Children's Emergency Fund which

spends around $400 million a year. UNICEF concerns itself with seven major development sectors of which 'basic health care' is the most important. Others are water supply, nutrition, social services for children, formal and non-formal education, planning and project

support, and emergency relief.59

Working through eighty-seven field officesin 118 developing countries -forty-two in Africa, thirty-three in Asia, thirty in Latin America and thirteen in the Middle East and North Africa UNICEF's

headquarters are split between New York and Geneva. The Fund also has important administrative establishments in Copenhagen, Sydney and Tokyo. Finances come mainly in the form of voluntary contributions from member governments of the UN about

76 per cent of the total. Most of the remaining 24 per cent is raised through the sale of Christmas greeting cards. In addition there are some public donations channelled through the National Committees which UNICEF has established in many countries. No other UN body receives money directly from the general public.60

Overlapping to some extent with UNICEF in the areas of ‘formal and non-formal education’ is another agency the

United Nations Educational, Scientific and Cultural Organisation. According to its constitution, UNESCO’s purpose is ‘to contribute to peace and security by promoting education, science and culture in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world without distinction of race, sex, language or religion by the Charter of the United Nations’.61 Practical concerns include combating illiteracy in developing countries, promoting the growth of social science facilities in Africa and Asia, and strengthening ‘cultural identity, creativity and cultural development’.62

UNESCO’s imposing headquarters are at place de Fontenoy in Paris where-despite its mission in the Third World about

80 per cent of the biennial budget of around $370 million has traditionally been spent.63 Dissatisfaction with excessive bureaucratisation and in general with the management policies of Director General Ahmadou Mahtar M'Bow led both the United States and Britain to withdraw their financial support from the Organisation in the mid-1980s. In late 1987 M'Bow was replaced by Federico Mayor of Spain.

Another UN multilateral agency, the International Labour Office, has also had to get by for some years without the support of the United States, which

withdrew because of alleged 'socialistic' policies. Headquartered in Geneva, ILO operates a large number of technical assistance programmes in developing countries. These are aimed at 'the promotion of employment, development of human resources,

vocational training, small industries, rural development, co-operatives, social security, and industrial safety and hygiene'.64

UNIDO, the United Nations Industrial Development Organisation, also concerns itself with industrial issues. Based in Vienna, it provides technical assistance and conducts seminars and meetings intended to raise the industrial capacity of developing countries. Its administrative and research activities are covered by the regular UN budget at a level somewhat below $100 million a year; its operational activities are heavily dependent on finance provided by UNDP and on fluctuating voluntary contributions from member states.65

Other multilateral agencies of note within the UN system include: the United Nations Environment Programme (UNEP), headquartered in Nairobi; the United Nations High Commissioner for Refugees (UNHCR), based in Geneva; the UN Conference on Trade and Development (UNCTAD); the Office of the United

Nations Disaster Relief Co-ordinator (UNDRO); and the United Nations Fund for Population Activities (UNFPA). There are also many other organisations and entities ranging from Economic Commissions in Africa, Asia and Latin America to the UN Centre for Human Settlements which concerns itself with the plight of the homeless in the Third World. All in all the United Nations system now employs in excess of 50,000 people in the cause of world development.66

IFAD and the regional banks

There are a number of bodies, registered as UN specialised agencies, which look very different from all the others. Rather than providing expertise and technical assistance, these concentrate their efforts on capital aid and thus, effectively, function as development banks.

One such is the International Fund for Agricultural Development,

which is based in Rome. Financed mainly by the voluntary contributions of OECD and OPEC member states, it was established in 1977 and, in its first six years of operation, provided long-term ‘soft’ loans worth almost $1.6 billion for 135 agricultural projects in eighty developing countries. IFAD went into a slump thereafter until January 1986 when negotiations for a replenishment of its core resources were concluded giving

it a further $460 million to lend over the period up to 1989. Of this, 40 per cent came from OPEC nations and 60 per cent from the eighteen members of the Development Assistance Committee of the OECD (Britain’s share, for example, was $13.22 million). IFAD also operates a separate Special Programme which supports projects in some twenty-four sub-Saharan African countries suffering from drought and desertification. Again, finances for the Special Programme come from both OPEC and OECD sources.67

IFAD, as its name suggests, lends specifically for agriculture.

Within and outside the UN system, a variety of other kinds of development bank and fund also exist and are able to make loans in support of projects of all kinds. Some focus their attentions on particular geographical regions for

example, the Asian Development Bank/Fund, the African Development Bank/Fund, the Inter-American Development Bank, the Caribbean Development Bank and the Arab Bank for Economic Development in Africa. These all attract a wide range of different types of finance, which they then 'lend on' for development purposes. In recent years Britain has contributed Ł72 million to the Asian Development Fund and has pledged 20 pounds million to the Caribbean Development Bank's Special Development Fund which provides loans on concessional terms. These sums of money have come out of the UK's multilateral aid budget.68

Official aid, however, represents only a portion of the finances available to these institutions. Typically, wealthy countries

subscribe to the capital of the banks and contribute to the periodic replenishments of the funds, but large amounts of money are also raised on international capital markets. The clearest illustration of the place of all this within the framework of Development Incorporated is provided by the institution on which all the regional development banks are modelled. This institution is the World Bank. With more money at its disposal each year than any other agency, bilateral or multilateral, it is the single largest source of development finance on earth and is thus worth looking at in some detail.

A global lender

The World Bank, like IFAD, is registered as a UN specialised agency but, in fact, its relationship to the United Nations system is tenuous in the extreme. World Bank budgets are not included when one talks of UN agencies and organisations spending $6 billion a year. The management of the Bank does not answer to the United

Nations but only to its own Board of Governors which consists of the Ministers of Finance of 151 member countries.69 More important, the UN has traditionally been characterised by egalitarian decision-making: each nation has one vote and, in theory at least, little countries like Kiribati and Barbados have as strong a voice as big ones like the United States or Britain. At the World Bank, by contrast, votes are based entirely on the size of the financial commitment that each member state has made. There is no pretence of equality the

economic superpowers run the show.

Like a Hindu god, the World Bank has four arms. Of these the two strongest are the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), both of which will be considered in some detail below. The third limb is the International Finance Corporation (IFC), which lends mainly to support the expansion of private

investment and private enterprise in the developing countries. Finally there is a Special Facility for Sub-Saharan Africa.

Total loan commitments made by the World Bank through these four linked but functionally distinct entities for fiscal 1987 were $19.207 billion.70 However, only $920 million of this came from the IFC and only $613 million from

the Special Facility.71 It is the IBRD and the IDA that are the major lenders for development the

former committed $14.188 billion in 1987 and the latter $3.486 billion.72

When one talks of the 'World Bank', therefore, one is largely talking of the IBRD and the IDA. Appropriately, both are

administered from the same building World

Bank headquarters in Washington, DC and

by the same staff. Both lend for the same types of programme and project and often do so in the same countries at the same time. They are funded in entirely different ways, however, and attach very different terms to the loans that they make.

the international development association

IDA is often described as the ‘soft-loan affiliate of the World Bank’. This is because it provides interest-free finance and because repayments of principal -which do not begin until ten years after signature of loan agreement -are spread relatively painlessly over periods of up to fifty years.73 Such concessional terms of course qualify all IDA loans as Official Development Assistance. In 1987, out of the $3.486 billion lent, more than 90 per cent -$3.177

billion74-went to the thirty-five ‘least-developed countries’ on earth.75 During the eleven years from 1977 to 1987 IDA provided this group of countries with a total of $31.627 billion serious

money by any standards.76

IDA is funded, in the main, out of the multilateral aid budgets of World Bank member states. Britain, for example, gave Ł133.8 million in each of the three years 1985, 1986 and 1987 and has committed almost 525 pounds million ($770.5 million) for payment in equal instalments over the years 1988, 1989 and 1990.77 The periods in question (1985-7 and 1988-90) represent respectively the seventh and eighth ‘replenishments’ of IDA, with the total value of the latter ‘IDA

8’, as it is known being

$12.4 billion. The share of the United States in this amount is

$2.875 billion about

four times larger than Britain's. Japan's share is $2.150 billion and West Germany's is $1 .322 billion.78

Since IDA was established in 1960, the voting strengths of member nations have varied considerably, reflecting amongst other things the rise of West Germany and Japan to the rank of industrial superpowers. Such fluctuations can be expected to continue. Throughout, however, because of the scale of its contribution, the United States has had the dominant voice and has at all times exercised an effective veto. This, too, can be expected to continue. In 1987 the USA held 18.47 per cent of the total votes in IDA; next came Japan with 8.81 per cent; West Germany was third with 7.09 per cent; Britain and France were fourth and fifth with, respectively, 6.33 per cent and 3.82 per cent.79 At the other end of the scale, Afghanistan had about a quarter of one per cent of the total votes in IDA in the same year, Cape Verde had one-hundredth of one per

cent and Somalia had a fifth of one per cent.80

the IBRD

The ‘big five’ in IDA are also the big five in the IBRD. Here the USA had 19.63 per cent of total votes in 1987, Japan had 5.58 per cent, West Germany had 5.52 per cent and Britain and France had 5.32 per cent each.81 In the same year Bangladesh had about a third of one per cent, Chad one-hundredth of one per cent, and Paraguay about a tenth of one per cent.82

Like IDA, the IBRD is active in the thirty-five poorest countries in the world: those with annual per-capita incomes below $400. Out of total IBRD loan commitments of $14.188 billion in 1987 about 25 per cent $3.253

billion

were

in favour of this group.83 Unlike IDA, however, IBRD loans are not made on terms that are sufficiently concessional to allow them to be classified as Official Development Assistance.

Rather than being funded out of the multilateral aid budgets of member states, therefore, IBRD has to raise the bulk of its finances on international capital markets indeed,

it is the world's largest non-sovereign borrower. It pays commercial rates of interest but, because of the volume of its business and because of its excellent 'triple-A' credit rating, it manages to do very good deals for itself: 7.73 per cent on average in 1987. It then takes the funds that it has borrowed and relends them to its developing-country clients at a higher rate of interest: 8.78 per cent in 1987-84

For the poorest nations which

are generally regarded as a ‘bad risk’ by bankers the

IBRD is a source of finance which would simply never be forthcoming from commercial sources. On the other hand, for middle-income developing countries (Brazil or Indonesia, for example) which

take up the bulk of its loans the

terms that it offers are generally significantly better than those they themselves could obtain on the open market. Typically, in addition to a relatively advantageous interest rate of around 9 per cent based on its own cost of borrowing, the IBRD allows five-year grace periods before repayments begin, and fixes maturities of up to twenty years.85 Although this may not be ‘aid’ in the strict sense of the word, it is certainly development finance of an entirely different

order from that provided by commercial banks. It is, furthermore, frequently mixed with aid credits from IDA, from other multilateral agencies, and from bilateral donors in the financing of specific projects.

The IBRD never allows its clients the

governments of developing countries

to

reschedule then-debts.

There is no flexibility on this point at all. Interest and principal have to be paid exactly on time and precisely as specified in the loan agreement, or the borrower is declared in default.86

It is a matter of record, however, that there has not yet been a

default on any IBRD loan.87 Debtors, anxious not to cross swords with so powerful an institution and

keen also to maintain their access to its credits in the future -go to great lengths to ensure that all their commitments are met.

The result although

other lenders to the Third World today find themselves embroiled in a non-stop round of rescheduling, rolling over and ‘forgiving’ of debt is

that the IBRD is able to stand aloof and to continue blithely with business as usual. It has in fact recorded a net income in every single financial year since 1948.88 In 1987 it took in $1.1 billion more in repayments of interest and principal on old loans than it paid out in new loans to the developing countries.89

What we have here, then, is an institution that functions in an ‘aid-like’ manner and that lends to some of the poorest and riskiest countries on earth. But it is also an institution that consistently makes a profit and that is regarded as highly credit-worthy by money managers on Wall Street and in the City of London.

How does the IBRD get away with being all these different and contradictory things at once? The answer, primarily, is because it is protected from the pressures and turbulence of its position by the enormous strength of its capital base. This is divided into two parts: ‘paid-in’ capital and ‘callable’ capital.

The former, as the name suggests, is the sum of money that member governments have actually handed over to the Bank. It is a relatively small amount, just $7.2 billion in total — barely half of one year’s lending.90 The latter, however, is vast $77.9

billion91 and

represents a resource that can be called upon in the event that something goes seriously wrong. Paid-in capital is thus money in hand which the Bank can use; callable capital is an intangible asset, best thought of as a guarantee to the Bank's creditors, that exists only as a promise.

The scale of this promise can be illustrated with reference to the five major shareholders in the IBRD. In 1987, for example, the United States had an obligation 'subject to call' of $15.866 billion; in the same year-the forty-first that the Bank had been in business US

paid-in capital reached a cumulative total of just $1 -537 billion. The figures for Japan were $4.495 billion and $430 million respectively. For West Germany they were $4.473 billion and $428 million. For Britain they were $4.269 billion and $429 million. France in that year had $4.288 billion 'subject to call' but had paid

in a cumulative total of only $410 million.92

The Bank's more prosperous members are thus like rich uncles who enable their nephew to undertake some rather risky business ventures by giving him a little seed money to invest and by acting as guarantors for any borrowing he does. What the rich uncles get in

return mainly for paper promises is

kudos and also the very real political and economic leverage that results from their effective control of an influential multilateral development institution.

So far so good. But are there any circumstances under which these paper promises the

financial guarantees that the Bank's callable capital represents - might actually have to be honoured?

In the context of burgeoning Third World debt, now in excess of $1,000 billion, it is just conceivable that several of the IBRD's major loans (say, in Brazil, India, Indonesia and Mexico) might cease to perform at the same time. Overnight this would cause a drastic reduction in the Bank's income from payments of interest and principal and might, in an extreme case, render it unable to service its own liabilities to the money markets. It would then effectively be in receivership and it would have to call in its callable capital in order to pay off its creditors.

At this point a reminder is in order: ultimately it is the taxpayers of the World Bank's wealthy member states who are the source of almost all its callable capital. If the IBRD were to fold, then it would be these taxpayers who would have to bear the financial consequences. Because of this there is no way that the institution can be regarded as a free-floating independent entity. On the contrary, it must be accountable for its behaviour and

it must be accountable to me.

This question of accountability in fact transcends the issue of financial liabilities: the World Bank is strong because of our collective financial strength, powerful because we the

people of the wealthy nations are

powerful. The Bank acts in our name in the developing countries and, as we shall see later, there is much that it does there which is dubious, much that harms the poor and the vulnerable, much that scars and wrecks the environment, much that is arrogant and wrong.

We have a right to a detailed accounting for all of this. At present, however -and this is a theme that I shall return to at several points in this book we

do not get it. On the contrary, those who attempt to learn more

about the Bank than is revealed in its glossy public-relations handouts find that they must first crack an arcane code of secrecy and obfuscation that would be more appropriate in a military intelligence service than in a development institution.

project lending

World Bank lending whether

it comes from the IBRD on near-commercial terms, or from the IDA on extremely concessional terms has

traditionally been made to support specific projects in the developing countries. Although important changes are now under way, this orientation remains dominant. In 1987, for example, when the combined lending of the IBRD and the IDA totalled $17.674 billion, 21 per cent ($3.435 billion) went to the energy sector: most of this was finance for giant hydroelectric dams and for the

construction of power-stations, but some also went to oil, gas and coal-mining projects. In the same year agricultural and rural development schemes got $2.930 billion (16.6 per cent of the total). Projects in the transportation sector-notably roads got

$1.745 billion (9.9 per cent); urban development schemes got $1.469 billion (8.3 per cent); water supply and sewerage projects got $969 million (5.5 per cent); telecommunications got $682.3 million (3.9 per cent); and industry got $418 million (2.4 per cent of the total). Other sectors in which projects received assistance albeit

on a generally smaller scale included

education, population, health and nutrition.93

The shares of the different sectors are not necessarily constant from year to year. In both 1985 and 1986, for instance, agricultural and rural development schemes got a much larger percentage of the total

than they did in 1987, but telecommunications projects got a significantly smaller percentage -0.8

per cent in 1985 and just 0.3 per cent in 1986, as against 3.9 per cent in 1987. The share of energy projects, on the other hand, did not vary so much over the three-year period (20 per cent in 1985 and 18.5 per cent in 1986 as against 21 per cent in 1987).94

About two out of every five Bank-assisted projects are the subject of ‘co-financing’ (that is to say other bilateral and multilateral aid agencies also

put money into them). Even where there are no international co-financers, however, it is rare for the Bank to contribute much more than a third of the total sum required: most of the rest has to come from the government of the recipient country. Used almost

exclusively to meet foreign-exchange costs, the Bank's funds are, furthermore, only released against specific purchases of equipment or to cover other direct expenses of implementation as and when they are incurred. The borrower does not get all the money at once (or anything like at once); on the contrary, project loans can take up to ten years to disburse.95

sectoral and structural adjustment

Quicker disbursing although

still project-orientated are

the Bank's 'sector adjustment loans'. In these only part of the money is used to meet the direct costs of specific projects while the rest goes to support policy changes in the relevant sector. For example, the government of Pakistan obtained a loan of $178 million from the Bank in 1985. Some of the money was for projects

in the energy sector; the rest was disbursed against promises from the government: (a) to increase the price of natural gas in order to provide a greater incentive to private entrepreneurs to take part in exploration and development; (b) to reduce subsidies for national electricity prices so that, in future, these would more accurately reflect the costs of production; and (c) to generate electricity for the Karachi area using imported rather than locally produced coal.96

Such explicit, sector-wide policy-changes are the distinctive feature of sector adjustment loans. What they represent is a desire by the Bank not only to be an important source of finance but also to play a central role in the decision-making processes in developing countries.

It is in another type of loan, however the

‘structural adjustment loan’ (SAL for short) that

this desire achieves its purest expression. The characteristic feature of such loans is that they are completely disconnected from projects and are disbursed, usually very quickly, in return for major economic policy changes at the national level. Such changes are brought about ‘with considerable analytical support from the Bank‘97 and are said to be the result of ‘policy dialogue’.

Third World governments that agree to go this route are rewarded by being allowed to spend the money that they receive on just about anything they like.

For example, the Bank recently put up an $80 million SAL in support of an ‘economic recovery programme’ in Costa Rica. The stated aim of this programme is to promote faster growth, especially through the expansion of exports in markets outside Central America. Like the sector loan to Pakistan, the cash for Costa Rica is tied to economic policy changes, but this time the changes are at the macro level, rather than at the level of a single sector such as

energy. Particular conditions attached to the loan cover such matters as tariffs (which are to be lowered) and other forms of protection (which are also to be reduced), exchange-rate management (including devaluation), the government's budgetary policies, and the scale of public-sector involvement in the economy. In common with all other SALs, the money is not disbursed against specific purchases but can be used very freely for a wide variety of purposes including importing goods from abroad, paying off old foreign debts or-if the inclination is there lining

the private pockets of corrupt government Ministers.98

Whether applied to a single sector or to an entire economy, adjustment loans are therefore about policy. A generous observer might see them as a way of encouraging governments to accept good advice. Others have suggested that they are more like bribes used by the technocrats at the World Bank to persuade powerful officials in poor countries to hand over important aspects of national

sovereignty to

exchange, in short, national birthrights for a mess of pottage. Others still, doubtful of the Bank's ability to manage developing economies at all, suggest that SALs are really a case of the blind leading the blind."

Controversial though they may be, however, there is no doubt that structural adjustment loans are the coming thing. The Bank, for a start, is steadily increasing the share of SALs in its overall portfolio. In 1986 adjustment lending was just 19 per cent of the total; by 1987, at more than $4 billion, it was 23 per cent of the total.100 President Barber Conable is committed to making even more loans of this kind during the 19905 and says unequivocally: 'Structural adjustment is absolutely fundamental to the Bank's assistance strategy…there is no alternative.'101

follow the leader

One of the reasons that I have considered the Bank at such length in this chapter is that it is the pace-setter of Development Incorporated. It is not just, as noted earlier, that a growing number of regional development banks have been specifically modelled on it although

this is indeed the case. Much more important is the fact that all official aid agencies, whether bilateral or multilateral, cooperate very closely with it, imitate its policies and its sectoral priorities and, to a large extent, share what might be called its 'philosophy of development'.

Thus at a time when the Bank is putting more and more emphasis on policy dialogue with developing countries it is almost a matter of course that Christopher Patten, the UK's Overseas Development Minister, should speak enthusiastically of British 'support for structural adjustment' and should affirm: 'We will devote a greater share of our aid budget to policy reform.'102

Describing its programme in the late 1980$, USAID beats exactly the same drum as Britain when it tells us: ‘Through policy dialogue, the United States communicates with governments to eliminate inappropriate subsidies, price and wage controls, trade restrictions, overvalued exchange rates and interest rate ceilings that curtail economic performance.‘103

And, of course, much the same sons of thing are being said by aid officials in France, Germany, Italy, Japan and elsewhere: to a greater or lesser extent all the bilateral agencies in the Western bloc have followed the World Bank’s lead and are now making substantial chunks of their aid conditional on structural adjustment and policy reforms in the recipient countries.

the IMF

Interestingly enough, although the Bank is undoubtedly the main force for proselytising the structural adjustment ‘message’ within the aid industry, the concept itself is actually the brainchild of the International Monetary Fund -which has been obliging countries to adjust in one way or another since the 19405. Like invisible rays, ideas on economic development flow back and forth across Washington’s 19th Street between the headquarters buildings of the Bank and the Fund; it is, therefore, not at all surprising that the former acquired its enthusiasm for structural adjustment from watching the latter at work.

IMF-World Bank cooperation indeed extends far beyond getting together to organise the bacchanal that celebrates the joint annual meeting of their Boards of Governors. However, the fact that they both buy their champagne from the same stores is by no means unimportant as an indicator of the kinds of value they share. Since

they also entertain their guests in the same five-star hotels, rent their limousines from the same dealers, and love the same kinds of gourmet food, it is fairly clear that the two institutions have a great deal in common. They both also have the same kinds of management structure. Votes at the IMF exactly

as at the Bank are

linked to the degree of financial contribution that each member state has made. Again, the lion's share is taken by the five leading industrialised countries: the USA (19.14 per cent); Great Britain (6.63 per cent); West Germany (5.79 per cent); France (4.81 per cent); and Japan (4.53 per cent).104

The IMF is not now and

never has been an

aid agency. It is, however, so heavily involved in the provision of finance to the Third World that it has become an integral indeed,

a central part

of Development Incorporated. Its mission is to supply member states with money to help them to overcome short-term balance-of-payments difficulties, but such money is only made available after the recipients have agreed to policy reforms in their economies -to structural adjustment, in short. Close supervision of the implementation of these often sweeping reforms is an integral part of the deal; developing countries, however, have a strong incentive to accept such supervision since it makes them more ‘credit-worthy’ in the eyes of other potential lenders: it has been estimated that every dollar provided to the Third World by the IMF ‘unlocks’ a further four to seven dollars of new loans and refinancing from commercial banks and rich-country governments.105

It also unlocks the very large amounts of development money at the disposal of the World Bank. Indeed, the crucial connection between the two institutions is that membership of the Bank (and thus eligibility for IBRD and IDA loans) is conditional upon membership of the IMF. This has been described by one observer as a classic carrot-and-stick device: ‘Without IMF membership no admission to the World Bank, without conformity to IMF rules no development aid from the World Bank.‘106

A cosy conspiracy?

A great deal of mutual back-scratching goes on. The Fund and the Bank state that they ‘share the common objective of assisting members in their efforts to improve economic conditions in their countries … The areas of economic policy dealt with by the two institutions are complementary and interrelated, as is the financial assistance each can provide.‘107 To this end, Bank staff participated in Fund missions to seventeen countries in 1985-6 and

Fund staff participated in Bank missions to eighteen countries; parallel or overlapping Fund and Bank missions took place to forty-four countries in

some cases more than once to the same country. In 1986-7 Fund staff participated in seventeen Bank missions and Bank staff participated in fifteen Fund missions. ‘In addition,’ according to the IMF’s 1987 annual report, ‘there were numerous instances of parallel or overlapping Fund and Bank missions in which the staffs of the two institutions collaborated closely in the field.‘108

The purpose of all this teamwork is extremely specific: when IMF and Bank staff travel southward together they do so in order to spread the word of structural adjustment to

persuade governments to submit to policy reform.

The unanimity of the two institutions on this issue is such that, on

the rare occasions when they are rejected, they close ranks against the offending country. In 1987, for example, Zambia broke off its dealings with the IMF. Immediately thereafter disbursements of moneys under World Bank loans stopped. Neither did the punishments end here: once it was clear that the break with the Fund was irrevocable, Britain's Overseas Development Administration also withdrew a substantial loan that it had agreed to extend only a few months earlier. 'In general,' as one Zambian economist observes, 'other donors are only willing to cooperate with Zambia when an agreement has been reached with the IMF.'109

Under such circumstances it is difficult to avoid the conclusion that some sort of conspiracy is afoot a

conspiracy in which rich countries and their institutions unite to force Third World nations to adjust. This view, however, is explicitly denied by Christopher Patten, Britain's young and energetic Overseas Development Minister. 'It is,' he says,

‘ludicrous to see structural adjustment as being imposed on unwilling recipients by bloated Western capitalists.‘110

And in fact he is right.

The recipients in question are the governments of developing countries and most of them with

the odd exception like Zambia in 1987 are

not in the least bit ‘unwilling’. On the contrary, corrupt Ministers of Finance and dictatorial Presidents from Asia, Africa and Latin America are tripping over their own expensive footwear in their unseemly haste to ‘get adjusted’.

For such people money has probably never been easier to obtain than it is today: with no complicated projects to administer and no messy accounts to keep, the venal, the cruel and the ugly are

laughing literally all the way to the bank. For them structural adjustment is like a dream come true. No sacrifices

are demanded of them personally. All they have to do amazing

but true is screw the poor, and they've already had plenty of practice at that.

the case for adjustment

As we shall see later, the consequences of the 'policy dialogues' undertaken during the 19805 between the men in suits from Washington and the men in uniforms from Santiago or Kinshasa or

wherever have

been utterly disastrous for the worst-off and most vulnerable groups in the Third World. This has been so because of the nature of the structural adjustment and economic ‘stabilisation’ measures devised by the Bank and the Fund.

To understand exactly why these measures should hurt the poor,however, it is first of all necessary to be aware of what it is that developing countries are being asked to adjust to.

Paramount is the profoundly negative effect of the ‘second oil shock’ the

hike in oil prices that occurred in 1979. Overnight, throughout the Third World, import bills soared while export earnings stayed where they were and

in many cases (particularly in Africa) continued on a long slow trend of decline. For the group of poorest countries the

consequences were easy to see: between 1979 and 1981 their combined trade deficits rose from $45 billion to $90 billion. Even in middle-income developing countries the economic costs were high: between 1979 and 1981, for example, the oil import bill of the Philippines increased from $1 billion to almost $2.5 billion.112 Obviously as

the Bank and the Fund rightly point out financial

turbulence on such a massive scale does call for rapid adjustment.

hi arguing their case for policy reforms, the two institutions also draw attention to the important issue of Third World debt which

now exceeds a trillion dollars. As we shall see in Part Four, the grandiose development projects for which much of the money was borrowed in the first place have often turned out to be boondoggles and white elephants, castles in the sky and cathedrals in the desert

that don’t even pay their own way, never mind make a profit, in addition, many loans were contracted on variable rather than fixed terms a

disastrous situation for the borrowers since the money markets have been characterised by historically high interest rates in recent years. Poor countries, as a result, have been forced to allocate ever more of the revenues they earn from exports to servicing their old debts. Repayments of interest and principal, for instance, now cost Brazil four-fifths of its entire annual export earnings a

sum of money equivalent to the minimum annual salary of sixteen million workers. The Latin American country handed over an amazing $55 billion to its creditors during the period 1982-7.113

The oil-price hike of 1979 and the mounting debt burden are not, of course, the only reasons for the policy reforms that developing countries have had to implement during the 19805. They are,

however, important factors in a wider and powerfully interconnected matrix of pressures to which the Third World is exposed, and they help to explain why the IMF and the World Bank, together with the bilateral agencies, support structural adjustment. Nations that consistently import more than they export, and that spend more than they earn, are living in a sort of economic Cloud-cuckoo-land and should be obliged to do something about it. At the very least they should not expect to go on getting aid if they are not prepared to put their own houses in order. If they did, then they would be as unadmirable as the spendthrift who expects friends and relatives to stump up the necessary cash whenever he gets into financial difficulty.

This, of course, is a gross oversimplification: not all Third World countries -and very few Third World people are

‘spendthrifts’. Neither do I want to give the impression that the developing nations are entirely to blame for their own predicament

although

this seems to be very much the view of the Fund and the Bank. On the contrary, the factors at work are largely external in nature, and poor countries have little or no control over them: the price of oil and rising interest rates are not their fault; they cannot be held responsible for the deteriorating terms of trade that, over the last twenty years, have radically reduced the value of the commodities they export; they are not culpable for protectionism in rich countries that makes market access difficult; finally, neither they nor

anyone else alive today can

logically be condemned for a history in which Northern empires prospered at the expense of the South.

All these things are true, but it is also true that there is no mileage in blaming others, or the weather, or the past or

any other external entity or influence -for one's own problems. Third World leaders who are prone to the 'victim complex' and who give it vociferous expression in various fora are, quite literally, wasting their breath. Calls for a 'new international economic order' and other such formulas are just so much hot air: no amount of UN conferencing or pious speeches is going to conjure these notions out of the ether and give them corporeal form.

Developing countries exist, here and now, amidst the very stark and tangible realities of the late twentieth century. The most important of those realities by far is that they must accept the existing world order as a given if

only because they are virtually powerless to change anything outside their own borders. For those countries that are spending more than they earn, and that have nothing special to bargain with for

example, a vital strategic location structural

adjustment is a simple, inescapable, unavoidable pragmatic necessity.

To this extent the institutions of Development Incorporated are not wrong to make the finance that they have on offer conditional on major policy reforms in the recipient countries. What is unfortunate, however, is the nature of the reforms that are called for.

the poor man's burden

hi order to achieve the admirably clear and simple goal of increasing a country's revenues and reducing its expenditures, structural adjustment will typically involve all, or most, of the following 'austerity' measures: devaluation of the local currency (because, in theory, this will discourage imports by

making them more expensive and

provide a stimulus to exports); draconian cuts in government expenditure, particularly spending on education and

health care; radical reduction or complete elimination of food and other consumption subsidies; measures like reductions in wages and restrictions in the availability of credit, which are also designed to reduce the overall level of consumption within ‘adjusting’ societies; across-the-board abolition of price controls, coupled with privatisation of public utilities and immediate price increases for the services they provide (like water, electricity, etc.); and, finally, higher taxes and higher interest rates.114

With astonishingly few variations to allow for differing local circumstances, this package of measures is applied in every single

country that takes the IMF's or the World Bank's shilling.115 It does not require uncanny prescience to predict the consequences for the worst-off and most vulnerable groups in the Third World: of course cuts in budgets for primary health care hurt the poor; of course cuts in wages hurt the poor; and of course higher prices for basic services hurt the poor.

This logic is borne out by the facts:

During 1977-85 Peru allowed its development to be guided largely by the IMF and undertook two major structural adjustment programmes. In this period the average per-capita income of Peruvians fell by 20 per cent; inflation soared from 30 per cent to 160 per cent; unemployment and underemployment both increased dramatically; and wages in the formal sector of the economy dropped like stones: at the end of 1985 a worker's pay packet was worth only 64 per cent of what it had been in 1979 and only 44 per cent of what it had been in 1973. Meanwhile total government

expenditure on ‘social’ sectors like education and health care dropped from 26 to 18 per cent of the national budget, food and fuel subsidies vital for poor families were completely eliminated, average food availability per capita declined by 26 per cent and child malnutrition increased substantially from

42 to 68 per cent of the child population.116

In 1984 the government of the Philippines, then and

in 1985 as well -still led by the tyrannical President Ferdinand Marcos, reached an agreement with the IMF. In exchange for the Fund’s balance-of-payments support, the government undertook to institute sweeping reforms in the areas of tariffs, public investment and energy, to restrict government ‘social’ expenditure, to increase taxes and to impose controls on credit creation. As a result, within just one year, GNP per capita had regressed a full decade to its 1975 level. Real earnings fell substantially for every category of worker

and in every industry by

46 per cent on average for all urban wage-earners from 1982 to 1985 and by 48 per cent amongst self-employed workers; in the rural areas the fall was 31 per cent for wage-earners and 41 per cent for self-employed workers. By the third quarter of 1985, real wages in urban areas had fallen to one quarter of World Bank estimates of a ‘poverty threshold’ for a six-person household, while rural wages had fallen even lower to

just 22 per cent of the minimum. Government expenditure per capita on education fell to 30 per cent below the 1979 level. Primary health care networks serving the poor were also badly hit by

the end of 1985 total government expenditure on primary health care was five times less than it was on subsidies for just four ultra-modern private hospitals catering to upper-income groups.117

Structural adjustment in Sri Lanka where

food subsidies have been sharply curtailed has

meant that the poorest 30 per cent of the population have suffered an uninterrupted decline in their calorie consumption during the 19805 while the top 50 per cent have improved their intake. Expenditure on education and health care per capita has fallen significantly.118

In Chile, adjustment policies have caused massive increases in unemployment and also an oddly skewed inflation that seems to have hit goods purchased by the poor much harder than goods purchased by the rich. Malnutrition amongst school-age children has increased in the city of Santiago, as have diseases of poverty like tuberculosis, typhoid and hepatitis.119

In Jamaica, an agreement signed with the IMF in 1984 led to the

removal of government subsidies that had previously kept food costs down for poor and vulnerable groups, and education and health expenditure per capita were also slashed. The proportion of children showing signs of malnutrition rose and real family incomes fell steeply. 120

In Brazil structural adjustment sponsored by the IMF and the World : Bank has led to greatly reduced social spending by the government

during the 1980$ notably

on basic health care and on education. There have, as a result, been sharp increases in the infant mortality rate and in failure and drop-out rates in schools. Child abandonment and delinquency have also increased.121

‘ On average, every year from 1980 to 1985, there were forty-seven countries in the Third World pursuing IMF-sponsored structural

adjustment programmes (and the flow of resources from the Fund during this period totalled $30.3 billion). There were also twenty-one developing countries with structural or sector adjustment loans from the World Bank, and a number of other countries were adjusting in various ways at the behest of powerful bilateral-aid donors. During this same period it was far from coincidental that three-quarters of all the countries in Latin America and in Africa experienced marked declines in per-capita income.122 The children of poor families were worst hit, with deteriorations in child welfare registered throughout the developing world. Eight countries in Latin America, sixteen in sub-Saharan Africa, three in North Africa and the Middle East, and four in South and East Asia experienced particularly severe problems; in almost all cases these

were attributable directly to the privations caused by structural adjustment.123

If the Third World governments that actually implement IMF and World Bank 'policy reforms' sought to serve rather than dominate their own people, if they were genuinely devoted to the public good rather than to their private wealth and power, then it might not be necessary for structural adjustment to cause such pain.

In a country like Pakistan, for example, where 34.8 per cent of the national budget is spent on the military and just I per cent on health care,124 it is clear that the burden of expenditure cuts does not have to be borne by the poor: the government has a choice regarding what to cut, what to keep.

The same is true in Sri Lanka where, in one recent year, the sum of 1.7 billion rupees was allocated to food subsidies for the poor against an estimated need of just under 3 billion rupees. It was argued that lack of resources did not permit a rise in the allocation to the required level. This admirable commitment to austerity, however, did not prevent the government from giving a subsidy of I

billion rupees to the national airline.125

Likewise, in a country like Zaire which

has been ‘adjusting’ with the IMF and the World Bank for years is

it really essential to dismiss 7,000 teachers from the school system for ‘budgetary reasons‘126 when President Mobutu Sese Seko owns fifty-one Mercedes-Benz motor cars, eleven chateaux in Belgium and France and a beachside villa on the Costa del Sol?127

Outrages and anomalies like these, as we shall see elsewhere in this book, characterise the behaviour of a great many governments in the Third World -governments that are only strengthened and empowered by the funds made available to them through structural adjustment lending. Very few of these regimes have a genuine popular mandate, and virtually none has more than a passing concern for the poor in its own country. Some abuse human rights

in the most direct and repulsive manner, others are profligate wastrels and scoundrels, most are infected by the virus of corruption.

The agencies know this and

ignore it: the conditions that governments must meet prior to receiving structural adjustment loans have, for example, never included improved human rights, increased freedom of speech, reduced military spending, controls on graft, or any other similar reforms.

The agencies are also well aware of the damage that adjustment can do, particularly amongst the poorest of the poor128 but

they ignore this, too. Token gestures of mitigation may be made from time to time in the interests of public relations but the truth is that the machine continues to roll remorselessly on. The Fund and

the Bank, Christopher Patten with his promise that Britain's Overseas Development Administration will 'help aid recipients make the painful adjustments which are necessary',129 the US Agency for International Development with its commitment to policy dialogue, and just about every-other Western aid agency and development-finance institution of any significant size, are today all riding on the same bandwagon. Unsuccessful, even in its own terms

If this widespread drive for adjustment resulted in concrete and measurable economic achievements, then the harm done to the poor might be acceptable -at least to those who believe that ends justify means. In reality, however, success stories of any kind are hard to locate.

The agencies themselves point to the often significantly improved export performance of adjusting countries. Even here, however, every silver lining has a cloud: obviously if twenty countries all producing similar agricultural commodities all increase their exports

at the same time, then world markets for these commodities will become glutted and prices will fall thus

ultimately reducing rather than increasing export revenues. With more and more countries undertaking adjustment programmes, this already important issue is likely to loom ever larger in the future. In consequence, the World Bank is now seriously suggesting that it should take on the role of a colonial power dictating exactly what should be produced where within its empire: in a recent policy study, for instance, it advocated that 'SAL programmes across countries should be made mutually consistent so that markets for particular commodities are not accidentally saturated by too many expanded supply sources'.130

Increased exports are, furthermore, only one amongst several key objectives of structural adjustment. Reduced budget deficits are regarded as being of at least equal importance. It is therefore disturbing to learn from one confidential internal study of World

Bank SALs since 1980 that only two recipient countries have in fact managed to reduce their budget deficits substantially.

Another central purpose of structural adjustment programmes is to achieve greater private-sector involvement in national economies. As the World Bank itself puts it: ‘By removing economic activity from the clumsy and inefficient administration of government and returning it to the market-place, the elimination of distortions and rigidities will be more readily achieved.‘132 Ironically, however, SALs have often had the opposite effect. During four years of World Bank-sponsored structural adjustment in Turkey, for example, the share of private investment in total investment declined from 48.8 per cent to 40.9 per cent.133 Elsewhere, according to confidential internal documents, Ivory Coast’s SAL was used to ‘finance the arrears of several state agricultural enterprises’ in

other words to subsidise inefficient government bureaucracies;

Kenya's SAL 'did not address the question of possible divestiture of the government's share in [parastatal] enterprises'; Senegal's SAL paid 'for the development expenditures of parastatals, mainly in the agricultural sector'; and it was the civil service that got most of the money from Thailand's SAL.134 Similarly in Zambia, before it broke with the IMF, one Fund official made this comment on earlier structural adjustment efforts in that African country: 'It is fair to say that what we have done is to allow Zambia to maintain a standard of living for its civil service [whose payroll amounts to 20 per cent of the country's Gross Domestic Product] which is totally out of sync with the rest of the

economy

.135

Authoritative reports on consistent failures and errors like these, coupled with readily available data on the established tendency of SALs to harm the interests of the poorest and most vulnerable members of society, have had little effect on the thinking or behaviour of the World Bank and the IMF. On the contrary, as we have seen, the role of structural adjustment is steadily increasing within the development effort as a whole.

That this should continue to be the case despite mounting evidence of the dangers and human costs is at least partly attributable to the arrogance, hubris and insensitivity of senior policymakers at the Bank and the Fund endearing

characteristics that one sees charmingly on display at the joint annual meetings of their Boards of Governors.

Linked to this is the fact that when officials of the two institutions go to the Third World it is not paupers that they talk to or

socialise with but,

rather, Ministers, Presidents and senior civil servants. Peasants and slum dwellers, the landless and the street kids are seen only dimly by the visiting bureaucrats, if they are seen at all. It is thus hardly surprising that the concerns and wellbeing of the poor, together with their energies, their enterprise and their potential, get ignored in the ‘adjustment process’. Such an outcome is inevitable in a system that allows policy reforms to be concocted by well-heeled strangers in collusion with the local elite: neither of these two groups has any direct experience of poverty.

triumph of the intermediaries

This is a problem that extends beyond individual personalities and that afflicts the development industry as a whole. It is a problem of alienation of

a world in which go-betweens have been given a virtually unrestricted mandate to make deals, shape events, and decide the future of millions.

In the simplest possible terms, the problem looks like this: we, the taxpayers of the wealthy nations, have arranged for middlemen to act in our name to help the poor in the developing countries. The middlemen in question are the staff of the various institutions reviewed in this chapter notably

the bilateral and multilateral aid agencies, the UN technical-assistance organisations, and the various development banks and funds. Nobody really watches or controls any of these institutions: if they are accountable at all, then they are accountable only to other institutions of the same type. Their excessive secrecy, their ‘confidentiality’, their ‘classified’ and ‘restricted-access’ documents, and their closed-session meetings, all conspire to prevent any kind of public oversight of their doings.

Even UNESCO, dedicated by its charter to promote ‘human rights and fundamental freedoms’ (including freedom of speech), requires staff ‘not to communicate to any person any information known to them by reason of their official position’ an

obligation that does not cease when they retire or resign.136 Exactly the same restriction applies in all other UN agencies which, nevertheless, look quite transparent beside the World Bank, an institution that has perfected the art of bureaucratic impenetrability. Here even the Governors are forbidden access to some staff evaluations of particularly controversial projects and programmes. Regarded as ‘internal papers’, these documents are ‘not available to governments or to the general public’. Likewise documents prepared for the Board of Directors to enable decisions to be taken on whether or not to approve loans are ‘strictly confidential’ and ‘not officially available beyond restricted distribution’.138 Ordinary taxpayers from Bank member states are permitted no access at all to

any information of any kind on the institution other than the anodyne material that it itself chooses to publish.

At the IMF a very wide range of data is secret, with special safeguards and restrictions covering staff reports on national economies, consultation reports, and papers presenting a member state's request for the use of Fund resources: 'All such reports are confidential and may not be released, even by the member concerned.'1*9

Amongst the bilateral agencies, although some, like USAID, are relatively 'open', others are closed tight. Britain's Overseas Development Administration, for example, conceals the detailed information that it compiles on most of its projects and programmes behind the suffocating curtain of the Official Secrets Act. British taxpayers wishing to do nothing more sinister than visit the library must be escorted, must remain under supervision, and are only allowed to look at edited extracts of project documents (the larger

parts are ‘classified’). This hardly seems appropriate in the publicly funded aid administration of a major Western democracy.

In the developing countries, too, middlemen are to be found who behave as though they are accountable to no one. Here they ‘represent’ the poor and are not aid officials but, rather, Ministers and Presidents. Unfortunately many of them are little more than brutal, simpering thugs and most have gained power not through the ballot box but via the barrel of a gun. In 1988 some twenty-nine developing countries in Africa, ten in South America, six in the Middle East, three in South Asia and ten more in the Far East were ruled by the military -with most of the rest labouring under one or other form of civilian tyranny. 140

With international civil servants on the one hand, and gangsters and psychotics on the other, we thus have a situation in which aid agencies talk to governments and governments talk to aid agencies; governments also talk to other governments, and the aid agencies

talk amongst themselves. If this is ‘development’, then it is nothing more than a transaction between bureaucrats and autocrats a

deal that gets done, in the name of others, by intermediaries and brokers. The real principals in the affair the

taxpayers in the wealthy countries, and the poor in the South are

treated as though they are somehow incidental to the main event.

This comprehensive alienation on a truly global scale has become a fait so accompli that no one now seriously questions the structure or the institutions, the motives or the behaviour of the development industry. In some vague and woolly way it is just ‘there’.

beginnings

It has not, however, been ‘there’ for very long; indeed, it is entirely a creation of our own life and times. Fittingly, given all the vacuous palaver that it has generated since, it began with two huge conferences the

founding conference of the United Nations which took place in San Francisco in June 1945 and, before that, the International Monetary Conference held at Bretton Woods, New Hampshire, 1-22 July 1944.

Of the two, Bretton Woods was by far the more significant. The primary task of the meeting was to lay the foundations for an open and stable monetary system for the post-war world. But a secondary purpose was to take steps towards the realisation of the ‘four freedoms’ that President Roosevelt had defined as the longer-term objectives of the Western allies, including ‘freedom from want… everywhere in the world’.141 The upshot was the creation of both the World Bank and the International Monetary Fund.

Neither institution was initially very active in helping to free the developing countries from want.

The Fund was much more concerned with industrialised economies and

remained so for years. The Bank, for its part, focused its early lending on projects aimed at the reconstruction of post-war Europe: France, the Netherlands, Denmark and Luxembourg were the first four recipients of IBRD loans. In 1948, however, Chile joined the list and, in 1949, Mexico and Brazil followed suit. Thereafter, lending increasingly shifted towards the South, bearing out a remark made in 1949 by the World Bank's second President, John J. McCloy: 'The reconstruction phase of the Bank's activity is largely over and the development phase is under way.'142

At about the same time, a significant change of emphasis was also beginning to take place in the other great multilateral body set up at

the end of the Second World War the

United Nations. Following the signing of the UN Charter in San Francisco on 26 June 1945, the organisation installed itself in its permanent headquarters in New York. Its immediate preoccupations were with consolidating the peace and contending with the huge human disruptions that the war had caused in Europe. As a result probably its most active department in the early days was the UN Relief and Rehabilitation Administration, which catered for refugees. When UNRRA was eventually wound up in 1947-8 most of its staff were transferred to other specialised agencies that were then emerging within the United Nations system.143

From then on, the concerns of the UN like

those of the World Bank -increasingly shifted away from Europe and began to focus instead upon the poor South. A key date was 4 December 1948 when the General Assembly drew specific attention

to the lack of expert personnel and technical resources in what it called ‘underdeveloped areas’.144 Under Resolution 200, it subsequently authorised funds to enable the Secretary General to mobilise ‘international teams of experts through the United Nations to advise governments on economic development; to assist in training technicians in the developing countries; and to assist governments in obtaining technical personnel, equipment and supplies in organising their development efforts’.145

Neither was the new focus limited to the multilateral agencies. In the USA President Harry Truman’s Point Four Plan, announced in 1949, called for a worldwide effort for the achievement of peace, plenty and freedom’. This call was predicated on the President’s view that:

More than half the people of the world are living in conditions approaching misery … their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more

prosperous areas … I believe we should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realise their aspirations for a better life. And, in cooperation with other nations, we should foster capital investment in areas needing development.146

In a very real sense, ‘foreign aid’ had arrived; furthermore, the UN, the World Bank and Harry Truman all seemed to agree about what it should be used for: ‘development’. They also agreed that there was a specific group of countries that should get it.

One consequence of this was to impose a fictitious unity upon nations that were widely separated in every sense geographically,

culturally, economically and politically. The idea that they had something fundamental in common derived directly from the fact that they all came to be seen as eminently ‘aidable’. As the respected British economist Lord Bauer puts it:

The Third World and its antecedents and synonyms, such as the underdeveloped world, the less developed world, and the developing world (all still used) and now also the South, are for all practical purposes the collection of countries whose governments, with the odd exception, demand and receive official aid from the West. The concept of the Third World or the South and the policy of official aid are inseparable. They are two sides of the same coin. The Third World is the creation of foreign aid: without foreign aid there is no Third World.147

motive forces

While it would be convenient to believe that the decision to launch large-scale aid programmes was the product of clear and uniform thinking on the part of the industrialised nations in the post-war era, the truth is otherwise. From the outset a number of quite different motivations were at work and

at work side by side. The result, today, is that the collective psychology of aid-giving is schizophrenic, shot through with contradictory urges and rationalisations, some of which are benign, some sinister and others just plain neurotic.

To take the case of the United States first, there was, from the very beginning, a strong lobby advocating aid as a moral and humanitarian virtue; Truman was probably the most powerful progenitor of this line of thought.

Another was Herbert Hoover who at

Truman's request made

a 50,000-mile tour of thirty-eight countries just after the war to assess global food supplies and to see how surpluses from North

America might be deployed. On his return he addressed the American people in the following stirring tones:

Of the Four Horsemen of the Apocalypse, the one named War has gone. But Famine, Pestilence and Death are still charging over the world. Hunger is a silent visitor who comes like a shadow. He sits beside every anxious mother three times a day. He brings not alone suffering and sorrow, but fear and terror. He carries disorder and paralysis of government. He is more destructive than armies; not only in human life, but in morale. All of the values of right living melt before his invasion and every gain of civilisation crumbles. But we can save these people from the worst -if we will.148

Not long after Hoover had made this high-minded appeal, other influential Americans were finding other reasons to save the poor from the worst. Not only was it morally right to do so, they pointed out, but also it could be good for business. In the 19505 the then President of the World Bank, Mr Eugene Black, travelled around

the USA drumming up support for increased aid. His message was a simple one:

Our foreign aid programmes constitute a distinct benefit to American business. The three major benefits are: (1) foreign aid provides a substantial and immediate market for United States goods and services; (2) foreign aid stimulates the development of new overseas markets for United States' companies; (3) foreign aid orients national economies towards a free enterprise system in which United States firms can

prosper

Similarly, in 1964, Senator McGovern had this to say: 'The people we assist today will become our customers tomorrow … An enormous market for American produce of all kinds will come into

being if India can achieve half the productivity of Canada.‘150

And not only India, of course. Between 1945 and 1950, Pakistan, Ceylon, Burma, the Philippines, Indonesia, Jordan, Syria and the Lebanon had also became independent nations open to US commercial penetration. In 1954 Cambodia, Laos and a divided Vietnam became self-governing, and in 1957 Malaya won its independence from Britain. In Africa, Libya became independent during the 1950$, the former Italian colony of Eritrea joined with Ethiopia and, in 1960, the former British and Italian Somalilands united to form the Somali Republic. At about the same time Sudan, Morocco, Tunisia and Egypt were removed from imperial control. The Gold Coast was transformed into independent Ghana. Togoland, the Cameroons and Guinea soon followed to independence. In the Caribbean, Puerto Rico and the Netherlands Antilles achieved new styles of self-government, and the Federation of the British West Indies approached independence within the

Commonwealth.

The majority of these newly independent nations, and many others soon to join them, were deeply impoverished. Truman and Hoover had already defined this as an outrage to morality. Black and McGovern had drawn attention to the benefits for American entrepreneurs that aid could bring. Now the Cold War provided a new incentive. In the view of Washington policymakers there was a grave danger that left

to their own devices the

emergent states might fall under communist domination. This danger had to be averted at all costs; aid quickly came to be seen as the means to achieving this political end.

Thus, Senator Hubert Humphrey in 1957: ‘I have heard that people may become dependent on us for food. To me that is good news

because

before people can do anything they have got to eat. And if you are looking for a way to get people to lean on you and be dependent on you, in terms of their cooperation with you, it seems to me that food dependence would be terrific.‘151 Likewise, President Kennedy in 1961: ‘Foreign aid is a method by which the United States maintains a position of influence and control around the world and sustains a good many countries which would definitely collapse or pass into the communist bloc.‘152 Seven years later President Nixon added: ‘Let us remember that the main purpose of aid is not to help other nations but to help ourselves.‘153

To the mishmash of American motives for giving aid, the wealthy industrialised nations of Europe soon added another important element: guilt. Unlike the United States, they had been deeply involved in the countries of the South for many years and, in some cases, for centuries. As the winds of change began to blow and as

the process of decolonisation quickened in the 19505 and 19605, they increasingly found themselves blamed for the poverty of their former possessions. Kwame Nkrumah, the first President of Ghana, was an eloquent spokesman for this point of view. The colonial powers, he thundered,

were all rapacious; they all subserved the needs of the subject lands to their own demands; they all circumscribed human rights and liberties; they all repressed and despoiled, degraded and oppressed. They took our lands, our lives, our resources and our dignity. Without exception, they left us nothing but our resentment… It was when they had gone and we were faced with the stark realities as

in Ghana on the morrow of our independence that

the destitution of the land after long years of colonial rule was brought sharply home to us.154

Such accusations found a receptive audience in countries like France, Britain and Italy, which had been the dominant colonial powers, and it is no coincidence that most of them greatly increased and

formalised their

bilateral aid during this period. It was in 1962 that the Development Assistance Committee of the OECD was formed; around the same time France set up its Ministry of Development Cooperation and Britain its Ministry of Overseas Development (now Overseas Development Administration).

Meanwhile the mea culpas and the self-flagellations of the erstwhile imperialists grew strident. In Britain in 1969, for example, Cyril Connolly wrote: ‘It is a

wonder that the white man is not more thoroughly detested than he is … In our dealings with every single country, greed, masked by hypocrisy, led to unscrupulous coercion of native inhabitants … Cruelty, greed and arrogance …characterised what can be summed up in one word, exploitation.‘155 Likewise a pamphlet published by Cambridge University students in the early 1970$ proclaimed: ‘We took the rubber from Malaya, the tea from India, raw materials from all over the world and gave almost nothing in return.‘156

It was in such a fashion, through guilt, that Europeans at a particular moment in their history came to see foreign aid as a vehicle of restitution, of righting past wrongs, of buying pardon. No doubt, in a perverse and masochistic sort of way, this was immensely satisfying to all concerned. The net result, however, when thrown together with the stew of American intentions, was that the international aid process became a seething pot-pourri of humanitarianism, commercial self-interest, strategic calculation and

bad conscience a

perfect recipe for all the contradictions, confusion and pathological disorders with which aid-giving is afflicted to this day.

bureaucratic survivalism

Over the years the problem has been made infinitely worse by the conduct of the aid bureaucracies themselves. They have sycophantically nourished and indulged the abiding motivational psychoses of the donor governments and they have added their own touches of irrationality, indecision, compulsive behaviour, greed, caprice, muddle and disorientation.

The most important element in this is that all the institutions of Development Incorporated, whether bilateral or multilateral, seem to have at least one thing in common: an uncanny ability to sense the prevailing mood in the donor countries and to adapt themselves

to it. This is a genuine family characteristic, a genetic trait that programmes each and every one of them for survival: if humanitarianism is in the air, then they will make humanitarian statements; if environmental movements seem to be gaining political support, then the agencies will inject some ecology into their rhetoric; they will also as

and when required make

the necessary noises to assuage national guilt complexes, to pander to security neuroses, and even to emphasise the profit motive if that seems expedient. Meanwhile, if welfare-statism is on the ascendant in the donor countries, the aid agencies will highlight their own role in the international redistribution of wealth and, like as not, will seem to see central planning as an important factor in the development process. If conservative values are enjoying a resurgence on the other hand, then notions like ‘structural adjustment’ will be promulgated, the virtues of private enterprise

will be extolled and ‘market forces’ will be assigned a god-like omnipotence.

The variations and possibilities are virtually infinite. As a result, since the Second World War, the aid industry has, at one time or another, appeared to believe all of the following things:

That progress in the poor countries will only be achieved through rapid, high-tech industrialisation administered by central-planning boards under the aegis of the state; after a few years the benefits will ‘trickle down’ to the poor;

Ditto, except that state control and central planning are inefficient and that private entrepreneurs must be given a free hand in the industrialisation process;

That the industrialisation drive has been premature and that progress in poor countries can in fact only be achieved by boosting

agriculture -since this is the real economic base of the majority of people in the majority of developing countries;

That agriculture is best boosted by supporting large-scale farms;

That agriculture is best boosted by supporting small farmers;

That wealth will not trickle down to the poor and that, therefore, development must be ‘bottom-up’ in design rather than vice versa;

That the main focus of development should be on meeting the ‘basic needs’ of poor and vulnerable groups through the provision of primary health care, village-level education systems, food subsidies, etc.;

That it may, unfortunately, be necessary to neglect the basic needs of poor and vulnerable groups in order to achieve ‘structural adjustment’ to a hostile international economic environment;

That it is possible to have ‘adjustment with a human face’ that achieves austerity goals but that also builds in protections for the poorest; ,1

That it is impossible to have adjustment and growth at the same time;

That it is after all possible to have adjustment and growth at the same time.

The various beliefs and ideas contained in these statements plus

a great many others have

not succeeded one another in any kind of smooth chronological order. Sometimes two or three notions of what development is really all about have co-existed for a year or so with,

for example, USAID advocating a ‘trickle down’ approach while the ILO emphasises ‘bottom-up’ projects. Sometimes as

with the basic-needs philosophy which enjoyed its heyday in the late 19705 agencies

have disagreed on implementation although not on the principle: UNICEF and WHO, for instance, have frequently argued over primary health care methodologies.

These little inconsistencies, however, have occurred within broadly identifiable-and constantly changing-currents of thought and action. Indeed, the truth is that notions on how aid should be used to promote development have, since the 1940$, been at least as subject to the whims of fashion as the length of men’s hair or the hemlines of women’s skirts. In order to comply with the latest

fad however

ephemeral no

institutional contortion act has proved to be too difficult for Development Incorporated to perform, no principle has turned out to be so rigid that it could not be bent, no manifesto has been prepared with such rigour that it could not later be rewritten, and no pledge has been felt to be of such a fundamental nature that it could not subsequently be broken.

If we were dealing here simply with academic theories, then none of this would matter very much. The problem is that every shift in mainstream thought about what development is supposed to be sooner or later finds pragmatic expression in projects ‘in the field’, and the shape of such projects is obviously crucially influenced by the policies of the donor agencies. The fact that these policies change radically sometimes

over quite short time-periods -means inevitably that there is a lack of coherence in the development drive: rather than being a concerted and determined effort to achieve clear and agreed objectives, what we actually end up with is something that stops and starts, lurches forward and then doubles back, kangaroo-hops in a particular direction one year and then veers off drunkenly in quite another the next.

Development is thus a very long way from being an exact science: no practitioner can honestly put his hand on his heart and swear that he knows that any particular approach will work that,

for example, ‘adjustment with a human face’ is going to be better than just plain old adjustment, or that a gung-ho effort to meet the basic needs of the poor is going to be a worthwhile improvement on large-scale industrialisation. Every new strategy is as tentative as the one that went before it; indeed, the very fact that development strategies do keep changing is a tacit admission of the failure (or

anyway lack of success) of earlier efforts.

The real failure, however, is symbolised by the continued existence of the aid agencies themselves: if they were doing a proper job of promoting development in the Third World, then, presumably, they should have put themselves out of business by now. Over almost fifty years they should have dealt systematically with the problems that they were established to solve, closed up shop and stopped spending taxpayers' money.

They have done no such thing, however. On the contrary, they have managed to stay firmly on the scene despite the rapid changes that have taken place in the post-war world. Neither have they simply, doggedly persisted: the majority have grown from year to year with ever bigger budgets, ever more projects to administer and ever more staff on their ever-expanding payrolls.

Employed to serve the poor, these staff rank ironically amongst the

best-paid professionals on earth. Their mission is to work for the deprived and

yet they themselves enjoy an astonishingly rich and diverse range of perks and privileges. They never cease to advocate the cause of the weak and the lowly; paradoxically, however, many amongst those who speak most movingly at the glittering international gatherings have acquired great personal power and prestige and are hopelessly addicted to the trappings of status and authority.

Patricians at public expense, they thus have the strongest possible vested interest in preserving a status quo in which aid continues to flow through their fingers.

The next chapter takes a detailed look at one branch of this aristocracy of mercy.

PART THREE

the aristocracy of mercy

… everywhere

The ceremony of innocence is drowned; The best lack all conviction, while the worst Are full of passionate intensity.

W. B. Yeats, The Second Coming

Why do people work in development?

Most that I have talked to during the preparation of this book cite a variety of reasons. In the case of Europeans and Americans, the

‘desire to help’ was mentioned fairly frequently: ‘It’s nice if you can work and help other people at the same time,’ said one fairly typical aid official. However this was rarely the only or

even the principal motivation.

There were a number of people who were clearly ‘in it for the money’ a

consultant, for example, who boasted that he had mastered the UN’s system for allocating contracts.

It’s all done by computer [he told me]. They have this list of names of likely consultants for each kind of job. You have to make sure that your name is on that list and you have to make sure that the experience and qualifications in your CV slot into the various categories that the computer has been programmed to like … I’ve never been without a contract for more than a few weeks in the last

ten years and I reckon I can keep going that way well into the twenty-first century.

Did he care where he was sent, or on what sort of projects he was employed? ‘Not a bit. This is just a business for me … you have to know how to work the system, that’s all.’

Pragmatic attitudes also prevailed amongst Africans and Asians who had landed work in the aid business. In most cases, they told me candidly, a job in the UN or in one of the development banks paid them at least ten times as much and

sometimes a hundred times as much as

they could possibly hope to earn in government service in their home countries. ‘A completely different lifestyle,’ one New York-based Pakistani admitted in his luxury apartment above the Hudson River. ‘I won’t try to pretend that I took this job out of idealism …

the money was very important to me.' On his living-room wall was a framed certificate from Pan Am's Clipper Club confirming that he had flown more than 100,000 miles in the last year. 'It pays to buy your tickets for official travel from the same airline whenever you can,' he confided. They have these promotions that give you free flights when you've clocked up enough . . I'm planning a round-the-world holiday.'

Even for Europeans and Americans, salaries in the aid business are generally much higher than they might expect to earn in other lines of work. The fringe benefits of overseas postings also represent considerable inducements to join the development set: 'You get a free furnished house and all the related costs are paid as well water,

electricity, *etc.* In one country they gave us our own generator so that we wouldn't have to do without light when there were power

cuts."

A popular perk provided to almost all fieldworkers is a lavish freight allowance 'to enable you to ship household goods out from home to the developing country you are going to work in and then to ship them back again at the end of your tour of duty". One AID employee told me: 'You get a list of packers and movers from the agency and you're allowed 250 pounds of air freight and 1,500 pounds of sea freight per person, plus an additional allowance of 2,500 pounds for consumables mainly

paper products and food. Your furniture's already there, of course, and they also ship a car for you free of charge.'

Another AID official who had just returned from an overseas assignment showed me his cellar with some pride: it contained thousands of rolls of toilet paper stacked as high as the ceiling and occupying about half the floor space. 'It'll be years before we have

to buy another roll,' he said. 'These were paid for by AID, shipped out to our house in Africa by AID and then shipped back here again at the end of the job.' His Washington home was lavishly furnished with batiks, rattan chairs, carvings and other 'ethnic' items from his various foreign tours of duty 'all

shipped home free'.

Development workers that I talked to in some of the worst hell-holes in the Third World admitted that their reasons for being there were often more financial than idealistic: 'I hate this country,' said one, 'but that's why I'm here.' Pressed on this point, she told me:

The main reason that people accept a job in a place like this is so they can stash away money and

I'm stashing away a small fortune. Because it's classified as a hardship post, I'm automatically on 25 per cent above the basic

salary for my grade. In addition it's a Muslim country, which means we work on Sundays and

that gets me another 25 per cent. My housing's paid, food is cheap and there's really nothing much else to spend money on, so I'm building up a nest-egg.

Initially to my surprise, I found that a disproportionately large number of elderly (and in some cases almost geriatric) officials were employed in hardship posts. Their reasons for being there were simple: 'My pension is calculated on the annual salary that I earn in my last three years,' explained one. 'By working here I get 25 per cent more than I would in other, more comfortable duty stations. If I can stick it out I'll get a correspondingly bigger pension.'

Some of the people I interviewed were virtually unemployable outside the aid business. A British geologist, for instance, had never succeeded in getting a full-time job in the UK in which he could use

his training but had managed to land several lucrative contracts overseas with United Nations agencies. ‘There’s not much demand for my kind of skills in Britain any more,’ he told me. ‘I’ve tried, but I just can’t get work. That means I have a simple choice: either I’m at home and on social security or I’m abroad earning a good living from the UN … Which would you opt for?”

It is the staff of the voluntary agencies like Oxfam or Save the Children Fund who most frequently cite altruistic and humanitarian concerns as being their main or only reasons for going to the Third World; this is perhaps why they are prepared to put up with by far the lowest salaries and by far the worst working conditions in the development industry. ‘I was just so infuriated that people should be starving in Africa,’ said one, ‘and I thought that I could help.’ Others were more overtly political, or idealistic: ‘It’s wrong that some people should have so much and others should have so little… I know it sounds naive, but I want to do my bit to end injustice.’

Such romanticism, however and

perhaps predictably seems

to be less and less of a factor the older the subject is. Amongst fieldworkers in the voluntary sector I have found repeatedly that a timidity begins to creep into their behaviour around the age of thirty, that the early ‘fire’ dies down and that the individual becomes more reflective, adopts a certain gravity of posture, and seems to weigh his or her remarks carefully before uttering them.

What is happening here is that these people are beginning to consider then-own careers. Quite understandably they want to have children, or to own a house (or both), and would definitely like to earn a little more money and have some kind of secure future. If they have spent the first five, or seven, or ten years of their working lives supervising irrigation projects or carrying out nutritional surveys in the Third World, however, then the unfortunate reality is

that their options as ‘civilians’ back home are very limited and

virtually non-existent if they have an ambition to continue ‘helping the pool’. They begin, as a result, to look at the possibility of a job in one or other of the various official aid organisations.

For the upwardly mobile Peace Corps volunteer, for instance, a position with the Agency for International Development looks like a logical ‘career move’ offering higher status and a far better salary: as a result, today, more than 500 full-time AID staffers were formerly in the Corps.1 Similarly, in Britain, a job with the Overseas Development Administration holds many attractions for an Oxfam or a Christian Aid worker, or for a returned VSO. Again, an effective promotion is involved with no immediate penalty to pay in terms of your basic idealism you

get more money, you get much more security and you still get the great feeling that comes from doing something ‘worthwhile’ for

mankind.

It is the United Nations, however, rather than any of the bilateral aid bureaucracies, that offers the best prospect of a lasting compromise between altruism and self-interest. Whether you get a job in the Food and Agriculture Organisation, in UNDP, in UNICEF or in any of the other agencies of the system, you will be entering a career that pays you a colossal salary for

doing ‘humanitarian’ and ‘socially valuable’ work and that, furthermore, does so against a backdrop of liberal and progressive ideas with which you can feel comfortable.

Although smaller in resources, than, say, the World Bank or even USAID, there is no doubt that the United Nations system successfully presents itself as the moral centre of the development

business. Guided by the lofty and principled terms of its Charter, it has become involved in an astonishingly wide range of ‘good works’. Its numerous specialised agencies and other organs have established their principal offices in cities like New York, Geneva, Rome, Vienna and Paris; these in turn are provided with ‘field support’ in the developing countries by a total of 620 duty stations;2 as a result acronyms like UNHCR, UNDP, FAO, WHO, UNICEF, WFP, UNFPA and UNEP have become household names in many remote and impoverished places a

sort of alphabet soup for the disadvantaged to drink from. Officials claim that over 90 per cent of the UN’s activities are now focused on the promotion of economic and social development in the poor South: some 5,000 separate projects benefit from expertise and funding provided by UNDP; millions of refugees in thousands of camps get aid and protection from UNHCR; supplies and equipment are provided to some 300,000 health and day-care centres and

schools by UNICEF.3

The great majority of idealistic charity workers and volunteers that I have encountered in the Third World thus nourish a none-too-secret ambition to ‘graduate’ to the United Nations which

they tend to see as doing in a bigger and more prestigious way the same kinds of thing that they themselves have been doing all along. Furthermore, their working lives in Africa, Asia or wherever have brought them into daily contact with UN staff with

whom they frequently cooperate on the same projects and

they have been able to learn how very high the standard of living can be in the international civil service. This close contact with the ‘other half inevitably has an impact on their own thinking and ambitions. As one Oxfam nutritionist told me:

I've discovered that people with exactly the same qualifications and experience as me who are lucky enough to be employed by UNICEF or WHO instead of by Oxfam are earning three or four times as much as I am. Well, I want what they have… I want the villa and the car and the two servants. I want to be able to save some money at the end of every month. I don't think that's unreasonable, do you? I've been working in the field for five years now a

bloody hard slog and nothing to show for it. I think I deserve something better.

There was a time in my own life when I wanted to work for the UN. My motives, then, were the classic mixture of goodwill and personal calculation: the feeling that, within the world body, I could fully satisfy my own idealism and also reduce my overdraft at the bank, that I could benefit both myself and others at the same time, that in

short -I could have my cake and eat it, too. I went as far as

requesting an application form. In the end, however, I did not fill it in.

The background to this lay in the 1970$, when I was one of the editors of New Internationalist magazine and had a great deal of contact with UNICEF and with the United Nations Fund for Population Activities (UNFPA). The NI had won lucrative contracts to undertake publicity work for both these agencies notably

the writing and production of press kits on children's and population issues which we mailed out to the international media and which generated very wide and positive coverage. I worked on these contracts for a couple of years and thoroughly enjoyed myself. For quite a while afterwards I continued to regard the UN system as a sort of Utopia and I saw UNICEF in particular, with its crusading message, as a beacon of decency and reasonableness in an unjust and cruel world.

Both UNICEF and UNFPA have their headquarters in New York, so that was where I was called for the rather frequent ‘consultations’ required by the clients. In what I much later came to realise was true United Nations style I used to jet back and forth across the Atlantic Ocean as though air tickets were no more valuable than bus tickets or a subway pass.

One minute I would be in the NPs poky offices in rural Oxfordshire, the next a call would come in from New York querying a paragraph or a sentence and off I would go to Heathrow airport, to the (increasingly familiar) cabin of the 747, and thence to Kennedy and to the Big Apple itself. I would check into the Tudor Hotel on East 42nd Street (‘Have a good day, sir’), sleep off my jet-lag and, the next morning, take a stroll over to United Nations Plaza to look at the massed flags waving outside the General Assembly before going on to complete the pleasurable little job that I had been called to this wonderful place to attend to.

I acquired an American Express card during this amazing period ('never leave home without it') and, for the first time in my life, began to regard international travel as a normal, everyday sort of thing rather than as a privilege and a luxury. I became familiar with dozens of bars and restaurants in New York, had my favourite places for 'brunch' and made many new and interesting friends. What was most stimulating of all, I think, was the uplifting atmosphere of idealism that seemed to prevail within both UNICEF and UNFPA the

feeling that all the problems of the world were somehow solvable and that we were the ones who were going to solve them.

Most distinctly of all, I remember walking out from the Tudor Hotel one bright winter morning and pausing to read the quotation from Isaiah that is carved into a wall opposite UN headquarters: 'They shall beat their swords into plowshares and their spears into pruning hooks: nation shall not lift up sword against nation; neither shall

they learn war any more.'

At the time that simple message moved me to tears. It was only years later that I came to realise what spurious cant it in fact is for the majority of the UN's 50,000 employees,4 how cynical many of them have become, and the great extent to which most merely go through the motions of working for a better

world. The atmosphere of idealism that had once so uplifted me is, I now understand, just a veneer or worse

than that a

mere stage set, a one-dimensional facade that shouldn't fool anybody. Behind it there is almost nothing at all.

Whatever noble mission the United Nations may once have had has, I am now convinced, long since been forgotten in the rapid proliferation of its self-perpetuating bureaucracies in

the seemingly endless process by which empires have been created within the system by ambitious and greedy men and then staffed by time-servers and sycophants. Rather than encouraging humility and dedication, the world body's structure seems actively to reward self-seeking behaviour and to provide staff with many opportunities to abuse the grave responsibilities with which they have been entrusted.

rotten from the top down?

Evidence of this rot can be found at all levels but is most blatant at the very top with the Directors General (sometimes also called Executive Directors) of the bigger agencies. Amongst the few 'elected' officials in the United Nations system, these men (and they

are all men) are voted into their jobs by delegates of member states, normally at intervals of five or six years. Once installed they acquire massive discretionary power over development programmes that affect the lives of millions of poor people a

power that is symbolised by the range of perquisites that come with high office: the black chauffeur-driven limousine with motor-cycle outriders, the retinue of fawning retainers, automatic access to VIP lounges at airports, the attentive ear of elder statesmen around the world.

In terms of the protocol that surrounds them, the budgets that they have at their disposal, and their ability to exert direct influence over the lives of others, agency chiefs seem to have more in common with Presidents, or perhaps even with royalty, than they do with other members of the human race. Of one it has been said:

His style was that of a little Napoleon. As his car drove up to the

front entrance the porters would stand deferentially with the glass doors open; another porter would be scurrying across the length of the main hall to the special lift so that its doors would be open by the time the DG reached it. If he was feeling angry he was liable to stride quickly through, his eyes baleful and tail lashing; if he felt easy he could show such casual charm to a porter, a passing typist or anyone else he happened to run into, that they passed the day basking in the glow.5

Those who have made it to the top in the development business seem invariably to want to stay there. In 1988 the heads of the World Health Organisation and the International Labour Office had both held office for almost two decades. The year before, a titanic struggle had taken place at the United Nations Educational, Scientific and Cultural Organisation and at the Food and Agriculture Organisation as the long-serving bosses of these two institutions fought tooth and nail to keep their jobs in the face of

strong Western opposition to either of them getting a third term. The upshot, in November 1987, was that Ahmadou Mahtar M'Bow, the Senegalese Director General of UNESCO, was replaced by Federico Mayor of Spain. FAO's Director General, Edouard Saouma, on the other hand, was reappointed and could look forward to six more years of unchallenged supremacy at the helm of the UN's largest specialised agency. Here, in the words of one observer: 'He can, and often does, decide over life and death in the middle of famine.'6

Mr Saouma's record in the fulfilment of this awesome responsibility is not an unblemished one. That, in itself, is hardly surprising, since everyone makes mistakes. However, some extremely grave charges have been levelled against him and it is difficult to turn a blind eye to all of these. For example, it is alleged that in 1984, at the height of the Ethiopian famine, Saouma held back food aid for twenty days at a time when emergency consignments were urgently required.

According to testimony from other FAO officials and from the former Ethiopian Relief and Rehabilitation Commissioner Dawit Wolde-Giorgis, this delay occurred simply because Saouma disliked Tessema Negash, then Ethiopia's Assistant Delegate to FAO, and wanted him removed from office: only when Negash was recalled to Addis Ababa was the food released. In Dawit's own words:

I went [to FAO headquarters in Rome] and tried to brief [Saouma] on what was going on in Ethiopia … He interrupted the discussion and told me that our representative was not a very likeable person… that it would be very difficult for him to really cooperate with the Ethiopian government as long as we had Tessema Negash as our FAO representative … There I was trying to brief a senior UN official about the impending disaster and the number of people dying every day and I was confronted with personal problems… that was sickening.7

When I approached Saouma in 1989 for an interview to clarify this

and other matters, he declared himself unable to receive me because of his ‘many commitments’. I was, however, sent a duplicated press handout in which the accusations concerning Ethiopia were strenuously denied. I would have been more convinced if I had been given the opportunity to question Saouma face to face.

Be this as it may, more general criticisms of FAO’s Director General were also in the air at the time of his reelection. These criticisms all

of which Saouma rejected as untrue concerned

his management style, particularly disliked by the US government. According to a State Department telegram sent out to all embassies in October 1987: ‘Edouard Saouma’s … highly personalised leadership … at FAO … has sapped the initiative of the Secretariat and its willingness to make decisions. Continuation of that sort of leadership would be likely to diminish the organisation’s

effectiveness.‘8 In a less restrained vein, one senior Canadian official accused the FAO chief of practising ‘terror tactics’,9 while the former Canadian Minister of Agriculture,

Eugene Whelan, remarked that ‘any similarity between what we know in a democratic country and running the FAO is purely coincidental’.10 Britain refrained from direct censure but on seven occasions made plain its view that heads of UN agencies ‘should not serve mire than two terms’.11

Interestingly enough, despite the fact that he was seeking reelection for a third term, Saouma went on record during his campaign to state that he, too, was ‘for the principle’ that UN chiefs should serve only two terms in office. He argued that he was making an exception to this important rule in his own case only because he felt that FAO needed an experienced hand at the helm during a period

when the Organisation was experiencing a liquidity crisis.12

When Saouma first took office in November 1975, FAO's statutes expressly stipulated that the Director General should serve only one term of just four years. From the outset, the new incumbent lobbied busily with representatives of member states to allow multiple six-year-terms of office and, in 1977, FAO's annual conference adopted a resolution to Ms effect. This achieved, according to one former FAO official: 'Saouma, equipped with all the prerogatives and opportunities open to him as Director General', began 'campaigning for reelection a

state of affairs that was to hive been ruled out by the provision that serving a further term was not allowed1.13

Having benefited from a change in the rules that enabled him to compete a second time, Mr Saouma was also in due course rewarded by the United Nations system for starting his campaign

early: when he came up for reelection in November 1981 he was adopted as the sole candidate and was returned to office by a majority of 138 vote to one.

(Thereafter he focused his energies for several years on extending his control over the Organisation and its vast resources. In the process FAO became increasingly secretive and unwilling to provide information on its projects and programmes or even on the exact size and disposition of its staff.15 At the same time, however, Saouma sought ever large! and more lavish budgets which

showed a rate of growth of 63 per cent between 1980 and 1984, triple that of other UN development agencies during this period.16 By mid-decade the organisation was spending in excess of $1. million every day to

little effect in the opinion of many; more than two-thirds of its staff were to be found at their desks in Rome rather than working on

agricultural projects in the developing countries.17 Commenting on this state of affairs, one exasperated Western delegate hinted that a withdrawal of financial support from FAO would be likely if Saouma were to get a third term in office: ‘At least six of us will decide that enough is enough. It’s not that we want control, but we are responsible to our taxpayers and our taxpayers are entitled to an organisation which actually helps people grow food.‘18

Western opposition like this, which had been non-existent in 1981, saw to it that Saouma was not allowed to fight the 1)87 election uncontested. Initially two alternative candidates were put up: Senor Gonzalo Bula Hoyos of Colombia and Mr Moise Mensah of Benin. During a year of intense lobbying by all three, however, it gradually became dear that Saouma was going to win again. Bula Hoyos pulled out before the election took place and, in the final ballot, Moise Mensah attracted only fifty-nine votes to Saouma’s ninety-four.19

The secret of Saouma's success was spelled out in no uncertain terms by Senor Bula Hoyos when he resigned his own candidacy: 'He always travels with his cheque book,' the disappointed Colombian complained, 'and he can buy favours and votes simply by asking governments "Which project do you want?'"20

Saouma categorically rejects such allegations. It is a fact, however, that FAO's electoral system allows the delegate from a poor aid-receiving country -Djibouti, for example, or Togo as

much weight as the vote of the delegate from a rich aid-giving country like the United States or Britain; it follows that the logical technique in such an election is to woo small nations which could use a bit of extra assistance.

Amongst the more formidable weapons in Saouma's reelection arsenal -according to his detractors was

one that he had designed and fashioned himself during his first term of office: FAO's Technical Cooperation Programme, now worth approximately $40 million a year, about half of which is spent on capital goods (a departure from FAO's normal technical-assistance practices). Attribution of projects under this programme is very much at the Director General's personal discretion: something, critics charge, that makes them ideal as rewards to faithful delegates. Saouma has classified the list of beneficiary countries as a 'top secret' internal document; it is, as a result, not available to journalists or the general public. Following his 1981 reelection, however, a number of leaks confirmed that TCP projects around that time did go to the more ardent supporters of his sole candidacy.21 In the 1987 election, delegates from the member states of the Organisation of African Unity were the crucial group of voters because they were expected to ensure Saouma's ouster by backing Mr Mensah. They were swayed from doing so, however, possibly by the prospects of special largesse under the Technical

Cooperation Programme. According to diplomats no more than a dozen of the fifty African nations in the end cast their vote for the African candidate.22 FAO denies any suggestion that TCP funds are used to buy votes and points out that a panel of independent consultants judged the Programme to be ‘both timely and relevant to the urgent needs of member countries’.23

Mr Saouma’s third six-year term in office is worth a significant sum of money to him personally: $813,276 net, excluding fringe benefits.24 Not even his most impassioned detractors suggest that his single-minded pursuit of reelection was motivated entirely or

even mainly by

an urge to keep his hands on the Director General’s fat pay packet; it has been pointed out by more than one, however, that there is something tremblingly anomalous about running a development agency and at the same time earning so much. This, as simply stated

by Raymond Lloyd who

himself resigned from FAO in disgust after twenty years' service is

'the paradox of working for the poor and underprivileged from a position of wealth and power'.25

It is a paradox that is undoubtedly heightened by the style of FAO's

autocratic Director General. He insists on being called 'Your Excellency', and occupies an office that would do justice to an Oriental potentate. He also displays some of the vanity that often comes with high office: television cameramen who have filmed interviews with him say that he has a professional make-up artist attached to his staff whose job it is to powder, brush and groom him before he goes on the air.

More generally, the way that business is conducted at the agency's Rome headquarters seems to be an extension of the Director General's dominant personality. Visitors to the six-storey white marble ministerial palace near the ancient Colosseum only get past the private army of patrolling security guards if they can prove that they have appointments; once inside they are required to wear coloured tags indicating their destination. In the case of journalists an escort from the press room is provided presumably

to ensure that no 'snooping' takes place and that officials talked to give the right answers to questions. Several senior members of staff have been suspended for making 'unauthorised statements' to the press and Saouma maintains additional control over the flow of public information about FAO by denying his more outspoken critics any access to headquarters. Meanwhile the agency's information division disposes of more than $12 million a year26 producing lavish brochures and reports extolling in

full colour the

virtues of FAO's services to the dispossessed and the disadvantaged.

One gets the sense from all this of an institution that has lost its way, departed from its original mandate, become confused about its place in the world about

what exactly it is doing, and why. Neither is FAO exceptional in this regard: throughout the United Nations system the goal of helping the world's poor to achieve a better life often ends up being relegated to second or third place or

completely forgotten. At all levels, staff show a tendency to become sidetracked, indeed obsessed, by issues of a personal nature: notably their pay and their privileges.

cut costs but not fringe benefits

One New York-based professional working for the UN, for example, was certainly not advocating greater concern about hunger in Africa or demanding that more be done to reduce mortality rates amongst the poor of Asia when he recently incited his colleagues to action with the words, ‘Let us march today, my friends, let us show our anger.’ His outrage was reserved for something much closer to home: a suggestion that parking charges in the garage beneath the UN’s East River headquarters should be increased from $20 to $80 per month. New York residents not lucky enough to work for the international civil service face bills at private garages ranging from $220 to over $300 a month.27

Pressure on the United Nations to oblige its staff to pay something approaching an economic rate for their parking and

to relinquish other perks as well is

part of a broader campaign being mounted by critics of the organisation who include a growing caucus of American Congressmen and Senators. Traditionally the source of 25 per cent of all UN funds, the United States government began in the mid-1980s to demand more accountability from the world body with regard to how it disposes of its budgets. This move was based on a strong feeling that the USA was being 'taxed without representation' in the General Assembly where as

in FAO its

vote on budgetary matters carried no more weight than that of any of the other 159 member nations.

In order to remedy this, the 1985 Kassebaum Amendment to the Foreign Relations Authorisation Act stipulates that the USA should pay no more than 20 per cent of the assessed annual budget of the United Nations or of any of its agencies that do not adopt weighted

voting procedures on ‘matters of budgetary consequence’ -i.e.

that persist in not allowing Americans a say in how the dollars they provide are spent.28 One of the main reasons given for the introduction of the Amendment was the UN’s decision to build a $73 million conference centre in Ethiopia at a time when the famine in that country was at its height. Senator Kassebaum summed up US objections when she said: ‘The cost of the first phase of this building will be $73.5 million, of which the United States share will be 25 per cent… it will cost us $18.5 million to pay for that conference centre in Ethiopia so that they can stand on the twenty-ninth floor and watch the rest of the country starve to death.‘29

Shortly after Kassebaum, Congress dealt the United Nations another body blow in the form of the Gramm-Rudman Act of December 1985. The intent of this Act was to balance the US budget through the imposition of progressive cuts in government spending over the five years up to 1991. As far as spending on the United Nations was

concerned, this meant that the USA withheld a large part of its 1986 assessed contribution, eliminated altogether from the 1987 budget moneys being kept in abeyance in accordance with the Kassebaum Amendment, and cut back sharply on voluntary contributions as well.

The net result was that the UN was plunged into a financial crisis, which, far from improving, has since steadily deepened. At the end of 1987, US withholdings and arrears had risen to $342.8 million. The serious implications of this shortfall were, furthermore, much exacerbated by the fact that ninety-two other member states were also behind in their payments.30 To some extent anticipating this predicament, the UN had already launched an economy drive led by Secretary General Javier Perez de Cuellar. Measures up for consideration included postponement of the notorious conference centre in Ethiopia (and another in Thailand), cut-backs on the number of publications issued, deferral of certain low-priority

programmes and activities, and a temporary freeze on the hiring of new staff.31

Even such short-term and cosmetic economies as these were, however, bitterly disputed by international civil servants keen to preserve their privileges. One of the more ridiculous bits of in-fighting was provoked by the Secretary General's decision to halt the supply of carafes of iced water to the thirteen meeting rooms at UN headquartersinNew York. Following a motion that the carafes should be restored, the issue was debated for several hours by

the Committee on Administrative and Budgetary Questions. Explaining the tough economy Controller Richard Foran said it was easy to underestimate the cost of filling pitchers of water in thirteen conference rooms twice a day. There were 159 delegates per room and no fewer than five porters had to 'rush around' and change the

glasses between meetings. The total saving that the Secretary General hoped to achieve by cutting out this service was thus in the region of $100,000 a year. The first delegate to speak noted (probably quite correctly) that if the committee voted to restore the pitchers of water at a time of widespread cut-backs in aid to impoverished countries the symbolism would be ‘unfortunate’. Another, however, felt it was inequitable that the Committee Chairman, the Controller and others on the podium still had pitchers of water. As the meeting dragged on into the evening a third speaker pointed out that overtime for translators and guards for the meeting itself might end up costing as much as the discontinued water service. When no decision was reached, the Committee voted to put the whole matter up for consideration by the General Assembly.32

Other cost-cutting measures were also hotly debated at committee level and by the Assembly. East Europeans, for example, opposed de Cuellar’s proposed moratorium on recruitment of new staff on

the grounds that their own nationals were already under-represented in the UN.33 When asked what they would do if their budget were cut by 10 per cent, members of the Committee on Palestine refused to discuss the idea, while another committee would not under any circumstances contemplate its high-level members giving up the privilege of first-class air travel.34 Likewise Africans refused to cut appropriations for the UN Council for Namibia and Latin Americans opposed cuts involving the rights of migrant workers.35

‘I am like a doctor,’ a weary de Cudlar said at one point. ‘I have written a prescription to help the patient. If the patient doesn’t want all the pills I’ve recommended that’s up to him. But I must warn that next time I will have to come as a surgeon with a knife.‘36

Some of the fringe benefits enjoyed by United Nations personnel look like obvious candidates for surgery: in the year after the launching of de Cuellar’s economy drive the United Nations paid out more than $60,000 to hire a chauffeur-driven limousine for a

senior employee37 and $200,000 to cover the cost of constructing leisure facilities for use by staff including

a shooting range in New York.38

travel on the gravy train

Other perks, too, show no signs of disappearing, amongst them the opportunity that UN employment affords for frequent travel: to conferences, on ‘missions’ to assess projects in developing countries, and so on. Visiting foreign lands on official business undoubtedly represents a considerable psychological windfall in that it provides at

no cost to oneself-new

experiences, variety and a break from office routines. It is also beyond dispute that many employees routinely save money

whenever they undertake an overseas trip. Not only do they avoid paying their own subsistence costs at home for the period that they are away but also they are usually able to pocket some part of the generous per diems that they receive often

well in excess of $100 per day.39

Such behaviour would be easy to overlook were it not for the fact that staff travel constitutes a significant element in United Nations budgets. Some time ago, for example, the President and Executive Board of the United Nations Educational, Scientific and Cultural Organisation claimed and received reimbursements of $1,759,548 for their own travel and lodging costs for just one year; this contrasted with outlays of $49,000 on education for handicapped children in Africa, $7,200 for curriculum development in Pakistan and $1 ,000 for teacher training in Honduras.40 At the Food and Agriculture Organisation the annual budget for travel by all staff exceeds $14 million.41

Official travel is thus a gravy train (or perhaps a jumbo jet) on which everyone wants to book a seat. Far from efforts being made to cut down on costs in this area the UN seems dedicated to search out every possible opportunity to spend more. As Tommy Koh, a former Singaporean Ambassador to the world body, observes: ‘Members of the UN Council on Namibia go on junkets to preach the gospel of a free Namibia to those who are already converted to the cause; members of the Economic and Social Council hold their summer meetings in Geneva just because the weather is more pleasant in Geneva during the summer than it is in New York . . ,‘42

A list of a few of the UN’s great plans and declarations (for the most part not acted upon) immortalises the names of some of the more exotic locations favoured by international civil servants: Arusha, Alma-Ata, Lima, Nairobi, New Delhi, Caracas, and Mar del Plata have all been the venues for meetings attended by hundreds and

sometimes by thousands of

delegates. The most privileged bureaucrats get more out of all this than just their per diems, a suntan and the pleasure of whittling away long hours with glamorous travel agents and glossy brochures. In one United Nations department a number of officials are permanently registered as being on duty travel and are paid accordingly.43

All in all the habit of sending its staff on ever more frequent overseas trips now costs the United Nations system almost $100 million a year44-this

is more than the value of the annual exports of several developing countries. A measure of the important role that jet-set membership plays in the life of the world body is that serious proposals have been put forward to the effect that it should establish its own travel agency.45 In the mean time the General Services Office of the

Secretariat in New York continues to pay almost $1 million a year to twenty staff who are employed solely to make travel arrangements.46 They are aided in this task by private agencies which find it financially worthwhile to have branch offices in most of the main United Nations buildings in New York and Geneva indeed,

in the latter city the business is so lucrative that one travel agent has opened offices in each of the several w

ings of a single UN building.47

There is considerable resistance to attempts to reduce the cost of travel by buying discounted or ‘bucket shop’ tickets. FAO argues

against such an economy on the grounds that it ‘would restrict full freedom of staff to travel on any airline of their choice’.48 Likewise another United Nations body, the International Telecommunication Union, considers unacceptable ‘any change in arrangements which might diminish existing standards of travel or require a change in staff regulations’.49

It must be admitted that these regulations are complex in the extreme. The official document that deals with them takes the form of an ‘administrative instruction’ entitled ‘Standards of Accommodation, Travel Time and Rest Stopovers’.50 This chunky memo sets out, amongst other pieces of bureaucratic arcana, the exact terms of reference of the ‘nine-hour rule’. Apparently honoured by the senior UN officials to whom it applies as often in the breach as in the keeping,51 this states that:

Under-Secretaries General and Assistant Secretaries General and, where applicable, their eligible family members, shall be provided

with first-class accommodation for travel on official business and on appointment, transfer or separation, when the duration of a particular flight exceeds nine hours; for flights under nine hours' duration, these staff members shall be provided accommodation by the class immediately below first class.52

The official pecking order is established in the next paragraph:

Staff members below Assistant Secretary General and, where applicable, their eligible family members, shall be provided accommodation by the class immediately below first class for travel on official business and on appointment, transfer or separation when the duration of a particular flight exceeds nine hours; for flights under nine hours' duration, these staff members shall be provided with transportation at the least costly airfare structure regularly available.53

It is surprising how many destinations are more than nine hours'

flight from UN headquarters in New York. A list of 178 frequently visited cities contains no fewer than 130 which permit the nine-hour rule to be applied:54 according to their seniority, international civil servants may purchase first-or

club-class tickets to all such destinations. Long-haul travel also brings another privilege: a generous entitlement to ‘rest days’ on full pay before starting work. Thus a UN staffer gets two days of paid leave on top of his existing six-week vacation allowance every time he flies from New York to, say, Singapore, Nairobi or Bangkok, and two more days when he flies back. The compensation for the pain of visiting Tahiti, however, is just one day each way while those unfortunate enough to be sent on a mission to Nassau in the nearby Bahamas get no extra paid leave at all.55 A class apart

Travel perks are not the only things that identify members of the ‘international set’ as a class apart. The recent publication of the results of an inquiry by Senator Jesse Helms provided infuriating

additional evidence about how the other half live to the 18,000 civil servants who work in New York City for the United States government. While they neither get nor

expect any

rent subsidy to help them keep up with the astronomical cost of accommodation in the Big Apple, the Helms inquiry revealed that other Americans those

attached to the United Nations were

faring much better. One Deputy Chief Delegate, for example, was receiving a subsidy of $10,661 per month towards the cost of his three-bedroom apartment in River Tower, a luxury high-rise situated at 420 East 54th Street, close to UN headquarters. The building, described by an estate agent as ‘one of the fanciest’ in New York, had the benefit of its own wine cellar, direct dialling to

the concierge, valet and housekeeper, its own florist and vintner, several fine restaurants, and two levels of underground parking.56

Perhaps it is the freewheeling, get-rich-quick atmosphere inevitably created by over-generous perks and privileges like these that encourages some employees to attempt to line their pockets by dishonest means. There is, in addition, evidence to suggest that fraudulent behaviour is actually condoned -at least in the upper echelons of the UN bureaucracy. In 1986 eight members of staff were disciplined for falsely claiming more than $100,000ineducation grants for their children. Seven were dismissed; the eighth, however, Mr Ramaswamy Mani of India who

insisted that he received the extra money inadvertently-stayed

on. Following the personal intervention of the Secretary General on his behalf, the Disciplinary Committee's recommendation that he should be sacked was set aside and he was merely demoted. This

brought charges of favouritism: Mr Mani was the chief assistant (and a close personal friend) of Jean Ripert, the Director General and number two man at the UN. ‘Anyone above a certain level gets the attention of the Secretary General,’ complained an official of the Staff Committee, ‘but below there is no mercy.’ Prior to his demotion Mr Mani commanded an annual salary in the region of $105,000; the $2,000 pay cut that he suffered for his misdemeanour was accurately described by one colleague as ‘peanuts in financial terms’.57

To work for the United Nations in any kind of senior capacity is thus to join a privileged aristocracy that is effectively insulated from the exigencies of everyday life. At FAO in Rome there are 750 individuals whose pensionable remuneration ranges from $70,000 to $120,000 a year these

include eleven Assistant Directors General, thirty-one Senior Directors, 125 Directors, 362 Senior Officers and 221 First

Officers.58 The Rector of the United Nations University is paid three times as much as the Norwegian Prime Minister.59 Many other UN officials, notably the growing number of personnel in the ‘supergrade’ bracket, earn more than any US public official except

the President. One of these men, an Under-Secretary General, recently retired

with a golden handshake of almost half a million dollars plus an annual pension of $50,000. Shortly thereafter the UN rehired him as a consultant at a fee of $125,000 a year.60

Little wonder, then, that the Joint Inspection Unit an

internal United Nations watchdog has

expressed reservations as to ‘the justifiability of present levels of remuneration in the professional and higher categories’.61 The JIU inspectors, however, admit that few other international civil servants share their doubts. Indeed: ‘Staff representatives hold the view that remuneration is inadequate and wage an active campaign for higher salaries.‘62

This is quite true. Many United Nations people genuinely believe that the pay and fringe benefits they receive are insufficient; accordingly they react with something approaching horror to any suggestion that they are over-compensated. Ed Freeman, the General Secretary of the Association of Professional Staff at FAO in Rome, is a case in point. In correspondence with me he body contradicted my view that the members of his association (motto: ‘Service before Self’) are overpaid freeloaders living off the fat of the land; on the contrary, he argued, they are required to make real

personal sacrifices in order to work for the cause of world development.

To illustrate this, Freeman sent me a profile of ‘Al Ristoro’, a forty-four-year-old American who ‘joined the Organisation a year ago as a P-3, Step 5’ (in plain English, as a mid-level professional). Al’s take-home pay in 1987 was just US$3,200 per month (4.5 million Italian lire). This amount was considerably below the average in the UN system at the time; nevertheless, Al reported that it had sounded OK to both himself and his wife ‘before we came here’. Disillusionment quickly set in. The family had initially wanted to set up home in Old Rome but found they couldn’t afford the rents there; eventually they took a house twenty kilometres out. ‘Being half an hour’s walk from the nearest public transport,’ Al complained, ‘I had to buy a car. That and the four million lire I had to pay in advance for rent and settling in just about took care of the 12 million lire installation allowance.’

Al's woes did not stop with having to spend his installation allowance on, well…installation.'School fees', he protested,'have cost me $7,000 over and above the education allowance for my three boys … Then there are medical bills. I think FAO has a terrific scheme, but I've had to pay more than $1 ,000 for what wasn't met…' Other immediate financial worries included winter clothes: 'Where we lived it was warm all the year round, so we don't own a single overcoat or anything heavy among the lot of us. My wife reckons it'll cost about $3,000 to fit us all out but I tell her we've just got to do it for a whole lot less.' All in all, the profile concluded, 'Al believes that he is going broke and won't be able to hack it to the end of his three-year contract.'63

There are other UN employees in Rome who share Al's predicament. To illustrate this point Mr Freeman sent me details of a letter received by the Association of Professional Staff from an officer of the World Food Programme (an FAO affiliate). This

officer's great worry was the education of his children at a time when the US dollar was falling in value and private schools in Rome

were putting up then-fees:

'Unfortunately,' he lamented, 'the UN education grant remains at a maximum of US$4,500 per child per year (apparently with very little hope of an increase in the near future). This means that parental contributions have to make up for the entire increase in school fees …' That increase had been so severe that

staff members in our situation could probably, and with considerable sacrifice, survive at most one more year in Rome. Many of our colleagues with children in the same school have already expressed their serious concern and I know of several cases where the cost of education has been a factor influencing their decision to take their children out of the school to continue their

studies in their home countries or in Italian schools. These are not satisfactory alternatives Of course one's sympathies go out to those forced to contemplate the horrific prospect of sending their offspring to an Italian school. Since members of the Association of Professional Staff are actually grappling with this nightmare today, it seems somehow in bad taste to remind them that more than 400 million children in the Third World cannot afford to go to any school at all65 -are so poor, in fact, that they cannot even afford to eat: 280,000 of them die every week of malnutrition-linked conditions.66

In the context of this sustained global tragedy, however, the whingeing complaints of UN staffers about the erosion of their incomes or the latest threats to their 'acquired rights' do begin to look distinctly inappropriate, possibly even perverse. By any normal standards of measurement, the financial and other benefits they receive are very great.

This is so because their conditions of service are calculated according to the ‘Noblemaire Principle’. Named after a French diplomat, Georges Noblemaire, who worked for the League of Nations during the 1920$, this states simply that salaries and entitlements in international organisations should be sufficient to attract as employees citizens of the country with the best-paid national civil service. United Nations pay rates are thus based today on a comparison with those of the federal civil service of the richest country on earth the

United States of America.

This comparison presently works out very much in the UN’s favour. At all levels and grades, salaries and entitlements are significantly better than those in the US civil service. Thus, for example:

United Nations staff members receive education grant benefits; US civil servants do not;67

From their first day o

n the job UN staff members qualify for up to nine months' sick leave on full pay and a further nine months on half pay in any four-year period. By comparison a United States employee would have to work fourteen years with no sick leave whatsoever in order to accumulate nine months' sick leave at full pay;68

'steps' in the United Nations system are attained at a faster rate than in the United States civil service: in the United Nations it takes an averagely competent official just eight to ten years to reach the tenth step compared to eighteen years in the USA;69

All professionals and above in the United Nations, together with

their families, are entitled to fifteen days' home leave once every two years entirely at United Nations expense, plus extra days to cover the journey time to and from their home country. This entitlement is additional to the six weeks of ordinary leave that all United Nations staff receive each year. United States civil servants, by contrast, get just four weeks of annual leave;70

United Nations professionals work, on average, 10.3 per cent fewer hours than their counterparts in the United States civil service; over the course of a year this adds up to a striking difference in input of 21.7 working days;71

Regardless of the considerable cash value of such 'fringe benefits', take-home pay in the United Nations system is higher at every level than in the US civil service: the margin between the two presently averages around 24 per cent in favour of UN employees72 and in some cases exceeds 30 per cent;73

UN pensions are higher by up to 43 per cent than those in the United States civil service.74

Why exactly should pay and fringe benefits in the UN system be so much better than those in the world's best-paid national civil service? The answer given by Secretary General de Cuellar is that it is 'crucial to maintain employment conditions that will allow the United Nations to attract and retain employees of the highest competence, efficiency and integrity'. He adds a warning: 'To seek to solve the organisation's financial difficulties at the expense of staff entitlements would be extremely short-sighted and counterproductive, and would have widespread adverse implications.'75

One agency head of department who I talked to made the same point rather more pithily. 'If you want to persuade top people to work in development,' he said, 'then you have to pay top dollar. If you pay peanuts you get monkeys.'

A premium on mediocrity

On the face of things this looks like a strong argument. Some who know the United Nations extremely well, however, feel that despite paying top dollar the world body has still got too many monkeys working for it. According to one expert witness: ‘There is nothing to indicate that systematic efforts are being made either to require a high level of staff qualifications or to train professional staff for the specific tasks they will be called upon to perform. On the contrary, the laxness that prevails in this matter would seem to put a premium on mediocrity.‘76

These are not the words of some outsider with a grudge against the United Nations. Indeed, they are contained in an official document and were written by an internationally respected insider Maurice

Bertrand, a senior member of the UN’s own Joint Inspection Unit. The average level of qualifications of staff in the professional

grades,' he continues, 'bears no relation to their responsibilities … In the case of UNICEF the statistics show 30 per cent without any university qualifications, 32 per cent with a first degree, and only 38 per cent with a second or higher degree.' This state of affairs is 'comparable in most of the other agencies' and does not improve further up in the hierarchy: 'In the Director grades (D-1 and D-2) the percentage of staff members who have had no university education is roughly the same.'77

Bertrand's conclusion is damning:

A sense of responsibility and managerial or analytical ability at the highest levels (Director, Assistant Secretary General, Under-Secretary General) are a matter of chance, depending on appointments which are often made without concern for qualifications or professional and administrative experience. The lack of a definition of the qualifications required for recruitment and promotion to higher grades, the indifference shown towards

standards of work and competence, the absence of a system of in-service training, create a deplorable working environment in which the best staff members no longer find the motivation needed to dedicate themselves to their tasks.78

If the best lack all conviction it is also true to

borrow a line from Yeats that

the worst ‘are full of passionate intensity’. The ardour of this latter group finds its natural expression in the growing number of staff unions and associations that exist within the UN, and in the increasing amount of time that the members of these devote to heated discussions about how to obtain for themselves still higher salaries and still better financial benefits.

At headquartersinNew York, for example, the 120-member Staff Council -a legislative body of the Staff Union holds

one meeting every four to five days. The twenty committees that it has set up to study various issues each have ten members who also meet regularly. The Council claims that one of the main aims of this ceaseless activity is to study ways of improving staff efficiency. In a typical year, however, during which members of the Council discussed more than eighty subjects, adopted sixty-one resolutions and issued nearly fifty bulletins, the question of efficiency of staff was not raised once.79 Pay and entitlements were, throughout, the main items on the agenda.

Other entities are engaged in similar deliberations. One is the Joint Advisory Committee which, together with its four subsidiary bodies and six working groups, has more than 100 members who attend several meetings a month. Another, the Staff-Management Coordinatio

n Committee, restricts itself to just two meetings a year; each of these, however, lasts for a full week and involves the participation of at least thirty-five senior staff and administrators.80

All such meetings are held during office hours and most are lengthy. Inevitably this means that the participants are taken away for considerable periods from their normal duties as international civil servants; the work of their colleagues who may need to confer with them is, of course, also disrupted because of this. To add insult to injury, none of these time-wasting distractions is paid for by the members of the associations concerned: salaries of officials and committee members, paper, typing, photocopies and even travel to outside meetings are all financed out of the regular budget of the United Nations.81

Another focus of staff members' energies which often diverts them

from carrying out the duties and responsibilities for which they are paid is, ironically, the desire for promotion. This, in the assessment of Richard Hoggart, a former Assistant Director General of UNESCO, has

the effect of a kind of illness which drives the more extreme cases to tranquillisers, bouts of frenetic marginal activity, or long hours of simply staring over their desks working things out inside their heads. The most important single urge is to 'make P-5' [top niche in the UN's 'professional' category]. A P-5 carries a number of diplomatic privileges, notably a CD plate for one's car. A good number of Secretariat members feel underneath, and so do their wives, that they will only be able to retire happily if they have that plate for their last few working years.82

Their chances of achieving this goal are surprisingly good: almost 60 percent of professional posts in the United Nations are now at P-4 level or above. By contrast less than 25 per cent of professional

posts in the United States federal civil service have a corresponding level of seniority.83

The reason for the ‘more chiefs than Indians’ syndrome in the UN is not by any means that the majority of staff are exceptionally talented or diligent. On the contrary, the engine of the whole process is mediocrity: it is now an established phenomenon that second-raters who have utterly failed to achieve promotion lobby to have their posts ‘reclassified’ upwards,

of course.84 Thus in just one UN office the

New York Secretariat no

fewer than sixty-nine posts were upgraded during 1986-7. Amongst the lucky incumbents were three Directors who, at a stroke of a pen, became Assistant Secretaries General, twenty-six P-3s who became P-4S and twenty-four P-4S who became P-5s.85 The

institutionalisation of such activities throughout the international civil service has resulted in what the Austrian delegate to the UN's Advisory Committee on Administrative and Budgetary Questions has called 'a disquieting rate of grade creep manifested in a clear reduction in the proportion of junior posts and an increase in the proportion of senior posts'.86

Just as the system permits jobs to be artificially upgraded in order to mollycoddle otherwise unpromotable deadbeats, so also it allows those who should long since have been fired for incompetence to linger on. Speaking of UNESCO, Richard Hoggart says that no matter how poor a staff member's work may be it is virtually impossible to force him to leave. Use of the full apparatus of official and unofficial appeals Staff

Association, the official's Delegation, his Foreign Ministry, the UN Administrative Tribunal and so on -can drag the process out indefinitely. Furthermore:

Even in the worst cases, ‘equity’, a moral commitment to someone who has served for, say, five years, requires that they be given at least a further three years’ trial. The next time round equity demands that someone who has given eight years’ service to the Organisation be not cast out… The only periods when such people show sustained energy and negotiating skill are when they are mounting their recurrent defences of their

own positions

87

Thus, at every level of the multilateral agencies, maladjusted, inadequate, incompetent individuals are to be found clinging tenaciously to highly paid jobs, timidly and indifferently performing their functions and, in the process, betraying the world’s poor in whose name they have been appointed.

One indication of how enfeebled the UN has become as a result of its increasingly bungling and weak-kneed staff is that it is now obliged to rely on substantial amounts of outside expertise in order to get its work done. Despite its already bloated payroll of 12,248 full-time employees, for example, the UN Secretariat in New York needs to spend an additional $11.1 million per biennium on 'consultants' enough

to finance approximately 175 work-years of professional assistance.88 FAO's 10,500 staff are even less effective: the Rome-based agency requires so much 'external professional assistance' that it budgets an amazing $19 million per biennium for payments to consultants.89 The annual State of the World's Children Report, UNICEF's flagship publication which goes out under the signature of its Executive Director, is in fact written and produced by an external consultant; the highly paid journalists and other professional communicators who staff UNICEF's own large

information office in New York are apparently not up to the job.

Failings and inadequacies of this type amongst full-time personnel are highlighted in a recent authoritative internal report which states that ‘management capacity, productivity and cost-effectiveness’ have fallen behind at a time when the UN’s payrolls have exhibited ‘rapid growth’. Echoing Bertrand, the report adds that: ‘The quality of work performed needs to be improved upon … The qualifications of staff, in particular in the higher categories, are inadequate and the working methods are not efficient. Today’s structure is too complex, fragmented and top-heavy …‘90

Indeed, it is so top-hea

vy that the UN’s New York Secretariat has accumulated a total of fifty-seven Assistant Secretaries General and Under-Secretaries

General. If the same management structure were adopted by, say, the US Department of Health, then that branch of the federal civil service would have to appoint 500 Assistant and Under-Secretaries; it presently manages to get along perfectly well with just a dozen.91

Personnel and associated costs today absorb a staggering 80 per cent of all UN expenditures.92 A body that claims it is struggling tirelessly for world development

is thus also an elaborate support mechanism for its own pampered and cosseted staff-many

of whom, in the sad words of former FAO departmental director Raymond Lloyd, ‘systematically put their own material security over the risk-bearing ideals for which our organisations were founded’.93

One of the worst possible examples of such behaviour occurredinBelgium in 1987 at the offices of UNICEF, the agency established in 1946 ‘to help protect the lives of children and promote their development’.94 Jos Verbeek, then the Director of UNICEF’s Belgian Committee, was accused of using his position of privilege and trust to organise a child sex ring which operated profitably for several years until he was arrested on charges of ‘indecency and incitement to the debauchery of children’. He was subsequently convicted and given a two-year suspended sentence. On appeal, however, the conviction was quashed on grounds of insufficient evidence. The ten-year sentence of another member of staff was upheld. Police discovered a photographic studio concealed in the basement of the building that housed the Committee’s offices. The studio was used to take pornographic photographs of children most

of whom were from the Third World. More than 1,000 pictures

were seized along with a mailing list of 400 names of wealthy clients in fifteen European countries; the list had been compiled and

was stored on

the UNICEF computer which had also been used to set up a catalogue of teenagers available for sex.95

This nasty incident occurred in a year in which UNICEF had been taken to task by the UN's Board of Auditors for 'delinquent accounting' and accused by Congress of giving backhanders to State Department officials in return for their support for 'the incumbent management' and for increased US funding of the organisation.96 Such isolated scandals and dramas, however, are less significant than the system-wide corrosion of basic principles that has taken place slowly — over almost half a century — and that has reduced the ideals of the United Nations to little more than empty words on forgotten scraps of paper.

sound and fury, signifying nothing

From time to tune, of course, an appearance of great motion and enthusiasm can still be createdinhonour of some sacred cow. A closer look, however, usually reveals that nothing much is actually happening-that

what is involved is just the ritual celebration of polite inaction. Take, for example, The Week of Solidarity with the Peoples of Namibia and All Other Colonial Territories, as well as those in South Africa, Fighting for Freedom, Independence and Human Rights.97 The United Nations increasingly favours ‘calendar events’ of this type and is constantly creating more such pieces of vacuous liturgy:

The International Day of Innocent Children Victims of Aggression;

The International Day of Peace;

World Development Information Day;

The Week of Solidarity for the People Struggling Against Racism and Racial Discrimination;

The International Year of Shelter for the Homeless;

The Transport and Communications Decade in Africa;

The International Drinking Water Supply and Sanitation Decade;

The Third United Nations Development Decade;

The Second Decade to Combat Racism and Racial Discrimination.98

None of these observances, past or current, has made the slightest difference to the state of the world we live in. Few outside the

international civil service have even heard of them. Nevertheless, their proliferation within the United Nations system tends to be confused with action. In 1987, for example, during the Second Disarmament Decade, much ado was made about the International Conference on Disarmament99 organised by the UN in New York: a flurry of documents was released, solemn speeches were made, and thousands of delegates were enabled to feel that they had participated in an event of historic importance. In the same year, UN member states spent more than ever before arming themselves to the teeth an

estimated $800 billion while

the world body itself devoted less than one tenth of one day's share of this massive amount of money to tangible 'peace-related activities'.100

What underlies such paradoxes and hypocrisies is an insidious

mechanism by which people lose interest in the validity of mere results and concentrate their efforts instead on the processes supposedly devised to achieve these results.101 An important part of this in the United Nations is that the accepted indicators of a job well done have ceased to be, for example, material benefits delivered to the poor; rather, ‘success’ is defined by bureaucratic or ceremonial factors like the number of conferences, studies and meetings that take place to discuss the subject of global poverty, the number of Days, Weeks, Years or Decades of ‘solidarity’ with the disadvantaged that are celebrated, the number of ‘keynote’ publications prepared, the sophistication of the language in which ‘back-to-office reports’ are couched and

so on. In such a fashion, as Maurice Bertrand puts it: ‘The way in which the mill operates becomes more important than the quality of the flour it produces.‘102

This certainly seems to be the case at the United Nations

Conference on Trade and Development a

permanent body founded in 1962 to foster the growth of developing-country trade. UNCTAD managed recently to spend an impressive $36,282,700 on its own offices and staff plus a further

$4,186,700 on ‘conferences’ and more than $1 million on ‘consultants’; in the same year ‘encouraging economic cooperation among developing countries’ got just $3,501,500 of UNCTAD’s money (which comes from the UN’s regular budget) and ‘programmes to promote and expand world trade’ got only $1,138,000.103

The UN’s fascination with processes rather than with results achieves its

apotheosis, however, when the processes actually become the results. This seems to be what has happened at the Department of Conference Services which, with 2,527 full-time employees and a budget in excess of $280 million per biennium, has grown into an unstoppable juggernaut. In an average two-year period in New York alone the Department boasts that it will service 7,600 separate meetings, handle 65,500 separate ‘interpreting assignments’, translate, edit or revise 377,650,000 words of text, type 397 million more, and reproduce a total of 1.5 billion page impressions.104 The Department’s other principal bastion in

Geneva has

a similar volume of ‘output’:105 here storage of document copies for reference purposes requires 17.5 kilometres of shelves.106

What is all this in aid of? At one conference, on the Law of the Sea, the UN employed ninety mimeograph operators to work around the clock at twenty-seven machines spewing forth 250,000 pages of documents a day. Each document was produced in three and

sometimes five languages

by teams of translators and typists from the Department of Conference Services. Indeed, so great was the volume of paperwork generated that the list of documents itself ran to 160 pages. After seventy days of talk in the pleasant surroundings of Caracas, Venezuela, delegates made just one firm decision: a resolution to hold another conference on the same subject.107

Some get-togethers seem to consign themselves to muddle and inaction from the very start: take, for example, The United Nations Seminar on the Existing Unjust International Economic Order, on the Economics of Developing Countries, and the Obstacle That This

Represents for the Implementation of Human Rights and Fundamental Freedoms,108 or the equally bewildering United Nations Conference to Review All Aspects of the Set of Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices.109 As far as the poor of the Third World are concerned it is probably true to say that the learned palaver that goes into such events, the reams of supporting documents, and the miles of expensive storage are just irrelevances. For the peasant picking mortar shrapnel out of his arid field in northern Ethiopia, or the artisan fisherman in Sri Lanka whose catch has just been stolen by a Japanese factory ship, the majority of United Nations conferences might as well take place on the astral plane as on planet earth.

The truth of this is borne out whenever a conference is devised that could have some direct and measurable impact on the reduction of human suffering: on such rare occasions the United Nations hastily

distances itself from the upstart and unusual event. An example occurred in Paris when Amnesty International obtained permission to use the splendid facilities at UNESCO's headquarters to stage a conference on the subject of torture. The venue was quite appropriate since UNESCO is entrusted by its Charter with the task of furthering 'universal respect for human rights and fundamental freedoms'. Things went wrong, however, when horror

of horrors Amnesty named names in a position paper on the widespread use of torture by governments. The next morning, in response to pressure from delegates of precisely those

governments that Amnesty had pointed its accusing finger at, UNESCO ordered that the conference be taken elsewhere.110

The same type of craven behaviour can also be seen at work in other areas of the UN-In

1988, for instance, the High Commissioner for Refugees, Jean-Pierre Hocke, ordered an entire issue of his agency's monthly magazine to be destroyed, at a cost of more than $50,000. This was done because the edition in question was sharply critical of West Germany's asylum procedures for refugees and of conditions in three refugee reception centres in the Federal Republic. The West German government provides 10 per cent of UNHCR's annual budget and was thus judged by the Commissioner to be above criticism.111

In the never-never-land of the international civil service, craven behaviour of the type that closes worthwhile conferences and pulps hard-hitting publications is often the only response to the sometimes horrific events that occur in the real world. Outrages are met with a prim silence and where silence is for some reason impossible then safe platitudes, mealy-mouthed generalities and hot air are substituted. Of the period 1984-6 when Africa was devastated by

famine Joseph Reed, a former US Ambassador to the United Nations, had this to say:' We turned out resolutions while children went without food, water and medicine. We requested reports while families huddled in devastating poverty. We hurled accusations back and forth while desperate people became more resigned to their plight.'112

This harsh epitaph to what Reed calls the 'frenzy of playing the UN game' looks even bleakerinthe context of the world body's 150 committees, commissions, subcommittees, sub-commissions and working groups all supposedly dealing with the problems of the poor.113 Added to these are the fifteen or so fully funded development agencies each

of which, in its turn, is orbited by numerous other linked entities: twenty in the case of the World Health Organisation; eighteen in the case of FAO; more than ten at UNESCO and the ILO; thirteen in the case of UNDP and

so on.114

Rather than testifying to the strength and diversity of UN efforts to assist poor countries to develop, this fantastically complicated administrative superstructure symbolises the extent to which international civil servants have been allow

ed to build up disparate personal empires at the expense of focused and single-minded efficiency. Thus, instead of a concerted effort to provide agricultural education in the developing countries, we have the unedifying distraction of a long-running territorial dispute between FAO and UNESCO over whether this work should most properly be in the domain of the one or of the other.115 Similarly,inthe place of agreement and well-programmed action to improve standards of health care in poor communities we find a persistent conflict between UNICEF's focus on specific goals

(vaccination, promotion of breastfeeding, etc.) and WHO's endeavours to support more comprehensive Policies within the framework of the 'primary health care approach'.116

Such squabbles can at times seem inexcusable. During precisely the famine to which Joseph Reed referred, an Office for Emergency OperationsinAfrica

was set up in

New York to

harness the UN's scattered empires under one yoke, to bring together for the duration of the emergency all the different agencies and organs that might have something to contribute. This virtuous objective, however, did not inhibit Edouard Saouma at FAO from

making a formal complaint when the OEOA accepted a sum of money from the Netherlands government to buy rice seed for Chad: the basis of this objection was that seed-buying was FAO's job. Throughout the famine years Mr Saouma also continued a long-standing argument with the Director of WFP about which of them had the final responsibility for authorising food aid shipments to Africa. Finally, Saouma refused to attend a special meeting of donors called by the OEOA with a view to integrating their assistance programmes; two weeks later, at FAO, he held his own donors' meeting. As Douglas Williams, a former Deputy Secretary of the UK's Overseas Development Administration, comments: There was neither any organisation nor any individual within the UN system with the authority to make a single organisation the leader in all these activities, even in the face of a major international disaster of chronic character and unprecedented proportions. The waste of effort and scarce resources was considerable.'117

Wastage occurs at all levels of the system. Within individual agencies, for example, and even within particular departments of these agencies, there is an established tendency for staff members to want to protect and nourish their own programmes and to resist tooth and nail any suggestion that these should be cut back or phased out. In 1982, at least 100 such programmes were judged by the Secretary General of the United Nations to be ‘elderly’, non-productive, or redundant by virtue of duplication. He recommended that all should be terminated, with an anticipated annual saving of $35 million.Four years and $140 million later, however, an independent study revealed that not one of these senile and unnecessary ‘pets’ had yet been put down.118

A state of confusion

In a bureaucratic universe where old programmes never die and where new ones are constantly being created, chaos can be expected to be the natural state of things. As Maurice Bertrand puts it:

The vagueness of the terms of reference, the similarity of jurisdiction between organs as important as ECOSOC, UNCTAD, the Second and Third Committees of the General Assembly and

the number and repetition of ‘general debates’ preceding the examination of agenda items repeated in committee after committee whose relative status is not clearly defined have

created a state of confusion which it has been found difficult to remedy.119

He adds that, in the field, the sectoral approach favoured by UN agencies and

the tendency of each to defend its own ‘patch’ has

‘complicated the task of the developing countries instead of simplifying it’. This is mainly because, to pick a few examples:

‘The industrialisation goals of UNIDO, FAO’s goal of increasing agricultural production, the food strategies of the World Food Programme, the ILO programmes on employment or the development of social security, and UNESCO’s plans for the development of education, are not integrated into a coherent system of analysis.‘120

This criticism is one that is readily acknowledged by international civil servants. Most will freely admit that the extreme complexity and fragmentation of the United Nations system is counterproductive; most, furthermore, will agree that something should be done about it: as a result an entire industry has grown up aimed at coordinating the monster. Instead of less complication, confusion and muddle, however, the net achievement of this industry has -predictably been

to create more: more committees, more organs and entities, more unreadable reports and more jobs for the boys. Thus we have, inter

alia:

The Administrative Committee on Coordination;

The Economic and Social Council (which may ‘through consultation, co-ordinate the activities of the specialised agencies’);

The Committee on Programme Coordination;

A Post of Director General for Development and International Economic Cooperation with

responsibility for ‘exercising overall coordination within the system in order to ensure a multi-disciplinary approach to the problems of development on a system-wide basis’;

An Office for Programme Planning and Coordination (‘to examine problems of coordination at the level of the system, and to propose

studies and analyses of intersectoral programmes’);

A Consultative Committee on Substantive Questions (‘to enable the organisations and the United Nations to co-ordinate the preparation of their programmes’);

Resident Co-ordinators with responsibility for ‘coordination of operational activities for development carried out at the country level’;

The World Food Council, consisting of thirty-six members, with instructions ‘at the ministerial level to establish its own programme of action for coordination of relevant United Nations bodies and agencies’.121

According to the Joint Insp

ection Unit (itself, incidentally, mandated by the General Assembly with the task ‘of achieving greater coordination between organisations’):

This mass of efforts has in no way unproved coordination. ‘Joint planning’ has remained wishful thinking; development strategies applied by each organisation have continued to diverge; and ‘country programming’ and ‘field coordination’ have never been anything more than meaningless terms … The notion of an ‘integrated approach to

development’, although ritually repeated … has remained an empty formula.122

Many other attempts to streamline the United Nations system and improve its efficiency have failed to achieve their objectives; like

coordination, they, too, have often only served to create yet more highly paid jobs for yet more international civil servants; they, too, have provided the excuse for yet more committees to be established, yet more meetings to be held and yet more reports to be issued.

An example of this process at work concerns the group of eighteen ‘High-Level Intergovernmental Experts’ convened in December 1985 on the orders of the General Assembly to ‘review the efficiency and the administrative and financial functioning of the United Nations’. Between February and August 1986 this ‘Committee of Eighteen’ as

it came to be called met

sixty-seven times. The upshot was a weighty series of recommendations encapsulated in a report which ran to more than forty pages.

The report itself pulls very few punches. Phrases picked out from page ten, for example, which deals with the ‘Structure of the Secretariat’ include: ‘reduced productivity’; ‘duplication of work’; ‘reduced quality of performance’; ‘too top-heavy’; ‘too complex’; ‘too fragmented’; and ‘dispersion of responsibility’.123 The overall tone of the document is pejorative and some of its recommendations are undoubtedly sound, amongst them:

A vacant post should not be filled merely because it becomes vacant… The total entitlements (salaries and other conditions of service) of staff members have reached a level which gives reason for serious concern and should be reduced … The number of conferences and meetings can be significantly reduced and their duration shortened without affecting the substantive work of the Organisation … United Nations offices are at present established at the same location in many cities and countries. In most cases they may be consolidated with no loss of efficiency and with resulting

economies both in personnel and general costs … A substantial reduction in the number of staff members at all levels, but particularly in the higher echelons, is desirable … To this end the overall number of regular budget posts should be reduced by 15 per cent within a period of three years and the number of regular budget posts at the level of Under Secretary General and Assistant Secretary General should be reduced by 25 per cent within a period of three years or less.124

Other noteworthy recommendations made by the Committee include: a halt on the construction of new conference facilities (a clear reference to the proposed $73 million conference centre in Addis Ababa that had sparked off the Kassebaum Amendment to the US Foreign Relations Authorisation Act in 1985); a suggestion that the contingency fund in the regular budget of the United Nations (used for meeting ‘emergency’ expenditures) should be capped at 2 per cent of the total; and a proposal to cut down on the

number of committees and ‘intergovernmental bodies’ since it is evident that the proliferation of these within the international civil service has ‘resulted in duplication of agendas and work’.125

Despite the uncharacteristically to the point and ‘no-nonsense’ tone adopted throughout the report, the Committee of Eighteen firmly reinstated itself in the mainstream of at least one time-honoured UN tradition when it recommended that the actual work of cutting down on the numbers of intergovernmental bodies should be done by believe

it or not yet another intergovernmental body.126 This little hint as to the real nature of the entire exercise was borne out in the way that the United Nations responded to the majority of the Committee’s other recommendations as well. After due consideration, a ‘reform resolution’ (No 41/213) was adopted by the General Assembly on 19 December 1986. It showed little resolve, however, and less in the way of real reforms. To take just a few examples of things that

didn’t happen:

Neither the across-the-board staff-cut of 15 per cent nor the more dramatic recommendation for a 25 per cent cut in top-level Secretariat posts was accepted for implementation within three years as suggested; instead both were rather hazily redefined as ‘targets’ with

the added proviso that the Secretary General should be ‘flexible’ in taking action to avoid any ‘negative impact’ on programmes and on the ‘structure’ of the Secretariat;127

The 2 per cent cap on the contingency fund in the budget was not implemented and,

by the end of December 1986, the Assembly had agreed to no less than $48 million in budget add-ons;128

Far from halting the construction of new conference centres, the Assembly agreed that the extravagant Addis Ababa project should now be restarted. It also gave the thumbs-up to another postponed conference centre a

$44 million boondoggle in sunny Bangkok.129

When you subtract from the ‘achievements’ of the UN all the silly conferences, all the ineffectual meetings, all the inane committees and subcommittees, all the reports produced by learned groups recommending that more learned groups be convened to produce more reports, all the coordination mechanisms that have only complicated things further, and all the reform measures that have left things as they were then,

what remains? Specifically, what remains to justify the billions of dollars that taxpayers all over the world continue to plough into the United Nations and its agencies year in year out

?

public relations

Huge sums of our own money are spent on efforts to convince us that a great deal remains. During the last decade, funding for the UN's Department of Public Information (DPI) has grown at twice the pace of the rest of the world

body's budget.130 This has happened for only one reason: in the 19805, as Maurice Bertrand puts it, criticism of the UN has 'reached the status of a political phenomenon'.131 Frightened bureaucrats have accordingly voted to strengthen the DPI so that it can better defend their privileges and their interests.

The results have occasionally verged on lunacy. In 1987, for example, the Department actually attempted to suppress screening of the television show ‘Amerika’ a

political fantasy in which UN peacekeeping forces police the United States at the behest of Soviet occupiers. The highly paid PR men of the DPI felt in

their wisdom that

such fiction would be bad for the ‘image’ of the United Nations and litigation was mounted to keep the show off the air. As the Washington Post commented at the time: ‘It seems to have escaped the United Nations’ attention as

does so much else that

the proper use of law in a democratic society is to widen the

openings for speech, not to narrow them.‘132

When it comes to presenting a positive image of the UN, however, suppression is replaced by overkill. In an average year the Department, which is headquartered in New York but has sixty-four overseas offices, will issue 12,000 press releases, send out 16,000 ‘information cables’ lauding UN achievements, and prepare a wide range of newspaper articles, radio tapes and films.133 It has also been known to ‘buy’ positive opinion in the international media: handsome subsidies to fifteen newspapers totalled $432,000 in one year.134 In addition to this the Department produces its own brochures, leaflets and books, all of which seek to present the UN in a favourable light and are distributed worldwide for

example, United Nations: Image and Reality, which has a print-run of 100,000 copies in English plus separate Spanish, French, Russian, German and Japanese editions of between 5,000 and 10,000 copies in each case.135

All this costs a small fortune: DPI spent $75.7 million on ‘information work’ during 1986-7.136 This sum, however, does not by any means represent the entire public-relations budget of the UN system each

of the specialised agencies and other organs has its own information department also busily at work producing yet more brochures, leaflets and books, all industriously blowing their own trumpet of course.

There have been a number of occasions when UN organisations have taken the drive to maintain a positive image even further and have actively ‘cultivated’ friendly members of the press. One British journalist, for example, a regular contributor to the influential Guardian newspaper, produced a series of favourable reports on UNESCO in 1985. One typical instance of his work was entitled ‘Why Britain Should Keep Faith with the UNESCO Dream’, and was published in the Guardian on 4 October 1985. This

article argued strongly that the British government should maintain its financial contribution to the bloated and over-bureaucratised specialised agency. It was no doubt entirely coincidental that, at the time he wrote this campaigning piece, the journalist in question was benefiting from a lucrative private contract with UNESCO's Office of Public Information. He subsequently a

full year later admitted

that he had neglected to mention this contract to his editor and that this had been a 'mistake'.137

UNESCO is not alone in its fascination with the world of information. Shortly after he took office, UNDP's new Chief Administrator William Draper advocated making 'better use of the services of journalists' and added: 'One of my first managerial roles has been to initiate the redirection of our public information effort. We will concentrate on presenting the human face of

development.‘138 Perhaps this is why, in its publication Generation, UNDP claims to have ‘played a leading role’ in the ‘social and economic advancement of two-thirds of humanity’.: 39

LikewiseinUNICEF News we are told: ‘There is a phrase in English which has no equivalent in any other language. It is “to be kind”. This phrase captures the spirit which has pervaded UNICEF through forty years.‘140

Like cuttlefish, United Nations agencies have the ability to conceal themselves in clouds of ink.141 A trawl through the literature produced by FAO, WHO, UNHCR and others will yield a colossal catch of self-congratulatory phrases to add to the umbrella judgement of the Department of Public Information that ‘the United Nations system’s various programmes and agencies have brought food, shelter, protection and medical assistance to those who most dearly need it: mothers and children in the poorest countries, refugees around the world, the victims of famine and natural

disasters'.142

How much truth is there in such claims?

expensive advice

UNICEF, UNHCR, and the World Food Programme *et al.* do indeed deliver relief supplies during emergencies; the quality, timeliness and relevance of these items, however, as we have seen in Part One, often leave a great deal to be desired. Meanwhile the hundreds of 'duty stations' in the Third World and the thousands of 'development projects' and 'programmes' that also bear the UN's imprimatur are the main ingredients of its other efforts on behalf of the poor. Here, as we saw in Part Two, capital aid is hardly involved at all;143 indeed, on close examination, the bulk of the 'long-term development work' done by the United Nations turns out to add up to little more than the provision of advice to developing countries on how to achieve certain specific technical objectives. Often the

quality and usefulness of this advice are questionable.

At the broadest level of long-and

medium-term plans, for example, UNESCO tells us that it intends to ‘help member states to mob

ilise the financial and human resources needed for the execution of development projects’. Likewise FAO tells us that it hopes ‘to assist member states in improving the food and nutritional status of their peoples’. While all this sounds helpful enough, what it boils down to in practice is two or three Pgraded staff in each case sitting at headquarters and drawing up reports on the subjects mentioned or

at best organising one or two training courses for a few dozen individuals.144 In the case of the United Nations Medium Term

Plan for the period 1984-9 a Programme of Transport Development is set out in which the world body grandiosely commits itself to: ‘overcome the bottlenecks and constraints of transport and communications facing the developing countries, to identify critical issues confronting developing countries, and to foster and promote cooperation and coordination regarding these issues …’ The administrative unit of the Secretariat entrusted with fulfilling all these and many other pledges, however, has only a single professional-level worker![145]

‘Advice’ is also the main component of assistance at project level: here it takes the form -mainly-of the provision of ‘expert services’. To give a specific example, UNDP finances about 1,000 new projects each year, of which the average cost is $393,000. This does not at all mean that at each of 1,000 different locations $393,000 is reaching the poor in any edible, drinkable, wearable, plantable, or

drivable form. Far from it! What is actually involved in a typical ‘project’ is the supply by UNDP of three or four foreign experts each

costing upwards of $100,000 per annum to keep in the field.146

In all of this it simply seems to be taken for granted by the UN that the experts and advisers it sends to Third World communities at the expense of Western taxpayers are not only competent and able but are also well motivated and appropriately experienced. The key questions never get asked. Are these ‘guiders and managers’ really equipped to render direct and useful services to the poor? Do they have sufficient humility and insight which,

presumably, are at least as important as technical know-how? Perhaps most important of all, do the poor actually require the kind of guidance and management that wealthy foreigners can provide? Do they really want ‘to be helped to help themselves’ -or any of the

other familiar stock phrases of that ilk? The assumption that they do, that this is what they are asking for, does rather pre-judge the shape of the development process and set its priorities. As with so much else in the world view of the aristocracy of mercy, however, it is an assumption that is deeply Sawed.

PART FOUR

the midas touch

I think you aid people are like the old king. Everything you touch turns to gold and the poor shits on the receiving end can't eat gold.

Jill Tweedie, Internal Affairs

long after the experts and professionals from the United Nations or the EEC or USAID or the World Bank have packed then-bags

and their cute ethnic souvenirs, boarded their aircraft and fled northwards, the ill-conceived development projects that they have been responsible for continue to wreck the lives of the poor.

During the past twenty years millions of rural people in Africa, in Asia and in Latin America have been forcibly removed from their homes to make space for the expanding reservoirs of giant hydroelectric dams; like ghosts not yet laid to rest, troubled but invisible, the dispossessed still wander from place to place in search of recompense. In Ethiopia's Awash Valley, Afar nomads whose traditional dry-season pasture lands have been sown with cash crops and surrounded by barbed wire are today reduced to absolute penury, their independence gone, their way of life shattered, their dignity destroyed as they queue in rags for food handouts. Brazilian Indians whose rainforests have been felled in the name of progress now face genocide; their unique knowledge and skills are about to be lost to mankind for ever. In Indonesia's 'thousand island' paradise, tribal peoples are remorselessly being extinguished and priceless ecological resources turned to ash and mud amidst the folly of the largest resettlement programme in human history …

For increasing numbers in the Third World, as later sections of this pan will illustrate in some detail, ‘development’ has come to mean little more than loss, danger and alienation. Today, as a result, we are seeing the emergence of a new phenomenon poor

people who no longer want to be ‘helped’, who mistrust and reject the poisoned gifts thrust upon them by outsiders.

It is with the authentic conviction bred of years of sad experience that Chief Raoni of the Brazilian Xingu tribe insists: ‘We want nothing from the white man. He has brought us only death, illness and murder. He has stolen our forest. He wants to destroy it all.‘1 Francisco Mendes Filho, a rubber worker and leader of a rural union in Brazil, also opposed the destruction of the rainforest before gunmen hired by the ‘pro-development’ lobby shot him dead on 22 December 1988: ‘In places where there are supposed to be rubber trees there is now only cattle pasture,’ Filho had protested shortly before he was murdered. ‘Much of the Amazon basin is already

turning into desert; it is only a handful of wealthy ranchers who benefit.‘2

Meanwhile the peoples of the Cordillera Mountains in the Philippines protest at the way in which their land is used as ‘a resource area for extractive industries such as mining and logging, hydroelectric dams and other projects’. Representatives of the 500,000 inhabitants of the Cordillera recently stated unequivocally: ‘We oppose these programmes and policies because they threaten our very existence.>3

In far-off Mexico, community activist Gustavo Esteva seems to be saying almost exactly the same thing when he observes with some bitterness:

Around us, for a long time, development has been recognised as a

threat. Most peasants are aware that development has undermined their subsistence on century-old diversified crops. Slum dwellers know that it has made their skills redundant and their education inadequate for the jobs that were created. If they do succeed in installing community life in the shanties they build or in the abandoned buildings, bulldozers and the police, both at the service of development, will relocate them … If you live in Mexico City today you are either rich or numb if you fail to notice that development stinks.

Far from being the fulfilment of a dream of progress and prosperity, development, in Esteva's view, is a 'malignant myth':

Development means to have started on a road that others know better, to be on your way towards a goal that others have reached, to race up a one-way street. Development means the sacrifice of environments, solidarities, traditional interpretations and customs to ever-changing expert advice. Development, for the overwhelming

majority, has always meant growing dependence on guidance and management.4

foreign experts

The increasing reliance on outsiders that Esteva sees in the Mexican ‘slums, villages and boondocks’ where he works is also a trend that is well established in many other countries and regions. The ‘guiders and managers’ to whom he refers are in fact the vanguard of the development industry-the

thin end of the wedge. They have become so pervasive that Africa, for example, has more expatriates living in it today than it ever did during the era of colonisation and settlement:5 there are an estimated 80,000 foreign ‘experts’ working on development projects in the world’s poorest continent.6 To this substantial total must be added the legions of short-stay visitors agency

staff on project-appraisal missions, VIPs from donor countries, consultants conducting feasibility studies, and, of course, researchers. During the 1970s, when Tanzania's ujamaa villages were at their most fashionable as examples of successful grassroots development, there were occasions when some villages had more researchers than villagers.7 Much more recently the small and hungry West African country of Burkina Faso hosted no fewer than 340 separate 'missions' from United Nations agencies in a single year. According to

Maurice Williams of the World Food Council, this deluge of bureaucrats caused 'confusion at all levels and a loss of resources and efficiency … the government was not always able to keep up with management and coordination requirements'.8

The experts and consultants showered down upon the developing world do not, by any means, all come from developed countries. The United Nations hires on a strict quota system from all its member states. The result', according to Professor Paul Streeten of Boston University, 'is that a mediocre Indian, who might be useful within his competence in India, is recruited by the UN to work in Sierra Leone at ten times the salary he would earn at home, on a job for which he is ill-qualified, while a Sierra Leonean advises India.' Streeten, who himself acts as a consultant for the World Bank, adds that 'the high salaries and high living standards of these experts alienate them from the societies in which they work. They are like rootless flowers that wither away.'9

Every year the United Nations Development Programme sends 8,200 such experts 'into the field' to guide and manage the poor.10 Reviewing its achievements since the mid-1960s, it boasts that it has 'financed the assignment of 193,000 experts of 164 nationalities

to work in nearly every sector in 170 countries and territories'.11 Other multilateral agencies, notably the World Bank, have similarly impressive records. Meanwhile the eighteen member states of the Development Assistance Committee of the OECD send out some 80,000 'experts, teachers and volunteers' to the Third World each year as part of their bilateral aid programmes.12 According to informed estimates, a total of at least 150,000 'external advisers, consultants, seconded expatriates and other experts' are employed in the developing countries at any one time.13

The expense of hiring them and keeping them in the field eats up a surprisingly large slice of official aid budgets. Even if the minimum cost of a United Nations expert $100,000

a year14-is

taken as the average for bilateral and multilateral agencies as a whole, then the bottom line for 150,000 such people can be no less

than $15 billion: that figure is in the region of 35 per cent of all official development assistance.15 Experts from the World Bank, however, cost significantly more than those from the UN, and one bilateral agency now budgets $150,000 per annum per expert.16 If this higher figure is used, then 150,000 experts could cost in excess of $22 billion a year to keep in the field -nearly half of all the money allocated to official development assistance.

thanks for nothing

Are foreign experts really worth so much? Clearly the aid agencies must think so otherwise

they would not go on spending such vast sums. But some recipients have a different perspective. Jacques Bousquet, formerly UNESCO's Chief Educational Adviser in the Ivory Coast, lists the typical complaints that he became familiar with during his stay in that West African country: experts are accused by Ivoireans of

earning big salaries and even then ‘always wanting more… they have the nerve to demand free housing and are constantly claiming extra dispensations for the cars they import and re-sell’;

they make money illegally out of tax-free liquor, and smuggle antiques out of the country; they never mix with the local population: ‘If you want to know what they think of us, just look at the way they treat their servants… basically they are racialists.‘17

Similarly in Nepal, a country that has been described as ‘over-advised and under-nourished’,18 there is a widely held view that experts and consultants are dishonest, lazy, unimaginative, insensitive to local priorities and, as a result of all this, unable to come up with useful insights and suggestions. According to one Nepalese, foreign advisers ‘demonstrate a lack of commitment… Since most are employed by donors directly, they are always

beholden to the wishes of their supervisors in capitals other than Kathmandu… the busiest days of those expatriates are when their bosses visit Nepal.‘19

Even stronger feelings of resentment and dislike, however, get stirred up when foreigners are appointed to jobs that could be done by nationals of the countries concerned. Many educated and qualified Nepalese feel that their own skills, experience and motivation are better than those of any expatriate -and certainly more appropriate. They also point out that, on a rough estimate, aid agencies could hire thirty to fifty Nepalese experts with the sum of money required by just one foreign adviser.20 Similarly, in French-speaking West Africa a professor brought in from Paris by UNESCO on a teaching assignment will be paid up to ten times as much as a local academic even

though the local man may be doing the same job and may even have the same degree from the same university as the foreigner.21

It is sometimes difficult to explain why such things continue to happen. That they do is by no means entirely the fault of the aid agencies. For governments in the Third World even the low cost of local staff can sometimes be too high; the ready availability of foreign experts paid for by foreign donors can thus look like a very attractive option. A programme director in one underdeveloped country found that:

Many of the advisers assigned to ministries were purely and simply filling the posts of local employees without the government having any plan whatsoever for their eventual replacement. We discovered that, for more than 75 per cent of the posts filled by foreign technical advisers, the appropriations for recruiting their counterparts and subsequent successors had been deleted from the budget.22

A second reason for the hiring of expatriates is that there are some jobs which local staff refuse to do. A problem frequently

encountered is that of the government employee who will not accept a field assignment because, in the project area, there is no adequate health care or schooling for his children. The job then goes to a foreign expert who can afford to have his children brought up and educated elsewhere.23

Another important factor is that, consciously or unconsciously, government officials in the Third World tend to favour and support the continued hiring of foreign experts for personal reasons: stated simply, foreigners can provide them with valuable ‘kickbacks’ of a kind that they could never hope to get from locals. According to Hari Mohan Mathur, Secretary to the government of Indiainthe state of Rajasthan:

Many senior officials are beholden to foreign experts for favours they can confer on them, such as a study visit abroad. This may seem to be rather a small thing, but in fact it is not. Visits abroad are highly valued in many Asian countries because the salaries of civil

servants are incredibly low. Of ..en savings from daily subsistence allowances at the UN rate on a visit lasting just one week, work out to be as much as salary would be for a month.24

Government preferences for foreign experts are bolstered by the practices of the aid organisations. Most bilateral agencies refuse to hire local experts, preferring to spend their money on their own nationals even

when, as one authoritative study found, this means that ‘individuals with demonstrated technical failings or an inability to work well in foreign environments’ are retained in the system.25

In the multilateral sector, recruitment according to geographical quotas as practised by the United Nations does result in the employment of large numbers of Third World personnel. Perversely, however, as Paul Streeten has observed, these people are usually given posts far from home: whether it is by accident or by

design, the fact is that only 10 per cent of UN professionals work in their own country.26

Other multilateral agencies appear simply to mistrust local brainpower and to doubt the competence of Third World consulting firms: the European Development Fund, for example, relies on teams of foreign experts supplied by Western consultancies to design and implement 90 per cent of its projects in Africa, the Caribbean and the Pacific.27 The World Bank by

far the largest multilateral donor tells

us frankly that it, too, leaves the design and implementation of the billions of dollars' worth of projects that it financesinthe developing countries very largely to people who are foreign to those countries. It notes patronisingly that 'for some activities, such as contacts with local farmers, local staff are essential'. However: 'Only a few developing countries (such as Brazil and Mexico) have a local

consulting industry capable of providing most of the wide range of services called for in project work, and many countries have hardly begun the process.' The result, frequently, is that 'only consultants from developed countries may be qualified… In such cases the higher price that expatriates command will be more than offset by the unique contribution they can make to the success of the project.'28

Exactly how unique this contribution is remains a matter of some controversy. For example, in one series of World Bank-assisted agricultural projects in Nigeria (with a total combined cost of $1.5 billion) there has been extensive use of expatriate experts indeed,

no less than 1,040 staff years of technical assistance have been provided by the Bank and its consultants. Despite this massive use of expensive foreign skills, however, official audits of

the projects concerned have shown that the results have been ‘very disappointing’ with almost zero productivity increases.29

Neither is this an isolated case. An extensive survey of project aid carried out by the OECD’s Development Centre concluded: ‘We see very few advantages in the consistent use of foreign consultancy firms, except as a way of spending aid money.’ Amongst the reasons given for this rather uncompromising statement were the following:

Claims by Western consulting firms that they are able to make a special contribution to projects because of the wealth of field experience accumulated by their staff are more rhetorical than real. Most such firms in fact employ few permanent staff, the teams they send out are recruited only for the duration of the specific contract on which they are working and, normally, the members of these teams have not worked together before.

Western consultancies are selling their skills; it is therefore not in their interests to communicate their expertise to others. As a result, even when contractually obliged to do so, the vast majority pay no regard to the enhancement of consultancy skills in recipient countries. The net effect is that these firms ‘gravely inhibit the development of local capabilities’.

Likewise, individual foreign experts employed on projects have a strong vested interest in ensuring that their local counterparts never become capable of taking over from them since

such a takeover would mean the termination of their own lucrative contracts. One device that experts use is to make themselves ‘indispensable’ by unnecessarily complicating and extending the tasks that they perform; in this way they can often outlast a series of counterparts.

Foreign experts and advisers, with their high cost, may be a less

effective way of spending project money than, for example, material inputs. A Western consultant heading one rural scheme complained bitterly that locally hired staff seemed to feel they had a ‘right’ to make use of project vehicles, and admitted that this issue was ‘souring the atmosphere of cooperation’; the vehicles, he said, had been intended for the expatriate advisers only. When interviewed, however, one of the local staff had this to say: ‘Improving our efficiency in the field often depends on factors quite removed from what a foreign expert can teach us. Here we don’t have the petrol, spare parts or sometimes even the vehicles to go round the nearby farms as regularly as we should. A minute fraction of the salary of one single expert would have settled that problem for five or six of our administrative staff and given them more opportunity to operate effectively.‘30

Other doubts about the so-called ‘unique contribution’ that foreign experts can make focus on their attitudes and on the ways in which

they conduct their daily lives. For example, the fact that few of them stay long enough in any developing country to learn the languages spoken there effectively cuts them off from any real contact with large numbers of people who should matter to them a great deal the

poor. More often than not, says Hari Mohan Mathur, experts' contacts are 'confined to elite groups in the capital and major towns'.31 Jacques Bousquet agrees with this observation and adds that experts and consultants frequently come to look on their overseas assignments more as extended tourist trips than as anything else. 'We thought they were here to help us,' the former UNESCO Educational Adviser was told by one Ivoirean, 'but not a bit of it! They want to see the country.'32

packaged poverty

Development tourism, of course, is done not only by experts and consultants but also by all the other prosperous, propertied, healthy,

educated and influential people who make their living from portraying, writing about, launching emotional appeals on behalf of, studying and administering the lives of those who are penniless, vagrant, diseased, illiterate and politically impotent. Bureaucrats from aid agency headquarters in Washington, New York, Paris, Geneva, Vienna or Rome, and certain breeds of academic, researcher, journalist, broadcaster and pop star, are amongst those who do very well thank you, who make their fortunes or their reputations or

both because

of the poor and the dispossessed. Together with the experts and consultants resident ‘in the field’, it is outsiders like these who shape the ways in which the poor are seen, define their problems, and formulate all the policies, projects and programmes intended to alleviate their poverty. Local and central government officials from the developing countries are also allowed to play a role but

these people are as much aliens in the universe inhabited by the poor as are the visitors from afar.

The tendency for those who are not poor to become mere sightseersinthe world of those who are is one of the central problems of international development. It is at its most noticeable during famines and other catastrophes when the distinction between the haves and the have-nots of this world ceases to be merely a matter of relative wealth and poverty and becomes instead a matter of life and death. Whether we are aid workers, journalists, or priests our ability to make excursions to these places, see, smell, touch, interview and possibly feed the dying, and then return to our own comfortable homes and hotels, must surely rank amongst the most bizarre paradoxes of modern times.

At the height of the famine that took more than a million Ethiopian lives in 1984-5, it was perfectly possible during the course of a single morning to travel by light aircraft from the luxury of the

Addis Ababa Hilton to the surreal horror of the relief camp at Korem where tens of thousands of gaunt and ragged people lay strewn like the casualties of some brutish medieval battle across a blasted heath. One could then take pictures, take notes, or otherwise appraise and evaluate the situation, and then fly back to Addis Ababa again in time to

catch an hour of sunbathing at the side of one of the finest swimming pools in the world.

I was in Ethiopia as a journalist, but journalists were not the only foreigners queuing up to rubberneck the apocalypse. The country, although short on food, was long on relief workers and aid personnel of all kinds: every possible voluntary agency had sent people in to see if they could sniff out likely projects; FAO, UNICEF and WFP were all over the place; ICRC had several ashen-

faced representatives in situ radiating appropriate amounts of gloom, doom and selfless devotion to duty; even the Secretary General of the United Nations turned up at one point to find out for himself what starving children looked like -and to be photographed doing so. By 8 a.m. each day the lobby of the Hilton would thus be crammed with bureaucrats in safari suits, some self-consciously clutching lunch boxes from the coffee shop, waiting for the minibus that would take them to the airport to catch the morning shuttle to hell.

Meanwhile celebrities and VIPs by the dozen had also appeared: Charlton Heston, Senator Edward Kennedy, Bob Geldof and Cardinal Basil Hume were just a few of the 'personalities' who came, saw and commented. There were swarms of less important visitors, too ghoulish

holidaymakers for whom the conventional East African attractions of safaris, sun, sand, sea and sex were apparently no longer enough.

Typically these were young, middle-class Europeans and Americans with a few Japanese and Australians thrown in. The women wore earnest expressions, but not bras, and favoured jeans and open sandals displaying large dirty feet. The men, fresh-faced but with aggressive beards, were equally casual and equally earnest. Some had got off their Nairobi-bound planes on impulse when they stopped over at Addis Ababa and could give no good reason for wanting to visit the famine areas. Peeping Toms and disaster groupies, the truth was that they were driven by a depraved, voyeuristic urge: they wanted to 'get in touch' with poverty.

It was easy to despise them, but they were not very much more obnoxious than the rest of us on the scene. The aid agency officials who had come to Ethiopia to help (or more often to 'assess the scale of the problem'), the professional communicators who had come to inform world opinion (or more often to mislead it), and the luminaries who had come to lend their prestige (or more often to

boost their own egos) were also keen to get in touch with poverty and

were just as unlikely actually to do so. We, too, in our own ways were all voyeurs; we, too, were tourists of a macabre kind.

I got to see the famine in a single-engined Cessna that had been chartered by two aid workers from Washington, DC. With us as well was a rather dour official ‘minder” from the government-run Relief and Rehabilitation Commission, sent along, I believe, to make sure that we did not subvert any peasants. We must have looked, when we set off, like rather a diverse team -two Americans, one Brit, and an Ethiopian civil servant; the truth was, however, that we had a great deal in common with one another. We were, for example, all relatively affluent, we were literate, and we were city dwellers; we were also chronically well fed, as were our children; none of us had dysentery or intestinal parasites; all of us had homes and jobs to return to at the end of our mission. In short, we were as

different from the starving and destitute beings we were shortly to encounter as, say, Easter is from a motor car, or next Saturday night from a hillside in Provence. We were one category of object and they the

poor were

quite another.

What followed was a package tour. We went (of course) only to places where our aircraft could land and, from there, only to other places that could be reached relatively quickly by car. When we talked to famine victims we did so through an interpreter and this had the effect of producing rather stilted exchanges less

conversations than interrogations. Mostly, however, we got our information from other aid workers, other journalists, Red Cross nurses, and from Ethiopian government officials (who showed us

impressive-looking charts on the walls of their offices). We gravitated, in other words, to anyone obliging enough to speak English to

people like us, to outsiders, to the non-poor.

After a few days of this, having touched base at the port of Assab (to see food aid shipments arriving) and having wandered around the relief camps at Korem, Makalle, and Bad (to see people dying like flies), we flew back to Addis in our smart little Cessna. We were, after all, busy men with pressing appointments elsewhere. The upshot was this: I wrote my stories and, eventually, a book. My two American companions wrote their back-to-office reports and, eventually, got some sort of project started. Our Ethiopian minder returned to his desk at the RRC and, eventually, won a scholarship to study agronomy at a technical college in the United States. As for the poor well,

they stayed poor, they are still poor now, and they probably always will be.

I was profoundly moved by much that I saw in northern Ethiopia, but I cannot say that I learned a great deal there. Neither did the aid workers who were with me: they came back equally touched by sentiment and equally out of touch with poverty. Ours was a short, sharp visit, a sightseeing excursion and

absolutely nothing more than that.

Excursions like these, however, take place all the time and not just (or even mainly) during emergencies: major development projects absorbing vast sums of Western taxpayers' money and affecting the lives of billions of people in the Third World for years to come are routinely conceived, planned, supervised and appraised on the basis of visits that are equally brief, hurried and superficial. Robert Chambers of the Institute of Development Studies at Sussex

University estimates that there are ‘tens of thousands of cases daily’ of such jaunts by aid workers, officials, experts and consultants who may differ ‘widely in race, nationality, religion, profession, age, sex, language, interests, prejudices, conditioning and

experience’, but who, nevertheless, usually have at least three things in common: ‘they come from urban areas; they want to find something out; and they are short of time’.33

something fishy

At the UN’s Food and Agriculture Organisation, staff and experts paid to promote food self-sufficiency in the Third World are sometimes so short of

time that they never visit, supervise, or assess the impact of their projects at all. In one developing country external auditors examined four projects financed by the agency, all nearing completion; at three no FAO personnel had ever been anywhere near the site.34 A consultant who has been involved in FAO rural development schemes says frankly: ‘Projects are dreamed up in two or three weeks.’ Thereafter, even if there are ‘huge holes in them’ they are ‘rarely investigated’.35 Questioned about allegations like these, a disillusioned information officer admitted: ‘After nine years in the FAO I have difficulty understanding what it does in the field.‘36

FAO’s recent sorties into fish-farming known

technically as ‘aquaculture’ provide

some indications of the extent of the agency’s incompetence. Its efforts to develop the recognised potential of this relatively new and

exciting area of food production have, from the outset, been marred by a series of stupid and expensive blunders, many of which are attributable to hubris and shoddy ‘smash-and-grab’ research by its own experts.

According to Douglas W. Cross, himself an experienced aquaculture consultant,37 several fish-farms in Egypt financed and managed by FAO during the 1980$ have been unmitigated disasters: to date more than $50 million has been wasted. The farms owe their existence to a single FAO expert who made a very brief field visit and then proposed the establishment in the delta region ‘of deep water ponds rearing several species offish’.

The idea, which suggested that large-scale units might achieve ‘astounding yields’, looked good on paper and was taken up enthusiastically by the giant UN agency and by the Egyptian Ministry of Agriculture. What was not realised at the time because

nobody bothered to find out was

that the soil of the delta region is totally unsuitable for building almost any sort offish-pond structures. As Cross explains: ‘Whilst it seems to be strong and stable when dry, it is composed of a sodium montmorillonite clay which, when wet, absorbs up to 110 per cent of its volume of water, turns to a slurry and collapses completely.’

Proper field studies would have identified these soil characteristics. No such studies were done, however, with consequences that have since become painfully apparent. At the FAO farm at El Zawiyah, for example, Cross recently found that:

Huge ponds had been built with banks two metres high and ten metres or more thick. Only half held water, no more than one metre deep, and their banks were collapsing and eroding at rates of two or three metres a year. At harvest time the loose unstable soil formed a liquid mud which smothered the fry before they could be moved

into growing ponds … Despite overwhelming evidence to the contrary the FAO official responsible for running the farm stated that he still believed an engineering solution would be found to the problem.

Meanwhile, not far away, a group of ‘un-aided’ smallholders who had established their own

much less ambitious ponds in the wetlands of the Lake Manzalah area wereinno need of any expensive high-tech ‘solutions’; far from having problems they were successfully harvesting 27,000 tonnes of fish annually at no cost to Western taxpayers. When Cross suggested that FAO and the Ministry of Agriculture might learn something from these farmers, he was told by one official: ‘Do not waste your time talking to people like that. They are uneducated. They know nothing.’

This description, however, would seem to apply better to FAO

itself. In the southern African country of Malawi, at Kasinthula, the agency has financed another aquaculture project, the centrepiece of which is a demonstration fish-farm unfortunately

located next to a bird sanctuary. As a result, says Cross:

the ponds support an astonishingly large population offish-eating birds ranging from small kingfishers to a flock offish eagles. There have been wonderfully involved quarrels between the sanctuary's bird warden and fish-farm staff when the latter attempted to control some of the worst excesses of the birds in their efforts to clear the ponds of fish before the men could harvest them… A less appropriate site for a fish-farm would be hard to find.

FAO now receives over 200 applications per week from fisheries and aquaculture specialists keen to register as highly paid consultants. In Cross's experienced judgement, the applicants many

of whom eventually get contracts are

typically:

highly qualified but relatively inexperienced graduates, claiming to be at the leading edge of specialisations such as induced breeding and sex control, nutrition, vaccine application and complex recycling technology. All these have their place in the development of aquaculture, but mainly in the devising of luxury products for the richer nations. Aquaculture in the developing countries does not call for such exotic skills. They are irrelevant to the needs of poor people who simply want to gain a little more control over their lives without at the same time increasing their risks. Consultants who are appointed purely because of their impressive academic and technical qualifications are in fact often a menace to the societies in which they yearn to demonstrate their knowledge.

FAO is not alone in taking on consultants like these and then

inflicting the silly projects that they dream up on the poor of the Third World. USAID's excursions into aquaculture are also frequently characterised by poor planning and an over-reliance on inappropriate technology. One fish-farm financed by the American agency at San in the baking-hot West African country of

Mali was designed on the assumption that it could be kept filled from a nearby irrigation canal. Not so, however! AID's consultant knew a great deal about fish but failed to acquaint himself with the elementary fact that the canal only contains water for five months a year; since the ponds must be kept full during

die other seven months as well an expensive diesel-powered pump now has to be used in the dry season to bring water from more than

two kilometres away. A second equally serious problem afflicts US AID's Mali venture: no suitable fish-food is available locally. The result, as Cross explains, is that 'feeds have to be bought in this

in a country which faces desperate problems even feeding its own people'. To add insult to injury, the quantity of fish produced by the farm is extremely low; if account is taken of the value of all the inputs, then the actual cost of the farm's fish works out at roughly $4,000 per kilo.

don't ask the poor

Mistakes like these are inevitable, however, in a big agency that often appears neither to have the time to talk to poor people nor the humility to tap their local knowledge of

dry seasons, for example. In one recent and unfortunately typical USAID mission, a senior official based in the Indonesian capital of

Jakarta went ‘up country’ supposedly

to learn about a project for mothers of malnourished children in a remote rural area. On arrival the visitor was greeted by a large group of mums and kids, They had dressed in their best clothes and had prepared, in the words of one observer,‘a big table groaning with food… they were poor, but they wanted to honour this guy’. The USAID man, however, refused to leave the protection of his vehicle and insisted that ‘under no circumstances’ would he eat with ‘such people’. Asked by a junior colleague if he would at least take a cup of tea, he again refused and suggested: ‘You could tell them that the important American was just too busy.’ All in all, although three full days were spent driving out to the project and then driving back to Jakarta, less than half an hour was spent at the project site itself and none of the beneficiaries were talked to.38

Such a scale of priorities would raise few eyebrows at Britain’s Overseas Development Administration which allows many of its

projects in the Third World to be ruined because it is ‘too busy’ to talk to local people. Examples include the Victoria Dam on Sri Lanka’s Mahaweli River where auditors found that 30,000 people were resettled with undue haste and in an unsatisfactory manner as a result of lack of advance planning and inadequate consultation. In Nepal a rural access road supposedly designed to alleviate poverty in fact made the poor worse off because it stimulated urban development and allowed government bureaucracy to expanding the area.39 In Belize the upgrading of the Northern Highway entirely overlooked the danger that increased traffic and increased speeds would pose for villagers living near the road. In consequence, several young children were killed and maimed within a few months of completion of works; local people then rightly insisted on the installation of speed bumps to slow down traffic. These’, as the auditors note, ‘have reduced the economic benefits of the road’,40 Indifference to ‘social factors’ has been identified in so many other ODA projects that it seems to be almost standard operating

procedure to ignore the wishes, the opinions and the possible contributions of the poor.41

The same is true at the World Bank which, after more than forty years'

experience in the field, is only prepared to admit that in certain circumstances 'active involvement of the intended beneficiaries may improve the prospects of a project'.42

The Bank, which puts more money into more schemesinmore developing countries than any other institution, claims that 'it seeks to meet the needs of the poorest people';43 at no stage in what it refers to as 'the project cycle', however, does it actually take the time to ask the poor themselves how they perceive their needs; neither does it canvass their views on how they feel these needs might best be met. Indeed, from the identification of a possible Bank project right through to its ex post evaluation, the poor are

entirely left out of the decision-making process almost

as though they did not exist. As a Senegalese peasant commented after one mission of high-powered development experts had made a cursory tour of his village: ‘They do not know that there are living people here.‘44

To explain arrogant behaviour like this, it is not necessary to produce psychological profiles of the high-flying economics graduates who make up almost 70 per cent of the Bank’s professional staff.45 The simple truth is that borrowing is done by governments and it is therefore to government officials that the Bank talks in the main. The only other people whose views seem to matter are foreigners: United Nations experts, for example, or the representatives of large private corporations.

The World Bank’s own description of the project cycle makes all this quite clear. In the beginning, we are told: ‘Governments

propose projects for financing … Sometimes a Bank mission supervising an earlier project will suggest a new project… Some projects may be suggested through the work of UN agencies. Some are brought forward by private sponsors, such as mining enterprises seeking to develop new resources.‘46

Once a project has been identified in this way, it has to be prepared. ‘The borrower’ does this, helped of course by ‘Bank staff, UN agency personnel, and outside consultants’ who ‘frequently play a major role’ in designing the technical, managerial, economic and financial dimensions.47

Next comes appraisal, which is ‘solely the Bank’s responsibility … The appraisal includes a visit by a team of Bank experts to the country, typically lasting from three to five weeks.‘48 If all is well, the project will then be approved sub

ject to the signing of a binding loan-agreement between the borrowing government and the Bank.49 Thereafter, from time to time, supervision missions will pop out from Washington to ‘ensure that funds are spent in the manner agreed on’, and ‘that the project achieves the objectives for which the loan was made’.50

What is conspicuously absent from all this is any requirement, or opportunity, for professionals and experts to undertake in-depth field investigations amongst the poor who live around the project site let

alone to tap these people’s local knowledge or to encourage them to participate in the project itself.51 As the Bank’s own Operations Evaluation Department admitted in 1988 in a disturbing review of experience since 1965: The principles guiding

beneficiary participation in Bank-financed projects have been quite abstract and of limited operational impact. Beneficiaries were not assigned a role in the decision-making process, nor was their technological knowledge sought prior to designing project components.‘52

This is so in large part because the Bank has elevated the technique of the ‘brief rural visit’ to the status of a fine art. During the ‘three to five weeks’ that the appraisal mission spends in the borrowing country, for example, staff have a strict and rather limited working brief which ensures in practice that they will pass most of their time in the best hotel in the capital city studying documents.53 When they venture out they will do so mainlyinlimousines which will whisk them in air-conditioned luxury to meetings with then: counterparts in various government ministries. A ‘field trip’ will of course be made at some point but, typically, will not involve leaving the capital for more than two or three days. During this period the

experts will stay in a government guest house or other similar facility close to the project site; there they will study more documents and hold meetings with local officials, district commissioners and the like. What they will not do is conduct extensive interviews with the poor; even if there were time for this, which there is not, few staff would have the experience to do it properly and less would have the inclination: ‘going on missions to prepare and supervise projects was looked upon by most as a trial,’ recalls Catherine Watson, a former Bank official.54

A fairly precise picture of the hectic pace at which missions operate can be gleaned from ex post audits done by the Bank’s Operations Evaluation Department. Such audits normally result from a ‘desk review of all materials ; pertaining to the project‘55 and thus maintain the Bank tradition of not talking to the poor; they do, however, reveal a good deal about the way in which staff continually substitute third-rate development tourism for proper

fieldwork.

In Guatemala, for example, one typical agricultural project received an impressive total of sixteen missions at various stages of appraisal and supervision. However: ‘Fifteen different experts … were involved. Ten of them visited the project once; another three of them only twice. The “burden” of continuity was provided by two experts who paid three and five visits respectively. In seven cases none of the supervision staff had visited the project before.’ Only in five cases had one of the supervisors been on the previous mission. Thus, field supervision was fragmented, staff continuity very low.‘56

In another audit of a group of agricultural projects in five Latin American countries, the Operations Evaluation Department notes its impression of work being done

in haste by individuals with heavy travel schedules, few of them

able to pay more than one or two visits on any series of projects to any single country… only one out of every four individuals made more than one mission on any one series of projects, and only one out of seven made more than two… fifty-three out of the seventy-three individuals never got back on a subsequent mission to look at the programmes.57

This kind of dilettante approach can lead to glaring errors and oversights. In Sri Lanka, for instance, inadequate appraisal of an agricultural scheme, and total lack of contact with (or knowledge of) the beneficiary population, resulted in ‘a faulty project design which dispersed Tamil settlers amongst Sinhalese villages’. Given the ethnic tensions in Sri Lanka at the time -amounting virtually to a state of civil war between Tamils and Sinhalese this

was foolish in the extreme.58 Meanwhile,inMexico, no fewer than nine successive Bank missions failed to do anything to remedy a basic technical fault at one Mexican irrigation scheme which was

suffering from a leaking reservoir. Each mission noted the puzzling fact that the reservoir was empty when it should have been full but made no investigation of the problem on

the assumption that the next mission would handle this irksome task. ‘The Bank concentrated its supervision efforts almost entirely on enforcing the covenants on agricultural services and water charges,’ notes the internal audit. As a result, ‘the main problem confronting the project’ was ignored.59

Not all supervision is done by such short-stay missions. Although So per cent of the Bank’s 6,000 staff are based at headquarters in Washington60 the remainder are posted in the Third World. Bangladesh, Benin, Bolivia, Burkina Faso, Burundi, Cameroon and Colombia all have the benefit of a permanent Bank office, as do Ethiopia, Ghana, India, Indonesia, Ivory Coast, Kenya, Madagascar, Mali, Nepal, Niger, Nigeria, Pakistan, Peru, Rwanda, Saudi Arabia, Senegal, Somalia, Sri Lanka, Sudan, Tanzania, Thailand, Togo,

Uganda, Zaire and Zambia.61 Whether these offices are able to contribute a great deal more than visiting missions is, however, open to doubt: a recent confidential evaluation of 116 projects found that the Bank constantly rotated its overseas staff with the result that few officers were able to acquire in-depth expertise in any one coun

try or region. Furthermore, there was ‘no provision for systematic country orientation … sometimes not even an appropriate reading list’.62

There would probably be little demand for such facilities, even if they were available. As Catherine Watson observes, staff actively resist foreign appointments, which ‘are spoken of as a term of exile in an uncomfortable place’.63 This perhaps explains why those who do have the misfortune to end up living overseas endeavour to make themselves as comfortable as possible while they are there. All

permanent offices are in the capital cities of the countries in which they are located, usually in the plushest business districts. Staff residences, too, are to be found in the very best areas, as far away from the poor as it is physically possible to get, and sometimes designed to cut off all contact with them. In Nairobi, Kenya, for example, the Bank has its own exclusive compound with a barbed-wire perimeter guarded by furious attack dogs; burglar alarms in every house are connected to all the others and there is a hot-line to a security company that can send in teams of uniformed men armed with cudgelsinthe event of a breakin.

Such a siege mentality can hardly be conducive to feelings of trust and understanding between the World Bank and the ordinary people who its

projects are supposed to serve. Rather, it seems to suggest that there

is a great gulf fixed between the ‘developers’ and those they have come to develop: on the one side rich men in their castles; on the other paupers and peasants at the gate. After several decades of such elitism ‘it is not surprising’, says one observer, that in many countries the poor now see development ‘as an alien process, something done to them and a waste of effort’.64

an eerie philosophy

The World Bank shares this view to some extent. Although, of course, it does not regard what it does as a waste of effort, it certainly no longer defines development as something that is done for poor people (let alone by them or even with their consent); on the contrary, the tendency is to treat the poor as cogs in a wheel that is rolling towards some greater end.

Projects aimed at alleviating malnutrition, for example, are not seen by the Bank as being intrinsically worthwhile; they are justified

because: ‘A reduction in mortality generates a value to society equivalent to the discounted value of the future production of each individual saved.‘65 In other words, the function of human life is to produce; people should have enough to eat so that production can continue to grow.

The Bank spells this slightly eerie philosophy out more clearly in its important policy study Poverty and Hunger. Subtitled Issues and Options for Food Security in Developing Countries, this remarkable document tells us that:

Food security has to do with access by all people at all times to enough food for an active and healthy life. Available data suggest that more than 700 million people in the developing world lack the food necessary for such a life. No problem of underdevelopment may be more serious than or have such important implications for the long-term growth of low-income countries. Attempting to ensure food security can be seen as an investment in human capital

that will make for a more productive society. A properly fed, healthy, active and alert population contributes more effectively to economic development than one which is physically and mentally weakened by inadequate diet and poor health.66

In the arse-about-face logic of the bureaucrats who write such chilling memoranda, human beings are reduced to capital instruments to

mere means of production. Like lathes, or electric turbines, or smelting plants, their output and

thus their ‘contribution to economic development” will

be greater if they are properly fuelled and oiled. This is what the World Bank actually means when it talks about ‘investing in human capital’.

Once this point is reached, once abstract concepts like economic growth have been shamelessly reified, it does not take a very great step to put the cart before the horse completely and start seeing some human beings with their silly hopes and aspirations as obstacles to the ‘development’ process. This was certainly the opinion of the Bank consultant in Korea who concluded that that country’s export-led growth was ‘threatened by the improvement in the income-share of the workers’ that had recently taken place, and advised the government ‘to prevent any further rise in wages’.67

The obstinate poor may, at times, have to be treated even more harshly than this. In Africa, for example, the Bank is engaged in a messianic campaign for ‘structural adjustment’ and notes with pleasure that: There are definite signs of greater willingness of African governments to consider policy reforms.‘68 Since these reforms involve, inter alia, cutsinpublic expenditure on ‘aspects of education and health’ and cuts in subsidies for basic food items, it is

inevitable that the most vulnerable sections of the population will suffer as

the Bank admits: ‘The urban poor have lost out through higher food prices and deteriorating services,’ it tells us, while ‘rural dwellers in areas of low potential’ have also ‘not benefited’. Such people may even object to the development that is going on around them and passing them by. This, however, should not be allowed to slow down tough reforms that are taking place in the name of increased productivity and efficiency. Indeed, the Bank defines the main function of external aid as helping to ensure that governments ‘sustain reforms against the opposition of those who are adversely affected’.69

The policy document in which these remarks are to be found is described as a ‘Joint Programme of Action’ joint

in the sense that the Bank wants others to participate with it in

implementing its agenda for Africa. ‘We are keen to join,’ it says, ‘with the United Nations and its agencies, with the European Community, with the African Development Bank, with the Economic Commission for Africa, and with other international and national organisations to assist the countries in sub-Saharan Africa in their development efforts.‘70

What this means in plain English is that a gang of vainglorious economists and bureaucrats in Washington who have never in their lives had any direct experience of poverty want to pull donors together so that they can effectively control all aid-flows to the world’s poorest continent; once they have done that they will be in a strong position to cow recalcitrant governments and prevent them from playing one donor off against another; they will also be able to support those governments which are willing to ‘reform’ by bearing some of the economic and political costs of the necessary repression.71

That such an approach can in any way be described as ‘developmental’ without provoking howls of outrage and derision is a tribute to the enormous influence that the Bank has had on the thinking and behaviour of other aid institutions most

of which have already ‘joined’ with it on numerous occasions not only in Africa but also in every other region of the Third World. The global lender undertakes extensive co-financing with virtually all the main bilateral and multilateral agencies and frequently selects, defines, appraises and supervises projects on their behalf. It has forged close and continuing relationships with key United Nations organisations (notably FAO, WHO, UNIDO, UNESCO and UNDP). In addition its vast resources make it a powerhouse of research. Statistics, position papers like those that I have referred to above, and country reports emanating from Bank headquarters in Washington are drawn upon extensively by the rest of the donor community

and play an important role in shaping the development process and defining the place of the poor within it.72

Increasingly this is a marginal place not

because there is a cruel conspiracy astir but, rather, because the Bank and other aid donors see the poor only dimly. Such selective myopia is the inevitable by-product of a philosophy in which economic growth is treated as an end in itself rather than as a means to an end. That same philosophy, however, can only remain unchallenged and

maintain its intellectual credibility because

of work methods that blur perceptions of the human casualties of ‘development’. The brief rural visit, the hurried appraisal, the

absence of proper fieldwork, and the unshakeable conviction that ‘we’ know what is best for ‘them’ are all factors which have important implications for the kinds of project that eventually get handed down to the poor. A great many of these projects are abject failures. Some are irrelevant and help nobody. Others are harmful: in the name of development they trample vulnerable people underfoot and, frequently, do irreparable damage to the environment.

In India, for example, on the borders of the states of Madhya Pradesh and Uttar Pradesh, the Singrauli Power and Coal Mining Complex has received almost a billion dollars in World Bank funding since 1977 the

most recent loan being for $250 million. Here, because of ‘development’, 300,000 poor rural people have been subjected to frequent forced relocations as new mines and power-stations have opened. Some families have been obliged to move as many as five

times; today, unable to put roots down anywhere, they are utterly destitute.73

This scandal was recently the subject of emotional testimony heard in the US Senate by the House Subcommittee on International Development Institutions and Finance. According to Bruce Rich, Senior Attorney with the Environmental Defense Fund:

The management of the Bank-financed power plant and coal-mine is gravely deficient. The cooling channel for the power plant has never functioned properly and 60 per cent of the water flows out through a rupture in its walls, periodically flooding the land of an adjacent village; human settlements exist right on the edge of the plant's ash dumps; overburden from the coal-mine is actually being dumped on the grazing land of a tribal village, menacing the houses of the inhabitants who

refuse to leave because the Bank-financed coal company will not

offer them compensation.

In all directions around Singrauli, as far as the eye can see:

the land has been totally destroyed and resembles scenes out of the lower circles of Dante's inferno. Enormous amounts of dust and air and water pollution of every conceivable sort have created tremendous public health problems. Tuberculosis is rampant, potable water supplies have been destroyed, and chloroquine-resistant malaria afflicts the area.

Once-prosperous villages and hamlets have been replaced by 'unspeakable hovels and snacks on the edges of the huge infrastructure projects … Some people are living inside the open pit mines.' Furthermore, over 70,000 previously self-sufficient peasant farmers deprived

of all other possible sources of income now

have no choice but to accept the indignity of intermittent employment at Singrauli for salaries of around 70 cents a day: below survival level even in India.74

victims of development

In the name of progress, lives have been destroyed in virtually every country of the Third World. In Brazil a massive ‘colonisation’ and resettlement scheme known as ‘Polonoroeste’ has transformed many poor people into refugees in their own land and stands out as being particularly callous and ill-conceived. The project, which by 1985 had attracted loan commitments totalling $434.3 million from the World Bank, has subsequently been the subject of considerable public controversy, despite determined efforts to hush things up.75

Brazil is a country in which a wealthy few just

1 per cent of the population -own 48 per cent of all arable land; it is

also a country where at least 2.5 million people are landless and where an estimated 1,000 children die every day from hunger-related causes.76 As a development project, it seems that the main function of Polonoroeste has been to provide a safety-valve for the political and social pressures that such stark contrasts generate by the simple expedient of moving the poor. Holding out the tantalising prospect of free land and a 'new start' amidst the dense-canopy rainforests of the north-west, the scheme has persuaded hundreds of thousands of needy people to migrate from central and southern provinces and to relocate themselves as farmers in the Amazon basin where,

conveniently, they are out of sight of their more prosperous compatriots.

The World Bank's backing for this project between 1982 and 1985 was crucial to the very rapid progress that it made in that period and contributed directly to what is now recognised even

by the Bank itself-as

‘an ecological, human and economic disaster of tremendous dimensions’.77 It was $250 million of the Bank’s money that paid for the speedy paving of Highway BR-364 which runs into the heart of the north-western province of Rondonia. All the settlers travel along this road on their way to farms that they will slash and burn out of the jungle. The highway has also encouraged rapid commercial penetration of the region by mining and logging companies and by cattle ranchers.

The consequences of this combined onslaught have been devastating. Already 4 per cent deforested in 1982, Rondonia was 11 per cent deforested by 1985. Since then NASA space surveys show that the area of deforestation has doubled approximately every two years; if the destruction continues at this pace, then less than 20 per cent of the province’s unique jungles will remain by the turn of the century.78 Neighbouring Mato Grosso (the name means ‘thick

forest') had lost only 3,900 square miles of its 310,000 square miles of virgin

forest in 1975. By 1987, however, almost all of the jungle was gone. In that year satellite photographs showed 6,000 forest fires burning across the entire Amazon basin every

one of them started deliberately by land-clearers. Many of the fires were burning close to Highway 811-364.79

Such developments have created deep concern amongst environmentalists. Rainforests like those in Rondonia and Mato Grosso today occupy only 7 per cent of the earth's surface but are thought to be home to 80 per cent of plant and animal species. More important, they play a crucial role in the maintenance of all life on earth. One probable consequence of continued wholesale clearances

will be an acceleration of the ‘greenhouse effect’ the

name given to the process whereby carbon dioxide, no longer being absorbed by trees, builds up in the atmosphere and causes global temperatures to rise.80 Brazil contains one-third of all tropical rainforests and now has the dubious distinction of destroying more of this precious and irreplaceable resource than any other country in the world: over 3.6 million acres are felled each year.81

Polonoroeste has made its own significant contribution to such short-sighted desecration. The project, however, is seriously flawed not just because of its dire ecological implications but also because of the violence that has been visited upon those indigenous Indian peoples of Rondonia who have attempted to resist the incursions of outsiders. Some tribes have been virtually wiped out; others, herded into insanitary reservations, have been decimated by malnutrition and by diseases like

measles that

are new to them.82

In 1985, as a result of a well-organised international campaign mounted by environmental and human rights groups, the World Bank was forced to impose a temporary halt on payments of the undisbursed balance of its Polonoroeste loans; the flow of funds was only renewed after the Brazilian government had given guarantees that the environment, and the rights of tribal peoples in Rondonia, would in future be respected.

Although these guarantees have, by and large, been honoured, there is a limit to what the government can do now that the Pandora's Box of development has been opened in the Amazon. The settlers, who continue to pour into the north-west at the rate of 13,000 a month,83 come because of land hunger. The cruel reality, however, is that the land they receive is wholly unsuitable for agriculture of

any sustained kind. Within two to five years at most, soils that have previously been covered by tropical rainforest cease to be able to support enough food crops to provide even basic subsistence to smallholders, let alone a saleable surplus. The typical characteristic of such soils is that they have been leached of their nutrients by thousands of years of heavy precipitation and high temperatures. No problems occur while they are still forested and while vitality is preserved by the complex inter-relationships of above-ground plant and animal life. After logging and burning, however, the newly created fields become ever more barren and useless with each season.84

The smallholdings of many settlers in Rondonia have already failed and tens of thousands are now pressing on into the neighbouring province of Acre; there the cycle of deforestation and destruction to no useful end is being repeated.85 Life for almost all the migrants has proved to be infinitely worse than it was before they were

persuaded to begin the trek to the Amazon. Their prospects for supporting themselves are virtually zero and, in addition, more than 200,000 are estimated to have contracted a particularly virulent strain of malaria, endemic in the north-west, to which they have no resistance.86

It is fair to say that, today, under the watchful eye of international environmental groups, the World Bank is making considerable efforts to promote measures and actions to mitigate the deforestation and human suffering caused by the earlier stages of the Polonoroeste project.87 Surprisingly, however, it seems bent on repeating elsewhere the same mistakes that it made in Brazil.

A final solution for the poor?

In Indonesia, the world's largest-ever exercise in human resettlement is currently under way an

exercise that is similar in many respects to Polonoroeste and that has attracted multi-million-dollar backing from the Bank. Known as the ‘transmigration programme’, it is transferring peasant farmers from overcrowded Java to the more thinly populated outlying islands of the vast archipelago. At least six million people have already been moved,88 and several million more are scheduled for relocation by 1994-89

The Bank first became involved in 1976. By 1986 it had committed no less than #600 million directly to support the transmigration programme some

20 per cent of all its lending to Indonesian agriculture during this decade. In addition, a further $680 million has been committed to the linked Nucleus Estate and Smallholder scheme a

long-term project which is settling some 95,000 families of whom about one quarter are transmigrants.90 USAID, the government of

the Netherlands, the government of France and the government of the Federal Republic of Germany have also been generous in providing funds and technical assistance for resettlement, as have the EEC, UNDP, FAO, the World Food Programme and Catholic Relief Services.91

Such unquibbling backing from so large and respectable a group of Western bilateral, multilateral and voluntary agencies is difficult to explain or understand particularly

in the context of the experience of Polonoroeste which illustrated most starkly the dangers of resettlement in rainforest areas. Like Polonoroeste, furthermore, transmigration in Indonesia has entailed a breathtaking combination of human rights abuses, environmental destruction and bad development. To give some examples:

Land rights enjoyed under traditional law by the tribal people on outlying islands like Irian Jaya, Sulawesi and Kalimantan have been

subordinated to transmigration. The relevant clause in Indonesian government legislation reads as follows: ‘The rights of traditional-law communities may not be allowed to stand in the way of the establishment of transmigration sites.‘92

Transmigration to the island of Irian Jaya has fuelled a growing conflict between the Indonesian armed forces and nationalist Irianese. According

to Marcus Colchester of Survival International: ‘Local resistance to the takeover of traditional lands has been met with brutal violence by the Indonesian military.’ Indeed, the violence has been so extreme that more than 20,000 Irianese have so far fled their homes and sought refuge in neighbouring Papua New Guinea.93

The World Bank seems unconcerned: its principal internal policy

document on transmigration states unequivocally that ‘well-planned settlement… must be encouraged’ in Irian Java.94 The document adds that there is a clear need for the Indonesian government to be ‘sensitised to the rights of isolated and unassimilated people’. What we are not told, however, is how this is to be achieved95 nor

does it seem likely that it will be an easy task: Irianese refugees report that their villages have been bombed by the Indonesian air force, that their settlements have been burned by the military, that women have been raped, that livestock have been killed or driven off, and that numbers of people have been indiscriminately shot while others have been imprisoned and tortured.96

Meanwhile, the Indonesian government continues to implement a policy of ‘sedentarising’ and ‘assimilating’ into the mainstream all of Indonesia’s tribal peoples. According to the Minister of Transmigration: ‘The different ethnic groups’ of Indonesia ‘will in the long run disappear… and there will be one kind of man’.97

This rather chilling objective has been described by one Australian critic as ‘the Javanese version of Nazi Germany’s lebensraum’.98 To achieve it, Indonesian government plans call for Irian Jaya’s entire indigenous population of 800,000 tribal people to be moved forcibly

if necessary from

their traditional homesteads and villages and into resettlement sites on the island by 1998; this programme of ‘internal transmigration’ is being carried out at the rate of approximately 13,000 families per year.99

‘Apart from causing severe conflicts over land rights,’ says Marcus Colchester, internal transmigration which

is also taking place on several other islands ‘has

proved socially and economically catastrophic for the tribal communities involved. Many communities have faced the double indignity of having their lands taken over for the creation of transmigration sites and then of being forcibly resettled back on their own lands where they find themselves a minority, despised for their “primitive” customs such as eating sago and pigs.‘100

According to a report presented to the United Nations by the London-based Anti-Slavery Society, at least one supposedly vacant island given to migrants was actually already inhabited; the Indonesian army cleared land for the settlers by burning the indigenous people’s crops.101

East Timor seized

by the Indonesian army in 1975 has

since been the target of considerable resettlement from Java. An

estimated 150,000 of

the 700,000 indigenous inhabitants of East Timor have been killed in the subsequent fighting, or have died of hunger.102

In addition to the human damage that it has done, the resettlement programme has also been responsible for much destructive clearing of Indonesia's unique and extensive tropical rainforest. This forest, as the World Bank tells us in its own policy document on transmigration, 'is one of the most biologically diverse areas in the world and has more than 500 species of mammals, 1,500 species of birds, and a botanical diversity which includes 10,000 species of trees. For this reason, Indonesia's forests and wildlife are a matter of international interest, and Indonesia's stewardship of them a matter of utmost importance.'103

In the light of this remark the Bank's continued support for the transmigration programme seems grotesque. An authoritative survey recently carried out by the Indonesian government's own Forestry Department (jointly with the Washington-based International Institute for Environment and Development) concludes that transmigration is 'the single sectoral activity with the greatest potential to advance forest destruction [and] can only have negative implications for forest resources'.104

Sulawesi and Sumatra both

major focuses of transmigration have

suffered particularly badly. On the latter, 2.3 million hectares of land formerly under canopy forest are today defined as 'critical' -i.e.

so degraded that they are unable to sustain even subsistence agriculture or to fulfil normal soil functions such as absorbing

water. More than 30 per cent of Sulawesi has been reduced to this same ‘critical’ state as a result of transmigration.105 Over Indonesia as a whole, current plans envisage the destruction of a great many more millions of hectares of irreplaceable rainforest to make way for resettlement sites.106

Despite these and other profoundly negative aspects of transmigrationinIndonesia, the long-term involvement of the World Bank and other donors would perhaps be comprehensible if the programme were achieving its own stated objectives -i.e.

if it were greatly improving the quality of migrants’ lives or, at the very least, making them less poor than they were before they left their original homes. Tragically, however, this is not the case.

A principal reason why as

aid agencies acquainted with Polonoroeste could not have failed to

realise from the outset is

that the soils of new settlements that have been hacked and cleared out of rainforest cannot support sustained agriculture. The result, observes United States Republican Senator Robert Kasten who

has strongly opposed American financial support for transmigration is

that the migrants, after a few short years, ‘are left with little choice but to move back to the cities, or to begin illegal logging and slash-and-burn farming, which destroys even more forest lands’.107

The move back to the cities is already well advanced. There are documented cases of migrant families attempting to sell their children in order to raise the money to pay for a return to Java.108 Meanwhile, on Irian Jaya alone, more

than 7,000 settlers are known to have abandoned transmigration sites and to have flocked to towns such as Jayapura and Sorong in search of urban employment which

is often not available. Prostitution and the spread of venereal disease are growing social problems which have been directly linked to the failure of transmigration to provide a sustainable economic base for settlers.109 Nationwide some 300,000 people are now estimated to be living in ‘economically marginal and deteriorating transmigration settlements’ and are recognised by the Indonesian government itself as ‘a potential source of serious political and social unrest in the future’.110

These 300,000, however, are probably just the visible tip of a much larger iceberg of settlers who have found their farms disappointingly unproductive. ‘Dumped on deforested land without

tools, without a community,' in the words of one former aid worker, 'the migrants have been unable to make a go of it.'111 As a result they are presently obliged to rely on 'off-farm' work for up to 80 per cent of their incomes112 a

precarious state of affairs since, as the World Bank admits, these off-farm earnings will fall when 'wage-income associated with site development ceases'.113 The Bank also notes the probability that any further 'slowdown in government investment in receiving areas … could result in declining migrant incomes and employment opportunities'.114

The cumulative effect of factors like these-in

a period that has indeed seen reduced spending by the Indonesian government has

been considerable. Despite all the emotional cost, stress and

upheaval of leaving their homelands, by far the majority of the migrants have not had their dreams for a better life or their aspirations for higher incomes fulfilled. On the contrary, as the Bank makes clear in its confidential Transmigration Sector Review: ‘Migrant incomes in the settlement areas are, on average, slightly lower than those in rural Java and significantly lower than those in the rural outer islands.‘115 Worryingly, the lowest incomes are not found amongst the least experienced settlers on the newest sites which

might be expected but,

rather, in places where migrants have been settled for six years or more.116

Because of such disturbing findings, and also in a long-overdue response to protests from environmentalists and human rights groups, some Western donors have reassessed the scope and nature

of their involvement in the transmigration programme. Since 1987, for example, the World Bank has been claiming that it is no longer directly financing the movement of people: its money is going instead into planning and preparing the sites to which settlers will be moved and into upgrading existing sites. A case in point is the Transmigration Second Stage Development Project which has received two loans from the World Bank, the first for $ 160 million and the second in

1988 -for $120 million.117 According to a letter dated 6 May 1988 from Russel Cheetham, a senior Bank officer, this project aims through the 1990$ to ‘improve the incomes and welfare of transmigrant families and local people living in the immediate surroundings [of transmigration sites] by upgrading infrastructure, improving food-crop production, introducing cash crops and improving social and environmental aspects’.115

Likewise, in a telex that I received on 30 June 1988 from the chief

of the Bank's Agriculture Operations Division, I was told that the latest transmigration project to receive a loan 'does not have a settlement component. It addresses the economic, social and environmental aspects of transmigration through extensive studies for settlements, as well as technical assistance for planning, construction, environment and land tenure issues.'119

While such assurances are welcome, there are elements of sophistry in the Bank's attempts to detach the particular operations that it now finances from the murky underbelly of resettlement in Indonesia: arguably support for any aspect of transmigration must be helpful in a fairly direct and tangible way to the programme as a whole, particularly when large sums of hard currency are involved. By the summer of 1988 the simple fact was that the Bank had only cancelled $63 million out of a total lending programme well in excess of $1 billion and had already disbursed $324 million in support of transmigration.120

Disbursements on this very large scale continue, justified by a virtual blizzard of reassuring statements to the effect that tribal communities will in future be protected and that the Indonesian authorities are now ‘showing sensitivity’.121 Meanwhile, however, Dyaks on Central Kalimantan are tricked into giving up their land rights by signing blank pieces of paper,122 and the Governor of Irian Jaya describes the indigenous Irianese as ‘living in a stone-age-like era’.123 Having launched a programme to separate Irianese children from their parents,124 this flamboyant individual called in December 1987 for a further two million Javanese migrants to be sent to Irian Jaya so that ‘backward’ local people could intermarry with the incomers-thus

‘giving birth to a new generation of people without curly hair’.125

Likewise, while the Bank tells us that its advocacy is helping the Indonesian government to pay more ‘attention to the environment, including forests’,126 the truth is that transmigration continues to

cause immeasurable ecological damage. In late 1987 forest fires, set off by transmigrants and loggers, raged unchecked over large parts of Kalimantan, Sumatra and Sulawesi with

an estimated 2 million hectares destroyed by October.127 Meanwhile, on East Kalimantan, logging alone had resulted in the destruction of a further 2.9 million hectares of forest by September 1987.128 Associated with site development for transmigration, much of this work continues to be carried out in a very careless and ill-disciplined way, leaving logged areas strewn with debris. The result is that when fires get out of control in densely settled areas they spread rapidly through the logging zones. In addition, trash and discarded logs dumped in dried-up stream beds have turned even these natural fire-breaks into fire hazards.129 ‘In these circumstances,’ says Stephen Corry, Director of the respected British charity Survival International, ‘the promotion of further transmigration into Kalimantan would seem highly

irresponsible.‘130

In 1988 Corry put this concern to Barber Conable, the World Bank’s President.131 The reply, however, was that there was no intention of withdrawing

‘assistance at this crucial stage”. On the contrary, Corry was told, the Bank’s ‘continued dialogue with the government’ will ‘lead to a better-managed programme’.132

There are good reasons to doubt this optimism for the effectiveness of ‘dialogue’ particularly

since the Bank admits in its own internal documents that the Ministry of Transmigration, with which the so-called dialogue is in fact being conducted, has only ‘limited capacity to influence

policies' in Indonesia.133 Furthermore, whatever the future holds, the fact remains that many hundreds of millions of dollars have already been disbursed by the Bank and other donors, thus inextricably associating Western taxpayers with a spectacularly expensive scheme that appears to have contributed virtually nothing to Indonesia's long-term development. On the contrary, at great cost to human rights and to the environment, transmigration's only 'success' has been to export poverty from Java where

it is visible to

the remote outer islands where it is hidden from view.

being part of the action

In this respect, as in so many others, transmigration and the Polonoroeste project have much in common. Unsurprisingly, then, the thing that immediately strikes most observers who have seen the

Indonesian outer islands and north-western Brazil is the depressing similarity of the destruction that Bank-financed development has wrought in both of these widely separated places:

It is hard to view without emotion [comments one such witness], the miles of devastated trees, of felled, broken and burned trunks, of branches, mud and bark crisscrossed with tractor trails especially

when one realises that in most cases nothing of comparable value will grow there again. Such sights are reminiscent of Hiroshima. Brazil and Indonesia might be regarded as waging the equivalent of thermonuclear war upon their territories.134

Accused of being an accessory to such brutality Barber Conable has a ready answer: 'Where development is taking place,' he says, 'it cannot be halted, only directed. The Bank cannot influence progress from the sidelines. It must be part of the action.'135 Indeed, when cornered, the President's strategy -understandably enough is

to deny vigorously that the institution he heads is in any way violent or destructive. On the contrary, the Bank is wise, gentle and far-sighted: by engaging in ‘policy dialogue’, therefore, and by ‘being part of the action’, it can guide even the most vicious and recalcitrant governments towards the path of virtue.

The record, however, suggests otherwise. At best, the Bank’s guidance seems to be a case of the blind leading the blind. At worst, and far more frequently, it participates in a kind of destructive synergy: working as a team with its client of the day it can make things much, much worse for the poor -and for the environment than

would have been possible otherwise.

Polonoroeste stands out as the classic example of this kind of rampant and calamitous folly: colonisation of Rondonia, genocide of the province’s ‘backward’ native peoples, and wholesale forest clearances were little more than glints in a crazed and bureaucratic

eye prior to agreement between government and global lender. It was the paving of Highway 364 paid

for by the Bank -that made all these things immediately possible. Today, with thousands of people dead, hundreds of thousands hungry and desperate, and countless millions of trees felled, even Mr Conable describes the Polonoroeste experience as ‘sobering’ and admits in hushed tones that the Bank ‘stumbled’ that

it ‘misread the human, institutional and physical realities of the jungle and the frontier’.136

It has been said that ‘pride, perceiving humility to be honourable, often borrows her cloak’.137 The Bank’s willingness to come clean on the mistakes that it has made in the Brazilian north-west may be a case in point because

there are very few signs that it has learned from those mistakes: in

Brazil, tropical forests covering an area bigger than Belgium were burnt by settlers and cattle ranchers during 1988. Commenting on thisin1989 Orlando Valverde, a leading conservationist, said: ‘1988 was a black year for the Amazon. The destruction was incredible, the worst in Brazilian history.‘138

Thus, together with most of the other members of the international consortium of aid donors with which it cooperates, it seems fair to say that the Bank has a very brief and selective institutional memory and can conveniently forget its more embarrassing and painful errors. Such corporate amnesia, however, has an ongoing price both for the environment and for the poor.

This price is not only being paid in Brazil and Indonesia.

big ranches and big dams

In 1972, in the southern African country of Botswana, the Bank

contributed $1.65 million to the total of $5.4 million subscribed by international aid agencies to finance cattle and sheep ranches in the environmentally sensitive Western Kalahari. The project which

was eventually completed with a budget over-run of $2.9 million resulted

in dangerous overgrazing of the fragile savanna grasslands but, unfortunately, produced no benefits at all. Despite optimistic projections of a 21 per cent yield, the final economic rate of return proved to be below zero. Undeterred, however, the Bank and other donors were back in Botswana in 1977 to finance 'Livestock II' in the same region a

$13.4 million scheme to establish 100 ranches on collectively owned lands. Bringing with it further overgrazing and desertification, this project was finally completed in 1984; audited, its economic rate of return was judged to be 'inconsequential'.139

Perhaps to prove that bad things always come in threes, the Bank has now approved a further $10.7 million loan for yet another project of the same typeinthe same area. It is already clear that ‘Livestock UP will benefit only a few large ranchers: small farmers struggling to survive on increasingly stressed communal grazing lands receive no help at all. In addition the very existence of the

project contravenes the advice of the Bank’s own livestock consultants who argued against it on the grounds that it would have ‘such negative social effects as widening the income gap between rich and poor, permanently concentrating the country’s land resources in the hands of a tiny percentage of its occupants, and depressing the already limited subsistence capabilities of its poorer citizens’.140

Worldwide $1 billion has been ‘wasted over the past fifteen years

on ill-conceived projects' in the livestock sector, according to FAO.141 Vastly more, however, has been spent in another area of development -large-scale

irrigation and hydroelectric schemes based on the expensive infrastructure of big dams.

In the last forty years literally thousands of dams have been built in the Third World, absorbing colossal amounts of aid. The experience thus garnered, however, has not been correspondingly immense. On the contrary, with the commissioning of each new dam, it seems the agencies are destined to reinvent the wheel: to be genuinely surprised by the human, ecological and economic damage that this kind of project can cause, and to do nothing in advance to mitigate the harm.

An early lesson should have been learned in Ghana. Here in the 19505 and 1960$ the World Bank took the lead amongst the group

of aid agencies that planned, implemented and provided the soft loans to pay for the giant Akosombo Dam on the Volta River. Certainly, very substantial benefits have since been extracted from this project by foreign interests notably

the US-owned VALCO aluminium plant which, for more than twenty years, has been supplied with hydroelectric power at substantially below production cost. To the detriment of the local economy, however, VALCO's operations are based on the smelting of imported alumina which has previously been refined in Louisiana from Jamaican bauxite; Ghanaian bauxite is not used.142

The dam has also benefited wealthy Ghanaians: driving from Accra to Akosombo one cannot help but notice how the transmission-lines that run from the hydroelectric plant to the most prosperous districts of the capital simply pass over the many impoverished villages en route as

though they did not exist. It is, however, the inhabitants of these same poor villages, still without electric light, who have paid the real price for the project:

It is they who now suffer in the largest numbers from endemic onchocerciasis (river blindness) which affects 100,000 people, of whom 70,000 have been rendered totally sightless since completion of the dam;

It is amongst their ranks that at least 80,000 more people have been permanently disabled as a result of schistosomiasis, a parasitic water-borne disease carried by two species of snail that are now the commonest molluscs in the Volta reservoir;

And, almost needless to say, it was these poor rural people not

the inhabitants of Accra who

were amongst the I per cent of Ghana's population displaced (virtually without compensation) when the Volta reservoir began to fill up in the 19605.143

For these reasons, and for some time probably

since at least the mid-1970s -one thing has been clearly understood by all the aid agencies which financed the Volta dam: while contributing little or nothing to the Ghanaian economy, this mega-project has infinitely worsened the predicament of the Ghanaian poor.

Detailed studies in other countries have, furthermore, made it quite clear that the Volta fiasco was not an isolated incident: the same kinds of problems crop up so frequently with large dams that they can now be regarded as inevitable by-products of the genre.144 These problems are typically long-term and in some cases are so severe as to counteract completely any economic benefits that dams

may produce. As one authoritative paper from the Washington-based World Resources Institute puts it:

Diseases have spread, whole communities have been displaced and valuable crop and forest lands have been flooded . . Tens of millions of hectares of agricultural land have been lost through waterlogging and salinisation … In India, 10 million hectares have been lost to cultivation through waterlogging, and 25 million hectares are threatened by salinisation. In Pakistan more than half the Indus basin canal system command area, some 12 million hectares, is waterlogged, and 40 per cent is saline.

All in all, the mania for building large dams has meant that, today, ‘half the world’s irrigated land is salinised badly enough that yields are affected’.145

Worse still, the Damoclean sword of sedimentation hangs over all dams: sooner or later any reservoir, however large, will fill up with

the silt and other detritus which the dam prevents from flowing downstream.146 When that happens, of course, the dam must be decommissioned: without its reservoir, it is no more than a useless slab of concrete. This is not mere speculation. To give just a few examples:

In India the projected siltation rate of the Nizamsagar Dam in Andra Pradesh was 530 acre-feet a year. The actual rate has turned out to be 8,700 acre-feet a year, As a result the dam's reservoir has already lost more than 60 per cent of its storage capacity. Virtually every reservoir in India is currently suffering from similar problems.147

In Haiti, the Peligre Dam on the Artibonite River was completed in 1956. Built to last fifty years its reservoir has silted up so quickly that it was decommissioned in the mid-1980s.148

In China, the Sanmenxia Reservoir, which was completed in 1960, had to be decommissioned in 1964 owing to premature siltation.

Another reservoir, Laoying, actually silted up before its dam was completed!149

Although such cautionary data are available to the aid community, nothing much has changed. The World Bank and other donors consistently postpone serious investigation of alternatives to big dams and, in the mean time, continue gleefully to commit huge sums of money to ecologically and economically unsound water-development schemes many

of which bear strong family resemblances to old projects that have failed. Recent schemes which are either about to receive or have already received funding from the Bank and/or other Western aid donors include the Three Gorges Dam on China's Yangtze River, the Diama Dam and the Manantali Dam in Sahelian West Africa, the Bakolori Dam in Nigeria, the Tucurui Dam in Brazil, the

Balbina Dam, the Itaparica Dam and the Paradao Dam, also in Brazil, the Itaipu Dam on the Parana River in Brazil/Paraguay, several major dams on the Mahaweli River in Sri Lanka, the Tarbela and Kalabagh Dams in Pakistan, the proposed Bardhere Dam in Somalia, and the proposed Chico Dams in the Philippines.150

It is India, however with

its 10 million hectares already waterlogged, with its 25 million more threatened by salinisation that

continues to be the happiest hunting ground for aid agencies looking for super-dams to finance. The long-term and heavy emphasis placed by successive Indian governments on the expansion of hydroelectric power and of large-scale irrigation has resulted in the construction of more than 1,000 dams in the past ten years.151 Amongst these, a recently launched project the

Sardar Dam on the westward-flowing Narmada River-looks

set to repeat many of the best-known and most avoidable mistakes in water-development.

Sardar Sarovar received a loan commitment of $450 million from the World Bank in 1985, despite the fact that India's Department of Environment and Forests had at that stage not granted environmental clearance for the project because major studies relating to environment and resettlement had not been completed. These studies were still not complete when the Indian government forced through the legislation in the spring of 1987 that gave the dam the needed environmental clearance.152

Filling of the reservoir is displacing over 70,000 poor rural people from their homes, against their will and without adequate compensation: in most cases no provision has been made to resettle them and they must simply re-establish their lives wherever they

can.153 Apart from the human rights abuse that this implies there is, according to the Washington-based Environmental Defense Fund, ‘substantial risk of unsustainable ecological stress from the movement of these displaced people up into the hills surrounding the reservoir. These areas are already suffering from deforestation, sheet erosion and other environmental degradation.‘154 In addition, included in the 900 square kilometres to be flooded by the dam are some 12,000 hectares of pristine rainforest. ‘Along with the forest many rare species, flora and fauna, as well as an entire life rhythm cultural

and social will

be lost,’ warn six of India’s leading scientists and environmentalists in a letter to Prime Minister Rajiv Gandhi.155

A study by the Indian Council of Science and Technology predicts that completion of work at Sardar Sarovar will result in increased

malaria, cholera,

The Midas Touch

viral encephalitis, and other water-borne diseases for millions of local people.156 Meanwhile, there is no guarantee that the project will justify itself in the long term, even on purely economic grounds. Serious questions have been raised by nongovernmental organisations, environmentalists and scientists regarding the cost-benefit analysis which the World Bank and the Indian government have relied on to validate the dam.157

The Greater Narmada Programme, of which Sardar Sarovar is only a part, ultimately envisages the expenditure of billions more dollars on at least twenty-nine other major dams along the Narmada River; several of these are already being actively appraised for funding by the World Bank even though it is known that their construction will involve the displacement of more than 1.5 million people mostly

of tribal and minority origin. Alternatives such as energy-efficiency improvements, and the building of smaller-scale dams which would be environmentally, socially and economically less risky, have not even been considered by the global lender in its Gadarene rush to commit ever larger sums to India's most grandiose 'development' scheme.158

lend big, lend fast

Of course the Bank is in the business of lending money for development. If it stops doing that, then it ceases to have a role. Conversely, the more lending that it does the more important its role becomes. This creates a pressure within the institution to make loans big and to make them quickly and, frequently, leads to important little details being neglected quality

control, for example, attention to the usefulness of projects, efforts to establish whether they will do harm, and so on. What gets

forgotten most often and most easily is the welfare of the poor: too much time spent worrying about peasants and paupers, too much effort spent carefully devising projects that take people into account, would definitely slow down the flow of money.

Thus the Bank's mounting enthusiasm for structural adjustment loans, evident since these were first introduced in 1980 (see Part Two for further details), is almost completely explained by the fact that twice as many dollars per staff week of work can be disbursed by SAL as by any other instrument.159 As Sheldon Annis of the Washington-based Overseas Development Council observes, the result of this is that 'ambitious Bank staffers' increasingly 'gravitate towards work on structural adjustment rather than towards poverty-focused projects'. It is as pan of precisely the same internal dynamic that young men and women seeking to 'go places' are drawn by the powerful lure of big, high-profile, high-tech schemes, like Sardar Sarovar, and by schemes which involve a particularly grand design

Indonesian

transmigration, for example, which envisages nothing less than the restructuring of an entire society. Projects of this kind have the capacity to absorb very large loans very quickly characteristics

that must appeal strongly to zealous staff in a World Bank where top executives hand out merit awards exclusively on the basis of the gross amounts of money that the departments under their supervision are able to commit;

quite literally, the more you spend, the ‘better’ you are judged to have done. Thus, speaking of the operations of the IBRD in July 1987, Bank President Barber Conable was able to say with some pride: ‘The 1986-7 fiscal year, which ended on 30 June, was a success; our commitments represented $14.2 billion as against $13

billion in the previous year.‘161

In the Soviet Union an apocryphal story is told of a factory which met its annual production target of 50,000 tonnes of nails by producing fifty nails each weighing 1,000 tonnes. Too often Mr Conable’s World Bank is like that plant and its projects are like those nails: large, cumbersome, useless and possibly dangerous. Not all members of the Bank’s staff, however, are indifferent to the implications of a regime that defines ‘success’ in purely quantitative terms; indeed, at almost exactly the same moment that the President was crowing about spending $1.2 billion morein1987 than in 1986, the Bank’s own Operations Evaluation Department was cautioning that ‘the drive to reach lending targets’ is ‘potentially damaging’ and is ‘a major cause of poor project performance’.162

Like Cassandra, the Trojan seer whose fate it was to prophesy truly and not be believed, the OED has made almost identical observations virtually every year since 1975 when it began

compiling its Annual Review of Project Performance Results. To this day, however, the drive to fulfil lending targets to

‘succeed’ by spending ever more money maintains

its primal importance for the staff of the World Bank and continues to harm the poor while short-changing Western taxpayers.

A recent extensive internal audit done by the OED described one disastrous rural development project in the impoverished Caribbean island of Haiti as ‘an example of the effects of Bank pressure for rapid project launching, despite scant Bank acquaintance with the country’.163 The desire of staff to win pats on the back from senior management for lending quickly and in large amounts also lay behind the cancerous growth of the Papaloapan Integrated Rural Development Project in Mexico. Here the auditors found that, although relatively good work had been done at an early stage, ‘the initial design (based upon pilot activities) was completely changed

by the appraisal mission the

project area was extended sevenfold to cover the entire Papaloapan basin, with costs increasing from $26 million to $111 million and later to $138.5 million'. This expensive project closed three years behind schedule with barely half of its original components implemented and was judged by the auditors to have been a catastrophic failure a

failure attributable almost entirely to 'the Bank's pressure for quick action'.164

Mexico and Haiti were not the only Third World countries to be lent large sums of money for something that they didn't need by Bank officers zealously promoting their own careers. At the Morondova Irrigation and Rural Development Project in Madagascar, for example, the auditors detected 'an unseemly pressure to lend', highlighted an appalling 'lack of consensus between the Bank and

the borrower' and stated their regret that the government, which in fact had 'serious reservations', was nevertheless 'pressured to accept the project'.165 The conclusion of the Operations Evaluation Department is that 'it is neither in the Bank's nor in the individual borrower's interests to embark on non-viable undertakings on the basis of lending targets'.166

Year in year out, however and

in true Soviet-factory style this

is precisely what the Bank continues to do. It is thus probably not entirely coincidental that, out of a representative sample of 189 of its projects audited worldwide, no less than 106 almost

60 per cent were

found in 1987 either to have 'serious shortcomings' or to be

‘complete failures’.167 A similar proportion of these projects including

many judged in other senses to be ‘successes’ were

thought unlikely to be sustainable after completion.168 Furthermore, it is in the poorest countries of the world, and amongst the poorest segments of the populations of these countries, that the Bank does worst. In sub-Saharan Africa, for example, 75 per cent of all agricultural projects audited were found to have failed.169

An even more extensive series of audits produced by the Operations Evaluation Department in 1988 again found high failure rates, particularly in the poorest regions,170 and drew special attention to the increasingly serious issue of sustainability. Out of a total of 246 projects reviewed, fully 50 per cent were found to have ‘unlikely, marginal or uncertain’ sustainability, with this figure rising to 70 per cent in, for example, impoverished West Africa. Another recent

OED report which

has not been distributed because its findings are so damning looked

at the fate of twenty-seven agricultural projects approved by the Bank between 1961 and 1975 (all of which were judged to be successful at the time disbursements were completed). The report concludes that only nine of these projects achieved any kind of longer-term sustainability, ten failed outright, and eight had marginal or uncertain results.171 In accounting for this worrying lack of sustainability, the auditors point to the 'generally too optimistic outlook' on the part of staff presenting project loans for approval by the Board, and again criticise the priority that the World Bank seems to put on meeting lending targets rather than 'on supervision'.172

The Bank is by no means the only major aid institution at which staff can earn Brownie points from their superiors by spending big

and spending fast, even when such behaviour results in bad projects. A former employee of the Canadian International Development Agency says that, in government circles in Ottawa, CIDA's performance is measured almost entirely by its ability to spend the funds allocated to it within the allotted tune. 'So, too,' he adds, 'is the performance of individual staff members … progress is measured by the quantity of disbursements.' Unsurprisingly, therefore, CIDA officers tend to attach themselves to 'those channels and projects where rapid disbursement potential is maximised'.173

Likewise, David Deppner, a former USAID official, recalls:

The entire management system at AID was based on how much money we spent; we were paid or promoted according to the size of our projects. No administrator wanted to lie awake at night worrying about a dozen

little projects when he could spend his time moving money around in big blocks. Since it's just as easy to administer a twenty million dollar project as it is a twenty thousand dollar project, the logic is why

not go for the biggie?174

small Is difficult

Somewhat ironically the tendency to 'go for the biggie' is to be seen at work even on those rare occasions when the American agency is making conscious efforts to introduce small-scale projects and 'appropriate' or useful technologies to impoverished parts of the Third World. This has proved to be the case, for example, with its much vaunted Renewable Energy Programme. Auditors from the US government recently inspected a solar-powered electrical system

that AID's experts had installed at a cost of $713,000 in a poor rural village in India. The system included exceptionally complex solar thermal collectors, a steam engine, associated controls, motors and pumps which could only be operated and repaired by highly trained technicians.

A more inappropriate technology for a remote site occupied by uneducated villagers [the auditors concluded] is hard to imagine… Electricity has the potential for drastically altering the lives of the rural poor. It can give them light, entertainment, new appliances and new opportunity to earn income. But an electrical plant that is much more difficult to maintain and far more costly than a diesel set, and that requires three trained engineers in residence, is not the solution.175

Other projects of this type that the auditors looked at in

India, the Philippines and the Dominican Republic were

found to have involved excessive equipment costs. Some individual components, which in the event of a breakdown would have to be replaced by the ‘beneficiaries’ at then-own

expense, had price tags ranging from $25,000 up to $615,121. These included, inter alia:

A rice-hull-fed thermal power plant in the Philippines cost

$528,000;

A solar drier in the Dominican Republic cost

$500,000;

A small-scale hydroelectric system in India cost

$467,000.

The rural poor cannot afford such costs,' the auditors rightly concluded, noting in addition that the computer system required in the Indian hydroelectric project (to distribute power between uses such as irrigation and household lighting) was so complicated that normal commercial software could not be used; as a result it had been necessary to develop specialised programmes. The auditors also expressed serious concern about the long-term durability and reliability of a microcomputer used twenty-four hours a day in a location that was far off the beaten track, and noted that the technical expertise to maintain this complex system was not available in the village.176

Many more of the supposedly small-scale and appropriate projects in which AID has invested US tax dollars with the explicit objective of assisting the rural poor in developing countries were found at audit to have been devised without any understanding of the problems that poor people actually face. As a result, most of these

projects were abject failures. For example:

The anaerobic digestor component of a $4.5 million project in Mali was ‘not suited to the needs of the poor’. The purpose of the digestor was to produce gas from animal dung; the end product, however, was ‘too expensive for intended small-scale uses such as cooking’. Worse still, inputs of water and dung required for continuous operation were scarce, and daily filling and cleaning of the digestor required exhausting and time-consuming physical labour from people already weakened by malnutrition.

Likewise:

Because of persistent economic and technical problems, a $3 million sub-project in the Philippines involving biomass gasifiers was ‘unacceptable’ to the villagers who were supposed to benefit from it. At the time of the audit only two of the total of 103 gasifiers installed in one region of the Philippines were in fact operational.

All in all, the auditors' judgement of USAID's renewable-energy projects is damning: they were not helpful to the poor because they were 'not simple and inexpensive to build, use and maintain', they required 'large capital investments', and they involved 'high operating costs'.177

Other audits of more conventional development projects that the agency has financed and implemented around the world illustrate the same kinds of mistake being made again and again an

addiction to highly priced technologies and to grandiose and irrelevant schemes, a culpable lack of empathy for the poor on the part of staff and consultants, and repeated failures to take into account in project design the harsh realities of Third World existence.

In Egypt USAID disbursed $108 million during 1986-7 to pay for the construction of a huge gram silo complex at the Red Sea port of

Safaga. The complex incorporated ultra-modern offloading equipment and other advanced design features intended to save operating time and reduce grain losses. As the project neared completion, however, the Inspector General for Audit uncovered a crucial oversight: locally available electricity supplies were completely inadequate for the proper running of the space-age complex with its vast daily demand for power. The only possible solution, therefore, was to spend more money: $6.5 million to cover the cost of four diesel generators with a capacity of 3,000 kilowatts each. This USAID promptly agreed to do; however, it was thought unlikely that the new units could be imported, installed and functioning before 1989. ‘For about two years after completion,’ the audit notes with regret, ‘the complex will have to be operated on a reduced basis thus

mitigating to a large extent the benefits contemplated when the project was approved.‘178 Another typical USAID scheme where

the anticipated benefits have been substantially ‘mitigated’ by hasty design and implementation is the $23.1 million Integrated Rural Development Project in Peru. Here a recent audit uncovered a series of prize snafus amongst

them a road which was supposed to connect the villages of San Marco and El Azufre. The road was listed as being 7.2 kilometres long; after the auditors had travelled no more than half a kilometre on it, however, they found that it ‘abruptly ended at the edge of a river’. It transpired that a bridge was to have been built here but work had been prevented because of strenuous opposition from local peasants who farmed on the land around the river banks. Such opposition would not have been encountered, the auditors discovered, if the road had been cut from a different angle approximately 2.5 kilometres further up-river. USAID had not looked into this option. At considerable expense, however, as the auditors could see when they peered across the fast-flowing waters,

the agency had completed construction of the road on the other side of the river despite

the impossibility of ever building the bridge to link the two sections.179

cathedrals in the desert

Roads that end in rivers and then continue blithely onward on the other side, silos without power supplies, highly sophisticated equipment that no one can use installed in remote places, aquaculture projects producing fish at $4,000 per kilo for consumption by African peasants who do not even earn $400 a year, dams that dispossess thousands and spread fatal water-borne diseases, resettlement schemes that make the migrants poorer than they were before they left home, that destroy the environment and that obliterate tribal peoples such

blunders are not quaint exceptions to some benign and general rule of development. On the contrary, they are the rule. In consequence, the Third World today is Uttered with the festering carcasses of many prodigious white elephants.

A classic example is provided by the Kenana sugar complex in the Sudan, a country that, fittingly enough, has hunted all its genuine four-legged elephants to extinction. The result of a feasibility study done in 1974, which put total costs at a containable $150 million, Kenana eventually started producing refined sugar in 1981. By then the final bill for the plant had risen to an awesome $613 million.180

Believed to be the largest scheme of its kind ever created, there is almost nothing about Kenana that looks right in the Sudanese context. The 40 megawatt power-stati

on, the network of conduits and canals (the main one twenty miles long), the pumping station to lift the waters of the Nile 150 feet from the canals to the fields, and the factory capable of crushing 17,000 tonnes of sugar a day181 all

these ingredients and many more seem to belong in some futuristic vision of an advanced agro-industrial economy rather than in the heart of one of the very poorest countries in a destitute continent.

Neither does the feeling of unreality, of something being seriously wrong and out of place, end here. In line with the World Bank's insistence that Sudan The Midas Touch

should earn more foreign exchange, Kenana was originally intended to export sugar on a large scale. Unfortunately, however, the project site-at Kostion the White Nile is

separated from the nearest port by more than a thousand miles of

bleak and burning desert. Since there is a huge surplus of sugar on world markets, and since this state of affairs keeps the international price for the commodity low, there is just no margin for heavy transportation costs. As a result, although sugar is produced at Kenana today, it is sold almost exclusively in the Sudan itself-and

at a price significantly higher than that of imported sugar.182

The main beneficiaries of the project are the 400 expatriates who run the entire show. Each of these managers receives a very substantial salary, of which the bulk almost

70 per cent is

denominated in foreign currency payable abroad. There are also some 15,000 Sudanese labourers; most, however, are migrants from quite far afield and live in dormitories around the site. By contrast only 2 per cent of the indigenous Kenanian tribe have found work:

they are paid at the rate of approximately $3 per twelve-hour day.183

Kenana is matched in both scale and unsuitability by another Brobdingnagian Sudanese scheme the

Jonglei Canal, which was intended by the consortium of aid agencies that backed it to draw water off from the Nile's swamps in order to irrigate much of the southern part of the country. Construction of the canal, which began in 1978, called for the use of nothing less than the largest mobile excavating machine in the world.184 This juggernaut was bought second-hand and required constant maintenance by costly teams of foreign technicians; it also had an insatiable appetite for spare parts, consumed lakes of imported fuel, and crawled forward so slowly that, after two years of digging, the Jonglei had fallen seriously behind schedule so

seriously in fact that the Sudanese government defaulted on its own

share of the payments to the French company that had won the construction contract.

Fresh infusions of international aid made it possible for the excavations to continue, presumably on the tried-and-tested donor principle that no opportunity to throw good money after bad should ever be wasted. By this time -1980 it

was already being estimated that the canal would cost at least three times as much to complete as had originally been budgeted.185 An even more fundamental problem had also emerged: hostile opposition from southern Sudanese peasants who feared that an invasion of wealthy northern farmers would follow the Jonglei's slow but remorseless progress. Aid agencies ignored the frequent protests that were made, but were soon to regret doing so. When the long-anticipated civil war finally broke out between north and south in 1983, the first action of the newly formed Sudan People's Liberation Movement was to hit the Jonglei Canal. Foreign workers

were kidnapped and the giant digger was closed down. It remains closed to this day a

monument to bad development.

Similarly, on the island of Phuket, one recent World Bank project a

$44 million tantalum-processing plant was

regarded as such a fiasco by the local inhabitants that they burnt it down. Keen to disburse funds rapidly, and

indifferent as ever to the opinions of the poor, the Bank had not taken the trouble to canvass local opinions of the scheme before going ahead with it. The islanders, however, knew that the huge ore-refinery would be messy, noisy and would thus represent a serious

threat to the tourist trade which provided the majority of their incomes. When it became clear in addition that the plant was capital intensive and

would create only a few new jobs a

rational decision was taken by all concerned to get rid of it; accordingly it was razed to the ground shortly before its doors were due to open for business.186

This example of poor people taking action against a project which did not offer them any benefits indeed,

imperilled them and

seemed largely to be in the interests of faraway investors and consumers, is rare indeed. Usually the money of international development agencies, combined with the muscle of borrower

governments, is enough to enforce acceptance of any scheme - however irrelevant, cruel, unusual or hare-brained it in fact may be.

Britain's Overseas Development Administration has a consistent track record of working closely with Third World governments to devise projects that by-pass or actually harm the poor. In Karnataka, India, a forestry scheme funded by the ODA has planted a great many quick-growing eucalyptus trees. The original purpose of the project was to provide fuel-wood and animal fodder for landless peasants and small farmers in the area; the eucalyptus, however, is a tree that is not at all suitable for such purposes. Cattle will not eat its bitter aromatic leaves and it is thus quite useless as a source of free fodder. Likewise, its stem grows straight up for several feet well

above the height of a man and

there are no side branches within reach that can be broken off and taken away by villagers for firewood. Neither does felled timber

from the Karnataka scheme help the rural poor. Because of commercial pressures, most now goes to provide pulp for the Mysore paper mills. The little that remains is sold in the markets of Bangalore as fuel for better-off urban consumers.187

Another ODA project at

Cajamarca in Peru has

had equally dubious results. This scheme encouraged small farmers to invest in dairy cows by providing them with loans and veterinary services. There was only one customer for the milk produced, however: a major multinational company which was able to use its monopoly position to preside over a sharp fall in the price paid for milk at the farm gate. The farmers today are caught in a poverty trap: then: earnings are too low even to repay the original loans and they cannot sell their cows since nobody wants to buy the valueless beasts.188

So often, development initiatives that begin with the best intentions end up going as sour as the milk produced by those cows in Peru. In the Mayan Indian highlands of Guatemala, for example, a giant hydroelectric dam, the Chixoy, stands today as a salutary reminder of the misguided folly of so many ‘developers’. Originally budgeted at $340 million, the construction costs had rocketed to $1 billion by the time the dam was opened in 1985. This money was lent to the Guatemalan government by a consortium of Western aid agencies, with the World Bank and the Inter-American Development Bank taking the lead; however, it will have to be paid back by the Guatemalan people out of taxes. To this burden must be added the 70 per cent price-hike for domestic electricity that has been imposed since the dam’s hydro power began to provide three-quarters of the nation’s electricity needs. According to Robert Balsells, whose misfortune it is to be President of the state-owned electricity company at this time, the implications for the average Guatemalan are grim. Indeed, paying for the Chixoy will mean ‘going without

medicines and food … We were poor before, now we are miserable.‘189

Irredeemably out of touch with poor people, and with the tedious day-to-day realities of their lives, it is little wonder that the World Bank and its partners in development so consistently come up with bizarre and extraneous projects like the Chixoy Dam projects

that are worthless, or even harmful, to those they are intended to benefit. More often than not big, fanciful, extravagant, and high-tech, such schemes do, however, meet the bureaucratic needs of the agencies themselves, the psychological and career needs of their staff, and the commercial needs of suppliers from whom equipment and services are procured.

As the saying goes, it’s an ill wind that blows nobody any good.

PART FIVE

winners and losers

Public money is like holy water; everyone helps himself to it.

Italian Proverb

In Africa, a complex and very expensive irrigation scheme on the banks of the Niger River at Namarigounou has recently been abandoned and its ultra-modern equipment lies derelict: the government that was given the project as aid cannot afford to meet the astronomically high running costs. Meanwhile, just a few kilometres away, international donors are paying $17,000 per hectare to construct another virtually identical scheme. Western

contractors providing the equipment, and Western consultancies responsible for the design and supervision, are probably going to be the only long-term beneficiaries of the total investment of $25.5 million.1

This is already clearly understood by all concerned, but no one seems to mind very much after

all, since the funds have been provided by Western taxpayers it is fitting that they should circulate back to Western businesses. There is, of course, an argument that smaller investments in rainfed agriculture, making full use of established local skills, might actually grow more food; such grassroots initiatives, however, offer little mileage for rich-country suppliers.2

Here is a rule of thumb that you can safely apply wherever you may wander in the Third World: if a project is funded by foreigners it will typically also be designed by foreigners and implemented by

foreigners using foreign equipment procured in foreign markets.

Thus British trucks, Russian tractors, German combines and Japanese machinery are all to be found on farms run by the Bangladesh Agricultural Development Corporation, and it is quite normal for each item to be accompanied by an expert or technician from the donor country. The British are particularly active, with Technical Cooperation Officers and VSO workers installed on every farm to look after the British equipment. Similar arrangements are also in force in virtually all other sectors of an economy where an impressive 90 percent of the national development budget is contributed by foreign aid.3 UK assistance alone runs at around Ł40 million per annum;4 in some years, however, less than I per cent of this total amount is actually spent in Bangladesh the

rest is used to import British goods and to pay the salaries of British experts.5

In nearby Nepal, the extent of foreign involvement in the national

development effort is so great that, in some schemes, it is genuinely difficult to discern whether the real beneficiaries are even intended to be the Nepalese poor, or whether, in fact, the whole exercise has been designed around the needs and interests of expatriate corporations.

The Rapti Area Rural Development Project, financed by USAID, is a case in point. Here just one foreign contractor -PADCO,

the Washington-based firm that is providing technical assistance has

succeeded in taking 20 per cent off the top of the $24 million expended so far.6 PADCO has also been intimately involved in another AID venture, the Town Development Fund'. Based in

Kathmandu, this owes its existence to recommendations that came out of an earlier ‘Urban Development Assessment’, which was also paid for by AID and also carried out by PADCO. With the preliminary $1.3 million ‘management-support’ phase only recently under way the project has already given incestuous birth to yet more business for PADCO, as well as for another US consulting firm. Further lucrative work for a number of American companies is in the pipeline: the size and complexity of coordination required in running the scheme are thought to rule out any effective Nepalese participation.7

aid and trade

From Kathmandu to Quito and from Thailand to Timbuktu, a stirring and egalitarian emblem has, for many years, been the symbol of America’s altruism: two hands one

black and one white shaking

above the logo ‘Gift of the People of the United States’. Often, though you would never guess it from the packaging, the ‘gift’ in question is a loan. Even when it is an outright grant, however, the generosity involved is qualified. During the period 1960-70, for example John

F. Kennedy’s idealistic ‘First Development Decade’ studies

showed that 99 per cent of all the funds provided by AID for development in Latin America were in fact spent in the USA, and on products that were priced on average at 35 per cent above their world market value.8 Even today 70 cents out of every dollar of American ‘assistance to the Third World’ never actually leave the United States.9 The Agency for International Development spends an awe-inspiring $7 billion a year purchasing goods and services directly from domestic companies and contractors: New York, Pennsylvania, North Carolina, Illinois and Texas get the lion’s share of the patronage, but no state is ever entirely left out.10 In the

process, as AID itself claims, ‘thousands of jobs’ are created ‘here at home’.11

The story is the same in virtually every aid-giving country. The UK allocates some Ł850 million a year to its bilateral aid programme.12 Out of this substantial sum, around 80 per cent is typically spent on the purchase of British goods and services13 a

share that approaches 100 per cent in the case of some recipients, like Bangladesh.

The already high level of domestic procurement routinely financed by British ‘overseas’ aid is, furthermore, increased by a special tranche of money concealed within the bilateral budget that is used solely and specifically to help UK exporters to secure contracts in the developing world. Known as the

Aid-Trade Provision (ATP), this slush fund was originally

established in 1977 and has since become increasingly important: in 1984, despite widespread famine and other emergencies, ATP handouts to UK firms used up almost twice as much of Britain's official development assistance as did disaster aid, food aid and debt relief for the whole of sub-Saharan Africa.

From an administrative point of view, ATP is a joint creature of the Overseas Development Administration and the Department of Trade and Industry. The former provides the money (out of tax revenues) but it is the latter that decides how the money should actually be spent. The financing arrangements for normal aid projects are agreed directly between the Overseas Development Administration and the recipient government in the Third World; ATP funds, however, have to be sought initially by the aspiring British exporter, who makes an application to the DTI. Thereafter, the amount of aid eventually offered is based almost exclusively on the Department's estimate of the size of subsidy needed to win the contract (rather

than on any merits or drawbacks that the project may have from a developmental point of view). Furthermore, it is stipulated very clearly that ATP is not ‘available for business which could reasonably be expected to be won on normal commercial terms’.15

In virtually all international forums, and for many years, the British government has declared itself to be staunchly in favour of free enterprise; it thus seems odd to discover that a growing slice of the official aid budget, rather than being used to help the poor, is in fact earmarked for a determined effort to subvert global market forces. ‘Lame duck’ companies that fail to trade competitively should, Prime Minister Margaret Thatcher has insisted on a number of occasions, be allowed to ‘go to the wall’, yet ATP uses public money to give a competitive edge in circumstances where, otherwise, none would exist.

The British are not kept well informed about the Aid-Trade Provision. One detailed report on the subject, commissioned by the

Overseas Development Administration, was judged to be too critical and was suppressed just prior to publication; it is now covered by the Official Secrets Act.16 Careful research has revealed, however, that a surprisingly small number of large corporations have been the main beneficiaries of the scheme. Between 1978 and 1985, Ł328 million in aid was allocated as ATP; of this more than half-pounds 166 million went

to just four companies. GEC and NEI, both major electrical engineering firms, got respectively 49 pounds million and 47 pounds million from the British taxpayer; Davy McKee and Balfour Beatty each got about 34 pounds million during the same period.17 In 1986 the Biwater Group of Dorking, Surrey, benefited from the largest single allocation ever made under the Aid-Trade Provision -60 pounds

million in support of a water-development project in Malaysia.18

the generous Neither is the harvest that UK industries reap from official aid budgets confined to bilateral allocations. Approximately 40 per cent of total development assistance is channelled through multilateral agencies like the UN's Food

and Agriculture Organisation and the World Bank. Although these can spend the money where they like, the record shows that Britain gets a very good return indeed on its 'investment' in the multilateral sector-in

fact it repeatedly wins procurement contracts worth significantly more than it puts in. Thus in a recent year British taxpayers provided multilateral aid agencies with Ł495 million; in the same year, however, British firms received contracts worth 616 pounds million from those agencies.19 In another year the multilateral institutions received 531 pounds million of British money and 637

pounds 2 pencemillion boomeranged back in the form of business placed with British companies.20 According to the Overseas Development Administration, multilateral agencies can normally be relied upon to purchase British goods and services with a value equivalent to 120 per cent of Britain's total multilateral contributions.21

The spending of the United Nations Development Programme bears this out. In a typical year, when Britain's contributions to the agency totalled Ł17.5 million, UNDP purchased UK goods and services worth 23 pounds 54 pencemillion: a net gain of 6 pounds million. Among the recipients were British Leyland (444,000 pounds for the supply of Rover cars), Racal Decca (459,000 pounds for survey equipment) and George Wimpey International (688,000 pounds for construction works in Tanzania).22

Not included in any of the official calculations of the benefits that Britain receives from its participation in the multilateral aid effort

are the salaries paid to the many thousands of UK nationals employed as ‘experts’, ‘professionals’, ‘administrators’ and so on by the agencies concerned. UNDP alone has 1,223 British citizens on its payroll;23 excluding fringe benefits, the combined value of the salaries earned by these people will not be less than Ł30 million a year. Likewise remunerating the British staff at FAO headquarters in Rome costs that giant multilateral agency seven times as much as it receives from the UK in the form of contributions to its regular budget.24

course, Britain is by no means the only industrialised country to reap more than it sows where multilateral aid is concerned. To stay with the example of FAO for a moment, the cost-benefit ratio is 1:5 for Holland, 1:2 for France and 1:7 for Belgium. Italy, as the host country, does particularly well: for every dollar it contributes to the Organisation sixteen come back. In one bumper year Italy’s share of the FAO’s regular budget was just $5.7 million; meanwhile Italian

staff received $73 million in salaries and Italian firms won $19 million worth of orders.25 In a similar fashion UNDP, which has its headquarters in New York, puts back 45 per cent more into the American economy than it takes out in the form of budgetary contributions from the United States.26

Few UN offices of any size are to be found in the Third World; again it is the industrialised countries that benefit from the spending involved $120

million a year in the case of UN Geneva, for example, and almost $100 million a year in the case of UN Vienna. These sums of money alone are larger than the respective annual contributions that Switzerland and Austria make to the budgets of the world body.27 New York, as the preferred headquarters location for several UN 'development' agencies, does particularly well: although the pampered legions of international civil servants and diplomats cost the city $125,000 a month in unpaid parking fines, their lavish

patronage of restaurants, theatres, bars and department stores pumps at least $800 million a year into the Big Apple's economy.28 On top of this New York benefits from about $400 million of annual spending that comes directly out of the United Nations budget.29

At World Bank headquarters in Washington, DC, $400 million is the sort of sum that you would expect to find in the petty-cash box. This giant amongst multilateral institutions disburses literally billions of dollars for 'development' purposes every year; with an eye to continued support from its wealthy member states, however, the global lender is the first to admit that out of every $10 that it receives around $7 are in fact spent on goods and services from the rich industrialised countries.30 Thus in fiscal 1986 IDA and IBRD procurements from Japan, the Federal Republic of Germany, and the United Kingdom totalled, respectively, $1.14 billion, $762.3 million, and $604.7 million. In the same financial year procurements from the United States were worth $1.02 billion.31 In

fiscal 1987 the USA did a great deal better, winning procurement orders worth $1 .810 billion. West Germany got $954.3 millioninthat year, the UK got $894.8 million and Japan got $1 .322 billion.32

In terms of the relationship between what it puts into the World Bank and what it takes out Japan has consistently done a better deal for itself than other industrialised nations notably

the United States. This frustrates and angers American politicians.33 Nevertheless, the USA does manage to claw back a good chunk of the 'multilateral aid' that it channels through the Bank: for every tax dollar contributed, 82 cents are immediately returned to American businesses in the form of purchase orders.34

All in all, multilateral agencies provide huge volumes of lucrative work for contractors in the industrialised countries. One UN periodical, Development Business, aims to lubricate this trade.

‘CASH IN ON $24 BILLION WORTH OF BUSINESS,’ proclaims a flyer soliciting subscriptions at $295 per annum:

Fortnightly DB lists procurement notices and bid invitations that give you early access to billions of dollars of business from multilateral lending organisations… DB features Monthly Operational Summaries from the World Bank and the Inter-American Development Bank. These sources of information alert you to consulting, contracting and supply opportunities from the moment projects are first proposed. You will also find indispensable information on securing contracts in developing countries and timely articles aimed at making your business easier … Let DB work for you.

An accompanying letter from the editor claims: ‘DB is a unique business tool … According to a recent independent survey, one out of three subscribers submitting bids on procurement notices listed in DB won those contracts.

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As well as permitting the publication of its Monthly Operational Summaries, the World Bank offers some special facilities exclusively to the corporations it does business with. Project Appraisals, Reports to the Executive Directors, and other internal documents, are strictly withheld from the general public, from community groups concerned about the environmental and social impact of the activities of the global lender, and from people in the Third World whose lives are directly affected by those activities. Many of these same ‘confidential’ documents, however, are filed at the Department of Trade and Industry in London and at the US Commerce Department Library in the Herbert C. Hoover Building, Washington, DC. At either location they can be inspected freely by employees and consultants of large Western corporations once bona fides have been established and the appropriate forms have been

filled in. Potential suppliers of goods and services are thus deemed to have a legitimate ‘need to know’ about the most intimate details of any project they may have an interest in; meanwhile, those who actually live in the project area itself are kept in the dark until the bulldozers move in. It would be hard to find a clearer illustration of the privileged links between private business and public money links

that are the matrix for so much that passes as ‘development’.

neither fish nor fowl

Although normally recondite on the subject, aid agencies do make a considerable song and dance about their contributions to business prosperity when as

is now frequently the case they

are attacked by critics on the right of the political spectrum and accused of recklessly hurling taxpayers' money into the bottomless and undeserving pit of the Third World. The US Agency for International Development, for example, proclaims: 'Foreign aid doesn't cost Americans, it pays!'36 Likewise, across the Atlantic, the UK's Overseas Development Administration wants its critics to know that it 'seeks to ensure that the aid programme is as helpful as possible to those who may be able to do business as a result of it'.37

The problem, however, is that aid is not really supposed to be a sort of hidden subsidy for commerce and industry in the donor countries. Because the agencies know this they still devote the bulk of their PR literature, and their oratory, to stressing the poverty-focused and humanitarian aspects of their operations in the developing nations. The central challenge to the World Bank,' says Barber Conable, the President of that multilateral institution, 'is the central concern of our world: to mobilise the will and the resources of the affluent and

the afflicted alike in the global battle against poverty.‘38 The ‘principal purpose’ of US aid is ‘to meet the basic needs of poor people in the developing countries’, a former Secretary of State told the Senate’s Foreign Relations Committee.39 ‘Increasing the wellbeing of people in the developing countries is a central objective of US assistance policy,’ says AID. ‘Many projects are designed to help the poor to help themselves.‘40 Similarly, Britain’s Overseas Development Administration wants to make it clear that it will continue to concentrate its aid ‘on the poorest countries‘41 and on ‘the poorest people in those countries’.42

Thus, if the publicists are to be believed, aid can be all things to all people: it can please both the right and the left, it can win the support both of the general public and of the business community, it can make the poor prosperous and the rich richer still, it can reconcile opposites, it can transform obvious conflicts of interest into harmony and mutual gain, it can leap tall buildings at a single

bound, it can block the path of a speeding train… in short, like Superman it can do just about anything it sets its mind to.

Unfortunately, like Superman also, aid is neither bird nor plane, neither fish nor fowl. This ambiguity, this hermaphrodite quality, is apparent in many statements that are made about it. Towards the end of his second term in office, for example, President Ronald Reagan said: ‘Our foreign aid is not only a symbol of America’s tradition of generosity and good will, but also a servant of our national interest.‘43 At about the same time Christopher Patten, Britain’s Overseas Development Minister, asserted: ‘We should not be coy about the extent to which to do what is right can also be to do what is good for Britain.‘44 Clarifying this point, his Ministry adds: ‘Most British bilateral aid has to be spent on British goods and services but this does not mean that we cannot provide worthwhile help to the poorest groups in developing countries. By choosing projects carefully we can ensure that benefits go to them at the same

time as offering valuable opportunities to British firms.‘45

There is something undeniably seductive about this kind of argument, but also something seriously wrong. In logic, saying that aid benefits the giver because some of it is spent on his own goods and services is like saying that a shopkeeper benefits from having his cash-register burgled so long as the burglar spends part of the proceedsinhis store.45 As the eminent British economist Lord Bauer puts it: ‘A businessman does not prosper by donating money to people, some of whom later purchase his products.‘47

If we are to have subsidies a

dubious propositioninitself-then

let them at least be efficient. Surely any government of an industrialised country that is minded to oblige its taxpayers to donate funds to profit-making corporations would be able to do so

far more effectively if the transfer of wealth from public to private pockets were direct rather

than filtered through the medium of the Third World? If the subventions were out in the open, rather than deviously concealed within the aid budget, then at

the very least they

could be scrutinised much more closely and distributed with greater equity. Instead of going to a few big corporations, for example, they might be diverted to benefit a large number of smaller businesses.

Using Western aid to create profits for Western companies thus looks like a flawed and misguided policy, even in its own terms. It is, moreover, a policy that seriously impairs the ability of developmen

t assistance to do its other job-namely to provide ‘worthwhile help’ to the poor of the Thud World.

northern exports, southern poverty

A case in point is the human and ecological disaster of the Singrauli Power and Coal Mining Complex in India, examined in Part Four. After ten years of operations, involving the allocation of $850 million of multilateral aid, the World Bank belatedly decided to carry out an environmental and social-impact assessment of this catastrophic scheme. Its short-list of consultants to do the vital job, however, did not include any of the several Indian environmental groups actually in day-to-day contact with the poor communities harmed by Singrauli. All six of the candidates considered were large

electrical-utility and engineering firms and all hailed from countries that were important contributors of funds to the Bank specifically

France, Canada, Australia, the United Kingdom, and the United States.48

It is in bilateral aid programmes, however, that the pressure to subsidise business in the donor countries most often results in projects that are badly conceived and that fail to deliver any obvious benefits to the poor.

For a start, goods and services purchased with ‘tied’ aid tend to be priced well above their actual market value, with artificial mark-ups of 20 to 30 per cent being quite normal and even higher margins exceedingly common.49 Bangladesh, for example, found that railway carriages that it was obliged to buy from British suppliers were 50 per cent more expensive than comparable equipment available from other sources. Carriages purchased with tied aid from

Denmark also turned out to have been excessively over-priced they

were three times more expensive than comparable equipment available elsewhere.50 When the aid involved in such purchases takes the form of a loan rather than an outright grant as

is frequently the case then

it is not only the taxpayers of the donor country who are being cheated but also the poor in the Third World.

Price is just part of the problem: when a greater priority is put on meeting the needs of the supplier than on meeting the needs of the recipient then the quality of goods delivered often turns out to be second rate or

worse.

A classic illustration was the provision of fifty buses to Zambia under Britain's ATP. The Ł1.76 million contract had a positive impact on the bank accounts of two UK companies: British Leyland which

provided the chassis parts and

Willowbrook International, which provided the bodies. Unfortunately, however, the buses were entirely unsuitable for Zambian road conditions. In a matter of months after going into passenger service the Willowbrook bodywork had collapsed and, despite costly attempts at repairs, had to be scrapped. Within two years most of the BL chassis which

had by then been rebodied in older buses already to hand had

also become unserviceable; within five years only three were still in operational condition.51

Similarly British forklift trucks supplied to Sudan as part of the UK's aid programme to that African country turned out to be of a design that was wholly inappropriate for operation in hot conditions; as a result the recipients were saddled with expensive recurrent costs for maintenance. To add insult to injury, the manufacturer had fitted all the trucks with tyres of the wrong size.52

According to Overseas Development Minister Christopher Patten: 'Virtue can bring its own reward… it's not a crime to be popular.'53 The tendency to give priority to commercial considerations, however, means that British aid has become increasingly unpopular with its recipients, many of whom are at a loss to find any virtue in it at all.

Egypt, for instance, is today saddled with a set of gas turbines for electricity generation supplied at a cost of Ł28 million by Rolls-Royce. Although the turbines came with the lure of a 10 pounds million subsidy under the ATP they have subsequently proved very

expensive to run and represent a real and ongoing burden to Egypt. The project proposal originated with Rolls-Royce itself and was hurried through by the Department of Trade and Industry and the Overseas Development Administration. Neither ODA nor DTI took the time to consider other more suitable alternatives that might have had lower running costs. There is, in addition, documentary evidence that both were fully aware throughout that the Rolls-Royce turbines were inappropriate for Egypt's needs. The proper concerns of the aid programme development

in Egypt -were simply overridden in the stampede to assist a British supplier.54

Problems like these arise increasingly frequently, whether ATP is involved or not. Timothy Raison (Christopher Patten's predecessor at the Overseas Development Administration) was so determined to win benefits for British business from the regular aid programme that, in 1985, he virtually forced the government of India to accept

twenty-one Westland W50 helicopters.55 The sum of money involved, Ł65 million, was a pure grant courtesy of the British taxpayer; however, it was not ATP and thus was to be deducted from India's normal allocation for that year. The Indians objected. The money, they argued, could be better and more effectively spent in other ways. In addition, Mr Raison was proposing that the helicopters should be put into service with India's Oil and Natural Gas Commission to provide transport to and from offshore oil-rigs. The Westland W-30 was an unsuitable machine for this purpose.

Raison was incensed by these reservations and warned the Indian authorities that failure to place an order would not result in the funds earmarked for the helicopters being reallocated to other projects but, rather, would 'mean the loss of Ł65 million of British aid over the next two years' unless there was a last-minute change of mind.56

Inevitably that 'last-minute change of mind' did occur and the order

was duly signed in New Demi on 15 March 1986.57 Westland, which was

then in serious financial trouble and

could in fact have been bought up lock, stock and barrel for Ł65 million58 immediately

placed triumphant advertisements in Fleet Street newspapers lauding itself for its business acumen. Anyone reading the copy in these ads (‘three years of negotiation is over; two years of manufacture is about to begin’) could have been forgiven for believing that Westland had pulled off a triumph of salesmanship. Nowhere was it mentioned, however, that this ‘deal of the century’ had been done entirely at the

expense of Britain's overseas aid budget or that the Indian poor had been short-changed as a result.

The unsuitability of the Westland helicopters for their intended duties -foreseen by the Indians — quickly became apparent. Most of the W-30s delivered by April 1988 had, from the outset, performed below specification and had failed to cope with the heavy-duty nature of service in the oil and gas industry. With fifty-five major engine malfunctions recorded, and one fatal crash in which seven people were killed, it was little wonder that by August 1988 the Oil and Natural Gas Commission had 'redeployed' to lighter duties all but five of the twenty-one helicopters. It was, furthermore, an appropriate symbol of the real role of aid in the lives of the poor that these redeployed machines were now being used as air taxis by senior politicians, VIPs and wealthy businessmen. Even these privileged people might wish to reflect on an additional item of

information about Britain's 'gift horse' helicopters: at the Westland plant in Yeovil, Somerset, production of W-30 ceased with completion of the last machine for India.59

Between 1982 and 1988 India received approximately Ł1 billion in aid from UK taxpayers rather

more than half as bilateral assistance, the rest through multilateral institutions.60 This high level of funding, explains Christopher Patten, is accorded to the subcontinent 'because we recognise India's capacity to put British assistance to good use'.61

The Minister claims that projects aimed at alleviating poverty play an important role in the overall programme and would clearly prefer to regard the Westland incident as an aberration.62 It is far from that, however, because the commercial distortions to which British aid is subject militate strongly against support for small-scale, local-level schemes of the sort that can be directly helpful to the poor. As

John Toye, who is Professor of Development Policy and Planning at University College, Swansea, observes: ‘Not much imagination is necessary to see that poverty-focused projects in the urban or rural sectors of developing countries may do relatively little for British exports or technical links.‘63 The converse is also true: not much imagination is needed to understand the attraction of large high-technology schemes to an aid programme that is as intent as Britain’s is on giving kickbacks to export-hungry industries.

It is not coincidental that major construction works and advanced power-stations are particularly prominent amongst the items that British aid pays for in India: UK firms that specialise in these fields have to sell their products and services abroad if they are to survive at home. The availability of concessional finance is vital to achieving this task. As Graeme Anderson, Deputy Chairman of Northern Engineering Industries, explains candidly: ‘No longer do we sell on the basis of the excellence of our plant, or its reliability

… Unless we are able to match the finance offered by our competitors the customer will not buy from us.‘64

NEI, which has consistently been amongst the principal beneficiaries of the ATP slush fund, is forced to sell in the developing world because of a lack of domestic orders.65 It has done particularly well in India, but its work there has been the subject of growing acrimony.

At Riband, for example, one of India’s most remote areas, the company has for some years been engaged on the construction of a huge power-station which is to be fuelled with coal from the notorious Singrauli mines. The Indian government, however, is irritated by NEI’s performance which has fallen badly behind schedule mainly because the British firm proved itself to be inadequately prepared for conditions in one of the poorest parts of the subcontinent. Ridiculous as it may seem, what NEI set out to do at Riband when it started work there in 1983 was to build a straight

clone of the kind of plant that might have been ordered from it in the UK by the Central Electricity Generating Board. Subsequently and

painfully it

has learned that it could do no such thing. Today the company admits: ‘There were problems at the start of this project.’ Optimistically, however, it adds that ‘these are now being worked out’.66

What cannot be worked out at Riband is any kind of positive role for the Ł230 million power-station in the lives of the poor rural people who reside in the area. There has been some temporary employment provided tribal

women wearing dust-covered saris and clutching babies to their breasts are to be seen working on site, carrying piles of bricks or

baskets full of concrete. However, there are no other obvious benefits at all: local villagers in their wattle-and-daub huts could not afford the electricity that will eventually be generated, even if it were to be offered to them.67 They will, however, be exposed to the inevitable pollution from the plant which, like most bad things, will come free of charge.

Prem Bhai, a social worker who is struggling to improve conditions in the area, says pointedly: ‘Development passes over these people and their villages like the electricity cables soaring overhead. They remain in poverty, sometimes ousted from their land, and facing ill-health from tuberculosis.‘68

A fact much advertised by the Overseas Development Administration is that over 80 per cent of British aid goes to the poorest countries;69 as Prem Bhai knows, however, this doe

s not mean that it is the poorest people in those countries who benefit. Another and typical project that UK taxpayers financed in India was the complete renovation and updating of Calcutta's traffic-light system.70 It is almost but

not quite needless

to say that the Indian poor do not drive cars (although they do get run over by them from time to time).

In Africa, where the population is still overwhelmingly rural and where incomes are amongst the lowest in the world, the 19805 saw a steep decline in British allocations for rural development from

about Ł10 million a year to just 200,000 pounds a year.71 To the detriment of both the rural and the urban poor, however, the decade also saw a steady rise in the importance of big infrastructural schemes.

In the Sudan, for example, British aid has focused in recent years on the construction of two power-stations to provide unbroken supplies of electricity

to the more prosperous northern suburbs of Khartoum, the capital city. These projects, which have resulted in a bonanza of procurement for British companies, cost taxpayers Ł78 million more

than 75 per cent of all UK bilateral aid to the impoverished Sahelian country for the period 1984 to 1986.72

Khartoum, which contains only about 15 per cent of the Sudanese population, was founded in the nineteenth century by General Gordon, who patriotically laid it out in the form of a Union Jack. Today the city's best hotel, the Hilton International (owned by the

British company Ladbrokes), stands at the confluence of the Blue and White Niles and provides a comfortable venue for British aid workers to mingle with the team of British engineers recently called in to provide the sophisticated skills needed to operate the high-tech British-built power-stations skills

that are not available locally.73

Taking their meals from room service or watching imported movies on video, Hilton guests can completely forget that they are in the middle of one of the poorest and most shambolic countries on the face of the earth. Within just a few kilometres of the brightly illuminated hotel, however, dense slums that have never known an electric light huddle together against the elemental edge of the red and encroaching desert. To the refugees, mendicants and prostitutes who squat here (and who are occasionally flooded out when, as in August 1988, the Nile bursts its banks) ‘development’ means the police who will move them on with bulldozers, if it means anything,

and the costly power-stations at Khartoum North and Burn are just irrelevant extravaganzas that belong in someone else's world.

Much the same can be said of the Greater Dhaka electricity transmission and distribution system in Bangladesh, which is costing the British taxpayer Ł38 million a

significant sum equal to the entire amount of UK assistance to that Asian country in 1986.74 More than 85 out of every 100 Bangladeshis live in rural areas and thus, by definition, cannot benefit from the electrification of the capital city.75 Furthermore, even in Dhaka itself, the main users of the system will not be the poor but, rather, the middle classes (and the large foreign community) who can afford to be connected up to the electricity grid. This is why a team of British consultants who have won a 3 pounds million supervision contract in connection with the project are concentrating their efforts exclusively on the wealthy suburb of Gulsham, which has a population density of around eighteen people

per acre; by contrast,inthe Old City where the poor live but where transmission lines from the new power project are unlikely ever to penetrate, densities of 2,000 per acre are the norm.76

Only 4 per cent of the total population of Bangladesh presently has access to electricity;77 with its marked urban and elite bias, however, the Greater Dhaka scheme is not seriously expected to make any difference at all to this extremely low figure. As a ‘development’ initiative it would therefore appear to leave much to be desired even

if there were a shortage of other items to spend scarce aid funds on in Bangladesh. This, though, is not the case. Indeed, in a country where 95 per cent of all children under the age of eleven are suffering from malnutrition, there is clearly a great deal that could be done.78 Britain’s overseas aid is not at all exceptional in favouring large-scale, high-technology schemes like the Greater Dhaka Power Project that by-pass the poor but that provide massive

benefits to rich-country contractors. Many similar examples could be cited from the bilateral programmes of other donors and from the operations of the multilateral agencies.

Worldwide, for instance, Japan dispensed $25 billion in aid during 1984-8, with the vast bulk of this being used to fund contracts for Japanese corporations. An authoritative 1988 investigation found that even the relatively small share of the bilateral-assistance budget which is nominally ‘untied’ is, in practice, always restricted to procurement bids from companies in Japan and in the recipient country: The Japanese company wins almost 100 per cent of the time,’ the study concluded.79

Inevitably, Japanese aid, targeted to reach $50 billion in the period 1989-92,supports the kinds of scheme that Japanese suppliers are able to make money out of whether

or not these schemes are worthwhile from a developmental point of

view. For similar reasons, Canada's aid programme has frequently put the poor last as a result of commercial pressures.

An example is provided by Tanzania, where more than 80 per cent of all Canadian development assistance is tied to the procurement of Canadian goods and services.81 In the 19705 CIDA (the Canadian International Development Agency) gave its support to a scheme supposedly designed to help Tanzania to become self-sufficient in wheat production. By the mid-1980s, however, with $44 million spent, it had become clear that this objective would never be achieved; indeed, the only real benefi

ciaries of fifteen years of work were Canadian companies that had supplied expensive agricultural equipment, spare parts and technical back-up throughout the life of the project.

Effective as they may be in Canada, the capital-intensive production methods of Western-style agribusiness should not necessarily be expected to work in rural Africa particularly

when delivered by people with no specialised experience of the problems of tropical agriculture or of peasant production.82 In Tanzania, failure to recognise the implications of these challenges, together with a rather dogmatic emphasis on securing benefits for Canadian firms, resulted in a wasteful and inappropriate project that was of no value whatsoever for the poor.

Excessive use of advanced and complicated technology meant that the 250 Tanzanian staff could only be recruited from the already educated, English-speaking and

thus affluent middle

classes; 70 of these people sent to Canada for technical training

failed to continue working on the scheme on their return. Meanwhile, with machines doing most of the menial work, the demand for casual labour was small. At harvest time jobs could be provided for no more than loo local men who were paid at the rate of just $1.50 per day; their wives were able to earn almost twice as much scavenging for grains behind the combines.

The main problem with the project, however (to which, incidentally, the Tanzanian government and CIDA contributed in equal measure), was that it

failed dismally to live up to its promise of bountiful cost-efficient production. The six farms, laid out in prairie style, each required an initial investment of $1.5 million for equipment; subsequently, costs of spare parts for the combine harvesters, plus 100,000 litres of fuel per farm per annum, proved to be a crippling burden but

these costs had to be met if the machinery was to be kept working. By the mid-1980s recurrent running costs had risen to around $4 million a year. At the same time, with the rate of growthinthe demand for wheat exceeding 5 per cent per annum, with the project only meeting one quarter of this,83 and with self-sufficiency still a distant dream, impoverished Tanzania found itself obliged to pay through the nose to import significant quantities of the cereal from Canada and from the United States.84

the drug of food aid

The taste for wheat is a relatively new phenomenon in Africa, but it is an important one. Because of it, traditional home-grown staples like maize are increasingly regarded as ‘low-class’ peasant fare, and are going out of fashion; indeed, the continent’s governments now spend about $2 billion a year on wheat imports.85 Similar trends are also evident elsewhere in the Third World as refined white flour imposes its stodgy domain from Mexico to Indonesia and from

Thailand to Peru. Canada has played its part in creating this nutritionally and economically disastrous situation. It is the aggressive food aid policies of the United States, however, that have most effectively ‘hooked’ developing countries on the ‘fix’ of Western farm produce.

Administering America’s huge ‘Food for Peace’ programme under Public Law 480, the US Agency for International Development operates on the streetwise principle that those who accept free handouts today will become paying customers tomorrow. AID’s ethics are really very little different from those of a drug pusher when it boasts as

it frequently does about

past recipients of food aid who are now among the top purchasers of US agricultural exports: ‘In 1986 seven of the ten leading importers of US farm goods had been Food for Peace recipients. Of the fifty

largest customers of American commodities, thirty are developing countries, thirteen have received PL 480 assistance and twenty-one are former beneficiaries.' Furthermore:

Countries that have received substantial American aid have increased their imports from the United States at a 30 per cent faster rate than then-purchases from other nations. In 1981 alone, South Korea imported $2. 1 billion worth of our agricultural products more

than the value of all US food aid provided to that country between 1955 and 1959…The record shows that food assistance can produce lucrative trade relationships and can generate new commercial markets.86

The markets that have been opened up by the Food for Peace programme are in fact 'critical to America's ailing farm economy', as AID admits.87 Today over 40 per cent of US commercial

agricultural exports go to developing countries. The proportion rises to nearer 50 per cent in the specific categories of grain and flour sales, and approaches 70 per cent in the case of wheat.88 In addition, every year courtesy

of the ever-patient taxpayer of course US

agribusiness benefits from AID procurement orders worth around $1.8 billion.89 American companies exporting corn and rice receive a further direct bonus, since the aid programme is specifically designed to inhibit the emergence of potential competitors overseas: recipients of PL 480 wheat only get their supplies on condition that they themselves do not attempt to export any corn or rice that they may grow.90

What is good for General Mills, Ralston Purina, or Quaker Oats, therefore, is not necessarily good for the Third World. Indeed, in a number of cases, food aid has had an utterly devastating effect on

the agricultural output of developing countries. As well as creating expensive addictions to non-indigenous cereals, and discouraging export-production of items like corn and rice in which the USA is expanding its own trade, PL 480 has frequently served as a major disincentive to the efforts of local farmers to grow food even for domestic consumption. Simply stated, the dumping of large quantities of low-priced American grain in Africa or Asia can make it economically impossible for small producers in those regions to compete.

South Korea has been hailed by a former Assistant Secretary for Agriculture as: 'The greatest success story worldwide of the Food for Peace programme in terms of contribution to the growth of that nation'.91 While it is undoubtedly true that South Korea has grown, the role of US food aid in this process is not so clear and

certainly not admirable. In an economy that has been dominated by export-orientated manufacturing based on cheap labour, the main

function of US grain imports in the 19505 and 19605 seems to have been to allow the government to maintain a ‘cut-price food’ policy that put many small Korean farmers out of business. Prices paid to domestic rice producers, for example, were consistently below cost with

the result that millions of rural people were forced to seek jobs in the cities.92

In Haiti in the late 19705, researchers found PL 480 commodities to be available In almost every market-place and in direct competition with locally produced foods.93

Well over a decade later the same is true in Somalia. In this countryinthe Horn of Africa markets in even the most remote rural areas typically offer for sale bags of grain and tins of vegetable oil bearing the familiar Food for Peace logo of friendly, shaking hands. From time to time visiting journalists and

some of the more ignorant members of the aid fraternity have

concluded from this that corrupt Somali officials are selling food aid that is supposed to be given to the poor. Reports to this effect, however, are based on a misconception. The fact is that the Somali government (like the government of Haiti) receives the bulk of its US food supplies under Title I of PL 480, which means that it pays for them albeit

on the basis of long-term loans. This being the case, it can of course do what it likes with its purchases and is in fact encouraged to sell on the open market.

In January 1987 the Tide I programmeinSomalia was subjected to an

investigation by auditors whose principal objective was to determine if it ‘effectively supplemented Somalia’s food supply without discouraging local production’.94 The conclusions of the investigation are damning.

Tide I food aid to Somalia’, the auditors note, ‘exceeded annual deficits in food supplies.’ In consequence:

At November 1986, 7,007 metric tons of corn and 2,727 metric tons of soft wheat remained unsold in government warehouses after about fifteen months, and had deteriorated. The audit staff requested a laboratory analysis of the grain, because of concern about the potential adverse impacts of the distribution of unwholesome US-produced food. The analysis determined that the grain was unfit for human consumption, resulting in a loss to the government of Somalia of $1.5 million.95

Another problem was the scheduling of deliveries. Shipments of

food aid to any country should arrive during the months just prior to the major harvest if they are to be at all effective or helpful. ‘At that time’, as the auditors note, the cheap imports ‘can best stem hunger resulting from crop shortfalls and least depress the prices local farmers get for their production’. In the case of Somalia, however: ‘100 per cent of the 1985 Title I food grain and 92 per cent of the 1986 grain arrived during the harvest period the

worst possible time.‘96

Blaming this unequivocally on ‘poor planning by USAID/Mogadishu’, the auditors note two adverse results. First: ‘food valued at $16 million in 1985 and $12 million in 1986 was not made available during the critical hungry period’. Second, and worse still, the untimely deliveries, coinciding with the harvest, caused a glutted market when they did arrive. The across-the-board 40 percent drop in prices that resulted ‘discouraged farm production because farmers made less profit’.97

The sad epitaph came a few months later when famine struck Somalia's Central Rangelands (see Part One for a full account). By forcing the country's own farmers to compete with dumped American surpluses in the relatively good years of 1985 and 1986, US AID had indeed deprived them of profits and

thus of any incentive to increase their production. When food aid was needed during the 1987 emergency, however, the Agency was initially unwilling to supply it and subsequently unable to get it to the hungry with speed and efficiency; thousands died needlessly as a result.

As a hybrid of commerce and humanitarianism, food aid displays the worst aspects of both its parents and seems to have inherited none of their better qualities. The efficiency and single-mindedness of private enterprise might have salvaged something out of the Somali disaster and

would certainly have saved lives; instead incompetence and confusion ruled. The selflessness and devotion to duty of a genuinely welfare-orientated institution might have helped; but the day was won by petty bureaucratic concerns, snobbery and hubris.

Aid can sink lower than this, however and

frequently does. candy from a baby

In Somalia again, that archetypally ‘aided’ country, I remember being driven-much too fast down

a brutal highway. Its recently macadamised surface only added to the bone-pulverising solidity of an apparently endless series of pot-holes and deep corrugations.

‘Dear God,’ I protested as my head hit the roof of the Landcruiser for the seventh or perhaps the eighth time in as many minutes, ‘who

built this bloody road?'

'The European Economic Community,' my Somali companion replied smugly. A moment later, as the vehicle came to a screeching halt on the edge of an inexplicable abyss, he added: 'And this particular stretch was the contribution of Italy.'

In a sense the entire highway, which connects Mogadishu, the capital, with the southern port of Kismaayo, can be blamed on the Italians: it was built during 1982-3 by a Milanese contractor who won the $100 million contract in open tender from the EEC. Somalia will still be repaying the Community's long-term, low-interest loan in the year 2023. This is unfortunate in view of the fact that the road itself had virtually ceased to be serviceable by 1988.

Badly engineered and shoddily surveyed, it is now in such a shocking state of repair that lorries avoid it altogether: by driving alongside it rather than on it they have created deep gullies which

greatly increase the rate at which it is being undermined and washed away. In some places it can still carry cars and light trucks, although few vehicles that make the journey arrive at their destination entirely undamaged. Breakdowns are common and there are numerous accidents: several people have been killed as a result of roll-overs resulting from blown-out tyres.

No one has yet computed the cost to Somalia's transport fleet; what is clear, however, is that the government can no longer afford to pay for the continuous maintenance and resurfacing that the road requires. As a result, a project that should have been an asset to the impoverished East African nation has transformed itself into a liability and a reproach. The only winner is the Italian contractor who although

forbidden to work in Somalia again is

free and clear with the fat profit obtained by cutting corners and

using sub-standard materials and techniques.

Meanwhile, in the sprawling central African country of Zaire, General Electric and the US contracting firm Morrison-Knudsen have made handsome sums out of the $1.5 billion IngaShaba Power Project with its 1,000-mile high-tension transmission-line. Passing over rough terrain on its way to the Maluku steel mill and copper refinery, the line has been explicitly engineered to preclude the provision of electricity to the many poor rural villages en route; the copper and steel plants that it is destined for, however, are not at present functioning properly and are not thought likely to do sointhe foreseeable future.98

Most expert observers concur that, as a development project, IngaShaba

was ill-conceived from the outset: the electricity that it provides could have been generated much more cheaply and efficiently in other ways and without recourse to expensive foreign expertise. In support of this view State Department officials have recently been quoted as saying that the principal reason that the power-line was opted for by Zaire was that it provided a big construction contract for US industry in return for continued American support for the deeply unpopular government of President Mobutu Sese Seko."

Meanwhile, in north-eastern Guatemala, foreign companies have done well out of the construction of the massive Chixoy hydroelectric dam. This, as we saw at the end of the last part, was originally priced at $340 million; the final bill, however, turned out to be approximately thrice as much.

An important factor in the very dramatic cost-escalation that the project suffered was the collapse in 1983 of a tunnel through which water was supposed to travel to the power-station. It has been

suggested that this accident, which extended the construction period by two years and added an estimated $165 million to the bottom line, may well have been the result of poor workmanship by members of the LAMI consortium which built the dam. ‘The engineering companies overlooked warnings. They knew it was a lousy site,’ complains Robert Balsells, President of INDE, the Guatemalan electricity board.100

Now threatening legal action, INDE claims that the members of the consortium -Lahmeyer

International of West Germany, Motor Columbus of Switzerland, and the International Engineering Company of California-were negligent. LAMI, however, denies the charge. ‘It is a pity for the country,’ shrugs one official, Martin Lommatzch, ‘but I do not feel responsible.‘101

The dam was financed by the World Bank which, despite the

controversy, is still collecting payments of interest and principal on its massive loan to Guatemala one

of the poorest countries in Central America where 75 per cent of the population earn less than $300 per annum.102

The Bank likes to act as though it is above corruption and graft; frauds and financial irregularities, however, occur frequently within the hallowed halls of the largest source of development assistance on earth. Recent instances brought to light include an employee who violated conflict-of-interest guidelines by accepting an expenses-paid trip to Europe from a supplier of computer services; three employees who covered up the fact that the file of a favoured contractor was incompletely documented; and a high-ranking procurement official who awarded business worth $1 million on a sole-source basis in direct contravention of the Bank's own rules and regulations.103

Cosy links between the private sector and officials who control the purse-strings of public money can lead to some spectacular abuses: in the case of one World Bank contract an estimated $3 million more than necessary was paid to a supplier of pump-sets for a tube-well project in Bangladesh. Lower alternative bids of equal quality were available and had been recommended by staff at the Dhaka office. These recommendations, however, were mysteriously overruled by Washington. Robbing the Bank, as one jaded official put it at the time, was ‘easier than robbing a bank’.104 The fact is that many Western companies working on aid contracts in the Third World are allowed to get away with daylight robbery. This can happen as a result of collusion between entrepreneurs and corrupt aid administrators or because the officials concerned are simply idle and negligent. Either way, where foreign assistance budgets are concerned it seems that stealing from taxpayers, and from the poor, is just like stealing candy from a baby.

hard cheese in Jamaica

One scheme in the Caribbean island of Jamaica illustrates the kind of abuses that can occur, and is worth describing at some length. Financed by the US Agency for International Development it was marred from the outset by wastage and bad management, greed, opportunism, and conflicts of interest. These failings, all involving a private contractor, were only uncovered by AID's auditors after millions of dollars had been lost.

At the beginning of the 1985 a large US agricultural company, Land O'Lakes Inc. (LOL) of Minnesota, won a contract from the American agency to provide technical assistance to Jamaican agriculturalists. In 1983, while working on this project, LOL put in a proposal suggesting that surplus US commodities could be used to create a private non-profit foundation for financing further agricultural development in Jamaica. AID liked the proposal and approved it in 1984. The result was the formation of the Jamaica

Agricultural Development Foundation to which the Agency agreed to donate 4,000 tonnes of US cheese and butter every year until 1990.

The idea was simple and innovative: local revenue earned from butter and cheese sales would finance the Foundation's operating expenses and would also provide cash for loans, grants, and equity investments to promote Jamaica's agricultural sector. Neither were the sums involved small: by the end of 1985 the Foundation had received $6 million worth of dairy produce from the USA. Things did not work out quite as planned, however mainly

because Jamaicans did not like, and thus would not buy, American salted butter; besides, there were cheaper alternatives available locally. As a result sales were negligible, storage costs soared and the Foundation quickly got into trouble. Eventually, to avoid bankruptcy, it had to be bailed out by USAID with more than $1 .5 million of American taxpayers' money.

The few loans and grants that the Foundation had managed to makeinthe mean time under its mandate to promote the development of Jamaican agriculture had not gone to the recipients envisaged when AID had approved the project. Large and well-established companies had done well; small farmers and the nascent local dairy industry had got virtually nothing.

Even more worrying to the auditors, however, when they made a thorough study of the project in 1986, was evidence that one of the main beneficiaries of the Foundation's largesse had been Land O'Lakes Inc. Having originated the idea in the first place, and having written the project proposal, it had seemed natural enough in 1984 that LOL should be given a seat on the board of the new entity. This raised the possibility of a conflict of interests a

possibility that

loomed large when it was discovered that the American company had been awarded fees of $185,400 by October 1985, apparently as compensation for its ‘technical assistance services’.

In addition, when elderly surplus cheese donated by USAID began to deteriorate in the Foundation’s warehouses, LOL was quick to recommend an answer to the problem: cheese that was only one to two months old would have to be blended with existing stocks. By a strange coincidence, furthermore, LOL’s Minnesota plant just happened to have the required quantity of the right sort of cheese available. Since no young cheese was in the AID pipeline at the time, the Foundation bought LOL’s product. The sum of money paid out, $400,000, was found by the auditors to be three times the world market price. Worse still, it was suggested subsequently that the whole expensive operation might well have been unnecessary.105

skimming, delving and leaking

It would be quite wrong to suggest that Western corporations are alone in putting their fingers into the aid pie and pulling out plums. Many in the Third World also help themselves.

In Bangladesh, for instance, a tiny handful of wealthy local ‘commission agents’ are reliably estimated to have pocketed a minimum of $136 million from aid transactions during a recent eight-year period.106 According to the respected Bangladeshi economist Rehman Sobhan, these influential middlemen have now

acquired a material stake in an aid-dependent regime … Any trend towards abridging external dependence is likely to be directly inimical to these commission agents of foreign suppliers … Their external nest-eggs make it possible for them to travel abroad frequently where they enjoy the lifestyles of the West. They import luxury goods into Bangladesh both legally and illegally and provide a major source of domestic demand for luxury imports.107

It is not only prosperous urban intermediaries who skim off large amounts of the aid actually intended for the rural poor of Bangladesh. Out in the field, as in so very many other Third World countries, another set of filters is in place to divert even more resources from those who really need them to those who really don't.

An example is provided by the fate of 3,000 mechanical wells which were financed by a long-term World Bank loan to Bangladesh. According to a press release on the project, each well would serve twenty-five to fifty small farmers joined together in a cooperative irrigation group. In practice, however, as independent researchers discovered, virtually every well was quickly co-opted by the richest man in the village in which it was located (in one case the wealthy individual concerned bought 'his' well for $300 and then rented out access to it to his neighbours at an extortionate hourly rate which few could afford).108 A Bank official

subsequently admitted:

One hundred per cent of these wells are going to the big boys. First priority goes to those with the most power and influence the

judges, the magistrates, the members of parliament, the union chairmen. If any wells are left over, the local authorities auction them off. The big landlords compete and whoever offers the biggest bribe gets the well.109

Corruption at village level in the developing countries, however, is a minor issue by comparison with corruption at the top. In this respect, the case of Guatemala's Chixoy Dam again comes to mind.

General Romero Lucas Garcia's military government, which was in powerinGuatemala during the bulk of the construction phase and which signed the contract with the World Bank, is today recognised by political analysts as having been the most corrupt administration

in the history of a Central American country that has been afflicted by more than its fair share of venal and dishonest regimes.110 According to Robert Balsells, President of the state-owned electricity company, members of the junta pocketed about $350 million out of the $1 billion provided for the Chixoy project. He points to insurance documents that put the actual value of the dam at $650 million and suggests with an eloquent shrug: 'Draw your own conclusions.' Another expert observer, Rafael Bolanos, Dean of the School of Civil Engineering at Guatemala's San Carlos University, has a higher estimate of the extent of official theft: $500 million. The dam, he says, was the 'biggest gold mine' that the crooked generals ever had.111

The huge sums of international aid and development finance attracted by schemes like the Chixoy are consistently mined, dredged, delved for, dug up and salted away by Third World politicians who have seized power without any kind of popular

mandate and who then single-mindedly set about enriching themselves at the expense of the poor in then-own

countries.

This process is sometimes acknowledged by the agencies concerned. On one occasion, for example, the World Bank admitted that between 10 and 15 per cent of all the money that it had put into projects in Indonesia had been dissipated through ‘leakage’ a

euphemism for high-level theft.112

the case of Imelda and Ferdinand

In the Philippines, another South-East Asian country much favoured by the Bank, an enormous foreign debt of $26 billion113 had been built up by 1986 when President Ferdinand Marcos was overthrown. Most of the loans had been contracted to pay for extravagant

development schemes which, although irrelevant to the poor,114 had pandered to the enormous ego of the head of state. After Marcos was gone, however, it became clear that his role in creating this staggering liability went far beyond a predilection for expensive and inappropriate projects: a painstaking two-year investigation of his dealings established beyond serious dispute that he had personally expropriated and sent out of the Philippines more than $10 billion.115

Much of this money which,

of course, should have been at the disposal of the Philippine state and people had

disappeared for ever into Swiss bank accounts;116 much had been invested in US real estate;117 much had gone on fripperies: $100

million, for example, to pay for the art collection that former beauty queen Imelda Marcos used to decorate the walls of her favourite properties overseas. Her tastes were eclectic and included six Old Masters purchased from the Knoedler Gallery in New York for $5 million, a Francis Bacon canvas fetchingly

entitled ‘Masturbation’ supplied

by the Marl-borough Gallery in London, and a Michelangelo, ‘Madonna and Child’, bought from Mario Bellini in Florence for $3.5 million.118

Almost two years after Imelda and Ferdinand went into exile in Hawaii only one of these treasures had been recovered a

Fantin Latour flower painting found in a luxury apartment on New York’s Fifth Avenue and auctioned at Christie’s in November 1987 for $440,000. By that time another thirty-eight of the total of 155

paintings had also been located. These, however, could not immediately be returned to the Philippine authorities since they were in the possession of a long-time Marcos family friend, arms dealer Adnan Kashoggi. According to Ramon Diaz, chairman of the commission set up to track down the loot, the canvases thought

to include two works by Franz Hals had

been given to the Saudi multi-millionaire in an attempt to conceal their ownership.119

During the last decade of the Marcos regime, while valuable art treasures were being hung on penthouse walls in Manhattan and Paris, the Philippines had lower nutritional standards than any other nation in Asia with the exception of war-torn Cambodia. To contain popular unrest, strikes were banned and union organising was outlawed in all key industries and in agriculture. Thousands of Filipinos were imprisoned for opposing the dictatorship and many

were tortured and killed.120 Meanwhile the country remained consistently listed amongst the top ten recipients of both US and World Bank development assistance.121 Mediated through aid, the connection between the great wealth of the Filipino leadership and the great poverty of the majority of the people could not have been more stark or explicit.

It was contrasts like these that, ultimately, led to the ouster of the Marcos regime. History will judge how much better the new administration in the Philippines will be. What is quite clear, however, now and for the foreseeable future, is that the country is going to have to continue to pay out each year between 40 and 50 per cent of the entire value of its exports just to cover the interest on the foreign debts that Marcos incurred.122

the fat man and the thin man

Rather than penalising greedy and irresponsible Third World leaders

like Ferdinand Marcos, Western aid often condones their behaviour, encourages them in their costly delusions of grandeur, and provides them with the wherewithal to keep up the bad work. This was certainly the case with Jean Bedel Bokassa, head of state of the Central African Republic from 1966 until 1979, who once admitted in a moment of rare honesty: ‘Everything around here is financed by the French government. We ask the French for money, get it and waste it.‘123 The main bilateral donor, France, in fact provided its run-down and obscure former colony with about $38 million per annum in aid during the 19705 not

a colossal sum by Philippine standards perhaps, but enough to keep things going in one of the poorest countries in Africa if properly spread around. In December 1977, however, and in just one day, Bokassa was permitted to waste on himself no less than $20 million of that year’s entire subvention from French taxpayers: he blew the money on a glittering but ludicrous ceremony that transformed him

from a mere President into an Emperor. For the occasion, which was attended by thousands of foreign guests, the demented former captain in the French army wore a $2 million crown topped by a magnificent 138-carat diamond and draped himself in robes designed by Guiselin at a cost of $145,000. 124

The Central African Republic or

‘Empire’ as it was renamed after the events of 4 December 1977 had

at the time less than 170 miles of paved roads and a population immersed in abject poverty: average per-capita incomes were in the region of $250 a year.125 Bokassa, however, felt quite justified in spending as much as he did on his own coronation: ‘One cannot create a great history without sacrifices,’ he explained, ‘and this sacrifice is accepted by the population.‘126

Africa is a continent that is justifiably renowned for the vast wealth hijacked and expropriated by its elites and for the sacrifices demanded of its long-suffering poor. There are even jokes on the subject for

example, the story of the fat man and the thin man that does the rounds during every crisis of hunger:

‘You should be ashamed of yourself,’ said the fat man to the thin man. ‘If a foreigner saw you before he saw anyone else he would think there was a famine here.’

‘And if he saw you next,’ replied the thin man, ‘he would know the reason for the famine.’

Dr Mahmood Mamdani, an Associate Professor of Science at Uganda’s Makerere University, told a version of this joke on 19 March 1985 during a talk he gave at a Red Cross conference on the

subject of disaster prevention. The conference was held in Kampala and Mamdani used the occasion to draw attention to some glaring sacrifices that the poor of Uganda were then making for the rich. He recounted tales of prosperous farmers who had bought up land at knock-down prices from desperate smallholders during a recent famine. One profiteer, who had acquired 500 acres, had told him without any shame: The famine helped me. People were in need. For the first time they were willing to sell land, cows things

they wouldn't dream of selling in normal times.' Mamdani added that the Ugandan government also appeared to be getting in on the act of making itself wealthy at the expense of the poor. Peasant

farmers, for example, were getting from state marketing boards just 25 percent of the final price of millet and less than 19 per cent of the final price of coffee. As a result of such practices:

The peasant operates with a permanent handicap … his surplus product is regularly siphoned off. His cash income is barely enough to meet immediate needs for

tax, to replenish a hoe or buy some salt or medicine. He is thus forced to begin the production cycle with roughly the same or even a worse technical base than the previous time around.

In such a context, Mamdani asked, what is the role of foreign development assistance? He urged his listeners who

were mainly expatriate aid workers -that, at the very least, they should not behave in such a way as to bolster up the continued exploitation of the poor. Rather, they should seek to ‘restore the initiative of the victim…to revive the creativity of the people…If labour is manned and shackled by administrative coercion, we must organise to remove that coercion. If products of labour are appropriated through monopolistic market practices, we must

organise to change these.' For giving such subversive advice Mamdani was deprived of his Ugandan citizenship by the government of the then President, Dr Milton Obote.127

A rumble in the jungle

In some countries you can lose more than your citizenship for questioning the status quo. Since 1965 Mobutu Sese Seko, Zaire's terrifying President, has ruled his thirty million people with an iron fist: detentions without trial, torture, murders and disappearances are commonplace and no criticism of the regime is permitted.128

Zaire, in terms of GNP per capita, was ranked the eighth-poorest nation on earth in 1987 at

which time life-expectancy at birth for the average citizen was estimated to be just over fifty years.129 The hardships faced by ordinary Zairians, however, have not prevented Mobutu from

becoming one of the world's richest men. His personal assets most

of which he keeps well away from Zaire are

estimated by Western intelligence sources at between $3 billion and $4 billion.130 Included in his portfolio are hotels, castles, mansions and luxury apartments in Belgium, France, England, Australia and the USA.131

The President has achieved wealth on this scale by the simple expedient of stealing it. According to Erwin Blumenthal, a German banker st.: to Zaire by the IMF, 18 per cent of the national budget is routinely earmarked for Mobutu's personal use. He squanders the money on such extravagances as all-expenses-paid excursions to Disneyland for ninety guests at a time.132 Other important sources of funds for the President are business contracts, foreign aid grants and long-term loans for wasteful and exotic schemes like the IngaShaba Power Project: he has reportedly helped himself to

approximately 20 cents off the top of every dollar of foreign assistance that has come Zaire's way since 1965 when he was brought to power in a CIA-backed coup.133

Indeed, he has even robbed the CIA itself: in the 19705 the Agency gave him $1.4 million which he was supposed to use to finance the Angolan FNLA in its fight against the MPLA; instead the money went straight into his own apparently bottomless pocket!134

In 1982 Blumenthal warned the IMF: 'Mobutu and his government regard the idea of paying their debts as a joke.'135 This prophecy was disbelieved and Zaire obtained consistent support from the Fund in subsequent years. In May 1986, for example, an IMF loan worth rather more than $200 million was agreed.136 In October of that year, however, Mobutu made Blumenthal's warnings come true by announcing a moratorium on repayments.137 The Fund, which had already assisted Zaire to extract a world-record total of seven debt reschedulings from the Paris Club of creditors, was not put out

by this temerity; instead of taking a tough line with Mobutu in 1987, an eighth rescheduling was helpfully arranged and new loans totalling $370 million were put his way.138

The irony is that if the President were to return all the funds that he personally has expropriated from Zaire during his quarter-century in power, then the country's foreign debt, estimated at $5 billion,139 would be reduced to an almost negligible sum. IMF austerity programmes which, amongst other things, recently led to the dismissal of 7,000 teachers from Zaire's primary school system for 'budgetary reasons', and which cause great suffering amongst the poor in many other ways as well, are clearly not the answer under such circumstances140 and

neither are new loans or generous rescheduling arrangements. Indeed, the entire rationale of continued Western backing for this free-spending tyrant must remain something of a mystery to the average taxpayer in Brussels, London or New York.

that voodoo that You Do So well

So often in Africa, and throughout the Third World, the main function of foreign aid seems to be to finance the emergence of ‘kleptocracies’. In Haiti in 1981, for example, the IMF paid in $22 million to the Treasury as part of a standby credit; two days later a visiting team of Fund experts discovered that President Jean-Claude Duvalier (‘Baby Doc’) had withdrawn $20 million of this money for his personal use. It was also noted that a further $16 million had ‘disappeared’ from various state bodies over the previous three months and that the Central Bank was paying the elegant Mrs Michele Duvalier a salary of $1.2 million a year.141 All this happened long before the pro-American Duvaliers finally became such an embarrassment that they had to be removed. Indeed, a blind eye was turned to their thefts until 1986 and the IMF acted throughout as though the money it was supplying was actually being used properly; certainly it continued to extract its pound of flesh

from the Haitian poor by imposing swingeing austerity measures that would supposedly make the republic better able to repay its foreign debts.

Haiti, by any standards, was a poor country in 1956, and it became steadily poorer during the years 1957-86 when the Duvaliers (pere and fils) were in *179

power. The proportion of the total population judged to be in ‘desperate poverty’ increased, for example, from 48 per cent in 1976 to almost 70 per cent in 1986 -at

which time average per-capita incomes for three-quarters of all Haitians had fallen below $140 a year, only 10 per cent of rural people were functionally literate, So per cent of children under six had had at least one bout of malaria, and 75-80 per cent of all

children were suffering from malnutrition (with over half the recorded deaths in the territory being caused by malnutrition and gastroenteritis).142

Interestingly enough, however, Haiti was a major recipient of foreign aid throughout the Duvalier era with

the United States, Canada, West Germany and France prominent amongst the bilateral donors and with the World Bank, FAO, WHO, UNDP and UNICEF the most notable of the multilaterals.143 With all these ‘assisters’ on the scene, a question has to be asked: Did the ruin of the Haitian poor occur in spite of foreign aid, or became of it?

A definitive answer is difficult to arrive at, but one thing at least is immediately clear from World Bank figures on the country’s economy: the plentiful availability of aid funds facilitated the Duvalier clan’s efforts to maintain an extremely low tax regime for

their cronies amongst the Haitian rich. By 1986 the wealthiest 1 per cent of the population had managed to seize 40 per cent of the national income but was required to pay only 3.5 per cent of that income in taxes.144

Such a bizarre state of affairs was made possible purely and simply by aid: under the rubric of Official Development Assistance it was Western taxpayers who in fact contributed the bulk of the Haitian government's budgets. Typically, during the 19705 and 19805, aid financed two-thirds of government investment and also covered more than half of the national import bill.145

There was widespread awareness of the corruption and depravity of the regime; little effort was made to impose controls on how aid funds were spent, however. Indeed, the United States the

largest bilateral donor stated

frankly that its strategy was to ‘place maximum responsibility on the Haitian government for the selection and design of projects’.146 It might as well have trusted a thrice-convicted axe-murderer not to kill again, or a kleptomaniac not to steal when left unwatched in a department store.

While AID was being so charmingly credulous, the US Department of Commerce produced figures to show that no less than 63 per cent of all recorded government revenue in Haiti was being ‘misappropriated’ each year. Not long afterwards and

just before he was dismissed by Duvalier Haiti’s

Finance Minister, Marc Bazin, revealed that a monthly average of $15 million was being diverted from public funds to meet ‘extra-budgetary expenses’ that included regular deposits into the President’s private Swiss bank account.147 Most of the ‘public funds’inquestion had, of course, arrived in Haiti in the form of

‘development assistance’.

Meanwhile, in one typical year, the Ministry of Sports allocated $2 million of the little that was left in the Treasury after Duvalier’s depredations to pay for a stadium that actually cost $200,000 to build. At about the same time CIDA, the Canadian aid agency, cancelled a multi-million-dollar rural development programme that it was financing when it discovered that 50 per cent of the 700 Haitian employees on its payroll did not actually work for the project at all — and possibly did not even exist.148

Few other donors followed Canada’s example: despite flagrant and prolonged misuse of funds, deep-rooted corruption, and the violence and human rights abuses of the feared Tonton Macoutes, the West kept faith with the Duvaliers until the very last possible moment. It was appropriate that when ‘Baby Doc’ finally fled the country in 1986 to take up his comfortable exile in the south of France he did so in transport provided by the US air force.

money has wings

The powerful in the Third World come and go; today they areinthe Presidential palace doing business with international civil servants, tomorrow, with rebellioninthe streets, they fly away to their carefully prepared retirement homes in Hawaii or on the Cote d'Azur. Their embezzled fortunes will long ago have gone out ahead of them, usually to Switzerland or to the United States. As former Treasury Secretary Don Regan accurately put it of America and the mighty greenback: 'We have become a haven currency and a haven country not only for people but also for then-money.'149

There is a technical term for what is going on here, and that term 'capital

flight' sounds

just like the name of an exciting new board game. This is how the

game works: public money levied in taxes from the poor of the rich countries is transferred in the form of ‘foreign aid’ to the richinthe poor countries; the richinthe poor countries then hand it back for safe-keeping to the richinthe rich countries. The real trick, throughout this cycle of expropriation, is to maintain the pretence that it is the poorinpoor countries who are being helped all along. The winner is the player who manages to keep a straight face while building up a billion-dollar bank account.

Of course,inreal life, things are somewhat more complex than this. Direct thefts from the aid pot a

la Baby Doc are

still rare; much more common are methods of personal enrichment that are indirect, subtle and devious. The really clever players are those who have understood that every dollar of development assistance that comes then: way creates an opportunity for

undetectable personal enrichment even

when donors insist on closely supervising the expenditure of the particular funds they have provided. Such supervision is not an obstacle to the enterprising fiddler who knows the meaning of the word ‘fungibility’.

Food aid, for example, is eminently fungible because it frees the recipient government from the tiresome necessity of ensuring that its own people do not starve. While well-meaning foreigners feed the hungry, the leaders of a country afflicted by famine can spend other funds at their disposal on whatever they like: they can buy advanced weapons with them, they can overpay their civil servants, or they can make some more hefty deposits into their Swiss or Californian bank accounts.

Project aid is also fungible and thus creates the same kinds of opportunity: a road or a dam or an irrigation system paid for by someone else is a road or a dam or an irrigation system that does not immediately drain the national exchequer of funds. The President and his Ministers can therefore continue with impunity to treat the Treasury as their personal cash dispenser.

Possibly the biggest break that corrupt officials have ever had, however, as we saw in Part Two, is the new fad for 'structural adjustment': in return for reforms which usually hurt only the poor, such 'policy-based lending' injects millions of dollars directly into the recipient government's hands. Since no 'project' needs to be completed or accounted for, and since no hungry have to be fed, structural adjustment money thus lends itself perfectly to the theft and plunder of capital Sight.

All in all, the sums that wing their way out of the Third World are very large indeed. It is estimated, for example, that corrupt

Venezuelans have massaged and finessed enough money into foreign bank accounts to pay off their country's entire foreign debt which

stands at around $40 billion.

A study done by Morgan Guaranty Trust Company looked at ten heavily indebted developing countries in Latin America between 1983 and 1985: during this period, as the domestic living standards of the poor plummeted, moneyed people in the countries concerned managed to deposit $44.2 billion in Western banks.151 Another longer-term survey covering the ten-year period 1976-86 came up with the following aggregate figures for capital flight: Argentina, $26 billion; Brazil, $10 billion; India, $10 billion; Indonesia, $5 billion; South Korea, $12 billion; Malaysia, $12 billion; Nigeria, $10 billion; Philippines, $9 billion.152

Mexico's flight capitalists drained off a breathtaking $56 billion

during the decade153 a

sum of money that represents almost exactly half of that country's total foreign debt.154 Aid agencies and financial institutions, however, do not seem to take this apparently unmissable problem into account in their efforts to promote development in Mexico. In World Bank structural adjustment lending, for example, as one senior official admits, there has never been any 'mention of imposing limits on corruption or on capital flight two

of Mexico's biggest problems'. Indeed, the global lender has not even obliged the Mexican government 'to install a decent auditing system to control graft '.155

bad to the bone

Although it is the subject of a pious literature, and is credited with saintly and humanitarian motives, foreign aid as

we have seen often

keeps strange and brutal company. In Mexico and Zaire, in the Philippines and Haiti, thieves and murderers, psychopaths and cheats have all been amongst its bedfellows. Elsewhere it has consistently bestowed its favours upon the big battalions. Big corporations, big and wasteful projects, big, ambitious, absurd development plans, big ideas, and big bureaucracies have all flourished thanks to aid's bounty. Meanwhile local-level initiatives, relevant and realistic strategies, and the energy and enterprise of the poor in the Third World have been ignored. Aid is not bad, however, because it is sometimes misused, corrupt, or crass; rather, it is inherently bad, bad to the bone, and utterly beyond reform. As a welfare dole to buy the repulsive loyalty of whining, idle and malevolent governments, or as a hidden, inefficient and inadequately regulated subsidy for Western business, it is possibly the most formidable obstacle to the productive endeavours of the

poor. It is also a denial of their potential, and a patronising insult to their unique, unrecognised abilities.

Resettlement schemes in Brazil and Indonesia, reviewed in Part Four, have typically absorbed investment at the rate of $12,000 per settler.156 Such schemes, involving the transfer of huge quantities of Western aid to repressive and irresponsible regimes, have destroyed the environment on a near-apocalyptic scale, have wiped out indigenous tribal peoples, and have made the majority of the migrants materially poorer and more miserable than they were before the intervention of the World Bank and other donors. What would have happened, I wonder, if the money had not been handed over in bulk to sneering and insensitive bureaucracies, had not been used to enrich road-builders, forest-clearers and other corporate contractors, but had instead been divided up into $12,000 dollops and simply given to each of the settlers? What would have happened if even one-tenth of that amount $1

,200 had

been provided to each of them?

They would not, I suspect, have migrated at all if they had benefited from such an unprecedented windfall. To a landless Brazilian peasant or to a smallholder struggling to eke out a living in rural Java, $1,200 is a fortune, is equivalent to perhaps four years of income. I am confident that such people would have made effective use of money on this scale if it had been entrusted to them directly, would have invested it productively and intelligently in their home areas to transform their own lives and would, in the process, have permanently reinvigorated the flagging rural economies of the countries in which they live.

This is just a pipe-dream, however. Whether given for dams in India, resettlement in Indonesia, power-stations in Bangladesh, structural adjustment in Mexico or balance-of-payments support in

the Sudan, our aid does not help ordinary people ‘to help themselves’ and it does not promote broadly based prosperity. On the contrary, it systematically empowers and enriches the very forces that today most efficiently stifle the initiative and resourcefulness of peasants, nomads, slum-dwellers and villagers throughout the Third World.

CONCLUSION

aid Is not help

His fame and learning and his high position Had won him many a robe and many a fee … Nowhere there was so busy a man as he; Yet he was less busy than he seemed to be.

Chaucer, The Canterbury Tales

In the period 1950-5 total bilateral and multilateral aid from all sources rarely exceeded $1.8 billion per annum.1 In the 19605, however, the scale of the operation increased dramatically: disbursements of official development assistance in 1961, for instance, were 20 per cent higher than they had been the year before.2 By 1962 total world aid had risen to just a shade under $6 billion and, by 1972, OECD member states alone were giving close to $10 billion a year.3 By 1984 there had been a threefold increase in this OECD figure, OPEC member states had established themselves as major donors and the Soviet Union was also giving significant quantities of development assistance.4 Total world aidin1987 was just over $50 billions up

about 7 per cent on the 1986 figure of $46 billion.

One of the remarkable aspects of aid's busy growth is the way in

which giving more has, over the passing years, subtly become equated with doing better, indeed with moral virtue. As a result of the activities of pro-aid pressure groups and of effective public relations by the agencies themselves, ‘increased aid’ is now a phrase that is used interchangeably with ‘improved aid performance’. In almost all diplomatic and economic forums, as the British economist Lord Bauer observes: ‘Countries giving a higher percentage of their national income in official aid are described as better performers than others giving a smaller percentage.‘6

Indeed so. Official development assistance today is a sacred cow which must never be killed; which, preferably, must be nurtured. Within the United Nations, for example as

we saw in some detail in Part Two the

whole debate is framed in terms of ‘targets’. Since the 19605 the world body has been urging its member states to give 0.7 per cent of

their annual GNP as ODA: those countries that do increase their aid, that do ‘meet the target’, are ‘good’ in the UN’s terms; conversely, of course, those that decrease their aid are

A campaign launched by the British Labour Movement in 1988 promotes this naive and simplistic notion. Under the slogan ‘Support the Just 0.7 Campaign’ a leaflet tells us that Britain in 1979 ‘was the most generous of the top seven industrialised nations’ because it was well on its way to ‘achieving’ the 0.7 per cent target. Since then, however, as a result of the ‘shameful record’ of

the Conservatives, there has been a disgraceful turn-around. Having fallen behind France, Sweden, Denmark, the Netherlands and Norway in the generosity stakes, the UK is now ‘on the way to being the meanest’ nation in the world.7

Similar judgements on aid performance are also to be found in the influential reports of the Commission on International Development that met under the chairmanship of Willy Brandtinthe 19705 and 1980$. While those donor countries that have surpassed the 0.7 per cent target are fulsomely praised, the failure of many others to reach it is described as ‘deeply disappointing’ and as a sign of ‘a marked lack of political will’.8 Noting that aid is in fact falling as a share of the GNP of several wealthy industrialised nations for

which ‘there is no excuse’ the

Commission urges the recalcitrant donors ‘to set their sights once more on the fulfilment of the 0.7 per cent target’.9

If and when this target is reached the

argument continues then

the people I of the Third World will inevitably benefit. The notion that increased aid from the North will result in improved conditions in the South is thus treated as though it were a self-evident truth.

It is far from that, however, particularly when what we are talking about is an increase amounting to just a few tenths of a single percentage point of the donor countries' GNP. Aid, after all, is just one amongst many different forms of financial flow and

these flows move from South to North as well as from North to South. To arrive at the real bottom line in the relationship between the rich and the poor nations it is therefore necessary to total up the figures for global ODA with all the other relevant transactions that take place in both directions.

When this is done an interesting and little-advertised trend emerges: since the early 19805, mainly as a result of a sharp declineinnew lending by private banks coupled with ongoing repayments at rising

interest rates of old loans, the wealthy countries have consistently been net recipients of funds from the Third World not

net donors to it even

when ODA is taken into account. Initially the gain of the North was small just

$300 million in 1983. By 1984, however, it had risen dramatically to $12.5 billion. Since 1985 the poor South's net transfer of finance to the rich nations has exceeded $30 billion per annum;10 the figure for the year July 1987 1030 June 1988, for instance, was $39.1 billion.11

My dictionary tells me that 'aid' is a synonym for 'help'. The whole notion that the developing countries are being 'helped' by the developed ones, however, seems to me on

the basis of these negative financial transfers alone -to be highly suspect.

This general view is best clarified by some specific examples. During the three years 1986-8 the International Monetary Fund received net payments totalling almost $8 billion from the Third World.12 And recently the International Bank for Reconstruction and Development has also become a significant drain on the resources of poor countries: in the financial year to 30 June 1988 it was a net beneficiary of $1.9 billion.13 Negative transfers of this sortinthe multilateral sector are, however, dwarfed by those on a country-by-country basis. Between 1982 and 1987 British banks took in more than Ł80 billionindebt-service payments from Latin America.14 Averaged out, this meant that every man, woman and child in that impoverished continent had transferred a generous 40 pounds a year to the City of London. By contrast, Britain's bilateral aid to Latin America during the same period was worth just under 8

pence per capita per annum.15 For the record, India the

UK's largest 'aid partner' normally

receives about 15 pence per capita per annum and Kampuchea, one of the poorest countries in the world, gets 0.0026 pence per capita per annum. Britain's official development assistance to Gibraltar and the Falkland Islands, on the other hand, averages out respectively at 748 pounds per capita per annum and 5,350 pounds per capita per annum.16

Such anomalies found,

incidentally, in the ODA of every single donor -illustrate a seminal point: aid is far too small in macro-economic terms to do much good to anyone (except to a few favoured mini-states like Gibraltar, in the case of the UK, or Israel in the case of the US). Neither will marginal increases of the kind envisaged by the Brandt Commission

or by Britain's 'Just 0.7' campaign make any significant difference to this state of affairs.

At $60 billion a year, on the other hand, aid is already quite large enough to do harm. Indeed, as this book has argued at some length, it is often profoundly dangerous to the poor and inimical to their interests: it has financed the creation of monstrous projects that, at vast expense, have devastated the environment and ruined lives; it has supported and legitimised brutal tyrannies; it has facilitated the emergence of fantastical and Byzantine bureaucracies staffed by legions of self-serving hypocrites; it has sapped the initiative, creativity and enterprise of ordinary people and substituted the superficial and irrelevant glitz of imported advice; it has sucked potential entrepreneurs and intellectualsinthe developing countries into non-productive administrative activities; it has created a 'moral tone' in international affairs that denies the hard task of wealth creation and that substitutes easy handouts for the rigours of self-

help;inaddition, throughout the Third World, it has allowed the dead grip of imposed officialdom to suppress popular choice and individual freedom.

Aid has its defenders, not least the highly paid public-relations men and women who spend millions of dollars a year justifying the continued existence of the agencies that employ them. Such professional communicators must reject out of hand the obvious conclusions of this book: that aid is a waste of time and money, that its results are fundamentally bad, and that far

from being increased it

should be stopped forthwith before more damage is done.

Whenever such suggestions are made the lobbyists throw up their handsinhorror. Despite some regrettable failures, they protest, aid is justified by its successes; despite some glitches and problems, it is

essentially something that works; most important of all the

emotional touch, the appeal to the heartstrings they

argue with passion that aid must not be stopped because the poor could not survive without it. The Brandt Commission provided a classic

example of this line of thought: ‘For the poorest countries,’ it told us flatly in its final report, ‘aid is essential to survival.‘17

Such statements, however, patronise and undervalue the people of the poor countries concerned. They are, in addition, logically indefensible when uttered by those who also want us to believe that ‘aid works’. Throughout history and pre-history all countries everywhere got by perfectly well without any aid at all.

Furthermore, in the 1950$ they got by with much less aid than they did, for example, in the 1970$ and

were apparently none the worse for the experience. Now, suddenly, at the tail end of almost fifty years of development assistance, we are told that large numbers of these same countries have lost the ability to survive a moment longer unless they continue to receive ever-larger amounts of aid. If this is indeed the case and

if the only measurable impact of all these decades of development has been to turn tenacious survivors into helpless dependants then

it seems to me to be beyond dispute that aid does not work.

On the other hand, if the statement that ‘aid works’ is true, then presumably the poor should be in much better shape than they were before they first began to receive it half a century ago. If so, then aid’s job should by now be nearly over and it ought to be possible to

begin a gradual withdrawal without hurting anyone.

Of course, the ugly reality is that most poor people in most poor countries most of the time never receive or even make contact with aid in any tangible shape or form: whether it is present or absent, increased or decreased, are thus issues that are simply irrelevant to the ways in which they conduct their daily lives. After the multi-billion-dollar 'financial flows' involved have been shaken through the sieve of over-priced and irrelevant goods that must be bought in the donor countries, filtered again in the deep pockets of hundreds of thousands of foreign experts and aid agency staff, skimmed off by dishonest commission agents, and stolen by corrupt Ministers and Presidents, there is really very little left to go around. This little, furthermore, is then used thoughtlessly, or maliciously, or irresponsibly by those in power-who

have no mandate from the poor, who do not consult with them and who are utterly indifferent to their fate. Small wonder, then, that the

effects of aid are so often vicious and destructive for the most vulnerable members of human society.

All this notwithstanding, what is to be said about aid's much-vaunted 'successes'? Do they justify a stay of execution for the sacred cow?

India is a country that is frequently cited as a glowing illustration of what development assistance can achieve: since independence its overall economic growth rate has been high and, through the 'green revolution', it has transformed itself from a net food importer to a major food exporter. India is, in addition, the world's tenth-largest industrial power: it can boast a complete range of heavy industries and a burgeoning new-technology sector, plus its own space programme. Donors express their confidence in these achievements by continuing to channel very large quantities of ODA to the subcontinent—an impressive total of $5.4 billion in 1988."

The underlying reality of India, however, for the vast majority of its population, is just about as grim as it is possible to find anywhere on earth. While four million television sets may be produced each year for the wealthy middle classes the

richest 20 per cent, who expropriate 49 per cent of total household income the

average per-capita GNP is still a mere $250.19 This means that after more than forty years of independent ‘development’, and the absorption of tens of billions of dollars of foreign aid, India is still poorer than neighbouring Pakistan or Sri Lanka is

poorer even than Somalia in the far-off, famine-ridden Horn of Africa.

More than 300 million Indians, fully a third of the whole population, subsist below the official poverty line with even their

most basic nutritional needs unmet. Two-thirds of the adult population still cannot read and write, and the Infant mortality rate is scandalous nearly

twice as high as that of Vietnam.20 In India's teeming cities there are an estimated thirty million unemployed. In the countryside conditions have steadily deteriorated for the majority who depend on farming: in 1947, half the national income came from agriculture; more than forty years later this share is down to a third, but about 70 per cent of the workforce is still employed on the land the

same proportion as a century

ago.

As for the green revolution, the truth is that its benefits have been very patchy. The relatively affluent north-western corner of the subcontinent -notably the states of Haryana, Punjab and western Uttar Pradesh together

with parts of Tamil Nadu in the south, have benefited disproportionately from the new technology and from heavy public-sector investment in irrigation, and have in addition scooped up the lion's share of agricultural subsidies (mainly for export crops). This perhaps explains why, despite increased farm output, per-capita availability of food grains has declined from 480 grams a day in 1964 to 450 grams a day now. 'You need', as one observer has put it, 'spectacles tinted the deepest possible pink to get excited about India's development recordinthe last few decades'.22

So much, then, for aid's leading success-story. There are others, too. In Africa, for example, one frequently hears that Ivory Coast and Malawi both

with high economic growth rates represent

definitive proof that development assistance is capable of achieving much. Yet the Ivory Coast today has accumulated a national debt of over $8 billion which must be paid by a population of just ten million hardly

an encouraging prospect for the future.23 In a similar fashion, Malawi's 'economic miracle' also begins to look slightly tarnished when account is taken of the hard facts that face the poor: this country has the fifth-highest infant mortality rateinthe world and only 4 per cent of the adult female population can read and write.24

Africa contains many lessons for the aid lobby. It has lost the self-sufficiency in food produ

ction that it enjoyed before development assistance was invented and, during the past few decades, has become instead a continent-sized beggar hopelessly dependent on the largesse of outsiders -per-capita

food production has fallen in every single year since 1962. Seven out of every ten Africans are,

furthermore, now reckoned to be destitute or on the verge of ‘extreme poverty’, with the result that the continent has the highest infant mortality rates in the world, the lowest average life-expectancies in the world, the lowest literacy rates, the fewest doctors per head of population, and the fewest children in school. Tellingly, during the period 1980 to 1986 when Africa became by

a considerable margin the

world's most 'aided' continent, GDP per capita fell by an average of 3.4 per cent per annum.25

Outside Africa the story is much the same. Indeed, in the Third World as a whole, while total outstanding debt rose by 10 per cent during 1987-8 to reach $1.21 trillion (39 per cent of GDP), economic growth rates fell from 4.2 per cent to 3.5 per cent.26 Statistics like these translate 'on the ground' into a steady decline in household incomes and a consequent collapse in the standard of living of the majority of poor people. Thus, in Bangladesh, the infant mortality rate has risen from 101 babies per thousand in 1980 to more than 120 per thousand today27 and, in Bolivia, GDP per capita has fallen by a third in the past decade.28

Both Bangladesh and Bolivia are significant recipients of foreign aid. In Nicaragua, by contrast, which has had virtually all its aid cut off since the collapse of the Somoza regime in 1979, things have improved noticeably during the 19805. Without any of the so-called

‘help’ that outsiders normally offer, the Government of National Reconstruction has succeeded in reducing illiteracy amongst adult Nicaraguans from 53 per cent to just 13 per cent and has, according to the New England Journal of Medicine, achieved more advances ‘in most areas of social welfare than in fifty years of dictatorship under the Somoza family’.29 In 1979 with aid little

more than a quarter of the Nicaraguan population had any access to medical services; by 1982 without aid -three-quarters of Nicaraguans had regular access to health care. Overall agricultural production was 8 per cent higher in 1983 without

aid than

it had been in 1980 with aid. In addition, since aid was withdrawn, Nicaragua’s infant mortality rate has dropped from 120 per thousand (in 1979) to less than 80 per thousand (in 1987), the number of vaccinations against killer diseases given to poor

children each year has more than doubled during this same ‘aidless’ period, there has been a staggering 98 per cent fall in the number of new malaria cases, and at

the level of the national budget total

funds allocated by the Government to both education and health care have more than tripled.30

It would seem, then, that official development assistance is neither necessary nor sufficient for ‘development’: the poor thrive without it in some countries; in others, where it is plentifully available, they suffer the most abject miseries. Such suffering, furthermore, as I have argued throughout this book, often occurs not in spite of aid but because of it.

To continue with the charade seems to me to be absurd. Garnered and justified in the name of the destitute and the vulnerable, aid’s

main function in the past half-century has been to create and then entrench a powerful new class of rich and privileged people. In that notorious club of parasites and hangers-on made up of the United Nations, the World Bank and the bilateral agencies, it is aid and

nothing else that

has provided hundreds of thousands of ‘jobs for the boys’ and that has permitted record-breaking standards to be set in self-serving behaviour, arrogance, paternalism, moral cowardice and mendacity. At the same time, in the developing countries, aid has perpetuated the rule of incompetent and venal men whose leadership would otherwise be utterly non-viable; it has allowed governments characterised by historic ignorance, avarice and irresponsibility to thrive; last but not least, it has condoned and

in some cases facilitated the

most consistent and grievous abuses of human rights that have occurred anywhere in the world since the dark ages.

In these closing years of the twentieth century the time has come for the lords of poverty to depart. Their ouster can only be achieved, however, by stopping development assistance in its present form something

that might prove to be in the best interests both of the taxpayers of the rich countries and the poor of the South. Perhaps when the middle men of the aid industry have been shut out it will become possible for people to rediscover ways to ‘help’ one another directly according to their needs and aspirations as they themselves define them, in line with priorities that they themselves have set, and guided by their own agendas.

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its heavily aid-dominated economy -represents

a considerable fund of material. The country is also ‘disaster-prone’, which is why it figures so prominently in the analysis of emergency assistance presented in this chapter.

In recent years Somalia has suffered from repeated severe droughts

and famines (at least five since 1974, when more than a million dispossessed nomads had to be installed in resettlement camps). The Ogaden war in 1977-8 produced a huge influx of refugees into Somalia, and periodic fighting along the border since then has created new refugee populations. Plagues of locusts are common, as are cholera epidemics. Perhaps unsurprisingly, the last case of smallpox in the world occurred in Somalia.

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89 Ministers in the Somali government are remunerated at a rate of below 10,000 Somali shillings per month. This is equivalent to US$ioo per month at the official rate of exchange, *i.e.* $1,200 per year -thus

it would take a Somali Minister slightly more than forty-five years to earn the amount that a typical UN employee can expect to receive in just one year. At the unofficial (black market) rate of exchange, which reflects the real purchasing power of the Somali shilling, a ministerial salary is worth just $50 per month -i.e.

$600 per annum. Middle-level Somali civil servants (for example, departmental directors, many of whom have university degrees), earn just 2,600 shillings per month. At the black market rate they would therefore have to work for 352 years to match a UN employee's annual income.

90 From which, I am proud to say, I was banned in February 1988.

‘It is not obligatory that any reason is given,’ I was told in the pompous letter that terminated my membership. This was amusing because, at the time, I was not in fact a member of any kind (although I had visited the club occasionally and had earlier held a temporary membership). The message of the ‘banning’ was clear: because I had sided with the Somalis over the issue of the drought I was

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'SubsectionA: The Congress finds that the United Nations and its

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Traditionally organised on the basis of one vote per member state, irrespective of the size of its contribution, the United Nations responded to the Kassebaum Amendment at the end of 1986 by forming a Committee on Programme Coordination with twenty-one members including all the main donors as well as representatives of the Third World. Charged with drafting the UN budget and setting spending priorities (subject to final approval by the General Assembly) the CPC is obliged to operate by consensus - *i.e.* the USA and other main donors are now theoretically able to veto budget decisions they oppose. In practice, however, they have had little success in doing so.

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‘Under special cooperative agreements, four of the United Nations specialised agencies provide staff support for Bank operations in their fields of expertise. These are the Food and Agriculture Organisation of the United Nations (FAO), the United Nations

Educational, Scientific and Cultural Organisation (UNESCO), the World Health Organisation (WHO) and the United Nations Industrial Development Organisation (UNIDO).

‘The World Bank has almost continuous contact and close working relations with other UN agencies and commissions, regional development banks, the Organisation for Economic Cooperation and Development (OECD), regional organisations such as the European Communities and the Permanent Executive Committee of the Inter-American Economic and Social Council of the Organisation of American States, and most of the national agencies that provide development finance and technical assistance. In addition closer links are being forged with many nongovernmental organisations engaged in development activities.

‘The Bank plays a leading role in efforts to co-ordinate assistance from a variety of sources to individual countries. For this purpose, it has organised and currently serves as chairman of a number of

coordinating groups of national and international organisations … For all such groups, the Bank's country studies and analyses of need serve as part of the basic documentation.' (Emphasis added.)

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SIMON G. POWELL

FOREWORD BY GRAHAM HANCOCK

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The Role of SACRED MUSHROOMS in the QUEST FOR MEANING

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Park Street Press
Rochester, Vermont • Toronto, Canada

Dedicated to my friend Michael Montebello, who supported me on the way

My plea to scientists, administrators, and politicians who may read my words is this: look again at psilocybin, do not confuse it with the other psychedelics, and realize that it is a phenomenon unto itself with an enormous potential for transforming human beings—not simply transforming the people who take it, but transforming society in the way that an art movement, a mathematical understanding, or a scientific breakthrough transforms society. It holds the

possibility of transforming the entire species simply by virtue of the information that comes through it.

TERENCE MCKENNA,
THE ARCHAIC REVIVAL

The Psilocybin Solution

"This book provides a clear and up-to-date picture of what goes on in the brain during the visionary psilocybin experience. The author's intrepid speculations, centering on information as the fundamental stuff of the universe, are clearly signposted. The writing is lucid and a joy to behold, an important contribution."

JEREMY NARBY, ANTHROPOLOGIST AND
AUTHOR OF *THE COSMIC SERPENT*,
INTELLIGENCE IN NATURE, AND
THE PSYCHOTROPIC MIND

"The profound experiences unlocked by the visionary psilocybin-containing mushrooms are more than a recreational holiday for the

mind. They are, in fact, the key to understanding that consciousness is not an aspect of reality, it is reality itself."

DENNIS MCKENNA, PH.D, ETHNOPHARMACOLOGIST
AND COAUTHOR OF *THE INVISIBLE LANDSCAPE*

"A worthy successor to Aldous Huxley's *The Doors of Perception, The Psilocybin Solution* takes the reader behind the grand curtain of reality with a compelling hypothesis that approaches a unified field theory of human consciousness in an intelligent and interconnected universe."

BILL LINTON, CEO OF PROMEGA

"In this fascinating and provocative book, Simon Powell speculates on the nature of reality. He posits Nature is a deliberate and intelligently behaving system, and he proposes that psilocybin, by altering the neurochemistry of the brain in specific ways, enables novel patterns of information to emerge, allowing the psyche to

become a sort of conduit to the Other. If in fact that is what actually happens, then entheogens (psychedelics) are much more important to the human species than has been realized."

DAVID E. NICHOLS, PH.D.,
PRESIDENT AND COFOUNDER OF THE HEFFTER RESEARCH INSTITUTE

Disclaimer

This book is intended for informational and educational purposes only. The legal situation concerning psychoactive fungi varies from country to country and is subject to unpredictable and sometimes ruthless change. Indeed, many countries forbid the possession of such fungi even if they are to be found growing naturally in the environment. Thus, no clear and concise guidelines can be given here regarding issues of legality. Readers, should they wish to explore the contents of this book in a more direct fashion, must do so entirely at their own risk. Both the author and the publisher can accept no responsibility for the actions of any reader. For the record, the bulk of this book was written and researched at a time when fresh, unprocessed psilocybin fungi were legal to possess and consume in the United Kingdom.

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Foreword

Graham Hancock

The year 2011 marked the fortieth anniversary of the so-called War on Drugs, which was declared by Richard M. Nixon in June 1971. It is appropriate that this misguided, morally bankrupt "war" of harassment against a sizeable minority within society—those adults who choose to alter their own consciousness through the use of drugs—was the initiative of one of the most dishonest, violent, and authoritarian presidents America has ever had the misfortune to

elect, a man who stands enthroned by history as the absolute epitome of morally bankrupt leadership. Forty years on, it is our shared misfortune, despite the opprobrium that rightly surrounds Nixon's name, that his "War on Drugs" is still being fought not only in the United States but throughout the world—for where America led in 1971, all other members of the United Nations swiftly followed. Armed bureaucracies were established to police the consciousness of citizens and given powers to break down the doors of drug users in the middle of the night, confiscate their property, send them to jail, humiliate them, and generally ruin their lives. In some countries they can even be executed. All this has been accompanied by years of glib propaganda, paid for with large sums of public money, designed to convince us that drugs have such evil and degrading effects, and are so lacking in any redeemable qualities, that those who use them "deserve" to be persecuted and punished for their "sins."

It is a witch hunt, a moral panic, with nothing rational about it at all.

Indeed the very societies that attempt most vigorously to suppress various drugs, and in which users are subject to the most stringent penalties, have seen a continuous increase in the per capita consumption of these drugs over the past forty years. This is tacitly admitted by the huge armed bureaucracies of the drug war that every year demand more and more public money to fund their suppressive activities; if the suppression were working, one would expect their budgets to go down, not up.

Worse—and we may all see the effects—the criminalization of drug use has empowered and enriched a global criminal underworld by guaranteeing that it is the only source of supply of these drugs. We have, in effect, delivered that large minority within our societies that feels the need to experience altered states of consciousness into the hands of the very worst mobsters and sleazeballs on the planet.

Those who wish to buy drugs have no choice but to approach and associate with violent and greedy criminals. And because the proceeds from illegal drug sales are so enormous, we are all caught up in the inevitable consequences of turf wars and murders among the gangs and cartels competing in this blackest of black markets.

It should be completely obvious to our governments, after forty years of dismal failure to suppress illegal drug use, that their policies in this area do not work and will never work. It should be completely obvious, a simple logical step, to realize that by decriminalizing drug use and making the supply of all drugs available to those adults who wish to use them through legal and properly regulated channels we could, at a stroke, put out of business the immense criminal enterprise that presently flourishes on the supply of illegal drugs.

It should be obvious, but somehow it is not.

Instead the powers that be continue to pursue the same harsh and

cruel policies to which they have been wedded since 1971, ever seeking to strengthen and reinforce them rather than to replace them with something better. Indeed the only "change" that the drug warriors have consistently sought across the decades has been to demand ever more money, ever more surveillance technology, ever more arms, and ever more draconian legislative powers to break into homes, confiscate property, and deprive otherwise law-abiding citizens of liberty. In the process we have seen our once free and upstanding societies, which used to respect individual choice, conscience, and adult responsibility above all else, slide remorselessly down the slippery slope that leads to the police state. And all this is being done in our name, with our money, by our own governments, to "save us from ourselves"!

In such a climate riddled with propaganda and disinformation, overshadowed by fear and suspicion, where users of illegal drugs are vigorously persecuted by public agencies, it is very difficult, and

takes courage, to speak out about the possibly beneficial, mind-expanding, eye-opening, and consciousness-enhancing effects of certain illegal drugs. That, however, is precisely what Simon G. Powell has done in *The Psilocybin Solution,* where he makes the case for nothing less than the systematic, targeted use of psilocybin and other natural psychedelics to explore the fundamental mysteries of our own existence.

Psilocybin, Powell believes, has the power to open our consciousness to the communications of "the Other," which he ultimately defines as the vast, guiding intelligence that underlies all of Nature and that has harnessed the entire universe to its cause—"a sentient and intentional agency made of information whose presence and teachings await us." And he adds: "When one has encountered the Other through the visionary effects of a strong dose of psilocybin mushrooms it becomes quite evident that, whatever the Other's ultimate intent, consciousness is an essential part of the

plan.”

There’s a widespread assumption that the brain makes consciousness the way a factory makes cars. But there’s no proof that this is actually how things work. The brain could equally well be a receiver, or transceiver, that manifests consciousness on the physical plane. We simply do not know how these few pounds of jelly inside our skulls allow us to appreciate a sunset or a symphony, or experience love or joy. It’s the greatest mystery of science.

Into this mystery Powell steps with the radical suggestion that everything is information and that all the information accumulated by the universe in the fourteen billion years since the big bang is best understood as a sort of gigantic computation intentionally designed to result, somewhere, sometime, in the evolution of consciousness—just as it has done on earth. Most proponents of intelligent design focus on the apparent irreducible complexity of

specific organs or organisms—a losing proposition, since evolutionary theory explains complexity quite well without having to call for a designer. But Powell focuses much more plausibly on the grand context in which evolution unfolds. That context, he contends, can only be the work of an intelligence of a far higher order than our own that wilfully endowed the universe with precursor conditions and laws of physics capable of nurturing the eventual evolution of consciousness.

These are provocative and powerful ideas that contribute to a growing debate in science and philosophy about the mysterious nature of reality. And while Powell's thesis may be controversial, he is surely right that the targeted use of psilocybin and related entheogens offers our best hope for solving the mystery. These substances must be demythologized as the folk devils of the war on drugs and welcomed as valuable allies in our search for meaning in the universe. In precisely those areas of inquiry where science and

all its instruments fail us we are fortunate indeed that “the sacred mushroom now beckons.”

Graham Hancock, born in Edinburgh, Scotland, is a British writer and journalist. His books, including *Fingerprints of the Gods, The Sign and The Seal,* and *Heaven’s Mirror,* have sold more than five million copies worldwide and have been translated into twenty-seven languages. His public lectures, radio, and television appearances have allowed his ideas to reach a vast audience, identifying him as an unconventional thinker who raises controversial questions about humanity’s past.

Preface

This book has passed through many hands and been subject to many revisions. To be sure, it has been a very long and laborious struggle to reach this stage. Now that the book has finally been accepted for publication, I should say a few brief words about its admittedly unusual content. Essentially, I present the reader with a series of bold ideas and concepts concerning the nature of the user-friendly Universe in which we find ourselves. In particular, I explore the significance of consciousness within the Universe, for consciousness is the very core of our being. And it is precisely the

very core of our being that psychoactive fungi can so dramatically illuminate. This may explain why such fungi were more often than not venerated and deified by those historical cultures that employed them.

I have tried, to the best of my abilities, to make sense of my own personal experiences with one particular psychoactive fungus native to Great Britain (at a time, I might add, when possession of this mushroom in its fresh state was completely legal). These experiences involved dramatic changes in consciousness and the acquisition of what seemed to be a new kind of knowledge. The experiences were generally so profound as to make it difficult to integrate them into more traditional modes of thought. And yet it is undoubtedly this assimilation of what would appear to be higher knowledge that is so crucial if these kinds of experience are to have a lasting, positive effect. Hence my writing of this book. However, it would be ludicrous for me to suggest that I have written the

“truth,” for truth is something that must be experienced personally. At heart, then, this book consists of a series of provisional hypotheses about the meaning of life, which have been formulated in the wake of certain extraordinary states of mind. The experiences themselves were real and were thus “true,” whereas, of course, my interpretation of them might well be in error.

One thing of which I am wholly convinced and that I should make clear at the outset is that the ingestion of traditionally deified plants and fungi can, in the long run, afford a benign change in our understanding and conception of Nature. It is evident that at the current time our relationship with the natural world is so alienated and so out of balance that only radical means may prevent global catastrophe. In this sense the sacred mushroom is, at least potentially, a very powerful eco-psychological catalyst able to heal our relations with the rest of the web of life. Of this, no one should be fearful.

SIMON G. POWELL
LONDON

P R O L O G U E

A Question of Life and Death

It might be a decidedly curious way to begin a book, but humor me and ask yourself the following question: Who or what killed Einstein? What entity or force ended the life of perhaps the greatest mind of our era, that scientist whose name is synonymous with intelligence? Well, it was clearly not a butler who did it, nor, as far as we know, was it an assassin belonging to some sinister governmental agency. To put it bluntly, it was *the reality process*

that killed the great Einstein.

Although this deceptively simple answer may seem reminiscent of a wry Woody Allen joke, what I mean to convey is that all of us, regardless of age, sex, race, or creed, are born out of, and are destined to die within, a massive ongoing process consisting not only of the evolution of life on Earth but of the evolution of the Universe as a whole. It is this relentless and all-encompassing process within which we are all so intimately embedded that we term *reality*. We might also refer to this process as *Nature*. Thus, another obvious way of answering my peculiar question is to say that natural causes killed Einstein. This means, in the final analysis, that Nature birthed Einstein, gave him seventy-six years of existence, and then summarily dissolved him.

Call it Nature or call it reality, either way they are but small words for an immense process that flows inexorably onward. Whatever one's preferred term, it most certainly is a process, a word whose

Latin roots mean “to advance” or “move forward,” and there can be little doubt that reality is, at heart, a singularly vast process that has been running nonstop for some fourteen or so billion years. Not bad. Pretty impressive, in fact.

So what? you might ask. Well, one of the prime functions of this book is to explore and hopefully elucidate the ultimate point of this creative but fatal reality we find ourselves in. To put it bluntly once more, are we biologically woven into a pointless accident, or is reality somehow directed? This is quite some question, perhaps the most profound we can ask in our short earthly sojourn, and one we know to have crossed Einstein’s astute mind. Consider, for example, a famous remark attributed to Einstein in which he claimed that the most incomprehensible thing about our Universe is its comprehensibility. What he meant to convey by this rather sublime assertion (of which there are many paraphrased versions) is that it is truly astonishing that Nature makes sense, whatever part of it we

care to study. Law and order are everywhere, whether in the domain of physics, chemistry, biology, or cosmology. Moreover, Nature has somehow conspired, through a process of organic evolution, to build biological brains endowed with minds capable of comprehending physical, chemical, biological, and cosmological phenomena. Why? Why exactly should Nature be that way? Why should the Universe be endowed with the creative capacity to construct millions of spiral galaxies and millions of delicate spiral seashells, as well as the human brain with its ability to perceive and understand those things? Could reality have been otherwise?

Whatever the case, should we believe the reality process to be essentially a mindless accident that just happens to be blessed with extraordinary powers of creativity, then we might conceive ourselves to be hapless mortal prisoners entrapped in the process. Or, if we instead believe reality to be purposeful and meaningful in some way, then we might consider ourselves fortunate functional

components of the process. Whatever you may have read, let me assure you that this issue has most definitely not been settled. It is neither completely obvious that the Universe is a purely accidental affair nor is it clear that the Universe is purposeful (or at least one can say that the jury is still out). Neither science nor religion—arguably the two dominant strands of thinking that tend to confront the fundamental nature of reality—has absolutely conclusive evidence at hand.

But if we look to science for clues—because science has enjoyed more evident practical success than religion—then clearly over the past three hundred or so years since the time of Newton and the development of classical physics, science has made great headway in elucidating how reality works; not why it works, but how. Because the process of reality is so obligingly comprehensible, science has enjoyed a dialogue with Nature in which operating principles have been ascertained by means of scientific

experimentation. In this way, scientists like physicists, chemists, biologists, and cosmologists have acquired a wealth of information concerning the subatomic, chemical, biological, and astronomical aspects of reality and have subsequently built elaborate models detailing them. However, how one *interprets* the language of Nature, how one translates the data collated by science into a theory about the ultimate nature of reality, is a subjective affair very much up for debate. Thus, our big opening question awaits a satisfactory answer, and Einstein's killer remains very much on the loose.

At heart, if we wish to know what, if anything, the reality process is really up to, we can do little more than assess all the relevant information revealed by science and all the intuitive wisdom accrued through personal experience, and then attempt to form a viable theoretical overview. Absolute truths, it would seem, are all but inaccessible, and thus the true nature of Einstein's creator and killer might forever remain a mystery. But, whatever we believe

about the reality process, we are, willy-nilly, most definitely all "in it together" whether we like it or not, and it is for this terrifying or wonderful reason that I have taken it upon myself to explore by any means necessary just what it is exactly that is driving reality, whether the driver is blind or has vision.

Before I reveal to you my particular mode of investigation, let us briefly review what most of the science community believe to be the essential meaning of existence. As it is, current scientific thought definitely veers toward a purposeless and mechanistic account of the Universe, an account that is, with all due respect, depressing and devoid of spirit. Although our scientific knowledge of the world reveals its microscopic and macroscopic complexity and highlights the universal mathematical precision of things like physical law, this knowledge has in effect reduced the Universe to a kind of pointless mechanism devoid of high intelligence apart from our own. Everything from a cell to an orchid to the emergence of our species

is generally reduced to a set of *merely*s. Indeed, the more successful a scientist is in reducing whatever facet of Nature he or she is working on to "merely this" or "merely that," the more warmly is that scientist's work received. To argue otherwise by, say, suggesting that Nature is purposeful in some way, is to ostracize oneself from mainstream science. Certainly it is the case that nobody will win a Nobel Prize for planting purpose in Nature, despite the uplifting appeal that such an intentional theory of reality would undoubtedly carry.

But is it valid to build a new and overtly optimistic theory concerning the ultimate nature of reality solely because our current theories are not uplifting enough? Obviously not. A new theory like this would represent nothing more than whim, a psychological artifice formulated solely because the consensus truth about reality is perceived to be too gloomy and too unpalatable to swallow. Indeed, to enthusiastically infer, say, that conscious existence has

some kind of special purpose in the reality process, that consciousness is somehow at the center of an intentional Universe, smacks of the prescientific beliefs confined to the pages of history books, to a time when supernatural thinking governed human minds. This kind of anthropocentric religious ideology has now been all but crushed by rational scientific thought, which firmly places our kind on a mere satellite circling a mere star among billions. We are no more than the product of evolution, one particular species out of countless millions, whose only real claim to fame is our big brains with their ability to think and direct complex behavior.

Over a few centuries, in particular from the seminal publication of Charles Darwin's *The Origin of Species* in 1859 (which can be cited as a definitive turning point in our concepts of humankind's place in Nature), the ideological pendulum has swung 180 degrees, from a position in which humanity was the crowning glory of creation to a

position in which we are but speckish organic bystanders in an essentially pointless universal exercise of physics and DNA-orchestrated biochemistry. Life is accidental, mostly hard, and then you die—a tough fact best swallowed, perhaps, with a large brandy.

To revert to the more ancient view in which life, and in particular human consciousness, is considered to be somehow significant therefore seems completely out of the question, a futile move serving only to stir up false hope in a Universe that basically "just don't give a damn." This is especially so if our sole motivation is a dislike of current scientific reasoning. Only if a grand optimistic view of existence were driven primarily by direct conscious experience could it possibly hope to possess validity. And not just wishy-washy conscious experience either. The experience, if it were to bear upon notions of the ultimate nature of reality, would have to be remarkably compelling and potentially accessible to all. It would have to provide *incontrovertible evidence* that we have some

significant role to play in the reality process. But could a direct conscious experience really afford a deep insight into our big question?

Well, if we keep in mind that science proceeds through verifiable experimentation in which information is gained through conscious experience and that we depend upon such experience to build our models of reality, then it would indeed appear to be a possibility. In other words, new forms of conscious experience might well offer us a solution to the most perplexing questions that the Universe presents us with. Which brings me to the central fact permeating this book, namely that *conscious experience is entirely mutable*. And herein lies hope for a new optimistic theory concerning the significance of human consciousness within the reality process.

The mutability of consciousness: What does such a concept imply? First of all, we should consider the fact that consciousness, whatever it is exactly, is the "stuff " that mediates all science and,

for that matter, all types of reasoning and all of our theories about the world. Whatever a person's view on the meaning of existence, it is through conscious experience that all views are formed. Consciousness can therefore be understood as the very ground of our being, the "X factor" that makes us what we are. In order to become fully engaged in the important point I am here trying to express, consider the following simple thought experiment.

Imagine, if you will, that all scientists wore identical spectacles and that these spectacles determined the perceptual view of the things being scrutinized by the scientists. All the data amassed by these scientists would be related in some intimate way to the effects of their spectacles, since all their perceptions will have passed through the self-same lenses. Now, it isn't pushing credulity too far to suggest that the scientists would do well at some point—possibly over their morning coffee break, or perhaps at a stage when their theories are proving to be inadequate—to reflect on the

characteristics of their shared state of "bespectacledness." In other words, it would be quite a breakthrough for these scientists to suddenly cease their traditional research in order to focus on the nature of the factor mediating their research, namely, their glasses. What they would soon come to realize is that their glasses represent a subject worthy of analysis because they are, in a real sense, the closest thing to them.

This imaginary situation is not unlike the real world, only this time it is our consciousness, or rather our *state of consciousness,* as opposed to glasses, through which we gain knowledge and experience. For simplicity's sake, we can call this "normal consciousness," a kind of shared lens through which science and scientific interpretation proceeds. Thus, it is quite legitimate to reflect on this "lens of normal consciousness" and ask whether, perhaps, it could be altered or be enhanced. In short, one might well wonder if it is possible to improve on the lens of normal

consciousness and attain a state of mind in which the essence of Nature is more clearly discernible.

Although one cannot escape these rather odd facts about consciousness, science has had little to say about it, preferring to place the human mind safely outside of the theoretical picture of reality. Put simply, the phenomenon of human consciousness is a scientifically slippery and vexing anomaly that is in stark contrast to the more empirically approachable phenomena of, say, stars and molecules. Yet since we are conscious beings whose minds literally interface with the external world, then until we understand the nature of the "mind-stuff" carried by our brains, we will not be able to fully comprehend the nature of the reality process. This must be so because, as we have just established, consciousness is itself as much a part of reality as are the things perceived by consciousness, such as the aforementioned stars and molecules. Indeed, if we were not conscious beings, we would not be in a position to seek

explanations about the nature of reality in the first place. It is only because we are conscious and because we stand in a mindful relationship to the reality process that we feel compelled to account for our existence. Our conscious minds long for knowledge about the Universe so that we might understand both our place within the totality of existence and the natural forces that led to our being here. Hence the enterprise of science (which means “to know”).

Now, as I will show throughout this book, consciousness is mutable because it is mediated by chemistry, which is to say that mutable or transformable chemical processes underlie consciousness. In effect, this means that our normal ways of thinking and feeling are constrained by the brain’s chemical hardware (or wetware, as it is sometimes called in neuromantic circles). It is therefore conceivable that certain aspects of the world remain hidden because of the limitations of our everyday type of consciousness. Thus, if we truly wish to grapple with the ultimate

questions concerning the nature of our existence, then it is surely worthwhile to seek out new forms of perception, forms, for instance, in which all of perceived reality is grasped at once, holistically as it were, and not in the piecemeal fashion of science, which, it must be said, tends to focus on isolated parts of the world.

Historically speaking, altered forms of consciousness in which the whole sense of reality is immediately discerned and felt in a kind of joyous flash of insight are the sole domain of mystics, those persons who claim, rather controversially and often with alarming vigor, to have directly experienced "ultimate truths." Many mystics and religious visionaries have employed various techniques with which to foster their insights—like fasting, yoga, meditation, perceptual isolation, and so forth—and these disciplines are known to alter brain chemistry. This again testifies to the fact that the normal human brain is somehow constrained in its mindful activity and that the chemical system that does the constraining can be overcome.

For most of us, such esoteric endeavors, regardless of whether they do actually yield valid knowledge, are perhaps a little beyond our normal way of life, and we might therefore wish to stick with less suspect nonmystical science for answers to the big questions about reality.

However, there is another, more immediate route to transcendental knowledge, as it is termed in philosophy. This route involves *the deliberate ingestion of naturally occurring entheogenic (sacred) plant and fungal alkaloids in order to access information inaccessible to the normal mind*. Traditionally, this little-documented enterprise is engaged in by shamans, or native healers, who often employ entheogenic flora to gain transcendental knowledge, which they utilize for the benefit of their culture (note that the term *entheogenic,* which I use throughout this book, means the "generation of the divine within").

To this day, aboriginal shamans in places like Amazonia and

Mexico still utilize the powerful effects of indigenous entheogenic plants and fungi to fulfill their shamanic healing role within their native culture. So strong can the revelational effects of such plants and fungi be upon the human psyche that they generally come to be deified. Earth's entheogens become a sacred link to divinity, almost as if they represent an organic modem connected directly to the realm of the gods. This was what luminary Aldous Huxley was alluding to some sixty years ago in his cult classic *The Doors of Perception,* in which he poetically describes the fantastic perceptual enhancement that accompanied his ingestion of mescaline, an entheogenic alkaloid derived from the peyote cactus.

It is precisely because entheogenic plants and fungi facilitate states of consciousness in which Nature is perceived in a radically new way that makes them useful epistemological tools (epistemology is the study of knowledge). But, more than this, these kinds of illuminating changes in consciousness *also offer us a way*

to understand consciousness itself, since one can analyze the subtle chemical changes accompanying the altered state of mind and then attempt to use such data to comprehend how normal consciousness works. Thus, the virtue of investigating the effects of entheogenic substances is twofold.

First, through their dramatic action within the brain we might come to perceive Nature in an enhanced way. Second, we might come to understand more about the underlying chemistry that is bound up with normal conscious processes, that is, the modus operandi of entheogenic substances reveals the delicate chemical mechanisms that govern consciousness and our perceptions of reality. If, through the use of entheogens, we can enhance our understanding of the interface between the mind and the "world out there," then we shall know more clearly what consciousness is, how it is formed, and how it can come to experience transcendence. And if the transcendental information accessed in the altered state of

consciousness has any truth value—and native shamans all testify to this—then we will be one step closer to an overall conception of what is driving reality. Only then might we apprehend Einstein's creator and killer, for then we would have begun to establish its ultimate nature. At least it sounds promising.

It is my contention throughout this book that naturally occurring entheogenic plants and fungi are indeed the key to solving the twin mysteries of consciousness and reality. Once ingested, entheogens are intimately involved with the bridge between consciousness and the world around us. The numinous experience that entheogenic agents can induce, no matter how bizarre it might appear in the context of the mundane world and no matter what brain mechanism underlies it, is a real thing; it exists, potentially at any rate. As we shall see, the archetypal tale of transcendence reported by entheogen-using shamans results from direct and verifiable experience.

It is on the basis of such verifiable experience that this book rests. The apparent capacity of the human mind to transcend "normal" reality demands investigation, for it must surely be a tenable step toward reclaiming significance for the existence of human consciousness in the Universe. However, if such an enterprise is spurious and built of no more than ephemeral imagination, then it will only point to the fact that the human imagination under certain chemical circumstances is extraordinarily creative. But it is my belief that entheogenic agents unleash a form of consciousness better able to grapple with the ultimate questions about the reality process than our normal frames of awareness, that they truly offer us a glimpse of some great meaning hitherto the sole domain of the shaman and the mystic, a meaning only alluded to in the conventional religions of the world.

As I see it, if we are genuinely interested in the function of the Universe and the function of human consciousness within it, then

we are obliged to follow all and any paths of inquiry. I would suggest that the untrammeled path laid out by entheogenic plants and fungi is, perhaps, the most viable route to evidence that indicates that human consciousness is central to reality. If, instead, this unusual path should prove to lead nowhere, then we may have to accept that human life and human consciousness are devoid of any real purpose, a view proffered, it must be said, by all manner of "experts." This book can therefore be read as an alternative, user-friendly guide to the nature of reality, the implications of which herald all manner of good news. Very good news indeed.

So stand by for a controversial tale of a recently rediscovered entheogenic substance native to most parts of the Earth's Temperate Zone. And brace yourself for the astonishing insights into mind and Nature that this substance provokes. Fasten your seat belts, because if I have done my job correctly, you are poised for a roller coaster ride into the very heart of the mystery of existence. As the chapters

unfold we will gradually climb up to a peak, from which point we will be propelled through exhilarating vistas in which the significance of consciousness is breathtakingly apparent. By the end of the book, I hope to have shown, beyond any reasonable doubt, that the reality process is essentially *smart* through and through and that we conscious beings have a privileged role to play in its intentional unfolding. I assure you that this will become crystal clear as the chapters progress.

O N E

Sacred Ground

On May 13, 1957, the well-read pages of *Life* magazine carried a ground-breaking article that was to profoundly alter the West's attitude toward the wilder side of the natural world. Here was the first-ever personal account written by a Westerner describing the extraordinary psychological effects induced by a mushroom deified and ritually worshipped by native Mexicans. Consumption of the

sacred Mexican mushroom allowed one to contact the gods, experience profound visions, and gain mystical knowledge. Or at least these were the most extravagant of the native Mexican beliefs about the mushroom that were reported by anthropologists during the first half of the twentieth century.

In pre-Columbian times the mysterious mushroom had been known by the Aztecs as "God's Flesh," testifying to its divine potency. Such veneration ensured the mushroom a cult status among native Mexicans, despite the violent cultural upheavals wrought by the Spanish Conquest in the sixteenth century. Thus, although the once-mighty Aztec culture was eventually destroyed, the sacred mushroom continued to be used in and around Mexico throughout the Spanish occupation. Yet despite the legendary effects of this peculiar species of fungus, it wasn't until the middle of the twentieth century that an outside investigator finally consumed the mushroom and hence verified its alleged spiritual potential.

Transmitted solely by word of mouth from the time of the Spanish Conquest, detailed knowledge of the revered mushroom had lain principally in the hands of jealously guarding shamans or native healers, who were loath to disclose their botanical secrets to outsiders. They feared, perhaps justifiably, that the sacred mushroom's supernatural power would be diminished or be used profanely should the untrustworthy white folk gain full admittance into its living mystery. Therefore the 1957 *Life* article in which the secret of the mushroom was openly exposed dramatically symbolized the West's bypassing of this long-standing cultural security system. The sacred mushroom had been forcibly plucked from its localized shamanic niche and was now being presented to the Western world in the form of mass-circulated print, with color photographs and specimen drawings to boot.

Despite exposure to the prying eyes of the West, the status of the Mexican mushroom remained as lofty and as tantalizingly ethereal

as ever, more so even since the Western psyche was just as stunned and awed by its transcendental visionary effects as were local Mexicans. In the following decades a psychedelic mushroom cloud of fascination would slowly expand and loom beyond Mexico, eventually extending its magical influence as far away as Europe, but at this initial stage in its sudden growth, the strange mushroom remained a purely Mexican phenomenon.

On the front cover of that auspicious edition of *Life* magazine, the simple headline read "The Discovery of Mushrooms That Cause Strange Visions," a rather unusual claim from such a traditionally conservative magazine. The article was included as part of *Life* magazine's series of *Great Adventures* and was written by R. Gordon Wasson, vice-president of a Wall Street banking firm, who, with the aid of his wife, Valentina, had spent some thirty years of part-time research creating a new scientific discipline—ethnomycology, the study of the cultural and historical use of fungi.

Ethnomycology is clearly specialized and seemingly remote from the affairs of modern culture. It was only through the dedicated efforts of the Wassons—who learned of the sacred Mexican mushrooms, sought to find them, and experienced them firsthand—that psilocybin (the as-yet unnamed active constituent of the mushroom, pronounced silla-SIGH-bin) came to the attention of the West. Once the sacred Mexican mushrooms were discovered, ethnomycological science suddenly acquired a distinctly mystical edge, allowing it to breach the domains of religion and psychology. It also provided a new impetus to humankind's enduring quest to access transcendental knowledge, and there can be no doubt that Wasson's discovery and vivid description of the effects of psilocybin were crucial in generating the subsequent cultural wave of psychedelic experimentation that soon followed in the 1960s. Moreover, as we shall eventually see, the mushroom also reveals itself as the key to unveiling the secrets of consciousness and the hidden riches of Nature. Theophany, mind, and reality: these three

most profound of topics are all met in some way through use of the mushroom. But, before we jump into the deep end, who, pray, was this Wasson fellow, this financiercum-adventurer? And how had he come to penetrate the Earth's secret psychedelic dimension? Who was he to bring news of sacred fungi to the attention of the Western world?

In effect, Wasson's *Life* article was timed to coincide with the release of his magnum opus two-volume book *Mushrooms, Russia and History,* cowritten with his wife, Valentina. This work fully reveals the extent of Wasson's long-standing interest in the cultural use of fungi and how he finally came to be at the door of perception marked *psilocybin*.

With only 512 handcrafted copies luxuriously bound and printed, *Mushrooms, Russia and History* stands as a rare piece of art. Indeed, by the late 1970s its value had reached some $2,500, making it the most valuable book in existence at that time whose author was still

alive. It is a highly polished book, written in a lively style that reflects the love of ethnomycology borne by the Wassons. It represents the distilled wisdom drawn from their extensive studies into the role that various species of mushroom played in different cultures, and it culminates in their discovery of the sacred mushroom ceremonies still being conducted in Mexico, a discovery important enough to warrant the further account in the more accessible pages of *Life* magazine.

A Trail Begins

The event that originally launched the Wassons on their mushroom crusade was simple, almost trivial, yet it was enough to provoke them into a three-decade-long bout of invaluable research. The Wassons married in 1927, and one day during their honeymoon they decided to take a casual stroll in the Catskill Mountains of New York. At some stage, Valentina, who was Russian by birth, stopped

to pick wild mushrooms, delighting in such a fortuitous find. Her husband, on the other hand, being true to his Anglo-Saxon heritage, was appalled at his wife's avid interest in lethal fungal abominations, especially since she planned to cook and eat them later. After all, were not all fungal growths poisonous toadstools to be avoided like the plague? With growing dismay, Gordon Wasson imagined himself waking up the next morning with a corpse instead of a wife.

This pronounced and deep-rooted difference in attitude between the two of them over the culinary virtues of fungi led them to suspect a cultural rift, that there were mycophobic peoples (sensible mushroom haters like the Anglo-Saxons) and mycophilic peoples (reckless mushroom aficionados like the Russians). Furthermore, the Wassons reasoned that there must be a historical reason for these diametrically opposed traditions, due not to something like food availability, but rather to cultural and psychological factors.

Thus began the Wassons' academic quest to explore this strange cultural anomaly. From the start both figured that religion somehow played a causal role.

Their intuition proved correct. Research soon unearthed the Siberian cultural history of the *Amanita muscaria* mushroom, also known as fly agaric, that extraordinary bright red and white-spotted autumnal fungus found throughout the Northern Hemisphere and often charmingly depicted in the illustrations adorning the pages of children's books. Indeed, it has been suggested that Lewis Carroll was influenced by knowledge of the Siberian use of the fly agaric and used the information to great effect in his book *Alice's Adventures in Wonderland,* in which, you might recall, Alice nibbles on a mushroom that subsequently alters her size.

As we shall see, compared with the psilocybin mushroom, the fly agaric's psychoactivity rates a poor second, though it is potentially entheogenic due to the presence of an alkaloid named muscimol.

Despite muscimol's entheogenic inferiority to psilocybin, the cultural role and use of the fly agaric mushroom among Siberian shamans is beyond dispute, and the Wassons uncovered a wealth of literature testifying to this fact. The fly agaric mushroom proved to be a link to primitive religion just as the Wassons had originally foreseen, and it soon became clear to them that psychoactive fungi were no small feature of cultural history.

Echoes of a Shamanic Beat

Since the time of Tsar Peter the Great (1672–1725), the Kamchatka Peninsula, the easternmost part of Russian Siberia, was visited by travelers, political exiles, explorers, fur traders, and anthropologists. All were to bear witness to the nomadic reindeer herders who ritually ingested fly agaric mushrooms (their only intoxicant) in order to obtain contact with the spiritual dimension. The word *shaman* itself derives from the Siberian Tungus *saman,* which

means “diviner,” “magician,” “doctor,” “creator of ecstasy,” “the mediator between the human world and the supernatural world.”

The Siberian fly agaric user would sun-dry the mushrooms and later ingest them either alone or mixed with milk or water. If taken alone, the mushroom would first be moistened in the mouths of women, who would produce a kind of pellet for the shaman to swallow.

The effects of consuming this mushroom included convulsions, delirium, visual hallucinations, perceptual distortions of size, feelings of superhuman strength, and a perceived contact with a numinous dimension, this last effect being the most important for the practicing shaman, whose predominant function was to access the spiritual realm to attain supramundane knowledge for the good health of his or her tribe.

The most bizarre aspect of this shamanic tradition, however, was the habit of urine drinking. Somehow, the Siberians discovered that

the active ingredient of the mushroom passed through the body without being metabolized and that drinking fly-agaric-spiked urine could prolong intoxication. Possibly the Siberians learned of this odd fact by observing reindeer, which not only reputedly eat the fly agaric themselves with much gusto, but also have an equal passion for human urine, so much so that Siberian reindeer herders considered it dangerous to pee out in the open!

The rather disturbing and unpalatable practice of drinking psychoactive urine attained great significance in Wasson's later work in the 1960s, as urine drinking is mentioned in the Rig-Veda, the ancient religious scripture of India. Written in Sanskrit and derived from the oral traditions of the Indo-Europeans who migrated down into the Indus Valley some three and a half thousand years ago, the Rig-Veda eventually went on to influence the development of Hinduism.

Of the one thousand holy hymns in the Rig-Veda, more than one

hundred are dedicated solely to the divine plant *Soma* and its spectacular psychological effects. Because urine drinking is clearly alluded to in these hymns deifying Soma, Wasson came to the conclusion that the fly agaric mushroom was the sacred Soma worshipped by the ancient Indo-Europeans. Indeed, in parts of India, followers of the Vedic tradition still perform a religious ceremony in which Soma is ingested, only they now utilize an inactive surrogate species of plant. Wasson's identification of Soma was, at the time he made the claim, one of only a handful of serious attempts to explore and name the legendary Soma plant. To this day his identification is considered plausible by many Vedic scholars.

Mushroom Lore

The shamanic use of fly agaric mushrooms by primitive Siberians seemed to date far back in history, as various legends spoke of its mythical origins. For instance, a Koryak legend tells of a hero

named Big Raven who was able to attain immense strength by eating spirits given to him by the god Vahiyinin—the god of existence. By spitting upon the earth, Vahiyinin caused the necessary spirits to grow, these being fly agaric mushrooms with their ability to provide supernatural strength and wisdom.

The Wassons theorized that it was this archaic shamanic practice of fly agaric ingestion, so well reflected in legend and mythology, that eventually led to the mycophobic pre-Christian taboos against eating mushrooms, which were still evidently shared by most of the peoples living around the shores of the North Sea. In other words, because the fly agaric mushroom was used mainly by shamans in a ritual context, cultural injunctions and taboos would conceivably have evolved to stop others wantonly utilizing its strange power. Or, it is just as likely that through migrations and invasions, misinformation spread regarding the true nature of the mushroom's effects. Through such typical cultural mechanisms as these, the

psychoactive fly agaric mushroom gradually came to attain a mythical status, guaranteeing it cultural immortality as it progressed as the stuff of legend from generation to generation.

The shamanic use of fly agaric diffused out from Russia, and while some peoples gradually came to eschew the mushroom, others embraced its effects. Not only did the Aryan people who migrated down into the Indus Valley thirty-five hundred years ago bring with them their religious cult of Soma, later still, approximately 1000 B.C., we find artistic representations of mushrooms on Swedish, Norwegian, and Danish Bronze Age objects. On bronze artifacts like razors are mushroom motifs (generally stylized cross-sectional views of a mushroom) that depict the mushroom in a way that suggests that it was an object of worship. Because the fly agaric mushroom abounds in Scandinavia, these motifs are thought to represent a fly-agaric-worshipping cult similar to those of Siberia.

Apart from Siberian folklore, many European folktales testify to

the enigma of the fly agaric mushroom, providing an echo of the distant cultural interconnections of the past. Stories arising from the region once known as Yugoslavia take the mushroom's supernatural origin back to the time of pre-Christian Nature gods. A legend relates that Votan, chief of all the gods and a potent magician and healer, was riding his magical horse through the countryside when demons suddenly appeared and started chasing him. As he fled, his horse galloped so fast that flecks of bloodied foam flew from its mouth. Wherever this bloody foam fell, fly agarics sprang up.

Hungarians once called the fly agaric *boland gamba* or the "mad mushroom." Austrians and Germans used to speak of the "fool's mushroom" and were wont to respond to peculiar behavior with the phrase "have you eaten crazy mushrooms?"

The Wassons also analyzed the vast array of words used to describe mushrooms in different cultures and the latent metaphors that these words conveyed; words like *toadstool,* for instance, which

links the toad to the mushroom, the toad being a creature much maligned in myth and folklore. The Wassons also conjectured that the *fly* in *fly agaric* was not a reference to its supposed insecticidal effect; rather, the common insect used to be associated with demonic power (Beelzebub is "Lord of the Flies") and was thus fearfully associated with the mysterious mushroom.

In short, the Wassons uncovered a vast cultural diffusion of mushroom lore indicative of a common origin. The psychoactive fly agaric mushroom seemed most likely to be the instigator. Wasson later summed up his views in the following way in his book *Soma: Divine Mushroom of Immortality.*

> Death will come if the layman presumes to eat the forbidden fruit, the Fruit of Knowledge, the Divine Mushroom of Immortality that the . . . poets of the Rig-Veda celebrated. The fear of this "death" has lived on as an emotional residue, long after the shaman and his religion have faded from memory, and

here is the explanation for the mycophobia that has prevailed throughout northern Europe, in the Germanic and Celtic worlds.[1]

At this point the Wassons might well have ended their mycological investigations, an interesting enough climax since they had left the fungal world and ventured into the domain of primitive religion. The plot, however, was going to thicken as the fly agaric became overshadowed by the far more powerful figure of the psilocybin mushroom, a mushroom whose living mystery Wasson would eventually confront within the inner sanctums of his soul.

Intimations of a Sacred Mexican Mushroom

In 1952 an acquaintance of the Wassons, the noted poet and historical writer Robert Graves, wrote a crucial letter informing them of a supposed secret mushroom cult still in existence in

Mexico. Graves included in his letter a clipping from a Canadian pharmaceutical journal that discussed finds made by Richard Evans Schultes years earlier. It transpired that Schultes, one of the world's leading ethnobotanists attached to Harvard, had, in 1938, identified a species of *Panaeoleus* mushroom as being the sacred sacrament allegedly employed by Mexican Indians. At that time, only this one entheogenic species had been identified by Schultes, and although a few European people had observed a native Mexican mushroom ceremony, no outsiders had been permitted to partake of the mushroom itself. This is significant, for without actually personally experiencing the psilocybin mushroom, one can only guess at its effects, and therefore the early anthropological observations passed by without much interest.

Once the Wassons learned of these intriguing facts, armed as they were with detailed knowledge of fly agaric mushroom history and lore, it was only natural for them to heed Graves's investigational

indications and focus their attention upon Mexico. If mushroom ceremonies were still being practiced, it would be testimony to the shamanic use of fungi not limited to the pages of history.

Through associates, the Wassons were soon in avid correspondence with one Eunice Pike, an American linguistic student and Bible translator (in other words, a missionary) who had been living among Mazatec Indians in Huautla, Mexico, for more than fifteen years. Having become familiar with the native customs and beliefs about certain sacred mushrooms, she was only too willing to share her knowledge with the Wassons.

Pike informed the Wassons by letter that one Indian boy had referred to the mushroom as a gift from Jesus, no less than the blood of Christ. The Indians also said that while it helped "good people," it killed "bad people" or made them crazy. Furthermore, the Indians were sure that Jesus spoke to them while in the "bemushroomed" state. Everyone whom Pike asked agreed that they were seeing into

heaven itself through the mushroom.

As well as highlighting the ongoing integration of the Christian faith into native Indian culture, the Indians' claims indicated that the mushroom was highly powerful in its psychological effect, able to induce a radical alteration of consciousness still relatively new to Western science. It was also clear that the normal procedure was for a shaman to eat the mushroom on behalf of another, usually in order to heal, this being the classic social function of the shaman found in most of the world's native cultures.

Pike ended her informative and tantalizing letter by wishing that the natives would consult the Bible instead of resorting to consumption of the strange mushroom, a remark natural enough to anyone concerned with preaching the Bible and unfamiliar with the psychological territory accessed through psilocybin. But still, is it not odd that someone so obviously religiously inclined, as this woman was, should not have detected something of spiritual

importance in the Indians' claims? If so many of them readily attested to the virtues of the sacred mushrooms, why did she not try them for herself? After all, she mentions no harmful effects apart from the dangers of possessing a "bad heart."

What is the nature of this fear that would prevent a single open-minded experiment with such fungi? How can one claim to be fully religious and not take the testimonies of shamans seriously? This was an anomaly that was to continually crop up in the relations between the Western psyche and the mushroom. Psilocybin would come to generate absolute awe or absolute rejection in those who confronted it, this being indicative that something significant is at work in the actual experience. If there was nothing of real interest to be gained from visionary substances, if the experiences were purely limited personal fantasies, then there would be no stimulational force with which to generate enduring fascination. However, as I will show, many have claimed that psilocybin does offer great

knowledge about our existence, that it can yield soulful insights into the nature of reality. This is why the psilocybin mushroom experience has remained such an abstruse phenomenon and why opinions are so divided.

Sensing in Pike's letter that there was indeed some great revelational discovery to be made, the Wassons decided to travel as soon as possible to Huautla, and in 1953 they did so. There could be no mistaking the aroma of the ethnomycological Holy Grail as they neared its living presence. As an aside, they also realized that to judge from Pike's description, the mushroom being used by these Indians was not the *Panaeoleus* species previously identified by Schultes. This was further reason for prompt scholarly investigation.

Getting Warmer

By August 1953 the Wassons had managed to enlist the help of a Mexican *curandero,* or shaman, and this was an achievement in

itself, as the Indians were reluctant to discuss the mushroom with outsiders. Under the pretense of wanting supernaturally inspired news of their son, the Wassons were permitted to take part in a mushroom rite during which the shaman would ingest sacred mushrooms in order to gain the requested information. Unfortunately the shaman was the only person allowed to consume the fungus, and the Wassons were forced to remain uninitiated.

The shaman, under the effects of psilocybin, made three specific predictions concerning the Wassons' son, which, at the time, he (Wasson) politely humored, as he had no real inkling into psilocybin's latent ability to produce feats of clairvoyance. His interest was, after all, still predominately academic, and any kind of supernatural utterances were to be taken with a large pinch of salt. As it later transpired, all three of the shaman's predictions were borne out, and Wasson was at a loss to explain this. Was it coincidence? Or was it a genuine case of the paranormal? Whatever

it was, the mysterious mushrooms demanded closer scrutiny, for they seemed to promise much more of interest. Wasson was being drawn ever nearer, as his lifelong adventure drew to an epic climax.

A fully detailed witness account of this mushroom ceremony was to be the culminating chapter of *Mushrooms, Russia and History,* though just as the book was going to press in June of 1955 a new breakthrough was made. In fact, it was the ultimate breakthrough and became the highlight of R. Gordon Wasson's scholarly career. It also generated another chapter in his book and the seminal piece for *Life* magazine. The middle-aged New York banker-turned-ethnomycologist became the first Westerner on record to deliberately consume sacred Mexican mushrooms and behold their entheogenic glory. Wasson had sought, and finally accessed, one of the most remarkable experiences to be had upon this Earth. Thanks to his lifelong persistent efforts, humanity's exploration of Nature and of the limits of conscious experience became suddenly

enhanced as psilocybin made its extraordinary psychedelic presence felt. Indeed, for our purposes, it is rather apt that our man Wasson was provided with an informative and illuminating experience at that time—almost an earthly calling card in fact—as only a few months earlier Nature had consumed the great Einstein. At least it was apt in a relative kind of way for anyone interested in the subtle-yetnever-malicious force of such a wily killer/creator as Nature.

The Mystery Explodes into *Life*

In telling of his experiences in *Life* magazine, Wasson comes across as a kind of Prometheus figure, bringing the world news of a hitherto secret gift of the gods. Among dreamy 1950s Technicolor photographs and numerous advertisements for miracle filter cigarettes and various brands of alcohol, Wasson's article shines like some otherworldly beacon signaling the awesome visionary power latent within the Mexican mushroom. We can only guess at

the amazement that this article must have evoked in the psyche of a reader soaked in 1950s thinking and values. This was the decade of Cadillacs, rock ’n’ roll, television, and electronic gadgetry, a decade in which the postwar generation could live happily upon the bountiful fruits of consumerism. Having recently conquered both Everest and the secret of the atom, humankind seemed truly on the ascent. Unlimited atomic energy and unlimited material growth were in the cards. Nature had been tamed and set to work for our own ends.

Of course, what no one realized at this time was the devastating effect upon the environment that an unchecked material culture could wreak. As yet unconceived in holistic organismic terms, the natural environment was a place to take the kids on the weekend, not the grounds for concern, let alone the grounds for a bizarre shamanic consummation. And, after all, weren’t shamans just primitive witch doctors who spouted all sorts of unsophisticated

nonsense? It must therefore have been with some surprise that *Life's* readers found themselves being informed about visionary fungi, a facet of the environment still wild and untamed and one that spoke of a very different kind of reality from that of the American dream.

Deep in the south of Mexico in a small village in Oaxaca, Wasson recounted to the readers of *Life* how he had once more gained the confidence of a local shaman, a woman named Maria Sabina, under whose guidance he was allowed to ingest sacred mushrooms. Judging from the photographs included in his account, the house where the ceremony took place was small and sparsely furnished, with various Christian icons on display. The paucity of modern furnishings, however, was in stark contrast to the luxuriousness of the visionary experience that followed the ingestion of the mushrooms, the surroundings all but melting into insignificance.

At 10:30 p.m. Wasson received six pairs of mushrooms from Maria Sabina as she commenced the auspicious rite. At long last he

held the elusive mystery in his trembling hands. Tangible and open to physical analysis, the fungi were no native myth or figment of the imagination. But what of their legendary effect? All theory and hearsay became vanquished as Wasson swallowed his destiny.

Like all good empiricists Wasson determined to remain objectively aloof and ward off any major psychological effects so that he could study more clearly the nature of the revered shift in consciousness engendered by the mushroom. As noble as such efforts are, however, they generally prove futile in the face of potent entheogens, as one is forced to wholly succumb to the emergent global alteration in mentation.

As Wasson lay in the dark confines of the hut, the power latent within the mushroom gradually made itself known to him. Visions unfolded before his eyes, visions so intense and so profound that they breached the ineffable realms of religious mysticism. They began as vividly colored art motifs of an angular nature, as found on

textiles and carpets. Then the visions evolved into resplendent palaces and gardens laid over with precious stones. At one point, Wasson perceived a great mythological beast drawing a regal chariot. Still later it seemed as if his spirit had broken free from the constraints of his body and lay suspended in midair, viewing vast mountains rising to the Heavens. Wasson confessed that the sights were so sharp and clear as to be more real than anything that he had previously seen with his eyes, somewhat akin to archetypes and the Platonic realm of Ideas.

In *Mushrooms, Russia and History,* Wasson's description of his visionary experiences is more explicit than in the *Life* piece. What had started out as a unique work of ethnomycology, touching on ancient Siberian shamanism, had now transformed into a personal testimony of the mystical experience. Coming from a man normally concerned with the world of finance, this is a truly remarkable turn of events, even more so since he was not overtly religious. It was

also the case that any of Wasson's residual mycophobia had now been utterly obliterated, as the incontrovertible truth of psilocybin-induced shamanic ecstasy seized his soul. The sense of awe, the sense that he had been witness to an event of staggering cultural significance radiates from these more detailed accounts, and the book subsequently ends as a veritable mystical treatise.

At one point during the mushroom ceremony Wasson thought

> the visions themselves were about to be transcended, and dark gates reaching upward beyond sight were about to part, and we were to find ourselves in the presence of the Ultimate. We seemed to be flying at the dark gates as a swallow at a dazzling lighthouse, and the gates were to part and admit us. But they did not open, and with a thud we fell back, gasping.[2]

Although the visions lasted only a minute or so by watch, Wasson noted that he experienced them as having an aeonic duration, as

though he had passed out of the confines of normal time. He was also certain that the visions originated from either the unconscious or from an inherited source of racial memory, concepts borrowed from the work of Carl Jung, with which Wasson was obviously familiar. He readily conceded that the intense visionary episodes arose within him, yet they did not recall anything previously seen with his own eyes. He wondered if maybe the mushroom visions were a subconscious transmutation of things read, seen, and imagined, so much transmuted that they appeared to be new and unfamiliar. Or, mused Wasson, did the mushroom allow one to penetrate some new realm of the psyche?

I assume here that Wasson was referring to something more than a personal unconscious and more like an organized field of intelligence or a transcendental sentience of some sort, interpreted by native shamans as a Great Spirit or God. Wasson failed to elaborate on this matter, preferring to stick to more acceptable ideas,

and he ventured no further than Jungian territory in his enthusiastic speculation.

Wasson was also struck by the fact that the dazzling visionary material engendered by the mushroom must reside somewhere within the mind, in a kind of latent state, until the mushroom's psychoactive constituents stirred them into activity. But how was it possible, he wondered, that we could be carrying around an inventory of wonders deep within us, wonders that the mushroom could unleash so spectacularly? Perhaps, he suggested, some creative faculty of the brain was stimulated by the mushroom and this capacity for creative thought was somehow linked to the perception of the divine.

The visionary effects of the mushroom, so clearly related to the experiences of religious mystics, suggested to Wasson that these kinds of fungi might be connected in some significant way to the very origins of the religious impulse, an idea he first introduced in

the *Life* piece and one that he would constantly return to for the rest of his life. Wasson asks us if perhaps the idea of a deity arose after our distant ancestors first consumed psychoactive mushrooms, surely a compelling scenario if we are pushed to explain the origins of religion in natural terms. He was later to help coin the contemporary word *entheogen* to refer to these sorts of plants and fungi, a word that, although devised to mean "becoming divine within," is more often considered to mean "generating the divine within."

Readers of the *Life* article were also informed as to what the Mexican Indians themselves had to say about the mushroom. The Indians claimed that the fungi "carry you there where God is."[3] Always the mushroom was referred to with awe and reverence. It was not some common drug like alcohol to be taken at the drop of a hat in order to drown one's sorrows or deaden oneself to reality. On the contrary, native shamans used the fungus for oracular reasons to

cure and prophesize. Wasson was intimately familiar with the Indians' sacred traditions, and he was at pains to portray this cultural phenomenon to his readers in the respectful light it deserved. No Indian ate the mushroom frivolously for excitement; rather, they spoke of their use as "muy delicado," that is, perilous.

A deeply inspired man, Wasson was not only the first Westerner to document the psilocybin experience; he was also the first to attempt to account for the mysterious effects in reasonable psychological terms, and his tentative speculations remain valid. It is remarkable to think that had he not had such a profoundly spiritual experience, or had his mind not been able to cope with the onslaught of a visionary dialogue, then the Mexican mushroom might well have remained a buried phenomenon to this day. Fortunately for us, this was not so, and the entheogenic mystery is very much alive and "unleashed." Indeed, given the current world situation in which relentless material consumption is rapidly

destroying the biosphere and our value systems are devoid of any vivifying spiritual dimension, the sacred mushroom experience is now more relevant than ever before.

Regarding Wasson's brave attempts to provide a reasonable explanation for his experiences, I will deal with what is currently known about "the neuropsychological how" of psilocybin in later chapters. For now it is enough to recognize that the mushroom had proved itself to be the psychological analogue of physical fire, its effects able to innervate and enliven the very soul of *Homo sapiens*.

To simply dismiss Wasson's visionary encounter as no more than the drug-induced fantasy of a middle-aged man is to miss the point completely. The significance of the entheogenic experience for psychological science alone is enough to warrant our attention since psilocybin is clearly able to galvanize highly constructive systems of thought and emotion into action—that much can be said at the absolute least. Any substance able to evoke an organized flow of

symbolic information seemingly issuing from somewhere outside of one's sense of self, or ego, has got to be worth studying, especially if the experience appears more real than real. And as far as the actual experience of sacred transcendence is concerned, if we are truly interested in such things, if we are truly concerned with perceiving our existence in a way that is beyond the confines of a culturally conditioned secular perspective, then we should surely have cause to investigate the mushroom's visionary potential. Whereas the most limited explanation for this psychological phenomenon in terms of, say, creative imagination on an unprecedented scale, is still immensely important and fascinating, the more radical and speculative scenarios—which seem compelling when one has personally tasted exhilarating states of mind—offer an even greater and more brilliant conceptual view of reality.

It is here, in the personal impact of the psilocybin experience upon one's perceptions of reality, that the importance of Wasson's work

resides, for he was able to verbalize his entheogenic experiences in a way that captured their remarkable character. Wasson had shown how sacred realms of experience were not dependent on churches or on the blessings of popes and priests, but could be accessed through the consumption of entheogenic fungi. Wasson had effectively laid such a natural option at the feet of the modern world.

At the end of his seminal account, Wasson discusses the accessibility of the mushroom experience to large numbers people whose psychological disposition might not be in the same league as traditional visionaries like, for example, the poet William Blake. If Wasson was able to briefly become a visionary through eating a simple mushroom, no doubt others would want to follow suit. This inevitable social consequence of his tale was to become manifest in the next decade to a degree that he could never have anticipated, for his news of visionary fungi was instrumental in attracting the West's interest toward entheogens. As Blake had written, once the

doors of perception are opened, the infinite beauty of reality can be discerned. Whether he had planned it or not, Wasson, like his contemporary Aldous Huxley, now had his foot firmly wedged between those perceptual doors.

As yet unnamed, its chemical structure still unknown, psilocybin thus began its gradual infiltration of the modern technological world, flowing for the first time in and out of the nervous systems of Westerners, facilitating a spectacular kind of cerebral information processing in which the blazing divinity of Nature was potentially discernible. The world would never be the same again as intellectuals, artists, and spiritual seekers with the aid of the psilocybin mushroom began scratching away at the restricted surface of normal everyday awareness. Such intrepid peering beyond the confines of routine perception seemed to reveal much, much more in the way of reality, allowing access to information of

the most stimulating and enchanting kind, as if the mushroom was able to offer up all of Nature's best-kept secrets.

Despite the widespread interest generated by his *Life* piece, Wasson later chose, perhaps wisely, to distance himself from the 1960s psychedelic hippie culture, revolving as it was around synthetic LSD. Instead, he concerned himself with investigating the role of the fly agaric mushroom in ancient Indo-European Soma cults. He also went on to make invaluable contributions to our knowledge of the use of psilocybin mushrooms by the Aztec and Mayan civilizations of ancient Mesoamerica, and we shall now step briefly back in time to view these historical entheogenic traditions before bringing the history of psilocybin fully up to date.

T W O

An Ancient Form of Communion

The discovery of the shamanic use of psilocybin among contemporary Mexican Indians was indicative of a sacred tradition that, although almost buried, had its roots firmly set in the glories of past civilizations. In particular, the mighty Aztec empire had been familiar with the mushroom, and the various documents written by Spanish conquistadors almost five hundred years ago, which

mention mushroom use by the Aztecs, can be reanalyzed according to what we now know of the actual entheogenic experience. Psilocybin emerges as no mere incidental feature of the natural world, restricted to secretive and isolated use; rather, its ritual role as a potent sacrament was overtly established within the very fabric of ancient Mesoamerican society. Until, that is, it came under the merciless gaze of the Catholic Spanish conquistadors.

The Aztecs were an immensely powerful civilization whose cultural achievements are ranked by some in the same league as those of ancient Egypt and Babylonia. Religious ideology permeated all aspects of Aztec society, driving them to conquest and expansion and giving rise to their infamous bloody human sacrifices on a scale that cannot fail to shock.

Located in the Central Valley of Mexico, the Aztec capital Tenochtitlán (now Mexico City) reached its peak of power and magnificence immediately prior to the arrival of Hernán Cortés and

his gold-rushing Spanish army in 1519. With the advent of the Spanish conquest, all aspects of Aztec religion, including the use of the psilocybin mushroom, were systematically wiped out, condemned as devilish heresy.

To the invading Spanish clergy, the Aztecs' claim that certain mushrooms (some two dozen or so psilocybin-containing species are indigenous to Mexico) were *teonanácatl,* or "God's Flesh," was to admit to some blasphemous unholy communion. In the Roman Catholicism touted by the marauding conquistadors, communion with the divine was not based on personally revealed knowledge or gnosis. Absolutely not. Rather it was the case that "inside" information concerning the divine was considered acceptable only if one was connected to a formally established religious hierarchy within which one accepted, without question, its most cherished doctrines.

In other words, the organized drive of Catholicism that descended

upon the Aztec nation derived its power structure through force-feeding religious dogma to its adherents. To openly question this dogma, or to criticize it, could and did mean death five hundred years ago. One is therefore hard-pressed to conceive of a more heretical act than that of the Aztecs' consumption of supposedly divine mushrooms. The Spanish Catholic clergy, eager to spread their faith, would have been utterly appalled at the concept of eating some foul and unsightly fungus in order to facilitate divine communion. As we shall see, this negative reaction was clearly reflected in the lively written Spanish accounts of Aztec customs. To be sure, the intense disgust generated within the orthodox religious minds of the Spanish priests echoes the hatred meted out to women accused of being satanic witches in medieval Europe, as they too were found guilty of possessing heretical botanical knowledge. Whereas the Aztecs employed psilocybin mushrooms to induce numinous states of consciousness, the witches of the Middle Ages achieved similar states of mind by utilizing plants like

henbane and belladonna. Historically speaking, the spiritual use of plants and fungi tends to generate the same blunt response in the male psyche of any monotheistic culture—namely, unremitting persecution. The Aztec religion succumbed to just such a fate.

The Catholic Constabulary Take Note

The Aztecs' use of psilocybin is clearly revealed in many of the records made by Spanish chroniclers at the time of the conquest, who diligently recorded their own observations and translated Aztec historical documents as well. For instance, during the coronation of Montezuma the second in 1502, we learn that teonanácatl was consumed during the celebrations. Many war captives were slaughtered to honor the new king, their hearts torn out and offered to the gods. After the grisly sacrifices, the celebrants were bathed in blood and then given raw psilocybin mushrooms to eat.

Perhaps it was this kind of terrible juxtaposition that helped the

finger of heresy point toward the mushroom. After all, a mass bloody sacrifice followed by some strange ritual fungal inebriation is a hellish concept to the West, yet it was bound with the Aztecs' desire to supplicate their pantheon of gods. Blood spilled in the name of religion whether through war or sacrifice is, unfortunately, a kind of pious tradition that highlights the immense power of the religious impulse over the human mind and soul. The gods of the Aztecs were deemed real, and they had to be worshipped and placated.

At any rate, the Aztecs utilized psilocybin in their religious rituals and engaged in various other rites that would have appeared horrendously alien to the invading Spanish, who were unlikely to react in the manner of refined social anthropologists. The excessive sacrifices together with the ingestion of psychoactive mushrooms must have sorely confused the Spanish invaders. To be sure, while they were at once amazed at the glorious wealth and regality of the

Aztec cities that they encountered, they were less enthusiastic about the underlying psychological forces that had led to the physical magnificence set in stone.

Further accounts from the occupying Spanish clergy reveal the Aztecs' use of psilocybin. The following testimonies—which paint a sometimes vivid picture of Aztec tradition—are detailed in Wasson's *The Wondrous Mushroom*. For example, Diego Durán, a sixteenth-century Dominican friar translating a document in Nahuatl (the language spoken by the Aztecs), writes of the coronation of Tizoc in 1481:

> And all the lords and grandees of the provinces rose and, to solemnize further the festivities, they all ate of some woodland mushrooms, which they say make you lose your senses, and thus they sallied forth all primed for the dance.[1]

On the aforementioned coronation of Montezuma, Durán tells us:

> The sacrifice finished and the steps of the temple and patio bathed in human blood, they all went to eat raw mushrooms; on which food they all went out of their minds, worse than if they had drunk much wine; so drunk and senseless were they that many killed themselves by their own hand, and, with the force of those mushrooms, they would see visions and have revelations of the future, the Devil speaking to them in that drunken state.[2]

Because of his own personal experiences with psilocybin, and in light of historical research that clearly showed the Aztecs' reverence for teonanácatl, our mushroom expert Wasson came to the conclusion that Durán had imposed his own views on the matter in order to further demonize the mushroom practice. Which is to say that to identify the Devil at the heart of the psilocybin experience was an interpretation peculiar to the psyche of this sixteenth-century friar. With his particular theological training he would have had no

choice but to sniff the sulphurous traces of the Devil in the Aztecs' unusual entheogenic rites. Durán's perception of psilocybin-inspired suicides within the Nahuatl texts is therefore more likely to be the result of bias and exaggerated translation than actual fact. Today's tabloid press would doubtless be impressed by Durán's sensational rhetoric.

Another friar, the Franciscan Bernardino de Sahagún, also left us an account of native mushroom use. In the *Florentine Codex* he writes of a merchant's celebration.

> At the very first, mushrooms had been served. They ate them at a time when, they said, the shell trumpets were blown. They ate no more food; they only drank chocolate during the night. And they ate the mushrooms with honey. When the mushrooms took effect on them, then they danced, then they wept. But some while still in command of their senses entered and sat there by the house on their seats; they danced no more, but only sat there

nodding.[3]

On the face of it, this would seem to be a less prejudiced portrayal of psilocybin use, though in the following report, also by Sahagún, he soon slides into the familiar tabloidlike sensationalist mode while describing mushroom use.

> It is called *teonanácatl*. It grows on the plains, in the grass. The head is small and round, the stem long and slender. It is bitter and burns; it burns the throat. It makes one besotted; it deranges one, troubles one. . . . He who eats many of them sees many things which make him afraid, or make him laugh. He flees, hangs himself, hurls himself from a cliff, cries out, takes fright.[4]

Such scare stories are echoed by the rumors that surrounded LSD use in the 1960s. People were supposedly hurling themselves from high-rise apartments and foolishly attempting to stop highway

traffic by the power of thought alone. In actuality, of all the millions of doses of LSD taken in the 1960s, there were only a handful of deaths through misadventure resulting from LSD's effects. It appears that any psychedelic substance with a powerful mystique seems to instill fear in those who are unfamiliar with its effects and who are easily threatened by the unknown. Moreover, fear often precedes persecution and the spreading of inaccurate information, which is why it is so important to have an unconditional flow of informed, hysteria-free knowledge regarding the psychological action of visionary plants and fungi. One hopes, then, that we live in more enlightened times. The fact remains, however, that the Aztec use of psychoactive agents, which included the use of other entheogens like the morning glory plant (whose seeds contain LSD-related compounds), proved to be so abhorrent to the Spanish that they sought to drive all such practices to extinction.

That they were successful in forcibly burying the mushroom is

made clear by the academic events in the early part of the last century, as it was erroneously believed that there never were any psychoactive mushrooms to be found in Mexico in the first place. It was assumed by scholars that a mistake had been made by the obviously dim-witted Spanish historians, and that dried peyote cactus buttons (containing the entheogenic alkaloid mescaline) were the legendary teonanácatl. This botanical conjecture, or blunder as it was, went completely unchallenged by the academic fraternity when it was presented in 1915, and it remained unchallenged until a species of psychoactive mushroom still being used in Huautla was identified in 1938.

Perhaps, then, we should conclude that mycophobia is not merely a cultural phenomenon, but a remorseless genetic trait. This is an idea that Wasson would certainly have appreciated, as he was to come across much in the way of scholarly disregard for psilocybin's religious role within ancient Mesoamerican culture. It is only since

Wasson's work has come to be acknowledged that historians have begun to realize that psychedelic agents like the Mexican mushroom have the power to move people, that their tremendous psychological impact was significant in shaping the belief systems of those cultures that used them. The point that Wasson was continually at pains to make was that one should be wary of underestimating the cultural and historical role of entheogenic flora, although, of course, he came to this conclusion by way of his own personal psychedelic experiences. Alas, such personal insights are not shared by most other Mesoamerican scholars.

Illuminating Flowers

One of the most remarkable pieces of evidence testifying to the exalted status conferred upon the psilocybin mushroom by the Aztecs is in the form of an early sixteenth-century statue of the god Xochipilli, or the "Prince of Flowers." The significance of this

magnificent piece of art was first recognized by Wasson, and thereafter the real message that it conveyed became glaringly apparent.

The statue represents a cross-legged male figure—the god Xochipilli—caught up in an ecstatic trance. There can be no mistake. The very essence of ecstasy has been captured in stone. The arms, legs, and base of this stone-carved ecstatic prince carry stylized engravings of flowers, and on each of the four sides of the base of the statue are carved mushroom motifs. These mushroom motifs also appear upon the subject so enraptured.

Until these carvings came under the attentive gaze of Wasson, they had never been botanically identified. Wasson realized that the stylized flowers were the key to deciphering the true meaning of the Aztec statue and, moreover, the very meaning of "flowers" in classic Aztec literature. As soon as Wasson intimated the statue's full raison d'Ãªtre, he immediately contacted noted ethnobotanist

Richard Evans Schultes at Harvard's Botanical Museum, who was the obvious man to consult regarding a botanical analysis of the motifs.

Schultes was subsequently confident enough to identify the carved "flowers" as *Nicotiana tabacum,* the common tobacco plant considered sacred by almost all native American cultures; *Turbina corymbosa,* a species of morning glory whose psychoactive seeds are known to have been employed by Mesoamerican cultures; and *Heimia salicifolia,* also a psychoactive species. Wasson noted that these species were representative of the Aztecs' most revered plants, hence there were no depictions of less-esteemed plants such as those employed by the Aztecs to make maize beer.

Wasson believed that previous ignorance of the statue's true nature reflected the aforementioned widespread failing of historians to acknowledge the important role that psilocybin mushrooms and other sacred flora played in Mesoamerican history. In *The*

Wondrous Mushroom, Wasson writes: "Our statue of Xochipilli serves us as a touchstone, as a cultural Rosetta Stone, bypassing the friars encumbered with their theological preconceptions, speaking to us directly with the voice of the pre-Conquest Aztecs."[5]

It appears then that the Spanish clergy were ultimately unsuccessful in silencing the claims made by their subdued and conquered subjects; messages in stone speak far louder than words. Xochipilli provides rock-hard testimony for the Aztecs' sacred bond with the natural environment and its array of potent botanical resources. What exactly the Aztecs experienced through psilocybin remains debatable, although we can be sure that their visions were vivid and convincing enough for them to regard the mushroom as a link to divine realms of being, no less than the manifestation of God's Flesh on the Earth.

Wasson also went on to study pre-Conquest Aztec poetry written in the native Nahuatl language. When this poetry first became

accessible to the West, it had been noted that “flowers” were referred to often. Peculiarly often in fact. Moreover, the oft-mentioned “flowers” were seldom, if ever, distinguished from one another. Like the statue of Xochipilli, Wasson realized that the “flowers” referred to visionary agents, most notably the psilocybin mushroom.

For instance, the poetry speaks of “the flowers that inebriate,” “the joyous flowers,” “the flowers without roots,” “the precious flowers,” and so on. Careful study shows that Nahuatl poetry is teeming with embellished references to “flowers.” This only makes sense if we accept that the Aztecs worshipped the mushroom and other psychedelic agents because of their transcendental psychological effects and set their praises to poetry. As in the sculpting of the “Prince of Flowers,” the Aztec poets who wrote of “flowers” were producing their art from direct experience, their works channeling their deific respect.

As a final testimony to the Aztecs' use of psilocybin, mushroom motifs are also found in pre-Conquest codices (these codices are the pictorial records of the Aztecs themselves and not those made by Spanish historians), in particular within the pages of the Vienna Codex, a historical document rich in pictographic information, including a section on ancient myths, aptly named the "Origin of Things." One page of this codex depicts the famous Mesoamerican god Quetzalcoatl being tutored in the use of mushrooms. There is no ambiguity in the depictions—an entire page clearly portrays ritual mushroom use.

Psychedelic Temples

Prior to the Aztecs' rise to dominance and before the time of the Toltecs' reign, the religious core of pre-Columbian Mesoamerica was the prosperous city of Teotihuacán, located in the Valley of Mexico, near modern-day Mexico City. The city dates from 150

B.C. to 750 A.D., but little is known about the Teotihuacáns, although Aztec legends equate this location with the birthplace of their deities. Its very name was given by the Aztecs who had discovered it six hundred years after its mysterious collapse and means “Place of the Gods” in Nahuatl.

Due to the immense scale of Teotihuacán’s religious architecture, which includes the spectacular Pyramids of the Sun and Moon and highly sophisticated wall paintings rife with ornate serpent motifs, it can be reasonably assumed that it was the center of an important religious cult. The overt presence of serpent motifs on the architecture is a strong indication of religious worship, since the pantheon of almost all Mesoamerican cultures includes mythical serpentine entities, such as the feathered serpent god Quetzalcoatl. Elaborately stylized serpents were used both to represent gods and to symbolize divine power penetrating the mundane world. Their fearsome presence on and around temples signified that the temple

was a sacred place to be guarded from profane intrusion.

Of most concern here are the style and content of the numerous mural paintings that adorn most of Teotihuacán's temples and shrines. In these murals we once more find depictions of various flowers, one of which is the morning glory (either *Turbina corymbosa* or *Ipomoea violacea*). As stated, the seeds of this plant species contain LSD-related compounds known to have been used by the Aztecs for religious communion. It is therefore reasonable to assume that the templegoers at Teotihuacáan knew of, and thus utilized, the psychedelic effect of the morning glory.

Whether mushrooms are depicted in the temple murals is a somewhat contentious issue. While Wasson affirmed this and pointed out what he considered to be mushroom symbols, these same motifs have been identified by other Mesoamerican scholars as representing the water lily. Although various related African species of water lily are thought to be psychoactive, it has not been

firmly established whether the New World variety are equally as potent. Either way, Wasson conjectured that the various temples of Teotihuacan, decorated as they are with depictions of psychedelic plants (the morning glory at least), were sacred sites where the ritual ingestion of entheogens took place.

Secret Psychedelic Legacies

The concept that indigenous visionary agents have been ritually consumed by ancient cultures in order to induce theophany and religious solidarity should come as no surprise. In ancient Greece the classic Eleusinian Mystery cult echoes the inferred scenario occurring at Teotihuacán. Mystery rites took place each year at Eleusis, near Athens, centered on the drinking of some secret potion that granted a transcendental vision to initiates. The entire sacred ceremony was held within the guarded confines of a hallowed temple. Recent theories have proposed that this Eleusinian drink

was made from barley exposed to ergot. This would mean that it contained entheogenic substances because ergot, a tiny plant fungus that grows on wheat and barley, contains a number of LSD-related compounds. Although this psychedelic scenario has not been confirmed and remains merely an engaging hypothesis (ergot is also potentially toxic), the point is that the potion was almost certain to have contained some form of psychedelic alkaloid with the capacity to engender the type of mystical experience attested to in Greek historical literature. Wasson assumed that Teotihuacán was a Mesoamerican equivalent to Eleusis, that is, that both were sacred places where visionary agents were ritually administered.

Clearly the morning glory plant was utilized for its psychoactive effect by the Teotihuacáns (assuming of course that they did not just like the look of it), as the various murals testify, and it follows that psilocybin mushrooms would also have been ingested had their properties been known at the time.

Claims that infer that psychoactive plants and fungi played a major role in ancient religion might be considered to belittle religion in some way, as though one were reducing everything to "damnable drugs." Nothing is further from the truth. Far from reducing the religion, the religion becomes firmly entwined with the unequivocal numinous effects of vision-inducing fungi and plant species. That is the strength and force of such environmental resources. Visionary plants and fungi cannot fail to have a dramatic impact. Anyone like Wasson who has made the sacred connection within his psyche through the action of natural entheogens knows of their profoundly spiritual impact.

Ultimately one comes to suspect, like Wasson, that the very historical source of humankind's religious impulse lies in our ancestors' primeval encounters with raw entheogenic species like the psilocybin mushroom, which are effective without the need for

elaborate preparation. This scenario does not lessen religion; it empowers it, giving it an unstoppable impetus created through the effect of visionary alkaloids in opening up the boundless capacities of the human mind. God becomes connected to a *state of consciousness,* an inwardly felt presence mysteriously welling up from the depths of the psyche and not from some abstract dogma. However, religious dogma might well allude to the experience and indeed testify to the reality of entheogen-induced theophany. Yet once a detailed knowledge of the plant or fungus in question is lost in the hazy mists of time, then any lingering memory of its original entheogenic power will be no more than words, an echo of a once-living mystery.

The greatest reason to embrace an entheogen-based explanation for the rise of the religious impulse, however, is that it is couched in wholly naturalistic terms, therefore lending itself to scientific study. If a man claims to have had a life-changing theophany, then that is

one thing. But if he bears in his hand the very method whereby he attained such an experience, then you are obliged, if you wish to determine the man's claims, to explore and verify the means. In more ways than one, psychedelic plants and fungi must be taken seriously in terms of their role in the development of religious ideology. As intimated, their historical influence can never be overestimated.

Mushrooms and the Maya

Psilocybin mushroom use has also been associated with the Maya, whose spectacular Mesoamerican civilization dates back almost four thousand years and whose Classic period held sway from A.D. 250 to 900. At the turn of the last century, Guatemalan "mushroom stones" came to the attention of archaeologists. These Mayan relics, of which hundreds have been found, some dating as far back as 1000 B.C., were initially considered to be phallic representations,

though the current consensus is that the mushroom stones reflect a Mayan religious mushroom cult.

To bolster support for this theory, it has been noted that some of the stone mushrooms are carved emerging from human figures with trancelike facial expressions. Others are linked to kneeling female figures at a *metate,* a kind of work surface upon which plant items are crushed. When Wasson first explored mushroom use in Huautla in the 1950s, metates were still sometimes used to grind mushrooms so that an entheogenic infusion could be made. Still other mushroom stones exhibit "toad" effigies at their base, and this creature has always been mysteriously linked with psychoactive fungi the world over, perhaps because of knowledge that certain toads exude psychoactive alkaloids from their parotid glands. (Incidentally, this odd "toady" fact might account for the fairy story *The Frog Prince,* as magical events happen after a frog has been "kissed.")

Is there any other evidence that the Maya employed psilocybin mushrooms in their religion? A look at Mayan codices might shed light on this matter, yet our not-so-delightful conquering Spanish priests made that almost impossible with their blundering haste to burn everything that stood in their theological way, including virtually all Mayan scriptures. As an example of this hooliganism, consider the fact that in 1562, one Diego de Landa, a hardened Spanish priest of some frightening zeal, seized thousands of Mayan "idols" and books, and burned all and sundry as though they were worthless. Among the treasures destroyed were twenty-seven roles and signs of hieroglyphics, invaluable sources of knowledge about the Mayan civilization. According to Robert J. Sharer in *The Ancient Maya,* Landa commented: "We found a large number of books in these characters and, as they contained nothing in which there were not to be seen superstition and lies of the devil, we burned them all, which they regretted to an amazing degree, and

which caused them much affliction."[6]

Such a foolish and insensitive act has left the world with only a handful of Mayan codices with which to assess Mayan customs and beliefs. Within two of these remaining works, the *Popul Vuh* and the *Annals of Cakchiquels,* are references to psychoactive fungi, but there is no indication of the extent of their role within Mayan belief systems. In the so-called Books of Chilam Balam there is mention of trancelike states, though no mention of entheogenic plants. Again, in many Mayan relief carvings, which seem to possess a psychedelic air about them, are found scenes depicting visionary ecstasy, although plants are not explicitly shown. Some scholars have therefore rejected the notion that the Maya employed natural psychedelic agents in their religious rituals (despite the existence of the many mushroom stones) and have opted instead for the alternative view that the Maya, unlike the martial psilocybin-using Aztecs who were to follow, were of a radically different nature and

temperament. However, recently discovered Mayan mural paintings have depicted fearsome-looking battle scenes, so it is not absolutely certain that these two cultures were entirely different.

If we look more closely at the actual similarity in religious belief between the Maya and Aztecs, a common historical thread connecting the two cultures can be discerned. Both peoples divided the cosmos into upper worlds and lower worlds with their respective gods. Both believed in the cyclical destruction and regeneration of the Earth, and both followed a ritual 260-day calendar. Bearing in mind these cultural similarities, it has been reasonably suggested that the Maya also utilized the mushroom as well as other psychedelic agents and that this practice influenced the nature of ancient Mesoamerican cosmology (it is even feasible that the Aztecs *adopted* psilocybin mushroom use from the Maya—by way of a succession of mushroom-using cultures).

It has also recently come to light, as many Mayan vases and

pieces of pottery attest, that the classical Mayan elite used enemas. The objects that depict scenes of enema use date from the first millennium A.D. The daunting practice of administering enemas has been well documented in South American native peoples. In particular, it has been established that the Incas introduced psychoactive infusions into the body via enema, using bulbed syringes made from local rubber sap. Apparently, the use of an enema to introduce drug compounds into the body is almost as effective with regard to speed of action as is the method of intravenous injection. Its effectiveness with entheogens occurs because the colon is the receptive site of the enema and this is where absorption by the bloodstream occurs. A number of scholars have therefore claimed that entheogenic brews were involved in these Mayan enema rites, and thus psilocybin might well have been employed in this manner.

We should also be aware that much Mayan artwork is given over

to portrayals of “vision serpents” manifesting themselves before entranced members of the Mayan nobility. As I stated earlier, to the Mayan psyche, serpents represented the entry of divine forces into normal reality, and to depict fantastically decorated serpents hovering above an enraptured individual signified a communion with the gods. Such individuals are often shown holding a special receptacle. This object is believed to either hold blood from a bloodletting rite or an entheogenic brew, both alternatives offering an effective avenue for attaining a desired visionary state of consciousness (blood loss can apparently lead to an altered state of consciousness—although I am not convinced it would be an enhanced altered state).

Taking into account all of this data, particularly the hundreds of elaborately carved mushroom stones so far uncovered, many historians are compelled to accept that the Maya utilized entheogenic flora including psilocybin mushrooms, and that the

visionary realms made accessible by these plants and fungi influenced the development of the Mayan cosmological and religious outlook on reality.

Some Colombian Treasures Also Ring a Bell

Psilocybin mushroom use has also been inferred in pre-Hispanic Colombia due to the discovery of hundreds of beautiful gold objects belonging to the Sinú culture, dated to approximately A.D. 1200. These are decorative anthropomorphic works of art that characteristically carry two bell-shaped forms atop the head and were originally referred to by historians as “telephone-bell gods” (the shapes in question look like the bells found on old-fashioned telephones). Some of these bell-shaped forms are tipped with a small peak, while others are soldered onto the main body of the anthropomorphic figure by a thin “stem.” Harvard’s ethnobotanical expert Richard Evans Schultes has suggested that the bell shapes are

representations of psilocybin mushrooms, which would seem reasonable since several species of psilocybin mushroom are known to flourish in Colombia, some of which possess thin stems and caps topped with a small peaked tip, or umbo.

It is also worth noting that these mushroom objects are often adorned with toad effigies, as is the case with many Mayan mushroom stones. Schultes sees this as further evidence that these objects were made in veneration of entheogenic agents, because, as you will recall, certain toads, including South American species, secrete psychoactive substances from their parotid glands. The evidence is strong then that the historical use of psilocybin fungi and other entheogens extended well beyond Mexico and Guatemala, and that wherever they were employed they were deified and incorporated into works of art.

Viewed in the historical light of the Aztec and the Mayan empires, and to a lesser extent in pre-Hispanic Colombian culture, the psilocybin mushroom emerges as the conductor of a sacred legacy. These once-powerful native peoples knew its worth as an entheogen, a naturally occurring device for communicating with the spiritual domain. This is the botanical Holy Grail that Wasson had long quested for and eventually found half-buried in a remote Mexican village. An unlikely Grail knight, Wasson nonetheless recovered the power of the psilocybin mushroom from more than four hundred years of subjugation and presented it to the modern world. Once unleashed, the psilocybin mushroom helped initiate a tremendous cultural change, only to fade once more into a period of obscurity. Before its departure, however, psilocybin had managed to inch its way into the very heart of the West's academic establishment, where it left a profound impact upon all who encountered it. We now return to the wake set by Wasson's fortuitous discovery.

THREE

Psilocybin Flows in and out of the Western Mind

Wasson's *Life* story sits like a glowing spiritual ember in the tinder-dry secularity of America's 1950s culture. The United States, caught up in a burgeoning but banal materialistic dream, could not fail to be ignited by such a soul-stirring otherworldly tale. A few years earlier Aldous Huxley had written *The Doors of Perception,*

which detailed the entheogenic effects of mescaline. Both accounts were seminal in terms of their slow-fuse cultural impact. Each captured the psychedelic zeitgeist that was about to erupt upon the world stage, and Wasson and Huxley emerged as the founders of a cultural movement that would eventually blossom into the "psychedelic sixties," with its colorful burst of artistic creativity and mind expansion.

However, psilocybin, although initially sparking the psychedelic fire, soon left the scene of the divine crime, once more to fade underground into its mysterious place of origin. By the mid-1960s, its synthetic rival, d-lysergic acid diethylamide, also known as LSD and acid, a substance whose structure and psychoactivity are distinct from psilocybin, had taken over as the prime mover, demonstrating the popular appeal of laboratory-produced pills and tabs.

Easily manufactured, packaged, sold, and swallowed, pills are what the public came to expect, and even demand, in a

technological consumer age, and therefore mass-produced LSD was quick to fill the ever-growing market for psychedelics. More significant, the synthesis of substances like LSD allowed the power of production to lie in our hands and not the Earth's. In this way, the natural and "earthy" shamanic aspect of entheogenic species was lost. Which is to say that the potential of entheogenic plants and fungi to forge an informative relationship between our species and Nature was not fully realized. Thus from our discerning vantage point this side of the third millennium, we can look back to the dreams and quixotic idealism of the 1960s and understand that without a holistic appreciation of the biosphere and without an insight into the traditional historical usage of psychedelics, a realistic new world vision in which our species reconnects with the bigger picture was unlikely to take a firm cultural hold.

What this boils down to is the concept of naturalness and the intimation that Nature is more informative than we may imagine. In

particular, I would argue that the realization that entheogenic plants and fungi are part of the Earth's ecology inevitably affects the significance and import of the entheogenic experience. This means that the concept of naturalness acts as an important *context* for the entheogenic experience, should that experience derive from a natural plant or fungus.

It was precisely this natural biospherical/environmental context that was sorely lacking in the early wave of popular interest in psychedelics. Without acknowledging the botanical environment as the original supply line for the entheogenic agents that started the psychedelic sixties rolling, the acid gurus, despite their vocal enthusiasm for a positive psychedelic world revolution, were still stuck with themselves, caught in a sort of anthropocentric loop, and thereby isolated from an intimate union with the rest of the biosphere. As I will show, the biospherical connection to the entheogenic experience represents the newest phase of psychedelic

history, an interesting turn of events full of profound implications for our species.

Unsurprisingly then, although the psychedelic pioneers of the early 1960s were originally turned on by the psilocybin experience—most notably the members of Harvard University's psychology faculty—they soon became completely embroiled in LSD and the media, and never really picked up on the grounded shamanic pulse of the mushroom. Perhaps this is why Wasson remained highly aloof of the whole hippie counterculture. He quietly pursued his academic research into ancient mushroom use, while other researchers, like Richard Evans Schultes, continued to meticulously document visionary plant use among fast-dwindling native peoples. Indeed, the diligent work of both these scholars has provided us with an invaluable legacy of academic material on native psychedelic shamanism.

Bugged by the CIA

Before recounting Harvard's brief scientific flirtation with psilocybin, I should like to alert the reader to a rather sinister twist to the events that led up to the isolation and naming of psilocybin in 1958. In particular, one of Wasson's trips to Mexico unfortunately carried a countercurrent to psilocybin's holy mystique. Just when you thought it was safe to proclaim a spiritual renaissance of sorts, who should arrive on the scene but the CIA. These disturbing mischief-makers, who so profane history with their presence, will seemingly do anything to maintain a grim state of affairs in which the dour "we was miserable in our day" archetype is nourished.

In his book *The Search for the "Manchurian Candidate,"* John Marks tells us of the CIA's covert involvement with our hero Wasson. In its relentless and arguably psychotic search for ever-more effective weaponry, the CIA had, by the 1950s, initiated a massive twenty-five-million-dollar, long-term program called

MKULTRA. True to its suspicious-sounding name, Project MKULTRA involved finding chemical and biological materials for use in “mind kontrol” and other psychological unpleasantries. Despite the morally questionable nature of such an unsavory federal project, its dogmatic pursuit meant that it was soon to pick up on rumors of sacred Mexican mushrooms.

After learning of Wasson’s 1955 experiences with the mushroom, an unscrupulous chemist named James Moore immediately began to work undercover for the conspirational agency. Presumably dollars changed hands surreptitiously. At any rate, in 1956 Moore craftily wrote to Wasson informing him that he knew of a foundation willing to finance another Mexican trip in order that he and Wasson bring back some of the legendary mushrooms. Moore innocently claimed that, as a chemist, he simply wanted to study the chemical structure of the mushroom’s active constituents. The foundation was the CIA-backed Geschwickter Fund for Medical Research, and they

were offering a two-thousand-dollar grant. Would Wasson be interested?

Understandably Wasson took the bait, and so it came to pass that the CIA's secret quest for the sacred mushroom became Subproject 58 of the MKULTRA program, possibly representing the most crass approach to psilocybin to date. It was as if the CIA were lobbing stones at angels.

Fittingly, it transpired that the double-dealing Moore was well out of his comfort zone in Mexico and loathed the entire episode. Wasson later recalled that Moore had absolutely no empathy for what was going on. Whereas Wasson was sensitive to the customs of the native Mexican Indians and respectful of their cultural beliefs about the mushroom, Moore was there merely as a CIA pawn.

Once again, all those who were in Wasson's party took part in a mushroom ceremony hosted by the shaman Maria Sabina, though it was Moore alone who had a bad experience. Despite this, Moore

was still able to bring back some of the fungi to the United States in the hope of isolating the active ingredient. Thankfully, however, he was beaten in his pharmaceutical pursuit by Roger Heim, an eminent French mycologist and coworker of Wasson, who managed to grow a supply of the mushroom from spore prints that he had taken in Mexico. Heim sent his newly cultivated samples to Albert Hofmann of Sandoz Laboratories in Switzerland, and it was Hofmann, a highly distinguished chemist who had originally synthesized LSD, who, in 1958, first isolated and then named the entheogenic alkaloid within the mushroom. Psilocybin was thus officially born, a name devoid of the weaponry connotations the CIA would invariably have conferred on the substance had they successfully isolated it first.

Having failed in his allotted task, Moore was not terminated but later applied directly to Sandoz for a supply of psilocybin, as the CIA still maintained their clumsy interest in using this compound as

an agent for mind control. Indeed, the CIA soon began to covertly test psilocybin on unsuspecting American prisoners, probably not the best of subjects when it comes to being in possession of a stable, healthy psyche. As the prisoners reported some rather bizarre experiences, it became clear that psilocybin could not enter the CIA's arsenal—it was just too darn unpredictable. Thankfully, the CIA then turned their belligerent attentions elsewhere.

The Psychedelic Infiltration of Harvard

After Hofmann began to synthesize psilocybin from extracts of the mushroom, the door was open for properly conducted scientific investigation to commence. Apart from the rather dismal CIA attempt, it was 1960 that marked the beginning of the brief affair between the scientist and the mushroom. This occurred at no less a place than the psychology department of Harvard University, that bastion of academic respectability.

What happens when professional psychologists come up against the phenomenal power of psilocybin? One of two things generally results. Either they experience the substance personally and divine its profound implications for humanity in terms of knowledge acquisition, psychotherapy, self-knowledge, and personal growth, or they refuse to take it and instead interpret psychotomimetic (literally psychosis-mimicking) symptoms in those who do take it. A rather sharp division therefore occurs, as it did at Harvard. On the one side stood the infamous and lanky figure of Dr. Timothy Leary, heading a scholarly band of psychedelic intronauts, while on the other side stood members of the unimpressed "establishment," who tolerated systematic experimentation for only a few years.

If one pinpoints Leary as the man of the moment at the start of that turbulent decade, able to seize the media and galvanize the American youth into rebellion, then we can zoom in on the actual experience that launched his prolific psychedelic career. It was, of

course, a mushroom experience.

Dr. Leary Gets Turned On

For forty-year-old Leary it began, as ever, in Mexico. Already an established and respected psychologist at Harvard, Leary spent the summer of 1960 with some friends at the Mexican resort town of Cuernavaca. During his stay, an anthropologist associate at the University of Mexico, who had come across references to sacred mushrooms while studying the Aztecs, suggested that Leary try some.

At noon one Saturday Leary gulped down six obnoxious-tasting local Mexican mushrooms, which had been obtained with much more ease than those consumed by Wasson five years earlier. Through this strange lunch, Leary's fate was effectively sealed. As he later wrote in his autobiography, while the psilocybin coursed its way through his "virgin" Irish bloodstream, he enjoyed the most

awe-inspiring religious experience of his life.

Leary was convinced that in just four hours under the influence of psilocybin he had learned more about the mind and the brain than in the fifteen years that he'd been a professional psychologist. This gives good measure to the strength and psychological impact of his first psilocybinetic encounter. Under the right conditions the mushroom is able to restructure one's culturally determined concepts about reality and proffer an entirely different set of beliefs with which to navigate oneself through life.

Being a keen and responsive practitioner of psychological science, alert to new fields of discovery, Leary immediately requested funds to set up a research program into psilocybin. In no time at all the Harvard Psilocybin Project was initiated, commencing at the end of 1960, when a handy batch of psilocybin arrived from Sandoz. Already the natural mushroom had been replaced with jars of precisely dosed pills, thereby subtly altering the context of the

psilocybin experience. How different might the implications of psilocybin have been at Harvard had the scientists had to go out into the wilds to pick their research material by hand . . .

One of the most impressive projects undertaken was the systematic study of 175 subjects given psilocybin in which the experimental emphasis was on providing a relaxed and supportive setting. This important notion of set and setting—the subject's mental and physical environment prior to taking the psilocybin—can never be stressed enough, as they are crucial factors in determining the subsequent psychedelic experience. Leary and his coworkers had already established these facts among themselves prior to their official experimentation, and they were at pains to point out how set and setting played a key role in whether the psilocybin experience proved well or ill. It is possible that had someone without Leary's temperament and intimate knowledge of psilocybin organized the experiments instead, then more negative

experiences would have been reported.

As it was, most of the subjects reported a pleasant or ecstatic experience, that the psilocybin experience had changed their lives for the better. No psychological casualties were reported even though stronger doses had been used than in previous experimentation. There was no evidence for psychological or physical addiction, although 90% wished to repeat the experience. No hangovers were reported and presumably no one awoke the morning after to rooms strewn with empty bottles and cans. In a six-month follow-up study, none of the subjects had developed enduring psychotic or neurotic symptoms. The experiment was a success in demonstrating that under favorable conditions, ordinary people were able to have an inwardly enriching experience with psilocybin. Things on the psychedelic front were looking good. The Earth's special mushroom, albeit in pill form, was showing promise.

These findings were eclipsed however by the legendary Good

Friday Experiment of 1962, surely one of the most radical and far-reaching psychological studies ever undertaken. In their general approach to research and the collection of data, psychologists, particularly up until the 1950s and 1960s, had always had a rather special affinity for rats, more often than not placing them in specially constructed boxes where behavioral phenomena like classical conditioning (you remember Pavlov's dog salivating to the sound of a bell) could readily be observed. Go into any academic psychology department and you will likely find and smell a rat or three, so beloved are these furry rodents by the ardent psychologist. Rats are cheap, easily maintained, and behave in a remarkably reliable way (like small machines) in their reactions to the manipulating advances of experimental psychologists. Explanations about human behavior can then be extrapolated (so they say) from the results of these rattish experiments on the reasonable but limited assumption that all mammalian brains run on similar principles.

Such ratomorphism, as the writer and philosopher Arthur Koestler cynically termed it, used to dominate psychological science, and topics like mind and consciousness were banished from the scientific arena like some forbidden fruit unfit for empirical consumption, even though, of course, the science of psychology is itself mediated through the stuff of consciousness. Today things are fortunately beginning to change, and a kind of philosophical psychological approach to mind and consciousness is emerging, a topic I will later explore in much detail.

Back in 1962 the Good Friday Experiment was as far removed from rats as is possible, stretching empirical science to its limits. It was the type of experiment that our controversial psilocybin demanded, and its results remain significant.

A Divine Invasion Upsets the Status Quo

A psychology student named Walter Pahnke, working for his

doctorate, arranged the experiment with the help of Leary and other members of the Harvard Psilocybin Project. It was an attempt to capture the psilocybin-induced mystical experience in quantitative measures through questionnaires. Although questionnaire studies fall foul of a number of methodological criticisms, it is the only viable scientific approach to measuring the reported subjective effects of drugs. It is not enough for someone to claim that psilocybin is a wonderful substance that elicits transcendental feelings of awe. Rather, one must obtain objective measures if one wants to bring entheogens under the analytical eye of science; if, that is, one is a scientist who believes science offers the best approach to psilocybin—a moot point to be sure. If you've tried the stuff yourself and you've traveled to those divine realms, then you are one who *knows*. Leary knew, as did the other members of the project, but though they had tasted superconsciousness, they were still caught in the unenviable position of trying to document the psilocybin experience with the relatively cumbersome tools

provided by the science of that era. Understandably perhaps, Leary was soon to don a kaftan, abandon academia, and hijack the media instead. Yet the Good Friday Experiment, or "Miracle of Marsh Chapel" as it became known, still stands out as the classic psychology experiment of that pre-LSD period.

Five rooms in the basement of Boston University chapel were reserved for Pahnke and the psilocybin project team. Twenty subjects, all theology students and therefore at home in the chapel building, took part in the study, which employed a double-blind methodological approach. This meant that half of them received psilocybin while the other half received a mildly psychoactive placebo. No one knew who got what, not even the experimenters, though it soon became clear who had been given the mushroom pills.

Leary later recalled that the ten psilocybin subjects began to act rather unconventionally. Some began to wander around the chapel

murmuring prayer. One lay on the floor, some lounged on benches, while another began playing strange music on the chapel organ. The most intense effects, however, were occurring in the depths of the subjects' psyches, and an analysis of the subsequent 147-item psychological questionnaires completed by the subjects soon revealed what had taken place.

The questionnaires were designed to probe various aspects of the psilocybin experience. Parts of the subjects' reports were then rated by naive markers, who had to compare this psilocybin phenomenology (phenomenology is the study of direct conscious experience) with mystical phenomenology taken from various religious scriptures, without knowing which was which.

Incredibly, the results showed that the psilocybin group had mystical religious experiences indistinguishable from those reported in religious literature. This was a decidedly controversial finding. A naturally occurring substance, although in pill form thanks to

Sandoz, had been shown to be capable of generating a full-blown mystical experience within the religiously ripe minds of theology students. The implications were enormous, and, as we shall see, many a storm was to brew over the validity of chemically induced theophany. Traditionally cherished beliefs about mystical enlightenment and the religious impulse were being threatened by, of all things, a drug, and this was guaranteed to cause uproar and dissent among those members of the priestly elite who serve to police communion with the divine.

Despite the beginnings of heated controversy, Pahnke's thesis on psilocybin was uneasily approved, though he was not allowed to continue his line of work and his requests for further government funds were denied. Something was obviously amiss. Psilocybin—this wild alchemical product of Nature—was becoming a threat to long-established power structures both in academia and in the realm of traditional religious beliefs about divine communion.

Psilocybin's wild and ebullient energy, dormant for so long, was once more on the loose, this time flowing though the very heart of the Western establishment.

In one sense, it was as if the Good Friday study could be viewed as the last experiment that the scientist keen on ascertaining the nature of consciousness and reality needed to perform. The message seemed clear. Humanity could transcend its secular level of being and raise itself to a new order, an idealistic dream shared by many early Western psychedelic explorers. Psilocybin could be carefully used as a source of knowledge and wisdom, allowing people glimpses of a transcendental reality that is a mere perceptual step away.

As it was, the lofty psychedelic dream shared by so many at the time never quite materialized, although I would argue that this was mainly due to the lack of an explanatory framework for the psilocybin experience, and not because the idealism of the dream

was untenable. Indeed, at this early stage in psychedelic research, almost nothing was known of psilocybin's mechanism of action, and apart from Jung's notion of the collective unconscious, there were little in the way of speculative psychological theories able to capture the full import and impact of the psilocybin experience in a nonreductive way. In a real sense, language let the scientists down, or at least the lack of descriptive terminology and lack of conceptual sophistication meant that psychedelic phenomenology remained an abstruse anomaly. And anomalies, even if they might contain the essence of some new ways of understanding the nature of reality, are more often than not deliberately buried out of sight, or at least the conceptually uncomfortable data are all too easily lost somewhere at the back of the scientific community's filing cabinet. Such a fate did indeed meet the psychedelic experience, and by the late 1960s almost all of the world's known psychedelic substances had been deemed a dangerous social threat and were promptly declared illegal. Scientific research into psychedelics was thereby

halted.

However, this was not a big and final end to the matter, and today scientists are once again gradually returning to experimentation with psilocybin—often with a view to elucidating psilocybin's therapeutic potential. It is also the case that psilocybin mushroom use by the public is now more widespread than ever, particularly in Europe. Indeed, various specialized spore samples and grow kits can now be purchased in many countries—although it is still unclear how the law will react to this novel situation. Given recent scientific reports on the relatively benign nature of psilocybin (which I discuss in more detail at the end of this book), one hopes that good sense will prevail and that the mushroom's decidedly spiritual influence will continue to be integrated within our Western culture.

Update: Just How Good Was That Friday?

As further evidence of psilocybin's vivid effect upon those fortunate

theology students, and so that I can build support for my enthusiastic contention that the psilocybin mushroom represents a kind of medicinal soul food with which to reconceive the nature of reality, I now recount a follow-up study of sixteen of the twenty original subjects of the Good Friday Experiment. This was undertaken by Rick Doblin, president of the Multidisciplinary Association for Psychedelic Studies (MAPS), in the late 1980s when, by this time, many of the subjects were practicing ministers.

Doblin administered the same questionnaire used in the original experiment and found that there was still a significant difference between the two groups as to the reported effects of the experience. After twenty-five years, the psilocybin group's characterization of their mystical experiences had actually strengthened (or matured). Also, whereas the control subjects who had received the placebo could barely remember the day in question, the psilocybin group still had clear memories of that eventful day. For instance, Reverend

K. B. remembered:

> It left me with a completely unquestioned certainty that there is an environment bigger than the one I am conscious of. I have my own interpretation of what that is, but it went from a theoretical proposition to an experiential one.[1]

Reverend Y. M. recalled:

> I closed my eyes and the visuals were back . . . and it was as if I was in an ocean of bands, streams of color, streaming past me. The colors were brilliant and I could swim down any one of those colors.[2]

More from Reverend K. B., who is more specific:

> With my eyes closed I had an unusually vivid scene of the procession going by [from the Passion of Christ]. A scene quite

> apart from any imagining or anything on my part . . . kind of like watching a movie or something, it was apart from me but very vivid.[3]

And further:

> I've remained convinced that my ability to perceive things was artificially changed, but the perceptions I had were as real as anything else.[4]

That this minister viewed psilocybin as an artificial catalyst is to be forgiven. Careful consideration reveals that psilocybin is a legitimate natural product of Nature, an unusual piece of biospherical fabric to be sure but no more artificial than the oxygen we breathe or the plants that we eat. Rarer perhaps, and not absolutely essential, yet certainly not artificial.

The Reverend K. B.'s description of the visionary experience as a

kind of movie issuing from somewhere outside of one's sense of self is one of psilocybin's hallmark effects and could not be put more clearly. This is the overwhelming impression gained while in the visionary state that arises with eyes closed. One is confronted with a powerful communicatory flow of organized symbolic information that compels one to infer an intelligent presence of some kind as the issuer of the information. Although after such a profound experience one might question the grounds for inferring an "Other," during the visionary episode itself one might well be utterly overwhelmed by a sense of intentional communication, leaving no room for doubt.

In a way, these animated superdreamscapes, charged as they are with striking metaphorical imagery, are akin to those vivid dreams we sometimes experience during sleep and that leave us momentarily in awe as we later recall them before they invariably fade away. However, during psilocybin-induced visions one is still

very much conscious—more conscious and attentive in fact than normal—so that the visionary scenes are not forgotten, or at least their overall message, impact, and urgency are not forgotten.

Remarking on the sense of eternity that often accompanies the effects of psilocybin, Reverend S. J. remembers:

> All of a sudden I felt sort of drawn out into infinity. . . . I felt that I was caught up in the vastness of Creation. . . . I did experience that . . . classic kind of blending. . . . The main thing about it was a sense of timelessness.[5]

Again, these quite simple reminiscences show that psilocybin carries epistemological value, as it seems to elicit a special kind of knowledge not ordinarily available but that is of immeasurable value to us in terms of spirit and soul. Even the most dogged skeptic must concede that, at the very least, psilocybin taps deep realms of the unconscious or imagination, revealing a hitherto unknown and

unrealized creative potential.

My claim is that a form of "higher intelligence" and wisdom is indeed accessed through the mushroom. Whether this "higher intelligence" stems from some unconscious psychological realm, that is, that deep within the psyche lie vast fields of highly organized information that are "released" into personal consciousness during the entheogenic state, or that one actually gets to communicate with a sentient presence—the transcendental Other as we can call it—is open to question, although both suggestions may be linked in some way.

For the time being, whatever we suspect underlies the visionary state, we can see that the psilocybin experience is a compelling area of study, since consciousness and perceived reality, the very ground of our lives, have the potential to exfoliate like some new, exotic flower. Our everyday awareness is seen to be constrained and bounded, as if we were, for most of the time, subroutine prisoners in

some vast, Matrix-like computation that surges ever onward. Psilocybin temporarily dissolves these constraints, conferring on the experiencer an increased cognitive freedom, facilitating new directions of thought that are not normally available. The inner world becomes subject to pictographic myth, while the outer world reveals itself as the living structure of some divine being, even the most mundane objects suddenly acquiring a holy aura. This is the latent promise of the mushroom: to reveal psychological realms that can enrich our collective existence as living, breathing hominid creatures knitted together within the Earth's evolving biosphere. Natural entheogenic agents like the psilocybin mushroom enable a particular type of knowledge to come to an individual, a type of knowledge that science and philosophy can barely approach, but which nonetheless bears heavily on our innermost nature.

The Good Friday Experiment took science as close as it is likely to get to mysticism, apart from analyzing the actual brain during the

mystical state. Yet even that high-tech approach would dodge the main issue, which is the experience itself and what it tells us about consciousness and reality. One has a choice regarding strategies. One can try to map the brain to the nth degree in the laboratory or one can simply plunge into a direct confrontational experience. The mushroomic Miracle of Marsh Chapel indicates the latter endeavor as being the most attractive, rewarding, and adventurous option befitting the human spirit. At least to start with . . .

Objectivity forces me to disclose a mild downside to the aforementioned study. Doblin's long-term follow-up showed that most of the psilocybin subjects reported some negative aspects to their experiences that were somewhat downplayed at the time of the original experiment. In other words, their inner worlds were not constantly flooded by divine light but rather there was a mixture of positive and negative aspects to the experience. Actually, psychological unease of one kind or another is somewhat inevitable

if one engages with the mushroom. One sees oneself clearly without the superficial trappings of a contrived image and personality. The mushroom somehow amplifies the subconscious and the unconscious, forcing one to confront bad habits and neuroses. One is also made aware of any problematic relationships with friends, family, and associates. Nothing remains hidden to the mushroom, and this will often lead to a psychological "shake-up" to persons hitherto blind to self-knowledge. After all, the tenet "know thyself" is bound up in some way with all spiritual disciplines, suggesting that one must come fully to terms with oneself before one can begin to inwardly develop one's state of consciousness. Psilocybin and other entheogens would seem to highlight this timeless truth to such an extent that further psychedelic experimentation will prove to be of negative value unless one has dealt adequately with one's state of self-knowledge. The more balanced and healthily resolved one's inner world, the more rewarding will the mushroom experience be.

Another negative and unpublicized fact about Pahnke's original experiment was that one of the psilocybin subjects had to have a shot of chlorpromazine (an antipsychosis drug) to combat some unwelcome symptoms. It seems that the student took the words to a sermon about the Christian need to spread the word rather too literally, a struggle ensuing as he tried to leave the chapel. I would point out that such impractical messianic zeal can be countered by administering some self-control rather than chlorpromazine, though we must bear in mind that these theology students were essentially naive to psilocybin's psychological effects. The more prepared one is to receive psilocybin in terms of an awareness of its scope of effect, the more likely will the ensuing experience be wholly positive and trouble free.

Despite the unearthed downsides, at the end of his follow-up study, Doblin concluded that: "All psilocybin subjects participating in the long-term follow-up, but none of the controls, still considered

their original experience to have had genuinely mystical elements and to have made a uniquely valuable contribution to their spiritual lives."[6]

And there you have it, straight from the mouths of practicing ministers. Psilocybin doth work, and it doth work well. Human consciousness is positively mutable and reality is up for reinterpretation. Amen.

Leary Begins to Spread the Good News

During the early days of the psilocybin project, Leary actually got to meet Wasson. Although both had received the sacred mushroom vision and had come to value the experience as highly significant, their attitudes toward its use were glaringly opposed. According to Leary, Wasson tried to come across as the authority on mushrooms, more interested in his own experiences than those of Leary and his associates. Wasson was also vehemently against the current trend of

widespread psilocybin use, informing Leary that disclosing the secret of the mushroom to the modern world had destroyed its power. Indeed, he would later write of his abject remorse at publicizing the Mexican sacred mushroom ceremonies.

Leary, however, was soon to prove Wasson wrong on the potency of the mushroom. Psilocybin cannot fail to empower those who explore its magical effects, and, having taken it over fifty times within the first year of the Harvard project, Leary was by this time a much-inspired man on the verge of attempting world revolution.

With his constant supply of mushroom pills, the heavily armed Leary soon began extending his influence to various contemporary American poets, writers, and artists, in particular, luminaries like Jack Kerouac, Neal Cassady, Allen Ginsberg, William S. Burroughs, and Dizzy Gillespie, to name but a few. Leary began to realize that while many were enthralled by the experience, others were overtly disinterested. Youth emerged as a salient factor in

attitudes toward psilocybin, and this led Leary to propose that the older that people were, the more fear they would have toward the visionary experience.

I would surmise that this fear was the same fear that led the Spanish friars to denounce the Aztecs' mushroom use as devil worship. Such fear also led to the fervent witch-burning policies undertaken by medieval inquisitors. Once a person has a rigidly established psychological model of reality, then any tearing asunder of that model, any kind of incompatible data that threaten its existence, produces a negative and often violent reaction. An open-minded approach to psilocybin is therefore essential if it is to have a beneficial effect. One must tread slowly and carefully and familiarize oneself with the new territory since pitfalls lie in wait of the unwary and hasty explorer. The experience must then be somehow integrated into life in a way that minimizes social disharmony.

The year 1962 saw the ominous arrival of LSD at Harvard, and the entire cultural psychedelic momentum was to change. Leary was so struck by this new synthetic alternative to psilocybin that LSD fast became the focus of attention, and the mushroom faded almost into obscurity. Leary claimed that LSD was superior in effect to psilocybin, and his high priest standing at this time meant that others were only too keen to follow his recommendations. Conversely, the late Terence McKenna argued that natural psilocybin is a far more visionary substance and ranked its worth above synthetic LSD (McKenna also popularized the term *Other* to refer to the intelligible presence accessed through psilocybin). McKenna held a more contemporary organic view that linked the mushroom with the natural homeostatic systems of the biosphere. As mentioned, in the 1960s there were little in the way of holistic theories about the biosphere, and ethnobotanical investigations of plant-using shamans had yet to gather much publicity.

At the same time that LSD flooded Harvard, opposition to psychedelic experimentation began in earnest, partly due to the omnipresent influence of the CIA, which still wanted a monopoly on psychedelic drugs, and partly because of the alarming growth in popular experimentation with LSD, which was still legal and fast becoming available everywhere. In 1963 Leary was forced to resign from Harvard, and so he duly took his LSD interests out into the big experimental arena of mainstream culture, where he found himself to be quite adept in the role of psychedelic revolutionary. It is unfortunate that his clarion call, "Turn on, tune in, drop out," was only two-thirds commendable. Drop out? This kind of negative turn of phrase could only serve to condemn Leary. (Why not "learn" or "listen carefully"?) Still, the pop psychedelic insurgency instigated by Leary ensured that the "swinging" 1960s got under way, and despite the mass drop-out by the youth populous, the resulting counterculture was to spawn a wealth of innervating art, literature, and music.

Leary's anarchic adventures went on to include the formation of the League for Spiritual Discovery (yes, that's LSD), major court cases, his brief role as the most dangerous man in America, incarceration, a dramatic jailbreak, and his kidnapping by the Black Panthers in the early 1970s. Interested readers can read of Leary's enthralling escapades elsewhere, in particular, within the pages of his autobiography, *Flashbacks,* or in a lively book by Jay Stevens called *Storming Heaven: LSD and the American Dream*.

Unbeknown to virtually anyone at this time, mushrooms containing psilocybin were to be found growing throughout Europe and North America, and not just in Mexico. The Earth itself, a far more efficient and ubiquitous supplier of entheogens than the lab technicians at Sandoz, was secretly churning out millions of psilocybin mushrooms across its biospherical surface, an extraordinary fact that did not reach public attention until the late 1960s and early 1970s (since then it has been speculated that

prehistoric Europeans knew about psilocybin and that its use influenced the dreamy spiral icons carved on rocks in places like Ireland. Interested readers should consult Paul Devereux's book *The Long Trip* for more information on this incipient subject).

Attempts to Dam the Flow of Psilocybin

At this point in our journey I should like to examine the main objections that were often leveled against the use of psilocybin when it first became available in the wake of Wasson's discovery. Such objections were expressed precisely and clearly by various writers and social commentators, most notably the writer and philosopher Arthur Koestler, whom I briefly mentioned earlier. Koestler, who had written numerous acclaimed books on science, philosophy, and the paranormal, tried psilocybin on at least two occasions at the start of the 1960s. Leary, a fan of Koestler's work, had written to him about psilocybin's miraculous properties and had

invited him to come out to Harvard to try it for himself.

As it happened, Koestler's first encounter with psilocybin occurred at the psychology department of the University of Michigan, which, unfortunately, was another hotbed for covert CIA experimentation and therefore not the best of places in which to start one's entheogenic journeying. His second taste occurred at Leary's apartment, as Leary had originally intended. Both encounters convinced Koestler that psilocybin was basically worthless, an opinion dramatically at odds with Leary and most others who had tried it.

On March 12, 1961, the British newspaper the *Sunday Telegraph* published a polemic article by Koestler in which he denounced the psilocybin experience. Entitled "Return Trip to Nirvana," this account described Koestler's personal psychedelic experiences and concluded in no uncertain terms that psilocybin had nothing whatsoever to offer humanity. He wrote: "Chemically induced

hallucinations, delusions and raptures may be frightening or wonderfully gratifying; in either case they are in the nature of confidence tricks played on one's own nervous system."[7]

He offered even harsher words about his second trip at Leary's apartment. When an American writer and acquaintance talked of "cosmic awareness," "expanding consciousness," and "Zen Enlightenment," Koestler thought this "downright obscene, more so than four-lettered words."[8] Clearly, here was a man a trifle irritated by the blossoming psychedelic culture. Koestler was no hip hippie.

Koestler went on to argue that psilocybin gave rise to "pressurecooker mysticism" and no more. Discussing Huxley's pro-psychedelic observation that many mystics and religious visionaries employed various physiology-changing techniques like breathing exercises and fasting to facilitate altered states of awareness, Koestler countered with a parable about mountain climbing, claiming that the view obtained when one has slogged for hours on

foot up the mountain is far superior to the view obtained at the end of a cable-car journey. In other words, the laborious toil undertaken by the fasting, self-flagellating, cave-dwelling ascetic leads to a qualitatively different revelation than the armchair mystic who merely pops down a handful of Sandoz pills.

This is the classic philosophical objection laid against the potential transcendental effects of substances like psilocybin. It is too easy. Where is the relentless sweat and toil? Where are the physical scars of the tortuous journey that preceded the mystical illumination? How can one possibly have access to realms of spiritual ecstasy without undergoing years of suffering? Are we to admit that any Tom, Dick, or Leary can achieve transcendence without experiencing untold pain, misery, and self-mortification?

Koestler, at least, was convinced that there were no shortcuts to the divine, and he stated this clearly to Leary and in the newspaper article. Significantly, he admitted to Leary that he was in the wrong

state of mind when he tried psilocybin at Leary's apartment, that he had been awoken to painful memories of being a political prisoner during the war. Similarly, on the night before his first unpleasant brush with the drug, he'd had disturbing dreams that lingered on long enough to pervade the psychedelic state. In fact, Leary himself had second thoughts in inviting Koestler to try psilocybin, as he came across as being too controlled and rational. Although these considerations go a long way in explaining Koestler's negative encounters, the criticisms he raised still stand strong, and the advocate for the continued investigation of psilocybin must perforce respond to the allegations.

I can offer two lines of defence to parry Koestler's objections. First, it is almost certain that Koestler did not dwell upon the fact that psilocybin is a natural part of the environment and not an unnatural synthetic product. Had he actually gone out and picked psilocybin mushrooms for himself perhaps his experiences might

have been more rewarding, because the actual act of mushroom collection leaves an indelible earthly mark upon the memory. This fact of psilocybin's naturalness, which I consistently remark on, deserves a still more detailed examination, and this is a good opportunity to begin doing so. I will return to answering Koestler's criticisms after this brief diversion.

Food for Thought

As we shall see in much more detail later, psilocybin is believed to cause its effects by acting upon nerve cells, or neurons, within the brain. In particular, it acts on those neurons that utilize a substance called serotonin. Serotonin is a chemical messenger, or neurotransmitter, that allows individual neurons to communicate with one another to transmit and process information. Now, the various compounds employed by brains to process information have evolved over millions of years, and they are determined by the

chemicals available in the environment, in particular, from the raw materials available in food. Serotonin has emerged as a key neurotransmitter, or chemical messenger, because it can be produced relatively simply from raw materials. You cannot just have any old chemical compound acting as a neurotransmitter; it has to have arisen through evolution under the deterministic constraints set by the laws of chemistry and the further constraints set by the availability of food.

Hence, serotonin is bound up with the chemistry of the environment. If the chemical constituency of the natural environment was radically different, Nature would have been forced to evolve completely different neurotransmitters that reflect to the constraints set by that environment. In this sense, we are indeed what we eat, and the notion that consensus reality is a popular serotonergic hallucination yields a formidably uncanny wisdom. Our minds, our very consciousnesses, depend upon the hardware of

the brain, which in turn depends on chemical structure, which further depends on diet. Natural psilocybin mushrooms can enter one's diet, and the new chemicals subsequently operating within the brain will alter awareness so that our common hardwired "serotonergic reality" shifts, as it were, to a rare "mushroomwired psilocybinetic reality."

Having said this much it should now be absolutely clear that the psilocybin mushroom experience is wholly natural, and that it arises out of an environmentally driven alteration in brain chemistry in as much as the psilocybin mushroom is part of the environment. There is nothing artificial about this process at all. Just as we can selectively pick wheat to make bread for our physical well-being, so too can we selectively pick and consume natural psilocybin mushrooms for our spiritual well-being. Both wheat and mushroom are legitimate natural expressions of the interwoven biospherical system within which we are embedded. I think it unlikely that

Koestler considered these environmental facts before making his negative judgments.

The second line of defence against Koestler's classic objections is that it is not certain that technological short-cuts—as he called them—are necessarily bad. Is not the Earth viewed from space satellites beautiful? Viewed thus, is it really any less beautiful than if we were to build a really large ladder and clamber up to get the same view? Should we abandon all labor-saving technology and make things as hard as possible for humanity?

I think not. Huxley's vision in *The Doors of Perception* of a mass-marketed psychedelic that enlightens the world cannot be faulted on its technological methodology. If technology, pharmaceutical or otherwise, can hasten some form of improved psychological condition, then the only thing stopping this is a sense of distrust and guilt, arguably instilled more often than not by dogmatic religion. Indeed, Leary surmised that Koestler's mountaintop parable arose

from a deep-seated Catholic guilt, a guilt that arises all too easily in the face of pleasure, ecstasy, and the bounds of human freedom.

Having defended the idea of humanity-saving technology, I would once more remind the critical reader that psilocybin is not a technological product anyway (at least not in the traditional sense). Koestler perceived it so because his psilocybin came in the form of a Sandoz pill, the perfect symbol of a modern technological fix. This is in direct contrast to the overtly organic symbolism of the wild mushroom.

When Koestler left Leary's company to return to New York, it was wryly noted that he did not walk back but got a plane. Leary concluded that to ignore psilocybin as a psychological tool would be akin to rejecting the microscope because it made seeing too easy, a good analogy since both tools uncover the hidden riches of Nature.

I think it safe to conclude that Koestler's negative attitude stemmed principally from his painful store of POW memories and

the unresolved conflicts lying in the depths of his psyche. In particular, I would suggest, as did Leary, that Koestler's Catholic guilt played a large part in his rejection of the mushroom.

This same type of traditional religious guilt, which seems to have plagued humans from time immemorial and which easily transforms into an oppressive drive against other people's freedom, was also displayed, among others, by the French poet Baudelaire. Like other nineteenth-century poets and writers, such as Byron, Shelley, Balzac, De Quincey, and Samuel Taylor Coleridge (who reputedly wrote *Kubla Khan* after an opium reverie), Baudelaire once used "trendy" psychoactive plant products like opium and cannabis for creative purposes. Yet he later came to utterly despise them, as if they were the root of all that is evil and misleading, no less than the most cunning of the Devil's tools for thwarting humankind from reaching God.

The point is missed, almost deliberately it seems. Psychoactive

plant substances are not inherently evil; rather they can become destructive if used in excess or for the wrong reasons, much as any benign substance can become harmful if used beyond moderation. Had Koestler been in the possession of the right frame of mind and received the ultimate gift of the psilocybin mushroom, that is, had he perceived a direct communion with the transcendental Other and realized that this was a wholly natural phenomenon, then perhaps he would have embraced psilocybin's cultural healing potential.

It seems, then, that if the potentially spiritual effects of the mushroom are likened to a stream, the stream can "hit" the wrong human mind, or at least the wrong state of mind, causing the stream to be blocked. Where it cannot flow on and blossom, psilocybin's numinous potential will remain unrealized. God's Flesh is clearly not for everyone. This fact must perforce be considered at length before any kind of nontrivial investigation commence.

In his noted book *The Ghost in the Machine,* written in 1967, Koestler had a wonderful opportunity to praise the virtues of entheogenic agents. Among other things, the book is concerned with humankind's violent, paranoid, destructive streak and how this evil can be overcome. After documenting the awful historical effects of our "schizophysiology," as he terms it, Koestler argues that our only hope for survival is to develop techniques that supplant biological evolution. He reminds us of all the ways we have tampered with Nature—like birth control, disease prevention, and artificial environment creation—in order to simulate and control the process of evolution for our own adaptive advantage. So, asks Koestler, can we not invent a remedy for the human tendency toward destruction?

Unable to ignore Aldous Huxley's popular advocacy of psychedelics as cultural healing agents, Koestler opposes that kind of solution, claiming that it is fundamentally wrong and naive to

expect drugs to confer free gifts upon the mind. In other words, Koestler asserts that drugs cannot put into the mind something that is not already there. He argues that the "psycho-pharmacist" cannot add to the faculties of the brain, at best we can only eliminate obstructions that might impede the brain's proper functioning.

Koestler finally envisages a "mental stabilizer" or hormone that can integrate the psyche. He even goes as far as fearing that his readers will be disgusted by the idea of relying upon salvation through molecular chemistry rather than spiritual rebirth. This is an astonishing claim, even the more so since he refuses to advocate natural entheogenic substances as his "mental stabilizer."

Contrary to Koestler's beliefs, Nature and the evolutionary process have not let the human race down; rather, we have been blind to Nature's subtle ecological solutions. Nature works in mysterious ways, one of which is the production of plants and fungi possessing vital shamanic power through which the web of life,

which includes human culture, can continue to function healthily.

Although it might sound somewhat archaic to seek curative help from plants and fungi in our modern era, we should keep in mind that shamanism is perhaps the oldest form of religious psychotherapy and that the knowledge gained by visionary shamans was used precisely to help heal the tribe. There is no reason to assume that such psychedelic shamanism is now impotent or irrelevant, especially if we consider the interconnectedness of the biosphere. In ecological terms, the shamanic ingestion of plants and fungi is an entirely natural process that—when we take into account the ecological system of shaman, tribe, and plant—is essentially homeostatic in that one part of the environment acts upon another to restore balance and health; in this case certain plants and fungi yield aid through their psychological effects and the higher knowledge that they convey. This "eco-psychotherapy," as we may call it, highlights just how much we are connected to the rest of life's web

and how the solutions to our problems are often to be found growing around us (including, of course, potential botanical cures for cancer and AIDS still to be discovered in what is left of the Earth's great rain forests).

Entheogenic species of plant and fungus still offer us a wealth of psychotherapeutic power if we choose to look their way, not to mention the information they reveal about the chemical mutability of human consciousness and the possible transformation of our models of reality. Like most philosophers, Koestler seemed far removed from the natural botanical world, but with the advent of ecological awareness movements and a renewed interest in all things Green and environmentally friendly, our deep connection to the rest of Nature looms ever more apparent and a Green cultural ethos is already establishing itself. By radical means, Nature itself may yet cure our destructive streak.

Another well-known writer at the time of psilocybin's first wave of Western use was the revered author and poet Robert Graves, who also wrote publicly of his mushroom experience. Actually, Graves had been intrigued by mushrooms ever since he had licked a species of fly agaric as a young boy and had consequently experienced burning sensations on his tongue. Perhaps the incident was a symbolic biospherical kiss of sorts, or at least a taste of things to come. At any rate, as the reader will recall, it was Graves who originally notified Wasson of the secret mushroom ceremonies still extant in Mexico. It comes as no surprise then that Graves eventually went on to write speculative articles on entheogenic mushroom use in ancient Greece (his speculations remain contentious) after he tried the sacrament in Wasson's New York apartment in 1960.

Graves was, it transpires, understandably apprehensive about his

first brush with psilocybin, especially worried that he might perceive "demons" behind his closed eyes. Being the author of the acclaimed *The White Goddess,* a book about a historical cult of goddess worship, was no guarantee that Gaia's mushroom would shower him with grace (Gaia was originally the name of the Greek Earth goddess).

As it was, Graves need not have worried. Unable to write during his rapture, he passively let the experience overwhelm him. Afterward he was to write that he had seen a "mountain-top Eden" and experienced the "bliss of innocence" and "the knowledge of good and evil."[9] He had even felt capable of solving any problem in the world, as if he had access to all of the world's knowledge.

Graves went on to predict that a once-sacred substance entrusted to an elite few would soon be sought by "jaded sensation seekers," although they would likely be dissatisfied with psilocybin, as it was not a "drug" as such because it failed to stupefy like alcohol. He

ended his descriptive account with the following warning, which still rings true today:

> Good and evil alternate in most people's hearts. Few are habitually at peace with themselves; and whoever prepares to eat hallucinogenic mushrooms should take as careful stock of his mental and moral well-being as initiates took before attending the Eleusinian Mysteries. . . . This peculiar virtue of *psilocybin,* the power to enhance personal reality, turns "Know Thyself!" into a practical precept; and may commend it as the sacramental food of some new religion.[10]

Fine and prescient words indeed, once more indicative that psilocybin should be approached cautiously and with a "good heart." Graves's remark about "jaded sensation seekers" is almost identical to Wasson's emerging dismay at the hoards of "oddballs," "thrill seekers," and "riffraff " who were already descending in

droves upon Mexico in search of divine mushrooms. However, this type of popular reaction to a new phenomenon was surely inevitable. Although it was to cause abject consternation among the psilocybin elite, to deny the mushroom outright to the masses is an impractical, short-sighted reaction to basic human nature. I would argue that knowledge of psilocybin's spiritual power is best laid open to all who might wish to seek it out. If this be considered by some as casting pearls before swine, then so be it. The point is that the end will justify the means, this end being, hopefully, a culture transformed with a revitalized veneration for the natural systems of the Earth and a deeper insight into the transcendental aspects of the reality process. The eco-destructive age in which we live surely demands a cure along these lines.

Moksha-Medicine Grows on the Verge of Paradise

Aldous Huxley explicitly summed up the early mood of optimism

surrounding psychedelics in a speech he delivered to psychologists in 1961, and somewhat more implicitly in his Utopian novel *Island,* published in 1962. In the speech Huxley predicted that psychological science would inevitably be confronted with more and more data on the visionary experience induced by substances like psilocybin. Although these experiences might be valueless—no more significant than a trip to the movies—it might be the case that if the visionary experience were cooperated with, if some deep meaning were ascertained and acted on, then this could be crucial in changing the lot of humanity. Huxley conjectured that psychedelics encouraged a state of mind in which reality is perceived in a non-utilitarian manner and that the visionary experience could lead to a change in behavior for the good. If so, this would reinforce the maxim of eminent psychologist William James that a spiritual or mystical experience be judged pragmatically through its consequences upon the life of the experiencer. If the psychedelic visionary state can enrich one's life, then, by definition, it is for the

good.

In *Island,* which was Huxley's final novel, his fictional Edenic islanders use "moksha-medicine," an entheogenic mushroom, as part of their religious rites. Indeed, the mushroom supports the islanders' paradise. This invented mushroom was almost certainly based upon the psilocybin mushroom, as Huxley had tried psilocybin on a number of occasions.

The issues raised in his earlier work *The Doors of Perception* are discussed by his islanders, in particular, whether the effects of moksha-medicine are illusory or real. Through one particular piece of fictional dialogue we are asked to consider the idea that perhaps the brain *transmits* consciousness rather than produces it. In other words, perhaps moksha-medicine allows a larger volume of what Huxley refers to as Mind at Large (Mind with a big "M") to enter one's individual mind (mind with a small "m"). Later, I will have much to say on this deceptively simple remark, as it bears heavily

upon the whole notion of the stuff of consciousness.

As the islanders who champion moksha-medicine assert, even the bottom line places value on the experiences engendered by their mushroom, for if there is no objective content at all in the experience, it is still life-enriching and provides a "blessed transformation."

At one point in the story, the archetypal skeptic and disbelieving character Murugan receives the following rejoinder.

> You've been told that we are just a set of self-indulgent dope-takers wallowing in illusion and false *samadhis*. Listen, Murugan—forget all the bad language that's been pumped into you. Forget it at least to the point of making a single experiment. Take four hundred milligrams of *moksha*-medicine and find out for yourself what it does, what it can tell you about your own nature, about this strange world you've got to live in, learn in, suffer in, and finally die in. Yes, even you will have to

> die one day—maybe fifty years from now, maybe tomorrow. Who knows? But it's going to happen, and one's a fool if one doesn't prepare for it.[11]

Arguably the greatest, most eloquent, and most passionate spokesperson for the intelligent use of psychedelics during the 1950s and early 1960s, Aldous Huxley was unaware that his beloved moksha-medicinal fungi were, even as he wrote *Island,* spreading their mycelial networks throughout the wild unfarmed soil of most of the planet's Temperate Zone, their presence stretching across vast tracts of unspoiled land. In the autumn months, this secret underground arrangement was yielding countless psilocybin mushrooms, and Huxley never lived to discover this most astonishing of truths. All but forgotten by the mid-1960s, the psilocybin mushroom would eventually rise and fruit again.

F O U R

Investigating the Earth's Alchemical Skin

Mexico and South America are the areas most associated with ritual entheogenic plant use. Apart from utilizing over twenty species of psilocybin mushroom, native Mexicans are also known to have employed the peyote cactus, the morning glory plant, and various species of datura, all of which contain potent visionary substances.

The appeal of these plants, like the appeal of the mushroom, is that they support a channel of communication between the shaman and the spiritual domain. As we have seen, this unusual state of affairs arises not from hearsay or dogma, but from the mind-expanding effect of these plants on the human psyche, an effect equally reported by Westerners who might not necessarily be as spiritually inclined as native shamans.

In South America, aboriginal Amazonians still prepare a highly innervating psychedelic concoction called *ayahuasca,* made principally from an indigenous species of *Banisteriopsis* jungle vine, along with various other plant ingredients. This same potion is also taken as a sacramental tea by members of the UniÃ£o do Vegetal, an officially sanctioned church found throughout Brazil. The active principles in these potions are the substances harmine and dimethyltryptamine (DMT for short), the latter being a close structural relative of psilocybin. Shamans claim that ayahuasca

facilitates communion with mythological beings as well as the souls of their ancestors. Similarly, species of *Virola* tree—the resin of which also contains DMT—are used to prepare entheogenic snuffs in Amazonian Colombia, which are taken to free the soul so that it may travel in the spiritual dimension.

These rich shamanic traditions highlight the ultimate way in which the natural environment can inspire an individual, as an intimate link is forged between the human psyche and the transcendental dimension of reality. Once such an emotionally charged shamanic connection has been so established and is reinforced through ritual use of a particular visionary plant, the process will generally cultivate an enduring sense of spirituality as well as a religious cosmology, as is the case surrounding the use of ayahuasca.

It is not surprising then that the profound psychedelic effect of these indigenous plants becomes firmly integrated into native

culture, the shamanic knowledge so acquired reaffirming the culture's identity and the people's beliefs about the nature of reality. Furthermore, and perhaps of most importance, these plant species aid the practice of healing, whether mental, social, or purely physical. In native societies without a health service or subjugation to pharmaceutical conglomerates, the curative role of the shaman becomes an essential feature of daily life, with natural plant allies being very much a tool of the healing trade.

This kind of spiritual relationship between *Homo sapiens* and Nature is relatively rare, compared with, say, our close relational links to environmental resources like wood, grain, oil, or gas, yet the natural entheogenic link leaves all others behind in terms of its impact on one's sense of being. Whereas most of the relational ties that weave us into the living fabric of the biosphere are purely utilitarian in material terms, the resource provided by entheogenic plants operates at a different level, offering us spiritual nourishment,

which, although seemingly intangible, can still have a cultural role to play, as witnessed by the important role of the shaman or native healer within aboriginal societies.

Of course, we might object here and assert that we have no need for shamans or entheogens in our technological culture, that we should leave these ostensibly marginal phenomena to those academic anthropologists and ethnobotanists whose vocation it is to gather information on such matters. Indeed, over the past thirty or so years a wealth of research articles have appeared that describe, in quite exacting botanical detail, how various entheogenic concoctions are prepared by the native cultures who still use them. However, it is almost unheard of for the witnessing ethnobotanists or anthropologists to actually experience the visionary brew for themselves. All the surrounding paraphernalia associated with the alchemical preparation might well be attested to right up to the actual implements employed to administer it, yet the principal

substance of interest remains exempt from inquiry. This missing factor is what is actually driving the researchers' interests, namely, the resulting psychological effect of the preparation. After all, if the eventual experience generated by the sacrament were not in any way notable, there would be no shamanic legacy to study.

We can see then that although science might be commended for documenting what is, after all, a fast-disappearing aspect of aboriginal culture, the most important ingredient—the experience—is generally not witnessed. Perhaps this is because ethnobotanists feel there is no scientific banner under which one could reasonably and legitimately go ahead and sample the entheogen in question. But there is. It's called phenomenology—the study of immediate experience and its implications for the allied science of psychology. To actually personally partake of shamanic substances is to glean an insight into the psychological forces that they set in motion. With an inside view, we might understand more clearly the role of the

entheogenic experience within the belief systems of native cultures. More to the point, we might gain valuable insights into the mutable potential of consciousness, thereby allowing us to make intellectual ground in otherwise intractable areas of human inquiry.

The Blind Eye of Science

The inadequacy of science in the study of entheogens is doubtless bound with the compartmentalization of science into separate disciplines. While it is rare for a scientist in any particular field to stray into another discipline, it can be argued that cross-boundary studies may be fruitful in initiating new insights and broader theories. In the case of entheogenic compounds, if we wish to properly understand the entire complex of the entheogenic experience—whether the experience of a native shaman or the experience of a Western experimenter—then a marriage must perforce be made between psychology, phenomenology,

anthropology, and ethnobotany (and even metaphysics) since the subject area can embrace all these fields. If we bear in mind that disciplines like ethnobotany are relatively new anyway, the new discipline that I am envisaging is a distinct possibility. Waxing lyrical, I would call such an enterprise neo-shamanic phenomenology. At least it has an impressive ring to it.

But perhaps we assume that we already know all there is to know about the psychological modus operandi involved in the action of a classic entheogen like psilocybin? Perhaps a complete and satisfactory explanation of the visionary heights of the psilocybin experience has already been delivered by mainstream psychological science, reduced to a handy set of *merely*s? Alas (or thankfully), this is not the case. Not only are substances like psilocybin relatively new to the West, but also empirical psychological research was effectively curtailed for decades. The Harvard Psilocybin Project merely scratched the surface of the mushroom phenomenon, yet that

in itself was enough to cause consternation to the scientific elite. Not to mince words, but psychedelic plants and fungi intimidate the scientific community, not just because of the multifarious disciplines potentially involved but also because their effects are just too controversial to handle. Heads turn away. Cold shoulders are shrugged.

Despite the dangers posed by the use of psychedelic substances—like their capacity to induce intense psychological terror (the so-called "bad trip")—native cultures have managed to "tame" them through a learned appreciation of their scope of effect. Furthermore, these cultures have acquired a wealth of edifying knowledge along the way. Hence, it is my belief that entheogenic flora and fungi have yet to make their full impact on the Western psyche. The knowledge to be gained from their use relating to our conceptions of reality and our theories about consciousness will prove to be of great value not only on an individual level but on the collective level also. These

are reasonable claims since we undoubtedly base our value systems and mass cultural behaviors on our tacit beliefs about the Earth, life, and our role in the whole caboodle. The alluring possibility with the psilocybin experience is that after initiation one can come to view life in a radically different light. One learns what shamans have always known, that Nature is somehow imbued with intelligence, or at least the characteristics of intelligence. The biosphere, or Gaia, suddenly appears to be *really* alive, with visionary plants and fungi acting as a kind of interface between the wisdom of Nature and the human mind. In this way, an experienced and receptive individual can access transcendental information loaded with cultural and personal significance.

Given their uplifting and profoundly informative properties, psilocybin fungi can be viewed as a potentially symbiotic partner with our species. The symbiosis involves the new range of conception and perception galvanized into operation through the

mushroom's effects and, in return, our propagation of the species or at least action on our part that serves the biosphere's overall interests in some way. In any case, psilocybin fungi, like other naturally occurring entheogens, are very much with us and here to stay. As far as we know, more people are familiar with the mushroom today than at any other time in history. Indeed, its use has continued to grow in popularity since the 1970s, when books first appeared detailing the various species that could be located in Europe and North America.

Notwithstanding the saturation of the entire globe in fungicides, restricted access to wilderness areas, or other madcap responses to the presence of psilocybin fungi, we have a choice as to whether to investigate the Earth's alchemical skin further or to turn our backs for fear of the unknown. If we do decide to pick up the "entheogenic gauntlet," we might well be rewarded with a cascade of novel insights into the deepest mysteries of being along with a vastly

improved relationship with the rest of Nature. Official science can play a role in this noble venture as can independent research at the behest of no authority other than one's own.

An Inner Revolution Awaits

With various species of psilocybin mushroom growing throughout most wild places of the world (more than one hundred species are now known to flourish across the globe), and bearing in mind their illuminating properties, with which more and more people are becoming familiar, one suspects that some innervating cultural alchemy is at hand. As we shall see in more detail later, paradigms —conceptual belief systems—crumble and are rebuilt in the wake of the psilocybin experience. This kind of paradigm shifting is not simply an event that transpires after ingestion of the mushroom; rather, the process can continue long after the original experience, almost as if some process of long-term digestive refinement was

taking place. By this I mean that if we reflect on the experience in terms of how, say, the mushroom works chemically, then we gain exceptional knowledge about the underlying chemistry of the brain and the potential parameters of consciousness. And if we reflect on the self-knowledge that the mushroom affords, our inner lives may duly be improved. The very real possibility of perceptual enhancement is also at stake, potentially raising our dialogue with Nature to new levels never imagined by conventional science and philosophy.

It is through these new conceptual tools, or new improved lenses, to borrow from an earlier metaphor, that old paradigms will perforce be challenged. If these old paradigms cannot deal with the psychedelic experience, then they must either be adapted or be confined to the past. It is in this way that psilocybin and its effects can become integrated into our culture.

Psychedelic Science: Round Two

By now, the reader might assume that mainstream science only skirts around the issues we are most concerned with, that the only extant psychedelic research revolves around ethnobotany. Indeed, with America's illegalization of LSD in 1966 and with the subsequent illegalization of almost all psychedelic drugs (Europe followed suit), human-based studies stopped dead. Everything on the experimental front went into cold storage. You could almost hear the bolts and locks sliding into place. Consciousness alteration had become a hostage to politics.

However, after all these years the locks have been surreptitiously picked and the politics of consciousness challenged. To be sure, a new kind of psychedelic research is gradually becoming apparent. This time around the scientists involved do not throw wild parties, nor do they exhort young people to "turn on, tune in, and drop out." Dressed in traditional lab coats and sensible shoes, the second

generation of psychedelic scientists have got their empirical act together. Human-based psychedelic science is now returning to the academic fold, only with far less publicity than fifty years ago and with a lot more caution and circumspection. This time around, science is taking it step by careful step.

Leading the resurgence are two American organizations: The Multidisciplinary Association for Psychedelic Studies (MAPS), which I briefly mentioned in the last chapter, and the Heffter Research Institute (HRI). Founded in 1986, MAPS actively funds psychedelic research (as well as medical cannabis research) and helps scientists draw up their research protocols, a tough job when you have to approach notoriously conservative governmental agencies for permission to do your study. The HRI is a slightly younger organization, inaugurated in 1993 and named after Arthur Heffter, who, at the end of the nineteenth century, became the first scientist to isolate and systematically study a psychedelic compound

from a plant—in this case mescaline from the peyote cactus. Of particular interest is a 2006 psilocybin study by the Johns Hopkins University of Medicine that was partly funded by the HRI. Researchers looked at the effects of psilocybin in healthy volunteers and found that when administered in comfortable and supportive conditions psilocybin potentiated life-affirming mystical experiences in the majority of the subjects. While this is nothing new, it is at least refreshing. The study also made headlines in many magazines and Internet video reports.

Apart from studying the effects of psychedelics upon healthy people, the main thrust of both MAPS and the HRI is finding a therapeutic use for these substances. This is a practical agenda that appears to be more acceptable to the various officiating bodies that control the availability of psychedelic agents to science. In reality, I believe that both organizations are acutely aware of the role that entheogens can play in the study of consciousness in and of itself.

They are, perhaps wisely, less vocal about this “other” agenda. Despite wishes to the contrary, politics and science invariably mix, and this is the main reason why the therapeutic application of entheogens gets priority funding. Perhaps we are witness to paradigm shifting by stealth.

One recent study of note involved giving psilocybin to patients suffering from advanced-stage cancer. This was done to ascertain if psilocybin could, somewhat ironically perhaps, alleviate feelings of anxiety. Although the study was tentative and only involved a dozen terminal-cancer patients, the results were encouraging and showed that, according to some scales, anxiety was indeed reduced. This suggests that psilocybin can allow one to come to terms with troubling processes beyond one’s control, to let go as it were to that which must perforce be left behind, and thereby find some kind of peace and acceptance. I have seen a poignant video clip of Pam Sakuda, one of the subjects involved in the study, and was deeply

moved by her account of how the psilocybin experience helped her deal with the terrible ordeal of having a terminal illness. I was even more moved when I did an Internet search about her and learned she had died a few years after the study. It seemed that her psilocybin experience enabled her to speak bravely about what she was going though at the time.

Similar tentative studies have been conducted in which psilocybin was administered to patients suffering from obsessive-compulsive disorder (OCD). All those in the study showed decreases in their OCD symptoms while under the influence of psilocybin, with an improvement in their condition generally lasting more than 24 hours. As of 2011, psilocybin investigations are also under way under the auspices of the Beckley Foundation, a charitable trust based in Oxford in the United Kingdom. They are currently setting up studies to investigate psilocybin's role in memory recall, particularly the recall of repressed memories, which can be useful in

psychotherapy, along with studies that will determine whether psilocybin can be used to successfully treat addiction to drugs like nicotine and alcohol. This latter study will prove interesting. For if psilocybin can, through sheer spiritual force, help people kick their addiction to booze and tobacco, then millions of people will likely be up for treatment and thus millions of spiritual experiences might be in the making. Who knows? Maybe we will be witness to an alchemical plot of global proportions in which various psychoactive substances are mingling, catalyzing one another's production, and even vying for cultural supremacy.

The Medical Use of Ibogaine

Another psychedelic drug presently receiving much scientific scrutiny over its possible medical utilization is ibogaine, an alkaloid derived from the West African plant *Tabernanthe iboga*. The plant is employed in situ by members of the Bwiti cult, a religious society

found in Gabon and the Congo, who use it in much the same way psilocybin mushrooms and ayahuasca are traditionally used. The aim is to free the soul to connect with God and the ancestors. Here is a typical report from a native African user: “I wanted to know God—to know things of the dead and the land beyond. . . . I walked or flew over a long, multicolored road or over many rivers which led me to my ancestors, who then took me to the great gods.”[1]

Ironically, perhaps, scientists have now established that the psychological effects of ibogaine can be used to break hard drug addiction. In the mid-1980s, Howard Lotsof, an ex-junkie cured through his experiences with ibogaine, formed a company to promote the medical use of ibogaine. So assured was he of ibogaine’s capacity to break drug addiction, that Lotsof patented ibogaine treatments in the mid-1980s. Apparently, it is the unusually intense and personally significant visionary effects of ibogaine that can break the curse of hard drug addiction. Lotsof

describes the visions induced by ibogaine in patients he has treated as being like movie clips: “The presentation of visual material is rapid. Some patients have described it as a movie run at high speed. Others describe it as a slide show, each slide containing a motion picture of a specific event or circumstance in the viewer’s life.”[2]

Once more, we see the capacity of entheogens to instigate dramatic visionary experiences within the human psyche. Lotsof refers to these movie-clip visions as having Freudian and Jungian connotations, as if they could convey deep and significant meaning to the experiencer, and he infers that it is this process that lies at the heart of ibogaine’s efficacy in breaking patterns of addiction. Lotsof believes that ibogaine is able to make patients reevaluate their lives and see the mistakes that they may have made and that may have led them into uncontrollable bouts of drug-taking. After treatment with a single dose of ibogaine, the majority of patients remain free from chemical dependence for three to six months, which indicates

that ibogaine therapy needs to be ongoing and, if possible, be accompanied by other treatments. Interestingly, a recent BBC television documentary named *Tribe* showed intrepid explorer Bruce Parry taking part in a lengthy and sometimes harrowing Iboga religious ritual in Gabon. Parry reported that the Iboga plant allowed him to view his life from the perspective of those to whom he had caused emotional pain. After the Iboga rite was completed, Parry felt truly reborn.

Dimethyltryptamine

A leading figure in the second wave of psychedelic research is Dr. Rick Strassman, a psychiatrist who carried out some remarkable studies at the University of New Mexico in the mid-1990s. A look at his groundbreaking research reveals the spirit of a scientist determined to break through political bureaucracy in order to advance the frontiers of knowledge and add to the pharmaceutical

armory of the practicing psychiatrist.

Strassman's work has centered on the prototypical entheogen dimethyltryptamine (DMT). Recall that DMT is a naturally occurring substance employed for millennia in the botanical potions and snuffs utilized by native Amazonian shamans. Classed as an ultra-short-acting hallucinogen, DMT, when administered intravenously to humans (as opposed to the drinking of an ayahuasca brew), causes fantastic alterations in consciousness and yet is completely inactive within thirty minutes (the effects of ayahuasca can last for hours). If DMT is smoked, the experience is even shorter, sometimes lasting less than five minutes.

Because DMT is believed, strangely enough, to occur naturally in the human brain (trace amounts have been found in blood, urine, and spinal fluid, and precursor enzymes for it have been found in brain tissue), it was apparent to Strassman that an understanding of its action might shed some light on the development and possible

treatment of endogenous hallucinatory conditions like schizophrenia. It is in this way that clinical science comes to make antipsychotic drugs, substances that can block pathological forms of thought. Once you understand the neurochemical events that accompany abnormal states of mind, then you are in a position to develop drugs to treat such conditions.

Despite his purely clinical leanings, Strassman was also interested in using DMT to explore the ever-more-popular brain/mind issue. This murky area of science—which we shall be returning to in later chapters—is concerned with how the physiochemical brain (the unsightly mass of gray jellylike stuff in our skulls) is related to the nonphysical mind with all its attendant thoughts, ideas, fears, beliefs, and so on. What exactly is the connection? Strassman argues that because psychedelic drugs alter consciousness, they should be able to tell us something about how consciousness is formed in the normal brain. In other words, since psychedelics alter

higher cognitive functions connected with what it is to be a conscious human being, then they can essentially be employed as probes to study the mind/brain interface. This is, of course, exactly the point I outlined in the prologue of this book.

It took Strassman two long years to secure permission to carry out DMT studies with humans (experienced psychedelic users were utilized, as this was deemed more ethical). Indeed, this magnitude of effort probably explains the current lack of human-based hallucinogen research. A look at Strassman's struggle reveals the horrendous bureaucratic forces (a kind of lingering cultural symptom of the 1960s) that face the potential psychedelic researcher. Strassman had to get permission from all sorts of official bodies, such as the formidable Drug Enforcement Agency (DEA) and the Food and Drug Administration (FDA), not to mention the numerous ethical bodies that serve to monitor human-based experimentation.

Two years of uphill struggle and Strassman finally acquired all the necessary permission to perform a DMT study. The remarkable results were subsequently published in reputable but specialized scientific journals, a bit like planting the seeds of a new paradigm underground. Perhaps the most interesting finding concerned the subjects' reports on what the (intravenously injected) DMT experience was like. As with psilocybin, the effects of DMT warrant our attention if we are interested in the latent potential of human consciousness to transcend "normal" reality. In Strassman's own words:

> Several aspects of DMT's effects are interesting. The rapidity of onset is quite remarkable; nearly instantaneous when given intravenously. Also the short duration is remarkable; people are quite over the inebriation within 20 to 25 minutes. Many people describe an "intelligence" within the DMT state, which is either just "felt" or "sensed" and sometimes actually "seen" with the

> mind's eye. People often lose insight into their participation in a drug study for several minutes, forgetting how they got into the mental state they find themselves so suddenly thrust into.[3]

As with its close structural relative psilocybin (molecules of these two compounds are only a few atoms different from one another), subjects reported that the DMT experience felt more real than normal reality. Indeed, it is presumably this novel reality encountered through DMT, especially with regard to the perceived contact with an "intelligent Other," that has led to the use of DMT-containing plants by Amazonian shamans. As already noted, shamans consistently claim that their DMT-containing concoctions put them in direct contact with a transcendental dimension infused with intentionality. What makes this even more intriguing is that Western DMT users report similar experiences. Consider this lucid report from author Daniel Pinchbeck, author of *Breaking Open the Head.*

> I had the sense of floating through a fractal tapestry, a curving and unfolding plane of synthetic, plastic, fantastic whiteness and gleaming colors in endless vibrant hues. This extradimensional realm I had pitched into was made, I felt certain, of data, of quantum equations, visible shamanic harmonics, and the self-weaving fabric of extradimensional superconsciousness. . . . There was, in that place, rushing toward me, an overwhelming force of knowledge and sentience. I knew it was impossible that my mind, on any level, had created what I was seeing. This was no mental projection. This was not a structure within the brain that the drug had somehow tapped into. It was a non-human reality existing at a deeper level than the physical world.[4]

Clearly the chemistry of the brain is indubitably bound with consciousness. Both are mutable. Moreover, certain realms of consciousness can be generated in which, as Pinchbeck forcibly attests, a seemingly autonomous intelligence is apprehended. If ever

there was a “hard” approach to spirituality, this is it.

Although the study of mystical experiences and neurochemistry might seem like compelling science, the fact of the matter is that most scientists exercise great caution when it comes to explaining, in scientific terms, something as precious and as guarded as the mystical experience. Those who tend to police communion with the divine, like religious leaders for instance, are quick to react when scientists attempt to reduce an epiphany to neurochemical events occurring in the brain. Indeed, recall the reaction to Walter Pahnke’s findings in the 1960s at Harvard. Many religious authorities felt their toes being stepped on, and Pahnke was refused further funding. Yet science, with its inevitable expanding interest in the nature of human consciousness, is surely mature enough to take on the issue, and it thus remains to be seen what science can teach us about the potentialities and extraordinary capacities of the human brain/mind.

Again, I hasten to add that science is not the only valid approach

to studying altered states of consciousness. As I have repeatedly implied, direct self-experimentation according to one's own terms and at one's own risk is also an option. At the end of the day, data is needed. From data we can derive theories. Because all entheogenic experiences carry data, we should not be in a rush to dismiss any self-report, whether garnered from a native shaman, an official study subject, or an independent researcher.

Does the Brain Recognize DMT?

There was another finding by Strassman that proved provocative. Strassman found that the human brain does not develop tolerance to DMT. Whereas the brain normally develops tolerance to psychoactive chemicals (repeated use means you need to use more to get the same experience), Strassman found that tolerance does not develop to the repeated administration of DMT. This suggests that, in the "normal" brain, DMT has some kind of *function*—that is, the

brain recognizes DMT and repeatedly utilizes it instead of developing a tolerance to it. So far this putative function of endogenous DMT remains unknown, but it might well be involved in the process of dreaming. This is a tenable hypothesis because we must dream every night. If we are selectively denied that part of the sleep cycle in which we dream—known as REM sleep—we will subsequently have more dreams at some later time (known as the REM-rebound effect). And so if there are indeed dream-inducing chemicals such as DMT, then the brain would by necessity have to make sure that it does not develop tolerance to them because tolerance would stop dreams from taking hold. It is also the case that both dreams and DMT-induced visions are of a somewhat similar nature. Both represent dramatic psychological scenarios that experiencers may find themselves unwittingly involved in.

Strassman also recognized a new clinical use for DMT. He was able to administer DMT every half hour to his subjects, and after

each session he was able to discuss their experiences. He found that the subjects' "psychological resistances" gradually wore down through these sessions, suggesting that DMT has therapeutic potential. Indeed, as DMT is only active for thirty minutes, it has an advantage over therapeutic drugs whose effects last much longer and that require more in the way of supervision from the therapist.

So What Does It All Mean?

Although the therapeutic application of entheogens seems apparent, it's less clear how these substances work and how we might address the various implications of their uncanny effects. At the very least, psychedelics alter consciousness in a dramatic fashion, and at the most extreme, as we have repeatedly seen, such substances can elicit a transcendental experience in which one apparently communes with an intelligence of some kind. Unsurprisingly, there is a popular belief among many of today's psychedelic researchers

that the very origin of humankind's religious impulse is bound with our ancestors' discovery of entheogenic fungi, a notion that, as you may recall, was first introduced by R. Gordon Wasson. Professor David Nichols, president of the Heffter Research Institute, puts it this way:

> One can imagine an early hominid accidentally ingesting a psychedelic mushroom while foraging for edible foodstuffs. Knowledge of these drugs was handed down through the generations and led to the creation of rituals around their use. We have the hymns written to *Soma* in the *Rig Veda,* or the ancient Eleusinian Mysteries of Greece, as only two examples of the extreme importance attached to these substances. . . . Whatever you believe in this regard, it is a simple fact that the use of psychedelic drugs can profoundly alter one's understanding and belief about life and its meaning. Man has been on an age-old quest to find his place in the Universe, and

these drugs can be important tools both in understanding this quest, and in gaining meaning about ourselves as conscious creatures.[5]

Whether or not these speculations about mushrooms are correct is not the main issue. The main issue is the conceptual paradigm that sees a naturally occurring psychedelic agent of some kind lying at the heart of humanity's sacred traditions. As it is, there is certainly some intriguing evidence that human civilization has been using psychedelic mushrooms since the earliest times. Dating from before 6000 B.C. (a long, long time before the Mexican use of psilocybin mushrooms described in chapter 2), rock paintings found at Tassili in Northern Algeria show mythical shamanlike beings covered in mushrooms. These Neolithic mushroom motifs are very distinct. Some have therefore argued that the Goddess-worshipping peoples who inhabited Tassili consumed locally gathered psilocybin mushrooms (such as the large species *Stropharia cubensis*) and that

this practice influenced their spiritual beliefs. Whether the inferred mushroom use at Tassili was novel or derived from an even more ancient tradition is an open question yet to be resolved.

While the debate on the prehistoric relevance of psilocybin and its effects continues, we can end this chapter with a comment by Dr. Strassman. The comment concerns the value of researching the entheogenic experience to aid our understanding of human consciousness. With regard to the mystical claims made by native peoples who employ entheogens, Strassman says:

> Scientists ought to take all claims about the mind seriously. The DMT and psilocybin states . . . are basically non-material. They are not dependent upon the body moving through space, or interaction with other material objects. Thus, they are windows into consciousness, which, while it may have structural underpinnings, is essentially a movement of energy, rather than of matter. . . . So, at the very least, any claims by non-Western

people about consciousness might prove very valuable . . . for speculation about how the mind works. In addition, these "non-literate" cultures are how we found out about DMT and psilocybin in the first place.[6]

F I V E

The Mushroom and the Synapse

Now that I have acquainted the reader with the distinctly mystical nature of the psilocybin experience, it is time for us to focus our attention on psilocybin's physical modus operandi. If we can come to grips with how alkaloids like psilocybin work their spectacular effects within the brain and mind, then we will be one step closer to a preliminary understanding of the nature of consciousness and the

underlying factors governing the switch from normal awareness to the mystical perception of an intelligent Other.

At this point, consciousness lies smack-dab at the center of our inquiry. All our paths of investigation lead directly to it. The psilocybin cultural history covered in the first few chapters of this book arose solely because of the radical change in consciousness induced by the mushroom in the Mayan and Aztec psyche. The pre-LSD investigations at Harvard were likewise galvanized into action by psilocybin-induced states of consciousness. Indeed, the whole 1960s thing happened, in part, precisely because of the new ranges of conscious experience originally kick-started into existence by the mushroom. The growing second wave of psychedelic research has likewise appeared on account of the compelling nature of entheogenic states of consciousness. One cannot escape the mystery of consciousness. Psilocybin simply highlights the boundless nature and mystical potential of the human mind lest we allow this

fortunate state of affairs to pass us by.

As I pointed out at the very outset of this book, if we are interested in apprehending the ultimate nature of the reality process, it makes sense to focus on consciousness because consciousness represents the interface that links us to the "world out there." If we can understand what consciousness is, we might also understand how consciousness is able to be transformed and whether such a transformation can yield bona fide insights into the subtle nature of Nature. Nothing less than reality is up for grabs.

In the chapters that follow, I hope to develop a new, nontechnical, and user-friendly theoretical framework that can explain both normal consciousness and entheogenic consciousness. Essentially this conceptual framework derives from Aldous Huxley's reasonable assertion that the psychedelic experience results from an influx of information not normally available to us—hence the "doors of perception" being opened after ingestion of substances

like, in Huxley's case, mescaline. What I eventually hope to show is that consciousness is actually a *form of information;* that physical matter can be described in terms of information also; and that reality ultimately consists of a flow of self-organizing information, with human consciousness occupying a significant functional role in the entire process. However, before we can explore the exciting ramifications that an informational model of reality yields, we must start from the beginning, that is, we must look more closely at the obviously important physical relationship between psilocybin and the human brain.

Neuromancing with Neuroscience

In any serious attempt to elucidate the brain processes underlying the psychological effects of entheogenic agents, one must utilize whatever relevant scientific data is at hand. In our case this means neuropsychological data, of which much has become available since

the 1950s era, when Huxley wrote *The Doors of Perception*.

Neuropsychology is a modern scientific discipline based on the study of the nervous system, which consists of the body's entire network of nerve cells. These nerve cells, or neurons as they are more formally known, allow us to sense, transmit, and process information. Whereas other cells in the body are designed to form tissues and organs, neurons exist solely to transmit information in the form of discrete signals, or impulses. We are able to see, touch, smell, hear, taste, feel, and think because we possess a vast network of these neurons, which manage to continually process and communicate information about both the external state of the world and the internal state of the body.

Of particular interest to neuropsychologists is the detailed study of the brain (one component of the nervous system) and the way the brain's particular neurons function to produce thinking and behavior. Because psychoactive substances are known to influence

the way brain neurons process information, neuropsychology has made some headway into understanding the chemistry of the brain and the actual way in which psychoactive substances work. Thus, we now know something about how common psychoactive substances like coffee, nicotine, and alcohol interact with the brain's neuronal architecture to cause their desired psychological effects of stimulation or stupor.

However, the study of psychoactive substances is far from being neuropsychology's key research area. Of perhaps most prominence is the study of the effects of brain trauma, a condition in which parts of the brain are damaged. A brief look at the rationale governing this kind of research reveals that we can approach the phenomenon of the entheogenic experience in much the same theoretical way.

For instance, medical patients with brain tumors and a corresponding psychological deficiency are, despite their misfortune, of great interest to neuropsychologists because a causal

relationship can be ascertained between the area of the tumor and the particular psychological disturbance. This is equally true of brain-damaged victims of accidents, for where there is localized brain damage one invariably finds psychological disturbances of a definite kind that are associated with that area of the brain.

As an example, damage to the part of the brain known as Broca's area often leads to language problems associated with speech production. Patients of this type have no difficulty in understanding speech but have noticeable difficulty in producing speech, even to the point of being mute. The point of interest is that a specific area of the physical brain is damaged with an associated specific psychological disruption. Once the neuropsychologist has gathered a wealth of such examples, then psychological functions like language (which is often disrupted after brain injury) can be divided into various subsystems or "modules" operating in different areas of the brain, each of which can be differentially affected.

The upshot of this methodological enterprise is that scientists are now able to speculate about normal brain function and to link localized physical brain mechanisms with aspects of the mind. This is quite an achievement, resulting directly from the prevailing localization paradigm governing a major part of neuropsychology. It is therefore not unusual to come across references to the mapping of the human brain whereby different areas are associated with different psychological functions.

Bearing this in mind, it is clear that we could examine the entheogenic experience in a similar way. That is, by looking at the specific changes to consciousness arising from the presence of specific substances in the brain, we should be able to theorize about how normal consciousness arises. In other words, just as we can analyze abnormal language production and then speculate about how the language system works in normal people, so too can we analyze altered states of consciousness and speculate about the

nature of normal consciousness. At any rate, by examining chemical changes associated with changes in consciousness, we ought definitely to come to some understanding about the nature of mind stuff and the ways it is possible to modify mind stuff through chemistry. On the face of it at least, this area of study promises a wealth of relevant psychological data with which to understand the elusive nature of mind.

Despite this reasoning, scientists, as should be clear by now, have unfortunately been hindered from investigating the psychedelic experience, and it is only in the last few decades that they have been permitted to resume studies in this fascinating domain. And yet enough information on the psychedelic experience has been generated with which to construct a user-friendly theory of consciousness. Most of this information I have outlined in previous chapters, in particular, information on the fundamental type of global change in consciousness caused by psilocybin. If we add

relevant information regarding the physical details of psilocybin, we shall be able to reach some sort of sound theoretical conclusion about the nature of consciousness. Regardless of any legal issues, this mode of inquiry promises to be most fruitful. In fact it is rather apt that a mysterious phenomenon like consciousness should require such radical means with which to pry open its nature.

Introducing the Neuronal Brain

As mentioned, the brain consists of individual information-processing nerve cells, or neurons. It is estimated that the human brain contains up to one hundred billion of them. This is an astronomical number pretty much impossible to conceive. Regardless, these billions of neurons are the essential "wetware" of the brain, and massed together with other cells that provide support and energy, they form the spongy gray matter residing within our skulls. We should also consider that each of these billions of

neurons forms interconnections with thousands or even tens of thousands of other neurons. We will learn more about this a bit later on.

Although the evidence is overwhelming, it still seems extraordinary that this convoluted blob of porridge-like neuronal stuff within our skulls is bound up with the elaborate properties of the human mind. Although one might have reservations in associating a spongy, wet blob with consciousness, the association is indisputable. Scramble someone's brain either through a severe blow to the head or through some other trauma, and that person's consciousness similarly becomes scrambled. Or, electrically excite the brain of a patient undergoing brain surgery who is under the effects of only a local anesthetic, and the electrical stimulation evokes definite and often vivid lifelike experiences. And, of course, certain chemical substances introduced into the brain serve to alter consciousness.

Hence, it is overwhelmingly apparent that the human mind with all its attendant beliefs, ideas, neuroses, fears, hopes, dreams, goals, and aspirations is intimately bound with the unsightly wet-blob brain inside our crania. Indeed, what distinguishes *Homo sapiens* from, say, our primate cousins, is the sheer size of our brains and the mental abilities that a relatively big brain grants us, abilities like self-awareness, language, complex social behavior, foresight, problem solving, metaphysical musing, and so on. We are what we are by virtue of our evolved brains, the phenomenon of human consciousness being determined by this fortunate evolutionary turn of events.

So what is the neuron exactly and how does it come to be involved not only in your reading of these words, but in the psilocybin experience? What is it exactly that these billions of units do?

Naturally Neat Neurons

Structurally, the neuron has four main components: dendrites; the soma (no relation to Wasson's Soma!), or cell body; the axon; and terminal fibers. This may sound somewhat complicated, but the basic principles involved are easily understandable and are essential knowledge to anyone interested in how the brain does its thing.

Imagine a big tree suspended in midair. The bottom of this tree has a dense network of roots, which are attached to a bulbous lower trunk. Above this fat lower trunk is a long, thin upper trunk that ends with a wispy network of branches. In this picturesque analogy of the neuron (which will be worth bearing in mind for the discussions to come when we try to imagine psilocybin's journey within the brain), the roots of the tree are the dendrites, the bulbous lower trunk is the soma, the long upper trunk is the axon, and the topmost branches are the terminal fibers. This is the essential structure of an archetypal neuron with its four distinct components,

and all of the brain's neurons are basically made in this way. Neurons are akin to microscopic protoplasmic trees.

The dendrites are the root structures of the neuron, which serve to receive information in the form of signals, or impulses, from other neurons. In our analogy, the root network of the suspended tree receives signals from the branches of other trees suspended below it. These neuronal signals travel to the soma (lower trunk), where they are integrated. The singular result of this integration is then passed on to the axon (upper trunk), which in turn passes on the information to the terminal fibers (branches).

Already we can see that neurons transmit informational impulses in an orderly and well-defined manner; that is, informational signals progress or flow through the neuronal architecture in one direction only. But what exactly are these signals? Because neurons are living tissue, they operate by making use of their inherent electrochemical property, which is to say that their particular chemical molecular

structure allows electrical potentials to be generated. The neuron has been constructed by Nature in such a way that it can either fire or not fire, depending on its input from other neurons. Firing here means that the neuron sends forth an electrochemical impulse (a rapidly traveling wave of electrical excitation) down its axon to its terminal fibers, at which point the impulse can be transmitted to other neurons.

This then is the way that neurons process information. The information they carry is *embodied in the electrochemical activity of the neuron*—its state of either firing or not firing, transmitting electrochemical impulses on to other neurons or not transmitting impulses. This all or nothing behavior is rather like the "bit" components inside computers, which store information by being either on or off, active or inactive. Neurons thus appear to operate in a kind of all or nothing digital fashion. Neurons can either fire or not fire; they cannot half fire. There is no room for doubt or

indecision, only a logically determined discrete firing or nonfiring signal according to what other neurons in their vicinity are doing.

The purpose of the soma is to integrate all the incoming signals from its dendrites (signals that come from other neurons) and then yield a subsequent impulse down its axon—or not, as the case may be. The concept of threshold is therefore crucial here. For simplicity's sake, if there are a certain number of impulses received by the soma from other neurons, then the firing threshold will be met and an impulse will be passed on down the axon. Conversely, if the particular threshold is not met, there will be no impulse sent down the axon.

Don't relax yet, for there is one more important fact to consider. Neurons can be excitatory or inhibitory. If the neuron is excitatory, then if it fires, as its name suggests, its impulse will be one that tends to cause excitation in other neurons with which it connects. In other words its impulse will add to the chances of the next neuron in

line firing as well. On the other hand, inhibitory neurons, should they fire, will decrease the chances of the next neuron in line firing.

To use the suspended tree analogy again, imagine that the roots receive one hundred impulses from the nearby branches of other trees below. The majority of these impulses, let's say, are inhibitory —that is, their inherent message being conveyed to the tree is "do not fire an impulse." After these signals are processed by the lower trunk of the tree, a resultant impulse is therefore not passed along to the upper trunk and branches, and therefore no signal is conveyed to subsequent trees above.

And there you have it—the essential features of the brain's highly sophisticated neuronal machinery in a nutshell. Information is transmitted and processed by the brain through the collective firing patterns of billions of neurons. Like the myriad on-off bit components of a computer, unbelievably large systems of neurons are able to carry out various computational processes and

procedures, although the brain's capacity to compute and literally think far outstrips the ability of any currently existing computer. The emergence of a sentient HAL-like or Skynet-like computer system that worries about being turned off or wants to wage war on us is unlikely. For whereas computers might be good at numerical calculation and other well-defined logical operations, they fail miserably when it comes to carrying out the types of thinking that we do all the time, like how to cross a really busy street while simultaneously contemplating a Shakespearean metaphor. Perhaps if computers were born into a society of computers, were able to form intricately detailed models of reality, and were able to continually rewrite themselves, then maybe they might eventually come to possess mindful characteristics. As it stands, what partly determines human consciousness and the human self are the vast webs of social and societal relations that impinge on us, the complex internal models of reality that we build and store, and the continual learning processes we undertake.

When considering the organized neuronal activity of the human brain, what we must actively strive to appreciate is the enormity of the system and the different patterns of impulse firing that the whole system can potentially embody. Not only are there billions of discrete neuronal firing devices, the amount of connectivity between them almost defies calculation. It has been estimated that each individual neuron can potentially pass on impulses to as many as ten thousand other neurons and may be in receipt of as many as fifty thousand potential impulses from other neurons. In our tree analogy, each tree would therefore be able to receive impulses and pass them on to vast forests of other trees.

Based on the above figures it has been calculated that the informational-storage capacity of the human brain is comparable to the content of all the books ever written. It is this bewildering capacity to process and store information that makes the human mind as rich and as complex as it appears to be. Without the brain's

ability to continually channel and organize billions of bits of information, the conscious human psyche as we know it could not exist.

This wealth of neuronal complexity that we all carry around in our big heads is staggering to say the least. At any one moment the entire network can be in an essentially infinite number of states of firing, and somewhere within this informational complexity lies our consciousness—who and what we are. Before dwelling on this obviously compelling mystery, there is yet more relevant data to consider. According to the outline of neurons given thus far, it might be assumed that they contact one another directly. We might suppose that the terminal fibers of neurons pass on their firing impulses directly to the dendrites of other neurons. In the tree analogy this infers that the branch tips of one tree touch the roots of other trees. However, this is not the case. What is more, the actual mechanism by which neurons relay their electrochemically

mediated information to one another is the very place where psychoactive substances like psilocybin and your morning cup of caffeine-enriched coffee are believed to operate. To be more precise, the synapse is where it's all at.

A Fantastic Journey into the Synapse

The synapse is the junction between two neurons, the place where they communicate, and it is arguably the most interesting feature of neuronal activity, for it operates with chemical substances that psychoactive drugs resemble. In fact, as we shall shortly see, most psychoactive drugs work by mimicking the endogenous chemical substances employed at the brain's synaptic sites.

The chemicals employed at the neuronal synapse are called neurotransmitters since they are the chemical agents that allow neurons to transmit their electrochemical impulses to one another. Instead of one neuron directly fusing onto another, there is an

intervening gap between them—the synaptic cleft—through which impulses must perforce be conveyed if they are to pass on their signal. This synaptic gap is so small that it can be discerned only with the aid of an electron microscope. Yet despite its microscopic size, a tremendous amount of chemical activity can and does occur in the synaptic cleft so that, in reality, the microscopic gap is more of a busy molecular chasm.

Basically, when an electrochemical impulse reaches the synapses at the end regions of the neuron's terminal fibers (the tips of the branches in our tree analogy), it causes a neurotransmitter substance to be released into the synaptic cleft. After this substance has flooded the intervening synaptic space, some of its molecules bind themselves to special proteins called receptors located on the surface of the dendrites of the receiving neuron. After the binding has occurred, these receptors cause changes in the biochemistry of the receiving neuron. These changes then alter the electrical

properties of the neuron and, if a certain threshold of activation is met, the original impulse will be regenerated in this neuron and subsequently be passed on to other neurons.

To fully explain the scope, scale, and intricacy of synaptic information transmission, permit me to employ another picturesque analogy. Instead of a terminal fiber/dendrite synapse, think of two train tunnels that do not meet but have an intervening space of, say, ten meters between them. Furthermore, imagine that a train speeds along one of the tunnels at hundreds of miles per hour. This is akin to a high-velocity electrochemical impulse traveling along a neuron. Not dogged by track problems, this Intercity Electrochemical Impulse Express reaches the end of the tunnel and duly crashes onto specially constructed buffers. The dramatic impact upon the buffers causes a group of strategically placed gas canisters to explode, thus dispersing their gaseous contents into the gap between the two tunnels. The gases instantaneously diffuse across the gap and cause

a reaction to occur in a stationary train situated at the start of the next tunnel. As soon as molecules of the gas reach the next train, a neat reaction occurs in which the engine roars and the train is off, at the same speed as the first train. Meanwhile the gas molecules in the gap are immediately mopped up (and then conveniently recycled) so that they do not cause the replacement train (that magically appears almost instantly to replace the one that just sped off) to start up also. And in the first tunnel the original train has also been removed in order to allow another to follow if need be.

This analogy captures in essence the manner in which information flows at a single synapse. Although one might argue that a speeding train is a physical thing and an electrochemical impulse is not strictly a physical thing, the most important feature is the *activity of the system and its informational state at any given moment*. We could equally imagine a speeding band of fluorescent light or even a speeding vortex of turbulent air traveling down the tunnels; it does

not matter. What really matters is the informational state of the components of the system—their relations with one another. In the actual neuronal synapse these crucial relations are defined by the chemical constituency of the whole system, that is, where and what effects various neurotransmitters are having on the different parts of the synapse.

If the synapse is starting to sound ridiculously complex, we should also keep in mind that the synaptic transmission of an impulse outlined above takes place in no more than *100 microseconds*. In this outrageously short space of time, hundreds of thousands of neurotransmitter molecules are released from the terminal fibers of one neuron, are diffused across the synaptic cleft, come to attach themselves to special receptors on the dendrite of the next neuron, cause an electrochemical impulse to be generated (or not), and are finally reabsorbed and recycled for further use by the first neuron. All this in one hundred millionths of a second! Truly

the mind boggles at the very processes underlying its boggling!

Despite the awesome intricacies of the neuronal system and any disbelief we might have that Nature could fashion such exquisite nanotechnological architectures, I have deliberately ignored many of the other important features involved in the neuronal transmission of information. For instance, the electrochemical impulse that shoots through the neuron is itself chock-a-block with chemical complexity. We find outrageously sophisticated potassium and sodium chemical pumps in the axon; we find vast oceans of charged particles, or ions, being continuously pumped in and out of the axon through special membrane channels so that an electrical current is created; and we witness, finally, the aforementioned emergent wave of electrical activity whizzing along the axon to the terminal fibers and on to the synapses. That is the least that can be said about Nature's wondrous evolutionary endeavors in crafting the mammalian brain.

In general, a major conceptual flaw in our understanding of the workings of neurons is the distinct lack of appreciation for their relative size and speed of activity, an unfortunate fact that I am at pains to rectify here. Our modes of inquiry tend to gloss over complexity. True, we don't have to marvel, gasp, and sit down in amazement at neuronal phenomena, yet to not do so (marvel at least) is to overlook the subtlest fruits of the evolutionary process.

So, although we can examine individual neurons and ascertain the mechanism whereby they transmit information, and although we can recognize the role of neurotransmitter substances in propagating information from neuron to neuron through the synapse, traditional scientific approaches tend to fail dismally in fully conveying, in a qualitative sense, the immense organizational complexity involved in the neuronal system as a whole.

Textbooks, for clarity, describe single neurons and single synapses in a fairly cold and reductive manner. What seems never to

be stressed is the magnitude of electrochemical changes that zip throughout the conscious brain. Literally billions of coordinated and meaningful molecular events occurring in literally billions of discrete locations at every moment are somehow integrated so that organized sense results. This is information processing with a vengeance!

If, then, we are attempting to marry such neuronal activity with psychological activity (consciousness), that is, if we are attempting to bridge the conceptual gap between mental reality and physical reality, then we must appreciate the organizational complexities involved. If we were merely to skate over the immensity of these processes, we would miss an intuitive feel for the entire system.

Neuronal Patterns and Context

Returning to the concept of organized patterns of neuronal firing, this becomes useful when we consider the way the brain must work

in everyday situations. If we take some important psychological function like, say, face recognition, we can see that the particular pattern of neuronal firing caused by nerve impulses issuing from the visual system when it is looking at a face will be, for any particular face, unique. In other words, each face we see will generate a unique pattern of neuronal firing—the face's neuronal signature—in our brain. Furthermore, the neuronal processing of faces appears to reside in a specific area of the brain that can be selectively damaged, resulting in prosopagnosia, a disorder in which the sufferer fails to recognize faces, even those of close family members.

Similarly, we recognize different people's voices by virtue of the fact that each voice causes a distinct pattern of neuronal firing that is conducted from the auditory senses to deep within the brain. Eventually this pattern of information reaches that part of the brain where acoustical information is analyzed and recognized. The same is true for different tastes. Each type of food or drink we consume

causes a different pattern of nerve impulses to be generated, which finally reaches that part of the brain that deals in the perception of taste.

In each of these cases, the neuronal pattern produced through the sensing of a particular face, voice, or taste will, at some stage, need to be compared with other possible neuronal patterns in order to yield its particular meaning and significance. Therefore, the different processing systems of the brain must act, in part, to provide a *context* for ongoing neuronal patterns. Without a contextual effect, neuronal patterns would not be able to yield their inherent meaning. The brain's capacity to provide a precise context for ongoing neuronal patterns is thus crucial in understanding how neuronal activity and neuronal firing patterns become meaningful.

The Berkeley psychology professor Bernard J. Baars has noted the importance of contextual effects in giving meaning to ongoing neuronal patterns. In *A Cognitive Theory of Consciousness* he

writes: “We generally gain information about a world that is locally ambiguous, yet we usually experience a stable, coherent world. This suggests that *before input becomes conscious, it interacts with numerous unconscious contextual influences to produce a single, coherent, conscious experience*. Consciousness and context are twin issues, inseparable in the nature of things.”[1]

Although a detailed look at all the intricacies of neuronal firing patterns is beyond the scope of this book, for the time being it is enough that we grasp the essential principles that are likely to be involved in the brain’s processing of information. Organized neuronal patterns arising from, say, visible external stimuli contain a wealth of latent information about the stimuli, which is to say that the neuronal patterns are representations of those stimuli. The latent information in these neuronal representations then gets “read” once the neuronal patterns are contextually processed. The brain, by supplying a context for neuronal representations, is able to access

the meaning inherent in them.

One neurophilosophical approach to understanding mental states is that of functionalism, which, despite its dreary name, captures the important role of context in conscious brain processes. Essentially, functionalism views firing states of the brain as playing functional roles in an economy or *language* of possible firing states, which is another way of describing the type of contextual effects outlined above. Any neuronal firing state of the brain derives its significance and meaning from the functional role that it plays within a language of possible states. All possible states are related to one another (just as all words in the English language are related to one another), and it is the network of relations (stored within the brain's memory systems) that acts as context.

We now have at least a preliminary handle on the fundamental way that the neuronal brain operates. Patterns of neuronal firing embody information and meaning that is read or accessed by the

brain through language-like contextual/relational effects. Conscious experience appears to be intimately bound somewhere within this information-processing system, since it is consciousness that comes to experience meaning. We see faces and we know who they are. We see pictures and we see what they mean. We hear sounds and we know what they signify. Consciousness is therefore substantiated within neuronal information processing, and it begins to look as if *consciousness itself is a form of information that emerges at the highest and most integrated level of the neuronal system*.

With these speculations in mind, let us look at the way that psychoactive substances influence neurons, synapses, and, of course, consciousness. This is where physical processes can be seen to be connected directly to changes in consciousness, an area of analysis teeming with profound implications, especially when we consider the effects of psilocybin. More important, we might

ascertain still more clearly how consciousness can be understood as a form of information.

Chemistry and the Mind

There are drugs and there are drugs. To be precise, there are five principal classes of drugs that alter mood and behavior, some of which we have already met and discussed. There are depressants like alcohol, barbiturates, Valium, and anesthetics; stimulants like amphetamines (speed), cocaine, caffeine, and nicotine; opiates like opium, heroin, and morphine; antipsychotics like chlorpromazine and risperidone; and last but by absolutely no means least, there are psychedelics or entheogens like psilocybin, mescaline, LSD, and DMT. Cannabis and the synthetic club drug Ecstasy (MDMA) are sometimes classified as psychedelics as well.

The substances listed here as psychedelic could be further divided according to the precise effect they have, but this basic

classification will suffice for the following discussion, which focuses on the way these substances are believed to work. Although we will briefly look at each class of substance, the most attention will be paid to the known neuro-physiological effects of psilocybin.

The predominant effect of depressants is to depress, or deaden, neuronal activity. Consider anesthetics. They are so strong in their depressant action that beyond the state of general anesthesia that they induce, there lies only coma and death. It is believed that once anesthetics have been administered, they reach the brain and inhibit neuronal firing so much that consciousness is "lost." Therefore it is clear that without adequate neuronal firing there can be no information processing or information conductance and hence no mindfulness. Here we have yet more proof that consciousness is bound up with the billionfold action of activated neurons in the brain.

If we take another depressant drug, like alcohol, we find that it too

acts to inhibit neuronal firing throughout the brain, and hence consciousness becomes depressed or reduced. However, at low doses the opposite effect takes place, whereby there is a certain degree of psychological stimulation because of the initial depression of the inhibitory synapses, which, as you will recall, serve to diminish neuronal firing. However, soon after these inhibitory neurons are depressed, excitatory neurons begin to be depressed as well, and this effect comes to dominate the ensuing state of consciousness.

Not only do depressants inhibit neuronal firing in the brain, they also appear to depress the activity of the body's other nerves, heart tissue, and muscle tissue. More specifically, depressants upset the functioning of the arousal centers in the brain such that psychological arousal and stimulation are diminished. In short, the quantity of consciousness is reduced due to a concurrent reduction in neuronal firing, and there is less informational patterning and less

informational organization happening within the neuronal systems of the brain once a depressant drug has been introduced.

Stimulants have the opposite effect of depressants. Cocaine and amphetamines each work in virtually the same way, causing almost identical stimulatory effects like euphoria, an increase in alertness, an elevation of mood, and a reduction in fatigue. Indeed, cocaine is derived from the coca plant, the leaves of which are still chewed daily by millions of native South Americans precisely for the resultant psychological stimulation and reduction in perceived tiredness and hunger. This latter "productive" effect of the coca leaf explains the fact that while the sixteenth-century Spanish conquistadors outlawed the religious use of sacred mushrooms, peoples like the Incas were allowed to continue their practice of chewing coca leaves as long as they slaved away in Spanish gold mines.

Amphetamines are believed to mimic and increase the activity of

the neurotransmitters noradrenaline and dopamine (the brain uses many different types of neurotransmitter), thus interfering with the normal synaptic functioning of neurons using these neurotransmitters. This happens partly because amphetamines are similar in molecular structure to both noradrenaline and dopamine. Because of this resemblance, amphetamines literally invade those neuronal areas where synaptic transmission with these transmitters occurs and increase the rate of impulse generation. Once this occurs, the typical "speeding" psychological responses take hold.

With cocaine a similar tale unfolds. In this case, however, it appears that cocaine inhibits the recycling (the "mopping up") of noradrenaline and dopamine within synapses after they have done their work. Because of this selective interference, there are more neurotransmitters "hanging around" in synapses and therefore more of them to stimulate receiving neurons into excitatory action.

In both cases, the chief neurological effect is that of an increase in

synaptic activity that causes stimulation of the nervous system. Again we see that the stimulating alteration in consciousness caused by these drugs is due to an increase in the information-processing activity of certain types of neuron, in this case, neurons utilizing noradrenaline and dopamine. Increased neuronal activity of this kind then generates the desired psychological stimulation, or "high." It is important to bear in mind, however, that the increased neuronal activity in this case does not lead to any kind of profound visionary experience. Such radical phenomenology is restricted to psychedelics.

With tea and coffee, the active ingredient, caffeine, is believed to increase rates of cellular metabolism, thus making more energy available to cells. The net result of this action is once again an elevated rate of neuronal firing, which explains the subtle stimulatory properties of tea and coffee and their widespread use.

The third class of psychoactive substance on our list is opiates,

which are derived from the opium poppy. The opiates are interesting for their variety of powerful effects. The worldwide painkiller morphine is an invaluable opiate, and its chemical isolation from the opium poppy radically revolutionized medicine and pain control. Morphine seems to selectively bind to opiate receptors in the brain, which suggests that the brain has its own pain-control mechanisms. Indeed, it has been proposed that acupuncture and hypnosis might be able to reduce pain because they encourage the brain to generate its own endorphins, which are natural opiate substances that bind to opiate receptors (endorphins are also believed to be the cause of the high often experienced after rigorous exercise). Once these opiate receptors are activated, the emotional perception of pain diminishes—as opposed to a diminishing of the actual pain impulses arriving from the site of injury. Along with opium and heroin (a semisynthetic compound), morphine also generates euphoria, and this is associated with the emotional changes wrought through the activation of the nervous

system's opiate receptors.

With the fourth class of drugs, the antipsychotics, we find synthetic compounds such as risperidone being used the world over to treat mental diseases, including schizophrenia. Perhaps the most common neuropsychological theory holds that schizophrenia results from an excess of the substance dopamine within the brain. Dopamine, of course, is a major neurotransmitter that we met when we looked at the neurological effect of stimulants.

The excess-dopamine explanation for schizophrenia is supported by the effects of risperidone, which can diminish the symptoms of this disease. Because risperidone operates partly by blocking dopamine receptors in the brain, it is logical to assume that an excess of dopaminergic neuronal activity lies at the heart of schizophrenia. This speculation leads to the intriguing conclusion that somehow an elevation in the activity of dopamine-using neurons is intimately bound with the strange delusions and belief

systems of the unfortunate mind suffering from schizophrenia. By blocking the excess dopamine at the receptor sites, risperidone helps to block disorders of thought.

Here we have another strong clue about how to unravel the mysteries of the formation and emergence of complex consciousness—for schizophrenia is noted precisely for its disruptions of those higher levels of awareness that pertain to reality conception. Furthermore, these large-scale disruptions in thought appear to be nonrandom in that certain definite types of delusion are observed, often related to feelings of paranoia and the belief that one is being controlled by horribly malevolent external forces. If dopaminergic synaptic overactivity really is to blame for these global disorders of thought, we can begin to conceive how large patterns of abnormal neuronal firing yield large disorders of cognition, such as paranoid delusions and the like. If neuronal activity becomes too overactive and too “wild,” then the resultant

firing patterns might well be "flawed," which is to say that these patterns are essentially mistakes serving to mislead the experiencer. Or, if there is some negative disruption in the overall way in which the schizophrenic conceives reality, then the schizophrenic's model of reality will provide a faulty contextual effect on ongoing neuronal activity.

Obviously the human brain is a finely tuned information-processing instrument. If the neuronal events substantiating some kinds of information processing are pushed too far from some criteria, or if neuronal events are "read" by an erroneous contextual system, faulty processing occurs, with its resultant negative disruption of consciousness.

Neuro-alchemical Magic

Finally we come to the class of compounds known as psychedelics or entheogens. Admittedly it has been a little tough getting here, yet

the journey is worth it. We are now ready to home in even closer to the link between neuronal chemistry and consciousness. Entheogens are by far the most interesting of all known psychoactive substances, although precious little is known about exactly how they are able to generate such a remarkable array of psychological effects. Entheogens are often referred to by unwary clinicians as *hallucinogens,* yet this term suggests that hallucinations are produced. The general definition of a hallucination is that of a perceived object in three-dimensional space that is in actuality not there—a bit like seeing a ghost or mirage. But this is not a typical effect, as I hope I have shown in previous chapters. In fact, one of the most prominent effects of substances like psilocybin is the production of complex visionary scenes that unfold behind closed eyes, along with a perceived increase in the realness of the external world as viewed with eyes open. More specifically, one does not hallucinate nonexistent objects; rather, one comes to see external reality in a new and more enhanced way. It is for these reasons that

the term *entheogen* or *psychedelic* (literally mind-manifesting) is preferred to classify these particular substances.

It is believed that psilocybin works by mimicking the neurotransmitter serotonin (known as 5-HT), one of the most important and widespread of the brain's synaptic messengers. The mimicking occurs because psilocin (the active metabolite of psilocybin that is formed in the body) possesses a molecular structure almost identical to serotonin. Psilocin's shape is so similar to serotonin that it is able to infiltrate parts of the brain that process information using serotonergic synapses.

Serotonin is employed in a number of brain structures that control functions like sleep, mood, and general arousal. One of these structures is the raphe system at the base of the brain, whose serotonergic neuronal axons project to all other major areas of the brain, notably the limbic system (which controls emotional responses) and areas of the visual system.

Research indicates that the serotonin-using raphe system has a homeostatic, or balancing, function in which two primary effects emerge. First, in the waking state the system acts to enhance the activity of motor neurons, which govern the control of muscular movement. Second, and more significant, during the waking state this same serotonergic system acts to suppress sensory systems, which relay information about the external world. This second effect appears to screen out, or filter out, distracting sensory information. Furthermore, it has been speculated that this filtering mechanism allows us to perceive reality in a steady way, almost as if the serotonergic raphe system were a balancing stick enabling us to walk the "tightrope" of normal perceptual awareness. If this serotonergic homeostatic balancing system is interfered with, then the perception of reality will be correspondingly altered, so much so that we may plunge off the tightrope into new dimensions of perceived reality. Chemically dismantling the raphe system's screening effect would therefore admit the entry of latent

information into consciousness. Is this how visionary agents like psilocybin work?

Most of the detailed physiological experimentation that was carried out with psychedelics in the 1960s concentrated on LSD and psilocybin and used rat brains, cat brains, and isolated rat neurons. Perhaps the most important finding was indeed that LSD and psilocybin depress the action of serotonin neurons in the raphe system (a neuronal system shared by rats, cats, and humans).

The usual activity of the particular serotonergic neurons that psilocin and LSD depress is inhibitory, which means that their normal firing serves to dampen or suppress activity in those parts of the brain with which they synapse. Thus it was believed that psilocybin and LSD's dampening effect on serotonergic neurons facilitated an increase in neuronal firing in those areas of the brain in contact with the raphe system (like the aforementioned visual and limbic/emotion systems). It was this effect, this enhancement of

neuronal activation, that was believed to correlate with the psychedelic experience itself.

It seemed like a nice, neat theory. However, the above scenario does not take into account the recently discovered neuropharmacological action of mescaline, another classic entheogen. With not a little irritation we find that, like psilocybin, mescaline induces the full spectrum of visionary phenomenology, but it is not known to significantly influence the raphe system. Therefore our raphe theory cannot be the whole story.

Research over the past decade has revealed that there are distinct kinds of serotonin receptors, or serotonin binding sites, within the brain. In other words, neurons that are modulated by the release of serotonin from other neurons with which they synapse are not tied down to just one kind of serotonin receptor. In typical fashion, Nature has made things more complex and intriguing than that. In fact, there are different kinds of serotonin receptor (classified by

grouping them into subtype receptors), and it is believed that different psychedelic drugs have differential effects upon these receptors. One particular serotonin receptor, however—the so-called 5-HT2A type—appears to represent a common site of action for both psilocybin and mescaline.

The 5-HT2A receptors are found throughout the cortex and also in abundance in the brain system known as the locus coeruleus, which, like the raphe, is situated at the base of the brain. The locus coeruleus processes so many sensory inputs (a flow of incoming data, if you like) that it is considered to function as a "novelty detector" and is able to influence one's state of arousal. By monitoring the constant surge of "electrochemical traffic" passing through it, the locus coeruleus is able to detect changes in the flow of data and alert other parts of the brain. When something changes in the environment around us, the locus coeruleus alerts the rest of the brain to the change. Both psilocin and mescaline bind to these 5-

HT2A sites in the locus coeruleus and thereby alter the functioning of this system, ultimately raising levels of arousal. In other words, it once again seems that psychedelics function by making more information available to the experiencer.

This explanation is still not the full story, however, as pharmacology expert professor David Nichols attests.

> 5-HT2A receptor sites are located in a number of other key areas of the brain. Importantly, they are located on neurons in the frontal cortex called pyramidal cells. The frontal cortex is often referred to as the area where executive decisions are made. It is there that we make sense of all the information that is arriving. It is a sort of conscious integrating center where the brain makes decisions about what to do about all the information that it is receiving. Laugh? Cry? Get up and go to the bathroom? Experiments . . . suggest that stimulation of 5-HT2A receptors makes these pyramidal cells fire more easily,

thus enabling them to process more information.[2]

Professor Nichols also points out yet another area of the brain that might be involved in entheogenesis.

> There is an area in the middle of the brain called the thalamus. The thalamus is a relay station through which all of the sensory information we receive (except for smell) is sent to the cortex. This part of the brain is sometimes called the "searchlight" of attention. It is wrapped in yet another layer of neurons called the reticular nucleus of the thalamus, and it is this layer that helps to control which sensory information actually gets through the thalamus and is sent on to the cortex. The 5-HT2A receptor is located on neurons in both of these two areas, so its activation has a direct effect on the control and flow of information that ultimately reaches the cortex. It is thought that psilocybin and LSD decrease the efficiency of this thalamic filter or gating

mechanism, and allow much more information to be sent to the cortex.[3]

Despite introducing yet more areas of the brain, Professor Nichols appears to concur that the chief effect of psilocybin is *an increase in informational activity in those areas of the brain involved with consciousness*. As far as I can see, given all the scientific data at hand, a basic conclusion along these lines seems inevitable.

The Novel Orchestration of Information

We are now in a position to summarize the above findings in fairly straightforward terms: the net result of psilocybin's combined effects upon the locus coeruleus, the raphe system, the thalamus, and cortical cells is an increase in neuronal firing in the cortex, a concurrent increase in consciousness (an expansion of perceived reality), and the emergence of often spectacular visions behind

closed eyes.

Only the second of those claims is in any way contentious, for I suggest an increase in consciousness. Others might argue that the increase in neuronal firing in the brain is more of an unwelcome dysfunction than a constructive effect. However, a negative judgment like this misses the implications of the entheogenic state of mind. After all, Huxley claimed that psychedelics could, through an act of "gratuitous grace," permit one access to perceptual information that was "out there," but not normally needed because from an evolutionary standpoint we need only information regarding things like food and safety. Or at least those are the sorts of thing it has been essential to know in our evolutionary past. Of course for Huxley and other champions of the psychedelic experience, the knowledge made available through visionary plant and fungal alkaloids was suddenly very important in the light of contemporary Western culture. A transcendental reality appeared to

be awaiting us, ready to erupt amid the mundane and oft-profane trudge of human history.

Armed with modern data on serotonin receptors, we can see that Huxley was correct in his pioneering conjectures. Once entheogenic compounds have entered the brain, an increase in neuronal activity (that is, an increase in neuronal excitation and electrochemical information processing) takes place—hence more information does indeed become accessible to the mind. In particular, the parts of the brain that become more activated are involved with novelty detection, arousal, emotions, the relaying of sensory information, and making sense of it all.

But what exactly does it mean that there is an increase in neuronal informational activity? Just how valid and "real" are the novel patterns of neuronal firing galvanized by psilocybin? Indeed, how can novel patterns of neuronal firing *actually be conscious thoughts*? From here on, the ground gets more uncertain, mainly

because the brain is such an astonishingly complicated organ. However, before we go on to speculate and deal further with what has been said thus far, there is one more piece of information we should consider, namely the role of serotonergic neurons in the process of dreaming.

Sleeping Dreams and Waking Dreams

REM sleep, or rapid eye movement sleep, is that part of the sleep cycle in which we dream the most vividly. Sleep, let alone dreaming, is a peculiar thing, especially since we spend about a third of our lives succumbing to it. Despite such a dramatic nightly encumbrance, science has yet to reach a universal consensus regarding why we sleep, for one can come up with plenty of arguments that counter explanations that view sleep as a purely restorative process. Proneness to attack comes to mind, for when else are we so passively oblivious to our surroundings? As for our

need to dream, there are again numerous theories, from odd theories that we dream to forget, to theories that we dream to consolidate information.

Although we might not remember our dreams, it is vital that we engage in REM sleep each night. Sleep researchers have found that if periods of REM sleep are selectively disrupted, it results in a rebound effect whereby the next night, barring any more selective interference from researchers, there will be an extra amount of REM, or dreaming. We absolutely must dream, and therefore dreaming has to be related to some very important informational process of the brain.

Neuroscientist B. L. Jacobs has carried out experiments that show that a suppression of serotonergic neuronal activity elicits dreaming. If cats (unfortunately these most loveable creatures are often used for questionable brain-meddling sleep experiments) are injected with a chemical called PCPA, which is known to deplete serotonin

supplies in all parts of the brain, the cats exhibit brain-wave patterns consistent with the onset of dreaming, despite the fact that they are fully awake. In other words, argues Jacobs, the cats are experiencing waking dreams. Therefore, waking dreams are somehow associated with low levels of serotonin. Indeed, during dream sleep, serotonergic cells in the raphe system turn off completely so that they cease having a depressant effect on other parts of the brain, a process that echoes the effects of psilocybin upon the raphe system.

The conclusion reached is that dreaming is associated with a form of neuronal firing normally kept at bay by inhibitory serotonergic neurons until the onset of sleep. More important, the visions produced by psychedelic agents like psilocybin might be the result of waking dreams, or at least they might emerge from self-organizing neuronal processes that are similar to those processes occurring while we dream. The essential principle appears to be the

coalescing of information into meaningful patterns. This idea is not only compelling, it also seems intuitively correct; the psilocybin mushroom allows one to experience dreamlike consciousness while awake, which takes the form of intensely moving visions behind closed eyes.

According to the various documented cases of the shamanic visionary state, psychedelic visions are indeed dreamlike, the only difference being that one is immeasurably more conscious during visions than in dreams (even lucid ones) and one is able to remember them vividly, unlike dreams, which often fade quickly. Whereas most people cannot, offhand, recall most of the thousands of dreams that they all must have had, psilocybin visions remain fairly emblazoned upon the memory like favorite movie clips.

To be sure, the suggestion that psilocybin visions are dreamlike is theoretically useful, yet it seriously downplays their dramatic impact and "Otherness." But because there is clearly some

similarity in the chemical basis and phenomenological quality of dreams and psychedelic visionary episodes, their relationship—in terms of neuronal processes—demands further exploration, and so this is where we head, in part, in the next chapter. We must bear in mind though that the vision-generating side of the mushroom experience is only the half of it, since the altered perception of reality with eyes open is of equal interest. However, as stated, both these phenomena are intimately related to the processing of information within the neuronal systems of the brain, and we therefore need to begin thinking more deeply about the relationship between billionfold patterns of neuronal firing and consciousness. I have already introduced the idea that vast patterns of orchestrated neuronal firing *are* conscious experience, yet this concept is so profound that I shall repeatedly return to it in order to fully explore its worth as an explanatory model for understanding the nature of the brain and mind.

Whether it be a vivid dream or an entheogenic vision, the normal perception of an object or a psychedelic perception, the underlying structure of such experiences can now be discerned. The common mediating factor is *information,* and the way that information is transmitted, organized, and substantiated by the neuronal firing activity of the brain. Information, the "currency" of the brain, emerges as the key concept in explaining the normal conscious mind, the entheogenic mind, and the dreaming mind. We continue our avid investigations in the next chapter, as we spiral in toward the secret of the sacred mushroom.

S I X

The Stuff of Consciousness

The purpose of this and the following chapters is to build on the ideas previously introduced to further get a handle on the mind, or consciousness, and how it is possible for one to experience a transcendental communion with a seeming Other. At this juncture I repeat that I believe mind stuff to be information, or at any rate that consciousness is an informational pattern embodied within the

neuronal firing system of the brain. Moreover, it seems likely that psilocybin works by enabling novel patterns of information to emerge that are not normally "permitted" due to the default constraints that usually operate in the brain. This much seems clear from what has already been said about the way in which neuronal firing substantiates informational states and how such informational states are dramatically altered through the chemical action of entheogenic compounds.

In other words, mind stuff resolves itself as being informational stuff. This is perhaps not too controversial a claim, but what I eventually hope to show is that matter, or physical stuff, is also informational in nature. *This would mean that everything, whether atoms, molecules, organisms, or thoughts, could be described in informational terms*. The mind and body could then be seen as consisting of essentially the same kind of substance, that is, as particular forms of information.

Of course the concept of what information itself is, or what information actually means, is a decidedly muddy issue, despite the fact that we now live in the Age of Information. Books carry information, as do DVDs, apple seeds, bank statements, fossils, fiber-optic cables, hormones, food wrappers, and the human genome. So too do vast networks of firing neurons carry information, whether infused with psilocybin or not. As to the notion of atoms (of which the above-mentioned information-carriers are all composed) being units of information also, the case is less clear. However, should I succeed in the coming chapters in defining both consciousness and matter in informational terms, then I should also be able to explain more clearly why psilocybin is able to generate both Other-derived visions and an altered perception of reality—all in terms of the flow and flux of information. In fact, armed with a sweepingly new informational view of reality, one might come to perceive oneself and the world with a new outlook. Indeed, the information paradigm of which I speak yields a whole

array of truly stunning conceptual consequences.

Mind and Body

The issue confronting us—that of understanding consciousness—is, as you probably realize, a decidedly hoary beast, covered in thorns and about as amenable to close analysis as is the wind on a very blustery day. Formally speaking, it is known in the philosophical trade as the mind/ body problem. At its heart lies the seemingly inseparable gulf between the world of physical matter and the world of consciousness. We know much about the structure and behavior of the former, yet relatively little about the latter. Before we go on with our quest to understand the nature of consciousness in the light of the psilocybin experience, let's take a very brief look at the history of this most murky philosophical quagmire.

The seventeenth-century French philosopher Descartes is generally credited with fully appreciating and documenting the

mind/body dilemma. Descartes concluded that there were two sorts of universal stuff—mind and matter—and that they interacted in some mysterious ghostlike way. This dualistic "ghost in the machine" view of consciousness has annoyed many a philosopher and scientist alike. Especially scientists, for they do not like talk of incorporeal entities (elusive minds) not located in three-dimensional space being somehow able to interact with matter. Perhaps this explains why most psychologists have until quite recently been content to ignore the issue of consciousness. It is such an enigmatic phenomenon, and yet it is consciousness that is the very core of our being.

Consciousness defines you right now, for instance. This book might be physical and clearly tangible, yet what are your thoughts to know this? And even more problematic is the mind's ability to act directly upon matter through the body. How can a thought that is non-weighable and not made of physical particles nonetheless be

able to move the collective atoms in, say, one's fingers? How can some sort of informational pattern embodied within the brain act upon so-called matter?

To reach some understanding we must either side with the old Cartesian dualistic belief or launch ourselves wholeheartedly into an alternative "informational monism," in which the reality process consists of only one stuff—information. As I hope to show, the nature of the psilocybin experience suggests that we embrace the latter scenario.

An Attempt to Exorcise the Ghost of Descartes

Since the musings of Descartes, philosophers have engaged in a veritable free-for-all in their attempts to either defend Descartes' ideas or do away with them and somehow unite mind with matter. Indeed, some academic philosophers make it their professional business to immerse themselves night and day in the mind/body

problem. So annoyingly problematic is the existence of consciousness in an apparently physical Universe that entire academic careers have been built on this subtle paradox. Row upon row of shelves in the philosophy section of university libraries are given over to books dealing in some way with the mind/body problem.

Still, as far as I am aware, not one professional mind/body philosopher has become seriously involved with psychedelic experimentation in order to further our knowledge and insight into the dynamic interplay between chemistry and altered states of awareness. In fact, most books purportedly dealing with the issue of consciousness patently ignore psychoactive substances altogether, as if they had nothing whatsoever to teach us. I suppose that most traditional mind/body "specialists" balk and quiver at the very idea of psychedelic shamanism and its alchemical explorations of the mind. Maybe visionary plants are simply too scary for armchair-

bound philosophers to confront. Whatever the case, entheogenic flora and fungi have remained a peripheral phenomenon, studied solely by anthropologists, ethnobotanists, and a handful of adventurous mavericks. It is hoped this state of indifference may soon be shattered and that science comes to properly address the delicate interface between chemistry and consciousness.

Chemistry and consciousness . . . what do such terms imply? The important answer is that, taken together, they directly address the boundary between the physical and the psychological. Chemistry implies chemicals and substances—material things, in other words—whereas altered states of awareness lie in the realm of the intangible mind. We established in the last chapter that various types of substance, particularly those with a close molecular resemblance to the brain's neurotransmitters, appear to elicit fairly predictable and characteristic changes in consciousness. If we consider psilocybin, we see that it bridges perfectly the conceptual

gap between the two seemingly incompatible worlds of mind and matter, psychological and physical. The more we come to understand the modus operandi of psilocybin, the closer we get to divining the actual design of the bridge linking mind to matter.

A tall order then, this attempt to resolve the age-old mind/body problem. Still, no harm will have been done should I fail miserably in my theoretical endeavors. After all, untenable solutions inevitably aid the formulation of sound solutions, so the "psilocybin solution" should not have to be completely discarded. Bear with me then and judge for yourself as we embark on the next stage of the sacred mushroom mystery tour. This will take us further into informational territory as we focus more closely on the structural dynamics of psychedelic visions. Because such visions seemingly depend in some vital way on the integration and cohesion of large amounts of neuronal information, then above all else, an understanding of information is assuredly key to unlocking the mystery of

consciousness, whether of the psilocybinetic kind or of the normal kind.

Symbols in Formation

We have seen that one major aspect of the psilocybin experience—the perception of vivid visions with eyes closed—appears to be the result of dreaming while awake, or at least something akin to this (this has nothing to do with daydreaming, which is something else entirely). According to our previous analysis, we can view such visions as being dynamic information patterns conveyed in the neuronal systems of the brain, information patterns that have been specifically "freed" to form themselves through the "liberating" action of psychedelic substances on serotonergic systems. Similarly, REM dreams would appear to be generated by the same "freed" neuronal systems.

The fact that psychedelic visions are loaded with powerful and

often universal symbology might indicate that there are predetermined ways in which large amounts of neuronal information can be organized and integrated. This introduces an important idea. Just as elements like carbon, hydrogen, nitrogen, and oxygen naturally organize themselves into specific stable structures like water, carbon dioxide, and amino acids, so too may information in the brain, in the form of neuronal firing activity, organize itself in the same kind of way.

The fundamental quality that makes, say, water the same everywhere is its molecular structure—the exact way in which molecules of hydrogen and oxygen cohere. They form a specific pattern, a specific molecular expression. If my speculations are correct, information embodied in systems of neuronal firing likewise forms itself into specific structured patterns. And just as water molecules can organize themselves still further into stable macroscopic patterned structures like snowflakes, so too can more

and more coherent forms of information coalesce by way of the patterning processes occurring in the psilocybin-influenced brain. Freezing temperatures (at least partly) help foster the structured patterns exhibited by snowflakes, whereas psilocybin helps foster the structured patterns of neuronal activity that come to be experienced as shamanic visions. Water molecules organize themselves according to the rules of a molecular language; neuronal firing patterns organize themselves according to the rules of a psychological language.

If specific patterns and structures emerge from expansive information-integration processes occurring within the brain, this would explain the existence of universal symbology, universal dream images, and mythical archetypes. Throughout the world, in all of the countless religions, cosmologies, and mythologies created by our species, we come across highly similar mythical images and symbols full of meaning and associative power.

The serpent is a good example of this universal symbology. It is found in the religious mythology of the Maya and the Aztecs (who worshipped Quetzalcoatl—the Feathered Serpent); the ancient Egyptians (the headdresses of the pharaohs incorporated the viper as a symbol of wisdom and intellect); the Australian aborigines (who worshipped the Rainbow Serpent); and the ancient peoples of India (who worshipped Nagas, literally wise serpents). Serpent mythology is also found in the ancient epic of Gilgamesh (a serpent tells of a mythical plant that can confer immortality) and in the Eden of the Old Testament (the wise but feared serpent who offers forbidden fruit from the tree of knowledge). More often than not, the serpent symbolizes a wise, divine, or spiritual life force or deity.

As we are on the subject of serpentine motifs, here is a relevant description of mine in which I describe some typical visions instigated by the mushroom.

Once, I remember seeing huge serpentine coils piled up upon

one another and somehow turning as if the cogs of some organic machine. Then I found myself gliding toward a flexuous off-white mass which for the life of me I could not comprehend. This rippled white stuff was everywhere, and I was being drawn into it, suffocating almost as it surrounded me.

Suddenly, seeing this mass close up, I realised what it was. It was convoluted brain tissue. Spongy white cortical tissue, fold after fold of it. This was the immense brain of some mythical Serpent related, I thought, to Gaia. I felt that I was seeing a visual representation of the powerful intelligence of the Earth itself, the "Earth Brain" as it were.

The scene then changed and I found myself touring a building that was made of both artery-laced flesh and conventional material. Each room seemed to have a particular biological function. It was most bizarre. I appeared to be inside a kind of visceral architecture that was breathing gases, pumping oceans

of blood, and digesting vast vats of food.

In fact, such visionary motifs indicating the fusion of man-made architecture with biological structure were repeated a number of times. I often perceived stately homes and palaces—or rather I would be gliding gracefully through such palatial places—and always, the woodwork, like the banisters, wall panels, or staircases, would reveal themselves to be made of the body of a living creature. To be precise, I perceived that these buildings were woven from the jewelled body of the Serpent. Everything was alive, all was part of one animate, constructing entity. And if I saw human figures in any of these scenes, they too were formed out of the transmutating body of the Serpent. Everything in these scenes had the stamp of the Serpent's hide upon them, in that a kind of pulsating grid of luminescent lines and scaly jewels pervaded every object.[1]

Serpent motifs might be universal because, as with other mythical

symbols, they represent stable, organized concentrations of information. A symbol, such as the mythical Serpent, embodies a large set of relations or, to be more specific, it is the point where a huge web of psychological relations converge. To fully understand the symbol is to sense at once all of its relations to other objects of perceptual experience. In other words, visual symbols play a role in a psychological language. (Here, I again invoke the concept of language since language is essentially an informational system not restricted to words alone. Language, in the abstract way in which I refer to it, is a system of informational elements bearing definite relations with one another; hence a language of words, of molecules, of symbols, and so forth.)

Universally powerful visionary symbols can be thought of as *expressions* in the dictionary of a "higher" language connected with the human psyche. What I mean by "higher" is that the visual elements in this language are far more rich in meaning and

informational content than the words of our spoken language. Moreover, seeing visionary symbols choreographed together in a movielike fashion—as occurs in the psilocybinetic state—is to experience meaning in perhaps its purest, most informationally rich way. To partake of a visionary dialogue is to be overwhelmed by the direct apprehension of pure, unadulterated meaning, which arises as a consequence of the highly integrative informational processes liberated by entheogenic compounds.

In the metaphorical and visual language emanating from the most integrated information processing of the human psyche, the serpent therefore appears to be a significant "word" or icon, itself derived from the natural environment. There are many such universally potent icons derived from the natural environment. Try now, if you would, to imagine in glorious Technicolor a volcano erupting, a butterfly emerging from its pupa, or a hand reaching into a flame. Further imagine all of the ways that potent symbolic images like

these could be meaningfully put together by some agency dissociated from the self or ego to convey some message or idea to us. And finally, imagine an informationally rich creation like this being experienced directly by one's consciousness with no interference whatsoever. Here we begin to understand what the shamanic visionary experience is like, that it consists essentially of a communication transmitted in the higher language expressed by the Other, a language of symbols embodied in animated imagery.

See What I Mean?

Seeing, it seems, is the most direct form of perception. This is why one comes to "see the truth." It also explains why art is powerful. A great painting is unworded yet it may well speak volumes to us. Visual symbols and images can be truly effective in their capacity to inform. It is in this sense that I refer to a higher language of the psyche, a language not of words but of concentrations of

information visibly beheld.

To really see something is to see what something really means, and to see what something really means is to instantly access all of its inherent relations to other things. To see a powerful symbol, whether in a shamanic vision, a dream, or a spiritual piece of art, is to behold a concentration of information, a supercondensed concrescence of meaning.

The idea then is that very large amounts of information can cohere and coalesce into symbols, and, since all brains work in the same way, universal symbols might emerge in a language of symbols, just as universal expressions and meanings emerge in all worded languages. But it should be stressed that universal symbols are related to real objects in the shared world. Even if they are not deified, snakes, for example, are generally at least feared the world over, and for good reason, since their venom can prove fatal. This automatically means that the real-world snake is going to be a good

candidate for playing a role as a universal symbol wherever symbol-generating processes arise.

Designer Symbols, Designer Visions

In the case of entheogenic visions (or dreams), it might well be that they contain not only universal symbols, but culturally determined symbols that can be fully understood and appreciated only on a personal level. In the case of much of South American shamanism, like that practiced by the ayahuasca-using Tukanoan Indians of Colombia, we do indeed find culturally determined symbology in the visions experienced by the shamans, often related to powerful and revered jungle creatures like the jaguar, as well as the ubiquitous serpent. These Tukanoan shamans also experience imagery related to their particular brand of cosmology, which is known and fostered by all members of the tribe. An analysis of the varied pieces of artwork inspired by their psychedelic visionary

experiences reveals a striking commonality, for the Indians invariably portray the spiritual entities encountered in the same way and in the same style. This clearly testifies to the culture-bound nature of their visions; that is, they experience one particular kind of visionary dialogue with the Other.

From the perspective of the informational approach being taken here, such culturally determined visionary dialogues still result from information integration within the psychedelically altered brain, with the attendant fact that the information used in the visionary communication derives, in part, from the shamans' personal store of knowledge. Because these native South Americans share the same culture and experience the same environmental forces, certain symbols and images will be highly significant to them in a way that an outsider would not be able to fully understand. It appears then that, in common with spoken language, there exist regional "visionary dialects" expressed in the psychedelic state, the dialect

being determined by the tribe's unique physical and cultural environment.

Claudio Naranjo, a researcher who spent many years investigating the shamanic use of ayahuasca in the Amazon, reached a similar conclusion about the commonality of the shamans' visions. Naranjo wrote of visionary symbols as follows:

> The superimposition of the reptile, the feline's fangs and claws and the bird's wings (as well as the fish's watery environment and scales) results in the image of the dragon [synonymous with the mythical serpent]. Furthermore, through an examination of dragon myths and the content of subjects' reports, I concluded that the consciousness stimulated by *ayahuasca* involved an intuition of the inseparability of life and death, an apprehension of life as a self-consuming and self-devouring living-into-death or dying-into-life—and observed that just as mythical dragons may be symbols of good and evil, *ayahuasca* animals may be

> terrifying or friendly according to the readiness of the psyche to accept life-death or to reject, not only the "internal animal" but a greater Life, along with its deadliness and mortality.[2]

Whether Naranjo is wholly correct in his particular interpretation is not important. The point is that this kind of interpretation, in which the visionary elements are considered to be symbols replete with meaning, matches the theoretical approach being taken here. Visionary symbols can be understood as deriving from *the forced confluence of vast amounts of information*. In my own experience, psilocybin visions are accompanied by the unmistakeable sensation that huge amounts of psychological information are indeed being forced to fold, merge, and cohere and, moreover, that this process of forced coalescence mimics over a brief period of time what Nature at large is doing over a long period of time. In each case, self-organization is involved—whether of information or matter and/or energy.

It really is as if individual films of the utmost sophistication are forged by the Other and are forcibly screened before the mind's eye while one is in the psilocybinetic state. The visions well up magically from the depths of the psyche as though woven out of some undulating multicolored dream fabric, as if one's visual cortex were directly interfaced with some megapowerful intentional computer. Obscure items from memory are often strung together in some new creative fashion, or perhaps one witnesses scenes never before encountered but that are nevertheless immediately understood. In either case, the visions fairly burst with an overwhelming amount of information.

The material basis from which such designer visions are fashioned is one's store of memories and personal knowledge of the world. According to my interpretation, the Other is able to re-form idiosyncratic information in order to communicate in a highly personal way that one would likely be responsive to. Such creative

artistry represents the meta-language spoken by the Other, the visions representing a higher, more informationally rich symbolic language being conducted deep within the innermost sanctums of the psyche. That which needs to be shown is shown. That which is poised to fall into place does fall into place. Information in the brain is like some living thing.

Stretching Credulity

If this is starting to sound too far-fetched, it is only because the terminology is new. What I am calling the Other is a dynamic information-integration process brought to life within the psilocybin-infused brain. To put it another way, the Other can be understood as an information-patterning phenomenon that spontaneously emerges when certain dynamic neurochemical conditions prevail, in the same way that a vortex pattern may spontaneously emerge in water if certain dynamic conditions

prevail. The Other appears to be a higher, more integrated manifestation of the human psyche, so full of profundity and purposeful import that it can be considered to be fully autonomous and dissociated from the individual self or ego.

It is hard not to believe this when one has come to directly experience psilocybin visions. Think of the minister from Harvard's Good Friday Experiment who had profoundly religious visions of Christ. This is the way in which the Other "spoke" or "introduced itself" to him. Its language is that of symbols and images, creatively juxtaposed to convey some vibrant meaning. In the depths of the minister's psyche neuronal informational patterns of incredible complexity arose, informing him in a soulful way. Those particular arrangements of psychological information were generated out of the informational stores of his own personal psyche in a style that would be highly meaningful to him in particular.

The Other thus represents a name, or label, for the kind of

information processing underlying the visionary state. An apparent communion with the Other demonstrates the inherent property of neuronal information to purposefully organize itself into streams of ideas laden with profound meaning. If one can conceive of the mind as being a kind of informational process, one can equally envisage the Other as being an informational process. Whatever the actual neuronal firing mechanisms involved, it seems likely that the self-organization, or forced coherence, of immense amounts of information underlies the felt presence of the Other.

The greater the facilitation of informational organization and informational coherence, the richer in meaning the resulting patterns will be. In a way, it is somewhat analogous to running a defragmentation program on a computer, whereby disconnected but related data are collated and organized in a more integrated way. In a brain/mind system under the influence of psilocybin, such a defragmentation process leads to the formation of mythical symbols

and icons because this is the only way in which massive amounts of related information can be visually expressed. Because there must be limited ways in which huge amounts of information can be integrated—in other words, there are logical constraints—then this again explains the existence of universal symbology and universal mythology.

But why exactly should the focused embracing of large amounts of psychological information be under logical constraints? Could not any old image or icon do? Not really. Think of some short story and imagine trying to sum up the theme in one sentence or in a single visual image, the moral of the story so to speak. Although there may be a thousand and one ways of telling that story, to concentrate the moral (the point or overall pattern that connects the elements of the story) into one meaningful sentence or one meaningful image automatically constrains us to use certain key words or certain pictorial icons.

Consider also what it is like when one searches for a word that one knows will express what one wants to convey; that frustrating . . . what is it called? Ah yes, that tip-of-the-tongue moment. The word or term we look for is a logical consequence of what we need to express, and we might well be constrained into using that one word to capture the exact meaning we wish to communicate.

Likewise, in the language of the Other, there are certain types of meaning (large patterns of information) that can be expressed only with specific symbols and icons. The symbols and visual representations are highly organized fields of information. Such symbols and their drawing together into coherent progressing visions therefore reflect the ongoing language being "uttered" by the higher information-organizing processes of the Other.

We can also refer back to R. Gordon Wasson's vision of a mythical beast drawing a chariot or of the colossal doors opening. These are obviously powerful symbols teeming with inherent

meaning, especially when perceived as close as is possible—that is, directly behind closed eyes while under the superconscious spell of the mushroom. These visions are not like simple pretty pictures; they are more like a confrontation with ideas and symbols issuing from some highly organized source of intentionality—like, say, the Platonic realm of pure Ideas, an inference you will recall that Wasson himself made in his attempts to come to terms with his experiences. The thing is, this Platonic realm, if that is what one chooses to call the transcendental Other, is not static, like an archival system. Instead, it is able to inform one through a dynamic stream of intentional information in which visual symbology dominates.

Various types of symbol can therefore be considered elements of a *higher language,* a language not of the individual ego-driven mind but of the communicating Other. The symbols are amalgamated concentrations of information coming to life in a mind illuminated

by visionary alkaloids. Or, to use Huxley's terminology, the informational forms are *transmitted* via the psilocybinetic brain. As voluminous torrents of information "struggle" to integrate and coalesce, evermore elaborate forms and patterns emerge, and these are experienced as the felt presence of the Other actively communicating in a language of potent symbolic visual imagery. *Information appears as if alive and intent on self-organization.*

The Many Guises of the Other

As Terence McKenna repeatedly pointed out, it is quite common, for Westerners at any rate, to perceive UFO or extraterrestrial motifs in psychedelic visions. McKenna has suggested that the UFO is the Other in the guise of a contemporary symbol. According to McKenna, the Other is normally so remote from us that it dons the mask of the UFO in order to express itself, its Otherness.

Since the 1950s, a plethora of sci-fi films have focused on alien

visitations to Earth. The predominant theme in these sorts of entertaining fantasy is the incredible impact that an alien presence would have on humanity. It is a modern reworking of the ancient religious idea of divine intervention. Some great alienesque force suddenly erupts in the midst of our culture in a way that upsets, or radically alters, human destiny. Everyone would have to take notice. People would, willy-nilly, be forced to cease their everyday business for a spontaneous alien-inspired holiday or two. Everything would have to change. Alien visitations are dramatic. They negate everything else.

Obviously, then, the UFO can be understood as a modern icon, an immensely powerful Western symbol packed with meaning. It also highlights the way to think about information, for, in terms of information, the archetypal UFO is the center of a whole web of psychological relations and associations. It embodies a concentration of information. It expresses a powerful set of

psychological associations. As a simple word, *UFO* embodies information in the context of the English language, whereas as something visibly beheld in an entheogenic vision, the UFO, or indeed any kind of image of advanced alien technology, represents an utterance in the symbolic language of the communicating Other.

In *The Archaic Revival,* McKenna spoke of the UFO as:

> An autonomous psychic entity that has slipped from the control of the ego and approaches laden with the "Otherness" of the unconscious. As one looks into it one beholds oneself, one's world information field, all deployed in a strange, distant, almost transhumanly cool way, which links it to the myth of the extraterrestrial. The extraterrestrial is the human Oversoul in its general and particular expression on the planet.[3]

Here may lie the explanation for the rampant and often far-fetched stories of actual UFO sightings and alien encounters not reserved to

closed-eyes visions. Perhaps for some people the Other emerges into the perceived world of external reality, although this would more than likely represent a genuine hallucination.

McKenna's use of the term *Oversoul* is yet another way of referring to the Other. Whereas McKenna readily assumed the Other to be the creative source of sacred visions, I am being more specific by asserting that an experience of the Other results from an inherent property of information just as the individual mind results from an inherent property of information. Through the redemptive action of sacramental alkaloids like psilocybin, the Other is able to become manifest and flow through the neuronal architecture of the brain. The Other, or Oversoul, is information, or at least it is the creative organizing principle underlying brain-based information integration and brain-based information patterning. Its language is that of symbols and cultural images, futuristically alien or otherwise.

To sum up the far-reaching speculations presented thus far:

whether personal or universal, information becomes incorporated into entheogenic visions in a novel and creative way such that a definite message or meaning is conveyed, or at least appears to be conveyed. The resulting overwhelming confrontation with a spiritual intelligence is the result of information integration to the point where the integrative process appears to be alive, purposeful, and distinct from the self or ego. This is the transcendental Other, a sentient informative entity that is not us but something very closely related to us.

Can, or Should, We Banish the Other?

Alternatively, a cool, restrained, and skeptical approach might be to suggest that the self-organizing patterning of neuronal information does not reflect an information-composed Other at all, but is just the result of some incidental property of information. Just as gravity is a property of the Universe acting everywhere (on a macroscopic

scale) to draw physical material together, so too might there be some inherent but incidental property of psychological material (or neuronal information) that acts to organize it. Although this organizational process can, if boosted by psilocybin or endogenous brain chemicals like DMT, result in the perception of a communicating Other, this Other will in fact be just a kind of illusory side effect promoted by the experience.

Having said that, however, in terms of the visionary shamanic experience, it is clearly so powerful and so emotionally charged that the inference of a transcendental Other is historically well established and seems indicative that something important and hitherto unknown to psychological science is occurring. As many Westerners who have sampled entheogenic flora will readily attest (this includes those brave anthropologists who have taken Amazonian psychedelic brews and experienced numinous visions), it is not simply "primitive" inference or hearsay that has led native

shamans to speak of a perceived contact with gods or spirits. It is rather the case that the sacred nature of the entheogenic experience appears so dramatic, so persuasive, that the inference of an Other becomes unavoidable.

Even if we did still opt for the restrained armchair-bound explanation, it is not incompatible with the notion of the Other, but merely a kind of clever avoidance and reluctance to invoke a "big idea" that we are not accustomed to. For to reduce the Other to merely an incidental organizing principle inherent in information, with no real purpose, is like saying that normal consciousness is merely an incidental neuronal effect without any real purpose. But since we know that normal consciousness is purposeful (we have will, more or less), then it is tenable that the Other represents a kind of purposeful will above and beyond that of the individual ego. Indeed, if we also consider the many other self-organizing properties of the Universe—which are deemed fundamental—then

the Other might well represent a similarly fundamental aspect of Nature, one that “comes alive” when conditions in the human cortex are appropriate.

Yet, if pushed, is it really necessary to speak of a dissociated communicating presence when a less fanciful explanation will at least partially suffice? Aren’t we in danger of becoming overtly religious by invoking a kind of superintelligence dissociated from the individual self? Maybe so. But if the notion of an intentional Other still seems too bizarre to the critical reader, the idea can be further defended by examining a common analogous situation in which we infer a non-self-based other. After all, do we not all assume without any doubt whatsoever that other conscious minds really exist? And yet this is also a big inference based solely on subjective experience. Let us pursue this, because it is, strangely enough, relevant to the validity of inferring purposeful entities.

Big *O,* Little *o*

To posit a transcendental communicating Other is really no different to the tacit inference that other human minds exist. Both these sorts of other, the big *O* and the little *o,* are equally conceived of as the focus points of intentional information processing. Yet there might not be other conscious minds apart from our own. Or there might be just a few. We cannot absolutely prove that others possess conscious minds like our own since we have access only to their external manifestations. Other people may in fact be, god forbid, soulless automata, no more than mechanical zombies masquerading as conscious beings. For all you know, you might be the only conscious entity existing, for what conscious experience are you familiar with but your own? Indeed, when Descartes began his philosophical career, he wanted to know what he could be absolutely certain about, with no room for doubt whatsoever. Gazing out of an ornate seventeenth-century window, he wondered

if perhaps all of reality was a cunningly designed trick played on him by some artful demon with infinite powers of trickery. Entertaining such a sinister scenario, Descartes came to the conclusion that the only thing that he knew to be real for sure was the existence of his own self—he thought, therefore he was. There could be no doubting that at least. This deceptively simple realization became the bedrock on which much of his subsequent philosophy and science were based.

The philosophical belief that only one's own self really exists is known as solipsism. As weird as it might sound, it is a theoretical stance that many might be tempted to adopt, even for the sake of just playing with the idea in order to annoy and confuse friends. The point of raising this issue is that all of us make a big leap of faith in accepting that other minds like our own really do exist, and this way of thinking "works," so much so that most people have not the faintest idea what solipsism is and never even come to entertain the

idea despite it being an essentially reasonable piece of personal philosophy.

Directly analogous with our tacit assumption that other conscious minds like our own exist is the inference that an intelligent, communicating Other lies at the heart of shamanic visions. This seems unavoidable if one is experiencing powerful visionary effects from entheogenic agents, and this makes it a valid and workable way of explaining the experience despite its distinct tone of grandeur. I would therefore claim that the notion of a transcendental Other is reasonable in light of the remarkably integrative information processing occurring in the entheogenimbued brain. Such chemically inspired modification of neuronal activity is experienced as being so rich in symbology and meaning that for all intents and purposes it can be considered the result of a living, intelligent, and communicating agency made of information, an agency whose intent can become activated and focused should the

chemical conditions of the human cortex be so conducive. Information must indeed be in some sense alive.

“Dreamformation”

A similar process to that outlined above would appear to govern dreaming, since complex and often fantastically stylized dream scenarios are something our dreaming selves confront. We literally find ourselves witness to the integrative information processes of our dreaming minds, often experiencing strange and elaborately scripted dream scenarios. But, and this is a major caveat, with dreams our dream self is not generally in a very consciously attentive state, so dreams remain ethereal and forgettable, unlike psilocybin visions, which one is highly conscious of and which are faithfully retained within memory.

It has been speculated that the reason we are unable to retain dream experience is because the normal neuronal mechanisms that

underlie long-term memory are shut off during the dream state. This, however, is not the case with psilocybinetic visions, since the neuronal systems that facilitate long-term memory are still operative. Psilocybin is therefore able, perhaps, to bypass those brain mechanisms that normally serve to stop us consciously attending to information arising from the creative depths of the psyche.

The neuropsychologist and expert on sleep processes J. Allan Hobson has developed a model of dreaming that is compatible with the information-integration model outlined in this chapter. Hobson has offered an "activation synthesis" model of dreaming. He reached his theoretical conclusions after having studied in depth the neurochemical processes underlying REM sleep (also known as dream sleep), processes that include, of course, the cessation of the serotonergic raphe system.

On his activation-synthesis model, Hobson writes:

> Activation is an energy concept: in REM sleep [dreaming], brain circuits underlying consciousness are switched on. Synthesis is an information concept: dream cognition is distinctive because the brain synthesizes a dream plot by combining information from sources entirely internal to itself and because chemical changes radically alter the way information is processed. So the term "synthesis" implies both fabricated (made up) and integrated (fitted together).[4]

Basically, then, dreams are associated with periodical bursts of firing in perhaps billions of neurons, with, of course, the attendant potential for an incomprehensibly large amount of networked communication (we should bear in mind that dreaming might be due in part to endogenous DMT). This wealth of activity is integrated in such a way that dreams emerge or are synthesized. Dreams are thus constructed of information, the information concerned being embodied in the unusual global firing state of the brain.

As we have already established, a related process appears to take hold when psilocybin is present within the brain. This "waking dream" situation takes place during the eyes-shut waking state, whereas dreaming takes place during sleep. So although the psychedelic visionary state and the dream state take place while the brain is in a different overall state (an awake state versus a sleep state), the general principle of vision generation and dream generation is the same in each case. To reiterate, this principle consists of the patterning and cohesion of vast bursts of neuronal information being generated from internal sources and not from external sources. The advantage of "waking dreams" induced by entheogenic alkaloids over normal dreams is that in the former one remains highly alert and highly conscious of the visionary dialogue, and it is generally not forgotten. Entheogenic visions also tend to be more sacred in character than dreams.

The Varieties of Dream Experience

Often dreams appear to be quite mundane, containing perhaps integrated scraps of information subconsciously perceived during the waking state. By joining these disparate pieces of information, a kind of learning might be facilitated. Indeed, it has been demonstrated that if rats (please excuse the ratomorphism) are selectively denied periods of REM sleep, then they are more likely to forget information previously learned.

Lazy newborn infants spend about sixteen hours a day asleep, of which half that time is spent in REM sleep. This means that they dream about three times as much as adults. As newborns have a strong need to learn about the world, dreaming presumably facilitates certain types of information integration—and hence learning. Through dreams, information acquired through waking perceptions can be sifted, consolidated, organized, and generally "worked out," so to speak. In short, one theoretical approach to understanding dreaming has it that dreaming allows information to

become integrated within the developing psyche, a view fully compatible with my own speculations.

What of dreams not obviously connected with, say, diverse pieces of information, but that concern big themes? Especially those really vivid dreams that leave a lingering emotional impact on us? These might seem definitely to contain some meaning important to our inner wellbeing. Although we in the West do not have a cultural tradition that takes dreams, whether the mundane variety or the moving variety, too seriously, this has not always been the case with our species. It is presumably the phenomenon of significant-seeming dreams that led cultures like native Amerindians and Australian aborigines to take dreams seriously—so much so that dreams would often be discussed and acted on by the whole tribe. Such types of informative dream also led Western thinkers like Jung to conceive of a collective unconscious from which archetypal dream symbols could emerge. Although Jung's vision of a

collective unconscious might be considered fanciful, it does highlight the fact that certain dreams can act as a source of useful information should we choose to contemplate them. Indeed, if this were not the case, then presumably native cultures would never have bothered with dream analysis in the first place.

Considering these properties of dreams, we can see more clearly how the brain is literally an information-organizing device able to continually forge illustrative patterns of meaning both consciously and unconsciously. The only real difference between dreams and psychedelic visions would appear to be the extent and scale of this important process. If information integration is allowed to reach a certain threshold of activation through the catalytic agency of entheogenic compounds, then the ultimate source of the information-patterning process can be divined and we come to directly experience a symbolic and unmuddied dialogue with the Other, where the Other is precisely the self-organizing property of

the information embodied in the neuronal firing activity. In this sense the Other is a latent form of information that can potentially be brought to life through the processing mechanisms hard-wired within the brain. Neuronal information, by shaping itself in constrained ways, allows definite motifs to emerge, representative of the symbolic language of the transcendental Other. This language is activated and perceived during both the lucid dream state and the psilocybin-induced psychedelic state. Both states are natural and both derive from the capacity of the brain to coalesce and organize large amounts of information.

Reality Expansion

From what has been discussed thus far concerning the psilocybin experience, it might seem as if the eyes-shut visionary state is the prime effect, yet with eyes open one encounters equal perceptual wonders. The world appears as if new, bursting with a significance

and beauty that literally brushes one's soul. One sees more clearly than one could imagine, as if an occluding cloud had been graciously dispelled to reveal the sheer unadulterated "isness" of reality. Visual perception is experienced as though it were the finest grain cinematography able to pick up upon a luxury of detail previously hidden. Objects in the environment may appear to be interconnected and part of a fluid coherent pattern. Great thoughts occur to one, unbidden yet full of profound import, as if the very secrets of existence were suddenly in one's grasp. This is the very least that can be stated. How can such phenomenology be accounted for in our information-integration model?

Regarding psilocybin's radical enhancement of visual perception, it seems logical to surmise that a change in the functioning of serotonergic systems facilitates a greater "absorption" of the external information impinging upon the eyes. More information inherent in light flows through the visual system and into the brain,

and this is experienced as breathtaking visual clarity. Since we humans are effectively embedded in an ocean of photic information, by subtly altering brain chemistry we can allow a tidal influx of this informational sea of light to sweep over the visual system, leaving us awash in perceptual data.

All objects, whether organic or inorganic, possess an intrinsic meaning or set of relations to other objects. They possess informational content, linked as they are to a network of relations with other objects. As discussed earlier, to see an object is not merely to apprehend its shape or color, but to access its meaning. After all, the retina of the eye only records an inverted two-dimensional pattern of light intensities, much as computer vision records arrays of light intensity values. This is not seeing. Real seeing, as we know it, involves the perception of what the object signifies. To see an object is to perceive, all at once, its role, function, and relations—that is, its meaning—within a vast network

of objects.

Under the spell of psilocybin, I suggest that one is able to penetrate deeper into the informational content of objects, akin perhaps to accessing a higher dimension that is otherwise occluded. This is a bit like looking up a word in a dictionary and noting *all* its meanings, thus coming to understand the word in its fullest sense. Normally we might not perceive the entire meaning of a word, accessing maybe only a fraction of its true semantic content, yet, in theory at least, we might come to ascertain more. This is what psilocybin perception involves: the accessing of latent information normally hidden to us by the hardwired constraints of the brain (my comparison to the comprehension of words is useful as, in the next chapter, I hope to show further how "material" objects in various domains—like the domains of physics, chemistry, and biology—are themselves elements within a hierarchy of language-like systems, playing functional roles just like words).

Informative Dialogues

As to the wealth of revelatory thoughts and ideas that erupt into consciousness during psychedelic ecstasy, these would appear to be, as with visions, a manifestation of the Other, in that they represent the holistic patterning of neuron-mediated information. This may often be experienced as a kind of internal dialogue with a wise being. Profound thoughts take on a rapidly flowing life of their own, generating further thoughts and insights. It is impossible not to once more invoke language here as a conceptual explanatory tool, though this type of inner psychedelic language involving complex thoughts and ideation works far more efficiently than the language system of the spoken word. Everyday language appears sluggish and cumbersome in contrast to the language of psychedelic contemplation, which moves at a profoundly different pace. Indeed, the sheer fluency and dramatic insightfulness of psychedelic contemplation explains its emotional impact and ineffability.

If we conceive of language in whatever mode as a communicatory information system, we can see that its modes are many and varied, all operating at different speeds and with different properties. The principle however is the same. There is a flow of information and a natural progression that yields further information, just as with spoken dialogue. When we communicate with one another in conventional language, whether written or spoken, we initiate a dialogue in which information is exchanged. Regardless of whether this dialogue is one-sided or not, the process is dynamic in that information flows from one system to another, from one person to another, from one brain to another, from one mind to another.

With psychedelic contemplation, an internal dialogue ensues in which a flow of ideas takes place between the self and the Other, where the Other is a dissociated or higher-level informational source acting as one component in the dialogue process. Through psilocybin's activating influence, the psyche becomes a conduit to

the Other, facilitating a dialogue of thought in which radical knowledge is received. It's an incredible idea to be sure, yet, as I hope I have made clear, the psilocybin experience demands these kinds of incredible explanation.

We are now equipped with a model that views consciousness as a particular pattern of information embodied in the rapidly flowing electrochemical state of the brain. And we also have an informational entity that we can call the Other that is activated and brought to life after the ingestion of psychedelic alkaloids like psilocybin. Both consciousness and the Other can be better understood as processes (or verbs) as opposed to things, moreover processes involving the patterning, or focusing, or coalescing, or orchestration, of vast amounts of information.

Now we must turn to the nature of information itself. In particular,

we shall look at information outside of the brain and see if it too can be understood in the same way. Does an informational language underlie Nature itself? Can molecules and atoms be interpreted as informational elements in a molecular or physical language? Is everything made of information? If so, does the reality process ultimately consist of a flow of self-organizing language-like information? Did our man Einstein emerge out of, grow up in, become famous in, and eventually die in an essentially informational reality process? Read on, then, for my psilocybin mushroom tale has hardly even begun. Information, it seems, cannot be stopped.

S E V E N

A Universe of Information

Nature's entheogenic agents have provided compelling evidence for the following two most interesting of propositions: first, that consciousness is a form of information substantiated within the brain's neuronal firing activity and, second, that this kind of cerebral information has a tendency to organize and integrate itself. Evidence in support of the first proposition was provided by looking

at the ways that consciousness becomes altered according to subtle changes in brain chemistry, especially changes occurring at synapses. Chemically induced changes to global states of neuronal firing are synonymous with changes in consciousness, and since global states of neuronal firing must be global states of information (what else could they be?) we can conclude that consciousness is a form of information.

Evidence to support the second proposition—that cerebral information has a tendency to organize itself—came from an examination of psychedelic phenomenology and even dreaming, both processes highlighting the way that psychological information organizes itself without a deliberate effort on our part. Which is to say that we can *find ourselves* experiencing sacred visions after ingesting entheogenic agents or likewise *find ourselves* experiencing elaborate dream scenarios while we sleep (perhaps mediated by endogenous DMT).

The former experience, the psychedelic visionary state, seems to represent a very extreme manifestation of informational organization, so much so that a third proposition suggests itself, namely that an intelligent Other, distinct from the ego or self, lies behind the sacred thrust of psychedelic phenomenology. Such a dissociated Other can be considered to represent an organized source of intentional information that becomes activated when an individual's neuronal system is infused with psychedelic alkaloids. We can thus concur with Huxley in his assertion that psychedelics allow a greater amount of what he called Mind at Large to flow into conscious perception. The Mind at Large is the Other, which potentially interfaces with the human psyche, revealing itself in the visionary experience and possibly during symbolic dreams. Information is the stuff of both the Other and the human mind. Conscious experience is information in process, as is the entheogenic experience. The greater the field of information being processed or integrated, the more conscious we may become (the

word *consciousness* means “knowing together”).

In all three propositions, it is most definitely the term *information* that fits the picture. This chapter attempts to formally elucidate this information-based scenario and to explore further the nature of information and its role in the Universe at large.

Consciousness, Information, and Reality

At first blush, it might seem somewhat off the point to delve into the nature of information and its role in shaping the Universe. Are we not entering territory far removed from tangible entheogenic plants and fungi? Won’t we be speculating beyond the call of duty? Can we really justify an attempt to understand of what the mystical experience and the Universe at large are made? Are they not two different things, two completely separate domains of inquiry?

In defense of such a bold move, I would remind the reader that the issue at stake in all refined psychedelic debates is that of the nature

of perceived reality, in particular, whether the seemingly expanded field of reality unveiled by psilocybin, with its spiritual aura and its mysterious feel of interconnectedness, has any kind of firm foundation. My conviction, like that of Huxley and McKenna, is that entheogens like psilocybin really do allow us to glimpse the "bigger picture" (which falls into place when neuronal conditions are conducive) and that an attempt to understand this "bigger picture" should be pursued as far as possible. Since the psilocybin experience seems to depend on extreme levels of information integration, this strongly suggests, at least in my mind, that *a principle* of self-organization operates throughout the Universe on all levels, from star formation to DNA formation to the formation of minds, concepts, and perceived truth. In any case, the idea that the Universe consists of a purposeful flow of self-organizing information is precisely what visionary agents like the mushroom seem to confirm. For this reason, I think an attempt to understand reality in terms of information is justified. However, before we go

on to examine these issues, a brief detour is in order. This will serve to drive home the point that entheogens have an important role to play in our conceptions of reality.

Shifting Paradigms

A genuinely mystical experience in which the presence of the Other is felt cannot fail but change one's conception of the world and, in particular, the significance one gives to life, particularly conscious human life, on this sensitive planet of ours. It therefore comes as no surprise that psilocybin phenomenology can be a tad religious in nature. Because the entire field of reality (the "bigger picture") is reconceived and reperceived in the psilocybinetic state, a kind of subjective paradigm shift occurs somewhat akin to paradigm shifts in science. These shifts in theoretical perspective involve thoroughly new conceptual frameworks with which to comprehend the fundamental nature of things. Similarly, traditional religious

ideologies attempt to provide an overall scheme with which to understand reality. It is this holistic nature of religious thought that links it with psychedelic thought.

Entheogens, then, are powerful tools with which to forge a new set of conceptions about the reality process, and any competent person out to grasp the meaning of life should consider employing them. More to the point, newly acquired concepts can continue to be employed long after the consumed psychedelic catalysts have been metabolized into inactive by-products. In a sense, it is as if new conceptual insights into Nature, once divined, install themselves permanently within the mind. Entheogenic ecstasy, once tasted, is not forgotten. The difficulty, the overwhelming labor, is in trying to integrate the new view of reality with the old, to merge them so to speak, which is precisely what the rest of this book is about.

Huxley epitomized the paradigm-shifting effect of psychedelics through his interests and concerns during the last decade of his life.

As we have seen, Huxley was convinced that psychedelics could grant one access to the sacred side of Nature as encountered by mystics and religious visionaries, an aspect of reality real but hidden to the secular mind. Indeed, he even asked his wife to inject him with LSD shortly before he died, so assured was he that a psychedelic state of mind could prepare him to face the final stage of human life. This is rather dramatic testimony to the fact that psychedelic consciousness connects one to the deepest mysteries that reality confronts us with.

Similarly, in the context of traditional psychedelic shamanism as practiced in South America, the mythological conception of reality held by the whole tribe stems from the effects of entheogenic plants on the psyche of the shamanic voyager. And, as the acid gurus of the 1960s testified, worldviews are very much at stake when it comes to the use of psychedelics. Chemically instigate a change in an individual's underlying concepts about reality, and culture

transforms itself also.

In each of the above cases, reality is the issue at stake, along with the importance of the psychedelic experience in shaping it. Even without a psychedelic experience, Nature demands that we perceive it in some kind of organized way. Since we are woven into the very fabric of the Universe, we cannot ignore its true nature forever. Perhaps, for the most part, we conceive the nature of reality unconsciously, for we all carry around tacit assumptions and tacit beliefs about the world (this book, for example, carries a number of basic assumptions, such as the assumption that a "world out there" really does exist and that its nature really can be understood). Like our consciousness, we take many things for granted and may hardly ever reflect on them (like the stable existence of beneficent energy-emitting suns, for example, or the stable presence of oxygen in the atmosphere). What makes psilocybin so remarkable is its uncanny ability to take one's precious store of reality concepts and shake

them about vigorously so as to reveal just how fragile and shallow-rooted these ingrained beliefs might be. If we imagine normal consciousness to be like a gramophone needle trundling along the groove of Nature's apparent "surface," entheogens like psilocybin can jog the needle of consciousness into a rarer, and indeed, more "groovy" surface groove. The true nature of reality then becomes a kind of "unfinished business" that simply must be dealt with. This is the clarion call of the psilocybin mushroom advocate. If we really wish to understand the reality process and the sense and significance of human life within it, entheogens offer us a direct path to the Other, a sentient and intentional agency made of information whose presence and teachings await us.

Assessing the Reality Situation

One cannot stop reality, and this makes its nature formidable regardless of what you believe. The sun warms us or burns us. The

cold of winter bites at our flesh, and our homeostatic bodies automatically respond by shivering. The relentless rush of our billion-cell biology propels us toward sex, always it seems, making us grope, cling, moan, and shudder. This same biological march also puts us to sleep every night. We awaken, and again there it is—the reality process. We are inescapably bound up in it like grains of sand caught in an everlasting vortex of wind. More to the point, eventually this perennial condition kills us.

As I remarked in the introduction to this book, whatever you may have read, the ultimate nature of the reality process remains open to question. This may always be the case. Science seems always to reveal more mystery as it delves into the heart of "matter." What is more, science is conducted first and foremost to gather data. How this data is *interpreted* is another matter. What is a complex mechanical system to one scientist might be blatant proof of an organizing intelligence to another. And as for the long-sought-after

supertheory that will be able to explain the totality of Nature in terms of, say, umpteen dimensional superstrings or in terms of some convoluted mathematical equation that only a few ivory-tower professors can really understand, these are likely to omit an explanation for consciousness and the mysteries of the mind. Indeed, such a final theory, such a final equation scrawled on a blackboard with one fell swoop of chalk, will probably serve only to confuse the average mind rather than enlighten it.

It seems apparent that if we open ourselves to the vast cosmic mystery of existence, then we could do a lot worse than pursue the implications of the psilocybin experience. To consume the sacred mushroom is to launch oneself wholeheartedly into the mystery of being, the mystery of our short existence within this big system we call Nature. Our lives are defined by our conscious experience. We are led, prompted, and coaxed according to how we are informed. The remarkable feature of psilocybin mushrooms is that they can

inform us in ways profound and sublime. To ignore their effects is to ignore new perspectives on reality.

As it is, the nature of the Universe is defined by the prevailing conceptual systems built into one's culture. In our case, the predominately reductive and materialistic paradigm favored by most of the science community shapes our views about reality. In the traditional scientific outlook that permeates Western educational institutions and the media, there is no real room for any kind of transcendental aspect to Nature. Nature is there, Nature is eminently intelligible, we can learn how it works, and that's really all there is to it. Suggesting that Nature has a spiritual dimension or an intentional quality is anathema to most scientists.

The entheogen advocate will doubtless have a stereotypical image of a hardnosed reductive scientist. It will be a he, and he will be old, scary, and grim faced, always waving a dry finger of admonishment at any talk of a so-called sentient and intentional Other. If

psilocybin visions cannot be empirically measured in the lab, then forget it, he will say. And if one points to the few scientific experiments that have attempted to quantify the psychedelic experience in some way, our gloomy specter will doubtless pick holes in the methodology and ask for more proof. He would maintain that these experiences are simply too subjective and too personal to base any objective claims about reality on.

Still, as I hope I have demonstrated, psychedelic phenomenology flies in the face of claims that Nature lacks a spiritual side, or at least the psilocybin experience offers what I believe to be the most compelling reason to grant Nature an intent of some kind. This appears to be a neat and valid side step with which to bypass the bleak presence of the reductive materialist. Indeed, the real possibility that the reality process has a fantastically benign and purposefully smart aspect becomes readily apparent through psilocybin. Such a possibility will become ever more clear in this

chapter and those that follow.

In short, psilocybin represents a catalytic agent of change in the domain of perceived reality, and this is why we shall now pursue the implications raised by the information-based propositions stated at the outset of this chapter. We are now armed and ready to re-view the "bigger picture" in the light of the psilocybin experience. This will prove to be astounding, so hold tight.

Elucidating the Nature of Information

What does it really mean to say that consciousness is a form of information? We seem to have merely replaced the intangibility of consciousness with another abstract entity. The question then arises as to what exactly information is. But even if we do succeed in adequately defining information, will we not then be in danger of trapping ourselves into one of those infinite regresses of terminology? Hopefully not. What we really want is a conceptual

notion of information, not just another term. What I wish to develop is a broad understanding of what information is, and, in particular, whether it can be used to describe the world of so-called "matter" as well as that of mind. If so, then reality will have revealed itself to be made of different forms of information, almost as if . . . well, we shall see.

Information is notoriously difficult to get a handle on. The "slippery eel" that was consciousness has now become the "slipperiest eel" that is information. Apart from my hopefully reasonable assertion that consciousness is a form of information, it would also appear that much else besides consists of information. It seems to be everywhere, all over the place in fact, yet it defies a simple all-encompassing formulation. I am reminded here of the cult 1960s British TV series *The Prisoner* in which protagonist Patrick McGoohan, number 6, asks his mysterious captors what they want of him. "We want . . . information . . . IN . . . FOR . . .

MATION!" he is repeatedly told. Perhaps he should have asked them to carefully define it. Anyhow, whatever it was, they never got it. Let's hope we fare better.

Someone once compared the modern status of information to that of iron in the Iron Age. The fashioning of iron lay at the heart of Iron Age material culture, yet no one knew of iron's atomic structure, that its useful nature lay in its atomic configuration relative to other matter. Similarly, we live in an Information Age, yet, if pressed, we find it difficult to get at the nature of information, at what exactly it is that links all forms of information, whether this information be in the form of consciousness, a bar code, a book, a weather front, or the current positions of the planets.

There are, in fact, specific ways to measure specific types of information. These were developed in the 1940s and 1950s by communication engineers who were concerned with the efficient transmission of signals along media like telephone lines. But before

we look at the way they conceived information, let's first examine the commonsense view of what information means to us in its ordinary nontechnical sense. Since we use the term all the time, especially in our present culture, this must signify that we do know something intrinsic about its nature.

Take the following three deliberately evocative examples in which information is involved. They are not as trivial as they might at first appear; rather, they enable us to focus more clearly on the nature of information.

Example number one: At the end of the esteemed gangster movie *Miller's Crossing*, the main character shoots a fellow gangster but makes it look as though he was shot by someone else. He does this by putting the gun involved in the hands of yet another gangster, who lies shot and dead, so that it looks like the two gangsters shot each other dead at the same time. Now, when he plants his gun, our miscreant fails to wipe off his fingerprints. Why? Maybe he was

unaware of the science of fingerprinting that was likely not as advanced and as pronounced in the 1920s (when the film is set) as it is today. In any case, the man simply places his gun in the other's hand. We know, of course, that had a modern forensic expert been around at the time, they would only have had to test the gun for prints for the real villain to become apparent. And what is the significance of said fingerprints? No one would doubt me if I said that the fingerprints contained information.

Example number two: A nervous student armed only with a fountain pen and a small bottle of ink enters an examination hall and takes an exam. After completing the exam the relieved student leaves, carrying his pen and his ink bottle, which is now empty. The ink he has left back in the examination hall is carefully distributed over the various sheets of the exam paper, and the distributional pattern of ink will, ultimately, decide whether he passes or fails the exam. Clearly, the pattern of ink set forth by the student contains a

wealth of information.

Example number three: You crack open a boiled egg for breakfast. As you dip your toast into the yolk, you begin to reflect upon the nature of this tasty source of protein. In particular, you realize that if this egg were fertilized and had not been removed from beneath the warm body of the hen that laid it, then it would eventually have developed into a full-grown chicken with wings, a visual system, an innate repertoire of behavior, a digestive system, and so on. In other words, you become aware of the astonishing fact that somewhere within the soft yellow substance of an egg there must reside an inconceivably large amount of information.

Potential Information and Active Information

The first point to make about these three examples is that the information inferred is in a potential, or latent, state, which is to say that the unseen fingerprints remain as potential information until

perceived; the distribution of ink across the exam paper remains potential information until the paper is read by an examiner; and an egg, before its untimely removal from beneath a hen, is also rich in potential information.

The second point is that this potential information can become active provided that it comes under the effects of an appropriate environment or appropriate *context*. As you will recall from chapter 5, I mentioned contextual environments in connection with their effect of providing meaning to individual neuronal patterns. We can now use this concept of context in a more general sense in order to understand how information can be made to actively flow or unfold from a potential state. As we shall see, context is an incredibly important word.

In the fingerprint case, a forensic expert armed with the tools of the trade can come to draw out the information embodied in the prints. The expert causes the information inherent in the fingerprint

patterns to flow out into the larger environment, such that the information causes things to happen. The information has gone from a latent, passive state into an active state by virtue of the contextual effect of the forensic expert's psyche and equipment (that is, the expert's mind and equipment operate as a context). In other words, an appropriate contextual environment allows the meaning inherent in the prints to become manifest. To highlight the scope for causal effect that a transitional flow of information can have, we should note that information in fingerprint traces can penetrate a courtroom and induce a conviction. Information is a powerful thing, able to spread itself out into the greater environment.

With the distributed ink example, its analysis by an exam grader causes the potential information to flow out and be actively informative so that it comes to shape the grade awarded to the student. In the context of the psyche of an examiner, the information inherent in the precisely patterned distribution of ink is significant

enough to indicate the intellectual capacity and communicational intent of the student.

As for the egg, its informational content similarly undergoes transition from a potential state to an active state when an appropriate environment draws the information out. In this case, a specific temperature acts as the initial befitting contextual environment, serving to elicit a flow of information from the sequential DNA patterns in the yolk (within the nucleus to be precise). Deny the egg the appropriate temperature context (take it away from warmth) and the information remains potential and inactive; hence a chicken fails to develop.

Subjective and Objective Patterns of Information

Besides the distinction between potential information and actively flowing information, there is also a distinction to be made between subjective information and objective information. In the case of the

fingerprints and the ink distribution, the information is activated by us. The appropriate context is the subjective attention of human observers who come to channel the information. This means that the information is purely subjective in nature and depends on human observation to activate it. In fact, this subjective nature of information holds for the majority of the things we usually conceive of as information in our culture, things like TV and radio broadcasts, books, memos, newspapers, and so forth. To the fly crawling over the TV screen or the pages of a book, the visual or written information remains potential and dormant (unless of course the fly happens to be a cunningly designed electronic CIA bug), whereas in the context of the observing human psyche, the information actively flows out of these media and comes to be causally influential. It should be stressed however that this subjective nature of the information does not lessen it in any way; it is still very much a real part of the Universe. Relatively speaking, all and any kind of information is real.

The case is somewhat different with the egg, for human observers are not necessary to elicit the (genetic) information that they carry. The information in an egg is usually "read out" by the natural environment, and we can refer to an egg's information as being objective in the sense that the objective natural environment is involved as the appropriate context eliciting the process of information flow. The same goes for seeds and spores. They are informational entities that release their stored information when the natural environment is in a specific state. If the seeds or spores fall on "stony" ground (the wrong context), then their information remains unread, dormant perhaps for years. Indeed, a rather dramatic and apt example of this process occurred in the case of a freeze-dried Neolithic hunter found in the Alps a few decades ago. When his nondesigner straw footwear was thawed out, some fungal spores in the ancient straw came to life and grew. Scientists were astonished, as it was the first time that such a turn of events had been observed. Cryogenically suspended for five thousand years,

the fungal spores went suddenly from a passive to an active state due to the warm environmental context of the science lab. The information in the spores began to actively flow, and this process manifested in the elaborate growth of the fungus.

But in both subjective and objective information, what is it that comes to flow? What is actually happening when the fingerprints are analyzed, when the ink is read, and when eggs and spores begin to grow? It is obvious that some kind of flowing process occurs wherein potential information becomes active information. But what exactly does this flowing process involve?

The Flow of Information

Above all, when information flows, there appears to be movement and change, in particular, a change in the state of at least one of the systems involved. In analyzing fingerprints, the information they contain initially affects the overall state of the forensic expert's

psyche (the psyche being a system). Through analyzing the prints, the psyche of the forensic expert is provided with knowledge, a term often associated with information. Indeed, the concept of knowledge is bound with the theory of information developed by communication engineers, for information is conceived by them as representing a reduction in uncertainty. The richer the transfer of information, the less uncertain about something is the recipient of the information—hence more knowledge is gained. If I ask you to think of some famous person, and I try to guess who you thought of through the Twenty Questions game, then if my first question is whether the person is male and you answer "yes," then that single bit of information has halved my uncertainty. For the communication engineer, information is correlated with knowledge and a reduction in uncertainty regarding a choice of possibilities. Actively flowing information therefore comes to reduce the number in an ensemble of possibilities. It reduces uncertain possibilities and gives rise to the actual. The net result is a definite change, or

resolution of many possibilities into one certainty, in the receiving system involved in the information flow. An uncertain "open pattern" becomes a certain "closed pattern" as it were. In the fingerprint case the receiving system is the psyche of the forensic analyst that changes its state, or at least part of its pattern, according to how it is informed.

Regarding the examiner case, before he or she comes to mark the paper, there is complete uncertainty about the ability of the student. As the exam paper is read, the information flow gradually causes a reduction in uncertainty, until an eventual mark is settled upon. So, akin to the previous example, we can see that the information contained in the patterned distribution of ink gradually changes the state of the examiner's mind or psyche. It is this sort of process that would appear to lie at the heart of subjective information transfer. A system of information on one level, or in one domain, connects to another system of information such that the state of the receiving

system becomes altered. Or, to put it another way, one pattern of information is able to effect changes in another pattern of information. The human psyche is precisely a type of informational system, or informational pattern, able to change its state according to information coming from those other systems in which it is sensorially embedded.

It is apparent then that subjective information, when accessed through reading, hearing, smelling, tasting, seeing, or touching, comes to change the form of the receiving system substantiated in the receiver's brain. If we imagine the brain's neuronal system to be like clay, then as patterns of information impinge upon this clay, the shape of the clay is altered, and thus there has been a flow of information. The impact of the incoming flow of information leads to a gradual change in the form, or formal state, of the clay. The actual system that functions like clay is the neuronal system, or, to be more specific, the way in which billions of neurons are

connected to one another. Indeed, learning, and by definition information access, is thought to be mediated through changes in neuronal connections. It is the overall network of connections that reflects the global form, or "shape," of the neuronal system.

The dictionary definition of *information* helps us here too, for it tells us that *information* comes from the Latin word *informare,* which means "to give form to." When information informs us, it alters the form, or pattern, of the informational system that is our mind. The mind is therefore an information-based system constantly re-forming itself (changing its pattern) through the accessing of information deriving from other kinds of information-based media, just as if it were clay being shaped by its environment.

For us, there is only information. Our minds are uniquely enduring patterns made of it. Information from other patterns, or systems, is continually being absorbed, integrated, and given out again. In this process, the form of the mind changes through

alterations in the ways neurons are connected to one another. Consciousness emerges as a complex pattern of information whose form is constantly undergoing dynamic change due to the integration and accessing of other types of information through the senses. This is what I mean when I talk about the flow of information.

DNA Information

The case of the egg is somewhat different. When environmental conditions are conducive, the objective information in the DNA becomes active and is expressed through biochemical activity. DNA is seemingly "tuned" to operate when a specific environmental context surrounds it, just as our minds are tuned to our native language. The precise molecular details of DNA need not concern us here; rather, we need only grasp the general principle of how information actively flows out from DNA.

In our discussions of the egg, DNA represents "matter in a significant state" such that given a certain environment complex, organic activity will unfold. From a single fertilized egg cell an entire organism will develop because the information in the egg cell's DNA becomes activated. The DNA causes particular amino acids to form, which then cause various proteins to form, and hence various organs are assembled. Morphogenesis, the growth in form of an organism, is thus the reading out of DNA information, the expression of the meaning inherent in DNA (incidentally, if an egg is eaten, then another form of its information is accessed; in this case its "nutritional information" is absorbed by the consumer).

DNA information is read out through biochemical processes, and the resulting change in the formal state of the overall system itself acts as a contextual environment that allows the growth, or information readout, to progress. We can view the immediate chemical environment of the DNA as being both on the receiving

end of the information transfer *and* able to feed back on, and influence, the information being accessed from the DNA. The form of the DNA, its specific information-rich pattern, comes to govern the form of the developing cells within which the DNA is embedded. In turn, the form of the cells (that is, their relative distribution as they multiply) will determine the formal development of the organs within which the cells are embedded as well as determine further DNA translation. In this way, DNA information comes to flow outward and be expressed on a macroscopic scale.

There is a strong suggestion here that informational systems (that is, meaningful patterns of form embodied within different media) are embedded within one another as in a nested hierarchical continuum and that they are continually influencing one another's form. This is rather dramatically illustrated in the fact that the reading out of DNA eventually leads to an organism moving about

in the world at large. If some mutated DNA has fortunately produced some new advantageous behavior, then this eventually feeds back on the mutated DNA and favors its chances of being preserved. In a similar fashion, the form of the human genome is a direct consequence of the form of the environment in which our ancestors evolved. Thus, organisms and environment represent one continuous dynamic fluidic system. Informational systems, such as DNA, cells, organs, organisms, minds, and environments, are like the nested layers of an onion, intimately embedded within one another and able to inform (put form into) one another. All are interrelated states, systems, and patterns of information.

Information and Language

Since DNA is clearly a form of information, we can dispense with calling it "matter in a significant state." DNA is information in the same way that words are information or a string of Morse code is

information. Both DNA and words contain meaning, potential or otherwise, which can be read and which can inform. DNA is thus a biological informational language that is expressed through biological growth and biological activity. I would go further and suggest that this language-like informational process is not merely a metaphor for spoken and written language, but that DNA really is linguistic in nature with its own grammar and semantics, albeit of an organic kind. If the DNA is disorganized in any way, then this corresponds to faulty grammar, and the development of the organism will proceed in a defective way. Consider the disease sickle-cell anemia, in which red blood cells are misshapen (they are shaped like a sickle). It is caused by just one faulty microscopic link in the DNA, yet this single error is enough to produce the disease. The faulty DNA link can be viewed as a grammatical error that interferes with the meaningful expression of the DNA.

The language-like processes so far suggested lead us to another

concept, that of a dialogue. If we envision a dialogue as a communicatory process in which information is transmitted, then subjective information like the written or spoken word flows according to a dialogue between the source of information and the recipient. Imagine someone talking on a phone with no one on the receiving end. No dialogue and hence no communication of information takes place because there is no one to provide a receptive context—no one is there to be informed. However, if someone does take the call, then the information from the sender comes to be absorbed by the recipient, that is, there is a definite information flow between psyches. The form of the neuronal "clay" of the receiver is altered by the patterns of information being conveyed through the phone. The subsequent dialogue might be a one-sided affair in which the receiver merely listens, or it might be two-sided, in which case both parties are involved in the information flow. In either case, the dialogue facilitates a flow of information that leads to a qualitative change in the informational

state, or formal state, of the receiver's mind.

If we now consider biological systems once more, a similar kind of informational dialogue takes place, this time between the organism (with its DNA) and the natural environment. Think of any plant as it grows. At the very tip of the plant, the leading edge of the growth process so to speak, there will be newly emerging cells. This unfolding growth will take place within the context of the natural conditions encountered, such as luminosity, temperature, humidity, gravitational force, and so on. A whole host of influential factors both inside and outside the plant will play an interactive role in shaping the form of the growing tissue. I suggest that this interactive process represents a kind of natural dialogue (as opposed to a dialogue in conventional spoken language) whereby information embodied in the plant comes to be provoked and stimulated into action by the immediate environment.

The resulting plant forms, in this view, are no less than natural,

ongoing, organic "utterances," or expressions, shaped in response to the surrounding environmental context. The key point is that the interaction of the plant with the environment can be described in terms of a dialogue-like, language-like process of information flow. There are no rigid boundaries at all; rather, there exists a hierarchy of informational systems in which patterns and structures constantly flow and influence one another. Information is everywhere, residing in systems as diverse as biology and the human psyche. All systems can be viewed as patterns, or architectures, of information embedded within one another. Further, when one pattern influences the form of another, the process appears to be remarkably language-like.

Dissolving Matter into Forms of Information

But what of inorganic matter? Can we stretch the language-like informational paradigm to cover entities like physical elements? We

should not forget that atoms underlie the various informational systems we have been discussing. If we take the most basic element, hydrogen, I see no reason why we should not consider it to be akin, in computer terminology, to a localized "byte" of information, divisible into even smaller "bits" (each byte in a computer's memory consists of a string of eight elementary digital on-or-off bits). What makes an element of hydrogen different from, say, an element of iron is its atomic configuration. The structural form of hydrogen (its pattern) is such that it bears specific systematic relations to other elements. Here again, we arrive at an informational and language-like conception of hydrogen. It is an atomic expression, a "word unit" in the language of physics. Put hydrogen in the context of another element, like oxygen, and their relational properties cause the formation of water molecules. Or, put an atom of hydrogen in the context of a star, and another aspect of its information becomes apparent, in this case its ability to undergo nuclear fusion. A star thus evokes one particular kind of information

embodied within hydrogen, a fact of no small import for the existence of life on Earth.

An atom of hydrogen can therefore be understood as being a localization of basic information, *an element within the most primal language of the Universe*. With this view, the basic "matter" of the Universe starts to dissolve, and instead we see only information. All elements—from argon to gold to zinc—are here inferred to be units of information whose informational substance differs according to the relational role they play in a language of elements. This is the informational language of physics, as opposed to the informational language of, say, biochemistry, genetics, or psychology.

To gain a perspective on the sheer expressive capacity of the language system of elements, one has only to think of all the countless ways in which basic elements like hydrogen, carbon, oxygen, phosphorous, magnesium, and nitrogen can combine, yielding such varied forms as DNA, methane, ammonia, psilocybin,

sugar, chlorophyll, amino acids, proteins, and so on. This implies that the language of physics underlies the language of chemistry, which further underlies the language of biology. Once more, one can divine that all these languages of Nature are part of an interconnected continuum wrought of information and within which the various kinds of information are everywhere flowing.

When we come to the various particles of which atoms themselves are made (protons, neutrons, and electrons), we are confronted by still more basic units of information, akin to on-off computer bits or the individual letters that make up words. The following relevant quotation on the nature of elementary particles comes from physicist and philosopher Fritjof Capra, who, through his examination of quantum physics, has also concluded that the classical Newtonian view of particles as being "material stuff" is no longer tenable. In *The Tao of Physics,* Capra writes:

> The high-energy scattering experiments of the past decades

> have shown us the dynamic and ever-changing nature of the particle world in the most striking way. Matter has appeared in these experiments as completely mutable. All particles can be transmuted into other particles; they can be created from energy and can vanish into energy. In this world, classical concepts like 'elementary particle', 'material substance' or 'isolated object', have lost their meaning; the whole universe appears as a dynamic web of inseparable energy patterns.[1]

Such a Universe of weblike energy patterns is entirely compatible with the language-like informational model being developed here. As stated, a language system like English consists of discrete informational elements (words) that derive their meaning from their relationship to things in the world and, more important perhaps, the specific functional role they play within a system of (words). If we take a French word like *bon,* we see that it plays the same functional role within the French language as does the word *good* in the

English language. The word *good* is the point where a set of informational relations converge, and since all languages contain similar informational relations, they can be translated into one another.

Words can therefore be understood as being formal units of information that, when joined together, create further patterns of information. This also holds true for units of information like particles and atoms. They derive their meaning from their relations with other particles and atoms and, like words, they can form together to create an endless amount of new patterns or expressions.

The same principle applies to the languages of chemistry, biochemistry, and genetics. In each of these language-like systems, the elements involved bear definite relations to one another, and the relations determine the nature and meaning of each element. Although each particular language-like system operates on a different scale and uses a different kind of logic, all interpenetrate

one another, and all foster the continual flow of information.

The Universe can now be understood as a kind of ongoing dialogue, or *story* even, in which language-like patterns of information are forever in the process of informing one another. As this universal tide of information flows, merges, folds, knits, weaves, and feeds back on itself, novel patterns of information are continually being stimulated and declared into existence. Particles, atoms, elements, molecules, cells, microorganisms, plants, animals, humans, minds, ideas, and so on—all are forms of information continually in process. Any "thing" or object is where a vast set of relations converge, and, ultimately, all these sets of relations form a coherent interconnected whole. Nothing is isolated; everything is relationally connected to, and defined by, everything else. Patterns within patterns within patterns. Whether potential or active, information is everywhere. Nature is made of it, fundamentally so.

Regarding this informational approach to understanding Nature,

George Johnson introduces the same paradigm as championed by the Santa Fe Institute in his book *Fire in the Mind*. The scientists at the Santa Fe Institute study complexity (in all of its incarnations), and some are convinced that information is a fundamental property of Nature. Johnson reports on one of their typical conferences:

> Most of us are used to thinking of information as secondary, not fundamental, something that is made from matter and energy. . . . But to many of those at the Santa Fe conference, the world just didn't make sense unless information was admitted into the pantheon, on an equal footing with mass and energy. A few went so far as to argue that information may be the most fundamental of all; that mass and energy could somehow be derived from information.[2]

A Contextual Web of Information

As the reader can appreciate, a number of key words help elucidate the new informational paradigm, words like *context, system, web,* and *pattern*. All these words infer interconnectivity, that all forms of information impinge upon one another such that no one thing can be fully understood in isolation.

Consider the following phenomenon that precisely highlights the contextual web of information uniting all and sundry within Nature, namely the formation of a snowflake in the atmosphere. An individual snowflake's particular development and form is dependent on a contextual web of informing relations (temperature, air pressure, and so forth) that ultimately extend out into the entire Universe. Because each snowflake bears a unique set of contextual relations to the rest of the world, each snowflake develops a unique form. This is amazing but true.

Similarly, every structure, object, or "thing" is an informational entity that achieves its meaning and significance according to its

language-like role within the context of the rest of the Universe—language-like because, as with words, objects play a well-defined role within a language-like system.

Consciousness as a particular form of information can now be discerned with striking clarity. Any particular conscious state, as it flows, is determined by all the informing relations converging in the neuronal system at that moment. These relations will be the unconscious systems of the mind along with the environment that surrounds the individual. This contextual network of informing relations determines what the neuronal activity means. The brain/mind system exists in relation to the immediate surroundings, society, culture, the planet, and the rest of the Universe, and it is this network of relations converging in the brain that determines the state of consciousness. Furthermore, *to consume psilocybin mushrooms is to allow a new set of informational relations to converge within the neuronal brain*. Thus, one may suddenly

“mean” more in relation to the rest of the reality process. Regarding consciousness, this is perhaps the most that can be gleaned from our informational model at this point.

So far, I have deliberately avoided putting the term *process* before the term *information*. Instead, I have repeatedly spoken of a flow of information in process. Everything—the entire substance of Nature—consists of information, and everywhere this information is in process—flowing, merging, coalescing, and informing in a language-like way. If we switch the terms *information* and *process* around, we unavoidably face yet another extraordinary idea, that in some sense the Universe must be a kind of computation, for computation involves the processing of information. That the Universe is akin to a vast computation (or even a simulation) is a notion currently voiced by a number of prominent scientists, and it is worth exploring in more detail as it might bolster the idea that reality is a system of self-organizing language-like information. Just

when you thought it was safe to take a well-earned breather, we encounter yet more profundity.

E I G H T

Does the Universe Compute?

Before we try on the Universe-as-a-computation notion for size, let us briefly acquaint ourselves with the number-crunching background that provided us with computer systems in the first place. We are not so much interested in the details of computer hardware but rather the essential informational principles governing the operation of computers. This will reveal more about information

and the way different forms of information can be processed. We will then be able to see if a computational description really is suitable for Nature (this is not as offensive as it might at first seem to some). If Nature can indeed be understood in computational terms—and I hasten to add that I am not the first to put forward this idea—we would have to view ourselves as living programs written in an organic, biochemical language. More to the point, we would represent programs whose destiny is to be *twice executed*—first by way of genetically determined growth and second by inexorable death.

In the meantime, of course, before the latter eventuality, we can, through the consumption of certain "access codes," come to experience information pertaining to the point or purpose of the overall master plan governing the reality process. Once more, it sounds assuredly fantastic, yet if the computational paradigm is in any way accurate in describing what Nature is about, then such

radical ideas as these will have to be accepted or at least be debated. Anyhow, to get you in the mood to swallow the idea of an information-processing Universe, let us briefly look at the rise of computer culture, for, whatever your opinion of computers, these "infomous" machines are guaranteed to run and run. . . .

The Computer Revolution

It was the emergence of information-processing computers in the 1940s that heralded the arrival of the Information Age. Before 1950 there were just fifteen digital computers in the world, probably because there was no room for any more, given their huge bulk in those days. Now, of course, computers have shrunk in size and are pretty much a compulsory possession. Indeed, our culture thrives on computers, which explains the exponential growth in computer technology, that is, that computer science is evolving ever more rapidly. Trade and industry, the military, our education systems,

financial institutions—all now depend on the constant processing and manipulation of information carried out by versatile computers. Information is the supreme currency of modern culture; it is everywhere being fed in and out of computer systems.

As with information and information integration in general, the emergence of computer systems and the proliferation of global computerized telecommunication systems like the Internet seem unstoppable. It is difficult to discern whether anyone has any real control over this development. So fast is computer technology racing that before we can assess the implications of one aspect of it, another dramatic breakthrough is made. Nostalgically recall the chunky portable digital calculators that suddenly appeared in the mid-1970s. At the time, these computing devices seemed excitingly futuristic. Whether or not they were understood, their various buttons and computational functions seemed to provide an instant gateway to esoteric mathematical knowledge. Input a few numbers

and commands, and the little machine instantly responded as if by magic. Log books and slide rules could at last be ceremoniously trashed. And yet smaller mass-produced digital calculators are now given away in cereal packets. Similarly, those original home computers of the early 1980s, like the cute rubber-key Sinclair ZX Spectrum (with a whopping 48K memory!), are now all but worthless and primitive (in terms of capacity) in comparison with today's lightweight, high-resolution, portable touchscreen variety. And by tomorrow even these will have become passé. The digital computer revolution is happening so fast that it's a blur.

Formal Systems

Computers are popular because they are able to process information quickly and in so many different ways. Processing information, information in process—it's the same thing. At heart, information processing is all that computers do, whether the computer in

question is used by the Pentagon, the Inland Revenue, or me to write this book. Computers might process musical forms of information, financial forms, meteorological forms, or even viral forms. Whatever the form, computers can be fed only with information, which they promptly process and return to the user.

As it is the form, or "shape," of the information that is processed by computers, a computer is an example of a formal system. When it comes down to the nitty-gritty, all a computer does is take one formal set of symbols (an informational pattern), which means nothing to it, and translates that set of symbols into another form according to specific rules. Likewise, the output of symbols (an informational pattern) means nothing to the computer either. The computers we employ only slavishly manipulate symbols; they do not think, they know not what they do.

In general, formal systems like a computer consist of a set of processable formulas such as strings of elements or symbols taken

from some well-defined alphabet. In a computer the strings involved are sequences of binary numbers—ones and zeros—which are known as machine language. *Any information can in principle be coded into binary strings*. Think about it. Recall in the last chapter my contention that matter is informational. As we shall see, it is precisely because physical systems can be transcribed into digital bit strings (that is, physical systems are informational) that has allowed computers to model aspects of the world. Add to these bit strings (whatever they might represent) a set of transformation rules that govern the ways the binary strings can be transformed, and you end up with a formal system able to process information. The more powerful the computer, the more rapidly it can deal with its binary manipulations.

The transformation rules operating in a computer system are embodied in the computer's software, which is run by the computer's central processing unit (the CPU). The software

instructs the CPU how to operate on its input information in a specified way. Built into the CPU are numerous logic gates (like AND, OR, and NOT gates) that transform sequential inputs of ones and zeros into further sequences of ones and zeros according to how input is fed into the CPU. Millions of such transformations occur each second, and the resulting output states (further strings of ones and zeros) can then be interpreted from outside the system. In other words, the context of human perception is needed to inject some meaning into the computer's output. For example, a computer system might take some input from a keyboard, process it according to its program, and then display the words *Are you sure you want to exit this program?* on the computer's monitor. Although the pixel array might well say this, for the computer it is merely a particular pattern of binary output absolutely determined by the logical processing of the input.

Other formal systems are things like dreaded algebra and heavy

propositional logic (input *All sensible men hate propositional logic* and *Aristotle was a sensible man,* and according to the transformation rules of propositional logic, the output must read *Aristotle hated propositional logic*).

Chess is a more common kind of formal system. In chess, the pieces are the individual symbols and the strings are the possible positions of those pieces. The game proceeds according to transitions of the initial state, whereby the initial configuration, or initial start pattern, changes into another configuration through the movements of the chess pieces. This is the same principle involved with computers, as they too work by processing information via transitions of an initial input state. Thus, the rules of chess represent a kind of software that dictates how state transitions are to proceed.

The transition from one state of an ongoing chess game to another is discrete, as with the operation of any formal system. A bishop does not half move; instead, it "jumps" from one position to

another. Also, since a formal system like chess depends solely on the form of the symbols and strings relative to one another, it is irrelevant what the pieces are made of. Indeed, they need not even be “physical” at all, for most professional chess players are able to play the game in their heads alone. Though that will not do much for avid spectators of chess, it does highlight the fact that a formal system can be realized in many different types of medium. Indeed, a computer system can be made of old tin cans and bits of string. The crucial aspect is the way the system’s symbols relate to one another, regardless of the medium.

You could even take some people and use them to represent in binary code two numbers that you would like to multiply. Roughly symbolizing genital structure, the women could represent the number zero and the men the number one. After the two numbers have been transformed into a binary queue of men and women, one could multiply the two numbers by channeling the queue through a

few logic gates operated by a couple of friends (instead of telling the binary people queue to go forth and multiply . . .). You could then take the output queue (the new pattern) and interpret the resulting encoded number, which, if you set up the system correctly, would correspond to the multiplication of the two original numbers. Agreed, a calculator app on a cell phone could have done the job more efficiently and with much less hassle, yet the point is that the calculator app itself works on the same principle, only it uses memory bits to embody the binary information. Formal systems like computers are therefore not tied to any particular substantiation.

Formal Systems and Language

Before we alighted on the notion of formal systems, I argued that not only was the Universe made of information, but that this information moved or flowed in a language-like way. I claimed that the elements in informational systems like DNA uttered their

informative content in response to specific contexts, as if natural dialogues were unfolding. We have now reached the point where we can define language, in whatever mode, as a formal, and hence informational, system. Let me quote writer Paul Young, author of *The Nature of Information*:

> All languages are form dependent. In spoken language, arbitrarily selected symbols are manipulated as units that can be interconnected or arranged only in specific relationships according to specific rules. It is the form (relations), whether semantic, syntactic, experiential, or contextual, of the elements of language, and not the matter of which they are constructed, from which the mind generates meaning; the physical symbols themselves embody no linguistic meaning. . . . It is neither the mass nor the energy content of the letters, words, sentences, and so on, whether expressed via mouth, pen and ink, stylus and wax, or computer printout, that contains the information in

language, but their specific form or arrangement.[1]

I have gone one theoretical leap farther, however. Young refers to the so-called "matter of which they are constructed" with regard to the symbols of language. This "matter," in my view, is itself composed of language-like elements within some formal system or another. This implies that there is only information; the Universe is built on formal informational systems like those of physics, chemistry, and biology, and all are embedded within one another to form an integrated continuum. They are formal systems because it is the form (that is, the pattern) of the elements, whether they are particles, atoms, molecules, or words, and their formal relations to one another that determine the role, meaning, and subsequent behavior of those elements.

The language-like system of particles represents the Universe's most basic informational substrate. This system begets the language-like system of atomic elements. In turn, this system gives

rise to the language-like system of chemistry, which itself leads to the language-like system of DNA. And so on right up to the substantiation of the language system of consciousness within our biological brains. Each language-like system of information utilizes its own kind of logic to express itself, namely the logic of physics, the logic of chemistry, molecular logic, the logic of genetics, bio-logic and, finally, the logic that underpins cognition. Each kind of logic gives rise to patterns that influence one another and that lead to more patterns, some of which produce, or come to embody, new systems of logic. Descartes was wrong; the dualistic mind/ body problem is an illusion. Formal systems consisting of language-like information constitute reality. Information in process is everywhere and everything.

Some Inside Information: Are We Output?

If the above reasoning is correct, the Universe must in a real sense

be an ongoing computation in which its information content is being continually churned and processed so as to yield new forms and/or patterns of information. At any one moment the Universe is in a specific state or form. This state is processed according to the "rules of the Universe," and another universal state is formed. And so on, from the moment of the alleged big bang to right now. The entire Universe can thus be considered a progressive state transitional computation, a kind of metaformal system continually expressing its creative potential. And, more profoundly, we are inside the computation. Or so it seems.

Is such speculation tenable? Could we really be locked inside a vast Matrix-like computation as though we were all but hapless subroutine prisoners, moving in time to some grand algorithmic dance? According to our foray into the nature of information and computational procedures, the suggestion that the Universe is a kind of computation would appear to be a spectacular probability, albeit

a trifle claustrophobic, and an outrageous absurdity at the same time. We are so used to thinking of computers as neat boxes atop desks that we forget that they are formal systems that can, in principle, be embodied in anything. But, if we do take this fact into account, and if we also bear in mind that computers can manipulate all sorts of information, even going as far as simulating things like the solar system, then we might well be attracted to the idea of a computational Universe. Or am I merely resorting to the use of a convenient metaphor borrowed from our technological culture? If so, the metaphor might be useful but, ultimately, since it is temporal, its use will be limited until another, more useful metaphor becomes available.

Whereas it is true to say that metaphors have often been taken from the latest technological advances in order to support some novel theoretical conjecture, I would reverse the argument. I hold that the principle of informational computation reflects the actual

way (or at least one way) in which Nature itself operates. What we have achieved in the digital computer revolution is a mimicking of Nature. We have come to realize that the name of the Universe game is information (everything is information) and its processing according to nonarbitrary rules and commands. Indeed, one has only to consider the fact that DNA, the very mainstay of life, is itself a form of digital information to begin suspecting that Nature is computational in some fundamental way. Four nucleotide bases make up all DNA—guanine, cytosine, adenine, and thymine—and because any given unit of DNA must be one of these four possibilities, then this system is clearly digital (quaternary as opposed to binary).

In his book *A Devil's Chaplain*, evolutionary biologist Richard Dawkins drives home this point about DNA being digital as follows:

> Watson/Crick genetics is digital through and through, digital to

> its very backbone, the double helix itself. A genome's size can be measured in gigabases with exactly the same precision as a hard drive is sized up in gigabytes. . . . Genetics today is pure information technology. This, precisely, is why an antifreeze gene can be copied from an Arctic fish and [be] pasted into a tomato.[2]

As if this digital quality of DNA was not striking enough, neuronal firing activity is also likely to be based on similar digital principles because neurons do, or do not, fire. Patterns of neuronal firing differ according to which neurons are firing and which are not firing (as well as the rate of firing). Thus, nervous systems (which include the brain) seem to employ an essentially digital form of information processing. As much as we like to think of ourselves as pioneering inventors and technological geniuses, Nature evidently beat us to it in terms of digital technology and digital computation. The Information Age is far older than we imagined.

If the reader is still not convinced that the essential fabric of the Universe is informational or if you still much prefer the safe and reassuring feel of "hard, tangible matter," let me introduce more support for the Universe-as-a-computation scenario. This comes from popular science writer Paul Davies. Davies is foremost a professor of theoretical physics, yet he is one of that rare breed of scientist who dares to ask the really intimidating questions about the fundamental nature of reality. He also attempts to answer such questions.

In his award-winning book *The Mind of God,* Davies labors hard to get to the heart of reality. While discussing the ability of computer simulations to mimic aspects of the real world, Davies inevitably asks us if the Universe is itself computational.

Compare the activity of the computer with a natural physical

> system—for example, a planet going around the sun. The state of the system at any instant can be specified by giving the position and velocity of the planet. These are the input data. The relevant numbers can be given in binary arithmetic, as a bit string of ones and zeros. At some later time the planet will have a new position and velocity, which can be described by another bit string: these are the output data. The planet has succeeded in converting one bit string into another, and is therefore in a sense a computer.[3]

In the same vein, Davies goes on to discuss the various states within a system of gas molecules. An incredibly long binary sequence could be used to specify the velocity and position of all the gas molecules at one instant. After a set amount of time has passed, a new state will have been reached that can likewise be specified in terms of a bit string. Input information has thus been converted by Nature into output information, and this is clearly a

computational process.

It is precisely because different aspects of the world can be coded into a binary form that computers are able to model different facets of reality. Of course, computers are not able to simulate the real world exactly, as that would require a calculation involving *all* the relevant information in the system to be modeled. Any inaccuracy in the initial configuration of input data tends to increase exponentially as the simulation progresses (if the simulated system is nonlinear). This is the so-called butterfly effect, in which the state transition of the system is highly sensitive to initial conditions. Alter the initial state of a computation in some minuscule way, and the alteration will inevitably have an increasing influence on the development of the computation, so much so that the end state might be radically different. This is why computer simulations of the weather are not accurate beyond a few days and why we should be merciful in our judgment of erroneous weathercasters. It is

simply impossible to input all the information about the current state of the weather. Only the real weather system itself contains all the relevant information. Weather scientists simply simulate the weather as accurately as they can using as much input information as they can obtain. Computers merely model different aspects of the world; they cannot recreate them 100%, for that would necessitate inputting absolutely all the relevant information. For sure, computers and computations made by people are smart, only the real world is far grander and richer in information. And we conscious humans are part of its output.

The Original Software

If we go along with the notion of the Universe at large as being an ongoing computation, at least of sorts, we are unavoidably led to ask ourselves what precisely governs the state transition of the Universe from one moment to the next? In other words, what are the

rules that control this vast information-processing system? After all, there must be some lawful control over the progress of the "Universal Computation," for we witness order and cohesive patterns on all scales of reality, from simple cells to spiral galaxies. What then is the basis of the meta-grammar or meta-software that runs the reality process?

It would appear that the fundamental laws of physics represent the Universal Computation. These laws constitute a kind of essential software governing the ongoing computation of the Universe. There can be no denial of this, for the four fundamental laws of physics (gravity, electromagnetism, and the strong and weak nuclear forces) reign supreme throughout the Universe and provide the bedrock upon which cosmological events unfold. However, these laws of physics—representing perhaps the ultimate contextual rubric—have generated new informational systems, like those of chemistry, genetics, biology, and the mind, which I outlined in the previous

chapter and which I described as being informational systems in this chapter. These informational systems have themselves allowed new laws to emerge. This is also undeniable. Formal systems like genetics or the English language can in no way be totally reduced to physics. Nor can consciousness be reduced to physics. And yet physics and the fundamental laws that govern physics have somehow encouraged these subsequent systems to emerge.

Laws are essentially grammar-like because they govern the way information flows and integrates within different language-like informational systems. Thus, once new forms of information arise within the Universe, new laws emerge that control the relations between them; that is, new grammars come into existence. This is an important point to bear in mind when we talk of the laws of physics, for one might be suspicious that physical law alone is sufficient to cause, say, the evolution of life. It is rather that the laws of physics have allowed new laws to emerge once new forms of

information have come into being. In this sense, the laws of physics are *primary;* they are the fundamental grammar, so to speak, or fundamental pattern that facilitates all else of interest. This is somewhat reminiscent of the fundamental role of the octave in music. The octave defines music since it holds all the major notes within it and specifies the vibrational relations between those notes. Once the fundamental octave system has been specified, then all music, all those compositions and melodies we love, can be generated out of that basic system. The same principle applies to chess, of course. Once the rules are created, then every chess game, whether a classic, an epic, or an embarrassment, can be generated from those basic rules.

We should also bear in mind that simple physical systems governed by simple laws can nonetheless generate novel behavior. Indeed, over the last few decades chaos theory has amply demonstrated the unpredictability and surprising behavior that

certain seemingly simple physical systems can display. So even though the laws of physics may be understood, the long-term effects of those laws can be utterly novel. To suggest that the Universe is computational and controlled by software-like laws does not imply that the future is determined. Indeed, chaos theory teaches us that novelty and unpredictable surprise are an inherent feature of reality.

Is Reality a Bit Fishy?

The laws of physics, such as they are, require an initial input state in which to manifest themselves. This initial state would appear to be the initial conditions at the time of the alleged big bang, conditions that many cosmologists have argued had to have been highly specific in order that the Universe evolve in the way it has. Here we face a deep mystery. Why that particular set of initial conditions, and why those laws of physics?

In many of his books, Paul Davies (whom I quoted earlier)

concludes that the Universe appears to be a bit fishy. Davies refuses to accept that the laws of physics and the initial conditions just happen to have been that way. It appears too good to be true, especially as we are around to speculate upon it. Either one accepts these fundamental properties of Nature as being unexplainable "brute facts," or one can try to account for them in some kind of metaphysical way.

As we are once more entering unusual territory, let's quickly recap. We have been trying to understand reality as an ongoing computation in which all of the Universe's information is being relentlessly processed via countless state transitions. This informational process has led to the (novel) formation of galaxies, stars, planets, life, *Homo sapiens,* consciousness, and subsequently conscious reflection on the nature of galaxies, stars, planets, life, and so on. The existence of such patterning is astonishing enough. But we have also concluded that these interesting and creative

outputs are entirely dependent on the laws of Nature and the initial input conditions, and that these are special in some way, at least special in the sense that they have produced enduring forms of information like you and me.

If this line of reasoning already suggests the presence of a God of some kind, then it is because our vocabulary is severely limited when it comes to discussing these types of issue. This is a relatively new area of thought, for only in the last few decades have scientists begun to seriously contend with why things are the way they are, with why the Universe appears to be somewhat fishy. These are legitimate questions to ask, although they extend well beyond the limited scope of science.

I believe that since we are inextricably caught up in the unfolding Universe, wherever it might be leading, then it is surely in our interests to confront the situation head on. In fact, we should demand to be enlightened as to what is really going on here. As I

have made clear, natural entheogens and their ability to foster transcendental forms of cognition are perhaps the greatest tools at hand for coming to terms with these questions about reality. Create the right sort of neurochemical alchemy, bring the right sort of natural ingredients into place, and information seems to conveniently orchestrate itself into revelatory patterns of understanding. This is the method, perhaps, whereby Nature resolves an understanding of itself through the vehicle of consciousness.

However, before we go on to form a conclusion from our informational view of things, it will be useful here to show in more detail how the computational processing of information according to a few very basic rules can nonetheless yield organized forms and structures. In particular I would like to welcome to this chapter the extraordinary world of the cellular automaton. This is not as dull as it sounds, and since such a system is very simple to grasp, it lends

itself well to our computational/informational paradigm.

The Game of Life

A cellular automaton is a classic computational-cum-informational system able to yield lifelike phenomena, and it is therefore a model that captures, at least in part, Nature's life-making capacity. Oddly enough, the study of these systems has its roots in a novel Mexican mushroom, only this time the mushroom in question is the malignant mushroom cloud of the atomic bomb.

The atomic bomb was created in the army laboratories of Los Alamos in New Mexico as part of America's Manhattan Project. In fact, it was in response to the cautionary word of Einstein himself that the USA originally attempted to crack the atom for weaponry purposes. In 1939, Einstein, who was then seeking asylum in the USA, wrote to President Roosevelt concerning Germany's widespread and zealous search for uranium. It was painfully clear to

Einstein that the implications of his E=MCÂ² equation were being followed through to their ultimately explosive end and that the USA would do well to keep abreast of this disturbing development. On the strength of Einstein's warning, American authorities galvanized themselves into developing an atomic bomb before Germany managed it, and thus the Manhattan Project was born.

After the end of World War II, the Manhattan Project built a prototypical electronic computer system called ENIAC (Electronic Numerical Integrator and Computer). This was the first operational, general-purpose, electronic digital computer, and it was initially used to solve various ballistic calculations. The success of this "giant brain," as the press called it, stimulated the development of other computing machines and helped pave the way for the modern computer industry.

Computations on ENIAC were supervised at Los Alamos in part by eminent mathematician John von Neumann. Although von

Neumann was a mathematical wizard, his ethical stance was a little questionable. Not only was he an extremely vocal advocate for the total nuclear destruction of Russia before that country developed a nuclear capability, and not only did he feel that it was safe to carry out and closely observe nuclear test explosions (he was later to die of bone cancer, probably caused by witnessing nuclear explosions at Bikini Atoll), he even devised plans to dye the polar ice caps in order to melt them. He also helped design the nuclear bombs that were detonated over Japan.

Despite these cheery idiosyncrasies, it was von Neumann who first began to study the computational properties of cellular automata on the bulky computers at Los Alamos. Von Neumann had always been fascinated by the idea of self-replicating machines, though he believed that ultimately this was not possible using only vacuum tubes, transistors, and the like. However, by utilizing the new computers that were at hand, von Neumann was able to

implement a computer program in which simulated life-forms were able to replicate themselves. The program was the original cellular automaton. That these self-replicating, computer-generated entities were not made of flesh or machine parts did not matter, as it was their logical and organizational structure that defined them. This was one of the first real insights into the simulational power of computers. They could create convincing forms of life.

Von Neumann's work was given a whole new lease on life (literally) by Cambridge mathematician John Conway, who in 1970 invented a cellular automaton called the Game of Life. The game is deceptively simple, yet it is able to generate an endless amount of complexity and variation. It also mirrors the computational quality of biological life.

The Game of Life is referred to as a cellular automaton because it proceeds within a grid of cells (like graph paper) and because the game's progression is entirely automatic. The game progresses

according to four rules. These four rules are applied again and again to the current state of the cells in the grid. Cells are either occupied or not—which means the system holds binary values. Cells are digital, on or off, alive or dead. These are the four simple rules:

1. Any live cell with fewer than two live neighbors dies, as if caused by underpopulation.
2. Any live cell with two or three live neighbors lives on to the next generation.
3. Any live cell with more than three live neighbors dies, as if by overcrowding.
4. Any dead cell with exactly three live neighbors becomes a live cell, as if by reproduction.

An initial configuration of on/off (that is, live or dead) cells is

provided as input, and then the four seemingly vacuous rules are applied. The output from this process yields a new configuration of on/off cells. The rules are applied repeatedly, hundreds or even thousands of times. The results can be striking. Not only do slightly different start configurations yield wildly different outputs, various patterns can form that endure throughout the game. If successive states of the cellular automaton are presented rapidly on a computer screen as opposed to being drawn on numerous sheets of graph paper, a Life movie can be watched as it progresses. Patterns emerge, move around, collide, mutate, oscillate, and some even seem able to replicate themselves.

Conway's Game of Life grabbed media attention in the early 1970s through coverage in *Scientific American*. The various Life objects began to acquire names. Shuttles, beehives, and flotillas were born. Ships, boats, barges, and blocks were readily observed and documented as they meandered about the two-dimensional Life

plain. (Animated examples of the Game of Life along with relevant freeware can still be found on the Internet—indeed nowadays certain interesting configurations can be iterated billions of times in just seconds.)

The genelike pattern with the capacity to replicate that sometimes emerged in the primordial Life soup was named the glider. Gliders were observed to collide with one another, resulting in the formation of a glider gun that shot out further gliders as though they were its offspring. It was even discovered that glider guns could be set up in such a way as to constitute a virtual computer. Conway proved that processions of gliders were able to code binary numbers, and that logic gates could be formed by making glider streams collide with one another in a specific way. The result is startling. The Life computer can itself embody yet another computer, and so on ad infinitum. A digital information process within a process within a process (this, of course, is reminiscent of

patterns within patterns within patterns).

The fascinating feature of the lifelike patterns that evolved in the Game of Life was their origin. From initial simplicity, complexity was born. Furthermore, cellular automata were clearly computational, whether they were played out on a computer, a chessboard, or on graph paper. Through state transitions, information was being processed throughout the game. There was an unavoidable implication that life itself might represent a similar information-processing system. If so, then the Universe could most definitely be understood in computational terms.

We have now arrived back at the Universe-as-a-computation scenario. An ongoing computational system, the Game of Life vividly demonstrates how initial conditions and some basic state transition rules can give rise to organized complexity and the emergent phenomenon of self-replication. The real computational game of life in which we have been born similarly depends upon a

well-defined initial state at some distant moment in the past and a set of rules. In this case the rules are the laws of physics and the constants of Nature (like the particular strengths of the various forces of Nature). This implies that we are inside the Universal Computation, much as gliders are inside of cellular automata.

A Discrete Look at Time

The case is still not watertight. Cellular automata, and indeed all computations proceeding within a computer, move in discrete steps. If the Universe is an ongoing computation, then, strictly speaking, it ought to proceed in discrete state transitions, frame by frame as it were. The late mathematician Martin Gardner, who originally introduced the Game of Life to readers of *Scientific American,* was one of the first to speculate about this. He wrote: “There is even the possibility that space-time itself is granular, composed of discrete units, and that the universe . . . is a cellular automaton run by an

enormous computer."[4]

In other words, if the Universe is indeed a kind of computation, there is likely to be a smallest unit of time (time is granular) that cannot be broken down further. Such a hypothetical smallest unit of time is known as a chronon. A chronon is an absolute moment, or quantum of time, in which the Universe is in a particular state. This state will then proceed by a discrete "jump" to form the next chronon according to whatever laws are operating on that state, much like the movement of electrons, which are supposed to discretely jump from one orbit to another. There are believed to be no intermediary states between successive "jumps."

If time does indeed move in discrete jumps, one might well ask why we experience time as flowing. There is no surprise here, for to talk of discrete time is like talking of the successive frames of a movie. If the frames are presented quickly enough, the illusion of continuity becomes apparent. An illusion of continuity is also

manifest in the Game of Life. The state transitions of Life automata can be processed by a computer so quickly as to give rise to patterns, which, on the computer monitor, appear to flow across the two-dimensional playing field. In fact, *all computer displays move in discrete stages,* even in the most advanced programs. Popular computer games and cell phone apps might look as if they are flowing smoothly, yet in actuality they are proceeding in rapid state transitional jumps (hence a still frame, or "RAM slice," can be observed if a computer game is paused).

The continuous flowing forms that seem to constitute the Universe must therefore be due to the presence of stable patterns that endure from one moment to the next. If one were to take one snapshot slice of reality, a single, all-encompassing chronon as it were, one would not be able to properly discern any patterns; rather, the patterns we observe, like planets and people, are patterned structures that emerge over a multiple succession of such slices.

Likewise, I would assume that consciousness seems to flow precisely because it is an informational pattern that endures across successive frames of granular time.

There have been attempts to quantify the hypothetical chronon. For what it's worth, it is assumed to be the shortest conceivable length divided by the velocity of light. For obvious reasons, I'll take this definition on trust. Anyhow, this yields what is sometimes called the "Planck time," and this may represent the elusive chronon. Intuitively it seems there must be discrete time, for otherwise a second could be divided into an infinity of moments. If so, then it is hard to see how time appears to flow at all. An echo of this "timely dilemma" is found in particle physics. Are there any smallest bits, or does scale and size continue indefinitely? It makes more sense to think of a smallest unit of matter (or information) and a smallest unit of time. The case remains open, however, though it is doubtful that any measuring instrument could be built to observe

any discrete moves in time. Alternatively, it may still be possible to hold the computational view of the Universe with non-discrete time. This is a task someone else can tackle.

What Gave Our Universe Its Lucky Break?

Once more assuming that reality is indeed a kind of ongoing computation in which language-like information is everywhere being processed, and in which the moment "now" is the leading edge of the computation, we can return to the question of its software, that is, the laws of physics that determine how the Universe develops and progresses. As previously noted, the nature of the Universe is completely tied up with the laws of physics and the initial conditions prevailing at the beginning of time. Now, just how significant or arbitrary are these two sets of variables?

With the Game of Life, Conway's four rules were specifically designed to ensure that enduring and interesting forms of

information could arise as the game proceeded. *The four rules were chosen from what is basically an infinite amount of possible rules*. Indeed, it took Conway a great deal of time to discover these four rules. If you took just any old rules and applied them to the game, then nothing much of interest would happen. And if anything of interest did crop up, it would only be likely to vanish soon after. It is because Conway's Life rules were so permanent, precise, and constraining that his game took off and was ultimately able to yield lifelike forms. Moreover, to obtain really interesting results (like getting a virtual computer to emerge), one must carefully engineer the initial state, set it all up in advance so to speak, to ensure that the system develops in the way you wish. Conway was clearly God of the Game of Life, or at least his intelligence was. For a glider speeding merrily about the Life plain, it could do a lot worse than worship the great and holy Conway of Cambridge as its creator.

So, what about the laws of physics and the initial conditions in the

real game of life? Just how precise do they need to be to allow us to be here now to reflect upon them? This is somewhat hard to ascertain since we know of only this Universe. We can't examine other Universes with slightly different laws and initial states to see if they also bring forth life and consciousness. However, many scientists have concluded that for conscious life as we know it to have evolved, the laws of physics and the initial conditions had to have been *exactly* the way they are. Indeed, it seems that there are many "cosmic coincidences" that have "conspired" to elicit life. In *The Mind of God,* for instance, Paul Davies has commented upon the combined effects of hydrogen, subatomic neutrinos, and physical law in their impact upon the emergence of organic life.

> It is particularly striking how processes that occur on a microscopic scale—say, in nuclear physics—seem to be fine-tuned to produce interesting and varied effects on a much larger scale—for example, in astrophysics. Thus we find that the force

> of gravity combined with the thermodynamical and mechanical properties of hydrogen gas are such as to create large numbers of balls of gas. These balls are large enough to trigger nuclear reactions, but not so large as to collapse rapidly into black holes. In this way, stable stars are born.[5]

Davies goes on to describe how some stars eventually explode and how the remains of supernovas (exploding stars) form the basis of planets like the Earth. Apparently, every heavy atom in our bodies had to go through many supernova cycles before ending up as an integral part of terrestrial life. The force of an exploding star derives, in part, from the presence of neutrinos, which Davies refers to as "ghostly entities."

In other words, the long and complex chain of state transitions of the Universe that eventually yielded life and consciousness was determined by the precise manner (both microscopic and macroscopic) in which the universal dialogue unfolded. An

appropriate set of grammatical rules/ physical laws that would eventually generate life and consciousness was seemingly "set up" at the very beginning of time. Once the laws of physics and an initial input state had been specified, they eventually went on to facilitate the evolution of planets and people made of stardust. Even dour Mr. Skeptic must concur that this has been a somewhat fortuitous turn of events. One has to be near dead not to marvel at least a little at our conscious existence at this stage of the Universe's evolution.

Consider also the so-called constants of Nature, like the mass of the electron and Newton's gravitational constant. Their value is considered absolutely precise, and they determine how the language of physics is conducted. These constants also seem to be fine-tuned to allow organic life to emerge. If their value was but a fraction different, then life as we know it could not exist. Some scientists have introduced the *strong anthropic principle* to account for this

phenomenon. This principle holds that the fundamental constants of Nature have the value they do precisely to allow life and consciousness to develop somewhere and somewhen in the Universe. It sounds like design. Needless to say, other scientists balk at such talk, preferring to seek a less astounding explanation.

The "life-friendly" nature of Nature is seen elsewhere. The element carbon, which is so crucial for life on Earth, is generated inside stars by an extraordinary series of "lucky flukes." It just so happens that normally rare high-speed collisions of three helium nuclei are favored to occur within stars due to fortuitous quantum effects. The resulting carbon that is formed eventually gets blasted out into space when stars go supernova. Because carbon is the basis of all organic chemistry, we really can thank our "lucky stars" for its biologically constructive presence here on Earth.

Even the expansion of the Universe is precision-based so as to allow time enough for galaxies, planets, and life to form. If the

expansion of the Universe were too fast, then galaxies could not form, and if the expansion were too slow, it would recollapse before anything interesting happened. According to some estimates, if the velocity of expansion in the first second of the big bang was a mere trillionth slower, the Universe would have collapsed within fifty million years, during which time the temperature would have remained above ten thousand degrees, clearly a state unfit to yield life as we know it.

And let us not forget good old water. Water is indispensable for life. The various unique physical and chemical properties of water —as utilized by life in such processes as photosynthesis, nutrient transport, osmosis, heat reduction through sweat evaporation, and so on—make water a form of fluidic information fundamental to the art of living.

Then there is DNA. Not only is it remarkable that something like the genetic code was always waiting to fall into place once certain

precursor events had unfolded here on Earth, but it is equally remarkable that DNA has the specific kind of variability and mutability that it does. If it were much more subject to mutability and change, then it would not be robust enough for life to take hold; and if it were too accurate in terms of replicational fidelity, then it could not become subject to natural selection. As with many other creative properties of Nature, it seems there are specific windows of opportunity present, and it "just so happens" that DNA has all the qualities necessary for it to work.

These are but a handful of the countless examples that show how finely tuned the Universe must be to bring forth organic life. This situation echoes the precise conditions needed in the Game of Life for cellular automata to bring forth elaborately organized forms. In both cases, the real world and the model world, it is clear that specific fundamental laws in association with specific fundamental constants and precise initial conditions are needed to ensure that

interesting organized patterns evolve.

Now, Wait Just a Goddamn Chronon!

We might protest here and argue that life has merely exploited the conditions that happen to prevail. In that case, life has just seized on whatever "chances" are on offer, where *chances* is the appropriate word. Life might therefore reflect what can be achieved in an essentially uncontrived Universe. But how can we be positive that life and consciousness could have evolved in "any old kind" of Universe? Could one just throw some dice to determine, say, the mathematical nature of the laws of physics, and then still expect to get life and consciousness at some stage in the resulting reality? Could one think of any number between 1 and 1 million, add 5, randomly shuffle the decimal point, designate this number as the value of a constant, and then still expect to come up trumps with the subsequent Universe? Come to think of it, why should there be any

laws, energy, and dimensions at all?

It appears impossible to conclusively prove that an evolutionary process in which consciousness is eventually formed depends on our particular type of Universe with its particular initial conditions, physical laws, constants, and so on. And yet it is easy to imagine stupid and very silly Universes in which nothing of interest happens. Letting our imagination go, we can picture Universes in which the laws of physics stop complex structures from forming or in which the constants of Nature force the Universe to form into a bland and stagnant conglomeration in which nothing creative happens. More chaotically, we can imagine Universes with little or no law and order at all, or with just a couple of unstable dimensions. Or, even more absurdly, we can imagine a Universe in which life starts, only to be inevitably destroyed soon after by some immutable principle of physical law. There are trillions and untold zillions of possible boring lifeless Universes, just as there are billions and

untold zillions of possible uncreative cellular automata. So, why is our Universe so very, very interesting? And why us?

One “fast-food” solution is to suppose that the Universe expands from a big bang only to eventually contract into a “big crunch” at some later stage. Out of a big crunch a new Universe evolves and the cycle continues, only this time the successive Universe has slightly different laws and initial conditions. This “pulsation of Universes” is presumed to have been going on forever without any reason whatsoever—an infinite chain of Universes with no end and no beginning. One of these, ours, just happens to be one of the significant ones among a literal infinity of boring ones.

A similar scenario to this is the arch-cunning multiple-Universe theory touted by a disturbing number of quantum physicists. They view the Universe dividing whenever a quantum event takes place in which more than one outcome is possible. This happens more than a lot. Thus, the Universe is forever branching into an endless

amount of Universes. Again, we merely happen to be in one of the more interesting ones.

Finally, there is the "birthing Universe" theory, also of appeal to some cosmologists. This imaginatively fertile scenario views black holes giving birth to new Universes with slightly different laws and constants, one of which . . . well, you know the score by now.

Are the above proposals tenable in explaining our very special Universe? On reflection, these "you want it your way, you got it" schemes are a tad ridiculous, for in them there must be, by definition, not only an infinity of Universes but an infinity of ones like our own, differing perhaps only in some minor detail like, say, your surname. In one of this infinity of Universes, or perhaps in 582 of them, each of my readers will be called Mr. or Mrs. Banana. But, since we can never observe or experience these other Universes (apart from in *Star Trek* or *The Twilight Zone*), then what on earth is the point of invoking them? In other words, is it really legitimate to

speak about that which cannot in any way be verified by direct experience? I think not.

The popular principle of Occam's Razor (perhaps we should now call it Occam's Laser) holds that one should always stick to the simplest theory possible whenever one has to choose among competing theories. This tenet has attained a kind of hallowed status within science. If we introduce it here, we see that *there could be no more blatant departure from the use of Occam's Razor than in an inference that a literal infinity of unobservable Universes exist*. And, as Davies has pointed out, even if you do endorse one of the cunning multiple-Universe scenarios, *they all fail to explain why an infinite chain of Universes exists in the first place!* Basically, what all of these imaginative multiple-Universe scenarios reveal is that physicists and cosmologists are in expletively deep water when it comes to accounting for the "why" of our most creative Universe. In other words, it is becoming more and more apparent that Nature is

extremely fine-tuned, yet no one really wants to invoke an intelligence to account for the fine-tuning.

Alternatively, some people just shrug their shoulders at the presence of life and consciousness in the Universe, happy to heed the Beatles and just let it be, let it be. As long as dinner is on the table and there's a good film on TV, who cares why the reality process is so organized, coherent, and conducive to consciousness? And as for agnostics who deny that people can acquire knowledge about the ultimate nature of the Universe, unless they have explored all possible approaches to the mystery, then they are merely being lethargic, happy to shrug and shrug again at unexplainable brute facts. Alas, we have no time for such shruggers here.

I happen to think that it is a bit of an intellectual cop-out to dismiss the fine-tuning of our Universe as being no more than a brute fact to be mindlessly swallowed and forgotten about. It is not just that a Universe with specific laws, dimensions, and free-

flowing energy should exist in the first place (why not dimensionless nothingness—it seems a lot more simple), and it is not just that a Universe should endure for so long. Why should the something that does exist be so creative and reach a state where it can contemplate itself through the mind of *Homo sapiens*? How come we ourselves are so highly attuned to the mystery?

Ultimately, the choice about the significance one attaches to the Universe is a personal one. One can only mull over the facts about reality, the rules of the game as it were, and then interpret them in the light of contemplation. One's unique life experiences will also help shape one's conclusions about the nature of reality. If you tend to notice and be awed by beauty and purpose within Nature wherever you might care to look, you are perhaps more likely to be dissatisfied with brute-factual explanations. What I have tried to highlight is the sheer fantastic nature of reality, for Nature deserves this at the very least. For my part, I side with Davies. There is most

definitely something fishy going on both in and around us. What is more, this fishiness is very subtle and mystifying. And an immense source of wonder.

At the end of *The Mind of God,* Davies sticks his neck out and suggests that one cannot get at the ultimate meaning of reality by logical and rational thought alone. These are brave words coming from a respectable scientist with an award-winning reputation to defend. And Davies knows that an appeal to other forms of thought for ascertaining answers to the "why" of the Universe is controversial, to say the least. He writes:

> Although many metaphysical and theistic theories seem contrived or childish, they are not obviously more absurd than the belief that the universe exists, and exists in the form it does, reasonlessly. It seems at least worth trying to construct a metaphysical theory that reduces some of the arbitrariness of the world. But in the end a rational explanation for the world in the

> sense of a closed and complete system of logical truths is almost certainly impossible. . . . If we wish to progress beyond, we have to embrace a different concept of "understanding" from that of rational explanation. Possibly the mystical path is a way to such an understanding.[6]

There ends Davies' exploration of God's mind. Whatever one concludes about the fine-tuning of the Universe, there will always be some factor involved that cannot be grasped by our normal conception since the factor in question is uncaused. If we side with the clumsy and arguably nutty multiple-Universe scenario, we must admit that the infinite multitude of Universes were not caused by anything, that they just are, were, and always will be. And if, like me, you opt for just this one remarkable Universe, there is still the matter of the initial setup, which also indicates some uncaused factor. In other words, there must always have been a timeless and eternal "something" that existed. A chain of causes and effects

cannot be extended back in time indefinitely because time itself is believed to have had a beginning. Even if we smugly assume that the Universe sprang out of "nothing," *a potential of some kind, quantum or otherwise, must have always existed*. In fact, such a potential must be the richest and most powerful potential imaginable, as it gave rise to everything! Thus, however we look at things, we have no choice but to invoke an eternal something that cannot be explained in terms of something else. One cannot escape this disturbing yet mildly innervating conclusion.

A Return to Entheogenic Wisdom

If we want answers to these most difficult questions, we need to be armed with new forms of consciousness. Our normal frames of thought cannot cope with notions of eternity and the like. And here we must once more face up to the potential power of Nature's entheogenic allies in elucidating the living mystery of existence.

The knowledge attained during the entheogenic experience as well as the revelatory insights gained through superconscious perception of the world arguably represent the most direct path to the kind of metaphysical understanding alluded to by Davies. As far as I am aware, Davies is not clued in to the epistemological virtues of visionary agents, for he explicitly states that he has never had a mystical experience. Open-minded scientists like himself would therefore do well to explore natural entheogens like the psilocybin mushroom, since their numinous effects are in the here and now and not limited to the pages of mystical religious literature.

Psilocybin can potentiate new and enhanced states of consciousness, and it is precisely in such a state that one may glimpse an answer or two to the riddle of reality. Of course, if you are happy with a simple god scenario in which an omnipotent being just sits around studying its creation and maybe dabbling with it now and again, then good for you. However, many of us will want

to pursue the mystery in more depth, hoping to attain some deeper and less supernatural insight into the nature of reality. Without doubt, psilocybin can be utilized in this noble and justified pursuit. Entheogens work, just as mathematics works. And it is precisely because they *do* work and because they *do* allow one to confront big truths that they elicit fear and mistrust in the West. Indeed, as McKenna attested in his book *The Archaic Revival,* much of the New Age movement—ostensibly a movement devoted to forging spiritual awareness—is actually a move away from Nature's psychedelic dimension.

> People love seeking answers. If you were to suggest to people that the time of seeking is over and that the chore is now to *face* the answer, that's more of a challenge! Anyone can sweep up around the ashram for a dozen years while congratulating themselves that they are following Baba into enlightenment. It takes courage to take psychedelics—*real courage*. Your

> stomach clenches, your palms grow damp, because you realize this is real—this is going to work. Not in twelve years, not in twenty years, but in an hour! What I see in the whole spiritual enterprise is a great number of people supporting themselves in one way or another on the basis of their lack of success. Were they ever to succeed, these enterprises would all be put out of business. But no one's in a hurry for that.[7]

A somewhat harsh evaluation, perhaps, but the point is taken. We are so immersed in the hypnotic spell of our material culture that we are unaccustomed to forms of perception and conception in which our normal frames of reference fade into obscurity. In the innervating and inspirational glow of the psilocybin experience, we suddenly find ourselves transported to a spiritually charged realm where metaphysical musing and theological speculation all but dissolve, giving way instead to a direct perception of the Other, an Overmind, or biospherical mind, that somehow holds the keys to the

purpose of life and consciousness.

With the continued emergence of information relating to the psilocybin experience, we now have a raised platform upon which to stand to further our understanding of the nature of reality and consciousness. Just as Newton claimed to have stood on the shoulders of giants to discern more clearly the nature of the Universe, we have reached the point in our culture where we can relaunch the shamanic spirit now vanishing from the rainforests of the Amazon and use it to blaze a trail into the depths of the mystery of our existence. Psychedelic agents, especially the fungal variety indigenous to most regions of the biosphere, can yield knowledge otherwise unobtainable through traditional modes of perception and conception. Herein lies their greatest virtue. Until we make full use of Nature's ambient psychedelic resources, our understanding of reality will remain incomplete.

We have seen how the Universe is a kind of ongoing utterance, or self-writing story, built upon the language-like integration of information; that information is everywhere being organized; and that consciousness is itself a "finer" form of information arising from the web of informing relationships converging in the neuronal architecture of the brain. Thus we are like playing pieces in a universal game of chess, pieces whose function, role, and meaning are determined according to our relationship to all else. And, in our attempt to apprehend this computational game, we have reached the point where we wonder at the ultimate software whose rules govern the field of play.

If, as seems highly probable, the major pattern-inducing properties of the Universe are not accidental, then we might discern some will or intention lying at the very heart of Nature. We might wish to shake hands with Nature and say "nice work" or "good game." I have to employ a modicum of humor here as the situation we are

now in is somewhat bizarre. Because an accelerating flow of self-organizing information appears to be focused upon our planet, it must surely be directed toward some culmination point. What then will be the final output of this particular evolving part of the Universe? What on Earth is the point? Where are we being drawn? What pattern has yet to evolve or be resolved?

A Vision Shared

Before we take a final look at the implications of the psilocybin experience for an understanding of "the meaning of it all," let me summarize the heady ideas outlined in the past few chapters in the form of a vivid visual metaphor. This metaphor embraces everything of significance in the computational/informational paradigm, allowing us to view everything at once, in one great image. So, relax and get your mind's eye ready as I present to you the River of Life thought experiment. (I should point out that I came

up with this metaphor independently of Richard Dawkins, who uses a somewhat similar metaphor in his book *River out of Eden*.)

Picture a big lake of still water. This is an informational void, endowed only with capacity and potential. All the myriad particles of the water can be likened to potential bits of information, though all are in the same uniform state. There is just still water, no forms or patterns whatsoever, nothing of interest, no dialogue-like flow of information or anything. Still, it is an initial state; the lake of formless water exists. You and I creatively imagine it and format it that way.

Now, take a monstrously big stick and begin to stir the lake. The stirring action corresponds to a law, or rule, or intent operating on the state of the lake water. Already, the stirring action begins to create currents, eddies, and vortices of turbulence. As you continue to stir the lake, ever more of these forms and patterns emerge in the water. Notice that the ripples, patterns, and waves that are forming

and that flow across and beneath the surface of the lake are all facets of one whole entity—the entire lake. No one part of the water is isolated; rather, there is just one system of water swirling and slopping about. This is the fluidic, interconnected "informational stuff" of the lake that has been transformed from a featureless state to an informed state through the stirring action. The stirring action represents the rules or laws commanding the behavior of the water. If you cannot picture the water in the lake as an interconnected continuum, then scale the lake down to a bathtub of water. When you slosh the water around in a bath, it is clear that there is just one fluidic entity lapping about; no single region is isolated.

If we continue to stir the lake in a particular way, more and more complex patterns emerge. Let us also allow the water in the lake to gradually flow out and form a river, the leading edge of which contains the most organized patterns so far generated within the water. Swirling vortices are created that persist indefinitely. Now

imagine these forms meeting with one another in the frothy forefront of the rushing river. Somehow they replicate themselves according to the precise manner in which we have done the stirring. So now we have a flowing river containing replicating patterns of information bearing definite language-like relations with one another. When these fluidic patterns meet, a kind of dialogue ensues in which the patterns inform one another, creating yet more diverse patterns.

We can add to the laws inherent in our stirring by incorporating new laws in the form of precisely shaped rocks over which the river flows (akin to constants). These rocks will further determine what kinds of forms arise in the water. As the river progresses over the contrived rocks, perhaps different types of swirls are generated, such that new patterns emerge even more complex than their predecessors. As the number of enduring patterns increase, so too will the amount of relations between them. And yet all forms remain

part of the same integrated fluidic stuff. What one pattern of water does in one part of the river will eventually be felt everywhere else, for there is but one single interconnected substance in which all these events unfold.

Let a long span of time elapse. If we look to the leading edge of the river, we might find that the patterns that have now emerged are truly lifelike. Patterns that bear a specific and enduring role in relation to the rest of the water behave like organisms. It does not matter that these patterns consist only of water; what matters is their robust and self-sustaining structure and their formal relations to the other patterns around them and to the rest of the water.

Now we reach the climax of our metaphor. Picture the river cascading over a rocky cliff face, creating a waterfall. Take a close slow-motion look at the leading splashes, the leading edge of the creative flow of water. Elaborate humanoid life forms have now emerged, representative of the most evolved patterns of flowing

information. Minds might eventually form within these creatures, minds being yet further patterns born out of the informational fluid, albeit of a highly evolved kind dependent on a huge amount of informational convergence. History foams into being across the face of rocks, cities flow in and out of existence, cultures come and go in the complex splashes emanating from the turbulent onrush of water. And at the very edge of the torrential flow we see informational entities like ourselves. And yes, such conscious beings might even come to wonder at the nature of the stuff around them. They might even conclude that it is all but one integrating confluential substance —that of fluidic information in process.

It is important to hold in mind that the eventually conscious property of the fluidic flow of information was determined by the precise way in which we stirred the water and the precise form of the rocks over which the river flowed. It was not accidental; rather, the flow was deliberately organized and configured so as to

eventually produce consciousness, the most evolved kind informational pattern. In this way, the river of information has come to know itself and its origins. The river literally woke up to its true nature. A reflection of some sort arose.

Perhaps, then, the actual river of organic life that has spawned us has already attained its ultimate purpose, for we are the means by which Nature has become self-aware. Does this mean that we should now sit back comfortably because all is complete? Is the goal of Nature self-awareness of the kind we have already attained? Surely not. There must be more to it than that. I would surmise that the "climax" of reality has yet to become manifest, at least in our neck of the woods. After all, complex computer programs often yield a final output, this result depending upon what the user wanted from the program. In our river metaphor, this would mean that there would be a climactic state emerging at the bottom of the waterfall, a kind of final solution verily propelled and coerced into existence.

Because the information-integration processes displayed by our culture in the wake of evolving computer technology and computerized telecommunication systems shows no signs of abating and appears to be speeding up at an unprecedented rate, and because of the type of information accessed during the psilocybin experience, I believe that the destined output of the biosphere is something that human culture will eventually usher in. In other words, the "intent" of Nature is now being conveyed through the evolutionary development of human culture and human consciousness. If so, this implies that conscious human culture with its attendant technology represents the fulfillment of some kind of cosmic imperative. This is the sort of highly speculative idea taken up in the next chapter.

N I N E

The Fantastic Hypothesis

Our aim now is to discover more about the nature and intent of the intelligence that would appear to underlie the reality process. This intelligence, whatever it is exactly, seems to be causally manifest through the specific law, order, and self-organizing properties of Nature. Hence we witness the inevitable progressive emergence of phenomena like stars, molecular compounds, organisms, and even

consciousness. In other words, because the laws of Nature *force* the reality process to give rise to stars, molecular compounds, organisms, and consciousness (the means by which Nature can know itself), then this is strongly suggestive that there is some sort of purposeful intelligence connected with those laws. In any case, the patterns of information forced into existence by Nature appear to behave according to various systems of logic that we can loosely refer to as physics, chemistry, genetics, biology, psychology, and so on.

The forms of logic cited above are language-like, computation-like, and enfolded within one another in a kind of nested hierarchy. The language-like logic of physics acts as a substrate from which the language-like logic of chemistry emerges. In turn, the language-like logic of chemistry gives rise to the language-like logic of molecular biology. And so on. Eventually, highly advanced biologic leads to brains that embody patterns of information we call

minds. Conscious minds are subsequently able to contemplate the intelligence that likely governs this astonishingly creative set of processes. All creativity, all order, and all life must derive from a fundamental creative property of Nature, a property that is best explained by invoking a willful, ubiquitous intelligence, the very same intelligence that entheogens like the psilocybin mushroom can bring into sharp focus.

We can boldly refer to this quixotic reasoning as being but one corollary of the *fantastic hypothesis*. The fantastic hypothesis views reality, or Nature, as a deliberate and intelligently behaving system. According to the fantastic hypothesis, we are woven into a tide of self-organizing information, interconnected throughout, whose spectacular final purpose awaits us. For if the natural tendency of the Universe is to foster the integration and cohesion of more and more information; then, as with gravity in the "physical" realm drawing together atoms and elements, the result of this integrative

tendency in the realm of human consciousness might be to draw some kind of “truthful solution” into being, like an ultimate pattern falling into place.

Such a fantastic hypothesis is waged against the prevailing null hypothesis. The null hypothesis decrees a morose state of affairs in which our Universe is accidental, but one of an infinite number, devoid of reason and purpose, and in which the earthly psilocybin experience is no more than a trap, an aberration distracting us from more pressing concerns.

However, it really does seem evident (sometimes obviously so) that some mysteriously intelligent presence pervades Nature. We have seen that life and consciousness were poised to emerge out of the Universe right from the start, maybe in many locations throughout the cosmos. Now that we are here and now that we have realized the breathtaking situation in which we are so intimately involved, we can rightly demand that the mystery of the Other

reveal itself to us in more detail. The momentum gathered by our inquiries is thus set to lead us into yet more rarefied territory. There is no point in backing down now. If I were to stop before making a last leap into idea-space, I would be no more than a psychedelic *homme fatale,* withdrawing supposition before a climax worthy of our subject matter had been attained.

That we have already posited an intelligent Other made of information that can manifest within an individual psyche through the medium of sacred plants and fungi is perhaps not so controversial at this point. Such an "intelligence of sorts" has been a kind of soft, conceptual pillow upon which to rest our stretched minds once the visionary effects of entheogenic compounds and the implications thereof have been acknowledged. But whereas the religiously minded might well be firmly acquainted with the notion of a creative intelligence at work in the Universe, those of us who eschew traditional religion might be willing to entertain the idea of

some kind of intelligence over and above that of *Homo sapiens* only if the idea can be properly fleshed out. This is especially true if one has not personally experienced the tremendous spiritual power of psilocybin.

Anyone can suggest, or imagine, that some sort of distributed intelligence infuses reality. Many might intuit so. But to develop a coherent conceptual framework with which to understand the inferred intelligence and grasp its agenda is another matter entirely. Indeed, the risk of heresy and banishment from the scientific community can only escalate if one prosecutes such speculation to its furthest limits. However, since I have no scientific tenure to defend, no academic office to be summarily kicked out of, I am at liberty to set forth more radical ideas. These ideas will hopefully bind all that has gone before into an aesthetically pleasing whole, which is, after all, the way reality looks to be—an integrated whole. So, keeping our minds open, let us ponder the idea that Nature is

blessed with a sophisticated intelligence above and beyond that of our species.

Facing the Options

Should We Go Whole Hog, Including the Postage?

If we accept, even just for the duration of this chapter, that consciousness is the preordained output of an immense computational system, then the future surprises in store for us might be great indeed. Since we are presumably the first species of earthly life to be able to fully confront the mystery of being (at least through science and art—although who knows what dolphins think about), then it seems likely that our conscious role within Nature's informational hierarchy must be of functional import. If some of the ideas that I will shortly be introducing have any bearing on this

issue, then our collective future will be awesome, to say the least. If we consider for a moment the dramatic leap in complexity and information integration that separates the primeval emergence of a single-celled bacterium (in itself highly complex) three and a half billion years ago from, say, the emergence of Tokyo, with its inconceivably vast concatenation of informational activity, then what would a comparable leap in evolution produce? If reality is being driven by intelligence, then what surprises still lie in store?

Before we can assess these questions, it makes sense to step back a little and look in more general terms at the idea of a "higher intelligence" (let me add that from here on, when I discuss such an intelligence, I mean it to be synonymous with the Other, or at least that the Other is an expression of it). As far as I can see, if we invoke some kind of higher intelligence in operation within the reality process, then there are three basic options concerning its nature: the intelligence exists outside the dimensions of normal

reality, just as a programmer lies outside a computer system; the intelligence is representative of an extremely advanced form of life existing elsewhere in the Universe; or the Universe is like an organism and the intelligence exists throughout Nature.

Already we appear to have gate-crashed the pulp storylines so beloved by sci-fi writers. In defense of this move, we should bear in mind that, whatever the case, reality is *already like fiction*. Why things should be the way they are in this neck of the cosmos is decidedly strange, with or without psilocybinetic speculation. To suggest that reality is anything but remarkable and mysterious is to be a victim of either tiredness or depression. In fact I am prepared to go so far as to say that there is nothing quite as strange as human history and human consciousness within the ongoing reality process. You don't need crop circles or ghosts or faces on Mars or convoluted notions of semi-reptilian illuminati controlling the world to be stimulated and awestruck. The Universe *as it is,* with

conscious human observers, is more impressive and far more worthy of our awe and attention. Indeed, it is only because we are so used to being self-aware components of Nature that we do not continually marvel at the fact. Upon careful reflection, however, the ability of Nature to evoke the tree of life and nourish its evolution to the point of conscious brains is truly extraordinary and indicative that some sort of cosmic imperative is being fulfilled. Curiously, we seem willing to accept plenty of other far more radical notions about Nature without as much as a murmur of disbelief. Not surprisingly, Terence McKenna repeatedly made the point that a belief in the big bang, in which the entire space-time continuum is considered to have sprung out of a minuscule dimensionless point, requires an inordinate stretching of credulity. Indeed, if you can believe this, then you can surely believe anything.

If you still don't see the strangeness to reality, then locate some pictures of galaxies and supernovas, study them closely, and then

step into a packed train during rush hour. Do you not detect a curious twist to reality here? Is it not a trifle telling that the Universe should have yielded such organismic arrangements of information, that it should have engineered us sentient, bipedal, hominid creatures, who patter busily around the surface of a rock circling a star? Above you lie billions of miles of space and billions of suns. So too below you and all around you. In fact, some estimates suggest that we are surrounded by *125 billion galaxies,* which means there are more stars in the heavens than grains of sand on the Earth. We are literally a suspended anomaly within a twinkling, starry mystery whose solution remains suspended. And yet it apparently all sprang out of nothing and for no good reason!

Given the astonishingly fictional quality of existence, I feel totally justified in outlining the possible nature of an inferred creative intelligence in more detail. In the last analysis, it makes just as much sense to do this than it does to enthuse upon the null

hypothesis, which asserts that all this “astonishingness” is without reason. Indeed, it is arguably nuts to suggest that all and everything exists for no rhyme or reason. One even suspects that this kind of mindless interpretation of life and consciousness stems from an ego-obsessed psyche that is only prepared to describe our own abilities in terms of high intelligence. Hence, the tiresome popular sentiment that we are very smart and purposeful while the rest of Nature is very dumb and pointless.

Back to the chase. The aforementioned three options concerning the nature of a higher intelligence (or Other, as we can also call it) have been explored in one way or another by the well known sci-fi writer Philip K. Dick, who used fiction as an unbounded medium in which to put across some decidedly mystical ideas about what he believed to be the true nature of reality. By looking at some fictional scenarios that he created, we shall be able to more clearly divine the feasibility of at least one of the options open to us.

Do Psychedelic Shamans Dream of VALIS?

For most people, Philip K. Dick (hereafter known as PKD) is best known through films like *Blade Runner*, *Total Recall, Minority Report,* and *A Scanner Darkly,* which were all based on his writings. Classic movies like *The Matrix* and *Vanilla Sky* also owe a great debt to PKD's work. What is not so well known is that PKD was a bit of a latter-day mystic, a man who spent the last decade or so of his life struggling to come to terms with a series of visionary experiences (not related to psychedelics) that befell him in the early 1970s. In these experiences, PKD felt as if some vast cosmic intelligence was communicating with him, as if a deity was slipping him secret information. Such was the impact of these theophanies that he chose to incorporate their thematic content into a number of novels as well as an eight-thousand-page exegesis. To the consternation of his peers, PKD began to be not a little obsessed with ideas of "divine invasion" and the like, his last books testifying

to his escalating interest in theology and theistic philosophy (interestingly, his last novel, *The Transmigration of Timothy Archer,* partly concerns the search for a sacred mushroom).

Since his death it has been speculated that PKD suffered from what is known as temporal lobe epilepsy—a brain disorder that can lead to hallucinatory experiences—and that this explains his mystical encounters. However, leaving aside the contentiousness of this claim, it does not deal with the burning issue of immediate mystical experience. To label an experience in order to explain it away is to avoid the very real nature of the mystical experience, however it should arise. In fact, as Huxley noted in *The Doors of Perception,* we should not be surprised if there is *always* unusual neuronal activity concurrent with a mystical experience, for, as we have seen, modified neuronal firing patterns are related to expanded forms of consciousness. Altered forms of awareness demand altered brain processes, and such a change in brain state can be achieved in

many different ways, whether through psilocybin mushrooms, endogenous DMT, yoga, meditation, fasting, or spontaneous epileptic disturbances. Mystical experience is therefore not to be conveniently disposed of with a diagnostic label.

Even before his visionary experiences, PKD had long fought to discover the true nature of reality. It was his pet fascination. In a talk he delivered in the late 1970s, he admitted that for all the years he had thought about the question "what is reality?" he had gotten no further than concluding that reality was that which remained even if you stopped believing in it. Admittedly a thin definition, it is nonetheless indicative that the true nature of reality is not so easily pinned down.

PKD juggled with countless explanations for his mystical experiences. Some involved a Judeo-Christian God, others involved the Logos outlined in some of the Gnostic gospels (these are the "alternative" gospels dug up at Nag Hammadi, Egypt, in 1945),

while others even opted for an advanced extraterrestrial intelligence. Whatever the case, PKD was certain that he had been "contacted" by some form of advanced transcendental intelligence-cum-Other.

One of his more enduring theories concerned VALIS, which is an acronym for "vast active living intelligence system," a notion that accords well with our intelligent Other. In the semiautobiographical novel of the same name, VALIS is a hidden entity of immense power and sentience that is in the process of infiltrating our reality by establishing communication with certain individuals. These disclosures are experienced as theophany. For our purposes, the key point is that VALIS is essentially outside of our dimension, but able to penetrate our world. The question arises as to the feasibility that a superior intelligence exists in another dimension with the capacity to move across into ours. This is one of our fanciful options concerning the Other.

To more fully understand what PKD was suggesting, consider the

plot of his acclaimed novel *Ubik*. In this story, the main characters are seriously blown up in an explosion at the start of the story and then placed in a kind of collective suspended animation machine that keeps a portion of their brain processes functioning. In this way the characters enjoy what PKD calls a "half-life." What is more, the collective nature of their half-lives ensures that they experience a simulated reality, a reality so real that the half-lifers fail to realize that they are no longer in the real world. In other words, they don't realize that they are actually wired up in the half-life unit of the Beloved Brethren Moratorium. Indeed, they falsely believe that they survived the explosion with just a few scratches (you can now see why *The Matrix* is a decidedly Philipdickish movie).

Our interest grows when we see what happens when someone outside of their simulated reality system attempts to communicate with them (using the standard electrode headphones of course). At one stage in the tale, the protagonist, Joe Chip, who is unaware that

he now exists inside a simulated reality, is contacted by someone from the "outside." This communication is experienced by Chip as an eerie sequence of synchronistic events in his simulated world. For instance, he begins finding significant messages everywhere—scrawled upon washroom mirrors and turning up on matchbook labels and in bits of consumer junk. Personal messages even begin interrupting TV shows (this idea was borrowed to good effect in the Emmy-award winning BBC sci-fi drama series *Life on Mars*). In short, the communicator has invaded Chip's world in such a way that the communication gets distributed across different media, turning up in the most unlikely of places rather than manifesting as a big booming voice coming out of the sky.

I think it is this cunning idea, which PKD used on many fictional occasions, that captures his views on the nature of VALIS. VALIS was an "outside" intelligence able to penetrate our world, revealing itself through mystical experience and through the unlikely

juxtaposition of meaningfully related events. Can we possibly utilize this notion and map it onto our idea of the Other?

If we were to do this, then it would be tantamount to suggesting that the "programmer" of the Universal Computation is able to "jump into" the program, reaching in as it were to influence the state transition of the computation. Or perhaps this transcendental influence can only be felt in the psyche, in which case all theophanies would represent the manifestation of the Other as it penetrates our reality.

But what does it mean to be outside the system, outside the Universal Computation process? Can there really be an outside? It is possible to imagine that in the future we will be able to create a kind of simulated universe or an elaborate virtual-reality world that we can enter for years, if not a lifetime. And yet despite the fact that there will indeed be an outside to a simulated reality, we cannot say with certainty that there is also an outside to our present reality. If

we do entertain the notion of a dimension outside of our world, we run up against the old infinite regress pit of despair, for surely the "outsides" could be continued indefinitely. In other words, if the intelligent Other exists outside our (simulated) reality, then what lies outside the Other's dimension?

It is these dilemmas, which would appear to be insurmountable, that lead me to think that the solution to the Other cannot be found by appealing to a supernatural "outside the system" option. Indeed, we have already seen that the Other appears to represent a creative process conveyed by the mind whereby information organizes itself and takes on lifelike properties. The Other, therefore, is surely more likely to be found firmly entwined within the Universe along with ourselves (even if only as a mysterious potential expressed under certain circumstances). If we once more restrict ourselves to this one Universe, then at least our theoretical model will be somewhat constrained and more amenable to a single holistic explanation. This

does not deny the existence of PKD's VALIS; rather, it locates VALIS within our reality. Somewhere.

Sophisticated ET's

Could the Other somehow be connected to a highly advanced extraterrestrial intelligence? I don't know about you, but I have a strong dislike of talk of precocious ET civilizations. Perhaps this is due in part to the often-ridiculous depictions of aliens in sci-fi movies (the film *Contact,* based on a novel by the late Carl Sagan, is a rare exception). Be that as it may, the notion that highly advanced life forms exist elsewhere in the Universe is far from an unacceptable idea. Indeed, NASA has spent millions of dollars funding SETI, the search for ET intelligence.

This use of the term *intelligence* is interesting. It is not the search for ET life, ET art, or ET real estate, but the search for the communicatory signals of some other intelligence apart from our

own. The assumption is that intelligence is a universal phenomenon, a mental capacity if you like, that will be similar wherever it should arise. Furthermore, such an intelligence is presumed, like ourselves, to have a strong urge to communicate its presence across the vast depths of space in order to search for another intelligence. This is why the SETI program has sent out radio signals bearing mathematical formulas (like chemical formulas and atomic numbers). These signals are assumed to embody the sort of universal significance that an advanced ET intelligence would appreciate. If the Earth were to detect signals from some other star system, it would indicate beings similar to us. Alas, no such signals have been detected thus far.

Our assumptions about ET intelligence determine how we go about trying to establish interstellar communication. We know only of human intelligence and human thinking; it is by no means certain that an alien intelligence would be exactly like our own. If

intelligence is a capacity—moreover a capacity to exhibit purposeful behavior and intentional-ity—then as intelligence evolves, so too might the intent of intelligence evolve. The intelligence of an advanced ET civilization, should one or many exist elsewhere in the Universe, might have evolved way beyond our ken, so much so that we would not recognize its presence should it be upon us already. Alternatively, an ET intelligence might be so far away as to make it a practical impossibility to establish effective communication. Although there are estimated to be untold millions of planets potentially hospitable to life in the Universe, most are millions of light years away. Should intelligent life forms on one of these planets have sent out a radio message, by the time it is received elsewhere the senders might well have become extinct.

If we put aside notions of radio broadcasts, it may still be possible to conceive of other types of communication involving radically different means. Here, I can once more look to McKenna, who

suggested various alien scenarios to account for the psilocybin experience. Before I lay his ET ideas on you, I should stress that McKenna liked to oscillate in his psychedelic speculation. On the one hand, he consistently pushed for an earthbound biospherical explanation for the Other (which I will deal with later), while on the other hand, he invoked the idea of an alien intelligence as lying at the heart of the visionary state. He was led to entertain extreme speculation because of the equally extreme nature of psychedelic phenomenology. This I understand and I completely support his claim that the Other often appears distinctly alien in nature, though I am less enthusiastic about attributing this alien quality of visions to an actual ET presence.

In *True Hallucinations,* McKenna speculates that alien probes might have once visited our planet in the distant past and injected "seeded genes" into the prevailing ecology. These "seeded genes" are the DNA portions of plants that code for tryptamine alkaloids

like psilocybin and DMT. These alien genes are carried along in the terrestrial flow of evolutionary events until they are encountered by a species open to the information that is broadcasted from the probes. The precise communication issuing from the alien probes depends on the intelligence of the particular species that encounters and consumes the “loaded” plants.

The first point to make about this controversial suggestion is that interstellar automated probes with the ability to transmit information is not a new or crass idea. A number of SETI scientists, in thinking about ET communication and the major problem of galactic distance, have concluded that one solution would be to design self-replicating probes that are able to multiply at an exponential rate during their voyages through space. Through such replication over aeons of time, the network of probes would eventually cover entire galaxies. This is an intriguing idea that has its origin in the work of Von Neumann, who, you will recall, proved that it was possible in

principle to design self-replicating machines. If machines like this could be built by an advanced ET intelligence, it would offer a way to eventually make contact with other life forms in distant star systems.

McKenna has taken this idea a step further and argued that once probes of this sort locate a life-bearing planet, they do not send out binary radio broadcasts or "How do you do?" signals, but carry out a much more subtle and long-term form of communication. In McKenna's view, the probes have engineered specific message-conducting genes whose signal becomes active after ingestion of those plants and fungi carrying the alien genes. In his final analysis, McKenna claims that once a species like our own has reached a certain point in its cultural development, then the probes will yield information on how to complete the contact.

Well, these are truly quixotic claims. I also detect the spirit of PKD in them as well, for in the book *VALIS* an ancient ET satellite

(somehow connected with an “outside” intelligence) circles the Earth, selectively firing information into people’s brains. There is nothing intrinsically wrong with alien probe scenarios. On the contrary, they serve to remind us that an advanced alien intelligence might well have radical technologies at its disposal—after all, we grant that they are alien and advanced—and that we should maybe think again about how we go about sending out signals and looking for signals.

The biggest problem I have with such an ET scenario is that it fails to account for the significance of the software-like laws of Nature that, as we now know, are bound with our very existence and all forms of informational patterning. Furthermore, we are left without an explanation for how the alien species itself came to be. It is also not clear why the alien intelligence would want to use seeded genes to conduct communication. Though they are potentially long-lasting, it still remains a rather haphazard and totally unpredictable

method of information transfer, and it runs the very real risk of total failure through plant extinctions. If an ET intelligence were indeed able to build sophisticated probes with which to scour the Universe, then surely when the probes have encountered an intelligence worth contacting they would use some direct and unambiguous method of communication rather than having to construct "tailor-made" genes. And then there is the problem with the age of the probes and the distance of the probe senders. If such an intelligence were a million light years away, is it really feasible that a useful contact could be made? Unless faster-than-light technology has been developed (which immediately introduces paradoxes), then any hope of interstellar communication across really vast distances is all but futile. And if the ETs had telepathy or some kind of advanced capacity like that, then why bother with cumbersome probes in the first place?

On other occasions, McKenna concedes that the alien is merely

the Other in one of its many symbolic guises, and I think that this is more likely to be the case. As I discussed earlier, the alien or the advanced ET is a major symbol peculiar to the modern era. Perhaps this is one of the Other's "favorite" metaphors with which to express its nature. If this is so, we can dispense with all notions of ET civilizations millions of light years away and concentrate upon our final option, namely that the Other is somehow built into reality like ourselves and that its intelligence is not far away but all around us. What follows is a prelude to the final option.

Is the Reality Process Intelligent?

One scientist who believed the Universe to be home to a vast and highly evolved intelligence was the late unconventional British astronomer Sir Fred Hoyle. However, the intelligence conceived by Hoyle and outlined in his little-known book *The Intelligent Universe* does not belong to some ET species existing elsewhere,

nor does it refer to God, for Hoyle was at heart an atheist. Rather, Hoyle believed that a non-omnipotent intelligence preceded us in existence and helped to create life on Earth. Let me explain.

Hoyle suggested that life did not start in the turmoil of the soupy primeval oceans of the Earth as is commonly accepted. Hoyle argued instead that pre-life molecules and simple microorganisms might exist throughout the Universe amid interstellar dust clouds and within the interior of comets and meteors. Comets often contain the same proportion of carbon, hydrogen, oxygen, and nitrogen as the Earth's biosphere and are therefore potentially capable of giving birth to primitive replicating microorganisms. Through their "free lift," such microorganisms could be dispersed onto the planets that lie in the path of their cometary hosts. Because the Earth and indeed any planetary body is continuously bombarded by cosmic bodies, it would only be a matter of time before the microorganisms and molecules surviving their trip found themselves in a sustainable

environment in which to further evolve. Hoyle reckoned this is how life started on Earth—that the Earth has been seeded by simple life forms and organic molecules.

To bolster his theory, Hoyle pointed out that what appear to be fossilized microorganisms have been found inside some of the various meteorite fragments that have been recovered here on Earth. In addition, many microorganisms have evolved such a hard protective layer that they are able to withstand massive doses of radiation (some bacteria have even been found living contentedly within nuclear reactors!). This form of protection is an essential requirement should microorganisms have formed in interstellar space but an inexplicable adaptation according to the conditions here on Earth. It has also been found that microorganisms exist up to forty-five miles above the Earth's surface, which is consistent with the theory that the Earth is being continually bombarded with life-bearing cosmic debris.

Hoyle went further. He claimed that not only did life originate from space, but that the evolutionary process on our planet has since been "directed" through the continuous arrival here of microorganisms. Hoyle suggested that some of these "invading" microorganisms are able to attach their own DNA to the host organisms that they encounter, much as viruses function by incorporating their own DNA into the host's genome. While some of these viruslike interstellar microorganisms might be harmful, some would be sure to confer an advantage should their DNA successfully incorporate itself into the DNA of a compatible host organism. (Think of mitochondria, the energy-producing organelles inside animal cells that have their own DNA and are thought to have once been free-living bacterial organisms that developed a symbiotic relationship with animal cells.) In this way more and more genetic information is integrated from the basically unending source of DNA reaching the Earth from space.

Hoyle did not give up there either. In accounting for the unbelievable series of cosmic coincidences that have facilitated the emergence of organic life, Hoyle speculated that the microorganisms in interstellar clouds also serve to influence the formation of stars and planets (by means of physical processes). In other words, the creative cosmic processes we observe are the result of an active intelligence that is forever striving to survive—with the added difficulty, according to Hoyle, that the physical laws of the Universe are always changing. In *The Intelligent Universe,* he writes:

> The apparent coincidences which allow carbon-based life to exist throughout our galaxy and in other galaxies might well be temporary possibilities in a Universe where the applications of the physical laws are changing all the time. This point of view . . . suggests that in the future the Universe may evolve so that carbon-based life becomes impossible, which in turn suggests

> that throughout the Universe intelligence is struggling to survive against changing physical laws, and that the history of life on Earth has only been a minor skirmish in this contest.[1]

Are we to believe then that the laws of Nature gradually change and that at some distant time in the past a powerful intelligence engineered things so that in the future, carbon-based life would utilize the newly prevailing cosmic conditions? This is indeed what Hoyle asked us to believe. He summed up his thinking in the following singularly profound sentence in which he states this about our species: "We are the intelligence that preceded us in its new material representation—or rather, we are the re-emergence of that intelligence, the latest embodiment of its struggle for survival."[2]

When I first encountered Hoyle's radical panspermia theory (the notion that life is being seeded throughout the cosmos), I was naturally curious. Shortly after this, new scientific evidence coincidentally emerged that seemed to support at least part of his

theory. A news flash in *New Scientist* declared that "molecules of life" had been detected in space. Hawk-eyed American radio astronomers had spied glycine—an amino acid and a potential building block of organic life—in a dense interstellar dust cloud near the center of our galaxy. This kind of finding is totally in line with Hoyle's speculations. Indeed, a few years later, the comet Hale-Bopp was analyzed as it passed near the Earth, and it too was found to contain the molecules of which amino acids are made. Therefore, we cannot rule out all of Hoyle's theory, and we must consider his assertions more closely.

The compelling aspect of Hoyle's proposal is that it is assuredly grand, employing as it does a mix of science and near-mystical speculation. Hoyle attempted to account for the fortuitous nature of the Universe by arguing that the initial widespread presence of microorganisms somehow influences star and planet formation. Everything was engineered by some previous intelligence.

However, we are still left without an explanation as to how this previous intelligence emerged. In fact, Hoyle appealed to the so-called steady state theory of the Universe that he himself helped to develop in the late 1940s as an alternative to the big bang scenario (it was, in fact, Hoyle who originally coined the term *big bang* in order to make light of such an explosion-from-nothingtheory). The steady state theory holds that there was no big bang at all (only "little bangs"), and that the Universe has existed indefinitely. Within this eternal Universe an intelligence has been forever modifying itself in order to survive the subtly changing laws of physics. Hoyle even concluded that the religious impulse of our species arises because we are born with an instinct that leads us to remember our origins, an instinct written into our DNA by the intelligence that preceded us.

It all seems very neat and tidy, and I am sure that there is some grain of truth in Hoyle's "eternal intelligence" theory. However, the

element that is lacking is the role and effect of entheogenic agents, unless of course they were also engineered by the intelligence that preceded us. If they were, then Hoyle's theory might well offer us the ultimate truth about reality. Then again, we must accept that the Universe has been in existence forever with the caveat that the laws of physics continually change and force the intelligence to re-create itself. To my mind, this is not an aesthetically "clean" solution. As I said, how did the intelligence develop such sophistication and creative power in the first place? Moreover, how come the Universe has bits and parts conducive to creative manipulation? And how and why should the laws of Nature change? If the laws were to continually change, the Universe might surely run the risk of losing its existence completely at some stage due to destructive physical laws. And Hoyle did not convincingly show how microorganisms are able to mastermind the formation of stars and planets, nor was he able to deal a deathly blow to the big bang scenario currently accepted by most cosmologists.

As we have seen, it seems much more likely that all of the cosmic coincidences necessary for life and consciousness to arise are connected with the way the Universe was originally configured at the time of the big bang. If this is the case, we are again left with this one significant Universe fine-tuned from the start. Or, to put it another way, we are left with Nature, a system in which the capacity for ever-more-exquisite forms of self-organization reflects some kind of intelligence and intention.

Still, Hoyle's intelligent Universe is certainly one of the most cogent scenarios I have yet come across that attempts to explain the mystery of reality in essentially scientific terms, even despite its failure to specifically address altered states of consciousness. I think it is possible to utilize some of Hoyle's ideas and rework them. The prelude to the final option is over. Armed with the fantastic hypothesis outlined at the start of this chapter, we are now ready to focus on what I consider its most likely and most brilliant

implications.

Recalling the Biospherical Mind

On a previous occasion I referred to the Other as a biospherical mind, a term that, although doubtless too far-fetched for some, nonetheless captures the planetary character of entheogenic flora and the rather spectacular organic visions they often induce. Sacred plants and fungi appear like carefully distributed "access codes" that create a different set of informational relations to converge within the brain/mind system, allowing one's meaning in the context of the rest of Nature to shift up a notch. In this way, as if tuning in to the otherwise occluded "higher frequencies" of Nature, one can come to behold the numinous and intentional presence of the Other. Can we therefore locate the Other here upon the Earth, somehow woven into the evolving fabric of the biosphere?

Contemplating Evolution

The fine-tuning of the Universe really comes into effect through the evolutionary process that has dominated the Earth's surface regardless of whether this process originally began on Earth or in space (we can concede that Hoyle may have been correct with his panspermia theory). Either way, organic evolution can be looked on as an *information-gaining process,* for life has gone from simplicity to astounding complexity, from relatively simple arrangements of organic information to highly organized arrangements, from simple proto-genes to hugely elaborate genomes, from primitive sensing to five fully fledged senses, and all because the fabric of the Universe encourages the evolution of carbon-based life. That evolution is essentially an information-gaining process is an important concept to bear in mind for what follows, for information-gaining is strongly associated with intelligently behaving systems, and I am from here on arguing that the biosphere is just such an intelligent system.

Once again, information is a key factor in the ideas under discussion.

In its broadest sense, the evolutionary process is currently being channeled through human culture. The knowledge acquired by our predecessors can be stored in computer networks like the Internet, books, folklore, music, dance, spoken language, and so on, and this information accumulation—the growth in advantageous wisdom if you like—can be passed on directly to successive generations. In this way, accurate information about the world grows as uncertainty decreases, and this process of information accretion allows our species to dominate and understand the planet in next to no time compared with the otherwise slow rates of (biological) evolutionary development that preceded our species.

With computerized telecommunication swiftly evolving and connecting the Earth's store of information, the biosphere looks to be wiring itself up into a bioelectronic superorganism. Our physical

bodies may no longer be evolving, but our culture and our technology are, especially our digital-communications technology. Just as the neurons in our brains are able to transmit information to one another at astounding speed, so too are we now able to electronically synapse with one other across the globe.

This leads me to think that the assertion that the human brain is the most complex "device" we know of is in fact a fallacy and that the biospherical system in its interconnected totality is far and away more complex than a single human brain. It must be. A brain cannot be understood properly unless the context in which it exists is taken into account. This context is the environment, with its vast network of language-like relations. Nothing remains isolated within the environment. All organisms derive their meaning and their function according to the role they play and the relations they have within the entire biospherical system. The biosphere is thus unimaginably more complex than the parts of which it is composed.

Since the human brain is complex enough to embody intentional intelligence and since much of its firing activity can only be understood in the light of its intentional intelligence, I believe it tenable that, in an analogous way, evolution itself represents the ongoing intent of an intelligence somehow distributed throughout Nature, and brought into focus through the biosphere (or any biosphere for that matter). In other words, somewhat like Hoyle suggested, the evolutionary process that has dominated the surface of the Earth is the articulation of an intelligence of some kind.

Returning to purely biological evolution, the idea that this process represents an intelligence in action is not to deny the reality of natural selection. Far from it. After all, to argue against natural selection (the process whereby certain genetic variations and mutations are favored due to their ability to better replicate themselves) is to commit perhaps the cardinal sin against the life sciences. I would not dare embarrass myself like that. No, I am

simply suggesting that evolution through lengthy sequential instances of natural selection represents a natural intelligence in action as opposed to, say, human intelligence in action.

If we selectively breed dogs or cats, then we are carrying out a process of artificial selection whereby we select those animal features that we would like to see strengthened. In the case of selective breeding, therefore, human intelligence governs the process. In the biosphere at large, natural selection governs the process of evolution over longer stretches of time than artificial selection. Biological evolution is slow—exceedingly slow. So slow in fact that we can't really see evolution happening. Whereas this is taken to mean that Nature is essentially dumb and mindless, I believe that we can view Nature in its entirety as a form of active intelligence, though of an order of magnitude well above that displayed by our species. And by "Nature in its entirety," I mean that we can view the biosphere as a continuum within which

individual organisms are in fluidic connection with each other and their surroundings. Influences pass in all directions. There is but one interconnected system in which evolution occurs. Remember our River of Life metaphor, in which all forms of the water were part of a coherent, interconnected whole? This is how we can think of the biosphere, as representing a single sensible system in which information is continuously being churned and integrated into greater and greater patterns of coherence and complexity. Moreover, natural selection can be interpreted as natural intelligence at work, quite literally a response of Nature to its own significant contextual configuration. In other words, the environment, as a context, always serves to highlight the sensibleness of certain genetic variations and thence sustain them—rather like the way our minds will spot and highlight a word amongst a scattering of random letters. This being so, genetic changes that lead to some kind of sensible life-enhancing behavior will tend to persist and have the opportunity to further evolve within any gene pool. Because Nature represents a

meaningful and ordered contextual system (in other words, it is intelligently configured), evolutionary events can unfold in *response* to that meaningful context. Indeed, the very tree of life germinated in accordance with this significantly configured context.

The Importance of Context

To get a firm handle on this highly salient notion concerning intelligent contexts, consider that well-worn story of the monkey at the typewriter. We are asked to imagine this monkey typing feverishly away at random for ages and ages, most of the time producing gibberish. Eventually we can see how, by pure chance, the monkey manages to type some words or even a short meaningful sentence (in which case any grinning on the monkey's part becomes suddenly apt). Now, although this story is meant to show how meaning can be generated from a nonmeaningful system by pure chance (meaning coming out of nothing and for free), this is

patently not true. Indeed, if one can grasp why such reasoning is false, one will simultaneously grasp the point I have been driving at —namely that Nature is an intelligently configured contextual system *guaranteed* to grow the tree of life by highlighting its sensibleness.

In the monkey yarn, we do not get meaning out of nonmeaning. Far from it. First, we have two meaningful systems from the outset: the monkey and the typewriter. Second, and more important, it is the *context of the human psyche that gives meaning to the typed responses of the monkey*. This means that one is not getting meaning out of thin air, but that there was a priori meaning present in the system of monkey, typewriter, and us-as-observer. It is precisely this a priori meaning—in the form of an intelligent and patient observer—that serves to highlight that tiny fraction of the monkey's typed responses that make sense. If there is no meaningful context surrounding the monkey and its typed output (that is, no intelligent

observer is present), then no meaning can be highlighted and thus nothing that the monkey types will ever make any sense.

The same holds true for evolution. *If Nature were not already a sensibly configured system, if Nature were not highly organized in terms of its laws and its lawful logical relations, then organisms and DNA-writ structures would not make any sense. That they do make such good sense and that more and more sense can be made through organic evolution reveals the* a priori *intelligently configured context provided by Nature*. As an all-surrounding context, Nature notices and minds, as it were, what happens within it, in the same way we would notice if a monkey typed something sensible. In this way, Nature selects sensible changes to genomes, those variations and modifications of DNA that yield life-affirming behavior. If the reader can grasp this, the notion of natural intelligence—the ultra-smart quality of Nature—becomes self-evident, and everything that we take for granted changes.

Environmental Awareness

It is apparent that Nature has an unfailing contextual capacity to continually select smarter and smarter biological forms. Look at the evolution of the hominid brain, for instance. The remarkable evolution from cortex version 1.0 to, say, cortex version 7.0 happened only because the environment continually and invariably selects genetic changes that enhance a brain's ability to make sense of the intelligible information that the environment provides. Thus, environment and evolving organ (or evolving organism) are part of one interconnected fluidic system. This role of environmental context in cultivating the evolution of complex living things is unfortunately taken for granted by most evolutionary thinkers. In other words, it is not usually remarked upon just how much a role Nature, as an environment, plays in the evolutionary process. It surely did not have to be that way, for we can imagine a state of affairs in which Nature would not continually foster the evolution of

complexity—in the same way that we can imagine a monkey typing away at a typewriter for eternity and never ever making written sense because there is no context available with which to highlight any sense.

It seems though that Nature is arranged in a way that literally demands that a real kind of self-stimulation occurs in which information—in the form of genotypes in this instance—continues to organize itself due to continual contextual feedback from the environment, that is, the combined system of organisms and the environment feeds back upon itself and provokes ever-more evolutionary progress. In this way organisms can continually evolve and become smarter, because the environment surrounding them acts as the context that highlights and sustains newly sensible structures and newly sensible behaviors. By making biological and behavioral sense within the larger context in which they are embedded, organisms can be selectively evolved. The point to bear

in mind is that sense and meaning of one kind are clearly required in order to elicit further forms of sense and meaning. Only meaning can beget meaning; only intelligence can beget intelligence; only something smart can construct something else that is smart. The fabric of Nature is therefore smart throughout (some of these smart qualities were discussed in previous chapters and were referred to as the Universal Computation).

As a good example that demonstrates the role of the environment in eliciting sensible and ingenious biological structures, think of the shape of dolphins and sharks. Each species has evolved a similarly sleek body shape along with musculature that affords swift movement underwater. Such creatures can move extremely efficiently in water. What their bodies, musculature, and behavioral patterns have done (through evolution) is to home in on, or gravitate toward, the lawful and sensible properties of water, these lawful and sensible properties acting as a sensible context. Because water is

replete with various sensible properties, these can be made sense of, or be reflected. The sleek body shape of dolphins and sharks and their precise techniques of swimming therefore reflect the presence of a sensibly ordered environment. If we concede that dolphins and sharks embody impressive natural design, this is only because Nature itself, serving as a context that invokes the design, also embodies impressive natural design. Order and intelligence are everywhere, inherent in both the lawful behavior of the environment and in the organisms and biological behaviors that evolve therein.

Let's return to the rapid evolution of the hominid brain from version 1.0 to version 7.0. Each incremental increase in size and capacity (presumably derived through mutation and variation) must have met with specific environmental circumstances with which to immediately highlight those improvements such that a reproductive advantage was achieved. Each mutation in hominid brain size was therefore *nourished* by a contextual set of environmental conditions

to ensure that its new capacity had an edge over nonmutated hominid brains. In other words, Nature was able to make sense, or highlight the sensibility, of these mutational, variational changes in the hominid brain. If this were not so then it is difficult to imagine why so many small changes in brain size were so rapidly selected for by the environment.

One assumes that the cerebral capacity we humans have is a highly neat adaptation to living in the world. Indeed, if more and more refined methods of sense-making are the stock and trade of natural selection, consciousness and language are capacities that almost certainly had to evolve somewhere and somewhen, as they are capacities that enable good sense to be made of the environment on a moment-by-moment basis (consciousness and language allow us to "swim" well through the world just as a fusiform shape allows dolphins to swim well through water). And the only reason consciousness and language were able to evolve, the only way they

manage to make sense of the world, is because Nature is already sensible and can be made sense of. This is most apparent when thinking of language. Nouns, adjectives, and verbs exist in Nature—old leaves fall gracefully to the ground, for example. Even before we had language to speak about old leaves falling to the ground, they still did. The language we possess merely reflects the language-like property of Nature itself. This means, in effect, that Nature is, and always has been, eminently sensible, and this is reflected within organisms through the "mirror" of bio-logic.

What I am really driving at is that Nature can be viewed as a *single system of self-organizing intelligence*. That's the gist of it. Through the evolution of life, Nature feeds back on itself and generates an ever-more refined reflection of its inherent intelligence. In particular, this intelligence is reflected through the language of DNA, which Nature edits so as to express precisely those structures, organs, and behaviors that make good sense in the larger context in

which they are embedded (think of eyes, ears, lungs, livers, fur, seasonal migration, bone structure, wing structure, light sensitivity, semipermeable membranes, metabolic pathways, hibernation, and so forth). Not only are genome variations and genetic mutations crucial for evolution, but the intelligent configuration of Nature must also play a key role—if not the main role—in highlighting and nourishing the advantageous potential of a tiny fraction of the mutants and variants whose altered genes are not deleterious. Eventually, nervous systems and brains endowed with consciousness were destined to emerge somewhere along the evolutionary line. This line happens to be the primate line and our species, *Homo sapiens*. Although this creative capacity of Nature is commonly considered to be a simple brute fact and not worth a second thought, it can also be interpreted as evidence for the presence of natural intelligence throughout the contextual fabric of the Universe.

An Exquisite Unfolding Potential

That some form of highly organized carbon-based life was always poised to emerge out of the Universe is a remarkable fact that seems to be peculiarly downplayed by mainstream science. I once remarked on this immanent aspect of life to a university philosopher. “Look,” I said eagerly. “Here’s this nucleic acid stuff, which, when put together in precise digital strings, codes for precise strings of amino acids. And these cause precise proteins to form. And the proteins integrate to form fully functional organs more complex than computers. Why is that? From whence cometh this astonishingly inventive capacity of Nature, this remarkable computational precision? Why should Nature be endowed with such an inordinate amount of latent creative power?”

Well, this academic chap thought little of it, declaring that the things humans invent are just as much latent within “matter” as is life and that we do not marvel at that. At the time I was unable to

come up with a rejoinder to his careless dismissal. Now, however, it seems clear that his university salary was undeserved in that moment, for most of our inventions are based on principles already expressed by natural intelligence. Airplanes were preceded by natural bird and insect flight. Our electrical telecommunication systems were preceded by the natural electrochemical communication occurring in nervous systems. Our solar energy technology was preceded by natural photosynthesis. Our sonar technology was preceded by natural echolocation in bats. Our nanotechnology mimics the nanotechnology first invented billions of years ago when life began. Our prototypical nuclear-fusion generators were preceded by natural stars. Our information-processing computers were preceded by natural information-processing systems of which the Universe is made. The list goes on. In fact, had Nature not provided us with the above examples, we might never have been prompted to develop our own technological equivalents (surely no one would ever have conceived of flying

were it not for the tangible presence of birds or winged insects). Not only has natural intelligence in one form or another taught us all we know, but the evolutionary process is itself a manifestation of this intelligence at work. What we are witness to here on Earth is the unfolding genius of Nature. The evolution of life is no less than a wondrous promise woven into Nature and, over time, coordinated and delivered by Nature.

Are We Smarter Than Nature?

Despite the above reasoning, the notion that Nature represents a self-organizing intelligence working over immense time scales is an idea that, I am sure, many of us will probably find hard to swallow (unless swallowed with a dose of psilocybin mushrooms!). And yet to assert that evolution is not an intelligent process is to rate the process that allowed this assertion to arise to be less smart than we are. In other words, over the course of three and a half billion years

the evolutionary process has managed to forge conscious human intelligence (the capacity of the human cortex) that is then able, if it so chooses, to deny that the evolutionary process is itself intelligent. Think about it. Can a nonintelligent process really yield profound intelligence? Can we expect a computer simulation of evolution to produce a smart virtual organism without first ensuring that the computer software is itself smartly designed? Or could one of Conway's Life games have yielded a virtual computer able to exhibit artificial intelligence without having first been set up in an extremely intelligent way? Can we really explain all and everything without recourse to invoking intelligently configured contexts?

Clearly, the average neo-Darwinist alleges that the evolutionary process is not intelligent. Yet life is undeniably more complex, organized, integrated, and smart than we can possibly grasp. Indeed, science, especially biological and genetic science, is still coming to grips with the elaborate complexity of living systems. It seems that

the more closely science examines life, the more ingenious life turns out to be, as if there is little that evolution cannot achieve. Evolution through natural selection undoubtedly happens, yet how we *interpret* the meaning of *natural* is not necessarily a foregone conclusion. To suggest that natural selection represents a manifestation of natural intelligence is merely a new way of evaluating the reality of evolution in the light of contextual considerations. No new supernatural mechanism is being invoked—rather we are reinterpreting and reappraising the facts at hand.

Have We Stolen Nature's Glory?

Scientific discoveries, whether in biology, chemistry, neuropsychology, or physics, invariably point to the ingenuity of Nature. Every university science department in the world owes its existence to the smartness of Nature—a smartness that science merely reflects. Almost every scientific researcher, almost every

doctoral student is sailing on a sea of sensible knowledge provided by Nature. Whether a geneticist marveling over replicating mile-long, compact strands of DNA, a botanist spellbound by bee-mimicking orchids, or an entomologist fascinated by fungus-cultivating ant colonies—all are caught up in the engineering finesse wrought by Nature over billions of years.

Similarly, almost every science book available owes its existence to Nature's intelligent manipulations. Science is therefore to be understood as *an attempt to mirror or reflect the intelligence of Nature in a worded form*. And yet whatever facet of Nature we care to investigate, whether this be the intricate structure of a single cell, the elaborate grip of the Venus flytrap, or the delicate balancing mechanism of the inner ear, science is always committed to accounting for such phenomena as being no more than the end products of a natural but purposeless process, a process that *just happens* to be extremely constructive and that *just happens* to arise

because the contextual laws of Nature *just happen* to allow interesting evolutionary events to unfold at some time and in some place. Things just tend to happen that way. And a lucky thing it is, too, for if Nature did not possess intelligible and sensible contextual qualities, then the scientists would be out of work and out of life.

However, it does not matter what science comes across in its pursuits, for no matter how smart some animal, plant, or biological process is, it can always be reduced to a "mere" aspect of natural selection, where *natural* means only "the way things tend to happen." If we were to discover, say, some new plant that yielded a massive fruit out of which popped an organic flying machine complete with a steering wheel and a comfy seat, then two things would probably happen. First, scientists would immediately account for the machine in terms of "mere" natural selection by inferring that the fruit was a potentially advantageous adaptation. Second, the machines would be seized upon by people and exploited to the hilt

without a second thought as to the nature of the process that led to them. In no time at all, both scientists and the lay community would be completely used to this useful new production of Nature. It would have become yet another “mere” incident of the natural world.

The imagined state of affairs above parodies the often-blithe attitude of the science community toward the nifty creative processes exhibited by Nature. All organisms, no matter how intricate, no matter how refined and sophisticated, no matter how well adapted, are “merely” the products of a blind process that just happens to produce smart and enduring structures over vast spans of time. Brains certainly convey intelligently driven processes, but not so Nature, we are told. Yet natural selection is itself a process, and since it is the most stunning and successful information-gaining process we know of, then it can justifiably be deemed an intelligent process.

Perhaps Nature should be awarded Nobel Prizes and not the scientists who discover Nature's smart mechanisms and pathways. If a scientist begins a learned discussion about the double-helix structure of DNA and the genetic code, we might well be taken aback by his or her grasp of the subject matter. We would say that someone who understands the complexities of DNA is very intelligent and deserving perhaps of prestige, respect, and admiration. Yet he or she is in actuality merely reflecting the creative ingenuity of Nature. Thus, it is the discoveries of science that should be described with a liberal sprinkling of the popular adjective *mere* and not the actual processes that science documents. Nature is ultrasmart, and it is we who "merely" reflect that fact.

Similarly, terribly thick textbooks detail the physical and mathematical processes underlying cosmological phenomena like star formation and supernovae. Again, the neat equations and so on that govern precisely these phenomena are in a real sense written by

Nature. Consider also the text in a leather-bound book about the highly organized microstructure of paper and leather—the integrated and mathematically precise atomic configurations of carbon and other organic elements of which leather and paper consist. You would certainly require a fair degree of intelligence to really understand such a book. But surely *the book itself* (the actual paper and leather) is more representative of intelligently constructed units of information than the text it carries? Science serves only to reflect the intelligent structures already "out there" in reality.

The living proof of natural intelligence is everywhere around us and inside us. Our bodies are spun from it. The text found in a biology book detailing the fantastic inner wisdom of, say, the immune system, is merely a reflection in the formal system of words of the formal system that we call biology. Both are intelligible, and a hallmark of intelligent systems is precisely their intelligibility. This means that biological systems and their

evolution can be regarded as a manifestation of natural intelligence. Thus, NASA's hubristic SETI program in which communicatory cries are broadcast out into space reveals a distinct failure to look closer to home, for it is Nature in its totality that is the highly advanced intelligence we are so keenly interested in locating.

Ah, but Can Nature Pass an IQ Test?

If we find it difficult to accept that Nature is intelligent, then perhaps this represents a too-limited view of what constitutes intelligence. Or maybe we confuse intelligence with consciousness. In any case, don't be fooled into thinking that intelligence is something to be measured solely by IQ tests. These are mere inventions of the psychologist, designed to tap specific aspects of intelligence. In its strictest sense, *intelligence* means "the ability to learn and to understand." This definition implies the capacity to increase information such that sense is made and uncertainty is

reduced. If you use intelligence, you can work things out, make sense of things, and thereby increase your internal state of knowledge. Intelligent processes foster the integration of more information. In my book *Darwin's Unfinished Business,* I discuss this at length.

> The absorption of information, the storing of information, and the ability to learn from that information are, I contend, the principal ingredients of intelligence. Indeed, they are precisely the sort of thing that we do so well and that the robots of AI engineers attempt to do. Our senses continually take in information about the environment, our brains store this information, and then we use the information to learn more and more about the environment. These are all processes, not static things. Bearing this in mind, it should be apparent that the end result of these three processes working in combination is intelligence. Intelligence is all these processes combined into

> one, the term *intelligence* being a convenient way of explaining their combined action. So intelligence is definitely not a thing like a table is a thing. Nor is it merely an attribute. It's more of a process, moreover a process concerned with information and the constructive manipulation of information. The science of AI is all about substantiating this process in robotic form, or "in silico," as some AI scientists call it.[3]

Evolution is precisely an information-gaining process and can be considered a form of natural learning. As information is built up within the biosphere and its gene pools, uncertainty is reduced, the result being specific organisms with specific behaviors and specific relations to the environment. The natural intelligence that is life has learned to express itself through the language of DNA, has learned to utilize the sun's energy through photosynthesis, has learned to fly through wings, has learned to breathe, sleep, dream, think, communicate, reproduce, recycle, and so on. The evolution of the

tree of life therefore represents a natural learning process that is inscribed in DNA and that emerges in response to an environmental context that serves to elicit the learning.

Natural Intelligence Is Everywhere

Although natural intelligence becomes apparent everywhere we care to look in the natural world, the modern version of *Homo sapiens* seems to miss it. If, say, we were to venture into a desert and stumble across some strange, whirring, solar-powered machine that transforms sand into circuit boards so that it can replicate itself, repair itself, and even reproduce, then we would certainly take notice and infer that the machine embodies some measure of artificial intelligence. Yet if we later stumble across a hardy cactus quietly converting sunlight into usable energy and constructing reproductive organs that cunningly lure insects into transferring its pollen, then we immediately infer it to be “merely” the result of

natural selection and not of intelligence. No doubt we would pass over the cactus and return to the ostensibly more interesting manufactured machine. To date, most scientists stubbornly refuse to equate the process of evolution with intelligent information processing, despite the fact that the most complex things we know of are living organisms.

Recall Mr. von Neumann. He was considered a highly intelligent man because, among other things, he showed that in principle, self-replicating machines could be built. *Von Neumann was himself a replicating machine,* albeit of the organic kind. Why should he be considered intelligent while the process that generated him is not? Given the fact that, like us, von Neumann was built of a hundred trillion cells tightly woven into a triumph of organic engineering, the case for natural intelligence becomes even more conspicuous. Nothing von Neumann did came anywhere near matching the genius of evolution itself. Only the human ego can deny this. And

yet the human ego is itself dependent in some way on the human cortex for its existence. And we already know how brilliantly Nature has designed the cortex.

Let us also consider photosynthesis a tad more closely, embodied as it is in the green film covering the Earth. Without this downplayed biomolecular wizardry (which has yet to be technologically mirrored in a globally viable cost-effective way) there would be little life at all, for almost all life is based on this ultrasmart process. Because photons (of which light consists) behave sensibly and have sensible energetic properties, biological photosynthesis can evolve in response to this (just as dolphin biology and shark biology have evolved in response to the sensible properties of water). Yet it is easy to play the imagination game and hypothesize a reality in which organic chemicals could not in any way form themselves into neat, energy-utilizing organisms. For life to flourish it had to reside as an immanent potential within organic

chemistry, and the context of the Universe at large had to be conducive to eliciting such a potential right down to the formation of suns that eventually go supernova. In short, I would argue that it is valid for us to wonder why reality is so amenable to the process of biological evolution, just as it is valid to ask why the Universe is intelligible.

Traditional Darwinism cannot adequately answer these questions. It can only shrug and state with nonchalance that Nature just happens to be that way, that Nature has been, well, lucky—lucky in the sense that it eventually brought forth conscious brains able to grasp the processes that led to conscious brains. However, if we conceive of evolution as the ongoing expression of a natural intelligence, we can connect it to those other fortunate aspects of the reality process that have allowed interesting things to happen in the Universe. Eventually we can discern that Nature is, at heart, a creatively intelligent system. Don’t forget, I am not implying some

new phenomenon here or introducing something supernatural; rather, I am suggesting that overall, in its entirety, Nature is a smart system and that biological evolution is a direct consequence of this. Such a view, such a new angle through which to conceive reality, is not merely a case of words, but an attempt to redefine our place within Nature and to reappraise the significance and meaning of our conscious existence.

Unnatural Bias

I think there are three principal reasons why evolution is not generally viewed as an intelligent process. First, intelligence often has connotations of consciousness, and many of us would doubtless find it hard to attribute consciousness to Nature (at least akin to the kind of consciousness we have). Second, evolution happens over lengthy time spans, as opposed to the relatively short time spans over which human intelligence operates. Third, we are a terribly

proud and arrogant species that likes to imagine that we ourselves are the smartest thing on two legs. Intelligence belongs primarily to us and not to the more abstract systems of which we are a part (I presume that this outlook is connected to the human ego, as alluded to earlier).

However, intelligence, when understood as a process, does not necessarily entail consciousness (intelligence can also be *unconscious*), nor does it have to be limited in its method or time span, nor should it necessarily be confined to brains alone. If intelligence is tied up with information-gaining processes and learning, then clearly evolution is natural intelligence at work. Life on Earth, in all its manifold organismic glory, has ably learned how to live, cope, and behave sensibly—that is, life has mastered the subtle art of sustainability. The only real difference between this kind of natural acumen and human acumen is in magnitude and success.

Reductive science does not recognize natural intelligence because reductive science looks to isolated entities and attempts to seek explanations for their existence on lower levels. To glimpse natural intelligence is to view the larger system of which the components are a part. This larger system is, ultimately, the entire Universe, a specifically configured backdrop that provides the essential conditions necessary to promote the digital computational procedure that is evolution. These essential conditions are things like the sensible flow of energy throughout the Universe; the convenient formation and enduring presence of suns; the facilitated formation of DNA, with its conveniently plastic and linguistic nature; the continual presence of factors that conveniently induce DNA to vary and mutate; and, most important of all perhaps, the instructive nature of the environment that ensures DNA can be expressed in ever-more sophisticated ways. If we contemplate in large-scale holistic terms, then natural intelligence emerges. Darwin's groundbreaking legacy therefore resides in his discovery of the

methodology of natural intelligence.

Superfluous Icing on the Darwinian Cake?

Some might object here and claim that to infer that evolution represents an intelligent process is to introduce superfluous and scurrilous gossip-making baggage into what is already a sufficient theory. In other words, why infer natural intelligence when it is not absolutely necessary to use such terminology for our understanding of the mechanisms by which evolution proceeds? Well, this might be true, yet to refuse to elaborate on evolutionary theory is to impose limitations on our understanding, especially if we desire a holistic and metaphysically satisfying view of Nature. Perhaps this is why there have been so many attempts to do away with Darwin's theory, not because it is wrong but because there is some conceptual element missing, an element that can more properly capture and appreciate the amazing power of evolution.

As far as I can see, if we don't infer that Nature is smart, we can't explain why exactly Nature should allow, and indeed encourage, biological evolution. Why, for instance, should the emergence of self-replicating, self-repairing DNA be an inevitable consequence of the laws of Nature? Why does DNA have language-like properties that can be expressed through proteins? Why are millions of proteins able to effortlessly fold into exquisite organismic patterns? Why, through genetic variation, is life continually able to forge solutions to various problems? How come there is a biological way forward most of the time? Why are DNA and genes so plastic and flexible? Why, indeed, is Nature made of such elegantly versatile, Lego-like components? And why should something as amazing as consciousness eventually be facilitated by life? The questions go on. The fortuitously creative brute facts mount up. The smart self-organizational properties of Nature abound. Something important is clearly happening everywhere.

The Ultrasmart Complexity of Organisms

Allow me to reiterate a previous reiteration: your own self-repairing body, your visual system processing these words, your autonomic breathing system and autonomic digestive system—all are far more smart than any manufactured computer or fabricated device currently in existence (especially when one considers how the body's various functions are integrated into a coherent and enduring unity). Perhaps you are familiar with some latest piece of computer software, some brand-new nifty program embodied in computer code. You will certainly concede that this code is smart. Yet reflect on the huge store of digital DNA coding etched into almost every one of your many trillions of body cells and you will realize that human-derived programs pale in the face of those written by Nature. This becomes more apparent if we bear in mind that the DNA is essentially the same in all our cells, whether liver cells, lung cells, skin cells, or brain cells. Yet somehow that self-same information

can be expressed in many different ways. The final orchestrated result—a living organism—is so wonderfully complex as to defy a complete understanding.

Somewhat paradoxically, I would suggest that it is precisely because Nature is so very, very smart that we do not acknowledge it. Biological processes, in the main, are so perfected in their natural execution that we fail to comprehend just how much complexity is involved (recall my detailed discussion of neuronal events, for instance). It is only when biology goes wrong that we suddenly become aware of just how ingenious it usually is in its operation. And yet, more often than not, we do not awake in the morning with a broken eye, a crashed memory module, a faulty connection in our ear, or an intermittent lung. Unlike our machines, our nervous systems do not tend to blow a fuse or suffer incongruous shutdowns. Thus, for the most part we may take life for granted and fail to grasp the very real miracle of our conscious organic existence. Similarly,

if computers were so perfectly designed that people were able to utilize them for a thousand years without one single breakdown, we would soon lose sight of just how smartly they were designed. We would become completely accustomed to computers and take them for granted without a thought as to their intelligently designed infrastructure. However, should malfunctions begin to occur, we would suddenly wake up to their underlying contrived functionality.

Returning to human biological processes, they are generally so impeccable that they take care of themselves, which is to say that Nature is a pretty smooth operator. For most of us, we grow from babies to adults faultlessly, yet the myriad steps in this morphological feat are absurdly sophisticated. Think of a couple of identical twins and the amount of steps involved in turning them from microscopic single-celled entities into macroscopic trillion-celled entities. Yet after all that incomprehensibly complicated development, they both look exactly the same!

Such fine biological precision is a creative manifestation of what I am calling natural intelligence—a naturally smart process that has yielded as part of its output we beings endowed with consciousness, a process moreover that has been operating over an immense stretch of time. Yet just because the information-gaining evolutionary process that led to you and I took billions of years does not mean that it is nonintelligent, as we have been led to believe. To surmise that high intelligence exists only in our species is to be blind to both the natural intelligence that facilitated evolution and the natural intelligence embodied in all biological systems.

We have arrived back at the idea of the Universal Computation (or cosmic seed even), for it would appear that all the information necessary to construct suns, planets, molecules, amino acids, cells, microorganisms, plants, animals, and conscious brains was somehow written into primeval Nature, lying dormant as it were until the right conditions had developed somewhere and somewhen

in which this information could be “read out.” This is a breathtaking idea, and if it should generate a small gasp of wonder, this is but nothing compared to the awe generated by entheogens like the psilocybin mushroom, an awe that is intimately connected to realizations of our potential significance, as conscious agents, in the reality process.

Nature thus emerges as being incredibly smart as well as deadly, and I can close this chapter with an apt quote by Einstein, this time pertaining to the reverence felt by at least some scientists toward the Universe with which we interface. Einstein openly notes that this emotion “takes the form of a rapturous amazement at the harmony of natural law, which reveals an intelligence of such superiority that, compared with it, all the systematic thinking and acting of human beings is an utterly insignificant reflection.”[4]

I almost second that emotion. Human thinking might not be an “insignificant reflection” at all. Far from it. Indeed, I presume that if

we divine natural intelligence, acknowledge it, and really feel it, then this represents a *highly refined reflection of that intelligence*. Which implies that such a cortex-embodied reflection is of functional import, facilitating a sort of self-realization factor of natural intelligence as it were. We explore these issues in the next chapter.

T E N

A Neo-Shamanic Climax

As we have seen, the impressive fine-tuning of Nature is most clearly indicated in the evolutionary process that Nature has facilitated here upon the Earth. Over some three and a half billion years, our planet has transformed itself from a lifeless mass of rock into a veritable metabolizing organic matrix in which countless elegantly patterned organisms swarm about the Earth's surface,

each organism an informational expression of natural intelligence. Yet, like the hour hand of a clock, scientists have failed to discern the context-driven intelligence of evolution, claiming instead that evolution is essentially a dumb and mindless process. But this can only be a subjective inference likely drawn according to the perceived duration over which evolution manifests, a duration so great that the intelligence operating over such a span remains all but invisible. If we instead imagine viewing a time-lapse film of the biosphere wherein three and a half billion years of information-gaining evolution are compressed into but one intense second, then modern electronic human culture and human consciousness explode instantaneously into existence, bursting forth out of the Earth's ocean of elemental constituents. This awesome pattern of self-organization can be no mere accident. To those who would still scoff at this assertion, I can only ask them this: If the aforementioned capacity of the Universe does not suggest a great intelligence at work, then what sort of Universe would?

Notwithstanding sullen detractors, if we embrace our River of Life metaphor, the totality of life represents the thrust of an intelligent process of information integration, and I argue that this is the essence of reality, the essence of the process that bred and killed Einstein and that controls our destiny also. Because all the information needed to support confluential patterning is etched into the "software" of the Universe, life and the emergence of consciousness can be viewed as a kind of *translation* whereby the code or meaning inherent in reality is read out over time. Somewhere within the reality process a biosphere had to form, since it was coded for in the lawful contextual fabric of the Universe. And within such a biosphere—of which there may be countless millions in the Universe—evolution was destined at some time to produce nervous systems and, eventually, brains capable of embodying consciousness. Patterns forever falling naturally into place like some cosmic jigsaw.

The conscious aspect of *Homo sapiens* thus resolves itself as a potent expression of the latest and most reflective form of information integration to emerge out of Nature—reflective because our kind is able to reflect upon how we came to be. In a real way, the human cortex is a biologically wrought mirror able to catch the true face of Nature upon its refined surface.

As with all other fluidic patterns of information, consciousness really was poised to materialize, its emergence dependent, like everything else, on the laws and forces of Nature along with prevailing contextual conditions. And so here we stand, atop the jungle and atop the technology we have created, our gaze now set on the expanding intelligible cosmos. Each human psyche, imbued with meaning from the larger context in which it has arisen, is able to wonder at the mystery of it all and even to glimpse the orchestrating intelligence in whose hands we are like transformed clay. In an instant of cosmic time, consciousness has arisen out of

physics, chemistry, and biology, a living mirror able to reflect the intelligent forces that so engendered it.

Forecasting the Future

The evolution of life on Earth, the gradual elaboration of the biosphere, and the emergence of conscious human culture strongly suggest that we are inside a most interesting and creative part of the Universe. It is as if one of the mightiest currents within the River of Life were flowing around us right here and right now, focused within our modern electronic culture. Indeed, if the creative center of the Universe is the place where the most elaborate kinds of information integration are taking hold, then we are surely in or near the center. Or at least we are amid one of the focal points of natural intelligence. The amount of information being organized in one way or another all around us is so dense that one can feel it. Actively flowing information bombards us at every turn as it seeks

resolution. Early twenty-first century culture with its global cyberspatial network is like some effervescent protoplasm exuded by the biosphere as it seeks to attain cohesion and stability at some higher level of organization.

Those scientists who diligently propound the myth that we are mere bystanders on a speck of dust remote from the heart of the Universe clearly do the phenomena of life and consciousness a major disservice. As far as we know, in terms of informational activity, the existence of humanity (seven billion potentially interconnected minds) is far and away more complex and intriguing than anything else in the known Universe. The Earth's biosphere, in its totality including all of human culture, is surely the place to be.

If reality is indeed a rushing river of integrating information, it might well be destined to meet some final organized form or pattern. Actually, this would appear to be an inescapable implication if my reasoning so far is correct. For if the evolution of

organic life and human consciousness represents the inexorable unfolding of a potential woven into the fabric of Nature, then what further potential is yet to be expressed? If natural intelligence is as powerful as I suspect, there absolutely must be some final point or solution to its prodigious endeavors.

To give the reader a taste of such a scenario, consider the following thought experiment. Geneticists tell us that a fair proportion of the DNA found in all organisms serves some as yet unknown function. On a worldwide scale, the total amount of this so-called junk DNA must be immense. But what if it were a form of latent information that was set to go into action only when environmental circumstances were in a particular state? What if the biosphere suddenly assumed a context to which this globally distributed DNA was tuned? Anything might happen. All organisms might suddenly mutate and forge themselves anew. The possibilities are endless since DNA is so rich in its capacity to organize chemical

and biological processes. Perhaps the reader can think of some alternative possibility.

I offer such wild speculation not because I believe it to be true, but because it highlights, in principle, how reality as we know it might well be coded to produce some climactic output at some latter stage of its evolutionary progression. Equally plausible is the idea that our interconnected computer technology might spawn some new level of informational cohesion—a kind of virtual dimension into which the agency of human consciousness can be transferred. In point of fact, as I previously remarked, through the rise of telecommunications and computing technology, the Earth does seems to be wiring itself up into an integrated digital network, a bioelectronic entity in which widely dispersed informational systems like the human psyche can instantly communicate with one another across the globe. This magical technology, similar as it is to the communicational activity of the synapsing neuronal brain, is

clearly evolving at an unprecedented rate, and the eventual emergence of a more “tangible” cyberspatial dimension of some kind seems assured. Indeed, judging by the boom in media speculation about the near future of computing systems along with the escalating popularity of Internet-enabled Wi-Fi phones, it would appear that a fully immersive cyberspace of one sort or another is within reach.

What this kind of rife pop divination reveals is just how forcibly the future now looms upon us. It is as if we were moving ever more rapidly toward some new technological breakthrough involving information integration that will transform our culture, a transformation not only inevitable but whose shadow is already upon us, stirring us into prophetic thinking. For when else in our history has there been so much concentrated speculation about the very near future? More to the point, if some unimaginable fully integrated state were soon to be reached, whether mediated through

networked computers or some other orchestrational medium, then clearly Nature has always been poised to deliver such an output. Maybe this could be considered the ultimate purpose of natural intelligence (or at least part of it), for it would represent the translated rebirth of the Other, the blossoming of the biosphere, a final planetary condition that Nature has determined in some way to achieve.

Most of us, however, are content to allow ourselves to be drawn almost passively along within the River of Life. We build sturdy rafts made of material goods and social status. We surround ourselves with items that our culture injects with value, and these are what keep us afloat. And yet our rafts, no matter how robustly they may be constructed and no matter how much wealth they contain, will eventually be destroyed, eaten up by the process in which they are swept along. No matter how long we try to prolong it, the time allotted to our DNA is finite. We are digitally

programmed by natural intelligence to grow old and die, just as surely as we are built to grow through puberty and reproduce. We are patterns of information that swirl into ordered existence, only to break up in the wink of a cosmic eye. It's a good reason to think more carefully about our personal relationship with the river and where it is headed, for then we might discern our proper place within the integrative flow.

Near the River's End

We are a conscious species riding on the crest of an intelligent wave, and our collective knowledge represents a kind of growing certainty about the Universe. As this certainty (or information) continues to increase, we will gradually realize exactly why we have evolved. The intelligence of Nature is thus becoming fully reflected through human consciousness and in the knowledge systems of our culture. This really is suggestive of a kind of birth.

The creative intelligence "running" the Universe is in the process of radically transforming itself into human culture and into human consciousness, just as a caterpillar radically transforms itself into a butterfly. Natural intelligence is therefore undergoing protean metamorphosis through the process of evolution. As information continues to build up and self-organize within the biosphere, the biospherical system becomes more informed by the natural intelligence that constructed it. If this is so, then the purpose of life and mind might well be to embody a new form of the natural intelligence that commanded life and mind to arise in the first place.

Such a possibility is clearly similar to Fred Hoyle's speculations. However, I do not believe that natural intelligence is itself descended from some previous form of intelligence. What I suspect is that the entire Universe—Nature and all its information—is a kind of Will (what the spiritual teacher G. I. Gurdjieff called the Will of the Absolute) or Mind. After all, we know for sure that the

human brain embodies both mind and will. So if the brain can have two aspects—physical and mindful—then why can't the Universe? In any case, I am certain that intelligence is a fundamental property of Nature, just as fundamental as the forces of Nature. Indeed, the various forces of Nature can be understood as a primary expression of natural intelligence, its most basic manifestation as it were. And so after fourteen billion years of reality in which the intent of natural intelligence has been steadily realized, consciousness has now emerged that can grasp the curiously profound source of its arising.

It is as if information, like energy, cannot be destroyed, and that the information content of reality, which remains constant, is in the process of reforming itself from moment to moment. If we think of a computer program able to take as input an image and smoothly morph that image into another image (or translate text from one language into another), then the reality process around us can

similarly be viewed as a fourteen-billion-year-long translation of the Other from one language-like form into another. That translation will be complete at some point in the future. The felt experience of the Other may therefore represent the process whereby consciousness serves to *become the Other*. Again, this suggests a kind of birth, albeit of an awesome kind. It sounds unbelievable, yet if we are pressed to provide a metaphysical explanation for our ultrasmart Universe, then I believe that ideas such as these must be near to the mark.

The Omega Point

One mystic who anticipated such ideas was the eminent Jesuit priest and palaeontologist Pierre Teilhard de Chardin, who was born in 1881 and died in 1955. Unlike many other Christian thinkers, knowledge of the evolutionary process actually increased Teilhard's faith. Indeed, this explains his scientific interest in fossils and

evolution (and, I might add, his excommunication by his religious superiors).

Teilhard believed that evolution was a purposeful process that would reach a climax at some time in the future, this point representing a kind of totally integrated state of life. He called it the Omega Point. This perfect future state was also thought by Teilhard to somehow send influences back in time, as though the Omega Point is an eternal sun able to shine its light upon the four-dimensional surface of human history.

Although Teilhard's thinking was deeply mystical, some of his work was respected by a number of traditional evolutionary theorists, most notably the biologist Julian Huxley. However, for most hard-nosed scientists who chance upon Teilhard's work, he remains no more than a mystic dreamer, a refined P. K. Dicksian soul whose ideology is basically unfit for serious consideration. Unless, that is, one has repeatedly experienced the numinous

presence of the Other, in which case his ideas become rather alluring.

In *The Future of Man,* Teilhard writes about the Omega Point in the following rather poetical way:

> Let us suppose that from this universal centre, this Omega point, there constantly emanate radiations hitherto only perceptible to those persons whom we call 'mystics'. Let us further imagine that, as the sensibility or response to mysticism of the human race increases with planetisation [the unification of humanity], the awareness of Omega becomes so widespread as to warm the earth psychically while physically it is growing cold. Is it not conceivable that Mankind, at the end of its totalisation, its folding-in upon itself, may reach a critical level of maturity where, leaving Earth and stars to lapse slowly back into the dwindling mass of primordial energy, it will detach itself from this planet and join the one true, irreversible essence of things,

> the Omega point? A phenomenon perhaps outwardly akin to death: but in reality a simple metamorphosis and arrival at the supreme synthesis.[1]

Teilhard's mention of a cooling Earth was probably a response to the growing realization at the time he wrote the book that the Universe appeared to be "running down" due to the dreaded second law of thermodynamics. This revered law states, in no uncertain terms, that the Universe is "wilting" and faces a heat-death extinction. All of the Universe's energy, it is said, will eventually be converted into a meaningless expanse of useless heat. Now, that's a gloomy thought for sure and a dangerous weapon in the hands of our archetypal reductive scientist, who might begin to prod us with it even now. However, according to our reasoning, the Universe must have surely required such dynamics in order to function in the way it has. In any case, evolution circumvents this running-down tendency by building dissipative structures—metabolizing

organisms—to convert energy into a usable form. Although closed systems do run down and do eventually reach equilibrium (a boring state in which nothing of interest happens), open systems like the biosphere are able to build up order (courtesy of our generous sun, which radiates energy as it runs down) by giving off disorder (like infrared heat radiation) into space. In this way, natural intelligence has bypassed the specter of the second law of thermodynamics, and information integration through evolution has taken hold. Or perhaps it would be more accurate to say that naturally intelligent laws have engineered a specific energy flow, or energy current, to the Universe that life must continually "swim" against in order to develop and strengthen itself as it "returns to the source."

When Teilhard wrote about the Omega Point, he was probably less aware than we are today that the laws of Nature are highly specific and conducive to life. Hence he saw the second law of thermodynamics as a threat to life (which it isn't, because life taps

into, and makes use of, the “downward” flow of energy), but foresaw that life would reach the Omega Point, just in the nick of time as it were, before the Universe ran down, or at least our poor sun ran down. In other words, he located the Omega Point far, far ahead in time. But, as we have seen, science has now reached the stage where it can appreciate not only the computational quality of reality, but also its fine-tuning. In my mind, this is strong evidence that we are in the “good hands” of the Other, and, more significant, that the Omega Point might be nearer than Teilhard supposed. Of course, it is preferable to think of such an event as being near as opposed to far away. In any event, with the growth in psychedelic epistemology initiated in the 1950s and 1960s, and with the current burgeoning interest in organic entheogens like the psilocybin mushroom and ayahuasca, it is conceivable that the illuminations caused by the Omega Point are on the increase. This suggests that we are indeed moving ever nearer to this climactic point.

Not surprisingly, Terence McKenna echoed the mystical claims made by Teilhard. In the 1990s, McKenna assumed the unenviable role of psilocybinetic prophet by consistently claiming that human history will be utterly transformed in late December 2012. This date derived from his mathematical "fractal theory of time," which views time as a cyclical patterning process involving a continual "ingression of novelty" and which also implies a definite culmination point. The date also coincides with the mysterious end date of the Mayan calendar, according to which a life cycle of some new kind will commence (this Mayan end-of-time prophesy was apparently not known to McKenna when he first developed his theory).

At this time, so said McKenna, the full purpose of reality will become manifest as information integration, or the ingression of novelty as he called it, reaches its zenith. There lies the

“transcendental object,” the eschaton, which, like Teilhard’s Omega Point, casts reflections of itself into the past, reflections that inspire and illuminate saints, mystics, and the minds of visionary shamans. Also in line with Teilhard’s Omega Point, McKenna suggested that this future state of transcendence somehow exists now, or in eternity, and that it is toward this state that we and the reality process are being inexorably drawn. One can imagine the future state to be like a magnet, that the emergence of life and consciousness is akin to the process whereby iron filings assume structural alignment according to the nearness of a magnetizing influence. Indeed, all of Nature’s fortuitous self-organizational properties—like the emergence of the genetic code, for example—can been be seen as deriving from some future “magnetically charged” state that “pulls” these properties into being.

In terms of the Universal Computation idea we have been entertaining, the Omega Point (whenever it might occur) would

represent the final output state or full rebirth of the Other within the biospherical system. The willed metamorphosis would be complete. The universal code will be fully expressed, with all information, all knowledge, achieving a state of coalescence. The Other, natural intelligence, will have completed its translation from one unified state of being into another.

McKenna also used the term *attractor* to describe this final eschatological state that life is eventually destined to reach. An attractor is a kind of abstract final state toward which physical systems are drawn. In the case of a swinging pendulum encountering friction, the attractor is the state of the system in which the pendulum is at rest. Regardless of the starting position, the pendulum always ends up in the attractor state. Likewise, in the case of chess, the attractor is the state of checkmate toward which the game invariably progresses. Attractors are thus inherent in various systems and are akin to the metaphorical magnet I

previously described.

In terms of the Universe at large, it could be argued that the attractor toward which it is being inexorably drawn is a kind of "big crunch," whereby the Universe collapses into an almighty singularity due to the effects of gravity. However, we can also view the attractor not as a super-concentration of "matter," but as an integrated state of information or meaning. When human consciousness has succeeded in realizing its true role within reality, and when the Other has fully transformed itself within the collective psyche, then this will represent an attractor of the reality process. At this point, Nature will have made maximum sense of itself.

If we posit an attractor, we should also bear in mind that the nearer it is, the more marked and pronounced will the processes of self-organization be. This situation might explain recent and unusually rapid forms of evolution like that of the hominid cortex, as well as the subsequent speedy evolution of human culture and the

more recent yearly evolution of digital technology. Dwelling on this, one automatically thinks of a spiral process, or self-tightening gyre, in which Nature is frantically assuming a state through which more and more information integration can take hold. Perhaps the end point of any biosphere is a kind of "local singularity," alike in nature to the assumed singularity from which the Universe sprung, a state of informational unification, although this time embodied in a planetwide shared experience.

If such a fantastic phenomenon were to actually realize itself sometime in the near future, it would surely have to be preceded by a tremendous surge of information heralding the event. I do not mean angels blowing trumpets, but rather that scientists ought to make new discoveries that indicate the smartness of Nature. Or, if the paradigm of a naturally intelligent reality process were to be favored and explored in more depth, it would mean a reinterpretation of the data already amassed through science, and

this might further highlight our unique position within the evolution of the cosmos. Alternatively, some new technological innovation or natural phenomenon might serve to make everyone more conscious of the interconnectedness of the biosphere, particularly the billions of minds that operate therein. This could then set the stage for synchronized global behavior and the dawn of a new value system and a new humanity. Either way, if the evolutionary process is indeed smart and destined to "conclude" in some way according to an inherent code, then it will simply have to proceed in the same way that an organism grows. Natural intelligence cannot be stopped; it can only be observed and appreciated while in action.

That we can experience the Other by ingesting psilocybin or by contemplating the intelligent properties of Nature indicates that something is indeed emerging within the collective human psyche, that some profoundly significant coherency lies beyond the chaos of secular fragmented reality. Or perhaps the Other has been dormant,

as though asleep, hibernating as it were, only to gradually awaken through the vehicle of consciousness, which it has prepared for in advance.

I am the first to concede that much, if not more, mystery remains. But at least the mystery of our being has been more clearly defined. And at least we know where to look should we want to explore Nature more deeply than a casual glance allows. When one has encountered the Other through the visionary effects of a strong dose of psilocybin mushrooms, it becomes quite evident that, whatever the Other's ultimate intent, consciousness is an essential part of the plan.

Our Role on the Earth Rock

Cultural conditions are ripe for a fresh look at Nature, which I consider to be an ultrasmart system. By so doing, the context in which we act out our lives becomes somewhat altered (another

feedback effect). If we conceive of reality as a mindless material accident, then we will not think twice about ruthlessly exploiting Nature for short-term gain and short-term profit. Similarly, if we believe Nature can only be understood by tearing it to pieces and examining the smallest fragments, then we shall not divine the greater picture.

If, on the other hand, we embrace the ideas outlined in this book, our view of Nature might change and we might come to cherish Nature in the same way as aboriginal peoples. Of course, it is not necessary to entertain all the ideas in this book in order to be environmentally conscientious. Rather, should natural intelligence be deemed real, then we would do well to refrain from breaking harmony with its flow. If we veer too far from the ways of natural intelligence, we will run the risk of being abandoned by the great system that birthed us. Or worse, we might even jeopardize the future of all life on Earth.

Not that I really think such a thing could come to pass. One should not underestimate the cohesive power natural intelligence. It is not like life is an old car that could splutter and give out all of a sudden. If evolving life were that frail, it would surely have faded away long ago. The same applies to human culture. Despite evincing ecological insensitivity that might instigate its downfall, culture embodies tremendous cohesion and resilience, which gives us time to mature and change. And if we bring to mind the notion that the Universe is like a self-writing story, I would hope the human race is too significant a protagonist to simply eliminate.

It might be that the severe environmental crises our species has set in motion of late are a kind of violent prelude to the changes in culture and scientific worldview that lie ahead. Indeed, our global disruptions of the biosphere obviously serve to make us reflect on our important causal role within the web of life. When weather systems run riot around us, when otherwise unchanging ice caps

begin to melt, when vast tracts of land are trashed in the quest for fossil fuel, when entire lakes and oceans become spoiled by pollution, when an estimated one hundred species of organism become extinct every day due to our belligerent presence, when acid rain ruins forests and crops, when fires burn uncontrollably in tropical areas where land has been decimated by farmers pandering to beef addiction, and when primarily profit-motivated biotech conglomerates cause unforeseen ecological disruptions with genetically engineered crops, then it is evident that our species is not a passive spectator of Nature. Rather we actively influence its constitution at every moment.

Shifting Perspectives

As Fritjof Capra remarks in *The Turning Point,* the Chinese written word for *crisis* contains two characters—*danger* and *opportunity* (or at least this is one linguistic interpretation). This implies that we

now have an opportunity to make a change for the better. We can learn from our ecological perturbations and respond to them, as if ecological crises were parts of a biospherical enzyme coded into the historical process (enzymes facilitate reactions). Acknowledging our devastating impact on Nature allows us to reappraise our relationship to the Earth. In so doing we dimly perceive that we are bound to the biosphere as much as the biosphere is bound to us. Moreover, until we fully realize our purpose at the hands of natural intelligence, it seems doubtful that we will be fulfilling our allotted role within its magnificent orchestrations.

I would like to believe that as we move through the third millennium, the realization of our true purpose will become increasingly apparent. In other words, it is my hope that the proverbial old chestnut "what is the meaning of life?" will be answered as the elusive meaning continues to unfold. In fact, if what I have written bears any truth, such a realization is inevitable.

Perhaps others will explore Nature's wild entheogenic fungi and reach the same conclusions. Or perhaps scientists will begin to discuss those aspects of reality that have conspired to facilitate a self-conscious Universe and conclude that our Universe really is of profound significance. And if scientists should come to accept that everything is made of information, including consciousness, then perhaps they would also see that this information is becoming ever more integrated according to the intent of natural intelligence.

Our unusual quest is over. We set out to uncover the essential face of Nature and discovered that, as a naturally evolved species, we are caught up in a rapidly accelerating flow of information integration whose leading edge is partly focused here on Earth, particularly within our conscious perception and our digital culture. This unfolding process would appear to be impressively smart and directed toward some culmination point. Only the future can reveal

the truth of these bold assertions. In the anticipatory meantime we can do no more than contemplate the issues and ideas raised and hope for the best. May the sacred wisdom of Great Nature be with you always and everywhere.

E P I L O G U E

Trick or Treat?

I provided the reader with a model of consciousness that views it as a flowing pattern of information generated within an intelligent, self-organizing Universe. Once one has accepted that we and all other patterns of information are natural expressions of a self-writing language-based Universe, that Nature is everywhere smart

and contextually significant, then one is compelled to go on to examine the "meaning of it all." Only when the bigger picture has begun to be glimpsed will we realize more fully our function and responsibilities within Nature and what integrative global events to expect in the near future. I suggested that one route to ascertaining the bigger picture is to alter the information converging in the psyche by utilizing Nature's ambient entheogenic agents. To do so is to suddenly change one's relationship with the rest of the reality process such that one comes to be informed by the transcendental Other, the will, or intention, or intelligence that permeates Nature.

It is my firm hope that others will be able to bring back some of the profound insights to be gained from the psilocybin mushroom experience in order that a comprehensive knowledge base develop. In fact, you might recall that in chapter 4, I detailed the second wave of human-based psychedelic research. After a sociopolitically engendered empirical hiatus of some thirty years or more, scientists

are once more exploring the healing potential of entheogens. With regard to the Johns Hopkins University of Medicine experiment I alluded to in chapter 4 in which psilocybin provoked positive mystical experiences in healthy volunteers, here is a summary of the findings of a 14-month follow-up study. The results are encouraging and speak for themselves:

> At the 14-month follow-up, 58% and 67%, respectively, of volunteers rated the psilocybin-occasioned experience as being among the five most personally meaningful and among the five most spiritually significant experiences of their lives; 64% indicated that the experience increased well-being or life satisfaction; 58% met criteria for having had a 'complete' mystical experience.[1]

It remains for me only to give some more information as to the particulars of the psilocybin mushroom. After all, without verifying

my claims, you will not know whether I fabricated the principal subject matter of this book. Indeed, perhaps the themes outlined herein have been a kind of fake, nothing more than a few wild and woolly tales built upon the fertile imagination of my mind during periods when it was too wet to venture outside. Maybe at heart I am really one of the archetypal "merelyist" reductionists of the bleak "null hypothesis" persuasion, but one who felt like writing an entertaining yarn in which the Universe could be conceived as being meaningful instead of a mindless accident.

The message, of course, is that one must always think for oneself and never take anything for granted. That, surely, is indisputable. This leaves the psilocybin mushroom experience itself as the chief substance of my unusual claims. But readers must make up their own minds as to this claim of mine that the mushroom affords useful knowledge. Let no one accuse me of reckless pointing. This book has been my pointer. You choose. You decide.

As stated elsewhere, psilocybin mushrooms of one sort or another grow throughout the world—all over Europe, North and South America, Australia, New Zealand, Indonesia, Thailand, and Africa, for example. It seems that new psilocybin species are continually being discovered. But what is more astonishing than this biospherical bounty is the commercial availability of psilocybin mushroom spores as well as growing kits. In many European countries it is now possible to purchase such equipment. However, the various legal issues involved in cultivating the mushroom are far from clear at this time.

Under some European laws the fresh psilocybin mushroom is not controlled (at least at the time of writing). This means that the wild mushroom is not listed as a controlled substance, and personal mushroom use is allowed (but not their sale). In the United Kingdom, until recently only the isolated active ingredients psilocybin and psilocin were controlled by law (their classification

as highly dangerous is questionable and may well be challenged in the coming years). Thus, as long as the mushroom remained in its raw, unprocessed state, it was deemed legal by the United Kingdom authorities. However, 2005 saw the United Kingdom government illegalize the actual wild mushroom itself. This was unprecedented, as it was the first time that a natural part of the United Kingdom countryside had been deemed illegal.

It remains to be seen what becomes of this unwarranted draconian measure that, by condemning a natural and long-revered environmental resource, can serve only to further alienate us from Nature. Indeed, one might think that notice boards ought to be placed throughout all the parks and wilderness areas of the United Kingdom warning citizens of the extreme dangers of naturally occurring psilocybin mushrooms (simple possession of the mushroom could entail a jail sentence). Having personally observed prolific numbers of *Psilocybe semilanceata* growing in most of the

United Kingdom's countryside areas during the autumn months (this includes the whole of the Lake District; the whole of Snowdonia; the whole of Dartmoor; the Devonshire coast; the Welsh coast; as well as London's Richmond Park, Streatham Common, and Hampstead Heath), there would need to be thousands of such notice boards. Unless, that is, the government proposes drenching all wild, green areas with millions of gallons of eco-unfriendly fungicide. Or create a vast group of Rangers (with a tactical airborne division) to scour and police every inch of the countryside. Or simply seal off the countryside and people's gardens (including land owned by the Queen) until further notice.

Of course, I am being deliberately provocative here—but only to highlight the absurdity of making a natural part of the environment illegal. In any case, these laws have not prevented the sale of psilocybin mushroom spores (*Psilocybe* spores do not contain psilocybin) nor the growth media in which to cultivate them. The

only feasible way to prevent this kind of activity would be to ban the air itself, as fungal spores of one kind or another are omnipresent.

If the more cautious reader is concerned with the health risks associated with consumption of the mushroom, we should note that a 2000 report from a Dutch Risk Assessment Team (copies of the report, by CAM—the Coordination Centre for the Assessment and Monitoring of New Drugs—can be located on the Internet) found that psilocybin mushroom use does not present a significant public health risk (at the time of the report, the mushroom had been commercially available in the Netherlands for many years).[2] Similarly, a rigorous scientific study by Hasler and others published in 2004 showed that psilocybin was not hazardous to health when administered to healthy persons (although the study recommended that those with high blood pressure should abstain from psilocybin use).[3] A United Kingdom Home Office report of 2000 also stated

that mushroom use was not considered problematic.[*1] [4] And this is despite the fact that an estimated 1.5 million adult people in the United Kingdom had taken the mushroom.

In the last analysis, if the powers that be are truly concerned about the possible public health hazards associated with psilocybin mushroom use, then they are obliged to investigate the matter professionally by consulting scientific experts in the field. Simply illegalizing the natural, nonaddictive mushroom by categorizing it alongside addictive manufactured heroin and crack cocaine (which is the case in many countries) is, it must be said, a tad hysterical. The inordinately oppressive nature of this kind of legislation against a sacred substance speaks for itself. On the other hand, maybe Terence McKenna was right when he suggested that psilocybin fungi had a sort of mysterious defense mechanism around them so as to prevent mass profane use. Who knows?

Putting aside the various legal issues, the question still remains as

to the significance of the mushroom's growing popularity (along with Amazonian ayahuasca). It is possible that psilocybin's potential is coming of age (at least in those parts of the world where the mushroom remains legal or where it grows in abundance). After all, the capacity of psilocybin to forge a new relationship between humanity and Nature is probably more important now than at any other time in history. Given our relentless despoiling of the biosphere and our unending obsession with material consumption, it is evident that we have alienated ourselves from the larger systems of Nature of which we are a part. Cities are like cocoons that sever us from the rest of the biosphere. We live and breathe without a second thought about the life-support system that is all of Nature. Naturally occurring entheogens can be viewed as a latent biospherical homeostatic control mechanism whereby our species can be brought back into balance. Indeed, it may be our last chance before we push the biosphere into total decline. As I intimated in the preliminary note at the very start of this book, the mushroom can be

considered a kind of antidote in that the knowledge it can yield can help heal our currently misguided relations with the rest of the web of life. In fact, I would liken psilocybin to a kind of psychological penicillin. Whereas penicillin is a fungal product with valuable antibiotic healing properties, psilocybin is a fungal product with valuable eco-psychological healing properties. Unlike penicillin however, psilocybin has, unfortunately, yet to find a global audience wise to its virtues.

Regarding the issue of dosage, stronger doses of the mushroom—those truly entheogenic doses that can change one's attitude toward life and that also galvanized me into writing this book—should only be employed with plenty of experience. Most important are one's state of mind prior to consumption and one's surroundings. One should be in a positive and balanced frame of mind before consuming the mushroom (people suffering from mental health problems like schizophrenia or chronic depression should absolutely

avoid the mushroom). One should also be in a friendly and safe environment that is free of distraction. The mushroom is not some frivolous party drug to be washed down with a beer in some noisy club. I would also suggest a period of sexual abstinence prior to ingestion, as one will then be in a more "pure" state befitting a potentially sacred experience. And unless one is particularly competent in the ancient art of self-knowledge, it is advisable to have a non-bemushroomed close friend around to act as a kind of anchor should any feelings of panic arise. It is important that this "sitter" remain as unobtrusive as possible. If all the conditions are right and enough heartfelt preparation has been made, an experience in which one's perception is fantastically enhanced is almost certain to follow.

To experience the mushroom's visionary effect, one should lie down in silence with eyes closed during the period when the mushroom's influence is most active. Although this is a decidedly

daunting venture, the colorful splendor of psilocybinetic visions and their unmistakable revelational quality make it very much worthwhile.

If psilocybin mushrooms are consumed on an empty stomach, their effects may be felt within as little as twenty minutes. (Taking them on an empty stomach is preferable because they are stronger that way and the act of fasting prior to ingestion becomes, like sexual abstinence, somewhat ritually symbolic.) If mushrooms are consumed after a meal, the effects can take up to an hour and a half to emerge. In either case, the first changes that one notices are likely to be somatic, in that one might feel a little restless and edgy. This would appear to be the initial reaction of the body and the psyche to the mushroom's exotic influence, a sort of "retuning" process. These mild uneasy feelings generally subside as one's perception gradually begins to open up and expand. One is then bathed in a decidedly warm and numinous presence.

I find it curiously apt that an adventure into the nature of reality should gravitate around a wild fungus native to most parts of the Earth's surface. It really is the case that we can turn to Nature if we wish to fully comprehend the sense and significance of our lives. This is like the plot of some elaborate adult fairy tale. If we genuinely wish to gain self-knowledge and realize our place within Nature's endlessly creative transmutations, we can deliberately seek out and consume the "truth." Like cosmic actors, by performing an age-old ritual act in time and space, we can perceive the world afresh and anew. Through psilocybinetic gnosis we may even glimpse the full majesty of this astounding Universe in which we are so privileged to find ourselves.

And so I end my enthusiastic tale. The sacred mushroom now beckons, affording us communion with the natural intelligence of which we are a part. Astonishingly, such a communion may be nearer than ever. The choice is wholly yours. Born in the 1950s and

1960s, the sacred endeavor in which the doors of perception are thrust wide apart is set to blossom in the coming years. Be there.

Footnote

*1. “To estimate the number of young recreational and older regular users [of Class A drugs], some division had to be made from these surveys of problematic and non-problematic use. It was assumed therefore that all opiate use and crack use reported in such surveys is problematic; this assumption may be revised in time if better evidence and monitoring data become available. All ecstasy, LSD and magic mushroom use is assumed not to be problematic.” From Godfrey et al.; see endnote.

Endnotes

Chapter 1. Sacred Ground

1. Wasson, *Soma*: *Divine Mushroom of Immortality,* 153.
2. Wasson, *Mushrooms, Russia and History,* 295.
3. Wasson, “Seeking the Magic Mushroom,” 114–17.

Chapter 2. An Ancient Form of Communion

1. Wasson, *The Wondrous Mushroom,* 200.

2. Ibid., 202.

3. Ibid., 206.

4. Ibid., 206–7.

5. Ibid., 73.

6. Sharer, *The Ancient Maya,* 126.

Chapter 3. Psilocybin Flows in and out of the Western Mind

1. Doblin, “Pahnke’s ‘Good Friday Experiment,’” 14.

2. Ibid., 17.

3. Ibid., 18.

4. Ibid., 19.

5. Ibid., 16.

6. Ibid., 23.

7. Koestler, *Drinkers of Infinity,* 209.

8. Ibid., 211.

9. Graves, *Oxford Addresses on Poetry,* 124.

10. Ibid., 127.

11. Huxley, *Island,* 170.

Chapter 4. Investigating the Earth's Alchemical Skin

1. Schultes, Evans, and Hofmann, *Plants of the Gods,* 112.

2. Lotsof, "Ibogaine in the Treatment of Chemical Dependence Disorders," www.maps.org/news-letters/v05n3/05316ibo.html (accessed March 11, 2011).

3. Strassman, personal e-mail communication.

4. Pinchbeck, *Breaking Open the Head,* 240.

5. Nichols, personal e-mail communication.

6. Strassman, personal e-mail communication.

Chapter 5. The Mushroom and the Synapse

1. Baars, *A Cognitive Theory of Consciousness,* 148.

2. Nichols, personal e-mail communication.

3. Nichols, personal e-mail communication.

Chapter 6. The Stuff of Consciousness

1. Powell, *Sacred Ground,* 34.

2. Naranjo, "Ayahuasca Imagery and the Therapeutic Property of the Harmala Alkaloids," 133.

3. McKenna, *The Archaic Revival,* 60.

4. Hobson, *Sleep,* 144.

Chapter 7. A Universe of Information

1. Capra, *The Tao of Physics,* 83.

2. Johnson, *Fire in the Mind,* 110.

Chapter 8. Does the Universe Compute?

1. Young, *The Nature of Information,* 43.

2. Dawkins, *A Devil's Chaplain,* 107.

3. Davies, *The Mind of God,* 118.

4. Gardner, *Wheels, Life and Other Mathematical Amusements,* 240.

5. Davies, *The Mind of God,* 196.

6. Ibid., 231.

7. McKenna, *The Archaic Revival,* 246–47.

Chapter 9. The Fantastic Hypothesis

1. Hoyle, *The Intelligent Universe,* 222–23.

2. Ibid., 239.

3. Powell, “Darwin’s Unfinished Business.”

4. Einstein, *The World as I See It,* 28.

Chapter 10. A Neo-Shamanic Climax

1. Teilhard, *The Future of Man,* 122.

Epilogue: Trick or Treat?

1. Griffiths et al., "Mystical-type Experiences Occasioned by Psilocybin Mediate the Attribution of Personal Meaning and Spiritual Significance 14 Months Later," 621.

2. "CAM Risk Assessment Report Concerning Magic Mushrooms," 2000, www.erowid.org/plants/mushrooms/mushrooms_health1.pdf (accessed March 11, 2011).

3. Hasler et al., "Acute Psychological and Physiological Effects of Psilocybin."

4. Godfrey et al., "The Economic and Social Costs of Class A Drug Use in England and Wales, 2000."

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Simon G. Powell is a writer, musician, and filmmaker with an avid interest in the biosphere and psychoactive fungi. He is the scriptwriter for the movie *Earth 2.0* and lives in London.

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Library of Congress Cataloging-in-Publication Data

Powell, Simon G.

The psilocybin solution : the role of sacred mushrooms in the quest for meaning / Simon G. Powell.

p. cm.

Includes bibliographical references

Summary: “How psilocybin mushrooms facilitate a direct link to the wisdom of Nature and the meaning of life”—Provided by publisher.

eISBN-13: 978-1-59477-937-4

1. Mushrooms, Hallucinogenic. 2. Psilocybin. 3. Shamanism. 4. Mushroom culture. I. Title.

BF209.H36P69 2011

154.4—dc23

2011019108

To send correspondence to the author of this book, mail a first-class

letter to the author c/o Inner Traditions • Bear & Company, One Park Street, Rochester, VT 05767, and we will forward the communication, or contact the author through his website at **www.thepsilocybinsolution.com**.

Electronic edition produced by

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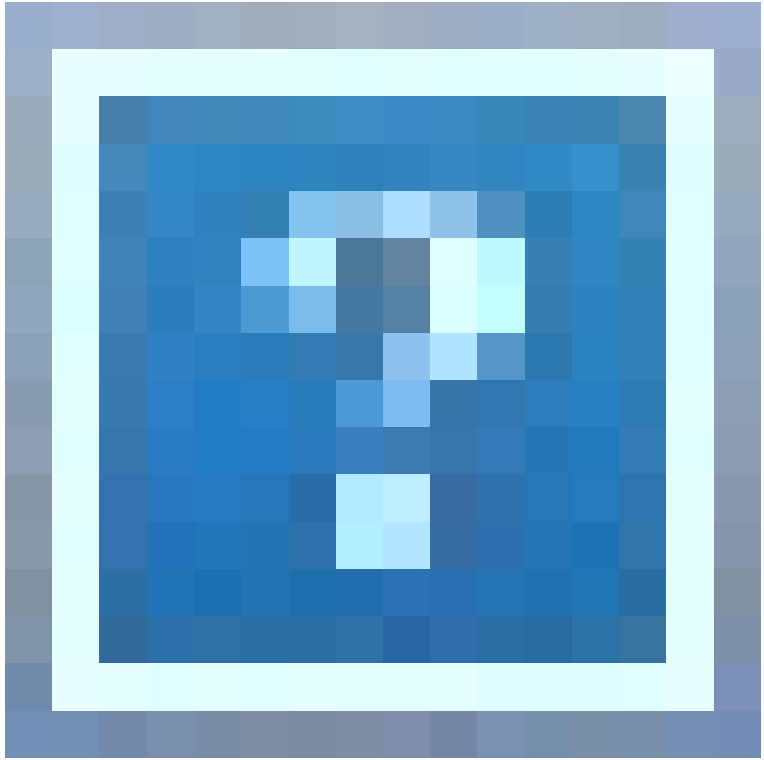

THE SIGN AND THE SEAL

The Quest for the Lost Ark of the Covenant

Graham Hancock

The Sign and the Seal

‘And as concerning the Ark of the Covenant … the work thereof is marvellous. It catcheth the eye by force, and it astonisheth the mind and stupefieth it with wonder. It is a spiritual thing and is full of compassion; it is a heavenly thing and is full of light; it is a thing of freedom and a habitation ofthe Godhead, Whose habitation is in heaven and Whose place of movement is on the earth …’

Kebra Nagast, Ethiopia, thirteenth century

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The Sign and the Seal

The Quest for the Lost Ark of the Covenant

Graham Hancock

CROWN PUBLISHERS, INC.
NEW YORK

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Published by Crown Publishers, Inc., 201 East 50th Street, New York, New York 10022. Member of the Crown Publishing Group.

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LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA

Hancock, Graham.
The sign and the seal: the quest for the lost Ark of the Covenant / Graham Hancock.
p. cm.

1. Ark of the Covenant—Miscellanea. 2. Ethiopia—Description and travel—1981– 3. Hancock, Graham—Journeys—Ethiopia. I. Title.
BM657.A8H36 1992
916.304’7—dc20 91-39041

eISBN: 978-0-307-82904-7

v3.1

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References

Acknowledgements

First and foremost I want to thank Carol, my partner of ten years, for the precious gifts she gave me. Our marriage did not survive this book. I hope that our friendship will. Thanks, too, to my children: Sean and Leila, Luke and Gabrielle. You've paid a heavy price for your dad's commitment to his quest. I mean to make it up to you. I'm enormously grateful to Donald and Muriel Hancock, to James Macaulay, and to Harold Elborn, for their constant support and interest, for their many readings of the evolving manuscript, and for the wealth of helpful suggestions and advice that they have offered. I would also like to put on record the appreciation

that I feel for the invaluable contributions made by my friends Colin Skinner, Caroline Lasko, and Claire Lasko. As well as reading the manuscript at various stages, and commenting on it, they offered me consolation and solidarity in times of trouble and put up patiently with my often exasperating behaviour. In Ethiopia, Professor Richard Pankhurst was both a friend and a colleague to me. I'm honoured to have worked so closely with him. And in England I benefitted greatly from the input of a series of research assistants: Sadie Maine, Alex MacIntyre, Claire Wise, David Mestecky and Julia Hallawell. In addition, my Anglophone editors on both sides of the Atlantic, Tom Weldon at Heinemann, Jim Wade at Crown, John Pearce at Doubleday Canada, as well as my literary agents Bill Hamilton and Sara Fisher, have all shown an interest in this project and a commitment to it that has been above and

beyond the call of duty.

Many other people in many different walks of life have also helped along the way. Some would not want to be mentioned at all and others will, I hope, forgive me for not setting out here a list that would be too long for the available space. I cannot close, however, without expressing my very special thanks and gratitude to one person in particular – Santha, who took most of the photographs in this book and who saved my life.

Graham Hancock, March 1992

Part I: Ethiopia, 1983

Legend

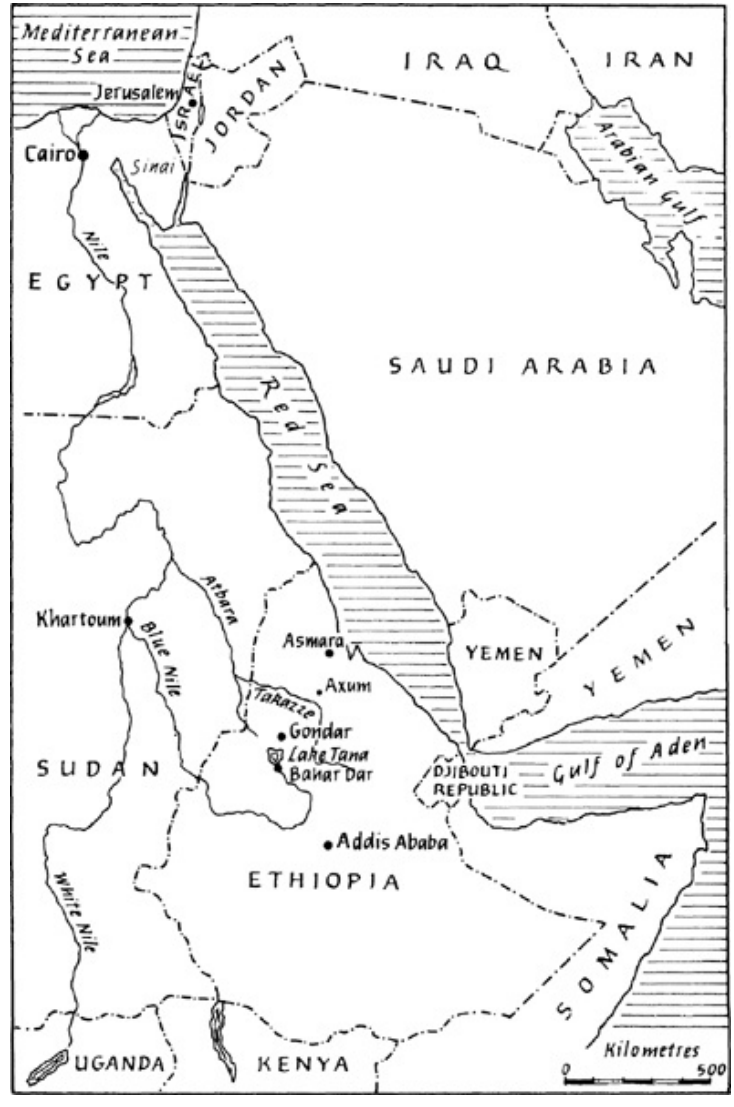
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Chapter 1
Initiation: 1983

It was growing dark and the air of the Ethiopian highlands was chill when the monk appeared. Stooped and leaning on a prayer stick he shuffled towards me from the doorway of the sanctuary chapel and listened attentively as I was introduced to him. Speaking in Tigrigna, the local language, he then sought clarification through my interpreter about my character and my motives: from which country had I come, what work did I do there, was I a Christian, what was it that I wanted from him?

I answered each of these questions fully, squinting through

the gloom as I talked, trying to make out the details of my inquisitor's face. Milky cataracts veiled his small sunken eyes and deep lines furrowed his black skin. He was bearded and probably toothless – for although his voice was resonant it was also oddly slurred. All I could be sure of, however, was that he was an old man, as old as the century perhaps, that he had his wits about him, and that he did not seem to be seeking information about me out of idle curiosity. Only when he was satisfied with everything that I had said did he condescend to shake hands with me. His grip was dry and delicate as papyrus and from the thick robes that he wore, faint but unmistakable, arose the holy odour of frankincense.

Now that the formalities were over I got straight to the point. Gesturing in the direction of the building that loomed in shadowy outline behind us, I said: 'I have heard of an Ethiopian tradition that the Ark of the Covenant is kept

here … in this chapel. I have also heard that you are the guardian of the Ark. Are these things true?'

'They are true.'

'But in other countries nobody believes these stories. Few know about your traditions anyway, but those who do say that they are false.'

'People may believe what they wish. People may say what they wish. Nevertheless we *do* possess the sacred *Tabot*, that is to say the Ark of the Covenant, and I *am* its guardian …'

'Let me be clear about this,' I interjected. 'Are you referring to the *original* Ark of the Covenant – the box made of wood and gold in which the Ten Commandments were placed by the prophet Moses?'

'Yes. God Himself inscribed the ten words of the law upon two tablets of stone. Moses then placed these tablets inside the Ark of the Covenant – which afterwards accompanied the

Israelites during their wanderings in the wilderness and their conquest of the Promised Land. It brought them victory wherever they went and made them a great people. At last, when its work was done, King Solomon placed it in the Holy of Holies of the Temple that he had built in Jerusalem. And from there, not long afterwards, it was removed and brought to Ethiopia …'

'Tell me how this happened,' I asked. 'What I know of your traditions is only that the Queen of Sheba is supposed to have been an Ethiopian monarch. The legends I have read say that when she made her famous journey to Jerusalem she was impregnated by King Solomon and bore him a son – a royal prince – who in later years stole the Ark …'

The monk sighed. 'The name of the prince you are speaking of was Menelik – which in our language means "the son of the wise man". Although he was conceived in

Jerusalem he was born in Ethiopia where the Queen of Sheba had returned after discovering that she was carrying Solomon's child. When he had reached the age of twenty, Menelik himself travelled from Ethiopia to Israel and arrived at his father's court. There he was instantly recognized and accorded great honour. After a year had passed, however, the elders of the land became jealous of him. They complained that Solomon showed him too much favour and they insisted that he must go back to Ethiopia. This the king accepted on the condition that the first-born sons of all the elders should also be sent to accompany him. Amongst these latter was Azarius, son of Zadok the High Priest of Israel, and it was Azarius, not Menelik, who stole the Ark of the Covenant from its place in the Holy of Holies in the Temple. Indeed the group of young men did not reveal the theft to Menelik until they were far away from Jerusalem. When at last they told

him what they had done he understood that they could not have succeeded in so bold a venture unless God had willed it. Therefore he agreed that the Ark should remain with them. And it was thus that it was brought to Ethiopia, to this sacred city … and here it has remained ever since.'

'And are you telling me that this legend is literally true?'

'It is not a legend. It is history.'

'How can you be so sure of that?'

'Because I am the guardian. I know the nature of the object that has been placed in my care.'

We sat in silence for a few moments while I adjusted my mind to the calm and rational way in which the monk had told me these bizarre and impossible things. Then I asked him how and why he had been appointed to his position. He replied that it was a great honour that he should have been chosen, that he had been nominated with the last words of

his predecessor, and that when he himself lay on his death-bed his turn would come to nominate his own successor.

'What qualities will you look for in that man?'

'Love of God, purity of heart, cleanliness of mind and body.'

'Other than you,' I asked next, 'is anyone else allowed to see the Ark?'

'No. I alone may see it.'

'So does that mean that it is never brought out of the sanctuary chapel?'

The guardian paused for a long while before answering this question. Then, finally, he told me that in the very distant past the relic had been brought out during all the most important church festivals. More recently its use in religious processions had been limited to just one occasion a year. That occasion was the ceremony known as *Timkat* which took

place every January.

‘So if I come back next January will I have a chance of seeing the Ark?’

The monk looked at me in a way that I found strangely disconcerting and then said: ‘You must know that there is turmoil and civil war in the land … Our government is evil, the people oppose it, and the fighting comes closer every day. In such circumstances it is unlikely that the true Ark will be used again in the ceremonies. We cannot risk the possibility that any harm might come to something so precious … Besides, even in time of peace you would not be able to see it. It is my responsibility to wrap it entirely in thick cloths before it is carried in the processions …’

‘Why do you wrap it?’

‘To protect the laity from it.’

I remember asking my interpreter to clarify the translation

of this last puzzling remark: had the monk really meant ‘to protect the laity from it’? Or had he meant ‘to protect it from the laity’?

It was some time before I got my answer. ‘To protect the laity from it. The Ark is powerful.’

A great mystery of the Bible

In early Old Testament times the Ark of the Covenant was worshipped by the Israelites as the embodiment of God Himself, as the sign and the seal of His presence on earth, as the stronghold of His power, and as the instrument of His ineffable will.[1] Built to contain the tablets of stone upon which the Ten Commandments had been written, it was a wooden chest measuring three feet nine inches long by two feet three inches high and wide.[2] It was lined inside and out

with pure gold and was surmounted by two winged figures of cherubim that faced each other across its heavy golden lid.[3]

Biblical and other archaic sources speak of the Ark blazing with fire and light, inflicting cancerous tumours and severe burns, levelling mountains, stopping rivers, blasting whole armies and laying waste cities. The same sources also leave no doubt that it was, for a very long time, the cornerstone of the evolving Jewish faith: indeed when King Solomon built the First Temple in Jerusalem his sole motive was to create 'an house of rest for the Ark of the Covenant of the Lord'.[4] At some unknown date between the tenth and the sixth century BC, however, this uniquely precious and puissant object vanished from its place in the Holy of Holies of that Temple, vanished without song or lamentation in the Scriptures – almost as though it had never existed at all. The evidence suggests that it was already long gone when the armies of

Nebuchadnezzar burned Jerusalem in 587 BC. Certainly it was not in the Second Temple which was built over the ruins of the First after the Jews had returned from their exile in Babylon in 538 BC. Neither does it seem to have been taken as booty by the Babylonians.

Writing in 1987, Richard Elliott Friedman, Professor of Hebrew and Comparative Religion at the University of California, expressed a view shared by many scholars when he described the disappearance of the sacred relic as 'one of the great mysteries of the Bible':

> There is no report that the Ark was carried away or destroyed or hidden. There is not even any comment such as 'And then the Ark disappeared and we do not know what happened to it' or 'And no one knows where it is to this day'. The most

> important object in the world, in the biblical view, simply ceases to be in the story.'[5]

Indeed so. A close reading of the Old Testament reveals more than two hundred separate references to the Ark of the Covenant *up until the time of Solomon* (970–931 BC); after the reign of that wise and splendid king it is almost never mentioned again.[6] And this, surely, is the central problem, the real historical enigma: not, human nature being what it is, that an immensely valuable golden chest should go missing, but – given its supreme religious significance – that it should go missing amidst such a deafening, improbable silence. Like a black hole in space, or a negative photographic image, it is identifiable in the later books of the Old Testament only by what it is not – it is, in short, conspicuous only by its absence.

From this it seems reasonable to suggest that some sort of cover-up may have taken place – a cover-up devised by priests and scribes to ensure that the whereabouts of the sacred relic would remain forever a secret. If so then it is a secret that many have tried to penetrate – a secret that has inspired several treasure-hunting expeditions (all of which have failed) and also one enormously successful Hollywood fantasy, *Raiders of the Lost Ark*, which was first released in the USA and Europe in 1981 with Harrison Ford in the starring role as Indiana Jones.

I was living in Kenya at the time and had no opportunity to see the film until it finally arrived in Nairobi's cinemas early in 1983. I enjoyed the combination of action, adventure and archaeology and I remember thinking what a sensation it would be if someone were really to find the Ark. Then, only a few months later, I made an extended visit to Ethiopia during

which I travelled to the north-west of the war-torn province of Tigray. It was there, in Axum – the so-called 'sacred city of the Ethiopians'[7] – that I had my encounter with the guardian monk reported earlier in this chapter.

1983: a country at war

On 28 May 1991, after years of brutal fighting, the government of Ethiopia was finally toppled by a formidable coalition of rebel forces in which the Tigray People's Liberation Front had played a leading role. When I went to Axum in 1983, however, the TPLF was still a relatively small guerilla force and the sacred city, although besieged, was still in government hands. Other than myself, no foreigners had been there since 1974 when a team of British archaeologists had been driven out by the revolution that had overthrown

Emperor Haile Selassie and that had installed one of Africa's bloodiest dictators, Lieutenant-Colonel Mengistu Haile Mariam, as Head of State.

Lamentably the free access that I was granted to Axum did not result from any special enterprise or initiative of my own but from the fact that I was working for Mengistu. As a result of a business deal that I was later bitterly to regret I was engaged in 1983 in the production of a coffee-table book about Ethiopia – a book that Mengistu's government had commissioned in order to proclaim the underlying unity in the country's cultural diversity, and to emphasize the ancient historical integrity of the political boundaries that the rebels were trying so hard to redraw. It had been agreed before I began work that there would be no overt promotion of the government's cause, and it was written into my contract that no particular individuals (Mengistu included) would be

praised or vilified. Nevertheless I was under no illusions about how the project was viewed by senior figures in the regime: they would not have footed the bills, or permitted me to visit historic sites forbidden to others, if they did not think that what I was doing would be helpful to them.

Even so it was by no means easy for me to get to Axum. Intense rebel activity along the main roads and around the sacred city itself meant that driving was completely out of the question. The only option, therefore, was to fly in. To this end – together with my wife and researcher Carol and my photographer Duncan Willetts – I travelled first to Asmara (the regional capital of Eritrea) where I hoped that it might be possible for us to hitch a ride over the battle lines on one of the many military aircraft stationed there.

Standing on a high and fertile plateau overlooking the fearsome deserts of the Eritrean coastal strip, Asmara is a

most attractive place with a markedly Latin character – not surprising since it was first occupied by Italian forces in 1889 and remained an Italian stronghold until the decolonization of Eritrea (and its annexation by the Ethiopian state) in the 1950s.[8] Everywhere we looked we saw gardens erupting with the colour of bougainvillaea, flamboyants and jacaranda, while the warm, sunny air that surrounded us had an unmistakable Mediterranean bouquet. There was also another element that was hard to miss: the presence of large numbers of Soviet and Cuban combat 'advisers' wearing camouflage fatigues and carrying Kalashnikov assault rifles as they swaggered up and down the fragrant pastel-shaded boulevards.

The advice that these thickset men were giving to the Ethiopian army in its campaign against Eritrean separatists did not, however, appear to us to be very good. Asmara's

hospitals were crammed to bursting point with casualties of the war and the government officials we met exuded an air of pessimism and tension.

Our concerns were heightened a few nights later in the bar of Asmara's rather splendid Ambasoira Hotel where we met two Zambian pilots who were on temporary secondment to Ethiopian Airlines. They had thought that they were going to be spending six months expanding their practical experience of commercial flying. What they were actually doing, however, was ferrying injured soldiers from the battle fronts in Tigray and Eritrea to the hospitals in Asmara. They had tried to get the airline to release them from this hazardous duty; on checking the small print of their contracts, however, they had discovered that they were bound to do it.

After several weeks of almost continuous sorties in aged DC3 passenger planes converted to carry wounded troops, the

two pilots were shell-shocked, shaky and embittered. They told us that they had both taken to the bottle to drown their sorrows: ‘I can’t sleep at night unless I’m completely drunk,’ one of them confided. ‘I keep getting these pictures passing through my mind of the things that I’ve seen.’ He went on to describe the teenage boy who, that morning, had been dragged aboard his aircraft with his left foot blown away by a mine, and another young soldier who had lost half his skull after a mortar bomb had exploded nearby. ‘The shrapnel wounds are the worst … people with huge injuries in their backs, stomachs, faces … it’s horrible … sometimes the whole cabin is just swilling with blood and guts … we carry as many as forty casualties at a time – way above the operating limits of a DC3, but we have to take the risk, we can’t just leave those people to die.’

They were required to fly three, sometimes four, missions

each day, the other pilot now added. In the past week he had been twice to Axum and on both occasions his plane had been hit by machine-gun fire. ‘It’s a very difficult airport – a gravel runway surrounded by hills. The TPLF just sit up there and take pot-shots at us as we land and take off. They’re not fooled by the Ethiopian Airlines livery. They know we’re on military business …’

Overjoyed to have found some sympathetic non-Russian and non-Cuban foreigners to share their woes with, the Zambians had not yet asked us what we were doing in Ethiopia. They did so now, and seemed highly amused when we replied that we were producing a coffee-table book for the government. We then explained that we needed to get to Axum ourselves.

‘Why?’ they asked, dumbfounded.

‘Well, because it’s one of the oldest and most important

archaeological sites and because it was there that Ethiopian Christianity first got started. It was the capital for hundreds of years. Our book's going to look really sick without it.'

'We might be able to take you,' one of the pilots now suggested.

'What – you mean when you next go to pick up wounded?'

'No. You definitely wouldn't be allowed on those flights. But a delegation of military top brass are supposed to be going there the day after tomorrow to inspect the garrison. Maybe you could hitch a ride then. It would depend on what sort of strings you're able to pull back in Addis. Why don't you check it out?'

Into Axum

We spent most of the next day on the telephone to Addis

Ababa talking to the minister directly responsible for our project. It was touch and go, but his influence finally did get us seats on the flight that our Zambian friends had told us about. In the event, however, they were not to be our pilots; a fully Ethiopian crew was on board the DC3 for the short hop to Axum.

During the one-hour delay before our morning take-off from Asmara airport, and during the turbulent thirty-five-minute journey itself, I completed my background reading – reassuring myself in the process that the visit really was worthwhile.

The early historical references painted a picture of an important and cosmopolitan urban centre. In AD 64, for example, the anonymous author of a Greek trading manual known as the *Periplus of the Erythrean Sea* had referred to the Axumite ruler as being 'a prince superior to most and

educated with a knowledge of Greek'.[9] Some hundreds of years later a certain Julian, ambassador of the Roman Emperor Justinian, described Axum in glowing terms as 'the greatest city of all Ethiopia'. The king, he added, was almost naked, wearing only a garment of linen embroidered with gold from his waist to his loins and straps set with pearls over his back and stomach. He wore golden bracelets on his arms, a golden collar around his neck, and on his head a linen turban – also embroidered with gold – from which hung four fillets on either side. When receiving the ambassador's credentials, this monarch apparently stood on a four-wheeled chariot drawn by four elephants; the body of the chariot was high and covered with gold plates.[10]

In the sixth century AD, a much-travelled Christian monk, Cosmas Indicopleustes, added further colour to the impression conveyed by Julian. After his visit to the city he

reported that the ‘four-towered palace of the King of Ethiopia’ was adorned with ‘four brazen figures’ of a unicorn, as well as the skin of a rhinoceros ‘stuffed with chaff’. He also saw several giraffes which had been caught ‘by command of the King when young and tamed to make a show for his amusement’.[11]

These images of barbaric splendour well befitted the capital of what had by that time become the most important power between the Roman Empire and Persia – a power that sent its merchant navies as far afield as Egypt, India, Ceylon and China and that had adopted Christianity as its state religion as early as the fourth century AD.

The story of the conversion of Ethiopia is preserved in the writings of the fourth-century Byzantine theologian Rufinius – an authority highly regarded by modern historians. Apparently a certain Meropius, a Christian merchant

described by Rufinius as a ‘philosopher of Tyre’, once made a voyage to India, taking with him two Syrian boys whom he was educating in ‘humane studies’. The elder was called Frumentius and the younger Aedesius. On their return journey through the Red Sea the ship was seized off the Ethiopian coast in an act of reprisal against the Eastern Roman Empire which had broken a treaty with the people of the area.

Meropius was killed in the fighting. The boys, however, survived and were taken to the Axumite King, Ella Amida, who promptly made Aedesius his cup-bearer and Frumentius – the more sagacious and prudent of the two – his treasurer and secretary. The boys were held in great honour and affection by the king who, however, died shortly afterwards leaving his widow and an infant son – Ezana – as his heir. Before his death, Ella Amida had given the two Syrians their

freedom but now the widowed queen begged them, with tears in her eyes, to stay with her until her son came of age. She asked in particular for the help of Frumentius – for Aedesius, though loyal and honest at heart, was simple.

During the years that followed, the influence of Frumentius in the Axumite kingdom grew. He sought out such foreign traders who were Christians and urged them 'to establish conventicles in various places to which they might resort for prayer.' He also provided them with 'whatever was needed, supplying sites for buildings and in every way promoting the growth of the seed of Christianity in the country.'

At around the time that Ezana finally ascended the throne, Aedesius returned to Tyre. Frumentius for his part journeyed to Alexandria, in Egypt – then a great centre of Christianity – where he informed Patriarch Athanasius of the work so far accomplished for the faith in Ethiopia. The young man

begged the ecclesiastical leader ‘to look for some worthy man to send as bishop over the many Christians already congregated.’ Athanasius, having carefully weighed and considered the words of Frumentius, declared in a council of priests: ‘What other man shall we find in whom the spirit of God is as in thee who can accomplish these things?’ He therefore ‘consecrated him and bade him return in the Grace of God whence he came.’[12]

Frumentius accordingly went back to Axum as Ethiopia’s first Christian bishop and there he continued his missionary endeavours – which were rewarded, in the year AD 331, by the conversion of the king himself. The surviving coins of Ezana’s reign record the transition: the earlier ones bear crescent and disk images of the new and full moon; later examples are stamped uncompromisingly with the cross – amongst the earliest coins of any country to carry this

Christian symbol.[13]

Important as the seed-bed of Ethiopian Christianity – and as the capital of the Ethiopian empire from the first until approximately the tenth century AD – Axum's interest in terms of our project was nevertheless much broader than this. Here, I read, we would come across many imposing pre-Christian ruins of great archaeological merit (including the remains of several immense palaces), and also – still well preserved – the monuments for which the city was best known: its ancient obelisks, some more than two thousand years old, attesting to a high level of advancement in art and architecture at a date far earlier than that of any other civilization in sub-Saharan Africa. Nor were such physical artefacts the only witnesses to Axum's unique stature. To my astonishment, the reference works I had with me reported that according to Ethiopian legends the Ark of the Covenant was kept here in a small

chapel adjacent to an especially sacred church. The legends were connected to Ethiopia's claim to have been the realm of the biblical Queen of Sheba but were generally dismissed by historians as preposterous fictions.

Having only recently seen the first Indiana Jones movie, *Raiders of the Lost Ark*, I was naturally intrigued by the possibility – however remote – that the most precious and mystical relic of Old Testament times, a relic believed to have been lost for almost three thousand years, might actually rest in the city I was about to visit. I therefore decided that I would not leave without learning more about this strange tradition and I looked down with renewed interest when the captain announced that Axum was directly beneath us.

The DC3's descent to the narrow runway far below was unorthodox in the extreme – and quite alarming. Instead of the usual long, low and slow approach, the pilot brought the

plane down very fast from a considerable altitude in a tight corkscrew pattern that kept us at all times directly above the town. This, one of the military men riding with us explained, was so as to minimize the time that we would be a target for snipers in the surrounding hills. I remembered what the Zambians had said about regularly getting hit by machine-gun fire when landing at Axum and prayed silently that this would not happen to us. It was an unpleasant feeling to be strapped into a flimsy seat in a narrow tube of metal hundreds of feet above the ground and to wonder whether, at any moment, bullets were going to start plunking through the cabin floor and walls.

Fortunately nothing so bad happened that morning and we touched down safely. I remember the red gravel of the strip, the dust that flew up as the wheels made contact, and the sight of large numbers of Ethiopian soldiers – all armed to

the teeth and dressed in combat fatigues – staring at us intently as we taxied to a halt. I noticed other things as well: trenches had been dug on both sides of the runway and there were numerous pits, covered with camouflage netting, out of which protruded the barrels of heavy artillery pieces. I recall several armoured personnel carriers lined up near the tower and perhaps half-a-dozen Soviet tanks. Parked off to one side, on the apron, there were also two Mi-24 helicopter gunships with rocket pods visible beneath their stubby stabilizing fins.

From the beginning to the end of our visit, Axum never for a second shed the jittery and watchful atmosphere of a city under siege. We were permitted to stay only one night but we felt as though our time there was drawn-out, protracted, almost infinite.

Palaces, catacombs and obelisks

Our work began the moment that we arrived. Waiting to greet us as we stepped down from the plane was an elderly Abyssinian gentleman wearing a slightly threadbare three-piece suit and a most splendid patriarchal beard. In quaint but excellent English, he introduced himself as Berhane Meskel Zelelew and explained that he had been contacted by radio from Addis Ababa and ordered to guide us and act as our interpreter. He was employed, he said, by the Ministry of Culture 'to keep an eye on the antiquities of Axum'. In this capacity he had helped the archaeologists from the British Institute in Eastern Africa whose excavations of some of the city's most interesting ruins had been interrupted by the revolution of 1974.[14] 'It's *so* nice to see other British people here after such a long time,' he exclaimed as we introduced ourselves.

We climbed into a vintage Land Rover with a lime-green paint job and two neat bullet holes in the front windscreen. ‘Fortunately no one was killed,’ Zelelew reassured us when we asked him about these. Laughing nervously as we drove away from the airfield, I then explained what we had come to do, listed the historic sites that we wanted to visit, and told him that I was particularly intrigued by Axum’s claim to be the last resting place of the Ark of the Covenant.

‘Do you believe that the Ark is here?’ I asked.

‘Yes. Certainly.’

‘And where is it exactly?’

‘It is deposited in a chapel near the centre of the city.’

‘Is this chapel very old?’

‘No. Its construction was ordered by our late Emperor … in 1965 I think. Before that the relic had rested for many hundreds of years within the Holy of Holies of the nearby

church of Saint Mary of Zion …' Zelelew paused, then added: 'Haile Selassie had a special interest in this matter, by the way … He was the two hundred and twenty-fifth direct-line descendant of Menelik, son of the Queen of Sheba and King Solomon. It was Menelik who brought the Ark of the Covenant to our country …'

I was all for visiting the chapel at once, but Zelelew persuaded me that there was little point in hurrying: 'you will not be allowed anywhere near the Ark. Where it rests is holy ground. The monks and the citizens of Axum protect it and they would not hesitate to kill anyone who tried to break in. Just one man is allowed to enter and he is the monk responsible for guarding the Ark. We will try to meet him later today, but first let us go and see the Queen of Sheba's palace.'

After we had assented to this attractive proposition we

turned on to a bumpy, potholed road that – had we been able to follow it all the way – would eventually have led us hundreds of miles south-west, through the gigantic peaks and valleys of the Simien mountains, to the city of Gondar near Lake Tana. In open country barely a mile from the centre of Axum, however, we stopped within sight of an extensively fortified military post which, Zelelew explained, marked the limit of the government-controlled sector. He waved expressively at the nearby hills: 'Everything else TPLF, so we cannot go. It's a pity. There are so many interesting things to see … There, just around that corner in the road, are the granite quarries where all the stelae were cut. One still remains partially unexcavated from the rock. And there is a beautiful carving of a lioness. It is very ancient. It was put there before the coming of Christianity. But unfortunately we cannot reach it.'

‘How far is it exactly?’ I asked, tantalized.

‘Very close, less than three kilometres. But the military will not let us past the checkpoint and if they did we would certainly be taken by the guerillas. Even here we should not stand around for too long. Your foreign faces will be noticed by the TPLF snipers. They might think you are Russians and decide to shoot at you …’ He laughed: ‘That would be highly undesirable, would it not? Come, follow me.’

He led the way into fields to the north of the road and we quickly began to stumble across the remains of what must, once, have been an imposing building. ‘This was the Queen of Sheba’s palace,’ Zelelew announced proudly. ‘According to our traditions her name was Makeda and Axum was her capital. I know that foreigners do not accept that she was an Ethiopian at all. Nevertheless no other country has a stronger claim than ours.’

I asked whether any archaeology had ever been done on the site to test the legends.

‘Yes, in the late 1960s the Ethiopian Institute of Archaeology conducted some excavations here … I helped on the dig.’

‘And what was discovered?’

Zelelew made a mournful face. ‘The opinion was that the palace was not sufficiently old to have been the residence of the Queen of Sheba.’

What the archaeologists had unearthed, and what we now spent some time exploring, were the ruins of a great and well built edifice with finely mortared stone walls, deep foundations and an impressive drainage system. We saw a still-intact flagstone floor – which Zelelew claimed was a large throne room – and a number of stair-wells which hinted at the existence of at least one upper storey. There were also

private bathing areas of sophisticated design and a well-preserved kitchen dominated by two brick ovens.

Across the road, in a field facing the palace, we then inspected a number of rough-hewn granite stelae, some standing more than fifteen feet high, some fallen and broken. Most were undecorated but one, the largest, was carved with four horizontal bands, each band topped by a row of circles in relief – like protruding beam ends in a building made of wood and stone. This crude obelisk, Zelelew told us, was thought by the townspeople to mark the grave of the Queen of Sheba. No excavation work had been carried out beneath it, however, and the field was now entirely given over to farmers who grew crops for the Axum garrison. Even as we talked we saw two peasant boys approach with an ox, which they harnessed to a wooden plough. Oblivious to the history that lay all around them, and apparently indifferent to our

presence as well, they began to till the soil.

After we had finished taking pictures and notes we drove back into the centre of the city and then out again to the north-east to another palace complex, this one on a hill-top with commanding views of the whole area. Square in plan, the structure measured about two hundred feet on each side. The walls, which had long since crumbled, showed signs of having originally been projected at the corners to form four towers – possibly the very towers which, in the sixth century, the monk Cosmas had described as being adorned with brass unicorns.

Beneath the fortress Zelelew then led us down steep stone stairways into a number of underground galleries and chambers which were roofed and walled with massive dressed granite blocks that fitted precisely against one another without any mortar in the joints. Local tradition, he

said, identified this cool dark warren as the treasury used by Emperor Kaleb (AD 514–542) and also by his son Gebre-Maskal. With the aid of a flashlight we saw the empty stone coffers which lay within – coffers believed to have once contained great riches in gold and pearls.[15] Further rooms, as yet unexcavated, extended into the hillside from there, blocked off behind thick granite walls.

Eventually we left the hill-top fortress and made our way down into the centre of Axum on a gravel road. Near the bottom of the gradient, to our left, we paused to photograph a large, open deep-water reservoir dug down into the red granite of the hillside and approached by means of rough-hewn stairways. Known as the Mai Shum, it seemed to us very old – an impression that Zelelew confirmed when he remarked that it was originally the Queen of Sheba's pleasure bath: 'At least so our people believe. Since the beginning of

Christian times it has been used for baptismal ceremonies to celebrate the Holy Epiphany, which we call *Timkat*. And of course the peasants still come here every day to draw their water.' As though to confirm this last observation he pointed to a group of women carefully descending the time-worn steps bearing gourds on their heads.

By now, without any of us really noticing how the time had passed, it was already well past the middle of the afternoon. Zelelew urged us to hurry, pointing out that we were scheduled to fly back to Asmara at first light the next day and that we still had much to see.

Our next destination was close by, the so-called 'Park of the Stelae' – certainly the focal point of Axum's archaeological interest. Here we examined and photographed a remarkable series of giant obelisks carved from slabs of solid granite. The most massive of these, a tumbled fractured

ruin, was believed to have fallen to the ground more than a thousand years previously. In its heyday, though, it had stood one hundred and ten feet tall and must have dominated the entire area. I remembered from the reading I had done on the flight that its weight was estimated to exceed five hundred tons. It was thought to be the largest single piece of stone ever successfully quarried and erected in the ancient world.

This fallen stele was painstakingly hewn to mimic a high, slender building of thirteen storeys – each storey complete with elaborate representations of windows and other details, and demarcated from the next by a row of symbolic beam-ends. At the base could be discerned a false door complete with a knocker and lock, all perfectly carved in stone.

Another fallen – but much smaller and unbroken – obelisk, Zelelew told us, had been stolen during the Italian occupation of 1935–41, transported with enormous difficulty

to Rome by Mussolini, and re-erected near the Arch of Constantine. Since it, too, was elaborately carved – and therefore of great artistic value – the Ethiopian government was campaigning for its return. In the meantime, however, it was fortunate that a third decorated monolith still remained *in situ* in the stelae park.

With a flourish our guide now pointed to this towering stone needle, more than seventy feet high and topped with a curved headpiece shaped like a half moon. We strolled over to examine it properly and found that, like its huge neighbour, it had been carved to resemble a conventional built-up structure – in this case a nine-storey building in the fashion of a tower-house. Once again, the main decoration on the front elevation was provided by the semblance of windows and of beams of timber supposedly inserted horizontally into the walls. The intervals between each of the

floors were defined by rows of symbolic log-ends, and the house-like appearance was further enhanced by the presence of a false door.

Several other stelae of varying sizes were ranged around this refined monument – all of them clearly the products of an advanced, well organized and prosperous culture. Nowhere else in sub-Saharan Africa had anything even remotely similar been built and, for this reason, Axum was a mystery – its antecedents unknown, the sources of its inspiration unremembered.

The sanctuary chapel

Across the road, directly opposite the park of the stelae, stood a spacious walled compound containing two churches – one old and the other obviously much more recent. These,

Zelelew told us, were both dedicated to Saint Mary of Zion. The new one, which had a domed roof and a lofty bell-tower in the shape of an obelisk, had been built by Haile Selassie in the 1960s. The other dated back to the mid-seventeenth century and was the work of Emperor Fasilidas – who, like so many Ethiopian monarchs before and since, had been crowned in Axum and had venerated the sacred city despite making his capital elsewhere.

We found Haile Selassie's pretentious modern 'cathedral' as unpleasant as it was uninteresting. We were attracted, however, to the Fasilidas construction which, with its turrets and crenellated battlements, seemed to us 'half church of God, half castle' – and thus to belong to a truly ancient Ethiopian tradition in which the distinctions between the military and the clergy were often blurred.

In the dimly lit interior I was able to study several striking

murals including one depicting the story of the life of Mary, another that of the Crucifixion and Resurrection of Christ, and a third the legend of Saint Yared – the supposed inventor of Ethiopia's eerie church music. Faded with age, this latter work showed Yared performing before King Gebre-Maskal. The saint's foot had been pierced by a spear dropped from the monarch's hand but both men were so entranced by the music of sistrum and drum that they had not noticed.

Not far from the old church were the ruins of a building that must once have been very extensive but was now reduced to little more than its deeply entrenched foundations. These, Zelelew explained, were the remains of the *original* Saint Mary of Zion – which had been built in the fourth century AD at the time of the conversion of the Axumite kingdom to Christianity. Some twelve hundred years later, in 1535, it had been razed to the ground by a fanatical Muslim

invader, Ahmed Gragn ('the left-handed'), whose forces swept across the Horn of Africa from Harar in the east and, at one time, threatened the complete extinction of Ethiopian Christendom.

Shortly before its destruction, this 'first Saint Mary's' – as Zelelew called it – was visited by an itinerant Portuguese friar named Francisco Alvarez. I later looked up his description of it – the only one that survives:

> It is very large and has five naves of a good width and of a great length, vaulted above, and all the vaults are covered up, and the ceiling and sides are all painted; it also has a choir after our fashion … This noble church has a very large circuit, paved with flagstones, like gravestones, and it has a large enclosure, and is surrounded by

> another large enclosure like the wall of a large town or city.[16]

Zelelew rightly dated the start of construction works on the first Saint Mary's at AD 372[17] – which meant that this was quite possibly the earliest Christian church in sub-Saharan Africa. A great five-aisled basilica, it was regarded from its inauguration as the most sacred place in all Ethiopia. This was so because it was built to house the Ark of the Covenant – which, if there was any truth to the legends, must have arrived in the country long before the birth of Jesus and must then have been co-opted by the Christian hierarchy at some point after the new religion had been officially adopted by the Axumite state.

When Alvarez visited Saint Mary's in the 1520s – becoming, in the process, the first European to document the

Ethiopian version of the legend of the Queen of Sheba and the birth of her only son Menelik[18] – the Ark was still in the Holy of Holies of the ancient church. It did not stay there for very much longer, however. In the early 1530s, with the invading armies of Ahmed Gragn drawing ever closer, the sacred relic was removed 'to some other place of safekeeping' (Zelelew did not know where). It thus escaped the destruction and looting that the Muslims unleashed upon Axum in 1535.

A hundred years later, with peace restored throughout the empire, the Ark was brought back in triumph and installed in the second Saint Mary's – built by Fasilidas beside the razed remains of the first. And there apparently it stayed until 1965 when Haile Selassie had it moved to the new and more secure chapel put up at the same time as his own grandiose cathedral but annexed to the seventeenth-century church.

It was in the grounds of Haile Selassie's chapel that the guardian monk told me his astonishing story about the Ark and warned me that it was 'powerful'.

'How powerful?' I asked. 'What do you mean?'

The guardian's posture stiffened and he seemed suddenly to grow more alert. There was a pause. Then he chuckled and put a question to me: 'Have you seen the stelae?'

'Yes', I replied, 'I have seen them.'

'How do you think they were raised up?'

I confessed that I did not know.

'The Ark was used,' whispered the monk darkly, 'the Ark and the celestial fire. Men alone could never have done such a thing.'

On my return to the Ethiopian capital Addis Ababa, I took the opportunity to conduct some research into the historical merits of the legend that the guardian had related to me. I

wanted to find out whether there was any possibility at all that the Queen of Sheba could have been an Ethiopian monarch. And if there was, then could she really have journeyed to Israel in the time of Solomon – around three thousand years ago? Could she have been impregnated by the Jewish king? Could she have borne him a son named Menelik? Most importantly, could that son have made his way to Jerusalem as a young man, spent a year there at his father's court, and then returned to Axum with the Ark of the Covenant?

Chapter 2

Disenchantment

Questions of the kind that I needed to ask in order to evaluate Axum's claim to be the last resting place of the Ark of the Covenant were not entirely welcome in Addis Ababa in 1983. There was still a certain amount of revolutionary jingoism in the air less than nine years after Haile Selassie had been overthrown (and less than eight after he had been smothered with a pillow by the man who had engineered his downfall – Lieutenant-Colonel Mengistu Haile Mariam). Mistrust, hatred and rank fear could also be detected everywhere: people remembered bitterly the period in the

late 1970s when Mengistu's forces had unleashed the 'Red Terror' against those seeking to restore the monarchy. State-sponsored death squads had roamed the streets rooting out suspects from their homes and executing them on the spot. The families of the victims of these purges had then had to reimburse the cost of the bullets used to kill their relatives before they were allowed to claim back the bodies for burial.

It was in the emotional climate fostered by such atrocities that I was obliged to conduct my preliminary research into a subject that had explicit connections with Ethiopia's last emperor and with the Solomonic dynasty to which he had belonged. Just how close these connections in fact were was made clear to me when a friend passed me a *samizdat* copy of a document prepared at the peak of Haile Selassie's power and popularity – the 1955 Revised Constitution. Implemented with the intent of encouraging 'the modern Ethiopian to

accustom himself to take part in the direction of all departments of State' and 'to share in the mighty task which Ethiopian Sovereigns have had to accomplish alone in the past', this remarkable piece of legislation nevertheless contained the following unequivocal confirmation of the age-old monarchy's Divine Right to rule:

> The Imperial dignity shall remain perpetually attached to the line of Haile Selassie I, whose line descends without interruption from the dynasty of Menelik I, son of the Queen of Ethiopia, the Queen of Sheba, and King Solomon of Jerusalem … By virtue of His Imperial Blood, as well as by the anointing which He has received, the person of the Emperor is sacred, His Dignity inviolable and His Power indisputable.[1]

I quickly established that Zelelew, our guide in Axum, had been correct about at least one of the things that he had told us: the Emperor *had* claimed to be the two hundred and twenty-fifth direct-line descendant of Menelik. Furthermore, very few of the Ethiopians to whom I talked in Addis Ababa – even the most revolutionary amongst them – seriously doubted the sacral pedigree of the Solomonic dynasty. Indeed, it was whispered that President Mengistu himself had plucked the ring of Solomon from Haile Selassie's dead hand and now wore it on his own middle finger – as though, by this device, he could appropriate some of the charisma and supposed magical powers of his predecessor.

Such whispers and rumours were interesting enough. They did not, however, satisfy my desire for hard information about the Ark of the Covenant and about its mystical associations with the deposed 'line of Haile Selassie I'. The

problem was that most of my Ethiopian contacts were too terrified to tell me what they knew and shut up like clams whenever I mentioned the Ark, the former emperor, or indeed anything to do with the pre-revolutionary period that might possibly be interpreted as seditious. I therefore only managed to make progress when a knowledgeable colleague arrived in Addis Ababa from England – Professor Richard Pankhurst, whom I had invited to join me as co-author in the book that I was preparing for the government.

Grandson of the famous English suffragette Emmeline Pankhurst, and the son of Sylvia Pankhurst – who had fought heroically alongside the Abyssinian resistance during the Italian occupation in the 1930s – Richard was, and remains, the leading historian of Ethiopia. In the time of Emperor Haile Selassie he had founded the scholarly and well respected Institute of Ethiopian Studies at Addis Ababa

University. Shortly after the revolution in 1974 he had left the country with his family, but was now anxious to get reinvolved; our book project, therefore, suited his own requirements well and he had taken a few days off from his work at the Royal Asiatic Society in London in order to discuss our collaboration on the text.

A tall but rather stooped man in his late fifties, he had a diffident, almost apologetic manner which – as I had discovered some time previously – disguised great self-confidence and a wicked sense of humour. His knowledge of Ethiopian history was comprehensive and one of the first matters I discussed with him was the Ark of the Covenant and the seemingly far-fetched claim that it might now rest in Axum. Did he think there could be any factual basis at all to this tradition?

He replied that the story of Solomon and Sheba that I had

heard in the sacred city had an ancient pedigree in Ethiopia. There were many versions of it, both oral and written. Amongst the latter the oldest still surviving was contained in a thirteenth-century manuscript known as the *Kebra Nagast* – which was greatly revered and which most Ethiopians believed to tell 'the truth, the whole truth and nothing but the truth'. As a historian, however, he could not accept this – particularly since the homeland of the Queen of Sheba had almost certainly been located in Arabia and not in Ethiopia at all. Nevertheless he could not entirely dismiss the possibility that the legend might contain 'some scintilla of veracity'. There *had* been well documented contacts between Ethiopia and Jerusalem in antiquity (though not as far back as the time of Solomon) and there could be no doubt that Ethiopian culture did contain a strong 'flavour' of Judaism. This was best illustrated by the presence in the country of a group of

indigenous Jews – known as the Falashas – who lived in the Simien mountains to the south of Axum and around the shores of Lake Tana. There were also certain widespread customs (many of which Abyssinian Christians shared with their Falasha neighbours) which provided at least circumstantial evidence of early ties with Judaic civilization. These customs included circumcision, the following of food proscriptions very close to those outlined in the book of Leviticus, and the practice (still adhered to in isolated rural communities) of celebrating the Sabbath on Saturdays rather than on Sundays.

I was already aware of the existence of the Falashas and had requested (but not yet been granted) official permission to visit and photograph at least one of their villages on our next field trip – which would take us to Lake Tana and thence northwards to the city of Gondar and hopefully also to

the Simien mountains. I knew next to nothing about the so-called ‘Black Jews of Ethiopia’, however, and asked Richard to tell me more about them.

He replied that in physical appearance and in dress they were quite indistinguishable from other Abyssinian highlanders. Their mother tongue, too, was indigenous, being a dialect of the Agaw language which – although now rapidly being replaced by Amharic, the national *lingua franca* – had once been spoken extensively in the northern provinces. In short, the only really unique quality that the Falashas possessed was their religion – which was undoubtedly Jewish, though of a very archaic and idiosyncratic kind. Their adherence to ancient customs, long abandoned elsewhere, had led a number of romantic and excitable visitors to proclaim them as ‘the lost tribe of Israel’. And in the last decade this notion had received the official blessing

of the Ashkenazi and Sephardi Chief Rabbis in Jerusalem who had defined the Falashas unequivocally as Jews – a status that rendered them eligible for Israeli citizenship under the terms of the Law of Return.

But, I asked, where had the Falashas come from in the first place? And how exactly had they been marooned in the middle of Ethiopia nearly two thousand miles from Israel?

Richard admitted that there were no easy answers to these questions. The view accepted by most scholars was that a number of Jews had migrated to the Abyssinian mainland from south-western Arabia in the first and second centuries AD and had subsequently converted some sections of the local population to their faith; the Falashas were therefore seen as the descendants of these converts. It was true, he added, that an important Jewish community *had* established itself in the Yemen following persecution by the Roman occupiers of

Palestine in the first century AD – so it was theoretically possible that missionaries and traders had crossed the narrow Red Sea straits of Bab-el-Mandeb and entered Ethiopia. Nevertheless he knew of no historical evidence which confirmed that this was really what had happened.

And what did the Falashas themselves say?

Richard smiled: 'That they are descended from King Solomon of course … Their legend is basically the same as the Christian one but a bit more elaborate. If I remember correctly, they claim that Solomon not only made the Queen of Sheba pregnant but also her maidservant – thus fathering not only Menelik but also a half-brother who founded a dynasty of Falasha kings. All the rest of the Jews in Ethiopia today are supposed to be the descendants of the bodyguard made up of the first-born sons of the elders of Israel who accompanied Menelik with the Ark of the Covenant.'

‘And do you think there’s any possibility that what they say might be true – I mean that the Ark could really have been stolen from Solomon’s Temple in Jerusalem and brought to Axum?’

Richard made a wry face: ‘Frankly no. No possibility at all. As a matter of fact Axum didn’t even *exist* in the period when this is supposed to have happened. It simply wasn’t there … Look, Solomon died – I don’t know exactly when but it must have been around the 940s or 930s BC. If Menelik was his son then it would have had to have been around those dates – maybe even ten or fifteen years earlier – that he brought the Ark to Axum. But there’s absolutely no way that he could have done that. You see, Axum wasn’t founded until at least the third century BC, perhaps not even until the second century BC – in other words about seven or eight hundred years *after* the supposed theft of the Ark.’

‘Well,’ I said, ‘that rather puts paid to the whole story doesn’t it?’

‘Yes – although I expect it’s just feasible that the Ark could have been brought to some other place in Ethiopia which later got mixed up with Axum in the traditions that have been handed down. There are, however, many other fallacies, anachronisms and inaccuracies in the legend – which is why no historian or archaeologist worth his salt has ever been prepared to spend time investigating it … Nevertheless not all the things that the Falashas say about themselves are complete fantasies and some aspects of their origins would merit further research.’

‘What, for example?’

‘The claim I mentioned that there was once a dynasty of Jewish kings in Ethiopia … If we go back to say the fifteenth and sixteenth centuries AD we find quite a lot of evidence to

support that view – and it's probable that they had a monarchic system long before then as well. In fact, by all accounts, the Jews were once a force to be reckoned with in this country: sometimes they even fought successful wars with the Christian rulers in order to preserve their independence. But over the years they gradually weakened and began to disappear. We know that their numbers were greatly reduced between the fifteenth and eighteenth centuries. And unfortunately they've continued to be in steady decline ever since. There are probably no more than twenty thousand of them left now – and most of them are trying to get to Israel.'

Richard and I worked together in Addis for the next three days – during which time I benefited enormously from the detailed briefings that he gave me about Ethiopian culture and history. Then he returned to London and Carol, Duncan

and I embarked on the field trip that would take us to Lake Tana, Gondar and the Simiens.

Tabots: replicas of the Ark

Driving out of Addis Ababa in the battered Toyota Landcruiser that the government had provided to facilitate our work we climbed the immense eucalyptus-covered shoulder of Mount Entoto and then travelled in a north-westerly direction for many miles across high, bleak moorlands.

At Debra Libanos (the name means 'Mount Lebanon'), we paused to photograph a sixteenth-century church where thousands of pilgrims had congregated to celebrate the life and miracles of Tekla Haimanot, a famous Ethiopian saint. We saw normally shy and conservative men and women

casting off all their clothes to bathe naked in a spring of holy water. Possessed by the demanding spirit of their own religious fervour, they seemed enraptured, entranced, lost to the world.

Further north still we crossed the spectacular Blue Nile gorge before finally arriving at Bahar Dar, a small town at the southern tip of Lake Tana, Ethiopia's mighty inland sea. Here we spent several days puttering about on the reed-fringed waters in a large diesel-engined launch provided to us by the Maritime Authority. We visited some of the twenty monasteries on the lake's numerous islands and photographed their wonderful collections of old illuminated manuscripts, religious paintings and murals.

Because of their literal 'isolation', we learned, these monasteries had frequently been used during times of trouble as places of safety for art treasures and for sacred relics from

all parts of the country. Their main purpose, however, was to provide their inmates with peace and solitude. One monk told me that he had not left his tiny, wooded island for twenty-five years and had no intention of ever doing so. 'By cutting myself off like this,' he said, 'I get real happiness. All my days I have been loyal to God and will remain so until I die. I have separated myself from the life of the world. I am free from its distractions.'

Every monastic community had its own church – and these buildings, usually circular in plan rather than rectangular, were often very old. Typically they would have an outer walkway, open at the sides but covered by the projecting thatch of the roof, then an inner circuit (the *k'ane mahlet*) richly decorated with paintings, then a second circuit (the *keddest*, used for communion) which in turn surrounded a walled central enclosure (the *mak'das*) containing the Holy of

Holies.

I had been in many Ethiopian churches before, but those on Lake Tana were the first in which I began to get some idea of the significance of the Holy of Holies. I discovered that each of these inner sanctums – which only the most senior priests could enter – contained an object regarded as being immensely sacred. Speaking through our government interpreter at the fourteenth-century monastery of Kebran Gabriel, I asked what this sacred object was.

'It is the *tabot*,' replied my informant, ninety-year-old Abba Haile Mariam.

The word sounded familiar and, after a moment's reflection, I remembered that I had heard it in Axum when I had sat in the grounds of the sanctuary chapel talking to the guardian monk: it was the Ethiopian name for the Ark of the Covenant.

‘What does he mean by *tabot*?’ I asked our interpreter. ‘Does he mean the Ark of the Covenant? We were just in Axum a couple of weeks ago and we were told that the Ark was there …’ I paused, genuinely puzzled, then concluded rather lamely: ‘I don’t see how it can be here as well.’

A lengthy discussion followed, into which several of the other monks were drawn. For a while I despaired of ever learning anything of substance from these people who – quiet and withdrawn until a moment before – were now garrulous, animated and argumentative. Eventually, however, with further probing from me and much clarification by the interpreter, a clear picture began to emerge.

Every Orthodox church in Ethiopia, it seemed, had its own Holy of Holies, and in every Holy of Holies was a *tabot*. No claim was made that any of these objects were actually *the* Ark of the Covenant. There was only one true Ark and that,

properly known as *Tabota Zion*, had indeed been brought by Menelik to Ethiopia in the time of Solomon and now stood in the sanctuary chapel in Axum. All the others throughout the length and breadth of the land were merely replicas of that sacred and inviolable original.

These replicas, however, were important. Indeed they were supremely important. Symbolic on several levels, it appeared from what I was told that they fully embodied the intangible notion of sanctity. As Abba Haile Mariam painstakingly explained to me during our interview at Kebran Gabriel: 'It is the *tabots*, rather than the churches that they stand in, that are consecrated; without a *tabot* at its heart, in its Holy of Holies, a church is just an empty husk – a dead building of no greater or lesser significance than any other.'

The black Jews of Ethiopia

When our work at the island monasteries was complete we returned to Bahar Dar and then drove north, around the curving eastern shore of Lake Tana, to the city of Gondar – founded in the seventeenth century by Fasilidas, the same emperor who had rebuilt the church of Saint Mary of Zion at Axum. During the journey I had time to give further consideration to the *tabot* tradition that I had just learned about.

At the very least, I remember thinking, it was intriguing and odd that the Ethiopian Christians should ascribe so much importance to the Ark of the Covenant that they felt the need to place replicas of it in every single one of their churches. The Ark, after all, was a *pre-Christian* relic and had absolutely nothing to do with the teachings of Jesus. So what on earth was going on here?

Inevitably I began to wonder again about the validity of the Axumite claims concerning the Queen of Sheba, King Solomon and their son Menelik. Perhaps, after all, there was some substance to the legends. The presence of indigenous black Jews in the country, whose origin seemed to be shrouded in mystery, was also intriguing – and could, it seemed to me, quite possibly be connected. I therefore found myself looking forward with interest to visiting the Falasha settlements which I knew that we would encounter with increasing frequency on the next stage of our field trip.

Before leaving Gondar, however, we were warned by a senior official that we should on no account try to interview or photograph any Ethiopian Jews. Under the circumstances I was extremely frustrated by this, and even more frustrated – and annoyed – when our interpreter and official guide explained the reason for the ban. With an absolutely straight

face he told me: ‘This year the position of our government is that the Falashas don’t exist. And if they don’t exist then obviously you can’t talk to any of them or take their pictures … It would be a contradiction.’

Less than ten minutes’ drive beyond the city limits, however, I spotted a Star of David positioned on top of a hut in a small village by the side of the road. ‘Come on, Balcha,’ I said to the interpreter, ‘that’s a Falasha house isn’t it?’

Balcha was an intelligent, sensitive and highly educated man who had spent several years in the United States. He was vastly over-qualified for the government job he was now doing. He was also quite obviously impatient with the more lunatic edicts of the bureaucrats in Addis Ababa and, indeed, with official secrecy in general. Although we had already left the Falasha village behind I therefore made a determined effort to persuade him to let us turn back.

He cast me a discomfited glance out of the corner of his eye: ‘Really it is very difficult. We never know from one day to the next what line our bosses are going to take … Late last year I brought a Canadian film crew to that very village … they were interested in the Jews and they had all the official permissions and everything. Anyway, they poked around and asked a lot of leading questions about religious freedom, political persecution and so on – all of which I had to translate. Afterwards I was arrested by the security police and locked up for a few weeks accused of facilitating anti-state propaganda. Do you really want that to happen to me again?’

‘No, of course not. But I’m certain there won’t be any problems. I mean we’re actually here working *for* the government and trying to produce a worthwhile book about the peoples and cultures of this country. Surely that makes a

big difference?'

'Not necessarily. Last year, when I came with the film crew, the Falashas officially existed – the government wasn't denying them – but I still ended up in jail. This year there are supposed to be no Jews in Ethiopia, so I think if I take you to one of their villages I will be in serious trouble.'

I had to admit that Balcha's logic was faultless. As we drove on through increasingly mountainous terrain, I asked him to explain the official position – if he could.

Part of the problem, he replied, was that most of 'the bosses' in Addis Ababa belonged to the dominant Amhara ethnic group. The Falashas lived mainly in the provinces of Gondar and Gojjam – which were both Amhara strongholds – and, as a result, there was tension between the two peoples. In the past there had been occasional massacres as well as sustained economic persecution, and the Jews were still

looked down upon and despised by their Amhara neighbours today. Since the revolution some efforts had been made to improve the situation, but members of the ruling elite continued to suffer from a kind of collective guilty conscience about the whole matter and did not want any foreigners 'sticking their noses in'. Moreover, since the beginning of the 1980s, official paranoia had been greatly heightened by the strong anti-government line taken by visiting American and British Jews, who had openly and vociferously expressed concern about Falasha welfare. 'This has been seen as meddling in our internal affairs,' Balcha explained.

As we talked I learned that there were other more complex considerations too. Instinctively lowering his voice – though our driver spoke no English – Balcha pointed out that Addis Ababa was the Headquarters of the Organization of African Unity and that Ethiopia had joined other African states in

ending its diplomatic relationship with Israel after the last Arab—Israeli war. The fact was, however, that clandestine links did still continue between the two countries: indeed the Israelis were providing a certain amount of military assistance to the regime. In return for this help, some hundreds of Falashas had quietly been permitted to emigrate every year to Israel. The problem was, however, that thousands more had fled illegally by trekking across the border into refugee camps in the Sudan – from whence, they hoped, they might eventually be airlifted to Tel Aviv.

As a result of all this, the entire issue had now become very sensitive. On the one hand the government feared that its covert guns-for-people deal with the Israelis might at any moment be exposed, thus causing maximum embarrassment within the OAU. On the other hand there was real resentment at the fact that large numbers of Ethiopian citizens were

being lured into refugee camps in a neighbouring and not entirely friendly country. This, Balcha said, made ‘the big-shots in Addis’ look as though they were no longer fully in control – which was true but not something that they wanted to publicize.

During the next three days I had little time to give further consideration to the Falasha question. Our journey had brought us into the heart of the Simien mountains – an Afro-Alpine wilderness, all of which lay at more than six thousand feet above sea level, much at nine thousand feet or more, and a not insignificant portion at thirteen thousand feet plus. The giant of the range, the snow-capped peak of Mount Ras Dashen, soared up to fourteen thousand nine hundred and ten feet – making it the highest point in Ethiopia and the fourth highest in the whole continent of Africa.

At an altitude of ten thousand feet, the camp that we had

established as the base for our photography and research was freezing cold at night – so cold that we had to keep a huge fire stoked and burning. In the mornings, however, as the dawn mists evaporated beneath the rising sun, warmth filled the air and astonishing views unfolded in all directions over a surreal landscape which ancient seismic activity, followed by millions of years of erosion, had left folded and fissured, cut through with steep valleys, and dominated by isolated, jutting crags.

Our treks frequently took us up above twelve thousand feet on to remote, unpopulated heaths. At lower altitudes, however, we saw frequent signs of human habitation: grassy meadows that provided grazing for sheep, goats and cattle, and terraced hillsides divided into allotments and planted with cereals. Viewing these tidy smallholdings, I had the sense of a very old, long-established pattern of agricultural

life and of a peasant culture that probably had experienced no significant change in the past century – nor even in the past millennium.

There were a few Falasha communities – which, at Balcha's insistence, we rigorously avoided. The majority of the population, however, were Amharas who lived not in villages but in small hamlets – usually of six houses or less – that tended to be inhabited by single extended families. Typically their homes were circular structures with walls made of wattle-and-daub or sometimes of stone, and with conical thatched roofs supported by wooden poles rising through the centre.

The peasant whom we met and talked to were poor, in some cases very poor indeed, and their lives were clearly ruled by the iron rods of soil and season. Nevertheless they were also dignified and proud and this, Balcha told us, was

because they felt – with good reason – that they belonged to a 'master race'. Over an astonishing period of more than seven hundred years, from AD 1270 until the overthrow of Emperor Haile Selassie in 1974, all but one of the rulers of Ethiopia had been Amharas. It was their mother-tongue, furthermore – Amharic – that had been adopted as the country's official language.

Inevitably, therefore, Amhara culture – expressed through an almost universal dedication to the Christian faith – had had an enormous impact. In the past few centuries, whole tribes and peoples had become 'Amharized', and this process was still continuing in many different parts of Ethiopia. In such a context, Balcha concluded, it was little short of a miracle that subject groups like the Falashas had managed to survive at all, let alone maintain their own distinct identity.

A maverick at heart, Balcha (who some years later defected

to the United States) surprised us on our journey back to Gondar by ordering our driver to stop at the same Falasha village that we had seen on our way out. ‘Go on,’ he said, ‘I’ll give you ten minutes.’ He then folded his arms and pretended to fall asleep.

From the moment we climbed down from the Landcruiser we were besieged by women and children all shouting ‘*Shalom, Shalom*’ – which, it quickly transpired, was just about the only word of Hebrew that they knew. With Balcha steadfastly refusing to interpret for us, we at first had some difficulty in communicating; soon, however, we found a young man who spoke some English and, in exchange for a small sum of money, he agreed to show us around.

There was not much to see. Sprawled up a slope at the side of the road, the village – it was called Weleka – was dirty and seething with flies. Many of the people who pressed around

us seemed to think that we ourselves must be Jewish and that we had come to take them away to Israel. Others ran towards us with armloads of souvenirs – for the most part baked clay representations of the Star of David and of the supposed bed-time scene between Solomon and Sheba. The plaintive earnestness with which these items were touted touched me and I asked our guide how long it had been since there had been any foreigners here to buy their goods. 'Not since year before,' he replied.

In the short time we had at our disposal we photographed what we could. Here a loom stood positioned for a weaver above a hole in the ground; there pieces of iron lay scattered around a fire, in the flickering flames of which a blacksmith was forging an axe-head; in one hut clay was being baked; in another we found a woman at work fashioning pottery. The Amharas, Balcha told us later, despised such lowly trades –

indeed, in their language, the word for ‘manual worker’ (*tabib*) had the same meaning as ‘one with the evil eye’.

By the time we left Weleka I felt thoroughly jaded. Partly prompted by what Richard Pankhurst had told me about the medieval history of the Falashas, and partly because I was intrigued by the possible connection of this people to the Ark of the Covenant story that I had heard in Axum, I had built up some rather unrealistic and extravagant expectations. A romantic at heart, I had nurtured dreams of encountering a noble and ancient Judaic civilization. The reality, however, seemed to be a degraded and impoverished peasant culture overanxious to pander to the enthusiasms of foreigners. Even the place of worship, which the Falashas called a *mesgid*, turned out to be filled with chintzy gifts from Israel: boxes of *matsos* were stacked in one corner and nobody could read the Torah – which had been printed in Tel Aviv – because it was

written in Hebrew.

Just before we drove away I bought one of the miniature sculptures of Solomon and Sheba in bed together. I have it still. At the time I remember thinking that its cheap workmanship and sentimental imagery appropriately symbolized the deficiencies of the legend itself. Disappointed and disenchanted I glowered out of the window of the Landcruiser as we motored back into Gondar.

Coup de grâce

By the end of 1983 I had entirely lost interest in the Axumite claim to the Ark of the Covenant. The *coup de grâce*, however, was not delivered by the tawdry Falasha village but by what I saw when I followed up the one issue still outstanding after the completion of our field work – the question of the *tabots*,

the replicas of the Ark, which were lodged in every Ethiopian Christian church. This custom had struck me as being of possible relevance and I wanted to find out more about it.

I raised the matter in the late autumn of 1983 on a visit that I made to Richard Pankhurst's home in London's elegant Hampstead district. Over tea and biscuits the historian confirmed that *tabots* were indeed supposed to be replicas of the Ark and added: 'It's a most curious tradition. As far as I'm aware there's no precedent for it in any other brand of Christianity.'

I asked if he knew how long *tabots* had been in use in Ethiopia. He replied that he honestly had no idea. 'The first historical mention was probably made by Father Francisco Alvarez who visited the north of the country in the sixteenth century. But it's clear that he was witnessing a tradition that was already very old at that time.'

Richard then pulled down from his bookshelf a slim volume, printed in 1970, entitled *The Ethiopian Orthodox Church*. ‘This is an official church publication,’ he said, ‘let’s have a look and see if it offers any enlightenment on the subject.’

There was no index, but we checked first in a chapter entitled ‘The Consecration of a Church’. Here I read:

> The consecration of a church is a solemn and impressive ceremony with rites symbolic of the sacred uses to which the edifice is dedicated. The various parts of the service are of very ancient date … The *Tabot*, or Ark, previously consecrated by the Patriarch, is installed with grandeur and is the chief feature of the ceremony.[2]

In another chapter, ‘Church Buildings’, I came across this

passage: ‘It is the *Tabot* which gives sanctity to the church in which it is placed.’[3] Finally, in the glossary, I found the word *tabot* defined simply as ‘Ark of the Covenant’.[4]

I next asked Richard if he had any idea what *tabots* looked like. ‘The Bible says that the original Ark of the Covenant was a wood and gold box about the size of a tea-chest. Do the *tabots* fit that description?’

‘Well, no, I’m afraid they don’t. Of course lay people aren’t supposed to see them at all. Even when they’re brought out in procession they’re always covered in cloth wrappings. But they’re certainly much smaller than the biblical description. We needn’t speculate on this though. You can go and see some *tabots* for yourself at the British Museum. They were looted from Ethiopia during the Napier Expedition to Magdala in the nineteenth century and brought back to England. I don’t think they’re on public display any more, but

you'll find them in the Ethnographic Store in Hackney.'

The next morning, after I had made a few phone calls, I drove over to Orsman Road, London NI, where the Ethnographic Store was located. It was a modern and fundamentally unattractive building with quite a high level of security: 'People sometimes try to break in here and nick our stuff,' explained the caretaker as I signed in.

He took me in a lift to one of the upper floors and then into an enormous warehouse of a room completely filled with rows of metal filing racks. These extended from floor to ceiling and were separated only by narrow walkways badly lit by overhead fluorescent tubes. The caretaker now consulted a voluminous index, muttering incomprehensibly to himself as he did so. 'I think it's this way,' he said finally. 'Follow me.'

As we walked I was reminded irresistibly of the closing

scene in *Raiders of the Lost Ark* – the scene in which the sacred relic is sealed in a wooden crate and dumped in a federal depository amidst thousands of other anonymous containers. This parallel continued when, after quite a few false turns in the maze of shelves, we finally arrived at the right spot. Here, with a certain amount of ceremony, the caretaker pulled out … a large box.

I felt a thrill of excitement as he opened it up. Inside, however, there was nothing that bore even the remotest resemblance to my image of the Ark of the Covenant. Separated by sheets of crêpe paper there were, instead, nine wooden slabs, some square, some rectangular, none exceeding eighteen inches in length and width, and none more than three inches thick. The majority were very plain but all bore writing which I recognized as *Ge'ez*, the ancient liturgical language of Ethiopia. A few were additionally

engraved with crosses and other devices.

I asked the caretaker to check his index. Could he possibly have made a mistake? Could we be looking at the wrong things?

He squinted at the list in his hands, then replied: ‘No. No mistake. These are your *tabots* all right. From the Holmes collection. Brought back by the British Expedition to Abyssinia in 1867/8. That’s what it says here.’

I thanked him for his trouble and left, satisfied that I had finally laid the whole matter to rest. These pathetic lumps of wood were supposed to be replicas of the sacred relic in the sanctuary chapel at Axum. Whatever that relic might be, therefore, one thing was now absolutely clear: it was *not* the Ark of the Covenant.

‘So that’s the end of that,’ I remember thinking as I stepped out on to Orsman Road and ran to my car through a dismal

shower of rain.

I could not have been more wrong.

Part II: Europe, 1989

Holy Ark and Holy Grail

Paris
Seine
Chartres
Troyes
Loire
FRANCE
Saône
Rhône
Garonne
Avignon
Kilometres
0
200

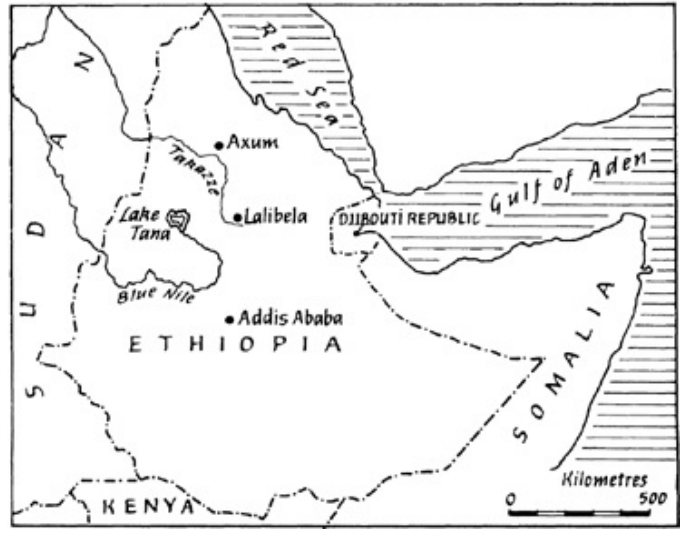
Red Sea
SUDAN
Axum
Takaze
Lake Tana
Lalibela
DJIBOUTI REPUBLIC
Gulf of Aden
Blue Nile
Addis Ababa
ETHIOPIA
SOMALIA
KENYA
Kilometres
0
500

Chapter 3

The Grail Cipher

It was in 1983 that I visited Axum and learned at first hand about Ethiopia's audacious claim to be the last resting place of the Ark of the Covenant. I had been living in Africa at the time. In 1984 I moved to England with my family. Nevertheless in the years that followed I continued to travel regularly to Addis Ababa, producing a number of publications for the government and generally strengthening my contacts with those in power – including President Mengistu Haile Mariam himself. The dictator had a bad reputation for abusing human rights but I cultivated him

assiduously and won a number of useful privileges as a result – notably access to many areas that were normally closed to foreigners. If I had wanted to look further into the Ark mystery there is no doubt that I would have been strongly placed to do so. I was just not interested, however. I therefore did not feel even a twinge of regret when, at the end of 1988, the forces of the Tigray People's Liberation Front launched a massive offensive against Axum and captured it in a single day of bloody hand-to-hand fighting – during which more than two thousand of the governments troops were killed or captured. At that stage my involvement with the Mengistu regime had become so close that the rebels' success meant the doors of the sacred city were now effectively closed to me. But I had no particular reason to want to go back there anyway. Or at least so I thought.

The Queen of Sheba at Chartres

I spent most of the second half of 1988 and the first quarter of 1989 writing the accompanying commentary for an illustrated book focussing on the historic northern regions of Ethiopia and on the religious ceremonies and customs of the peoples living there. This project was not commissioned by the government but was the work of two internationally renowned photographers, Angela Fisher and Carol Beckwith[1] – both of whom were close friends of mine.

Because of the nature of the subject, I had to do some quite detailed background research into several different ethnic groups – amongst them the Falashas, the indigenous black Jews of the Ethiopian highlands whom I had first encountered in 1983. At the same time, because of its formative role in Abyssinian religious culture, I found it necessary to read an ancient text to which Professor Richard

Pankhurst had long before drawn my attention. Called the *Kebra Nagast* ('Glory of Kings') this text dated from the thirteenth century AD and had originally been written in *Ge'ez*. It contained the earliest-surviving version of the story told to me in Axum about the Queen of Sheba and King Solomon, the birth of their son Menelik, and the eventual abduction of the Ark of the Covenant from the First Temple in Jerusalem. An English translation had been made in the 1920s by Sir E. A. Wallis Budge, formerly Keeper of Egyptian and Assyrian Antiquities at the British Museum. It was out of print, but I managed to obtain a photocopy which I studied closely and drew on at various stages in the book I was writing.

My manuscript was not finalized until the end of March 1989. In April, wanting a complete break, I went on holiday to France with my family. We hired a car in Paris and then,

with no particular itinerary in mind, headed south. Our first stop was Versailles where we spent a couple of days looking at the palace and at the châteaux. Then we went on to Chartres, a lovely old town in the *département* of Eure-et-Loire that is famous for its Gothic cathedral – a cathedral dedicated, like the great church at Axum, to Saint Mary the Mother of Christ.

Chartres has been an important Christian site since at least the sixth century AD and a focal point for the cult of the Madonna since the ninth century when Charles the Bald, grandson of the famous Charlemagne, presented the town with its most precious religious relic – a veil said to have been worn by Mary when she gave birth to Jesus. In the eleventh century the church built by Charles the Bald was burnt down and a new, much enlarged, cathedral was erected on its foundations. Following classical, 'Romanesque' design

principles that emphasized horizontal solidity, this cathedral, too, was badly damaged by fire. Subsequently, during the twelfth and thirteenth centuries, its surviving shell was extensively modified and enlarged in the new, soaring, upward-striving style that came to be known as 'Gothic'. Indeed the high north tower of Chartres cathedral, completed in the year 1134, is thought to be the world's earliest example of Gothic architecture.[2] The south tower was added over the next two decades, as were further features such as the west-facing Royal Portal. Then, in a concentrated burst of building between 1194 and 1225 most of the rest of the superb Gothic exterior was put in place – remaining intact and virtually unaltered ever since.[3]

When I visited Chartres with my family in April 1989 I was initially much less interested in the history of the cathedral than in its spectacular and glorious beauty. It was such a vast

construction, with so much complex sculpture around its walls, that I realized it might take a lifetime to get to know it properly. We had other things to do and see, however, and decided to stay in the town for just three days before moving on towards the south.

I spent the greater part of those three days walking slowly around the cathedral, gradually imbibing its powerful and numinous atmosphere – the remarkable stained glass windows telling biblical stories and illuminating the inner gloom with strange patterns of light, the enigmatic labyrinth mapped out with paving stones in the centre of the nave, the flying buttresses supporting the soaring walls, the pointed arches, and the overwhelming sensation of harmony and proportion conveyed by the grace and agility of the architecture.

Guidebooks that I had purchased stressed that nothing was

accidental here. The entire edifice had been carefully and explicitly designed as a key to the deeper religious mysteries. Thus, for example, the architects and masons had made use of *gematria* (an ancient Hebrew cipher that substitutes numbers for the letters of the alphabet) to 'spell out' obscure liturgical phrases in many of the key dimensions of the great building.[4] Similarly the sculptors and glaziers – working usually to the instructions of the higher clergy – had carefully concealed complex messages about human nature, about the past, and about the prophetic meaning of the Scriptures in the thousands of different devices and designs that they had created. The statues and windows were in themselves works of art and beauty that were capable, at the most superficial level of understanding, of providing satisfaction, moral guidance and even entertainment to the viewer. The challenge, however, was to delve deeper and to decode the

information concealed beneath the more obvious surface interpretations of this or that set of sculptures, this or that arrangement of stained glass.[5]

I was initially rather unconvinced by arguments like these and found it hard to accept that there could be anything more to the building than its outward appearance. Gradually, however, as I explored further and joined several specialist tours, I began to see that the vast structure was indeed a kind of 'book in stone' – an intricate and provocative opus that could be approached and understood at several different levels.

Soon enough, therefore, I too started to play the game – and several times entertained myself by trying to work out the deeper significance of various pieces of statuary that caught my eye. When I thought I had found the correct answer to a particular arrangement or tableau I would then

check in the guidebooks to see whether I was right or not.

Then something unexpected happened. Opposite the cathedral's south porch I stopped for a snack in a café called *La Reine de Saba*. My recent reading of the *Kebra Nagast* containing the Ethiopian legend of the Queen of Sheba was still fresh in my mind and I asked one of the waiters why this name had been chosen.

'Because there is a sculpture of the Queen of Sheba in the porch over there,' he explained.

My curiosity aroused, I crossed the road and climbed the seventeen steps to the ornate porch – which consisted of a wide central archway sandwiched between two slightly narrower bays. Here, on almost every available square inch of masonry, were hundreds and hundreds of statuettes and many full-size statues. I could find none, however, that seemed obviously to represent the Queen of Sheba. I

therefore checked in the guidebooks I had with me, the most detailed of which, *Chartres: Guide of the Cathedral*, told me where to look:

> The inner archivolt of the outer arch has twenty-eight statuettes of kings and queens of the Old Testament: we recognise David with his harp, Solomon with a sceptre, and the Queen of Sheba holding a flower in her left hand. At the top, the four major prophets, bearded, talk with four minor prophets who are clean shaven.[6]

The book also informed me that the whole of the south porch had been built in the first quarter of the thirteenth century – the same century in which the *Kebra Nagast* had been compiled in Ethiopia to tell the story of the Queen of Sheba, Menelik and the theft of the Ark.

This struck me as an amusing coincidence and I therefore examined the statuette of the Queen of Sheba with some considerable interest. I could see absolutely nothing about it, however, that made it special in any way – other than the fact that it seemed to be a little out of place in the august company of a large number of Jewish monarchs and prophets. I knew that according to the *Kebra Nagast* the queen had been converted to Judaism,[7] but I also knew that the relatively short biblical account of her visit to Jerusalem made no mention of this. In Chapter 10 of the book of Kings and in Chapter 9 of the book of Chronicles – the only places where she was specifically named in the Scriptures – she arrived at Solomon's court a heathen and apparently left there a heathen still.[8] It was her paganism, therefore, that made her the odd one out – unless, of course, the builders of Chartres cathedral had been familiar with the Ethiopian story

of her conversion. This, however, seemed most unlikely – indeed the Old Testament did not even hint that she might have come from Ethiopia at all and the majority of scholars believed her to have been a South Arabian monarch who had hailed quite specifically from Saba or Sabaea in what is now the Yemen.[9]

I might very well have left the matter there, as a minor anomaly amongst the sculptures in the south porch of Chartres cathedral, if I had not discovered, by reading further in my guidebook, that there was a second statue of the Queen of Sheba in the north porch. That porch, too, had been built between the years 1200 and 1225, and was devoted to an extensive portrayal of Old Testament themes.[10]

The Ark and the inscriptions

I suppose, on that first visit, that I spent two hours in the north porch trying to puzzle out the convoluted stories told by the sculptures.

The left bay contained several representations of the Virgin Mary and of the infant Christ together with Old Testament prophets like Isaiah and Daniel. There were also moral tales – notably one which portrayed the triumph of the Virtues over the Vices, and another which depicted the beatitudes of the body and soul as described by the great twelfth-century cleric Saint Bernard of Clairvaux.

The central bay was dominated by a group of Old Testament patriarchs and prophets, notably the figure of Melchizedek – the mysterious priest-king of Salem described in Chapter 14 of the book of Genesis and in Psalm 110.[11] Abraham, Moses, Samuel and David were there also, as were Elisha and Saint Peter. Other scenes included the Garden of

Eden, with its four rivers, and the Virgin Mary crowned and seated on the heavenly throne beside Jesus.

It was in the right bay that I found the Queen of Sheba. This time she was not an obscure statuette on the arch, as had been the case in the south porch, but rather a full-size statue. She was placed next to a figure of Solomon, which made sense given the biblical context. What immediately caught my eye, however, was that beneath her feet crouched an African – described in one of my guidebooks as 'her negroid servant',[12] and in another as 'her Ethiopian slave'.[13]

No further details were given. Nevertheless I had seen enough to be satisfied that the sculptors who had worked in the north porch of Chartres in the thirteenth century had wanted to place the queen unmistakably in an African context. This meant that I could no longer so easily dismiss the possibility that those sculptors might have been familiar

with the Ethiopian traditions about her which, in the thirteenth century, had been set down in the *Kebra Nagast*. That, at least, would explain why an apparently pagan monarch had been given so much importance in the iconography of a Christian cathedral: as noted above, it had only been in the *Kebra Nagast*, and not in the Bible, that she had been described as a convert to the true faith of the patriarchs. At the same time, however, it raised another difficult question: how and by what means could the Ethiopian story have filtered into northern France at so early a date?

It was with such thoughts passing through my mind that, on a column between the central and right-hand bays, I came across a piece of sculpture that was to have an even more powerful impact on me. Miniaturized – no more than a few inches high and wide – it depicted a box or chest of some sort

being transported on an ox-cart. Beneath it, in capital letters, were carved these two words:

ARCHA CEDERIS

Moving on around the column in an anti-clockwise direction I then found a separate scene, badly damaged and eroded, which seemed to show a man stooping over the same box or chest. There was an inscription here, too, a little difficult to make out:

> HIC AMICITUR ARCHA CEDERIS (or possibly HIC AMITTITUR ARCHA CEDERIS, or HIC AMITITUR ARCHA CEDERIS, or even HIC AMIGITUR ARCHA CEDERIS).

The style of the lettering was archaic, jumbled up and

obscure. I realized that it must be Latin, or a form of Latin. However, having been obliged by my schoolmasters to abandon that subject at the age of thirteen (on account of my own linguistic incompetence), I made no attempt at a full translation. It seemed to me, however, that the word ARCHA must mean 'Ark' – as in Ark of the Covenant. I could also see that the box or chest depicted in the sculptures was about the right size (scaled against the other figures) to have been the Ark described in the book of Exodus.[14]

If I was correct in this assumption, I reasoned, then the positioning of an image of the Ark within a very few feet of an image of the Queen of Sheba strengthened the hypothesis that the builders of Chartres might, in some as yet unexplained way, have been influenced by the Ethiopian traditions set down in the *Kebra Nagast*. Indeed the fact the sculptors had placed the queen so unambiguously in an

African context made this hypothesis look much more plausible than it had seemed when it had first occurred to me in the south porch. I therefore felt that it would be worth my while to establish whether the miniaturized devices on the columns were really images of the Ark and to work out the meaning of the Latin inscriptions.

I sat down on the paving of the north porch and pored through my guidebooks. Only two of them made any mention at all of the decorations on the columns I was interested in. One offered no translation of the inscriptions but confirmed that the scenes depicted did indeed relate to the Ark of the Covenant.[15] The other provided the following translation – which I found interesting, but also rather suspect:

> *ARCHA CEDERIS*: 'You are to work through the Ark.'

> *HIC AMITITUR ARCHA CEDERIS*: 'Here things take their course; you are to work through the Ark.'[16]

Even my schoolboy Latin was sufficient to suggest that these interpretations were probably incorrect. I therefore decided that I would have to refer the matter to an expert for clarification and it occurred to me that in just a few days I would be passing quite close to the home of a man well qualified to help – Professor Peter Lasko, an art historian and a former director of the University of London's Courtauld Institute, who now spent six months of every year living in southern France. The father of a close friend of mine, Lasko had made a lifetime study of the sacred art and architecture of the medieval period and could probably give me an authoritative opinion – or at any rate point me in the right

direction.

Accordingly I carefully copied out the inscriptions and then stood up to try to produce a sketch of the whole north porch. As I was doing so I noticed something else that was possibly significant: the Ark tableau, though standing to the front of the porch on the supporting columns, was positioned exactly midway between Melchizedek, the Old Testament priest-king whose statue dominated the central bay, and the statue of the Queen of Sheba, which dominated the right-hand bay. Indeed I found that I could draw a neat triangle connecting up all three pieces of sculpture – with Melchizedek and the Queen of Sheba at either end of the long base and the Ark of the Covenant at the apex of the two shorter sides.

Nor was this all. As I studied the layout of images in the two bays I realized that the Ark on its little cart had been depicted as moving *away* from Melchizedek and directly

towards the Queen of Sheba – along the side of the triangle I had drawn. Given the cryptic nature of much of the sculpture at Chartres, and the way in which different figures were often deliberately juxtaposed in order to tell stories and convey information, it seemed to me that this particular arrangement was unlikely to have been accidental. On the contrary it looked very much like another piece of evidence to support my evolving hypothesis that the builders of Chartres must, somehow, have been exposed to the Ethiopian legend of the Queen of Sheba as related in the *Kebra Nagast*. Though there was far too little to go on here to justify any firm conclusions, it was at least possible that the curious iconography of the north porch did contain echoes of the tradition that the Ark of the Covenant had been taken *away* from ancient Israel (represented by the priest-king Melchizedek) and *to* Ethiopia (represented by the Queen of Sheba).

I therefore paid special attention to the statue of Melchizedek before leaving the north porch. He had caught my eye when I had first arrived, but now, as I sketched him, I began to notice more details. Dangling beneath his right hand, for example, was a censer very similar to those that I had often seen in use in Ethiopian church services – where copious quantities of incense were routinely burned. Meanwhile he held in his left hand a long-stemmed chalice or cup containing not liquid but rather some sort of solid cylindrical object.

I searched through my guidebooks again, but could find no reference to the censer and only conflicting explanations of the cup. One source said that Melchizedek was intended here to be viewed as a precursor of Christ and that the chalice and the object within it were thus meant to represent 'the bread and the wine, the symbols of the Eucharist'.[17] Another

captioned its photograph of the statue with these words: 'Melchizedek bearing the Grail cup out of which comes the Stone', and then added (somewhat puzzlingly):

> With this we may connect the poem of Wolfram von Eschenbach, who is said to have been a Templar – though there is no proof of this – for whom the Grail is a Stone.[18]

None the wiser, I eventually left the north porch and joined my wife and children in the gardens behind the great cathedral. The next day we drove south from Chartres in the direction of Bordeaux and Biarritz. And some time after that, now heading east towards the Côte d'azur, we arrived in the *département* of Tarn-et-Garonne near the city of Toulouse. There, with the aid of a good map, I eventually found the home of the art historian Professor Peter Lasko whom I had

telephoned from Chartres and who had expressed a willingness to talk to me about the sculptures in the north porch – though, he had modestly added, he could not claim to be an expert on them.

An Ethiopian connection?

I spent an afternoon with Peter Lasko at his house in the village of Montaigu de Quercy. A distinguished, grey-haired man in his sixties, I had met him several times before and he knew that, as a writer, I specialized in Ethiopia and the Horn of Africa. He therefore began by asking me why I had suddenly taken an interest in medieval French cathedrals.

I replied by outlining my theory that the sculptures I had seen in the north porch of Chartres might in some way have been influenced by the *Kebra Nagast*: 'Melchizedek with his

cup could represent Old Testament Israel,' I concluded. 'He was priest-king of Salem, after all, which a number of scholars have identified with Jerusalem.[19] Then the Queen of Sheba with her African servant could represent Ethiopia. And then we have the Ark between the two, going in the direction of Ethiopia. So the message would be that the Ark had gone from Jerusalem to Ethiopia – which is exactly what the *Kebra Nagast* says. How does that sound to you?'

'To be perfectly honest, Graham, it sounds preposterous.'

'Why?'

'Well … I suppose it's just possible that Ethiopian traditions could have filtered into Europe as early as the thirteenth century – in fact, come to think of it, there has been at least one scholarly paper which does suggest that this could have happened. I rather doubt that view myself. Nevertheless, even if the *Kebra Nagast* story was known in

Chartres at the right time I just don't see why anyone would have felt motivated to translate it into the iconography of the cathedral. That would have been a most peculiar thing to do – particularly in the north porch which is mainly about the Old Testament forerunners of Christ. Melchizedek is there for that very reason, by the way. He's specifically identified with Christ in the book of Hebrews.'[20]

'He's shown holding a cup in the sculpture and there's also some kind of cylindrical object in the cup.'

'Probably meant to represent bread – the bread and the wine of the Eucharist.'

'That's what one of my guidebooks says. But there's another one which identifies the cup with the Holy Grail and which argues that the cylindrical object is a stone.'

Peter Lasko raised a quizzical eyebrow. 'I've never heard such a thing before. It sounds even more far-fetched than

your theory of an Ethiopian connection …' He paused reflectively, then added: 'There is one thing though. That scholarly paper which I mentioned – the one that talks about Ethiopian ideas finding their way into medieval Europe …'

'Yes.'

'Well oddly enough it's about the Holy Grail. If I remember rightly it argues that Wolfram von Eschenbach's Grail – which was a stone, not a cup – was influenced by some sort of Christian Ethiopian tradition.'

I sat forward in my chair: 'That's interesting … Wolfram von Eschenbach was also mentioned in my guidebook. Who was he?'

'One of the earliest of the medieval poets to concern himself with the Holy Grail. He wrote a book-length work on the subject called *Parzival*.'

'Isn't that the name of an opera?'

‘Yes, by Wagner. He was inspired by Wolfram.’

‘And this Wolfram … when did he write?’

‘Late twelfth or early thirteenth century.’

‘In other words at the same time that the north porch of Chartres cathedral was built?’

‘Yes.’

We both remained silent for a while, then I said: ‘The paper that you told me about which argues that Wolfram’s work was influenced by Ethiopian traditions – I don’t suppose you happen to remember the title of it do you?’

‘… Ah. No. I’m afraid not. It must have been at least twenty years ago when I read it. It was by someone or other Adolf, I think. That name sticks in my mind, anyway. Wolfram was a German so you really need to talk to a specialist in Middle High German literature to find out more details.’

Silently resolving that I would do just that, I then asked Peter if he could help me with a translation of the inscriptions that had so intrigued me at Chartres. My guidebook, I told him, had rendered ARCHA CEDERIS as 'You are to work through the Ark' and HIC AMITITUR ARCHA CEDERIS as 'Here things take their course; you are to work through the Ark.' These interpretations, however, were in his view completely wrong. ARCHA certainly meant Ark and CEDERIS was most probably a corruption of FOEDERIS – meaning Covenant. On this reading, therefore, ARCHA CEDERIS would translate very simply and logically as 'Ark of the Covenant'. Another alternative, however, was that the word CEDERIS was intended as a form of the verb *cedere* – meaning to yield or to give up or to go away. The tense was unorthodox, but the best translation of ARCHA CEDERIS if this was the case would be 'the Ark that you will yield' (or

‘give up’ or ‘send away’).

As to the longer inscription, the problem was the obscurity of the fourth letter of the second word. My guidebook had presumed it to be a single ‘T’. It was much more likely to be an abbreviation representing a double ‘T’, however (because there was no Latin word spelt AMITITUR with a single ‘T’). If a double ‘T’ had indeed been intended then the phrase would read HIC AMITTITUR ARCHA CEDERIS, meaning something like ‘Here it is let go, the Ark that you will yield’, or perhaps ‘Here it is let go, Oh Ark, you are yielded’, or alternatively – if CEDERIS was a corruption of FOEDERIS – ‘Here it is let go, the Ark of the Covenant’.

It was also possible, however, that the fourth letter of the second word was a ‘C’ of some kind (which was actually what it looked like). If so then the relevant phrase became HIC AMICITUR ARCHA CEDERIS – which would translate either

as ‘Here is hidden the Ark of the Covenant’, or ‘Here is hidden the Ark that you will yield’ (or ‘give up’ or ‘send away’).

‘Even the word “hidden” isn’t definite,’ concluded Peter as he closed his Latin dictionary. ‘*Amicitur* in this context could equally well mean “covered up” – although that does convey the same sort of idea doesn’t it? I don’t know. The whole thing’s a bit of a puzzle really.’

I agreed wholeheartedly with him on this point. The whole thing was indeed a puzzle. It was, moreover, a puzzle that I felt challenged, intrigued and tantalized by and that I very much wanted to solve.

During the remainder of my holiday in France my thoughts kept wandering back to the north porch of Chartres where I had seen the little sculptures. What I could not forget was the way in which the relic on its ox-cart had appeared to be

moving towards the Queen of Sheba; nor could I dismiss from my mind the possibility that this suggested movement or a journey towards Ethiopia.

I knew that I was indulging in wild speculation for which there was no academic justification whatsoever and I fully accepted Peter Lasko's argument that the sculptors of Chartres would not have allowed themselves to be influenced by an Ethiopian legend in their choice of subject matter. This, however, left me with a much more exciting possibility to contemplate: perhaps those responsible for the north porch of the cathedral (which had also been called 'the door of the initiates'[21]) had been drawing a cryptic map for future generations to follow – a map that hinted at the location of the most sacred and precious treasure that the world had ever known. Perhaps they had discovered that the Ark of the Covenant really had been let go, or yielded (or sent away?)

from Israel in Old Testament times and that it had subsequently been hidden (or covered up?) in Ethiopia. Perhaps this was the true meaning of the little sculptures with their puzzling inscriptions. If so then the implications were truly breathtaking and the Axumite traditions that I had so readily dismissed in 1983 would, at the very least, merit a close second look.

Mary, the Grail and the Ark

When I returned from France at the end of April 1989 I set my research assistant to work on the problem of the scholarly paper that Peter Lasko had mentioned to me. I knew that it might have been written by someone named Adolf and I knew that the subject matter had to do with a possible Ethiopian influence on Wolfram von Eschenbach's story of

the Holy Grail. I did not know where, or when, the paper had been published, or even in what language, but I advised my researcher to contact the universities to see if there were any specialists on medieval German literature who might be able to help.

While waiting for an answer on this I went out and bought a number of different versions of the Grail 'romance'. These included Chrétien de Troyes's *Conte du Graal*, left unfinished by the author in AD 1182,[22] Sir Thomas Malory's *Le Morte D'arthur*, a much later epic dated to the mid-fifteenth century,[23] and last but not least *Parzival*, which Wolfram von Eschenbach was thought to have written between the years 1195 and 1210[24] – dates that coincided almost exactly with the main phase of construction work on the north porch of Chartres cathedral.

I began to read these books and initially found Malory's

the most accessible – since it had been the inspiration for a number of stories and films dealing with the quest for the Holy Grail that I had enjoyed as a child.

I quickly discovered, however, that Malory had presented an idealized, sanitized and above all *Christianized* account of 'the only true quest'. Wolfram's story, by contrast, was more earthy, provided a more accurate portrayal of the realities of human behaviour, and – most important of all – was completely devoid of New Testament symbolism where the Grail itself was concerned.

In Malory the sacred relic was described as a 'vessel of gold' carried by a 'perfect clean maiden' and containing 'part of the blood of Our Lord Jesus Christ'.[25] This, as I was well aware, was precisely the image that had long been enshrined in popular culture, where the Grail was always portrayed as a cup or a bowl (usually that in which Joseph of Arimathea

caught a few drops of Christ's blood when the Saviour hung suffering on the cross).

I myself had been so influenced by this conception that I found it difficult to think of the Grail as anything other than a cup. When I turned to Wolfram's *Parzival*, however, I found confirmation of what I had learned in France, namely that the relic – although carried by a maiden just as in Malory – was depicted as a *stone*:

> However ill a mortal man may be, from the day on which he sees the Stone he cannot die for that week, nor does he lose his colour. For if anyone, maid or man, were to look at the Gral for two hundred years, you would have to admit that his colour was as fresh as in his early prime … Such powers does the Stone confer on mortal men that

> their flesh and bones are soon made young again.
> This Stone is called 'The Gral'.[26]

I was struck by this odd and compelling imagery, and it raised a nagging question in my mind: why should the *Morte D'arthur* have depicted the Grail as 'a vessel' when the far earlier *Parzival* had unambiguously described it as 'a Stone'? What was going on here?

I investigated further and learnt from one authority on quest literature that Malory was 'merely embroidering a theme, the meaning of which [he] did not understand' when he wrote the *Morte D'arthur*.[27] That theme had been most definitively spelled out in Wolfram's *Parzival* and in Chrétien de Troyes's *Conte du Graal*,[28] both of which were more than two hundred years older than the *Morte*.

Encouraged by this advice I turned to my copy of

Chrétien's unfinished story and there read the following description of the Grail – the first in literature (and, for that matter, in history). As in both Wolfram and Malory, the precious object was carried by a damsel:

> Once she had entered with this grail that she held, so great a radiance appeared that the candles lost their brilliance just as the stars do at the rising of the sun and the moon … The grail … was of pure refined gold [and] was set with many kinds of precious stones, the richest and most costly in sea or earth.[29]

At no point, I discovered, did Chrétien's manuscript explicitly state that the Grail was a cup or bowl. It was clear from the context, however, that this was precisely what he saw it as. In several places he referred to a central character – 'the

Fisher King' – being 'served from the grail',[30] and later added: 'he's served with a single consecrated wafer brought to him in that grail – that supports his life in full vigour, so holy a thing is the grail'.[31] On checking further I learned that the very word 'grail' was itself derived from the Old French *gradale* (Latin *gradalis*) meaning 'a wide and somewhat hollowed-out vessel in which delicious food is served'. In the colloquial parlance of Chrétien's day *gradale* was often pronounced *greal*. And even in more recent times *grazal, grazau*, and *grial* continued to be used in parts of the south of France to denote receptacles of various kinds.[32]

Here, therefore, was the origin of Malory's conception of the sacred object as a vessel. Other than the mention of 'a consecrated wafer', however, Chrétien's treatment offered no unequivocal connections with Christianity (not even in the notion of the Grail being a 'holy thing' – which could as

easily have been inspired by the Old Testament as by the New[33]). Like Wolfram, the French poet did not mention Christ's blood at all and certainly did not suggest that the relic was a container for it.

It followed that the 'sacred blood' imagery associated with the Grail in popular culture was a gloss added by later authors – a gloss that broadened, but also to some extent obscured, the original theme. With a little more work on the subject I was able to satisfy myself that this process of 'Christianization' had been sponsored by the Cistercian monastic order.[34] And the Cistercians in their turn had been profoundly influenced and shaped by one man – Saint Bernard of Clairvaux, who had joined the Order in the year 1112 and who was regarded by many scholars as the most significant religious figure of his era.[35]

This same Saint Bernard, I then discovered, had also played

a formative role in the evolution and dissemination of the Gothic architectural formula in its early days (he had been at the height of his powers in 1134 when the soaring north tower of Chartres cathedral had been built, and he had constantly stressed the principles of sacred geometry that had been put into practice in that tower and throughout the whole wonderful building).[36] Moreover, long after his death in 1153, his sermons and ideas had continued to serve as prime sources of inspiration for the further evolution of Gothic architecture and also for statuary and sculptures like those I had seen in the north porch at Chartres.[37]

The principal bridge between the earlier non-Christian versions of the story of the Holy Grail and the stylized New Testament tract that it had become by Malory's time had been formed by the so-called *Queste del Saint Graal* – compiled by Cistercian monks in the thirteenth century.[38]

Moreover, although he was already dead when this great anthology was begun, it seemed to me that the strong hand of Saint Bernard could also be seen at work here – reaching out from beyond the grave as it were. I arrived at this conclusion because, in his extensive writings, this immensely influential cleric had propounded a mystical view of Christ's blood, a view that was incorporated by the compilers of the *Queste* into their new concept of the Grail itself.[39] From now on Wolfram's Stone was completely forgotten and Chrétien's 'vessel', although preserved, was filled up with the blood of Christ.

What I found interesting about this notion was the way in which it had immediately begun to be interpreted by the church. In hymns, sermons and epistles, I learned, subsequent generations of Christians all over Europe had gone to great lengths to equate the Grail symbolically with the Blessed

Virgin Mary – to whom, I remembered, Chartres cathedral had been dedicated. The reasoning underlying this pious allegory was as follows: the Grail (according to the *Queste* and other later recensions of the legend) contained the holy blood of Christ; before she gave birth to him, Mary had contained Christ himself within her womb; therefore, QED, the Grail was – and always had been – a symbol for Mary.[40]

According to this logic, *Mary Theotokos*, the 'God Bearer', was the sacred vessel who had contained the Spirit made flesh. Thus, in the sixteenth-century Litany of Loretto,[41] she was the *vas spirituale* (spiritual vessel), the *vas honorabile* (vessel of honour), and the *vas insigne devotionis* (singular vessel of devotion).[42]

Why did this symbolism attract my attention? Quite simply because the Litany of Loretto had also referred to the Blessed Virgin as *arca foederis*[43] – which, as I already knew, was Latin

for ‘the Ark of the Covenant’. I researched this coincidence further and discovered that the Litany was not the only place in which it cropped up. In the twelfth century, the redoubtable Saint Bernard of Clairvaux had also explicitly compared Mary to the Ark of the Covenant – indeed he had done so in a number of his writings.[44] And as early as the fourth century Saint Ambrose, the Bishop of Milan, had preached a sermon in which he had argued that the Ark had been a prophetic allegory for Mary: just as it had contained the Old Law in the form of the Ten Commandments, so she had contained the New Law in the form of the body of Christ.[45]

I was subsequently to discover that concepts like these had persisted into the twentieth century and had been woven into the fabric of modern Christian worship. On a trip to Israel, for example, I came across a small and beautiful Dominican

church built in 1924 and dedicated *A la Vièrge Marie Arche d'alliance* – in other words 'To the Virgin Mary Ark of the Covenant'. The church stood at Kiriath-Jearim, overlooking the road between Tel Aviv and Jerusalem, and its seven-metre steeple was topped off with a full-sized representation of the Ark. There were also several paintings of the sacred relic arranged around the interior walls of the building itself. During my visit I was given the following (very 'Ambrosian') explanation of the dedication – and of the symbolism – by a senior church official, Sister Raphael Mikhail:

> 'We compare Mary to a living Ark. Mary was the mother of Jesus, who was the master of the Law and of the Covenant. The tablets of stone with the Ten Commandments of the Law were placed inside the Ark by Moses; so also God placed Jesus

in the womb of Mary. So she is the living Ark.'

It seemed to me highly significant that both the Ark and the Grail, apparently so different, should nevertheless have been compared repeatedly to the *same* biblical personality, and in exactly the same way. If Mary was both a 'living Ark' and a 'living Grail', I speculated, then surely this suggested that the two sacred objects might not in fact have been so very different – that they might, indeed, have been *one and the same thing*.

This struck me as a truly electrifying possibility. And, farfetched though it at first appeared, it did shed interesting light on the choice and juxtaposition of statuary in the north porch of Chartres cathedral. If I was correct then Melchizedek's 'Grail' cup with the 'Stone' inside it would at one level have represented Mary but could, at another, have

been intended to serve as an esoteric symbol for the Ark of the Covenant and for the stone tablets that it had contained.

Such an interpretation, I felt, added considerable weight to the hypothesis that the other iconography of the north porch signalled the removal of the sacred relic to Ethiopia. But I also realized that I had no really firm grounds on which to base a conclusion of this magnitude – only coincidence, guesswork and a strong intuition that I might be on to something important.

I have always been inclined to follow my intuitions to see where they lead. However, it seemed to me that if I was going to involve myself in a proper, thorough, expensive and time-consuming investigation then I needed something rather more solid to go on than a few happy accidents and presentiments.

I did not have to wait long. In June 1989 my researcher

finally managed to locate the academic paper that, according to Peter Lasko, had suggested a possible Ethiopian influence on the portrayal of the Holy Grail in Wolfram von Eschenbach's *Parzival*. The encouragement given to me by that paper launched me on the quest that was to dominate my life for the next two years.

Literary influence – or something more?

The paper, entitled 'New Light on Oriental Sources for Wolfram's *Parzival*', had appeared in 1947 in the academic journal *PMLA* (*Publications of the Modern Languages Association of America*).[46] The author was Helen Adolf, a highly regarded medievalist who had taken a special interest in the literary pedigree of the Holy Grail. The thesis that she put forward (for which she admitted that she was indebted to

two earlier authorities[47]) was that Wolfram – although largely influenced by Chrétien de Troyes – must also 'have known, besides Chrétien, a Grail story in Oriental setting'.[48]

When I began to read Helen Adolf's paper I was already aware, from the background research that I had done, that Chrétien de Troyes had effectively 'invented' the Grail in 1182. Prior to that date it had existed neither in history, nor in myth. Most authorities on the subject agreed that there were earlier legends – dealing, for example, with magic cauldrons, heroic quests, and deeds of chivalry done by King Arthur and his Knights – which the courtly poets and raconteurs had drawn upon to add texture to their Grail stories.[49] These older lays, however, which had been handed down by word of mouth from generation to generation, had been too well known, too 'tried and tested', in short too familiar to all and sundry, to have provided the creative

impulse for the distinct cycle of romances that Chrétien initiated in the late twelfth century.

The great French poet had never finished his famous *Conte du Graal*. Within a very few years, however, Wolfram von Eschenbach capitalized on the good start that had been made, extending and completing his predecessor's story – while at the same time rather churlishly accusing Chrétien of 'doing wrong' by it and adding that his own German text was the 'authentic tale'.[50]

What made such protestations seem odd was the fact that Wolfram had obviously lifted many details directly from the *Conte du Graal* and, by and large, had remained faithful to its plot and characters.[51] Indeed there was only one glaringly obvious difference – the bizarre innovation of making the Grail a Stone. The motive for this innovation did, therefore, look like a genuine mystery to some scholars. It could not

have been a simple mistake on Wolfram's part – he was much too clever and precise a raconteur to have made an error of such significance. The only reasonable conclusion, therefore, was that he had described the relic in the way he did for some special reason of his own.

It was to precisely this question that Helen Adolf addressed herself in her short paper. And she offered an answer to it that I found most intriguing. Somehow or other, she argued, Wolfram must have gained access to the *Kebra Nagast*, enjoyed the story about the Ark of the Covenant being removed from Jerusalem to Axum, and decided to work elements of it into his own *Parzival*. The influence was only 'indirect', she thought; nevertheless the most likely explanation for the curious character of Wolfram's Grail could be traced to the use, 'in every Abyssinian church', of what she described as 'a so-called *Tabot*, a slab of wood or

stone'.[52]

Adolf explained that this practice had its origins in the religious traditions set down in the *Kebra Nagast* – an observation that I knew to be correct. In 1983 I had learned that *Tabot* was the local name for the sacred relic – believed to be the Ark of the Covenant – that Menelik had supposedly brought from Jerusalem and that was now kept in the sanctuary chapel at Axum. Moreover, as the reader will recall, I had subsequently discovered, as Adolf also affirmed, that each and every Ethiopian Orthodox church possessed its own *tabot*. These objects, which were often spoken of as *replicas* of the original in Axum, were not boxes or chests but took the form of flat slabs. The ones I had seen had all been made of wood. Researching the matter further, however, I discovered that many were indeed made of stone.[53]

On the basis of several comparisons Adolf asserted that

Wolfram, too, had known this and had derived his Grail-Stone from the Ethiopian *tabot*. She also pointed out that not all the characters in *Parzival* had been borrowed from Chrétien de Troyes; there were a few additional figures whose origins were mysterious and who might well have been inspired by the *Kebra Nagast*. She could offer no solid explanation as to how the German raconteur could have become familiar with the *Kebra Nagast* but suggested rather tentatively that wandering Jews might have brought it to Europe. In the medieval period, she pointed out, 'the Jews were not only the mediators between Arabs and Christians in general. They had a special stake in Ethiopia, where they formed, and still form, an important part of the population.'[54]

I found Adolf's arguments persuasive but extremely limited in scope. She had confined herself to the specialized field of literary criticism, and accordingly her concerns had been of

an entirely literary nature. Having set out to prove the possibility of a connection between the *Kebra Nagast* and *Parzival* (with the former 'indirectly influencing' the latter) she had been quite happy to stop when she felt she had achieved this goal. I was enormously grateful to her, however, because she had opened my eyes to something far more exciting – something of infinitely greater significance.

On the basis of the comparisons cited earlier between the Ark of the Covenant, the Holy Grail, and Mary the Mother of Christ, I had already begun to wonder whether the identities of the Ark and the Grail were really as distinct and separate as they seemed at first sight. Now it occurred to me that if Wolfram's Grail looked as if it had been influenced by Ethiopian traditions concerning the Ark then there was just a chance that there could be more to this – perhaps much more – than Helen Adolf had ever guessed. To cut a long story

short, I began to wonder whether the German poet might not have deliberately constructed his fictional Grail as a kind of 'code' for the real and historical Ark. If so then the quest that formed the central theme of *Parzival* could also be a code that might, like some cryptic treasure map, point the way to the last resting place of the Ark itself.

I had already become intrigued by the possibility that a similar code in the north porch of Chartres cathedral – though carved in stone rather than written in a book – might hint that the relic had been taken to Ethiopia. It was therefore with real enthusiasm and excitement that I set out to try to 'decode' *Parzival*.

Celestial writing, laws and oracles

It seemed to me that my initial task should be to determine

whether Wolfram's Grail could indeed have been designed as a sort of cryptogram for the Ark of the Covenant. To this end I decided that I would temporarily postpone further examination of the Ethiopian connection suggested by Adolf. Instead I would look for direct parallels between the characteristics of the Grail and the characteristics of the Ark as described in the Old Testament and other ancient Jewish sources. Only if those parallels proved persuasive would there be any point in going further.

The first thing that attracted my attention was the way in which Wolfram had transformed Chrétien's Grail cup – or vessel – into a stone. It occurred to me that the French poet's description of the Grail had been sufficiently vague and mystical to allow Wolfram to *impose* an identity on it, to mould his predecessor's rather imprecise concept of a sacred receptacle into a shape that suited his own purposes – in

short to *define* that receptacle by speaking not directly of it but of its *contents*.

The Ark of the Covenant was, after all, a receptacle too, and it did indeed contain a stone – or rather two stone tablets upon which the Ten Commandments had been inscribed by the finger of God. I therefore found it intriguing that Wolfram's Grail, like the Tablets of the Law, bore – from time to time – the imprint of a celestial script which set out certain rules.[55]

There were other such coincidences – for example, the oracular function that the Grail played for the community that depended on it:

> We fell on our knees before the Gral, where suddenly we saw it written that a knight would come to us and were he heard to ask a Question

> there, our sorrows would be at an end; but that if any child, maiden or man were to forewarn him of the Question it would fail in its effect, and the injury would be as it was and give rise to deeper pain. 'Have you understood?' asked the Writing. 'If you alert him it could prove harmful. If he omits the question on the first evening, its power will pass away. But if he asks his Question in season he shall have the Kingdom.'[56]

The Ark, too, frequently served as an oracle, dispensing advice that was crucial to the survival of the Israelites. In the book of Judges, for example, where the identity of God Himself was often completely fused with that of the Ark, I found this passage:

> And the children of Israel enquired of the Lord,

> (for the Ark of the Covenant of God was there in those days, and Phinehas, the son of Eleazar, the son of Aaron, stood before it in those days), saying Shall I yet again go out to battle against the children of Benjamin my brother, or shall I cease?' And the Lord said, Go up: for tomorrow I will deliver them into thine hand.[57]

I also came across a much later biblical passage which stated that it had become rare for the Ark actually to speak and that 'visions' were now 'uncommon'. Nevertheless, as the prophet Samuel lay down 'in the house of the Lord, where the Ark of God was', a voice issued forth from the sacred relic warning: 'Behold, I will do a thing in Israel at which both the ears of everyone that heareth it shall tingle.'[58]

Neither were utterances and visions the only ways in

which the Ark communicated its oracular messages. Like the Grail, it also used the written word from time to time – notably to impart to King David the blueprint for the Temple that his son Solomon was to build.[59]

The weight of sin, the golden calf, and stones from heaven

As my research progressed I discovered many other shared characteristics linking the Grail to the Ark – and particularly to the Tablets of Stone. One example concerned the way in which the weight of the relic seemed to be spiritually controlled. According to Wolfram: 'the Gral [while it may be carried by the pure of heart] is so heavy that sinful mortals could not lift it from its place.'[60]

In this, I thought there might well be a connection to an

ancient Jewish legend which described the moment when the prophet Moses descended from Mount Sinai carrying the Tablets of Stone, then freshly inscribed with the divine words of the Ten Commandments. As he came into camp the prophet caught the children of Israel in the act of worshipping the golden calf, a sin so unspeakable that:

> All at once he saw the writing vanish from the tablets, and at the same time became aware of their enormous weight; for while the celestial writing was upon them they carried their own weight and did not burden Moses, but with the disappearance of the writing all this changed.[61]

In Wolfram's cryptic prose the golden calf, too, made an appearance. It did so, moreover, in a context so crucial that I felt certain that the author was using it quite deliberately to

convey a message – a message further identifying the Grail with the Ark:

> There was a heathen named Flegetanis [I read in Chapter 9 of *Parzival*] who was highly renowned for his acquirements. This same physicus was descended from Solomon, begotten of Israelitish kin all the way down from ancient times … He wrote of the marvels of the Gral. Flegetanis, *who worshipped a calf as though it were his god*, was a heathen by his father … [and] was able to define for us the recession of each planet and its return, and how long each revolves in its orbit before it stands at its mark again. All human kind are affected by the revolutions of the planets. With his own eyes the heathen Flegetanis saw – and he

> spoke of it reverentially – hidden secrets in the constellations. He declared there was a thing called the Gral, whose name he read in the stars without more ado. 'A troop [of Angels] left it on earth and then rose high above the stars, as if their innocence drew them back again.'[62]

To my mind what was really important about this passage was the way in which it used Flegetanis (with his intriguingly Solomonic and Jewish/pagan background) to signal an *astral* origin for the Grail.

Why important? Simply because some of the most serious biblical scholarship that I studied argued that the Tablets of Stone contained within the Ark of the Covenant had, in reality, been two pieces of a *meteorite*.[63] Neither was this merely some latter-day interpretation that could not have

been shared by Moses and by the Levitical priests who attended the Ark. On the contrary, since ancient times, Semitic tribes such as the children of Israel had been known to venerate stones that 'fell from heaven'.[64]

The best illustration of this custom, since it had continued into modern times, was the special reverence accorded by Muslims to the sacred Black Stone built into a corner of the wall of the *Ka'aba* in Mecca. Kissed by every pilgrim making the *Haj* to the holy site, this stone was declared by the Prophet Muhammad to have *fallen from heaven* to earth where it was first given to Adam to absorb his sins after his expulsion from the Garden of Eden; later it was presented by the angel Gabriel to Abraham, the Hebrew Patriarch; finally it became the cornerstone of the *Ka'aba* – the 'beating heart' of the Islamic world.[65]

Geologists, I learned, unhesitatingly attributed a meteoric

origin to the Black Stone.[66] Likewise the *pairs* of sacred stones, known as *betyls*, that some pre-Islamic Arab tribes carried on their desert wanderings were believed to have been aerolites – and it was recognized that a direct line of cultural transmission linked these *betyls* (which were often placed in portable shrines) with the Black Stone of the *Ka'aba* and with the stone Tablets of the Law contained within the Ark.[67]

I then discovered that *betyls* had been known in medieval Europe as *lapis betilis* – a name:

> stemming from Semitic origins and taken over at a late date by the Greeks and Romans for sacred stones that were assumed to possess a divine life, stones with a soul [that were used] for divers superstitions, for magic and for fortunetelling.

They were meteoric stones fallen from the sky.[68]

In such a context, I found it hard to believe that Wolfram had merely been indulging in flights of fancy when he had specified a meteoric origin for his Grail-Stone. Not only did he use his character Flegetanis to this end but also, a few pages further on, he provided a strange alternative name for the Grail – '*Lapsit exillis*'.[69] Although I came across a variety of interpretations for the real meaning of this pseudo-Latin epithet,[70] the most plausible by far was that it had been derived from *lapis ex caelis* ('stone from heaven'), *lapsit ex caelis* ('it fell from heaven'), or even *lapis, lapsus ex caelis*, 'stone fallen from heaven'.[71] At the same time it seemed to me that the bastardized words *Lapsit exillis* were quite close enough to *lapis betilis* to raise the suspicion that the German poet had intended a deliberate – and characteristically

cryptic – pun.

Benedictions, supernatural light, and the power of choice

Another and quite different area of comparison lay in Wolfram's repeated descriptions of the Grail as a source of blessing and fertility for those pure-hearted people who came into contact with it. To cite one example amongst many,[72] I found this passage in Chapter 5 of *Parzival*:

> Whatever one stretched out one's hand for in the presence of the Gral, it was waiting, one found it all ready and to hand – dishes warm, dishes cold, new-fangled dishes and old favourites … for the Gral was the very fruit of bliss, a cornucopia of

> the sweets of this world.[73]

It seemed to me quite probable that this description echoed an ancient Talmudic commentary which had it that:

> When Solomon brought the Ark into the Temple, all the golden trees that were in the Temple were filled with moisture and produced abundant fruit, to the great profit and enjoyment of the priestly guild.[74]

I found an even closer correspondence between the Ark and the Grail in the otherworldly *luminescence* said to have been given off by both objects. The Holy of Holies in Solomon's Temple (where the Ark was installed before it mysteriously vanished) was a place of 'thick darkness' according to the Bible.[75] Talmudic sources recorded, however, that: 'The High

Priest of Israel entered and left *by the light that the Holy Ark issued forth*' – a convenient state of affairs that changed after the relic disappeared. From then on the Priest 'groped his way in the dark'.[76]

The Ark, therefore, was a source of paranormal lambency: a dazzling radiance was emitted by it – as numerous biblical passages confirmed.[77] In similar fashion Chrétien's Grail, which I thought that Wolfram had been happy to accept (because it provided the receptacle part of the Ark cipher that he then completed with his Stone), sent out a radiance 'so great … that … candles lost their brilliance just as the stars do at the rising of the sun or moon.'[78]

Chrétien's Grail was likewise made of 'pure gold'[79] while the Ark was 'overlaid with pure gold, within and without'[80] and was covered with a lid (known as the 'mercy seat') which was also 'of pure gold'.[81] But it was not from this precious

metal that Ark and Grail derived their light-generating quality; rather this was the product of their shared impregnation with a fiery celestial energy. And it was this same energy (cast forth by the Tablets of Stone after the Ten Commandments had been inscribed upon them by the finger of God) that caused Moses' face to shine with an eerie, supernatural brilliance when he descended from Mount Sinai:

> As he came down from the mountain, Moses had the two Tablets of the Testimony in his hands. He did not know that the skin on his face was radiant … And when Aaron and all the sons of Israel saw Moses, the skin on his face shone so much that they would not venture near him.[82]

I therefore thought it not entirely coincidental that Wolfram's Grail-Stone, on its very first appearance in *Parzival*, was

carried in procession in the hands of a certain Repanse de Schoye whose face 'shed such refulgence that all imagined it was sunrise.'[83]

The heaven-destined hero

Repanse de Schoye was a 'Princess'[84] and was also 'of perfect chastity'.[85] Her most important characteristic, however, was that the Grail had *chosen* her: 'She whom the Gral suffered to carry itself', Wolfram explained, 'had the name Repanse de Schoye … By her alone, no other I am told, did the Gral let itself be carried.'[86]

Such phrases seemed to imply that the relic possessed a kind of sentience. And linked to this was another quality: 'No man can win the Gral,' Wolfram stated in Chapter 9 of *Parzival*, 'other than one who is acknowledged in Heaven as

destined for it.'[87] The same point was then forcefully reiterated in Chapter 15: 'No man could ever win the Gral by force, except the one who is summoned there by God.'[88]

These two notions – of the Grail exercising powers of choice and of it being a prize to be won only by those who were 'Heaven-destined' – were of great importance in Wolfram's overall scheme of things. I concluded, moreover, that precedents were provided for both of them in biblical descriptions of the Ark of the Covenant. In Numbers 10:33, for instance, it *chose* the route that the children of Israel were to take through the desert, and it also determined where they should camp. Meanwhile in the book of Chronicles there was this example of certain individuals being 'Heaven-destined' for the Ark:

> None ought to carry the Ark of God but the

> Levites; for them hath the Lord chosen to carry the Ark of God and to minister unto it.[89]

It was not in the Bible, however, that I found the closest correspondences between the Ark of the Covenant and Wolfram's sentient, Heaven-destined Grail. These came rather in the *Kebra Nagast*, which told the story of the Ark's abduction to Ethiopia. In Sir E. A. Wallis Budge's authoritative English translation[90] I came across this passage in which the sacred relic was referred to almost as though it were a feminine person (who, like all ladies, could change her mind):

> And as for what thou sayest concerning the going of the Ark of the Covenant to their city, to the country of Ethiopia, if God willed it and she

> herself willed it, there is no one who could prevent her; for of her own will she went and of her own will she will return if God pleaseth.[91]

Next I noted the following strange references which seemed to imply that the relic possessed intelligence and also that the honour of keeping it was granted as a result of heavenly predestination:

> The Ark goeth of its own free will whithersoever it wisheth, and it cannot be removed from its seat if it does not desire it.[92]
>
> Without the Will of God the Ark of God will not dwell in any place.[93]
>
> But the chosen ones of the Lord are the people of

> Ethiopia. For there is the habitation of God, the heavenly ZION,[94] the Ark of His Covenant.[95]

Last but not least, in Chapter 60 of the *Kebra Nagast*, I found a lengthy lamentation supposedly uttered by Solomon when he learned that the Ark had been abducted by his son Menelik from the Holy of Holies of the Temple in Jerusalem. At the moment of his bitterest grief an angel appeared to him and asked:

> 'Why art thou thus sorrowful? For this hath happened by the Will of God. The Ark hath … been given … to thy first-born son …' And the King was comforted by this word, and he said, 'The will of God be done and not the will of man.'[96]

Could this not be, I wondered, exactly what had been in Wolfram's mind when he had written that 'no man could ever win the Gral by force except the one who is summoned there by God'? In other words, if the Grail was indeed a cryptogram for the Ark then might not the prototype for the German poet's 'Heaven-destined' hero have been none other than Menelik himself?

To answer this question I read *Parzival* again. I was not looking, however, for literary influences from the *Kebra Nagast* – as Helen Adolf had done – but rather for the presence of explicit clues embedded within the text which pointed in the direction of Ethiopia. I wanted to know whether there was there anything at all to suggest that Ethiopia might in fact *be* Wolfram's mysterious *Terre Salvaesche*[97] – the land of the Grail and, therefore, by implication, the land of the Ark.

Chapter 4

A Map to Hidden Treasure

My readings of *Parzival* during the spring and summer of 1989 had brought a startling possibility to my attention: the fictional object known as the Holy Grail could have been devised to serve as a complex symbol for the Ark of the Covenant. This in turn had led me to formulate another hypothesis – namely that behind Wolfram von Eschenbach's Heaven-destined Grail hero, there might lie another figure who, once recognized, would point the way to the heart of the mystery of the whereabouts of the Ark – a figure whose real identity the poet had therefore disguised beneath layers

of arcane and sometimes deliberately misleading details. This figure, I suspected, might be none other than Menelik I – the son of the Queen of Sheba and King Solomon who, according to Abyssinian legends, had brought the Ark of the Covenant to Ethiopia. If there was anything at all to this speculation, I reasoned, then I might hope to find further clues embedded in *Parzival* – cryptic clues that might be obscured by frequent false trails, that might be scattered here and there amongst widely separated chapters, that might be calculatedly vague and ambiguous, but that would, nevertheless, serve to reinforce the Ethiopian connection if only they could be gathered together and made sense of.

Ebony and ivory

I found the first of these clues early in the text of *Parzival* in a

chapter which spoke of a far-off land called ‘Zazamanc’ where the people ‘were all as dark as night’.[1] To this land came a wandering European aristocrat, ‘Gahmuret of Anjou’,[2] and there he fell in love with no lesser personage than the queen – ‘sweet and constant Belacane’.[3]

In ‘Belacane’ I could not help but hear an echo of ‘Makeda’, the Ethiopian name for the Queen of Sheba that I had first become acquainted with when I had visited Axum in 1983. I was also aware that this same monarch had been known in Muslim tradition as Bilquis.[4] Since I was by this time quite familiar with Wolfram’s love of neologisms, and with his tendency to make up new and fanciful names by running old ones together, it seemed to me rash totally to reject the possibility that ‘Belacane’ might be a kind of composite of ‘Bilquis’ and ‘Makeda’ – and doubly rash since the poet described her as a ‘dusky queen’.[5]

When I looked more closely at the love affair between Belacane and Gahmuret, recounted at length in the first chapter of *Parzival*, I found further echoes of the King Solomon and Queen of Sheba story told in the *Kebra Nagast* and also, with minor variations, in a range of other Ethiopian legends. In this connection I felt it was not accidental that Wolfram had gone to considerable lengths to make it clear that Gahmuret – like Solomon – was white, while Belacane, like Makeda, was black.

For example, after the arrival of the 'fair complexioned' Angevin knight[6] in Zazamanc, Belacane observed to her hand-maidens: 'His skin is a different colour from ours. I only hope this is no sore point with him?'[7] Certainly it was not, because her romance with Gahmuret blossomed in the following weeks, one thing led to another, and eventually the couple retired to her bedroom in the palace:

> The Queen disarmed him with her own dark hands. There was a magnificent bed with a sable coverlet, where a new though private honour awaited him. They were now alone: the young ladies-in-waiting had left the room and closed the doors behind them. The Queen yielded to sweet and noble love with Gahmuret, her heart's own darling, little though their skins matched in colour.[8]

The lovers married. Because Belacane was an unbaptized heathen, however, and Gahmuret a Christian with many deeds of chivalry still to do, he fled Zazamanc when she was 'twelve weeks gone with child'[9] and left her only this letter:

> 'Like a thief I have sailed away. I *had* to steal away to spare our tears. Madam, I cannot conceal

> it that did you but live within my rite I would long for you to all eternity. Even now my passion gives me endless torment! If our child has the aspect of a man, I swear he will be brave.'[10]

Long after his departure Gahmuret continued to suffer agonies of remorse since 'the dusky lady was dearer to him than life'.[11] Later he proclaimed:

> 'Now many an ignorant fellow may think that it was her black skin I ran away from, but in my eyes she was as bright as the sun! The thought of her womanly excellence afflicts me, for if noblesse were a shield she would be its centre-piece.'[12]

So much then for Belacane and Gahmuret. But what of

their child?

> When her time came the lady was delivered of a son. His skin was pied. It had pleased God to make a marvel of him, for he was both black and white. The Queen fell to kissing his white spots, time and time again. The name she gave her little boy was Feirefiz the Angevin. When he grew up he cleared whole forests – so many lances did he shatter, punching holes in shields. His hair and all his skin were particoloured like a magpie.[13]

Wolfram could hardly have found a more graphic way to emphasize that Feirefiz was a half-caste – the product of a union between a black woman and a white man. This half-caste Feirefiz, furthermore, was to go on to play a crucial role in the story of *Parzival*. His father, the amorous Gahmuret,

returned to Europe after deserting Belacane and there married another queen, a certain Herzeloyde, whom he immediately set about making pregnant. He then abandoned her also, went off to have several more adventures, earned great honour in a series of battles, and eventually managed to get himself killed. 'A fortnight later,' Wolfram related, Herzeloyde 'was delivered of a babe, a son so big in the bone that she scarce survived.'[14] That son was Parzival himself, the eponymous hero of Wolfram's tale and – through Gahmuret – the half-brother of Feirefiz.[15]

In the *Kebra Nagast* and other relevant Ethiopian legends there were, I discovered, numerous parallels to the complex of relationships involving Gahmuret, Belacane, Feirefiz, Parzival *et al.* These parallels were often of an indirect kind; nevertheless I had come to expect such tantalizing hints from Wolfram and I became increasingly confident that he was

laying down a trail of clues that – through snares and mazes – would lead me to Ethiopia in the end.

The constant references to the contrasting blackness and whiteness of Belacane and Gahmuret had been unmissable features of the opening sections of *Parzival*. In the *Kebra Nagast* the lovers were King Solomon and the Queen of Sheba. Like Gahmuret and Belacane they had retired to bed together.[16] Like Gahmuret and Belacane, one of them (in this case Makeda) had deserted the other and gone on a long journey.[17] Like Gahmuret and Belacane the fruit of their union had been a half-caste son, in this case Menelik.[18] And again like Gahmuret and Belacane, the difference in their colour was repeatedly emphasized in the relevant text, in this case the *Kebra Nagast*. In a typical scene the Jewish monarch was upbraided for Menelik's abduction of the Ark in the following unambiguous terms:

> Thy son hath carried away the Ark of the Covenant,[19] thy son whom thou hast begotten, who springeth from an alien people into which God hath not commanded you to marry, that is to say from an Ethiopian woman, who is not of thy colour, and is not akin to thy country, and who is, moreover, black.[20]

There were, in addition, certain parallels between Menelik and Feirefiz which went beyond their shared identity as half-castes. Amongst these, for example, was the curiosity of the very name 'Feirefiz'. What language did it belong to, and what – if anything – did it mean? I checked and discovered that literary critics had quite firm ideas on this subject. Most interpreted the strange-sounding epithet as a characteristic Wolfram neologism based on the French words 'vair fils'

meaning, literally, 'piebald son'.[21] Another school of thought, however, derived it equally plausibly from 'vrai fils' – 'true son'.[22]

In the *Kebra Nagast* itself I could find no comparison directly reflecting either etymology (although, in Chapter 36, Solomon declared, on first being introduced to Menelik: 'Look ye, this is my son'[23]). In a somewhat different but equally ancient Ethiopic recension of the same legend, however (translated into English in 1904 by Professor Erno Littman of Princeton University), the moment of the meeting between Solomon and Menelik was also described, and contained this passage:

> At once Menelik went to him and took his hand to greet him. Then said Solomon: 'Thou art my true son'.[24]

‘Vrai fils’, in other words!

Devious mechanisms

Coincidences like these made it increasingly difficult for me to resist the notion that Wolfram had indeed linked his Feirefiz with Menelik. Why should he have done that? Not, I speculated, because he had been *influenced* by the *Kebra Nagast* (as the scholar Helen Adolf had suggested in the 1940s[25]) but rather because he had *known* the final resting place of the Ark of the Covenant to be in Ethiopia, and because he had set out to encode this knowledge within the story of *Parzival* – which was thus a kind of literary ‘treasure map’ that used the Grail as a cryptogram for the Ark itself.

Wolfram had been addicted to ingenious tricks – to a species of verbal legerdemain that was as baffling as it was

entertaining. I felt, however, that I was beginning to see through most of his illusions and also to recognize the decoys that he so frequently set up in order to lure his readers away from the secret that lay hidden at the heart of his story. I was therefore undisturbed by the fact that it was not Feirefiz himself who was depicted as being on a quest for the Grail – nor Feirefiz who was eventually accorded the honour of finding the precious relic. Such an outcome would have provided much too *direct* and obvious a pointer. And, besides, Wolfram could not have afforded to allow the heathen half-caste son of a black queen to become the hero of a romance written for the amusement of medieval European Christians.

For these reasons, it seemed to me that the clever German poet had been quite content to let all-white, all-good Parzival win through to the non-existent Grail – which was the only thing that most of his audience would be interested in.

Meanwhile, for the discerning few, it would be Feirefiz – the *true son* – who would point the way to the Ark.

I realized, however, that I needed something more solid to support this hypothesis than just a series of coincidences – no matter how suggestive and intriguing these coincidences might seem. I therefore set about the brain-bending task of combing through *Parzival* yet again.

Eventually I found what I was looking for. I remembered from my previous readings that Feirefiz had ended up marrying Repanse de Schoye[26] – the pure and perfect Grail-bearer who, surrounded by an aura of sanctity and power, had appeared and disappeared constantly throughout the story. Now I came across a small but highly significant detail contained in a single line that I had missed before: according to Wolfram's 'happily-ever-after' conclusion, the son of Feirefiz and Repanse de Schoye had been named 'Prester

John'.[27]

It was obvious to me at once that this could be a momentous clue. I knew that the first Europeans to arrive in Ethiopia had addressed the monarchs of that country as 'Prester John'.[28] I also knew that the legendary founder of the self-styled 'Solomonic' dynasty to which those monarchs had belonged had been Menelik I – the supposed son of Solomon and the Queen of Sheba. I therefore could not help but be excited to read that Repanse de Schoye had given Feirefiz 'a son named "John" ' and, moreover, that 'They called him "Prester John", and, ever since, they call their kings by no other name.'[29]

It would have been very nice if I had been able, there and then, to demonstrate that the land of the Grail – *Terre Salvaesche* – was in fact the same as the land ruled by 'Prester John'. Such a direct linkage would, at the very least, have

enormously strengthened what I was coming to think of as my 'treasure map' theory of Wolfram's work. Unfortunately, however, there was not a single shred of evidence in *Parzival* to support this view: the location of *Terre Salvaesche* was never spelled out in anything other than the most dreamlike and indefinite terms and at no point was it suggested that its king was 'Prester John'.

I was about to conclude that I had marched optimistically into an extremely depressing *cul de sac* when I discovered that there was another medieval German epic in which Prester John did become the guardian of the Grail. Called *Der Jüngerer Titurel* ('The Younger Titurel'), it was written in a style so close to that of *Parzival* that scholars had long attributed it to Wolfram himself (this attribution dated back to the thirteenth century).[30] Relatively recently, however, the hand of a slightly later author had been detected. Thought to

have been a certain Albrecht von Scharfenberg, this author was believed to have compiled 'The Younger Titurel' between 1270 and 1275 (about fifty years after Wolfram's death) and *to have based it on previously uncirculated fragments of Wolfram's own work.*[31] Indeed Albrecht's identification with 'his master'[32] had been so complete that he had actually claimed to *be* Wolfram, 'adopting not just his name and subject matter but also his mannerisms as a narrator and even the details of his personal history.'[33]

I knew that there was a well established tradition in medieval literature of later writers extending and completing the work of their predecessors. Wolfram's *Parzival* had itself grown out of Chrétien de Troyes's original story of the Holy Grail. Now it seemed that it had been left to a third poet, Albrecht, to provide an ending to that story – an ending in which the Grail found its last resting place.

This last resting place, as 'The Younger Titurel' stated clearly, was the land of Prester John.[34] I thought it highly significant that such a statement existed in the literature of the Grail and, moreover, that it had been made by a Wolfram acolyte who appeared to have had privileged access to the notes and jottings of Wolfram himself. This, in my opinion, was just the sort of devious mechanism that 'the master' might have set up in order not to have to spell out his Ethiopian secret too bluntly in *Parzival* – while at the same time ensuring that that secret would be transmitted to future generations.

Perhaps this conclusion was warranted; perhaps it was not. Its significance, however, lay less in its academic merits than in the fact that it encouraged me to take Wolfram's own brief mention of 'Prester John' seriously – and thus to persevere with what turned out to be an exhausting but ultimately

fruitful investigation.

The purpose of that investigation was to find the answer to a single question: when Wolfram talked of 'Prester John' could he have had an *Ethiopian* monarch in mind?

The first indications were that he had not; indeed he stated plainly that 'Prester John's' birth had taken place in 'India'[35] – a country of which Feirefiz was apparently the king and to which he and Repanse de Schoye had returned after the adventures described in *Parzival* were over.

To complicate the picture further the same paragraph then went on to advise that 'India' was also known as 'Tribalibot' ('Here we call it "India": there it is "Tribalibot" '[36]). Checking back I found earlier passages in which Feirefiz had been spoken of as the 'Lord of Tribalibot'[37] – which was consistent enough since I now knew that his son 'Prester John' had ultimately succeeded him as the ruler of Tribalibot/India.

However, I could hardly forget that Feirefiz was himself the son of Belacane the Queen of ‘Zazamanc’. I was therefore not surprised to learn that Wolfram had also referred to Feirefiz as the ‘King of Zazamanc’.[38]

The only reasonable conclusion to be drawn from this confetti of exotic titles and appellations was that ‘Zazamanc’, ‘Tribalibot’ and ‘India’ were all, in fact, the same place. But could this place possibly be Ethiopia? Wasn’t it much more reasonable to assume – since he had actually named it – that Wolfram had had the subcontinent of India in mind all along?

I decided to research the real, historical pedigree of ‘Prester John’ to see if this would shed any more light on the problem.

A real king

The name 'Prester John', I discovered, had been completely unknown before the twelfth century – a century during which European Crusaders had occupied the Holy City of Jerusalem for a continuous period of more than eighty years (they were finally expelled by the Saracens in 1187). Historians agreed that the very first mention of Prester John had been made roughly half-way through this period – in 1145 in the *Chronicle* of Bishop Otto of Freisingen. Claiming that his informant was a Syrian churchman, the bishop had written of a certain 'John, king and priest [*rex et sacerdos*]', a Christian who lived in 'the uttermost East' where he commanded enormous armies which, apparently, he wished to put at the disposal of the defenders of Jerusalem. This 'Prester John – for so he was wont to be styled' was said to be so rich that he used a sceptre of solid emerald.[39]

Subsequently, in 1165, a letter purporting to have been written by Prester John himself and addressed to 'various Christian kings, especially to the Emperor Manuel of Constantinople and the Roman Emperor Frederick',[40] was circulated widely in Europe. Filled with the most preposterous, legendary and supernatural claims, this lengthy epistle stated, *inter alia*, that the Prester's realm was divided into four parts 'for there are so many Indias'.[41]

The next development came in 1177 when Pope Alexander III (writing from Venice) addressed a letter to his '*dearest son in Christ, John, illustrious and magnificent King of the Indians*'.[42] Although the Pope certainly believed that he was replying to the author of the 1165 letter he made it clear that he had also had information about 'the Prester' from another source. He spoke, for example, of his personal physician, 'the leech Philip', who had apparently been approached in Jerusalem

by the Prester's emissaries. Significantly these emissaries, who were referred to as 'honourable persons of the monarch's kingdom', had expressed their ruler's desire to be granted something that had not even been mentioned in the 1165 letter – a sanctuary in the Church of the Holy Sepulchre in Jerusalem.[43] Responding to this request, the Pope commented:

> The more nobly and magnanimously thou conductest thyself, and the less thou vauntest of thy wealth and power, the more readily shall we regard thy wish as to the concession of [an altar] in the Church of the Lord's Sepulchre at Jerusalem.[44]

There was much that was puzzling in these twelfth-century documents. But the one thing that was clear from all of them

was that Prester John, in his earliest incarnations, had been explicitly associated with 'India'. As I looked more deeply into the whole issue I was able to confirm that this was indeed the case: again and again 'the Prester's' realms were referred to as India or, more loosely, 'the Indies'.

It was quite obvious, however, that none of the medieval authorities concerned had had any firm idea in their own minds as to where exactly India and/or the Indies were. And it was equally obvious, when they talked about 'India', that they were only rarely speaking of the subcontinent itself. The majority of the references were quite clearly to some other place, perhaps in Africa, perhaps elsewhere – although nobody really seemed to know.

As I researched the subject further I began to understand what the source of all this uncertainty might have been: for more than a thousand years *before* the earliest mention of

Prester John a profound terminological muddle had existed in which 'India' had frequently been confused with 'Ethiopia'. Indeed from the first century BC (when Virgil had written of the Nile rising in 'India'), until at least the time of Marco Polo – when all the countries that bordered on the Indian Ocean were still referred to as 'the Indies'[45] – the terms 'Ethiopia' and 'India' appeared to have been used as though they were completely interchangeable.

The classic example of this lay in the works of Rufinius, the fourth-century Byzantine theologian who had compiled the definitive account of Ethiopia's conversion to Christianity that I had studied in 1983.[46] The details of this important treatise (which included place names such as Axum and historically recognized figures such as Frumentius and King Ezana) confirmed beyond all doubt that the country Rufinius had talked about had indeed been Ethiopia; nevertheless he

had referred to it throughout as 'India'.[47]

This had happened, as one historian explained, because 'the early geographers had always regarded Ethiopia as the western part of the great empire of India'.[48] Moreover, it seemed that this same geographical mistake, coupled with the curious letters that had circulated in the twelfth century, had helped to create the impression that Prester John was an Asiatic, indeed an Indian, king.

This impression, though erroneous, had proved so tenacious that it was still in evidence long after 'the Prester' had ceased to be a mythical figure – and long after his realms had been firmly located in the Horn of Africa. In the late thirteenth century, for example, Marco Polo provided some insight into the conventional wisdom of his era when he wrote that 'Abyssinia is a large province and is called middle or second India. The ruler of this country is a Christian.'[49]

Similarly, in the fourteenth century, the Florentine traveller Simone Sigoli was still speaking of 'Presto Giovanni' as a monarch dwelling in India; this 'India', however, was a land which bordered on the dominions of the Sultan of Egypt and its king was described as being the 'master of the Nile', the flow of which into Egypt he was believed to be able to control.[50] Rather later, when the first official Portuguese embassy was sent to Ethiopia in the sixteenth century, its members believed that they were going to meet 'the Prester John of the Indies'. The authorised account of this mission was subsequently written by Father Francisco Alvarez, who disembarked at the Red Sea port of Massawa in April 1520 and then spent the next six years travelling overland around Ethiopia. Despite this arduous physical tour of what was unmistakably part of the *African* mainland, the title of his work continued to reflect the old terminological confusion:

'*Verdadera Informacam das terras do Preste Joam das Indias*' ('Truthful information about the countries of the Prester John of the Indies').[51]

Throughout his scholarly and informative book, Alvarez always referred to the Emperor of Ethiopia as 'the Prester' or as 'Prester John'.[52] I was also able to establish that much earlier than this – in 1352 – the Franciscan Giovanni de Marignolli, apostolic legate in Asia, had spoken (in his *Chronica*) of 'Ethiopia where the negroes are and which is called the land of Prester John'.[53] Similarly in 1328 a certain Friar Jordanus 'Catalani' had referred to the Emperor of the Ethiopiansi '*quem vos vocatis Prestre Johan*'.[54] And, later, in 1459, Fra Mauro's well regarded map of the then known world indicated a great city within the boundaries of present-day Ethiopia with the rubric: '*Qui il Preste Janni fa residentia principal.*'[55]

Surveying all the conflicting references before me I felt literally dazed: sometimes, it seemed, Prester John had been unambiguously located in Ethiopia; on other occasions he had been located in Ethiopia but spoken of as the ruler of the 'Indies'; and sometimes he had been located in India itself – or elsewhere in the far east. Behind all this confusion, however, there seemed to be no doubt that the real Prester John, the source of all the myth-making, must all along have been the ruler of Ethiopia – the only non-European Christian kingdom that had existed *anywhere in the world* in medieval times, and therefore the only model that Wolfram could possibly have drawn on when he had talked of an 'India' being ruled by 'Prester John', the Christian son of Fierfiz and Rapanse de Schoye.

For a final and hopefully definitive word I turned to the *Encyclopaedia Britannica*, which observed:

> It is not improbable that from a very early date the title 'Prester John' was assigned to the Abyssinian king, though for a time this identification was overshadowed by the prevalence of the Asiatic legend. At the bottom of the double allocation there was, no doubt, that confusion of Ethiopia with India which is as old as Virgil or perhaps older.[56]

Significantly for my purposes, the *Encyclopaedia* concluded its entry with a reference to the exchange of letters between the Pope and Prester John that, as noted earlier, had taken place in the second half of the twelfth century:

> However vague may have been the ideas of Pope Alexander III respecting the geographical position of the potentate whom he addressed from Venice

> in 1177, the only real person to whom the letter can have been sent was the king of Abyssinia. Let it be observed that the 'honourable persons of the monarch's kingdom' whom the leech Philip had met with in the East must have been the representatives of some real power, and not of a phantom. It must have been a real king who professed to desire … the assignation of … an altar at Jerusalem. *Moreover we know that the Ethiopic Church did long possess a chapel and altar in the Church of the Holy Sepulchre.*[57]

Indeed so. In fact, as I was soon able to ascertain, the chapel and the altar had first been granted to Ethiopia in the year 1189 – and not by the Pope (who by then was no longer in a position to distribute such favours) but by the Muslim

general Saladin who had wrested Jerusalem from the hands of the Crusaders in 1187. Most important of all, these special privileges in the Holy Sepulchre had been obtained for the Ethiopian Orthodox Church as a result of a direct appeal to Saladin by no lesser person than the King of Ethiopia himself.[58]

These events had taken place just a decade before unknown stonemasons in northern France had left enigmatic representations of the Holy Grail, of the Ark of the Covenant, and of an Ethiopian Queen of Sheba in the north porch of Chartres cathedral – and also just a decade before Wolfram von Eschenbach had begun to write his *Parzival*. It seemed to me, moreover, that such coincidences were unlikely to be *just* coincidences. On the contrary, I now felt that the circumstantial evidence very strongly supported my hypothesis that the Chartres sculptures and Wolfram's

remarkable narrative poem had been explicitly created to serve as esoteric treasure maps. And, though not actually marked with an 'X', there seemed to be little doubt that the spot identified by these maps as the hiding place of the treasure could only be Ethiopia – the land of Prester John, the land that had provided the last resting place of the fictional Holy Grail, and thus (if my theory was correct) the land in which the Ark of the Covenant, the real object that the Grail symbolized, would be found.

Now, however, other questions presented themselves:

- How, in the late twelfth century, could information that the Ark might rest in Ethiopia possibly have reached a German poet and a group of French iconographers?
- What connected the former to the latter? – for they *must* have been connected in some way if they had both

produced works of art encoding the same message.

- Finally, why should anyone have chosen to express the secret of the Ark's location in a story and in sculptures? I had already concluded that this might have been done to ensure transmission of the secret to future generations. At the same time, however, the code used – particularly by Wolfram – had been exceptionally difficult to crack. I myself, with all the research resources of the twentieth century at my disposal, had only got as far as I had because I had *been* to Axum and had thus been predisposed to accept that the Ark might be in Ethiopia. In the twelfth and thirteenth centuries, however, that advantage should not have been available to anyone. From this it followed that the hidden message of *Parzival* could not have been decoded in the medieval period at all – unless there had been people with access to some

> very special and privileged knowledge. Since there would have been no point in creating a code that no one could crack, it seemed to me logical to assume that such people must have existed. But who could they have been?

I did find one group of Europeans who fitted the bill perfectly. As part of the Crusading army of occupation they had maintained a massive presence in Jerusalem in the twelfth century: they had been there in 1145 when the Prester John legends had first begun to circulate, and they had still been there in 1177 when envoys of the King of Ethiopia had visited the Holy City seeking an altar in the Church of the Holy Sepulchre. Direct contact between Ethiopians and members of this European group would therefore have been perfectly possible.

The group in question was, moreover, highly secretive and made regular use of codes and ciphers in its far-flung international communications. It was, in addition, a group that had been involved with the evolution and dissemination of Gothic architecture in Europe (and quite specifically with the architecture and iconography of Chartres cathedral). Finally, and most importantly, it was a group that Wolfram von Eschenbach had several times *mentioned by name* – a name that I had also come across in connection with the curious Grail cup that the sculptors of the north porch of Chartres cathedral had placed in the left hand of their imposing statue of the priest-king Melchizedek[59] (which, incidentally, was almost the *only* depiction of Melchizedek in the whole of medieval Europe[60]).

What then was the name of this strangely influential, powerful and widely travelled group?

Its full and formal title was the ‘Poor Knights of Christ and of the Temple of Solomon’[61] – but its members were better known simply as ‘Templars’, or as Knights Templar. It was, fundamentally, a religious order, an order of warrior monks, and throughout much of the twelfth century it had its headquarters in Jerusalem on the site of Solomon’s Temple – the same site from which the Ark of the Covenant had inexplicably vanished in Old Testament times.

1 Ethiopian church painting showing King Solomon and the Queen of Sheba. According to Ethiopian tradition their son stole the Ark of the Covenant from the Temple in Jerusalem and brought it to Ethiopia.

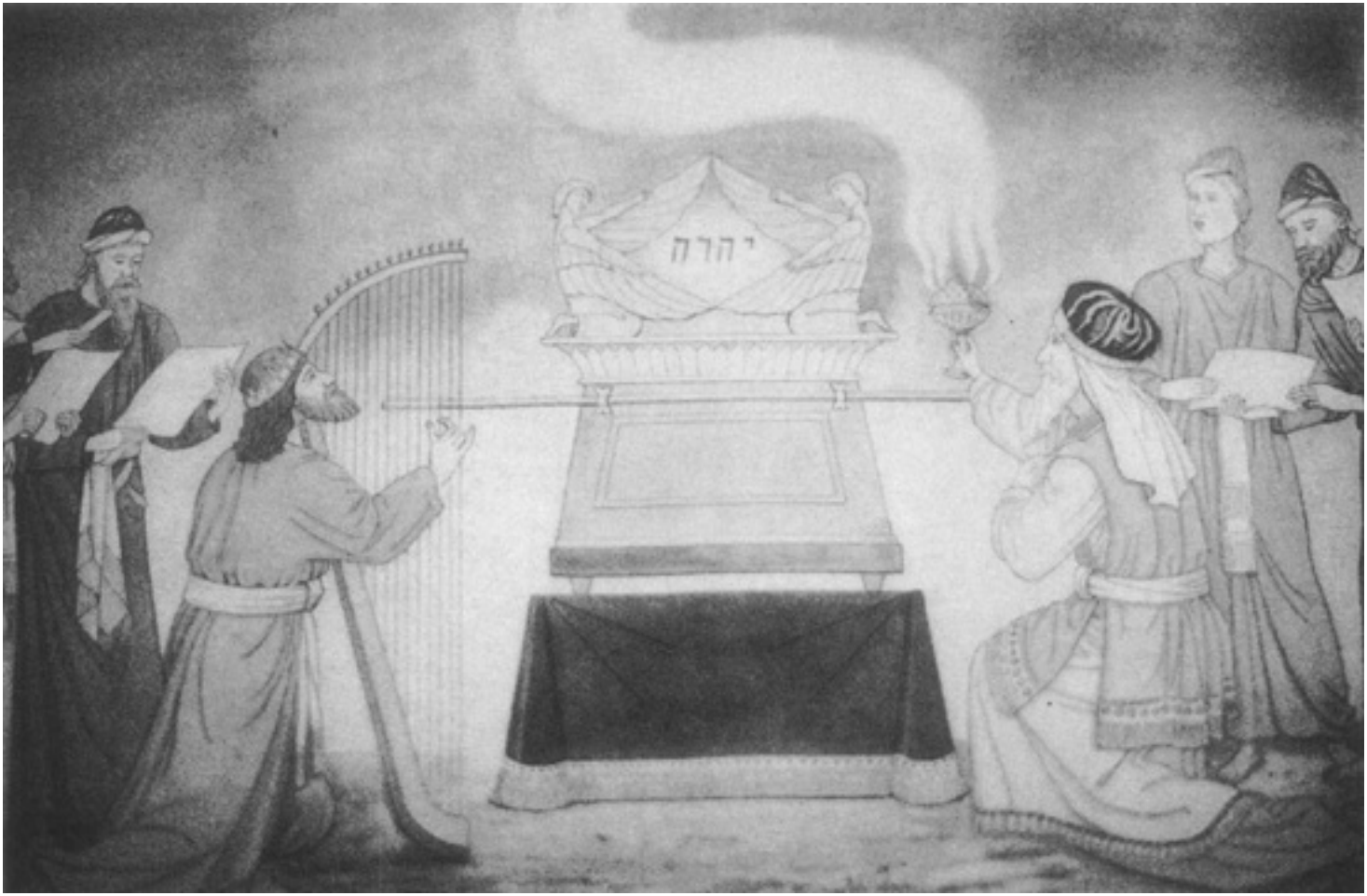

2 This painting, from Israel, depicts the veneration of the Ark of the Covenant in

Old Testament times. Regarded as the sign and the seal of God's presence on earth, the Ark was the most sacred relic of the ancient Judaic faith.

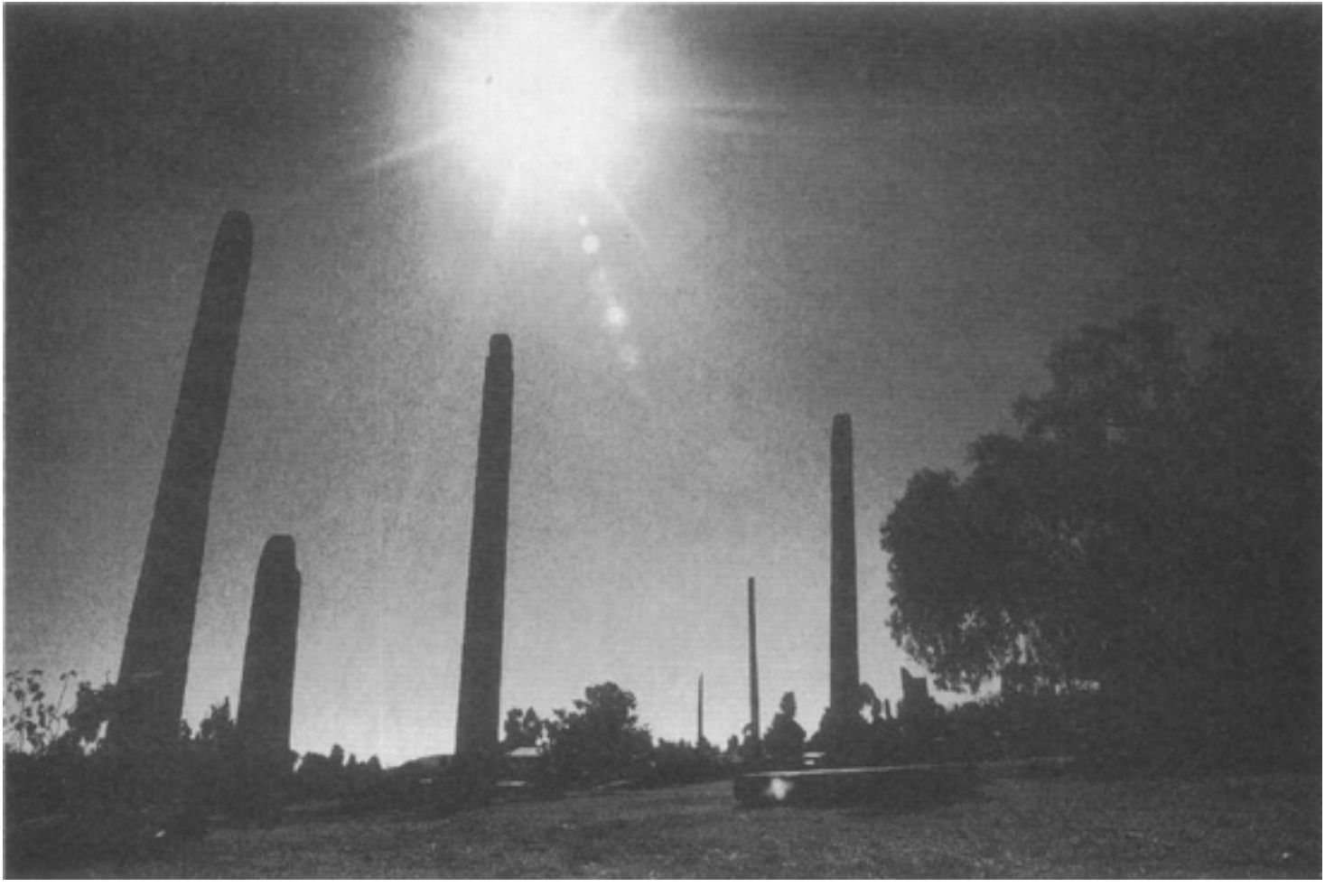

3 Main group of stelae at Axum.

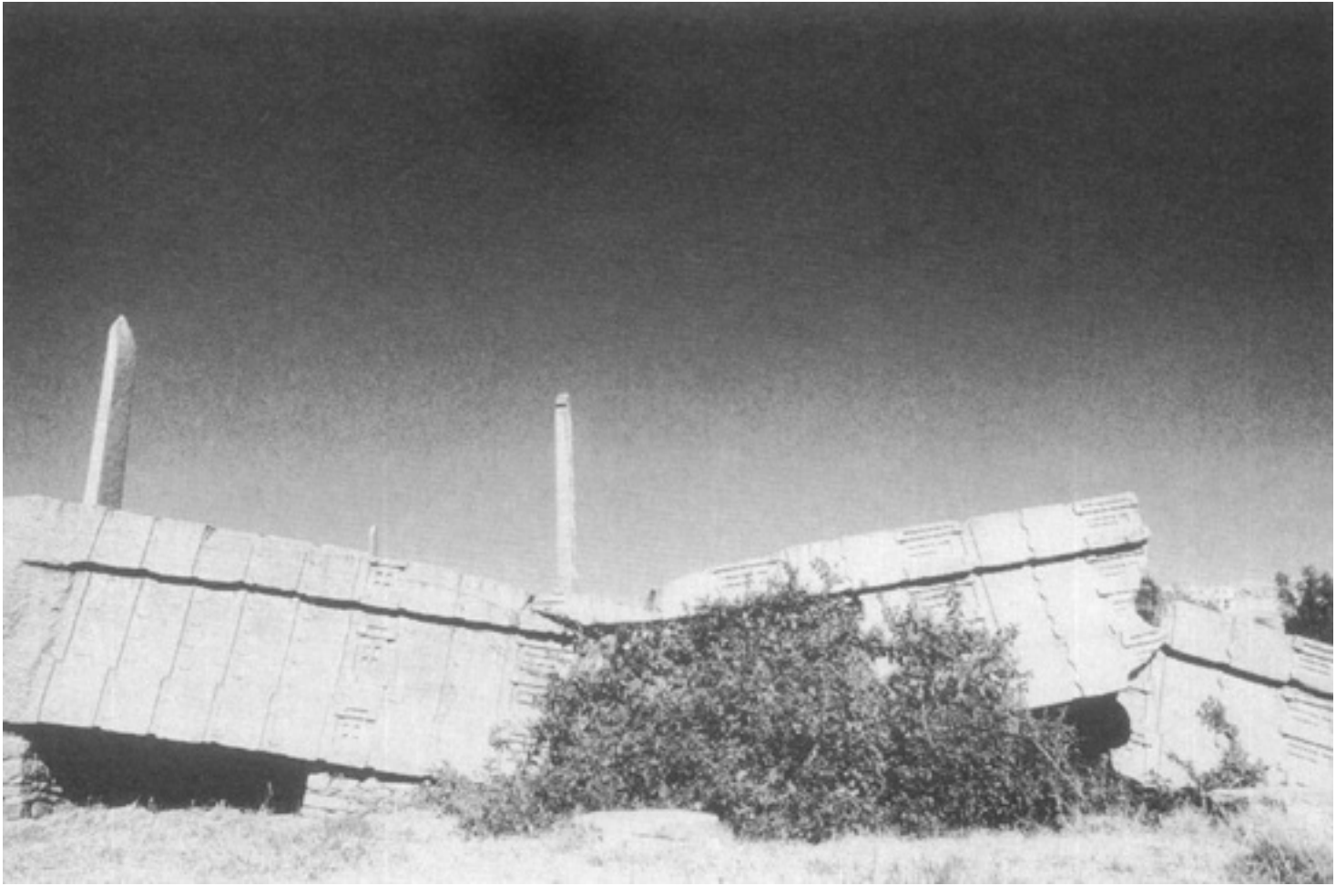

4 Section of the fallen stele. At 500 tonnes in weight and more than 100 feet tall,

it was the largest single piece of stone ever quarried in the ancient world.

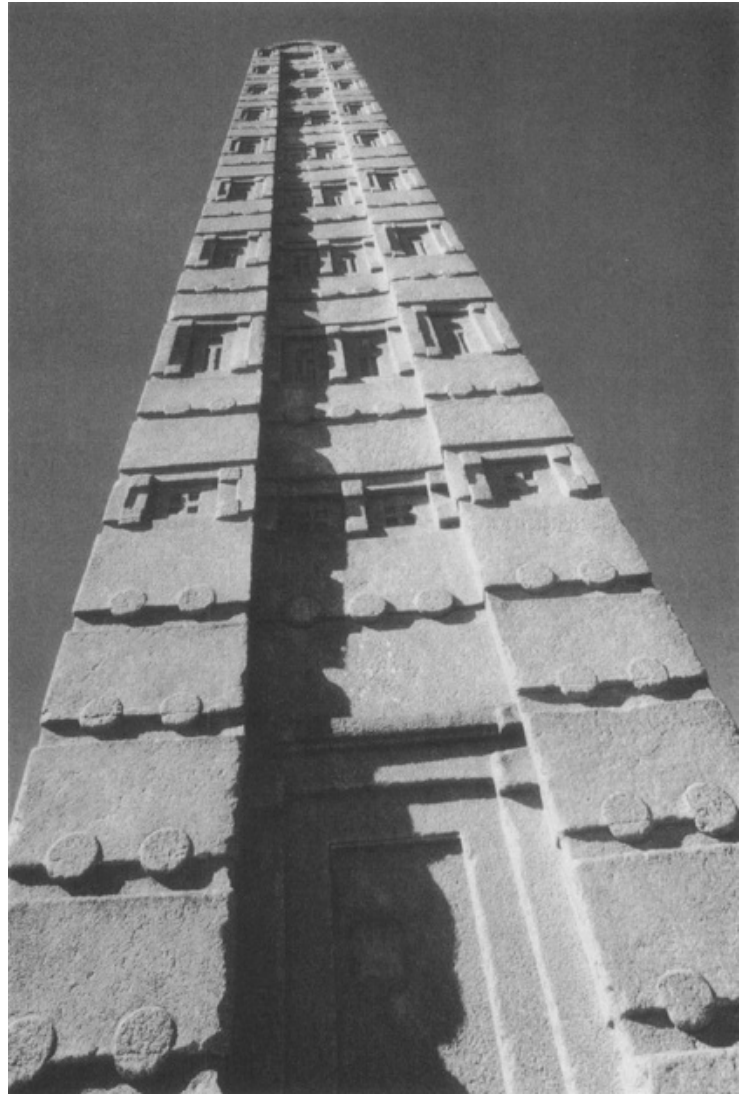

5 According to Axumite traditions the powers of the Ark of the Covenant were used to raise up this towering stele. It stands 70 feet tall and weighs 300 tonnes.

6 An Ethiopian painting depicting the late Emperor Haile Selassie, deposed in 1974.

7 A rebel wall poster showing the brutality of the Emperor's successor, President Mengistu.

8 Falasha artefacts portraying the supposed bedroom scene between Solomon and Sheba. Haile Selassie claimed to be the 225th direct-line descendant of this union.

9 Falasha market woman.

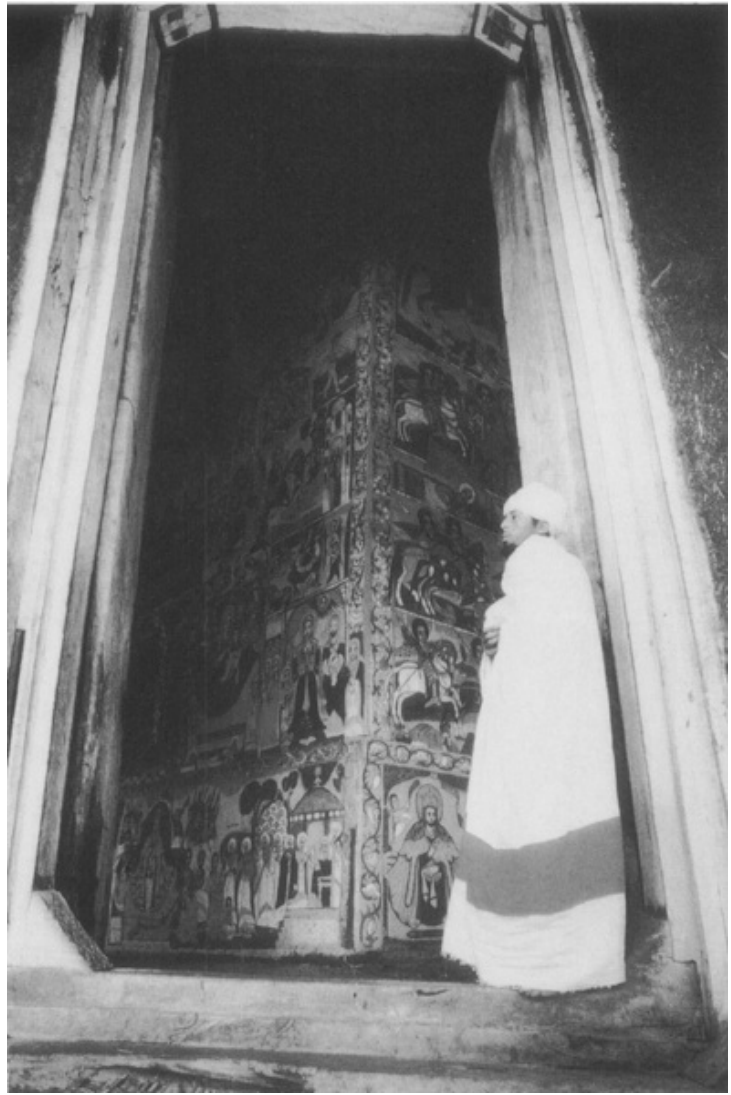

10 In one of the island churches on Lake Tana a Christian priest stands guard at the doorway to the Holy of Holies.

11 Chartres Cathedral, France. One of the earliest and finest examples of the Gothic style of architecture that blossomed suddenly and mysteriously in the twelfth century AD.

12 Sculpture of Melchizedek, priest-king of ancient Israel, in the north porch of Chartres Cathedral, According to some authorities the cup in his hand is the Holy Grail and the object contained within it is a stone.

13 The Queen of Sheba (central of the three figures), her Ethiopian slave at her feet, in the north porch of Chartres Cathedral.

14 Tableau in the north porch of Chartres Cathedral depicting the removal, to

some unstated destination, of the Ark of the Covenant – which is shown placed upon an ox-cart.

15 A section of the strange inscription beneath the Ark tableau.

Chapter 5
White Knights, Dark Continent

According to Emma Jung, analyst, lecturer and wife of the eminent psychiatrist Carl Gustav Jung, the way in which the literary genre of the Holy Grail appeared at the end of the twelfth century was both sudden and surprising. In an authoritative study of the Grail legend (which she undertook on behalf of the Jung Foundation) she argued that something of great significance must have lain behind this abrupt and dramatic materialization. Indeed she went so far as to suggest that in Chretien de Troyes's *Conte du Graal* and Wolfram's *Parzival* – the first two exemplars of the genre – it was almost

‘as if a subterranean watercourse had been tapped’.[1] What might that ‘subterranean watercourse’ have been?

The answer, I thought, lay in the period of history in which the Grail romances began to circulate. This, after all, was the era of the Crusades – an era that had brought Europeans into close contact with Arab and Judaic culture for the first time and that saw the occupation of Jerusalem by Christian armies for eighty-eight years (from AD 1099 until the recapture of the Holy City by Saladin in 1187). It was in 1182 – the eighty-third year of the occupation – that Chrétien produced his version of the Grail story. And shortly after the fall of Jerusalem Wolfram von Eschenbach started work on his own *Parzival*.

I therefore found it difficult to resist the conclusion that these early recensions of the Grail romance must have been based on something that had happened – or on material that

had come to light – during the period that Jerusalem had been under the full control of European forces. I looked very carefully at the text of *Parzival* to see whether there was any evidence to support this conjecture and discovered that Wolfram had on several occasions made mention of a mysterious source named 'Kyot' – a man, he said, whom he had relied upon heavily for his information and who fortunately had been:

> a baptized Christian – otherwise this tale would still be unknown. No infidel art would avail us to reveal the nature of the Gral and how one came to know its secrets.[2]

This was by no means the only place in *Parzival* where the German poet had hinted that there might have been more to

his Grail than at first met the eye. I was already satisfied that this 'something more' could well have been the Ark of the Covenant – the real object that lay behind the beautiful fictional symbol. Now as I studied the widely scattered references to 'Kyot' it occurred to me that this shadowy figure, whose identity was never clarified, could have been the source who had introduced Wolfram to the secret of the Ark's hiding place in Ethiopia. Referred to at one point as 'Kyot, who sent us the authentic tale',[3] he was clearly very important. But who was he?

There were few obvious clues in *Parzival* itself. Here Kyot was spoken of as a 'Master'[4] and there it was suggested that his mother tongue had been French.[5] But beyond such hints there was very little to go on. I therefore turned to the literary scholars and found that several of them had identified Kyot quite specifically with a twelfth-century

French poet, Guyot de Provins, who had made a pilgrimage to Jerusalem shortly before the recapture of the Holy City by the Saracens[6] – and who had also been attached for a while to the court of the Holy Roman Emperor Frederick Barbarossa.[7]

This latter fact caught my eye because I knew that Frederick – like Wolfram – had been a German by birth (before his election as Emperor in 1152 he had been Duke of Swabia[8]). And I also knew (see previous chapter) that this same Frederick had been one of the two monarchs specifically named amongst the various Christian kings to whom the 'letter of Prester John' had been addressed in the year 1165.

Investigating further I then learned something else – something that turned out to be of major importance: Guyot/Kyot had been closely associated with the Knights

Templar[9] who, according to Emma Jung's study, 'were considered to be the guardians of Solomon's Temple'.[10] I also knew that it was from Solomon's Temple that the Ark of the Covenant had mysteriously disappeared in Old Testament times. I was therefore excited to discover that, in *Parzival*, Wolfram had described *the guardians of the Grail* as 'Templars'[11] and had referred to them, flatteringly, as:

> a noble Brotherhood … who, by force of arms, have warded off men from every land, with the result that the Gral has been revealed only to those who have been summoned to Munsalvaesche to join the Gral Company.[12]

Were Wolfram's 'Templars' the same as the famous military order of that name?

I found that the word translated into English as 'Templars'

had, in the Middle High German of *Parzival*, been *Templeis*.[13] Amongst the scholars there was some debate about what exactly had been meant by this. The consensus, however, was that the term was 'an obvious variant of the regular forms *templarius, templier*, Eng. *Templar*'[14] and that Wolfram's 'Order of Knighthood dedicated to the service of the Gral' could therefore be 'identified with the order of the Knights Templar'.[15]

I then remembered that one of the guidebooks I had used on my visit to Chartres cathedral had spoken of 'Wolfram von Eschenbach, who is said to have been a Templar – though there is no proof of this'.[16] On further investigation I was able to establish that there had indeed been persistent rumours to this effect.[17] I also learned that several well respected scholars had suggested that the German poet might himself have paid a visit to the Holy Land whilst writing

Parzival.[18]

Digging for hidden treasure?

I had been intrigued by Emma Jung's assertion that the Templars in Wolfram's time 'were considered to be the guardians of Solomon's Temple'. I had not understood why this should have been so. However, when I began to research the order, I discovered that it had derived its official title ('The Poor Knights of Christ and of the Temple of Solomon') from the fact that its Jerusalem headquarters had been located on the summit of Mount Moriah – where Solomon's Temple had stood until its destruction by the Babylonians in 587 BC. That Temple had been built in the tenth century BC and its explicit – indeed its *only* – purpose had been to serve, as the Bible put it, as 'an house of rest for the Ark of the

Covenant of the Lord'.[19]

By identifying themselves with Solomon's Temple, therefore, it seemed to me that there was a very real sense in which the knights had also identified themselves with the Ark of the Covenant. And my feeling that this was so strengthened as I began to investigate the curious history of the order.

The Templars, I learned, had been founded by nine French noblemen who had made their way to the Holy Land in AD 1119 – twenty years after Jerusalem had been captured and occupied by the European powers. The twelfth-century historian, Archbishop William of Tyre, noted that 'foremost and most distinguished' amongst these nine men 'were the venerable Hugh de Payens and Godfrey de St Omer.'[20]

On checking further I discovered something interesting. Hugh de Payens, who was in fact the first Grand Master of

the Order,[21] had been born in the village of Payens, eight miles north of the city of Troyes in the old French county of Champagne.[22] Moreover it seemed that the nine founders were all from the same region.[23] In this there were several coincidences:

1 Chartres, with its great cathedral, had – in both the twelfth and thirteenth centuries – been a dominion of the Counts of Champagne.[24]

2 One of the original nine knights, André de Montbard (who later became the fifth Grand Master), was an uncle of Saint Bernard of Clairvaux[25] – who was himself a native of Champagne. This enormously influential cleric had taken a special interest both in Gothic architecture and in the Grail romances.[26]

3 The city of Troyes, so close to the birthplace of Hugh de

Payens, the first Templar Grand Master, was also the home of Chrétien de Troyes, the 'inventor' of the Holy Grail.

4 Hugh de Payens was a cousin of the Count of Champagne,[27] and, in the year 1125, the Count of Champagne joined the Templars.[28]

5 When Chrétien de Troyes rose to prominence rather later in the twelfth century his principal patron was the Countess of Champagne.[29]

Noting this string of coincidences with some interest, I went on to learn more about the early history of the Templars.

There was much that was strange. Perhaps strangest of all, however, was the way in which the nine original knights were received by King Baldwin I of Jerusalem in 1119. As soon as they had arrived in the Holy City they told him that

they wanted to establish their headquarters on the Temple Mount[30] – where the monarch had recently converted the Al-Aqsa Mosque to serve as his own royal palace. Rather astonishingly he complied at once with their request, giving them, for their exclusive use, a large part of the former mosque and its outbuildings immediately adjacent to the famous 'Dome of the Rock', which marked the site where Solomon's Temple had once stood.[31]

Thereafter, like latter-day archaeologists with an important dig to complete, the knights lived, ate, slept and worked on this uniquely precious site: indeed for almost seven years after their arrival they rarely left it and adamantly refused admission to any outside party. In public pronouncements they had declared that their mission in the Holy Land was to 'to keep the road from the coast to Jerusalem free from bandits'.[32] I could find no evidence, however, to suggest that

they took any steps to fulfil this mission during those first seven years of their existence; on the contrary, as one authority put it, 'the new Order apparently did very little' in this period.[33] Besides, simple logic suggested that nine men could hardly have protected anybody on a highway almost fifty miles long – and their number stayed at nine until they were joined by the Count of Champagne in 1125. Moreover, the members of an older and far larger military order – the Knights of Saint John – were already doing the job of protecting pilgrims when the Templars arrived.[34]

I could only conclude, therefore, that Hugh de Payens and his colleagues must have had some other, undeclared, purpose. As noted above, they largely confined themselves to the precincts of the Temple Mount during the first seven years of their sojourn in Jerusalem – and this suggested very strongly that their real motive must have had to do with that

very special site.

From the beginning their behaviour was secretive and I found, as a result, that there was no really hard evidence about what they had been up to there. It seemed at least possible, however, that they might have been looking for something, and this suspicion deepened when I learned that they had indeed used their occupancy of the Temple Mount to conduct quite extensive excavations.

Because the Temple Mount today contains the third and fourth most sacred sites of Islam – the Dome of the Rock and the Al-Aqsa Mosque – modern archaeologists have never been permitted to work there. In recent years, however, Israeli teams have operated freely immediately to the south of the Mount, and there they found the exit-point of a tunnel which they identified as having being dug by the Templars in the twelfth century.[35] In their official report the archaeologists

stated:

> The tunnel leads inward for a distance of about thirty metres from the southern wall before being blocked by pieces of stone and debris. We know that it continues further, but we had made it a hard-and-fast rule not to excavate within the bounds of the Temple Mount, which is currently under Moslem jurisdiction, without first acquiring the permission of the appropriate Moslem authorities. In this case they permitted us only to measure and photograph the exposed section of the tunnel, not to conduct an excavation of any kind. Upon concluding this work … we sealed up the tunnel's exit with stones.[36]

And that was all that was known, or could be said, about the

Templar tunnel. The archaeologists had only been able to confirm that it continued further than they themselves had been allowed to go. Extending inwards from the southern wall, however, I realized that it might well have penetrated into the very heart of the sacred precincts, quite possibly passing directly beneath the Dome of the Rock a hundred or so metres to the north of the Al-Aqsa Mosque.

The Dome of the Rock, I discovered, was so named because within it lay a huge stone, known to the Jews as the *Shetiyyah* (literally the 'Foundation'). When the Temple of Solomon had been erected on this exact spot in the mid-900s BC, the Ark of the Covenant had been placed on the *Shetiyyah*, which had formed the floor of the Holy of Holies.[37] Then, in 587 BC, the Temple had been destroyed by the Babylonians and most of the population of Jerusalem had been carried off into exile. There was no evidence, however, to suggest that

the conquerors had also carried off the Ark; on the contrary, it appeared to have vanished into thin air.[38]

Subsequently a legend began to circulate which provided a possible explanation for what had happened – an explanation that was accepted by most Jews. According to this legend, only moments before the Babylonian looters had burst into the Holy of Holies, the sacred relic had been hidden away in a sealed and secret cavern directly beneath the *Shetiyyah*.[39]

Expressed as it was in a variety of Talmudic and Midrashic scrolls, and in the popular apocalypse known as the 'Vision of Baruch'[40] – all of which were still very much in circulation in Jerusalem in the twelfth century AD – it occurred to me that the Templars might easily have learned the details of this intriguing legend. Moreover, with a little further research, I was able to establish that they could well have done so some years *before* 1119 – the date of their official arrival in

Jerusalem. Hugh de Payens, the founder of the order, had made a pilgrimage to the Holy Land in 1104 in the company of the Count of Champagne.[41] The two men had then returned to France and were known to have been together there in 1113.[42] Three years later Hugh went back to the Holy Land alone[43] and then returned once more – this time to gather together the eight knights who travelled with him in 1119 and who formed the nucleus of the Templar order.

The more I thought about this sequence of events the more likely it seemed to me that Hugh and the Count of Champagne could, on their 1104 pilgrimage, have heard of the startling possibility that the Ark of the Covenant might lie concealed somewhere within the Temple Mount. If so, I speculated, then was it not also probable that they could have formulated a plan to try to recover the sacred relic? And did this not explain the determined manner in which the nine

knights had taken control of the Temple Mount in 1119 – and also the many other curiosities of their behaviour in the early years of the order's existence?

I found tangential support for this conjecture in Emma Jung's authoritative study of the Grail legend. There, in an excursus, the psychoanalyst argued that the European occupation of Jerusalem in the twelfth century had been inspired, at least in part, by a belief that some puissant, sacred and incalculably precious relic lay concealed in that city. As she commented:

> This deeply-rooted concept of hidden treasure contributed to the fact that the summons to liberate the Holy Sepulchre awakened a resounding echo [and] imparted [an] inflammatory motive power to the Crusades – if it

did not actually cause them.[44]

There could have been no treasure more precious or more sacred than the lost Ark of the Covenant – which, in a century that was unusually obsessed with the recovery of religious relics,[45] could well have looked like the ultimate prize. It therefore seemed to me not just possible, but actually highly probable, that Hugh de Payens and his backer the Count of Champagne could indeed have been motivated by a desire to find the Ark – and that they could have established the Templars, and taken control of the Temple Mount, in order to achieve this goal.

If so, however, then they failed in their objective. In the twelfth century, as one expert put it, 'the asset value of a famous relic was prodigious'.[46] Possession of a relic as uniquely significant as the Ark of the Covenant would, in

addition, have brought enormous power and prestige to its owners. From this it followed, that if the Templars had found the Ark, they would certainly have brought it back to Europe in triumph. Since that had not happened it seemed to me quite safe to conclude that they had *not* found it.

Yet rumours persisted that they had found *something* in their seven years of intensive digging on the Temple Mount. None of these rumours had any academic authority whatsoever – but some were intriguing. According to one mystical work, which attempted to address what the Templars had really been up to in Jerusalem between 1119 and 1126:

> The real task of the nine knights was to carry out research in the area in order to obtain certain relics and manuscripts which contained the

> essence of the secret traditions of Judaism and ancient Egypt, some of which probably went back to the days of Moses … There is no doubt that [they] fulfilled this particular mission and that the knowledge obtained from their finds was taught in the oral tradition of the Order's … secret circles.[47]

No documentary proof was offered to back up this attractive assertion. In the same source, however, I was interested to note a name that I had come across several times before in my research – Saint Bernard of Clairvaux, who here was said (again without any supporting evidence) to have *sent* the nine knights to Jerusalem.[48]

I already knew that Bernard had been the nephew of one of the nine founder knights. I was also aware that he had joined

the Cistercian order in 1112, that he had become an abbot by 1115[49] and that he had risen to a position of considerable prominence in French religious circles by 1119 when the first Templars had arrived in Jerusalem. I therefore thought that it would be most unwise to dismiss out of hand the possibility that he might have played some role in the formulation of their mission. This suspicion intensified considerably when I began to look into what had happened to the Templars after their first curious seven years.

A trade-off?

Late in 1126 Hugh de Payens suddenly left Jerusalem and returned to Europe accompanied by none other than André de Montbard,[50] the uncle of Saint Bernard. The knights arrived in France in 1127 and, in January 1128, participated

in what was to be the most significant event in the early history of the Templars. That event was the Synod of Troyes, which had been convened with the explicit objective of procuring the Church's official backing for the Templar order.[51]

Three things particularly interested me about this important meeting. First, it took place in the home town of the poet who, some years later, was to invent the Holy Grail; second, it was presided over by Saint Bernard, in his capacity as its secretary;[52] and third, during the course of the Synod, it was Bernard himself who drew up the formal Rule of the Knights Templar that, henceforth, was to guide the evolution and development of the order.[53]

If my suspicions were justified, therefore, it seemed that the original nine knights had initially been preoccupied with their excavations on the Temple Mount in Jerusalem.

Whatever else they might have unearthed there, however, it had become clear to them by 1126 that they were not going to find the prime object of their search, the Ark of the Covenant. This realization had made it necessary for them to consider their future: specifically, having lost their *raison d'être*, should they simply cease to exist as an order, or should they try to forge ahead?

History showed that they had indeed suffered a crisis of identity in 1126, that they had resolved it and decided to forge ahead, and that they had enlisted the powerful support of Saint Bernard in this enterprise. At the Synod of Troyes he drew up their Rule and obtained the full backing of the Church for their expansion. And thereafter, in a series of sermons and glowing panegyrics such as *De laude novae militae*,[54] he vigorously promoted the young order – thus using his own prestige and influence to guarantee its success.

The results were spectacular. New recruits flocked in from all over France and later from many other parts of Europe as well. Donations of land and money were received from wealthy patrons, and political power quickly followed. By the late twelfth century the order had become phenomenally rich, was operating a sophisticated international banking system,[55] and owned properties throughout the known world.

And all this, in a sense, it owed to the intervention of Saint Bernard in 1128 – and to his continued solidarity and support in the years that followed. Had he played this role on behalf of the Templars purely out of a sense of altruism? Or had they perhaps given him something in return?

Remembering that the 1130s were the decade in which Gothic architecture had suddenly and mysteriously burst upon the scene in France, remembering that Bernard had been a prime mover in the dissemination of the Gothic

formula, and remembering too the persistent rumours that the Templars had gained access in Jerusalem to some deep and ancient source of knowledge, I could not help but wonder if this had been the trade-off. To be sure, the knights had failed to find the Ark of the Covenant. But what if, in their excavations on the Temple Mount, they had unearthed scrolls, manuscripts, theorems or blueprints relating to Solomon's Temple itself? What if these discoveries had included the lost architectural secrets of geometry, proportion, balance and harmony that had been known to the builders of the pyramids and other great monuments of antiquity? And what if the Templars had shared these secrets with Saint Bernard in return for his enthusiastic backing for their order?

These speculations were not entirely without foundation. On the contrary, one of the oddities of the Templars was the

fact that they had been great architects. In 1139, Pope Innocent II (whose candidacy, incidentally, had also been enthusiastically backed by Saint Bernard[56]), granted the order a unique privilege – the right to build their own churches.[57] This was a privilege that they subsequently exercised to the full: beautiful places of worship, often circular in plan like the Temple Church in London, became a hallmark of Templar activities.

The knights also excelled in military architecture and their castles in Palestine were exceptionally well designed and virtually impregnable. Foremost amongst these imposing fortresses was Adit (Château Pélérin or Castle Pilgrim) which, I discovered, had been built in the year 1218 by the fourteenth Grand Master of the Templars, William of Chartres[58] – in whose name was revealed yet another connection to the great Gothic cathedral.

Standing to the south of Haifa on a spur of land surrounded on three sides by the sea, Adit in its heyday was well supplied with orchards, fresh water, and vegetable gardens and even possessed its own harbour and ship-yard together with a jetty two hundred feet long. Often besieged by the Saracens but never captured, it had been capable of sheltering as many as four thousand people. Its massive walls, resting on unusually deep foundations, were more than ninety feet high and sixteen feet thick[59] – and were so well made that large sections of them still survive intact. The site was thoroughly excavated by the archaeologist C. N. Johns in 1932. He concluded that the skills of the Templar architects and masons had been astonishingly advanced by comparison with the norm in the Middle Ages and had, indeed, been 'exceptional' even by modern standards.[60]

The Templars also built extensively in Jerusalem where

they continued to maintain their headquarters on the Temple Mount until the Holy City was recaptured by the Muslim general Saladin in 1187. I learned that a German monk named Theoderic had made a pilgrimage to Jerusalem in 1174 – at which time he reported that all the buildings within the precincts of the Dome of the Rock were still 'in the possession of the Templar soldiers'.[61] He added:

> They are garrisoned in these and other buildings belonging to them … Below them they have stables once erected by King Solomon … with vaults, arches, and roofs of many varieties … According to our estimation they will hold ten thousand horses with grooms.[62]

In fact the 'stables' had not been erected by King Solomon, but dated back to the reign of Herod the Great (around the

time of Christ). The vaults, arches and roofs, however, had been the work of the Templars themselves, who greatly extended these subterranean halls and who were the first and only people to use them to accommodate horses.[63]

Theoderic's eyewitness account of the Temple Mount in 1174 continued with these words:

> On the other side of the palace [i.e. the Al-Aqsa Mosque] the Templars have built a new house, whose height, length and breadth, and all its cellars and refectories, staircase and roof, are far beyond the custom of this land. Indeed its roof is so high that, if I were to mention how high it is, those who listen would hardly believe me.[64]

The 'new house' that Theoderic had referred to in 1174 was, unfortunately, knocked down in the 1950s during some

renovations undertaken on the Temple Mount by the Muslim authorities. The German monk's testimony was, however, valuable in itself – and what I found most valuable about it was its breathless tone. Clearly he had regarded the Templars' architectural skills as almost supernaturally advanced and had been particularly impressed by the soaring roofs and arches that they had built. Reviewing his statements I thought it far from accidental that soaring roofs and arches had also been the distinguishing features of the Gothic architectural formula as expressed at Chartres and other French cathedrals in the twelfth century – cathedrals that I knew were regarded by some observers as 'scientifically … far beyond what can be allowed for in the knowledge of the epoch'.[65]

And this brought me back again to Saint Bernard of Clairvaux. Looking more thoroughly into what was known

about his life and ideas, I was able to confirm my earlier impression that his influence on the iconography of the Gothic cathedrals had been massive, but indirect, taking the form mainly of groups of sculptures and of stained-glass windows that had been inspired by his sermons and writings, often after his death.[66] Indeed, in his lifetime, Bernard had frequently *opposed* the unnecessary proliferation of images and had stated: 'There must be no decoration, only proportion.'[67]

This emphasis on proportion, harmony and balance in architecture was, I knew, the key to the strange magic of Gothic architecture and, as I became more familiar with Saint Bernard's thinking, I realized that it was in this area that his influence on the design of Chartres and other cathedrals had been most profound. In those great edifices, the introduction of a number of remarkable technical innovations like ribbed

vaulting, ogive arches and flying buttresses had enabled the builders to use geometrical perfection to give expression to complex religious ideas. Indeed, in a very real sense, it seemed that architecture and faith had merged in twelfth-century Gothic to form a new synthesis. This synthesis had been summed up by Saint Bernard himself when he had asked 'What is God?' – and had then replied to his own rhetorical question with these surprising words: 'He is length, width, height and depth.'[68]

Gothic architecture, as I already knew, had been born at Chartres cathedral with the start of construction work on the north tower in 1134. This, I now learned, was no accident. In the years immediately prior to 1134 Bernard had cultivated a particularly close friendship with Geoffrey the Bishop of Chartres,[69] inspiring him with an 'uncommon enthusiasm' for the Gothic formula[70] and holding 'almost daily negotiations

with the builders themselves'.[71]

Interesting though it was in itself, the great significance of this piece of information for my purposes lay in the fact that 'the years immediately prior to 1134' were also the years immediately *after* the Synod of Troyes, at which Saint Bernard had obtained official Church recognition for the Order of the Poor Knights of Christ and of the Temple of Solomon. Historians had never been able to account adequately for the sudden way in which Gothic architecture had emerged in France in the 1130s. But my earlier speculation that the Templars might have had a hand in it now looked increasingly plausible. Reviewing all the evidence I had gathered I felt satisfied that they could indeed have unearthed on the Temple Mount some repository of ancient knowledge concerning the science of building, and that they could have passed on what they had learned to

Saint Bernard in return for his support.

Moreover Templar interest in the Ark of the Covenant, and the Templar connections with Wolfram and with Chartres, also rather neatly tied together the two cryptic ‘maps’ that I believed I had identified (one carved in stone in the north porch of the cathedral, the other encoded in the plot of *Parzival*). Those ‘maps’ had appeared to suggest that Ethiopia was the last resting place of the Ark. The question I now needed to address, therefore, was this: how could the Templars have come to the conclusion that the sacred relic (which they had failed to find after seven years of digging in Jerusalem) had in fact been removed to Ethiopia? What could have led them to think this way?

A possible answer, I discovered, lay in Jerusalem itself – where an exiled Ethiopian prince had sojourned for a quarter of a century before returning to his homeland to claim his

kingdom in 1185.[72] Not much more than a decade later Wolfram began to write his *Parzival* and work started on the north porch of Chartres cathedral.

An Ethiopian prince in Jerusalem

The name of the prince who had spent so long in exile in Jerusalem was Lalibela. I became interested in him because of the 'letter of Prester John' referred to in the last chapter. That letter had been written in 1165 and I knew that in 1177 Pope Alexander III had written a letter of his own to 'Prester John' in response to a request from 'the Prester's' emissaries for the concession of an altar and a chapel in the Church of the Holy Sepulchre in Jerusalem. According to the *Encyclopaedia Britannica*, 'the only real person' to whom the Pope's letter could have been sent was the King of Ethiopia.[73]

I had therefore naturally wondered *which* king had sat on the Ethiopian throne in 1177. On researching the matter I had discovered that it had been a man named Harbay and that the concession requested had not been granted to him but rather to his successor, Lalibela.

Neither Harbay nor Lalibela had stemmed from the line of monarchs supposedly descended from King Solomon and the Queen of Sheba through Menelik I. Instead they had both belonged to a usurper dynasty known as the Zagwe which had ruled in Ethiopia from roughly ad 1030 until 1270 when the Solomonids were finally restored to the throne.[74]

This was a period of Ethiopian history about which very little was known. I was able to confirm, however, that the Solomonic line had been interrupted around AD 980 and that this *coup d'état* had been the work of a tribal chieftainess named Gudit, who adhered to the Jewish faith and who

seemed to have been motivated above all else by a desire to obliterate the Christian religion. At any rate she attacked Axum, razed much of the ancient city to the ground, and succeeded in killing its Solomonic emperor. Two of the royal princes were also murdered but a third escaped with his life and fled to the province of Shoa, far to the south, where he married and produced children, thus ensuring the survival of the old dynasty, although in much reduced circumstances.[75]

Gudit was the head of a large tribal confederation known as the Agaw – to which the Falashas, the indigenous black Jews of Ethiopia, also belonged.[76] Although it was by no means certain that she had left any direct successor, historians accepted that within fifty years of her death most of northern Ethiopia had been united under the Zagwe monarchs who, like her, were all of Agaw extraction.

In its early days this dynasty could – again like Gudit –

have been Jewish.[77] If so, however (and the case was not proved), it had certainly converted to Christianity well before the birth of Prince Lalibela – which took place in the ancient mountain town of Roha, in what is now the province of Wollo, around the year 1140.

The younger half-brother of King Harbay, Lalibela appeared to have been destined for greatness from the moment when his mother saw a dense swarm of bees surrounding him as he lay in his crib. Recalling an old belief that the animal world could foretell the future of important personages, the legends said that she had been seized by the spirit of prophecy and had cried out 'Lalibela' – meaning, literally, 'the bees recognize his sovereignty'.[78]

Thus the prince received his name. The prophecy that it expressed caused Harbay to fear for the safety of his throne to such an extent that he tried to have Lalibela murdered

while he was still a babe in arms. This first attempt failed, but persecutions of one kind or another continued for several years, culminating in the administration of a deadly poison that plunged the young prince into a cataleptic sleep. Ethiopian legends said that the stupor lasted for three days, during which time Lalibela was transported by angels to the first, second and third Heavens. There he was addressed directly by the Almighty who told him to have no anxiety as to his life or future sovereignty. A Purpose had been mapped out for him, for which reason he had been anointed. After awaking from his trance he was to flee Ethiopia and seek refuge in Jerusalem. He could rest secure, however, that when the time was right he would return as king to Roha, his birthplace. Moreover it was his destiny that he would build a number of wonderful churches there, the like of which the world had never seen before. God then gave Lalibela detailed

instructions as to the method of construction that was to be used, the form that each of the churches was to take, their locations and even their interior and exterior decorations.[79]

Legend and history coincided at this point in a single well documented fact: Lalibela did indeed suffer a long period of exile in Jerusalem while his half-brother Harbay continued to occupy the throne of Ethiopia.[80] This exile, I learned, began around the year 1160 – when Lalibela would have been about twenty years old – and ended in 1185 when he returned in triumph to his own country, deposed Harbay and proclaimed himself king.[81]

From that date onwards there were reliable chronicles of his rule, which lasted until AD 1211.[82] He made his capital at Roha, where he had been born and which was now renamed 'Lalibela' in his honour.[83] There, perhaps in fulfilment of his legendary vision, he almost immediately set about building

eleven spectacular monolithic churches – churches that were literally carved out of solid volcanic rock (I myself had visited those churches in 1983 some weeks after my trip to Axum, and had found that they were still places of living worship).

Neither did Lalibela forget his twenty-five-year sojourn in the Holy Land – many of the features of which he attempted to reproduce in Roha-Lalibela. For example, the river running through the town was renamed 'Jordan'; one of the eleven churches – *Beta Golgotha* – was specifically designed to symbolize the Church of the Holy Sepulchre in Jerusalem; and a nearby hill was called *Debra Zeit* ('Mount of Olives') so that it might represent the place where Christ was captured.[84]

Not content with making his capital a kind of 'New Jerusalem', the Ethiopian king also sought, throughout his

reign, to maintain close links with Jerusalem itself. There was, I discovered, nothing particularly new about this. Since the late fourth century AD clergy from the Ethiopian Orthodox Church had been permanently stationed in the Holy City.[85] It had been a desire to increase and consolidate this presence that had led to Harbay's request to Pope Alexander III to grant the concession of an altar and a chapel in the Church of the Holy Sepulchre. Nothing had come of that – other than the Pope's rather tentative letter sent in 1177 in reply to Harbay's initial approach. A decade later, however, there had been two important developments: in 1185 Lalibela had seized the Ethiopian throne, and in 1187 Saladin had driven the Crusaders out of the Holy City and had forced Jerusalem's Ethiopian community, together with other Eastern Christians, to flee to Cyprus.[86]

The royal chronicles showed that Lalibela had been deeply

disturbed by this turn of events and, in 1189, his envoys had managed to persuade Saladin to allow the Ethiopians to return and also to grant them, for the first time, a key site of their own – the Chapel of the Invention of the Cross, in the Church of the Holy Sepulchre.[87] Subsequently, in relatively modern times, these privileges had again been lost; in consequence, I learned, Abyssinian pilgrims were now obliged to make their devotions on the roof of the chapel – where they had established a monastery.[88] They also still possessed two other churches in Jerusalem as well as a substantial Patriarchate situated in the heart of the Old City within a few minutes' walk of the Church of the Holy Sepulchre.

Both in terms of foreign and domestic policy, and also in terms of architectural expression and spiritual development, Lalibela's reign had represented the zenith of the Zagwe

dynasty's powers and achievements. After his death a steep decline set in. Finally, in AD 1270, his grandson Naakuto Laab was persuaded to abdicate in favour of Yekuno Amlak – a monarch claiming Solomonic descent.[89] Thereafter, until Haile Selassie was deposed during the communist revolution of 1974, all but one of Ethiopia's emperors had belonged to the royal line that traced its heritage back, through Menelik I, to King Solomon of Jerusalem.

A pattern of coincidences

Reviewing what I had learned about Lalibela's illustrious reign, I realized that it fitted perfectly into the beguiling pattern of coincidences that I had already identified as being associated with the Crusades, with the Templars, and with the twelfth century:

- At the very beginning of the twelfth century (or more properly in 1099, the last year of the eleventh century) Jerusalem was seized by the Crusaders.
- In 1119 the nine founding knights of the Templar order – all French noblemen – arrived in Jerusalem and took up residence on the site of the original Temple of Solomon.
- In 1128 Saint Bernard of Clairvaux won official church recognition for the Templars at the Synod of Troyes.
- In 1134 work started on the north tower of Chartres cathedral, the first-ever example of Gothic architecture.
- In 1145 the name ‘Prester John’ was first heard in Europe.
- In 1160 Prince Lalibela, the future monarch of Ethiopia, arrived in Jerusalem as a political exile fleeing the

persecutions of his half-brother Harbay (who then occupied the throne).

- In 1165 a letter purporting to have been written by ‘Prester John’ and making a series of awe-inspiring claims about the size of his armies, his wealth and his power, had been circulated in Europe addressed to ‘various Christian kings’.
- In 1177 Pope Alexander III issued a response to the above document but, significantly, made reference in it to another communication that he had received somewhat later – a request from ‘Prester John’ to be granted an altar in the Church of the Holy Sepulchre in Jerusalem. It seemed that this request had been lodged by ‘the Prester’s’ emissaries who had spoken to the Pope’s personal physician Philip during a visit that the latter

had made to Palestine. (The ‘Prester John’ who had asked for this concession could only have been Lalibela’s half-brother Harbay who, in 1177, was still on the throne of Ethiopia.)

- In 1182 the Holy Grail made its first-ever appearance in literature (and, for that matter, in history) in an uncompleted narrative poem by Chrétien de Troyes.
- In 1185 Prince Lalibela left Jerusalem and returned to Ethiopia where he successfully deposed Harbay and seized the throne. Almost immediately thereafter he began building a group of spectacular rock-hewn churches in his capital Roha – later renamed ‘Lalibela’ in his honour.
- In 1187 Jerusalem fell to the Muslim forces of Sultan Saladin and the Crusaders were driven out, along with

members of the Ethiopian community in the Holy City – who sought temporary refuge in Cyprus. (Some Templars also went to Cyprus – indeed, after the fall of Jerusalem, the knights bought the island which became, for a while, their headquarters.[90])

- In 1189 emissaries sent to Saladin by King Lalibela managed to persuade the Muslim general to allow the Ethiopians to return to Jerusalem and also to grant them a privilege that they had never enjoyed before, the same privilege that Harbay had sought from the Pope in 1177 – namely a chapel and altar in the Church of the Holy Sepulchre.
- Between the years 1195 and 1200 Wolfram von Eschenbach began to write *Parzival*, which continued the earlier work done by Chrétien de Troyes and which, in

the process, transformed the Grail into a Stone, incorporated many Ethiopic elements into the story, and specifically mentioned not only ‘Prester John’ but also the Templars.

- At exactly the same time work started on the north porch of Chartres cathedral with its Ethiopic Queen of Sheba, its Grail (containing a Stone), and its representation of the Ark of the Covenant.

The Templars, Gothic architecture, the Holy Grail and the notion that somewhere in the world there existed a powerful non-European Christian king called ‘Prester John’ had therefore all been the products of the twelfth century. And in that same century, just before *Parzival* was written and the north porch of Chartres cathedral built, a future Christian

king of Ethiopia – Lalibela – had returned to his homeland to claim his throne after spending twenty-five years in Jerusalem.

It seemed to me, from everything I had learned, that all these matters must have been intricately connected by some common factor that had remained hidden from history, perhaps because it had been deliberately concealed. Proof positive of a Templar quest for the lost Ark of the Covenant, first in Jerusalem and then later in Ethiopia, would provide that hidden but common factor – the missing link in the complex chain of inter-related events, ideas and personalities that I had identified. I knew, at least for the moment, that I had gone as far as I could with the part of my investigation that related to Jerusalem. But what about Ethiopia? Was there really any evidence at all that the Templars might have gone there to look for the Ark – and that they might

subsequently have arranged for the results of their quest to be encoded by Wolfram in the arcane symbolism of his 'Stone called the Gral'?

'Those treacherous Templars …'

The first breakthrough came when I received an English translation of the full text of the letter supposedly written by Prester John himself to various Christian kings in the year 1165. Unlike Pope Alexander III's letter to Prester John, written in 1177 (which was a genuine document intended, as I now knew, for Lalibela's half-brother Harbay) the 1165 letter was regarded with great suspicion by scholars. Its date was authentic, but it was thought most unlikely that it could have been written by anyone with a real claim to the title 'Prester John' – and it was therefore regarded as an elaborate

hoax.[91]

As I read it I could understand why. If the writer was to be believed his ‘realms’ contained, amongst other things: ‘wild hares as big as sheep’; ‘birds called griffins who can easily carry an ox or a horse into their nest’; ‘horned men who have but one eye in front and three or four in the back’; ‘other men who have hoofed legs like horses’; ‘bowmen who from the waist up are men, but whose lower part is that of a horse’; the fountain of youth; a ‘sandy sea’ from which ‘every piece of debris … turns into precious stones’; ‘the tree of life’; ‘seven-headed dragons’ – and so on and so forth.[92] Just about every mythical beast and object ever dreamed of, it seemed, was to be found in the land of Prester John. Where exactly this land was located, however, was nowhere specified in the letter – except in the loose reference to the ‘many Indias’ quoted in the previous chapter (a reference, as I now knew,

that was more likely to have applied to Ethiopia than to the subcontinent). Moreover, scattered here and there amongst the fabulous creatures were other animals that did seem to belong to the real world: 'elephants' and 'dromedaries', for example, and also 'unicorns' with 'a single horn in front' which sounded very much like rhinoceroses – all the more so since, apparently, they were sometimes known to 'kill lions'.[93]

Such details made me wonder whether the writer of the letter might have been something more than a hoaxer – might, in fact, have had direct knowledge of Ethiopia (where, of course, camels, elephants, lions and rhinos were all to be found). My suspicion that this might have been so deepened when I noticed that mention was also made of 'King Alexander of Macedonia' in a context that linked him to 'Gog and Magog'.[94] This caught my eye because I remembered

that Alexander, Gog and Magog had been connected in an almost identical manner in a very ancient Ethiopic manuscript known as the *Lefafa Sedek*, the 'Bandlet of Righteousness',[95] which was supposedly unknown outside Abyssinia until the nineteenth century.

Another point of interest was that 'Prester John' claimed in the letter that his Christian kingdom contained large numbers of Jews – who seemed to be semi-autonomous and with whom wars were often fought. Again this had a certain flavour of genuine Ethiopian conditions: following the tenth-century Jewish uprising by Gudit (which had temporarily overthrown the Solomonic dynasty) there had in fact been several hundred years of conflict between Ethiopia's Jews and Christians.[96]

All in all, therefore, despite the many fantastic and obviously apocryphal aspects of the letter, I was not disposed

to believe that it was entirely an imposture. It seemed to me, furthermore, that its prime objective might have been to impress and scare the European powers to whom it was addressed. In this regard I noted in particular the frequent references that it made to the size of 'the Prester's' armed forces – for example:

> We have … forty-two castles, which are the strongest and most beautiful in the world, and many men to defend them, to wit ten thousand knights, six thousand crossbowmen, fifteen thousand archers, and forty thousand troopers … Whenever we go to war … know that in front of us there march forty thousand clerics and an equal number of knights. Then come two hundred thousand men on foot, not counting the

> wagons with provisions, and the elephants and camels which carry arms and ammunition.[97]

This was unmistakably fighting talk, but what was most notable about it was that it was closely tied to something else – specific, and hostile, mention of the Templars. In a section apparently intended for the 'King of France' the letter suggested:

> There are Frenchmen among you, of your lineage and from your retinue, who hold with the Saracens. You confide in them and trust in them that they should and will help you, but they are false and treacherous … may you be brave and of great courage and, pray, do not forget to put to death those treacherous Templars.[98]

Reviewing this ominous suggestion in the context of the rest of the bizarre letter I asked myself a question: in the year 1165, which candidate for the role of 'Prester John' could possibly have had a motive (a) to try to frighten off the European powers in general by boasting of his own overwhelming military strength, and (b) to attempt to smear the Knights Templar in particular and to request that they should be 'put to death'?

The answer I came up with was Harbay, who, in 1165, had been the reigning Zagwe monarch of Ethiopia, and who, as I have already observed, had certainly been the intended recipient of the letter written to Prester John by Pope Alexander III in 1177.

One of my reasons for pinpointing Harbay as the real author of the supposedly hoax letter of 1165 was terminological. I had discovered, as my research had

progressed, that all the Zagwe monarchs had favoured the use of the Ethiopic term *Jan* in their string of titles.[99] Derived from *Jano*, a reddish-purple toga worn only by royalty, the word meant 'King' or 'Majesty' and might easily have been confused with 'John'; indeed it could have been precisely because of this (coupled with the fact that several of the Zagwe rulers were also priests) that the phrase 'Prester John' had first been coined.

But there was a stronger reason to suspect Harbay. He, after all, had been a man with a burgeoning political problem in the year 1165. By then his disaffected half-brother Lalibela (who was eventually to depose him) had already been in exile in Jerusalem for five years – long enough, I speculated, for him to have got to know the Templars and to have made friends amongst them. Perhaps he had even asked the knights to help him to overthrow Harbay and perhaps Harbay had

got wind of this plot.

Such a scenario, I thought, was not entirely implausible. The slightly later request to the Pope for a concession in the Church of the Holy Sepulchre (a request presented in Palestine by 'honourable persons' of 'Prester John's' kingdom) suggested that Harbay regularly sent emissaries to Jerusalem; such emissaries, therefore, could easily have picked up intelligence of a conspiracy brewing between Lalibela and the Templars in 1165. If this had been what had happened then it would undoubtedly go a long way to explain the strangely menacing suggestion to the King of France that it might be a good idea if he were to have the 'treacherous Templars' (still mainly Frenchmen at that time) executed forthwith. The 'letter of Prester John' – at least according to this hypothesis – would therefore have been concocted by Harbay's agents in Jerusalem as a deliberate

strategy to deter collusion between the Templars and Prince Lalibela.

This was obviously an attractive line of reasoning. It was also dangerously speculative, however, and I would have been reluctant to follow it any further if I had not found certain passages in *Parzival* which seemed to confirm that the Templars might indeed have entered into precisely the sort of alliance with Lalibela that Harbay would have feared.

‘Deep into Africa …’

Written some years *after* Lalibela had forcefully deposed Harbay from the throne of Ethiopia, *Parzival* contained a number of direct references to the Templars – who, as I have already noted, were depicted as being members of ‘the Grail Company’.[100]

What I found intriguing was the specific suggestion, which Wolfram repeated several times, that these Templars were occasionally sent on missions overseas – missions that were highly secretive and that were to do with winning political power. For example:

> Writing was seen on the Gral to the effect that any Templar whom God should bestow on a distant people … must forbid them to ask his name or lineage, but must help them gain their rights. When such a question is put to him the people there cannot keep him any longer.[101]

Or similarly:

> If a land should lose its lord, and its people see the hand of God in it and ask for a new lord from

> the Gral Company, their prayer is granted … God sends the men out in secret.[102]

This was all very interesting, but the passage that really caught my attention came one page later in a lengthy monologue by a member of the Grail Company who spoke, amongst other things, of riding '*deep into Africa … past the Rohas*'.[103]

Scholars, I discovered, had tentatively identified 'the Rohas' with the Rohitscher Berg in Saangau Styria.[104] But this derivation looked completely spurious to me: it was not at all suggested by a context that had just mentioned Africa and I was quite unconvinced by the reasons given for it.[105] I knew something, however, that the Wolfram specialists in universities in Germany and England could not have been expected to know: *Roha* was the old name for a town in the

remotest highlands of Ethiopia – a town now called Lalibela in honour of the great king who was born there and who made it his capital when he returned to it in triumph in the year of our Lord 1185. Neither was there any reason for the experts in medieval German literature to have been aware that this same Lalibela had spent the previous quarter of a century in Jerusalem rubbing shoulders with the knights of a military-religious order whose headquarters stood on the site of the Temple of Solomon – knights who would have had a special interest in any contender to the throne of a country which claimed to possess the lost Ark that the Temple had originally been built to house. The question that I now needed to address, therefore, was this: was there any evidence at all to suggest that Lalibela might have been accompanied by a contingent of Templars when he returned to Ethiopia in 1185 and deposed Harbay?

I did not think that the answer to this question would be easy to find. Luckily, however, I had been to the town of Lalibela in 1983 while working on my book for the Ethiopian government, and I had kept field notes. I therefore studied these notes with great care. To my surprise, I almost immediately came across something of interest.

On the ceiling of the rock-hewn church of Beta Mariam (yet another place of worship dedicated to Saint Mary the Mother of Christ) I had noticed ‘faded red-painted crosses of the Crusader type’. I had then remarked: ‘These don’t look at all like any of the normal Ethiopian crosses – check out origins when back in Addis.’ I had even made a rough sketch of one of these ‘Crusader crosses’ (which had triangular arms widening outwards). And, although I could not remember doing so, I had obviously followed the matter up to some extent: beneath the sketch and in a different pen I had later

added the technical term *croix pattée*.

What I had not known in 1983 was that the Templars' emblem – adopted after the Synod of Troyes had given official recognition to the order in 1128 – had been a red *croix pattée*.[106] I did know this in 1989, however. Moreover I also knew that the Templars had been associated throughout their history with the construction of wonderful churches.

Almost inevitably, further questions began to form in my mind. By a considerable margin, the eleven rock-hewn churches of Lalibela were the most architecturally advanced buildings that Ethiopia had ever known (indeed, in the considered opinion of UNESCO, they deserved to be ranked amongst the wonders of the world).[107] Moreover, a certain air of mystery clung to them: there were other rock-hewn churches in the country, to be sure, but none were even of a remotely comparable standard. Indeed, in terms of overall

conception, of workmanship, and of aesthetic expression, the Lalibela monoliths were unique. No expert had been able to suggest exactly how they had been built, and there had been persistent rumours of foreign involvement in their construction. Several academics had speculated that Indians, or Egyptian Copts, had been hired as masons by King Lalibela.[108] Ethiopian legends, by contrast, attributed the work to angels! I now had to ask myself, however, whether the true artificers of the Lalibela churches might not have been the Templars.

Certainly, my 1983 field notes painted a picture of a fantastic architectural complex:

> Towering edifices [I had written], the churches remain places of living worship eight hundred years after they were built. It is important to

stress, however, that they were not *built* at all in the conventional sense, but instead were excavated and hewn directly out of the solid red volcanic tuff on which they stand. In consequence, they seem superhuman – not only in scale, but also in workmanship and in conception.

Close examination is required before the full extent of the achievement that they represent can be appreciated. This is because, like medieval Mysteries, considerable efforts have been made to cloak their real natures: some lie almost completely concealed within deep trenches, while others hide in the open mouths of huge quarried caves. Connecting them all is a complex and bewildering labyrinth of tunnels and narrow passageways with offset crypts, grottoes and

galleries – a cool, lichen-enshrouded, subterranean world, shaded and damp, silent but for the faint echoes of distant footfalls as priests and deacons go about their timeless business.

Four of the churches are completely free-standing, being attached to the surrounding rock only by their bases. Although their individual dimensions and configurations are very different, they all take the form of great hills of stone, precisely sculptured to resemble normal buildings. They are wholly isolated within the deep courtyards excavated around them and the most striking of them is *Beta Giorghis* (the Church of Saint George). It rests in majestic isolation at a considerable distance from all the others. Standing more than forty feet high in the centre of

> a deep, almost well-like pit, it has been hewn both externally and internally to resemble a cross. Inside there is a faultless dome over the sanctuary and, throughout, the craftsmanship is superb.

I concluded my 1983 notes – from which I have copied only the brief extract above – with the following question:

> Setting aside the assistance supposedly provided by angels, how exactly were Lalibela's wonders created? Today, if truth be told, no one really knows: the techniques that made possible the excavation and chiselling of stone on so dramatic a scale, and with such perfection, have long been lost in the mists of history.

In the summer of 1989, looking back at what I had written six years previously, I was uncomfortably aware of how little those mists had cleared – and of how much there remained for me to find out. Intuitively I had a strong feeling that the Templars could have been involved in the creation of the Lalibela complex. The fact was, however, that there was really nothing to support this view other than the red 'Crusader crosses' that I had observed painted on the ceiling of Saint Mary's (one of the four completely free-standing churches).

Nevertheless there *was* a genuine mystery surrounding the origin of the churches. This mystery was reflected in the inability of scholars to explain how they had been excavated or who their architects could have been. It also found an echo in the quaint insistence of some of the inhabitants of Lalibela that angels had been involved in the work. Now, as I

studied my 1983 field notes I discovered that there were other dimensions to the enigma.

Inside Saint Mary's, I had recorded, a priest had taken me close to the veiled entrance of the Holy of Holies and there had pointed out a tall pillar. I had described this pillar in the following terms:

> About as thick as a good-sized tree-trunk, it soars upwards out of the rock floor and disappears into the gloom above. It is completely wrapped, spiral-fashion, in a very old, discoloured shroud of cloth that bears faint traces of washed-out dyes. The priest says that the pillar is sacred and that engraved upon it are certain writings by King Lalibela himself. Apparently these writings tell the secrets of how the rock-hewn churches were

> made. I asked if the cloth could be drawn back so that I could read these secrets, but the poor priest was horrified. 'That would be sacrilege,' he told me, 'the covering is never removed.'

Gallingly, my notes had nothing else to add on this point. I had gone on to scribble my little entry on the 'Crusader crosses' and then had left Saint Mary's for the next church in the complex.

Closing the battered foolscap jotter that had travelled everywhere with me in 1983, I felt what I can only describe as a sense of retrospective fury at my earlier lack of curiosity. There had been so *much* in Lalibela that I had failed to investigate. There had been so many questions that I should have asked and had failed to ask. Golden opportunities had thrown themselves wantonly at me from every direction and

I had ignored them.

Rather wearily I turned my attention to the hefty stack of primary and secondary reference materials that I had accumulated on Ethiopia. The bulk of what I had consisted of photocopies of worthy but irrelevant academic papers. There was, however, one book which looked rather promising. Entitled *The Prester John of the Indies*, it was an English translation of the narrative of the Portuguese embassy to Ethiopia in 1520–6. Written by Father Francisco Alvarez, this narrative – running to more than five hundred pages – had first been printed in Lisbon in 1540 and had been rendered into English in 1881 by the ninth Baron Stanley of Alderley.

It was Lord Stanley's translation that I had before me – in a relatively new edition issued by the Hakluyt Society in 1961. The editors, Professors C. F. Beckingham and G. W. B. Huntingford of the University of London, described Alvarez

as ‘rarely silly or incredible … a kind, tactful, sensible man … free from the dishonesty of the traveller who tries to exaggerate his own knowledge.’ As a result his book was universally regarded by scholars as being ‘of great interest … incomparably detailed [and] a very important source for Ethiopian history.’[109]

With this glowing testimonial fresh in my mind I turned to page 205 of Volume I, where Alvarez began his account of his own visit to Lalibela. A lengthy church-by-church description followed which I could only admire for its exhaustive detail and for its plain, no-nonsense language. What I found most striking of all was how little things seemed to have changed in the four and a half centuries that had elapsed between Alvarez’s visit and my own. Even the covering on the pillar in Saint Mary’s had been there! After giving an account of other aspects of that church the

Portuguese traveller had added: ‘It had besides a high column in the cross of the transept over which is fixed a canopy, the tracery of which looks as if it had been stamped in wax.’[110]

Referring to the fact that all the churches were ‘entirely excavated in the living rock, very well hewn’ Alvarez exclaimed at one point:

> I weary of writing more about these buildings, because it seems to me that I shall not be believed if I write more, and because regarding what I have already written they may blame me for untruth. Therefore I swear by God, in whose power I am, that all I have written is the truth, to which nothing has been added, and there is much more than what I have written, and I have left it that they may not tax me with its being falsehood,

> so great was my desire to make known this splendour to the world.[111]

Like the good reporter he undoubtedly was, Alvarez talked to some of the senior priests at the end of his visit – a visit, it is worth remembering, that was made only three and a half centuries after the churches were built. Amazed by everything he had seen, the Portuguese cleric asked his informants if they knew how long the carving and excavation of the monoliths had taken and who had carried out the work. The reply he was given, unencumbered by later superstitions, caused my pulse to race:

> They told me that all the work on these churches was done in twenty-four years, and that this is written, and that they were made by white

> men … They say that King Lalibela ordered this to be done.[112]

Coming at the end of everything else I had learned, I felt that I could not disregard this pure and early piece of testimony. To be sure, the history books on my shelves made no mention of any 'white men' going to Ethiopia before the time of Alvarez himself. That, however, did not rule out the possibility that white men *had* gone – white men who had belonged to a military-religious order that was renowned for its international outreach and for its secretiveness; white men who, in the words of Wolfram von Eschenbach, were 'forever averse to questioning';[113] white men who were sometimes sent to 'distant people … to … help them gain their rights';[114] white men whose headquarters in the twelfth century had stood over the foundations of the Temple of

Solomon in Jerusalem.

The priests' strange statement about the 'white men' who had come to Lalibela therefore struck me as being a matter of the utmost importance. Above all else, it strengthened my conviction that Wolfram had been indulging in something more than mere whimsy when, in *Parsival*, he had linked the Templars so closely to his Grail cryptogram and to Ethiopia. He had never, anyway, been a whimsical writer; on the contrary he had been pragmatic, clever and highly focussed. I thus now felt increasingly confident that my suspicions about him were justified and that he had indeed been admitted to the inner circles of a great and terrible mystery – the secret of the last resting place of the Ark of the Covenant. Perhaps through the good offices of his 'source', the Templar acolyte Guyot de Provins, or perhaps by means of a more direct contact, he had been commissioned by the order to encrypt

that secret in a compelling story that would go on being told and retold for centuries.

Why should the Templars have wanted Wolfram to do such a thing? I could think of at least one possible answer. Written down and placed in some form of container (a chest buried in the ground for example), the secret of the Ark's whereabouts might easily have been lost or forgotten within a century or so, and would then only have come to light if somebody physically dug it up again. Cleverly encoded in a popular vehicle such as *Parzival*, however (which, I discovered, had been translated into almost all modern languages and reprinted in English five times in the 1980s in the Penguin Classics edition alone), the same secret would have stood an excellent chance of being preserved indefinitely in world culture. In this way, through all the passing centuries, it would have continued to be available to those with the

capacity to decipher Wolfram's code. It would, in short, have been hidden in full view, enjoyed by all as a 'cracking good yarn', but accessible only to a few – initiates, insiders, determined seekers – as the treasure map that it really was.

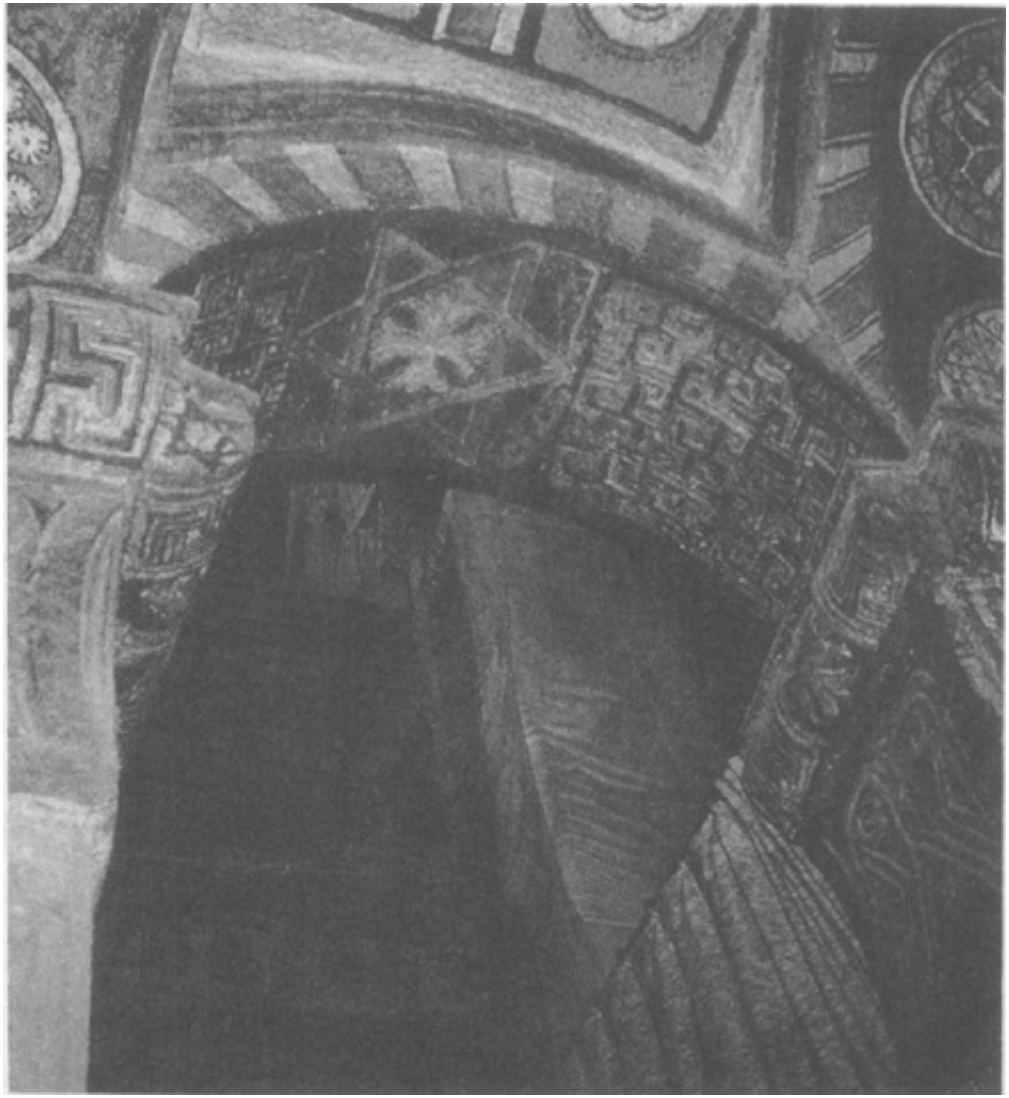

This photograph of the ceiling of the rock-hewn church of Saint Mary's was provided to me by my Canadian publisher John Pearce in November 1991 – shortly before this book went to press. Pearce took it on a visit that he made to Lalibela in 1982. On the arch can be seen a stylised *croix pattée* contained within a Star of David – a most unusual symbol in a Christian place of worship, but one to which it is known that the Knights Templar were particularly attached. Behind the arch can be seen a section of the cloth-wrapped column said by the priests to have been engraved by King Lalibela himself with the secrets of how the rock-hewn churches were made.

16 In medieval times the Virgin Mary was repeatedly compared to both the Ark of the Covenant and the Holy Grail. This church steeple reflects these ideas by

depicting Mary standing above the Ark.

17 and 18 Amongst many other shared characteristics, the Holy Grail (illustrated above) and the Ark of the Convenant (on the horizon below) were both said to have given off a bright supernatural radiance.

19 In this illustration from a rare 14th century manuscript, the German poet

Wolfram von Eschenbach is depicted second from the left amongst a group of other minstrels. In his *Parsival*, Wolfram described the Holy Grail not as a cup or container but as a stone.

20 Saint Bernard of Clairvaux, the force behind the formation of the Knights

Templar in the twelfth century, is shown here urging the Second Crusade.

21 A Knight Templar showing the *croix-pattée* that characterised the Order.

22 The great Muslim mosque known as the Dome of the Rock was built in the

seventh century AD and stands at the site originally occupied by Solomon's Temple on Jerusalem's Temple Mount.

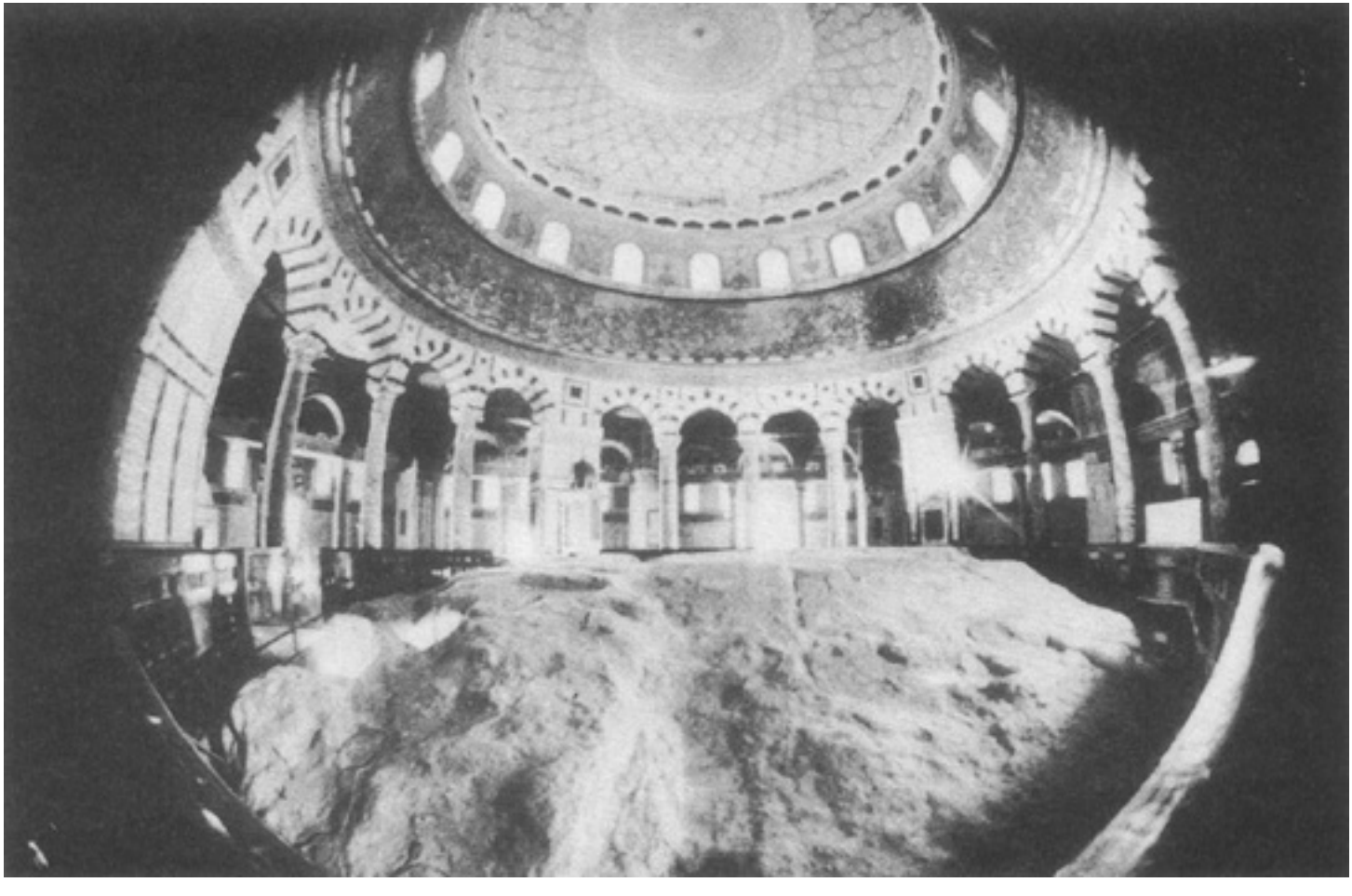

23 Interior of the Dome of the Rock showing the *Shetiyya*, the ‘foundation stone of

the world', which formed the floor of the Holy of Holies of Solomon's Temple. It was here that Solomon placed the Ark 3,000 years ago and it was from here, at some unknown date, that the sacred relic vanished.

24 and 25. *Above*: Porch of the Al Aqsa Mosque on Jerusalem's Temple Mount 100 metres to the south of the Dome of the Rock. The porch, in Gothic style with three central bays, was built by the Knights Templar in the twelfth century when they used the Al Aqsa Mosque as their palace. *Below*: for comparison, the Gothic north porch of Chartres Cathedral.

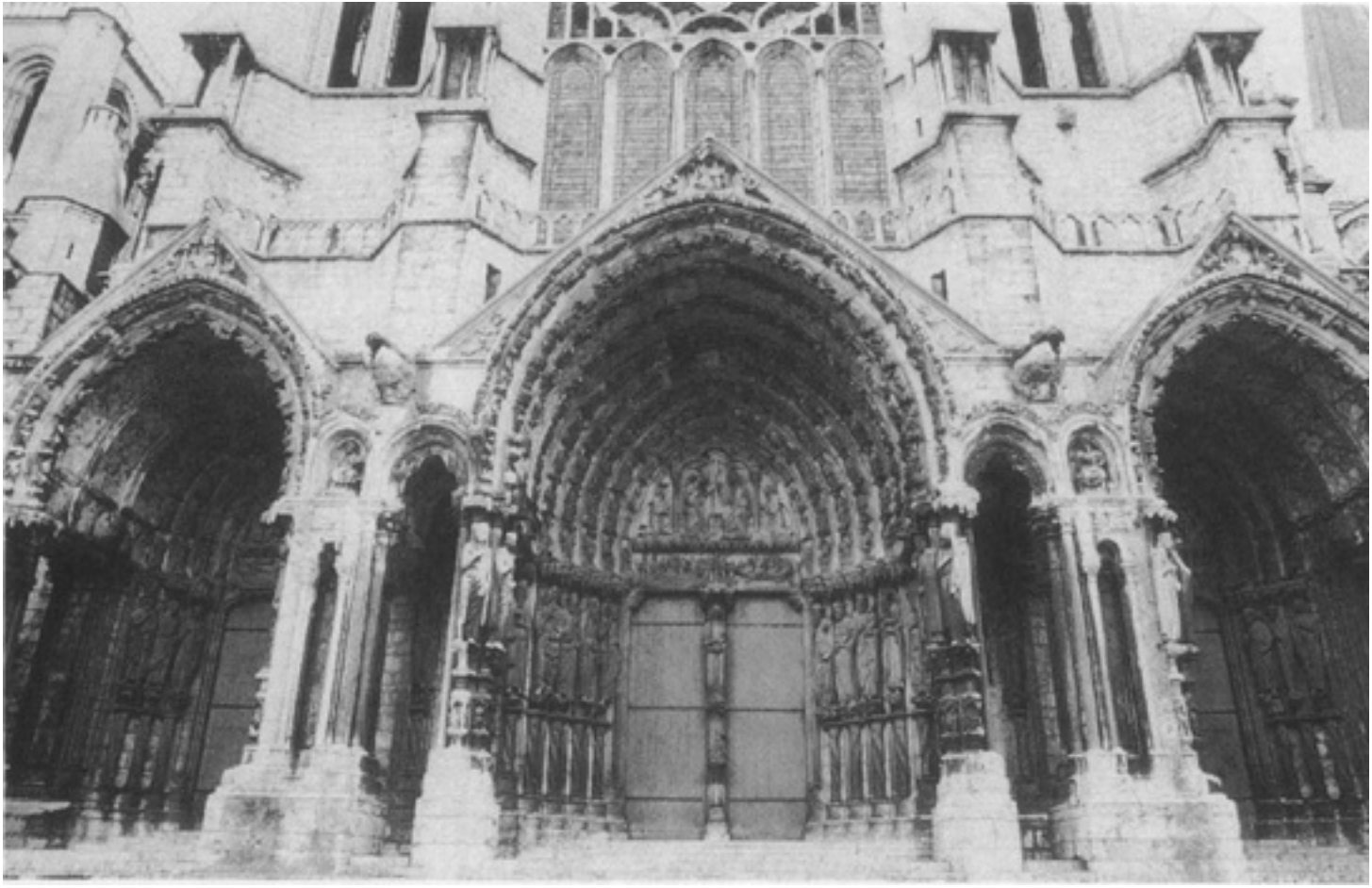

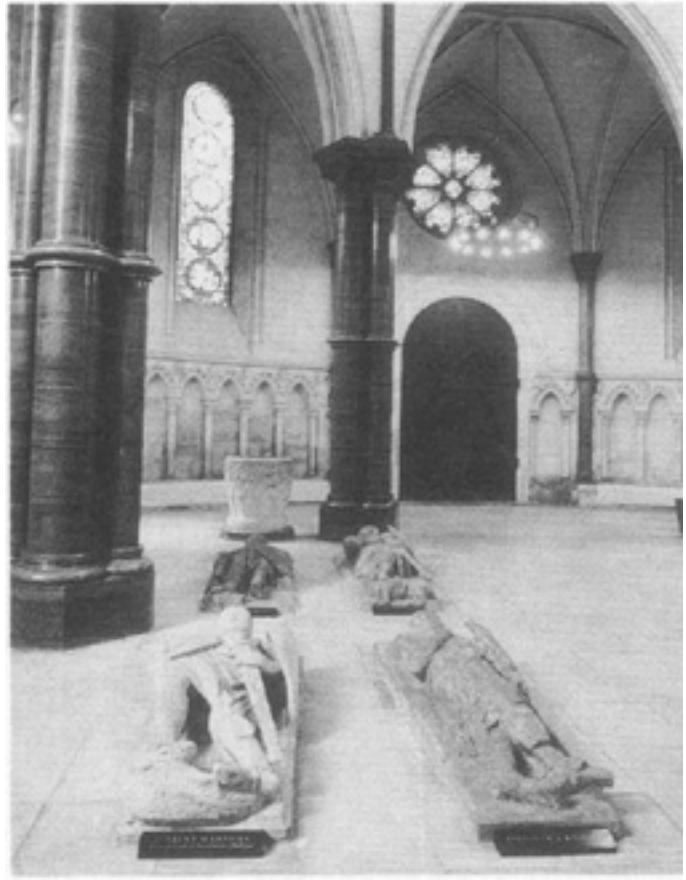

26 Interior of the circular Temple Church in London, with effigies of knights on the floor in the foreground. An early example of Gothic architecture, the church

was built by the Templars in the 12th century.

27 Frontispiece of Alvarez' text, written in the 1520's, describing the first official Portuguese mission to the court of Prester John in Ethiopia.

28 The rock-hewn monolithic church of Saint Mary in the ancient Ethiopian

settlement of Lalibela. Dating to the late 12th century, the church was ‘built by white men’ according to a local tradition recorded by Alvarez on his visit in the 1520’s. Could these white men have been Templars?

29 Twelfth century rock-hewn church of Saint George at Lalibela. The double-

cross device on its roof is a variant of the Templar cross and was later adopted by their successors – the Portuguese Knights of Christ.

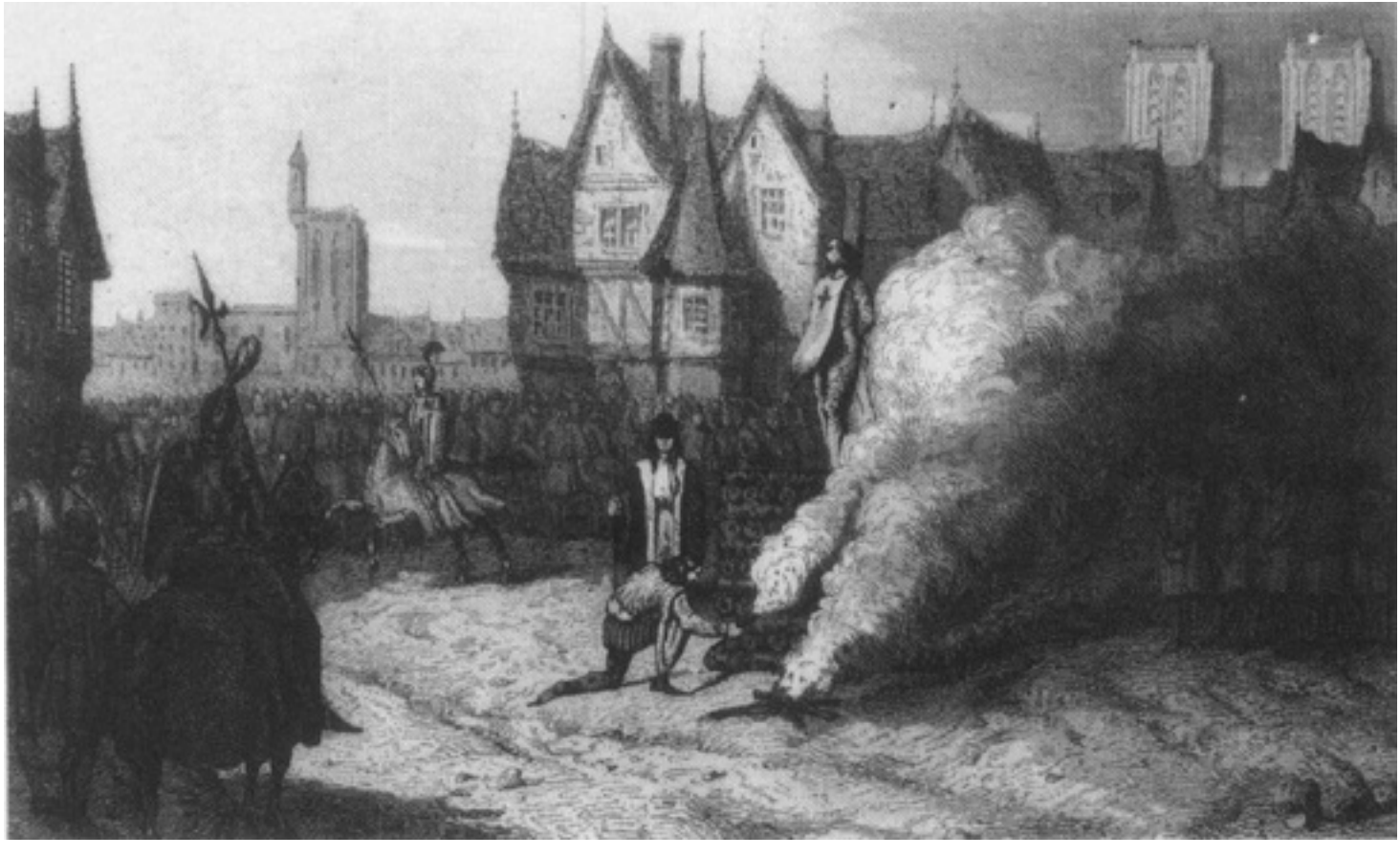

30 Grand Master of the Templars being burnt at the stake in the early 14th century. The suppression of the Templars began in 1307 and was instigated by Pope Clement V and King Philip IV of France. Less than a year earlier the first-ever Ethiopian mission to Europe had held an audience – in France – with Pope Clement V.

31 *Top left*: Pope Clement V. 32 *Top centre*: Robert the Bruce, who gave shelter to fugitive Templars in Scotland. 33 *Top right*: Prince Henry the Navigator (1394–1460), Grand Master of the Knights of Christ, who inherited Templar traditions and who showed an exceptional interest in Ethiopia.

VASCO DE
GAM

34 Vasco da Gama, a member of the Knights of Christ, whose son Don Christopher da Gama was killed in Ethiopia in 1542.

35 James Bruce of Kinnaird, who claimed to be descended from Robert the Bruce and whose epic journey to Ethiopia in the late eighteenth century shows evidence

of a hidden agenda concerning the Ark of the Covenant. Though he kept it secret during his lifetime, Bruce was a Freemason and an inheritor of Templar traditions in Scotland.

Chapter 6
Resolving Doubts

My visit to Chartres cathedral and my readings of Wolfram's *Parzival* during the spring and summer of 1989 had opened my eyes to many things that I had missed before – notably to the revolutionary possibility that the Knights Templar could have made an expedition to Ethiopia in the twelfth century in search of the lost Ark. As explained in Chapter 5, I did not find it difficult to see how and why they might have been motivated to do that. But what I now needed to establish was this: other than the Templar 'quest' that I thought I had identified, was there really any convincing evidence to

suggest that the last resting place of the Ark of the Covenant might actually be in the sanctuary chapel at Axum?

After all, there were literally hundreds of cities and churches around the world which boasted of possessing holy relics of one kind or another – fragments of the True Cross, Christ's shroud, the finger-bone of Saint Sebastian, the lance of Longinus, and so on and so forth. In almost every case where a proper investigation had been conducted such boasts had turned out to be hollow. Why, therefore, should Axum be any different? The fact that its citizens obviously *believed* their own legends certainly didn't prove anything – except, perhaps, that they were a susceptible and superstitious lot.

And, on the face of things, there seemed to be several good reasons for concluding that the Ethiopians did not possess the Ark of the Covenant.

Trouble with *tabots*

First and foremost, in the mid-nineteenth century, a legate of the Armenian Patriarch had visited Axum determined to prove that the tradition of the Ark's presence there, 'which the whole of Abyssinia believed to be the truth', was in fact 'an appalling lie'.[1] After putting some pressure on the Axumite priests, the legate – whose name was Dimotheos – had been shown a slab of 'reddish-coloured marble, twenty-four centimetres long, twenty-two centimetres wide and only three centimetres thick'[2] which the priests had said was one of the two tablets of stone contained within the Ark. They had not shown him the object believed by Ethiopians to be the Ark itself and had clearly hoped that he would be satisfied with a glimpse of the tablet – which they had referred to as 'the *Tabot* of Moses'.[3]

Dimotheos had indeed been satisfied. He reported with the

obvious pleasure of a man who has just debunked a great myth:

> The stone was virtually intact, and showed no sign of age. At the most it dated from the thirteenth or fourteenth century of the present era … Stupid people like the Abyssinians who blindly accept this stone as the original are basking in a useless glory by possessing it, [for it is] not the true original at all. Those that know the Holy Scriptures do not require any further proof of this: the fact is that the tablets on which the divine laws were inscribed were placed inside the Ark of the Covenant and lost forever.[4]

What was I to make of this? If the slab of stone shown to

the Armenian legate had really come from the relic claimed by the Axumites to be the Ark of the Covenant then he was right to suggest that they were basking in useless glory, because it went without saying that something made in ‘the thirteenth or fourteenth century of the present era’ could not possibly have been one of the two ‘tablets of the law’ on which the Ten Commandments had supposedly been inscribed more than twelve hundred years before the birth of Christ. In other words, if the contents were bogus then it followed that the container must be bogus too, which meant that the entire Axumite tradition was indeed ‘an appalling lie’.

But that was a conclusion, I felt, that it would be premature to accept before attempting to find the answer to an important question: had Dimotheos been shown the object believed to be the genuine *Tabot* of Moses, or had he in fact

been shown something else?

This question was particularly pertinent because the Armenian legate had so obviously been affronted and outraged by the possibility that a people as ‘stupid’ as the Ethiopians might possess a relic as precious as the Ark of the Covenant – and had therefore very much wanted to prove that they did not. Moreover, as I read and re-read his account, it became apparent to me that his desire to vindicate his own prejudices had over-ridden any proper investigative spirit on his part – and that he had also absolutely failed to recognize the subtle and devious nature of the Ethiopian character.

When he had visited Axum in the 1860s the specially dedicated sanctuary chapel had not yet been built[5] and the Ark – or the object believed to be the Ark – was still kept in the Holy of Holies of the church of Saint Mary of Zion

(where, in the seventeenth century, it had been installed by Emperor Fasilidas after the reconstruction of that great edifice[6]). Dimotheos, however, had *not* been permitted to enter the Holy of Holies. Instead he had been taken to a rickety wooden outbuilding 'situated with some other rooms outside the church on the left'.[7] It had been in this outbuilding that the 'reddish-coloured marble stone' had been revealed to him.[8]

Because of this it seemed to me that there was a very high degree of probability that the Armenian legate had been duped by the priests. The Ark, I knew, was regarded as uniquely sacred by the Ethiopian Orthodox Church. It was therefore inconceivable that it, or any part of its contents, would have been removed even temporarily from the Holy of Holies of Saint Mary of Zion unless there had been some extremely compelling reason. The voyeuristic whim of a

vulgar foreigner would certainly not have qualified as such a reason. At the same time, however, this foreigner had been an emissary of the Armenian Patriarch in Jerusalem and it would therefore have been thought wise to treat him with a certain amount of respect. What to do? The answer, I suspected, was that the priests had decided to show him one of the many *tabots* kept at Axum. And because he had so forcefully expressed his wish to see something connected to the Ark, if not the Ark itself, it would only have been kindly and polite to massage his ears with words that he obviously very much wanted to hear, namely that what he was being shown was the 'original *Tabot* of Moses'.

Needing to be sure that I was right about this I made a long-distance telephone call to Addis Ababa, where Professor Richard Pankhurst – my co-author on the government book in 1983 – was now living (he had moved back to the city in

1987 to take up his old post at the Institute of Ethiopian Studies). After telling him a little about my re-awakened interest in the Axumite tradition concerning the Ark of the Covenant, I asked him about the Dimotheos incident. Did he think that the *Tabot* that the Armenian legate had been shown could actually have been one of the objects believed by Ethiopians to have been placed in the Ark by Moses?

'Most unlikely,' Richard replied. 'They wouldn't show such a sacred thing to any outsider. Besides, I've read Dimotheos's book and it's full of mistakes and misapprehensions. He was a pompous man, pretty unscrupulous in his dealings with the Ethiopian Orthodox Church, and not entirely honest. I imagine the Axum clergy would have seen through him very quickly and fobbed him off with some other *tabot* that wasn't of any great importance to them.'

We talked for some time longer and Richard supplied me

with the names and telephone numbers of two Ethiopian scholars who he thought might be able to help me with my research – Dr Belai Gedai (who had spent several years making an exhaustive study of his country's ancient history, drawing heavily on rare Amharic and *Ge'ez* documents) and Dr Sergew Hable-Selassie of the Institute of Ethiopian Studies, the author of a highly respected work entitled *Ancient and Medieval Ethiopian History to 1270*[9] with which I was already familiar.

The question of what Dimotheos had or had not seen in Axum was still very much at the forefront of my mind and I decided that I would put the problem to Hable-Selassie. I therefore called him, introduced myself, and asked for his opinion on the matter.

He laughed: 'Well certainly that fellow did not see the original *Tabot* of Moses. To satisfy his wish the priests

showed him a substitute – not the real one … Here in Ethiopia it is normal for each church to have more than one *tabot*. In fact some have as many as ten or twelve, which they use for different ceremonial purposes. So he would have been shown one of these. There's no doubt about that at all.'

The confident nature of the historian's response laid to rest any remaining uncertainty that I may have felt about the merits of the Armenian legate's testimony. The 'reddish-coloured marble stone' that he had seen had no value as evidence either for or against Ethiopia's claim to possess the Ark of the Covenant. Nevertheless his account of his visit to Axum had raised another complicated reservation in my mind – a reservation to do with the whole issue of *tabots* as a category of sacred objects. As far as I was aware these objects were supposed to be *replicas* of the Ark of the Covenant – which, as I knew very well, had been a box about the size of

a tea-chest. Yet the small marble slab that Dimotheos had been shown had been called a *tabot* and it had been described as one of the *tablets of stone* contained inside the Ark.

This was something that I really needed to clarify. Every Ethiopian church had its own *tabot* (and, as I now knew, they sometimes had several). But were these *tabots* really supposed to be replicas of the sacred object, thought to be the Ark, that was kept in the sanctuary chapel in Axum? If that were the case, and if all *tabots* were flat slabs, then the implication was that that sacred object, too, must be a flat slab – which meant that it could not be the Ark (although it might possibly be one of the tablets of the law on which the Ten Commandments had been inscribed).

Certainly the *tabots* that I had seen over my many years of acquaintance with Ethiopia had all been slabs rather than boxes – slabs that had been made sometimes of wood, and

sometimes of stone. And certainly, also, it had been this very characteristic that had led the scholar Helen Adolf to conclude that Wolfram von Eschenbach must have had some knowledge of *tabots* when he had devised his Grail Stone.[10]

That was all very well – if *tabots* were meant to represent the stone tablets that the Ark had contained. On the other hand, if these objects were thought of as replicas of the Ark itself then the Axumite claim to that relic would be severely damaged. I could hardly forget that it had been precisely this problem – brought starkly to my attention after my visit to the British Museum Ethnographic Store in 1983 – that had caused me to abandon my initial research into the great mystery that was now clamouring for my attention once again. Before going any further, therefore, I felt that it was imperative to establish once and for all exactly what *tabots* were supposed to be. To this end I telephoned Dr Belai Gedai,

the other Ethiopian scholar whom Richard Pankhurst had recommended to me. After introducing myself I got straight to the point: ‘Do you believe,’ I asked, ‘that the Ark of the Covenant is in Ethiopia?’

‘Yes,’ he replied emphatically. ‘Not only me but all Ethiopians believe that the Ark of the Covenant is in Ethiopia, kept in the church of Saint Mary of Zion in Axum. It was brought here after the visit of Emperor Menelik I to his father Solomon in Jerusalem.’

‘And what about the Ethiopian word *tabot*? Does that mean “Ark”? Are *tabots* supposed to be replicas of the Ark in Axum?’

‘In our language the correct plural of *tabot* is *tabotat*. And, yes, they are replicas. Because there is only one original Ark and because the ordinary people need something tangible to which they may attach their faith, all the other churches

make use of these replicas. There are now more than twenty thousand churches and monasteries in Ethiopia and every one of them has at least one *tabot*.'

'That's what I thought. But I'm puzzled.'

'Why?'

'Mainly because none of the *tabotat* I've seen looked anything like the biblical description of the Ark. They were all slabs, sometimes made of wood, sometimes made of stone, and none of them were much more than a foot long and wide or more than two or three inches thick. If objects like these are supposed to be replicas of the relic kept in the church of Saint Mary of Zion in Axum then the logical deduction is that that relic can't be the Ark of the Covenant after all …'

'Why?'

'Because of the biblical description. Exodus clearly depicts the Ark as a fair-sized rectangular chest. Hang on, I'll look up

the details …’

I took down my copy of the Jerusalem Bible from the bookshelf above my desk, turned to Chapter 37 of Exodus, found the relevant passage, and read out how the artificer Bezaleel had built the Ark according to the divine plan given to him by Moses:

> Bezaleel made the Ark of acacia wood, two and a half cubits long, one and a half cubits wide, one and a half cubits high. He plated it, inside and out, with pure gold.[11]

‘How long exactly is a cubit?’ Gedai asked.

‘Approximately the length of a forearm from the elbow to the tip of the middle finger – in other words about eighteen inches. So that means the Ark would have been about three

feet nine inches in length and two feet three inches in width and depth. *Tabotat* simply don't fit those dimensions. They're much too small.'

'You are right,' Gedai mused. 'Nevertheless we do have the original Ark of the Covenant. This is certain. In fact there is even an eyewitness description.'

'You mean the one given by the Armenian legate Dimotheos?'

'No, no. Certainly not. He saw nothing. I am referring to someone who came much earlier, a geographer named Abu Salih – who was also an Armenian, by the way. He lived in the very early thirteenth century and he made a survey of Christian churches and monasteries. These churches and monasteries were mainly in Egypt. In addition, however, he visited some neighbouring countries, including Ethiopia, and his book contains material on these countries as well. That is

where the description of the Ark is given. If I remember correctly it does accord quite well with what you have just read me from Exodus.'

'This book of Abu Salih's? Has it ever been translated into English?'

'Oh yes. A very good translation was made in the nineteenth century. You should be able to find a copy. The editor was a certain Mr Evetts …'

Two days later I emerged triumphantly from the stacks of the library of the School of Oriental and African Studies in London. In my hand was B. T. Evetts's translation of Abu Salih's monumental *Churches and Monasteries of Egypt and some Neighbouring Countries.*[12] On page 284, in small print, I found the subheading 'Abyssinia' followed by eight pages of observations and comments. Amongst them was this reference:

> The Abyssinians possess the Ark of the Covenant, in which are the two tables of stone inscribed by the finger of God with the commandments which he ordained for the Children of Israel. The Ark of the Covenant is placed upon the altar, but is not so wide as the altar; it is as high as the knee of a man and is overlaid with gold.[13]

I borrowed a ruler from the librarian and measured my own leg from the sole of my foot to my knee: twenty-three inches. This, I felt, was close enough to the twenty-seven inches given in Exodus to be significant – particularly if the statement 'as high as the knee of a man' had referred to a man wearing shoes or boots. I knew that such a rough measure could never be conclusive as a piece of evidence; on the other hand it by no means excluded the possibility that

the Armenian geographer *had* seen the original Ark of the Covenant when he had made his visit to Ethiopia in the thirteenth century. And anyway, from my point of view, the real importance of the account that he had given was this: it indisputably described a substantial box or chest covered with gold rather than a slab of wood or stone a few inches thick like the *tabotat* that I had seen – or, for that matter, like the *tabot* that had been shown to Dimotheos in the nineteenth century.

Equally significantly, Abu Salih had given some details about how the object that he had seen had been used by the Christians of Axum:

> The liturgy is celebrated upon the Ark four times in the year, within the palace of the king; and a canopy is spread over it when it is taken out from

> its own church to the church which is in the palace of the king: namely on the feast of the great Nativity, on the feast of the glorious Baptism, on the feast of the Holy Resurrection, and on the feast of the illuminating cross.[14]

There could, it seemed to me, be no question but that this early and quite matter-of-fact eyewitness account provided considerable support for Ethiopia's claim to be the last resting place of the genuine Ark of the Covenant. The dimensions and appearance were roughly right and even Abu Salih's description of the way in which the relic that he had seen had been covered with a 'canopy' when transported was in accord with the regulations laid down in the Bible:

> And when the camp setteth forward … they shall

> take down the covering veil and cover the Ark with it. And they shall … spread over it a cloth.[15]

So far so good. But though the Armenian geographer was helpful, he still did not provide me with any answer to the knotty problem posed by the shape of that category of objects known as *tabotat*. Nor was this problem one that I could afford to ignore. I therefore decided to check out the etymology of the Ethiopic word. In its pure and original form, I wondered, did *tabot* actually mean 'Ark'? Or did it mean 'stone tablet'? Or did it mean something else altogether?

My investigation into this matter took me into intellectual territory that I had never charted before (and that I would prefer never to have to chart again), namely linguistics. Ploughing through reams of obscure and boring documents I

established that the ancient Ethiopian language known as *Ge'ez*, together with its modern and widely spoken descendant Amharic, are both members of the Semitic family of languages, to which Hebrew also belongs.[16]

I then learned that the word most frequently used in biblical Hebrew to refer to the Ark of the Covenant was *'aron*,[17] which obviously bore no similarity whatsoever to *tabot*. There was another Hebrew word, however – *tebah* – from which scholars agreed that the Ethiopic *tabot* had undoubtedly been derived.[18]

I next sought to confirm whether this word *tebah* had featured in the Hebrew Old Testament, and, after further research, I discovered that it had – though only twice. Significantly, in both cases, it had been used to refer to a ship-like *container*: first the ark of Noah which contained the survivors of the human race after the flood,[19] and secondly

the ark of bulrushes which contained the infant Moses after his mother had set him adrift on the Nile to save him from the wrath of Pharaoh.[20]

Turning to the *Kebra Nagast* I then found one passage in which the Ark of the Covenant was specifically described as 'the belly of a ship … Two cubits and half a cubit shall be the length thereof, and a cubit and half a cubit the breadth thereof, and thou shalt cover it with pure gold, both the outside thereof and the inside thereof.'[21] Within this 'belly of a ship', furthermore, were to be placed 'the Two Tables which were written by the finger of God'.[22]

Such language left no room for doubt. Both in terms of its etymology and its early usage the Ethiopic word *tabot* unambiguously connoted the biblical Ark of the Covenant in its original form as a gold-covered container – a form for which the 'belly of a ship' could serve as a clever metaphor

capable not only of summoning up an image of the object but also of linking it conceptually to earlier 'ships': the ark of Noah and the ark of bulrushes, which of course had both also contained sacred and precious things.

By the same token, however, *tabot* definitely did not mean or in any way connote flat solid slabs of wood or stone. So there was still a genuine mystery here. That mystery, however, was finally resolved for me by Professor Edward Ullendorff, Fellow of the British Academy and the first incumbent of the Chair of Ethiopian Studies at the University of London. Now retired and living in Oxford, this renowned scholar insisted that he could see no difficulty in explaining how slabs of wood or stone had come to be referred to as 'Arks' by the Ethiopians:

> The genuine Ark is supposed to rest at Axum; all

> other churches can only possess replicas. In most cases they are not, however, replicas of the whole Ark, but merely of its supposed contents, i.e. the tablets of the Law … In other words: the description of these stone or wooden tablets as *tabotat* is simply by way of a *pars pro toto* referring to the most important part of the Ark, the tables of the Covenant.[23]

Flies in amber

By eliminating an apparent contradiction, Ullendorff's solution to the *tabot* problem lifted one of the clouds of doubt that hovered over Ethiopia's claim to possess the lost Ark. Other clouds remained, however. Amongst them, one of the darkest was brought to my attention by Ullendorff himself. In

a paper entitled 'The Queen of Sheba in Ethiopian Tradition' he had indicated very strongly that the *Kebra Nagast* was not to be taken seriously as a work of history; rather its purpose had been to glorify Ethiopia and it was to this end that the Ark had been introduced into it.[24]

Nor was Ullendorff alone in the view that the *Kebra Nagast* was largely apocryphal. In the Introduction to his translation of that great epic, for example, Sir E. A. Wallis Budge pointed out that it was most unlikely that the Queen of Sheba could have been an Ethiopian at all: 'It is far more probable', he wrote (rehearsing an argument with which I was already somewhat familiar), 'that her home was Sebha, or Saba, in the south-west of Arabia.'[25]

Several authorities made much of the fact that in Solomon's time – a thousand years before Christ – Ethiopia had not possessed any real civilization of its own and

certainly had not boasted an advanced urban society capable of producing so illustrious a monarch as the Queen of Sheba. Indeed, the consensus was that enlightenment had not even begun to dawn in the Abyssinian highlands until about the sixth century BC and had not reached any level of sophistication until some four hundred years after that. Neither could this period of progress be regarded as an Ethiopian achievement: instead the catalyst had been an influx of Arab tribesmen whose 'superior qualities' had revolutionized the sluggish culture of the native inhabitants. Coming mainly from the Yemen, these Semitic immigrants had

> settled in the north of Ethiopia and in the process of assimilation with the local population brought about a cultural transformation. They brought

> with them gifts beyond price: religion, a more highly-developed social organization, architecture and art, and a system of writing.[26]

In short, Ethiopian civilization was not only much more recent than the Axumite legends implied but also had been borrowed from elsewhere. In their heart of hearts, furthermore, most Ethiopians knew this to be true and felt deeply insecure about their heritage. Indeed one standard work of history went so far as to suggest that the *Kebra Nagast* was popular because it filled a deep psychological need on the part of the Abyssinians 'to prove their ancient origins … Parvenu peoples, like parvenu individuals, hanker after ancestors, and peoples have as little scruple in forging family trees as have individuals.'[27]

In my view the importance of all these arguments lay less

in the notion that the *Kebra Nagast* was mainly a work of fiction (since that did not preclude the possibility that what it had to say about the abduction of the Ark could have been based on some real event), but rather in the consensus that Ethiopian civilization was relatively young and that it had been derived from South Arabia.

This consensus had a real bearing on my attempts to establish the legitimacy of the Ethiopian claim to the Ark because it applied not only to the general civilization of the highlands but also – and quite specifically – to the Falashas. The *Kebra Nagast* stated quite plainly that the Jewish faith had been introduced into Ethiopia in the 950s BC when Menelik and his companions had arrived with the Ark (indeed it even said that the Queen of Sheba herself had been converted to Judaism).[28] On the face of things, therefore, the existence of indigenous black Jews in Ethiopia looked like

significant corroborative evidence for the Ark's presence. On closer examination, however, this turned out not to be the case – or at least not according to the scholars. As Richard Pankhurst had told me in 1983,[29] the academic establishment was overwhelmingly of the opinion that the Jewish faith was unlikely to have reached Ethiopia before the second century AD, and that it had been brought across the Red Sea from the Yemen where a large Jewish community had indeed been established after AD 70 by emigrants fleeing Roman persecutions in Palestine.[30]

One of the strongest proponents of this view was Professor Ullendorff, who presented a long argument on the subject in his influential *Ethiopia and the Bible* and who concluded quite emphatically that the ancestors of the Falashas must have been converted by Jews who had 'entered Ethiopia via South Arabia' over a lengthy period from AD 70 through until about

AD 550.[31]

I decided that I would have to investigate this issue very thoroughly. If the Judaism of the Falashas was indeed less than two thousand years old – and had come from Arabia – then a great swathe of apparently convincing 'cultural corroboration' for direct contacts between Ethiopia and Jerusalem in Old Testament times would be obliterated at a stroke and Axum's lcandidacy as the last resting place of the Ark would lose much if not all of its credibility.

Soon after I began this new phase of my research, however, it became apparent to me that the scholarly consensus in favour of 'the Yemeni theory' had largely come about because there was an absence of evidence for any alternative theory. There was nothing whatever which proved that the Jewish faith could *not* have arrived by some other route; on the other hand there was no proof that it had. The tendency

therefore had been to focus on South Arabia as the likely source because it was known that there had been other migratory movements from that region into Ethiopia.[32]

This struck me as a deplorable failure of logic in which absence of evidence, which was one thing, was in fact being treated as evidence of absence – which was quite another. To reiterate, the problem was a lack of proof that Judaism might have arrived in Ethiopia much earlier and by a different route than the scholars believed; but there was no proof at all that this could *not* have been the case.

I therefore felt that the field was open and that what I needed to do in order to satisfy myself one way or the other was to study the traditions, beliefs and behaviour of the Falashas themselves and to draw my own conclusions about their origins from these. I thought it likely, however, that their religious observances would have been adulterated

during the twentieth century by extensive exposure to western and Israeli visitors. I therefore turned to older accounts that depicted their way of life before it had been contaminated by modern cultural change.

Ironically, several of these accounts were written by foreigners who came to Ethiopia with the express intention of engineering cultural change, notably nineteenth-century Christian missionaries who had heard rumours of the existence of a sizeable population of Abyssinian Jews and who had rushed to convert them.

One such evangelist was Martin Flad, a young German who arrived in Ethiopia in 1855 to proselytize on behalf of the London Society for Promoting Christianity amongst the Jews.[33] His book, *The Falashas of Abyssinia*, was published in 1869. I found a worn and much-handled copy of it in the British Library and soon became intrigued by several

passages in which the author insisted that there must have been Jews in Ethiopia at least since the time of the prophet Jeremiah (around 627 BC[34]), and possibly since the reign of Solomon. Flad based this assertion in part on the fact that:

> The Falashas know nothing of either the Babylonian or the Jerusalem Talmud, which were composed during and after the time of the captivity. They also do not observe the Feasts of Purim and of the Dedication of the Temple, which … are still solemnly kept by the Jews of our time.[35]

On further investigation, I discovered that the Feast of the Dedication of the Temple was properly known as Hanukkah (meaning, literally, 'Dedication'). From my point of view the

most significant fact about it was that it was instituted in 164 BC[36] and therefore would certainly have been observed by the Jewish community that established itself in the Yemen after AD 70. The academic orthodoxy which had previously persuaded me to see the Falashas as the descendants of Ethiopians converted by these Yemeni Jews thus suddenly began to look very suspect. To put matters as plainly as possible, non-observance of Hanukkah suggested only one rational conclusion: the Falashas must have acquired their Judaism *before* 164 BC and thus not from the Yemen but from some other source.

I next researched the Feast of Purim of which Flad had also found Ethiopia's Jews to be ignorant. This festival, too, I learned, had been observed since at least the second century BC. Indeed it was quite possibly of even earlier provenance than that: the events that it commemorated took place in the

mid-fifth century BC and several of the authorities whom I consulted suggested that its observance had become widely popular by 425 BC.[37] This raised the interesting possibility – of which Flad himself had obviously been convinced – that the Falashas had become isolated from the evolving body of world Judaism well before that date, perhaps during the sixth century BC.

I now had a growing sense that the gap between Abyssinian legend and historical fact was closing fast: five hundred years before Christ, after all, was only four hundred years after Solomon. It was beginning to look more and more probable that the Judaism of the Falashas *had* arrived in Ethiopia in early Old Testament times – just as the *Kebra Nagast* and the Falashas themselves had always claimed. If this were so, then the implications were clear: at the very least the story of the abduction of the Ark to Ethiopia by

Menelik deserved to be taken much more seriously than the academics had hitherto allowed.

I found further evidence for this point of view in the account of another nineteenth-century missionary, Henry Aaron Stern, who was himself a German-Jewish convert to Christianity. He had worked and travelled with Flad in Ethiopia and had published his own *Wanderings among the Falashas in Abyssinia* in 1862.

As I read this 300-page volume I developed an intense dislike for its author, who came across as an arrogant, brutal and unscrupulous proselytizer with no respect whatsoever for the culture or traditions of the people amongst whom he was working. In general, too, I felt that his descriptions of Falasha religion and lifestyle were thin and poorly observed. As a result, by the time I was halfway through the book I had become thoroughly impatient with it.

Then, on page 188, I came across something interesting. Here, after a lengthy treatise on the absolute interdiction amongst the Falashas of 'intermarriages with those of another tribe or creed', Stern described the Ethiopian Jews as being faithful to the law of Moses 'which … is the formula after which they have moulded their worship.' He then added:

> It sounds strange to hear in central Africa of a Jewish altar and atoning sacrifices … [Yet], in the rear of every place of worship is a small enclosure with a huge stone in the centre; and on this crude altar the victim is slaughtered, and all other sacrificial rites performed.[38]

Though at this stage my general knowledge about Judaism was limited to say the least, I was well aware that animal

sacrifice was no longer practised anywhere in the world by modern Jews. I had no idea whether this ancient institution still existed amongst the Falashas in the late twentieth century; Stern's account, however, made it quite clear that it had flourished a hundred and thirty years earlier.

Continuing his description of the sacrificial enclosure, the German missionary next remarked:

> This sanctum is sacredly guarded from unlawful intrusion … and woe betide the stranger who, ignorant of Falasha customs, ventures too close to the forbidden precincts … I was one day on the very verge of committing this unpardonable offence. It was a very sultry and close noon when, after several hours' fatiguing march, we reached a Falasha village. Eager to obtain a short rest, I

> went in quest of a cool and quiet shelter, when accidentally I espied in the midst of a secluded grassy spot a smooth block that looked as if it had been charitably placed there to invite the weary to solitude and repose. The thorny stockade easily yielded to the iron of my lance, and I was just about to ensconce myself behind the flattened stone when a chorus of angry voices … reminded me of my mistake, and urged me to beat a hasty retreat.[39]

I found myself wishing that Stern had received the punishment he deserved for vandalizing a holy place.[40] At the same time, however, I could not help but be grateful to him for drawing my attention to the practice of sacrifice amongst the Falashas. This was a lead well worth following

up since it might provide another clue to the date at which Ethiopia's Jews became separated from the main body of their co-religionists.

I devoted considerable effort to researching the obscure subject of Judaic sacrifice in Old Testament times. The picture that eventually emerged from the fog of scholarly references was of a constantly evolving institution that started out as a simple offering to God which anyone, priest or layman, could make and in virtually any place where a local shrine had been established. This state of relative unregulation, however, began to change after the Exodus from Egypt around 1250 BC.[41] During the Hebrews' wanderings in the wilderness of Sinai the Ark of the Covenant was built and housed in a portable tent or 'tabernacle'. Thenceforward all sacrifices were to be made at the door of this tabernacle and anyone disobeying the new

law was to be punished by banishment:

> Whatsoever man there be of the House of Israel … that offereth a burnt offering or sacrifice and bringeth it not to the door of the tabernacle of the congregation, to offer it unto the Lord; even that man shall be cut off from among his people.[42]

I learned, however, that this prohibition was rather less absolute than it sounded. The main point of the code was not to abolish sacrifice at local shrines in all circumstances but rather to ensure that sacrifices were carried out exclusively at a centralized national place of worship *when and if such a place existed*. In the wilderness the tabernacle housing the Ark was such a central point. Later, from roughly 1200 to 1000

BC, a national sanctuary was established in Israel at Shiloh, which thus became the new sacrificial centre. Significantly, however, there were periods of political upheaval when Shiloh was abandoned and during these periods the Hebrews were permitted to sacrifice once again at local shrines.[43]

By the 950s BC Solomon's Temple in Jerusalem had superseded Shiloh as the national religious centre. There is evidence, however, that local sacrifices did take place elsewhere from time to time, particularly amongst those Jews living far from the capital. Indeed it was not until the reign of King Josiah (640-609 BC) that a blanket ban on all forms of sacrifice other than at the Temple began to be strictly enforced.[44]

So seriously was this prohibition taken that the Jews appear not to have attempted sacrifice of any kind in the decades immediately following the Temple's destruction by

Nebuchadnezzar in 587 BC. The early tradition of reverting to local shrines in the absence of a centralized national place of worship seems to have been irrevocably abandoned. Quite simply, while there was no Temple there could be no sacrifice.[45]

After the return from the Babylonian Exile, the Second Temple was built in Jerusalem and the institution of sacrifice was re-established exclusively within its precincts; meanwhile the absolute prohibition on local offerings was reinforced and appears to have been strictly obeyed. This system of centralized sacrifice remained firmly in place from 520 BC, when the Second Temple was dedicated, until 70 AD when it was razed to the ground by the Roman Emperor Titus.[46]

No Third Temple had ever been contemplated, other than by millennial groups who linked the fulfilment of that dream

with the coming of the still-awaited Messiah.[47] In consequence, since AD 70, sacrifice had everywhere been abandoned by the Jews. *The Falashas were the sole exception to this rule.*[48] Moreover Stern's account suggested that they had offered sacrifices at all their places of worship when he had worked amongst them in the nineteenth century. With a little further research I was able to confirm that this tradition was so strong that sacrifices continued to be made by the majority of Falasha communities today despite their increased exposure to modern Jewish practices.[49]

As I considered this fact, I realized that there might be a number of possible explanations for it. The most obvious and attractive of these explanations, however, was also the simplest – and therefore the most likely to be correct. I wrote in my notebook:

The ancestors of today's Falashas must have been converted to Judaism at a time when it was still acceptable for those far away from the centralized national sanctuary to practise local sacrifice. That would suggest that the conversion took place before King Josiah's ban – i.e. no later than the seventh century BC and possibly even earlier than that.

HYPOTHESIS: At some stage after the building of Solomon's Temple (mid-900s BC) but before Josiah (mid-600s BC) a group of Jews migrated from Israel and settled in Ethiopia. They established local shrines at which they conducted sacrifices to their God and they began to convert the natives of the country to their faith. Perhaps they initially maintained contact with their

homeland. The distance was great, however, and it is reasonable to suppose that they would eventually have became completely isolated. They would thus have been untouched by the great revolutions in theological thought that took place in the Judaic world in subsequent centuries.

This explains why the Falashas are the only Jews still practising sacrifice. Frozen like flies in amber, trapped in a time-warp, they are the last surviving practitioners of genuine First Temple Judaism.

So far so good. But QUESTION: *why* would a group of Jews have migrated from Israel to somewhere as far away as Ethiopia? We are talking the tenth to seventh centuries BC here, not exactly the jet age. The émigrés must therefore

have had a very strong motive. What could that have been?

ANSWER: The *Kebra Nagast* is in no doubt about what the motive was. It says that the migrants were the first-born sons of the elders of Israel, and that they came to Ethiopia in the entourage of Menelik to attend the Holy Ark of the Covenant which they had abducted from the Temple.

Decline and fall

If the *Kebra Nagast*'s account of the arrival of Judaism in Ethiopia were true, I reasoned, then I might expect to find evidence somewhere in the historical annals to prove that the Jewish faith had formerly enjoyed a much greater

prominence in that country than it did today. That certainly would make sense if it had originally been associated with so exalted a figure as Menelik I. I remembered, moreover, that my old friend Richard Pankhurst had mentioned something to me that was relevant to this line of inquiry. When we had worked together in 1983 he had told me that the Falashas had once been a prosperous and powerful people with kings of their own.

I therefore placed another telephone call to Richard in Addis Ababa to see if he could recommend any sources that might shed light on the decline and fall of the Falashas.

He directed me to a book with which I was already slightly familiar: *Travels to Discover the Source of the Nile in the Years 1768-1773* written by the Scottish adventurer James Bruce of Kinnaird. Pankhurst also suggested that I should look into the 'Royal Chronicles' compiled during the reigns of a number of

Ethiopian emperors since medieval times. These, he said, documented a series of wars that had been fought between the Christians and the Jews and could be of interest. ‘Other than that,’ he added, ‘I’m not sure where you can get the kind of information you want. The problem is that almost nothing in depth was ever written about the Falashas before Bruce.’

James Bruce of Kinnaird, as I was to discover, was something of an enigma. Hailing from a staunchly Presbyterian Stirlingshire family, he had belonged to the minor aristocracy and had inherited sufficient wealth to indulge a lifelong passion for overseas travel. Initially it seemed to me that it was only this wanderlust that had lured him into the heart of the Ethiopian highlands. When I began to look at his work on the Falashas, however, it gradually dawned on me that his interest in these people had been too intense and too sustained to be explained away merely as the

normal curiosity of an intelligent traveller. Over a period of several years he had carried out meticulous research into the faith, customs and historical origins of Abyssinia's black Jews. In the process, interviewing elders and religious figures, he had recorded many ancient traditions that would otherwise most certainly have been lost to history.

Amongst these traditions was one which stated that King Ezana of Axum had been reading the Psalms of David when he was first introduced to Frumentius, the young Syrian who later converted him to Christianity.[50] Bruce, furthermore, made it quite clear that the monarch's acquaintance with this book of Old Testament verse resulted *from the widespread prevalence of Judaism in Ethiopia at that time*[51] – i.e. the early part of the fourth century AD.

In the context of what I now knew about Falasha customs, I was happy to give credence to this assertion. Indeed I took

it as additional support for my own rapidly evolving hypothesis – namely that a form of the Jewish faith incorporating archaic traditions of blood sacrifice had been in Ethiopia for at least a thousand years before Frumentius turned up to preach the gospel of Christ.

I was soon to find further confirmation of this in an old and rare Ethiopic manuscript that had once rested in the Tigrayan fortress of Magdala (stormed and looted by British forces under General Napier in the nineteenth century). Entitled *A History and Genealogy of the Ancient Kings* it contained the following passage:

> Christianity was introduced into Abyssinia 331 years after the birth of Christ by Abuna Salama, whose former name was Frumentos or Frumentius. At that time the Ethiopian kings

> reigned over Axum. *Before the Christian religion was known in Ethiopia half the inhabitants were Jews, who observed the Law;* the other half were worshippers of Sando, the dragon.[52]

The reference to worshippers of 'the dragon' – presumably a rubric for all sorts of primitive animistic gods – was interesting. It suggested that Judaism had at no point become the exclusive state religion of Ethiopia and that, in the pre-Christian era, the Falashas – like Jews everywhere – had accepted the coexistence of many pagan creeds. I reasoned, however, that they would undoubtedly have been put on their guard, and been tempted to abandon their traditional tolerance, by the arrival of a militantly evangelistic monotheistic sect like the Christians, whom they would have had good reason to see as a real threat to their preeminence

and to their beliefs. The conversion of the Axumite king would have looked particularly ominous in such a context and thereafter Jews and Christians might well have found themselves locked in bitter struggle.

There was considerable support for this analysis amongst the traditions recorded by Bruce. The Scottish adventurer asserted, for example, that the Falashas

> were very powerful at the time of the conversion to Christianity or, as they term it, 'the Apostasy'. At this time they declared a prince of the tribe of Judah, and of the race of Solomon and Menelik, to be their sovereign … This prince … refused to abandon the religion of his forefathers.[53]

Such a state of affairs, Bruce added, was bound to lead to conflict since the Christians, too, claimed to be ruled by a

king descended from the line of Solomon. The conflict, when it came, was thus precipitated by concerns that were entirely secular:

> Although there was no bloodshed upon difference of religion, yet, each having a distinct king with the same pretensions, many battles were fought from motives of ambition and rivalship of sovereign power.[54]

Bruce provided no details of these 'many battles' and the history books, too, were silent concerning them – other than noting that in the sixth century AD Kaleb, a Christian king of Axum, assembled a vast army and took it across the Red Sea to do battle with a Jewish monarch in the Yemen.[55] Was it not quite probable, I now speculated, that this Arabian

campaign had been an escalation of fighting between Jews and Christians in Ethiopia itself?

Evidence that this might indeed have been the case was contained in the *Kebra Nagast*. Towards the end of the great epic I found specific mention of King Kaleb in a chapter that seethed with anti-Judaic sentiments: here, for no apparent reason, the Ethiopian Jews were suddenly described as the 'enemies of God'; furthermore, the text advocated that they should be 'cut to pieces' and that their lands should be laid waste.[56]

All this was said in a context that ascribed two sons to Kaleb. One of these sons was named 'Israel' while the other was referred to as 'Gebra Maskal' (an Ethiopic term meaning 'Slave of the Cross'). The symbolism of a Jewish-Christian rift was hard to miss (with the Christian faction, of course, being represented by Gebra Maskal and the Jewish faction by

Israel). And this analysis began to look even more credible when I remembered that the Falashas never referred to themselves as 'Falashas' but always as 'Beta Israel', i.e. 'House of Israel'.[57]

The basic message, therefore, seemed clear enough; nevertheless, the whole passage was complicated by dense and obscure imagery. Several times, for example, the words 'Chariot' and 'Zion' cropped up. I could make little or no sense of the former. I already knew very well, however, that the latter – 'Zion' – was one of a number of different epithets for the Ark of the Covenant used frequently in the *Kebra Nagast*.[58]

Everything became clear when I read that Israel and Gebra Maskal were destined to fight each other. After this battle, the text continued:

> God will say to *Gebra Maskal*, 'Choose thou between the Chariot and Zion', and He will cause him to take Zion, and he shall reign openly upon the throne of his father. And God will make *Israel* to choose the chariot, and he shall reign secretly and he shall not be visible.[59]

In this fashion, the *Kebra Nagast* concluded:

> The kingdom of the Jews shall be made an end of and the Kingdom of Christ shall be constituted … Thus hath God made for the King of Ethiopia more glory and grace and majesty than for all the other kings of the earth because of the greatness of Zion, the Ark of the Law of God.[60]

It seemed to me beyond any reasonable doubt that what was being described here, albeit in arcane and symbolic language, was a conflict between the Jews and Christians of Ethiopia – a battle for supremacy in which the followers of the new religion triumphed while the followers of the older faith were vanquished, thereafter to live invisibly in secret places. It was also clear that the Ark of the Covenant – 'Zion' – had stood at the heart of this struggle for power and that the Christians had in some way managed to wrest it from the Jews who thenceforward had had to content themselves with the 'Chariot', in other words with second best.

As my researches continued, however, it became obvious that the Falashas had *not* tamely accepted the invisibility and second-class status that the Christians had sought to impose on them. On the contrary, I found a considerable body of evidence to suggest that they had fought back – and,

furthermore, that they had done so with great determination and over a rather lengthy period.

The first tantalizing hint of sustained warfare between Abyssinia's Jews and Christians came in an account written by a ninth-century traveller named Eldad Hadani – better known as Eldad 'the Danite' because he claimed descent from the lost Israeli tribe of Dan. Exactly who he was, or where he came from, was by no means clear. In a widely circulated letter written in AD 833, however, he had claimed that the Danites – and three other 'lost' Jewish clans – lived in Ethiopia where they were locked in permanent antagonism with the Christian rulers of that country: 'And they slew the men of Ethiopia and unto this very day they fight with the children of the kingdoms of Ethiopia.'[61]

On investigating further I discovered that several authorities regarded Eldad as a charlatan and his letter as an

improbable piece of fiction. Others, however, felt that much of what he said was firmly grounded in fact.[62] I had no hesitation in aligning myself with the latter camp – simply because Eldad's references to the Abyssinian Jews were too close to the truth about the Falashas to have been pure fabrications. He insisted, for example, that they had emigrated from the Holy Land to Ethiopia in First Temple times, shortly after the separation of the kingdoms of Judah and Israel (i.e. around 931 BC[63]). In consequence, he said, they did not celebrate festivals instituted after that date such as Purim and Hanukkah. Neither did they have rabbis 'for these were of the Second Temple and they did not reach them.'[64]

I was already well aware of the non-observance of the later festivals by the Falashas, and of the implications of this. On checking I now discovered that they did not have rabbis

either: indeed their religious officials were called *kahen*, a word derived from the Hebrew *kohen* (more familiar as the common name Cohen) meaning 'priest' and dating back to the era of the First Temple.[65]

All in all, therefore, it did sound very much as though Eldad had been in Ethiopia as he had claimed, and had given a faithful enough description of the state of Judaism there in the mid-ninth century AD. His report of sustained fighting between the Abyssinian Jews and their neighbours during this period thus also looked quite plausible:

> And their banner is white and written thereon in black is 'Hear O *Israel*, the Lord our God is one God'… They are numerous as the sands of the sea, and have no employment but war and, whensoever they fight, they say it is not good for

> mighty men to flee, let them die young, but let them not flee, let them strengthen their heart unto God, and several times they say and cry all of them together, 'Hear O *Israel*, our God is one God', and then they all take heed.[66]

Eldad concluded that the Jewish tribes in Ethiopia had been successful in their warlike endeavours and had 'placed their hands on the necks of their enemies'.[67] This, it seemed to me, was nothing more nor less than a fairly accurate description of the true balance of power between Christians and Jews in the ninth and early tenth centuries AD. It was, after all, at precisely this time that the Christian Solomonic dynasty of Axum had been overthrown. And I already knew from my previous research that this *coup d'état* had been the

work of a Jewish monarch – a great queen named Gudit (or Judit, or possibly Yehudit).

As outlined in Chapter 5, Gudit's brief and bloody reign was followed, perhaps half a century later, by the establishment of the Zagwe dynasty, to which King Lalibela had belonged. Although they were almost certainly Jews at the outset, the Zagwes themselves later converted to Christianity and subsequently (about fifty years after Lalibela's death) abdicated the throne in favour of a monarch claiming Solomonic descent.

Whatever else it achieved, however, it quickly became apparent to me that the Zagwe interregnum had not halted the chronic state of conflict between the Abyssinian Jews and Christians. As my researches continued I learned that Benjamin of Tudela, a widely travelled Spanish merchant who lived in the twelfth century, had reported the existence

of Jews in Ethiopia who were 'not under the yoke of the Gentiles', and who had 'cities and castles on the summits of mountains'. He spoke of wars with the Christians in which the Falashas were normally successful, taking 'spoil and booty' at will because no man could 'prevail against them'.[68]

Then, in the fifteenth century, the Jewish traveller Elijah of Ferrara related that he had met a young Falasha in Jerusalem and was told how his co-religionists 'preserved their independence in a mountainous region from which they launched continual wars against the Christian emperors of Ethiopia.'[69]

A hundred years later the Jesuit Bishop of Oviedo asserted that the Falashas hid away in 'great inaccessible mountains; and they had dispossessed the Christians of many lands which they were masters of, and the kings of Ethiopia could not subdue them, because they have but small forces, and it

is very difficult to penetrate into the fastnesses of their rocks.'[70]

The bishop was wrong, however. His statement was made in 1557 – by which date, far from 'dispossessing' anyone, the Falashas were actually under sustained attack from Christian forces bent, apparently, on genocide. Sarsa Dengel, the Solomonic emperor who ruled from 1563 to 1594, waged a seventeen-year campaign against them – a campaign described by one respected scholar as 'a veritable crusade, inspired by religious fanaticism.'[71]

During the fighting, which saw brutal onslaughts against Falasha strongholds in the Simien mountains west and south of the Takazze river, the defenders acquitted themselves with great dignity. Even Sarsa Dengel's sycophantic chronicler could not avoid expressing admiration for the courage of one group of Jewish women who, rather than be captured and

used by the emperor's men, hurled themselves off a cliff with the cry '*Adonai* [God] help me'.[72]

Later the Falasha king, Radai, was taken prisoner. Offered his life if only he would beg the Virgin Mary for mercy – and death if he would not – he is reported to have said: 'Is not the mention of the name of Mary forbidden? Make haste! It is better for me that I should depart from a world of lies to a world of justice, from the darkness to the light; kill me, swiftly.' The emperor's general, Yonael, answered: 'If you prefer death, die bravely and bow your head.' Radai then bowed and Yonael struck him with a great sword: the single blow instantly decapitated the Falasha monarch and passed through his knees also, the blade finally burying itself in the ground. Those who witnessed this horrible scene were said to have admired 'the courage of the Jew in death who declared the things of the earth are bad and the things of heaven are

good.’[73]

Towards the end of the same campaign the last two Falasha fortresses in the high Simiens were attacked and overwhelmed despite the bravery of the defenders. In both cases the leaders and their picked men chose suicide rather than captivity.

This did not bring an end to the persecutions, however. On the contrary, even worse atrocities were committed after 1607 when Emperor Susneyos ascended the throne. He launched a pogrom against all Falashas still living in the vast highland expanses between Lake Tana and the Simien mountains. During the next twenty years of ‘unwarrantable butchery’ thousands were killed in fierce fighting and their children were sold as slaves. The few survivors, according to the detailed account given by the Scottish traveller James Bruce:

> were ordered upon pain of death to renounce their religion, and be baptised. To this they consented, seeing there was no remedy … Many of them were baptised accordingly, and they were all ordered to plough and harrow on the Sabbath day.[74]

The upshot of such sustained and vindictive oppression was that it forever deprived Ethiopia's Jews of the autonomous statehood that they had obviously once enjoyed – and thus hastened their slide into obscurity. Looking back through the admittedly sketchy historical documents at my disposal, I found that it was even possible to chart this gradual submergence and disappearance in numerical terms.

In the early 1600s, for example, the Falashas were said to have numbered some '100,000 effective men'.[75] Assuming

one ‘effective man’ per family of five, this would give a total population for that period of around 500,000. Nearly three hundred years later – in the late nineteenth century – the Jewish scholar Joseph Halévy put total Falasha numbers at around 150,000.[76] By the end of the first quarter of the twentieth century this figure had plummeted to just 50,000 – according to the undoubtedly well-informed estimate of another Jewish investigator, Jacques Faitlovich.[77] Sixty years on, in the famine year of 1984, the Falasha population of Ethiopia was reliably estimated at 28,000.[78]

My reading left me in no doubt that the watershed had come at the beginning of the seventeenth century with the Susneyos campaigns, which had clearly broken the back of Falasha resistance. Before that they had been a populous and powerful folk with kings and a kingdom of their own; afterwards, disenfranchised and beaten, their numbers

remorselessly declined.

The historical record, therefore, more than adequately resolved the contradiction that had been bothering me, namely how to explain the latter-day victimization and impoverishment of the Falashas if it were true that Judaism had been brought to Ethiopia by so exalted a figure as Menelik I – who had also brought the Holy Ark of the Covenant, the most precious and prestigious relic of the ancient world. I now realized that there was no contradiction at all. Indeed a scenario in which the Jewish religion had once enjoyed great influence suggested the only possible motive for the merciless pogroms, killings and mass enslavements that Susneyos and other Christian emperors had inflicted upon their Falasha compatriots. Simply stated, such bizarre and apparently psychopathic behaviour made a twisted kind of sense if the Christians had actively *feared* the

possibility of a resurgence of Judaism – and if their fear had stemmed from the fact that this rival monotheistic faith had earlier represented an extremely strong and enduring theme in Ethiopian life.

‘Consummation of heart’s desire …’

All this, I reasoned, strongly supported the view that Judaism had arrived in Ethiopia long before Christianity. By the same token it also added some social corroboration to the legendary account of Menelik’s abduction of the Ark. To summarize, I now knew that:

- The Falashas’ archaic traditions of blood sacrifice – as well as some of their other religious practices – cast grave doubt on the academic orthodoxy which favoured

a late (and South Arabian) origin for Ethiopian Judaism. On the contrary the evidence suggested quite compellingly that the Jewish faith must have come to Ethiopia in First Temple times and must then have been isolated there. Furthermore, the best possible account of how and why Judaism had taken root in the heart of Africa at so early a date was provided by the *Kebra Nagast*. Since the story of the abduction of the Ark was central to that account it followed that Ethiopia's claim to possess the sacred relic deserved to be taken seriously.

- There was clear evidence to suggest that the Jewish faith had been an important force in Ethiopia long before the arrival of Christianity in the fourth century AD. This evidence also suggested that Jews and Christians had subsequently engaged in a protracted struggle to the death. The winners of this struggle had been the

Christians – who had, in the process, captured the Ark of the Covenant. Thereafter they had gradually incorporated it into their own non-Jewish religious ceremonies. This was the only satisfactory explanation for what was otherwise an incomprehensible anomaly – namely the crucial role, unique in the Christian world, played in all Ethiopian church services by replicas of an Old Testament relic.

- These replicas depicted the contents of the Ark – i.e. the tablets of stone – rather than the Ark itself. This had originally confused me; I now understood, however, that it was merely an example of a culture being 'economical with its symbols'. In the Holy of Holies of every one of the more than twenty thousand Orthodox churches in Ethiopia was a *tabot*. Behind these *tabotat* – and directly responsible for the superstitious dread which they

> inspired in the general population – lay a mysterious and puissant object. There now seemed to me to be every possibility that that object might indeed be the Holy Ark of the Covenant.

Of course there were still several loose ends. These included the important issue of the ethnic identity of the Queen of Sheba (could she really have been an Ethiopian?). Linked to this, and of at least equal weight, was another legitimate doubt that the scholars had raised: in the era of Solomon was it really possible that Ethiopia could have possessed a sufficiently 'high' civilization to have engaged in direct cultural contact with ancient Israel? Finally there was the problem of Axum – to which Richard Pankhurst had drawn my attention in 1983.[79] The sacred city had not even existed in Solomon's time and therefore the Ark could not

have been brought to it. This did not preclude the possibility that the relic might have been deposited at some other place in Ethiopia and then moved to Axum at a later date. If so, where was that 'other place' and why had I encountered no traditions concerning it?

These, I realized, were questions for which I would eventually have to seek answers. There were others, too. Indeed it was perhaps intrinsic to the occult and recondite nature of the Ark of the Covenant that it would *always* generate questions, confusions, ambiguities and misgivings. An object so rare and precious, imbued with such power, venerated with such fervour over so many centuries – and charged with the numinous energy of God – could hardly be expected to yield up its secrets easily or to any casual inquirer.

I felt, however, that the evidence I had already unearthed

in support of Ethiopia's claim to be the last resting place of the relic was sufficiently thought-provoking to merit further research. Moreover, when I combined this evidence with the results of the decoding exercise that I had just carried out on Wolfram's *Parzival*, I found it difficult to resist the conclusion that two plus two did indeed equal four.

In short, knowing what I knew now, it seemed to me hardly surprising that the clandestine tradition of quest that I had identified should have focussed on the Abyssinian highlands. After all, for a group of knights whose very identity was bound up with the mysteries of Solomon's Temple, no real historical relic other than the Ark could possibly have served as a more fitting object of chivalric endeavour. By the same token, there was only one country in which such an endeavour might have been undertaken with any genuine hope of success – a country which had a living

institution of Ark-worship, a Solomonic heritage, and a credible claim to possess the Ark itself.

I therefore believed I was right in my hypothesis that the Templars had launched a quest in Ethiopia in the late twelfth century and I believed that they had found the precious relic which Wolfram had described as 'the consummation of heart's desire'.[80] As I shall recount in the next chapter, however, I also believed that they had lost it again – that it had been wrested from them and that they had been obliged to quit Ethiopia without it.

Why? Because a very few intrepid men continued to travel to Ethiopia in search of the Ark long after the utter destruction of the Knights of the Temple of Solomon in the fourteenth century. Furthermore, though they travelled at different periods, and were born in different lands, all these later adventurers were directly linked to the Templars and

had inherited their traditions.

Chapter 7
A Secret and Never-Ending Quest

From the first to the sixth century AD the empire centred on the city of Axum in northern Ethiopia could rightly claim to rank amongst the most powerful and prosperous in the known world. It dealt on equal terms with Rome and Persia and sent its navies sailing to ports as far afield as Egypt, India, Ceylon and China. Its architectural and artistic achievements were impressive and it became the first bastion of Christianity in sub-Saharan Africa, adopting the new faith as its official religion in the early fourth century AD (coincidentally at much the same time as the miraculous

conversion of Constantine the Great).[1]

By the seventh century, however, Axum's light had begun to dim; the embassies that it sent abroad were now few and far between and its once formidable military power was clearly in decline. This marked change, which eventually led to total isolation, had much to do with the advance of the belligerent forces of Islam and the encirclement of Abyssinian Christianity during and after the lifetime of the Prophet Muhammad (AD 570–632). 'Encompassed by the enemies of their religion,' wrote Edward Gibbon in his *Decline and Fall of the Roman Empire*, 'the Ethiopians slept for near a thousand years, forgetful of the world by whom they were forgotten.'[2]

The millennium to which the great English historian referred lasted from roughly the seventh to the sixteenth centuries, during which time it would be fair to say that Ethiopia all but disappeared from world consciousness.

Formerly well known to outsiders, and relatively well travelled, this Christian country in the remote highlands of Africa was gradually transformed into a mysterious realm of myth and magic in which dragons and other monsters were believed to dwell – a *terra incognita* where no one dared (or wanted) to venture.

It would have been tempting to assume that the Abyssinians had reverted to barbarism or stagnated during the long, dark hole in their history. My researches had shown me, however, that the opposite was true: as the extraordinary rock-hewn churches of Lalibela proved, a rich and idiosyncratic culture had been preserved throughout. Moreover, although this culture was introverted and suspicious of the motives of foreign powers, it *had* stayed in contact with the outside world. Prince Lalibela himself had spent twenty-five years as an exile in Jerusalem in the second

half of the twelfth century. And it had been from Jerusalem that he had returned to Ethiopia to claim his kingdom and to build the monolithic churches that now bear his name.

As outlined in Chapter 5, my findings had convinced me of the possibility that Lalibela might have been accompanied by a contingent of Templars when he left the Holy Land in 1185 to win back his throne. These knights, I believed, would have been motivated first and foremost by a desire to seek out the Ark of the Covenant in Ethiopia. In furtherance of this end it seemed logical to suppose that they would have been more than willing to assist the prince to achieve his own political objectives – since by so doing they might reasonably have expected to gain great influence.

The reader will recall that I then learned of an Ethiopian tradition which told of the involvement of mysterious 'white men' in the construction of the Lalibela churches. This

tradition was an ancient one. Indeed, it had already been very old when it had first been recorded in the early sixteenth century by a Portuguese visitor, Father Francisco Alvarez. I knew that the Templars had been great builders and architects,[3] and it was therefore difficult to resist the conclusion that they might have been the 'white men' who had had a hand in the creation of the rock-hewn monoliths. Furthermore, since the churches were twenty-four years in the making, the implication was that the knights had – at the very least – had a sustained presence in Ethiopia and perhaps had entertained plans for an even longer-term involvement in the affairs of that country.

The suspicion that this might indeed have been the case deepened as my research continued. In order to explain why, it is first of all necessary to acquaint the reader with what happened to the Templars during and immediately after the

brutal suppression of the order in the early fourteenth century. It is also necessary to cross-reference this information with certain events that took place in Ethiopia at around the same time.

A period involved in darkness

Founded in the year 1119, and given official recognition by the church in 1128 at the Synod of Troyes, the Templars quickly rose to a position of great international power, wealth and prestige – a position from which they were nevertheless doomed to fall within two centuries. The history of the order's catastrophic collapse has been too frequently and thoroughly recounted elsewhere to require extensive repetition here.[4] Suffice it to say that quite suddenly, on Friday 13 October 1307, all Templars residing in France were

arrested. This was a well co-ordinated operation that saw simultaneous dawn swoops on hundreds of Templar properties by the bailiffs and seneschals of the French king, Philip IV. By nightfall 15,000 men were in chains and Friday the 13th had won a unique place for itself in the popular imagination as the most unlucky and inauspicious date in the calendar.

The charges levelled against the Templars to justify their dramatic and humiliating arrests were as lurid as they were imaginative. They were accused, for example, of denying Christ and spitting on His image, and of giving each other indecent kisses ‘in shame of human dignity, according to the profane rite of the order’ (these kisses were said to be placed on the anus, navel and mouth of each initiate at the time of his induction). It was also alleged that they engaged in a wide range of other homosexual practices (which were

‘required without the possibility of refusal’), and – last but not least – that they made offerings to idols.[5]

At this time (and until 1377) the official residence of the Papacy was the city of Avignon in Provence. The reasons for the abandonment of the Vatican need not be gone into here.[6] Obviously, however, the removal of the Holy See to a point so close to French territory gave King Philip great influence over the Pope (Clement V who had been crowned at Lyons in Philip’s presence in 1305[7]). This influence was exercised to the detriment of the Templars, whose destruction Philip was determined to ensure not only in France but also in every other country in which they were established. To this end the French monarch put pressure on Clement V who in due course issued a bull (*Pastoralis praeeminentiae*, dated 22 November 1307) which ordered the arrest of the Templars throughout the Christian world.[8]

Proceedings followed as far afield as England, Spain, Germany, Italy and Cyprus and, in 1312, another bull from the puppet Pope officially suppressed the order. Meanwhile thousands of Templars had been subjected to the most horrific tortures and inquisitions. Many were subsequently burned at the stake – including Grand Master Jacques de Molay and the Preceptor of Normandy, Geoffroi de Charnay.[9]

It is not my intention here to go in any depth into the persecution, trial and destruction of the Templars. I only became interested in these matters because of the evidence I had unearthed which suggested a possible Templar quest for the Ark in Ethiopia in the late twelfth century. Having established that a group of knights could have accompanied Lalibela from Jerusalem in the year 1185 I naturally wondered what might have happened next – and this curiosity led me to look for clues in the subsequent history of

the Templar Order.

That history, of course, was rather short: less than 130 years after Lalibela's accession to the throne of Ethiopia the Templars had been rounded up, tortured, and burnt at the stake. Their properties and money had been shared out amongst the ruling houses of Europe; their order had ceased to exist; and their good name had been tainted by charges of sodomy, blasphemy and idolatry.

Nor, in the records of the last century of their existence, could I find a single shred of evidence to support the view of a sustained Templar quest in Ethiopia. After the early 1200s the trail simply went cold; from then until the arrests in 1307 the order seemed to have been concerned solely with its campaigns in the Near East and with the build-up of its own considerable power and wealth.

Where else, I wondered, might I find the information I was

looking for? Few attempts had been made to chronicle developments in Ethiopia in the period that now concerned me. I knew, however, that James Bruce had done his utmost to gather and record ancient traditions during his lengthy visit in the eighteenth century. I therefore turned to his *Travels* – which I now kept constantly on my desk.

Towards the end of Volume I, as I had hoped, I came across several pages devoted to the reign of King Lalibela. Unfortunately much of what the Scottish adventurer had written was irrelevant to my own investigation. There was, however, one particular detail that attracted my attention. Drawing on 'the histories and traditions … thought the most authentic' in Ethiopia,[10] Bruce reported that Lalibela had promoted a scheme to reduce the downstream flow of water into the Nile river system in order 'to famish Egypt'.[11] After 'an exact survey and calculation', it seemed this illustrious

monarch of the Zagwe dynasty had ascertained:

> that there ran on the summit, or highest part [of Ethiopia], several rivers which could be intercepted by mines, and their stream directed into the low country southward, instead of joining the Nile, augmenting it and running northward. By this he found he should be able so to disappoint its increase, that it never would rise to a height proper to fit Egypt for cultivation.[12]

Such a project, I could not help but think, would certainly have suited Templar ambitions which, by the end of Lalibela's reign (AD 1211), had begun to focus on the conquest of Egypt. Several extensive battles were fought at this time on the banks of the Nile, and the Templars spent more than a

year besieging the Arab fortress at Damietta in the delta.[13] There could be no doubt, therefore, that a 'famished' and weakened Egypt would have been very much to their liking.

In the event, however, the diversion of the rivers was never completed: 'Death, the ordinary enemy of all these stupendous undertakings, interposed here and put a stop to this enterprise of Lalibela.'[14] Bruce then added a comment on the last two monarchs of the Zagwe dynasty:

> To Lalibela succeeded Imrahana Christos, remarkable for nothing but being son of such a father as Lalibela, and father to such a son as Naakuto Laab; both of them distinguished for works very extraordinary, though very different in their kind. The first, that is those of the father, we have already hinted at, consisting in great

> mechanical undertakings. The other was an operation of the mind, of still more difficult nature, a victory over ambition, the voluntary abdication of a crown.[15]

I was already familiar with the historical details that followed. In 1270, Naakuto Laab – the last of the Zagwes – was persuaded to abdicate his throne in favour of a certain Yekuno Amlak, a monarch claiming Solomonic descent. This king, as the reader may recall, had been biding his time in the distant province of Shoa where the Solomonic line had been preserved by the descendants of the single royal prince who had escaped the uprising of the Jewish queen Gudit in the tenth century.[16]

Bruce had little or nothing to say about Yekuno Amlak himself, or about his immediate successors, Yagba Zion

(1285–94) and Wedem Ara'ad (who ruled until the year 1314). Indeed, it seemed that the normally fastidious research methods favoured by the Scottish traveller had failed to yield any solid information at all for the century that followed Lalibela's death in AD 1211: 'All this period is involved in darkness,' Bruce complained. 'We might guess, but since we are not able to do more, it answers no good purpose to do so much.'[17]

Similar darkness, as I already knew, also enshrouded the period *before* Lalibela's accession to the throne. I was therefore left with a host of unanswered questions. Of these by far the most important concerned the Ark of the Covenant: I needed to know what had happened to it during the roughly 300 years (from the tenth to the thirteenth century) in which the rule of the Solomonic dynasty had been interrupted. And I needed to know whether the Templars

might have gained direct access to the sacred relic if, as I supposed, they had established themselves in Ethiopia during Lalibela's reign.

Once again I telephoned the historian Belai Gedai in Addis Ababa to see if he could enlighten me with his knowledge of local traditions.

'In the tenth century', he told me, 'we Ethiopians say that the Ark was removed from Axum by the priests and the people in order to keep it safe from the ravages of Queen Gudit, and we say that it was brought to an island on Lake Zwai …'

'You mean in the Rift Valley – south of Addis Ababa?'

'Yes.'

'That was a hell of a long way for it to be moved.'

'Yes, but no lesser distance would have been safe. Gudit was Jewish, you know. She wanted to establish the Falasha

religion all over the country and she wanted to destroy Christianity. She came to burn and rob the churches at Axum. So the priests carried off the Ark to prevent it from falling into her hands, and they brought it very far – all the way to Zwai! – where they were sure that it would be out of her reach.'

'Do you know how long it remained on the island?'

'Our traditions say that it was there for seventy years and that after that it was taken back to Axum.'

I thanked Gedai for his help and rang off. What he had told me fitted – more or less – with the picture of Ethiopian medieval history that I had thus far managed to piece together. I knew that the throne of Ethiopia had been held by Gudit for some years after she had deposed the Solomonids. I also knew that she had eventually been succeeded by the first monarch of the Zagwe dynasty, himself probably a Jew.

Later, however (and certainly well before Lalibela's time), the Zagwes had converted to Christianity. It therefore seemed quite possible that they might have permitted the safe return of the Ark to its customary resting place in Axum – where, presumably, it would still have been when Lalibela came to power.

Of obvious relevance to this argument was the eyewitness account of the Ark in Ethiopia given by the Armenian geographer Abu Salih in his *Churches and Monasteries of Egypt and some Neighbouring Countries*. From internal textual evidence (the translator and editor of this important work explained in his Introduction), it was clear that it had been written 'in the first years of the thirteenth century'[18] – in other words during the reign of Lalibela himself. And although Abu Salih at no point stated in *which* Ethiopian city he had seen the sacred relic, there was no good reason to

suppose that this city had not been Axum. Moreover, as I re-read the relevant passage, I was struck by a few words that I had overlooked before. Describing the transportation of the Ark on certain ceremonial occasions, the geographer had noted that it was 'attended and carried, by bearers who were '*white and red in complexion, with red hair*'.[19]

With a shock of genuine excitement I realized that I was looking at a second piece of pure and early testimony suggesting the presence of mysterious white men in Ethiopia at the time of King Lalibela (particularly so since another authoritative translation of the same passage rendered 'red hair' as 'blond hair'[20]). Alvarez had already alerted me to the old tradition that white men had built the wonderful rock-hewn churches – a tradition that fitted well with what I knew about the advanced architectural skills possessed by the Templars. Now, as though to bear out my own evolving

theory, here was Abu Salih addressing me across seven centuries with the electrifying news that men who were white and red in complexion, men with red or even blond hair – men, in other words, who sounded very much like northern Europeans – had been associated closely and directly with the Ark of the Covenant itself.

The possibility that these men might have been Templars was a very seductive one, but it still left my investigation stranded in the early thirteenth century and it still left the key questions unanswered. If the northern Europeans seen by Abu Salih had indeed been Templars then had they just contented themselves with carrying the relic from time to time or had they perhaps tried to remove it from Ethiopia and take it back to Europe? Most important of all – if they had tried, had they succeeded?

On all these points, I had to admit, I was effectively

blocked by the absolute lack of historical information. Obsessively secretive as the Templars had undoubtedly been,[21] it did not really surprise me that their own documents and records yielded so little. Nor was there any comfort to be gained from Ethiopian annals: after examining a wide range of different sources, I was forced to accept that the century after the death of King Lalibela had indeed been a period 'involved in darkness', just as James Bruce had observed. Almost nothing was known about what had gone on in these years.

I was by now feeling extremely pessimistic about the prospects of ever breaking the research deadlock. Nevertheless I telephoned Richard Pankhurst in Addis Ababa and asked him if there were *any* records which might suggest that there had been contacts of any kind between Ethiopians and Europeans during the period in question.

‘None that I know of before 1300,’ he replied.

‘And how about after 1300? I suppose the first documented European contact was with the Portuguese embassy that arrived in Ethiopia in 1520?’

‘Not quite. A small number of missions travelled in the other direction before that – I mean from Ethiopia to Europe. As it happens, the very first of these *was* sent within a century of Lalibela’s death – so that does put it into the period you’re interested in.’

I sat forward in my chair: ‘Do you happen to know the exact date?’

‘Yes, I do,’ Richard replied. ‘It was 1306, and it was quite a large mission. It was sent by the Emperor Wedem Ara’ad and it had, I believe, about thirty members.’

‘Do you remember what the purpose of this mission was?’

‘I’m not absolutely certain. You would have to check the

source. But I do know that its destination was Avignon in the south of France.'

A final solution?

Richard did not realize it, but he had just dropped a small bombshell. Avignon had been the seat of Pope Clement V – who had been crowned at Lyons in 1305 in the presence of King Philip of France. Moreover, as I was already well aware, it had been Clement V who had ordered the arrest of the Templars throughout Christendom in 1307. Now I had learned that a high-level Ethiopian delegation (the first ever to be sent to Europe) had visited Avignon in 1306 – just a year before the arrests. Were these dates and events clustered together by coincidence? Or was there, perhaps, some underlying pattern of cause and effect? To get answers to

these questions I would have to try to establish whether the Abyssinian envoys had in fact met with the Pope during their visit and, if they had, I would also have to try to learn what had passed between them.

The original source of information on the 1306 mission had been a Genoese cartographer, Giovanni da Carignano, who had been active in map-making during the years 1291–1329.[22] I was intrigued to discover that this same Carignano had been responsible for a major shift in European ideas about Ethiopia: after centuries of confusion (see discussion in Chapter 4) he had been the first authority to affirm unambiguously that 'Prester John' ruled in Africa rather than in 'India'.[23]

Carignano had met with the members of the Ethiopian embassy when they had passed through Genoa in 1306 on their way back from Avignon to their homeland. Because of

adverse winds they had spent ‘many days’ in the Italian port and there the cartographer had questioned them about ‘their rites, customs and regions’.[24]

Regrettably, however, Carignano’s treatise containing all the information that the Ethiopians had given him had subsequently been lost. All that remained of it today was a brief abstract preserved in a Bergamese chronicle of the late fifteenth century written by a certain Jacopo Filippo Foresti.[25]

I finally managed to get my hands on an English translation of the abstract in question. It consisted of only a single paragraph in which Foresti praised and then summarized Carignano’s treatise:

> Amongst many things written in it about the state of [the Ethiopians] … it is said that their emperor

> is most Christian, to whom seventy-four kings and almost innumerable princes pay allegiance … It is known that this emperor in the … year of our salvation 1306 sent thirty envoys [who] … presented themselves reverentially before Pope Clement V at Avignon.[26]

And that – apart from a few frills and the 'Prester John' reference already mentioned – was all that was known about the first-ever Ethiopian mission to Europe. Skimpy though the data was, however, it did confirm my suspicion that the envoys had met with Pope Clement V[27] – and that they had done so just a year before he authorized the mass arrests of the Knights Templar.

No information was given concerning the substance of the meeting; nor was there the slightest hint as to *why* the

Emperor of Ethiopia should have been so anxious to make contact with Pope Clement V in the year 1306. It seemed to me improbable, however, that Wedem Ara'ad would have sent so large an embassy on such a long and unprecedented mission if he had not had a very strong motive indeed. I now felt at liberty to speculate about what that motive might have been.

Opening my notebook I jotted down the following series of propositions, conjectures and hypotheses:

> Assume for the moment that the Templars did go from Jerusalem to Ethiopia with Prince Lalibela in 1185 – and that they did help to install him on his throne. Assume that the 'white men' said to have built the Lalibela churches were in fact Templars. Assume also that the 'white men' seen acting as

bearers for the Ark of the Covenant in Ethiopia in the early 1200s were these same Templars.

The implication is that the order had succeeded in winning a position of power, trust and influence with Lalibela, and with the Zagwe dynasty to which he belonged. If so then it would be reasonable to assume that the last two Zagwe monarchs (Imrahana Christos and Naakuto Laab) would also have had a good relationship with the Templars – whom they might have continued to grant privileged access to the Ark.

Assume that this was what happened and that during the six decades after Lalibela's death in 1211 the Templars were allowed to approach the sacred relic but not, of course, to take it out of Ethiopia. Perhaps they *planned* to take it but were

simply biding their time until a favourable opportunity presented itself. Meanwhile, as the knights who had originally come to Ethiopia grew old the order would have sent out others from the Holy Land to replace them. There would have been no particular sense of urgency; indeed they might have been quite content for the Ark to stay in Ethiopia.

This state of affairs would have changed dramatically in 1270, however, when (for whatever reasons) Naakuto Laab was persuaded to abdicate his throne and was replaced by Yekuno Amlak – a monarch claiming Solomonic descent. Unlike the Zagwes, the very identity of the Solomonids was irrevocably bound up with the Ark of the Covenant and with the notion that

Menelik I – the founder of their dynasty – had brought it from Jerusalem during the reign of King Solomon himself. In this context it is worth remembering that the first *written* version of the *Kebra Nagast* was prepared on the orders of Yekuno Amlak.[28] In other words, although the legend was by then already very old in oral form,[29] Yekuno Amlak wanted it formalized. Why? Because it served to legitimize and glorify his title to the throne.

From this it follows that Yekuno Amlak would have been horrified by the presence in his country of a body of armed, militant (and technologically advanced) foreigners like the Templars: foreigners who could call on reinforcements from amongst the thousands of other members of their order in

the Near East; foreigners who clearly had a special interest in the Ark and who were possibly plotting to steal away with it.

Assume, however, that Yekuno Amlak (new to the throne and still insecure) initially tried to placate these powerful and dangerous white men, perhaps by giving them the false impression that he was willing to co-operate with them in much the same way as the Zagwes had done. That would have been a logical strategy – particularly since it is known that his army was very small[30] – and would explain why nothing spectacular happened during his reign. It would therefore have been up to his successors to seek a final solution to the problem of how to get rid of the Templars and retain the Ark.

Yekuno Amlak's son (Yagba Zion, 1285–94) was, if anything, even weaker than his father in military terms. Yagba Zion, however, was succeeded by a much stronger character, Wedem Ara'ad, who reigned until 1314. Significantly it was Wedem Ara'ad who sent a large embassy to Pope Clement V at Avignon in 1306.

Is it not possible that the purpose of that embassy was to stir up trouble for the Templars – and perhaps to give the Pope and the French king (Philip IV) an urgent motive to destroy the order? Such a motive could have been provided by the suggestion that the knights were planning to bring the Ark of the Covenant to France. After all, this was a period when deep superstitions ruled the popular imagination. With so sacred and so

powerful a relic in their hands the Templars would have been in a unique position to challenge both the secular and religious authorities of the land – and those authorities would certainly have taken any steps they could to prevent such an eventuality.

This theory begins to look particularly attractive when set against the backdrop of the arrests of the Templars in France and elsewhere. All these arrests took place in 1307 – i.e. about a year after the departure of the Ethiopian mission from Avignon. This fits perfectly with what is known about the behaviour of King Philip IV: there is evidence that he began to plan his operation against the Templars about a year in advance of its implementation[31] (i.e. in 1306) and

there is also evidence that on several occasions during that year he discussed his plans with Pope Clement.[32]

It would of course be folly to imagine that the destruction of the Templars was occasioned *only* by the lobbying of the Ethiopian envoys. Malice and greed on the part of Philip IV also played a role (the former because the king had several times been snubbed by the order; the latter because he undoubtedly had his eyes on the huge sums of money resting in Templar treasuries throughout his realm).

By the same token, however, it would be folly to imagine that the Ethiopian mission to Avignon in 1306 had *nothing* to do with the events of 1307. On the contrary it is more than probable that

there was a link – and that link, I am convinced, was the Ark of the Covenant.

Portuguese and Scottish connections

The Templars were a rich and powerful international brotherhood of religious warriors. As such, despite the best efforts of King Philip IV and Pope Clement V, they did not prove easy to destroy. The suppression was most effectively and completely implemented in France; even there, however, some brothers managed to evade capture[33] (as did the entire Templar fleet which slipped out of the Atlantic port of La Rochelle on the morning of the arrests and was never seen again[34]).

In other countries the trials and inquisitions were pursued with much less vigour than in France; nevertheless, tortures,

imprisonments, executions, confiscation of property and the final dissolution of the order were the end result in England (after some considerable delay), in Spain, in Italy, in Germany, in Cyprus and elsewhere.[35]

In Portugal and Scotland, however, the Templars appear to have escaped persecution almost completely. Indeed, circumstances were so favourable in these countries that, under different disguises, the order managed to live on in both of them.

At the time when Pope Clement V issued his bull ordering the arrests of the Templars throughout Christendom – November 1307 – Scotland was locked in a fierce struggle to preserve its national independence against the colonial aspirations of England. Leading this struggle was the most famous of all Scots monarchs – King Robert the Bruce who, at the battle of Bannockburn in 1314, was to inflict such a

crushing defeat upon the English that his country's freedom was guaranteed for centuries afterwards. With all his energies focussed on the war, Bruce had no interest whatsoever in pursuing the papal vendetta against the Templars. He therefore only went through the motions of suppressing them: just two knights were arrested[36] and the most that appears to have been required of the remainder was that they should keep a low profile.

There was method in the Scottish king's behaviour: all the evidence suggests that he granted safe haven not only to local Templars but also to members of the order fleeing persecution in other lands.[37] Not naturally altruistic, it seems that he adopted this generous policy in order to encourage fugitive knights to join his army.[38] It has, furthermore, been cogently argued that a Templar contingent *did* fight on Bruce's side at Bannockburn[39] – a suggestion that looks

worthy of further research when it is remembered that the victorious Scots marched behind a tiny Ark-shaped reliquary at that famous battle.[40]

The favour that Bruce showed towards the Templars in Scotland, and the fact that many knights escaped arrest in England (because of a delay in implementing the papal bull there), made it possible for the order to go underground in the British Isles – in other words to survive in a secret and hidden form rather than to be completely destroyed. For hundreds of years it has been rumoured that this secret survival took the form of Freemasonry[41] – a view supported by a specific Masonic tradition that the oldest Scottish lodge (Kilwinning) was founded by King Robert the Bruce after the battle of Bannockburn 'for the reception of those Knights Templar who had fled from France'.[42] In the eighteenth century Andrew Ramsay, a prominent Scots Mason and

historian, added credibility to this tradition with a considerable body of work on the connections between Freemasonry and the Templars.[43] And at around the same time Baron Carl von Hund, a leading German Mason, declared that 'Freemasonry originated in Knight Templary, and that, in consequence, every Mason is a Templar.'[44]

That such forthright statements should have been made in the eighteenth century (rather than in any earlier century) is not surprising: this was the period in which Freemasons finally 'came out of the closet' and began to talk about themselves and about their history.[45] Subsequently, as the new spirit of openness encouraged further research, it became clear that 'Knight Templarism' was and always had been an important force within the Masonic system.[46] This research, together with much other material not previously uncovered, has recently been incorporated into a detailed

and authoritative study which itemizes the many ways in which Freemasonry was shaped and influenced by fugitive Templars.[47]

It is not my intention here to participate at all in what is undoubtedly a heated, convoluted and highly specialized debate. The point I wish to make is simply that the Masonic system did inherit many of the most central traditions of the Order of the Temple of Solomon, and that this inheritance was first passed on in the British Isles in the years 1307–14 by Templars who had survived papal persecution because of the specially favourable conditions then prevailing in Scotland.

Nor, as I have already noted, was Scotland the only country in which the Templars were left unscathed. In Portugal they were tried but found to be free of guilt, and thus neither tortured nor imprisoned.[48] Of course, as a good

Catholic, the Portuguese monarch (Dennis I) could not afford to ignore papal instructions completely: accordingly lip service was paid to these instructions and the Templars were officially dissolved in 1312. Just six years later, however, they were reborn under a new name: the Militia of Jesus Christ (also known as the Knights of Christ or, more simply, as the Order of Christ).[49]

This transformation of one order into another enabled the Portuguese Templars not only to survive the fires of the Inquisition during the years 1307 to 1314 but also to emerge phoenix-like from the ashes in 1318 – after which date they seem to have carried on with business very much as usual. All Templar properties and funds in Portugal were transferred intact to the Order of Christ, as were all personnel.[50] Moreover, on 14 March 1319, the newly formed entity received the approval and confirmation of Pope John

XXII (Clement meanwhile having died).[51]

In summary, therefore, despite the harshness of the suppression in France and elsewhere, the Portuguese Order of Christ, and British (and especially Scottish) Freemasonry, were the means by which Templar traditions were preserved and carried forward into the distant future – perhaps right up to modern times.

As my research continued I was to become increasingly sure that one of the traditions thus perpetuated was the quest for the Ark of the Covenant.

‘After battle like wolves and after slaughter like lions …’

Even if my theory about the Templars in Ethiopia was correct, I knew that there was no way that I could establish

what might have happened to them in that country after the persecutions began in Europe in 1307. Historical records from the reign of Wedem Ara'ad were virtually non-existent. After sending his mission to Avignon, however, my guess was that he would have stayed in touch with developments and would have been informed of the order's destruction. Secure in the knowledge that no further knights could now be sent to vex him, the Emperor would then have moved against those Templars who remained in Ethiopia and either expelled them or wiped them out – most probably the latter.

That, at any rate, was my working hypothesis, and probably I would have thought no more about this aspect of my investigation if I had not learnt about the 'Portuguese connection' represented by the Order of Christ. You see, with just two unimportant exceptions,[52] *all* the known early visitors to Ethiopia were Portuguese. Moreover, this

Portuguese interest in the realm of 'Prester John' was already pronounced within a century of the destruction of the Templars and was, from the beginning, spearheaded by members of the Order of Christ.

In this endeavour, the first and most active figure on whom any solid information is available was Prince Henry the Navigator, Grand Master of the Order of Christ and a man described by his biographer as possessing 'strength of heart and keenness of mind to a very excellent degree … [who] was, beyond comparison, ambitious of achieving great and lofty deeds.'[53]

Born in 1394, and actively involved in seafaring by 1415,[54] Henry's greatest ambition – as he himself declared – was that he would 'have knowledge of the land of Prester John'.[55] Chroniclers who were his contemporaries, as well as modern historians, are in full agreement that he devoted the greater

part of his illustrious career to the pursuit of precisely this goal.[56] Yet an atmosphere of mystery and intrigue surrounds all his efforts. As Edgar Prestage, the late Camoens Professor of Portuguese Language, Literature and History at the University of London, observed:

> Our knowledge of the Henrican voyages is inadequate, and this is largely due to the adoption of a policy of secrecy which included the suppression of facts … historical works … nautical guides, maps, instructions to navigators and their reports.[57]

Indeed, so great was the commitment to secrecy in Henry's time that the release of information on the results of the various exploratory voyages that were undertaken was punishable by death.[58] Despite this, however, it is known

that the prince was obsessed with the notion of making direct contact with Ethiopia – and that he sought to achieve this end by circumnavigating Africa (since the shorter route through the Mediterranean and then into the Red Sea via Egypt was blocked by hostile Muslim forces[59]). Moreover, even before the Cape of Good Hope was rounded, the masters of Portuguese vessels venturing down the West African coast were instructed to enquire after 'Prester John' to see whether it might not be quicker to approach his kingdom overland.[60]

One can only speculate as to the true objective of the Portuguese prince. The common view is that he intended – as a 'good crusader'[61] – to forge an anti-Islamic alliance with the Christian Ethiopian emperor. Perhaps he did. Since all serious plans to win the Holy Land for Christendom had been abandoned more than a century before Henry was born, however, I found it difficult to resist the notion that he must

have had some other motive – some hidden agenda, perhaps, that would have accounted both for his secrecy and for his fascination with Prester John.

As I studied the life of the great navigator further I became more and more certain that this motive was rooted and grounded in his identity as Grand Master of the Order of Christ, in which capacity he would have inherited all the mystical traditions of the Order of the Temple of Solomon. It is notable that he immersed himself in the study of mathematics and cosmography, 'the course of the heavens and astrology',[62] and that he was constantly surrounded by Jewish doctors and astronomers[63] –men in every way reminiscent of Wolfram's character Flegetanis who 'saw hidden secrets in the constellations [and] declared there was a thing called the Gral whose name he read in the stars without more ado.'[64]

Another factor which suggested to me that the Portuguese prince was profoundly influenced by Templar traditions was his celibacy. The Knights of Christ were not bound by such strict rules as their predecessors in the Order of the Temple. Nevertheless, like the Templar Grand Masters before him, Henry 'would never marry, but preserved great chastity [and] remained a virgin till his death.'[65] Likewise, I could not help but wonder whether it was entirely a matter of coincidence that the illustrious navigator chose to make his last will and testament on 13 October 1460[66] – the 153rd anniversary of the arrests of the Templars in France (which took place on 13 October 1307).

Henry died in 1460, shortly after making his will, and it was not until the early years of the twentieth century that certain secret archives pertaining to the last decade of his life came to light. Amongst these archives (details of which were

published by Dr Jaime Cortezao in 1924 in the review *Lusitania*[67]) a brief note was found to the effect that 'an ambassador of Prester John visited Lisbon eight years before Henry's death'.[68] It is not known what the purpose of this mission was, or what the prince and the Ethiopian envoy discussed. Nevertheless, two years after their meeting it can hardly have been accidental that King Alfonso V of Portugal granted spiritual jurisdiction over Ethiopia to the Order of Christ.[69] 'We are', admits Professor Prestage, 'still ignorant of the motives that led to this concession.'[70]

In the year that Henry the Navigator died – 1460 – a fitting successor was born at Sines, a seaport in the south of Portugal. That successor, also a Knight of the Order of Christ,[71] was Vasco da Gama, who was to open up the Cape route to India in 1497.

It is notable that when he set off on this famous voyage da

Gama was carrying two things: a white silk banner with the double red cross of the Order of Christ embroidered upon it; and letters of credence for delivery to Prester John.[72] Moreover, although his ultimate destination was indeed India, the Portuguese admiral devoted a considerable part of the expedition to African exploration and is reported to have wept for joy when, at anchor off Mozambique, he was rightly told that Prester John lived in the interior far to the north.[73] It was also claimed by the same informants that the Ethiopian emperor 'held many cities along the coast'.[74] This claim was incorrect, but da Gama's subsequent stop-overs at Malindi, Mombasa, Brava (where he built a lighthouse that still stands) and Mogadishu were in part motivated by his continuing desire to make contact with Prester John.[75]

Meanwhile, in 1487 – a decade before da Gama set off – the Order of Christ had sponsored a different initiative also

aimed at reaching Ethiopia. In that year King John II of Portugal, then Grand Master of the Order, had sent his trusted aide Pero de Covilhan on a perilous journey to the court of Prester John via the Mediterranean, Egypt and the Red Sea. Disguised as a merchant, Covilhan passed through Alexandria and Cairo to Suakin and there, in 1488, he took ship in a small Arab barque for the Yemeni port of Aden. He then became caught up in various adventures which delayed him considerably. As a result it was not until 1493 that he finally succeeded in entering Abyssinia.[76] Once there, however, he made his way immediately to the emperor's court where he was first welcomed but later placed under comfortable house arrest. One can only speculate as to why this happened, but since it is known that Covilhan's greatest skill was as a spy (he had previously worked as a secret agent in Spain[77]) it is difficult to resist the notion that the Order of

Christ may have commissioned him to gather intelligence on the whereabouts of the Ark of the Covenant. Perhaps he aroused suspicion by making enquiries about the sacred relic; perhaps not. At any rate he was detained in Ethiopia for the rest of his life.[78]

Covilhan was still alive when the first official Portuguese embassy to the court of Prester John landed at the port of Massawa in 1520 and made its way inland to meet with Lebna Dengel, the Solomonic emperor who had been on the throne since 1508. One of the members of this embassy was Father Francisco Alvarez – and the reader will recall that it was Alvarez who had been told by priests of the ancient tradition that the rock-hewn churches of Lalibela had been 'made by white men'.[79]

I now turned back to the English translation of the lengthy narrative that Alvarez had written after leaving Ethiopia in

1526. Re-reading his chapter on Lalibela I was struck by the description he gave of the church of Saint George. Carved into the roof of this great edifice, he said, was ‘a double cross, that is, one within the other, like the crosses of the Order of Christ.’[80]

Of course, as I already knew, the Lalibela churches had been hewn in the time of the Templars, long before the Order of Christ was created to follow in their footsteps. It seemed logical to suppose, however, that the cross of the Order of Christ was derived from a design that would have been significant to the Templars. It was therefore intriguing to learn that this design had been used on Saint George’s – undoubtedly the finest church in the Lalibela complex. Casting my mind back to my own visit there in 1983, I could not recall the double cross motif. I was sufficiently interested, however, to look out the photographs that had been taken on

that trip; these confirmed that the description that Alvarez had given of Saint George's was absolutely correct: the double cross was there.

In the mid-1520s, while the Portuguese embassy was still at the court of Lebna Dengel, it became clear that Ethiopia would soon come under attack from Muslim forces massing in the emirate of Harar in the eastern part of the Horn of Africa. These forces were led by a redoubtable and charismatic warlord, Ahmed Ibn Ibrahim el Ghazi, whose nickname was 'Gragn' (meaning 'the left-handed').

After some years of careful preparations, Gragn eventually declared his holy war in 1528 and led hordes of wild Somali troops (supported by Arab mercenaries and Turkish matchlockmen) on a rampage into the Christian highlands.[81] This turned out to be no brief campaign but rather continued, year in year out, without any remit. Across the length and

breadth of Ethiopia towns and villages were burnt, churches were destroyed, priceless treasures were looted, and thousands of people were put to the sword.[82]

Lebna Dengel had been somewhat cool towards the Portuguese. During the six years that their embassy had been in his country (1520–6) he had constantly stressed his own self-sufficiency, saying, in spite of the Muslim threat (which was very apparent by 1526), that he saw no point in hastening into an alliance with any foreign power.[83] This strangely aloof attitude, I believe, could have been occasioned by concerns as to the true motives of the European visitors – particularly as regards the Ark of the Covenant.

Whatever fears the emperor may have entertained, however, it gradually became apparent to him that Gragn posed a far greater threat than the white men ever would –

and not only to the sacred relic but also to the very existence of Ethiopian Christendom. In 1535 the Muslims attacked Axum and razed to the ground the ancient and most holy church of Saint Mary of Zion[84] (from which, as I shall recount later in this chapter, the priests had already taken the Ark to another place for safekeeping). In 1535, too –and not by coincidence – Lebna Dengel at last overcame his antipathy towards foreign alliances and sent an envoy to the king of Portugal with an urgent request for military assistance.[85]

Meanwhile communications between Ethiopia and Europe had become much more difficult (because the Turks had won control of much of the coast of the Horn of Africa as well as many of the Red Sea ports). It took a long while for the emperor's SOS to reach its destination and, in consequence, it was not until 1541 that a contingent of 450 Portuguese

musketeers landed at Massawa to lend their support to the Abyssinian army – which appeared at that point to be utterly beaten and demoralized (Lebna Dengel, after years on the run, had died of exhaustion and had been succeeded by his son Claudius, then barely out of his teens).[86]

Since they were armed with matchlocks, hand-guns, and several pieces of heavy artillery, much hope was pinned upon the intervention of the Portuguese troops. The Ethiopian royal chronicle for 1541 speaks of the confident manner in which they marched up into the highlands from the coast, praising them as 'bold and courageous men who thirsted after battle like wolves and after slaughter like lions'.[87] Nor did this description overstate their qualities: though small in numbers they fought with inspiring valour and won a series of decisive victories. The British historian Edward Gibbon was later to summarize their achievements in just nine

words: 'Ethiopia was saved by four hundred and fifty Portuguese.'[88]

Significantly in my opinion, the commander of the relief force was none other than Don Christopher da Gama, son of the famous Vasco and, like his father, a Knight of the Order of Christ.[89] James Bruce was inordinately interested in the character of this young adventurer and described him in the following terms:

> He was brave to a fault; rash and vehement; jealous of what he thought military honour; and obstinate in his resolutions … [However], in a long catalogue of virtues which he possessed to a very eminent degree, [he] had not the smallest claim to that of patience, so very necessary to those that command armies.[90]

I believe that, as a Knight of the Order of Christ, Don Christopher may well have had an ulterior motive for his operations in Ethiopia: first he would defeat the Muslims; later he would seek out the Ark of the Covenant. His rashness and lack of patience, however, were to cost him his life before either objective could be achieved.

Despite overwhelming odds, he repeatedly engaged Ahmed Gragn's forces in battle (on one occasion, deserted by the Abyssinians, the Portuguese faced 10,000 spearmen – and beat them). Such feats of derring-do, however, were loaded with risks and, in 1542, Don Christopher was taken prisoner (an eyewitness described how, shortly before his capture, he 'had been shot in the right knee and was fighting with his sword in his left hand, for his right arm had been broken by another shot'[91]).

The Portuguese commander was first horribly tortured and

then, according to Bruce's account of his last hours, was

> brought into the presence of the Moorish general Gragn, who loaded him with reproaches; to which he replied with such a share of invectives that the Moor, in the violence of his passion, drew his sword and cut off his head with his own hand.[92]

Barely a year later, however, the Muslim leader too was killed. In a battle fought on the shores of Lake Tana on 10 February 1543 he was shot dead by a certain Peter Leon,

> a man of low stature, but very active and valiant, who had been *valet de chambre* to Don Christopher … The Moorish army no sooner missed the presence of their general than,

> concluding all lost, they fell into confusion and were pursued by the Portuguese and Abyssinians with a great slaughter till the evening.[93]

Thus, after fifteen years of unparalleled destruction and violence, ended the Muslim attempt to subdue the Christian empire of Ethiopia. The costs to the Portuguese relief force were considerable: as well as the redoubtable Don Christopher, more than half of the original contingent of 450 musketeers were killed in the fighting. Abyssinian casualties, of course, were far greater (running into tens of thousands) and the cultural damage – in terms of burnt manuscripts, icons and paintings, razed churches and looted treasures – was to cast a shadow over the civilization of the highlands for centuries to come.

The greatest treasure of all, however, was saved: moved

out of Axum by the priests only days before that city was burnt in 1535, the Ark had been taken to one of the many island-monasteries on Lake Tana. There it was kept in safety until long after Gragn's death. Then, in the mid 1600s, Emperor Fasilidas (described by Bruce as 'the greatest king that ever sat upon the Abyssinian throne'[94]) built a new cathedral of Saint Mary of Zion over the gutted ruins of the old – and there, with due ceremony, the sacred relic was at last re-installed in all its former glory.[95]

Fasilidas did one other thing also. Despite the debt of gratitude that his country owed to the Portuguese (whose numbers had been allowed to increase steadily after the successful conclusion of the war with Gragn) he made it his business to throw all the settlers out. Indeed, he seemed so wary of their intentions that he entered into a business arrangement with the Turks at Massawa: any Portuguese

travellers arriving there and seeking entry into Ethiopia were to be apprehended and decapitated – with a substantial sum in gold payable for each head thus obtained.[96]

The source of a mystery

After the death of Don Christopher da Gama the intense and focussed interest that the Order of Christ had shown in Ethiopia seemed to come to an end. And after the reign of Fasilidas there was no longer any way in which that interest could have been pursued by *any* Portuguese.

However, as noted earlier, the Order of Christ was not the only vehicle in which Templar traditions were perpetuated. Scottish Freemasonry, too, inherited some portions of the mystical legacy of the Temple of Solomon – in which the Ark of the Covenant played such a central role. Because of this

Scottish connection, and because he had claimed to be a distant descendant of the king who had welcomed the fugitive Templars in the fourteenth century,[97] I felt that a closer investigation was warranted into the activities of one of the most audacious and determined foreigners ever to visit Ethiopia: James Bruce of Kinnaird.

Standing rather more than six feet four inches tall, and with a girth to match, Bruce was a giant of a man ('the tallest man you ever saw *gratis*', as one contemporary described him). He was also wealthy and well educated. Born in 1730 in the lowlands of Scotland on the family estate at Kinnaird, he was sent at the age of twelve to Harrow school, where his work in the classical languages was considered excellent by his teachers. He later completed his studies at Edinburgh University.

A period of illness followed and when he recovered he

went to London intending to take up a job offer with the East India Company. Once there, however, he fell passionately in love with a beautiful woman named Adriane Allan, whom he married in 1753. Soon afterwards he joined his father-in-law's winetrading business as a partner.

Tragedy followed. On a trip to France in 1754 Adriane died suddenly and, though he remarried much later and fathered several children, Bruce seems to have taken a long time to recover from the loss of his first wife.

Restless and depressed, he began to travel almost continuously, learning new languages with great facility wherever he went. His peregrinations took him first to Europe, where he fought a duel in Belgium, sailed down the Rhine, inspected Roman ruins in Italy, and studied Arabic manuscripts in Spain and Portugal. Subsequently – after his linguistic ability had been recognized by his government – he

was given a diplomatic posting as British consul in Algiers. From there he later travelled extensively along the North African coast, visiting the ruins of Carthage, before journeying onwards to the Holy Land where he explored several other ancient sites. He also found the time to return occasionally to Scotland to attend to the family estates of which he was now the laird, his father having died in 1758.

During this period the young Scotsman became something of an astronomer, acquiring two state-of-the art telescopes that subsequently went everywhere with him. He also picked up surveying and navigational skills that would be invaluable to him on his travels in Abyssinia.

It is not clear exactly when he conceived of this last adventure, but there is evidence that he had been planning it for a considerable while (it is known, for example, that he had begun to learn *Ge'ez*, the classical language of Ethiopia,

as early as 1759[98]). Because of such preparations, which included detailed readings of the works of all previous travellers, he had accumulated a great deal of background knowledge about the country by the time that he arrived in Cairo in 1768 to begin his epic journey.

What was it that inspired Bruce to go to Ethiopia? His own account of his motives is unambiguous: he went, he said, risking 'numberless dangers and sufferings, the least of which would have overwhelmed me but for the continual goodness and protection of Providence', in order to discover the source of the Nile.[99] Lest anyone should be in any doubt that this was indeed his ambition he enshrined it conspicuously in the full title of the immense book that he later wrote: *Travels to Discover the Source of the Nile in the Years 1768, 1769, 1770, 1771, 1772 and 1773*.

There is a mystery here, however, which has attracted the

attention of more than one historian (though no solution has ever been proposed to it).[100] The mystery is this: long before he set out for Ethiopia, James Bruce *knew* that the Blue Nile's source had already been visited and thoroughly explored by two other Europeans: Pedro Paez and Jeronimo Lobo (both of whom were Portuguese priests who had lived in Ethiopia in the 1600s before the Fasilidas ban was put into effect).

As my research into the Ark of the Covenant progressed during 1989, the mystery of Bruce's objectives came to engage my attention more and more. The five hefty volumes of his *Travels* had become essential reference works for me because they provided a unique picture of Ethiopian culture at a time when that culture was still not too far separated from its own archaic origins. Moreover, I knew the Scottish adventurer to have been a considerable scholar, and I was impressed from the outset by the solid accuracy of his

observations and by the general worth of his judgments and opinions on matters of history. I also regarded him as an honest man, not overly prone to hyperbole, exaggeration or misrepresentation. How then, I had to ask myself – since it was clear from many of his own comments that he had carefully read the works of both Paez and Lobo[101] – could I account for the fact that he had failed to give them credit for their achievements?[102] Since I fully agreed with the subsequent judgment of history (namely that 'Bruce, far from being a romancer, was a most reliable guide'[103]) I found myself increasingly puzzled by his obvious dishonesty over this crucially important issue – a dishonesty which he compounded with the bald assertion that 'none of the Portuguese … ever saw, or indeed pretended to have seen, the source of the Nile'.[104]

I was soon to discover that this was not the only matter

about which Bruce had lied. On the subject of the Ark of the Covenant he was even more evasive and deceitful. Describing his own visit to the sacred city of Axum, he commented on the destruction by Ahmed Gragn of the first church of Saint Mary of Zion and added – correctly – that another had now been built in its place:

> In it [is] supposed to be preserved the Ark of the Covenant … which Menelik … is said, in their fabulous legends, to have stolen from his father Solomon on his return to Ethiopia … Some ancient copy of the Old Testament, I do believe, was deposited here … but whatever this might be, it was destroyed … by Gragn, though pretended falsely to subsist there still. This I had from the King himself.[105]

In summary, what Bruce appeared to be saying was that the Ark had never been brought to Axum (since the story of Menelik and Solomon was just a ‘fabulous legend’), that the relic once stored in the church could therefore only have been ‘some ancient copy of the Old Testament’, and that even this relic no longer existed since it had been ‘destroyed by Gragn’. These statements were then backed up with the assertion that they had been corroborated by ‘the King himself’.

Had it not been for that last remark I might have been content to believe that Bruce had simply never learned of how the Ark had been saved during the war with the Muslims, and of how it had later been returned to Axum after the rebuilding of Saint Mary of Zion. The claim that ‘the King himself’ had attested to the destruction of the relic was patently false, however: in 1690 – long after the Gragn

campaigns and just eighty years before Bruce's own visit – an Ethiopian monarch had entered the Holy of Holies of the new Saint Mary's where he had actually *seen* the Ark (thus confirming its continued existence). The monarch in question (Iyasu the Great) had been a priest as well as a king, and because of this he had been allowed not only to view the sacred relic but also to open it and gaze inside it.[106] Since it is inconceivable that the king in Bruce's day would not have known of this famous and unprecedented incident, I had to conclude that the Scottish traveller was once again being 'economical with the truth'.[107]

My conviction that this was so deepened further when I realized – contrary to his own statement quoted above – that Bruce had *not* in fact regarded the Ethiopian tradition of Menelik, Solomon and the Queen of Sheba as a 'fabulous legend'. On the contrary, he had treated it with the utmost

respect. In Volume I of his *Travels* – some thousand pages before his account of his visit to Axum – he had written at great length about the close cultural and commercial connections between Ethiopia and the Holy Land in early Old Testament times.[108] Here, amongst other things, he had unequivocally stated his own view that the Queen of Sheba had been a real historical person (rather than a mythical figure),[109] that she had indeed made her voyage to the court of King Solomon in Jerusalem ('there can be no doubt of this expedition'[110]) and – most important of all – that she had come from Ethiopia rather than from any other country: '[Others] have thought this Queen was an Arab,' he concluded,' '[but] many reasons … convince me that she was an Ethiopian.'[111]

He next went on to describe as 'by no means improbable'[112] the account given in the *Kebra Nagast* of the

queen's love affair with Solomon and the subsequent birth of Menelik. In the same vein he then retold the story of Menelik's own visit to Jerusalem and ultimate return to Ethiopia bringing with him 'a colony of Jews, among whom were many doctors of the law of Moses'.[113] These events, Bruce concluded, had led to 'the foundation of an Ethiopian monarchy, and the continuation of the sceptre in the tribe of Judah down to this day … first when Jews, then … after they had embraced Christianity.'[114]

All this was nothing more nor less than a straightforward précis of the *Kebra Nagast* in a context that granted it a great deal of weight and historical authenticity. Strangely, however, while covering every other major detail, Bruce at this point made absolutely no mention of the Ark of the Covenant – an omission that could only have been deliberate given the central and all-pervasive role played by the sacred

relic in the Ethiopian national epic.

Once again, therefore, I was forced to conclude that the Scottish traveller had knowingly misled his readers about the Ark. But why should he have wanted to do that? What possible motive could he have had? My curiosity aroused, I carefully re-read his description of Axum and came across an important detail that I had completely overlooked before: his own visit there had taken place on 18 and 19 of January 1770.[115]

This timing, I suddenly realized, could have been no accident, for on precisely those two days he would have witnessed the celebration of *Timkat*, the most important festival of the Ethiopian Orthodox Church. During this festival, and at no other time – as I had established when I talked to the guardian-priest in 1983 – the Ark of the Covenant was traditionally wrapped in rich brocades ('to

protect the laity from it'[116]) and carried out in procession.[117] Bruce had therefore chosen to be in Axum on the single occasion in the year when, as a layman, he might have had a reasonable opportunity to get close to the sacred relic.

I was by now seriously beginning to wonder whether it had not been the Ark all along that had lured the Scottish traveller to Ethiopia: his claim to have gone there to find the source of the Nile did not stand up to close scrutiny and bore all the hallmarks of a 'cover story' intended to veil the real object of his quest. Moreover his evasiveness on the subject of the Ark itself was most peculiar and really only made sense if he had indeed had a special interest in it – an interest that he had wanted to keep secret.

Soon I learned other things that deepened my suspicions. I discovered, for example, that Bruce had been fluent in ancient Hebrew, Aramaic and Syriac[118] – dead languages that

he could have had no reason to learn unless he had wished to make an intimate study of early biblical texts. Moreover, there could be no doubt that he *had* made such a study: his knowledge of the Old Testament, which shone out from nearly every page of the *Travels*, was described by one scriptural expert as 'outstanding'.[119]

Nor was this the only example of Bruce's 'more than common erudition'.[120] As I already knew, he had also carried out meticulous and original research into the culture and traditions of the black Jews of Ethiopia. 'I did not', as he himself had put it, 'spare my utmost pains in inquiring into the history of this curious people, and lived in friendship with several esteemed the most knowing and learned among them.'[121] Because of such efforts he had managed to make a lasting contribution to the study of Falasha society – a contribution that, like so much else, did not jibe at all with

his professed enthusiasm for geographical exploration but that was entirely consistent with a quest for the lost Ark.

I telephoned the historian Belai Gedai in Addis Ababa and asked him whether he had any views on Bruce's motives. His reply shook me: 'As a matter of fact what we Ethiopians say is that Mr James Bruce did not come to our country to discover the source of the Nile. We say that he was just pretending that. We say that he had another reason.'

'Tell me more,' I requested. 'What do you think his objective could have been if it wasn't the Nile?'

'The real reason he came was to steal our treasures,' Gedai said resentfully, 'our cultural treasures. He took many precious manuscripts back to Europe. The book of Enoch, for example. Also from the imperial repository at Gondar he carried off an ancient copy of the *Kebra Nagast*.'

This was news to me – but exciting news if true. I

investigated further and in due course confirmed that Gedai was absolutely correct. On leaving Ethiopia Bruce had indeed carried the *Kebra Nagast* with him – and not just the single splendid copy taken from the imperial repository but also a copy of that *copy* that he had made himself (his knowledge of *Ge'ez*, the classical Ethiopic language, being near-perfect[122]). Much later he gave both manuscripts to the Bodleian Library at Oxford, where they remain to this day (as 'Bruce 93' and 'Bruce 97').[123]

Nor was this all. Prior to the eighteenth century, scholars had believed the book of Enoch to be irretrievably lost: composed long before the birth of Christ,[124] and considered to be one of the most important pieces of Jewish mystical literature, it was only known from fragments and from references to it in other texts. James Bruce changed all this by procuring several copies of the missing work during his

stay in Ethiopia. *These were the first complete editions of the book of Enoch ever to be seen in Europe.*[125]

I was of course interested to discover that Bruce had brought back the *Kebra Nagast* to Europe – and that he had also gone to the trouble of copying out the entire massive volume by hand. This made the omission of the Ark of the Covenant in his summary of that work look even more suspicious than I had originally thought. Suspicions are not certainties, however. It was therefore only when I got the full story of the Book of Enoch, and of the service that the Scottish adventurer had performed for scholarship in this regard, that I finally felt sure that I was on the right track.

I learned that the Book of Enoch has always been of great significance to Freemasons, and that certain rituals dating back to long before Bruce's time identified Enoch himself with Thoth, the Egyptian god of wisdom.[126] I then found a

lengthy entry in the *Royal Masonic Cyclopaedia* which recorded other relevant traditions of the order – for example that Enoch was the inventor of writing, 'that he taught men the art of building', and that, before the flood, he 'feared that the real secrets would be lost – to prevent which he concealed the Grand Secret, engraven on a white oriental porphyry stone, in the bowels of the earth.' The entry in the *Cyclcopaedia* concluded with these words: 'The Book of Enoch was known to exist from very ancient times, and is continually alluded to by the fathers of the Church. Bruce brought home three copies from Abyssinia.'[127]

This brief and familiar mention of Bruce, coupled with the fact that he had gone to such great lengths to obtain not one but three copies of the Book of Enoch, raised the possibility that he might himself have been a Freemason. If so, then a solution to all the puzzles about his evasiveness and

dishonesty suggested itself. I was already convinced that he had a special interest in the Ark of the Covenant – an interest that he had been determined to conceal. Now I could see exactly how he might have acquired that interest (and why he might have wanted to keep it secret). As a Freemason – and a Scottish Freemason to boot – he could have been exposed to the Templar traditions concerning the Ark's presence in Ethiopia.

But was Bruce a Mason? Finding the answer to this question was by no means easy. In the more than 3,000 pages of his *Travels* there was not a single clue that would have enabled me even to arrive at an informed opinion on the matter. Nor was any enlightenment shed by the two detailed and extensive biographies that had been written about him (the first in 1836[128] and the second in 1968[129]).

It was not until August 1990 that I was at last able to

travel to Scotland to visit Bruce's family estate, where I hoped I might be able to obtain some definitive information. I found Kinnaird House on the outskirts of the Falkirk suburb of Larbert. Situated well back from the main road in extensive and secluded grounds, it was an imposing edifice of grey stone. After some understandable hesitation, its present owner – Mr John Findlay Russell – invited me in and showed me around. It was quite obvious from many architectural details, however, that the building did not date back to Bruce's time.

'That's quite right,' Findlay Russell agreed. 'Kinnaird House passed out of the possession of the Bruce family in 1895 and was knocked down by its new owner, a Dr Robert Orr. He built the present mansion in 1897.'

We were standing in an immense panelled hallway directly in front of a broad stone staircase. Findlay Russell now

pointed to these stairs and added proudly: ‘They’re just about the only original feature to have been preserved. Dr Orr left them in place and built his house around them. They’re of some historic significance you know.’

‘Oh, really? Why?’

‘Because James Bruce died on them. It was in 1794. He’d been giving a dinner in one of the upstairs rooms and he was escorting a guest down the stairs when he tripped and pitched over on his head. That was the end of him. A great tragedy.’

Before leaving I asked Findlay Russell if he had any idea whether Bruce might have been a Freemason or not.

‘No,’ he said. ‘No idea at all. Of course I take a great interest in him, but I wouldn’t claim to be an expert.’

I nodded, disappointed. As I was walking out of the door, however, another question occurred to me: ‘Do you happen

to know where he's buried?'

'Larbert Old Church. You'll have a job finding the tomb though. There used to be a great iron obelisk raised up over it, but that was pulled down some years ago because it was rusting away. It was considered a danger to the public.'

The drive to the church took only ten minutes. Locating the last resting place of one of Scotland's greatest explorers took much longer, however.

It was a miserable, rainy afternoon and I grew more and more depressed as I hunted up and down the rows of gravestones. As a personality, there was no doubt that Bruce had had many failings. Nevertheless, I felt strongly that this brave and enigmatic man deserved some lasting monument: it seemed shameful that he should have been left to lie in a completely unmarked patch of ground.

After I had thoroughly searched the main cemetery and

found nothing, I noticed a thickly overgrown area surrounded by a low stone wall set into which was a small gate. I opened this gate and then walked down a flight of three steps which led … to a rubbish tip. Piles of old clothing, discarded shoes, tin cans and bits of broken furniture lay scattered around amidst dense patches of stinging nettles and brambles. Several massive trees locked branches overhead and their intertwined leaves formed a dripping green canopy that allowed very little light to penetrate.

Cursing the swarms of midges and wasps that rose up to greet me, I proceeded to stamp down as much of the vegetation as I could. I had looked everywhere else, I reasoned, so I might as well look here too. I had almost given up hope, however, when finally, in the centre of the enclosure, I stumbled upon several solid stone slabs laid flat

on the ground and completely covered with moss, lichen and vile nettles. With a sense of reverence – but also of anger – I cleared the slabs as best I could and gazed down at them. There was nothing to say that they covered Bruce's remains but, somehow, I felt sure that they did. Involuntarily a lump rose in my throat. Here lay a man – a great man – who had preceded me to Ethiopia. Moreover, if my guess about his Masonic connections was correct, then there could be little doubt that he had gone to that far country in quest of the lost Ark. Now, however, it seemed that I might never be able to prove those connections. The only thing that was certain was that Bruce was lost himself – lost and forgotten in the land of his birth.

I stayed there for a while, thinking my gloomy thoughts. Then I left the little enclosure, not by the gate through which I had entered it but rather by clambering over the

surrounding wall into a courtyard beyond. There, almost immediately, I saw something interesting: lying on its side quite close to where I stood was an enormous metal obelisk. I approached and found that James Bruce's name was engraved upon it, together with the following epitaph:

> His life was spent performing useful and splendid actions.
> He explored many distant regions.
> He discovered the fountains of the Nile.
> He was an affectionate husband, an indulgent parent,
> An ardent lover of his country.
> By the unanimous voice of mankind his name is
> Enrolled with those who were conspicuous
> For genius, for valour, and for virtue.

What I found most exciting of all about the obelisk was that it was intact – not rusting and crumbling – and that it was covered with fresh red primer paint. Someone, clearly, was still taking an interest in the explorer – enough of an interest to have had his monument restored, though not yet set up over his grave again.

Later that afternoon I made enquiries with the church authorities and discovered the identity of the mysterious benefactor. It seemed that the obelisk had been taken away for repairs some years previously and had only been returned to Larbert the day before my own arrival. The restoration work had been organized and paid for by no lesser person than the titular head of the Bruce family in Scotland – the Earl of Elgin and Kincardine, himself a Master Mason.[130]

This was a promising lead and I followed it all the way to Broomhall, the beautiful estate just north of the Firth of Forth

where Lord Elgin lived. I telephoned first – the Broomhall number was not ex-directory – and made an appointment for Saturday morning, 4 August.

‘I can’t give you more than about fifteen minutes,’ the earl warned.

‘Fifteen minutes will be enough,’ I replied.

Elgin turned out to be a short, stocky, elderly man with a pronounced limp (apparently the result of injuries received while a prisoner of the Japanese during the Second World War). Without much ceremony he ushered me into a splendid drawing room dominated by family portraits and suggested that I get straight to the point.

So far his manner had been a little abrupt. As we talked about Bruce, however, he softened – and it gradually became clear to me from his detailed and extensive knowledge that he had made a close study of the life of the Scottish explorer.

At one stage he took me into another room and showed me several shelves filled with old and esoteric books in many different languages. ‘These were from Bruce’s personal library,’ he explained. ‘He was a man of very wide interests … I also have his telescope, his quadrant and his compass … I can look them out for you if you like.’

While all this was going on, the quarter of an hour I had been promised had turned into an hour and a half. Spellbound by Elgin’s enthusiasm, I had somehow still not managed to ask him the question that had brought me here. Now, quite suddenly, he glanced at his watch and said: ‘Gosh, look at the time. I’m afraid you’ll have to go. Things to do … I’m off to the Highlands this afternoon. Perhaps you can come back on some other occasion?’

‘Er … yes. I’d like that very much.’

At this, beaming graciously, the earl stood up. I stood too

and we shook hands. I felt distinctly foolish but I was determined not to leave without satisfying my curiosity.

‘If you don’t mind,’ I said, ‘there’s one other thing I particularly wanted to ask you. It’s to do with a theory I’ve been developing about the motives that led Bruce to make his expedition to Ethiopia. Do you happen to know … er … um … I mean is there any chance, any possibility at all, that he might have been a Freemason?’

Elgin looked slightly amazed. ‘My dear boy,’ he replied. ‘Of *course* he was a Mason. It was a *very*, very important part of his life.’

Part III: Ethiopia, 1989–90

Labyrinth

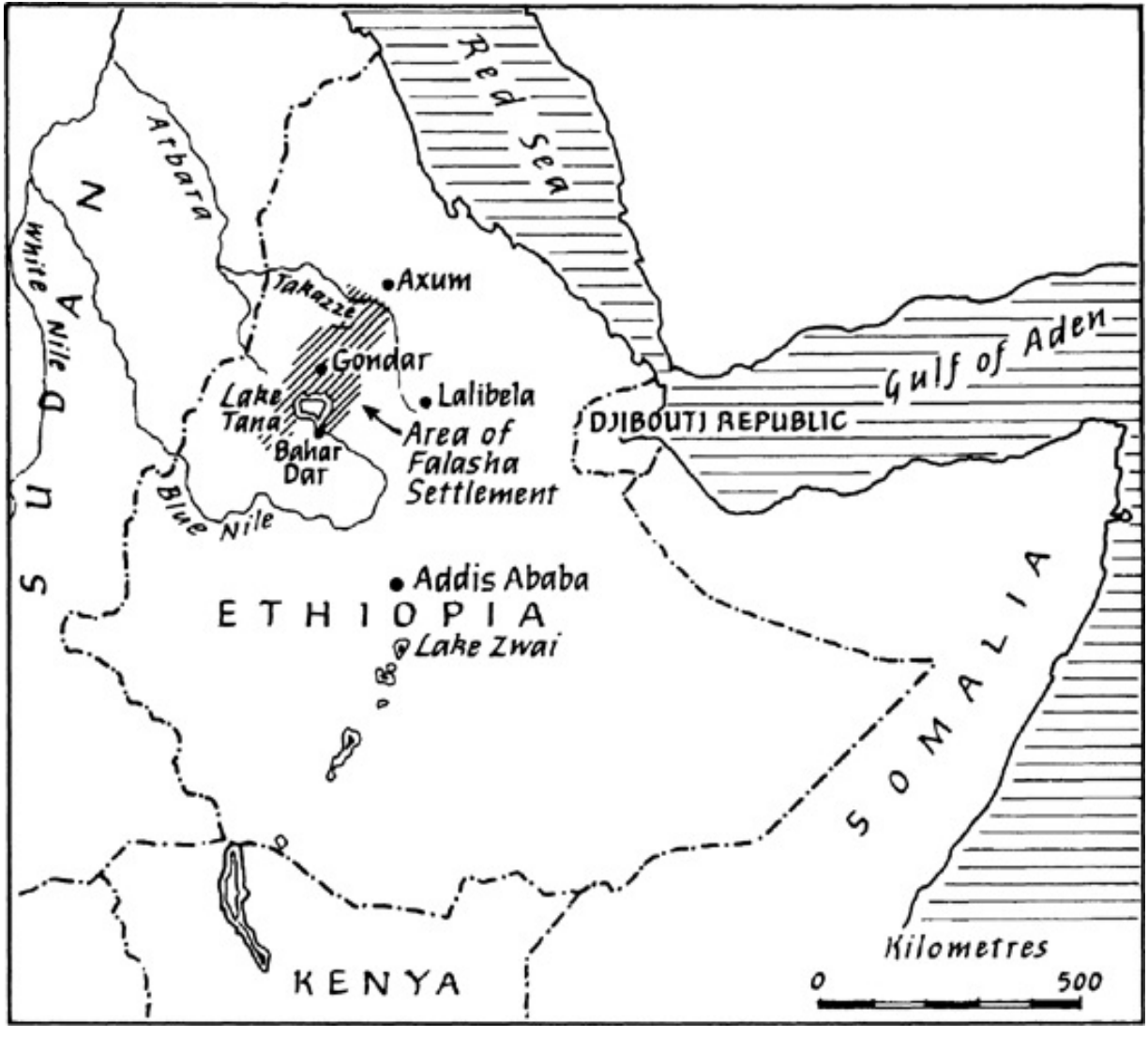
Red Sea
Arbara
SUDAN
White Nile
Takazze
Axum
Gondar
Lake Tana
Bahar Dar
Lalibela
Area of Falasha Settlement
Blue Nile
Gulf of Aden
DJIBOUTI REPUBLIC
Addis Ababa
ETHIOPIA
Lake Zwai
SOMALIA
KENYA
Kilometres
0
500

Chapter 8

Into Ethiopia

On my visit to his estate in Scotland, the Earl of Elgin confirmed that my suspicions about James Bruce were correct: the explorer had indeed been a Freemason (a member of Canongate Kilwinning Lodge No. 2 in the city of Edinburgh).

Elgin also told me that Bruce had been very much involved in the 'speculative' side of Freemasonry – as distinct from the more pragmatic and mundane 'craft' Masonry. This meant that he would have cultivated an interest in the esoteric and occult traditions of the brotherhood – traditions, including

‘Knight Templarism’, that most modern Masons neither knew nor cared anything about.

I should add, at this point, that I had never felt that all Masons would have had access to the Templar legacy; on the contrary, it was reasonable to suppose that such access would at all times have been restricted to a very few people.

Bruce, however, looked like an ideal candidate for membership of that privileged group. With his extensive knowledge of the Scriptures, his scholarly attraction to mystical works such as the Book of Enoch, and his ‘speculative’ leanings within the Masonic system, he was precisely the kind of man who would have investigated Templar traditions concerning the last resting place of the Ark of the Covenant.

After my meeting with Lord Elgin, therefore, I felt more confident than ever that it had been the Ark all along, rather

than the Nile, that had lured the Scottish adventurer to Ethiopia in 1768. His paradoxical dishonesty on certain key issues (paradoxical because he was normally so truthful) now made sense to me; his evasiveness and secrecy were now explained. I might never know what mysteries he had uncovered in the Abyssinian highlands all those many years ago; now, however, I could at least be reasonably sure about his motives.

It had been in the summer of 1989 when I had first begun to wonder whether Bruce might have been a Mason, but it was not until August 1990 that I had my discussion with Lord Elgin. Meanwhile, as recounted in the last chapter, I had followed up the 'Portuguese connection' represented by members of the Order of Christ who had travelled to Ethiopia in the fifteenth and sixteenth centuries.

All the evidence that I had unearthed seemed to point in

the direction of a continuing quest for the Ark – a covert venture that had drawn travellers hailing from quite different historical periods and from different lands towards the same lofty and enduring goal. Moreover, if this had been the case in centuries past then might it not still be the case today? Might not others be seeking the Ark in Ethiopia just as I was? As my research progressed I kept an open mind on this question while continually adding to my files on people like James Bruce and Christopher da Gama. Even without the stimulus of competition, however, my findings during the spring and summer of 1989 had convinced me that it was high time for me to return to Ethiopia to add some detailed field work to what had hitherto been primarily an intellectual exercise.

Difficult times

I took this decision as early as June 1989, but several months were to elapse before I was finally able to implement it. Why? Because on 19 May of that year a violent *coup* had been attempted in Addis Ababa throwing the whole of Ethiopia into turmoil.

The government of President Mengistu Haile-Mariam survived, but only at great cost. After the dust had settled one hundred and seventy-six rebellious officers were rounded up and arrested, including no less than twenty-four generals, amongst them the Commander of Ground Forces and the Chief of Operations. Rather than be captured and face trial, the Armed Forces Chief of Staff and the Commander of the Air Force committed suicide. Eleven other generals were killed in the fighting and the Minister of Defence was shot dead by the *coup* plotters.

The consequences of this ugly bloodbath were to haunt Mengistu and his regime for a very long while to come: with the officer corps effectively gutted, the military's decision-making capacity was reduced virtually to zero, a state of affairs that quickly translated itself into reverses on the battlefield. Indeed, in the months immediately following the *coup*, the Ethiopian army suffered a series of crushing defeats that ended in its total expulsion from the province of Tigray (which the TPLF declared a 'liberated zone') and from most of Eritrea as well (where the EPLF was already laying in place the structures for an independent state). The fighting also spread with alarming rapidity into other areas – including north-east Wollo, where the ancient city of Lalibela was overrun in September 1989, and Gondar, where the regional capital was besieged.

The worst setback of all, at least from my own selfish

perspective, was that the government was no longer in control of Axum. Indeed, as noted in Chapter 3, the sacred city had been seized by the TPLF at the end of 1988, some months before the attempted *coup*. I had at first hoped that this would be a temporary state of affairs. As the dismal events of the second half of 1989 began to unfold, however, I had to face up to the possibility that the guerillas might be able to hold on to Axum indefinitely.

This, of course, left me with the option of approaching the TPLF in London and trying to win their co-operation in getting into the areas that they now administered. I was, however, not ready to pursue this option immediately. My own long-standing connections with the Ethiopian government meant that the Liberation Front would regard any overtures from me with intense suspicion. One possible outcome, unless I played my cards very cleverly indeed, was

that they would point-blank refuse my request to go to Axum. But frankly I was more concerned about the safety of my skin if they did agree to take me in: as a known friend of the hated Mengistu regime wasn't there a chance, on the long and dangerous road into Tigray, that some local guerilla commander might decide I was a spy and have me shot – even if the London office had cleared me for the visit?

In the post-*coup* atmosphere nothing could be certain in Ethiopia; no plans could be made with any degree of confidence; and there was no way of predicting what might happen from one week to the next. Any number of dramatic developments looked theoretically possible – not least the fall of Mengistu and a complete victory for the combined forces of the EPLF and the TPLF. I decided, therefore, that I would focus my efforts on other aspects of my research until a clearer picture had emerged. It was thus not until November

1989 that I finally returned to Ethiopia.

A secret hiding place?

The information that precipited my return was provided to me by the Very Reverend Liqa Berhanat Solomon Gabre Selassie. I first encountered the man who owned this extremely long name in London on 12 June 1989, at which time I discovered that he also had an extremely long and full grey beard, nut-brown skin, twinkling eyes, splendid ceremonial robes, and – suspended around his neck – an elaborate wooden crucifix. Archpriest of the Saint Mary of Zion Ethiopian Orthodox Church in the United Kingdom, he was, in fact, a missionary. He had been sent to Britain some years previously by the Patriarchate in Addis Ababa in order to spread the Orthodox message. Moreover he had succeeded

in winning a number of converts, mainly young Londoners of West Indian origin, some of whom he brought with him to our meeting – which I had arranged in order to pump him for information about the Ark.

Archpriest Solomon was, for me, the very image of an Old Testament patriarch. The venerable beard, the sagacious and yet slightly roguish manner, the charismatic personality leavened with genuine humility, and the absolute conviction of a deeply held faith all added irresistibly to this impression.

It quickly became clear to me as we talked that he possessed an unshakable belief that the sacred relic was indeed in Ethiopia. An intelligent and obviously highly educated man who spouted out biblical references with an assurance born of a lifetime of study, he expressed this view firmly and calmly and refused to accept that there was any possibility at all that he might be mistaken.

On a sheet of paper in front of me I took careful notes as he forcefully reiterated this point: the original Ark of the Covenant which had been constructed at the foot of Mount Sinai to contain the tablets of stone bearing the Ten Commandments – that very same pure and authentic object now rested in Axum. Furthermore, he insisted, it still had 'its powers, thanks to the Grace of God' and was, in addition, 'protected by the entire population of Tigray'. 'It remains today', he concluded, 'in the safe hands of the church and Christian people who are constantly seen around the church's compound.'

Before the archpriest left, I wrote down a list of fifteen questions that I wanted him to answer in detail. When his considered replies arrived at my home by post in mid-July, however, I was far away in Egypt. On my return some weeks later I barely glanced at the ten pages of mixed handwriting

and typescript that he had sent me. Indeed I was so busy analysing and working through the Egyptian material I had gathered that I didn't even bother to send him a note of thanks.

In an idle moment in early November I finally turned my attention to the document which I had placed in the 'pending' tray on my desk more than three months previously. I found that it contained point-by-point responses to all my fifteen questions. Some of the answers, furthermore, were both intriguing and provocative.

For example, I had asked whether the alleged 'supernatural' powers of the Ark had ever been harnessed by the rulers of Ethiopia to bring victory in war. The Bible made it clear that this had been done on several occasions in ancient Israel.[1] If the Ark was really in Ethiopia, therefore, wasn't it logical to suppose that this tradition would have

been maintained?

‘In the teaching of our Church’, Solomon had replied, ‘God is the only power in the universe. He is the creator of all existing life, visible and invisible. He himself is the uncreated eternal light, which gives us light and power and grace. There is, however, a tangible dimension in which we can understand the relation between God and the Ark, for since the Ark contains the ten sacred words of the Law, written by God, the gift of His holiness cannot be diminished within it. Up to this day, therefore, His grace still rests upon the Ark, so by the name of God it is holy and of great spiritual significance.’

The former rulers of Ethiopia, the archpriest’s answer continued, had known this. Since their prime function was to protect and defend the Orthodox Christian faith they had, during the many wars fought over the passing centuries,

made use of the Ark from time to time ‘as a source of spiritual strength against the aggressors … The King would rally the people for battle and the priests would stand as on the day when Joshua carried the Ark around the city of Jericho. Likewise our priests carried the Ark, chanting and going into battle in the glory of God.’

This use of the sacred relic as a war palladium – and as an effective one at that – was not, according to Archpriest Solomon, just something that had happened in Ethiopia’s distant past. On the contrary: ‘As recently as 1896 when the King of Kings Menelik the Second fought against the Italian aggressors at the battle of Adowa in Tigray region, the priests carried the Ark of the Covenant into the field to confront the invaders. As a result of this, Menelik was very victorious and returned to Addis Ababa in great honour.’

I re-read this part of the reply with considerable interest

because I knew that Menelik II had indeed been ‘very victorious’ in 1896. In that year, under the command of General Baratieri, 17,700 Italian troops equipped with heavy artillery and the latest weapons had marched up into the Abyssinian highlands from the Eritrean coastal strip intent on colonizing the whole country. Menelik’s forces, though ill prepared and less well armed, had met them at Adowa on the morning of 1 March, winning in less than six hours what one historian had subsequently described as ‘the most notable victory of an African over a European army since the time of Hannibal’.[2] In a similar tone, the London *Spectator* of 7 March 1896 commented: ‘The Italians have suffered a great disaster … greater than has ever occurred to white men in Africa.’

The tantalizing hint that the Ark had been used at Adowa raised in my mind the half-serious possibility that it might

still be being used today – perhaps by the TPLF, who now had control of Axum and who, like Menelik II, had certainly been very victorious in recent months. Solomon, however, did not speculate about this in his written answers. Instead (in his reply to a question that I had asked concerning the security of the Ark in the sanctuary chapel during the current all-out war being fought between government and rebel forces) he went on to suggest a completely different scenario.

When I had talked to him in June he had seemed confident that the sacred relic was still in its usual place, 'protected by the entire population of Tigray'. Now he did not seem so sure. 'There have been very infrequent occasions', he explained, 'during periods of great violence and tribulation, when the guardian monk, who watches the Ark day and night until he dies, has been obliged to cover it up and bring it out of Axum to safety. We know, for instance, that this

happened in the sixteenth century when Tigray was invaded by the Muslim armies of Ahmed Gragn and most of Axum was destroyed. Then the guardian took the Ark to the monastery of Daga Stephanos, which stands on an island in Lake Tana. There it was hidden in a secret place.'

It was the archpriest's conclusion that really caused me to sit up and pay attention. Under the present circumstances of war and chaos in Tigray, he said, it was quite possible that the guardian could have taken the Ark out of Axum again.

Two lakes, two islands

I flew back to Addis Ababa on Tuesday 14 November 1989, arriving on the morning of Wednesday 15 November. Despite the continuing fighting in almost all parts of northern Ethiopia, I was quite clear in my own mind about the

objectives of this trip. If Archpriest Solomon's analysis was correct, I reasoned, might not the sacred relic believed to be the Ark of the Covenant be resting even now on the monastic island of Daga Stephanos – in that same 'secret place' to which it had been taken in the sixteenth century?

This, furthermore, was not the only location in which it might have been concealed. I also remembered very well that Dr Belai Gedai had told me in one of our several long-distance telephone conversations of another, earlier tradition concerning the saving of the Ark during the uprising of Queen Gudit in the tenth century. At the time, the Ethiopian historian had explained, it had been brought to one of the islands on Lake Zwai.

I had therefore come to Ethiopia to check out both Lake Tana and Lake Zwai: the former lying in the war-torn north, though still in an area controlled by the government; the

latter in safer territory about two hours' drive to the south of Addis Ababa.

I felt a tremendous sense of urgency during my first few days in the Ethiopian capital. I had left England less than a week after reading Archpriest Solomon's answers to my questions, and the reason why I was in such a hurry was quite simple: though Lake Zwai was secure enough, for the present at least, there was absolutely no guarantee that Lake Tana was going to remain in government hands for very much longer. Rebel forces, I knew, had surrounded the fortress city of Gondar, which stood some thirty miles to the north of the vast lake. Meanwhile, sporadic artillery and hit-and-run attacks had also been directed against the port of Bahar Dar on the southern shore. Since the only way for me to reach Daga Stephanos was through Bahar Dar I felt that I had no time to lose.

There could be no question of going through the normal bureaucratic channels to arrange the internal travel permit. Accompanied by my old friend Richard Pankhurst, who had taken a few days off from the Institute of Ethiopian Studies in order to help me out, I therefore went along to a meeting with one of my highest-ranking contacts – Shimelis Mazengia, Head of Ideology and a senior member of the ruling Politburo of the Workers' Party of Ethiopia.

A tall slim man in his forties who spoke fluent English, Shimelis was a committed Marxist but also one of the most intelligent and cultured of the Politburo members. His power within the regime was considerable and I knew him to have a genuine enthusiasm for the ancient history of his country. I therefore hoped that he might be persuaded to use his influence to back the research that I wanted to do – and in this I was not disappointed. After I had outlined my project

to him he agreed readily to my proposed field trips to Lake Tana and to Lake Zwai. The only condition was that my stay in the Tana area should be kept as short as possible. ‘Do you have a schedule in mind?’ he asked.

I pulled out my diary and, after a moment’s thought, proposed Monday the 20th for my departure to Lake Tana: ‘I’ll fly to Bahar Dar, hire a launch from the Maritime Authority, visit Daga Stephanos and then come back to Addis on – say – Wednesday the 22nd. That should give me enough time … If it’s OK with you I’d then like to drive down to Zwai on Thursday the 23rd.’

Shimelis turned to Richard: ‘And will you be going as well, Professor Pankhurst?’

‘Well, if it is acceptable … of course I would like very much to go.’

‘Certainly it is acceptable.’

Shimelis then telephoned the Headquarters of the National Security Police in Addis Ababa and spoke rapidly in Amharic to someone in authority. After he had hung up he told us that our permits would be ready for collection that afternoon.

‘Come back and see me next Friday,’ he said, ‘after you have finished at Lake Tana and Lake Zwai. You can make an appointment with my secretary.’

We left the Party building in high spirits. ‘I never thought it would be so easy,’ I said to Richard.

Chapter 9

Sacred Lake

The morning flight from Addis Ababa to Bahar Dar on the southern shore of Lake Tana took about an hour and a half. Despite the fighting reported in the area, no special procedures were observed during the landing, and the plane made a low, slow, scenic approach over the Blue Nile Falls before touching down on the bumpy gravel strip. From there, after hiring a taxi, Richard Pankhurst and I motored the few remaining kilometres into town along roads lined with jacaranda and flame trees.

We checked into two of the hundred empty rooms at the

Tana Hotel on the lake's edge and then drove to the Maritime Authority pier where the motor launch that we hoped to use was moored. After protracted negotiations with the officials concerned it was eventually agreed that we could charter the boat – but not until the next day, Tuesday 21 November, and then only if we were prepared to pay the piratical hire of 50 US dollars an hour. Since I had no other choice I grudgingly accepted this extortionate figure and asked that the vessel should be made ready for a 5 a.m. departure.

With time to kill that afternoon we drove out of Bahar Dar to the nearby village of Tissisat and then hiked through tawny countryside overlaid with a patchwork of fields until we came to a massive stone bridge thrown across a steep gorge. Built by the Portuguese in the early seventeenth century, this crumbling edifice looked highly dangerous; Richard assured me, however, that it was still serviceable. We

crossed it, and climbed a hillside – at the top of which two militiamen suddenly appeared out of a clump of shrubbery. They searched us, looked at our passports (classically, mine was examined upside down) and then waved us on.

Fifteen minutes later, after negotiating a narrow goat-track lined with thick tropical shrubbery and yellow daisies, we began to sense a low, thundering vibration underfoot. We walked on, aware of an increasing dampness in the air, and in a short while caught a first glimpse of what we had come to see – the spectacular basalt cliff over which, with tremendous power, the Blue Nile hurls itself before embarking on its epic journey out of the Abyssinian highlands.

The local name for the Blue Nile Falls, and for the village through which one must approach them, is Tissisat, meaning 'water that smokes'. As I stood enraptured, gazing at the

rainbows playing amongst the fine spumes of spray thrown high into the air by the boiling cataract, I could well understand why.

I was also reminded – and struck by the accuracy – of the description given by the Scottish explorer James Bruce after his visit here in 1770:

> The river … fell in one sheet of water, without any interval, above half an English mile in breadth, with a force and a noise that was truly terrible, and which stunned and made me, for a time, perfectly dizzy. A thick fume, or haze, covered the fall all around, and hung over the course of the stream both above and below, marking its track, though the water was not seen … It was a most magnificent sight, that ages,

> added to the greatest length of human life, would not deface or eradicate from my memory; it struck me with a kind of stupor, and a total oblivion of where I was, and of every other sublunary concern.[1]

Ethiopia, I reflected, was a country in which time really could stand still: there was nothing at all, in the scene now laid out before me, which suggested that more than two centuries had elapsed since Bruce had been here. Not for the last time I felt a deep sense of empathy with the Scottish traveller whose family name I happened by coincidence to share (through the maternal line – my grandmother was born a Bruce, and Bruce, too, is my own middle name).

Later, surrounded by crowds of local children who had materialized from nowhere in order to demand money, pens

and sweets, Richard and I set off on the walk back towards Tissisat village. Thus far there had been something almost idyllically peaceful and rustic about the afternoon; even the militiamen who had searched us earlier had done so lethargically and with good humour. Now, however, as we re-crossed the Portuguese bridge with the first chill of evening setting in, we were confronted by an incongruous and jarring spectacle: at least three hundred heavily armed soldiers dressed in green battle fatigues advancing towards us from the other direction.

It was impossible to be sure whether we were looking at government or rebel troops. They wore no regimental insignia, nor any other identifying paraphernalia. Neither did they appear to be disciplined or even under the command of an officer: rather than being organized into a discernible marching order they slouched oafishly along with angry and

resentful glares. I also noticed that a number of the men were carrying their weapons very sloppily: one used his rifle as a walking stick; another held an AK-47 barrel-forwards across his shoulder; a third was loosely waving a loaded rocket launcher which, if fired accidentally, could have demolished a fair-sized building – or, for that matter, the bridge we were all standing on.

Richard, whose Amharic is better than mine, greeted several individual members of this surly rabble in a familiar manner, shook hands heartily with perhaps a dozen more, and made eccentric gestures of friendship towards most of the rest. ‘They think all foreigners are slightly mad,’ he explained to me in a stage whisper. I’m just living up to the stereotype. Believe me, it’s the best thing to do.’

The Jewel of Ethiopia

The next morning we arrived at the Maritime Authority pier at 5 a.m. There was no sign of activity and Richard, who was wrapped in a blanket against the cold, muttered something about the '*maambfak* syndrome'.

'What's that?' I asked.

'Many appointments are made but few are kept,' the historian grumbled.

Within half an hour, however, the captain of the MV *Dahlak* had arrived. So too had a clean-shaven young man in a well cut suit who introduced himself as Wondemu and informed us, with great humility, that he was the Second Deputy-Assistant Regional Administrator: 'Yesterday afternoon my boss received a phone call from Comrade Shimelis Mazengia in Addis telling him that we should look after you. I immediately reported to your hotel but you were

not present. Then from Reception I learned about this research you are conducting today. So,' he concluded with a broad smile, 'here I am.'

By 5.45, shivering in the dawn chill, we were on the water and making good headway towards Daga Stephanos some twenty miles to the north. Above the mountains ringing the eastern shore of the huge lake the sun was already rising. A fresh breeze carried the sounds of birdsong and of barking dogs.

Before too long Richard and Wondemu disappeared into the cabin to chat and drink tea. Entranced by the view, by the invigorating Alpine quality of the air, and by the romance of travel, I remained on deck gazing out at the ever-shifting lacustrine panorama and fretting subliminally about exactly how much this little pleasure cruise was going to cost me. To reach Daga, the captain had said, would take about two and

a half hours. Since we would need to be on the island for at least that long and would then require a further two and a half hours to get back, it looked like I was going to end up shelling out almost 400 dollars.

I was interrupted in this slightly depressing piece of mental arithmetic by the striking spectacle of two native long boats with high, curved prows pulling out towards us from the distant shore. Silhouetted in the pink light of the early sun I could discern five or six men crouched down inside each vessel wielding paddles which, in unison, they raised and dipped into the water, raised and dipped, raised and dipped.

Known as *tankwas*, I remembered from my previous visit in 1983 that local craft such as these were a common sight on Lake Tana. The two now running briefly parallel to us, but heading in the opposite direction, were much larger than any that I had seen before. Nevertheless they were clearly of the

same basic design, being made of bundles of papyrus reeds bound together.

Having spent a considerable fraction of the previous few months studying archaeological sites in Egypt I was now able to confirm with my own eyes something which I knew that several historians had already observed – namely that the Ethiopian *tankwas* bore an uncanny resemblance to the reed boats used by the Pharaohs for transportation, hunting and fishing on the Nile.[2] I had seen representations of high-prowed vessels just like these in frescoes decorating the tombs in the Valley of the Kings and also in reliefs carved into the temple walls at Karnak and Luxor.

Not for the first time I found myself wondering whether the ancient Egyptians had ever visited the Tana area. It was not just the similarity in boat design, suggestive as it was of a strong cultural influence, that led me to this speculation, but

also the lake's importance as the principal reservoir of the Blue Nile.

Tana is not itself officially regarded as the source of that great river, identified as twin springs, in the mountains to the south, that were visited by Bruce and by other travellers before him.[3] At these springs rises a river known as the 'Little Abai' which flows across the southern edge of the lake (there is a discernible current) and then out again as the 'Big Abai', the local name for the Blue Nile.

To all intents and purposes, however, as geographers and engineers now accept,[4] the Blue Nile's real source *is* Lake Tana, which is fed not only by the 'Little Abai' but also by many other rivers, thus draining a huge expanse of the Abyssinian highlands. Indeed, with a surface area of 3,673 square kilometres, this vast inland sea provides an estimated six-sevenths of the total volume of water in the combined

streams of the Blue and the White Niles.[5] Most important of all, it is Ethiopia's long rainy season – which causes a veritable flood to race out of Lake Tana and along the Blue Nile – that has been responsible since time immemorial for the annual inundation that brings silt and fertility to Egypt's Delta. By comparison the longer White Nile – which loses more than half of its volume in the swamplands of southern Sudan – contributes almost nothing.[6]

As I sat watching the papyrus-reed *tankwas*, therefore, it seemed to me inconceivable that the priests of Karnak and Luxor – who worshipped the Nile as a life-giving force and also, symbolically, as a blessed god – would not at some stage in their long history have made their way to Ethiopia. There were no records to prove this, just another hunch; but nevertheless, in the numinous dawn glow of that November morning, I felt confident that the ancient Egyptians must at

some point have visited Tana – and venerated it.

Certainly the Greek geographer Strabo, who lived around the time of Christ and who was deeply versed in Egyptian learning, was aware (as later scholars were not) that the Blue Nile rose in a giant lake in Ethiopia, a lake which he called 'Pseboe'.[7] In the second century AD the Egyptian geographer Claudius Ptolemy expressed a similar opinion, although the name that he gave to Tana was 'Coloe'.[8] I also thought that the Athenian dramatist Aeschylus might have been inspired by more than just poetic fancy when he wrote hauntingly in the fifth century BC of 'a copper-tinted lake … that is the jewel of Ethiopia, where the all-pervading sun returns again and again to plunge his immortal form, and finds a solace for his weary round in gentle ripples that are but a warm caress.'[9]

These, I knew, were not the only references linking the

mysterious waters of Lake Tana to the ancient cultures of Greece, Egypt and the Middle East. As I sat on the deck of the MV *Dahlak en route* to Daga Stephanos I also remembered that the Abyssinians themselves firmly believed the Blue Nile to be nothing less than the Gihon of Genesis 2:13 – 'the second river' that 'compasseth the whole land of Ethiopia'. This, furthermore, was a very old tradition,[10] almost certainly pre-Christian, and thus added considerable weight to the notion that the lake, together with its rivers and islands, might indeed have some genuine connection with the Ark of the Covenant.

It was therefore with a certain flush of optimism that I looked ahead, across the intervening miles, to the green slopes of Daga island rising above the shining waters like the peak of some submerged mountain.

Daga Stephanos

It was around 8.30 when we finally moored at Daga. The sun was now high in the sky and, despite the altitude (Tana stands more than 6,000 feet above sea level), the morning was hot, humid and breathless.

We were met on the wooden jetty by a delegation of monks dressed in astonishingly dirty robes. They had obviously been monitoring our approach for some time but did not appear to be in the least bit pleased to see us. Wondemu had a word with them and eventually, with obvious reluctance, they led us through a small banana plantation and then up a steep, winding path towards the summit of the island.

As we walked I stripped off the pullover I had been wearing, stretched my arms and took a few deep breaths. The track that we were following passed through the midst of a dense forest of tall gnarled trees, the leaves of which formed

a canopy above us. The air was laden with the loamy scent of freshly turned earth and with the fragrance of tropical flowers. Bees and other large insects buzzed industriously about and, in the distance, I could hear the monotonous ringing of a traditional stone bell.

Eventually, some 300 feet above the surface of the lake, we began to come across low round buildings with thatched roofs – the dwellings of the monks. Next we passed under an arch set into a high stone wall and finally entered a grassy clearing at the centre of which stood the church of Saint Stephanos. This was a long rectangular structure, curved at the ends, with a covered walkway extending all around it.

‘Doesn’t look all that old,’ I said to Richard.

‘It isn’t,’ he replied. ‘The original building was burnt down in a grass fire about a hundred years ago.’

‘I suppose that would have been the one that they brought

the Ark to in the sixteenth century?'

'Yes. In fact there's probably been some sort of church on this site for at least a thousand years. Maybe even for longer than that. Daga is reckoned to be one of the holiest places on Lake Tana. Because of that the mummified bodies of five former emperors are kept here.'

Wondemu, in his self-appointed role as our guide and interlocutor, had been talking quietly to some of the monks. Now he detached one member of the group – whose vestments were slightly cleaner than those of his fellows – and led him by the hand towards us. 'This,' he announced proudly, 'is Archpriest Kifle-Mariam Mengist. He will answer all your questions.'

The archpriest, however, seemed to have ideas of his own on this subject. His wrinkled, prune-like features registered a curious mixture of hostility, resentment and greed. In silence

he sized Richard and me up, then turned to Wondemu and whispered something in Amharic.

‘All …,’ sighed our guide, ‘I am afraid he wants money. It is to purchase candles, incense and … er … other necessary church items.’

‘How much?’ I asked.

‘Whatever you feel is appropriate.’

I proposed 10 Ethiopian birr – about 5 US dollars – but Kifle-Mariam indicated that this sum was not sufficient. Indeed, he declared, the proffered note was so lacking in the quality of sufficiency that he could not even bring himself to detach it from my fingers.

‘I think you should pay more,’ Wondemu hissed politely in my ear.

‘I’ll be happy to do that, of course,’ I said. ‘But I’d like to know what I’ll be getting in return.’

‘In return he will talk to you. Otherwise he says he has much to do.’

We settled, after further debate, on 30 birr. The money was quickly folded and conjured away in some noisome fold or pouch in the priestly robes. Then we strolled over to the arcade surrounding the church and sat down in the shade beneath the overhanging eaves of the thatched roof. Several of the other monks followed us and lurked about looking self-consciously contemplative and pretending not to listen to our conversation.

Kifle-Mariam Mengist began by telling us that he had been on the island for eighteen years and had become an expert on all matters concerning the monastery. As though to prove this point he then launched into a kind of potted history – which went on, and on, and on.

‘Right,’ I interrupted after Wondemu had given me the drift

of this boring speech. ‘I *do* want to get a general picture. But first I’d like to ask the archpriest a specific question – which is this: I’ve heard it said that the Ark of the Covenant was brought here in the sixteenth century when Axum was attacked by the armies of Ahmed Gragn. Does he know this story? And is it true?’

Fifteen or twenty minutes of incomprehensible argument followed, at the end of which Wondemu announced that the priest definitely did not know the story. Moreover, since he did not know it, he was not able to tell us whether it was true or not.

I tried a different tack. ‘Do they have a *tabot* of their own? Here. Inside this church?’ Through the open doorway behind us I pointed expressively towards the entrance of the Holy of Holies, which was just visible in the gloom within.

After another Amharic question-and-answer session

Wondemu announced: ‘Yes. Of course they have their *tabot*.’

‘Good. Well I’m glad we’ve established that at any rate. Now, ask him this: does he accept that their *tabot* is a copy – a replica – of the original *tabot* in Axum?’

‘Perhaps,’ came the enigmatic reply.

‘I see. OK. Well in that case I’d like you to ask him whether he knows anything at all about the Ark of the Covenant. How it came to Axum. Who brought it. Things like that. Get him to tell us the story in his own words.’

An immediate and perfunctory response was given to this question. ‘He says he does not know the story,’ Wondemu translated rather mournfully. ‘He says he is not an authority on such matters.’

‘Is there anyone else who is?’ I asked in exasperation

‘No. Kifle-Mariam Mengist is the senior priest on the island. If he does not know then it is impossible that anyone else will

know.'

I looked at Richard: 'What's going on here? I've never, never *ever*, met an Ethiopian priest who didn't know the *Kebra Nagast* story about the Ark.'

The historian shrugged: 'Nor have I. It's very peculiar. Perhaps you should offer him … a further inducement.'

I groaned. It always came down to money in the end, didn't it? If a few more birr was what it would take to get this tight-lipped old bastard talking, however, then it would be best to pay up quickly. After all, I'd come all the way from London to check Daga Stephanos out – and even now the MV *Dahlak* was moored at the jetty with its meter running at the rate of approximately a dollar a minute. With grim resignation I passed over another small handful of crumpled notes.

This latest act of generosity, however, did me absolutely no

good at all. The priest had nothing further to say on any subject of interest. When this had finally sunk in – and it took some time – I leaned back against one of the pillars that supported the roof, inspected my fingernails, and tried to decide what to do next.

There were, I realized, two possible explanations for the apparent ignorance of Kifle-Mariam Mengist. One, the least likely, was that the man was genuinely stupid. The other, more probable by far, was that he was lying.

But why should he lie? Well, I reasoned, there were two possible explanations for that as well. The first – and the least likely – was that he had something important to hide. The second – more probable by far – was that he wanted to extract further notes from my rapidly diminishing wad of Ethiopian currency.

I stood up and said to Wondemu: ‘Ask him again. Ask him

if the Ark of the Covenant was brought here from Axum in the sixteenth century … and ask him whether it's here now. Tell him I'll make it worth his while if he'll show it to me.'

Our guide raised a quizzical eyebrow. What I had just proposed was not in good taste. 'Go on,' I urged. 'Just ask him.'

More Amharic, then this from Wondemu: 'He says the same as before. He does not know about the Ark of the Covenant. But he also says that nothing has been brought to Daga Stephanos from outside for a very long time.'

The group of monks who had been standing in a semi-circle eavesdropping on my conversation with Kifle-Mariam Mengist dispersed at this point. One of them, however – barefoot, toothless and dressed in such poor rags that he would have passed for a beggar on any street in Addis Ababa – accompanied us as we walked back down the steep track to

the jetty. Before we climbed on board the launch he pulled Wondemu aside and whispered something in his ear.

‘What was that?’ I asked sharply, expecting a further demand for payment of some kind.

Money, however, turned out not to be the issue this time. Wondemu frowned: ‘He says that we should go to Tana Kirkos. Apparently we will learn something about the Ark there … something important.’

‘What’s Tana Kirkos?’

‘It is another island … east of here. Quite far.’

‘Ask him to tell us more. What does he mean by something important?’

Wondemu put the question again and translated the answer. ‘He says that the Ark of the Covenant is on Tana Kirkos. That is all he knows.’

My first reaction to this astonishing piece of news was to

roll my eyes heavenwards, tug distractedly at my hair, and kick the side of the launch. Meanwhile the monk, whom I wanted more information from, had hobbled back along the jetty and vanished into the banana grove.

I looked at my watch. It was now almost noon. We had been out of Bahar Dar for six hours, or 300 dollars.

'Is Tana Kirkos on our way back?' I asked Wondemu.

'No,' he replied, 'I have never been there. No one ever goes there. But I know it is more or less due east. Bahar Dar is south.'

'I see. Any idea how long it will take us?'

'No. I shall ask the captain.'

Wondemu did that. It would take us about an hour and a half.

'And after that, how long back to Bahar Dar?'

'About three more hours.'

I did some rapid calculations in my head. Say two hours on Tana Kirkos, plus an hour and a half to get there, plus three hours to Bahar Dar … that's six and a half hours. Call it seven, plus the six we've already had. That's, let's see, thirteen hours. *Thirteen* bloody hours! At fifty bucks an hour. Six hundred and fifty dollars minimum. Christ!

I fulminated inwardly for some time longer. Eventually, however – with a heart as heavy as my wallet was light – I made up my mind to go.

Of course the Ark wouldn't actually *be* on Tana Kirkos. I knew that. In fact the most likely scenario was that I would be given the run-around again, just as on Daga Stephanos. Money would be extracted from me in dribs and drabs until the point was reached where I was obviously not prepared to hand over any more. Then another tantalizing little hint would be dropped naming yet another island – and off I

would go, banknotes at the ready, to enrich yet another community of needy anchorites.

James Bruce, I remembered, had been to Tana in the eighteenth century. ‘There are forty-five inhabited islands in the lake,’ he had written, ‘if you believe the Abyssinians, who, in everything, are very great liars …’[11]

Tana Kirkos

I was not in a receptive frame of mind when we arrived at Tana Kirkos. Nevertheless, as I stood in the bows of the MV *Dahlak* scowling at the island ahead, I had to admit that it was a beautiful and unusual place. Completely covered in dense green shrubbery, flowering trees and tall cactus plants, it rose steeply from the water to a high peak on which I could just make out the thatched roof of a circular dwelling.

Hummingbirds, kingfishers and bright blue starlings darted through the air. On the shore of a small sandy bay, on a makeshift jetty, stood a group of monks. Smiling.

We dropped anchor and clambered out of the boat. Wondemu did the usual round of introductions and explanations. Hands were shaken. Lengthy greetings were exchanged. Finally we were led up a narrow, overgrown path cut out of the side of a grey cliff, through an archway at the top – again hewn out of the bare stone – and finally into a clearing containing three or four dilapidated buildings and a dozen ragged monks.

Set back behind natural rock walls, the grassy space in which we stood was enclosed, silent and dark. The light that did penetrate, filtered as it was through the overarching trees and bushes, seemed muted and green. Against my better judgment, I began to suspect that there might be something

worth seeing here after all. I could not have explained why, but Tana Kirkos felt ‘right’ in a way that Daga Stephanos had not.

The senior priest now arrived and introduced himself, through Wondemu, as Memhir Fisseha. He was lean and smelled of incense. He did not ask for money, but he did ask whether or not we had security clearance.

I was nonplussed by such a question, coming as it did from a traditional figure in clerical robes.

‘As a matter of fact,’ I said, ‘yes we do.’ I pulled from my pocket the permit we had obtained from the security police in Addis and gave this to Wondemu, who in turn passed it to Memhir Fisseha. The old man – were all priests in Ethiopia so old? – studied the document with an abstracted air and then handed it back to me. He seemed to be satisfied.

Wondemu now explained that I wanted to ask some

questions about Tana Kirkos and about the Ark of the Covenant. Would that be OK?

'Yes,' the priest replied, rather sadly I thought. He directed us to the doorway of what, from the blackened pots and pans lying inside, appeared to be a kitchen. Here, on a small stool, he sat down, indicating that we should join him.

'Do you believe,' I began, 'that the Ark of the Covenant was brought from Jerusalem to Ethiopia by Emperor Menelik I?'

'Yes,' Wondemu translated.

I heaved a sigh of relief. This was already *much* better than Daga Stephanos.

'I have heard a story', I continued, 'that the Ark is now here – on the island of Tana Kirkos. Is that story true?'

An anguished expression crossed Memhir Fisseha's leathery face as he answered: 'It was true.'

Was true? What on earth did that signify? 'Get him to

elaborate,' I barked at Wondemu in some agitation. 'What does he mean by *was* true?'

The priest's response excited and distressed me in roughly equal measure: 'It was true. But the Ark of the Covenant is not here any longer. It has been taken to Axum.'

'Taken back to Axum!' I exclaimed. 'When? When did they take it?'

An intense discussion followed in Amharic, with the main point obviously being clarified several times. Finally Wondemu translated: 'The Ark was taken to Axum one thousand six hundred years ago, in the time of King Ezana. It was not taken *back*. It was simply taken there, and it has stayed there ever since.'

I felt perplexed and frustrated. 'Let me get this clear,' I said after a moment's thought. 'He's not telling us that the Ark was here recently and has now gone back to Axum, is he?

He's telling us that it went there a very long time ago.'

'Exactly. One thousand six hundred years ago. That is what he says.'

'OK, then ask him this. How did the Ark get here in the first place? Did it come here from Axum, and then go back there? Or was it here *before* it was ever taken to Axum? That seems to be what he means, but I want to be absolutely sure.'

Slowly and painfully the story emerged. Extracting it was like extracting the stump of a rotten tooth from an inflamed gum. Several times consultation was required with the other monks and once a huge, leather-bound book written in ancient *Ge'ez* was referred to and a passage read out.

In summary, what Memhir Fisseha told us was that the Ark had been stolen from the Temple of Solomon in Jerusalem by Menelik I and his companions. They had brought it out of Israel, he explained, and into Egypt. Then they had followed

the Nile – first the Nile and afterwards its tributary the Takazze – until they had reached Ethiopia.

This, of course, was the tradition of the theft of the Ark reported in the *Kebra Nagast*. What came next, however, was completely new.

Looking for somewhere safe and appropriate where they might install the precious relic, the old priest continued, the travellers had come to Tana. At that time, he said, the entire lake was sacred. It was dear to God. A holy place. So they had come to Tana, to its eastern shore, and they had chosen this island, now called Kirkos, as the resting place for the Ark.

'How long did it stay here?' I asked.

'For eight hundred years,' came the reply. 'It blessed us with its presence for eight hundred years.'

'Was there a building? Was it put into some sort of

temple?'

'There was no building. The Holy Ark was placed inside a tent. And it stayed within that tent, here on Tana Kirkos, for eight hundred years. We were Jews then. Afterwards, when we became Christians, King Ezana took the Ark to Axum and placed it in the great church in that city.'

'And you say the Ark was taken to Axum one thousand six hundred years ago?'

'Yes.'

'So if it was on Tana Kirkos for eight hundred years before that, then – let's see – it must have arrived here something like two thousand four hundred years ago. Is that right? Are you telling me it came here about four hundred years before the birth of Christ?'

'Yes.'

'You do know that 400 BC was a long time *after* Solomon –

who was supposed to be Menelik's father? In fact Solomon would have been dead for about five centuries by then. What do you say to that?'

'I say nothing. I have told you our tradition as it is recorded in our sacred books and in our memory.'

A remark that the priest had made a few moments earlier had interested me enormously, and I now picked him up on this: 'You told me that you were Jews then? What did that mean? What kind of religion did you have?'

'We were Jews. We performed sacrifice … the sacrificial lamb. And we continued with this practice until the Ark was taken from us to Axum. Then Abba Salama came and he taught us the Christian faith, and we built a church here.'

Abba Salama, I knew, was the Ethiopic name for Frumentius, the Syrian bishop who had converted King Ezana and the entire Axumite kingdom to Christianity in the 330s

AD. This meant that the periods of time that Memhir Fisseha had given me made sense – or at least were internally consistent. The only contradiction was the huge gap between the known dates for Solomon – mid 900s BC – and the date that the Ark had supposedly been brought to Tana Kirkos (which, if I subtracted eight hundred years from 330 AD, would have been 470 BC).

I pressed on: 'Before Abba Salama came and taught you Christianity you had no church here?'

'No church. I told you. We were Jews. We performed sacrifice.' He paused, then added: 'The blood from the lamb was collected in a bowl … a *gomer*. Then it was scattered over some stones, some small stones. They are here still, up to this day.'

'Sorry. Come again. What are here to this day?'

'The stones that we used for sacrifice when we were Jews.

Those stones are here. On the island. They are here now.'

'Can we see them?' I asked. I felt a tiny thrill of excitement. If what Memhir Fisseha had just said was true, then he was talking about physical evidence – real physical evidence to support the strange but curiously convincing story that he had told.

'You can see them,' he replied. He got to his feet. 'Follow me. I will show you.'

Scattering the blood

The priest led us to a high point on the cliff edge near the summit of the island, overlooking Lake Tana. Here, on a raised plinth made of natural unhewn rock, he showed us three short stone pillars grouped closely together. The tallest of the three – perhaps a metre and a half high – was square

in section, with a cup-shaped declivity hollowed out in its top. The remaining two were each about a metre high, circular in section, and as thick as a man's thigh. At the top they also had been hollowed out to a depth of approximately 10 centimetres.

Though copious quantities of green lichen grew on them I was able to establish that the three pillars were all monoliths, that they were freestanding, and that they had been carved from the same type of grey granite. They looked old, and I asked Richard for his opinion on this.

'Of course,' he replied, 'I'm not an archaeologist. But I would say from the way they are cut, the style – particularly the square one … I would say they are at least from the Axumite period, if not earlier.'

I asked Memhir Fisseha what the cup-shaped declivities were for.

‘To contain blood,’ was his answer. ‘After the sacrifice, some was scattered over the stones and some on to the tent that contained the Ark. The remainder was poured into these hollows.’

‘Can you show me how it was done?’

The old priest beckoned one of the other monks and gave him an instruction in a low voice. He strode off and returned a few minutes later carrying a wide but shallow bowl so corroded and tarnished with age that I could not even guess of what metal it was made. This, we were told, was the *gomer* in which the sacrificial blood was first collected.

‘What exactly does *gomer* mean?’ I asked Wondemu.

He shrugged: ‘I don’t know. It is not an Amharic word, nor Tigrigna. It does not sound like it belongs to any Ethiopian language.’

I looked to Richard for enlightenment but he confessed

that he was not familiar with the word either.

Memhir Fisseha said simply that it was called a *gomer* and had always been called a *gomer* and that was all he knew. He then positioned himself next to the stones with the bowl in his left hand, dipped into it with his right forefinger, swept his right hand above the level of his head and commenced an up-and-down motion. 'The blood was scattered in this way,' he said, 'over the stones and over the tent of the Ark. Afterwards, as I told you, what was left was poured thus.' He then tipped the bowl sideways above the cup-shaped hollows in the tops of the pillars.

I asked the priest if he knew where exactly on the island the Ark had been kept in its tent. All he would say, however, was 'near here … somewhere near here'.

I then sought clarification of our earlier discussion: 'You told me that it was taken from Tana Kirkos to Axum one

thousand six hundred years ago. Is that correct?'

Wondemu translated the question. Memhir Fisseha nodded affirmatively.

'OK,' I continued. 'Now what I want to know is this: has it ever been brought back here? At any time, for any reason, has the Ark ever come back to this island?'

'No. It was taken to Axum and it stayed in Axum.'

'And as far as you are aware it is still there to this day?'

'Yes.'

No further information seemed likely to be forthcoming, but I was more than satisfied with what I had got – particularly since the information given had at no point been bartered for money. Grateful for this I handed over a 100 birr note as a voluntary contribution to the monastery's expenses. Then, with Memhir Fisseha's permission, I set about photographing the sacrificial pillars from a variety of

different angles.

We were back in Bahar Dar shortly before eight that evening. We had been out and about on Lake Tana for more than fourteen hours and the final bill for the hire of the MV *Dahlak* came to 750 US dollars.

36 The Blue Nile Falls near Lake Tana, Ethiopia.

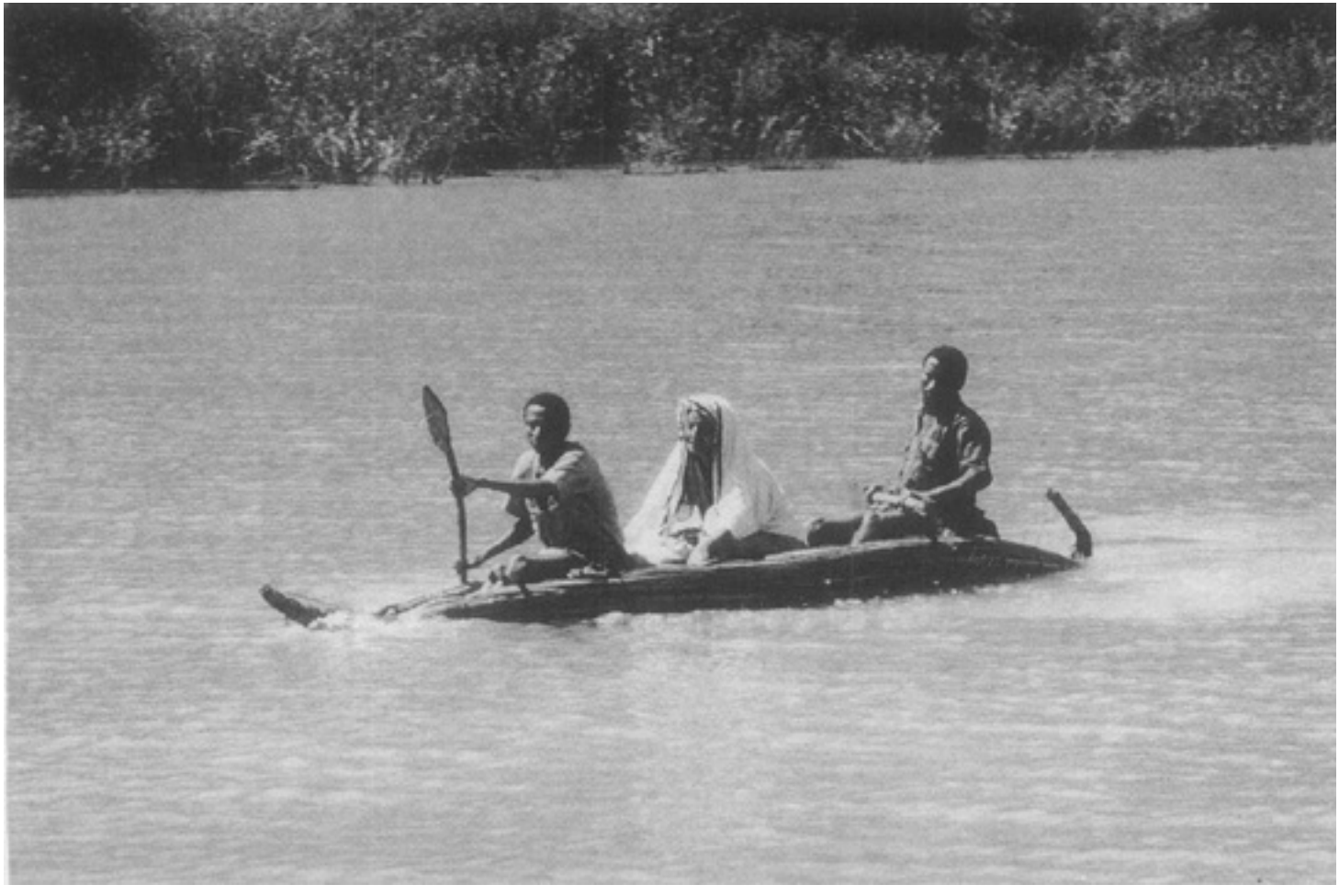

37 Papyrus-reed boat on Lake Tana.

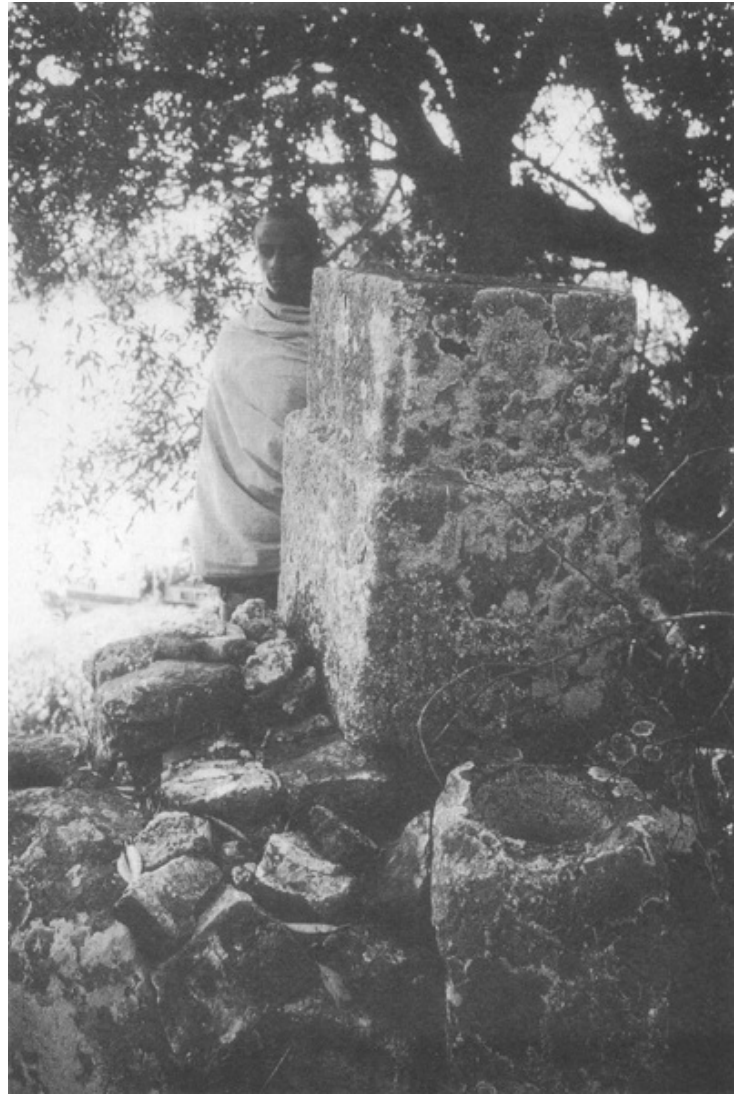

38 Hollowed stones on the island of Tana Kirkos, said to have been used to contain blood during sacrifices in the presence of the Ark of the Covenant. The monks claim that the Ark remained on their island for eight hundred years before being taken to Axum.

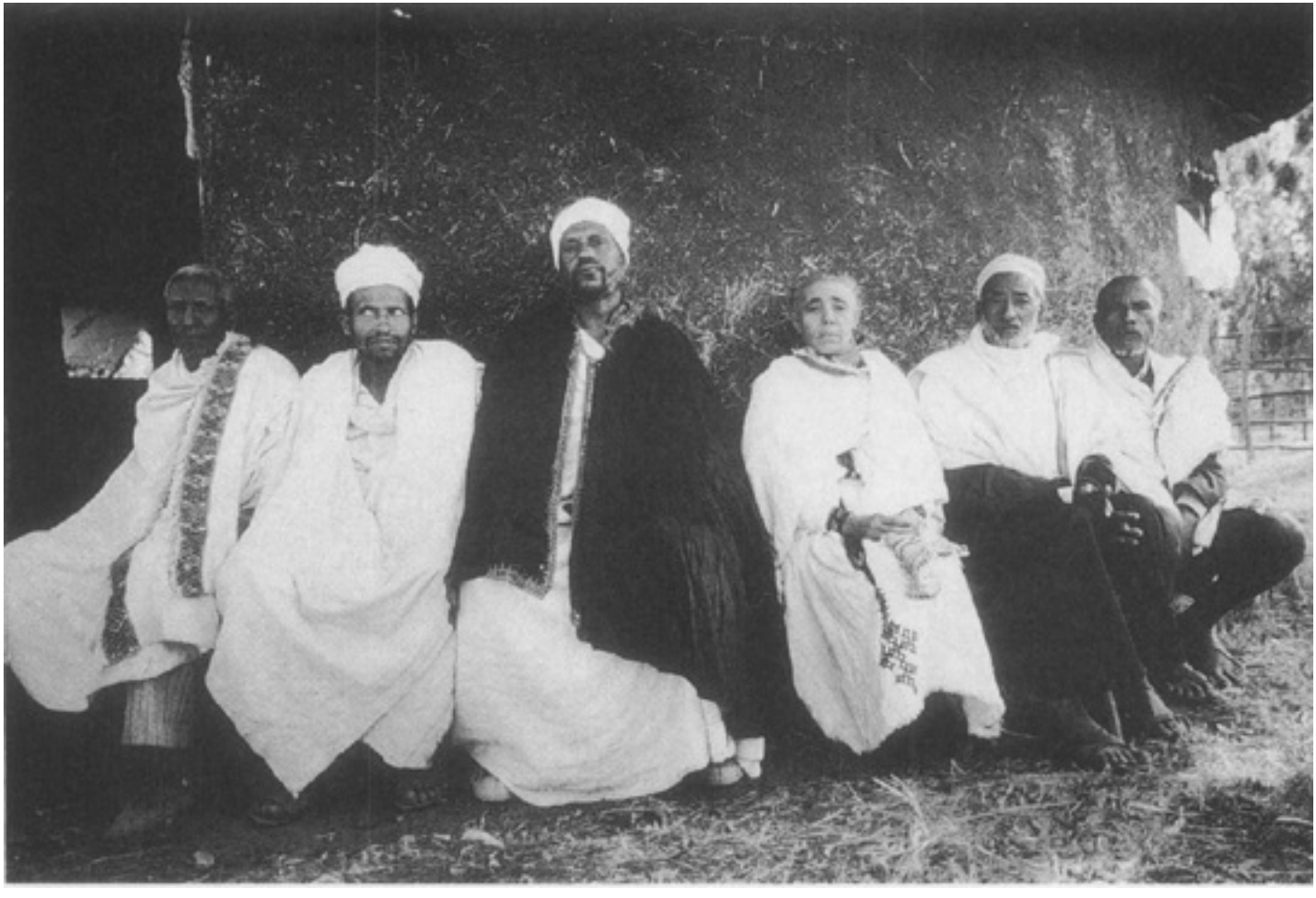

39 Qemant High Priest, centre, in dark cloak.

The Qemant, a pagan tribe whose religion nevertheless contains strong elements of Judaism, say that they came to Ethiopia ‘from the land of Canaan.’

40 Falasha priest at the village of Anbober, near Gondar, photographed in 1990.

A year later almost all of Ethiopia’s Falasha population had been airlifted to Israel.

41 Falasha priest displaying a copy of the Torah witten in *Ge'éz*, the ancient liturgical language of Ethiopia. The illumination shows the prophet Moses holding the Ten Commandments.

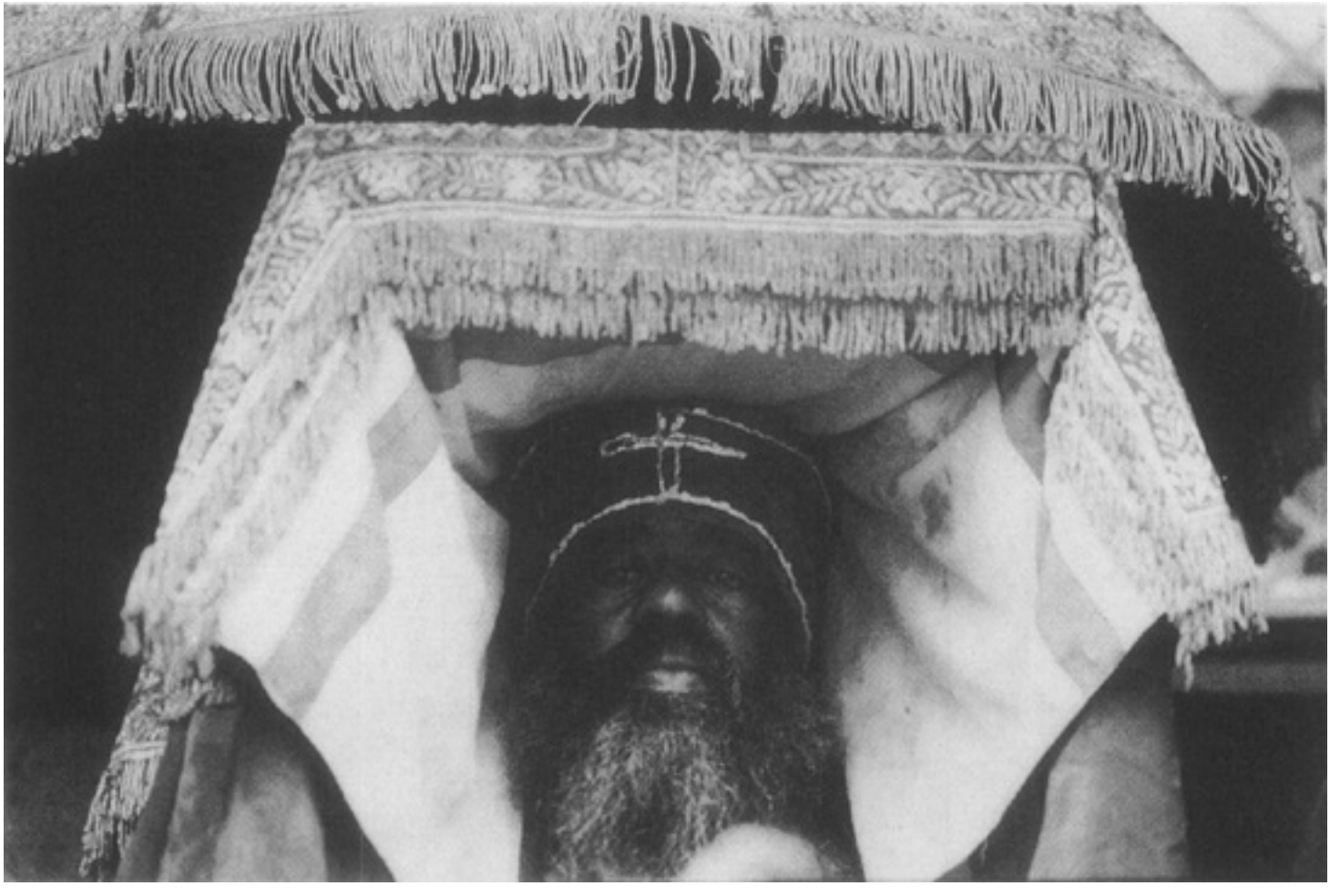

42 and 43 Christian priests at Gondar carrying *Tabots* on their heads during the

Timkat ceremony.

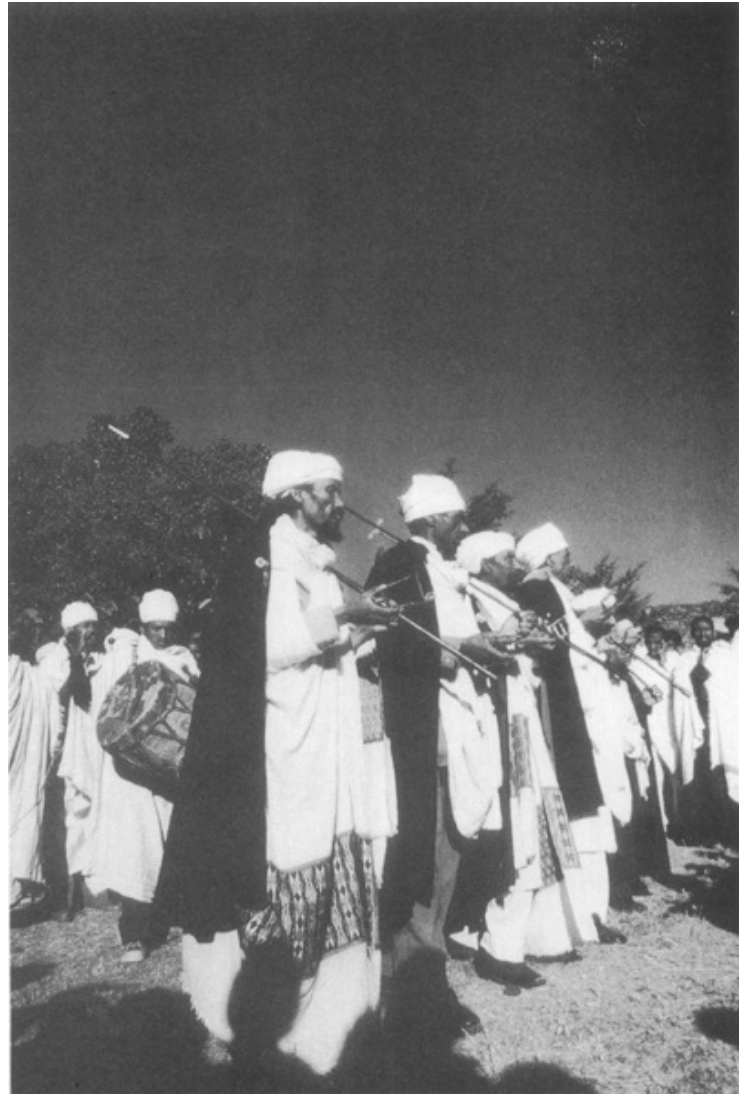

44 Christian priests performing the dance of David before the Ark during the *Timkat* ceremony at Gondar.

45 *Timkat* reveller in traditional warrior's head-dress.

46 Ethiopian priests with sistra. Musical instruments exactly like these were used

in religious ceremonies in Israel in Old Testament times.

47 The medieval castle and baptismal pool that provide the focus for the climax

of the *Timkat* ceremony in Gondar.

It had been, by any standards, a costly day. I no longer begrudged the expense, however. Indeed, the doubts that had beset me so forcefully on Daga Stephanos had been completely banished by Tana Kirkos and I felt that I could now continue the quest with a renewed sense of commitment and optimism.

This positive mood received a further boost back in Addis Ababa. There, before I set out for the planned trip to Lake Zwai on Thursday 23 November, I had the opportunity to visit the University Library and examine a number of references concerning the use of sacrificial stones in Old Testament Judaism.

What I discovered was that pillars similar to those that I had seen on Tana Kirkos had been associated with the very

earliest phases of the religion – both in Sinai and in Palestine. Known as *masseboth*, they were set up as altars on high places and were used for cultic and sacrificial purposes.[12]

I then looked in the Bible to see if I could find any specific details concerning the proper performance of sacrifices in Old Testament times. I did find such details and, as I read and re-read the relevant passages, I realized that what Memhir Fisseha had described to me on the island had been an authentic and very ancient ceremony. No doubt much had become muddled and confused in the memories of the tradition that had been handed down from generation to generation. When he had talked about the scattering of blood, however, he had been astonishingly close to the mark.

In Chapter 4 of the book of Leviticus, for example, I came across this verse: 'And the priest shall dip his finger in the blood, and sprinkle of the blood seven times before the Lord,

before the veil of the sanctuary.'[13] Likewise in Chapter 5 I read: 'And he shall sprinkle of the blood of the sin offering upon the side of the altar; and the rest of the blood shall be wrung out at the bottom of the altar.'[14]

It was not until I turned to the Mishnah, however, the compilation in written form of early oral Jewish law, that I realized just how authentic Memhir Fisseha's account in fact had been. In the tractate known as *Yoma*, in the second division of the Mishnah, I found detailed descriptions of the sacrificial rituals carried out by the High Priest within Solomon's Temple in front of the curtain that shielded the Ark of the Covenant from the gaze of the laity.

I read that the blood of the victim – whether lamb, goat, or bullock – was collected in a basin and given 'to one that should stir it up … so that it should not congeal'. Then the priest, having emerged from the sanctuary, 'took the blood

from him that was stirring it and entered again into the place where he had entered and stood again on the place whereon he had stood, and sprinkled the blood once upwards and seven times downwards.'[15]

And where, exactly, did the priest sprinkle this blood? According to the Mishnah he sprinkled it 'on the curtain outside, opposite the Ark, once upwards and seven times downwards, not as though he intended to sprinkle upwards or downwards, but as though he were wielding a whip … He then sprinkled the cleansed surface of the altar seven times and poured out the residue of the blood.'[16]

It seemed to me highly improbable that Memhir Fisseha had ever read the Mishnah. As a Christian he would have no reason to do so; nor would he have had access to such a book on his remote island; nor could he have understood any of the languages into which it had been translated. Yet his hand

movements, when he had shown me how the scattering of the blood was done, had been precisely those of a man wielding a whip. And he had spoken confidently of the blood being poured not only upon the altar stones but also ‘on the tent of the Ark’.

The correspondences were too close to be ignored and I felt sure that at some time in the distant past an object of great religious significance had been brought by Jews to the island of Tana Kirkos. Despite the chronological inconsistency in the supposed date of its arrival, there was also every reason to suppose – as Memhir Fisseha himself had so obviously believed – that that object might indeed have been the Holy Ark of the Covenant.

Chapter 10

Ghost in a Maze

During the discussions on Tana Kirkos a comment that the priest had made to me just before he had got to his main point had aroused my curiosity. That comment – the implications of which I now wanted to investigate further in the library at the Institute of Ethiopian Studies – had been to do with the *route* that the Ark had followed on its journey to Ethiopia. After being stolen from the Temple of Solomon in Jerusalem, the priest had said, it had first been carried into Egypt and from there had been brought to Lake Tana by way of the Nile and the Takazze rivers. Despite all the research

that I had done during the previous few months, I realized that I had never given serious consideration to the question of Menelik's itinerary. I therefore wanted to see what the *Kebra Nagast* had to say on the matter. I also wanted to know if there was anything in it that specifically contradicted the priest's assertion that the Ark had spent eight hundred years at Tana Kirkos before being taken to Axum.

The only relevant information that I could find in the great epic was contained in Chapter 84. There it was reported that Menelik and his travelling companions had brought the sacred relic to a place called *Debra Makeda* after their arrival in Ethiopia.[1] To my surprise there was no mention of Axum whatsoever. 'Debra Makeda', wherever it might have been, was clearly and unambiguously highlighted as the Ark's first home in Ethiopia. At a stroke this cleared up one of the more serious factual inconsistencies that had bothered me since

1983 – namely that the city of Axum had not been founded until about eight hundred years after the date of Menelik's supposed journey.[2] Several of my original informants had told me that Axum had been the final destination of that journey and that the Ark had been lodged there from the outset[3] – which, of course, would have been historically impossible. Now, however, I could see that the *Kebra Nagast* made no such claim and said only that Menelik and his companions had brought the relic from Jerusalem to 'Debra Makeda'. I knew that the word 'debra' meant 'mountain' and that 'Makeda' was the name given in Ethiopian tradition to the Queen of Sheba. 'Debra Makeda' therefore meant 'Mount Makeda' – the Queen of Sheba's mountain.

In the *Kebra Nagast*'s brief description I saw nothing to suggest that this 'Queen of Sheba's Mountain' might actually have been Tana Kirkos. By the same token, however, I could

find nothing that ruled that possibility out. Seeking further clues I then referred to an authoritative geographical survey of Lake Tana carried out in the 1930s and learned that 'Kirkos' was a name that had been given to the island in relatively recent times (in honour of a Christian saint). 'Before the conversion of Ethiopia to Christianity,' the survey added, 'Tana Kirkos was called *Debra Sehel.*'[4] The obvious question immediately formed itself in my mind: what, exactly, did *Sehel* mean?

To find out I consulted several of the scholars who were then studying in the library. They told me that it was a *Ge'ez* word rooted in the verb 'to forgive'.

'Would I be right', I asked, 'in assuming that a correct translation of the full name *Debra Sehel* would be something like "Mount of Forgiveness"?'

'Yes,' they replied. 'That is correct.'

Now this was interesting. In Wolfram von Eschenbach's *Parzival*, as I remembered very well, the location of the Grail castle – and of the Grail Temple – was given as *Munsalvaesche.*[5] There had been some debate over the exact interpretation of this word *Munsalvaesche*; more than one Wolfram expert, however, had suggested that behind it lay 'the biblical *Mons Salvationis*, Mount of Salvation'.[6]

There could be no doubt that the notions of 'forgiveness' and 'salvation' were linked – since in order to be 'saved', in the religious sense, one must first be 'forgiven'. Moreover, as Psalm 130 puts it: 'If thou, Lord, shouldest mark iniquities … who shall stand? But there is *forgiveness* with thee … Let Israel hope in the Lord: for with the Lord there is mercy, and with him is plenteous *redemption.*'[7]

'Redemption' is, of course, a close synonym for 'salvation'.[8] I therefore could not help but wonder whether Wolfram's

‘Mount of Salvation’ might not in some way have been associated with Ethiopia’s ‘Mount of Forgiveness’ – now known as Tana Kirkos.

I was fully aware that speculation of this kind could only ever be tenuous and that it was a long jump indeed from *Debra Sehel* to *Munsalvaesche*. Nevertheless, after my many readings of *Parzival*, I could hardly forget that the mystical Grail Temple (‘smooth and rounded as though from a lathe’[9]) had stood on a lake – and quite possibly on an island on that lake.[10] Nor did it seem entirely irrelevant that Ethiopian Orthodox churches and Falasha places of worship were traditionally circular in shape[11] – as were the majority of Templar churches (including several still standing to this day such as the twelfth-century Temple Church off London’s Fleet Street). I therefore felt that there were certain correspondences in all of this which it might be unwise for

me to ignore entirely (though it would be equally unwise to read too much into them).

Meanwhile there was another and rather less tentative link to consider – that between *Debra Sehel* and *Debra Makeda.* As the former name of Tana Kirkos made clear, Ethiopian islands could acquire the prefix *Debra* (meaning 'Mount'). And, indeed – rising steeply to a high peak that towered above the surface of the lake – Tana Kirkos had looked to me very much like a mountain when I had first set eyes on it. This certainly did not prove that the *Kebra Nagast* had been referring to *Debra Sehel* when it had spoken of the Ark being taken to the Queen of Sheba's mountain. I reasoned, however, that it did at least elevate the island to the status of a candidate for that distinction.

With this established, I moved on to consider the question of the route that Menelik and his companions had followed

on their journey. Previously I had always assumed that the travellers had gone by ship – from Solomon's port of Eziongeber (modern Elat on the Gulf of Aqaba),[12] and thence down the Red Sea to the Ethiopian coast. Now, as I pored over the copy of the *Kebra Nagast* provided to me by the librarian, I discovered that my earlier assumption had been quite wrong. Menelik's long journey from Jerusalem had involved a substantial caravan and had been overland throughout.[13]

But *what* overland route had been followed? The description of the trek given in the *Kebra Nagast* had the dreamlike, miraculous and surreal quality of imaginative storytelling, in which recognizable place names and geographical features were not easy to find. Nevertheless there were some details that were both specific and important. After leaving Jerusalem the travellers had first

made their way to Gaza (on Israel's Mediterranean coast, where a city of that name still exists). From there, presumably following the well established trade route across the northern edge of the Sinai peninsula,[14] they had crossed into Egypt where, not long afterwards, they had arrived at a great river: 'Let us let down the wagons,' they said at this point, 'for we have come to the water of Ethiopia. This is the Takazze which floweth down from Ethiopia and watereth the valley of Egypt.'[15] It was clear from the context that Menelik and his companions were *still* in 'the valley of Egypt' when they uttered these words – and probably not far south of the site of modern Cairo. The river beside which they had let down their wagons could therefore only have been the Nile. What was striking, however, was that they had immediately identified it with the Takazze – the same great Ethiopian tributary that the priest had mentioned to me on Tana

Kirkos.

From the librarian I obtained an atlas and traced the Takazze's course with my fingertip. I found that it rose in Abyssinia's central highlands not far from the ancient town of Lalibela, took a winding path in a north-westerly direction through the Simien mountains, merged with the Atbara in the Sudan, and finally joined the Nile proper some hundreds of miles to the north of the modern city of Khartoum (which stands at the confluence of the Blue and White Niles).

Looking at the map I could immediately see two other things: first that the Nile – from an Ethiopian perspective – might easily have come to be regarded as an extension of the Takazze;[16] secondly that it would have been entirely sensible for the caravan carrying the Ark of the Covenant to have followed the Nile and then the Takazze in order to reach Ethiopia. The alternative would have been to proceed much

further southwards through the hostile deserts of the Sudan as far as the confluence of the two Niles and then to follow the Blue Nile into the highlands. However – since the latter river makes a wide curving detour to the south before turning north again towards Lake Tana – this would have required an unnecessarily lengthy expedition; the Takazze route, by contrast, was the best part of a thousand miles shorter.

The map made something else clear as well: a group of travellers following the Takazze to its headwaters would, near the end of their journey, have reached a point less than seventy miles from the eastern shore of Lake Tana. And Tana Kirkos lay not far off that same eastern shore. There was thus no mystery surrounding the tradition that the little island had been the first resting place of the Ark in Ethiopia: indeed, casting around for somewhere safe and close to install the

sacred relic, Menelik and his companions could hardly have made a better choice.

Three men in a boat

The next morning when Richard Pankhurst and I travelled to Lake Zwai we were accompanied by an old friend of mine, Yohannes Berhanu, the General Manager of the state-owned National Tour Operation. The three of us met up just before 6 a.m. at the NTO offices, where Yohannes had thoughtfully provided a chauffeur-driven Toyota Landcruiser. Twenty minutes later we had left the slums and skyscrapers of Addis Ababa behind and were rumbling along the broad highway that led south through the town of Debra Zeit into the heart of the Great Rift Valley.

Discounting the Koka reservoir, which is man-made, Lake

Zwai is the northernmost of Ethiopia's string of Rift Valley lakes. It has a surface area of some two hundred square miles and a maximum depth of about fifty feet. Oval in shape, it is studded with islands and has marshy shores overgrown with reeds that provide an ideal habitat for storks, pelicans, wild ducks, geese and fish eagles – as well as for great numbers of hippopotami.

Our destination, after the two-hour drive from Addis Ababa, was a jetty on the southern side of the lake. Here we had been told that the Ministry of Fisheries owned and operated a number of boats, one of which would surely be provided for us at minimal cost. Predictably, however, all the larger vessels had gone fishing. Only a single small motorboat was available – and there was no fuel for its outboard engine.

A lengthy palaver followed with the Ministry staff who

explained that the motorboat wasn't really big enough to take Richard, Yohannes and me as well as a pilot. Debra Zion, the island to which I had been told that the Ark had been brought for safekeeping in the tenth century, was distant: at least a three-hour journey in this humble craft. Furthermore, with no deck to shelter under, we would be grievously afflicted by the sun. Perhaps, therefore, we would care to come back tomorrow when more suitable transport could be arranged?

Yohannes vehemently declined this suggestion. Professor Pankhurst and Mr Hancock, he said, had important appointments in Addis Ababa tomorrow – appointments which could not under any circumstances be altered. We must, therefore, reach Debra Zion today.

More discussions followed and eventually we trooped along the jetty and sat experimentally in the tiny motorboat.

Arranged around its sides we did more or less fit into it, although our combined weight forced it rather low in the water.

What to do? The Fisheries officials seemed dubious but at last agreed to let us have our way. The vessel was ours. They would provide a pilot. And there would be no charge. We, however, would have to arrange for the fuel ourselves. Perhaps we could send our driver into the nearest town with a jerrycan?

We did this. A vast and completely inexplicable delay then ensued. One hour passed. Then another. Growing impatient I stood at the end of the jetty and made the acquaintance of several marabou storks: huge, lugubrious, long-beaked, bald-headed birds obviously descended from pterodactyls. Finally our driver returned with the necessary fuel and – just after 11 a.m. – we started up the outboard motor and set off.

We puttered, very slowly, through the rippling waters, passing one densely wooded island, then another. The reed-fringed shoreline receded and then disappeared behind us, there was no sign of Debra Zion, the sun was now directly overhead, and the boat was leaking in a small but noticeable way.

At this point Yohannes Berhanu rather pointedly reminded us that the lake was full of hippopotami (which he described as ‘very aggressive and untrustworthy animals’). He was, I observed, wearing a life-jacket that he must somehow have acquired before our departure from the jetty. Meanwhile, Richard Pankhurst’s nose was turning an interesting shade of lobster pink. And I … well I was gritting my teeth and trying to ignore the implications of an increasingly full bladder. Where was that bloody island? And when exactly were we going to get there? I looked impatiently at my watch and was

suddenly overtaken by a faint but definite sense of the ridiculous. I mean, *Raiders of the Lost Ark* was one thing but this, to be honest, was more like *Three Men in a Boat*.

The journey to Debra Zion did not take as long as we had been told it would; nevertheless it took quite long enough and I was the first on to dry land when we finally arrived. I dashed past the delegation of monks waiting to greet us, disappeared behind the nearest bush and emerged again some minutes later feeling very much better.

When I rejoined the others, who were deep in conversation with the welcoming committee, I noticed a number of papyrusreed boats lined up along the shore. They seemed identical in every respect to those I had seen on Lake Tana. I was on the point of asking about this when Yohannes interrupted my chain of thought by announcing excitedly: ‘Graham. There is something strange here. It seems that the

mother-tongue of these people is Tigrigna.'

This was strange indeed. We were now in the southern part of the province of Shoa, an Amharic-speaking area. Tigrigna, on the other hand, was the language of the sacred city of Axum and of the province of Tigray – hundreds of miles to the north. I knew from direct experience that Ethiopia was a country in which regional distinctions, particularly linguistic distinctions, had very profound implications (profound enough, anyway, to lead to civil war). It was therefore most surprising to find that Amharic was not the first language of the monks of Debra Zion.

Nor, as it turned out, did this peculiarity apply only to the monks. We quickly established that every inhabitant of the island, including the farmers and the fishermen, routinely conversed in a dialect of Tigrigna and only used Amharic (which many of them did not speak at all well) on the rare

occasions when they were visited by government officials.

As we hiked up the winding path to the top of the hill where Debra Zion's main church was sited I asked: 'How come you all speak Tigrigna?'

'Because our forefathers came from Tigray,' the monks replied through the medium of Yohannes.

'When did they come?'

'It was around one thousand and thirty years ago.'

I did some quick mental arithmetic. One thousand and thirty years from 1989 gave a date of AD 959. The tenth century, I thought. The century in which Queen Gudit had overthrown the Solomonic dynasty and in which the Ark of the Covenant had supposedly been taken out of Axum and brought to Debra Zion for safekeeping. Without really having begun to interview anybody it was already beginning to look very much as though the tradition reported to me by Belai

Gedai had some substance to it.

‘Why did they come?’ I asked next. ‘Get them to tell us the story of how and why they came here.’

Yohannes put this to the monks and then translated their answer: ‘You see, their forefathers came here with the *tabot*. It was in the time of Gudit. She attacked the Christians in Tigray. There was much fighting. They were escaping from her. And they came here with the *tabot*.’

‘Which *tabot*?’

‘They say it was the *tabot* from the Church of Saint Mary of Zion in Axum.’

‘By that do they mean the original *tabot* that was brought by Menelik from Jerusalem to Ethiopia? The Ark of the Covenant in other words. Or do they have some other *tabot* in mind? I want to be absolutely clear on this point.’

Yohannes manfully plunged into this minefield of

interpretation while we carried on walking up the steep hill. Much argument and debate followed before he finally commented: ‘I do not think they are very clear themselves. But they say that it is written … that it is all written in a book, kept here in the church, and that we should discuss the whole matter with their senior priest.’

Stolen history

Five minutes later we arrived at the church which, I was not entirely surprised to discover, was dedicated to Saint Mary of Zion. It was a plain and unpretentious wattle-and-daub building, whitewashed on the outside and surmounted by a simple cross. The view that it commanded from its position on the hilltop was, however, superb, giving us some idea of the extent of this large island. Behind us, from the direction

we had come, the path wound back through fields dotted with the poor huts of peasant farmers. Ahead of us the land sloped steeply away to the lake's edge through a forest of acacia trees and cactus.

The senior priest, Abba Gebra Christos, now presented himself. A small wiry man, probably in his late sixties, he wore a thin grey beard and a threadbare two-piece suit, around the shoulders of which he had draped a length of white cotton cloth in traditional highland fashion. His manner was welcoming and genial enough but there was also a foxy and calculating look about him that seemed to forebode imminent financial transactions.

I nervously fingered the greasy wad of birr that I had stuffed into my pocket before leaving Addis and resolved to pay only for high-quality information. Then, making as little song and dance as possible, I switched on my tape-recorder

and asked my first question: did he know the story of how Menelik had abducted the Ark of the Covenant from the Temple of Solomon in Jerusalem?

Yes, Yohannes translated, of course he did.

And did he know what had happened next?

Menelik, the priest replied, had brought the Ark to Ethiopia where it remained to this day.

'Is he sure', I asked 'that this was the original Ark of the Covenant, containing the Ten Commandments inscribed on the Tablets of Stone by the finger of God?'

Yohannes put the question and Abba Gebra Christos replied gravely: 'Yes. I am sure.'

'OK. Good. Now tell me … was this same original Ark ever brought here to Lake Zwai – to Debra Zion?'

'Yes,' said the priest, 'at the time of Gudit the Ark was brought here from Axum.'

‘But *why* was it brought here?’ I asked. ‘I mean, why here? Why such a long way? Surely there must have been hundreds of secret places where it could have been hidden in Tigray?’

‘Listen … This Gudit … she was a devil. She burned many churches in Tigray. And in other regions of Ethiopia. It was a time of great fighting, great danger. Our forefathers were very much afraid that she would capture the Ark. So they brought it out of Axum and they carried it to Zwai where they knew that it would be safe. They travelled only by night, hiding by day in forests and in caves. They were very much afraid, I tell you! But in this way they evaded her soldiers and they brought the Ark to Zwai and to this island.’

‘Do you know how long it remained here?’

With no hesitation at all Abba Gebra Christos replied: ‘After seventy-two years it was returned back to Axum.’

Now, I thought, was the right time to pop the sixty-four

thousand dollar question: ‘Has there been any other occasion’, I asked tentatively, ‘when the Ark has been brought here again for safekeeping? Perhaps recently?’

Again there was no hesitation: ‘Never.’

‘So as far as you know it is still in Axum?’

‘Yes.’

‘Even now – with all the fighting going on in Tigray?’

He shrugged: ‘I believe so. But that is only my opinion. To find out truly you must ask those in Axum.’

Another thought now occurred to me: ‘When we were walking up here,’ I said, ‘some of the monks told us that you have an ancient book in which is written the history of how the Ark came to Debra Zion in Gudit’s time. Is that correct? Do you have such a book?’

As Yohannes translated this question, the wizened features of Abba Gebra Christos formed themselves into the

expression of one who has just tasted something unexpectedly sour. He responded readily enough, however: ‘Yes, there is a book.’

‘Can we see it?’

A momentary hesitation, then: ‘Yes … But the part concerning the Ark is no longer there.’

‘I’m sorry. I don’t follow. What do you mean exactly?’

‘About twenty years ago a certain man came and cut some pages from the book and took those pages away with him. They were the pages in which the story of the Ark was told.’

‘This man. Was he a foreigner? Or was he an Ethiopian?’

‘Well, he was an Ethiopian. But since that time we have not been able to track him down.’

As I considered the implications of this last answer I could not help but reflect on the bizarre and convoluted nature of the enterprise that I was now involved in. Was the matter of

the unknown man who had cut an unknown number of pages from an unknown book something that should concern me? Or was it an irrelevance? Was I picking up the traces of someone else's quest for the Ark of the Covenant? Or was I dealing simply with a local manuscript hunter who twenty years ago had made a fast buck on the antiquities market with the sale of a few illuminated folios?

I suspected that I might never know. Pursuing the Ark through Ethiopia was turning out to be far more daunting and difficult than I had ever imagined. Indeed it was something like pursuing a ghost through a maze. Avenues that seemed promising and open from one perspective turned out, on closer examination, to be impassable dead ends; by contrast apparent dead ends had more than once transformed themselves into paths to understanding.

I sighed, refocussed my mind on the immediate issue, and

told Abba Gebra Christos that even if the most important pages were missing, I would still very much like to see the book that he had mentioned. Perhaps he would allow us to photograph it?

This suggestion produced a flurry of nervous objections. No, the old priest said, he could not possibly let us do that. Photographs were out of the question unless specific written permission were given by the Patriarch of the Ethiopian Orthodox Church in Addis Ababa. Did we by any chance have such permission?

No, we did not.

Then, regretfully, we could not photograph the book. We could, however, *see* it if that was what we wanted.

I indicated that we would be grateful even for that small mercy. Abba Gebra Christos nodded sagely, led us inside his church and walked over to a cupboard near the back of the

humble building. A tremendous pantomime ensued as he searched in all his pockets for the necessary key – which, after some moments, he confessed that he could not find.

A young deacon was then summoned and sent off somewhere. Ten minutes later, panting and out of breath, the boy returned clutching a bundle of at least twenty keys. One after another these were tried in the lock and eventually – to my considerable surprise – the door was opened. The cupboard, however, was almost bare and the one book that it contained proved to be an early twentieth-century work donated to the church by Princess Zauditu, the daughter of Emperor Menelik II.

At this point Abba Gebra Christos suddenly remembered an important fact: the manuscript we wanted to see was not in the church after all. A few weeks ago he himself had taken it to the repository, which was in a separate building some

distance away. If we would like to accompany him he would show it to us there.

I looked at my watch, decided there was just enough time before we had to leave the island, and gave my assent to this plan. A lengthy hike followed and we eventually arrived at a rather decrepit stone-built two-storey house. The priest ushered us grandly into a dank and musty rear room, around the walls of which were arranged dozens of wooden chests and garishly painted tin trunks. After a moment of indecision he advanced towards one of these trunks and threw back its lid revealing a pile of books within. He lifted out the topmost of these – a weighty tome with pages made of cured sheepskin – and passed it over to me.

Richard Pankhurst and Yohannes crowded round as I opened the volume. They immediately confirmed that it was written in *Ge'ez*. Moreover it was undoubtedly very old:

‘From the style of the illuminations, and from the binding, I would guess thirteenth century,’ volunteered Richard. ‘It’s certainly not later than the fourteenth century. There’s no doubt that it’s an early work. Probably very valuable.’

Eagerly we began to turn the pages. At no point, however, was there any indication that anything had been removed. As far as we could tell the manuscript was intact. We pointed this out to Abba Gebra Christos, who had been standing silently watching us, and asked him whether he was absolutely certain that this was the book he had talked to us about.

As it turned out, it was not. Apologetically the old priest then rummaged in a number of other boxes around the room, passing us a series of ancient manuscripts.

‘It’s quite amazing,’ Richard commented at one point. ‘So many old books. A real treasure trove. And they’re just lying

here in complete disarray. They could get damp. They could get stolen. Anything could happen to them. I wish we could move the whole lot of them to the Institute.'

The last volume we looked at was a wood-bound and beautifully illuminated copy of the Ethiopian Book of Saints. It too was intact. When we had finished going through it Richard nudged me in the ribs: 'I think,' he said, 'that we're not getting anywhere here.'

I nodded: 'I think you're right. And it's really late. We'd better go or we'll end up having to cross the whole lake in the dark.'

Before leaving, however, I asked Yohannes to make a final attempt to get some sense out of the priest. Was the book that told the story of the Ark really here or not?

Certainly it was here, Abba Gebra Christos insisted. Of course it was here. The only problem was that he was no

longer certain in which box he had placed it. If we would care to wait – just a little longer – he was sure that he could locate it …

This was an offer that I felt safe in declining. It seemed to me that the old man was being deliberately evasive – and if that were the case then presumably it meant that he was hiding something. But what? Not, I thought, the Ark itself. Perhaps not even the notorious book. But something, definitely.

Puzzled and a little piqued I led the way back to the motorboat. We said our farewells. Then, with at least an hour of sunlight still left in the sky, we headed out onto the still waters of Lake Zwai.

I wrote in my notebook:

> I don’t believe there is any purpose in spending

further time investigating Debra Zion. After interviewing the monks and the senior priest I feel quite certain that the importance of the island lies solely in the strength of its *ancient* traditions concerning the Ark of the Covenant. Broadly speaking these traditions seem to confirm what Belai Gedai told me in one of our telephone conversations – namely that the Ark was brought to Debra Zion in the tenth century to keep it safe from Gudit, that it stayed here for about seventy years, and that it was then returned to Axum.

The fact that the mother-tongue of all the islanders is Tigrigna rather than Amharic is strong 'social' evidence in support of the oral history I was given – because the only logical explanation for such an ethnographic peculiarity is that there

was indeed a movement of population from the Axum area to Debra Zion in the distant past. Something as momentous as the need to bring the Ark to safety could certainly account for a migration of this sort. Moreover, if the relic did stay here for as long a period as seventy years before being taken back to Axum, then it's quite easy to see why some of the descendants of the original migrants would have wanted to stay on the island, which would have been the only home they knew. It's also to be expected that they would have maintained a folk memory of the glorious events in which their forefathers were involved.

That folk memory is what I've spent most of the afternoon listening to. In the process some

intriguing local mysteries surfaced. At no point, however, did I get any sense at all that the Ark might actually be here now. On the contrary, I feel confident in saying that it isn't here – and, furthermore, that it hasn't been here for the best part of a thousand years.

Since the same goes for the islands of Lake Tana as well it's becoming transparently obvious that Axum is still the most probable place for the relic to be. In other words, like it or not, I'm going to have to go to Axum. The best time to do that would be in January during *Timkat*, which is the one occasion when I might be able to get close to the Ark without having to gain access to the sanctuary chapel. And *Timkat* 1770 was when Bruce was there – presumably for the same

reason.

I closed my notebook and looked up at Richard and Yohannes. ‘Do you think there’s any possibility,’ I asked, ‘that the government will have captured Axum by January? I’d really like to get there in time to attend the next *Timkat*.’

Yohannes said nothing. Richard made a face: ‘A nice idea. But you might as well plan to fly to the moon.’

‘Well,’ I said, ‘it was just a thought.’

It was after dark when we finally moored the motorboat at the Ministry of Fisheries jetty, and almost 10 p.m. by the time we reached the sprawling outskirts of Addis Ababa. We instructed our driver to head for Yohannes’s office in the centre of town where we had parked our cars that morning (there were still two hours left before curfew and our plan was to grab a quick dinner at a nearby restaurant). As we

climbed down out of the Landcruiser, however, we heard a prolonged burst of automatic rifle fire which seemed to come from an apartment block just across the road. Seconds later there were two short answering bursts from a different weapon. Then a profound silence fell.

'What on earth was that all about?' I asked.

'Probably nothing serious,' Richard offered. 'There have been a few isolated incidents since the attempted *coup* … shootings here and there. But nothing major.'

'Nevertheless,' said Yohannes gravely, 'I think that it would be wise for us to abandon dinner. Let us all go to our homes.'

An ethnographic fingerprint

Back at the Hilton I slept soundly and awoke before seven the next morning – Friday 24 November. I then took a turn in the

pool, had breakfast and telephoned the office of Shimelis Mazengia. The Politburo member had asked Richard and me to report back to him after completing our trips to Lake Tana and Lake Zwai. His secretary now told me that she had been expecting my call and gave us an appointment for three o'clock that same afternoon.

Satisfied with this arrangement, and determined to bring up the question of *Timkat* and Axum despite Richard's pessimism, I left the hotel and drove round to the Institute of Ethiopian Studies.

My research on Wednesday the 22nd had established the plausibility of the Nile/Takazze route mentioned in the *Kebra Nagast* and also by the priest on Tana Kirkos.[17] What I wanted to do now was to test out a hypothesis that had subsequently taken rough shape in my mind. It seemed to me that if Menelik and the first-born sons of the elders of Israel

had indeed brought the Ark to Tana Kirkos by following the Takazze river, then this would have had implications for the distribution of the Jewish faith in Ethiopia. If there was some truth to the legend, I reasoned, then the traditional epicentre of the Falasha population should lie between the Takazze and Lake Tana – since it would have been in precisely this area that Menelik would first have begun to convert the local population to Judaism. If the legends were false, however, then I might expect to find that the bulk of the Falashas lived elsewhere – most likely much further north and close to the Red Sea (since academic orthodoxy had it that their forefathers had been converted by Jewish immigrants from the Yemen).

I turned first to James Bruce, whose early work on the Falashas had already impressed me so much. In Volume III of his *Travels* I knew that the Scottish author had devoted a

chapter to what might loosely be termed the 'social geography' of eighteenth-century Ethiopia. Though I did not remember the contents of this chapter very clearly I hoped that it would have something to say about the location of the principal Falasha settlements at that time.

I was not disappointed. Bruce's survey began in the north of Ethiopia – at the Red Sea port of Massawa – and worked inland from there. Several ethnic groups were covered but no mention was made of the Falashas in either Eritrea or Tigray. 'After passing the Takazze', however, the country stretching to the south and west as far as Lake Tana was described as being:

> in great part possessed by Jews, and there [the] king and queen of that nation and, as they say, of the house of Judah, maintain still their ancient

sovereignty and religion from very early times.[18]

Writing in the nineteenth century (about eighty years after Bruce) the German missionary Martin Flad had recorded a similar distribution of population, noting that the Falashas lived in a total of fourteen provinces – all of which lay 'west of the Takazze'.[19]

The modern sources that I next reviewed painted the same picture. The vast majority of Ethiopia's Jews inhabited the territory to the west and south of the Takazze river: this was their traditional homeland and their occupation of it was ancient beyond memory.[20] One particularly detailed and authoritative study included a map in which the entire area of Falasha settlement was shaded – a long but relatively narrow strip extending south-west from the Takazze through the Simien mountains and the city of Gondar and then going

on, without any interruption, to encompass the whole of Lake Tana.[21]

It would have been difficult to find more telling support for my hypothesis that this – with the unique impetus provided by the presence of the Ark on Tana Kirkos – had been precisely the area in which the conversion of native Abyssinians to Old Testament Judaism had been concentrated. On the basis of my own research (see Chapter 6) I had anyway begun to doubt the merits of the academic theory which held that the Jewish faith had first been imported into the far north of Ethiopia from the Yemen at some point after AD 70. Hitherto my dissatisfaction with such notions had stemmed mainly from their failure to explain the extremely archaic nature of Falasha beliefs and rituals (again, see Chapter 6). Now the ethnographic evidence made the case against the 'Yemeni connection' look even stronger: on

the map, the area in which the Falashas lived stood out like a tell-tale fingerprint confirming that the religion of Solomon could only have entered Ethiopia from the west – through Egypt and the Sudan along the ancient and well-travelled trade routes provided by the Nile and Takazze rivers.[22]

The virtue of patience

At three sharp, Richard and I kept our appointment with Shimelis Mazengia. The Politburo member first of all wanted to hear how our trips to Lake Tana and to Lake Zwai had gone. Had we been successful? Had we found anything out?

I replied that our discoveries on Tana Kirkos island – and the strange, archaic traditions that had been reported to us there – had had a profound effect on my thinking. I was now almost certain that this was the region to which the Ark of

the Covenant had first been brought before being taken to Axum.

‘So you really believe that we have the Ark?’ Shimelis asked with a smile.

‘I’m increasingly confident of that. The evidence is building up …’ I hesitated, then turned his question back on him: ‘What do you think?’

‘I think there is something very special in the sanctuary at Axum. Not necessarily the Ark, mind you, but something very special. It is an ancient tradition. It cannot completely be ignored.’

I asked whether his government had ever made a determined effort to find out whether the sacred – and immensely valuable – relic was really there or not. The Workers’ Party of Ethiopia were Marxists, after all, and so presumably were not hampered by reactionary superstitions.

It was only quite recently that they'd lost Axum to the TPLF. Prior to that, hadn't they ever thought of taking a look?

'We never for a moment considered it,' Shimelis replied. 'Never for a single moment … If we had tried to do something like that I think we would have had' – he smiled ironically – 'a revolution on our hands. Our people are very traditional, as you know, and there would have been an explosion if any government official had ever involved himself in such a matter.'

'Do you think the TPLF have the same attitude?' I asked. 'Now that they control Axum, I mean.'

The Politburo member shrugged: 'That is not for me to say. But they are not renowned for their religious sensitivities …'

I was a little hesitant about putting my next question, but did so anyway: 'I'm sorry if this sounds impertinent,' I said, 'but I've got to ask. Is there any chance at all that your side is

going to win the city back in the immediate future?'

'Why do you ask?'

'Because I've come to the conclusion that I'm going to have to go there myself. In fact I'd like to get there for the next *Timkat* celebrations.'

'You mean this coming January?'

I nodded my head.

'Impossible,' said Shimelis flatly. 'Besides, why be in such a hurry? If you are right, then the Ark has already been in our country for three millennia. In another year, two at the most, we will recapture Axum and when we do I think I can promise that you will be the first foreigner into the city. So be patient. You will get your chance.'

I had to admit that this was sound advice. In a country like Ethiopia patience was almost always a virtue. I was not prepared to wait two years, however. I therefore silently

resolved to aim for Axum not in January 1990, but in January 1991. The confidence that Shimelis had shown had impressed me and I hoped very much that the sacred city would be back in government hands by then. Meanwhile, however – just as a precaution – I thought that I might also try to open up some dialogue with the TPLF. I had hitherto avoided the rebels but it now seemed to me that it might be in my interests to make some preliminary overtures in their direction.

I looked across the table at Shimelis. 'You're right of course,' I said. 'But would you mind if I asked you another favour?'

With an eloquent hand gesture, the Politburo member indicated that I should go ahead.

'I'd still like to attend a *Timkat* ceremony,' I continued, 'and since Axum is obviously out of the question I was

wondering whether I might be able to go to Gondar this January instead.'

Beside me Richard coughed politely. The city that I had just named was reportedly besieged by rebel forces and there had been rumours that it might fall any day.

'Why Gondar?' Shimelis asked.

'Because it's in the Lake Tana area – which, as I said, I've identified as being closely associated with the early history of the Ark in this country. And because I understand that many Falashas still live in and around Gondar. I remember passing through Jewish villages just north of the city way back in 1983, but I didn't have a chance to carry out any proper interviews at that time. So what I'd like to do, if it's OK with you, is kill two birds with one stone. I'd like to attend *Timkat* in Gondar. And while I'm there I'd like to carry out some research amongst the Falashas.'

‘It may be possible,’ replied Shimelis. ‘It depends on the military situation, but it may be possible. I shall look into it and let you know.’

Chapter 11
And David danced before the Ark …

On 18 and 19 January 1770 the Scottish adventurer James Bruce had quietly attended the *Timkat* ceremonials in Axum and, as outlined in Chapter 7, I believed that he had done so in order to get as close as possible to the Ark of the Covenant.

Exactly two hundred and twenty years later – on 18 and 19 January 1990 – I attended *Timkat* in the city of Gondar to the north of Lake Tana. Moreover, although I had not shared my true feelings with either Richard Pankhurst or with Shimelis Mazengia, I saw this trip as being of pivotal significance to my quest.

Immersed as I was in the great historical mystery that connected the Ark to Ethiopia, it had become clear to me that sooner or later, somehow or other, I was going to have to go back to Axum. I had resolved to try to make that hazardous visit in January 1991 – and to make it under the auspices of the rebels if necessary. I therefore saw Gondar as a crucial 'dry run': the closest point to Axum still in government hands, it was also, like Axum, a former capital of Ethiopia, an important historic site and a centre of religious learning. In such a setting, I reasoned, I might hope to prepare myself spiritually and psychologically for the real ordeal that lay ahead, to familiarize myself with aspects of the same arcane rituals that Bruce must have witnessed in 1770, to gather such intelligence as I could, and to quicken my commitment to the quest.

This, however, was not the only voice within me. Other,

less steadfast thoughts also passed through my mind and I could see the possibility of a different outcome. If, for example, I were to discover anything at Gondar which cast serious doubt on the legitimacy of Ethiopia's claim to be the last resting place of the Ark then might I not – with honour – abandon my plan to go to Axum in 1991?

This was a disturbing but oddly seductive notion to which I found myself increasingly attracted as the date of the Gondar trip approached. That trip itself was for a while in doubt – indeed it was not until 8 January 1990 that I finally received a telex from Shimelis confirming that the necessary permission had been obtained from the military authorities.

Riddles to solve

I knew that I could expect a central feature of the *Timkat*

ceremonies to be the carrying in procession of the *tabotat* – the symbols or replicas of the Ark of the Covenant normally kept in the Holy of Holies of every Ethiopian church. Of course in Gondar I would not see the object which the Ethiopians claimed to be the Ark itself (since there was no suggestion that it had ever been lodged there). What I would see, however, was an event otherwise identical in character that was regarded as the supreme festival of the Ethiopian Orthodox calendar.

I had been aware for some time that *Timkat* meant 'Epiphany' – a holy day associated by the western church with the manifestation of Christ to the Gentiles.[1] Epiphany, however, had an entirely different significance amongst eastern Christians, for whom it commemorated the Baptism of Christ.[2] I had established that the Ethiopians were in complete agreement with the rest of the eastern church on

this latter point, but that they diverged radically from the norm when it came to the specific rituals employed.[3] In particular, their use of the *tabot* was unique to them, unparalleled in any other culture and unrecognized even by the Coptic Patriarchate in Alexandria[4] (which had supplied Ethiopia with all its archbishops from the date of the conversion of the Axumite kingdom in AD 331 until autocephaly was achieved in 1959[5]).

Against this background I felt that close observation of the *Timkat* rituals and of the role of the *tabotat* within them might help me to fathom what I had long since come to regard as the central paradox of Ethiopian Christianity – namely its infiltration, indeed domination, by a pre-Christian relic: the Ark of the Covenant.

This, however, was not my sole purpose in making the trip to Gondar. While there I also intended to talk to Falashas

living in the environs of the city.

I had already mentioned this to Shimelis and he had not objected – for the simple reason that much had changed since my previous visit to the area in 1983. Then, driving north from Gondar into the Simien mountains, official policy had made it almost impossible to do any serious work amongst the black Jews: their villages had been effectively out of bounds and there had been no opportunity to observe their customs or to carry out proper interviews.

This repressive state of affairs had been swept away in November 1989 when, after a sixteen-year break, Addis Ababa and Jerusalem had restored diplomatic relations. At the heart of this agreement was a commitment on Ethiopia's part to allow the Falashas – *all* the Falashas – to emigrate to Israel. By then, anyway, there were few enough left – probably no more than 15,000.[6] All the others had died

during the famines of the mid-1980s or had already fled clandestinely to Israel via refugee camps in the Sudan (from which, during 1984/5 alone, the airlift known as 'Operation Moses' had taken more than 12,000 to safety[7]).

The net effect of all this, by January 1990, was that the number of Ethiopian Jews was dwindling fast. In the three months since the restoration of diplomatic relations some 3,000 of them had left the country. Many more had deserted their villages and flocked to Addis Ababa hoping for an early place on the planes out. Inexorable and unstoppable, this latter-day Exodus was gathering pace, and I could see that very soon not a single Falasha would be left in Ethiopia. Thereafter, of course, it would still be possible to interview them and research their folklore and traditions in the Promised Land. This, however, would almost certainly be the last year in which it would be possible to get any impression

at all of their traditional life in its traditional surroundings.

I was determined not to miss this chance: the riddle of how there had ever come to be Jews – indigenous, black Jews – in the heart of Ethiopia was intimately connected to the enigma of the Holy Ark; solve one, I felt, and I would solve the other.

Neither were the Falashas the only ethnic group of interest to me in the Gondar area. In the week of research that I had done just prior to my departure from England I had turned up an intriguing reference to another people – a people known as the Qemant who were described as 'Hebraeo-Pagans' in the single anthropological paper written about them.[8] Published in 1969 by an American scholar named Frederick Gamst, this obscure monograph observed that:

> The Hebraism found among the Qemant is an ancient form unaffected by Hebraic religious

> change of the past two millennia. This Hebraism is dominant in the religion of the Falasha, neighbours of the Qemant … sometimes called 'the black Jews of Ethiopia'.[9]

I had hitherto been completely unaware of the Qemant and was therefore intrigued by Gamst's suggestion that their religion contained ancient 'Hebraic' elements. This, I felt, was a matter that obviously merited further investigation since it might help to shed light on the antiquity of Judaic influence in Ethiopia – and also on the pervasiveness of that influence.

The One God and the fetish tree

In his study of the Qemant Gamst had mentioned that he had been befriended by a religious leader who had helped him

enormously with his field work in the 1960s. The name of this dignitary, I knew, was Muluna Marsha and his title was *Wambar* (a word meaning 'High Priest' in the Qemant language). In the short time available, it seemed to me that my best strategy would be to try to locate this man (whom Gamst had described as a mine of information) and to interview him about the religious beliefs of his people. I could not be sure, however, whether he would still be alive after so many years – or even whether I would be able to find any Qemant still adhering to the traditional Hebraeo-Pagan faith (since there had been less than five hundred of them in Gamst's time[10]).

After my arrival in Gondar on Wednesday 17 January I discussed this worry with the officials who came to meet me at the airport and was told that there were a very few Qemant – now mostly elderly – who continued to adhere to

the old religion. Feelers were then put out, radio messages were sent to Party cadres in remote areas, and, on Thursday the 18th, I got the good news that the Wambar was still alive. His home village, apparently, was inaccessible by road but it was thought possible that he might be persuaded to come to an intermediate point – Aykel, about two hours' drive due west of Gondar. The journey, furthermore, would almost certainly be safe: in recent fighting the rebels had been pushed back and the western region into which we would be going was considered to be secure during daylight hours.

Timkat, which I shall describe later in this chapter, took up all of my attention for the rest of Thursday and all of Friday. Early in the afternoon of Saturday 20 January, however, I was finally able to set off for Aykel in the Toyota Landcruiser that the Party had put at my disposal. In addition to the driver, I was accompanied by Legesse Desta – the young and

enthusiastic official who was acting as my interpreter – and by two dour soldiers armed with Kalashnikov assault rifles.

As we bumped along the rough, graded track through glowing fields and golden-brown hills I studied the Michelin map of the Horn of Africa that I now took everywhere with me. I was interested to note that our destination lay not far from the headwaters of the Atbara river which rose about fifty miles to the north-west of Lake Tana and flowed from there into the Sudan, where it was eventually joined by the Takazze before merging with the Nile just above the Fifth Cataract.

Because it passed so close to Tana Kirkos, and because it was specifically mentioned in the *Kebra Nagast*, the Takazze itself still looked to me like the strongest contender for the route of the Ark. Nevertheless it was clear from the map that travellers following the Atbara would also have arrived in

this same general area. I considered the implications of this and then remarked in my journal:

> The rivers are roads through the desert. In the case of Ethiopia all these 'roads' – whether the Takazze, the Atbara, or the Blue Nile – seem to lead to Lake Tana. The Falashas (and their relatives the 'Hebraeo-Pagan' Qemant) have always lived in precisely this area and are indigenous Ethiopians – natives of this country. Since their Judaism (or 'Hebraism' as Gamst prefers to call it) is a foreign element in their culture, it is logical to deduce that it *must* have been imported along the rivers.

As we drove into Aykel we were met by a group of local

Party officials who told us that Wambar Muluna Marsha had arrived some time ago and was waiting for us. We were then taken to a large, circular hut with a high beehive-shaped roof and ushered into the cool semi-darkness within. Thin shafts of sunlight fell through gaps in the wattle-and-daub, highlighting motes of dust that hung suspended in the air. From the newly brushed earth floor there arose a loamy fragrance complicated by a faint note of sandalwood.

The Wambar, as I had expected, was an elderly man. He had evidently dressed up for this occasion since he was wearing a white turban, white ceremonial robes and a fine black cape. Seated on one of the several chairs that had been arranged inside the hut, he stood graciously as we came in and, after the necessary introductions had been made, shook my hand warmly.

Speaking through the interpreter he immediately asked:

‘Do you work with Mr Gamst?’

I had to admit that I did not. ‘But,’ I added, ‘I’ve read the book that he wrote about your people. That’s why I’m here. I’m very interested in learning about your religion.’

The Wambar smiled rather mournfully. As he did so I noticed that one tooth, disconcertingly long, grew down from the left side of his upper jaw and protruded tusk-like over his lower lip. ‘Our religion’, he said, ‘has become a thing of the past. Almost nobody practises it today. The Qemant are now Christians.’

‘But you yourself are not a Christian …?’

‘No. I am the Wambar. I still follow the old ways.’

‘And are there others like you?’

‘A few remain.’ That smile again. Then, slyly and somewhat paradoxically: ‘Even those who say they are Christians have not entirely abandoned their former beliefs.

The sacred groves are still tended … The sacrifices are still made.' A pause for thought, a shake of the old, grizzled head, a sigh: 'But things are changing … Always there is change …'

'You said "sacred groves". What did you mean by that?'

'Our worship, if it is conducted as it should be, takes place in the open air. And we prefer to make our devotions amongst trees. For this purpose we have set aside special groves called *degegna*.'

I put several more questions on this subject and established that there were in fact two kinds of groves. Some – the *degegna* themselves – were used for annual ceremonies. They had first been planted in the distant past when the founder of the Qemant religion was shown the correct locations in his dreams. In addition there were other much smaller sacred sites – called *qole* – which often consisted of only a single tree where a particularly powerful spirit was believed to reside.

These qole were normally situated in high places. As it happened there was one on the outskirts of Aykel which I could see if I liked.

I then asked the Wambar if he knew whether the Falashas also venerated sacred groves.

'No,' he replied, 'they do not.'

'Would you say that their religion is in *any* way similar to yours?'

A sage nod: 'Yes. In many ways. We have much in common.' Unprompted he then added: 'The founder of the Qemant religion was called Anayer. He came here to Ethiopia so long ago. He came, after seven years of famine, from his own country, which was far away. As he travelled on the journey with his wife and children he met the founder of the Falasha religion, also travelling on the same journey with his wife and children. A marriage alliance was discussed between

the two groups, but it did not succeed.'

'Did Anayer and the founder of the Falasha religion come originally from the same country?'

'Yes. But they were separate. They made no marriage alliance.'

'Nevertheless, the country of their birth was the same?'

'Yes.'

'Do you know where it was?'

'It was far … It was in the Middle East.'

'Do you know the name of this country?'

'It was the land of Canaan. Anayer was the grandson of Canaan who was the son of Ham, who was the son of Noah.'

I was intrigued by this genealogy and by the faded memory of an ancestral migration from the Middle East – a memory that also suggested a common locus for the origin of the Falasha and the Qemant religions. I could not get the

Wambar to confirm whether the 'Canaan' that he had referred to was the Promised Land of the Bible. Indeed, despite his familiarity with names like Ham and Noah, he claimed never to have read the Bible. I believed him on this point but, at the same time, was in no doubt that there was a scriptural background to what he had just told me. Contained in his account, for example, were echoes of the great trek made by the patriarch Abraham and his wife Sarah who had fled Canaan and 'journeyed, going on still toward the south' because 'there was famine in the land'.[11] At the same time, like Egypt in the book of Genesis, the country that Anayer had come from had been afflicted by seven years of famine.[12]

'Tell me more about your religion,' I now asked the Wambar. 'You mentioned spirits earlier – spirits living in trees. But what about God? Do you believe in *one* God, or many gods?'

‘We believe in one God. Only one God. But he is supported by angels.’

The Wambar then went on to list these angels: Jakaranti, Kiberwa, Aderaiki, Kiddisti, Mezgani, Shemani, Anzatatera. Each, apparently, had his own distinctive place in the countryside. ‘When our religion was strong, all the Qement used to go to these places to pray to the angels to mediate with God on their behalf. Jakaranti was the most respected, then Mezgani and Anzatatera.’

‘And God?’ I asked. ‘The God of the Qemant. Does he have a name?’

‘Of course. His name is Yeadara.’

‘Where does he reside?’

‘He is everywhere.’

A single God then, and an omnipresent one. I was beginning, already, to see why Gamst had characterized these

people as *Hebraeo*-Pagans. This impression, furthermore, was strengthened by almost everything else that the Wambar told me during our long discussion in the village of Aykel. I kept detailed notes of that discussion and, after my return to Addis Ababa, made a careful study of his answers – comparing them point by point with the Scriptures. Only when I had completed this exercise was I able to appreciate just how strong and how *old* the Judaic dimension of Qemant religion really was.

The Wambar had told me, for example, that the Qemant were forbidden to eat any animal that was not cloven-hoofed and that did not chew the cud. In addition, he had said, camels and pigs were regarded as unclean and were strictly forbidden. These restrictions accorded perfectly with those placed upon the Jews in the eleventh chapter of the Old Testament book of Leviticus.[13]

The Wambar had also said that amongst the Qemant even ‘clean’ animals could not be eaten if they had not been slaughtered properly. ‘Their throats must be cut until all the blood is gone,’ he had explained – adding that, for the same reason, it was forbidden to eat any animal that had died of natural causes. Both proscriptions, I discovered, were perfectly in line with Judaic law.[14]

Still on the subject of food, the Wambar had told me that the consumption of meat and dairy products at the same table was permitted by Qemant religion. He had added, however, that it was regarded as an abomination to eat the flesh of an animal that had been cooked in milk. I knew that orthodox Jews were forbidden to mix meat and dairy foods in the same meal. When I researched the background to this particular Kosher restriction, however, I learnt that it derived its authority from the books of Exodus and Deuteronomy,

both of which stated: ‘Thou shalt not seethe a kid in his mother’s milk.’[15] This, more or less exactly, was the rule obeyed by the Qemant.

Another area of convergence concerned the Sabbath – which, like the Jews, the Qemant observed on Saturday. ‘It is forbidden to work on that day,’ the Wambar had told me. ‘It is forbidden to light fires on Saturday. And if a field should catch fire accidentally on the Sabbath then that is a field that we must no longer use.’[16]

These restrictions and others like them – all very much in accord with biblical law – made me more and more confident that a deep and truly ancient Judaic substratum did indeed underlie the religion of the Qemant. What finally convinced me that this was so, however, was the one practice that the Wambar had described to me which had not sounded Judaic at all – namely the veneration of ‘sacred groves’.

He had told me during our interview that there was a *qole* site on the outskirts of Aykel where I might see a tree believed to be the residence of a powerful spirit. I did go to look at this tree, which turned out to be a huge, spreading acacia. It stood to the west of the village on a spur of high ground, beyond which, across a hundred descending miles, the land sloped steeply away towards the Sudanese border. A soft afternoon breeze, laden with the fragrance of distant deserts, blew through the tawny canyons beneath me, circulated amongst the ravines and foothills, and soared on eagles' wings across the first battlements of the escarpment.

Gnarled and massive, the acacia was so ancient that it would have been easy to believe that it had stood here for hundreds and perhaps even for thousands of years. Inside the walled enclosure that surrounded it, laid out upon the ground, were various offerings – a jar of oil, a heap of millet,

small piles of roasted coffee beans, and a trussed chicken awaiting sacrifice. In their own way all these oblations contributed to the peculiar character of the place: numinous and eerie, by no means menacing but none the less distinctly strange.

What multiplied this other-worldly effect, however – and what made this Qemant *qole* site so different from any other place of worship I had ever come across in my travels – was the fact that every branch of the tree to a height of about six feet off the ground had been festooned with woven strips of vari-coloured cloth. Rustling in the wind, these waving pennants and ribbons seemed to whisper and murmur – almost as though they were seeking to impart a message. And I remember thinking that if I could only understand that message then many hidden things might be revealed. Superstitiously I touched the living wood, sensed its age, and

returned to my companions who were awaiting me at the bottom of the hill.

Later, back in Addis – after I had looked into the other comparisons between Qemant religion and Old Testament Judaism – I ran a routine check in the Scriptures and in works of biblical archaeology to see if I could find any references to sacred trees. I did not expect that I would. Much to my surprise, however, I discovered that certain specially planted forest groves *had* been accorded a sacred character in the very earliest phases of the evolution of the Jewish faith. I was also able to confirm that these groves *had* been used as places of active worship. In the twenty-first chapter of the book of Genesis, for example, it was stated that: 'Abraham planted a grove in Beersheba, and called there on the name of the Lord, the everlasting God.'[17]

Reading more widely around the subject I established the

following points with certainty: first, that the Hebrews had 'borrowed' the use of sacred groves from the Canaanites (who were the indigenous inhabitants of the Promised Land); second, that the groves were normally situated in high places (known as *bamoth*); and third, that they often contained sacrificial stone pillars of the kind that I had seen on Tana Kirkos and that – as I already knew – were called *masseboth*.[18]

Very little was understood about how the groves had been used, what they had looked like, what sort of ceremonies had gone on within them, or what kind of offerings had been made there. The reason for this ignorance was that the priestly elite of later biblical times had turned savagely against all such practices, cutting down and burning the sacred trees and overthrowing the *masseboth*.[19]

Since it was these same priests who had also been

responsible for the compilation and editing of the Scriptures, it was hardly surprising that they had left us with no clear picture of the function and appearance of the groves. Moreover the single reference that did evoke some kind of image was regarded as a mystery by biblical scholars. This reference, in the second book of Kings, spoke of a place 'where the women wove hangings for the grove.'[20] As I read these words, the memory was still fresh in my mind of the strips of woven cloth that hung from every branch of the fetish tree on the outskirts of the village of Aykel. And it seemed to me then (as it seems to me now) that there was no mystery at all about the words in the book of Kings – but much that still cried out for explanation about the Qemant who, in the heart of Africa, had managed to acquire a Judaeo-Canaanite tradition as hoary with age as this one.

The whole issue, I felt sure, was intimately connected to

the larger problem of the Falashas, the Qemant's better-known neighbours.

Aswan and Meroe

Despite the strong Judaic flavour of their religion, no one has ever claimed that the Qemant are in fact Jews: there is too much that is pagan and animist about them to have allowed that to happen. The position, however, is quite different for the Falashas. They have been widely regarded as true Jews since the early nineteenth century – though they were not formally recognized as such by the Sephardi Chief Rabbi of Jerusalem until 1973. Two years later the Ashkenazi Chief Rabbi followed suit, opening the way for the Israeli Ministry of the Interior to declare that the Falashas were entitled to automatic citizenship of Israel under the terms of the Law of

Return.[21]

Ironically the main reason that rabbinical recognition was so long delayed was the pronouncedly Old Testament character of Falasha religion which did not in any way incorporate or refer to the Talmud (the authoritative body of Jewish law and lore accumulated between 200 BC and AD 500[22]). This made the Falashas seem quite alien to many Israeli and other Jews; it was later accepted, however, that ignorance of Talmudic precepts was simply a function of the fact that the Ethiopian arm of the faith must have been cut off from the evolving body of world Judaism at some extremely early date. This same isolation also explained the Falashas' continuing adherence to practices that had long been forbidden by the rabbis, notably animal sacrifice (see Chapter 6).

The important point – which weighed heavily when official

recognition was finally granted in the 1970s – was that the social and religious behaviour of the Falashas did clearly and unambiguously conform to the teachings of the Torah (Old Testament). Moreover, *within the Torah*, as one would expect of pre-Talmudic Jews whose religious beliefs were genuinely ancient, they showed the greatest respect for the Pentateuch (i.e. the five books believed by the orthodox to have been written by Moses himself, namely Genesis, Exodus, Leviticus, Numbers and Deuteronomy).[23]

This 'fundamentalism' within Falasha religion was typified by their strict observance of the food restrictions enumerated in the books of Leviticus and Deuteronomy and by their refusal to eat any animal – 'clean' or not – that had been slaughtered by a Gentile. It was also recognized that they paid meticulous attention to the Mosaic laws of cleanliness and purity. Special huts, for example, were set aside for those

members of the community considered to be temporarily in states of ritual impurity – such as menstruating women, who were segregated for seven days in line with a Levitical edict.[24]

Falasha circumcision ceremonies (*gezrat*) were equally traditional, taking place on the eighth day after the birth of a male child, exactly as stipulated in the Pentateuch.[25] Likewise their Sabbath procedures were rigorously orthodox with all fires being extinguished before sunset on Friday, and on the Sabbath itself no work of any kind being done, no water being drawn, no fire being lit, no coffee being boiled, and only the consumption of cold food and drink being permissible.

I was aware of all this when, during my stay in Gondar in January 1990, I visited several Falasha settlements. My objective was to make contact with religious leaders, to

whom I wanted to put certain specific questions. Because of the mass migration of Ethiopia's Jews to Israel this was no easy task: many homesteads were completely deserted, stripped of their goods and chattels, their doors left unbarred, and their inhabitants gone. Nevertheless, in the countryside some twenty miles from Gondar I did find one village that still seemed to be functioning. Called Anbober, it straggled across a steep slope in rolling mountainous terrain and was populated almost entirely by women and children, the majority of the menfolk having already left for Israel.

Falashas have neither synagogues nor rabbis; instead their places of worship are called *mesgid* and their religious officials *kahenat* (singular *kahen*, meaning 'priest'). With my interpreter Legesse Desta, I now walked up through the village followed by a rapidly growing crowd of mischievous children. We were making for the *mesgid* – identifiable by the

Star of David on its roof – where I hoped very much that I might find the *kahen* in residence.

On this occasion I was not disappointed: inside the humble building, at a roughly made wooden table, a lean, elderly man sat studying a copy of the Torah (which was beautifully written in *Ge'ez* on cured sheepskin leaves). Legesse began by explaining why we had come and then asked the priest if he would mind answering some questions from me. After a lengthy debate he gave his assent to this and introduced himself as Solomon Alemu. He was, he said, seventy-eight years old. He had been the *kahen* of Anbober for almost thirty years.

We spent the next couple of hours going through numerous aspects of Falasha belief and ritual. All Solomon's answers confirmed the pure Old Testament character of the religion and were very much in line with what I had already learned

from my research. In this context I pressed him particularly hard on the issue of blood sacrifice, trying to establish why his people continued with this practice when Jews everywhere else had abandoned it two thousand years previously. ‘We believe’, he replied with great conviction, ‘that God in his throne observes these ceremonies and is pleased.’

Perhaps Solomon knew, perhaps he did not, how close this simple statement was to a verse in the book of Leviticus which described offerings made by fire as being ‘of a sweet savour to the Lord’.[26] Certainly, he seemed a wise and well read man. When I complimented him on his scholarship, however, his response – with no trace of false modesty – was to insist that he understood far less about the Judaic traditions of the Falashas than his father had done. And he added that his father, in his turn, had understood less than

his grandfather – who had also been *kahen* of Anbober. ‘We are forgetting our own past,’ he said sadly. ‘Day by day we forget our history.’

Taking my cue from this I asked Solomon if he knew for how many centuries there had been Jewish people in Ethiopia.

‘We came here’, he replied, ‘long ago … long before the Christians. The Christians are recent compared with us.’

He then proceeded to tell me the familiar story of the Queen of Sheba, Menelik and the bringing of the Ark. In this way, he said, the Jewish faith had arrived in Ethiopia.

I asked casually: ‘Do you have any idea what route Menelik and his companions used when they made their journey?’

Though it might have surprised me once I now accepted his answer to this last question with perfect complacency: ‘According to our traditions they travelled from Jerusalem

through Egypt and Sudan.'

Almost bored, I prompted: 'Presumably they would have followed the river Nile for much of the journey?'

The *kahen* nodded: 'Yes. That is what our traditions say.' He then added two details that were completely new to me: 'On the way,' he said, 'they rested at Aswan and Meroe.'

Aswan, I knew, was in Upper Egypt (near the site of the modern high dam of the same name), and in Pharaonic times had been important as a source of the granite used in the construction of the Pyramids. Meroe, the ancient capital of Nubia, had been located much further to the south, in what is now the Republic of the Sudan.

Intrigued, I pushed Solomon for more details of the Falasha traditions concerning these places. He insisted, however, that the little that he had already said was the sum of his knowledge about them. 'I heard their names', he sighed, 'in

stories told to me by my grandfather. He was a wise man … but he is gone … Soon we will all be gone.'

Ceremony of the Ark

Everything that I learned during my stay in Gondar reinforced my view that it had been to precisely this region of Ethiopia that the Jewish faith had first been brought in antiquity. The Falashas were Jewish through and through, and this was their homeland. Their near neighbours the Qemant also showed convincing signs of an archaic and deeply ingrained Judaic influence.

Nor was this influence limited to the Falashas and the Qemant. On the contrary, in Gondar and throughout Ethiopia, supposedly 'Orthodox' Christians displayed many customs and beliefs that were unmistakably Jewish in origin.

Just like the Falashas, as I already knew, they circumcised their sons on the eighth day after birth, a date commanded by the book of Leviticus – a date that, amongst all the peoples of the world, was now observed only by Jews and by Ethiopians.[27] Likewise (in a remarkable instance of the phenomenon known as religious syncretism) the Jewish Sabbath was still being respected in the twentieth century by millions of Abyssinian Christians – not *instead of* the Sunday Sabbath adhered to by their co-religionists elsewhere but *in addition* to it.[28]

There were other holidays which, although superficially Christian, were also clearly Judaic in origin. I had learned, for example, that the Ethiopian New Year feast (*Enkutatsh*) corresponded closely to the Jewish New Year (*Rosh Ha-shanah*). Both were held in September and both were followed a few weeks later by a second festival (known as

Maskal in Ethiopia and *Yom Kippur* in Israel). In both cultures, furthermore, this second festival was connected to the New Year by a period of expiation and atonement.[29]

Ethiopian Christians also strictly obeyed many of the Pentateuchal laws of cleanliness and purity. No man, for example, would consider going to church after having had sexual intercourse with his wife, nor would he have intercourse prior to having contact with any consecrated thing, nor would he have intercourse during days of fasting, nor would he have intercourse with any menstruating woman.[30] None of these restrictions were called for by Christian lore; all of them, however, were demanded in the Pentateuch (notably in the books of Exodus and Leviticus[31]).

In a similar fashion Ethiopian Christians also observed the Old Testament food laws, scrupulously avoiding the flesh of 'unclean' birds and mammals (pork being particularly

abhorred) and even attending to the minutiae such as the 'sinew which shrank' referred to in Chapter 32 of the book of Genesis.[32] This same sinew, I was able to establish, was shunned by all Abyssinian Christians and was known in *Ge'ez* as 'the forbidden muscle'.[33]

Another intriguing link that I had turned up while researching this subject was that Ethiopian clerical vestments seemed to be modelled upon the special garments worn by the priests of ancient Israel[34] – the *k'enat* (belt) corresponding to the High Priest's girdle;[35] the *k'oba* (skull-cap) corresponding to the mitre;[36] and the *askema* (scapular), with its twelve crosses in four rows of three, corresponding to the priestly breast-plate (which, as Chapter 28 of the book of Exodus makes clear, was adorned with twelve precious stones also arranged in four rows of three.[37]

All in all, therefore, I found it difficult to disagree with

Archbishop David Matthew who, in 1947, had described 'the whole cast of religious expression in Ethiopia as antique and ceremonial and imbued with an undercurrent of Judaic practice.'[38] It was not until I participated in the Christian *Timkat* celebrations on 18 and 19 January 1990, however, that the real pervasiveness and power of this undercurrent was finally brought home to me.

The preparations for *Timkat* were already well advanced when, in the mid-afternoon of Thursday 18 January, I slipped through a wildly excited crowd, up a flight of steps and on to the exterior walkway of the church of Medhane Alem (literally 'Saviour of the World'). Situated in the oldest part of Gondar, this was a large, circular building laid out in the traditional fashion – somewhat like an archery target if viewed from above – with a series of concentric ambulatories surrounding the Holy of Holies (*mak'das*).

This distinctively Ethiopian pattern, as I already knew, was repeated in a slightly different manner in rectangular and octagonal as well as in round churches, and had been recognized by scholars as being based 'on the threefold division of the Hebrew Temple'.[39] According to Edward Ullendorff, the first Professor of Ethiopian Studies at the University of London:

> The outside ambulatory of the three concentric parts of the Abyssinian church is called *k'ene mahlet*, i.e. the place where hymns are sung, [and] corresponds to the *ulam* of Solomon's Temple. The next chamber is the *k'eddest*, where communion is administered to the people; and the innermost part is the *mak'das* where the *tabot* rests and to which only priests have access … This division

> into three chambers applies to all Abyssinian churches, even to the smallest of them. It is thus clear that the form of the Hebrew sanctuary was preferred by Abyssinians to the basilica type which was accepted by early Christians elsewhere.[40]

Professor Ullendorff declined to speculate as to precisely why the Abyssinians should have favoured a pre-Christian model for their Christian churches. As I stepped into the first ambulatory of Medhane Alem, however, it seemed to me that the answer was obvious: the Syrian evangelist Frumentius, who was responsible for the conversion of the Axumite kingdom and who was appointed as Ethiopia's first archbishop by the Coptic Patriarch of Alexandria in AD 331, must deliberately have adapted the institutions of the new

faith to the pre-existing Judaic traditions of the country.[41] Furthermore, as Ullendorff did admit:

> It is clear that these and other traditions, in particular that of the Ark of the Covenant at Axum, must have been an integral part of the Abyssinian national heritage *long before* the introduction of Christianity in the fourth century; for it would be inconceivable that a people recently converted from paganism to Christianity (not by a Christian Jew but by the Syrian missionary Frumentius) should thereafter have begun to boast of Jewish descent and to insist on Israelite connections, customs and institutions.[42]

Walking in stockinged feet – since it is considered sacrilege

to wear shoes inside any Ethiopian church – I made a circuit of the *k'ene mahlet* studying the faded paintings of saints and holy men that adorned its walls: here was Saint George, mounted on his white charger, slaying the dragon; there was God Almighty, 'the Ancient of Days', surrounded by the 'living creatures' described by the Prophet Ezekiel; here was John baptizing Christ in the Jordan; there the Kings and Shepherds at the Manger; and over there Moses receiving the Tables of the Law from the hand of God on Mount Sinai.

Standing lost in contemplation before a portrayal of the Queen of Sheba's journey to Jerusalem, I became aware of the slow, deep throb of a *kebero* – the large oval drum, made of cowskin stretched over a wooden frame, that features in so much of the music of the Ethiopian Orthodox Church. To this barbaric sound was now added a chorus of voices chanting a *Ge'ez* hymn, and then the mystic jingle of sistra.

My curiosity aroused, I proceeded round the ambulatory and, at last, near the doorway that led inwards to the *k'eddest*, I came across a group of priests and deacons gathered about the drummer, who was seated cross-legged on the floor hunched over his *kebero*.

This was a strange and archaic scene: nothing about it belonged to the modern world and, as I watched, I felt myself transported backwards through time, riding the eerie waveforms of the music – which seemed to me to belong neither to Africa nor to Christianity but to some other place and to some infinitely older faith. Dressed in their traditional white robes and black shoulder-capes, leaning on tall prayer sticks, the deacons swayed and chanted, swayed and chanted, absorbed in the primal cadence of the dance. Each held in his hand a silver sistrum which, in the silent interstices between the drum-beats, he raised and then let fall, producing a clear

and melodious tintinnabulation.

The chanting was antiphonal in form, with phrases uttered by one group of singers being given their response by others, a dialogue in which verses and choruses were passed back and forth amongst the participants allowing the hymn to build to its ponderous crescendo. This same system, I knew, had been an established part of the Jewish liturgy in Old Testament times.[43]

As I was reflecting on this coincidence a fragrant cloud of incense billowed from the open door of the *k'eddest*. Edging forward I looked inside and saw a swirling figure wrapped in robes of green embroidered with golden threads, a figure out of a dream, half sorcerer, half priest, who whirled and turned with drooping eyes.

Gathered round him were other men, similarly attired, each holding a smoking censer suspended in a fine net of

silver chain. I strained my eyes to look beyond these figures through the fumes and darkness and could just make out, at the very centre of the *k'eddest*, the curtained entrance to the Holy of Holies. I knew that beyond that heavy veil, venerated and mysterious, guarded by superstition, concealed and secret within its sanctuary, lay the *tabot* – the symbol of the Ark of the Covenant. And I was reminded that in ancient Israel the High Priest could not approach the Ark unless he had first burnt sufficient quantities of incense to cover it completely with smoke.[44] The thick fumes were thought necessary to protect his life – necessary to ensure, as the book of Leviticus rather chillingly put it, 'that he die not.'[45]

I stepped across the threshold into the *k'eddest* to get a closer look at what was going on there but was almost immediately waved back into the outer ambulatory. At the same time the song of the deacons ceased, the drum-beats

stilled and, for a moment, absolute silence fell.

I could sense an intangible atmosphere of imminence, as though a huge charge of lightning were building up within a thundercloud. A general stirring and movement then ensued, with people scurrying in all directions. At the same time a smiling priest took my arm lightly but firmly, and guided me out of the *k'eddest*, through the *k'ene mahlet*, to the main door of the church where I stood blinking in the brilliant afternoon sunlight, amazed at the rapid change of mood that seemed to have overtaken the proceedings.

The crowd, big enough when I had arrived, had now swelled into a huge multitude that completely filled the extensive compound in which Medhane Alem was situated and that also spilled out on to the road as far as I could see. Men and women, small children, the very elderly, lame people, obviously sick and dying people, laughing, happy,

healthy people – half of Ethiopia seemed to be here. Many clutched musical instruments of one kind or another: cymbals and trumpets, flutes and fiddles, lyres and biblical harps.

Moments after my own exit from the church, a group of richly robed priests appeared. These were the same men whom I had last seen amidst the incense cloud before the drawn veil of the Holy of Holies, but now one of them – slender and bearded with fine, delicate features and smouldering eyes – bore on his head the *tabot* wrapped in costly brocades of red and gold.

At once the crowd erupted into a frenzy of shouts and stamping feet and, from the women, shrill ululations – a rousing, tremulous vibration that, I knew, had been connected by more than one scholar to 'certain musical utterances in ancient Hebrew worship (Hebrew *hallel*, Ethiopic *ellel*) … the mode of exultation is to repeat the

sound *ellel* many times, saying *ellellellellellell*, etc.… The proper meaning of "Halleluyah" will probably be "sing *hallel* or *ellel* unto Jehovah." '[46]

After standing at the doorway of the church for some minutes while the agitation of the crowd grew, the priests now wheeled and turned, making a complete circuit of the exterior walkway before descending the flight of steps to ground level. The instant that their feet touched the earth, the multitude parted before them – creating a pathway through which they might pass – and the shouts and ululations, the blowing of trumpets, the whistle of flutes, the strumming of lyres, and the jingle of the tambourines built up to a pitch that deafened the ear and filled the mind with wonder.

I followed as closely as I dared behind the group of priests, drawn along in their turbulent wake. And though the people

were gathered in their hundreds on either side of me, though many were intoxicated either by millet beer or by the tumult, though I was repeatedly jostled, and though more than once I was almost knocked off my feet, I did not for a second feel threatened or alarmed.

Sometimes funnelled through narrow alleyways, sometimes spreading out across patches of open land, sometimes stopping inexplicably, sometimes fast, sometimes slow, always bursting with music and song, we progressed through the ancient city. And all the time I struggled to keep my eyes fixed on the red and gold wrappings of the *tabot*, which was now far ahead of me. For a while, as a new horde of revellers joined us from a side street, I completely lost sight of the sacred object. Then standing on tiptoe, craning my neck, I found it and hurried forward. Determined not to be separated from it again I scrambled up a grassy bank, put on a burst of

speed, overtook a massed block of two or three hundred people, skidded past the priests, and lumbered back down on to the road perhaps twenty yards in front of them.

Here I found the reason for the curious stop-start, halting, lurching motion of the multitude. In the space ahead of the *tabot* several impromptu troupes of dancers had formed themselves – some of mixed sex, some all male, some all female, some dressed in everyday working clothes, some in church vestments. At the centre of each of these groups was a drummer, his *kebero* slung around his neck, beating out an ancient and savage rhythm, whirling, jumping, turning and shouting while those around him exploded with energy, leaping and gyrating, clapping their hands, beating tambourines and cymbals, pouring with sweat as they capered and reeled.

Now, urged on by trumpet blasts and by shouts, by the

thrum of a ten-stringed *begegna*[47] and the haunting tones of a shepherd's flute, a young man dressed in traditional robes of white cotton performed a wild solo dance while the priests stood in their place stopping the eager crowd behind them and bearing the sacred *tabot* aloft. Beautiful in his lithe vigour, splendid in his ferocious energy, the youth seemed entranced. With all eyes upon him he circled the pulsing *kebero*, pirouetting and swaying, shoulders jerking, head bobbing, lost in his own inner rhythms, praising God with every limb, with every ounce of his strength, with every particle of his being. And I thought … this was what it must have been like, three thousand years ago at the gates of Jerusalem when

> David and all the house of Israel brought up the
> Ark of the Lord with shouting, and with the sound

> of the trumpet [and] played before the Lord on all manner of instruments made of fir wood, even on harps, and on psalteries, and on timbrels, and on cornets, and on cymbals … and David danced before the Lord with all his might … leaping and dancing before the Lord.[48]

In mid-stride, without any warning, the youth collapsed and sank to the ground in a dead faint. He was picked up by several of the spectators, carried to the roadside and made comfortable. Then the crowd surged forward again much as before, with new dancers constantly taking the place of those who were exhausted.

Soon afterwards a transition occurred. After tumbling and charging down a last narrow street the crowd debouched into a huge open square. And into this same square, from three

other directions, I could see three other processions also approaching – each of which was similar in size to our own, each of which was centred upon a *tabot* borne up by a group of priests, and each of which seemed inspired by the same transcendent spirit.

Like four rivers meeting, the separate processions now converged and mixed. The priest carrying the *tabot* from the church of Medhane Alem – whom I had followed faithfully thus far – stood in line with other priests carrying the *tabotat* from three of the other principal churches of Gondar. Behind this first sacred rank were more priests and deacons. And behind them again were the assembled congregations, forming an army that could not have been less than ten thousand strong.

Almost as soon as the processions had joined we were on the move again, welling forth out of the square and down a

steep, broad highway with the *tabotat* ahead of us. Now and then children would be pushed close to me and would shyly take my hands, walk with me for a while and then release me … An old woman approached and addressed me at length in Amharic, smiling toothlessly … Two teenage girls, giggling and nervous, touched my blond hair with fascinated curiosity and then rushed off … And in this fashion, entirely caught up in the gaiety and power of the occasion, I allowed myself to be swept along, oblivious to the passing hours of the afternoon.

Then, quite suddenly, an imposing walled compound set amidst grassy woods appeared around a bend in the track like an image out of a legend. At some distance behind the surrounding ramparts, I thought that I could just make out the turrets of a great castle – turrets high and 'marvellously embattled'. Not for the first time in my travels in Ethiopia I

was hauntingly reminded of the wondrous Grail sanctuary described by Wolfram von Eschenbach – of the ‘impregnable stronghold’ with its ‘clusters of towers and numerous palaces’ that had stood at the edge of a mysterious lake in the realm of Munsalvaesche.[49]

At the centre of the enclosure wall was a narrow arched gateway through which those ahead of me in the procession now began to stream – and towards which I felt myself irresistibly drawn. Indeed there was a tremendous force and compulsion in this human flow, as though we were being sucked helter-skelter into a vortex.

As I was impelled beneath the arch, jostled and crushed by the scrum of eager bodies, I was shoved momentarily against rough stone and my wristwatch was knocked off; almost immediately, however, some unknown person behind me managed to retrieve it from the ground and pressed it back

into my hand. Before I could thank or even identify my benefactor I burst through the bottleneck and arrived, slightly dazed, on the wide and open lawns within the compound. In the same second the enormous constriction and compression was relieved and I experienced a delicious sense of freedom …

The compound was rectangular in shape and covered an area as large as four city blocks. Set in the midst of this great grassy space was a second walled enclosure about one-third of the size of the first – which in turn contained the tall, turreted castle that I had glimpsed earlier and, to the rear and sides of this structure, a man-made lake half filled with water. The castle itself had been built by Emperor Fasilidas in the seventeenth century and appeared to be accessible only by way of a narrow stone bridge that passed over a deep moat and that led directly to a massive wooden doorway set

into the front of the building.

The crowd, I noticed, was still pouring through the narrow archway that I had negotiated a few moments before, and people milled about apparently aimlessly, greeting one another with boisterous and high-spirited bonhomie. Off to my right, directly in front of the castle, a large group of priests and deacons had gathered and I could see that they now carried a total of seven *tabotat*. I therefore surmised that processions from three other Gondarene churches must at some point *en route* have joined with the original four that had converged in the city's main square earlier in the afternoon.

The priests bearing the wrapped *tabotat* on their heads stood in line, shoulder-to-shoulder. Directly behind them were many more priests who held up brightly coloured ceremonial umbrellas that were fringed at the edges and

decorated with crosses, stars, suns, crescent moons and other curious devices. Five metres to the left were two further rows of priests, facing each other, carrying long prayer sticks and silver sistra. And between these latter two rows sat a drummer hunched over his *kebero*.

As I edged closer to get a better view, the facing rows of priests began a slow swaying dance before the *tabotat* – a dance acted out to the same mesmerizing rhythm and to the same antiphonal chanting that I had heard earlier in the church of Medhane Alem. A few moments later the dance broke up as suddenly as it had begun, the dancers dispersed and the priests bearing the seven *tabotat* proceeded majestically on to the stone bridge that led over the moat and into the castle. They paused there for a moment, caught in a warm ray of light from the descending sun, and the women in the crowd gave vent to more wild ululations. Then, on

oiled hinges, the heavy wooden door of the fortress swung silently open – affording me a transient glimpse of the shadowy interior – and the *tabotat* were carried inside.

Gradually, almost gently, the assembled thousands began to settle down around the gardens. Some had brought blankets, others cotton *shemmas* (shawls) and thicker woollen *gebbis* (cloaks). All, however, had the look of people who were going to be here for the duration of the *Timkat* holiday, and all seemed at peace with themselves – calm now after the effort and exultation of the processions and prepared for the vigil ahead.

By 9 p.m. numerous camp fires had been lit. Around the flickering flames people wrapped in *shemmas* and blankets huddled and murmured secretively – their words, in the old Semitic language of Ethiopia, turning to chill mist as they

spoke.

Braced and exhilarated by the cold Afro-Alpine air, I sat down on the grass, reclined, pillowed my head on my hands and gazed upwards, delighting in the clouds of stars that had ascended the sky. My thoughts drifted for a while, then focussed on the sound of water gushing steadily into the lake somewhere quite close to where I sat. At almost the same moment, from within the old castle, a soft cadenced chanting and drumming rose up – an eldritch, heart-stopping resonance that was at first so faint and so muted that I could barely make it out.

I stood and moved closer to the bridge over the moat. It was not my intention to cross it (I did not think that I would be permitted to do so); rather I hoped merely to find a vantage point from which I might hear the archaic music more clearly. Inexplicably, however, I felt many hands

pushing me forward – pushing me firmly but gently – and soon I found myself on the bridge. There a child led me to the towering door, opened it and indicated with a smile that I should proceed within.

Rather timidly I crossed the threshold into a large, square, high-ceilinged, incense-fragrant room illuminated by dozens of candles mounted in niches in the rough stone walls. A wintry current insinuated itself under the door that I had now closed behind me and on all sides cold draughts pushed through chinks and gaps in the masonry, causing the little flames to gutter and dim.

In this ghostly half-light I could make out the robed and hooded figures of perhaps fifty people standing in ranks two-deep and forming an almost complete circle that was broken only by the doorway in which I stood. Though it was difficult to be certain it seemed to me that all these folk were men

and that most of them were either priests or deacons, for they held prayer sticks and sistra and were chanting a *Ge'ez* psalm so poignant and so evocative that it caused the hairs at the nape of my neck to prickle and stand erect. Directly in front of me, on flagstones strewn with freshly cut grass, sat a drummer wrapped in a white *shemma*, striking the stretched skin of a *kebero* with a quiet but insistent beat.

Now, without any break in tempo, several members of the choir beckoned to me and I felt myself pulled into their circle, warmed in, made a part of it all. A sistrum was pushed into my right hand, a prayer stick into my left and the chant continued, with the singers swaying very gently and very slowly from side to side.

Involuntarily I felt my own body beginning to acquaint itself with the rhythm. Watching the others, shedding all self-consciousness, I raised and let fall my sistrum between the

drum beats, and as I did so the little metal disks in the ancient instrument produced a tuneless, rattling jingle. This oddly compelling sound, I knew, was older by far than the Temple of Solomon, was older even than the Pyramids – for sistra just like these had first been used in pre-dynastic Egypt[50] and had passed from there, by way of the priestly guilds of Pharaonic times, into the liturgy of Israel.

How strange this solemn ceremony was, and stranger still that I should have been allowed to participate in it, here in the heart of the Ethiopian highlands at the edge of a sacred lake. With a shiver of excitement I realized that there was nothing in the scene unfolding around me – absolutely nothing at all – that belonged to the twentieth century AD. I might just as easily have been a witness to the arcane rituals of the tenth century BC when the Ark of God was placed by Solomon in the 'thick darkness' of the Holy of Holies and

when the priests,

> Being arrayed in white linen, having cymbals and psalteries and harps, stood at the east end of the altar [making] one sound to be heard in praising and thanking the Lord; and when they lifted up their voice with the trumpets and cymbals and instruments of musick, and praised the Lord, saying, For he is good; for his mercy endureth for ever.[51]

Was it not in just this fashion that the priests of Ethiopia – in whose midst I stood – now also praised the Lord? And was it not with just such fervour and conviction that they thanked Him for His mercy and blessed His ineffable name, singing:

> Rise Yahweh God, come to your resting place,

You and the Ark of your power.
Your priests, Yahweh God, are vested in salvation,
Your faithful rejoice in prosperity.[52]

The night passed with a dreamlike sense of real and impossible things randomly mixed up together. There were moments when I hallucinated that the Ark itself was concealed somewhere within the old castle. In my heart, however, I also knew that I had not yet come to the end of my journey, that the Ark was not here in Gondar, and that I still had miles and months to go before I could even hope to approach it. For the present I would have to content myself with the *tabotat* that reposed somewhere within the castle – with the seven cloth-wrapped bundles that the alchemy of blind faith had effortlessly transformed in the past twenty-four hours into objects of immense symbolic weight.

Before dawn the priests ushered me out of the castle and back over the narrow bridge. As light gradually began to infuse the sky I then spent an hour or so exploring the great compound. If there had been ten thousand people there the evening before there were hardly fewer now. Some walked and talked in twos and threes, others stood around in large huddled groups, others still warmed themselves by the pale flames of the fading fires. And I thought that I could detect again the same mood of expectancy, the same sense of eager and restless anticipation, that had preceded the bringing out of the *tabot* at the church of Medhane Alem the previous afternoon.

I made a complete circuit of the inner compound that surrounded the castle and the lake. Reaching the far side of the complex I then climbed the enclosure wall and looked down at a scene both beautiful and bizarre. Below me an

earthen embankment perhaps five feet wide ran all the way around the still and shining waters, and on this embankment – on every square inch of it – people stood watchfully, waiting for something to happen, their shimmering reflections picked out by the risen sun.

A balcony projected at the rear of the castle and now, on to this balcony, out of a cloud of incense, stepped a group of priests dressed in splendid robes of green and red. Loud ululations arose from the crowd and a short ceremony ensued which (I learned later) served to bless and consecrate the waters. Then, with amazing suddenness – and apparently oblivious to the morning chill – people began to hurl themselves into the lake. Some leapt in fully clothed, some completely undressed. Here a young woman with ripe breasts thrust her naked baby beneath the surface and brought him up again, coughing and spluttering, in a shower of droplets.

There, with movements that were brittle and precise, an old man, lean and wizened, crooked and infirm, waded in up to his chest. Here a group of teenage boys swam and sported. There a middle-aged matron, stripped to the waist, lashed her back and shoulders with a dampened branch … Meanwhile, from the main compound in front of the castle, a roar of excitement could be heard as others in their thousands came to join the throng, to splash and dive, to plunge and frolic.

I climbed down from my vantage point on the wall and rushed round to the front of the compound. Amidst all this distraction what I wanted to do was to get back inside the castle. The *tabotat* had not been in the place where I had spent most of the night singing and chanting, dancing and swaying – so where were they? And what would happen next?

Unnoticed by the near-hysterical crowd, I crossed the

bridge over the moat, pushed open the door and stepped inside; as I did so I observed that the floor of the great room was still strewn with grass and that its walls were blackened with candle smoke. It was now perhaps 7 a.m. and bright sunlight streamed in, startling a group of deacons who had gathered there. Opposite me there was a curtain drawn across an arch which I had not seen during the night, and now through this curtain a priest appeared. He regarded me quizzically, then smiled and seemed to offer a welcome.

I walked up to him and signalled that I would like to pass through beyond the veil. At this, however, he shook his head vehemently. 'No,' he whispered in English. 'No. Impossible. *Tabot* inside.' Then he withdrew again behind the curtain, beyond which I thought that I could just make out faint stirrings and footfalls.

I called out, hoping to attract the attention of someone in

authority, but got no response. Then – crassly – I put my hand on the curtain and made to open it. At this three of the deacons standing in the room behind me leapt on me, grabbed me by the arms and wrestled me to the floor where I received several severe bruises.

I cursed and struggled, not thinking clearly, aware only that I was dazed and shocked: just a few hours earlier I had been made to feel so much at home here; now I was being beaten up. With some difficulty I shook my assailants off and pulled myself to my feet. This action, however, was misinterpreted as the prelude to another attempt on the curtain and I was pummelled and buffeted while several more deacons blocked my way. ‘Cannot go in there,’ one of them warned, indicating the room beyond the veil. ‘Only priests to go inside.’ He wagged his finger at me and added: ‘You are very bad man.’

I was then unceremoniously bundled out of the castle door and deposited roughly on the narrow bridge in front of several thousand frowning people – and I thought: if I get into this much trouble just for trying to enter a room where some *tabotat* are kept, then what on earth is going to happen to me in Axum when I try to see the Ark itself?

I crossed the bridge, picked my way through the crowd and stood on a patch of clear ground, shaking slightly because of the adrenalin that was pumping through my bloodstream. Taking stock I could see that many people were still in the lake, and I could hear splashes and shouts. The majority, however, were now out of the water and assembled on the broad lawns in front of the castle, leaning forward avidly, craning their necks, excited and yet oddly silent.

Then seven fully robed priests appeared at the castle door with wrapped *tabotat* balanced on their heads. Slowly and

deliberately they stepped out on to the bridge and made their way across, followed by yet more priests holding up ceremonial umbrellas. At the same moment the crowd gave vent to a huge collective sigh, an ardent gasp of awe and devotion that was soon enhanced by the familiar high-pitched ululations of the women and by an urgent, distracted jostling as people scrambled backwards and sideways to clear a path for the advancing *tabotat*.

As the morning wore on and as the sun rose towards its zenith I followed the procession back through the streets of Gondar as far as the main square of the old city. There the dance of David before the Ark was again enacted amidst shouting and the sounds of tambourines and cymbals, amidst the blowing of trumpets and the music of sistra and stringed instruments.

Then finally the priests carrying the seven *tabotat* wheeled

and separated. As they did so the multitude too divided itself into seven different parts – seven different processions that now streamed out of the square in seven different directions.

Running to keep up, panting and sweating, I followed close behind the *tabot* of Medhane Alem, followed it all the way back to the old round church and there, amidst a thousand exuberant songs and dances, watched as the priest who bore it circled the building once, circled it twice, and then at last, to a tremendous roar of joy and approbation, vanished from my sight into the darkness within – into the Holy of Holies, into the mystery of mysteries.

A year's reprieve …

I left Gondar in January 1990, quite certain that I was right to seek the Ark in Ethiopia. Despite a thin and superficial

Christian veneer, the central role of the *tabotat* in the ceremonies that I had witnessed, the strange dances of the priests, the frenzied adulation of the laity, the archaic music of sistra and of tambourines, of trumpets, drums and cymbals, were all phenomena lifted straight out of the most distant and recondite past. And it seemed to me then, as it seems to me now, that these intricate rituals, these complex institutions – all of them focussed upon the Old Testament worship of the Ark of the Covenant – would not have been adhered to with such fervour and fidelity over so many weary centuries if all that lay behind them were mere *replicas*.

No. The Ethiopians had the Ark itself. Perhaps in the way described in the *Kebra Nagast*, or perhaps by some other more historically probable means that I might in due course be able to identify, it had come into their possession in the first

millennium BC. And now, so near the end of the second millennium AD, they had it still, hidden away, concealed from prying eyes.

But where?'

In answering this last question I felt that I could not ignore the implications of my own research: the sacred relic was not on an island in Lake Zwai; it was not on an island in Lake Tana; instead all the evidence suggested that it lay still in its traditional resting place – safe in the Holy of Holies of the sanctuary chapel at Axum. There could be no absolute certainty, of course, but I felt sure in my own mind that I was right. And twelve months hence, when *Timkat* came around again in January 1991, I would have to go to Axum to seek it – and to see it if I could.

I felt a sense of inevitability about this, as though a challenge had been laid down – laid down as clearly and as

compellingly as the Green Knight's taunt to Sir Gawain:

> I am known to many, so if to find me thou endeavour, thou'lt fail not to do so. Therefore come! Or to be called a craven thou deservest.... Yet a respite I'll allow, till a year and a day go by.[53]

And what would I do in my period of reprieve, in my year of grace? I would, I determined, learn everything I could about the baleful object that beckoned to me – about its origins, and about its powers. I would study the Ark of God and I would attempt to discover whether there might not be a rational explanation for the terrors and the miracles that it was believed to have worked in Old Testament times.

Part IV: Egypt, 1989–90

A Monstrous Instrument

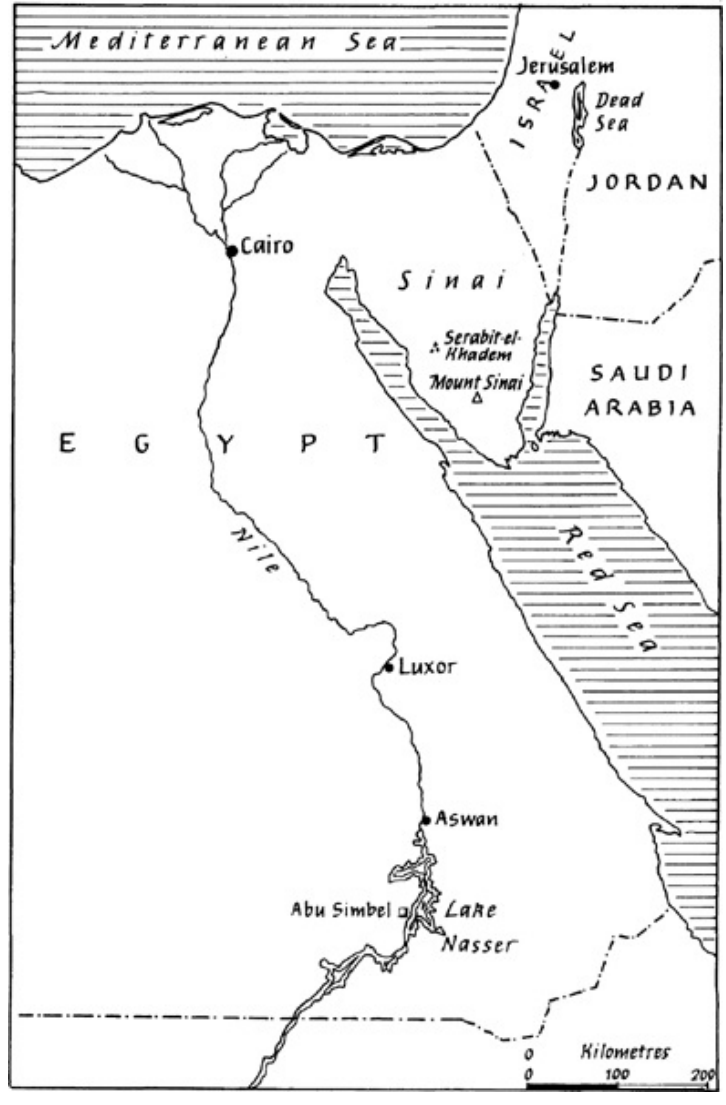
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ISRAEL
Jerusalem
Dead Sea
JORDAN
Cairo
Sinai
Serabit-el-Khadem
Mount Sinai
SAUDI ARABIA
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Chapter 12
Magic … or Method?

During 1989 and 1990, as I immersed myself ever more deeply in the mysteries of the lost Ark of the Covenant, I became interested not only in *where* it was but also in *what* it was. Naturally I turned first to the Bible, where the earliest mention of the Ark occurs during the period of the 'wilderness wanderings' immediately after the prophet Moses had led the children of Israel out of their captivity in Egypt (around 1250 BC[1]). In Chapter 25 of the book of Exodus we read that the precise dimensions of the sacred relic and the materials to be used in its construction were revealed to

Moses on Mount Sinai by God Himself:

> You are to make me an Ark of acacia wood two and a half cubits long, one and a half cubits wide, and one and a half cubits high [i.e. a rectangular chest measuring three feet nine inches by two feet three inches by two feet three inches[2]]. You are to plate it, inside and out, with pure gold, and decorate it all around with a gold moulding. You will cast four gold rings for the Ark and fix them to its four supports [or corners[3]]: two rings on one side and two rings on the other. You will also make shafts of acacia wood plated with gold and pass the shafts through the rings on the sides of the Ark, to carry the Ark by these. The shafts must remain in the rings of the Ark and not be

withdrawn … Further you are to make a throne of mercy, of pure gold, two and a half cubits long, and one and a half cubits wide. For the two ends of this throne of mercy you are to make two golden cherubim; you are to make them of beaten gold. Make the first cherub for one end and the second for the other, and fasten them to the two ends of the throne of mercy so that they may make one piece with it. The cherubim are to have their wings spread upwards so that they overshadow the throne of mercy. They must face one another, their faces towards the throne of mercy. You must place the throne of mercy on top of the Ark … There I shall come to meet you: there from above the throne of mercy, from between the two cherubim that are on the Ark.[4]

This ‘divine blueprint’ is, surely, one of the very strangest passages in the Bible. After receiving it, Moses passed it on verbatim to an artificer named Bezaleel, a man ‘filled with the spirit of God, in wisdom, and in understanding, and in knowledge, and in all manner of workmanship, to devise cunning works.’[5] Bezaleel made the Ark exactly as specified.[6] Then, when it was ready, Moses placed inside it the two tablets of stone, also given to him on Mount Sinai, on which God had inscribed the Ten Commandments.[7] The sacred object, now pregnant with its precious contents, was then installed behind a ‘veil’ in the Holy of Holies of the Tabernacle[8] – the portable tent-like structure that the Israelites used as their place of worship during their wanderings in the wilderness.

The terrors and the miracles

Soon terrible things began to happen. The first concerned Nadab and Abihu, two of the four sons of Aaron the High Priest, who was Moses's own brother. As members of the priestly family they enjoyed access to the Holy of Holies, into which they one day advanced carrying metal incense burners in their hands.[9] There, according to the book of Leviticus they 'offered strange fire before the Lord, which He commanded them not'.[10] The devastating consequence was that a flame leapt out from the Ark 'and devoured them and they died.'[11]

> And the Lord spake unto Moses after the death of the two sons of Aaron, when they offered before the Lord and died; And the Lord said unto Moses, Speak unto Aaron thy brother, that he come not at

> all times into the holy place within the veil before the throne of mercy, which is upon the Ark; that he die not: for I will appear in the cloud upon the throne of mercy.[12]

The throne of mercy – 'mercy seat' in some translations – was the slab of pure gold that served as the Ark's cover. The reader will recall that mounted on either end of it – and facing each other – were two golden figures of cherubim. 'The cloud upon the throne of mercy' which threatened death to Aaron must therefore have been visible *between* the cherubim. It was not always present, but on those occasions when it did materialize the Israelites believed 'that the demons held sway'[13] – and then even Moses would not dare to approach.[14]

Other supposedly supernatural phenomena also manifested

themselves ‘between the cherubim’ that faced each other across the Ark’s golden lid. For example, just a few days[15] after the unfortunate demise of Aaron’s two sons, Moses went into the Holy of Holies of the Tabernacle, which was then still pitched in the shadow of Mount Sinai. After he had entered, the prophet ‘heard the voice of one speaking unto him from off the mercy seat that was upon the Ark … from between the two cherubim.’[16] Certain very ancient Jewish legends state that this voice came from heaven ‘in the form of a tube of fire’.[17] And fire – in one guise or another, with and without the deadly cloud – seems often to have been associated with the cherubim. According to an enduring folk memory, for example, ‘two sparks [elsewhere described as “fiery jets”] issued from the cherubim which shaded the Ark’ – sparks which occasionally burned and destroyed nearby objects.[18]

Eventually the time came for the Israelites to abandon their camp at the foot of Mount Sinai – also called the 'Mountain of Yahweh' (after the name of God):

> They set out from the mountain of Yahweh and journeyed for three days. The Ark of the Covenant of Yahweh went at their head for this journey of three days, searching out a camping place for them … And as the Ark set out, Moses would say, 'Arise Yahweh, may your enemies be scattered and those who hate you run for their lives before you!' And as it came to rest, he would say, 'Come back, Yahweh, to the thronging hosts of Israel.'[19]

Travelling at the head of the Israelite column, the sacred relic was borne on the shoulders of 'the Kohathites' (or 'sons of Kohath'), a sub-clan of the tribe of Levi to which both Moses

and Aaron also belonged. According to several legends, and to rabbinical commentaries on the Old Testament, these bearers were occasionally killed by the 'sparks' which the Ark emitted[20] and, in addition, were lifted bodily off the ground from time to time because 'the Ark [was] able to carry its carriers as well as itself.'[21] Nor is this the only Jewish tradition to suggest that the Ark might have been able to exert a mysterious force that in some way was able to counteract gravity. Several other pieces of learned Midrashic exegesis also testify that it sometimes lifted its bearers off the ground (thus temporarily relieving them of what would otherwise have been a considerable burden).[22] In a similar vein a particularly striking Jewish legend reports an incident during which the priests attempting to carry the Ark were 'tossed by an invisible agency into the air and flung to the ground again and again.'[23] Another tradition describes an

occasion when ‘the Ark leaped of itself into the air’.[24]

Imbued as it was with such strange energies it is little wonder, throughout their wanderings in the wilderness, that the Israelites were able to use the Ark as a weapon – a weapon with powers so terrible that it could bring victory even when the odds seemed overwhelming.[25] An account of one such battle describes the Ark as first uttering ‘a moaning sound’, then rising up off the ground and rushing towards the enemy[26] – who not surprisingly were plunged into disarray and slaughtered on the spot. On another occasion, however – and as though to prove the rule – the Israelites were themselves defeated. This happened, according to the Bible, because they did *not* have the Ark with them at the time – Moses had withheld it from them after advising them against mounting an assault in that particular area:

> They set out presumptuously towards the heights of the highlands. Neither the Ark of the Covenant of Yahweh nor Moses left the camp. Then the Amalekites came down … which dwelt in that hill country, and smote them and discomfited them.[27]

According to the Bible, forty years were spent in the wilderness,[28] years during which the Israelites learned that it was in their interests to follow Moses's advice to the letter. There-after, under his leadership and with the help of the Ark, they successfully subdued the fierce tribes of the Sinai peninsula, conquered Transjordania, spoiled the Midianites,[29] and generally laid waste to all those who opposed them. Finally, towards the end of their four decades of wandering, they 'pitched their camp in the plains of Moab … opposite Jericho.'[30]

Just across the Jordan river, the Promised Land was now in sight. By this time Moses's brother Aaron had already died[31] and had been replaced in the office of High Priest by Eleazar.[32] Meanwhile Moses himself had been forewarned by Yahweh that it was not his destiny to enter Canaan and, accordingly, had invested 'Joshua, the son of Nun' as his successor.[33]

Soon afterwards Moses died,[34] but not before he had initiated Joshua into the mysteries of the Ark of the Covenant.[35] The new leader therefore had a formidable weapon at his disposal to deploy against the fierce resistance that he was about to encounter in the heavily fortified city of Jericho.

Joshua seemed to know that the Ark was a two-edged sword – that, if not properly handled, it could harm the Israelites as well as their enemies. Early in the campaign,

while he was planning the advance across the Jordan river towards Jericho, he sent his officers throughout the camp to tell the people this:

> When ye see the Ark of the Covenant of the Lord your God, and the priests the Levites bearing it, then ye shall remove from your place and go after it. *Yet there shall be a space between you and it, about two thousand cubits by measure: come not near unto it* …[36]

Then, when all was prepared:

> Joshua spake unto the priests, saying, Take up the Ark of the Covenant, and pass over before the people … And it came to pass … as they that bare the Ark were come unto Jordan … [that] the

> waters which came from above stood and rose up upon an heap … and those that came down were cut off … and the priests that bare the Ark of the Covenant of the Lord stood firm on dry ground in the midst of Jordan … And … when the priests … were come up out of the midst of Jordan and the soles of the priests' feet were lifted up onto the dry land … the waters of Jordan returned unto their place … And [Joshua] spake … saying … the Lord your God dried up the waters of Jordan from before you, until ye were passed over.[37]

Anyone reared in the Judaeo-Christian tradition will be familiar with the details of the assault on Jericho that followed the triumphal crossing of the Jordan. While the

main mass of the people stood back at the obligatory distance of two thousand cubits (more than half a mile), a hand-picked group of priests blowing trumpets marched around the walls of the city bearing the Ark. This procedure was repeated every day for six days. Then:

> On the seventh day … they rose early about the dawning of the day, and compassed the city after the same manner … only on that day they compassed the city seven times. And … at the seventh time, when the priests blew with the trumpets, Joshua said unto the people, Shout; for the Lord hath given you the city … So the people shouted when the priests blew with the trumpets: and it came to pass, when the people heard the sound of the trumpet, and the people shouted

> with a great shout, that the wall fell down flat, so that the people went up into the city … and they took the city … and they utterly destroyed all that was in the city.[38]

In the wilderness, when it was new, the Ark was nigh-on invincible, and during Joshua's campaigns in the Promised Land the biblical testimony suggests that it continued to play a significant military role long after the fall of Jericho.[39] Within about a hundred and fifty years of Joshua's death, however, a change took place: a close examination of the relevant books of the Old Testament shows that, by this time, the relic was no longer routinely being carried into battle; instead it had been installed (in its Tabernacle) at an important shrine-sanctuary known as Shiloh, where it rested permanently.[40]

The reason for this change was the increasing power and confidence of the Israelites themselves who, by the eleventh century BC, had managed to capture, settle and control most of the Promised Land and who evidently felt that it was no longer necessary in such circumstances for them to bring out their secret weapon.[41]

This self-assurance, however, proved misplaced on one significant occasion – the battle of Ebenezer, at which the Israelites were defeated by the Philistines and four thousand of their men were killed.[42] After this *débâcle*:

> The troops returned to the camp and the elders of Israel said … 'Let us fetch the Ark of our God from Shiloh so that it may come among us and rescue us from the power of our enemies.'[43]

This suggestion was immediately accepted:

> So the people sent to Shiloh, that they might bring from thence the Ark of the Covenant of the Lord of Hosts, which dwelleth between the cherubim … and when the Ark of the Covenant of the Lord came into the camp, all Israel shouted with a great shout so that the earth rang.[44]

Hearing this noise, the Philistines exclaimed:

> 'What can this great shouting in the Hebrew camp mean?' And they realized that the Ark of Yahweh had come into the camp. At this the Philistines were afraid; and they said, 'God has come to the camp'. 'Alas!' they cried. 'This has never happened before. Alas! Who will save us from the

> power of this mighty God?… But take courage and be men, Philistines, or you will become slaves to the Hebrews … Be men and fight.’[45]

Battle was joined again and, to the utter astonishment of all concerned:

> Israel was smitten, and they fled every man into his tent: and there was a very great slaughter; for there fell of Israel thirty thousand footmen. And the Ark of God was taken.[46]

This was truly a catastrophe. Never before had the Israelites suffered defeat when they had carried the Ark into battle and never before had the Ark itself been captured. Such an eventuality had been unthinkable, unimaginable – and yet it had happened.

As the Philistines bore the relic triumphantly away, a runner was sent to carry the bad news to Eli, the High Priest, who had remained behind at Shiloh:

> And … lo, Eli sat upon a seat by the wayside watching … Now Eli was ninety and eight years old and his eyes were dim that he could not see. And the man said unto Eli, I am he that came out of the army, and I fled today out of the army. And he said, What is there done, my son? And the messenger answered and said, Israel is fled before the Philistines, and there hath been also a great slaughter among the people … and the Ark of God is taken.
>
> When he mentioned the Ark of God, Eli fell backward off his seat … His neck was broken and

> he died, for he was old and heavy.
>
> [And] his daughter-in-law … was with child and near her time. When she heard the news that the Ark of God had been captured … she crouched down and gave birth, for her labour pains came on.[47]

The child thus born was called Ichabod meaning 'where is the glory?'[48] This curious name was chosen, the Bible explained, because the mother had given vent to a great cry of grief when she had received the information about the loss of the Ark: 'And she said, The glory is departed from Israel: for the Ark of God is taken.'[49]

Even stranger and more alarming events were to follow:

> When the Philistines had captured the Ark of God they brought it from Ebenezer to Ashdod. Taking

the Ark of God, the Philistines put it in the temple of [their deity] Dagon, setting it down beside [the statue of] Dagon. Next morning the people of Ashdod went to the temple of Dagon and there lay Dagon face down on the ground before the Ark of Yahweh. They picked Dagon up and put him back in his place. But early next morning there lay Dagon face down again upon the ground before the Ark of Yahweh, and Dagon's head and two hands were lying severed on the threshold; only the trunk of Dagon was left in its place. This is why the priests of Dagon and indeed all who enter Dagon's temple do not step on the threshold of Dagon in Ashdod to the present day.

The hand of Yahweh weighed heavily on the people of Ashdod and struck terror into them,

afflicting them with tumours, in Ashdod and its territory. When the men of Ashdod saw what was happening they said, ‘The Ark of the God of Israel must not stay here with us, for his hand lies heavy on us and on Dagon our god.’ So they summoned all the Philistine chiefs to them, and said, ‘What shall we do with the Ark of the God of Israel?’ They decided, ‘The Ark of the God of Israel must go to Gath.’ So they took the Ark of the God of Israel to Gath. But after they had taken it there, the hand of Yahweh lay heavy on that town and a great panic broke out; the people of the town, from youngest to oldest, were struck with tumours that he brought out on them. They then sent the Ark of God to Ekron, but when it came to Ekron the Ekronites shouted, ‘They have brought us the

> Ark of the God of Israel to bring death to us and our people.' They summoned all the Philistine chiefs and said, 'Send the Ark of the God of Israel away; let it not bring death to us and our people' – for there was mortal panic throughout the town; the hand of God was very heavy there. The people who did not die were struck with tumours and the wailing from the town went up to heaven.[50]

Shattered by the horrible afflictions that they had suffered because of the relic, the Philistines eventually decided – after seven months[51] – to 'send it back to where it belongs'.[52] To this end they loaded it onto a 'new cart' hauled by 'two milch kine'[53] and set it rumbling on its way towards Bethshemesh, the nearest point inside Israelite territory.[54]

Another disaster soon followed, and this time the

Philistines were not the victims:

> They of Bethshemesh were reaping their wheat harvest in the valley: and they lifted up their eyes, and saw the Ark, and rejoiced to see it. And the cart came unto the field of Joshua, a Bethshemite, and stood there, where there was a great stone: and the men of Bethshemesh offered burnt offerings and sacrificed sacrifices the same day unto the Lord … [But] he smote the men of Bethshemesh because they had looked into the Ark of the Lord, even he smote of the people fifty thousand and threescore and ten men; and the people lamented because the Lord had smitten many of the people with great slaughter.[55]

The text quoted above is from the King James Authorized

Version of the Bible, produced in the early seventeenth century. Other more recent translations agree that certain men of Bethshemesh were smitten or 'struck down' by the Ark but put the number slain at *seventy* rather than fifty thousand and seventy – and it is the consensus of modern scholarship that this figure is the correct one.[56]

Seventy men, therefore, looked into the Ark of the Covenant after it arrived in the field of Joshua the Bethshemite, and these seventy men died as a result.[57] Nowhere is it stated exactly *how* they died; but there can be no doubt that they were killed by the Ark – and in a manner sufficiently dramatic and horrible to lead the survivors to conclude: 'No one is safe in the presence of the Lord, this holy God. To whom can we send it to be rid of him?'[58] At this point, suddenly and rather mysteriously, a group of Levitical priests appeared, 'took down the Ark of the Lord,'[59]

and carried it off – not to its former home at Shiloh but instead to a place called 'Kiriath-Jearim' where it was installed in 'the house of Abinadabon the hill'.[60]

And on that hill it remained, isolated and guarded,[61] for the next half century or so.[62] Indeed it was not brought down again until David had become King of Israel. A powerful and headstrong man, he had recently captured the city of Jerusalem. Now it was his intention to consolidate his authority by bringing up to his new capital the most sacred relic of his people.

The date would have been somewhere between 1000 and 990 BC.[63] This is what happened:

> They placed the Ark of God on a new cart and brought it from Abinadab's house which is on the hill. Uzzah and Ahio … were leading the cart.

> Uzzah walked alongside the Ark of God and Ahio went in front … When they came to the threshing floor of Nacon, Uzzah stretched his hand out to the Ark of God and steadied it, as the oxen were making it tilt. Then the anger of Yahweh blazed out against Uzzah, and for this crime God struck him down on the spot, and he died there beside the Ark of God.[64]

Quite naturally:

> David was afraid of the Lord that day and said, 'How can I harbour the Ark of the Lord after this?' He felt he could not take the Ark of the Lord with him to the City of David.[65]

Instead he 'turned aside and carried it to the house of Obed-

edom the Gittite.'[66] At that house, while the Jewish monarch waited to see if it would kill anyone else, the Ark of the Covenant remained for three months. No further disasters occurred, however. On the contrary: 'Yahweh blessed Obed-edom and his whole family.'[67] The Scriptures are not explicit about the nature of this benediction. According to ancient folk traditions, however, 'it consisted in Obed-edom being blessed with many children … The women in his house gave birth after a pregnancy of two months only and bore six children at one time.'[68]

The Bible takes up the story again as follows:

> It was told King David, saying, the Lord hath blessed the house of Obed-edom and all that pertaineth unto him, because of the Ark of God. So David went and brought the Ark of God from

> the house of Obed-edom into the City of David with gladness.[69]

On this journey:

> the children of the Levites bare the Ark of God upon their shoulders with the staves thereon, as Moses had commanded according to the word of God.[70]

Then, finally, David led the joyous procession into Jerusalem 'with shouting and with the sound of the trumpet',[71] and with music played 'on all manner of instruments made of fir wood, even on harps, and on psalteries, and on timbrels, and on coronets, and on cymbals.'[72]

It had been David's hope that he would be able to build a temple in Jerusalem in which the Ark could be housed. In the

event, however, he was not to fulfil this ambition and instead had to content himself with placing the relic in a simple tent of the type that had been used during the desert wanderings.[73]

The honour (or the conceit?) of erecting the Temple was therefore left to another man. As David himself put it before he died:

> As for me, I had it in mine heart to build an house of rest for the Ark of the Covenant of the Lord … and had made ready for the building … But God said unto me, Thou shalt not build an house for my name … Solomon thy son, he shall build my house.[74]

This prophecy was duly fulfilled. At Solomon's command, work was started on the Temple around the year 966 BC[75] and

was completed rather more than a decade later, probably in 955 BC.[76] Then, when all was done, the Holy of Holies – a place which the Lord had ordered should be utterly dark – was made ready to receive the precious object that it had been built to contain:

> Solomon assembled the elders of Israel, and all the heads of the tribes … that they might bring up the Ark of the Covenant of the Lord … And all the elders of Israel came, and the priests took up the Ark. And they brought up the Ark of the Lord … And King Solomon, and all the congregation of Israel that were assembled unto him, were with him before the Ark, sacrificing sheep and oxen that could not be told nor numbered for multitude. And the priests brought

> in the Ark of the Covenant of the Lord to its place in the Temple … in the Holy of Holies.[77]

And there the sacred relic remained, enveloped in 'thick darkness', until it mysteriously vanished at some unknown date between the tenth and sixth centuries BC.[78] As I have already indicated in Chapter 1, absolutely no explanation exists for its disappearance, which scholars regard as one of the great unsolved riddles of the Bible.[79] Almost equally puzzling, however, are the awesome powers that it seems to have possessed in its heyday – powers portrayed in the Old Testament as stemming directly from God.

Deus ex machina

In trying to understand the Ark, I found myself returning again and again to the perplexing issue of these powers. What could have accounted for them? It seemed to me that there were three possible answers:

1 The Old Testament was right. The Ark was indeed a repository of divine energies and these energies were the source of all the 'miracles' that it performed.

2 The Old Testament was wrong. The Ark was just an ornate casket and the children of Israel were the victims of a collective mass hallucination that lasted for several hundred years.

3 The Old Testament was both right and wrong at the same time. The Ark possessed genuine powers, but those powers were neither 'supernatural' nor divine. On the

contrary, they were man-made.

I looked into all three options and concluded that I certainly could not accept the first unless I was also prepared to accept that Yahweh, the God of the Israelites, was a psychopathic killer – or a kind of malign genie who lived in a box. Nor could I accept the second – primarily because the Old Testament, which is a compilation of books codified in widely different periods, was remarkably *consistent* where the Ark was concerned. Throughout the Scriptures it was the *only* artefact explicitly and unambiguously portrayed as being imbued with supernatural energies. All other man-made objects were treated quite matter-of-factly. Indeed even exceptionally holy items such as the seven-branched golden candlestick known as the *menorah*, the so-called 'table of the showbread', and the altar upon which sacrifices were

performed, were clearly understood to be nothing more than important pieces of ritual furniture.

The Ark was therefore quite unique, unrivalled in the special reverence accorded to it by the scribes, and matchless in the awesome deeds attributed to it throughout the lengthy period in which it completely dominated the biblical story. Moreover its alleged powers showed few signs of having fallen victim to imaginative literary embellishment. On the contrary, from the time of its construction at the foot of Mount Sinai until its sudden and unexplained disappearance hundreds of years later, it continued to exhibit the *same* spectacular but limited repertoire. Thus it continued to lift itself, its bearers, and other objects around it off the ground; it continued to emit light; it continued to be associated with a strange 'cloud' that materialized 'between the cherubim'; it continued to afflict people with ailments like 'leprosy'[80] and

‘tumours’; and it continued to kill those who accidentally touched or opened it. Significantly, however, it exhibited none of the other marvellous characteristics that one might have expected if a mass hallucination had been involved or if a great deal of fiction had been allowed to adulterate the record: for example, it did not make rain; it did not turn water into wine; it did not resurrect the dead; it did not drive out devils; and it did not always win the battles into which it was taken (although it usually did).

In other words, throughout its history, it consistently behaved like a powerful machine that had been designed to carry out certain very specific tasks and that only performed effectively within its design parameters – although even then, like all machines, it was fallible because of defects in its construction and because it was subject both to human error and to wear and tear.

I therefore formulated the following hypothesis, in line with the third alternative set out above: the Old Testament had indeed been both right and wrong at the same time. The Ark *had* possessed genuine powers, but those powers had been neither supernatural nor divine; on the contrary, they must have been the products of *human* skill and ingenuity.

This, of course, was only a theory – a speculation intended to guide my further research – and it was confronted by a great many legitimate doubts. Most important of all, how could men possibly have manufactured so potent a device more than three thousand years ago, when technology and civilization had supposedly been at a very rudimentary stage?

This question, I felt, lay at the heart of the mystery. In seeking to answer it I found that I had to consider first and foremost the cultural context of the sacred relic – a context

that was almost entirely Egyptian. After all, the Ark was built in the wilderness of Sinai within a very few months after Moses had led his people out of their captivity in Egypt – a captivity that had lasted for more than four hundred years.[81] It therefore followed that Egypt was the most likely place in which to find clues to the Ark's true nature.

Tutankhamen's legacy

I became convinced that I was right about this after I had paid a visit to the Cairo Museum. Located in the heart of Egypt's capital city, close to the east bank of the Nile, this imposing building is an unequalled repository of Pharaonic artefacts dating back as far as the fourth millennium BC. One of the upper floors is given over to a permanent exhibition of objects recovered from the tomb of Tutankhamen, the

youthful monarch who ruled Egypt from 1352 to 1343 BC – i.e. about a century before the time of Moses.[82] I was entranced by this exhibition and spent several hours wandering amongst the display cases amazed at the beauty, variety and sheer quantity of the relics on view. It did not surprise me to learn that the renowned British archaeologist Howard Carter had taken six full years to empty the great sepulchre that he had found in the Valley of the Kings in 1922.[83] However, what interested me most of all about the treasures that he had unearthed was that they included dozens of Ark-like chests or boxes, some with carrying poles, some without, but all of them conceptually similar to the Ark of the Covenant.

By far the most striking of these objects were the four shrines that had been built to contain the sarcophagus of Tutankhamen. These shrines, which I studied closely, took

the form of large rectangular caskets that had originally been positioned one inside the other but that were now installed in separate display cases. Since each casket was made of wood, and since each, moreover, was plated 'inside and out with pure gold',[84] it was difficult to resist the conclusion that the mind that had conceived the Ark of the Covenant must have been familiar with objects like these.

Further support for this inference was provided by the presence on the doors and rear walls of each of the shrines of two mythical figures: tall and terrible winged women, fierce and imperious in stature and visage – like stern angels of vengeance. These powerful and commanding creatures, placed so as to provide ritual protection for the precious contents of the tomb, were thought to be representations of the goddesses Isis and Nephthys.[85] While that identification in itself held no special significance for me, I could not help

but note that the deities had their 'wings spread upwards' just like the cherubim referred to in the biblical description of the Ark. They also faced each other just as the biblical cherubim had done. And although they were shaped in high relief on the flat planes of the doors (rather than being distinct pieces of statuary) they were nevertheless fashioned 'of beaten gold' – again very much like the cherubim described in the Bible.[86]

No scholar, I knew, had ever been able to establish exactly what those cherubim had looked like. There was only consensus that they could in no way have resembled the chubby angelic 'cherubs' of much later western art, which were, at best, sanitized and Christianized interpretations of a truly ancient and pagan concept.[87] Lost in thought in the Cairo Museum, however, it seemed to me that the formidable winged guardians of Tutankhamen's inter-nested shrines

were the closest models that I was ever likely to find for the two cherubim of the Ark, which indeed had been conceived as standing sentinel over it and which had also frequently served as channels for its immense and deadly power.

The *tabotat* of Apet

I was subsequently to discover that the Ark's Egyptian background was wider and deeper even than this. Tutankhamen had also left another legacy which helped me to understand the full significance of that background. During a visit to the great temple at Luxor in Upper Egypt in April 1990, while passing through the elegant colonnade that extends eastwards from the court of Rameses II, I came across a story carved in stone – a permanent and richly illustrated account of the important 'Festival of Apet' which had been

inscribed here in the fourteenth century BC on Tutankhamen's direct orders.[88]

Although now badly eroded by the passage of the millennia, the faded reliefs on the west and east walls of the colonnade were still sufficiently visible for me to grasp the rudiments of the festival, which in Tutankhamen's time had marked the peak of the annual Nile flood upon which almost all of Egypt's agriculture depended.[89] I already knew that this perennial inundation (today held back by the Aswan High Dam with profoundly unfortunate ecological consequences) had been almost exclusively the product of the long rainy season in the Ethiopian highlands – a deluge that every year roared down out of Lake Tana and along the Blue Nile bestowing hundreds of thousands of tons of rich silt on the farmlands of the Delta and contributing an estimated six-sevenths of the total volume of water in the Nile river

system.[90] This opened up the possibility that the Apet ceremonials might in some way prove relevant to my quest: after all, they had celebrated a clear link between the life of ancient Egypt and events in far-off Ethiopia. Most probably this link had been no more than a coincidental one to do with climate and geography; nevertheless I regarded it as being of at least *prima facie* interest.

It turned out to be far more than that.

Studying first the western wall of the colonnade on which the Tutankhamen reliefs were displayed, my eye was caught by what appeared to be an Ark, lifted shoulder high on its carrying poles by a group of priests. Stepping closer I quickly confirmed that this was indeed the case: with the sole proviso that the object being transported took the form of a miniature boat rather than a casket, the scene before me looked like quite a faithful illustration of the passage in the

first book of Chronicles which states that the Levitical priests of ancient Israel ‘carried the Ark of God with the shafts on their shoulders as Moses had ordered’.[91]

Standing back to get perspective I established that the entire western wall of the colonnade was covered with images very similar to the one that had initially attracted my attention. In what seemed to be a massive and joyous procession I was able to make out the shapes of several different Ark-like boats being carried on the shoulders of several different groups of priests, before whom musicians played on sistra and a variety of other instruments, acrobats performed, and people danced and sang, clapping their hands in excitement.

With my pulse quickening I sat down in a patch of shade around the broken base of a column and reflected on the implications of the huge sense of *déjà vu* that had just

overtaken me. It was barely three months since I had attended *Timkat* in the Ethiopian city of Gondar on 18 and 19 January 1990. The details of the ceremonials that I had witnessed during those two days of religious frenzy were therefore still fresh in my mind – so fresh in fact that I could hardly fail to note the similarities between them and the ecstatic procession portrayed on the time-worn stones of this Egyptian temple. Both events, I realized, focussed around a kind of 'Ark worship', with the Arks being borne aloft by groups of priests and adored by hysterical crowds. Nor was this all: *Timkat* had been characterized by the performance of wild dances and the playing of musical instruments before the Arks. This sort of behaviour, it was now clear, had also been an intrinsic part of the Apet festival, right down to the types of musical instruments used, which in many cases were identical to those that I had seen in Gondar. Of course the

flat slabs of the *tabotat* carried on the heads of the Ethiopian priests were rather different in appearance from the Ark-like boats carried on the shoulders of their long-dead Egyptian counterparts. From my earlier research, however (detailed at some length in Chapter 6), I could hardly forget that according to established etymologies the original meaning of *tabot* had been 'ship-like container'. Indeed, as I knew very well, the archaic Hebrew word *tebah* (from which the Ethiopic term had been derived[92]) had been used in the Bible to refer specifically to ship-like arks, namely the ark of Noah and the ark of bulrushes in which the infant Moses had been cast adrift on the Nile. Nor, I now realized, could it possibly be irrelevant that the *Kebra Nagast* had at one point described the Ark of the Covenant as 'the belly of a ship'[93] containing 'the Two Tables which were written by the finger of God.'[94]

After catching my breath, I stood up and stepped out from

my patch of shade into the fierce mid-day sunlight that bathed the whole of the colonnade area. I then continued my examination of the faded reliefs of the Apet festival which, on the western wall, concerned the bringing of the arks from Karnak to the Temple at Luxor (a distance of about three miles) and, on the eastern wall, showed the procession's eventual return from Luxor back along the Nile to Karnak again where, with all due ceremony, the sacred vessels were reinstalled in their original resting places. Every detail of these complex and beautifully carved scenes reminded me irresistibly of *Timkat* in Gondar – which had also involved an outgoing procession (bringing the *tabotat* from the churches to the 'baptismal' lake beside the old castle) and a returning procession (bringing the *tabotat* back to their home churches again). Moreover, I could now see clearly that the bizarre ceremonies I had witnessed in the early morning of 19

January at the lake itself had also been prefigured in the Apet festival which, at every stage, appeared to have involved a special reverence for water (indeed, the reliefs of the early part of the procession showed that the arks had been carried directly from the temple to the banks of the Nile, where a number of elaborate rituals had then been performed).

Scholarly corroboration

After completing my trip to Egypt in April 1990 I took the opportunity to carry out some further research into the evidence that I had stumbled upon there. I discovered that the experts had no quarrel with my various conjectures. At one meeting, for example, Kenneth Kitchen, Professor of Egyptology at Liverpool University, confirmed that the caskets from Tutankhamen's tomb that I had seen in the

Cairo Museum could indeed have been prototypes for the Ark of the Covenant: ‘At the very least,’ he said in his broad and rather emphatic Yorkshire accent, ‘they prove that wooden boxes lined with gold were standard artefacts of the religious furniture of the period and that Moses would therefore have had the technology and skills at his disposal to manufacture the Ark. The methods of construction that he would have employed, and the use of such prefabricated structures for religious purposes, are abundantly attested by actual remains, pictures and texts in Egypt over a long period of time.’[95]

I also found scholarly corroboration for the link that I believed had existed between the festival of Apet and the early Judaic ceremonies surrounding the Ark of the Covenant. Working through piles of reference materials in the British Library I came across a book published in London

in 1884 by the Religious Tract Society and entitled *Fresh Light from the Ancient Monuments*. I might have ignored this slim and unprepossessing volume entirely had I not noticed that its author was a certain A. H. Sayce (who at the time had been Deputy Professor of Philology at Oxford University). Remembering that E. A. Wallis Budge, one of the great authorities on Egyptian religion, had held Sayce in the highest regard (describing him as a 'distinguished scholar'[96]) I opened the book at a chapter entitled 'The Exodus out of Egypt' and read that, in Sayce's opinion, 'the law and ritual of the Israelites' had been derived from many sources. Amongst these were Various festivals and fasts' in which

> The gods were carried in procession in 'ships', which, as we learn from the sculptures, resembled in form the Hebrew Ark, and were borne on men's

> shoulders by means of staves.[97]

Encouraged by the support for my speculations that the distinguished nineteenth-century professor had given me, I looked further through the reference works at my disposal and was able to confirm that the ship-like arks carried during the Apet ceremonials had indeed contained gods, or rather small statues of various deities in the Egyptian pantheon.[98] These statues had been made of stone and thus, it seemed to me, were not far removed in concept from the stone 'Tablets of the Testimony' that had supposedly been lodged inside the Ark of the Covenant and that the Israelites had regarded as embodying their God. As one Hebrew scholar had put it in a seminal paper published in the 1920s:

> The tradition of the two sacred stone tablets within the Ark would point strongly to the

> conclusion that the original contents of the Ark must have been a sacred stone … [which] was either conceived of as the deity himself, or as the object in which the deity was thought to reside permanently.[99]

Nor was this the only connection that I was able to establish between the Ark of the Covenant and the ship-like arks that had been carried in the Apet ceremonies. Those ceremonies, it will be remembered, had taken place in the Upper Egyptian town now known as 'Luxor', a relatively recent name derived from the Arabic *L'ouqsor* (meaning 'the palaces'). Much earlier, during the period of Greek influence in Egypt (from about the fifth century BC) the whole area including the nearby temple at Karnak had been known as

Thebai. Modern Europeans had subsequently corrupted this name to the more familiar 'Thebes'.[100] In the process, however, they had obscured an intriguing etymology: the word *Thebai* had in fact been derived from *Tapet*, the name by which the Luxor/Karnak religious complex had been known in the era of Tutankhamen and Moses.[101] And *Tapet* in its turn was merely the feminine form of *Apet* – in other words, Luxor and Karnak had originally been named after the great festival for which they had been famous,[102] a festival that had centred upon a procession in which arks had been carried between the two temples. What intrigued me about this, of course, was the phonetic similarity of the words *Tapet* and *Tabot*, a similarity that looked all the less coincidental after I had discovered from one learned source that the shape of the *Tapet* arks had evolved over the passing centuries, gradually ceasing to resemble ships so closely and becoming

instead ‘more and more like a chest’.[103]

As noted above, I had long since established that the Ethiopic term *Tabot* had been derived from the Hebrew *tebah*, meaning ‘ship-like container’. Now I began to wonder whether it was not entirely possible that the word *tebah* had itself originally been derived from the ancient Egyptian *Tapet* – and whether this derivation might not have come about because the ceremonies devised for the Ark of the Covenant had been modelled upon those of the Apet festival.[104]

Such links and coincidences, though by no means attaining the stature of hard evidence, did deepen my conviction that the Ark of the Covenant could only properly be understood in the context of its Egyptian background. Amongst other things, as Professor Kitchen had pointed out, that background demonstrated that Moses would have had the technology and skills at his disposal to fulfil God’s command to build an ‘Ark

of acacia wood' and 'to plate it inside and out with pure gold'.

At the same time, however, the sacred relic had been much more than *just* a wooden box lined with gold. I therefore wondered whether an explanation of its baleful and destructive powers might also be found in Egypt.

Seeking such an explanation I travelled to that country several times and talked to theologians, biblical scholars and archaeologists. I also surrounded myself with rare books, religious texts, folklore, myths and legends and tried to discern whether threads of fact might not lie entangled amongst the wilder fancies.

As my research progressed I became increasingly intrigued by the personality of Moses, the Hebrew prophet and law-giver who challenged Pharaoh, who led the children of Israel to the Promised Land, and who also ordered the construction

of the Ark of the Covenant after he had supposedly received the 'blueprint' for its design from God Himself. The more closely I looked at this towering, heroic figure, the more convinced I became that information of fundamental importance to my understanding of the Ark would be found within the records of his life.

'A magician of the highest order …'

It is probably the case that every Christian, Muslim and Jew alive in the world today has a shadowy image of the prophet Moses tucked away in some corner of his or her mind. Certainly I was no exception to this rule when I began to think seriously about him and about his role in the mystery of the Ark. My problem, however, was that I needed to flesh out the caricature that I had acquired in Sunday school and,

in the process, to gain some real insight into the man who scholars agree was 'the outstanding figure in the emergence and formulation of the Jewish religion'.[105]

Of considerable help to me in completing this task were the extensive and highly regarded historical writings of Flavius Josephus, a Pharisee who lived in Roman-occupied Jerusalem in the first century AD. In his *Antiquities of the Jews*, compiled from traditions and reference materials unavailable today, this diligent scholar chronicled the four hundred years of Hebrew enslavement in Egypt, which lasted roughly from 1650 until 1250 BC, the probable date of the Exodus.[106] The birth of Moses was the key event of this period and was, Josephus said, the subject of a prophecy by an Egyptian 'sacred scribe', a person 'with considerable skill of accurately predicting the future', who informed Pharaoh that there would arise amongst the Israelites

> one who would abase the sovereignty of the Egyptians were he reared to manhood, and would surpass all men in virtue and win everlasting renown. Alarmed thereat, the king, on the sage's advice, ordered that every male child born to the Israelites should be destroyed by being cast into the river.[107]

On hearing this edict a certain Amram (Moses's father-to-be) was plunged into 'grievous perplexity' because 'his wife was then with child'. God, however, appeared to him in a dream and comforted him with the news that:

> This child, whose birth has filled the Egyptians with such dread that they have condemned to destruction all the offspring of the Israelites, shall escape those who are watching to destroy him,

> and, reared in marvellous wise, he shall deliver the Hebrew race from their bondage in Egypt, and be remembered so long as the universe shall endure, not by Hebrews alone but even by alien nations.[108]

These two passages were helpful to me because they considerably expanded the biblical narrative on the birth of Moses given in the opening chapters of the book of Exodus. I noted with interest that the great legislator of the Jews had indeed been remembered 'even by alien nations'. More intriguing by far, however, was the special emphasis put on the prophecy of the 'sacred scribe' who, with his ability to foretell the future, could only have been an astrologer at the court of the Pharaoh. In making this point, Josephus seemed to be hinting that – from the outset – there had been

something almost magical about Moses. In the time-honoured tradition of setting a thief to catch a thief, what we had here was a magician predicting the coming of a magician.

The bare bones of the events that occurred after the child was born are too familiar to require lengthy repetition: aged only three months he was placed by his parents in a papyrus basket coated with bitumen and pitch and cast adrift on the Nile; downriver Pharaoh's daughter was bathing; she saw the floating crib, heard cries, and sent her handmaiden to rescue the mewling infant.

Subsequently Moses was brought up in the royal household where, according to the Bible, he was instructed 'in all the wisdom of the Egyptians'.[109] Josephus had little to add at this point, but another classical authority – Philo, the respected Jewish philosopher who lived around the time of Christ – gave a fairly detailed account of exactly *what* Moses

was taught: ‘Arithmetic, geometry, the lore of metre, rhythm and harmony were imparted to him by learned Egyptians. These further instructed him in the philosophy conveyed in symbols as displayed in the so-called holy inscriptions.’ Meanwhile ‘inhabitants of neighbouring countries’ were assigned to teach him ‘Assyrian letters and the Chaldean science of the heavenly bodies. This he also acquired from the Egyptians, who gave special attention to astrology.’[110]

Reared as an adopted son of the royal family, Moses was seen for a considerable period as a successor to the throne.[111] The implication of this special status, I learned, was that in his youth he would have been given a thorough initiation into all the most arcane priestly secrets and into the mysteries of Egyptian magic[112] – a course of study that would have included not only star-knowledge, as indicated by Philo, but also necromancy, divining and other aspects of

occult lore.[113]

A clue that this may indeed have been so was given in the Bible, where Moses was described as being 'mighty in words and deeds'.[114] In the cogent and dependable judgment of that great scholar and linguist Sir E. A. Wallis Budge, this phrase – also and perhaps not coincidentally applied to Jesus Christ[115] – contained the coded suggestion that the Hebrew prophet was 'strong of tongue', like the Egyptian goddess Isis. What this meant, though Moses was self-confessedly lacking in oratorical eloquence,[116] was that he must have been capable of uttering words of power 'which he knew with correct pronunciation, and halted not in his speech, and was perfect both in giving the command and in saying the word.'[117] As such, again like Isis – who was famous for her proficiency in all kinds of witchcraft – he would have been equipped to cast the most potent spells. Others around him would therefore

have treated him with a high degree of respect since they would unquestioningly have believed him capable of bending reality and overriding the laws of physics by altering the normal order of things.

I was able to turn up a considerable body of evidence from the Old Testament to support the contention that Moses had been seen in exactly this way. There was, nevertheless, one important proviso: his magic was depicted throughout as being wrought solely at the command of Yahweh, the God of the Hebrews.

According to the book of Exodus, Moses's first encounter with Yahweh took place in a wilderness near the land of Midian (to which he had fled to escape retribution after his anger at the persecution of Hebrew labourers had led him to kill an Egyptian overseer). From the geographical clues that were given, it was clear that this wilderness must have been

located in the southern part of the Sinai peninsula, most probably within sight of the peak of Mount Sinai itself[118] (where Moses was later to receive the Ten Commandments and the 'blueprint' for the Ark). The Bible, at any rate, spoke of 'the mountain of God' and placed Moses at its foot when the Lord appeared to him 'in a flame of fire out of the midst of a bush: and he looked, and, behold, the bush burned with fire, and the bush was not consumed.'[119] God instructed Moses that he should return to Egypt in order to lead his people out of their bondage there.[120] Before agreeing, however, the prophet *asked the name* of the strange and powerful being who had addressed him.[121]

This daring question in itself contained evidence of Moses's identity as a sorcerer for, as the great anthropologist Sir James Frazer observed in his seminal work *The Golden Bough*:

> Every Egyptian magician … believed that he who possessed the true name possessed the very being of god or man, and could force even a deity to obey him as a slave obeys his master. Thus the art of the magician consisted in obtaining from the gods a revelation of their sacred names, and he left no stone unturned to accomplish his end.[122]

The Lord, however, did not respond directly to the prophet's question. Instead he replied briefly and enigmatically with these words: 'I AM WHO I AM.' By way of further clarification he then added: 'I am the God of thy father, the God of Abraham, the God of Isaac and the God of Jacob.'[123]

The phrase 'I am who I am' (or 'I am what I am', 'I am that I am', depending on the translation) was, I discovered, the root meaning of the name Yahweh used in the Old Testament

– and subsequently bastardized in the Authorized King James Version of the Bible as ‘Jehovah’. This name, however, was no name; rather it was an evasive formula based loosely on the Hebrew verb ‘to be’ and written as four consonants which transliterated into the Latin alphabet as ‘YHWH’. Known to theologians as the tetragrammaton, these letters revealed nothing beyond the active *existence* of God and thus continued to conceal the divine identity from modern researchers every bit as effectively as they had once done from Moses. Indeed so potent was their mystery that no one today could even claim to know exactly how they should be pronounced; rendering the tetragrammaton as ‘Yahweh’ by the insertion of the vowels ‘a’ and ‘e’ was, however, the accepted convention.[124]

The importance of all this from the biblical perspective was that the deity knew, and pronounced, the name of Moses;

Moses, by contrast, only managed to obtain from Him the ritual incantation ‘I am who I am’. Henceforward, therefore, the prophet was bound to answer to God and to do his bidding; likewise all his sorcery in the future would derive from the power of God, and from the power of God alone.

It was understandable that the later redactors of the Scriptures should have wanted to present the relationship between omnipotent God and fallible man in precisely this way. What they could not do, however, was erase the evidence that that man had indeed been a sorcerer; neither could they cover up the most convincing demonstrations of his sorcery – the plagues and pestilences that he was soon to inflict upon the Egyptians in order to force Pharaoh to release the children of Israel from captivity.

In working these terrible miracles Moses was assisted by his older half-brother Aaron, who frequently served as his

agent and spokesman. Both Moses and Aaron were also equipped with rods – effectively magicians' wands – which they used to work their spells. That of Moses was sometimes referred to as 'the rod of God'[125] and first appeared when the prophet complained to Yahweh that neither Pharaoh, nor the children of Israel, would believe that he had been divinely commissioned, unless he was able to provide some kind of proof. 'What is that in thine hand?' God asked. 'A rod,' Moses replied.[126] God then told him to throw it on the ground 'that they may believe that the Lord God hath appeared unto thee':

> And he cast it on the ground and it became a serpent; and Moses fled from before it. And the Lord said unto Moses, Put forth thine hand and take it by the tail. And he put forth his hand and caught it, and it became a rod in his hand.[127]

Once again the emphasis put by the scriptural text on the primacy of God's role in all of this was understandable. Once again also, however, the connections with Egyptian occult practice were quite unmissable. The turning of an inanimate stick into a snake, and then back again into a stick, was a feat frequently carried out by the magicians of that country; likewise the power to control the movements of venomous reptiles was claimed by Egyptian priests from the very earliest times; last but not least, all Egyptian magicians – amongst them the sage Abaaner and the sorceror-king Nectanebus – possessed marvellous rods made of ebony.[128]

Looked at in this light, I did not find it surprising that the first contests between Moses and Aaron on one side, and the priests at Pharaoh's court on the other, were fairly evenly drawn. To impress the Egyptian tyrant, Aaron threw down his rod – which, of course, became a serpent as soon as it hit

the ground. Undaunted Pharaoh called for his own sages and sorcerers, ‘and with their witchcraft the magicians of Egypt did the same. Each threw his staff down and these turned into serpents.’ Then, however, Aaron’s rod – imbued with the superior power of Yahweh – swallowed up the rods of the magicians.[129]

In the next encounter Moses and Aaron turned the waters of the Nile to blood. Remarkable though this trick was, Pharaoh remained unimpressed because ‘the magicians of Egypt used their witchcraft to do the same.’[130]

The plague of frogs, which followed, was likewise matched by Pharaoh’s sorcerers.[131] But the plague of mosquitoes (gnats in some translations, lice in others) was too much for them: ‘The magicians with their witchcraft tried to produce mosquitoes and failed. The mosquitoes attacked men and beasts. So the magicians said to Pharaoh, “This is the finger

of God.” ’[132]

Still the hard-hearted king refused to let the Hebrews go. He was punished for this with a plague of flies[133] and soon afterwards with a pestilence that killed livestock.[134] Moses next caused a plague of boils to break out (he did this by throwing a handful of soot into the air[135]) and then, by using his rod, he procured thunder and hail, a plague of locusts and three days of ‘thick darkness’.[136] Finally, the Hebrew prophet arranged for the death of ‘all the first-born of the land of Egypt: the first-born of Pharaoh, the first-born of the prisoner in his dungeon, and the first-born of all the cattle.’[137] After this: ‘The Egyptians urged the people to hurry up and leave the land because, they said, “Otherwise we shall all be dead”.’[138]

So the Exodus began, and with it a prolonged period of danger and enchantment during which, at the foot of Mount

Sinai, the Ark of the Covenant was built. Before reaching Sinai, however, the Red Sea had to be crossed. Here Moses gave another dramatic demonstration of his prowess in the occult arts:

> And Moses stretched out his hand over the sea; and the Lord caused the sea to go back by a strong east wind all that night, and made the sea dry land, and the waters were divided. And the children of Israel went into the midst of the sea upon the dry ground: and the waters were a wall unto them on their right hand and on their left.[139]

As everyone who has ever attended Sunday school will remember, the pursuing Egyptian forces followed the Israelites into 'the midst of the sea, even all Pharaoh's horses, his chariots and his horsemen.'[140] Then:

> Moses stretched forth his hand over the sea – and the waters returned, and covered the chariots, and the horsemen, and all the host of Pharaoh that came into the sea after them; there remained not so much as one of them. But the children of Israel walked upon dry land in the midst of the sea; and the waters were a wall unto them on their right hand, and on their left.[141]

Again, and predictably, the Bible put emphasis on the power of God: Moses may have stretched out his hand a couple of times but it was the Lord who 'caused the waters to go back' – and to 'return'. I found it slightly harder to accept the scriptural party-line on this, however, after I had learned that the ability to command the waters of seas and lakes had also frequently been claimed by Egyptian priests and

magicians. For example, one of the ancient documents that I studied (the Westcar Papyrus) related a story from the early Fourth Dynasty – some 1,500 years *before* the time of Moses – which focussed on the doings of a certain Tchatcha-em-ankh, a *Kher Heb* or High Priest attached to the court of Pharaoh Seneferu. Apparently the Pharaoh was out boating one day in the pleasant company of 'twenty young virgins having beautiful heads of hair and lovely forms and shapely limbs.' One of these ladies dropped a much- favoured ornament of hers into the lake and was broken-hearted to have lost it. The Pharaoh, however, summoned Tchatcha-em- ankh who

> spake certain words of power (*hekau*) and having thus caused one section of the water of the lake to go upon the other, he found the ornament lying upon a pot-sherd, and he took it and gave it to the

> maiden. Now the water was twelve cubits deep, but when Tchatcha-em-ankh had lifted up one section of the water onto the other, that portion became four and twenty cubits deep. The magician again uttered certain words of power, and the water of the lake became as it had been before he had caused one portion of it to go up onto the other.[142]

While of course to do with a much more trivial incident, the story in the Westcar Papyrus nevertheless contained many points that I could only regard as startlingly similar to the parting of the waters of the Red Sea. This, in my view, left no room for doubt that Moses's virtuoso performance in bringing about the great miracle established him firmly in an ancient, and very *Egyptian*, occult tradition. Sir E. A. Wallis

Budge, who I had first encountered through his translation of the *Kebra Nagast*, but who had also been keeper of Egyptian and Assyrian Antiquities at the British Museum, had this to say on the subject:

> Moses was a skilled performer of magical rituals and was deeply learned in the knowledge of the accompanying spells, incantations, and magical formulas of every description … [Moreover] the miracles which he wrought … suggest that he was not only a priest, but a magician of the highest order and perhaps even a *Kher Heb*.[143]

Secret science?

As a *Kher Heb* (High Priest) of the Egyptian temple Moses

would undoubtedly have had access to a substantial corpus of esoteric wisdom and of magico-religious 'science' that the priestly guilds kept secret from the laity. I knew that modern Egyptologists accepted that such a body of knowledge had existed.[144] I also knew that they had very little idea as to what it might actually have consisted of: obscure references to it appeared in inscriptions in the tombs of senior temple officials but almost nothing of any substance had survived in written form. A great deal was probably passed on in an exclusively oral tradition confined to initiates.[145] Scholarly opinion had it, however, that most of the rest had been destroyed, either deliberately or accidentally. Who could possibly guess what treasures of learning were lost when fire ravaged the great library at Alexandria – a library that was reputed, by the second century BC, to have contained more than 200,000 scrolls?[146]

There was, however, one matter on which there was no need to speculate: as Herodotus put it in the fifth century BC, 'Egypt has more wonders in it than any country in the world and more works that are beyond description than anywhere else.' Amongst other achievements, this widely travelled Greek historian – whose books are still in print – rightly credited the Egyptians with being 'the first of mankind to invent the year and to make twelve divisions of the seasons for it'. Herodotus also claimed to have penetrated some of the mysteries of the Egyptian priesthood, but then, rather tantalizingly, added that he could not – or would not – reveal what he had learned.[147]

Herodotus was not the first or the last visitor to Egypt to come away with the distinct impression that there were hidden secrets there – and that there might be more to these secrets than mere religious mumbo-jumbo. Indeed the notion

that this ancient culture originally promoted itself to greatness through the application of some kind of advanced, but now lost, scientific knowledge was, I discovered, one of the most durable and pervasive in human history: it had proved equally attractive to furious cranks and sober scholars and had been the subject of immense amounts of controversy, acrimony, wild speculation and serious research.

It was a notion, furthermore, that impinged directly upon my quest because it raised an intriguing possibility: as a magician skilled in Egyptian 'sacred science', might not Moses have had at his disposal far more in the way of knowledge and technology than had hitherto been recognized by the archaeologists? And might he not have applied this knowledge and technology to the construction of the Ark of the Covenant?

Such a hypothesis seemed worthy of further investigation. I

quickly discovered, however, that what was known about the technological achievements of the ancient Egyptians raised at least as many questions as it answered.

It was clear, for example, that these people were clever metalworkers: their gold jewellery, in particular, was quite exquisite, showing a degree of craftsmanship rarely equalled since. It was also notable, from the very earliest times, that the edges of their copper tools were brought to a remarkable degree of hardness – so hard, in fact, that they could cut through schist and the toughest limestone. No modern blacksmith, I learned, would have been able to achieve such results with copper; it was thought likely, however, that any 'lost art' lay less in the manufacture of the tools than in the manner in which they were manipulated on site by the stonemasons.[148]

A study of many surviving hieroglyphs and papyri left me

in no doubt that the ancient Egyptians were – at the very least – moderate mathematicians in the modern sense. They employed unit fractions and appeared to have developed a special form of infinitesimal calculus which enabled them to compute the volume of complex objects.[149] It also seemed highly probable, more than 2,000 years before the Greeks, that they had understood how to use the transcendental number *pi* to derive the circumference of any circle from its diameter.[150]

Egyptian observational astronomy was another area in which great progress appeared to have been made at a very early date. According to Livio Stecchini, an American professor of the history of science and an expert on ancient measurement, astronomical techniques in use as early as 2200 BC had enabled Egyptian priests to calculate the length of a degree of latitude and longitude to within a few hundred

feet – an achievement that was not to be equalled by other civilizations for almost 4,000 years.[151]

The Egyptians also excelled in medicine: their surgeons were skilled in a variety of difficult procedures,[152] their understanding of the human nervous system was refined, and their pharmacopoeia included several well known drugs in their first-recorded applications.[153]

I came across many further pieces of evidence which illustrated the relatively advanced state of Egyptian knowledge at a time when the European peoples were still plunged in barbarism. In my view, however, none of the data suggested the existence of any science that we would regard as truly breathtaking today, nor of any branch of technical achievement sufficiently sophisticated to account for the potent energies that the Ark of the Covenant had been able to unleash. Nevertheless, as I have already noted, the belief that

the Egyptians were the guardians of some ‘great and secret wisdom’ was widespread and almost immune to counter-argument.

I knew very well that such ardent conviction often stemmed more from a subconscious desire to glorify the past of the human species than from any rational weighing up of empirical facts. This, certainly, was the dominant opinion of members of the archaeological establishment, most of whom regarded the ‘great and secret wisdom’ theory as balderdash and claimed to have found nothing extraordinary in Egypt in more than a century of painstaking digging and sifting. I myself am sceptical and pragmatic by nature. Nevertheless I must confess that the physical evidence which I saw everywhere around me during the series of research trips that I made to this beautiful and time-worn land convinced me that the academics did not have all the answers, that much

remained to be explained, and that there were a number of aspects of the Egyptian experience which had been lamentably under-researched simply because they were beyond the scope of conventional archaeology – and probably of all other accepted forms of scholarly investigation as well.

Three sites had a particularly profound impact on me: the temple complex at Karnak; the Zoser 'step' pyramid at Saqqara; and the Great Pyramid at Giza on the outskirts of Cairo. It seemed to me that the special composite quality of raw power, delicate grace, imposing grandeur, mystery and immortality that these edifices possessed stemmed from the working out within them of a refined and highly developed understanding of harmony and proportion – an understanding that could reasonably be said to have amounted to a science. Combining engineering, architecture

and design, that science had been remarkable by any standards. It had never since been surpassed in its ability to stimulate religious awe, and it had been equalled in Europe only in the great Gothic cathedrals of the Middle Ages such as Chartres.

Was this an accident? Was the essentially similar effect on the senses of the Egyptian monuments and the Gothic cathedrals a matter of pure chance – or was there perhaps a connection?

I had long suspected that there had indeed been a connection and that the Knights Templar, through their discoveries during the Crusades, might have formed the missing link in the chain of transmission of secret architectural knowledge.[154] At Karnak, as I walked slowly past the looming pylons, into the Great Court, and through the forest of giant columns of the Hypostyle Hall, I could not

help but remember that Saint Bernard of Clairvaux, the Templars' patron, had defined God – astonishingly for a Christian – as 'length, width, height and depth'.[155] Nor could I forget that the Templars themselves had been great builders and great architects, or that the Cistercian monastic order to which Saint Bernard had belonged had also excelled in this particular field of human endeavour.[156]

Centuries and civilizations before them, however, it had been the ancient Egyptians who had been the first masters of the science of building – the first and still the greatest architectmasons that the world had ever known. Moreover, the monuments that they left behind beggared description and challenged time itself. Typical in this respect were two tall obelisks that dominated the Karnak complex and that I found myself particularly drawn to on my own visits there. One, I discovered, had been erected by Pharaoh Tuthmosis I

(1504–1492 BC) and the other by Queen Hatshepsut (1473–1458 BC).[157] Both were perfect monoliths, hewn from single slabs of solid pink granite, the former standing 70 feet in height and weighing an estimated 143 tons, the latter standing 97 feet in height and weighing an estimated 320 tons.[158] A few minutes' walk to the south, overlooking a sacred lake that was used by the temple priests for elaborate purification ceremonies, I found a third, but tumbled and broken, obelisk, the top 30 feet of which – surmounted by a finely pointed pyramidion – were nevertheless quite undamaged. On one occasion, following the advice of a guidebook I had with me,[159] I stepped over the rope perimeter surrounding this fallen giant and placed my ear to the angle of the pyramidion. I then struck the granite firmly with the palm of my hand and listened, entranced, as the entire monolith reverberated with a deep, low-pitched tone

like some strange and prodigious musical instrument.

It seemed to me that this phenomenon could not possibly have been accidental. On the contrary, the enormous care and skill required to produce such a monolith (when the same splendid *visual* effect might have been achieved simply by cementing block on block) only really made sense if the ancient Egyptians had wanted to realize some special property inherent in a single piece of stone.

Something, at any rate, other than mere aesthetic considerations must have lain behind the erection of these elegant and flawless stelae. I learned that they had not been hewn locally but rather had been transported by river from granite quarries more than 200 kilometres to the south.

The Nile was a highway broad and deep. It was therefore reasonable to suppose, once the obelisks had been loaded upon barges, that it would not have been so difficult a matter

to float them downstream. What I found much harder to understand, however, was the method that the ancient Egyptians had employed to get these massive needles of stone on to the barges in the first place – and then off them again once they had arrived at their destination. One monolith had been left *in situ* at the quarries, only partially separated from the bedrock, because it cracked before it was completely excavated. Had this accident not befallen it, however, it would have made an obelisk 137 feet high and almost 14 feet thick at its base. Obviously, when the work was started, it had been confidently intended that this monstrous object – weighing a staggering 1,168 tons[160] – would be moved and erected somewhere. Yet it was extremely difficult to explain exactly how that would have been done by a people who (according to the archaeologists) lacked even simple winches and pulley systems.[161] Indeed I knew that the task of moving

so large a piece of solid stone over a distance of several hundred feet – never mind several hundred kilometres! – would have taxed to the limit the ingenuity of a modern team of construction engineers supported by the most sophisticated and powerful machinery.

Equally puzzling, once the monoliths reached Karnak, was the manner in which they had been set upright on their pedestals with such faultless accuracy. In one of the temples a relief depicted Pharaoh raising an obelisk with no assistance of any kind and making use of just a single piece of rope.[162] It was quite normal for the ruler to be portrayed in heroic poses and perhaps all that was intended here was a symbolic representation of a real process in which hundreds of labourers were trained to pull together on multiple ropes. However, I could not rid myself of the suspicion that there must have been more to it than this. According to John

Anthony West, an experienced Egyptologist, the Pharaohs and priests were preoccupied with a principle known as *Ma'at* – often translated as 'equilibrium' or 'balance'. It was possible, he suggested, that this principle might have been carried over into practical spheres and 'that the Egyptians understood and used techniques of mechanical balance unknown to us'. Such techniques would have enabled them to 'manipulate these immense stones with ease and finesse … What would be magic to us was method to them.'[163]

If the obelisks, at times, seemed like the products of almost superhuman skill, I had to admit that the Pyramids in all ways surpassed them. As Jean Franqois Champollion, the founder of modern Egyptology, once remarked, 'the Egyptians of old thought like men a hundred feet tall. We in Europe are but Lilliputians.'[164]

Certainly, when I first entered the Great Pyramid at Giza, I felt like a Lilliputian – dwarfed and slightly intimidated, not only by the sheer mass and size of this mountain of stone but also by an almost tangible sense of the accumulated weight of the ages.

On previous visits I had only seen the exterior of the pyramid, since I had felt no desire to join the swarms of tourists pouring inside. Early in the morning of 27 April 1990, however, I managed by means of a small bribe to get into the great structure completely on my own. In the dim light provided by a series of low-wattage bulbs, and bent over almost double to avoid hitting my head on the rock face above, I climbed the 129 feet of the ascending passage, and then the 157 feet of the more spacious Grand Gallery, until I reached the so-called 'King's Chamber' – a 2:1 rectangle, the floor of which measured 34 feet 4 inches by 17 feet 2 inches.

Just over 19 feet high, the ceiling of this room – which occupied the very heart of the pyramid – consisted of nine monolithic blocks of granite each weighing approximately 50 tons.[165]

I do not remember how long I remained in the chamber. The atmosphere was musty, and the air warm – like the exhalation of some giant beast. The silence that surrounded me seemed absolute, all-enveloping, and dense. At some point, for a reason that I cannot explain, I moved to the middle of the floor and gave voice to a sustained low-pitched tone like the song of the fallen obelisk at Karnak. The walls and the ceiling seemed to collect this sound, to gather and amplify it – and then to project it back at me so that I could sense the returning vibrations through my feet and scalp and skin. I felt electrified and energized, excited and at the same time calm, as though I stood on the brink of some

tremendous and absolutely inevitable revelation.

After my April 1990 visit I was so impressed by the Great Pyramid that I spent several weeks researching its history. I discovered that it had been built around 2550 BC for Kufu (or Cheops), the second Pharaoh of the Fourth Dynasty, and that it was also the single largest edifice ever constructed by man.[166] The conventional belief amongst archaeologists was that it had been designed purely and simply as a tomb. This conjecture, however, struck me as being utterly incomprehensible: no mummy of any Pharaoh had ever been found there, only a poor and undecorated sarcophagus in the so-called King's Chamber (a sarcophagus, by the way, that was lidless and completely empty when it was first brought to light by Caliph Al-Mamun, an Arab ruler of Egypt who broke in with a party of diggers in the ninth century AD.[167])

As I researched the subject further it became clear to me

that the real purpose of the Great Pyramid was, in fact, a matter of considerable debate. On one side stood the most orthodox and prosaic scholars insisting that it was nothing more than a mausoleum. On the other side stood the pyramidologists – an apocalyptic tribe who pretended to find all manner of prophecies and signs in virtually every dimension of the immense structure.

The lunacies of this latter group were perhaps best summarized by one US critic who pointed out that it is possible to marshal numbers to prove almost anything: 'If a suitable unit of measurement is used, an exact equivalent to the distance to Timbuktu is certain to be found in the number of street lamps in Bond Street, or the specific gravity of mud, or the mean weight of adult goldfish.'[168]

This, of course, was quite true. Nevertheless, I could see that there were certain surprising features to which the

pyramidologists persistently drew attention which did seem unlikely to be accidental. For example, it was a fact that the latitude and longitude lines that intersected at the Great Pyramid (30 degrees north and 31 degrees east) crossed more dry land than any others. This put the edifice at the very centre of the habitable world.[169] Likewise, it was a fact that when a north-facing quadrant (a cake-slice-shaped quarter circle) was drawn on a map with its axis at the pyramid then this quadrant exactly encapsulated the entire Nile Delta.[170] Finally, it was a fact that all the pyramids at Giza were precisely aligned to the cardinal points – north, south, east and west.[171] It was, I thought, extremely difficult to explain how this particular feat of surveying could have been achieved so long before the supposed date of the invention of the compass.

What intrigued me most of all about the Great Pyramid,

however, was simply its sheer size and scope. Occupying a ground area of 13.1 acres, I ascertained that the core masonry of the structure was composed of no less than 2.3 million blocks of limestone each weighing approximately 2.5 tonnes.[172] Herodotus, whose informant was an Egyptian priest, claimed that gangs of 100,000 labourers built the edifice in 20 years (working only during the three-month agricultural lay-off season), and that the construction technique involved 'levers made of short timbers' which were used to lift the massive blocks from ground level.[173] No researcher subsequently had been able to guess at exactly what these 'levers' might have been or how they could have been used. However, after taking account of the time required for all the site-clearing, quarrying, levelling and other works that would have had to be done, civil engineer P. Garde-Hanson of the Danish Engineering Institute calculated

that 4,000 blocks would have had to be installed each day, at the rate of 6.67 blocks per minute, if the job were indeed to have been completed within 20 years. ‘Generally speaking,’ he concluded, ‘I believe it would demand the combined genius of a Cyrus, an Alexander the Great, and a Julius Caesar, with a Napoleon and Wellington thrown in for good measure, to organize the armies required for carrying out the work as assumed.’[174]

I then learned that a team of Japanese engineers had recently tried to build a 35-feet-high replica of the Great Pyramid (rather smaller than the original, which was 481 feet 5 inches in height). The team started off by limiting itself strictly to techniques proved by archaeology to have been in use during the Fourth Dynasty. However, construction of the replica under these limitations turned out to be impossible and, in due course, modern earth-moving, quarrying and

lifting machines were brought to the site. Still no worthwhile progress was made. Ultimately, with some embarrassment, the project had to be abandoned.[175]

All in all, therefore, the Great Pyramid – with its many riddles and mysteries – suggested to me that the ancient Egyptians must have been much more than 'technically accomplished primitives' (as they had often been described), and that there must have existed amongst them a special kind of scientific knowledge. If so then it was entirely possible that the baleful powers of the Ark of the Covenant could have been the products of that science – in which Moses would most certainly have been a leading practitioner.

48 The construction of the Ark of the Covenant at the foot of Mount Sinai.

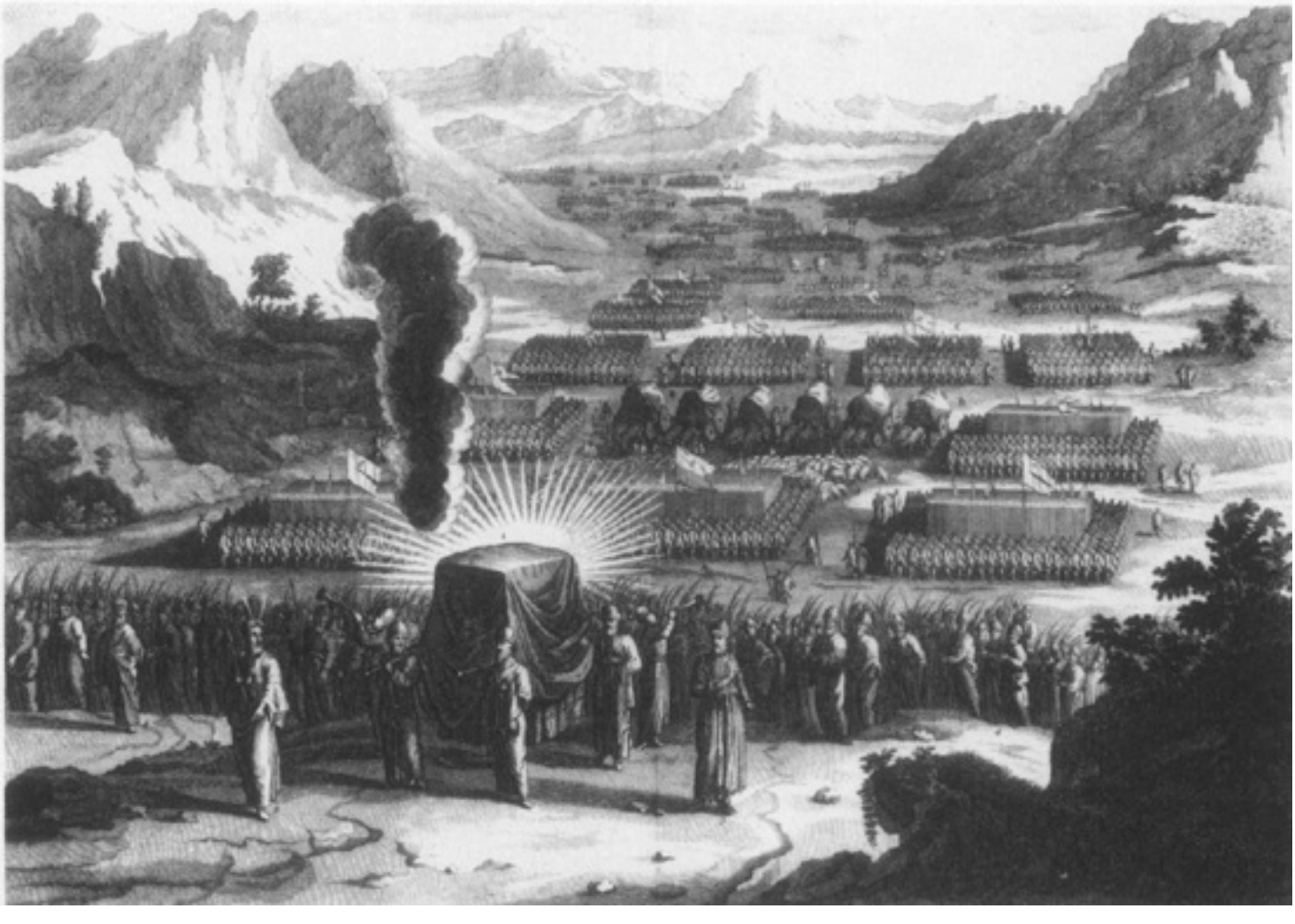

49 Glowing with fire and light the Ark is transported through the wilderness wrapped in thick cloths to protect its bearers from its unearthly powers.

50 The Ark at the destruction of Jericho.

51 King Uzziah smitten with leprosy after approaching the Ark (see Chapter Fifteen, ‘Hidden History’, this page).

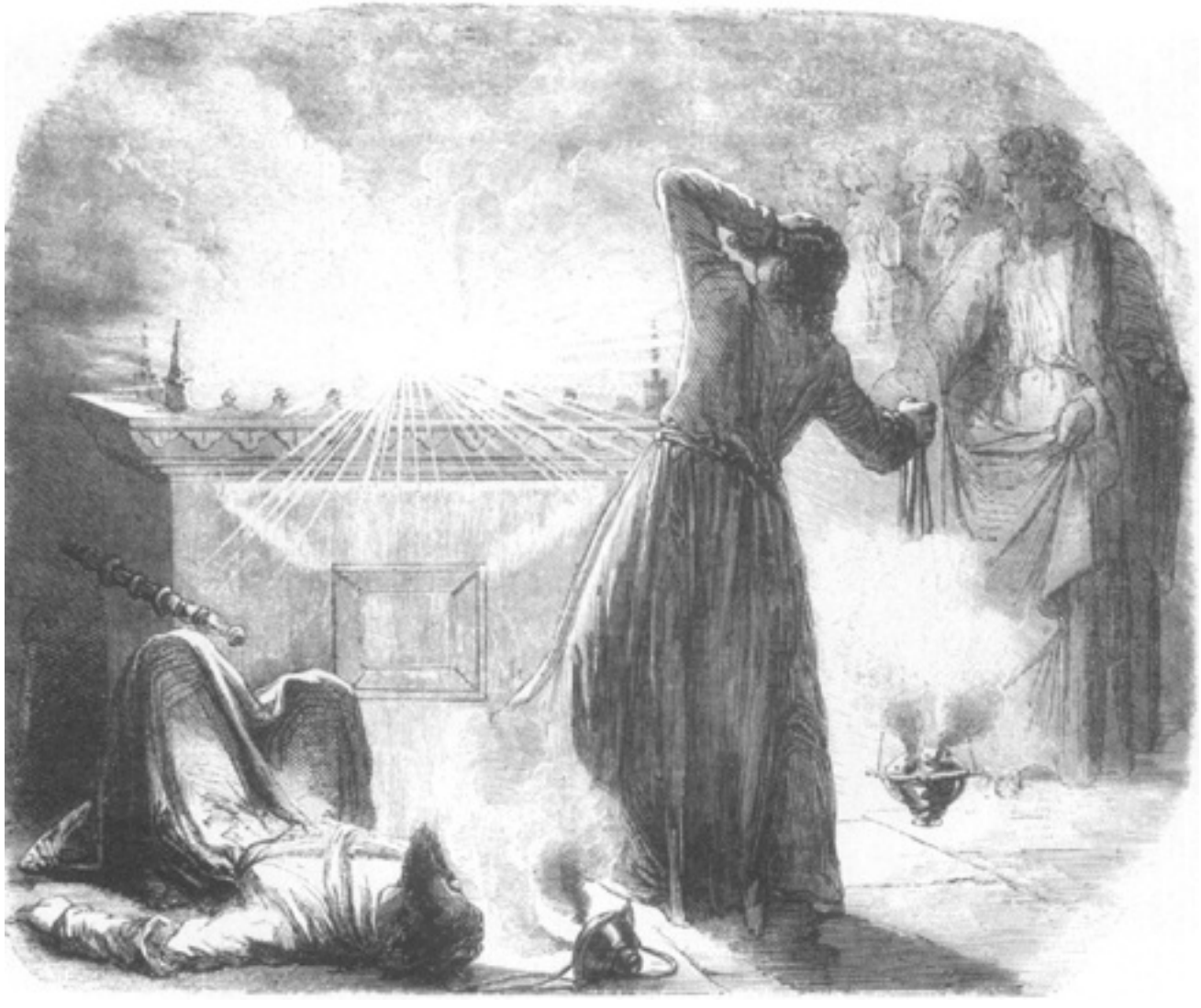

52 Nadab and Abihu, two of the sons of Aaron, are struck dead as they approach the Ark.

Exod. XXXIV. Ver. 29. *his face shone.*

The face of Moses shining after receiving the Tables of the Testimony.

53 After receiving the tablets of stone, which he later placed inside the Ark, Moses’ face was burnt and shone so terribly that ever afterwards he had to wear a veil.

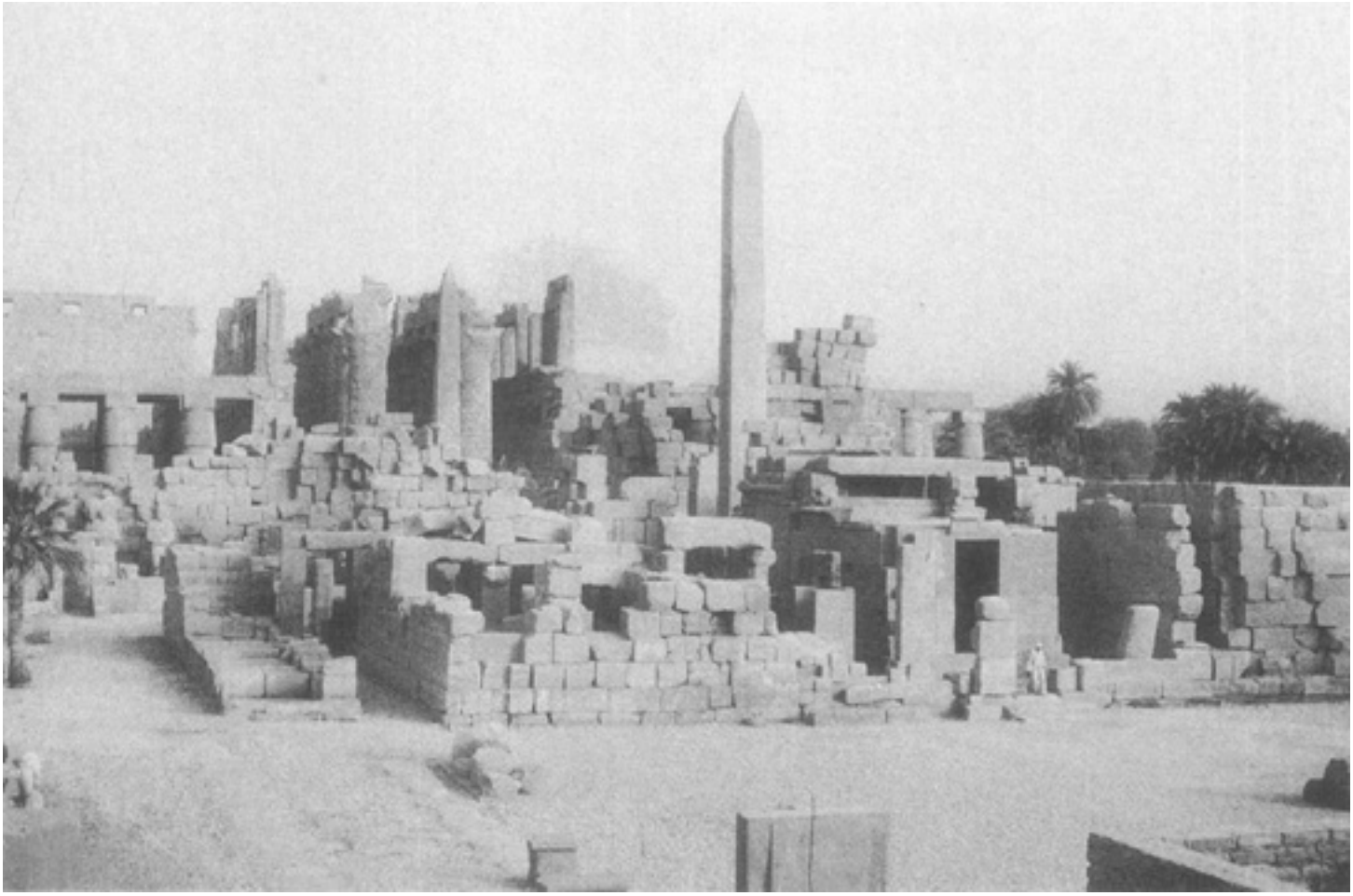

54 The Temple complex at Karnak, Egypt.

55 Archaeologists at work on the site of the Jewish Temple on the island of

Elphantine, upper Egypt.

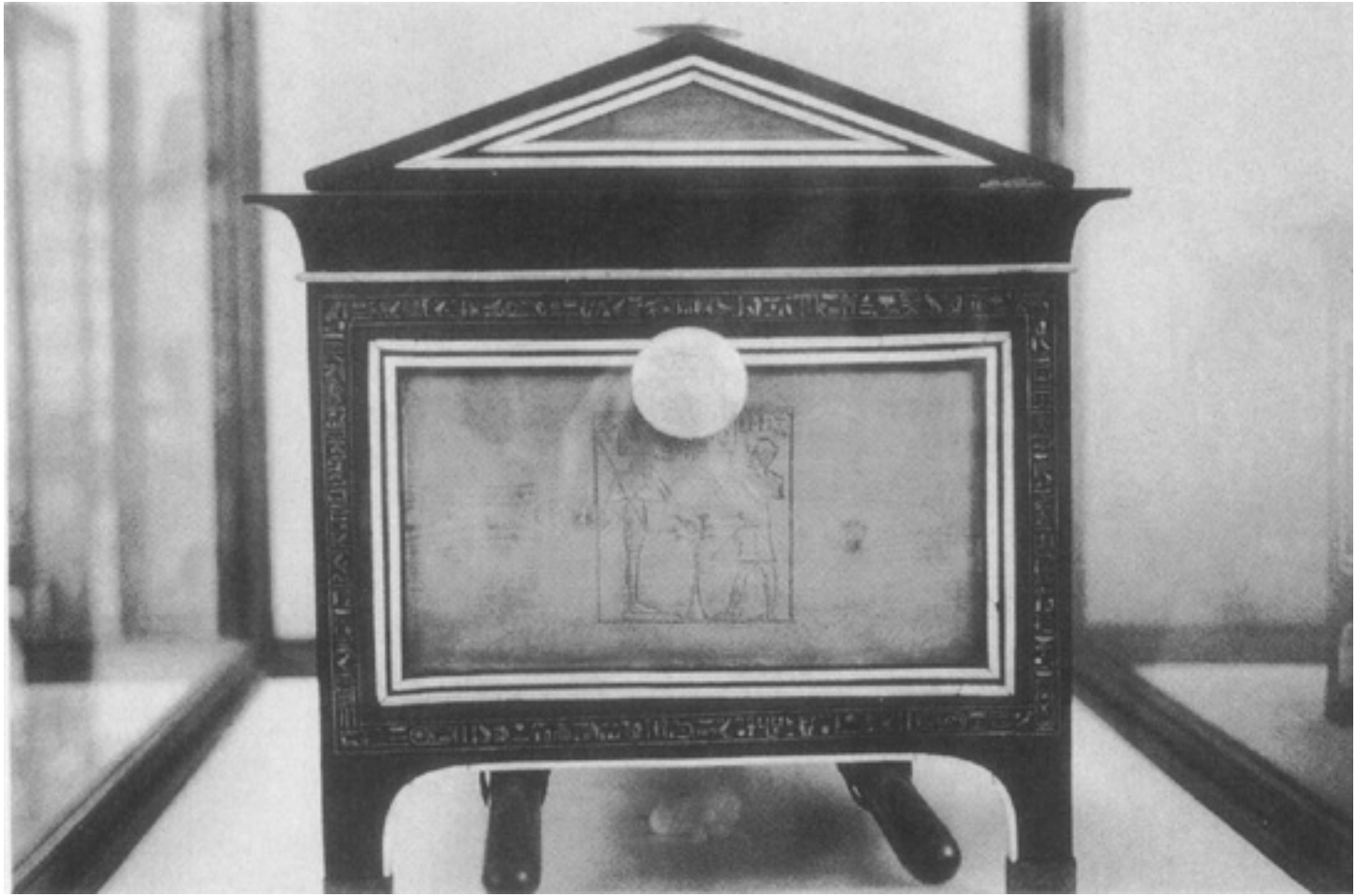

56 and 57. *Above*: this Ark-like chest, transported on two carrying poles, was

recovered from the tomb of Tutankhamen. *Below*: the author examining a mysterious engraving on a fallen stele in Axum. The engraving bears an extraordinary resemblance to the Ark from Tutankhamen's tomb and may be the earliest Axumite representation of the Ark of the Covenant. Tutankhamen reigned in Egypt approximately 100 years before Moses led the Exodus. It is therefore probable that the Hebrew prophet devised the Ark according to an Egyptian prototype of precisely the kind found in Tutankhamen's tomb.

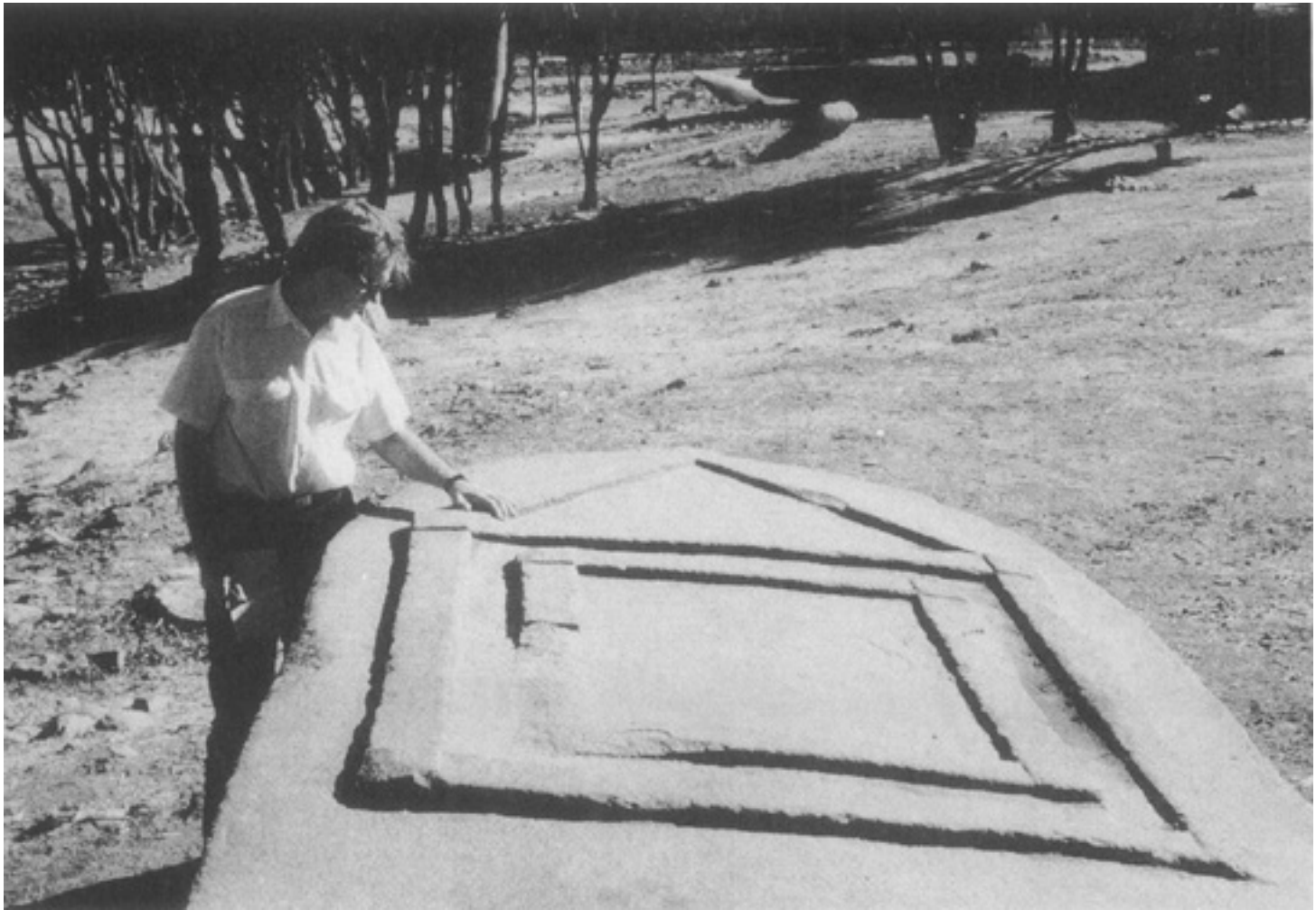

58 Priests and deacons at prayer, *Timkat*, Axum.

59 *Timkat* procession, Axum.

60 The sanctuary of the Ark of the Covenant at Axum.

61 Gebra Mikail, the Guardian of the Ark.

Chapter 13

Treasures of Darkness

My research had convinced me of the possibility that the ancient Egyptians might have possessed some advanced but secret scientific knowledge which Moses could have applied to the design of the Ark of the Covenant.

But where could such a body of knowledge have come from? Ancient Egypt itself, as I was very well aware, provided a simple – though supernatural – answer to this question. Every relevant surviving record that I had studied claimed unambiguously that it had been given to mankind by the moon-god Thoth, the lord and multiplier of time, the

celestial scribe and invigilator of individual destinies, the inventor of writing and of all wisdom, and the patron of magic.[1]

Frequently represented on temple and tomb walls as an ibis, or as an ibis-headed man, and more rarely as a baboon, Thoth was venerated throughout Egypt as a true lunar deity who in some manifestations was identical with the moon itself and in others was the guardian of the moon, charged with ensuring that it kept to its course across the night skies, waxing and waning, vanishing and reappearing, precisely as and when it should. It was in this capacity – as the divine regulative force responsible for all heavenly calculations and annotations – that Thoth measured time, dividing it into months (to the first of which he gave his own name).[2]

His powers, however, were believed to have extended far beyond the mere calibration of the seasons. According to the

pervasive and influential teachings of the priestly guild established at the sacred city of Hermopolis in Upper Egypt, Thoth was the universal demiurge who created the world through the sound of his voice alone, bringing it into being with the utterance of a single word of power.[3]

Regarded by the Egyptians as a deity who understood the mysteries of 'all that is hidden under the heavenly vault', Thoth was also believed to have had the ability to bestow wisdom on certain specially selected individuals. It was said that he had inscribed the rudiments of his secret knowledge on 36,535 scrolls and then hidden these scrolls about the earth intending that they should be sought for by future generations but found 'only by the worthy' – who were to use their discoveries for the benefit of mankind.[4]

Later identified by the Greeks with their own god Hermes, Thoth in fact stood at the very centre of an enormous body of

Egyptian traditions stretching back into the most distant and impenetrable past. No scholar, I learned, could honestly say how old this moon-god really was, or even make a guess at where and when his cult began. At the dawn of civilization in Egypt, Thoth was there. Furthermore, throughout the entire 3,000 or more years of the dynastic period, he was continuously revered for certain very specific qualities that he was said to possess and for his supposed contributions to human welfare. He was, for example, credited with being the inventor of drawing, of hieroglyphic writing and of all the sciences – specifically architecture, arithmetic, surveying, geometry, astronomy, medicine and surgery. He was also seen as the most powerful of sorcerers, endowed with nothing less than complete knowledge and wisdom. He was exalted as the author of the great and terrible book of magic that was regarded by the priests at Hermopolis as the source

of their understanding of the occult. Moreover whole chapters of the famous *Book of the Dead* were attributed to him, as well as almost the entire corpus of closely guarded sacred literature. He was believed, in short, to possess a virtual monopoly on esoteric learning and was therefore called 'the mysterious' and 'the unknown'.[5]

The ancient Egyptians were quite convinced that their first rulers were gods. Not surprisingly, Thoth was one of these divine kings: his reign on earth – during which he passed on to mankind his greatest and most beneficial inventions – was said to have lasted 3,226 years.[6] Before him the Egyptians believed that they had been ruled by another deity – Osiris, who was also closely associated with the moon (and with the numbers seven, fourteen and twenty-eight which relate to physical lunar cycles[7]). Although Osiris and Thoth looked quite different from one another in some of their

manifestations, I was able to establish that they were similar or related in others (in certain archaic texts they were described as brothers[8]). A number of papyri and inscriptions went even further and portrayed them as being effectively the *same* entity, or at least as performing the same functions.

They were most commonly associated in the celestial Judgment Hall where the souls of the dead came to be weighed in the Great Scales. Here Osiris – as judge and final arbiter – often seemed to be the superior of the two gods, while Thoth was a mere scribe who recorded the verdict. Many of the tableaux from the *Book of the Dead*, however, reversed this relationship, as did a large vignette of the Judgment Scene found amongst the Theban funerary papyri of the New Kingdom. This latter document portrayed Osiris sitting passively to one side while Thoth determined the verdict, and then recorded and pronounced it.[9] In other

words, not only were Thoth and Osiris both gods of the moon, gods of the dead (and perhaps brothers); both were also judges and law-makers.

As my research continued I noted such similarities with interest, but failed, at first, to see their relevance to my own quest for the Ark of the Covenant. Then it occurred to me that there was one invariable link between the two deities which also tied them conceptually to Moses and to all his works: like him they were above all else civilizing heroes who bestowed the benefits of religion, law, social order and prosperity upon their followers.

Thoth, it will be remembered, invented writing and science and brought these and many other wonders of enlightenment into the world in order to improve the lot of the Egyptian people. Likewise, Osiris was universally believed to have played a crucial role in the evolution and development of

Egyptian society. When he began his rule on earth as divine monarch the country was barbaric, rude and uncultured and the Egyptians themselves were cannibals. When he ascended to Heaven, however, he left behind an advanced and sophisticated nation. His many contributions included teaching his people to cultivate the soil, to plant grain and barley, to grow vines, to worship the gods, and to abandon their previously savage customs. He also provided them with a code of laws.[10]

Such stories, of course, could have been fabrications. In a speculative frame of mind, however, I found myself wondering whether there might not after all have been something more than pure fancy and legend behind the tradition that Egypt became a great nation because of the gifts of Thoth and Osiris. Was it not just possible, I conjectured, that the all-wise, all-knowing moon-god could

have been a mythical version of the truth – a metaphor for some real individual or group of individuals who, in remotest antiquity, brought the benefits of civilization and science to a primitive land?

The civilizers

I might have dismissed this notion out of hand had I not learned shortly afterwards of the existence of a great mystery – a mystery to which no definitive solution had ever been proposed. Rather than developing slowly and painfully, as might have been expected, it seemed that the civilization of Egypt had emerged all at once and fully formed. Indeed, by all accounts, the period of transition from primitive to advanced society had been so short that it really made no kind of historical sense. Technological skills that should have

taken hundreds or even thousands of years to evolve had appeared almost literally overnight, and apparently with no antecedents whatsoever.

For example, remains from the pre-dynastic period dated to around 3600 BC showed no trace of writing. Then, quite suddenly and inexplicably, the hieroglyphs familiar from so many of the ruins of ancient Egypt began to appear and to do so, furthermore, in a complete and perfect state. Far from being mere pictures of objects or actions, this written language was complex and structured, with signs that represented sounds only and with a detailed system of numerical symbols. Even the very earliest hieroglyphs were already stylized and conventionalized; it was also clear that an advanced cursive script had come into common usage by the dawn of the First Dynasty.[11]

What struck me as remarkable about all this was that there

were absolutely no traces of evolution from simple to more sophisticated styles. The same was true of mathematics, medicine, astronomy and architecture, and also of Egypt's amazingly rich and convoluted religio-mythological system (even such refined works as the *Book of the Dead* existed right at the start of the dynastic period.[12])

Unfortunately, there is not space here to present all or even a tiny part of the data which confirms the sheer suddenness with which Egyptian civilization emerged. By way of summary, however, I will quote the authoritative opinion of Professor Walter Emery, late Edwards Professor of Egyptology at the University of London:

> At a period approximately 3,400 years before Christ, a great change took place in Egypt, and the country passed rapidly from a state of neolithic

> culture with a complex tribal character to [one of] well-organized monarchy …
>
> At the same time the art of writing appears, monumental architecture and the arts and crafts develop to an astonishing degree, and all the evidence points to the existence of a luxurious civilization. All this was achieved within a comparatively short period of time, *for there appears to be little or no background to these fundamental developments in writing and architecture.*[13]

One explanation, I realized, could simply have been that Egypt had received its sudden and tremendous cultural boost from some other known civilization of the ancient world – Sumer, on the Lower Euphrates in Mesopotamia, being the

most likely contender. Moreover, despite many basic differences, I was able to establish that a variety of shared building and architectural styles[14] did suggest a link between the two regions. None of these similarities, however, turned out be strong enough to allow me to infer that the connection had been in any way causal, with one society directly influencing the other. On the contrary, as Professor Emery put it:

> The impression we get is of an *indirect* connection, and perhaps the existence of a third party, whose influence spread to both the Euphrates and the Nile … Modern scholars have tended to ignore the possibility of immigration to both regions from some hypothetical and as yet undiscovered area. [However], a third party whose cultural

> achievements were passed on independently to Egypt and Mesopotamia would best explain the common features and fundamental differences between the two civilizations.[15]

This theory, I felt, shed revealing light on the otherwise mysterious fact that the Egyptians and the Sumerian people of Mesopotamia worshipped virtually identical lunar deities who were amongst the very oldest in their respective pantheons.[16] Exactly like Thoth, the Sumerian moon-god Sin was charged with measuring the passage of time ('At the month's beginning to shine on earth, thou shalt show two horns to mark six days. On the seventh day divide the crown in two. On the fourteenth day, turn thy full face.'[17]) Like Thoth, too, Sin was regarded as being all-knowing and all-wise. At the end of every month the other gods of the

Sumerian pantheon came to consult him and he made decisions for them.[18] Neither was I alone in my intuition that something more than mere chance might have underpinned these links between Sin and Thoth. According to the eminent Egyptologist Sir E. A. Wallis Budge:

> The similarity between the two … gods is too close to be accidental … It would be wrong to say that the Egyptians borrowed from the Sumerians or the Sumerians from the Egyptians, but it may be submitted that the literati of both peoples borrowed their theological systems from some common but exceedingly ancient source.[19]

The question, therefore, was this: what was that 'common but exceedingly ancient source', that 'hypothetical and as yet

undiscovered area', that advanced 'third party' to which both Budge and Emery referred? Having stuck their necks out a long way already, I was frustrated to find that neither authority was prepared to speculate much further. Emery, however, did hint at where he thought the cradle of Egyptian civilization might have been located: 'Vast tracts of the Middle East and the Red Sea and East African coasts', he rather coyly observed in this context, 'remain unexplored by the archaeologist.'[20]

I was sure that if Egypt had indeed received the gifts of civilization and science from elsewhere then some record of this momentous transaction would have been preserved. The deification of two great civilizers –Thoth and Osiris – was evidence of a kind: although presented as theology, the legends of these gods sounded to my ears much more like the echoes of long-forgotten events which had actually taken

place.[21] But I felt I needed something more substantial – something which clearly and indisputably attested to beneficial contacts with an advanced donor society and which also explained how that society had managed to disappear without a trace.

I did find such an account. It was the familiar story of the lost continent of Atlantis – a story that, in recent years, had been so thoroughly degraded by outlandish speculations that it had become a form of professional suicide for any scholar even to appear to take it seriously (let alone to research it properly). After peeling away all the New Age nonsense, however, I was struck by a single significant fact: the earliest-surviving report of Atlantis had come from the Greek philosopher Plato – one of the founders of rational western thought – who had insisted that what he had said on the matter was 'not fiction but true history'.[22] Furthermore,

writing around the beginning of the fourth century BC, Plato had added that the original source of his story had been an Egyptian priest – a priest who had spoken of the recurrent destruction of civilizations by floods and who had said of the Greeks:

> You are all young in mind … you have no knowledge hoary with age. [But] our traditions here are the oldest … In our temples we have preserved from earliest times a written record of any great or splendid achievement or notable event which has come to our ears whether it occurred in your part of the world, or here, or anywhere else; whereas with you, and others, writing and the other necessities of civilization have only just been developed *when the periodic*

> *scourge of the deluge descends*, and spares none but the unlettered and uncultured, so that you have to begin again like children, in complete ignorance of what has happened in our part of the world or in yours in early times.

Thousands of years before, the priest continued,

> There was an island opposite the strait which you call the Pillars of Hercules, an island larger than Libya and Asia combined; from it travellers could in those days reach the other islands, and from them the whole opposite continent which surrounds what can truly be called the ocean. On this island of Atlantis had arisen a powerful and remarkable dynasty of kings … Their wealth was greater than that possessed by any previous

dynasty, or likely to be accumulated by any later, and they were provided with everything they could require. Because of the extent of their power they received many imports, but for most of their needs the island itself provided. It had mineral resources from which were mined both solid materials and metals, including one metal which survives today only in name, but was then mined in quantities in a number of localities in the island, *orichalc*, in those days the most valuable metal except gold. There was a plentiful supply of timber for structural purposes and every kind of animal domesticated and wild, among them numerous elephants. For there was plenty of grazing for this largest and most voracious of beasts, as well as for all creatures whose habitat is

> marsh, swamp and river, mountain or plain. Besides all this, the earth bore freely of all the aromatic substances it bears today … There were cultivated crops … There were the fruits of trees … All these were produced by that sacred island, then still beneath the sun, in wonderful quality and profusion.[23]

This paradise was not to remain 'beneath the sun' for much longer, however, because soon – to punish its inhabitants for wrongdoing and an overabundance of materialistic pride – there came 'earthquakes and floods of extraordinary violence, and in a single dreadful day and night the island of Atlantis was swallowed up by the sea and vanished.'[24]

My interest in this story did not stem from what it had to say about Atlantis itself, nor was I convinced by the

suggestion as to the island's location 'opposite the pillars of Hercules'. My own view – well supported by geophysical evidence[25] – was that there could never have been such a landmass in the Atlantic Ocean and that those who persisted in looking for it there were fishing for the reddest of red herrings.

It did seem to me, however – and the authorities reluctantly concurred on this point[26] – that Plato's account must have had *some* basis in fact. No doubt he introduced many distortions and exaggerations of his own but he was, nevertheless, recording something that had actually happened, somewhere in the world, and a very long time ago. Furthermore – and of the greatest significance to me – he made it absolutely clear that a memory of this event had been retained by Egyptian priests and set down in the 'priestly writings'.[27]

I reasoned that if a similar memory had been preserved in Mesopotamia then the chance of this being pure coincidence was slight. A far more likely explanation would be that the same cataclysm – wherever it took place – had inspired the traditions of both regions. Accordingly I took a second look at the legends in which I had first noted the similarity between Thoth and the Sumerian moon-god Sin. What I learned did not surprise me: like their Egyptian contemporaries, the Sumerians had not only worshipped a wise lunar deity but had also preserved a record of a flood in ancient times that had destroyed a great, prosperous and powerful society.[28]

As my research progressed, therefore, 'Atlantis' did come to symbolize for me that 'hypothetical and as yet undiscovered area' from whence the wonderful civilizations of Egypt and of Sumer both came. As already noted, I did not believe that the

area in question could possibly have been in or even near the Atlantic. Instead, I found myself wholeheartedly agreeing with Professor Emery that it was likely to have stood at a point roughly equidistant from both the Nile Delta and the Lower Euphrates – perhaps in some vanished archipelago similar to the modern Maldives (which scientists believe will be completely inundated within fifty years as a result of rising sea levels linked to global warming[29]), or along the vast unexcavated coasts of the Horn of Africa, or in a flood-prone region of the Indian subcontinent like modern Bangladesh. Such tropical zones looked all the more credible when I remembered that Plato had mentioned the existence of elephants in his 'Atlantis' – creatures that, for many thousands of years, have lived only in Africa, India and South-East Asia.[30]

The more thought I gave to notions like these the more it

seemed to me that they possessed genuine merit and were worthy of further investigation. In order to orientate myself in this task I therefore wrote down the following conjectures and hypotheses in my notebook:

> Suppose that somewhere around the basin of the Indian Ocean, in the early or middle part of the fourth millennium BC, a technologically advanced society was destroyed by flood. Suppose it was a maritime society. Suppose that there were survivors. And suppose that some of them sailed in their ships to Egypt and Mesopotamia, made landfall there and set about the task of civilizing the primitive inhabitants they encountered.
>
> Most important of all, suppose that in Egypt the priestly traditions of sacred science – to which

Moses was exposed from his childhood – were the means by which the skills and know-how of the settlers were deliberately preserved so that they could be passed down to subsequent generations. In Egypt these traditions were associated from the outset with the worship of the moon-god Thoth (and, in Mesopotamia, with the worship of Sin). Perhaps this was because the settlers themselves revered the moon – or perhaps they wittingly and rather cold-bloodedly encouraged the deification of a prominent and familiar but yet frightening and ghostly sidereal object. Their aim, after all, would have been to shape and direct the simple and savage minds of the peoples they had found themselves amongst and to create a durable cult – capable of surviving for millennia – as a vehicle

for all their otherwise fragile and easily forgotten knowledge. In such circumstances, it is really not difficult to see why they might have chosen to focus on a glowing and uncanny lunar god rather than on some more abstract, more sophisticated but less visible and less corporeal divinity.

At any rate, once the cult of Thoth had been established in early Egypt, and once its priests had learned and institutionalized the scientific and technological 'tricks of the trade' brought by the settlers, then it is logical to suppose that a self-perpetuating process would have begun: the new-found and valuable knowledge would have been fenced about with mysteries, protected from outsiders by all kinds of ritual sanctions and then passed from initiate to initiate, from generation to

generation, in an exclusive and secret tradition. This knowledge, of course, would have given its possessors unprecedented mastery over the physical world – at least by the rudimentary standards of the native culture prevailing in Egypt before the coming of the settlers – and would have been expressed in ways that would have seemed astounding to laymen (not least in the erection of stupendous and awe-inspiring buildings). It is therefore easy to understand how the belief that the moon-god had 'invented' both science and magic might have taken hold in the population at large, and why it was that the priests of this god were regarded as masters of sorcery.

Saved from water

As my research progressed I turned up several pieces of evidence which seemed to provide strong support for the central hypotheses listed above, namely that a secret tradition of knowledge and enlightenment had been 'carried' and preserved within the cult of Thoth – a tradition that had been started in the most distant past by sophisticated immigrants who had survived a flood. Highly significant, in this respect, was a very strong theme – traces of which I found running through almost all the sacred literature – which repeatedly associated wisdom, and other qualities of the civilizing hero, with individuals who had been 'saved from water'.

The first thing I discovered was that Thoth, who had been seen by the Egyptians as the source of all their knowledge and science, had been credited with having caused a flood to

punish humankind for wickedness.[31] In this episode, related in Chapter CLXXV of the *Book of the Dead*, he had acted jointly with his counterpart Osiris.[32] Both deities had subsequently ruled on earth after the human race had begun to flourish again. I was therefore excited, when I looked more closely at the story of Osiris, to learn that he had been 'saved from water'.

The fullest account of the original Egyptian legend was given by Plutarch[33] and stated that, after improving the condition of his own subjects, teaching them all manner of useful skills and providing them with their first legal code, Osiris left Egypt and travelled about the world in order to bring the benefits of civilization to other nations as well. He never forced the barbarians he encountered to accept his laws, preferring instead to argue with them and to appeal to their reason. It was also recorded that he passed on his

teaching to them by means of hymns and songs accompanied by musical instruments.

While he was away, however, he was plotted against by seventy-two members of his court led by his brother-in-law Set. On his return the conspirators invited him to a banquet where a splendid coffer of wood and gold was offered as a prize to any guest who could fit into it exactly. What Osiris did not know was that the coffer had been constructed precisely to his own body measurements. As a result, when the assembled guests tried one by one to get into it they failed. The god-king then took his turn and lay down comfortably inside. Before he had time to get out the conspirators rushed forward, nailed the lid tightly closed and sealed even the cracks with molten lead so that there would be no air to breathe. The coffer was then cast adrift on the Nile where it floated for some time, eventually coming to rest

in the papyrus swamps of the eastern Delta.[34]

At this point Isis, the wife of Osiris, intervened. Using all her great magic – and assisted by the moon-god Thoth – she went to look for the coffer, found it, and concealed it in a secret place. Her evil brother Set, however, out hunting in the marshes, discovered the location of the coffer, opened it, and in a mad fury cut the royal corpse into fourteen pieces which he then scattered throughout the land.

Once more Isis set off to 'save' her husband. She made a small boat of papyrus reeds, coated with bitumen and pitch, and embarked on the Nile in search of the remains. When she had found them she called again on the aid of Thoth who helped her to work certain powerful spells which reunited the dismembered parts of the body so that it resumed its old form. Thereafter, in an intact and perfect state, Osiris went through a process of resurrection to become god of the dead

and king of the underworld – from which place, the legend had it, he occasionally returned to earth in the guise of a mortal man.[35]

There were three details of this story that I regarded as being of the greatest interest: first the fact that, during his rule on earth, Osiris was a civilizer and a legislator; secondly that he was placed in a wooden coffer and thrown into the Nile; and thirdly that Isis came to rescue his body in a papyrus boat coated with bitumen and pitch. The parallels with the life of Moses could not have been more obvious – he, too, became a great civilizer and lawgiver, he too was cast adrift upon the waters of the Nile, he too floated in a vessel of papyrus coated with bitumen and pitch, and he too was saved by an Egyptian princess. Indeed, as the historian Josephus recorded, the very name 'Moses' meant 'saved from water': 'for the Egyptians call water *mou* and those who are

saved eses; so they conferred upon him this name compounded of both words.'[36] Philo, the other great classical commentator, concurred with this etymology: 'Since he had been taken up from water, the princess gave him a name derived from this, and called him Moses, for *Mou* is the Egyptian word for water.'[37]

I asked myself whether there might not have been other instances – in Egypt and perhaps in Mesopotamia as well – of civilizing heroes who had been saved from water. A search in ancient annals and legends revealed that there had been many. For example Horus, the son of Isis and Osiris, was murdered by Titans and thrown into the Nile. Isis rescued him and revived him with her sorcery. He then learned from her 'the arts of physic and divination and used them for the benefit of mankind'.[38] Likewise, in Mesopotamia, Sargon the Great – whose rule brought unrivalled wealth, splendour and

stability to Sumer and neighbouring territories at the end of the third millennium BC[39] – had claimed quite specifically to have been saved from water:

> My mother was a priestess. I did not know my father. The priestess, my mother, conceived me and gave birth to me in hiding. She placed me in a basket made of reeds and closed the lid with pitch. She put the basket in the river which was not high. The river carried me away and brought me to Akki who was a man responsible for libations. Akki looked upon me with kindness and drew me from the river.[40]

I found that the theme of salvation from water also ran very strongly through the pages of the Old Testament. The

prophet Jonah, for instance, was thrown into the sea during a raging tempest, swallowed alive by a giant fish and three days later 'vomited out upon dry land' so that he could preach the word of God to the citizens of Nineveh and divert them from their evil ways.[41]

Even more familiar was the much more ancient story of Noah, who – together with all his family and with 'two of every sort of living thing'[42] – rode out the primeval deluge in a remarkable survival ship which we know as the ark ('make it with reeds and line it with pitch inside and out'[43]). After the flood waters had receded, Noah's three sons, Shem, Ham and Japheth, heard God's command to 'be fruitful and multiply' and went out to repopulate the world.[44]

By far the most famous and influential biblical figure to be 'saved from water', however, was Jesus Christ himself – the only individual, other than Moses, to be described in the

Scriptures as ‘mighty in deed and word’[45] (a phrase which, as I already knew, implied proficiency in the utterance of magical words of power). Rather than being an actual rescue, the incident in question was wholly symbolic and took the form of the mysterious rite of baptism in the waters of the river Jordan. This, Jesus explained, was absolutely necessary for *salvation*: ‘Except a man be born of water … he cannot enter into the kingdom of God.’[46]

> And it came to pass in those days, that Jesus came from Nazareth of Galilee, and was baptized of John in Jordan. And straightway coming up out of the water, he saw the heavens opened, and the Spirit like a dove descending upon him. And there came a voice from heaven saying, Thou art my beloved Son, in whom I am well pleased.[47]

Though I knew that the vast majority of practising Christians took this passage from the Gospel of Saint Mark entirely at face value I could not help but wonder whether a deeper layer of meaning might not have been encoded in the stirring and beautiful words. It seemed to me at least possible that what was really being described here was the initiation of Jesus into the enlightened knowledge of a secret cult whose founders were literally 'saved from water' thousands of years earlier. Furthermore, I thought it not accidental that it was only *after* this initiation that Christ began to work his miracles – most of which (including healing the sick, restoring the dead to life, multiplying loaves and fishes, and controlling the elements) would have been instantly recognizable to the High Priests and sorcerers of ancient Egypt as 'magic tricks' of the type that they, too, had been trained to perform.[48]

After considering all the data that I had compiled I made the following entry in my notebook:

> The theme of the civilizer, or founding father, or great prophet, or legislator, or Messiah who has in one way or another been 'saved from water' occurs in the Scriptures, and in Egyptian and Middle Eastern mythology, so frequently and with such consistency that it cannot be a matter of pure chance. I am not proposing that all the individuals concerned were *actual* survivors of that 'hypothetical and as yet undiscovered area', that supposed technologically advanced society which may have been the cradle for the civilizations of both Mesopotamia and Egypt. The fact is that only Noah, Osiris – and perhaps Horus

> – belong to a period of pre-history sufficiently remote to qualify them for that distinction. Sargon, Moses, Jonah, and Jesus, however (together with many other important figures in different places and at different periods), were all also saved from water – either literally or symbolically. It therefore seems to me that what is really implied by this recurrent image is initiation of the individuals concerned into a tradition of secret wisdom started a very long time ago by the survivors of a flood in an effort to preserve vital knowledge and skills that might otherwise have quickly been forgotten.

Going beyond what could be deduced from myths and legends, I also found some rather more tangible evidence in

Egypt to support the ‘saved from water theory’. I knew that this evidence – the concealment of complete ocean-going boats beside almost all the most important tombs of pharaohs and notables, and also near all the pyramids – had thus far been treated by archaeologists according to the hoary old dictum that ‘if you can’t understand a particular custom then the safest thing to do is to put it down to religion’. It gradually dawned on me, however, that the practice of boat burial could well have been motivated by something other than a simple desire to install near the grave a ‘physical representation of the symbolic craft that would take the soul or spirit of the dead king to its ultimate destination in the sky.’[49]

A prime case in point was the cedarwood ship discovered buried and dismantled in a pit beside the southern edge of the Great Pyramid at Giza and now reassembled in a special

museum on site. Still in perfect condition 4,500 years after it was built, I learnt that this giant vessel was more than 142 feet long and had a displacement of around 40 tons. Its design was particularly interesting, incorporating (in the informed opinion of Thor Heyerdahl) 'all the sea-going ship's characteristic properties, with prow and stern soaring upward, higher than in a Viking ship, to ride out the breakers and high seas, not to contend with the little ripples of the Nile.'[50] Another expert felt that the careful and clever construction of this strange pyramid boat would have made it 'a far more seaworthy craft than anything available to Columbus'; indeed, it would probably have had no difficulty in sailing round the world![51]

Since the ancient Egyptians were highly skilled at making scale models and representations of all manner of things for symbolic purposes[52] it seemed to me implausible that they

would have gone to such trouble to manufacture and then bury a boat as sophisticated as this one if their only purpose had been to betoken the spiritual vessel that would carry off the soul of the king to heaven. That could have been achieved just as effectively with a much smaller craft. Besides, I learnt that recent research at Giza had revealed the existence of *another* huge boat, also on the south side of the pyramid, still sealed in its pit – and there were also known to be three (now empty) rock-hewn pits on the eastern side. As one otherwise orthodox Egyptologist rather daringly admitted, 'it is difficult to see why so many boat pits should have been thought necessary.' Predictably he then fell back on the great standby of all puzzled scholars and declared: 'it is clear that their presence was required for some religious purpose relating to the afterlife of the king.'[53]

It was precisely this point, however, which was not clear to

me at all – particularly since, as noted in the previous chapter, there was absolutely no indication that any pharaoh was ever interred within the Great Pyramid. Furthermore, the earliest funerary boats to be discovered in Egypt dated back to that mysterious period, just before the inception of the First Dynasty, when civilization and technology in the Nile Valley underwent a sudden and inexplicable transformation.[54] I therefore found it difficult to resist the conclusion that the curious practice of boat burial was more likely to be linked to the well established tradition of 'salvation from water' than to any purely religious symbolism. Sturdy ocean-going vessels, I reasoned, would have been of immense importance to a group of foreigners who had survived a flood and who had settled in Egypt after sailing away from the site of the cataclysm. Perhaps they, or those who came after them, had believed that the buried

boats might one day be needed – not to enable reincarnated souls to navigate the heavens like celestial pleasure trippers but, instead, to allow living individuals to escape once again from the scourge of some terrible deluge.

Hidden riches of secret places

The really great achievements of ancient Egypt all took place early. The peak period spanned the Third to the Fifth Dynasties – roughly from 2900 BC to 2300 BC. Thereafter, albeit gradually and with some notable resurgences, the general trend was steadily downhill.[55] This scenario – accepted by all scholars – was, I felt, completely consistent with the theory that civilization was brought into the Nile Valley during the fourth millennium BC from some

technologically advanced but as yet unidentified area. After all, one would not have expected an imported culture to produce its most perfect forms of expression from the very moment that the settlers arrived; there would undoubtedly have been a great leap forward at that time but the full potential would not have been realized until the native inhabitants had picked up and learned the new techniques.

And this was precisely what seemed to have happened in Egypt. Just before the beginning of the First Dynasty (say around 3400 BC), writing, arithmetic, medicine, astronomy and a complex religion all appeared very suddenly – without, as already noted, any local evidence of prior evolution in any of these spheres. At the same time highly sophisticated monuments and tombs were being built that incorporated advanced architectural concepts – again with no trace of evolution. The First and Second Dynasties (say from 3300 BC

onwards) saw the construction of ever more elaborate monuments which embodied with increasing confidence and vigour the new-found skills and knowledge that had arrived in Egypt.[56] And this trend towards greater and greater beauty and excellence received what many modern scholars regarded as its ultimate expression in the remarkable stone edifices of the funerary complex of King Zoser, the first Pharaoh of the Third Dynasty.

The complex, which I visited several times in 1989 and 1990, is dominated by a towering six-tiered pyramid 197 feet high and is located to the south of the city of Cairo at Saqqara. The complete site takes the form of a rectangle nearly 2,000 feet long and 1,000 feet wide and was originally enclosed by a single massive stone wall, large sections of which are still standing. Other features include an extensive colonnade with forty tall columns, an elegant courtyard, and

numerous shrines, temples and outbuildings – all on a colossal scale but with clean and delicate lines.

I was able to establish that in Egyptian tradition the conception and design of the entire Zoser complex had been regarded as the work of a single creative genius – Imhotep the Builder, whose other titles were Sage, Sorcerer, Architect, High Priest, Astronomer and Doctor.[57] I became interested in this legendary figure because of the great emphasis put by subsequent generations on his scientific and magical abilities; indeed, like Osiris, his achievements in these fields were so highly regarded that he was eventually deified. With uniquely impressive engineering feats such as the Zoser pyramid to his credit, Imhotep looked to me like an obvious candidate for membership of the cult of Thoth: the monuments at Saqqara seemed eloquently to confirm that he had assimilated and then put brilliantly into practice the

technological dexterity peculiar to that cult.

I was therefore excited to discover that Imhotep was often characterized in inscriptions as 'the image and likeness of Thoth'[58] – and also as the 'successor to Thoth' after the deity had ascended to heaven.[59] I then learnt something of even greater significance: in antiquity, Moses too was frequently compared to Thoth (indeed, in the second century BC an entire work was filled with such comparisons by the Judaeo-Greek philosopher Artapanus, who credited the prophet with a range of remarkable and clearly 'scientific' inventions[60]).

The fact that individuals as far apart in history as Moses and Imhotep should have been explicitly linked through the cult of the moon-god struck me as strong circumstantial evidence not only for the existence of a secret wisdom tradition but also for the durability of that tradition. Accordingly I began to wonder whether there had been other

magicians and sages like Imhotep to whom the design of particularly sophisticated and advanced buildings had been attributed.

Unfortunately, no record survived of the architect who built the Great Pyramid at Giza. This remarkable edifice was certainly the crowning achievement of the splendid Fourth Dynasty – during which Egyptian civilization reached its zenith. As one authority put it:

> The Pharaohs would never again build to such scale and perfection. And this level of expertise carried over into almost every other form of art or craft. Under the Fourth Dynasty the furniture was the most elegant, the linen the finest, the statuary at once the most powerful and the most perfect … Certain skills, such as the making of

> inlaid eyes, reached levels that border on the supernatural. Later dynasties could produce but mediocre versions and ultimately the knowledge disappeared entirely.[61]

I could only agree with most of the above remarks. It seemed to me, however, that the very special technological skills required for the erection of splendid and imposing monuments had been preserved for a considerable period before 'disappearing entirely'. Though not given any practical expression, for example, there was no doubt that these skills had somehow survived the many centuries of cultural stagnation that set in after the Fourth Dynasty and had then reasserted themselves in the remarkable resurgence that occurred during the Eighteenth and Nineteenth Dynasties (1580–1200 BC).

The crowning achievement of this latter era, which filled me with awe every time I set eyes on it, was the beautiful obelisk of Queen Hatshepsut at Karnak. Nearby, on the western side of the Nile, the same monarch had also commissioned a massive mortuary temple that had later come to be regarded as one of the great architectural masterpieces of the world.[62]

I learnt that the name of the long-dead architect responsible for both of these monuments had been Senmut. Intriguingly, an inscription that he himself had composed – and that could still be read on his tomb wall – left little doubt that his special knowledge and abilities had been acquired after he had been admitted to the mysteries of an ancient and secret wisdom tradition. 'Having penetrated all the writings of the Divine Prophets,' he boasted, 'I was ignorant of nothing that has happened since the beginning of time.'[63]

> Suppose [I wrote in my notebook] that Moses (who lived barely 200 years after Senmut) was also an initiate in this same secret tradition – a tradition that stretched back beyond the horizon of history through Imhotep to the god-kings Thoth and Osiris, and that extended forward as well to include other great scientists and civilizers like Jesus Christ. If there is anything at all to this hypothesis then is it not possible that some of the truly extraordinary thinkers of more recent years may also have been heirs to the 'occult' knowledge that inspired the builders of the pyramids and obelisks, and that made it possible for Moses to perform his miracles?

In seeking to answer this question, I was drawn back first

and foremost to the Knights Templar – who had occupied the original site of the Temple of Solomon in Jerusalem in AD 1119 and who, I believed, had learned something in the Holy City that had subsequently caused them to seek the Ark of the Covenant in Ethiopia. As reported in Chapter 5, the research that I had carried out into the beliefs and behaviour of this strange group of warrior monks had convinced me that they had tapped into some exceedingly ancient wisdom tradition – and that the knowledge they had thus acquired had been put to use in the construction of churches and castles that were architecturally far in advance of other buildings of the twelfth and thirteenth centuries.

Was it not possible, I now asked myself, that the wisdom tradition into which the Templars had been initiated had been the very one to which Moses, Senmut and Imhotep had belonged? And if so then was it not also possible that the

knights' quest for the Ark had been connected to this tradition? I knew that it would probably prove impossible to substantiate such esoteric guesswork. Nevertheless, I was excited to discover a number of ancient Jewish traditions which asserted that the Ark had contained 'the root of all knowledge'.[64] In addition, as the reader will recall, the golden lid of the sacred relic had been surmounted by two figures of cherubim. Could it therefore have been pure coincidence that, in Judaic lore, 'the distinctive gift of the cherubim was *knowledge*'?[65]

These were by no means the only tantalizing hints which suggested to me that the quest for the Ark might also have been a quest for wisdom. Equally significant was the fact that when the Templars were persecuted, tortured and put on trial in the early fourteenth century many of them confessed to worshipping a mysterious bearded head, the name of which

was given as Baphomet.[66] Several authorities, pointing to the close connections that the knights had cultivated with Islamic mystics, had identified Baphomet with Muhammad[67] – thus blithely ignoring the fact that Islam could hardly have inspired such behaviour (since Muslims, as I was very well aware, regarded their prophet as human not divine and had an absolute abhorrence of any kind of idol worship). A far more convincing explanation, however, was given by Dr Hugh Schonfield, an expert on early Christianity, who had deciphered a secret code used in a number of the famous 'Dead Sea Scrolls' – a code that the Templars might easily have learned during their long residence in the Holy Land. Dr Schonfield showed that if the name Baphomet were written in this code and then transliterated the result would be the Greek word Sophia.[68] And the Greek word Sophia, in its turn, meant nothing more nor less than 'Wisdom'.[69]

By this analysis, therefore, when the Templars worshipped Baphomet what they were really doing was worshipping the principle of Wisdom. And that, of course, was exactly what the ancient Egyptians had done when they had worshipped Thoth as 'the personification of the mind of God',[70] as 'the author of every work on every branch of knowledge, both human and divine',[71] and as 'the inventor of astronomy and astrology, the science of numbers and mathematics, geometry and land surveying, medicine and botany'.[72] I was encouraged to look further.

One fact which quite quickly came to light was that the Freemasons had also held Thoth in special regard. Indeed, according to a very old Masonic tradition, Thoth 'had played a major part in preserving knowledge of the mason craft and transmitting it to mankind after the flood'.[73] And the author of a well researched academic study on the origins of

Freemasonry went so far as to say that, in their early days, the Masons had regarded Thoth as their patron.[74] I was already aware (see Chapter 7) that close links had existed between the Templars and the Freemasons, with the latter almost certainly being descended from the former. Now I could see that what I was coming to think of as the 'Thoth connection' set those links in the ancient and enduring context of a wisdom tradition stretching back to Pharaonic times. I therefore asked myself this: in addition to the Templars and the Masons had there been any other groups or individuals whose works and ideas had appeared unusually advanced – and who might possibly have been initiates in the same wisdom tradition?

I found that there had been many. For example, Copernicus, the Renaissance astronomer whose theory of a heliocentric universe had overturned the earth-centred

complacency of the Middle Ages, had said quite openly that he had arrived at his revolutionary insights by studying the secret writings of the ancient Egyptians, including the hidden works of Thoth himself.[75] Likewise the seventeenth-century mathematician Kepler (who, amongst other things, compiled an imaginary account of a trip to the moon) admitted that in formulating his laws of the planetary orbits he was merely 'stealing the golden vessels of the Egyptians'.[76]

In a similar vein, Sir Isaac Newton had stated his view that 'the Egyptians concealed mysteries that were above the capacity of the common herd under the veil of religious rites and hieroglyphic symbols.'[77] Amongst these mysteries, he believed, was the knowledge that the earth orbited the sun and not vice-versa: 'It was the most ancient opinion that the planets revolved about the sun, that the earth, as one of the planets, described an annual course about the sun, while by a

diurnal motion it turned on its axis, and that the sun remained at rest.'[78]

Newton's profound intellect and scholarship had enabled him to lay the foundations of physics as a modern discipline. His specific achievements had included epoch-making discoveries in mechanics, optics, astronomy and mathematics (the binomial theorem and the differential and integral calculus), huge steps forward in the understanding of the nature of light, and – above all else – the formulation of the universal law of gravitation which had altered forever mankind's vision of the cosmos.

What was much less well known about the great English scientist, however, was the fact that he had spent a significant part of his adult life deeply immersed in hermetic and alchemical literature (more than a tenth of his personal library had been taken up with alchemical treatises[79]).

Furthermore he had been obsessed – literally obsessed – with the notion that a secret wisdom lay concealed within the pages of the Scriptures: Daniel of the Old Testament and John of the New particularly attracted him because 'the language of the prophetic writings was symbolic and hieroglyphical and their comprehension required a radically different method of interpretation.'[80]

It seemed to me, as I researched Newton further, that pursuit of this method perhaps explained why he had involved himself in an exacting study of some twenty different versions of the book of Revelation. He had learned Hebrew in order to do the job properly[81] and had then carried out a similarly meticulous exercise on the book of Ezekiel.[82] I was also able to establish that he had drawn on the information contained in this latter work to produce a painstaking reconstruction of the floorplan of the Temple of

Solomon. Why? Because he had been convinced that the great edifice built to house the Ark of the Covenant had been a kind of cryptogram of the universe; if he could decipher this cryptogram, he had believed, then he would know the mind of God.[83]

Newton's Temple floorplan had been preserved in the Babson College Library.[84] Meanwhile the seventeenth-century scientist had expressed his other 'theological' findings and observations in private writings that had totalled well over a million words.[85] In the mid-twentieth century these rather surprising manuscripts came to light and were purchased at auction by John Maynard Keynes. 'Newton was *not* the first of the age of reason,' the obviously shaken economist later told the Royal Society, 'he was the last of the magicians, the last of the Babylonians and Sumerians, the last great mind which looked out on the world with the same

eyes as those who began to build our intellectual inheritance rather less than ten thousand years ago.' Keynes made an extremely careful study of the manuscripts and concluded – significantly in my view – that Newton saw

> the whole universe and all that is in it *as a riddle*, as a secret which could be read by applying pure thought to certain evidence, certain mystic clues which God had hid about the world to allow a sort of philosopher's treasure hunt to the esoteric brotherhood. He believed that these clues were to be found partly in the evidence of the heavens and in the constitution of elements, but also partly in certain papers and traditions handed down by the brethren in an unbroken chain back to the original cryptic revelation.[86]

Indeed so! And although I knew that I might never be able to prove that the 'brethren' in question had been directly linked to the occult traditions of the moon-god Thoth – and to those scientists and civilizers who had been 'saved from water' – I felt that there was at least sufficient evidence to confirm one intriguing fact. In making his greatest discoveries, Newton had indicated several times that he had drawn not only upon his own genius but also upon some very old and secret repository of wisdom. He had once stated quite explicitly, for instance, that the law of gravitation expounded in his *Principia* was not new but rather had been known and fully understood in ancient times; he had arrived at it by decoding the sacred literature of past ages.[87] On another occasion he had described Thoth as a believer in the Copernican system.[88] Before that he had aligned himself with the German physician and alchemist Michael Maier (1568–1622)

who had argued that, throughout history, all the true adepts of science had derived their knowledge from the Egyptian moon-god.[89]

Amongst many other curiosities, I discovered that Newton had been struck by the fact that 'there was a general tradition of deluge amongst ancient peoples'[90] and had shown considerable interest in the biblical view that Noah was the common ancestor of all humanity.[91] Moreover, despite his own devoutly held religious convictions, he seemed at times to have seen Christ as an especially gifted *man* and as an interpreter of God's masterplan, rather than as the Son of God.[92] What I found most fascinating of all, however, was that the really pivotal figure in Newton's theology, and in his conception of early science, had been none other than the prophet Moses, whom he had regarded as an adept in the mysteries of the universe, a master of alchemy, and a witness

to the double revelation of God (as expressed in His word and in His works).[93]

Long centuries before our own enlightened era, Newton had believed, Moses understood that matter consisted of atoms, and that these atoms were hard, solid and immutable: 'gravity accrued to both atoms and to the bodies they composed; gravity was proportional to the quantity of matter in every body.'[94] Newton had also regarded the account of creation presented in Genesis – and attributed to Moses – as an allegorical description of an alchemical process:

> Moses, that ancient Theologue, describing and expressing ye most wonderful Architecture of this great world, tells us that ye spirit of God moved upon ye waters which was an indigested chaos, or mass created before by God.

Later, referring to the efforts of the alchemists, the great English scientist had added:

> Just as the world was created from dark chaos through the bringing forth of the light and through the separation of the aery firmament and of the waters from the earth, so our work brings forth the beginning out of black chaos and its first matter through the separation of the elements and the illumination of matter.[95]

Last but not least, I thought it was not accidental that Newton's favourite biblical passage[96] had been one that had hinted at the existence of some form of covert knowledge available only to initiates:

> And I will give thee the treasures of darkness, and hidden riches of secret places, that thou mayest know that I, the Lord, which call thee by thy name, am the God of Israel.[97]

I reasoned that if Newton had indeed had access to the same 'treasures of darkness' and to the same 'hidden riches' as Moses, then this would imply – at the very least – the continuous existence over a period of millennia of a clandestine sect or cult structured to pass on an exclusive and privileged wisdom. This sounded far-fetched; it was, however, by no means impossible. On the contrary, knowledge and skills had frequently and successfully been transferred down the generations – and from one region of the world to another – without any concrete evidence being available to document the process. For example, Rhabdas, a

mathematician who had lived in the city of Constantinople in the twelfth century AD, was known to have used a method for deriving square roots that had existed only in ancient Egypt more than two thousand years previously and that had not, otherwise, been employed elsewhere.[98] How, and from where, he had acquired this technique was not easy to explain. Similarly, I was very much aware that the transmission of esoteric information, coupled with the teaching and sharing of arcane rituals and ceremonies, had occurred for centuries within the various Masonic orders without any public record ever being available.

Charting the contours of a genuinely reticent sect was, therefore, a daunting undertaking. But what I found more daunting by far was the task of guessing the real nature of the science and technology that such a long-lived and secretive institution as the cult of Thoth might have

protected and preserved – particularly if, as I suspected, that science and technology had originated in a historically remote and now utterly obliterated culture. As I wrote in my notebook:

> It would be a mistake to assume that our own twentieth-century machinery and inventions are any guideline; on the contrary, if an advanced society did exist at some archaic period, then its wisdom is likely to have been quite different from anything with which we are familiar, and its machines could reasonably be expected to have operated according to principles unknown to us.

A monstrous instrument

It was with such thoughts, as my research moved on, that I found myself drawn to the strange passages in the Old Testament books of Exodus and Deuteronomy which described the encounters between God and Moses on Mount Sinai. Amidst thunder and fire, electrical storms and clouds of smoke, Yahweh supposedly disclosed the blueprint of the Ark of the Covenant to the Hebrew magus and presented him with the stone Tablets of the Law inscribed with the Ten Commandments. Then the Ark itself was built by the artificer Bezaleel who slavishly followed the 'divine' plan, almost as though he knew that he was forging some monstrous instrument.

And this, I suspect, is what the Ark really was: a monstrous instrument capable of releasing fearful energies in an uncontrolled and catastrophic manner if it was mishandled or misused in any way – an instrument that was not conceived

in the mind of God, as the Bible teaches, but rather in the mind of Moses.

A master sorcerer in an era when sorcery and science were indistinguishable from one another, it is after all possible (and perhaps more than possible) that Moses could have had the technical knowledge – and therefore the ability – to design a device of this sort. There is absolutely no proof of this, of course. Nevertheless I think that only those with a pedantic and cavilling attitude to history would insist that the ancient wisdom traditions of Egypt could have contained no special skills or ideas of a technical nature on which the prophet might have drawn in order to imbue the Ark with the awesome powers attributed to it in the Old Testament.

Speculation on such matters is surely healthy and – for those readers who are interested in penetrating more deeply into the mystery – I offer the following hypotheses and

conjectures as food for thought.

Motive and opportunity

Assume for a moment that Moses did indeed have the technical knowledge to create 'a monstrous instrument' capable of destroying city walls (as in the case of Jericho[99]), striking people dead (as in the case of Uzzah and the 'men of Bethshemesh'[100]), inflicting cancerous tumours on those who approached it without proper protection (as in the case of the Philistines after the battle of Ebenezer[101]), and counteracting gravity (as in the case of the bearers whom, on one occasion, it 'tossed into the air and flung to the ground again and again'[102]).

If Moses could have made such a machine then it only remains to ask whether he had a motive to do so, and

whether he had the opportunity.

I would like to suggest that he had ample motive. One in a long line of civilizing heroes who had been 'saved from water', there is evidence to suggest that his prime objective in life might not have been to establish the Jewish faith (although he certainly did that) but rather to civilize the Israelites – who, prior to the Exodus, were little more than an anarchic tribe of migrant labourers marooned in Egypt.

Suppose that the prophet decided to inspire (and thus mobilize) this primitive and almost ungovernable group of nomads by convincing them that he was going to lead them to the 'Promised Land' – Canaan – which he had enticingly depicted as 'a good land and a large … a land flowing with milk and honey'.[103] If so then he was far too wily a leader, and far too astute a judge of human frailty, to take what was basically a disorganized rabble straight there. He knew that

they would face formidable foes when they eventually arrived; if they were to overcome these foes, therefore, he would first need to mould and shape them, bend them to his will, and impose some discipline upon them.

This reasoning appeals to me because it seems to offer a logical explanation for something that otherwise makes very little sense – namely the fact that the Israelites supposedly spent forty years wandering in the inhospitable wildernesses of the Sinai peninsula.[104] There were, at the time, at least two well known and much-frequented trade routes which normally enabled travellers to cross the deserts between Egypt and Canaan in just a few days.[105] It seems to me, therefore, that Moses's decision not to use these highways (and instead to inflict a lengthy period of hardship on his people) could only have been a deliberate and calculated strategy: he must have seen this as the best way to get the

Israelites into shape for the conquest of the Promised Land.[106]

Such a strategy, however, would also have had its drawbacks – notably the problem of persuading the tribesmen to stick together in the desert and to put up with all the difficulties and austerities of nomadic life. This problem was truly a knotty one: the biblical account of the wanderings in the wilderness makes it painfully clear that Moses had a hard time trying to keep his people's confidence and to force them to obey him. It was true that they fell briefly into line whenever he worked some new miracle (and he was obliged to work many); on other occasions, however – and particularly when they faced adversity – they seethed with discontent, criticized him bitterly and sometimes rebelled openly against him.[107]

In such circumstances, is it not reasonable to suppose that

the prophet might have seen the need to equip himself with some sort of portable 'miracle machine' to enthral and impress the Israelites whenever and wherever a bit of 'magic' was required? And wasn't that exactly what the Ark was – a portable miracle machine which Moses used to ensure that the people would obey him no matter how difficult the circumstances?

Examples of the sacred object being used in precisely this manner are not hard to find in the Bible. Indeed a dramatic change appears to have taken place in Moses's behaviour after the building of the Ark. Previously he had responded to the incessant demands and complaints of the Israelites with relatively minor acts of wizardry – striking a desert rock with his wand in order to make fresh water gush forth from it,[108] extracting potable water from a stagnant pool,[109] delivering food in the form of manna and quails,[110] and so on and so

forth. Later, however, the prophet did not bother with conjuring tricks like these. Instead, whenever the people grumbled, rebelled against him, or dared to dispute his leadership in any way he simply turned the Ark on them – with predictably dreadful results.

On one fairly typical occasion he used it to inflict a disfiguring skin condition on his sister Miriam because she had questioned his authority.[111] The Bible calls this skin condition 'leprosy'.[112] When Miriam had been suitably chastened, however, her sores vanished. Since they had appeared in the first place immediately after she had been exposed to the mysterious cloud that sometimes issued forth from between the two cherubim mounted on the Ark's lid, it is most unlikely that they were actually caused by leprosy.[113] Might they not rather have been induced by some chemical or other contaminant released from the Ark itself?

Miriam was not the only person to have been affected in this way after incurring Moses's wrath. Moreover other dissidents not lucky enough to be members of the priestly family tended to be punished with even greater severity. A particularly interesting series of events occurred in response to a mutiny in which the ascendancy of Moses and Aaron was openly questioned:

> Two hundred and fifty of the sons of Israel joined forces against Moses and Aaron saying, You take too much on yourselves! The whole community and all its members are consecrated, and Yahweh lives among them, Why set yourselves higher than the community of Yahweh?[114]

Moses was at first so shocked by this insubordination that he 'fell upon his face'.[115] He quickly recovered, however, and

proposed the following 'test': to find out whether the two hundred and fifty rebels were really as 'holy' as he was, he suggested that they should each fill a bronze censer with incense and that they should then come in before the Ark to burn this incense.[116] If this was done, he argued, it would allow Yahweh to 'choose the one who is the consecrated man'.[117]

The challenge was accepted: 'And they took every man his censer, and put fire in them, and laid incense thereon, and stood at the door of the Tabernacle … with Moses and Aaron.'[118] No sooner had this gathering taken place than 'the glory of Yahweh appeared'.[119] Then the deity supposedly gave his 'favourites' a three-second warning of what he was about to do: 'Yahweh spoke to Moses and Aaron. He said, "Stand apart from this assembly, I am going to destroy them here and now." '[120] At this, the prophet and the High Priest

‘threw themselves face downward on the ground … And there came out a fire [from the Ark] and consumed the two hundred and fifty men that offered incense.’[121]

Afterwards,

> the children of Israel spake unto Moses, saying, Behold, we die, we perish, we all perish … Whosoever cometh anything near unto the tabernacle of the Lord shall die: shall we be consumed with dying?[122]

They had, it seemed, learned a salutary lesson. Subdued by the powers of the Ark, they mounted no further rebellions of any significance. On the contrary, apart from a few low-key gripes and murmurs, they fell very much into line behind Moses and did exactly what he told them to do during the remainder of their sojourn in the wilderness.

So much, then, for motive. Moses clearly had great need of a portable miracle machine exactly like the Ark. Moreover, once he had equipped himself with that machine – if machine it indeed was – he showed no hesitation in using it.

Motive and ability alone, however, do not add up to a coherent case. The next question, therefore, is this: did he have the opportunity to prepare a proper blueprint for the Ark and to fabricate some sort of 'power-pack' for it – some sort of energy source by means of which it might be activated?

The answer is yes – ample opportunity. To understand why it is worth recalling the main events of Moses's life, in the order that they occurred:

1 He was born in Egypt.

2 He was cast adrift on the Nile in a basket made of

papyrus reeds coated with bitumen and pitch.

3 He was ‘saved from water’ by the daughter of Pharaoh.

4 He was reared in the royal household where he learned ‘all the wisdom of the Egyptians’ – and became an adept in sorcery, and almost certainly a High Priest.[123]

5 At the age of forty,[124] according to the Bible, he heard that his own native people – the Israelites – were being oppressed by the Egyptians. Accordingly he left the court and went to find out what was happening to them. He discovered that they were living a life of bondage, forced to do hard labour day and night. Incensed at this cruel treatment, and at the arrogance of the Egyptians, he lost his temper, killed an overseer and then fled into exile.[125]

6 At the age of eighty[126] – i.e. forty years later – he returned from exile to lead the Israelites out of their

captivity.

What happened during the missing forty years? The Bible is singularly unhelpful in answering this question, devoting just eleven verses to direct discussion of the entire period.[127] It does, however, make one thing abundantly clear: in all this great expanse of time the key event was Moses's encounter with Yahweh at the burning bush – an encounter that took place at the foot of Mount Sinai where, some time later, the Ark of the Covenant was to be built.

Long before Moses persuaded the Israelites to follow him across the Red Sea, is it not therefore probable that he had thoroughly familiarized himself with the fearsome wildernesses of the Sinai peninsula? The location of the burning bush incident leaves no room for doubt that he spent at least part of his forty-year exile in these remote and

mountainous deserts. Indeed, it is even possible that he passed most or all of this period there – a view for which there is a degree of academic support. According to one learned Egyptologist, Moses could have spent as long as a quarter of a century in Sinai, living in a settlement on a mountain known as Serabit-el-Khadem barely fifty miles from Mount Sinai itself.[128]

In June 1989 I visited and climbed Serabit-el-Khadem, which stands in the austere and barren highlands of southern-central Sinai. On the flat top of the mountain, completely innocent of tourists, were the ruins of the settlement in which Moses was thought to have lived – ruins dominated by the obelisks, altars and graceful columns of what must once have been an extensive Egyptian temple. As a High Priest of the ancient Egyptian religion, I reasoned, Moses would have felt comfortable here – and if he had

indeed fled the wrath of Pharaoh after killing an overseer as the Bible claimed, then he would have been relatively safe in this remote and obscure spot.

I decided to find out more about Serabit-el-Khadem and researched it in some depth after my initial visit. In the course of this work, two significant facts came to light.

First, I learned that the temple site which I had seen had been thoroughly investigated in 1904–5 by the great British archaeologist Sir William Flinders Petrie – and that he had unearthed fragments of several stone tablets there.[129] These tablets were inscribed with writing in a strange pictographic alphabet that, much later, was proved to have belonged to a Semitic-Canaanite language related to ancient Hebrew.[130]

Second, I discovered that the settlement at Serabit-el-Khadem had been an important centre for the *mining and manufacture* of copper and turquoise from roughly 1990 BC

until 1190 BC.[131] These dates meant that there was no anachronism in the assumption that Moses might have sojourned here in the thirteenth century BC, just prior to the Exodus. And the evidence that an alphabet related to Hebrew had been in use on the site at about the same time looked like further corroboration of this view. What really interested me, however, was the point emphasized above, namely that Serabit had functioned as a sort of industrial and metallurgical complex and that the whole area had been extensively mined. It seemed to me that if Moses had indeed lived here for a lengthy period then he could hardly have failed to acquire knowledge of the minerals and metal ores of southern Sinai.

After my visit to Serabit-el-Khadem in June 1989 I drove my hired Jeep the fifty miles across the desert to Mount Sinai. In a sense the word ‘desert’ is a misnomer for this

region, for although there are sandy expanses, the bulk of the countryside consists of steep and withered mountain ranges, red in colour, upon which almost nothing grows. The only patches of greenery are created by occasional oases in the valleys, and one such oasis, rich in date palms, stands at the foot of Mount Sinai. Here, in the fourth century AD, a small Christian chapel was erected on the supposed site of the burning bush. That chapel was greatly extended in subsequent years. By the fifth century it had become a substantial monastery under the patronage of the Coptic Church of Alexandria. In the sixth century the Roman Emperor Justinian massively fortified the monastery's walls so that it could better withstand the attacks of marauding bedouin tribes. Finally, in the eleventh century, the whole complex was dedicated to Saint Catherine.[132] It continues to be known as 'Saint Catherine's' today, and many of the

structures built in the fifth and sixth centuries still stand.

Before embarking on the arduous 7,450-foot climb to the top of Mount Sinai I spent some time inside the ancient monastery. The main church contained several remarkable icons, mosaics and paintings, some of them almost 1,500 years old. In the gardens was a walled enclosure built around a large raspberry bush that was believed by the monks to be the original burning bush.[133] This it certainly was not – and, indeed, I was well aware that even Mount Sinai's claim to be *the* 'Mount Sinai' referred to in the Bible had by no means been conclusively proved. The fact was, however, that monastic traditions dating back at least to the fourth century AD had associated this particular peak with the 'mountain of God,' and had almost certainly done so on the basis of reliable sources of information now lost.[134] Moreover I knew that local tribal traditions concurred: the bedouin name for

Mount Sinai was simply *Jebel Musa* – 'the mountain of Moses'.[135] Scholarly opinion also associated the biblical Mount Sinai with the peak bearing that name today – and the few dissenting voices did not favour a different *region* but rather other nearby peaks in the same range (for example Jebel Serbal).[136]

I must confess that after climbing Mount Sinai in June 19891 was left in no doubt that this had indeed been the mountain to which Moses had brought the Israelites 'in the third month' after leaving Egypt. Pausing at the summit, I stood on a ledge which overlooked tumbled miles of worn and jagged uplands descending to sere plains in the far distance. There was a haze and a powder-blue stillness in the air – not silence, exactly, but stillness. Then a sudden wind whipped up, cool and dry at that altitude, and I watched an eagle soar heavenwards on a thermal, gliding briefly level

with me before it disappeared from sight. I remained there alone for a while, in that pitiless and uncompromising place, and I remember thinking that Moses could hardly have chosen a more dramatic or a more appropriate location in which to receive the Ten Commandments from the hand of God.

But is that really what the Hebrew magus came to Mount Sinai to do? It seems to me that there is an alternative scenario. Could it not be that his true purpose all along had been to build the Ark of the Covenant *and to place inside it some great energy source, the raw substance of which he had known that he would be able to find on this particular mountain top?*

This is a highly speculative thesis – but it is speculation that we are indulging in here and there is room for a little imaginative licence. If Moses had known of the existence of

some potent substance on the peak of Mount Sinai, then what might that substance have been?

One suggestion – put forward in a different context in Chapter 3 – is that the tablets of stone on which God supposedly wrote the Ten Commandments were in fact two pieces of a meteorite. Resonant with echoes of Wolfram's Grail Stone (described as having been brought down from heaven by a troop of angels[137]), this intriguing possibility is taken seriously by several top-flight biblical scholars, who point to the worship of meteoric fragments in a number of ancient Semitic cultures[138] and add that:

> concealing tables of law within a closed container [seems] somewhat odd … Words of law engraved upon stone were surely meant to be publicly displayed … [it may therefore be] supposed that

> the Ark held not two tables of the law but a fetish stone, a meteorite from Mount Sinai.[139]

If this conjecture is correct then the field lies open to guess what element exactly the 'meteorite from Mount Sinai' might have consisted of. It is at any rate not beyond the bounds of reason to suppose that it might have been radioactive, or that it might have possessed some chemical characteristic that would have made it useful to Moses if his purpose had really been to manufacture a potent and durable source of energy for installation in the Ark.

The notion that he might have been manufacturing something on Mount Sinai is certainly not ruled out by the Scriptures. On the contrary, many passages in the relevant chapters of the book of Exodus are sufficiently peculiar and puzzling to allow just such an interpretation to be put on

them.

The so-called ‘theophany’ – the manifestation of a deity to a mortal man – began immediately after the Israelites had ‘camped before the mount’. Then ‘Moses went up unto God, and the Lord called unto him out of the mountain.’[140]

At this early stage the Bible makes no mention of smoke or fire or any of the other special effects that were soon to be brought into play. Instead the prophet simply climbed the mountain and held a private conversation with Yahweh, a conversation that was not witnessed by anyone else. Significantly, one of the first instructions that he supposedly received from the deity was this:

> Thou shalt set bounds unto the people round about, saying, Take heed to yourselves that ye go not up into the mount, or touch the border of it:

> Whoever touches the mountain will be put to death … He must be stoned or shot down by arrow … he must not remain alive.[141]

It goes almost without saying that Moses would have had a strong reason to impose just such a rigorous and 'divinely ordained' exclusion zone if he had indeed been planning to manufacture or process some substance on Mount Sinai: the prospect of being stoned or shot would certainly have deterred the curious from venturing up to see what he was really doing there and thus would have enabled him to preserve the illusion that he was meeting with God.

At any rate, it was only after he had spent three days on the mountain that the drama really began. Then:

> In the morning … there were thunders and lightnings, and a thick cloud upon the mount, and

> the voice of the trumpet exceeding loud; so that all the people that was in the camp trembled … And mount Sinai was altogether on a smoke, because Yahweh had descended on it in the form of fire. Like smoke from a furnace the smoke went up.[142]

Initially it seems that Moses spent only part of his time isolated on the peak, and that he was frequently in the camp. Soon, however, God told him this:

> Come up to me on the mountain and stay there while I give you the stone tablets – the law and the commandments – which I have written.[143]

This, then, was the prelude to what was to be the key event on Sinai – Moses's acquisition of the two tablets of stone that

he would later place inside the Ark of the Covenant. The prophet's ascent was accompanied by further special effects:

> Moses went up into the mount, and a cloud covered the mount. And the glory of Yahweh settled upon mount Sinai; for six days the cloud covered it, and on the seventh day Yahweh called to Moses from inside the cloud. To the eyes of the sons of Israel the glory of Yahweh seemed like a devouring fire on the mountain top. Moses went right into the cloud. He went up the mountain and stayed there for forty days and forty nights.[144]

Would an omnipotent God have required forty days and forty nights to deliver two stone tablets to His prophet? Such

a lengthy period seems hardly necessary. If, however, Moses had *not* been receiving ‘the tablets of the Testimony’ at all, but instead had been manufacturing or refining some compact stone-like energy source to place inside the Ark, then he could well have needed that much time to finish the work.

From this perspective, the ‘devouring fire’ on the mountain top that the Israelites had interpreted as ‘the glory of Yahweh’ would really have been the infernal glow given off by whatever devices or chemical processes the prophet was using to achieve his objective. And although this hypothesis sounds far-fetched, it is surely not more so than the strange information concerning the tablets of stone that is contained in the Old Testament, in the Mishnah, in the Midrash, in the Talmud, and in the most archaic Jewish legends.

Tablets of stone?

The clearest descriptions of the tablets are contained in the Talmudic-Midrashic sources which yield the following information: (1) they were 'made of a sapphire-like stone'; (2) they were 'not more than six hands in length and as much in width' but were nevertheless enormously heavy; (3) though hard they were also flexible; (4) they were transparent.[145]

It was upon these peculiar objects that the Ten Commandments were supposedly written – by no lesser figure than Yahweh Himself, as the Bible is at pains to point out:

> When He had finished speaking with Moses on the mountain of Sinai, He gave him the two tablets of the Testimony, tablets of stone, inscribed by the

> finger of God … And Moses turned and went down from the mount with the two tablets of the Testimony in his hands, tablets inscribed on both sides, inscribed on the front and on the back. These tablets were the work of God, and the writing on them was God's writing.[146]

Theologically, therefore, there can be no doubting the sanctity or the significance of the prophet's burden: written upon by the very finger of God, the two tablets were quite literally fragments of the divine. From the biblical viewpoint nothing more precious had ever been entrusted to mortal man. One would have thought that Moses would have looked after them. He did not do so, however. Instead, in a fit of pique, he broke these pure and perfect gifts.

Why did he do this incomprehensible thing? According to

the explanation given in Exodus it was because the perfidious Israelites had lost hope that he would ever return after his forty days on the mountain and had fashioned a golden calf, which they were worshipping. Arriving in the camp Moses then caught them *in flagrante delicto* offering sacrifices and dancing and prostrating themselves before the idol. At the sight of this grotesque apostasy the prophet's 'anger waxed hot and he threw down the tablets that he was holding and broke them at the foot of the mountain.'[147] He then disposed of the golden calf, had about three thousand of the worst idolators executed, and restored order.[148]

So much, then, for the official account of how and why the original tablets of stone came to be broken. These items, however, were clearly of vital importance and had to be replaced. Accordingly God instructed Moses to return to the mountain top to receive two new tablets. The prophet

complied and ‘stayed there with Yahweh forty days and forty nights … and he inscribed on the tablets the words of the Covenant, the Ten Commandments.’[149] Moses then climbed down the mountain again bearing the tablets, exactly as he had done before. A close study of the relevant biblical passages, however, does reveal a single substantive and significant difference between his two descents: on the second occasion ‘the skin of his face shone’;[150] on the first there had been no mention of this odd phenomenon.

What could have caused the prophet’s face to shine? The biblical scribes naturally assumed that it had been his proximity to God, and explained: ‘the skin on his face was radiant after speaking with Yahweh.’[151] Yet on several previous occasions, dating back as far as the burning bush, Moses had stood close to Yahweh and had not suffered any such consequences. Indeed, a typical example had occurred

just before he had embarked on his second forty-day expedition to Sinai. While still in the Israelite camp he had participated in a lengthy and intimate encounter with the deity, an encounter that had been held in a specially sanctified structure called the 'Tent of Meeting'.[152] There 'the Lord spake unto Moses face to face, as a man speaketh unto his friend,'[153] but there was no hint or suggestion that the prophet's skin had glowed as a result.

So what could have produced this effect? Is it not reasonable to suggest that it might have been the tablets of stone themselves? Oblique corroboration for precisely this suggestion exists in the Talmudic and Midrashic sources which insist that the tablets had been infused with 'Divine radiance'. When God handed them to Moses: 'He seized them by the top third, whereas Moses took hold of the bottom third, but one third remained open, and it was in this way

that the Divine radiance was shed upon Moses' face.'[154]

Since this did not happen with the first set of tablets – the ones that Moses broke – it is legitimate to ask a question: why were things so different the second time around? Could the answer possibly be that Moses had discovered that the first set of tablets were technically imperfect as an energy source precisely because they *didn't* burn his face? This would explain why he broke them. He did, however, sustain burns from the second set. Perhaps this proved to him that whatever process he had used to manufacture them had worked – and made him confident that they would function properly when they were placed inside the Ark.

The idea that the glow or shine on Moses's skin might in fact have been caused by some sort of burn is of course purely speculative. There is no support for it in the Bible. Nevertheless, it seems to me to be a perfectly reasonable

deduction – as reasonable as any other – from the small amount of evidence that is available there. The description of the prophet's descent from the mountain with the second set of tablets is limited to just seven verses in Chapter 34 of Exodus.[155] These verses, however, make it absolutely clear that his appearance was so gruesome when he arrived in the camp that all the Israelites were 'afraid to come nigh him'.[156] To spare their feelings 'he put a veil over his face'[157] – and ever afterwards, except when he was alone in his tent, he wore this veil.[158]

Does this not sound much less like the behaviour of a man who had been touched by the radiance of God than of a man burned – and burned badly – by some potent energy source?

A testament to lost truths

It would be possible to speculate endlessly about the true character of the Ark of the Covenant – and of its contents. I have gone as far as I wish to down this particular road. Readers who would like to go further, however, might find it interesting to consider first the materials from which the Ark was made. Huge quantities of gold seem to have been used – and gold, as well as being beautiful and noble, is also chemically non-reactive and exceptionally dense. In particular the 'mercy seat' – which served as the lid of the relic – was believed by one learned rabbi (who lived in the twelfth century AD) to have been a full hand-breadth thick.[159] Since a hand-breadth was traditionally measured from the tip of the thumb to the extended tip of the little finger, this means that the Ark was closed with a hulking slab of solid gold *nine inches* deep.[160] Why was it necessary to use so much of the precious metal? And was it an accident that

Rabbi Shelomo Yitshaki who procured this information – as well as a great deal of other intelligence concerning the sacred relic – was born and spent most of his life in the city of Troyes in the heart of France's Champagne region?[161] That same city was the home of Chrétien de Troyes whose work on the Holy Grail, written seventy-five years after the rabbi's death, established the genre in which Wolfram von Eschenbach was soon to follow. And it was in Troyes as well that the rule of the Knights Templar was drawn up by Saint Bernard of Clairvaux. In this way the mysteries and the connections multiply.

Those who are curious might also wish to give some thought to the peculiar garments that the High Priests of ancient Israel wore when they approached the Ark.[162] If they did not wear these garments their lives were believed to be at risk.[163] Was this purely a matter of superstition and ritual?

Or was protective clothing necessary for some reason that perhaps had to do with the nature of the Ark itself?

Related to this point is another – the curious coverings, consisting of two layers of cloth and one of leather, that the Ark had to be wrapped in before it could be transported[164] (apparently in order to prevent anyone from being killed as a result of accidentally touching it whilst it was on the move[165]). Even when these precautions had been fully complied with, however, the sacred relic still sometimes caused the death of its bearers. It did so with 'sparks'.[166] But what were these sparks? And were the wrappings – which were all made of non-conductive materials[167] – perhaps intended to serve as insulation?[168]

Also of some potential interest is the story of Nadab and Abihu, the two sons of Aaron who were struck down by the Ark soon after its installation in the Tabernacle (I have

described this incident briefly in Chapter 12; according to the Scriptures a flame leapt out at them 'and devoured them and they died'[169]). Surprisingly, Moses completely ignored the normally lengthy Hebrew funeral procedures and instead ordered that the bodies should immediately be taken 'far away' out of the camp.[170] Why should he have done such a thing? What was it exactly that he feared?

Moving forward in time, I suggest that those who wish to learn more could do worse than examine the passages in the Bible which recount the dreadful afflictions that the Ark worked amongst the Philistines during the seven months that it spent in their hands after they had captured it at the battle of Ebenezer.[171] Again, I have described these events in Chapter 12, but I have also left much unsaid that could be said.

Many riddles, too, might be solved by a close study of what

happened in the years after the Ark was returned to the Israelites by the Philistines and before King Solomon finally installed it in the Holy of Holies of his Temple in Jerusalem. I believe that an explanation exists for the miracles and the terrors that it worked during this period[172] – a rational explanation connected to its character as a man-made device and not to any divine or unearthly influences.

Indeed, my own investigations have led me to conclude that it may *only* be possible to understand the sacred relic properly when it is seen in this light – not as a repository of supernatural powers but as an artefact and as an instrument. No doubt this instrument was very different from any known to us today, but it was none the less the product of human ingenuity, devised by human hands to fulfil very human objectives. As such its magic and its mystery are not diminished for me. The gift of an ancient and secret science, I

think of it as a key to the sealed and unremembered history of our species, a sign of our forgotten glory, and a testament to lost truths about ourselves.

And what else is the quest for the Ark or the Grail if it is not a quest for knowledge, a quest for wisdom and a quest for enlightenment?

Part V: Israel and Egypt, 1990

Where is the Glory?

Mediterranean Sea
ISRAEL
Jerusalem
JORDAN
IRAQ
IRAN
Cairo
Nile
Arabian Gulf
Aswan/ Elephantine
Red Sea
SAUDI ARABIA
Meroe
Atbara
Khartoum
Asmara
Axum
Tekeze
Gondar
Blue Nile
Lake Tana
Lalibela
White Nile
YEMEN
Gulf of Aden
Addis Ababa
ETHIOPIA
SOMALIA
UGANDA
KENYA
Kilometres
0 200 400

Chapter 14

The Glory is departed from Israel

In the mid-afternoon of Thursday 4 October 19901 entered the old walled city of Jerusalem through the Jaffa Gate. After passing Omar Ibn el-Khatab Square, with its pleasant cafés and hawkers' stands, a bewildering maze of narrow streets paved with ancient cobble stones lay ahead of me.

A few years earlier this whole area would have been seething with shoppers and sightseers; now, however, it was almost deserted. The Palestinian *intifada*, and recent threats by Iraq to 'burn' Israel with Scud missiles, had been enough to drive virtually all foreigners away.

To my right, as I walked, was the Armenian Quarter and, to my left, the Christian Quarter dominated by the Church of the Holy Sepulchre. Within this great edifice was the Chapel of the Invention of the Cross which the victorious Muslim general Saladin – at the request of King Lalibela – had granted to the Ethiopian community of Jerusalem after the Crusaders had been expelled from the city in AD 1187.[1] In later years the Ethiopians had lost their privileges in the chapel. I knew, however, that they still occupied an extensive monastery on its roof.

I continued in an easterly direction through the silent and deserted alleys, many of which were covered with canvas awnings that cut out the glare and heat of the afternoon sun, creating a cool, almost subterranean atmosphere. A few forlorn shopkeepers sitting in their doorways made half-hearted attempts to sell me souvenirs that I did not want and

bags of ripe oranges that I had no desire to carry.

To my right now, as I proceeded along the Street of the Chain, was the Jewish Quarter where gangs of Hasidic youths dressed in dark suits and incongruous fur hats roamed pugnaciously about, declaring by their body language that they were the masters of all they surveyed. To my left, filled to the brim with unhappiness, frustration and restless despair, was the Muslim Quarter. And straight ahead, rising up above the clutter of the old city like a golden symbol of hope, was the Dome of the Rock – the beautiful mosque erected by the Caliph Omar and his successors in the seventh century AD and regarded as the third most sacred place in the Islamic world.[2]

It was the Dome of the Rock that I had come to see, although not because of its significance to Muslims but because it had been built on the original site of the Temple of

Solomon. Inside I knew that I would find a great stone, believed by orthodox Jews to be the *Shetiyyah* – the foundation-stone of the world. And on that stone, in the tenth century BC, amidst the 'thick darkness' of the Holy of Holies, the Ark of the Covenant had been placed by Solomon himself.[3] Like a man who seeks to conjure up an image of his long-departed lover by caressing some item of her clothing, I therefore hoped that by touching the *Shetiyyah* I might gain a deeper and more abiding sense of the lost relic that I sought.

This, however, was not my only purpose on that afternoon in October. Just a few hundred metres to the south of the Dome of the Rock I knew that I would also be able to visit another building of central importance to my quest – the Al-Aqsa Mosque, which the Knights Templar had used as their headquarters in the twelfth century AD. From this base, I suspected, they had sallied forth to conduct investigations of

their own in the caverns beneath the *Shetiyyah* – where certain legends suggested that the Ark had been concealed shortly before the destruction of Solomon's Temple.[4]

It was to the Al-Aqsa Mosque that I went first, slipping off my shoes and entering the cool and roomy rectangular hall believed by Muslims to be the 'furthermost sanctuary', to which Muhammad was supposedly transported by angels on his famous Night Journey. Whatever place of prayer existed in the Prophet's lifetime (AD 570–632) had long since vanished, however, and I was confronted by a medley of different building styles, the oldest of which dated back to around AD 1035 and the most recent to the period 1938–42, when the Italian dictator Mussolini had donated the forest of marble columns that lay ahead of me and when King Farouk of Egypt had financed the restoration and repainting of the ceiling.[5]

The Templars, too, had left their mark on the great mosque. Taking up residence here in AD 1119 and not leaving until 1187 when they were driven out of Jerusalem by Saladin, they had been responsible, amongst other things, for the three magnificent central bays of the porch. Much of the other architecture that the knights had added had subsequently been destroyed. Their refectory, however, had survived (being incorporated into the nearby Women's Mosque), and the vast underground area which they had developed as stables for their horses (the so-called 'Stables of Solomon') were also in a good state of repair.[6]

As I carefully picked my way in stockinged feet amongst the Muslims who were already assembling for afternoon prayer I felt strangely light-headed but at the same time alert – keyed-up. The jumble of different eras and influences, the old mixed in with the new, Mussolini's marble columns, and

the eleventh-century Islamic mosaics, had all conspired to confuse my perceptions. Currents of incense-laden air wafted through the spacious and light-filled interior, summoning up visions of the European knights who had lived and died here so long ago and who had named their strange and secretive order after the Temple of Solomon – the site of which, now occupied by the Dome of the Rock, was only two minutes' walk away.

The *raison d'être* of the Temple had been extremely simple. It had been conceived and designed as nothing more, and nothing less, than 'an house of rest for the Ark of the Covenant of the Lord'.[7] But the Ark, of course, had long since vanished, and the Temple, too, was gone. Utterly and completely destroyed by the Babylonians in 587 BC, the structure erected by Solomon had been replaced half a century later by the Second Temple – which, in its turn, had

been razed by the Romans in AD 70. The site had then lapsed into disuse until the arrival of the Muslim armies in AD 638 when the Dome of the Rock had been built.[8] Throughout all these changes the *Shetiyyah* had remained in place. The sacred floor on which the Ark had once stood was therefore the single constant factor that had weathered all the storms of history, that had seen Jews and Babylonians and Romans and Christians and Muslims come and go, and that still endured today.

Leaving the Al-Aqsa Mosque, and slipping on my shoes again, I now made my way up through the tree-lined precincts of the Temple Mount to the Dome of the Rock – the very name of which reflected its guardianship of the *Shetiyyah*. A large and elegant octagonal building faced with rich blue tiling, its dominant exterior feature was its massive golden dome (which, indeed, could be seen from many

different parts of Jerusalem). To my eye, however, there was nothing overwhelming about this tall and perfect monument. On the contrary it conveyed a complex feeling of lightness and grace coupled with an understated but reassuring strength.

This first impression was enhanced and completed by the interior of the building, which quite literally took my breath away. The soaring ceiling, the columns and arches supporting the inner octagon, the various niches and recesses, the mosaics, the inscriptions – all these elements and many more melded together in a sublime harmony of proportion and design that gave eloquent expression to humanity's yearning for the divine and that proclaimed that yearning to be both noble and profound.

My glance had been drawn upwards when I entered – upwards into the cupola, the farthest reaches of which were

lost in the cool darkness overhead. Now, however, as though attracted by some powerful magnetic force, I felt my attention tugged down again towards the very centre of the mosque where a huge tawny rock perhaps thirty feet across, flat in places, jagged in others, lay directly beneath the dome.

This was the *Shetiyyah* and, as I approached it, I was aware that my heart was beating more quickly than usual and that my breathing seemed laboured. It was not difficult to understand why the ancients had thought of this great boulder as the foundation-stone of the world or to see why Solomon had chosen it as the centrepiece of his Temple. Rough-textured and asymmetrical, it jutted out above the bedrock of Mount Moriah as solid and as unshakable as the earth itself.

A carved wooden railing surrounded the whole central area, but into one corner of this railing was set a shrine

through which I was allowed to push my hand to touch the *Shetiyyah*. Its texture, smoothed down by the caresses of countless generations of pilgrims before me, was slick, almost glasslike, and I stood there, lost in my own thoughts, drinking in through the pores of my fingers the immense antiquity of this strange and wonderful stone. Though it was perhaps a small victory, it nevertheless meant a great deal to me to be in this place and to savour this moment of quiet reflection at the source of the mystery that I sought to solve.

Eventually I withdrew my hand and continued my circuit of the *Shetiyyah*. At one side a stairway led down to a deep hollow beneath the stone – a cave-like cist known to the Muslims as *Bir el-Arweh*, the 'Well of Souls'. Here, according to the faithful, the voices of the dead could sometimes be heard mingled with the sounds of the rivers of paradise. As I entered, however, I could hear nothing except the murmured

prayers of the half-dozen or so pilgrims who had preceded me and who were now slumped in obeisance on the cold rock floor invoking in mellifluous Arabic the name of Allah, the Compassionate, the Merciful – a deity whose prophets, long before the time of Muhammad, had included Abraham and Moses and who, in his absolute and uncompromising *oneness*, was in no way different from Yahweh, the God of the Ark.[9]

I already knew that a number of Jewish and Islamic legends spoke of a sealed and secret passage beneath the Well of Souls leading into the bowels of the earth, where the Ark had supposedly been concealed at the time of the destruction of Solomon's Temple – and where many believed that it rested still, guarded by spirits and demons.[10] As noted in Part II, I suspected that the Knights Templar could have been motivated to search here for the Ark in the twelfth century AD after learning of these legends. One variant of the tale that

might particularly have excited their interest purported to be an eyewitness account by a certain ‘Baruch’ of an intervention by an ‘angel of the Lord’ only moments before the Babylonian army broke into the Temple:

> And I saw him descend into the Holy of Holies, and take from it the veil, and the Holy Ark, and its cover, and the two tablets … And he cried to the earth in a loud voice, ‘Earth, earth, earth, hear the word of the mighty God, and receive what I commit to you, and guard them until the last times, so that, when you are ordered, you may restore them, and strangers may not get possession of them …’ And the earth opened its mouth and swallowed them up.[11]

If the Templars had indeed been inspired by this text to search beneath the Well of Souls they would not, I was absolutely confident, have found the Ark there. The so-called 'Apocalypse of Baruch' (from which the above quotation is taken) might easily have seemed to them like a genuinely ancient document dating from the sixth century BC. The truth, however, as modern scholarship had subsequently revealed, was that it was written in the late first century *AD* and that it therefore could not possibly have been an eyewitness account of the concealment of the sacred relic, whether by an angel or by any other agency. On the contrary it was, from beginning to end, a work of imaginative fiction which, despite its eerie and evocative tone, possessed no historical merit whatsoever.[12]

For this and other reasons, I felt sure that the Templars would have been frustrated in their excavations beneath the

Temple Mount. But I also suspected that they had later learned of Ethiopia's claim to be the last resting place of the Ark and that a group of knights had ultimately gone there to investigate this claim for themselves.[13]

I, too, was following the same trail that those knights had stumbled upon so many centuries before, and I felt that it pointed compellingly towards the sanctuary chapel in the sacred city of Axum. Before attempting to make my own way into the war-torn highlands of Tigray, however, I wanted to be absolutely satisfied that there was no other country or place where the lost relic could be. It was that desire that had brought me to the original site of the Temple of Solomon on 4 October 1990. And it was that desire that had drawn me to the *Shetiyyah*, on which the Ark had once stood and from which it had vanished.

That was my starting point, but now I intended to use the

rest of my stay in Jerusalem to talk to religious and academic authorities and to examine in the greatest possible depth all the circumstances known to have surrounded the mysterious disappearance of the relic. Only if I was still confident of the basic merit of the Ethiopian claim after I had completed that exercise would I finally commit myself to the Axum adventure. The January 1991 *Timkat* ceremonials at which I hoped that the object believed to be the Ark would be carried in procession were, however, less than four months away. I was therefore acutely aware that my time was running out.

What house can you build me?

The installation of the Ark in the Temple of Solomon, which – as I had already established – must have taken place around the year 955 BC,[14] was described in the first book of

Kings:

> Then Solomon assembled the elders of Israel … And the priests brought in the Ark of the Covenant of the Lord to its place in the Temple … in the Holy of Holies … And it came to pass, when the priests were come out of the holy place, that the cloud filled the house of the Lord, so that the priests could not stand to minister because of the cloud: for the glory of the Lord had filled the house of the Lord. Then spake Solomon, ‘The Lord said that he would dwell in the thick darkness. I have surely built thee a house to dwell in,, a settled place for thee to abide in forever … But will God indeed dwell on the earth? behold, the heaven and heaven of heavens

> cannot contain thee; how much less this house that I have builded?'[15]

According to the Scriptures, Solomon had later 'turned away his heart after other gods' and had worshipped with particular enthusiasm 'Ashtoreth the goddess of the Zidonians and … Milcom the abomination of the Amorites'.[16] Because of this tendency to apostasy I found it difficult to believe that the monarch whose legendary wisdom was said to have excelled 'all the wisdom of Egypt'[17] had ever really held Yahweh in especially high esteem. And for the same reason I did not think that he had been paying metaphysical tribute to the omnipotence and omnipresence of the God of Israel when he had expressed his doubts about the ability of the Temple to 'contain' the Ark. On the contrary, it seemed to me that when Solomon had uttered these curious words he had been

giving voice to genuine fears of a pragmatic rather than of a spiritual nature. Might not the sacred relic still break free, even though it was anchored now to the very foundation-stone of the world? Might not the unpredictable energies pent up within it still be sufficiently potent and dangerous to burn through the thick darkness of the Holy of Holies and to destroy the great 'house' that had been erected around it?

There was, I felt, a real sense in which the Temple appeared to have been built less as an earthly palace for a dearly beloved but incorporeal deity than as a kind of *prison* for the Ark of the Covenant. Within the Holy of Holies, above the two cherubim that faced each other across the relic's golden lid, Solomon had installed two additional cherubim of giant size – grim guardians indeed, with wingspans of fifteen feet or more, all covered in gold.[18] Meanwhile the Holy of Holies itself – the purpose of which, the Bible stated

explicitly, had been 'to contain the Ark of the Covenant of Yahweh'[19] – had been a perfect cube, foursquare and immensely strong. Measuring thirty feet long, by thirty feet wide, by thirty feet high,[20] its floor, its four walls and its ceiling had been lined with pure gold, weighing an estimated 45,000 pounds,[21] and riveted with golden nails.[22]

Nor was this golden cell the only feature of the Temple's construction that caught my attention. At least as interesting was the pedigree of the craftsman – a foreigner – who had been called in to complete all the other metalwork that Solomon had required:

> And Solomon sent for Hiram of Tyre; *he was the son of a widow* of the tribe of Naphtali … and he was filled with wisdom, and understanding, and cunning to work all works in bronze.[23]

The phrase emphasized above in italics had jumped out at me from the page as soon as I had set eyes upon it. Why? Because I knew that the very first mention in literature of the Grail hero Parzival had described him in almost exactly the same words as *'the son of the widowed lady'*.[24] Indeed, both Chrétien de Troyes, the founder of the genre, and his successor Wolfram von Eschenbach, had gone to great lengths to make it clear that Parzival's mother had been a widow.[25]

Could I be looking, I wondered, at yet another of the bizarre coincidences in which, through the use of dense and often deceptive symbolism, the fictional quest for the Holy Grail seemed to have been deliberately devised to serve as a cryptogram for the real quest for the lost Ark? I had long since satisfied myself that the Knights Templar had been key players in both and that, after the destruction of their order

in the fourteenth century, many of their traditions had been preserved in Freemasonry. I was therefore intrigued to learn that Hiram of Tyre, who the Bible said had been called to Jerusalem by Solomon, was not only a widow's son like Parzival, but also a figure of immense significance to Freemasons – who knew him as 'Hiram Abiff', and who made reference to him in all their most important rituals.[26]

According to Masonic tradition Hiram was murdered by three of his assistants soon after he had completed the bronzework of the Temple. And this event was for some reason regarded as so laden with meaning that it was commemorated in the initiation ceremonies for Master Masons – in which each initiate was required to play the role of the murder victim. In one authoritative study I found this description of the relevant part of the ceremonial (which is still in regular use today):

> Blindfolded on the ground, the initiate hears the three murderers decide to bury him in a pile of rubble until 'low twelve' (midnight), when they will carry the body away from the Temple. To symbolise the burial of Hiram Abiff, the candidate is wrapped in a blanket and carried to the side of the room. Soon he hears a bell strike twelve times and is carried from the 'rubble' grave to a grave dug on the brow of a hill 'west of Mount Moriah' (the Temple Mount). He hears the murderers agree to mark his grave with a sprig of acacia, then set out to escape to Ethiopia across the Red Sea.[27]

Here, then, were more coincidences – a minor one in the form of the sprig of acacia (the same wood that was used to

make the Ark), and a major one in the Masonic tradition that Hiram's murderers had intended to flee 'to Ethiopia'. I had no idea how much weight I should attach to such details but I could not rid myself of the feeling that they must in some way be relevant to my quest.

This suspicion deepened, furthermore, when I turned back to the Bible to find that one of the bronze items of Temple furniture that Hiram was said to have built was

> the Sea of cast metal, ten cubits from rim to rim, circular in shape and five cubits high; a cord thirty cubits long gave the measurement of its girth … It was a handsbreadth in thickness, and its rim was shaped like the rim of a cup, like a flower. It held two thousand baths.[28]

This 'Sea', I learned, had stood in the courtyard of the

Temple. It had been a huge bronze basin, fifteen feet in diameter and seven and a half feet high. It had weighed around thirty tonnes when empty but had normally been kept full with an estimated 10,000 gallons of water.[29] Most authorities admitted frankly that they did not know what its function had been – although some thought that it had symbolized the 'primordial waters' referred to in the book of Genesis[30] and others believed that it had been used by the priests for their ritual ablutions.[31] I, however, found neither of these hypotheses satisfactory – and, of the two, the latter seemed the most improbable because the Bible stated quite plainly that Hiram had made ten smaller bronze basins for precisely this purpose (placed on wheeled stands, each basin held 'forty baths'[32]). After reviewing the evidence, therefore, I entered the following speculation in my notebook:

> Is it not possible that the bronze 'Sea' which Hiram made for the courtyard of Solomon's Temple was a throwback to the ancient Egyptian rituals on which the ceremonies of the Ark appear to have been closely modelled? In the festival of Apet at Luxor the 'Arks' containing effigies of the gods were always carried to water.[33] And this, too, is precisely what happens in Ethiopia today: at *Timkat* in Gondar the *tabotat* are carried to the edge of a 'sacred lake' at the rear of the castle.[34] So perhaps the bronze Sea was also a kind of sacred lake?

According to the Bible, the other items fashioned by Hiram for Solomon's Temple had included 'the ash containers, the scoops and the sprinkling bowls'[35] and also

> two bronze pillars; the height of one pillar was eighteen cubits, and a cord twelve cubits long gave the measurement of its girth; so also was the second pillar … He set up the pillars in front of the vestibule of the sanctuary; he set up the right-hand pillar and named it Jachin; he set up the left-hand pillar and named it Boaz. So the work on the pillars was completed.[36]

Jachin and Boaz, I discovered, also featured in Masonic traditions.[37] According to the 'old ritual' these two great pillars had been hollow. Inside them had been stored the 'ancient records' and the 'valuable writings' pertaining to the past of the Jewish people.[38] And amongst these records, the Freemasons claimed, had been 'the secret of the magical *Shamir* and the history of its properties'.[39]

My curiosity was aroused by this mention of the 'magical *Shamir*'. What had it been? Was it just a piece of Masonic arcana, or was it referred to in the Bible?

After a painstaking search, I was able to confirm that the word 'Shamir' appeared only four times in the Old and New Testaments[40] – thrice as a place name and once as the name of a man. Clearly, therefore, none of these could have been the 'magical' Shamir, the secrets of which the Masons claimed had been concealed in Hiram's bronze pillars.

I did find the information that I was looking for, however – not in the Scriptures but in the Talmudic-Midrashic sources at my disposal. Because Moses had commanded the Israelites not to use 'any tool of iron' in the construction of holy places,[41] Solomon had ordered that no hammers, axes or chisels should be used to cut and dress the many massive stone blocks from which the outer walls and courtyard of the

Temple had been built. Instead he had provided the artificers with an ancient device, dating back to the time of Moses himself.[42] This device was called the Shamir and was capable of cutting the toughest of materials without friction or heat.[43] Also known as 'the stone that splits rocks',[44]

> the Shamir may not be put in an iron vessel for safekeeping, nor in any metal vessel: it would burst such a receptacle asunder. It is kept wrapped up in a woollen cloth, and this in turn is placed in a lead basket filled with barley bran … With the destruction of the Temple the Shamir vanished.[45]

I was fascinated by this odd and ancient tradition, which also claimed that the Shamir had possessed 'the remarkable property of cutting the hardest of diamonds'.[46] I then found a

collateral version of the same story which added that it had been quite noiseless while it was at work.[47]

All in all, I concluded, these characteristics (like many of the characteristics of the Ark of the Covenant) sounded broadly technological in nature, rather than in any way 'magical' or supernatural. And I also thought it significant that this peculiar device – again like the Ark – had been directly associated with Moses. Finally it did not seem to me entirely irrelevant that the Freemasons had maintained their own separate traditions about it – traditions which stated that its secrets had been concealed inside the two bronze pillars placed 'in front of the vestibule of the sanctuary' by Hiram the widow's son.

Without knowledge of those long-lost 'secrets', I realized that I could not hope to go any further with this line of inquiry. At the same time, however, I felt that the story of the

Shamir deepened the mystery surrounding the real nature of the great stronghold on the top of Mount Moriah that had been built and explicitly dedicated as ‘an house of rest for the Ark of the Covenant of the Lord’. With its bronze pillars and its bronze ‘Sea’, its giant cherubim and its golden inner shrine, Solomon’s Temple had clearly been a special place, wonderfully made, the focus of superstition and religious dread, and the centre of Jewish faith and cultural life. How, then, could the Ark possibly have disappeared from it?

Shishak, Jehoash and Nebuchadnezzar

An obvious answer to the last question – which, if correct, would completely invalidate the Ethiopian claim – was that the Ark could have been taken by force from the Temple during one of the several military catastrophes that Israel

suffered after the death of Solomon.

The first of these catastrophes occurred in 926 BC during the unsuccessful reign of Solomon's son Rehoboam.[48] Then, according to the first book of Kings, an Egyptian Pharaoh known as Sheshonq (or 'Shishak') mounted a full-scale invasion:

> In the fifth year of king Rehoboam … Shishak king of Egypt came up against Jerusalem: And he took away the treasures of the house of the Lord, and the treasures of the king's house; he even took away all.[49]

There was nothing in this tantalizingly brief account to suggest that Shishak's booty had *not* included the Ark of the Covenant. But if the Ark had indeed been captured just thirty

years after Solomon had installed it in the Temple then it seemed to me that the scribes would have said so – and would in addition have lamented the loss of the precious relic. They had not even mentioned it, however[50] – which to my mind implied one of two things: *either* the Ark had been secretly removed before the arrival of the Egyptian army (perhaps during the reign of Solomon himself as Ethiopian tradition insisted); *or* it had remained *in situ* in the Holy of Holies throughout the invasion. But the notion that the Pharaoh could have taken it looked most implausible.

A further indication that this was so had been left by Shishak himself in the form of his vast triumphal relief at Karnak. I had already become quite familiar with that relief during my various visits to Egypt and I felt sure that it had made no mention of the Ark of the Covenant or, for that matter, of any siege or pillage of Jerusalem.[51] On checking

further I was now able to confirm that this impression had been correct. One authoritative study stated unequivocally that the majority of the towns and cities listed as having been sacked by Shishak had in fact been in the northern part of Israel:

> Jerusalem, target of Shishak's campaign according to the Bible, is missing. Although the inscription is heavily damaged, it is certain that Jerusalem was not included because the list is arranged into geographical sequences which allow no space for the name Jerusalem.[52]

What then could have happened at the holy city to explain the Scriptural assertion that Shishak had taken away 'the treasures of the house of the Lord, and the treasures of the king's house'?

The academic consensus, I discovered, was that the Pharaoh had surrounded Jerusalem but that he had never actually entered it; instead he had been 'bought off with the treasures of Solomon's temple and palace.'[53] These treasures, moreover, could not possibly have included the Ark, even if it had still been there in 926 BC; instead they would have consisted of far less sacred items, mainly public and royal donations dedicated to Yahweh. Such items, normally quite precious and made of silver and gold, were not stored in the Holy of Holies but rather in the outer precincts of the Temple in special treasuries that were always mentioned in the Old Testament conjointly with the treasuries of the king's house.[54] 'Occasionally,' as one leading biblical scholar put it,

> these treasuries were depleted either by foreign invaders or by the kings themselves when they

> were in need of funds. The treasuries thus constantly oscillated between a state of affluence and want … The invasion of Shishak [had], therefore, nothing to do with the Temple sanctums, and it would be entirely inaccurate to associate [it] with the disappearance of the Ark.[55]

Precisely the same caution, I discovered, also applied to the next occasion on which the Temple had apparently been looted. This had happened at a time when the unified state that David and Solomon had forged had been split into two warring kingdoms – 'Judah' in the south (which included Jerusalem) and 'Israel' in the north. In 796 BC[56] Jehoash, the monarch of the northern kingdom, joined battle at Bethshemesh with his Judaean counterpart Amaziah:

> And Judah was put to the worse before Israel, and they fled every man to their tents. And Jehoash king of Israel took Amaziah king of Judah … at Bethshemesh, and came to Jerusalem, and brake down the wall of Jerusalem … And he took all the gold and silver, and all the vessels that were found in the house of the Lord, and in the treasuries of the king's house.[57]

Once again, this pillage of the Temple had not involved the Holy of Holies or the Ark of the Covenant. As one authority on the period explained:

> Jehoash did not even enter the Temple's outer sanctum, certainly not the inner one … The phrase 'the house of the Lord' mentioned in connection with Jehoash … is simply a shortened

> form of ‘the treasuries of the house of the Lord’. This may be seen from the fact that the ‘treasuries of the king’s house’ which are always contiguously mentioned with the ‘treasuries of the house of the Lord’ are also mentioned.[58]

So much then for Shishak and Jehoash. The reason that neither of them had claimed to have taken the Ark, and the reason that neither had been reported by the Bible to have done so, was now quite clear to me: they had got nowhere near the Holy of Holies in which the sacred relic had been kept and had helped themselves only to minor treasures of gold and silver.

The same, however, could not be said for Jerusalem’s next and greatest invader, King Nebuchadnezzar of Babylon. He attacked and occupied the holy city not once but twice, and

even on the first occasion, in 598 BC,[59] it was clear that he had penetrated deeply into the Temple itself. The Bible described this disaster in the following terms:

> The troops of Nebuchadnezzar king of Babylon marched on Jerusalem, and the city was besieged. Nebuchadnezzar … himself came to attack the city while his troops were besieging it. Then Jehoiachin king of Judah surrendered to the king of Babylon, he, his mother, his officers, his nobles and his eunuchs, and the king of Babylon took them prisoner. This was the eighth year of King Nebuchadnezzar. The latter carried off all the treasures of the house of the Lord, and the treasures of the king's house, and cut in pieces all the golden furnishings that Solomon king of Israel

had made for the sanctuary of Yahweh.[60]

What had Nebuchadnezzar's booty consisted of? I already knew that the 'treasures of the house of the Lord, and the treasures of the king's house' could not have included any truly sacred objects such as the Ark. As noted above, these phrases had very specific and distinct meanings in the original Hebrew and referred only to dispensable items stored in the royal and priestly treasuries.

More significant by far was the statement that the Babylonian monarch had 'cut in pieces all the golden furnishings that Solomon king of Israel had made for the sanctuary of Yahweh.' The Hebrew word that the translators of the Jerusalem Bible had rendered as 'sanctuary' was, I discovered, *hekal* and its precise meaning was 'outer sanctum'.[61] In trying to envisage its location I found it useful

to recall the basic layout of Ethiopian Orthodox churches which – as I had learned on my trip to Gondar in January 1990 – exactly reflected the tripartite division of the Temple of Solomon.[62] By co-ordinating this mental picture with the best scholarly research on the subject I was able to confirm beyond any shadow of a doubt that the *hekal* had corresponded to the *k'eddest* of Ethiopian churches.[63] This meant that the 'sanctuary of Yahweh' despoiled by Nebuchadnezzar had *not* been the Holy of Holies in which the Ark had stood but rather the antechamber to that sacred place. The Holy of Holies itself – the inner sanctum – had been known in ancient Hebrew as the *debir* and corresponded to the *mak'das* in which the *tabotat* were kept in Ethiopian churches.[64]

If the Ark had still been in the Temple at the time of Nebuchadnezzar's first attack, therefore – and that, as it

turned out, was a very big if – then it was certain that the Babylonian king had not taken it. Instead he had contented himself with cutting 'in pieces' and carrying off the 'golden furnishings' that Solomon had placed in the *hekal*.[65] The other 'furnishings' that had been looted by Nebuchadnezzar – and the list was quite specific – were as follows:

> the lamp-stands, five on the right and five on the left in front of the *debir*, of pure gold; the floral work, the lamps, the extinguishers of gold; the basins, knives, sprinkling bowls, incense boats, censers, of pure gold; the door sockets for the inner shrine – that is, the Holy of Holies – and for the *hekal*, of gold.[66]

Of course, in this translation, the terms 'inner shrine', '*debir*' and 'Holy of Holies' were all used interchangeably to refer to

the same sacred place – i.e. the place in which the Ark had been installed by Solomon so many centuries before.[67] Once I had satisfied myself that that was indeed the case, a single significant fact suddenly became clear to me: while not looting the Holy of Holies, Nebuchadnezzar had nonetheless removed its door-sockets. From this it was safe to deduce that the doors had been taken off their hinges and that the Babylonian monarch – or the soldiers who had carried out his orders – would thus have been able to look right into the *debir*.

I realized immediately that this was an important, indeed a crucial, finding. Gazing into the inner sanctum the Babylonians should immediately have been able to see the two giant cherubim, overlaid with gold, that Solomon had placed as sentinels over the Ark – and they should also have been able to see the Ark itself. Since they had shown no

compunction in removing the gold from the furnishings of the *hekal* it therefore had to be asked why they had not immediately rushed into the *debir* to strip the far larger quantities of gold from its walls and from the cherubim, and why they had not taken the Ark as booty.

The Babylonians had demonstrated that they held the Jews – and their religion – in complete contempt.[68] There was thus no mileage in assuming that they might have refrained from looting the Holy of Holies out of some sort of altruistic desire to spare the feelings of the vanquished. On the contrary all the evidence suggested that if they had indeed been confronted by rich pickings like the Ark, and the gold overlay on the walls and on the cherubim, then Nebuchadnezzar and his men would unhesitatingly have helped themselves to the lot.

What made this even more probable was that it had been

the normal practice of the Babylonians at this time to seize the principal idols or cult-objects of the peoples they had conquered and to transport them back to Babylon to place in their own temple before the statue of their god Marduk.[69] The Ark would have been an ideal candidate for this sort of treatment. Yet it had not even been stripped of its gold, let alone carried off intact. Indeed neither it nor the cherubim had been mentioned at all.

> The logical conclusion [I wrote in my notebook] is that the Ark and the gold-covered cherubim were no longer in the *debir* in 598 BC when the first Babylonian invasion took place – and, indeed, that the walls, floor and ceiling of the *debir* had also been stripped of their gold prior to that date. This would seem to lend at least *prima*

> *facie* support to the Ethiopian claim – since I have already established that Shishak and Jehoash did not get their hands on the Ark, or on the other precious contents of the *debir*, and since they were the only previous invaders to have acquired any sort of treasure from the Temple.

Of course the Babylonian assault on Jerusalem in 598 BC had not been the last that Nebuchadnezzar would mount – and the conclusion that I had just scribbled in my notebook would be proved completely false if there were any evidence to suggest that he had taken the Ark the *second* time that he sacked the holy city.

After the successful operation of 598 BC he had installed a puppet king, Zedekiah, on the throne.[70] This 'puppet', however, turned out to have ideas of his own and, in 589 BC,

he rebelled against his Babylonian overlord.[71]

The response was instantaneous. Nebuchadnezzar marched on Jerusalem once again and laid siege to it, finally breaching its walls and overrunning it in late June or early July of the year 587 BC.[72] Slightly less than a month later:[73]

> Nebuzaradan, commander of the guard, an officer of the king of Babylon … burned down the Temple of Yahweh, the royal palace and all the houses in Jerusalem. The … troops who accompanied the commander of the guard … broke up the bronze pillars from the Temple of Yahweh, the wheeled stands and the bronze Sea that were in the Temple of Yahweh, and took the bronze away to Babylon. They took the ash containers, the scoops, the knives, the

> incense boats, and all the bronze furnishings used in worship. The commander of the guard took the censers and the sprinkling bowls, everything that was made of gold and everything made of silver. As regards the two pillars, the one Sea and the wheeled stands … there was no reckoning the weight in bronze in all these objects.[74]

This, then, was the detailed inventory offered in the Bible of all the objects and treasures broken up or carried off to Babylon after Nebuchadnezzar's second attack on the city. Once again, and significantly, the Ark of the Covenant was not included – and nor was the gold that Solomon had used to line the Holy of Holies and to overlay the great cherubim that had stood within that sacred place. Indeed absolutely nothing else was mentioned at all and it was clear that the

bulk of the loot taken in 587 BC had consisted of bronze salvaged from the pillars and the 'Sea' – and also from the wheeled basins – that Hiram had made four centuries earlier.

A fact that argued very strongly in favour of the basic veracity of the list was that it was entirely consistent with the biblical account of what had previously been stolen from the Temple in 598 BC. On that occasion Nebuchadnezzar had left the bronze items in place but had removed the 'treasures of the house of the Lord, and the treasures of the king's house' and had also stripped off all the gold from the furnishings of the *hekal*. This was why, eleven years later, Nebuzaradan's haul of gold and silver had consisted only of a few censers and sprinkling bowls:[75] he had not been able to find anything more valuable for the simple reason that all the best items had been looted and taken to Babylon in 598 BC.

Since I had already satisfied myself that those items had

not included the Ark, and since the relic had not been amongst the second lot of booty either, I felt increasing confidence in my conclusion that it must have disappeared at some stage *prior* to the Babylonian invasions. By the same token the other oft-cited explanation for the loss of the relic – namely that it must have been destroyed in the great fire that Nebuzaradan had started[76] – also looked increasingly untenable. If the Ark had indeed been taken away before 598 BC – perhaps to Ethiopia – then it would of course have escaped the destruction of the Temple.

But was it safe, from this chain of reasoning, to deduce that it *had* gone to Ethiopia? Certainly not. Researching the matter further I found that Judaic traditions offered several alternative explanations for what had happened – any of which, if sufficiently strong, might prove fatal to the Ethiopian case and all of which therefore had to be

considered on their merits.

‘Deep and tortuous caches …’

The first point that became clear to me was that the Jews as a people had only become conscious of the loss of the Ark – and conscious that this loss was a great mystery – at the time of the building of the Second Temple.

I was already aware that in 598 BC Nebuchadnezzar had sent into exile in Babylon a large number of the inhabitants of Jerusalem.[77] In 587 BC, after the burning of Solomon’s Temple,

> Nebuzaradan, commander of the guard, deported the remainder of the population left behind in the city, the deserters who had gone over to the king

> of Babylon, and the rest of the common people … Thus Judah was deported from this land.[78]

The trauma of the banishment, the humiliations of the captivity, and the firm resolve that Jerusalem should never be forgotten, were soon to be immortalized in one of the most poignant and evocative pieces of poetry in the whole of the Old Testament:

> By the rivers of Babylon, there we sat down, yea, we wept, when we remembered Zion.
>
> We hanged our harps upon the willows in the midst thereof,
>
> For there they that carried us away captive required of us a

song; and they that wasted us required of us mirth, saying, Sing us one of the songs of Zion.

How shall we sing the Lord's song in a strange land?

If I forget thee, O Jerusalem, let my right hand forget her cunning.

If I do not remember thee, let my tongue cleave to the roof of my mouth; if I prefer not Jerusalem above my chief joy.[79]

This physical exile of an entire people was not to last for very long. Nebuchadnezzar had begun the process in 598 BC and had completed it in 587. Slightly less than half a century later, however, the empire that had expanded so dramatically

under his rule was utterly crushed by Cyrus the Great, king of Persia, whose triumphant armies entered Babylon in 539 BC.[80]

This Cyrus, who has been described as 'one of the world's most astonishing empire-builders',[81] adopted an enlightened approach towards his subject peoples. There were others, like the Jews, who had also been held captive in Babylon. He made it his business to set them all free. Moreover, he permitted them to remove their confiscated idols and cult objects from the temple of Marduk and to carry these home with them.[82]

The Jews, of course, were unable to take full advantage of this latter opportunity, because their principal cult object, the Ark of the Covenant, had not been brought to Babylon in the first place. Nevertheless a large number of the lesser treasures that Nebuchadnezzar had seized were still intact, and these the Persians handed over with all due ceremony to the

appropriate Judaean officials. The Old Testament contained a detailed report of the transaction:

> King Cyrus took the vessels of the Temple of Yahweh which Nebuchadnezzar had carried away from Jerusalem and dedicated to the temple of his god. Cyrus king of Persia handed them over to Mithredath, the treasurer, who counted them out to Sheshbazzar, the prince of Judah. The inventory was as follows: thirty golden bowls for offerings; one thousand and twenty-nine silver bowls for offerings; thirty golden bowls; four hundred and ten silver bowls; one thousand other vessels. In all, five thousand four hundred vessels of gold and silver. Sheshbazzar took all these with him when the exiles travelled back from Babylon

to Jerusalem.[83]

That return journey took place in 538 BC.[84] Then, in the spring of 537 BC, the Second Temple began to be built above the razed foundations of the First.[85] The work was finally completed around 517 BC,[86] and although this was a cause for great rejoicing there were also reasons for sorrow. The removal of the Ark of the Covenant from the First Temple – whenever it had occurred – had clearly been kept secret from the public (not a difficult task since no one but the High Priest was supposed to enter the Holy of Holies). Now, however, after the return from Babylon, it was impossible to disguise the fact that the precious relic had gone, and that it therefore could not be installed in the inner sanctum of the Second Temple. This great change was explicitly admitted in

the Talmud, which stated: ‘In five things the First Sanctuary differed from the Second: in the Ark, the Ark-cover, the Cherubim, the Fire, and the Urim-and-Thummim.’[87] The Urim and Thummim had been mysterious objects (here referred to collectively as a single object) that had possibly been used for divining and that had been kept in the breast-plate of the High Priest in the time of Moses. They were not present in the Second Temple. Neither was the celestial fire that had always been associated with the Ark of the Covenant. And of course the Ark itself was also missing – together with its thick golden cover and the two golden cherubim that had been mounted upon it.[88]

The secret, therefore, was out: the most precious relic of the Jewish faith had vanished, apparently into thin air. Moreover the people knew that it had not been brought into captivity with them in Babylon. So where could it possibly

have gone?

Almost at once theories started to circulate and, in the normal way of things, some of these theories quickly took on the character of revealed truths. The majority supposed that Nebuchadnezzar's looters had failed to find the Ark because, before their arrival, it had been carefully hidden somewhere within Mount Moriah itself, where the Second Temple now stood on the site previously occupied by the First. According to one post-exilic legend, for example, Solomon had foreseen the destruction of his Temple even while he was building it. For this reason he had 'contrived a place of concealment for the Ark, in deep and tortuous caches'.[89]

It was this tradition, I felt sure, that must have inspired the author of the Apocalypse of Baruch to suggest that the relic had been swallowed by the earth below the great 'foundation stone' known as the *Shetiyyah*. I knew, of course that no

reliance could be placed on that relatively late and apocryphal work. Nevertheless I was aware that other accounts existed which likewise identified some secret cavern within the Temple Mount as the last resting place of the Ark.

Reinforcing the notion that that cavern might have been located directly beneath the Holy of Holies, the Talmud expressed the view that 'the Ark was buried in its own place.'[90] And this entombment, it seemed, had been the work of King Josiah, who had ruled in Jerusalem from 640 to 609 BC,[91] i.e. until just a decade before the first Babylonian seizure of the city. Near the end of his long reign, the story went, foreseeing 'the imminent destruction of the Temple', 'Josiah hid the Holy Ark and all its appurtenances, in order to guard them against desecration at the hands of the enemy.'[92]

This, I found, was quite a pervasive belief. Not all the sources, however, agreed that the place of concealment had

been in the immediate vicinity of the Holy of Holies. Another parallel tradition, recorded in the Mishnah, suggested that the relic had been buried 'under the pavement of the wood-house, that it might not fall into the hands of the enemy.'[93] This wood-house had stood within the precincts of Solomon's Temple, but its precise location had been forgotten by the time that the Jews returned from their exile in Babylon and thus 'remained secret for all time'.[94] Nevertheless the Mishnah reported that a priest had once been working in the courtyard of the Second Temple and there, by accident, he had stumbled upon 'a block of pavement that was different from the rest':

> He went and told it to his fellow, but before he could make an end of the matter his life departed. So they knew assuredly that there the Ark lay

hidden.[95]

An entirely separate account of the concealment of the relic was put forward in the second book of Maccabees (a work excluded from the Hebrew Bible, but included in the canon of the Greek and Latin Christian churches, and in the Apocrypha of the English Bible[96]). Compiled at some time between 100 BC and AD 70 by a Jew of Pharisaic sympathies (who wrote in Greek),[97] the opening verses of 2 Maccabees 2 had this to say about the fate of the Ark:

> The prophet Jeremiah … warned by an oracle [of the impending destruction of the Temple of Solomon], gave instructions for the tabernacle and the Ark to go with him when he set out for the mountain which Moses had climbed to survey

> God's heritage. On his arrival Jeremiah found a cave dwelling, into which he brought the tabernacle, the Ark and the altar of incense, afterwards blocking up the entrance.[98]

In the opinion of the scholars who produced the authoritative English translation of the Jerusalem Bible – from which the above quotation is taken – Jeremiah's supposed expedition to hide the Ark was nothing more than an inspirational fable devised by the author of the second book of Maccabees as part of a deliberate attempt to re-awaken the interest of expatriate Jews in the national homeland.[99] The editors of the *Oxford Dictionary of the Christian Church* likewise regarded the passage as being of no historical value.[100] And since it was written some five hundred years after the death of Jeremiah himself it could not even be said to be a

particularly ancient tradition[101] – although its author had attempted to dress it up as such by claiming that he had based his account on a document found in 'the archives'.[102]

It was a fact, however, that the prophet Jeremiah (unlike the author of Maccabees) *had* lived at around the time of the destruction of Solomon's Temple – which meant that he could, just conceivably, have played some role in the concealment of the Ark. Moreover 'the mountain which Moses had climbed to survey God's heritage' – Mount Nebo[103] – was a known place that stood barely fifty kilometres to the east of Jerusalem as the crow flies.[104] Culturally appropriate because of its associations with the founder of Judaism, this venerated peak thus also looked like a feasible hiding place in terms of its geographical location.

The Maccabees story had therefore not been entirely dismissed by later generations of Jews; on the contrary,

although never incorporated into the Jewish canon of Scripture, it had been substantially elaborated upon and embellished in the folklore – where, for example, the knotty problem of exactly how Jeremiah (who had been very much at odds with the priestly fraternity in the Temple[105]) had managed to get the sacred items out of the Holy of Holies and across the Jordan valley to Nebo was solved by providing him with an angel for a helper![106]

After looking back through all the Jewish traditions that I had surveyed concerning the last resting place of the Ark, I entered the following summary in my notebook:

> Outside of the Talmud, the Mishnah, the Apocalypse of Baruch, the second book of Maccabees, and various rather colourful legends, there is nothing of any substance in Jewish

tradition concerning the whereabouts of the Ark of the Covenant. Since it now seems certain that it was not looted by Shishak or Jehoash or Nebuchadnezzar, it therefore follows that the only alternatives to the claim that it is in Axum are (a) very sketchy, (b) historically dubious, and (c) lacking in any current vitality (by contrast religious feeling in Ethiopia continues to be massively focussed upon the belief that the relic is indeed there).

All this makes the Ethiopian case look more and more credible. Nevertheless the Jewish 'alternatives' cannot be dismissed out of hand simply because they seem to be a bit flimsy.

ACTION: find out whether any archaeologists have excavated at Mount Nebo, or in and around

> the Temple Mount – which are the only two locations proposed by the Jews as the last resting place of the Ark.

I wrote that note in my hotel room in Jerusalem on the night of Saturday 6 October 1990. Two days later, on the morning of Monday 8 October, I attempted to go back to take a second look at the Temple Mount, and to visit some excavations that I knew were in progress just outside the sacred precincts, perhaps a hundred metres to the south of the Al-Aqsa Mosque. As I approached, however – walking along the city wall from David's Tower to the Dung Gate – the sound of gunfire and of people screaming forewarned me that something had gone seriously wrong.

Death on the Mount

What I had walked into subsequently came to be known as the 'Temple Mount massacre', and although it represented the coming to a head of years of hatred between the Jews and the Arabs of Jerusalem, its proximate cause was a demonstration by an ultra-conservative Zionist group known as the 'Temple Mount Faithful'. The large banner that they carried as they marched up to the Moghrabi Gate bore a Star of David and a provocative inscription in Hebrew which summarized the key issue for all concerned. That inscription read:

TEMPLE MOUNT – THE SYMBOL OF OUR PEOPLE IS IN THE HANDS OF OUR ENEMIES

What the demonstrators hoped to do was to enter the Temple

Mount itself through the Moghrabi Gate, march up to the Dome of the Rock, and there lay the cornerstone for a proposed Third Temple. This ambition, obviously, was packed with political dynamite: since work began on the construction of the Dome of the Rock in the seventh century AD, the whole of the Temple Mount area had been a sacred site of immense importance to Islam as well as to Judaism. Moreover, much to the chagrin of groups like the 'Temple Mount Faithful', it is the Muslims who are in possession of that site – which has contained no Jewish place of worship since the destruction of the Second Temple by the Romans in AD 70. Wishing to defend this *status quo* – against what must have looked to them like a genuine threat – an estimated five thousand militant Arabs had gathered inside the walls of the Temple Mount and had armed themselves with stones which they planned to hurl down at the approaching Zionists.

The atmosphere was thus highly charged with emotion when the Temple Mount Faithful began their march on Monday 8 October. And what added enormously to the tension was the location of the Moghrabi Gate through which they intended to pass. Opening out into the main compound less than fifty metres from the front porch of the Al-Aqsa Mosque, this gate is built into the southern end of the Western Wall – the exposed exterior of which, known as the 'Wailing Wall', is today the single most important Jewish holy place. Dating back to Second Temple times, it is part of a retaining buttress built by Herod the Great in the late first century BC. It escaped demolition by the Romans in AD 70 (because, said the Midrash, the 'Divine Presence' hovered over it) and, in later years, it became a potent symbol of the nationalist aspirations of the Jewish people scattered during the diaspora. Even after the formation of the State of Israel it

continued to be administered by the Hashemite Kingdom of Jordan and it was not until the Six Day War of 1967 that it was finally incorporated into Israel proper. A large plaza was then cleared in front of it and dedicated as a formal place of worship – where, to this day, Jews from all over the world gather to lament the fact that they have no Temple. To avoid a potentially catastrophic confrontation with Islam, however, Jewish worship in any form continues to be banned on the Temple Mount itself, which remains under the exclusive control of the Muslims of Jerusalem and which directly overlooks the Wailing Wall.[107]

By choosing to try to enter the Temple Mount through the Moghrabi Gate, therefore, the Temple Mount Faithful were asking for trouble. Access was in fact denied to them by the Israeli police but, as they turned away, the five thousand Arabs who had gathered inside began to rain down showers

of stones – not only on the heads of the zealots who had participated in the march but also on the large numbers of other Jews then making their devotions at the Wailing Wall. In this way something that had started life as an apparently symbolic demonstration was very rapidly transformed into a full-scale riot in which eleven Israeli worshippers and eight policemen were hurt, and in which twenty-one Arabs were shot dead and one hundred and twenty-five seriously injured.

By the time I arrived on the scene the worst of it was over: piles of stones lay amongst pools of blood at the base of the Wailing Wall; the wounded were being ferried away in ambulances; and the police – dressed in riot gear and armed to the teeth – appeared to be in full control. The Temple Mount itself, having just been stormed by the security forces, was off-limits. So too was the area of excavations immediately to the south that I had intended to visit.

Hundreds of angry and excited Jews, a few of them proudly wearing blood-stained bandages, milled around in a decidedly bellicose mood and soon a wild celebration began in front of the Wailing Wall – although exactly why anyone should have rejoiced over the brutal killing of a score of Arab youths was something that I just could not understand.

Disgusted and depressed I eventually left the area, climbing up the steps that led into the Jewish Quarter of the old city and crossing into the Street of the Chain – along which I had walked a few days previously on my first visit to the Temple Mount. Here I saw further gratuitous violence as the police, carrying guns and truncheons, rounded up Palestinians whom they suspected of having been amongst the rioters. One young man, protesting his innocence in a high-pitched and terrified voice, was repeatedly punched and slapped; another ran at break-neck speed into a narrow alley where he was

cornered and beaten before being dragged away.

Altogether, it had been a most unpleasant morning and it cast a blight over the rest of my stay in Jerusalem. This was so not only because of the human suffering that current events had now directly linked to the place where the Ark had once stood, but also because the Temple Mount and the excavations to the south of it remained sealed off by the security forces until long after I had left Israel. Despite these inauspicious omens, however, I was determined not to waste any of the few days remaining to me in that unhappy country, and I therefore continued with my investigation as best I could.

Digging up sacred places

The immediate question that I was seeking to answer was the

one that I had jotted down in my notebook on the night of Saturday 6 October: had any efforts been made by archaeologists to dig at the Temple Mount, or at Mount Nebo, in order to test the Jewish traditions about the last resting place of the Ark?

I began with the excavations that I had tried unsuccessfully to visit on the morning of 8 October. Though I could not now gain access to them, I was able to meet with some of the archaeologists involved in them and to research their findings. What I learned was that proper digging had started here in February 1968 – some eight months after Israeli paratroopers had seized control of Jerusalem in the Six Day War. And although all the excavations were safely outside the sacred precincts of the Temple Mount they had been a focus of controversy from the very beginning. According to Meir Ben-Dov, Field Director of the dig, early opposition

came from members of the Higher Muslim Council, who suspected a plot against their interests. ‘The excavations are not in fact a scientific venture,’ they complained, ‘their Zionist objective is rather to undermine the southern wall of the Temple Mount, which is likewise the southern wall of the Al-Aqsa Mosque, as a way of destroying the mosque.’[108]

To Ben-Dov’s surprise, Christians were at first almost equally unhelpful. ‘They suspected’, he explained, ‘that the purpose of the excavation was to lay the groundwork for building the Third Temple and the whole business about an archaeological venture was just a cover for an invidious plot. All I can say is that until you actually hear these rumours with your own ears, they sound like the product of a demonic imagination. Yet more than once – whether in jest or otherwise – people whose exceptional intelligence and abilities as historians and archaeologists are beyond question

have come straight out and asked me: “Don’t you intend to reinstitute the Temple?” ’[109]

The strongest opposition of all came from the Jewish religious authorities – whose agreement to the dig was required by the government before any work could begin. Professor Mazar of the Archaeological Institute of the Hebrew University led the negotiations with the Sephardi and Ashkenazi Chief Rabbis – both of whom turned him down flat when he first approached them in 1967:

> The Sephardi Chief Rabbi, Rabbi Nissim, explained his refusal by the fact that the area of our proposed dig was a holy place. When asked to elucidate his answer further, he intimated that we might prove that the Wailing Wall was not in fact the western wall of the Temple Mount. Besides,

what point was there in taking the chance and conducting a dig for scientific purposes when they were irrelevant anyway? On the other hand the Ashkenazi Chief Rabbi, Rabbi Unterman, agonized over *halakhic* problems (questions of Jewish law). 'What will happen,' he mused aloud, 'if, as a result of the archaeological excavation, you find the Ark of the Covenant, which Jewish tradition says is buried in the depths of the earth?' 'That would be wonderful!' Professor Mazar replied in all innocence. But the venerable Rabbi told the learned Professor that *that* was precisely what he feared. Since the Children of Israel are not 'pure' from the viewpoint of Jewish religious law, they are forbidden to touch the Ark of the Covenant. Hence it is unthinkable to even consider

excavating until the Messiah comes![110]

The rabbi's concern about the Ark was entirely orthodox. All Jews have indeed been considered to be in a condition of ritual impurity since the destruction of the Second Temple – a condition that is only supposed to end with the coming of the true Messiah.[111] Dogma of this sort thus represented a considerable obstacle in the path of the archaeologists. Nevertheless they managed in due course to win the rabbis over – and also to overcome the objections of the representatives of the other two monotheistic faiths descended from the Old Testament worship of Yahweh. The dig went ahead. Moreover, despite the location of the site *outside* the Temple Mount, a number of artefacts from the days of the First Temple were recovered. Predictably, though, no trace of the Ark of the Covenant was found, and the vast

bulk of the discoveries proved to be from the later Second Temple, Muslim and Crusader periods.[112]

In summary, therefore, I could see that Meir Ben-Dov's excavations had certainly *not* vindicated the Jewish traditions about the concealment of the Ark. But neither had they conclusively disproved those traditions. Only one thing could do that, and that would be a thorough and painstaking dig on the Temple Mount itself.

My own feeling, as the reader will recall, was that such a dig *had* been carried out by the Knights Templar long centuries before the discipline of archaeology was ever invented, and that they, too, had failed to find the Ark. Nevertheless I still needed to know whether any excavations had been undertaken in modern times, and if so what had been found. I put these questions to Dr Gabby Barkai, an archaeologist at Jerusalem's Hebrew University who

specializes in the First Temple period.

‘Since modern archaeology emerged,’ he told me bluntly, ‘no effort has been made to dig inside the Temple Mount.’

‘Why?’ I asked.

‘Because it’s the ultimate sacred site. The Muslim authorities are utterly opposed to any kind of scientific investigations being undertaken there. It would be the worst kind of sacrilege from their point of view. So the Temple Mount remains a riddle for archaeology. Most of what we know about it is theoretical and interpretive. Archaeologically we only have the findings of Charles Warren. And Parker of course. He actually did dig inside the Dome of the Rock – in 1910 if I remember correctly. But he wasn’t an archaeologist. He was a lunatic. He was looking for the Ark of the Covenant.’

I was not sure from this statement whether Barkai had

described Parker as a ‘lunatic’ because he had looked for the Ark; or whether he had looked for the Ark because he had been a lunatic; or whether his lunacy had been manifestly apparent before he had started to dig inside the Dome of the Rock. This, however, seemed like an excellent opportunity to refrain from mentioning that I, too, was looking for the Ark. I therefore confined myself to asking the archaeologist where I might find out more about Parker – and about Charles Warren, the other name he had mentioned.

A couple of days of archive research followed, during which I learned that Warren had been a young lieutenant in Britain’s Royal Engineers who had been commissioned by the London-based Palestine Exploration Fund to excavate the Temple Mount in the year 1867. His work, however, had been confined to much the same areas – outside and to the south of the sacred precincts – that were to be more

thoroughly investigated a century later by Meir Ben-Dov and his colleagues.[113]

The difference was that Warren had very actively sought permission to excavate *inside* the Temple Mount as well. But all his efforts had been rebuffed by the Ottoman Turks who then administered Jerusalem. Moreover, on the one occasion when he had managed to cut a tunnel northwards and to burrow under the exterior walls, the sledgehammers and other tools used by his labourers had disturbed the prayers of the faithful going on above them in the Al-Aqsa Mosque. The result had been a hail of stones, a riot, and orders from Izzet Pasha, the governor of the city, that the dig should be suspended forthwith.[114]

Despite such difficulties, Warren had refused to be discouraged and had persuaded the Ottomans to let him go back to work again. He had subsequently made several other

clandestine attempts to tunnel beneath the Temple Mount, where he had planned to 'locate and map all the ancient remains' that he might encounter.[115] But he was unable to realize this ambition and reached only the foundations of the exterior walls.[116] Of course he did not find the Ark of the Covenant – there was no evidence that it had ever been his intention to look for it anyway. His chief interest had been in the Second Temple period and in this context he did make many discoveries of lasting value to scholarship.[117]

The same could not be said for Montague Brownslow Parker, a son of the Earl of Morley, who had gone to Jerusalem in 1909 with the express intention of locating the Ark – and who had made no contribution to scholarship whatsoever.

Parker's expedition, later politely described by the renowned British archaeologist Kathleen Kenyon as

‘exceptional by any standards’,[118] was the brainchild of a Finnish mystic named Valter H. Juvelius, who in 1906 had presented a paper at a Swedish university on the subject of the destruction of King Solomon’s Temple by the Babylonians. Juvelius claimed to have acquired reliable information about the hiding place – inside the Temple precincts – of ‘the gold-encrusted Ark of the Covenant’, and he also said that a close study that he had made of the relevant biblical texts had revealed the existence of a secret underground passage running into the Temple Mount from some part of the city of Jerusalem. After poring over the reports of Charles Warren’s excavations, he had convinced himself that this secret passage would be found to the south of the Al-Aqsa Mosque, in the area that Warren had already dug. Proffering the lure of the US $200 million that he believed the Ark would be worth if it could be recovered,

Juvelius therefore sought investors to finance an expedition which would locate and clear that passage in order to gain access to the treasure.[119]

His fund-raising efforts were not crowned with success until, in London, he encountered Montague Brownslow Parker, then aged thirty, and won his support for the venture. Milking his contacts in the British aristocracy and abroad, including members of Chicago's wealthy Armour family, Parker very quickly managed to raise the useful sum of $125,000. The expedition accordingly went ahead and, by August 1909, had established its headquarters on the Mount of Olives (which directly overlooks the Temple Mount).

Digging began immediately on the site that Warren had previously so painstakingly explored. Moreover Parker and Juvelius were not deterred by the fact that their illustrious predecessor had found nothing of enormous significance; on

the contrary they proceeded with optimism – since they had by now hired an Irish clairvoyant to assist them in their search for the supposed ‘secret tunnel’.

Time passed. There were the predictable protests from the faithful of all religious persuasions. And, as winter came, the weather turned foul, flooding the excavations with rivers of mud. Understandably, Parker was discouraged. He called a temporary halt and did not resume the dig again until the summer of 1910. Several months of frenetic activity then followed. The secret tunnel, however, still obstinately refused to reveal itself and, in the meantime, opposition to the whole project had grown decidedly more pronounced. By the spring of 1911 Baron Edmond de Rothschild, a Zionist and a member of the famous international banking family, had made it his personal mission to prevent the potential desecration of the holiest site of Judaism, and to this end had

purchased a plot of land adjoining the excavations from which he could directly threaten Parker.

The young British aristocrat was rattled by this development. In April of 1911, therefore, he abandoned the search for the tunnel and resorted to more desperate means. Jerusalem was then still under the control of the Ottoman Turks and the governor of the city, Amzey Bey Pasha, was not a man known for his scrupulous honesty. A bribe of $25,000 secured his cooperation, and an additional though smaller sum persuaded Sheikh Khalil – the hereditary guardian of the Dome of the Rock – to admit Parker and his team to the sacred site and to turn a blind eye to whatever they did there.

The work, for obvious reasons, was carried out at dead of night. Disguised as Arabs, the treasure hunters spent a week excavating the southern part of the Temple Mount close to

the Al-Aqsa Mosque – where Juvelius and the Irish clairvoyant both believed that the Ark had been buried. These efforts proved entirely fruitless, however, and in the small hours of the morning of 18 April 1911 Parker switched his attentions to the Dome of the Rock, and to the legendary caverns supposed to lie far below the *Shetiyyah*.

In those days the staircase leading down to the 'Well of Souls' had not yet been installed and Parker and his team had to lower themselves and their equipment by means of ropes fastened to the *Shetiyyah* itself. They then lit storm lanterns and began to hack away at the floor of the grotto in the hope that they might thus gain access to the lasting resting place of the Ark.

Disaster struck before they had even begun to establish whether other hollows lay beneath them. Though Sheikh Khalil, the hereditary guardian, had been bought off, another

mosque attendant unexpectedly appeared (the story goes that he had decided to sleep on the Temple Mount because his own home was full of guests). Hearing the sound of digging from the Dome of the Rock he burst in, peered down into the Well of Souls and, to his horror, saw a number of wild-eyed foreigners attacking the holy ground with picks and shovels.

The reaction, on both sides, was dramatic. The shocked mosque attendant uttered a piercing howl and fled screaming into the night to rally the faithful. The Englishmen, wisely realizing that the game was up, also beat a hasty retreat. Not even bothering to return to their base camp, they left Jerusalem at once and made for the port of Jaffa – where, conveniently, a motoryacht that they had chartered lay moored in the harbour. In this way they managed to cheat the hysterical mob that arrived at the Temple Mount only moments after their departure and that carried off the

unfortunate Sheikh Khalil to an unspeakable fate.

Before morning there were full-scale riots in Jerusalem and Amzey Bey Pasha – who was rightly suspected of complicity – had been assaulted and insulted. His response was to close the Temple Mount and to issue orders that the treasure hunters should be apprehended on their arrival at Jaffa. No doubt he took this latter step in part to assuage his guilty conscience. However, rumours had spread that Parker had found and abducted the Ark of the Covenant, and Muslim and Jewish leaders were vociferous in their demands that the sacred relic must not be allowed to leave the country.

Alerted by telegraph, the Jaffa police and customs authorities arrested the fugitives, impounded all their belongings and made an extremely thorough search. They found nothing. Somewhat nonplussed by this they then locked the baggage up but allowed the Englishmen to row

out to their yacht, in the salubrious surroundings of which, it had been agreed, the interrogation would continue. As soon as he and his colleagues were safely on board, however, Parker ordered the crew to weigh anchor.

A few weeks later he was back in England. He had failed to find the lost Ark, but he had succeeded in losing the entire $125,000 with which investors in the United States and Britain had entrusted him.[120] 'The whole episode, and excavations,' Kathleen Kenyon concluded many years later, 'did not redound to the credit of British archaeology.'[121]

British archaeologists, however, were not involved in the next attempt to find the Ark, which took place in the 1920s and which focussed on Mount Nebo where, according to the book of Maccabees, the prophet Jeremiah had concealed the sacred relic just before the destruction of Solomon's Temple.

The prime mover on this occasion was an eccentric

American explorer who liked to dress up in flowing Arab robes and who, though male, went by the curious name of Antonia Frederick Futterer. After thoroughly surveying Mount Nebo (and also its neighbouring peak Mount Pisgah) he claimed – with truly awe-inspiring originality – to have found … a secret passage. This passage was blocked by a wall of some sort and Futterer did not attempt to break it down. When he examined it by flashlight, however, he discovered … an ancient inscription, which he faithfully copied and carried back to Jerusalem. There he made contact with a 'scholar' at the Hebrew University who helpfully deciphered the hieroglyphs for him. The message read:

> HEREIN LIES THE GOLDEN ARK OF THE COVENANT

Unfortunately Futterer would not name the scholar who had

produced this translation; nor, in the furore that followed, did anyone step forward to claim that honour; nor was Futterer subsequently able to produce the copy that he claimed to have made of the inscription; nor did he ever go back to Mount Nebo to retrieve the Ark from its alleged secret passage.[122]

Half a century later, however, a new champion emerged to pick up the baton that Futterer had dropped. That champion, too, was an American explorer, Tom Crotser by name, whose previous 'discoveries' had included the Tower of Babel, Noah's Ark, and the City of Adam. In 1981, by rather circuitous means, this gentleman acquired some papers that Futterer had left, papers which apparently included a sketch of the walled-up secret passage on Mount Nebo where the Ark of the Covenant was supposed to lie buried.[123]

Mount Nebo is located just inside the border of the modern

state of Jordan and it was to that country that Crotser now flew, together with a group of zealous colleagues from an organization known as the 'Institute for Restoring History International' (headquarters: Winfield, Kansas).[124] Their mission, of course, was to salvage the Ark. To this end they spent four days sleeping rough on Mount Nebo – much to the consternation of the Franciscans of Terra Santa who own the summit, who guard the Byzantine church that was erected there over the supposed burial place of Moses, and who, for the past several decades, have conducted careful and professional archaeological excavations in the area.[125]

Needless to say, the Franciscans have never found the Ark, and nor did Crotser – at least not on Mount Nebo. After finishing there, however, he and his team moved on to neighbouring Mount Pisgah (which Futterer had also visited). On that peak they stumbled upon a gully which they were

confident would give them access to the ‘secret passage’ identified in Futterer’s sketch.

The fact that part of the floor of the gully was blocked by a length of tin sheeting only added to their excitement. On the night of 31 October 1981 they removed this flimsy obstacle and, sure enough, a passage stretched ahead of them. They followed the passage, which they said was about four feet wide and seven feet high, for a distance of some six hundred feet into the bowels of the earth. There they came across a wall exactly like the one that Futterer had described and, without further ado, they broke it down.

Beyond it was a rock-hewn crypt measuring roughly seven feet by seven feet and containing, according to Crotser, a gold-covered rectangular chest measuring sixty-two inches long, thirty-seven inches wide and thirty-seven inches high. Beside it, apparently, were carrying poles exactly matching

the biblical description of the carrying poles of the Ark of the Covenant. And off to one side lay cloth-wrapped packages which Crotser assumed to be the cherubim that, in times gone by, had been mounted upon the mercy seat.

The Americans were certain that they had found the sacred relic. They did not remove it; neither did they touch it or open it; using flash-guns, however, they did take colour photographs of it. Then they left Jordan and returned to the USA where they immediately informed the press agency UPI about their discovery. The result was an internationally syndicated news story which, according to the journalist responsible, 'got more play than anything I wrote in my life.'[126]

So, had the Ark really been found? Obviously the photographs taken in the crypt were crucial evidence that might vindicate the sensational claim that the Americans had

made – if suitably qualified biblical archaeologists were given the opportunity to study them. It was therefore difficult to understand why Crotser steadfastly refused to release these pictures to anyone. Few were convinced by his argument that God had instructed him to give them only to the London banker David Rothschild who, he said, was a direct descendant of Jesus Christ and had been chosen by the Lord to build the Third Temple – in which the Ark of the Covenant, retrieved from its hiding place, would occupy centre stage.[127]

A member of the same international banking family that had opposed Montague Parker's excavations at the Temple Mount in 1910, Rothschild icily declined to take delivery of the photographs – which Crotser still keeps in his home in Winfield, Kansas, which he still refuses to release, but which he will show to selected visitors.

In 1982, one such visitor was the respected archaeologist Siegfried H. Horn, a specialist on the Mount Nebo area and the author of more than a dozen scholarly books.[128] He spent some time closely examining Crotser's photographs which, unfortunately, seemed to have come out of the development process rather badly:

> All but two showed absolutely nothing. Of the two that registered images, one is fuzzy but does depict a chamber with a yellow box in the centre. The other slide is quite good and gives a clear view of the front of the box.[129]

Immediately after leaving Crotser's house, Horn (who is an accomplished draughtsman) made a sketch of the box as he had observed it in the slide. Some parts of the yellow metal overlay appeared to him to be brass, not gold, and, moreover,

were stamped with a diamond pattern that looked machine-worked. More damning by far, however, was the fact that a nail with a modern style of head could be seen protruding out of the upper right corner of the front of the box.[130] Horn concluded:

> I do not know what the object is but the pictures convinced me that it is not an ancient artefact but of modern fabrication with machine-produced decorative strips and an underlying metal sheet.[131]

From fictions to fact

After working my way steadily through the archaeological records in Jerusalem I was unable to trace any further

references to expeditions that had sought to test the Judaic traditions about the last resting place of the Ark of the Covenant. And the scholars whom I talked to confirmed that the field was indeed a limited one: Charles Warren, and later Meir Ben-Dov and his team, had dug in the vicinity of the Temple Mount (though they were not looking for the Ark); Montague Brownslow Parker – not an archaeologist but a 'lunatic', as Gabby Barkai had described him – had dug inside the Temple Mount but had not found anything; Antonia Frederick Futterer had found, but not explored, a secret passage on Mount Nebo which he had believed to contain the Ark; and lastly Tom Crotser claimed to have found the Ark itself in that same passage – which, however, seemed to have migrated from Mount Nebo to Mount Pisgah in the fifty years since Futterer's visit.

And that was it. That, as the saying goes, was the boiling

lot – with the sole exception of my own activities. And what was I doing? Well I was looking for the Ark, too, of course – a venture in which, I must confess, I was disconcerted to discover that I had been preceded only by Messianic visionaries and harebrained cranks.

My saving grace, I supposed, was that I had not the slightest interest in the building of the Third Temple and that I did not believe that the Ark had been buried beneath the Dome of the Rock or in Mounts Nebo or Pisgah. I realized that it would be practically impossible to *prove* that those locations concealed no further secrets; but I was now as satisfied as I ever would be that the lost relic had not gone to any of the places indicated in the Judaic traditions, that it had not been taken by the Egyptians or the Babylonians, and that it had not been destroyed either.

Its disappearance, therefore, looked more and more like a

genuinely baffling mystery – ‘one of the great mysteries of the Bible’ as Richard Elliott Friedman, Professor of Hebrew and Comparative Religion at the University of California, had once described it.[132] All my work in 1989 and 1990 had strengthened my conviction that the solution to that mystery must lie in Ethiopia. And yet … And yet … the one problem that I had not confronted at all, at any stage of my research, was that Ethiopia’s claim to possess the Ark seemed to rest on foundations that were every bit as flimsy as the Apocalypse of Baruch or the book of Maccabees.

To put matters plainly, I was beginning to feel that the *Kebra Nagast*’s bold assertions were not sufficiently reliable as a historical witness to justify a trip to the sacred city of Axum – a trip during which I would have to put my own life at risk. The insistence that the Queen of Sheba had been an Ethiopian and the linked pretence that she had borne a son to

King Solomon who, in due course, had abducted the Ark from Jerusalem, had more the ring of preposterous fictions than of sober truths. To be sure, I had uncovered a great deal of evidence in Ethiopia – persuasive evidence – which did lend considerable support to the notion that the relic might really lie in the sanctuary chapel in Axum. And now I had satisfied myself that no other location could hope to present a more convincing case. That, however, was less a reflection of the strength of the *Kebra Nagast*'s account of how the Ark had got to Ethiopia than of the weakness of the alternatives.

Before finally committing myself to going to Axum, therefore, I felt that I needed to find a more convincing explanation than that offered in the *Kebra Nagast* of how 'the most important object in the world in the Biblical view'[133] could possibly have ended up in the heart of Africa. By the time that I finally left Jerusalem in mid-October 1990 I had

found that explanation – as I shall recount in the next chapter.

Chapter 15

Hidden History

After a painstaking investigation, I had satisfied myself that Ethiopia's claim to be the last resting place of the lost Ark was not challenged by any particularly strong or striking alternative. That finding, however, had not been the only outcome of my research. As I wrote in my notebook:

> No one who has followed the story of the Ark from its construction at the foot of Mount Sinai until the moment of its deposition in Solomon's Temple would seriously dispute that it was an

object of immense importance to the Jewish people. And yet the fact is that the Scriptures – so dominated by the presence of the relic *before* Solomon – seem to forget about it entirely *after* him. Its loss is formally recognized at the time of the construction of the Second Temple. The great mystery, however, to quote the words of Professor Richard Friedman, is that: 'There is no report that the Ark was carried away or destroyed … There is not even any comment such as "And then the Ark disappeared, and we do not know what happened to it," or "And no one knows where it is to this day." The most important object in the world, in the biblical view, simply ceases to be in the story.'[1]

Reviewing the evidence I had to ask myself: Why should this be? Why should the compilers of the Old Testament have allowed the Ark to vanish from the sacred texts – not with a bang, as one might have expected, but with a whimper?

The *Kebra Nagast*, I knew, did offer a clear answer to exactly this question. In Chapter 62 it described Solomon's grief after he had discovered that his son Menelik had abducted the relic from the Temple and carried it off to Ethiopia. When he had had time to collect his thoughts, however, the king turned to the elders of Israel – who were likewise loudly lamenting the loss of the Ark – and warned them to desist:

> Cease ye, so that the uncircumcised people may not boast themselves over us and may not say unto us, 'Their glory is taken away, and God hath

> forsaken them.' Reveal ye not anything else to alien folk …
>
> And … the elders of Israel made answer and said unto him, 'May thy good pleasure be done, and the good pleasure of the Lord God! As for us, none of us will transgress thy word, and we will not inform any other people that the Ark hath been taken away from us.' And they established this covenant in the House of God – the elders of Israel with their King Solomon unto this day.[2]

In other words, if the *Kebra Nagast* was to believed, there had been a massive cover-up. The Ark had been removed to Ethiopia during the lifetime of Solomon himself; all information about this tragic loss had, however, been suppressed, which was why no mention was made of it in the

Scriptures.

There was, I thought, much to recommend this argument. It made a great deal of sense to suppose that the Jewish king would indeed have sought to keep from the common herd any knowledge of the loss of the Ark. But at the same time I had serious problems with some other aspects of the *Kebra Nagast* account – notably those concerning the Queen of Sheba's Ethiopian credentials, her alleged love affair with Solomon, the birth of their son Menelik, the notion that the latter had brought the Ark to Ethiopia, and the implication that this had happened in the tenth century BC:

1 There appeared to be no justification for the *Kebra Nagast*'s audacious claim that the Queen of Sheba had been an Ethiopian woman. It was not absolutely *impossible* that she might have been (in his *Antiquities of*

the Jews, for example, Flavius Josephus had described her as 'the queen of Egypt and Ethiopia'[3]). On balance, however, historical research did not suggest that she had started her journey in the Abyssinian highlands when, as the Bible put it, she had travelled to 'Jerusalem with a very great train, with camels that bare spices, and very much gold, and precious stones.'[4]

2 If the evidence linking the Queen of Sheba to Ethiopia was thin, then evidence for the very *existence* of her son Menelik was even thinner. I had known for some time that historians considered the supposed founder of Ethiopia's 'Solomonic' dynasty to be a purely legendary figure – and I had learnt nothing in two years of research to persuade me that they were mistaken about this rather crucial point.

3 In particular it seemed to be inconceivable that an

advanced culture and a centralized monarchy of the kind described in the *Kebra Nagast* could have existed in the Abyssinian mountains in the tenth century BC. 'At the time when Solomon was reigning,' as E. A. Wallis Budge had put it, 'the natives of the country which we now call Abyssinia were savages.'[5] This was the orthodox view and my research had uncovered nothing that would enable me to refute it.

4 Even more fatal to any kind of literal acceptance of the *Kebra Nagas* was the evidence that I myself had collected in Ethiopia. Of all the many traditions that I had encountered in that country, by far the purest and most convincing had indicated that the Ark of the Covenant had been brought first of all to Lake Tana, where it had been concealed on the island of Tana Kirkos. Memhir Fisseha, the priest whom I had interviewed there (see

Chapter 9), had told me that the relic had remained on the island for eight hundred years before it had finally been taken to Axum at the time of Ethiopia's conversion to Christianity. Since that conversion had occurred around AD 330, the implication of the strong folk memory preserved on Tana Kirkos was that the Ark must have arrived in Ethiopia in 470 BC or thereabouts – in other words about five hundred years *after* Solomon, Menelik and the Queen of Sheba.

These, of course, were not the only difficulties that I had with the account given in the *Kebra Nagast*. Something else that bothered me greatly, for example, was the practical question of how Menelik and his companions could possibly have removed so precious and so *heavy* an object as the Ark from the Temple of Solomon without attracting the attention of

the zealous Levites who guarded the Holy of Holies.

And I had several other reservations too, all of which, together with those listed above, had forced me to agree with the academic experts that the *Kebra Nagast* was indeed a remarkable document but that it had to be taken with a very large pinch of salt. This, however, did not make me want to dismiss the great epic entirely. On the contrary, in common with many other legends, I felt that there was every possibility that its elaborate fictional superstructure might have been erected above a solid foundation of historical truth. In short, while reluctantly rejecting the lovely idea of the romance between Solomon and Sheba, and the cheeky suggestion that the Ark had been stolen from the Temple by their son Menelik, I saw no reason to conclude that the relic might not have been brought to Ethiopia by some other means, thus creating an enigma which the *Kebra Nagast* had

much later gone on to explain in its own peculiarly original and colourful way. Indeed, I was satisfied that the social and cultural evidence in Ethiopia itself very strongly supported that country's claim to be the last resting place of the Ark. And, since I now also knew that no other country or place had a stronger claim, I was more inclined than ever to believe that the Ark really was there.

Nevertheless, the final pieces of the jigsaw puzzle remained to be put in place. If the Queen of Sheba had not been Solomon's lover, and if she had never borne him a son called Menelik as the legends claimed, then who in fact *had* brought the Ark to Ethiopia – and when, and under what circumstances?

The lady doth protest too much, methinks …

In my attempt to answer these questions I kept at the forefront of my mind the very acceptable notion, put forward in the *Kebra Nagast*, that the removal of the Ark of the Covenant from the Holy of Holies could have been the subject of a cover-up – of a conspiracy of silence involving the priestly elite and the king. But, if not Solomon, then *which* king?

Part of the definition of a 'cover-up', of course, is that it should be difficult to detect. I therefore did not expect that evidence of the sort that I was seeking would be easily extracted from the Old Testament. That great and complex book had guarded its secrets well for more than two thousand years and there was no reason to suppose that it would simply surrender them to me now.

I began by typing up every single mention of the Ark of the Covenant that had ever appeared in the Bible. Even with

access to the best scholarship on the subject it was a hard task to track them all down, and when I had finished I had before me a document more than fifty pages long. Strikingly and significantly, only the last page contained references that related to the period after Solomon's death; all the others concerned themselves with the story of the Ark during the wanderings in the wilderness, the conquest of the Promised Land, the reign of King David, and the reign of King Solomon himself.

The Bible, as I was well aware, contains a hotch-potch of material produced by several different schools of scribes over hundreds of years. Many of the references to the Ark, I knew, were very old indeed; but others were relatively late. None of those in the first book of Kings, for example, were codified before the reign of Josiah (640–609 BC).[6] This meant that the account of the Ark's installation in Solomon's Temple in 1

Kings 8, although undoubtedly based on ancient oral and written traditions, had been the work of the priests who had lived long after the event. And exactly the same observation applied to all the relevant references in the book of Deuteronomy, since this, too, was a late document that dated only from the time of King Josiah.[7] Therefore, if the Ark had been secretly removed from the Holy of Holies before the destruction of the Temple in 587 BC, it seemed to me probable that the traces of any cover-up would be found in Kings and in Deuteronomy – if they were to be found anywhere – for in compiling these books the scribes would have had an opportunity to tamper with the facts in order to create the desired impression that 'the glory' had not departed from Israel.

On close examination of the texts I came across a passage in Chapter 8 of the first book of Kings that seemed somehow

out of character, that jarred in a curious way with the rest of the description of the great ceremony that had surrounded the deposition of the Ark in the Holy of Holies. That passage read as follows:

> The priests brought in the Ark of the Covenant of the Lord to its place, the inner shrine of the house, the Most Holy Place, beneath the wings of the cherubim. The cherubim spread their wings over the place of the Ark; they formed a screen above the Ark and its poles. The poles projected and their ends could be seen from the Holy Place immediately in front of the inner shrine, but from nowhere else outside; *they are there to this day*.[8]

Why, I wondered, had the biblical scribe responsible for this passage found it necessary to assert that the carrying poles of

the Ark could, in his day, still be seen projecting out of the inner shrine? What would have been the point of such a statement unless the relic had in fact not been there at the time that these words were written (approximately 610 BC according to the authorities[9])? The oddly defensive tone had, I thought, the ring of one of those emphatic declarations of innocence that guilty parties sometimes make in order to obscure the truth. In short, like the famous lady in Shakespeare's *Hamlet*, the author of 1 Kings 8 had aroused my suspicions by 'protesting too much'.[10]

I was pleased to discover that I was not alone in this intuition. In 1928 the leading biblical scholar Julian Morgenstern had also been struck by the strangeness of the words 'they are there to this day'. His conclusion, in an erudite paper published in the Hebrew Union College Annual, was that the scribe must have intended

> to convince his readers that the staves of the Ark, and therefore, of course, the Ark itself, were present in the innermost part of the Temple, even though they could not be seen by the people at large, or, for that matter, by anyone other than the High Priest, when he entered the Holy of Holies once a year, on Yom Kippur … The fact that [the scribe] seems to have felt compelled to insist in this manner that the Ark was still present in the Temple in his day … indicates that he must have had to contend with a prevalent and persistent doubt of this, a doubt founded in all likelihood upon actual fact.[11]

Nor was this all. The very next verse of the same chapter of the book of Kings insisted:

> There was nothing in the Ark except the two stone tablets Moses had placed in it … the tablets of the covenant which Yahweh had made with the Israelites when they came out of the land of Egypt; *they are still there today*.[12]

And the book of Deuteronomy, written at the same time, said almost exactly the same thing – the tablets of stone were placed in the Ark by Moses, 'and there they have remained ever since'.[13]

Morgenstern's analysis of these words was that they 'must have been inserted for some particular purpose'.[14] And, after referring to the original Hebrew text, he concluded that this purpose could only have been to provide

> a direct and positive affirmation, *almost, it would seem, in the face of a doubt or question*, that the

> tablets of the Ten Commandments were still present in the Ark in the days … of the author of this verse.[15]

Deuteronomy and the first book of Kings had, of course, dealt with widely different periods of Israelite history. Crucially, however – and the point is so important that it will bear repetition – they had both been compiled at the same time. That time, as I had already established, had been the reign of King Josiah, i.e. from 640 to 609 BC.

My curiosity aroused, I turned to the typescript in which I had set down all the biblical references to the Ark. I remembered that there were very few in the whole of the Old Testament which related to the period after the death of Solomon. Now I discovered that there were in fact only two:

one had been written during Josiah's reign; the other quoted the words of Josiah himself; and both appeared on the last page of my document.

Josiah and Jeremiah

I had already come across Josiah in my research. When I had been investigating the antiquity of the religious customs of the black Jews of Ethiopia I had learned that it had been during his reign that the institution of sacrifice had finally and conclusively been centralized on Jerusalem and banned in all other locations (see Chapter 6). Since the Falashas themselves still practised sacrifice in Ethiopia (having altars in all their villages), I had concluded in my notebook that their ancestors

> must have been converted to Judaism at a time when it was still acceptable for those far away from the centralized national sanctuary to practise local sacrifice. This would suggest that the conversion took place before King Josiah's ban – i.e. no later than the seventh century BC.

My research had moved on into areas that I had not even dreamt of when I had originally written those words in 1989, and now I was confronted by a peculiarly interesting set of circumstances. Sitting in my hotel room in Jerusalem in October 1990 I therefore opened my notebook again and listed the following points:

- In 1 Kings 8 and Deuteronomy there are signs of efforts being made to convince people that the Ark was still in

its place in the Temple; this looks like an attempt to cover up the truth – i.e. that the relic was in fact no longer there.

- The relevant passages were written in the time of King Josiah.
- From this I conclude that the Ark may have been removed from the Temple during Josiah's reign; it is more likely by far, however, that its loss was discovered then but that it had actually occurred somewhat earlier. Why? Because Josiah was a zealous reformer who sought to emphasize the paramount importance of the Temple in Jerusalem – and because the *raison d'être* of the Temple was as 'an house of rest for the Ark of the Covenant of the Lord'. It is virtually inconceivable that such a monarch would have permitted the ultimate

symbol of Judaism, the sign and the seal of Yahweh's presence on earth, to be taken out of the Holy of Holies. The logical deduction, therefore, is that the Ark must have been spirited away before Josiah came to power – i.e. before 640 BC.

- The religious customs of the Falashas include local sacrifice, a practice that was only conclusively banned during Josiah's reign. On the basis of this and other data it has been my opinion for some time that the ancestors of the Falashas must have migrated to Ethiopia before 640 BC.

- Surely these matters cannot be unconnected?

The chain of evidence looked convincing: the Ark was removed from the Temple before 640 BC; the ancestors of the

Falashas migrated to Ethiopia before 640 BC; was it therefore not reasonable to assure that the ancestors of the Falashas might have taken the Ark with them?

This struck me as a fairly logical hypothesis. It did not, however, establish *when* before 640 BC the supposed migration from Jerusalem had taken place. Neither did it entirely rule out the possibility that the Ark could have been removed during Josiah's reign. Given the known religious integrity and traditionalism of that monarch the latter notion looked like a very long shot indeed. Nevertheless it had to be considered – if only because, as I already knew (see previous chapter), certain Jewish legends had furnished him with a valid motive. In the last years of his reign, those legends said, he had foreseen the destruction of the Temple by the Babylonians and had hidden 'the Holy Ark and all its appurtenances in order to guard them against desecration at

the hands of the enemy.'[16] Moreover he was believed – possibly by miraculous means – to have concealed the relic 'in its own place'.[17]

I was now as satisfied as I ever would be that the Ark had not been buried in the Temple Mount – or anywhere else in the Holy Land. Nevertheless I still had to ask myself: was this possible? Could Josiah really have foreseen the fate of the Temple and taken steps to safeguard the Ark?

I looked into this scenario but concluded that, unless the Jewish king had possessed a truly remarkable gift of prescience, there was just no way that he could have predicted the events of 598–587 BC. He died in 609 BC, five years before Nebuchadnezzar – the author of Jerusalem's destruction – inherited the Babylonian throne.[18] Moreover, Nebuchadnezzar's predecessor Nabopolassar had shown little or no military interest in Israel and had concentrated instead

on wars with Assyria and Egypt.[19]

The historical background to Josiah's reign therefore did not support the theory that he might have concealed the Ark of the Covenant. More damning by far, however, was the very last mention of the sacred relic in the Old Testament, which cropped up in a passage in the second book of Chronicles – a passage that described Josiah's campaign to restore traditional values to Temple worship:

> Josiah removed all the abominations throughout the territories belonging to the sons of Israel … And he set the priests in their charges, and … said unto the Levites that taught all Israel, which were holy unto the Lord, '*Put the Holy Ark in the house which Solomon the son of David king of Israel did build; it shall not be a burden upon your*

shoulders.'[20]

It was immediately obvious to me that these few short verses, particularly the words emphasized in italics above, were of vital importance to my quest. Why? Quite simply because Josiah would have had no need to ask the Levites to put the Ark in the Temple if it had already been there. Two inescapable conclusions emerged from this: (1) The king himself could not have been responsible for the removal of the relic because he plainly thought that it had been taken by its traditional bearers, the Levites; and (2) the date of the Ark's disappearance from the Temple could now be fixed to some time before Josiah had made this little speech.

And when exactly had that speech been made? Happily the book of Chronicles provided a very precise answer to this question: 'in the eighteenth year of the reign of Josiah'[21] – in

other words in 622 BC.[22] What Chronicles did not do, however, was give any indication at all that the Levites had complied with the king's order; indeed, far from the colourful ceremony that one might have expected to accompany any reinstallation of the Ark in the Temple, there was no follow-up – either in this book or in any other part of the Bible – to Josiah's strange command. On the contrary, it was clear that his words had fallen on deaf ears or on the ears of people who were not in a position to obey them.

Chronologically, as I have already observed, Josiah's speech contained the last reference to the Ark of the Covenant in the whole of the Old Testament. I now turned to examine the penultimate reference. This occurred in the book of Jeremiah, in a chapter composed by Jeremiah himself around the year 626 BC,[23] and took the form of a prophetic utterance addressed to the people of Jerusalem:

> And when you have increased and become many in the land, then – it is Yahweh who speaks – *no one will ever say again 'Where is the Ark of the Covenant of Yahweh?' There will be no thought of it, no memory of it, no regret for it, no making of another*. When that time comes, Jerusalem shall be called: 'The throne of Yahweh'; all nations will gather there in the name of Yahweh and will no longer follow the dictates of their own stubborn hearts.[24]

Like Josiah, I knew that Jeremiah had been credited in certain Jewish legends – and in the apocryphal book of Maccabees – with hiding the Ark (in his case on Mount Nebo immediately before the destruction of the Temple – see previous chapter). The words quoted above, however, had

infinitely greater value as historical testimony than the legends or the Apocrypha because they had been spoken at a known date by a real person, Jeremiah himself.[25] Moreover, in the context of everything else that I had learned, there could be no doubt about the meaning of these words, or about their wider implications. To put matters as plainly as possible, they corroborated the impression given in Josiah's speech that the Ark was no longer in the Temple by 622 BC – and they pushed back to at least 626 BC the likely date at which it had gone missing. I say at least to 626 BC because that, as noted above, was the year in which Jeremiah had uttered his prophecy. It was clear, however, that in doing so he had been responding, at least in part, to some prevalent and probably by then quite long-established anguish over the loss of the Ark. This was the only possible explanation for the verse which stated: 'And when you have increased and

become many in the land, then … no one will ever say again "Where is the Ark of the Covenant of Yahweh?" ' Obviously if people had not been saying such things in 626 BC, and for some considerable while beforehand, then there would have been no need for Jeremiah to have made such a remark.

In reaching this judgment I was pleased to discover that I had the full support of one of the world's leading biblical scholars, Professor Menahem Haran of Jerusalem's Hebrew University. In his authoritative treatise on *Temples and Temple Service in Ancient Israel*, this learned academic had considered the passage in question and had reached the following conclusion:

> This verse follows upon words of consolation and itself contains a message of consolation and mercy. What the prophet promises here is that in

> the good days to come there will no longer be any need for the Ark – implying that its absence should no longer cause any grief. These words would, of course, be devoid of any significance if the Ark [had] still … been inside the Temple at the time.[26]

On this basis I felt that it was entirely safe to conclude that I would have to peer back into the period before 626 BC if I was to have any prospect of establishing the actual date on which the Ark had disappeared. Moreover I did not think that it would be at all fruitful to devote time to a close study of the earlier years of King Josiah's reign – i.e. from 626 BC back to 640 BC. As I already knew, that monarch had sought unsuccessfully to have the relic reinstalled in the Temple in 622 BC; it was therefore hardly likely that he would have been

responsible for its removal in the first place. The guilty party must have been one of his predecessors – any one, in fact, of the fifteen kings who had ruled in Jerusalem since Solomon had placed the Ark in the Holy of Holies in 955 BC.[27]

Search and find

I was looking at a period of 315 years – from 955 BC down to Josiah's accession to the throne in 640 BC. In this time Jerusalem and the Temple had been at the centre of an enormously complex series of events. And although these events were described at great length in several books of the Bible, the Ark of the Covenant had not been mentioned once: between Solomon and Josiah, as I had previously established, the sacred relic had been enshrouded in a thick blanket of

silence.

I resorted to a modern research tool to find out just how thick that ancient blanket really was. On the desk in my hotel room in Jerusalem was a computerized edition of the King James Authorized Version of the Bible that I had brought with me from England.[28] For the period that I was now interested in I knew that it would be useless to run a search-and-find programme on the words 'Ark' or 'Ark of the Covenant' or 'Ark of God' or 'Holy Ark' or any similar epithets: they simply did not appear. I did, however, have one other option, and that was to look for phrases that had been regularly associated with the Ark earlier in the Scriptures, and also for reports of afflictions of the type routinely caused by the Ark.

In the realm of afflictions I settled on the word 'leprous', because, in Chapter 12 of the book of Numbers Moses had

punished Miriam for criticizing his authority by using the powers of the Ark to make her 'leprous'.[29] In the realm of phrases I chose 'between the cherubims', because the God of Israel had been believed to dwell 'between the cherubims' mounted on the Ark's golden lid and because, prior to the reign of Solomon, this formula had always been used in connection with the Ark and never in any other way.[30]

I started by running the word 'leprous'. My electronic Bible of course picked it up in Chapter 12 of the book of Numbers, which described what happened to Miriam. After that it occurred only twice more in the whole of the Scriptures: in the second book of Kings, where there was a plainly irrelevant reference to 'four leprous men' sitting by a gate in the northern Israelite city of Samaria;[31] and in the second book of Chronicles – where it cropped up in a passage that looked very relevant indeed.

That passage, in 2 Chronicles 26, described how King Uzziah – who had ruled Jerusalem from 781 to 740 BC[32] – 'transgressed against the Lord his God, and went into the Temple of the Lord to burn incense upon the altar of incense.'[33] At once the High Priest Azariah and some of his assistants rushed in after the monarch hoping to dissuade him from committing this act of sacrilege at the very entrance to the Holy of Holies:

> Then Uzziah was wroth, and had a censer in his hand to burn incense: and while he was wroth with the priests, the leprosy even rose up in his forehead before the priests in the house of the Lord, from beside the incense altar.[34]

It seemed that Uzziah had not actually entered the Holy of

Holies (although the text was somewhat ambiguous on this point), but he had certainly stood very close to it. Moreover he had been holding a metal incense burner in his hand – and that, since the two sons of Aaron had been struck down at the foot of Mount Sinai for offering 'strange fire before the Lord',[35] had always been a dangerous thing to do within striking distance of the Ark.[36]

On this basis, therefore, I felt that there was at least a *prima facie* case for concluding that the 'leprous' sores on Uzziah's forehead had been caused by exposure to the Ark (and I was later to discover that others had thought so too – an illustration from an eighteenth-century English Bible reproduced in the present work clearly shows the unfortunate king standing beside the Ark at the very moment that he is 'smitten').

> *If* the monarch's affliction was caused by the Ark [I wrote in my notebook] then this means that it was still present in the Holy of Holies in 740 BC (Uzziah's reign ended in that year as a result of what had happened to him[37]). This narrows the field enormously, since the implication is that the relic could only have been removed in the century between that date and the beginning of Josiah's reign – i.e. at some point between 740 BC and 640 BC.

Of course I was well aware that the Uzziah incident had little value as historical evidence: it was a tantalizing hint – a clue if you like – but it was quite impermissible to conclude from it that the Ark had definitely still been in the Temple in 740 BC. I needed something stronger if I was to be satisfied that

that had indeed been the case – and I found what I was looking for when I ran a search for the phrase ‘between the cherubims’.

As noted above, in biblical passages referring to the period before the reign of Solomon, these words had been used exclusively in connection with the Ark, and in no other way whatsoever. Although it would be necessary to keep a close eye on the context, I therefore felt that any recurrence of these words *after* the deposition of the relic in the Temple in 955 BC would constitute strong evidence that it had in fact still been present in the Holy of Holies on the date – or dates – that the phrase had been used.

Accordingly I programmed my computer to search for the words ‘between the cherubims’. A few seconds later I knew that they had been cited only seven times in the entire post-Solomonic period.

Two of these citations, in Psalm 80:1 and in Psalm 99:1, clearly referred to the cherubim of the Ark. Unfortunately they were impossible to date with any degree of accuracy:[38] there was a small chance that they were pre-Solomonic, but the balance of scholarly opinion held that the relevant verses were likely to have been composed in the 'early years of monarchy'[39] – i.e. during Solomon's lifetime or within a century or so of his death.

The words 'between the cherubims' also cropped up three times in the book of Ezekiel,[40] which was a late work written after the year 593 BC.[41] In this context, however, all the uses of the phrase were irrelevant to my investigation because: (a) the 'cherubims' referred to had been seen by Ezekiel in a vision that came to him while he sat in his house;[42] (b) they were described as having 'four faces' and 'four wings' each, whereas the cherubim of the Ark had each only one face and

two wings;[43] and (c) they were clearly living creatures of enormous size, not the relatively compact figurines of solid gold that had faced each other across the 'mercy seat'.[44] Indeed, at the end of Ezekiel's vision, his cherubims 'lifted up their wings and mounted up from the earth in my sight … and the sound of the cherubims' wings was … even … as the voice of the Almighty God when he speaketh.'[45]

In my hunt for references that might prove the continued presence of the Ark in the Jerusalem Temple at particular periods, therefore, Ezekiel's cherubims were of no consequence and could safely be ignored. This meant that out of all the occurrences of the phrase that I had instructed my computer to search for I was now left with only two that might be of any help to me at all. These appeared in Chapter 37 of the book of Isaiah and in Chapter 19 of the second

book of Kings.[46] Both recounted the same event, both were of great importance, and both clearly and unambiguously referred to the Ark of the Covenant – though they did not mention it by name. This is what they said (the Isaiah version, the older of the two, is in the left-hand column; the Kings version is in the right-hand column):

Hezekiah went up unto the house of the Lord, and … prayed unto the Lord, saying, O Lord of Hosts, *God of Israel, that dwellest between the cherubims*, thou art the God, even thou alone, of all	Hezekiah went up into the house of the Lord, and … prayed before the Lord, and said, O Lord *God of Israel, which dwellest between the cherubims*, thou art the

the kingdoms of the earth.[47]	God, even thou alone, of all the kingdoms of the earth.[48]

As the reader will no doubt have observed, both passages not only spoke of the same event but also did so in almost exactly the same language. Indeed the verses in Kings came very close to being a verbatim repeat of the verses in Isaiah. Those verses, scholars were agreed, had been written by Isaiah himself.[49] And, since a great deal was known about the life, times and activities of this famous prophet, it was possible to put a fairly precise date on his account of Hezekiah's prayer to the God of Israel that dwelled 'between the cherubims'.

Isaiah was called to the prophetic office in 740 BC[50] – the very year in which King Uzziah had died after being smitten with leprous sores in the incident described earlier.[51] He then

continued his ministry throughout the reigns of Jotham, Ahaz and Hezekiah (respectively 740–736 BC, 736–716 BC and 716-687 BC).[52] Of crucial significance to my investigation was a fact upon which academic opinion was unanimous: the verse in which my computer had flagged the phrase 'between the cherubims' had been written by Isaiah in 701 BC – the year in which the Assyrian King Sennacherib had tried and failed to capture Jerusalem.[53]

Indeed, it had been on Isaiah's direct advice that Hezekiah – the Judaean monarch – had refused to surrender the city to the Assyrians.[54] Sennacherib's response had been to send a letter threatening death and destruction, and Hezekiah had actually been carrying this letter[55] when he had gone up 'unto the house of the Lord, and … prayed unto the Lord, saying, O Lord of Hosts, God of Israel, that dwellest between the cherubims, thou art the God, even thou alone, of all the

kingdoms of the earth.'

Hezekiah's prayer had continued as follows:

> Incline thine ear, O Lord, and hear; open thine eyes, O Lord, and see: and hear all the words of Sennacherib, which hath sent to reproach the living God. Of a truth, Lord, the kings of Assyria have laid waste all the nations and their countries. … Now therefore, O Lord our God, save us from his hand, that all the kingdoms of the earth may know that thou art the Lord, even thou only.[56]

Miraculously, the Lord complied. First he sent his prophet Isaiah to Hezekiah with this message:

> Thus saith the Lord concerning the king of Assyria, He shall not come into this city, nor shoot

> an arrow there, nor come before it with shields, nor cast a bank against it … For I will defend this city to save it for mine own sake.[57]

Yahweh was as good as his word. That very night

> The angel of the Lord went forth, and smote in the camp of the Assyrians a hundred and fourscore and five thousand: and when they arose early in the morning, behold, they were all dead corpses. So Sennacherib king of Assyria departed.[58]

There could be no doubt about the historicity of these events: the Assyrians *had* surrounded Jerusalem in 701 BC and they *had* suddenly lifted their siege and fled.[59] Scholars believed that this had happened because they had been afflicted by an outbreak of bubonic plague.[60] Strangely, however, there was

no evidence that anyone in Jerusalem itself had gone on to contract this easily transmissible disease. In the context of everything that I had learned hitherto, therefore, I could not help but wonder whether the Ark of the Covenant might not in some way have been involved in Sennacherib's undoing. The mass slaughter that had taken place did sound very much like the sort of 'miracle' that, in earlier times, the relic had so frequently performed.[61]

But this was only an intuition, a hunch of my own. It had no status whatsoever as evidence of the continued presence of the Ark in the Temple in 701 BC. What *did* have that status was Isaiah's pure and eloquent testimony that King Hezekiah had prayed for his deliverance to the 'God of Israel, that dwellest between the cherubims'. The monarch uttered this prayer inside the Temple.[62] Moreover the full text of the first verse of the passage containing this citation not only stated

that he had carried Sennacherib's threatening letter with him – as noted above – but also added that he had 'spread it before the Lord'.[63] In just such a fashion, though in an earlier era, 'Solomon … came to Jerusalem and stood *before* the Ark of the Covenant of the *Lord* … and offered peace offerings.'[64] In just such a fashion, though in an earlier era, 'David and all the house of Israel played *before the Lord* on all manner of instruments made of fir wood, even on harps, and psalteries, and on timbrels, and on cornets, and on cymbals.'[65] And in just such a fashion, though in an earlier era, 'the Lord separated the tribe of Levi, to bear the Ark of the Covenant of the Lord, to stand *before the Lord* to minister unto him, and to bless his name.'[66]

To cut a long and convoluted story very short indeed, the fact that Hezekiah had spread Sennacherib's letter out '*before the Lord*', and then had prayed to the 'God of Israel, that

dwellest between the cherubims' made it quite certain that the Ark of the Covenant had been in the Holy of Holies at that time. There was no other way in which this passage could be interpreted. And because it did so effectively prove the continued presence of the relic within the Temple long after the reign of Solomon it also dealt a fatal blow to the *Kebra Nagast*'s claim that the Ark had been stolen by Menelik while Solomon was still alive.

I was not sure whether I should rejoice over this discovery or whether I should lament it. I always find it slightly depressing when a beautiful myth is discredited. And although I still hoped to vindicate the central contention of the *Kebra Nagast* – namely that the Ark had indeed gone to Ethiopia (although of course not by the hand of Menelik) – I had absolutely no idea how I was going to do this.

Rather dispiritedly, therefore, I turned back to the piles of

research papers and books spread out all around me in my hotel room in Jerusalem. The good news, I supposed, was that my investigation had come a long way. I had satisfied myself that the Ark had not been removed from the Temple either during or after the reign of King Josiah, which had begun in 640 BC. Moreover it was now clear that it had still been in its place in the Holy of Holies in 701 BC, the date of Hezekiah's prayer. This left just sixty-one years in which it could have disappeared, and even that period could be narrowed down somewhat. Why? Because it seemed obvious that Hezekiah himself would not have allowed the sacred relic – before which he had prayed so efficaciously – to be carried off by anyone.

Hezekiah had died in 687 BC and Josiah had taken the throne in 640 BC. Between them there were only two monarchs – Manasseh (687–642 BC) and Amon (642–640

BC).[67] It followed that the loss of the Ark must have occurred during the reigns of one or other of these two kings.

The sin of Manasseh

As I immersed myself in the biblical texts once again it quickly became apparent that the guilty party could only have been Manasseh, who was castigated unmercifully by the scribes because:

> He did that which was evil in the sight of the Lord, after the abominations of the heathen … For he … reared up altars for Baal … and worshipped all the host of heaven, and served them. And he built altars in the house of the Lord … for all the host of heaven … And he made his son pass

> through the fire, and … used enchantments, and dealt with familiar spirits and wizards: he wrought much wickedness in the sight of the Lord to provoke him to anger … And he set a graven image of the grove that he had made in the house, of which the Lord said to David and to Solomon his son, In this house, and in Jerusalem, which I have chosen out of all the tribes of Israel, will I put my name for ever.[68]

What was this 'graven image of the grove' that Manasseh had made? And where exactly in the Temple had he put it?

To find an answer to the first question I temporarily abandoned the King James Authorized Version of the Bible (from which the above quotation is taken) and turned to the more modern Jerusalem Bible which informed me that the

‘graven image of the grove’ was in fact a ‘carved image of Asherah’, an arboreal pagan deity.[69] The answer to the second question was self-evident: the ‘house’ in which Yahweh had said that he would put his ‘name for ever’ was the Holy of Holies of the Temple – the *debir*, the dense golden cell that Solomon had ‘designed … to contain the Ark of the Covenant of Yahweh.’[70]

The implications of what I had just learnt were enormous. Manasseh, who had done ‘that which was evil in the sight of the Lord’, had introduced an *idol* into the Holy of Holies of the Temple. In taking this momentous step backwards towards paganism it was inconceivable that he could have allowed the Ark of the Covenant to remain in its place – since the Ark was the sign and the seal of Yahweh’s presence on earth and the ultimate symbol of the fiercely monotheistic Judaic faith. At the same time it was improbable that the

apostatizing king would actually have destroyed the sacred relic: on the contrary, with his predilection for enchantments and wizardry, he would have regarded that as a most unwise thing to do. The most likely scenario, therefore, was that he would have ordered the Levites to remove the Ark from the Temple *before* he installed his 'Asherah' in the inner sanctum. And this would have been an order that they would have been more than happy to comply with: as faithful servants of Yahweh they would have done anything within their power to avoid the pollution of the object that they regarded as the 'footstool' of their God[71] – and they could hardly have imagined any worse pollution than for it to have to share the Holy of Holies with the graven image of some alien deity. As priests they would not have been in a position to prevail militarily against a powerful monarch like Manasseh; their best course of action would have been to bow to the

inevitable and to carry the Ark away to a place of safety.

There were even indications in the Bible that the relic's enforced departure from the Temple might have resulted in some kind of mass public protest against the king – a protest that he had ruthlessly suppressed. This was only guesswork on my part, of course, but such a hypothesis did help to explain why Manasseh was said to have 'shed innocent blood … in such great quantity that he flooded Jerusalem from end to end.'[72]

At any rate, it was clear that the reign of this monarch had, in later years, come to be regarded as a blot, an aberration and an abomination. He had been succeeded by his son Amon in 642 BC and Amon had in turn been succeeded in 640 BC by Josiah, the zealous reformer who was famous (and beloved of the scribes) for having restored the traditional worship of Yahweh.

Why had Amon's tenure of the throne been so brief? Because, as the Bible explained, he had done

> that which was evil in the sight of the Lord, as his father Manasseh did. And he walked in all the way that his father walked in, and served the idols that his father served, and worshipped them … And the servants of Amon conspired against him, and slew the king in his own house … and the people of the land made Josiah his son king in his stead.[73]

Josiah, however, had been only 'eight years old when he began to reign'[74] and it was not until eight years after that, the Bible reported, that he had shown the first signs of wanting to 'seek after the God of David'.[75] Indeed the young monarch's passionate reaction against the sins of Manasseh

and Amon did not begin until the 'twelfth year' of his reign when – at the age of twenty – he launched a campaign 'to purge Judah and Jerusalem from … the carved images, and the molten images'.[76]

> And he brought out the grove [Asherah] from the house of the Lord, right out of Jerusalem, unto the brook Kidron, and burned it in the brook Kidron, and stamped it to small powder, and cast the powder thereof on the common burying ground.[77]

A passionate reaction indeed! And, moreover, one that could be dated: it had been in 628 BC, the twelfth year of Josiah's reign, that Manasseh's loathsome idol had at last been rooted out of the Holy of Holies. The Ark, however, had certainly not been brought back in to replace it. As I already knew,

Jeremiah had been responding to public grief at the continued absence of the relic two years later when he had prophesied that a time would eventually come when people would no longer ask 'where is the Ark of the Covenant of Yahweh' – a time when they would have 'no regret for it' and when they would not consider 'making another'.

Four years after that Josiah himself had rather forlornly asked the Levites to restore the Ark to the Temple, adding 'it shall not be a burden for your shoulders'. That had been in 622 BC, the eighteenth year of his reign, and it was no coincidence that it had been in that very same year, having completed a lengthy nationwide purge, that he had 'returned to Jerusalem' and issued orders 'to repair the house of the Lord his God'.[78]

The repairs had been duly carried out by 'carpenters and builders and masons'.[79] The great mystery, however, was that

the Levites had been unable to comply with Josiah's request that they should 'put the Holy Ark in the house which Solomon the son of David king of Israel did build.' I was now increasingly sure that the answer to that mystery must lie in Ethiopia – although I was not yet in a position to fathom out exactly how or why.

Meanwhile I sought academic support for my view that it must have been during the reign of Manasseh that the Ark had gone missing in the first place. I found that support in an authoritative treatise that I had already had occasion to consult several times before – Professor Menahem Haran's *Temples and Temple Service in Ancient Israel*. Here, in a brief section in the middle of the book, I read that:

> throughout the various changes that took place in the Kingdom of Judah, the Temple at Jerusalem

never ceased to serve exclusively as a Temple of Yahweh … There was only one single period in its history when it was temporarily deprived of its original function and for a short while ceased to serve as a Temple to Yahweh … This occurred during the reign of Manasseh … who set up vessels for Baal … in the outer sanctum and introduced the image of Asherah into the inner sanctum of the Temple … This is the only happening which may explain the disappearance of the Ark and the cherubim … We are entitled to infer that the image of Asherah … was substituted for the Ark and the cherubim. Some fifty years afterwards, when Josiah removed the Asherah from the Temple and burnt it in the Kidron Valley, beating it to dust and desecrating even the

> dust, the Ark and the cherubim were no longer there.[80]

After making a number of telephone calls to the Hebrew University I managed to track down Professor Haran. I told him that I had read his book and that I was excited by his suggestion that the Ark of the Covenant might have been lost during the reign of Manasseh. Could he spare me half an hour or so to discuss the matter further? He replied that he would be only too happy to do so and invited me to visit him at his home in Jerusalem's Alfasi Street.

Haran proved to be an elderly but robust man, grey-haired and solidly built – the very image of the type of learned but eminently practical biblical scholar that one meets so often in Israel. I told him a little about my own research and then asked whether he was certain in his own mind that the Ark

had indeed been removed from the Temple in Manasseh's time.

'Yes,' he replied with conviction, 'I am as certain of that as I can possibly be. This is why the Ark is not referred to in the long lists of Temple vessels and treasures that were later taken by the Babylonians. And I should add with all modesty that my views on this subject have never been refuted in scholarship.'

I took this opportunity to put a question that had been bothering me for some time: 'If the Ark *was* taken out as a result of Manasseh's idolatry then how do you account for the fact that the Scriptures make absolutely no mention of the loss?'

'I account for it in this way. To have to write down such a report would have filled the scribes with disgust – with such a horrible feeling – that definitely they would have averted

from it. I therefore believe that they deliberately refrained from reporting the loss of the Ark. Even in what they did report of Manasseh's reign their feelings of utter *horror* do come through. Yet they could not bring themselves to indulge in a description of the occurrence itself.'

'Do you have any idea at all', I asked next, 'what could have happened to the relic after it was removed?'

Haran shrugged: 'On that I cannot speculate. It is impossible to prove. I can only say with confidence that the orthodox priests of Yahweh would under no circumstances have permitted the Ark of Yahweh to stay in the same place as the idol of Asherah.'

'So do you think they took it away somewhere? To a place of safety?'

Another shrug: 'As I say, I cannot speculate on such matters. However it is evident from our records, from the

Holy Writ, that Jerusalem itself – in fact the whole country – was not a safe place for those who were loyal to the worship of Yahweh during Manasseh's time.'

'Are you referring to the passage in the book of Kings that talks about innocent blood being spilled?'

'Yes. 2 Kings 21:16. And not only that. Jeremiah also speaks obliquely of the same events when he says "your sword hath devoured your prophets like a destroying lion". I have no doubt that this was a reference to the acts of Manasseh and I infer from it that certain prophets had opposed him and that for this they were massacred. It is an interesting phenomenon, you know, that you do not find any prophets at all during the reign of Manasseh himself – Jeremiah came just afterwards and others, like Isaiah, came just before. The gap was the result of persecutions and of a sustained campaign against the worship of Yahweh.'

The Professor would not be pushed any further on this subject and resolutely refused to indulge in what he obviously regarded as idle speculation about *where* the Ark could have gone. When I mentioned my theory that it might have been taken to Ethiopia he looked at me blankly for about half a minute and then concluded: ‘That seems rather far.’

A temple on the Nile

After interviewing Menahem Haran I returned to my hotel feeling directionless and confused. Of course it had been exciting to get his confirmation that the Ark had been lost during Manasseh’s reign. The trouble was, however, that I now seemed to have arrived at the brink of a deep intellectual precipice. Ethiopia was indeed ‘rather far’ from

Jerusalem, and I could see no good reason why the loyal priests of Yahweh who had carried the sacred relic out of the Temple should subsequently have taken it to such a distant place.

Moreover, the dates didn't fit. Manasseh had sat on the throne in Jerusalem from 687 to 642 BC, but the Tana Kirkos traditions asserted that the Ark had not arrived in Ethiopia until approximately 470 BC. So I was still two hundred years adrift.

As I chewed over this problem I realized that what I needed to do was to talk to some Ethiopians. And what better place was there in which to talk to Ethiopians than in the State of Israel? After all, tens of thousands of Falashas – who claimed citizenship under the terms of the Law of Return – had been airlifted here over the past decade. Surely amongst them there must be some elders, knowledgeable in the folk

memory of their people, who could help me to bridge the geographical and chronological abyss that yawned before me?

Further enquiries at the Hebrew University produced the name of Shalva Weil, a social anthropologist who had specialized in far-flung Jewish communities and who was regarded as something of an expert on Falasha culture. I telephoned her at her home and, after introducing myself, asked her if she could recommend any member of the Falasha community in Jerusalem who might be able to speak with authority on the ancient traditions of the Ethiopian Jews.

‘Your best bet’, she replied without hesitation, ‘would be Raphael Hadane. He’s a priest, a very senior priest. He’s been here for a few years. He’s an elderly man and extremely knowledgeable. The only problem is he doesn’t speak English

so you should try to see him with his son.'

'Whose name is?'

'Yoseph Hadane. He came to Israel as a boy in the early 1970s and he's now a fully trained rabbi. He does speak fluent English so he'll be able to translate for you.'

Arranging the meeting took up most of my last two days in Jerusalem. Finally, however, I did manage to get together with the Hadane family at the Falasha Absorption Centre, which was located in a suburb called Mevasserit Zion to the west of the city. Here I found hundreds of Ethiopians, some newly arrived, others long-term residents, living in a somewhat ramshackle housing estate.

Raphael Hadane, the Falasha priest, was dressed in a traditional Abyssinian *shemma* and sported a considerable beard. His son, the rabbi, was clean-shaven and wore a smart business suit. For a long while we sat around drinking tea

and exchanging pleasantries while children played at our feet and various assorted relatives came and went. One of these latter, as it happened, had been born and brought up in the village of Anbober, which I had visited in January 1990 on my trip to Gondar.

'Does Anbober really still exist?' he asked me rather plaintively. 'It's five years since I left home.'

'It does still exist,' I replied, 'or rather it *did* in January. The population seemed to be mainly women and children, though.'

'This is because the men emigrate first to prepare a place for their families. Did you talk to anyone there?'

I told them that I had interviewed the priest, Solomon Alemu, and this brought smiles of recognition from everyone around the table. 'They all know him well,' explained Rabbi Hadane. 'Ours is a small society … and close knit.'

Eventually I switched on my tape-recorder and began the interview with the rabbi's venerable father. Much of what he had to say about Falasha culture and religion was already very familiar. When I turned to what was now the central issue for me, however – i.e. exactly how and when Judaism had arrived in Ethiopia – he told me something that made me prick up my ears.

I had asked a leading question about Menelik and the Queen of Sheba – hoping, after the ritual repetition of the *Kebra Nagast* story, to pin the old man down on the matter of the date that Menelik's supposed journey had taken place. Hadane surprised me by dismissing the legend entirely: 'Some of us say that we are descended from the Israelites who accompanied Menelik, but personally I do not believe that. According to the traditions that I heard in my childhood, our ancestors were Jews who had first lived in

Egypt before they came to Ethiopia.'

'But,' I interjected, 'the *Kebra Nagast* says that too. It says that Menelik and his companions travelled through Egypt.'

'That is not what I mean. After leaving Israel, our forefathers did not just travel through Egypt. They settled in that country for a very long time – for hundreds of years. And they built a temple there.'

I leaned forward over the tape-recorder: 'A temple? *Where* did they build this temple?'

'At Aswan.'

This, I thought, was very interesting. Solomon Alemu, the priest at Anbober, had also mentioned Aswan to me when I had interviewed him in January. At the time I had resolved to make a trip there. And I had in fact travelled quite widely in Egypt since doing that interview. I had not yet gone as far south as Aswan, however, and I was now beginning to

wonder whether that might not have been a mistake. If there had indeed been a Jewish temple there, as Hadane had just indicated, then this was potentially a matter of great importance – because the function of the Temple in orthodox Judaism had been to house the Ark of the Covenant. If it was true that a temple had been built at Aswan, and if this had happened after the Ark had been removed from Jerusalem, then the implications were obvious.

Hadane was unable to be at all specific as to the date of this Aswan temple, however. All he could tell me was that it had endured 'for a long while' but that it had eventually been destroyed.

'Why was it destroyed?'

'There was a great war in Egypt. A foreign king who had captured many countries came to Egypt and destroyed all the temples of the Egyptians. But he did not destroy our temple.

So when the Egyptians saw that only the Jewish temple was not destroyed they suspected we were on the side of the invader. Because of this they started to fight against us and they destroyed our temple and we were forced to flee.'

'And you went to Ethiopia?'

'Not straight away. Our forefathers passed first into Sudan, through Meroe, where they remained for a short while. But they were driven out by another war. Then they split into two parties: one group went following the Takazze river; the other group following the Nile. And in this way they arrived in Ethiopia, in Quara, close to Lake Tana. There we made our homes. There we became Ethiopians. And because we were far from Israel, though we had stayed in touch with Jerusalem all the time that we were in Egypt and in the Sudan, we now lost that contact and it became to us only a memory.'

I next asked Hadane whether there was any place in the Lake Tana area that the Falashas regarded as being particularly important or sacred.

‘Three places,’ he replied. ‘The first, the most important, is Tana Kirkos, the second is Daga Stephanos, the third is Zegie.’

I raised my eyebrows: ‘Why is Tana Kirkos the most important?’

‘I do not know exactly. But all our people regard it as sacred.’

My last question was a specific one about the Ark: ‘Ethiopian Christians say that they have the Ark of the Covenant at Axum – the original Ark of the Covenant that was supposed to have been brought from Jerusalem by Menelik, son of the Queen of Sheba and King Solomon. You’ve told me that you don’t believe the Menelik story. But

do you believe that the Christians have the Ark as they claim?'

'Our people believe, and I myself also believe, that the Ark of the Covenant is in Axum. As a matter of fact, some years ago, I and others of our spiritual leaders went from our home to Axum to try to see the Ark for ourselves. We were very interested in this tradition and we wanted to see the Holy Ark. So we went there, and we got to Axum, and to the church of Saint Mary. But we were told that it was forbidden for us to enter the chapel where the Ark is, because if we were to enter into there we would die. So we said, "OK. We will purify ourselves and then we will go in there and we will see." So we did that, we purified ourselves, but still the Christian priests would not permit us to enter the chapel. Because of that we had to return to our place without seeing it.'

‘I’ve heard that it is brought out in public once a year, at the ceremony of *Timkat*. You would have had a better chance of seeing it if you had gone there at *Timkat*.’

Hadane laughed bitterly: ‘I have heard that too. But I do not believe that the Christians would ever bring out the true Ark. They would not do that. They will never show it to anyone. They will use a replica instead. Do you know why? Because they took the Ark from us long, long ago, and they do not want to give it back. They are jealous of it. So therefore they keep it always concealed in its chapel, surrounded by bars, where no one may approach it other than the one who is appointed as its guardian.’

When I finally left the Falasha Absorption Centre at Mevasserit Zion and returned to downtown Jerusalem my head was literally buzzing with ideas and question. Of all the Ethiopian Jews whom I had talked to during the course of my

research, Hadane had proved to be by far the most lucid and the most informative. The story of his attempt to see the Ark in Axum had intrigued me. And the special importance that he had accorded to the island of Tana Kirkos was surely of great significance in the light of what I myself had learnt there during my trip in November 1989. But what had interested me most of all about his answers was the reference that he had made to the existence, at some remote period in history, of a Jewish temple at Aswan. If there was any truth to this then I would certainly have to go to that Upper Egyptian town, which lay some two hundred kilometres to the south of Karnak and Luxor.

Back in my hotel room I dialled the number of Dr Shalva Weil, the social anthropologist who had put me in touch with Hadane.

‘How did the interview go?’ she asked breezily.

‘Very well, thank you. Most helpful. I’m grateful to you for the contact.’

I paused awkwardly. I always feel slightly silly putting completely idiotic questions to academics. But there was no getting around this one. I had to ask: ‘During our interview Hadane mentioned something to me about a temple – a Jewish temple – at Aswan in Egypt. I know what I’m going to say next is a bit nuts, but I’ve learnt not to dismiss folk-traditions completely without at least checking them out. Anyway, what I want to ask you is this: is there actually any possibility that such a temple could ever have existed?’

‘Certainly it existed,’ Dr Weil replied. ‘It was a proper temple, dedicated to Yahweh. But it wasn’t actually in Aswan proper. It stood on the island of Elephantine in the middle of the Nile. There are some archaeological excavations going on there right now, as a matter of fact.’

‘And this island … I mean … is it far from Aswan?’

‘Not more than two hundred metres in a straight line. It takes about five minutes to sail there in a *felucca*.’

‘So effectively Hadane was right when he talked about a temple at Aswan?’

‘Absolutely right, yes.’

‘But does this temple have anything to do with the Falashas?

Hadane said that it had been built by his forefathers.’

‘It’s possible, I suppose. Academics are divided on the issue. Most of us believe that the Falashas are the descendants of Jewish merchants and settlers who reached Ethiopia from south Arabia. But there is one respectable body of opinion which holds that they are descended from the Jews who fled from Elephantine.’

‘Fled? Why?’

‘Their temple was destroyed – some time in the fifth century BC I believe – and the Jewish community that had lived on the island vanished after that. It’s a bit of a mystery, actually. They just melted away. But I’m not an expert … I can recommend some books if you like.’

I thanked Dr Weil for this offer, jotted down the short bibliography that she gave me, and said goodbye to her in a state of some excitement. It had been in the fifth century BC, according to the Tana Kirkos traditions, that the Ark of the Covenant had arrived in Ethiopia. Now I knew that a Jewish temple on the upper Nile had been destroyed in that same century. Was it not possible that that temple had been built two hundred years earlier to house the Ark after it had been removed from Jerusalem during the reign of Manasseh?

I intended to find out and left Israel the next day – not for London, as I had originally planned, but for Egypt.

Chapter 16
Door of the Southern Countries

Aswan is located on the east bank of the Nile at a point roughly equidistant from Israel and from the northern borders of Ethiopia. Well placed as a staging post between the African and Mediterranean worlds, its name was derived from the Greek word *Seyene*, which in turn was a corruption of the ancient Egyptian *Swenet*, meaning 'making business'.[1] In antiquity the town profited greatly from a rich two-way commerce in which manufactured goods flowed southwards from the high civilization of Egypt, and in which spices, aromatic substances, slaves, gold and ivory from sub-Saharan

Africa were traded north. It was from this latter commodity, ivory, that the island in which I was interested had received its name, for Elephantine (which lies in the middle of the Nile directly opposite Aswan) had once been known simply as *Abu*, or Elephant Land.[2]

At the reception desk of the New Cataract Hotel in Aswan I enquired about Elephantine and particularly about its Jewish temple. Shalva Weil had already told me that it had been destroyed in the fifth century BC but she had also said that archaeologists were working there, so I hoped very much that there might be ruins to visit.

Mention of the word 'Jewish' did not elicit a favourable response from the hotel staff; despite the relatively positive diplomatic relationship that had been forged between Egypt and Israel in recent years I had forgotten how much bad blood and bitterness still divided the peoples of the two

neighbouring countries. Finally, however, I did manage to extract the following intelligence from the front-desk manager: ‘Many temples on Elephantine – Egyptian, Roman, maybe Jewish … I don’t know. You can go see, take a *felucca* ride, find out. Anyway there are archaeologists there, German archaeologists. Just ask for Mr Kaiser.’

Mr Kaiser, eh, I thought as I walked out of the lobby and into a fiercely hot day, a likely story!

Indiana Jones

After a short *felucca* ride to Elephantine I was shown to a building on the island’s west bank where I was told ‘the Germans’ lived. I made my way to the front door, knocked, and was admitted by a Nubian manservant wearing a red *fez*. Without questioning me he led me along a corridor and into

an interesting room, the walls of which were lined from floor to ceiling with wooden shelves loaded with broken fragments of pottery and other artefacts. Then he turned to go.

I coughed: ‘Excuse me. Er … I’m looking for Mr Kaiser. Could you call him please?’

The servant paused, favoured me with an inscrutable stare and then left, still without saying anything.

Five minutes or so passed, during which I stood dithering in the middle of the floor, and then … Indiana Jones appeared in the doorway. Or, rather, not Indiana Jones himself but a Harrison Ford lookalike. Wearing a Panama hat at a jaunty angle, he was tall and muscular, ruggedly handsome, and gimlet-eyed. Clearly he had not shaved for several days.

I resisted a strong urge to exclaim, ‘Mr Kaiser, I presume’, and asked less theatrically: ‘Are you Mr Kaiser?’

‘No. My name is Cornelius von Pilgrim.’ He advanced towards me, and, as I introduced myself, he extended a strong and suntanned right hand for me to shake.

‘I’m visiting Elephantine’, I explained, ‘in connection with a project of mine. I’m interested in the archaeology of the temple here.’

‘Ah ha.’

‘Yes. You see I’m investigating a historical mystery … the … er … the loss of, I mean the disappearance of the Ark of the Covenant.’

‘Ah ha.’

‘Do you know what I mean by the Ark of the Covenant?’

By now Cornelius von Pilgrim’s expression could only be described as glazed. ‘No,’ he replied curtly in answer to my question.

‘You do speak English do you?’ I asked. I wanted to be

sure.

‘Yes. Quite well.’

‘Good. OK, then. The Ark. Now let’s see. You know about Moses, right?’

A faint nod.

‘And the Ten Commandments, carved on tablets of stone?’

Another nod.

‘Well, the Ark of the Covenant was the chest made of wood and gold that the Ten Commandments were put in. And … er … I’m looking for it.’

Cornelius von Pilgrim did not seem to be overly impressed. Then he said, without the slightest trace of humour: ‘Ah ha. Like Indiana Jones you mean?’

‘Yes. That’s exactly what I mean. Anyway, the reason why I’m in Elephantine is that I was told on good authority that there was a Jewish temple here. My theory is that the Ark,

somehow, was taken to Ethiopia in ancient times. So naturally I'm wondering whether there is any possibility – or any archaeological evidence even – that it might have been brought here first before it went to Ethiopia. You see, I think it was removed from Jerusalem in the seventh century BC. So the question is – what happened in the intervening two hundred years?'

'You are wondering whether during those two centuries the Ark could have been kept in the Jewish temple on this island?'

'Absolutely. In fact I'm hoping that you and your team may have excavated the temple. If you have then I'd very much like to know what you found.'

Cornelius von Pilgrim removed his hat before demolishing my hopes. 'Yes,' he said after a rather lengthy pause, 'but on the site that you are interested in there's nothing to be seen.

We'd thought there might be something left … beneath the ruins of the Roman temple that was later built on top of the Jewish one. But now we've dug down all the way through the foundations. And there's just nothing. Absolutely nothing at all. It's a fact that there was a substantial Jewish settlement here between the seventh and the fifth century BC but nothing remains of it now for archaeology except some of the houses of the people. That's all, I'm afraid.'

Trying to ignore the immense feeling of depression that had just washed over me I asked: 'If nothing remains of the temple then how do you know that it was ever there?'

'Oh. That is not a problem. That is not in doubt. For a while there was a great deal of correspondence between this island and the city of Jerusalem. These letters were written on ostraca – potsherds – and on papyrus scrolls. Many of them have been found and translated and a large number

make specific reference to the Temple of Yahweh on Elephantine. The matter is well attested historically and because of this we do know, within a few metres, the exact site of the temple, we also know when the temple was destroyed – it was 410 BC – and finally we know that the later Roman temple was built in the place where the Jewish temple had previously stood. It is all very clear.'

'Why was the Jewish temple destroyed?'

'Look … I am not an expert in these matters. I specialize in the remains from the second millennium BC – well before your period. To find out more detailed information you will have to talk to a colleague of mine who has taken a special interest in the Jewish colony. He is Mr Achim Krekeler.'

'Is he here now?'

'Unfortunately not. He is in Cairo. But he will return tomorrow. Will you still be here tomorrow?'

‘Yes. I mean … I don’t have long. I have to get back to England. But I can wait until tomorrow.’

‘Good. So I suggest then that you come back tomorrow, in the afternoon, say around three p.m., and you will see Mr Krekeler. Meanwhile, if you like, I would be happy to show you where the Jewish colony was … and the site of your temple.’

I took von Pilgrim up on this kind offer. As we walked I asked him under whose auspices the excavations on Elephantine were being conducted.

‘We are from the German Archaeological Institute in Berlin,’ he replied. ‘We have been working here for a number of years.’

We had arrived at the foot of a low hill. On the slopes above us, spread out over a wide area, was a maze of rubble and masonry, amidst which partially reconstructed dry-stone

walls betrayed the outlines of rooms, houses and streets. 'This', said von Pilgrim, 'was the part of the old town of Elephantine where the Jewish people lived.'

We began to climb, picking our way with care amongst the crumbling ruins. By the time we reached the summit I was quite out of breath – but I had also shaken off the mood of depression that had assailed me earlier. Though I could not have explained exactly why, I felt that there was something about this place which was … *right* – something haunting and evocative that spoke of ancient days and hidden histories.

Cornelius von Pilgrim had led me to the highest point on the island of Elephantine. Now he gestured around us and said: 'The Jewish temple was here, beneath where we are standing.'

I pointed to a massive, broken column that loomed just ahead of us and to our right and asked what it was.

‘Part of the Roman temple I told you about. As a matter of fact there’s evidence that quite a number of other temples stood here at different periods, dedicated to the gods of the various foreign powers that occupied Egypt in the first millennium BC. Often the architects of these temples would re-use the materials from the earlier buildings. This, I think, is why the Jewish temple so completely disappeared. It was destroyed, knocked down, maybe burnt, and then its masonry was broken up and incorporated into the walls of the next temple.’

‘I asked before why the Jewish temple was destroyed. You didn’t get round to telling me …’

‘Broadly speaking we believe that there was a problem between the members of the Jewish community and the Egyptian residents of the island. You see there was an Egyptian temple too …’

‘On the same site?’

‘No. The Jewish temple had been built more or less beside it.’ The Egyptian temple was over there’ – he gestured in the direction of another pile of rubble – ‘and some remains from it have been found. It was dedicated to the god Khnum. He was a ram-headed god. All his effigies show him with the head of a ram. And we speculate from this that some serious tension may have arisen between the Jewish priests and the Egyptian priests.’

‘Why tension?’

‘Well, it’s obvious. It is known that the Jews here practised sacrifice and almost certainly they sacrificed rams. This would not have made the priests of Khnum very happy. So we guess that at a certain date they simply turned on the Jews and perhaps massacred them, or perhaps expelled them from the island, and then afterwards destroyed their temple.’

‘And you said that that date was 410 BC?’

‘Yes. That’s right. But you must talk to Achim Krekeler for more details.’

The missing link?

I returned the next afternoon as von Pilgrim had suggested. Meanwhile I had spent a sleepless night and a restless morning thinking through everything that I had learned, working out the logic of events and trying to arrive at some tentative conclusions.

As a result of this process – even before my meeting with Krekeler – I was reasonably confident in my own mind that the Jewish temple on Elephantine might indeed prove to be the missing link in the chain of clues that I had assembled over the previous two years. If I was right, and if a group of

Levites had left Jerusalem with the Ark of the Covenant during the reign of Manasseh, then they could hardly have chosen a better place of safety. Here they would have been far beyond the reach of the wicked Jewish king who had introduced an idol into the Holy of Holies. Moreover, since I had established the relationship between the ceremony of the Ark and the festival of Apet (held each year at Luxor just two hundred kilometres to the north – see chapter 12), it seemed to me that this Upper Egyptian island could also have been seen by the fugitive priests as a uniquely *appropriate* location: surrounded on all sides by the sacred waters of the river Nile, might they not have felt that they had returned to their roots?

All this was speculation. What was certain, however, was that a Jewish temple *had* been built here at approximately the right time to have sheltered the Ark after its removal

from the Holy of Holies in Jerusalem. It was also certain that that same temple had subsequently been destroyed during the same century in which – according to the Tana Kirkos traditions – the Ark had been brought to Ethiopia. All this, it seemed to me, added up to a compellingly suggestive series of events. And I was not greatly worried by the fact that the date of the Elephantine temple's destruction – 410 BC – was approximately sixty years *later* than the date that I had calculated for the Ark's arrival on Tana Kirkos (470 BC). Over the huge period of time between the fifth century bc and the twentieth century AD it seemed to me quite possible that the Ethiopian oral traditions on which I had based that calculation could have gone adrift by sixty years or so.

I was therefore in an optimistic frame of mind when I arrived back at the German Archaeological Institute's house for my meeting with Achim Krekeler. A stocky, friendly man

in his mid-thirties who spoke good English, I found him poring over fragments of ancient papyrus which, he explained, had to be handled with great care because they were exceptionally brittle.

'And it's papyri like these that have provided the main evidence for the existence of the Jewish temple?'

'Yes, and for its destruction. After 410 BC a number of letters were sent to Jerusalem describing what had happened and seeking funds and permission for a possible reconstruction.'

'But the temple was never rebuilt, was it?'

'No, definitely not. In fact all the correspondence suddenly stopped around 400 BC. After that it seems that the Jewish people left Elephantine.'

'Do you know what happened to them?'

'No. Not really. But clearly they had been in trouble with

the Egyptians for some time. Probably they were forced to leave.'

'And you don't know where they went?'

'No information on that has ever been found.'

At some length I explained to Krekeler my interest in the Ark of the Covenant and my feeling that it might have got to Ethiopia by way of Elephantine. I then asked whether he thought that there was any possibility at all that the sacred relic could have been brought to the island.

'Of course it is *possible*. Anything is possible. But I had always understood that the Ark was destroyed when the Temple in Jerusalem was burnt down by the Babylonians.'

'That's the orthodox theory. But I'm fairly sure that it was taken out quite some time before then – in the seventh century BC, during the reign of Manasseh. So one of the things that I'm hoping you'll be able to give me is a precise date for

the building of the temple here in Elephantine.'

'I'm afraid there is no precise date. Opinions vary. But personally I would have no difficulty in accepting that it might have been built some time in the seventh century BC. Other scholars also share that view.'

'And do you have any idea what the temple would have looked like? I know you haven't recovered any material artefacts but I'm wondering whether there might have been any hints in the papyri?'

'A few. No sacred writings as such have yet been recovered. But we have found a fair amount of descriptive information about the exterior of the temple. From this we can say for certain that it had pillars of stone, five gateways also made of stone, and a roof of cedarwood.'

'Would it have had a Holy of Holies?'

'Presumably. It was a substantial building, a proper temple.

But there is insufficient evidence to be certain whether there was a Holy of Holies or not.'

We continued to talk around the subject for another hour or so. Finally, however, Krekeler announced that his time was short as he was due to return to Cairo the next day and he had much to do. 'I can lend you two of the best academic publications on Elephantine,' he offered, 'as long as you promise to bring them back tomorrow. They summarize all the main findings of the research that has been done here by scholars from many different countries since the turn of the century.'

When I returned to my hotel I was carrying the weighty tomes that Krekeler had mentioned. They fully repaid the long night that I spent studying them.

The Ark in Elephantine

Here is what I learned about the Jewish Temple on Elephantine – the key facts of relevance to my quest, as I recorded them in my notebook:

1 The temple, as Krekeler told me, must have been a building of some considerable size. Quite a lot of information about its appearance survived in the papyri and the archaeologists have concluded that its dimensions were ninety feet long by thirty feet wide.[3] In old measurements this is, of course sixty cubits by twenty cubits.[4] Interestingly, the Bible gives exactly the same measurements for *Solomon's* Temple in Jerusalem.[5]

2 The Elephantine Temple was roofed with cedarwood;[6] so was Solomon's Temple.[7]

3 It seems, therefore, that Soloman's Temple must have provided the model for the Elephantine Temple. Since the former had originally been built to accommodate the Ark of the Covenant, is it not probable that the latter was as well?

4 Animal sacrifice was routinely practised at the Elephantine Temple – including the all-important sacrifice of a lamb as the opening rite of Passover week.[8] This is highly significant since it indicates that the Jewish community must have migrated to Elephantine *before* the reforms of King Josiah (640- 609 BC). Those reforms conclusively banned sacrifice at any location other than the Jerusalem Temple (a ban that was subsequently respected even by the exiles during the captivity in Babylon). On Elephantine, however, sacrifice continued to be an important ritual for the Jews in the

sixth and fifth centuries BC.[9] Since those Jews were engaged in a regular correspondence with Jerusalem there can be no doubt that they would have known about Josiah's ban. Nevertheless, they continued to perform sacrifices. They must, therefore, have felt that they had some special authority so to do. It goes without saying that the presence of the Ark of the Covenant in their temple would have provided them with all the authority they needed.

5 In this connection it is worthy of note that the Elephantine Jews clearly thought that Yahweh resided physically in their temple: a number of papyri speak of him – in no uncertain terms – as 'dwelling' there.[10] In ancient Israel (and during the wanderings in the wilderness) Yahweh was believed to reside wherever the Ark was;[11] indeed this belief only really changed after

the loss of the Ark had been recognized.[12] When the Jews of Elephantine spoke of Yahweh as a deity who was physically present with them, therefore, it follows that they could well have been referring to the Ark.

6 The Elephantine Jews frequently spoke of the deity dwelling in their temple as 'the Lord of Hosts' or 'Yahweh of Hosts'.[13] Scholars recognize this phrase as an archaic one.[14] It was frequently used in connection with the Ark (e.g. in the period before Solomon's Temple was built 'the people sent to Shiloh that they might bring from thence the Ark of the Covenant of the Lord of Hosts.'[15]).

7 All the above factors lend credibility to the view that the Ark could have been lodged in the Elephantine Temple – and, indeed, that its presence on the island could have been the reason for the building of that Temple in the

first place. Krekeler was right to tell me that no exact date of construction has yet been established. From the literature, however, it is clear that the scholars who analysed the papyri did a great deal of work on precisely this subject. They point out that by the early seventh century BC there was already a substantial Jewish population on the island of Elephantine, made up mainly of a garrison of mercenaries in the pay of the Egyptians. These Jewish soldiers, together with their families, would have constituted a viable social context for temple worship. On the basis of this and a great deal of other evidence, the considered opinion of the scholars is therefore that the Elephantine Temple must have been built by the year 650 BC.[16]

8 It is impossible to overstate the significance of this date. Why? Because it falls during the reign of Manasseh – the

king who introduced an idol into the Holy of Holies of the Jerusalem Temple, thus causing the Ark to be removed (probably by priests who remained loyal to the traditional worship of Yahweh). It was a difficult enough task to establish that the sacred relic must indeed have been taken out at this time[17] – but, having completed that task, I am satisfied that there is no evidence in the Bible about where it might have been *taken to* (even Professor Menahem Haran was unable to put forward any theories as to what could have happened to it after it left Jerusalem).

9 The academic authorities who studied the Elephantine papyri, and who arrived at the date of 650 BC for the construction of the Temple, were clearly not aware that the Ark could have gone missing from Jerusalem during the reign of Manasseh. If they had been then they would

certainly have put two and two together. They were aware, however, of the widespread outrage caused by that monarch's 'pagan innovations', and they concluded that this outrage was the only possible explanation for the otherwise inexplicable fact that a Jewish temple was built on Elephantine:

> Manasseh's reign was accompanied by much bloodshed and it may be surmised that priests as well as prophets opposed his paganisation. Some of the priests fled to Egypt, joined the Jewish garrison at Elephantine, and there … erected the Temple.[18]

10 These are the words of Bezalel Porten, author of the authoritative study *Archives from Elephantine.* Porten nevertheless remains puzzled by the fact that a Jewish

temple could have been built at Elephantine at all, because of the notion, deeply entrenched within Judaism, 'that foreign soil was unclean and that, therefore, no Temple to the Lord might be erected on it.'[19] He points out that, after the destruction of Solomon's Temple in Jerusalem, the Jews carried off into exile in Babylon 'were counselled by Jeremiah to settle down and *pray* (not sacrifice) to the Lord.' The same author then adds: 'there is no evidence that any Temple to YHWH was erected in Babylonia' and asks: 'With what justification, then, did the Jews at Elephantine erect their temple?'[20]

11 It seems to me that the answer to Porten's rhetorical question is obvious: their justification was that they had brought with them from Jerusalem the Ark of the Covenant and that they now needed to build 'an house of

rest' for it,[21] just as Solomon had done so long before.

Elephantine and the Falashas

When I returned to England I felt quite confident that I had at last uncovered the real sequence of events underlying the mystery of the lost Ark.

Seeking supporting evidence I went to the School of Oriental and African Studies in London and acquired copies of the two out-of-print volumes that Achim Krekeler had lent me, volumes that I now wanted to examine much more thoroughly. I also assembled other relevant sources, including *The History* of Herodotus (because I had learned that the famous Greek scholar had paid a visit to Elephantine around the year 450 BC[22]).

This further research effort proved fruitful. One thing that

had been bothering me, for example, was why Josiah – the zealous traditionalist who had inherited the throne in Jerusalem two years after Manasseh's death – had not sought to get the Ark back from Elephantine. The answer to that question did not prove difficult to find. As I had already established, Josiah's reforms had not started until the twelfth year of his reign (when he was twenty) and his restoration of the Temple had only begun in the eighteenth year of his reign (622 BC).[23] By this time relations between Judah and Egypt had deteriorated dramatically – so much so, in fact, that Josiah was ultimately killed fighting the Egyptians.[24] Even if he had known that the Ark had been taken to Elephantine, therefore, he would not have been in a position to enforce its return from a powerful country with which he was at war.

Having satisfied myself on this point I then moved on to

consider the next stage of the lost history that I was attempting to reconstruct – the journey of the Ark from Elephantine into Ethiopia during the fifth century BC. My interview in Jerusalem with the Falasha priest Raphael Hadane had raised the intriguing possibility that the ancestors of Ethiopia's black Jews might have been migrants from Elephantine – because there could be no doubt that he had been speaking of that island when he had told me that his forefathers had built a temple at Aswan. Moreover the notion that the Falashas might have reached Ethiopia from Elephantine was supported by the findings of my own earlier research. In November 1989 I had been struck by the 'ethnographic fingerprint' of Falasha settlement around Lake Tana and – on the basis of this and other evidence – I had concluded that:

> the religion of Solomon could only have entered Ethiopia from the west – through Egypt and the Sudan along the ancient and well-travelled trade routes provided by the Nile and Takazze rivers.

For some time before reaching that conclusion I had been profoundly dissatisfied with the large body of academic opinion which held that the Falashas were the descendants of Jews from southern Arabia who had arrived in Ethiopia after AD 70 (see Chapter 6). Now, as I followed up the bibliography that the social anthropologist Shalva Weil had dictated to me in Jerusalem, I discovered that a number of other theories had been put forward to challenge the prevailing orthodoxy. Though repeatedly ridiculed by the masters of Ethiopian studies like Professor Edward Ullendorff,[25] some of the

dissenting voices had suggested that the ancestors of the Falashas could well have been converted to Judaism by migrants from the Jewish colony on the island of Elephantine.[26] No doubt there had been extensive commercial and cultural contacts between Yemen and Ethiopia during this period; the reality was, however, that several quite substantial Jewish communities had been established in Egypt for hundreds of years before any Jews had settled in south Arabia. Given the profoundly Old Testament character of Falasha religion, therefore, logic suggested that the Jewish faith must have been carried south-eastwards from Egypt and into Ethiopia in a gradual process of 'cultural diffusion'.[27]

To be sure, there were no absolutely unassailable historical facts linking the Falashas to Elephantine. I did, however, come across a great many tantalizing clues and coincidences

which seemed to me to be highly suggestive of such a link. All the evidence was circumstantial and none of it actually *proved* my theory that the Ark had reached Ethiopia in the fifth century BC after spending two hundred years in the Jewish Temple on Elephantine. Viewed in the context of everything else that I had learned, however – in Israel, in Egypt and in Ethiopia itself – my latest findings took on a different and entirely more persuasive aspect.

Set out below, as I recorded them in my notebook, are the principal conclusions that I reached and the evidence on which they were based:

1 The fact that the Jewish community at Elephantine practised sacrifice – and that it continued to do so long after King Josiah's reforms – is surely highly significant. One of the proofs of the antiquity of Judaism in Ethiopia

is the extremely archaic character of Falasha religion, in which animal sacrifice of precisely the kind carried out at Elephantine plays a crucial role.[28] This adds weight to the hypothesis that the Falashas are the 'cultural descendants' of Jewish migrants from Elephantine and therefore provides strong support for the thesis that the Ark of the Covenant may have been brought to Ethiopia from that island.

2 In its heyday the Jewish Temple on Elephantine had its own well established priesthood. In the vowel-less language of the papyri these priests are referred to as KHN.[29] This word, of course, becomes *kahen* when the vowels 'a' and 'e' are added. Falasha priests are also called Kahen.[30]

3 One of the names given to the Jewish Temple on Elephantine was MSGD.[31] It meant 'place of

prostration'.[32] To this day the Falashas in Ethiopia have no synagogues; neither do they have a temple; they do, however, call their simple houses of worship *Mesgid*[33] (i.e. MSGD with the vowels 'e' and 'i' added). In this context it is also worthy of note that it was exactly in a prostrate position, knees to the ground, that King Solomon once prayed before the Ark of the Covenant of Yahweh.[34]

4 In his interview with me in Jerusalem Raphael Hadane said that the Jewish Temple built by his forefathers 'at Aswan' had been exempted from a great destruction that had been inflicted upon Egyptian temples by a 'foreign king':

> 'he did not destroy our temple. So when the Egyptians saw that only the Jewish temple

> was not destroyed they suspected that we were on the side of the invader. Because of this they started to fight against us and they destroyed our temple and we were forced to flee.'

In 525 BC a foreign king did invade Egypt and did indeed destroy many temples.[35] His name was Cambyses and he was the ruler of the expansionist Persian Empire that had been founded by his father Cyrus the Great. The Elephantine papyri preserve this recollection of him:

> when Cambyses came into Egypt he found this [Jewish] Temple built. They [the Persians] knocked down all the temples of the gods of Egypt, but no one did any damage

to this Temple.[36]

The Persians remained in power in Egypt until very close to the end of the fifth century BC. During this period the Jews on Elephantine co-operated closely with them. It was after their protection had been effectively removed that the Jewish Temple on that island was finally destroyed.[37] Raphael Hadane's folk traditions about the origins of the Falashas are therefore borne out by established historical facts.

5 Hadane also reported that his people especially venerated the island of Tana Kirkos – the same island to which I was told the Ark had been brought in the fifth century BC. Moreover, Memhir Fisseha, the Christian priest whom I interviewed on that island, told me that the Ark had been kept there 'inside a tent' for eight

hundred years before being taken to Axum.[38] It seems to me hardly surprising that a tent or 'tabernacle' might have been used on Tana Kirkos to shelter the Ark. If my theory is correct then the Jews who brought the relic there had just experienced the destruction of their own Temple on Elephantine and would have known also of the earlier destruction of Solomon's Temple by Nebuchadnezzar. They could well have decided that it was time to abandon formal temples for ever and to return to the pure tradition of the desert wanderings when the Ark had always been housed in a tent.

6 Last but not least, Raphael Hadane told me that the ancestors of the Falashas reached Ethiopia not only by way of Aswan (i.e. Elephantine) but also that they passed through the city of Meroe 'where they remained for a short while'. These same two places were also

named by Solomon Alemu, the Falasha priest whom I interviewed at the village of Anbober in January 1990. Can it be a coincidence that, after being lost to history for more than 1,500 years, the ruins of Meroe were finally unearthed by – guess who? Answer: they were discovered in 1772 by the Scottish explorer James Bruce.[39]

The land of the Deserters

All this, I felt, very strongly suggested that I was on the right track – and the fact that the site of ancient Meroe had been discovered by none other than my old friend James Bruce only served to quicken my enthusiasm for the chase. The Scottish explorer, I was sure, had made his epic journey to Ethiopia in order to locate the Ark of the Covenant (see

Chapter 7). How appropriate therefore that he should also have located the fabled city through which the sacred relic had passed on its journey to the Abyssinian highlands.

But had it really passed that way? There was still, it seemed to me, one vital question that I had not yet satisfactorily answered: why should the Jews of Elephantine have migrated to the *south* with the Ark of the Covenant after they left the island? Why not head north – back towards Israel, for example?

I found that there were several possible explanations for this, all of which could have played a role. For a start, by the fifth century BC, the Jews in Jerusalem had got used to living without the Ark. Solomon's Temple was long gone and a new one had been built to replace it. This Second Temple, furthermore, was administered by an entrenched priesthood which would definitely not have welcomed competitors from

Elephantine.

By the same token, the Elephantine Jews would have felt alien and out of place in the theological environment afforded by Jerusalem in the fifth century BC. Religious thinking had moved on, God was no longer thought of as the quasi-corporeal deity who had dwelled 'between the cherubims', and the forms of worship in which the Ark had once occupied centre stage had been largely abandoned.

The return of the relic would, therefore, have led to many potentially catastrophic problems. It would have been quite obvious to the Elephantine priesthood that in order to avoid these problems they would have to stay away from Jerusalem. But where could they go instead? Clearly, they could not remain in Egypt, since the Egyptians had turned against them and destroyed their Temple. Nor, for the same reason, could they have been sure of safe passage if they had

chosen to travel *north* in order to leave that country. A logical solution, therefore, would have been to turn towards the south. It was not without good reason that the Governor of Aswan and Elephantine was titled 'Governor of the Door of the Southern Countries'.[40] In order to take their precious relic to safety the Jews would only have needed to open that metaphorical 'door' and head off into those 'Southern Countries', which were known collectively as 'Ethiopia' – a Greek word meaning 'burnt faces' applied at that time to all areas in which dark-skinned people lived.[41]

The fugitives would by no means have been venturing forth into a terrifying *terra incognita*. On the contrary, there was direct evidence that members of the Jewish community had been involved in military expeditions far to the south as early as the sixth century BC.[42] Furthermore, I discovered well documented instances of *previous* migrations – migrations

that had not necessarily involved Jews but that had seen large numbers of people from the Aswan area travelling and settling in ‘the Southern Countries’. For example, Herodotus, the ‘father of History’, reported that four days’ journey beyond Elephantine the river Nile ceased to be navigable:

> You will then disembark and travel along the bank for forty days, for there are sharp rocks in the Nile and many reefs through which you will be unable to sail. Having marched through this country in forty days, you will embark again in another boat and sail for twelve days, and then you will come to a great city, *the name of which is Meroe.* This city is said to be the mother of all Ethiopia … From this city, making a voyage of the same length of sailing as you did from

> Elephantine to the mother city of the Ethiopians, you will come to the land of the *Deserters* … These were two hundred and forty thousand Egyptians, fighter Egyptians, who revolted from the Egyptians and joined the Ethiopians … in the time of King Psammetichus. When these people had settled among the Ethiopians, the Ethiopians became more civilised, through learning the manner of the Egyptians. For four months of travel space, then, sailing and road, beyond its course in Egypt, the Nile is a known country. If you add all together, you will find that *it takes four months of journeying from Elephantine to these Deserters of whom I spoke.*[43]

I said earlier that the mass exodus of 'the Deserters' from

Elephantine had not necessarily involved Jews, and I could find no proof that it had. Herodotus had stated very clearly, however, that this exodus had occurred in the time of the Pharaoh Psammetichus (595–589 BC[44]). I was therefore excited to learn from an impeccable source that 'Jews had been sent out as auxiliaries to fight in the army of Psammetichus against the King of the Ethiopians.'[45] On the basis of this well documented historical fact it did not seem unreasonable to conclude that there might indeed have been some Jews amongst the Deserters.

Another aspect of the Herodotus report which I found intriguing was that it made specific mention of Meroe – through which, according to Raphael Hadane, the forefathers of the Falashas had passed on their way to Abyssinia. Moreover, Herodotus had gone to considerable lengths to explain that his 'Deserters' had lived a full fifty-six days' sail

beyond Meroe. If this journey had been made on the Atbara river, which flows into the Nile just to the north of Meroe (and into which, in turn, the Takazze also flows) then it would have brought the traveller as far as the borders of modern Ethiopia, and perhaps across those borders.[46]

Herodotus had written his report in the fifth century BC. It followed that if a group of Jews bearing the Ark of the Covenant had chosen to flee southwards from Elephantine in that same century then they would have passed through 'known country' almost all the way to Lake Tana. Moreover, simple logic suggested that the Abyssinian highlands could have been an attractive destination for them – cool and well watered, these green mountains would surely have looked like a Garden of Eden by comparison with the deserts of the Sudan.

Beyond the rivers of Cush

Could the fugitives from Elephantine have had foreknowledge of this ‘garden beyond the wilderness’? Was it possible that in making their journey to the south they might not only have been travelling through ‘known country’ but also going towards a land in which they already had kin and co-religionists? As my research progressed I did find evidence to suggest that this was indeed possible and that Jews could well have ventured into Abyssinia at dates even earlier than the fifth century BC.

Part of this evidence was biblical. Though I knew that the use of the word ‘Ethiopia’ in the Scriptures could not automatically be assumed to refer to the country now going by that name, I also knew that there were circumstances in which it might have done. As noted above, ‘Ethiopia’ is a

Greek word meaning 'burnt faces'. In the earliest Greek editions of the Bible, the Hebrew term 'Cush' was translated as 'Ethiopia' and was used to refer, as one leading authority put it, to 'the entire Nile Valley south of Egypt, including Nubia and Abyssinia'.[47] What this meant was that biblical references to 'Ethiopia' might or might not refer to Abyssinia proper. Likewise, in English translations that had reverted to the use of the word 'Cush', Abyssinia might or might not have been implied.

In this context it seemed to me at least worthy of note that Moses himself had married an 'Ethiopian woman'[48] – according to an undeniably ancient verse in the book of Numbers. Added to this was the curious testimony of the Jewish historian Flavius Josephus – supported by several Jewish legends – which asserted that between his fortieth and eightieth years the prophet had lived for some time in

‘Ethiopia’.[49]

Other passages in the Scriptures also referred to ‘Ethiopia’/‘Cush’. Many were plainly irrelevant to my interests. Some, however, were intriguing and raised the possibility that the scribes responsible for them had *not* had Nubia or any part of the Sudan in mind but rather the mountainous land in the Horn of Africa that we call ‘Ethiopia’ today.

One such, with which I was already familiar, occurred in the second chapter of the book of Genesis and referred to the rivers that flowed out of the Garden of Eden: ‘And the name of the second river is Gihon; the same is it that compasseth the whole land of Ethiopia.’[50] A glance at a map showed me that there was a very real sense in which the Blue Nile, sweeping out from Lake Tana in a wide loop, did indeed compass ‘the whole land of Ethiopia’. Moreover, as I had

been aware for some time,[51] the twin springs regarded as the source of that great river are known to this day as *Giyon* by the Ethiopians themselves.[52]

Another interesting passage occurred in Psalm 68, described by Jon D. Levenson, Associate Professor of the Hebrew Bible in the Divinity School of the University of Chicago, as 'one of the oldest pieces of Israelite poetry'.[53] This psalm included a cryptic reference to the Ark of the Covenant[54] and also made the following strange prediction: 'Ethiopia shall soon stretch out her hands unto God.'[55] I could not help but wonder why Ethiopia had been given prominence in this way as a likely candidate for conversion to the religion of Israel. Unfortunately, there was nothing in the psalm itself which helped to answer this question. However, in a passage written somewhat later by the prophet Amos (whose ministry lasted from 783 to 743 BC[56]), there

were indications that something so momentous had happened in Ethiopia/Cush that the inhabitants of that distant land were now to be regarded as being on a par with the 'Chosen People' of Israel. Three different translations of the same verse (Amos 9:7) help to illustrate what I mean:

Are ye not as children of the Ethiopians unto me, O children of Israel? saith the Lord. (King James Authorized Version)	Are not you and the Cushites all the same to me, sons of Israel? – it is Yahweh who speaks. (Jerusalem Bible)	Are not you Israelites like Cushites to me? says the Lord. (New English Bible)

While I realized that it would be possible to interpret this

verse in another way – i.e. to understand from it that the children of Israel were no longer to be accorded any special privileges by Yahweh – it seemed to me that the more obvious reading also had to be considered. By the eighth century BC, when Amos was prophesying, was it not conceivable that there could already have been a flow of Hebrew migrants southwards through Egypt and into the highlands of Abyssinia? There was no proof for this admittedly wild speculation. It was an undeniable fact, however, that out of all the vast swathe of territory that Amos *could* have been referring to when he spoke of Ethiopia/Cush, only one specific area was known to have adopted the Judaic faith in antiquity (and, moreover, to have adhered to that faith right up until the twentieth century AD). That area, of course, lay in the vicinity of Lake Tana, the Falasha homeland since time immemorial.

The next biblical passage that caught my attention was in the book of Zephaniah, and had been written at some time between 640 and 622 BC[57] – i.e. during the reign of King Josiah. Again I found it helpful to view side by side three separate translations of the same verse (Zephaniah 3:10), which supposedly quoted the words of the Lord:

From beyond the rivers of Ethiopia my suppliants, even the daughter of my dispersed, shall bring mine offering. (King James Authorized	From beyond the banks of the rivers of Ethiopia my suppliants will bring me offerings. (Jerusalem Bible)	From beyond the rivers of Cush my suppliants of the Dispersion shall bring me tribute. (New English Bible)

Version)

Since there was absolutely no doubt that this verse had been written before 622 BC – and thus well before the exile and captivity of the Israelites in Babylon – it was pertinent to ask the following questions:

1 When Zephaniah had referred to a ‘dispersion’ what event exactly had he been talking about?

2 Which part of biblical ‘Cush’ had he had in mind when he had envisaged the suppliants of the Lord bringing offerings ‘from beyond the rivers of Ethiopia’?

In answer to the first question, I had to conclude that the

prophet had been talking about some kind of voluntary popular migration, because there had been no enforced ‘dispersion’ of the Hebrews from the Holy Land prior to Zephaniah’s time. As regards the second question, the reader will recall that the biblical term ‘Cush’ connoted ‘the entire Nile Valley, south of Egypt, including Nubia and Abyssinia’. The verse quoted above, however, contained internal evidence which helped to narrow down the precise geographical area that Zephaniah had been speaking of. That evidence lay in the phrase variously translated as ‘beyond the rivers of Ethiopia’. Since more than one river was involved, the Nile Valley as far south as Meroe could be ruled out. East of Meroe, however, flowed the Atbara, and beyond that the Takazze, while to the south (roughly parallel to the Atbara) the Blue Nile rushed down from Abyssinia. These, surely, were the rivers of Ethiopia, and beyond all of them lay Lake

Tana. The possibility that the prophet had had the traditional area of Falasha settlement in mind when he had written this intriguing verse could not, therefore, be entirely dismissed.

My feeling that there might be something to this speculation strengthened when I ran a computer check and discovered that the phrase 'beyond the rivers of Ethiopia/Cush' had only been used on one other occasion in the entire Bible. The King James Authorized Version translated the relevant passage (from Chapter 18 of the book of Isaiah) as follows:

> Woe to the land shadowing with wings, which is beyond the rivers of Ethiopia: That sendeth ambassadors by the sea, even in vessels of bulrushes upon the waters, saying, Go, ye swift messengers, to a nation scattered and peeled, to a

> people terrible from their beginning hitherto; a nation meted out and trodden down, whose land the rivers have spoiled![58]

The other translations of the same passage, which I reproduce below side by side, added further shades of meaning to an already rich and haunting message:

Country of whirring wings beyond the rivers of Cush, who send ambassadors by sea, in papyrus skiffs over the waters. Go, swift messengers to a people tall and bronzed, to a nation

There is a land of sailing ships, a land beyond the rivers of Cush which sends its envoys by the Nile, journeying on the waters in vessels of reed. Go, swift messengers, go to a people

always feared, a people mighty and masterful, in the country criss-crossed with rivers. (Jerusalem Bible)

tall and smooth-skinned, to a people dreaded near and far, a nation strong and proud, whose land is scoured by rivers. (New English Bible)

Falling as it did in Chapter 18 of the book of Isaiah, it was certain that this passage had been written by Isaiah himself.[59] This meant, of course, that it could be accurately dated to his lifetime which, as I already knew,[60] had been a long one, spanning the reigns of Jotham, Ahaz and Hezekiah (respectively 740–736 BC, 736–716 BC and 716–687 BC[61]). In fact, the prophet had almost certainly survived into the reign

of Manasseh, the monarch whose idolatry, I was now quite certain, had led to the removal of the Ark of the Covenant from the Holy of Holies of the Jerusalem Temple. I was therefore interested to learn of a strong and ancient Jewish tradition which held that Isaiah had died a martyr at the hands of Manasseh himself.[62]

What I found even more interesting was the way in which the prophet had spoken of the mysterious land that lay 'beyond the rivers of Cush'. The King James Authorized Version of the Bible suggested that he had cursed this land but the more recent translations conveyed no such impression. All three renderings, however, did agree on its geographical character: not only was it located 'beyond' rivers, but also it was itself 'spoiled', or 'scoured', or 'criss-crossed' by rivers.

In my view, this information made it virtually certain that

Isaiah had been referring to Abyssinia and to the area of traditional Falasha settlement there. The high country around Lake Tana is indeed ‘criss-crossed’ by rivers (which also spoil and scour it by carrying away huge quantities of its precious top-soil). There were other clues as well:

1 The inhabitants of the land were said to be tall and ‘peeled’, or ‘smooth-skinned’, or – in the authoritative Jerusalem Bible translation – ‘bronzed’. This, I thought, was a description that could easily be applied to modern Ethiopians, whose glowing, chestnut-brown complexions are quite distinct from the ‘black’, negroid skin tones found in other African countries.

2 The land was curiously described as ‘shadowing with wings’ (or more directly as a ‘country of whirring wings’). This, I felt, might very well be a reference to the

giant locust swarms that, every decade or so, lay waste Ethiopia, overshadowing the fields of the peasants and filling the air with a dry whirring sound that sends shivers down the spine.

3 Finally Isaiah had made specific mention of the fact that the messengers of the land travelled in ‘vessels of bulrushes’ or in ‘papyrus skiffs’, or in ‘vessels of reed’. To this day, as I was very well aware, those who dwell around the vast inland sea of Lake Tana make extensive use of papyrus-reed boats known as *tankwas*.[63]

All in all, therefore, I felt that the biblical data did lend a considerable degree of credibility to the view that some kind of relationship might have been established between Israel and the Abyssinian highlands at a very early date. Moses’s

Ethiopian wife, Isaiah's 'people tall and bronzed', and Zephaniah's 'dispersed' suppliants – who would return to Jerusalem 'from beyond the rivers of Cush' – all made it very difficult to resist the suspicion that Hebrews had been travelling to Ethiopia, and probably settling there, long before the fifth century BC. If, as I suspected, the Jewish priests of Elephantine had brought the Ark of the Covenant to the island of Tana Kirkos in that same century then it followed that they would have been coming to a land in which their co-religionists had already established a secure foothold.

Waves of migration?

Outside the Bible was there any evidence at all which might support this hypothesis? I felt that there was. The research

that I myself had conducted in Ethiopia during 1989–90, for example, had already raised the possibility that there might have been successive waves of Hebrew migration over an immense span of time extending back into the remotest antiquity. Most strongly suggestive of this had been the long interview that I had conducted with Wambar Muluna Marsha, High Priest of the 'Hebraeo-Pagan' Qemant (see Chapter 11). He had told me that Anayer, the founder of his religion, had come to the Lake Tana area from 'the land of Canaan'. When I had made a closer examination of Qemant religion I had established that it contained a peculiar mixture of pagan and Jewish practices – the latter reflected particularly in the distinctions between 'clean' and 'unclean' foods – coupled with a reverence for 'sacred groves' which bore a close resemblance to the very earliest forms of Judaism (the patriarch Abraham had 'planted a grove in

Beersheba,' and had 'called there on the name of the Lord'.[64] Such tendencies had probably been quite widespread during the early period of Israelite settlement in Canaan, and had enjoyed a brief resurgence during Manasseh's reign, but had been thoroughly and finally stamped out by King Josiah in the seventh century BC.

The implication was that the forefathers of the Qemant must have migrated to Ethiopia from Canaan at a very early date. By contrast the Falashas looked like the descendants of slightly more recent migrants. Their religion included certain practices also banned by King Josiah – notably animal sacrifice at local shrines – but otherwise looked like a rather pure form of Old Testament Judaism (and was certainly not adulterated with any obviously pagan beliefs).

Neighbours in the mountains and valleys around Lake Tana, the Qemant and the Falashas maintained that they

were related to each other (Wambar Muluna Marsha had told me that the founding family of his religion and the founding family of the Falasha religion had travelled 'on the same journey' and had discussed a possible marriage alliance – which they had ultimately failed to make).

Such folklore, as I subsequently established, did reflect an ethnographic truth. The Falashas and the Qemant were indeed relatives: both were sub-sections of the great Agaw tribe of western central Ethiopia[65] – an ethnic group considered to represent the oldest stratum of population in the Horn of Africa.[66] Because of this, the mother-tongue of both peoples was a dialect of Agaw, classified, interestingly enough, as belonging to the 'Cushitic' group of languages.[67] Semitic tongues related to Hebrew and Arabic (for example, Amharic and Tigrigna) were also present in Ethiopia but were *not* spoken (except as second languages) either by the

Falashas or by the Qemant.

The explanation for this anomaly, and the deductions that flowed logically from it, seemed to me to be obvious. I wrote in my notebook:

> The first small bands of Hebrews must have begun to migrate from Israel to Ethiopia a very long time ago. I suspect that this process started as early as the tenth century BC (perhaps even earlier) and that it continued at least until the end of the fifth century BC. On their arrival in the Lake Tana area the migrants would have found themselves amongst the oldest-established inhabitants of Ethiopia – such as the Agaw – and would have intermarried with them, thus gradually losing their own distinct ethnic identity. At the same

time, however, they would have passed on the Judaic faith and culture that they had brought with them. In this fashion, by say the second or first century BC, there would have been no more 'Hebrews' as such living in Ethiopia, only 'Hebraized' or 'Judaized' peoples who to all other intents and purposes would have looked like native Ethiopians and who would, of course, have spoken a native Ethiopian language (Hebrew having long since been forgotten). The modern descendants of these 'Hebraized' or 'Judaized' peoples are the Qemant and the Falashas – the black Jews of Ethiopia – and their mother-tongue, a dialect of Agaw, is indeed a native Cushitic language.

And what about the 'Semitic' peoples of

Ethiopia such as the politically dominant Christian Amharas? Almost certainly they are, as the ethnographers maintain, the descendants of Sabaean/South Arabian settlers who moved into the highlands in separate and somewhat later waves of immigration. Judaism in one form or another was probably quite well established amongst indigenous Agaw groups by the time that these Sabaean conquerors arrived – which would explain why their cultures, too, were gradually 'Judaized' and why Judaic elements survive to this day in the curiously Old Testament character of Abyssinian Christianity.

'There were always Jews in Ethiopia, from the beginning,' wrote the Portuguese Jesuit Balthaza Tellez in the seventeenth century.[68] In this

judgement he was, I suspect, far closer to the truth than those modern scholars who ascribe a relatively late date to the arrival of Judaism – and who seem to be completely blind to all the evidence that runs contrary to their own prejudices.

The mysterious 'BRs'

While possessing the merit of explaining a great deal that hitherto had never been properly explained, I was well aware of a potential weakness in the theory that I had just outlined in my notebook: might it not reflect my *own* prejudices rather than the facts? To be sure, it was a *fact* that the Falashas practised an archaic form of Judaism; likewise it was a *fact* that Qemant religion contained many ancient Hebraic

elements; and in a similar fashion it was a *fact* that the Christianity of the Ethiopian Orthodox Church was riddled through and through with practices that were unmistakably Judaic in origin. But from all this was it legitimate to conclude that there had been waves of Hebrew immigration into Ethiopia for hundreds of years before the fifth century BC – when, as I believed, the Ark of the Covenant had been brought from the island of Elephantine on the upper Nile to the island of Tana Kirkos? If I was right, and if there had indeed been prior Hebrew settlement in that area, then there would no longer be any mystery about why Ethiopia (rather than some other country) had been chosen as the last resting place of the Ark.

But was I right? Thus far the evidence that I had gathered in support of my evolving theory had taken two distinctly different forms: (1) social and ethnographic data about the

Falashas and the Qemant, notably concerning their religious beliefs, their folklore and their relationships to one another; (2) clues, scattered throughout the Old Testament, which seemed to bear witness to some kind of sustained Hebrew migration to Abyssinia in the first half of the first millennium BC. If there had really been such a migration, however, then surely there would be proof of it outside the Bible and outside the observed peculiarities of Falasha and Qemant culture? The impressionistic material that I had already gathered was strongly suggestive, but what I really needed in order to make a complete case was tangible archaeological or documentary evidence of Hebrew settlement in Ethiopia prior to the fifth century BC.

I had never come across such evidence and I knew that I was swimming against the current of scholarly opinion in seeking for it now. Nevertheless I put out feelers to my

contacts in the academic world in an attempt to discover whether there was anything of importance that I might have missed.

Not long afterwards I received through the mail a paper written in French by a certain Jacqueline Pirenne and published in 1989 by the Université des sciences humaines de Strasbourg.[69] The paper had been sent to me by a professor of Egyptology at a major British university. In his covering note who said:

> Just a line to enclose a photocopy of an article by Jacqueline Pirenne, given at a recent conference in Strasburg.
>
> Frankly, from a scholarly point of view, I consider she's gone 'way over the top'; she's undoubtedly a very able person, knows her

> ancient Arabian documentation, but has (for not a few of us) improbable ideas on anc. Arabian chronology & script origin. This essay is fascinating, but more fiction than history, I fear. (Beeston, I gather, criticised it heavily at a recent meeting of the Seminar for Arabian Studies; he's pre-eminently sane, though no more infallible than the rest of us.)

I naturally wondered why the professor should have thought that a paper by someone who knew her 'ancient Arabian documentation' could possibly be of any relevance to my own research. After I had had the paper translated into English, however, I could see exactly why he had thought that, and I was also able to understand why members of the academic establishment had reacted with hostility to

Jacqueline Pirenne's views.

To strip a rather complex thesis down to its bare essentials, the main thrust of her argument was that scholars who had examined the historical relationship between Ethiopia and South Arabia had been completely wrong: far from Sabaean influences reaching Ethiopia *from* the Yemen, as had previously been supposed, the flow had in fact been in the opposite direction, in other words from Ethiopia to South Arabia:

> The Sabaeans … arrived first of all in Ethiopian Tigray and entered Yemen via the Red Sea coast … This conclusion, which is the absolute contrary to all recognized views, is the only one … to explain the facts and do them justice.[70]

Pirenne then went on to demonstrate that the original

homeland of the Sabaeans had been in north-west Arabia but that large numbers of them had emigrated from there to Ethiopia ('via the Hammamat river bed and along the Nile') in two separate waves, the first around 690 BC and the second around 590 BC. Why had they emigrated? In order to avoid paying tribute to the Assyrian invader Sennacherib on the first occasion and in order to avoid paying tribute to the Babylonian conqueror Nebuchadnezzar on the second.

This thesis was not as far-fetched as it sounded: during their respective campaigns Sennacherib and Nebuchadnezzar had not confined themselves to their famous attacks on Jerusalem; it was a fact that they had also pressed on into north-west Arabia, where they might indeed have encountered and displaced Sabaean tribes. This much I already knew. I did not feel, however, that I was in a position either to condemn or condone the rest of Pirenne's argument,

namely that her fugitive Sabaeans had reached Ethiopia by following the Nile Valley and then had migrated onwards from there across the Red Sea and into the Yemen.

Nor was this argument, interesting though it was, central to Pirenne's importance for my own investigation. What caught my eye, and finally convinced me that I was on the right track, was her analysis of a Sabaean inscription found in Ethiopia and dated to the sixth century BC. Translated by the linguist R. Schneider and originally published in an obscure paper entitled 'Documents épigraphiques de l'ethiopie',[71] this inscription honoured a Sabaean monarch who described himself as a 'noble fighter king' and boasted that in the empire he had established in the north and west of Ethiopia, he had reigned 'over Da'amat, the Sabas, and over the 'BRs, the whites and the blacks.'[72] Who were the 'BRs, Pirenne asked:

R. Schneider did not venture any interpretation … but the term, witnessed in Assyrian inscriptions – the *Abirus* – may be attributed to the Hebrews … It is natural that Hebrews would have emigrated at the same time as the second wave of Sabaeans, since the first capture of Jerusalem by Nebuchadnezzar … followed by deportation to Babylon, was in 598 BC, whereas the attacks of the same Nebuchadnezzar against the Arabs were in 599–598 BC … Identification of the 'BRs as 'Hebrews' who arrived [in Ethiopia] with the second wave of Sabaeans explains … the existence of the Falashas, black but Jewish … They are the descendants of these 'Hebrews' who arrived in the sixth century BC.[73]

What Pirenne had not given any consideration to was the possibility that the 'BRs' – a standard way of writing the word 'Hebrews' (i.e. *ABIRUS*) in early alphabets lacking in vowels – might have arrived in Ethiopia *before* any of the Sabaean incursions. She had simply deduced, because the inscription that mentioned them had been dated to the sixth century BC, that they must have migrated in that century. On the basis of my own research, however, I now felt very confident in concluding that the 'BRs' over whom the Sabaean conquerors had claimed suzereinty could well have been in Ethiopia for some considerable while before that – and, moreover, that their numbers were still being added to at that time (and afterwards) by the arrival via the Nile Valley of more small bands of Hebrew immigrants.

This latter point was still in the realm of theory; Jacqueline Pirenne's gift to me, however, lay in the fact that she had

drawn my attention to definite archaeological and documentary proof of the existence in Ethiopia, in the sixth century BC, of a people called the 'BRs'. Academics might argue until eternity about who these 'BRs' really were, but I myself was no longer in any doubt:

- they had been Hebrews who, at that early stage, had not yet submerged their identity with that of the indigenous Agaw amongst whom they had settled;
- they had worshipped a God called YHWH;
- in consequence, when the Ark of the Covenant of Yahweh was brought from Elephantine to Ethiopia in the fifth century BC there was a very real sense in which it could be said to have arrived in a receptive and appropriate resting place.

A chapel of mischance

There remained very little more for me to do. Throughout a long and circuitous historical investigation I had been trying to satisfy myself that there might be genuine merit to Ethiopia's claim to possess the lost Ark.

I had done that now. I was well aware that scholars might dispute my findings, and the conclusions that I had drawn from them – but, really, the approval of the 'experts' and the 'authorities' was not what I had sought during 1989 and 1990. Instead my goal had been an inner one in which I alone had been the judge and final arbiter of all the evidence and of all the arguments.

The central issue had been simple: to journey to the ancient Tigrayan city of Axum, and to the sanctuary chapel in which the Ark was supposed to lie, I would have to be prepared to accept physical risks and also to overcome a

profound spiritual unease at the thought of putting myself into the hands of the TPLF – armed rebels who had good cause to hate me because of the cosy links that I had hitherto enjoyed with the very government that they were shedding blood to overthrow. I had not been prepared to accept those risks, or to struggle to master my own fears, unless I could first convince myself that in so doing I would be embarking on an adventure that was neither foolish nor quixotic but rather one that I could believe in and to which I could commit myself.

I now did believe that there was a very high degree of probability that the Ark might indeed lie in Axum, and I was therefore prepared to commit myself absolutely to the last stage of my quest – the journey to 'the sacred city of the Ethiopians' with all the risks and dangers and difficulties that that would entail.

This was not a decision that I had arrived at lightly; on the contrary, over the previous months, I had determinedly sought out every excuse that might possibly have justified the abandonment of the whole chancy project. Instead of finding such excuses, however, I had only stumbled upon more and more clues that appeared to point unerringly in the direction of Axum.

I had looked for alternative resting places for the Ark, but none of those that legend or tradition offered had seemed in the least bit likely. I had looked for proofs that the relic might have been destroyed, but no such proofs existed. I had established that the *Kebra Nagast*'s claims about Solomon, Sheba and Menelik could not literally be true – only to discover that these same claims might well serve as a complex metaphor for the truth. Certainly, the Ark of the Covenant could not have gone to Ethiopia in the era of

Solomon; but it was entirely plausible that it might have made that journey later, at the time of the destruction of the Jewish Temple that had stood on the island of Elephantine in the upper Nile.

All in all, therefore, whatever the academics might think, I knew that I had reached the end of a long personal road and that I could not any more put off or avoid the final reckoning: if I was to preserve any sense of my own integrity, if I was not in later years to feel dishonoured and ashamed, then I would have to do my level best to reach Axum – no matter the risks that I would have to run, no matter the demons of self-interest and cowardice that I would have to overcome. It was a cliché – perhaps one of the oldest clichés known to man – but it seemed to me that what really counted was not so much that I should attain the sacred city but rather that I should try to get there, not so much that I

should actually find the Ark but rather that I should find within myself sufficient reserves of character to make the attempt.

I was, in my own eyes, far from being an Arthurian knight clad in shining armour. Nevertheless, at this moment in my life, I had no difficulty in understanding why Sir Gawain, on his way to the perils that awaited him at the Green Chapel, had chosen to ignore the siren song of the squire who had sought to dissuade him from completing his quest and who had warned him:

> ‘if you come there you’ll be killed … therefore good Sir Gawain … ride by another route, to some region remote! Go in the name of God, and Christ grace your fortune! And I shall go home again and undertake to swear solemnly, by God and his

> saints as well, stoutly to keep your secret, not saying to a soul that you ever tried to turn tail.'[74]

After considering his position, Gawain had replied:

> 'It is worthy of you to wish for my well being, man, and I believe you would loyally lock it in your heart. But however quiet you kept it, if I quit this place, fled … in the fashion you propose, I should become a cowardly knight with no excuse whatever … I *will* go to the Green Chapel, to get what Fate sends.'[75]

With just such resolve, though with less chivalry, I was now determined that I must go to my own 'chapel of mischance'[76] to find there whatever Fate might send me. And, like Sir Gawain, I knew that I would have to make that journey at

the dawn of a New Year – for the solemn feast of *Timkat* fast approached.

Part VI: Ethiopia, 1990-91

The Waste Land

Mediterranean Sea
ISRAEL
Jerusalem
JORDAN
IRAQ
IRAN
Cairo
Nile
Arabian Gulf
Aswan/ Elephantine
Red Sea
SAUDI ARABIA
Meroe
Atbara
Khartoum
Kassala
Gedaref
Takazze
Axum
YEMEN
Blue Nile
Gondar
Lake Tana
Lalibela
Gulf of Aden
White Nile
Addis Ababa
ETHIOPIA
SOMALIA
UGANDA
KENYA
Kilometres
0 200 400

Chapter 17

Supping with Devils

After my trips to Israel and Egypt I returned to England in October 1990 with my mind made up: I would have to go to Axum, and the optimum time to travel there would be in January 1991. If I could arrive before the 18th of that month then I would be able to participate in the *Timkat* ceremony, during which I hoped that the Ark itself would be carried in public procession.

Raphael Hadane, the Falasha priest whom I had interviewed in Jerusalem, had doubted whether the genuine article would actually be used: 'I do not believe that the

Christians would ever bring out the true Ark,' he had told me, 'they would not do that. They will never show it to anyone. They will use a replica instead.' Coming as it had from a man who had himself journeyed to Axum in the hope of seeing the sacred relic, this warning bothered me a great deal. Nevertheless I saw no alternative but to go ahead with my plan – and that meant confronting my own fears.

With Ethiopia's civil war continuing to go against the government there would no longer be any doubt that I would have to put myself into the hands of the Tigray People's Liberation Front if I was serious about getting to Axum. Over the years I knew that they had taken dozens of foreigners into the areas they controlled without the slightest harm coming to anyone. I, however, was terribly afraid that harm might come to me. Why?

The answer to this question lay in the close links that I had

established with the Ethiopian regime over the period 1983–9. At the end of 1982 I had abandoned journalism, my former occupation, and had set up a publishing company of my own, the purpose of which was to produce books and other documentation for a wide range of clients, including a number of African governments. One of my earliest deals had been with the Ethiopian Tourism Commission; indeed, as reported in Chapter I, it had been that deal that had taken me to Axum in the first place, way back in 1983.

The result had been a coffee-table book[1] which had been liked by senior members of the Ethiopian government and which had led to the commissioning of several similar projects. In the process I had met and got to know many powerful people: Shimelis Mazengia, the Head of Ideology, other Politburo and Central Committee activists including Berhanu Bayih and Kassa Kebede, and last but by no means

least Ethiopia's so-called 'Red Emperor', President Mengistu Haile Mariam himself – the military strong-man who had seized control of the country in the mid 1970s and whose reputation for ruthless suppression of dissent was virtually without parallel anywhere in Africa.

There is a sense in which when you work closely with people you gradually begin to see things their way. This happened to me during the 1980s and, by the second half of the decade, I was one of the Ethiopian government's staunchest supporters. Though I never approved of that government's use of domestic repression, I managed quite successfully to persuade myself that particular initiatives taken by it were justified and helpful. Notable amongst these was the policy of resettlement inaugurated in 1984–5 with the goal of moving more than a million peasants from famine-stricken Tigray (then still under government control)

to virgin lands in the south and west of the country. At the time I was convinced that this 'was necessary' because vast areas of the north had become 'uninhabitable wastelands on the verge of total, irreversible ecological collapse.'[2] The political leaders of the TPLF, however, looked at resettlement in quite a different way, seeing it as a grave threat to the rebellion that they were then desperately attempting to consolidate. The real aim underlying this 'sinister' policy, they were convinced, was to deprive them of vital grass-roots support in their own home region (since, obviously, every peasant removed from Tigray represented one less potential recruit for the Front).

By backing resettlement, therefore – and I did so publicly on a number of occasions – I had worked directly and explicitly against the interests of the TPLF. Moreover I had identified myself closely with the Ethiopian government in

other ways as well. After several meetings with President Mengistu, for example, I had been asked to profile him for the BBC World Service. That profile, aired in 1988, had portrayed him in a far more favourable light than most people believed he deserved. What I had said had been a genuine expression of my own views – having got to know the man quite well I had concluded that his character had a great deal more depth and subtlety to it than he had ever before been given credit for. The end result, however, had been to make me vastly unpopular with his legions of critics and to give the TPLF further reason to conclude that I was firmly in the government's camp.

Finally, in 1988 and the early part of 1989, my involvement with the Addis Ababa regime had taken on a whole new dimension. In a bizarre series of journeys spread out over a period of more than a year I had carried messages

back and forth between Ethiopia and neighbouring Somalia, where another African dictator with whom I was on friendly terms, President Mohamed Siyad Barre, was then still in power. The purpose of these trips had been to lend support to a faltering diplomatic peace process between the two countries, and my main role had been to reassure each head of state that his opposite number was in fact serious about negotiating and subsequently respecting a proper treaty.

At the time I had thought that what I was doing was honourable, worthwhile and manifestly in a good cause. Moreover it had flattered my ego to play the part of 'honest broker' between opponents as powerful and as dangerous as Mengistu and Barre. Such psychological inducements, however, had completely blinded me to the downside of my activities – the extent to which the close personal relationships that I was obliged to build with these cruel and

calculating men might corrupt and compromise my own character. There is an old proverb which recommends that anyone planning to sup with the devil should use a long spoon. During my little burst of amateur diplomacy in 1988 and 1989 I supped with two devils – and unfortunately I neglected to use a spoon at all.

Did I emerge from the experience tainted in any way? The honest answer to that question is a resounding Yes. Certainly I did. I could also add that I regret my actions and that, if I had my time over again, I surely would not allow myself to be lured by flattery and personal ambition into such vile company.

The fact was, however, that I now had to live with the consequences of my own mistakes. One of these consequences was that the Ethio-Somali peace process in which I had played a part had involved an agreement by both

sides to cut off all the finance and arms that they had hitherto provided to each other's rebel groups. This naturally affected the interests of the TPLF who, over a period of several years, had built up a substantial support-office in Mogadishu, the Somali capital. Once again, therefore, I had demonstrated myself to be an enemy of the Tigrayan cause and a friend to Mengistu Haile Mariam, the dictator whom they regarded as the very incarnation of evil.

This was the background against which, with considerable trepidation, I made my first overtures to the TPLF's London office in November 1990. I expected that the most likely result was that they would flatly refuse my request to go to Axum. Alternatively, however, paranoia and a guilty conscience had conspired to produce a different and even more worrying scenario in my own mind: the guerillas would agree to take me to the sacred city; then, after I had crossed

the border from Sudan into Tigray, they would arrange a fatal ‘accident’. Melodramatic and even absurd though this fear might seem, it was very real to me.

Quest or cover story?

The response of the TPLF to my initial approach was underwhelming. Yes, they knew who I was. Yes, they were surprised that I should want to go to Axum. But no, they did not object to my plans.

There was a problem, however. A visa would be required from the government of the Sudan before I could even fly to Khartoum. An internal travel permit from that same government would also be necessary to enable me to cross the hundreds of kilometres of desert between Khartoum and the Tigrayan frontier.

Unfortunately neither visas nor permits were readily forthcoming for British citizens in the closing months of 1990. By then a major conflict in the Arabian Gulf looked unavoidable, and Sudan had thrown in its lot with Iraq. Britain, by taking the American side, had therefore rendered its nationals virtually *persona non grata* in Khartoum.

Didn't the TPLF have ways to get around that ban? Yes, they told me, they did. However, they reserved their efforts for visitors who were their friends or for visitors who could actively assist their cause. Since I was not a friend, and since I did not appear to be offering them anything that was to their immediate advantage, I would have to make my own arrangements with the Sudanese authorities. If I succeeded with that and if I could get myself as far as the frontier town of Kassala, then the TPLF would take me across the border from there and would allow me to proceed to Axum.

My contacts with the Sudanese Embassy in London only added to my growing sense of futility and depression. As a writer I was obliged to lodge my visa request with the Information Counsellor, Dr Abdel Wahab El-Affendi, who turned out to be a dapper young fellow in a suit. He told me, very politely, that I should abandon hope at once: in the present political climate there was absolutely no chance that I would be permitted to enter Sudan and even less that I would be allowed to travel internally from Khartoum to Kassala.

'Would it help if the TPLF supported my case?' I asked.

'Certainly. Will they?'

'Er … not at the moment. They have other priorities.'

'Well, there you are,' sighed Dr Affendi with the air of a man who has just proved his point, 'you're wasting your time.'

I asked: ‘Would you mind forwarding my application to Khartoum anyway?’

The Information Counsellor smiled broadly and turned both his hands palms upwards in an eloquent gesture of insincere apology: ‘I will be happy to do that, but I assure you that no good will come of it.’

Throughout the month of November I stayed in touch with Dr Affendi by telephone. He had no news for me. And after my first discussion with the TPLF on 2 November I went back to see them again on the 19th, this time for a meeting with Tewolde Gebru, their head of mission. During that meeting I had the sense that my motives were being skilfully probed by a clever negotiator whose aim was to find out whether I could be taken at face value or whether my real reason for wanting to go to Axum might not have more to do with the military ambitions of the Addis Ababa regime.

Of course, *I knew* that I was only interested in the Ark of the Covenant. Not for the first time, however, it occurred to me that my so-called 'quest' could easily look to the TPLF like the cover story of a spy. I was therefore not sure whether I should be elated or alarmed when, at the end of our conversation, Tewolde told me that he would ask the Front's Khartoum office to facilitate my visa and travel permit applications.

A deal

During the next three weeks I heard nothing further from the TPLF or from the Sudanese Embassy in London. A stalemate seemed to have set in and I began to realize that I was going to have to do something to force the pace.

The idea that I finally came up with was very simple. It

was clear that an intense propaganda campaign was being waged alongside the war on the ground in Ethiopia. As part of this campaign the government had accused the TPLF – probably wrongly – of looting and burning churches. I therefore decided that I might have a chance of securing the rebels' co-operation if I could offer them the prospect of a television news report about religious freedom in Tigray under their administration – a report in which they would be given the opportunity to refute the allegations that had been levelled against them.

I did not want to make a public statement in the media in favour of the TPLF – partly because of a residual sense of loyalty to people in the government like Shimelis Mazengia who had helped me over the years, and partly because I found the prospect of a complete *volte face* distasteful. It was true that my views on Ethiopia's political problems had

already changed, and that they were still changing. Nevertheless to stand up and support the TPLF now just because I needed to get to Axum was precisely the sort of behaviour that, in recent months, I had come to despise most in myself.

The solution that I had thought up to get around this problem was, however, almost equally devious. I would not make or present the television news report on Tigray. I would get someone else to do it for me.

The person whom I had in mind was an old friend, a former BBC producer named Edward Milner who had gone freelance some years previously. He had recently come back from the South American country of Colombia where he had filmed a special report for Britain's Channel 4 News. I therefore thought there was a good chance that he might be interested in doing a story on Tigray for the same outlet. Of

course there could be no question of steering him in any particular direction. I knew him to be a man of integrity and I knew that he would insist on complete editorial freedom to film and report exactly what he saw in the field. Nevertheless I thought that the TPLF might show more interest in my application to go to Axum if, by this device, I could connect my own proposed trip to an important piece of television coverage. All rebel groups, in my experience, are keen on publicity and I did not think that the TPLF would prove to be any exception.

Accordingly, on Monday 10 December, I telephoned Tewolde Gebru again. When I had met him on 19 November he had told me that he would request the Front's Khartoum office to facilitate my visa and travel permit applications. I now asked him if there had been any progress on this.

'None at all,' he replied. 'Our people in Sudan are very

busy and your case isn't really a priority for them.'

'Would it make a difference if I was able to offer you some television coverage?'

'Depends what it would be about.'

'It would be about the whole issue of religious freedom in Tigray – and about the relationship between the TPLF and the church. You may be winning the war on the ground but it seems to me that you're losing the propaganda war …'

'What makes you say that?'

'I'll give you an example. You've been accused recently of looting and burning churches, right?'

'Yes.'

'Which presumably has done you some harm?'

'Actually it has done us a great deal of harm both with the people and internationally.'

'And is it true?'

‘No. Not true at all.’

‘Nevertheless it’s been said – and once mud of that sort has been thrown it tends to stick.’ I played my trump card: ‘It’s quite obvious that it’s part of a well planned government propaganda campaign against you. Listen, let me quote you something from a report in *The Times* of 19 October.’ I had in front of me a clipping that my research assistant had given me. ‘The Ethiopian government’, I now read, ‘particularly wants church support in its struggle against further disintegration of the state. President Mengistu said recently: “Our nation is the product of the process of history and it has existed for thousands of years. This is proved by existing historical relics.” Ironically, the President also wants to contrast his liberalizing regime with what is perceived as the continuing communism and anti-clericalism of the secessionist movements …’

‘I am familiar with that report,’ Tewolde interjected. ‘Any liberalization that Mengistu is doing is just a cynical measure designed to win popular support now that he sees that he cannot defeat us on the battlefield.’

‘But that’s not really the issue. The point is that you need to do something about your anti-clerical image. A proper news story televised nationally here in Britain would help you a lot. If we filmed that story at *Timkat* – which is when I want to be in Axum – then the processions and the whole atmosphere would help to demonstrate that the TPLF aren’t against the church and that you are the responsible guardians of the most precious historical relic of all.’

‘You could be right.’

‘So shall I go ahead and see if I can organize some television coverage?’

‘That would be a good idea.’

‘And if I succeed do you think you’ll be able to arrange the visas and permits in time?’

‘Yes. I think I can guarantee that.’

The eleventh hour

After finishing with Tewolde I got straight on the phone to my friend Edward Milner, explained the situation to him and asked whether he was interested in offering the Tigray story to Channel 4 News.

He was interested and, by Wednesday 12 December, had secured a written commitment from the channel which we faxed to the TPLF together with Ed’s passport details. We also sent a covering letter saying that we would have to leave for Tigray no later than Wednesday 9 January 1991 – well ahead of *Timkat*.

Two more weeks went by and still we had heard nothing definite from the TPLF. The visas and permits, although now forcefully requested, had simply not come through. ‘Check with me immediately after the New Year,’ Tewolde advised.

By Friday 4 January 1991 I had given up hope entirely and was beginning to experience an odd mixture of regret and relief: the former because I had failed to complete my quest; the latter because I had at least satisfied my own sense of honour by trying my best – and because I now seemed to be safe from all the dangers, real or imaginary, that the journey into Tigray had threatened. Then, late in the afternoon, Tewolde called: ‘You can go ahead,’ he announced, ‘everything is arranged.’

Ed and I flew to Khartoum on 9 January as scheduled. From there an overland trek of less than a week would bring us to the sacred city of Axum.

Chapter 18

A Treasure Hard to Attain

Ed Milner and I disembarked from the KLM Airbus that had carried us to Khartoum and stepped out into the moist embrace of an African night. We had no visas, only reference numbers given to us by the TPLF in London. These, however, were clearly known to the immigration officer who handled our arrival and who retained our passports while we went to collect our luggage.

Married to a lovely Thai wife, and with two beautiful children, Ed was best man at my wedding and is one of my oldest friends. Short and stockily built with dark hair and

angular features, he is also a consummate television professional – a veritable one-man band who produces and directs, shoots film and records sound all by himself. These special skills, quite apart from his contacts at Channel 4, had made him an ideal choice for this trip, for while I had needed to offer the TPLF a news story I had not wanted my own work in Axum to be complicated by the presence of a large film crew.

Ed's full name is John Edward Douglas Milner. In the arrivals hall at Khartoum Airport, therefore, we naturally pricked up our ears when we heard these words over the tannoy: 'John Edward, John Edward, John Edward. Will Mr John Edward please report to Immigration Office immediately.'

Ed complied and then disappeared. Half an hour later I had collected all our luggage and had been handed my passport

duly stamped by immigration. A further half an hour passed, then an hour, then an hour and a half. Finally, well after midnight, with all the other passengers cleared through customs and the airport virtually deserted, my colleague surfaced again looking perplexed but cheerful. ‘For some reason,’ he explained, ‘the name John Edward appears on the police blacklist. I’ve tried to make it clear to them that I’m John Edward *Milner* but they don’t seem to get the point. They’ve kept my passport. I have to come back tomorrow morning to pick it up.’

The TPLF had sent a car to the airport to meet us. Its driver, who spoke no English, whisked us through the deserted streets of Khartoum, stopping every few minutes at road blocks manned by loutish, heavily armed soldiers who illiterately examined the *laissez passer* that he carried.

I had been in the Sudan before – indeed, between 1981

and 1986 I had visited the country regularly. I was immediately aware, however, that much had changed since then. For a start it was clear from the road blocks that there was now a strictly enforced curfew, something that would have been unheard of in the old days. Also, though I couldn't quite put my finger on it, the atmosphere felt different. There was an eerie quality about the blackened buildings, the litter-strewn alleyways, and the roaming packs of stray dogs. Always a mess, Khartoum tonight felt ugly and out-of-joint in a way that was entirely new to me.

We had arrived in the centre of the city and presently we turned right on to the Shariah-el-Nil, just to the north of the imposing Victorian palace where, in the year 1885, General Charles Gordon was killed by the Mahdi's dervishes.

Shariah-el-Nil means 'Nile Street' or 'Nile Way' and we were, indeed, now driving alongside that great river.

Overhead a canopy of Neem trees blotted out the stars while to our right, glimpsed between the thick trunks and hanging branches, the Nile itself could be seen flowing sedately towards distant Egypt.

On our left we passed the vacant terrace of the Grand Hotel, once an elegant meeting place, now looking rather seedy and run-down. Soon afterwards we came to a last check-point at a roundabout, and here the driver was once again obliged to produce his *laissez passer*. Then we were waved on to the spit of land at the confluence of the Blue and White Niles where the Khartoum Hilton stands. As we pulled into the hotel's well lit courtyard I was looking forward very much indeed to two or perhaps three double vodkas, tonic and a bucket of ice. When I later attempted to order these items from room service, however, I was reminded of an important fact that I had forgotten: since the adoption of

Islamic law in the mid-1980s, alcohol had been banned in the Sudan.

The next morning, Thursday 10 January, Ed and I took a taxi to the offices of the Relief Society of Tigray, where the TPLF in London had told us to report to make the final arrangements for our trip. Our names, we noticed, were scrawled in chalk on a blackboard in an upstairs room; however no one there seemed to know anything else about us. Neither was it immediately possible to make contact with Haile Kiros, TPLF head of mission in Khartoum: always unreliable, the city's telephone system appeared to have broken down entirely that morning.

'Can't we just drive over to the TPLF office?' I asked one of the REST officials.

'No. Better you stay here. We will find Haile Kiros for you.'

By mid-morning there was no news. We decided that I

should stay put to wait for Haile Kiros and that Ed should go to the airport in the taxi to collect his passport. He did this. Two hours later, however, he had failed to return and there was still no sign of the TPLF official, or indeed of anyone who appeared to be even remotely interested in me or my plans to get to Axum.

The silver lining to this particular cloud, I reflected, was that such a laid-back attitude did not lend credibility to my paranoid fancies that I might be murdered in Tigray. Indeed, a much more realistic prospect was beginning to suggest itself to me, namely that all concerned could turn out to be too comatose and slow-moving to get me to Tigray at all.

I looked at my watch and found that it was after one o'clock. In less than an hour, I remembered, all offices in Khartoum would close down for the day, probably including those of REST and the TPLF. Tomorrow, Friday, was the

Islamic sabbath. It was therefore clear that nothing very much was going to happen before Saturday 12 January.

And where was Ed? Perhaps he had gone directly back to the Hilton. I tried to telephone the hotel but of course could not get through. Feeling increasingly irritated I wrote a note for Haile Kiros giving him my room number and asking him to contact me. I then handed this note to one of the friendly young people manning the REST office and walked out on to the street in search of a taxi.

First I went back to the Hilton, but Ed was not there. Then, just in case, I went to REST again, but he was not there either. Finally I ordered my driver to take me to the airport – where, with much patient inquiry, I managed to establish that my colleague had been detained and was being 'interviewed' by the police.

Could I go in and see him?

No.

Could I get any further information at all?

No.

When might he reappear?

‘Today, tomorrow, maybe Saturday,’ explained the English-speaking businessman who had kindly assisted me. ‘Nobody knows. Nobody will say. It is the National Security Police who are holding him. Very bad men. Very impossible for you to do anything.’

By now genuinely concerned, I hurried over to the airport information kiosk which – amazingly – was open. There, not without some difficulty, I obtained the telephone number of the British Embassy. Then I found a public telephone which actually worked and, moreover, was free of charge. Unfortunately, however, no one answered at the other end.

Two minutes later I was in my taxi again. The driver did

not know where the Embassy was – although he had claimed otherwise – and eventually located it by a curious process of trial and error which took slightly more than an hour.

I spent what was left of the afternoon back at the airport with two British diplomats whom I had found drinking illegal substances at the Embassy club. These officials, however, were no more successful than I had been in establishing why – or even where – Ed was being held. Their efforts, moreover, were complicated by the fact that Yasser Arafat, leader of the Palestine Liberation Organization, had just arrived in a Libyan jet to discuss the Gulf crisis with Sudan's military dictator, General Omar el-Bashir. Bristling with automatic weapons, platoons of soldiers roamed around giving vent to patriotic anti-Western feelings and generally making life unpleasant for everyone. Neither were my two diplomats in a particularly good mood. 'All British citizens have been

warned to stay away from this bloody country,' one of them reminded me with a faint note of accusation in his voice. 'Now perhaps you can see why.'

Around nine that evening, with Ed still not rescued, I was dropped back at the Hilton for dinner. Then, just after ten, to my great relief he appeared in the lobby looking a little grimy and tired but otherwise none the worse for wear.

He held up his hands as he sat down at my table. They were covered with black ink. 'I've been finger-printed,' he explained. He then attempted – fruitlessly – to order a large gin and tonic. Finally, with only minimal disgruntlement, he settled for a warm non-alcoholic beer.

On the road

As it turned out, Ed had not been held by the dreaded

National Security Police but by the Sudanese branch of Interpol. Apparently the name ‘John Edward’ was one of the half dozen or so aliases used by an internationally wanted drugs dealer. Ed’s fate had been sealed when the investigating officers had noticed that his passport contained a visa stamp for Colombia, the cocaine capital of the world. The fact that he had been there to film a news story for Channel 4 had not impressed the Sudanese detectives at all, nor had his distinct non-resemblance to the photograph of the wanted man that had been wired by Interpol. Fortunately a set of fingerprints had been sent as well and, rather late in the evening, someone had the bright idea of comparing Ed’s fingerprints with these. His release had followed shortly afterwards.

The next day we told the story to Haile Kiros, the TPLF representative, who turned up at the Hilton in the middle of

the afternoon. Though it had been rather worrying at the time, it was risible in retrospect and the three of us had a good laugh about it.

We then began to discuss the logistics of the trip to Axum and, as we did so, I found myself watching Haile Kiros closely. I could detect absolutely nothing in his demeanour, however, to suggest that he might wish me any harm whatsoever. On the contrary, he was an affable, easy-going, sophisticated individual who was clearly devoted to the cause of overthrowing the Ethiopian government but otherwise appeared to be entirely without malice. As we talked it began to dawn on me just how badly I might have got things out of perspective in the preceding months. Confronted with the friendly reality of Haile Kiros, all the fears and anxieties that I had suffered at the prospect of putting myself into the hands of the rebels looked unwarranted and all the dark

imaginings that I had admitted into my life seemed absurd.

On the morning of Saturday 12 January we were joined by a TPLF official whom I was only ever to know by the single name of 'Hagos'. Lean and slightly built, with a complexion scarred by childhood smallpox, he explained that he had been assigned to accompany us to Axum – where he had been born – and to return with us from there when our work was complete. Meanwhile, here in Khartoum, he would facilitate our travel warrants to the border and would also help us to hire a vehicle for the journey.

By noon we had completed the paperwork and by the early evening we had done a deal with an Eritrean businessman resident in the Sudan who agreed to provide us with a sturdy Toyota Landcruiser, an even sturdier driver named Tesfaye, and six jerry-cans for spare fuel. At US$200 per day the rental seemed to me a bargain: I knew, you see, that much of

our journey would have to be made by night on precarious mountain tracks so as to avoid the unwelcome attentions of the Ethiopian government aircraft that still patrolled the daytime skies above the rebel province of Tigray.

The next morning, Sunday 13 January, we left Khartoum just before dawn. Ahead of us lay hundreds of kilometres of Sudanese desert into which we now motored at high speed. Tesfaye, our driver, was a piratical-looking character with woolly hair, tobacco-yellow teeth, and a wandering eye; he handled the Landcruiser with masterful confidence, however, and clearly knew the route well. Beside him in the front of the vehicle, keeping his own counsel, sat Hagos. Ed and I occupied the rear bench and said little to each other as the sun of a white-hot day gradually rose to greet us.

We were aiming for the frontier town of Kassala where, that evening, a convoy of lorries operated by the Relief

Society of Tigray would be marshalling to cross the border. Our plan was to join that convoy and ride with it as far as we could in the direction of Axum. ‘It is safer to travel in a large group,’ Hagos explained, ‘in case anything goes wrong.’

The journey from Khartoum to Kassala helped me to realize just how drear and empty the landscapes of the Sudan really were. All around us, in all directions, an arid plain stretched away towards the horizon, making me aware, as I had never been before, of the soft relentless curve of the planet’s surface.

Then, as the day soared towards noon, we began to pass the desiccated corpses of sheep, goats, cattle and – finally and alarmingly – of camels as well. These were the first casualties of a great famine in which people, too, would soon perish – but which the government of the Sudan had thus far refused even to acknowledge, let alone to seek to remedy.

This, I thought, was surely an act of fatal arrogance on its part – the callous folly of yet another African dictatorship obsessed with maintaining its own prestige and power at the price of immense human suffering.

But I had supported just such dictatorships in the past, hadn't I? And even now I could hardly be said to have severed all my links with them. So who was I to judge? Who was I to feel regret? And by what right did I seek now to empathize with the dispossessed?

Kassala

Shortly before two that afternoon we crossed the silt-laden stream of the Atbara river near its confluence with the Takazze and I realized, almost with a sense of shock, how rapidly and how remorselessly the great distance that had

once separated me from Axum was now being narrowed. Only a month before, that distance had looked impossible to bridge – a chasm deep and wide raging with nameless dreads. It therefore seemed almost a miracle that I was here and that I had been allowed to set my eyes upon the very rivers that I felt sure the Hebrew migrants had followed when they had brought the Ark of the Covenant into Ethiopia – the mighty rivers that scoured the land shadowing with wings, that poured down into the thirsty deserts of the Sudan, that merged with the Nile, and that flowed on past Elephantine and Luxor, past Abydos and Cairo, to spend themselves at last in the Mediterranean Sea.

Soon after three p.m. we arrived in Kassala, which was built around an oasis of date palms and dominated by a weird granite outcropping which reared up more than 2,500 feet above the surrounding plain. That red and withered hill,

I realized, though it appeared to be isolated, was in fact the first harbinger of the great highlands of Ethiopia.

I felt a thrill of excitement at the knowledge that the border was now so close – just a few kilometres away – and looked around with renewed interest at the turbulent frontier town through which we were driving. Everywhere, oblivious to the enervating heat, crowds of people milled about, filling the dusty streets with bright colours and loud sounds. Here a group of quick and subtle Highlanders, down from Abyssinia to barter the trade of the mountains for the trade of the desert, stood arguing with a stall-keeper; there a fuzzy-haired nomad sat astride his grumbling camel and gazed at the world with arrogant eyes; here a Muslim holy man, dressed in rags, bestowed benedictions upon those who would pay him and curses upon those who would not; there a child, squealing with glee, pursued a makeshift hoop with an

outstretched stick …

Hagos directed Tesfaye to drive us to a small, flat-roofed house on the outskirts of town. ‘You have to stay here,’ he explained, ‘until it is time for us to cross the border. The Sudanese authorities are a little unpredictable at the moment. So it’s better that you keep your heads down and remain indoors. That way there will be no chance of any problem.’

‘Who lives here?’ I asked as we climbed down from the Landcruiser.

‘This is a TPLF house,’ Hagos explained, showing us into a clean courtyard around which a number of rooms were arranged. ‘Rest, get a little sleep if you can. It’s going to be a long night.’

Across the border

At five that evening we were driven to a huge, open, dusty expanse of ground littered with the bones of slaughtered quadrupeds. Swarms of blowflies buzzed around and here and there, amongst the mouldering vertebrae and the fusty shoulder-blades, lay little piles of stinking human faeces. To my right, thoughtfully arranging itself between Kassala's great granite butte and the town itself, the sun descended the sky in a surreal extravaganza of tangerine and magenta. The whole collage, I thought, looked like some existentialist vision of the end of all flesh.

'Where exactly are we?' I asked Hagos.

'Oh … this is where the convoy assembles before crossing the border,' explained the TPLF official. 'We will wait maybe half an hour, maybe an hour. Then we will go.'

Ed immediately climbed down out of the Landcruiser and went off with his tripod and video camera to find a vantage

point from which to film the lorries arriving. His story for Channel 4 would focus not only on religious issues, as I had told the TPLF, but also on the burgeoning famine in Tigray.

While he was making his preparations I wandered pensively about, warding off flies and looking for somewhere to sit down and complete my notes for the day. The charnel house atmosphere, however, had thoroughly disconcerted me. Besides, with the sun now resting on the horizon, the gloaming was already too deep to write in.

A coolness also had filled the air, an unexpected chill after the heat of the afternoon, and a keen wind sang amongst the derelict buildings that ringed the marshalling ground. People walked to and fro – shadowy figures of men and women who seemed to have come here from nowhere with nowhere to go. Meanwhile small groups of ragged children had gathered to play amidst the rubbish and the bones, their high-pitched

giggles mingled with the lowing of a passing herd of cattle.

And then I heard the rumble of approaching vehicles accompanied by a crashing of gears. Looking back in the direction from which these sounds were coming I saw a glimmer of headlights, then a dazzling beam. Finally, out of the murk, the mammoth shapes of perhaps twenty Mercedes lorries materialized. As they rolled past me I could see that each one was loaded up with hundreds of sacks of grain, loaded so heavily that the suspension sagged and the chassis groaned.

The trucks pulled to a halt in parallel files in the centre of the open ground and there, in twos and threes, their number was augmented by others snaking out from town. Soon the evening air was filled with billowing clouds of dust and the sounds of revving engines. And then, as though on a signal – though none was given – the whole convoy started to move.

I ran back to the Landcruiser where Ed, helped by Hagos, was hurriedly stowing his camera equipment. Then we all jumped into the vehicle and set off in pursuit of the lorries' tail-lights. The trail that we were following, I could see, was deeply rutted and grooved and I wondered how many convoys over how many years had passed this way bearing food for people made hungry by the folly and wickedness of their own government.

In our faster car we soon overtook the last of the trucks, and we passed perhaps a dozen more before Tesfaye – who was clearly enjoying the role of safari-rally driver – slotted us into position in the middle of the convoy. All around us now the dust and sand that the vehicles were throwing up created a wild and turbulent agitation, sometimes reducing the visibility to just a few feet. Straining my eyes to peer out of the windows at the night as it rushed by, I experienced a

sensation of tremendous momentum coupled with a feeling of inevitability. I was on my way, going wherever I would go, to get whatever Fate would send. And I thought: *this is where I want to be; this is what I want to do.*

Shortly before seven we arrived at the border and halted at a Sudanese army check-point – just a collection of mud huts in the middle of a bleak and furrowed plain. Carrying hurricane lanterns, a few uniformed men emerged out of the darkness and began to check documents and identities. Then, one by one, the lorries ahead of us were waved through.

When our turn came Hagos was ordered out of the car by an officer who questioned him closely, making frequent gestures towards the back seat – where Ed and I were doing our best not to look conspicuous. At one point our passports were produced and minutely examined under the headlights. Then suddenly the officer seemed to lose interest in us and

walked off to harass the occupants of the next lorry in the queue.

Hagos climbed back into the Landcruiser and slammed the door.

‘Any problems?’ I asked nervously.

‘No. None at all,’ replied the TPLF official. He turned and gave me a broad smile: ‘Don’t worry. They are not going to arrest Ed again. Everything is in order. We can go.’

He said something in Tigrigna to Tesfaye who happily released the handbrake and gunned the engine. Then we rolled forward across the border and on into Ethiopia – though not yet into Tigray. Our route, I knew, would take us first through territory controlled by the Eritrean People’s Liberation Front, a guerilla movement older than the TPLF which had been fighting for the independence of Eritrea for almost thirty years and which now, in early 1991, was nearer

than ever before to achieving its objective. As we drove I asked Hagos about the links between the two rebel groups.

‘We co-operate closely,’ he explained. ‘But the EPLF is campaigning to create a separate Eritrean state whereas we in the TPLF do not seek to secede but only to make it possible for a democratic government to be elected in Ethiopia.’

‘And to do that you have to overthrow Mengistu?’

‘Certainly. He and his Workers’ Party are the main obstacles to freedom in our country.’

We drove on for about half an hour, during which we saw no sign of the rest of the convoy. Then suddenly lights appeared in front of us and we pulled to a halt amongst parked lorries in what seemed to be a broad valley surrounded by low hills.

‘Why are we stopping?’ I asked Hagos.

‘We will wait for the other vehicles behind us to catch up.

Also we will collect some TPLF fighters who will travel with us as guards for the convoy.'

Without further explanation Hagos then got out of the Landcruiser and disappeared. Ed grabbed his camera and a hand-held light and walked off too.

A moment later I decided that I might as well stretch my legs and have a look around. Stepping down into the velvety coolness of the night, I stood for a while quite close to the vehicle gazing up at the sky. I was aware of the faint effulgence shed by the clusters of stars and the crescent moon above me, and I could just make out the silhouettes of the nearby trucks, their headlights now extinguished. Off to my right, almost lost in deep shadow, was a grove of acacia thorn trees. Further away a white rock at the top of a hill reflected a delicate incandescence.

Gradually my eyes adjusted and I was able to see more and

more of what was going on around me. Groups of fierce and brigandish-looking men stood here and there or crouched down on the ground talking in low voices. And whereas there had been no guns in evidence while we were still inside the Sudan, everyone now appeared to be armed with automatic weapons.

Feeling slightly apprehensive, I walked amongst the parked lorries and, after a few moments, came across Hagos, who was conversing with several TPLF fighters dressed in battle fatigues. As I approached I was startled to hear the harsh metallic clunk of an AK47 assault rifle being cocked and I thought: *I'm going to get shot and it's going to be now.*

But instead Hagos welcomed me and introduced me to the other men. I had even been wrong about the noise I had heard – which turned out to have been produced by a weapon being expertly stripped and cleaned. Not for the first

time I experienced a sense of shame at the self-inflicted terrors that I had endured in the months before setting out on this trip. And I resolved that henceforward I would trust the rebels – who, after all, had also been obliged to trust me.

It was quite some time before we were back on the road: one of the lorries that had passed through the border post behind us had punctured a tyre and it seemed to be a matter of policy to keep the convoy together. Eventually, however, we set off and drove for perhaps another two hours.

Then – and I don't think it was later than eleven p.m. – we stopped again. We seemed, though I could not be sure, to be in the middle of a vast plain. Here all the vehicles arranged themselves side by side into a straight rank and doused their headlights.

'We won't be going any further tonight,' Hagos announced after a moment's silence.

‘Why not?’ I asked.

‘There is shelter nearby and we will have to spend tomorrow there. The next safe place is too far ahead for us to reach before sunrise.’

And with that, cradling an AK47 that he had somehow acquired, the TPLF official fell asleep.

Breakfast at Tessenei

I slept, too – though rather badly – with my feet and shins stuck out of the open side-window of the Landcruiser. Then, after a few hours of troubled dreams and restless discomfort, I was awakened by the asthmatic sounds of engines turning over and the smell of diesel smoke.

We did not drive far. Less than a kilometre away there was a copse of tall, thickly leaved trees under which the entire

convoy proceeded to conceal itself. I watched with amazement as canvas tarpaulins were produced and draped over all the vehicles, including our own. ‘To cut out reflections,’ Hagos explained. ‘From the air we will be almost invisible unless any shining metal attracts the MiGs.’ He then added that even the most careful attempts at camouflage could not guarantee our safety: ‘Sometimes the pilots just bomb and strafe woodland like this on the off-chance that relief trucks will be taking cover there.’

The sun had risen while the convoy was being hidden and, in the pale light of the early morning, like a salutary lesson, I could see the blackened and burnt-out hulks of three Mercedes lorries. ‘They hit those a few weeks ago,’ said Hagos. ‘It was just bad luck.’ He then broke a leaf-covered branch from one of the trees and walked out onto the sandy plain behind us. There he joined Tesfaye and several of the

other drivers who were methodically engaged in brushing over the criss-crossed network of tyre tracks leading to the copse.

At around eight in the morning all was done and Hagos proposed that we walk into the nearby Eritrean town of Tessenei.

‘How far is that?’ I asked.

‘Not far. Half an hour or so. We should be quite safe. The MiGs are mainly interested in high-value targets like trucks. They don’t usually shoot up small groups of people out in the open.’

‘And what about the towns?’

‘Sometimes they attack the towns if they see any vehicles or any large public gathering. Tessenei has been bombed many times.’

The walk was a pleasant one, along an earth path through

little clumps of scrub vegetation amidst which brightly coloured birds darted prettily to and fro. Looking around I could see that we were in rising country and, in the far distance, I thought that I could just make out the hazy silhouettes of lofty mountains.

Tessenei itself was surrounded by eroded granite hills in a boulder-strewn valley. Not a single car moved on the largely unpaved streets but there were people everywhere: children playing, an old woman leading a heavily laden donkey, three attractive teenage girls who covered their faces and fled giggling as we approached, and large numbers of armed men – all of whom greeted us with warm smiles and cheerful waves.

The town, frankly, was a mess. Most of the poor, flat-roofed buildings showed signs of house-to-house fighting – gaping holes blown through walls, façades cratered by

machine-gun bullets, collapsed masonry. Above us, to our right, was the hospital, completely gutted. Underfoot, everywhere we walked, were countless spent shell cases that formed a glittering, clinking carpet.

I asked Hagos: 'What happened here?'

'A few years ago, when the government seemed to be winning the war, Tessenei was one of the last strongholds of the EPLF. In fact the Ethiopian army seized the town several times, but the EPLF always got it back again. There was a great deal of heavy fighting – very brutal, very bloody. But now the front line is far away and it is peaceful here – except for the bombing.'

A few minutes later Hagos led us into a small hotel which consisted of perhaps twenty rooms arranged in a square around an earthen courtyard. Here, under a canopy of camouflage netting, several groups of Eritreans were sitting

at tables drinking cups of coffee and conversing light-heartedly. A waitress bustled to and fro and a promising aroma of cooking filled the air.

There was, I decided, a rather *décontracté*, boulevard atmosphere about this little scene which contrasted remarkably with the devastation outside. People, clearly, could adapt to almost any circumstances – no matter how grim – and find a way to make life bearable.

As though reading my thoughts, Hagos said to me as we sat down: 'They don't have much, but at least they are free now. And conditions are getting better every day.'

Evidence that this was indeed so soon arrived in the form of a breakfast of fried eggs and a six-pack of Dutch beer.

'Where on earth did they get this from?' I spluttered as I opened my first can.

'Since the EPLF took back the port of Massawa from the

government last year there has been beer in Eritrea,' explained Hagos with a smile. He opened a can for himself and took a long swig, then added: 'It is a great luxury after Khartoum, is it not?'

In this fashion, drinking beer and chatting with half the population of Tessenei – who had by now trooped into the hotel to see the foreigners – we whiled away most of the morning. At noon we tuned in to Ed's short-wave radio and listened to the increasingly gloomy news from the Arabian Gulf. It was now Monday 14 January and the UN deadline for the withdrawal of Iraqi troops from occupied Kuwait was due to expire at midnight on the 15th.

We then slept for a few hours, awoke at four p.m., and walked out to rejoin the convoy in time for its scheduled departure at six.

The magic and the marvels

That night's journey seemed to go on for ever, although in reality it only lasted for eleven hours. Full darkness had fallen by the time we left Tessenei. Tesfaye manoeuvred us into his favourite spot in the middle of the convoy and then, amidst the now familiar clouds of dust, we began an epic drive through the western foothills of Ethiopia's great central escarpment and then up into the mountains beyond.

Around one in the morning we stopped to refill the Landcruiser's tank from the reeking jerry-cans that we had brought with us. Stiff and cramped, bruised from the pounding I had taken on the bumpy and rutted tracks, I stepped down from the vehicle while this operation was under way and watched the lorries that had been behind us roll by one by one, their headlights blazing, air brakes hissing.

When the last of them had gone past and disappeared I took a deep breath, and gazed up at the constellations overhead and felt grateful to whatever good fortune it was that had allowed me to be here. Then we were back on the road, back amongst the potholes and the gullies, lurching forward to catch up with the convoy.

Soon I became aware, as I had not been before, that we were ascending increasingly precipitous gradients, winding around hairpin bends that seemed to hang suspended over empty space, powering forward across bleak stretches of plateau, and then climbing again. And I had the sense of great distances being covered and of profound changes in the terrain.

I knew that at some point in the past few hours we had crossed over the border from Eritrea into Tigray. And gradually, though my body ached from the unremitting

pummelling that it was taking, I found myself slipping into a dream-like state in which everything that had happened to me during the past two years, the strange twists and turns of my quest, the dead-ends, and the moments of discovery, seemed to merge into a single continuous and coherent form. And I understood, all at once and with boundless clarity, that the search which had obsessed me for so long would amount to just a poor and meaningless adventure if it had been motivated only by avarice and ambition. Lying in the remote darkness of its sanctuary, the Ark of God might glitter with ancient gold, but its real value did not lie in that. Neither did it matter that it was an archaeological treasure beyond price. Indeed nothing about it that could be measured, or calculated, or evaluated, or costed out had the slightest significance, and if I had ever set my eyes on these things (and I knew in my heart that I had) then the error that I had

committed verged on desecration – not of the object sought, but of the seeker, not of the the Holy Ark, but of myself.

And where, if not in the material world, did the true value of the relic lie? Why … in its mystery, of course, and in its enchantment, and in the hold that it had exercised upon human imaginations in many different lands across all the long and weary centuries. These were the enduring things – the magic and the marvels, the inspiration and the hope. Better to hold fast to them than to ephemeral prizes; better to aspire with a certain nobility and to win nothing than to succeed and later be ashamed.

Lonely road

Just before dawn, exhausted, grey from head to toe with the fine, powdery grime of the road, we pulled into a small town

where not a single light flickered, not a single person stirred.

Here Hagos beat unmercifully on a locked door until it was opened. Then we unloaded Ed's camera equipment and other luggage that we might need during the day and went inside while Tesfaye drove off to hide the Landcruiser somewhere.

We found ourselves in a half-covered, half-open courtyard where people lay sleeping on rudimentary beds. Some of these beds, fortunately, were empty and Ed, Hagos and I quickly acquired three of them. I then wrapped myself in a sheet, closed my eyes and fell instantly asleep.

A few hours later, when I awoke in full daylight, my two companions had disappeared and a dozen Tigrayans were sitting around staring at me with keen interest. I said good morning to them, got up with as much dignity as I could muster, washed my face in a dribble of water from a tap attached to a metal barrel, and then sat down to write my

notes.

Soon Ed and Hagos came back – they had been filming the distribution of some of the food brought by the convoy. I asked where we were.

‘This is Cherero,’ Hagos replied. ‘It’s an important town in this part of Tigray. Also it is the destination of the convoy. All the trucks have unloaded here.’

‘How far is it to Axum?’

‘One more night of driving. But it is somewhat unsafe for us to proceed alone. It may be advisable for us to wait here until another convoy assembles.’

I looked at the date indicator on my watch. It was Tuesday 15 January – just three days away from the start of *Timkat*.

‘Do you think we’ll have to wait long?’ I asked.

‘Two, three days maybe. Or maybe we will be lucky and have the chance to leave tonight.’

‘Why do you say that it’s unsafe for us to proceed on our own?’

‘Because the government sends saboteurs into Tigray from their garrison at Asmara. They send out small teams to ambush vehicles moving on the roads. A Landcruiser like ours with just a few people in it would make a good target for such an attack.’

‘What about the convoys? Aren’t they subject to attack too?’

‘No. Almost never. Too many lorries. Too many guards.’

The day passed long and slow, hot, boring and sticky. Then, as evening came down, Hagos, who had been out and about for several hours, announced that no convoy would be leaving that night. ‘I advise’, he said, ‘that we stay – at least until tomorrow.’

Seeing the look of horror that this remark had induced on

our faces he then added: ‘But of course, it is up to you.’

Ed and I had already made up our minds on this point, which we had discussed between ourselves at some length during the afternoon. We therefore told the TPLF official that we would like to press on – unless he thought it completely foolhardy for us to do so.

‘No. It is OK. I understand that you want to get to Axum before *Timkat*. The danger is not very great. But I will see if we can bring one other TPLF fighter with us in case there is any trouble.’

At dusk we set off again. On the front bench beside Hagos was the guard he had promised – a teenage boy with startlingly white teeth, an extravagant Afro, an AK47, and three or four magazines of spare ammunition. He was a cheerful sort of fellow who laughed a great deal and insisted on playing Tigrayan war songs at maximum volume on the

Landcruiser's stereo as we drove through the night. But I couldn't help feeling that all his energy and bravado would not be sufficient to keep the bullets at bay if anyone decided to shoot us up – from the cover, say, of that bush over there, or of that clump of trees, or from behind that boulder even.

I was amazed at how *different* it felt to be travelling alone like this, unescorted, with no great rumbling lorries in front of us and none behind. Before we had seemed part of some prodigious and invincible army relentlessly beating down the barriers of darkness, driving away the shadows with a barrage of light. Now we were small, vulnerable, forsaken. And as we wound our way amongst the withered trees of the mountain slopes I was conscious of the immensity of these wild lands and of their bleak and implacable hostility.

We climbed for several hours, the engine labouring under the stress, the outside air temperature dropping steadily.

Then suddenly we emerged at the top of a narrow pass to find armed men blocking our path.

I muttered some expletive but Hagos reassured me: ‘Nothing to worry about. There is a TPLF camp here, guarding the road. These are our people.’ Opening his door, he exchanged words and handshakes with the rebels who had now surrounded the Landcruiser. Then we were waved through an improvised barrier and emerged moments later on to a windswept plateau where campfires flickered amongst wooden huts.

We paused for half an hour to drink tea and then we were on the move again, edging forward through the lonely night. Behind us, one by one, the lights of the camp disappeared and were replaced by shadows.

Time passed. I dozed, then awoke again to find that we were skirting the lip of an immense valley: to our left the

mountainside, stony and close, to our right a plunging abyss defined by the road's ragged edge. And then, out of the inky blackness that filled the chasm's floor, a brilliant firefly soared up towards us, a speck of pure energy pulling behind it a ghostly, luminescent trail. In a fraction of a second this glowing apparition had reached us. It streaked directly across our path, narrowly missing the front windscreen of the car, and then extinguished itself against the embankment.

As this happened Tesfaye jammed on the brakes and switched off all the Landcruiser's lights. Meanwhile Hagos and the guard whom we had brought with us from Cherero leaped out and rushed to the rim of the precipice clutching their AK47s.

The two men, I thought, looked lithe and dangerous, businesslike and unafraid. They seemed to move in harmony together, as though they were completing some manoeuvre

for which they had been well trained.

‘What on earth’s going on?’ asked Ed, who had been awakened from a deep sleep by the dramatic, skidding stop of the vehicle.

‘I’m not sure,’ I replied, ‘but I rather think we’ve just been shot at.’

I was about to suggest that it might be in our interests to get out of the car when Hagos and his companion came running back towards us. They clambered up on to the front bench, slammed the door behind them and ordered Tesfaye to proceed.

‘I assume that was a tracer bullet we saw,’ I remarked a few moments later.

‘Yes,’ replied Hagos matter-of-factly. ‘Someone down in the valley fired off a few rounds at us.’

‘But there was only one.’

‘No, no. We only *saw* one. Several shots would have been fired – a short burst. The normal practice is to load a round or two of tracer at the top of each magazine to enable the gunner to correct his aim. The rest of the bullets are of the ordinary type.’

‘Charming,’ remarked Ed.

We drove on in silence for a while, then I asked Hagos: ‘Who do you think shot at us?’

‘It would have been government agents. As I told you, they are constantly sending such people into Tigray to cause trouble. At night they cannot bomb us from the air so they make use of these sabotage squads in order to disrupt the traffic moving on the roads. Sometimes they succeed …’

Another question had occurred to me: ‘Why didn’t they carry on firing? We were sitting ducks up there.’

‘Too dangerous for them. Since they missed us with the

first burst and since they were not very close to us, they would have been unwise to continue with the attack. There are a lot of TPLF fighters in this area. A prolonged exchange of fire would have attracted attention.'

'Oh … I see.'

I rested my head wearily against the side window of the Landcruiser and thought how easily life could be stolen by a mindless bullet and how fragile we all were beneath our bluster and conceit.

At around three that morning, picking up speed on a metalled road, we drove by a field in which a tank lay derelict, its turret blown askew, its gun-barrel drooping impotently. Then, to our left, I saw the hulking ruins of an ancient building bathed in starlight. I was overtaken by an acute, almost poignant, sense of *dejà vu* and I asked: 'Where are we?'

‘We are coming into Axum,’ answered Hagos. ‘We have just passed the Queen of Sheba’s palace.’

A few minutes later we entered the small town, turned right and left through the narrow streets, and then pulled to a halt in front of a walled enclosure draped with creeping vines and tropical flowers. While the others knocked on the gate to gain admission, I slipped unnoticed around the side of the Landcruiser, dropped to my knees and kissed the ground. It was, I knew, an extravagant and sentimental gesture. But somehow it felt right.

Strategy

In the morning I was awakened by bright sunlight streaming through the uncurtained window of the room that had been assigned to me. In the small hours, when we had arrived,

everything had been in darkness, for there was no electricity in Axum. But now, as I stepped outside, I could see that we were lodging in a pleasant little guest house built around a patch of green lawn.

I ambled over to a terrace where some chairs were arranged. There, in a corner, a kettle was boiling promisingly on a stove fashioned out of a large oil can. Nearby was a kitchen in which two women, whom I judged to be mother and daughter, were chopping vegetables.

I was greeted with smiles and was almost immediately provided with a cup of sweet, scented tea. Then I sat down and collected my thoughts while I waited for the others to wake up.

The date was now Wednesday 16 January 1991. During the night that had just passed, the UN deadline for the withdrawal of Iraqi troops from Kuwait had expired – and I

wondered, in a rather abstract way, whether World War III had broken out. Meanwhile, in just two days' time, the *Timkat* ceremonies were due to begin here in Axum and I needed to have a strategy worked out before then.

I found myself curiously reluctant to march straight round to the Saint Mary of Zion church and to the sanctuary chapel. Strangely, having come all this way, those few final steps seemed the hardest of all to take. This was partly natural diffidence, partly superstitious dread, and partly because I felt that an early visit to the church of Saint Mary of Zion would alert the priests to my presence and would probably ensure that the true Ark would *not* on this occasion be carried out in the *Timkat* processions. It therefore seemed logical that I should hold back and keep a low profile until the beginning of the ceremony. Then, in the scrum of wild dancing that I knew would occur, I might find some opportunity to get close

to the relic and to take a proper look at it.

There was, however, an argument against this strategy. Ever since my discussion in Jerusalem with the Falasha elder Raphael Hadane I had become aware that the real Ark might *never* be used in the *Timkat* processions – that a replica might be substituted for it while the genuine article remained safely inside the chapel. If this was so then clearly the sooner I introduced myself to the Axum priests the better. I would have nothing to gain by waiting and nothing to lose by being open and above board. Quite the contrary, in fact, because only by talking to the clergymen at great length would I have any chance of persuading them that I did not represent a threat, that I was sincere, and that I was a worthy candidate for admission into the presence of the Ark.

For these reasons, faced with irrevocable decisions that had to be made right away, I was in something of a quandary as I

sat drinking my tea on that morning of 16 January.

In a little while a bleary-eyed Ed appeared from his room, clutching a short-wave radio to his ear.

‘Has the war started?’ I shouted.

‘Well no, actually. It hasn’t. The deadline’s passed but there are no reports of any fighting at all. Now what about some tea? Or coffee? Coffee will do. And some breakfast. Is there any of that around?’

While Ed was being catered for, Hagos also arrived – though not from his room. He had obviously been into town already because, in tow behind him, was a venerable bearded old fellow in flowing vestments.

‘This is my father,’ explained the TPLF official, making polite introductions all round. ‘He is a priest at Saint Mary of Zion church. I told him about your interest in the Ark of the Covenant and he said that he would like to meet you.’

An honour and a burden

I had, of course, talked to Hagos about my quest on several occasions during our long journey from Khartoum. I had learnt before we set out that he was a native of Axum but it had not occurred to me for a moment that he might have any connections with the church, let alone that his father would actually turn out to be a priest. Perhaps if I had known that I would have been more guarded in my remarks – but then again perhaps not. I had liked Hagos from the beginning and had not wanted to keep anything from him.

The end result was that any element of surprise that I might have retained had been removed, not out of design or malice on anyone's part but as the result of a pure fluke. I decided, therefore, that there was no longer any point in attempting to be guarded or cloak-and-dagger about what I was here to do. Better by far to put all my cards on the table

and accept the consequences, whether positive or negative.

I had a long discussion with Hagos's father, who seemed intrigued by the notion that a foreigner should have come all this way in the hope of seeing the Ark of the Covenant.

'And will I see it?' I asked. 'During the *Timkat* ceremonies? Do they use the real Ark or do they use a replica?'

Hagos translated my question. There was then a pregnant pause which the old man eventually broke with this reply: 'On such matters I am not qualified to speak. You must talk to my superiors.'

'But you know the answer, don't you?'

'I am not qualified to speak. It is not my responsibility.'

'Whose responsibility is it?'

'First and foremost you must meet the *Nebura-ed*, the most senior of all the priests in Axum. Without his blessing you will be able to do nothing. If he grants his permission then

you must also talk with the guardian of the Ark …'

'I was here before,' I interrupted, 'in 1983, and I met the guardian then. Is he still alive do you know? Or has someone else taken over from him?'

'Unfortunately that one died, four years ago. He was very old. He named his successor to replace him and this new man is now at his post.'

'And he always stays at the chapel where the Ark is kept?'

'It is his burden that he may never leave the Ark. Do you know that his predecessor, the guardian whom you met, attempted to run away when he was told that he had been appointed?'

'No,' I replied, 'I didn't know that.'

'Yes. He fled outside Axum, into the mountains. Other monks were sent after him to catch him. When they brought him back he still wanted to escape. He had to be chained at

the chapel for many months before he fully accepted his responsibility.'

'Chained, you say?'

'Yes. Chained inside the chapel.'

'I'm surprised.'

'Why?'

'Because it sounds like he really didn't want the job. I would have thought it was a great honour to be appointed as guardian of the Ark.'

'An honour? Yes, certainly. But it is also a heavy burden. After he takes up his post the chosen monk has no life outside the Ark. He exists to serve it, to burn incense round about it, to be before it constantly.'

'And what would happen if it were ever taken out of the chapel – during *Timkat*, for example? Would the guardian go with it?'

‘He must stay close to it at all times. But you should speak to others about these matters. I am not qualified …’

I put several other close questions about the Ark, but all of them produced the same response from the old man – such matters were not his business, he couldn’t say, I would have to talk to someone more senior. Interestingly, however, he did tell me that government officials had come to Axum shortly before the town was captured by the TPLF and had attempted to remove the relic.

I asked: ‘How? I mean, what did they do? Did they try to go into the chapel?’

‘Not at first. They wanted to persuade us that the Ark should go with them to Addis Ababa. They said that there was fighting coming and that it would be safer there.’

‘And what happened?’

‘When they became forceful and aggressive we resisted

them. They called soldiers, but we resisted them. The whole town heard what they were trying to do and there were demonstrations in the streets. Eventually they returned to Addis Ababa empty-handed. Soon afterwards, thanks be to God, Axum was liberated.'

I was aware that the father of a guerilla fighter was likely to be biased in favour of the TPLF. Nevertheless I asked: 'Since the government forces left, have things improved here for the clergy, or have they got worse?'

'Definitely things are better. In fact the situation in the churches is very good. We go to the church to pray when we like – as much as we like, day, night, evening, whenever we wish. Before, under the government, due to the curfew that they had imposed, we were not allowed to go to the church at night, or to go home from the church at night. If we went out from the church, even for fresh air, they came and took

us to prison. But we don't have to fear now. We can sleep safe in our homes and go to church every day like normal people, and feel safe. We don't have to spend the night in the church for fear that we might be caught walking home at night. During the government's time we never felt relaxed when we attended services. There was always fear, not knowing what might happen to us or the church. Now we practise our faith in peace.'

Croix pattée

Hagos's father eventually left, promising that he would arrange a meeting for me with the *Nebura-ed*, the chief priest of the Saint Mary of Zion church. He did not advise that I should attempt to contact the guardian of the Ark before this meeting had taken place: 'That might cause some bad feeling.

Things should be done in the proper order.'

Although this strategy seemed to me to be full of potential pitfalls, I realized that I had little choice but to go along with it. I therefore decided, while waiting for an appointment with the *Nebura-ed*, that I would explore some of the archaeological sites which I had visited all too briefly in 1983 – and others that I had not been able to see at all.

I remembered that there was supposed to be an ancient carving of a lioness on a rock face near the quarries where Axum's famous stelae had been cut in pre-Christian times. That carving had been out of bounds in 1983 because it had been located beyond the area controlled by the military garrison. Now, however, it was accessible.

While Ed went off with another TPLF official to film various sequences for his Channel 4 news story, I persuaded Hagos to take me to the quarries in the Landcruiser. This was

a risky thing to do because of the danger of an air strike. However, we would be driving less than five kilometres and would be able to conceal the vehicle when we arrived.

We set off out of town past the so-called Queen of Sheba's palace and soon came to a rock-strewn hillside. We parked in a gully, covered the Landcruiser with its camouflage tarpaulin, and then began to hike up the scree.

'What do you think of my chances of persuading the priests to let me into the chapel to see the Ark?' I asked as we walked.

'Oh … they will not allow you to do that,' replied Hagos confidently. 'Your only opportunity will be during *Timkat*.'

'But do you think they really do bring the Ark out at *Timkat*? Or do you think they use a replica?'

A shrug: 'I don't know. During my childhood I believed, and all my friends believed, that it was the true Ark rather

than a replica which was carried at *Timkat*. We never questioned that fact. It was not even an issue for us. But now I am not so sure …'

'Why?'

'It does not seem logical.'

Hagos would be drawn no further on this subject and for the next fifteen minutes or so we climbed strenuously in complete silence. Then he pointed out a giant boulder across a ridge: 'Your lioness is there,' he said.

I had noticed that he had developed a slight limp. 'What happened to your leg?' I asked. 'Did you sprain it?'

'No. I was shot.'

'Oh. I see.'

'It happened a few years ago, in a battle with government forces. The bullet passed through my shin, shattering the bone. Since then I have not been fit enough to participate in

active service.’

We had come now to the boulder and Hagos led me round its side. There, although partially occluded by deep shadow, I could quite clearly make out the gigantic silhouette of a charging lioness carved in low relief. It was extensively eroded. Nevertheless it conveyed a lifelike sense of ferocity and sinuous grace.

I knew that Theodore Bent, a British traveller and amateur archaeologist who had visited Axum in the nineteenth century, had also seen this carving – which he had later described as ‘a very spirited work of art, measuring 10 ft. 8 in. from the nose to the tail. The running attitude is admirably given, and the sweep of the hind legs shows that the artist had thorough command of his subject.’ Bent had then added: ‘A few inches from the nose of the lioness is a circular disk with rays, probably intended to represent the

sun.’[1]

I now examined this ‘circular disk with rays’, which turned out to consist of two pairs of elliptical incisions cut into the bare rock. If these incisions had been arranged around a watch-face then the top pair would have pointed, respectively, to 10 o’clock and 2 o’clock and the bottom pair to 4 o’clock and 8 o’clock. I therefore found it easy to understand Bent’s interpretation of the device: at first glance it did indeed look like a series of spokes – or rays – emanating outwards from a disk-shaped centre.

It was far from being that, however. Indeed the ‘circular disk’ that the traveller had described was an illusion. If he had bothered to trace the *complete* shape defined by the spaces between the elliptical incisions he would have found that the result was not a representation of the sun at all but of a *croix pattée* with arms that widened out from the centre

point – in other words, a perfect Templar cross.

‘Hagos,’ I said, ‘am I seeing things or is that a cross?’

As I asked this question I ran my fingers around the outline that had immediately been so apparent to me.

‘It is a cross,’ affirmed the TPLF official.

‘But it shouldn’t be there. The lioness is definitely pre-Christian – so how come there’s this Christian symbol beside it?’

‘Who knows? Maybe someone added it later. There are other crosses, just like this one, at the site of King Kaleb’s palace.’

‘If you don’t mind,’ I said, ‘I think I would very much like to go and see them.’

The work of angels

I had visited Kaleb's palace in 1983 and I knew that the ruins dated to the sixth century AD, the early part of the Christian era in Axum. I remembered that it was a hill-top fortress with deep dungeons and chambers beneath.[2] I did not, however, remember seeing any crosses there.

Now, as we drove back into town, I looked forward impatiently to exploring the palace again. In 1983 the Templars had held no significance for me. My more recent research, however, had raised the possibility that a contingent of knights could have come from Jerusalem to Ethiopia in search of the Ark of the Covenant at the time of King Lalibela (AD 1185–1211) and could later have served as bearers for the Ark itself.[3] The reader will recall that I had found what looked like striking support for this theory in an eyewitness account given by the thirteenth-century Armenian geographer Abu Salih – an account that had spoken of the

Ark being carried in Axum by men who were ‘white and red in complexion with red hair’.[4]

If those men had indeed been Templars, as I very strongly suspected, then it was reasonable to suppose that they might have left some mementos of their order behind in Axum. It therefore seemed to me at least possible that the oddly out-of-place *croix pattée* on the rock beside the carved lioness could have been put there by a Templar artist.

This particular type of cross, as I knew very well, was not one that was common or popular in Ethiopia: indeed in all my years of travels in that country the only place in which I had ever seen one had been on the ceiling of the rock-hewn church of Beta Maryam in the town of Lalibela – a town that had been the capital of the very king who I believed had brought the Templars to Ethiopia in the first place.[5] Now I had found another *croix pattée* on the outskirts of Axum and,

if Hagos was right, I was about to see several more in the ruins of King Kaleb's palace – a structure that could well have been still standing and inhabited in the thirteenth century.

After driving past the grass area where the majority of Axum's great stelae were located, we skirted the huge and ancient reservoir known as the Mai Shum. In local tradition, I remembered, this was supposed to have been the Queen of Sheba's pleasure bath. Since the coming of Christianity, however, it had been used for the curious baptismal rituals associated with *Timkat*. Here, in two days' time, the Ark was supposed to be brought in procession at the start of the ceremonies that I had come to witness.

Leaving the Mai Shum behind us, we motored about half way up the steep and broken path leading to the site of King Kaleb's palace and completed the journey on foot after first camouflaging the car. Hagos then led me into the ruins

where he poked around for a while amongst the rubble before finally exclaiming in triumph: ‘Here! Over here! I think this is what you want to see.’

I hurried to join him and saw that he had retrieved a block of sand-coloured stone about two feet square and six inches thick. Out of it had been carved four elliptical holes of precisely the same shape and disposition as the elliptical incisions near the carving of the lioness. In this case, however, because the holes passed right through the block, there could be no ambiguity at all about the shape of the remaining stone: it formed another perfect Templar cross.

‘When I was a child,’ mused Hagos, ‘I and my friends used to play up here. In those days there were many blocks like this lying around. I expect that all the other ones must have been removed since then.’

‘Where would they have been taken?’

‘The townspeople constantly re-use the stones from the ruins to build or repair their own homes. So we’re lucky to have found this block intact … But there are other crosses, just the same shape as this one, in the cellars under the palace.’

We made our way down a flight of stairs into the dark dungeons that I had visited in 1983. Then, by flashlight, I had been shown a number of empty stone coffers which the Axumites believed had once contained great riches in gold and pearls. Now, producing a box of matches, Hagos showed me a Templar cross carved into the end of one of these coffers.

‘How did you know that was there?’ I asked in amazement.

‘Everyone in Axum knows. As I said, I used to play in these ruins when I was a boy.’

He then led me into the next chamber, struck a match, and

showed me two more Templar crosses – one, rather crudely formed, on the far wall and another, beautifully executed, high up on the longer side wall.

Until the flame guttered out I stood gazing up at these crosses lost in thought. I knew that I might never be able to prove my hypothesis to the complete satisfaction of archaeologists or historians, but I now felt certain in my own heart that the Templars had indeed been here. The *croix pattée* had been their characteristic emblem, worn on their shields and on their tunics. It was entirely in keeping with everything else that I had learnt about them that some of their number should have come down here, into the obscure darkness of these dungeons, to leave that emblem on the walls – as a kind of puzzle perhaps, or as a sign, for future generations to wonder over.

‘Are there any traditions’, I asked Hagos, ‘about who

carved these crosses here?'

'Some of the townspeople say that they were the work of angels,' replied the TPLF official, 'but of course that is nonsense.'

A bearer of bad news

I did not hear from Hagos's father until after night had fallen, and when I did the news was bad. He came round to the little guest house in which we were staying shortly after seven that evening to tell me that the *Nebura-ed* was out of town.

My first reaction, which I did not voice, was that it was extremely unlikely that the chief priest of the Saint Mary of Zion church would be absent at this time of year. With *Timkat* just around the corner, and many preparations to make, his presence would surely be required in Axum.

‘How unfortunate,’ I said. ‘Where’s he gone?’

‘He has gone to Asmara … for consultations.’

‘But Asmara is still in government hands. How can he go there?’

‘The *Nebura-ed* may go anywhere.’

‘And will he be back before *Timkat*?’

‘I am told that he will not return for several days. His deputy will stand in for him during the *Timkat* ceremonies.’

‘So what does this mean for my work? Will I be able to talk to the guardian of the Ark, for example? There are so many questions that I have to ask.’

‘Without the permission of the *Nebura-ed* you will be able to do nothing.’

Hagos’s father was clearly an innocent messenger, so I had no right or reason to feel furious with him. Nevertheless it seemed obvious that the information he had just delivered

was part of a strategy to prevent me from learning more about the Ark. Though they would probably be polite and friendly towards me as individuals, the plain fact was that the monks and priests of Axum would not co-operate with my investigation without the permission of the *Nebura-ed*. Sadly, however, the *Nebura-ed* was absent. Therefore I could not obtain his permission. Therefore I would not be able to find out anything of any significance from anyone; nor would I be able to do any of the things that I had come so many miles to do. In this classically Abyssinian fashion, I would be neutralized without anyone actually having to refuse me anything. The clergymen would not have to be boorish or rude; on the contrary they would only need to shrug and tell me with deep regret that this or that could not be done without the sanction of the *Nebura-ed*, and that – on this or that matter – they themselves were not qualified to speak.

‘Is there any way,’ I asked, ‘that we can get a message to the *Nebura-ed* – about my work here?’

‘While he is in Asmara?’ laughed Hagos’s father. ‘Impossible.’

‘OK then. What about the deputy chief priest? Can’t he give me the permission I need?’

‘I do not think so. To give you that permission he would first have to obtain the permission of the *Nebura-ed.*’

‘In other words he would have to get permission to give me permission?’

‘Exactly.’

‘But can’t I at least try? Can’t I even *meet* the deputy and explain to him why I’m here? Who knows? He might be willing to help me.’

‘Perhaps,’ said Hagos’s father. ‘At any rate I will talk to the deputy tonight and I will bring you his answer tomorrow.’

Sanctuary of the Ark

The next morning, Thursday 17 January 1991, we were all up and about before dawn. Ed had wanted to shoot some general views at sunrise and Hagos had suggested that the summit of one of the several stony hills behind the town would provide the best vantage point.

Accordingly, at four-thirty a.m. we rousted Tesfaye, our driver, out of the bed that he been sharing with a local prostitute virtually non-stop since our arrival. On the road before five, we shoved the aerial of Ed's short-wave radio out of the window. The reception was bad, fogged with static. Nevertheless we managed to unscramble enough of the broadcast to understand that war had finally broken out in the Gulf, that American bombers had flown hundreds of sorties against Baghdad during the night, and that massive devastation had been caused. Apparently the Iraqi airforce

had not managed to send up a single fighter in response.

‘Sounds like it’s all over,’ commented Ed with a certain amount of satisfaction.

‘I doubt that,’ said Hagos. ‘We will have to wait and see.’

We sat in silence for a while, listening to the continuing reports, as Tesfaye manoeuvred us up the steep track towards the summit we were heading for. The sky was still almost completely dark and he was perhaps dreaming of the humid pleasures he had so recently been enjoying; at any rate he managed to half roll the vehicle at one point and only just avoided driving us over the edge of a small cliff.

Ed, Hagos and I took this as our cue to get out. Leaving Tesfaye to deal with the camouflage tarpaulin we then walked the rest of the way to the summit.

It was a short hike through the litter of an old battlefield. ‘This was where the last part of the Ethiopian army garrison

held out when we took Axum from them,' explained Hagos. 'They were tough fighters, from the Seventeenth Division. We over-ran them in eight hours.'

All around us were smashed military lorries, burnt-out armoured personnel carriers and gutted tanks. And, as the sun began to come up, I noticed that huge amounts of munitions were still lying underfoot. Most of the debris consisted of spent shells and chunks of shrapnel. There were also several 81mm mortar bombs, rusty but unexploded, which nobody had bothered to remove.

Eventually we reached the summit, upon which perched the twisted and blackened wreckage of a barrack block. There beneath the crimson sky of morning, I stood and gazed gloomily down on the town of Axum.

Behind me was the devastated ruin of a building. Its corrugated aluminium roof, still partially intact, creaked and

groaned eerily in the cold dawn breeze. On the ground in front of me was a soldier's helmet, split across the brow by some anonymous projectile. Further off, in a crater, lay a soldier's rotting boot.

The light was stronger now and far below I could see the garden in the centre of Axum where the main collection of giant stelae stood. Beyond, across a deserted square, set back in a secluded compound, rose the battlements and towers of the great church of Saint Mary of Zion. And by the side of that imposing edifice, surrounded by barbed iron railings, sat a squat grey granite chapel, windowless and barred, with a dome of green copper. This was the sanctuary of the Ark, near and yet far away, approachable and yet unapproachable. Within it lay the answer to all my questions, proof or disproof of all my work. Accordingly I looked down at it with longing and respect, with hope and agitation, with

impatience but also with uncertainty.

Men of straw

We returned to the guest house for breakfast. And there we sat until mid-morning surrounded by a group of unusually sombre and pensive Tigrayans – all of whom had come to hear the news that boomed and crackled out of Ed's short-wave radio and that Hagos solemnly translated for them. Looking around at the faces, young and old, handsome and plain, I was struck by the poignancy of this intense interest in a distant war. Perhaps it provided a distraction from the home-grown conflict that had killed and maimed so many in this little town. Perhaps it arose from feelings of sympathy at the thought of the savage bombing that others were now enduring.

Taking in the nuances of this scene, I realized that such freedom of association would have been quite impossible for the browbeaten and terrorized townsfolk in the days when the Ethiopian government still ruled in Axum. And it seemed to me, though there was great poverty, though the schools were closed, though people could not move openly for fear of air strikes, though farmers could hardly plough their fields, and though famine threatened, that things were better here – far better – than they had been before.

Around eleven a.m., after Ed's filming schedule for the day had been worked out, Hagos and I walked into town in the direction of the main stelae park. At one point we passed a handpainted TPLF mural which depicted President Mengistu as a ravening demon with a blood-stained swastika on his cap and lines of armed soldiers marching out of his mouth. Half a dozen MiGs circled above his head and he was surrounded by

tanks and artillery. The caption proclaimed in Tigrigna: We will never kneel before the dictator Mengistu.'

We walked on through the pot-holed streets of Axum, past poor market stalls and empty shops, amongst the simple houses, encountering on our way a constant stream of pedestrians – monks and nuns, priests, urchins, dignified elders, peasants in from the countryside, townsfolk, a woman carrying a huge earthen pot of water, groups of teenage boys trying to look stylish like teenagers everywhere. And I thought: *a few years ago I would have been quite happy to stand by while the government took all these people away to resettlement camps.*

'Hagos,' I said, 'things are so different in Axum since you expelled the government troops. I can't quite put my finger on it, but the atmosphere's completely changed.'

'It is because no one is afraid any more,' the TPLF official

replied a moment later.

‘Not even of the bombing and the air raids?’

‘We fear those things, of course. But they are more of a nuisance than a terror – and we have found ways to avoid them. In the past, when the government was here, we could not avoid the cruelty of the garrisons, the tortures, the random arrests. That was the terror that oppressed us for so long. Yet when we confronted it, do you know what happened?’

‘No. Not exactly.’

‘We discovered that it had been spread by men of straw and that freedom had always been within our grasp.’

We had reached the garden of the stelae. As I walked amongst the great monoliths, I marvelled at the artistry and at the sheer skill of the forgotten culture that had conceived them. And I remembered that in 1983 the guardian monk

had told me that they had been raised up by the Ark – by ‘the Ark and the celestial fire’.

At the time I had not known what to make of the old man’s words: now, with all I had learned, I knew that he could have been telling the truth. In its history the sacred relic had worked many great miracles: the erection of a few hundred tons of stone would surely not have been beyond its powers.

Miracle made real

That afternoon at four Hagos’s father came to the guest house to report that the deputy chief priest would see us. He said that for reasons of protocol he could not accompany us there but gave us precise directions as to where we should go.

Hagos and I then walked over to the Saint Mary of Zion church and entered into a warren of small dwellings built

around the rear of the compound. Passing under a low arch we came to a gateway. We knocked and were admitted to a garden where, on a bench, sat an elderly man dressed in black robes.

When he saw us approaching he murmured a quiet command. Hagos turned to me and said: ‘You must stay here. I will talk on your behalf.’

An earnest conversation then ensued. Watching it from a distance I felt … impotent, paralysed, nullified, invalidated. I considered rushing forward and passionately pleading my case. But I knew that my entreaties, however heartfelt, would fall on ears tuned only to the rhythms of tradition.

Eventually Hagos came back. ‘I have told the deputy everything,’ he explained. ‘He says that he will not talk to you. He says that on a matter as important as the Ark only the *Nebura-ed* and the guardian monk are qualified to speak.’

‘And I assume that the *Nebura-ed* is still away?’

‘Still away. Yes. But I have good news. The deputy has accepted for you to talk to the guardian.’

A few minutes later, having followed a maze of dusty paths, we came to the Saint Mary of Zion church. Passing in front of it we arrived at the metal railings that surrounded the sanctuary chapel. I stood for a while, staring through these railings. I calculated that with an energetic climb and a short dash I could reach the locked door of the building in about ten seconds.

Half joking, I mentioned this idea to Hagos, who responded with a look of genuine horror.

‘Don’t think of it,’ he cautioned. He gestured back in the direction of Saint Mary of Zion where half a dozen tall young deacons were loitering. ‘As a foreigner you command great respect. But if you were to commit such sacrilege you would

certainly be killed.'

'Where do you suppose the guardian is?' I now asked.

'He is inside. He will join us when he is ready.'

We waited patiently until the sun was low in the sky. Then, as the darkness deepened, the guardian appeared. He was a tall, heavily built man, perhaps twenty years younger than his predecessor. Like his predecessor, his eyes were occluded with cataracts. Like his predecessor he wore thick robes redolent of incense.

He showed no inclination to invite us in but approached and shook hands with us through the railings.

I asked his name.

In a gravelly voice he replied simply: 'Gebra Mikail.'

'Please tell him', I said to Hagos, 'that my name is Graham Hancock and that I have spent the last two years studying the history and traditions of the Ark of the Covenant. Please tell

him that I have come all the way from England, a journey of more than seven thousand kilometres, in the hope that I will be allowed to see the Ark.'

Hagos relayed this message. When he had finished the guardian said: 'I know. I have been informed of this already.'

'Will you allow me to enter the chapel?' I asked.

Hagos translated the question. There was a long pause, and then the expected answer: 'No, I cannot do that.'

'But,' I protested lamely, 'I have come to see the Ark.'

'Then I regret that you have wasted your journey. Because you will not see it. You should have known this if, as you say, you have studied our traditions.'

'I knew it, and yet I hoped.'

'Many hope. But other than myself no one may visit the Holy Ark. Not even the *Nebura-ed*. Not even the Patriarch. It is forbidden.'

‘This is a great disappointment for me.’

‘There are worse things in life than disappointment.’

I asked: ‘Can you at least tell me what the Ark looks like? I think that I could go away content if you would tell me that.’

‘I believe that the Ark is well described in the Bible. You can read there.’

‘But I want you to tell me in your own words what it looks like. I mean the Ark that rests here in the sanctuary. Is it a box made of wood and gold? Does it have two winged figures on its lid?’

‘I will not speak about such matters …’

‘And how is it carried?’ I continued. ‘Is it carried on poles? Or in some other way? Is it heavy or light?’

‘I have said that I will not speak about such matters, and therefore I will not speak.’

‘And does it perform miracles?’ I persisted. ‘In the Bible the

Ark was described as performing many miracles. So here in Axum does it also perform miracles?'

'It performs miracles. And it is in itself … miracle. It is miracle made real. And that is all that I will say.'

With this the guardian thrust his hand through the bars again and clenched my own hand firmly for a moment as though in farewell.

'I have another question,' I said insistently. 'Just one more question …'

A faint, affirmative nod.

'Tomorrow evening', I continued, 'is the beginning of *Timkat*. Will the true Ark be brought out then, for the procession to the Mai Shum, or will a replica be used?'

As Hagos translated my words into Tigrigna the guardian listened, his face impassive. Finally he replied: 'I have already said enough. *Timkat* is a public ceremony. You may

attend it and see for yourself. If you have studied as you have claimed, even though it may only have been for two years, I think that you will be able to know the answer to your question.'

And with that he turned away and slipped into the shadows and was gone.

The secret behind the signs

The object that was carried to the Mai Shum reservoir when the *Timkat* ceremonies began late in the afternoon of Friday 18 January 1991 was a bulky rectangular chest over which was draped a thick blue cloth embroidered with an emblem of a dove. And I remembered that in Wolfram's *Parzival* the dove, too, had been the emblem of the Grail.[6] Yet I knew, beyond any shadow of a doubt, that what I was looking at

was neither Grail nor Ark. Rather it was in itself an emblem and a symbol, a token and a sign.

As the Falasha priest Raphael Hadane had warned me months before, the sacred relic kept in the sanctuary chapel remained there – jealously guarded in the Holy of Holies. What was brought out in public procession was therefore merely a replica of it – a replica, however, that was quite different in form from the familiar flat *tabotat* that I had seen paraded during the previous year's celebrations at Gondar, and that did indeed accord with the shape and dimensions of the biblical Ark.

How, then, can I be so sure that it was a replica? The answer is simple. Not for a single moment during the whole of the two-day ceremony did Gebra Mikail, the guardian monk, leave the sanctuary chapel. Late in the afternoon of the 18th, as the procession carrying the cloth-wrapped chest

moved away in the direction of the Mai Shum, I saw him sitting there behind the iron bars, leaning against the grey granite wall of the squat building, seemingly lost in contemplation. He did not even look up as the priests departed, and it was plain that the object which they bore aloft held no special importance for him.

Then, when they were gone, he disappeared inside the chapel. Moments later I heard his slow arrhythmic chant. And had I been permitted to move closer I knew that I would have recognized the sweet savour of frankincense.

For what was Gebra Mikail doing, there in the thick darkness, if not offering up a fragrance pleasing to the Lord before the Holy Ark of His Covenant? And why else should he, who had been selected from amongst all his brethren to fulfil a precious trust, have stayed closed within the sanctuary until morning, if the sacred and inviolable relic

that he had forfeited his own freedom to guard had not remained there with him?

In this way I believe at last that I did glimpse the secret behind the symbol, the glorious enigma proclaimed in so many wondrous signs – proclaimed and yet not revealed. For the Ethiopians know that if you want to hide a tree you must place it in a forest. And what else are the replicas that they venerate in twenty thousand churches if not a veritable forest of signs?

At the heart of that forest lies the Ark itself, the golden Ark that was built at the foot of Mount Sinai, that was carried through the wilderness and across the river Jordan, that brought victory to the Israelites in their struggle to win the Promised Land, that was taken up to Jerusalem by King David, and that – around 955 BC – was deposited by Solomon in the Holy of Holies of the First Temple.

From there, some three hundred years later, it was removed by faithful priests who sought to preserve it from pollution at the hands of the sinner Manasseh and who bore it away to safety on the far-off Egyptian island of Elephantine. There a new temple was built to house it, a temple in which it remained for two further centuries.

When the temple was destroyed, however, its restless wanderings resumed again and it was carried southward into Ethiopia, into the land shadowing with wings, into the land criss-crossed by rivers. Having come from one island it was taken to another – to green and verdant Tana Kirkos – where it was installed in a simple tabernacle and worshipped by simple folk. For the eight hundred years that followed it stood at the centre of a large and idiosyncratic Judaic cult, a cult whose members were the ancestors of all Ethiopian Jews today.

Then the Christians came, preaching a new religion, and – after converting the king – they were able to seize the Ark for themselves. They took it to Axum and placed it in the great church that they had built there, a church dedicated to Saint Mary the Mother of Christ.

Many more years then went by and – as the weary centuries passed – the memory of how the Ark had really come to Ethiopia grew blurred. Legends began to circulate to account for the now mysterious and inexplicable fact that a small city in the remote highlands of Tigray appeared to have been selected – presumably by God Himself – as the last resting place of the most precious and prestigious relic of Old Testament times. These legends were eventually codified and set down in writing in the form of the *Kebra Nagast* – a document containing so many errors, anachronisms and inconsistencies that later generations of scholars were never

able to see their way through to the single ancient and recondite truth concealed beneath the layers of myth and magic.

That truth, however, *was* recognized by the Knights Templar, who understood its earth-shaking power and who came to Ethiopia in pursuit of it. It was, moreover, expressed by Wolfram von Eschenbach in his story of *Parzival*, where the Holy Grail – 'the consummation of heart's desire' – served as an occult cryptogram for the Holy Ark of the Covenant.

In Wolfram's text the heathen Flegetanis was said to have penetrated the hidden mysteries of the constellations and to have declared in a reverential voice that there was indeed 'a thing called the Gral'. He declared also that this perfect thing, this spiritual thing, was guarded by a Christian progeny bred to a pure life. And he concluded his soothsaying with these words: 'Those humans who are

summoned to the Gral are ever worthy.'[7]

So too those humans who are summoned to the Ark – for Ark and Grail are one and the same. I, for my part, however, was never worthy enough. I knew it even as I traversed the waste land. I knew it as I approached the sanctuary chapel. I know it still. And yet … And yet … 'my heart is glad, and my very soul rejoices, and my flesh also shall rest in hope.'

Datta. Dayadhvam. Damyata.
Shantih shantih shantih

References

Chapter 1 Initiation

1 For example, see Julian Morgenstern, ‘The Book of the Covenant’, *Hebrew Union College Annual*, vol. V, 1928, reprinted by KTAV Publishing House Inc., New York, 1968, p. 118: ‘the Ark itself came in popular thought and speech to be identified with the deity; the Ark itself was to all extents and purposes the deity.’ The direct identification of the Ark with God is well illustrated in the following passage from Numbers 10:35: ‘And it came to pass, when the Ark set forward, that Moses said, Rise up, Lord, and let thine enemies be scattered and let them that hate thee flee before thee’ (King James Authorized Version). The Jerusalem Bible translation of the same verse, which makes use of Yahweh, the name of God,

reads: ‘And as the Ark set out, Moses would say, Arise, Yahweh, may your enemies be scattered and those who hate you run for their lives before you.’ *The Interpreter’s Dictionary of the Bible* comments: ‘The Ark is not only seen as the leader of Israel’s host, but is directly addressed as Yahweh. There is virtually an identification of Yahweh and the Ark … there is no doubt that the Ark was interpreted as the extension or embodiment of the presence of Yahweh’ (*The Interpreter’s Dictionary of the Bible: An Illustrated Encyclopaedia*, Abingdon Press, Nashville, 1962, pp. 222–3.

2 See Exodus 37:1, which gives the dimensions of the Ark as follows: ‘two cubits and a half was the length of it, and a cubit and a half the breadth of it, and a cubit and a half the height of it.’ The measurements in feet and inches are extrapolated from the ancient cubit, which

was eighteen inches. See Dr J. H. Hertz (ed.), *The Pentateuch and the Haftorahs*, Soncino Press, London, 1978, p. 327. The Jerusalem Bible, footnote (b), p. 87, concurs (*Jerusalem Bible*, Eyre & Spottiswoode, London, 1968).

3 Exodus 37:7–9.

4 1 Chronicles 28:2.

5 Richard Elliott Friedman, *Who Wrote the Bible*?, Jonathan Cape, London, 1988, p. 156.

6 *The Interpreter's Dictionary of the Bible*, op. cit., p. 222.

7 The phrase is taken from J. Theodore Bent's nineteenth-century book on Axum, *The Sacred City of the Ethiopians: Travel and Research in Abyssinia in 1893*, Longmans, Green, London, New York and Bombay, 1896.

8 Eritrea was in fact decolonized in 1952. For the next ten

years it was federated with Ethiopia but kept its own separate identity. In 1962, after what was widely believed to be a rigged referendum, the federal relationship was dissolved and Ethiopia took over full control of the territory, which thenceforward was governed directly from Addis Ababa. Haile Selassie argued that apart from the brief colonial interlude Eritrea had always been an integral part of Ethiopia and should remain so. Many Eritreans, however, felt differently.

9 G. W. B Huntingford (ed.), *The Periplus of the Eritrean Sea*, Hakluyt Society, London, 1980.

10 Reported in A. H. M. Jones and Elizabeth Monroe, *A History of Ethiopia*, Oxford University Press, 1955, pp. 32–3.

11 J. W. McCrindle (trans, and ed.), *The Christian Topography of Cosmos, an Egyptian Monk*, Hakluyt Society, London, 1898.

12 The Rufinius history of the conversion of Ethiopia to Christianity is reported at length in A. H. M Jones and Elizabeth Monroe, *A History of Ethiopia*, op. cit., pp. 26–7. See also Graham Hancock, Richard Pankhurst, Duncan Willetts, *Under Ethiopian Skies*, Editions HL, London and Nairobi, 1983, pp. 34–5.

13 Reported by Richard Pankhurst, writing in Hancock, Pankhurst and Willetts, *Under Ethiopian Skies*, op. cit.

14 For a full account of the findings of this dig see S.C. Munro-Hay, *Excavations at Axum: An Account of Research at the Ancient Ethiopian Capital directed in 1972–74 by the Late Dr Neville Chittick*, Royal Geographical Society,

London, 1989.

15 Another tradition says that the coffers are in fact *coffins* and that they once contained the bodies of Kaleb and Gebre-Maskal.

16 C. F. Beckingham and G. W. B Huntingford (eds), *The Prester John of the Indies: A True Relation of the Lands of Prester John, being the Narrative of the Portuguese Embassy to Ethiopia in 1520 written by Father Francisco Alvarez*, Cambridge, published for the Hakluyt Society at the University Press, 1961, vol. I, pp. 151–3.

17 Ibid., footnote 2, p. 151.

18 Ibid., pp. 145–8.

Chapter 2 Disenchantment

1 From Article II of the 1955 (revised) Constitution.

2 Aymro Wondemagegnehu and Joachim Motovu, *The Ethiopian Orthodox Church*, The Ethiopian Orthodox Mission, Addis Ababa, 1970, p. 48.

3 Ibid., p. 46.

4 Ibid., p. 152.

Chapter 3 The Grail Cipher

1 The book was published in 1990. Carol Beckwith, Angela Fisher, Graham Hancock, *African Ark: Peoples of the Horn*, Collins Harvill, London, 1990.

2 William Anderson, *The Rise of the Gothic*, Hutchinson, London, 1985, p. 34. And see in general pp. 33–7.

3 For a chronology see *Chartres: Guide of the Cathedral*, Editions Houvet-la-Crypte, Chartres, pp. 12–13.

4 John James, *Medieval France: A Guide to the Sacred Architecture of Medieval France*, Harrap Columbus, London, 1987, p. 71.

5 Malcolm Miller, *Chartres: The Cathedral and the Old Town*, Pitkin Pictorials, Norwich, UK, pp. 13 and 18. See also

Chartres: Guide of the Cathedral, op. cit., Foreword written by Etienne Houvet, custodian of the cathedral, p. 3.

6 *Chartres: Guide of the Cathedral*, op. cit., p. 53.

7 Sir E. A. Wallis Budge, *The Queen of Sheba and her Only Son Menelik: bang the 'Book of the Glory of Kings' (Kebra Nagast)*, Oxford University Press, 1932, p. 29. In a conversation with Solomon the Queen of Sheba is quoted as saying: 'From this moment I will not worship the sun, but will worship the creator of the sun, the God of Israel … because of this I have found favour with thee, and before the God of Israel, my Creator.'

8 1 Kings 10:1–13; 1 Chronicles 9:1–12.

9 For a good résumé of the scholarly conventional wisdom see H. St John Philby, *The Queen of Sheba*, Quartet

Books, London, 1981.

10 Malcolm Miller, *Chartres Cathedral: Illustrating the Medieval Stained Glass and Sculpture*, Pitkin Pictorials, Norwich, UK, p. 14. See also *Chartres: Guide of the Cathedral*, op. cit., pp. 37–47.

11 Genesis 14:18; Psalm 110:4.

12 Malcolm Miller, *Chartres Cathedral: Illustrating the Medieval Stained Glass and Sculpture*, op. cit., p. 20.

13 *Chartres: Guide of the Cathedral*, op. cit., p. 42.

14 See Exodus 37:1 and Chapter 1, note 2 above.

15 *Chartres: Guide of the Cathedral*, op. cit., p. 40.

16 Louis Charpentier, *The Mysteries of Chartres Cathedral*, RILKO, London, 1983 (originally published by Robert Laffont, Paris, 1966), p. 70.

17 *Chartres: Guide of the Cathedral*, op. cit., p. 37.

18 Louis Charpentier, *The Mysteries of Chartres Cathedral*, op. cit., p. 68, photographic section between pp. 32 and 33, and p. 113.

19 See, for example, Robert Graves, *The White Goddess*, Faber & Faber, London and Boston, 1988 edn, p. 161.

20 Hebrews 7.

21 Louis Charpentier, *The Mysteries of Chartres Cathedral*, op. cit., p. 113.

22 See D. D. R. Owen (trans.), *Chrétien de Troyes: Arthurian Romances*, J. M. Dent, London, 1988, Introduction, p. x.

23 Sir Thomas Malory, *Le Morte d'arthur*, Penguin Classics, London, 1988 – see half-tide page.

24 See Edwin H. Zeydel (trans. and ed.), *The Parzival of*

Wolfram von Eschenbach, University of North Carolina, Chapel Hill, 1951, p. 14. See also Wolfram von Eschenbach, *Parzival*, Penguin Classics, London, 1980, Introduction, p. 8.

25 Sir Thomas Malory, *Le Morte d'arthur*, op. cit., pp. 190 and 213.

26 Wolfram von Eschenbach, *Parzival*, op. cit., p. 239.

27 Lady Flavia Anderson, *The Ancient Secret: Fire from the Sun*, RILKO, London, 1987, p. 15.

28 Ibid.

29 Chrétien de Troyts, *Arthurian Romances*, op. cit., p. 417.

30 Ibid., pp. 417–18.

31 Ibid., p. 459.

32 Emma Jung and Marie-Louise von Franz, *The Grail*

Legend, Coventure, London, 1986, pp. 29 and 116. (Originally published by Walter Verlag, Olten, 1980, and in the USA by Sigo Press, Boston, 1970.) See also A. M. Hatto's Foreword to Wolfram's *Parzival*, op. cit., p. 7. Old Catalan *grazal* and Provençal *grasal* both also meant 'vessel, cup or bowl of wood, earthenware or metal'.

33 The word 'holy' appears in no less than thirty books of the Old Testament.

34 John Matthews, *The Grail: Quest for the Eternal*, Thames & Hudson, London, 1987, p. 12.

35 See F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, Oxford University Press, 1988, p. 162.

36 William Anderson, *The Rise of the Gothic*, op. cit., p. 65.

37 For a discussion see M. Kilian Hufgard, 'Saint Bernard

of Clairvaux', *Medieval Studies*, vol. II, Edwin Mellen Press, 1989, p. 143: 'It would be impossible to calculate the full extent of Bernard's influence on the iconography of the early Gothic cathedrals.'

38 See John Matthews, *The Grail: Quest for the Eternal*, op. cit., p. 12.

39 For a discussion see Bodo Mergell, *Der Graal in Wolframs Parsifal*, Halle, 1952. See also *Encyclopaedia Britannica,* Micropaedia, 15th edn, 1991, vol. V, pp. 408–9, which states that the *Queste del Saint Graal* 'was clearly influenced by the mystical teachings of Saint Bernard of Clairvaux'.

40 An excellent discussion of this symbolism is contained in John Matthews, *The Grail: Quest for the Eternal*, op. cit., pp. 14–17.

41 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* op. cit., p. 827.

42 John Matthews, *The Grail: Quest for the Eternal*, op. cit., p. 15.

43 Ibid., p. 15.

44 M. Kilian Hufgard, 'Saint Bernard of Clairvaux', op. cit., p. 141.

45 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* op. cit., pp. 42–3 and 87–8.

46 Helen Adolf, 'New Light on Oriental Sources for Wolfram's *Parzival* and other Grail Romances', *Publications of the Modern Languages Association of America,* vol. 62, March 1947, pp. 306–24.

47 Ibid., p. 306. 'I am indebted', wrote Adolf, 'to the

pioneers in this field, to Veselovskij and Singer, founders of the Ethiopian theory.' A. N. Veselovskij had written several works on the origin of the Grail legend which had been published in Russia between 1886 and 1904; S. Singer had been a German academic writing at about the same time. Details of their works are to be found in Adolf's Bibliography, p. 324.

48 Ibid., p. 306.

49 See, for example, Chrétien de Troyes, *Arthurian Romances,* op. cit., Introduction by D. D. R. Owen, p. ix–xviii. See also Jessie L. Weston, *From Ritual to Romance,* Cambridge University Press, 1920, particularly Chapter 6 where she specifically rejects the cauldrons of Celtic mythology as being the prototypes for the Grail, adding 'these special objects belong to another line of tradition altogether' (pp. 69–70). She also rejects the other

common derivation in the Cup of the Last Supper and the Lance of Longinus (p. 68). It was Jessie Weston's scholarly book that largely inspired T. S. Eliot's poem *The Waste Land*. See T. S. Eliot, *Selected Poems*, Faber & Faber, London, 1961, p. 68.

50 Wolfram von Eschenbach, *Parzival,* op. cit., p. 410.

51 Wolfram von Eschenbach, *Parzival,* op. cit. See in particular Foreword, pp. 7–8. A typical example of the close correspondences between the two texts is to be found in the near-identical descriptions of the Grail procession and of the subsequent disappearance of the Grail castle (Wolfram, pp. 123–31; Chrétien, pp. 415–22). The *Encyclopaedia Britannica*, 11th (1910) edn, confirms that *Parzival* was 'beyond all doubt' a rendering of a 'French original' (entry under 'Wolfram von Eschenbach', p. 775). See also Margaret Fitzgerald

Richey, *The Story of Parzival and the Grail, As Related by Wolfram von Eschenbach,* Basil Blackwell & Mott, Oxford, 1935, pp. 10–11: 'the external resemblances [between Wolfram's account and Chrétien's] are so close, not only in the ordering of the episodes but also in points of detail, that many scholars regard Chrétien's poem as the one specific basis of Wolfram's.'

52 Helen Adolf, 'New Light on Oriental Sources for Wolfram's *Parzival'*, op. cit., p. 307.

53 For confirmation of the use of stone 'white and beautiful like marble' in the most precious *tabots* see C. F. Beckingham and G.W.B. Huntingford (eds), *The Prester John of the Indies: A True Relation of the Lands of Prester John, being the Narrative of the Portuguese Embassy to Ethiopia in 1520 written by Father Francisco Alvarez,* Cambridge, published for the Hakluyt Society at the

University Press, 1961, vol. II, p. 543.

54 Helen Adolf, ‘New Light on Oriental Sources for Wolfram’s *Parzival’,* op. cit., p. 309.

55 Wolfram von Eschenbach, *Parzival,* op. cit., for example p. 240. Another even more specific example of the Grail’s legislative function occurs on p. 406.

56 Ibid., p. 246.

57 Judges 20:27–8.

58 1 Samuel 3:1–11.

59 1 Chronicles 28. Note in particular verse 19.

60 Wolfram von Eschenbach, *Parzival,* op. cit., p. 243.

61 Louis Ginzberg, *The Legends of the Jews*, The Jewish Publication Society of America, Philadelphia, 1911, vol. III, pp. 128–9.

62 Wolfram von Eschenbach, *Parzival,* op. cit., p. 232. Emphasis added.

63 *The Jewish Encyclopaedia*, Funk & Wagnells, New York, 1925, vol. II, p. 107. See also Menahem Haran, *Temples and Temple Service in Ancient Israel*, Clarendon Press, Oxford, 1978, reprinted by Eisenbrauns, Winona Lake, Indiana, 1985, p. 246. Haran states the scholarly view that 'the Ark held not the two tables of the law but … a meteorite from Mount Sinai'.

64 For a discussion see Emma Jung and Marie-Louise von Franz, *The Grail Legend,* op. cit., p. 148, footnote 28.

65 Jennifer Westwood (ed.), *The Atlas of Mysterious Places*, Guild Publishing, London, 1987, p. 74.

66 Ibid.

67 For a lengthy and very scholarly discussion of these

links see two papers by Julian Morgenstern: 'The Book of the Covenant', *Hebrew Union College Annual,* vol. V. 1928; and 'The Ark, the Ephod and the Tent of Meeting', *Hebrew Union College Annual,* vol. XVII, 1942–3; both reprinted by KTAV Publishing House, New York, 1968. In 'The Book of the Covenant', p. 118, Morgenstern writes: 'The most natural assumption is that the Ark contained a *betyl* … This conception was, of course, common amongst the primitive Semites, and the evidence is ample that it was current in ancient Israel.'

68 W. H. Roscher, *Lexikon der griechischen und römischen Mythologie,* 1884, cited in Emma Jung and Marie-Louise von Franz, *The Grail Legend,* op. cit., p. 148.

69 Wolfram von Eschenbach, *Parzival,* op. cit., p. 239.

70 See, for example, Emma Jung and Marie-Louise von

Franz, *The Grail Legend,* op. cit., pp. 149 and 157.

71 John Matthews, *The Grail: Quest for the Eternal,* op. cit., p. 17. Emma Jung and Marie-Louise von Franz also suggest a similar derivation: *The Grail Legend,* op. cit., p. 148.

72 Wolfram von Eschenbach, *Parzival,* op. cit., e.g. pp. 225, 240.

73 Ibid., pp. 126–7.

74 *Tan. Terumah,* XI; also, with slight variations, *Yoma* 39b. Cited in *The Jewish Encyclopaedia,* vol. II, op. cit., p. 105.

75 I Kings 8:12.

76 Zev Vilnay, *Legends of Jerusalem: The Sacred Land,* The Jewish Publication Society of America, Philadelphia, 1973, vol. I, pp. 11–12.

77 E.g., Exodus 40:20–38.

78 Chrétien de Troyes, *Arthurian Romances,* op. cit., p. 417.

79 Ibid.

80 Exodus 37:1–2.

81 Exodus 37:6.

82 Exodus 34:29–30. This is the Jerusalem Bible translation, direct from Hebrew, rather than through Greek in the case of the King James Authorized Version (*The Jerusalem Bible*, Eyre & Spottiswoode, London, 1968). The King James Version has the two verses as follows: 'And it came to pass, when Moses came down from Mount Sinai with the two tables of testimony in Moses' hand, when he came down from the mount, that Moses wist not that the skin of his face shone while he talked with him. And when Aaron and all the children of

Israel saw Moses, behold, the skin of his face shone; and they were afraid to come nigh him.'

83 Wolfram von Eschenbach, *Parzival,* op. cit., p. 125.

84 Ibid., p. 125.

85 Ibid., p. 125.

86 Ibid., pp. 125 and 401.

87 Ibid., p. 239.

88 Ibid., p. 389.

89 1 Chronicles 15:2. Similarly see Deuteronomy 10:8.

90 Sir E. A. Wallis Budge, *Kebra Nagast,* op. cit.

91 Ibid., p. 98.

92 Ibid., p. 79.

93 Ibid., p. 95.

94 In his translation, Sir E. A. Wallis Budge used a variety of different words and phrases to refer to the Ark of the Covenant – e.g. ‘Zion’, ‘Heavenly Zion’, ‘Tabernacle of His Law’, ‘Tabernacle of His Covenant’, ‘Tabernacle of the Law of God’. He makes clear at several points that these terms are all completely interchangeable and that they refer to exactly the same thing. For example, in his Introduction (p. xvii), he speaks of ‘the Tabernacle of the Law of God, i.e. the Ark of the Covenant’. Likewise, within the main body of the translation, there are several points, cross-referenced to biblical passages, at which this interchangeability of terms for the Ark (including ‘Zion’ and ‘Heavenly Zion’) is unequivocally spelled out – e.g. pp. 14–15 and 178. For purposes of clarity in my own text, and with apologies to Budge, I have adopted the policy of simplifying this confusing terminological

spaghetti. In all my quotations from the *Kebra Nagast* the familiar epithets ‘Ark of the Covenant’, ‘Ark of His Covenant’, ‘Ark of God’, ‘Ark of the Lord’, and just plain ‘Ark’ will be used.

95 Sir E. A. Wallis Budge, *Kebra Nagast,* op. cit., p. 169.

96 Ibid. pp. 94–5.

97 Wolfram von Eschenbach, *Parzival,* op. cit., p. 393.

Chapter 4 A Map to Hidden Treasure

1 Wolfram von Eschenbach, *Parzival,* Penguin Classics, London, 1980, p. 22.

2 Ibid., p. 17.

3 Ibid., p. 22.

4 See, for example, H. St John Philby, *The Queen of Sheba*, Quartet Books, London, 1981, pp. 58–60.

5 Wolfram von Eschenbach, *Parzival,* op. cit., p. 30.

6 Ibid., p. 27.

7 Ibid., p. 24.

8 Ibid., p. 34.

9 Ibid., p. 39.

10 Ibid.

11 Ibid.

12 Ibid., p. 56.

13 Ibid., p. 40.

14 Ibid., p. 66.

15 The complex tangle of relationships in *Parzival* requires some unravelling. On pp. 439–47 of the Penguin Classics edition, Professor A. T. Hatto provides a useful glossary of personal names. Feirefiz is described on p. 440 as 'Parzival's infidel half-brother; son of Gahmuret and his first wife Belacane'.

16 Sir E. A. Wallis Budge, *The Queen of Sheba and her Only Son Menelik: being the 'Book of the Glory of Kings' (Kebra Nagast)*, Oxford University Press, 1932, p. 35.

17 Ibid., p. 37.

18 Ibid., p. 38.

19 See Chapter 3, note 94 above.

20 Sir E. A. Wallis Budge, *Kebra Nagast,* op. cit., p. 102. For a further example of the emphasis on skin colour in the *Kebra Nagast* set p. 156.

21 Wolfram von Eschenbach, *Parzival,* op. cit., Professor A. T. Hatto's footnote to p. 40.

22 A. N. Veselovskij, 'On the Problem of the Origin of the Grail Legend', *Zurnal [Journal] of the [Russian] Ministry for the Enlightenment of the People,* Moscow, February 1904, p. 452. See also Helen Adolf, 'New Light on Oriental Sources for Wolfram's *Parzival* and other Grail Romances', *Publications of the Modern Languages Association of America,* vol. 62, March 1947, p. 310.

23 Sir E. A. Wallis Budge, *Kebra Nagast,* op. cit., p. 46.

24 Dr E. Littman (trans. and ed.), *The Legend of the Queen of Sheba in the Tradition of Axum*, Bibliotheca Abessinica (Studies Concerning the Languages, Literature and History of Abyssinia), vol. I, Princeton University Library, 1904, p. 9.

25 See Chapter 3 above.

26 Wolfram von Eschenbach, *Parzival,* op. cit., pp. 406–7.

27 Ibid., p. 408.

28 See, for example, C. F. Beckingham and G. W. B. Huntingford (eds), *The Prester John of the Indies: A True Relation of the Lands of Prester John, being the Narrative of the Portuguese Embassy to Ethiopia in 1520 written by Father Francisco Alvarez,* Cambridge, published for the Hakluyt Society at the University Press, 1961.

29 Wolfram von Eschenbach, *Parzival,* op. cit., p. 408.

30 Linda B. Parshall, *The Art of Narration in Wolfram's 'Parzival' and Albrecht's 'Jüngerer Titurel'*, Cambridge University Press, 1981, p. 1.

31 Henry and Mary Garland, *The Oxford Companion to German Literature,* Oxford University Press, 1986, p. 892.

32 Dorothy Reich, *A History of German Literature*, Blackwood, Edinburgh and London, 1970, p. 95.

33 Linda B. Parshall, *The Art of Narration in Wolfram's 'Parsival' and Albrecht's 'Jüngerer Titurel',* op. cit., p. 1.

34 No English translation exists of *Der Jüngerer Titurel.* That it depicts the last resting place of the Holy Grail as being 'the land of Prester John' is, however, not in dispute. Readers who wish to follow the matter further, and who read German, are referred to K. A. Hahn, *Titurel,* Leipsig,

1842. See also Werner Wolf and Kurt Nyholm's edited edition in several volumes in the Deutsche Texte des Mittelalters (DTM) series, originally published by the Academy of Sciences of the GDR, Berlin, 1955–84.

35 Wolfram von Eschenbach, *Parsival,* op. cit., p. 408.

36 Ibid., p. 408.

37 Ibid., p. 373.

38 Ibid., p. 377.

39 See *Encyclopaedia Britannica,* 11th (1910) end, p. 304. See also Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270,* Haile-Selassie I University, Addis Ababa, 1972, pp. 254–5.

40 Ibid.

41 Ibid.

42 Ibid., p. 261.

43 Ibid, and *Encyclopaedia Britannica,* op. cit., p. 305.

44 *Encyclopaedia Britannica,* op. cit., p 305

45 For a discussion see Irmgard Bidder, *Lalibela: the Monolothic Churches of Ethiopia*, M. DuMont, Cologne, p. 11.

46 See Chapter 1 above for full details.

47 Helen Adolf, '*New Light on Oriental Sources',* op. cit., p. 306.

48 E. A. Wallis Budge, *A History of Ethiopia,* London, 1928, p. 178.

49 Extract from *The Travels of Marco Polo,* quoted in Henry Sah, *A Voyage to Abyssinia* Frank Cass and Co., London, 1967, Appendix V.

50 *Encyclopaedia Britannica,* op. cit., p. 306.

51 C. F. Beckingham and G. W. B. Huntingford (eds), *The Prester John of the Indies,* op. cit., see p. 5.

52 Ibid., e.g. p. 296.

53 *Encyclopaedia Britannica,* op. cit., p. 306.

54 Ibid., p. 306.

55 Ibid., p. 306.

56 Ibid., p. 304.

57 Ibid., p. 306 (emphasis added).

58 David Buxton, *The Abyssinians*, Thames & Hudson, London, 1970, p. 45.

59 See Chapter 3 above.

60 John Matthews, *The Grail: Quest for the Eternal,* Thames & Hudson, London, 1987, p. 69.

61 *Encyclopaedia Britannica*, Ope cit., p. 591.

Chapter 5 White Knights, Dark Continent

1 Emma Jung and Marie-Louise von Franz, *The Grail Legend*, Coventure, London, 1986, pp. 10–11. (Originally published by Walter Verlag, Olten, 1980, and in the USA by Sigo Press, Boston, 1970.)

2 Wolfram von Eschenbach, *Parzival,* Penguin Classics, London, 1980, p. 232. See also p. 213.

3 Ibid., p. 410.

4 Ibid., p. 233.

5 Ibid., p. 214.

6 See Jessie L. Weston's translation of *Parzival,* David Nutt, London, 1894, 'Excursus A: Wolfram's Source', pp. 191–2. See also Emma Jung and Marie-Louise von Franz, *The*

Grail Legend, op. cit., p. 152.

7 Ibid.

8 See, for example, *The Hutchinson Encyclopedia*, Hutchinson, London, 1988, p. 481.

9 See in particular F. Kampers, *Das Lichtland der Seelen und der Heilige Gral*, Cologne, 1916, pp. 20–7. See also Emma Jung and Marie-Louise von Franz, *The Grail Legend,* op. cit., p. 152. That great authority on *Parzival,* Jessie Weston, concurs. See 'Excursus A' to her translation of *Parzival,* op. cit., particularly p. 191, last paragraph.

10 Emma Jung and Marie-Louise von Franz, *The Grail Legend,* op. cit., p. 152.

11 Wolfram von Eschenbach, *Parzival,* op. cit., for example pp. 228, 393 and 406.

12 Ibid., p. 241.

13 Ibid. Professor A. T. Hatto's 'Introduction to a Second Reading', p. 438.

14 Margaret Fitzgerald Richey, *The Story of Parzival and the Graal, As Related by Wolfram von Eschenbach,* Basil Blackwell & Mott, Oxford, 1935, p. 198.

15 Ibid., p. 211. See also p. 198: 'This identification with the Templars is very striking, and what else is told in connection in the text of *Parzival* agrees with the character of that Order.'

16 Louis Charpentier, *The Mysteries of Chartres Cathedral,* RILKO, London, 1983, p. 68.

17 As, for example, in Gaetan Delaforge, *The Templar Tradition in the Age of Aquarius,* Threshold Books, Vermont, 1987, p. 68.

18 The principal source for discussion of Wolfram's visit to

the Holy Land is Karl Bertau, *Deutsche Literatur im europäischen Mittelalter,* C. H. Beck, Munich, 1974.

19 1 Chronicles 28:2. The words are those of Solomon's father, King David, who had hoped to build the Temple for the Ark, but who had been instructed by God to leave this task to Solomon.

20 William of Tyre, *A History of Deeds done Beyond the Sea* (E. Babcock and A. C. Krey trans.), Octagon Books, New York, 1986, vol. I, pp. 524–5.

21 *Encyclopaedia Britannica*, 11th edn, 1910, p. 593.

22 Edward Burman, *The Templars: Knights of God,* Aquarian Press, Wellingborough, 1986, p. 21.

23 John J. Robinson, *Born in Blood,* Century, London, 1990, p. 66. Originally published in the USA in 1989 by M. Evans.

24 *Encyclopaedia Britannica*, Micropaedia, 15th edn, 1991, vol. III, p. 133. The city was sold to the King of France in 1286.

25 Edward Burman, *The Templars,* op. cit., p. 27. Saint Bernard's mother, Aleth, was André de Montbard's sister.

26 Interestingly, it is thought possible that Saint Bernard himself provided the model for Sir Galahad, the hero of the Cistercian *Queste del Saint Graal.* See Edward Burman, *The Templars,* op. cit. p. 30. See also *Encyclopaedia Britannica,* Micropaedia, 15th edn, 1991, vol. V, pp. 79–80 and 408–9.

27 John J. Robinson, *Born in Blood,* op. cit., p. 66.

28 Edward Burman, *The Templars,* op. cit., p. 21.

29 Chrétien de Troyes, *Arthurian Romances,* J. M. Dent, London, 1988, D. D. R. Owen's Introduction, p. ix.

30 Steven Runciman, *A History of the Crusades,* Penguin Books, London, 1987, vol. II, p. 157.

31 Ibid. See also *Encyclopaedia Britannica*, 11th edn, 1910, p. 591. Then, as now, the Mosque of Omar, better known as the Dome of the Rock, stood over the site of Solomon's Temple. See also F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* Oxford University Press, 1988, p. 1345.

32 Steven Runciman, *A History of the Crusades,* op. cit., vol. II, p. 157.

33 John G. Robinson, *Born in Blood,* op. cit., p. 66.

34 Steven Runciman, *A History of the Crusades,* op. cit., vol. II, p. 157

35 Meir Ben-Dov, *In the Shadow of the Temple: The Discovery of Ancient Jerusalem*, Harper & Row, New York, 1985 and

Keter Publishing House, Jerusalem, 1985, p. 347.

36 Ibid.

37 Zev Vilnay, *Legends of Jerusalem: The Sacred Land,* Jewish Publication Society of America, Philadelphia, vol. I, 1973, p. 11.

38 See Professor Richard Elliott Friedman, *Who Wrote the Bible?*, Jonathan Cape, London, 1988, Chapter 1, pp. 155–6, quoted in Chapter 1, p. 7 above.

39 Zev Vilnay, *Legends of Jerusalem,* op. cit., p. 11.

40 Ibid., pp. 123 and 324, note 136. See also N. A. Silberman, *Digging for God and Country,* Alfred A. Knopf, New York, 1982, p. 186. See also 'The Syriac Apocalypse of Baruch' in H. F. D. Sparks (ed.), *The Apocryphal Old Testament*, Clarendon Press, Oxford, 1989, pp. 843 and 844.

41 Malcolm Barber, ‘The Origins of the Order of the Temple’, *Studia Monastica,* vol. XII, 1970, pp. 221–2.

42 Jean Richard, *Le Royaume Latin de Jerusalem,* Presses Universitaires de France, Paris, 1953, p. 105.

43 Ibid.

44 Emma Jung and Marie-Louise von Franz, *The Grail Legend,* op. cit., pp. 131 and 126.

45 See the essay on relics in John James, *Medieval France: A Guide to the Sacred Architecture of Medieval France*, Harrap Columbus, London, 1987, pp. 36–40.

46 Ibid., p. 39.

47 Gaetan Delaforge, *The Templar Tradition in the Age of Aquarius,* op. cit., p. 68.

48 Ibid.

49 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* op. cit., p. 162.

50 Edward Burman, *The Templars,* op. cit., p. 23.

51 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* op. cit., pp. 162 and 1345.

52 Ibid., p. 162.

53 Ibid., pp. 162 and 1345. See also *Encyclopaedia Britannica,* 11th edn, 1910, p. 591.

54 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* op. cit., pp. 1345–6.

55 For a discussion of the financial activities of the Templars see Edward Burman, *The Templars,* op. cit., pp. 74–97.

56 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* op. cit., p. 162: 'In the disputed election which followed the death of Pope Honorious II in 1130 Bernard sided with Innocent II against the antipope, Anacletus, and was eventually successful in securing Innocent's victory.'

57 In the Papal Bull *Omne Datum Optimum.* See Edward Burman, *The Templars,* op. cit., p. 41.

58 S. Howarth, *The Knights Templar,* London, 1982, p. 194.

59 Ibid., pp. 193–5.

60 C. N. Johns, 'Excavations at Pilgrim's Castle, Atlit, 1932', *Quarterly of the Department of Antiquities in Palestine,* vol. III, no. 4, 1933, pp. 145–64.

61 John Wilkinson, Joyce Hill and W. F. Ryan (eds), *Jerusalem Pilgrimage 1099–1185*, Hakluyt Society,

London, 1988, p. 294.

62 Ibid.

63 Meir Ben-Dov, *In the Shadow of the Temple,* op. cit., p. 346.

64 John Wilkinson, Joyce Hill and W. F. Ryan (eds), *Jerusalem Pilgrimage 1099–1185,* op. cit., p. 294.

65 Louis Charpentier, *The Mysteries of Chartres Cathedral,* op. cit., p. 70.

66 For a general discussion see M. Kilian Hufgard, 'Saint Bernard of Clairvaux', *Medieval Studies,* vol. II, Edwin Mellen Press, 1989. See in particular pp. 140–1 and 143–50.

67 Quoted in Robert Lawlor, *Sacred Geometry: Philosophy and Practice,* Thames & Hudson, London, 1989, p. 10.

68 Ibid.

69 M. Kilian Hufgard, ‘Saint Bernard of Clairvaux’, op. cit., pp. 148–9.

70 Ibid., p. 139.

71 Ibid., p. 129.

72 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270,* Haile-Selassie I University, Addis Ababa, 1972, pp. 265–7.

73 *Encyclopaedia Britannica*, 11th edn, 1910, p. 306. See also A. H. M. Jones and Elizabeth Monroe, *A History of Ethiopia,* Clarendon Press, Oxford, 1966, p. 53: ‘There can be little doubt that the King, whose envoy had discourse with Master Philip, was the King of Abyssinia, who was the only Christian King in the Near East who could have sent such an embassy.’

74 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270,* op. cit., pp. 239–87.

75 See David Buxton, *The Abyssinians,* Thames & Hudson, London, 1970, pp. 44 ff. See also Jean Doresse, *Ancient Cities and Temples of Ethiopia*, Elek Books, London, 1959, p. 92, and Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270,* op. cit., pp. 225–32.

76 See Wolf Leslau, *Falasha Anthology*, Yale University Press, New Haven and London, 1979, Introduction, pp. xx–xi.

77 Richard Pankhurst, *An Introduction to the Economic History of Ethiopia from Early Times to 1800*, Lalibela House/Sidgwick & Jackson, London, 1961.

78 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270,* op. cit., p. 265.

79 A good summary of this legend is given by Professor Richard Pankhurst in Graham Hancock, Richard Pankhurst and Duncan Willetts, *Under Ethiopian Skies,* Editions HL, London and Nairobi, 1983, pp. 58–9. For further details, see J. Perruchon, *Vie de Lalibela, rot d'ethiopie,* Paris, 1892, and *Gedle Lalibela* (Amharic translation from *Ge'ez*), Haile-Selassie I University, Addis Ababa, 1959.

80 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270,* op. cit., see in particular pp. 265 and 266. Lalibela's sojourn in Jerusalem in also reported in Jean Doresse, *Ancient Cities and Temples of Ethiopia,* op. cit., p. 113.

81 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History,* op. cit., p. 265.

82 Ibid.

83 See David Buxton, *The Abyssinians,* op. cit., p. 44. See also Irmgard Bidder, *Lalibela: the Monolithic Churches of Ethiopia,* M. DuMont, Schauberg, Cologne, pp. 14 and 108.

84 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History,* op. cit., pp. 272–3. See also Jean Doresse, *Ancient Cities and Temples of Ethiopia,* op. cit., p. 113.

85 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History,* op. cit., p. 112.

86 Ibid., p. 262.

87 David Buxton, *The Abyssinians,* op. cit., p. 45.

88 A. H. M. Jones and Elizabeth Monroe, *A History of Ethiopia,* op. cit., p. 53. In October 1990 I visited the Ethiopian monastery on the roof of the Chapel of the

Invention of the Cross.

89 A good account of the restoration of the Solomonic dynasty is given in Richard Pankhurst, *An Introduction to the Economic History of Ethiopia,* op. cit., pp. 60–71.

90 *Encyclopaedia Britannica,* op. cit., p. 594.

91 For example see Helen Adolf, 'New Light on Oriental Sources for Wolfram's *Parzival* and Other Grail Romances', *Publications of the Modern Languages Association of America,* vol. 62, March 1947, p. 308.

92 An English translation of the letter is given in full in Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History,* op. cit., pp. 255–61.

93 Ibid.

94 Ibid.

95 Sir E. A. Wallis Budge (trans. and ed.), *The Bandlet of Righteousness: An Ethiopian Book of the Dead*, Luzac, London, 1929. See, for example, pp. 41 ff.

96 This conflict, and its implications, are discussed in Chapter 6 below.

97 Full text of the letter in Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History,* op. cit., pp. 255–61.

98 Ibid.

99 Irmgard Bidder, *Lalibela,* op. cit., p. 29.

100 Wolfram von Eschenbach, *Parzival,* op. cit., for example pp. 406, 393 and 241.

101 Ibid., p. 406.

102 Ibid., p. 251.

103 Ibid., p. 252.

104 Ibid., p. 252, footnote.

105 An independent state from AD 1056 until it passed to the Habsburgs in the thirteenth century, Styria was annexed by Hider in 1938 and is now an alpine province of south-east Austria (capital Graz). Slovenes are included amongst the inhabitants of the province – and Wolfram mentions Slovenes after referring to 'the Rohas'. This insertion of a deliberate ambiguity into his text, leaving room for two or more possible interpretations, is the sort of technique that Wolfram repeatedly employs in his encoding of vital information. In this way he veils the truth he wishes to convey in an alternative meaning that most will accept as the only possible meaning of his words.

106 For details of the Templar *croix pattée* see Andrea Hopkins, *Knights,* Collins & Brown, London, 1990, pp.

72–91.

107 UNESCO was involved in the restoration of some of the Lalibela churches in the 1960s and subsequently adopted them as a world heritage site. They are described as ‘A remarkable coupling of engineering and architecture and a unique artistic achievement.’ See *A Legacy for All: The World’s Major Natural, Cultural and Historic Sites*, UNESCO, Paris, 1982, p. 74.

108 See, for example, D. R. Buxton, ‘The Christian Antiquities of Northern Ethiopia’, *Archaeologica,* no. 92, 1947, p. 23.

109 C. F. Beckingham and G. W. B Huntingford (eds), *The Prester John of the Indies: A True Relation of the Lands of Prester John, being the Narrative of the Portuguese Embassy to Ethiopia in 1520 written by Father Francisco Alvarez,*

Cambridge, published for the Hakluyt Society at the University Press, 1961, vol. I. pp. 11–13.

110 Ibid., p. 223.

111 Ibid., p. 226.

112 Ibid., p. 227.

113 Wolfram von Eschenbach, *Parzival,* op. cit., p. 406.

114 Ibid., p. 406.

Chapter 6 Resolving Doubts

1 Le R. P. Dimotheos, *Deux ans de séjour en Abyssinie: ou vie morale, politique et religieuse des Abyssiniens,* Jerusalem, 1871, p. 137.

2 Ibid., p. 141.

3 Ibid., p. 141.

4 Ibid., p. 143.

5 As noted in Chapter 1 above, the sanctuary chapel was built by the late Emperor Haile Selassie in 1965.

6 Again, see Chapter 1 above.

7 Le R. P. Dimotheos, *Deux ans de séjour en Abyssinie,* op. cit., p. 141.

8 Ibid., p. 141.

9 Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270,* Haile-Selassie I University, Addis Ababa, 1972.

10 See Chapter 3 above.

11 Exodus 37:1–2.

12 B. T. Evetts (trans. and ed.), Abu Salih, *Churches and Monasteries of Egypt and some Neighbouring Countries*, Oxford, 1895.

13 Ibid., p. 287.

14 Ibid., p. 288.

15 Numbers 4:5–6.

16 For a short summary of the place of Amharic and other northern Ethiopic languages within the Semitic language group as a whole see Edward Ullendorff, *The Ethiopians:*

an Introduction to Country and People, Oxford University Press, London, 1973, Chapter 6, 'Languages', pp. 111 ff. Arabic is also a Semitic language, and Amharic has the second largest number of speakers of any Semitic language after Arabic.

17 See, for example, Julian Morgenstern, 'The Ark, the Ephod and the Tent of Meeting' in *Hebrew Union College Annual,* vol. XVII, 1942–3, KTAV Publishing House, New York, 1968, p. 249.

18 See for example Edward Ullendorff, 'Hebraic-Jewish Elements in Abyssinian (Monophysite) Christianity', *Journal of Semitic Studies,* vol. I, no. 3, 1956, p. 233, footnote 6. He says that *tobot* is 'derived from the Jewish Pal. Aramaic *tebuta* (*tebota*) which in turn is a derivation from Hebrew *tebah.*'

19 See Genesis 6:7 ff. The first reference to Noah's Ark as *tebah* comes in verse 14 of this chapter.

20 See Exodus 2:3. For confirmation that *tebah* is used in the Bible to refer to the Ark of Noah and also to Moses's Ark of bulrushes see Bruce Metzger, David Goldstein, John Ferguson (eds), *Great Events of Bible Times*: New Perspectives on the People, Places and History of the Biblical World, Guild Publishing, London, 1989, p. 12.

21 E. A. Wallis Budge, *The Queen of Sheba and her Only SonMenelik: being the 'Book of the Glory of Kings' (Kebra Nagast),* Oxford University Press, 1932, pp. 14–15.

22 Ibid., p. 14.

23 Edward Ullendorff, 'Hebraic-Jewish Elements in Abyssinian (Monophysite) Christianity', op. cit., p. 234. Ullendorff also advances the same argument in his

excellent *Ethiopia and the Bible: The Schweich Lectures 1967*, published for the British Academy by Oxford University Press, 1988, p. 84.

24 Edward Ullendorff, 'The Queen of Sheba in Ethiopian Tradition', in James B. Pritchard (ed.), *Solomon and Sheba*, Phaidon Press, London, 1974, p. 108.

25 *Kebra Nagast,* op. cit., Introduction, p. xlii.

26 Jean Doresse, *Ancient Cities and Temples of Ethiopia*, Elek Books, London, 1959, p. 21.

27 A. H. M. Jones and Elizabeth Monroe, *A History of Ethiopia,* Clarendon Press, Oxford, 1966, p. 16.

28 *Kebra Nagast,* op. cit., p. 29.

29 See Chapter 2 above.

30 Edward Ullendorff, *Ethiopia and the Bible,* op. cit., p. 18.

31 Ibid., pp. 117 and 17–21.

32 Ibid., pp. 16–17.

33 For an informative account of the negative impact of Christian missionary activity on Falasha culture, see David Kessler, The Falashas: *The Forgotten Jews of Ethiopia*, Schocken Books, New York, 1985.

34 Date from *The Jerusalem Bible*, Eyre & Spottiswoode, London, 1968, Chronological Table, p. 345.

35 J. M. Flad, *Falashas of Abyssinia,* London, 1869, p. 3.

36 For a good and up-to-date reference on Jewish festivals see Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, Jerusalem Publishing House, Jerusalem, 1989. For Hanukkah see p. 319.

37 Ibid., p. 576. See also J. S. Trimingham, *Islam in Ethiopia,* Frank Cass, London, 1965, pp. 20–1. This

scholarly and meticulously researched book, first published in 1952, contains a recommendable general round-up on Ethiopia, 'The Region and its Folk', pp. 1–31.

38 Henry A. Stern, *Wanderings among the Falashas in Abyssinia,* London, 1862. Reprinted by Frank Cass, London, 1968, p. 188.

39 Ibid., pp. 188–9.

40 In fact a few years later Stern was punished, on the order of the Ethiopian Emperor Tewodros who had him flogged within an inch of his life (though not because he had interfered with the Falashas). Stern was imprisoned, along with several other Europeans, and was eventually rescued by the Napier expedition to the citadel of Magdala which cost the British taxpayer several million

pounds.

41 Date from *The Jerusalem Bible,* op. cit., Chronological Table, p. 343.

42 Leviticus 17:8–9.

43 See Geoffrey Wigoder (ed.) *The Encyclopaedia of Judaism,* op. cit., p. 615.

44 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, Oxford University Press, 1988, p. 1221.

45 Ibid.

46 Ibid. See also Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism,* op. cit., pp. 618 and 693.

47 Ibid., pp. 481–3 and 695–6.

48 '[The Falashas] are … the only Jews in the world whose

worship is focussed upon sacrifice on the altar', J. S. Trimingham, *Islam in Ethiopia,* op. cit., p. 21.

49 See, for example, David Kessler, *The Falashas,* op. cit., p. 69 and Wolf Leslau, *Falasha Anthology*, Yale University Press, New Haven and London, 1979, pp. xxvi ff.

50 James Bruce, *Travels to Discover the Source of the Nile in the years 1768, 1769, 1770, 1771, 1772 and 1773,* Edinburgh, 1790, vol. I, p. 500.

51 For Bruce's views on this subject, see for example *Travels,* vol. II, p. 293 in which he describes Judaism as being the religion of Ethiopia 'long before Christianity'.

52 Before the sack of Magdala the manuscript was seen by Flad and translated for him by the Emperor's librarian. See J. M. Flad, *Falashas of Abyssinia,* op. cit., p. 4.

53 James Bruce, *Travels,* op. cit., vol. I, p. 485.

54 Ibid.

55 See, for example, A. H. M. Jones and Elizabeth Monroe, *A History of Ethiopia,* op. cit., p. 30. See also Jean Doresse, *Ancient Cities and Temples of Ethiopia,* op. cit., pp. 85–6.

56 *Kebra Nagast,* op. cit., pp. 225 ff.

57 For confirmation of the Falashas' own use of the term *Beta Israel,* see for example Wolf Leslau, *Falasha Anthology,* op. cit., Introduction, p. ix. The word 'Falasha' itself is derived from an ancient Ethiopic term meaning 'Immigrant' or 'Stranger'.

58 See note 94 to Chapter 3 above. For the use of 'Zion' as an epithet or synonym for the Ark of the Covenant in the *Kebra Nagast* see Sir E. A. Wallis Budge, *Kebra Nagast,* op. cit., for example, pp. 14–15 and 178–79. See also p. 223.

59 *Kebra Nagast,* op. cit., p. 227.

60 Ibid., pp. 226 and 227.

61 A full translation of Eldad's treatise is given in Elkan Adler, *Jewish Travellers,* London, 1930. See p. 11.

62 For a discussion, see *The Jewish Encyclopaedia*, Funk and Wagnalls Co., New York, 1925, vol. V, pp. 90–1. See also *The Universal Jewish Encyclopaedia,* vol. IV. p. 46.

63 Date from *The Jerusalem Bible,* op. cit., Chronological Table, p. 344.

64 Quoted in Elkan Adler, *Jewish Travellers,* op. cit., p. 13.

65 See for example David Kessler, *The Falashas,* op. cit., p. 68 ff. See also *Encyclopaedia Judaica*, vol. VI, which Kessler cites extensively. See also Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism,* op. cit., pp. 568–70, and Wolf Leslau, *Falasha Anthology,* op. cit.,

Introduction, p. xxiii.

66 Quoted in Elkan Adler, *Jewish Travellers,* op. cit., p. 12.

67 Ibid., p. 11.

68 Benjamin of Tudela's book of travels is translated in Elkan Adler, *Jewish Travellers,* op. cit., see p. 60.

69 R. L. Hess, 'An Outline of Falasha History', *Journal of Ethiopian Studies*, no. 6, Addis Ababa, 1967. See also Elkan Adler, *Jewish Travellers,* op. cit., p. 153.

70 S. Mendelssohn, *The Jews of Africa,* London, 1920.

71 Joseph Halévy, *La Guerre de Sarsa-Dengel contre les Falachas,* Paris, 1907.

72 Ibid. *Adonai* is, of course, one of the Hebrew names of God.

73 Ibid.

74 James Bruce, *Travels,* op. cit., vol. II, p. 293.

75 Ibid., vol. I, p. 486.

76 Joseph Halévy, *Travels in Abyssinia,* London, 1877.

77 Reported in David Kessler, *The Falashas,* op. cit. – to whose account I am greatly indebted.

78 *The Falashas: The Jews of Ethiopia*, Minority Rights Group Report no. 67, London, July 1985.

79 See Chapter 2 above.

80 Wolfram von Eschenbach, *Parzival,* Penguin Classics, London, 1980, p. 125.

Chapter 7 A Secret and Never-Ending Quest

1 For the adoption of Christianity by the Roman Empire under Constantine see, for example, J. M. Roberts, *The Pelican History of the World,* Penguin, London, 1981, pp. 281–4. For details on the civilization, power and prosperity of the Axumite Empire see Chapter 1 above.

2 Edward Gibbon, *The History of the Decline and Fall of the Roman Empire*, London, 1788.

3 See Chapter 4 above for a discussion.

4 See, for example, Edward Burman, *The Templars: Knights of God,* Aquarian Press, Wellingborough, 1986. See also Malcolm Barber, *The Trial of the Templars*, Cambridge University Press, 1989.

5 Malcolm Barber, *The Trial of the Templars,* op. cit., page 45.

6 See F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, Oxford University Press, 1988, pp. 117 and 119.

7 Ibid., p. 300.

8 Malcolm Barber, *The Trial of the Templars,* op. cit., p. 2.

9 Ibid., p. 3.

10 James Bruce, *Travels to Discover the Source of the Nile in the years 1768, 1769, 1770, 1771, 1772 and 1773,* Edinburgh, 1790, vol. I, p. 528.

11 Ibid., p. 530.

12 Ibid., p. 530. Interestingly, the notion that Ethiopia might take steps to interrupt the flow of the Nile to the

disadvantage of Egypt is still in circulation. In January 1990, for instance, aware of the close military and economic co-operation that was then being developed between Ethiopia and Israel, the Egyptian government officially warned Ethiopia and Israel not to 'tamper' with the Blue Nile. See *The Independent*, London, 6 January 1990, p. 16.

13 See Edward Burman, *The Templars,* op. cit., p. 123.

14 James Bruce, *Travels,* op. cit., vol. I, p. 530.

15 Ibid., p. 532.

16 For a discussion, see Chapter 5 above.

17 James Bruce, *Travels,* op. cit., vol. I, p. 528.

18 B. T. Evetts (trans. and ed.), Abu Salih, *Churches and Monasteries of Egypt and some Neighbouring Countries*, Oxford, 1895.

19 Ibid., p. 288. Emphasis added.

20 This rendering of ‘blond hair’ instead of ‘red hair’ is given in a direct translation from the original made by that great linguist Professor Edward Ullendorff in his *Ethiopia and the Bible: The Schweich Lectures 1967*, published for the British Academy by the Oxford University Press, 1988, p. 26.

21 Secrecy was enshrined within the rule that governed the Templar order, and betrayal of secrets was punishable by expulsion or worse. See for example Edward Burman, *The Templars,* op. cit., p. 46. See also John J. Robinson, *Born in Blood,* Century, London, 1990, p. 77.

22 O. G. S. Crawford (ed.), *Ethiopian Itineraries circa 1400–1524,* Cambridge University Press for the Hakluyt Society, 1958, p. 212.

23 Ibid., pp. 213 and 214.

24 Extract from Foresti's chronicle translated in Ibid., p. 215.

25 Ibid., p. 212.

26 Ibid., pp. 214–15.

27 The significance of the data is indeed that it confirms a meeting with Pope Clement V *somewhere* in 1306. That meeting may not necessarily have taken place in Avignon – which anyway was not part of France at that time and which did not become the official seat of the Pope until the year 1309. Between 1305 (the date of his coronation in Lyons) and March of 1309, when he officially took up residence in Avignon, Clement V had an itinerant existence, travelling around France and basing himself temporarily in various cities. It is possible

that he did meet with the envoys in Avignon: even though he had not yet established his official seat there in 1306 he could well have been temporarily in residence at the time. Alternatively the envoys may have travelled to meet him elsewhere in France. Foresti's abstract from the original chronicle was made nearly two hundred years after that chronicle was written. It may be surmised that the original did not even state where in France the meeting between the envoys and the Pope took place. If so Foresti may be excused for jumping to the conclusion that the venue was Avignon since that was the Pope's official seat for most of his period in office. Foresti may simply not have known that he did not move there officially until 1309. At any rate, establishing the precise venue of the meeting is a matter of minor significance. The point is that a meeting did

take place. For a discussion of these issues see E. Ullendorff and C. F. Beckingham, *The Hebrew Letters of Prester John,* Oxford University Press, 1982, pp. 6–7.

28 This is confirmed, for example, in Richard Pankhurst, *An Introduction to the Economic History of Ethiopia from Early Times to 1800,* Lalibela House/Sidgwick & Jackson, London, 1961, pp. 64–5. See also Sir E. A. Wallis Budge, *The Queen of Sheba and her Only Son Menelik: being the 'Book of the Glory of Kings' (Kebra Nagast)*, Oxford University Press, 1932, Introduction, p. xxxvii.

29 *Kebra Nagast,* op. cit., Introduction, pp xvi and xxli.

30 Mordechai Abir, *Ethiopia and the Red Sea*, Cass, London, 1980, p. 47.

31 Malcolm Barber, *The Trial of the Templars,* op. cit., pp. 47–8.

32 Ibid., p. 48.

33 Possibly as many as twenty-four knights. See Malcolm Barber, *The Trial of the Templars,* op. cit., p. 46.

34 See, for example, John J. Robinson, *Born in Blood,* op. cit., p. 138.

35 See Malcolm Barber, *The Trial of the Templars,* op. cit., pp. 193–220.

36 Ibid., p. 203.

37 See John J. Robinson, *Born in Blood,* op. cit., pp. 150–1.

38 Ibid., pp. 150–1.

39 Ibid., p. 153. See also O. A. Haye, *The Persecution of the Knights Templars*, Edinburgh, 1865, p. 114.

40 The Monymusk Reliquary, which may now be seen at the National Museum of Antiquities, Queen Street,

Edinburgh. It is said to have been modelled on the Temple of Solomon. For accounts of its role at Bannockburn see article by David Keys in *The Independent, London*, 29 July 1989, p. 38. See also *Robert the Bruce,* Pitkin Pictorials, London, 1978, p. 15.

41 The oldest Masonic documents, the *Old Charges,* date back no earlier than the mid-1300s, i.e. just after the suppression of the Templars. See, for example, Alexander Horne, *King Solomon's Temple in Masonic Tradition,* Aquarian Press, Wellingborough, 1972, p. 25.

42 Kenneth Mackenzie, *The Royal Masonic Cyclopaedia*, Aquarian Press, Wellingborough, 1987 (first published 1877). See pp. 84 and 420–1.

43 Ibid. See pp. 593–4 and 719–22.

44 Ibid., p. 325.

45 It was in 1717, after four centuries of complete secrecy, that Freemasonry first officially declared its existence.

46 Kenneth Mackenzie, *The Royal Masonic Cyclopaedia,* op. cit., pp. 719–22.

47 John J. Robinson, *Born in Blood,* op. cit.

48 Ibid., p. 137.

49 Hyginus Eugene Cardinale (ed.), *Orders of Knighthood, Awards and the Holy See*, Van Duren Publishers, 1985, p 27.

50 Ibid., pp. 27 and 207–8.

51 Ibid., p. 27. Papal confirmation took the form of the granting of a constitution: *Ad ea ex quibus.*

52 A small and intrepid group of Dominican friars went to Ethiopia as evangelists in the fourteenth century (and it

is a matter of some interest that they were sent by the same Pope, John XXII, who had granted confirmation to the Order of Christ). Somewhat later, in the fifteenth century, a Venetian painter named Nicholas Brancaleone was attached to the court of Emperor Baeda Mariam.

53 Zurara, quoted in Edgar Prestage, *The Portuguese Pioneers*, Adam & Charles Black, London, 1933, p. 158.

54 Ibid., p. 27.

55 Ibid., pp. 215–16.

56 Ibid., pp. 165–6.

57 Ibid., pp. 168–70.

58 Ibid., p. 170.

59 Ibid., p. 30.

60 Ibid., pp. 32 and 212–13.

61 Ibid., p. 27: ‘Henry was a crusader by disposition.’

62 Ibid., pp. 27 and 160.

63 Ibid., p. 29.

64 Wolfram von Eschenbach, *Parzival,* Penguin Classics, London, 1980, p. 232.

65 Edgar Prestage, *The Portuguese Pioneers,* op. cit., pp. 161 and 155.

66 Ibid., p. 154.

67 Ibid., p. 170.

68 Ibid.

69 Ibid.

70 Ibid.

71 *Encyclopaedia Britannica*, Micropaedia, 15th edn, 1991, vol. V, p. 100.

72 Edgar Prestage, *The Portuguese Pioneers,* op. cit., pp. 251–2.

73 Ibid., p. 257.

74 Ibid.

75 Ibid., see Chapter XII.

76 A useful account of Covilhan's journey to Ethiopia is provided by James Bruce in *Travels,* op. cit., vol. II, pp. 103–13. See also Edgar Prestage, *The Portuguese Pioneers,* op. cit., pp. 214–21.

77 Edgar Prestage, *The Portuguese Pioneers,* op. cit., p. 216.

78 A. H. M. Jones and Elizabeth Monroe, *A History of Ethiopia,* Clarendon Press, Oxford, 1966, p. 62.

79 C. F. Beckingham and G. W. B. Huntingford (eds), *The Prester John of the Indies: A True Relation of the Lands of*

Prester John, being the Narrative of the Portuguese Embassy to Ethiopia in 1520 written by Father Francisco Alvarez, Cambridge University Press for the Hakluyt Society, 1961, vol. I, p. 227.

80 Ibid., p. 226.

81 Captain Sir Richard F. Burton, *First Footsteps in East Africa,* London, 1894, reprinted Darf Publishers, London, 1986, vol. II, p. 5.

82 Ibid., p. 6. See also James Bruce, *Travels,* op. cit., vol. II, pp. 162–72, and A. H. M Jones and Elizabeth Monroe, *History of Ethiopia,* op. cit., pp. 82–3.

83 Jean Doresse, *Ancient Cities and Temples of Ethiopia,* Elek Books, London, 1959, p. 127.

84 James Bruce, *Travels,* op. cit., vol. II, p. 164.

85 A. H. M. Jones and Elizabeth Monroe, *History of*

Ethiopia, op.cit., p. 83.

86 James Bruce, *Travels,* op. cit., vol II, p. 173.

87 Quoted in Philip Carman, *The Lost Empire: the Story of the Jesuits in Ethiopia,* Sidgwick & Jackson, London, 1985, p. 8.

88 Edward Gibbon, *The History of the Decline and Fall of the Roman Empire,* op. cit.

89 The best overall account of Don Christopher's mission is given by Bruce, *Travels,* op. cit., vol. II, pp. 181 ff. Sir Richard Burton, *First Footsteps,* op. cit., pp. 6–11, also contains useful material. In addition, the campaign is well covered in all the general histories.

90 James Bruce, *Travels,* op. cit., vol. II, p. 185.

91 Reported in *The Itinerario of Jeronimo Lobo,* The Hakluyt Society, London, 1984, pp. 206–7.

92 James Bruce, *Travels,* op. cit., vol. II, pp. 187–8.

93 Ibid., pp. 190–1.

94 Ibid., p. 418.

95 A. H. M. Jones and Elizabeth Monroe, *History of Ethiopia,* op. cit., p. 108. Professor Edward Ullendorf, *The Ethiopians,* Oxford University Press, 1973, p. 76. The tradition of the Ark's sojourn on Lake Tana during and after the Gragn campaigns is well known in Ethiopia and was repeated to me in an interview with the Head of the Ethiopian Orthodox Church in Britain, Archpriest Solomon Gabre Selassie. The answers to the questions that I addressed to the archpriest were given to me in writing on 12 July 1989.

96 James Bruce, *Travels,* op. cit., vol. II, p. 409. Philip Carman, *The Lost Empire,* op. cit., p. 156.

97 James Bruce, *Travels,* op. cit., vol. I, pp. 481–2.

98 Professor Edward Ullendorff, 'James Bruce of Kinnaird', *Scottish Historical Review,* T. Nelson, Edinburgh, 1953, p. 129.

99 James Bruce, *Travels,* op. cit., vol. III, p. 598.

100 See, for example, discussion in Alan Moorehead, *The Blue Nile,* Penguin Books, London, 1984, pp. 34–5. See also Professor Edward Ullendorff, '*James Bruce of Kinnaird',* op. cit., pp. 133–6.

101 For Bruce's comments on Paez see, for example, *Travels,* op. cit., vol. II, pp. 244, 245, 266, 344, and vol. III, p. 617. Likewise an extensive treatise on Lobo's book (which had been translated into English by Dr Samuel Johnson in 1735 as *A Voyage to Abyssinia*) appears in vol. III of *Travels,* pp. 133–41. See also vol. III, p. 426 for a

further comment on Lobo.

102 Indeed he not only failed to give them credit for their achievements but also blatantly plagiarized their accounts. Here, for example, is Paez on his own visit to the twin springs which lie to the south of Lake Tana and which are regarded as the source of the Blue Nile: ‘On April 21 in the year 1618, being here together with the king and his army, I ascended the place and observed everything with great attention; I discovered first two round fountains, each about four palms in diameter, and saw, with the greatest delight, what neither Cyrus, the king of the Persians, nor Cambyses, nor Alexander the Great, nor the famous Julius Caesar, could ever discover. The two openings of these fountains have no issue in the plain at the top of the mountain, but flow from the foot of it. The second fountain lies abut a stone cast west

from the first' (quoted in Alan Moorehead, *The Blue Nile,* op. cit., p. 34).

Jeronimo Lobo reached the source some twelve years after Paez, around the year 1630. Here is his description: 'The source of this famous river, the object of so much searching but hidden for so long, is discovered … on a very gradual slope made by a certain mountain, seeming rather more like a rather irregular field than a mountain slope with quite an expanse of open, flat ground, where one can see for a fair distance. In this gradually rising plain, one discovers, in the driest part of summer, two circular pools or wells of water, which we can more appropriately call pits four spans in width and separated from each other by a distance of a stone's throw … The whole plain, especially the part near the said wells … is swollen and undermined with water … and the reason it

does not swallow up anyone who walks on it is that, since all the land is green and this part has many various grasses and herbs, the roots are so intertwined that … they can support anyone who walks on the field' (*The Itinerario of Jeronimo Lobo,* op. cit., p. 228).

Bruce's own 'discovery' was made on 4 November 1770 (a century and a half after Paez and Lobo) and was preceded by his guide pointing out to him a 'hillock of green sod … in [which] the two fountains of the Nile are to be found … Throwing off my shoes, I ran down the hill towards the little island of green sods, which was about two hundred yards distant; the whole side of the hill was thick grown over with flowers, the large bulbous roots of which appearing above the surface of the ground … occasioned two very severe falls before I reached the brink of the marsh; I after this came to the

island of green turf … and I stood in rapture over the principal fountain which rises in the middle of it.

‘It is easier to guess than to describe the situation of my mind at that moment – standing in that spot which had baffled the genius, industry, and inquiry of both ancients and moderns for the course of near three thousand years. Kings had attempted this discovery at the head of armies, and each expedition was distinguished from the last only by the difference of the numbers which had perished, and agreed alone in the disappointment which had uniformly, and without exception, followed them all … Though a mere private Briton I triumphed here, in my own mind, over kings and their armies’ (James Bruce, *Travels,* op. cit., vol. III, pp. 596–7).

As I read and re-read Bruce’s description I could not

help but feel that it was a kind of bastardized pastiche of the earlier experiences of Paez and Lobo (mixing the intertwined roots and swollen green marshes of the latter with the former's allusions to kings and conquerors). Moreover, as I have already stated, it cannot be denied that the Scottish traveller was thoroughly familiar with the writings of both his predecessors.

103 Alan Moorehead, *The Blue Nile,* op. cit., p. 49. Professor Edward Ullendorff, in his paper '*James Bruce of Kinnaird',* op. cit., describes Bruce as 'one of the great universal *savants* and men of action of the eighteenth century' and quotes the comment of the brothers d'abbadie, the French explorers, who said that they had consulted the *Travels* as a daily text-book and 'had never discovered a mis-statement, and hardly even an error of any considerable importance'.

104 James Bruce, *Travels,* op. cit., vol. III, p. 615.

105 Ibid., p. 131.

106 Reported in 'the Annals of Emperor Iyasu I' in I. Guidi (ed.), *Annales Iohannis I, Iyasu I, Bakaffa*, Paris, 1903, pp. 151–9. See also Jean Doresse, *Ancient Cities and Temples of Ethiopia,* op. cit., p. 180. See also R. Basset, 'Etudes sur l'histoire d'ethiopie', *Journal Asiatique*, Octobre-Novembre-Décembre 1881, p. 297.

107 I subsequently learned from Professor Richard Pankhurst (conversation in Addis Ababa Tuesday 4 December 1990) that Bruce had in fact *owned* copies of the two principal documents of Iyasu's life, the full chronicle and the abbreviated chronicle. Both these documents tell the story of the king going into the Holy of Holies and opening the Ark. In his *Travels* Bruce gave

a potted history of all the solar eclipses and comets that had been seen in Ethiopia during the few centuries prior to his own visit. In this potted history he drew extensively on Iyasu's abbreviated chronicle, which had mentioned a sighting of Richaud's Comet in 1689. As Pankhurst put it: 'The point is this. After describing the comet, the abbreviated chronicle goes on *in the very next paragraph* to report Iyasu's encounter with the Ark in 1690. So Bruce must have known about it. That being so, his suggestion that the relic had been destroyed by the Muslims in the early 1500s does indeed look suspicious.'

108 James Bruce, *Travels,* op. cit., vol. I, pp. 365–492.

109 Ibid., vol. I, pp. 471–3.

110 Ibid., vol. I, p. 472.

111 Ibid., vol. I, pp. 472–3. See also pp. 444–6.

112 Ibid., vol. I, p. 475.

113 Ibid., vol. I, p. 476.

114 Ibid., vol. I, pp. 471 and 478.

115 Ibid., vol. III, pp. 128–33. E.g.: ‘On the 18th, in the morning, we … came into the plain wherein stood Axum’ (p. 128); and: ‘On the 19th of January, I found the latitude of Axum to be 14° 6’ 36” north …’ (p. 133).

116 See Chapter 1 above.

117 The tradition of the original Ark being brought out only at *Timkat* is also confirmed, for example, in Ruth Plant, *Architecture of the Tigré, Ethiopia*, Ravens Educational and Development Services, Worcester, 1985, p. 206: ‘It is said that the original Ark of the Covenant, brought by Menelik I from Jerusalem, is held in the Treasury. Only one monk is allowed to see it, although

the casket is led in procession at the time of *Timkat*.'

118 Professor Edward Ullendorff, 'James Bruce of Kinnaird', op. cit., p. 141.

119 Ibid., p. 141.

120 Ibid., p. 141.

121 James Bruce, *Travels,* op. cit., vol. I, pp. 483–4.

122 Alan Moorehead, *The Blue Nile,* op. cit., p. 31.

123 *Kebra Nagast,* op. cit., Budge's Introduction, pp. xxxii and xxxiii.

124 Around the third to second centuries BC. See R. H. Charles (trans.), *The Book of Enoch*, Society for the Propagation of Christian Knowledge, London, 1987, Introduction, p. xiii.

125 H. F. D. Sparks (ed.). *The Apocryphal Old Testament*,

Clarendon Paperbacks, Oxford, 1989, p. 170: ‘Among the Ethiopic manuscripts that Bruce brought back were three containing what is now known as “1 Enoch” or “Ethiopian Enoch”. One of these manuscripts (now in the Bodleian Library at Oxford) contained “1 Enoch” only; the second (also in the Bodleian) contained “1 Enoch” followed by Job, Isaiah, “the Twelve”, Proverbs, Wisdom, Ecclesiastes, Canticles and Daniel; the third (now in the Bibliothèque Nationale in Paris) is a transcript of the second.’

126 Kenneth Mackenzie, *The Royal Masonic Cyclopaedia,* op. cit., pp. 200–2.

127 Ibid.

128 Major F. B. Head, *The Life of Bruce, the African Traveller*, London, 1836.

129 J. M. Reid, *Traveller Extraordinary: The Life of James Bruce of Kinnaird*, Eyre & Spottiswoode, London, 1968.

130 Elgin occupied the position of Grand Master Mason of Scotland, 1961–5. *Debretts Illustrated Peerage*, Macmillan, London, 1985, p. 412.

Chapter 8 Into Ethiopia

1 For further details see Chapter 12 below.

2 Richard Pankhurst, writing in Graham Hancock, Richard Pankhurst and Duncan Willetts, *Under Ethiopian Skies*, Editions HL, London and Nairobi, 1983, p. 24. See also Yuri Elets, *Emperor Menelik and his War with Italy*, Saint Petersburg, 1898.

Chapter 9 Sacred Lake

1 James Bruce, *Travels to Discover the Source of the Nile in the Years 1768, 176g, 1770, 1771, 1772 and 1773,* Edinburgh, 1790, vol. III, pp. 425–7.

2 E.g. Sergew Hable-Selassie, *Ancient and Medieval Ethiopian History to 1270*, Addis Ababa, 1972, p. 26.

3 See note 102 to Chapter 7 above.

4 See, for example, Alan Moorehead, *The Blue Nile,* Penguin Books, London, 1984, pp. 12–13 and 34. See also Major R. E. Cheesman, *Lake Tana and the Blue Nile: An Abyssinian Quest*, Macmillan, London, 1936.

5 Alan Moorehead, *The Blue Nile,* op. cit., p. 17.

6 For a further discussion see, for example, Lucie Lamy,

Egyptian Mysteries, Thames & Hudson, London, 1981, pp. 7–8.

7 H. L. Jones (ed.), *The Geography of Strabo,* Loeb Library, London, 1940.

8 E. L. Stevenson, *Geography of Claudius Ptolemy*, New York, 1932.

9 Aeschylus, Fragment 67, quoted in Jean Doresse, *Ancient Cities and Temples of Ethiopia*, Elek, London, 1959.

10 For a discussion see Edward Ullendorff, *Ethiopia and the Bible,* Oxford University Press, 1988, p. 2.

11 James Bruce, *Travels,* op. cit., vol. III, p. 387.

12 See for example Gaalyah Cornfeld, *Archaeology of the Bible Book by Book,* Harper & Row, San Francisco, 1976, pp. 25 and 118.

13 Leviticus 4:6.

14 Leviticus 5:9.

15 Herbert Danby DD (trans.), *The Mishnah,* Oxford University Press, 1933, pp. 166, 167 and 168.

16 Ibid., p. 168.

Chapter 10 Ghost in a Maze

1 E. A. Wallis Budge, *The Queen of Sheba and Her Only Son Menelik, bring the 'Book of the Glory of Kings' (Kebra Nagast)*, Oxford University Press, 1932, p. 145.

2 Which had supposedly taken place during the reign of Solomon in Jerusalem, i.e. in the tenth century BC. Axum was not founded until some eight hundred years later. See S. C. Munro-Hay, *Excavations at Axum,* British Institute in Eastern Africa, London, 1989, pp. 19–24.

3 E.g. the guardian monk. See Chapter 1 above. E. A. Wallis Budge also (wrongly) makes the assumption that Menelik's destination with the Ark was Axum. In the Introduction to his English translation of the *Kebra Nagast* he states: 'The Tabernacle of the Law of God, i.e.

the Ark of the Covenant, had been brought from Jerusalem to Axum by Menelik, Solomon's firstborn son, according to the Ethiopians.' Many Ethiopians do say this. It is significant, however, that the *Kebra Nagast* makes no such claim and only specifies 'Debra Makeda' as the place to which the Ark was brought. For the Budge passage quoted above see *Kebra Nagast,* op. cit., Introduction, p. xvii.

4 Major R. E. Cheesman, *Lake Tana and the Blue Nile: An Abyssinian Quest*, Frank Cass, London, 1968 (first published 1936), pp. 174–5 and 179. Cheesman, who visited Tana Kirkos in the early 1930s, was also told of the Ark traditions on the island (see pp. 174–80). This is the only other reference to these traditions that I have been able to find in the literature – a reflection of the extreme isolation of Tana Kirkos and of the fact that the

island has never been the subject of a proper scholarly or archaeological study.

5 Wolfram von Eschenbach, *Parzival,* Penguin Classics, London, 1980. See, for example, pp. 132 and 392–405.

6 Margaret Fitzgerald Richey, *The Story of Parzival and the Grail as Related by Wolfram von Eschenbach,* Basil Blackwell & Mott, Oxford, 1935, p. 198. Another interpretation of the meaning of *Munsalvaesche* is 'wild' or 'savage' mountain. See, for example, footnote by Professor A. T. Hatto to Wolfram von Eschenbach, *Parzival,* op. cit., p. 123.

7 Psalm 130:3–7. Emphasis added.

8 See for example *The New Collins Thesaurus,* Collins, London and Glasgow, 1984, p. 594.

9 Wolfram von Eschenbach, *Parzival,* op. cit., p. 121.

10 Ibid., pp. 120–1.

11 Confirmation of this fact is available in a wide range of sources, for example in the survey of Christian and Jewish Ethiopian customs provided by J. S. Trimingham in his authoritative *Islam in Ethiopia*, Frank Cass, London, 1976, p. 26. See also David Kessler, *The Falashas: The Forgotten Jews of Ethiopia*, Schocken Books, New York, 1985, p. 68.

12 Kings 9:26: 'And king Solomon made a navy of ships in Ezion-geber, which is beside Elath, on the shore of the Red sea, in the land of Edom.' For the identification of Ezion-geber with modern Elat see, for example, Gaalyah Cornfeld, *Archaeology of the Bible Book by Book,* Harper & Row, San Francisco, 1976, pp. 110–11.

13 *Kebra Nagast,* op. cit., pp. 77–8: 'And they loaded the

wagons, and the horses, and the mules in order to depart … And as for the wagons, no man hauled his wagon … and whether it was men, or horses, or mules, or loaded camels, each was raised above the ground to the height of a cubit; and all those who rode upon beasts were lifted up above their backs to the height of one span of a man, and all the various kinds of baggage which were loaded on the beasts, as well as those who were mounted on them, were raised up to the height of one span of a man, and the beasts were lifted up to the height of one span of a man. And everyone travelled in the wagons … like an eagle when his body glideth above the wind.'

14 See for example *Biblical Archaeology Review,* May/June 1988, p. 3i.

15 *Kebra Nagast,* op. cit., p. 78.

16 I later confirmed that the Takazze was frequently referred to by Ethiopians as 'the Nile' and vice versa – for example, in Axumite texts of the fourth century and many later documents. For a discussion see L. P. Kirwan, 'The Christian Topography and the Kingdom of Axum', *Geographical Journal,* London, vol. 138, part II, June 1972, pp. 172–3.

17 I later learned that this same route was much more than just plausible. Throughout recorded history it had been greatly favoured by merchants and by pilgrims travelling between Ethiopia and Jerusalem. See O. G. S Crawford, *Ethiopian Itineraries*, Cambridge University Press for the Hakluyt Society, London, 1958.

18 James Bruce, *Travels to Discover the Source of the Nile in the Years 1768, 1769, 1770, 1771, 1772 and 1773,* Edinburgh, 1790, vol. III, p. 252.

19 J. M. Flad, *Falashas of Abyssinia,* London, 1869, p. 10.

20 See, for example, *The Falashas: The Jews of Ethiopia*, Minority Rights Group Report Number 67, London, 1985. See also David Kessler, *The Falashas,* op. cit., p. 10, and Professor Edward Ullendorff, 'Hebraic-Jewish Elements in Abyssinian (Monophysite) Christianity', *Journal of Semitic Studies,* vol. I, no. 3, 1956, p. 254.

21 David Kessler, *The Falashas,* op. cit., p. 92.

22 In general for historical detail on trade and pilgrimage routes between Ethiopia and Jerusalem through Egypt and the Sudan see *Ethiopian Itineraries,* op. cit.

Chapter 11 And David danced before the Ark …

1 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* Oxford University Press, 1988, p. 465.

2 Ibid.

3 See, for example, Richard Pankhurst, *A Social History of Ethiopia*, Institute of Ethiopian Studies, Addis Ababa University, 1990, pp. 41 and 193.

4 The absolute non-recognition by Coptic Christians of the unique *tabot*/Ark traditions of Ethiopia was forcefully confirmed in June 1989 in an interview in London with Bishop Serabion and Father Bishoi Boushra of the Coptic Orthodox Church. The interview was carried out on my behalf by Caroline Lasko, a freelance researcher.

5 Aymro Wondmagegnehu and Joachim Motovu, *The Ethiopian Orthodox Church,* The Ethiopian Orthodox Mission, Addis Ababa, 1970, pp. 11–14.

6 *The Independent,* London, 20 November 1990, p. 11.

7 Ibid. See also *The Falashas: The Jews of Ethiopia* (Minority Rights Group Report No. 67), Minority Rights Group, London, 1985, pp. 12–13.

8 Frederick C. Gamst, *The Qemant: A Pagan-Hebraic Peasantry of Ethiopia*, Holt, Rinehart & Winston, New York, 1969.

9 Ibid., p. 4.

10 Ibid., p. 122.

11 Genesis 12:9–10.

12 Genesis 41:27.

13 Leviticus 11:3–4, 7: ‘Whatsoever parteth the hoof, and is cloven footed, and cheweth the cud, among the beasts, that shall ye eat. Nevertheless these shall ye not eat of them that chew the cud, or of them that divide the hoof: as the camel, because he cheweth the cud, but divideth not the hoof; he is unclean to you … And the swine, though he divide the hoof and be cloven footed, yet he cheweth not the cud; he is unclean to you.’

14 See Deuteronomy 14:21: ‘Ye shall not eat of anything that dieth of itself.’ See also Leviticus 17:13–14: ‘And whatsoever man there be of the children of Israel … which hunteth and catcheth any beast or fowl that may be eaten; he shall even pour out the blood thereof … For it is the life of all flesh; the blood of it is for the life thereof: therefore I said unto the children of Israel, Ye shall eat the blood of no manner of flesh: for

the life of all flesh is the blood thereof.'

15 Exodus 23: 19 and 34:26; Deuteronomy 14:21.

16 Compare Exodus 3 5:2–3: 'Six days shall work be done, but on the seventh day there shall be to you an holy day, a Sabbath of rest to the Lord: whosoever doeth work therein shall be put to death. Ye shall kindle no fire throughout your habitations upon the Sabbath day.'

17 Genesis 21:33.

18 In his *Archaeology of the Bible Book by Book* (Harper & Row, San Francisco, 1976, p. 65), Gaalyah Cornfeld puts it this way: 'Altars were the focal point of both high places, *bamoth,* and temples. The *bamoth* were essentially Canaanite sites of worship, but were acceptable also in earlier Israelite religion. They were usually open areas, with sacred trees and stone pillars, *masseboth,* associated

with the altar.'

19 See, for example, Judges 6:25, 1 Kings 16:33; 2 Kings 21:3; 2 Kings 23:15; Isaiah 27:9.

20 2 Kings 23:7.

21 *The Falashas: The Jews of Ethiopia* (Minority Rights Group Report No. 67), op. cit., p. 9.

22 Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, Jerusalem Publishing House, Jerusalem, 1989, p. 684.

23 Ibid., p. 548.

24 Leviticus 15:19: 'If a woman have an issue [of] blood … she shall be put apart seven days: and whosoever toucheth her shall be unclean until the even.'

25 'And in the eighth day the flesh of his foreskin shall be circumcised', Leviticus 12:3.

26 Leviticus 1:9.

27 See Professor Edward Ullendorff, ‘Hebraic-Jewish Elements in Abyssinian (Monophysite) Christianity’, *Journal of Semitic Studies*, vol. I, no. 3, London, 1956, pp. 249–50. Ullendorff states: ‘The date of circumcision on the eighth day is shared … by Jews and Ethiopians only. This is the more remarkable because members of the Coptic Church in Egypt [which was responsible for Ethiopia’s conversion] are circumcised at an age between six and eight years, and Gallas, Muslims and other influences in Ethiopia, with widely varying dates, would all combine to shake the Ethiopian confidence in the eighth day. Yet this date has been steadfastly maintained, no doubt under the influence of the Pentateuchal injunction … I have no doubt that the maintenance of circumcision among Abyssinians is part

of those elements of Hebraic-Jewish lore which have been so tenaciously preserved in that part of Africa.'

28 Ibid., pp. 243–4.

29 Ibid., pp. 245–6. See also Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism,* op. cit., pp. 192–4 and 604–6.

30 Professor Edward Ullendorff, '*Hebraic-Jewish Elements',* op. cit., pp. 242–3 and 247, note 3.

31 See in particular Exodus 19:15 and Leviticus 20:18.

32 Genesis 32:32: 'Therefore the children of Israel eat not of the sinew which shrank, which is upon the hollow of the thigh.'

33 Professor Edward Ullendorff, 'Hebraic-Jewish Elements' op. cit., p. 242.

34 Ibid., p. 236. I am greatly indebted to Professor

Ullendorff's paper for alerting me to these correspondences.

35 Exodus 28:4.

36 Ibid.

37 Ibid. See also Exodus 28:17–21.

38 Archbishop David Matthew, *Ethiopia,* London, 1947, p. 12.

39 Professor Edward Ullendorff, 'Hebraic-Jewish Elements', op. cit., p. 235.

40 Ibid., pp. 235–6.

41 This also was the view of the Scottish traveller James Bruce, who argued that Frumentius and other Christian missionaries who came to Ethiopia in the fourth century AD, 'finding Jewish traditions confirmed in the country,

chose to respect them rather than refute them. Circumcision, the doctrine of clean and unclean meats, and many other Jewish rites and ceremonies are therefore part of the religion of the Abyssinians at this day.' James Bruce, *Travels to Discover the Source of the Nile in the Years 1768, 1769, 1770, 1771, 1772, and 1773,* 3rd edn, Edinburgh, 1813, vol. III, p. 13.

42 Professor Edward Ullendorff, 'Hebraic-Jewish Elements', op. cit., p. 227 (emphasis added).

43 Ibid., p. 251.

44 Leviticus 16:2–13.

45 Leviticus 16:13.

46 Professor Edward Ullendorff, 'Hebraic-Jewish Elements', op. cit., p. 238, quoting Isenberg's *Dictionary of the Amharic Language,* London, 1841, p. 112.

47 The *begegna* is a hand-held, ten-stringed wooden harp, today found only in Ethiopia and said to be descended from the biblical Harp of David. See Tesfaye Lemma, *Ethiopian Musical Instruments,* Addis Ababa, 1975, p. 10.

48 2 Samuel 6:5–16.

49 Wolfram von Eschenbach, *Parzival,* Penguin Classics, London, 1980, p. 121.

50 And throughout the Pharaonic period. See Adolf Erman, *Life in Ancient Egypt*, Dover Publications, New York, 1971, pp. 279, 296, 390.

51 II Chronicles 5:12–13. See also 1 Kings 8:11.

52 II Chronicles 6:41 (Jerusalem Bible translation, Eyre & Spottiswoode, London, 1968, p. 464).

53 *Sir Gawain and the Green Knight*, translated by J. R. R. Tolkien and edited by Christopher Tolkien, Unwin

Paperbacks, London, 1988, pp. 26 and 21.

Chapter 12 Magic … or Method?

1 Date from *The Jerusalem Bible*, Eyre & Spottiswoode, London, 1968, ‘Chronological Table’, p. 343.

2 These dimensions in feet and inches are extrapolated from the ancient cubit which measured approximately eighteen inches. See Dr J. H. Hertz (ed.), *The Pentateuch and the Haftorahs,* Soncino Press, London, 1978, p. 327. The Jerusalem Bible, footnote (b), p. 87, concurs.

3 The translation given here is from the Jerusalem Bible. The King James Authorized Version states ‘corners’ instead of ‘supports’ in Exodus 25:12.

4 Exodus 25:10–22.

5 Exodus 31:2–4.

6 Exodus 37:1–9.

7 ‘I came down from the mountain and put the tablets in the Ark’, Deuteronomy 10:5, supposedly quoting Moses’s own words. See also Exodus 40:20, ‘He [Moses] took the Testimony and placed it inside the Ark. He set the shafts to the Ark and placed the throne of mercy on it.’

8 Exodus 40:21: ‘He [Moses] brought the Ark into the Tabernacle and put the screening veil in place; thus he screened the Ark of Yahweh, as Yahweh had directed Moses.’

9 Leviticus 10:1.

10 Ibid.

11 Leviticus 10:2. The full passage reads: ‘And there went out fire from the Lord and devoured them and they died there before the Lord’ (King James Authorized Version).

The Jerusalem Bible translation of the same, which makes use of ‘Yahweh’ (YHWH), the mystical name of God, reads as follows: ‘Then from Yahweh’s presence a flame leaped out and consumed them and they perished in the presence of Yahweh.’ It is important to stress that in this and many other similar contexts the Bible is actually and quite explicitly referring to the Ark when it speaks of ‘the Lord’ and/or ‘before the Lord’, or of ‘Yahweh’ and/or ‘in the presence of Yahweh’. This is best illustrated by the following passage from Numbers 10:35: ‘And it came to pass, when the Ark set forward, that Moses said, Rise up, Lord, and let thine enemies be scattered and let them that hate thee fall before thee’ (King James Authorized Version). The Jerusalem Bible translation of the same verse reads: ‘And as the Ark set out, Moses would say, Arise, Yahweh, may your enemies

be scattered and those who hate you run for their lives before you.' *The Interpreter's Dictionary of the Bible* comments: 'The Ark is not only seen as the leader of Israel's host, but is directly addressed as Yahweh. There is virtually an identification of Yahweh and the Ark … there is no doubt that the Ark was interpreted as the extension or embodiment of the presence of Yahweh.' *The Interpreter's Dictionary of the Bible: An Illustrated Encyclopaedia*, Abingdon Press, Nashville, 1962, pp. 222–3.

12 Leviticus 16:1–2, amalgam of King James Authorized Version and Jerusalem Bible translations.

13 Louis Ginzberg, *Legends of the Jews,* Jewish Publication Society of America, Philadelphia, 1911, vol. III, p. 210.

14 Ibid. Compare Exodus 40:35.

15 The Ark was installed in the Tabernacle on the first day of the first month of the second year after the Israelites had fled Egypt (Exodus 40:17). It was on the eighth day of the same month that the priests were invested and the deaths of Nadab and Abihu occurred (Leviticus 9:1 *et seq.*). The entry of Moses into the Holy of Holies to which I am referring here took place soon after, and indeed in the same month, since this entry is described in Chapter 7 of the book of Numbers and since Chapter 9 of the same book is still set 'in the first month of the second year' – clearly an eventful period (Numbers 9:1).

16 Numbers 7:89.

17 Louis Ginzberg, *Legends of the Jews,* op. cit., vol. III, p. 210.

18 Ibid., vol. III, p. 157. See also *The Jewish Encyclopaedia*,

Funk & Wagnells, New York, 1925, vol. II, p. 105.

19 Numbers 10:33, 35–6, Jerusalem Bible translation.

20 Louis Ginzberg, *Legends of the Jews,* op. cit., vol. III, p. 228.

21 Julian Morgenstern, 'The Book of the Covenant', in *Hebrew Union College Annual*, vol. V, 1928, reprinted by KTAV Publishing House, New York, 1968, p. 20, footnote 25. See also *The Jewish Encyclopaedia,* op. cit., vol. II, p. 105.

22 E.g. during the crossing of the Jordan. See *The Jewish Encyclopaedia,* op. cit., vol. II, p. 105.

23 Ibid. And see also Louis Ginzberg, *Legends of the Jews,* op. cit., vol. III, p. 194.

24 Louis Ginzberg, *Legends of the Jews,* op. cit., vol. III, p. 395. Another legend, supported by Midrashic

commentaries, says that during the wilderness wanderings: ‘The Ark gave the signal for breaking camp by soaring high and then swiftly moving before the camp at a distance of three days’ march’ (Ibid., vol. III, p. 243).

25 Julian Morgenstern, ‘The Book of the Covenant’, op. cit., pp. 27–8: ‘The oldest Biblical references to the Ark agree absolutely in representing it as discharging two specific functions, that of choosing the way it wished to go, and that of going into battle with the army of Israel and giving it victory over its enemies … These two important functions the Ark was able to discharge, all the evidence indicates, because of a *positive divine power resident in it*. And all these earliest sources agree in identifying this divine power with Yahweh’ (emphasis added). For further corroboration of the frequency with which the Ark was taken into battle see Louis Ginzberg,

Legends of the Jews, op. cit., vol. III, pp. 284 and 409; vol. IV, p. 143.

26 *The Jewish Encyclopaedia,* op. cit., vol. II, p. 106.

27 Numbers 14:44–5 (amalgam of King James Authorized Version and Jerusalem Bible translations).

28 Exodus 16:35. There has been a great deal of scholarly debate about whether the Israelites really did spend forty years in the desert (making Moses approximately 120 years old when the wanderings ended) or whether the period was shorter than this. Likewise the vast numbers of the Israelites given in the Bible (600,000 men on foot, plus their families) have been hotly disputed on ecological grounds – since Sinai could never have sustained such a population. Both these points are irrelevant to my argument. For the record, however, I

suspect that the Israelites spent a good deal less than forty years in the wilderness: *four* years sounds far more likely. And I suspect that their numbers were small – a few hundreds or thousands at the most.

29 Numbers 31:2–11.

30 Numbers 22:1.

31 Numbers 20:28.

32 Numbers 20:24–8.

33 Numbers 27:12–23.

34 Deuteronomy 34:4–6, 10–12.

35 Deuteronomy 31:14–15.

36 Joshua 3:3–4 (King James Authorized Version translation). Emphasis added.

37 Joshua 3:6, 14–17; Joshua 4:18, 21, 23.

38 Joshua 6:11, 13–16, 20–1.

39 E.g. Joshua 7:3 ff. which tells of battle being started without the Ark and of the resulting defeat; Joshua 7:6 which inserts the Ark back into the narrative; and Joshua 8:1 ff. which tells of the ultimate Israelite victory. See also Joshua 10:10 ff., which almost certainly recounts the participation of the Ark in another significant victory. Similarly Joshua 10:29–30 ff., especially verse 42.

40 See, for example, Joshua 18:1–10; 19:51; 21:2; 22:9; Judges 18:31; 21:19; and 1 Samuel 1:3–9 and 24; 3:21.

41 See Julian Morgenstern, 'The Ark, the Ephod and the Tent of Meeting', *Hebrew Union College Annual,* vol. XVII, 1942–3, reprinted by KTAV Publishing House, New York, 1968, pp. 235–6: 'It [the Ark] was not carried into

ordinary battles.'

42 1 Samuel 4:1–2 (amalgam of King James Authorized Version and Jerusalem Bible translations).

43 1 Samuel 4:3 (Jerusalem Bible translation).

44 1 Samuel 4:4–5 (King James Authorized Version translation).

45 1 Samuel 4:6–9 (Jerusalem Bible translation).

46 1 Samuel 4:10–11.

47 1 Samuel 4:13, 15–17 (King James Authorized Version translation); and 1 Samuel 4:18–19 (Jerusalem Bible translation).

48 *Encyclopaedia Britannica,* 15th edn, 1991, vol. XIV, p. 786.

49 1 Samuel 4:22.

50 1 Samuel 5, complete text.

51 1 Samuel 6:1.

52 1 Samuel 6:2 (Jerusalem Bible translation).

53 1 Samuel 6:7 (King James Authorized Version translation).

54 1 Samuel 6:12 (King James Authorized Version translation).

55 1 Samuel 6:13–14, 19 (King James Authorized Version translation).

56 See for example 1 Samuel 6:19, Jerusalem Bible translation. See also the same verse in the *New English Bible,* Oxford and Cambridge University Presses, 1970, p. 308, and in the *Holy Bible: New International Version*, The Bible Societies/ Hodder & Stoughton, UK, 1988. This latter states: 'But God struck down some of the men of

Bethshemesh, putting seventy of them to death because they had looked into the Ark of the Lord.' See also *Handbook to the Bible,* Lion Publishing, London, 1988, p. 234.

57 Two of the biblical translations (Jerusalem Bible and New English Bible) imply that the men were killed because they had not rejoiced when they saw the Ark of Yahweh; the King James Authorized Version and the New International Version, on the other hand, specifically say that they were killed because they *looked into the Ark*. This latter interpretation is supported in the *Handbook to the Bible,* op. cit., p. 234 and by Julian Morgenstern in 'The Ark, the Ephod and the Tent of Meeting', op. cit., p. 241.

58 1 Samuel 6:20 (New English Bible translation).

59 1 Samuel 6:15.

60 1 Samuel 7:1. A Christian church dedicated to 'the Virgin Mary Ark of the Covenant' now stands at Kiriath-Jearim. See Chapter 3 above.

61 1 Samuel 7:1. The Jerusalem Bible states that a certain Eleazar was appointed 'to guard the Ark of Yahweh'. The New English Bible states that he was its 'custodian'.

62 Julian Morgenstern, 'The Ark, the Ephod and the Tent of Meeting', op. cit., p. 241, footnote 143.

63 Set *Jerusalem Bible,* op. cit., Chronological Table, p. 343.

64 2 Samuel 6:3–4; 6–7.

65 2 Samuel 6:9–10 (New English Bible translation).

66 2 Samuel 6:10 (New English Bible translation).

67 2 Samuel 6:11 (Jerusalem Bible translation).

68 Louis Ginzberg, *The Legends of the Jews,* op. cit., vol. VI, p. 275.

69 2 Samuel 6:12 (King James Authorized Version translation).

70 E.g. 1 Chronicles 15:15.

71 2 Samuel 6:15.

72 2 Samuel 6:5.

73 1 Chronicles 16:1. See also 1 Chronicles 17:45.

74 1 Chronicles 28:2.

75 *Jerusalem Bible,* op. cit., Chronological Table, p. 344.

76 1 Kings 6:38 states that the Temple took eleven years to build.

77 1 Kings 8:1, 3, 4, 5, 6 (amalgam of King James Authorized Version and Jerusalem Bible translations).

78 Some details of what is known about this mysterious disappearance are given in Chapter 1 above. The phrase 'thick darkness' is from 1 Kings 8:12.

79 See for example Professor Richard Elliott Friedman, *Who Wrote the Bible?*, Johnathan Cape, London, 1988, p. 156.

80 As in the case of Moses's insubordinate sister Miriam. See Numbers 12. This incident is discussed further in Chapter 13 below.

81 Exodus 12:40.

82 The date of the Exodus, which Moses led in his old age, is generally put at between 1250 and 1230 BC (see, for example, *Jerusalem Bible,* op. cit., Chronological Table, p. 343). For a discussion of the dates of Tutankhamen's short rule see Christiane Desroches-Noblecourt,

Tutankhamen: Life and Death of a Pharaoh, Penguin, London, 1989, p. 105.

83 Christiane Desroches-Noblecourt, *Tutankhamen,* op. cit., pp. 15 and 20.

84 Exodus 25:11.

85 Christiane Desroches-Noblecourt, *Tutenkhamen,* op. cit., p. 131. See also Nicholas Reeves, *The Complete Tutankhamun,* Thames & Hudson, London, 1990, pp. 102 and 104. It is interesting to note that the sarcophagus itself also bore images of these tutelary deities in high relief – see page 105.

86 Exodus 25:18.

87 For a discussion see Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism,* Jerusalem Publishing House, Jerusalem, 1989, pp. 157–8.

88 Christiane Desroches-Noblecourt, *Tutankhamen,* op. cit., p. 185.

89 Ibid., p. 185. See also John Anthony West, *Ancient Egypt*, Harrap Columbus, London, 1989, p. 268, and Jill Kamil, *Luxor,* Longman, London and New York, 1989, p. 28.

90 Alan Moorehead, *The Blue Nile,* Penguin, London, 1984, p. 17.

91 I Chronicles 15:15, Jerusalem Bible translation. The King James Authorized Version reads: 'And the children of the Levites bare the Ark of God upon their shoulders with the staves thereon, as Moses commanded.'

92 See, for example, Edward Ullendorff, 'Hebraic-Jewish Elements in Abyssinian (Monophysite) Christianity', *Journal of Semitic Studies*, vol. I, no. 3, 1956, p. 223,

footnote 6. Ullendorff says that *tabot* is 'derived from the Jewish Pal. Aramaic *tebuta* (*tebota*) which in turn is a derivation from the Hebrew *tebah*.'

93 E. A. Wallis Budge, *The Queen of Sheba and her Only Son Menelik: being the 'Book of the Glory of Kings' (Kebra Nagast),* Oxford University Press, 1932, pp. 14–15.

94 Ibid., p. 14.

95 I am grateful to Dr Kitchen for his help and advice at various stages of this project. I first came into contact with him after he met and was interviewed on 12 June 1989 by Caroline Lasko (a freelance researcher then working with me). He subsequently was kind enough to be available for further meetings and to write to me on various salient points. For his authoritative views on the ancient Egyptian origins of many aspects of early

Judaism the reader is referred to his paper ‘Some Egyptian Background to the Old Testament’, *Tyndale House Bulletin*, no. 5–6, Cambridge, April 1960. As regards the Ark of the Covenant and its relationship to the arks from Tutankhamen’s tomb, see in particular pp. 10–11.

96 E. A. Wallis Budge, *From Fetish to God in Ancient Egypt,* Oxford University Press, 1934, p. 40.

97 A. H. Sayce, *Fresh Light from the Ancient Monuments,* Religious Tract Society, London, 1884, p. 67. See also p. 68.

98 Christiane Desroches-Noblecourt, *Tutankhamen,* op. cit., p. 186. See also Shalom M. Paul and William G. Dever (eds), *Biblical Archaeology,* Keter Publishing House, Jerusalem, 1973, part III, p. 252: ‘Some scholars have

compared the Ark to the chests (*the lower part of which was generally boat-shaped*) which were brought out of the temple by the Egyptian priests at festivals, and on which statues of the gods were placed.' Emphasis added.

99 Julian Morgenstern, 'The Book of the Covenant', op. cit., p. 121.

100 J. A. West, *Ancient Egypt,* op. cit., p. 236.

101 Ibid.

102 Ibid.

103 Lady Flavia Anderson, *The Ancient Secret: Fire from the Sun,* RILKO Books, London, 1987,pp. 113–14.

104 I made the following entry in my notebook: 'The arks carried in the Apet ceremonies – though later transformed into chests – initially took the form of boats. It is therefore not difficult to see how the word *tebah*

came to be used in biblical Hebrew for the ark of Noah and for Moses's ark of bullrushes. That a different name (*'Aron*) was subsequently used for the Ark of the Covenant could simply be a function of the fact that the Ark itself had *disappeared* from Jerusalem by the time that the books of the Old Testament came to be officially codified – and that the biblical scribes, setting down the oral history of the Jewish people, had been confused or uncertain about some of the key details of the religious tradition from which the lost relic had hailed. If my theory is correct, of course, it was not "lost" at all, but instead had been taken to Ethiopia – where its original name (*Tapet* or *Tabot*) has continued to be used right up to the present day.' I later discovered that the Scottish explorer James Bruce had considered similar issues in vol. I of his *Travels.* He passed through Luxor (then

known to Europeans as Thebes) on his way to Ethiopia and speculated that the name 'Thebes' must have been derived from 'Theba, which was the Hebrew name for the Ark when Noah was ordered to build it – Thou shalt "make thee an Ark (Theba) of gopher-wood". The figure of the temples in Thebes do not seem to be far removed from the idea given us of the Ark.' Though he did not proceed, as I had done, to link *Tapet* (the ancient Egyptian name for Thebes) to *Tabot,* I was intrigued that he followed this particular linguistic trail. It further convinced me that his principal aim in going to Ethiopia had been to search for the Ark of the Covenant and not, as he pretended, to discover the source of the Nile. See James Bruce, *Travels to Discover the Source of the Nile in the Years 1768, 1769, 1770, 1771, 1772 and 1773,* Edinburgh, 1790, vol. I. pp. 394–5.

105 Geoffrey Wigoder (ed.), *Encyclopaedia of Judaism,* op. cit., p. 504.

106 *Jerusalem Bible,* op. cit., Chronological Table, p. 343.

107 Josephus, *Jewish Antiquities,* translated by H. St J. Thackeray, Heinemann, London, 1930, vol. IV, books I–IV, p. 253.

108 Ibid., pp. 257–9.

109 Acts 7:22.

110 Philo Judaeus, *De Vita Mosis*, translated by F. H. Colson, Heinemann, London, 1935, vol. VI, pp. 287–9.

111 This is attested to at some length in both Philo and Josephus, op. cit.

112 What we know about the life of Moses confirms that 'he had studied the various branches of Egyptian magic',

E. A. Wallis Budge, *From Fetish to God,* op. cit., p. 8.

113 'All the pharaohs were magicians as part of their office', C. Jacq, *Egyptian Magic*, Bolchazy-Carducci Publishers, Chicago, 1985, p. 12. And see in general pp. 9–13.

114 Acts 7:22.

115 Luke 24:19.

116 That knowledge of words of power is indeed referred to in the phrase 'mighty in words' – rather, say, than oratory – becomes clear when we remember that Moses later told Yahweh, 'never in my life have I been a man of eloquence.' The deity replied that the prophet should use his half-brother Aaron as his mouthpiece: 'I know that he is a good speaker.' Exodus 4:10–17.

117 E. A. Wallis Budge, *Egyptian Magic,* Kegan Paul,

Trench, Trübner, London, 1901, p. 5.

118 Josephus, op. cit., footnote c, pp. 276–7. See also *Jerusalem Bible,* op. cit., footnote 3a, p. 63.

119 Exodus 3:2.

120 Exodus 3:7–10.

121 Exodus 3:13.

122 J. G. Frazer, *The Golden Bough: A Study in Magic and Religion,* Macmillan, London, 1987 edn, p. 261.

123 Exodus 3:14 and Exodus 3:6.

124 See Irving M. Zeitlin, *Ancient Judaism,* Polity Press, Cambridge, 1984, pp. 58–9. See also *Handbook to the Bible*, Lion Publishing, London, 1988, p. 157. The meaning of the Hebrew verb ‘to be’ goes beyond ‘to exist’ and conveys the notion ‘to be actively present’. For

a fuller discussion see F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church,* Oxford University Press, 1988, p. 1354. See also Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism,* op. cit., pp. 289–90.

125 E.g. Exodus 4:20; Exodus 17:9.

126 Exodus 4:2.

127 Exodus 4:3–4.

128 E. A. Wallis Budge, *Egyptian Magic,* op. cit., p. 5, and *From Fetish to God,* op. cit., pp. 119 and 129.

129 Exodus 7:11–12.

130 Exodus 7:20–2.

131 Exodus 8:1–7.

132 Exodus 8:16–19.

133 Exodus 8:21–32.

134 Exodus 9:1–7.

135 Exodus 9:8–11.

136 Exodus 10:1–20; Exodus 10:21–3.

137 Exodus 12:23–30.

138 Exodus 12:31–3.

139 Exodus 14:21–2.

140 Exodus 14:23.

141 Exodus 14:7–9.

142 Budge, *Egyptian Magic,* op. cit., p. 10.

143 Budge, *From Fetish to God,* op. cit., p. 8.

144 Ibid., p. 43: ‘It is impossible to think that the highest order of the priests did not possess esoteric knowledge

which they guarded with the greatest care.'

145 See, for example, Lucie Lamy, *Egyptian Mysteries,* Thames & Hudson, London, 1981, p. 86.

146 Luciano Canfora, *The Vanished Library: A Wonder of the Ancient World,* Hutchinson, London, 1989, p. 21.

147 Herodotus, *The History,* David Green (trans.), University of Chicago Press, Chicago and London, 1988, p. 132.

148 W. B. Emery, *Archaic Egypt*, Penguin, London, 1961, p. 206.

149 See the paper 'Mathematics and Astronomy' in J. R. Harris (ed.), *The Legacy of Egypt,* Oxford University Press, 1971.

150 This may be deduced from measurement of a variety of ancient Egyptian structures. Sir William Flinders

Petrie, the nineteenth-century archaeologist (who was highly sceptical in general of theories suggesting advanced knowledge in ancient Egypt) was satisfied that the proportions of the Great Pyramid at Giza (*c.* 2550 BC) 'expressed the transcendental number *pi* with very considerable precision'. See A. J. West, *The Traveller's Key to Ancient Egypt: A Guide to the Sacred Places of Ancient Egypt,* Harrap, London, 1987, p. 90.

151 Reported in *Mystic Places,* Time-Life Books, Amsterdam, 1987, p. 65.

152 See R. El-Nadoury, 'The Legacy of Pharaonic Egypt', in *General History of Africa II*, UNESCO, Paris, 1981.

153 See the paper on 'Medicine' in J. R. Harris (ed.), *The Legacy of Egypt,* op. cit.

154 See Chapter 5 above.

155 Quoted in Robert Lawlor, *Sacred Geometry: Philosophy and Practice,* Thames & Hudson, London, 1982.

156 See William Anderson, *The Rise of the Gothic*, Hutchinson, London, 1985, p. 65.

157 Dates from J. A. West, *Ancient Egypt,* op. cit., pp. 249–50.

158 Ibid., pp. 249–50.

159 Ibid., p. 252.

160 Ibid., p. 424.

161 J. R. Harris, 'Technology and Materials', in *The Legacy of Egypt,* op. cit., p. 103.

162 J. A. West, *Ancient Egypt,* op. cit., p. 251.

163 Ibid., p. 109.

164 Quoted in ibid., p. 40.

165 Ibid., pp. 112–23, for all measurements and weights. See also A.J. Spencer, *The Great Pyramid,* P. J. Publications, London, 1989.

166 A. Abu Bakr, 'Pharaonic Egypt', in the *UNESCO General History of Africa II,* op. cit.

167 *Mystic Places,* op. cit., pp. 49–50.

168 Ibid., p. 62.

169 Ibid., p. 62. For a full and up-to-date presentation of the pyramidologists' point of view see Peter Lemesurier, *The Great Pyramid Decoded*, Element Books, Dorset, UK, 1989.

170 Peter Lemesurier, *The Great Pyramid Decoded,* op. cit., p. 7.

171 *Mystic Places,* op. cit., p. 59, and Lemesurier, op. cit., p. 3. In fact, as Lemesurier points out, the alignment is

fractionally off true – by nearly five minutes of arc, or one-twelfth of a degree. But this would be to ignore the astronomical evidence that the cause even of this minute error is to be found in the gradual movement of the earth's own axis rather than in any inaccuracy on the part of the building's original surveyors.

172 Set *Mystic Places,* op. cit., p. 47; J. A. West, *Ancient Egypt,* op. cit., p. 123; and A.J. Spencer, *The Great Pyramid,* op. cit.

173 Herodotus, op. cit., 2. 125, p. 186.

174 Quoted in J. A. West, *Ancient Egypt,* op. cit., p. 107.

175 Ibid., Introduction, p. xi. As well as the sheer magnitude of the task involved in building the Great Pyramid, other factors also contributed to my deepening suspicion that the ancient Egyptians must have known

something that modern civilization did not. In the late nineteenth century, for example, Sir William Flinders Petrie, certainly the most eminent archaeologist of his generation, spent months at Giza carefully measuring the edifice – principally with a view to demolishing some of the wilder speculations of the pyramidologists. This he largely succeeded in doing (he claimed subsequently that he had provided 'the ugly little fact which killed the beautiful theory'). However, even he was forced to admit on several occasions that some of the achievements of the pyramid's builders were quite baffling. Commenting on the precision with which the 115,000 ten-ton casing blocks were laid around the core masonry, he wrote: 'Merely to place such stones in exact contact would be careful work, but to do so with cement in the joint seems almost impossible; it is to be compared to the finest

opticians' work on a scale of acres.' Petrie's remark is quoted in J. A. West's *Ancient Egypt,* op. cit., p. 90.

Chapter 13 Treasures of Darkness

1 Garth Fowden, *The Egyptian Hermes: A Historical Approach to the Late Pagan Mind,* Cambridge University Press, 1987, pp. 22–3.

2 See *New Larousse Encyclopaedia of Mythology,* Hamlyn, London, 1989, p. 28.

3 Ibid., p. 27. See also E. A. Wallis Budge, *Egyptian Magic*, Kegan Paul, Trench, Trübner, London, 1901, p. xi: 'the world itself came into existence through the utterance of a word by Thoth.' Soon after I had learned this it occurred to me that the whole concept was eerily analogous to the well known biblical passage which stated: 'In the beginning was the word, and the word was with God, and the word was God. He was with God

in the beginning. Through him all things came to be, not one thing had its being but through him' (John 1:1–3). Intrigued by this coincidence I looked further and discovered, to my considerable surprise, that the Judaeo-Christian Scriptures allowed a number of other close parallels to be drawn between Thoth, the pagan moon-god of the Egyptians, and Yahweh, the God of Moses. One of the most striking of these concerned the Ten Commandments given to Moses on Mount Sinai and supposedly inscribed on the tablets of stone that were contained within the Ark of the Covenant: 'Thou shalt have no other gods before me. Thou shalt not make unto thee any graven image … Thou shalt not take the name of the Lord thy God in vain … Remember the sabbath day and keep it holy … Honour thy father and thy mother … Thou shalt not kill … Thou shalt not commit

adultery … Thou shalt not steal … Thou shalt not bear false witness … Thou shalt not covet thy neighbour's wife.' (Exodus 20:3–17).

I had always thought that this exacting legal code was unique to early Judaic culture. This assumption, however, was overturned when I found the following remarkably similar formulae in Chapter CXXV of the ancient Egyptian *Book of the Dead* – a chapter which consisted of a series of negative confessions that the soul of the deceased was obliged to make before Thoth in his capacity as divine judge and scribe: 'Not have I despised god … Not have I killed … Not have I fornicated … Not have I despoiled the things of the god … not have I defiled the wife of a man … Not have I cursed god … Not have I borne false witness' (see E. A. Wallis Budge, *The Egyptian Book of the Dead: The Papyrus of Ani,*

British Museum Publications, London, 1895, pp. 195–204). Perhaps the most striking parallel of all, however, occurred in a rubric to one part of the *Book of the Dead* which stated: ‘This chapter was found on an alabaster brick, under the feet of the Majesty of this venerable place, the God Thoth, and it was written by the God himself.’ I already knew, of course, that the Ark of the Covenant had frequently been referred to in the Bible as the ‘footstool of God’ (e.g. 1 Chronicles 28:2) and that it had contained the stone Tablets of the Law written by Yahweh’s own finger. I could therefore only conclude that the match between the thinking and behaviour of Yahweh and Thoth – and also between the *beliefs* that people had held about the two deities – was much too close to be entirely fortuitous. Neither, I reasoned, was it possible that the biblical passages had influenced the

writers of the *Book of the Dead* since, of the two documents, the latter was by far the most ancient (some of its contents, I knew, went back as far as the fourth millennium BC; the most archaic sections of the Bible, by contrast, were at least 2,000 years younger).

4 Garth Fowden, *The Egyptian Hermes,* op. cit., p. 33.

5 Ibid., p. 23. See also E. A. Wallis Budge, *From Fetish to God in Ancient Egypt,* Oxford University Press, 1934, pp. 121–2, and the *New Larousse Encyclopaedia of Mythology,* op. cit., p. 27.

6 *New Larousse Encyclopaedia of Mythology,* op. cit., p. 27.

7 John Anthony West, *The Traveller's Key to Ancient Egypt: a Guide to the Sacred Places of Ancient Egypt,* Harrap Columbus, London, 1987, pp. 74–5.

8 E. A. Wallis Budge (trans.), *The Egyptian Book of the Dead,*

op. cit., Introduction, p. cxviii.

9 E. A. Wallis Budge, *From Fetish to God,* op. cit., p. 157. See also M. V. Seton-Williams, *Egyptian Legends and Stories*, Rubicon Press, London, 1990, p. 16.

10 This story is to be found in its fullest form in Plutarch, *De Iside et Osiride.* See M. V. Seton-Williams, op. cit., pp. 24–9. See also E. A. Wallis Budge, *From Fetish to God,* op. cit., pp. 177 ff.

11 W. B. Emery, *Archaic Egypt*, Penguin, London, 1987, p. 192.

12 E. A. Wallis Budge (trans.), *The Egyptian Book of the Dead,* op. cit., Introduction, pp. xii and xiii.

13 W. B. Emery, *Archaic Egypt,* op. cit., p. 38. Emphasis added.

14 Ibid., p. 175–91.

15 Ibid., pp. 177 and 31.

16 Ibid., p. 26.

17 Instructions given to Sin on the day of creation by Marduk, chief figure in the Mesopotamian pantheon. Quoted in the *New Larousse Encyclopaedia of Mythology,* op. cit., p. 57.

18 Ibid.

19 E. A. Wallis Budge, *From Fetish to God,* op. cit., p. 155

20 W. B. Emery, *Archaic Egypt,* op. cit., p. 31.

21 This is Emery's view also. See ibid., p. 122–3.

22 Plato, *Timaeus and Critias*, Penguin Classics, London, 1977, p. 39.

23 Ibid., pp. 35–8 and 137–8.

24 Ibid., p. 38.

25 Ibid. See ‘Appendix on Atlantis’ by Sir Desmond Lee, p. 158.

26 Ibid., p. 158.

27 Ibid., p. 40.

28 See Edmond Sollberger, *The Babylonian Legend of the Flood*, British Museum Publications, London, 1962. See also *The Epic of Gilgamesh,* Penguin Classics, London, 1960.

29 Peter Marshall, *Journey Through the Maldives,* Camerapix Publishers International, London, 1991, p. 191.

30 Set *Encyclopaedia Britannica*, 15th edn, 1991, Micropaedia, vol. IV, pp. 441–2.

31 See Chapter CLXXV of the *Book of the Dead* where Thoth (in his capacity as universal demiurge) resolves to send a flood to punish sinful humanity: ‘They have fought

fights, they have upheld strifes, they have done evil, they have created hostilities, they have made slaughter, they have caused trouble and oppression … [Therefore] I am going to blot out everything which I have made. This earth shall enter into the watery abyss by means of a raging flood, and will become even as it was in primeval time' (from the Theban Recension of the *Book of the Dead*, quoted in E. A. Wallis Budge, *From Fetish to God,* op. cit., p. 198). This compares intriguingly with Chapter 6 of Genesis: 'And God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. And it repented the Lord that he had made man on the earth, and it grieved him at his heart … And God said, The end of all flesh is come before me; for the earth is filled with violence … And behold I, even I, do bring a flood of

waters upon the earth to destroy all flesh wherein is the breath of life from under heaven; and everything that is in the earth shall die' (Genesis 6:5–17).

32 E. A. Wallis Budge, *From Fetish to God,* op. cit., pp. 197–8.

33 Good summaries of the Plutarch account are given in M. V. Seton-Williams, *Egyptian Legends and Stories,* op. cit., pp. 24–9; and in E. A. Wallis Budge, *From Fetish to God,* op. cit., pp. 178–83.

34 See in particular E. A. Wallis Budge, *From Fetish to God,* op. cit., p. 182. The Plutarch story has the coffer floating across the Mediterranean to 'Byblos' near modern Beirut. Budge dismisses this as a mistranslation, pointing out that *byblos* was simply a name for the papyrus plant.

35 Ibid., p. 180.

36 Josephus, *Jewish Antiquities,* translated by H. St J. Thackeray, Heinemann, London, 1930, vol. IV, books I-IV, p. 263.

37 Philo, *Life of Moses,* translated by F. H. Colson, Heinemann, London, 1935, vol. VI, p. 285.

38 E. A. Wallis Budge, *From Fetish to God,* op. cit., pp. 181–2.

39 Samuel Noah Kramer, *The Sumerians: Their History, Culture and Character,* University of Chicago Press, 1963. See also John Oates, *Babylon,* Thames & Hudson, London, 1979.

40 *New Larousse Encyclopaedia of Mythology,* op. cit., pp. 58–60.

41 Jonah 2:10; 3:2.

42 Genesis 6:19.

43 Genesis 6:14.

44 Genesis 9:1.

45 Luke 24:19.

46 John 3:5.

47 Mark 1:9–11.

48 See E. A. Wallis Budge, *Egyptian Magic*, Kegan Paul, Trench, Trübner, London, 1901.

49 J. A. West, *Ancient Egypt,* op. cit., p. 8.

50 Thor Heyerdahl, *The Ra Expeditions,* Book Club Associates, London, 1972, p. 17. Heyerdahl adds, without much further comment, that the pyramid boat had clearly been built ‘to a pattern created by shipbuilders from a people with a long, solid tradition of sailing on the open sea’ (p. 16).

51 J. A. West, *Ancient Egypt,* op. cit., pp. 132–3. See also A.J. Spencer, *The Great Pyramid*, P. J. Publications, London, 1989.

52 Christiane Desroches-Noblecourt, *Tutankhamen,* Penguin, London, 1989, pp. 89, 108, 113 and 283.

53 A.J. Spencer, *The Great Pyramid,* op. cit.

54 See, for example, W. B. Emery, *Archaic Egypt,* op. cit., p. 68.

55 *General History of Africa,* UNESCO, Paris, 1981, p. 84–107.

56 For further discussion see W. B. Emery, *Archaic Egypt,* op. cit., particularly Chapter 4; Lucy Lamy, *Egyptian Mysteries,* Thames & Hudson, London, 1981, p. 68; and *UNESCO General History of Africa,* op. cit.

57 J. A. West, *Ancient Egypt,* op. cit., p. 158. The Greeks

later appropriated Imhotep, under the Hellenized name Asclepius, as the founder of the science of medicine.

58 E. A. Wallis Budge, *From Fetish to God,* op. cit., p. 161.

59 Garth Fowden, *The Egyptian Hermes,* op. cit., p. 33.

60 Ibid., p. 23.

61 J. A. West, *Ancient Egypt,* op. cit., p. 12.

62 Ibid., p. 340.

63 Ibid., p. 343.

64 *The Jewish Encyclopaedia,* Funk & Wagnells, New York, 1925, vol. II, p. 497.

65 *Collins English Dictionary*, Collins, London, 1982, p. 261; emphasis added.

66 Malcolm Barber, *The Trial of the Templars,* Cambridge University Press, 1989, p. 62. See also pp. 61, 67, 69,

100, 101, 147, 163–4, 167, 175, 178, 182–3, 185–8, 210, 249.

67 G. Legman, *The Guilt of the Templars,* Basic Books, New York, 1966, p. 85.

68 See H.J. Schonfield, *The Essene Odyssey*, Element Books, London, 1984, pp. 162–5. The code is known as the Atbash cipher. See in particular p. 164.

69 Ibid., p. 164.

70 E. A. Wallis Budge, *The Gods of the Egyptians,* Methuen, London, 1904, vol. I, p. 415.

71 Ibid., p. 414.

72 Ibid., p. 414.

73 David Stevenson, *The Origins of Freemasonry,* Cambridge University Press, 1990, p. 85. The Masons had venerated

Thoth in his later incarnation as Hermes, the Greek god of wisdom. As Stevenson explains: 'The Greeks had identified their god Hermes with the Egyptian god Thoth, scribe to the gods, and himself a god of wisdom' (ibid., p. 83).

74 Ibid., p. 85 (with Thoth again in his incarnation as Hermes).

75 In *De Revolutionibus.* For a discussion see Timothy Ferris, *Coming of Age in the Milky Way*, Bodley Head, London, 1988, p. 65.

76 From *The Harmonies of the World,* quoted in Timothy Ferris, *Coming of Age in the Milky Way,* op. cit., p. 79.

77 The quotation is from Newton's *Principia,* cited in Richard S. Westfall, *Never at Rest: a Biography of Isaac Newton,* Cambridge University Press, 1980, p. 435.

78 Ibid., p. 434.

79 John Harrison, *The Library of Isaac Newton,* Cambridge University Press, 1978.

80 Frank Manuel, *The Religion of Isaac Newton*, Oxford University Press, 1974, p. 86.

81 Gale E. Christianson, *In the Presence of the Creator: Isaac Newton and His Times,* Collier Macmillan, London, 1984, p. 262.

82 Richard S. Westfall, *Never at Rest,* op. cit., p. 346.

83 Gale E. Christianson, op. cit., pp. 256–7.

84 Ibid., p. 257.

85 Richard S. Westfall, *Never at Rest,* op. cit., p. 250.

86 John Maynard Keynes, 'Newton the Man', in *Newton Tercentenary Celebrations*, Cambridge University Press,

1947, pp. 27–9.

87 Gale E. Christianson, *In the Presence of the Creator,* op. cit., p. 362.

88 Ibid.

89 Ibid., p. 222

90 Yahuda Manuscript Collection, Jewish National and University Library, Jerusalem, MS 16.2, pp. 48, 50 and 74.

91 Richard S. Westfall, *Never at Rest,* op. cit., p. 355.

92 Ibid., p. 356. See also Gale E. Christianson, *In the Presence of the Creator,* op. cit., p. 255.

93 See Gale E. Christianson, *In the Presence of the Creator,* p. 256.

94 Piyo Rattansi, ‘Newton and the Wisdom of the

Ancients', in John Fauvel, Raymond Flood *et al.* (eds), *Let Newton Be!: A New Perspective on his Life and Works*, Oxford University Press, 1988, pp. 188 and 195.

95 Quoted by Jan Golinski in ibid., pp. 159–60.

96 Gale E. Christianson, *In the Presence of the Creator,* op. cit., p. 222.

97 Isaiah 45:3.

98 J. A. West, *Ancient Egypt,* op. cit., p. 33.

99 Joshua 6:11–21.

100 1 Samuel 6:13–19.

101 1 Samuel 5.

102 Louis Ginzberg, *The Legends of the Jews,* The Jewish Publication Society of America, Philadelphia, 1911, vol. III, p. 194.

103 Exodus 3:8.

104 Exodus 16:35. See Chapter 12, note 28 above.

105 The shortest route was the 'Way of the Sea' (known to the Egyptians as the 'Way of Horus' and to the Bible as the 'Way of the Land of the Philistines'). Slightly longer, but also quickly traversed, was the more southerly 'Way of Shur'. See Itzhaq Beit-Arieh, 'The Route Through Sinai', *Biblical Archaeology Review,* May/June 1988, p. 31.

106 Indeed, this is hinted at in the Bible. According to Exodus 13: 'When Pharaoh had let the people go … God led them not through the way of the land of the Philistines, although that was near; for God said, Lest peradventure the people repent when they see war, and they return to Egypt. But God led the people about,

through the way of the wilderness' (Exodus 13:17–18).

107 E.g. Exodus 14:9–12; Exodus 14:31; Exodus 15:22–4; Exodus 15:25; Exodus 16:2–3; Exodus 16:4–36; Exodus 17:1–4; Exodus 17:6–7.

108 Exodus 17:6–7.

109 Exodus 15:25.

110 Exodus 16:4–36.

111 Numbers 12:1–2, and in general Numbers 12.

112 Numbers 12:10.

113 Numbers 12:10.

114 Numbers 16:2–3.

115 Numbers 16:4.

116 Numbers 16:5–7, 17. See also 16:39 (King James Authorized Version translation) or 17:4 (Jerusalem Bible

translation) for confirmation that the censers were brazen/bronze. There can be no doubt that the phrases 'put fire therein and put incense in them *before the Lord*' (King James Authorized Version) and 'fill them with fire and … put incense in them *before Yahweh*' ('Jerusalem Bible translation) explicitly and unambiguously mean that they were to burn incense before the Ark. See Chapter 12, note n, above for a full explanation of why this is. See also note 121 below.

117 Numbers 16:7.

118 Numbers 16:18.

119 Numbers 16:19.

120 Numbers 16:20–1.

121 Numbers 16:22 and 35 (amalgam of King James Authorized Version and Jerusalem Bible translations).

Numbers 16:35 in fact states ‘there came out a fire from the Lord’ (King James Authorized Version translation). The Jerusalem Bible translation says ‘a fire came down from Yahweh’. See Chapter 12, note 11 above for a full explanation of why the work is implied. It is worth adding with reference to this passage that the Israelites did not accept that it had been ‘the Lord’ who had blasted the hapless rebels. Instead they pinned the blame fairly and squarely on the man who controlled the Ark. Numbers 16:41 states: ‘All the congregation of the children of Israel murmured against Moses … saying *You* have brought death to the people’ (amalgam of King James Authorized Version and Jerusalem Bible translations). The latter is doubly logged as Numbers 17:6. (Emphasis added.)

122 Numbers 17:12–13 (King James Authorized Version

translation). In the Jerusalem Bible the same passage is logged under Numbers 17:27–8.

123 See Chapter 12 above for a full discussion.

124 Acts 7 123–4.

125 Exodus 2:12–15.

126 Exodus 7:7.

127 Exodus 2: 15–25

128 Ahmed Osman, *Moses: Pharaoh of Egypt*, Grafton Books, London, 1990, p. 171. Osman identified Moses with Pharaoh Akhenaten who briefly introduced a version of monotheism into Egypt before being overthrown.

129 A good summary account of Flinders Petrie's expedition to Serabit-el-Khadem is given in Werner

Keller, *The Bible as History,* Bantam Books, New York, pp. 126–9. See also William M. Flinders Petrie, *Researches in Sinai*, Dutton, New York, 1906.

130 Itzhaq Beit-Arieh, '*The Route Through Sinai',* op. cit., p. 33. See also William F. Albright, *The Proto-Sinaitic Inscriptions and their Decipherment,* Harvard University Press, 1969; Frank Moore Cross, 'The Evolution of the Alphabet', *Eretz-Israel,* vol. 8, 1967, p. 12; Joseph Naveh, *Early History of the Alphabet*, Hebrew University, Jerusalem, 1982.

131 Itzhaq Beit-Arieh, 'The Route Through Sinai', op. cit., p. 33.

132 For further details see, for example, Aviram Perevolotsky and Israel Finkelstein, 'The Southern Sinai Route in Ecological Perspective', *Biblical Archaeology*

Review, July/August 1985, pp. 27 and 33. See also *Egypt: Insight Guide,* APA Publications, Singapore, 1989, pp. 243–6

133 Again for further details see Perevolotsky and Finkelstein, 'The Southern Sinai Route in Ecological Perspective', op. cit., p. 27.

134 Ibid., p. 33.

135 Ibid., pp. 27 and 33. See also *Egypt: Insight Guide,* op. cit., pp. 243–6, and Itzhaq Beit-Arieh, 'The Route Through Sinai', op. cit.

136 Itzhaq Beit-Arieh includes a helpful chart of other contenders for the role of Mount Sinai in his paper 'The Route Through Sinai', op. cit., p. 37. He concludes that the Exodus almost certainly did follow the southern route through Sinai leading to Mount Sinai as it is

presently identified. The same conclusion is drawn in *The Times Atlas of the Bible*, Guild Publishing, London, 1987, p. 56.

137 Wolfram von Eschenbach, *Parzival,* Penguin Classics, London, 1980, p. 232

138 See Julian Morgenstern, 'The Book of the Covenant', *Hebrew Union College Annual,* vol. V, 1928; and 'The Ark, the Ephod and the Tent of Meeting', *Hebrew Union College Annual,* vol. XVII, 1942–3; both reprinted by KTAV Publishing House, New York, 1968. See also Chapter 3 above.

139 Menahem Haran, *Temples and Temple Service in Ancient Israel,* Oxford, Clarendon Press, 1978; reprinted 1985 by Eisenbrauns, Winona Lake, Indiana, USA, p. 246.

140 Exodus 19:3.

141 Exodus 19:12–13 (Jerusalem Bible translation).

142 Exodus 19:16, 18 (amalgam of Jerusalem Bible and King James Authorized Version translations).

143 Exodus 24:12.

144 Exodus 24:15–18 (amalgam of Jerusalem Bible and King James Authorized Version translations).

145 See Louis Ginzberg, *The Legends of the Jews,* op. cit., vol. III, pp. 118–19.

146 Exodus 31:18; 32:15–16.

147 Exodus 32:19. The well known golden calf incident begins at Exodus 32:1.

148 Exodus 32:28.

149 Exodus 34:28.

150 Exodus 34:29.

151 Exodus 34:29 (Jerusalem Bible translation).

152 Exodus 33:7, Jerusalem Bible translation: ‘Moses used to take the Tent and pitch it outside the camp. He called it The Tent of Meeting.’

153 Exodus 33:11.

154 Louis Ginzberg, *The Legends of the Jews,* op. cit., vol. III, p. 119.

155 Exodus 34:29–35.

156 Exodus 34:30.

157 Exodus 34:33.

158 Exodus 34:34–5.

159 See Moshe Levine, *The Tabernacle: Its Structure and Utensils,* Soncino Press, Tel Aviv, 1969, p. 88.

160 See, for example, *The Oxford Reference Dictionary*,

Guild Publishing, London, 1988, p. 793, which gives the measure of a span or hand-breadth as nine inches. See also *The Oxford Library of Words and Phrases,* Guild Publishing, London, 1988, vol. III, p. 451.

161 Rabbi Shelomo Yitshaki was born at Troyes in AD 1040 and died in the year 1105. He is generally referred to as Rashi (an acronym based on his full title and name). See Geoffrey Wigoder (ed.), *The Encyclopedia of Judaism,* Jerusalem Publishing House, Jerusalem, 1989, p. 583.

162 Exodus 39:1–32.

163 See, for example, Exodus 28:43 and Leviticus 10:6.

164 Numbers 4:5–6 and 15: 'When the camp is broken, Aaron and his sons [Eleazar and Ithamar] are to come and take down the veil of the screen. With it they must cover the Ark … On top of this they must put a covering

of fine leather, and spread over the whole a cloth all of violet. Then they are to fix the poles to the Ark … [Then] the sons of Kohath are to come and take up the burden, but without touching any of the sacred things; otherwise they would die.'

165 Ibid.

166 Louis Ginzberg, *The Legends of the Jews,* op. cit., vol. III, p. 228: 'The most distinguished among the Levites were the sons of Kohath, whose charge during the march through the desert was the Holy Ark. This was a dangerous trust, for out of the staves attached to it would issue sparks that consumed Israel's enemies, but now and then this fire wrought havoc among the bearers of the Ark.'

167 See passage quoted in note 164 above which specifies

that the ‘veil of the screen’, a layer of leather and a layer of cloth were used to wrap the Ark. When the Tabernacle was pitched and at rest, the ‘veil of the screen’ hung in the entrance to the Holy of Holies. It was made of ‘blue, and purple, and scarlet, and fine twined linen of cunning work’ (Exodus 26:31). Unusually for such an important accessory, it did not contain any gold – and neither, of course, did the ‘covering of fine leather’ or the ‘cloth of violet’. In other words before the Ark was moved it was first thoroughly wrapped and insulated by several layers of non-conductive materials.

168 The view that the Ark was dangerous to carry for some possibly electrical reason is supported by the Jewish tradition quoted in note 166 above. The same tradition adds further credibility to this notion when it states that the Kohathites, rather than behaving as though they

were honoured by being given the job of carrying the Ark – as one might have expected if it was indeed nothing more than a symbol of their God – in fact tried to avoid the duty, 'each one planning cautiously to shift the carrying of the Ark upon another.' Louis Ginzberg, *Legends of the Jews,* op. cit., vol. III, p. 228.

169 Leviticus 10:2. The full passage reads: 'And there went out the fire from the Lord and devoured them and they died there before the Lord' (King James Authorized Version). The Jerusalem Bible translation of the same verse reads: 'Then from Yahweh's presence a flame leaped out and consumed them and they perished in the presence of Yahweh.' See Chapter 12, note 11 above for an explanation of why the Ark is implied.

170 Leviticus 10:4–5 (Jerusalem Bible translation).

171 1 Samuel 5.

172 E.g. the slaying of Uzzah by what sounds like some kind of electrical discharge. See 2 Samuel 6:3–7.

Chapter 14 The Glory is departed from Israel

1 See Chapter 5 above.

2 Mecca and Medina are the first two. For details as to the date of construction of the Dome of the Rock see Dan Bahat, *Carta's Historical Atlas of Jerusalem,* Carta, Jerusalem, 1989, p. 44–9.

3 See Chapter 12 above. See also Zev Vilnay, *Legends of Jerusalem: The Sacred Land,* vol. I, Jewish Publication Society of America, Philadelphia, 1973, pp. 11–12.

4 See Chapter 5 above, and later parts of this chapter, for further details.

5 For further details see Jerome Murphy-O'connor, *The Holy Land,* Oxford University Press, 1986, pp. 84–6.

6 See Chapter 5 above.

7 1 Chronicles 28:2.

8 For a good concise history of the successive stages of building and destruction on the Temple Mount see *Carta's Historical Atlas of Jerusalem,* op. cit. As regards archaeological confirmation that the Dome of the Rock does indeed stand over the site of the original Temple of Solomon, see Kathleen Kenyon, *Jerusalem: Excavating 3,000 Years of History*, Thames & Hudson, London, 1967, p. 55: 'From the present structure back to Solomon there is no real break. One can therefore be certain of the site of Solomon's Temple.' See also Kathleen Kenyon, *Digging up Jerusalem,* Benn, London, 1974, p. 110.

9 Islam also accepts Jesus Christ as a prophet. Muhammad is regarded as exceptional because he was the last of the prophets – the last of the messengers sent by God to teach and enlighten humankind and whose honour it

therefore was to complete the divine message. There can be no serious dispute that the God worshipped by the Jews, Christians and Muslims is, in essence, the same deity. The *oneness* of this God is accepted by all three faiths although Muslims believe that Christians are confused by such notions as the Trinity and the divinity of Christ. An Arabic inscription within the Dome of the Rock reads as follows: 'O you People of the Book, overstep not bounds in your religion, and of God speak only the truth. The Messiah, Jesus, son of Mary, is only an apostle of God, and his word which he conveyed into Mary, and a Spirit proceeding from him. Believe therefore in God and his apostles, and say not Three. It will be better for you. God is only one God. Far be it from his glory that he should have a son.'

10 See Zev Vilnay, *Legends of Jerusalem,* op. cit., pp. 123

and 324, footnote 136. See also Neil Asher Silberman, *Digging for God and Country: Exploration, Archaeology and the Secret Struggle for the Holy Land 1799–1917*, Knopf, New York, 1982, p. 186.

11 Quoted from 'The Syriac Apocalypse of Baruch' in H. F. D. Sparks (ed.), *The Apocryphal Old Testament*, Clarendon Press, Oxford, 1989, pp. 843–4.

12 Ibid.; see 'Introduction to the Syriac Apocalypse of Baruch', particularly p. 837.

13 See Chapter 5 above.

14 See Chapter 12 above.

15 1 Kings 8:1, 6, 10–11, 27.

16 1 Kings 11:4–5.

17 1 Kings 4:30.

18 Each wing measured five cubits (about seven and a half feet). See 2 Chronicles 3:11 and 1 Kings 6:24. According to the Jerusalem Bible translation, the cherubim were made of olive wood plated with gold.

19 1 Kings 6:19 (Jerusalem Bible translation).

20 Twenty cubits, by twenty cubits, by twenty cubits. See 1 Kings 6:20.

21 Chronicles 3:8 states that 600 talents of fine gold were used to overlay the walls, floor and ceiling of the Holy of Holies. An ancient talent weighed approximately 75 pounds, therefore 600 talents would have weighed 45,000 pounds – more than twenty tonnes. For further details, and academic support for the amounts of gold specified in the Bible as having been used in King Solomon's Temple, see Professor Alan R. Millard, 'Does

the Bible Exaggerate King Solomon's Golden Wealth?', *Biblical Archaeology Review*, May/June 1989, pp. 21–34. See also 1 Kings 6:20, 22 and 30.

22 2 Chronicles 3:9.

23 1 Kings 7:13–14 (amalgam of King James Authorized Version and Jerusalem Bible translations).

24 Chrétien de Troyes, *Arthurian Romances* (translated by D. D. R. Owen), Dent, London, 1987, p. 375; emphasis added.

25 Wolfram von Eschenbach, *Parzival*, Penguin Classics, London, 1980. See in particular pp. 62–7 and 70–1.

26 See Kenneth Mackenzie, *The Royal Masonic Cyclopaedia*, Aquarian Press, Wellingborough, 1987 (first published 1877), pp. 316–17. See also Alexander Home, *King Solomon's Temple in the Masonic Tradition*, Aquarian

Press, Wellingborough, 1988, pp. 262–8 and 272–9. See also John J. Robinson, *Born in Blood*, Century, London, 1990, pp. 217–18. Hiram of Tyre, the bronzeworker and skilled craftsman, is of course not to be confused with *King* Hiram of Tyre who supplied Solomon with cedarwood for the construction of the Temple, and who also sent him a number of skilled artisans to assist with the work.

27 John J. Robinson, *Born in Blood*, op. cit., p. 219.

28 1 Kings 7:23, 26.

29 See Shalom M. Paul and William G. Dever (eds), *Biblical Archaeology*, Keter Publishing House, Jerusalem, 1973, part III, p. 257.

30 Bruce Metzger, David Goldstein, John Ferguson (eds), *Great Events of Bible Times*, Guild Publishing, London,

1987, p. 89.

31 Shalom M. Paul and William G. Dever, *Biblical Archaeology*, op. cit., p. 257.

32 1 Kings 7:38.

33 See Chapter 12 above.

34 See Chapter 11 above.

35 1 Kings 7:40, 45.

36 1 Kings 7:15, 21–2.

37 Kenneth Mackenzie, *The Royal Masonic Cyclopaedia*, op. cit., pp. 349–50. See also David Stevenson, *The Origins of Freemasonry*, Cambridge University Press, 1990, pp. 143–52.

38 Alexander Home, *King Solomon's Temple in Masonic Tradition*, op. cit., p. 219.

39 Ibid.

40 Joshua 15:48; Judges 10:1; Judges 10:2; Chronicles 24:24.

41 E.g. Deuteronomy 27:5: ‘And there shalt thou build an altar unto the Lord thy God, an altar of stones: thou shalt not lift up any iron tool upon them.’ See also Joshua 8:31.

42 Moses was said to have used the Shamir in the desert to engrave writing on the precious stones worn in the breastplate of the High Priest. See Louis Ginzberg, *The Legend of the Jews*, Jewish Publication Society of America, Philadelphia, 1909, vol. I, p. 34, and vol. IV, p. 166.

43 Ibid., vol. I, p. 34.

44 Ibid., vol. TV, p. 166.

45 Ibid., vol. I, p. 34. On the vanishing of the Shamir see also Herbert Danby (trans.), *The Mishnah*, Oxford University Press, 1989, p. 305.

46 Louis Ginzberg, *Legends of the Jews*, op. cit., vol. I, p. 34.

47 From Islamic traditions about the Shamir, reported in Alexander Horne, *King Solomon's Temple in the Masonic Tradition*, op. cit., p. 165.

48 *Jerusalem Bible*, Eyre & Spottiswoode, London, 1968, Chronological Table, p. 344.

49 1 Kings 14:25–6.

50 The only objects specifically mentioned are the 'shields of gold which Solomon had made', 1 Kings 14:26.

51 For further details see Professor Kenneth A. Kitchen, 'Shishak's Military Campaign in Israel Confirmed', *Biblical Archaeology Review*, May/June 1989, pp. 32–3.

See also Bruce Metzger, David Goldstein, John Ferguson (eds), *Great Events of Bible Times*, op. cit., pp. 94–5.

52 Ibid., p. 95.

53 Ibid., p. 94. This view is also expressed with great authority by Professor Menahem Haran of Jerusalem's Hebrew University in his book *Temples and Temple Service in Ancient Israel*, Clarendon Press, Oxford, 1978, reprinted (with corrections) by Eisenbrauns, Winona Lake, Indiana, 1985, 286: 'It may be concluded that the Egyptian army bypassed Jerusalem in the north, proceeding from Aijalon to Beth-horon and Gibeon and from there north-eastwards to Zemaraim and down into the Jordan Valley at Succoth. Shishak's campaign seems to have been mainly directed against the Northern Kingdom. Only one section of his army seems to have overrun the Negeb as far as Arad, without advancing

towards the Judean hills. It is thus not impossible that the temple treasuries and those of the king's house with "all the shields of gold which Solomon had made" were handed over to Shishak by Rehoboam himself. He thereby succeeded in diverting the Egyptian army from his land. This would be the meaning of his words "he took away" used with reference to Shishak. The story in 1 Kgs 14:25–6 only mentions one particular part of Shishak's route, highlighting it as viewed from Jerusalem.'

54 Professor Menahem Haran, *Temples and Temple Service in Ancient Israel*, op. cit., p. 284.

55 Ibid., pp. 284–5. Examples in the Bible of Judaean kings who emptied the treasuries for their own purposes include Ahaz and Hezekiah. See 2 Chronicles 28:24 and 2 Kings 18:15–16.

56 *Jerusalem Bible*, op. cit., Chronological Table, p. 344. The reign of Jehoash (Joash) is given as 798–783 BC. 2 Kings 14:1 states that the conflict between Jehoash and Amaziah took place in the second year of the reign of Jehoash – hence the date 796 BC.

57 2 Kings 14:12–14. The King James Authorized version states 'in the treasures of the king's house'. However, the more accurate and recent translations of the Jerusalem Bible and the New English Bible state, respectively, 'the treasury of the royal palace' and 'the treasuries of the royal palace'. It is clear that the translation 'treasury' or 'treasuries' is the correct one here.

58 Professor Menahem Haran, *Temples and Temple Service in Ancient Israel*, op. cit., pp. 277 and 285, footnote 19.

59 According to the authoritative chronology provided in

the *Jerusalem Bible*, op. cit. See Chronological Table, p. 346. See also translation of the second book of Kings, pp. 423–4.

60 2 Kings 24:10–13 (amalgam of King James Authorized Version and Jerusalem Bible translations).

61 Professor Menahem Haran, *Temples and Temple Service in Ancient Israel*, op. cit., p. 287. The King James Authorized Version of the Bible wrongly translated the word *hekal* with the general term 'temple', thus causing much confusion to subsequent generations of scholars who did not have access to the original Hebrew. The *hekal* was a specific part of the Temple – the outer sanctum which formed the ante-chamber to the Holy of Holies.

62 For details see Chapter 11 above.

63 See Professor Edward Ullendorff, ‘Hebraic-Jewish Elements in Abyssinian (Monophysite) Christianity’, in *Journal of Semitic Studies*, vol. I, no. 3, 1956, p. 235.

64 Ibid., pp. 235–6: ‘The outside ambulatory of the three concentric parts of the Abyssinian church (which is either round, octagonal, or rectangular) is called *k’ene mahlet*, i.e. the place where hymns are sung and where the *debtara* or cantors stand. This outer part corresponds to the *haser* of the Tabernacle or the *ulam* of Solomon’s Temple. The next chamber is the *k’eddest* where communion is administered to the people; and the innermost part is the *mak’das* where the *tabot* rests and to which only priests have access. In some parts of Abyssinia, especially the north, the *k’eddest* (the *qodes* of the Tabernacle of *hekal* of Solomon’s Temple) is called *’enda ta’amer*, “place of miracle”, and the *mak’das* is

named *k'eddusa k'eddusam* (the *qodes haqqodasim* of the Tabernacle and the *debir* of the Temple). This division into three chambers applies to all Abyssinian churches, even the smallest of them.'

65 This, as I subsequently established, had not been quite the act of senseless vandalism that the English version of the text implied: the phrase 'cut in pieces' was a translation of the Hebrew *way-e-qasses*, which did suggest cutting up but also connoted the stripping of metal plates from overlaid objects. Such a nuance made sense because the Bible stated unambiguously that the 'golden furnishings' that had stood in the *hekal* had included the 'altar' and the 'table of the showbread' – both of which had been made of wood overlaid with gold. For a discussion see Professor Menahem Haran, *Temples and Temple Service in Ancient Israel*, op. cit., p.

287, footnote 23.

66 1 Kings 7:49–50 (Jerusalem Bible translation).

67 If this is not already patently obvious to the reader, then it is made clear in the Jerusalem Bible's translation of 1 Kings 8:6 which reads as follows: 'The priests brought up the Ark of the Covenant of Yahweh to its place, in the *debir* of the Temple, that is, in the Holy of Holies, under the cherubs' wings.'

68 As is demonstrated by their treatment of King Jehoiachin (2 Kings 24:11–12), their deportation of large numbers of the inhabitants of Jerusalem (2 Kings 24:14–16), and their despolation of the Temple of Yahweh (2 Kings 24:13).

69 Research notes provided to the author by David Keys, Archaeology Correspondent of *The Independent*, London.

70 2 Kings 24:17.

71 2 Kings 25:1.

72 2 Kings 25:1–3. For the dates of these events I have relied on the Chronological Table in the *Jerusalem Bible*, op. cit., p. 346. There is a small margin of error in the dates allocated. Some archaeologists put the ending of the siege and final destruction of the Temple at 586 BC – e.g. see Kathleen Kenyon, *Jerusalem: Excavating 3,000 Years of History*. op. cit., p. 55.

73 2 Kings 25:8. It is important to stress that the academics disagree as to whether these events took place in 587 or 586 BC.

74 2 Kings 25:8–10, 13–16. A parallel inventory, which does not contradict this one in any way, and which also makes no mention of the Ark, may be found in Jeremiah

52:17–23.

75 The view that the gold and silver items taken by Nebuzaradan consisted only of relatively minor utensils is given additional weight by the text of the parallel list in Jeremiah 52:17–23 which, in verse 19, states explicitly that commander of the guard ‘took the bowls, the censers, the sprinkling bowls, the ash containers, the lamp-stands, the goblets and the saucers: everything that was made of gold and everything of silver’ (Jerusalem Bible translation). See also Jeremiah 27:18–22 which refers to the objects *not* taken by Nebuchadnezzar in 598 BC and prophesies that they will be taken after the second conquest of the city: ‘But if they be prophets, and if the word of the Lord be with them, let them now make intercession to the Lord of Hosts, that the vessels which are left in the house of the Lord, and in the house of the

king of Judah, and at Jerusalem, go not to Babylon. For thus saith the Lord of hosts concerning the pillars, and concerning the Sea, and concerning the bases, and concerning the residue of vessels that remain in the city, which Nebuchadnezzar king of Babylon took not when he carried away captive Jeconiah … king of Judah from Jerusalem to Babylon … Yea, thus saith the Lord of Hosts, the God of Israel, concerning the vessels that remain in the house of the Lord, and in the house of the king of Judah and of Jerusalem; They shall be carried to Babylon, and there shall they be until the day that I visit them, saith the Lord; then will I bring them up, and restore them to this place.'

76 E.g., Kathleen Kenyon, *Royal Cities of the Old Testament*, Barne & Jenkins, London, 1971, p. 148: 'Probably the Ark vanished in the burning of the Temple, though there

is no actual reference to it subsequent to its deposit in the Holy of Holies in the time of Solomon.'

77 2 Kings 24:15–16.

78 2 Kings 25:11, 21.

79 Psalm 78:1–6.

80 *Jerusalem Bible*, op. cit., Chronological Table, p. 346.

81 Peter Calvocoressi, *Who's Who in the Bible*, Penguin, London, 1988, p. 45.

82 Ibid.

83 Ezra 1:7–11.

84 *Jerusalem Bible*, op. cit., Chronological Table, p. 346.

85 Ibid. See also Ezra 3:8; 5:16.

86 The *Jerusalem Bible* Chronological *Table*, op. cit. gives a completion date of 515 BC. The *Encyclopaedia of Judaism*

proposes the slightly earlier dates of 520–517 BC. See Geoffrey Wigoder (ed.), *The Encyclopedia of Judaism*, Jerusalem Publishing House, Jerusalem, 1989, p. 694.

87 *Hebrew-English Edition of the Babylonian Talmud*, Soncino Press, London, Jerusalem, New York, 1974, *Tractate Yoma*, 21b.

88 See also Louis Ginzberg, *Legends of the Jews*, op. cit., vol. VI, p. 442: 'The following five things were in the First Temple only: the heavenly fire, the holy oil of anointing, the Ark, the Holy Spirit, and the Urim and Thummim.' Biblical references to the Urim and Thummim can be found in Exodus 28:30; Leviticus 8:8; Ezra 2:63; and Nehemiah 7:65.

89 Zev Vilnay, *Legends of Jerusalem*, op. cit., vol. I, p. 123. See also Louis Ginzberg, *Legends of the Jews*, op. cit., vol.

VI, p. 378: ‘Solomon, at the erection of the Temple, provided a secret place to be used later for “hiding” holy objects.’

90 *Hebrew-English Edition of the Babylonian Talmud*, op. cit., *Tractate Yoma*, 53b.

91 Dates from the *Jerusalem Bible*, op. cit., Chronological Table, p. 345.

92 Louis Ginzberg, *Legends of the Jews*, op. cit., vol. IV, p. 282. See also *Hebrew-English Edition of the Babylonian Talmud*, op. cit., *Tractate Yoma*, 52b. See also C. Roth and G. Wigoder (eds), *The New Standard Encyclopaedia of Judaism*. W. H. Allen, London, 1970, p. 158.

93 Louis Ginzberg, *Legends of the Jews*, op. cit., vol. III, p. 158.

94 Ibid.

95 Herbert Danby (trans.), *The Mishnah*, op. cit., p. 158. See also Zev Vilnay, *Legends of Jerusalem*, op. cit., p. 122.

96 See entry on the Books of Maccabees in F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, Oxford University Press, 1988, p. 855.

97 Ibid. In its 'Introduction to the Books of Maccabees' the *Jerusalem Bible*, op. cit., concludes that Maccabees was probably written around 63 BC.

98 2 Maccabees 2:1, 4–5.

99 *Jerusalem Bible*, op. cit., p. 605, footnote 2a and 'Introduction to the Books of Maccabees', p. 569.

100 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, op. cit., p. 855.

101 Jeremiah was born around 650 BC. The exact date of

his death is not known; however it is thought to have occurred within a decade of the destruction of Solomon's Temple. See F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, op. cit., pp. 730–1. See also Peter Calvocoressi, *Who's Who in the Bible*, op. cit., pp. 101–2.

102 2 Maccabees 2:1, 4.

103 See Deuteronomy 34:1.

104 Mount Nebo is on the eastern side of the Dead Sea, in the modern state of Jordan, overlooking Jerusalem and Jericho.

105 Because he foretold – and welcomed – the destruction of the Temple by Nebuchadnezzar, whom he saw as God's chosen instrument for chastising Judah, 'He was frequently in personal danger from his own people,

physically assaulted and for several years in hiding' (Peter Calvocoressi, *Who's Who in the Bible*, op. cit., p. 101). See also F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, op. cit., p. 730: Jeremiah faced 'the hostility of the official representatives of the Jewish religion'.

106 Louis Ginzberg, *Legends of the Jews*, op. cit., vol. IV, p. 320: 'The Holy Ark, the altar of incense, and the holy tent were carried by an angel to the mount whence Moses before his death had viewed the land divinely assigned to Israel. There Jeremiah found a spacious cave in which he concealed these sacred utensils.'

107 For further details on the Wailing Wall and on the current politico-religious status of the Temple Mount the reader is referred to the appropriate entries in Geoffrey Wigoder (ed.), *The Encyclopedia of Judaism*, op. cit., pp.

696–7 and 727–9.

108 See Meir Ben-Dov, *In the Shadow of the Temple: the Discovery of Ancient Jerusalem*, Harper & Row, New York, 1985, p. 24.

109 Ibid., p. 25.

110 Ibid., pp. 19–20.

111 See Geoffrey Wigoder (ed.), *The Encyclopedia of Judaism*, op. cit., p. 695 and 481–3.

112 Meir Ben-Dov, *In the Shadow of the Temple*, op. cit. See in particular Chapter 2, 'Remains from the Kingdom of Judah'. The rest of this excellent book, from p. 57 forward, is devoted to the finds relating to other periods.

113 Ibid., pp. 16–18. See also Neil Asher Silberman, *Digging for God and Country: Exploration, Archaeology and the Secret Struggle for the Holy Land, 1799–1917*, Knopf,

New York, 1982, pp. 89–99.

114 Neil Asher Silberman, *Digging for God and Country*, op. cit., pp. 89–99.

115 Ibid., p. 93.

116 Ibid., pp. 94–7.

117 Meir Ben-Dov, *In the Shadow of the Temple*, op. cit., p. 18.

118 Kathleen Kenyon, *Digging up Jerusalem*, op. cit., p. 31.

119 See Neil Asher Silberman, *Digging for God and Country*, op. cit., pp. 180–8. In general I am indebted to this useful and informative work for the account of the Parker expedition that follows.

120 Ibid.

121 Kathleen Kenyon, *Digging up Jerusalem*, op. cit., p. 30.

122 See ‘Tom Crotser has found the Ark of the Covenant – or has he?’, *Biblical Archaeology Review*, May/June 1983, pp. 66–7.

123 Ibid., pp. 66–7.

124 Ibid., p. 66.

125 Ibid., p. 67.

126 Ibid., p. 68, quoting UPI reporter Darrell Day.

127 Ibid., p. 68.

128 Ibid., p. 68.

129 Ibid., p. 68.

130 Ibid., pp. 68–9.

131 Ibid., p. 69.

132 Richard Elliott Friedman, *Who Wrote the Bible?*, Jonathan Cape, London, 1988, p. 156.

133 Ibid.

Chapter 15 Hidden History

1 Richard Elliott Friedman, *Who Wrote the Bible?*, Jonathan Cape, London, 1988, p. 156.

2 Sir E. A. Wallis Budge, *The Queen of Sheba and her Only Son Menelik: being the 'Book of the Glory of Kings' (Kebra Nagast)*, Oxford University Press, 1932, pages 99 and 100. See Chapter 3, n. 94 above.

3 Josephus, *Jewish Antiquities*, Loeb Classical Library (Heinemann), London, 1934, books V-VIII, p. 665.

4 1 Kings 10:2.

5 E. A. Wallis Budge, *A History of Ethiopia, Nubia and Abyssinia*, London, 1928, Preface.

6 See David L. Edwards, *A Key to the Old Testament*, Fount

Paperbacks, London, 1989, pp. 209–11, in particular p. 210.

7 Ibid. See also Richard Elliott Friedman, *Who Wrote the Bible?*, op. cit., p. 146.

8 1 Kings 8:6–8 (emphasis added). New English Bible translation, Oxford and Cambridge University Presses, 1970, p. 384.

9 See David L. Edwards, *A Key to the Old Testament*, op. cit., p. 210.

10 William Shakespeare, *Hamlet*, Act III, Scene 2, line 25.

11 Julian Morgenstern, 'The Book of the Covenant', in *Hebrew Union College Annual*, vol. V, 1928, reprinted by KTAV Publishing House, New York, 1968, p. 29, footnote 37.

12 Kings 8:9 (Jerusalem Bible translation).

13 Deuteronomy 10:5 (New English Bible translation). The Jerusalem Bible translation states: ‘and there they stayed’; the King James Authorized Version states: ‘and there they be’.

14 Julian Morgenstern, ‘*The Book of the Covenant*’, op. cit., p. 29, footnote 37.

15 Ibid. Emphasis added.

16 Louis Ginzberg, *Legends of the Jews*, Jewish Publication Society of America, Philadelphia, 1909, vol. IV, p. 282.

17 *Hebrew-English Edition of the Babylonian Talmud*, Soncino Press, London, Jerusalem, New York, 1974, *Tractate Yoma* 53b.

18 John Oates, *Babylon*, Thames & Hudson, London, 1988, p. 128.

19 Ibid., pp. 126–9.

20 2 Chronicles 34:33 (Jerusalem Bible translation); 2 Chronicles 35:2–3 (King James Authorized Version translation).

21 2 Chronicles 35:19 (cf. 2 Chronicles 35:1–3).

22 This date is arrived at by simple mathematics, since it is known that Josiah came to power in 640 BC (see *Jerusalem Bible*, Eyre & Spottiswoode, London, 1968, Chronological Table, p. 345), the eighteenth year of his reign must therefore have been 622 BC.

23 Jeremiah began his prophetic ministry in 626 BC – see Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, Jerusalem Publishing House, Jerusalem, 1989, p. 380. I attribute the date of 626 BC to the verses quoted because they are recognized by leading biblical scholars as being amongst 'Jeremiah's earliest prophecies'. See Menahem

Haran, *Temples and Temple Service in Ancient Israel*, Clarendon Press, Oxford, 1978, reprinted in 1985 by Eisenbrauns, Winona Lake, Indiana, p. 281.

24 Jeremiah 3:16–17 (Jerusalem Bible translation).

25 Jeremiah's authorship of the book of Jeremiah is not in doubt – although he probably dictated it to an amanuensis. See, *inter alia*, Geoffrey Wigoder (ed.), *The Encyclopaedia of Judaism*, op. cit., pp. 380–1; *Jerusalem Bible*, op. cit., Introduction to the book of Jeremiah, p. 1067; F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, Oxford University Press, 1988, pp. 730–1.

26 Menahem Haran, *Temples and Temple Service in Ancient Israel*, op. cit., p. 281.

27 See *Jerusalem Bible*, op. cit., Chronological Table, pp.

344–5. The fifteen kings between Solomon and Josiah were Rehoboam, Abijah, Asa, Jehosophat, Jehoram, Ahaziah, Athaliah, Joash, Amaziah, Uzziah, Jotham, Ahaz, Hezekiah, Manasseh and Amon.

28 *The Holy Bible, King James Version* (Electronic First Edition, KJ21), Franklin Computer Corporation, New Jersey, 1989. Throughout my research I made exhaustive use of this marvellous investigative instrument.

29 See Numbers 12:10 and discussion in Chapter 13 above.

30 The occurrences were: Exodus 25:22, Numbers 7:89; 1 Samuel 4:4; 2 Samuel 6:2; and 1 Chronicles 13:6.

31 2 Kings 7:3.

32 *Jerusalem Bible*, op. cit., Chronological Table, p. 345.

33 2 Chronicles 26:16.

34 2 Chronicles 26:19.

35 See Leviticus 10:1–2.

36 See Chapters 12 and 13 above for a fuller discussion.

37 2 Chronicles 26:21–3.

38 Geoffrey Wigoder (ed.), *The Encyclopedia of Judaism*, op. cit., p. 575: 'the precise dating of individual psalms is impossible.'

39 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, op. cit., p. 1139. See also Geoffrey Wigoder (ed.), *The Encyclopedia of Judaism*, op. cit., pp. 574–6; and Stephen Bigger (ed.), *Creating the Old Testament: The Emergence of the Hebrew Bible*, Blackwell, Oxford, 1989, pp. 254–8.

40 Ezekiel 10:2; Ezekiel 10:6; Ezekiel; 10:7.

41 For the dating of Ezekiel see ‘The Book of the Prophet Ezekiel’, *The Cambridge Bible Commentary*, Cambridge University Press, 1974, Historical Table, p. xi.

42 Ezekiel 8:1–3: ‘the spirit lifted me up between the earth and the heaven, and brought me in the visions of God to Jerusalem.’

43 Ezekiel 10:20–2, especially 21.

44 Ezekiel 10:1, 15, 20.

45 Ezekiel 10:19, 5.

46 Isaiah 37:16; 2 Kings 19:15.

47 Isaiah 37:14–16.

48 2 Kings 19:14–15.

49 Biblical scholars are unanimous that chapters 1–39 of the book of Isaiah, including this chapter of course, were

written by Isaiah himself. See Geoffrey Wigoder (ed.), *The Encyclopedia of Judaism*, op. cit., p. 369. See also *Jerusalem Bible*, op. cit., 'Introduction to Isaiah', p. 970. See also Peter Calvocoressi, *Who's Who in the Bible*, Penguin, London, 1988, pp. 87–8. Some of the later chapters in Isaiah, from 40 onwards, were certainly written later. The antiquity of chapter 37, however, the one in which the reference to 'between the cherubims' crops up, is not in doubt. Moreover since the chapter refers to a known historical event – Sennacherib's invasion – it can be dated fairly precisely to 701 BC (see *Jerusalem Bible*, Chronological Table, p. 345; and F. L. Cross and E. A. Livingstone (eds), *Oxford Dictionary of the Christian Church*, op. cit., p. 715.

50 See *Jerusalem Bible*, op. cit., 'Introduction to the Book of Isaiah', p. 970. See also F. L. Cross and E. A. Livingstone

(eds), *The Oxford Dictionary of the Christian Church*, op. cit., p. 715.

51 Isaiah 6:1–3, and *Jerusalem Bible*, op. cit., p. 970.

52 *Jerusalem Bible*, op. cit., Chronological Table, p. 345, for dates.

53 F. L. Cross and E. A. Livingstone (eds), *The Oxford Dictionary of the Christian Church*, op. cit., p. 715. See also *Handbook to the Bible*, Lion Publishing, London, 1988, p. 376. See also the *Encyclopedia of Judaism*, op. cit., p. 369. 'Modern scholars maintain that the book of Isaiah is a composite work written by more than one prophet, and that only chapters 1–39 are the words of Isaiah.' The verse quoted above falls safely within this range, in chapter 37 of Isaiah.

54 Isaiah 37:6–7. See also *Handbook to the Bible*, op. cit., p.

376; *The Encyclopedia of Judaism*, op. cit., p. 369.

55 Isaiah 37:14.

56 Isaiah 37: 17–20.

57 Isaiah 37:33, 35.

58 Isaiah 37:36–7.

59 See, for example, Paul Johnson, *A History of the Jews*, Weidenfeld & Nicolson, London, 1988, p. 73.

60 Ibid.

61 See Chapters 12 and 13 above.

62 Isaiah 37:14. The house of the Lord' is of course a synonym for the Jerusalem Temple (compare Jerusalem Bible translation of the same verse).

63 Isaiah 37:14.

64 1 Kings 3:15.

65 2 Samuel 6:5.

66 Deuteronomy 10:8.

67 Dates from *Jerusalem Bible*, op. cit., Chronological Table, p. 345.

68 2 Kings 21: 2–7.

69 *Jerusalem Bible*, op. cit., p. 419. See also Irving M. Zeitlin, *Ancient Judaism*, Polity Press, Cambridge, 1986, p. 173.

70 1 Kings 6:19 (Jerusalem Bible translation). With specific reference to the Ark, Solomon had asked: ‘But will God indeed dwell on the earth? behold, the heaven and heaven of heavens cannot contain thee: how much less this house that I have builded? Yet have thou respect unto the prayer of thy servant, and to his supplication, O Lord my God, to hearken unto the cry and to the prayer,

which thy servant prayeth before thee today: that thine eyes may be open towards *this house* night and day, even toward *the place of which thou hast said, "My name shall be there*".' 1 Kings 8:27–9. See also 2 Samuel 6:2: 'the Ark of God, whose *name* is called by the *name* of the Lord of Hosts that dwelleth between the cherubims.' (Emphasis added.)

71 E.g. see 1 Chronicles 28:2.

72 2 Kings 21:16 (Jerusalem Bible translation).

73 2 Kings 21:20–1, 23–4.

74 2 Kings 22:1.

75 2 Chronicles 34:3.

76 2 Chronicles 34:3.

77 2 Kings 23:6 (amalgam of King James Authorized

Version and Jerusalem Bible translations).

78 2 Chronicles 34:7–8.

79 2 Kings 22: 6.

80 Professor Menahem Haran, *Temples and Temple Service in Ancient Israel*, op. cit., pp. 277, 278, 288, 281.

Chapter 16 Door of the Southern Countries

1 Jill Kamil, *Upper Egypt*, Longman, London and New York, 1989, p. 35.

2 Ibid., p. 36.

3 Bezalel Porten, *Archives from Elephantine: the Life of an Ancient Jewish Military Colony*, University of California Press, Berkeley, Los Angeles, 1968, p. 110. 'The length of the Temple was at least sixty cubits. A width of approximately twenty cubits may be inferred from the presence of two buildings lying northeast of the Temple.' An ancient cubit measured eighteen inches – see Dr J. H. Hertz (ed.), *The Pentateuch and the Haftorahs*, Soncino Press, London, 1978, p. 327. The *Jerusalem Bible*, footnote (b) p. 887, concurs (*Jerusalem Bible*, Eyre &

Spottiswoode, London, 1968).

4 Bezalel Porten, *Archives from Elephantine*, op. cit., p. 110.

5 1 Kings 6:2: 'the length thereof was threescore cubits, and the breadth thereof twenty cubits.'

6 Emil G. Kraeling (ed.), *The Brooklyn Museum Aramaic Papyri: New Documents of the fifth century* BC *from the Jewish Colony at Elephantine*, Published for the Brooklyn Museum by the Yale University Press, New Haven and London, 1953, p. 101.

7 1 Kings 6:9.

8 Bezalel Porten, *Archives from Elephantine*, op. cit., p. 133; Emil G. Kraeling, *The Brooklyn Museum Aramaic Papyri*, op. cit., p. 100.

9 Bezaleel Porten, *Archives from Elephantine*, op. cit., pp. 13 and 133.

10 Ibid., pp. 109, 152. See also Emil G. Kraeling, *The Brooklyn Museum Aramaic Papyri*, op. cit., p. 85.

11 E.g. Numbers 10:33; 35–6.

12 I.e. after the promulgation of the Deuteronomistic code during the reign of Josiah – see Emil G. Kraeling, *The Brooklyn Aramic Papyri*, op. cit., p. 85.

13 Ibid., p. 85.

14 Ibid., p. 85.

15 1 Samuel 4:4.

16 Bezalel Porten, *Archives from Elephantine*, op. cit., p. 299.

17 See Chapter 15 above.

18 Bezalel Porten, *Archives from Elephantine*, op. cit., pp. 121–2.

19 Ibid., p. 115.

20 Ibid., pp. 115–16.

21 1 Chronicles 28:2.

22 Emil G. Kraeling, *The Brooklyn Museum Aramaic Papyri*, op. cit., p. 24.

23 See Chapter 14 above.

24 In 609 BC. See 2 Kings 23:29–30. See also Bruce Metzger, David Goldstein, John Ferguson (eds), *Great Events of Bible Times*, Guild Publishing, London, 1989, p. 105. See also *Jerusalem Bible*, op. cit., Chronological Table, p. 345.

25 'The occasionally canvassed origin of the Falashas from the Jewish garrison of Elephantine or the conjecture that Jewish influences in Abyssinia had penetrated by way of Egypt are devoid of any reliable historical basis', Edward

Ullendorff, *Ethiopia and the Bible*, published for the British Academy by the Oxford University Press, 1988, p. 117.

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27 This point is particularly cogently argued by David

Kessler in *The Falashas*, op. cit.

28 See Chapter 6 above.

29 Bezalel Porten, *Archives from Elephantine*, op. cit., p. 201.

30 See Chapter 6 above.

31 Bezalel Porten, *Archives from Elephantine*, op. cit., pp. 109 and 154–5. Emil G. Kraeling (ed.), *The Brooklyn Museum Aramaic Papyri*, op. cit., p. 91.

32 Bezalel Porten, *Archives from Elephantine*, op. cit., p. 155.

33 See Chapter 6 above.

34 1 Kings 8:54.

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37 Emil G. Kraeling (ed.), *The Brooklyn Museum Aramiac Papyri*, op. cit., p. 102–3.

38 See Chapter 9 above.

39 James Bruce reports his discovery of Meroe in his *Travels to Discover the Source of the Nile in the Years 1768, 1769, 1770, 1771, 1772 and 1773*, Edinburgh, 1790, vol. IV, pp. 538–9. For independent confirmation that the Scottish explorer was indeed the discoverer of Meroe see William Y. Adams, *Nubia: Corridor to Africa*, Allen Lane, Princeton University Press, 1984, p. 295.

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41 See Professor Edward Ullendorff, *The Ethiopians: An Introduction to Country and People*, Oxford University Press, 1973, pp. 1–2.

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48 Numbers 12:1 (King James Authorized Version translation). The Jerusalem Bible refers to Moses's Ethiopian wife as a 'Cushite woman'. So, too, does the New English Bible.

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Autumn 1978.

50 Genesis 2:13 (King James Authorized Version translation).

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52 See Major R. E. Cheesman, *Lake Tana and the Blue Nile: An Abyssinian Quest*, Cass, London, 1936, pp. 71 and 75. For a discussion see also Professor Edward Ullendorff, *Ethiopia and the Bible*, op. cit., p. 2. Ullendorff states of the Ethiopian traditions regarding the Blue Nile/ Gihon: 'There is no valid reason to doubt the essential accuracy of this identification.'

53 Jon D. Levenson, *Sinai and Zion: An Entry into the Jewish Bible*, Harper & Row, San Francisco, 1987, p. 19.

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57 Ibid.

58 Isaiah 18:1–2.

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7 Wolfram von Eschenbach, *Parzival*, op. cit., p. 232.

UNDERWORLD

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Edited by *Graham Hancock*

By the Same Author

The Sign and the Seal

Fingerprints of the Gods

Keeper of Genesis (coauthor)

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GRAHAM HANCOCK

Photographs by SANTHA FAIIA

THREE RIVERS PRESS • NEW YORK

For Santha … for being there. Again

With all my love.

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Acknowledgements

Underworld has been a huge, all-consuming quest spread out over a period of almost five years. I can only thank here a small number of the very many people who have contributed to it in one way or another.

First and foremost, thanks to my wife Santha, who travelled every step of the journey with me, took all the risks side by side with me, did every dive with me, faced up to every challenge with me and lived and breathed *Underworld* for five years just as I have done. Of course, all the photos in the book are Santha's but there has only been space here to reproduce a tiny fraction of them. Many more of her wonderful pictures from our adventures appear on the section of my website *http://www.grahamhancock.com* that is dedicated to *Underworld*.

Special thanks to Sharif Sakr, my brilliant researcher, who joined me straight out of Oxford University in the summer of 2000 when the writing phase of the book was just beginning. Sharif is, in every sense, exactly what a great researcher should be – an original thinker and an individualistic self-starter with huge intelligence, boundless energy and limitless initiative who never needs to be told what to do but who always just gets on and does it. Sharif's contribution to the strengths of *Underworld* has been enormous.

Thanks also to John Grigsby, my researcher for some years before Sharif joined me, and to Shanti Faiia for her excellent work on researching, planning and coordinating many of the diagrams in the book. Thanks to Sean Hancock for researching Ice Age chronologies and chasing rumours of underwater ruins for us at Pohnpei and Kosrae. Thanks to Leila Hancock for her research on the nature and attributes of Siva. Thanks to Shakira Bagwandeen for research notes on various issues of Indian religion and prehistory.

Dr Glenn Milne of Durham University's Department of Geology played a crucial role in generously providing all the inundation maps used in *Underworld.* Glenn's kindness in supplying these maps should not be taken as any sort of endorsement on his part of the broader theories and ideas presented here – which are entirely my own responsibility.

Thanks to Ashraf Bechai for showing us the mysterious underwater megalithic sites off Alexandria, particularly the gigantic blocks of Sidi Gaber, which orthodox archaeology has not yet come to terms with.

In what I have to say about Malta I drew heavily on the remarkable research of Dr Anton Mifsud and want to express my thanks to him for allowing me to report his findings so extensively here. If, as I believe to be the case, an entirely new chapter in the prehistory of Malta is about to open, then it is due to Anton's tireless search for the truth and the far-reaching investigation that he continues to conduct into the Maltese past. Thanks also to Anton's co-authors on his various books – Charles Savona Ventura, Simon Mifsud and Chris Agius Sultana.

In India I owe a debt of gratitude to all at the Archaeological Division of the National Institute of Oceanography (NIO), in particular to Kamlesh Vora, Sundaresh and Dr A. S. Gaur. Special thanks, too, to Dr Ehrlich Desa, head of the NIO, who did so much to clear the way for our dives at Dwarka and Poompuhur and showed such good will and kindness towards us when Santha and I first turned up at the NIO's headquarters in Donna Paula, Goa.

Thanks also to India's National Institute of Ocean Technology (NIOT), whose ground-breaking discoveries in the Gulf of Cambay are reported for the first time in this book. I mention in particular Dr S. Kathiroli, Project Director of the NIOT, Dr S. Badrinaryan, Geological Consultant to the NIOT, and G. Janaki Raman, Manager, Vessel Management Cell.

So many good people have helped us in Japan over the years that it is simply impossible to mention all of them here. I hope those whose names are left out will forgive me. Special mention must be made of our friend Shun Daichi, the Japanese translator of my books who accompanied me

and Santha on our journeys in Japan – both above and below the water. Thanks too to Seamen's Club, Ishigaki, and to the staff and management there whose help made all our diving adventures in Japan possible. Outside Seamen's Club, Kiyoshi Nagaki, Isamu Tsukahara, Kihachiro Aratake, Yohachiro Yoshimaru, Mitsutoshi Taniguchi and Kuzanori Kawai all also dived with us and helped us in our underwater investigations.

Last but not least, Santha and I want to thank our children Ravi Faiia, Shanti Faiia, Sean Hancock, Leila Hancock, Luke Hancock and Gabrielle Hancock for putting up with our preoccupations and prolonged absences from home. All the children have played their own parts in the quest, have learned to dive and have joined us for some of our diving adventures. We're proud and happy to have such a bright and enterprising group of young people around us.

Graham Hancock,

London, January 2002

PART ONE

Initiation

1 / Relics

> If you do not expect it, you will not find the unexpected, for it is hard to find and difficult.
>
> Heraclitus

Five kilometres off the south-east coast of India, submerged at a depth of 23 metres beneath the murky, shark-infested waters of the Bay of Bengal, an ancient man-made structure sits on the bottom of the sea. The structure is U-shaped, like a huge horseshoe; its periphery measures 85 metres and its walls are about 1 metre thick and 2 metres high.[1]

The discovery was made by a team of marine archaeologists from India's National Institute of Oceanography (NIO) in March 1991, working off-shore of the

Tranquebar-Poompuhur coast of Tamil Nadu near Nagapattinam. Their equipment included side-scan sonar, which transmits an acoustic signal up to 1000 metres wide and measures the strength of the returning echo. Towed behind a research vessel, side-scan sonar is capable of building accurate maps of sea-bed contours and of identifying any obvious anomalies such as shipwrecks.

On 7 March 1991 a shipwreck at a depth of 19 metres was pinpointed by the sonar. It was investigated by divers on 8 and 9 March, who found many scattered objects including lead ingots and iron cannon on the surrounding sea-bed. The official report of the project then states:

> Till 1.00 p.m. [on 9 March] the divers were working on the scattered objects. T. C. S. Rao who was carrying out sonar survey 5 km opposite Chinnavanagiri [not far from the wreck] reported another object 40 × 10

> metres having the shape of a ship [?] recorded on sonograph. Shri Bandodkar was sent to the site (designated PMR2) and he placed two marker buoys there. By 2.00 p.m. Manavi and Chinni dived but as the buoys had drifted the object could not be explored.[2]

A second side-scan sonar survey later in the afternoon refined the measurements, suggesting that the object was oval and measured '30–35 metres east to west and 10 metres north to south with an apparent opening in one side'.[3]

On 16 and 19 March T. C. S. Rao continued the survey and now reported:

> There are actually three objects, the central one being oval-shaped with an opening on the northern side. Its longer axis is 20 metres. There is a clay deposit on the eastern flank beyond which another semi-circular structure is seen. To the north-west of the central object one or more oval-shaped objects are found.[4]

Finally on 23 March 1991 three divers were able to go down but only had sufficient air to study the central structure. The official report describes what they saw as follows:

> a horseshoe-shaped object, its height being one to two metres. A few stone blocks were found in the one-metre-wide arm. The distance between the two arms is 20 metres. Whether the object is a shrine or some other man-made structure now at 23 metres depth remains to be examined in the next field season …[5]

Deep can mean very old

In the event no work could be done at the site in the next season, but in 1993 the structure was examined again by the NIO's diver archaeologists, who took careful measurements

and eventually reported their findings as follows:

> The structure of U-shape was located at a water depth of 23 metres which is about 5 kilometres off shore. The total peripheral length of the object is 85 metres while the distance between the two arms is 13 metres and the maximum height is 2 metres. The height of the eastern arm is greater than that of the western arm. The centre of the object is covered with sediment but some patches of rock were noticed. Hand fanning showed that the central part of the object is rocky at a depth of 10–15 centimetres. Divers observed growth of thick marine organism on the structure, but in some sections a few courses of masonry were noted.[6]

Since 1993, for want of funding, no further marine archaeology has been conducted along the Poompuhur coast and the general impression has been disseminated in archaeological literature that the NIO has not found any submerged structures there that are older than the third

century BC.[7] This is certainly true of numerous structures that were excavated very near to the shore, usually in depths of less than 2 metres of water and often half-exposed at low tide.[8] But the U-shaped structure at 23 metres – more than 70 feet – is another matter altogether and cannot by any means be automatically assigned to the third century BC. On the contrary, since we know that the sea-level has been continuously rising during the last 19,000 years,[9] common sense suggests that structures now submerged by 23 metres of water must be much older than structures in just 2 metres.

'Nobody has looked …'

In February 2000 I travelled to Bangalore to the home of the doyen of India's marine archaeologists, S. R. Rao, founder of

the Marine Archaeology Centre at the NIO and the man who had led the Tranquebar-Poompuhur survey. Rao is a distinguished, lean-faced man in his mid-seventies, with boundless energy and enthusiasm for his subject. After the pleasantries were over I told him that I was intrigued by the U-shaped structure his team had found at Poompuhur: 'Twenty-three metres is deep. Doesn't that mean that it could be very old?'

'Correct, definitely,' Rao replied. 'That is what we are also thinking. In fact we took our ocean engineer also to see whether the structure had gone down as a result of erosion by the sea or by its own weight. I don't think that is the case, because it is a huge structure which has been built at that depth – at that time the sea was further out. This was built when it was above water. Then does the sea rise so much within such a short period was the question – 23 metres just

within 2000 years or so?'

'Maybe the sea-level rise that covered this structure took place a lot earlier than that,' I offered. 'Maybe it belongs to a much earlier period than the 2000-year-old ruins of Poompuhur up in the intertidal zone? There have been sea-level rises that could have done something like this but they took place a long time ago – at the end of the Ice Age.'

'Correct. At that time it happened. You are correct.'

'There were three large floods at the end of the Ice Age – and even the most recent of these takes us back 8000 years. Is that a possible date for the U-shaped structure?'

'We don't know,' Rao replied, 'because you see from whatever we have got we are not able to decide its date at all.'

'Why is that?'

‘Because amongst the samples we took we found no organic materials that could be dated by carbon 14 and no pottery that could be dated by thermo-luminescence or by type. We have only stone which cannot be dated in any meaningful sense.’

‘Except by one factor – which is that the structure is now under 23 metres of water. So the sea-level rise itself can be helpful in indicating a date.’

‘Correct. I do know that for the Gulf of Kutch in north-western India an oceanographic study has been made and the oceanographers themselves have said that at 10,000 BC the sea-level was 60 metres lower than it is today. If that is true there it is also true here.’

‘Which raises the possibility that we may be looking at remnants of a previously unknown ancient culture …’

‘Ancient. Definitely!’ Rao exclaimed. ‘And, in fact, where really was the origin of India’s earliest-known civilization – the Indus Valley civilization? Scholars guess, but nobody knows. The Indus Valley script itself is already a highly developed script when it first appears in the third millennium BC. The early architecture is already developed – you have got brick structures, you have got drains, everything is planned and all that – so there must be something before that. Where is the evolutionary phase? We don’t know.’

Dr Rao was getting close to the real reason that I had come to see him. ‘Maybe the evidence of the evolutionary phase is underwater?’ I suggested.

‘It’s underwater. Quite possible.’

‘If so, then this underwater structure at Poompuhur could be incredibly important – simply because of its depth …’

‘Twenty-three metres …’

‘Twenty-three metres. That’s right. Now if we can rule out land subsidence, and further work must be done before we can rule that out, but if we can rule that out and if it’s an issue exclusively of sea-level rise, then we have a discovery here that calls into question the accepted chronology of civilization.’

Rao pondered for a moment before replying: ‘You see, some people, some traditions, do say that there was a continent in the Indian Ocean, a very long time ago, more than 10,000 years ago, that got submerged … Quite possible. You see, we are not doing thorough research. If we had taken more time and more funds and all that, perhaps we could find many more structures, not only that one, and then you could come to some kind of conclusion about the much earlier epoch.’

I told Rao that I was familiar with the south Indian traditions to which he was referring. These describe extensive lands, submerged about 11,000 years ago, that had once existed in the Indian Ocean to the south of the present Cape Comorin. The name of these lost lands was Kumari Kandam. At the time of their inundation, the traditions say, they had been the home of a high civilization that had even boasted an 'Academy' of advanced learning where philosophy and literature were cultivated.

'It must have existed,' Rao asserted. 'You can't rule that out at all. Particularly, as I have said, since we have found this structure at 23 metre depth. I mean, we have photographed it. It is there, anybody can go and see. I do not believe that it is an isolated structure; further exploration is likely to reveal others round about. And then you can go deeper, you see, and you may get more important things.'

I asked if there had been any further attempt since 1993 to find underwater structures off southern India.

'No,' Rao replied. 'Nobody has looked.'

Ken Shindo's story

In 1996, four years before my meeting with Rao, my book *Fingerprints of the Gods* became the number-one bestseller in Japan, a country that had fascinated me since childhood. The book's success gave me my first opportunity to travel there.

I visited Japan twice that year to give a series of public lectures about the issues I'd explored in *Fingerprints of the Gods*. On the second visit I was approached after a lecture by a photojournalist named Ken Shindo, who works for the influential Kyodo-Tsushin News Agency. He showed me

striking under water pictures that he had taken of a bizarre terraced structure, apparently a man-made monument of some kind, lying at depths of up to 30 metres off the south coast of the Japanese island of Yonaguni. My central research and writing interest, for years, has been the possibility of a lost civilization destroyed in the cataclysmic global floods that brought the last Ice Age to an end. So I was immediately fascinated by Shindo's story: 'An underwater ruin here in Japan!' I exclaimed. 'Is it definitely man-made?'

Shindo laughed: 'Some people say it's a freak of nature but they haven't spent time on it like I have. I'm absolutely certain it's man-made.'

'Does anyone know how old it is?'

Shindo told me that he had been working with Professor Masaaki Kimura, a marine seismologist at the University of

the Rykyus (Okinawa), who had been studying Yonaguni's mysterious underwater structure since 1994. Kimura too was convinced it was man-made. His extensive survey, sampling and measurement had shown that it had been hewn out of solid bedrock when the site was still above water. If sea-level rise were the only factor to take into account, then provisional calculations would indicate a date of inundation of around 10,000 years ago.

That's approximately 5000 years older than the oldest known monumental buildings on earth – the ziggurats of ancient Sumer in Mesopotamia.

Davy Jones' Locker

I knew that I had to learn to dive and talked my wife Santha into doing lessons with me when we were on a visit to Los

Angeles. We took our PADI Open-Water courses in the chill, kelpy waters off Catalina Island in November 1996.

My first reaction to diving was that it was a weird and scary experience, contrary to the laws of nature, and that I was unlikely to survive it. I was wrapped up like the Michelin Man in a full-body neoprene wetsuit, and there seemed to be a ludicrous amount of equipment strapped, velcroed or clipped on to me.

Let's start at the feet. Here the diver wears short rubber boots tucked inside the ankle-cuffs of his wetsuit. The wetsuit works by taking in a thin layer of water between the skin and the suit; this is rapidly warmed to body temperature and remains warm for some time because the neoprene of the suit is an excellent insulator. Over the boots are strapped the diver's fins, without which he would be almost as clumsy and immobile submerged as he is on land with all his gear on,

and would unnecessarily waste a great deal of energy thrashing about. Strapped to his calf there should be a strong stainless-steel knife with a sharp blade – this can be life-saving if you get caught up in a drifting fishing net or some other equally uncompromising, usually man-made, hazard.

Around the diver's waist is a belt through which are threaded a number of lead weights to compensate for the natural buoyancy of the body and the additional buoyancy of the wetsuit. These days I can often get away with 2 kilos, but inexperienced divers need a lot more. On my first dives back in 1996 and into the first half of 1997, I remember having to use 12 and in one case even 14 kilos – a horrendous load.

Moving on up the body, the next item of equipment the diver wears is a partially inflatable sleeveless jacket called a Buoyancy Control Device – 'BCD', or just 'BC' for short. The scuba tank which provides the diver with air to breathe

underwater is strapped on to the back of the BC and typically comes in 10, 12 and 15 litre sizes. A mid-sized tank weighs more than 15 kilos and for most dives is filled with nothing other than normal air under enormous compression. This is delivered to the diver through two transformers which step down the pressure of the air to a level where it can be breathed easily. The ‘first-stage’ is mounted immediately on top of the tank and removes most of the pressure, from here a rubber hose leads to the ‘second-stage’, or ‘regulator’, which is placed in the diver’s mouth and provides air on demand. Three other rubber hoses also emerge from the first-stage. One of these connects to the BC, allowing the diver to power-inflate it direct from the tank. One leads to a dangling instrument-console usually containing a compass and gauges that tell you how much air you have left and how deep you are. The last, called the ‘octopus’, is a spare second-stage for

use in emergencies – for example to provide air to another diver whose own tank is empty.

Sometimes divers wear a rubber hood, since heat loss from the unprotected head is very rapid. A glass-fronted mask, without which the human eye can only perceive blurred images under water, covers the eyes and nose. The final major pieces of equipment are a small wrist computer, which can save your life by warning you if you are ascending too fast from depth, and a pair of gloves to keep your hands warm and prevent grazing or accidental contact with unpleasant marine organisms like fire coral.

Wrapped up in all this stuff, with our total scuba experience at that time amounting to just three half-hour swimming-pool dives each, Santha and I contemplated the waters of the Pacific with certain misgivings. To be honest, we were afraid. It looked deep and dark and dangerous down

there, down amongst the waving streamers of kelp, down in Davy Jones' Locker … But if we wanted to see that incredible underwater structure in Japan for ourselves then we were going to have to do this. On our instructor's command we jumped in and paddled out from shore.

Four days later we were licensed but definitely not yet experienced enough to dive at Yonaguni.

A generous offer

I did not know when we would be able to organize a diving trip to Japan but knew only that it would be expensive. Then a strange synchronicity occurred. Out of the blue some time in January 1997 I received a fax from an American company representing a Japanese businessman. The fax said that the business man had read *Fingerprints of the Gods* and would like

to invite Santha and me to fly first-class to Yonaguni at his expense to explore the island and to dive at the monument. He would ensure our safety by sending a group of top-flight diving instructors with us from the Seamen's Club, a hotel and dive school on the neighbouring island of Ishigaki. He would also provide us with a fully equipped dive boat and all other facilities.

There were no strings attached to this generous offer, which we accepted. In March 1997 we flew from London to Tokyo and then via Okinawa to Yonaguni to do our first dives there. This was the beginning of a long-term friendship with the businessman (whose privacy I protect) and of what began as an informal project to explore, document and try to understand the sequence of ancient and highly anomalous structures that have been found underwater at Yonaguni and at other islands in south-west Japan.

Yonaguni

The first anomalous structure that was discovered at Yonaguni lies below glowering cliffs of the southern shore of the island. Local divers call it Iseki Point ('Monument Point'). Into its south face, at a depth of about 18 metres, an area of terracing with conspicuous flat planes and right-angles has been cut. Two huge parallel blocks weighing approximately 30 tonnes each and separated by a gap of less than 10 centimetres, have been placed upright side by side at its north-west corner. In about 5 metres of water at the very top of the structure there is a kidney-shaped 'pool' and near by is a feature that many divers believe is a crude rock-carved image of a turtle. At the base of the monument, in 27 metres of water, there is a clearly defined stone-paved path oriented towards the east.

If the diver follows this path – a relatively easy task, since there is often a strong west-to-east current here – he will come in a few hundred metres to ‘the megalith’, a rounded, 2 tonne boulder that seems to have been purposely placed on a carved ledge at the centre of a huge stone platform.[10]

Two kilometres west of Iseki Point is the ‘Palace’. Here an underwater passageway leads into the northern end of a spacious chamber with megalithic walls and ceiling. At the southern end of the chamber a tall, lintelled doorway leads into a second smaller chamber beyond. At the end of that chamber is a vertical, rock-hewn shaft that emerges outside on the roof of the ‘Palace’. Near by a flat rock bears a pattern of strange, deep grooves. A little further east there is a second megalithic passage roofed by a gigantic slab that fits snugly against the tops of the supporting walls.

Two kilometres to the east of Iseki Point is Tategami Iwa, literally ‘The Standing God Stone’, a natural pinnacle of rugged black rock that soars up out of the ocean. At its base, 18 metres underwater, there is a horizontal tunnel, barely wide enough to fit a diver, that runs perfectly straight west to east and emerges amidst a scatter of large blocks with clean-cut edges.

A three-minute swim to the south-east brings the diver to what looks like an extensive ceremonial complex carved out of stone. Here at depths of 15 to 25 metres there are massive rectilinear structures with sheer walls separated by wide avenues.

At the centre is the monument that local divers refer to as ‘the stone stage’. Into its south-facing corner either man or nature has carved an image that looks to some like a gigantic anthropoid face with two clearly marked eyes …

Kerama

At Aka Island in the Kerama group 40 kilometres west of Okinawa, local divers have been aware for some years of the existence of a series of underwater stone circles at depths of 30 metres. There are also associated rectilinear formations within the same general area that show some signs of having been cut and worked by human beings.

Diving conditions at Kerama are atrociously difficult (as indeed they often are at Yonaguni too). There is a killer current, but this drops away almost to nothing for approximately an hour between tides. Only in that lull is it possible to get any serious work done and to gain a perspective on the enigmatic structures without constantly having to fight against the sea.

Kerama's most spectacular feature is 'Centre Circle', which

has a diameter of approximately 20 metres and a maximum depth of 27 metres. Here concentric rings of upright megaliths more than 3 metres tall have been hewn out of the bedrock surrounding a central menhir.

A second, similar circle, called ‘Small Centre Circle’ by local divers, stands immediately to the north-east. It is not noticeably smaller than the first.

A little to the south is ‘Stone Circle’, which is made up of much smaller, rounded stones. It has a huge diameter of about 150 metres. Within it are subsidiary stone circles sometimes touching one another at their edges like the links of a chain.

Aguni

Aguni Island, 60 kilometres north of Kerama, has steep and forbidding cliffs. On the south-west side of the island these cliffs overlook an area of turbulent water that local fishermen call the ‘washing machine’. The turbulence is caused by the presence of a sea-mount that ascends from much greater depths to form a small plateau only 4 metres under the surface. This plateau, perpetually swept by strong currents, contains a series of circular holes that look initially like well-shafts.

As they are lined with small blocks, there is little doubt that these shafts are man-made. The largest and deepest has a diameter of 3 metres and reaches a maximum depth (below the summit of the sea-mount) of about 10 metres. Others are typically 2 to 3 metres in diameter with a depth of less than 7 metres. A few are narrower and shallower. One has a small subsidiary chamber cut sideways into the wall of the main

shaft.

Chatan

The coastline around Okinawa has been the subject of intensive development during the past half-century. Thirty kilometres north of the capital Naha, on the west coast of the island, is the popular resort area of Chatan. Here, less than a kilometre off-shore, at depths of between 10 and 30 metres, is strewn a looming underwater fantasia of ‘walls’ and ‘battlements’ and ‘step pyramids’. Are these weird submerged structures natural or man-made? And if they are man-made then when, and by whom?

One possibility suggested to me by local fishermen is that the ‘structures’ could be artefacts of relatively recent military dredging. Certainly, several large US Air Force bases are

located very close to Chatan and the site is constantly overflown by all kinds of American warplanes doing manoeuvres. I still remain open to the possibility that dredging could have produced some of the features to be seen underwater, but against this I have received a report from Akira Suzuki, a Japanese historical researcher, who has carefully investigated both US and Japanese archives in Okinawa and has been unable to find any record of such operations in this area.[11]

The most striking of the Chatan structures is a wall with its base on the sandy bottom at a depth of 30 metres. It rises to a 'battlement' with a sunken 'walkway' about 10 metres above the sea-bed. At a certain point the walkway is broken by a vertical U-shaped shaft cut through the entire height of the wall.

To dive at Chatan is to be reminded of an episode in the *Nihongi*, one of Japan's most ancient texts, a chronicle of the earliest times. Here, in a long introductory section entitled 'The Age of the Gods', there is a passage that describes how a deity named Ho-ho-demi no Mikoto climbed into an upended waterproof basket and descended to the bottom of the sea. In this makeshift submarine 'he found himself at a pleasant strand … proceeding on his way he suddenly arrived at the palace of the Sea-God. This palace was provided with battlements and turrets and had stately towers.'

No doubt the many curious things that the *Nihongi* has to say about the Age of the Gods may all be explained as mythology and imagination. Still, I find it curious in Japan, where there are so many underwater 'anomalies', that such a venerable ancient text contains a clear tradition of submerged structures that can only be visited by divers.

15,000 years

Between 1996 and 2000, while I increased my practical diving experience of Japan's underwater ruins, I several times got caught up in the virulent debate about their provenance. Some scholars and journalists think they are entirely natural or 'mostly natural' (Robert Schoch of Boston University, for example). Others, such as Professor Kimura and Professor Teruaki Ishii of Tokyo University, remain convinced that they are man-made but are uncertain as to their antiquity (in addition to sea-level rise, complex factors such as possible land subsidence – through volcanism, plastic flow or isostatic rebound – must be taken into account when determining the date of submergence of any given site).[12] No early resolution of this debate can be expected, since we are dealing here as much with matters of opinion as with matters of generally

agreed fact. Those who think the structures are natural are likely to go on thinking so no matter what the other side says – and vice-versa. It looks like a stalemate.

Yet there is a potentially fruitful line of inquiry, capable of shedding light on this problem, which neither side has yet considered. Whether they were flooded by rising sea-levels or because of some form of land subsidence into the sea (quite possible in an area of great seismic instability like Japan) all the underwater ruins were above water at some point between 17,000 years ago (the end of the Last Glacial Maximum) and 2000 years ago – the latest date that anyone has suggested for their submergence.

What happened in Japan during this 15,000-year period? Could it be that there is something concealed in the remote prehistory of these islands that would provide a context and perhaps even a completely rational explanation for the

underwater ruins?

Alexandria

During 1998 and 1999 the Egyptian Mediterranean city of Alexandria was much in the news. French archaeologists, led by the melodiously named Dr Jean-Yves Empereur of the National Centre for Scientific Research, had announced the discovery of submerged ruins, complete with underwater columns, sphinxes and granite statues. In the same location they also claimed to have found the remains of the famed Pharos, or Lighthouse – 135 metres tall and one of the Seven Wonders of the ancient world[13] – that had overlooked Alexandria's Eastern Harbour from the point where the fort of the Mameluke sultan Qait Bey now stands. Though it was thought to have been built in the early third century BC,

historical reports suggest that at least part of the giant lighthouse remained intact until 8 August AD 1303, when a tremendous earthquake struck the Egyptian coast.[14]

Researching my earlier books had given me little reason to go to Alexandria. During a decade of travels in Egypt my focus had always been on the oldest sites – those going back to the third millennium BC and perhaps further – sites like Giza, with the three Pyramids and the Great Sphinx, Saqqara, where the remarkable *Pyramid Texts* are inscribed inside the tombs of Fifth and Sixth Dynasty Pharaohs, and Abydos, with First Dynasty boat graves and the mysterious Osireion.[15]

Since it was common knowledge that Alexandria had not existed until 332 BC, the date of its foundation by Alexander the Great,[16] I had always felt that it was unlikely to hold much of interest to me. I was vaguely aware that it had been

built upon the site of an earlier settlement named Rhakotis or Raqote, but since this was usually described as 'an obscure fishing village',[17] I never suspected for a moment that there might be significant traces of earlier monumental constructions in the area.

None of the underwater discoveries that were made public at the end of the 1990s did anything to change my view. They too belonged to what is called the Ptolemaic period of Egypt, named for the ruling dynasty – of which Cleopatra was the last monarch – established soon after Alexander's death by his general Ptolemy. I was at first intrigued to learn that inscriptions belonging to much earlier Pharaohs had been found amongst the underwater ruins – the cartouche of Rameses II (1290–1224 BC) on pink-granite 'papyriform' columns from Aswan, an obelisk of his father Seti (1306–1290 BC), a sphinx from the time of Senuseret III (1878–1841

BC) and numerous other artefacts and objects bearing ancient inscriptions.[18]

On good grounds, archaeologists did not regard such discoveries as evidence of any earlier monumental settlement in Alexandria but rather of a well-known Ptolemaic habit of borrowing pieces of religious art and architecture from temples that had been built throughout Egypt by earlier Pharaohs.[19] Jean-Yves Empereur was very clear on this point:

> The numerous products of the Pharaonic period – sphinxes, obelisks and papyrus columns [found underwater around Qait Bey] – do not make any significant difference to what we already know about the history of Alexandria and its foundation by Alexander the Great.[20]

Diving with Empereur

A research trip to Alexandria was easy to talk myself out of. Since what was known of its history was that it had no history before the end of the fourth century BC, there was obviously no good reason for me to go there. The ruins of the Pharos and of what looked like an extensive complex of buildings seaward of it had not been submerged in the period I was interested in – the end of the last Ice Age – but between the fourth century BC and the thirteenth century AD, most probably as a result of what geologists call 'vertical tectonic subsidence' caused by earthquakes.[21] Besides, there is a complicated permissions ordeal which one must undergo if one wishes to dive at Alexandria involving the Ministry of Information, the Ministry of National Security, the Supreme Council of Antiquities, the Police, Customs and the Navy. The whole process routinely takes a month …

So I'd pretty much quashed the idea before it took shape when I remembered that my good friend Robert Bauval was born in Alexandria and that several members of his large, globe-trotting family were still living there. On a whim I telephoned him – he lives just outside London – and asked him if he knew anything about Empereur and whether he thought it would be possible to fix up a day of unofficial diving with the French team.

Rob is reputed to have worked miracles in Alexandria, even from as far away as England. I therefore wasn't too surprised when he called me back the next day and informed me that he had spoken to his great-aunt Fedora, who knew Empereur well; she in turn had put in a good word with the archaeologist. The upshot was that we would be allowed to dive at Qait Bey without formality, any time that suited us in the next few weeks.

Sleep of years

On 30 September 1999 Santha and I, hefting our gear, met up with Robert at the gatehouse to Qait Bey fort. He ushered us inside its medieval limestone walls, soothing the guard in Arabic, and led us to a yard where scuba tanks were laid out and a group of young archaeologists, the men muscular, with stubbly chins, the women tanned and serious, were donning wetsuits and checking gear.

Empereur, in his late forties, was older than the rest of his team. He was wearing a tropical linen jacket and a Panama hat and carrying a briefcase. ‘Excuse me,’ he now said as we shook hands, ‘but I have to rush off, so I won’t be diving with you today.’

‘No problem. I’m really very grateful to you for allowing us to do this at all at such short notice.’

Empereur shrugged: ‘My pleasure. I hope you enjoy yourselves.’ He introduced us to the other team members, then we shook hands again and he strode away.

Because it’s hard to take notes underwater, I normally document my dives on video. It was my intention to do so now, but as we were getting ready I was told that this would not be permitted. Santha, likewise, was asked to leave her three Nikonos 5s behind. Apparently it was something to do with an exclusive deal that had been signed with the French photo agency Sygma. Robert protested vociferously on our behalf and as a compromise it was ultimately agreed that Santha could use her cameras but that my video would not be allowed under any circumstances.

Once that was settled we were led down through a series of dank stone corridors with arrow-slits overlooking the sea until we emerged at the edge of the island – long since

connected to the mainland by a causeway – on which Qait Bey stands. Here we put on our gear and tanks, jumped into the water with one of the archaeologists as our guide and descended at once into a submarine wonderland less than a dozen metres below us.

It may be the most beautiful ancient site I have ever had the privilege to explore. The visibility was poor, which added a kind of foggy glamour to the scene, and we had to criss-cross the ruin-field many times, over three lengthy dives, before I began to appreciate how vast and how heterogeneous it was. There were huge numbers of columns, some broken, some virtually intact, but all tumbled and fallen. There were Doric column bases surrounded by tumbled debris. Here and there one or two courses of a wall could be seen, rising up out of the murk. There were dozens of metre-wide hemispherical stones, hollowed inside, of a

type that I had never encountered before in Egypt. There were several small sphinxes, one broken jaggedly in half, and large segments of more than one granite obelisk seemed to have been tossed about like matchsticks. There were also quarried granite blocks scattered everywhere. Most were in the 2–3 square metre range but some were much larger – 70 tonnes or more. A notable group of these behemoths, some a staggering 11 metres in length, lay in a line running south-west to north-east in the open waters just outside Qait Bey. When I researched the matter later I learnt that they were amongst the blocks that Empereur had identified as coming from the Pharos:

> some of them are broken into two or even three pieces, which shows that they fell from quite a height. In view of the location the ancient writers give for the lighthouse, and taking into consideration the technical difficulty of moving such large objects, it is probable that these are parts of

> the Pharos itself which lie where they were flung by a particularly violent earthquake.[22]

There were exquisite moments when the sun broke through the clouds that lay over Alexandria that day and cast a beam of light down into some dark corner of the submerged ruins. Then the vanquished structures over which we were diving seemed to regather their former stature, like ghosts returning to flesh, before collapsing once again into their sleep of years.

Treasure of the sunken city

A few weeks later I still hadn't been able to get the images of what I'd seen underwater off Qait Bey out of my mind, or quite rid myself of the feeling that I might have missed

something important there. Without any particular objective I began to buy books about Alexandria and to acquaint myself better with the story of its past. Visiting Amazon.com one evening in mid-October, I found that someone was offering a second-hand copy of *Alexandria – A History and a Guide* written during the First World War and published in 1922 by the British novelist E. M. Forster.[23] I bought it at once, for it is rumoured to be a fount of wisdom. Then I snapped up, in quick succession, *The Library of Alexandria – Centre of the Ancient World*, edited by Roy Macleod; *Life and Fate of the Ancient Library of Alexandria* by Mostafa El-Abbadi; *Philo's Alexandria* by Dorothy L. Sly; and *The Vanished Library* by Luciano Canfora.[24]

Oddly enough, Amazon's search-engine couldn't immediately find me anything when I entered the keyword

Pharos. While I was thinking about what to search for next – maybe Seven Wonders of the ancient world? – I called up Jean-Yves Empereur's name to see the complete list of his publications. I already owned his book *Alexandria Rediscovered*, which told the story of the underwater excavations at Qait Bey, but I hoped that he might have written other books about the region. He hadn't and I found myself looking at Amazon's sparse sales page for *Alexandria Rediscovered.*

There was one review, from a reader in Phoenix, Arizona. He wrote that he wished no disrespect to Dr Empereur; however, after seventeen years as an archaeological diver in Egypt, he could not agree that Empereur's team had found the Pharos. What they had found was interesting, yes, important, yes, but it was definitely not the Pharos.

What was someone who'd worked for seventeen years as

an archaeological diver in Egypt now doing in Phoenix, Arizona? And what did he know – or think he knew – about the Pharos? My instincts told me that there could be a story here, and although the reviewer did not give his name, there was an e-mail address. I sent him a message at once, explaining my interest in the underwater ruins of Alexandria and asking him to elaborate on his views about the Pharos.

The next day, 17 October, I received this reply:

> Mr Graham,
>
> My name is Ashraf Bechai. I am the former leader of the Maritime Museum underwater team (1986/89). I am also a former diving engineer of the Institute of Nautical Archaeology. You can find a little more about me on the Institute web page. I will be glad to help you with any question you have.
>
> Sincerely, Ashraf Bechai,

Phoenix AZ, USA.

Attached was an extraordinary 23-page report titled *Treasure of the Sunken City: The Truth About the Discovery of the Lighthouse.*

Ashraf Bechai's story

What came across in Ashraf's Bechai's angry and impassioned report was a sense, above all else, of intellectual outrage. In his view Jean-Yves Empereur and his team had been altogether too narrow-minded in their interpretation of what they had found underwater at Qait Bey:

> During the last three years there have been many claims that the French marine-archaeological team that has been working underwater in the area of Qait Bey Fort has found the remains of a great building, identified by

> French and Egyptian archaeologists as the remains of the Pharos lighthouse.
>
> But is it the Pharos?
>
> I don't see why we have to take it as they say without asking any questions. I don't see why we're expected to suspend our common sense just because this stuff is underwater and looks very spectacular on television.

Bechai pointed out that if the Pharos had indeed been more than 100 metres tall, as all historical sources maintain, then it must have been a truly enormous building. The Great Pyramid of Giza, for example, which is 150 metres tall, with a base area of more than 13 acres, weighs 6 million tonnes and consists of *21/2* million individual stone blocks.[25] Since the building technology of the fourth century BC was, if anything, inferior to that of the third millennium BC, it is

therefore unlikely that the lighthouse – with a reported height of 135 metres-could have had a base area of less than 12 acres or a weight of much less than 5 million tonnes. ‘Imagine how big the pile of stones that should remain from a building like that,’ suggested Bechai:

> Could this great amount of stone just disappear? Vanish in the water? The truth is that this much stone would have created an island in the sea and all the statues, sphinxes and other ancient Egyptian artefacts that the French team have found intermingled with the blocks would have been buried forever under a great pile of rock.

Even if one supposes – against the evidence – that a far superior building technology existed in Alexandrian times than in the times of the Great Pyramid, and even if one reduces the height of the Pharos from 135 metres to 100 metres, it is still extremely unlikely that it could have been

built with less than half a million individual stone blocks (as against the Pyramid's 21/2 million blocks). But let us reduce it still further – to just 100,000 blocks, or even 50,000.

Yet Empereur writes: 'As soon as one puts one's head under the water around Qait Bey one begins to feel dizzy at the sight of the 3000 or so architectural blocks which carpet the sea-bed.'[26] It was precisely this 'dizzying' spectacle of only 3000 blocks that bothered Bechai. If the ruins around Qait Bey were the remains of the lighthouse and associated structures, then 3000 blocks was nowhere near enough:

> Three thousand blocks wouldn't even build a large temple let alone a lighthouse 100 metres high! And many of the blocks in Empereur's survey are scattered very far from Qait Bey. Some are almost a kilometre away. There is even one 75-ton granite block half a kilometre out to sea and 1.5 kilometres distant from Qait Bey. Are we supposed to believe that the

> earthquake was powerful enough to throw a 75-ton block as far as that?

Bechai also made another valid point. Ancient texts referring to the Pharos concurred that it had been built of blocks of ‘white stone’ – limestone – which is plentifully available locally. Yet the underwater ruin-field outside Qait Bey consists primarily of scattered granite blocks and other architectural elements, such as columns, also made out of granite – a much more intractable material that had to be brought to Alexandria from quarries almost 1000 kilometres to the south. Whilst admitting that limestone does have a much faster rate of erosion than granite, Bechai did not believe that the vast amount of limestone that would have been required for the Pharos could possibly all have eroded away. He concluded:

> What we have at this site are scattered artefacts from different ages,

different designs of blocks, columns and statues – not an indication of one thing but an indication of many things.

The giant blocks of Sidi Gaber

Before I was half-way through the report I realized that it pinpointed paradoxes and anomalies that I had completely missed during my dives with the French team. No doubt Empereur would have answers to all these questions but at this stage I had to admit that the questions themselves sounded reasonable.

As I read on I realized that Bechai was agitated about much more than just the problem of the Pharos. He wrote: 'I have seen things underwater in Alexandria during the last 17 years that challenge all our knowledge of the history of this area.' As an example he reported how in 1984 he had gone

spear-fishing with some friends off-shore of Sidi Gaber, a district along Alexandria's crowded Corniche, some 3 kilometres to the east of Qait Bey:

> We were about two kilometres from shore, diving off a small boat. I remember that the visibility underwater was exceptionally good. We hadn't been expecting that because there had been a storm a few days before which moved around a lot of the sand and silt on the bottom. Suddenly I saw hundreds of huge sandstone or limestone blocks laid out in three rows, each two courses high, that had been exposed on the sea-bed at a depth of about six to eight metres. The blocks appeared to be of identical dimensions – four metres wide by four metres long by two metres high. They were stacked up on an underwater ridge of some sort, because there was deeper water between them and the shore. All around there were hundreds more blocks of similar size that were heavily eroded, or damaged, or had fallen out of line.

This group of blocks has been seen on and off by fishermen and divers

> over at least 25 years and there is still no proper explanation for it. I have never been so lucky with the visibility there again, nor the same bottom conditions, and despite many subsequent attempts to relocate the site I have so far failed to do so.

Another interesting site, one that Bechai hadn't seen himself, was the so-called Kinessa, an Arabic word meaning 'church' or 'temple':

> If you have lived in the wonderful city of Alexandria long enough and had connection with fishermen who do commercial net fishing then you must have heard about *'A1 Kinessa'*. Some say that it is out in the open sea about one kilometre to the north of Qait Bey and that when an east wind blows and the waters are clear you can sometimes see what look like the remains of a building underwater. Others claim it is much further north – perhaps as much as five kilometres out from shore. Three different people told me very specifically that it is five kilometres north to north-west of Qait Bey.

Before reaching it the sea-bed slopes down to 40 metres where the bottom is sandy with a few patches of rock; then you pass an area of rocky pinnacles, some as much as 20 metres high jutting out of another sandy bed; then the bottom profile rises up sharply from 40 metres to just 18 metres in depth creating a smooth-sided, flat-topped hill five kilometres from shore in the middle of nowhere. That is where they say the *Kinessa* is.

Mystery of the sea

After I had read Ashraf Bechai's report I began to correspond with him about specific points by e-mail, and in due course we agreed that we would dive together to try to relocate the Sidi Gaber blocks and the Kinessa during the summer of 2000. Although his home was now in Phoenix, Arizona, where he ran a business, he told me that he still returned to Alexandria for at least three months every year and would be

happy to work with me there so long as I could extract the necessary permits from the authorities.

There were other travels to do in the meantime. On one trip, I don't remember where, I took E. M. Forster's *Alexandria – A History and a Guide* with me as airplane reading. In it I was intrigued to learn that Forster had drawn attention to a report published in 1910 by the French archaeologist Gaston Jondet and entitled *Les Ports submerges de l'ancienne île de Pharos.*[27] According to Jondet, Forster said, someone had built a series of huge megalithic walls and causeways some distance off the coast of Alexandria beyond the island of Pharos that were now submerged to a depth of up to 8 metres beneath the sea. The character of these constructions, he judged, was 'prehistoric'.[28] Summarizing reactions to the discovery, Forster wrote:

> Theosophists, with more zeal than probability, have annexed it to the vanished civilization of Atlantis; M. Jondet inclines to the theory that it may be Minoan-built by the maritime power of Crete. If Egyptian in origin, perhaps the work of Rameses II (B.C. 1300) … The construction … gives no hint as to nationality or date. It cannot be as late as Alexander the Great or we should have records. It is the oldest work in the district and also the most romantic for to its antiquity is added the mystery of the sea.[29]

I wondered how many archaeologists today shared Forster's view about the antiquity and romance of the prehistoric harbour. I knew for sure that Jean-Yves Empereur did not. His on-the-record opinion, in full accord with the mainstream scholarly view, was that before Alexander's arrival 'the only inhabitants of the area must have been a few fishermen and perhaps also a garrison stationed here to guard the approaches to the Delta'.[30] But if so, then who had built the

much older and now submerged harbour – if it was indeed a harbour? And how did it fit in, if at all, with the megalithic blocks underwater at Sidi Gaber, or the elusive Kinessa that fishermen said appeared and disappeared beneath the sparkling waves – now you see it, now you don't – like the Sea King's castle?

Rumours of the deluge

Descriptions of a killer global flood that inundated the inhabited lands of the world turn up everywhere amongst the myths of antiquity. In many cases these myths clearly hint that the deluge swept away an advanced civilization that had somehow angered the gods, sparing 'none but the unlettered and the uncultured'[31] and obliging the survivors to 'begin again like children in complete ignorance of what happened

… in early times'.[32] Such stories turn up in Vedic India, in the pre-Columbian Americas, in ancient Egypt. They were told by the Sumerians, the Babylonians, the Greeks, the Arabs and the Jews. They were repeated in China and south-east Asia, in prehistoric northern Europe and across the Pacific. Almost universally, where truly ancient traditions have been preserved, even amongst mountain peoples and desert nomads, vivid descriptions have been passed down of global floods in which the majority of mankind perished.[33]

To take these myths seriously, and especially to countenance the possibility that they might be telling the truth, would be a risky posture for any modern scholar to adopt, inviting ridicule and rebuke from colleagues. The academic consensus today, and for a century, has been that the myths are either pure fantasy or the fantastic elaboration of local and limited deluges – caused for example by rivers

overflowing, or tidal waves.[34] 'It has long been known,' commented the illustrious anthropologist Sir J. G. Frazer in 1923,

> that legends of a great flood in which almost all men perished are widely diffused over the world … Stories of such tremendous cataclysms are almost certainly fabulous; [but] it is possible and indeed probable that under a mythical husk many of them may hide a kernel of truth; that is they may contain reminiscences of inundations which really overtook particular districts, but which in passing through the medium of popular tradition have been magnified into worldwide catastrophes.[35]

Unquestioningly following Frazer's lead, scholars to this day still persist in seeing flood stories as

> recollections – vastly distorted and exaggerated … of real local disasters … There is not one deluge legend but rather a collection of traditions which

> are so diverse that they can be explained neither by one general catastrophe alone, nor by the dissemination of one local tradition alone … Flood traditions are nearly universal … mainly because floods *in the plural* are the most nearly universal of all geologic catastrophes.[36]

Not all mainstream academics toe this line. But amongst those who don't it seems to have been generally agreed that almost any explanation, however harebrained, is more acceptable than a simple literal interpretation of the myth of a global flood – i.e. that there actually was a global flood … or floods. For example, this from Alan Dundes, Professor of Anthropology and Folklore at the University of California, Berkeley, is regarded as a perfectly acceptable scholarly position on the problem: 'The myth is a metaphor – a cosmogenic projection of salient details of human birth insofar as every infant is delivered from a "flood" of amniotic

fluid.’[37]

My guess is that such thinking will not much longer survive the steady accumulation of scientific evidence which suggests that a series of gigantic cataclysms, exactly like those described in the flood myths, changed the face of the earth completely between 17,000 years ago and 8000 years ago. At the beginning of this period of extraordinary climatic turbulence and extremes, fully evolved human beings of the modern type are thought to have been in existence for 100,000 years[38] – long enough in theory for at least some of them to have evolved a high civilization. While much of the land they formerly lived on is now submerged beneath the sea, and as unfamiliar to archaeologists as the dark side of the moon, how certain can we really be that some of them did not?

Dark zone

SCUBA is the acronym for the 'Self-Contained Underwater Breathing Apparatus' invented by the late Jacques Cousteau and Emile Gagnan in 1943.[39] At first thought likely to be expensive and of use only to specialists, the technology rapidly entered the mass market and, today, scuba-diving is the world's fastest-growing sport.[40]

Although it should be obvious, it is worth remembering that only since scuba-diving was introduced has any kind of systematic marine archaeology become possible. Moreover, funds for this kind of research are limited, and the oceans are extremely large – constituting, in fact, more than 70 per cent of the earth's surface.[41] Marine archaeologists have barely been able to begin the investigation of the millions upon

millions of square kilometres of coastal shelf inundated since the end of the last Ice Age. As a result, the underwater world continues to constitute a gaping dark zone in human knowledge; it is entirely possible that archaeological surprises and upsets await us there.

Question: Why has the first extensive evidence of large-scale prehistoric structures beneath the sea come from Japan?

Answer: Japan has more scuba-divers than any other country and it follows that its coastal waters have been more thoroughly explored than those of any other country.

Question: Why have the main underwater structures in Japan all been found south of the thirtieth parallel?

Answer: Because most sport divers prefer warm water. There may be structures further north as well which simply haven't been noticed yet because few divers are attracted to the cold or stormy seas in which they lie.

India is the opposite of Japan. It has almost no leisure-diving industry (just a couple of dive-shops in the whole subcontinent)[42] but it does have marine archaeologists like S. R. Rao whose minds are open to extraordinary possibilities. Rao's work around Poompuhur was guided by ancient Tamil traditions that speak of the submergence of large masses of land off southern India thousands of years ago.[43] And he himself admits that the 'U-shaped structure' found at 23 metres is hard to explain within the orthodox framework of history.

‘11,000 years old, or older’

In August 2000 I took on a new research assistant, Sharif Sakr, who had just graduated in Human Sciences from Oxford University. One of the first tasks I gave him was to find me a top-flight academic, in Britain, who would be prepared to act as a kind of ‘resident expert’ on sea-level rise and who would be qualified to give an authoritative opinion on the date of submergence of almost any underwater structure in the world. Sharif came back to me with Dr Glenn Milne, a specialist in glacio-isostacy and glaciation-induced sea-level change at Durham University’s Department of Geology. Milne and his colleagues have established a worldwide reputation predicting ancient sea-level changes and the corresponding changes in the earth’s coastlines. Their predictions are based on a sophisticated computer model that has been under

development since the 1970s and that takes into account many variables beyond changes caused solely by the melting of ice-sheets – the technical term is *eustacy*.[44]

In October 2000 Sharif approached Milne on my behalf and asked him to calculate the latest date that the large U-shaped structure and other nearby structures off the coast of Poompuhur could have been submerged.

> *Thursday 12 October 2000, Sharif Sakr to Glenn Milne:* Hi Glenn,
>
> Hope everything's OK.
>
> Just a quick question: I've got a series of structures 5 kilometres off the south-east coast of India (Tamil Nadu region, probably roughly around 11N, 80E as a rough guess).[45] The structures are 23 metres underwater – which is extremely deep. If we assume only eustatics, then the implication would be that the structures are older than around 7000 BC. But there is also isostatic subsidence to consider: what proportion of that 23 metres

depth, as a rough off-the-record guess, could be explained away through subsidence?

Does the depth of the structures still suggest great antiquity, even when isostatics are brought into the equation?

Thursday 12 October 2000, Glenn Milne to Sharif Sakr: Hi Sharif,

I did a quick model run for that site and the predicted sea-level curve shows that areas currently at 23m depth would have been submerged about 11,000 years before the present. This suggests that the structures you mention are 11 thousand years old or older!

No civilization known to history …

Although I could not be certain of anything until I was able to dive on it myself, the early descriptions of the U-shaped structure by the NIO's marine archaeologists left little doubt

that it was man-made. The ‘stone blocks’ and ‘courses of masonry’ that had been reported by all these experienced witnesses seemed to exclude any possibility that it could be natural or recent – or indeed anything other than the ruins of a very old stone building, resting on bedrock, constructed here before the ocean rose to cover it.

Now, as I studied the e-mail from Glenn Milne, I knew just how ancient the U-shaped structure really might be – at least 11,000 years old. That’s 6000 years older than the first monumental architecture of ancient Egypt or of ancient Sumer in Mesopotamia – traditionally thought of as the oldest civilizations of antiquity. Certainly, no civilization known to history existed in southern India – or anywhere else – 11,000 years ago. Yet the U-shaped structure off the Tranquebar-Poompuhur coast invites us to consider the possibility that it was the work of a civilization that

archaeologists have as yet failed to identify – one whose primary ruins could have been missed because they are submerged so deep beneath the sea.

2 / The Riddle of the Antediluvian Cities

> And the Lord planted a garden eastward in Eden … And out of the ground made the Lord God to grow every tree that is pleasant to the sight, and good for food … And a river went out of Eden to water the garden …
>
> Genesis 2:8–10

> I think we are going to get many surprises yet on land, and under the sea.
>
> Thor Heyerdahl, June 2000

Millions of square kilometres of useful human habitat swallowed up by rising sea-levels at the end of the Ice Age. Myths of an antediluvian civilization destroyed by global floods. Sightings and rumours of inexplicable submerged structures in many different parts of the world. Could there be a connection?

In order to investigate this problem systematically what I really needed was some method of correlating the facts about land loss at the end of the Ice Age with the localities suggested by the myths and with any eye-witness reports of anomalous underwater structures. I needed, in other words, something like an 'antediluvian Encarta' – an electronic atlas of the world as it had looked before, during and after the sea-level rise that accompanied the end of the Ice Age. Ideally I should be able to see, on demand, any coastline, any island, any expanse of ocean, as it had looked at millennium intervals throughout the entire period of the meltdown.

Such a program, unfortunately, does not exist commercially, nor is information of the extremely specific kind I needed gathered together in any single work of reference. Detailed studies of scattered areas are available but no comprehensive, time-factored global picture. Yet, as I

was to discover, cutting-edge research into post-glacial sea-level rise is underway at many universities and the information necessary to create a useful and reasonably reliable 'antediluvian atlas' does in fact exist – though not in published form. Glenn Milne and his colleagues at the Geology Department of Durham University are the leading UK specialists in the field and from September 2000 onwards it was they who came to my rescue. As noted in chapter 1, the state-of-the-art computer model that they have developed calculates the relevant variables to the extent that they are known and produces printable screen images of any location at any epoch during the past 22,000 years. Since the model does not incorporate tectonic motion and not all its variables are known with great certainty, it is most accurate at predicting shoreline changes in tectonically inactive regions and over time intervals of several centuries or more – beyond

that, its predictions are useful as approximate guides. The processing is not instantaneous and skilled man-hours are required to extract the required information from the program location by location. So Glenn was kind beyond measure in cheerfully and helpfully preparing all the inundation maps that are used in the later chapters of this book.

But I had made forays into antediluvian geography before I met Glenn Milne. This was feasible wherever sufficiently detailed sea-level data was accessible to build up a sense of how the inundation of a particular region had progressed over a period of several thousands of years. Thanks to the work of Kurt Lambeck, a geologist at the Research School of Earth Sciences of the Australian National University, such data has been on public record for the Persian Gulf since 1996. Lambeck's findings (which I was later able to confirm

against Glenn Milne's modelling of the post-glacial shorelines of the Gulf) were of enormous interest to me because the Persian Gulf was the home of a mysterious and extraordinary ancient culture – the Sumerians. Their flood myths seem to form the archetype for the much later Noah story in the Old Testament, and they are regarded by archaeologists as the founders of the oldest high civilization in the world.

Inundation data for the end of the last Ice Age has never before been thought likely to have a bearing, one way or another, on the problem of the origins of civilization and has therefore never been used as an investigative tool by archaeologists interested in this problem. But since the relevant data was available for the Persian Gulf, I decided to try to find out what it might show.

The five antediluvian cities of Sumer

Located immediately to the north-west of the present coastline of the Gulf between the Euphrates and Tigris rivers, ancient Sumer flourished during the fourth and third millennia BC and the earliest surviving written version of the global flood 'myth' was found during excavations of the Sumerian city of Nippur[1] (located on the Euphrates 200 kilometres south of the modern city of Baghdad). Inscribed on a tablet of baked clay, the Sumerian tradition is accepted by scholars as the source of the later Babylonian Epic of Gilgamesh[2] (which likewise speaks of a universal flood that destroyed mankind) and also bears a close relationship to the much-better-known flood account in the Old Testament.[3]

The Sumerian text is from a fragment – the lower third – of

what was once a six-column tablet.[4] And while it is clear that it belongs to a very ancient and widely dispersed family of flood traditions, it nevertheless remains – in itself-a 'unique and unduplicated' document. 'Although scholars have been "all eyes and ears" for new [Sumerian] deluge tablets, not a single additional fragment has turned up in any museum, private collection or excavation.'[5]

What a rare and precious thing this little slab of baked mud is! And what a tale it has to tell. When I first read it I was instantly intrigued, because it contains explicit references to the existence of five antediluvian cities which, we are informed, were swallowed up by the waters of the flood. If such cities ever existed, then where should we expect to find their ruins today?

The first thirty-seven lines of the Sumerian tablet are

missing, so we do not know how the story begins, but at the point where we enter it the flood is still far in the future.[6] We hear about the creation of human beings, animals and plants.[7] Then another break of thirty-seven lines occurs after which we find that we have jumped forwards in time to an epoch of high civilization. We learn that in this epoch, before the flood, 'kingship was lowered from heaven',[8] a phrase that is eerily reminiscent of similar sky-ground symbolism contained in ancient Egyptian scriptures such as the *Pyramid Texts* (c.2300 BC), the *Book of what is in the Duat (c.* 1400 BC) and the much later *Hermetica* (C.AD 300).[9]

Then comes the reference to the foundation of Sumer's antediluvian cities by an unnamed ruler or a god:

> After the lofty crown and the throne of kingship had been lowered from

heaven,

He perfected the rites and the exalted divine laws …

Founded the five cities … in pure places,

Called their names, apportioned them as cult centres.

The first of these cities, Eridu …

The second Badtibira …

The third Larak …

The fourth Sippar …

The fifth Shurrupak …[10]

'A flood will sweep over the cult centres …'

When we rejoin the narrative after a third 37-line lacuna the scene has changed bewilderingly. Although the flood is still in the future, the foundation of the five antediluvian cities is now far in the past. It is apparent from the context that in the

intervening period the cities' inhabitants have behaved in such a way as to incur divine displeasure and that a convocation of the gods has been called to punish mankind with the terrible instrument of an earth-destroying flood. At the moment where we pick up the story again a few of the gods are dissenting from this decision and expressing their unhappiness and dissatisfaction with it[11]

Without preamble, a man called Zisudra is then introduced – the Sumerian archetype of the biblical patriarch Noah. The text describes him as 'a pious, god-fearing king'[12] and allows us to understand that one of the gods – unnamed – has taken pity on him. The god tells Zisudra:

> Take my word, give ear to my instructions:
>
> A flood will sweep over the cult centres.
>
> To destroy the seed of mankind,

Is the decision, the word of the assembly of gods.[13]

A text break of forty lines follows, which scholars deduce, from the many later recensions of the same myth, 'must have continued with detailed instructions to Zisudra to build a giant boat and thus save himself from destruction'.[14] When the story resumes the cataclysm has already begun:

All the windstorms, exceedingly powerful, attacked as one,
At the same time the flood swept over the cult centres.
For seven days and seven nights the flood swept over the land,
And the huge boat was tossed about by the windstorms on the great waters.[15]

Throughout the cataclysm the skies remain dark. Then, on the eighth day, the sun breaks through the clouds, and the rains and raging storms cease. From the deck of his survival

ship Zisudra looks out over a world that has changed for ever and sacrifices an ox and a sheep to the sun-god.[16]

An infuriating lacuna of thirty-nine lines follows, presumably telling us about the place where Zisudra makes landfall and the steps that he takes thereafter. When we pick up the story again, near the end of the text, we find him in the presence of the high gods of the Sumerian pantheon, An and Enlil, who have repented of their earlier decision to wipe mankind entirely from the face of the earth and are now so grateful to Zisudra for building his Ark and surviving the flood that they decide to make him immortal:

> Life like a god they gave him;
>
> Breath eternal like a god they brought down for him,
>
> … Zisudra the king.
>
> The preserver of the name of vegetation and of the seed of mankind.[17]

The final thirty-nine lines are missing.[18]

Picking and choosing

In his classic book *The Sumerians*, the late Professor Samuel Noah Kramer, one of the great authorities on ancient Sumer, observes that there are 'tantalizing obscurities and uncertainties' in this oldest surviving written version of the worldwide tradition of the flood.[19] What there can be no doubt about at all, however, is that the tablet speaks of an urban civilization that existed *before* the flood somewhere in the Persian Gulf area and provides us with the names of its sacred cities: Eridu, Badtibira, Larak, Sippar, Shurrupak. These cities, we are told quite specifically, were swallowed up in the deluge. Moreover, long after Sumerian civilization itself had ceased to exist, a rich tradition concerning the five

cities, the antediluvian epoch and the flood survived in Mesopotamia almost down to Christian times.[20] Indeed it is fair to say that the traditional history of this region, as it was told in antiquity, is very clearly divided into two different periods – before and after the flood – and that both periods were regarded by the peoples of the region as absolutely factual and real.

It is only later scholars who have picked and chosen from the histories, accepting half of what they say as the basis for orthodox Sumerian chronology and rejecting the other half – concerning the antediluvian period – as myth and fantasy. Their logic is that there is no archaeological evidence for any high urban civilization in Sumer earlier than the fourth millennium BC and indeed their digs have revealed none.[21] Yet, as the cliché goes, absence of evidence is not necessarily

to be taken as evidence of absence – and even Kramer obviously had his doubts. In *The Sumerians* he recounts how, before 1952, archaeologists were unanimous in their opinion that Sumer had been uninhabited (and uninhabitable) marshland until about 4500 to 4000 BC:

> This figure was obtained by starting with 2500 BC, an approximate and reasonably assured date obtained by dead reckoning with the help of written documents. To this was added from fifteen hundred to two thousand years, a span of time large enough to account for the stratigraphical accumulation of all the earlier cultural remains down to virgin soil, that is right down to the beginning of human habitation in Sumer.[22]

But then, continues Kramer, two geologists, Lees and Falcon, 'published a paper which carried revolutionary implications

for the date of Sumer's first settlement'.[23] They demonstrated that Sumer had ceased to be uninhabitable marshland long before 4500–4000 BC. Now that this was understood:

> It was not impossible that man had settled there considerably earlier than had been generally assumed. The reason traces of these earliest settlements in Sumer have not as yet been unearthed, it was argued, may be because the land is sinking slowly at the same time that the water-table has been rising. The very lowest level of cultural remains in Sumer may, therefore, now be under water and may never have been reached by archaeologists, since they would have been misled by the higher water level into believing they had touched virgin soil. If that should prove to be true, Sumer's oldest cultural remains are still buried and untapped, and the date of Sumer's very first settlements may have to be pushed back a millennium or so.[24]

But why only a grudging millennium or so? Once we've admitted it is possible that archaeologists may never have

reached the oldest layers of human habitation in Sumer, why should we assume that further digging might only push the horizon back by a thousand years? Why not five thousand years? Or ten thousand years? What is this worship of the recent that archaeologists indulge in?

The reason I ask these questions with a certain amount of exasperation is that Kramer, whose work has influenced several generations of students, does not for a moment consider the possibility that Sumer's antediluvian traditions might be based on anything real at all. Indeed, he devotes only three pages of his book to the prehistory of this ancient land before giving thirty pages to the historic period – as though all of the former is nothing more than a preamble to the latter.

I'm very struck by the extent to which Kramer relies on original Sumerian sources to build up his chronology of

rulers, which begins, he says, with:

> The first dynasty of Sumer whose existence can be historically attested, the so-called First Dynasty of Kish, which according to the ancients themselves followed immediately upon the subsidence of the Flood … The first ruler of Sumer whose deeds are recorded is a king by the name of Etana of Kish, who may have come to the throne quite early in the third millennium BC[25]

It is in precisely this way that every Sumerian text about the period after the flood is treated as grist to the mill by historians constructing chronologies while every Sumerian text about the period before the flood is relegated to the realm of the mythologists …

So little to go on

Kramer's recognition, with the geologists Lees and Falcon, that people could have settled in the fertile valley between the Tigris and Euphrates rivers much earlier than had previously been assumed has been entirely vindicated by subsequent discoveries of the traces of 'primitive agricultural villages' dating back more than 8000 years.[26]

But the clues that have come down to us from this remote period are scanty and often ambiguous.

For example, with a tiny evidence base, are archaeologists absolutely certain that they could tell the difference between a small group of 'primitive' farmers and a small group of shattered and demoralized survivors from an urban civilization destroyed in a terrible flood?[27] Not a river-flood, no matter how big … but a real marine flood, deep and wild and sweeping in over the land, carrying all before it like the

one described in the story of Zisudra.

Woolley's deluge

It is a river flood that has traditionally been suggested by scholars as the event described in the Zisudra text.[28] This goes back to the excavations of the renowned British archaeologist Sir Leonard Woolley at the Sumerian city of Ur in 1922–9. Digging inspection trenches through thousands of years of habitation layers, he suddenly reached a layer of silt almost 3 metres deep which he described as 'perfectly clean clay, uniform throughout, the texture of which showed that it had been laid there by water'.[29] The silt itself was void of habitation evidence, but there were further habitation layers below it that he dated to 3200 BC.[30]

Woolley declared that he had found the first concrete proof of the cataclysm described in the Zisudra story and the biblical flood of Noah and added:

> The discovery that there was a real deluge to which the Sumerian and the Hebrew stories of the Flood alike go back does not of course prove any single detail in either of those stories. This deluge was not universal, but a local disaster confined to the lower valley of the Tigris and Euphrates, affecting an area perhaps 400 miles long and 100 miles across; but for the occupants of the valley that was the whole world![31]

Woolley may not have been right that the inhabitants of the Tigris/Euphrates river valley thought of it as the 'whole world' but he needed to see them as geographically naive in order to explain why they had described his 'local disaster' as a 'universal' flood that threatened the survival of mankind as a whole. Neither was he necessarily right about the riverine

nature of his silt layer; other, more recent, voices have suggested that it may have been laid down a few hundred years earlier than he suggested and that the agency is more likely to have been a massive transgression of the sea, followed by a gradual retreat of the waters with deposition of silt, than the work of the Tigris and Euphrates.[32]

Rising seas

In the 1990s Kurt Lambeck of the Australian National University carried out a detailed study of the Persian Gulf in order to map and simulate its 'palaeo-shorelines' from 18,000 ago – around the end of the Last Glacial Maximum-right up to today. He calculates that the modern shoreline of the region

> was reached shortly before 6000 years ago, *and exceeded* as relative sea-level rose 1–2 metres above its present level, inundating the low-lying areas of lower Mesopotamia.[33]

This marine transgression, which occurred between approximately 6000 and 5500 years ago, flooded the coastal plains of Sumer and extended the northwestern shoreline of the Gulf to the doorsteps of Eridu and Ur – where the rising waters may have temporarily peaked as high as 3 metres above today's level before receding.[34] Geneticist Dr Stephen Oppenheimer, who has made a special study of floods and ancient migrations, suggests that this could have been the event that left behind the thick inundation deposit that Leonard Woolley excavated at Ur – not a river-flood at all as Woolley had believed, but a marine flood.[35]

In his important book *Eden in the East* Oppenheimer argues

that what happened in the Gulf at this time, between approximately 6000 and 5500 years ago (4000–3500 BC), was the local effect of a worldwide episode of rapid, relatively short-term flooding known as the Flandrian transgression – which had a significant impact not only along the shores of the Gulf but in many other parts of Asia as well.[36] Noting that 'the destructive effect of the Flandrian transgression in wiping out coastal archaeological sites up to about 5500 years ago is now well recognized,' he launches the interesting speculation that in the case of Sumer:

> Eridu may be the oldest coastal city *not* destroyed by the invading sea. In other words it could have been the last old city to be built at the post-glacial high water point.[37]

Likewise, the distinguished Sumeriologist Georges Roux

argues that between 6000 and 5000 years ago the shoreline of the Gulf was approximately 1 or 2 metres above its present level, so that its north-western coast lay 'in the vicinity of Ur and Eridu'. Thereafter, 'gradual regression, combined with silting from the rivers, brought it to where it is now'.[38]

Eridu

So I was back to the mystery of the antediluvian cities again and how they could possibly have been 'swept over by the flood', as the Zisudra story claimed, when Eridu had so obviously survived into historical times. In fact, as I was soon to learn, *all* the antediluvian cities had survived into historical times; none of them was presently underwater and at least one of them – Eridu – appeared *never* to have been underwater!

Between 1946 and 1949 Eridu's ruins, located in the south of Sumer near the Euphrates, a little to the north and west of the modern city of Basra,[39] were thoroughly excavated by a team from the Iraqi Directorate of Antiquities led by Fuad Safar.[40] The archaeologists paid particular attention to the temple of Enki, the Sumerian god of wisdom and Eridu's tutelary deity.[41] Here they dug a deep trench through many different layers of construction and reconstruction from about 2500 BC down until they finally reached the temple's very first building phase. Originally thought to have dated to about 4000 BC[42] – itself an epoch of fabulous antiquity – the excavators kept finding older and older material.

The central structure of the site is its principal ziggurat – step-pyramid-which was erected around 2030 BC by a

Sumerian king named Amar Sin.[43] But it, too, turned out to stand on top of a series of earlier structures. Under one of its corners the archaeologists unearthed the ruins of no less than seventeen temples,

> built one above the other in proto-historic times. The lowest and earliest of these temples (Levels XVII-XV) were small, one roomed buildings which contained altars, offering tables and a fine-quality pottery decorated with elaborate, often elegant geometric designs.[44]

Judging by the pottery, these earliest shrines of Eridu go back much further than 4000 BC and probably as far as 5000 BC – i.e. 7000 years ago.[45] That, says Georges Roux, makes 'Eridu one of the most ancient settlements in southern Iraq' and a 'remarkable' choice in the mythology as the oldest of the antediluvian cities.[46]

There therefore seems to be no dispute that there was a settlement of some sort here *before* the region was flooded by the Flandrian transgression around 5500 years ago. Yet the excavations, which only stopped when the archaeologists reached 'virgin soil', 'yielded no trace of a flood'.[47] How could that be explained in an antediluvian city supposedly inundated not just by any old flood but by *the* flood? And how was I to make sense of the fact that ancient Ur, less than 20 kilometres away and on slightly higher ground,[48] was not even named in the flood tradition and yet *did* show evidence of a severe, silt-bearing inundation?

In 1992 Jules Zarins, a geologist at Southwest Missouri State University, suggested a possible solution to this problem. In a paper published in the *Journal of the American Oriental Society*, he showed that in spite of Eridu's location in

a low-lying depression south-west of Ur ‘an eight-metre scarp of the Upper Fars formation (the Hazim) runs well to the north and south, possibly blocking any marine infilling into the depression’.[49] Now I was better equipped to understand what Oppenheimer and Roux were getting at. Looking at a map of the valley of the Tigris and Euphrates rivers, I could easily see how the relatively small and temporary increase in sea-level associated with the Flandrian transgression could have flooded low-lying areas of ancient Sumer – in fact up to about 180 kilometres inland[50]-in what are now Iran, Kuwait and Iraq. This would have brought the northern shoreline of the Persian Gulf very close to Eridu while quite conceivably carrying it just beyond Ur, thus leaving behind the flood deposit that Woolley had found.[51]

Shurrupak and Sippar

The archaeological results at the antediluvian city of Shurrupak, about 100 kilometres north of Eridu on the Euphrates river, also show evidence of a flood in the form of 'sizeable deposits of water-borne clay and sand due to a major and prolonged inundation'.[52] Since Shurrupak was

renowned as the birthplace of Zisudra, the Sumerian Noah who had 'preserved the seed of mankind',[53] I thought at first that this might be a promising lead. But it fizzled out. The Shurrupak flood was securely dated to 4900 years ago – probably six or seven hundred years later than the flood recorded at Ur – and was almost certainly riverine.[54]

Dedicated to the sun-god Utu,[55] Sippar is the furthest inland of all the antediluvian cities and plays a special role in the Sumerian flood story. In fragment 4a of the few scattered remnants of the once widely renowned *History* of the Babylonian priest Berossos (who wrote in the third century BC but whose work is thought by scholars to convey authentic Sumerian traditions),[56] Sippar is remembered as the place where the knowledge of the antediluvian race was hidden away before the flood and preserved for use by the survivors

of mankind.

The Noah figure in this version of the story is named Xisouthros (instead of Zisudra). A god visits him in a dream, warns him that humanity is about to be destroyed in a terrible deluge, and orders him to build a huge boat of the usual dimensions in the usual way.[57] So far this is all very familiar, but then comes a feature not found in the other versions of the tradition. The god tells Xisouthros that he is to gather up a collection of precious tablets inscribed with sacred wisdom and to bury these in a safe place deep underground in 'Sippar, the City of the Sun'.[58] These tablets contained 'all the knowledge that humans had been given by the gods' and Xisouthros was to preserve them so that those men and women who survived the flood would be able to 'relearn all that the gods had previously taught them'.[59]

The story of the flood itself is then given and of the journey of Xisouthros and his protégés in the Ark. Immediately after they make landfall Xisouthros steps down from the great ship, offers a sacrifice to the gods and then vanishes-having been transported immediately to immortal life. Those who remained on board are now leaderless and confused until a voice is heard from the heavens telling them to sail the ship back towards Babylon and to seek out the city of Sippar, which will have survived the flood. They are to 'dig up the tablets that were buried there and turn them over to mankind':[60]

> And those who had arrived in Babylonia dug up the tablets in the city of Sippar and brought them out. They built many cities and erected temples to the gods and renewed Babylon.[61]

An uncomfortable feeling

A quick inventory shows that we have so far identified three cities in the Persian Gulf area called Sippar, Shurrupak and Eridu in the historical period and three counterpart cities with exactly the same names which tradition says existed before the flood. We have Ur, very close to Eridu, which is not spoken of as an antediluvian city but which clearly suffered a major episode of flooding that laid down almost 3 metres of silt around the middle of the fourth millennium BC. We have Shurrupak, which was also inundated but not until about 700 years later. Meanwhile Sippar, the northernmost and farthest from today's Gulf coast of the five antediluvian cities, is named in the Berossos text as a place where it would have been practical for documents buried before the flood to be retrieved after the waters had subsided.

The remaining two antediluvian cities of the Sumerian tradition – Badtibira and Larak – have also been identified with archaeological sites in Iraq;[62] however (as indeed is the case with Sippar, Shurrupak and Eridu as well), these sites are not particularly large, splendid or significant as one might expect of such sanctified ground. As William Hallo of Yale University comments, 'The cities in question are not outstanding in importance … They are distinguished, rather, for their antiquity.'[63]

Since excavations at Eridu found the earliest occupation layers to have been laid down as much as 7000 years ago the city is indeed technically 'antediluvian' (by more than 1000 years) with respect to the Flandrian transgression – and the same is already known to be the case at Ur, where Woolley's excavators found habitation traces not only above the flood

layer but also below it.

On the face of things, then, it seems reasonable to agree – and many scholars from Woolley onwards have agreed – that it was this flood at this time, or at any rate one of the frequent large-scale floods both riverine and marine to which the region was much prone in antiquity, that must have given rise to the Sumerian flood tradition. The new evidence revealing the extent of the flooding of southern Mesopotamia between approximately 4000 and 3500 BC – just on the edge of the historical period – should, if anything, have strengthened this hypothesis.

So why didn't I feel comfortable with it?

Heyerdahl on Sumer

The floods that had been archaeologically testified in the valley of the Lower Euphrates and Tigris took place too soon after the date for the foundation of Eridu and the other 'antediluvian' cities to fit in with the sense of grandeur and vast age that the traditions conveyed. When I looked again at the story of Zisudra, the story of the Babylonian flood hero Atrahasis,[64] the Epic of Gilgamesh,[65] the fragments of Berossos, and numerous other recensions and variants, I found that all of them set the antediluvian city-building period in the frame of vast expanses of time – frequently running into tens of thousands and even hundreds of thousands of years.[66] While I could understand why William Hallo felt that 'this chronology, measured in millennia, is obviously fantastic,'[67] I found his own proposed chronology equally absurd. 'Mesopotamian urbanism,' he argued in the

prestigious *Journal of Cuneiform Studies*, 'was only some two centuries old at the time of the flood …'[68]

In June 2000 I met the explorer and adventurer Thor Heyerdahl, then eighty-six years old, at the excavation of a group of step-pyramids on Tenerife in the Canary Islands. We spent the afternoon together, under the blazing sun, exploring the site that he had brought to world attention.

Heyerdahl was everything I had expected him to be – impatient with protocol, a powerful presence, with piercing blue eyes, endearing vanities, a bawdy sense of humour, and an open, inquiring, restless mind. His *Tigris* expedition in 1977, which had begun in the Persian Gulf and culminated in Djibouti in the Horn of Africa, had proved that the reed boats of ancient Mesopotamia were sufficiently seaworthy and technically advanced to make long-distance marine voyages.

Evidence of trans-oceanic trade at the very beginning of Sumerian history suggested very strongly that they had indeed made such voyages as early as the fourth millennium BC – and perhaps even earlier. Moreover, wherever archaeologists excavate they find amidst the ruins of Sumer's most ancient cities all the signs of a civilization that was already highly evolved, accomplished and sophisticated when those cities were founded more than 5500 years ago.

'Now we know that man is more than two million years old,' exclaimed Heyerdahl, 'it would be very strange if our ancestors lived like primitive food collectors for all that time until suddenly they started in the Nile valley, in Mesopotamia and even in the Indus valley, to build a civilization at peak level pretty much at the same time. And there's a question I ask that I never get an answer to. The tombs from the first kingdom of Sumer are full of beautiful

ornaments and treasures made of gold, silver, platinum, and semi-precious stones – things you don't find in Mesopotamia. All you find there is mud and water – good for planting but not much else. How did they suddenly learn – in that one generation just about – where to go to find gold and all these other things? To do that they must have known the geography of wide areas, and that takes time. So there must have been something before.'

I pointed out that the First Dynasty of Sumer defined itself as the first dynasty *after* the flood. The historical Sumerians had always believed that their history was connected to an earlier episode of city-building and civilized life that had begun many thousands of years in the past and from which this deluge separated them. 'We're coming to a controversial idea,' I suggested, 'which is that the great civilizations of historical antiquity may have received some kind of legacy

from an antediluvian culture – an idea orthodox archaeologists detest.'

'I know that,' Heyerdahl replied, 'but I mean they cannot give any answer to how could the Sumerians five thousand years ago know where to go and find these different kinds of raw material. They must have known the world. So, and I mean it, it is for me almost as fantastic as Erich Von Daniken who brought in people from space, to say as the archaeologists do – oh no, no, they sat in Egypt and Mesopotamia and the Indus valley, and they decided, bang, suddenly, just like that, we are going to build pyramids, we are going to go and find gold and we are going to do all this … It's ridiculous. I say it straight out – it could not be possible.'

'The idea of a lost civilization drives archaeologists mad and they seem to want to stop people thinking about it.'

‘Well I understand why! Too many people have brought this up together with fairytale stories …’

‘Which has put the historians off, so that they simply never explore this kind of question?’

‘Yes, and this is a great pity. Because I mean even the sunken Atlantis story, which they all dismiss, is interesting – because why did the early Greeks write this story and why did they get it from the Egyptians, and for that matter why does every civilized and half-civilized nation in the world talk about the flood? Don’t let us throw it away until we know that this is impossible. There has to be a possibility … and I think that we should look for it with the modern technical means we have. I think we are going to get many surprises yet on land, and under the sea.’

No surprises: what the archaeologists say about 'before'

Heyerdahl had arrived at his misgivings about the orthodox chronology of Sumer because he felt that it did not allow time for the evolution and development of the advanced urban civilization that archaeologists now knew had flourished there from the fourth millennium BC. 'There has to have been something before,' he reminded me when we parted. 'Look for whatever was before.'

Of course, there *had* been something before – a well-worked-out stratigraphical sequence that traced the development of human civilization in Mesopotamia back through 'proto-history' before the early dynastic period and thence into the Neolithic, Mesolithic and even the Palaeolithic epochs – a long, gradual, unsurprising process spread out over 30,000 years that Georges Roux sums up as

‘from cave to farm and from village to city’.[69]

At risk of grossly abbreviating the painstaking archaeological work that has gradually uncovered this sequence, here are a few of the main mileposts:

Shanidar Cave in the Kurdish mountains of what is now northern Iraq: occupied by Neanderthal man c.50,000 years ago to 46,000 years ago; occupied by anatomically modern Upper Palaeolithic humans around 34,000 years ago; occupied by Mesolithic peoples around 11,000 years ago.[70]

Jarmo, also in northern Iraq – a Neolithic agricultural site which may perhaps date as early as 8750 years ago. It has a 7 metre high artificial mound resting on top of a very steep hill and is formed of sixteen layers of superimposed habitations.[71]

Hassuna, again in northern Iraq (35 kilometres south of Mosul). The first settlement here has the appearance of a more primitive Neolithic farming

community living in huts or tents. Overlying this layer archaeologists found six layers of houses, progressively larger and better built.[72]

Umm Dabaghiya – about 8000 years old: more sophisticated features found, including beautiful murals and floors made out of large clay slabs 'carefully plastered with gypsum and frequently painted red'.[73]

The Samarra period – named after a widespread pottery style created by what Roux describes as 'a hitherto unsuspected culture which flourished in the Middle Tigris valley during the second half of the sixth millennium BC'- i.e. approximately 7500 years ago.[74] The geneticist Luca Cavalli-Sforza suggests that this date should be pushed back to 'about 8000 years ago'.[75] There is evidence that this culture used irrigation techniques, grew large surpluses of wheat, barley and linseed, and built spacious houses out of mud-brick[76] – later the favoured method of construction in the cities and temples of historical Sumer.

As well as Samarra several other 'proto-historical' cultural

phases have been identified in which elements of Sumer's future civilization can be witnessed taking shape in increasingly organized and recognizable forms. Two of these phases stand out prominently in the archaeological record – the 'Ubaid' period (roughly 7200 to about 5500 years ago[77] and including the first temple at Eridu),[78] and the 'Uruk' period (6000 years ago[79] down to about 5200 years ago, showing further developments in the evolution of temple architecture).[80] The Uruk period, which some archaeologists prefer to see as a subdivision of the Ubaid,[81] then merges fairly seamlessly into the early dynastic period of Sumer.[82]

All of the above dates are of course approximate and are subject to processes of continuous revision and refinement by scholars. Nevertheless, they are thought likely to be accurate

to within about 300 years.[83] In general the academics also agree that the direction of the 'flow' of the urban lifestyle in Mesopotamia is from north to south – with the first village-style settlements and large houses established in the north before being seen in the south. However, and paradoxically, Sumerian civilization as a distinctive entity, the origins of which archaeologists now trace back at least as far as the Ubaid period if not further, appears to be a phenomenon that had its origins in southern Mesopotamia. According to Georges Roux:

> During the fourth millennium BC the cultural development already perceptible during the Ubaid period proceeded at a quicker pace and the Sumerian civilization finally blossomed. This, however, took place only in the southern half of Iraq, the northern half following a different course and lagging behind in many respects.[84]

The word ‘Sumerian’ is derived from Shumer, the ancient name of southern Iraq.[85] Archaeologists believe that they have distinguished the presence of three distinct ethnic groups living in close contact in this region at the dawn of history around 5000 years ago. These were:

> the Sumerians, predominant in the extreme south from approximately Nippur [near modern Diwaniyah] to the Gulf, the Semites, predominant in central Mesopotamia (the region called *Akkad* after 2400 BC), and a small, diffuse minority of uncertain origin to which no definite label can be attached.[86]

Apparently, the only distinguishing features of these three groups are their languages.[87] Otherwise:

> All of them had the same institutions; all of them shared the way of life, the techniques, the artistic traditions, the religious beliefs, in a word the

> civilization which had originated in the extreme south and is rightly attributed to the Sumehans.[88]

The Sumerian problem

With so much known about the evolution and development of the magnificent urban civilization of Sumer, it comes as a surprise to discover that there is such a thing as 'the Sumerian problem'.[89] I prefer to let the scholars speak for themselves:

> Who are these Sumerians? Do they represent a very ancient layer of population in prehistoric Mesopotamia, or did they come from some other country, and if so, when did they come and whence? This important point has been debated again and again ever since the first relics of the Sumerian civilization were brought to light more than a century ago. The most recent

> discoveries, far from offering a solution, have made it even more difficult to answer …[90]

And there is a mystery about the Sumerian language. It can be read and studied because later civilizations, such as the Babylonians, kept archives of Sumerian texts and also helpfully translated them into their own languages. However, Sumerian has a distinct peculiarity. It is unrelated to any of the known language families of the world.[91] So although there is a real sense in which Sumer and its precocious urban culture fit in very nicely with long-term developmental trends in ancient Mesopotamia – as I believe the scholars have successfully demonstrated – there is also a sense in which the Sumerians are definitely a bit different, a bit special … and conspicuously attached to the south …

I've been dealing with archaeologists long enough now to

realize that they don't like myths or traditions very much ('can't weigh 'em, can't measure 'em, can't carbon-date 'em'). I was therefore not surprised to learn that they discounted what the Sumerians themselves had to say about their own origins:

> Sumerian literature presents us with the picture of a highly intelligent, industrious, argumentative and deeply religious people, *but offers no clue as to its origins* [emphasis added]. Sumerian myths and legends are almost invariably drawn against a background of rivers and marshes, of reeds, tamarisks and palm-trees – a typical southern Iraqi background – as though the Sumerians had always lived in that country, and there is nothing in them to indicate clearly an ancestral homeland different from Mesopotamia.[92]

But, as we have seen, the Sumerians had very clear ideas about their own origins … In their myths and legends they

remembered a time, before the flood, when they had lived in five great cities. And they remembered a deluge so ferocious that it threatened the existence of all mankind …

The Seven Sages: what the Sumerians said about 'before …'

Sumerian myths and legends of the antediluvian world do much more than speak of the five cities. They also tell an extraordinary story of how their ancestors, who lived in the 'most ancient times', were visited by a brotherhood of semi-divine beings described as half men, half fish, who had been 'sent [by the gods] to teach the arts of civilization to mankind before the Flood' and who had themselves 'emerged from the sea'. The collective name by which these creatures were known was the 'Seven Sages' and the name of their

leader was Oannes. Each of them was paired as a ‘counsellor’ to an antediluvian king and they were renowned for their wisdom in affairs of state and for their skills as architects, builders and engineers.[93]

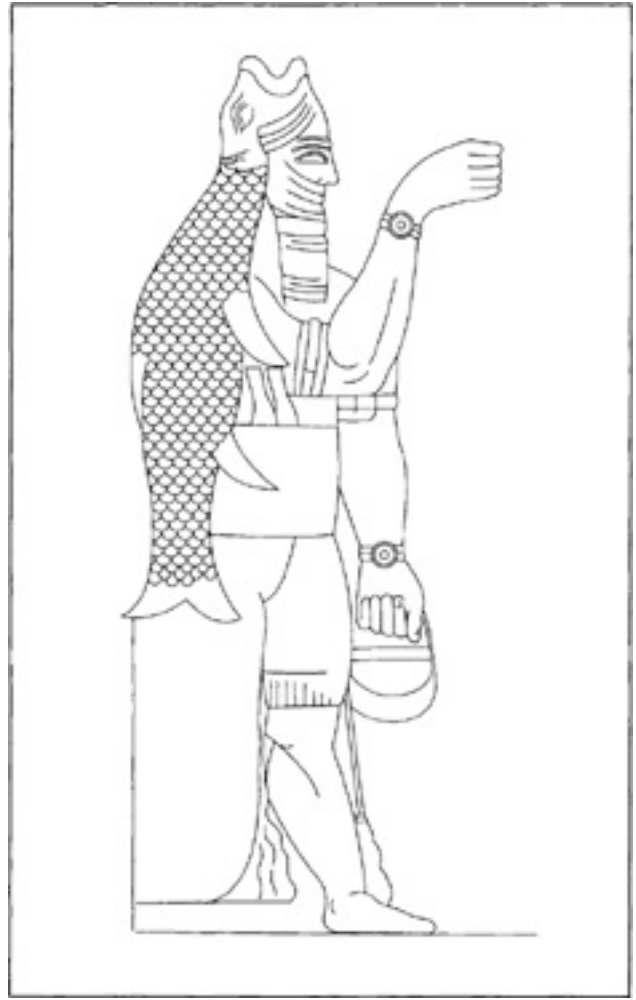

Fish-garbed figure taken from stone relief on Assyrian temple, possibly representing Oannes, leader of the Seven Sages.

The priest Berossos compiled his *History* from the temple archives of Babylon (reputed to have contained 'public records' that had been preserved for 'over 150,000 years').[94] He has passed on to us a description of Oannes as a 'monster', or a 'creature'. However, what Berossos has to say-ridiculous though this may sound – is surely more suggestive of a man wearing some sort of fish-costume. There is also a geographical anomaly in the text that may prove worthy of further consideration:

> There appeared from the Red Sea in an area bordering on Babylonia a frightening monster, named Oannes … It had the whole body of a fish, but

underneath and attached to the head of the fish there was another head, human, and joined to the tail of the fish, feet like those of a man, and it had a human voice. Its form has been preserved in sculpture to this day …

This monster spent its days with men, never eating anything, but teaching men the skills necessary for writing and for doing mathematics and for all sorts of knowledge: how to build cities, found temples, and make laws. It taught men how to determine borders and divide land, also how to plant seeds and then to harvest their fruits and vegetables. In short, it taught men all those things conducive to a civilized life. Since that time nothing further has been discovered. At the end of the day, this monster, Oannes, went back to the sea and spent the night. It was amphibious, able to live both on land and in the sea … Later, other monsters similar to Oannes appeared.[95]

Did they come from the east?

In 1944 Benno Landsberger, one of the great Sumerian scholars of the twentieth century, commented in an obscure essay that in his opinion:

> The legend of the Seven Sages who, emerging from the sea, imparted all technical skills and all knowledge to the Babylonians, may quite possibly have some historical basis.[96]

What he had in mind here was 'the Sumerian problem' – i.e. the as yet unanswered question: where did the Sumerians come from? Earlier than most archaeologists, he fully understood that 'the essential civilizing process on Mesopotamian soil must be ascribed to the pre-Sumerian population'. But at the same time the Sumerians were distinctively different and much more advanced than their immediate neighbours in terms of the level of development of their intellectual and philosophical ideas. 'In the area of

intellectual culture,' he wrote, 'only the Sumerians possessed creative powers.'[97]

In fact they were *so* different in this respect that Landsberger was convinced they must have been migrants from somewhere else. He felt that only such a migration could account for the creation of the unique and idiosyncratic early dynastic culture

> which is considered to be so specifically Sumerian and which in its later manifestations indeed represented the Sumerian essence in its purest state. In all probability the Sumerians came from the East. Not only does the density of the settlement indicate a settling from south to north, but the absence of Sumerian elements in the mountain ranges north and east of Babylonia favors the thesis that the Sumerians came across the sea.[98]

In further support of his thesis Landsberger pointed out that

the island of Bahrain, in the south of the Persian Gulf near Qatar

> possessed deities with authentic Sumerian names such as the chief god En-zak and his spouse Me-skil-ak. This circumstance supports an overseas origin for the Sumerians, since it is improbable that the island was colonized from southern Mesopotamia.[99]

Landsberger went on to speculate that the spark of Sumerian genius might have been imported from the Indus Valley civilization across the Arabian Sea to the east,[100] an interesting idea in itself. However, because he was writing in the 1940s he did not have access to modern knowledge about the astonishing changes that took place in the Persian Gulf at the end of the last Ice Age. He was thus unable to consider a far more radical possibility that the new science has revealed.

Explosive implications

Kurt Lambeck's work on the Persian Gulf initially drew my attention because it spoke of a marine flooding incident – the Flandrian transgression between about 6000 and 5500 years ago – that temporarily shifted the northern coast of the Gulf more than 150 kilometres inland and made Ur and Eridu beachfront property.

Lambeck's study was published in 1996 in the *Earth and Planetary Science Letters*, a specialist geological journal that probably does not cross the desks of a great many archaeologists.[101] He had focused on the period from 18,000 years ago – around the peak of the last glaciation – until today and had taken into account all the key variables including

> the response of the earth to glacial unloading of the distant ice sheets and

> to the meltwater loading of the Gulf itself and the adjacent ocean. Models for these glacio-isostatic effects have been compared with observations of sea-level change, and palaeoshoreline reconstructions of the Gulf have been made.[102]

Now, as I looked more closely into Lambeck's research, I realized that it could have unexplored and potentially explosive implications for the prehistory of Sumer:

> From the peak of the glaciation until about 14,000 yr BP [years before the present] the Gulf is free of marine influence out to the edge of the Biaban shelf. By 14,000 yr BP the Strait of Hormuz had opened up as a narrow waterway and by about 12,500 years ago the marine incursion into the Central Basin had started. The Western Basin flooded about 1000 years later. Momentary standstills may have occurred during the Gulf flooding phase at about 11,300 and 10,500 yr BP…

In other words the whole of the Persian Gulf – in fact to a point well beyond the Strait of Hormuz in what is now the Gulf of Oman – was dry land between 18,000 and 14,000 years ago. Only then did the sea begin to transgress into the Gulf itself, first as a narrow waterway, later as a recurrent cycle of powerful short-lived floods, each followed by a partial recession of the floodwaters, then a standstill, then renewed flooding at irregular intervals.

I knew from my first encounter with Lambeck's research that the present shoreline of the Gulf had been reached, and then temporarily exceeded, around 5500 years ago during the Flandrian transgression. But what I had not immediately understood was the extraordinary geological drama that had unfolded between 14,000 years ago, when the Gulf first began to flood, and 7000 years ago, when the city-state of Eridu was established at the north-western end of the Gulf

and, along with it, the way of life that would soon flower as Sumerian civilization.

The floor of the Gulf

Lambeck himself was convinced that there must be some connection between the flooding of the Gulf and 'the Sumerian problem':

> The early record is incomplete and numerous questions have been raised. Who were the Sumerians, where did they come from? When did they arrive? Did they arrive from a mountainous region beyond Iran or did they arrive by sea? Were they descendants from earlier Neolithic settlers in the region, from the Ubaid culture at 4500–3500 BC or from the even earlier Eridu culture at about 5000 BC [archaeologists often refer to the Eridu culture as 'Ubaid I' – i.e. the earliest stage of the Ubaid culture].[103]

> Whatever directions the search for answers to such questions may take, a significant element in the puzzle must be the evolution of the physical environment of the Gulf itself.[104]

The last observation sounded particularly relevant to my concerns; however, Lambeck went on to qualify it by suggesting that the only epoch that historians and archaeologists really need to pay attention to is 'the latter period of the flooding of the Gulf and the subsequent flooding of the low-lying delta region [the Flandrian transgression] when sea-level rose perhaps a few metres above its present level between 6000 and 3000 yr BP'.[105] If archaeologists were interested in the earlier period between 18,000 years ago down to as recently as 7000 years ago – when a large part of the Gulf floor was still dry land – then they should focus on its role as a corridor of migration: 'a

natural route for people moving westwards from east of Iran. Is this the route travelled by the ancestors of the Sumerians?'[106]

What Lambeck did not do, anywhere in his paper, was invite consideration of another possibility, even though it is suggested by some of his own data. This is the possibility that the dry floor of the Gulf could *itself* have been a place of permanent settlement at some point during the 11,000 years between 18,000 and 7000 years ago.

If it was, then why shouldn't an urban culture have evolved here, just as the myths of the antediluvian cities suggest?

After all, orthodox archaeology has already accepted the existence of very ancient cities elsewhere in the Middle East – such as Catal Huyuk in Turkey (at least 8500 years old),

Jericho in Palestine (more than 10,000 years old)[107] and, indeed, Eridu in Mesopotamia (where, as we've seen, the oldest shrines are thought to be about 7000 years old). Knowing the inundation history of the Gulf as well as we now do, therefore, we cannot rule out the possibility that the ruins of cities that are literally 'antediluvian' could be concealed beneath its increasingly polluted, industrialized and militarized waters …

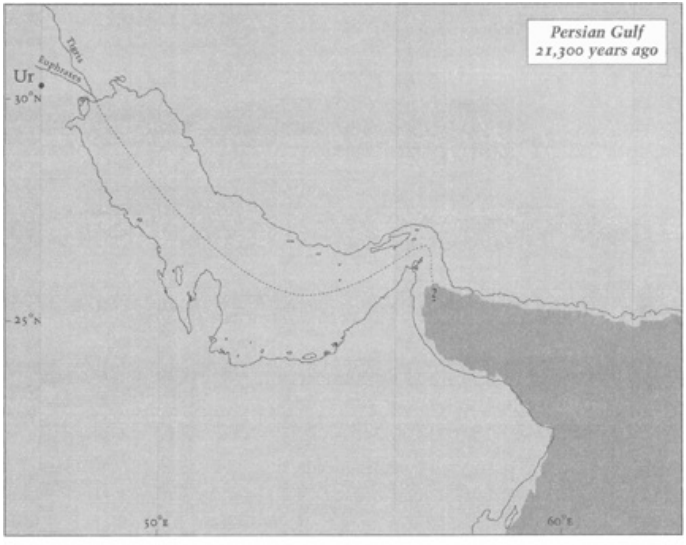
Persian Gulf
21,300 years ago
Tigris
Euphrates
Ur
30°N
25°N
50°E
60°E

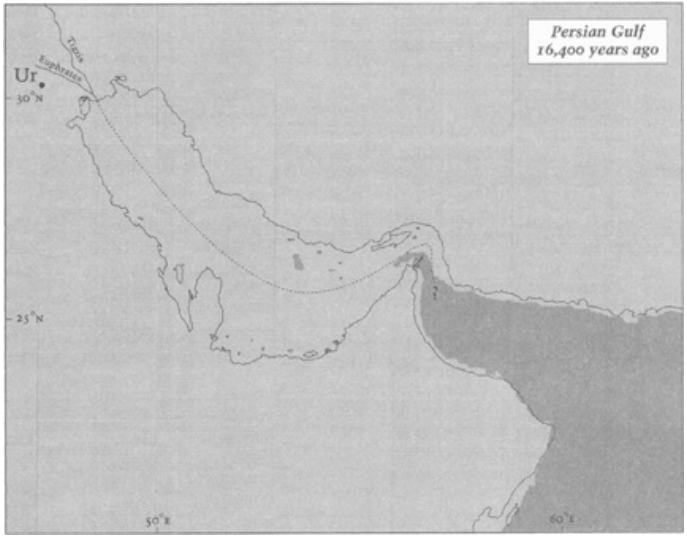
Persian Gulf
16,400 years ago
Tigris
Euphrates
Ur
30°N
25°N
50°E
60°E

Dotted line represents projected course of Tigris-Euphrates through the Palaeo-Gulf.

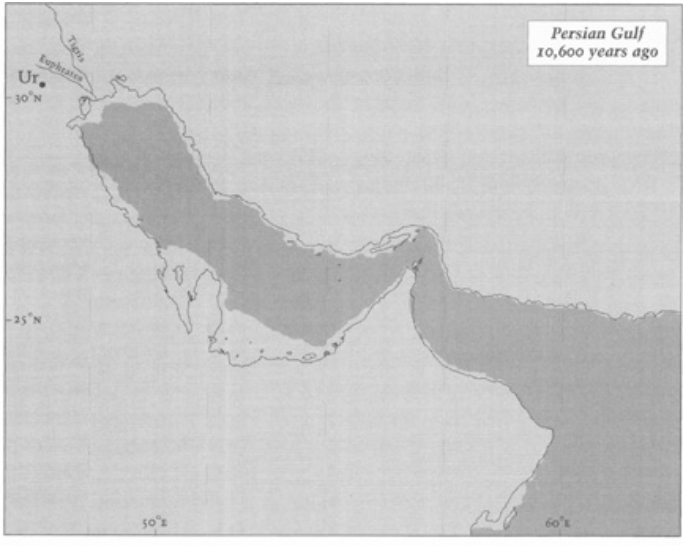
Persian Gulf
10,600 years ago
Tigris
Euphrates
Ur
30°N
25°N
50°E
60°E

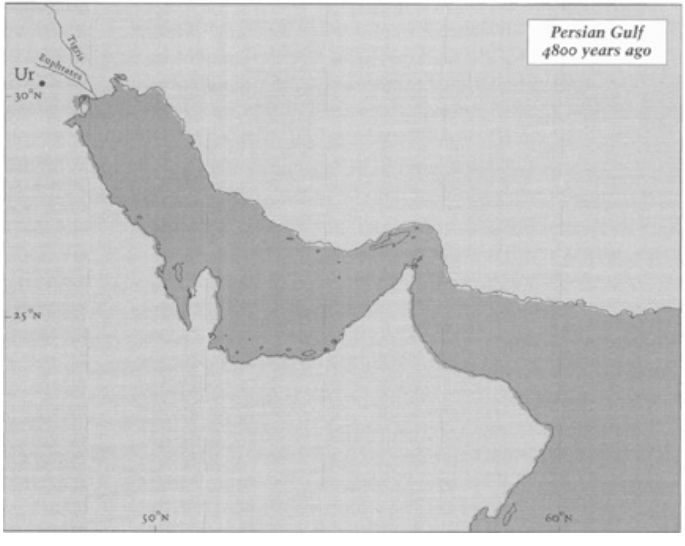
Persian Gulf
4800 years ago
Tigris
Euphrates
Ur
30°N
25°N
50°N
60°N

In these and all inundation maps in this book, the black lines represent modern coastlines, the light tint is land and the dark tint is sea.

A river ran through it

During the period from the Last Glacial Maximum until about 10,000 years ago the Ice Age world was generally colder and more arid than it is today, with average temperatures depressed by several degrees even in tropical and equatorial zones. However, these conditions are likely to have been much less severe within the micro-region of the antediluvian Gulf – essentially a large, well-protected, low-lying valley.[108]

Its notable feature, which undoubtedly would have been a

magnet for life of all sorts including human beings – was that the Tigris and the Euphrates flowed through it, united as a single mighty river.[109] The river's course seems to have run along the northern side of the valley and at different periods appears to have passed through as many as three large, freshwater lakes in the Gulf's Western and Central and Eastern Basins.[110] It exited the Gulf through the narrows now known as the Strait of Hormuz and formed its delta on the Biaban Shelf to the east.[111] The delta was relatively small for such a large river, which suggests to scientists that it must have dumped most of its load of fertile alluvial silt in and around the shores of the lakes that it filled along the way.[112] Over thousands of years this would have created areas of great natural fertility within the valley where agriculture, if practised, might have been extremely productive.

For a while things could only get better and, despite the remorseless advance of the sea after the Strait of Hormuz was breached 14,000 years ago, conditions in the rest of the Gulf may for a long while have remained extremely pleasant. I was particularly interested to learn of a comprehensive study done in 1988 by the COHMAP group which showed that 'the Indian monsoon system penetrated into the southern and eastern portions of south-west Asia during the period of 12,000 to 9000 years ago, and then retreated'.[113] The implication was that throughout this period the Gulf, along with other parts of south-west Asia, would have

> enjoyed both winter rains and in some areas also summer rains or ephemeral summer storms. This rainfall would have increased grazing opportunities, particularly in semiarid areas, but would have had little effect on the growth of winter cereals that formed a principal base of early

agriculture.[114]

A protected valley … a great river … lakes … fertile soils … bountiful rainfall… The palaeo-climatological literature left me with the distinct impression that the Gulf around 10,000 or 12,000 years ago could have been a very unusual place … indeed a secret garden blessed with an ideal climate, offering nearly optimum conditions for the emergence of a civilization.

A sea change

What changed everything was the sea. As Lambeck tells it:

> By 14,000 yr BP the Hormuz Strait has opened up as a narrow waterway and the flooding of the lowlands to the west begins, first with the flooding of the Eastern Basin by marine water soon after 13,000 BP. Marine

influence is first experienced in the Central Basin before about 12,500 BP … The Western Basin lake remains free from marine incursion until about 11,500 BP. The northern part of the Gulf remains dry at this time, as does a vast area south of the palaeo-Gulf, although this plain contains numerous shallow topographic depressions. Until about 11,000 BP the northern part of the Persian Gulf floor would have been a relatively flat but narrow plain, hemmed in between the palaeo-Gulf and the southern foothills of the Zagros mountains forming the present coastline.

As the sea-level rises the Gulf continues to expand and the marine influence spreads into the northern region. By about 10,000 BP the north-east margin of the Gulf has approached its present position in several localities, particularly east of about 52 degrees longitude. Much of the southern part of the Gulf remains exposed until about 8000 BP and areas such as the Great Pearl Bank are not submerged until shortly after this time.[115]

I have deliberately chosen not to summarize Lambeck's blow-by-blow account of the flooding of the Gulf, but to let him speak for himself. He does not dramatize or interpret his data but presents it neutrally, without speculation, as a good scientist should.

I am not a scientist and I have a different approach. What I see here is first and foremost a mystery – the mystery of Sumerian origins – 'the Sumerian problem' as archaeologists like to call it. When I look closer I find that not only do we not know where the Sumerians came from but also that their language is unique in the world – apparently unrelated to any other known language. Closer up still and I learn that the Sumerians preserved traditions of a terrible flood that had nearly obliterated mankind from the earth and that had inundated the five antediluvian cities of their ancestral homeland. There had been survivors in a great ship who had

been carried by the floodwaters to another land and had settled there in order to renew the ruined earth, replenish the seed of mankind, and preserve the ancient wisdom and the worship of the gods. For this reason those who later traced their line and religion from these survivors always remembered history as being divided into two periods – before and after the flood – and recorded the dynasties of their rulers in exactly the same way-with the list of the historical kings preceded by the list of the antediluvian kings, the latter reigning for a very long period.[116]

I review the archaeological literature for rational explanations of the Sumerian flood tradition and find that most of the experts agree it must have been rooted in some kind of historical truth; they point to the temporary inundation of Ur around 5500 years ago, either by gigantic river floods or by the marine incursion known as the

Flandrian transgression. But when I look further and try to match up the details of the flood tradition to the archaeological facts I find that nothing really fits; nevertheless there are strange resonances between the evidence and the myths.

For example, we've seen that Eridu, always named as the first and oldest of the antediluvian cities, was never flooded; yet the archaeological evidence does make it a strong contender, with its 7000-year-old shrines to the water-god Enki, for the title of 'oldest' Sumerian city.

Conversely, Ur, which is not mentioned in the flood tradition at all, was most definitely flooded around 5500 years ago. Shurrupak, which is named as one of the antediluvian cities, was likewise flooded, but not until 700 years later.

So, for me, the theory that connects the Sumerian flood tradition with whatever event it was that flooded Ur is a 'dog that don't hunt'. I would honestly sooner conclude that the Sumerians had made the whole thing up than agree that they were so geographically ignorant and historically naive that they were incapable of distinguishing between a universal flood capable of wiping out humanity and a local flood – however large. Since we respect them so highly in other departments – as the builders of the world's first schools, for example, the inventors of the world's first bicameral congress, the compilers of the world's first law codes,[117] etc. – shouldn't we also respect the Sumerians' own evaluation of the great deluge that they say swallowed up the cities of their ancestors so long ago in the past?

A new hypothesis

Then I come across Kurt Lambeck's data. What it tells me is that the floor of the Persian Gulf was entirely exposed until as recently as 14,000 years ago, that between 12,000 and 9000 years ago it would have been a veritable Garden of Eden, and that, despite continuous flooding, large areas of the Gulf floor remained above the waves until somewhere between 8000 and 7000 years ago. Since these included the Great Pearl Bank – between modern Dubai and Qatar near Bahrain – I find it difficult to believe it is a coincidence that deities with authentic Sumerian names were worshiped in ancient Bahrain or that the first definite evidence of an identifiably 'Sumerian' presence in Iraq is at Eridu around 7000 years ago – so soon after the Great Pearl Bank was inundated.

In short, although I stress again that I'm no scientist, I believe that Kurt Lambeck's data is strong enough to justify an entirely new hypothesis on the subject of 'the Sumerian problem'. I think it's time to consider seriously the possibility that the true story of Sumerian origins may have proved so elusive because it is veiled beneath the waters of the Persian Gulf. In that case, Eridu and the other four 'antediluvian' cities of Mesopotamia might well bear the same relationship to the original antediluvian cities of the Gulf floor as Halifax, Nova Scotia bears to Halifax, England or as Perth, Australia bears to Perth, Scotland. They could, in other words, have been named in memory of other, older cities somewhere else – normal, well-testified behaviour by migrants of almost all cultures in every epoch. Moreover, in this case we are not even required to imagine that the migration came from very far away but merely from the flooded lowlands of the Gulf

towards the nearest higher and productive ground that was blessed by the same Tigris/Euphrates river system as the floor of the Gulf had once been.

At this point I find that the hypothesis and the existing archaeological evidence begin to converge nicely. Yes, it seems to be true that Eridu stands out as one of the earliest 'nascent' cities of Sumer, yes, the date of submersion of the Great Pearl Bank coincides quite closely with the date of foundation of the first shrines to Enki at Eridu, and yes, the Sumerians did have distinct memories of an advanced antediluvian culture that had been destroyed by a great flood.

But still, the flooding of the Gulf was a long-term event, wasn't it, spread out over more than 6000 years? Surely something that gradual, that predictable, is no more likely than the localized flooding around Ur 5500 years ago to have

inspired the Sumerian tradition of the sudden world-destroying flood that threatened the survival of mankind?

Before I attempted to test my Sumerian hypothesis further by trying to set up a proper diving expedition in the Gulf (written authorization required in triplicate from Saddam Hussein, the US Navy, the CIA, Texaco, the President of Iran, the King of Saudi Arabia, and the Emirs of Kuwait, Bahrain, Qatar, Sharjah, Abu Dhabi and Dubai) I decided that I had to learn more about the behaviour of the world's oceans in the key 7000-year period from roughly 14,000 to 7000 years ago.

I knew already that this had been the peak period of the meltdown of the last Ice Age. I knew already that it had been a period of great turbulence and instability. It was therefore by no means impossible that something had happened at the global level during these millennia that could have projected

a truly cataclysmic flood into the sheltered valley of the Gulf.

In fact, as I was to discover, it could have happened more than once …

3 / Meltdown

Athenian: Do you consider that there is any truth in the ancient tales?

Clinias: What tales?

Athenian: That the world of men has often been destroyed by floods … in such a way that only a small portion of the human race survived.

Clinias: Everyone would regard such accounts as perfectly credible.

Plato, *Laws*, vol. I, book III

It is clear that the [Beverley Lake] drumlins … must have been submerged in the formative flow … minimum depths of about 20 metres were required … On a helicopter traverse along the north shore of Georgian Bay, a single field of bedrock erosional marks was noted that had a width of at least 50 kilometres … [These] drumlins and erosional marks indicate meltwater floods that were competent to remove the largest boulders … Flow widths, equal to the widths of drumlin and erosional-mark fields, were in the range

of 60 to 150 kilometres … Volumes of water required to sustain such floods would have been of the order of one million cubic kilometres, equivalent to a rise of several metres in sea level over a matter of weeks.

John Shaw, Professor of Earth Sciences, University of Alberta

As recently as 20,000 years ago, North America had an array of large animals to rival the spectacular wildlife of modern Africa. Mammoths bigger than African elephants, as well as smaller, pointy-toothed mastodons, ranged from Alaska to Central America. Herds of horses and camels roamed the grasslands while ground sloths the size of oxen lived in the forests and bear-sized beavers built dams in the streams. By about 10,000 years ago, all of these animals – and others such as American lions, cheetahs, sabertooth cats and giant bears – were gone. Some 70 North American species disappeared, three-quarters of them large mammals. Why?

Washington Post, 21 November 2001

If you study the literature and talk to the experts on the last Ice Age, you will find that there are wide differences of opinion over such fundamental matters as the main sequence of events, the chronology and consequences of these events, and even the terminology used to describe them.

The very idea of 'the last Ice Age' is poorly defined and is used differently by different authorities. For some it refers to the period from roughly 125,000 years ago, when the ice-caps of the northern hemisphere began their most recent advance, down to about 21,000 years ago, when they reached their maximum extent (LGM – 'the Last Glacial Maximum') and then began to melt. Even here, though, there seems to be variation in the scientific literature, as I have seen the LGM dated as early as 25,000 years ago and as late as 18,000 years ago.[1]

Another school of semantics takes a longer view, pointing out that the ‘last Ice Age’ was merely the most recent surge in a boom-and-bust cycle of glaciations and deglaciations going back some 2.6 million years. To them it is this longer cycle that is the Ice Age – and it is not ‘the last Ice Age’ because we are still in it. They point out that the process of deglaciation after 17,000 years ago was extremely rapid – being largely over within 10,000 years – but not far beyond the norm set by previous deglaciations. Likewise, the relatively congenial conditions that we have enjoyed during the 7000 years since then are perhaps a little better than those in some previous interglacials, but not spectacularly so.

Although I am not concerned in this inquiry with epochs millions of years in the past, I note in passing how curiously the fortunes of the creature called man seem to be intertwined with the long chronology of the Ice Age:

- The traces of our earliest, upright-walking ancestors of the genus *Homo* first begin to appear in the fossil record about 2.6 million years ago, when the great cycle of the current Ice Age began.
- Another coincidence occurs approximately 125,000 years ago, the onset of the most recent surge of the ice-sheets. It is at about this time, or a little after, that the earliest remains of *possible* anatomically modern humans are found.
- The earliest *undisputed* remains of anatomically modern humans are much more recent – perhaps 40,000 years old. This is around the same time that the first traces of classic European 'cave art' begin to appear – already mature and fully formed – in such locations as the Chauvet Cave in France.

- The earliest undisputed remains of large-scale permanent settlements with monumental stone architecture are found around 10,000 years ago – Jericho for example, which stands in the Jordan valley in Palestine. Other impressive sites include Catal Huyuk in Turkey, dating to perhaps 8500 years ago. The whole idea of permanent settlement, however, does not seem to take very wide root until after about 7500 years ago. This is the time when the world's climate begins to stabilize again after 10,000 years of unbelievable turbulence, melting ice and rising sea-levels.
- The same chronology, more or less, and the same loose correlation to the end of the last glaciation, applies to accepted scientific models of the spread of agriculture.

But does it? Or is it possible that important parts of the

story of our past could have been veiled from us by the upheavals of the glacial cycle?

Although I know that it was just the most recent of many glaciations, I use the term ‘the last Ice Age’ to refer to the latest glacial expansion between 125,000 and 17,000 years ago. When I use the term Last Glacial Maximum (LGM) I refer not to a specific moment but to a *period* of approximately 5000 years between 22,000 years and 17,000 years ago during which the ice-sheets remained at or near their maximum extent. There was some melting and sea-level rise after around 19,000 years ago but the volume was relatively small and there was little impact on coastlines. What may truly be described as the epoch of the ‘meltdown’ began immediately afterwards – say 16,500 years ago – with the mass of ice-sheet wasting and associated sea-level rise complete by 7000 years ago.

Before the flood

Imagine the world before the flood. Seventeen thousand years ago, at the end of the Last Glacial Maximum, most of northern Europe and North America were buried under ice several kilometres thick. So much water was tied up in these continental ice-caps that global sea-level was between 115 and 120 metres lower than it is today. The antediluvian world, therefore, looked very different from the world we are familiar with.

- A land-bridge joined Alaska and Siberia across what is now the Bering Strait.
- It was possible to walk from southern England to northern France across the dry valley that would later become the English Channel.

- Many more islands were exposed in the Mediterranean than are visible today and existing islands were much larger. Malta, for example, was certainly joined on to Sicily. Corsica and Sardinia formed a single huge island.
- Further east, we've already seen that the whole of the Persian Gulf as far as the Strait of Hormuz was dry 17,000 years ago but for its great alluvium-rich river and its life-giving lakes …
- Further east still, India's coastlines were much more extensive at the end of the last Ice Age than they are today and the shape of the subcontinent was strikingly different. Sri Lanka was joined to the mainland and south of Sri Lanka, sprawling across the equator, the Maldive islands were far larger than they are today.
- Around modern Malaysia, Indonesia and the Philippines,

and stretching as far north as Japan, lay the endless plains of 'Sunda Land', a fully fledged antediluvian continent. It was submerged very rapidly some time between 14,000 and 11,000 years ago.

- Up until about 12,000 years ago, the three main islands of Japan formed a continuous landmass.
- In the southern seas lay the gigantic Ice Age continent of Sahul, formed out of the united landmasses of Australia, Tasmania and New Guinea.
- Across the Pacific the thousands of small, remote islands of today were integrated into much larger archipelagos 17,000 years ago.
- In the western Atlantic, in the same epoch, the Grand Bahama Banks, now shallowly submerged, formed a huge plateau 120 metres above sea-level, and all of the

Florida, Yucatan and Nicaragua shelves were exposed.[2]

In short, the habitable landmasses that modern civilizations have inherited from the meltdown of the last Ice Age only began to take their present form in the ten millennia between 17,000 and 7000 years ago.

Before that, areas that are densely populated today, Chicago, New York, Manchester, Amsterdam, Hamburg, Berlin, Moscow – in fact most of North America and northern Europe – were absolutely *uninhabitable* due to the fact that they were covered by ice-caps several kilometres thick. Conversely, many areas that are uninhabitable today – on account of being on the bottom of the sea, or in the middle of hostile deserts such as the Sahara (which bloomed for about 4000 years at the end of the last Ice Age) – were once (and relatively recently) desirable places to live that were capable

of supporting dense populations.

Geologists calculate that nearly 5 per cent of the earth's surface – an area of around 25 million square kilometres or 10 million square miles – has been swallowed by rising sea-levels since the end of the Ice Age.[3] That is roughly equivalent to the combined areas of the United States (9.6 million square kilometres) and the whole of South America (17 million square kilometres). It is an area almost three times as large as Canada and much larger than China and Europe combined.[4]

What adds greatly to the significance of these lost lands of the last Ice Age is not only their enormous area but also – because they were coastal and in predominantly warm latitudes – that they would have been among the very best lands available to humanity anywhere in the world at that

time. Moreover, although they represent 5 per cent of the earth's surface today, it is worth reminding ourselves that humanity during the Ice Age was denied useful access to much of northern Europe and North America because of the ice-sheets. So the 25 million square kilometres that were lost to the rising seas add up to a great deal more than 5 per cent of the earth's useful and habitable landspace at that time.

Now, imagine if you were to discover a hidden secret: the entire orthodox account of world prehistory as it is presented in the classroom, at university, through books and in the media has been created by archaeologists with no reference whatsoever to China and Europe, or to South America and the land-mass of the USA. Having missed out entirely such large areas from their excavations and research wouldn't you feel that their conclusions about world prehistory and the story of the origins of civilization were likely to be – to say

the least – flawed? Well, it is a similar story with the 25 million square kilometres lost at the end of the Ice Age. Marine archaeologists have barely even begun a systematic survey for possible submerged sites on these flooded lands. Most would regard it as a waste of time even to look. In consequence, whether in Australia or Europe, the Middle East, India or south-east Asia, the enormous implications of the changes in land-use and rising sea-levels between 17,000 and 7000 years ago do not appear *ever* to have been seriously considered by historians and archaeologists seeking the origins of civilization.

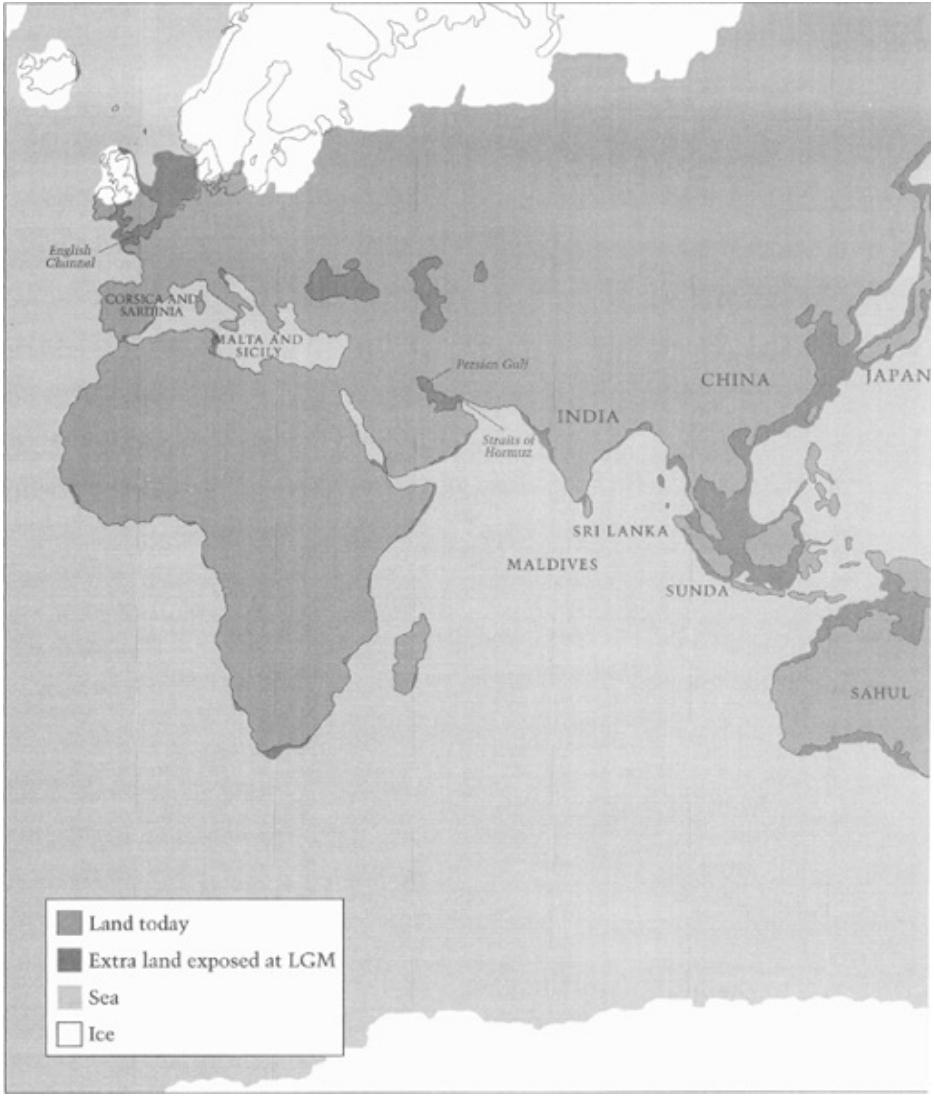
English Channel
CORSICA AND SARDINIA
MALTA AND SICILY
Persian Gulf
Straits of Hormuz
INDIA
CHINA
JAPAN
SRI LANKA
MALDIVES
SUNDA
SAHUL
Land today
Extra land exposed at LGM
Sea
Ice

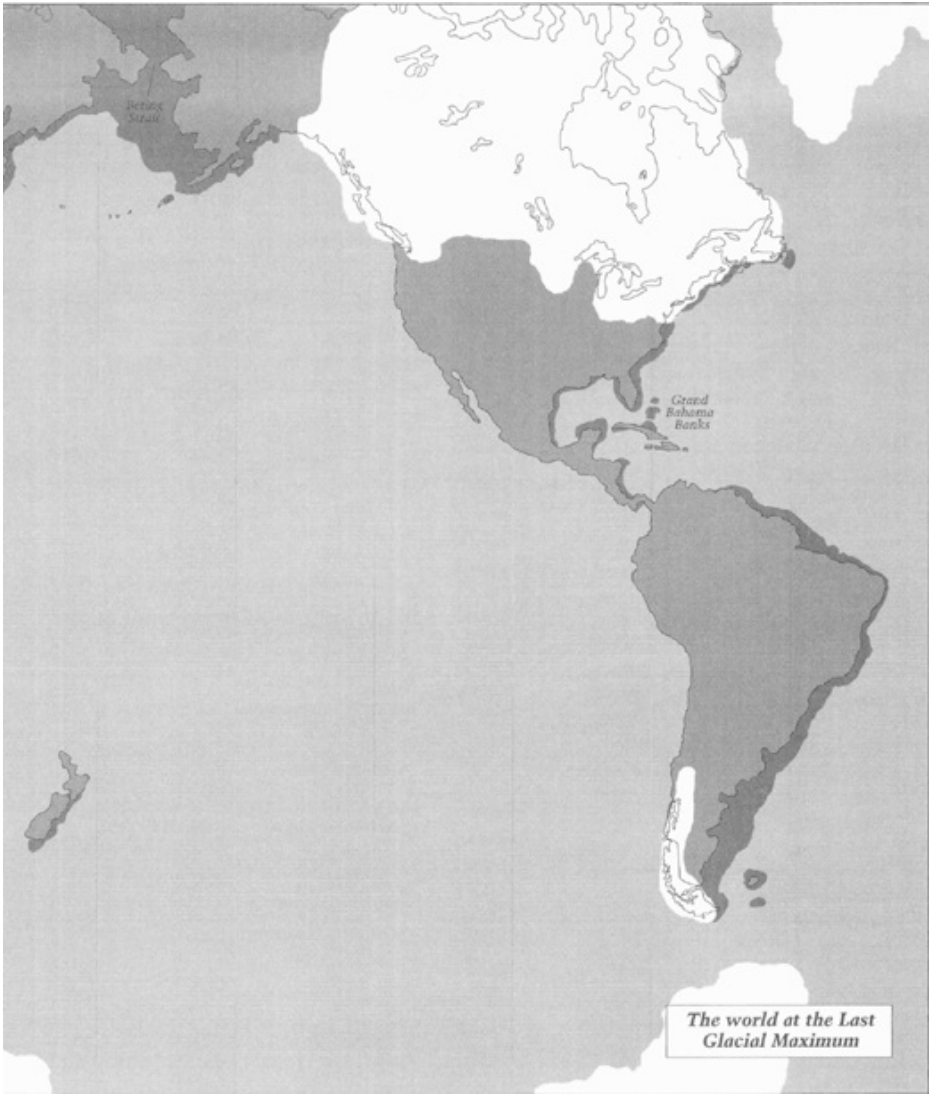

The world at the Last Glacial Maximum

A case history: the drowned 3 million square kilometres of Sahul

Let's look more closely at what happened to Sahul – also known as 'Greater Australia' – between approximately 17,000 and 7000 years ago. Much of the story has been unravelled by the work of Jim Allen, an archaeologist at Australia's La Trobe University, and Peter Kershaw from the Department of Geography and Environmental Science at Monash University, Melbourne.[5]

Sahul at the Last Glacial Maximum.

Until the end of the Last Glacial Maximum 17,000 years ago, and probably for several thousand years afterwards, New Guinea was fully integrated with the Australian continent across the Torres Strait and the Arafura Sea,

Tasmania was fully integrated in the south – the Bass Strait then being dry land – and 'other smaller, now offshore, islands were also incorporated'.[6] In total Allen and Kershaw estimate that Sahul of 17,000 years ago extended 'from almost exactly the Equator to nearly 44 degrees S and from 112 degrees E to 154 degrees E'.[7]

Then came the meltdown:

> Between circa 16,000 BP and 7000 BP Greater Australia was reduced in area by *more than three million square kilometres* – an area much larger than Mexico. Three major landmasses existed where previously there had been one … Coastal sites were either submerged or preserved on islands, while sites of the former arid interior became coastal … In places *the postglacial marine transgression reduced the width of the coastal plain by up to several hundred kilometres*, thus presumably drowning many terminal Pleistocene sites in the process …'[8]

And how much else? There are, after all, a number of discontinuities and mysteries in the human story in Australia, not least the venerable antiquity of its first settlers – thought to date back as far as 50,000 years. Though there is no archaeological evidence whatsoever that a high civilization in the technical, material or urban senses ever flourished here before the modern era, there are certain aspects of Aboriginal culture that are frankly puzzling and do not fit in. These include evidence of sophisticated astronomical ideas from a very early date and the use of an 'astronomical terminology' that is also found in other very distant regions of the world. Thanks to the research of the Russian prehistorian Boris Frolov, for example, we must now ask ourselves whether it is a coincidence that indigenous tribal peoples as far afield as North America, Siberia and Australia all called the Pleiades star-group 'the Seven Sisters'.[9] Frolov's own view is that

coincidence is not a satisfactory explanation and that only an extremely ancient shared heritage can account for this and many other thought-provoking parallels that he has uncovered.[10] But if Frolov is right, as the Cambridge anthropologist Richard Rudgley observes in his groundbreaking *Lost Civilizations of the Stone Age*, then the implication is:

> a tradition of communicable knowledge of the heavens that has existed for over 40,000 years, since a time roughly coinciding with the beginning of the Upper Palaeolithic. This is something that is extremely awkward for most widely accepted views of the history of knowledge and science – in short it is far, far too early for most people to accept.[11]

Of course, it is true that archaeologists excavating Australian terrestrial sites have not turned up any evidence there of the kind of social infrastructure that would normally be

associated with the spread of a global astronomical tradition. But with more than 3 million square kilometres of Greater Australia submerged between 16,000 and 7000 years ago, and almost entirely unexplored by archaeologists, who can be sure what yet might be found?

Floods and civilization

Were the post-glacial 'floods' really floods at all? It doesn't take a mathematical genius to work out that 120 metres of sea-level rise spread out over 10,000 years amounts to an average of not much more than a metre a century. Inconvenient, certainly … But surely not enough to submerge and sweep away all traces of a great civilization? Surely not enough to inspire the global myth of the flood-so often accompanied, as it was in Sumer, by the unshakeable

conviction that the gods had resolved to obliterate mankind?

In previous books I have discussed the cycle of the Ice Ages. Over the past 2.6 million years, this cycle shows strong correlations with the (slowly changing) obliquity and precession of the earth's axis and the varying degree of eccentricity of its orbit around the sun. Some scientists feel that these large-scale astronomical influences are sufficient, on their own, to explain the recurrent glaciations and deglaciations of our planet. Others feel that trigger factors must also be involved – extreme episodes of volcanism, asteroidal or cometary impacts, a realignment of the earth's crust or mantle, and so on and so forth.

Irrespective of the cause, however, there is no dispute about the biggest consequence of the meltdown of the last Ice Age: sea-level is now 120 metres higher than it was 17,000 years ago. This, by any standards, represents a dramatic

change in the distribution of habitats for human settlement and should, one might expect, be a matter of great interest to archaeologists. When I began to research this subject I was therefore surprised to learn that this is not at all the case:

- only an infinitesimal amount of marine archaeology has been done along continental shelves (infinitesimal in relation to the total area of land submerged worldwide);
- of the marine archaeology that has been done, the largest part has been focused upon the discovery and excavation of shipwrecks and of sites submerged in historical times;[12]
- with the exception of Robert Ballard's exciting underwater survey of the Black Sea for the National Geographic Society, which got underway in 2000 and has been oriented directly towards an investigation of a

> colossal incursion of the Mediterranean through the Bosporus narrows 7500 years ago, marine archaeology has simply not concerned itself with the possibility that the post-glacial floods might in any way be connected to the problem of the rise of civilizations.

I am aware that there is a new mood of political correctness amongst archaeologists and a willingness to accept, and state publicly, that the peoples of the Stone Age were neither ignorant savages nor lowbrow 'cave men' – although one need only spend a moment glancing at the transcendental art of Lascaux to realize that! But still it seems to me true to say that the great majority of archaeologists see no particular trend or connection that obviously links the 'Palaeolithic' way of life, 17,000 or even 12,000 years ago, to the urban way of life that first appears at Jericho, Catal

Huyuk and a handful of other sites between 10,000 and 7000 years ago. This is why, although they are certainly more open than they were before to the spirituality and high artistic culture of the ancients, archaeologists – almost without exception – do still assume that the population of the earth was at a uniformly hunter-gatherer level of social and economic development 17,000 years ago, and still about 7000 years away from founding the first cities. They therefore have no particular reason to be interested in the fact that millions of square kilometres of continental shelf were flooded in the intervening years, changing the face of the habitable earth completely.

If, on the other hand, the level of development of different cultures in that period was *not* uniform (as is the case in the world today) and if one or several cultures had concentrated along the ancient sea-shores – or in any other areas which

might have been rapidly and cataclysmically inundated – then it is possible that the post-glacial floods could have had *enormous* significance for the story of civilization.

Moreover, the rise in sea-level of 120 metres over those 10,000 years between 17,000 and 7000 years ago is large enough to have engulfed entire cities for ever and either demolished or covered up with millennial deposits of silt and muck all evidence of their former existence. If the waves rose slowly, such hypothetical cities would have been pounded for centuries in the high-energy intertidal zone which makes short work even of granite structures. But if the sea-level rise was due to some cataclysmic surge, then walls of water would have borne down on and crushed beyond recognition much that stood in their path.

Many things happening at once

It is hard to know where to begin to tell the story of the meltdown of the last Ice Age, because it is really many different stories woven together into a single fabric.

- Part of it concerns large-scale climate flips, sudden radical thaws and equally radical freezes, volcanism on a planetary scale, earthquakes of unparalleled ferocity and mass extinctions of animal species.
- Part of it, which I've already touched on, is the huge loss of habitable land, of low-lying coastal plains and fertile river deltas that occurred as the sea-level rose – a 'lost continent' scattered around the world like the pieces of a jigsaw puzzle with a combined land area of 25 million square kilometres.

- Part of it concerns the speed and the sheer magnitude of the post-glacial flooding.
- Part of it is the need to understand the processes that led the earth into this devastating cycle of inundations.
- Part of it is a complexity: *yes*, global sea-level did rise by about 120 metres between 17,000 and 7000 years ago; *no* this 'eustatic' rise (i.e. pertaining to sea-level alone) has not been uniformly reflected in changing shorelines through time. Thus, in some parts of the world sea-level relative to ancient shorelines has remained quite stable for millennia; in others, submersion of a particular locality may be deeper than expected from eustatic changes; in yet others submersion may be shallower than expected from eustatic changes. Such variations can be caused by local land subsidence or land rise following earthquakes or volcanic activity; however, a much more

potent and extensive agent of changing land-levels is known to geologists as isostacy.

Kicking the gel-filled football

The earth's surface, which seems solid beneath out feet, can yield and deform when subjected to sufficiently large pressures. It behaves a bit like a football that has been loosely filled with a thick, heavy gel: pressure at one point on the gel-filled ball will result in an indentation in that area, a displacement of the fluid mass within and a corresponding rise in a roughly circular area surrounding the indentation. Geologists call this process isostacy, and it plays an important role not only during Ice Ages but also for thousands of years after all the ice has melted away. The reason it does so is that the vast weight of the ice-caps is sufficient to force down the

earth's crust into great basin-like depressions beneath them. When the ice melts, that pressure is suddenly removed and the floors of the basins begin to rebound; they will, if sufficient time is allowed, rise again to their original levels.

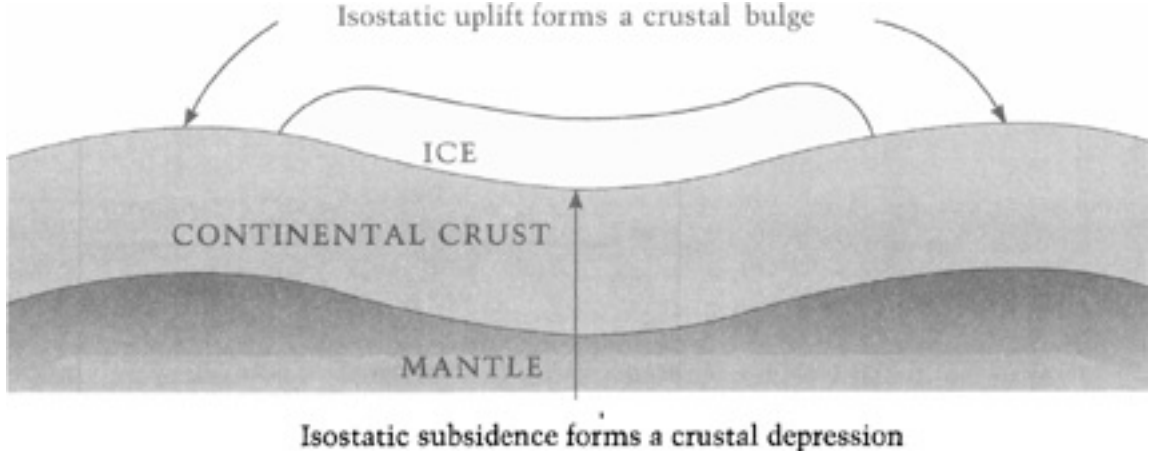

Ice-loading causes a depression in crust under ice, and an isostatic bulge effect beyond it. Based on Wilson and Drury (2000).

At the LGM 17,000 years ago, the ice-caps over large parts of North America and northern Europe were *between 2 and 4 kilometres thick* and applied loads of thousands of billions of tonnes to the continental landmasses on which they had formed.[13] Thomas Crowley and Gerald North, both oceanographers at Texas A&M University, observe that North America's Laurentide ice-sheet

> extended from the Rocky Mountains to the Atlantic shore and from the Arctic Ocean southward to about the present positions of the Missouri and Ohio rivers. In Europe the Fennoscandian Ice Sheet reached northern Germany and the Netherlands. The weight of the massive ice sheets depressed the crust by as much as 700–800 metres, resulting in gravity anomalies that are still detectable.[14]

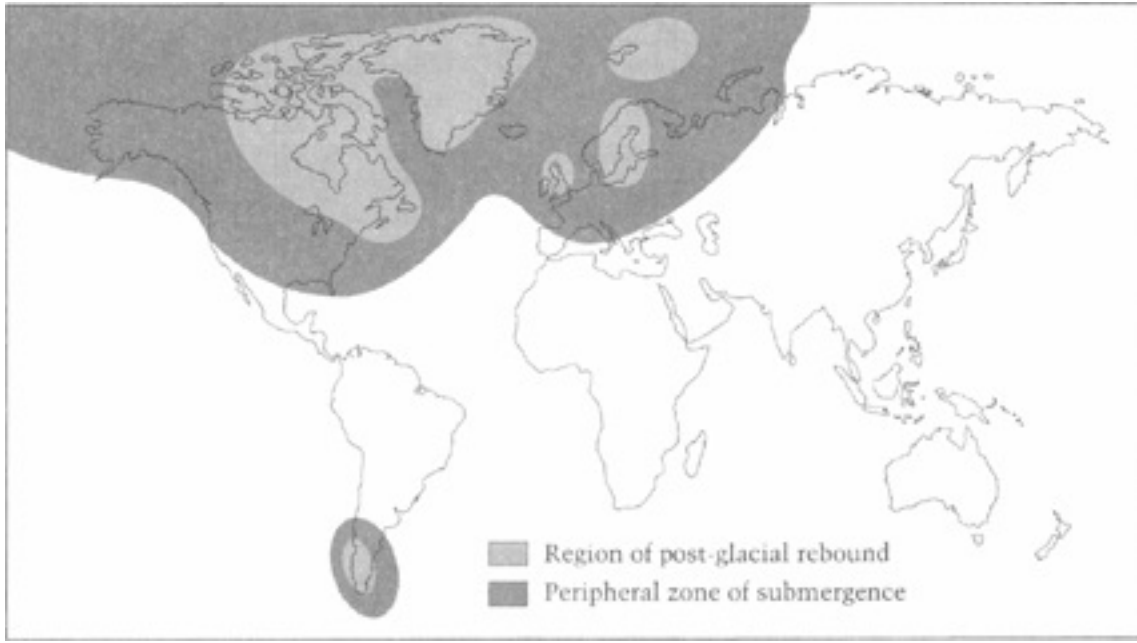

The post-glacial world showing regions of isostatic rebound (light shade) and submergence (dark shade). Based on Wilson and Drury (2000).

On average it has been found that 100 metres of ice-loading depresses continental crust by 27 metres.[15] But this is only part of the story. The water of the world's oceans also has weight; indeed it is denser than ice. Thus, 100 metres of water-loading depresses the sea-bed beneath it by 30 metres.[16] Since all the ice formed on land during the last Ice Age was made out of water extracted from the sea, it follows that while the crust was pressed down beneath the continents, it actually rose up beneath the oceans (as the water-burden above it lightened). Conversely, after all the ice had melted and returned to the oceans as water, the burden on the sea-bed would have again increased. R. C. L. Wilson, Professor of Earth Sciences at Britain's Open University, calculates that a layer of water 165 metres deep was subtracted from the oceans to make the great ice-caps of the last glaciation. This, however, only produced a net drop in

relative sea-level of around 115 metres between the onset of glaciation 125,000 years ago and the onset of LGM 104,000 years later – the reason for the discrepancy being that reduced water-loading in the oceans during the Ice Age allowed the sea-bed to rise by 50 metres through the process of isostatic compensation.[17]

Let's stop for a moment and take another look at this see-saw system swing by swing:

1. 125,000 years ago the most recent glacial surge begins, turning a worldwide layer of ocean 165 metres deep into ice-caps thousands of metres high piled up (for the most part) in North America, Greenland, northern Europe, South America and the Himalayas.
2. The maximum extent of ice formation is reached 21,000 years ago and largely maintained until 17,000 years ago;

by this time the continental crust beneath the big ice-caps has been depressed into huge basins nearly a kilometre deep.

3. Simultaneously, as the ice-burden on the land increases, the water-burden on the sea-bed decreases; by the Last Glacial Maximum this had allowed the ocean-floor around the world to rise by 50 metres.
4. Soon after the LGM the ice begins to melt and to flow back as water to the oceans, a process that is substantially over within 10,000 years.
5. Since a layer of water 165 metres deep was taken out of the oceans to begin with to make up the ice-caps, it follows that a layer of water 165 metres deep is returned to the oceans with the complete melting of the ice-sheets.

6. Professor Wilson observes that the rate at which the crust and mantle respond to loading and unloading is 'much slower than the build-up or melting of ice caps. This is why areas that were buried beneath several kilometres of ice 18,000 years ago are still rising today, thousands of years after the ice sheet melted away.'[18]
7. It also follows that the average 50 metre rebound of the ocean floor between 125,000 and 17,000 years ago would take thousands of years to be forced down again by isostatic subsidence to its original level.
8. Measured at a warm point in a long interglacial, and after 17,000 years of isostatic subsidence, today's sea-level is probably quite close to the final balance in the equation of rising seas and sinking sea-beds. But there must have been many times during the meltdown of the

Ice Age when the speed of the former far outstripped any compensating effects of the latter.

Is it not possible, perhaps even probable, that this combination of a higher sea-floor than today's and rapid influxes of meltwater from the decaying ice-caps could have produced relative temporary rises in sea-level much greater than the average annual rate projected over the full period of the meltdown?

See-saw

Examples of segments of continental crust that continue to rise through isostatic rebound since the removal of the ice-sheets include the highlands of Scotland[19] (where the ice-cap that once covered most of Britain was at its thickest), the

floor of the Gulf of Bothnia in what is now the Baltic Sea (reported to be rising at a rate of a metre per century),[20] large parts of the coasts and mainland of Sweden, Denmark and Norway, the north-east coast of Canada,[21] and parts of southern Chile.[22]

Complicating the picture is the fact that around each zone of 'post-glacial rebound', there lies what geologists call a 'peripheral zone of submergence'-which is always larger than the zone of rebound.[23] Thus, while it is not uncommon to find such phenomena as raised beaches in the highlands of Scotland[24] (demonstrating graphically that areas that were once at sea-level, and formed an ancient coastline, have now been lifted well above it), other areas of the British Isles are visibly sinking into the sea. This is because the downward pressure of the Fennoscandian ice-sheet on the northern

European continental crust at the LGM was transformed by the mechanism of isostatic compensation into a huge ‘forebulge’ several hundred kilometres beyond the ice-margin-literally as though one end of a see-saw had been forced down, pushing the other end up. As the ice melted the weight that was holding the end of the ‘see-saw’ down was released, allowing it to rise again and causing the other end – the ‘forebulge’ – to fall.

This is exactly what is happening in the English Channel today, which we’ve seen was entirely dry at the LGM. The Isle of Wight stood on the forebulge of the Fennoscandian ice-sheet, forced upwards by isostatic compensation. Then when the ice-sheet melted, the dynamics of isostacy again came into play and the forebulge began to subside – taking the Isle of Wight (and much of southern England) down with it.

Isostatic Atlantis

An ingenious theory of the lost land of Atlantis, the first that I am aware of that is explicitly based upon the relationship between isostacy and rising sea-levels, was put forward in the late 1990s by Vitacheslav Koudriavtsev, a member of the Russian Geographical Society of the Russian Academy of Sciences.

It is well known that the story of Atlantis was set in writing in the fourth century BC by the Greek philosopher Plato – in his dialogues *Critias* and *Timaeus*. But before that, Plato tells us, it had been an oral tradition passed down within his family from his ancestor Solon, the revered Athenian lawmaker. Solon had been told it during a visit that he had made to Egypt at around 600 BC. His informant, in turn, had been an elderly Egyptian priest at the Temple of Sais in the

Delta, who said that he had drawn the information from written records, then more than 8000 years old, lodged in the temple's archives.

There are four essential ingredients in Plato's story:

- Atlantis was a relatively advanced, well-organized and prosperous civilization.
- It flourished and was destroyed 9000 years before Solon's time – in other words, approximately 11,600 years before our time.
- It was located on a large island 'opposite the Pillars of Hercules' – presumed to be the modern Straits of Gibraltar.
- Its destruction was the result of a global cataclysm: 'There were earthquakes and floods of extraordinary

> violence, and in a single dreadful day and a night … the island of Atlantis was … swallowed up by the sea and vanished.'[25]

There have been a thousand theories about the location of lost Atlantis, moving it around in time according to individual researchers' whims and placing it everywhere from the Mid-Atlantic Ridge to Indonesia and from the Andes mountains to Crete. What Koudriavtsev is suggesting is just another theory. Nevertheless, it has the great merit of requiring no liberties to be taken with Plato's text either in respect of the location of 'Atlantis' (beyond the Straits of Gibraltar in the Atlantic Ocean) or of the date of its submergence – 11,600 years ago.

Koudriavtsev's location is an area known to fishermen as the Little Sole Bank, situated on a vast underwater plateau

called the Celtic Shelf, 200 kilometres to the south-west of the British Isles and Ireland. Although the shallowest part of Little Sole Bank is now 57 metres beneath the waves, and thus might be expected to have been about 60 metres above sea-level just before the end of the last Ice Age, Koudriavtsev's research shows that it and a large area of the surrounding shelf may have been tilted dramatically upwards during the build-up to the Last Glacial Maximum by the see-saw effect of isostatic forces emanating from the continental ice-mass. In brief, his theory is that there was an unusually rapid collapse of the forebulge in this area around 11,600 years ago, coinciding with a ferocious episode of ice-melting and global flooding – the sudden inundation of Atlantis described by Plato.

'In my opinion,' states Koudriavtsev,

> the most serious argument in favour of the assumption that Atlantis was not invented by Plato is that the time when it vanished, as indicated by Plato – about 11,600 years ago – and the circumstances of its vanishing described by him (the sinking into the deep of the sea), coincide with the findings of modern science about the end of the last Ice Age and the substantial rise of the level of the World Ocean that accompanied it.[26]

Three global superfloods

Anyone who has read the *Timaeus* and *Critias* carefully knows that what Plato describes in his account of the destruction of Atlantis is indeed a global flood that took place approximately 11,600 years ago and that swallowed up huge landmasses as far apart as the eastern Mediterranean and the Atlantic Ocean. I would have thought that a first line of approach for scholars investigating Plato's claims would be to

find out whether anything on this scale might actually have happened in the world 11,600 years ago. So far as I can discover, however, not a single historian or prehistorian has ever made the effort to do so – although many of them have put forward theories, usually widely applauded by their peers, locating Atlantis anywhere but in the Atlantic, where Plato says it was, and any time within the epoch of recorded history, rather than considering the prehistoric date of 9600 BC given by Plato. One of the ludicrous (but positively peer-reviewed) claims put forward to divert the debate endlessly into trivia is that Plato meant 9000 *months* before Solon's time, not 9000 years, when he spoke of the submergence of Atlantis.

In my experience historians and archaeologists will go through Houdini-like contortions of reason and common sense rather than consider the possibility that their paradigm

of prehistory might be wrong – so I am not surprised that they have never attempted to investigate at face value the Atlantis tradition of a devastating global flood 11,600 years ago. However, there are scholars – trained in other disciplines and not hobbled by the same preconceptions – who are more open to the possibility that the flood tradition in general, and the Atlantis story specifically, might be rooted in the real events of the meltdown of the last Ice Age. This view has been entertained positively by the late Cesare Emiliani, for example, former Professor in the Department of Geological Sciences at the University of Miami[27] – one of the pioneers of the isotopic analysis of deep-sea sediments as a way to study the earth's past climates.[28] Moreover, Emiliani's fieldwork in the Gulf of Mexico has produced striking evidence of cataclysmic global flooding 'between 12,000 and

11,000 years ago'.[29] Robert Schoch, Professor in the Department of Geology at Boston University, observes that there was also a dramatic warming of the earth's climate in the same period[30] – the 'Preboreal' – and that overall there is a

> stunning line-up in time between the sudden warming of 9645 BC, Emiliani's scenario of a massive freshwater flood pouring into the Gulf of Mexico, and the date Plato ascribed to the sinking of Atlantis. Whatever the accuracy of specific details, this curious coincidence points to the effect sudden climatic changes can have – and no doubt have had – on civilization.[31]

Science writer Paul LaViolette likewise argues that 'there may be much truth to the many flood cataclysm stories that have been handed down to modern times in virtually every

culture of the world. In particular, the 9600 BC date that Plato's *Timaeus* gives for the time of the deluge happens to fall at the beginning of the Preboreal at the time of the upsurge of meltwater discharge.'[32]

Before rejecting the possibility of a lost civilization of the last Ice Age, therefore, I urge historians and archaeologists to take a close look at the mass of data that now exists about the sequence of cataclysmic floods that swept the earth between 17,000 and 7000 years ago.

Yet this too is a contentious area of debate. For while scientists now agree on the approximate figure of 120 metres for sea-level rise during the 10,000 years of post-glacial flooding, many do not accept that these were 'floods' at all – and certainly not in the cataclysmic sense. Averaging the rise over the time-span as we did earlier, they see a fairly gradual

and distinctly non-cataclysmic process in the range of a metre a century. This remains the majority view. But since Emiliani's findings first began to undermine it in the 1970s there has been more and more research to show how *very* cataclysmic the meltdown of the Ice Age could in fact have been.

In brief what is being suggested is that during the long span of the meltdown – in addition to countless episodes of smaller-scale flooding – there were *three global superfloods* which have been dated within the following approximate time-bands: 15,000–14,000 years ago, 12,000–11,000 years ago and 8000–7000 years ago. I have found that estimates of these dates vary by more than a thousand years either way, depending upon which authority you consult, but the general point is clear enough: there now exists a strong case that nearly half the total meltwater release at the end of the last

Ice Age was concentrated into these three relatively short episodes, creating conditions of concentrated damage after long periods of stability – precisely the combination of circumstances and bad luck that could have led ultimately to the destruction of an antediluvian culture.[33]

Professor Emiliani's ice dams

Cesare Emiliani made many original contributions to scientific understanding of the meltdown of the last Ice Age. He was also among the first to work out the precise mechanism behind the characteristic 'rhythm' of this 10,000-year period – millennia of slow melting and gradual sea-level rises interrupted, apparently randomly, by much shorter episodes of extremely severe global flooding and rapid, destructive oceanic transgressions:

During the last Ice Age, ice reached its maximum extension 20,000 years ago. Deglaciation started almost immediately and progressed rapidly. Sometimes ice meltwater would pile up behind an ice dam and when the dam collapsed a huge flow would follow. One such great flood occurred in the American northwest 13,500 years ago when an ice dam holding back about 2000 cubic kilometres of ice meltwater (Lake Missoula) collapsed. A huge mass of muddy water and debris rushed across the area into the Columbia River, cutting broad channels called coulees and forming the so-called Channelled Scabland … As a result of the flood that formed the Scabland, the sea-level rose very rapidly, from minus 100 to minus 80 metres [vis-à-vis today's level]. By 12,000 years ago more than 50 per cent of the ice had returned to the ocean, and the sea-level had risen to minus 60 metres. At that point other giant floods occurred, down the Mississippi River valley into the Gulf of Mexico and down the Siberian river valleys into the Arctic Ocean. The Mississippi flood carried pebbles, which are now confined to the upper reaches of the Missouri-Mississippi system, all the way down to the delta. Sea-level rose very rapidly from minus 60 metres to

minus 40 metres.[34]

The key phrase that caught my attention when I first read this passage was ‘ice dam’. It was very simple, and yet it explained so much. Averaged out over 10,000 years it was true that the total global sea-level rise of 120 metres at the end of the last Ice Age only amounted to a little more than a metre a century. But what Emiliani was now suggesting was the intriguing possibility that enormous quantities of the glacial meltwater could have been detained for thousands of years behind ice dams on continental Europe and continental North America – *and then released into the open ocean all at once.*

The ice-caps that formerly covered these areas were up to 4 kilometres thick, as we’ve seen, and larger than present-day Antarctica in both cases.[35] Emiliani reminds us how:

The weight of the ice on the land surface below created bowl-shaped depressions about 1 km deep. Heat from the interior of the earth was trapped under the ice sheets, the bottom ice melted, and great freshwater lakes formed. Twice in North America and western Siberia these lakes busted through the ice margins and created huge floods. Sea-level rose abruptly around 13,000 years ago and again 11,000 years ago and then more slowly as the residual ice continued melting. Some have hypothesized that these prehistoric floods generated the flood legends common to many civilizations.[36]

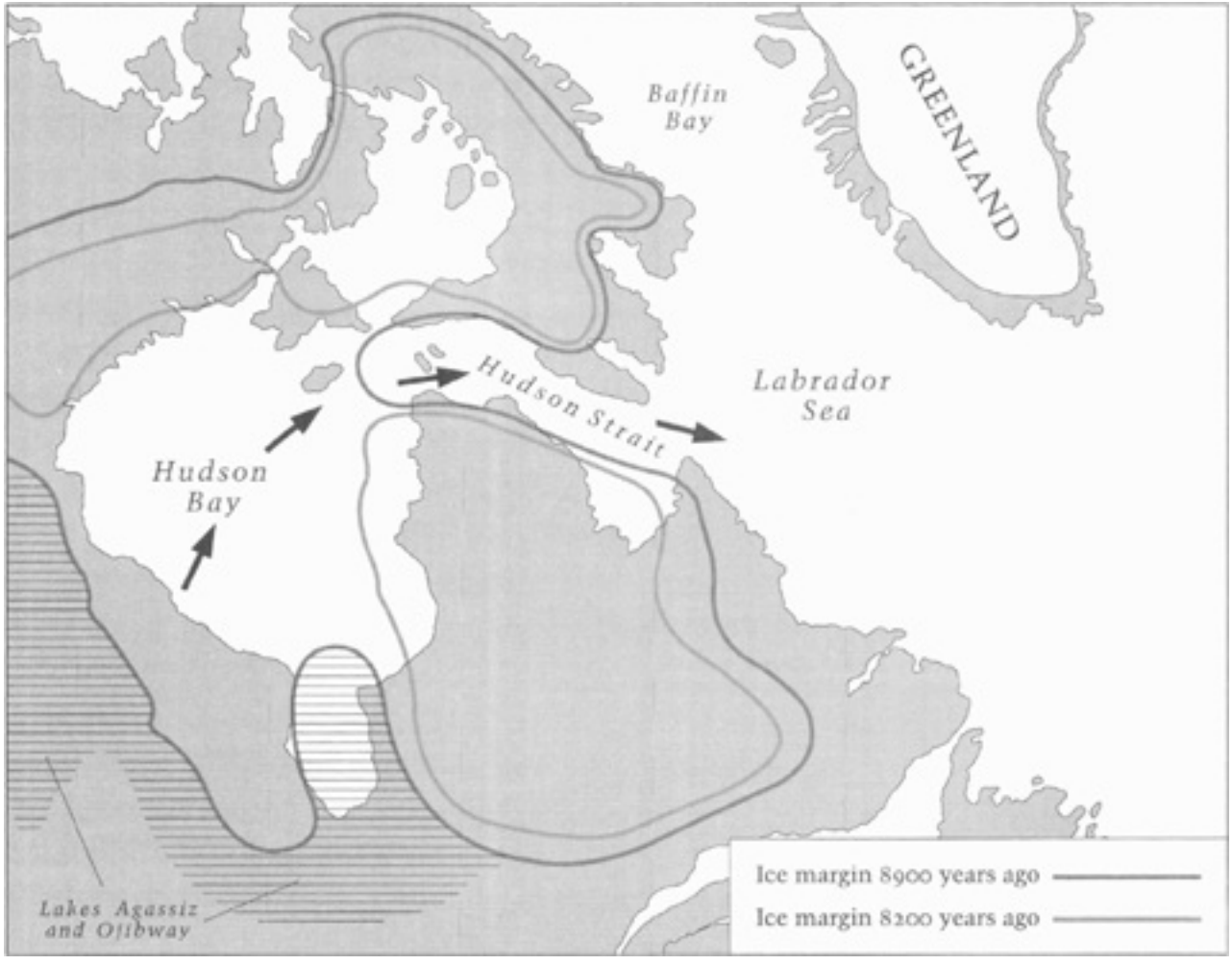
Baffin Bay
GREENLAND
Hudson Strait
Labrador Sea
Hudson Bay
Lakes Agassiz and Ojibway
Ice margin 8900 years ago
Ice margin 8200 years ago

Between 8900 and 8200 years ago, the Laurentide ice-sheet disintegrated in the Hudson Bay, facilitating catastrophic drainage of the massive Agassiz/Ojibway glacial lakes into the Labrador Sea. Based on Barber et al. (1999).

Professor Shaw's abrupt steps

John Shaw, Professor of Earth Sciences at the University of Alberta, is one of the world's leading experts on the last Ice Age and on its catastrophic meltdown. The author of an impressive list of peer-reviewed scientific papers, his research is at the forefront of inquiry in this field and has focused on the reasons for the superfloods. This is the graphic account that he gave us:

> The big ice-sheets that covered Canada, most of Scandinavia and much of

northern Russia – instead of them being pure ice and rock – it seems that at a late stage there was rock at the bottom and then a sub-glacial lake or reservoir of water, then the ice. And it's possible that when warming occurred, the top of the ice started to melt, and the ablation zone and the sub-glacial water got bigger and bigger and bigger. And yet for good reason the ice-sheet seals around the edges. And then one time the big system on top connects – it's a little bit like a toilet bowl, you sort of open the valve and the water comes surging through.

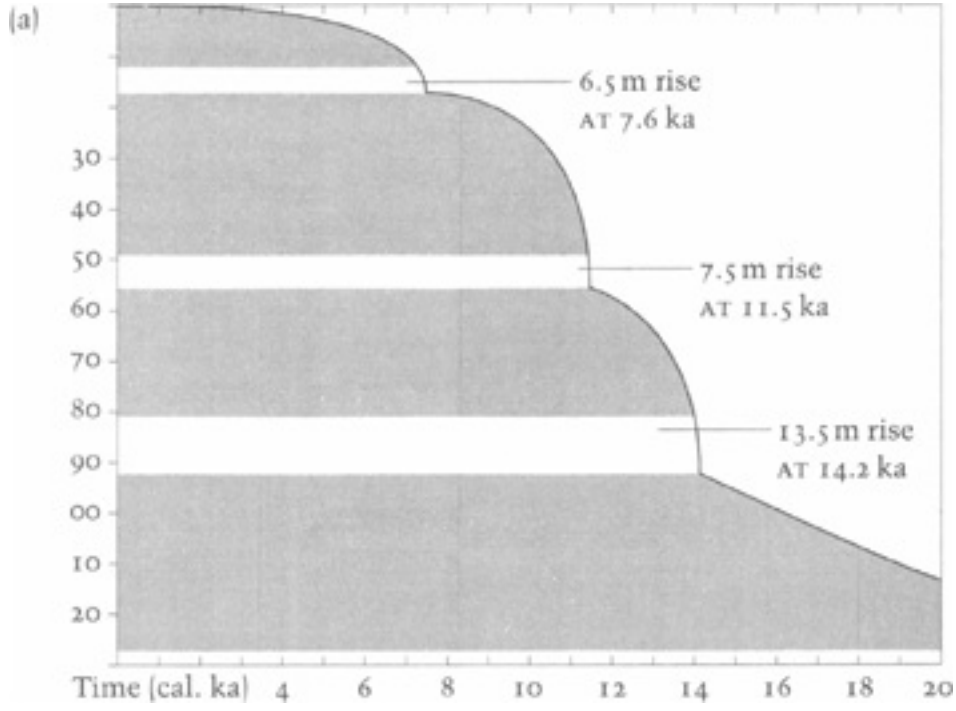

Graph of sea-level in the Caribbean against time since the LGM showing three abrupt steps around 14,000, 11,000 and 8000 years ago. Based on Blanchon and Shaw (1994).

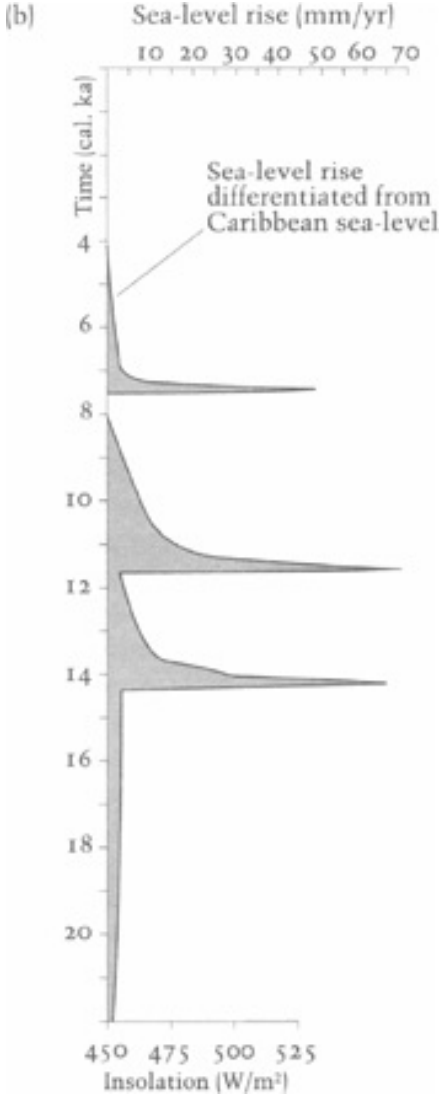
(b)
Sea-level rise (mm/yr)
10 20 30 40 50 60 70
Time (cal. ka)
Sea-level rise differentiated from Caribbean sea-level
4
6
8
10
12
14
16
18
20
450 475 500 525
Insolation (W/m²)

Graph of rate of sea-level rise against time since the LGM. Based on Blanchon and Shaw (1994).

[In Canada on one occasion] the water literally came spewing out all over, except to the east of the Hudson Strait, because there was a big ice barrier there. So it came out southwards and through the St Lawrence, through the finger lakes, down through the Red river, South Winnipeg and the Winnipeg Lakes, and out through parts of Saskatchewan and out over the Milk river – which is the continental divide south of Alberta. The Milk river water flowed north to the Arctic, to the east to Hudson Bay, south to the Gulf of Mexico. And a huge amount of water went north into the Arctic Ocean. So you were suddenly introducing a vast amount of water to the oceans. And the duration of the flows was probably measured in weeks. And the kind of flow that we're talking about, just for a small filament in Alberta, would have been 10 million cubic metres per second – that would

drain Lake Ontario in about four days. And sea-level would have risen instantly, and somewhere in the region of 10 metres. This is about 15,000 years ago, when there were people living in many places. And the sea-level would have suddenly risen, and if you had lived by the sea-shore collecting jellyfish or something like that, and your house was suddenly underwater, you'd notice it. I imagine that it had quite an impression on the oral tradition and myths.

So the big event came from under the ice about 15,000 years ago. And then about 11,000 years ago there was a big lake in the southern part of the ice-sheet called Lake Agassiz that covered a big part of Canada. There was an equally big lake called the Baltic Ice Lake in Scandinavia. And then recent evidence suggests that there were big lakes across northern Asia and the north of the Soviet Union. These lakes were dammed by ice and tended to drain very suddenly. And as a result you get a similar effect, with a sudden rise in sea-level. Then last of all, about 8,000 years ago, there was the last lake in North America associated with the Laurentide ice-sheet

which is called Lake Ojibway, and it lay just south of the Hudson Strait. And that lake drained catastrophically.

So originally it was thought that the rise of sea-level was steady at the end of the Ice Age, but now we are able to see that it rose abruptly in steps.[37]

Floods, volcanoes, earthquakes

Professor Shaw's 'abrupt steps' were, arguably, the most traumatic experiences of global cataclysm that our species has ever undergone. To those alive then, the end of the last Ice Age with its sudden global floods must have seemed like the end of the world. Continental plates were shifting upwards relieved of the weight of the ice they'd supported for 100,000 years. Huge earthquakes and outbreaks of volcanism accompanied this extensive crustal rebalancing.

The earth would have rung like a bell with tremendous sounds and vibrations. The sky would have been heavy with volcanic dust and black, bituminous rain. And at the same time the oceans were remorselessly, apparently unstoppably, rising. One of the geo-climatological mysteries of the last Ice Age is that the period of the meltdown – roughly from 17,000 to 7000 years ago – was also a period of dramatically enhanced volcanic activity. A paper published in *Nature* in October 1997 draws particular attention to what at first sight seems like a bizarre correlation between the rate of global sea-level change and the frequency of explosive volcanism in the Mediterranean area – with a distinct episode of enhanced volcanic activity registered in the geological and palaeo-climatological records between 17,000 and 6000 years ago:[38]

> In areas where active volcanism and glaciation coincide, the correlation

> between the events can be explained by the effect of changing ice volumes on crustal stress. In contrast the effect of ice-sheet volume changes on unglaciated volcanic areas remains problematical. Several authors have proposed that meltwater loading and unloading could influence volcanic activity at sites distant from areas of ice-accumulation through the global redistribution of water, although this hypothesis has never been tested.[39]

The international team of scholars behind the *Nature* article counted *tephra* layers in deep-sea cores from the bottom of the Mediterranean (*tephra* is a general term for solid matter ejected during volcanic eruptions) and conclude that:

> The frequency of tephra-producing events and, by proxy, notable explosive eruptions at Mediterranean volcanoes, can be related to rapid variations in sea-level change. In particular we draw attention to the quiescent phase centred at 22,000 years ago and corresponding to the last low sea-level stand, and to the most intense period of *tephra* layer formation between

> 15,000 and 8000 years ago which accompanied the very rapid rise in post-glacial sea-levels.[40]

The authors think that 'the existence of a single causal link between the rate of sea-level change and the level of explosive activity is unlikely' and point out that 'the unique response of individual volcanoes to large changes in sea-levels requires detailed study of each eruption record'.[41] Where this has been done, however, 'The level of explosive eruptions is seen to fall to a marked low between 22,000 years ago and 15,000 years ago, coincident with the last low sea-level stand.'[42]

I find it intriguing that the end of a 7000-year period of volcanic quiescence 15,000 years ago, and the beginning of the period of violent eruptions, both overlap with the first of John Shaw's global superfloods; likewise the end of the

period of enhanced volcanic activity around 8000 years ago follows Shaw's third and last superflood.

Addressing this point, the scientists writing in *Nature* argue for broad-scale influences operating, for example, through

> stress changes in continental margins and at island arcs. These may promote the ascent of fresh batches of magma into volcanoes, while increased levels of regional seismicity related to load distribution may play a role in destabilizing already weakened volcanoes.
>
> On a global scale the number of volcanoes susceptible to the above-mentioned effects is large. Current spatial distributions of active volcanoes show that 57 per cent form islands or occupy coastal sites while a further 38 per cent are located within 250 kilometres from a coastline. Assuming a similar distribution for around 1500 volcanoes active during [the last Ice Age], then 1400 are likely to have been subject to the more direct effects of rapid sea-level change … Furthermore, the rapidity of these sea-level

> changes, and consequently their potential to trigger responses in active volcanic structures, are only now becoming apparent.[43]

Despite its authors' caution about identifying a single cause, the evidence set out in the *Nature* paper does suggest that the earth's own isostatic rebalancing process, sparked off by the sudden meltdown of the ice-sheets and rapidly rising sea-levels at the end of the last Ice Age, must have been what awakened the volcanoes. The implication is that isostatic adjustment does not always proceed at a constant, steady rate – otherwise volcanism would presumably be constant as well – but must at times involve large, rapid shifts transmitting shock-waves through the earth's crust powerful enough to set the volcanoes raging around the globe.

It is precisely a shift of this speed and magnitude that Koudriavtsev envisages with his hypothesized 'overnight'

collapse of the Celtic Shelf on the forebulge of the Fennoscandian ice-sheet 11,600 years ago. Moreover, researchers have found evidence that the meltdown of the same ice-sheet also unleashed tremendous forces during other periods of rapid worldwide flooding. At the time of Shaw's third great flood around 8000 years ago, for example, the stresses and earthquakes became so severe that immense waves were formed *in the ground*. One of these, in northern Sweden, is 150 kilometres long and 10 metres high and has been described as a 'rock *tsunami*'[44] that can only have been caused by 'earthquakes of unbelievable magnitude'.[45]

Descent of hell

Snaking across a bleak landscape, Sweden's Parvie ('wave in

the ground') as it is known locally, is a remarkable and somewhat disturbing feature, exactly resembling a three-storey-high *tsunami* made of solid rock caught forever in freeze-frame as it rears up just before breaking. The most remarkable – and disturbing – thing about it, however, is that this part of northern Sweden is a zone of extremely low seismicity and stands on what geologists define as a 'stable continental region' (SCR) of the tectonic plate.[46] There should be no reason for catastrophic earthquakes *ever* to happen in an SCR. Yet the evidence unambiguously demonstrates that a catastrophic earthquake – indeed 'the largest earthquake ever known within the stable continental regions'[47] – did throw up the Parvie:

> Studies over the last two decades show that it formed suddenly by earthquake faulting in the late glacial to early postglacial times of the great

Fennoscandian ice sheet (approximately 8000 to 8500 years ago), suggesting a genetic relationship between the two.[48]

The precise nature of this relationship and the true magnitude of 'post-glacial faults' (PGFs) such as the Parvie have been studied by Ronald Arvidsson of the Seismological Department of Uppsala University. He has shown that such faults – of which there are a whole series in northern Sweden – *frequently cut as far as 40 kilometres deep into the earth's crust.* All were caused by *different* gigantic earthquakes and all these earthquakes occurred within the same thousand-year period between 9000 and 8000 years ago.[49]

Arvidsson's widely agreed estimate is that the Parvie quake measured 8.2 on the Richter scale.[50] Another scholar, Arch C. Johnston of the Centre for Earthquake Research at the University of Memphis, points out that quakes of this

magnitude only occur today along the edges of tectonic plates. The force that formed the Parvie ground-wave must, therefore, have been enormous:

> The Fennoscandian PGF's are … a remarkable consequence of rapid crustal unloading as the ice-sheets of the last Ice Age melted. The *Parvie* and other PGF's … represent the faults of *induced* earthquakes, events that would not have happened without externally-imposed … conditions.[51]

Johnston then goes on to note that, although 'induced seismicity' is known today,

> the post-glacial earthquakes are easily the largest known examples of this class. Surface quarrying can generate earthquakes of 2 to 4 [on the Richter scale];[52] deep mining and deep-well waste disposal 5 to 6 events; and large hydro-reservoirs mid 6 events. Excluding PGF's there are no earthquakes exceeding 7 confidently considered induced. The earthquake magnitude

seems to scale with the agent of change of crustal stresses: great ice-sheets can induce great earthquakes.[53]

Now a characteristic of the Richter scale, not widely understood by those who live outside earthquake zones, is that it is calibrated so that each increase of one unit represents a tenfold increase in the magnitude of the quake.[54] So a 2 is ten times bigger than a 1, a 3 is ten times bigger than a 2, a 4 is 10 times bigger than a 3, and so on. The earthquake that hit Kobe in Japan on 17 January 1995, killing more than 5000 people in twenty seconds, measured 7.2.[55] With a Richter scale value of 8.2, the Parvie quake was ten times bigger than Kobe. The largest earthquakes ever recorded on the scale – rare events in subduction zones under oceans or between continental plates – have not exceeded the value of 9.[56]

The clear implication of Arvidsson's and Johnston's research, therefore, is that crustal rebound and isostatic rebalancing did at times take place *very rapidly* as the ice-caps melted down into cascading floods – rapidly enough to trigger extremely violent earthquakes and sudden massive faulting (penetrating to hitherto unheard-of depths of 40 kilometres and radiating laterally for up to 160 kilometres).[57] Writing up his findings in *Science magazine*, Arvidsson concludes:

> I interpret the earthquakes as signs of a progressive rapid rise of the land from the centre of postglacial rebound … to the outer reaches of the ice-sheet … More than 9000 years ago a nearly isostatic equilibrium was reached due to the depression of the lithosphere by the ice. After a quick removal of the ice-sheet a non-isostatic condition caused compressional stresses within the crust which triggered the earthquakes.[58]

Since the Parvie is only one of many giant post-glacial faults associated with the collapse of the Fennoscandian ice-sheet, what Arvidsson is really talking about – I think – is the descent of hell in northern Europe for a reign of 1000 years centred on 8000 years ago. As we follow his evidence, we must envisage extraordinary scenes of geological turmoil in which continuous deep tremors vibrate all the way through the Baltic Shield crust and the earth repeatedly roils, fractures, rears up and collapses – seemingly about to tear itself apart … While this is happening the ancient ice-cap over Fennoscandia is in a state of runaway meltdown, close now to the point of total collapse, and huge chunks of decaying ice the size of islands are falling into the sea, generating cataclysmic displacement waves. The ice-cap over North America is behaving in much the same way …

And let's not forget that the earth by this time – 8000 years

ago – has *already* suffered the consequences of 7000 years of intense volcanism, 7000 years of rising sea-levels and sudden and unpredictable marine floods, 7000 years of continental shelves, land-bridges and islands vanishing beneath the waves, and 7000 years of spectacular climatic instability. Indeed, the palaeo-climatological record testifies to all of the following – and much more – between 15,000 and 8000 years ago: cold oceans, high winds, mountains of dust in the atmosphere[59] and wildly unpredictable temperature shifts.[60]

To give an example of the latter, Romuald Schild of the Polish Academy of Sciences cites an abrupt warming that took place in the northern Atlantic at around 12,700 years ago, stopped and equally abruptly went into reverse 10,800 years ago – when there was a sudden 800-year plunge to almost full glacial temperatures – then turned again to

another episode of abrupt warming about 10,000 years ago.[61] Robert Schoch reports that the bulk of the first warming 'approximately 27 degrees Farenheit, a massive increase' – occurred after 11,700 years ago:

> Remarkably, the ice-core data suggests that half of the temperature change, in the neighbourhood of 14 degrees Farenheit, occurred in less than 15 years centring around 9645 BC. That's a bigger temperature increase, and faster, than the scariest doomsday scenario about global warming in the twenty-first century.[62]

It also happens to coincide, almost exactly, with Plato's date of around 11,600 years ago for the sinking of Atlantis, when, the reader will recall, 'There were earthquakes and floods of extraordinary violence, and in a single dreadful day and night … the island of Atlantis was … swallowed up by

the sea and vanished.'[63]

'You remember only one deluge …'

I'm not trying to 'find' Atlantis, or even to guess where it might have been located – if it ever existed at all – since it is well known that such inquiries lead to madness. I prefer to treat it like any other archaic flood account, whether in the form of myth or purporting to be history, and to consider it solely in terms of its general level of plausibility – a task made easier by its unusual detail and precision. What it tells me at that level is at least the following:

1. *A devastating global flood occurred around 11,600 years ago.* This is interesting, the date coincides with the second of John Shaw's super-floods and with Cesare

Emiliani's data from the Gulf of Mexico.

2. *The flood was accompanied by enormous earthquakes.* This is plausible because of the close correlation between huge earthquakes, enhanced volcanism, rapid ice melting, and fast post-glacial flooding.
3. *The island of Atlantis was swallowed up by the sea and vanished in a day and a night.* We have seen how isostatic rebalancing sometimes occurred very rapidly and cataclysmically at the end of the last Ice Age and how it is theoretically possible that intense isostatic subsidence in a suitably weakened area of the earth's crust could have brought about just such a sudden collapse as Plato describes.

There is one further element of the story that also resonates with scientific evidence, and this is that the flood that

destroyed Atlantis 11,600 years ago was but one of many floods …

Remember that the source of the Atlantis tradition is supposed to have been an ancient Egyptian priest, in conversation with Plato's ancestor Solon. Here's how Plato reports the exchange in the *Timaeus:*

> *Egyptian priest:* Oh Solon, Solon, you Greeks are all children, and there's no such thing as an old Greek.
>
> *Solon:* What do you mean by that?
>
> *Egyptian priest:* You are all young in mind, you have no belief rooted in old tradition, and no knowledge hoary with age. And the reason is this … With you, and others, writing and the other necessities of civilization have only just been developed when the periodic scourge of the deluge descends and spares none but the unlettered and the uncultured – so that you have to begin again like children, in complete ignorance of what happened in early

> times … You remember only one deluge, though there have been many …[64]

As a general synopsis, I have to say that the priest's comments fit reasonably well with the three global superfloods and countless lesser deluges that we now know did occur at approximately 15,000, 11,000 and 8,000 years ago. Moreover, his placing of the Atlantis flood *anywhere* in this period (the only period in the last 125,000 years when there actually were floods of the kind described) is – if you stop to think about it – quite an achievement in itself.

An aggressive little bugger from Yorkshire …

We've seen that it was Cesare Emiliani who first drew serious attention to the possibility of post-glacial superfloods. In a

paper published in *Science* magazine in 1975, he and a group of colleagues presented startling evidence from deep-sea cores from the north-eastern part of the Gulf of Mexico. The evidence revealed 'a 2.4 per cent isotopic anomaly between 12,000 and 11,000 years ago', which the authors correctly interpreted as having been caused by 'the occurrence of major flooding of ice meltwater into the Gulf of Mexico … centring at about 11,600 years before the present'.[65]

At the time Emiliani's ideas were not well received. As Isaac Asimov was later to comment: 'The suggestion was largely ignored because it was difficult to imagine the ice melting that fast, but in 1989, John Shaw … made a suggestion as to just how such floods might come about …'[66] I thought that I had already fully understood Professor Shaw's catastrophic scenario of how the three great deluges

were caused by sudden releases into the world ocean of pent-up meltwater from behind ice dams. But as I looked more closely at his research, and at the transcript of the lengthy interview he had given us in February 1999, I began to realize that his story had hidden complexities and that the cataclysms he described could have been far more severe than I had initially supposed. For it was not just a matter of very rapidly rising seas submerging and washing away low-lying coastal areas – although there was an immense amount of that! – but also of the true character and extent of the run-off floods *on land* as the ice-caps melted down and the glacial lakes burst their ice barriers.

Shaw's interest in this problem does not begin with floods but with drumlins:

> *Drumlin:* elliptical, streamlined hill composed of till [unstratified glacial

> deposit consisting of boulder clay and rock fragments of various kinds] deposited beneath moving glacial ice. Drumlins commonly are found in clusters with their long axes roughly parallel to the direction of the ice movement. They slope steeply in the direction from which the glacier came and gently in the direction in which it moved. They vary in height from 6 to 60 metres and in length up to several miles … Drumlin fields may contain as many as 10,000 drumlins; one of the largest fields is in the north-western plains of Canada.[67]

Based at the University of Alberta, Professor Shaw has Canada's drumlins at his doorstep, at least in a manner of speaking, so it's not surprising – as a geologist – that he should have views about them. But the reactions that his views have elicited amongst other geologists are harder to understand:

> When I go to conferences, people yell at me, people get angry and they yell

> and scream, and are constantly bringing in diversions because they don't want the story to be told. And being an aggressive little bugger from Yorkshire anyway, I tend to fight back.[68]

At a recent conference in Sweden a senior Quaternary geologist instructed Shaw: 'Don't bring your ideas here':

> So I looked at him and grinned, and next day I gave the paper. And then it was rejected and not published in the conference proceedings so I put it on the Net, and that's where it is now … If I were a young assistant professor I wouldn't be kept and I wouldn't have published either and people would say my ideas were barmy.[69]

What, one might ask, is all the fuss about? It seems hard to believe that geologists could come close to excommunicating such a senior and widely respected colleague as Professor Shaw simply for expressing an original scientific *opinion* on

the matter of elliptical, streamlined hills. I mean, who cares?

In fact, we should care, says Shaw, because the drumlins and other 'hummocky' landforms strewn across Canada are evidence of continental floods of biblical proportions – floods of water in some cases hundreds of metres high-that roared out from beneath the ice-caps during the last deglaciation, destroying or mangling everything in their path. Shaw explicitly suggests that many elements of the universal myth of the deluge may be explained by such floods pouring down off the land – intimately linked, as they were, to the episodes of sudden and ferocious sea-level rise that took place between 15,000 and 8000 years ago.[70]

Slow and gentle or fast and furious?

Although there is no single explanation for the formation of drumlins to which all geologists subscribe, most see them as the result of a relatively slow subglacial process involving first the lodgement of a huge mass of 'till' on the bedrock beneath the glacier and subsequently its moulding into the classic 'streamlined-hill' shape by the flow of the ice itself.[71] Such gradualistic theories have dominated the earth sciences and archaeology since the end of the nineteenth century, creating an exceptionally difficult environment in both disciplines for the exploration of alternative hypotheses requiring any kind of sudden change or catastrophic agency. Because John Shaw's theory requires both, it was inevitable that it would face stern opposition. Nevertheless, he has stuck to his guns since first putting his ideas forward in the 1980s and has gradually seen a convergence of evidence building up in his favour, including 'subglacial landforms, surface

water isotopic composition of the Gulf of Mexico, and the sedimentology of cores from the Gulf'.[72]

At risk of reducing a massively documented and complex argument to statements of ludicrous simplicity, I think it is fair to say that Shaw himself does not claim to have found any definitive, all-inclusive explanation for the formation of drumlins but believes them to be features that are caused in *different* ways by *different* kinds of cataclysmic *floods* and not, as has traditionally been thought, by ice moulding. For example, 'on the evidence of form and structure', his interpretation of the Livingston Lake drumlins in northern Saskatchewan is that they are 'infills of inverted erosional marks scoured in the ice-bed by subglacial meltwater'.[73] In other words, forget about the old notions of 'lodgement' and 'moulding' that generations of geologists have had hard-

wired into their logic-circuits. Consider the possibility, instead, that the end of the Ice Age was much less genteel – as, indeed, we already know that it was in almost every other measurable characteristic that we have encountered – and that the vast drumlin-fields at Livingston Lake were created by apocalyptic meltwater floods.

This is precisely Shaw's scenario and he believes that the 'subglacial land-forms' – i.e. the drumlins themselves – are his most powerful evidence:

> When I first looked at drumlins – this is how it all started for me really – I thought, My, they look just like erosional forms on the sea-bed – which are negative forms of course – but these ones are positive. How can that be? Then the idea came to me, OK, if you erode upwards into the ice and then fill in the cavities with sediment that's what you would get. And so we went and dug holes and found out that the sediment corresponded to filling

in from below and very catastrophically.[74]

In brief, Shaw's argument is that at certain stages during the collapse of the Laurentide ice-sheet between 15,000 and 8000 years ago, parts of the slowly moving ice-mass – more than 3 kilometres thick and weighing as much as a giant mountain range – must have rested not on bedrock but on *a deep layer of meltwater moving at high speed and under enormous pressure.* These 'turbulent-flows' would have carried with them tremendous volumes of sediment ranging from finely grained clays to huge stones and boulders, and it is easy to see how a cavity eroded into the base of the ice-mass – where it rested on the running water – would quickly have become filled up and densely packed with sediment forced in from below. The result, like any object created in a mould, would have taken on the characteristic shape of the mould – which in the case of this kind of erosion is streamlined,

elliptical and hill-shaped – and might then have been sealed within the ice, and carried further by it, until it was ultimately released by generalized melting.[75]

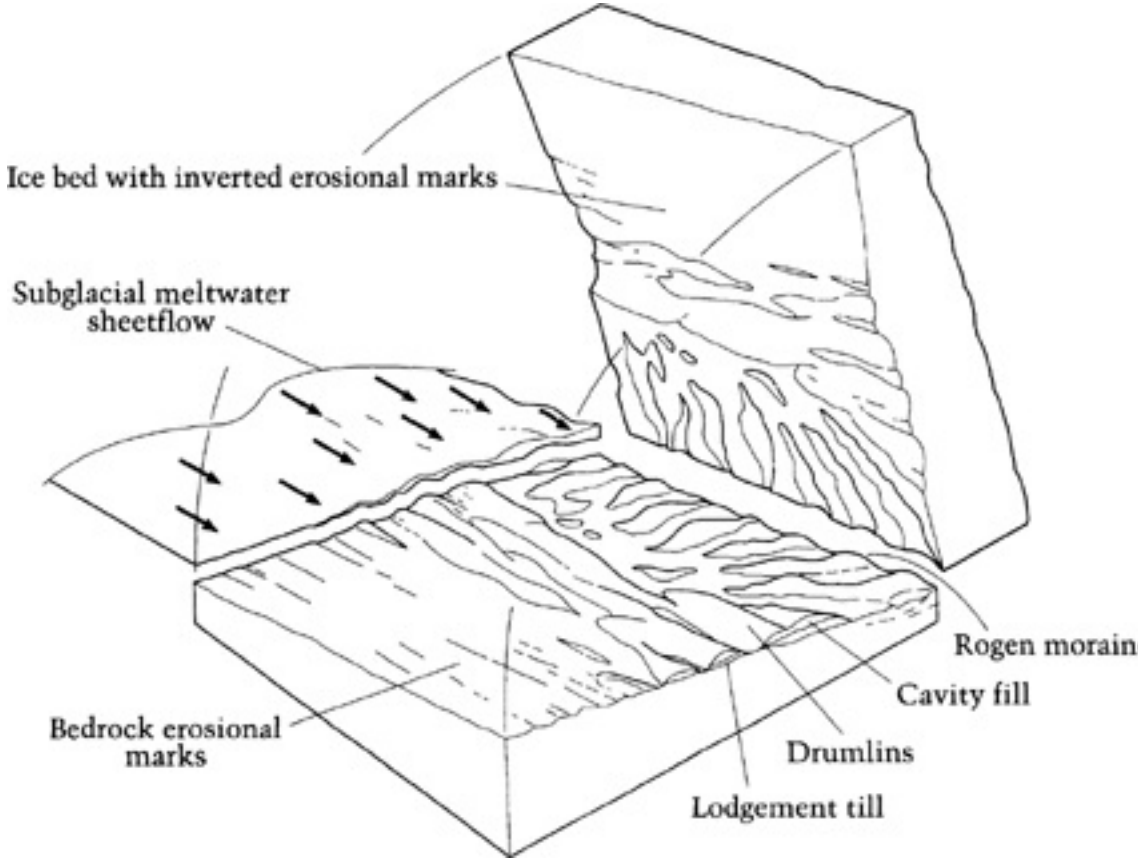

Different kinds of landforms created by subglacial

meltwater floods of varying depths. Based on Shaw (1998).

Take a few thousand such objects of varying sizes, dump them in northern Saskatchewan, and you have the Livingston Lake drumlin-field.

Shaw believes that other drumlin-fields in Canada have been created in a different way – again involving glacial meltwater rather than ice, but this time as a direct erosional agent on bedrock or depositional landforms:

> Drumlins around Peterborough and Trenton, Ontario, are mainly erosional; their internal stratigraphy is relatively undisturbed … Drumlins in Ireland contain complex glacigenic sequences … The form of these Irish drumlins … is almost entirely erosional.[76]

Returning again to his notion of powerful floods running

under immense pressure at the base of the ice-sheets, Shaw draws attention to the drumlins of Beverley Lake field in Canada's Northwest Territory, which he suggests were sculpted by these floods, and to erosional marks – also caused by floodwater-in the bedrock near Kingston, Ontario:

> Concerning the depth of the flow, it is clear that the [Beverley Lake] drumlins … must have been submerged in the formative flow … minimum depths of about 20 metres were required … Erosion marks in the bedrock in the Kingston area, Ontario, indicate subglacial meltwater flows that have widths of more than 60 kilometres. Spectacular erosional marks along the north shore of Georgian Bay, Ontario, also indicate broad subglacial meltwater flows. On a helicopter traverse along the north shore of Georgian Bay, a single field of bedrock erosional marks was noted that had a width of at least 50 kilometres … [These] drumlins and erosional marks indicate meltwater floods that were competent to remove the largest boulders … Flow widths, equal to the widths of drumlin and erosional-

mark fields, were in the range of 60 to 150 kilometres.[77]

I think it is worth re-emphasizing Shaw's figures, and their implications. He is talking about turbulent, energetic floods 20 metres deep flowing in vortices at high speed and pressure, *under* the main ice-sheets, across fronts up to 160 kilometres wide. Only floods on such a scale and of such violence could have sculpted the drumlin-fields and hummocky terrain and tortured pitted scablands of Canada and the United States and carved out other remarkable features such as the extremely large through valleys – including those containing the Finger Lakes – that lie to the south of drumlin-fields in northern New York State.[78] 'Volumes of water required to sustain such floods', observes Shaw, 'would have been of the order of *one million cubic kilometres* equivalent to a rise of several metres in sea-level

over a matter of weeks.’[79]

Drowned coral and floating ice

Of course, when water flows under ice, severing its connection to bedrock, the ice begins to move – ‘surge’ is the technical term:

> Subglacial meltwater sheets with thicknesses of several tens of metres occurred over vast areas of the Laurentide Ice Sheet. The decoupling of glaciers from their beds as a consequence of increased water pressure is used increasingly to explain their rates of sliding. The scale of this process implied here is much larger than that considered for modern glaciers. Nevertheless, the effects should be similar … In short, the glacier is expected to surge.[80]

There is indeed compelling evidence of a series of massive glacial surges at the end of the last Ice Age. These correlate with meltwater pulses and peaks of sea-level rise, recorded, for example, in 'drowned' reefs of *Acropora palmata* from the Caribbean-Atlantic region near the island of Barbados. *Acropora* is an efficient tracker of rising sea-level because it is a light-loving coral that dies at depths greater than about 10 metres. The Barbados reefs were drowned three times at the end of the last Ice Age – at approximately 14,000, 11,000 and 8000 years ago[81] – and so suddenly and deeply on each occasion that they now form three distinct steps, one for each flooding peak (rather than having crept towards shallower water as would have been the case with more gradual sea-level rises). Shaw and his colleague Paul Blanchon at the University of Alberta conclude in a 1995 paper in *Geology* that the reef data confirm:

> three catastrophic, metre-scale sea-level rises during deglaciation. By converting radiocarbon-dated marine and ice-sheet events to a sidereal chronology we show that the timing of these catastrophic rises is coincident with ice-sheet collapse, ocean-atmosphere reorganization and large-scale releases of meltwater.[82]

There is also evidence that a cataclysmic feedback mechanism may have been at work between even relatively small eustatic sea-level rises due to meltwater alone and much larger and more sudden events caused by the destablization of entire ice-sheets extending over continental shelves.[83] Indeed, in an article in *Nature*, geologists D. R. Lindstrom and D. R. Macayeal go so far as to identify ice-sheet mechanics 'as a controlling factor in meltwater production'.[84] They then make the very radical and original suggestion that:

> sudden and significant changes in sea-level due to the floating of formerly grounded ice-sheets and attendant ice-dome drawdown might have accompanied the meltwater pulses and *these 'jumps' in sea-level might not have been recorded in the reef accretion data.* Thus a logical mechanism exists by which sea-level may have risen *faster and to higher levels* than represented by the reef-accretion histories at Barbados.[85]

In other words global floods that *already* appear to have been extremely sudden and severe on the basis of the coral-reef data alone – and each 'drowning' event required a minimum instantaneous sea-level rise of 5 metres before it would take effect[86] – may temporarily have been several magnitudes *more severe* than the coral-reef record shows. Shaw and Blanchon suggest that a global eustatic hike in sea-level of between just two-tenths and four-tenths of a metre in a period of a few weeks would have been 'sufficient to free

grounded ice and stimulate further ice-sheet wasting, additionally elevating sea-level on the order to 5 to 10 metres or more'.[87]

Armadas of icebergs

Induced by sudden sea-level rises, such sudden wasting at the sea-margins of the ice-sheets would have manifested in equally sudden launchings of fleets of gigantic icebergs. In 1988 the German oceanographer Hartmut Heinrich was the first to come up with the firm geological evidence for such a cataclysmic 'iceberg-calving' process during the last Ice Age. By examining deep-sea drill cores sampled at various points across the North Atlantic he demonstrated the existence of widely dispersed layers of 'ice-rafted detritus' – millions of tonnes of rocks and rocky debris that had once stood on land,

that had been clawed up by the ice-sheets and that had ultimately been carried out to sea frozen into huge icebergs:

> As they melted they released rock debris that was dropped into the fine-grained sediments of the ocean floor. Much of this ice-rafted debris consists of limestones similar to those exposed over large areas of eastern Canada today. The Heinrich layers as they have become known, extend 3000 kilometres across the North Atlantic, almost reaching Ireland.[88]

The Heinrich layers record at least six separate discharges of 'stupendous flotillas of ice-bergs'[89] into the North Atlantic – discharges that are now known, obviously enough, as 'Heinrich Events' and that are thought to have unfolded in concentrated bursts of activity that may, in each case, have lasted less than a century.[90] Because of the progressive thickening of the Heinrich layers towards the western side of

the Atlantic and the continuation of this trend into the Labrador Sea in the direction of Hudson Bay, it is obvious to geologists that 'much of the floating ice was sourced from the Laurentide ice-sheet'.[91]

However, other debris has been found intermingled in some Heinrich layers that 'could only have come from separate ice-sheets covering not only Canada, but Greenland, Iceland, the British Isles and Scandinavia'.[92] Likewise, research into southern hemisphere ice-caps in the Andes and New Zealand shows that these too 'grew and then collapsed synchronously with the ice-rafting pulses recorded in the North Atlantic'.[93] The implication, admits Professor R. C. L. Wilson of Britain's Open University, is that some 'global rather than regional forcing of climate change' must have been at work.[94]

With this reminder of the interconnectedness of all the great ice-sheets of the last glaciation – and the broad similarities of all their biographies – let's take a closer look at one of them. What happened to it also happened, to a very similar degree, to all of the others. Its apocalypse is therefore the end of the Ice Age in cameo.

Laurentide

Thomas Crowley and Gerald North, oceanographers at Texas A&M University, describe the melting of the great ice-sheets at the end of the last Ice Age as 'one of the most rapid and extreme examples of climate change recorded in the geologic record'.[95] As we have seen, most of the changes were concentrated into a period of just 7000 years between 15,000 and 8000 years ago. Like the other ice-sheets, the Laurentide

did not really go into meltdown until after 15,000 years ago, and like the others it experienced three primary episodes of collapse correlating closely with Professor Shaw's three global superfloods (at approximately 15,000, 11,000 and 8000 years ago).

It is known that an immense meltwater reservoir in the Laurentide ice-sheet was catastrophically released between 15,000 and 14,000 years ago:

> The volume of water discharged produced regional-scale fields of drumlins, giant-flutings and extensive tracts of scoured bedrock. Such large amounts of meltwater could potentially destabilize ice sheets grounded below sea-level.[96]

The period between 13,000 years ago down to about 10,000 years ago saw recurrent outburst-flooding from a series of glacial lakes and lake complexes in the Laurentide – notably

glacial Lake Agassiz which 'periodically emptied into the Gulf of Mexico via the Minnesota spillway and the Mississippi drainage basin'.[97] The reader will recall Emiliani's evidence for a peak flooding event of Laurentide meltwater into the Gulf at around 11,600 years ago. Within a thousand years of that date glacial Lake Missoula (in Montana in the western United States) also underwent one of its periodic outbursts, sending what Crowley and North calculate to have been 'a wall of water 600 metres high on to the Columbia plateau of eastern Washington'.[98]

Another series of large outburst floods occurred around 9400 years ago. According to Charles Fletcher and Clark Sherman of the Department of Geology and Geophysics at the University of Hawaii, each event added an estimated 4000 cubic kilometres of water to the world ocean.[99] By 8400

years ago yet more calamitous melting had allowed Lake Agassiz to merge with its formerly separate (and almost equally massive) eastern neighbour, Lake Ojibway. This confluence created a titanic inland sea, with a surface area of more than 700,000 square kilometres, poised behind an ice dam over Hudson Bay at elevations of between 450 and 600 metres above sea-level.[100]

At some point between 8400 and 8000 years ago the dam broke and the almost unimaginable mass of water burst through and emptied almost instantaneously into the North Atlantic:

> The breakout occurred into the Hudson Bay lowland, lowering lake level by at least 250 metres and resulting in a total discharge of between 75,000 and 150,000 cubic kilometres, possibly the single largest flood of the Quaternary Period.[101]

This outburst may have single-handedly raised global sea-level by half a metre or so. But this is a good place to remind ourselves that the spiralling decay and collapse of the Laurentide ice-sheet was not an isolated event but was part of a global pattern and feedback system – and that floods of almost equal magnitude poured in tandem off the Fennoscandian ice-sheet on the other side of the Atlantic Ocean. This is why, at around the same time as the collapse of the Laurentide, the north-eastern side of Britain close to the Fennoscandian margins also experienced severe flooding. Here there was a very rapid rise in sea-level which

> submerged an area in the North Sea the size of modern Britain … Most of this 100,000 square mile British 'Atlantis' [not to be confused with Koudriavtsev's suggested site of Atlantis on the Celtic Shelf] was there in 8000 BC and gone by 6500 BC. By then only a 140 mile long, 5000 square mile island, where the Dogger Bank is now, survived.[102]

The separate meltwater floods originating in different ice-caps would, of course, have mingled in the world ocean and multiplied their effects by floating and breaking up grounded ice on the continental shelves. Stephen Oppenheimer calculates that the ice 'flushed out through the Hudson Strait' from what had once been the centre of the Laurentide ice-dome between 8400 and 8000 years ago may have been as much as '1.6 kilometres thick and a third the size of Canada'.[103]

Such statistics beggar the imagination and require common sense to rebel against what is still very much the establishment view – namely that the sea-level rises at the end of the last Ice Age – though large overall – were too small on a year-by-year basis to have caused cataclysmic flooding, and thus to have inspired global flood myths, or to be of any relevance at all to traditions of lost civilizations

and antediluvian cities.

Although very few historians are presently taking any interest, the geological and oceanographic evidence has begun to turn against this ‘gradualist’ and ‘uniformitarian’ view of the meltdown, and there are more and more reasons to suspect that ‘the world of men’, as Plato’s Athenian comments in the passage from the *Laws* quoted at the beginning of this chapter, might indeed have often been ‘destroyed by floods … in such a way that only a small portion of the human race survived’.

Entering the realm of the unknown

At any of the three nodes of peak flooding around 15,000, 11,000 and 8000 years ago the convergence of evidence suggests *very fast* global sea-level hikes of the order of 5–10

metres – and sometimes far more – in each case complicated and exacerbated by induced ice-sheet break-up and other factors. In particular, as we have seen, experts believe that there may have been several temporary rises in sea-level during these periods – caused by the sudden floating of vast masses of ice – that far exceeded the margins recorded in the oceanographic record.[104]

Moreover, rising sea-levels – bringing floods from sea to land – are only part of the story of the end of the last Ice Age. Of at least equal, perhaps greater, importance are the terrible walls of water hundreds of metres high that again and again rolled out from the monstrous ice-domes – and thence over low-lying land, and from land to sea – when ice dams ruptured and glacial lakes spilled, or when pressurized subglacial meltwater burst from under the ice-sheet.

We know that relatively minor sea-level rises could set off major ice-sheet break-ups, and it has been suggested by Stephen Oppenheimer that the tremendous earthquakes caused by isostatic rebalancing at the end of the Ice Age could have stirred up 'mountain-topping superwaves' in the northern regions of the Atlantic and Pacific Oceans.[105] Other than Oppenheimer's own investigations, however, my impression is that while many brilliant individual scientists have studied individual post-glacial phenomena in great depth, very little has yet been done to investigate all these phenomena together as part of a complex system or to consider the effects on the earth and its human population of multiple, interacting cataclysms – floods, lands subsiding into the sea, earthquakes, volcanic eruptions – all occurring at the same time.

We are entering the realm of the unknown here – because

science has only recently begun to consider the end of the last Ice Age as a cataclysm at all and the evidence is still coming in about just how devastating and extensive that cataclysm might have been. Nevertheless, some observations that I believe deserve special attention have been made by the researcher Paul LaViolette in his 1997 book *Earth Under Fire:*

(1) At peak moments of the meltdown any hypothetical civilizations living around the edges of partially enclosed seas that served as drainage areas for the great ice-sheets could have suffered disproportionately large and rapid changes in sea-level. In a sophisticated and original argument, LaViolette draws particular attention to the Mediterranean:

> Glacial meltwater [from the nearby European ice-sheets] would have entered the Mediterranean much more rapidly than it could escape through

> the Straits of Gibraltar, and, as a result, the temporary rise in Mediterranean sea-level would have been much greater than in the surrounding oceans … [Such meltwater surges] could have temporarily raised the Mediterranean by some 60 meters, flooding all coastal civilizations.[106]

(2) Mega-avalanches of rock and ice must have repeatedly thundered into the world's oceans during the epoch of the meltdown because of the effects of isostacy on continental margins and the breakaway collapse of the gigantic ice-sheets. From an example in recent history we know how severe avalanche-induced floods can be. In July 1958 in Alaska's Lituya Bay ' 40 million cubic metres of ice and rock weighing 90 million tons, avalanched from the glaciated slopes of the Fairweather Range and fell 900 metres into one of the bay's inlets.' The resulting wave roared inland up the bay's steep opposite shore for a distance of more than a

kilometre at a speed of 200 kilometres per hour and 'destroyed ten square kilometres of forests to a height of 540 metres'.[107]

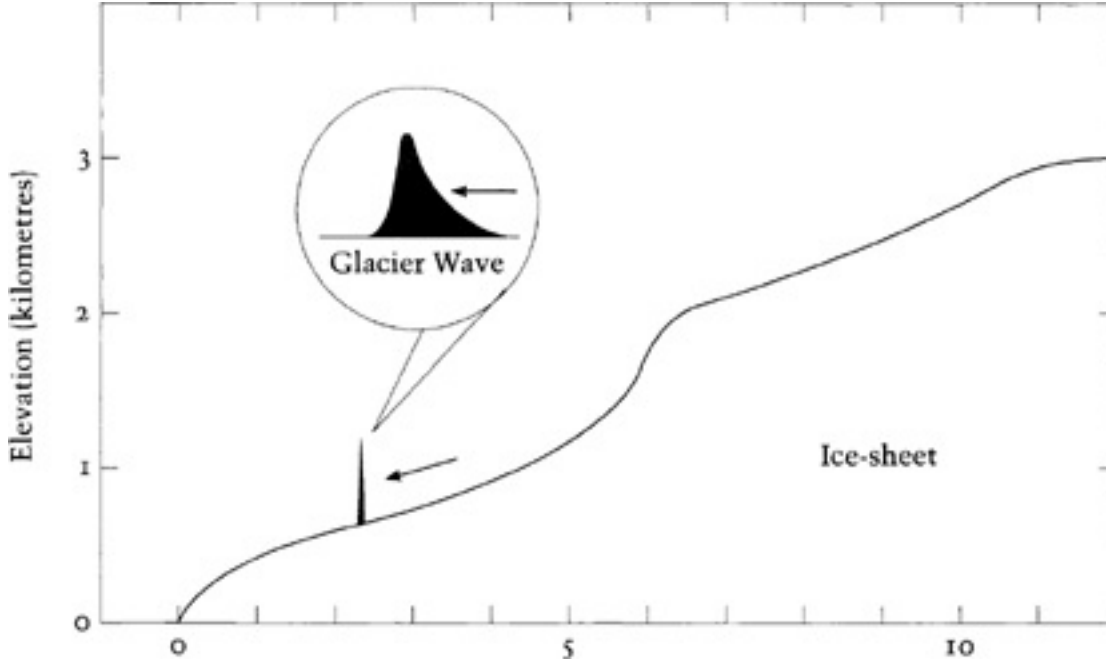

Glacier wave sweeps down side of ice-sheet, growing in height as it descends. Based on LaViolette (1997).

What then would have been the effects of the fall into the North Atlantic of a sheet of ice a third of the size of Canada?

(3) The phenomenon of outburst floods from catastrophically released glacial lakes, already understood to have had apocalyptic regional-scale effects, may have been far more severe that previously thought:

> Ponds and lakes on a glacier's surface, as well as natural caverns within the glacier, are known to store large quantities of glacial meltwater. From time to time the contents of such reservoirs can discharge suddenly to create potentially destructive floods called glacier bursts or glacier floods …
>
> During periods of intense climatic warning, the Earth's ice-sheets were

melting extremely rapidly, with most of the melting taking place on their upper surfaces. Consequently large quantities of meltwater would have collected on the ice-sheet surface to form numerous supraglacial lakes perched at elevations of up to 3.5 kilometres. In cases where the impounded waters were restrained by ice jams and where mounting pressures caused these jams to give way, large floods of glacial meltwater would have poured out over the ice-sheet surface. As one such glacier burst swept forward, gradually descending the ice-sheet's surface, it would have incorporated any ponded meltwater that lay in its path, triggering these supraglacial lakes to discharge their contents and add to its size. Through this snowballing effect a single initial glacier burst would have progressively grown in size and kinetic energy during the course of its downhill journey, eventually becoming of mountainous proportions. This so called continental *glacier wave* would have produced catastrophic floods unlike anything seen on our planet today …

Waves of greater height travel faster. Accordingly, as a glacier wave

proceeded across an ice-sheet to lower altitudes, gaining in height and kinetic energy, it would have accelerated to higher speeds. By the time it had journeyed thousands of kilometres to the edge of the ice-sheet, it could have attained heights of 600 metres or more, a cross-sectional breadth of as much as 40 kilometres, and a forward speed of several hundred kilometres per hour. Such a wave could have extended thousands of kilometres along the ice-sheet … Glacier waves issuing from the surface of ice-sheets in North America, Europe, Siberia and South America would have had sufficient kinetic energy to travel thousands of kilometres over land to devastate regions far removed from the ice-sheet's boundary. Upon entering the ocean, the wave would have continued forward as a *tsunami* to cause considerable damage on the shores of distant continents. Because of its immense energy, a glacier-wave *tsunami* would be far more destructive than any tidal wave observed in modern times.[108]

Yesterday …

There is much that we do not know about what happened to the earth, and to mankind, between 17,000 and 7000 years ago. And though science has made great strides towards a fuller understanding of that epoch, there is much that we may never know. Yet it is to this precise period of unrecorded prehistoric darkness set amidst epic climatic and environmental turmoil that archaeologists trace the origins of civilization: the first settlements, the first signs of structured hierarchical communities, the domestication of plants, the invention of agriculture, building with bricks and stone, etc. – in other words the whole suite of economic and social attributes that set mankind on the road to science and reason and the technological achievements of the modern world.

Proper 'history' doesn't begin until after 5000 years ago when we have written records to go on and thus the basis to build up a reasonably accurate picture of past events –

although even then there are huge gaps. Before 5000 years ago, in the absence of written records, all we have to light up our collective yesterdays are the conjectures of archaeologists based upon their interpretations of extremely scanty material evidence elevated from tiny areas of archaeological sites that become more and more scarce the further we go back in time. And almost all of these sites, of course, are on land. Thus far the contribution of marine archaeology to the debate has been risible. So this is the flimsy, hopelessly incomplete, and wholly inadequate basis on which we rest our understanding of the unwritten past and passively accept, as though we are drugged or senseless, that there is no mystery in it.

PART TWO

India (1)

4 / Forgotten Cities, Ancient Texts and an Indian Atlantis

> The lasting gift bequeathed by the Aryans to the conquered peoples was neither material culture nor a superior physique, but a more excellent language and the mentality it generated … At the same time the fact that the first Aryans were Nordics was not without importance. The physical qualities of that stock did enable them by bare fact of superior strength to conquer even more advanced peoples and so to impose their language on areas from which their bodily type was almost completely vanished. This is the truth underlying the panegyrics of the Germanists; the Nordics' superiority in physique fitted them to be the vehicles of a superior language.
>
> Vere Gordon Childe, Professor of Prehistoric Archaeology,
> University of Edinburgh, 1926

> In the end there is no reason to believe today that there ever was an Aryan race that spoke Indo-European languages and was possessed of a coherent or well-defined set of Aryan or Indo-European cultural features.
>
> Gregory Possehl, Professor of Anthropology,
> University of Pennsylvania, 1999

The word 'city' is etymologically linked to the word 'civilization'. It is therefore of interest that mankind's first cities have been traced by historians to the following regions and dates: (1) Mesopotamia, late fourth and early third millennia BC; (2) Egypt, late fourth and early third millennia BC; (3) India, late fourth and early third millennia BC; (4) China, mid-second millennium BC; (5) Central and South America, mid-second millennium BC.

In four of the five regions – Mesopotamia, Egypt, China and the Americas-nothing remains of these ancient

civilizations except their extraordinary stone monuments together with more or less incomplete collections of their inscriptions, legends and traditions. These, by good fortune, have come down to us and have proved amenable to translation. But the cultures that created the monuments and the scriptures are long gone and thus inaccessible to study-except through inference and deduction from the material remains they left behind.

In the fifth region, the Indian subcontinent, matters are very different. Here the oldest cities are ascribed to the 'Indus Valley civilization'. It was forgotten by history and unknown to archaeologists until the 1920s, when the first two sites to be discovered – Harappa and Mohenjodaro on the Indus river in what is now Pakistan – were excavated and found to be about 5000 years old. It is because of the location of these two 'type sites' that the name 'Indus Valley civilization' was

coined – while at the same time the characteristic ‘Bronze Age’ archaeological assemblage of this civilization was referred to as ‘Harappan’ – since Harappa was the first site to be explored. Subsequent excavations, continuing today, have led to the realization that the majority of the approximately 2600 ‘Harappan’ sites so far discovered in fact lie outside the Indus valley, particularly to the east along the course of the ancient Sarasvati, a river that has been dry for almost 4000 years. This wide distribution of sites has been recognized by scholars, many of whom now prefer to speak of the ‘Indus-Sarasvati civilization’ – the term that I shall generally use here, since it more accurately describes the very large geographical catchment area in which this mysterious culture flourished.

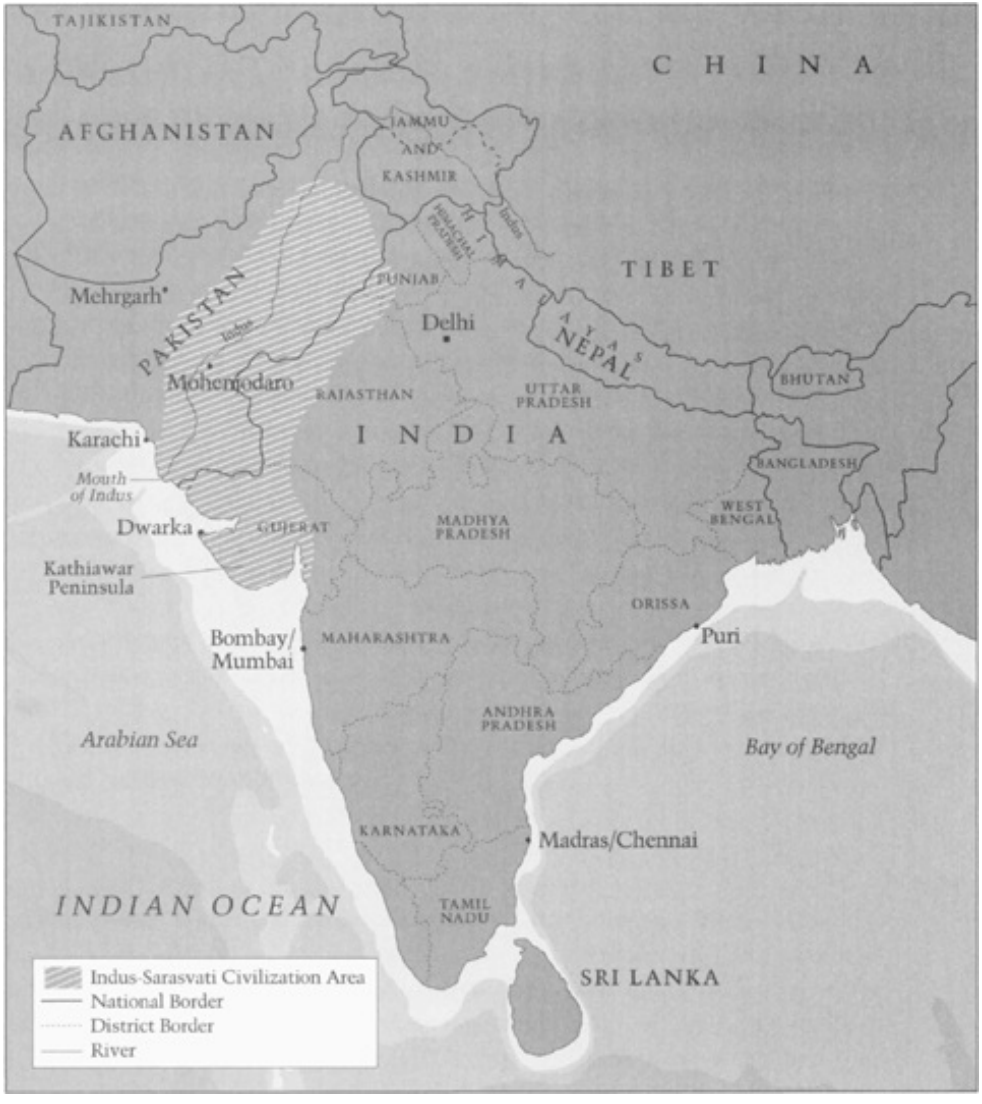
TAJIKISTAN
CHINA
AFGHANISTAN
JAMMU AND KASHMIR
HIMACHAL PRADESH
Indus
TIBET
PUNJAB
Mehrgarh
PAKISTAN
Indus
Delhi
HIMALAYAS
NEPAL
BHUTAN
Mohenjodaro
RAJASTHAN
UTTAR PRADESH
INDIA
Karachi
BANGLADESH
Mouth of Indus
WEST BENGAL
Dwarka
GUJERAT
MADHYA PRADESH
Kathiawar Peninsula
ORISSA
Puri
Bombay/ Mumbai
MAHARASHTRA
ANDHRA PRADESH
Arabian Sea
Bay of Bengal
KARNATAKA
Madras/Chennai
INDIAN OCEAN
TAMIL NADU
SRI LANKA
Indus-Sarasvati Civilization Area
National Border
District Border
River

It was an architectural culture, carrying out prodigious feats of civil engineering and building its gigantic cities out of bricks so strong, so uniform and so well made that even after thousands of years they could safely be reused on modern construction projects (something that happened frequently in the nineteenth and early twentieth centuries before Harappa and Mohenjodaro were recognized as archaeological sites). The Indus-Sarasvati civilization was also the first in the world to experiment with 'New Towns' – towns literally planned and built from scratch, according to a blueprint – the first to institute scientifically designed urban sanitation systems and the first to build an efficient tidal dock.

It was a literate culture. Altogether, some 4200 objects – mainly pottery and seals made from steatite and terracotta –

have been found bearing the Indus-Sarasvati script. Many of the seals are inscribed in ‘mirror image’ (so as to produce a positive impression when stamped, for example, into damp clay) and are thought to have been used by merchants to brand-mark their goods. The earliest inscribed seal (excavated in Harappa) dates to 2600 BC while the pottery is a little older. The average inscription contains five signs, the longest twenty-six, and there are many with just one sign. Despite the best efforts of the world’s leading linguists, it has not proved possible to translate any of inscriptions (although quite a number of translations have been attempted and then rejected by the academic community). There is, however, a general consensus that the script, as presently known ‘emerged as a fully-formed system of abstract signs called graphemes … After careful comparison of all the signs, most scholars agree that there are between 400 and 450 different

signs or graphemes.'[1] The mature form of the script, in other words, appears suddenly in the archaeological record some time before 2600 BC. There are no indications of evolution or development. One day it wasn't there, next day it was.

How is this to be explained?

A missing literature

It could simply be because the traces of the script's evolution exist but have not yet been found by archaeologists, or that such traces once existed but have now all been destroyed. It could be that the script did not 'evolve'. Perhaps it was invented and introduced all at once, a bit like the script for the previously unwritten Somali language that was invented in the 1960s and introduced in the Horn of Africa in 1972.[2]

Or it could be that the Indus-Sarasvati civilization did not regard written documents as a suitable medium in which to preserve its great literary and religious compositions. What I mean to suggest by this is the possibility that the Indus-Sarasvati script might have been devised to serve strictly limited *commercial* and *bureaucratic* functions such as labelling merchandise, naming the owners of goods, naming the contents of pots, etc. It could be that the nature of the society was such that it would have been regarded as a desecration to use the script to write down anything that was revered or sacred like a wonderful story from antiquity or the prayers, hymns and recitations used in religious services.

To live in the twenty-first century is to live in a world in which it is increasingly difficult to imagine how any kind of civilization could exist without large-scale written communications. We regard writing as an essential

intellectual skill, as well as the only way to preserve proper long-term records. In our society to call someone 'illiterate' is therefore an insult; people who do not read and write fluently often have feelings of inadequacy; and there is widespread unstated agreement that the written word is in itself a virtue, that's its absence is a curse, and that no high civilization could possibly develop without it. This great, universally accepted 'given', as unimpeachable as motherhood, is one of the reasons why historians and archaeologists regard evidence of the introduction and extensive use of writing as amongst the defining characteristics of a 'civilization' – to such an extent that 'preliterate' cultures are automatically regarded as much less civilized than literate ones.

But isn't this exactly the perspective that one would expect of a highly literate technical society looking at the past?

Wouldn't it tend to seek out its own image there, in however early a form, and define that as 'civilization'?

I believe that this may be what has happened with the vexed issue of the indecipherable Indus-Sarasvati script. The very brevity of the inscriptions (which is part of what makes them so difficult to decipher) means that they cannot have been used to tell complex stories containing numerous details and large quantities of information – and I do not think any scholar would disagree with me on that point.[3] Yet, to my mind, it is inconceivable that a society so large, so complex, so well ordered and so intelligently run as the Indus-Sarasvati civilization did not possess a literature, did not possess religious and spiritual compositions, did not have vital sacred records that it wanted to preserve. I am certain that it had all these things, and since I know that this society understood the principle of writing, and indeed had developed a writing

system with more than 400 different signs, I am not at all inclined to conclude that it did not possess any information of great cultural importance but rather that it must have made a deliberate *choice* not to use its script to convey such information.

A potion for remembering …

A clue as to why a civilization might not regard writing as an automatic virtue, and why its leaders might even take an ethical decision to restrict the use of writing, has been passed down to us by Plato. In *Phaedrus* he has Socrates pose a rhetorical question: ‘What feature makes writing good, and what inept?’ He then declines to give an immediate answer to this question but instead continues:

> I can tell you what I've heard the ancients said … Among the ancient gods … in Egypt there was one to whom the bird called the ibis is sacred. The name of that divinity was *Theuth [Thoth*, the ancient Egyptian god of wisdom], and it was he who first discovered number and calculation, geometry and astronomy, as well as the games of checkers and dice, and, above all else, writing.[4]

What the ancients said about Thoth, Socrates reports, was that having invented writing he had gone to the god Amon, 'the King of all Egypt at that time', and urged him to introduce it amongst the populace, with these words: 'O King, here is something that, once learned, will make the Egyptians wiser and will improve their memory; I have discovered a potion for memory or wisdom.' But Amon replied:

> O most expert Theuth, one man can give birth to the elements of an art,

> but only another can judge how they can benefit or harm those who use them. And now, since you are the father of writing, your affection for it has made you describe its effects as the opposite of what they really are. In fact it will introduce forgetfulness into the soul of those who learn it: they will not practise using their memory because they will put their trust in writing, which is external and depends on signs that belong to others, instead of trying to remember from the inside, completely on their own. You have not discovered a potion for remembering but for reminding; you provide your students with the appearance of wisdom, not its reality. Your invention will enable them to hear many things without being properly taught, and they will imagine that they have come to know much while for the most part they will know nothing.

Later in the discussion Socrates makes it clear that he feels there are certain matters and certain kinds of information that should not be available to all but should be limited to 'those with understanding':

> Once it has been written down, every discourse roams about everywhere, reaching indiscriminately those with understanding no less than those who have no business with it, and it doesn't know to whom it should speak and to whom it should not …[5]

These passages in the *Phaedrus* may be interpreted in many different ways, but one of the things they definitely are is a sturdy defence of the oral tradition and a clear statement that scripts may not, ultimately, be the best way to preserve precious cultural documents. Because a script depends on signs there is always the possibility that a time will come when those signs will no longer be understood (as has indeed happened with the Indus-Sarasvati script today). In such a case any knowledge consigned to the future exclusively in the 'ark' of that script will have been utterly and irredeemably lost. Because a script is accessible to anybody who reads it means there is no guarantee that compositions expressed in it

will be delivered only to those whom they are intended for. If the compositions contain sacred material that is aimed exclusively at initiates within a cult, for example, and cannot be properly understood without specific information possessed by those initiates, then it is probable that such compositions – even if they can be 'translated' in a literal sense – will appear meaningless, nonsensical or absurd to outsiders. Last but not least, because a script eliminates much of the need for memory its introduction in any society will inevitably lead to a reduction in the value of the science of memory and in due course that science will be forgotten. Memorization is not a highly regarded skill in our society today (and increasingly less so as the years go by), yet it is possible that a powerful memory, developed through discipline and training, could operate as a catalyst to other intellectual and perhaps even spiritual skills which would

otherwise lie dormant.

By keeping communications within a strictly oral tradition all of these problems can be avoided. From generation to generation, from initiate to initiate directly, the sacred archives (or hymns, or utterances) can be passed down and their obscurities explained where necessary, no doubt evolving to some extent as the language in which they are carried evolves, perhaps even being translated into other languages – but always strictly through the medium of the spoken and memorized word, with suitable interpretation and explanation by a wise practitioner at hand, never, never, never through the medium of the written word.

Consider sacred texts that are valuable to 'advanced' technological societies such as Japan and the United States. In Japan the *Nihongi* and the *Kojiki* are revered for the antiquity and wisdom of the traditions they contain. In the

United States the Old Testament and the New Testament of the Bible are equally revered amongst Christians. But in neither country does more than a tiny handful of people (if indeed any at all) have these enormous and complicated texts off by heart. In consequence, although they may be found in many household libraries, they are not often discussed or consulted by the majority of Japanese or Americans today.

Now, by contrast, consider the case of India with its population of one billion.

Almost supernatural feats of memory

Unlike in other big modern industrial nations that have long ago lost all sense of the sacred and all respect for 'what the ancients said', the sacred life still permeates India through and through to such an extent that an appeal to the authority

of scripture can still settle all disputes. And unlike the cultures of ancient Egypt, Mesopotamia, China and the Americas, where only spectacular fossils of architecture and language remain, the culture of ancient India is still vibrantly *alive* today in the subcontinent and offers as its gift to the present a vast library of archaic rituals, dances, games, ceremonies, festivals and customs as well as an immense oral literature that has not only been preserved and continuously passed on in the memory of *sadhus* and *rishis* (sages, wise men) for thousands of years but that is also celebrated, rehearsed, admired and relished in hundreds of thousands of Hindu villages from the Himalayas to the sea.

The oldest elements of India's oral tradition are the *Vedas* (the word *veda* means 'knowledge'), consisting of four major *samhitas* (compilations of hymns): the *Rig Veda* (the most ancient and the most revered), the *Sama Veda*, the *Yajur Veda*

and the *Atharva Veda*. The language used is a very archaic form of Sanskrit, and there is a great deal of it! The *Rig* alone has an extent of around 450,000 words (about twice as long as this book) expressed in 1028 hymns made up of 10,589 verses.[6] The total compendium of the four *samhitas* probably runs to almost double that. But what is most amazing about these hymnodies is not so much their overall length, which is awesome, but that for most of their history it is probable that no written versions of them ever existed – and not because they *could* not be written down but because the priests of the Vedic religion that evolved into Hinduism believed that they *should* not be written down but should be kept alive instead in human memory.[7]

> The Vedic texts were originally part of an oral literature. They are *sruti*, or 'Heard', and Brahmins [the priestly caste in Hinduism] were expected to

> memorize all four books, some parts of which were clearly composed and arranged to assist in this learning process. It can be surmised then that there was a period of composition, when new material was added and older verses were edited and changed. But at some point this flexibility in composition stopped and the priests defined their text as immutable, not to be changed by one word or even one syllable, and the slightest mispronunciation or deviation from the canon was believed to be a sacrilege.[8]

Significantly there is no mention of writing in the *Rig Veda*. Moreover, even when writing had become widespread in ancient Indian society for other purposes, strict proscriptions continued to be enforced against writing the *Vedas* down. This ban was respected until about 1000 years ago, from which period the earliest surviving written versions have reached us.[9]

Gregory Possehl, Professor of Anthropology at the University of Pennsylvania, and one of the world's leading experts on ancient India and the Indus-Sarasvati civilization, comments:

> The Indian Brahmins took the memorization of the *Vedas* very seriously, and developed means to ensure accuracy and the careful reproduction of the same words and sounds from generation to generation. Careful, even exact oral replication of the *Vedas* was part of the Hindu faith, institutionalized during the learning process and maintained through peer observation and pressure through the life of a Brahmin. This community of faithful Brahmins was large and they all went through the same learning process, which was standardized to some degree. Deviation from the … path of exact replication would have brought powerful forces of censure to bear on the offender …
>
> There is also good agreement between the written *Vedas* that exist from Medieval times on, and the oral versions. It is thought that the oral

tradition may not have been contaminated by the literate, but we cannot really know for sure. Still, the writing down of the *Vedas* was not favoured, nor widespread …

The noted Sanskritist J. A. B van Buitenen told me that in the eighteenth and nineteenth centuries the Europeans who were learning Sanskrit were impressed by the fact that no matter where they went in the subcontinent, when they heard Brahmins recite the *Vedas* they heard the exact same thing. From Peshawar to Pondicherry, or Calcutta to Cape Comorin, hundreds of thousands, even millions, of Brahmins who had no direct contact knew these texts in precisely the same way …

[There are therefore] some reasons to believe that this oral tradition is different from most, and that what we have today as texts may be remarkably close to those of deep antiquity.[10]

The problem of the Aryas

How deep? How ancient is the content of the *Vedas* really? And from what wellspring of philosophy, insight and religious speculation do they flow?

Scholars like Gregory Possehl, with the (almost) unanimous backing of non-Indian Indologists and Sanskritists, believe that the Vedic hymns were 'codified' at around 1200 BC. They admit that the actual compositions must be older than that but it is clear that they would be unlikely to accept a date – even for composition – that is earlier than about 1500 BC, perhaps begrudgingly 1800 BC in some rare cases.[11] Why should this be so when the archaeological record makes it is clear that the second millennium BC in India, if not a time of total decay and collapse as it has sometimes been painted, was certainly not a time that was magnificently fruitful intellectually and does

not look like the sort of epoch that would have produced a sublime intellectual creation like the *Rig Veda?* On commonsense grounds alone, isn't this enigmatic text, which we will explore in chapter 6, at least as likely to have been the work of the equally enigmatic Indus-Sarasvati civilization? And why is it only now that such a possibility is beginning to be tentatively explored by some scholars while the majority still won't even consider it?

The answer is that the Vedic peoples are referred to repeatedly in the *Rig* as the 'Aryas' and that from this a great and sustained error of orthodox historical scholarship was spawned. Even though the adjective 'Aryan' in ancient Sanskrit actually means 'noble' or 'cultured' – and therefore the Aryas are essentially 'the "noble" or "cultured" folk', and thus as easily a religious cult as an ethnic group – it was assumed by historians and archaeologists that they were a

race and that they had invaded India around 1500 BC. Known as the 'Aryan invasion theory', this error was only brought to light and dropped from official curricula during the last quarter of the twentieth century. Because it has far-reaching implications, and requires the wholesale rewriting of canonical academic texts and standard works of reference, it is the kind of error that historians are not normally eager to admit. Yet in this case, to their credit, it is the orthodox scholars themselves who have exposed it.

It is not an error that has ever made the headlines. But since the early 1990s it has been increasingly widely discussed in academic journals and books and taken into account, more or less completely, in all new thinking and teaching on the subject. So there is no question at all of a cover-up or even of significant denial by those whose specialisms have been most directly affected or whose

publications in scientific journals are now out of date.

The Aryan invasion of India

The attribution of the *Vedas* to 'Aryan invaders', the date of 1200 BC for the codification of the *Vedas*, and the Aryan invasion theory itself can all be traced back to an idea that had already planted roots by the beginning of the nineteenth century. It was then that a number of Western scholars began to notice that Sanskrit, the classical language in which the *Vedas* are written, and its modern relatives in north India such as Hindi, Bengali, Punjabi, Gujerati and Sindhi, have extremely close affinities with modern and ancient European languages such as Latin, Greek, English, Norwegian and German. How, the scholars asked themselves, had this amazingly widespread distribution of what are now known as

the ‘Indo-European’ family of languages come about?

Fairly soon a predictable doctrine began to take form. ‘This’, explains Gregory Possehl,

> had to do with the Aryan race, proposed to be the people who spoke the languages of the Indo-European family. European intellectual and moral superiority was a foregone conclusion to most savants of the nineteenth and early twentieth century. The success of European colonialism, Christianity and the Industrial Revolution proved that. This condition of innate superiority was seen in the Classical Greeks and to have been carried forward by Rome. With the discovery of the Indo-European family of languages there was evidence for an even earlier history, one set within a prehistoric past that only archaeology could uncover. The Aryans, or Indo-Europeans, must have been blessed with this ‘superiority’ since they too were successful conquerors of vast lands, from the Bay of Bengal to the outer islands of Scandinavia and the United Kingdom.[12]

It was against this ideological background of inevitable European superiority, combined with misunderstood references to the Aryas in the *Rig*, that the doctrine of the 'the Aryan invasion of India' arose and gained universal acceptance amongst scientists as an event that had taken place at a specific moment in history and that had involved a mass movement of peoples from a European 'homeland' into India.

Indeed, the earliest version of this scenario remained widely accepted until the twentieth century was quite far advanced. It held that India – which before had been inhabited exclusively by dark-skinned aboriginal and Dravidian tribes – was invaded from the north-west through the passes of Afghanistan by a light-skinned and perhaps even blue-eyed European race at some time during the second millennium BC. The pale nomadic invaders, mounted

on horses, armed with iron weapons and driving fast war chariots, called themselves the 'Aryas'. They rapidly overwhelmed and subjugated the indigenous inhabitants, whose civilization was at a lower level than their own. At the same time they imported their own naturalistic religion – expressed in the *Rig Veda* – which they imposed on the 'inferior' conquered races of India.

The second scenario began to take shape after the discovery and excavation of the Indus valley sites of Harappa and Mohenjodaro during the 1920s and 1930s. It rapidly became clear that these sophisticated, centrally planned cities were much older than the supposed 1500 BC date for the Aryan invasion of India and that they belonged to a previously unidentified high civilization of remote antiquity, perhaps almost as old, it was speculated, as Sumer or Egypt – in other words, dating back to 3000 BC or earlier.

Like other resilient bad ideas, the Aryan invasion theory survived what should have been critical evidence against it by adapting. Although the chronology had to be increasingly stretched to fit in with the new archaeological discoveries, historians were for a long while able to cling on to the notion of an invasion by 'Aryan' hordes in the second millennium BC.

What changed was the background. Previously, the pale Aryas had overrun primitive tribes of dark-skinned hunter-gatherers. Now it had to be admitted that they had overrun a sophisticated urban civilization that had flourished in India for at least a thousand years before their arrival and that had been far ahead of them in culture but no match for their superior military prowess and technology. Previously the Aryas had been the bringers of civilization to a benighted and barbaric India; now they were the destroyers of a far older civilization than their own – a literate civilization, moreover,

and one that had clearly been prosperous for a very long time.

It was generally agreed that this earlier race of city dwellers had been Dravidians – an ethno-linguistic group, principally represented by Tamil-speakers, that is now almost entirely confined to southern India. With no more evidence than the authoritative (and in this case incorrect) opinion of the revered British archaeologist Sir Mortimer Wheeler concerning a few dozen skeletons thought to display wound marks that had been found at Mohenjodaro, scholars adopted the theory that the invading Aryas had 'massacred' the Dravidian inhabitants of the Indus-Sarasvati cities, forcibly taken over their lands and driven the survivors towards the south.

Although the massacre theory was later discredited (the skeletons came from different epochs, showed no signs of

fatal wounds, and were not the result of any one event),[13] the idea of a violent invasion of India by a non-Indian people calling themselves the Aryas survived in at least some enclaves of mainstream scholarship into the early 1990s – when even its most ardent supporters began to distance themselves from it. By 1999 the standard texts on the subject had caught up and Gregory Possehl was able to write the definitive obituary of the Aryan invasion hypothesis in his massive tome *Indus Age:*

> In the end there is no reason to believe today that there ever was an Aryan race that spoke Indo-European languages and was possessed of a coherent or well-defined set of Aryan or Indo-European cultural features.[14]

1500 BC or 15,000 BC?

So it is not controversial to state that the top scholars in this field now accept, absolutely, that there was no Aryan race and no Aryan invasion. Strangely, however, very few of them seem to have noticed that these conclusions must have implications for the history that we ascribe to the *Vedas* – hitherto assumed to have been *composed* by the Aryan invaders, and codified by them into the form that is with us now, during the first few centuries after their arrival in India around 1500 BC.

It turns out that this assumption, which in all logic cannot stand now that the core idea of an Aryan invasion has been abandoned, is one of the pillars of the orthodox chronology of the *Vedas*. This dates the codification of the four principal books – the *Rig Veda*, the *Atharva Veda*, the *Yajur Veda* and the *Sama Veda* – to between 1200 and 800 BC (with the three centuries between 1500 BC and 1200 BC allocated to the actual

composition of the hymns).

The second pillar has to do with metals and the supposed date of the 'Iron Age' in India. The *Rig Veda*, which is thought to be the oldest Vedic text, uses a general term, *ayas*, for metal. By the time of the codification of the slightly later *Atharva Veda*, however, a new term has been introduced: *krsna ayas*, meaning 'black metal'. Scholars have taken this to be a reference to iron, and have drawn very large chronological conclusions from it. Gregory Possehl:

> There is some content of the *Rig Veda* that hints at its age. There are references made to metals … but not iron. However, by the time of the *Atharva Veda* iron is known. This can be used to suggest that the *Rig Veda* was codified prior to the widespread use of iron in northern India and Pakistan and that the *Atharva Veda* is on the other side of this timeline; nominally 1000 BC or slightly earlier.[15]

Possehl describes this as nothing more than a 'reasonable or interesting observation, not a hard and fast historical point'.[16] This is certainly a wise caution. For example, the metal *krsna ayas* might have been known in Rig Vedic times but simply not mentioned in the *Rig* itself. Or, as a number of authorities have argued, it may be that *krsna ayas* has been mistranslated as iron and that some other dark-coloured metal was intended. Or again, with no indication given in the texts as to how the *krsna ayas* was acquired or manufactured, it is also possible – even if 'iron' was intended – that the references are to meteoritic iron (as opposed to man-made smelted or forged iron). This is widely understood to be the case, for example, with the many references to 'iron' – *bja* – in the ancient Egyptian *Pyramid Texts* (c.2300 BC, long before the Egyptian 'Iron Age') and there is no reason from the context why it should not also be so in the *Atharva Veda*.

The third pillar supporting the orthodox chronology of the *Vedas*, and the one most relied upon for dating the *Vedas* today, is a linguistic argument extrapolated from a 'feeling' certain specialized scholars have about the pace at which Sanskrit might have evolved. Gregory Possehl again, setting out the orthodox view as it stood in 1999:

> Based on the language of the *Rig Veda*, its vocabulary and grammar, Vedic Sanskrit can be thought of as the archaic form of this language. The Sanskritists on whose judgement I rely, feel that the date for the codification of the *Rig Veda* is not likely to be earlier than 1200 BC nor later than 800 BC. There is some bias toward the later date. These dates are not based on a process of reasoning rich in data and cross-checks. They emerge instead from a sense of how rapidly Sanskrit might have changed, using the grammar of Panini (c.5th century BC) as a baseline and working backward from this point. There are few chronological checkpoints in this process and the period between 1200 BC and 800 BC emerges as a scholarly

> judgement; a kind of ballpark guess …[17]

Possehl then goes on to warn that since 'this date for the *Rig Veda* is based primarily on language', it gives at best 'the approximate date for the codification of the text, but not for the history that may be represented there, which is certainly earlier; how much earlier is simply not known'.[18]

Likewise, it is surely significant that Max Muller, perhaps the most eminent Indologist of all, and in fact the first Sanskritist to propose a codification date of 1200 BC for the *Rig Veda*, was himself much more hesitant than the generations of scholars following uncritically after him, who have allowed the date of 1200 BC to crystallize into received wisdom. It is clear that Muller became aware during his own lifetime that such a 'crystallization' process was underway – and that he resisted it. 'I have repeatedly dwelt on the *entirely*

hypothetical nature of the dates which I ventured to assign to the first three periods of Vedic literature,' he protested at one point.[19] Again, in his Gifford Lectures in 1890, Muller warned his students that 1200 BC was a purely arbitrary date based on unproven assumptions about the rate of evolution of Sanskrit: 'Whether the Vedic hymns were composed in 1000 or 1500 or 2000 or 3000 BC no power on earth could ever fix.'[20] And in his book *The Six Systems of Indian Philosophy*, which describes the *Vedas* as 'tombs of thought richer in relics than the royal tombs of Egypt', Muller cautions:

> If we grant that they belonged to the second millennium before our era, we are probably on safe ground, though we should not forget that this is a constructive date only, and that such a date does not become positive by mere repetition … Whatever may be the date of the Vedic hymns, whether

> 1500 or 15,000 BC, they have their own unique place and stand by themselves in the literature of the world …[21]

Alchemy

Despite Muller's insistent and repeated caveats, the date of around 1200 BC that he had once 'Ventured to assign' to the codification of the *Rig Veda* was the date that stuck. The master himself never saw it as anything more than a hypothesis, but the alchemy of his own prestige and authority transformed it after his death into a 'fact'.

Such cults of the personalities of great men have converted opinions into facts before – usually only for short periods of time until common sense reasserts itself. But Muller's nineteenth-century hypothesis about Vedic chronology is still

treated as a fact virtually universally in the twenty-first century even, as we have seen, amongst such wise and insightful scholars as Gregory Possehl. To give just one further example out of many that are available to make the point, Professor Jonathan Mark Kennoyer of the University of Wisconsin, another leading authority on the Indus age, states as fact in his 1998 book *Ancient Cities of the Indus Valley Civilization that:*

> The Rig *Veda* is a compilation of sacred hymns that was codified in its present form during the mid-second to first millennium BC at around the same time as the Indus cities were declining …[22]

As anyone who knows their work can attest, Kennoyer and Possehl are far from being dogmatic about the interpretation of the past. On the contrary, they are amongst a number of really fine thinkers and brilliant field-researchers in

universities all around the world – not least in India itself and in Pakistan – who are today confronting the enduring riddle of Indian antiquity with a formidable combination of open minds and scientific method. It is important also to remind ourselves that they are only proposing *codification* dates for the *Rig Veda* and fully endorse Muller's earlier recognition that many of the compositions within the standardized collections may have had an *extremely long* prior existence in India's ancient and fantastically elaborate oral tradition. So while their approach does recognize a date of approximately 1200 BC for codification, Possehl, Kennoyer and others are advocates of much earlier dates of composition. Kennoyer in particular seems willing to explore the possibility of continuity between Indus-Sarasvati motifs and the Rig Vedic hymns[23] – when not so long ago such a line of thought would have been inconceivable for mainstream scholars.

Yet so far neither Possehl nor Kennoyer, nor any other Western Indologist of whom I am aware, nor any Western historian, archaeologist, linguist or any other academic from any other discipline working in a university outside India itself, has ever seriously considered the possibility that the Indus Valley civilization, hitherto believed 'mute' because its script cannot be deciphered, could in reality have been speaking to us all along through the medium of Vedic Sanskrit.

Having taken two big steps towards such a conclusion – dumping the Aryan invasion theory, and accepting that the *Vedas* are likely to be significantly older than their date of codification – it is, I think, rather strange that scholars outside India have not yet been prepared to take the third obvious step, which would involve giving proper consideration to the possibility that the true parent of these

orphaned scriptures could be the Indus-Sarasvati civilization itself rather than the evaporated 'Aryan invaders' of the second millennium BC.

Could it be that the reason for this reluctance is the same as the reason that the Aryan invasion theory was allowed to flourish during the colonial era in the first place?

How to have your Aryan invasion and not admit it

There can be little serious doubt that the evolution and lengthy survival of the Aryan invasion theory was underpinned by an ingrained conviction on the part of European scholars that the presence in India of a 'superior' language such as Sanskrit that was related to European languages *must* imply a movement of that language from

Europe to India in remote prehistory rather than from India to Europe.

Vere Gordon Childe, Professor of Prehistoric Archaeology at the University of Edinburgh and later Director of the Institute of Archaeology, University of London, was one of the most influential exponents of this gross scholarly racism. In 1926, while Harappa and Mohenjodaro were actually under excavation, Childe eulogized the 'gift' that he believed had been given to India by brawny 'Nordic' Aryans:

> The lasting gift bequeathed by the Aryans to the conquered peoples was neither material culture nor a superior physique, but a more excellent language and the mentality it generated … At the same time the fact that the first Aryans were Nordics was not without importance. The physical qualities of that stock did enable them by bare fact of superior strength to conquer even more advanced peoples and so to impose their language on

> areas from which their bodily type was almost completely vanished. This is the truth underlying the panegyrics of the Germanists; the Nordics' superiority in physique fitted them to be the vehicles of a superior language.[24]

Such ideas, endorsed and propagated by the leading archaeologists and ethnologists of the time, played a crucial role in the growth of the Nazi cult of 'Aryan' racial superiority during the 1930s and 1940s and led, ultimately, to the abomination of the Holocaust. One would expect, therefore, that archaeologists of today would take an entirely different line. This is what Colin Renfrew, Professor of Archaeology at Cambridge University, has to say on the subject:

> As far as I can see there is nothing in the *Rig Veda* which demonstrates that the Vedic-speaking population were intrusive [to India]; this comes rather

> from a historical assumption about the 'coming' of the Indo-Europeans …[25]

Renfrew blames Vere Gordon Childe's contemporary Sir Mortimer Wheeler for the widespread diffusion and rapid uptake of the 'invasion' idea, which

> is rooted entirely in assumptions … When Wheeler speaks of 'the Aryan invasion of the Land of the Seven Rivers in the Punjab', he has no warranty at all, so far as I can see. If one checks the dozen references in the *Rig Veda* to the Seven Rivers, there is nothing in any of them that to me implies invasion: the Land of the Seven Rivers is the land of the *Rig Veda*, the scene of the action. Nothing implies that the Aryas were strangers there.[26]

Finally Renfrew makes the significant observation that despite Wheeler's attempt to hold the Aryas responsible for massacres they never committed in the Indus-Sarasvati cities, and to blame them for those cities' collapse in the second

millennium BC:

> It is difficult to see what is particularly non-Aryan about the Indus Valley civilization, which on this hypothesis would be speaking the Indo-European ancestor of Vedic Sanskrit.[27]

But ultimately Renfrew too turns out to be proposing an Aryan invasion of India – only in a freshly scrubbed, politically correct incarnation. Renfrew's scenario enables him to keep a non-Indian origin for Sanskrit while abandoning the now untenable theory of an invasion in the second millennium BC. His argument, in the simplest terms, is that the 'invasion' was actually a peaceful agricultural 'migration' or 'dispersal' and that it took place much earlier than the second millennium BC – indeed he prefers a date at the beginning of the Neolithic perhaps as much as 9000 years

ago.[28] In his important study *Archaeology and Language* he makes the case that Anatolia (in modern Turkey, occupying the peninsula between the Black Sea, the Mediterranean and the Aegean) was

> a key area where an early form of the Indo-European language was spoken before 6500 BC. From there the distribution of the language and its successors into Europe was associated with the spread of farming … The zone of early farmers speaking Proto-Indo-European extended east to northern Iran and even to Turkmenia at the outset. The spread of Indo-European speech to the south, to the Iranian plateau and to north India and Pakistan, can then be seen as part of an analogous dispersal, related to demographic changes associated with the adoption of farming.[29]

After their forefathers had arrived in India, Renfrew's hypothesis has it that the descendants of the original Neolithic migrants remained there and developed their

society and religious ideas *in situ* for thousands of years. In his view they continued to speak an evolving form of the language brought with them from Anatolia that was to become Sanskrit – in which the *Vedas* would ultimately be composed. And although he has not explored the implications further, he clearly has no objection in principle to the idea that it was also they who founded the Indus-Sarasvati civilization.

Two sides of the same coin

Outside the cosy Pall Mall club of Western scholarship, Indian academics have been forthright in contemplating direct links between the Indus-Sarasvati civilization and the Vedic texts. Like Renfrew, Dr S. R. Rao, famous as the founder of marine archaeology in India, believes that the

language of the Indus-Sarasvati cities was an early form of Vedic Sanskrit – and has even gone so far as to propose a full interpretation on this basis of all known examples of the Indus-Sarasvati script.[30] A number of other leading scholars, such as Dr R. S. Bisht, Director of the Archaeological Survey of India, and S. P. Gupta, Professor of the History of Art in the National Museum Institute, New Delhi, also have similar ideas.

Bisht, for example, has argued that the hierarchical layout of Harappan towns was organized according to the Rig Vedic *trimeshthin* system which advocates three distinct sectors of settlement: Parama-Veshthina (Upper Township), Madhyama-Veshthina (Middle Township) and (Avama-Veshthina) (Lower Township). He also points out that the Harappan city of Dholavira in Gujerat, which dates back to the third millennium BC, measured 771 metres from east to west at its

maximum extent and 616.8 metres from north to south, the ratio being 5:4. The Citadel, or Upper Township, measured 114 metres from east to west while from north to south it measured 92.5 metres, the ratio being again 5:4. Bisht does not think it is a coincidence that the same ratio is specifically mentioned in ancient texts setting out the proper construction of Vedic fire-altars.[31]

S. P. Gupta likewise points out that all the key characteristics ascribed to Rig Vedic religion and culture are already found in the mysterious ancient cities along the Indus and Sarasvati rivers. First and foremost amongst these characteristics are the cities themselves – since, contrary to the old view that the *Vedas* portray only a pastoral or nomadic lifestyle, all scholars now acknowledge that cities are frequently mentioned in the *Rig* and other Vedic texts as the homes of Aryans. Additional archetypally 'Vedic'

characteristics that have been confirmed by excavation of the Indus-Sarasvati sites include the presence of cattle and of the domesticated horse, the use of fire-altars, and evidence of widespread international trade and deep-sea navigation. Gupta concludes:

> Once it becomes reasonably clear that the *Vedas* do contain enough material which shows that the authors of the hymns were fully aware of the cities, city life, longdistance overseas and overland trade, etc., which characterized the Indus-Sarasvati urban gamut of cultural elements, it becomes easier for us to appreciate the theory that the Indus-Sarasvati and Vedic civilizations may have been just two complementary elements of one and the same civilization.[32]

Unlike Renfrew and other Western experts, however, the Indian scholars are not inclined to support any kind of European or central Asian origin for Vedic civilization.

Instead, with good reason, they prefer to see it as a wholly indigenous development of their subcontinent – Indian through and through like the Indus-Sarasvati cities.

In this way they have begun the long-overdue process of bringing together one of the greatest and most profound spiritual literatures of antiquity with what is arguably the greatest and most remarkable urban civilization of antiquity. As well as resolving the paradox of a sophisticated urban culture with a script but no literature, and of a sophisticated literature with no urban culture evident behind it, this process has the potential to link the *Vedas* to known history and prehistory and to definite archaeological remains rather than to vapid speculations about an 'Aryan invasion'.

Perhaps we are coming to a time when ancient India will speak for herself again after millennia of silence …

My Indian childhood

On a bright morning in July 1954, when I was three years and eleven months old, I got off a ship in the port of Bombay with my mother and father. We then made an immense journey across India by rail that I remember very little of (although I remember the ship very well), and eventually arrived in Vellore in the state of Tamil Nadu in the far south. There my father took up the post of general surgeon at the Christian Medical College Hospital.

We lived in a flat on the campus of the CMC with other doctors' families and medical staff. We had a verandah to the rear of the flat that overlooked some distant palm trees at the edge of a field. During the monsoon season, if I plugged the drains of the verandah, it would fill up with rainwater like a swimming pool. The view of the palm trees bent double in

the big winds of the monsoon used to make my heart race and my chest feel tight and I still remember it now as though it were yesterday.

Our flat was on the first floor. There was a dust-patch below in which I once found a lizard's soft-shelled eggs. There was a lily-pond with enormous frogs. And there were trees to climb, including one with a tree-house.

I remember often being in Vellore, 5 kilometres away from the campus. Sometimes I would be at the CMC Hospital following my dad around. Or I would be at the Tamil school I attended at around the age of six where a fellow pupil once stabbed me in the left forearm with a pencil; I still bear the scar.

My father was on a missionary salary in India, so we thought we were as poor as church mice. Still, we employed

a servant, who must have been a lot poorer than us. His name was Manikam. I remember he used to bring me my lunch every day in a skyscraper of circular aluminium tiffin tins and take me for rides on rickshaws through narrow streets jammed with tremendous crowds of people.

We had holidays too – Kodai, up in the mountains, where Trixie, my dog, was bitten by something rabid and had to be put down, and Mahabalipuram, on the coast just south of Madras, where I learned to swim. Imprinted on my memory for years afterwards – until I returned there, in fact, and was able to overlay old memories with new ones – were images of the eerie rock-hewn temples of Mahabalipuram, overlooking the Bay of Bengal.

My childhood encounter with India was formative and I am grateful that I was introduced at such an impressionable age to its aura of intriguing and impenetrable mystery, its

velvety warmth and depth, its intense colours, sights, sounds, tastes and smells, its joyous, erotic beauty, its cruelty, its love, its passion and its never-ending drama of stark contrasts – past and present, sun and storm, desert and meadow, wealth and poverty, life and death …

My baby sister Susan was born in India and died less than a year later of some nameless disease. Then my brother Jimmy was born with an immune system so weak that he could not even fight off the most minor infections. Soon he too was teetering on the edge of death, his lungs ravaged by *Pneumocystis carinii* pneumonia – known today as one of the most awful opportunistic infections of AIDS. So, on a dark night in March 1958, when I was about seven and a half years old, I climbed on board an aeroplane with my mother and father and tiny, sad, sickly Jimmy almost invisible inside his portable oxygen tent.

And that was it. That was the end of my Indian childhood.

We flew back through the darkness. We stopped in Egypt, where I saw an ocean of sand from the air. We stopped in Zurich. It was snowing and I was bought my first-ever bar of Toblerone, a truly unforgettable experience. For a while I somehow became briefly separated from my father while we were on the ground and had terrible fears that the plane would leave without me. Finally we landed in London, where my parents rushed to Great Ormond Street Children's Hospital in a desperate but ultimately hopeless attempt to save Jimmy. Meanwhile, I was taken to Edinburgh by my grandmother. There I became entranced by snow, got soaked and frozen playing in it and promptly went down with a life-threatening case of pneumonia.

Indian Atlantis

Many years later, in the summer of 1992, a letter was forwarded to me by my publishers from an Indian lady resident in Canada. She had just read my then newly published book *The Sign and the Seal* and had noticed that it contains a few pages on the subject of Atlantis and considers the possibility of a lost civilization destroyed in a flood cataclysm. The reason for her letter was to tell me of an Indian tradition, which she rightly thought I might not have heard of, that spoke of something quite similar – a great city that had been swallowed up by the sea thousands of years previously. The name of the city, she said, had been 'Dwarka' or 'Dvaraka' and it was referred to in India's sacred texts. More interestingly, a team of Indian marine archaeologists had been to the site where Dwarka was said to have been

submerged and had found the remains of gigantic walls and fortifications underwater.

At the time I received the letter I was already deeply embroiled with research for my next book, *Fingerprints of the Gods*, (eventually published in 1995) and half considering a trip to India anyway. By then I was married to Santha, who is of Tamil origin (although she was born and brought up in Malaysia), and she too was keen on the idea. But it was the synchronicity and obvious potential relevance of the letter from Canada that focused our minds. We agreed that we would go if the Dwarka story checked out.

First I confirmed that there are indeed scriptural references to antediluvian Dwarka in ancient Indian texts. There are many. They speak very clearly of Dwarka's foundation in a bygone age by the god Krishna in human form and of its submergence soon after Krishna's death.

Next I looked to see if Dwarka, which the texts clearly locate in north-western India, had any counterpart on land in historical antiquity. I found that not only did it have such a counterpart but that there is still, today, a sacred city called Dwarka, which is one of India's major sites of pilgrimage. It is located just where it should be, in the state of Gujerat on the north-western corner of the Kathiawar peninsula overlooking the Arabian Sea. And as my informant had correctly indicated, Indian marine archaeologists (led by S. R. Rao) had been diving about a kilometre off-shore and had discovered a very large submerged site. Although no datable artefacts had been found, the ruins had been assigned to the 'late period' of the Indus-Sarasvati civilization, perhaps as late as 1700 to 1500 BC.

Santha and I didn't dive in those days but it still seemed worth going to Dwarka just to get the flavour of the place

and see if we could learn anything. So we began to plan a journey of about five weeks for November and December of 1992. We would go to Pakistan first to visit the world-famous Indus valley cities of Mohenjodaro and Harappa – cities that had traded with Sumer, cities as old as the Great Pyramid of Egypt. Then we would fly north to Nepal to visit Shanti and Ravi, Santha's two children from her first marriage, who were attending the American School in Kathmandu. From Nepal we would travel to Delhi, the Indian federal capital, and then east to the state of Orissa to the sacred solar temples of Puri and Konarak on the Bay of Bengal. The next stop would be Tamil Nadu, so that we could visit Vellore, my childhood home, and explore Santha's connections with southern India. From there we would fly to Gujerat and spend a week in Dwarka.

Well it didn't quite work out that way. The best-laid plans

in India almost never do. Riots and demonic hate-killings between Hindus and Muslims had led to a partial imposition of martial law. At the same time, for entirely unrelated reasons, the main domestic carrier, Indian Airlines, had gone on strike and was stranding passengers all over the subcontinent.

So although we did in the end reach Dwarka on that trip it was not by air but by road.

The flooding of Dwarka and the descent of the Kali Age

Indian thought has traditionally regarded history and prehistory in cyclical rather than linear terms. In the West time is an arrow – we are born, we live, we die. But in India we die only to be reborn. Indeed, it is a deeply rooted idea in Indian spiritual traditions that the earth itself and all living

creatures upon it are locked into an immense cosmic cycle of birth, growth, fruition, death, rebirth and renewal. Even temples are reborn after they grow too old to be used safely – through the simple expedient of reconstruction on the same site.

Within this pattern of spiralling cycles, where everything that goes around comes around, India conceives of four great epochs or 'world ages' of varying but enormous lengths: the Krita Yuga, the Treta Yuga, the Davapara Yuga and the Kali Yuga. At the end of each *yuga* a cataclysm, known as *pralaya*, engulfs the globe in fire or flood. Then from the ruins of the former age, like the Phoenix emerging from the ashes, the new age begins.

And so it goes on – birth, growth, fruition, death, rebirth – endlessly across time. At the end of each cycle of four ages there is a super-cataclysm and then a new cycle of *yugas*

begins.

Each cycle and each *yuga* within a cycle is believed in India to possess its own special character: the Krita Yuga is a golden age ‘in which righteousness abounds’. The Treta Yuga that follows sees a decline and ‘virtue falls short’. In the Davapara Yuga ‘lying and quarrelling expand, mind lessens, truth declines’. In the Kali Yuga ‘men turn to wickedness and value what is degraded, decay flourishes and the human race approaches annihilation’.

The story of Dwarka is tightly intertwined with this scheme of things. Reported in the ancient Indian epic known as the *Mahabaratha* (thought to have been composed a few hundred years after the *Rig Veda)* and in later sacred texts such as the *Bhagvata Purana* and the *Vishnu Purana*, it straddles two of the great world ages.

Towards the end of the most recent Davapara Yuga, the texts tell us, Dwarka was a fabulous city founded on the north-west coast of India. Established and ruled over by Krishna (a human avatar of the god Vishnu), it was built on the site of an even earlier sacred city, Kususthali, on land that had been reclaimed from the sea: 'Krishna solicited a space of twelve furlongs from the ocean, and there he built the city of Dwarka, defended by high ramparts.'[33] The gardens and the amenities of the city are praised, and we understand that it was a place of ritual and splendour.

Years later, however, as the Davapara Yuga comes to an end, Krishna is killed. The *Vishnu Purana* reports: 'On the same day that Krishna departed from the earth the powerful dark-bodied Kali Age descended. The ocean rose and submerged the whole of Dwarka.'[34] The Age of Kali thus

ushered in turns out to be none other than the present epoch of the earth – our own. According to the Hindu sages it began just over 5000 years ago at a date in the Indian calendar corresponding to 3102 BC.[35] It is an age, warns the *Bhagvata Purana*, in which 'people will be greedy, take to wicked behaviour, will be merciless, indulge in hostilities without any cause, unfortunate, extremely covetous for wealth and wordly desires …'[36]

5 / Pilgrimage to India

Mahabalipuram became soon celebrated beyond all the cities of the earth; and an account of its magnificence having been brought to the gods assembled at the court of Indra, their jealousy was so much excited at it that they sent orders to the God of the Sea to let loose his billows and overflow a place which impiously pretended to vie in splendour with their celestial mansions. This command he obeyed, and the city was at once overflowed by that furious element, nor has it ever since been able to rear its head.

William Chambers, *The Asiatic Researches*, vol. 1, 1788

On the same day that Krishna departed from the earth the powerful dark-bodied Kali Age descended. The ocean rose and submerged the whole of Dwarka.

Vishnu Purana

It is a curious thing that if one wishes to select a date that truly does seem to mark the beginning of some kind of ‘new age’ in the Indian subcontinent, then it would have to be around about 3100 BC – the epoch traditionally signalled as the beginning of the Kali Yuga. It was at this time, at any rate, along the river valleys extending down from the Karakoram and Himalayan mountain ranges, that the largest urban civilization of antiquity began to stir. As we have seen it would later be called the Indus Valley civilization, or the Indus-Sarasvati civilization.

At its peak around 2500 BC this mysterious prehistoric culture boasted at least six large inland cities – others may yet await discovery – with populations in excess of 30,000. These urban hubs were linked to hundreds of smaller towns and villages and to several key ports like Lothal and Dholavira at strategic locations along its coastline and up its

navigable rivers. Its borders enclosed an area larger than western Europe – 1.5 million square kilometres, extending from Iran in the west and Turkmenia and Kashmir in the north to the Godavari valley in the south and beyond Delhi in the east.[1] It also had outposts overseas, including a once thriving colony in the Persian Gulf, and it had an extensive trading network supported by a large merchant navy.[2]

In November 1992, when Santha and I boarded the PIA flight from London to Karachi, I had heard enough about the 'Indus Valley civilization' (the only name by which I knew it then) to be intrigued by it, but was ignorant about the details. Like most people who know of it at all I identified it only with the first two sites to be excavated – Harappa and Mohenjodaro – which had attracted worldwide headlines and won everlasting renown when they were discovered in the

1920s.

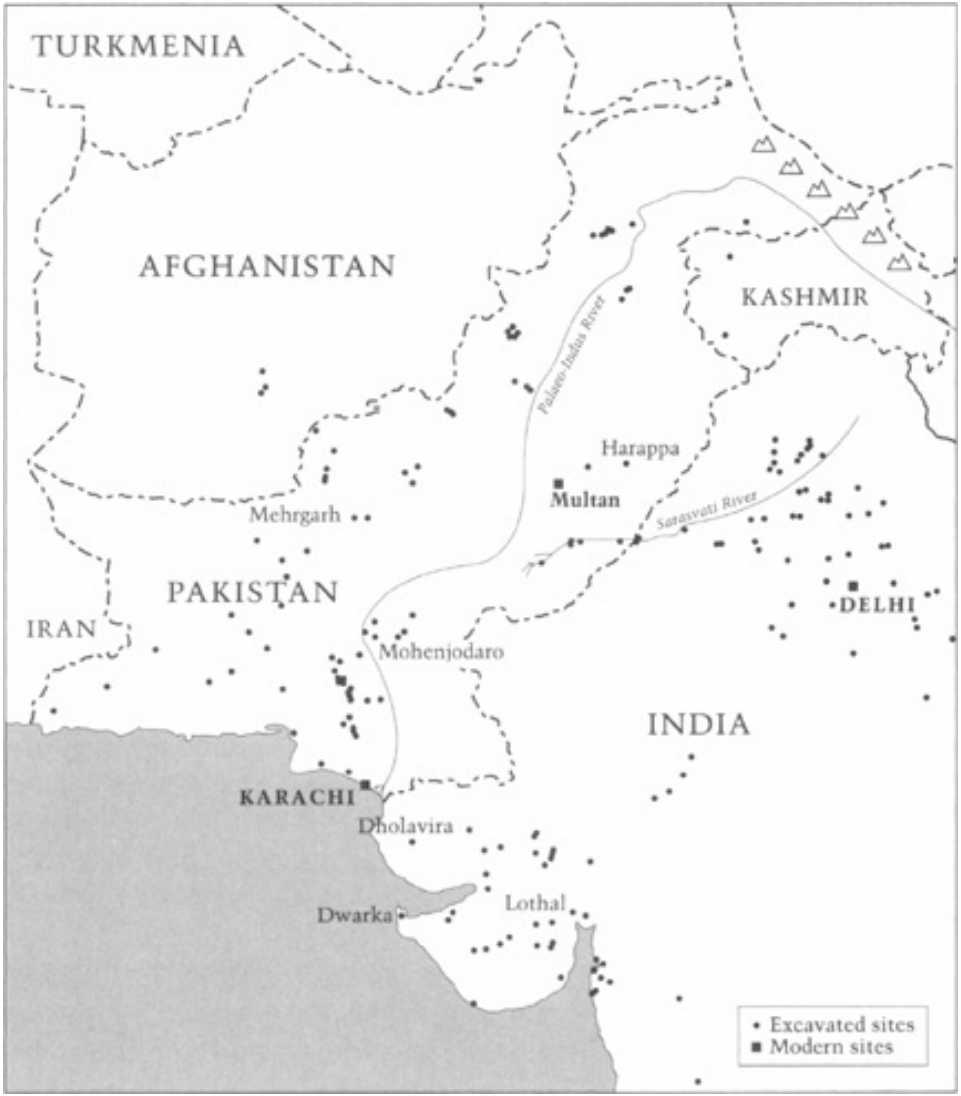
TURKMENIA
AFGHANISTAN
KASHMIR
Paleo-Indus River
Harappa
Multan
Sarasvati River
Mehrgarh
PAKISTAN
DELHI
IRAN
Mohenjodaro
INDIA
KARACHI
Dholavira
Lothal
Dwarka
Excavated sites
Modern sites

Based on Possehl (1999).

After spending a day sleeping off jet-lag in a seedy hotel in Karachi we flew north to the city of Multan, itself the shrine of a famous Islamic saint. There we found an English-speaking taxi-driver who was willing to drive us first north to Harappa, then south to Mohenjodaro, and finally to drop us off in Karachi-a total journey of about 1000 kilometres.

HIMACHAL PRADESH
PAKISTAN
PUNJAB
HARYANA
UTTAR PRADESH
Sukkur
Indus
RAJASTHAN
Hyderabad
GUJERAT

Mohenjodaro

I'll pick up a bit of the story from my 1992 notebook, skipping over Harappa since, honestly, Mohenjodaro can stand for both places. At the point where the entry begins we've been on the road for most of the day and are just entering the province of Sind:

> Monday 16 November 1992
>
> Cross from Punjab into Sind quite late – 9.30 or 10 p.m. Checkpoints fairly thorough. Atmosphere of increased security in Sind. Finally arrive in Sukkur, crossing the Sukkur Barrage, around 10.50 p.m. and check into hotel in some dusty suburb around 11.50 p.m.
>
> Hotel receptionist, who also cooks us dinner around midnight, inquires what time we will be leaving in the morning. I ask why he wants to know. He says because there is a big security problem in Sind – *dacoits* (bandits). Recently one Japanese and one Taiwanese traveller were kidnapped on the

road with a total ransom required of six million rupees – their families paid half; Pakistan government paid half. Foreigners very much in demand by kidnappers as all are believed to be enormously rich.

It turns out we must have an escort to drive between Sukkur and Hyderabad via Mohenjodaro. Mohenjodaro itself, in Larkana district, is 'very dangerous' apparently.

It also turns out that a police guard will be required at the hotel all night, because we are there, to prevent us from being snatched from the room!

Leave hotel at 9 a.m. next morning accompanied by four armed police escorts in the back of a Toyota pick-up. They have an array of weapons – one G3, one AK47 and two much older carbines.

We follow and discover that we are part of a well-coordinated escort operation that will see us 'passed', like the baton in a relay race, from police vehicle to police vehicle – a total of fourteen in all between Sukkur and Hyderabad. Often the escort cars drive very fast, headlights flashing,

sirens sounding, pushing through traffic with us behind. In general we are treated like VIPs and the police coordination is impressive with the next vehicle already pulling out ahead of us as the previous vehicle pulls in at the end of its jurisdiction. They're all in touch with each other by radio and the whole province of Sind, it seems, is under martial law, controlled by the army, with the police subordinate to the army.

We arrive at Mohenjodaro around 11.30 complete with our police escort – at this point four guards in a lorry with two up front. En route we have broken down once and spent an hour at the side of the road with the four armed policemen standing in a cordon around us, presumably to prevent us from being snatched by the twenty or so Sindhi villagers who milled curiously and unthreateningly around us in their little Sindhi hats.

At any rate, we go straight into the site, still closely followed and guarded by our armed escorts, who politely refuse to leave us alone, even for a second, advising that there would be a real risk of our being snatched if they did. We therefore progress through the dusty ruins with an

entourage of armed men. It all feels slightly surreal and peculiar.

Because the Harappan culture only very rarely decorated the bricks used in the construction of its massive buildings, Sir Mortimer Wheeler *[The Indus Civilization*, 3rd edition, 1968] describes the vast remnants of Mohenjodaro as 'impressive quantitatively and significant sociologically' but 'aesthetically miles of monotony'.[3] Surveying the very extensive brick ruins through the heat-haze of midday, I found little to disagree with in Wheeler's words. There is a certain monotony and sameness about the acres of red brick under the red dust that lies everywhere. At the same time, paradoxically, this strange place manages to be overwhelming: dense, solid, truly impenetrable.

We approach the main area of ruins up some steep steps and around the western edge of the eroded Buddhist stupa built here 2000 years ago [long after the Indus-Sarasvati civilization had ceased to exist]. From here there is a view down in a westerly direction over the structure that the archaeologists call the 'Great Bath' and Mohenjodaro's geometry of neat

orderly streets organized into a strict north-south/east-west grid with rows of brick houses and covered drains. Beyond the Bath, again towards the west, what's left of the 'Granary'. And beyond that the old course of the Indus.

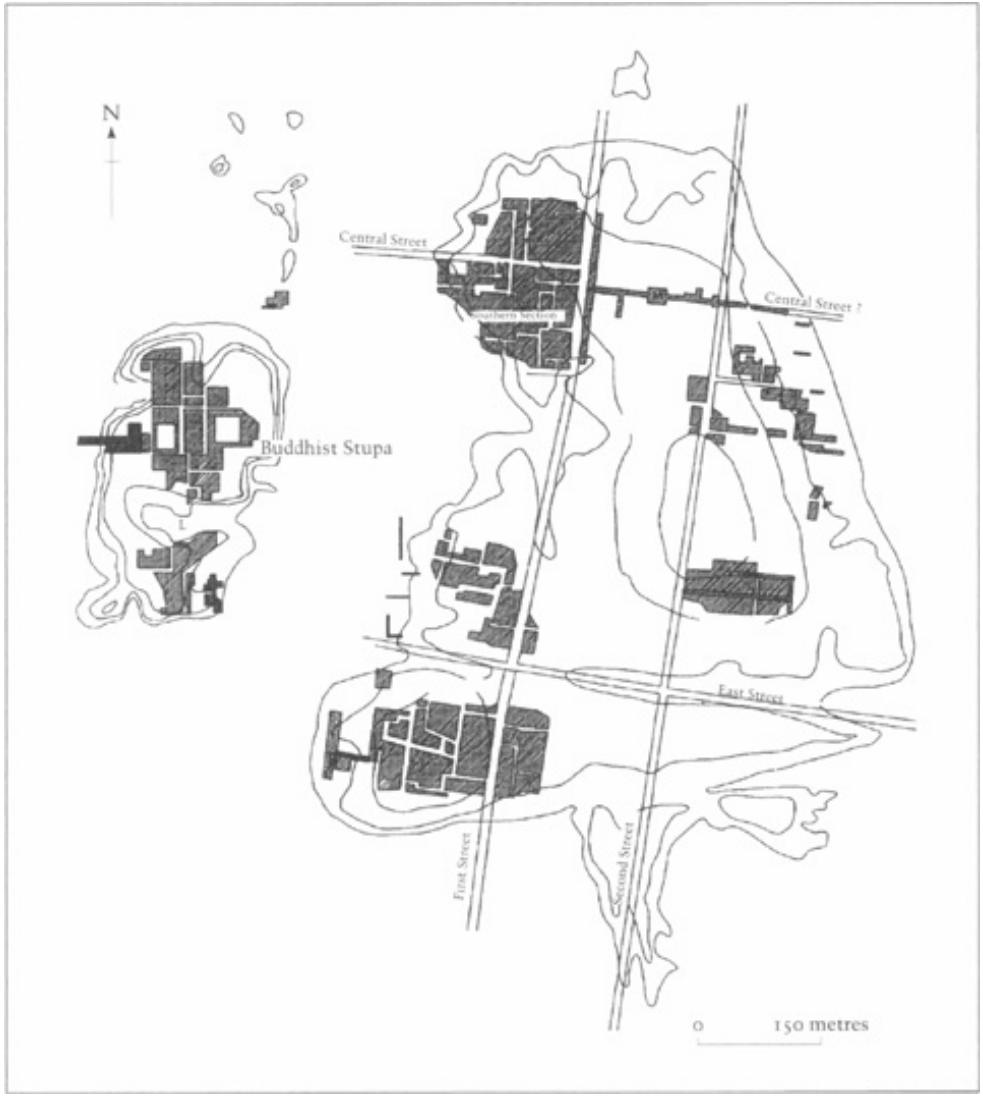
N
Central Street
Southern Section
Central Street ?
Buddhist Stupa
East Street
First Street
Second Street
0
150 metres

City plan of Mohenjodaro. Based on Possehl (1999).

The Great Bath – presumed to have been for ritual bathing and purification – looks exactly like a medium-sized rectangular swimming pool and measures 11.89 metres in length (north to south) and 7.01 metres wide (east to west), the depth being 2.44 metres.[4] The close-jointed brickwork and the use of bitumen damp-courses and gypsum mortar to waterproof it all bespeak a high culture with much experience of architecture – experience that could not have evolved overnight … Particularly impressive is the drainage system, whereby water was released from the Great Bath, passing through a deep channel covered by a high brick corbel vault.

Moving on from the Great Bath area we then walked half a mile or so to the east of the stupa to the 'DK' residential area of probably wealthy or noble families. It's called DK after its unfortunately named excavator, a

certain D. K. Dikshitar, who worked here in the 1920s.

DK would have been an imposing residential suburb. Many of its buildings had two, sometimes even three, storeys and some walls still stand up to four metres high. Evidence that wooden beams, long since rotted away, once supported floorboards and ceilings. Also evidence of municipal street-lighting (lanterns in wall-sockets – one such lantern in museum) and municipal refuse collection – with public rubbish-bin enclosures. Even more impressive is the obvious concern with sanitation evidenced by the miles of covered drains and by the fact that many of the houses had private toilets, somewhat of the modern Western type, which vented down carefully made angled brick slipways into the sewers or into refuse pots that stood outside in the street under the vents and that are thought to have been cleared away at regular intervals by municipal sewage squads. Inside the main sewage drains themselves, spaced at regular intervals and again regularly cleaned out, were rectangular sump-pits that trapped solid waste while allowing liquid waste to flow away.

> These people, in short, knew a great deal about urban life and urban architecture. And that knowledge, I'm sure, was already old and evolved, handed down, a legacy, when they first began to build Mohenjodaro …

Science

At its peak in the mid-third millennium BC the total inhabited area of Mohenjodaro exceeded 250 hectares and it is possible that its population may have risen as high as 150,000.[5] By then it was part of a vast network of other cities, towns and villages within the Indus-Sarasvati civilization, the majority of them built out of baked mud bricks produced from moulds with standard proportions. One size of brick (measuring 7 × 14 × 28 centimetres) was used in house construction, and a different size (10 × 20 × 40 centimetres) was used in the building of city walls. But both sizes of brick have identical

proportions: thickness = 1, width = 2 × 1, length = 4 × 1.[6]

Like Mohenjodaro, some of the other Indus-Sarasvati settlements (though by no means all) were laid out according to a strict grid with the major thoroughfares and buildings accurately aligned to the cardinal directions – north-south and east-west. This suggests a high degree of planning and deliberation – after all, in most cultures settlements grow up haphazardly, a bit at a time, but apparently that didn't happen here: in the case of many Indus-Sarasvati sites the template was set out right at the beginning. Moreover, the precision of the alignments of major structures leaves little doubt that the planners employed the services of astronomers in their architectural teams. Several scholars have reasonably deduced that astronomy may have been a highly regarded science in the Indus-Sarasvati cities and was perhaps linked to whatever religion was practised there.[7]

It has also been noted that weights and measures found at Mohenjodaro, Harappa and many other widely separated Indus-Sarasvati sites are not only extremely accurate and consistent but demonstrate a high level of mathematical development. The weights appear to have been designed according to a binary scale: 1, 2, 4, 8, 16, 32, etc., up to 12,800 units (with one unit being equivalent to 0.85 grams).[8] Measures, on the other hand, made use of a decimal system: 'In Mohenjodaro a scale was found that is divided into precise units of 0.264 inches. The "foot" measured 13.2 inches (equalling 50 × 0.264).'[9] Likewise in the Indus-Sarasvati port of Lothal, S. R. Rao excavated a scale with tiny divisions of just over 1.7 mm:

> Ten such divisions … (are equal to … 17.78 mm. The width of the wall of Lothal dock is 1.78 metres, which is a multiple of the smallest division of

> the Lothal scale marked in decimal ratio. The length of the east-west wall of the dock is 20 times its width. Obviously the Harappan engineers followed the decimal division of measurement …[10]

In Rao's opinion the material remains of the Indus-Sarasvati civilization-whether in terms of the alignments of its city blocks, the design and civil engineering of its efficient public sewerage systems, or the use of standardized weights and measures in precise mathematical relationships – provide ample proof of 'the scientific approach of the Harappans'.[11] In some cases this approach was so scientific that 'even today', as Jonathan Kennoyer admits,

> many aspects of Indus technology are not fully understood as scholars attempt to replicate stoneware ceramics from ordinary terracotta clay and to reproduce bronze that was as hard as steel.[12]

‘Almost everything that was ever written about this civilization before five years ago is wrong …’

It is inconceivable that a civilization as developed and well organized as the one that boomed 4500 years ago along the banks of the Indus and Sarasvati rivers in northern India and Pakistan could have simply appeared from nowhere, fully formed, with all its principal accomplishments already in place. Common sense suggests that there must have been a very long developmental phase – somewhere – before such a civilization could have reached maturity. Yet for most of the twentieth century the archaeological record refused to reveal evidence of a sufficiently long period of development anywhere in the subcontinent.

The result was a vacuum in which European scholars felt free to conclude that the Indus Valley civilization might, in

its origins, have been alien to India. Many seem to have been attracted to this convenient explanation of the advanced state of Indus-Sarasvati culture. For example, as S. P. Gupta points out, not only did Sir Mortimer Wheeler teach that Mohenjodaro and Harappa had been destroyed by invading Aryans; also he never quite brought himself to accept that cities as advanced as these could originally have been the creation of India herself and argued that at least 'the "idea" of "city" as a way of life' must have come to India 'from Mesopotamia'.[13] He even tells us, Gupta notes with annoyance,

> that at least some Mesopotamian masons must have been working in Mohenjodaro directing the method of construction involved in brick masonry. All this simply means that at the operational level not only the 'idea' but also the 'men' came from Mesopotamia to India to give the latter

her first cities.[14]

When Wheeler died in 1976 his theory of the Mesopotamian origin of the Indus Valley civilization died with him. But the reason it did so had less to do with his passing than with the start of excavations in 1974 by the French archaeologist Jean-François Jarrige at a previously unexplored site named Mehrgarh overlooking the western edge of the Indus valley from the rugged Bolan pass.

What Jarrige and his team have unearthed since then is the archaeological equivalent of the Holy Grail – an intact sequence of occupation layers at Mehrgarh extending uninterrupted from approximately 6800 BC, 4000 years before the urban boom at Harappa and Mohenjodaro, until the decline of these cities in the second millennium BC.[15] The excavations are still actively underway and the pace of

analysis at Mehrgarh, and other nearby sites such as Nausharo that are equally ancient, has quickened since the mid-1990s with results that have a dramatic bearing on the origins of the Indus-Sarasvati civilization. Indeed, these results are so dramatic that when we spoke with Gregory Possehl by telephone in October 2000 he had this to say: 'You want to know something? I'm teaching a class and I told them that almost everything that was ever written about this civilization before five years ago is wrong.'[16]

In chapter 8 we will return to the mystery of Mehrgarh, but in 1992, when Santha and I visited Harappa and Mohenjodaro, I was ignorant of the place and knew nothing of its extraordinary implications.

From the Himalayas to the sea

After leaving Pakistan on 19 November 1992 we travelled first to Nepal, where the bookshops in the narrow streets of Kathmandu's cosmopolitan Thamel market are stocked with interesting and unusual reference works on ancient Indian religious thought – including many of the hard-to-find primary texts. At Pilgrims Bookshop I was able to buy the entire unabridged six-volume set of Ralph Griffith's 1881 translations of the *Rig Veda*, the *Atharva Veda*, the *Yajur Veda* and the *Sama Veda*. But, because at that point I had no reason to disagree with the 1200–800 BC time-span that scholars assigned to the *Vedas*, I again and again postponed studying these huge, daunting books over the next several years and gave my attention instead to texts from Sumer and Old Kingdom Egypt, which I supposed to be much more ancient.

I was about to learn in due course that a new generation of

scholars both from within and beyond India are beginning to be convinced that the opposite may be true and that the Vedic hymns could be, by a margin of several thousand years, the most ancient surviving scriptures on earth. In 1992, however, this was just another one of the many possibilities about India's mysterious past that I was ignorant of.

From Nepal we flew on to northern and eastern India – Delhi, Khajuraho, Puri, Konarak – and then south to Tamil Nadu:

Sunday 6 December 1992

Arrive Madras around 10 a.m. – with a migraine. Dr Ramni Pulimood, who worked with my father in the 50s at the Christian Medical College, has sent a taxi to pick us up. We motor the 150 kms to Vellore, passing the spot where Rajiv Gandhi was assassinated. There is a small memorial to him

which we visit.

I'm in a coma with my migraine for most of the journey, but rouse myself when we are about 50 kms outside Vellore. Is the countryside familiar? I don't know really. Don't seem to recognize anything. Then we cross a bridge over a very wide dried-out river bed – and I'm sure I remember that from my dreams of childhood, just as I'm sure I remember a dried-out river bed suddenly filled to overflowing with the roiling, rearing waters of a flash flood. And I remember, too, palm trees bent double in the monsoons, the warm splash of fat drops of rain on my bare back, red spider-mites teeming across the earth, and the smell of distant thunder.

We reach Vellore – a medium-sized, dirty, bustling south Indian town full of garish modern signs and vegetarian restaurants. I still remember very little, even when we pull up for a moment right outside the CMC Hospital.

Then we drive through the town and out again towards the CMC compound. I do seem to remember an old school that we pass. Finally I see

to my left College Hill rising greenly to a rocky summit and, far away to my right, Toad Hill – so named after the toad-shaped boulder that squats on its peak. I *do* remember both of these landmarks quite vividly, and remember climbing them as a child with my dad and our dog Trixie, but the college buildings into which we now pull ring no immediate bells. I realize later that this is so because they now stand to either side of a busy main road. In the 50s there was no road like this.

We go to 'the big bungalow' and meet Ramni Pulimood, who accommodates us there as previously agreed. Inside, I remember the ancient green cloth blinds which were also standard fitments in the Men's Hostel where we lived and in which I once found a trapped bat.

Half an hour later Ramni and her son drive us out to the Protestant cemetery, where we hope to find my sister Susan's grave. Santha brings flowers, but despite pacing up and down in the peaceful late-afternoon sun we find nothing. We ask the caretakers to check the records, but they too fail to find the grave.

1. *On the waterfront, Alexandria. The author (right) and Ashraf Bechai (second right) discussing locations of underwater sites with fishermen.*

2. *Megalithic blocks of Sidi Gaber, Alexandria – a site unrecognized by*

orthodox archaeologists.

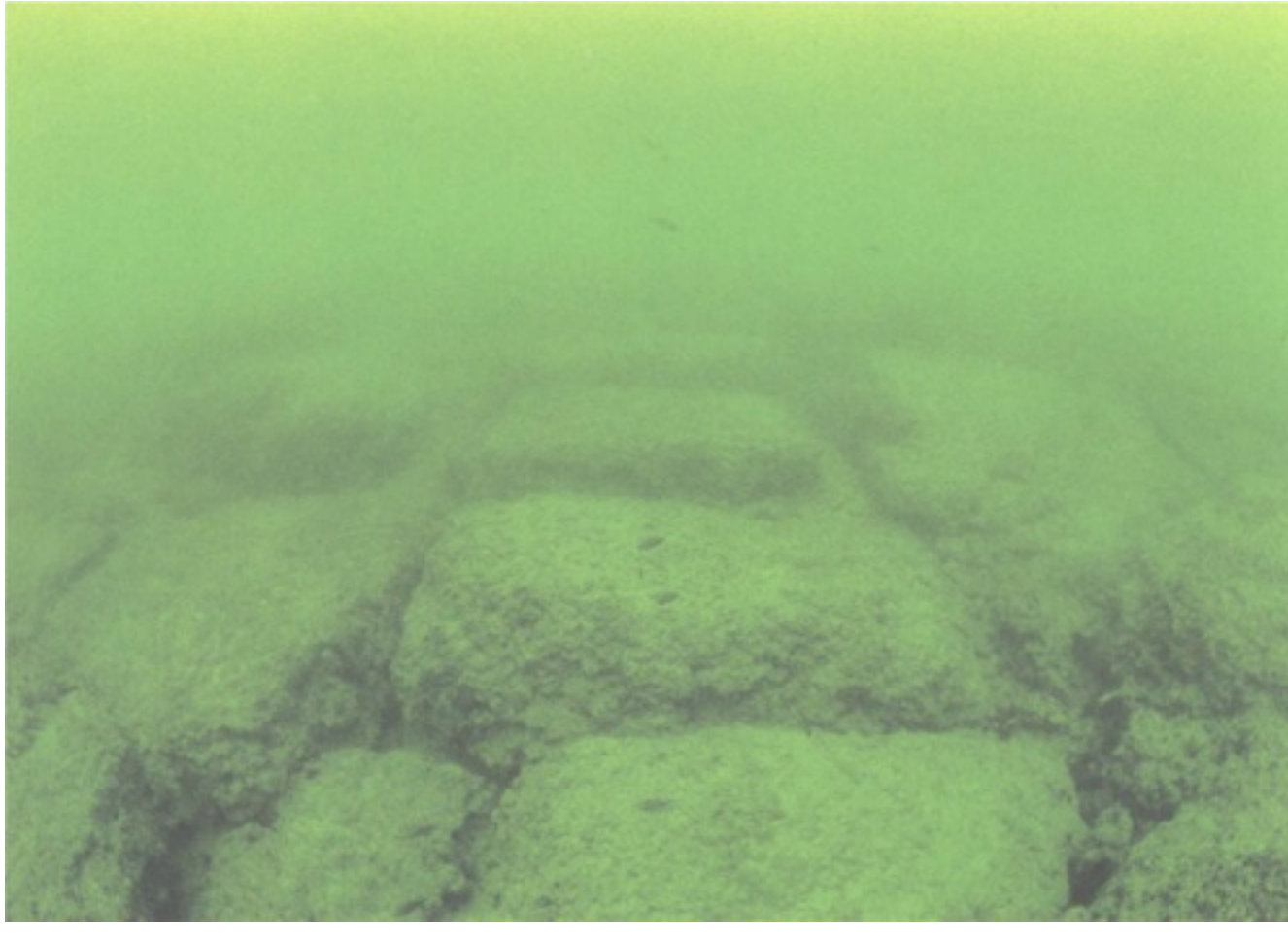

3. *Megalithic blocks of Sidi Gaber, Alexandria.*

4. *The ‘Great Bath’, Mohenjodaro.*

5. *Brick foundations, Mohenjodaro.*

6. *Street with intact drainage, Mohenjodaro.*

7. *Exposed well-shaft, Mohenjodaro.*

8. *The fairytale city of Dwarka.*

ટોટલ ક્વૉલિટી
સંપૂર્ણ વિશ્વાસ

9. *Sadhu reading the* Vedas, *Dwarka.*

10. *The Dwarkadish temple, dedicated to Lord Krishna, Dwarka.*

11. *Vedic school, south India.*

12. *An Indian ascetic seeking spiritual enlightenment through detachment from the material world.*

13. *Image from 'the penance of Arjuna', Mahabalipuram: ascetic performing austerities.*

That evening Santha and I climb College Hill, beautiful as the sun goes down with commanding views over a green, half-remembered landscape.

Monday 7 December 1992

Things are coming back a bit more to me now. We visit the CMC Hospital in the morning. Then take a rickshaw to Vellore Fort and then back to the CMC compound via the Protestant cemetery once again. Still we can't find the grave. It's strange to reflect that my sister lies buried and forgotten

somewhere here. I dreamed of her a few nights ago, dreamed that she spoke to me. I would like to have known her and-really for the first time – am acutely aware of a missing presence in my life. It's all years ago now, and far away, but I do miss you, Susan. I wish I could just pick up the phone and call you sometimes. Instead I'm an only child, wandering in a graveyard, feeling sorry for myself.

Santha and I complete our visit to Vellore by exploring the CMC compound. I remember the lily-pond – still there – with its frogs. And I do remember the great old tamarind tree and the general outline of the two wings of the Men's Hostel.

Finally we climb up College Hill again for a last look around and then set off on the four-hour drive to Madras on the coast of the Bay of Bengal.

The mystery of the Seven Pagodas

The next day our target was Mahabalipuram, 50 kilometres

south of Madras, where I planned to indulge some more childhood memories – this time of a rock-hewn temple standing by the sea. As in Vellore, I didn't really feel that I was there to do research, more on a journey of personal reminiscence. Since the temples were thought to be less than 1500 years old, and had been made on the orders of known historical kings, I had no reason to expect they might be relevant to my primary interest in the possibility of a lost civilization of the last Ice Age more than 12,000 years ago.

Perhaps it was because I went to Mahabalipuram in this frame of mind in 1992 that it gave me back exactly what I expected – i.e. nothing of interest. And yet all along, as I was to discover much later, there was something that I needed to know there. It was hidden away in an anthology of travellers' journals and reports edited by a certain Captain M. W. Carr in 1869 under the title *Descriptive and Historical Papers*

Relating to the Seven Pagodas of the Coromandel Coast.[17] I found the anthology in a second-hand bookshop in Madras after visiting Mahabalipuram in 1992 but did not read it until the year 2000. It was then I discovered for the first time that 'Seven Pagodas' is the old mariners' name for Mahabalipuram – and that the Coromandel coast is the coast of the Bay of Bengal from Point Calimere in the south to the mouth of the Krishna river in the north.

In one paper J. Goldingham, Esq., writing in 1798, spoke of the part of Mahabalipuram that I remembered best from my childhood – the 'Shore Temple', carved out of solid granite, lashed by waves:

> The surf here breaks far out over, as the Brahmins inform you, the ruins of a city which was incredibly large and magnificent … A Brahmin, about 50 years of age, a native of the place, whom I have had an opportunity of

> conversing with since my arrival in Madras, informed me his grandfather had frequently mentioned having seen the gilt tops of five pagodas in the surf, no longer visible.[18]

An earlier traveller's report, from 1784, describes the main feature of Mahabalipuram as a 'rock, or rather hill of stone', out of which many of the monuments are carved. This outcropping, he says:

> is one of the principal marks for mariners as they approach the coast and to them the place is known by the name of 'Seven Pagodas', possibly because the summits of the rock have presented them with that idea as they passed: but it must be confessed that no aspect which the hill assumes seems at all to authorize this notion; and there are circumstances that would lead one to suspect that this name has arisen from some such number of Pagodas that formerly stood here and in time have been buried in the waves …[19]

The same author, William Chambers, then goes on to relate the more detailed oral tradition of Mahabalipuram – given to him by Brahmins of the town during visits that he made there in 1772 and 1776[20] – that prompted his suspicion of submerged structures.

According to this tradition, which is supported by certain passages in ancient Hindu scriptures,[21] the god Vishnu had deposed a corrupt and wicked Raja of these parts at some unknown date in the remote past and had replaced him on the throne with the gentle Prahlada, whose reign 'was a mild and virtuous one'.[22] Prahlada was succeeded by his son and then by his grandson Bali, said to have been the founder of the once magnificent city of Mahabalipuram (which, translated literally, means 'the city of the great Bali' or more likely 'the city of the giant Bali').[23] Bali's dynasty continued

with his son Banasura – also portrayed as a giant[24] but during his reign disaster struck:

> Aniruddha, the [grand]son of Krishna, came to his [Banasura's] court in disguise and seduced his daughter, which produced a war in the course of which Aniruddha was taken prisoner and brought to Mahabalipuram; upon which Krishna came in person from his capital Dwarka and laid siege to the place.[25]

Although the god Siva himself fought on the side of Banasura, they could not prevail. Krishna found a way to overthrow Siva, captured the city and forced Banasura into submission and lifelong fealty.[26]

An interval followed, after which another Raja – whose name was Malecheren – took the throne at Mahabalipuram. He encountered a being from the heavenly realms who

became his friend and agreed ‘to carry him in disguise to see the court of the divine Indra’ – a favour that had never before been granted to any mortal:[27]

> The Raja returned from thence with new ideas of splendour and magnificence, which he immediately adopted in regulating his court and his retinue, and in beautifying his seat of government. By this means Mahabalipuram became soon celebrated beyond all the cities of the earth; and an account of its magnificence having been brought to the gods assembled at the court of Indra, their jealousy was so much excited at it that they sent orders to the God of the Sea to let loose his billows and overflow a place which impiously pretended to vie in splendour with their celestial mansions. This command he obeyed, and the city was at once overflowed by that furious element, nor has it ever since been able to rear its head.[28]

There are puzzles about this myth.

First, it was collected, written down and published in the eighteenth century. This was long before any of the ancient inscriptions of Mesopotamia could be read, yet the story of Mahabalipuram bears some striking resemblances to the flood myths of Mesopotamia. In the original Sumerian flood text cited in chapter 2, and in all later variants of it – including the Babylonian versions, the Old Testament account of the flood of Noah and, for that matter, Plato's (supposedly unrelated) story of Atlantis[29] – the gods are angry with or jealous of mankind, exactly as they are said to have been in the Mahabalipuram myth. In all the other myths (with the exception of the Noah story) the gods meet in assembly – again as they are said to have done at Mahabalipuram – before resolving to destroy upstart mankind by sending a flood. And in all the other myths cities and cult centres are submerged by the flood:

Sumer: ‘All the windstorms, exceedingly powerful, attacked as one; at the same time the flood swept over the cult centres.’

Mahabalipuram: ‘The God of the Sea … let loose his billows and … the city was at once overflowed by that furious element …’

It is also obvious that there are resonances between the Mahabalipuram flood tradition from south-eastern India and the Dwarka flood tradition from the north-west. It is not just that Dwarka is specifically mentioned in the Mahabalipuram story (somewhat surprising in itself) but also that Mahabalipuram and Dwarka, like lost Atlantis and the five antediluvian cities of Sumer, all suffer the same fate – which is to be swallowed up by the sea.

In the case of Dwarka there is also another matter to consider – the end of the former age of the earth and the dawn of the Kali Yuga.

Travels in the Kali Yuga

Our journey from Mahabalipuram to Dwarka in December 1992 was fraught with reminders that we live in the Kali Yuga today – an age of spiritual darkness that the Vedic sages always knew would be filled with the worst kinds of human cruelty and evil. On 6 December 1992 Hindu *kar savaks* (volunteers) violently attacked and pulled down the mosque at Ayodhya in Uttar Pradesh intent on building a new temple for Ram (Rama, another incarnation of Vishnu), whose birthplace is believed to have been on the site of the mosque. This act of 'reclamation' sparked off a wave of violence and mass murder between Hindus and Muslims throughout India which reached a peak in the city of Surat on the Gulf of Cambay in south-western Gujerat. There whole families were roasted alive on fires made up of heaps of their own

possessions and in one grisly incident a woman was subjected to multiple rape by a crowd of frenzied males, then burned, and finally beheaded with a sword.

With martial law declared in most cities and go-slows and strikes being staged by Indian Airlines, it took us two days to fly via Madras and Trivandrum to Bombay. From there we arranged to travel the remaining 1000 kilometres or so to Dwarka by road and hired a Maruti van (a motorized roller-skate) and a stalwart Gujerati driver named Vinhod to get us there.

Saturday 12 December 1992

Set off north from Bombay in our little Maruti van. The country towards Gujerat is surprisingly lush, jungly and hilly. The roads are completely crazy and this is an interminable day of driving. It becomes clear that we cannot reach Dwarka in less than two full days like this, and that we may

require three – so we set our sights for the first night on Lothal, the Indus-Sarasvati port of the third millennium BC that lies in central Gujerat near the northern end of the Gulf of Cambay. Unfortunately, Vinhod and most people along the way don't seem to know where or what Lothal is and the maps we have are not clear. But part by luck, part by trial and error, we arrive at a truck stop called Pakota late, late at night which turns out to be just 18 kms from Lothal. One of the truckers directs us to a rundown hotel.

Lothal and the ships from Meluha

Lothal turned out to be a quiet sleepy mound in the midst of flat, productive countryside, but in the third millennium BC it was the greatest port of the Indus Valley civilization, connected to the sea by a tidal river channel that has long since dried up. Its dominant architectural feature still surviving today is its great trapezoidal dock.

A major problem with river ports in general is that they can quickly become choked by silt and useless. At Lothal a scientific solution was found to this problem 4500 years ago. First a huge artificial basin was cut into the ground on the eastern side of the town. Then a walled structure measuring 219 metres in length (north-south), 38 metres in width (east-west) and 4.15 metres high, was built into it. The walls were almost 1.78 metres thick at the base, narrowing to just over 1 metre thick at the top, and millions of the best quality kiln-fired bricks were used in their construction.[30] According to the report of S. R. Rao, Lothal's excavator, the inner faces of the dock walls are plumb and 'no steps or ramps are provided anywhere as the primary purpose was to see that the edge of the boat should touch the wall-top to facilitate easy landing and handling of cargo'.[31] At the same time 'three offsets were provided on the outer face of the western wall and two in the

case of other walls to resist the overturning movement due to water thrust'.[32]

The dock has a major inlet in its north wall, a second inlet at the southern end of its east wall and a spillway, fitted with an efficient water-locking device, in its south:[33]

> Ships entering the Gulf of Cambay had to be moored along the river quay on the western side of the town and sluiced into the basin at high tide through the first inlet (12 metres wide) provided in the northern arm. A spillway with 1.5 metre thick walls was built at right angles to the southern arm for escape of excess water at high tide. The water-locking device provided in the spillway ensured a minimum draught at low water [2 metres as against 3.5 metres at high water]. Easy manoeuvrability of large ships of 60 to 75 tons capacity and measuring 18 to 20 metres long was possible as they could enter from the shorter side and move along the longer side. The easy flow of water at high tide through the basin ensured

automatic desilting. The scouring effect of the tidal waters was arrested by constructing a buttress wall on either margin of the inlet, traces of which can be seen in the case of the northern inlet and more clearly in the second-stage inlet. When the river changed its course and started flowing 2 kms away from the town, a new inlet 2 metres deep, was dug to connect the river with the eastern arm of the dock, but large ships could not enter the basin after 2000 BC.[34]

Archaeologists and engineers are in little doubt that the design of the dock testifies to a long-accumulated experience within the Indus-Sarasvati civilization of the particular problems and challenges posed by such structures. According to N. K. Panikkar and T. M. Srinivasan:

The Lothal dock being purely a tidal one, the Lothal engineers must have possessed adequate knowledge of tidal effects, the amplitude, erosion and thrust. From this knowledge they developed competence at Lothal for

> receiving ships at high tide and ensuring flotation of ships inside the dock at low tide. This is perhaps the earliest example of knowledge of tidal phenomena being put to a highly practical purpose both in the selection of site having the highest tidal amplitude and in adopting a method of operation for entry and exit of ships.[35]

The builders of Lothal lived in the same epoch of early history as the builders of the wonderful Great Pyramid of Egypt and – though obviously on a smaller scale – the dock is a reminder that the peoples of the Indus-Sarasvati civilization possessed a scientific approach, design skills, and hands-on experience of construction problems comparable to those that were evident amongst the ancient Egyptians.

Moreover, it is thought likely that there were both direct and indirect contacts between the Nile and Indus valleys, and between Asia and Africa in general, going back to very

ancient times. In the on-site museum at Lothal we were able to see certain items excavated by Rao's team that are indicative of this. These include a terracotta figurine of a gorilla, a species that is found only in sub-Saharan Africa, and a second terracotta figure reminiscent of an Egyptian mummy.[36]

Finds in Egypt also suggest contact. Of special interest, because it dates back to the predynastic 'Gerzean' period (roughly 3500–3300 BC),[37] is a ripple-flaked flint-bladed knife with a beautifully carved ivory handle that was excavated at Gebel-el-Arak in Upper Egypt. In one of the reliefs that decorate the handle a bearded man in fine robes is depicted gripping two powerful male lions by the throat. According to the Egyptologist and art historian Cyril Aldred, this scene 'shows, subduing two lions, a hero who resembles the

Mesopotamian Gilgamesh, "Lord of the Beasts"'.[38] Aldred notes that 'this same unusual theme appears on a wall-painting in a Gerzean tomb at Hierakonopolis'[39] – which is indeed the case. He seems unaware, however, that, with minor variations, the scene also appears in the art of the Indus-Sarasvati civilization – for example, on ornate terracotta and steatite seals, excavated in many sites, and on a particularly striking moulded tablet from Harappa that Jonathan Mark Kennoyer describes as:

> a figure strangling two tigers with bare hands [which] may represent a female, as a pronounced breast can be seen in profile. Early discoveries of this motif on seals from Mohenjodaro definitely show a male figure, and most scholars have assumed some connection with the carved seals from Mesopotamia that illustrate episodes from the famous Gilgamesh epic. The Mesopotamian motifs show lions being strangled by a hero, whereas the

Indus narratives render tigers being strangled by a figure, sometimes clearly male, sometimes ambiguous or possibly female. This motif of a hero or heroine grappling with two wild animals could have been created independently for similar events that may have occurred in Mesopotamia as well as the Indus Valley.[40]

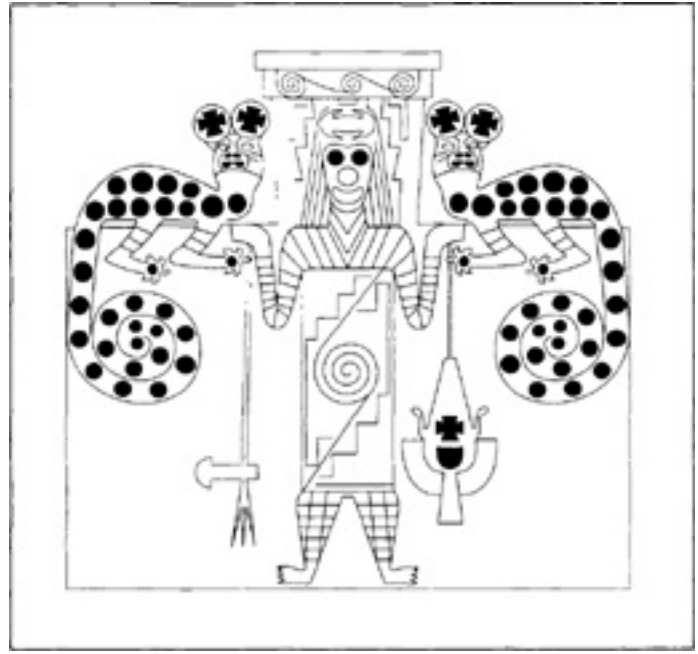

Gilgamesh-like figure between two felines from a bronze breastplate, Tiahuanaco.

Perhaps. But I wonder if Kennoyer's conclusion is not a little hasty, and whether it is strengthened or weakened by the fact that almost identical figures of a 'man between two felines' have also been found amongst the art of the prehistoric megalithic city of Tiahuanaco in South America.[41] Such similarities *may* depict similar events that occurred by coincidence in different places, but other explanations might also fruitfully be sought for why the same – 'unusual' – symbolic device is found in ancient Egypt, ancient Mesopotamia, the ancient Indus-Sarasvati civilization and ancient South America.

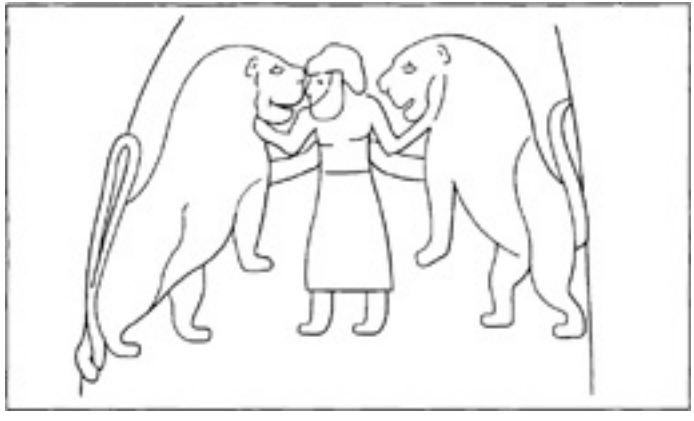

Gilgamesh-like figure between two felines from a Gerzean period knife, Egypt.

On the other side of the Gebel-el-Arak knife handle is a second scene that suggests contact between Indus-Sarasvati peoples, predynastic Egyptians and the ancient civilizations between the Tigris and the Euphrates rivers in Mesopotamia. In Aldred's description it shows a water battle in progress: 'In

the upper row, the boats have vertical prows and sterns rather like the *belems* of the Tigris, in the lower they have the normal appearance of Egyptian boats of Gerzean date.'[42] But the archaeologist Ernest J. H. Mackay, who carried out extensive excavations in both Egypt and the Indus valley during the first half of the twentieth century, noticed something else. Describing a representation of a boat carved on a seal that he found at Mohenjodaro, he commented:

> The bindings of its hull suggest that this boat was made of bundles of reeds, as were so many contemporary craft of ancient Egypt. It is mastless, which perhaps indicates that it is a river boat. The uprights at either end of the cabin carry flags or emblems and a seated steersman holds a pair of rudders, as on the modern Indus craft. This vessel, it is interesting to note, is singularly the one portrayed on the well known Gebel-el-Arak ivory knife handle.[43]

The specific comparison being made here is to the mastless boats with high prows and sterns, which Aldred separately likens to Tigris river craft, and while the similarities cannot be taken as conclusive evidence of contact amongst all three regions in prehistory they are at least suggestive. Thor Heyerdahl showed long ago with his Tigris and Ra expeditions that reed-boats are capable of trans-oceanic journeys.[44] Besides many representations and terracotta models of masted sea-going boats have been found in Indus-Sarasvati sites – and at Lothal itself trade goods and inscribed seals from the Persian Gulf have been excavated.[45]

The indications are that the bulk of this trade was carried on ships of the Indus-Sarasvati civilization – a civilization that was known to its neighbours in the Persian Gulf as Meluha.[46] Inscriptions from ancient Babylon and Akkad

speak proudly of the number of great boats from Meluha that have moored in their harbours. Five such references have been found in the cuneiform records of the time before Hammurabi (1792 BC).[47] One concerns Sargon of Akkad (2334–2279 BC) and tells us: 'the ships from Meluha … he made tie up alongside the quay of Akkad'.[48]

Interestingly, a terracotta seal from Mohenjodaro shows a large high-prowed ship with a spacious on-deck cabin. Fore and aft of the cabin perch two birds which archaeologists believe are 'land-finding birds *[diskakas]*'.[49] As the reader will undoubtedly be aware, many ancient traditions of the global flood, not least the biblical story of Noah, make prominent mention of the role played in the navigation of the survival ship by birds just such as these.[50]

The city of Krishna

After leaving Lothal in the late afternoon we spent another night on the road at Jamnagar, the regional capital, and completed our journey to Dwarka the next morning. This final two-hour leg was across the barren, sun-baked flatlands of Gujerat's Kathiawar peninsula, uninhabited and for the most part overgrown with thorn trees and scrub vegetation. Through the open windows of the van we began to sense first the humidity, then the salty tang, of the approaching Arabian Sea. Next, a glimpse of distant water came into view and, rising above it through the heat haze, a shimmering pyramidal mound, topped by the spectacular Dwarkadish temple, sacred to Lord Krishna, soaring skywards on its 72 granite columns.[51] At the apex of the mirage fluttered a colourful flag decorated with astronomical symbols, while

around its base the medieval labyrinth of Dwarka's streets and houses clustered tightly packed, as though seeking protection.

We asked Vinhod to bring us closer and we eventually pulled up in a crowded market area directly in front of the temple. From this vantage point I could make out weird figures like the gargoyles of a Gothic cathedral carved into the corners of the roof and walls – here an elephant, there a swan, there a winged sphinx with a woman's face … It was easy to imagine the temple as an avatar's palace magically brought into being in the midst of the sea, charged with the mantric energy of pilgrims' prayers and surrounded by a force-field of divine grace.

In Book X of the *Bhagvata Purana* we read how Krishna used 'his supernatural yogic powers',[52] in a crisis of battle, to

transfer all his people to Dwarka where he could protect them from the enemy in ‘a fortress inaccessible to human beings’ [literally ‘bipeds’]:

> the Lord caused a fortress constructed in the western sea. In the fortress he got built a city twelve yojanas (96 miles) in area and wonderful in every respect.
>
> The building of the city exhibited the expertise in architecture and the skill in masonry of Tvastr, the architect of the gods. The roads, quadrangles, streets and residential areas were constructed in conformity to the prescribed tenets of the science of architecture pertaining to city building.
>
> In that city, gardens planted with celestial trees and creepers and wonderful parks were laid out. It was built with sky-scraping, gold-towered buildings and balconies of crystals. It had barns built of silver and brass which were adorned with gold pitchers. The houses therein were of gold

and big emeralds.[53]

But that was the first Dwarka, the original Dwarka – India's lost Atlantis swallowed up by the sea long ago at the beginning of the Kali Age. This Dwarka of today, whatever it was, and this Krishna temple, were much more recent-built to commemorate the inundated city perhaps, but not to be confused with it.

Santha and I checked into a mosquito-infested hotel with the bonus of several dozen hornets drowsing irritably in the curtains of our room and then took a stroll through the town in the late afternoon. It was dusty, of course, dirty, of course. There were people, everywhere, of both sexes and all age-groups – selling to one another, buying from one another. Nobody seemed to be miserable or angry or in a grouchy mood. A whole menagerie of animals roamed the streets,

grunting and squawking, barking and mewing, bleating and mooing. There were cows everywhere – a normal sight in Hindu India but here the sacred animals seemed to be more than usually serene and unhurried. I suppose it helps that just about everybody in Gujerat, and definitely everybody in Dwarka, is a strict vegetarian – so strict that not only are animals safe from them but also eggs, onions and garlic as well.

Through the maze of narrow lanes and cobbled alleyways lined with tiny, garish one-roomed shops and makeshift stalls we worked our way down to the bank of the Gomati river where it runs along the edge of the town and enters the Arabian Sea. Here, a large group of giggling children fed breadcrumbs to small fish, and orange-robed *sadhus*, their faces smeared with ash, sat with their backs to an ancient brick wall, reciting verses from the *Rig Veda*. The air was

filled with frankincense and ganja and the sound of chanting, and the December sun, setting out over the sea to the south-west, had infused the vast horizon with an otherworldly glow.

Continuing the remaining few hundred metres along the embankment in the gathering dusk we came to the small circular temple of Samudranarayana – the temple of Samudra, God of the Ocean – perched directly above the point where the Gomati flows into the sea. A breeze was picking up, stirring the waves into white caps, and I walked to the edge of the jetty and looked out.

I had read the reports of the marine archaeologists and I knew that a city of gigantic proportions lay underwater less than a kilometre in front of me. I reminded myself that a conjectural date of approximately 1700–1500 BC had been assigned to the site by S. R. Rao and that he believed it to be

one of the late works of the Indus-Sarasvati civilization – much too late to have had anything to do with any hypothetical lost civilization of the last Ice Age.

But there were areas of doubt. Although it seemed astonishing, and was perhaps just the result of incomplete research on my part, I had not been able to find evidence in the scientific literature that any Indus-Sarasvati artefacts-though reasonably plentiful in the countryside round about – had ever been recovered from the submerged ruins of Dwarka (or, for that matter, evidence that any datable objects of any kind had ever been found there). All that the archaeologists had discovered underwater were the looming remains of huge stone walls built of undatable megalithic blocks often interlocked with one another by means of L-shaped dovetails. Since there were thick silt deposits around the site, it was possible that many further structures

remained as yet unexcavated beneath those that had already been mapped. Moreover, no thorough survey had been done further out from the shore in water that was deeper than 20 metres.

All in all it seemed to me that the chronology that the archaeologists had proposed here might be right or might be wrong, but was far from settled. And what complicated the picture even more was the opaque history of relative sea-level rise in this part of India which had included several intense episodes of tectonic activity to do with mountain-building in the Himalayas during the past 20,000 years. It had therefore proved difficult to establish the date of Dwarka's submergence from geological clues alone.

The sun was now half-sunk in the ocean and the light was fading fast as the waves piled up against the jetty.

It would be another four years before I learned to dive and four more after that before I could return to Dwarka to explore the underwater city.

6 / The Place of the Ship's Descent

> Sages who searched with their heart's thought discovered the existent's kinship in the non-existent … Who verily knows and who can here declare it, whence it was born and whence comes this creation? The Gods are later than this world's production. Who knows then whence it first came into being? He, the first origin of this creation, whether he formed it all or did not form it, whose eye controls the world in highest heaven, he verily knows it, or perhaps he knows not …
>
> *Rig Veda* (Book 10, Hymn 129, Verses 4–7, Griffith translation)

'Scientific progress in historical, genetic, linguistic and archaeological research has proved during the past decade that the Hebrew Torah *– which is the fundamental scripture of Judaism and which also serves Christians as the Old Testament of the Bible – is not the work of the Jewish people, and in fact that*

there is no reason to believe today that there ever was a Jewish race that spoke the Hebrew language and was possessed of a coherent or well-defined set of Jewish or Hebraic cultural features.'

Suppose that this statement is supported by powerful evidence and, moreover, that it comes from a distinguished academic source – a Professor at the University of Pennsylvania for example – regarded as a world authority on Jewish culture. Having just read the statement, and knowing the authority of its source are you: Shocked? Surprised (that you have not seen any headlines on this)? Sceptical? Disbelieving? Disoriented (if the Jews didn't write the Old Testament, then who did)? Angry? All of the above? None of the above? Or do you know enough about the *Torah* and about Jewish culture to have realized at once that the statement is a complete fabrication? No such scientific

evidence has ever been produced and the identification of the *Torah* with the Jewish people and the Hebrew language remains unassailable today. This is so because the sacred book is comprehensively rooted and grounded in a known cultural background of great antiquity and fits perfectly into its historical and archaeological context.

The same cannot be said of the *Rig Veda*, the fundamental scripture of Hinduism. The abandonment by scholars of the theory that India was invaded around 1500 BC by a people calling themselves the Aryas, and the recognition that there never was any such thing as an Aryan race that spoke Indo-European languages, have had the unfortunate side-effect of orphaning the *Rig* – because it was hitherto believed that these very same Aryas had been its authors. We've also seen how it has been claimed by Renfrew and others – probably correctly-that Indo-European languages have been present in

north India for at least 8000 years. Logically, therefore, the fact that the *Rig Veda* is expressed in Sanskrit-an Indo-European language – can no longer be used to substantiate a chronology for the *Rig Veda* that brings the culture that is supposed to have composed it into India (via the non-existent Aryan 'invasion') as late as 1500 BC.

In other words, the ship of the *Vedas* presently has no one at the helm. These sublime hymns, these cleverly coded riddles from antiquity, which form the core scripture of a thousand million Hindus in the twenty-first century, now stand in the astonishing position of having no known authors, no known cultural background and no known historical or archaeological context into which they fit. Moreover, although their moorings to an 'Aryan' race in 1500 BC have been severed, most orthodox historians and archaeologists living outside the Indian subcontinent seem content to leave

the *Vedas* drifting and unassigned – the scriptures of no known people composed at no known time.

In such a situation where history has little to offer and a huge blunder to retract, it becomes reasonable to inquire: what do the *Vedas* have to say on the subject of their own origins?

Some points of terminology, some basic information

In ancient Sanskrit the word *veda* means 'knowledge', *'gnosis'*, 'insight' (deriving from the root *vid*, meaning 'to see, to know'),[1] and the word *rig [rc* or *rik)* means 'verses' or 'hymns'.[2] So *Rig Veda* means 'Verses' or 'Hymns' of 'Knowledge'. We've seen that there are three other *Vedas.* These are, respectively, the *Sama Veda* – the *Veda* of song or

chanted hymn (a reordering for liturgical purposes of certain verses of the *Rig* with new verses added);[3] the *Yajur Veda* – an annotated text of the instructions and sacrificial formulae required at Vedic rituals;[4] and the *Atharva Veda*, which Gregory Possehl describes as the 'least understood of the *Vedas* … a book of magic, spells and incantations in verse'[5] and Griffith as 'the *Veda* of Prayers, Charms and Spells'.[6]

As well as these, many Indian scholars also list the following massive and venerable bodies of text within the Vedic corpus:[7] the *Brahmanas* (very ancient prose commentaries on the *Vedas),*[8] the *Arankyas* (a later development of the *Brahmanas*, given over to 'secret explanations of the allegorical meaning of the *Vedas')*[9] and the *Upanishads* (philosophical speculations arising out of the

Vedas).[10]

The *Upanishads* are often referred to in Sanskrit as the *Vedanta*, meaning 'conclusion of the *Veda*', since they are thought to represent the final stage in the tradition of the *Vedas*.[11] However, there are other important later texts of Hinduism which unerringly continue the same essential teaching and cosmology rooted and grounded in the *Vedas*, and which will therefore also be cited in this inquiry from time to time. These include the *Mahabaratha* (which is about eight times as long as Homer's *Odyssey* and *Iliad* put together!),[12] the *Ramayana*, and the *Puranas*. The *Mahabaratha* and the *Ramayana* are both epics consisting of a mass of legendary and instructive material worked around a central heroic narrative.[13] Embedded within the vast text of the *Mahabaratha* is the famous *Bhagvad Gita*, ('Song of the

Lord'), described as 'the single most important text of Hinduism'.[14] The *Ramayana*, which tells of the deeds of the hero Rama, an incarnation of Krishna, is traditionally ascribed to the semi-legendary poet Valmiki.[15] Last but not least, the *Puranas* (Sanskrit for 'Ancient Lore') are collections of myth, legend and genealogy.[16]

A generally agreed chronology for all these texts (with arguments usually about periods of hundreds rather than thousands of years) is in use amongst scholars. We saw earlier that the *Rig Veda* tends to be dated anywhere in a broad range from 1500 BC (the supposed date of the non-existent Aryan invasion of India) down to 800 BC. Dr John E. Mitchiner, a great authority on the ancient Sanskrit texts, prefers a narrower range of 1400–1100 BC for the *Rig*, with the *Sama* and *Yajur Vedas* dated 1200-1000 BC, the *Atharva*

Veda 1300–900 BC, the *Brahmanas* 900–600 BC, the *Aranyakas* 700–500 BC, the *Upanishads* 600–400 BC, the *Mahabaratha* 350 BC – AD350, the *Ramayana* 250BC - AD200, and the *Puranas* AD200-1500.[17]

While this is convenient as a summary of what is still, amazingly, the accepted scholarly chronology, I feel it is essential to bear in mind that these dates are a house of cards founded on the redundant hypothesis of an Aryan invasion of India in the second millennium BC. Whether starting in 1500 BC, 1400 BC or 1200 BC, the timelines that have been suggested for the compilation and codification of the *Rig Veda* all rest on this now thoroughly falsified and bankrupt idea. And since the chronology that scholars have 'established' for the *Rig* is the foundation of the entire literary history of India, it follows that if the previously accepted dates for it are proved

by further research to be badly in error then the dates for much of what comes after it are also likely to be wrong. In this connection, Mitchiner himself concedes that 'the dating of Sanskrit texts is a notoriously difficult problem'[18] – one that is further complicated by many texts 'which may be relatively late in their overall or final composition yet contain passages of considerable antiquity alongside much later additions'.[19]

Amidst this tangled maze of texts, all of which once lived as memorized recitations within an oral tradition before they were written down, only one story is offered – the same story repeated again and again with minor variations and additions – as an explanation and account of the origins of the *Vedas*. This is the story of Manu, the father of mankind – India's Noah – and of a mysterious brotherhood of ascetics called the

‘Seven Sages’, said in many of the recensions to have accompanied Manu in the Ark when the great flood overtook the world.

The father of mankind

Manu (whose name has the same root as the English word man) was the first and greatest patriarch and legislator of the Vedic peoples and is unambiguously described throughout the ancient texts as the preserver and father of mankind and of all living things.[20] Ralph Griffith, the translator of the *Vedas*, describes him as ‘the representative man and father of the human race and the first institutor of religious ceremonies’.[21] And in the *Rig Veda* the people who called themselves the ‘Aryas’ – an epithet meaning literally the

‘noble’, or ‘pure’, or ‘good’ or ‘enlightened’ folk (a puzzle that we shall return to in another chapter) – are also referred to as ‘Manu’s progeny’,[22] while Manu is known as ‘Father Manu’[23] and even the gods are named as ‘Manu’s Holy Ones’.[24] At the same time the *Rig* does not take the trouble, anywhere, to tell us exactly what it was that Manu supposedly did to earn these honorifics; only that the events took place ‘long ago’.[25]

Manu’s literary predicament much resembles that of Osiris in ancient Egypt. Nowhere in the entire corpus of ancient Egyptian scripture, from the *Pyramid Texts* to the last versions of the *Book of the Dead*, is the full story of Osiris ever told. We get fragments of it, bits and pieces here and there, records of his titles and honorifics, many axioms (‘the truth is great and mighty and it has never been broken since the time of Osiris’, etc. but never a connected, continuous narrative

which states clearly what it was that Osiris did to deserve all this honour and prominence. Only in a later, non-Egyptian, text – Plutarch's *Isis and Osiris* – does the whole story come out. Plutarch states that his sources were Egyptian priests and the details that he provides are so convincingly identical to the much more fragmentary details contained in the much earlier ancient Egyptian material that each, in a way, provides corroboration for the other. Scholars therefore believe that Plutarch got the story just about right and that it was never spelled out in detail in the earlier scriptures because it was simply too well known for this to be necessary.[26]

It looks as though the same sort of process must have been at work within the *Rig Veda*. Here, like Osiris for the Egyptians, Manu is a household name even incorporated into

aphorisms such as 'may we speak like Manu'[27] – which, Griffith says, was universally understood to mean 'with the wisdom and authority of Manu who was instructed directly by the Gods'.[28] Yet nowhere in the *Rig* is there anything even remotely resembling a continuous Manu narrative which would explain the awe within which he was held and the fundamental role assigned to him as the saviour and the progenitor of Vedic civilization. As with the case of Osiris in Egypt, it is probably safe to assume the full story of Manu was simply so well known amongst the practitioners of the *Vedas* that the composers and compilers saw no need to spell it out in detail.

A flood to carry away all creatures

The earliest surviving glimpse of a more complete version of

the story of Manu is provided by the *Satpatha Brahmana*. The setting is antediluvian India some years before it is to be destroyed by the flood and Manu is a king and leader of men (specifically identified in the later *Bhagvata Purana* with 'a South Indian or Dravidian king named Satyavrata'):[29]

> In the morning they brought to Manu water for washing the hands. When he was washing himself a fish came into his hands. It spake to him the word 'Rear me, I will save thee!' 'Wherefrom wilt thou save me?' 'A flood will carry away these creatures: from that I will save thee.' 'How am I to rear thee?' It said, 'As long as we are small, there is great destruction for us: fish devours fish. Thou wilt first keep me in a jar. When I outgrow that, thou wilt dig a pit and keep me in it. When I outgrow that, thou wilt take me down to the sea for then I shall be beyond destruction.' It soon became a large fish … Thereupon it said, 'In such and such a year that flood will come. Thou shalt attend to me [i.e. to my advice] by preparing a ship; and

> when the flood has risen thou shalt enter into the ship and I shall save thee from it.' After he had reared it in this way, he took it down to the sea. And in the same year which the fish had indicated to him, he attended to the advice of the fish by preparing a ship; and when the flood had risen he entered into the ship. The fish then swam up to him, and to its horn he tied the rope of the ship and by that means he passed swiftly up to yonder northern mountain. It then said, 'I have saved thee. Fasten the ship to a tree; but let not the water wash thee away[30] whilst thou art on the mountain. As the water subsides, thou mayest gradually descend!' Accordingly he gradually descended, and hence that slope of the northern mountain is called 'Manu's descent'.[31]

In this version, Manu survives the deluge alone, with no mention of the 'Seven Sages' and with no other human companions. How then does he qualify for his Vedic role as the father of mankind?

According to the *Satpatha Brahmana:*

> Being desirous of offspring, he engaged in worshipping and austerities. During this time he also … offered up in the waters clarified butter, sour milk, whey and curds. Thence a woman was produced in a year … With her he went on worshipping and performing austerities, wishing for offspring. Through her he generated this race, which is this race of Manu …[32]

'The ship whirled like a reeling and intoxicated woman …'

Maintaining the sequence of the established chronology, the next properly connected version of the Manu story comes to us in the *Mahabaratha.* In this recension of the old tale Manu is not a king but a powerful *rishi* (sage, seer) who spends a

supernaturally long time practising yogic austerities:

> standing with uplifted arm, on one foot, he practised intense, austere fervour. This direful exercise he performed with his head downwards, and with unwinking eyes, for 10,000 years. Once, when clad in dripping rags with matted hair, he was so engaged, a fish came to him on the banks [of a river] and spake, 'Lord I am a small fish; I dread the stronger ones, and from them you must save me.'[33]

With a few more details the tale then proceeds in the same manner as in the *Satpatha Brahmana* with the fish being cared for and attended to by the kindly Manu, outgrowing various habitats and finally being placed by him in the ocean:

> When he had been thrown into the ocean he said to Manu: 'Great lord, thou hast in every way preserved me: now hear from me what thou must do when the time arrives. Soon shall all these terrestrial objects … be

dissolved. The time for the purification of the worlds has now arrived. I therefore inform thee what is for thy greatest good. The period dreadful for the universe has come. Make for thyself a strong ship, with a cable attached; embark in it with the Seven Sages and stow in it, carefully preserved and assorted, all the seeds which have been described of old … When embarked in the ship, look out for me: I shall come recognizable by my horn … These great waters cannot be crossed over without me.[34]

When the deluge came:

Manu, as enjoined, taking with him the seeds, floated on the billowy ocean in the beautiful ship. [The arrival of the enormous fish is then announced.] When Manu saw the horned leviathan, lofty as a mountain, he fastened the ship's cable to the horn. Being thus attached the fish dragged the ship with great rapidity, transporting it across the briny ocean which seemed to dance with its waves and thunder with its waters. Tossed by the tempests the ship whirled like a reeling and intoxicated woman. Neither the earth,

> nor the quarters of the world appeared; there was nothing but water, air and sky. In the world thus confounded, the Seven Sages, Manu and the fish were beheld. So, for very many years, the fish unwearied drew the ship over the waters; and brought it at length to the highest peak of *Himavat* [the Himalayas]. He then smiling gently, said to the Sages, 'Bind this ship without delay to this peak.' They did so accordingly. And the highest peak of Himavat is still known by the name of Naubandhana ('the Binding of the Ship').[35]

Thereafter, through his advanced yogic powers Manu, the father, 'began visibly to create all living beings'.[36]

'The sea was seen overflowing its shores …'

A third example – amongst so many more that it is invidious to chose – comes from the *Bhagvata Purana* where Manu first

bears the name of Satyaravrata, 'the lord of Dravida'[37] [south India]. In the usual way this Manu encounters a small fish, it grows big and he eventually throws it into the sea. It then reveals itself to him as none other than an incarnation of the god Vishnu, who warns him of the impending flood – which here, as the *Mahabaratha* also hints, acquires the cosmic and universal dimension of the great *pralaya* that brings each *yuga*, or age of the earth, to an end:

> On the seventh day after this the three worlds shall sink beneath the ocean of the dissolution. When the universe is dissolved in that ocean, a large ship, sent by me, shall come to thee. Taking with thee the plants and various seeds, surrounded by the Seven Sages … thou shalt embark on the great ship and shalt move without alarm over the one dark ocean …[38]

The fish incarnation of Vishnu then vanishes, promising to return at the right moment. Seven days later: 'The sea,

augmenting as the great clouds poured down their waters, was seen overflowing its shores and everywhere inundating the earth.'[39]

Next, the ship of Vishnu appears and Manu and the Seven Sages embark in it – with Manu not failing in his duty to bring on board 'the various kinds of plants'.[40]

Last but not least the great fish returns. Manu's Ark is moored to its horn and towed safely across the flood and storm waves.[41]

Fleshing out the Vedic flood myth

Is this ancient tradition entirely mythical and symbolic, or could it be anchored at some level in geological reality and historical time?

My impression, perhaps quite wrong, is that the later texts of the tradition *deliberately* begin to fill in and clarify the details of the Manu narrative missing from the numerous 'customary' allusions to him in the *Vedas* that seem to take a widespread and detailed knowledge of his story for granted.

Perhaps this setting down in writing of the ancient tradition in its late days arose from a recognition that such widespread knowledge could no longer be relied upon and a fear that the oral compositions might eventually be completely lost. The result, at any rate, is that we can now guess exactly why the *Rig* speaks of Manu as the father of mankind. It is because in the ancient traditions of the Vedic peoples – so well known to all in the early days that no written elaboration was thought necessary – he was remembered as the survivor of the universal flood through whose virility and yogic powers the human race and all

living beings were propagated again after the cataclysm. We now also have the following other pieces of information at our disposal:

1. Manu made a special point of bringing something very precious and significant with him from the world before the flood – a cache of ‘plants and various seeds’ by means of which agriculture could be restored in post-diluvian times.
2. lso with Manu in the ship were the Seven Sages.
3. The character of the flood was that ‘the sea … was seen overflowing its shores and everywhere inundating the earth’.
4. Borne up on the waters of the flood, and towed by a god, Manu’s survival ship travelled towards the north.

5. Manu and the Sages made landfall on the slopes of the 'Northern Mountain' in Himavat – the Himalayas.
6. They were to descend from the mountain 'gradually', and only as the flood subsided, making sure never to put themselves in a position where they could be 'washed away'.
7. Manu was believed to have practised yoga.
8. Manu was believed to have been, in antediluvian times, a king of the Dravidian people of south India.

A ship in the Himalayas?

Despite the formidable reputation of India's oral tradition for preserving and transmitting extremely ancient information, I realize that some linguists and historians are likely to be

sceptical of any attempt to connect what may be relatively late texts about Manu's survival of the flood to his earlier more fleeting appearances as a 'household name' in the *Vedas*. Nevertheless there is a strange, isolated passage in the *Atharva Veda* (AV), and another in the *Rig* itself, which add further merit to the view that the Vedic peoples at the dawn of their civilization were already fully conversant with all the details of the flood myth as they are given in the much later texts – and even used similar symbols, imagery and language.

Of course, it is possible that the later compositions simply echo the older ones, but if that were so I would expect them not just to be similar but to be much *more* similar than they in fact are. In my opinion a sufficient degree of difference is evident in the terminology to make it quite unlikely that the *Satpatha Brahmana*, the *Mahabaratha* and the *Bhagvata Purana*, etc., are simply copying the AV and the *Rig* and much

more likely that the earlier and the later written texts both descended *separately* from a common, extremely archaic, oral source. My view on this is buttressed by the fact that the relevant passages in the AV and the *Rig* are opaque and meaningless if left to stand alone but begin to make sense to any reader – or listener – who *already* has knowledge of the broader tradition of Manu and the flood. This creates a knotty logical paradox for those who wish to believe that the connected Manu/flood story is an invention of the later texts and was not in circulation at the time of the AV and the *Rig*. The knot can be untangled very simply, however, if we accept that the full connected Manu/flood story must indeed have been in circulation (perhaps even very wide circulation) in the earliest Vedic times *but was simply not written down then* and remained for much longer in the exclusive domain of the oral tradition.

As far as I am aware, the peculiarity of the passage in the *Atharva Veda* was first commented on in the nineteenth century by Professor Albrecht Weber, a well-known German Indologist.[42] The passage can be found in Book 19, Hymn 39, Verse 8, and a modern translation has recently been provided by Sanskrit scholar David Frawley: 'At the place of the ship's descent at the top of the Himalayas, there resides the vision of immortality.'[43] Griffith's (1895) translation of the same verse reads as follows: 'Where is the Sinking of the Ship, the summit of the Hill of Snow, there is the embodiment of life that dies not.'[44] In a footnote Griffith then adds:

> *The Sinking of the Ship:* or the place where the ship sank or glided down; probably the Naubandhana of the later Epos [i.e. the *Mahabaratha]*, the highest known peak of the Himalayas, to which in the great flood Manu fastened his ship.[45]

Weber's 1882 comment on the passage had made essentially the same comparison of the *Rig Veda* and the *Mahabaratha*. In the latter, the peak of the Himalayas to which the ship was tied was afterwards called Naubandhana (meaning 'the binding or tying of the ship'). Weber pointed out the curious imperfect similarity of this concept to the central idea of AV, 19, 39, 8, 'where the term *Navaprabhramsana* or "Gliding down of the Ship" is used in connection with the summit of Himavat'.[46]

Since one would not normally expect to see a ship either moored to a mountain or gliding down one, I submit that the presence of such imagery in the AV without an accompanying explanation only makes sense if we assume that the singers of the Vedic hymns *were already very well acquainted with a story of how a ship got itself into the Himalayas*. There are also extremely good reasons to assume

that the story in oral circulation then was an early version of the compositions that were much later written down in the *Satpatha Brahmana, Mahabaratha*, etc.

The passage in the *Rig Veda* is, if anything, even more indicative of the long pre-existence of this story, with all its essential ingredients. In Book 2, Hymn 23, Verse 13 there is suddenly a reference to 'pure medicines … those that are wholesomest and health-bestowing, those which our father Manu hath selected …'[47] In the mid-nineteenth century the Vedic scholar Horace Haymann Wilson was the first to conclude that 'this alludes to the vegetable seeds which Manu, according to the *Mahabaratha*, was directed to take with him into the vessel in which he was preserved at the time of the deluge'.[48]

Finally, to return to the *Atharva Veda*, there is one other

unexplained matter raised in AV, 19,39,8. This concerns the association of immortality – 'life that dies not' – with the 'Place of the Ship's Descent' in the Himalayas (or the 'Place of Manu's Descent', as the *Satpatha Brahmana* calls it). Once again, later texts provide the background story that is presupposed in the *Vedas* by telling us that as his reward for saving mankind and the seed of all living creatures the gods granted Manu insight into 'the mystery of the soul',[49] mastery over 'all knowledge'[50] and more than human powers with a lifetime of millions of years so that he might reign for 'one *manvantara*'.[51] A *manvantara* is a period of time which the Vedic sages (with uncharacteristic vagueness) describe as 'about 71' complete cycles of four *yugas*,[52] equivalent to 64,800,000 years[53] – effective immortality.

As readers may already have noticed, there is something

familiar about this tradition that Manu was rewarded by the gods with immortality – or at any rate an extremely long life! The same gift was also bestowed (by a supposedly different group of gods) upon Zisudra, the Sumerian flood survivor whose travails are described in chapter 2:

> Life like a god they gave him;
>
> Breath eternal like a god they brought down for him,
>
> … Zisudra the king,
>
> The preserver of the name of vegetation and of the seed of mankind.[54]

Two times seven

Another extraordinary similarity concerns the presence of Seven Sages in both the Sumerian and Vedic traditions. Most ancient societies, I concede, had their sages or seers or wise

men – in India they were, and still are, called *rishis*. But it seems to me to be stretching coincidence too far to find a group specifically named the 'Seven Sages' prominently associated with two separate ancient cultures and to imagine that this did not come about through some sort of connection.

In the case of Sumer the Seven Sages were depicted as amphibian, 'fish-garbed' beings who emerged from the sea in antediluvian times to teach wisdom to mankind.

In the case of the *Vedas* the focus is not on the antediluvian period but on the flood itself and those antediluvians who are claimed to have survived it, namely Manu and the Seven Sages.

What do we have so far?

- Two groups of seven antediluvian sages, one in ancient

Sumer, one in ancient India.

- Both groups are associated with fish symbolism of some sort – the Seven Sages of Sumer are themselves half men, half fish, and the Vedic Seven Sages take refuge on Manu's survival ship, which is towed by a gigantic fish through the raging waters of the deluge.
- Both groups of sages perform an identical function – which is to preserve the gifts of civilization and bring them to mankind in their respective areas.
- Both groups of sages set an example of asceticism and teach and promote the spiritual life.
- Paradoxically, both groups of sages also play an absolutely fundamental and extremely distinctive earthly role as king-makers and as advisers to kings.

Perhaps the similarities result from direct cultural exchange and transfer of ideas between ancient India and ancient Sumer? This option is at least worth considering, because we already know that the Indus-Sarasvati civilization-which has been proposed as the likely mother of the orphaned *Vedas* – and the civilizations of ancient Mesopotamia were contemporary and did have contact with one another. The problem as before, however, is that the similarities are not similar enough – or, to put it another way, that there are too many differences between the traditions – for them to have resulted from the direct transmission of the 'Seven Sages' idea from one society to the other. Besides, although the Indus-Sarasvati people and the Sumerians undoubtedly traded with and knew one another and have left proof of this, the archaeological record also shows that they simply did not exchange cultural ideas,

themes and motifs – even at the most basic level such as jewellery design, let alone so fundamental a religious and historical concept as the Seven Sages.

The only explanation left then is coincidence.

Or the possibility that the two traditions are after all related – not directly, but through a shared legacy from a more ancient and perhaps even forgotten common ancestor …

An institution for saving the Vedas

What is particularly striking about the Indian tradition is the way that the story of Manu and the Seven Sages is bound up with the ancient *yuga* theory of the cyclical destruction and rebirth of worlds. To this extent it is reminiscent of the story

of the inundation of Dwarka; however, in Dwarka's case we hear of only a single city being destroyed while in the case of the flood of Manu – a true *pralaya* – the waters overtake the whole earth and (improbably!) reach high enough to maroon a ship in the Himalayas.

The Sanskrit texts make it clear that a cataclysm on this scale, though a relatively rare event, is expected to wash away *all traces* of the former world and that the slate will be wiped clean again for the new age of the earth to begin. In order to ensure that the *Vedas* can be repromulgated for future mankind after each *pralaya* the gods have therefore designed an institution to preserve them – the institution of the Seven Sages, a brotherhood of adepts possessed of unerring memories and supernatural powers,[55] practitioners of yoga, performers of the ancient rituals and sacrifices, ascetics, spiritual visionaries, vigilant in the battle against

evil, great teachers, knowledgeable beyond all imagining, who reincarnate from age to age[56] as the guides of civilization and the guardians of cosmic justice.

But I'm getting ahead of myself. Let's start with first principles.

The Seven Godlike Sages

The earliest surviving written references to the Seven Sages are in the *Rig Veda*. But as with Manu it is apparent from the nature of the compositions that an initiated audience has been assumed and that no attempt has been made to render a full connected narrative (quotations from the Griffith translation);[57]

> Our fathers then were these, the Seven Sages … (4, 42, 8)

> They value One, only One, beyond the Seven Sages … (10, 82, 2)

> Those Gods of old, Seven Sages who sat them down to their austere devotion … (10, 109, 4)

> So by this knowledge men were raised to Sages, when ancient sacrifice sprang up, our Fathers. With the mind's eye I think that I behold them who first performed this sacrificial worship. They who were versed in ritual and meter, in hymns and rules, were the Seven Godlike Sages. Viewing the path of those of old, the [later] sages have taken up the reins like chariot-drivers. (10, 130, 6 and 7)

There are many additional accounts of individual *rishis* – and of their deeds, their knowledge, their powers, etc., but the four passages cited above contain the only direct and explicit references to the Seven Sages *[Sapta Rishis)* in the entire half-million-word corpus of the *Rig Veda*. The references are

tantalizingly brief. Yet they are at the same time surprisingly rich in information – rich enough, I think, to allow us to make a few tentative deductions about Vedic beliefs on this subject:

1. The Seven Sages were considered in some way as the 'fathers' of those *rishis* who controlled the rituals and recited the *Vedas* in later times.
2. The Seven Sages were held in enormously high esteem, second only to 'the One, the only One' – the supreme divine power in the universe.
3. The Seven Sages had formerly been mortal men and had been elevated, through their possession of 'knowledge', at the time 'when ancient sacrifice sprang up' – presumably at the dawn of the Vedic religion.
4. The Seven Sages were in some way 'Gods' or at any rate

‘Godlike’.

5. The Seven Sages performed austerities.
6. The Seven Sages were ritual specialists who knew the ancient rules of metre and memorization that made it possible to preserve and transmit the ‘verses of knowledge’ for the benefit of future mankind.
7. Later generations of sages who continued to perform the ritual functions and to memorize and recite the verses of knowledge – i.e. the *Vedas* – were (in the words of one nineteenth-century commentator) ‘only imitators of those who preceded them’.[58] It appears that one of the techniques used by subsequent generations to follow ‘the path of those of old’ may have involved yogic visualization (in the ‘mind’s eye’) of the primal gathering of ‘the Seven Godlike Sages … who first performed this

sacrificial worship'.

Makers of the Vedas

As with the story of Manu and the flood, the overlapping story of the brotherhood of Seven Sages who survive the deluge in the Ark with Manu is a difficult jigsaw puzzle scattered across thousands of pages of ancient Sanskrit texts. The leading expert on the subject is Dr John Mitchiner, whose Ph.D. thesis at London University's School of Oriental and African Studies was on the Sanskrit traditions of the Seven Sages and who later published the definitive book, *Traditions of the Seven Rsis*[59] (he uses the Sanskrit term throughout, being a stickler for detail, and not satisfied that the English words 'sage' or 'seer' perfectly translate all the

nuances of the Sanskrit *rsi* or *rishi*).[60]

Mitchiner points out that a fundamental connection exists in Indian thought between the Sages and the origins of the *Vedas* – so fundamental that an inquiry into the latter inevitably ends up being an inquiry into the former as well:

> The Seven Rsis are … frequently described as being those who composed, are most conversant with and supremely knowledgeable in the *Vedas* – as makers of the *Vedas*, knowers of the *Vedas* and masters of the *Vedas* … [They are] thought to be composers of Vedic hymns, and … to come to the earth periodically in order to renew Vedic knowledge among men; they are further depicted as teaching the *Vedas* and other sacred works to various individuals and pupils, and as praising the learning, study and recitation of the *Vedas*.[61]

Despite the apparent clarity of the statement, the relationship between the Seven Sages and the composition of the *Vedas* is

and always has been difficult to unravel. According to the doctrine of India's *yuga* system as set out by the great nineteenth-century Hindu savant Bal Ganghadar Tilak:

> The *Vedas* were destroyed in the deluge, at the end of the last age. At the beginning of the present age the Sages, through *tapas* [meditation and yogic austerities], reproduced in substance, if not in form, the antediluvian *Vedas*, which they carried in their memory by the favour of god.[62]

So on the one hand we are to understand that it is the role of the Seven Sages to 'reproduce' and repromulgate the 'antediluvian' *Vedas* (which themselves were believed to have been the result of an earlier such process of reproduction and repromulgation). On the other hand, and confusingly, there are other hymns in which the Sages are referred to as 'making', or 'generating' or 'fashioning' – i.e. *composing* – the *Vedas*.[63] Last but not least there are passages which leave no

doubt that the hymns were believed originally, in some remote epoch, to have been 'inspired', 'given', or 'generated' by the gods and are thus, in essence, *revealed* knowledge.[64]

Secret communication

During the long journeys both intellectual and physical that I have made in India I have learned to live with a certain level of ambiguity. Remember that the Hindu religion is the child of the *Vedas* and that in this religion what we think of as 'reality' (i.e. 'the world of form', the material universe) is held to be *maya* – an illusion or mass hallucination sustained by ignorance and dispersable only by the special knowledge, insight or *gnosis* that is concealed within the *Vedas.*[65] Since this knowledge was intended to be *earned* through individual

study and personal asceticism, and yet was conveyed in publicly recited hymns, it was necessary for it to be coded in some way, or for it to make use of cues, images or ideas that might have one set of meanings for the laity and a totally different set of meanings and associations for those on the path to *gnosis*. That such a system of coding or secret communication was in use is confirmed by the *Rig Veda* itself in Book 1, Hymn 164, Verse 45 (Griffith translation):

> Speech hath been measured out in four divisions, the Brahmans who have understanding *[gnosis]* know them. Three keep in close concealment cause no motion; of speech men speak only the fourth division.[66]

Wilson translates the same passage this way:

> Four are the definite grades of speech: those Brahmans who are wise know them: three deposited in secret indicate no meaning; men speak the fourth

grade of speech.[67]

The new and the old

There are enough similar hints[68] scattered here and there throughout the ancient Sanskrit texts to justify a cautious approach to the ambiguities about the Seven Sages and their role in either merely 'reproducing', or actually 'composing', Vedic hymns – while these hymns are at the same time understood to consist of revelations from the gods.

Bal Gangadhar Tilak, who devoted his scholarly life to unravelling the *Vedas* and who approached the subject with an extremely lucid and open mind, suggests that there is a way to reconcile these seemingly conflicting utterances. This involves making a distinction

> between the expression, language, or form on the one hand and the contents, substance or subject matter of the hymns on the other; and to hold that while the *expression* was human, the *subject matter* was believed to be ancient or superhuman. There are numerous passages in the *Rig Veda* where the bards speak of ancient poets *(purve rishayah)*, or ancient hymns (1.1.2; 6.44.13;.7.29.4; 8.40.12; 10.14.15, etc.] … [or where a hymn is said to be] new *[navyasi]*, yet the god or the deity to whom it is addressed is old *[pratna)* or ancient (6.22.7; 62.4; 10.91.13, etc.). This shows that the deities whose exploits were sung in the hymns were considered to be ancient deities. Nay, we have express passages where not only the deities but their exploits are said to be ancient, evidently meaning that the achievements spoken of in the hymns were traditional and not witnessed by the poet himself.[69]

The *Rig Veda* is therefore best understood as a multi-layered construct containing some extremely ancient information (which is either repeated verbatim, as handed down from

antiquity, or in various ways spoken of, or referred to, in later compositions) and also a fair amount of much less ancient information associated, perhaps, with the various stages and locales of repromulgation and dissemination of the *Vedas*. Moreover, while linguists and historians can debate endlessly about the origins, authorship and antiquity of these amazing compositions and of the later bodies of texts that descend from them, the compositions themselves are absolutely clear on all these points.

The Vedic palimpsests

The *Vedas* describe themselves as being in essence primordial, having been revealed to mankind by the gods. After that initial revelation, when the *Vedas* entered human space and time, a mechanism had to be found to protect the

path to *gnosis* enshrined within them from the vicissitudes of the material world – of which the greatest and most deadly of all is the *pralaya*, the cataclysm, that separates one age of the earth from the next. The function of the Seven Sages is to ensure that the *Vedas* are not lost during these periodic episodes of destruction; instead, they are to preserve the hymns in their memories, survive the flood, and repromulgate the entire corpus again to the new age of men.

It is important to note, in the *Vedas*, and the later explanatory hymns as we know them today, that this was already understood to have happened *many times* before[70] – in other words these *Vedas* were not believed, even by those who recited them in antiquity, to be the first *Vedas* but rather a younger recension separated by countless aeons from the original, salvaged from the most recent *pralaya* by the Seven Sages in the Ark of Manu, brought to 'the Place of the Ship's

Descent' in the Himalayas, and from there repromulgated to the present race of men. Moreover, further study of the texts makes it perfectly clear that even these events are cast far in the past in the Vedic scenario – that the time of the flood, Manu and the Seven Sages was itself perceived as having occurred long, long ago by those who said they were the descendants of Manu and by those later sages who spoke of the Seven Sages as their 'Fathers'. Tilak summarizes the issue in the following way:

> The Vedic Rishis were themselves conscious of the fact that the subject-matter of the hymns sung by them was ancient or antediluvian in character, though the expressions used were their own productions.[71]

The hymns are therefore 'oral palimpsests', each imposed on top of an earlier hymn which itself has been 'reproduced' from an earlier hymn, which was reproduced from an even

earlier hymn – and so on, back into the night of prehistory. Often the older layers of the palimpsest show through in the younger compositions so that everything is jumbled – like archaeological strata that have been turned over with earth-moving machinery indiscriminately mixing older and more recent artefacts.

As we will see in a later chapter, progress has been made in separating the truly ancient from the more recent information tangled up in the Vedic hymns – and the results have been surprising.

Meanwhile, in summary, it is at least clear that the essential task of the Seven Sages, whose own story is set in the remotest antiquity, was that having learned the *Vedas* from the Sages of an even earlier age they should survive the cataclysm and go forth at the beginning of the new age[72] to

‘repromulgate the knowledge inherited by them, as a sacred trust, from their forefathers’.[73] According to the *Matsya Purana:* ‘What the Seven Sages heard from the Sages of the preceding age, that they narrated in the next age.’[74]

Connections hidden in the stars?

There are repeated hints in the Sanskrit texts concerning something that sounds very much like a *lineage* of Sages – or perhaps a monastic order or a cult known as ‘the Seven Sages’ which was believed to have replenished its ranks in each generation. Indeed, in some of the texts detailed lists are provided of many groups of Seven Sages and of the past ages of the earth in which they lived.[75] The *Mahabaratha* makes explicit mention of ‘the many Seven Sages’.[76] There are even

different groups of Seven Sages assigned to different regions – particularly to northern and southern India[77] – which apparently were believed to have coexisted in different areas at the same time. Out of all this confusion, however, the names Visvamitra, Jamadagni, Bharadvaja, Gotama, Atri, Vasistha and Kasyapa are most frequently mentioned in the early literature as comprising the 'main' group of Seven Sages,[78] with Agastaya sometimes cited as an eighth.[79] But another group of seven 'Great Sages' (with Atri and Vasistha overlapping), is given at least equal prominence: Marici, Atri, Angiras, Pulastya, Pulaha, Kratu and Vasistha.[80]

It is this latter group that is assigned most often to southern India. But at the same time, curiously and strikingly, there are traditions that associate its members very firmly and vividly with seven stars in the *northern* sky –

specifically the stars that form the prominent 'Big Dipper', or 'Plough', within the larger circumpolar constellation of the Great Bear.[81] The identification of this constellation with a bear is extremely ancient and found in many supposedly unconnected cultures.[82] This may shed light on an otherwise peculiar passage in the *Satpatha Brahmana* which informs us: 'The Seven Rishis were in former times called the *Rikshas* [bears].'[83] Mitchiner comments:

> In later times the term *rksa* came to be given a more general meaning, denoting … any star … This more general meaning is, however, in all probability derivative of the original and more specific meaning denoting the shining stars of the Bear or Ursa Major.[84]

The identification of the Seven Sages with this particular group of stars, so apparent in the Indian tradition, is

peculiarly resonant of the well-known ancient Egyptian belief in the stellar destiny of the soul.[85] I cannot help but be reminded of the Pharaoh's wish, repeated countless times in the *Pyramid Texts*, that if in this lifetime his spirit has been 'perfected' then it should upon his death be transformed into a star in the sky.[86]

Two areas of the sky were favoured for stellar rebirth by the ancient Egyptians – the region of the constellation of Orion in the southern sky and the region of the circumpolar, never-setting, 'Imperishable' stars – particularly Kochab[87] in the Big Dipper – in the northern sky. Regarding a circumpolar destiny we read in Utterance 419 of the *Pyramid Texts*: 'Arise … raise yourself that you may travel in company with the spirits … Cross the sky … Make your abode among the imperishable stars …'[88] Regarding a destiny in Orion we

read in Utterance 466: ‘O King, you are this great star, the companion of Orion, who traverses the sky with Orion.’[89]

I do therefore find it odd, to say the least, that ancient India’s Seven Sages are given a stellar ‘manifestation’ as the Big Dipper at the heart of the circumpolar region of the sky, just where the Egyptian Pharaohs wanted to go. Even odder, however, as Mitchiner reports, is that one of the Sages, Visvamitra, is said in both the *Ramayana* and the *Mahabaratha* to have transferred a king of ancient India named Trisanku to the sky in bodily form ‘where he now shines as the constellation of Orion’.[90]

Knowledge and balance

Just like the Heliopolitan priesthood who oversaw the

construction of the Great Pyramid of Egypt, what the Sanskrit texts suggest to me is the possibility that the 'Seven Sages' of ancient India were not a small group of remarkable individuals but an *institution* that persevered through time – perhaps for many thousands of years – that recruited new members in each generation, and that was dedicated to the preservation and transmission to the future of a body of spiritual knowledge from the remote past.

The highly initiated Sages of India were understood to be ascetics who shunned material pleasures and material things. They are said to have worn simple clothes made out of natural products such as bark-cloth and to have smeared their bodies with ashes. They did not cut their hair but allowed it to grow long and matted. They were strict vegetarians who gathered fruits and roots to live on, praised abstention from meat[91] and spent the greater part of their

time in the snow-covered mountain fastnesses of the Himalayas. There it was said that they withdrew to perform the *tapas* – or yogic austerities – by means of which they were able to strengthen their spiritual power.[92]

But the ancient texts also tell us that the Sages did intervene and involve themselves extensively in mundane affairs – in particular as king-makers and as advisers to kings who influenced and shaped state policy.[93] Their role in this respect again parallels the role of the Heliopolitan priesthood of ancient Egypt, the king-makers of the Pyramid Age.[94] In both cases the purpose of secular involvement was the same: to guide, shape, form, and maintain indefinitely a society in perfect balance with itself and with the universe – a society constructed in accordance with what the ancient Egyptians called *maat* (earthly and cosmic harmony, truth, balance, the

‘right way’) and what the Hindus still call *dharma*, a concept that has exactly the same meanings.[95]

Thus we discover that the Seven Sages would from time to time take over as the rulers of kingdoms during an interregnum or in the prolonged absence of the legitimate ruler.[96] They would instruct rulers on the duties of kings.[97] They would also ‘obtain sons for kings’ (if necessary by impregnating the king’s wives themselves!) thus ensuring the longevity of royal dynasties[98] – since it was felt (in both ancient India and in ancient Egypt) that the presence of a king or pharaoh was an essential aspect of cosmic balance. When through some mishap there was no king, then it was the task of the Seven Sages to seek out and appoint a new one. In this regard the *Mahabaratha* tells how, after the destruction of the kingly caste, ‘the earth – being without

kings – started to sink in distress, whereupon Kasyapa supported the earth and found new kings for her'.[99]

Amongst many other roles related to rulers and the secular order it is interesting to note that the Seven Sages also frequently *cursed* kings if they abused their powers (and it was a very dangerous thing – often fatal – to be cursed by a Sage). 'In such contexts,' observes Mitchiner:

> The Rsi comes to be seen not merely as an upholder or teacher of *dharma* who strives to maintain righteousness and proper conduct among men, but as the very embodiment of *dharma* itself, manifesting *dharma* in his words and deeds, and purging with his curse the *adharmic* actions of others.[100]

A spiritual basis to history?

In conclusion, the more I learned about 'the Seven Sages' on

my journey through the ancient texts and commentaries, the more they began to sound to me like a religious cult armed with powerful spiritual ideas, fired by yogic asceticism and the quest for *gnosis*, manipulating the development of 'kingdoms' in India from retreats in the Himalayas. And maybe not only kingdoms in India, but elsewhere in the archaic world as well?

We've seen that the Sanskrit texts speak of two groups of Seven Sages, one for south India, one for north India – regions that are widely separated geographically. But beyond India it's worth reminding ourselves again that it was Seven Sages – also associated with the dissemination of a system of knowledge – who served as the advisers to kings in ancient Sumer. Is it not a coincidence too far to discover that Seven Sages fulfilled exactly the same function in Egypt? According to the remarkable *Edfu Building Texts*, which I examined at

length in an earlier book,[101] these Seven Sages and other gods came originally from an island, 'the Homeland of the Primeval Ones', said to have been destroyed suddenly in a great flood during which the majority of its 'divine inhabitants' were drowned.[102] Arriving in Egypt, those few who survived became 'the Builder Gods, who fashioned in the primaeval time, the Lords of Light … the Ghosts, the Ancestors … who raised the seed for gods and men …'[103]

Most historians and archaeologists today more or less automatically project the 'materialist' basis and structure of modern society (whether in its 'capitalist' or 'socialist' form) back on to societies of the remote past. This belief – that civilization is simply a function of economic forces – has in turn dictated research and excavation strategies in the field and profoundly influenced the way that scholars look at

ancient texts such as the *Vedas*. In recent years, however, a thought-provoking counterview has begun to emerge. 'Our political and economic interpretations of history', argues the Sanskritist David Frawley, 'cannot be true if enlightenment or spiritual realization is the real goal of humanity.'[104]

Frawley draws attention to the ancient science of yoga in India – how ancient it may really be is one of the subjects we will consider in the later chapters-and points out:

> The modern view of the development of human civilization is far removed from the evolution of man according to the system of Yoga. The modern idea of civilization developing gradually through the growth of technology and scientific thinking contradicts the yogic point of view which rather sees culture as having been originally formulated and passed down by sages … If the essence of civilization is technology then the modern view may be right, but if it is the culture of spirit, it is quite wrong. By my

interpretation civilization was founded by yogis, seers and sages.[105]

Is it conceivable that the Indus-Sarasvati civilization of ancient India could have sprung up exactly in the way that the Vedic traditions tell us? Could it have been the outcome of a programme or even a 'policy' instituted by religious ascetics to protect a precious system of knowledge – knowledge from before the flood that was said to have reached India in the Ark of Manu, preserved in the memories of the Seven Sages?

7 / Lost India

> When Varuna and I embark together and urge our boat into the midst of the ocean, we, when we ride o'er the ridges of the waters, will swing within that swing and there be happy.
>
> *Rig Veda* (8, 88, 3]

The Vedic flood story, which is also the story of Father Manu and the Seven Sages, contains seemingly absurd elements: a gigantic fish towing the survival ship; no women on board, so Manu must create a wife and progeny by magical means; and a flood so huge and so high that the ship is carried to the Himalayas. There it is ultimately moored to the peak of the 'northern mountain', also referred to as 'the mountain of snow', in a legendary spot known in the *Mahabaratha* as Naubandhana ('the Binding of the Ship') and in the *Atharva*

Veda as Navaprabhramsana, 'the Place of the Ship's Descent' (or 'the Place of the Sinking of the Ship').

Although it is true that the Himalayas are young mountains in geological terms – mountains that were indeed once under the sea and that are still rising as India pushes up against the mass of Asia – I know that I am on absolutely safe ground to state that no oceanic flood in the entire evolutionary history of mankind has ever reached into or even anywhere near these 9000 metre high snow-covered ranges. It is, in other words, a geophysical impossibility for Manu's Ark to have been marooned in the Himalayas as the sacred texts of India claim.

Yet it is also true that large areas of the Indian subcontinent *did* experience severe oceanic flooding at the end of the Ice Age – particularly between 15,000 years ago and 8000 years ago. The floods of that epoch were global

phenomena, as we saw in chapter 3. In the Arabian Sea and the Bay of Bengal, however, they were fuelled and amplified locally by the spectacular meltdown of the Himalayan ice-cap, which was much deeper and more extensive in the Ice Age than it is today.

So, although I remained puzzled by the references to a ship in the Himalayas, I was not yet prepared to join the scholars in their opinion that all of this was complete fantasy with no historical value. It was time to get more detail on exactly what did happen to India in the crucial epoch of post-glacial flooding from 15,000 to 8000 years ago.

Two anomalous sites … and counting

In chapter 1 I reported a baffling discovery that was made in the early 1990s by marine archaeologists working in the Bay

of Bengal along the Tranquebar-Poompuhur coast of southern India near Nagapattinam. Although they did not at the time have sufficient funding to undertake more than a cursory examination, they were able to identify, and recommend for future investigation, a large, man-made 'U-shaped structure' flanked by a 'semi-circular structure' and an 'oval-shaped' mound. What is baffling about these submerged ruins, on which 'a few courses of masonry' can be made out under thick encrustations of marine growth, is the fact that they were found 5 kilometres off the present shoreline and at a depth of 23 metres.[1]

I had discussed the Poompuhur structure with S. R. Rao some months previously (see again chapter 1) and had for a long time regarded them as being of great potential significance. Nevertheless, local sea-levels in many parts of the world can (and do) rise and fall for all sorts of reasons

independent of global sea-level rise – so, while tempting, I knew that it would be a mistake to jump to conclusions about the age of the Poompuhur ruins just because they are deeply submerged. This was why I put the problem to Dr Glenn Milne of Durham University, one of the world's leading experts in the cutting-edge science of 'inundation mapping' – which uses a powerful computer program to calculate the complex variables and to produce accurate models of ancient shorelines at chosen dates in chosen locales.

Milne ran the programme for the coordinates of the Poompuhur site and e-mailed the result on 12 October 2000:

> areas currently at 23 m depth would have been submerged about 11,000 years before the present. This suggests that the structures you mention are 11 thousand years old or older![2]

The possibility that the traces of a forgotten episode of global prehistory might indeed lie underwater off the shores of the Indian subcontinent suddenly looked a good deal more plausible. Previously I had focused on only one anomalous submerged site – in the north-west off the coast of Gujerat at Dwarka – and it was of uncertain date. But now I had confirmation of a second strong candidate located at the opposite end of India – in the south-east off the coast of Tamil Nadu – with a provisional dating to the end of the last Ice Age.

The next step was to ask Milne and his colleagues in the Department of Geology at Durham to prepare detailed inundation maps of the whole coastline of greater India as far to the south as the Maldive islands – which straddle the equator – as far to the north and west as Pakistan's Makran coast half-way to the Persian Gulf, and as far to the north and

east as the Ganges delta at the top of the Bay of Bengal.

Milne e-mailed the results of this new inquiry in mid-December 2000.

India 21,300 years ago

He had prepared four high-resolution maps. The earliest of these (see page 152) shows the subcontinent as it would have looked 21,300 years ago – around the time of the Last Glacial Maximum (LGM) when the world ocean had sunk to its lowest level.

In that epoch India's coastal plains were everywhere more extensive than they are today, in some areas they were much more extensive, and in two areas in particular – around Gujerat in the north-west and around Tamil Nadu in the

south-east – they were so much more extensive as to make ancient India virtually unrecognizable. Is it by chance that it is in these two areas exactly-where marine encroachment during the Ice Age meltdown was more dramatic than anywhere else in the subcontinent – that anomalous underwater ruins have been found?

At the LGM a strip of territory *at least* 100 kilometres wide that is now entirely submerged was exposed along almost the whole of the west coast of India – a linear distance of 2000 kilometres from the far south, beyond present Cape Comorin, to as far north as the Indus delta. However, at about latitude 15 degrees north this strip began to widen rapidly. Off modern Goa it was 120 kilometres wide, four degrees further north it was close to 500 kilometres wide and at 21 degrees north the Gulf of Cambay was a pleasant valley and the site on which the city of Surat now stands would have been as

much as 700 kilometres from the sea.

But as I studied Milne's inundation map in December 2000 I was most struck by what it revealed about Gujerat's distinctive Kathiarwar peninsula. Today surrounded on three sides by the sea (with the Gulf of Cambay to the south, the Gulf of Kutch to the north and the Arabian Sea to the west), it was completely landlocked 21,300 years ago. Even Dwarka with its mysterious submerged ruins – now poised on the extreme north-western 'horn' of the peninsula – would then have been about 100 kilometres from the sea.

All in all, I realized that what western India had lost to the global floods that followed the Last Glacial Maximum amounted to a vast coastal domain, nearly the same size and roughly the same shape as modern California and Baja California put together, with an area of close to half a million square kilometres.

The second part of the map that was almost unrecognizable was in the south-east, where the underwater structures had been found off Poompuhur.

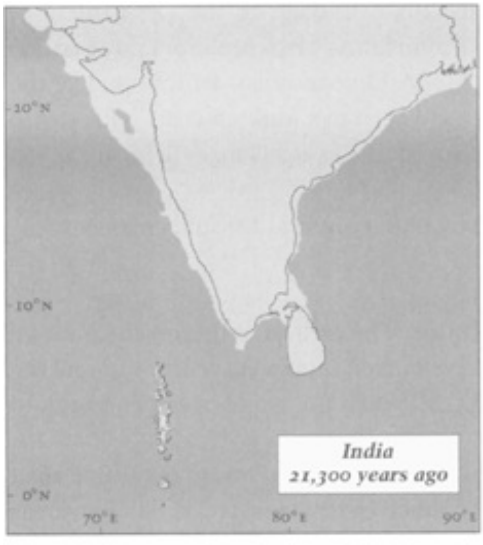
20°N
10°N
0°N
70°E
80°E
90°E
India
21,300 years ago

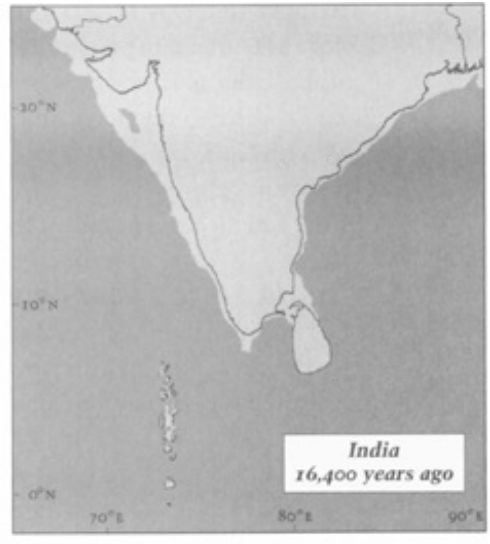
20°N
10°N
0°N
70°E
80°E
90°E
India
16,400 years ago

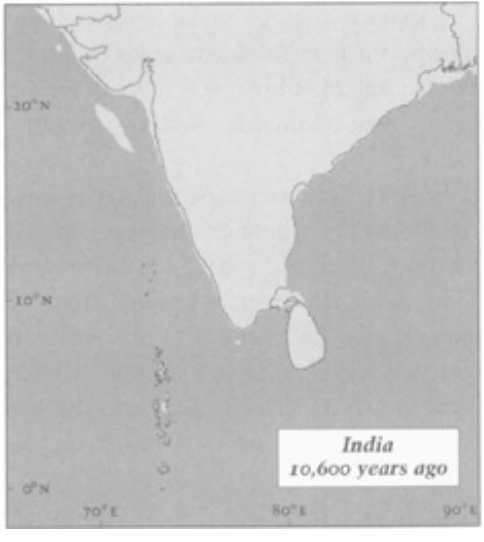
20°N
10°N
0°N
70°E
80°E
90°E
India
10,600 years ago

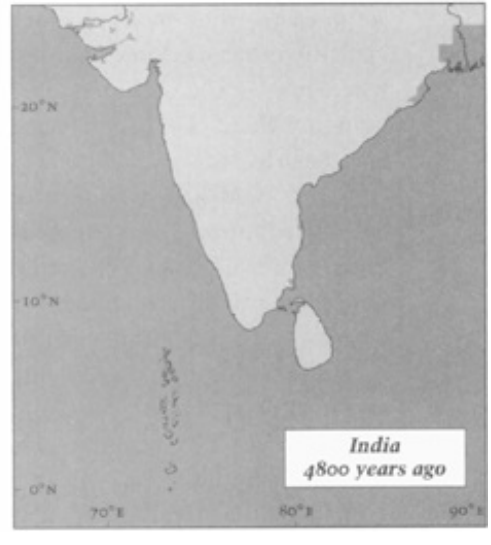
20°N
10°N
0°N
70°E
80°E
90°E
India
4800 years ago

Milne's calculations demonstrated that the Poompuhur site would have been almost 100 metres *above* sea-level at the Last Glacial Maximum, and would have stood towards the northern edge of a great peninsula roughly the same size and shape as the modern Koreas. Enclosing the Palk Strait, which was then a valley, and grafting a much-enlarged Sri Lanka firmly to the mainland, this lost Ice Age realm extended from a little below Dondra Head, at about 6 degrees north, as far as modern Pondicherry at around 12 degrees north. Mahabalipuram, with its neglected legends of the Seven Pagodas and the flooded city of Bali, lies at 12.37 degrees north and would have been at least 50 kilometres from the sea at the Last Glacial Maximum. Meanwhile, to the west of the Sri Lankan peninsula, forming the other side of the Gulf of Mannar – a large enclosed bay at the LGM – a snout of land extended into the Indian Ocean more than 150

kilometres beyond modern Cape Comorin. Finally, off-shore to the south-west, the ‘necklace’ of tiny atolls that make up the Maldives in the twenty-first century appeared as an imposing archipelago on Milne’s map. Greatly enlarged and increased in number because of the lowered sea-level, they included thousands of square kilometres of continuous landmasses at the Last Glacial Maximum that have long since completely vanished.

So here again what the inundation map revealed was a substantial, integrated area – an entire sub-region of India – that had been above water 21,300 years ago and that is submerged today.

16,400 years ago

Milne’s second map did not look very different from the first,

although it showed India almost 5000 years later – at 16,400 years ago.

To my eye the south-eastern portion was to all extents and purposes identical in both maps. In the south the snout-shaped peninsula below Cape Comorin was slightly reduced in width, but still about the same length, and some of the larger Maldives had begun to break up.

In the south-western sector of the mainland (northwards from the Cape) the 100 kilometre wide strip of coastline up as far as latitude 15 degrees north was thinner – generally between 20 and 50 kilometres thinner – than it had been at the LGM. But beyond 15 degrees north, where the strip began to widen, the loss of land had been much less severe, indeed negligible. The Gulfs of Cambay and Kutch were still filled in, the Kathiarwar peninsula was still landlocked, and Dwarka was still about 100 kilometres from the sea.

In the light of what I'd learned so far about the chronology of the post-glacial cataclysms, the general lack of dramatic change during this period made perfect sense: 16,400 years ago the meltdown of the last Ice Age had only just begun and the first of the three global superfloods identified by Professor John Shaw and discussed in chapter 3 was still more than a thousand years away.

The reader will remember the approximate chronology of those floods, which were actually prolonged *episodes* of flooding in all cases – 15,000–14,000 years ago; 12,000–11,000 years ago; and 8000–7000 years ago.

10,600 years ago

Glenn Milne's third map showed India as it had looked 10,600 years ago, after the first two of the three episodes of

flooding had done their work. In the far south the ‘snout’ that had protruded beneath Cape Comorin was now almost completely inundated, leaving only a lonely island anchored in the Indian Ocean about 80 kilometres off-shore.

To the south-west the Maldives archipelago was much reduced, although the residual islands were larger than their modern counterparts.

In the south-east, I was surprised to see Sri Lanka still attached to India albeit by a diminished land-bridge – as late as 10,600 years ago. On the mainland the coast of Tamil Nadu had in general been reduced almost to today’s levels. Five kilometres off-shore the Poompuhur structures had been inundated. At Mahabalipuram the coastal plain still extended 2 or 3 kilometres further into the Bay of Bengal 10,600 years ago than it does today – far enough, in theory, for the legendary city of Bali to have been built there as late as that

date.

On the south-west side of the Indian mainland the strip of coast running from Cape Comorin at 8 degrees north up as far as 15 degrees north now extended less than 5 kilometres beyond today's level. At about 17 degrees north it began to widen as before, but much more gradually. A very large part of the landmass directly below the Gulf of Cambay was now flooded by the sea and it was possible to make out the emergence of the modern shape of the Kathiarwar peninsula. Nevertheless the Gulf of Cambay was still entirely above water 10,600 years ago, so too was the Gulf of Kutch, and the present coastline of the peninsula was still surrounded by a healthy margin of dry land. Dwarka was at least 40 kilometres from the sea. Off-shore of Dwarka to the south-west there was an island about 50 kilometres in length – a remnant of the formerly much extended coastline in these

parts. A second much larger island – 400 kilometres long and almost 100 kilometres wide – lay a little further to the south and extended down to well beyond modern Bombay.

4800 years ago

When I turned to study the final map of the four received from Milne it showed that sea-level was slightly *higher* 4800 years ago than it is today, marking the post-glacial high-stand of the sea. In the far south the Maldive islands had almost completely vanished and Sri Lanka was fully isolated from the mainland and in its modern form. On the mainland itself most parts of the coast were indistinguishable from those on a modern map, although the eminence on which Dwarka stands today would have been an island at that date. Much more significant marine incursions into areas that are now

mostly dry land were shown into the Rann of Kuch and the Gulf of Cambay in the north-west and around Poompuhur-Tranquebar in the south-east.

But this made sense. I remembered that in the Persian Gulf too the sea-level had been a metre or two higher around 5000 years ago – as a result of a worldwide episode of rapid, relatively short-term flooding known as the Flandrian transgression.[3] Presumably in India, as in the Gulf, the land had later been recovered thanks to the subsequent regression of sea-level to the modern value, combined with the local effects of silting. Indeed the salt-flats of the Rann remain susceptible to marine transgressions to this day and by 4800 years ago had become, temporarily, a large navigable extension of the Gulf of Kutch, scattered with numerous islands, that would not dry up for another thousand years. Into that gulf as far as Dholavira, the trade of the Indus-

Sarasvati civilization was soon to be brought in great high-prowed ocean-going ships – the ships depicted on the terracotta seals of the mid-third millennium BC, the ships that also sailed further south, through the extended Gulf of Cambay, to the now landlocked port of Lothal.

The amount of time that Glenn Milne was able to spend making inundation maps for me was strictly limited, but there was a period within the range of 21,300 to 4800 years ago that I particularly wanted him to do some more modelling on. I already knew by comparing his map for 21,300 years ago with his map for 10,600 years ago what lands had been surrendered to the sea during the first two global floods (15,000–14,000 years ago and 12,000–11,000 years ago). Now I wanted more fine detail on what had happened between 8000 and 7000 years ago, when the third episode of global superfloods had been unleashed. Just to be

on the safe side I asked Milne to give me a complete sequence of maps covering the period from 13,500 years ago down to the present.

What if?

India is so big that I sometimes find it difficult to conceive of it all at once. Now after my first session with the inundation maps it seemed to be dividing itself conveniently into the two great cultural, linguistic and geographical regions into which it has always divided itself – at least since the time of the *Rig Veda* – namely the Dravidian-speaking south and the Indo-European-speaking north.

In both these areas there had been extensive post-glacial flooding, and I was determined to dive in both if I could. But the south was far from the Himalayas, with which the *Vedas*

associate the escape of the Seven Sages and Manu from the flood, while the north-west coast around modern Gujerat was not only much closer but also had lost more land more rapidly than any other part of India.

The conjunction begged an obvious speculation. What if by extraordinary bad luck some kind of civilization had been based in precisely this area, on land that had been inundated 11,000 or 8000 years ago at the end of the Ice Age?

If so, then it was by no means inconceivable that the survivors might have fled to the Himalayas, pretty much as the Vedic traditions state. They could not have got there by boat, of course. But if a boat had played an essential part in their survival of the flood then it was easy to see how the whole adventure might have been dramatized and remembered in later times as a boat journey.

I could think of several good arguments against this scenario. In no particular order: (1) What right had I to assume that there had been any civilization at all, anywhere, 11,000 or 8000 years ago? (2) Even in the unlikely event that a culture that was a little out of the ordinary had existed at that time, and had so far escaped discovery by archaeologists, why should it have chosen to concentrate itself in the very part of India that would suffer the most extensive post-glacial inundations – when there were so many other parts of India to choose from? (3) Even if both the prior improbabilities are granted and we accept that a civilization was there and was flooded, why did its survivors retreat all the way to the Himalayas? There was perfectly safe land in between that would have been much more congenial for settlement and for agriculture (presumably an important priority to Manu, who made such a point of 'saving the name of vegetation' and of

bringing with him ‘all the seeds which have been described of old’).[4]

Yet history is full of examples of improbable things that have happened. It was thought improbable in the nineteenth century that a European army could ever be defeated in battle by an African army – until the Abyssinians routed the Italians at Adowa in 1896. It was thought improbable that the *Titanic* would sink on her maiden voyage, but she did. The residents of Pompeii obviously thought it was improbable that their city would be smothered by an eruption of Vesuvius, but it was.

So let’s just ask the question and be damned: what if a prehistoric people, with more sophisticated spiritual ideas and a more developed culture than is known to have existed elsewhere in India at this time, had evolved on the

California-sized coastal domain between Goa and the Indus delta before it was inundated at the end of the Ice Age? What would have happened to that culture when the deluge came? What sort of story might its survivors have told? And-the heart of the matter really – could it be that story that is expressed in the *Vedas?*

The hypothesis that no one has tested

Even in the twenty-first century, long after it supposedly relinquished its grip, the dead hand of the 'Aryan invasion of India' theory still moulds our perceptions of the *Vedas.* The assumption that there ever was such a thing as an invasion, or even a distinct ethnic group called the Aryas, may have been abandoned, but we've seen in previous chapters how scholars have retained the closely related assumption (albeit

within a much wider time-scale) of an overland *migration* of semi-nomadic or transhumant tribes *towards* India *from* somewhere in the general direction of Europe.

Underlying this assumption are other assumptions about the state of development of the migrants (in the early days of 'the transition to agriculture'); about the kind of land that they might have inhabited before coming to India (plains, valleys, mountains); and about the various 'environmental challenges' (desertification, drastic changes in rainfall and temperature regimes, etc.) or 'economic pressures' (overpopulation, competition for scarce resources) that might have compelled them to migrate in the first place.

Because assumptions are free and everybody is entitled to one, the quest for the 'Indo-European homeland' has become something of a scholarly equivalent of the quest for Atlantis. By various highly ranked authorities at various times it has

been placed as far afield as the North Pole, Scandinavia, central Europe, southern Russia, central Asia and eastern Anatolia.[5] The suggestion that it might have been within India itself has only very rarely been made and then not by European scholars. Indeed in a survey of 'Recently proposed homelands of the original Indo-Europeans' the Sanskritist David Frawley, along with historian of religion George Feuerstein and Professor Subash Kak of Louisiana State University, found that only one out of ten of the homelands that had been proposed was in India (and that by an Indian academic) while the other nine were all set much further to the north and west.'[6]

Never, so far as I am aware, has a reputable scholar – Indian or otherwise – ever suggested a Vedic homeland located not only *within* India but also *exclusively* on the

subcontinent's coastal margins inundated at the end of the Ice Age. Nor for that matter do I know of any reputable scholar who has ever considered oceanic flooding in *any* shape or form amongst the 'environmental' challenges that might have compelled a migration of the 'proto-agricultural' Vedic peoples out of their 'homeland' (wherever that was) and into a wider theatre.

This seems like an oversight, since the origins of settled agriculture and 'civilization' in India – indeed of the very urban lineage that culminated millennia later in the Indus-Sarasvati civilization itself – are now known by scholars to go back *at least as far as* #500 *years before the present.* That is the approximate date – 6500 BC – of the first habitation strata at the extraordinary prehistoric town of Mehrgarh in Pakistan's Bolan pass,[7] an archaeological site of great mystery, as we shall see. It is also an early enough date to lie firmly within

the time-frame of the three episodes of global superfloods at the end of the last Ice Age.

A maritime culture?

What sort of ancient culture would have chosen to locate itself exclusively in a region so close to the sea that the recurrent cycles of post-glacial floods might have seriously endangered it?

In my opinion only a maritime, sea-going culture – indeed a culture that was dependent on the sea – fits the bill. Moreover, there can be no objection in principle to the existence of such a culture in India 8000 or even 15,000 years ago – since scholars accept that early humans may well have been seafarers as much as 40,000 years ago and that by 10,000 years ago lengthy oceanic journeys and difficult

navigational feats were being accomplished by supposedly 'Stone Age' peoples in many different parts of the world.[8]

Yet the assumption continues to be that the founders of the Vedic religion – the forefathers of those who sang the Vedic hymns that have come down to us – were hunter-gatherers or nomads or farmers who only reached India after a long overland journey (itself thought to have been motivated by the demand for more land). Most Western Indologists studying the *Rig Veda* have therefore never seen the need to analyse the many references that its ancient hymns contain to 'seas' and 'oceans'. Indeed, only David Frawley, who is far from the mainstream but whose knowledge of the *Vedas* cannot be faulted, has attempted a serious investigation of this problem:

> The modern, generally Western idea is that the *Rig Veda* is the product of a

> nomadic people invading India from the northwest, who, therefore, could not have known anything of the sea … However this idea does not come from the *Veda* itself. It is a preconception used to interpret it. We can only discountenance the many references to the ocean in the *Rig Veda* by redefining the regular Sanskrit terms for ocean presented in it to have meant nothing more than any large body of water, river or lake. If we take them as they appear … they fairly clearly show a maritime culture.[9]

Frawley argues that although forests and deserts are also mentioned in the *Vedas*, familiarity with these does not prove non-familiarity with the ocean:

> The scope of Vedic geography is quite large, with mountains, plains, rivers and seas. This allowed scholars to focus on one side of it and become caught up in that one aspect. Yet the oceanic symbolism appears to be the most common.[10]

So much so, Frawley points out, that Ralph Griffith, the translator of the *Vedas* – who did not accept that the Vedic peoples had any experience of oceans – was compelled almost 100 times to translate various Vedic terms as 'ocean' or 'sea', because this is exactly what those terms mean and no alternative translation is possible.[11] Other more ambiguous maritime references, in Frawley's view, were mistranslated or treated simply as metaphors. And while he admits that the word 'ocean' in the *Vedas* is sometimes used as a metaphor (the 'ocean of heaven' for example), he argues persuasively that

> such images do not reflect a lack of contact with the earthly ocean … They show great intimacy with the sea, not just as a practical fact but as a poetic image impressed on them by life in proximity to it.[12]

Nor are the maritime images in the *Vedas* confined to seas

and oceans. They also include descriptions of sailing, of ships and of ship-borne trade. According to Professor S. P. Gupta:

> There are … references to sea, i.e. *samudra*, and traders, i.e. *panis*, engaged in seaborne trade; *navah, samudiiah, sata-aritia*, etc. are such terms which clearly indicate it. Even piracy is mentioned. Attack by unscrupulous people on boats laden with goods in order to capture them finds clear mention in terms like *duseva, tamovridha.*[13]

If you listen to the Vedas *you can hear the ocean*

Scholars have long regarded it as legitimate to make firm deducations about the biblical world – its economy, its history, its environment, its sense of geography, its social organization, etc. – by studying the Old Testament.[14] When the same approach is applied open-mindedly to the *Rig Veda*,

you can hear the ocean:

All sacred songs have magnified Indra, expansive as the sea. (1, 11, 1)

He [the god Varuna] knows the path of birds that fly through heaven, and … of the
sea, He knows the ships that are thereon … (1, 25, 7)

Like as a watery ocean so doth he [Indra] receive the rivers spread on all sides in their ample width … (1, 55, 2)

The Seven mighty Rivers seek the ocean. (1, 71, 7)

O thou whose face looks every way, bear us past foes as in a ship … As in a ship convey thou us for our advantage o'er the flood. (1, 97, 7–8)

Come in the ship of these our hymns to bear you to the hither shore. (1, 46, 7)

Yea Asvins [two ‘divine intermediaries’ or ‘guardian angels’ frequently referred to in the *Vedas]*, as a dead man leaves his riches, Tugra left Bhujyu in the cloud of waters … Ye brought him back in animated vessels … Bhujyu ye bore … to the sea’s farther shore, the strand of ocean … Ye wrought that hero exploit in the ocean which giveth no support, or hold, or station, what time ye carried Bhyjyu to his dwelling borne in a ship with hundred oars, O Asvins. (1, 116, 3–5)

Ye ever-youthful Ones … ye brought back Bhujyu from the sea of billows … uninjured through the ocean … (1, 118, 14–15)

O Asvins … Ye made for Tugra’s son [Bhujyu], amid the water floods, that animated ship with wings [sails?] to fly withal, whereon … ye brought him forth. And fled with easy flight from out the mighty surge. Four ships, most welcome in the midst of ocean, urged by the Asvins, saved the son of Tugra, him who was cast down headlong in the waters …(1, 182, 5–6)

O Maruts [sky and storm gods], from the Ocean ye uplift the rain, and fraught with vaporous moisture pour the torrents down. (5, 55, 5)

Earth shakes and reels in terror at their [the Maruts'] onward rush, like a full ship which, quivering, lets the water in. (5, 59, 2)

May Aja-Ekapad, the God, be gracious, gracious the Dragon of the Deep, and Ocean …(7, 36, 13)

Let not the sinful tyranny of any fiercely-hating foe smite us as billows smite a ship. (8, 64, 9)

As rivers swell the ocean, so, Hero, our prayers increase thy might. (8, 88, 8)

Ye furtherers of holy Law, transport us safe o'er many woes as over water-floods in ships. (8, 72, 3)

> When Varuna and I embark together and urge our boat into the midst of the ocean, we, when we ride o'er the ridges of the waters, will swing within that swing and there be happy. (8, 88, 3)

> In both the oceans hath his home, in eastern and in western seas. (10, 136, 5)

> Well knoweth Savitar [the personification of the Sun as a life-giving force] where ocean, firmly fixt, o'erflowed its limit. (10, 149, 2)

Although the Vedas are eloquent on their own behalf, the passages above (quoted from the Griffith translation and representative of many other passages not reproduced here) do seem to raise a number of queries.

For example, as well as confirming a knowledge of the relationship between rivers and oceans – with references to rivers seeking the ocean, pouring into it, etc. – we are also

presented with the concept of rivers *filling up* the ocean, quite a different matter. When was the last time that human beings are likely to have seen rivers literally filling up the ocean (rather than just flowing into it and making no difference to its level as they do today)? Could it have been the time when the ocean, previously thought to have been firmly fixed in its place, 'o'erflowed its limit' and when only those on board ships were safe from its floods?

And what about the Maruts, the storm gods, who 'from the Ocean … uplift the rain, and fraught with vaporous moisture pour the torrents down'? Knowledge of the workings of our planet's great ocean-evaporation-cloud-rainfall cycle is not something that we normally ascribe to proto-agricultural nomads who have never been near an ocean in their lives. But the idea should occur naturally to anyone who lives in sight of a coast – where, at times, the clouds do seem visibly

to be drawing up moisture from the sea.[15]

Also amongst the quoted passages are references to the 'eastern and the western seas', and to 'both the oceans'. These references suggest a rather widespread maritime experience (at the very least, presumably, of the Arabian Sea to the west of India and of the Bay of Bengal to the east).

Then we must consider the question of all those references to ships – hardly a subject of great interest or relevance to landlubbers but something that we would naturally expect to encounter in the discourse of mariners. And what ships! Ships in which to ride out the 'water-flood' as we have seen … ships so formidable and so secure that they are used as a metaphors for safety, security and protection … ships, with great sails and banks of oars, that fly across the waves so fast they hardly seem to get wet … ships that can brave the billows and pull off the spectacular rescue 'from out the

mighty surge' of a man lost overboard and then return him safe to his dwelling on 'the strand of ocean'.

Last but not least, and again as we would expect with a maritime people, there is knowledge both of the dreads and dangers of the sea and of its joys and pleasures. Thus, on the one hand, there is the delightful hymn to Varuna which could only have been composed by someone completely at ease with the motions of the sea and the way that a sailing ship behaves as it skips the ridges of gentle waves or lies at anchor rocking on the swell. On the other hand, these ancient compositions also offer an insight into the awful predicament of the human lost alone in the ocean 'which giveth no support, or hold, or station'. In a few simple words and images they allow us to know the fear and victimization felt by those on board a ship that is being mercilessly pummelled by storm waves 'smiting' it 'like a fiercely-hating foe'. With

the same minimal but effective description we learn of the 'terror' experienced by its sailors when an injured ship 'quivers' and begins to 'let the water in'. And then there are such creatures to appease as the 'Dragon of the Deep' – aquatic monsters that would be out of place in fields or mountains but seem quite at home in the fantasies and experiences of a maritime people.

I therefore find much in the *Rig Veda* to recommend the hypothesis that its original composers must have lived close to the sea and been familiar with the ways of the sea over a long period of time. This, at the very least, improves the odds in favour of a possibility briefly raised in previous chapters – namely that the *Vedas* (a superb religious literature with no known parent) might in fact have been the work of the undeniably maritime Indus-Sarasvati civilization (which was long known to have possessed a script but apparently had no

religious literature).

In that case the mystery of the origins of the *Vedas* would converge with the mystery of the origins of the Indus-Sarasvati civilization – origins that are receding further and further back into the past with each new turn of the archaeologists' spade at sites such as Mehrgarh and Nausharo in Baluchistan that are already confirmed to be more than 8000 years old.

I remind the reader again that 8000 years before the present is within the time-frame of the great post-glacial floods.

Hidden treasures

We've seen that the scholarly chronology really has no

bearing, one way or another, on the ultimate age of the *Rig Veda*. Even the date of 1200 BC that is generally used turns out to be for codification only, with all concerned ready to admit that many of the actual compositions must be older – although exactly how much older nobody knows.

It's also obvious that the *Rig* is a composite work, recension after recension, layer upon layer, and that part of the difficulty of interpreting it probably comes from a jumbling of earlier with later material. Similarly, as Gregory Possehl argues, it looks like a work that underwent a long period of composition, 'when new material was added and older verses were edited and changed'. Then at some point 'this flexibility in composition stopped and the priests defined their text as immutable, not to be changed by one word or even one syllable, and the slightest mispronunciation or deviation from the canon was believed to be a sacrilege'.[16]

So in a sense what the *Rig* presents us with is a dynamic body of scripture and oral history that kept on changing and growing, retaining its dynamism – conceivably even for thousands of years – before being frozen in amber and then preserved eternally in its interrupted form for later study and reflection.

I see no need to get into the argument about when, precisely, that 'freezing in amber' might have occurred, or join with the scholars in bickering about a few hundred years here or there. I'm much more interested in the possibility that layers of extremely ancient oral history and tradition could be concealed alongside the much more recent material that the *Rig* also undoubtedly contains.

The case of the vanishing river

There is a river, spoken of repeatedly in the *Rig Veda*, that vanished into the earth – though not from human memory – thousands of years ago and that was only revealed again by satellite imaging and remote-sensing technology in the latter half of the twentieth century. It is the Sarasvati – the very same ancient river which now gives its name to the Indus-Sarasvati civilization, because large numbers of 'Harappan' and 'pre-Harappan' archaeological sites, dating back at least to the fourth millennium BC, have been discovered close to its former course. The Sarasvati began to dry out towards the end of the third millennium BC and to all extents and purposes had ceased to flow by the early second millennium BC. Even now, however, notes Gregory Possehl,

> there is a river bed, kilometres wide in some places and heavily cultivated, that the people of Haryana refer to as 'Sarasvati'. During the monsoon,

> parts of this channel carry small amounts of water, most of which is quickly captured for irrigation. Thus the river that today's people call Sarasvati is not entirely dead …[17]

There is a bigger question to ask, however: when was it entirely alive? When, for example, was the Sarasvati alive enough to merit these descriptions of it in the *Rig Veda?*

> Sarasvati, the mighty flood …[18]

> Coming together, glorious, loudly roaring – Sarasvati, Mother of Floods … with fair streams strongly flowing, full swelling with the volume of their water …[19]

> She with her might … hath burst with strong waves the ridges of the hills … Yea, this divine Sarasvati, terrible with her golden path, foe-slayer … whose limitless unbroken flood, swift-moving with a rapid rush, comes

> onward with tempestuous roar … Yea, she most dear amidst dear streams … graciously inclined, Sarasvati hath earned our praise.[20]

In the footnotes to his 1889 translation, long before the era of satellites and remote sensing, Griffith commented on the use of the word 'she' in the above verse and expressed a certain geographical puzzlement:

> *She:* Sarasvati as a river. The description given in the text can hardly apply to the small stream generally known under that name; and from this and other passages which will be noticed as they occur it seems probable that Sarasvati is also another name of *Sindhu*, or the Indus.[21]

Griffith did not for a moment consider the possibility that the Sarasvati of the *Vedas* might have been a much greater 'stream' in the distant past than it is today (thus justifying the *Rig's* description), and even translated without comment

another passage that negates his own hypothesis by speaking of *both* rivers in the same verse:

> Let the great Streams come hither with their mighty help, Sindhu [Indus], Sarasvati, and Sarayu with waves. Ye Goddess Floods, ye Mothers, animating all, promise us water rich in fatness and in balm …[22]

Because the *Rig* is in fact clear on the matter, scholars have long since given up the attempt to brush off the anomalous descriptions of the Sarasvati by trying to pretend that the Indus was meant. Nor-because of the perfect conformity between the ancient descriptions of a massive Sarasvati and the latest scientific evidence of a formerly massive Sarasvati – does there seem to be much mileage in writing it all off as hyperbole or poetic licence. Thus Possehl is prepared to concede:

The image created in the *Rig Veda* for the Sarasvati River is one of a powerful, full-flowing river, not easily reconciled with the literal meaning of the name 'Chain of Pools'. The discrepancy cannot simply be dismissed; swept under the carpet. It is a good example of how difficult it can be to use the *Rig Veda*, and the Vedic texts generally, as historical sources.

It could be that when the composers of the *Vedas* first came to the Sarasvati it was a river of great magnitude, and these recollections are what we read in their texts. But over time the stream was robbed of its headwaters and dried up, becoming a chain of pools. For whatever reason, the name was changed and Sarasvati is the name that was preserved in the texts; awkward to be sure, but probably not insurmountable. This carries an interesting chronological implication: the composers of the *Rig Veda* were in the Sarasvati region prior to the drying up of the river and this would be closer to 2000 BC than it is to 1000 BC, somewhat earlier than most of the conventional chronologies for the presence of Vedic Aryans in the Punjab.[23]

Possehl understates his case. The ‘chronological implications’ of Vedic Aryans in the Punjab by 2000 BC are much more than ‘interesting’. They are potentially devastating for the academic edifice of Indian literary history founded on a date for the *Rig Veda* of around 1200 BC – and thus for every assumption about Indian prehistory that has ever been based on such a date for the *Rig*. At the very least, if this is what the references to a full and powerful Sarasvati mean, then the possibility of a connection between the Indus-Sarasvati civilization and the Vedic religion must be greatly enhanced.

But the plot thickens …

From mountain to ocean

As well as presenting us with images of a powerful, fast-

flowing, roaring river (that would seem to be have been historically accurate for the Sarasvati at any time up until the end of the third millennium BC) the *Rig Veda* tells us something else, very, very clearly, that at first sight does not appear to be historically accurate at all. It tells us that the Sarasvati known to the Vedic priests and sages ran unbroken from the mountains to the ocean:

> This stream Sarasvati with fostering current comes forth, our sure defence … the flood flows on, surpassing in majesty and might all other waters. Pure in her course from the mountains to the ocean …[24]

The problem, in a nutshell, is this: the satellite studies indicate that the last time the Sarasvati flowed into any ocean may have been more than 10,000 years ago – in other words during the final millennia of the post-glacial meltdown. In a paper in the specialist journal *Remote Sensing*,

S. M. Ramaswamy, P. C. Bakliwal and R. P. Verma make the following observations about the satellite data from which they draw this very important conclusion about the 'palaeo-Sarasvati':

> The occurrence of well-developed tentacles of palaeo-channels in the vast Indian Desert [north-east of the Rann of Kutch] and the final arm of the palaeo-channel as the Ghaggar … show that River Sarasvati flowed close to the Aravalli hill ranges [and] met the Arabian Sea in the Rann of Kutch.[25]

The exact epoch in which the Sarasvati stopped flowing 'pure in her course' to the Arabian Sea and began to lose her way instead in the thirsty sands of the Indian Desert is not yet known with any certainty. Nevertheless, Ramaswamy, Bakliwal and Verma are quite satisfied that it was not in the 'Holocene' (the most recent geological age) but in the 'late Pleistocene' – about 12,000 years ago.[26] The same

approximate date has also been suggested by Bhimal Ghose, Anil Kar and Zahrid Jussain in a study for the Central Arid Zone Research Institute, Jodhpur,[27] and by Ghose et al. in the *Geographical Journal*.[28] B. P. Radhakrishna of the Geological Society of India similarly indicates the period between 8000 and 6000 BC as the time when melting ice-sheets in the Himalayas, accompanied by a great increase in precipitation, allowed 'Sarasvati and all its tributaries [to flow] in full majestic splendour'.[29] If all these scientists are interpreting the data correctly, then it is only to follow Possehl's own logic to observe that the combination of the remote-sensing evidence and the textual evidence carries an interesting chronological implication: the composers of the *Rig Veda* were in the Sarasvati region at a time when that river still ran all the way to the sea, and this would be closer to 8000 BC

than it is to 1000 BC.

It goes without saying that such a date is not just ‘somewhat earlier’ but dramatically, startlingly, inexplicably earlier than any of the conventional chronologies for the presence of Vedic Aryans in the Punjab. So has the modern science of remote sensing revealed one of the deeper layers of the Vedic palimpsest? Or is it just a fluke that what appears to be an accurate geographical account of the Sarasvati river as it last looked 10,000 or even 12,000 years ago seems to have been preserved in the *Rig2*.

Since leading mainstream scholars like Gregory Possehl have already all but accepted the heretical possibility that Vedic civilization was present in the Punjab by 2000 BC (on the basis of the colourful description of a full and turbulent Sarasvati) it seems invidious of them to ignore or sidestep the

Rig's equally colourful description of the Sarasvati flowing to the sea. However, this is exactly what Possehl does. Quoting the relevant passage ('pure in her course from the mountains to the ocean'), he admits that 'the Vedic pundits thought that the Sarasvati went to the sea' but explicitly advises students to treat this observation 'critically, not literally'[30] – presumably because to take the observation literally would imply an 'impossibly' early date for Vedic civilization.

Under Vedic skies

There are other passages within the *Rig* – not to do with rivers at all – which also appear to contain material of very great antiquity. These particularly concern astronomical observations of various stars and groups of stars at set seasons – the spring and autumn equinoxes and the summer

and winter solstices. Because of a phenomenon known as the precession of the equinoxes, the technical details of which need not detain us here,[31] the constellations seen at these seasons slowly and magisterially trade places, as though revolving on a great belt in the heavens, at the rate of one degree every seventy-two years with a full cycle of just under 26,000 years.[32] Thus, if an ancient text says 'we saw the star such-and-such or the constellation such-and-such rising at dawn at midsummer', then it is possible with modern astronomical formulae to calculate approximately when that observation must have been made.

There are numerous statements of this sort about stars and the seasons in the *Rig Veda* which, if taken at face value, suggest that the Vedic sages made observations of the sky for thousands of years and from time to time added verses or

hymns incorporating new astronomical data to the pre-existing compilation. The problem is that the range of dates, going back to the same epoch as the Sarasvati material, has always been thought of as too outlandish to be taken seriously by the majority of scholars.

This is, however, not quite a uniform view. Two of the highly respected Vedic scholars of the late nineteenth century, Professor H. Jacobi and Bal Ganghadar Tilak, were in no doubt that very ancient celestial observations are embedded within the *Rig*. On the basis of astronomical references Jacobi dated most of the hymns to the epoch of 4500–2500 BC.[33] And although Tilak's more comprehensive study found the greatest concentrations of references pointing to approximately the same period, he noted that earlier dates were also flagged.[34] Tilak thought that the most

prolific epoch of Vedic composition had been between 4000 and 2500 BC – the 'Orion period' as he called it – in which references are found 'from the time that the vernal equinox was in the asterism of *Ardra* to the time when it receded to the asterism of the *Khtikas* [the Pleiades]'.[35] But he also identified an older sub-layer of Vedic hymns with what he called 'the *Aditi* or the pre-Orion period', stating: 'we may roughly assign 6000–4000 BC as its limit'.[36]

More recently David Frawley has pointed to other references which may carry the *Rig Veda's* astronomical testimony back even earlier than 6000 BC, indeed 'possibly as early as 7000 BC when the [winter] solstice first entered [the constellation of] *Ashwini*'[37] (i.e., when the winter solstice was at or very near the beginning of the constellation of Aries).[38]

Frawley concludes:

> The *Vedas* look back to a time when the winter solstice, the Path of the Gods or northern course of the Sun, began near the beginning of the sign Aries … This does not mean that the hymns which use such symbolism were all composed during this era … It means that the *Rig Veda* looks back in its mythology to this era as determining much of the symbolism of its Gods and the order of its rituals …[39]

The Era of the Seven Sages

Why should the *Rig* look back in time towards such a distant epoch, roughly between 7000 and 6000 BC, if it does not have some very real and significant connection with that epoch?

Oddly enough, exactly the same question can be asked of a system of calendrical reckoning still in use in some remote

highland parts of India today, notably Kashmir.[40] Described at length in the *Puranas*, it is called, suggestively, 'the Era of the Seven Rishis'.[41] Although it operates completely independently of the *yuga* system it does intersect with it at certain points and, indeed, it is this very Saptarishi calendar which provides the referents that pundits have used to calculate the onset of the Kali Yuga to a date of 3102 BC.[42]

To state a complicated matter briefly, the Saptarishi calendar envisages a series of revolving cycles, each of 2800 years duration (much shorter than those of the *yuga* system). And while the *yuga* system has no real beginning or end, the Saptarishi calendar has a definite start date – a very first 'Era of the Seven Rishis'. This start date is 6676 BC.[43] According to John Mitchiner's detailed study:

> The complete cycle wherein occurs the start of the Kali Yuga will

> commence with Krittika in 3876 BC … while the preceding complete cycle will commence with Krittika some 2800 years earlier, namely in 6676 BC … and the following complete cycle will commence with Krittika in 1076 BC … The date of 6676 BC was in some sense regarded as being a starting point for Indian chronology.[44]

Mitchiner points out that that there is historical corroboration for a seventh-millennium BC start-point for Indian chronology in the works of Greek and Roman authors. Notable examples are Solinus and Pliny (AD23–79), who said of the Indians that from the time of the founding-father of their civilization to the time of Alexander the Great: 'they reckon the number of their kings to have been 154 and they reckon the time as 6451 years and 3 months'.[45] Alexander entered the Punjab in 326 BC and left in the same year. The implication is that the 'Father' figure (associated with

Bacchus in the Roman texts) 'was thought to have reigned in India in 64511/4 + 326 = 6777 BC'.[46]

Since Pliny and Solinus drew on reports sent back by Rome's ambassadors to India's Maurya court,[47] their chronology is regarded as first-hand information and is thought to transmit an accurate representation of ancient Indian beliefs about the past. Mitchiner is therefore intrigued by the fact

> that the date of 6777 BC which is given … by Pliny and Solinus is only a single century in advance of the date of 6676 BC which is suggested in the Indian texts to represent the starting point of Indian chronology, as based upon the Era of the Seven Rsis. We may therefore conclude that such a date was indeed regarded – from at least the 4th century BC – as being a starting point of Indian chronology.[48]

Connections

I already knew that it was the ancient function of Rishis – Sages, Seers – to sustain the institution of kingship on earth. It was to this end, and in order to preserve and repromulgate the *Vedas*, that the Seven Sages were said to have travelled to the Himalayas with Father Manu in the time of the great flood.

Now I also knew that an Indian calendar system identified with the Seven Sages, with a father figure and with a line of kings, had a start date of around 6700 BC – a date that fell well within the time-frame of the greatest floods the earth has known in the past 125,000 years.

Last but not least, I could not forget that 6700 BC is extremely close to the date at which the first settlement of the remarkable site of Mehrgarh in Baluchistan took place – a

site where the systematic planting and cultivation of cereals and vegetables, as well as systematic animal husbandry, was apparently introduced into India for the first time.

Inevitably I began to wonder if all these things might not in some way be connected.

8 / The Demon on the Mountain and the Rebirth of Civilization

Why humans came to domesticate plants and animals at some particular point in history remains somewhat of a mystery. It seems to be a phenomenon that developed just after the opening of the Holocene in several regions of both the Old and New Worlds. Why it did not occur earlier is not known.

Professor Gregory Possehl, University of Pennsylvania, 1999

Geological record indicates that during Late Pleistocene glaciation, waters of the Himalaya were frozen and that in place of rivers there were only glaciers, masses of solid ice … When the climate became warmer, the glaciers began to break up and the frozen water held by them surged forth in great floods, inundating the alluvial plain in front of the mountains …

> No wonder the early inhabitants of the plains burst into song praising Lord Indra for breaking up the glaciers and releasing waters which flowed out in seven mighty channels *[Sapta Sindhu)*. The analogy of a slowly-moving serpent *(Ahi)* for describing the Himalayan glacier is most appropriate … With the hindsight we possess as geologists, we at once see that the phenomenon described in the *Rig Veda* was no idle fancy but a real natural event of great significance connected with the break-up of Himalayan glaciers and the release of pent-up waters in great floods.
>
> B. P. Radhakrishna, Geological Society of India, 1999

In its study and interpretation of the past, archaeology depends heavily on material evidence produced at excavations. The dependence becomes total when the culture being investigated has left no documents or inscriptions to tell us about itself.

The Indus-Sarasvati civilization was a literate culture, but

the archaeological interpretation of it has been strictly limited to excavated material remains and has never been able to draw upon the civilization's own texts. This is because all attempts to decipher the enigmatic 'Harappan' script have failed, and because (at least until very recently) the Sanskrit *Vedas* were regarded as the work of another, later culture and were assumed to have had nothing to do with the Indus-Sarasvati civilization. Well into the twentieth century, this approach simply meant that there was no Indus-Sarasvati civilization. It was not part of the archaeological picture of India's past and was never even contemplated. It was, in other words, as 'lost' as Plato's Atlantis until the material evidence that proved its existence began to surface when excavations were started at Harappa and Mohenjodaro in the 1920s.

Many more characteristically 'Harappan' sites were

discovered during the next half-century of excavations in Pakistan and India but, as luck would have it, none of these were significantly older than Harappa and Mohenjodaro themselves. For a long while, therefore, the prevailing view amongst scholars was that these great cities had sprung up suddenly, with none of the long-term local development, evolution and growth that would normally be expected to underlie such a huge leap forward into organized urban life. For some archaeologists this was proof that the Indus-Sarasvati civilization was an offshoot of what was assumed to be the much older civilization of Sumer in Mesopotamia. Others just took it as an enigma and preferred to get on with the more practical business of understanding the evidence in hand.

The breakthrough came with the start of excavations at 'the village farming community' of Mehrgarh in Baluchistan in 1974. Now joined by Nausharo and a number of other equally ancient sites, its earliest settlement layers are dated

to around 7000 BC. TWO things are particularly striking about Mehrgarh: (1) from the very beginning its people were efficient and productive farmers; and (2) invaluably for archaeology, the site remained *continuously inhabited* until as late as the first millennium BC.

Moreover, many sites of intermediate age, between Mehrgarh in 7000 BC and Harappa around 2500 BC, have also subsequently been found in the ever-widening Indus-Sarasvati catchment area – and all of them are now regarded by archaeologists as the direct antecedents, represented at various stages of an entirely normal and reassuringly *gradual* process of evolutionary development, of the Indus-Sarasvati civilization itself.

This is often lauded as an example of how archaeologists are open to new facts and at the same time as proof that if

you dig deep enough and far enough afield you will sooner or later expose a lengthy phase of evolution behind *any* highly developed civilization. In other words, great cities with a mature and efficient agricultural base *don't* spring out of nowhere, *ever*. They may *seem* to, for a while; but in the end they always turn out to have a background.

Professor S. P. Gupta of the National Museum Institute in New Delhi provides a useful summary of current archaeological thinking on the origins of the Indus-Sarasvati civilization:

> It is common knowledge that the history of Indian civilization begins in the Neolithic cultures of the north-western hills and the piedmont regions dating back to the late eighth millennium BC at sites like Mehrgarh on the Bolan River in Baluchistan. Unfortunately … Mehrgarh … was not put to excavation [until] 1974 … However, after the excavations conducted at

Mehrgarh our entire perspective of the hill cultures of Baluchistan, hence about the beginning of the Indus-Sarasvati Civilization, has undergone a sea-change.

We now no longer talk of Baluchistan either in terms of a 'corridor' through which Iranian or Turanian[1] cultures passed on their way to the Indus Valley and caused the Indus-Sarasvati Civilization, or in terms of a rugged mountainous region with 'as many cultures as there are now hills'. Instead, we now see the hills and sub-mountainous regions of Baluchistan as the 'nuclear zone' which gave birth to a very long succession of cultures starting from the aceramic Neolithic, datable to the 8th millennium BC, to the beginning of the Indus-Sarasvati Civilization in the mid 4th millennium BC In other words, what was once thought … to be a loose chain of autonomous Neolithic and Chalcolithic cultures inspired by Iranian cultures can now be seen as parts of well-integrated cultural systems operating on an interregional basis all along the sub-mountainous regions, skirted by the Kirthar and Suleiman mountains, and the basins of the Indus,

Ravi, Chenab, Satluj and the Sarasvati along with their tributaries. It is this system which eventually gave birth to the Indus-Sarasvati Civilization in the plains of the Indus and the Sarasvati.[2]

What archaeology knows

So let's be clear about the mainstream archaeological position today:

1. The 'nuclear zone' out of which the Indus-Sarasvati civilization emerged was the 'submontane' or 'piedmont' region in the foothills of the Hindu Kush, Karakoram and Himalayan mountain ranges.
2. This 'first stirring' of what was ultimately to become the largest urban culture of the ancient world, took place around the end of the eighth millennium BC and the

beginning of the seventh.

3. The earliest surviving and most complete site so far found that bears witness to it is Mehrgarh in the Bolan pass, which dates to around 7000 BC.
4. Since Mehrgarh, the story of the evolution and development of the Indus-Sarasvati civilization is well known, with close to 3000 sites excavated. It is therefore extremely unlikely that any more major surprises await archaeologists researching the 5000-year period from 7000 BC down to 2000 BC.

I feel it is important to stress that all these points represent entirely reasonable deductions from the evidence now to hand and that the orthodox scholarly picture of the origins and development of civilization in India since the time of Mehrgarh is likely to be correct – not only in broad outline

but also in most of its finer details. In the absence of texts there will certainly be some aspects of the process that have been misunderstood or not even recognized – particularly matters to do with religious or symbolic expression – but there is no doubt that the archaeologists (these days mostly indigenous teams from India and Pakistan) have done diligent and extensive work and that by and large they have got the chronology and the connections right.

What archaeology doesn't know

The same cannot be said of the period *before* Mehrgarh, as the scrupulously honest Gregory Possehl informs us:

> Almost nothing is known of the time between the late Glacial Age at circa 15,000 BC and the beginnings of Mehrgarh at circa 7000 BC … The first

> period at Mehrgarh has fully-developed domestic architecture based on mud brick … So while Mehrgarh … is undoubtedly an early village farming community, there is also a sense that the excavations there have not documented the beginnings of this tradition or the beginnings of food production and domestication in the region. It is certainly nothing like a terminal hunting-gathering site with the intensive collection of cereals, pulses and sophisticated hunting. These people were already farmers.[3]

Quite a mystery, in my view!

Possehl explains the 'sudden' appearance of this strangely sophisticated village farming community at Mehrgarh as an artefact of incomplete excavations and is confident that 'the beginnings of food production and domestication in the region' will eventually be traced – within the region itself.[4] Also he relates the level of development that archaeologists have exposed in the first period of Mehrgarh, c.7000 BC, to

that of so-called PPNB ('Pre-Pottery Neolithic "B"') sites in the Levant. The PPNB represents the period between 8600BC and 7000 BC, when farming economies first came to dominate the Levant and southeast Anatolia (though there is highly localized evidence of agriculture in the Levant a thousand years before that).[5] Possehl is careful, however, not to imply any causal connection or influence in one direction or the other and admits:

> Why humans came to domesticate plants and animals at some particular point in history remains somewhat of a mystery. It seems to be a phenomenon that developed just after the opening of the Holocene in several regions of both the Old and New Worlds. Why it did not occur earlier is not known.[6]

Why, in other words, did the shift to food production and

domestication happen suddenly and specifically *then* – after 12,000 years ago (the date that geologists have set as the end of the 'Pleistocene' glacial age and the beginning of the modern 'Holocene') rather than at some other time? This is precisely the moment, Possehl observes, 'near the beginning of the Holocene, following the retreat of the last great continental glaciers' that the 'origins of settled life in the northwestern sector of southern Asia can be documented'.[7]

We are entering here one of the truly great riddles of prehistory: not just why did humans begin to domesticate plants and animals at a particular moment in the Indian subcontinent, but why did they do so in the first place *anywhere* in the world – and when and where (if anywhere) did this process really begin?

There have been many attempts to understand the driving

forces behind the food-producing and domestication revolution in human history:[8]

> Propinquity, overpopulation, cultural readiness, systems feedback, climatic change and stress, population pressure, even a kind of historical inevitability have all been offered, acting alone or in concert with other forces, to explain this revolution.[9]

By the mid-1990s the abrupt climate changes at the Pleistocene/Holocene boundary that accompanied the end of the Ice Age were becoming a focus of special interest to quite a number of researchers interested in the origins of agriculture.[10] McCorriston and Hole (1991) and Bar-Yoseph and Meadow (1995) were amongst many to argue that:

> The origins of agriculture must be viewed in the context of a fluctuating climatic regime that broadened and then constricted areas suitable for

> productive hunting and gathering and later for cultivation and pastoralism … abrupt climate shifts are seen as triggers.[11]

The counter-argument to this position offered by Gregory Possehl in 1999 is persuasive and worth hearing in detail:

> Those who use the 'short-term climatic trigger' hypothesis are essentially proposing that … when the climate reduced resources, there was only room for one response: food production with domestication. That may have been a possibility, but there must have been other conceivable reactions to such climatic stress: e.g. migration (probably only partial) to other environments, broadening the adaptation to include plants and animals not already part of the subsistence regime, population reduction, some combination or partial implementation of these solutions.
>
> The San !Kung bushmen seem to have lived through a three-year drought in Botswana and hardly noticed it. Neighbouring Bantu-speaking pastoralist-farmers lost 100,000 cattle, and food for 200,000 farmers and

herders had to be brought in as relief. In fact, the hunter-gatherers are reported to have helped the Bantus who came into their area to gather. We learn from this that the human response to drought and natural adversity is difficult to predict. The hunting-gathering adaptation can be extraordinarily resilient and provide very deep, very reliable insulation against adversities of nature.

We should not imagine that the relationship between humans and the natural world involves such unsophisticated responses as those proposed by the climatic and environmental stress models. The notion that early Holocene hunting and gathering populations … were just fine until the weather turned bad and that this caused them to domesticate plants and animals is just too simple … Moreover, placing the burden of the final shift to food production on a deteriorating climate relies on the notion that the people who 'invented agriculture' were under stress and impoverished.[12]

In summary, isn't it much more likely that 'the people who invented agriculture' would have been part of a society with the means and time to undertake what scholars have described as 'the leisurely process of domestication', rather than people on the brink of starvation?[13] Such a scenario, at the very least, seems to offer an alternative explanation for why the inhabitants of Mehrgarh were *already* farmers when the first bricks were laid there 9000 years ago: *either*, as Possehl suggests, they evolved their food-producing skills in the submontane belt around the foothills of the Karakorams and the Himalayas earlier than 9000 years ago. In this case we must suppose, as he does, that the traces of this vital evolutionary phase – between sophisticated hunter-gathering on the one hand, and full-scale agriculture and livestock

management on the other – still await discovery (despite the admittedly intense archaeological investigation of these areas during the past fifty years); *or*, they evolved their skills somewhere else, in the Levant or another place where archaeologists have not looked, and migrated into the submontane regions of north-west India from there.

Oddly enough, it is the second possibility, not the first, that is favoured by the ancient traditions of India itself. We've seen how these explain that Manu and the Seven Sages retreated to the Himalayas from a place that was not the Himalayas at the time of a terrible oceanic flood, and that they brought with them from their antediluvian homeland not only the *Vedas* but also all the 'seeds' that would be necessary to re-establish permanent food-producing settlements.

The sacred texts also tell us that Vedic society was guided

by a brotherhood of these Seven Sages – Rishis, wise men – who oversaw its evolution, established the institution of kingship within it for the general benefit of mankind, and ensured that those kings ruled justly. The fundamental ethic taught by the sages was asceticism – which is indeed the eternal ethic of ancient India for as far back as the memory of man extends – and while recognizing the necessity of a society that could meet all the basic material needs of human beings, it is unlikely that the 'economic policies' of such sages would ever have encouraged overproduction or the growth of luxury.

A relatively simple lifestyle, with few material preoccupations and a focus on spirituality and yogic self-discipline would be more along the lines of what would be expected – a lifestyle very much like that of Mehrgarh 9000 years ago at the end of the Ice Age.

Mehrgarh's story

The Bolan pass connects the western side of the Indus valley with the highlands of Baluchistan and beyond. Mehrgarh nestles at the foot of the pass on the alluvial Kachi plains beside the Bolan river. It is a well-chosen spot: sheltered location; plenty of water; good for agriculture; and good as a transit point for any trade or travel that is going on between the mountains on one side and the lowlands and the Arabian Sea on the other. Mehrgarh is far enough from the coast – about 500 kilometres – to have been safe from oceanic inundation (still an issue 9000 years ago with one further major episode of global superfloods yet to come). Moreover, although rugged, Baluchistan is not high enough to have supported an ice-cap during the last glaciation. Other than occasional unavoidable flooding of the Bolan river, we may

therefore speculate that Mehrgarh would have enjoyed a moderate climate threatened by no obvious environmental or geological hazards when it was founded around 9000 years ago.

So it's easy to see why those first inhabitants – who were already farmers and clearly knew a thing or two about agricultural land – chose to settle at Mehrgarh rather than somewhere else. What is not so clear is whether there was any special motive or purpose or plan or inspiration behind the settlement or whether it is just to be seen the way scholars usually portray it – i.e. as part of some general, haphazard 'trend' towards sedentarization and intensified food production in north-west India that had in some vague way been prompted by climate change.

Mehrgarh is extensive, running north to south along the west bank of the Bolan river in a strip up to a kilometre wide

and more than two kilometres long – although not all sectors were occupied at the same time. The Period 1 material is clustered towards the northern end of the site, where it is estimated to cover an area of approximately 3–4 hectares. Of this only a very small proportion (75 square metres) has as yet been excavated.[14]

One of the several things about Mehrgarh that I find puzzling, given the generally high level of development and discipline shown by its people from the beginning, is that the first settlers either did not know how to make pottery, or for some inexplicable reason chose not to use it. At any rate no pottery has been found in the earliest occupation layer (Period 1A) dated to around 9000 years ago; it begins to show up in Period 1B, about a thousand years later.[15]

This 'aceramic' phase suggests that Mehrgarh's first

inhabitants must have been relatively unsophisticated; however, other evidence – notably concerning their competence as builders – contradicts this view. From the outset, for example, they built with well-made mud bricks of regular size (33 × 14.5 × 7 centimetres)[16] and oriented certain structures to the cardinal directions.[17] Many of the structures are simple dwellings with relatively strong walls made out of two courses of bricks laid side by side and with floors on which the ancient impressions of reeds can sometimes still be made out. The average size of these dwellings is small, just 5 by 4 metres, and yet they are frequently subdivided into several small rooms:[18]

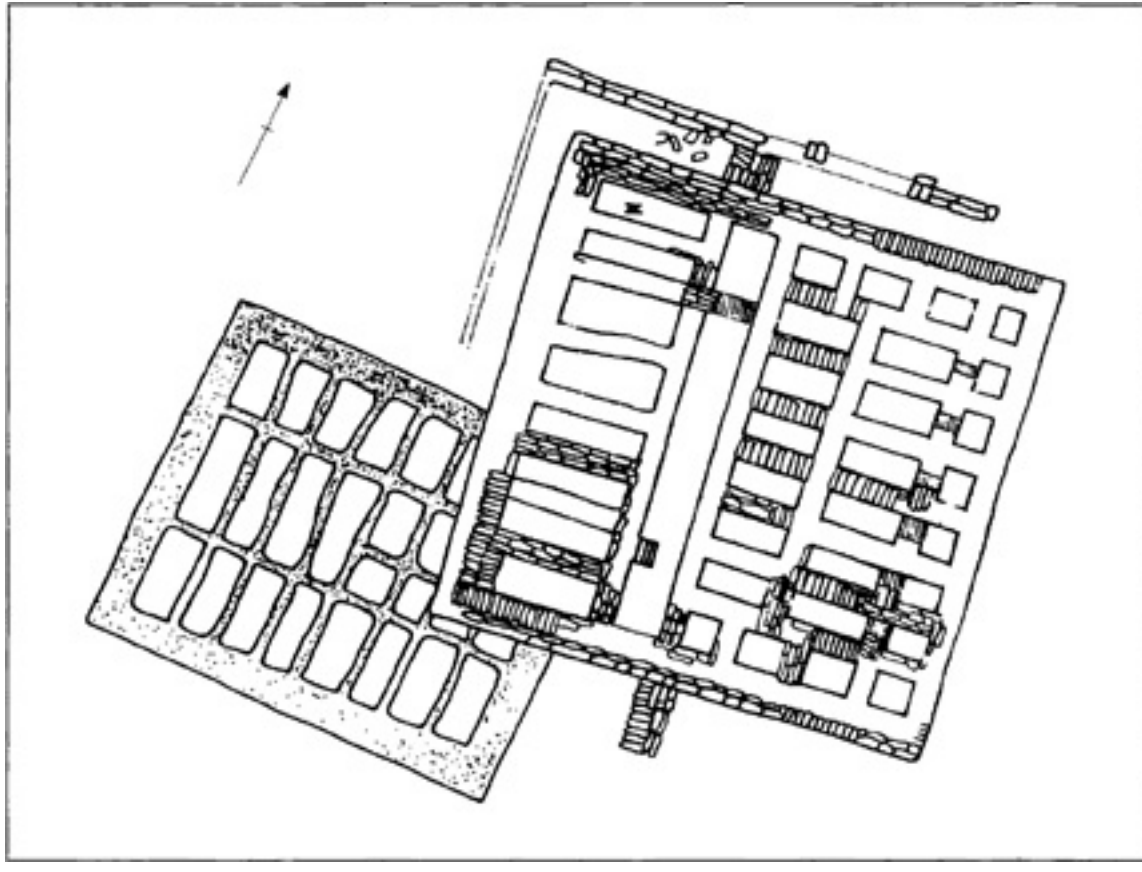

Plan of Compartmented buildings at Mehrgarh. Based on

Rao (1991)

> Ovens and hearths … were usually found in the corners of rooms and signs of their use can be seen as traces of smoke on the plastered walls. One circular oven was lined with bricks and had a dome [like the tandoor ovens of Pakistan and northern India today] which was traced in its collapsed condition.[19]

Some of the Mehrgarh structures bear a striking family resemblance to much later buildings of the Indus-Sarasvati civilization – notably the so-called 'Granary' of Mohenjodaro, which has numerous narrow, cell-like compartments and has been interpreted as a storage facility.[20] The same interpretation has been given by the French archaeological team to 'Structure B' at Mehrgarh, which measures:

> 6.3 metres by 6.7 metres, is oriented north-south, and is made up of six rectangular rooms. Three rooms measure 2.25 metres by 1.5 metres and the other three 3.3 metres by 1.5 metres. No doorways between rooms were found even though there are two, three or four preserved courses of bricks. The walls were made of two rows of bricks … The floors of five of the rooms were covered with pebbles (three rooms were completely covered with them).[21]

There are traces of many other compartmented structures at Mehrgarh from several successive periods in the life of the town. Some of them are preserved up to a height of more than 15 courses of bricks and in none of them have doors or windows been found. The cell units are often no larger than 1 square metre and it is presumed that they must have been entered through their roofs.[22]

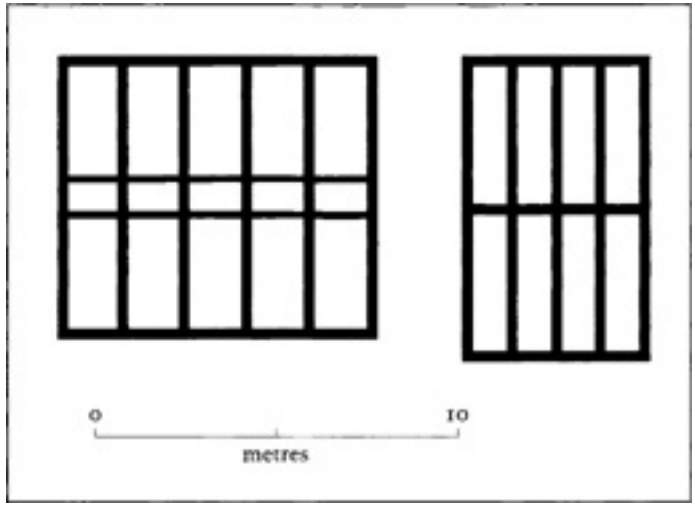

Diagram of cell units at Mehrgarh. Based on Quivron (1991).

So, although they did not make pottery, the very first inhabitants of Mehrgarh did make a range of brick buildings – and these look like the work of people who knew what they

were doing. The compartmented structures may not have been ‘granaries’ – there’s no definite evidence – but, whatever they were, they clearly had a function and were built according to some sort of protocol. Such a protocol must, logically, have antedated the foundation of Mehrgarh in order to feature in an already developed form in the oldest habitation layers there.

The first people of Mehrgarh were accomplished farmers, from the beginning, as Gregory Possehl has pointed out. They grew domesticated wheat and barley, still two of the principal food grains of northern India today.[23] In their suite of crops they also included other carefully chosen domesticates: lentils, peas and chickpeas:

> The pulses, annual legumes cultivated for their seed, are an especially interesting group of plants because they are able to fix atmospheric

> nitrogen in symbiosis with the bacterium Rhizobium found on their roots. They add nitrogen to the soil, rather than consume it, and if these plants are rotated and mixed with the food grains, higher yields are achieved through increased soil fertility.[24]

Because agricultural knowledge like this ought to take centuries, maybe millennia, to build up, Gregory Possehl is not alone amongst archaeologists in his conviction that Mehrgarh does not represent the beginnings of the food-producing tradition in north India but an already developed stage of it.

There is also evidence that the domestication of wild species of goats, sheep and cattle was undertaken by Mehrgarh's first settlers, with great success, as though this was something else that they already understood how to do from experience that they had acquired in another location.

Moreover, they seem to have arrived at Mehrgarh with this animal-domestication programme already in mind and in the initial years supplemented their diet with hunting on the Kachi plains (gazelle, swamp-deer, blackbuck, wild pig, elephant, etc.) while the development of their domesticated herds was underway. 'What we see at Mehrgarh,' concludes Possehl,

> is a sequence of events that seems to document the local domestication of animals. The sheep, goats and cattle start out looking wild, and were manipulated … Over time the potential domesticates came to look like domesticated animals (smaller, with the osteological hallmarks of domesticated beasts) … The contribution of domestic or 'pro-domestic' stock to the faunal assemblages came to surpass that of other animals early in the aceramic.[25]

I note in passing that the food-production sequences that

archaeologists have been able to piece together at Mehrgarh show a good level of fit with the Manu story – which, unlike the Noah story, says nothing about animals on the Ark, but which does tell us that the archetypal Indian flood survivor brought on board, 'carefully preserved and assorted, all the seeds which have been described of old'.[26]

Other materials excavated at Mehrgarh add to our understanding of its first settlers: they used small amounts of copper 'thought to be of the native variety, not smelted'; their primary tools, fashioned from flint, include sickle blades bearing the characteristic sheen imparted when such blades are used to harvest crops; they wove textiles; they made baskets, sometimes waterproofing them with bitumen; they fashioned awls, spatulas and needles from bone; they also possessed a well-developed bead-making industry producing tiny disc-shaped beads in black steatite, barrel-shaped beads

in calcite and bangles of polished conch shell;[27] Dentalium shells – long, hollow tubes that form natural beads – have likewise been found in Mehrgarh. These shells are endemic to the Gulf of Cambay.[28] There is also evidence of contact with coastal areas 'and long distance trade networks as attested by the presence of marine shells, lapis lazuli, and turquoise in even the earliest graves'.[29]

Mention of these earliest graves raises another mystery that surrounds the first inhabitants and founders of Mehrgarh. Unlike later occupants of the site, they buried their dead with great care and ceremony. The bodies were carefully arranged in a 'flexed' or embryonic posture, oriented with the head towards the east and the feet towards the west,[30] surrounded by personal effects and sometimes by offerings of food and drink for sustenance on what was clearly believed to be some

form of afterlife journey of the soul.[31] Such burials – 166 graves in total – began right at the start of aceramic Period 1A and were sustained over more than a thousand years down to Period 11A before gradually being abandoned.[32] A particularly interesting 'side-wall' grave from Period IB contained the remains of an adult male or female

> alongside a very eroded wall. At the feet were a polished stone axe, a large flint core, a piece of a red ochre lump, a bovine bone, and two fragments of a double-pointed bone tool, a third fragment of which lay in front of the thorax and provides evidence for the intentional breaking of the tool before burial. Also associated were two turquoise beads (as a belt) and other bovine bone fragments.[33]

Ritual burials of this nature, with more or less elaborate grave goods, were conducted again and again in the early years of Mehrgarh. The practice is firmly established at the

beginning, with a number of distinct conventions in place concerning the style and orientation of the grave and the types of objects and ornaments interred with the deceased. All of this suggests a complex religious and funerary culture – one that must already have been in use by Mehrgarh's first inhabitants when they established the site.

But in use for how long? And where? Where did the mature religion with afterlife beliefs that we get a glimpse of at Mehrgarh 9000 years ago have its origins?

Although most archaeologists consider the origins of Indian agriculture to lie either in the Near East or in the sub-Himalayan piedmont region, there is one discordant observation about the first settlers which raises doubt. Although the observation was published in 1983 in the peer-reviewed journal *Current Anthropology*, and although its validity has not been challenged by any of the archaeologists

working at Mehrgarh, it seems that no scholar has yet got fully to grips with what it could mean.

The observation, arising from research conducted by dental morphology specialist John Luckacs, concerns 'the high frequency of shovel-shaped incisors among the inhabitants of Mehrgarh Period I. *This is a distinctive feature of populations of eastern and southeastern Asia.*'[34] According to Luckacs, the teeth of the Period I inhabitants of Mehrgarh

> contrast strongly with the European dental complex [generally found in India and in the neighbourhood of Mehrgarh from antiquity] and share several dental features common with the Sundadont pattern … The Neolithic people of Mehrgarh may represent the western margin of South-Southeast Asian phenotypic dental pattern known as Sundadont.[35]

Though passed off in a low-key manner, the implications of

this discovery are actually quite extraordinary – since the way overland from south-east Asia to north-west India is very long indeed and since the Sundadont characteristics found at Mehrgarh have never been observed anywhere else in the subcontinent.[36] Moreover, south-east Asia's extensive Sunda Shelf – the home of Sundadont teeth and a continent-sized landmass above water at the Last Glacial Maximum – was submerged in several rapid stages between 16,000 and 11,000 years ago.

The implications seem obvious at first, i.e. that forced out of their original homes (where they had established agriculture, religion, etc.) by the flooding of the Sunda Shelf, the first settlers somehow sailed all the way from southeast Asia to the north-west coast of India then sailed up the Indus and then finally crossed overland to the foot of the Bolan pass, where they founded Mehrgarh. Yet the teeth don't

warrant such a large conclusion. They are not pure Sundadont but rather ‘share several dental features in common with the Sundadont pattern’ and are more likely to have come from some intermediate place – though where that might have been cannot be guessed from the dental evidence alone.

Besides, if flooding is to be cited as the reason why settlers – hypothetically – would have left the Sunda Shelf and sailed to India, then why do we need to look so far afield when we have half a million square kilometres of good land to the north, south and east of Gujerat that was inundated during the same period? Aren’t hypothetical flood refugees much more likely to have reached Mehrgarh from there, less than a thousand kilometres away, than from distant Indonesia or Malaysia on the Sunda Shelf?

At the very least, the similarities to the Sundadont pattern

seen in the teeth of Mehrgarh's Period I people do seem to rule out any possibility that they had migrated to Mehrgarh overland from the west. As Jonathan Kennoyer confirms:

> They do not have strong morphological relationships to known Neolithic populations of West Asia. On the contrary their dental morphology associates them with a distinctively Asian gene pool.[37]

The mystery of who exactly it was who founded Mehrgarh therefore remains unsolved to this day, and the whole issue has been somewhat neglected – perhaps because of its potential to cause controversy. Scholars also continue to have no idea as to what it was that brought the settlers to Mehrgarh in the first place, though they seem to have arrived with a definite plan and purpose in mind. Last but not least, we should not draw conclusions about the state of mental and intellectual development of the first inhabitants from the

rather simple and austere nature of their homes, their tools and their lifestyle. This 'archaeological assemblage' is consistent with the orthodox historical model of how people at the threshold of sedentarized food production should have looked and behaved when they set up their first permanent settlements.[38] But Mehrgarh is also consistent with another model – the model that is suggested in the *Rig Veda* of a society established by yogic sages to meet simple needs with great efficiency, but showing no interest in material luxuries or excesses that might lure humans away from the pursuit of spiritual enlightenment and the immortal destiny of the soul.

Rising seas and melting ice-caps

Mehrgarh Period I takes us back to about 9000 years ago, but

the radiocarbon results are frequently confusing,[39] 'the stratigraphy at the site is extremely complex',[40] and because of the margins of inaccuracy that apply to any attempt to date sites as old as this one it is by no means inconceivable that Mehrgarh may in fact be closer to 10,000 than to 9000 years old.[41]

I decided to find out more about what had been happening in the northwestern Himalayas in the millennia leading up to the foundation of Mehrgarh, during the catastrophic meltdown at the end of the last Ice Age. It was at this time, immediately following 'the retreat of the last great continental glaciers', as Possehl puts it, that the food-producing explosion began in north-west India. But strangely neither he nor any other major scholar looking at the revolutionary cultural developments of that epoch has

considered the possibility that the melting glaciers and rising sea-levels were more than just symptoms of generalized climate change and might in some way have been *directly* connected to the introduction at Mehrgarh of a settled agricultural way of life that was apparently new to the subcontinent.

We've already seen how dramatically India's coasts were inundated after 15,000 years ago. But what about the 'supply' end of the rising sea-level equation? What about the ice-caps, in runaway meltdown as glaciers collapsed, that sent huge floods roaring down from the mountains to fill up the oceans? If there were cataclysmic outburst floods from glacial lakes in North America and in Europe, then why not in the Himalayas too?

Double meanings

The language of the *Rig Veda*, even after its passage from a spoken, oral tradition to a written Sankrit tradition, and after its more recent transformation from ancient Sanskrit into modern and often prosaic English, remains intensely mysterious – filled with symbols, metaphors and riddles that sometimes seem to have been designed to blur the borderline between image and reality, between the symbol and the thing symbolized.

A small but possibly significant example of this concerns the use of certain Sanskrit words in the Manu story with what can only have been the deliberate intention of exploiting ambiguities and innuendoes in their meaning. This is surely the case, argues David Frawley, with the Vedic word for ‘boat’ – *nau* – which also means ‘word’ or ‘Divine Word’,

while the word for 'thought', *dhi*, also means 'vessel'.[42] Such puns could offer a rational explanation for the improbable image of a ship marooned in the Himalayas that the Manu story leaves us with. For example, although the words used speak literally of a ship attached to the peak of a high snow-covered mountain, the relevant passages could very easily have been intended to suggest that the 'word' – the revealed 'Divine Word', i.e., the *Vedas* themselves – had been brought to the Himalayas for safekeeping in the memories of the Seven Sages. That would make sense of the caution supposedly given to the refugees by Vishnu that the 'ship/word' should not be allowed to descend from the mountains too fast lest the waters sweep it away. Perhaps the community of Sages that is hinted at in the texts decided to stay for a long time in retreat in the Himalayas, perhaps even for many generations, storing and preserving the seeds of

already domesticated varieties of cereals and pulses that they had brought from their homeland until such a moment as they felt it was safe for the 'Word' once again to be promulgated amongst men. In this case we should read the term Naubandhana in the *Mahabaratha* (see chapter 6) not as so much as 'the place of the binding of the ship' but as 'the place of the protection of the Word'.

Another interesting area of ambiguity concerns the many shades of meaning that have been found in the name of the Sarasvati river. Possehl renders it 'Chain of Pools', Frawley reads it as 'She who flows'.[43] Griffith's authoritative translation, on the other hand, is 'The Watery'.[44]

What therefore are we to make of one of the most ambiguous and symbolic ideas that the *Vedas* have to offer: the great myth known as 'the Freeing of the Seven Rivers'

that seems to speak of a flood cataclysm in the Himalayas?

What the Vedic sages knew (2): the meltdown in the Himalayas

The *Rig Veda* conjures up a compelling image of a demon in the form of a great dragon, or serpent, that has wrapped itself around the ice-covered mountain ranges that hem in northern India and strangled seven great rivers. The name of the demon is sometimes Ahi but more often Vrtra and the story of how he is slain by the god Indra and of how the seven rivers are freed, is repeated again and again in the hymns of the *Rig Veda:*

> I will declare the manly deeds of Indra, the first that he achieved, the Thunder-wielder. He slew the Dragon, then disclosed the waters, and cleft

the channels of the mountain torrents. He slew the Dragon lying on the mountain; his heavenly bolt of thunder Tvastr [the artificer of the gods] fashioned. Like lowing kine in rapid flow descending, the waters glided downward to the ocean … Indra with his own great and deadly thunder smote into pieces Vrtra … There he lies like a bank-bursting river, the waters taking courage flow above him. The Dragon lies beneath the feet of torrents which Vrtra with his greatness had encompassed … Rolled in the midst of never-ceasing currents flowing without a rest for ever onward, the waters bear off Vrtra's nameless body … O Indra … thou hast let loose to flow the Seven Rivers. (1, 32, 1–12)

Indra hath hurled down the magician Vrtra who lay beleaguering the mighty river. Then both the heaven and earth trembled in terror at the strong Hero's thunder when he bellowed. (2, 11, 9)

Thou, slaying Ahi, settest free the river's path. (2, 13, 5)

Indra, whose hand wields thunder, rent piecemeal Ahi who barred up the waters, So that the quickening currents of the rivers flowed … Indra, this Mighty One, the Dragon's Slayer, sent forth the flood of waters to the ocean. (2, 19, 2–3)

Thou in thy vigour having slaughtered Vrtra didst free the floods arrested by the Dragon. Heaven trembled at the birth of thine effulgence; Earth trembled at the fear of thy displeasure. The steadfast mountains shook in agitation: the waters flowed and desert spots were flooded. (4, 17, 1–3)

Thou slewest Ahi who besieged the waters … the insatiate one, extended, hard to waken, who slumbered in perpetual sleep, O Indra. The Dragon stretched against the seven prone rivers, where no joint was, thou rentest with thy thunder. (4, 19, 2–3)

Indra for man made waters flow together, slew Ahi and sent forth the Seven Rivers, and opened as it were obstructed fountains. (4, 28, 1)

> E'en now endures thine exploit of the Rivers, when, Indra, for their floods thou clavest passage. Like men who sit at meat the mountains settled. (6, 30, 3)

> Indra … ye slew the flood-obstructing serpent Vrtra … Heaven approved thine exploit. Ye urged to speed the currents of the rivers, and many seas have ye filled full with waters. (6, 72, 3)

A common explanation that is offered for this myth, both by foreign scholars and by the Indian commentators, sees Vrtra as a symbol for large, dark rain-clouds which Indra bursts open with his thunderbolt. The rivers in this scenario are said to symbolize 'streams of rain'.[45] Thus Horace Wilson writes:

> the original purpose of the legend of Indra's slaying of Vrtra … is merely an allegorical narrative of the production of rain. Vrtra … is nothing more

> than the accumulation of vapour condensed or figuratively shut up in, or obstructed by a cloud. Indra, with his thunderbolt, or atmospheric or electrical influence, divides the aggregated mass, and vent is given to the rain which then descends upon the earth.[46]

It is true that some descriptions of Vrtra in the *Rig Veda* do unambiguously depict the demon as a withholder of rain ('the rain obstructor', 1, 52, 6) and equally clearly associate his destruction with the onset of 'floods of rain' (1, 56, 5) – so any attempt to assess Vrtra's character must take such descriptions into account. Nevertheless, I do not feel that Wilson's elegant allegory satisfactorily explains certain key features of the myth outlined in the passages cited above: the constant references to the 'freeing of the Seven Rivers' (if 'rivers' are really 'streams of rain', then why are there just seven of them?); the description of pieces of Vrtra's body being carried away in the waters, 'rolled in the midst of

never-ceasing currents' (surely more consistent with what is seen during powerful floods than it is with rainstorms?); the clear statement that the released waters cut channels in the mountains and descend in rapid flow to the oceans; the way that the flooding of 'desert spots' is connected to this downrush of waters from the mountains; and most of all the way that the released waters are said to flow 'above' the Dragon Vrtra as he lies abased 'beneath the feet of torrents' (whereas, if he were merely a rain-cloud dispersed by Indra's thunderbolt, one would have expected what was left of his 'body' – the remaining wisps of cloud? – to have been *above* the freed waters, not beneath them).

Uncomfortable with Wilson's pure symbolism for precisely these reasons, other scholars have offered a more literal interpretation of the myth in which the rivers are the seven physical rivers of ancient north-west India – an area that is

indeed referred to as early as the *Rig Veda* as the 'Land of the Seven Rivers'.[47] The rivers concerned are generally presumed to be the Indus, the Sarasvati and the five rivers of the Punjab[48] which 'often entirely dried up in the summer'.[49] According to this variant, Indra is 'the god of the rainy season' who calls the rivers back to life and Vrtra is the demon of summer drought.[50]

But there are problems here too. Most significantly, Indra's 'exploit of the Rivers' is not portrayed in the *Rig Veda* as an annually or seasonally recurring event but as a one-off, unrepeatable event of awe-inspiring proportions that took place a long time ago (so long ago it is described as Indra's first manly deed and the poet remarks with wonder that 'e'en now' its fame endures). When I read the accounts in the *Rig* I find it impossible to convince myself that the sages of remote

antiquity who composed these hymns were talking about something that happened every year when they described this epic conflict that took place in the snow-covered northern mountain ranges. On the contrary, the texts leave no doubt that when Vrtra was slain he was slain for ever: ‘When Indra and the Dragon strove in battle, Maghavan [“Lord of Bounty”, an epithet for Indra] gained the victory for ever’ (1, 32, 13).

So I think there’s room for a third scenario – one that the scholars haven’t looked at.

Ice dragon

Suppose that Vrtra symbolizes glaciation – more specifically the Himalayan ice-cap, which would have been greatly extended at the Last Glacial Maximum and might indeed at

times have choked off the headwaters of the Seven Rivers. If so, then it can be seen that the myth is quite consistent with the tumultuous collapse of ice-caps all around the world at the end of the Ice Age – and with what one might have expected to witness in the Himalayan and Karakoram mountains at this time:

- Before the heroic intervention of Indra, the demon Ahi in his lair high in the mountains is explicitly described as being 'extended' and 'stretched against the seven prone rivers' and also as being locked in a 'perpetual slumber' – a suitable metaphor for an ice-cap in deep-freeze.
- Indra's slaying of Ahi/Vrtra is compared to the sudden opening of obstructed fountains.
- The floods pouring down off the mountains are incredibly strong – strong enough to cleave rocks and

ridges asunder as they carve out their paths.

- Large chunks of the central dome of the ice-cap get flushed out with the powerful onrushing floods (‘Rolled in the midst of never-ceasing currents flowing without a rest for ever onward, the waters bear off Vrtra’s nameless body’).
- Filled with jostling icebergs, the waters are turbulent and noisy, like stampeding herds of cattle, as they foam out of the rocky gorges and rush towards the ocean.
- The dramatic effects of the meltdown include tremendous descending waves (‘glacier waves’, see chapter 3) that form in the vast pools of meltwater on the surfaces of large glaciers (‘There he lies like a bank-bursting river, the waters taking courage flow above him. The Dragon lies beneath the feet of torrents’).

- Gigantic earthquakes are unleashed as the burden imposed by the ice-cap on the land beneath is suddenly reduced; in the Himalayas and Kara-korams, which are anyway amongst the fastest-rising regions on earth, such isostatic rebound might have been amplified by normal mountain-building processes ('the steadfast mountains shook in agitation').
- Distant desert areas far downstream are flooded.
- The floods are of a nature to fill 'many seas'.
- After the catastrophic events that denuded the Himalayas and the Kara-korams of much of their Pleistocene ice-cover and that perhaps left them looking very much as they do today, the Seven Rivers that previously had been dammed up or frozen at their headwaters by the expansion of the ice-cap were set free

and began to flow again in their normal courses.

Plausible? Some of it, perhaps. But this is one of the problems with the game of interpreting myth: the meaning ascribed may be more in the eye of the beholder than anywhere else …

Still, after reviewing the whole Vrtra mystery, I thought it made sense to look more closely into the scientific literature about the Himalayas. What did the palaeoclimatologists say had been happening there during the 10,000 years after the end of the Last Glacial Maximum when every other ice-covered area in the world, as far afield as New Guinea, the Andes, North America and northern Europe, was simultaneously experiencing the danger and the drama – but also the promise for a better future for mankind – of a ferocious meltdown?

Flying through ELA Land

Scientists studying ice-caps and glaciers make much use of the acronym ELA, which stands for Equilibrium Line Altitude, 'the altitude on a glacier at which annual accumulation [of ice] is exactly matched by annual ablation [melting], so that the net mass balance is zero'.[51] As one might expect, numerous studies have confirmed that ELAs across the Himalayan and Karakoram mountains were significantly lower at the Last Glacial Maximum than they are today (i.e. the ice-coverage descended further into the valleys and the ice-cap was therefore deeper – although opinions differ somewhat as to exactly how much deeper). A few examples from the literature are sufficient to illustrate the consensus on this matter:

> It is evident that there is still considerable room for disagreement on the

glacial succession in the north-west Himalaya and Karakoram, and even on the details of the events during the last Pleistocene glaciation. This is illustrated by the continuing divergence of opinion on the ELA depression during the Last Glacial Maximum, the maximum (of Haserodt) being 1250 metres and the minimum (of Scott) being 720 metres … Despite the apparent diversity in the estimates of ELA-depression-values for the Last Glacial Maximum, values for the north-west Himalaya, Greater Karakoram and Swat Kohistan tend to cluster in the range 800–1000 metres.[52]

For the Dunde ice cap on the northern flank of Tibet … we have interpreted a temperature decrease of four to six degrees Centigrade and consequent lowering of equilibrium line altitude (ELA) in the range of 700–850 metres during the last glacial stage.[53]

Estimated maximum depressions of ELAs range from approximately 1100 metres below present values (Swat Kohistan and the Hunza Valley in the Karakoram range) to 600 metres (southern side of the Zanskar range).[54]

> Depressions of ELA were calculated from glacial geological mapping of the former extent of the glaciers. Maximum ELA depressions were 700 metres below present values in the Ningle Valley, 750 metres in the Liddar Valley, and 800 metres in the Sind Valley.[55]

> ELAs were reconstructed for the Last Glacial Maximum advance … The results show an ELA depression of approximately 1000 metres below present values in the Ladakh range.[56]

One would not go far wrong by saying that the average lowering of ELA over the Himalayan/Karakoram ice-cap at the Last Glacial Maximum was probably of the order of 750 metres – i.e. about three-quarters of a kilometre.

Now what does this mean in practical terms? Writing in *Science*, Nicholas Borozovic, Douglas Burbank and Andrew Meigs helpfully provide an answer to this question with

special reference to the north-western Himalayas and the Karakorams at the Last Glacial Maximum:

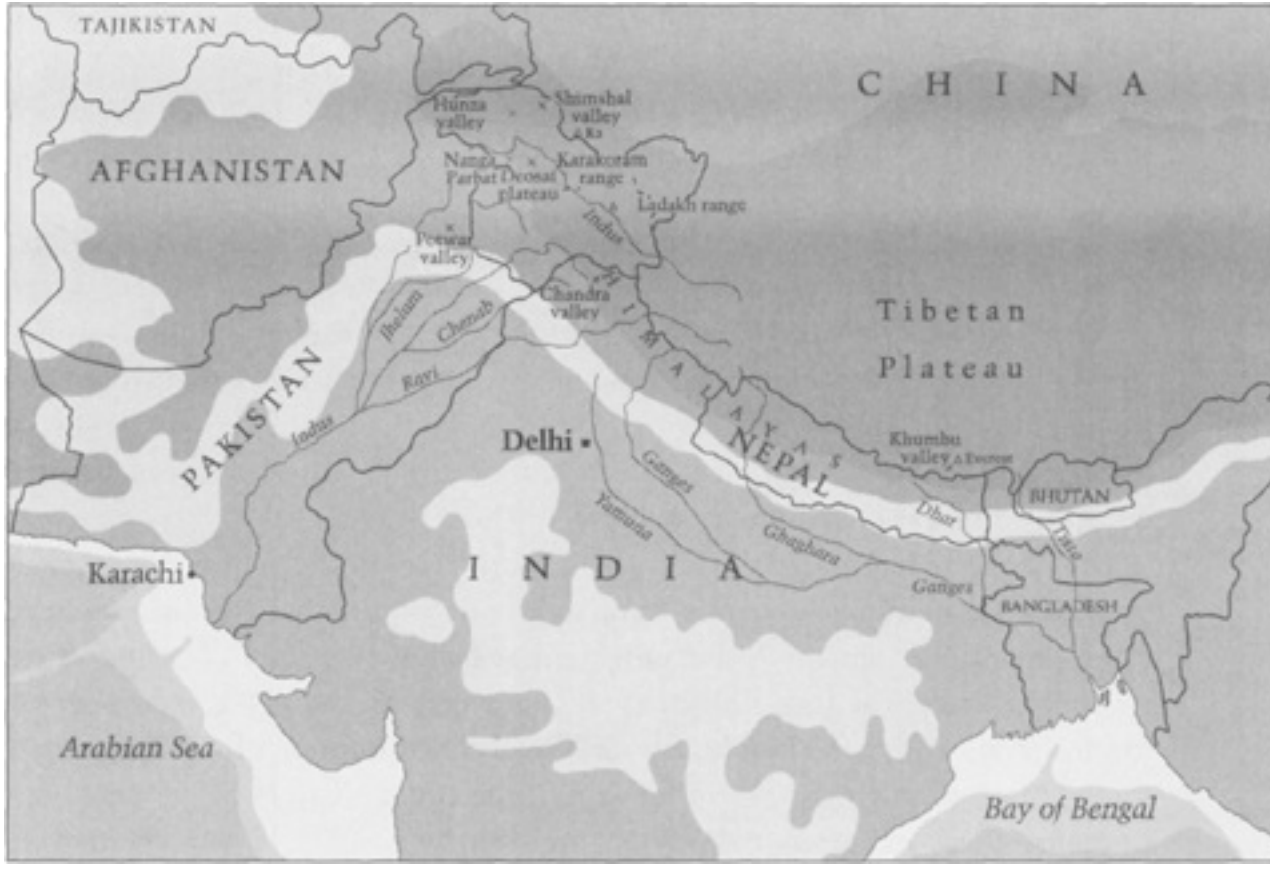

> small changes in ELA significantly increase the percent surface area covered by glaciers when the region lies at an altitude similar to the EL A … For deeply incised mountainous regions (Nanga Parbat, the Karakoram, and Haramosh and Rakaposhi] there is an approximately linear relation between ELA lowering and the area above the snowline. Modern-day glaciers in the Karakoram are extensive; conditions at the LGM would have nearly doubled the area above the snowline available for their accumulation areas. For the Nanga Parbat and Haramosh and Rakaposhi regions, LGM conditions could have nearly quadrupled the area above the snowline … For the plateaus and dissected plateaus, the effect of lowering EL As is even greater on the landscape. The Deosai Plateau is unglaciated today but would have been blanketed by an ice sheet during LGM conditions.[57]

Years ago, so long ago it seems like a former incarnation, I flew in a five-seater Alouette helicopter over the bleak high plains of the Deosai plateau above Skardu. At one edge of the

plains, which, if not permanently glaciated, were certainly deeply blanketed in snow, there is a lake, frozen most of the year round, called Shershar. Hovering over it in the thin air, we could see the distant peaks of the surrounding mountains, ice-bound, marching away in all directions.

It was March or April of 1981, I was still thirty and I was working with Mohamed Amin – a great friend and a great photographer who much later tragically lost his life in the Ethiopian Airlines hijack of 1996. We spent an exhilarating, nerve-racking fortnight flying around the Karakorams in the Alouette, which was owned by the Pakistan Army and piloted by a lieutenant colonel and a major with impressive handlebar moustaches. We were based in Gilgit, in the shadow of the 7,788 metre shark-tooth peak of Rakaposhi, and every day we went out and flew at ridiculous altitudes through the mountains – sometimes plunging down below

the snowline into secret, verdant valleys – so that Mo could get the spectacular photographs that would later feature in our book *Journey Through Pakistan.*[58] On the third morning, in all seriousness, I wrote out a will and left it with my passport in my hotel room.

The Alouette had a service ceiling of around 3300 metres, but we frequently struggled and clattered up to over 5200 metres – the pilots said it was a training exercise for them – and then just hung there suspended amidst the glaring white wilderness under the bright blue sky. It was a very macho thing to do with no oxygen on board and the machine wasn't really built for it, but it brought home to me, more clearly than any other experience could possibly have done, how immense these mountains are. When we flew by Rakaposhi at 5000 metres, with our rotors almost brushing its flank, its peak still towered nearly 3000 metres above us. And within a

160 kilometre radius of Gilgit there are 100 peaks over 5486 metres high, including K2 which, at 8610 metres, is the world's second-highest mountain.[59]

In an area of such superlatives it is hardly surprising that the north-west Himalayas and the Karakorams contain some of the longest valley glaciers in the world outside of the polar regions[60] – and these huge glaciers coil through the ranges like ancient serpents of myth, their backs ridged with serried ranks of ice-scales.

At the Last Glacial Maximum they may have been up to four times as massive and the whole landscape surrounding them would have been locked and frozen in deep ice-cover extending to altitudes of 4000 metres – as much as a kilometre further down than today.[61]

Imagine what must have happened when all that ice

melted down.

So, what did happen?

The scientific literature covering various effects and phenomena of the Ice Age in the Himalaya/Karakoram area is growing fast – as is interest in this subject amongst palaeoclimatologists and geologists.

One important issue that has been much debated concerns the glaciation and deglaciation of the Tibetan plateau at various periods during the past 2.5 million years. It has even been controversially suggested that the geologically recent uplift of Tibet as a result of mountain-building forces in the Himalayas between 3 and 2.5 million years ago may have been the specific trigger that set the Pleistocene Ice Age in motion ‘through the effects this had on the Earth’s rotation as

well as on the circulation of ocean and atmosphere'.[62]

A related area of active debate concerns the overall extent of the Himalayan ice-cap. Here, explains Edward Derbyshire of the University of London's Quaternary Research Centre, the broad measure of agreement that exists on the magnitude of the ELA depression at the Last Glacial Maximum:

> is not matched by agreement on the regional extent of the last glaciation which has been described, at one extreme, as an ice sheet of continental scale and, at the other, as an Alpine glaciation in the Karakoram-northwest Himalayan region with some trunk valleys remaining unglacierized.[63]

How is it possible for serious and respected scientists, reporting their studies in peer-reviewed journals and working from essentially the same evidence base, to have come up with such divergent views about the extent of the Himalayan glaciation? 'The explanation of the apparent paradox,'

suggests Derbyshire, lies in the difficulty of interpreting the chaotic geological record in this extremely mountainous region:

> The world's greatest relief is a locus of enormous geodynamic energy consisting of a complex interplay between tectonics and glacial and fluvial erosion associated with widespread and frequently catastrophic mass wasting. One obvious product of such a situation is the problem of reliably discriminating between diamictons deposited by glacier ice and those laid down by other processes. The two suites of processes are frequently intimately related, posing a recurrent challenge to those attempting to establish limits of past glaciations.[64]

'Diamicton' is a general term used to describe a mixture of sand, clay, silt or gravel that is laid down by various geological processes – notably the forces of flowing rivers, or moving glaciers, or lakes draining catastrophically.

Derbyshire's point is that where ongoing geological activity results in a continuous mixing up and redepostion of the materials being studied – as is most definitely the case in the Himalayas – then there is obviously going to be uncertainty over the extent of glaciation in the region at any particular moment in the past.

The *range* of the uncertainty surrounding the extent of the ice-cap at the LGM is, however, surprisingly large – since there is all the difference in the world between 'an ice-cap of continental scale' on the one hand, and a regional 'Alpine glaciation' on the other. Moreover, this uncertainty seems even greater when it comes to immediately post-glacial events. Indeed, although a great deal is known about the cataclysmic meltdown of other ice-caps in this period, I was surprised to discover that the literature has relatively little to say about what happened in the Himalayas after the LGM.[65]

Before and after

Scientists have been able to pick up traces of at least one cataclysmic melting event that took place in the area *before* the LGM. It is another measure of the uncertainty of the data available for study that the date-range offered for this flood is very wide – it could have happened any time between 28,000 years ago and 43,000 years ago.[66] Fortunately, its imprint on the landscape has not been as badly obliterated and jumbled as those of earlier and later floods and geologists have narrowed its location to the Upper Chandra valley in the Lahul Himalaya. Using landforms and sediment data, Peter Coxon, Lewis Owen and Wishart Mitchell, writing in the *Journal of Quaternary Science*, conclude that former glacial Lake Batal – which had backed up the Chandra valley for about 14 kilometres – suddenly burst through its ice dam.

When it did so it released almost one and a half cubic kilometres of water into the valley in less than a day: 'This cataclysmic flood was responsible for major resedimentation and landscape modification within the Chandra valley.'[67]

Further striking but unfortunately undatable evidence of colossal ancient outburst floods is provided by the presence of numbers of large boulders scattered across the Potwar plateau – so-called 'Punjab erratics' – which geologists now believe were 'carried down the Indus valley by catastrophic flooding, probably in iceberg rafts'[68] The traces of violent outburst floods long *after* the post-glacial meltdown was over, have also been widely recognized and there are a number of eye-witness accounts. In 1959, for example, there was

> a sudden outburst from an ice-dammed lake in the Shimsal valley which caused a flood wave of approximately 30 metres to be produced,

> destroying the village of Pasu at the confluence with the Hunza River, 40 kilometres down-valley.[69]

Similarly, when a moraine-dammed glacial lake in the Khumbu area of eastern Nepal called Dig Tsho burst on 4 August 1985, the consequences for the region were catastrophic:

> The destruction of a newly-built hydroelectric power plant, 14 bridges, about 30 houses, and many hectares of valuable arable land, as well as a heavily damaged trail network resulted from 5 million cubic metres of water plummeting down the Bhote Kosi and Dudh Kosi valleys. The breaching of the moraine was triggered by wave action following an ice avalanche of 150,000 cubic metres into the lake. The surge had a peak discharge of 1600 cubic metres per second; 3 million cubic metres of debris were moved within a distance of less than 40 kilometres.[70]

The most spectacular event, however, was undoubtedly the great Indus flood of 1841 – a deluge of near biblical proportions which, like the return of the waters of the Red Sea after the Hebrews had passed safely through to the other side, destroyed a vast army.

The first step was an earthquake in late 1840 or early 1841. The earthquake caused the collapse of the Lichar Spur, part of the flank of Nanga Parbat, which blocked the Indus valley to a depth of 300 metres, strangled the downstream flow of the Indus to a trickle for six months and caused a lake 60 kilometres long and 300 metres deep to back up behind it. When the blockage was breached in June 1841 a gigantic flood wave was released. The wave raced downstream along the (by then almost dry) course of the Indus at a terrifying pace and fell upon a Sikh army that was camped on the Chach plain near Attock, 400 kilometres downstream.[71] Eye-

witnesses later reported that:

> A wall of mud, many tens of metres high, rushed down the watercourses. Those people not fast enough to reach the high ground, numbering several thousand troops and camp followers, were lost. Trees were uprooted, buildings destroyed, artillery guns scattered, and farmland washed away. Large areas of the Vale of Peshawar were flooded as the various tributaries banked up against the Indus floodwaters.[72]

Today there is increasing awareness of the dangers posed by outburst floods specifically related to glaciation. It has been pointed out, for example, that more than thirty glaciers in the Karakoram mountains are presently in a position to 'form substantial dams on the Upper Indus and Yarkand river systems. Many more interfere with the flow of rivers in a potentially dangerous way.'[73] According to Kenneth Hewitt of Wilfred Laurier University, Canada:

> A particularly large and dangerous dam occurs where a glacier enters and blocks a major river valley of which it is a tributary … In one region of the world, … the Karakoram Himalaya and neighbouring ranges, there has been a substantial number of these main valley glacier lakes in modem times. Outbursts from a series of dams … between 1926 and 1932 brought devastating floods along more than 1200 kilometres of the Indus. Some even larger landslide dams and outburst floods occurred here in the nineteenth century and an exceptional concentration of surging glaciers has been found. Some of the latter have formed main valley ice dams … Thirty-five destructive outburst floods have been recorded in the past two hundred years.[74]

Stocktaking

There are a few details that are worth holding on to.

The Equilibrium Line Altitude of glaciation in the

Himalayas at the LGM was about three-quarters of a kilometre or more lower than it is today.

The ice-cap at the LGM was much more extensive than it is today – although there is no agreement over exactly how much more extensive.

There have been catastrophic outburst floods from the Karakorams and the Himalayas in the past, floods that reshaped landscapes, floods that carried icebergs full of huge impacted rocks all the way down to the Potwar plateau.

Such outbursts continue to occur and even in the much reduced conditions of today's glacial cover they can produce floodwaves 30 metres high capable of smashing whole villages to smithereens and destroying armies.

The region is uniquely plagued by the particularly dangerous and rare phenomenon of its main river valleys

being dammed by gigantic landslides or by the encroachment of glaciers – a sure recipe for catastrophic outburst flooding.

Paradoxically, despite the evidence for catastrophic outburst floods before the Last Glacial Maximum, as well as in much more recent times, the literature pays scant attention to the issue of outburst flooding in the Himalayas during the 10,000 years after the LGM.[75]

But this shouldn't prevent us from asking a few common-sense questions:

1. If main river valleys are threatened by glaciers today, and if even a giant river like the Indus can be blocked for six months, then isn't there every probability that the threat would have been much bigger and much worse under LGM conditions?

2. Is it unreasonable to speculate – as the *Rig Veda* has been telling us all along – that there could have been a time, within the memory of man, when some of the great rivers of north India were indeed choked off, most likely by giant glaciers entering and blocking their main valleys up in the Karakoram and Himalayan ranges? If so, then those glacial dams would eventually have burst asunder and the rivers chained up within them would have been set free once again …
3. Last but not least, is it so far-fetched to wonder if such a sequence of events might have inspired the great Vedic myth of Indra's slaying of Vrtra with its specific symbolism of the freeing of the Seven Rivers?

Probably no more far-fetched than the more orthodox 'cloud-demon' and 'drought demon' ideas, but hardly foolproof as a

theory. For example, there's the absence of evidence of flooding in the Himalayas after the LGM – but that means very little given the state of the geological record (and the level of disagreement amongst geologists on the actual extent of the maximum glaciation).

More seriously there is the other 'face' of the Vrtra myth – the clear association that some of the hymns make between the presence of the Dragon and the withholding of rain on the one hand, and between the slaying of the Dragon by Indra and the return of the rain on the other.

How is that to be explained if Vrtra is a symbol for glaciation?

The dry and the wet

Sediments in ocean-bottom cores taken in the Arabian Sea off the south-west coast of India contain pollen traces that tell us about the types of vegetation that grew on the subcontinent at different periods going back to the Last Glacial Maximum – and since vegetation cover is determined by climate, reliable deductions can be made from these pollen records about India's climate in past epochs.

The Arabian Sea cores demonstrate that there was a period of extreme cold and aridity in India between 25,500 years ago and 21,500 years ago.[76] This period is described by Elise Van Campo of the *Université des Sciences et Techniques du Languedoc* as 'the LGM interval'[77] and coincides exactly with other indications from around the world of the duration of LGM conditions (i.e., the Last Glacial Maximum was not a peak reached for a very short time, but rather a *plateau* of

extreme glaciation that was sustained, in India at any rate, for 4000 years). When warming did set in, it set in quickly and between 21,500 years ago and 13,000 years ago the Indian climate did a 180-degree flip from cold and arid to warm and wet:

> The major fluctuations of the Indian monsoon climate are characterized by two extreme periods, a very arid period around [25,500 to 21,500 years ago] and a very humid period culminating at [13,000 years ago] … The climate conditions of the LGM interval were greatly different from modern conditions. The southwest monsoon, which produces a strong asymmetry between the western and the eastern coasts of the Arabian Sea, was considerably reduced and arid conditions were very similar on both sides) …[78] (Carbon-14 dates in original text replaced with approximate equivalents in calendar years.)

What this would have meant in the Himalayas between

25,500 and 21,500 years ago was 4000 years of deep freeze as the ice tightened its grip on the valleys and the headwaters of the rivers in the mountains.

Then at the peak of the LGM interval, some time soon after 21,500 years ago, the phase of warm, wet climate in India abruptly kicked in. Back to the Arabian Sea cores, which demonstrate:

> an increase of monsoonal rainfall as early as about [19,700 years ago] at 10 degrees north and at [18,500 years ago] at 15 degrees north. This period … culminates synchronously at [13,500 years ago] at 10 degrees and at 15 degrees north and is considered as the period of the greatest abundance of monsoonal rains.[79]

Worldwide, we know that the period of 14,000 to 13,000 years ago, which coincides with the peak of abundant monsoonal rains over India, was marked by violent oceanic

flooding – in fact, the first of the three great episodes of global superfloods that dominated the meltdown of the Ice Age. The flooding was fed not merely by rain but by the cataclysmic synchronous collapse of large ice-masses on several different continents and by gigantic inundations of meltwater pouring down river systems into the oceans.[80]

If this was happening in other glaciated regions such as North America and northern Europe between 14,000 and 13,000 years ago, then things are unlikely to have been very different in the Himalayas, and it seems safe to assume that there must have been episodes of exceptionally powerful outburst flooding and that all the great rivers from the Indus to the Ganges would at that time have been in full flow.

So is 14,000 to 13,000 years ago a candidate epoch for the events recounted in the *Rig Veda* as the slaying of Vrtra and

the freeing of the Seven Rivers?

The answer has to be no – simply because the previous 7000 years had witnessed a continuous worldwide increase in temperature and because 14,000 to 13,000 years ago was the peak and the climax of this long, humid warming phase in India. As such, it is most unlikely that the glaciers in the Karakorams and the Himalayas would have been surging or advancing so as to block or 'enchain' rivers in the way that the *Rig* seems to describe. On the contrary, everything suggests that the flow of the rivers should have been uninterrupted from the end of the cold, dry LGM interval 21,000 years ago until the clear end of the humid phase that shows up in the cores at around 13,000 years ago.

Moreover, the Vedic myth portrays the slaying of Vrtra as being followed by the release of the waters – both rivers and rain. This is very clear and, in a way, the point of the whole

thing. But that was *not* what happened.

A Dragon called the Younger Dryas

What happened, at around 13,000 years ago, was that the long period of uninterrupted warming that the world had just passed through (and that had greatly intensified, according to some studies, between 15,000 years ago and 13,000 years ago)[81] was instantly brought to a halt – all at once, everywhere – by a global cold event known to palaeoclimatologists as the 'Younger Dryas' or 'Dryas III'.[82] In many ways mysterious and unexplained, this was an almost unbelievably fast climatic reversion – from conditions that are calculated to have been warmer and wetter than today's 13,000 years ago,[83] to conditions that were colder and drier

than those at the Last Glacial Maximum, not much more than a thousand years later.[84]

From that moment, around 12,800 years ago, it was as though an enchantment of ice had gripped the earth. In many areas that had been approaching terminal meltdown full glacial conditions were restored with breathtaking rapidity and all the gains that had been made since the LGM were simply stripped away:

> Temperatures … fell back on the order of 8–15 degrees centigrade … with half this brutal decline possibly occurring within decades. The Polar Front in the North Atlantic redescended to the level of Cabo Finisterre in northwest Spain and glaciers readvanced in the high mountain chains. With respect to temperature the setback to full glacial conditions was nearly complete …[85]

For human populations at the time, in many except the most accidentally favoured parts of the world, the sudden and inexplicable plunge into severe cold and aridity must have been devastating. And in the Karakoram-Himalayan region, as in other glaciated areas, it is very likely that it was accompanied by a significant readvance of the ice-cap that previously had been in recession for some 7000 years.

Is it possible that that this hypothetical readvance of the Himalayan ice-cap between 12,800 years ago and 11,400[86] years ago could be the event personified in the *Rig Veda* as Vrtra the Dragon, the enchanter, the great magician, 'who barred up the waters'?

Since the slaying of Vrtra resulted in the release of the waters to flow to the sea, it obviously made sense to find out if there was evidence of sudden large-scale meltwater floods

off the mountains shortly after 11,400 years ago when the 'climate switched back to warm, moist Holocene conditions, over only a few decades'.[87]

Salt and freshwater

I did find evidence of floods. It was in another set of cores taken off the Indian coast. According to a report in *Nature* by a team of Australian scientists:

> Microfossil, sediment and oxygen-isotope studies of deep-sea cores from the Bay of Bengal and northern Arabian Sea have revealed strong contrasts between high late Pleistocene and low early Holocene salinity values, indicative of major changes in runoff from the large rivers of southern Asia.[88]

Some definitions: salinity values measure the ‘saltiness’ of the sea, so ‘high salinity values’ mean a saltier sea and low salinity values mean a less salty sea – i.e, a sea with more freshwater in it. The Pleistocene-Holocene boundary is set, arbitrarily, at 12,000 years before the present. ‘Late Pleistocene’ is loose language but generally means the few thousand years before 12,000 years ago. ‘Early Holocene’ is loose language too but generally means anywhere between 12,000 years ago and 10,000 years ago.

Why were India’s seas so salty just before 12,000 years ago? The most likely explanation is that the flow of the great rivers draining the Karakoram-Himalayan region had virtually ceased because of the advance of glaciers into their main valleys during Dryas III – pretty much as the *Rig Veda* tells us (‘Ahi who besieged the waters … the insatiate one, extended, hard to waken, who slumbered in perpetual sleep’).

Likewise, the explanation for the low salinity values that suddenly appear soon after 10,000 years ago is a sudden gigantic inrush of freshwater to the Arabian Sea and the Bay of Bengal on a scale that could have been caused by the breaching of ice dams in the Himalayas, the freeing of rivers pent up behind them, and the flushing out of parts of the ice-cap. (The Dragon stretched against the seven prone rivers, where no joint was, thou rentest with thy thunder.' 'Like lowing kine in rapid flow descending, the waters glided downward to the ocean.')

All in all, therefore, even in the absence of direct evidence of flooding of the type described in the *Rig Veda*, the indirect evidence from the ocean cores does suggest that such floods must have occurred and that they could have followed a period, however brief, when the main rivers of northern India had in fact dried up. So the hypothesis that the Vrtra

story in the *Rig Veda* might be describing glacial outburst floods remains a reasonable one.[89]

Conveniently, the ambiguity over Vrtra's character is also removed. Now he is at one and the same time an ice dragon blocking the flow of the mighty rivers and a rain-withholding demon whose period of grim enchantment over the Himalayas is brought to an end not only by the freeing of the rivers but also by the abrupt return to heavy rains and warm, wet conditions that we know followed the Younger Dryas.[90]

All this is speculation, of course, and implicit in it is a deeply heretical assumption – the assumption that the sages who composed at least some of the verses of the *Vedas* could have been in the Himalayas 12,000 years ago to witness the end of the Younger Dryas cold advance and to commemorate it as Indra's victory over Vrtra. This does not fit at all with

the much later date that scholars habitually assign to composition of the *Rig Veda* – but then neither do the accounts of a full and turbulent Sarasvati that the *Rig* provides us with and that also seem to sketch out the archaic geography of 10,000 or more years ago.

Mehrgarh's yogic ethic

Growing up in the industrialized and now the electronic world, dominated as it has been by the rival material philosophies of capitalism and communism, we automatically imbibe from schools, peers and parents the idea that civilization is something that man invented in order to meet his material and economic needs. This is why, when archaeologists look for the origins of civilization, they look for the material and economic forces that might have driven

hunter-gatherers to become farmers and to create the first permanent village communities.

But India, with its vibrant spiritual culture, its armies of ragged pilgrims and its remarkable *Vedas* raises the possibility that the real origins of civilization could be very different – not driven by economics but by the spiritual quest that all true ascetics of India still pursue with the utmost dedication. Such a quest does not deny that the basic material requirements of the human creature must be met but seeks to limit our attachment to material things and in general to subordinate material needs to mental and spiritual self-discipline.

In the sparseness, understatement and efficiency of Mehrgarh's most ancient period could it be that we are seeing the imprint of this essentially yogic ethic – which the *Vedas* anyway tell us was the ethic of most ancient India?

And since archaeologists are now in universal agreement that there is an unbroken continuity of culture from Mehrgarh I around 9000 years ago all the way down to the great cities of the Indus-Sarasvati civilization around 4500 years ago, shouldn’t we expect signs of the same yogic ethic to turn up there?

PART THREE

India (2)

9 / Fairytale Kingdom

> If Dwarka could be located and identified, well the personality of Krishna is not a myth but a fact.
>
> S. R. Rao, discoverer of the Dwarka underwater ruins, 29 February 2000

I stood in the Harappan Gallery of the National Museum in New Delhi peering through security glass at a small steatite seal from Mohenjodaro. Dated to approximately 2700 BC,[1] the seal depicts an ascetic seated in difficult posture of highly advanced yoga known as *mulubandhasana*.[2] Lean-waisted, bearded, half-naked, phallus erect, the figure wears a head-dress of buffalo horns over long, unkempt hair. His face might be a mask. It is powerful, almost hypnotic, and there is the suggestion of two further faces (or masks?) in profile

looking to either side. He is surrounded, but clearly unthreatened, by dangerous big-game animals – wild buffalo, rhinoceros, elephant, tiger. His arms are covered with bangles and stretched out so that his hands rest loosely on his knees – the traditional signal of a state of profound meditation.

Pasupati seal (2700 BC) from Mohenjodaro, showing a god in a yogic posture.

It is often said that we can never hope to learn much about the religious beliefs or the guiding philosophy of the Indus-Sarasvati civilization because we cannot read its script – a line of which appears above the meditating figure. Yet even though the inscription is opaque to us this enigmatic seal from Mohenjodaro does provide some definite and indeed rather intriguing information.

It tells us that at least the outward appearances of the ascetic mind-body disciplines of meditation and physical self-control which still lie at the heart of the spiritual lifestyle in Hindu India in the twenty-first century were being practised 4700 years ago in the Indus-Sarasvati cities.

It tells us specifically that yoga, one of the six orthodox schools of Vedic philosophy,[3] was already known 4700 years ago as a fully evolved system – since *mulubandhasana* cannot be achieved by beginners but requires the prior mastery of numerous intermediate postures.[4] Unless we are to imagine that yoga was miraculously conjured into being all at once as a complete system 4700 years ago, it tells us that the origins of the system must be much older even than that. And since variants of the lean, unkempt yogic figure performing *mulubandhasana* are 'amongst the most common motifs in Indus ritual art',[5] it tells us that the classic image of the *rishi*, the yogic sage or seer, that is summoned up again and again in the Vedas, was also ubiquitous amongst the Indus-Sarasvati people in the third millennium BC.

Moreover, if scholars are right in their universal consensus

that the Mohenjodaro seal 'depicts the figure of a god seated in yogic posture'[6] then we are witness to an amazing continuity in religious iconography – for to this day the Hindu god Siva is 'the Lord of Yoga' and is to be seen depicted on temple walls throughout India as a lean, almost naked, meditating ascetic with shaggy hair and sometimes even with a similarly erect penis (the latter feature not meant to imply unconstrained lust but rather its opposite; in Tantric Hinduism Siva's erection symbolizes complete yogic control of bodily desires).[7] Siva, too, is called Pasupati, the 'beastmaster' or 'Lord of animals', because of his ability to tame ferocious beasts with his yogic powers – exactly in the manner in which the figure on the Mohenjodaro seal seems to be portrayed.[8] Even the phallic *lingam* symbol (the butter-smeared stone column erected in the inner sanctum of every

Siva temple in India and regarded by worshippers as an embodiment of the god himself) is prefigured in the Indus-Sarasvati cities by conical sacred stones or 'proto-linga'.[9]

For all these reasons the yogic god on the steatite seal has been known as 'proto-Siva', and also routinely spoken of by archaeologists as 'the Pasupati figure', since its discovery during excavations in the DK area of Mohenjodaro in 1928/9.[10] Yet Western scholars like Jonathan Kennoyer attach little significance to the comparisons that invoke such epithets:

> The figure has been referred to as 'proto-Siva' because of its similarity to later iconography of the deity Siva from the Hindu pantheon. Whereas many later Hindu deities may have had their roots in earlier beliefs of the Indus Valley or other indigenous communities living in the subcontinent, we cannot confirm specific connections between the horned figure on the

Indus seals and later Hindu deities. There are similarities in the iconography but the meaning relayed may have been significantly different.[11]

The Vedas and archaeology

I left the Harappan Gallery deep in thought and walked across the corridor into the Museum's circular central garden. I realized that I felt irritated by Kennoyer's caution. And it wasn't just because he was downplaying the many interesting iconographic links between Siva and the Mohenjodaro figure. Unspoken behind this was the larger problem of the *Vedas*, which also describe a Siva-like or 'proto-Siva' deity – the Vedic god Rudra[12] – and which bestow the utmost respect, even awe, upon seven *rishis* with yogic powers.

I found a shady spot to sit down, opened my notebook and scrawled the words *Summary of Vedic traditions about the origins of civilization in India* at the top of a blank page:

Summary of Vedic traditions about the origins of civilization in India:

1. An earlier civilization, which knew the *Vedas* and practised yoga, existed before the great flood and was destroyed by it.
2. Manu and the Seven Rishis (Saptarishi) were yogic adepts who survived the flood.
3. The role of the Seven Rishis was to preserve the *Vedas* through memorization and to repromulgate them amongst post-diluvial humanity.
4. The role of Manu was to re-establish agriculture after the

flood, using a cache of seeds and plants that he had brought with him for this purpose, and to become the progenitor of future civilized humanity by fathering a dynasty of kings.

5. The *Vedas* and the traditions that descend from them depict the Saptarishi as a lineage of ascetics. After the flood their primary abode was in the Himalayas, where they would retreat to meditate and perform austerities, but they also played decisive roles in running and ordering secular affairs, and in the making and guidance of kings.
6. The so-called Saptarishi calendar of ancient India, which of course cannot be separated from the traditions of the Seven Rishis, has a start date around 6700 BC – almost 9000 years ago.

Summary of archaeological evidence about the origins of civilization in India:

1. Fully functional Village farming communities' like Mehrgarh in the foothills of the Himalayas appear suddenly in the archaeological record somewhere around 9000 years ago. It's a bit of a mystery. No clear antecedents have yet been found. The original settlers came with seeds and already knew how to farm.
2. This happened in the midst of an epoch of cataclysmic global floods that saw huge areas of India's continental shelf inundated. The possibility, therefore, cannot be ruled out that the founders of Mehrgarh had previously lived on lands swallowed up by the rising seas.
3. There is an unbroken archaeological continuum between Mehrgarh 1 A around 7000 BC and the upsurge of

Mohenjodaro and Harappa as great cities after 3000 BC. For some reason the rate of growth and development became particularly rapid between 2600 and 2500 BC – the mature phase of incredibly vigorous urban expansion – but you can see the roots even of this phase in many small and large details more than 4000 years older exposed in the excavations of the first habitation layers at Mehrgarh.

4. The paramount ritual image to have come down to us from Mohenjodaro and Harappa, and therefore likely to be connected in some way to this ancient heritage, recognizably portrays a *rishi* seated in an advanced yogic posture and seemingly deep in meditation.

Question:

Why should the people of the largest and most sophisticated urban

civilization of antiquity have specially venerated the figure of a half-naked ascetic meditating in a rural setting surrounded by ferocious animals?

If the *Vedas* were the scriptures of Mohenjodaro and Harappa, then an answer immediately suggests itself.

They would have venerated the image because they would have been taught from childhood that their civilization had been founded, and that it continued to be guided, by *rishis* looking exactly like this.

I closed my notebook and returned to the Harappan Gallery for another look at the cross-legged, three-faced, buffalo-horned *rishi* of Mohenjodaro. Well, not exactly cross-legged, in fact – because to perform *mulubandhasana* you first have to sit down and bring your heels together with your feet pointing forward whilst placing your knees flat on the ground. Next, with your feet still pointing forward, you tuck your heels in under your perineum. Then you turn your feet a

full 180 degrees under your body so that they now point excruciatingly backwards – a manoeuvre that will disclocate the ankles of an inexperienced practitioner. Then you meditate.

How long, I wondered again, does it take to perfect a system like yoga? And if it was already perfect 4700 years ago, then how many thousands of years before that must its roots go back, what are we to conclude about the level of development of the supposedly Stone Age people who created it, and why is there no archaeological trace of them?

Return to the diving quest

February 2000

From Delhi I flew to Goa to meet marine archaeologists at

India's National Institute of Oceanography, whose research, I hoped, might provide me with some answers. I had already been in contact with them by e-mail and telephone for more than a year, trying to arrange to dive at Dwarka – which still fascinated me, as it had since 1992, with its ancient legends of a flood at the end of a world age and its mysterious underwater ruins. The archaeologists seemed friendly enough, even enthusiastic, but answered to higher authorities in the Indian government whose blessing they needed before they could agree to let me dive with them.

By this stage, early February 2000, I still didn't have a clear chronology in which to place the underwater structures at Dwarka. Nor, it seemed to me, did the NIO. As I've reported in previous chapters, there was a general assumption that the ruins had been submerged by relatively recent land subsidence (not rising sea-levels) and that they

belonged to a very late period of the Indus-Sarasvati civilization – 1700–1500 BC. But the marine archaeologists had not recovered any datable artefacts that could confirm or deny this theory.

All the more I wanted to look for myself and form my own opinion.

Legacy of a lost civilization

February 2000

On the flights to Goa, and the long stopover in Mumbai, I went back over some of the evidence on the origins of civilization in India I'd been considering in recent months, reread the notes I had made in the National Museum in

Delhi, and then, in large letters, wrote the word *Hypothesis* at the top of an empty page:

> *Hypothesis:*
>
> The Indus-Sarasvati civilization, the development of which archaeologists have already traced back 9000 years, has an earlier episode of hidden prehistory. It was founded by the survivors of a lost Indian coastal civilization destroyed by the great global floods at the end of the Ice Age.
>
> Such floods occurred many times between 15,000 and 7000 years ago, but a particularly bad episode is attested in high salinity levels in the Arabian Sea and the Bay of Bengal between 12,000 and 10,000 years ago.[13]
>
> The convergence of archaeological evidence is that the first food-producing villages like Mehrgarh were established immediately after the worst flooding between 10,000 and 9000 years ago. For example, Gregory Possehl: There is no entirely satisfactory chronology for the Indus Age,

especially for the internal stages and phases of prehistoric life. Present estimates, based on radiocarbon dates, suggest that it arises at 7000 or 8000 BC with the earliest villages, the domestication of plants and animals and the beginnings of farming and herding societies.'[14]

The survivors who established the early villages practised a 'proto-Vedic' religion that they had brought with them from their inundated homeland and probably spoke an early form of Sanskrit.

The survivors were experienced farmers, as the archaeological record confirms, and their cultural level was high, but religious and philosophical considerations (perhaps even a reaction to the supposed 'judgement' of the flood on their former lifestyle?) led them to create a sparse, utilitarian and ascetic new world – even as they moved gradually towards ever larger and more complex urban communities.

There were secular rulers but the real leadership of the new communities remained vested down the generations in the brotherhood of sages whose forefathers had escaped the deluge – the lineage of Vedic masters whose

> task it was to preserve and transmit a precious body of antediluvian knowledge. For thousands of years, from Mehrgarh to Mohenjodaro, it was the policies set by these great *rishis* in pursuit of that objective – rather than in response to economic or other material forces – that shaped the steady, peaceful, modest material development of the Indus-Sarasvati civilization.

It was a hypothesis – just that, nothing more. But I'd already been playing around with it in my mind for months as my research on India had progressed and it was time to set it down on paper. Nothing in it contradicted the archaeological evidence. It made sense of the sudden and fully formed appearance of village-farming communities like Mehrgarh between 10,000 and 9000 years ago. It took proper account, as other theories did not, of the latest science on the end of the Ice Age. It provided a rational basis in real events for the Indian flood myth. And it explained the phenomenal

longevity and continuity of the Indus-Sarasvati civilization from the simplicity of its sudden beginnings at the end of the Ice Age until its equally sudden boom and collapse in the third millennium BC.

There was one way to prove the hypothesis very quickly. All I had to do was find ruins more than 9000 years old underwater on India's continental shelf. And that was the private hope I had for Dwarka.

Gatekeepers of the fairytale kingdom

The headquarters of the National Institute of Oceanography are in Dona Paula, Goa, in a pleasant university-style campus of trees and lawns. As well as occupying a modern block on the highest point of the campus, the Institute's many

divisions, sub-divisions and laboratories sprawl outwards into a suburb of old-fashioned bungalows set beneath the trees. The Marine Archaeology Centre is in one of these, identifiable by a display of stone anchors and other stone objects mostly retrieved from depths of 5–10 metres amongst the underwater ruins at Dwarka.

My appointment was with Kamlesh Vora, the NIO's head of archaeology, with whom I had been corresponding. I appreciated that he had taken the trouble to process my proposal at all, since he could perfectly easily have dismissed it out of hand or just ignored it, but the fact was that many months had passed and there was still no sign either of approval or disapproval from the higher authorities – in Delhi as it happened – to whom he had submitted it.

'Now that you are here,' he said, 'perhaps it will galvanize them into action.'

He picked up the telephone and placed a call to the offices of the Scientific Research Council, the NIO's parent organization and an important spoke in the wheel of central government. A lengthy conversation then followed in Hindi. Finally, Kamlesh hung up: 'There is a certain lady within the SRC who I need to talk to about your case.' He gave me a gloomy look: 'Unfortunately she is not at her desk today' A smile: 'But I'll find her tomorrow.'

'What do you expect the answer will be?'

Kamlesh became gloomy again and explained that never before had the NIO had to deal with a request from an author to dive with them at Dwarka. If I was an academic or governmental institution seeking to send an observer to the site there would be set procedures to follow and the permission process would go along according to a well-ordered routine. But since I was a private individual, non-

governmental, non-academic, and non-Indian into the bargain (raising issues about what sort of visa I should be travelling on), no one knew what to do with me.

And here was the problem. The NIO's annual campaign in Dwarka, which I was hoping to join, was scheduled to go ahead in mid-February (less than two weeks hence) but would continue only until mid-March. So my permission had to come through before then. If it didn't I'd miss the campaign and therefore would lose my chance to dive at Dwarka until the following year.

'You mean you only dive there for one month every year?'

'If we're lucky. Our funds are very limited, but we do what we can.'

'What if I make my own arrangements? If the permission comes through after the NIO has gone is there any way that I

can arrange to dive privately at Dwarka?'

Kamlesh was horrified: 'No, not at all. It is a protected national archaeological site, so our people have to be with you. Besides, there's no private diving at Dwarka. There are no facilities there. It's a very out of the way place. We bring our own compressor and tanks with us from Goa every year and take them away again when we leave …'

My heart sank. Since I'd first learned of it in 1992 as a non-diver, the underwater city of Dwarka had beckoned to me like a fairytale kingdom that seemed far beyond my reach. Eight years later I'd acquired the skills, but not yet the permission, to dive at it. And I felt helpless to influence the matter in any way.

'Come and see me mid-morning tomorrow,' Kamlesh said. 'I will try again with the SRC. Maybe I will have good news

for you.’

Write a letter

I was back with Kamlesh by eleven the next morning, but there was no news, good or bad. The lady at the SRC was still not at her desk. He called her again. Still nothing. Finally, half an hour later, she answered her phone. Yes, she had received the paperwork concerning my proposed visit. Yes, it was being considered. No, there was no decision as yet. Kamlesh asked if anything could be done to speed things up. It might be a good idea, she told him, if I were to write a letter explaining in greater detail than in my original proposal exactly why I wanted to dive at Dwarka.

Suppressing a mood of rising irritation and bad temper, I took a taxi back to the Ciudad de Goa hotel, fired up my

portable computer and began to draft the letter – which Kamlesh suggested I should address in the first instance to Dr Ehrlich Desa, the Director of the NIO. ‘If he intervenes with the SRC on behalf of your case it will make a great difference.’

When I met Kamlesh later in the afternoon to review the text of the letter, he told me that he had spoken to Dr Desa who had agreed to see me at ten the next morning.

Two days later I left Goa. Permission had still not been given. But my meeting with Ehrlich Desa had been encouraging and he had promised his support in fast-tracking my application through the SRC. I felt confident that he and Kamlesh would do their best for me, and vaguely optimistic that somehow the necessary strings would be pulled to allow me to dive at Dwarka. We agreed to stay in touch by e-mail.

Interlude: the quest for Kumari Randam

My trip to India in February 2000 had multiple objectives and I had intended from the beginning to be on the road until the middle of March. So although the hold-ups and uncertainties about Dwarka were worrying, they hadn't yet really inconvenienced me. It was perfectly possible that permission could still be granted …

Meanwhile Santha and I had long planned another journey in southern India and flew first to Madras, now called Chennai, to pick up where we had left off in 1992.

Then it had been a journey of personal reminiscence – Vellore and the shore temples of Mahabalipuram on the Coromandel coast. Now we would start in Mahabalipuram, travel inland from there to Tiruvannamalai, a temple sacred to Siva since time immemorial, and thence to Madurai, an

ancient centre of Tamil learning linked again to the yogic god Siva. To the north-east of Madurai we planned to visit Poompuhur, and to the south-east Rameswaram on the thin spit of mainland that reaches out towards Sri Lanka, dividing the Palk Strait from the Gulf of Mannar. Then we would go on to Kaniya Kumari – Cape Comorin – on the southernmost tip of India.

During 1999 I had begun background research on southern India and had been intrigued by what I had found.

One source of information that had lain unopened in my library for far too long was Captain M. W. Carr's *Descriptive and Historical Papers Relating to the Seven Pagodas of the Coromandel Coast.*[15] As I reported in chapter 5, Carr's anthology preserves strong local traditions of a fabulous antediluvian city at Mahabalipuram swallowed up by the

waters of a great flood. Those traditions had certainly been in wide circulation in the eighteenth and nineteenth centuries when the papers in Carr's anthology were written. I wanted to find out if they were still in circulation today and if there could be any substance to them.

I had also come across the work of David Shulman, Professor of Indian Studies and Comparative Religion at the Hebrew University in Jerusalem. His wide-ranging investigation of Tamil flood myths had helped to put places like Poompuhur, Madurai and Kaniya Kumari on the map for me. In the Tamil epic known as the *Manimekalai* it was said that the ancient port-city of Kaveripumpattinam had been flooded by the sea off the Poompuhur shore. Other traditions spoke of prehistoric wisdom schools or academies (*sangam)* established 'in an antediluvian Tamil land stretching far to the south of the present southern border at Cape Comorin'.[16]

The name of this lost land, which had been swallowed up by the sea in two distinct inundations separated by thousands of years, was Kumari Kandam, and its last survivors were said to have fled to Madurai.[17]

As usual when I'm on the road I was carrying a shoulder bag full of books and reference materials with me, some brought from England, some picked up along the way. Following my few days in Goa, I had added substantially to my stack with a pile of bulky annual conference reports and back numbers of the NIO's *Journal of Marine Archaeology* that Kamlesh had given me.

Serendipitously the very first of these that I browsed through on the flight from Goa to Chennai (volume 5–6 of 1995–6) opened with a lengthy paper entitled 'Underwater Explorations off Poompuhur 1993.'[18] Much of the paper

concentrated on an archaeological validation of the *Manimekalai* myth, connecting it to the submerged ruins of Kaveripumpattinam 'an ancient port town of 3rd century BC to 4th century BC' that the NIO's marine archaeologists had identified very close to the shore in water generally less than 3 metres deep.[19] But the paper also reported the anomalous U-shaped structure that the divers had found at a depth of 23 metres more than 5 kilometres out to sea.[20]

I immediately realized that this obscure and neglected reference to a 1993 exploration that the NIO had never had the funds to follow up was potentially significant. I did not then have access, as I would later, to Glenn Milne's computerized inundation maps. But at that depth and that distance from the shore, common sense alone suggested that the U-shaped structure must be extremely old.[21]

The main author of the report and team-leader of the Poompuhur exploration had been S. R. Rao, Kamlesh Vora's predecessor at the NIO and the original discoverer of the underwater ruins of Dwarka. Since he was now retired and living in Bangalore, only a short hop from Chennai, I decided on impulse that at some point on our journey in the south I would try to meet him.

'It must have existed …'

February 2000

My encounter with Rao, which I've already reported in chapter 1, took place on 29 February. To my amazement the doyen of Indian marine archaeology proved open to the notion that an antediluvian civilization could have existed on

the Indian coastal lands flooded at the end of the Ice Age:

> It must have existed. You can't rule that out at all. Particularly, as I have said, since we have found this structure at 23 metre depth. I mean we have photographed it. It is there, anybody can go and see it. I do not believe it is an isolated structure; further exploration is likely to reveal others round about. And then you can go deeper, you see, and you may get more important things.[22]

Well return to the quest for Kumari Kandam in chapter 11. For me a big part of it unfolded there and then in the year 2000 and an even bigger part – the diving part – in 2001.

Meanwhile, a couple of days before my encounter with Rao, something suddenly shifted in the turgid backlog of Indian bureaucracy and Kamlesh e-mailed me with the good news that the permission had come through – 'at the eleventh hour' as he put it – and that I would be allowed to dive at

Dwarka with the NIO team. Much was owed, apparently, to the robust support given to our adventure by Dr Desa. At any rate there would be no further obstacles and Santha and I should plan to reach Dwarka on 2 March.

The problem of Dwarka's age

March 2000

It felt good to be back in Dwarka again after so many years away and to have the opportunity at last to look into the mystery of its underwater ruins.

When I'd interviewed him in Bangalore, Rao had reaffirmed his longstanding view that the ruins are those of an Indus-Sarasvati port probably built between 1700 BC and

1500 BC during the final years of the civilization's decline and then flooded by an incursion of the sea. However, he admitted that the dates were a supposition not an empirical fact. Radiocarbon or thermoluminescence tests, which might settle the matter, had not been possible, since the latter requires pottery contemporary with the ruins and the former organic materials contemporary with the ruins – neither of which had yet been found in submerged Dwarka itself:

> *Rao:* I mean to be frank, you see, we did some thermoluminescence dating for the pottery extracted from the wall which is just on the shore – and of course it also partially gets submerged at some times. All right, that gives 1528 BC. But that is at a slightly higher terrace than the submerged one. So the submerged one must be earlier.

GH: Would it be fair to say, concerning the underwater structures, that the minimum age would be about 1500 BC but that it is possible that they may be older?

Rao: Oh yes, definitely, that you can definitely say. Minimum age would be about even 1500, 1600 BC, but an earlier date can't be ruled out. I mean there is every possibility of getting earlier dates.

GH: My understanding is that underwater structures that have been identified so far go down to about 12 metres under the sea?

Rao: These structures go to about 10 metres depth. Of course, the ridge which was converted into a sort of wharf, that is at 12 metres depth. Beyond that we

have gone, but not much.[23]

GH: Do you think there's any chance of further ruins being found further out into the sea?

Rao: Maybe. Maybe. I won't rule that out at all. Because, you see, what we did [beyond the 12 metre depth contour] was only side-scan sonar survey. I mean, a little diving as well we have done here, but not much, to be frank. I mean, if you dive for three days or four days only then you cannot expect to find much …[24]

Expecting the best

We were to dive at Dwarka off a small wooden sea-going trawler, a rough-and-ready working ship crewed by local

fishermen that the NIO had chartered. Since its draft was too deep to approach the shore it was moored in the bay about half a kilometre to the south-west in front of the Gomati river mouth. We were ferried out to it in an inflatable dinghy that picked us up from the steps of Gomati Ghat, and as we chugged across the bay I found myself looking down impatiently at the water, hoping to get some glimpse of whatever lay below.

The ruins had been thoroughly mapped by the NIO across a large area between the mouth of the Gomati – which now lay behind our dinghy to the north-east – and a submerged rock ridge about a kilometre out to sea to the south-west that had been cut and modified as a wharf when it was above water in ancient times. This was the wharf that Rao had mentioned as the site's deepest known structure at 12 metres and which he suspected to have been part of its harbour.

All the other remains, revealing the outlines of a series of spacious rectilinear buildings, lay much closer to shore between just 3 and 10 metres with the majority concentrated between 5 and 7 metres.[25] These included twelve so-called 'citadels', protected by massive bastions, six on each bank of a now submerged section of the Gomati channel, where Rao told me he thought that 'not only the King but also the army chief, other officials or his ministers used to live'.[26] The ancient harbour city itself was divided into six blocks:

> All six sectors have protective walls built of large well-dressed blocks of sandstone, some as large as 1.5 to 2 m long, 0.5 to 0.75 m wide and 0.3 to 0.5 m thick. L-shaped joints in the masonry suggest that a proper grip was provided so as to withstand the battering of waves and currents. At close intervals semi-circular or circular bastions were built along the fort walls in order to divert the current and to have a proper overview of the incoming

and outgoing ships … There are entrance gateways in all sectors as surmised on the basis of the sill of the openings. The fort walls and bastions, built from large blocks which are too heavy to be moved by waves and currents, are *in situ* up to one or two metres height above the boulder foundation in the sea. In a few places as many as five courses of masonry are visible but in others the wall and bastion have collapsed.[27]

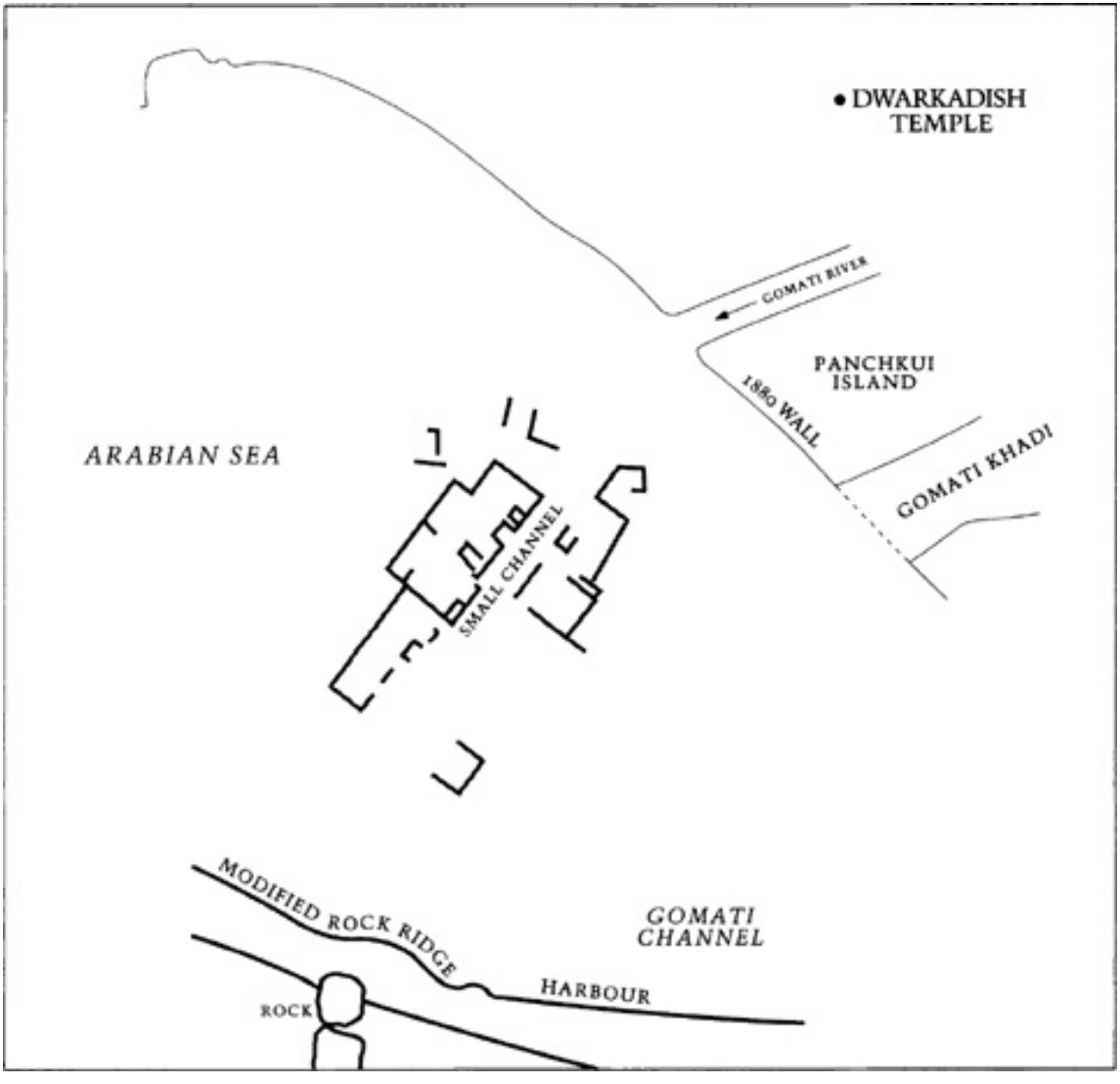
DWARKADISH TEMPLE
GOMATI RIVER
PANCHKUI ISLAND
1880 WALL
GOMATI KHADI
ARABIAN SEA
SMALL CHANNEL
MODIFIED ROCK RIDGE
GOMATI CHANNEL
HARBOUR
ROCK

Map of submerged ruins off Dwarka. Based on Rao (1999).

Prepped by such imagery of a fairytale underwater city, and the beautiful reconstructions of antediluvian Dwarka that feature in Rao's books, I confess I was expecting the best as I clambered out of the dinghy and up the side of the NIO's chartered fishing boat on the morning of 3 March 2000.

Fog, weed and sludge

In the relentless war of heat-exchange that goes on between a diver and the sea, it is the sea that always wins in the end. The process is faster in cold water, slower in warm water, and can be delayed further by an insulating wetsuit;

however, the end result is always the same. If the sea is colder than the diver's body temperature then the diver's body temperature will begin to fall.

I think of myself as a reasonably experienced diver but I'm fifty years old, way past my peak fitness, and I make mistakes. The mistake I made at Dwarka, though I'd been warned that the water was only 23 degrees centigrade (and thus 14 degrees below body temperature), was not to wear a wetsuit. This would have been fine if I'd been going down for just one or two short dives. But we did three dives that day, running to an hour or more each.

The first two dives were on the big concentration of ruins that the NIO had mapped between the 5 and 7 metre contour lines. Gone were the lofty turrets, battlements and bastions of Rao's reconstructions and of my imagination. All seemed to have been reduced to a ruin-field of haphazardly strewn

stone blocks, the angles and edges of which poked here and there out of the thick sludge of sediment and slimy green weed that carpeted everything. And although the sea was calm that morning, allowing some settlement of silts carried down into the bay by the Gomati river, millions of tiny particles hung suspended in the water, scattering light like a fog.

Through the fog I was just able to make out beneath me several dozen large limestone blocks that seemed to have come from a collapsed section of wall, not quite megalithic in the strict sense of the term, but very close to it, tumbled on top of one another. The wall had been dry-stone – no mortar in the joints to keep the courses together. But I could see how the masons had dealt with the problem. Many of the bigger blocks had been designed to lock into each other with dovetails and, as Rao had commented, with carefully

chiselled L-shaped joints which would have given extra structural stability.

The same architectural principle had been used in the massive curved bastions that had stood at the corners of the citadels. Although I found none intact, I several times came across huge curved monoliths, dressed and polished to very high standards and in one case still jointed to a second block.

Also protruding out of the slime and ooze on the sea-bed were carved hemispherical stones, some up to a metre across, with circular holes drilled through their centres. These were thought to have been door sockets.

And trapped amongst the rubble of ancient Dwarka there were still a number of three-holed triangular stone anchors that the NIO had not yet salvaged for the display outside their offices. Identical anchors, Rao had told me, were known

to have been used in the Mediterranean by the merchant ships of Cyprus and Syria at around 1400 BC and also in the Persian Gulf and at the nearby Indus-Sarasvati port of Lothal.[28] Assuming the 1400 BC date for this type of anchor to be generally valid, he regarded their presence at Dwarka as good circumstantial evidence in favour of his 1600 BC date for the city. Certainly, they could only have been dropped here after the ruins had been submerged deeply enough for boats to sail over them.

But one mystery which began to nag at me on those first two dives, since we were supposedly in the heart of the ancient city, was that there didn't seem to be *enough* stone ruins here. This had nothing to do with the stark contrast between Rao's archaeological reconstructions of the antediluvian city and its actual appearance underwater

today. What bothered me more was the almost equally stark contrast with photographs that Rao had shown to me from his personal collection that tracked the NIO's underwater excavations at the site from 1983 to 1994.[29] Although some of the features in those photographs were instantly recognizable on the sea-bed, many others were nowhere to be seen. Most notable by their absence were several partially intact walls of large stone blocks, in some cases up to five courses high, in some cases showing right-angled corners where two walls joined, in some cases extending in straight lines away from the camera as far as the eye could see – and the visibility was far better in those early shots than the fog that I was finning around in now.

So where were the missing walls?

Storms

After I'd surfaced from the second dive and clambered back on board the boat I asked Kamlesh this question and he signalled for Sundaresh and Anuruddh Gaur, two of the NIO's senior marine archaeologists, to join us. A geologist by training, Kamlesh himself was not then a diver. Gaur and Sundaresh, on the other hand, had been diving at Dwarka since the 1980s.

Their answer was that the majority of the intact walls that had been photographed before 1994 either no longer existed or could not be relocated. Apparently, a series of severe monsoon storms during the past six years had loosened and dislodged the great blocks and tumbled the walls over. Since then sedimentation and weed had covered up the debris which had been scattered over a wide area by the monsoon

swells.

I remembered the section of fallen wall that I'd seen early on the first dive and thought no more about it. It was only much later that it struck me how odd it was that a site which had supposedly been submerged for more than three millennia, and at which so many intact structural features had been documented as recently as 1994, could have deteriorated so dramatically in just the last six years.

The rock-cut wharf

Slightly dodgy-looking curries were available for lunch, cooked by the crew on a kerosene stove in the cabin of the fishing boat and served out on a mixture of plastic and tin plates. The wind had come up since the morning and wavelets were freshening in the bay – not enough to stop us

diving but potentially enough to stir up the bottom and worsen the visibility.

I wasn't feeling particularly well – headache, stiff-neck, nausea – and was aware that I had been cold on the last dive, but I didn't put the two together. I thought that what was making me ill was the exhaust gas from the diesel pump that the NIO had on board to provide air from the surface via long tubes to technical divers working down below. A powerful air-lift system was also operating, sifting silt around the foundations of the ruins in the still unsuccessful search for artefacts that could positively identify their period of construction. All the vibrations and the fumes were a bit much for me but I thought that I'd probably feel better when I got back in the water and could breathe the clean air from my tank.

At this point the voice of reason told me it was time to put

my wetsuit on for the afternoon's work and the voice of stupidity urged me not to bother. The voice of stupidity won.

The dive we did that afternoon was with Gaur on the rock-hewn wharf at a depth of 12 metres about a kilometre out in the bay. Athough this was technically still a shallow dive, there was an oppressive darkness and gloom in the dirty green water and I began to feel more and more cold, weak and exhausted.

We swam east on the seaward side of the ridge. As well as its rock-cut features, including what were presumed to have been holes for mooring-ropes drilled through it at several points, there were a number of hulking megaliths scattered round about it on the sea-bed down to depths of about 18 metres. The official view was that these were natural slabs that had become detached from the rock ridge due to wave action when sea-level had been much lower – and perhaps

even before the wharf had been fashioned – but to my eye they looked in places as though they had been dressed and cut.

Quarter of an hour later, still heading east along the ridge, I saw a pattern of other smaller blocks, like large tiles, laid out in a square grid amidst a tangle of boulders. I went down to investigate and found that the regular pattern seemed to continue under the boulders. That was exciting. On the other hand, up close, the little blocks and the joints between looked less regular, less man-made, than I had thought …

I couldn't make up my mind. And other ambiguous features along the ridge left me, if anything, even more in doubt.

Whitecaps and lentil soup

I spent the next four days in bed in our dingy hotel room paying the price for being a fifty-year-old with no sense and mild hypothermia. A blinding, thudding headache was by far the worst of it and continued without any let-up for more than seventy-two hours. I felt weak, shaky and couldn't keep down anything I tried to eat.

But I wasn't missing much diving. The wind that had begun to pick up on that first afternoon grew steadily stronger during the night, whipping the waves in the bay into whitecaps, reducing the visibility to zero and making further diving impossible. The NIO's chartered boat headed back for the shelter of a nearby fishing port and everyone waited to see if the weather would improve.

By the time I dragged myself out of bed the wind had died down and the boat was anchored over the ruins again. But the underwater conditions, with the transparency of lentil

soup, made it impossible to do any serious work. I tried a couple of dives at different locations on the site but could see nothing.

Then the wind came up once more; this time with a forecast that it would continue to blow for more than a week, and it became obvious to all that there would be no further diving that season.

Layer upon layer

How old is the city beneath the waves?

Sitting on the edge of the Gomati Ghat by the Temple of the Sea God on the last evening of our stay in Dwarka, I looked over the agitated waters of the darkening bay and tried to figure out the mystery.

When I'd interviewed Rao at his home in Bangalore, I remembered that he'd told me how he had first become involved with excavations at Dwarka more than twenty years before. In his work for the Archaeological Survey of India he had arranged the demolition of a modern building that stood beside the main Dwarkadish (Krishna) temple, blocking the view:

> *Rao:* It was demolished. When we removed this structure we were surprised to find a temple below it – a temple of Vishnu. [Krishna is considered to be an avatar, or manifestation in human form, of the Vedic god Vishnu][30] … It has beautiful sculptures and all that. We were surprised. You see this is a thirteenth- to fifteenth-century temple, the present one that we visit, but here is a ninth-century temple. How is it?

When we dug for that we got two more temples below – below that there are two more temples.

GH: So it's as though the existing Dwarkadish temple was built on top of an older temple?

Rao: Not the existing one. The one just by the side of it. You see, actually, this temple, I mean the existing one, must have been built on top of an ancient one, because what we got is a small shrine, and the other shrine must be below the present temple.

GH: But your excavation was beside the existing temple and there underneath you found earlier layers?

Rao: Earlier layers. And further when we dug we came across a clear section showing erosion by sea, with pottery and other datable objects of about 1500 BC.

> So between 1500 BC and 1500 AD there must have been continuous occupation here of which we hardly know anything. But again sometime there is divine help for us. One professor by name of B. R. Rao, a geologist, had come to Dwarka to inspect the site for a proposed university. I showed him the section and he said yes, this is clear evidence for erosion by the sea. I showed him the pottery and he said there must have been a township near by. He said, what will you do? I said we have to excavate in the sea – that's marine archaeology.[31]

Rao then successfully arranged government funding for his proposed venture at Dwarka:

> But we did not know how to start the work. We had hardly any experience of marine archaeology. Then I thought what we should do now is take a

> bold step … Where to look for the structures was the question. Fortunately, there is the temple of Samudra Narayana, the sea god. So I said people have been making some offerings here. Maybe ancient times also there may have been some structure there and offerings might have been made. So we straight away started looking there. And then within a few days we got evidence of the structural remains there, underwater.[32]

An earlier town

Looking over the bay from the Samudra Narayana temple I reflected on Rao's dating of the underwater ruins to the second millennium BC and the 'late Harappan' period. I could see no reasons why the scattered structural remains that I had dived on should be any older than that – and even some to suspect that they might be younger, perhaps much younger. Except for the rock-hewn wharf, which itself was

not particularly deep, most of the structures were in shallow water of 7 metres or less and might easily have been submerged relatively recently in land-subsidence caused by the immense earthquakes that periodically afflict Gujerat.[33] Besides, what I'd seen of the underwater ruins looked nothing like any of the 'late Harappan' settlements I knew of; on the contrary, the distinctive curved bastions and general style of the architectural blocks on the sea-bed looked much more like medieval Indian construction work than anything to do with the Indus-Sarasvati civilization.

But what intrigued me, and what Rao had been entirely open to, was the possibility that there might be other ruins further out to sea which the NIO had not yet found – indeed had not yet even looked for. Rao also reminded me that the ancient texts that seemed to have correctly predicted the presence of the underwater ruins that he had discovered also

predict that other older ruins should exist in the vicinity – for Krishna was said to have built Dwarka on the site of an even earlier city called Kususthali:

> In fact I used to read the *Mahabaratha* and also other *Puranas* like *Vishnu Purana* and others, where it is clearly states that Dwarka was built at Kususthali in such a way that it was surrounded by the sea … So Krishna comes to Kususthali and then builds a town and calls it Dwarka and there existed an earlier town before Dwarka was built …

What is striking about the story of Krishna's city being built above an earlier city is the way it resonates with the firm evidence we already have from Rao's excavations around the Dwarkadish temple – revealing layers and layers of earlier constructions beneath it and around it, going back to a stratum at around 1500 BC that is roughly parallel to modern sea-level. The ruins that Rao then found underwater

should, as he reasons, belong to the time-period immediately before 1500 BC – say 1700 to 1800 BC at the earliest – suggesting that the city that today clusters around the Dwarkadish temple and down to Gomati Ghat is where it is because it replaces the earlier city that lies submerged in the bay beneath it.

And that city in turn – the city of Krishna – is where it is, the legends say, because of the earlier city of Kususthali:

> *GH:* Is there a sense in the ancient texts that there had been a sacred centre at Dwarka in the remote past, a long time ago? Or was it absolutely newly established by Krishna?
>
> *Rao:* Well, you see, it says that [an ancestor of Krishna] had built that town Kususthali and he went to Brahamaloka [a higher world]. So some connection

> with mythology and all that is already there when Krishna comes to that place. So the earlier township had some sanctity about it …

In an epoch of rising sea-levels the obvious place to rebuild and reconsecrate a submerged shrine or sacred centre would be on the nearest area of coast still above water. When the new shrine was inundated in its turn it would have to be re-established on higher ground – and so on. So maybe this is what we're seeing at Dwarka: Krishna's Dwarka was built to replace the antediluvian sacred centre that the texts call Kususthali – and when Krishna's Dwarka was inundated, modern Dwarka was built to replace it. By inference, if we keep looking further out to sea, beyond what's left of Krishna's Dwarka – if it really is Krishna's Dwarka, as Rao believes – then we should find older, more deeply submerged ruins.

But are the underwater ruins that Rao discovered at Dwarka the remains of 'Krishna's city' – or of something else?

As I sat there overlooking the darkening waves, with the heady aroma of sacred ganja being exhaled all around me by the orange-robed *sadhus* who'd gathered to watch the sunset from Samudra Narayana, I remembered feeling that Rao couldn't have it both ways. He couldn't have his underwater ruins dating archaeologically to around 1800 or 1700 BC on the one hand and claim on the other that they were the ruins of Krishna's city – since, apart from one minor variant tradition, Krishna is universally believed in India to have died at a date equivalent to 3102 BC.[34] This date (see chapter 4) also marks the onset of the Kali Yuga.

But Rao wasn't trying to have it both ways:

> *GH:* Another question concerning Krishna. The departure, or death, of Krishna's incarnation, if I understand correctly, is taken as the end of a previous age, of a *yuga*, and the beginning of the Kali Yuga. Now in many calculations that I've seen – numerous calculations – they all seem to point the beginning of the Kali Yuga to 3100 BC approximately.
>
> *Rao:* Correct.
>
> *GH:* Do you regard that as an impossible date? Because you seem to focus on a much later date, in the second millennium BC, for the submerged Dwarka.
>
> *Rao:* Well, I wouldn't call it an impossible date. But what evidence we have got so far shows that about

> 1700 or 1800 BC, by that time this township that is now underwater must have been built. Now if so, how is that date wrong? I mean, the 3100 BC date. We have discussed this matter in a journal where we said that maybe we are yet to find some more antiquities of the same township … So we can't discard the earlier date totally.

But if the underwater ruins already excavated do really date back to 1700 or 1800 BC, then where is the logical place to search for ruins even older than that – the ruins of the city said to have been engulfed by a great flood at the beginning of the Kali Yuga in 3102 BC?

Further out, in deeper water

The connection of the death of Krishna and the submergence of Dwarka to the onset of the Kali Yuga is a powerful and widespread tradition in India, as is the connection of the Kali Yuga to a start date of 3102 BC.

We know that the city called Dwarka today is built on a mound made up of continuous occupation strata going down to present sea-level at 1500 BC and with 'a clear section showing erosion by sea' in the lowest stratum – indicative of a marine incursion (perhaps a tidal wave?) at that date.

We know that ruins have been found under that level beneath the sea and provisionally dated to 1800–1600 BC, though a more recent date is also possible. These ruins extend up to approximately 1 kilometre from the shore.

Therefore, it follows, if we wish to search for the ruins of 3100 BC and earlier that are hinted at in the traditions, that

we are going to have to look further out, in deeper water.

In March 2000 I still didn't have Glenn Milne's inundation maps and imagined that Gujerat's Ice Age coastline might have extended 5 or at the most 10 kilometres beyond the modern shoreline of Dwarka. In fact, as the maps show, Dwarka was almost 100 kilometres from the sea 16,400 years ago when it was part of a vast antediluvian landmass around Gujerat that filled in the Gulfs of Kutch and Cambay – and was still 20 kilometres inland as late as 10,600 years ago, just after the rapid rise in sea-level attested in the deep-sea cores between 10,000 and 9000 BC and the sudden appearance of village farming communities along the piedmont of the Himalayas.

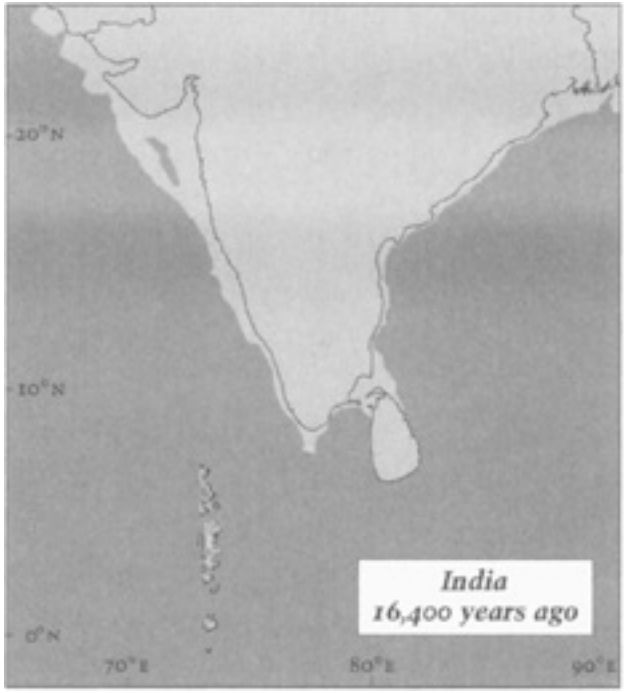

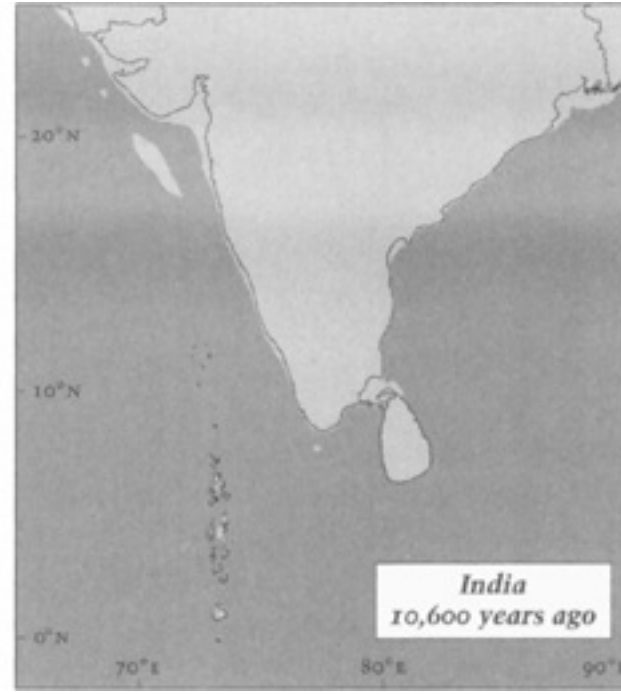

If anywhere in the world looks like a potential 'nucleus region', or 'Ice Age refugium', out of which the first settlers of Mehrgarh and the other 'aceramic Neolithic' food-producing settlements in north-west India might have sprung, then, surely, this is it? And doesn't it make sense that the

descendants of those first settlers, who went on, in time, to create the Indus-Sarasvati civilization, might have continued to revere sacred coastal sites and to rebuild them further inland whenever the sea-level rose?

The mystery of the U-shaped structure

That night, over a farewell dinner with the NIO team, I produced the *Journal of Marine Archaeology* given to me by Kamlesh and opened it at the report on the underwater explorations off Poompuhur in the south-east – about as far away from Dwarka as it is possible to get and still remain in India. Both Sundaresh and Gaur had participated in the 1993 Poompuhur expedition and had co-authored the report with S. R. Rao. Now was my chance to quiz them about the anomalous U-shaped structure that they had found 5

kilometres from the shore and 23 metres deep and to launch the idea of mounting a further expedition with them to Poompuhur at some time in the future.

We began by discussing the less controversial – and for me less interesting – ruins of Kaveripumpattinam in the intertidal zone and the shallows down to 3 metres. These, Sundaresh and Gaur concurred, were in the range of 2000 years old, and I had no reason to doubt them.

'OK,' I said, 'so let's accept that dating for the inshore structures. Then what do you find as the water gets deeper?'

They told me that their survey had identified fairly extensive structural remains in the form of heavily eroded and scattered dressed sandstone blocks down to a depth of about 7 metres. At the same depth they had also located several curious circular cairns, some 10 metres in diameter,

made up of rounded stones and some small upright stones. Nothing was seen deeper than 8 metres until the U-shaped structure and its neighbouring mounds suddenly appeared at 23 metres.

‘Don’t you think that’s odd?’ I asked.

Sundaresh and Gaur agreed that it was indeed odd since it suggested that the date of submergence of the U-shaped structure must be much earlier than the date of submergence of the structures inshore.

‘How much earlier?’

‘Maybe 8000 years earlier,’ said Gaur after a moment’s thought.

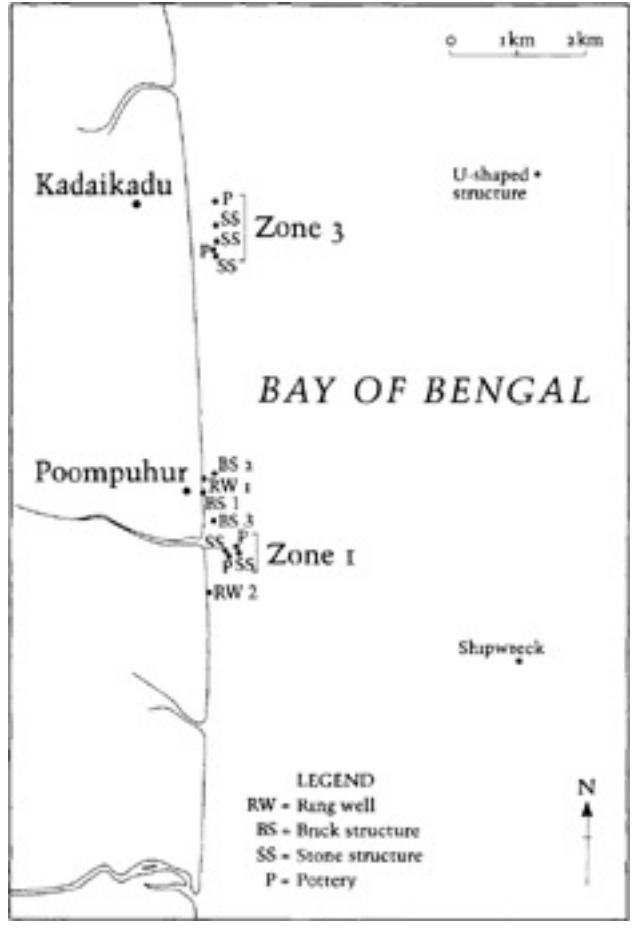
0 1km 2km
Kadaikadu
U-shaped structure
P
SS
SS
P
SS
Zone 3
BAY OF BENGAL
Poompuhur
BS 2
RW 1
BS 1
BS 3
SS
P
P
SS
Zone 1
RW 2
Shipwreck
LEGEND
RW = Ring well
BS = Brick structure
SS = Stone structure
P = Pottery
N

Position of various submerged structures off Poompuhur coast. Based on Rao et al. (1993).

‘So if the Kaveripumpattinam structures in 1–3 metres are 2000 years old then what you’re saying is that the U-shaped structure might be 10,000 years old?’

‘I’m saying it would have been submerged by the rising sea-level about 10,000 years ago – maybe even before that. But I think it must be some sort of natural outcrop.’

I was genuinely puzzled. ‘Everyone else who has dived on it seems convinced it’s man-made. Courses of masonry were seen on it. That’s in this report’ – I pointed at the *Journal of Marine Archaeology* – ‘which you co-authored by the way.’

Gaur laughed: ‘Yes, but I have my own view and the more I think about it the more I am convinced it must be natural.’

‘But why? What are your reasons?’

‘Because it is a huge structure and we know that there was no culture anywhere in India at that time capable of mobilizing the necessary resources and organizing the necessary labour to build something so big.’

‘That’s just classic old-school historical chauvinism,’ I complained. ‘It’s as though you’re saying, “We archaeologists know everything about the past and we won’t let a few contradictory facts get in our way.”’

‘It is a fact! We don’t know of any culture 10,000 years ago that could have built this structure.’

‘But maybe it was the work of a culture that you *don’t* know about yet. Maybe this U-shaped structure, whatever it is, is the first concrete evidence for the existence of that culture. Maybe if you look you’ll find even more structures,

even further out, in deeper water.'

Sundaresh chipped in at this point that he did not agree with Gaur. In his opinion, he said, the U-shaped structure was not a natural outcrop: 'It is definitely man-made. And I have seen a second structure, a mound, about 45 metres away at the same depth where there are perfect cut blocks scattered on the sea-bed …'

'But what about the 10,000-year-old date?'

'Maybe the structures are not that old at all. Maybe there has been some great land subsidence here that we do not know of, or erosion of the coast by the sea.'

It was obvious that the only way to find out, and to settle the mystery, was by doing more diving and by careful measurement, observation and excavation of the site. But the problem was that since 1993 no funding had been available

for a further expedition.

‘So you have no plans to dive at Poompuhur in the coming year?’ I asked.

‘Rather you should say no budget,’ Kamlesh intervened dolefully. ‘If somebody will finance us to go – only then can we go.’

I bit the bullet. ‘So what would it take to finance your team to go back there and dive on the site with me later this year or early next year – a sort of special charter, so to speak? Is it even possible to do something like that within the NIO’s regulations?’

‘Now that the SRC already know of you it should be possible,’ said Kamlesh. ‘I don’t see why not.’

He spent the next three minutes doing calculations on the back of a napkin and finally quoted me a sum equivalent to

the gross national product of a small European country.

I gulped but steadied my nerves. It was going to be a long negotiation.

10 / The Mystery of the Red Hill

> The ground near it is not at all touched by the four oceans that become agitated at the close of the Yuga and that have the extremities of the worlds submerged in them … When the annihilation of all living beings takes place, when all created things are reabsorbed … all the future seeds are certainly deposited there … All the lores, arts, wealth of scriptures, and the *Vedas* are truthfully well-arranged there … Brahmanas who resort to the foot of that mountain are called by me after the deluge and I make them study the *Vedas* and make collections thereof …
>
> *Skanda Purana*

February 2000, south India

Since 5 a.m., Santha and I had been climbing the winding track towards the rocky 800 metre summit of Arunachela, the

sacred mountain of Tamil Nadu. It was now just after 6 a.m. and dawn had not yet broken. Except for the sound of our footfalls and distant cockcrows, everything was silent, everything still. Then we rounded a corner and the streetlights of Tiruvannamalai, the burgeoning town that clusters at the foot of the mountain, came suddenly into view beneath us. In its midst, due east of us, there lay a huge geometrical pool of deep darkness and shadow, like a giant doorway to another world. This place, where no lights yet burned, marked the precincts of Arunacheleswar, one of the five most important temples of Siva in all of India.[1] We found a ledge of rock to sit on and waited for the sun to rise …

After being drawn in by the charisma and magnetism of the 'proto-Siva' figure on the Mohenjodaro seal I began to realize that Siva is everywhere in India. Even in Dwarka, with its all-pervasive cult of Krishna, there is also a beautiful

Siva temple. Yet the devotees of the yogic god are most numerous and most demonstrative in the south, amongst the Dravidian-speaking peoples of Tamil Nadu, and Tiruvannamalai is one of the true centres of his cult.

Very little in Hinduism is straightforward or exactly what it seems: identities change and merge, contradictions abound, one thing stands for another, gods may manifest in different ways at the same time, ambiguity is everywhere. All this is there in the ancient story of Siva's great temple at Arunachela:

> The Supreme Being, the Ocean of Grace, Lord Siva once had a desire – 'Let me become many.' In accordance with this desire, Brahma and Vishnu came into existence spontaneously. They were delegated the duty of creating the worlds and protecting them. However, instead of merely carrying out the duty ordained by the Lord, they were caught up in an

argument out of egoism which resulted in a major conflict. Seeing the terrible rage they had fallen into while battling with each other, the Lord of Compassion deemed it fit to reveal Himself in a form that would put an end to their fighting.[2]

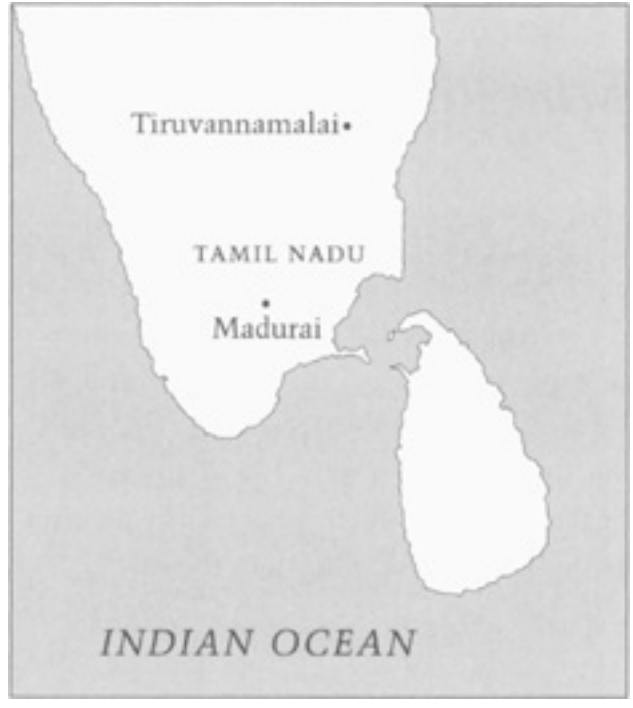

To cut a long story short, Siva revealed himself on the spot where Arunachela now stands in the form of a limitless column of blazing light and scorching fire piercing the sky and pervading the universe. On seeing this dazzling and fearsome vision Brahma and Vishnu were not humbled but entered into a new competition to discover 'either the beginning or the end' of the column.[3] Only when both had proved themselves incapable of doing so did Siva at last emerge from the effulgence.[4]

There are a few other twists and turns in the story, but the upshot is that Siva forgives Brahma and Vishnu for their contentions, telling them: 'Carry on vigilantly with your work of creation and sustenance without forgetting me.'[5] He then announces that the effulgent column will remain eternally manifest on this spot in the form of a mountain of fire:

My Effulgent form will shine here forever as eternal, immutable Arunachela. Oceans will not submerge it even at the time of the great Deluge. The winds will not shake it and the world-destroying fire will not burn it.

On hearing these words Brahma and Vishnu humbly bowed down to Siva and prayed: 'Sustainer of the Universe! Let this Hill be the mainstay of the world as stated by you. But moderate its Effulgence, O Rudra, so that it becomes bearable, yet retains its boundless glory and remains a repository of everything auspicious.'[6]

In answer to Brahma and Vishnu's prayers, 'Siva reduced the blinding effulgence of his shining appearance in the column by transforming himself into this lacklustre mountain'[7] – the 'Red Hill' of Arunachela, of which it is said: 'Just as we identify ourselves with our body, Lord Siva identifies himself with this Hill where the reddish colour of the rocks suggests

the primeval fire.'[8] In addition Brahma and Vishnu beseeched Siva:

> Although this Red Hill exists for the welfare of all, none could worship it without your grace … [Therefore] we request you also to take the form of a Lingam on the East side of the Mountain so that we may worship you …[9]

Again Shiva complied and a miraculous column of stone – the Sivalinga, or phallic symbol of Siva – appeared at the foot of the mountain on its eastern side. As a token of gratitude Brahma and Vishnu commanded Visvakarma, the architect of the gods, to erect a temple around it – the primordial temple of Arunacheleswar.

The temple that now stands on the site is of more recent origin. But believers maintain that it is the original natural stone lingam, 'self-generated' at the beginning of time, that still resides in the Holy of Holies and continues to be

venerated by millions of pilgrims as the sign and the seal of Siva's presence on earth.[10]

Austerities

We watched the sun come up in the south-east, illuminating first the nine pyramidal *gopurams* that surround the temple complex and then the deeper shadows in the interested rectangles of its plazas, ambulatories and shrines. As the town's streetlights faded out in the rising glare of the day we could see that beyond the temple was a plain extending to the horizon in a great arc beneath us, its flatness broken here and there by isolated conical hills.

We resumed our climb of Arunachela. Although it is not particularly high, the way is steep and the winding path is

long. After another hour had passed we still seemed to be nowhere near the summit, the sun was much hotter, and I was beginning to regret bringing only one bottle of water. Santha and I paused to take a swig each, looking down the way we had come to the distant towers of Arunacheleswar. Rising out of the morning haze the temple possessed an epic, otherworldly quality and it was not difficult to imagine it in the way that the ancient traditions describe it – as the work of the gods themselves, built at the dawn of the present cycle of time.

We started climbing again and when we next looked up we saw a lean but muscular young man, with the long tangled hair, ash-smeared forehead and orange loin-cloth of a *sadhu*, sitting cross-legged on a rock on the slope above us. He seemed oblivious to our presence but when Santha said good morning to him in Tamil his reply was friendly enough.

We passed him and continued to climb. When I glanced back a few moments later I saw that he was no longer seated on the rock but following immediately behind, barefooted and silent. Now, effortlessly, he increased his pace and overtook us and soon he had disappeared round a twist in the path ahead, shielded from us by piles of fallen boulders.

I guessed that he must be one of the devotees of Narayana Swami, the almost legendary figure I was hoping to encounter, who was reputed to have remained near the summit of Arunachela for the previous ten years, consuming no solid food of any kind and subsisting exclusively on small quantities of milk and tea brought to him by his acolytes.

By the performance of such austerities *[tapas]*, which may range from relatively pleasant tasks like prolonged sexual intercourse without ejaculation to relatively unpleasant ones like holding one's arm permanently above one's head for

decades, great yogis like Narayana Swami are believed to build up a special power of supernatural 'heat':

> The basic transformation brought about by the Rishi in his performance of *tapas* is the production of heat in the body. The fire of his *tapas* becomes such that it is transformed into Fire itself, burning the worlds with his heat and illuminating them with the light that radiates from his body … Powers of becoming invisible, walking on water and flying through the air are among those most frequently said to be obtained by performing *tapas*-, while in the *Yoga-sutras*, a large number of such powers are listed as being attained through the practice of yoga – including, in addition to such 'physical' powers, various types of mental knowledge such as of previous existences and of the thoughts of others …[11]

The intense physical and mental discipline that *tapas* requires is also an essential step on the road to liberation from death. Thus, through their fearsome austerities, the

Seven Rishis of the *Vedas* were said to have possessed

> powers of rejuvenation, of curing illnesses, and of restoring the dead to life … One of the aims of the Rsis in performing *tapas* was to attain to the realm of the immortals and to obtain immortality – even as it is said that the gods and demons themselves performed *tapas* in order to escape death.[12]

John E. Mitchiner, the expert on the traditions of the Seven Rishis, admits that 'such powers are indeed attributed to the Rsis throughout Indian literature'.[13]

But the question is why? Why the consistent association, throughout history, of great *rishis* with these extraordinary powers, and why do they always use the same means – yoga, austerity, meditation – in order to develop them? Is it all just imagination and fantasy on the part of the ancient

storytellers? Or is it possible that something substantial lies behind these traditions?

I did not expect Narayana Swami to tell me the answer but I was nevertheless curious to set eyes on anyone who could live on tea and milk at the top of a mountain for ten years. I was also intrigued by the way that his presence there appeared to symbolize or bear out another tradition, recorded in a Tamil text known as the *Arunachela Mahamatmyam* ('Glory of Arunachela') to the effect that Siva himself always sits beneath a tree near the summit of the mountain in the guise of a *siddha:*

> Siva abides here forever as a *siddha* known as Arunagiri Yogi, wearing only a loin-cloth and with matted locks and forehead shining with marks of *vibhuti.* [sacred ash].[14]

Because I had gradually acclimatized myself to such

material over many months, I now had no difficulty in understanding how Siva could, at one and the same instant, be a phallic stone column in the Holy of Holies of the temple at the foot of the mountain, an ascetic meditating under a tree at the top of the mountain, and the mountain itself – for it is said that 'unlike other mountains, which have become holy because the Lord dwells in them [e.g. Kailas in the Himalayas], Arunachela is Lord Siva himself'.[15]

Mainstay of the world

In the north Indian tradition of the flood we hear that Manu and the Seven Sages took refuge in the Himalayas and that it was from there that they spread out to re-establish agriculture and to repromulgate the *Vedas* in the 'Land of the Seven Rivers' between the Indus and the Ganges. For south

India, a Tamil tradition recorded in the *Skanda Purana* assigns the same role – as a place of refuge from the flood and as a centre of subsequent teaching – to Arunachela, forever protected by Siva's guarantee that 'oceans will not submerge it even at the time of the great deluge':[16]

> The ground near it is not at all touched by the four oceans that become agitated at the close of the Yuga and that have the extremities of the worlds submerged in them … When the annihilation of all living beings takes place, when all created things are reabsorbed … all the future seeds are certainly deposited there … All the lores, arts, wealth of scriptures, and the *Vedas* are truthfully well-arranged there … Brahmanas who resort to the foot of that mountain are called by me after the deluge and I make them study the *Vedas* and make collections thereof … Sages of well-praised holy observances and rites, who abide within the caves of that mountain, shine with their matted hair. They have the refulgence of 100,000 suns and

fires …[17]

The *Puranas* also tell us that the Seven Sages (normally associated with the post-diluvial preservation of the *Vedas* in the Himalayas) were amongst those who visited Arunachela.[18] And it was undoubtedly the case, I reflected, as Santha and I continued our climb – passing now through a zone of cooling mist and then entering a dark defile – that this red-granite mountain, which in fact belongs to one of the oldest exposed rock formations on earth,[19] would never have been flooded during the post-glacial meltdown. Even during the worst events, the great tidal waves would not have reached this far inland or this high.

So Arunachela might well have been perceived as a solid and reliable 'mainstay of the world' in a time of rapidly and unpredictably rising sea-levels around the coasts of southern

India. How interesting, therefore, that it was remembered, like the Himalayas in the distant north, as a place where 'all the future seeds' were deposited for the later benefit of mankind, and as a refuge for sages where the ancient wisdoms of the *Vedas* were kept safe and from whence they were later repromulgated.

Master of all wisdom

Siva is a god of many dimensions and he has been present in India – all of India – for a very long while. We've seen that his form as a meditating *sadhu*, lean, naked, powerful, the Lord of Yoga, goes back at the very least to the Pasupati seals of Indus-Sarasvati times, 4700 years ago. The same is true of his manifestation as a phallic cone or column of stone – many examples of which have been excavated in Indus-Sarasvati

sites.[20] He is also one of the primeval gods of the *Rig Veda*, where he is known as Rudra. It is in recognition of this ancestry that the names Siva and Rudra are used interchangeably (or jointly as 'Rudra-Siva') in many ancient Indian scriptures.[21] And Rudra is addressed as follows in the *Yajur Veda:* 'Thou art *Siva* [gracious, kind] by name.'[22]

Like Siva, Rudra is both terrifying and reassuring.[23] He is said to have 'two natures or two "names": the one, cruel and wild (*rudra)*, the other kind (*siva)* and tranquil *(santa)*'.[24]

Like Siva, Rudra is the 'dweller in the mountain',[25] 'the blue throated one',[26] and 'Tryambaka' ('the three-eyed').[27] Like Siva, Rudra of the *Vedas* has a fair or white complexion[28] (but is also sometimes described as 'red'[29]), and is a great Yogi and the Lord of Animals.[30] Like Siva,

Rudra has long, braided and/or matted hair, and healing powers.[31] Like Siva, Rudra is associated with fire.[32] And like Siva, Rudra's symbol in later Vedic tradition is *sthanu*, 'a post' or 'a pillar' signifying 'the timeless, motionless state of *samadhi* in which the Lord of Yoga dwells'.[33]

But above and beyond any of this, the true defining characteristic of Rudra-Siva is as the God of all Knowledge and of insight and inner wisdom *(jnana – gnosis)*. This is why we read, in Book VIII of the *Rig Veda:* 'That mind of Rudra, fresh and strong, moves conscious in the ancient ways.'[34]

This is why Siva is frequently portrayed in Hindu religious art as Jnana-Dakshinamurti, Master of all Wisdom, 'sitting under a tree on Mount Kailasa with his foot on a dwarf who symbolizes human ignorance'.[35]

The highest knowledge to the most humble

The particular nature of Rudra-Siva as the God of Knowledge in the form of a powerful *rishi* with unkempt hair who lives in mountains and wild places is connected to a subtle and complex system of ideas which, even if one does not agree with it, must be admitted to be extremely well thought-out and (in view of the Mohenjodaro seal) extremely ancient. Ultimately, it seems to state that enlightenment, and true knowledge, cannot be attained without becoming the master of one's impulses and renouncing the lures of the material world – or at any rate one's 'attachment' to it. Conversely, a person's material wealth and physical beauty can tell us nothing useful about that person's mind and soul. It is to drive this point home, perhaps, that when the gods come to seek advice from Siva they find him 'accompanied by

myriads of devoted followers, all of them naked, all deformed, with tangled curly hair'.[36]

Likewise the Orientalist Alain Danielou observes that:

> Already the *Vedas* picture Rudra as living in the forests and mountains, ruling over animals tamed and wild. The Saiva mythology shows him as the divinity of life, the guardian of the earth, who wanders naked through rich forests, lustful and strong. He teaches the highest and most secret knowledge to the most humble.[37]

The idea that true wisdom does not clothe itself in finery is also conveyed in another story of Brahma, Vishnu and Siva, where Brahma and Vishnu are once again contending as to which one of them is the supreme being:

> Thus Vishnu and Brahma disputed, and at length they agreed to allow the matter to be decided by the *Vedas*. The *Vedas* declared that Siva was the

> creator, preserver, destroyer. Having heard these words, Vishnu and Brahma, still bewildered by the darkness of delusion, said, 'How can the lord of goblins, the delighter in graveyards, the naked devotee covered with ashes, haggard in appearance, wearing twisted locks ornamented with snakes, be the supreme being?'[38]

The answer, since Rudra-Siva is in fact the supreme being, is that he can take any form he chooses. And it is his choice that leads him to smear himself with ashes and consort with the poor and humble who are pure in spirit. According to Professor Stella Kamrisch:

> He stood apart and was an outsider to other Vedic gods. He could be recognized by his weird, mad looks. He seemed poor and uncared for, neglectful of his appearance; the gods despised him, but he intentionally courted dishonour, he rejoiced in contempt and disregard, for 'he who is despised lies happy, freed of all attachment'. The fierce, self-humiliated

> Lord was a yogi … He provoked contempt as a test of his detachment.[39]

So there is an *idea* here, a fairly consistent idea – perhaps it is better to say a system of ideas – behind the conception of Rudra-Siva as the God of Knowledge. Whatever knowledge and powers he possesses have been acquired through meditation, austerity and self-sacrifice – practices that are likely to have been part of a wider curriculum. And the same is true, unconditionally, of the Seven Rishis of the *Vedas*. They also, John Mitchiner observes,

> smother their bodies with ashes, and have their hair uncut, matted and tied in a knot: in other words they are depicted as being in appearance much as many other – especially Saiva – ascetics.[40]

There is even a tradition in the *Bhagvata Purana* that the greatest sages 'range over the world in the guise of mad

persons' whilst imparting wisdom.[41]

At the very least the lesson of this is that it is worth showing respect and listening carefully to the words of any person. Appearances can be deceptive and you never know who you're dealing with.

In such a spirit I hoisted my weary body up the last few metres of Arunachela's crumbling granite scree and on to the muddy path overlooked by sloping rocks that led to Narayana Swami's mountain-top lair.

Tea and prayers

The *rishi* did not occupy the summit of the mountain – he would have been roasted by the sacred fire that is lit there every December to mark the apotheosis of Siva as a column

of flame – but had set up his hermitage in a tree-lined bower that lay off to one side a few minutes' walk below the summit. He was attended by the young man who had passed us earlier on our climb, and four other Siva ascetics (Sivachariars) clad in orange rags, who now peered down from the rocks and greeted us from either side of the muddy path.

Suddenly, as soon as we'd arrived, we found ourselves in the middle of some sort of ceremony or routine. The young acolytes indicated that we should take off our shoes – because we were now approaching holy ground – and beckoned to us to accompany them down a little incline to the edge of the bower where Narayana Swami had presumably been sitting for the past ten years. In the shady gloom, buzzing with enormous hornets, we could just make out a little half-tent, like a refugee lean-to covered in plastic,

underneath the overgrowing branches of the trees.

We never actually did get to see the *rishi*, this embodiment of Siva, face to face, let alone speak to him. He didn't speak to anyone, at least not in any known language, although he did mumble and grunt incoherently to his followers from time to time and they seemed to understand. The most we saw was a thin but strong arm with leathery skin reaching out sometimes, and a bony finger making patterns in the mud in front of the little plastic tent – and there was a great deal of mud around the *rishi's* bower and pools of water lying in the hollows of the rocks.

Next we had to sit down in the mud and the acolytes brought us dirty half-coconut shells of what they announced to be tea that had been blessed by the *rishi*. Into this tea, which was lukewarm, they melted finger-sized dollops of butter and asked us to drink. We did so, with some

trepidation (I was thinking amoebas, right from the start). Then there were prayers, reminding us that the tea had been blessed and that it would make us well in our bodies. Then more tea and more prayers. Then we were brought a cold, but somehow greasy, herbal drink with leaves floating in it – also blessed by the *rishi*. We drank it. More prayers followed, and more tea with butter and intestinal parasites.

After that one of the acolytes beckoned to us to line up behind him and led us in a clockwise direction on a brisk walking circuit (with each circuit requiring only twenty or thirty seconds to complete) of the path that runs around the inside of the bower and in front of Narayana Swami's shelter. There we knelt down in the mud and sacred ash was placed on our foreheads. Then we completed a few more circuits chanting as we went 'Siva, Siva, Siva, Raga Ra, Raga Ra' – or something like that.

It was very strange. We didn't ask for the ceremony and – most unusually in India – no money was required of us for participating in it.

Arunachela and Kumari Random

Was Narayana Swami genuinely mad, I wondered, as we made our way down Arunachela that afternoon. Or was he one of those great *rishis*, lit with the inner fire of *tapas*, said to roam the world disguised as a madman whilst imparting knowledge? To believe him to be wise if he was in fact mad would be the height of gullibility, but to believe him to be mad if he was in fact wise might be an even bigger mistake. Besides, whatever he was, his presence testified to the continuing vitality of the pan-Indian tradition that mountains such as this one had served as centres for the collection and

repromulgation of the *Vedas* after the flood and as places where a brotherhood of ascetics preserved antediluvian knowledge that would be used to plant 'the seeds of the future'.

Setting aside for a moment its connection with Rudra-Siva, the Yogic god of wisdom, I felt that I needed more information on this 'flood' aspect of the Arunachela story. Specifically, I wanted to find out if was connected in any way to the mysterious lost land called Kumari Kandam that was said to have been swallowed up by the sea around south India thousands of years before. By the time Santha and I reached Tiruvannamalai in February 2000 I was already familiar with some details of this tradition – which is widely known amongst India's 200 million Tamils but almost unheard-of outside India. I now hoped to learn more from a Tamil pundit whom I had arranged to meet after our climb. A

retired ship's captain who had given himself over to the life of contemplation, he now resided permanently at the Ashram of Sri Ramana Maharishi, which is positioned at the foot of Arunachela about 2 kilometres from the Arunacheles-war temple.

A loin-cloth, a water-pot and a walking stick

Maharishi means 'great *rishi'* and Sri Ramana seems in every way to qualify for this title. Like Naryana Swami, he had at one stage of his life exposed himself for several years on the slopes of Arunachela after first arriving there in 1896. At the time, it is recorded, Sri Ramana

> was completely oblivious to his body and the world; insects chewed away portions of his legs, his body wasted away because he was rarely conscious

> enough to eat, and his hair and fingernails grew to unmanageable lengths.[42]

This fugue had been brought on by a flash of spiritual insight that the real nature of the human creature is 'formless, immanent consciousness'.[43] After two or three years in this state Sri Ramana 'began a slow return to physical normality, a process that was not finally completed for several years'.[44] During this period followers began to gather about him and by the time of his death in 1950

> he was widely regarded as India's most popular and revered holy man … He made himself available to visitors twenty-four hours a day by living and sleeping in a communal hall which was always accessible to everyone, and his only private possessions were a loin-cloth, a water-pot and a walking stick.[45]

Since Sri Ramana's death his Ashram has continued to attract devotees and is a thriving, busy place today with a good library, extensive offices, private and communal accommodation, a canteen and a beautiful prayer hall. The pundit I had come to meet, Captain A. Naryan (no relation to Naryana Swami), was a tall, heavy-set moustachioed man in his early seventies, who explained to me that he was no great scholar, but that he had a personal interest in Tamil traditions which he had been able to pursue since his retirement, and that he hoped his small knowledge might provide me with a few clues for my search. 'Everyone calls me Captain,' he said, when I asked how I should address him.

As old as the hills

We began by talking through the story of Arunachela and

how it was said that the mountain would never be submerged or swept away – even by the waters of the great deluge at the end of a world age. ‘So we may assume that this has been the case in the past?’ I was half asking, half affirming ‘because there is a destruction at the end of each cycle of *yugas*, so somehow Arunachela has remained constant throughout all of this?’

The Captain nodded sagely.

‘So it is the centre of everything,’ I continued. ‘Now the area which I’m trying to explore is the borderland between history and what comes before history. And we know that, historically, the temple here at Arunachela, there are documents which speak of its construction, and probably the temple as we see it now, most of it is less than 1000 years old and some parts may go back closer to 2000 years old, but at the heart of it is the Sivalingam, which is said to be much

older. Can you tell me a bit about that lingam – which is supposed to be “self-created”? What does this mean?’

‘ “Self-created”,’ replied Narayan, ‘means it is not chiselled by man in the way that other lingas are chiselled by man. But there are certain other lingas which come out of the earth, not made by man, but which conform to all the characteristics – like the proportion, the width, the circumference and the height. So just like a man-made Sivalinga it conforms to the correct proportions.’

‘So it would look like a man-made one, but it’s not?’

‘It is not!’ affirmed the Captain. ‘It is more perfect. And it must be as old as Arunachela itself. Because as the *Purana* says, when the primal gods were beseeching the supreme being: “Since the mortals cannot see you in your effulgence form, you should take the form of a lacklustre hill. Even if

you assume the form of a lacklustre hill, only the clouds can anoint you and only the sun and the moon can be the lamps lit for you. But we have to do *puja* [prayers, offerings] before you so you should assume the form of a smaller lingam." So Arunachela granted their wish and he told them I will appear in the form of a lingam and you may worship me …'

'And that is the lingam that's in the temple?'

'That is the lingam.'

'OK, fair enough. A naturally formed lingam that's literally as old as the hills. But at some point human beings must have found it, begun to treat it as a cult object, and built some sort of structure around it. What I'm trying to get at is when did the anointing and worship of this naturally formed lingam begin? It's presumably much earlier than the date of construction of the temple that's standing on the site today?'

‘Yes. Yes, naturally. What the *Puranas* say is that gods came here and they were the first to build a temple around the self-generated lingam of the Lord. That’s what the *Puranas* say. The primal gods Brahma and Vishnu built the temple, and cities were created by the heavenly builder Visvakarma around this place, around Arunachela.’

Cities of the gods

I was already familiar with the origin myth of Arunachela as it is told in the Tamil *Puranas*[46] and knew that it was like many other tales from around the world of cities and temples built by gods.[47] Frequently – as in the case of the *Edfu Building Texts* of ancient Egypt, for example – such traditions tell us that the gods embarked on these works of construction

at carefully chosen locations on earth in the aftermath of a global cataclysm, typically a flood.[48] This is not what the *Puranas* say about the temples and cities supposedly built around Arunachela by the gods; nevertheless the central motif of the story is the eternal endurance of the Red Hill through the cataclysms that accompany the end of world ages, and it is specifically stated: 'Oceans will not submerge it, even at the time of the great deluge.'[49] So it was here that I wondered if there might be some crossover with the Kumari Kandam myth.

'This memory of gods building the first temple and cities at Arunachela,' I now asked, 'what period do you think it originates in? If those cities are supposed to have been built at the same time as the formation of the mountain and the self-generated lingam, then that's surely an awfully long time

ago.

‘Geology says it must have been 3.[5] billion or 2.5 billion years ago that Arunachela first took its form as a mountain. But such a time-span seems outside any reasonable scale for the construction of cities and temples, since we know that the human race only came into being, what is it, 100,000 or 200,000 years ago? No “memory” of ours can be older than that.

‘But if they’re to be placed in the human scale, if they’re not just something that’s been made up by stortytellers, then shouldn’t archaeologists be able to find at least some traces of these former cities of the gods?’

The Captain shrugged. ‘Probably during the previous destructions of the world their remains have been hidden from us and if we could search sufficiently widely probably

we could find many cities below the surface of the earth.'

He seemed to reflect for a moment. 'You see,' he said at last, 'Arunachela is in the land of the Dravidians, where our language goes back more than 10,000 years.'

He then told me that the Red Hill was referred to in the most ancient surviving work of Tamil literature, the *Tolkappiyam*,[50] which itself makes reference to an even earlier work now lost to history which in turn had supposedly been part of a library of archaic texts, all now also vanished, the compilation of which was said to have begun more than 10,000 years previously. This had been the library of the legendary First Sangam – or 'Academy' – of the lost Tamil civilization of Kumari Kandam, swallowed up, as Captain Narayan put it, 'by a major eruption of the sea'.

And one of the members of the First Sangam, he added,

finally making the direct connection that I suspected to the Arunachela story, had been Siva himself,[51] the god in the mountain, the god of yoga performing *tapas* beneath a tree at the top of the mountain, the god of cosmic knowledge compressed into the lingam at the foot of the mountain.

Academies of the gods

As Captain Naryan walked us to the gate of the Sri Ramana Ashram later that afternoon, he gave me the name and telephone number of a friend who he hoped might be useful to me in the city of Madurai, the next great centre of the cult of Siva that we intended to visit in south India. There, he told me, there were knowledgeable professors at many colleges and universities – for Madurai has been always been a place of scholarship and learning – who would certainly be able to

tell me much more about Kumari Kandam and the Sangam tradition. Nor could there be any more appropriate place to mount such an inquiry, since Madurai itself was an important part of the Sangam tradition – having served as the headquarters of the Third Sangam …

‘So let me see if I’ve got this right,’ I asked in parting. ‘We have a First Sangam thousands of years ago and it gets flooded – the city which it’s in gets flooded?’

‘You are right. Permanently flooded. It was overwhelmed by the sea.’

‘And that city was?’

‘It was called Tenmadurai – which means “Southern Madurai”. It was in the southern part of Kumari Kandam. After it was gone, a city called Kapatapuram that lay further to the north was chosen as the headquarters of the Second

Sangam. It endured for some thousands of years but ultimately it too was flooded. Our oldest surviving text, the *Tolkappiyam*, is a work of the Second Sangam.'

'And then?'

'Finally, when Kumari Kandam had entirely gone beneath the sea, the Third Sangam was established in the city of Madurai. Then it was called Uttara Madurai, "Northern Madurai".'

Lingam or omphalos?

Before we left Tiruvannamalai we visited the Arunachelswar temple in order to see Lord Siva in his lingam form.

Walking barefoot through the ambulatories and open stone-paved plazas, we passed rows of poor, homeless and

hungry people, for the most part dressed in rags – here a mother with sunken breasts trying to suckle her child, there an old blind man, here a cripple, there a leper – waiting patiently for the charity soup kitchen to feed them.

If we looked up we could see the rugged red peak of Arunachela looming above us, framed by the tall towers of the *gopurams* that marked the main entrances of each of the temple's internested rectangular zones. Their steep pyramidal form, and their general arrangement in opposing pairs around a geometrical central plaza, as well as the scale of the whole enterprise, reminded me forcefully of the Mayan city of Tikal in Guatemala, and of Angkor Thorn and Angkor Wat in Cambodia. Indeed, in general, it has for a long while struck me as worthy of note that so many of the world's ancient places of worship – in Europe, Egypt, Israel, Mesopotamia, India, south-east Asia, China, Japan, Central

America and the Andes, for example – have assertively geometrical designs and architecture. What is this recurrent association of geometry with the religious quest? Certainly, it seems that there were many great thinkers in antiquity who, if asked 'What is God?', might well have replied, as St Bernard of Clairvaux did to the same question, 'He is length, width, height and depth.'[52]

Because all Hindu temples are part circus, we encountered a painted elephant surveying the world through a jaundiced eye, chained up in a stone pillared pavilion, and when we descended the steps to the sacred pool, known as Siva-ganga Teertham we were followed by a persistent fortune-teller who could only with great difficulty be persuaded to relinquish what he clearly felt was a fair claim on us.

Soon after we had shaken him off (not until Santha had

relented and agreed to have her fortune told for 100 rupees) we were appropriated by a beautiful doe-eyed young man in flowing white robes who floated up to us declaring himself to be a Brahmin and the son of a senior priest of the temple. As though reading our thoughts he then led us towards the sanctuary where the 'self-generated' lingam of Siva resides, explaining as he did so that it was normally out of bounds to non-Hindus, but that we had happily chanced, in his person, upon just the man to get us inside. The only thing we would not be allowed to do, he said, was touch the lingam – a privilege that was reserved for initiated Sivachariars.

I have been offered illegal access to inaccessible areas in many temples around the world, and the young Brahmin's patter was so familiar that I could already almost count the 100 rupee notes changing hands. Still, we followed him through a maze of crowded rooms and hallways, visited

various subsidiary shrines where we were fed puffed rice and sugar, had our foreheads liberally smeared with ash, and jumped a queue of worshippers at the entrance to the principal sanctuary. Then suddenly, for just a few moments, we were in the presence of the natural pillar or cylinder of stone that is venerated by the faithful as the eternal manifestation of Siva himself. The pillar, however, was so decked out with finery, robes, jewellery and an elaborate head-dress in the form of a rearing golden cobra hood that it was impossible to get a clear glimpse of any part of it. All that I can say is that it seemed to be less than half a metre thick and approximately 1.5 metres high and was rounded like a cigar-tube at the tip – very much, in other words, like 'unclothed' Sivalinga that can be seen in temples and shrines all around India.

So what was special about this one?

As he took my money, the Brahmin could only repeat the old mantras – that it is a wonder of nature wrought by the power of Siva, that it is ancient and nobody knows how old it is, and that the first temple to be built around it was the work of the gods.

The numbers of time and the world grid

In previous books I have grappled several times with the hypothesis that the earth and all its oceans may have been explored, mapped and accurately measured with lines of latitude and longitude – a pre-eminently 'civilized' and sophisticated activity – thousands of years before what we now think of as history began.[53] I want to avoid the tedious repetition of evidence and arguments that I have already presented in *Fingerprints of the Gods* and *Heaven's Mirror*, but,

in summary, the problem is this: certain medieval and Renaissance maps seem to express sophisticated geographical and cartographic knowledge far ahead of the science of their age. A number of researchers attribute this knowledge to older source documents that have not come down to us. In his *Maps of the Ancient Sea Kings*, for example, Charles Hapgood draws attention to the accurate longitudes on the so-called 'portolano' charts of the fourteenth century (400 years before the invention of Harrison's Chronometer supposedly made the accurate measurement of longitude at sea feasible for the first time). Hapgood believes that the anachronism may be explained by the survival of ancient cartographical knowledge (either in the form of maps copied and recopied again and again down the generations, or in the form of oral traditions retained and passed on amongst mariners) that originated with a highly advanced,

sophisticated and as yet unidentified seafaring civilization of prehistory. He makes the same argument for the appearance of Antarctica on the Oronteus Finnaeus map of 1539 (some 300 years before Antarctica is believed to have been 'discovered').[54]

Evidence that provides some tangential support for the general thrust of Hapgood's theory comes from a large sequence of numbers – including 18, 36, 72, 144, 2160, 4320, 25,920, etc. – that appears repeatedly and prominently in ancient myths, scriptures and traditions from all around the world.[55] According to the late Professor Giorgio de Santillana of the Massachusetts Institute of Technology and Professor Hertha von Dechend of Frankfurt University, these ubiquitous numbers derive from an archaic astronomical tradition which used shared, globally diffused conventions to

record its observations of the stars. The central symbol of the system depicts a great wheel that rotates in heaven, ‘churning’ or ‘milling’ for thousands of years. The entire axis, spokes and bands that bind this wheel are said to be periodically broken by recurrent cataclysms – often flood and fire – at which point a new wheel is forged and the cycle begins again.

Santillana and von Dechend’s explanation for this symbolism and for the numbers associated with it is that it is a metaphor for the celestial phenomenon that astronomers today call ‘precession’. This is a slow, cyclical wobble of the earth’s axis in space so that, if the tip of the north (or south) pole were imaginarily extended it would be seen to transcribe a great circle amongst the polar stars over a period of 25,920 years. Though it was not thought to have been detected until the time of the Greeks, it is Santillana and von

Dechend's radical contention that precession was observed, and measured, thousands of years earlier than that by what they describe as 'some almost unbelievable ancestor civilization'.[56] They further claim that it is these same ancient measurements (all *time* measurements) that generate the mysterious numbers in the myths.

The most notable effect of precession is that it causes a slow, relentless drift of the background of stars against which the sun is seen to rise on the spring equinox (21 March, when night and day are of equal length). This is called 'the precession of the equinoxes'. Although it can be detected by relatively simple observations, these must be sustained over several generations before the sequence begins to emerge.

The ruling number in the sequence, Santillana and von Dechend suggest, is 72 – the round number of years required

to observe one degree of the precession of the equinoxes.[57] This, they say, is why the tally of significant numbers in the myths includes 72 and multiples of 72 (e.g. 144, 720, 2160, 4320, etc.); 36 (half of 72) and multiples of 36; 24 (one-third of 72) and multiples of 24, etc. The system also uses other ways of combining these numbers – e.g., 72 + 36 = 108, a sacred number in many cultures, while half of 108 is 54, also a sacred number, as is 540 or 540,000, or 5,400,000, etc. and as are 108,000, 1,800,000, and so on.[58]

It may be that this powerful number system is *not* based on the observation of the precession of the equinoxes at all and that some explanation other than a lost civilization will ultimately be found for it. But what cannot be denied is the simple, well-evidenced fact that the system exists – whatever its source – and that it occurs in known texts of all the great archaic mythological and religious systems, amongst them

ancient Sumer and Babylon, Vedic India, ancient Egypt, ancient Greece, ancient China, the Maya of Central America, the Old Testament Hebrews and many other cultures.[59]

It was only while I was writing *Heaven's Mirror* that I began to look into another and much more controversial possibility – that a network of sacred sites might have been established all around the globe according to a longitude grid based on precessional numbers. Thus, the massive sacred complexes on which stand the Great Pyramids of Giza in Egypt and the fabulous temples of Angkor in Cambodia are on meridians 72 degrees of longitude apart; Pohnpei is 54 degrees of longitude east of Angkor; Easter Island is today the closest dry land to 144 degrees of longitude east of Angkor; the Bay of Paracas in Peru, dominated by the massive cliff drawing of unknown origin known as the 'Candelabra of the Andes', lies 180 degrees east of Angkor. Frequently these sites are linked

to flood myths, spoken of in ancient traditions as 'Navels of the Earth' (*omphalos* in Greek), and are rich in symbolism of obelisks, stone pillars, pyramids and other stone monuments.[60]

All this I was already well aware of during my travels in India in February and March 2000. Yet I honestly did not expect when I came to Arunachela, despite its obvious and prevalent *omphalos/lingam* symbolism, that it too would prove to be located at a meaningful point on the same hypothetical 'precessional grid'. I only looked it up in the longitude tables as a matter of routine. As soon as I did so, however, it was immediately obvious that a relationship based on significant precessional numbers does in fact exist between Arunachela and other grid sites – for it lies 24 degrees west of Angkor and 48 degrees east of Giza (respectively one-third and two-thirds of the 72 degrees of

longitude separating the former from the latter).[61]

Apparent longitudinal ‘correlations’ linking sacred sites according to a sequence of numbers thought to have been derived from astronomical observations that occur in ancient myths and scriptures could, of course, arise by chance. I don’t deny that possibility. But I wish to pursue what I believe to be the more interesting explanation – namely that such sites may originally have been established on specific longitudes to act as permanent markers and reference points for an archaic worldwide grid of earth measurements and to safeguard precious geodetic and navigational knowledge for the long-term benefit of mankind.

This, indeed, is little more than is already claimed in the ancient Indian accounts of the deluge, and the survival of it by a remnant of wise men, and their preservation and repromulgation of antediluvian knowledge in the new age of

the earth. Moreover, it can hardly be an accident that the *yuga* system that lies at the heart of the Dwarka story, of the story of the flood of Manu, and of the Hindu concept of recurrent cycles of cataclysm and rebirth, is also denominated in terms of precessional numbers. According to the *Puranas*, for example, the duration of the Kali Yuga is set at 1200 'divine years', equivalent to 432,000 mortal years. The durations for the preceding Krita, Treta and Davapara Yugas are set respectively at 4800 divine years, 3600 divine years and 2400 divine years, such that one *mahayuga* – made up of the total of 12,000 divine years contained in the four lesser *yugas* – is equivalent to 4,320,000 years of mortals.[62]

Whatever the explanation ultimately turns out to be, and whether Santillana and von Dechend are basically right or basically wrong, the worldwide distribution of such an intricate sequence of numbers, not only in myths but also in

architecture (e.g., the 72 pillars of the Dwarkadish temple), represents a serious problem that orthodox historians have so far failed to address.

If it is not ‘coincidence’, then what is it?

The riddle of Vishnu’s three steps

Santha and I treated ourselves to a luxury in south India in February 2000, which we would never have dreamed of affording back in 1992. This was a comfortable, crème-white, air-conditioned Ambassador limousine (for what was going to turn out to be a journey of almost 3000 kilometres) with Palani, a small, wiry ex-army driver from Chennai, at the wheel. With his steady nerves and encyclopedic knowledge of the highways and byways of Tamil Nadu, he was the best possible guide and friend we could have had on such a

journey. When I needed a beer in a ‘dry’ town he always knew (although never imbibing himself) where to obtain bottles of cold, illicit Kingfisher wrapped up in brown paper sacks. And more to the point he put us through no collisions, no nerve-jangling skids, no horrific misjudgements of the proximity of a pedestrian, no death-defying overtaking manoeuvres, and no falling asleep at the wheel.

From Tiruvannamalai we drove south all day towards Madurai through a rich, green, predominantly flat dreamscape of paddy fields and palm trees dotted here and there with the weird outcroppings of ancient red granite that are the characteristic feature of this region. There were people everywhere, Tamil peasant farmers at work in the fields in brightly coloured clothes, or strolling along the road, sometimes drying cattle fodder on the road itself, doing hard labour on building sites and eighteen-hour days in wayside

shops and stalls – a tremendous mass of individual human lives surviving in many cases on the very edge of absolute penury yet somehow making do and getting by. It was fascinating to realize, and impossible to ignore, that the religion of all these industrious people was a peculiarly Saivite brand of Hinduism:

- Siva 'the embodiment of knowledge'.[63]
- Siva, the god of wisdom, who rules in 'the city of knowledge' (*jnana-puri*, literally '*gnosis* city').[64]
- Siva who takes the form of Arunachela, 'the mountain of knowledge'.[65]
- Siva who, through initiation into *gnosis*, has the power to inflict or to withhold death and to grant immortality.[66]

In some texts, I had been interested to learn, Siva is identified with Vishnu. In the *Mahabaratha*, for example, there is an episode in which the warrior Arjuna experiences a revelation after being wrestled to the ground by a huge stalwart being:

> Arjuna's limbs were bruised and he was deprived of his senses. When he recovered he hailed the god, saying: 'Thou art Siva in the form of Vishnu and Vishnu in the form of Siva … O Hari, O Rudra, I bow to thee.'[67]

In the *Rig Veda*, Vishnu's principal exploit, recounted and celebrated again and again, is the taking of 'three steps'.[68] Although it is agreed that these steps must symbolize something of profound importance, scholars have as yet reached no consensus as to their underlying meaning.[69]

I pulled the Griffith translation of the *Rig Veda* from the

half-open satchel that lay perched between Santha and myself on the middle of the back seat and opened it at Book I, Hymn 104:

> I will declare the mighty deeds of Vishnu, of him who measured out the earthly regions … thrice setting down his footstep, widely striding. For this mighty deed is Vishnu lauded … He within whose three wide-extended paces all living creatures have their habitation … Him who alone with triple step hath measured this common dwelling place, long, far extended …[70]

All kinds of symbolism might indeed be intended in such a passage, but if we take the hymn at face value, then isn't it rather clearly saying that Vishnu measured out the earth by taking three footsteps? We might speculate on what precisely the footsteps represent, but the involvement of the whole enterprise in earth-measuring – i.e., geography – cannot

reasonably be denied.

Other passages reinforce the same conclusion, describing Vishnu, for example, as 'He who strode, widely pacing, with three steppings forth over the realms of earth for freedom and for life …'[71] Two verses later we read that 'He, like a rounded wheel, hath set in swift motion his 90 racing steeds together with the four …'[72] What could the function of this latter verse possibly be if it is not to invite us to multiply 90 by 4, giving us the 360 degrees of the circle (or 'rounded wheel')? Remember, we have been told just beforehand that such an approach to measuring out 'the realms of earth' is a contribution to the cause of freedom and life – a clear incentive to its preservation!

In Book 6, Hymn 49 of the *Rig* we find Vishnu described as 'He who for man's behoof in his affliction thrice measured

out the earthly regions.'[73] Again, the idea seems to be that Vishnu's earth-measuring endeavours were of great value and benefit to mankind and were, moreover, delivered in a time of 'affliction'.

Last but not least, in Book I, Hymn 164, we encounter the following riddle:

> Formed with 12 spokes, by length of time, unweakened, rolls round the heaven this wheel of during Order. Herein established, joined in pairs together, 720 sons stand …[74]

So here, represented by a multiple of its 'ruling' number 72, pops up Santillana and von Dechend's ancient precessional code combined in the same passage with the familiar 'wheel of heaven' metaphor of the precession of the equinoxes. The passage also provides further evidence that the convention still in use by modern geographers of dividing the circle into

360 degrees (or 720 half-degrees) was already in existence in Vedic times and is directly alluded to in this hymn. Likewise, the 12 spokes of the wheel are anachronistically suggestive of the 12 'houses' of the (supposedly Graeco-BabyIonian) zodiac in which the sun rests for 30 'days' of each precessional month – each such month being equivalent to 2160 human years with the entire precessional cycle thus amounting to 12 $\times$ 2160 = 25,920 human years.[75]

Surviving the null hypothesis

Could there really be 'science', in the hard, empirical, modern sense, in the ancient Indian scriptures?

According to Dr Richard L. Thompson, who received his Ph.D. in mathematics from Cornell University, where he

specialized in probability theory and statistical mechanics, the answer to this question is 'yes … probably'! In his impressively researched and thoroughly documented study *Mysteries of the Sacred Universe* Thompson takes a particularly close look at the *Bhagvata Purana* (a later compilation of oral traditions than the *Rig Veda* but one that nevertheless belongs, as we have seen, to the same body of knowledge).[76] In it he draws attention to a curious word picture called Bhu Mandala that the *Purana* conjures up and that consists of circles and internested spheres of precise, very large, dimensions. He argues that Bhu Mandala is a complex and cleverly designed cosmological model serving at one and the same time as an accurate map of the solar system and as a planar projection map of the earth.[77]

Thompson's arguments must be considered on their own

merits backed up by the detailed evidence that he sets out in his book. But the centrepiece of his case is the electrifying correlation, to which he is the first to draw serious attention, between the dimensions given for the various circles of Bhu Mandala in the *Bhagvata Purana* and the actual dimensions of the planetary orbits within the solar system as determined by modern science.[78] Since the correlations turn out to be extremely close, Thompson concludes:

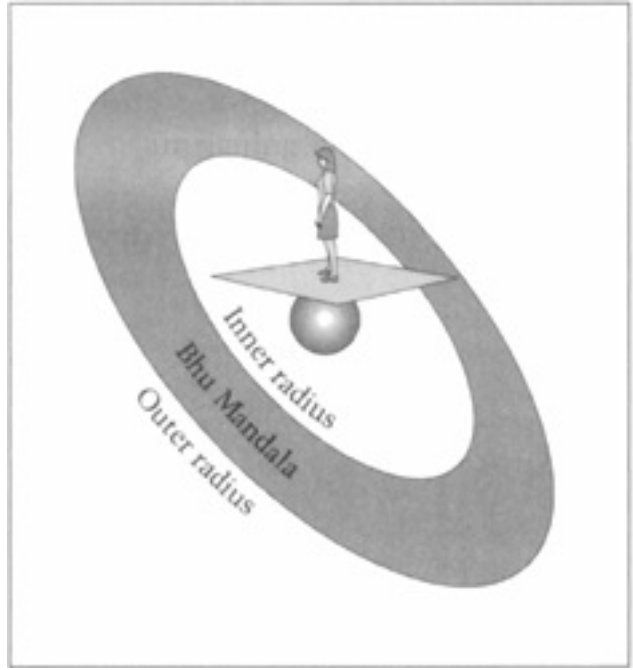

The Bhu Mandala shown as a tilted ring in relation to a local horizon on Earth. Based on Thompson (2000).

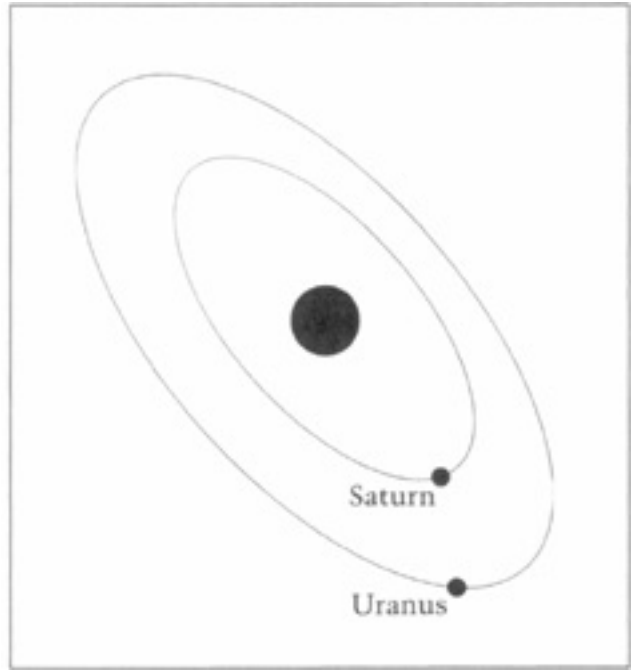

Orbits of Saturn and Uranus around Earth.

Comparison of Bhu Mandala's parameters with orbital radiuses of Saturn and Uranus

	7928 miles	Earth's diameter
compare	890,000,000 miles	radius of Saturn's orbit
	1,000,000,000 miles	inner radius of Bhu Mandala
compare	1,790,000,000 miles	radius of orbit of Uranus
	2,000,000,000 miles	outer radius of Bhu Mandala

It is clear that Bhu Mandala, as described in the *Bhagvatam*, can be interpreted as a geocentric map of the solar system out to Saturn. But an obvious and important question is: Did some real knowledge of planetary distances enter into the construction of the Bhu Mandala system, or are the correlations between Bhu Mandala features and planetary orbits simply coincidental?[79]

Being a mathematician interested in probability theory, Thompson is better equipped than most to answer this

question and does so through computer modelling of a proposed 'null hypothesis' – i.e.,

> that the author of the *Bhagvatam* had no access to correct planetary distances and therefore all apparent correlations between Bhu Mandala features and planetary distances are simply coincidental.[80]

However, the Bhu Mandala/solar system correlations proved resilient enough to survive the null hypothesis. 'Analysis shows that the observed correlations are in fact highly improbable.'[81] Thompson concludes:

> If the dimensions given in the *Bhagvatam* do, in fact, represent realistic planetary distances based on human observation, then we must postulate that *Bhagvata* astronomy preserves material from an earlier and presently unknown period of scientific development … [and that] some people in the past must have had accurate values for the dimensions of the planetary

> orbits. In modern history, this information has only become available since the development of high-quality telescopes in the last 200 years. Accurate values of planetary distances were not known by Hellenistic astronomers such as Claudius Ptolemy, nor are they found in the medieval *Jyotisa Sutras* of India. If this information was known it must have been acquired by some unknown civilization that flourished in the distant past.[82]

Needless to say, a civilization that could make accurate maps of planetary distances, a hypothetical civilization of the distant past that had approached to within 200 years of our own level of development in astronomy, would have had no great difficulty in observing and measuring the precession of the equinoxes, or in dividing up the earthly and celestial spheres into degrees of longitude and latitude, or in consecrating a series of sacred sites at specific longitudes, and, in the process, exploring and mapping the globe.

Neither do I find it at all difficult to imagine how the geodetic and cartographic works of such an elder culture might have been remembered in much later and more superstitious times as gifts that had been handed down by the gods.

Had some stone pillar, now venerated as the self-generated lingam of Siva, been set up by prehistoric geodecists at Arunachela, for example, to mark the auspicious longitude of the Red Hill? The same symbolism of the lingam is, of course, found all over the temples of Angkor in Cambodia. And in ancient Egypt the conical Ben Ben stone, perched atop a stone pillar, was the symbol of the Heliopolitan priesthood that built the Pyramids of Giza.

Same symbolism in all three places.

Same gnostic quest for immortality.

Same use of precessional numbers in their architecture and their myths.

And there are 48 degrees of longitude between Giza and Arunachela, 24 degrees between Arunachela and Angkor, and 72 degrees between Giza and Angkor.

Coincidence?

Design?

Take your pick.

Madurai

A few hours later, well after dark, the Ambassador rolled smoothly across the thin membrane that separates rural from urban life in India, and we found ourselves in Madurai. As the reader will recall, Captain Naryan had told me that this

city, with the great Meenakshi temple residing at its heart, was the site of the third and last Sangam, or Academy, of Tamil poets and philosophers – an institution that traced its origins back to the antediluvian civilization of Kumari Kandam.

While we drove through the crowded streets blaring with sound and lights I remembered that the First Sangam was said to have been established many thousands of years ago in an earlier 'Madurai' – Tenmadurai – that lay far to the south on lands subsequently swallowed up by the sea.

It is astonishing how little attention has been paid to these Tamil myths, and how little has been written about them outside the subcontinent. Even David Schulman, who has done more than most to fill this gap in knowledge, is dismissive of the significance of the traditions:

> The story of the three Cankam [Sangams] as it appears in our sources is suspect on many counts, and there is no geological evidence of any deluge affecting the area in historical times.[83]

Though I respect Dr Schulman's work, which offers a lucid exposition in English of the Tamil flood myths, he is dead wrong to consider only whether deluges have affected the area in historical times when massive geological corroboration exists for multiple deluges at the end of the last Ice Age – well within the time-frame of more than 10,000 years that is set out in the Sangam tradition itself.

Could it be the ruins of Kumari Kandam that are lying in 23 metres of water 5 kilometres off-shore of Poompuhur? And could those mythical antediluvians remembered by the ancient Tamils have been the source of the fragments of high cartographical and astronomical knowledge that seem to

have been fossilized in the ancient Indian texts?

11 / The Quest for Kumari Randam

> The river Prahuli, and the mountain Kumari, surrounded by many hills, were submerged by the raging sea.
>
> *Silipathikaram* xx: 17–20

> With reference to the first two Sangams I may say that the account is too mythical and fabulous to be entitled to any credit and I do not think that any scholar who has studied the histories of the world will be bold enough to admit such tales within the pale of real history.
>
> Professor Sesagiri Sastri, *Essay on Tamil Literature*, Madras 1897

February 2000-January 2001, south India

Madurai is an ancient city but it has little to show, other than a few texts of disputed antiquity,[1] to back up its claim to

have been the headquarters of the third and last of the great Tamil Sangams ('Academies'). It can produce no evidence in support of its further claim that the Third Sangam was the direct-line descendant of two earlier Sangams, *dating back thousands of years into prehistory*, located in antediluvian Tamil cities that had once existed far to the south of Madurai but that had been swallowed up by the sea. The very word 'Sangam' turns out not even to be derived from the Tamil language (it is Sanskrit) and does not appear in any of the texts that tradition attributes to the Third Sangam period.[2] Last but not least, the earliest surviving written account of the so-called 'Sangam Age' is not thought by scholars to be older than the sixth century AD.[3]

By his use of such arguments the late K. N. Shivaraja Pillai – whose highly regarded but rare *Chronology of the Early*

Tamils I was able to consult at a research library in Madurai – stands out as the most persuasive opponent of the alluring notion of lost Tamil lands and a lost Tamil civilization in the Indian Ocean. He wags an admonishing finger at those tempted to wonder if there might be even a drop of the truth anywhere in the story of Kumari Kandam and the first two Sangams, and proclaims the whole thing to be

> one of the most daring literary forgeries ever perpetrated. The incredibly high antiquity with which Tamil literature comes to be invested by this legend, and the high connection with divinity it brings about, were more than enough to secure for it a ready acceptance by a credulous public.[4]

The historical annals of most cultures contain examples of this kind of manipulation of the past in order to annex some dignity or aura of the divine to a fledgling royal dynasty, or to dress up a new cult in a cloak of antique venerability – or,

for that matter, to render *arriviste* philosophies or literary works more acceptable to traditionalists by attaching them to existing or imagined traditions.[5] It is therefore easy to see the force of Pillai's arguments, and, since he published his *Chronology* in 1932, his view that Kumari Kandam is nothing more than a 'preposterous story'[6] has been the dominant one amongst serious scholars of Tamil history.

This, of course, by no means guarantees that his view is correct. On the contrary, as I continued my research in Madurai, the potential significance and implications of what the NIO had found in 1993 off the south-east coast of Tamil Nadu at Poompuhur began to weigh more and more heavily on my mind.

Lost lands and flooded cities

From the photographs and descriptions that I had by this time seen and read, everything about the U-shaped structure appeared to be strikingly anomalous. Yet equally striking was the way in which it had thus far attracted zero attention or interest outside the rather closed world of the NIO (which had been unable to do anything further about it because of insufficient funding). I found this lack of interest and knowledge to be almost unbelievable.

After all, the fully qualified Indian marine archaeologists who had dived on the structure in 1993 had not hesitated in their official report to pronounce it to be man-made with 'courses of masonry' plainly visible – surely a momentous finding 5 kilometres from the shore at a depth of 23 metres? But far from exciting attention, or ruffling any academic feathers, or attracting funds for an extension of the diving survey to the other apparently man-made mounds that had

been spotted near by on the sea-bed – and very far indeed from inspiring any Tamil expert to re-evaluate the derided possibility of a factual basis to the Kumari Kandam myth – the NIO's discovery at Poompuhur had simply been ignored by scholarship, not even reacted to or dismissed, but just widely and generally ignored.

All the more I felt it was my role to be proactive and to stir things up around this matter. Because if the U-shaped structure was indeed man-made and more than 10,000 years old (remember at this stage I still did not have Glenn Milne's inundation maps that would later push the age of the ruins back to 11,000 years old or older) then things were going to have to change in south Indian history. Despite all the question marks that had been raised over it on literary and philological grounds, the myth of Kumari Kandam and of the two antediluvian Sangams would suddenly clamour to be

taken seriously.

After all, it is one thing for scholars like Shivaraja Pillai, David Schulman and others, to belittle the historical significance of a myth for which there seems to be no substantiating evidence, but it is quite another to try to sustain such a posture among a growing community of scholars and interested members of the public with access to inundation data like Milne's.

14. *The Temple of the Sea Lord, Dwarka, overlooking the underwater ruins.*

15. *View of Dwarka from the sea. The ruins are directly beneath the small boat.*

MARINE ARCHAEOLOGICAL EXPLORATIONS
OFF DWARKA, BET DWARKA & SOMNATH
NATIONAL INSTITUTE OF OCEANOGRAPHY

16. *Marine archaeologists of the NIO at Dwarka.*

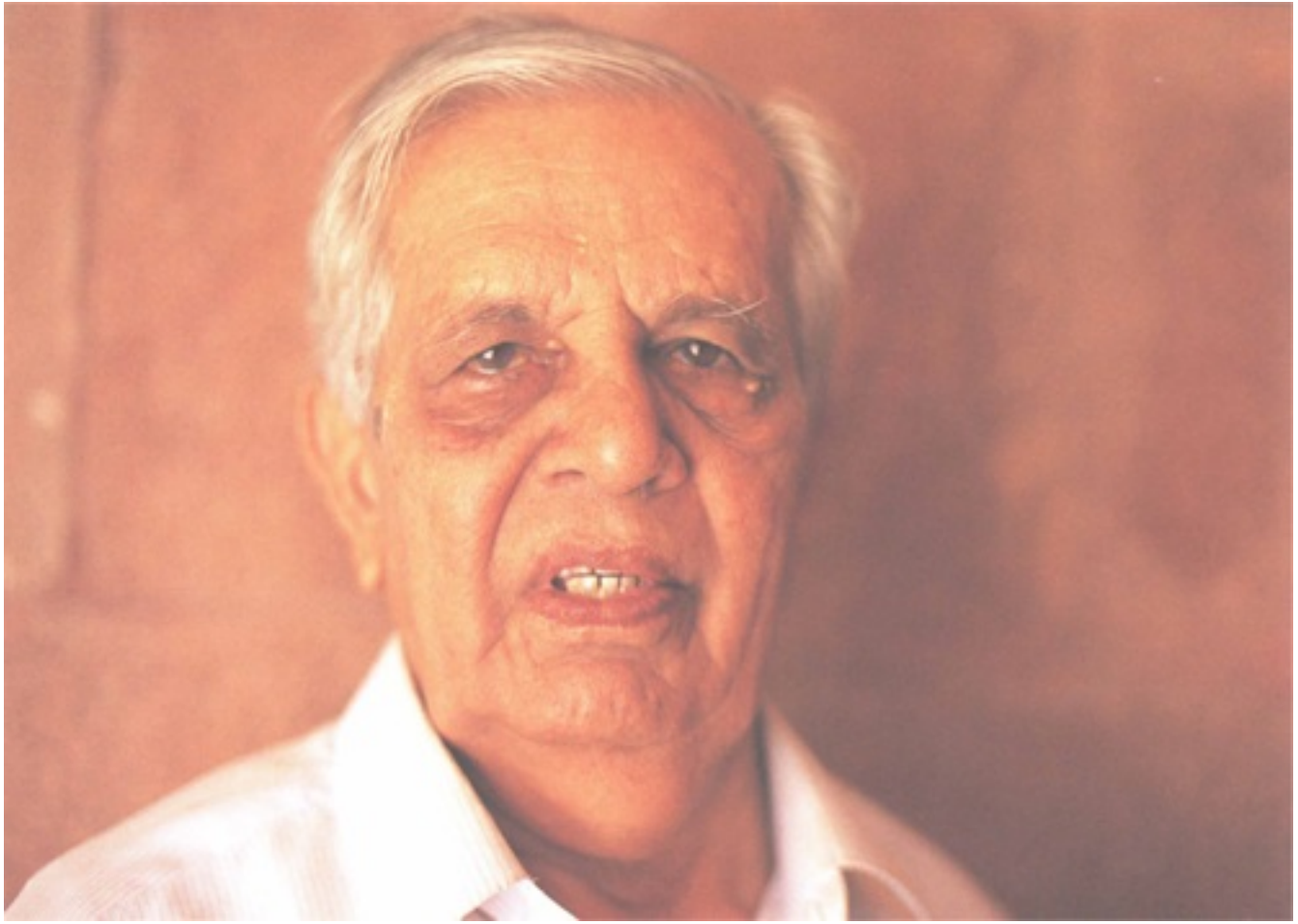

17. *S. R. Rao, the founder of marine archaeology in India.*

18. *Technical divers of the NIO entering the water at Dwarka.*

19. *Underwater Dwarka, large blocks scattered on the sea-bed.*

20. *Circular stone anchor amidst underwater structures, Dwarka.*

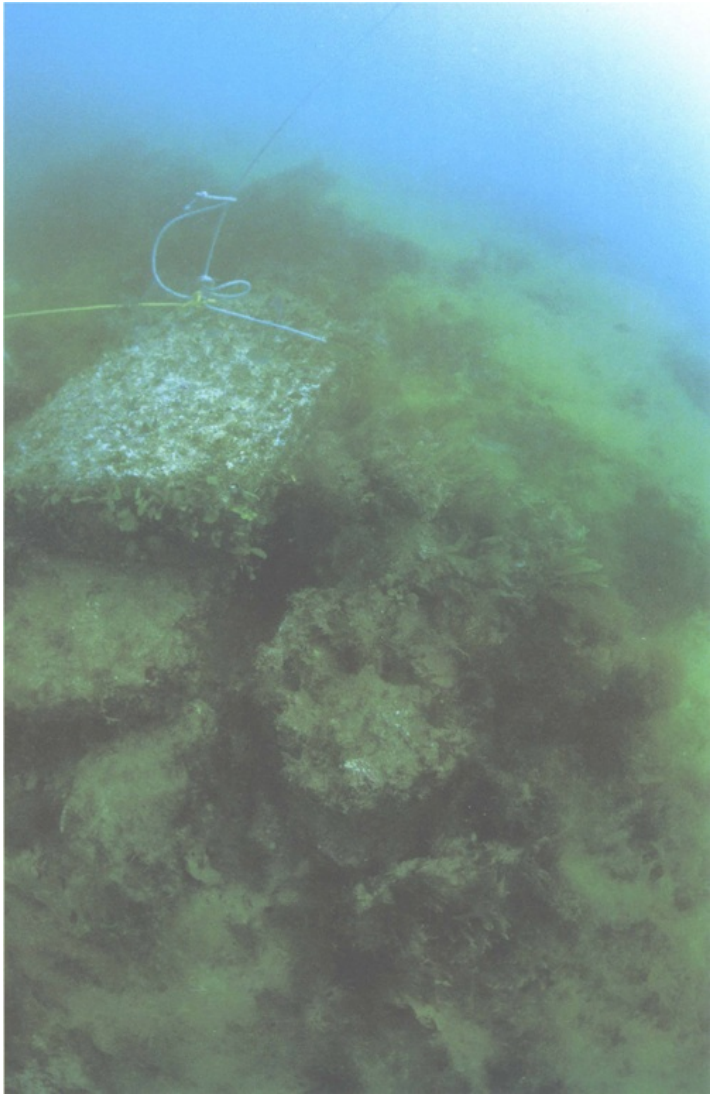

21. *Part of a curved bastion, underwater Dwarka.*

22. *Treasure trove of man-made artefacts brought up from two mysterious submerged cities discovered in 2001 in India's Gulf of Cambay.*

51

23. *Detail of artefacts and human remains from the lost cities in the Gulf of Cambay.*

24. *The author with NIO experts, examining plans of the two deeply submerged cities in the Gulf of Cambay thought to be more than 8000 years old.*

25. *Pilgrims flocking to a Siva temple on the seashore at Dwarka.*

26. *Siva temple, Dwarka. Although Dwarka is sacred to Krishna, the cult of Siva is also celebrated there.*

Reproduced here and in chapter 7, the Durham geologist's maps of south India between 17,000 and 7000 years ago have an eerie effect on me. Incorporating Sri Lanka in the south-east, extending southward, below Cape Comorin, and enhanced off-shore by the enlarged Lacadives/Maldives archipelago running all the way to the equator and into the southern hemisphere, the maps portray the region as no culture of the historical period is supposed to have known it: yet when I look at them through half-closed eyes I can almost imagine that someone has tried to *draw*, at various stages of its supposedly mythical inundation, the much bigger Dravidian homeland of thousands of years ago that is described in the Kumari Kandam tradition.

Coincidence? Or mystery?

- With its dominant motif of a once much larger Dravidian homeland, the opening of the Kumari Kandam flood myth is set in remote prehistory between 12,000 and 10,000 years ago.
- The work of Glenn Milne and other inundation specialists confirms that between 12,000 and 10,000 years ago India's Dravidian peninsula and its outlying islands would indeed have been far larger than they are today – but were in the process of being swallowed up by the rising seas at the end of the Ice Age.
- With its descriptions of flooded cities and lost lands, the Kumari Kandam myth 'predicts' that prehistoric ruins more than 10,000 years old should lie underwater at various depths and locations off the Tamil Nadu coast.

- The NIO's discovery of a large and apparently man-made structure at a depth of 23 metres off Poompuhur seems to confirm the accuracy of this prediction.

If the myth is right about the flooded cities, then what else might it be right about?

If there is anything at all to the story of the First and Second Sangams orchestrating a golden age of literary, artistic and musical creativity amongst the Tamils of 10,000 years ago and maintaining an archive of written records, then it means not only that an as yet unidentified culture of the last Ice Age may have flourished in the lost lands of the Indian Ocean, but also that we seem to be dealing with a *civilization* here that had reached a high level of development, organization and self-awareness.

The teachings of illustrious men

The sources for all that is known today about Kumari Kandam are limited and it is true, as the detractors of the myth point out, that the oldest written version dates from no earlier than the sixth century AD – some would even make it as young a document as the tenth century AD. Supposedly the work of the renowned medieval commentator Nakirar, this version appears in a learned gloss to the Iriy*anar Agapporul*, a grammar of classic Tamil love poetry in sixty *sutras*.[7] Our concern here is not with the *Agapporul*, but strictly and exclusively with Nakirar's gloss, which is itself said to have been 'handed down orally for ten generations before it was put into writing'.[8]

Other medieval commentators who support Nakirar by

speaking of Kumari Kandam and of the first two Sangams not as myths but as historical entities are Nachinarkkiniyar, in his gloss to the *Tolkappiyam Poruladikaram*, the distinguished Per-Asiriyar in his commentary upon the *Tolkappiyam*, and Adiyarkkunelar, in his commentary on the *Silipathikaram*.[9]

As my research continued in Madurai, therefore, I was not surprised to learn that long before something looking very much like underwater ruins had been found off the south-east coast of India in exactly the depth/age-range that is predicted by the Kumari Kandam myth, the credibility lent to the flood and Sangam tradition by the illustrious men who passed it down to us had clearly begun to worry some otherwise sceptical modern historians:

> Three commentators of no mean scholarship and repute have unreservedly accepted the version of the commentator of the I*riyanar Agapporul.* Though

> it is easy to dismiss these valuable works as unhistorical and uncritical and hence worthless to students of history, still we cannot afford to credit commentators with such ignorance of the subject which they were handling. When they quote with approval it means they were satisfied of the veracity of the tradition behind the account.[10]

The Kumari Kandam tradition (1)

Although I am (of course!) writing *Underworld* with the benefit of hindsight, I have sought to unfold the key information that it contains in something of the gradual and fragmentary manner in which it reached me. Thus I didn't learn about Kumari Kandam and the Sangam tradition all at once – but rather in dribs and drabs over a period of many months – and this is reflected in the details that I have already given about Kumari Kandam in earlier chapters.

Now, with all the resources of Madurai at my disposal, I was able to compile a more extensive and accurate summary of what the tradition actually says (as opposed to what others say about it):

- Over a period of just under 10,000 years, the Pandyans (a part-historical, part-legendary dynasty of Tamil kings) formed three Sangams or Academies in order to foster among their subjects the love of knowledge, literature and poetry: 'These Assemblies were the fountainhead of Tamil culture, and their principal concern was the perfection of Tamil language and literature.'[11]
- The first two Sangams were not located in what is now peninsular India but in the antediluvian Dravidian land to the south 'which in ancient times bore the name Kumari Kandam'[12] (literally 'the Land of the Virgin' – or

perhaps ‘the Virgin Continent’).[13]

- The First Sangam was headquartered in a city named Tenmadurai (‘Southern Madurai’). It had 549 members ‘beginning, with Agattiyanar (the sage Agastaya) … Among others were God Siva of braided hair … Murugan the hill god, and Kubera the Lord of Treasure.’[14]
- Patronized by a succession of eighty-nine kings, the First Sangam survived as an institution over an unbroken period of 4440 years, during which time it approved and codified an immense library of poems and literature. These classic texts, all now lost and known only by their titles, are said to have included works such as the *Agattiyam, Paripadal, Mudunarai, Mudukurgu* and *Kalariyavirai* – still well known and revered among Tamils today.[15]

- At the end of this golden age the First Sangam was destroyed when the deluge arose and Tenmadurai was 'swallowed by the sea' along with large parts of the land area of Kumari Kandam.[16]
- However, survivors of the antediluvian civilization were able to relocate further north, saving some of the First Sangam books, and the Second Sangam, said to have been patronized by fifty-nine kings, was established in another city – Kavatapuram. 'The *Agattiyam* and *Tolkappiyam*, the *Mapuranam, Isainunukkam, and Budapuranam* were their grammars. The duration of the period of this Sangam was 3700 years.'[17] Then, like its predecessor, the Second Sangam was 'swallowed by the sea' and lost for ever with all its works (with the possible exception, some claim, of the *Tolkappiyam*, which has

survived to this day).[18]

- Following the inundation of Kavatapuram the survivors of the Kumari Kandam civilization again relocated northward, this time into peninsular India, where the headquarters of the Third Sangam was established in a city identified with modern Madurai – then known as Uttara Madurai or Vadamadurai ('Northern Madurai', presumably to distinguish it from its antediluvian predecessor 'Southern Madurai').[19]
- The Third Sangam survived for a further 1850 years: 'Forty-nine were the kings who patronized this Academy.'[20]

Choosing the right slot

A matter that I found hard to reconcile while I talked to the experts and read up the literature in Madurai was the way in which the very same Tamil authorities who brush off the First and Second Sangams as 'preposterous stories',[21] accept without demur the existence of the Third Sangam – or anyway some sort of genuinely Tamil institution of letters that might retrospectively have been referred to by the Sanskrit term Sangam. Most, moreover, agree upon dates of between AD 350 and 550 for the *termination* of this Third Sangam's activities.[22]

For example, Ramachandra Dikshitar proposes that 'the end of the fifth century AD marked the extinction of the Academy'.[23] He adds:

> Though the origin of the Sangam as an institution is shrouded in deep

> mystery, still the fact remains that there was something like an organized Academy … and it continued to exist for several centuries. A definite stage was reached by the beginning of the sixth century AD [after the extinction of the Academy] when the Tamil language underwent some transformation in regard to style, metre, etc.[24]

According to Shivaraja Pillai – as ever pursuing his 'forgery' case against the scheme of things set out in the commentary on the *Agapporul*.

> The fabricator appears to have started from some authentic data before him. They were the so-called 'Third Sangam' works, which in all probability must have by that time assumed a collected form. These collections furnished the basis on which he proceeded to raise his imaginary structure of the Three Sangams.[25]

If we accept the generally agreed date of between AD 350 and

550 for the end of the – at least semi-historical – 'Third Sangam', then this gives us a fixed reference point on which to anchor the chronology of the myth:

- AD 350 minus the 1850 years given as the duration of the Third Sangam takes us back to 1500 BC (i.e., about 3500 years ago);
- 1500 BC minus the 3700 years given as the duration of the Second Sangam takes us back to 5200 BC (7200 years ago);
- 5200 BC minus the 4440 years given as the duration of the First Sangam takes us back to 9600 BC (11,600 years ago).

The date of 9600 BC for the formation of the First Sangam (or

9800 BC or 9400 BC for that matter) coincides closely enough with Plato's date for the inundation of Atlantis – also 9600 BC – to raise the hairs on the back of my neck.

And the question continues to be this: how could Plato less than 2500 years ago, or Nakirar less than 1500 years ago, have managed *by chance* to select the epoch of 9600 BC in which to set, on the one hand, the sinking under the waves of the Atlantic Ocean of the great antediluvian civilization of Atlantis and, on the other, the foundation of the First Sangam in Kumari Kandam – a doomed Indian Ocean landmass that was itself destined to be swallowed up by the sea?

If Plato and Nakirar were pure 'fabulists' working independently of any real tradition or real events, then isn't it much more likely that they would have chosen *different* imaginary epochs in which to set their flood stories?

Why didn't they chose 20,000 or 30,000 years ago – or even 300,000 years ago, or three million years ago – instead of the tenth millennium BC?

And was it just luck that this slot turns out to have been in the midst of the meltdown of the last Ice Age – the only episode of truly global flooding to have hit the earth in the last 125,000 years?

The Kumari Kandam tradition (2)

More information than I have already reported remains to be gleaned within the medieval commentaries. And outside the commentaries there are several allusions in Tamil literature that can also fairly safely be said to be part of 'the tradition behind the account' – even if they do not always refer to

Kumari Kandam or to the first two Sangams by name. Some are in works of considerable antiquity and high renown, others are in less well-known sources, but all in one way or another add to our picture of the lost Tamil lands and of the floods that ancient peoples believed had swallowed them up.

According to V. Kanakasabhai, a specialist in south Indian history, the Tamils of the early first millennium AD preserved a tradition, already ancient in their time,

> that in former days the land had extended further south and that a mountain called Kumarikoddu, and a large tract of country watered by the river Prahuli had existed south of Cape Kumari. During a violent irruption of the sea, the mountain Kumarikoddu and the whole of the country through which flowed the Prahuli had disappeared.[26]

Kanakasabhai's sources include the *Kalittogai* (stanza 104:1–

4) and the *Silipa-thikaram* (xx: 17–20): 'The river Prahuli, and the mountain Kumari, surrounded by many hills, were submerged by the raging sea.'[27] Adiyarkkunelar fills in some of the detail when he tells us that in the time before the flood these forested and populated lands between the Prahuli and Kumari rivers were divided into 49 counties that stretched for '700 Kavathams' – about 1000 miles.[28]

The historian P. Ramanathan also draws attention to 'ancient Tamil poems and authentic traditions [that] refer to successive submersions of land to the south of India in the Indian Ocean and the consequent reduction of the extent of the Tamil land':[29]

> *Purunanuru 6* by Karikishar and *Purunanuru* 9 by Nettimaiyar … refer to Kumari and Prahuli rivers both placed by ancient commentators in the submerged lands to the south of Cape Comorin [modern Kaniya Kumari].

> *Kalittogai* 104 specifically refers to [a Pandyan king] losing his territories to the sea and compensating the loss by conquering new territories from the Chera and Chola rulers (to the north). *Silapathikaram – Kadukankathai* (lines 18–23) refers to the sea swallowing up the Prahuli river along with Kumarikoddu tract comprising many hill areas. The *Venirkathai* of *Silipathikaram* refers to the ocean as the southernmost frontier of Tamilaham *and commentator Adiyarkkunelar explains that the reference there is to the topography after the deluge.* The *Payiram* to the *Tolkappiyam* refers to Venkatam as the northern boundary and [Kaniya] Kumari as the southern boundary of Tamilaham. In his commentary thereon Illampuranar states that the southern boundary (viz Kumari) was mentioned because, *before submersion by the sea there were lands to the south of Kumari* … In his commentary on the *Tolkappiyam*, Nachinarkkiniyar mentions that the sea submerged 49 Nadus (counties) south of Kumari river …[30]

Ramanathan further reminds us that, according to tradition, the Pandyans are:

> the oldest of the three ancient Tamil dynasties. Perhaps the oldest ruling dynasty in the world … Some accounts … say that Cheras and Cholas were mere branches of the Pandyan dynasty which separated long ago.[31]

He then repeats essentially the assertion of the *Kalittogai* cited above that:

> One of the earliest Pandyan kings, Nediyon ('the tall one') is said to have organized the worship of the sea. Portions of his land to the south of Cape Comorin [Kaniya Kumari] were submerged by the sea and to compensate for the loss he conquered vast territories to the north of the Pandyan kingdom.[32]

Likewise, T. R. Sesha Iyenagar refers to Tamil traditions which suggest that, although Kumari Kandam may have included islands, a large part of it was mainland

> connected with South India … which was overwhelmed and submerged by

> a huge deluge. There are unmistakable indications in the Tamil traditions that the land affected by the deluge was contiguous with Tamilaham, and that, after the subsidence, the Tamils naturally betook themselves to their northern provinces.[33]

What secrets lie concealed in such fragments of folklore and tradition? In his paper 'The Cultural Heritage of the Ancient Tamils', Dr M. Sundaram, Chief Professor and Head of the Department of Tamil, Presidency College, Madras, sums up the evidence to conclude that:

> The tradition of the loss of a vast continent by a deluge of the sea is too strong in the ancient Tamil classics to be ignored by any serious type of enquiry. In fact the first Tamil Sangam was said to have been functioning from South Madurai, in the lost continent. Ancient grammatical texts in Tamil and their latter day commentators testify that River Prahuli and Kumari Mountain ranges were lost by a deluge, a *Purunaruli* verse refers to

> the River Prahuli and *Silipathikaram* mentions the deluge in which the Kumari continent was lost … There were 49 divisions between River Prahuli and mountain Kumari. The erudite commentator of *Tolkappiyam*, Per-Asiriyar, has stated that the Kumari river was left as Cape Kumari after a deluge.[34]

Last but by no means least, the Tamil epic *Manimekalai* speaks of the flooding of a city off-shore of Poompuhur as divine retribution upon a king who had failed to celebrate the festival of Indra.[35] Most archaeologists believe that the reference here is to the shallowly submerged ruins of the historical city of Kaveripumpattinam found just south of Poompuhur in the intertidal zone mainly at 3 metres or less and dated to between 300 BC and AD 300 (see chapter 9). However, the U-shaped structure that is now known to lie much further out from shore and in deeper water raises the

possibility that what is remembered in the *Manimekalai* could be a far earlier event.

Ravana's antediluvian domain

If the Kumari Kandam tradition is in any way a true guide then we should expect to find underwater ruins not only in south Indian waters, but also in the waters of the island of Sri Lanka – ancient Ceylon. And because Sri Lanka was joined to the mainland during the Ice Age by a land-bridge close to Poompuhur (indeed, would have been an integral part of 'Kumari Kandam') logic suggests that Sri Lankan myths and legends should also have something to say on the subject of floods.

It is therefore reassuring to discover that the *Mahavamsa, Dipavamsa* and *Rajavali*, Ceylonese chronicles based on

archaic oral sources that first began to be set down in writing by Buddhist monks around the fourth century AD,[36] 'speak of three deluges which destroyed a large land area that lay beyond Ceylon'.[37] For example the *Rajavali* remembers a time, long before its own compilation as a text, when

> the gods who were charged with the conservation of Ceylon became enraged and caused the sea to deluge the land … In this time … 100,000 large towns, 970 fishers' villages and 400 villages inhabited by pearl fishers … were swallowed up by the sea …[38] Twenty miles of the coast, extending inland [were] washed away.[39]

The same source also refers to a flood that affected Sri Lanka even earlier – indeed 'in a former age'[40] – during the time of the giant Ravana (the 'demon king' whose exploits feature, separately, in the Indian Sanskrit epic, the

Ramayana). Ravana, it seems, had angered the gods with his 'impiety' and was punished in the usual way:

> The citadel of Ravana, 25 palaces and 400,000 streets, were swallowed up by the sea … The submerged land was between Tuticorin [south-east coast of modern Tamil Nadu] and Mannar [north-west coast of modern Sri Lanka] and the island of Mannar is all that is now left of what was once a large territory.[41]

I was later to realize that there is something remarkable about this. In December 2000 when I was first able to study Glenn Milne's inundation maps of the Poompuhur region, I noticed that a large tract of land would indeed have been exposed between Tuticorin and Mannar – just as the chronicle said – at around 16,000 years ago. This was soon after the end of the Last Glacial Maximum, shortly before global sea-level began to rise steeply, and Milne's maps go on

to show the flooding of Ravana's antediluvian domain by the post-glacial floods. Interestingly, the maps also show an area of higher relief that was never submerged and that is today, as the *Rajavali* correctly reports, the island of Mannar.[42]

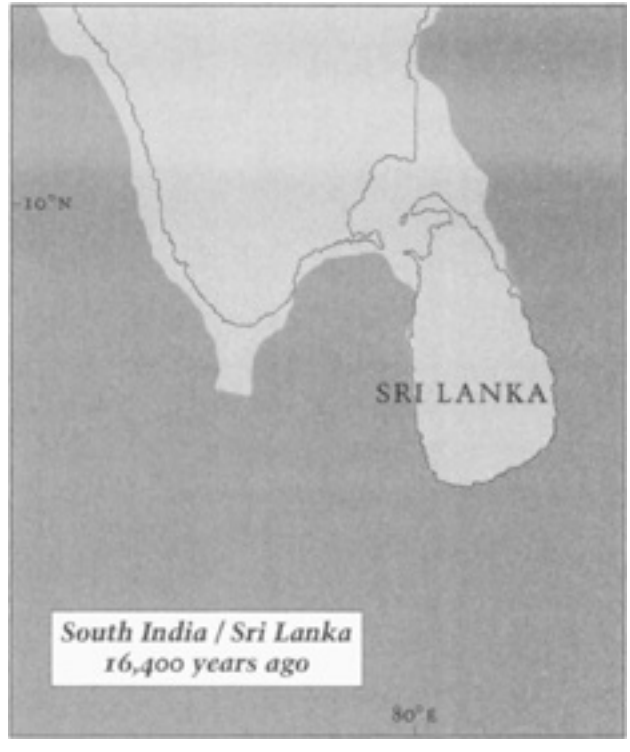

Sir J. E. Tennant, among others who wrote long before the era of inundation mapping, disregarded ‘the traditions of the former extent of Ceylon and submersion of vast regions by the sea’ on the grounds that ‘evidence is wanting to corroborate the assertion, at least within the historic period’.[43] But once again, as we now know, there is abundant evidence that *before* the historic period, at the end of the Ice Age, Sri Lanka was indeed much larger than it is today with the greatest extent of antediluvian land in the north-west bridging the Gulf of Mannar exactly where, ‘in a former age’, Ravana’s citadel is supposed to have stood.

16,000 BC to 9600 BC

This notion of earlier flood epochs – with the parallel thought

of layer upon layer of forgotten history receding deep into a past beyond remembrance – is reinforced in certain Ceylonese traditions about the ancient Tamils. Amongst these an intriguing statement is made that the total number of Sangams was not three, as most other accounts maintain, but seven[44] – implying the existence at unknown locations of four previous Sangams *before* the First Sangam set up its headquarters at Tenmadurai on the banks of the Prahuli river.[45]

In this connection I note that N. Mahalingam, Chairman of the International Association of Tamil Studies, refers in the *Proceedings of the Fifth International Conference of Tamil Studies* to Tamil traditions that speak of three episodes of flooding in the millennia *preceding* the supposed foundation date of the First Sangam:

> The first great deluge took place in 16,000 BC … The second one occurred in 14,058 BC when parts of Kumari Kandam went under the sea. The third one happened in 9564 BC when a large part of Kumari Kandam was submerged.[46]

The date for the third of these archaic floods, as readers will note, overlaps, give or take forty years, with the date of 9600 BC for the foundation of the First Sangam (and thus also with Plato's date for the submersion of Atlantis). It is only a hint, but if there is any substance to it, then it raises the possibility that the First Sangam too, like its successors, might have been founded by flood survivors – perhaps even survivors of the very same episode of global floods that in another ocean gave rise to the Atlantis myth.

Cults of knowledge

At the heart of the Sangam story, whether it concerns three or seven ancient Academies, is a theme of entropy and degeneration, spiralling downwards through a series of stages from a golden age, powered by vast cosmic cycles of destruction and rebirth. There are curious echoes here of the *yuga* system at the heart of the Dwarka story, on the one hand, and of the Vedic notion of the *pralaya* – the global cataclysm that recurs at the end of each world age – on the other:

- In both cases we must envisage an antediluvian civilization of high spiritual and artistic achievement and a group of sages – the Seven Rishis in the case of the *Vedas*, the members of the 'Academy' in the case of the Tamil texts – who gather to serve the interests of knowledge and to provide an archive or repository for

poetic and religious compositions.

- In both cases a cataclysm in the form of a global flood intervenes, swallowing up huge areas of land and destroying the antediluvian civilization.
- In both cases survivors repromulgate the ancient knowledge in the new age – which is portrayed as a decline from the age before – forming a new group of Seven Rishis or a new Sangam suitable to that age.

Needless to say there are many differences between the two traditions – too many for either to be the result of direct influence from the other. Nevertheless, the underlying idea is essentially the same – that recurrent cataclysms afflict the earth, threatening the obliteration of human knowledge and a return to ignorance, but that an institution or 'brotherhood' (the Seven Rishis, the Sangam) survives 'the periodic scourge

of the deluge' and rises again after the recession of the waters to carry the cause of knowledge forwards into the new age and to 'bring glory and light to ignorant lands and peoples'.[47]

There are also prominent crossover figures suggestive of an unseen link. For example, the Sage Agastya, frequently listed amongst or alongside the Vedic Seven Sages, appears in Tamil traditions as a member of the First Sangam. Likewise, listed amongst the 549 members of the First Sangam is the Vedic god Rudra-Siva, master of animals, Lord of Yoga, 'he of the braided hair'. And while his presence there may well, as Pillai argues, be just an outcome of Tamil 'fabulists' seeking to concoct a divine heritage for their work, it is worth remembering that Siva's primary attribute is *gnosis* – or knowledge – and that whether in south India or the Himalayas he is associated with a cult of esoteric knowledge that is said to have been carried down from before the flood.

The tank and the pillar

Siva is everywhere in Madurai and stories of his deeds and miracles abound here. Even the Meenakshi temple is in fact two temples within a single walled complex – one, the smaller of the two, for the goddess Meenakshi, a wife of Siva, and one for Siva himself in his manifestation as Sundareshwar. The temple sits at the ancient geometrical centre of Madurai, occupying an area measuring approximately 220 × 260 metres[48] – as large as the footprint of the Great Pyramid of Egypt.[49] Its perimeter is embellished with eleven spectacular *gopurams* (entrance towers – the highest, in the south, rising to more than 50 metres), all of them luridly carved and painted with sensational three-dimensional scenes from Hindu mythology. Such scenes, made up of an estimated total of 33 million carvings,[50] crowd

in everywhere upon the visitor who approaches this vast complex of buildings – from the walls of its medieval stone gateways to the columns of its Thousand Pillar Hall.

The temple is not aloof from the great city that surrounds it, but rather the life of the city continues within its walls at a different pace. Sometimes it has the atmosphere of a market with colourful, noisy crowds bustling from shrine to shrine, beggars seeking alms, hawkers selling souvenirs and long-horned cows wandering about as though they own the place. It is surprising how often you will see a businessman slip off his shoes to stroll inside, smear sacred ash upon his forehead and offer prayers amongst the cool shadows and garlanded statues. Lean pilgrims and wild-haired *sadhus* gather from all parts of India seeking alms and enlightenment, couples and families come here on outings, and classes of schoolchildren march bright-eyed through the corridors, adding their shrill

laughter to the non-stop hubbub of conversation and chanting.

I entered through the southern *gopuram* and made my way across a sunlit ambulatory to the nearby Citra Mandapa, an elegant cloistered colonnade with painted walls and ceilings surrounding the Golden Lotus Tank – perhaps the Meenakshi temple's most spectacular feature. Legend has it that this very large tank, which measures 52 metres long by 36.5 metres wide, was 'used to judge the merits of Tamil literary works' during the Third Sangam period.[51] The manuscripts that floated were considered great works of literature, and if they sank they were dismissed.'[52]

In terms of general appearance and design the tank strikingly resembles the Great Bath at Mohenjodaro – only there the rectangular ritual bathing pool has been empty and

dry for thousands of years; here it is filled with green water and is still used by pilgrims for purification ceremonies. Much of the temple as we see it today dates from the thirteen century AD or later – while the Indus-Sarasvati cities had fallen into ruin by the second millennium BC – but I knew that the tank 'prominently figures in legends connected with the origin of the shrine'.[53] As at Tiruvannamalai these legends also state that the temple stands where it does because of the prior existence there of a *sthala* or pillar of natural stone – a Sivalingam – that had manifested in primordial times. In the case of Madurai, however, the pillar did not appear at the foot of a sacred mountain but was found standing upright in a forest 'beneath a Kadamba tree' where the Vedic god Indra was said to have built the first prehistoric shrine around it.[54]

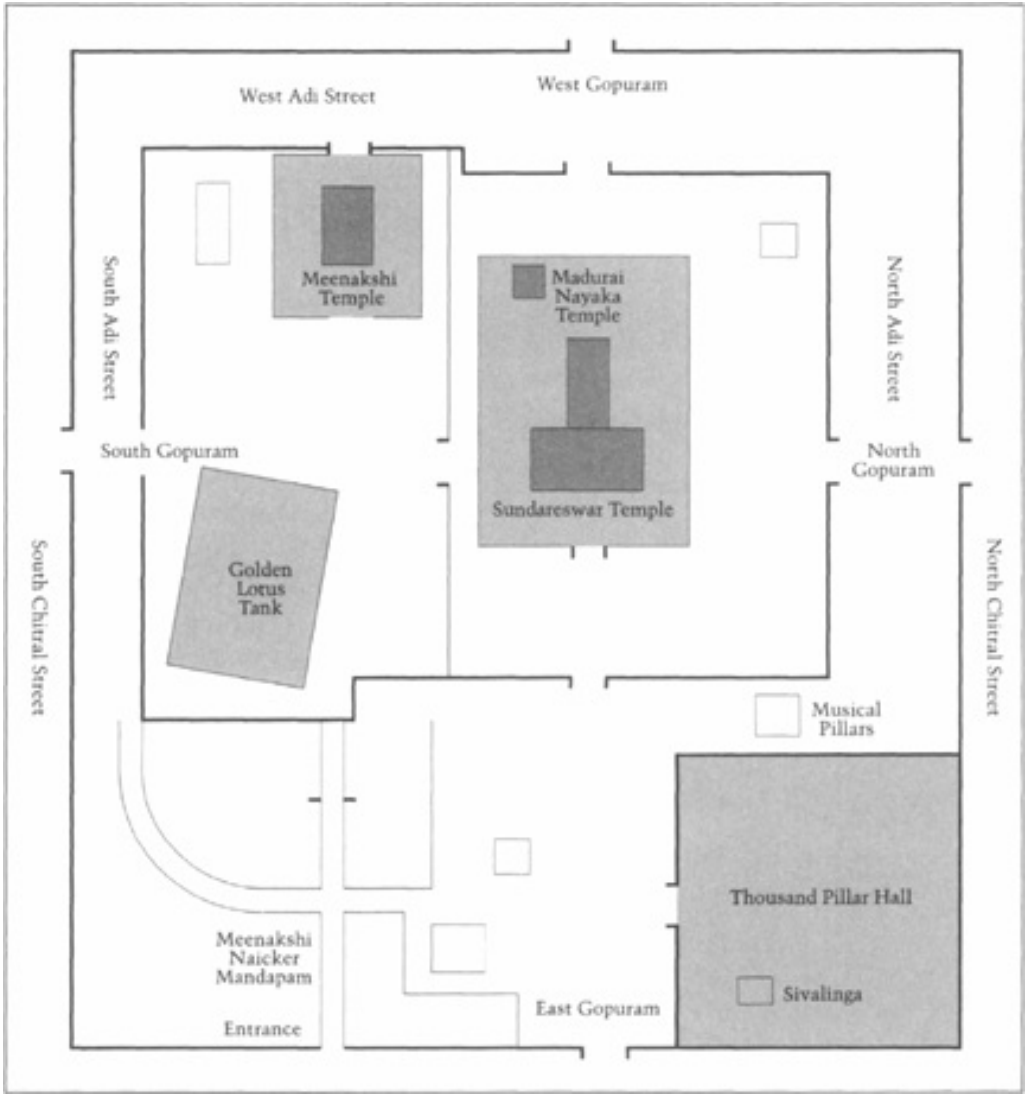
West Adi Street
West Gopuram
Meenakshi Temple
Madurai Nayaka Temple
South Adi Street
North Adi Street
South Gopuram
North Gopuram
Sundareswar Temple
Golden Lotus Tank
South Chitral Street
North Chitral Street
Musical Pillars
Thousand Pillar Hall
Meenakshi Naicker Mandapam
Sivalinga
East Gopuram
Entrance

Floorplan of Madurai temple. Based on Howley and Dasa (1996).

I was reminded of the cylindrical and conical stone pillars (of officially 'unknown', but I would have thought obvious, function) that have been excavated by archaeologists along the valleys of the Indus and the Sarasvati rivers at numerous Harappan and pre-Harappan sites.[55] These 'proto-Sivalinga' are antedated by even earlier stone pillars of the same sort excavated from Neolithic settlements in India[56] – so many of them that T. R. Sesha Iyenagar can write: 'the worship of Siva in the form of a linga existed in the Stone Age, which certainly preceded the Vedic Age'.[57]

The truth is that nobody really knows when the ‘Vedic Age’ began just as nobody has yet found the beginning of the Siva cult in India. Powerful and omnipresent from the Himalayas to the deep south, it always seems to have existed – in the worship of the lingam, in the worship of the sacred mountain, in the worship of the god of yoga and knowledge, cross-legged, deep in meditation, surrounded by wild beasts.

This enigmatic figure, and the complex system of ideas and symbols that he evokes, must have come from somewhere.

Perhaps Kumari Kandam?

Look south

‘It was the most ancient continent in the whole world,’ exclaimed Dr T. N. P. Haran, Professor of Tamil Studies at the

American College in Madurai. ‘The best and the ancient civilization existed there. And it belongs to Tamils.’

‘And if I wanted to find it – whatever’s left of it – where would I have to look?’

‘Kumari Kandam was a big land. So many people were there. The sea came in and it swallowed the whole thing.’

‘If I were to go diving off modern Kaniya Kumari, do you think I’d find ruins?’

‘I’ve no idea! But I wish you all the best!’

I persisted: ‘Should I look directly south of Kaniya Kumari?’

Haran thought for a while before replying: ‘Yes, I think at least 300 kilometres south of Kaniya Kumari. If you go there you will be able to get something.’

What fishermen know

Before returning to dive with the NIO at Dwarka at the beginning of March 2000 (reported in chapter 9) Santha and I completed the rest of our long overland journey in Tamil Nadu with visits to four coastal towns: Kaniya Kumari in the south, Rameswaram in the south-east, where India reaches out towards Sri Lanka across the Palk Strait, and Poompuhur and Mahabalipuram along the Coromandel coast facing the Bay of Bengal.

- Mahabalipuram commands attention on account of the old myths of the Seven Pagodas and the sunken city of Bali (see chapter 5).
- Kaniya Kumari is explicitly referenced in the Kumari Kandam tradition as the new southern border of India

after the hilly and well-watered land that formerly lay to the south of it had been swept away in the deluge.

- Rameswaram is identified in the *Ramayana* with what sounds like a land-bridge to Sri Lanka: 'To build a bridge across the sea, the bears and monkeys hurled trees and rocks into the water which by the power of Rama remained afloat. The Gods looked down enthralled as the monkey armies moved across the sea on Rama's bridge.'[58] (The 'monkey armies' – don't ask, it's a long story! – are on their way to Lanka to rescue Rama's wife Sita from Ravana, the same demon king of a 'former age' whose antediluvian domain is said in the Ceylonese Chronicles to have stretched between Tuticorin and Mannar. So much land-bridge imagery, from two different traditions, and in just the right places!)

- Poompuhur speaks for itself as the site of the submerged U-shaped structure. When I went there in February 2000 I knew that diving would be out of the question without going through a long permissions and money rigmarole with the NIO first. But I wanted to get a sense of the land

side of the story and at least dip my toes in the water.

As we explored and talked to more and more local people it began to dawn on me that the ubiquitous south Indian traditions of lost lands and flooded cities – which so many scholars simply ignore in their evaluation of history – are well known and almost universally believed to be true accounts by the general public of the region.

This in itself does not necessarily mean anything. Superstitions and follies abound amongst the public in every country. But many of my informants were hard-bitten professional fishermen who for the most part were clearly *not* relaying half-remembered folklore that they had heard from their grandfathers, but were speaking from direct personal experience. Indeed, in Poompuhur and again in Mahabalipuram I met fishermen, who had nothing

whatsoever to gain by deceiving me, who claimed to have seen with their own eyes what they described as ‘palaces’, or ‘temples’, or ‘walls’ or ‘roads’ underwater when diving down to free trapped anchors or nets.

An underwater ruin, if it is of any size, will function as an artificial reef, attracting many different species of fish to the shelter and security that it provides – particularly in areas like south-east India, where the sea bottom is largely flat and featureless. And since fishermen are in the business of catching fish, they naturally look out for places in the ocean where fish congregate for any reason. In this way they are often the first to find unsuspected underwater sites – and frequently may know of sites that archaeologists are unaware of.

My instinct is that this may well turn out to be the case along extensive stretches of the south Indian continental shelf

which, except off Poompuhur, has never been the subject of a marine archaeological survey. My travels from Kaniya Kumari to Mahabalipuram have convinced me that the local sightings of anomalous submerged structures in these areas are too numerous, too consistent and too widespread to be safely ignored. Moreover, were it not for the NIO, no marine archaeology at all would have been attempted anywhere in the region. It is therefore surely significant that in the one place where the NIO has looked – Poompuhur – something as unusual as the U-shaped structure was found in a project lasting just a few days. It makes sense to suppose that if further systematic surveys and marine archaeology can be done underwater – at Poompuhur and at the other south Indian locations – then more discoveries are likely to be made …

At Mahabalipuram, in the little fishing village that lies in

the curve of the bay a mile or so to the north of the Shore temple, Santha and I sat on the beach on a pile of drying nets with a large crowd gathering around us. Everybody in the village who might have an opinion or information to contribute was there, including all the fishermen – some of whom had been drinking palm toddy most of the afternoon and were in a boisterous and argumentative mood. What they were arguing about were their answers to the questions that I was asking and precisely who had seen what, where underwater – so I was happy to listen to their animated conversations and disagreements.

An elder with wrinkled, nut-brown eyes and grey hair bleached white by long exposure to the sun and sea spoke at length about a structure with columns which he had seen one day from his boat when the water had been exceptionally clear. ‘There was a big fish,’ he told me. ‘A red fish. I

watched it swimming towards some rocks. Then I realized that they were not rocks but a temple. The fish disappeared into the temple, then it appeared again, and I saw that it was swimming in and out of a row of columns.'

'Are you certain it was a temple?' I asked.

'Of course it was a temple,' my informant replied. He pointed to the pyramidal granite pagoda of the Shore temple: 'it looked like that.'

Several of the younger men had the usual stories to tell about heroic scary dives – lasting minutes, hearts thudding, their breath bursting in their lungs – to free fishing gear snagged on dark and treacherous underwater buildings. In one case, it seemed, a huge net had become so thoroughly entrapped on such a structure that the trawler that was towing it had been stopped in its tracks. In the case of

another underwater ruin divers had seen a doorway leading into an internal room but had been afraid to enter it.

One strange report was that certain of the ruins close to Mahabalipuram emit ‘clanging’ or ‘booming’ or musical sounds if the sea conditions are right: ‘It is like the sound of a great sheet of metal being struck.’

‘And what about further away,’ I asked. ‘If I were to take a boat south following the coast what would I find? Are the underwater structures mainly just here around Mahabalipuram or are they spread out?’

‘As far south as Rameswaram you may find ruins underwater,’ said one of the elders. ‘I have fished there. I have seen them.’

Others had not travelled so far but all agreed that within their experience there were submerged structures everywhere

along the coast: ‘If you just go where the fish are then you will find them.’

Which site to dive on?

If I had unlimited funds and complete freedom of action then I would long ago have organized full-scale marine archaeological expeditions at Kaniya Kumari, Rameswaram, Poompuhur and Mahabalipuram in the south and south-east of India, and all along the coast of the Gujerat peninsula and the Gulfs of Kutch and Cambay in the north-west. But I don’t have unlimited funds – or time – and India, for all her magnetism, is a vast challenge and energy drain best approached with a flexible schedule and a spirit of compromise.

Besides, India is one facet of ‘Underworld’, not the whole

mystery. After returning to England in March 2000, with the Dwarka dives behind me, I could not afford to forget that other research was also crying out to be completed and that other journeys had to be made – at the very least to the Maldives, the Persian Gulf, the Mediterranean, the Atlantic and Japan. Although I had no intention of abandoning the wider investigation in India I therefore decided that for the immediate future I would focus my energies on getting to dive at Poompuhur – which I had already begun to negotiate with Kamlesh Vora before leaving Dwarka – and that all the other potential Indian dive sites would have to wait their turn.

Poompuhur was the obvious first choice, head and shoulders above the other contenders. Here alone advance work had been done by the NIO, who, quite extraordinarily and with absolutely no fanfare, appeared to have found

precisely what I was looking for – viz. a large, well-organized and apparently man-made structure that had been inundated more than 10,000 years ago at a time when there was no known civilization in the vicinity that could have built it.

While keeping the money and permissions process going with the NIO by e-mail, I used the next several months to complete an intensive series of research and diving trips to Malta, Alexandria, the Balearic islands, the Canary islands and twice to Japan (once in April/May for seven weeks and again in September for a further two weeks).

By October 2000 my attention was very much back on Poompuhur again, when Glenn Milne's calculations arrived showing that the U-shaped structure was in fact '11,000 years old or older' – putting its inundation squarely in the same time-frame as the supposedly mythical foundation of the First Sangam at Tenmadurai, and as the supposedly mythical

submersion of Plato's Atlantis.

The next development came in December 2000 when Milne supplied me with a series of high-resolution inundation maps of India, spanning the period between 21,300 years ago and 4800 years ago, which tracked the changes in the subcontinent's coastline caused by rising sea-levels during the meltdown of the Ice Age (see chapter 7). The maps show not only the huge amounts of land that antediluvian India surrendered to the rising seas but how practical a proposition it is that an unidentified high culture – or *cultures* – of Indian antiquity could have been lost to archaeology during this period.

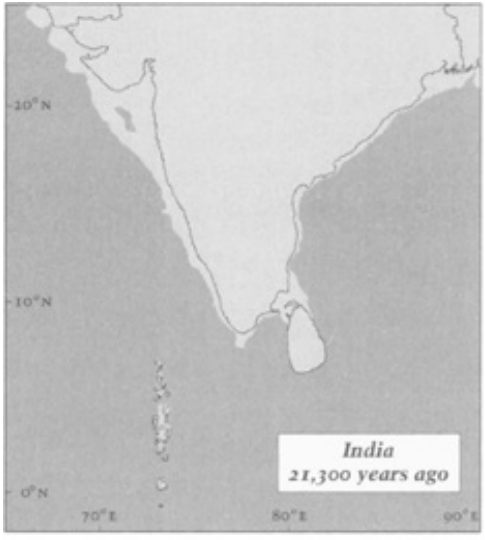
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80°E
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India
21,300 years ago

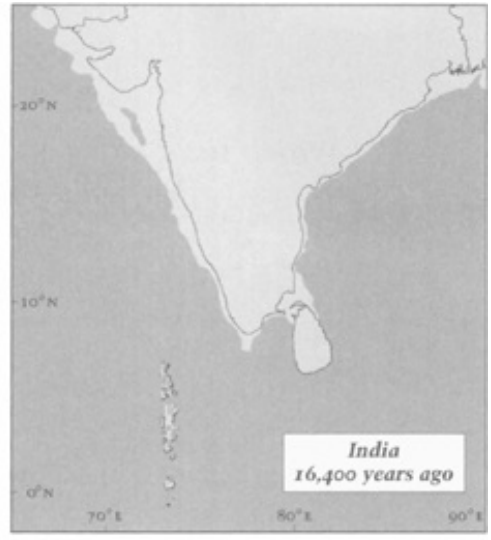
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India
16,400 years ago

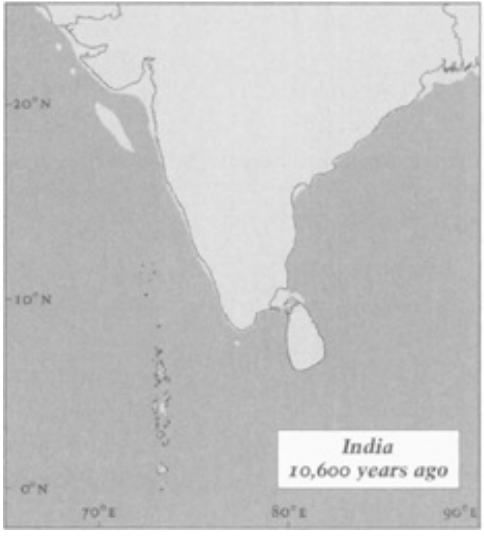
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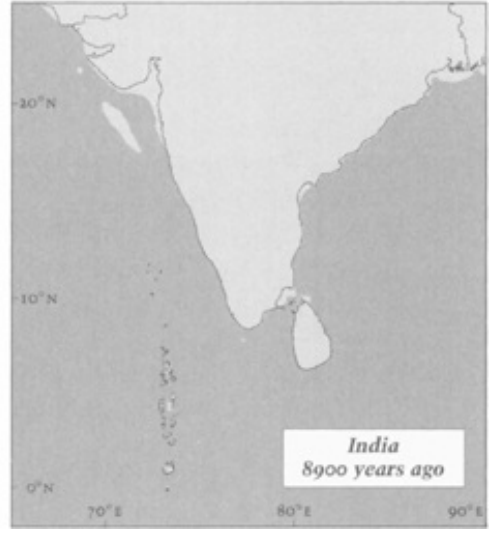
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India
8900 years ago

In December 2000 I also received confirmation from the NIO that permission had at last been granted for me to dive at Poompuhur. The trip could take place in February 2001 – exactly a year after my previous visit. Mercifully, the final arrangements and negotiations (and the money that had to be paid to the NIO) had been taken over on my behalf by a film crew from Channel 4 TV in Britain who were now covering my story. I welcomed the fact that whatever the NIO had to show me at Poompuhur would be documented properly for television. I was convinced that only by allowing the greatest number of people to see the U-shaped structure for themselves and to make up their own minds about it did it stand a chance of getting the attention it deserved from the archaeologists who had hitherto ignored it.

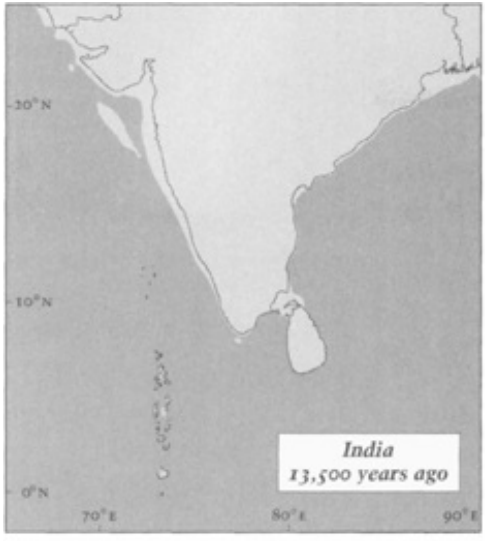
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India
13,500 years ago

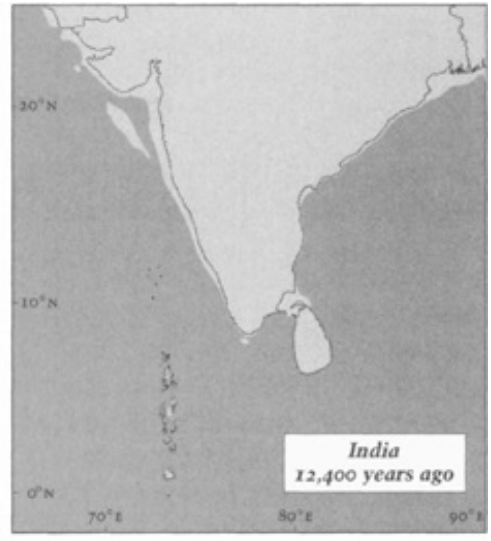
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India
12,400 years ago

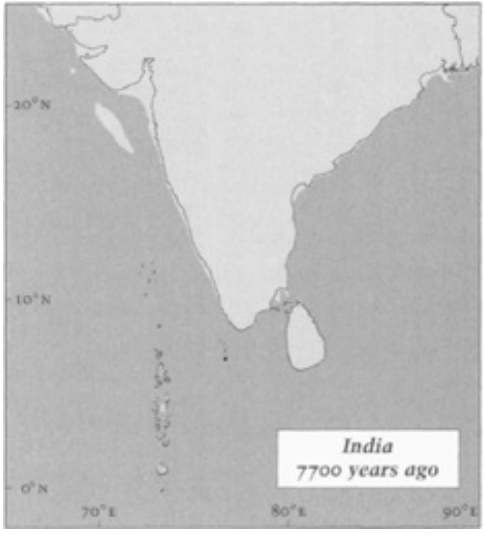
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India
7700 years ago

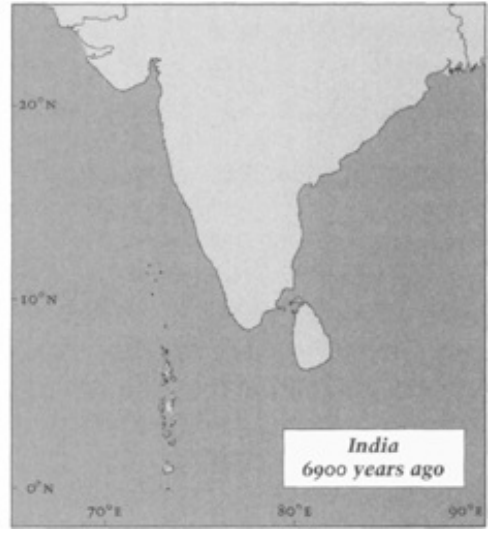
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India
6900 years ago

Unfolding the Indian floods

In January 2001 Glenn Milne, who had been working overtime, sent me more Indian maps – a complete sequence of high-resolution inundation simulations for 21,300 years ago; 16,400 years ago; 13,500 years ago; 12,400 years ago; 10,600 years ago; 8900 years ago; 7700 years ago; 6900 years ago.

Although I had a rough idea of what to expect, it was still a revelation to flip rapidly through these maps from the oldest to the youngest and watch the entire process of the post-glacial inundation of India unfold before my eyes. What I found most striking of all, however, was the way in which the two areas rich in flood myths where underwater ruins had already been found – off the coast of Gujerat in the

north-west and off the coast of Tamil Nadu in the south-east - were also the two areas most clearly flagged by Glenn Milne's maps as large and continuous antediluvian habitats in which it was conceivable that Ice Age civilizations could have flourished.

Moreover, now that I had the maps at virtually millennium intervals, it was possible to pinpoint periods when the extent of the ongoing loss of land to the sea had been particularly rapid and to note any correlation between these and (1) John Shaw's cataclysmic chronology for the post-glacial floods; (2) the relevant mythology; and (3) the accepted dates for the so-called 'Neolithic revolution' in India (i.e., the beginnings of food production at Mehrgarh and other sites).

The north-west

In the north-west, around Gujerat, the maps show that a huge land area was inundated between approximately 17,000 and 7000 years ago – an area contiguous to the domain in which archaeologists believe that the first recognizable roots of the Indus-Sarasvati civilization were planted during the last three millennia of the same period. As we saw in chapter 7, the submerged lands are at their most extensive around the modern Gulf of Cambay – south of which the map for 16,400 years ago shows an extensive depression, very likely to have been filled with a large freshwater lake, bounded by a further tract of land at least 100 kilometres wide and beyond that the Arabian Sea.

The next map in the sequence – 13,500 years ago – reveals that major changes occurred during the intervening 2900 years. The landmass around the Gulf of Cambay was much reduced in area and a large island, almost 500 kilometres

long and 100 kilometres wide at its midpoint, was marooned off-shore in the Arabian Sea. Between the island and the mainland a marine strait, also 100 kilometres wide in some places, opened up through the basin of the former freshwater lake.

These rather dramatic land-losses between 16,400 and 13,500 years ago correlate well with the first of John Shaw's proposed episodes of global superfloods, which falls midway through the period at around 15,000 years ago.

Over the next 6000 years – between 13,500 years ago and 7700 years ago – the maps show that the large off-shore island and the coastal strip masking the outline of the Gujerat peninsula were continually nibbled away at by the rising seas, but that these events were gradual, extended over many lifetimes, and would have been unlikely to have been perceived as cataclysmic. As late as 7700 years ago the Gulf

of Cambay was still the ‘pleasant valley’ that it had been, uninterrupted, since at least the Last Glacial Maximum and the island lying off-shore, though reduced, was still of formidable size – perhaps 300 kilometres in length and close to 80 kilometres wide.

This pattern for the Gujerat area, therefore, does not correlate well with the second of John Shaw’s proposed episodes of global superfloods around 11,000 years ago. Nor does it suggest a motive for any memorable panic-migration of flood refugees out of this area at any point during this period – which straddles the supposed date of around 9000 years ago for the first settlement of Mehrgarh.

What happens next, however, provides a close match to Shaw’s chronology of around 8000 years ago for the third flood. The maps for 7700 years ago and 6900 years ago show that in this relatively short period of 800 years the large

remnant island below the Gulf of Cambay was completely wiped off the map and the Gulf itself was fully and permanently inundated to its modern extent. For any hypothetical coastal culture that had been forced to retreat and compact into the Gulf's pleasant valley over the previous 6000 years, or that had lived on the island, it goes without saying that these events would have been more than cataclysmic.

They would have looked like the end of the world.

The south

As we would expect, the inundation maps for 21,300 years ago and 16,400 years ago show that few significant coastline changes took place in the south during the five millennia or so of the Last Glacial Maximum. At that time Sri Lanka was

joined to the mainland, as we have seen, and 'a substantial integrated area – an entire sub-region of India' that is today submerged[59] – was above water in the south and the south-east (and indeed all along the Malabar coast in the west also). This lost antediluvian realm accords extremely well in a general sense with the central claim of the Kumari Kandam tradition that a large landmass did exist around the south of India in ancient times and that it was swallowed up by the sea in a series of floods.

The maps of 21,300 and 16,400 years ago reveal the full extent of the continental shelf that was exposed during the Ice Age, but a specific feature of great interest is the snout-shaped peninsula shown to have extended approximately 150 kilometres southwards into the Indian Ocean below modern Kaniya Kumari. As the reader will recall, such a peninsula in exactly this location is spoken of in the Kumari Kandam

tradition:

> In former days the land … extended further south and … a mountain called Kumarikoddu, and a large tract of country watered by the river Prahuli had existed south of Cape Kumari. During a violent irruption of the sea the mountain Kumarikoddu and the whole of the country through which flowed the Prahuli… disappeared.[60]

The peninsula that Glenn Milne's calculations place on the inundation maps is not as large as the one described in the tradition (which was said to have been ' 700 Kavathams', about 1500 kilometres, in length). Still it is there – precisely where the Kumari Kandam tradition says it should be, and in the correct time-frame. Moreover, the maps show another antediluvian landmass that has also for the most part disappeared beneath the waves standing in the open ocean to the south-west – the greatly enlarged Maldive islands as they

looked at the Last Glacial Maximum.

What if the civilization of Kumari Kandam had been partially based along the coastal margins of southern India and Sri Lanka and partially on the antediluvian Maldives archipelago? If so, then the idea that Kumari Kandam once extended 1500 kilometres to the south of Kanya Kumari does not seem so far-fetched. Nor does the notion that a civilization that had once existed in this area could have been destroyed by recurrent cycles of catastrophic floods.

The tradition says that the last of these floods occurred 3500 years ago (supposedly the flood that destroyed the Second Sangam at Kavatapuram), and the one preceding it 7200 years ago (supposedly the flood that destroyed the First Sangam at Tenmadurai). In addition N. Mahalingam has cited further Tamil sources that speak of earlier floods: one around the date of foundation of the First Sangam, approximately

9600 years ago, one just over 16,000 years ago and the earliest 18,000 years ago.[61]

Once again there is a good general correlation between what scientists now know about the meltdown of the Ice Age (particularly the episodic and recurrent nature of the post-glacial floods) and what the Kumari Kandam tradition claims was happening in the world in precisely the same period (episodic and recurrent floods). There is by no means one-to-one agreement on the dates at which particularly severe inundations occurred – as is to be expected given the margins of inaccuracy that surround the estimating processes used by both Shaw and Milne, not to mention the scope for error and exaggeration in the tradition itself. Still, there is more than enough agreement on the general course of events to give us pause for thought. After all, how many times can we reasonably cry 'coincidence' when the medieval Tamil

‘fabulists’ keep on getting their palaeogeography right? Or did they in fact – as Shivaraja Pillai asks sarcastically – ‘come upon some secret archive which had escaped the deluge’?[62]

Glenn Milne’s inundation map for 13,500 years ago shows a dramatic change in the south Indian landscape since the previous map of 16,400 years ago: the coastal margins have been greatly reduced and the peninsula below Kaniya Kumari has been severed by the sea, leaving an island off-shore. In the Indian Ocean to the south-west the land area of the antediluvian Maldives archipelago has been reduced almost by half.

The map for 12,400 years ago shows little significant change, but in the map for 10,600 years ago the island to the south of Kaniya Kumari has been reduced to a dot, the Maldives have been further ravaged, and, for the first time, a

neck of sea is shown separating Tuticorin on the mainland and Mannar in what is now Sri Lanka. This incursion seems very close to what is described in the Sri Lankan myth of the flooding of Ravana's kingdom (said to have extended between Tuticorin and Mannar 'in a former age').[63] Moreover, the timing – between 12,400 and 10,600 years ago – coincides with Glenn Milne's date for the submersion of the U-shaped structure at Poompuhur and accords well with the second of John Shaw's episodes of post-glacial flooding around 11,000 years ago.

The map of 8900 years ago shows further minor erosion all around the south Indian coastal strip and a deepening of the marine incursion beyond Tuticorin and Mannar into what is now a bay beneath the war-torn Jaffna peninsula. However, the Palk Strait was still dry land 8900 years ago and, though much diminished in size, the land-bridge connecting Jaffna to

the mainland was still in place at that date (and indeed was to remain there for another thousand years).

On John Shaw's estimates, the third of the three great episodes of post-glacial flooding was unleashed on the world's oceans around 8000 years ago – and we have seen how this correlates well with what happened at around that time when the Gulf of Cambay and neighbouring areas of the north-west of India were rapidly inundated. In the south-east the inundation maps show that in the same period between 7700 and 6900 years ago there was also significant further inundation of the Maldives, while the land-bridge between Sri Lanka and Tamil Nadu, which had clung on for so long, was at last swallowed up by the sea -leaving India looking very much as it does today.

Occam's razor

What are we to conclude about the Kumari Kandam myth?

In some respects there is no doubt that it has proved eerily, stunningly accurate. On the other hand much of it sounds wildly improbable and in places obviously 'manufactured'. For example, when one studies the way numbers are used in the myth (something that I have not sought to tax the reader with here) certain obvious patterns emerge that are more suggestive of a mathematical game, or code, than of true reports of the number of members of, or the number of royal patrons of, or the duration of this or that Sangam.

It will be recalled that the durations of the three Sangams were said to be 4440 years for the First Sangam, 3700 years for the Second Sangam and 1850 years for the Third Sangam.[64] It is obviously not an accident that each of these

numbers is a multiple of 37 (120x37 = 4440; 100x37 = 3700; 50x37 = 1850).[65] What the significance or purpose of this pattern is I cannot begin to guess, but it means that the chronology of the myth is suspect and cannot be treated as a reliable historical record.

Still, it does not follow from this and other criticisms that the whole myth must be tossed in the dustbin of history and forgotten – as it has been by most scholars. Although wildly out of line on some of the details and dates, the myth is right in the broad sweep. It is right that India's Dravidian peninsula was formerly much bigger than it is today. It is right that a series of huge deluges occurred over a period of several thousand years and that these swallowed up the antediluvian lands in stages. And the myth selects the correct epoch – smack in the middle of the post-glacial floods around 11,600 years ago – in which to set its flood story.

Besides, whatever one thinks of myths (and most historians and archaeologists regard them as useless to scientific inquiry)[66] there is the awkward and inescapable archaeological fact of the U-shaped structure 23 metres underwater and 5 kilometres off-shore of Poompuhur – a structure that is '11,000 years old or older'.[67] Isn't the most parsimonious way to explain its presence there the very one that the myth itself provides – namely, that a civilization of former times once flourished in this region but was swallowed up by the sea?

I could only learn more by diving.

12 / The Hidden Years

> The period dreadful for the universe has come. Make for thyself a strong ship, with a cable attached; embark in it with the Seven Sages and stow in it, carefully preserved and assorted, all the seeds which have been described of old …
>
> *Satpatha Brahmana*

An epoch of spectacular geological turmoil occurred at the end of the last Ice Age, with the most dramatic effects registered in a series of cataclysmic floods that took place at intervals between roughly 15,000 and 7000 years ago. Is it an accident that this same 8000-year period has been pinpointed by archaeologists as the very one in which our supposedly primitive forefathers made the transition (in different places at somewhat different times) from their age-

old hunter-gatherer lifestyle to settled agriculture? Or could there be more to 'the food-producing revolution' than meets the eye? After all, most scientists already recognize a causative connection between the end of the Ice Age and the supposed beginning of farming – indeed an unproven hypothesis that rapid climate changes forced hunter-gatherers to invent agriculture presently serves as pretty much the sum of conventional wisdom on this subject.[1]

But there is another possibility. Nobody seems to have noticed that in the general vicinity of each of the places in the world where the food-producing revolution is supposed to have begun between 15,000 and 7000 years ago there is also a large area of land that was submerged by the post-glacial floods between 15,000 and 7000 years ago:

- We have seen that this is true for India, one of the

world's ancient agricultural 'hearths',[2] which lost more than a million square kilometres in the south and the west and, most conspicuously in the north-west, at the end of the Ice Age.

- It is true for China and for south-east Asia, both important centres of palaeo-agriculture. Immediately adjacent to them, but now under as much as 100 metres of water, lies the Ice Age continent of Sundaland. Prior to its final inundation of about 8000 years ago, this consisted of more than 3 million square kilometres of prime antediluvian real estate extending from the Malaysian peninsula through what are now the Indonesian islands and the Philippines. Taiwan was incorporated with the Chinese mainland and northwards from there the coast expanded almost 1000 kilometres to the east to fill what is now the Yellow Sea and

incorporate the Korean peninsula fully with the mainland.

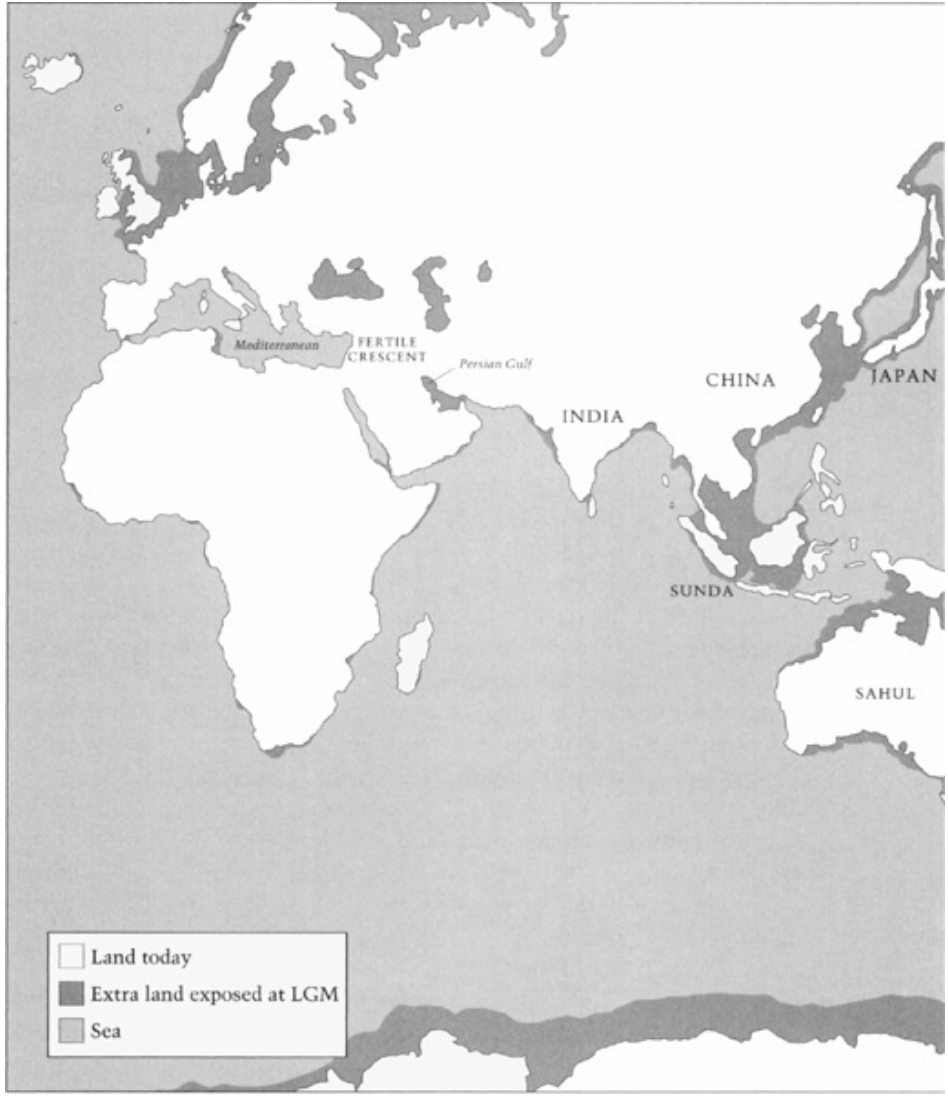
Mediterranean
FERTILE CRESCENT
Persian Gulf
INDIA
CHINA
JAPAN
SUNDA
SAHUL
Land today
Extra land exposed at LGM
Sea

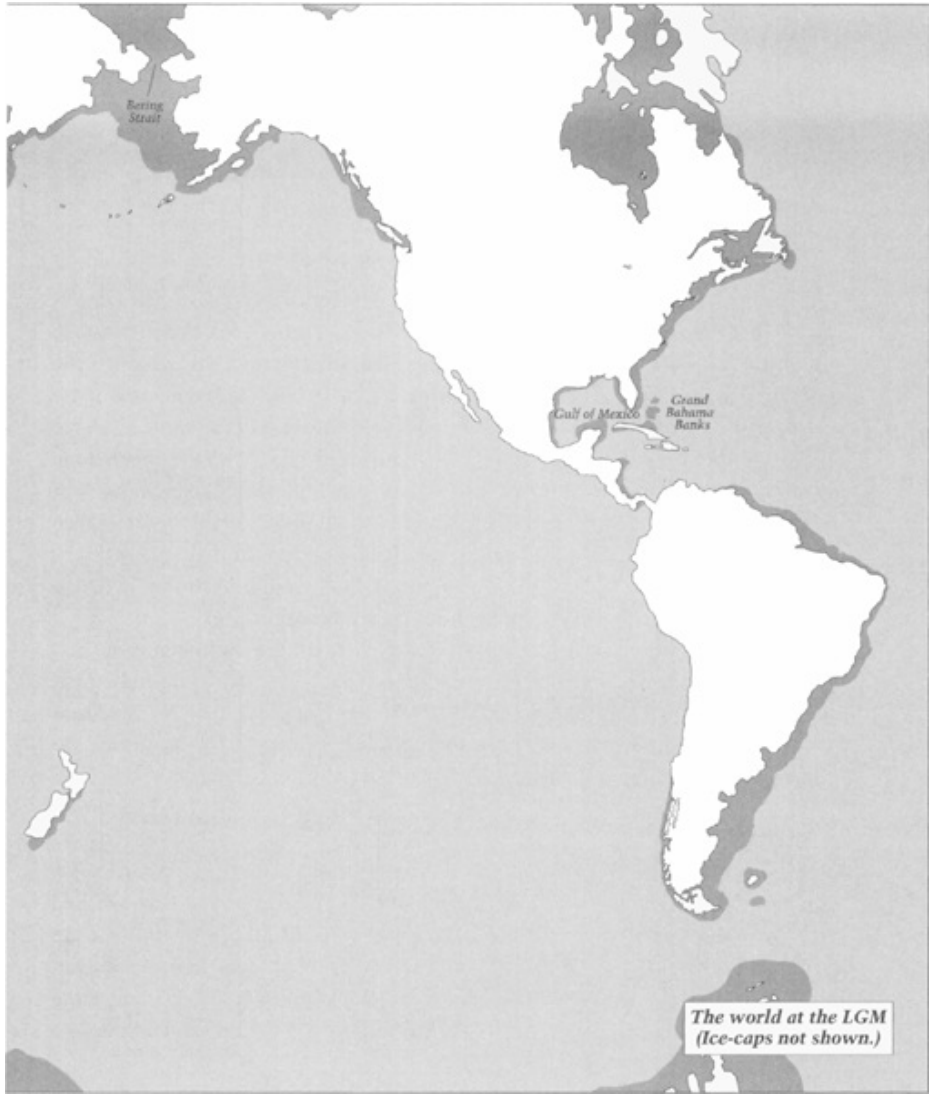

The world at the LGM (Ice-caps not shown.)

- It is true for the so-called Fertile Crescent – the prime agricultural 'hearth' of the Middle East, centred around lands watered by the Tigris and Euphrates rivers, that forms a rough semi-circle through parts of modern Israel, the Lebanon, Syria, Turkey, Iraq and Iran and ends up near the Persian Gulf. For not only was the Gulf previously dry – and flooded at the end of the Ice Age, as we saw in chapter 2 – but a glance at the wider map also shows several other inundated areas near by in the Indian Ocean, the Red Sea and the eastern Mediterranean.
- And it is true for Central America, where agriculture is thought to have sprung up spontaneously, independent of developments in the Old World. Off the Gulf of Mexico, the Yucatan, Nicaragua, Florida and Grand

> Bahama Banks were imposing landmasses during the Ice Age that were swallowed by the post-glacial floods around 7000 years ago. Evidence from Mexico and Panama, published in July 2001, indicates that 'agriculture in the Americas began around 7000 years ago'. It is notable that: 'On the Gulf coast pollen evidence suggests that forest was being cleared around 5100 BC and domesticated maize plants were being grown only a century later … The San Andres site near the famous Olmec centre of La Venta showed that maize had been introduced and grown in a region of beaches and lagoons.'[3]

My curiosity about coincidences like these developed as I researched *Underworld* - because the sudden appearance of village farming communities at the end of the Ice Age was

the first step on the road to modern civilization (so the stakes in this inquiry are high), and because the Ice Age lands that went under the sea cover an area of more than 25 million square kilometres of the earth's surface where, for obvious practical reasons, almost no archaeology has ever been done (so important evidence could very easily have gone undetected). Since many of the coastal lands that were inundated would have offered desirable refugia from inhospitable and unpredictable Ice Age conditions, the possibility surely has to be considered that the real story of the origins of food production and of civilization may yet await discovery because the evidence is underwater.

I decided to explore this neglected possibility with all the resources at my disposal, knowing when I did so that it would commit me to an exhausting and expensive schedule of travel and diving – much of which might prove fruitless –

and that I would have to enter arcane areas of inquiry, ransack obscure libraries and rack my brains on uncompromising sciences if I was to have any hope of success.

Long shot

I needed a good research assistant and in August 2000 I found one – Sharif Sakr, who has proved to be the very best of the many good researchers I have worked with over the years. Right at the beginning, I asked Sharif to find me an authoritative scientist at a major university who could produce high-resolution inundation maps for us, virtually on demand, for any point on earth at any time during the meltdown of the Ice Age. This was the start of our long and productive working relationship with Glenn Milne.

Then, as the inundation data began to pour in during the last quarter of 2000, I set Sharif another closely related task. This was to comb through collections of ancient maps from the sixteenth century or earlier – i.e. before the world had been fully explored – to see if he could find any that showed correlations with Glenn Milne's reconstructions of Ice Age coastlines.

This touches on a problem – and a mystery – that I have long had an interest in and to which I devoted three chapters in my 1995 book *Fingerprints of the Gods*. To put matters at their simplest, it has been claimed by Charles Hapgood and others that certain maps dating roughly between the fourteenth and sixteenth centuries show Antarctica and other areas of the world not as they look today, but as they may have looked during the Ice Age when sea-levels were 120 metres lower. Moreover, many of the areas in question had

not even been discovered when the maps were drawn (Antarctica was not discovered until the nineteenth century).

Hapgood explains such anomalies with the suggestion that a high civilization, which was subsequently destroyed, may have existed and mapped the world to near-modern levels of precision during the Ice Age. He further proposes that after the destruction of that hypothetical civilization some of the maps survived and were handed down from generation to generation, being copied and recopied many times as the original materials on which they were drawn perished. Perhaps facsimiles preserved and passed on in this manner eventually ended up lodged in the great libraries of late antiquity – notably at Alexandria in Egypt, which was for a long while a world centre of navigational and astronomical science. Perhaps some of the facsimiles were amongst other salvaged documents rescued from the fire that is said to have

destroyed the Alexandria library in the early centuries of the Christian era. Perhaps a handful found shelter in other archives in the Middle East. Perhaps from there, after a few more centuries had passed, they were looted by Crusaders and redistributed around the Mediterranean where their value as navigational charts was recognized by mariners. And perhaps then, in the late thirteenth or early fourteenth century, a new era of copying began in which information from the highly revered and generally accurate ancient maps was integrated with the observations and measurements of contemporary sailors to create navigational charts of astounding accuracy. Since the Mediterranean was at that time conceived of by its inhabitants as the centre of the world, it would have been quite natural for the copyists to focus most of their work on reproductions of the Mediterranean and neighbouring coastal regions – even if

their source documents showed a far wider area …

All speculation of course. Except the part about the sudden appearance at around the end of the thirteenth century, of uncannily good maps of the Mediterranean and immediately neighbouring parts of the Atlantic. That is completely true. They are called portolans or portolanos and several hundred have come down to us – all of which, eminent cartographers are agreed, show the influence of a single source map, now lost, that the great map historian A. E. Nordenskiold called 'the normal portalano'. Rarer, but fortunately still also surviving, are a handful of world maps and portions of world maps in recognizable portolan style – and it is mainly amongst these that the alleged similarities to Ice Age coastlines and topography are observed.

Many years have passed since Hapgood published his famous *Maps of the Ancient Sea Kings* in 1966 and there have

been huge improvements in the technology for calculating post-glacial sea-levels. Moreover, although he has been repeatedly attacked and vilified by scholars who claim to have ‘debunked’ his work, the essential mystery upon which he touched remains unsolved to this day.

I’m not interested in reviewing Hapgood again – read *Fingerprints*, or better still read Hapgood! But in the light of the good inundation data we now had from Glenn Milne I asked Sharif to cast a fresh eye over some of the more intriguing ancient maps that Hapgood had drawn attention to and to look for others that might have a bearing on the problem. I suggested he exclude Antarctica from the search, since I had paid enough attention to it in 1995. And on the same grounds of redundancy I told him to ignore any correlations that Hapgood himself had already written up. I only wanted material that hadn’t been observed and argued

about before, that correlated well with the inundation maps, and that was substantial enough to withstand the rigours of hostile academic scrutiny.

It seemed a lot to ask for – a real long shot – but then in February 2001 Sharif e-mailed me about a map of India that he had been investigating. What was remarkable about this 1510 Portuguese map was the fidelity and degree of detail with which it which it portrayed areas of the Indian coast as they had last looked 15,000 years ago.

I was already in India when I read the e-mail on my laptop on 23 February 2001. I had just flown into Tamil Nadu from the Republic of Maldives, where I had spent four days working with the Channel 4 film crew.

The same night, after we had checked into the Fisherman's Cove hotel in Mahabalipuram, where we would be filming

the next morning, we received confirmation from the NIO that their team had relocated the U-shaped structure at Poompuhur and would be ready to dive with us on the 26th.

13 / Pyramid Islands

> The Redin came long before any other Maldivians. Between them and the present population other people had also come, but none were as potent as the Redin, and there were many of them. They not only used sail but also oars, and therefore moved with great speed at sea …
>
> Thor Heyerdahl

Republic of Maldives 18–23 February 2001

This is the Maldives. Imagine you are flying in a specially equipped plane, under an endless blue sky over endless blue ocean … The plane is very fast and manoeuvrable, you can go where you want in it, and yet all you see is blue -just blue above and blue below.

Suddenly, in the distance, far away where the sky meets

the water, your eye catches a glint of … something on the horizon. You turn the plane towards it, skimming at 200 metres over the ocean with little waves breaking into white horses below you.

Soon land comes into view – just a curving feather of sand no more than a kilometre wide and three kilometres long, adorned with plumes of lush green palm leaves seeming to float in a sea that is now not merely blue but that grades into incredible shades of azure and turquoise. Passing directly overhead you see an area cleared of jungle packed with tiny houses built out of white coralline limestone blocks and separated from one another by an orderly network of streets brushed with white coralline limestone sand – so that the whole Lilliputian village glares like a mirror in the morning sun.

You take the plane higher to get a better view (remember

this is an imaginary journey and you can go as high as a satellite if you want), and you see that the stunningly beautiful but tiny inhabited island over which you have just flown is part of an even more stunningly beautiful ring of even tinier uninhabited islands and sandbars also shaped as rings and crescents and ellipses. This ring in its turn reveals itself to be just one of countless other rings and crescents and ellipses lying side by side to form a much larger ellipse in the ocean – the outer rim of a great Maldivian atoll 50 kilometres wide and more than 100 kilometres long. The atoll encloses a lagoon of hardly smaller dimensions (since the rim islands themselves are narrow), and within the lagoon are scattered dozens more small coral islands and sandbars in which the essential patterns of the entire Maldives chain – circles, ellipses, crescents – repeat themselves again and again.

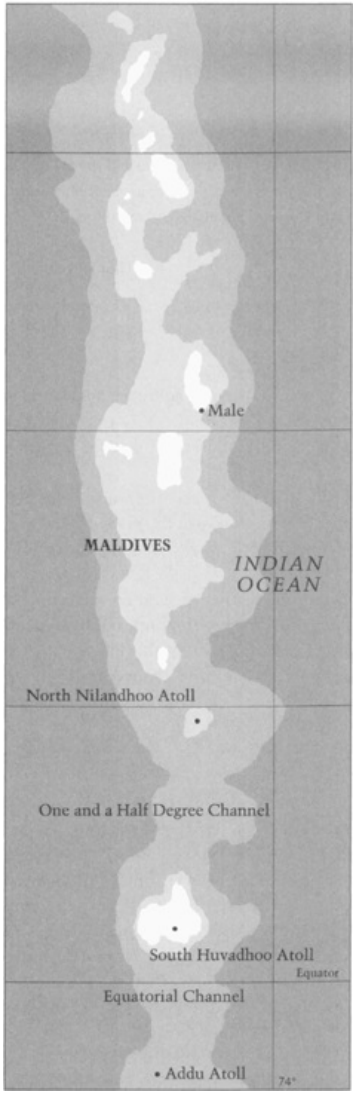
Male
MALDIVES
INDIAN OCEAN
North Nilandhoo Atoll
One and a Half Degree Channel
South Huvadhoo Atoll
Equator
Equatorial Channel
Addu Atoll
74°

You urge the plane higher still, look down at last on the entire archipelago stretched out below you around the curve of the earth and discover that it consists of an assembly of similar atolls, twenty-six of them in all, strung together like the pearls in a necklace and draped in the form of an elongated ellipse 754 kilometres long from north to south and 118 kilometres wide from east to west.

Each atoll is the product of coral growth around the edges of a submerged volcanic mountain peak:

> In a scenario played out over hundreds of thousands of years, coral first builds up around the shores of a volcanic landmass producing a fringing reef. Then when the island, often simply the exposed peak of a submarine mountain, begins slowly to sink, the coral continues to grow upwards at about the same rate. This forms a barrier reef which is separated from the shore of the sinking island by a lagoon. By the time the island is completely

> submerged, the coral growth has become the base for an atoll, circling the place where the volcanic landmass or island used to be. The enclosed lagoon accumulates sand and rubble formed by broken coral, and the level of this lagoon floor also builds up over the subsiding landmass … Coral growth can also create reefs and islands within the lagoon …[1]

The lagoon floors are all submerged today, but at the Last Glacial Maximum, when sea-level was lower by about 120 metres, the huge basins within each and every one of the Maldives atolls were all dry land …

You fly the plane lower again, spiralling downwards towards the sea, zooming in on one atoll, one emerald-green island. Within a beach perimeter of startlingly white sand it seems at first to be just thick palm jungle from one side to another and apparently uninhabited.

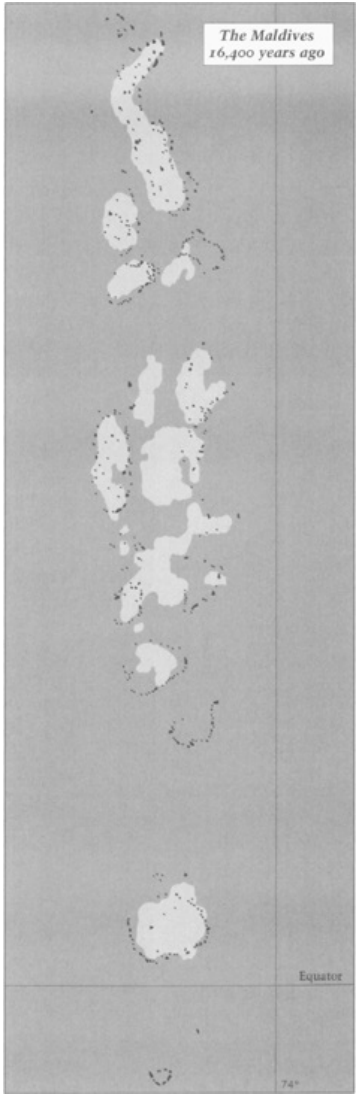
The Maldives
16,400 years ago
Equator
74°

Then you spot a clearing in the jungle less than half a kilometre from the sea. You fly closer. In the heart of the clearing, with a tree growing on its summit, is what looks like a conical hill. Closer still and you discover that the hill is not a hill at all, and it is not quite conical either.

It is a ruined and partially collapsed pyramid about the height of a two-storey building.

The necklace

The four-day trip that we made to the Maldives immediately before returning to India on 23 February 2001 was not intended to be an expedition to search for underwater ruins – hardly practicable in such a short time in an archipelago of almost 1200 tiny islands extending through eight degrees of

latitude across 90,000 square kilometres of ocean. In all that mass of blue water the total area of dry land is presently less than 300 square kilometres and many scientists are of the opinion that even this remnant may be submerged before the end of the twenty-first century by rising sea-levels linked to global warming.[2]

The threat of extinction that hangs over the Maldives and its unique culture serves as a reminder that the world's oceans can and do rise, and that when they do they can swallow up low-lying countries – and all their history – with not a trace left visible above the water. And if that is true today, deep in what has so far been the most placid interglacial of the past 2.5 million years, then it doesn't take much imagination to work out how things must have been in the world when sea-levels were rising crazily between 15,000 and 7000 years ago.

Besides, thanks to the ingenuity of modern science, we have inundation maps to tell us the story – perhaps still not with 100 per cent accuracy (although that is being refined all the time) but based on the best data presently available.

And what the maps tell us about the Maldives is that the necklace of scattered coral atolls of which the archipelago now consists was almost continuous land at the Last Glacial Maximum, broken only by intermittent channels, bays and inlets, occupying perhaps 50,000 square kilometres out of the total of 90,000 square kilometres that the Republic presently encloses within its territorial waters. In other words, some 49,700 square kilometres of the Maldives that was above water between 21,000 and 16,000 years ago is underwater today.

In my investigation of the riddle of Kumari Kandam I could hardly ignore this lost antediluvian landmass in the Indian

Ocean that had stretched towards the equator from a point roughly parallel to the extended southern tip of Tamil Nadu during the Ice Age. Even today the much reduced Maldives are a barrier to shipping, but 16,000 years ago, had anyone been sailing in these parts, they would have been confronted by an 800 kilometre long line of cliffs running north to south effectively blocking the east-west passage. Hypothetical Ice Age seafarers wanting to sail east or west would have been more or less obliged to make their way through one of two deep-water channels – the 'One and a Half Degree Channel' (so named because it slices across the Maldives one and a half degrees north of the equator) and the 'Equatorial Channel7, then as now about 50 kilometres wide, which separates South Huvadhoo Atoll (in the northern hemisphere) from Addu Atoll (in the southern hemisphere).

So rather than the dots in the ocean that they are today,

the Maldives 16,000 years ago would have been formidable. If such a thing as 'Kumari Kandam' ever did exist, centred as the myths suggest on the antediluvian coastal margins of southern India and Sri Lanka, then might it not also have included the great barrier islands of the Maldives just a few hundred kilometres to the south-west? As I noted in chapter 11, such a hypothesis would explain the old Tamil traditions which tell us that Kumari Kandam once extended into the Indian Ocean some '700 Kavathams' (about 1500 kilometres) beyond modern Cape Comorin.

The disappearance of prehistory

The ancient history of the Maldive islands is almost completely unknown[3] and their inundation profile suggests that their prehistory, if any, may have been lost beneath the

rising seas at the end of the Ice Age. The matter is further complicated by the presence of an alarming 'gravity anomaly' centred here. In layman's terms what this means is that the archipelago is situated at the bottom of an enormous trough in the surface of the Indian Ocean itself – this trough being created by a strong local gravitational field which some believe may be linked to the mass of sunken mountains on top of which the Maldives atolls have grown. Like other gravity anomalies (several similar troughs have been measured in the world's oceans by satellites) it is not certain that this one has always remained in exactly the same location, or that its depth has always remained the same, or that it always will do so in the future.[4]

Very little archaeology of any kind has ever been done in the Maldives, but the view of most orthodox scholars is that 'the first settlers probably arrived from Ceylon not later than

AD 500 and were Buddhists'.[5] Other authorities argue for an earlier date – back to about 500 BC – and note some south Indian, specifically Tamil, Hindu religious influence.[6] Thor Heyerdahl, who is one of the few to have conducted archaeological expeditions in the Maldives and whose book *The Maldives Mystery* is the only serious attempt to get to grips with the problems of the islands' ancient history, believes that they were settled much earlier than that – perhaps by 2000 BC or even 3000 BC – and that they may have played a part in an archaic Indian Ocean trading network involving ancient Egypt and the Mesopotamian and Indus-Sarasvati civilizations.[7] So far Heyerdahl has not been supported by the few carbon-dates obtained from the Maldives – none older than AD 540[8] – but in this as other matters he may yet be proved right. What we do not know

about these islands far exceeds what we know:

> Usually the history of a nation begins with a potent king founding a dynasty. The Maldives is a definite exception. A long dynasty of kings was already there before known Maldive history started. This kingdom ended when Maldive history began. The last king was made a sultan by a pious foreigner who came by sea and started local history. He caused all the kings to disappear into oblivion, except one, the one he himself converted. With neither arms, nor with any Maldive blood in his veins, he introduced a new faith, new laws, and founded the present Moslem Maldive state.[9]

In other words, not only has the Maldives suffered the incursions of the sea and the usual depredations of time but also it was converted, in the year AD 1153 (the year 583 of the Holy Prophet), to the Islamic faith,[10] which led to further attrition of ancient structures, artefacts and inscriptions. As

my old friend Peter Marshall, author of *Journey Through the Maldives*, explains:

> Recorded history only begins about the time of the conversion of Maldives to Islam … As Christians in Europe begin their calendar from the birth of Christ and tend to dismiss all earlier religions as pagan, so Maldivians follow the Islamic calendar. Until recently they had very little interest in what happened before. Not only was Maldivian pre-Islamic history suppressed but most pre-Muslim artefacts were destroyed.[11]

So what archaeologists are left to work with in the Maldives, above the water at least (and nobody has yet looked underwater), is almost certainly just a fraction – and perhaps an extremely unrepresentative fraction – of what was once there.

Even so, buried deep in the jungle of islands up and down the archipelago -some uninhabited and all off-limits to

tourists – there are several dozen partially collapsed and heavily overgrown pyramids, up to ten metres high, with their sides oriented to the cardinal directions. Although in a state of ruin today, these mounds of compacted earth and stone, in some cases with stepped courses of closely jointed megalithic masonry to be seen exposed under the earth fill, have a sombre and looming presence as they emerge out of the jungle. Called *hawitta* by the local people, the precise function and origin of these mounds have not been confirmed – though the carbon-dates put their construction between roughly AD 500 and 700.[12]

Most scholars think they are Buddhist *stupas* (relic mounds), which probably they are. Unimpeachably Buddhist sculptures, reliefs on stone and artefacts have been found amongst the ruins and some of the pieces are recognizably similar to other Buddhist work of the same period from India

and Sri Lanka -so there is no doubt that Buddhism was extensively present on these islands in the centuries before the coming of Islam.[13] Indeed, a Sanskrit text of Vajrayana Buddhism dating back to the ninth or tenth century AD is the earliest surviving legible inscription thus far found in the Maldives.[14]

Still, as a number of observers have noted, there seems to be something strange about this Maldivian Buddhism. Could it be some other religious influence showing through – maybe a form of Hinduism that had preceded the Buddhist faith to the Maldives? Certain striking sculptures of grotesque human faces with bulging eyes, twirled mustachios and curved cat-like fangs 'may recall Hindu deities',[15] admits Arne Skjolsvold, an archaeologist with the Kon-Tiki Museum – who nevertheless prefers to explain such images as

expressions of a localized subculture of Tantric Buddhism.[16]

There may be clues in Dhivehi, the Maldivian language. It belongs to the Indo-European family and is related to Sanskrit and thus also to Sinhalese, one of the two languages of Sri Lanka (the other being Tamil). Sinhalese has been heavily influenced and modified by its contact with Tamil,[17] and, according to Clarence Maloney, a Tamil/Dravidian sublayer exists in Dhivehi also, which suggests that 'Hinduism was present in the Maldives before the Buddhist period.[18]

Interestingly, large numbers of 'phallic' sculptures have been recovered in archaeological excavations in the Maldives – for example amid the ruins of a vast temple complex in North Nilandhoo Atoll.[19] I was able to study a collection of such objects from different parts of the archipelago and in my

opinion, despite some idiosyncrasies, they are nothing more nor less than Sivalinga.

That Siva's characteristic emblem should be found here in these remote islands on the edge of the southern hemisphere is in a way not surprising – since he was ever Daksinamurti, 'the God of the South'.[20] But Siva is an ancient and widely revered god whom the *Vedas* associate with the high peaks of the Himalayas far to the north and whose image as the ascetic Lord of Yoga and as Pasupati, Master of Beasts, goes back nearly 5000 years in the Indus valley cities of Harappa and Mohenjodaro.

Moreover, as we saw in chapter 11, so many lingam-like objects have been found in much older pre-Harappan sites that T. R. Sesha Iyenagar can exclaim: 'the worship of Siva in the form of a linga existed in the Stone Age'.[21] In this regard,

therefore, the Kumari Kandam tradition once again proves itself to be in accord with the archaeological facts when it proclaims Siva's membership of the First Sangam, supposedly founded in the antediluvian city of Tenmadurai 11,600 years ago – a date deep in the Stone Age.

The riddle of the hawittas

Let's set to one side for a moment the intimations of vast antiquity for the religion and religious ideas that became Hinduism and Buddhism (for Buddhism is merely a 'protestant' offshoot of Hinduism and both trace their origins and authority back to the *Vedas)*.

Let's accept the range of dates around the middle of the first millennium AD proposed by archaeologists for the

construction of the pyramidal *hawittas* of the Maldives (or, strictly speaking, for the construction of the few that have thus far been excavated).

And let's accept the same date range for the religious sculptures, artefacts, etc. that have been found round about them. There seems no good reason not to do so; on the contrary, it looks as though the archaeologists have done their jobs well and that these dates are likely to be accurate within a reasonable margin of two or three hundred years either way.

But then the question arises, where did the distinctive religious art and architecture of the Maldives come from? Yes, its sculptures and its pyramids -or *stupas* – are similar to those of the Buddhists of Sri Lanka, but there are differences … And yes, they are similar to those of the Hindus of south India, but again there are differences. So where and when did

these differences and unique characteristics incubate and take shape? There is no archaeological trace of any evolution of architectural and symbolic ideas behind the oldest structures in the Maldives. The *hawittas* just suddenly appear – we must assume around 1500 years ago from the carbon-dating – in an already fully designed, fully worked-out form and with all the required building skills already in place.

Were they the work of immigrants importing a pre-existing architectural canon from elsewhere? Perhaps – but if so, then where? No other trace of the distinct Maldives style has been found in India or Sri Lanka. Or is it possible that the ever-encroaching seas have simply swept away and covered up the earlier stages of the Maldives story – just as they will sweep away and cover up the little that is left of the archipelago before the end of this century?

Bill Allison's antediluvian tour

I dived a couple of times in the blue waters of the Maldives with Bill Allison, a tough, crew-cut, steely-eyed, flat-bellied 54-year-old Canadian who is conducting a long-term scientific survey of the islands' coral reefs. I've already noted that our rushed filming schedule and the vast area that would have to be covered ruled out any structured or useful exploratory diving during our short stay – for the same reasons that there is no point in looking for a needle in a haystack. So the producers' objective for these two dives was simply to film what they call 'pretties' – beautiful fish, beautiful coral, lush tropical waters with infinite visibility, sun effects, surge effects, etc., and generic shots of me finning around *in situ*. The 'motive' for our dives here in storytelling terms (as if anyone needs a motive to dive in the Maldives!)

would be provided by Bill Allison – the coral reef expert – showing me – the eager historical detective -notches and caves at various depths that had been cut in the coral formations by waves during the lowered sea-levels of thousands of years ago.

After we had completed our dives we sat talking on the deck of the boat in the afternoon sun, moored in the open sea just on the outside edge of North Male Atoll. I asked Bill: 'How come the Maldives are here? We see coral under us, but what's the story of how it got there?'

> *Bill:* Well, it seems that as India drifted over towards Asia [continental drift hundreds of millions of years ago] the Maldives or what became the Maldives were left as a string of volcanoes behind it, and as these volcanoes sank into the earth's crust, coral

grew on them and just kept growing. Right now there's over maybe 2000 metres of coral.

GH: 2000 metres of coral on top of the original volcanoes?

Bill: That's right.

GH: Wow … *[pauses for thought)* – Now if we … if we go back to the period that I'm interested in, which is the period from the Last Glacial Maximum, through until about the beginning of historical times, about 5000 years ago or so – so say from 17,000 years ago down to 5000 years ago – what would we be seeing around us here, if we could be here 17,000 years ago?

Bill: Well, we'd be right now where we are with respect to these islands, looking up about 130 metres to see

those trees … Like the cliffs of Dover or something. It'd be a plateau with notches cut where the channels are, so the cliffs might be 130 metres high –

GH: Wow.

Bill: - and the channels –

GH: So that would be towering above us?

Bill: That's right. And the channels might be, oh, 80 metres, 90 metres high.

GH: Wow. And then once we're inside that area there *(pointing towards atoll)* presumably it would all be land?

Bill: Yeah.

GH: Or would there be some water too?

Bill: Well, it'd be depressed and it just depends. This is very porous material. Coral doesn't grow as a solid mass, just a lot of crevices and so on, so any water falling would drain rapidly. There might be temporary lakes, there'd be streams. They would probably develop into underground rivers and they'd probably empty into the sea through the ground or maybe through the channels.

GH: Would there have been rivers above ground?

Bill: Rivers? Probably. But probably not big rivers and probably disappearing into the ground pretty quickly, and we can imagine waterfalls cascading out of this plateau we're looking at, into the sea.

GH: So … so the land would be rearing above us. Does that mean we would or wouldn't be on the sea where

we are now?

Bill: Well, we might be … we might be on part of the shelf, or on the island too, depending how far out from shore we are. *[Looks around and over side of boat.*)

GH: But in general, from island to island, what would the situation have been? Would they have been islands?

Bill: (figuring out location of boat in relation to reef) Oh, right, OK. We're on the outside of the atoll now so we'd still be on the sea … We'd be looking at this big plateau and the islands, what we now think of as sea bottom between the islands, would all be dry – unless it was raining and there were lakes forming – and there'd be vegetative jungle. It'd look a lot like

the cockpit country in Jamaica in the present time.

GH: Right. So it would be –

Bill: That's how I imagine it.

GH: So it would be kind of lush, jungly country?

Bill: Yeah. On limestone, what's called karst topography, very rugged, with sink holes.

GH: And then what happens? That's 17,000 years ago. We're outside the atoll. We look inside. We see a huge amount of land – jungle – between what are now scattered individual islands. Then we know that after the Last Glacial Maximum, sea-level begins to rise. So if you could just talk me through what happens after that. And I understand it's a complicated problem, because at the same time the

sea is rising, the volcanoes are very, very slowly sinking and the coral is growing.

Bill: Well, as the sea-level rose, we'd see all that vegetation and land inundated. A lot of the soil would become sediment suspended in the water. It would probably inhibit coral growth for a while, so some of the reefs would grow and others would not grow, and that probably accounts for some of the variation we see. We see reefs that are maybe at 50 metres … their tops are at 50 metres, yet now there's no obvious reason why they didn't grow, we can only assume that for some reason they drowned, whereas other reefs kept up and they're the ones we see on the surface today.

GH: I know from the studies that we've done that there

were still substantial amounts of land exposed here down to 10,000, even as late as 8000 years ago. There was more land above water than there is now. Would there be any reason why these islands should be uninhabited at that time? Would they have been the kind of place where people could have lived?

Bill: I would have thought that they'd be relatively easy to find given how far they were out of the water, and presumably how far west the shelf around India might have extended, so given how much we're finding out about how our ancestors used to get around, I wouldn't be at all surprised if they'd made it here.

GH: Because it seems that this sea-level rise – I don't know if your studies underwater have given any

indication of this, but what we've found out so far is that the sea-level rise seems not to have been gradual, but to have occurred in episodes and peaks when there were sudden flooding events and then a plateau and then another flooding event. Do you see signs of that underwater here?

Bill: Well, in fact probably not only was it intermittent, but there were also declines at certain times, and provided that the sea-level stood still for a long enough time – and I don't really know how long that was but probably centuries to a millennium – then you would get notches cut in the reef slope for example, and in some places the substantial notches that dissolved in water became grottoes or caves, like those we swam through this afternoon – and some of those collapsed, and you can see these

collapsed structures here and there.

Bill Allison's tantalizing glimpse

I had what I thought was a final question for Bill – the obvious one: 'In all your years of diving around the Maldives,' I asked, 'have you ever seen anything underwater that looks man-made – and I don't mean something modern that's been dropped down there, but something old?'

There was a pause, then he replied rather hesitantly: 'Well, I did once when I was down where I shouldn't have been, and … I wouldn't trust what I saw.'

GH: How deep were you?

Bill: I was about 40 metres doing some work, and it was down below me and I can only estimate that it

might have been at 70 metres, and it looked a lot like a stairway.

GH: Wow.

Bill: But given the distance between it and me, and the fact you can't resolve anything very clearly at that distance, and because your mind plays a few tricks on you at that depth … Well, I wouldn't want to bet the farm on it.

GH: But it looked like a regular cut stairway?

Bill: Yeah. And it was narrow, that's what made me think about it – that it wasn't an undefined width. It was clearly defined.

GH: With sort of side edges?

Bill: And had a step-like structure, yeah, as far as I

could tell from that distance.

GH: So what was your feeling when you saw that? Hallucination?

Bill: No. I thought, 'That's interesting – I'd like to get back and have a closer look some time.' But I'd prefer to do it on Trimix and with proper surface support.

GH: How far is the site from here?

Bill: It's in the Vadhoo Channel – about an hour by boat, but I'm not at all sure that I could find it again.

GH: And is it close to islands? I guess everywhere around here is.

Bill: Yeah, it's right on the edge of an atoll rim. So if sea-level was 130 metres lower, or anything less

down to about 70 metres, then to access the water or the land, you'd need something like that.

GH: You'd need something like a jetty or a wharf, something with steps, yeah.

Bill: But I mean I really …

GH: You can't guarantee it?

Bill: I'd give it a probability of about 20 per cent or less.

Even if Bill had rated the probability of relocating his steps at 2 per cent or less, I think I would still have wanted to go and see if we could find them.

But if we could find them – itself probably requiring several days of searching – I would have to do a lengthy, complicated and highly technical course in diving with

Trimix (special mixed gases instead of compressed air) before I could safely descend to work at 70 metres (about 220 feet). So the most we would be able to do – and then only if the visibility was very good – would be to hover at 40 metres and look down at the steps as Bill had done before.

However, none of this was an option, because our filming schedule required us to fly to India the next day. Steps or no steps, we were going to have to pack up and leave …

The secret of the Redin

There are ancient oral traditions, still repeated by the elders of some of the more remote islands, which provide an explanation for the Maldives' atmosphere of lost prehistoric grandeur and for its strange ruins. These traditions speak of a mysterious people called the Redin, said to have built the

hawittas, who were described to me by Naseema Mohamed, a scholar at the Maldives National Institute for Linguistic and Historical Research, as:

> Very tall. They were fair-skinned, and they had brown hair, blue eyes sometimes. And they were very, very good at sailing. So this story has been around in Maldives for many, many years, and there are certain places where they say the Redin camped here, and certain places which they say here the Redin were buried. But we don't really know how old or how long ago it happened.[22]

During his series of research visits to the Maldives, Thor Heyerdahl collected and compiled Redin legends from all parts of the archipelago. He concludes that in the memory of the islanders the Redin were 'a former people with more than ordinary human capacities':[23]

> The Redin came long before any other Maldivians. Between them and the present population other people had also come, but none were as potent as the Redin, and there were many of them. They not only used sail but also oars, and therefore moved with great speed at sea …[24]

Likewise, Peter Marshall reports a Maldivian tradition about the phenomenal maritime abilities of the Redin which tells of how on one occasion they cooked their food in the north of the archipelago then sailed so fast to the far south that they were able to eat the meal there still warm.[25]

Such notions of humans with supernatural or even god-like powers flying swiftly across the sea in their boats with sails and oars is strangely reminiscent of the imagery of the *Rig Veda* cited in chapter 7 concerning the Asvins – who are several times praised for having conducted a daring rescue in the deeps of the Indian Ocean:

> Yea *Asvins*, as a dead man leaves his riches, Tugra left Bhujyu in the cloud of waters … Ye brought him back in animated vessels … Bhujyu ye bore … to the sea's farther shore, the strand of ocean … Ye wrought that hero exploit in the ocean which giveth no support, or hold, or station, what time ye carried Bhyjyu to his dwelling borne in a ship with hundred oars, O Asvins.[26]

O Asvins … Ye made for Tugra's son [Bhujyu], amid the water floods, that animated ship with wings [sails?] to fly withal, whereon … ye brought him forth. And fled with easy flight from out the mighty surge. Four ships, most welcome in the midst of ocean, urged by the Asvins, saved the son of Tugra, him who was cast down headlong in the waters …[27]

A connection with the Gulf of Cambay?

Any connection with the Vedic Asvins is purely speculative. Nevertheless, Thor Heyerdahl makes a case that there is real history behind the Redin myth, that it is older than the date now confirmed by radiocarbon for the construction of the *hawittas* - which tradition nevertheless attributes to the Redin – and that the people it refers to probably originated in north-west India, the primary setting of the *Rig Veda*. After visiting Gujerat and the great marine dockyard of the Indus-Sarasvati civilization at Lothal -where cowrie shells from the Maldives (*Cyprea Moneta)* have been excavated amongst the ruins and are to be seen in the site museum[28] – he comments:

Possible prehistoric maritime connection between the Maldives and northern India.

> I was convinced that at least the Hindu element in the Maldives had come from the north-western corner of India. And probably the Hindus were not even the first to have made the journey straight south from the Gulf of Cambay to the Maldives. Perhaps earlier sailors in the days of Mesopotamian and Indus Valley seafaring had been led by the sun to the Equatorial Channel, and survived in legend as the Redin.[29]

But if this could be so, then it is also possible that the real people upon whom the Redin myth is based could have arrived in the Maldives even earlier than that. Of particular interest is the fact that the Gulf of Cambay was not a gulf until it was suddenly inundated by the last of the three great episodes of post-glacial floods some time around 7700 years ago (see chapter 11). Prior to that, the further back you go in time the further the coast extends to the south of the Gulf, with another episode of tremendous land-loss registered at around 15,000 years ago.

More than one lost civilization?

Then there is the whole complicated question of the obvious but ancient role of Dravidian and south Indian culture in the prehistory of the Maldives and the way in which the enlarged Ice Age footprint of the Maldives dovetails with the Kumari Kandam myth of the Tamils.

On the other hand, there is the obvious Sanskrit and north Indian influence that is also present in the Maldives and that dominates its language, Dhivehi.

It is too easy, in my view, to argue, simply because Dhivehi belongs to the Indo-European language family, that it therefore must be derived from Sinhalese, the Indo-European language of Sri Lanka – which itself only became entrenched in that island around the sixth century BC following an invasion of settlers from northern India.[30] Thor Heyerdahl's

hypothesis of a prehistoric maritime connection between the Maldives and Gujerat – and let us not be too hasty to put an upper limit on the antiquity of that connection – is an equally effective means of supplying the Maldives with an Indo-European language.

Behind all of these questions and problems is the wider issue of the relationship between the Dravidian culture of south India, the traditions and religious ideas of north India and the distinctive manner in which the Vedic and the Tamil flood myths intertwine, sharing gods, sharing sages, and sharing the same underlying story-line built up around the theme of recurrent cataclysms and the preservation of antediluvian knowledge.

Not for the first time I found myself wondering if we could be dealing in India with not one, but two different and *yet intimately interrelated* lost civilizations of the Ice Age – one

predominant but not exclusive in the antediluvian north-west, with its own individual character, style and language, the other predominant but not exclusive in the antediluvian south, again with its own individual character, style and language.

Because of the spectacular land-losses that India had suffered at the end of the Ice Age, it was not difficult to imagine how both could have flourished along the subcontinent's coastal margins and outlying island chains at roughly the same time, both could have been swallowed up by the sea over roughly the same period, and both could have left survivors to repromulgate the antique system of knowledge that they shared – which claimed, through self-discipline, meditation and the asceticism of yogic austerities, to have marked out the straight and narrow path of spiritual transcendence in the material world.

14 / Ghosts in the Water

> The great deluge took place in 16,000 BC … The second one in 14,058 BC, when parts of Kumari Kandam went under the Sea. The third one happened in 9564 BC, when a large part of Kumari Kandam was submerged.
>
> N. Mahalingam, Chairman, International Association of Tamil Studies

Poompuhur coast, south India, 26 February 2001

The ancient religious teachings of India may be directed towards spiritual transcendence but the morning that we were going out to dive at Poompuhur I felt no inner peace. Instead, I was up brooding long before dawn, my head swirling with fears and anxieties, hopes and possibilities. I could feel the first leaden numbness and uneasy visual aura of an oncoming migraine – a perverse affliction with which I

must deal whenever I am under great stress and am most in need of a clear head. I immediately treated myself with an injection in the thigh of the powerful drug Immigran, which will normally stop even a severe full-blown migraine in its tracks, but this time it only reduced and did not entirely eliminate the symptoms, leaving me feeling weak, drained and on edge.

I knew that these were going to be big dives for me, that there was a lot riding on them, and that the mysterious U-shaped structure that I had come to see would be filmed for the first time so that people everywhere, archaeologists and non-archaeologists alike, could make up their own minds about it.

What this meant was that I was being given the chance – the incredible opportunity funded by Channel 4's money and prestige – to test the basic proposition of the Underworld

hypothesis, i.e. that evidence which might shed significant new light on the mystery of the origins of civilization could be lying under the sea. I realized that if Glenn Milne's inundation dating of '11,000 years old or older' for the U-shaped structure was correct, and if the earlier NIO marine archaeologists' reports that it was man-made rather than some natural outcrop of rock were also correct, then what was awaiting me on the sea-bed off Poompuhur was, quite possibly, the vindication of my quest.

It didn't matter much what the structure turned out to look like. For example a ruined pyramid, or a corbelled archway, or broken columns – though archetypal antediluvian images in popular culture – were not in the least required. Irrespective of how dilapidated it might be, irrespective of how covered in marine growth and sediment it might be, even should it prove dull and unexceptional to the eye, all

that I needed to prove my case were the remains of a structure that was monumental in scope, man-made and more than 11,000 years old, sitting on the sea-bed off the south-east coast of Tamil Nadu.

If the U-shaped structure was all these things, then it could not be explained by the orthodox model of history. And if it was all of these things, then the hitherto discredited Tamil myths of a great antediluvian civilization called Kumari Kandam that had once existed around the southern coasts and islands of India might very well be true. So in a way, I reflected, if the U-shaped structure really was what the NIO said it was, then I was about to come face to face with my own personal Holy Grail.

How very annoying, therefore, that my film producers had scheduled just one day for the diving. Having gone to great lengths to get the NIO to cooperate with us over filming the

U-shaped structure at Poompuhur, and having paid out a very large sum of money to hire the NIO diving team and marine archaeologists full-time for six days, here we were making use of them for just one day!

It struck me as a crazy, misguided, self-contradictory policy which on the one hand had moved heaven and earth to make it possible for me to dive at Poompuhur at all and on the other would only allow me two or at the most three dives at the site – thus making it almost inevitable that I would not be able to do a proper job there. I felt like Moses being told that he could see the Promised Land but would not be allowed to enter.

No wonder I had a headache.

That gentleman is not well …

The coastal plains around Poompuhur are exceptionally flat with a gentle seaward slope – a characteristic of topography that continues unbroken underwater for a very great distance out from shore and that would have multiplied the effects of even relatively small sea-level rises into rapid and catastrophic floods capable of inundating very large areas.

We met up with our NIO friends on the beach – Kamlesh Vora, Gaur, Sundaresh, Gudigar, Bandodkar and others – and a scene was shot of me greeting them and walking with them. The scene required three takes.

Then we all piled into a small open launch to make the run through the big breakers that were lashing the shallows to the point about a kilometre off-shore where the fishing trawler that the NIO had chartered for the diving was moored.

Another hour or so passed while we did the launch-to-trawler run twice more so that it could be shot from different angles.

Then finally we all climbed on board the trawler – not so easy since its sides towered more than 2 metres above the bottom of the launch – stowed our equipment, and headed out into the open sea.

I was irritable, withdrawn – certainly not very conversational – and felt like lying on my back and closing my eyes to ease the ominous symptoms of my returning migraine. Instead, for the next half hour as we chugged the remaining 4 kilometres towards the dive site, basic good manners required that I stay on my feet, catch up on gossip with everyone from the NIO, and look cheerful, optimistic and positive. After all, I was a man being given an incredible opportunity. Shouldn't that put a smile on my long Scottish

face?

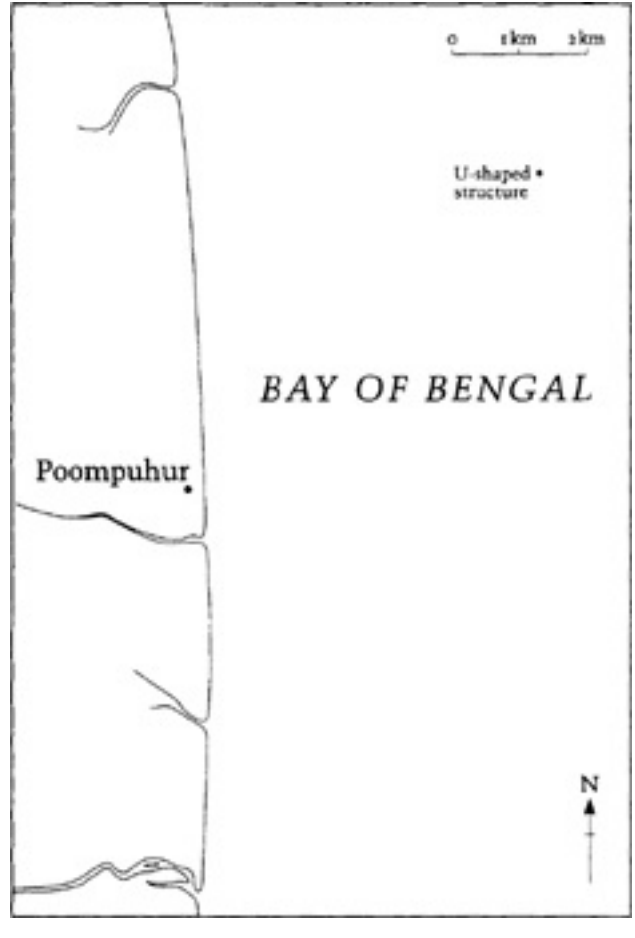

Position of the submerged U-shaped structure off Poompuhur coast. Based on Rao et al.

Sundaresh and Bandodkar had already buoyed the site some days previously and while the trawler manoeuvred into position to anchor next to the buoy I wandered off to an unoccupied corner of the deck and surreptitiously gave myself another shot of Immigran. That made two, the maximum permitted dosage in twenty-four hours. Praying that this horrible, increasingly blinding and ghastly headache would now please go away, I lay down with a towel over my eyes for the next ten minutes, only sitting up again when it was clear that the anchoring operation had been completed.

‘Feeling any better?’ asked Kamlesh with genuine concern.

‘Not sure,’ I replied.

‘That gentleman also is not well.’

I looked over to where Martin, our underwater cameraman, was indeed very definitely unwell, sprawled on the deck retching miserably …

It seemed unlikely that he would be going underwater any time soon.

Cornucopia

In the end it was decided that Stefan Wickham, the producer, would film the first dive. Hopefully, Martin would be well enough to shoot the second for us. There probably wouldn’t be time for a third, because we still had to interview Gaur, Sundaresh and Kamlesh on the boat and had already used up most of the morning shooting the scenes from the beach and

just getting to the dive site.

As I was rigging my tank I noticed that half a dozen small local fishing craft had arrived here ahead of us and that the fishermen, oblivious to our presence in their midst, were cheerfully casting out their lines and hauling them in again with big silver fish attached. It seemed that here, as elsewhere along the Coromandel coast, the location of underwater ruins was part of the essential survival knowledge and folklore of fishing communities – just as they knew the tides and the monsoons – because an underwater ruin meant one thing for sure and that was a cornucopia of fish …

Stefan jumped in the water first – intending to have the camera rolling before I jumped in. Instead, he was carried off in a brisk surface current and began rapidly to recede from view. Fortunately, the trawler had a motorized rubber dinghy

in tow which was dispatched to retrieve him and fifteen minutes later he was back on board. The trick, explained the NIO divers, was not to try to fight the current but to grab hold of the buoy-line the minute you hit the water and then use it to pull yourself down the 23 metres to the ruin.

Dive 1: descent

Although the sky is now overcast the water isn't cold, not like Dwarka the year before. But compared to the life-giving iridescent blues of the Maldives, its sickly and unnatural green hue, through which light penetrates only dimly after the first few metres of the descent, has all the allure of radioactive fog after a nuclear disaster. Like blighted snowflakes, a blizzard of grey particles blows through the water on the current and I soon lose sight of the other divers

on the line. I know that Sundaresh, my dive buddy today, is just a few metres below me, but I can't see him. In conditions like this there is really nothing much to be done except check your gauges, relax, trust in your own competence and head for the bottom.

Five metres deeper and the visibility suddenly begins to clear – not dramatically, but still much better than before. The current seems to have slackened too, as sometimes happens at greater depth. Visibility continues to improve and at one point looking down the line I can see all three of the NIO's divers spaced out at metre intervals below me, their yellow and blue tanks bright through the haze.

At about 18 metres I begin to get the first sense of something large standing out from the flat and sandy bottom. At this moment it's just a looming mass of darkness contrasted to lighter surroundings and my eyes can't resolve

it into a definite shape.

The other divers above and below me leave the line, fan out and disappear from view. Gaur is working with Santha, who will be shooting stills. Gudigar is working with Stef on the video camera. Gaur, Gudigar and Sundaresh were all part of the team of marine archaeologists who first dived on the structure during the NIO's initial surveys in 1991 and 1993.

Sleeping with the fishes

Sundaresh, who is waiting for me at the bottom, wants to show me courses of masonry that he has noticed on his previous dives – but before I join him for the guided tour I let go of the line, establish neutral buoyancy and just drift about 2 metres above and 2 metres to the side of the structure. There's no current now at all, the visibility has gone very

foggy again – probably sediment kicked up by some of the other divers – and I rest completely still in mid-water, adjusting my eyes to the gloom, trying to understand what I'm looking at.

The only thing I can tell immediately is that it's a big, squat, powerful-looking structure. In order to get any useful idea of its shape, extent and general situation, and even to form a first opinion of whether it might be man-made or natural, I need to be quite a bit further away from it than 2 metres. But if I do that, in these conditions, it rapidly fades from view, becoming just a vague, undefined darkness on the sea-bed again, and then disappearing entirely into the fog.

I swim around a bit, now closer, now further away, trying to get perspective, looking for an angle. And then unexpectedly the whole scene in front of me brightens – the sun must have broken through the clouds – and for thirty

seconds I am confronted by a massive wall of deeply eroded and pitted stone. Although much broken and ruined, and incorporating a number of jagged vertical protrusions and step-like changes in level, I can see that the wall in general rises about 2 metres above the sea-bed to form the outside edge of an extensive platform.

It comes home to me, in this moment of illumination, that the structure has its own character – as many buildings do. It seems menacing but also forlorn, eerie but also sad. For as well as thick growths of unusually leprous marine organisms all over it, the shaft of sunlight shows it to be draped and tangled across its entire length in a strangling web of fishermen's nets – some made of old rope, ancient and rotting away, others in the sinister colours of indestructible modern synthetics – which seem to tie it down like the body of a Mafia victim sleeping with the fishes.

I find myself suppressing an involuntary shiver, as though reacting to an apparition, or a ghost, and swim back to find Sundaresh still patiently waiting for me at the bottom of the line.

Walls … passages … entrances

We begin by swimming slowly south along the upper outside edge of the platform wall – if indeed it is a platform, which I'm now beginning to doubt. Rather than flat as I'd initially assumed, its surface at this point seems to be slightly concave – or dish-like – and to be paved with a mosaic of small stones. I find myself wondering if it's possible that I'm looking at the retaining wall of an enclosure – I know its supposed to be U-shaped – filled up almost to the rim with some kind of sandy, stony aggregate.

The wall at this point is aligned north-south but soon begins to bend to the east to form the base of the ‘U’. In another one of those little flashes of illumination as the sun breaks through the clouds I can see that we must have started our swim at the open end of the ‘U’ – the end spoken of in some of the NIO reports as ‘the entrance’ – and that the length of the structure along this axis is therefore roughly the distance we have just travelled, about 30 metres.

Not far before the bend begins I pass an opening to my left which I pause to investigate. It is a deep, narrow cleft with parallel sides a little wider than my shoulders slicing vertically through the whole height of the outer wall to penetrate the platform (or the stony fill, or whatever it is) that lies beyond. And for the first few metres at least, this gully, or unroofed passage (or whatever it is!) follows a curving path that seems to duplicate, from within the

structure, the distinctive outer curve of the ‘U’. Swathed everywhere with snagged and rotting nets, it is rough and broken in places, flat-floored and clean-edged with an almost quarried look in others.

Making a mental note to spend more time here before the end of the dive I turn back and resume my original course along the outside wall where it bends to the east, trying to catch up with Sundaresh. Looking for me, he meanwhile has swum all the way round and made his way back to the entrance where I eventually join him.

But is it really an entrance?

As though understanding my perplexity, Sundaresh points to a gap in the wall about a metre and a half wide to one side of which I can now see that the buoy-line is tied. Holding his hands up he reassuringly signals ‘this is the entrance’.

I take a closer look.

What's confusing things once again is the stony aggregate that fills most of the structure – although I've noticed that it does so quite unevenly. Its presence here makes it hard to see the gap as an entrance because it doesn't seem to lead anywhere much. At the same time the thick retaining wall, generally in the range of 2 metres high, is at least a metre higher than that on either side of the gap – resembling a pair of gateposts. It also has a pronounced lip standing proud of the aggregate infill by almost half a metre – weighting the scales ever more in favour of the idea that the U-shaped structure must originally have been designed not as a platform but an enclosure, and that it certainly cannot be a natural formation.

But is the enclosure wall hewn out of living rock, like the great carved shore temples of Mahabalipuram, or is it a built

structure made of bricks or stone blocks?

We use up the rest of the first dive searching for the courses of masonry that Sundaresh is convinced he saw in 1993. Yet how are we to find them under the thick and tenacious armour of marine organisms that coats the wall? Several times reaching into shadowy eroded hollows to see what's inside we must work our hands carefully around resident scorpion fish which flutter their poisonous spines as though to taunt: 'Go on, touch me – make my day.'

But we don't find any evidence of masonry.

Not on the first dive.

Disturbing

During the surface interval I fought down waves of nausea

and the pounding in my temples, took another shot of Immigran, and felt sufficiently restored after half an hour to fall into an argument with Gaur about the U-shaped structure.

The reader will recall from chapter 9 that Gaur's position had been rather stark when he and I had first discussed the matter a year before: the structure was large; its depth meant that it was more than 10,000 years old; archaeology knew of no culture anywhere in India capable of building such a structure 10,000 years ago; therefore *either* the structure was not man-made *or* it was not 10,000 years old.

I asked him if he'd changed his mind in any way over the intervening year and told him of the findings of Glenn Milne and his team at Durham: 'We've had some geologists working with us on this project in Britain who are specializing in sea-level rise. And their computer model is quite sophisticated. It

takes account of many, many different factors, including land subsidence. And they're very confident that for these bearings, for this location, that this site would have been submerged about eleven thousand years ago. What do you make of that?'

If anything, Gaur replied, this made his chronological problems with the data even worse: '11,000 years ago whatever settlements there may have been here were at the Mesolithic level. And we don't expect, we don't have any data to suggest, that such people, Mesolithic people, can build this kind of structure.'

'Such a large structure as this?' I prompted.

'Yes.'

'And you're saying that – presumably – on the basis of what you already know about the level of culture and

civilization in this area in different periods?'

'Yes,' said Gaur: 'So I think – if it is man-made – it should be around 2500 years old, maximum date. Not earlier than that, particularly in this area.'

'And I think you're putting the cart before the horse,' I interjected. 'See, obviously I'm not an archaeologist and I come at this really from the point of view of a reporter or a journalist. So my response to this structure is first of all the facts. A structure is there. It's at 23 metres. Is it or is it not man-made? I feel the structure has to answer that question itself instead of us simply replacing what it has to say with our preconceptions about the nature of development of culture in India at this or that period. The structure should speak to us through archaeology. We should excavate it and find out really is it man-made or not. Although I must say that I personally find it very difficult to believe that nature

could have deposited a structure like that there. So the question I'm coming to is this. We know that certainly 9000 years ago people were beginning to build quite large structures in some parts of India – for example level 1A at Mehrgarh in the Indus valley. Now, admittedly that's 2000 years later than the proposed inundation date for this structure but it's in the same general ballpark – back at the end of the Ice Age. So my point is that if people were building permanent structures at Mehrgarh in the north-west 9000 years ago, then what is the objection in principle to the possibility that people could have been building permanent structures here in the south-east 11,000 years ago on lands that were flooded?'

'Well, because we don't see any such structures in the archaeological record for south India or any part of India 11,000 years ago!'

‘But maybe that’s precisely what we’re seeing here, Gaur! We haven’t seen it before because it’s been underwater, but now that it’s been found surely we have to allow it to speak for itself? It seems to me that the archaeology needs to be done on the site first before we make any definite statements about the level of culture that was here 11,000 years ago.’

‘From what I have studied and from what I understand about Mehrgarh,’ Gaur replied, ‘if you go back to level 1A it was simply mud walls and they were concentrated in one area – they were living in a group and the village community started. But when we come to Poompuhur – well, if you see the U-shaped structure, it is such a big one. And it is part of a complex with other big structures spread over a wide area. So it means if human beings made this then they must have had very great technology at that time. I don’t think it can be compared with the simple mud-brick structures of Mehrgarh

…’

‘In other words, if the U-shaped structure is 11,000 years old and was made by human beings it would be rather disturbing for our view of history.’

‘Yes. Obviously.’

Dive 2: impatience and haste

Martin takes over from Stefan on the camera for the second dive but Stefan comes down as well, just in case.

We all descend the buoy-line and are back at the entrance – which is oriented north. I swim south as before, heading for the curving passageway near the far end of the ‘U’ that I’d noted on the first dive and forgotten to re-examine.

Sundaresh is a metre or two behind me, still looking for his

courses of masonry and I'm steaming ahead when I feel him reach out and grab my fin. He points to something that he clearly regards as noteworthy, but whether it's because I am disoriented diving on an unfamiliar structure, or whether it's because of the appalling visibility, or because I'm in too much of a hurry, or because of my migraine, I *just don't see what he's showing me.*

Behind us Martin doesn't either – but he keeps shooting, recording the relevant incident in twenty-six seconds of videotape that I'm not able to review until late that evening. The first twenty-four seconds show me being impatient and hasty. The last two seconds show something that I should under no circumstances have allowed myself to miss through impatience and haste – something that I should have examined thoroughly on the spot and had filmed and photographed from every different angle.

Instant replay

26 February 2001, 15.37.02–15.37.28:

Hancock and Sundaresh swimming north-to-south, along western wall of U-shaped structure, Hancock in lead, depth approximately 22 metres. Sundaresh pauses to examine area of wall, attracts Hancock's attention, then returns to wall.

Hancock joins Sundaresh, who points to area of interest on wall.

Hancock gives it cursory glance and seems keen to get a move on.

Camera tilts down to base of the wall, just above the surrounding sea-bed, then begins to tilt up for point-of-view shot.

Shot holds for two seconds on a narrow section of the wall about 1 metre high that is clear of growth and reveals in lower right of frame an ordered

pattern of small blocks arranged in four distinct courses with the edge of a possible fifth course partially visible under marine growth. The blocks are brick-sized but irregular in cross-section and appear to be set into some kind of matrix.

Camera tilts up to top of wall, rediscovers Hancock who is swimming determinedly away, and follows …

Excursion to the mound

At this point – frustratingly still before I have reached the curving passageway that branches inside the structure at the southern end of the 'U' – the other divers signal us back, wanting to stick to the plan that we had all agreed in advance for this dive and that I had forgotten as soon as I hit the water. The plan is to spend most of our fairly limited

bottom-time at this depth exploring a second major structure that lies close by (about 45 metres away according to Sundaresh when we had discussed the matter in Dwarka the year before).[1] One of a pair of 'mounds' lying to the north of the U-shaped structure, it was identified during the NIO's 1991 and 1993 seasons at Poompuhur, and Sundaresh had spoken of seeing 'perfect cut blocks' scattered on the sea-bed beside it.[2]

Bandodkar, whose word is law amongst the NIO divers, has insisted that this second dive should be limited on decompression grounds to half an hour or less – a prudent but in my view unnecessarily zealous interpretation of the nitrogen tables for the depth we are working at. I suppose it was because I was feeling rebellious about this time-limit on the whole dive that I rushed off so fast at the beginning to

attend to my interest in the curved passageway.

Now I am rightly brought to order so that we can all proceed as a group to the second structure. I can see the point of being safety-minded in these conditions. The visibility is extremely bad – almost like being lost in an immense sandstorm but with a different texture. And although the NIO divers have previously rigged a yellow nylon rope as a guideline I still feel disoriented as I follow it. North? South? East? West? Up? Down?

Down is easy. In fact I'm so close to the sea-bed that I'm practically slithering on it and yet it gives me no points of reference because it consists of absolutely and uniformly smooth, flat and unbroken fine-grained sand. The contrast with the stony textures and the bulky solidity and complexity of the U-shaped structure could not be more pronounced.

Then we reach the ‘mound’. Like the U-shaped structure it has an isolated position in the middle of the flat plain with no slope or build-up. A lot of silt and sand has been deposited on it and around it, but there’s no doubt that its core is a massive stony pile. I can make out what seems to be the edge of a wall a metre thick and similar in general appearance to the enclosure walls around the U-shaped structure. Festooned in scorpion fish it rises to a height of about 3 metres above the sea-bed before disappearing into the larger mass of the mound behind it.

Martin shoots this scene but then signals that he is unwell and must return to the boat. Sticking to Bandodkar’s safety rules the entire group leaves the mound and makes the trek back along the rope with him until we come again to the entrance of the U-shaped structure where the buoy-line is anchored. Martin and some of the other divers then ascend.

Stef, who has the camera again, follows me.

Blocks in the passageway

I'm still determined to explore that curving passageway, so I swim south as usual along the west wall. Sundaresh and Stef both keep pace.

I can see the narrow entrance to the passage coming up on my left when I notice something on the bottom to my right less than 2 metres west of the base of the wall. It looks like a small splintered tree stump protruding upwards out of the sand. But it proves to be made of badly damaged and eroded stone. Two more similar objects are near by but none of them in itself seems particularly interesting. Feeling pressured for time, I do not examine them further.

Next I'm into the passageway. Been there. Done that. I want to see where it leads to.

So I follow it all the way through this time and find myself in something like a room, very roughly defined, that seems to be free of the otherwise all-pervasive stony aggregate that so confuses the picture elsewhere on the structure.

Platform? Or enclosure? It would be a funny sort of platform that had an open-roofed room carved out in the middle of it – maybe more than one room for all I know.

For my money, therefore, this is yet another good reason to conclude that the U-shaped structure is an enclosure, that it probably has several internal walls that are presently hidden from view, that it has its main entrance to the north and at least one subsidiary entrance in the west wall, and that either through human or natural agency it has at some point been

partially filled up with stony rubble.

Ah, the freedom and manoeuvrability of diving. On a whim I adjust my buoyancy by breathing in and ascend out of the ‘room’ to a point a few metres above the structure hoping to get a plan view – but once again the awful visibility defeats me and I can see almost nothing.

I drop back down and work with Stef to complete a little sequence of me looking around the ‘room’ then swim out of shot while he finishes filming inside. A moment or two later I see him emerge backwards from the curving passage, still filming, with the camera seeming to focus mainly on the floor and the lower part of the side walls.

On that footage too I will later note something else of interest that I missed in the rush and stress of the day. It’s on just eight seconds of tape.

Instant replay

26 February 2001, 15.56.33–15.56.42

Shot tracks unsteadily along floor of passage and passes across net draped over and partially obscuring change of level and possible step up in floor.

Camera ascends about a metre, shot tracks left of net and picks up a clear line of five blocks emerging from under marine growth. They are dark, almost charcoal black, and brick-sized like those seen on the first dive, but here much more regular in cross-section.

Shot wavers, returns to net, then tracks left again passing the same line of blocks which is now seen to continue to the left by at least a further six blocks, with other courses in outline above and below it, before it disappears under the heavy marine growth again.

Ascent

On the way up we do the routine five-minute stop at 5 metres to reduce our nitrogen levels. The water is very still and warm, the visibility worse than ever, and I drift in neutral buoyancy slowing my breathing, just thinking things through.

It feels strange to have been privileged to see a structure hidden from human eyes for 11,000 years.

A structure more than 7000 years older than the Great Pyramid of Egypt.

A structure for which no archaeological context exists.

A ruined net-draped structure.

A ghost in the water …

More blocks on tape

This was turning out to be a good day for Glaxo Wellcome. After the second dive I took my fourth injection of Immigran at $50 a shot. Then I had to collapse again, sprawled out like a landed fish on the wooden deck of the trawler while the pain in my head gradually dulled and withdrew – only people who suffer from severe migraines will understand the sense of relief and release that I felt as the drug did its work.

By 5.30 I was back on my feet drinking tea and chatting to Kamlesh Vora. At around the same time Martin went down for a short dive in the last of the daylight accompanied only by Gudigar in the hope of getting relatively clean, undisturbed shots of the structure.

When I later came to review these shots I found that they contained a third brief sequence showing construction blocks,

this time of better quality than the previous two. The sequence is timecoded 17.36.15–17.36.29 and Martin seems to be standing on the sea-bed near the enclosure wall:

> The shot starts focused on a small white shell lying on the sand then quite slowly pans across to the base of the wall and holds steady for several seconds on four distinct courses of masonry. Again the size of modern household bricks, perhaps a little larger, the blocks here are extremely regular and almost cylindrical – or cigar-shaped. The exposed sections of each course can be seen to continue horizontally over a width of approximately a dozen blocks until they either vanish out of shot or disappear beneath thicker marine growth.

Mysterious

By profession Kamlesh Vora is a geologist, not a marine

archaeologist, but geology plays an increasingly important role in modern marine archaeological research and is one of several important skills necessary to distinguish whether a disputed structure is natural or man-made. Moreover, Kamlesh had been involved in the very first work that the NIO had ever done at Poompuhur way back in 1981 – long years before the 1991 and 1993 campaigns – and had carried out the initial sonar surveys on which much of the later work plan was based.

I kicked off our interview on the boat with a leading question: 'The ocean is a big place and we see that there are some possible structures here. Have you done any kind of surveying from the surface?'

Kamlesh replied: 'In 1981, when we started marine archaeological explorations in Tamil Nadu, we began with Poompuhur. And we scanned the sea-bed using echosounder

and magnetometer. What we found interesting was that otherwise the sea-bed was flat, even and smooth as far as the echosounder was concerned. But there were a number of anomalous features scattered in the area – some a bit oblong in structure, some like pinnacles – and the echosounder showed the elevation of these features to be in the range of 2 to 5 metres above the bottom. Such outcrops and elevations are not at all to be expected from local geology and we could not comprehend how they had been formed. If they are to be natural extensions of bedrock, then we should see different topography. For example, off the west coast of India we have found pinnacles or things like this because of a number of reasons, and we have collected samples and then done our investigations.'

'And on the west coast they're a natural extension of the rock?'

‘There are basaltic rocks,’ Kamlesh clarified, ‘which may have extensions. And we have found man-made structures underwater in the north-west like Dwarka which, as you know, have come in the last 5000 years …’

‘But the story is different here on the east coast?’

‘This is totally different because we could not give any logical explanation for them. So even during those times we considered them as anomalous.’

‘So, looking at them as a geologist, as you are, you find it surprising that these features are sticking up if they’re purely natural?’

‘Yes,’ Kamlesh replied with a shrug. ‘Only thing during that time is we didn’t have support of diving team. So we could not collect samples and do analysis of the rocks. Even now when we collect it, we could not get the proper rocks for

different kinds of test, so we don't have samples enough to go to some logical theory on that.'

'This U-shaped structure that we've just been diving on,' I asked, 'was it identified in that survey?'

'Yes. And totally up to twenty structures were identified round about.'

'But you've not had a chance to dive on the other ones?'

'No,' said Kamlesh, 'we didn't get the opportunity to come back and work like this. So maybe in future we shall come and concentrate on them. Then also we should seek information and try side-scan sonar surveys and diving to see if there are other structures in other areas along the coast. Because this one place may be in isolation. But if there are three or four other major groups of structures in other locations …'

He looked out to sea and stopped speaking without completing his sentence.

‘It feels to me like a very exciting area,’ I offered after a moment, ‘with so many, as you say, anomalous structures And they are anomalous. We don’t know what they are. But it seems to me an area that deserves more attention.’

‘Mysterious,’ Kamlesh replied after a moment more.

The mound at 27 metres

When we were parting company with our NIO friends well after nightfall on the darkened beach, Gaur took me aside to tell me that he had remembered a dive done during 1993 at Poompuhur that might be of interest to me. The dive had been a first exploration, never subsequently followed up, to

check out one of the anomalous mounds in 27 metres of water – 4 metres deeper than the U-shaped structure. Gaur had not dived on this deeper structure himself but had been told about it by colleagues who had: ‘It was a heap,’ he said, ‘of things … It’s quite high. I mean 2 metres high.’

‘Is it in the same general area as the U-shaped structure?’ I asked.

‘No,’ Gaur replied. ‘It’s further out. A 4 metre difference in depth here means you have to go out at least another 500 to 600 metres.’

‘All the more obvious, then, that there’s a need for a really extensive survey and much more marine archaeology here …’

‘I agree,’ said Gaur, ‘even if only to prove that these things are not man-made.’

Secrets of the Reinal map

February/March 2001

Readers will recall that three days before our dives at Poompuhur I had received an e-mail from my researcher Sharif Sakr concerning an intriguing Portuguese map – the Reinal map of the Indian Ocean, dated 1510. But not until I was back in England at the beginning of March did I have the time to consider in detail what Sharif had to say about it or compare his attached scan of the Reinal map and other maps that he mentioned with Glenn Milne's sequence of inundation maps covering the end of the last Ice Age.

Sharif Sakr to Graham Hancock

23 February 2001

Hi Graham,

I've noticed an interesting correlation between the Jorge Reinal map of 1510 (see attached scan from facsimile in Hapgood, fig. 77) and Glenn Milne's inundation maps of India. It is perhaps not immediately obvious, so please let me know what you think. (There is a good facsimile of the Reinal 1510 in vol. 1 of the *Portugaliae Monumenta Cartographica* in the Bodleian Library, Oxford and I've ordered a reproduction. Until it arrives we must rely on the tracing in Hapgood, which lacks detail but is basically accurate.)

I was first attracted to the Reinal by its remarkable accuracy, and its obvious relationship to the Cantino 1502, and also the Ptolemaeus Argentinae 1513. While the map is not as accurate as the Cantino in terms of the ratio of India's long and lat extensions, it is nevertheless an amazing development relative to the older Ptolemaic model, especially considering that Portuguese naval exploration of India only began after 1498. E. Kemp *(Asia in Maps)* suggested that Cantino's depiction of India came not from Portuguese observation but from contacts with the traders of Calicut –

perhaps Reinal's map of India was based on the same sources (and perhaps these sources were the Indian Ocean nautical charts mentioned by Polo?).

Despite the map's general accuracy, there are a number of glaring mistakes. Firstly, at the precise latitude of the mouth of the Indus there is a large gulf rather than the delta which exists today. Secondly, moving south along the map, Reinal makes the same mistake as the author of the Cantino, and fails to show the important Kathiawar peninsula or the gulfs (Kutch and Cambay) that flank it. Instead, Reinal has given this north-west corner of India a distinct bulge, such that it appears 'fatter' than it should. Thirdly, Reinal has apparently ignored the proper portolan convention of depicting very tiny islands (too small to be drawn to scale) as crosses (or some other diagrammatic symbol) and has instead drawn the Lakshadweep and Maldives as rather large islands – far larger than they really are. Lastly, Reinal has failed to give the southern tip of India its proper south-easterly orientation. Instead, he has given it a south-westerly orientation, and distinct 'lips' which make it look like an open mouth, ready to bite off the

top of the Maldives.

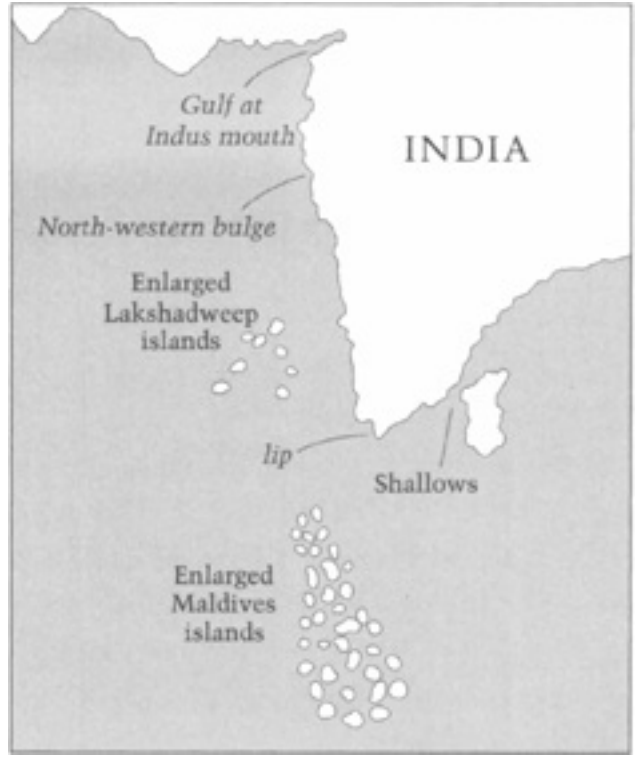

Outline of India's coastlines in Jorge Reinal's map of AD 1510, based on tracing by Charles Hapgood (1966).

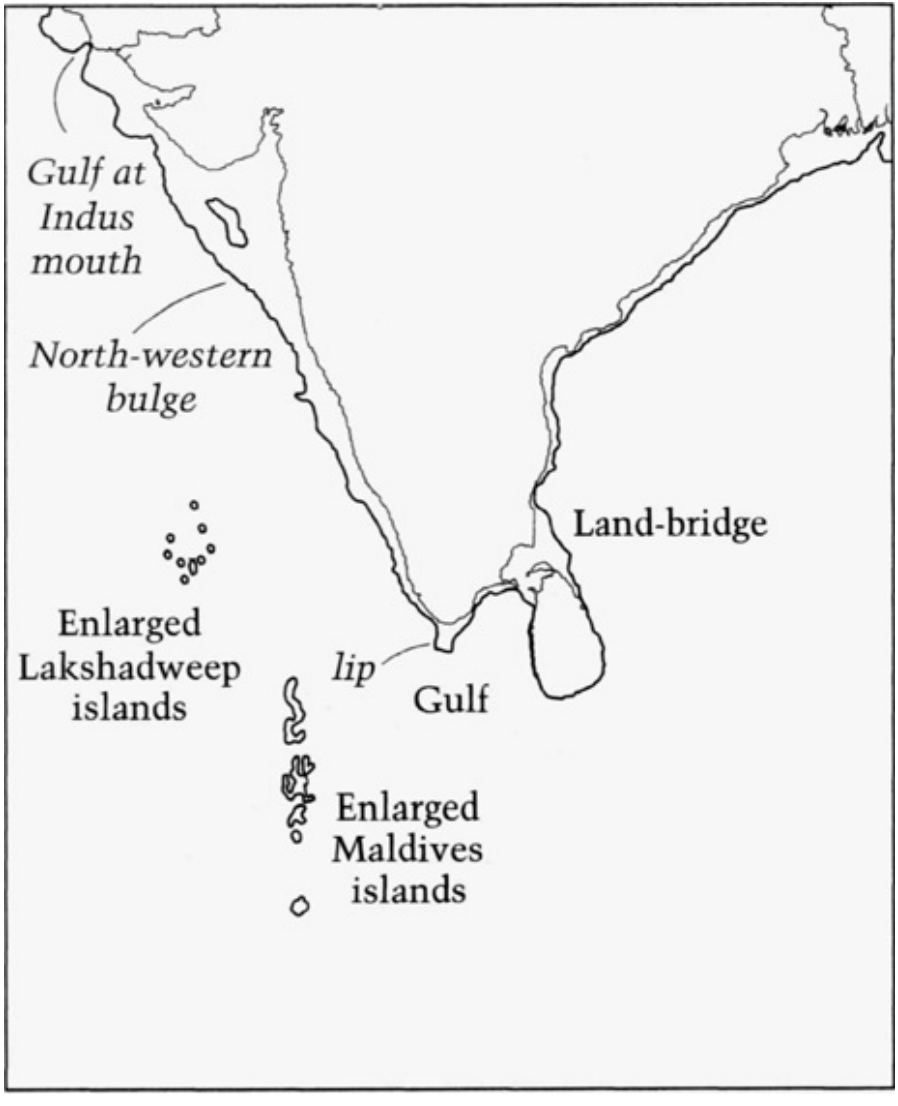
Gulf at
Indus
mouth
North-western
bulge
Land-bridge
Enlarged
Lakshadweep
islands
lip
Gulf
Enlarged
Maldives
islands

Outline of India's western coastline as it was 21,300 years ago.

While these deviations are all errors relative to a modern map of India, they in fact match up extremely well with Glenn Milne's map of India 21,300 years ago at LGM. This inundation map shows a large indent at the mouth of the Indus, a bulge obscuring completely the Kathiawar peninsula, enlarged Lakshadweep and Maldive islands, and, most surprisingly, a SW-pointing 'mouth' shape at India's southern tip that is virtually identical to that shown by Reinal. (Note that the 'errors' match up even better with a basic bathymetric map of India that shows the very distinct outer shelf, which I use as a kind of benchmark for the basic shape of India's coastline around LGM.) As you travel in time through the sequence the correlation is still good 16,400 years ago but is gone by 13,500 years ago when a large island appears south of the Kathiawar peninsula.

The correlation is not perfect – the inundation maps show a clear land-

bridge between India and Sri Lanka, whereas Reinal has not drawn a land-bridge. Being Portuguese and living during the exciting time of the Portuguese discovery of India, Reinal would have been a laughing stock if he'd failed to depict the island of Ceylon. Curiously, however, Reinal has drawn dots in the shape of the land-bridge across the Palk Strait, giving the impression that Ceylon is too close to the mainland. Perhaps Reinal was indicating dangerous shallows. But a glance at my bathymetry data suggests there are no such shallows – most of the Strait is over 6 m in depth. Alternatively, Reinal may have wished to indicate tiny islands, but even this would have been inaccurate, as the real distribution of islands in the Palk Strait today is nothing like the shape of Reinal's dots or of the land-bridge that would have existed at LGM. So I wonder why Reinal drew these dots between India and Sri Lanka – was he perhaps trying to reconcile common knowledge of Ceylon as an island with other sources that depicted a land-bridge?

A final point of interest is that as the years went on, after 1510, Reinal

began to correct all the mistakes described above (for example he added the Gulfs of Kutch and Cambay). But as he made these corrections, the basic outline of India actually *worsened* rather than improved. To me, this suggests that the earlier 1510 map was based on the same unknown sources as the Cantino (very accurate in terms of long and lat, but with some strange features), whereas the later maps were based on contemporary Portuguese observational mapmaking and all its inherent weaknesses. Regards, Sharif

Although Hapgood had reproduced the Reinal map, he had analysed it only from the perspective of its mathematics and inclusion of anachronistic geographical knowledge (e.g., of Australia, not discovered at that time).[3] He had not considered the possibility of a correlation between the way in which it portrayed India and the actual appearance of the Indian coastline during the Ice Age. On the contrary, he

concluded:

> It seemed evident to me that this map showed much more geographical knowledge than was available to the Portuguese in the first decade of the sixteenth century, and a better knowledge of longitudes than could be expected of them. The drawing of the coasts, however, left much to be desired. The map looked much like a map, once magnificently accurate, that had been copied and recopied by navigators ignorant of the methods of accurate mapmaking.[4]

So Sharif's approach to the Reinal map did not duplicate Hapgood – something that I was determined to avoid – but looked at its depiction of India in the light of the new science of inundation mapping that had already provided us with an extremely effective and revealing research tool.

I agreed with Sharif that in the light of that science Reinal had in fact drawn a weirdly accurate map of the south-west,

west and north-west coasts of the Indian subcontinent between roughly 21,000 and perhaps 15,000 years ago. It was also potentially the strongest lead that I had seen for a long while on the extraordinary possibility that accurate maps could have been made of the world during the Ice Age and that some copies of these maps could have survived and got into circulation again – always in use and subject to constant modification – during the European Age of Discovery.

Maps of the Mediterranean and the Indian Ocean.

Maps of the Pacific and the Far East.

Maps of the North.

Maps of Africa.

Maps of the Americas and the Atlantic – perhaps including the map, never found, that Columbus is rumoured to have

used to guide his journey to the New World in 1492.

Even maps of Atlantis …

I decided to investigate further.

Cambay: another ghost rising from the deep?

May 2001

Our final filming trip to India, which would focus on Dwarka, and inland Harappan sites such as Dholavira in Gujerat, was scheduled for November 2001, still many months away.

Then in May, although hardly reported at all by the international media, the following story made headline news in the Indian press:

The Times of India

Saturday 19 May 2001

HARAPPAN-LIKE RUINS DISCOVERED IN GULF OF CAMBAY

In a major marine archaeological discovery, Indian scientists have come up with excellent geometric objects below the sea-bed in the western coast similar to Harappan-like ruins.

'This is the first time such sites have been reported in the Gulf of Cambay,' Science and Technology Minister Murli Manohar Joshi told reporters.

The discovery was made a few weeks ago when multi-disciplinary underwater surveys carried out by the National Institute of Ocean Technology (NIOT) picked up images of 'excellent geometrical objects', which were normally man-made, in a 9-kilometre stretch west of Hazira in Gujerat.

'It is important to note that the underwater marine structures discovered in Gulf of Cambay have similarity with the structures found on land on archaeological sites of Harappan and pre-Harappan times,' Joshi said.

> The acoustic [sonar] images showed the area lined with well-laid house basements, like features partially covered by sand waves and sand ripples at 30–40 metre water depth.
>
> At many places channel-like features were also seen indicating the possible existence of possible drainage in the area, he said.
>
> Possible age of the finds can be anywhere between 4000 and 6000 years, Joshi said, adding the site might have got submerged due to a powerful earthquake.

This guess seems perfectly reasonable in line with the orthodox chronology of Indian history and prehistory. But it is also perfectly wrong.

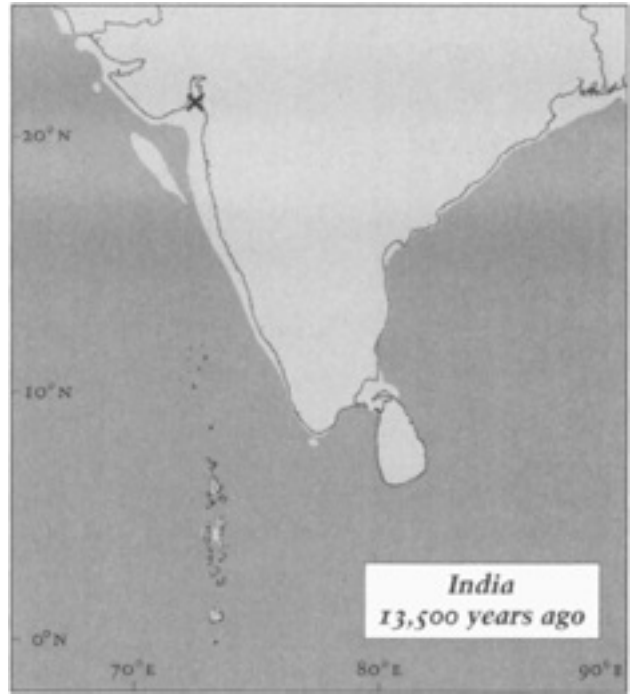

Cross marks position of Cambay underwater site discovered by NIOT.

What Joshi could not have known without studying inundation maps first is that earthquakes or not (and admittedly this part of India does suffer from severe earthquakes) no site *anywhere* in the Gulf of Cambay could possibly have been above water as recently as 4000 years ago – although 6000 years ago is getting closer. As we have seen, the Gulf of Cambay remained a valley until it was completely flooded by rising sea-levels at some point between 7700 years ago and 6900 years ago.

Then we must consider the scale of the ruins that the researchers from the National Institute of Ocean Technology seem to have identified – this city that is now underwater extends continuously for 9 *kilometres*, meaning that it is many times larger than Harappa or Mohenjodaro or any other city of the Indus-Sarasvati civilization yet discovered.

Think how long it takes to build a city 9 kilometres long. A

long time, surely? So even if the Gulf of Cambay was flooded at the latest possible date indicated by Milne – 6900 years ago – we cannot reasonably suppose that the construction of this enormous metropolis could have begun only one or two centuries before that. Surely it would require a millennium, maybe much longer, to build a city so big?

But if we allow a millennium, then that takes us back to somewhere around 8000 years ago – 6000 BC – as the very latest date at which the city beneath the Gulf of Cambay could have been founded.

A city 9 kilometres in extent and more than 3000 years older than Harappa and Mohenjodaro would rewrite not only the history of the Indian subcontinent but of the world.

It was the Holy Grail, all over again.

PART FOUR

Malta

15 / Smoke and Fire in Malta

> Lord grant him eternal rest.
>
> SCICLUNA – COMMENDATORE SALVINO ANTHONY, passed peacefully away at St Luke's Hospital on June 11, aged 73, comforted by the rites of Holy Church.
>
> *Sunday Times of Malta*, 18 June 2000

> There is nothing looking remotely like one of these temples outside the Maltese Islands.
>
> D. H. Trump

8 November 1999

Some months begin badly, then get worse. November 1999 was like that for me.

It started when *Horizon*, BBC TV's flagship science series,

aired ‘Atlantis Reborn’ – a one-hour blitzkrieg on my character, my reputation and my work.[1] But life had to go on, and *Underworld* was not going to research and write itself.

A central part of my research task, as I define it, is to check out personally -by scuba-diving – any and every sighting of anomalous underwater ruins that comes to my attention. On 8 November 1999, therefore, just four days after being blitzed by *Horizon*, a sense of duty compelled me to fly to Malta to follow up a story that was then circulating on the Internet. Accompanied by ambiguously blurry colour photographs captured from videotape, the story concerned the discovery – by a German named Hubert Zeitlmair – of a ruined megalithic temple 8 metres underwater off Malta’s north-east coast.

I had contacted Zeitlmair, and Santha and I had arranged to meet him on our arrival in Malta later that afternoon. But now, as I passed the flight reviewing the thin file of documents I had downloaded to my laptop, I had to admit that the auspices were not encouraging.

A joke or a hoax?

For example, in various unexplained but worrying ways something called the 'Palaeo-Astronaut Society' was involved – thus virtually guaranteeing that the academic authorities would treat the discovery as a joke or a hoax, irrespective of any merit it might have. Moreover, it very probably was a joke! By this time I had done enough diving to know that 99.999 per cent of all mysterious 'man-made' structures sighted underwater prove to be just weird geology or tricks

of the light combined with wishful thinking. Only a tiny fraction check out, and these are usually found by level-headed professional divers with no particular theories to promote.

As he was presented on the official 'Maltadiscovery' website, Hubert Zeitlmair seemed the antithesis of all that. He was described, unpromisingly, as a 'real-estate investor', a 'part-time archaeologist', and a 'fan' of author Zecharia Sitchin (who believes that extra-terrestrial beings had a hand in the construction of megalithic sites around the world). Perhaps this was why Zeitlmair had chosen to announce his discovery of the Maltese underwater temple 'at a meeting of the Palaeo-Astronaut Society' in his home town of Augsburg, Germany on 18 August 1999:

> The final dive that led to the discovery took place on July 13, 1999 at

10:00 AM; and subsequent dives and underwater photography confirmed the nature and megalithic size of the structures.

The temple sits on an underwater plateau about 500 to 900 metres long. The lowest point of the plateau is more than 25 metres below sea level and the highest point of the plateau is about 7 metres below sea-level.

The structure itself shows the same characteristics as the other above-ground temples on Malta. Gigantic stone blocks aligned with astronomical significance, thought to be used as a calendar. The basic diameter of the interior rooms are 6–7 metres and some of the highest walls that are still standing are about 4–6 metres high. There is an avenue that goes up the centre of the structure indicating an orientation to the equinoxes. There are kidney-like formed rooms orientated to an easterly direction, which would coincide with the rising sun and the winter or summer solstices. The main difference is this structure is underwater.

Since the structure, as the others on Malta, had to be first built on solid ground, its present underwater position could result from either the sinking

(due to earthquakes?) of coastal parts of the island, or from a marked rise in the sea-level (due to an immense flooding).

Dr Zeitlmair adheres to the second possibility, and wonders whether the cause was the Great Flood described in the Bible and in the lore of many ancient peoples, the so-called Noah's Flood.

He is inclined to this explanation because the west side wall of the structure is more overgrown by sea grass than the east side wall, apparently because there was more sand deposited on that side. Therefore, the stones on the east side are mostly free of sea grass. This could indicate that the destructive water flow came from the west into the Mediterranean Sea, adding confirmation to theories that the water broke through the Strait of Gibraltar, filling the Mediterranean basin. A couple of big stones were lifted up and dropped down in a valley below, apparently by the destructive water flow.[2]

‘Great interest amongst foreign archaeologists …’

The website also reprinted and translated a number of articles about the discovery that had recently appeared in the press. I’d put these on to my laptop as well and now scrolled through them to see if they had anything to add.

From II *Mument* (Maltese national newspaper), 31 October 1999:

> Recently, structures that resemble megalithic temples have been discovered on the sea-bed in Maltese waters. These are currently being studied to establish whether they are actually unique megalithic temples.
>
> This discovery has been considered to be of great archaeological importance, and has raised great interest amongst foreign archaeologists …
>
> The discovery was made on the 13th of July 1999 at 10 a.m. and was photographed. The diver/cameraman who filmed the structures was Shaun

> Arrigo, while the photographer who took the photos was his brother Kurt …

So two Maltese diver-photographers, the brothers Shaun and Kurt Arrigo, had been involved with Zeitlmair in the discovery – and had in fact taken the blurry photographs that I had seen on the web.

I would need to contact them.

'The age for the megalithic temples must be changed …'

What next? I scrolled quickly through another article in the file. It had appeared in the periodical *Maltamag* and contained an interview with Zeitlmair. But in the preamble written by reporter Daniel Mercieca, my eyes were drawn to this paragraph:

During a meeting with Joseph S. Ellul, a Maltese who has dedicated his life to the study of prehistoric constructions, Dr Zeitlmair was shown a 1933 photo taken by the Royal Navy. This picture seemingly showed a megalithic construction below the surface. Ellul confided to Dr Zeitlmair that he had proposed to the local authorities concerned to start research on site. Unfortunately, his suggestion was never taken up, his numerous letters being left unanswered.

In the interview Zeitlmair commented:

Following my meetings with Joseph S. Ellul I strengthened my determination and contacted various people about the subject. This led to the formation of a team all set towards one goal – uncovering a temple under sea water. After several futile attempts at locating the site, success came on July 13th, 1999 at 10 a.m. *Where exactly is the site of the discovery!*

It is located some mile and half off the Sliema coast … Incidentally, when I first came to the islands, I was residing at the Diplomat Hotel in Sliema,

where I occupied a room with a superb sea-view. Now that the temples have been located, I realize that the answer was lying under my nose for so long!

What accounts for the site being underwater?

Though further investigations have to be made, the Ice Age is most likely the correct answer to this. The last Ice Age ended around 13,000 years ago. Hopefully studies will prove that the 'temples' date back to that period.

Could these findings change Malta's history as we know it!

Most certainly – and not only Malta's! The age for the megalithic temples must be changed to 12,000 or 13,000 years ago. And the same applies to all the artifacts recovered from those periods. Malta may indeed prove that the earth's history as we know it must be changed.

Now I had a new name – Joseph Ellul – to add to the list of contacts who I would need to chase down in Malta, and new doubts about the exact provenance of whatever it was that

had been discovered underwater off Sliema. For if the press reports were correct, then: (a) Zeitlmair had *not* shot the original video footage and photographs of the site (these were the work of Maltese divers Shaun and Kurt Arrigo); (b) Zeitlmair had got the idea for the location of the site from a Maltese prehistorian named Joseph Ellul; and (c) Joseph Ellul was in possession of an aerial photograph of the north-east coast of Malta that actually showed the location of the site about a mile and a half off Sliema …

'Confused …'

The last article in my file was a sarcastic piece by Mark Rose in *Archaeology*, the journal of the Archaeological Institute of America. Entitled 'The Truth, And Some Other Stuff, is Out There' it made heavy weather of Zeitlmair's ancient-astronaut

enthusiasms and pointed out that:

> Chronology appears to be somewhat confused in Zeitlmair's interpretation. According to the website, he sees links between the submerged 'temple' and both Noah's Flood and the rise in sea-level following the end of the Ice Age. Furthermore, the presence of deeper sand deposits on the west side of the 'ruins', the side toward Gibraltar, than on the east side is taken as an indication that the flooding of the Mediterranean by Atlantic waters (which really did occur) was involved in the inundation of the 'temple'. The Mediterranean flooding, however, took place some five million years ago.
>
> The Maltese Museum Department's archaeology curator Reuben Grima has visited the site, and was unconvinced that the stones on the seafloor are indeed a temple, according to archaeologist Anthony Bonanno of the University of Malta. Bonanno himself is skeptical of the find, noting that even if there is a submerged structure it does not mean the temples need to be re-dated.[3]

Two more names for my list: Reuben Grima and Anthony Bonanno.

The complete list now included Shaun Arrigo, Kurt Arrigo, Joseph Ellul, Reuben Grima, Anthony Bonanno. And, of course, Hubert Zeitlmair – whom Santha and I had arranged to meet in the coffee lounge of the Diplomat Hotel in Sliema soon after our arrival.

Our plane was coming in over Malta now, gear down, ready to land. The island blazed white with reflected light from its limestone outcrops and cliffs. The sky was clear. The surrounding sea was deep blue and flat calm. Despite warnings that November is an unpredictable month in this part of the Mediterranean, I had every reason to hope that we might be able to dive the next morning and settle the matter of the underwater temple once and for all by thoroughly exploring and photographing it.

But it wasn't going to be quite as easy or as straightforward as that.

Bird's-eye view … (1)

Malta, 24 June 2001

I'm on board a helicopter – an old Soviet Mi8 with masses of room inside for troops and great visibility out of the open door and rear window. It's been converted for commercial use and I know for a fact that it served for several years as an air taxi in Bulgaria before ending up in Malta. Normally it flies passengers between Malta and Gozo but this afternoon, thanks to Channel 4, we have the exclusive charter of it for an hour.

We take off from Luqa airport, hop straight up into the air

50 metres, circle widely, then head north-east across the township of Paola that separates two of Malta's extraordinary prehistoric monuments – the Hypogeum of Hal Saflieni (fully carved out of the living rock *underground* and thus not visible from the air) and the majestic Tarxien temple complex with its apsidal ('kidney-shaped') rooms, graceful spirals carved in relief, looming 'mother-goddess' figures and gigantic megaliths.

Archaeological consensus dates Tarxien to between 3100 and 2500 BC while the Hypogeum is thought to be a few hundred years older – with parts of it perhaps going back as far as 3600 BC.[4] Such a range of dates ranks these structures amongst the very oldest examples of monumental architecture yet to have been discovered anywhere on earth.

And the problem is that they are clearly not the work of

beginners. The megaliths, some weighing 20 tonnes, perfectly balanced and integrated with one another in complex walls and passages, are hewn from the hard coralline and globigerina limestone with which Malta is plentifully endowed and which to this day affords the inhabitants their primary source of building materials. But now it is sawn up into manageable blocks weighing only a few kilos and barely half a metre in length.

We continue north-east across Grand Harbour to hover at 200 metres above the fairytale city of Valletta. It is much younger than the temples, belonging in every sense to a different epoch of the earth, with most of its labyrinth of narrow alleyways and shadowed courtyards dating from the sixteenth century AD or later. Yet Grand Harbour, now gleaming with gantry cranes unloading great container ships, was once itself the site of a megalithic temple – the remains

of which are believed to lie underwater, buried in deep silt and rubble, at the foot of Fort Saint Angelo.[5] According to an eye-witness report by Jean Quintinus, this prehistoric temple extended over ‘a large part of the harbour, even far out into the sea’ as late as AD 1536. In 1606 Megeiser could still see enough to note that it was constructed of ‘rectangular blocks of unbelievable sizes’. And even in the nineteenth century visitors reported ‘stones five to six feet long and laid without mortar’.[6]

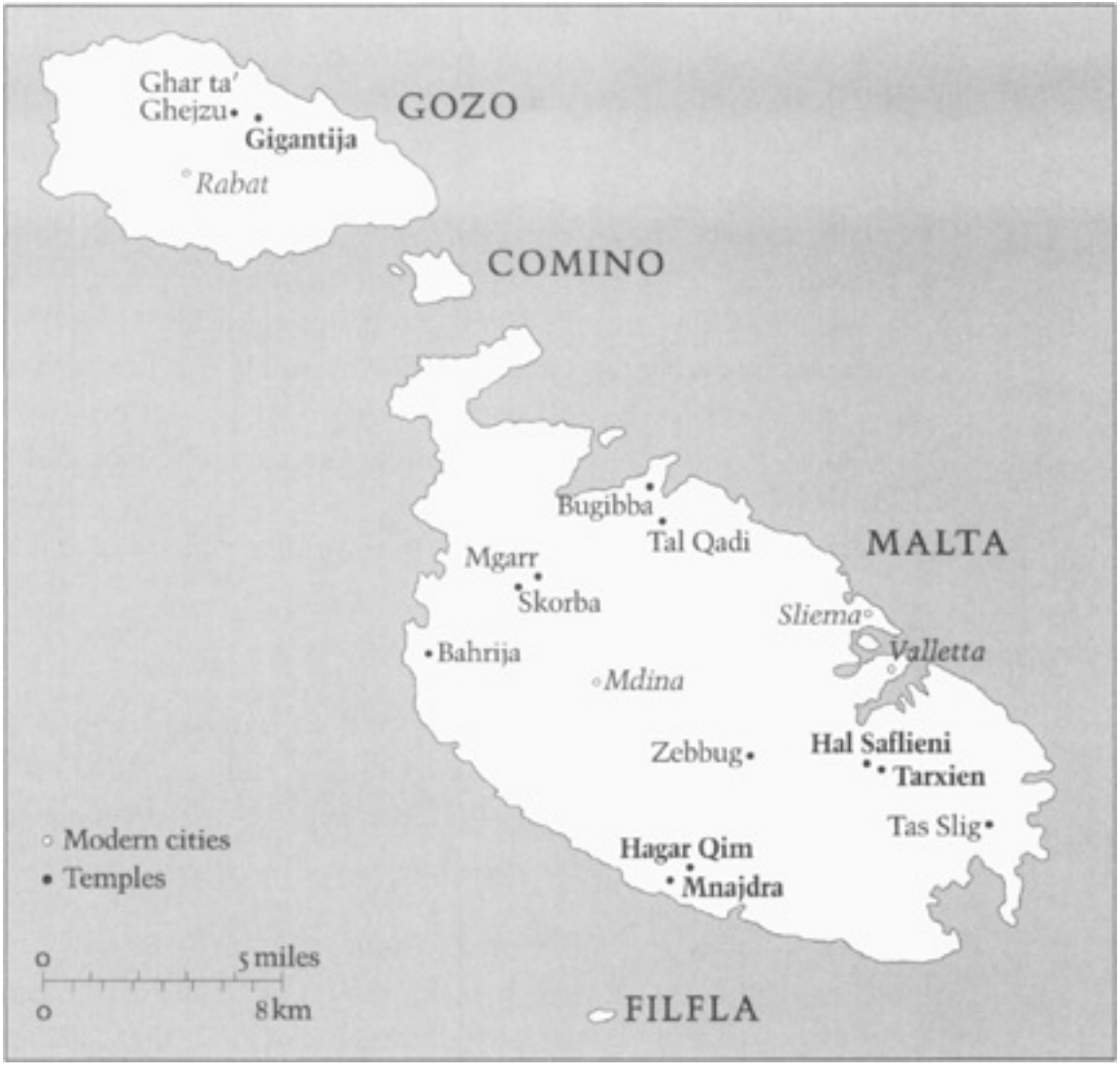
Ghar ta' Ghejzu
Gigantija
Rabat
GOZO
COMINO
Bugibba
Tal Qadi
MALTA
Mgarr
Skorba
Sliema
Valletta
Bahrija
Mdina
Zebbug
Hal Saflieni
Tarxien
Tas Slig
Hagar Qim
Mnajdra
FILFLA
Modern cities
Temples
0
5 miles
0
8 km

That nothing is left of the temple today does not surprise me. Since my first research visit to Malta in November 1999 I've learned that objects – and even places – of archaeological importance can and do disappear here in mysterious ways. For example, ancient remains of an estimated 7000 people were found in the Hypogeum of Hal Saflieni, buried in a matrix of red earth, when it was excavated by Sir Themistocles Zammit at the beginning of the twentieth century.[7] Today only six skulls are left, stashed out of public view in two plastic crates in the cavernous vaults of Malta's National Museum of Archaeology. Nobody has the faintest idea what has happened to all the rest of the bones. They've just 'vanished', according to officials at the Museum.[8]

And the six skulls? After much pressure and protest I have been allowed to see them only this morning and they are – I

must confess – extremely and unsettlingly odd. They are weirdly elongated – *dolichocephalic* is the technical term but this is dolichocephalism of the most extreme form. And one of the skulls, though that of an adult, is entirely lacking in the *fossa median* – the clearly-visible 'join' that runs along the top of the head where two plates of bone are separated in infancy (thus facilitating the process of birth) but later join together in adulthood. I should be paying attention to the fantastic views and seascapes unfolding beneath the helicopter but I keep on wondering: what would people with skulls like that have looked like during life? How could they have survived birth and grown to adulthood? And did the other skulls from the Hypogeum – the lost skulls, the lost bones – also show the same distinctive peculiarity?

Still at 200 metres, the helicopter is now flying north-west from Valletta to Sliema, following the contours of the coast,

taking me over waters that I've dived in many times since November 1999 following the trail of Hubert Zeitlmair's elusive temple …

Hubertworld … (1)

Malta, 8 November 1999

Zeitlmair met us, as we had arranged, in the coffee lounge of the Diplomat Hotel in Sliema. He proved to be a tall, rather dashing man in his mid-forties with long, well-groomed, salt-and-pepper hair, stylish clothes, a soldierly bearing and an impressive moustache. Within a few minutes it had also become obvious that he was severely sight-impaired, if not entirely blind, and he explained, without rancour, that this was the result of a viral infection of the eyes that he had

suffered during a period of military service.

I ventured that his disability must have made diving very difficult – when he was searching for the underwater temple. But he shrugged off my concerns. ‘Of course,’ he explained, ‘I didn’t dive myself. I wouldn’t have been able to see a thing. I guided the divers to the site and they went down to take the photographs and get the evidence.’

‘You mean Shaun and Kurt Arrigo?’

‘Yes,’ Zeitlmair exclaimed in the manner of a man suppressing a sneeze, ‘the Arrigos.’

Until that moment I thought I had come to Malta to dive with Hubert Zeitlmair, the discoverer of the submerged temple off the Sliema coast. Indeed, we had discussed the matter by telephone and he had confirmed that a boat and tanks for up to four dives had been arranged for the

following day for that specific purpose. The fact that Zeitlmair himself turned out to be a blind non-diver did not necessarily jeopardize those arrangements, of course. Nevertheless, I thought it was time for some clarification.

‘So well be diving with Shaun and Kurt Arrigo tomorrow?’ I asked. ‘They’re the ones who know the location?’

‘I know the location,’ asserted Zeitlmair into his cappuccino. ‘It was I who led the Arrigos to it in the first place …’

‘No offence,’ – I had to ask – ‘but how did you do that? I mean, since your eyesight is so poor, how did you manage to lead them there?’

At this point Zeitlmair conjured from his briefcase a magnifying glass and a large black-and-white aerial photograph of the coast of Malta between Valletta and

Sliema. As he rolled the photograph out on the table between us he said, ‘I was able to lead them to the site because of the indications … here.’ Squinting his eye to the glass and lowering his head he eventually found what looked to me like a pattern of white dots on the photograph in an area of open sea north-east of Sliema. ‘This is the site of the temple,’ he announced. ‘The photograph was taken by the British Royal Navy some time before World War II. The sky and sea were exceptionally clear, and the site became visible to the camera through the water …’

Well … Maybe. Or maybe it was just light reflecting off dust on the lens.

‘Is this the photograph you got from Joseph Ellul?’ I asked

‘Yes, from Ellul. That’s right.’

We then entered into a long, rambling, muddled discussion

about who had discovered what. I was on autopilot through most of this, but the gist of it was Zeitlmair's claim to have developed a theory concerning the locations of Maltese megalithic sites which predicted the presence of a structure underwater off Sliema. The theory had to do with the well-known 'pairing' of temples in Malta, one on high ground and the other in the valley below it (as is the case at Skorba and Mgarr, for example, or at Hagar Qim and Mnajdra).[9] To this day I cannot understand which temple exactly Zeitlmair has in mind for the high ground around Sliema, and I am not clear whether his theory takes into account the ancient traditions of a megalithic temple in Grand Harbour. Still, what he's getting at is completely obvious: when sea-level was lower 12,000 or 15,000 years ago, the reefs around Malta, now submerged to depths of 100 metres or so, would all have been above water and the pleasantly sloping valley

below Sliema might have seemed an ideal spot in which to build a temple.

As Zeitlmair told it, he was already geared up to fund a diving expedition off Sliema in order to test this theory; indeed, had bought a flat in Sliema to use as a base for the expedition, when his providential meeting with Joseph Ellul occurred. Ellul showed him the Royal Navy photograph which, he was convinced, pinpointed the exact place off Sliema in which the expedition should dive – roughly 2.5 kilometres from land along a bearing 65 degrees north-east off Saint George's Tower.[10]

'Although the location is quite far from shore,' Zeitlmair continued, 'where the water is generally more than 40 metres deep, I reasoned that there must be some sort of reef or shallows there to show up so clearly on the photograph -

maybe a little sea-mount, or something like that, a high point standing above the surrounding valley, just the sort of place the temple builders would have appreciated … Then I hired the Arrigos to get me to the site in their boat and to search the bottom with an echo-sounder. I figured if the echo-sounder suddenly started giving shallow readings in an area of generally deep water, and if we were about 2.5 or 3 kilometres from shore, then we would have found the right place.'

I frowned: 'But why did you need the echosounder? Surely a shallow spot like that would show up on nautical charts? If it's charted you should be able to set a course straight to it. No need to search.'

Zeitlmair shrugged: 'It is not charted … But still it is there. You will see tomorrow.'

Bird's-eye view … (2)

Malta, 24 June 2001

The helicopter is at 200 metres, flying north-west from Valletta to Sliema about 1 kilometre from shore. To our right is the open ocean – and somewhere out there the 'sea-mount' that shows up as a glimmer of pale dots on the Navy photograph. Was it ever a real place? Or just a trick of the light?

Despite the bad start that I undoubtedly made with Zeitlmair and the Arrigos in November 1999, my confidence has been growing for more than a year now that there could, after all, be something solid behind all the rumours of an underwater temple off Sliema …

The case of Commander Scicluna

Malta, 15 June 2000

Joseph Ellul looks as old and as sturdy as a megalith, and his house in the sunlit village of Zurrieq is named after the nearby temple at Hagar Qim – to the study of which he has devoted most of his life. He speaks loudly, has certain eccentric mannerisms, and once launched on the subject of Malta's prehistory increases enormously in size and becomes unstoppable.

Ellul's particular theory – based in some obscure way that I do not understand on the differential weathering-rates of coralline and globigerina limestone – is that the megalithic temples of his native islands were originally built more than 12,000 years ago by a prehistoric civilization, and were much

later destroyed by the biblical deluge (which, he reckons, took place 5000 years ago]. Ellul sets out this theory in his 1988 book *Malta's Prediluvian Culture at the Stone Age Temples* – a book that has been entirely overlooked by archaeologists because of its cranky Creationist approach and unfortunate emphasis on an impossible mechanism for the deluge. This mechanism, in Ellul's opinion, was a cataclysmic penetration of the Straits of Gibraltar by the Atlantic Ocean 5000 years ago, resulting in instant flooding, from the west, of the previously dry Mediterranean basin. Such a penetration (as Michael Rose points out in the journal of the Archaeological Institute of America cited earlier) did indeed occur – 5 million years before Ellul suggests.

Other aspects of Ellul's theory are less far-fetched and he has some well-reasoned arguments about flood damage at Hagar Qim – but this was not what I had come to talk to him

about that day in June 2000 on the second of my three big research visits to Malta. Having failed to make contact with him in November 1999, I was here now exclusively to find out if he could shed any fresh light on the mystery of Zeitlmair's missing underwater temple. It immediately became obvious, however, that Ellul did not regard the temple as in any way being 'Zeitlmair's', or missing, and that he clearly felt aggrieved about how his own role in the discovery had been interpreted.

Muttering in Maltese, he shuffled to a wardrobe positioned in the hall outside his kitchen and took down from it a rolled photographic print. It proved to be another, larger version of the aerial view of the Sliema coast that Zeitlmair had shown me the previous November. At the foot of it Ellul had drawn in a scale by hand and had typed the following legend: 'Undersea Prehistoric ruins situated at Direction Bearing 65

degrees NE of St George's Tower, 2.5 kilometres from land at a depth of 25 feet'.[11]

I was puzzled by one of the figures and asked: 'You got the depth from Zeitlmair, I suppose, after the Arrigos dived on the temple in 1999?'

Ellul favoured me with a sinister smile. 'No,' he replied, 'I got the depth from another Maltese diver, Commander Scicluna, in 1994.'

He shuffled off and returned with a much marked and tagged copy of his book in which he had been incorporating corrections for a new edition. He opened the book and from a small stack of papers folded inside the front cover pulled out a press clipping. The clipping, from the letters page of the *Sunday Times* of Malta, was dated 20 February 1994 and was a response to an article on the subject of sea-level rise that

had appeared in the paper on 13 February 1994:

SEA-LEVEL CHANGES

From Comm. S. A. Scicluna

THE ARTICLE 'Sea-level changes of the past and present' by Peter Gatt (the *Sunday Times*, February 13) indicates that Malta's shores are going down at the rate of 2 mm a year … This is taking place in many Mediterranean countries, especially in Sicily, which is very close to us. At Marsameni and Motya, the evidence is very clear because both of them are now underwater.

In Malta this evidence is also clear. There are three sites which are now completely under water: the oil wells at Saint George's Bay in Birzebuga (mentioned by P. P. Castagna in *Malta u il-Gzejjer Tagha), a* rock-cut tomb in Sliema (exactly like the ones in Bingemma) – this is now in 25 feet of water; *and a prehistoric temple I located last summer under* 25 *feet of water, also at Sliema.*

> I myself reported this find to President Tabone, to Dr Michael Frendo, Minister of Youth and Arts, and to Dr Tancred Gouder, Director of Museums.
>
> S. A. Scicluna,
>
> Sliema

Commander Scicluna, eh? Another name for my list. Plus of course President Tabone, Dr Michael Frendo and Tancred Gouder. It would be interesting to learn if any of these three, presuming they were still with us, had done anything at all to follow up Scicluna's claim to have found a temple underwater off Sliema.

Because unlike Zeitlmair, whose zany associations with ancient astronauts must not be held against him – but who unfortunately could not dive – it transpired that Scicluna was an archaeological diver of some renown who had led several

underwater expeditions and received commendations from the British Navy and from the British Committee of Nautical Archaeology.[12] When such a suitably qualified and experienced man chooses to state in a national newspaper that he has found a prehistoric temple underwater, it is appropriate that he be taken seriously.

But had he been? After parting company with Ellul and returning to the flat that Santha and I had rented that June, I tried directory inquiries for Commander Scicluna's number. They couldn't help me. Then I called Manjri Bindra, a friend of ours in Malta who is very good at finding people, and within an hour she had the number for me.

I dialled and waited. There was a long delay, then a woman's voice answered the phone: 'Hello.'

'Oh. Yes. Hello. Er … My name is Graham Hancock. Is this

Commander Scicluna's residence?' Another delay, then: 'Yes.'

'Oh, good. Look, I'm sorry to disturb you, but please may I speak to him?' Silence.

'I'm an author,' I gabbled, 'I'm researching a book about underwater ruins, and I understand that Commander Scicluna is a great expert in this field. I would like to speak to him about a temple, underwater, that he discovered off Sliema …'

'I'm afraid that will be impossible.'

I was nonplussed: 'Why?' I protested. 'I just need to speak with him for a few moments, to confirm something.'

'I regret that my husband passed away four days ago', the lady replied.

Now, all at once, I understood the sadness and fatigue in her voice and stammered my apologies for disturbing her.

‘It is all right’, she said wearily.

Hubertworld … (2)

Malta, 9 November 1999

Santha and I sat in the coffee lounge of the Diplomat Hotel in Sliema drinking cappuccinos with Hubert Zeitlmair. We had been there since 8 a.m.; it was now 9 and there was still no sign of the Arrigo brothers showing up in their truck to take us diving. This was annoying, as we were already partly dressed for the water, had our mesh bags packed at our feet, and could observe that the sea in which we had been expecting even now to be preparing to dive, was calm, windless and generally perfect for our enterprise.

‘I don’t understand it,’ Zeitlmair was saying. ‘We had a firm

agreement that they would pick us up this morning at eight. Everything was arranged. I spoke with them myself just yesterday.'

We had already tried to phone the Arrigos' dive shop, and their mobiles, but without success. Admittedly it was still early, but it was odd that they were so uncontactable – and so not here. Was Malta going to be a bust? I was beginning to think so. Because, after all, even if an underwater temple did exist at Sliema, why should the Arrigos take me to it? In the event that it was archaeologically important, then it was sooner or later going to become a hot media property; meanwhile, the Arrigos' interests, and the interests of the site, might be best served by keeping its location confidential.

It was obvious even then that the matter of 'proprietorship' was far from settled. Zeitlmair had a strong claim, to be sure, but it was by no means free of encumbrances – and who was

to say that he would ever be able to relocate his ‘temple’ should the Arrigos decide not to cooperate? Even in the best circumstances objects found underwater are easily lost again unless accurate shore-bearings have been taken from the boat – impossible for the blind – or a GPS has been used to record the precise latitude and longitude of the entry point.

‘Do you have GPS numbers for the site?’ I now asked Zeitlmair.

‘No,’ he confessed, ‘but I told you already it is very simple to find it. We just go out 2.5 or 3 kilometres from Saint George’s Tower and use the echo sounder …’

‘Until we come to a reef that is shallower than the surrounding water?’ ‘Exactly. Then we will be on the spot.’

Around 11 a.m. we finally managed to get a call through to Shaun Arrigo’s mobile phone.

It transpired that the two brothers and their father – who ran the diving business together – were on a boat off Gozo and would not be back in Malta until the evening of the following day. Although they knew of me and my visit, they claimed that no arrangement whatsoever had been made by Zeitlmair for them to guide me to the underwater temple that morning, and that they wanted to meet me first in order to discuss the matter further before deciding whether they wished to guide me at all. Besides, it was the law of the land that I should be certified medically fit by a Maltese doctor before I would be allowed to dive in Maltese waters. Had I yet obtained such a certificate? No? Then that too needed to be arranged. They proposed that I call round to their dive shop in two days time, on 11 November, to see if we could 'work things out'.

Silently fuming at myself for not having dealt directly with

the Arrigos from the beginning in a matter as important as this, I turned to Zeitlmair: ‘Are you sure you can find the site again?’

‘Sure!’ he barked.

He did sound sure.

‘OK, then, Hubert, here’s what I suggest we do …’

Bird’s-eye view … (3)

Malta, 24 June 2001

We’ve left Sliema behind and now the helicopter is rushing rapidly west along the north coast of Malta. Dropping our altitude to 100 metres, we soar over White Rocks and head for Qawra Point – a finger-shaped promontory dividing

Salina Bay from Saint Paul's Bay.

There we circle and hover above the spot in the sea where two days before Chris Agius, a new friend who has come to our aid in Malta within the past month, led us on a dive to a remarkable straight canal cut out of the solid limestone of the sea-bed at a depth of 25 metres. A low bridge, also hewn out of the bedrock, spans the canal at one point, and Chris has identified tool marks on its inner walls …[13]

We fly on, crossing Saint Paul's Bay and Mellieha Bay, crossing the Gozo Channel from Cirkewwa with the tiny midway island of Comino to our right. And I remember that here, too, somewhere in the channel between Malta and Comino, a prehistoric stone circle is rumoured to exist. In fact it is rather more than a rumour, since I have talked directly with one of the commercial divers who saw the

structure before – as he claims – it was buried by developers beneath concrete pilings …

It would not be the first time in Malta that an archaeological discovery has been conveniently hushed up to allow a construction project to go ahead. The same thing happened at the Hypogeum of Hal Saflieni, which was entered and looted by labourers renovating houses above it at the end of the nineteenth century at least three years before archaeologists ever learned of its existence. The initial discovery was very deliberately *not* reported to the authorities for fear that they would sequester the site.[14]

Hubertworld … (3)

Malta, 9–10 November 1999

After the failure of communication over our dive plans with the Arrigos for the 9th I felt superstitious. I therefore made the decision to hire a boat and dive support from another dive shop and mount an entirely new search for the underwater temple without the Arrigos' help. Zeitlmair agreed and issued several more cheering statements to the effect that he would lead us straight to the spot, having got the Arrigos there before without any difficulty, etc….

In character with the general pattern of annoyance and frustration that seemed to have draped itself around me that November, I then took our business to a dive-shop staffed by pessimists and safety fanatics who began issuing dire warnings about the weather, and various dangers associated with diving in Malta in the winter months, virtually from the moment that I walked in their door.

It took all of the rest of the 9th to sort out the medical

certificates, find and hire the right type of boat, and tie up the arrangements for dive assistance the next day.

But the 10th dawned grey, stormy and windblown, with white-caps breaking out in the open sea in front of Sliema. Santha and I looked gloomily at the waves from our balcony in the Diplomat Hotel and decided that we would chance it. We had dived in worse. And the boat that we had hired was a 50 foot motorized *lutzu* (traditional Maltese fishing vessel) that should, in theory, be able to handle these conditions without too much difficulty. We might take a bit of a pounding getting back on board after each dive, but that was acceptable. While we were submerged we should face no problems.

Our new dive suppliers did not agree. What if there was a current and we were to get swept away from the boat? It was sturdy but not very fast and in high seas it might lose us

completely. Sliema was not some enclosed bay, after all. The next landfall was Sicily, 90 kilometres to the north.

More badgering followed along these lines and I was eventually obliged to concede that diving was probably not a very good idea that day …

Bird's-eye view … (4)

Malta, 24 June 2001

Our hour in the helicopter is rapidly ticking by. We've passed Comino and hover over Gozo's Mgarr Harbour before heading into the heart of the island. There, south of Xaghra – itself the site of a huge semi-subterranean stone circle – is the necromancer's castle, the 'Giant's Tower' of Gigantija, the greatest and the oldest of the megalithic temples of the

Maltese archipelago, reckoned to have been built around 3600 BC.

Looking down on it from above, I am struck not only by its enormous size but also by the way in which it faithfully and exactly reproduces what may be thought of as the ‘canon’ of all the Maltese megalithic temples – an outer retaining wall of cyclopean blocks, some up to 5 metres high and many in the range of 15 tonnes or more, set out in a series of expansive, graceful curves to enclose an irregular space that feels more organic than architectural. This inner space contains a series of altars, shrines and large apsidal rooms interconnected by axial passageways, all of which are also lined with huge megaliths of mixed coralline and globigerina limestone.

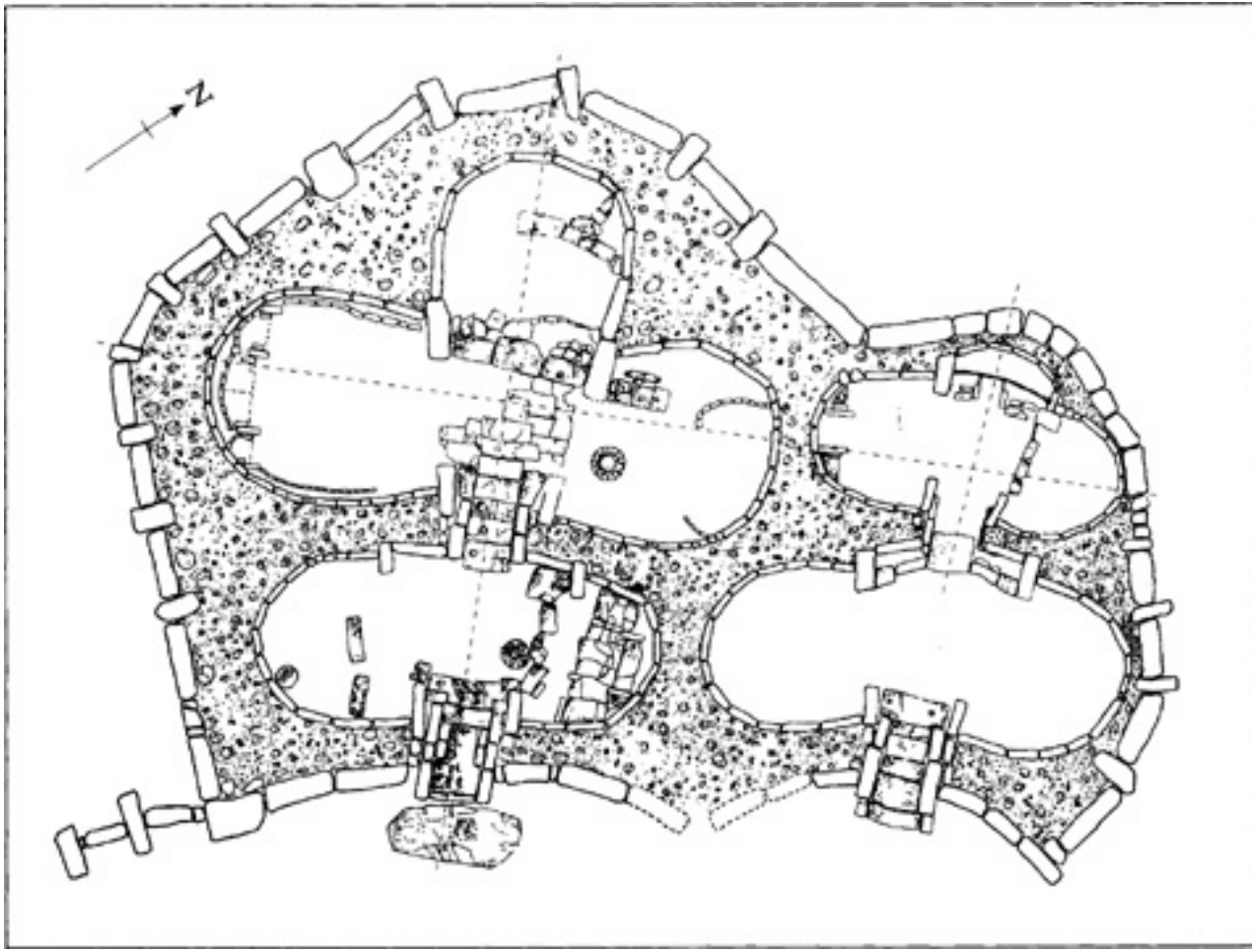
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Floorplan of Gigantija temple. Based on Evans (1971).

Unlike other simpler temples, Gigantija features two distinct and not quite parallel axial passages oriented east of south which dominate the whole complex. By means of imposing stone gateways, each of these passages penetrates a concave megalithic façade defining the only two ‘entrances’ to the structure. The easternmost axis leads to four large apsidal rooms arranged in two pairs of opposed lobes. The westernmost axis leads to five apses – two arranged as an opposing pair and the remaining three in the form of a clover-leaf.

Orthodox scholarly opinion holds that the islands of the Maltese archipelago remained *entirely uninhabited* until 5200 BC - 7200 years ago – when they were settled by Neolithic

agriculturalists from nearby Sicily.[15]

Orthodox scholarly opinion dates Gigantija to 3600 BC - 5600 years ago.

The time lapse between settlement 7200 years ago and the construction of Gigantija 5600 years ago is 1600 years. And while there is evidence of small-scale construction and the hewing out of rock tombs in the Maltese islands during this period, there is nothing from the excavation record that archaeologists are able to show us which in any way seriously charts the *evolution* of the temple-building phase. On the contrary:

> The temple builders did not begin with small-scale structures. Gigantija … is a tremendous work of architectural design and of engineering, built a thousand years before the date usually given for the Great Pyramid.[16]

To this Colin Renfrew, Professor of Archaeology at the University of Cambridge, adds:

> The façade [of Gigantija], perhaps the earliest architecturally conceived exterior in the world, is memorably imposing. Large slabs of coralline limestone, set alternatively end-on and sideways on, rise to a height of eight metres; these slabs are up to four metres high for the first course, and above this six courses of megalithic blocks still survive. A small temple model of the period suggests that originally the façade may have been as high as 16 metres.[17]

Cyclopean walls 16 metres high? At first sight, admits Renfrew,

> it seems inconceivable that such monuments could be built without the organization and the advanced technology of a truly urban civilization … Yet according to the radiocarbon chronology, the temples are the earliest

> free-standing monuments of stone in the world. In the Near East at about this time, 3000 BC and perhaps even earlier, the mud-brick temples of the 'proto-literate period' of Sumerian civilization were evolving: impressive monuments in themselves but something very different from the Maltese structures.[18]

How are we to explain the fact that the oldest free-standing stone monuments in the world, which by virtue of their size and sophistication unambiguously declare themselves to have been built by a people who had *already* accumulated long experience in the science of megalithic construction, appear on the archaeological scene on a group of very small islands – the Maltese archipelago – that had not even been inhabited by human beings until 1600 years previously? Isn't this counter-intuitive? Wouldn't one expect a 'civilization history' to show up in the Maltese archaeological record documenting ever-more sophisticated construction techniques – and indeed

wouldn't one also expect an extensive 'civilization territory' capable of supporting a reasonably sized population (rather than tiny barren islands) to surround and nourish the greatest architectural leap forward of antiquity?

Dr Anton Mifsud, President of the Prehistoric Society of Malta, who we will be hearing from a great deal in the coming chapters, offers this succinct summary of the problem: 'Malta is presently too small in size to have sustained the earliest architectural civilization; its civilization territory is missing.'[19]

We circle over Gigantija one more time, then bank sharply to the south-east, cross the Gozo Channel again and hover over a rugged spot called Marfa Point at the extremity of the main island of Malta.

Here, underwater, two days previously, we saw further

strange channels cut in the rock, some running in distinctive parallel tracks, leading to the edge of a drop-off at 8 metres. Beneath the drop-off we were shown a terrace of three large right-angled steps cut into the interior of a cave at 25 metres.

Could the ‘civilization territory’ of Malta be missing because it is now underwater?

Hubertworld … (4)

Malta, 11–13 November 1999

I didn’t keep the loose appointment that I had made to try to ‘work things out’ with the Arrigos on 11 November, but I also did not go diving that day; 2 metre waves whipped up by the strong prevailing wind from the north-east still prohibited that.

On the 12th and 13th, however, much to the astonishment of our pessimistic dive hosts, the north-easterly lulled, the angry seas subsided and we were able to take the *lutzu* out and begin searching with the echo-sounder for Zeitlmair's uncharted sea-mount between 2.5 and 3 kilometres from shore.

Within an hour of zigzagging back and forth across water generally 40 to 70 metres deep we suddenly stumbled upon a shallow point where the echo-sounder gave a depth of just 7 metres – more or less exactly as Zeitlmair had promised. It was with the air of a man vindicated, therefore, that he stood by beaming short-sightedly as the *lutzu* was anchored and we prepared to dive.

But we couldn't find his temple – only a series of disparate features that in some way resembled, but did not actually seem to be, the features that Shaun Arrigo had videoed a few

months previously in July 1999.

I felt incredibly disappointed, crushed and depressed after those dives, which had seemed so promising initially, and began to believe that we might never find the site if we went on this way – for the same reason that the man on the beach can never count all the grains of sand. By close of business on the 13th, therefore, I had decided to set pride aside, go back to the Arrigos cap in hand, and beg them to take me to their – or Zeitlmair's – or whoever the hell's temple it was.

In my opinion no one owned the temple … if it existed at all. I certainly had no desire to own it or lay any kind of claim to it. I just wanted to dive it.

Reuben Grima's short dive in a thunderstorm

Malta, 19 June 2000

The ‘Zeitlmair file’ in my laptop during my first visit to Malta in November 1999 had contained a report from the journal *Archaeology* that seemed to write off the significance of the underwater temple right from the start. According to that report Reuben Grima, archaeology curator at Malta’s National Museum, had dived at the Sliema site and was ‘unconvinced that the stones on the sea-floor are indeed a temple’. Quoted alongside Grima was Professor Anthony Bonanno of the University of Malta, who made the point that even if a ruined temple had been found underwater, its submersion did not necessarily mean that all Maltese temples had to be redated.[20]

Bonanno’s observation was completely correct. It would be necessary to establish the mechanism of submergence of the

site (land subsidence versus sea-level rise) before jumping to any conclusions about the age of any structures on it – and this had not been done yet. On the other hand there would be little point in establishing anything at all about the site if the ‘megaliths’ and ‘kidney-shaped rooms’ that had been seen and photographed there were not in fact parts of a temple at all but just natural formations that had been misinterpreted by excited amateurs – as Reuben Grima seemed to have concluded after his dive.

In November 1999 I had been too depressed to do anything much but stubbornly and repeatedly go diving myself in the cold waters off Sliema – trying to get some hands-on experience of the structure so that I could form my own opinions. I hadn’t contacted Reuben Grima then, so he was still on my agenda when I returned in June 2000 to resume the dive search.

I had arranged our appointment for 19 June – rather than any other day – with a certain ulterior motive. Santha and I wanted permission to be inside the 'lower temple' at the megalithic site of Mnajdra at dawn on the 20th, the summer solstice and the longest day of the year. Reuben Grima was one of the few people who had the power to grant this very rare privilege – and he did so with good grace and one telephone call to supervisory staff at Mnajdra. 'I understand the effect is spectacular,' he said with a smile, 'but you should be there before 5 a.m. The watchmen will be expecting you …'

I told him that I wasn't any kind of archaeologist, just a popular writer, so he should excuse me in advance if I seemed ignorant of archaeological procedures and facts or if I asked naive questions. There was, however, something bothering me about the dating and 'sequencing' of the

megalithic temples of Malta within the period 3600 to 2500 BC, and the dating of the first human habitation of Malta to 5200 BC. 'How have you arrived at these dates?' I asked.

As I had been expecting, Grima explained that the primary tool in establishing Malta's prehistoric chronology had been radiocarbon-dating (based on the rate of decay of C-14 stored in all formerly living matter).[21] My views about C-14 are on the record.[22] I think it should be only one amongst several tools and techniques brought to bear on the dating of megalithic or rock-hewn sites. It is a truism, but worth repeating nevertheless, that C-14 *cannot date stone* – only such organic materials as are found around or in association with stone ruins. It is an *assumption* (more or less safe depending on the stratigraphy and general circumstances of the site but still, at the end of the day, an assumption) that

organic materials found close to megalith B or trilithon A or dolmen C, etc., do in fact date from the same period as the quarrying and erection of the megaliths concerned.

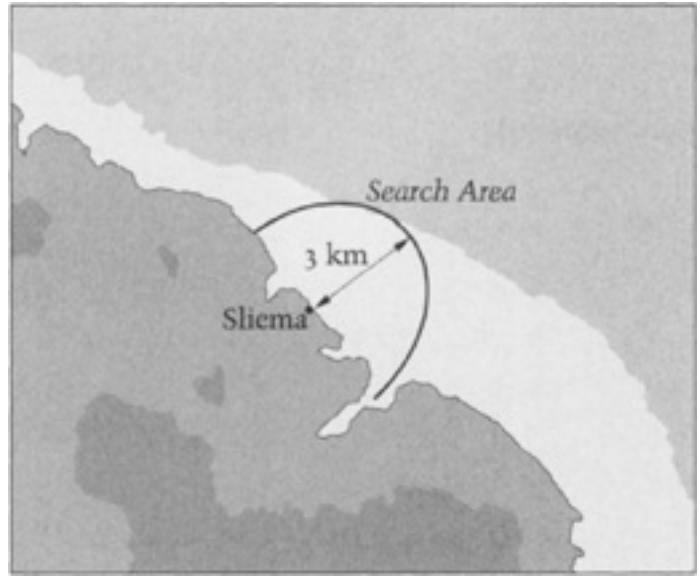

To this extent the excavation of a megalithic site is a bit like a crime scene. If the scene has been properly protected from contamination and intrusive elements, then the results

of any forensic tests are likely to be much more accurate and useful than they will be if the scene has been disturbed. C-14 dating is a forensic test. And looked at as crime scenes, Malta's megalithic temples are pre-eminently 'disturbed' – since they have been used as quarries and goat pens by local farmers for millennia, in some cases arbitrarily reconstructed on a whim,[23] and dug over with great enthusiasm and little skill by amateur archaeologists for at least 200 years before the introduction of carbon-dating in the mid-twentieth century.

But when I put these objections to Grima he brushed them aside: 'Look, of course it's possible that new evidence might yet be unearthed which would require some revision of our chronology for Maltese prehistory. But I think, after all these years and the application of so many eminent minds to the problem, that we've probably got things pretty well right. If

we're wrong it will be at the most by a few centuries, not by millennia. So we're not expecting any big surprises.'

'How many carbon-dated samples does the orthodox chronology here actually depend on?' I asked.

'For the temples?'

'Yes, and the Hypogeum too.'

'Well, very few actually.'

'Do you remember how many?'

'Off the top of my head, I don't. But I can easily check. I know it's not a large number.'

'And out of this not very large number of carbon-dated samples from the temple period how many were actually taken from *underneath* undisturbed megaliths?'

'As far as I know none were,' replied Grima.

This seemed a good moment to turn the conversation to the subject of the underwater temple off Sliema.

‘I understand you dived on it,’ I said. ‘What did you make of it?’

Grima raised his hands in a theatrical shrug: ‘Not very much. But then to be fair, I didn’t see it properly’.

He had gone to the site with Shaun Arrigo, he explained, rather late one afternoon with a thunderstorm brewing. The conditions had looked bad. Moreover, Arrigo claimed not to be sure of the precise location of the ‘temple7. Then soon after they dropped into the water and began to look for it, Grima discovered that by mistake he had strapped on a half-empty tank. Bearing in mind the deteriorating surface conditions he had therefore been obliged to abort the dive after only ten minutes. ‘The visibility was awful,’ he added,

‘and we might not even have been in the right place, but what I saw looked like pretty much just ordinary sea-bottom to me.’

‘It might well have been. But the question is – was what you saw the same thing that Zeitlmair is claiming is a temple?7

Grima clearly had some difficulty taking Zeitlmair and his ancient astronauts seriously and I could understand why he might be sceptical of any claims emanating from such a source. However, irrespective of his, or my, or anyone else’s views on Zeitlmair, I felt that the proposition of a submerged, man-made prehistoric structure off Sliema was an eminently testable hypothesis which could be proved or disproved empirically by diving on it, thoroughly photographing it and collecting samples.

Grima's ten minutes in a thunderstorm didn't even begin to qualify as a test. So no matter how wacky its proponents might seem to be, the hypothesis that a temple could be there had still not been refuted as far as I was concerned. Besides, there had been nothing wacky about Commander Scicluna.

As I was leaving his office at the National Museum in Valletta, I asked Grima if he was aware that six years before Zeitlmair, Scicluna had also reported the existence of a megalithic temple underwater off Sliema, and at pretty much the same depth.

Grima said he knew nothing of the case and asked me to whom it had been been reported.

'To Tancred Gouder, amongst others. I understand he was Director of Museums at that time. Scicluna mentioned the discovery in a letter to the *Sunday Times* of Malta in March

1994. I'm really surprised it wasn't followed up …'

Bird's-eye view … (5)
Malta, 24 June 2001

We've left Marfa Point and are flying over the sea parallel to the wall of sheer cliffs, in some places hundreds of metres high, stacked up along the western coast of Malta. I'm told that these cliffs exist because this side of the island has been slowly but steadily rising over several millions of years as a result of geological upheavals along the submarine Pantalleria Rift – levering itself up out of the sea-bed at an annual rate of a millimetre or two and causing the eastern side of the island, by the law of equal and opposite force, to tilt downwards.[24] That means that the Sliema coast, with its rumours of an underwater temple, has experienced some

degree of submergence during the past 17,000 years not only on account of rising sea-levels at the end of the Ice Age but also because of the longer-term process of land-subsidence that is still underway today.

We skip over Paradise Bay and then, in quick succession, Anchor Bay, Golden Bay, with its beach umbrellas and racks of lobster-pink tourists, Ghajn Tuffieha Bay and Gnejna Bay. Then we turn inland over the Bahrija valley and the Wied ir-Rum with the twin medieval towns of Mdina and Rabat to our left and the sea to our right.

Malta's landscape is everywhere rugged and stony, sliced through with plunging valleys, crumbling escarpments and dark defiles – a racked and tortured topography twisted, moulded and scoured out by extreme natural forces over aeons. It is easy to overlook the implications of so much rocky ruggedness and drama being compressed into such a

small space, but as Anton Mifsud explains:

> The present surface area of the Maltese islands is not sufficient to account for the extensive valley formations such as the Wied il-Ghasel, Wied il-Ghasri and Wied ix-Xlendi, amongst others. The creation of such deep and precipitous valleys would have required a very extensive land surface to hold the waters which dug them out over the millennia.[25]

And Mifsud is right. The Maltese archipelago was once much bigger – indeed so much bigger that it wasn't an archipelago at all. Around 17,000 years ago, at the Last Glacial Maximum when sea-level was more than 120 metres lower than it is today, the three main islands of Malta, Comino and Gozo, as well as little Filfla in the south, were all joined into one landmass, itself joined by a wide and extensive land-bridge to Sicily 90 kilometres to the north – which was in turn joined to the 'toe' of the Italian mainland. Glenn Milne's inundation

maps, as we shall see in chapter 19, leave no doubt about the overall picture while more detailed bathymetric studies reveal the antediluvian central Mediterranean to have been an area of potentially enormous interest to the story of human civilization that has been almost entirely neglected by the responsible scholars.

Hubertworld … (5)

Malta, is November 1999

Malta is a small place, word of the search that Zeitlmair and I had been conducting off Sliema had got around, and I used the same *lutzu* and crew for diving with the Arrigos that I had used to try to locate 'their' site with a competitor dive-shop just a couple of days previously. None of this heavy-

handedness helped to promote good relations, and I am certain that Shaun and Kurt Arrigo, and their father whose name I presently forget, must have regarded me as an entirely unpleasant and untrustworthy customer and a complete idiot into the bargain.

We spent the 14th engaged in angry discussions, recriminations and speeches of self-justification but on the 15th we went diving. Kurt couldn't make it, nor could Arrigo senior, so I dived with Shaun Arrigo, who looks like a pirate. He is young – about thirty and physically fit, with long black hair, a hawk nose, hooded eyes and seven days of stubble. To my surprise, however, he claimed that he was not sure of the exact location of the site and that we would have to search for it. With a sense of *déjà vu* I stood by as the boat zigzagged back and forth over a range of depths, bearings and distances from shore with Shaun Arrigo repeatedly asserting that the

site was not as far out as Zeitlmair still believed.

‘Well, how far out is it?’ I asked.

‘Three kilometres,’ interjected Zeitlmair.

‘One kilometre,’ insisted Arrigo.

We used the echosounder to chart the bottom at both distances and at all points in between, but couldn’t find the right profile anywhere. Meanwhile, the weather, which had been calm a little earlier, had changed character, assuming an ominous tone as clouds massed overhead. Beneath the keel of the *lutzu* all of us could feel the long rolling upsurge of a heavy swell – more scary in a way than breaking waves because of its aura of suppressed violence and power. The waters that had been blue just half an hour before were now transmuted to dark grey, almost black, and the air temperature had plunged. Even wearing a wetsuit I shivered.

The shoreline between Sliema and Saint Juliens seemed far off across the heaving sea. Was I seriously planning to dive in this?

Then the captain called out from the cabin that the echosounder was giving a depth of 20 metres … 19 … 18.5 … 18 metres.

‘We’ll go in here,’ yelled Arrigo, peering wildly over the side and already strapping on his tank and BCD.

I hurried to follow suit while the boat was brought to a standstill. By then, however, we had drifted off the 18 metre contour and the captain announced that we were now in between 25 and 30 metres of water.

‘We’ll go in here,’ Arrigo repeated. ‘If it’s the right place we’ll find that the reef slopes up fairly steadily from 25 metres to 7 or 8 metres. All we should have to do is follow

the slope of the reef as it gets shallower and that will bring us to the plateau where the temple is …'

'But what if it isn't the right place?' I asked plaintively.

Shaun Arrigo clasped his mask and regulator to his face, jumped overboard and disappeared silently beneath the waves.

Bird's-eye view … (6)

Malta, 24 June 2001

The helicopter passes above Dingli now, where the golfball domes of a modern radar station overtop the steep cliffs. Then we come to a sloping area of exposed limestone between Buskett Gardens and the sea. Approximately 2

kilometres square, it is incised with a tremendous network of curving parallel tracks – one of the few surviving tableaux of Malta's famous 'cart-ruts'.[26]

I have walked here several times during previous visits in 1999 and 2000 and know that the ruts are often sheer-sided, sometimes a metre or more deep and up to two hands-breadths wide at the base. Nicknamed locally 'Clapham Junction', the area is preserved as a tourist attraction today. And as we hover 120 metres above it – I can see that it does indeed resemble a junction point where multiple railway lines converge and diverge. Some of the pairs of tracks run straight; some curve; some cross over one another. But there is no particular sense of organization or pattern – which is one among many reasons why no universally accepted explanation of this peculiarly Maltese phenomenon has ever

been given.[27] Archaeologists don't even have a clue how *old* the 'ruts' are, although it is certain that those at Clapham Junction were already in place 3000 years ago when datable Punic tombs were cut through a number of them.[28] It is certain, too, that they were not simply worn away in the tough limestone by the passage of cart-wheels over periods of centuries, as many have wrongly theorized; on the contrary, there is no proof whatsoever that cart-wheels *ever* ran in these ruts – which were initially carved or cut out of the bedrock with the use of tools.[29] Some archaeologists associate them with the megalithic temples;[30] others believe that they date from the Bronze Age, between 4000 and 3000 years ago after the culture of the temple-builders had collapsed.[31] The truth is nobody really knows anything at all about what they are, or who made them, or when, or why.

As with so much in Maltese prehistory their origins may belong in an underworld that scholars do not seem anxious to explore. However the existence – to which we can now attest with photographs and film – of ‘cart-ruts’ on a gigantic scale underwater at Marfa Point raises the possibility that this phenomenon may have much older origins that any scholar has previously suspected.

Hubertworld … (6)

Malta, 15 November 1999

I jumped immediately after Shaun Arrigo but he was already far below me and it took me a moment or two of hard finning to catch up with him. Contrary to the indications of the echo-sounder – unless we had already been carried far from our

entry point by what was proving to be quite a brisk current – the bottom here was deeper than 25–30 metres. In fact, as we continued to sink, it became clear that it was deeper than 40 metres …

Arrigo was a strong swimmer and I found it hard to keep up with him, but we forged ahead against the current until we did finally encounter a reef of bedrock gradually sloping up from 30 metres or so through 28 metres, then 24 metres, before levelling off into what seemed to be a vast submarine plain covered with undulating fronds of seagrass, at about 22 metres. Because of the stormy overhead light, visibility at this depth was poor – like diving at dusk – and even if the plain did lead to an eminence at some point it was obvious that we would only stumble across it by chance.

Besides, we had been down for quite a while now, quite deep – 38 metres at the outset, then a long hard swim for

twenty minutes or so at between 30 and 22 metres. I checked my air pressure gauge and found, as I had expected after burning so much energy, that I was already below 100 bar on what was only a moderate-sized 12 litre tank. Another 50 bar – definitely less than twenty minutes at this rate unless we got into shallower water – and I was going to have to ascend, allowing enough air for at least a five-minute rest-stop (and preferably a bit more) at 5 metres. Arrigo seemed to be making a personal statement of some sort by staying ahead of me in the water at all times so I couldn't see his guage. But I could be reasonably sure that his air consumption would be better than mine, since he was twenty years my junior and dived for a living.

We swam on for a while at 22 metres, still against the current, then I caught up with Arrigo with another titanic effort, grabbed one of his fins to get his attention, showed

him my guage – now down to 70 bar – and signed that I was going to start doing this dive in shallower water.

He indicated that he preferred to stay deep for a bit longer – making the ‘search’ signal as he did so.

Hmm … Interesting …

Very slowly, remaining parallel with Arrigo but now above him, I began to ascend.

I realized that I was exhausted, almost gasping for breath as though the wind had been knocked out of me, but my ego would not allow me to show it or make any sign of distress. So I tried to relax, calm my breathing, reduce my heart-rate. Like other bad, fruitless dives that I had done, I told myself, I was going to get through this one.

I did the rest-stop and had 50 bar left when I reached the surface – all fine and orderly. No panic. The only problem, as

I looked around from the peaks and valleys of the billowing waves upon which I now bobbed like a cork with my BCD fully inflated, was that there seemed to be no sign at all of the *lutzu*.

I couldn't see it anywhere. It had gone.

Moments later, blowing like a seal, Arrigo joined me from the depths with 70 bar on his gauge. So at least I would have someone to talk to while I waited to drown or die of exposure.

Bird's-eye view … (7)

Malta, 24 June 2001

We're still hovering over Clapham Junction while Colin

Clark, the Channel 4 cameraman, and Santha with her Nikons continue to occupy the open door and window, trying to get clean shots of the cart-ruts to compare with what we have seen underwater at Marfa Point.

The complicated question of which parts of the island are rising and which are sinking because of activity along the Pantalleria Rift must, of course, be factored into the equation along with sea-level changes – but theoretically it ought to be possible to calculate a fairly accurate date for the submergence of the Marfa Point 'ruts'. That would then give us a *terminus ante quern* for the cutting of the ruts by human beings – i.e., we could be sure that the ruts had been cut before the date of their submergence and must therefore be at least that old.

Interestingly, Anton Mifsud's tireless research in the archives has unearthed an obscure account published in 1842

of the travels in Malta of a certain Dr J. Davy, who

> observed cart ruts between Marfa and Wied il-Qammieh in northwest Malta, and from their interrupted nature at the edge of the cliffs, inevitably concluded that the Maltese islands had once been significantly larger during the presence of man in Malta.[32]

Now it may well be that the submerged ruts we've dived on off Marfa Point will ultimately prove to pose no problem to orthodox chronology. That is perfectly possible if land subsidence has been the major factor in their inundation. But even so, they should be seen in context of the wider phenomenon of submerged ruts – contiguous to many different stretches of the Maltese coast – which have been reported in the past. Indeed, Anton Mifsud demonstrates that 'before their gradual disappearance over the past few decades' the ruts were 'repeatedly and validly associated' by

scholars and travellers with a former extension of Malta's landmass.[33] 'In several maritime sites around the island of Malta,' wrote Sanzio in 1776, 'one could see deep cart ruts in the rock that extended for long distances into the sea.'[34] And in 1804 De Boisgelin believed he had found evidence that:

> Some serious disruptions and subsidings have taken place on the island … An extraordinary subsidence … must have occurred on the coast not far from the pleasure grounds of Boschetto [Buskett] … on the southern side of which vestiges of wheels have cut into the rock, and may be traced to the sea … and the ruts may be perceived underwater at a great distance, and to a great depth; indeed as far as the eye can possibly distinguish anything through the waves …[35]

Father Emmanuel Magri, the first official excavator of the Hypogeum at Hal Saflieni, recorded the presence up until the

end of the nineteenth century of cart-ruts on the tiny uninhabited island of Filfla[36] – which lies some 5 kilometres south of the twinned megalithic temples of Mnajdra and Hagar Qim in the same general area of Malta's south coast. And in 1912, R. N. Bradley commented on cart ruts near Hagar Qim – noting that they ran 'over the precipitous edge of the cliff towards Filfla'.[37] In subsequent years the ruts in both places have been completely obliterated (in the case of Filfla by sustained naval bombardments – the island was for a long while a favoured spot for target-practice). Nevertheless, as Mifsud observes, the combined effect of Magri's and Bradley's testimony is to suggest that cart-ruts once ran all the way from Hagar Qim to Filfla passing across a land-bridge that has therefore been submerged *since* human beings first came to the islands.[38]

In what he would be the first to admit is an untested hypothesis, Mifsud proposes a cataclysmic collapse of the Malta-Filfla land-bridge as a result of rifting processes in relatively recent prehistory – just over 4000 years ago – and he links this hypothetical cataclysm with the seemingly abrupt demise of the temple-building civilization of Malta around 2200 BC.[39]

We have finished our work at Clapham Junction and the helicopter is now running east at 150 metres along Malta's south coast between Ghar Lapsi and the Blue Grotto. To our left, nestled into the slope of the island, is the colossal edifice of Mnajdra and above it on the hilltop stands Hagar Qim. To our right, across the open waters of the Mediterranean, is Filfla.

No diving is presently allowed around Filfla, and the entire

area has been designated a closed nature reserve. But I can't help wondering – what lies beneath those waters other than unspent ordnance from the years of bombardment? Could there be the remains of a lost civilization there? Perhaps on the sea-bed between Hagar Qim and Filfla – as on the sea-bed off the Qawra and Marfa Points and off Sliema too – some of the mysterious antecedents of Malta's extraordinary temple-building culture are waiting to be found?

Hubertworld … (7)

Malta,15 November 1999

The *lutzu* was there after all, but it had drifted far away. It was obvious, since we could hardly see it, that Santha and the others on board certainly could not see us, especially

when the swell carried us down – as it often did – into deep troughs in the waves. I knew that Santha would be beginning to be concerned by now, although she might not be expecting us to surface for some minutes yet if she had been assuming a shallower dive than we had in fact made.

Time passed and the sea was getting higher. Arrigo and I bobbed a few metres apart, beginning to feel cold, not talking because that required energy. Although my BCD was fully inflated, I found that I was constantly inhaling sea-water as waves splashed into my face or rolled me momentarily under. At the same time I found myself reluctant to take air through my regulator from the miserable 50 bar or less that was left in my tank; I might need that for a real emergency.

We tried waving – futile, of course in waves so high. We tried blowing the pathetic little whistles that manufacturers attach to BCDs and that cannot be heard at 5 metres if there's

a wind blowing. There was a wind blowing.

Then Arrigo connected up a power-whistle that had been concealed in an emergency kit somewhere on his person to the inflator hose on his BCD and pressed the button. For two seconds the air was filled with an ear-splitting howl that could have been heard on the other side of the island. Then the noise suddenly stopped.

Arrigo cursed: ‘Not enough pressure. It’s supposed to work down to 50 bar.’

There was no sign of the distant *lutzu* charging course. If they had heard us it had not been long enough to get a bearing.

‘But you’ve got 70 bar,’ I pointed out.

Arrigo shook his head. ‘Don’t think so. Maybe a faulty guage. How much do you have?’

‘Less than 50 bar.’

‘Shit! Still, give it a try and see what happens.’

I took the whistle from him, connected it to my inflator hose, pressed the button. Nothing.

‘Shit.’

We decided that we had better start swimming towards the shore, which by now seemed tremendously far away – had a current been carrying us out to sea all along? After ten minutes of effortful paddling, however, it became obvious that we had made no forward progress at all.

I floated on my back to catch my breath and, on the off-chance, decided to try the power whistle again. This time it worked at full blast and I kept the button pressed for several seconds, joyously observing as I did so that this time the *lutzu* was turning towards us. For a moment the whistle stopped,

then started again, and I got three more good blasts out of it before it packed up completely. But the emergency was over. We'd been spotted and, after some manoeuvrings, were recovered into the *lutzu* from the increasingly wild sea.

Back on board, still in my wetsuit and drinking hot tea, I did not realize how close our escape had really been until I saw the massive Valletta-to-Gozo car-ferry bearing down relentlessly on our last position in the water before the recovery.

We had been snatched out of its path with just a few minutes to spare.

Bird's-eye view … (8)

Malta, 24 June 2001

After the helicopter has made the run over the Ice Age valley long since inundated by the waters of the Mediterranean that once plunged between the two high points of Hagar Qim and Filfla, we circle back to take a closer look at Hagar Qim and at its 'paired' temple Mnajdra.

In total the remains of twenty-three megalithic structures classified by archaeologists as temples have been found in Malta – of which, according to Dr David Trump's authoritative *Archaeological Guide*,

> six stand alone, ten are in pairs, and there is one group of three and one of four. Five more structures of similar type have irregular plans, and there are at least twenty scatters of megalithic blocks … which could represent the last vestiges of former temples … It is on the whole unlikely that many more remain to be discovered. The number destroyed without trace we shall never know.[40]

All the temples were supposedly built between 3600 and 2500 BC,[41] with the bulk of the work completed before 3200 BC.[42] The best known on the tourist circuit today are Gigantija on Gozo, and Tarxien, Hagar Qim and Mnajdra on Malta. Other important temples, though smaller and less often visited, include Mgarr and Skorba, Tal Qadi and Bugibba. In a peculiarly Maltese compromise, the latter, near our dive site at Qawra Point, has been engulfed and partially ingested by the modern Dolmen Hotel.[43]

The pilot holds the helicopter stationary over Hagar Qim, giving us a bird's-eye view of its impressive perimeter megaliths, which include one 7 metres high that is estimated to weigh more 20 tonnes.[44] As at Gigantija the shape of the temple is defined by graceful curves and re-entrants and it contains a series of paired apsidal rooms, also lined with

megaliths. From above, the oval arrangement of the apses make them seem almost like enormous eggs lying in a huge stone nest and I am struck again by the strangeness and uniqueness of this design and by the odd fact, pointed out with some bemusement by David Trump, that 'There is nothing looking remotely like one of these temples outside the Maltese Islands.'[45]

We circle several times, then bank downhill towards the coast where Mnajdra lies – the last stop on our magical mystery tour. Although it is a spacious conglomerate of three temples (the 'Small Temple', the 'Middle Temple' and the 'Lower Temple'), Mnajdra can at first sight seem almost inconsequential, tucked away as it is in rugged terrain against a hillside. The lower temple and the middle temple each have four of the characteristic megalithic apses arranged in two opposed pairs. The small temple is 'trefoil' in

plan – with three apses arranged like a three-leafed clover.

I remember how, a year previously – on 20 June 2000 – I'd watched the summer solstice sunrise from within the lower temple at Mnajdra courtesy of Reuben Grima. It was then as the rays of the sun were projected on to a great megalith flanking the south side of the central axis that I understood for the first time how subtle and pure, how understated and yet how purposive, was the architectural genius of its builders. These people, who could achieve the most precise and painstaking alignments in the medium of cumbersome and gigantic stone, had not only been master architects and engineers – and first-class observational astronomers – but also excellent practical mathematicians and geometers. And all of this, presumably, had been harnessed to something else, some greater or transcendant objective that was somehow expressed in the temples.

Our hour is nearly up. The pilot banks away from Mnajdra and we head back towards the airport. In the last few minutes of the flight I find myself returning to the basic conundrum that has exercised my imagination in Malta since 1999, when I first involved myself here. It's the absence of background to the temples, the fact that they're suddenly just there, almost ready-made – without any obvious antecedents. And the fact that ancient megalithic or rock-hewn structures appear to exist underwater at several points around the archipelago -suggesting an older episode of construction that prehistorians have not yet taken account of.

Despite archaeological and C-14 evidence to the contrary, the existence of which I freely acknowledge, I think the time has come to consider the possibility that the origins of Malta's megalithic temples and its mysterious Hypogeum might not be confined exclusively to the fourth millennium

BC, as we have hitherto been taught, and that these amazing structures might have far older and far more mysterious roots.

16 / Cave of Bones

To sleep within the Goddess's womb was to die and to come to life anew.

Marija Gimbutas

There are places in the world made by people gone before us – hallowed places, places of power – in which the art and architecture serve as mantras that dilate the spirit. In some cases it is possible to trace back a sacred history of the site that long predates any surviving structures and symbolism there – suggesting that we may be in the presence of something numinous in the location itself to which human beings of all epochs and faiths can respond.

Without any intention of giving an inclusive list I might mention Chartres Cathedral and the prehistoric painted caves of Lascaux and Chauvet in France, Altamira in Spain, the

Dome of the Rock in Jerusalem, the Temple of Seti I and the Osireion at Abydos in Upper Egypt, the Great Pyramid of Giza in Lower Egypt, the Bayon at the heart of Angkor Thorn in Cambodia, the Temple of Apollo at Delphi in Greece, the rock shrines of Mount Miwa in Japan, Machu Picchu in Peru, Stonehenge in England …

And the Hypogeum of Hal Saflieni in Malta.

Imagine yourself at the entrance to an underground labyrinth with a footprint of half a square kilometre in the horizontal dimension measured out across three irregularly shaped levels stacked on top of one another in the vertical dimension – and the whole plunged in sepulchral darkness. This labyrinth, descending into the bowels of the earth, is the Hypogeum. It is thought by archaeologists to have been created earlier than 3000 BC. Some have speculated that its hive of interconnected chambers may first have begun to take

shape naturally millions of years ago as solution cavities in the bedrock which were later expanded and reshaped by man. But the late J. D. Evans, formerly Professor of Prehistoric Archaeology at the University of London and a great authority on Malta, argues that the Hypogeum was entirely man-made from top to bottom and from the very beginning of the enterprise. Evans points out that even the crudest, most cave-like chambers exhibit certain features, 'such as the clever use of natural faults in the soft rock to provide ready-made walls and ceilings' that 'point to a human rather than a natural origin'.[1]

There is controversy about the Hypogeum, as we shall see. But one matter about which there has been no disagreement is that the people who carved it out were the same people who built the great megalithic temples like Gigantija and Hagar Qim above ground on the Maltese islands. Even the

general architectural style of the rock-hewn features within the Hypogeum self-evidently belongs to the same ‘school’ as the free-standing temples. Indeed, fragments of pottery from almost all the recognized phases of the temple-building period -and even from before it in the so-called Zebbug phase thought to date back to 4000 BC have been excavated from within the Hypogeum.[2]

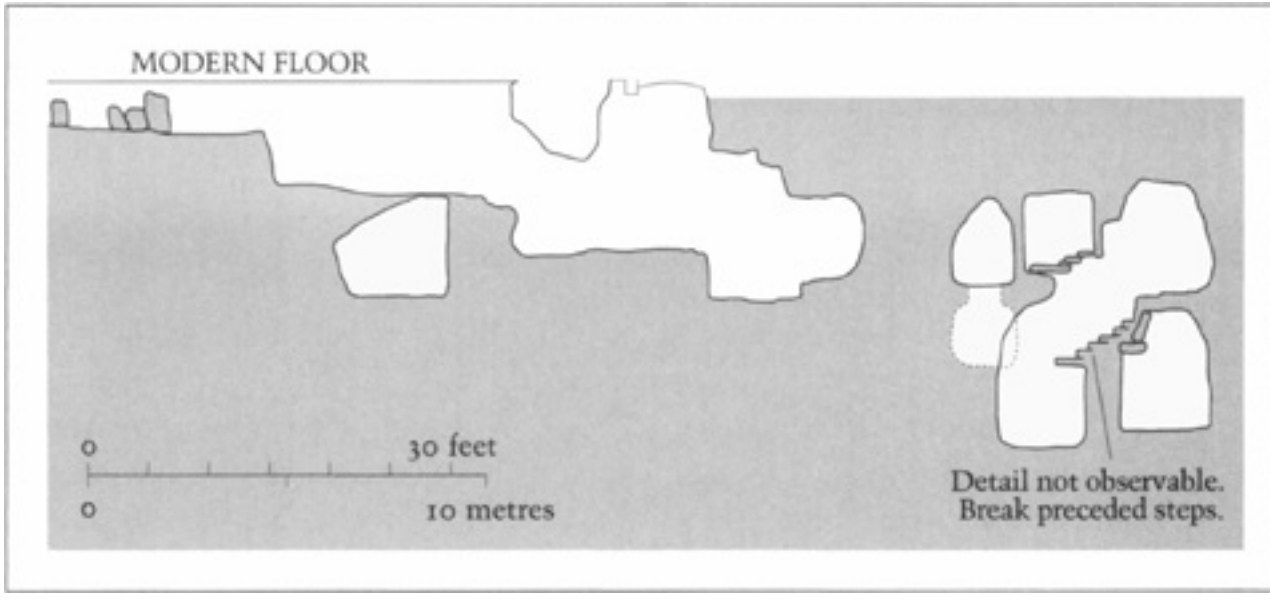

Hypogeum floorplan and cross-section. Based on Evans (1971).

But next to nothing is known about the temple-builders themselves. We do not know what language they spoke. They

have left us no script to decipher that might shed light on their rituals, customs, history and beliefs. There are no records elsewhere in the world from so ancient a period that refer to them. So their extraordinary works of art and stone that have endured the passage of the ages are now the only means we have to access all that is most interesting about them – in other words, their religious and philosophical ideas and the level of intellectual development of their culture.

The spaces within the Hypogeum, like the clover-leaf lobes of the megalithic temples, feel womb-like rather than strictly 'architectural'.

Some of the chambers were washed from top to bottom in red ochre, enhancing the organic effect.

Others were gracefully painted with spirals, disks, volutes, honeycomb-patterns, animal figures, hand-prints and

ideograms – the majority in red ochre, a few in black manganese dioxide pigment.

Here a cavernous circular hall was hewn out of the bedrock.

There a ‘window’ was cut at eye-level into the wall of a passage and then an area beyond was hollowed out with infinite care to create an ovoid cist about the height of a man that can only be accessed through the window.

A few paces to the west along the same wall, an elliptical hollow a metre deep was carved. It eerily amplifies low-pitched voice tones while absorbing higher notes like a sponge.

Over here a graceful gallery was hewn.

Over there the rough, blank face of the bedrock was first chiselled into a sweeping curve, then carved and penetrated

to create a lintelled megalithic gateway leading to further galleries beyond.

The lintel was painted with a pattern of twelve disks in red ochre.

Above, ceilings were cut here so lofty that they recede from view and there so low that you must stoop to pass beneath them.

Below, the floor was left rough in places, chiselled smooth in others, treacherous curbs and drops were created, and a stairway descending into the lowest depths was left hanging in mid-air after six steps down with a straight fall of 2 metres below it.

Altogether thirty-three major ‘rooms’ have been defined within the labyrinth. Of these eight are on the upper level, nineteen on the middle level and six on the lowest level.

Some of the rooms have as many as four subsidiary chambers branching off them and multiple entrances and exits connecting to the wider network weaving through the entire edifice.[3]

The result, in the end, as we may still experience it, is a surreal underworld of stairways and chambers, galleries, pits, and tunnels interconnected with sinuous passages and shafts – like a game of three-dimensional snakes and ladders.

'No special importance was attached to it …'

I have explored the Hypogeum twice.

The first time was in June 2000 when it had been closed to the public for almost a decade (as with my entry to Mnajdra at dawn on the summer solstice in the same year, this private

visit was arranged at short notice, courtesy of Reuben Grima of the National Museum).

My second opportunity came when I was in Malta in June 2001 with the Channel 4 film crew. Although the Hypogeum had been reopened by then, we were allowed to work in it out of hours under the benign supervision of Joe Farrugia, the curator.

There is ambiguous evidence that someone, or several people, might have entered some parts of the Hypogeum in the nineteenth century, and possibly even earlier in the seventeenth century,[4] but the official story today is that it was discovered in 1902 after being sealed off for millennia. Two blocks of houses were being built on the land immediately above it in the township of Paola. Bell-shaped water-tanks cut out of the bedrock were a standard feature of

Maltese homes of the period and the discovery was made by construction workers cutting one such tank. They broke through into a rock-hewn chamber below the cistern and from there were able to enter 'the main halls of the monument'.[5] Subsequently other parts of the Hypogeum were also exposed as more cisterns were cut:

> The builder did not report his discovery to the authorities immediately, but used the underground chambers as handy dumping grounds for stones and debris to save himself the trouble of carting away the useless material. When the houses were ready the owners in a casual way informed some Government officials of the existence of the Hypogeum. The place was visited, but being full of rubbish and swamped with water no special importance was at first attached to it. The Government, however, appointed a Committee to report on the discovery, and in 1903 the place became Public Property.[6]

The doctor and the Jesuit

The first scholar to visit the Hypogeum was the eminent Maltese medical man and polymath, Dr A. A. Caruana, who spent 29 December 1902 there at the request of the British authorities.[7] Caruana was not able to excavate, merely inspect, but he commented particularly on a rather macabre sight. The lowest level of the underground labyrinth proved to contain 'a great quantity of human skulls and bones … heaped over each other and at random'.[8]

In 1903 official excavations started under the supervision of Father Emmanuel Magri, a Jesuit priest and one of the members of the management committee of the Valletta Museum. Magri began by sinking a shaft deep into the rock to create the modern entrance to the Hypogeum in its middle level. All the rubbish left behind by the builders was then

removed via this shaft. After that followed tonnes of 'dark dank earth' that seemed to have been deposited throughout the structure at some time in antiquity. According to contemporary observers, this deposit was uniformly 'full of fragments of bones, pottery and other small objects'.[9] The pottery and small objects were saved; the bones were placed in a heap for daily disposal by the works foreman and never heard of again.[10] Thus began a story of neglect, muddles and bizarre losses of prime archaeological evidence from the Hypogeum – a story that continues to the present day.

Soon after clearing the central chambers, Magri was called away by the Jesuits to save souls abroad and died suddenly at Sfax in Tunisia in 1907. He had not yet published any report on his work in the Hypogeum and the notebooks that he was known to have kept in which he had recorded the

details of his excavations mysteriously disappeared after his death.[11] Perhaps the Jesuits have them.

The consequence at any rate, as David Trump admits, is that though most of the objects and pottery excavated by Magri have been preserved, 'no record of their context or associations survives'.[12] Since full details of provenance are essential if an informed archaeological judgement is to be made, or a chronological sequence proposed, the value of the finds is thus greatly reduced.

The godfather

After Magri came Themistocles (later Sir Temi) Zammit, the renowned 'godfather of Maltese archaeology', who was at this time Curator of the Valletta Museum. His careful and

systematic excavations at the Hypogeum removed the remaining deposits uncleared by Magri, including the bone-filled earthy mass in the lowest storey which Caruana had noticed in 1902. The nature of this mass was described at some length by Zammit in the official report of his excavations published in 1910:

> A dark compact deposit was found which showed nowhere signs of having been disturbed. In this old deposit no stratification was observed and in caves which were cleared inch by inch, the deposit was always of the same type and contained objects of the same quality. The deposit of the large caves, about a metre in depth, was made of the red earth one finds in our fields and in this, bones and potsherds were intimately mixed … disjointed and confusedly massed … Very few bodies were found lying in a natural position and no special arrangements such as trenches, sepulchres, stone enclosures etc., were met with, anywhere, intended to receive a body.[13]

For example in one cave:

> Not a single [skeleton] was found lying with bones in position … At least 120 skeletons were buried in a space of 3.17 by 1.2 by 1 m. This is enough to show that a regular interment was out of the question as not more than 12 bodies could be laid in such a limited space.[14]

In a separate publication in 1912, coauthored with T. E. Peet and R. N. Bradley, Zammit confirmed that:

> No complete skeletons came to light, and the bones lay in confusion through the soil as in the rest of the Hypogeum, except that occasionally an arm with fingers, and a complete foot, and several vertebrae would be found lying with the parts *in situ*. From the upright position of an isolated radius it might be judged that the filling up of the cave was of a wholesale nature, rather than that individual burials took place in it … unrelated bones and also implements were found in the interior of skulls … Animal

> bones were found mingled with human.[15]

Altogether, Zammit calculated, the skeletons of somewhere between 6000 and 7000 individuals lay tangled and mashed up together within the Hypogeum.[16] One of his students, W. A. Griffiths, who wrote a report on the excavations in *National Geographic* magazine in 1920, put a higher figure on the record:

> Most of the rooms were found to be half filled with earth, human bones and broken pottery. It has been estimated that the ruins contained the bones of 33,000 persons … Practically all were found in the greatest disorder …[17]

Let's assume Griffiths' figure, not repeated elsewhere in the literature, is a mistake and stick with the lower total of 6000 to 7000 individuals. What were they doing there? And how

(other than with howls of outrage and disbelief) are we to receive the official admission, already reported in chapter 15, that almost none of this vast horde of prehistoric bones has been preserved? Professor J. D. Evans was by no means overstating the gravity of the matter when he described the disappearance of the remains as 'an irreparable loss to Maltese archaeology'.[18] And that was in 1971 when the National Museum still had eleven of the Hypogeum skulls in its possession.[19] By 2001, as we've seen, only six were left.

Travel plans

June 2000

I first went to Malta in November 1999 because of the

rumours of an underwater temple off Sliema reported in chapter 15. My dives that November were arduous and unproductive. But I kept an open mind and determined that I would return the following summer in better weather. I rarely plan things far in advance, but it was obvious that we should be there in June, and very specifically around 21 June – the summer solstice – in order to see the wondrous light effect, contrived by the ancients, that occurs at sunrise at the megalithic temple of Mnajdra. At least that was a sure thing, and worth making the journey for in its own right, even if the diving turned out, as I feared it would, to be a bust for the second time running.

Since solstice alignments usually work equally well on 20, 21 and 22 June (the sun's rising point in the east and setting point in the west hardly change at all during the entire three days), Santha and I scheduled to be at Mnajdra on the 20th

and then to fly on to Tenerife in the Canary islands to observe some more solar magic on the 21st – this time at sunset – that had been reported in a group of mysterious pyramids in the little town of Guimar recently excavated by the explorer Thor Heyerdahl. We would meet Heyerdahl at Guimar for the very first shoot of my Channel 4 TV series on the 21st. Afterwards the film crew would return to England but Santha and I would stay on in Tenerife for a few days to check out claims by local divers to have seen 'strange things' underwater at several points around this volcanic Atlantic island – including 'towers made of huge blocks of stone' and a cross (also 'huge') formed by two straight channels intersecting at right angles and seemingly carved into a lava flow on the sea-bed at 27 metres.

From Tenerife the final leg of our June 2000 journey, now spilling into July, would take us to Alexandria in Egypt.

There, as reported in chapter 1, we had arranged to meet Ashraf Bechai for 10 days of diving to see if we could relocate the parallel walls of giant regular blocks that he remembered seeing years before underwater off Sidi Gaber.

A temple, or a tomb … or something else?

What was the Hypogeum of Hal Saflieni *for?* Presumably its makers must have had a specific function in mind when they invested so much time, energy and human labour in its creation. But what?

J. D. Evans, the most influential of the group of archaeologists who made their names in Malta during the second half of the twentieth century, is reticent on this subject. Concluding a 15,000-word dissertation, which guides us through every room and corridor of the Hypogeum with

all the verve, passion and originality of a refrigerator manual, he writes: 'This completes the description of the monument. A few words must now be said about its nature and purpose. In later years Sir Themistocles Zammit was of the opinion …'[20] We then get a summary of Zammit's opinions. In 1910, notes Evans, the great man had believed that 'the Hypogeum was in part used as a sanctuary in which religious ceremonies were conducted, and in part as a burial place in which the bones of the dead were deposited after being deprived of the flesh'.[21] In later years, however, he

> was of the opinion that it was an underground temple, roughly analogous in function to the stone-built ones above ground, though perhaps also used for special initiation rites, and that only at some later time was it used for the burial of the large number of people whose remains were found in it.[22]

And what of Evans' own opinion, set down in his authoritative 1971 survey, *The Prehistoric Antiquities of the Maltese Islands:* 'In point of fact, there is no cogent reason against, and much evidence in favour of, the primary use of the Hypogeum as a place of burial. It is its use as the locus of a cult which, if anything, may be secondary …'?[23] He only momentarily allows himself to speculate, but when he does so he gets interesting:

> Even admitting that a certain amount of cult activity must have gone on in the inner halls of the Hypogeum, the number of persons involved must have been very small. The Hypogeum was at no time a place of public worship, as the stone temples seem to have been. Had it been so the smoke of the flares and torches necessary to provide adequate light must have stained and blackened the porous limestone of the walls and ceilings, whereas in fact no traces of this can be seen. The Hypogeum was in all

> probability never fully illuminated in antiquity? its magnificently carved and painted halls were perhaps only half apprehended in a flickering and uncertain light by a few privileged or dedicated persons.[24]

Dr David Trump, another of the acknowledged experts on Maltese prehistory, speculates that the Hypogeum 'began as a simple rock-cut tomb [and] became elaborated to include a funerary chapel at its heart'.[25]

Colin Renfrew, in *Before Civilization*, describes Hal Saflieni as 'a great charnel house' but also notes: 'The main chamber has an imitation façade which almost certainly mimics the temples above the ground.'[26]

So some sort of a combination between a tomb and a temple, with perhaps just a smidgeon of dimly lit cultic or initiatory behaviour grafted on, seems to be a fair summary of the gamut of orthodox opinion as to the function of the

Hypogeum.

The Goddess and the Sleeping Lady

Zammit, Evans, Trump and Renfrew do represent orthodox opinion on this matter. They're the heavy hitters. Centre Court at Wimbledon. In their league only the late Marija Gimbutas, formerly Professor of European Archaeology at UCLA, takes a divergent approach – and even she does not question the basic, seemingly obvious, assumptions that the Hypogeum was used as a burial place and that rituals of some kind must have been performed within it as well. She likewise accepts, without examination, the orthodox chronology for the construction of the labyrinth (3600–2500 BC).[27] For these reasons, though radical, her view is not so

divergent from the mainstream position as it can sometimes appear. Rather, she works within the same framework but places less emphasis in her analysis on burial at the Hypogeum than on the cultic activities and initiation rituals that she believes were also performed there.

Gimbutas, who passed away in 2001, is one of the leading proponents of an intriguing hypothesis about who was who and what was what in prehistory. It concerns the distinctive carved and/or painted figures of enormously fat women that have been found in many European Neolithic sites (c.7000–4000 BC) and the almost equally numerous and *virtually identical* examples going far back into the world of Palaeolithic cave art (the Venus of Laussel, c.30,000 BC; the Venus of Lespugue, c.25,000 BC, etc.).[28] According to Gimbutas and others who have entered this fray, these

figures are the symbols and representations of an archetypal 'Mother Goddess' figure – simultaneously the Goddess of Fertility, the Goddess of Death and the Goddess of Rebirth – whose worship was ancient and must once have been extremely widespread.[29] Whether we find her painted, carved in relief out of the rock wall of a cave (as in the celebrated example of Laussel), or in the form of a free-standing sculpture, the Goddess is usually represented as an imposing, hugely fat woman with dangling breasts, egg-shaped buttocks and bulging calves and forearms. It is therefore noteworthy that many figures exactly matching this description have been excavated from Malta's megalithic temples, including two in repose – usually referred to as 'the Sleeping Ladies' – that were found in the Hypogeum itself.

'The Hypogeum', notes Gimbutas:

> with its rooms painted liberally with red ochre wash, represents the Goddess's regenerative womb … An indication of the religious use of these womb-shaped chambers are the figurines of Sleeping Ladies lying stretched out on low couches, associated with two cubicles opening into the Main Hall. The more articulate one, known as 'The Sleeping Lady of the Hypogeum', is a true masterpiece. This generously rounded lady with egg-shaped buttocks lies on her side, asleep, almost visibly dreaming. Why is she sleeping in the tomb? One explanation is that this represents a rite of initiation or incubation. To sleep within the Goddess's womb was to die and to come to life anew. The Sleeping Lady could also be a votive offering from one who successfully passed through the rite of incubation in the Hypogeum …[30]

I have stood before the Sleeping Lady of the Hypogeum many times. Her exact provenance within the labyrinth is not as simple a matter as Gimbutas thinks because she was excavated by the ill-fated Father Magri. All we know, and

that is hearsay, is that she was found in a ‘deep pit of one of the painted rooms’.[31] These days she occupies a glass case mounted on a slender plinth in a cubicle at the rear of the National Archaeological Museum in Valletta. The cubicle is dimly lit and the tiny clay figure, just 12 centimetres long, seems to float in space, sleeping if she is sleeping, dreaming if she is dreaming …

But can anyone really claim to know what was in the mind of the prehistoric sculptor who moulded her from clay, arranged the pleats of her figure-hugging midi-skirt over her ample thighs, and positioned her in lifelike repose upon an oval couch with her right hand wedged under her ear for a pillow and her left arm draped forward, supported by her huge breasts?

Now you see it, now you don't

Malta, 6–20 June 2000

During the two weeks we were in Malta before the June 2000 solstice we devoted an intensive week to diving. A Maltese friend, George Debono, supplied the boat – a small, comfortable cabin cruiser that is his pride and joy – and he, his son Chris and his sister Amy spent days with us tracking back and forth on the thankfully calm seas off Sliema. Dive support, tanks and refills were provided by Andrew Borg, a friend of George's and a top-flight diver who worked with us untiringly. We were lucky enough to have with us from Britain Tony Morse, a professional geologist and a PADI dive instructor in his own right. And Hubert Zeitlmair was on board as well, his confidence renewed each morning as we set out that that this would be the day on which we would

relocate his missing underwater temple.

But we never did. We dived and dived and dived again yet we could not find it – as though it had dissolved in the sea or, like some magical castle, had the power to appear and vanish, appear and vanish …

In the Grail Castle Parsival fails to ask the right question and the Fisher King and his Knights and all the maidens of the procession, and the Holy Grail itself, and the castle too disappear without a trace. Was that what I did off Sliema? Did I fail to ask the right question?

I had certainly become over-focused on Zeitlmair's notion that his temple was on a sea-mount 3 kilometres from shore. That, at any rate, is what I kept us looking for, even though I remembered Shaun Arrigo insisting the previous November that the site he had filmed for Zeitlmair was not 3 kilometres

out but just 1. I would have liked to conduct a thorough search at both distances. But the problem was that I could only afford to devote a few days to speculative diving around Malta – a week at the most – and it made better sense to investigate one area well than two areas badly. So I had to gamble. One kilometre or 3?

I liked the level of conviction Zeitlmair radiated that the temple ruins stood on a shallow spot surrounded by deep water and I felt reasonably confident that such a place (with or without a temple on it) did exist off Sliema. Part of it was the possible uncharted reef on the Royal Navy aerial photo that Zeitlmair had shown me at our first meeting in the Diplomat hotel. And more provocatively, although it is difficult to judge distances accurately at sea, the very first of my November 1999 dives seemed to have been in exactly the right place on a reef with exactly the right profile – which,

unfortunately, I had not searched properly.

So surely all we needed to do was find that reef a second time, which shouldn't be too difficult, I reasoned, since we'd already found it once – get its GPS bearings and then search it thoroughly from end to end until we came to the temple.

But neither the temple nor the uncharted reef wanted to be found twice – at any rate obviously not by us. We abandoned the diving on the 14th. On the 15th I met Joseph Ellul and saw his original of Zeitlmair's aerial photograph and the press-clipping that he kept of Commander Scicluna's modest 1994 report of having found a temple underwater off Sliema. And this shifted my perspective on the whole problem. Because nowhere in Scicluna's understated letter to the *Sunday Times* of Malta had he said what distance from the shore he had been diving at when, in his own words, he had located 'a prehistoric temple … under 25 feet of water … at

Sliema' (see chapter 15). It was Joseph Ellul's lively mind that had put the two things together – on the one hand, Scicluna's testimony and, on the other, the general location off Sliema of the 'reef' indicated in the aerial photograph – and it was Joseph Ellul who had concluded, not necessarily correctly, that the temple Scicluna had seen must be located on that reef. Zeitlmair had then taken the inquiry to the next logical stage by hiring the Arrigos to dive the site for him by proxy. And lo and behold, when they had done so they had found and filmed something that looked quite a lot like a temple.

But the opportunities for miscommunication between Zeitlmair with his heavily accented German English and the Arrigos would have been legion and the whole business of agreeing on the exact area in which to pursue the search would have been doubly complicated by Zeitlmair's

blindness. Now, over two seasons, I had looked where Zeitlmair had said I should look, and dived where he had said I should dive – pretty thoroughly, I should add – and had failed to find his temple.

Was this because it wasn't there? I would have thought so if it hadn't been for Scicluna's letter. Or was it because we'd been looking in the wrong place? Maybe Zeitlmair and I should have listened more carefully to Shaun Arrigo in November 1999 when he'd insisted that the site was just a kilometre from shore.

More Fat Ladies

If the Sleeping Lady is a form of the Goddess then it is probably significant that two such figures were found in the Hypogeum while none have been found elsewhere … But

other ‘Fat Ladies’ – sitting down or standing up, sometimes miniature and sometimes carved on a fairly grand scale out of limestone – were found by the excavators at all the major megalithic temples of Malta. The original of one of these sculptures, from Tarxien (a replica remains on site at the temple) has been moved to the Museum and dominates the room next door to the two Sleeping Ladies. This obese figure is reckoned by Colin Renfrew to be ‘the earliest colossal statue in the world’.[32] David Trump believes that she must surely, from her ‘size and position’, be ‘the Goddess herself’.[33]

> When complete she stood about 2.75 metres high, but time, weather and above all the local farmers have reduced her to waist height … She wears a very full pleated skirt. It would be ungentlemanly to quote her hip measurements, and her calves are in proportion. She is supported,

however, on small, elegant but seriously overworked feet.[34]

The section of the Museum overlooked by the Tarxien colossus is lined with long glass panels. Arranged behind these, like Bangkok prostitutes, a harem of Fat Ladies in varying stages of undress lounge and slouch – all of them disconcertingly headless (although no significance should be placed on this since the evidence suggests that the heads have simply been lost with the passage of time).

The group includes figures from the temple of Hagar Qim thought to date to around 3000 BC retrieved from a strange cache, a time capsule, found 'secreted under an inner threshold step'.[35] Of particular note are the so called 'Seated Goddess' and the 'Venus of Malta'. The former, 23.5 centimetres high,[36] has luxuriously corpulent hips, buttocks and thighs; her ankles are crossed in front of her – crossing

the legs would be impossible for a person so fat – and her bulging arms are folded. The Venus of Malta, 13 centimetres high and fashioned from clay,[37] has been praised by many observers for its anatomical exactness and 'startlingly realistic style'.[38] Again, the Mother Goddess attributes of huge breasts and thighs are unmissable.

The remaining figures on display are summed up nicely by David Trump:

> Some are standing, naked or wearing only a pleated skirt, others also skirted, seated on some kind of stool, with legs to the front, yet others naked with the legs tucked up to one side. One or both arms are usually across the chest, the other may hang at one side.[39]

Origins in the Palaeolithic?

I have never visited any of the painted caves of Palaeolithic Europe – Lascaux, Chauvet, Laussel, Peche Merle, Lespugue, Altamira, Cosquer, and dozens upon dozens of other sites – although I still hope, in this lifetime, to have the opportunity to do so. The majority are permanently closed to the public with no possibility that they will ever be reopened and in some cases, as at Lascaux, there is even a long waiting list for access to the (apparently rather good) walk-through model that has been built near by. But I recoil at the idea of touring a model and don't think it is necessary to do so, or even to be an 'expert' on the extraordinary artistic achievements recorded inside these caves, to recognize that the Venus figures found there – dating back as far as 30,000 BC – do bear close comparison to the big-breasted, big-hipped Venuses of Malta, the 'Fat Ladies' represented again and again in the megalithic temples, and the Sleeping Ladies of the

supposedly Neolithic Hypogeum.

My choice of the word ‘supposedly’ here is deliberate. The Hypogeum is *supposedly* – not definitely – a Neolithic structure.

However, it has been *assumed* to be Neolithic since its discovery and has been regarded as securely dated – to between 3600 and 2500 BC – since the introduction of calibrated radiocarbon-dating more than a quarter of a century ago.[40] The habit of viewing it in the Neolithic time-frame is therefore deeply ingrained and not a single scholar within the mainstream has considered the alternative possibility that is suggested by the Mother Goddess figures, the cave-like subterranean labyrinth, the use of red ochre and black manganese pigment – and many other curious and notable features. This is the possibility that the Hypogeum, or

parts of it, as well as the ideas and symbolism it enshrines, might have been misdated to the Neolithic 5000 years ago – might in fact date back to the Palaeolithic more than 10,000 years ago.

It is thanks solely to the efforts of three determined Maltese scientists, all medical doctors with a deep and abiding 'amateur' interest in prehistory, that this electrifying possibility, brushed under the carpet for a century, is today on the agenda for serious discussion.

Anton Mifsud is senior consultant in Paediatrics at Saint Luke's Hospital, Malta, and President of the Prehistoric Society of Malta. His son, Simon Mifsud, is a senior registrar in Paediatrics at the Gozo General Hospital. Charles Savona Ventura is a consultant in Obstetrics and Gynaecology at Saint Luke's Hospital, Malta. Together and separately they have presented a devastating critique of the comfortable

archaeological consensus, reported in the last chapter, that the Maltese islands remained entirely *uninhabited* by human beings until around 5200 BC.

Recently, to their credit, some archaeologists have begun to pay attention and to do so publicly. Writing in 1999, for example, Anthony J. Frendo had this to say:

> The earliest human inhabitants on these islands are currently thought to have come here around the end of the sixth millennium BC during the Neolithic period. This quasi-dogmatic stance was severely put to the test when Anton and Simon Mifsud claimed that this date had to be pushed back to a much earlier period, namely the Palaeolithic.[41]

After reviewing the detailed findings presented in their 1997 book *Dossier Malta* Frendo concludes that the Mifsuds' claim, though revolutionary, is in fact correct and that their work

has proved ‘beyond any reasonable doubt’ that human beings were present in Malta during the Palaeolithic as early as 15,000 to 18,000 years ago and that ‘Malta’s history is thus extended backward by eight millennia’.[42]

Reopening the question of temple origins

As Frendo is the Head of Department and Senior Lecturer in Archaeology at the University of Malta, this is no lightweight endorsement. If it is supported by other archaeologists – and it becomes broadly accepted that there were indeed humans on Malta after roughly 15,000 to 18,000 years ago – then the result, ultimately, can be nothing less than a complete rewrite of Maltese prehistory.

In chapter 18 we will weigh up the hard empirical

evidence that underwrites the Mifsuds' case. Meanwhile, I doubt whether archaeologists have yet properly understood the ramifications of their profession's inevitable (and I suspect imminent) official adoption of the much earlier date of first human habitation that the Mifsuds propose. At any rate, if they have understood, I see no sign of it in the literature other than Frendo's monograph.

For example, isn't it obvious, once the presence of Palaeolithic humans in Malta is widely acknowledged, that this must force a radical revision of the perspective from which the Hypogeum and the megalithic temples like Gigantija, Hagar Qim and Mnajdra have traditionally been viewed? For even if further investigation reconfirms the conventional wisdom that these great structures were indeed built in the Neolithic between 5600 and 4500 years ago, the proof of a Palaeolithic presence in Malta must raise question-

marks over the obviously sophisticated and well-developed *architectural heritage* that all the temples incorporate and express from the outset. It would no longer be entirely safe, or logical, to look exclusively outside Malta for the origins of the skills, knowledge and ideas invested in them – e.g. as part of the intellectual baggage carried by the presumed first settlers (the so-called 'Stentinello culture', thought to have arrived from Sicily 7200 years ago).[43] On the contrary, an accepted Palaeolithic presence would raise the possibility that the temple heritage was *not* an import from Sicily but was instead the product of very long *in situ* development in Malta itself – perhaps in parts of Malta that have so far evaded detailed archaeological scrutiny and particularly in areas that have been submerged by the sea.

This is emphatically not to suggest that the wave of Neolithic settlement which archaeologists have detected in

Malta around 7200 years ago did not occur – because it certainly did! It is to suggest instead a parallel hypothesis (my own, not the Mifsuds', I hasten to add) that when Neolithic settlers first entered Malta from Sicily 7200 years ago they may have encountered the remnants of a much older, pre-existing culture which possessed and gradually passed on the secrets of how to build and align the temples.

Let's not even dignify such wild speculation with the label 'hypothesis'. Still it seems to go some way towards resolving the paradox noticed by David Trump that 'though building in stone was introduced to Malta by the first settlers … the use of huge blocks, so-called megalithic architecture, is not known before the temple period'.[44] Could this be because the stone-working culture of the 'first settlers' was fundamentally different, and inferior, to an architectural tradition that already existed in Malta before their arrival and which was

the true author and ancestor of the Maltese megalithic temples?

17 / The Thorn in the Flesh

> We amateur archaeologists do it for the love of it, and the excitement and adventure, whereas the so-called professionals are caught up in the ruts of the establishment. Above all, they have no right at all to claim any monopoly of interpretation.
>
> Anton Mifsud, July 2001[1]

Malta, 16 June 2000

Anton Mifsud is in his early fifties, of medium build, olive-complexioned, heavily tanned, with a lot of experience and humour and a nice combination of strength, tolerance and intelligence in his face. He is exceptionally open-minded and lateral-thinking by nature – telling me once that he didn't automatically dismiss *any* idea, even if it seemed absurd. The

point, he said, was to submit problems in history and prehistory to rigorous inquiry, find out the facts about them and then draw the conclusions indicated by those facts.

I first met Anton on 16 June 2000 when he signed my already much annotated copy of his explosive little book *Dossier Malta*. Just two days previously, on the 14th, I'd concluded that I wasn't going to throw any more money into diving off Sliema. We'd looked, it hadn't worked, the temple didn't exist, and Malta didn't love me.

Then on the 15th I met Joseph Ellul and read Commander Scicluna's letter. So by the 16th, when Anton Mifsud came to visit me at the seafront apartment Santha and I had rented in Sliema, I was already more upbeat about the prospects of an underwater discovery than I had been for several months. I'd also recently acquired and carefully read *Dossier Malta* and begun to digest the implications of Mifsud's research,

hitherto unknown outside Malta.

Accompanying Anton that day was Charles Savona Ventura, with whom he has co-authored several books. He's a big bear of a man who looks like a Mexican bandit and is a mine of information about Maltese prehistory.

How, I found myself wondering, had these two obviously busy and successful consultants in hospital medical practice managed to keep their day jobs and learn so much about the past as well? Because clearly they were not just interfering 'amateurs' in the world of archaeology … You only had to listen to them for two minutes to realize that they knew their stuff.

Malta: echoes of Plato's island

Malta, 16 June 2000

As the conversation unfolded, Mifsud and Ventura got round to telling me about the latest slice of provocative unorthodox prehistory they were working on -*Malta: Echoes of Plato's Island*[2] – which would argue that Malta is a remnant of the lost island of Atlantis.

'You're not going to like our date for the flood, though,' said Mifsud, who had read *Fingerprints of the Gods*, in which I first began to set out my case for a lost civilization destroyed at the end of the Ice Age more than 12,000 years ago – a lost civilization of the Palaeolithic, in other words.

‘Why won’t Hike it?’

On the one hand, Mifsud explained, he had strengthened and added to his evidence for a human presence in Malta during the Palaeolithic in the three years since the publication of *Dossier*. On the other, however, his new research for *Echoes* (with Charles Savona Ventura and two

other co-authors) had led him to a distinctly non-Palaeolithic date for the deluge that he believed had destroyed a formerly much larger Malta – the prehistoric Malta that was, in his scenario, the source of the Atlantis myth.

Reduced to its barest essentials, Mifsud's proposal is that a great land-bridge that once joined Malta to Filfla collapsed cataclysmically through faulting of the submarine Pantelleria Rift at around 2200 BC.[3] He links this event, which would have generated massive tidal waves capable of flooding the entire archipelago, to the sudden demise of the temple-building culture that is well attested in Malta's archaeological record at the end of the third millennium BC.[4] And, in an elegant argument, he suggests that it was this lost megalithic culture, and its overnight destruction by earthquakes and floods c.2200 BC, that was recorded in ancient Egyptian

annals, passed on to the Greeks, and in later times remembered as 'Atlantis'.[5] Mifsud points out that the relative chronologies for ancient Egypt and Atlantis given by Plato – with the latter said to be a thousand years older than the former[6] – coincide with the relative chronologies for ancient Egypt and Malta (the former began to build with megaliths in the Pyramid Age c.2600 BC; the latter began to build with megaliths a thousand years earlier at Gigantija, *c.3600* BC).

'You're quite right,' I told Anton after I'd thought through his reasoning, 'I don't like it at all.'

As he looked at me expectantly, I raised my left hand and began to enumerate the counter-arguments on my fingers.

'Firstly, there's the issue of the relative chronology. To make your argument work – I mean about the megalithic civilization of Malta being a thousand years older than the

megalithic civilization of ancient Egypt – you have to buy into the orthodox archaeological datings for both places. But you ought to be the first to know that orthodox archaeological datings may not always be correct. In the case of Egypt we have actual structures, such as the Sphinx and the megalithic temples beside it, which may be much older than the third millennium BC[7] – I'm sure you're familiar with the debate. There's the megalithic stone circle at Nabta, 200 kilometres west of Abu Simbel, which is at least 7000 years old.[8] And then there are the accounts of the ancient Egyptians themselves – the Abydos King List, the Turin Papyrus and so on – which trace the origins of their civilization back 30,000 years into the past. Again, your relative chronology only works if you accept the orthodox position that all such accounts are baseless fictions – which I certainly don't.'

Secondly, I continued, Anton's argument involved not taking Plato seriously on the epoch in which he had set the Atlantis events – supposedly 9000 years before Solon's time, i.e., 9600 BC, i.e., about 11,600 years before the present, i.e., the end of the Palaeolithic. And I could see no good reason *not* to take Plato seriously on that – indeed, he could have hardly set his global deluge (described as affecting both the Mediterranean and the Atlantic) in a more flood-prone and cataclysmic epoch than the end of the Ice Age around 11,600 years ago. To conclude that Plato had not meant 9000 years before Solon's time (9600 BC) but 1600 years before Solon's time (2200 BC) seemed to me arbitrary, to say the least.

Thirdly, the notion inherent in Mifsud's reasoning that Plato must have been speaking of the Mediterranean west of Malta when he referred to the 'true ocean' leading to an opposite continent seemed to me to be highly suspect. I told

Anton I was convinced that when Plato said this ocean was the Atlantic and placed Atlantis in it 'opposite the Pillars of Hercules' he knew exactly what and where he was talking about. So to my mind this on its own made Malta in the central Mediterranean an unlikely candidate for Plato's island.

But I hastened to add – and not just out of politeness – that none of this meant Mifsud was necessarily wrong. I could be the one who was wrong. Atlantis had been placed at other sites in the Mediterranean by other scholars – also at relatively late dates.[9] And it had been placed almost everywhere else in the world from Indonesia to the South Pole.[10] I happened to be one of those who believed in taking Plato as literally as possible – if I was going to take him seriously at all – but I recognized the validity of other

approaches.

Terminus ante quern

Malta, 16 June 2000

Besides, there was no real contradiction between our positions – for the simple reason that we seemed to be talking about entirely different things. To state, as Anton did, that Malta underwent a flood/earthquake cataclysm about 4200 years ago neither weakened nor strengthened my proposition that it would also have been subject to flood cataclysms – probably several times – during the meltdown of the last Ice Age between 17,000 and 7000 years ago. Likewise, Anton's belief that a land-bridge between Filfla and south-west Malta collapsed through rifting processes 4200 years ago in no way

contradicted the well-established fact that Malta's north-eastern coast was connected to Sicily by a 90 kilometre land-bridge before it was swallowed up by the rising seas at the end of the Ice Age.

Both periods are interesting for different reasons. But, I pointed out, Anton's own research indicated that there had been human beings on Malta during the period of the great Ice Age floods at the end of the Palaeolithic. And although he seemed to accept the orthodox radiocarbon 'sequence' and chronology for the temples and the Hypogeum (of 3600 BC down to about 2200 BC), hadn't he himself also written in *Dossier Malta* that:

> The *terminus ante quern* Carbon-14 dates given for these sites … are of *before* such and such a year in the Neolithic; whether this period was a year or several centuries cannot be established by the Carbon-14 date alone. The

> most logical explanation is successive utilization of such sites initially by Palaeolithic and subsequently by Neolithic Maltese.[11]

And a few pages later:

> Since the megalithic temples have been assigned a *terminus ante quern* carbon date of before 3000 BC, nothing precludes that they were a carryover of a tradition which had started in the Palaeolithic. Indeed the bas relief images of bulls and a cow on the large blocks of stone lying just outside the Tarxien temple complex are themselves diagnostic features of Palaeolithic art.[12]

I could sense Mifsud's reluctance as a rigorous scientist to get drawn into idle speculation. But surely he was aware of the general direction in which his arguments were tending? If he was saying that there had been humans on Malta in the Palaeolithic, which he certainly was, and if he was suggesting

that these Palaeolithic humans had initiated the development of the megalithic temples, which, again, he certainly was, then weren't the floods at the end of the Palaeolithic of at least as much potential significance to Maltese prehistory as the floods and earthquakes that might also have occurred 4200 years ago?

Skeletons in the Hypogeum

Anton Mifsud's attack on the orthodox chronology and interpretation of prehistoric Malta is made across several different fronts and sometimes produces contradictory data. This doesn't seem to bother him. Once launched on an inquiry, he pursues the quest for data ruthlessly, as an end in itself, not to support particular arguments or positions.

In the case of the Hypogeum, Mifsud's approach, at first,

was not directly concerned with chronology. Poring with the eye of a doctor over the early excavation reports of Zammit, Bradley and others, he was puzzled by what they had to say about the state of the human remains found inside the labyrinth.

In summary, as we've seen, all the excavators and all subsequent archaeologists propose slightly different versions of the same theory that this great mass of remains had been *ritually buried* in the earthy matrix that was found filling the Hypogeum's lower levels to a depth of about a metre when it was opened. Yet the instinctive reactions that they set out in the original reports that Mifsud had assembled, referred to in chapter 16, show that they were clearly startled, and in a few cases troubled, by the complete chaos and disorder in which the bones were found, commenting, for example: 'From the upright position of an isolated radius it might be judged that

the filling up of the cave was of a wholesale nature.'[13] But how do we explain such a 'wholesale' filling-up of the Hypogeum with the remains of thousands of human bodies, all seemingly just dumped there 'in a haphazard way'[14] with no anatomical disposition? Isn't it a bit of a mystery?

Not according to the archaeologists who say they've seen mass 'catacomb-style' burials before in other parts of the world and on these islands – for example at Burmeghez, a natural cave in Malta,[15] and at the Borchtorff Circle on Gozo, where rock-cut subterranean tombs encircle megaliths.[16] So that makes this sort of 'funerary behaviour' part of a pattern that legitimate experts in the subject can already claim to understand. None of them would deny that the Hypogeum's labyrinthine character is utterly different from the rock-tomb character of the other sites, or that the bones it contained

were indeed in such an extreme state of disarrangement that any form of 'regular interment was out of the question'.[17] But the problem can easily be resolved within the prevailing 'burial-place' paradigm by proposing that excarnation – i.e., the removal of the flesh from the bones – was practised before interment and that the Hypogeum must therefore have been 'a burial place in which the bodies were laid or heaped as skeletons'.[18]

Oh really? Heaped up and tossed about so casually? As Mifsud counters, the Hypogeum cannot be legitimately compared to either of the two other significant sites of prehistoric mass burial in Malta:

> At Burmeghez there is a predominance of anatomical relationship between body parts, a left-sided flexed position of the body, an orientation along the main axis of the cave, and, by way of a lithic assembly, a stony

> arrangement [large, purposefully laid slabs] protecting the upper body parts …[19]

Like at the Borchtorff Circle, all the burials are of an evidently (and uncontested) ritual nature and were disposed in two phases – a pair of rock-cut tombs with a shared central shaft dated to the Zebbug phase[20] (about 4000 BC-some centuries before the supposed beginning of the temple period at Gigantija c.3600 BC), and further subterranean rock-cut tombs of the Tarxien phase arranged in an approximate circle around a subterranean 'megalithic assembly'.[21]

In fact, the only site in Malta that Mifsud regards as comparable to the Hypogeum of Hal Saflieni in general appearance – and that was found on excavation to contain exactly the same sort of chaotic deposit – is the nearby Hypogeum of Santa Lucia (less than a kilometre away) that

was excavated in the early 1970s and has since been sealed up, presumably for ever – at least so the authorities must intend – because it has been covered over by a modern cemetery.[22]

Mifsud describes the Santa Lucia Hypogeum as:

> a smaller version of that at Hal Saflieni, with a megalithic entrance and an internal architecture similar to the temples above ground. The deposit inside this hypogeum consisted of human remains admixed with Neolithic pottery and amulets, in a matrix of red earth soil; the context is similar to that at Hal Saflieni. In the words of the Director of Museums at the time, the deposit inside the Santa Lucia Hypogeum was *'as if the mass had been dumped inside the monument from the surface'*. F. S. Mallia could not have been more precise, and the close proximity of the two hypogea enhances even further a similar mechanism operating in both monuments in the creation of the deposit in question.[23]

Which brings us to the heart of the matter. Since Mifsud clearly does not believe that the carpets of disarranged human bones littered and dumped inside the hypogea of Hal Saflieni and Santa Lucia arrived there as a result of burial, then what 'mechanism' does he think was operating?

A flood

Like other good ideas that no one has ever had before but that everybody immediately gets the point of once the secret is out, Mifsud's explanation for the mass of bones inside the Hypogeum is extremely simple:

> The accumulation of human remains at the Hypogeum in Hal Saflieni were not related to primary ritual burial, but were brought down into the Hypogeum labyrinth through the action of floodwater in a matrix of red

earth and soil.[24]

The first and most obvious evidence for this novel hypothesis comes in the massively disordered nature of the remains described in the excavation reports. The presence of these disarticulated, non-anatomically disposed remains in an entirely 'unstratified' deposit 'made of the red earth one finds in our fields' that was 'always of the same type and contained objects of the same quality', cannot in Mifsud's view be explained by *any* form of deliberate burial – with or without prior excarnation. Only one agency, he argues, is capable of creating such a conglomeration in an unstratified earth matrix in which 'the same quality of shards were found on the surface, at the bottom and in the space in between',[25] and in which 'fragments of shards in parts of the Hypogeum fitted other fragments deposited in other caves far away'.[26]

That agency is a massive flood – and such events, from varying causes, have not only been known to occur in the Maltese islands but also have left distinct traces of their passage in the form of animal and human bones, as well as assorted other materials, all muddled up together and evenly spread throughout deposits of silt or earth trapped inside caves or rock fissures. The classic example is Ghar Dalam, an extensive natural limestone cave near Birzebbuga in eastern Malta, which contains six distinct layers of flood deposits swept into its depths at different periods over the last 200,000 years. Exactly as in the Hypogeum, notes Mifsud, the organic remains in Ghar Dalam 'were not distributed in an anatomical manner as they would have been in a ritual burial, but they were dispersed in random fashion inside the stratum of earth they lay in'.[27]

What Mifsud is proposing in the case of the Hypogeum,

therefore, is a one-off, one-time deluge that swept over the surrounding fields and habitations, and finally over a great surface-level necropolis that then existed in the area, carrying away all its mouldering dead in one fell swoop and dumping their skeletons and their grave goods, promiscuously mixed with fragments of pottery, the bones of large and small animals (including those of frogs and hedgehogs)[28] and a motley collection of other objects, into the nearest possible sinkhole – in this case the Hypogeum itself.

Moreover, Mifsud believes that this was the same flood – caused by the collapse into the sea of his proposed Filfla land-bridge and the resulting *tsunami* – that brought the temple-building culture of Malta, and all its activities within the Hypogeum, to an abrupt and permanent halt c.2200 BC. Since carbon-dates from Malta are as scarce as ice cubes in hell, as we shall see, it is interesting that the first ever

radiocarbon-dating of the Hypogeum's few surviving human remains – carried out in 1999 – does place them at the end of the Tarxien phase, c.2200 BC just as Mifsud argues.[29] This new evidence from the Hypogeum, he concludes, further strengthens 'the feasibility of a sudden cataclysm accounting for the sudden termination of the Tarxien people'.[30] And he points to the well-known fact that the Tarxien temple itself was sealed at the end of the late Tarxien phase under a metre-deep layer of sterile silt.[31] After several centuries of abandonment a new culture then appeared – one that had nothing to do with the temple-builders – and began building – on top of the silt layer.[32]

Old Stone Age

Although nobody in the world of archaeology seems to have noticed yet, the late Tarxien date (of between 2470 BC and 2140 BC)[33] for the Hypogeum's human remains contradicts the long-established convention, entered into dogma by J. D. Evans, that 'the primary use of the Hypogeum [was] as a place of burial'. Since all archaeologists accept that the construction of the labyrinth began significantly earlier than 3000 BC, perhaps as early as 3600 BC (and since it even contained pottery of the Zebbug phase prior to 4000 BC), its 'primary' purpose can hardly have been to receive human remains that were not deposited in it until around 2200 BC (whether or not one accepts that they were deposited there by flood). It must, therefore, have had some other quite distinct function at the time of its origin – a function that scholars may hitherto not have guessed, since no serious

attempt has ever been made to investigate alternatives to the burial scenario.

It may have been an underground version of a temple, of course – and its ‘temple-like’ features have always been recognized – but if so, why is it such a unique and unusual temple? Why does it need all those winding corridors and levels and cists secreted within rock walls, and spooky sound-effects and red-painted chambers, and falls and traps?

Whatever its purpose – probably it will never be known fully, or known at all – certainty that the Hypogeum was *not* primarily designed as a central place of burial for the dead of the temple-building culture as had hitherto been thought left the way open for Mifsud to explore other possibilities about its function and identity. And about its age. Because, as with the megalithic temples, so with the rock-hewn labyrinth, the argument of *terminus ante quern* applies, and nothing rules

out the possibility that the Hypogeum may be a ‘carryover of a tradition which had started in the Palaeolithic – to quote again Mifsud’s own words, cited earlier. By the same token the flood that he believes swamped it with bones and debris at around 2200 BC tells us nothing whatsoever about the origins and antiquity of the structure itself – only that it was already there to be flooded in 2200 BC (and certainly not how long it had existed before that).

Long but ultimately relevant excursion to two potentially unpronounceable temples

Maltese is a lovely, lilting language to hear. Structurally it belongs to the Semitic family and is thus closely related to Arabic and Hebrew – indeed, Maltese friends tell me that their language and Arabic are often mutually comprehensible

without need for interpretation. Modern Maltese also includes great numbers of Indo-European loan words that, for historical reasons, come mostly from Italian and English. Written Maltese uses the Latin alphabet but the pronunciation of the letters is often quite unusual in order to allow full expression of Semitic and uniquely Maltese cadences in speech. Thus Hagar Qim is pronounced something like *Hajar-iim*, Tarxien is *Tarshien*, Mgarr is *Umjaar*, Zebbug is *Zebooj*, and the potentially unpronounceable Mnajdra reaches the ear as a soft and mellifluous *Munaidra*.

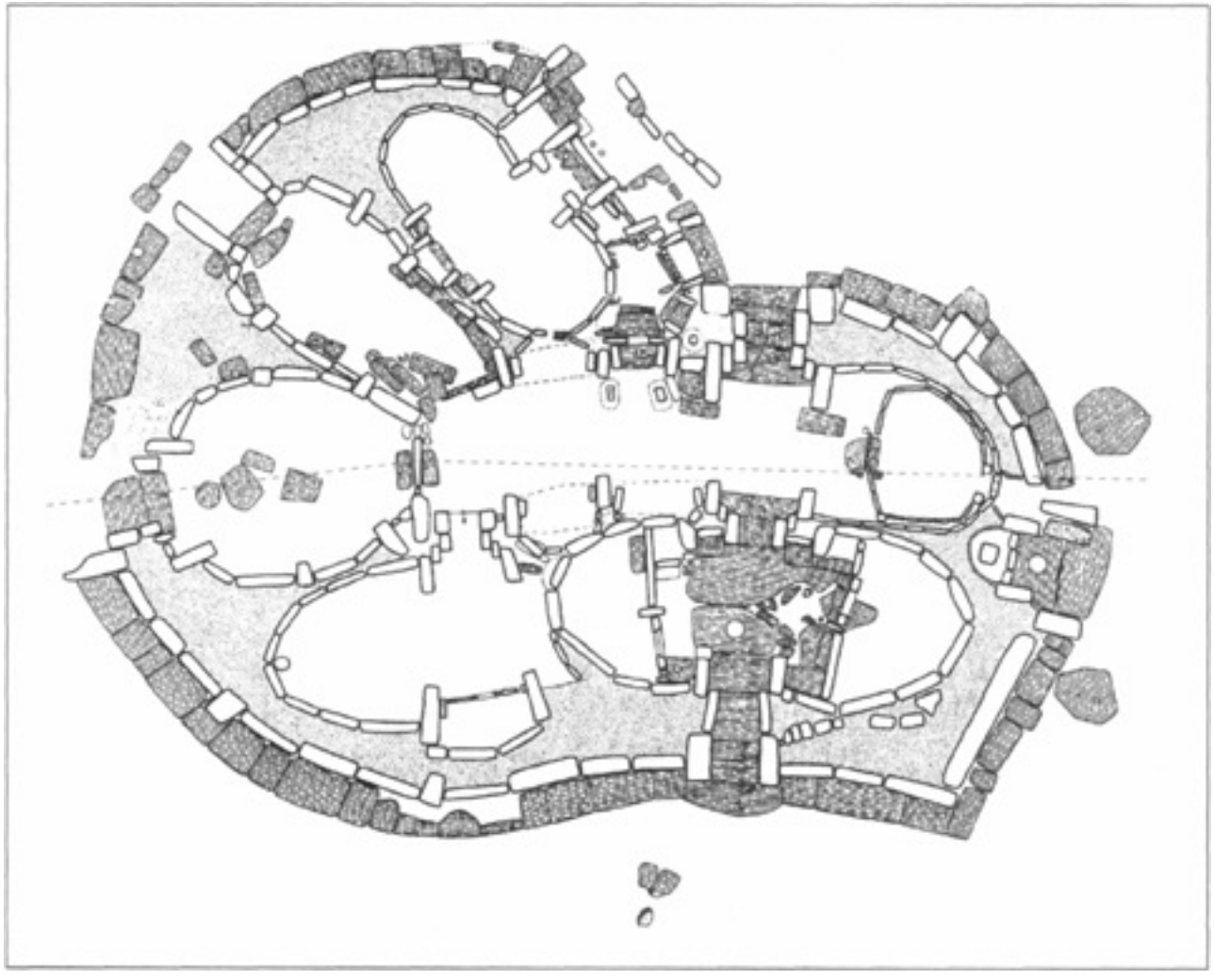

Floorplan of Hagar Qim temple. Based on Evans (1971).

About 8 kilometres south-west of the Hypogeum, but separated from one another by less than a kilometre, the temples of Mnajdra and Hagar Qim stand on Malta's south coast, overlooking a spectacular panorama of deep blue sea and Mediterranean sky in which the craggy little island of Filfla – blasted to smithereens by centuries of artillery practice – floats like a mirage. By night, roofless (though thought to have been roofed in antiquity),[34] they gaze up at the wheeling constellations and take an interest in the peregrinations of the moon. By day they use a variety of shadows, peep-holes and cunningly contrived alignments to follow and to record the path of the sun.

Hagar Qim is the higher and northernmost of the twin

temples. Occupying a flattened promontory of glaring white limestone, it is thought to have been built between 3500 and 3300 BC.[35] As with other surviving sacred architecture of archaic Malta, it seems to abhor straight lines, seducing the eye with patterns of curves and waves. Its flowing perimeter, flung out in a great irregular ellipse, is defined by a picket of enormous upright megaliths, deeply gnarled and weathered, some laid side-on, some face-on, some broken, some missing, some restored. What seems like its primary entrance, framed by an imposing trilithion, is on the south-eastern side of the structure in a gently concave section of wall made of large, finely fitted blocks. On the north side, to the east of a second trilithion, a narrow, tapering monolith, like a chimney or an obelisk, towers 7 metres tall; in the very top of it, only visible from a helicopter or a crane, is a carved basin, function unknown.

Inside the temple there are the usual clusters of lobed, egg-shaped rooms arranged in pairs – but I will not describe these further here other than to refer the reader to the relevant plans and photographs. With the notable exception of their astronomical and solar alignments, which were deliberately and precisely hard-wired into the architecture and from which certain deductions may legitimately be made, all ideas of function that have been proposed for them, and for the rooms of Malta's other temples, are entirely speculative. For example, we might say that this feature here is an 'altar', that that feature in the wall over there is an 'oracle hole', while this one in the floor at our feet is a 'libation hole'; that here the priests met in convocation; that there public gatherings were held … and so on and so forth. But it would all be guesswork, fantasy, invention. Since we don't have the texts of the temple builders, the truth is that we don't know why

they built the temples, or why they built them with megaliths (rather than smaller, more manageable stones), or how these structures were used, or even if they were ‘temples’ at all in anything like the traditional meaning of the word.

Hagar Qim offers several alignments on the summer solstice. One, at dawn, is on the north-east side of the structure, where the sun’s rays, passing through the so-called oracle hole, project the image of a disk, roughly the same size as the perceived disk of the moon, on to a stone slab on the gateway of the apse within. As the minutes pass the disk becomes a crescent, then elongates into an ellipse, then elongates still further and finally sinks out of sight as though into the ground. A second alignment occurs at sunset, on the north-west side of the temple, when the sun falls into a V-shaped notch on a distant ridge in line with a foresight on the temple perimeter.

I suspect in some way connected with astronomy is an object, unknown from any other site in Malta, in Hagar Qim's south-western apse. Described as 'a mysterious column altar',[36] it is a smoothly hewn white limestone pillar, almost circular in cross-section, with a circumference of about I metre and a height of 1.5 metres. The pillar stands upright within the curve at the south-western end of the apse – which has been identified as an 'inner sanctum'[37] – so it seems to have been accorded a special significance.

Were such an object to be found amidst the ruins of a south Indian temple it would instantly be recognized as an ancient *Sivalingam*, the symbol and the manifestation of the god of knowledge, measurement and astronomy. But India is among the few places in the world where a culture of vast antiquity is still alive today. In Malta the thread connecting

the present to the past is broken and the voices and ideas of the temple-builders have not been heard for millennia …

N

Floorplan of Mnajdra. Based on Evans (1971).

Below the promontory on which Hagar Qim stands, the land falls away steeply in a south-westerly direction towards Mnajdra and the sea. It is rough land, heavily overgrown by wild thyme in the summer, with knolls and ridges of bedrock poking everywhere through the thin topsoil. These days, however, the walk down takes less than ten minutes on a concrete footpath installed by the Museums Department – which is in overall charge of the two sites.

Mnajdra is not one temple but a complex of three. Of these the easternmost, with three delicate apses disposed as a clover leaf, is the smallest and is believed to be the oldest – about 3600 BC, the same period as Gigantija. Archaeologists think that the westernmost, 'lower' temple was built next,

around 3400 BC. Finally, at around 3200 BC, the middle – or 'upper' – temple was squashed in between its elder predecessors.[38]

All are megalithic and all demonstrate a very high degree of architectural, engineering and mathematical competence on the part of the builders, but the lower temple is particularly imposing, with several courses of cyclopean masonry still intact on top of enormous dressed boulders at ground level. It was described in 1993 as the 'best preserved of all the Maltese temples'.[39] How long it can remain so is open to question, since the Museums Department's custody of the site has not yet run to the provision of full-time night-watchmen. In consequence, in 1996 and again in April 2001, Mnajdra was severely vandalized – at night – by well-organized gangs of men armed with spray paint and

sledgehammers. It beggars belief that this could have been allowed to happen – even once – on an archaeological site of acknowledged global importance that is more than 5000 years old. But for it to have happened twice?

In such ways, either by accident or by design, Malta rends and devours her own past.

This cannibal feast shows no sign of coming to an end, and, although the megalithic temples are strong and massive none of them can last for ever. As noted in chapter 15, the archaeologist David Trump recognizes twenty-three groups of ruins in the Maltese archipelago as 'classifiable temples'. But he also comments on the existence of at least twenty further 'scatters of megalithic blocks … which could represent the last vestiges of former temples' and accepts that we can never know how many there may once have been.[40]

So if the raw materials that the archaeologists have to work with in order to understand and date the temple-building culture have been so radically reduced-reduced almost by half from forty-three to just twenty-three sites (not to mention other sites that may have disappeared completely with the passage of time, or await discovery underwater) – then how can we be sure that their interpretation of Maltese prehistory is correct? And if it is difficult enough to explain how twenty-three megalithic temples appear with no architectural antecedents at the dawn of history, on tiny arid islands that had only been inhabited for 1600 years, then how much harder it is to account for forty-three of them.

Perhaps the answer lies in the Palaeolithic.

How to tell your Palaeolithic from your Neolithic

Palaeolithic is one of those supposedly exact 'scientific' terms in anthropology and archaeology that promotes inexact thought. Meaning 'Old Stone Age', it is defined – arbitrarily – as having come to an end 12,000 years ago, and to have been followed by the Neolithic, 'New Stone Age', from 12,000 years ago (10,000 BC) onwards. After about 7000 years of Neolithic culture, the metal 'ages' of copper (roughly third millennium BC), bronze (roughly second millennium BC), and iron (roughly first millennium BC) then followed.

In summary, the term Palaeolithic is generally applied to all human remains and activities prior to 12,000 years ago while the term Neolithic is generally applied to all human remains and activities between roughly 12,000 years ago and 5000 years ago. However, on closer examination it turns out that the definitions are not purely chronological – since it is possible to find certain isolated societies that may be said to

be at a ‘Palaeolithic’ or more often ‘Neolithic’ stage of development even today.[41]

Thus, as well as referring, somewhat vaguely, to periods of prehistory, ‘Palaeolithic’ and ‘Neolithic’ are also terms that say something about the lifestyles of the people to whom they are applied. Typically, archaeologists focus on the types of stone tools used at a newly discovered Stone Age site (its ‘lithic assembly’), on its art, on any evidence concerning its inhabitants’ means of sustenance, and of course on any materials that can be dated by radiocarbon or other techniques, to get a first sense of how it should be classified.

Since we are dealing with the Stone Age here, study of the lithic assemblages is a definitive exercise. Archaeologists skilled in this field are often able at a glance to assign stone tools not only to the Palaeolithic or the Neolithic, but also to

sub-categories of those broad divisions. Moreover, it is generally true to say that flints, scrapers, axe-heads, arrowheads and spear-points from the Neolithic end of the Stone Age spectrum are smaller, more delicate, more refined, better made and more skilfully worked than their counterparts from the Palaeolithic.

Although this fits comfortably with modern notions of progress and natural selection (i.e., the glorious and unbroken ascent of Man, via ever finer technology, from a 'primitive' to a sophisticated creature), other evidence suggests that the arrival of the Neolithic entailed a cultural Fall. Look at the extraordinary art that Palaeolithic humans left behind, much of it painted or engraved on the walls of inaccessible European caves between roughly 30,000 and 12,000 years ago. Nothing so beautiful, so technically accomplished, or so 'sophisticated' was ever attempted again

by any known culture until the time of the Renaissance -and Picasso is said to have commented on emerging from Lascaux: 'We have invented nothing.'[42] Yet Palaeolithic art is Palaeolithic art. It did not survive into the Neolithic.

Another indicator is the presence of pottery – with the general rule being none in the Palaeolithic and a gradual introduction during the Neolithic. However, the absence of pottery does not necessarily mean that a site automatically belongs to the Palaeolithic. Many Neolithic cultures passed through a preceramic phase, such as the first inhabitants of Mehrgarh in Pakistan, for example (Level 1A), and the first two habitation layers at Jericho (pre-pottery Neolithic A and pre-pottery Neolithic B).[43]

Archaeologists also look at how the inhabitants of a Stone Age site got their living – because here they identify another

important difference between the Palaeolithic and the Neolithic. In the Palaeolithic, though they sometimes lived in fixed communities, our ancestors are thought to have been hunter-gatherers with no agriculture or systematic food production of any kind. In the Neolithic, on the other hand, indeed at the very beginning of the Neolithic, agriculture was 'invented' (apparently independently at several locations) and food-production rapidly became the engine of expanding human culture.

But here any precise system of definitions or chronology begins to break down. As some of the new research reviewed in earlier chapters suggests, there is not a clean 'start-line' in the agricultural story 12,000 years ago at the arbitrary 'beginning' of the Neolithic. Agriculture does not seem to have taken root in some areas until thousands of years later, well inside the 'Neolithic' in chronological terms.

None of these qualifications are supposed to matter very much in Malta, where the Palaeolithic is treated by archaeologists as simply irrelevant to the human story.[44] As we've seen, the orthodox view holds that the Maltese islands were not inhabited by humans until 7200 years ago, a Neolithic date, and that the very first people were indeed Neolithic farmers – immigrants from Sicily -with a typical Neolithic 'tool-kit' and Neolithic pottery, etc. So when Anton Mifsud *proves* (as Anthony Frendo of the University of Malta conceded in 1999)[45] that humans were after all present on Malta in the Palaeolithic, and has even gone so far as to suggest a possible Palaeolithic origin for such complex 'Neolithic' structures as the megalithic temples and the Hypogeum, it should be obvious that he is stepping very far out of line.

‘Regarding the antiquity of the Hypogeum,’ Mifsud e-mailed me on 15 July 2001 after I had asked him to reconfirm his position, ‘my gut feeling is that there is strong evidence to show that it had originated in its function subserving the ancient Maltese in the Palaeolithic …’[46]

What is that evidence?

The strange case of the bison-bull (1)

In David Trump’s authoritative *Archaeological Guide* to Malta, most recently updated and extended in March 2000, the visitor to the Hypogeum is urged to:

> Pause to look at the wall opposite the stairs down to the lower storey. Dark lines of black paint outline what is apparently intended to be a bull. It is crudely done, and the head and shoulders have not survived. That it is

> ancient and intentional is shown by the fact that the ochre wash on the wall ceases exactly at the black line.[47]

There is an amazing allegation explaining why the head and shoulders of the Hypogeum bull have 'not survived' – and why most of the rest of its body has now also faded to a ghostly shadow that few visitors will be able to make out at all. The reason, reports Mifsud, is that 'The bison-bull at the Hypogeum was removed at the express directive of the Director of Museums.'[48]

What Trump calls simply a 'bull' Mifsud described as a 'bison-bull' (an extinct species) for very specific anatomical reasons:

> Besides the multitude of drawings in red ochre at the Hypogeum, there are also drawings in black manganese dioxide pigment, and one of these measures 1.15 by 0.95 metres. It represents a bovid, the Pleistocene

European bison-bull, ‘with a hunch on its back, with short horns and tail’ [Megary, T., 1995, *Society in Prehistory*, page 261] and is situated on the left wall at the entrance of the Holy of Holies … The red ochre wash on the same wall is a later feature for it terminates just short of the figure. The red wash itself is a recognized feature of early Upper Palaeolithic cultures; [for example] at Tito Bustillo [northern Spain], red wash covers the entire surface of the walls, and this has been dated to the Magdalenian [15,000 to 10,000 BC] Paintings in black were dominant in earlier forms of cave art and considering the simple crude design of this Hypogeum bovid, together with its frozen aspect, the lack of perspective and infill, and the non-differentiation between foreground and background, its dating in the Upper Palaeolithic is therefore estimated to be very early on in the pre-Magdalenian period.

Together with the horse, the bison was a dominating theme in European Palaeolithic art. Regular bulls also feature significantly in the same culture, with entire halls of bulls being represented such as at the classical

Palaeolithic site of Lascaux, which is dated to the early Magdalenian.[49]

If there is any possibility that Mifsud could be right about the Palaeolithic identity of the Hypogeum 'bison-bull' then the alleged act of scrubbing it off the wall represents not just a desecration of the integrity of an ancient archaeological site but something more sinister. The result was the destruction of scarce physical evidence which potentially contradicts teachings about Malta's prehistory that are at the heart of the orthodox world view – i.e., that Malta was not inhabited by humans during the Palaeolithic, that it remained in this condition until 5200 BC, when it was settled by a Neolithic people from Sicily, and that the Hypogeum is, therefore, a Neolithic structure, wholly a Neolithic structure, and nothing but a Neolithic structure …

The strange case of the bison-bull (2)

Anton Mifsud's extremely serious charge – effectively of official vandalism against what is now a UNESCO World Heritage site – was first put on public record in *Dossier Malta* in 1997. I was unable to find any official rebuttal of it or even a comment upon it from the appropriate authorities and when I contacted Mifsud in July 2001 to confirm that he still stood by the story, he replied that he did, 100 per cent. But, I asked, what possible motive could F. S. Mallia, the Director of Museums at the time, have had for issuing such an extraordinary order?

The motive, suggested Mifsud, was just plain stubbornness. It was well known that in the 1960s David Trump had believed the then recently discovered bull figure to be of archaeological significance. And it was well known that

Mallia, a pupil of J. D. Evans who was at that time being trained to take over Trump's position, had disagreed. Much later, when Mallia was in authority at the Museum, he decided upon a final solution to the vexatious matter of the bull: 'Mallia ordered one of the employees to scrub the representation of the wall, and he thus imagined that he had settled the issue once and for all.'[50]

The strange case of the bison-bull (3)

I felt that it would be wrong to leave an allegation as grave as this unresolved and on 17 July 2001, and again on 12 November 2001, I sent the following e-mail to Dr Anthony Pace, Malta's current Director of Museums:

Dear Dr Pace,

Thank you for your department's cooperation during my recent visit with the Diverse Productions film crew to shoot the Malta segment of a three-hour television series *(Underworld)* that we are making for Britain's Channel 4 about the origins of civilization. I am the writer and presenter of this series. I am also writing a book of the same title, to be published by Penguin. Both book and television series are scheduled to come out at the same time early in 2002.

In connection with these projects and in the interests of ensuring that what I write is accurate and fair, I would be grateful if you would e-mail me by return with your official on-the-record comments on the following – potentially rather grave – issues concerning the Museum:

In their 1997 book *Dossier Malta*, Anton and Simon Mifsud speak of a 'bison-bull' figure in the Hal Saflieni Hypogeum (Trump describes it simply as a 'bull' and notes that 'the head and shoulders have not survived'). The figure is or was painted in black manganese dioxide pigment on the wall opposite the stairs down to the lower level of the Hypogeum (Trump,

Archaeological Guide, 72), but Mifsud and Mifsud state on page 168 of *Dossier Malta* that 'THE BISON-BULL AT THE HYPOGEUM WAS REMOVED AT THE EXPRESS DIRECTIVE OF THE DIRECTOR OF MUSEUMS':

(1) Is this extremely serious charge true?

(2) If it is true, in what circumstances and for what reasons did the former Director of Museums [F. S. Mallia] order the removal of this prehistoric painting?

(3) How much of the painting was in fact removed and how much still remains visible today?

(4) If this charge, on the record since 1997, is NOT true could you please direct me to the place where I can find your department's official rebuttal and refutation of it.

Additionally, I have received a more detailed account of the alleged 'removal' of the Hypogeum bull than that given in *Dossier Malta.* According to this account, F. S. Mallia apparently engaged in arguments about the significance of the bull with D. H. Trump: 'At one point Mallia ordered one

of the employees to scrub the representation off the wall, and he thus imagined that had settled the issue once and for all.'

Would you like to comment on behalf of the Museum about this account of the events?

I would also be grateful if you could supply me with Dr Mallia's present contacts so that I may invite him to comment on this matter directly.

I look forward very much to hearing from you.

Yours sincerely,

Graham Hancock

Despite sending the e-mail twice to Dr Pace, and once to another member of staff at the Museum to pass on to him directly, I have not, at time of writing (15 November 2001) received any reply. I read nothing sinister into this. Dr Pace, having only been Director of Museums since 1999, may have no knowledge of the issue and was certainly in no way

involved in the events themselves. However, it is disappointing not to have the benefit of his comments on this important question. Nor have I been able to confirm or refute the story by questioning F. S. Mallia, the former Director of Museums alleged to have ordered the removal of the bull figure. Unfortunately Dr Mallia passed away some years ago.

The strange case of the bison-bull (4)

The next step was to talk to D. H. Trump, now retired in Cambridge, so I prepared a list of questions for him and asked my assistant Sharif to find him and interview him. The recorded interview, which sheds some further light on the mystery, took place on 26 October 2001:

Sharif: In your *Archaeological Guide* – this is the main

source I'm going on, the updated edition – you mention a bull in the Hypogeum and you say, 'Pause to look at the wall opposite the stairs down to the lower storey. Dark lines of black paint outline what is apparently intended to be a bull. It is crudely done, and the head and shoulders have not survived. That it is ancient and intentional is shown by the fact that the ochre wash on the wall ceases exactly at the black line.' Do you remember the bull I'm talking about?

Trump: I do indeed.

Sharif: OK, now in *Dossier Malta*, Mifsud alleges that …

Trump: That this was scrubbed out.

Sharif: Yes, he alleges that it was scrubbed out.

Trump: The very simple answer to that is what on earth would Francis Mallia have wanted to scrub it out for? Absolutely no motive for this. It was very slight indeed in the first place. It is known that there has been deterioration of the paint under the Hypogeum – this is what all the recent restoration work has been doing to try to stabilize the situation as it is now.

Sharif: So what's the cause of the deterioration? Is it the tourists visiting the site, something in the air? *Trump:* Presumably, yes.

Sharif: Mifsud says that Mallia was a pupil of J. D. Evans.

Trump: Yes, he was sent back to study under Evans at the Institute of Archaeology in London, to give him

the qualifications to take over the job.

Sharif: And the suggestion is that because Mallia was a pupil of J. D. Evans, he had a position that was somewhat contrary to your own position, such that you two entered into a disagreement about the significance of this bull. And it was following this disagreement between you and Mallia that Mallia ordered an employee of the Museum …

Trump: I don't think the Museum knows anything about him.

Sharif: He was a nobody in terms of academia?

Trump: We don't know who he was.

Sharif: Right, but what do you have to say about this general picture of a dispute between yourself and

Mallia?

Trump: Well, as with all scholarship, we had slightly different views of this. I was more willing to accept this very faint figure than Mallia was. The bull figure. I wouldn't regard this as a disagreement, we certainly didn't squabble over the issue.

Sharif: So it was a difference in academic viewpoint?

Trump: Well yes. I was prepared to accept – by the way it was our curator there who pointed it out to us; no one had noticed it before; it was as faint as that. I looked at it and thought, 'Well maybe there's something in it.' I wanted to put it into the *Guide* so that people could …

Sharif: Look for themselves …

Trump: Have a look and make up their own minds. Whereas Mallia was rather more dubious of it. But I wouldn't put it more strongly than that. And to call it a disagreement is quite misleading.

Sharif: OK, so really the disagreement was that you thought it was of archaeological significance … *Trump:* I wouldn't even put it as strongly as that. I thought it might be, he thought it probably wasn't.

Sharif: So his view was that it was actually impossible to take anything from it – even to be sure that it was an ancient piece of art?

Trump: Yes.

Sharif: And your view was that it might be?

Trump: Yes.

Sharif: But you'd never seen it in a state of better preservation – from the outset it was rubbed off?

Trump: From the outset it was extremely faint. As I say, no one noticed it until our curator, who obviously was up and down passing it every day for years, spotted what he thought might be something, and pointed it out to the authorities at the museum. We went and had a look and said, 'Well, maybe' – but it was never any clearer than that.

Sharif: You've seen his figure yourself – what remains of it?

Trump: It was barely perceptible then, I wouldn't … well it's even less perceptible now.

Sharif: So have you seen the changes?

Trump: Oh yes.

Sharif: And those are the changes that the restoration project is trying to

stop?

Trump: Yes.

Sharif: These are not deliberate changes – they're changes that all tourist sites have to think about?

Trump: Yes, the question of the air conditioning and the like …

Sharif: Is there any part of this bull figure which leads you to think about Mifsud's suggestion that it actually represents an extinct species? Is there enough of it left for you to tell that?

Trump: No.

Sharif: What do you think Mifsud is basing that on? He actually takes it as suggestive evidence of a Palaeolithic presence by saying that this is a Palaeolithic species painted in a Palaeolithic style.

Trump: Frankly, rubbish! The site wasn't there – wasn't excavated until long after the Palaeolithic.

Sharif: Right, how do we know that?

Trump: Well, from the archaeological content.

Sharif: From radiocarbon-dating of that content?

Trump: Well, not directly from the Hypogeum, which was excavated back in 1910 – long before radiocarbon. But there was no archaeological material, no pottery or anything out of the Hypogeum earlier than the Zebbug phase. Which, with radiocarbon, we'd now put at about 4000 BC. The chambers were deliberately excavated, but not before 4000 BC. So there's no question of extinct Pleistocene species.

The strange case of the bison-bull (5)

Mifsud's position, while the complete opposite of Trump's, is not contradicted by the presence in the Hypogeum of materials only of the Zebbug phase and younger. As we saw earlier in this chapter he disputes the view that the Hypogeum was constructed as a place of burial and has presented evidence that the materials and skeletal remains found inside it by archaeologists were *not* deliberately placed there but are a *flood deposit* carried in from surrounding Neolithic burial sites. The dating of those remains to the Neolithic Zebbug phases and younger is therefore exactly what Mifsud's theory predicts and leaves effectively unchallenged the revolutionary possibility that lies at the heart of his analysis – i.e., that the structure itself may long pre-date the Neolithic. 'Regarding the antiquity of the

Hypogeum,' he confirms:

> my gut feeling is that there is strong evidence to show that it had originated in its function subserving the ancient Maltese in the Palaeolithic, *and the bovine representation constitutes one of the main arguments for this.*[51]

A re-evaluation

As well as the unresolved (and now probably unresolvable) question of the bison-bull with its possible pre-Magdalenian associations, Mifsud points to Malta's Goddess cult as further support for his view that the islands' prehistoric culture may have developed from very ancient Palaeolithic roots. The so-called 'Sleeping Lady' statues found in the Hypogeum and numerous 'Venus' figurines found throughout Malta's megalithic temples leave little doubt that a form of Mother

Goddess was the supreme deity worshipped in these mysterious places. But these artifacts 'have all been attributed arbitrarily to the Neolithic',[52] even though they are distinctly characteristic of European Palaeolithic art forms, dating as far back at 30,000 BP.

In brief, Mifsud also draws attention to the following points:

- Modern research into the Palaeolithic cave art of Europe 'includes the study of wall configuration and their adaptation to the drawings, and to the significance of human voice resonance, a feature which immediately brings to mind the Oracle room of the Hypogeum'.[53]
- The art forms in the Hypogeum call for a re-evaluation. 'The designs in red ochre and black pigment draw strong

parallels with Palaeolithic sites abroad. The red ochre designs have hitherto been traditionally assigned to a "tree of life" nature and dated arbitrarily to the Neolithic.'[54]

- At the entrance to one of the Hypogeum's painted rooms, the faint engraved impression of a large human hand, also arbitrarily assigned to the Neolithic, may still be seen. It 'has parallels in similar designs in Palaeolithic sites at Gargas, El Castillo, and particularly with Montespan in the Franco-Cantabrian region.'[55] The impression shows a hand with six fingers[56] [a condition known as Polydactyly that is also seen on at least one of the 'Fat Lady' figures on show in the National Museum of Archaeology].[57]
- Also of great interest is another Hypogeum design. It 'is

in the form of an ideogram and comprises a black and white chequered pattern; this simple geometric design is considered to represent an early stage of Palaeolithic art'.[58]

- Last but not least, tests have been conducted on the red ochre pigments in the Hypogeum for their constituent mineral components. In 1987

samples were taken of red ochre pigment on rock from the north corner of the Oracle room, together with a rock sample without pigment from the same room. On the 26th of July these were examined at the Smithsonian Institute, Washington DC, at the Conservation Analytical Laboratory. Both samples were submitted to x-ray diffraction studies and the red ochre sample was also viewed through a scanning electron microscope. In keeping with the routine composition of Palaeo lithic art pigments, these samples confirmed the presence of the oxides of Silicon, Iron, Aluminium,

Calcium, Potassium, Sodium and Magnesium.

An earlier study, carried out by Janusz Lehman in 1979, tested two samples of red ochre pigment from the decorations in the Hypogeum's middle level. As well as all the above ingredients these samples contained traces of manganese dioxide, the main component of black. 'This finding confirms that the red ochre design examined by Lehman had been superimposed upon an even earlier design in Palaeolithic black pigment.'[59]

None of this is to insist that all or even most of the designs inside the Hypogeum do in fact date back to the Palaeolithic – only that there is a significant *possibility* that *some* of them do.

That the Hypogeum was extensively used, and perhaps even developed and expanded during the Neolithic, and that this happened in more or less exactly the time-frame allocated to it by archaeologists (i.e., 3600–2500 BC) is not, I

repeat not, in dispute here. But what is contested is any attempt to claim that the scholarly consensus explains everything about this dark and powerful labyrinth beneath the ground and that the 'minor mysteries'[60] of the Hypogeum's true origins and antiquity have long been solved – 'cleared out of the system',[61] by leading academics.

The consensus may be correct. But I believe Anton Mifsud has successfully demonstrated that important evidence contrary to the consensus does exist, has been overlooked and, in at least one case – the bison-bull – may actually have been extirpated like an idol brought before the Inquisition.

A pattern?

If a failure to preserve and consider potentially controversial

evidence has frustrated a full understanding of the Hypogeum, then the same is also true for the megalithic temples and even the prehistoric cave sites in Malta. Thus, Mifsud points out that archaeologists excavating Ghar Dalam cave in the early twentieth century (see chapter 18 for a fuller treatment of Ghar Dalam) 'discovered several knives, scrapers, borers and burins in previously undisturbed deposits, and although stratigraphically Pleistocene, they have been arbitrarily attributed to the Neolithic'.[62]

Likewise, there is the matter of twenty-six flint implements (flint is not native to the Maltese islands) which were excavated at Hagar Qim, also in the early twentieth century:

> They are illustrated in Zammit's *The Valletta Museum* [1931, plate facing page 21] *but have since gone missing*. The implements comprised blades and bladelets, microliths, scrapers and burins, all datable to the Upper

Palaeolithic.[63] [My emphasis.]

Probably there's nothing to it. Still, it does seem bizarre that so much evidence with the potential to support a Palaeolithic human presence on Malta gets lost or damaged.

Finally, together with Charles Savona Ventura, Mifsud draws attention to the little-known Ghar Hasan cave located on a precipitous cliff-face on Malta's south coast not far from the more famous Ghar Dalam.[64] This cave was investigated in 1987 by a high-powered team of Italian archaeologists from the Centro Camuno di Studi Preistorici led by Emanual Anati, Professor of Palaeoethnology at Lecce University and a world authority on cave art. Anati has since issued a series of publications concerning Ghar Hasan, the most recent in 1995:[65]

> For the first time in the long history of the cave, a repertoire of Palaeolithic art forms were partially uncovered from beneath the stalagmitic encrustations which covered them for the past fifteen millennia. The figures numbered altogether approximately 20 designs, and they are painted in red, brown, dark brown and black. They represent various animal figures, an anthropozoomorphic design, several handprints and an array of ideograms …
>
> In Panel One, at least two of the animal figures represent the elephant, 'two heavy quadrupeds with a long muzzle'. These animals were extinct in Malta before the end of the Pleistocene.[66]

The so-called 'Pleistocene/Holocene boundary' in geology coincides quite closely with the Palaeolithic/Neolithic boundary in archaeology. So what Anati's expedition seemed to have found with these representations of extinct species in Ghar Hasan was more evidence of a Palaeolithic human

presence on Malta.

Soon after news broke about these published conclusions and their stark contradiction of the orthodox view on Malta's prehistory, the Italian team distanced itself from its initial Palaeolithic leanings and claimed instead that the depictions in Ghar Hasan are 'out of context' – which indeed they are if one is only prepared to countenance a Neolithic context for the earliest human presence in Malta.

Another development at about the same time was that the Ghar Hasan cave began to be vandalized, and the paintings defaced or completely removed, a process that continued over a long period. The result, which would have caused an international furore anywhere else but Malta, is that today:

> The only depictions which have survived, unless more are obscured by stalagmitic material on the cavern walls, are the two handprints in red

> pigment in Gallery D … Vandalism not of the popular type has destroyed and obscured the entire repertoire of images on the accessible areas.[67]

The best paintings described, photographed and published by Anati,[68] were in the 'Gallery A' section of Ghar Dalam. Within a few weeks of the arrival in Malta of Anati's publication, a steel gate was erected that restricted access to this section. Officially, the gate had nothing to do with Anati's publication or the vandalism of the paintings, but was 'for the protection of a small colony of bats'.[69]

The ghost of Piltdown Man

Rigorous scientist that he is, Anton Mifsud would be the first to admit that none of the clues, hints, anachronisms, anomalies and whispers of conspiracy that he has amassed

from the Hypogeum and the megalithic temples of Malta are proof that these structures had a Palaeolithic origin. Certainly they are suggestive! But they prove nothing and they run entirely contrary to increasingly accurate C-14 evidence that archaeologists have had at their disposal since the 1950s – revolutionized by dendrochronology in the 1960s[70] – which places the temple-building period within a definite time-band in the Neolithic (3600–2500 BC) and finds no evidence of *any* human presence in Malta at any date prior to 5200 BC, let alone as far back as the Palaeolithic.[71] The earliest radiocarbon evidence of a definite human presence in Malta is from Ghar Dalam and gives a Neolithic date of around 5200 BC.[72] The orthodox position is that no samples taken anywhere in the Maltese islands suggest any earlier date.

So it is clearly not enough, if one wishes to propose

something so radical and upsetting as a Palaeolithic human presence in Malta, merely to offer apparent similarities in religious iconography, apparent similarities in artistic styles, apparently similar types of pigments used, etc. Such impressions are all very well, and even helpful, but the interpretation of them is bound to be subjective. What is needed in addition to all this is solid empirical evidence – from scientific tests supported by reliable provenance and stratigraphy – that confirms a more ancient presence of man.

Naturally Anton Mifsud would not have embarked on his course of confrontation with the archaeological authorities over the basic terms of Maltese prehistory if he did not possess such evidence. He does. And in the process of acquiring it, as we shall see, he has uncovered some very strange and disturbing archaeological behaviour that took place during the 1950s and 1960s. This was the precise

period in which the foundations of Maltese prehistory were being laid down by Professor J. D. Evans. It is not an accident that this was also the period when the islands became defined as ‘apalaeolithic’ – i.e., not inhabited by humans before the Palaeolithic – a definition that has been taught to later generations of archaeologists as dogma. The scandal has even gone so far as to entangle the Natural History Museum in London in its clutches and to resurrect the restless ghost of Piltdown Man.

27. *Mahabalipuram seashore at dawn with people gathering to watch the sunrise. Shore temple is in the background to the left. Local traditions speak of extensive underwater ruins.*

28. *The Meenaksi temple, Madurai, with its sacred Tank (right foreground).*

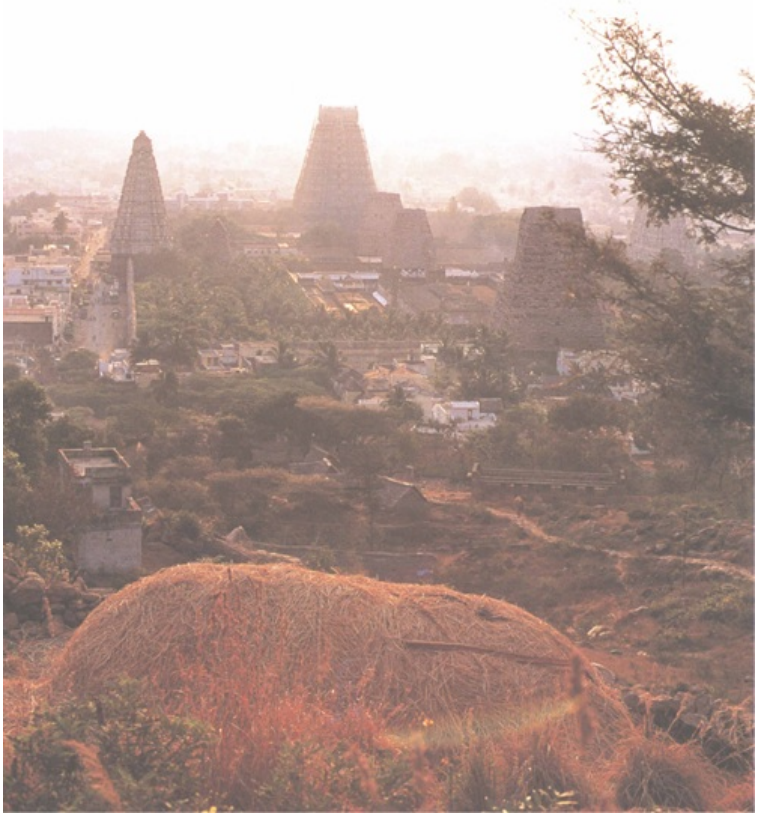

29. *Arunachela temple, Tiruvannamalai.*

30. *Arunachela, the sacred red mountain of Tiruvannamalai, embodying the presence of Lord Siva. The temple nestles at its foot.*

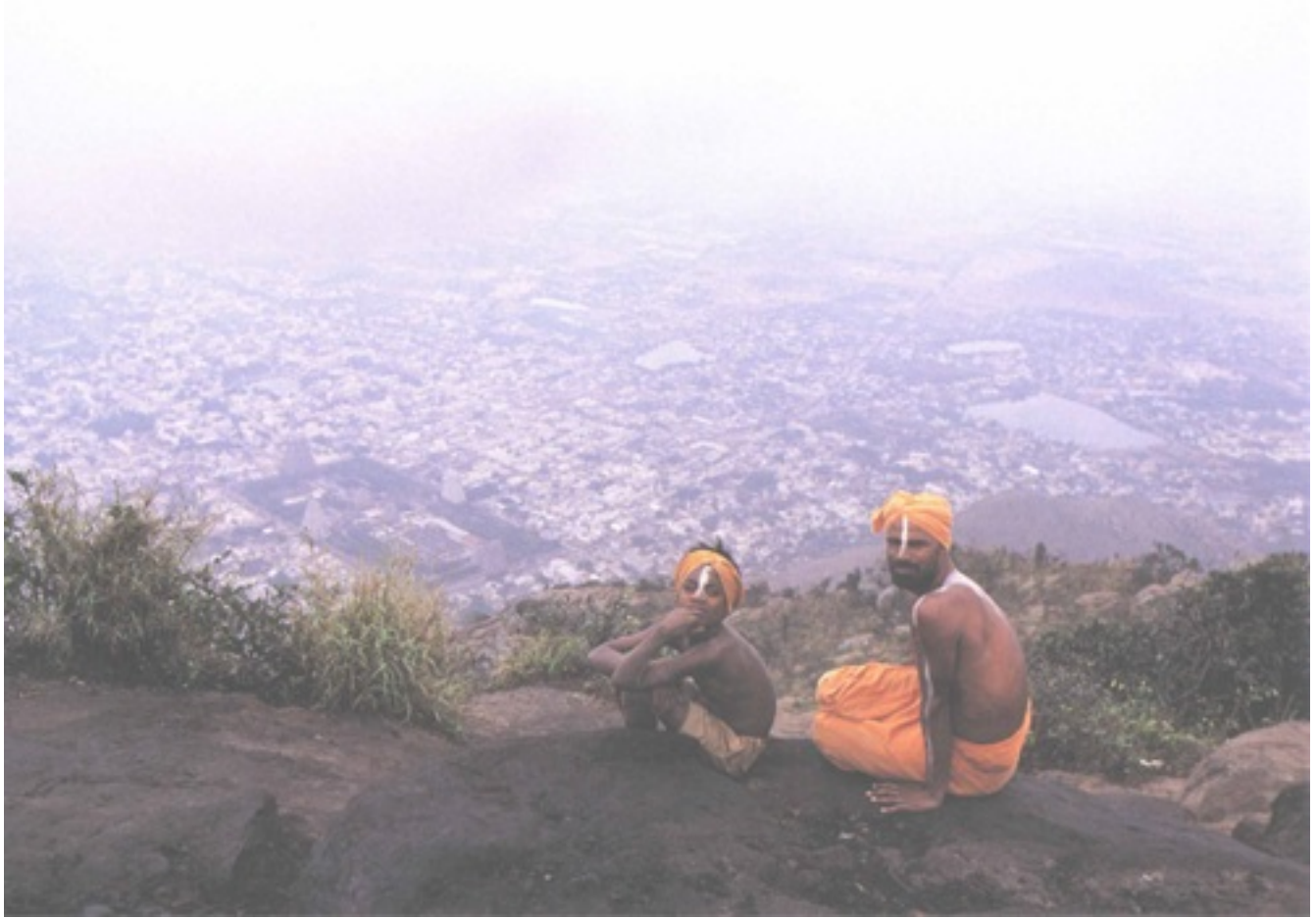

31. *Siva devotees on the slopes of Arunachela overlooking the great rectangle of the temple.*

32. *The author interviewing fishermen, Mahabalipuram. Stories of underwater ruins are commonplace along this coast.*

33. *The author with NIO team and fishermen at Poompuhur on the way out to the dive boat.*

34. *Local fishermen directly over the U-shaped structure at Poompuhur. Underwater structures provide attractive shelters for fish.*

35. *Side-wall of the U-shaped structure, Poompuhur, looming out of the murk. The structure was submerged about* 11,000 *years ago.*

36. *The author diving on the U-shaped structure, Poompuhur, at a depth of* 23 *metres and* 5 *kilometres from shore. Diving conditions here are difficult, with poor visibility.*

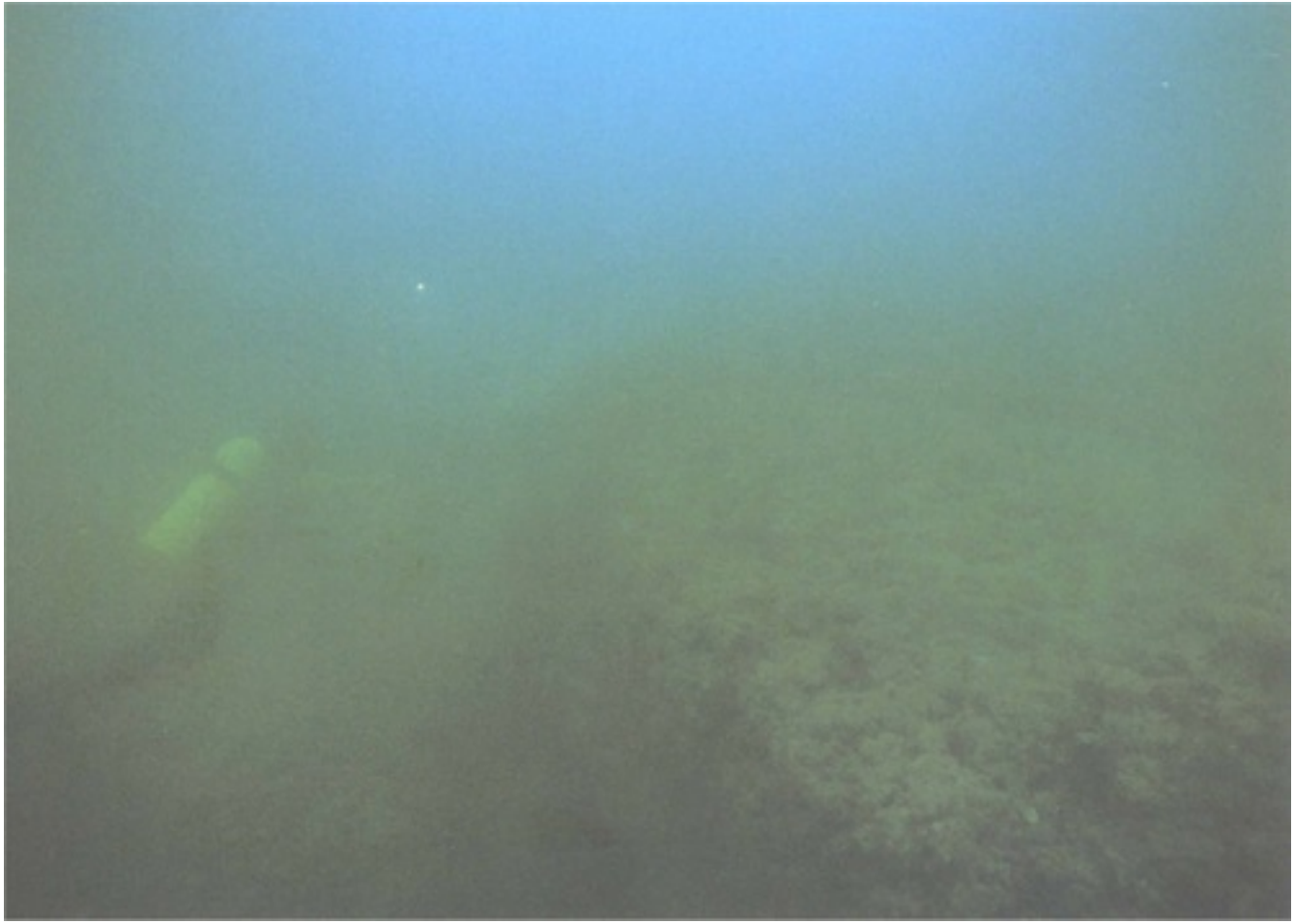

37. *U-shaped structure, Poompuhur.*

38. *Curved trench or passage in U-shaped structure, Poompuhur.*

39. *The author diving on the U-shaped structure, Poompuhur.*

40. *The author with the NIO's team of marine archaeologists. Kamlesh Vora is at the extreme right. The author is flanked by Sundaresh and A. S. Gaur.*

18 / The Masque of the Green Book

> We have no reason to suppose that Palaeolithic man ever set foot on Malta.
>
> J. D. Evans, 1959[1]

> The conspiracy of silence over the decades represents the triumph of prejudice over logic.
>
> Anton Mifsud, 1997[2]

> The whole thing is in limbo, really …
>
> David Trump, October 2001[3]

When did people first live on the Maltese islands? The question seems innocent and simple enough – almost routine – but evidence that has a bearing on it has been tampered with and lost, and the search for the correct answer to it is the fundamental issue of Maltese prehistory. Because of

Malta's special place in the wider story of civilization it is a fundamental issue of global prehistory as well. For how can we claim to have understood the origins of civilization if we have failed to unravel properly the processes and motivations, the skills and the ideas, that led up to the creation of humanity's first ever works of monumental religious architecture?[4]

And what architecture it is!

- Not simple rough-and-ready building experiments as one might expect, but beautiful, accomplished, harmonious structures that were the work of master architects, planners and stone masons, from the very beginning.
- Not monuments that were easy to make, but monuments that were extremely difficult to make – and that would be difficult to make in any epoch, with any technology.

- Monuments like Gigantija, described in chapter 15, with its walls of 5 metre tall megaliths.
- Monuments like the Hypogeum, an incredible achievement of troglodytic burrowing and hewing to create a mysterious labyrinth beneath the earth.
- Monuments like Hagar Qim and Mnajdra that feature astronomical and solar alignments requiring years of careful observations and measurements to confirm and install.

So what was going on in Malta that led to all this? Why did the first megalithic temple-builders in the world choose to make things so difficult for themselves? Why didn't they start with *small* megaliths (if that is not too serious a contradiction in terms)? Why didn't they start simple? Why did they plunge straight into the very complicated stuff, like Gigantija and the

Hypogeum? And, having plunged, how did they manage to produce such magnificent results? Was it beginner's luck? Or were their achievements as humanity's pioneering architects the product of some sort of heritage?

Beginner's luck is possible, but having studied the earliest temples, and their level of perfection, archaeologists agree that heritage is the right answer. The only problem is what heritage? And where is it to be looked for? Since it is the received wisdom that no human beings lived on Malta before 5200 BC, and since this is a 'fact' that is at present unquestioned anywhere within conventional scholarship, archaeologists from roughly the mid-twentieth century onwards have simply seen no reason to explore the possibility that the heritage of the Maltese temples might be older than 5200 BC. To do so would be the research equivalent of an oxymoron – like breeding dodos, trying to

conduct an interview with William Shakespeare or seeking evidence that the earth is flat – and would invite the ridicule of one's peers.

The result, necessarily, is that archaeological inquiry into the origins of monumental civilization in Malta has been confined to the narrow chronological band between 5200 BC – the supposed date the islands were first settled -and 3600 BC, the supposed date that Gigantija was built. Whatever alchemy transformed the rude and unimpressive stone and brickwork of the Maltese of the fifth millennium BC into the awe-inspiring cyclopean temples of the fourth millennium BC is therefore – again necessarily – to be traced *within* this period, not outside it. The only possible external and earlier influence that might reasonably be countenanced by proponents of this model could, as noted in chapter 16, lie in

‘intellectual baggage’ that the original Neolithic settlers presumed to have first colonized Malta from Sicily in 5200 BC – the Stentinello culture – might have brought with them. But the evidence is against this, since the Stentinello people of Sicily did not develop a megalithic culture and, indeed, there are ‘no true megalithic monuments’ at all anywhere in Sicily.[5]

So we’re back to Malta again, confronted by the massive physical presence of the world’s first monumental architecture. And since it assaults common sense to suggest that such huge and accomplished temples could be the work of people who had never built with megaliths before, we’re searching for the intermediate structures on which the Maltese stone masons presumably must have learned their craft during the first 1600 years that there were people at all on Malta -i.e. between 5200 and 3600 BC.

5200–3600 BC, the archaeologists' story

Ghar Dalam 5200–4500 BC

The first phase of human settlement that archaeologists recognize, 5200–4500 BC, is known as the Ghar Dalam phase. The name is from the type site, Ghar Dalam cave itself, but the 'Phase', defined by its pottery and tools, is represented at sites throughout Malta and Gozo. This phase has left no evidence of any large-scale construction activities at all. Nor is it easy to make out any of the signs of organized cultic and religious behaviour that normally precede full-blown temple worship. All that has come down to us are a few traces of rudimentary huts and shelters and a stumpy wall, 11 metres long but less than a metre high, made of two rows of small upright slabs with a filling of rubble in between.[6]

Skorba, 4500–4100 BC

Archaeologists identify a second phase immediately following Ghar Dalam, of which the type site is Skorba (not to be confused with the megalithic temple at Skorba – itself of the Gigantija phase and later! – which stands near by). The dates of the Skorba phase are 4500–4100 BC and there is no doubt that the architecture does get bigger and more impressive during these 400 years. Indeed, Trump proposes, and some of his colleagues agree with him, that two oval rooms at Skorba which have been carbon-dated to 4100 BC may actually be the first precursors of the later temple architecture.[7] The pebbled courtyard of the northern room is partially covered by the eastern side of the temple, providing a clear sequence, in full accord with orthodox chronology, in which the Skorba phase, and its C-14 date, precede the Gigantija and later phases of

the temple -with all the phases nicely stacked up one on top of the other on the same site.

Trump thinks that the two rooms may have been basements, ‘as the southern one had no doorway through its massive walls’. The northern room, on the other hand, was entered by way of the pebbled courtyard mentioned above.[8] Within the rooms:

> The irregularity of the floors and the unlevelled surface of the bedrock argue against domestic use, and the group of figurines … from the northern room also suggest that this building had a religious function, a true predecessor, then, of the temples which appeared some centuries later. The main difference in construction was that the upper walls had been built in mud-brick shaped from Maltese blue clay.[9]

I must protest in passing that while irregular unlevelled

bedrock floors do argue against domestic use they do not inevitably suggest that that building had a religious function (all the later temples had levelled floors). Conversely, the figurines that Trump mentions do suggest a religious function similar to that of the temples and the Hypogeum since they include 'female figurines, stylized and with greatly exaggerated buttocks'.[10]

On the basis of the oval shape of the rooms and the versions of the familiar goddess images found within them it is hard to disagree that there is a connection here. On the other hand, there is no trace whatsoever of megalithic architecture in these oval rooms from 4100 BC. Their walls may be 'massive', as Trump suggests, but the architectural and engineering challenges faced in building them are not to be compared in any way with the challenges that faced the temple-builders.

So, yes, the people of the Skorba phase did build big structures. And yes, they do seem to have venerated the Goddess within them. But the walls of these structures were made of small, easily handled stones and rubble packed together and surmounted by mud-bricks,[11] so they can hardly be described in architectural and enginering terms as 'intermediate' steps on the way to the megalithic temples.

Zebbug, 4100–3800 BC

The next phase of Maltese prehistory is named Zebbug – as usual after the type site – and is dated from 4100 to 3800 BC. Archaeologists classify this phase as being within the 'Temple period since it occupied that last five centuries before the construction of the first megalithic temples – during which time, it is assumed, Maltese society must have been gearing

itself up in various ways for the colossal effort that lay ahead. The evidence for this gearing-up process is, however, not overwhelming. The Zebbug phase produced no megalithic architecture and no rock-hewn temples, but is identified by stylistic changes in pottery and distinguished by what are thought to be the first rock-hewn tombs in Malta – a group of five rather unimpressive dish-shaped depressions discovered in a field in the parish of Zebbug in 1947.[12] A few are somewhat elliptical[13] and might be said to bear comparison with the elliptical 'theme' of the temples and the Hypogeum – although none of the labyrinthine or subterranean characteristics of the latter are present at Zebbug.

A twin-chambered rock-cut tomb from the Zebbug phase has also been found on Gozo close to the temple of Gigantija. It is a collective tomb and consists of a vertical shaft

approximately 1 metre deep opening into two low-roofed, shallow, rock-cut chambers that had been filled up, over many centuries, with the bones of fifty-four adults and eleven children:

> Most of the bones were disarticulated and pushed to the back and sides of the chambers, as if to make way for a more recent burial. Indeed at the entrance to one of the chambers lay the contracted almost complete skeleton of an adult male, presumably the last of the burials.[14]
>
> A stylized human bust of stone was placed at the entrance to one of the chambers, as if intended to guard the tomb.[15]

Other Zebbug phase tombs, at Xemxija, which feature kidney-shaped and 'clover-leaf' rock-hewn chambers devolving off a central shaft just under a metre deep, have been proposed by J. D. Evans as possible models for the

characteristic kidney-shaped apsidal rooms of the megalithic temples – a view that David Trump also believes has 'much to recommend it'.[16]

Mgarr, 3800–3600 BC

After the Zebbug phase – again rather loosely classified as being within the temple period but still before a single example of megalithic architecture had appeared, archaeologists insert the Mgarr phase, 3800–3600 BC.[17] Essentially irrelevant to the quest for intermediate structures on which the temple-builders practised and honed their skills, Mgarr is classified by its pottery – 'a transitional phase named after the site in Malta where a development in style of the Zebbug pottery was first noticed'.[18]

Gigantija

And then suddenly, around 3600 BC, the fireworks start to fly with the Gigantija phase (3600–3000 BC). Here, as we know, the type site is not a pottery heap, a mud-brick wall, or a few rock-cut tombs, but Gigantija herself – the 'tower of the giants' – literally the mother of all temples if the orthodox chronology is correct, built with megaliths that are consistently amongst the biggest ever used in Malta.

Know-how has to start somewhere

How are we to explain such a sudden and dramatic leap forward as the appearance in the Gigantija phase not only of the 'blueprint' for the archetypal Maltese megalithic temple – to which, with adaptations and refinements, all later temples

adhere – but also, at the same instant, the complete suite of organizational and technical abilities necessary to build such temples when, we are told, none had ever been built before?

In a recent paper on the architecture of the Maltese temples, Trump admits there is a problem:

> Know-how has to start somewhere. Though building in stone was first introduced to Malta by the first settlers, as was shown at Skorba, the use of huge blocks, so-called megalithic architecture, is not known before the temple period. The skills must have been built up slowly, over time.[19]

I am not an archaeologist, but after reviewing what archaeology has found out about the 1600 years between the supposed date of first settlement and the beginning of temple-building at Gigantija – 5200 BC down to 3600 BC – I personally see no convincing evidence of any build-up of

skills ‘slowly, over time’ that would have been relevant to the construction of the megalithic temples.

I note that Trump and Evans both hint that the temples may somehow have evolved out of the *shape* of Zebbug phase tombs, and there is an undeniable resemblance. But even if we accept that the shape of the tombs of 4100 BC is related to the shape of the temples of 3600 BC – giving us 500 years of ‘evolution’ to explain the phenomenon of Gigantija – this still leaves unanswered the bigger question of how and where the ancient Maltese learned to reproduce such shapes, above ground, in megaliths weighing many tonnes?

Could the solution be that another wave of settlers arrived in 3600 BC bringing the temple blueprint and the necessary building skills with them? This was once a fashionable idea that has gone out of favour as the archaeology of Malta and

of the Mediterranean as a whole has improved. As David Trump has recently affirmed, 'There is nothing looking remotely like one of these temples outside the Maltese islands, so we cannot use "foreign influence", to explain them away.'[20] Likewise, far back as 1959 J. D. Evans wrote:

> It is abundantly clear … that the Maltese temples and tombs were something indigenous, rooted in the beliefs and customs of the people whose religion they express, and they evolved step by step with these. There seems no question of their having been introduced as a result of influence from other cultures.[21]

So we have come full circle back to Malta again, still searching for the baby temples, the kid temples, the adolescent temples – or if not temples then other kinds of structures requiring the same skills – that ought to precede the mature, prime-of-life temples of the Gigantija and later

phases. And they aren't there.

Could this be for the same reason that Malta lacks what Anton Mifsud calls a 'civilization territory' big enough to account for the impressive manifestations of civilization scattered all over the Maltese islands? Could we be missing the evolutionary phases of the great megalithic temples because the land on which those phases are represented is now underwater? And, the corollary of this, is there any evidence that submergences on a sufficient scale to obliterate the entire hinterland of a culture have ever occurred in the Maltese archipelago?

It is here that settling the date of Malta's first inhabitation by humans becomes pivotal to our inquiry. Because if we accept the orthodox academic view that these islands were entirely without a human presence until 5200 BC, then we would have no reason to be interested in floods that might

have occurred earlier than that date. But suppose there is reason to doubt the academic verdict? Suppose, for example, it were to transpire that Malta had in fact been peopled during the late Palaeolithic, from as early as 18,000 years ago. Then the possibility would have to be seriously countenanced that these Palaeolithic inhabitants and their descendants could have been responsible for the evolution and development of the architecture of the 'Temple period' – with the more populous Neolithic settlers merely participating in and merging their identity with its last phases.

This is why the misrepresentation and possibly even manipulation of evidence by party or parties unknown to give a falsely late date for the earliest human presence in Malta that Anton Mifsud has exposed is, potentially, of explosive significance.

The leavings of violent floods

The story begins at Ghar Dalam, a spacious natural cave more than 7 metres wide, 5 metres high and 120 metres long that opens into the wall of one of Malta's many precipitous valleys, the Wied Dalam, located in the south-east of the island. Though it is arid today, the valley was gouged out by a great river and floods that have flowed violently through it at various times in the past. It continues for just over half a kilometre beyond the cave mouth before finally plunging beneath the sea in Saint George's Bay.

The cave is thought to have begun its existence as a solution cavity dissolved in the bedrock by percolating groundwater that was later broken into from above, penetrated and extended by these palaeo-floods. In the process the ongoing erosion of the river bed cut down the valley floor still further so that it now lies 6 metres below the

level of the cave mouth. There have been several occasions during the past quarter of a million years when the flooding has been on such a scale as to overtop the valley sides and completely inundate the cave, leaving behind layers of muddy earth, clay and pebbles mixed with a fantastic assortment of animal remains that were carried along in the flood waters. Archaeologists say that the last of these cataclysmic flood deposits was laid down during the melting of the Ice Age. John Samut Tagliaferro of the University of Malta dates the event to 18,000 years ago.[22] David Trump goes for a slightly more recent estimate: '[This] level in the cave yielded great numbers of red deer bones and was probably laid down in the cool wet period of the closing stages of the last Ice Age some 10,000 years ago.'[23] After that terminal Ice Age event between 18,000 and 10,000 years ago no further flood deposits were laid down. The river in the

valley floor ran dry and the cave remained undisturbed, gathering dust, visited only by grubbing wild animals, for almost 3000 years.

Finally, so the official story goes, human beings began to register their presence there with the earliest traces of their occupation – supposedly the oldest in Malta – radiocarbon-dated to around 5200 BC. The dates are from the so-called 'Cultural Layer' of the cave: a thin deposit containing beads and other ornaments, buttons, tools, weapons, bones and rubbish – the usual detritus of human habitation – and also fragments of the distinctive incised pottery, excavated here and at other sites in Malta, by which the Ghar Dalam phase as a whole is classified.[24]

Because of the earlier flood epochs, however, archaeologists excavating beneath the Cultural Layer found

five other layers of deposits, providing a complete archive of climate, ecology and fauna in Malta over approximately the past quarter of a million years. In brief, and in descending order (with the youngest layer, of course, being the highest), we have:

6. *The Cultural Layer:* traces of Neolithic man from 5200 BC onwards.
5. *The Calcareous Layer:* a thin, sterile, chalky deposit that usefully 'seals' the older Pleistocene (Ice Age) layers beneath it and serves as a clear separator between them and the post-glacial Cultural Layer above.
4. *The Cervus Layer:* the most recent of the flood deposits, dated to between 18,000 and 10,000 years ago and so named because it contains the bones (in immense quantities) of the Pleistocene European red deer *(Cervus*

elephas, an extinct species). Other Ice Age faunal remains in the Cervus Layer include those of wolf, brown bear and fox.

3. *The Pebble Layer:* just that, a stratum consisting almost entirely of stones and pebbles swept into the cave by water action and strewn across its floor.

2. *The Hippopotamus Layer:* in which the remains of extinct species of dwarf hippopotamus and dwarf elephant predominate.

1. *The Clay Layer:* immediately above bedrock. This layer, the oldest, forming the bottom of the Ghar Dalam sequence, is sterile and contains no remains whatsoever.

It is certain anomalous discoveries that were made by archaeologists excavating the Cervus (Deer) Layer during the first half of the twentieth century – and the subsequent fate

of these discoveries – that threaten to turn the prehistory of Malta on its head.

Cooked hippo, a human hand bone, and some stone tools

In fact, points out Mifsud in *Dossier Malta*, the first anomalous discovery was made much earlier than that – by the Italian scholar Arturo Issel in the 1860s. He began an excavation at Ghar Dalam at an arbitrary 100 paces from the cave entrance:

> The remarkable finds of his, the first official excavation of Ghar Dalam, included the burnt remains of hippopotamus, whose bones had apparently been cooked and opened up to extract the marrow for consumption.[25]

The burnt remains of a hippo with its bones in the condition described do strongly suggest a human presence. However, little attention has ever been paid to Issel's finds, which have not been preserved and have never been considered part of Malta's archaeological story.[26]

Mifsud's research also revealed that further excavations had been conducted in the 1890s by a certain John H. Cooke, a teacher with a systematic approach towards archaeology. He dug a series of eight trenches at regular intervals throughout the cave from its deep interior to a point just 10 metres before the entrance:

> The main finds were in two trenches. A human hand bone was found in his Trench IV, in the Cervus Layer, whilst a human implement was discovered in Trench VI, also in the deer layer. For the first time human implements and remains lay in the same horizon below the cultural layers of Ghar

> Dalam, precisely in the Cervus Layer.
>
> Immediately overlooking Cooke's layer 'e', the fifth layer from the surface, and equivalent to the Cervus Layer, at a depth of two feet three inches, a stone implement was discovered by Cooke. According to Dr A. A. Caruana, he was 'of the opinion that it has undoubtedly been fashioned by man'.[27]

The next digs followed in 1912–13, coordinated by Napoleon Tagliaferro and Guiseppe Despott. Their project was taken over a year later by the British Association, but Despott remained involved, conducting further digs with Temi Zammit in 1914, and leading the digs in 1916 and 1917.

The rise and fall of Despott's and Rizzo's big teeth

During the 1917 dig the discovery was made, again in the

Cervus Layer, of two human teeth of a very special type known as ‘taurodont’ (the word means literally ‘bull-tooth’ and refers to the supposed ‘bull-like’ appearance of the tooth, with a large heavy body and extremely short or non-existent roots). Anton Mifsud takes up the story:

> The breakthrough came about in the summer of 1917, in one of the two trenches Despott had excavated that year. Trench I was situated 50 feet from the entrance, and the crucial Trench II lay 60 feet further inside the cave. It was in the latter, Trench II, that two taurodont molars were discovered in the stratum of red cave earth. The curator Giuseppe Despott and a Mr Carmelo Rizzo were supervising their men digging in Trench II, when the latter’s workers came across a large bull-shaped human molar tooth amongst several deer teeth obtained from the Deer Layer of this trench; a few days later Despott himself discovered a similar molar a few feet away, several inches deeper in the cave earth …
>
> Despott’s molar was registered as lying one foot deeper in the cave earth

> of the Cervus Layer, and separated by seven feet from Rizzo's; the pair of molars possibly derived from two individuals, but their relative proximity cannot exclude a single source. The teeth had an unusually large pulp cavity so that the roots were very small.[28]

By chance, just a few years earlier, the famous British palaeoanthropologist and anatomist Sir Arthur Keith had described unusual teeth of exactly this sort found at sites elsewhere in Europe. He had attributed these teeth to Neanderthal Man and it was he who had coined the term 'taurodont' for them.[29] Now Rizzo and Keith submitted photographs of their molars to Keith for examination and were delighted when he diagnosed them, without hesitation, as taurodont:

> In size and form such teeth have been seen in no race of mankind except *H. Neanderthalis;* in condition of fossilization and in the fauna which keep

them company, in the red cave earth in Ghar Dalam, they are in their proper Pleistocene setting.[30]

Keith followed this up by writing a letter to *Nature* on the subject and, in subsequent years, the hypothesis began to be widely accepted, indeed orthodox, that at least Neanderthal humans had been present on Malta during the Palaeolithic and had left their remains at Ghar Dalam. The view was strengthened in the 1920s by the discovery of a large number of definitely late Neolithic human remains and artefacts, including 2250 teeth, in the Burmeghez cave. Keith examined the teeth carefully and could not find a single example of taurodontism among them. This he took as further support for his hypothesis of the more 'primitive' Palaeolithic origin of the Ghar Dalam teeth.[31]

Soon afterwards the hypothesis came under attack from

various quarters. Scattered reports had begun to appear in the dental literature of taurodont teeth in modern humans, which, if confirmed, would much reduce the probability that Despotts and Rizzo's molars were very old Neanderthal teeth – rather, for example, than more recent ones that had somehow (perhaps through burial) been introduced into the Cervus Layer. However, further investigation of the evidence demonstrated that while some of the modern teeth were genuinely taurodontic none of them showed anything like the degree of taurodontism evident in Despott's and Rizzo's molars.[32] Under a classification that Keith had already proposed the latter were as 'hypertaurodontic' as any Neanderthal teeth from other parts of Europe, whereas the modern human teeth were mesotaurodontic or more commonly hypotaurodontic (the least severe form of the condition).[33]

Keith's defence held, there was support from other worthy authorities, a third taurodontic tooth was discovered in 1936 by Dr J. Baldacchino (then the Curator of the Museum) in the same Cervus Layer as the two 1917 molars[34] – and through the combination of all these favourable auspices, 'A slot was secured for Neanderthal humans in the Maltese history books, albeit for a few decades.'[35]

Why only for a few decades? 'In the early 1950s,' explains Mifsud,

> the person in charge of archaeological surveys in Malta, J. D. Evans, defined the Maltese Neolithic … as the start of Malta's history, at the same time that he discarded the taurodont molars as unreliable evidence on the basis of their isolation. Three years later, in 1962, a Maltese dental surgeon, J. J. Mangion, reported upon the incidence of taurodontism in modern Maltese, and thus seemed to discredit the validity of the Ghar

Dalam molars as diagnostic … evidence for Neanderthal humans.

But, as Mifsud says, the *coup de grace* was delivered in 1964, when a report from Malta's Museum of Archaeology misrepresented the results of chemical dating tests carried out on the taurodonts by claiming them to be Neolithic. Within a decade Neanderthal man was out of the Malta history books and the taurodonts were totally discredited as evidence for a Palaeolithic presence in the Maltese islands.[36]

Trump and Evans on the record on the taurodonts

Before we look into the grave charge of misrepresentation that Mifsud is lodging here, and find out whether the claim of taurodont teeth amongst the modern Maltese is as significant as Evans made it out to be, let's clarify the

‘official’ position on the taurodont controversy today.

In addition to J. D. Evans’ comprehensive 1971 survey, *The Prehistoric Antiquities of the Maltese Islands*, which still forms the foundation for all orthodox teaching about Malta, an important channel through which the voice of orthodox Maltese archaeology reaches the general public is David Trump’s highly regarded *Archaeological Guide* – most recently updated in March 2000.[37] On page 91 of this updated edition Trump gives the visitor helpful information about the Hippotamus Layer and the Cervus Layer of the Ghar Dalam cave and then concludes: ‘No trace of human occupation has been found in either of these levels.’[38] Interestingly, however, Trump then directs the reader to: ‘see below’.[39]

What he actually says ‘below’ is framed as an attack on Mifsud’s investigations in *Dossier Malta* that reopened the

taurodont controversy in 1997 -although Mifsud is not acknowledged by name. Trump begins his statement on page 92: 'Two human teeth gave rise to much controversy, which has recently been reopened. For present purposes I hold to the former version, but see p. 19.'[40] On page 19 we find a passage in which Trump appears to be hedging his bets, ever so slightly, on the dogma that there was no human presence in Malta before 5200 BC:

> There is very little to suggest that man reached the islands until something like 7000 years ago, and nothing secure … though there is always at least a faint possibility that material of the Old Stone Age [i.e. the Palaeolithic] may yet come to light …[41]

We then turn back to page 92, where Trump continues that the two Ghar Dalam teeth:

> were of taurodont form, with a single large hollow root, found commonly in Neanderthal man. But this form is known, if rarely, in modern man too – one was extracted from the jaw of a living Maltese only a few years ago – and so does not prove the presence of Neanderthalers here. Careful chemical analysis at the British Museum (Natural History)… confirmed that these teeth were contemporary with the bones of domestic animals, more recent than the deer bones and much more recent than the fossil fauna. It was similar analysis which suggested that the hippopotamus tooth implicated in the Piltdown forgery probably came from the same site.[42]

It is also worth reminding ourselves of Evans' position on the taurodont matter as he set it out in his *Prehistoric Antiquities* - although this, of course, refers to the earlier episode of the controversy in which Despott had proposed that the teeth 'could be used as evidence of the presence of man in Malta during the Middle Palaeolithic period'.[43] Evans

replies that the suggestion does not fit the facts:

> Dr Baldacchino has since pointed out that taurodontism occurs in teeth definitely assignable to the Neolithic period of Malta (for instance, some from the Hypogeum). The two teeth from Ghar Dalam, therefore, could quite easily belong to a later period. A few other human teeth and bones which have been found at depths of up to 6 ft (1.80 m) all appear to be of the modern type. In view of these facts, then, the two taurodontic molars can hardly be accepted as good evidence for the existence of man in the Maltese islands in pre-Neolithic times.[44]

Earlier on the same page, while reporting the 1917 discovery of the Ghar Dalam teeth, Evans describes them as: 'two very large human molars, both exhibiting the characteristic of taurodontism, or fusion of the roots'.[45]

Truth and fiction (1)

It is disturbing that, in the passage cited above, Evans wrongly equates taurodontism, a condition in which the tooth either has extremely small roots or no noticeable roots at all, and in which the pulp cavity of the tooth is correspondingly enlarged, with an entirely different condition known as 'fused' roots.[46] This is a mistake of some significance, Mifsud reminds us:

> For while the condition of fused roots was commonly found in Neolithic and in modern man, taurodontism was not. Hence the reason [i.e. confusion of fused roots with taurodontism] for Evans' assertion further down the same page that taurodontism was described by Baldacchino as being common in Neolithic teeth: 'Dr Baldacchino has since pointed out that taurodontism occurs in teeth definitely assignable to the Neolithic period for Malta (for instance, some from the Hypogeum).'[47]

But is Evans' confusion genuine? Or is it sleight of hand to persuade us that the possibly very ancient human teeth from Malta – said on the basis of their taurodontism to be Palaeolithic – are not after all diagnostic of the Palaeolithic because the same taurodontic morphology 'occurs in teeth definitely assignable to the Neolithic period for Malta'?

If it is not sleight of hand then it is bad scholarship. For no taurodontic teeth have ever been recovered from the Hypogeum. And although Evans might have been confused, Baldacchino himself knew very well how to distinguish taurodontism from fused roots. After studying the thousands of teeth in the Neolithic deposit from the Burmeghez burial cave he wrote:

> No trace of taurodontism was found in these specimens; the only form of degeneration which was present was that with which we are familiar in

> modern teeth -fusion and maldevelopment of the roots, particularly in those of the third or 'wisdom' molars.[48]

Another less ambiguous and more annoying example of prestidigitation that Mifsud draws attention to concerns Evans' misrepresentation of the position of the British archaeologist Gertrude Caton-Thompson on the subject of the Palaeolithic in Malta with specific reference to the two taurodont molars that had been discovered in Ghar Dalam in 1917. Here, writing in 1925, is what Caton-Thompson actually said:

> The discovery of possible Palaeolithic man appeared to me of considerable importance to prehistory … Apart from the discovery in the red earth of the two taurodont teeth, in circumstances incapable of satisfactory interpretation, there are but two other records in the island of possible relics of Palaeolithic man.[49]

In this passage there can be no doubt that Caton-Thompson is treating the taurodont teeth – along with the two 'other records' she mentions – as 'possible relics of Palaeolithic man'. Moreover, when she says that they were found in 'circumstances incapable of satisfactory interpretation' she means that they cannot be satisfactorily interpreted within a Neolithic framework.[50]

But this is not what Evans has her saying in his *Prehistoric Antiquities*. It's there, discussing the 1917 taurodonts on page 19, where he argues that 'the teeth from Ghar Dalam could … quite easily belong to a later period …' He then reinforces this point with a footnote in which the reader is informed: 'Miss Caton-Thompson remarks that that the discovery of the molars was made "in circumstances incapable of satisfactory interpretation".'

Thus, by smoke and mirrors, we are led to believe that the taurodonts were not found in a good Palaeolithic context, whereas Caton-Thompson herself had originally stated almost the opposite. As Mifsud puts it:

> Evans … misinterpreted Caton-Thompson when he extracted one phrase of hers out of its context and quoted it in another; he thus created the impression the validity of the molars was being questioned by her as archaeological evidence, whereas the contrary is correct … Evans' inaccuracies were perpetuated through repetition by later authors … who have accepted Evans on the weight of his authority … including anatomists, archaeologists, medical historians, and other historians, until errors crystallized into accepted facts.[51]

Truth and fiction (2)

But Mifsud has much bigger game in his sights than scholars misrepresenting one another. What he's really after lies in the *interpretation* that Trump and other archaeologists have subsequently put on the 'careful chemical analysis' undertaken at the Museum of Natural History in London. This is the analysis which supposedly confirms that the Ghar Dalam taurodont teeth were not contemporary with the Cervus (Deer) Layer in which they had been found but, on the contrary, were 'more recent than the deer bones'. Such an interpretation, Mifsud demonstrates, though honestly held, is quite unjustified. Because, although they have only ever been published in a highly abridged form – which does lend itself strongly to the erroneous interpretation innocently put on them by others – the Natural History Museum tests did *not* confirm the Ghar Dhalam teeth to be 'more recent' than the Cervus Layer of deer bones washed into the cave in a

cataclysmic flood of the late Palaeolithic between 18,000 and 12,000 years ago. On the contrary, as we shall see, the results of the tests are highly ambiguous. Nevertheless, to the extent that any interpretation can legitimately be put on them at all, these results suggest much more strongly that the human teeth are *contemporary* with the Cervus Layer – and thus in every sense part of the ancient Ice Age deposit.

We will look into this in more detail in a moment. Meanwhile, although this error has very large ramifications for our views about when humans first settled in Malta, I want to make it absolutely clear here, in the plainest possible language, that David Trump is not to blame for it in any way. As he told us when Sharif interviewed him in October 2001 he himself is not a chemist and he had therefore relied on the proper authority for the opinion he had expressed in the most recent edition of his *Archaeological Guide*. That authority had

been none other than the Natural History Museum's Kenneth Oakley, celebrated in the 1950s for his uncovering of the Piltdown Man hoax, and the top scientist in his field at the time:

> *Sharif:* First of all, I'd like to get your general opinion on the work of Anton Mifsud and colleagues who, particularly in the book *Dossier Malta*, have alleged that the orthodox view of Neolithic being the earliest habitation of Malta is firstly wrong and secondly based on gerrymandered evidence. What's your general opinion about that?
>
> *Trump:* That on a matter such as this I trust Dr Kenneth Oakley and his followers far more than I trust Dr Anton Mifsud.
>
> *Sharif:* OK, so by referring to Oakley you're specifically

referring to the same chemical tests carried out at the Natural History Museum in London that Mifsud reported upon at length in *Dossier Malta?*

Trump: Yes.

Sharif: Have you read *Dossier Malta? Trump:* Yes.

Sharif: And so you're aware of all the specific allegations and claims?

Trump: Yes.

Sharif: And you don't accept Mifsud's evidence and allegations particularly

regarding the chemical tests.

Trump: Frankly, no. I'm not a chemist, I can't give an expert opinion on the details of this. But I certainly

trust Dr Kenneth Oakley much further than I trust Dr Anton Mifsud in his arguments.

Sharif: I'd also like to ask you, do you accept any of the claims in *Dossier Malta* about humans being there before the Neolithic? Is any of that likely or plausible?

Trump: The latest evidence suggests that it would have been much easier than we had allowed for Palaeolithic humans to have reached Malta. But, and it's a very big but, we have no evidence whatsoever that they actually did. I'm quite prepared to believe it's possible. If evidence were advanced I would give it all consideration. I would certainly not rule it out of court out of hand. To my mind, no reliable evidence has yet been advanced …

Sharif: To come back to the tests done at the Natural History Museum: In your own *Archaeological Guide* - there's an updated edition from March 2000 – you refer to them as a 'careful chemical analysis' and state that this analysis confirms that the Ghar Dalam taurodont teeth were not contemporary with the Cervus Layer.

Trump: These are the Oakley analyses.

Sharif: Yes. Can I ask, what was your source for that view, that the human teeth and the deer samples are not contemporary?

Trump: Yes, well the stratigraphic evidence such as it was – there was a certain amount of disturbance there – that there were three layers of interest in the cave. The lower one with your pigmy hippopotamus,

elephant, etc. – no evidence whatsoever of human activity. Layer two, with the deer bones – still no confirmed human activity there. And then the upper level, which was largely mixed, with everything from Neolithic down to modern all jumbled up.

Sharif: Sure, I understand that. My question is specifically what was the academic source …

Trump: … for the analyses? Now, if I remember rightly, the first test done suggested that the teeth could have been contemporary with the deer bones at least – not with anything earlier. But the – I'm speaking from memory here …

Sharif: Sure, I accept that.

Trump: … further tests were done which, if not categorically disproving, strongly suggested that the

teeth belonged with that uppermost level -could be as early as Neolithic, but not as early as the deer bones.

Sharif: OK, now, as far as I know, there are only two places that give these results. One is a review – a summary – in the 1964 Museum *Scientific Report*, which quotes a letter from Oakley, that's a 1964 source – is it that which you used to actually know what the results were?

Trump: No, it was personal communication from Kenneth Oakley himself.

Sharif: Oh, so did he give you a full list of the chemical results or just a summary?

Trump: No, he just discussed them in general terms.

Remember the 'Missing Link'?

There will always be some archaeologists who behave as though they are omniscient about prehistory. But though it has been said that Piltdown Man could never happen again, the amazing success and longevity of this extraordinary hoax – which began in 1912 and was not exposed until 1953 – is a reminder that when things do go wrong in the study of any area of the past they can go very wrong indeed. In the Piltdown case a false and (with hindsight) obviously absurd idea about the sequence of human evolution was sustained for forty years because it fitted in with the deep-seated prejudices and preconceptions of the British Empire (the Piltdown skull – claimed to be that of the 'missing link' between apes and men – was, naturally, British!). For the entire period until it was unmasked this counterfeited skull

enjoyed all the prestige of a full scientific classification (*Eoanthropus dawsoni* – literally 'Dawn Man, found by Dawson') and pride of place in a display case in the Natural History Museum in London. So Piltdown was an embarrassing episode. And although, to their credit, the fraud that had taken in scientists for so long was also exposed by scientists, the net effect was to shake the public's confidence in the infallibility of science and of scientific judgement.

Here are the rudiments of the story, which is little spoken of today:

> Fossilized fragments of cranium and jawbone were found [in 1912] by Charles Dawson in a gravel formation at Barkham Manor, on Piltdown Common, near Lewes, England. Together with these were fossil remains of extinct animals, which suggested an early Pleistocene age for the site … In 1953 and 1954, as an outcome of later discoveries of fossil man and

> intensive re-examination, the remains were shown to be skilfully disguised fragments of a quite modern human cranium and an ape (orang-utan) jaw fraudulently introduced into the shallow gravels … The animal bones were found to be genuine remains of extinct species, but they were not of British provenance … The eventual exposure of the fraud clarified the sequence of human evolution by removing the greatest anomaly in the fossil record. At the same time, a series of valuable new tests were developed for palaeontological study.[52]

And here are the connections with Ghar Dalam:

1. Amongst the remains of extinct animal species that the hoaxer had introduced into the Piltdown gravel in order to give authentic Pleistocene 'context' to the skull was a hippopotamus tooth. It is now thought that this tooth had come from Ghar Dalam.[53]

2. The same ‘valuable new tests’ which proved that the different fragments of bone assembled in the Piltdown skull *were not* contemporaneous with one another or with the animal remains introduced into the gravel were also run on the Ghar Dalam taurodont teeth in 1952 [the ‘careful chemical analysis’ referred to earlier by Trump] and suggested very strongly that they *were* contemporary with the deer remains in the cave’s Cervus Layer.[54]

Or, to put it another way, the very tests that were accurate enough to prove Piltdown Man young and a fraud indicated that the Ghar Dalam taurodonts must be old and genuine.

Beyond truth and fiction

But if the Ghar Dalam taurodonts are genuine then why

aren't we told this in Evans' *Prehistoric Antiquities*, the canonical text of Maltese archaeology that was published almost twenty years after the results of the 1952 tests were known? Or was Evans correct in 1971 when he promulgated the dogma that 'the two taurodontic molars can hardly be accepted as good evidence for the existence of man in the Maltese islands in pre-Neolithic times'?[55]

Anton Mifsud's approach to this investigation was to set aside all preconceptions and prejudices – both his own and those of the archaeologists – about whether or not Malta could have been inhabited by humans in pre-Neolithic times. He took the view, consistent with his personal philosophy, that all that should matter, and be weighed up, were empirically verifiable facts. In the case of the Ghar Dalam taurodonts the 'best' facts (i.e., those that most clearly speak for themselves without requiring interpretation) fall into two

categories, both of which are well understood by archaeologists.

On the one hand there is the superb *stratigraphy* of the site – the distinct layers of deposits laid down one on top of the other at different times. Archaeologists all over the world routinely derive dates and sequences of dates from stratigraphy such as this. And, indeed stratigraphically, the human remains at Ghar Dalam lie contemporaneously with Pleistocene red deer and other extinct fauna in the deer layer'.[56]

Secure stratigraphy on its own should have been enough to confirm the presence of Palaeolithic man on Malta. From the beginning, however, J. D. Evans would not accept the obvious implications, raising the objection that the teeth must be intrusive. So the question now, as Mifsud explains, is

not whether the teeth were really found in the Deer Layer – because they certainly were -but whether they were there as a result of ‘an intrusive later burial by Neolithic humans, or else an actual deposit of the remains of Palaeolithic humans together with the remains of the deer layer fauna during the late Pleistocene’.[57] And in order to answer that question stratigraphy on its own, no matter how good, is not enough. What’s needed is the record of the *scientific tests* that were done on the Ghar Dalam teeth in 1952 at the Natural History Museum in London.

Mifsud travelled to London and, after some detective work, managed to find the original records in the vaults of the Natural History Museum. To make sense of them we first need to know more about the so-called FUN (Flourine, Uranium, Nitrogen) tests that the Museum conducted on the Ghar Dalam teeth in 1952.

Oakley's FUN

Although some of them had a long prior history, the FUN tests had been modified and developed by the British palaeontologist Kenneth Page Oakley of the Natural History Museum, apparently with the specific intention of confirming or denying the antiquity of the Piltdown skull.[58] But it is a little-known fact, now clarified by Anton Mifsud's research, that these tests were first applied in 1952 to human and animal remains from Ghar Dalam (and also, as we shall see, from the Hypogeum in Malta) – i.e., a year *before* the same tests were used with such devastating effect on the Piltdown skull in 1953. Mifsud notes that Oakley 'was in Malta on several occasions, on holiday, and as the guest of (the Maltese palaeontologist and geologist) George Zammit Maempel, with whom he shared common scientific

interests'.[59]

In assessing the Piltdown skull, Oakley began by measuring the concentrations of *fluorine*. The surprise, notes Mifsud, was that:

> The skull and the jaw gave readings that set them wide apart in time by several tens of millennia. The other scientific tests, including *Nitrogen [and] Uranium Oxide* … confirmed the hoax … Pursuing the matter further Oakley then sought the origins of the associated remains of the Piltdown assembly. The hippopotamus molar gave a low fluorine reading which immediately suggested its source from a Mediterranean limestone cave, such as a Maltese one, typically Ghar Dalam. Tests on Ghar Dalam hippo molars confirmed the suspicion.
>
> Malta thus became involved and this led to the performance of the same repertoire of chemical tests on the other finds at Ghar Dalam … These chemical tests had by this time established themselves as the most reliable

> indices for the purposes of relative dating of archaeological specimens elevated from the same horizon …[60]

So the tests that were conducted on the Ghar Dhalam teeth and other material from the Deer Layer were the best and most appropriate tools available in the 1950s for settling what is indeed 'the basic question' of the taurodont controversy: were the human teeth deposited in the Deer Layer at the same time as the rest of the layer was laid down, i.e., between 18,000 and 10,000 years ago, or were they introduced into it later than 7200 years ago in the form of a burial by the Neolithic people responsible for the Cultural Layer?

Here are the bare minimum of details about the tests necessary to understand the results:

Flourine and uranium

These two tests work because after death and excarnation the bones and teeth of animals and humans deposited together in the same environment – as well as such substances as deer antler – absorb fluorine and uranium from their surroundings. From environment to environment the *supply* of fluorine and uranium changes – the less there is, the less the bones, teeth and antlers can absorb, and vice versa – but *within* any given context the rate of absorption of the available local fluorine and/or uranium will be the same for any bones, teeth and antlers deposited there. Thus 'the estimation of fluorine confirms or refutes contemporaneity of bones and teeth in the same horizon'.[61]

Example: if human teeth and deer bones and/or antlers are excavated from the same stratum ('horizon' in archaeology-speak), and if the teeth prove on testing to contain much *lower* levels of fluorine or much *lower* levels of uranium (or

much *lower* levels of both) than the deer remains, then the implication would be that the teeth must be much *younger* than the deer remains and are thus intrusive to the horizon. If, however, the environment is one known for its particularly low levels of natural fluorine, such as limestone cave-systems like Ghar Dalam, then the fluorine test obviously becomes less useful the lower the local level of fluorine is – and of no use at all once that level reaches zero. But with this proviso, and with the passage of time:

> Both elements accumulate in greater amounts. When bones are buried in different levels at the same location, older bones positioned in lower levels show greater amounts of fluorine and uranium than do those positioned above them. The accumulation of both elements is dependent on time and water-action present at the location. In view of the low concentrations involved, fluorine estimation may not be ideal for limestone environments, but once measurable amounts are present conditions are more suitable

than if the percolating water is saturated with the mineral.

Levels of uranium oxide in modern bone are practically nil, but in ancient buried bone these may rise as high as 1000 ppm [parts per million] depending on the concentration of uranium oxide in percolating water. Aitken gives the range in fossil bone as lying between 1 and 1000 ppm. Trace amounts of fluorine are present in modern bone, ranging from 0.01 to 0.1 per cent in human bone, from 0.024 to 0.07 per cent in adult dentine of tooth, and between 0.02 to 0.1 percent in Red Deer bone. Thus the maximum ever in modern specimens of tooth and bone in man and deer is 0.1 percent.[62]

Nitrogen

This test works the opposite way round from the other two. Unlike fluorine and uranium, which can only begin to accumulate from the surrounding soil and its percolating

water after the death and burial of the organism, nitrogen is accumulated in bones and teeth etc. only during life and then begins to dissipate. Thus after death the general rule is that 'nitrogen decreases with increasing bone age':[63]

> Bone and teeth contain a certain percentage of nitrogen, averaging 3.4 per cent in teeth and 4 to 5 per cent in bone. Following death and burial organic remains lose their nitrogen with time, once the requirements of its breakdown are available. These include the absence of glacial conditions, an alkaline medium, absence of surrounding clay, and the presence of a specific bacterium, the Clostridium histolyticum …[64]

Example: if human teeth and deer bones and/or antlers are excavated from the same horizon and if the teeth prove on testing to contain much *higher* levels of nitrogen than the deer remains, then the implications would be that the teeth must be much *younger* than the deer remains and are thus

intrusive to the horizon. The provisos, however, are many: if the environment lacks the bacterium necessary for nitrogen breakdown, or is glaciated, or surrounded by clay, then nitrogen is retained in any buried teeth and bones and the depletion of nitrogen becomes less useful as a test of relative antiquity.

'In effect, therefore,' Mifsud concludes,

> a low nitrogen is useful to indicate antiquity, whereas a high nitrogen is not significant unless it is associated with a low fluorine and uranium oxide, which will definitely indicate a recent specimen. Conversely, the presence of a low fluorine and uranium oxide is not significant in the presence of a low nitrogen, for there are factors which impede fluorine and uranium oxide uptake, particularly in limestone caves of which Ghar Dalam is one. On the other hand a high fluorine and uranium oxide is significant in reflecting antiquity.[65]

Politics and ambition

Mifsud's view is that the results of the 1952 FUN tests on the Ghar Dalam teeth got caught up in a number of matters incidental to the proper concerns of archaeology that made it expedient for them either to be ignored, or better still discredited, as evidence of a Palaeolithic human presence on Malta. Of these the two most important were local politics on the one hand and the academic ambitions of the late Professor J. D. Evans on the other.

As to politics, Malta in the early 1950s was pursuing an integrationist policy with Britain. Absurd as it seems now there was embarrassment in official circles that the taurodont teeth might prove the modern Maltese to be directly descended from primitive Neanderthal ancestors (although, as we've seen, taurodontic teeth on their own, even

specimens as large as the Ghar Dalam molars, do *not* necessarily prove that the original owners of those teeth were Neanderthals, since the condition still exists to varying degrees in modern, non-Neanderthal humans today).

As to the second matter, Mifsud notes that J. D. Evans had graduated from Cambridge in 1949 and that in the early 1950s he was 'in desperate need of a PhD'.[66] The thesis that the future Professor of Prehistoric Archaeology at the University of London chose to develop, influenced by the Italian archaeologist Barnarbo Brea, was that the very first human inhabitants of the previously unpeopled Malta had been immigrants from the Neolithic Stentinello culture of Sicily – a theory that is still part of the conventional academic wisdom about Malta today. In pursuing this thesis, Mifsud suggests, it was not convenient to the young Evans to have to deal with the evidence of the Ghar Dalam teeth that

suggested a prior, Palaeolithic, human presence in Malta.

This, then, either as a conscious or unconscious motive, could explain why Evans was so vehement in his attacks on the antiquity of the taurodonts and so economical with the truth in his published statements about them. He wanted them out of the way – permanently – of his own theory about Malta's first inhabitants.

A tale of two museums

To get to see the records of the 1952 tests Anton Mifsud at first expected that he would need to travel no further than the distance from his own home to the Valletta headquarters of the National Museum – on behalf of which the Natural History Museum in London had carried out the tests in 1952.

This turned out to be rather a naive expectation. But what Mifsud did discover in Valletta was that:

> On 3 March 1952 Dr J. G. Baldacchino registered the sampling of the taurodont molar discovered by Despott in 1917. Other remains from Ghar Dalam cave included another tooth which was picked up by Caton-Thompson in 1924, a taurodont molar elevated by Baldacchino in 1936, and one sample each of a hippo molar and deer longbone. *There is no record in the Museum of Archaeology Reports [for 1952/3] of these tests being carried out.*[67]

At this point Mifsud flew to London, where he found, to his relief that:

> The Green Book at the Museum of Natural History is still available and contains the original readings of the entire repertoire of tests carried out between 1952 and 1968/9 on the 'Malta Samples'. Two teeth from the

Hypogeum were also included.

The five human teeth submitted to the Natural History museum were therefore Caton-Thompson's (Ma.1), Despott's (Ma.2), Baldacchino's (Ma.7) and two molars from the Hypogeum (Ma.5 and 6).

The results in the Green Book were not what Mifsud expected. The fluorine test for Despott's molar (Ma.2) gave the highest results of all the samples tested, including the Pleistocene deer and hippo samples. This result did not jibe with the official position that the 'careful chemical tests' had proven the tooth to be Neolithic. The nitrogen result for Despott's molar was 1.85 per cent. Were it not for the fluorine readings, this result would have been compatible with the official position. But as it stands, the disparity revealed in the Green Book only suggests that either the fluorine tests or the nitrogen tests – or both – were unreliable. The official position should therefore have been

that the results for this tooth were internally inconsistent and hence ambiguous.

Baldacchino's molar gave very similar nitrogen results to the two hippo molars from Ghar Dalam (0.44 per cent compared with 0.4 per cent for the hippos), clearly suggesting contemporaneity between the human samples and the Pleistocene animal samples in the Cervus Layer. Again, this result is incompatible with the official claim that these chemical tests proved the human teeth in the Cervus Layer to be Neolithic intrusions.

The tooth Ma. I was discovered in the mid-1920s by Gertrude Caton-Thompson, the British archaeologist cited earlier whose views were misinterpreted by Evans. According to Caton-Thompson's notes, it was found in an 'unstratified layer' in the company of hippo, horse, deer, thirty potsherds and the end of a flint blade. This tooth yielded fluorine

results (0.2 and 0.3) equivalent to those of the Pleistocene deer samples (0.25 and 0.3). It also yielded similar nitrogen results to Baldacchino's molar, with two different tests yielding results of 0.39 per cent and 0.79 per cent. That the same tooth yielded such different results highlights the unreliability of the nitrogen testing in a similar manner to the fluorine-nitrogen inconsistency of Ma.2. Nevertheless, these nitrogen results overlap with the readings for the Pleistocene hippo samples (0.4 per cent), and further raise the possibility of a Pleistocene date. This is especially interesting because the tooth bore no signs of taurodontism, and might therefore be taken as evidence of a Palaeolithic presence of humans on Malta who had normal, non-taurodontic teeth.

It is worth noting here that another non-taurodontic tooth was discovered in Ghar Dalam in the 1920s, this time by George Sinclair, a civil engineer with the British Admiralty.

The tooth was buried almost a metre deeper than Despott's 1917 molar,[68] and it is unfortunate that it was not also submitted for chemical testing.

Ma. 6, a human tooth from the Hypogeum, gave a nitrogen reading of nil. If we were to base everything on Oakley's nitrogen test, we would have to conclude that the owner of this tooth was alive way back into the Palaeolithic. However, it must be pointed out that Mifsud later managed to get this tooth carbon-dated through the Natural History Museum. As noted in chapter 17, the carbon-date put the tooth into the Late Tarxien phase, around 2200 BC. Along with the inconsistencies noted for Ma.1 and Ma.2, this further highlights just how unreliable Oakley's nitrogen dating technique can be.

The 1964 Report: erasing the Palaeolithic peril

No official record of the chemical testing was published until the Museum of Archaeology's 1964 report – a decade after the nitrogen and fluorine results had been achieved. During this lengthy hiatus only a very small number of people knew that the 1950s tests had ever been carried out at all and even fewer could have been aware of their results.

Such a delay in the publication of important modern dating evidence confirming a Palaeolithic human presence in Malta is plainly odd in itself. But that the gist of the evidence should subsequently have been misrepresented by the omission of crucial data when publication finally came about is far more extraordinary. Moreover, Mifsud believes the timing of publication in 1964 was not accidental. In that year there was already a dating furore in the air following the

discovery that C-14 *underestimates* the age of materials that are more than about 3000 years old – and that there is a progressively larger underestimation the older the sample is. By 1964 this 'built-in' error had been accurately calibrated millennium-by-millennium by means of 'dendochronology' (comparison with the annual ring counts of very ancient species of trees). The implications of the new 'calibrated' dates for Malta were that the entire Temple Period suddenly had to be shifted a full millennium back in time. For example, before 1964 Gigantija was thought to be no older than 2500 BC; after 1964 and 'the tree-ring revolution' the date was pushed back to the presently accepted figure of 3600 BC.[69]

It is interesting to note that Evans was very slow to accept the implications of dendochronology for his carefully

worked-out sequence for the Temple Period (the beginning of which he had hitherto set at 2500 BC) – and even as late as 1971 he was still refusing to let go entirely of his pre-calibration scheme.[70] But the tree-ring revolution was an irresistible force, like a rising tide – with implications for radiocarbon-dates all around the world – and even Evans in the role of King Canute could not hold back the waves.

The FUN tests in the 1950s were quite a different matter, done behind closed doors, strictly between the Natural History Museum in London and the National Museum in Malta. By 1964 the extremely annoying and inconvenient results of these tests had been withheld from the public for ten years with no one else any the wiser. Accordingly, there was no basis for protest when the National Museum published an abridged and unfortunately highly misleading version of the results in its 1964 Scientific Report. Whether

by accident or by design, the net effect was that only information which supported the Evans paradigm was available on the public record.

The relevant passage from the 1964 Scientific Report itself reads as follows:

> Considerable help has been received from foreign experts in the analysis of Maltese material of various sorts.
>
> Dr K. P. Oakley of the British Museum, Natural History, analysed a number of bone samples for their collagen content, expressed as a percentage of nitrogen. The figures obtained were – hippopotamus bone, nil; deer antler 0.13 per cent; normal human tooth 0.7 per cent; taurodont human tooth (these four all from Ghar Dalam) 1.85 per cent … This proves conclusively that the taurodont tooth is later than the material from the other prehistoric sites, and so cannot possibly be of Neanderthal man.[71]

This statement contains paradoxes which seem all the more bizarre because they are left unacknowledged.

Firstly, the report only makes a conclusion about one human taurodont -Despott's molar classified as Ma.2 – and yet, as we've seen, Trump has used the results of these 'careful chemical tests' to draw a conclusion about two different Ghar Dalam taurodonts.

Secondly, why were the obvious inconsistencies in the data ignored? Caton-Thompson's molar is reported as having a nitrogen reading of 0.7 per cent, when in fact, according to the Green Book, it yielded the two very different results of 0.39 per cent and 0.79 per cent. More importantly, why did the report provide only the nitrogen reading for Despott's molar, and ignore the contradictory fluorine result? The nitrogen test had already proved itself capable of producing variable and hence unreliable results, so why was it given

automatic and exclusive preference over the fluorine results?

Thirdly, if the nitrogen content of 1.85 per cent is supposed to be appropriate to the Neolithic, as we are effectively being told here, then does it not follow that the reported reading of 0.7 per cent from the normal human tooth from Ghar Dalam is indicative of a much older, pre-Neolithic date? And what does it say about Baldacchino's molar, which gave a nitrogen percentage of 0.44 per cent?

The results published in the 1964 Report misrepresent the actual set of results recorded in the Green Book in London. Had the complete set of results been included, or properly summarized, then it would have been clear that the results were to a large extent ambiguous, but also suggestive of a Palaeolithic human presence on Malta.

This misrepresentation of the actual results of the 1950s

tests has subsequently had a pivotal effect on public perceptions of Maltese prehistory and on what university archaeology departments do and do not see as valid and worthwhile research on Malta. Unedited, the results from the chemical tests might have inspired a new generation of archaeologists to break away from J. D. Evans' 1950s 'Neolithic' paradigm and pay more attention to the possibility of much older relics around the Maltese islands – even underwater. But in the distorted form in which the results finally reached the public in 1964 (a mere decade after the tests had been carried out) there could be no danger that they would do any such thing.

Let's note in passing that seven years after the tests – and five before the misrepresented test results were first put on the public record in the Museum of Archaeology's 1964 Report – J. D. Evans had begun to talk as though conclusive

results were already on the record. Here are three characteristic passages from his *Malta* (1959):

> There are as yet no trustworthy traces of the presence of man in Malta before the Neolithic period …
>
> We have no reliable evidence that any of them [Palaeolithic humans] made their homes in Malta …
>
> We have no reason to suppose that Palaeolithic man ever set foot on Malta.[72]

'The logic of Evans' conclusions', comments Mifsud, 'was founded on false premises and a significant iota of misrepresentation … The weight of authority established his hypothesis as semi-dogma; the consequence was bad history.'[73]

The uranium control

We've seen that the fluorine and nitrogen results for Despott's molar (Ma.2) contradicted each other. The former suggested a Palaeolithic date, whereas the latter – the one which was published – suggested a Neolithic date. But a third test was later carried out on Despott's molar that had not been carried out on the other two teeth in 1952. This was the uranium oxide assay – a more sophisticated procedure which was not yet fully established in 1952 and which was only applied to Despott's molar in 1968. This later test took place, Mifsud has discovered, at the specific request of Kenneth Oakley – who also asked that it be carried out on Baldacchino's (1936) taurodont molar at the same time.[74]

The uranium oxide result for Despott's molar supported the flourine result and embarrassingly contradicted the high

nitrogen result that had been published in the Museum's Scientific Report in 1964 as proof that the tooth was Neolithic. The result of the uranium assay was 13 ppm, compared with 0.1 ppm or less in living bone and levels of between 4 and 12 ppm in various Pleistocene hippo and deer samples from Ghar Dalam. Ghar Dalam is an environment with low levels of uranium oxide (and fluorine) in the percolating water, so it is very hard to see how Despott's molar could have accumulated so much of it within just 7000 years. As Mifsud sums up:

> The dating to the Neolithic in the 1964 Report could not be sustained in the face of the 13 ppm reading … Despott's molar has survived to tell its tale … Its fluorine and uranium content ranks it contemporaneous with the fossil fauna of the Cervus Layer.[75]

As one might expect, knowing all the facts, this uranium

oxide result was never published. The problem posed by the chemical results to the Neolithic date of first human settlement favoured by orthodox theory and confirmed in the 1964 Report has been efficiently dealt with by archaeology by simply ignoring the disturbing fluorine and uranium results whilst focusing only on a highly selective group of results from unreliable nitrogen assays. In consequence, until Mifsud rooted them out from the pages of the Natural History Museum's Green Book and published them in *Dossier Malta* in 1997, neither the fluorine nor the uranium levels of any of the Ghar Dalam teeth were known outside the narrow circle of the two museums.

'Adjustments'

In *Dossier Malta*, Mifsud claimed that the inconsistency

between the uranium and fluorine results on the one hand and the high nitrogen result on the other could be explained by forgery. He took photographs of the Green Book during his visit to the Natural History Museum and spotted that there appeared to be two layers of ink in the box containing the nitrogen result for Despott's molar. The bottom layer gave'. 8 per cent' (i.e. 0.8 per cent, but without the zero). The top layer, in a different shade of ink, added a 1 and 5 to this result to give '1.85 per cent'.

Anthony Frendo, Head of the Department of Archaeology at the University of Malta, initially concluded that the nitrogen results published in the 1964 Report effectively demolished any possibility that Palaeolithic humans had lived on Malta.[76] But in what amounts to an extraordinary endorsement from the heart of the establishment, Frendo concedes that Mifsud's research has now shown those

nitrogen results to have been 'tampered with' and the fluorine and uranium oxide tests suppressed so as to create a false Neolithic chronology for the human teeth from Ghar Dalam:[77] 'This means that early man must have come to the Maltese islands in pre-Neolithic times.'[78]

How have other archaeologists reacted to Anton Mifsud's accusation of forgery and its seismic implications for the orthodox paradigm of the Neolithic origins of Maltese civilization? On the latter point there has simply been no reaction. Maltese prehistoric archaeology continues on its Neolithic way, seemingly untroubled. On the former point, like Frendo, John Samut Tagliaferro of Malta's Museum of Archaeology agrees that the final figure now to be seen in the Green Book 'of 1.85 per cent of nitrogen content for the molar Gh.D/2 (Despott's molar, coded by the Natural History

Museum as Ma.2] was superimposed on the original result, namely that of 0.8 per cent'.[79]

Unlike Frendo, however, Tagliaferro says he sees nothing sinister in the superimposition. He argues that all the samples from Malta were subjected to more than one nitrogen assay at the Natural History Musuem – and these sometimes produced different results, quite properly leading to 'adjustment', after the second test, of the figures yielded by the first. In the case of Despott's molar the original figure had been written as '.8 per cent' (with no zero preceding the decimal point). The fact that this figure was then overwritten so that it would read '1.85 per cent' could be easily explained as the result of such an 'adjustment' after retesting.[80]

I had already seen ample evidence that the chemical test results had been misrepresented and so was prepared to

consider the possibility of forgery. But I had also seen enough to convince me that the chemical tests were capable in themselves of producing inconsistent and ambiguous results. I was therefore not prepared to accept Mifsud's allegation without following it up and offering the Museum a chance to rebut it. I also wanted to see the Green Book for myself and, with the help of Channel 4 and permission from the Museum, get its data – which were obviously controversial even if one disregarded the forgery allegation – on film.

Tackling the Natural History Museum (1): controlled access

Our contacts with the Museum unfolded over a period of several months and were handled primarily by my research assistant Sharif Sakr with occasional back-up when needed

from Roy Ackerman, Head of Programmes at Diverse Productions (the company making my TV series for Channel 4). Here is the transcript of Sharif's opening (11 July 2001) telephone conversation with an official (name withheld) who deals with access to records at the Museum's Palaeontology Department:

> *Sharif:* Hi, my name is Sharif Sakr. I just spoke to a colleague of yours in the archives department, and she recommended I speak to you. I'm calling from Diverse Production, a TV company in London, and we're making a documentary that's going to involve some Maltese prehistoric archaeology, and as part of the research and filming, I'd like to know if it's possible for me to get access to this thing called the 'Green Book', which contains records of bone analyses done between 1952 and, I guess, the late

1960s, on some Maltese teeth.

Official: I don't know if it's possible or not.

Sharif: You don't know if it's possible or not?

Official: I don't know if it's possible, because it relates, it has information about human remains, and that would be available really only to academics – people who are doing academic research, such as, we've had people from Malta do research on that in here …

Sharif: Really? People have already come to look at the stuff I've talked about?

Official: Yeah, that's right, Dr Anton Mifsud has looked at that book, but he was an academic. But merely for the sake of filming – you know, what's the point? What's the use of that?

Sharif: You know, to get the actual numbers on camera, if possible.

Official: Erm … No … I think that will not be possible, basically, without permission from a much higher level than me, basically.

Sharif: Well, who would that be?

Official: Well, a letter from your head of department or head of, whatever you are, to Dr Louise Humphrey here, who deals with access to human remains.

Sharif: Do you have any contact details for her?

Official: Yes, Dr Louise Humphrey, at the address of this museum, which is the Natural History Museum, Cromwell Road, London SW75BD.

Sharif: OK, thank you. What about, well, cameramen

aside, what about the possibility of me, you know an individual without any cameras or anything, coming in to browse through this book?

Official: Good heavens, no! No documentation relating to human remains is available for browsing by non-academics. I mean you're not doing academic research, so you don't get to see the documentation, it's as simple as that.

Sharif: OK, that's quite clear.

Official: That's basically the rule that we're following now, in relation to the anthropology collection.

Sharif: And that rule exists for reasons of preservation or ethics?

Official: For reasons of ethics, I guess, more than

anything else.

Sharif: What if I said that the samples I wanted to see weren't solely human – in fact a number of them were hippopotamus bone …

Official: Yes, but it's documentation within the anthropology section. So it gets regarded as … er … and also it might be unpublished, even if it's fifty years old, I'm not sure if the information's been published or not. If it's been published, then why would you want to see the original notebooks where the results are recorded?

Sharif: Well I can answer that, because this man, I've never met him, but Anton Mifsud is claiming that in fact the results have been ignored, i.e., not published, misrepresented when they were

mentioned, and in fact he's even claiming that there was some tampering going on, such that the only real place where you're going to find these results in their original form from 1952 is in the Green Book, and that's why it's so important to see that book, rather than secondary evidence, for example in the National Museum in Malta.

Official: Another thing that comes to mind is that, er, if the reputation of the Museum is at stake, then probably the director of science would have to look at this first, you know …

Sharif: Well, it's not at stake – your museum is supposed to have the untampered-with evidence …

Official: It's just that you may misrepresent whatever we have, and that would mean that we get

embroiled in all kinds of funny tests going on, about whether it's one pen or three pens or five pens on a piece of paper, whether it was written in 1950 or 1960 or 1970, which would go on and on for months and weeks and there'd be no end to it …

Sharif: I was wondering … you talk as if you've had experience of Anton Mifsud …

Official: Oh, I do …

Sharif: Was he annoying, was he dishonest?

Official: No, he was very pleasant, without a doubt. You know he was … But perhaps what I would say is that erm, between, since then the whole climate in relation to human remains has changed …

Sharif: So it's controlled access now …

Official: It's controlled access. The ethics of human remains.

Tackling the Natural History Museum (2): one of our pages is missing

As the official suggested, Sharif made contact with Dr Louise Humphrey concerning our request to film the relevant page in the Green Book containing the altered nitrogen figure for Despott's molar (code number Ma.2). On 26 October 2001, Dr Humphrey presented us with an astonishing piece of news. We would not be able to film the page containing this test result – or at any rate not at the Natural History Museum – because it was 'missing'.

Ironically, the only place in the world where a true copy of it could now be found was in Anton Mifsud's 1997 *Dossier*

Malta where he had reproduced his photographs from the Green Book. Perhaps, Dr Humphrey suggested, we would like to film his photographs instead? While we were at it, she added, could we please ask Dr Mifsud to send a photograph to her as well so that she could use it to replace the missing page in the file?

It was in this e-mail that Dr Humphrey offered the Museum's rebuttal to Mifsud's allegation of forgery. Humphrey had managed to find the original laboratory reports from which the results had been taken and entered into the Green Book. These lab records contained a reading of 1.85 per cent for Ma.2, effectively proving Tagliaferro's suggestion that this later result was genuine and a proper substitute for the original figure of 0.8 per cent.

From: Louise Humphrey

To: Sharif Sakr
Sent: Friday, October 26, 2001 12:43 PM
Subject: Green Book

Dear Mr Sakr

Thank you for your e-mail of 18 October. The page listing results for Ma.1-Ma.7 in the Green Book is missing and I have not been able to find any evidence for where it might be. We know that the page was still present in 1995 since Dr Mifsud states in the acknowledgements of his book that he photographed the page when he visited this Museum on 10 August 1995. Fortunately, Dr Mifsud does have photographs and, according to his acknowledgements, photocopies of the relevant page of the Green Book. It would therefore be possible for you to film these copies for your programme. I would also be grateful if you could ask Dr Mifsud to send me a copy of his photographs, photocopies or both to replace the missing original page in our files.

Some of the results in the Green Book were compiled from other primary sources, for example, correspondence between Museum staff and staff in the laboratories where the analyses were conducted or forms completed during the process of analyses conducted here. I have not found primary records to back up all of the results summarized in the Green Book, and it is possible that some analysis results were entered directly into the Green Book. The departmental archives include two files of correspondence between Dr Oakley and staff at Microanalytical Laboratory in Oxford where nitrogen determinations were carried out, including letters detailing the results for all of the samples from Malta. For example, one letter, dated 17 June 1955, gives the analytical result for Ma.2 (1.85% N). Dr Mifsud's claim (e.g., page 96 of his book) that Dr Oakley deliberately and fraudulently altered this result is evidently erroneous. The departmental archives also include forms completed during the process of uranium analyses, including those for several Maltese samples. The analysis of Ma.2 was carried out on 23 February 1967 and yielded a result of 13 +/- 1 [parts per million].

I should reiterate that each of the analytical techniques used to investigate the samples from Malta between 1952 and 1969 can yield anomalous or ambiguous results … Dr Oakley had many years experience working with these techniques and was probably better qualified than anybody to interpret the results and identify anomalies … Ma.6 is a very clear example of an anomalous result. The nitrogen reading is nil, indicating that the tooth had been buried for long enough for all the organic materials to be lost. Taken in isolation this result could suggest an early (e.g., Pleistocene) date, yet the radiocarbon date for this tooth is 4130 +/- 45 (see *Archaeometry* 41: 421–431).

[NB Ma.6 is *not* one of the contested Ghar Dalam teeth but one of the Hypogeum teeth also assayed by Oakley. Mifsud's theory does *not* dispute but in fact *predicts* the dating to the Neolithic of the Hypogeum teeth, which he believes to have been swept into the underground structure from surface-level Neolithic graveyards by the agency of a flood -see chapters 16 and 17.]

Fluorine, uranium and nitrogen tests have fallen into disuse because more reliable and accurate dating techniques are now available. If the aim of your programme is to provide accurate scientific information, it would not be appropriate to rely on unpublished information using out-of-date techniques taken from historical archives. Results that are unpublished have not been submitted to peer review and do not carry the same weight scientifically as those that have been scrutinized by independent reviewers. I understand from your e-mail that it may not be possible to remove samples from the Maltese taurodont teeth for radiocarbon dating. Nevertheless, I think it is important to point out that the dating of the human teeth is insecure without this additional evidence. Kind regards, Louise Humphrey

Question-marks persist

Humphrey's e-mail helps to answer some questions, but

leaves others unanswered and raises yet more.

On the forgery issue, Mifsud's allegation as it stands is clearly weakened by the proof that 1.85 per cent is a genuine test result. But does this necessarily mean that 0.8 per cent, written in the original layer of ink, wasn't also a genuine result? 0.8 per cent would make much more sense given the results of the fluorine and uranium oxide tests. Dr Louise Humphrey made it clear to us in a later e-mail that if there was a lab report containing a nitrogen result of 0.8 per cent for Ma.2, then she probably – but not definitely – would have found it. But it should also be pointed out that Anton Mifsud – who was kept informed of our correspondence with the Natural History Museum – stands by his allegation and expects to publish further evidence to support it in 2003. He intends to prove that whereas Ma.2 was tested for fluorine in 1952, no *sample* was taken from this tooth for later nitrogen

testing, such that the 1.85 per cent reading actually corresponds to a different tooth that was substituted by someone – and Mifsud intends to show who – outside the Natural History Museum. It was knowledge of this dishonest switch, thinks Mifsud, that led an honest and concerned Kenneth Oakley to resubmit the original tooth for uranium oxide testing in 1968.

Forgery allegations aside, it is bizarre, and indeed rather disquieting, that the extremely important and controversial page from the Green Book containing results which were misrepresented by scholars should have been present in 1995 and should have gone 'missing' subsequently – without any trace or explanation, as Dr Humphrey admits. For whereas one might expect items of primary evidence to 'disappear' during a mobster trial, it seems inappropriate for the same sort of thing to happen in an archaeological dispute.

Moreover, staff at the Museum are obviously well informed about the very serious allegations made in *Dossier Malta* in 1997. It therefore seems contrary to human nature that they would not at that time have opened up the Green Book to have a look at the page Mifsud claimed had been misrepresented and 'corrupted'. If so, does it not follow either that the page was still present in the Green Book in 1997 or – if it was found to be gone then – that no report was made of its disappearance at the time?

But the biggest question to arise from all of this concerns the chemical tests themselves. If Oakley's chemical tests on the Ghar Dalam teeth are really as obsolete and insecure as Dr Humphrey claims, why were they still being used in 2000 to contradict the stratigraphic context of the teeth and demonstrate that they are Neolithic? And if the tests aren't as useless as Dr Humphrey claims, can we really accept her

assertion that only the late Kenneth Oakley was sufficiently versed in his own esoteric techniques to be able to interpret their results? If the orthodox position rests on nothing more than a missing page of numbers that have been subject to highly misrepresentative publication and deeply unfathomable interpretation, then does this position deserve to be considered 'scientific'?

An interpretation with feet of clay

Let me reiterate that the real issue in this saga is not the allegation of forgery but the *interpretation* that has consistently been put by archaeologists on the whole suite of results from Kenneth Oakley's chemical tests. Proponents of the 'Neolithic-first' theory of Maltese prehistory have claimed the results prove the human teeth from the Cervus Layer of

Ghar Dalam to have been Neolithic, and thus several thousand years younger than the Cervus Layer and probably introduced by intrusive burial. This is the interpretation that has entered the history books and become orthodox. Yet we now know that it is based on disputed, ambiguous and internally contradictory evidence – which may be highly suggestive but which is frankly nowhere near good enough to settle such an important matter. Worse still, when we look closely at the FUN test results, as Mifsud has enabled us to do by publishing the full set of elusive figures from the Green Book, we find that what they are highly suggestive of – according to the standard rules of interpretation – is *not* the Neolithic date for the Ghar Dalam teeth claimed by the National Museum of Malta. Instead, the predominant overall pattern of high fluorine, high uranium and low nitrogen that these teeth manifest is, as reported earlier in this chapter,

highly suggestive of a date in the Palaeolithic.[81] It becomes legitimate, therefore, to wonder why the 'Neolithic-first' hypothesis for Malta continues to be promulgated at all.

Sharif came at the problem in a roundabout way in a recorded telephone interview with Louise Humphrey:[82]

> *Sharif:* Do you mind me asking, what's the nature of the Green Book? Are these things filed as attached pages or they on separate pages that are easily removed.
>
> *Humphrey: It's a* ring-binder.
>
> *Sharif:* Would a page have to be ripped in order to be removed?
>
> *Humphrey:* No, it could probably be opened, but it would be a hassle, because you'd have to pull out

half the pages in the book – M being in the middle of the alphabet, because they're filed by country.

Sharif: Because, you know, the basis of our whole story here is this idea that something is going wrong with the preservation of records relating to Malta. And that's why, I mean, I understand it would be much better to go and see these results in a published … in an academic periodical with comments about them, but they never made it that far except in very abridged and misleading form in a 1964 Scientific Report of the National Museum of Malta.

Humphrey: The reason they might not have been published is because they were considered suspect.

Sharif: Fine, that's what someone would say who's not directly involved. But the real story is why and how

these exact same test results were allowed to be used from the beginning to support a Neolithic date. Because in 1968 and earlier, these were valid dating techniques and what they suggested on balance was that the human teeth from Ghar Dalam were not Neolithic but Palaeolithic.

Humphrey: It was the best that they had then …

Sharif: Yes. So it's really a question of representation, rather than truth. It is a question of what would happen if evidence was ignored – and it has been ignored in this case. It's almost not the point of the argument to use this as proof that orthodox opinion is wrong, as much as it is to show that certain personalities responsible for forming orthodox opinion about Maltese prehistory did not give proper

consideration to evidence that might have contradicted their own position.

Sharif asked Dr Humphrey whether she herself did not feel it would be interesting to follow up the ‘anomalous’ uranium oxide reading of 13 parts per million for Despott’s molar (Ma.2) – a reading, as we’ve seen, that is indicative of Palaeolithic antiquity for this tooth.

Humphrey: My interpretation – now, don’t forget these techniques went out of use before I was born, I didn’t even learn them at university because they were obsolete. But my interpretation of them now, as a non-expert, is that they’re inconclusive, that they’re ambiguous. Because, for example, for Ma.2 there is that seemingly very high uranium result that would suggest an early date. But you’ve also got a very high

nitrogen result [the contested figure of 1.85 per cent] that would suggest a recent date … Erm … so to me that would be unsatisfactory. I would consider that inconclusive.

Sharif: OK, it's not my position to agree or disagree. But it is your position to stand up, not for what makes good TV and what doesn't, but for what's scientifically valid. So, I just wish the Green Book page was there …

Humphrey: So do I …

Sharif: To end it all…

Humphrey: Well, it wouldn't …

Sharif: No it wouldn't – what would end it would be to carbon-date the contested tooth.

Humphrey: Yeah, I think that's the only way you'd get any truth out of this.

Unfortunately, however, the Maltese authorities remain resolutely opposed to any carbon-dating of Despott's molar and have recently been reluctant even to grant access to it.

Limbo

Since David Trump had in good faith regarded the 'careful chemical tests' on Despott's molar carried out in the 1950s at the Natural History Museum as reliable, we thought it would be interesting for him to hear Louise Humphrey's view of the tests as 'inconclusive' and 'ambiguous'.

Sharif: I just want to ask one more question about these chemical test results. Now, the problem I have with

it is, I've interviewed Dr Louise Humphrey at the Museum …

Trump: The Natural History Museum in South Kensington?

Sharif: Yes, exactly. Now, she's seen all the results in the Green Book, but only in Mifsud's book, which is today the only published record of these results in the whole world because, for some reason, the Museum don't know why, but they've lost the one specific page in the Green Book which has the human chemical test results for the Ghar Dhalam teeth.

Trump: That is a pity. Of course the people who are arguing against it will probably suggest this was all part of the conspiracy.

Sharif: Yes, that's basically what will happen.

Trump: These glorious conspiracy theories!

Sharif: I'm in no position to claim there's dishonesty or whatever. It's not really my interest. My interest is that in 2000, in your book, you described these as careful chemical analyses which effectively proved that the teeth were more recent than the deer bones. Now, Dr Louise Humphrey is saying, in 2001 – just last week – she's saying that these results are completely ambiguous and aren't really worth the paper they're written on. Therefore, she's saying, even if we found the lost page, it's not really relevant to archaeological inquiry on Malta. In other words, she's completely against Oakley's FUN testing because she regards it as obsolete and disreputable,

basically. What would your view be on that, considering what you wrote in 2000? The reliability of these chemical test results, as they stand – and you've said you aren't an expert on them and I accept that …

Trump: I er … don't quite know what to say. Erm … the only thing to do would be to … get directly myself, before changing anything, the scientific opinion on these. And if that is exactly as you say, to admit that those tests did not prove what it was thought at the time they did. Could we please get some more tests done?

Sharif: Sure, particularly carbon-dating …

Trump: Well now of course we've got the AMS that can do it with very small samples, that might be possible.

Sharif: Mmm, particularly, there's this one tooth sample, Despott's molar …

Trump: But the deer bones are not … they're not Pleistocene, are they?

Sharif: Yes, the layer is Pleistocene. And the layer above it is, well Mifsud claims it is a relatively coherent stratigraphic layer …

Trump: I see …

Sharif: So that does make a barrier above the Cervus Layer which establishes that the Cervus Layer is Pleistocene. Obviously that doesn't rule out intrusion of later material into it …

Trump: No … Yes … If we could get a direct date on the teeth … That would put human occupation back

earlier, well before the date we've got. But at the moment then, the whole issue is unproven.

Sharif: Yes, that is exactly my feeling. Particularly, Dr Humphrey would draw attention to this nitrogen reading of 1.85 per cent for tooth sample Ma.2 … You probably don't remember any of this …

Trump: I don't, and I wouldn't know what it meant.

Sharif: Oh sure, well basically there is a large amount of internal inconsistency in the results that are reported in the Green Book. These are the results done on the Maltese samples between 1952 and 1969. Now, from what I can tell from Dr Louise Humphrey who does seem to know her stuff, I must say, is that at best these results are ambiguous. And if you look at Mifsud, he does make quite a good

case that particularly with the uranium oxide reading that, yes, they don't prove anything, but if they are *suggestive* of anything, it's of a Pleistocene date. So what Mifsud is actually alleging is that what Oakley reported in the official Museum publication in 1964 was not representative – and I'm not saying it's dishonest, maybe he took what he felt was representative – but the modern opinion is that those results he gave were not representative of the full set of results, the majority of which actually suggest a Pleistocene date. The fluorine and most of the nitrogen and particularly a uranium oxide reading for one of the tooth samples from Ghar Dalam [Despott's molar] are extremely suggestive of a Pleistocene date. Obviously, we'd much rather have carbon-dates – but unfortunately carbon-dates are

not available for any of the Ghar Dalam teeth. So to what extent do you feel that what I'm saying – and I'm your only source for this apparently right now – but how do feel about this whole 'Neolithic-first' thing in the settlement of Malta if this point is made?

Trump: If this point is made, I would accept that we've got to reconsider the argument that the Neolithic settlers were the first on the island. I would do that quite willingly, if secure evidence is put forward. I've nothing against Pleistocene settlement of the island …

Sharif: Sure, sure, it's an academic question really, not a question of religion. But implicit in that point you just made is that you think that Oakley's chemical test results are quite pivotal to the 'Neolithic-first'

case. They're an important strand of evidence supporting that orthodox model that there were no humans before the Neolithic. Is that right?

Trump: I think so, yes.

Sharif: Is there any other pivotal evidence that supports that?

Trump: Only the complete absence of any other evidence. And one has to admit that negative evidence is never reliable. It may just not have been found. But until either this evidence comes through securely or other evidence comes to light …

Sharif: Well I think the future lies with getting the National Museum in Malta to give access to these most controversial tooth samples from Ghar Dalam to allow them to be carbon-dated. I think that's the

future – this is just my view – but until that's been done things are rather up in the air.

Trump: The whole thing is in limbo really, yes. Yes.

The miraculous transmutation of Baldacchino's molar

There are other matters that add to this sense of Maltese chronology in limbo. Readers will recall that, as well as two teeth with normal roots excavated in Ghar Dalam in the 1920s by Caton-Thompson and George Sinclair, there are altogether *three* taurodont teeth – Rizzo's and Despott's molars, both discovered in 1917, and Baldacchino's molar, discovered in 1936. Where reference codes have been applied to these teeth they are prefixed 'Gh.D' in the case of the National Museum of Malta, and 'Ma.' in the case of the

Natural History Museum. Thus, for example, the Natural History Museum code for Despott's 1917 taurodont molar is Ma.2, for Caton-Thompson's normal tooth Ma.1, and for Baldacchino's 1936 taurodont molar Ma.7. The National Museum of Malta code for Baldacchino's molar is Gh.D/3.

Although Baldacchino's molar was one of the teeth assayed for its nitrogen level at the Natural History Museum in 1952, we've seen that the very low result of 0.44 per cent that it produced was withheld from the 1964 official Report on the tests. Then in 1971, Evans' *Prehistoric Antiquities of the Maltese Islands* somehow failed to mention the existence of Baldacchino's molar at all in its survey of Ghar Dalam, and discussed the taurodont controversy with reference only to the Rizzo's and Despott's molars. Since Evans' text remains the basic work of reference on prehistoric Malta, the net effect of this omission was to consign Baldacchino's molar to

a research limbo – where it stayed until Anton Mifsud focused attention on it again in 1997 when he published the suppressed 1952 test results in *Dossier Malta*.

The odd thing is that when Baldacchino discovered the tooth in 1936 he described it as being heavily fossilized. Today the very few people who have been allowed to see it in the vaults of the National Museum of Malta report that it is *not* fossilized – and this mysterious transmutation is confirmed in Anton Mifsud's 1997 photographs 'where it is evidently identical in shade to modern molar teeth, rather than to the 1917 molars'.[83]

Even odder is the fact that a startling discrepancy exists between the very low result of 0.44 per cent obtained from the tooth in the 1952 *nitrogen* assay and the result of the *uranium oxide* assay that was carried out on it in the 1960s at

Kenneth Oakley's request (this was at the same time that Oakley also ran the uranium assay on Despott's molar). The nitrogen result makes Baldacchino's molar very old – definitely Palaeolithic. But the uranium assay gave 'a nil reading for uranium oxide',[84] indicating that the tooth was most probably modern.[85] Last but not least, although the tooth now coded Gh.D/3 in the vaults of the National Museum of Malta is a taurodont, Mifsud points out that its degree of taurodontism is relatively minor – mesotaurodont or hypotaurodont, and that it certainly does not attain the very large hypertaurodontic type of the two 1917 molars.[86]

What should we conclude from these paradoxes? The obvious answer, Mifsud suggests, is that Baldacchino's molar was old when it was described as fossilized in 1936, and still old when it was assayed for nitrogen in 1952, but it was *no*

longer old when it was assayed for uranium in the 1960s. In other words, a modern taurodont tooth – perhaps one of several that are known to have been extracted in Malta during the early 1960s[87] – was substituted for Baldacchino's Palaeolithic molar some time after its nitrogen test in the 1950s and before its uranium test in the 1960s.

It is impossible to guess who might have actually carried out the switch but it was undoubtedly facilitated by the peculiar lack of documentation that afflicted the tooth after 1952. As we've seen, Evans failed to mention it in 1971. Mifsud points out that it was also:

> omitted in subsequent references to taurodontism in archaic human remains. J. L. Pace (1972) and G. Zammit Maempel (1989) do not mention it in their contributions.[88] It has never been published in a photographic form, so that a substitution was all the more easily possible …[89]

> Baldacchino's molar was kept in a box of its own separate from Despott's and Rizzo's molars. It was replaced by a modern taurodont and labelled as Gh.D/3. The same could not be done to Despott's and Rizzo's for they had been studied, photographed and radiographed by several workers.[90]

In the light of Mifsud's evidence about the switching of Baldacchino's molar, how can we be sure that Despott's molar wasn't also swapped for a modern tooth before being sent off for the nitrogen test in which it gave an anomalously high reading? Perhaps we should regard the switching – and apparent loss – of Baldacchino's molar as plain negligence, along with the ignoring and misrepresenting of crucial data in the Green Book. Still, I have to be suspicious of the fact that negligence in Maltese archaeology has always tended to remove evidence that threatened the 'Neolithic-first' theory of Maltese prehistory.

Anthony Frendo is courageous enough to stick his neck out from the ivory towers of the University of Malta to acknowledge, albeit carefully, that something is amiss:

> The evidence marshalled by Mifsud indicates that the tooth examined in 1968 … is not the same as that examined originally in 1952. There is no direct evidence to affirm that an intentional switch did take place, but it is well-nigh conclusive that the tooth in question is not the same.[91]

19 / Inundation

> One hears frequently of Malta's 'land-bridges'. Such there certainly were, at least north to Sicily – they are needed to explain the fossil fauna of Ghar Dalam for example – but not, as far as we know, at a period when there were men to take advantage of them. They are of great interest to the geologist and palaeontologist, but none to the archaeologist.
>
> Dr David Trump, 2000

Anton Mifsud and his colleagues have exposed the Palaeolithic skeleton (and teeth!) in the cupboard of Maltese prehistory. But their investigation has taken years of dedicated effort, patiently cutting through the misrepresentations, the omissions of contradictory data and the strange disappearances of pivotal evidence that have allowed archaeologists to persist for so long with the fiction

that no humans reached these islands until the Neolithic around 5200 BC.

Since 1997, the National Museum of Archaeology has been embroiled in an unwelcome local media controversy – that has refused to die down – about the very grave charges set out in *Dossier Malta*. And since 1999 the evident preference of senior officials that the 'Mifsud problem' should (like the Ghar Dalam teeth?) just 'go away' has been further frustrated by the visible support now being given by prominent archaeologists such as Anthony Frendo to the demand for a complete review of the prehistory of Malta in the light of the confirmed presence of Palaeolithic man.

But this ferment – which is really a struggle for the soul of Malta's past – has so far remained very much an internal Maltese problem. Beyond the shores of the islands, where *Dossier* has never been published or circulated, the

international community remains ignorant of the scandal – and the prehistory of the world's oldest free-standing megalithic temples continues to be taught without any reference at all to the Palaeolithic.

The tampering and selective loss of anomalous evidence that Mifsud alleges is only part of the problem. Much damage, in my view, has already been done by two generations of archaeologists 'conditioned' in the school of J. D. Evans, who have tended to filter, or redefine, or file as 'out of context' any hints or traces of human activities before 5200 BC that they might have come across in their fieldwork in Malta. And I want to be clear that I am not attributing these tendencies to any conspiracy. It's just a matter of how the rational mind works: if the foundation of everything you have been taught and believe about Malta is that it was first inhabited by humans in the Neolithic then this makes it

much more difficult to see the Palaeolithic, even if it's there. Perhaps the most significant consequence, certainly until very recently, is a profound lack of interest amongst archaeologists in the fact that Malta, Comino and Gozo were joined to form one large island in the late Palaeolithic – an island that was in turn joined to Sicily by a land-bridge 90 kilometres long (and thence to the Italian peninsula).

David Trump says it all when he writes:

> One hears frequently of Malta's 'land-bridges'. Such there certainly were, at least north to Sicily – they are needed to explain the fossil fauna of Ghar Dalam for example – but not, as far as we know, at a period when there were men to take advantage of them. They are of great interest to the

geologist and palaeontologist, but none to the archaeologist.[1]

This is from the updated edition (March 2000) of Trump's *Archaeological Guide*, published three years after the revelations in *Dossier*. The loud and clear message that it sends is that there is simply no point in looking underwater along the now-submerged land-bridge to Sicily to increase our knowledge of Maltese prehistory. On the contrary, Trump emphasizes, the land-bridge is of no interest to archaeologists because, 'as far as we know', there were no humans to take advantage of it.

However, it is clear that David Trump, unlike some of his colleagues, is an open-minded man. Interviewed in October 2001, he did not prove to be a stubborn or dogmatic adherent to the orthodox 'Neolithic-first' model of Maltese settlement, was genuinely disturbed to learn about the

ambiguities and uncertainties in the full gamut of results from the FUN tests carried out by Kenneth Oakley in the 1950s and 1960s and concluded (see chapter 18) that until modern C-14 tests could be conducted to confirm the age of Despott's molar and the other Ghar Dalam samples, 'the whole thing is in limbo, really'.

Since this is also the view of Louise Humphrey at the Natural History Museum in London (again see chapter 18), it seems to me – though no one has perhaps noticed – that a Rubicon has already been crossed. As Trump admitted in his October 2001 interview with Sharif Sakr, the FUN results were so fundamental to the construction of the 'Neolithic-first' paradigm of orthodox Maltese archaeology that – if they are discredited – there remains *no positive evidence whatsoever for that paradigm:* 'only the complete absence of any other evidence. And one has to admit that negative evidence is

never reliable. It may just not have been found.'

Trump's openness to the notion that evidence for a Palaeolithic human presence in Malta might simply not yet have been found prompted a question on his current views concerning the land-bridge issue.

> *Sharif:* OK, we'll move on. In your *Archaeological Guide*, you state somewhere … oh yes … the land-bridge idea. You state that the land-bridge is of no interest to the archaeologist – have you changed your opinion on that? It might be relevant to help you gauge the likelihood of finding evidence of Palaeolithic man on Malta in the future.
>
> *Trump:* Well, we accept that … But I'd use the word possibility, not likelihood … If there was a land-bridge, that means the sea-level was very much

lower – so all the most desirable countryside, coastal plains, etc., are deep underwater and there's no hope of finding evidence of it.

Sharif: Well, what about marine archaeology? Would you be in favour in principle of marine exploration to see if there's anything …

Trump: Not a hope. I mean if you've got shipwrecks or even drowned buildings then fair enough, but if you're looking for a scatter of flints on the bed of the sea, I don't think there's a remotest possibility of ever finding them.

Sharif: Because Palaeolithic archaeological evidence is so …

Trump: Scanty. I mean it's difficult enough, I won't say impossible, but it's difficult enough above water.

Below water there's not a remotest hope.

Woven into Trump's view is the perception, shared by the vast majority of orthodox archaeologists, that human activity in the Palaeolithic was limited to a very simple material culture that left only scanty remains such as scatters of flints. The perception is a reasonable one, since this is all that any sites definitely recognized as Palaeolithic on land anywhere in the world have ever shown to the excavator. But this reasonable perception is also a self-fulfilling prophecy. It predicts that nothing surprising or unusual about the Palaeolithic – perhaps even 'drowned buildings' – who knows? – can be expected to be found at the bottom of the sea. And since this is the case, and the remains of Palaeolithic material culture are in general so scanty, there would not be 'a remotest hope' of finding them underwater.

It is easy to see how out of this perception flows the untested conclusion, at least where Maltese prehistory is concerned, that it is not worth looking underwater at all. Yet the possibility cannot be ruled out that the study of archaeological remains submerged at the end of the Ice Age could shed light on the mysterious origins of Malta's megalithic civilization with its apparently unprecedented temples, unlike any others known in the world, its elaborate goddess cult – distinctively Palaeolithic in general style and symbolism – and its few surviving traces of cave paintings executed in the same pigments of red ochre and black manganese oxide that were favoured by Palaeolithic artists.

Refuge Malta

The closing millennia of the Ice Age, between around 17,000

years ago and the arbitrary ‘end’ of the Palaeolithic 12,000 years ago, were not only a period of rapidly melting ice-caps and rapidly rising sea-levels but also a period in which climate conditions across Europe were wildly unstable and frequently extremely cold and arid (see chapter 3). In the high latitudes, until the kilometres-thick ice-sheets had melted, human life would have been impossible -while even in lower latitudes many of the vast areas of inland Europe that were nominally ice-free were reduced to bleak and inhospitable tundra.

Given such conditions it would have been natural for human beings – at any level of social development – to migrate towards warmer and more congenial climes. And we can tell from the distribution of fossil remains that this was certainly the survival strategy adopted by all ‘cold-intolerant’ animal species of the period – including game species such as

red deer *[Cervus elephas)* that we know were hunted by Palaeolithic humans. Places of refuge where the local climate was for one reason or another less harsh – scientists studying the Ice Age use the technical term 'refugia' for such sanctuaries of life – were inevitably sought further and further south during the worst episodes.

Straddling the thirty-sixth parallel, *Malta is the southernmost point of Europe* – indeed it is further south than the cities of Tunis or Algiers in North Africa. And while Malta today is a small archipelago 90 kilometres from Sicily – which is itself separated from the Italian mainland by the Straits of Messina – we know that this was not the case at the Last Glacial Maximum 18,000 years ago.

We would know this even without the modern science of inundation mapping to show us the changes that transformed the antediluvian Siculo-Maltese land-mass between 18,000

and 10,000 years ago. We would know it, as Trump rightly points out, because of the presence of large quantities of fossil fauna in Ghar Dalam such as the Pleistocene European red deer, wolf, brown bear and fox, which were not big swimmers and could only have come on foot to Malta by way of a land-bridge. Indeed, there is no dispute from any authority that during the extremely cold and arid periods that occurred several times between 17,000 and 10,000 years ago:

> man and animals could migrate from the Italian peninsula, by land, to the warmer climates of the Siculo-Maltese district. Herds of red deer left northern latitudes and settled in all parts of present-day Sicily, the present-day Egadi islands of Favignana and Levanzo, and the Maltese archipelago, the latter site being the warmest of the Siculo-Maltese district during the Pleistocene.[2]

So here is the puzzle. On the tiny islands of Favignana and Levanzo, which, like Malta, were joined to Sicily (and hence to the mainland) during the Ice Age, there is abundant and undisputed evidence, including cave graffiti carbon-dated to 12,000 years ago, for the presence of Palaeolithic man.[3] Sicily, today the largest Mediterranean island, presents even more abundant evidence of an even more ancient human presence. As Anton Mifsud reminds us,

> Humans have indubitably inhabited it for much of the Palaeolithic, and it has a clear sequence of carbon-dated lithic implements, in places reaching back to the Acheulean [between 600,000 and 75,000 bp).[4] The caverns hold the same faunal assemblage as that at Ghar Dalam, namely Pleistocene hippo-elephant-deer fauna. Upper Palaeolithic cultures have been identified in all regions of Sicily, including the south-eastern region of the Hyblean plateau which abuts the Siculo-Maltese land-bridge of the

Pleistocene …[5]

Only an attitude of stupefied indifference to the implications of the land-bridge for the mobility of Palaeolithic humans can explain why archaeologists did not become concerned much earlier by the apparently ‘apalaeolithic’ status of the Maltese islands – a status that seems acutely anomalous when viewed in its regional context and that becomes even harder to explain when we remember that Malta was the furthest south, the warmest and the most suitable refugium of the entire Siculo-Maltese landmass. Obviously, with the same cold-intolerant fauna roaming freely across the whole of that landmass – very much including Malta, as we know from Ghar Dalam – there is no good reason why Palaeolithic humans, who are everywhere else believed to have followed and hunted that same fauna, should not have reached Malta as well.

And, as we now know, they did.

The drowning of the land-bridge

G. A. Milne to Graham Hancock
13 July 2001, 19:22
Subject: Maps

Graham,

I ran some new high resolution predictions of sea-level change and made maps for the Tyrrhenian[6] and Mediterranean Seas. There are four .pdf attachments showing the coastline at the times

18.3 kyr BP

16.4 kyr BP

14.6 kyr BP

13.4 kyr BP

(these are all calibrated times). You will see that Malta became isolated between 16.4 and 14.6 kyr bp. The large loss of land area between 14.6 and 13.5 kyr bp is associated with the melting event known as Meltwater Pulse 1-A (about 15–20 metres sea-level rise in about 500 years around 14 kyr bp).[7]

I hope the maps are useful. There may have been some significant tectonic motion in this region that is not accounted for in my predictions.

Cheers,
Glenn

This was the second batch of Maltese inundation maps that Glenn Milne had sent me – the first batch, at lower resolution and wider intervals, covered the same Tyrrhenian region of the central Mediterranean as it had looked 21,300 years ago (21.3 kyr BP), 10,600 years ago, 4800 years ago and the

present day.

Scrolling through each of the maps one after the other there were a number of immediate and obvious observations to make:

- Until 16,400 years ago Malta was still joined to Sicily by a land-bridge.
- The land-bridge was severed by rising sea-levels between 16,400 years ago and 14,600 years ago. However, the new straits created were at first extremely narrow and most of the mass of the former isthmus remained above water.
- Between 14,600 years ago and 13,500 years ago there were very dramatic losses of land and all the remaining parts of the antediluvian isthmus were swallowed up by the sea.

- Despite these losses Malta, Comino and Gozo were still joined to form a single larger island 13,500 years ago. But other than an extension a few kilometres in width along parts of the north-east coast, the surface-area of that landmass had been reduced to dimensions only a little larger than those of today.
- By 10,600 years ago the separation of Malta, Comino and Gozo had occurred and the islands were virtually indistinguishable from their modern appearance.

Before the flood: 18,300 years ago

The map opposite presents the region as it would have appeared 18,300 years ago. As well as revealing the much greater extent of Italy when global sea-level was at its lowest,

particularly on the Adriatic side of the peninsula,[8] and the enlargement of Corsica, Sardinia and the North African coast, it demonstrates that the situation of the Maltese islands was utterly different from their situation today. Instead of being a tiny archipelago lost in the central Mediterranean, Malta 18,300 years ago formed an integral part of the Italian mainland through the isthmus then connecting it to Sicily. The isthmus was approximately *twenty times* larger than the present Maltese islands, running not only 90 kilometres to the north but also extending more than 70 kilometres further to the south and east.

All along the north-east coast of antediluvian Malta, effectively an extension of the land-bridge, there was an

exposed shelf, approximately 8 to 12 kilometres in width.

Along the south-west coast, although it is beyond the limits of resolution of the map to determine very fine details of the inundation sequence, it is certain that Filfla – which today is separated from Malta by a strait 3 kilometres wide – was not isolated. With that reservation, however, it is notable how relatively minor the changes along this coast seem to have been during the past 18,000 years – a product of the steep cliffs and sheer drop-aways to depths greater than the maximum fall in sea-level of around 120 metres.

I emphasize that the changes *seem* to have been minor quite deliberately in view of Glenn Milne's explicit warning that his model cannot take into account 'significant tectonic motion in this region'. The caveat is important because the central Mediterranean is one of the world's tectonic and seismic hotspots and has experienced massive volcanic

eruptions and earthquakes routinely throughout the historic and prehistoric periods.[9] Sudden elevations and subsidence of land, which might have had dramatic effects on relative sea-levels at specific locations, are entirely possible in such an area. Indeed, as we've seen, this is precisely what Anton Mifsud suggests did happen in south-western Malta 4200 years ago following a cataclysmic fault collapse along the submarine Pantalleria Rift.[10] In addition to its well-documented Ice Age extensions to the north-east, north, east and south-east, we should therefore keep our minds open to Mifsud's suggestion that antediluvian Malta may have possessed a substantial extension to the south-west during the Palaeolithic that may have remained above water until it subsided catastrophically into the sea at the end of the temple-building period.

A final point of observation comes when we zoom out of the above map. With Malta and its land-bridge extending far to the south of the eastern tip of Sicily and with a similar southerly extension to Sicily's western tip – almost like two horns reaching out to touch the North African coast (itself also greatly enlarged) - the eastern and western sides of the Mediterranean came very close 18,300 years ago to being divided into two separate seas. This enclosing and funnelling of great waters through narrow spaces could have enormously intensified the effects of the post-glacial floods when they hit the region. Indeed, as readers may recall from chapter 3, it has been suggested that at times the meltdown of the European ice-sheet into the Mediterranean was so severe that the Mediterranean 'bath tub' filled up more rapidly than the excess waters could drain out through the Straits of Gibraltar (which were reduced to a width of only 8

kilometres at the Last Glacial Maximum).[11] It has been proposed that such meltwater surges 'could have temporarily raised the Mediterranean by some 60 metres'.[12]

However, this calculation is based on the bottleneck effect caused by the narrow Straits of Gibraltar alone. Now we know that there would have been a second bottleneck between the Siculo-Maltese landmass and the North African coast which would certainly have made things worse – although how much worse is difficult to calculate. In addition, the consolidation of Corsica and Sardinia into one large island enclosed much of the Tyrrhenian Sea – and this would have further exacerbated the local effects of the meltdown there.

But hardly a trickle out of the vast reservoirs of meltwater hemmed in on the European ice-cap had yet reached the

Mediteranean 18,300 years ago. Hardly a trickle over the previous 3000 years. Hardly a trickle – and spread out over so many generations that individuals would not have noticed the tiny ominous changes taking place.

Minor erosion: 16,400 years ago

Over the 1900 years between 18,300 years ago and 16,400 years ago the map opposite shows that there was only further minor erosion of the coastal margins and a narrowing of the Malta-Sicily land-bridge.

Malta becomes an island: 14,600 years ago

The map opposite documents the isolation of Malta some

time between 16,400 years ago and 14,600 years ago. The event was not a particularly dramatic one in terms of land-loss, though it would undoubtedly have held great significance for the Palaeolithic Maltese who we now know were present then. For the first time they were cut off from the mainland. Perhaps this Palaeolithic isolation, rather than the Neolithic invasion that occurred more than 7000 years later, was the real genesis of the distinctive character and achievements of Maltese civilization.

The apocalypse: 13,500 years ago

It is in the map on page 422 that we see the effects of 'Meltwater Pulse 1A' -the first of the three global superfloods into which most of the 10,000-year-long meltdown of the Ice Age was concentrated (see chapter 3). As Milne points out,

Meltwater Pulse 1A raised global sea-level by 15–20 metres in just 500 years around 14,000 years ago. That sounds bad enough. However, it is not necessarily the case that this very large rise was evenly spread out over the 500-year period resolved by inundation science. In my view the uncertainties regarding post-glacial events make it possible that all or most of it could have been compressed into a single event of much shorter duration anywhere within that 500-year period.

What the map at any rate reveals is that the newly isolated Malta of 14,600 years ago had lost 70 kilometres of its width

by 13,500 years ago due to the complete and relatively rapid inundation of its former large extension to the east and south. No marine archaeology has ever been done on these submerged lowlands, which may conceal archaeological evidence of vital importance to the full understanding of Malta's prehistory.

The map also shows that Malta had actually become two islands 13,500 years ago – one, to the west, consisting of the present Malta, Comino and Gozo joined into a single mass, and the other, quite small, lying a little to the east. It is notable that other than this eastern islet nothing was left by this stage of the former grandeur of antediluvian Malta except a reduced extension 2 to 5 kilometres wide along the north-eastern coastal strip.

The end of the Palaeolithic: 10,600 years ago

By 10,000 years ago the Maltese archipelago was as it is today. The islet to the east had gone, and the extension of the north-east coast had also been fully submerged. It is somewhere on this north-eastern extension, however – the very last part of antediluvian Malta to go beneath the sea – that the rumoured underwater 'temple' sighted off Sliema by Commander Scicluna and by the Arrigo brothers must be located. The implication of the inundation maps, therefore, is that this structure was submerged between 13,500 years ago and 10,600 years ago – a date that can probably be pinned down more narrowly to around 11,000 years ago, marking the second of the three episodes of global superfloods outlined in chapter 3.

I want to re-emphasize here that the inundation maps have no bearing one way or the other on the matter of Anton Mifsud's proposed extension of Malta to the south-west –

which he suggests was submerged by tectonic subsidence as late as 4200 years ago. As noted earlier, the inundation maps cannot account for large unregistered tectonic events in prehistory and such events are probable in south-west Malta because of its proximity to the Pantalleria Rift.

The evidence that such an event did occur around 2200 BC is strong and may prove to be the final key necessary to unlock the mysterious origins of Maltese civilization.

20 / The Morning of the World

Graham Hancock: If we take the dating of a temple like Mnajdra or Hagar Qim, the better-known temples, how many samples of carbon-datable material would this dating be based on?

Anthony Bonanno: Nothing at all.

Mnajdra, 20 June 2000

It is a little after five a.m., and dark, when we park our rented car near Hagar Qim. There are watchmen huddled together, drinking tea. They won't be on duty during the night of 16 April 2001 when Mnajdra gets trashed by a well-organized assault-squad armed with sledgehammers, but right now they're working overtime. Their mission is to keep out any peaceful hippies who might want to commune with

the solstice at the temples before they open officially at eight – although apparently it's tomorrow that most of the would-be meditators and pagans are expected to show up.

Hagar Qim is enclosed by a tall wire-mesh fence, which we now walk around on our way down to Mnajdra. Through the fence the row of big, heavily eroded megaliths on the south-west side of the temple can be seen glowing whitely, like the teeth of an ancient giant disinterred from the earth.

I love dawn in Malta in midsummer, with the smell of wild thyme on the soft breeze, and the sea, dark in its depths, quicksilver at the surface, stretching away beneath the fading stars. It always feels like … the morning of the world. As though some wonderful experience – I don't know what – is just about to envelop me and change me for ever.

The sky is lightening as we walk, and way off-shore to our

south I begin to make out the distant shape of Filfla rising out of the sea. I am troubled by vague feelings of guilt about not having arranged to dive the strait between here and the little island because I'm genuinely intrigued by Anton Mifsud's theory of major land subsidence in this area in 2200 BC. Since my first meeting with him on 16 June I've consulted my copy of the British Admiralty Chart for Malta and found that it shows a submerged ridge, the top of which is nowhere deeper than 49 metres, running from the rocks of the Hamrija shallows directly beneath Mnajdra all the way out to Filfla. On either side of the ridge, roughly east and west of it, the bottom drops off steeply to 80, 90 and then 100 metres.

It would be extremely interesting, though technically demanding, to explore the ridge, especially inside the zone with a radius of 1 kilometre centred on Filfla itself that is enticingly marked 'Entry Prohibited' on my chart. If Mifsud is

right that a greater landmass collapsed here 4200 years ago, then the shattered remains of man-made structures built in former times along the Filfla-Mnajdra ridge could await discovery at the bottom of the strait. And though they might have been submerged as recently as 2200 BC –as Mifsud's research suggests – who is to say when such structures might have been built?

Theoretically, they might have been built thousands of years earlier than Hagar Qim and Mnajdra, might be the true Palaeolithic predecessors of the great temples of the Neolithic era, and might have survived, revered and imitated, down to Mifsud's date of 2200 BC, when the land on which they stood sank beneath the sea …

Theoretically, other relics of Malta's missing megalithic heritage could have been submerged much earlier by the rising seas that followed the Last Glacial Maximum – especially so if they had been built in the north and east during the late Palaeolithic when a land-bridge 90 kilometres in extent connected Sliema to Sicily …

And theoretically, of course, pigs might fly, lions might lie down with lambs – anything is possible …

Still, there is the problem of the unexplained origins of Malta's remarkable temple-building culture and the sequence which requires us to believe that Gigantija, and the oldest parts of Mnajdra, were that culture's first-ever experiments in free-standing monumental architecture. And there is the problem of the model temples, some fashioned from terracotta, some from stone, excavated from within the temples themselves and now usefully on display in the

National Museum in Valletta.[1] While some of these beautiful little models faithfully depict temples of exactly the type that have survived to this day, a few others show an entirely different, highly geometric style of megalithic architecture, where the theme is all straight lines and recurrent right-angles.[2] Why don't we find the ruins of the original structures that these other, rectilinear models supposedly represent? Are they just 'architect's designs', dreamed up but never realized, as David Trump asserts?[3] Or could they preserve the images of temples that once existed and were swallowed by the sea?

I'm deep in these thoughts as we approach the entrance to Mnajdra. It's almost full daylight now, the sun washing the whole sky with a soft, indirect glow, and I can see through the wire-mesh fence that as well as two guards by the gate,

there are at least three other people, dwarfed by the ponderous megaliths, already inside the temple precincts. One of them is mounting a video camera on a tripod; one has a clunky garland of SLR cameras slung around his neck; the third is clutching a biro and a spiral-bound notebook.

I groan inwardly. The solstice effect at Mnajdra is supposedly subtle and beautiful, one of the powerful epiphanies of archaic surveying and astronomy. I want to see it with no distractions – just silence, the temple and the sun – so that it can speak most clearly for itself. Now at the bare minimum I am going to have to be polite to strangers, make small talk and exchange opinions while we wait for the effect to begin.

I observe out of the corner of my eye that the man with the notebook is walking towards me and obviously intends to introduce himself. Why do human beings have to *talk*, I find

myself wondering. Is it really necessary for us to make these noises?

‘It’s Graham Hancock, isn’t it?’ he asks. ‘Remember me? I’m Chris Micallef.’

Suddenly I recognize him. He’s the nephew of the late Paul Micallef, the Maltese archaeo-astronomer who first undertood that Mnajdra is a solar calendar in stone and began to unlock the ingenious precision of its alignments. I met Chris during the generally disappointing flurry of our previous stay in Malta in November 1999 when he gave me his uncle’s book,[4] then lost touch with him afterwards. Far from being a source of unwelcome noise, he’s the very best person I could possibly hope to meet at Mnajdra. His uncle’s book is why I’m here.

The sea keeps its secrets

June 2000-June 2001

After the June 2000 trip when I witnessed the solstice effect at Mnajdra, exactly a year passed until we were able to get back to Malta again. But, despite the risks, the frustrations and the expense of the previous trips, I remained convinced that the rumours and whispers of submerged structures were worth pursuing.

Part of this new up-beat mood, as I've explained, was my discovery of the late Commander Scicluna's involvement in the matter and the report that he had published in the *Sunday Times* of Malta in 1994 of having found a megalithic temple underwater off Sliema at a depth of 25 feet.

But another part of it came from my growing acquaintance

with the work of Anton and Simon Mifsud, Charles Savona Ventura, Chris Agius and others. Their research helped me to realize that although orthodox archaeologists had probably weighed, measured and counted everything Neolithic on Malta, they had done no justice at all to the possibility – no, the certainty – of a human presence here during the Palaeolithic. On the contrary, it seemed that J. D. Evans had gone to great lengths to bury that possibility so deeply that it would never vex his 'Stentinello First' hypothesis again. And while he might not have been the villain who actually switched Baldacchino's molar for a modern taurodont or put a misleading interpretation on the results of the FUN tests carried out in the 1950s and 1960s, these actions signal – at the very least – a ruthless resolve and an indifference to truth on the part of a person or persons highly placed in Maltese and museum circles. In such a murky setting, where I already

knew that there had been outrageous tampering with evidence and gerrymandering of records, it seemed to me to be absolutely within the bounds of possibility that much worse could have been done.

Just suppose, for example – speculation only – that traces of an earlier, pre-Neolithic civilization had been found on Malta during the 1950s. Suppose the evidence was fragmentary, small, but clear. Would the discovery ever have been made public? Somehow I doubted it. Indeed, the net of confusion and misdirection woven over the years concerning the Ghar Dalam taurodont teeth seemed to me to demonstrate that such a discovery would *never* have been made public at all if it could possibly have been hushed up.

Still, there remained one place where no evidence could yet have been tampered with and where the ruins of a former civilization, if truly ancient, might have been preserved for

thousands of years. That, of course, was under the sea. And that was why it seemed worth keeping an open mind about doing more diving in Malta and paying attention to any sightings by local divers of submerged structures.

Just a month after our June 2000 trip had ended I received an e-mail from Anton Mifsud telling me of two such sightings.

The first was from Audrey and Rupert Mifsud – friends of Anton's but no relation – who own a dive shop called Buddies on Ramla Bay in northern Malta. Leading a dive off nearby Marfa Point on the north-west side of the island, whilst some of their clients were taking souvenir snapshots of each other in an area of interesting underwater scenery, Audrey had swum over a series of parallel 'canals', which had immediately caught her attention as being very unusual and distinctive. Returning to the spot on a second dive, she had

discovered several more of these canals cut into the limestone sea-bed at a depth of 8 metres. Beyond the canals, but directly below them near the bottom of a drop-off at 25 metres, Rupert had explored an unusual cave and found three large regular steps carved inside it.

The second discovery, also in northern Malta, had been made by Chris Agius Sultana, an experienced spear fisherman and scuba-diver and one of the co-authors, with Anton, of *Echoes of Plato's Island*. Off Qawra Point on the north-east side of Malta Chris too had found an underwater 'canal', this time surmounted by what he said looked like a low bridge, at a depth of 20 metres.

Storm god

Malta, 18–19 June 2001

Santha and I arrived in Malta on 18 June 2001 for our third research visit. But this was a filming trip, too, so our time would not be our own after the evening of the 20th, when the Channel 4 crew were scheduled to join us. Our plan was to put in a couple of days of diving before they arrived – the 19th for an advance look at the new sites found by Chris Agius and the Mifsuds in the north, and the 20th for a more targeted search off Sliema at 1 kilometre rather than 3 kilometres from the shore, particularly if Shaun Arrigo could be persuaded to guide us. Because both time and money were running too short to allow the luxury of speculative search diving with no definite prior sightings to follow, I made the decision that on this trip we would not try to pursue the tempting question of what – if anything – might lie at the

bottom of the strait between Mnajdra and Filfla.

There is a god of stormy weather who likes to follow me around. Honestly, I'm coming to believe this. Ask anyone who dives with me regularly. For the entire week before our arrival the seas around Malta had been flat calm, no clouds, not even a breeze – perfect conditions for really successful diving. But soon after our plane touched down on the afternoon of the 18th, a strong wind began to blow in from the north-west. This was the very worst kind of wind that we could possibly face, as Malta's orientation is approximately north-west to south-east. Nor'westers therefore blow down both sides of the island so that Marfa Point in the north-west, and Qawra Point and Sliema along the north-east coast would all be equally badly affected.

We hoped that the wind would fade during the night but it strengthened and on the morning of the 19th we sat with

Chris Agius in his Land Rover looking at the big breaking waves lashing in over Qawra Point.

‘I don’t get it,’ Chris protested in obvious disbelief. ‘Until yesterday afternoon the weather was perfect.’

‘It’s just my storm god,’ I replied gloomily. ‘He often does this to me.’

We debated going in anyway, but since I had come close to death tackling a similar shore-dive in similar conditions in Tenerife the year before, I finally decided against it. Whatever was underwater off Qawra Point wasn’t going anywhere and would still be here on the 22nd, our scheduled day of diving with the film crew. Then we’d be using a 50 foot boat to cover both the underwater sites in the north and wouldn’t have to worry about getting smashed to bits against the rocks doing a dodgy entry or exit from shore.

Around Malta with the Viking

19–20 June 2001

The wind continued to blow all day on the 19th and all day on the 20th, boiling up the waves into an angry foam. But at least the sun was still shining, the sky was clear and there wasn't any rain. So instead of diving we spent the two days driving around Malta with Chris Agius, who is in his mid-thirties with glacial blue eyes and looks like a Viking, and who willingly shared his insights and research with us.

It turned out that it had been Chris who first took the idea that Malta might be a remnant of Atlantis to Anton Mifsud - and Anton had initially been sceptical. But as he had investigated the matter further, he had gradually been won round to Chris's point of view – hence, ultimately, their book *Echoes of Plato's Island.*

I'd last read the book thoroughly when Anton had e-mailed the text to me around September 2000, so this was a good opportunity to clarify a few points.

'If I remember correctly, *Echoes* identifies the Atlantis flood as an event here in Malta caused by land collapse in the south-west around 2200 BC?'

'That's right. But of course the temple civilization was much older than that.'

'How much older?' I asked.

We were sitting in the bar of the Lapsi Waterfront Hotel in Balluta Bay on the evening of the 19th and Chris looked left and right over his shoulder before replying: 'Maybe twelve thousand years older. It was a civilization of the last Ice Age.'

'But how do you know that?'

'I've seen things,' Chris hinted mysteriously. Then he

laughed: ‘But I can’t prove this. Not yet anyway. I’m working on it.’

On the 20th we spent a couple of hours stumbling around Malta’s biggest concentration of rock-hewn ‘cart-ruts’ nicknamed Clapham Junction. Up to a metre deep, and in some cases almost a metre wide at the surface – though narrowing towards the base – they are incised into a big outcrop of bedrock sloping gently uphill between Buskett Gardens and the cliffs at Dingli about 5 kilometres west of Hagar Qim and Mnajdra. But unlike the temples that have come down to us from remote antiquity – near many of which impressive groups of ruts have been found – the ruts themselves suggest no obvious function, either ceremonial or utilitarian.

Some, as we saw in chapter 15, disappear directly into the sea. Others stop abruptly at the edge of cliffs 100 metres

above the waves. Others run between two once connected but now separate locations such as Filfla and Mnajdra. The majority, however, are found in tightly packed groups criss-crossing one another as at Clapham Junction. And although it is undoubtedly the case that very large and heavy-wheeled or sledded vehicles would leave parallel ruts looking quite like these if they were to be rolled or dragged through a field of thick mud or clay, it is altogether a different matter to imagine how such tracks – and so many of them – could be impressed into solid rock. And what would the motive have been? What would the motive have been if the ruts had been worn down a pair or two at a time by the runners of wooden sleds (at present a popular orthodox theory)? How long would it have taken, this way, to make all the ruts that scar the island?

And what would the motive have been if, by some mighty

effort, all the ruts had been made at more or less the same time?

Wailing and screaming from underground …

20 June 2001

After the cart-ruts Chris drove us up to a hilltop named Salib ta Gholia with a view over the twin cities of Rabat and Mdina. The hill was crowned by a sixteenth-century church built out of beautiful limestone ashlars, which glowed gold in the afternoon light. On its wall was a notice in Latin stating that the right of sanctuary formerly accorded to fugitives taking refuge there had been withdrawn. The church seemed closed, its windows and doors boarded up.

‘Come on,’ said Chris, beckoning that we should follow.

‘There’s something I want to show you.’

He led us along a zigzag footpath that ran down the side of the hill beneath the church until we came to what seemed to be the mouth of a cave. Blocking our way further was an uncompromisingly locked, thick-barred steel gate.

Chris gestured between the bars: ‘Take a look in there,’ he suggested. ‘I think you’ll find it very weird.’

I did. It was.

‘What is it? I asked.

‘Nobody knows for sure. The official view is that it was made by early Christians – that it could have been some sort of secret church. But a lot of stuff they can’t explain here gets attributed to the early Christians.’

I was peering through the bars. What I could make out in the shadowy recesses beyond seemed to be a roughly

circular, very high chamber. And in the centre of the chamber, standing on a broad base, were huge tapering pillars soaring up into the gloom above. Room, walkway, pillars and ceiling were all carved out of the solid bedrock of the hillside. Chris was still talking: ‘Here in Malta once the archaeologists say something is early Christian then everyone stops thinking about it.’

‘Obviously you don’t think it’s early Christian.’

‘Do you know, a few years ago there were exceptionally heavy rains. A lot of water pooled on the flat ground up above at the top of the hill. Then suddenly a very strange hole opened in the ground and the same moment a huge pile of rubble dropped through into this chamber. It took a week to clear it out. But it wasn’t a natural collapse. The hole turned out to be a triangular man-made shaft, with each side of the triangle measuring about half a metre, and it ran

vertically about 20 metres through the ceiling of the chamber and all the way to the top of the hill. It had been blocked and filled up over time …’

‘So …’

‘So I just don’t see any reason why early Christians – or any Christians -would have gone to the trouble to make something like that. What it sounds like to me is ancient astronomy.’

I nodded. Such a shaft, like any vertical shaft, would have marked the biannual zenith passage of the sun – here with a spectacular glowing triangle at midday on the floor of the chamber. And it would have made a splendid fixed telescope at night for observing stars at the zenith.

But what also interested me was the further hint that the shaft and the chamber offered of advanced rock-cutting and

tunnelling abilities amongst the ancient Maltese – abilities of which the Hypogeum may only represent a fraction. Indeed, there have long been rumours that a vast network of tunnels and passageways of unknown origin exists beneath Malta. And at the beginning of World War II, soon before the islands came under heavy attack from the German and Italian Air Forces, a rather odd report from a gung-ho American cyclist named Richard Walter appeared in the obsessively fact-checked *National Geographic* magazine. After describing the Hypogeum ('where prehistoric man worshipped his deities and buried his dead') Walter wrote:

> While we cycled homeward, our friends told us that the island was honeycombed with a network of underground passages, many of them catacombs. Years ago one could walk underground from one end of Malta to another, but all entrances were closed up by the Government because of a tragedy. On a sightseeing trip, comparable to a nature-study trip in our

> own schools, a number of elementary school children and their teachers descended into the tunnelled maze and did not return. For weeks mothers declared that they had heard wailing and screaming from underground. But numerous excavations and searching parties brought no trace of the lost souls. After three weeks they were finally given up for dead. Sections of the underground network have been used to protect military and naval supplies. Indeed many of the fortifications themselves are merely caps atop a maze of tunnels …[5]

Just another urban legend? Or another tantalizing glimpse of Malta's prehistoric underworld?

The pendulum of the sun

Mnajdra, 20 June 2000

Chris Micallef is around thirty years of age, stocky and dark, quite intense, a typical Maltese. He's wearing a smart white shirt, open at the neck. He has a slightly professorial air, as though teaching comes naturally to him or is often expected of him. And he knows a lot about astronomy. At our first meeting in November 1999 he and his father – the late Paul Micallef's brother – showed me a film they had been preparing for more than a decade which meticulously documents the impressive array of alignments that the massive Lower Temple of Mnjadra has on offer at different seasons of the year.

I look at my watch. It's already 5.50 a.m.

'Don't worry,' says Chris. 'We won't see the effect for about another twenty minutes.' He points to the long sloping shoulder of the hill to our east, at the top of which Hagar Qim is located. 'Of course, nothing happens until the sun's

disk begins to appear over the ridge.'

'So this isn't exactly a sunrise alignment, then?'

'No. It's much more clever and complicated than that. If the local horizon were completely flat, which it pretty much is up at Hagar Qim, the sun's disk would have already been in view for more than half an hour. But because we're at the bottom of a hill and the hill lies east of us, we don't see it down here yet. So all the sunrise alignments for Mnajdra had to be calculated and observed by the ancients against this sloping local horizon – not an easy thing to do.'

But, nevertheless, a thing that was done. What happens is this:

- As the sun crests the horizon on the spring and autumn equinoxes, 21 March and 21 September (when night and day are of equal length) its rays exactly bisect the huge

trilithion entrance to Mnajdra's Lower Temple, projecting a spot of light into a small shrine in the deepest recesses of the megalithic complex.

- On the winter solstice (20/21 December, the shortest day) a very distinctive 'slit-image' – looking something like the illuminated silhouette of a poleaxe or a flag flying on a pole – is projected by the sun's rays on to a large stone slab, estimated to weigh 2.5 tonnes,[6] standing to the rear of the west wall of the Lower Temple's northern apse.
- On the summer solstice (20/21 June, the longest day), the same distinctive slit-image appears – but now with the 'flag' oriented in the opposite direction – on a second large stone slab, this time weighing 1.6 tonnes standing to the rear of the west wall of the Lower Temple's

southern apse.

‘And it works like that,’ Chris Micallef continues, ‘like a pendulum, sweeping left to right, then right to left, back and forward throughout the year: summer solstice image to autumn equinox to winter solstice image, back to the spring equinox, then to the summer solstice image again and the cycle starts over. There are further subdivisions also signalled by slit images for the cross-quarter days, mid-way between the solstices and the equinoxes, and for the “eighth days” mid-way between the cross-quarter days and the equinoxes on one side and between the cross-quarter days and the solstices on the other.’

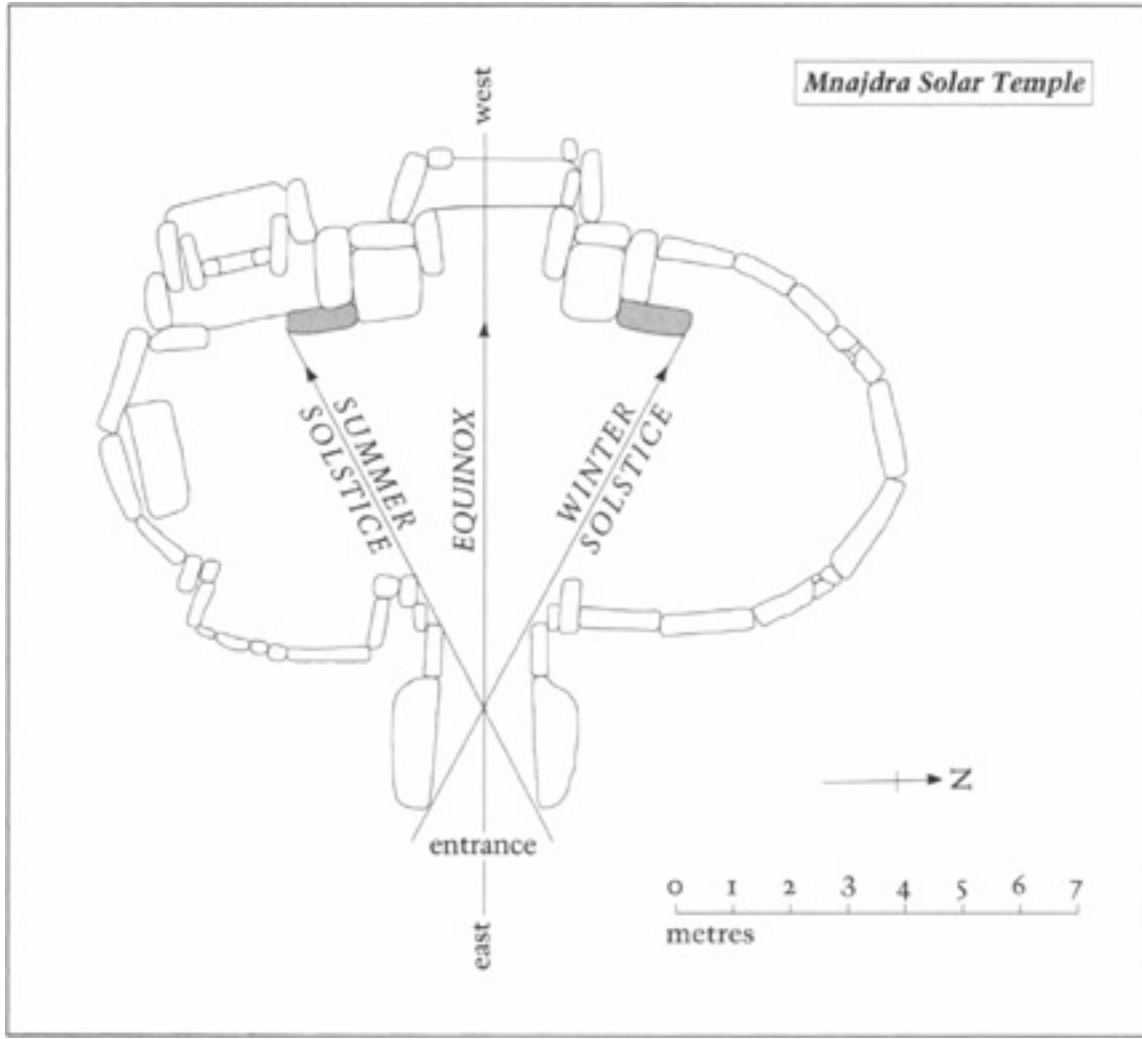
Mnajdra Solar Temple
west
SUMMER SOLSTICE
EQUINOX
WINTER SOLSTICE
entrance
east
N
0 1 2 3 4 5 6 7
metres

Between the winter and summer solstices, the rays of the rising sun act like a pendulum swinging between the north and south vertical stones (shaded) inside the temple. On the equinoxes, the sun shines straight along Mnajdra's east-west axis. Based on Micallef (1992).

Chris tells me about other alignments, notably some very precise lunar alignments that the temple also registers: 'All in all, when we consider the high precision of Mnajdra's alignments, and the many astronomical problems that were solved – way beyond what is required if the only objective was a simple agricultural calendar – we have to conclude that full-time professional observers must have been at work here for many, many years. Then you have to think about the problems of site-selection – and then many more years

patiently observing to establish the required back-sights.’[7]

‘So these guys were pretty sharp observers?’

‘They were,’ said Chris. ‘And pretty sharp surveyors too.’

‘And good engineers,’ I added. ‘They knew how to move and position the big megaliths.’

‘And they had mathematical and measuring abilities … Come and see this … ‘

Chris leads me up the slope to the small, south-facing trefoil temple on the northern side of the site, presumed to be the oldest in the Mnajdra complex. On the basis of exclusively Gigantija-phase pottery excavated here, it has been dated to c.3450 BC (as against c.2800 BC for the Lower Temple where mainly Tarxien-phase pottery was found). But Chris doesn’t want to talk about dates. He wants to talk about ellipses.

‘I’ve studied the elliptical forms of the temples mathematically,’ he says. ‘And it seems that some kind of megalithic building or measuring unit was used. It seems so.’

We’re inside the trefoil temple now, which is indeed highly elliptical. ‘In fact this is the major axis, right?’ says Chris. ‘And this is the minor axis of the ellipse. There is a property which says that if you take from that point to the centre, and from here to here, and if you square this part plus this part squared then that part comes equal to exactly half the major axis. Eventually it comes. I’m not saying that they invented the Pythagoras theorem, but they had discovered it by chance, so that they could alter the eccentricity of the temples as much as they wanted.’

I tell Chris that a lot of this is going right over the top of my head, but he says the main point is very simple. What it comes down to is that the people who built the Mnajdra

complex, and all the other megalithic temples on Malta, worked with a fixed unit of measurement. This unit, of 0.83 metres, is identical to the 'megalithic yard' identified by the Scottish archaeoastronomer Alexander Thorn and found throughout megalithic sites that he had surveyed from Callanish in northern Scotland to Carnac in Brittany.[8]

'I calculated the perimeter,' Chris continues with a gesture, 'and it comes out to whole numbers in megalithic yards. It is the same for all the ellipses, though they vary in eccentricity. So they had the facility to arrange the eccentricity of each temple to the precise extent they required and yet keep the measurement of the perimeter in whole numbers of megalithic yards. Somehow these kinds of mathematical concepts must have been in quite wide circulation in the ancient world and were passed on from one society to another society, perhaps by seafarers. A possible harbourage

has been suggested, right here below Mnajdra. And though there are no images of ships carved here, such images do appear at Tarxien.[9] So probably this kind of knowledge was passed on by word of mouth, and there was some kind of society that this knowledge was passed on from and to … ‘

‘And ships were part of it?’

‘Yes.’

‘Because this kind of accurate astronomy is also what you want for navigation really. It’s the same skill.’

‘That’s right,’ says Chris, but he sounds distracted. He is an engineer by profession, and I can see that he is uncomfortable with speculation and prefers to stick with what he can measure and observe.

Still, there is one other point – much more speculative than ancient navigational skills – that I want to ask him about.

When his late uncle was completing his analysis of the archaeoastronomy of the Lower Temple at Mnajdra he had discovered something odd concerning the summer and winter solstice alignments.

It is well known that the sun's rising points at the solstices are not fixed but vary with the slowly increasing and then decreasing angle of the earth's axis in relation to the plane of its orbit around the sun. These changes in what is known technically as the 'obliquity of the ecliptic' (presently in the range of 23 degrees 27 minutes) unfold over a great cycle of more than 40,000 years and if alignments are sufficiently ancient they will incorporate a degree of error, caused by changing obliquity. From the error (assuming they were built accurately in the first place) it is possible to calculate the exact date of their construction.[10]

In the case of Mnajdra, the alignment today is good, but not quite perfect because (to take the example of the summer solstice) the rays that form the slit-image are projected two centimetres away from the edge of the large slab at the rear of the temple. However, Paul Micallef's calculations show that when the obliquity of the ecliptic stood at 24 degrees 9 minutes and 4 seconds the alignment would have been perfect with the slit-image forming exactly in line with the edge of the slab. This 'perfect' alignment has occurred twice in the last 15,000 years – once in 3700 BC ('this is the first consideration of the Mnajdra Temple's age', notes Paul Micallef)[11] and again, earlier, in 10,205 BC ('this is the second consideration of the Mnajdra Temple's age').[12]

But Chris doesn't want to be drawn on the earlier date. He admits it's a 'mathematical possibility' but says he would

prefer to stick with the orthodox scheme of things: 'The second age makes the temple 12,205 years old, which is absurd when compared to archaeological history. In my view the archaeological context locking the temples in to the fourth and third millennia BC is reasonably good, so that's the context I work with.'

And he's right. The archaeological context *is* reasonably good – in the sense that no find, or at least none that have been officially logged, conclusively demonstrates that any of the temples are older than the fourth millennium BC. But, that being said, the archaeological context of the megalithic temples of Malta is also, in another sense, appallingly, awfully bad.

Antediluvian temples of the giants?

The essential problem, repeated over and over again, is contamination of the crime scene. Indeed, other than Skorba, which was thoroughly and professionally excavated by David Trump in the 1960s and which is partially built over the top of habitation layers predating the temple's construction,[13] it seems that not a single megalithic temple on Malta has presented itself to archaeologists of the post-radiocarbon era in a sealed and undisturbed condition. Although this includes Tarxien, which was excavated from 1915 onwards (still fifty years before calibrated radiocarbon), the superb stratigraphy and detailed site notes of the commendable Sir Temi Zammit do provide us with a reliable record there.[14]

The same cannot be said for the semi-subterranean Borchtorff Circle excavated at Xaghra on Gozo between 1987 and 1994. It proved to have fallen victim to an earlier

excavation in the 1820s by a certain Otto Beyer in the employ of the British Army, who very badly disturbed and redistributed the stratigraphy and kept no records.[15]

Likewise, Mnajdra was first excavated in 1840 by C. Lenormant, who kept no records, followed by a mixed assortment of other diggers, then by Mayr at the beginning of the twentieth century and then by Ashby, who excavated in 1910 'those parts which had not been completely ransacked by the original excavators'.[16]

Hagar Qim has been constantly interfered with by treasurer hunters, amateur archaeologists and self-appointed site-restorers from at least the eighteenth century onwards. Particularly extensive site clearance and restoration took place in 1839 on the orders of the then governor of Malta Sir Henry Bouverie. Only a short and extremely inadequate

report accompanied by an inaccurate plan was prepared.[17]

And at Gigantija excavations were begun in 1827, once again by Otto Bayer. True to form, he produced no report and did not preserve pottery and small finds.[18] Oddly enough, however, the first description of the monument following Beyer's excavation (published in Paris later in 1827 by L. Mazzara) bore the title *Temple antediluvien des Géants.*[19]

Carbon-dating Malta: is the chronology secure?

Tas Slig, 25 June 2001

It is certainly the case that not a single carbon-date from Malta supports the presence of *any* humans on these islands prior to 5200 BC, let alone the presence of humans capable of

building with megaliths. On the other hand, it must also be observed that the general state of disrupted stratigraphy at the temples has made it difficult for archaeologists to obtain C-14 samples in contexts where they can unequivocally confirm the age of the megalithic ruins – and indeed to obtain C-14 samples at all.

On 25 June 2001 I discussed these problems with the charming and affable Professor Anthony Bonanno of the University of Malta on site at a dig he was supervising at Tas Slig.

> *GH:* If we take the dating of a temple like Mnajdra or Hagar Qim, the better-known temples, how many samples of carbon-datable material would the dating be based on?
>
> *Bonanno:* Nothing at all.

GH: Nothing at all?

Bonanno: Hagar Qim and Mnajdra were cleared rather than excavated in the nineteenth century, and no proper records were kept, and the excavation methods were far from scientific. So no biological material was kept that could be carbon-dated.

GH: Right. Does that apply to Gigantija too?

Bonanno: That applies to Gigantija as well, yes.

GH: Right. In general, are the megalithic temples founded very close to bedrock, or are they founded on an earth layer on top of the bedrock?

Bonanno: You can tell that in the Maltese context, all stone buildings lie on bedrock. The cover, earth cover, is very shallow … and then, of course, you

need a really solid base.

GH: But how would they – sorry, this may seem like an ignorant question – but if they put the megaliths on bedrock, how do they make them stand up? Don't they have to bed them into earth or something?

Bonanno: Right. It doesn't mean that the uprights of the temple stand on bedrock. In fact this is another difference between the construction technique of our temples and say the construction techniques of Stonehenge. There, the standing megaliths are inserted into the ground. Here, a platform is normally prepared consisting of megaliths, but horizontal megaliths, and it is on top of those that the lower uprights of the temple are placed.

GH: I see. And the platform itself is on bedrock?

Bonanno: The platform itself is on bedrock.

GH: Interesting, interesting. Have any samples been taken from underneath a megalith?

Bonanno: From underneath a megalith? I don't remember any samples being taken from underneath megaliths.

GH: What's troubling me is with the megalithic temples founded on bedrock and therefore no possibility of strata under the temple itself, how sure can we be about the contemporaneity of the organic samples that can be carbon-dated and the construction of the site? It doesn't worry you about the dating of the megalithic structures themselves?

Bonanno: Not really, because anything underneath the megalith could be as old as 100,000 years. What, as

an archaeologist, I would want to find is a stratum, a layer, which would be touching on, therefore sealing, a wall or part of a wall, because that is what would be telling me the date of the wall itself. Anything below could be as old as ever.

GH: Is there any megalithic temple in Malta where you have sealed secure carbon-dates from layers like that?

Bonanno: Skorba, yes, Skorba and the Xaghra [Borchtorff] Circle.

I'm not an archaeologist, but as a journalist it seems to me we are left with an awful lot of temples for which we have no carbon-dates at all and certainly no sealed secure ones. Worse still, the complete repertoire of radiocarbon-dates for the prehistory of the Maltese islands, upon which so many of

our notions of the origins and chronology of its megalithic civilization depend, is, overall, extremely limited. I was surprised to discover that there are only twenty-seven official C-14 dates for the entire archipelago and that most of these are of equivocal quality. Moreover, twenty-two of the twenty-seven dates come from only two sites – eight from Skorba and fourteen from the Borchtorff Circle.[20] Of the remaining five, one comes from Mgarr and is relatively secure, being wood charcoal retrieved from the under the floor. Logically, however, the most that it can tell us is the age of the floor itself – which may have been a restoration. It has no bearing on the age of the megalithic uprights since the excavator -J. D. Evans in 1954 – informs us that the sample was found just *above* the level on which the wall foundations were resting.[21]

Prehistoric Malta's final four carbon-dates out of its grand

total of twenty-seven are from Tarxien.[22] Of these, one is wood charcoal from the first apse to the right in the South Temple. The remaining three are all described as 'carbonized beans from cinerary urns'. On further investigation it transpires that these samples were found in glass jars in the National Museum of Malta labelled 'Tarxien Cemetery', which were assumed to contain the contents of cinerary urns excavated by Temi Zammit in 1915.[23]

Despite some significant anomalies and inconsistencies,[24] I want to emphasize again that none of these C-14 samples undermine – and all generally support – the orthodox chronology of the rise and fall of Malta's unique temple-building culture. Nor is it my purpose here to challenge that chronology – at any rate, not necessarily with reference to the temples that survive above water. But I do think that in

too small a field monopolized by too small a group of archaeologists, too much has been claimed for too long on the basis of too little data. In consequence, the ‘out of Sicily’ hypothesis that ignores the Palaeolithic has thrived, and its supporters – quite naturally – have focused whatever scarce archaeological resources may be available on the search for further evidence to elaborate and confirm an exclusively Neolithic heritage for Malta.

So I don’t mind too much *when* the surviving megalithic temples were built. The counter-hypothesis that I offer for their origins is that they are the end-result of a very long process of development in Malta that began in the Palaeolithic and that has been veiled from us by rising sea-levels, cataclysmic land subsidence, academic mendacity and a self-protecting old boys’ club closing ranks.

A god of light and geometry

Mnajdra, 20 June 2001

It's just after 6.05 a.m. and we are all gathered inside the northern apse of the lower temple, waiting for the sun to project an image on to the massive slab -the summer solstice stone – to the left of the central passageway in the southern apse. The image will be formed, Chris Micallef has explained, when half the solar disk is above the sloping natural horizon of the ridge. At that moment the sun's rays, coming out of the north-east, will pass through the trilithion gateway, striking the inside edge of its northern upright and the underside of the lintel, thence diagonally across the entrance passage to strike the inside edge of a megalith at the south-west end of the passage, and finally across the southern apse to strike the summer solstice stone – in our epoch 2 centimetres from its

southern edge. So the ‘slit’ through which the rays pass to form the projected image is not simply a gap in the masonry but a result of the careful juxtaposition of three different megaliths, two upright – but more than 4 metres apart at opposite ends of the entrance passage – and the third horizontal and more than 2 metres off the ground.

The morning light is mellow, warm, no harsh edges yet. There’s still some pink of dawn left in the sky. And the moon, almost full, floats high and pale above a great menhir that projects like a finger out of the south-west wall.

‘We should see the effect very soon,’ announces Chris. ‘And I would ask you to remember that it has maybe only a hundredth of the impact that it would have had in antiquity when the temple was fully roofed and dark inside. So you should try to imagine the effect suddenly materializing in a place of darkness.’

A few more minutes pass. I know what I should be looking out for and where I should see it, but I don't see it yet. And in the back of my mind I'm absorbing Chris's point about the roof, wondering how we can expect to see anything special at all under the present conditions. Isn't there already way too much light inside the roofless temple for what is, after all, an effect composed entirely of light? Won't it just wash out against the bright background?

Then I become aware of … a presence – a faint, ghostly glimmering, like moonglow, that has appeared on the solstice stone. I don't know how long it lasts, a second or two only I would guess, but while it is there it seems less like a projection – which I know it to be – than something immanent within the stone itself. And it seems to function as a herald for it fades almost as soon as it has appeared and in its place the full effect snaps on – instantaneously. It wasn't

there, and then it's there.

As Chris had described, the effect does curiously resemble a poleaxe, or a flag on a pole, and consists of a 'shaft', narrow at the base but widening a little towards the top, running up the left hand side of the solstice stone, surmounted by a right-facing 'head' or 'flag'. An instant later an almond-shaped spot of light, like an eye, appears a few centimetres to the right of the 'flag' and the effect is complete.

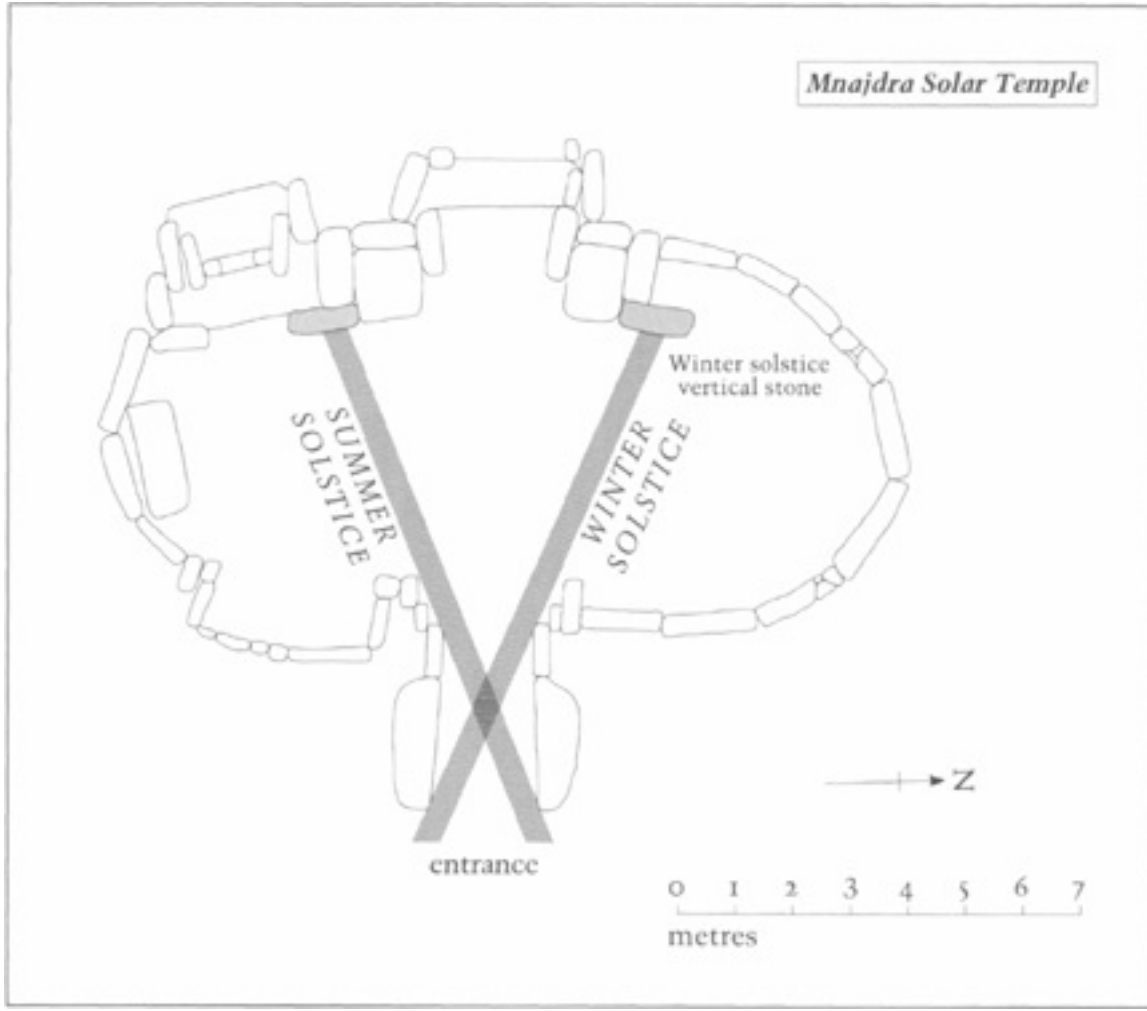
Mnajdra Solar Temple
Winter solstice
vertical stone
SUMMER
SOLSTICE
WINTER
SOLSTICE
N
entrance
0 1 2 3 4 5 6 7
metres

A clear slit image is formed by the sun's rays shining on the vertical stones inside the temple. Based on Micallef (1992).

Weirdly – I do not claim it has any significance – this flag-on-a-pole symbol is the ancient Egyptian hieroglyph *neter*, meaning 'god', or 'a god' – and not to be understood at all in the Judaeo-Christian usage of that word but rather as a reference to one of the supernatural powers or principals that guide and balance the universe.

Manifested here, in this strange Stone Age temple, it glows, as though lit by inner fire.

The cave at the foot of the cliff

Marfa Point, 22 June 2001, dive 1

We made three dives, two at the sites off Marfa Point in the north-west of the island that had been found by Rupert and Audrey Mifsud and one at the Qawra Point site in the north-east found by Chris Agius.

My storm god had taken a break, the day was calm and

beautiful, and our dives were safe and unthreatening in seas entirely free of currents and waves. Also, for the first time ever in Malta, we just jumped in the water and went to the suspected man-made sites without any of the fruitless searching with echo-sounders and wasted hours zig-zagging backward and forward that I had come to regard as normal here.

First Rupert led us over a level area covered in fields of waving sea-grass sloping down gently from 7 to about 10 metres. Then we came to the edge of a sheer underwater cliff dropping 15 metres to the sea-bed below. There we launched ourselves into blue space and drifted down the side of the drop-off like slow motion skydivers.

At the bottom, at 25 metres and in the sudden cold of a thermocline, was the opening to a cave. A very strange cave. I have never seen one like it before.

Its entrance was, I suppose, about 5 metres wide at the base and soared, narrowing, to half the height of the drop-off where the two sides came together to make the roof. Inside, I found that the floor of the cave was not horizontal but rose from the sea-bed at an angle of about 45 degrees forming, effectively, a steep ramp. The surface of the ramp, though overgrown, was surprisingly smooth and it was difficult to see how such a feature could have formed naturally in a setting like this. Besides, now that my eyes were becoming accustomed to the gloom, and in the beam of light from Rupert's torch, I could see that some areas appeared to have been deliberately cut and quarried into shape.

Cave diving can be scary if the cave you are in is part of a system with many side branches, like a maze, or if it is so long that you cease to see the light filtering through the entrance behind you. But what makes caves really dangerous,

and the reason that they regularly kill divers, is sediment.

Some years ago in Yonaguni, Japan, where I dive regularly, four leisure divers and an instructor were killed by sediment – not killed by it directly, of course, but killed by it because their finning stirred up centuries of silt piled on the cave-floor into a thick suspended mist. In it they became disoriented, confused and, tragically, could not find the exit before they ran out of air.

But this cave in Malta was not like that. It entrance was so wide and the cave itself so relatively shallow that it would be impossible to get lost in it, even in the worst conditions. Nevertheless, it was silty and the visibility was deteriorating steadily despite all our efforts.

About 5 metres inside, up near the top of the ramp, Rupert showed me what we had come to see – three large steps, or

terraces, each about half a metre high and extending across the entire width of the cave. They were deeply covered in marine growth and layers of sediment but they seemed to be much too straight-edged and right-angled to have been shaped by any natural process -especially in such a sheltered position.

Two or 3 metres beyond them the cave terminated in a wall penetrated by a gap large enough for me to pass through – which I did without hesitation, since I could see light streaming in from the other side. The gap led to a second cave, in an entirely rough and natural state, with its own separate entrance. I swam back through the gap again and returned to the steps which, by now, were enshrouded in a fog of sediment.

Man-made, or natural? It certainly looked to me as though people had been at work in this cave cutting and shaping the

rock to some design or plan of their own – as they had been over the millennia in Malta in so many caves and underground tunnels.

I allowed myself to float up to the roof, an easy move for a diver but something that would have been impossible without scaffolding when the cave was above water. Yet the roof of the cave was nicely cut and squared off, presenting an extremely symmetrical 'frame' of two verticals and a horizontal upright.

Underwater Clapham Junction

Marfa Point, 22 June 2001, dive 2

Our second dive at Marfa Point was on what Rupert called 'the channels'. They were located on the plateau above the

drop-off at a depth of about 8 metres and were immediately recognizable as part of the same phenomenon as the unquestionably man-made ‘cart-ruts’ at Clapham Junction and other above-water locations on Malta.

But there were some differences.

Firstly, these ruts were a good bit wider and deeper than the ruts at Clapham Junction. It was possible to get my whole body down horizontally into most of them and to swim along inside them for distances of 20 metres or so before reaching a break.

Secondly, although most ran in parallel pairs as though left by cart-wheels, exactly as at Clapham Junction, there were indeed several single ‘channels’ even wider and deeper than the others.

Thirdly, in places where I managed to strip away the thick

sea-grass covering the bottom of a rut I came across an extremely odd feature. About twice as wide at the base as the average ruts at Clapham Junction, these proved everywhere I searched to be divided into two ‘lanes’ by a knife-edged ridge of limestone about a hand’s-breadth high that had been left in place running the full length of the rut. In my view there can be no question of this being a natural feature. It is definitely man-made.

Fourthly, the top of the ruts at Clapham Junction lie flush with the bedrock. Here underwater, although the interior of the ruts had been cut down into the bedrock in the same way, the sides of the ruts also rose about 30 centimetres *above* the level of the surrounding bedrock – like low, narrow parallel walls.

As at Clapham Junction all these features appeared to have been hewn out of the solid bedrock by tools, and not to have

been worn down by centuries or millennia of abrasion.

As at Clapham Junction I also found one place where a pair of ruts was interrupted by what almost seemed like a roadway running transverse to them. The ruts stopped completely on one side of the ‘roadway’, which had been cut through them and thus obliterated them at this point, and then resumed their course on the other. The obvious implications of this state of affairs were that the transverse road had been made after the ruts and that the ruts may therefore have already been ancient when they were submerged.

As at Clapham Junction these ruts didn’t seem to be coming from anywhere in particular or going to anywhere in particular. Some of them did lead in general towards the edge of the drop-off but vanished completely into the sea-grass before reaching it.

Canal

Qawra Point, 22 June 2001, dive 3

Diving and filming are both activities that require a lot of time, preparation and messing around with equipment, so it was nearly three in the afternoon before we were finished at Marfa Point and after four when we reached Qawra Point on the other side of the island.

Chris Agius put on his scuba gear while we were anchoring and jumped in to relocate and mark the site before we went down to it. And since this was one of those very rare days in Malta when everything went right he was back up within five minutes waving success.

We descended to a flat, rocky bottom at a depth of about 18 metres and, though it was overgrown as usual with thick

sea-grass, I could see the level plain extend to the limits of visibility on all sides of me. It seemed completely natural. But moments later Chris brought us to a clear, clean gap in the sea-grass caused by a channel – perhaps something more like a canal really – that ran straight for tens of metres through the bedrock. A little over 2 metres deep and about the same wide, its floor consisted of pure, white, level sand.

But how thick was the sand? I pushed my gloved hand experimentally down into it until had it had disappeared beyond my wrist. It was deeper than that, possibly a lot deeper. But it would take airlift equipment to find out for sure.

The walls of the canal were cut down vertically into the bedrock on each side and did, very strongly, give the impression of being artificially formed.

Chris and I swam along the bottom of the canal side by side – there was room to do that – for 20 or 30 metres until we came to the place he wanted to show me. Here the canal was spanned by a ‘bridge’ flat on top and level with the surrounding plain. It too was a rock-hewn feature – a narrow section of the original bedrock that had simply been left in place when the canal was formed, and then hollowed out underneath into an archway through which the contents of the canal could flow.

We swam under the arch several times and Chris pointed out how the vertical side walls bore what looked like tool marks. I agreed with him. And again I found myself looking at something underwater that could not easily be explained as natural. For whereas arches, sometimes on a very grand scale, are found beneath the sea, they almost always prove to be part of collapsed cave systems. That was not the case here,

for we were in open underwater country – that would have been open country before its submergence – and because this arch crossed a dead-straight 2 metre deep channel that was completely out of character with everything else that nature had succeeded in doing in the vicinity.

Last but not least, the canal proved to run due north-south – an orientation significant to humans but not to nature.

The missing piece of the jigsaw puzzle

Anton Mifsud cites the underwater channels around Malta as further evidence for his thesis that this was 'Plato's island', since canals or channels also feature prominently in Plato's description of Atlantis.

Mifsud's proposal, as we've seen, is that the world-famous

story of the destruction of Atlantis in a ‘single dreadful day and a night’ that Plato recounted at the beginning of the fourth century BC is an echo, or folk memory, of massive destruction wrought on Malta in 2200 BC by a fault collapse along the submarine Pantalleria Rift. He notes that Malta today has a pronounced ‘wedge-like’ tilt from south-west (the thick end of the wedge, e.g., the towering coastal cliffs at Dingli and Maghlaq) to the north-east (where the thin end of the wedge disappears under the sea, as at Sliema). This tilt has come about because Malta lies very close to the tectonic collision front between the African and Eurasian continental plates:[25]

> The upwarped shoulders of the Pantalleria Rift bear the Pelagian islands of Lampedusa and Lampione on the western shoulder and the Maltese islands on the eastern one. The still active shoulder up warping on both sides of

> the Pantalleria Rift causes the tilting. As the island of Lampedusa continues to tilt southerly, the Maltese islands tilt in a complementary manner towards the northeast …[26]

This is the underlying geological process that created the sheer cliffs of southwest Malta, themselves forming the edge of an exposed fault-line at Maghlaq, near Mnajdra. And as Mifsud points out, the nature of the process makes it highly likely that Malta may once have extended much further to the south-west of Maghlaq than it does today (a continuation of the 'thick end of the wedge' on the up warping shoulder of the Rift). He proposes the cataclysmic collapse of this hypothetical south-western extension 4200 years ago as the explanation for the mystery of the sudden and apparently overnight extinction of Malta's age-old temple-building culture at the same date:

> Tectonic movements in the Central Mediterranean are still responsible for the continuing separation of the two shoulders of the rift, respectively bearing the Maltese islands on the northeast and the Pelagian group on the southwest shoulder. It is far from inconceivable that [a] landmass joined to the southwest coast of Malta, at the Maghlaq site would have collapsed and submerged at a point in time when its underlying structures gave way to the rifting process. Such a collapse would have occasioned the displacement of massive volumes of seawater on the southwestern coastline, with a rapidly flowing torrential flooding event along a SW to NE direction.[27]

It is this deluge that Mifsud proposes as the source of the grisly avalanche of jumbled and disarticulated skeletons washed out of Neolithic graveyards and into the Hypogeum 4200 years ago, and for the metre-thick deposit of silt that was dumped inside the Tarxien temples at the same time. And while I cannot agree with Anton that the same deluge

and instantaneous loss of a large part of south-western Malta was also the source of the Atlantis myth, his notion of a cataclysmic fault collapse in this area is highly plausible and in full accord with the geological evidence. In addition, since Mifsud's hypothetical south-western extension to Malta would have been created by tectonic motion along the Pantalleria Rift and destroyed by the same forces, it would have remained *invisible* to Glenn Milne's inundation-mapping programme which, explicitly, does not account for tectonic motion.

For the purposes of my own quest, the single most intriguing aspect of Mifsud's hypothesis is that it permits Malta to have retained a large extension in the south-west down to 4200 years ago – i.e. more than 6000 years *after* the end of the post-glacial floods that had earlier been responsible for the inundation of huge areas to the north and

east (see chapter 19). In the search for the experimental and 'learning' phases of Malta's megalithic temples during the long gap between the end of the post-glacial floods 10,600 years ago and the 'sudden' appearance of the Gigantija phase 5600 years ago, I therefore suggest that we could hardly do better than begin to look here.

Moreover, and again entirely beyond the data and resolution capabilities of Glenn Milne's maps, there are the knock-on tectonic effects throughout Malta and Gozo that would have been caused by a massive collapse of up warped lands. Many adjustments of the coastline may have occurred that we will never have any knowledge of.

What is certain, however – although the rates are unpredictable – is the continued stealthy *emergence* in the upwardly warping south-west and the continued stealthy *submergence* of the north-east Maltese coast. The particular

implication of this process is that sites in the north-east shown on the inundation maps to have been submerged by 10,600 years ago may not in fact have been submerged until much later, when Malta's tilt forced them under. It therefore follows that the inundated north-east, off-shore of Sliema, also remains a prime candidate for the missing archaeological remains of earlier phases of Malta's temple-building culture.

Broken images

I have grossly oversimplified Anton Mifsud's theory of a fault collapse along the Pantalleria Rift and left out much of the detailed empirical evidence that sustains the theory and dates the collapse to 2200 BC. Readers wishing to pursue the matter further are referred to his own book on this subject, *Echoes of Plato's Island*, which presents the case more thoroughly than I

am able to attempt here.[28] I do, however, want to draw attention to one particular category of supporting evidence that Mifsud includes in *Echoes*. Unlike his geological and geophysical evidence this material is very hard to measure and assess and might be considered highly speculative. Nevertheless, I believe that it may prove to be of the greatest importance.

In their research, Mifsud and his co-authors came across recurrent references in traditions and classical geographies and maps to a *formerly much larger Malta*. For example: 'Some medieval maps do not speak of Malta, but of a certain *Gaulometin* or *Galonia leta*, and combine Malta and Gozo into one big island.'[29]

We know from Glenn Milne's inundation data that Gozo and Malta were indeed one big island during the Ice Age,

down to approximately 13,500 years ago, and that they did not take on their present form as an archipelago of three islands (with little Comino in between) until around 11,000 years ago. Accordingly, if the medieval tradition of Malta and Gozo as one big island is not a complete invention – and why should it be? – then, 'fantastic' though it may seem, it somehow preserves a memory of Malta as it appeared more than 11,000 years ago. It is well known that most medieval mapmakers were only copyists reproducing older maps and, for reasons that we will explore in Part 5, I believe we cannot exclude the possibility that the single large island called Gaulometin or Galonia leta that has somehow survived on certain medieval maps may indeed be a representation of Malta in a much earlier time.[30]

A mental leap is required in order even to consider such a possibility. It is necessary to set aside all preconceptions

about the past, and all unexamined notions of how societies evolve. Above all, we have to rid ourselves of the ingrained conviction that (despite some setbacks) the basic story of human civilization has been steadily and reassuringly onwards and upwards from the very beginning.

It may not have been so. There may be tremendous gaps, of which we are blissfully unaware, in the evidence presently available to us concerning the origins and progress of civilization. In particular, there has been no sustained or serious search for very ancient underwater ruins along the millions of square kilometres of continental shelves flooded at the end of the Ice Age.

So it is *possible*, and within the bounds of reason, that a civilization of some sort might have flourished during the closing millennia of the Ice Age and might not yet have been detected by archaeologists. A civilization not necessarily at

all like our own but still advanced enough to have mastered complex skills such as seafaring and navigation (that do not call for a large material or industrial base) and to have left behind memories of the world as it looked before the flood and at various stages during the rising of the seas. The sort of civilization, perhaps, that would have built with megaliths and aligned them with navigational precision to the path of the sun. Maybe even a civilization that measured the earth, mapped it and netted it with a latitude and longitude grid.

Until such a lost civilization has been entirely ruled out – and we are far from that – it is rational to keep our minds open to the possibility, however extraordinary it may seem, that certain ancient maps have indeed carried down to us broken images of the antediluvian world.

Thus Mifsud is right to be intrigued that:

> A southern extension of the Maltese islands … is recorded in the annals of Claudius Ptolemy, the renowned ancient geographer, mathematician and astronomer … He had unlimited access to the ancient documents in the Alexandrine library, and his research included the Mediterranean and Maltese islands. Although his readings outside the Mediterranean were sometimes erroneous, his Mediterranean latitudes in particular were significantly accurate.[31]

Ptolemy (C.AD 90–168) carried out his geographical research at the fabled library of Alexandria in Egypt, the most extensive archive of ancient texts then preserved anywhere in the world. Is it possible that he, too, was drawing on antediluvian sources with his uncharacteristically 'inaccurate' references to a formerly larger Malta?

What is particularly noticeable about Ptolemy's coordinates, Mifsud demonstrates, is that they extend Malta

significantly into the sea to the south and west of the present coastline in the vicinity of Filfla – exactly where he believes that massive land-loss occurred through catastrophic faulting 4200 years ago.[32]

> The crucial point [is] that Ptolemy gave co-ordinates for Malta which extended over twenty minutes of latitude (between 34°45' and 34°25'). He was therefore attributing a maximum latitude width for Malta alone of at least 30.82 kilometres. This measurement today is approximately 21.5 kilometres, so that it is evident that in the ancient sources researched by Ptolemy, the Maltese islands still extended southward significantly more than today.[33]

Maps drawn in late medieval and early Renaissance times from Ptolemy's original coordinates contain a variety of anomalies that may also reflect the same ancient sources. For example: 'An early world map of Ptolemy [Ulm 1482] shows

a large unidentified island in the central Mediterranean.'[34] Although displaced too far to the east, this large unidentified island bears a strong resemblance to Malta as it would have looked 14,600 years ago, shortly after it first became isolated from Sicily. A similar island is clearly shown on the Ptolemaic world map in Ebner's manuscript of 1460.

Pontus
Phantom Island south-east of Sicily

The Ptolemaic map in Ebner's manuscript of AD 1460 shows a large ghost island south-east of Sicily. Similar islands are also seen on the Klosterneuberg of AD 1450 (which appears to merge the Maltese islands into a single landmass) and the Ulm of AD 1482.

Another map, reputedly copied 'from ancient sources' at Klosterneuberg, Austria, in AD 1450, shows a 'significant landmass between Sicily and North Africa'.[35] Again, the possibility that this is a reverberation of ancient information about Malta's former extent, even if distorted through the passage of time, cannot in my view be ruled out.

Malta in this respect is far from unique, but stands as the representative of a wider problem that we will return to in Part 5.

Tantalus

Balluta Bay, 25 June 2001

On the very last evening of our June 2001 filming trip to Malta for Channel 4, Anton Mifsud arranged for us to meet Shaun Arrigo. We hadn't seen him since our disastrous dives in November 1999 and I wanted to clear up the misunderstandings that had occurred between us then. Fortunately, this proved easy to do and, thanks to Anton, we passed the evening in the bar of the Lapsi Waterfront Hotel with a new mood of trust and cooperation in the air.

As we talked it emerged that Shaun had been back to the Sliema 'temple' site several times. Working in a team with Anton Mifsud and other colleagues, he had also filmed a second submerged site in the same general vicinity (which

the group had named Janet-Johann site after the discoverers). ‘Do you want to see it?’ he asked. ‘I’ve brought the tape along with me, if anyone’s got a player and a TV.’

Our producer Stefan Wickham offered the facilities of his room and we all crowded upstairs to watch the video.

It became obvious, within moments, that the Janet-Johann site was of great interest. At depths of between 10 and 15 metres off Sliema Arrigo’s footage showed a series of very large, almost ‘monumental’ canals and parallel ‘cart-ruts’ much wider and deeper than those we had seen at Marfa and Qawra. Some of the canals cut through the bedrock in perfectly straight horizontal lines for more than 100 metres without any break. Then, beyond them, the camera came suddenly into an area of huge scattered megaliths. All were fallen except one which stood partially upright leaning at a drunken angle.

‘I found a piece of pottery round there,’ Arrigo told us. ‘It was lodged in a fissure, and very worn and ancient. I retrieved it and took it to the National Museum, but they just weren’t interested – told me I could keep it.’

‘And did you tell them about this site as well?’ I asked, indicating the images on the TV screen.

‘Yes I did. I told them I thought it was a very suspicious, very man-made-looking place. I offered to lend them the tape or guide someone from the Museum there.’

‘And?’

‘Same story. They weren’t interested. In fact they seemed rather annoyed with me. They’ve been annoyed with me ever since the publicity in 1999 and I still don’t understand why.’

There was no time on that trip for us to take a look at the new Sliema site with Arrigo – besides he himself was leaving

for Italy the next morning. So we agreed that he would dive it again later in the summer on contract to us and shoot more detailed and more extensive tape of what he'd found there. Then we would decide what to do about it – although frankly, with a book to write, I did not see myself getting back to Malta to pursue the Sliema temple any time soon.

I felt like Tantalus, the thirsty Greek king whose fate it was to stand for ever up to his neck in water that receded whenever he tried to drink it.

PART FIVE

Ancient Maps

21 / *Terra Incognita*

Marinus of Tyre seems to have been the most recent of our students of *geographia* and to have applied himself to the subject with the greatest enthusiasm … If we could see that his latest composition lacked nothing, we should even have been happy to complete our description of the known world from these notes of his alone, without researching any further. But as on certain points he himself seems to have composed without reliable comprehension, and as in embarking on his map he has in many places not devoted enough thought either to convenience or to symmetry, we were naturally induced to contribute to his work what seemed necessary to make it more logical and useful.

Claudius Ptolemy (c. AD 90–168)

From the outset portolan charts appear to have been remarkably accurate with little evolutionary development from the earliest-known examples to

the later charts made towards the end of the seventeenth century.

John Goss

Maps of the Mediterranean drawn in the fifteenth century AD, according to a table of coordinates devised by the Alexandrian geographer Claudius Ptolemy in the second century AD, show the Maltese archipelago as a single large island, much as it looked in the thirteenth millennium BC … Ptolemy, as we will see, based himself on an earlier geographer, Marinus of Tyre – a Phoenician – who in turn had drawn on even older maps and geographical knowledge.

How far back in the human story does the quest for geographical knowledge go? And for how long – either in actual maps and charts, or in tables of coordinates, or in verbal accounts and 'word-pictures' of coastlines and journeys – has such knowledge been preserved and

promulgated by navigators?

There has been debate since the 1950s about the significance of certain maps from the late Middle Ages and the Age of Discovery that appear to show Ice Age topography and coastlines – rather than the world as it looked when the maps were drawn. Could these maps have been copied from older source maps that had emanated, ultimately, from a lost civilization of the Ice Age?

I first touched on this mystery in *Fingerprints of the Gods*. But that was in the early 1990s, before I knew about the science of inundation mapping or had been able to explore the hidden world that it revealed. As the new information from Glenn Milne began to come in during the last quarter of 2000, therefore, I set my research assistant Sharif Sakr the task of reopening the investigation -with a brief to stay away from anomalies that I had already discussed in *Fingerprints*

and to look only for good, new correlations between the ancient maps and the inundation data now at our disposal. We agreed that this would be a long-term project that should run continuously in the background while Sharif attended to many other day-to-day research matters for me. I warned him that I would sometimes have to take him off the maps for weeks at a time to work on more urgent and immediate issues.

The Reinal map of 1510

I was in India when Sharif e-mailed me in February 2001 with news of his first significant 'hit' – an early sixteenth-century Portuguese map of the Indian Ocean (the Reinal map of 1510), that appears to show the west coast of India as it looked more than 15,000 years ago. Sharif's e-mail discussing

the relationship of the Reinal map to other maps of the early sixteenth century, and setting out the initial details of the correlation, is reproduced in chapter 14.

I didn't hear from him again on the subject of Reinal for several months. Then in August 2001 he sent me an update:

> Sharif Sakr to Graham Hancock
>
> 10 August 2001
>
> Large photos of the Reinal map of 1510 and Cantino map of 1502 have finally arrived from the Bodleian. Not only do they support the correlation I described in my e-mail of 23 Feb but they also suggest that the correlation is even more detailed than I thought -particularly with India at 11,500 BC (not at the LGM, as considered before).
>
> Before detailing the correlation, there are a couple of things I need to explain about the correlation I described on 23 Feb.

Firstly, I suggested that Reinal's map of India omits the Kathiawar peninsula and the Gulfs of Kutch and Cambay that flank this peninsula, such that it correlates with Milne's maps of India before sea-levels had risen to today's levels. The omission of the peninsula is evidently true from the map itself, and I stand by it. But from looking at the maps of Reinal's contemporaries (such as the Cantino 1502 and the Ribiero 1519), I suspect that if we could ask Reinal, Why haven't you drawn this important peninsula?' he would reply, 'I have,' and point to a specific peninsula on his map, far away from where the Kathiawar peninsula actually exists. Relative to the surrounding geography, this feature is much too far north and west to be the Kathiawar peninsula, and it's on the wrong side of the Indus river. Nevertheless, this feature was erroneously associated with the Kathiawar peninsula on the Cantino and labelled 'Camba' – i.e. Cambay, which is the name given on modern maps to the long gulf on the south-east side of the Kathiawar peninsula. Reinal may well have made the same mistake. As to where this false 'Camba' peninsula comes from, the answer is quite clear: it comes from the older Ptolemaic model of India, which was

highly inaccurate.

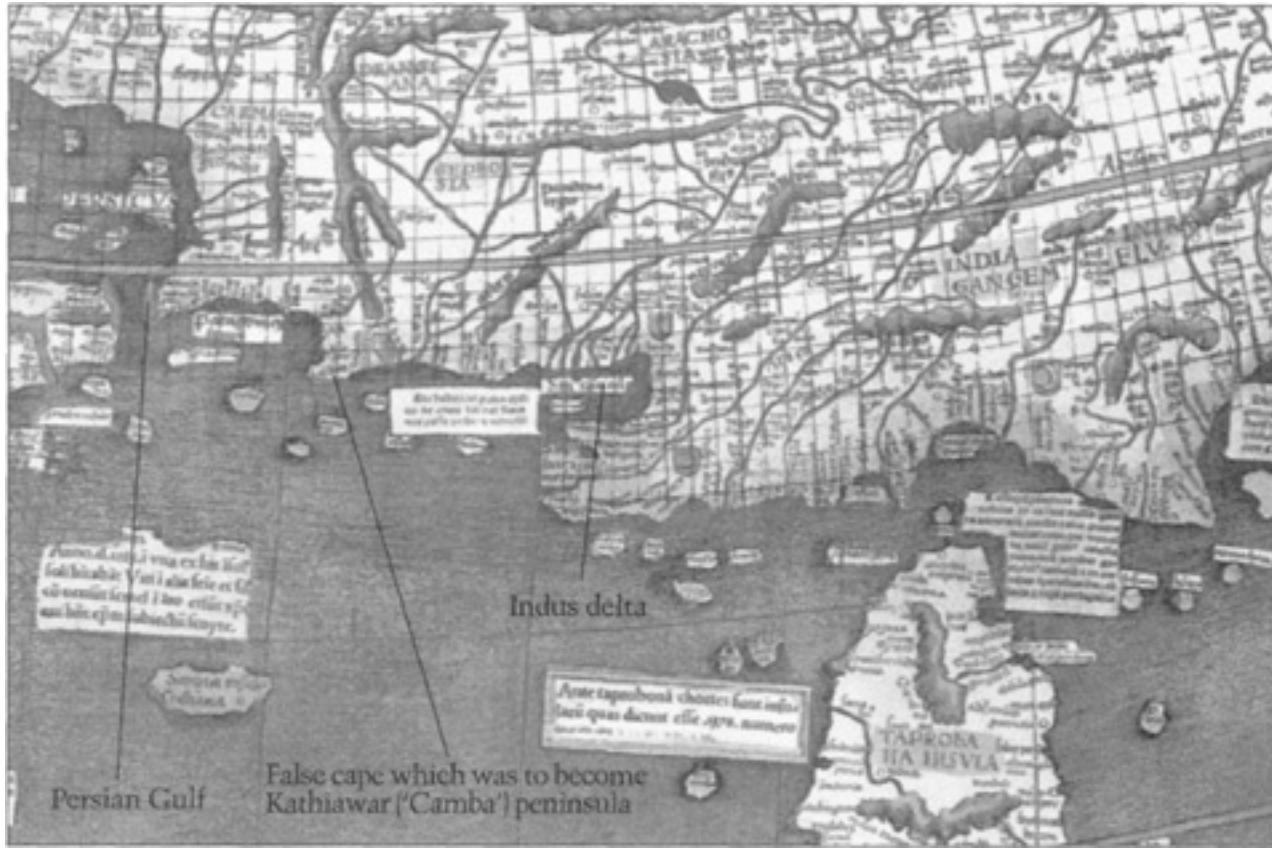

Waldseemüller's Ptolemaic map of India.

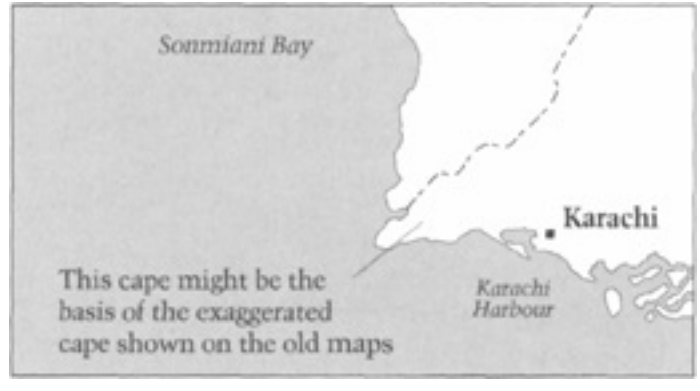

Modern map of the Pakistani coast.

Though Reinal's map of India is mostly superb for its time, the north-western part is very *inaccurate* between the Persian Gulf and the Indus river because it closely follows the old Ptolemaic model – rather than the mysterious and distinctly non-Ptolemaic source which I speculate was responsible for the rest of India's coastlines on the Cantino and Reinal

maps. That is why Reinal repeats the false north-western peninsula that is shown on Ptolemaic maps (such as Waldseemüller's 1507 shown above).

The position, shape and orientation of the false Ptolemaic 'Camba' peninsula, as shown on the Reinal, plus the little island beside it, correlate well with the peninsula on which the modern city of Karachi is situated, although the scale is vastly exaggerated. This exaggeration may have originated in the reports of Alexander the Great's sea-captain, Nearchus, who sailed back from the Indus towards the Persian Gulf and made specific mention of coastal features and a supposedly 'haunted' island along the way.

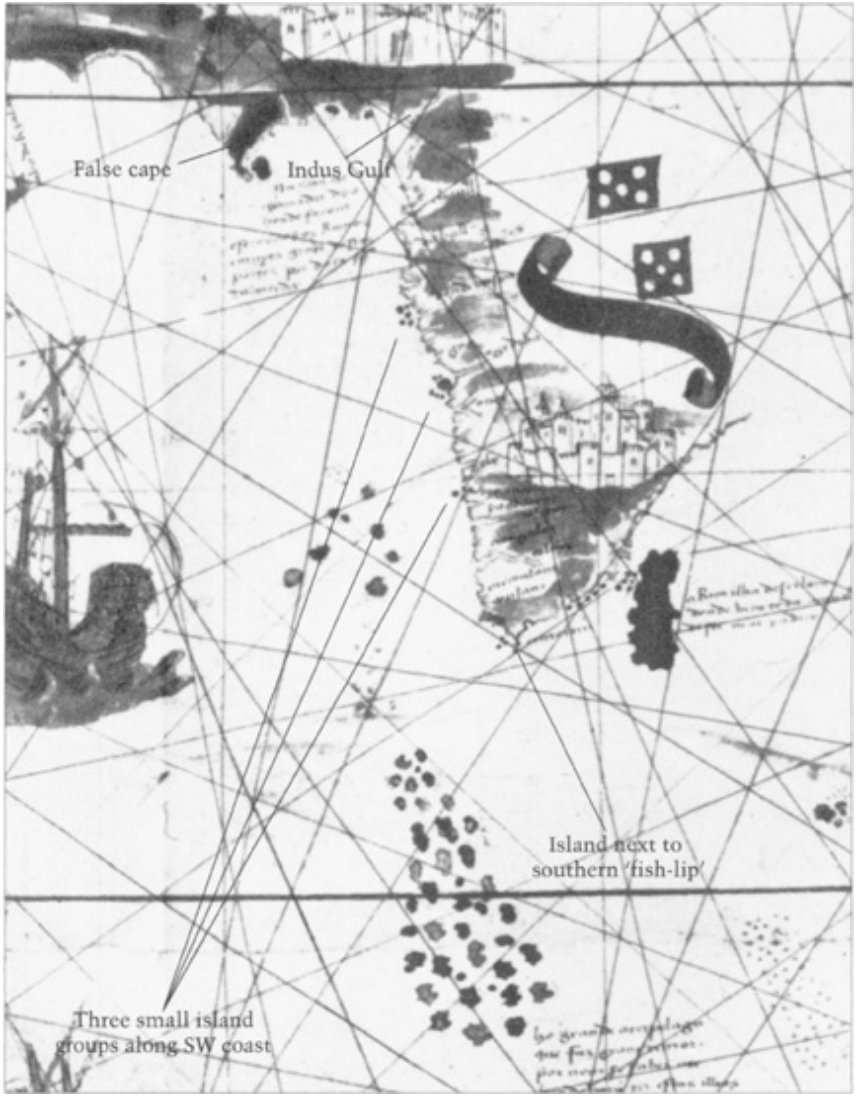
False cape
Indus Gulf
Island next to
southern 'fish-lip'
Three small island
groups along SW coast

Reinal's map of India, AD 1510.

The Reinal map departs from the Ptolemaic model specifically at the Indus delta (where Alexander stopped and turned back for home) and then southwards along the entire Indian coastline. As I said before, this coastline is infinitely more accurate than the Ptolemaic model, and strongly suggests that the source from which it is derived was far superior to anything previously available to Western seafarers and mapmakers. This coastline also correlates extremely well with Milne's inundation maps showing India's coastlines before about 12,000 years ago.

Of particular note is Reinal's depiction of four small groups of islands, all close to India's shoreline and all south of the

NW bulge that should have been the Kathiawar peninsula. No such islands exist today, but Milne's maps suggest that there were islands – including one very large one – in roughly the same positions, down to about 10,000 years ago.

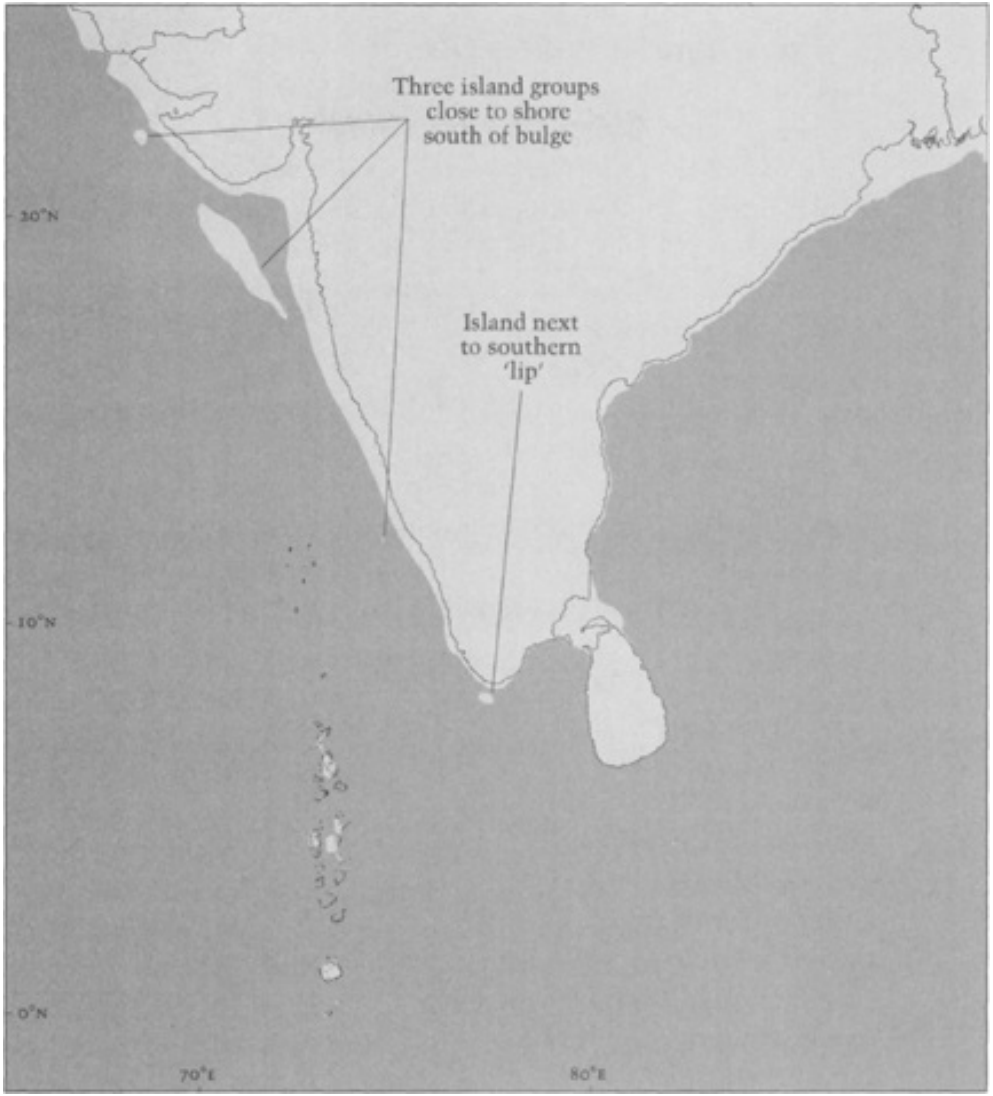
Three island groups
close to shore
south of bulge
Island next
to southern
'lip'
20°N
10°N
0°N
70°E
80°E

India's coastlines as they were in 11,500 BC.

Is it possible that what Reinal depicts are the remnants of these islands in the terminal stages of their post-glacial inundation?

Three of the island groups he shows lie along India's west coast, in the right area for such remnants, and one lies immediately next to the southern 'fish-lip' (now less clear than at the LGM) at the very tip of the sub-continent.

Coasting the Indian Ocean

The Cantino and Reinal maps of the Indian Ocean were

produced in an epoch of intense competition for trade and a real hunger for geographical knowledge on the part of the European powers that had witnessed – among many other breakthroughs – the rounding of South Africa's Cape of Good Hope by Bartolomeu Dias in 1488,[1] the 'discovery' of the Americas by Columbus in 1492, and the Portuguese encounter with the East that began when Vasco da Gama reached Calicut in south-west India in 1498.[2]

This first European crossing of the Indian Ocean was made from the East African port of Malindi (on the Swahili coast of modern Kenya) where da Gama and his small fleet arrived on 14 April 1498.[3] There they were welcomed by the local chief, who arranged the services of 'a loyal and extremely competent pilot', Ahmed-bin-Majid, described as 'the most famous expert in the navigation of the Indian Ocean in the

15th century'.[4] With this man as their guide they reached India very rapidly, anchoring in front of Calicut on the Malabar coast on 20 May 1498.[5]

There the Portuguese remained for several months, attempting to put arrangements in place to build a trading post, but were foiled at every step by established Arab merchants alarmed at the prospect of European competition ruining their business with the East. Eventually da Gama left empty-handed, 'convinced that only a stronger expedition … would have the power to bring negotiations to a successful conclusion'.[6]

On the return voyage there were outbreaks of scurvy, often as few as half a dozen crew were well enough each day to man the ships, and the fleet was alternately becalmed then driven off course by contrary winds. Their zigzag route took

them through the Lacadive archipelago – which da Gama named the Santa Maria islands – and then to the small island of Angediva, some 70 kilometres south of Goa.[7] Many died during the crossing to Malindi, which took three times as long as the outward passage, and it was the summer of 1499 before the survivors limped home to Portugal in their two remaining ships.[8]

Almost immediately after da Gama was welcomed back by King Manuel, the Portuguese monarch announced that a new, armed fleet would be sent to India – thirteen ships, with crew and soldiers totalling 1500 men, under the command of Pedro Alvares Cabral. Such a force, it was felt, would be sufficient to set aside the political and commercial obstacles that had confronted da Gama.[9]

The new fleet set sail on 9 March, reaching the Canary

islands five days later and the Cape Verde islands on 22 March 1500. There one of the ships was ‘eaten by the sea’.[10] The remaining twelve crossed the Atlantic to South America where Cabral made landfall in Brazil on 26 April, claiming it for Portugal. Sending one ship back to Lisbon with news of the discovery of the land that was first known as Vera Cruz, then later Santa Cruz, and finally Brazil,[11] he remained only until 2 May, then turned his fleet south-east and set a course for the Cape of Good Hope.[12]

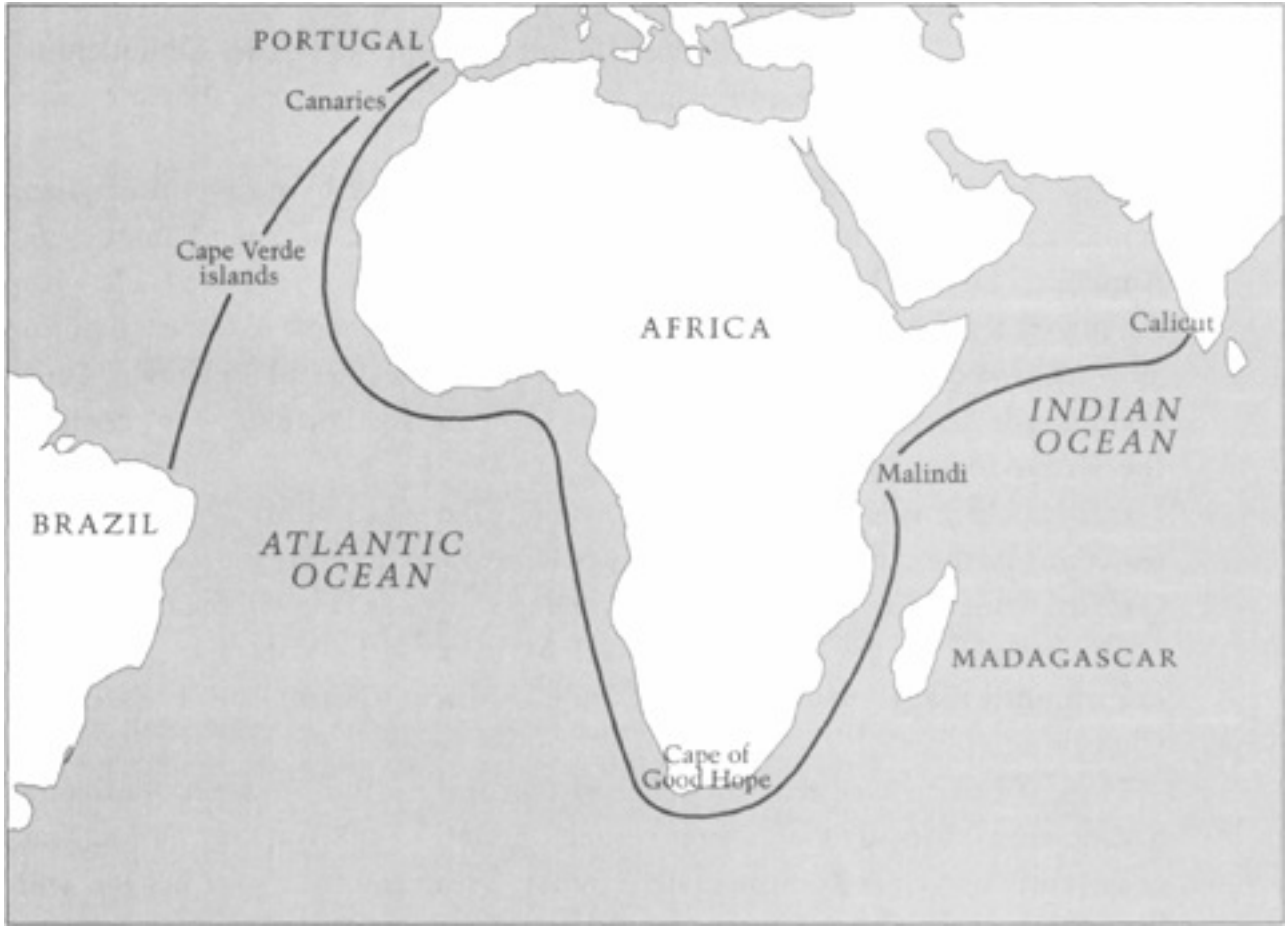
PORTUGAL
Canaries
Cape Verde islands
AFRICA
Calicut
INDIAN OCEAN
Malindi
BRAZIL
ATLANTIC OCEAN
MADAGASCAR
Cape of Good Hope

By this point Cabral's fleet was reduced to eleven ships. Rounding the Cape of Good Hope four more vessels went down with all hands in a violent tempest – among those who perished was Bartolomeu Dias, who thus 'came to be buried in the waters of which he had been the discoverer twelve years before'.[13] A fifth ship, separated from the fleet in the same storm, discovered the island of Madagascar, and then returned to Portugal on its own.[14]

Cabral was therefore down to six ships and less than half his original force when he crossed the Indian Ocean to Calicut. The opposition to a Portuguese trading post still remained strong there and he was now no longer in a

position to overcome it. He therefore sailed further south along the Malabar coast looking for a friendlier reception and found it at Cochin where the local rajah permitted him to set up a 'factory'. Cabral then took the fleet to Cananor where they loaded cargoes of spices before returning to Portugal in the early summer of 1501, just over a year after they had left.[15]

Although in both cases under extreme time pressure and in difficult circumstances, the expeditions of da Gama and Cabral undoubtedly did conduct some cursory exploration of several hundred kilometres of the Malabar coast between roughly 15 degrees north latitude (Goa) and roughly 10 degrees north latitude (Cochin). On the third and fourth expeditions, however, these explorations were not extended:[16] 'It was only with the fifth India fleet in 1503

under Albuquerque that exploration was carried further, as far as Coulon [Quilon], almost on the southern tip of Malabar.'[17]

Cape Comorin – modern Kaniya Kumari, the true southern tip of the Indian peninsula – was first rounded near the end of 1505 by a fleet under Lourenco de Almeida. The fleet had been sent to the Maldives to spy on the sea trade with the Indonesian islands further east but was carried off course to Cape Comorin by winds and currents. From there Almeida sailed his ships to Sri Lanka: 'Thus Lourenco de Almeida and his companions were the first Portuguese to pass into the eastern Indian Ocean.'[18]

In 1506 there was another 'first' – Joao Coelho was the first Portuguese to reach the northern terminus of the Bay of Bengal and 'to drink the waters of the Ganges'.[19] But it was

not until 1509 that Diogo Lopes de Sequeira made the first full crossing of the Bay of Bengal to reach Malacca[20] – the Malaysian peninsula known until that time on Ptolemaic maps as Aurea Chersonesus, the Golden Chersonese.[21]

Thus, it can be seen that the focus of Portugal's attention for more than a decade after Vasco da Gama first reached India in 1498 was on the Malabar coast south of Goa and on the eastern Indian Ocean and the Bay of Bengal. The long lines of supply and relative scarcity of men and ships meant that no attention could be paid to the stretch of the Indian coast that runs north-westwards from Goa, at roughly 15 degrees north latitude, past the Gulf of Cambay, the prominent Kathiawar peninsula and the mouths of the Indus, up to the northern terminus of the Arabian Sea at roughly 25 degrees north latitude. As Damiao Peres writes in his

authoritative *History of the Portuguese Discoveries:*

> In the first years of Portuguese expansion in the Indian Ocean, the reconnaissance of the Gulf of Arabia [i.e., the Arabian Sea] was limited to a few southern ports of the Malabar coast to the east, and to the coast of Arabia and its neighbouring areas to the west. Included were some island groups lying between the two. The northern part of the Gulf of Arabia [Arabian Sea] and its adjacent waters – the Persian Gulf and the Red Sea – were only visited in the first years of the second decade of the sixteenth century.[22]

The mystery of the Cantino map of 1502

And this brings us to what is mysterious about the Cantino map – so named after Alberto Cantino, the Lisbon-based diplomatic agent of the powerful Duke of Ferrara in Italy.[23]

Cantino somehow acquired this beautiful but unsigned world map in Portugal, or had a cartographer there copy it specially from another map, and then smuggled it out of the country, getting it to Italy by or before 19 November 1502[24] (no mean feat, since Portugal was jealous of its discoveries and imposed the death penalty on those caught smuggling maps out of the country).[25]

India on the Cantino planisphere of c. *AD* 1502.

When was the Cantino map drawn?

Let us start by stating the obvious: it must have been drawn before 19 November 1502, when it reached Italy. Indeed, according to H. Harisse, it typically took craftsmen of the period about ten months to prepare such a map. If this is correct, then it pushes the origins of the Cantino back at least to the beginning of 1502.[26]

Going back still further, there is internal evidence in the map itself which proves that it could not have been drawn much before the summer of 1501. That was when the ships of Cabral's second India fleet returned to Portugal from their

voyage – begun a year previously – that had taken them not only to India but also to South America. The evidence survives because the Cantino is a world map that shows – and claims with Portuguese flag-icons – the section of the Brazilian coast discovered by Cabral in 1500.[27] Since similar flag-icons are likewise seen over Cochin and Cananor in southern India – which Cabral reached later in 1500 – it is the inescapable conclusion that the Cantino map expresses knowledge that could only have been acquired on the Cabral voyage.

Indeed this is the conclusion of orthodox historians of cartography,[28] so it is not controversial to restate it here. What is extremely strange, however, is that neither on Cabral's voyage of 1500/01, nor on the earlier 1498/9 voyage of Vasco da Gama, nor on any later Portuguese

voyage until after 1510, was the north-western part of India ever visited. Yet the Cantino map shows north-western India very clearly. And although the portrayal is *inaccurate vis-à-vis* India's western coast as it has looked for the past 7000 years – in the single, significant respect that it entirely omits the Kathiawar peninsula – it is still hugely *more accurate* for India as a whole than the grotesque image of the subcontinent provided in the Ptolemaic maps.

Particularly noteworthy is Cantino's representation of the east coast of India. In general (see diagrams) it matches well to what the east coast of India should look like.

I do not deny that the Portuguese were capable of drawing maps as accurate – and indeed more accurate – than this one. But the puzzle to me is how Cantino's Portuguese cartographer could have acquired such accurate knowledge of the outline of eastern India as early as 1501–2, when

historical records show that the fleet of Lourenco de Almeida did not even round Cape Comorin and enter the eastern Indian Ocean until 1505? This part of the map also shows Sri Lanka at close to its correct size and very close to its correct location more than three years before Lourenco de Almeida became the first Portuguese to sight Sri Lanka.

Surely, therefore, curiosity should drive us to find an explanation for the existence of this strikingly good chart of supposedly uncharted waters?

'T-O' maps

Good is a relative term. To understand why the Cantino and Reinal maps of the Indian Ocean are 'good', and in fact in some ways close to 'revolutionary', we need to view them in the cartographic context of their place and time – i.e. Europe

and the Mediterranean in the fourteenth to the sixteenth centuries AD.

The Augsburg T-O map of AD 1472.

During this period mariners, merchants, adventurers and armchair travellers had at their disposal four distinctly different types of maps and charts. The simplest of all – far too simple to be of any use to navigators – are the so-called 'T-O' maps. With a long history going back to the seventh century AD, these show an encircling 'O' of water that is often inscribed with the words 'MARE OCEANUM' -representing the 'Ocean Sea' (sometimes 'Ocean River') that was believed in antiquity to surround all the lands of the world[29] (an idea, by the way, that is completely correct, as all the world's oceans do indeed interconnect). Inside the 'O' a 'T' is then inscribed, dividing up the land into the three known continents of Africa, Asia and Europe. The vertical stroke of the T represents the Mediterranean, separating Africa from Europe and adjoining the Ocean Sea at the Atlantic. The cross-bar of the T is the north-flowing river Nile on one side

of the Mediterranean, the south-flowing river Don on the other side of the Mediterranean and also, vaguely, the Black Sea, the Bosporus and eastern Mediterranean, beyond which lies the continent of Asia. The Garden of Eden is also often depicted on the 'top' of such maps, which are oriented eastwards. Map historian John Goss points out that frequently 'Four rivers were also described as flowing from the Garden of Eden: Psihon, Gihon, Tigris and Euphrates.'[30]

The T-O maps provide at best a 'shorthand picture of the world'.[31] But the enduring power and pervasiveness of this essentially useless cartographic tradition is illustrated by the oldest surviving printed map of Europe – a T-O map, printed by Gunther Zainer at Augsburg in 1472, that reproduces exactly the original concept as set out by Isidore, Bishop of Seville, in his *Etymologiarum* written in the early seventh

century.[32]

Mappamundi

The second category of maps and charts available between the fourteenth and sixteenth centuries is known as the *mappamundi*. It is important to be clear that this is a very distinct and specific type of world map (because, in the texts of those times, other world maps of completely different types were also sometimes referred to as *mappaemundi* or *mappamundi*, when what was meant was just 'world maps' in the rather loose, general sense of 'maps of the world').[33] So, to be clear, the *mappamundi* to which I refer here were normally hand-painted on cloth or vellum (hence the origin of the name *mappamundi* — meaning, literally, 'Cloth of the World'). The classic example is the Hereford *mappamundi*,

attributed to Richard of Haldingham C.AD 1290, but *mappamundi* continued to be made well into the fifteenth century. They retain the essential design of the T-O maps but greatly increase the amount of detail concerning mountains, rivers, pilgrim routes, etc., on the three recognized continents of Africa, Asia and Europe – sometimes taking into accounts myths, legends and recent traveller's tales. Unfortunately, none of the specifically geographical details that these maps provide would have been of the slightest bit of use to travellers or mariners since all the details – all of them! – are wrong, misguided and misleading.[34] In short, the *mappamundi* promulgate a wholly incorrect image of the world – an image that is almost all dry land and that reduces the Ocean Sea covering seven-tenths of our planet to the narrow, ribbon-like rim of the surrounding 'O'. 'The very crudeness of the geography of the Hereford map', comments

John Goss, ‘reflects a marked deterioration in geographical knowledge from the time of Ptolemy a thousand years earlier.’[35]

Hereford mappamundi, c. AD 1200.

Ptolemaic maps

Almost nothing is known about the life of Claudius Ptolemy.[36] His first name is Roman and his second Macedonian.[37] He is thought to have been born in Upper Egypt[38] C.AD 90 and to have died around 168.[39] A scholar at the Library of Alexandria from roughly AD 127 to 145,[40] his two famous surviving works are the *Almagest (Ho megas astronomos)*, a book of astronomy and cosmology in which he expounds the 'Ptolemaic system' of a fixed spherical earth at the centre of a revolving universe, and the *Geography*

(Geographike hyphegesis), in which he includes information on how to construct maps of places in Europe, Africa and Asia tabulated according to latitude and longitude.

It is not absolutely clear whether Ptolemy ever in fact drew maps himself, or even had maps drawn to accompany his work.[41] Strictly speaking, they were not necessary because his primary method was to provide the longitude and latitude coordinates of more than 8000 places and topographical features in such a way that: 'the reader can draw for himself regional maps on various suitable scales, and even a general map of the world'.[42]

The *Geography* (its Greek title translates literally as 'Instruction in Map-drawing') 'professes to be concerned solely with the task of scientific mapping'.[43] But what, in fact, have its contributions been to the scientific mapping of

the world?

One signal contribution was the memorialization of knowledge of the earth's basic form as a sphere. Just how ancient this knowledge already was in the second century AD remains unclear. Scholars agree that its earliest surviving *documented* appearance is in the work of Pythagoras in the sixth century BC;[44] however, it may have long pre-dated Pythagoras in oral traditions or in documents that have since been destroyed with the passage of time. My personal view, already expressed elsewhere, is that the concept of the spherical earth was well known to the first great historical civilizations such as the ancient Egyptians and the Sumerians 5000 years ago and will ultimately be proved to date back to a much more remote period even than that. But wherever it comes from originally, we owe a debt of gratitude to Ptolemy

for its preservation and repromulgation in the second century AD – for, despite the intellectual ravages of the Dark Ages that were to follow, his vision of the earth as a sphere was never quite forgotten. Robert Fuson, Professor of Geography at the University of South Florida, puts it this way:

> The Ocean Sea had now taken the form it was to retain until the 16th century and the aftermath of Magellan's circumnavigation. The earth's sphericity was no longer debated by any practical navigator, cosmographer, or educated person. This fact had been established since the days of Classical Greece. The only areas open to serious disagreement were details of coastal configuration, exact location by coordinates, island discovery and location, and the dimensions of the Ocean Sea. By the 1400s [before the discovery of the Americas] no reasonable person questioned the proposition that Asia might be fetched by sailing west from Europe, if the ships and crews could survive the tremendous distance.[45]

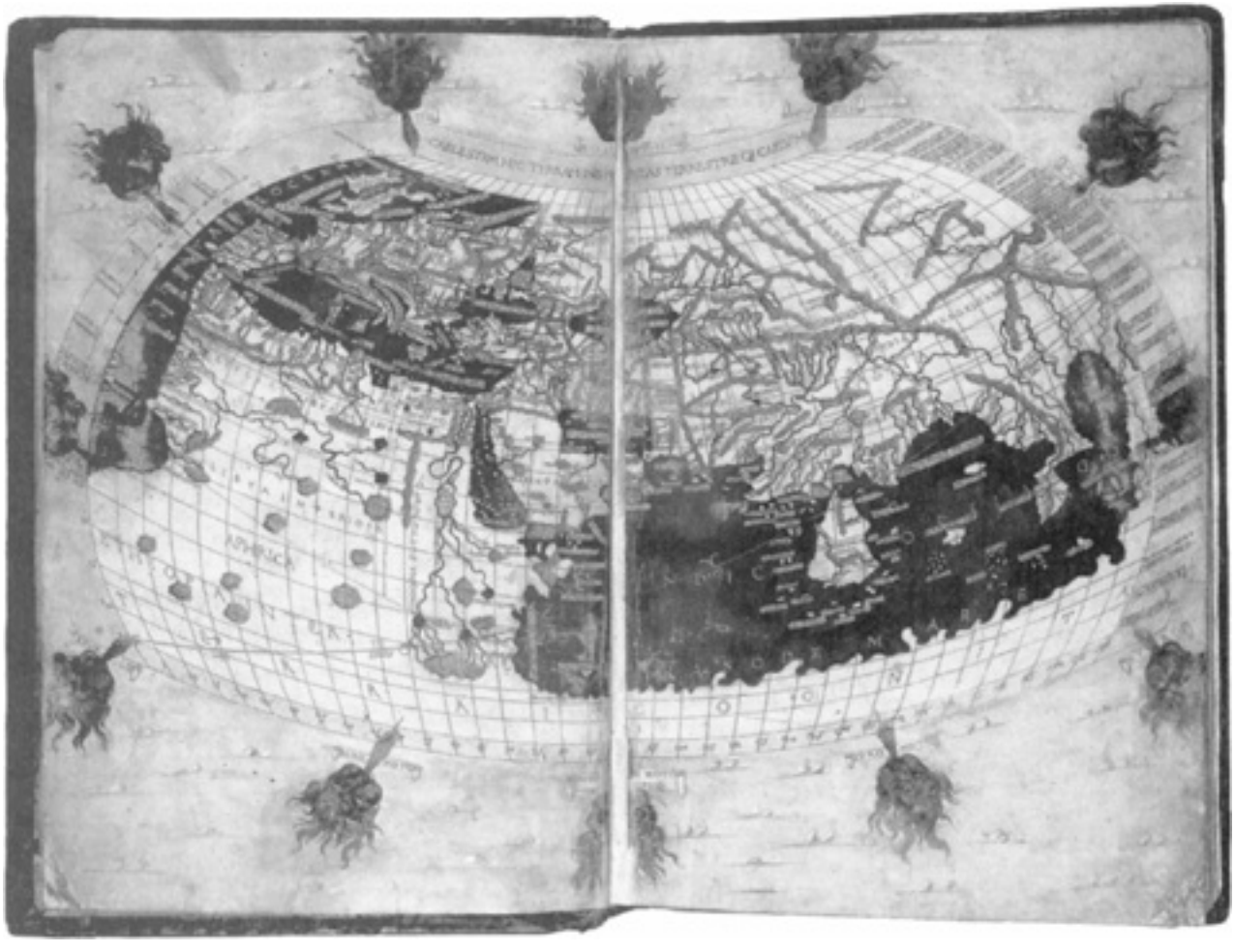

Francesco Berlinghieri's Ptolemaic map, AD 1482.

Other significant contributions that Ptolemy made to the scientific mapping of the world include the establishment of functional parallels of latitude, and of a prime meridian, passing through the Canary islands, that was to serve as zero degrees longitude for sixteen centuries.[46] Moreover, though maps drawn to Ptolemaic coordinates leave much to be desired, even the worst of them are far superior to the schematic 'T-O' maps and *mappamundi* of the Dark Ages.

A representative selection of Ptolemaic world maps is reproduced herewith. The reader will note that the Mediterranean is at least recognizable, and that in spite of many discrepancies a real attempt appears to have been made to reflect the true shapes and locations of the lands

bordering it. Ptolemy and his informants had first-hand, day-to-day knowledge of this central region of what they called the *oikumene* – the habitable world – and clearly, with some peculiar exceptions, they used that knowledge well. But outside the Mediterranean the level of accuracy rapidly falls away.

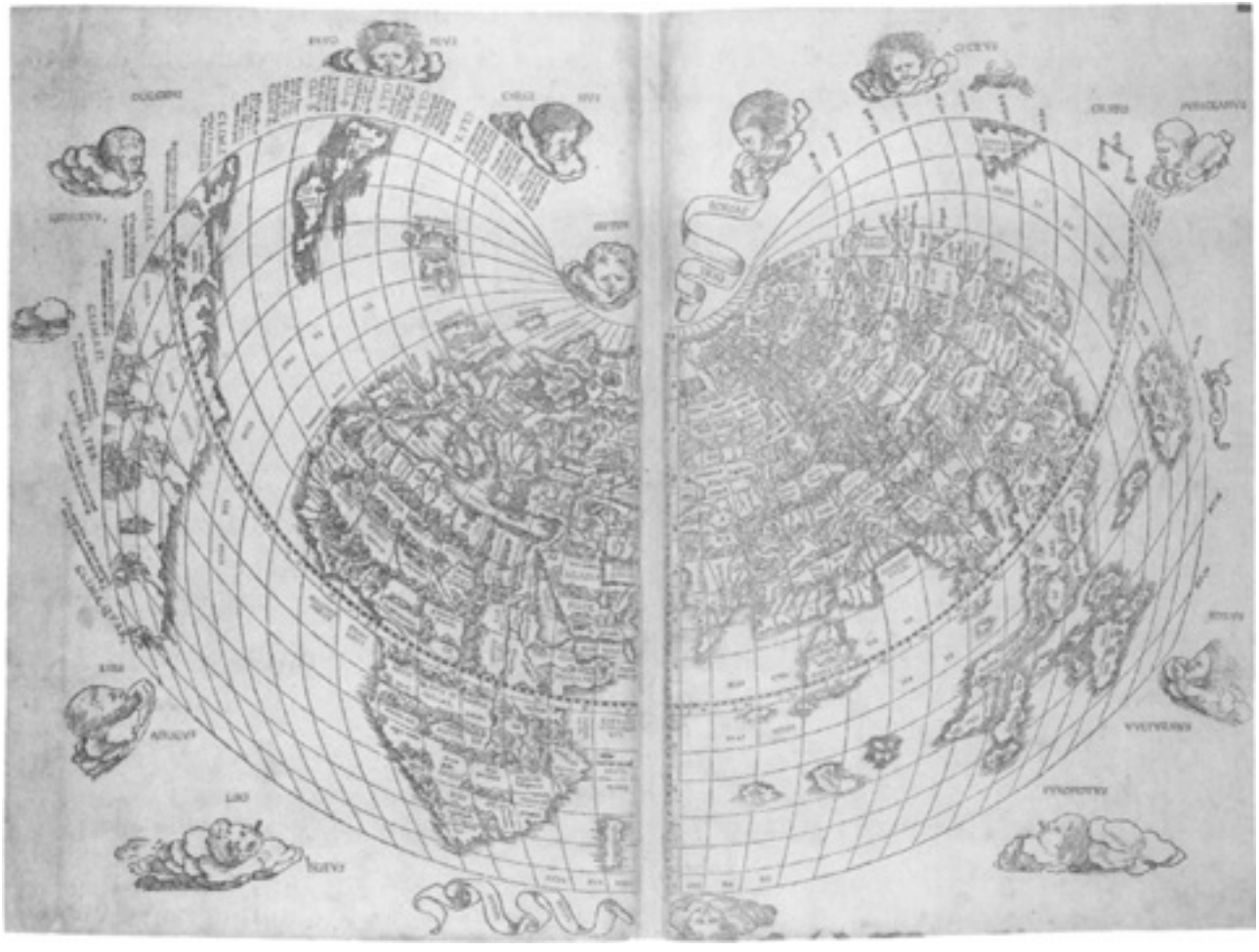

Ptolemaic map from Venice edition of Ptolemy's Geography, *AD* 1511.

Waldseemuller's Ptolemaic map, AD 1507.

For example, on the authority of Poseidonius (135–50 BC),[47] Ptolemy *underestimates* the circumference of the earth at the equator, setting it at 20,400 miles (as against the correct figure of 24,902 miles).[48] At the same time he greatly *overestimates* the east-west extent of Asia and, bizarrely, portrays the South Asian coast above the Indian Ocean apparently *without any representation whatsoever of the great peninsula of the Indian subcontinent*. As though to compensate for this loss, however, Ptolemy places an enormous island, Taprobana (presumed to be Sri Lanka), just off-shore of the stretch of non-peninsular mainland identified as India.

What is going on here? In their major new study of Ptolemy's *Geography*, J. Lennart Berggren and Alexander Jones suggest that the root of the problem is simple. India has this 'flattened out' appearance because Ptolemy,

somehow, has managed to turn the subcontinent on its side so that its orientation is roughly west-to-east instead of north-to-south as it should be:

> Asia exhibits greater and greater distortions as one progresses further east, the most obvious faults being the north-south compression of the Indian subcontinent so that its western coast is made to run parallel to the equator, and the exaggerated size of the island of Taprobana (Sri Lanka).[49]

If the subcontinent has indeed been swung eastwards in the way that Berggren and Jones propose, then 'Taprobana' is not only too big to be Sri Lanka but is also positioned in entirely the wrong place. Sri Lanka lies in the Bay of Bengal, off India's south-east coast. Once the reorientation of the peninsula on Ptolemy's map is taken into account, however, then we can see that Taprobana has in fact been portrayed as lying off India's *west* coast – where there are no large islands

today.

We will return to the possible implications of this later. Meanwhile, to conclude the description of Ptolemy's world map, let us note that the older examples (e.g. page 466) portray the Indian Ocean as a lake landlocked by the northern edge of a southern continent (Terra Australis on some editions; Terra Incognita on others) that connects southern Africa with the south-eastern extreme of Asia:

> At the eastern edge, where the lands represent central China and Southeast Asia, it is virtually impossible to identify any of the features on Ptolemy's map with real counterparts. At the eastern limit Ptolemy draws the coast of Asia turning south and then west, eventually to join the east coast of Africa, thereby making the Indian Ocean a vast enclosed sea unconnected with the Atlantic.[50]

Ptolemy was not the originator of the *Geography* - as he

himself goes to great lengths to point out. Instead, he tells us that his role has been to refine and correct an earlier *Geography* prepared by his predecessor, the Phoenician geographer Marinus of Tyre, who was active around AD 100 or no and whose great work was itself called *Correction of the World Map*.[51] In Ptolemy's own words:

> Marinus of Tyre seems to have been the most recent of our students of *geographia* [= map-making] and to have applied himself to the subject with the greatest enthusiasm … If we could see that his latest composition lacked nothing, we should even have been happy to complete our description of the known world from these notes of his alone, without researching any further. But as on certain points he himself seems to have composed without reliable comprehension, and as in embarking on his map he has in many places not devoted enough thought either to convenience or to symmetry, we were naturally induced to contribute to his work what

seemed necessary to make it more logical and useful.[52]

As well as the honesty of this statement, what I find particularly striking is the strong suggestion Ptolemy leaves us with that his *Geography* was part of a tradition, and that his predecessor Marinus had been part of that tradition too – but by no means its first student, just the 'most recent' who had 'corrected' an older map.[53] Such a tradition might, theoretically, have extremely ancient roots and it need not necessarily be the case that successive 'refinements' of it over long periods of time must have improved it. An alternative possibility, which it would be unwise to ignore entirely, is that far from being the pinnacle or 'culmination' of ancient geography, as many scholars suggest,[54] Ptolemy's maps may actually have been the end-products of a long process of decline, degradation and accumulated errors introduced by

many different hands into a far older and once far superior map-making tradition. Again, this is a theme that we will return to.

Some centuries after Ptolemy's death the Dark Ages descended over the *Geography*, but it was still preserved here and there in a few monasteries in Europe.

In the Arab world Muslim geographers are known to have possessed editions of the *Geography* as early as the eighth century AD, as well as separate editions of the earlier work of Marinus (the latter now all being lost):

> In the early ninth century al Ma'amun, Caliph of Baghdad AD 813–833, set up an Academy of Science, which among other things produced a world map [lost] and 'improved tables', – i.e. modernized coordinates.[55]

In Byzantium (Constantinople) in the late thirteenth

century it was Maximus Planudes (c.1260–1310) who was responsible for bringing the knowledge enshrined in Ptolemy back to the attention of the world:

> He searched for manuscripts of Ptolemy's *Geography*, and his search was rewarded in 1295, but it was not as exciting as he had hoped. As he explains in a letter and some verses, after at last finding what he knew was a neglected work, he was disappointed to discover that it had no maps.[56]

Although there are older manuscript maps (such as the late twelfth-or early thirteenth-century *Codex Urbanus Graecus 82)*, the oldest surviving manuscript copy of the *Geography* containing maps based on the descriptions and coordinates given by Ptolemy was made by monks at Vatopedi on Mount Athos in the early fourteenth century.[57] It later formed the basis for the first printed atlas to appear in Europe, published

at Bologna, Italy, in 1477.[58]

The Ptolemaic cartographic tradition was at first very successful in adapting to the challenges posed to its world-view by the Age of Discovery. Thus, the original maps based on Ptolemy's own coordinates were added to several times during the sixteenth century to accommodate so-called *tabulae novae* (or *tabulae modernae)* recording the expanding revelation of the Americas and of the East.[59] This could be done without causing serious disturbance to the Ptolemaic concept of the *oikumene* so long as the simple expedient could be maintained of tagging the Americas on to Asia like some vast peninsula. Ultimately, however, these maps, like the dinosaurs, were an evolutionary dead-end doomed to extinction.

It would be wrong to imagine from all this that the few

surviving Ptolemaic maps in libraries and archives around the world have nothing to teach us. They may appear distorted and clumsy to the sophisticated modern eye, but it is possible that their very awkwardness and peculiarity could have caused scholars to overlook significant details concealed within them.

Portolan charts

The fourth category of maps circulating in Europe from the fourteenth to the sixteenth centuries, known collectively as portolanos, portolan charts or simply portolans, shows no dependence whatsoever on either Ptolemaic maps or data or the *mappamundi*. The vast majority of the portolans depict only the Mediterranean/Black Sea area and the countries immediately round about, but some are world maps, or world

atlases, for which the style and approach of the Mediterranean portolans serves as a basis. These old charts are drawn to the highest cartographical standards and are uncannily accurate – so accurate, though the earliest examples go back to the end of the thirteenth century, that they were not surpassed by new scientific techniques, measurements and observations for almost 500 years.[60]

A. E. Nordenskiold, the great Swedish polar explorer and map historian, had a special interest in portolans. He points out that they were used, almost entirely, by practical mariners and navigators:

> Slight was the attention paid to them in the fifteenth and sixteenth centuries by learned geographers. Thus Munster seems to have totally overlooked them, and in the first edition of the *Theatrum Orbis Terr arum*, Ortelius does not mention a single drawer of portolanos amongst the

> cartographical authors enumerated in his *Catalogus Auctorum*. At present the investigator into the history of geography acknowledges them as unsurpassed masterpieces, and reckons them amongst the most important contributions to cartography during the Middle Ages.[61]

Likewise John Goss notes:

> The portolan charts were quite unlike contemporary medieval maps. They often incorporated detail of remarkable accuracy, based on close and actual observation, rather than the conventional medieval habit of repeating cartographical and mythical information issued by the Church.[62]

Goss and Nordenskiold also point to other characteristics that make the portolans look and 'feel' different:

- A network of intersecting straight lines (usually called 'rhumb-lines' or 'loxodromic lines')[63] originating from

sixteen equidistant points, spread about the circumference of a ‘hidden circle’ around the map.

- An elaborate ‘compass-rose’ at one or more of the points of intersection of the lines.
- Place and feature names written perpendicular to the coastline, in sequence along the coast.
- Charts drawn in ink on vellum or parchment with colour conventions, e.g., most important names shown in red, rest in black; lines depicting four main wind directions drawn in black, the eight half winds in green, the sixteen quarter winds in red.
- Coastlines emphasize bays and headlands; hazards such as rocks, reefs and shoals are marked with dots or small crosses.[64]

What all these characteristics have in common is their utility and significance to mariners. The coastal hazards are matters of life and death. The networks of rhumb-lines assist compass navigation. Even the perpendicular place names, inevitably upside-down from some angles, make sense when you realize that they are meant to be viewed in the same direction as that of a vessel following the coast.

It has been suggested that portolans are such an improvement on previous maps because they reflect the earliest introduction of the compass into Europe, thought to have taken place around the end of the thirteenth century[65] (although the use of magnetized needles as a means for sailors to find their bearings is attested earlier than that).[66] But while there is no doubt that such charts in conjunction with compasses do provide very effective navigational

guides, it is by no means so certain that compasses and compass-bearings were used to prepare them in the first place. On the contrary, says A. E. Nordenskiold, 'many of them are evidently older than the use of the compass on board ships'.[67]

No map projection is imposed on the portolans, and there is no latitude and longitude grid – although in the expanded 'world portolans' the equator is often shown, together with the Tropics of Cancer and Capricorn and the Arctic and Antarctic Circles. Nevertheless, when relative latitudes and longitudes on these maps are measured, they prove to be extremely accurate. For example, on the Dulcert portolan of AD 1339 the total longitude of the Mediterranean and the Black Seas is correct to within half a degree.[68]

Carta Pisan portolan, c. *AD* 1290.

It is wrong to argue, as I myself have done in the past,[69]

that mariners and chartmakers of the fourteenth century would have found it *impossible* to achieve such accurate longitudes. Such suspicions arise from the fact that marine chronometers – which made reliable calculations of longitude at sea possible – were not introduced until the second half of the eighteenth century. However, scholars are right to object that there are other, simpler (if vastly more time-consuming) ways to obtain almost equally accurate longitudes. As Gregory Mcintosh put it in an e-mail:

> We moderns seem to tend to think that because we now have methods of making very accurate measurements very quickly, those in the past could not make any measurements at all. The Portuguese (and others, of course) made dead reckoning measurements of longitude [i.e. calculations based on empirical estimates of course, speed and time]. It is a method of measurement. Some writers of the Hapgood ilk [Charles Hapgood, *Maps of the Ancient Sea Kings]* would have us believe that dead reckoning is not a

valid method of measurement. They would have us believe that the Portuguese did not measure longitude. But of course they did. That's what dead reckoning is – a method of measuring longitude … with several such measurements from repeated voyages.[70]

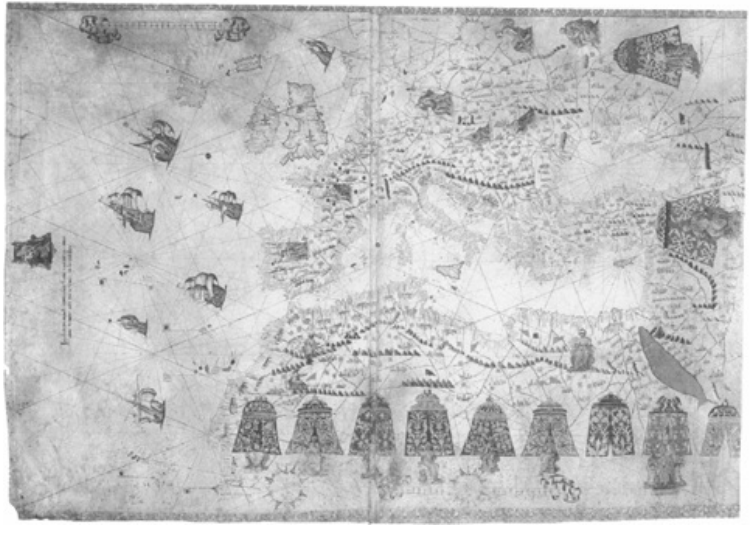

Top: *Dulcert portolan,* AD *1339.* Bottom: *Maggiolo portolan,* AD *1563.*

This seems like an entirely reasonable explanation for the accuracy of the portolan charts – that they are the result of the accumulated observations and measurements of navigators plying the coasts of the Mediterranean over relatively long periods of time. Some have suggested that they may even trace their origins back to the detailed written accounts of sea-journeys, harbour conditions, winds, currents and trade – the *periploi* – that were in favour amongst the ancient Greeks as far back as the fifth century BC.

Still, there is a very large gulf indeed between the crude directions of the *periploi* and the navigational accuracy of the

portolan maps. Along any hypothetical evolutionary road from one to another it is reasonable to expect to see intermediate forms – since getting maps right by dead reckoning, as Mcintosh points out, is a painstaking, long-term process of trial and error, correction and gradual improvement.

And this is the central problem of the portolans. Quite simply, *there are no intermediate forms.* Indeed, remarks John Goss:

> From the outset portolan charts appear to have been remarkably accurate with little evolutionary development from the earliest known examples to the later charts made towards the end of the seventeenth century.[71]

And A. E. Nordenskiold, the world's greatest authority on the portolans, reminds researchers that:

> Notwithstanding all the progress made during the fifteenth and sixteenth centuries in the art of drawing maps with the aid of newly invented nautical instruments, there was published a chart in Holland in 1595 by one of its most expert mariners which is only a copy, or rather a copy of copies, of portolanos drawn 250 to 300 years earlier. This is an extremely remarkable fact in the history of civilization. But moreover the principal features of the portolanos from the beginning of the fourteenth century are still to be found on Van Keulen's sea-charts of 1681–1722. I suppose that up to the beginning of the nineteenth century the influence of the old portolan charts may yet be traced on the charts of several parts of the Mediterranean and Black Seas.[72]

The good legacy

The 'extremely remarkable fact in the history of civilization' that Nordenskiold draws our attention to here is the ability of

maps, apparently produced by dead reckoning in the thirteenth century, to compete on an equal footing with scientific nautical charts from as late as the nineteenth century.

And it is remarkable. Because, yes, we can accept with Mcintosh that it was within the competence of navigators of the thirteenth century to have produced the excellent portolan outline of the Mediterranean that was to require so little improvement over the next 500 years – in other words, we can accept that it *could* have been done. We can even accept that it *might* have been done. But it is much harder to agree that this is what actually *was* done, since neither Mcintosh nor any other scholar favouring the gradual 'evolutionary' explanation for the very early perfection of the portolan genre has yet been able to provide us with even a single example of charts that illustrate even a single aspect of

this proposed ‘gradual evolution’.

In my opinion, therefore, Peter Whitfield is right to evaluate the *Carta Pisane*, the oldest surviving portolan in the world, as ‘one of the most enigmatic charts in the history of mapmaking’.[73] In his 1996 study, *Charting of the Oceans*, he elaborates on this theme:

> The appearance of this chart (and of the others which survive from the following century) is one of the most mysterious events in the history of mapmaking. A glance at the Pisan Chart immediately reveals two outstanding features: the coastlines of the Mediterranean are drawn with striking accuracy; and the map is covered with a network of lines radiating from two central points, which clearly impose the form of the compass over the whole map. How did this highly accurate map suddenly appear in medieval Italy, and how exactly was it linked to the compass? Was it the original work of a single individual, or was it descended from a line of

> much older charts which had been developing for centuries? The former is difficult to believe, but the latter cannot explain why there is no shred of evidence for the existence of such maps before 1270.[74]

Whitfield outlines the orthodox scholarly response that the evolution of the portolans must have taken place within the oral lore of mariners and within the textual tradition – going back to the Greek *periploi* – of books of sailing directions:

> One famous example entitled *Lo Compasso da Navigare* was current among Italian mariners and it would be tempting to suppose that the contents of a text such as this had been transformed with the aid of compass bearings into the Pisan Chart. Unfortunately, the places named in *Lo Compasso* differ sharply from those named on the map, even the names in Italy itself. *Moreover, the transition from a list of names and bearings to an accurate map is an enormous one, requiring not only a high degree of geometric and drafting skill, but also an imaginative leap to create a graphic form for which there was*

no parallel. Even if the Pisan chart was based on some now-lost portolano, we have no real idea how it was done. Nor can we really answer the most fundamental question of all about the chart – how was it used? We have no independent description of its use, although we do know, from examination of the chart itself, that the compass lines were *plotted* before the map itself was drawn …[75]

Concerning *how* it was done, Whitfield notes:

Later practice was to make a running survey, in which coastal features – capes, bays or islands – were sighted from two, three or four positions as the ship sailed by. Starting from the ship's course, the distances run and the angles of sight were used to build up a profile of the coast. This method was in use by the later sixteenth century, but we can only conjecture whether it was known at the time the Pisan Chart was drawn. If it was not, it is extremely difficult to account for the accuracy of some of the coastlines, which would scarcely be improved on this scale until the

eighteenth century.[76]

But even if we admit that running-survey and compass techniques *were* somehow being used on ships to produce sea-charts as early as the thirteenth century (which most historians of science would rule out) we still come against the unexplained enigma of the miraculous and fully formed *de novo* appearance of the *Carta Pisane*. As we've seen, not a single chart pre-dates it that demonstrates in any way the gradual build-up of coastal profiles across the whole extent of the Mediterranean that *must* have occurred before a likeness as perfect as this could have been resolved.

It is possible, of course, through the vicissitudes of history, that all the evidence for the prior evolution of portolans before the *Carta Pisane* has simply been lost. If that were the case, however – in other words if the *Carta Pisane* is a

snapshot of a certain moment in the development of an evolving genre of maps, and if we accept that all earlier 'snap-shots' have been lost, wouldn't we nevertheless expect that such an 'evolving genre' would have *continued* to evolve after the date of the earliest surviving example?

Whether we set the date of the *Pisane* between 1270 and 1290 (as Whitfield suggests)[77] or a little later – between 1295 and 1300 – as other scholars have argued, we've seen that that there was *no significant evolution afterwards.*[78]

Now kept in the Bibliothèque Nationale in Paris, the enigmatic *Pisane* is an unsigned chart and scholars have no idea who the cartographer might have been.[79]

Next comes what Whitfield rightly describes as the 'startling and precocious' work of the earliest chartmakers known to us by name in the first half of the fourteenth

century. These include Vesconte and Pizzagano in Venice, and Dulcert and Valseca in Majorca. None of them seems to have copied the *Carta Pisane* directly, but neither do they add significant cartographical detail in the central Mediterranean/Black Sea area covered by the *Pisane*. On the contrary, what we see in their more lavish maps are only the effects of very minor tinkering and stylistic improvements. The basic template inherited from the thirteenth century remains unaltered and stays that way for the rest of the life of the genre.

So the hypothesis of a gradual evolution of portolan charts out of books of sailing directions does not withstand close scrutiny. Convinced of this, A. E. Nordenskiold sought a more satisfactory explanation and came, after many years of study, to a radical conclusion – that the original model for all the portolan charts, a hypothetical common ancestor that he

refers to as the ‘normal portolano’ is most likely to have been derived from the long lost sea-charts of the Phoenician geographer Marinus of Tyre.[80]

In other words, the *Carta Pisane* and the other early portolan charts that started the genre were not a ‘development’ of anything. They were a legacy.

The Sea-fish of Tyre

Nordenskiold points out that the same legends and place names, presented in the same way, appear on all portolan charts. He makes a special illustration of this with reference to the Catalan Atlas of the fourteenth century, Giroldis’ portolan of the fifteenth century, and one by Volontius of the end of the sixteenth century, but argues that it is true for all

portolans:

> When to this is added
>
> (1) that the Mediterranean and the Black Sea have exactly the same shape on all these maps; (2) that a distance scale with the same unit of length … occurs on all these maps, independently of the land of their origin; (3) that the distances across the Mediterranean and the Black Sea measured with this scale agree perfectly on different maps; (4) that the conventional shape given to a number of smaller islands and capes included in the maps remained almost unaltered on portolanos from the 14th century to the end of the 16th; then it may be held as completely proved that all these portolanos are only slightly altered and emended 'codices' of the same original which I designate by the name normal portolano.[81]

In his quest 'to determine when and where the normal portolano was composed',[82] Nordenskiold uncovered a

previously overlooked passage in a work written in AD 955 by the important Arab geographer Masudi who states that he had: 'seen the maps of Marinus, and that these by far surpassed those of Ptolemy'.[83]

The portolans are the only maps drawn in ancient times or in the Middle Ages that are better than the maps of Ptolemy.[84] We cannot say for sure how ancient their origins are. But they must have a background somewhere. It is Nordenskiold's hypothesis that 'the first origin of the portolanos is to be derived from the Tyrian charts described by Ptolemy under the name of Marinus'[85] and that the world map of Marinus could have been 'a real portolano, provided with a text'.[86] Moreover,

> If Ptolemy himself had not always spoken of Marinus as a definite

> personality, it could have been conjectured that the name Marinus of Tyre, or the Tyrian sea-fish, had only been a collective name for a certain category of nautical maps … The numerous editions mentioned by Ptolemy mean that the Tyrian charts were made for a practical purpose, and the improvements, introduced according to Ptolemy in every new edition, constituted the germ of the future masterpiece …[87]

This is an interesting speculation, for indeed there is no mention of Marinus outside of Ptolemy which independently confirms the Phoenician geographer's existence. Nor is it too much to ask of the facts to suggest that the famous seafaring city of Tyre to which Marinus supposedly belonged might have originated a special category of charts that came to be known, colloquially, by a name something like the 'Tyrian sea-fish'. Perhaps, despite the personalization, it was an atlas of 'Tyrian sea-fish' regional charts and a 'Tyrian sea-fish' world map that Ptolemy 'corrected' and 'improved' in the

second century AD, and not the work of any individual geographer?

And I've already noted that we only have Ptolemy's word for it that he actually did improve on Marinus. Maybe he thought he was doing that – while all the time his 'improvements' were only making the Phoenician charts worse. That would explain why Arab mariners of the tenth century still treasured the original Marinus maps that they had somehow managed to preserve and declared them to be so much better than the Ptolemaic ones.

Arabia without maps

Just three Arab portolans, all classic 'normal portolanos' of the Mediterranean and Black Sea area, have ever been found.

The earliest dates from 1300, very close to the date of the *Carta Pisane*, and the other two from 1413 and 1461 respectively.[88] This suggests at least two things to me: first, like the Europeans, the Arabs made no attempt to develop the inherited normal portolano (other than putting modern names and legends on their copies of it); secondly, although the Marinus 'normal portolano' had been preserved by the Arabs, as Masudi testifies, and although there was clearly some demand for it, the survival of only three Arab copies suggests that its use never became anything like as widespread in Arab seafaring as it did in the seafaring of the Europeans.

In his discussion of Arab cartography, A. E. Nordenskiold has this to say:

Various admirable descriptions of distant lands and of extensive voyages

> written by Arabian scholars and far surpassing the geographical productions of the same period among the Christians, are still extant. But similar perfection was never attained by the Arabian maps, which, if they were original drawings and not, as the planisphere of Idrisi, mere copies or reproductions from Ptolemy, are not only far inferior to the maps of the Alexandrian geographer, but not even comparable to the Esquimau-sketches brought home by English and Danish polar travellers from the icy deserts of the polar regions.[89]

This may seem an over-harsh judgement, since there is no doubt that the Arabs were brave and adventurous explorers. For example, the same Idrisi mentioned in the passage above also indicates that in the tenth century Arab sailors crossed or attempted to cross the Atlantic.[90] But it is true that Idrisi, geographer to King Roger II of Sicily at the end of the twelfth century, did base his beautiful maps on Ptolemy.[91] And it is

true, with the exception of the three rare Arab portolans that have survived (one of them being notably early), that the quality of the rest of Arab cartography in this period was not high.

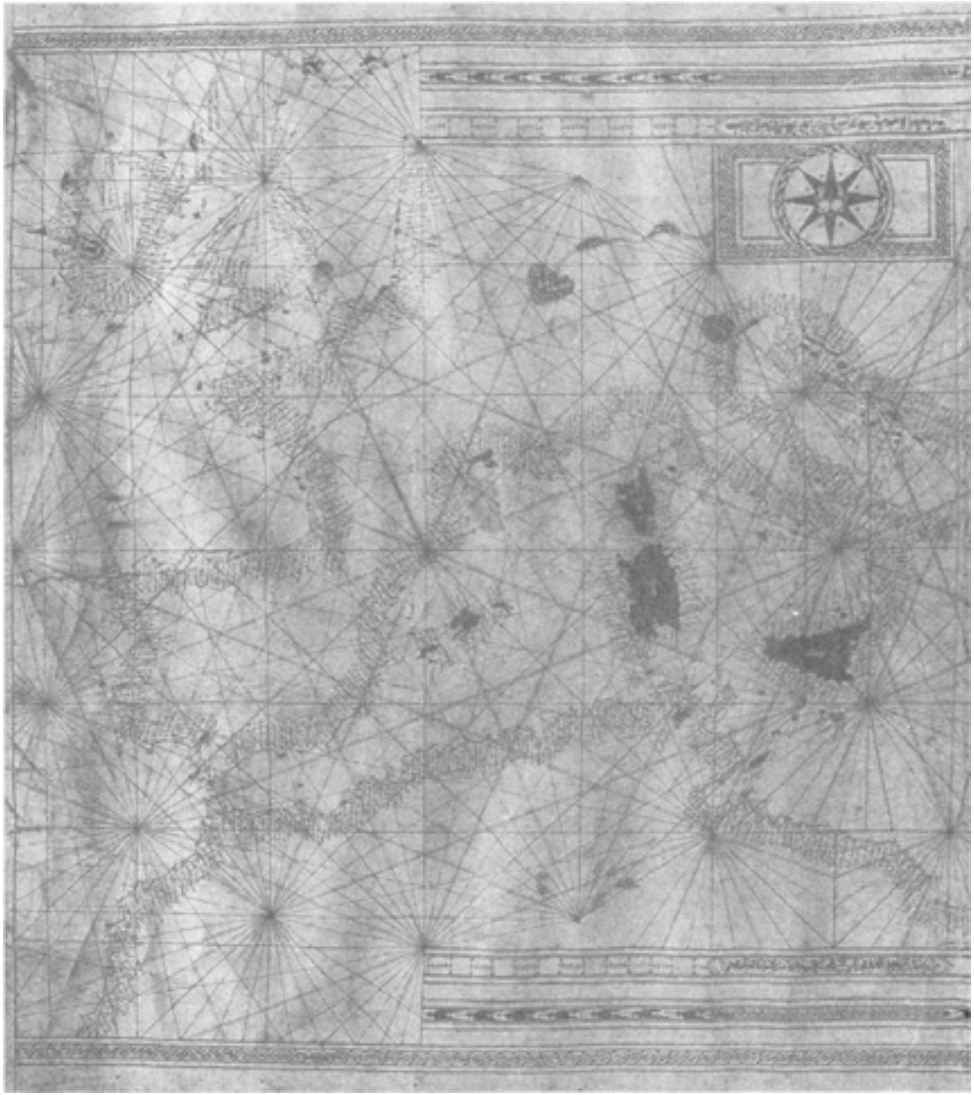

Al-Tunisi Arabic portolan, western section, AD 1413.

Regardless of whether the Arabs themselves were good or bad at making maps, however, as Nordenskiold points out:

> It is shown by the passage referred to in Masudi, that the maps of Marinus of Tyre were still extant in the middle of the 10th century, that is to say, shortly before the time when the first portolan maps were drawn. Since that time they have completely disappeared. It might be legitimately concluded from this that the portolanos may have arisen as a modernization of the *Tyrian sea-fish* undertaken during the Crusades, and that they stood in the same relation to the maps of Marinus as the *tabulae modernae* in the printed editions of the *Geography* of Ptolemy stood to the Alexandrine geographer's own work.[92]

On marvellous things

By documenting the presence among the Arabs at so late a date of good ancient maps that were (a) attributed to Marinus of Tyre and (b) recognized as belonging to a distinct tradition superior to Ptolemy, Nordenskiold provides at least the beginnings of a plausible answer to the riddle of the 'lost evolution' of the portolans prior to the *Carta Pisane*. Here is the scenario in brief: 'sea-fish' maps, unadulterated by Ptolemy, that had been carried to perfection by the second century AD were preserved by Arab culture until the thirteenth century AD. Then at least part of the legacy – a chart of the Mediterranean and Black Sea region, Nordenskiold's 'normal portolano' – fell into European hands, providing the model, with the necessary modernization of place names, etc., for the *Carta Pisane* and the entire portolan

genre.

In my opinion this is a more rational and more parsimonious way to account for the highly developed state of the normal portolano than to ask us, as most historians do, to accept that such striking and precocious cartography somehow ‘evolved’ out of books of sailing directions. And Nordenskiold’s hypothesis, though it leaves unanswered all questions about the roots and antiquity of the Marinus tradition before the second century AD, is also on sound logical ground by reminding us of the role of the Phoenicians in all this.

Known to have circumnavigated Africa by 595 BC,[93] 2000 years before the Portuguese, the Phoenicians maintained fleets throughout the Red Sea, the Indian Ocean and the Mediterranean (at powerful naval and mercantile cities like

Tyre, Sidon and Carthage), planted major colonies on the Atlantic coasts of Europe and North Africa, and crossed the Atlantic at least as far as the Azores and the Canary Islands.[94] They were, without contest, the greatest mariners of the ancient world. Indeed, between the time of Ptolemy and the time of the Portuguese one looks in vain for any other seafaring culture of the Mediterranean/Black Sea region that would have had both the capacity *and the inclination* to devise a map like the normal portolano.

Moreover, if the normal portolano is indeed derived from the lost atlas of Marinus of Tyre, then it follows that other high-quality maps of regions much further afield than the Mediterranean and the Black Sea, and indeed a world map, might also have been preserved by the Arabs – for we know from Ptolemy's testimony that other Marinus maps, including a world map, did once exist. It will therefore do no harm to

keep an open mind to the possibility that the portolan world maps that began to appear during the century after the *Carta Pisane,*[95] might also have been influenced by earlier 'Tyrian sea-fish' maps of Phoenician origin. Christopher Columbus, whose passionate belief in lands across the Atlantic led to his 'discovery' of the New World, seems to hint at a Phoenician connection when he describes one of the inspirations for his journey:

> Aristotle in his book *On Marvellous Things* reports a story that some Carthaginian merchants sailed over the Ocean Sea to a very fertile island … this island some Portuguese showed me on their charts under the name Antilia.[96]

Antilia first appears on a portolan chart of 1424. It is a mysterious presence there, a riddle, to which we will return.

What Guzarate showed da Gama

The suggestion has been made that ‘world’ portolans – indeed, any that show regions outside the normal portolano area – could have been based on the lost world map of Marinus. And if the normal portolano reached Europe after being preserved among the Arabs for many centuries, it could be the case that the Arabs preserved the world map too. We’ve seen that some Arab portolans of the Mediterranean/Black Sea area do exist – although they are very few in number. So it makes sense to look for traces among the Arabs of a portolan world map as well.

Nordenskiold believed he had identified such a trace. Combing through geographical works from the Age of Discovery, he found a passage in J. De Barros’ *Asia* (first Portuguese edition printed 1552) which states that the Arabs

in the Indian Ocean possessed sailing charts with degree-lines, 'perhaps comparable in their finish to the portolanos':[97]

> When Vasco da Gama during his first voyage, in April 1498, arrived at Malindi on the east coast of Africa, he there procured a pilot named *Guzarate* to sail his ship to India. Da Gama was much pleased with him, especially since the pilot showed him a map made in the Arabian (Moorish) manner of the whole Indian coast, without compass lines but divided by meridians and parallels into small squares. The pilot also showed him some nautical instruments intended for determining latitude, different to those which da Gama had brought with him.[98]

There are a number of points of great interest in this report:

- The name that De Barros gives for the pilot is quite different from the name of 'Ahmed-bin-Majid' provided by other sources. In fact, Guzarate doesn't sound much

like a name at all. What it does sound like is a nickname or familiar term – 'Gujerati' – that may still be heard on Kenya's Swahili coast today in reference to natives of the Indian state of Gujerat. Is it possible that da Gama's 'Arab pilot' was in fact an Indian pilot – a Gujerati?

- The map is said to show the 'whole Indian coast'.
- The map is said to be 'without compass lines' – which takes it far from the standard European presentation of a portolan.
- The map is said to possess meridians and parallels – again far from the normal portolano, which has no meridians and parallels. However, these meridians and parallels are also said to divide Guzarate's map into 'small squares'. It is of note in this respect, though they do not result from intersecting meridians and parallels,

that the *Carta Pisane* has four areas divided up into small squares and two other areas divided into slightly larger squares. Such divisions occur on no other portolan chart known in the west.[99]

- The pilot is said to have used unfamiliar nautical instruments, presumably in conjuction with the map.

We've already seen that neither on da Gama's 1498/9 voyage, nor on Cabral's of 1500/01 – and indeed not until after 1510 – did the Portuguese have the opportunity to chart the north-west coast of India between Goa and the Indus delta. The evidence of this is in the record of the voyages and also, obliquely, in the Cantino map of 1502, which draws on the latest knowledge that the Portuguese had acquired along the way. Ironically, the very *absence* of an accurate portrayal of the Kathiawar peninsula in the Cantino map, an absence

that still persisted in 1510 when the Reinal map of the Indian Ocean was drawn, provides further convincing evidence that the Portuguese did not chart north-west India until after 1510 – because if they had they would have done a much better job of it (at least as good a job as they did on the coasts of Brazil also discovered on the 1500/01 voyage). They would certainly not have overlooked such a prominent feature as the Kathiawar Peninsula of Gujerat with its two great gulfs of Kutch and Cambay (the latter offering particularly rich trade potential). If we accept in addition that a Gujerati pilot of some repute seems to have been known to the Portuguese, it becomes all the more incredible to imagine that the most precise navigators and mapmakers of the fourteenth and fifteenth centuries could have charted the coast of their pilot's home region and failed to make an accurate representation of it.

In short, everything suggests that the Portuguese were *not* there, and did *not* chart those coasts until after 1510, and that the representation of north-west India which appears in the Cantino and Reinal maps must therefore have been borrowed by them from a pre-existing local map.

What better candidate for such a map than the very one that Guzarate showed da Gama and that da Gama so admired on his first crossing to Calicut in 1498?

Quick detour to Oceania

One of the several intriguing possibilities suggested by the Guzerate story is that a tradition of accurate map-making with its roots lost in prehistory -perhaps the same tradition that also nourished Marinus of Tyre in the Mediterranean and that eventually expressed itself in the medieval portolans –

survived amongst both Arab and Indian navigators in the Indian Ocean right up until the time of the European voyages of discovery.

The quality of the maps derived from the Indian Ocean tradition was recognized in the fifteenth and sixteenth centuries by the great Portuguese mariners like da Gama (and others as we shall see in later chapters). But there is evidence that these maps and the navigational system that lay behind them had also influenced other cultures in much earlier epochs. I note in passing that in his detailed study of the astonishing achievements of Micronesian and Polynesian navigators in their discovery of the Pacific between approximately 2000 BC and 1000 AD Dr David Lewis draws attention to 'some remarkable similarities between what has been recorded of ancient Indian Ocean systems of non-instrumental navigation, unquestionably the older, and their

Pacific counterparts'.[100]

Lewis points out that 'the magnetic compass … was preceded in the Indian Ocean by a star compass … a compass-card marked in star points'.[101] Strangely, the archaic Indian Ocean star compass proves to be very similar to star-compasses of the far Pacific:

> No fewer than eighteen of the thirty-two star points appear to be identical in the Indian Ocean and the Pacific systems …[102] [There is] every reason to believe that what we term 'Polynesian-Micronesian' navigation was merely part of a system once practised through all the Asian seas, and which very probably did not even originate in Oceania at all.[103]

Ice Age India?

We will encounter other traces of the same lost system when we reach China and Japan in later chapters. But our concern for the moment remains with its impact on European maps of India produced in the early days of the age of discovery. We've seen that the Cantino and the Reinal maps (1502 and 1510 respectively) were drawn before the Portuguese exploration of India's coastlines was complete and that a likely explanation for this that is that both were copied from a pre-existing local source map – perhaps the very map that Guzarate showed da Gama.

Having a shared common source, or deriving from different but closely similar sources, provides a simple explanation for why the Cantino and Reinal maps are so much alike in almost all respects and also, crucially, why both contain similar mistakes. As I was already aware from Sharif Sakr's first report (see chapter 14) these mistakes include the

absence of the Kathiawar peninsula with its characteristic Gulfs of Kutch and Cambay; a distinct bulge in the north-west corner of India; enlargement of many small island groups, and a south-westerly orientation (with what Sharif describes as 'distinct lips') of the southern tip of India. In his e-mail of 23 February 2001 he then makes the crucial observation that:

> While these deviations are all errors relative to a modern map of India, they in fact match up extremely well with Glenn Milne's map of India 21,300 years ago at LGM. This inundation map shows a large indent at the mouth of the Indus, a bulge obscuring completely the Kathiawar peninsula, enlarged Lakshadweep and Maldives islands, and, most surprisingly, a SW-pointing 'mouth' shape at India's southern tip that is virtually identical to that shown by Reinal.[104]

It seems to me that these correlations, and the others that Sharif reported on 10 August 2001, are obvious, striking and

speak for themselves. The only questions that need to be asked about them are: (1) do they result from the workings of coincidence? Or (2) are they there because the source maps for Cantino and Reinal were originally drawn at the end of the Ice Age – perhaps not as far back as the LGM but certainly before the final inundation of the Gulfs of Kutch and Cambay which created the Kathiawar peninsula around 7700 years ago?[105]

We already know, and nobody would dispute, that the maps of Claudius Ptolemy have now survived in human culture for almost 2000 years and that they incorporate far older streams of ideas, some certainly going back as far as the sixth century BC and some probably much further.

In the light of Masudi's testimony confirming the late survival amongst the Arabs of the maps of Marinus, it by no

means seems far-fetched to suggest, with Nordenskiold, that the Marinus 'branch' of cartography was never 'lost' at all but simply transformed itself into the portolan tradition. Otherwise we have the paradox of 'the most perfect cartographic work of the Middle Ages'[106] appearing suddenly, from nowhere, with no prior evolution. And since we already accept that Ptolemy incorporated ideas much earlier than his own in the making of his maps, why shouldn't we accept that Marinus did so too?

The Reinal and Cantino maps are portolans that extend far beyond the normal portolano area of the Mediterranean and the Black Sea. And while they do incorporate a few Ptolemaic ideas about the shape of the world, both maps are more distinguished by their stark differences from – and superiority to – Ptolemy. How much of this is due to Marinus? And how old might the oldest information be that

could have been included in the Marinus maps? Could some of it have been as old as the last Ice Age when India did actually look the way it is portrayed by Cantino and Reinal?

If there is any possibility that the latter scenario is correct, then it would become interesting to work out what precise period during the 10,000-year post-glacial meltdown between 17,000 and 7000 years ago is portrayed by the Indian coastlines on the Cantino and Reinal maps.

Final report on Reinal

Sharif Sakr to Graham Hancock

15 August 2001

It seems that every time I go back to comparing the Reinal map of 1510 and the Milne map for 11,500 BC, I find that the correlation is even better

than I previously thought. My latest revision highlights the great affinity between the latitudinal positions of the ‘erroneous’ features on Reinal’s non-Ptolemaic Indian coastline and the correlating features on Milne’s inundation map.

Milne’s map, in harmony with bathymetric maps of India’s outer shelf, clearly shows a large gulf at the latitude of today’s Indus river delta. I call this feature the ‘Indus Gulf, simply because before the postglacial period the Indus river may have emptied here. In my first e-mail I correlated the ‘Indus Gulf with the only gulf shown on Hapgood’s tracing of Reinal’s map in roughly the right place. This correlation is not perfect: the portolan gulf is the wrong shape and it lies too far north (because Reinal’s Tropic of Cancer is too far north, continuing a Ptolemaic error). Moreover, this northern gulf on the Reinal might be better matched with Sonmiani Bay (and the mouth of the Porali river), which lies to the north of the Indus and which was well known to Arab geographers of the time because of the important seaport of Daibul. This northern part of the map is so inaccurate

that it is difficult to be sure of anything.

But the Bodleian photograph reveals another large gulf on the Reinal, not shown properly in Hapgood's tracing, which exactly matches the Indus Gulf on Milne's map in terms of shape, size and latitude. This gulf lies south of Reinal's erroneous Tropic of Cancer, and at exactly the right latitude relative to, for example, the eastern tip of Oman on the opposite side of the Indian Ocean. It lies well outside the area covered by the old Ptolemaic model and is therefore very likely to have been present on the mysterious non-Ptolemaic source that Reinal used.

When we correlate the gulf shown in Milne's map with this gulf on the Reinal map, the latitudinal positions of Reinal's other 'errors', relative to each other and to this northern landmark, make far more sense. Overleaf is my final matching of 'errors' on the Reinal map to features on the Milne map – just follow the numbers:

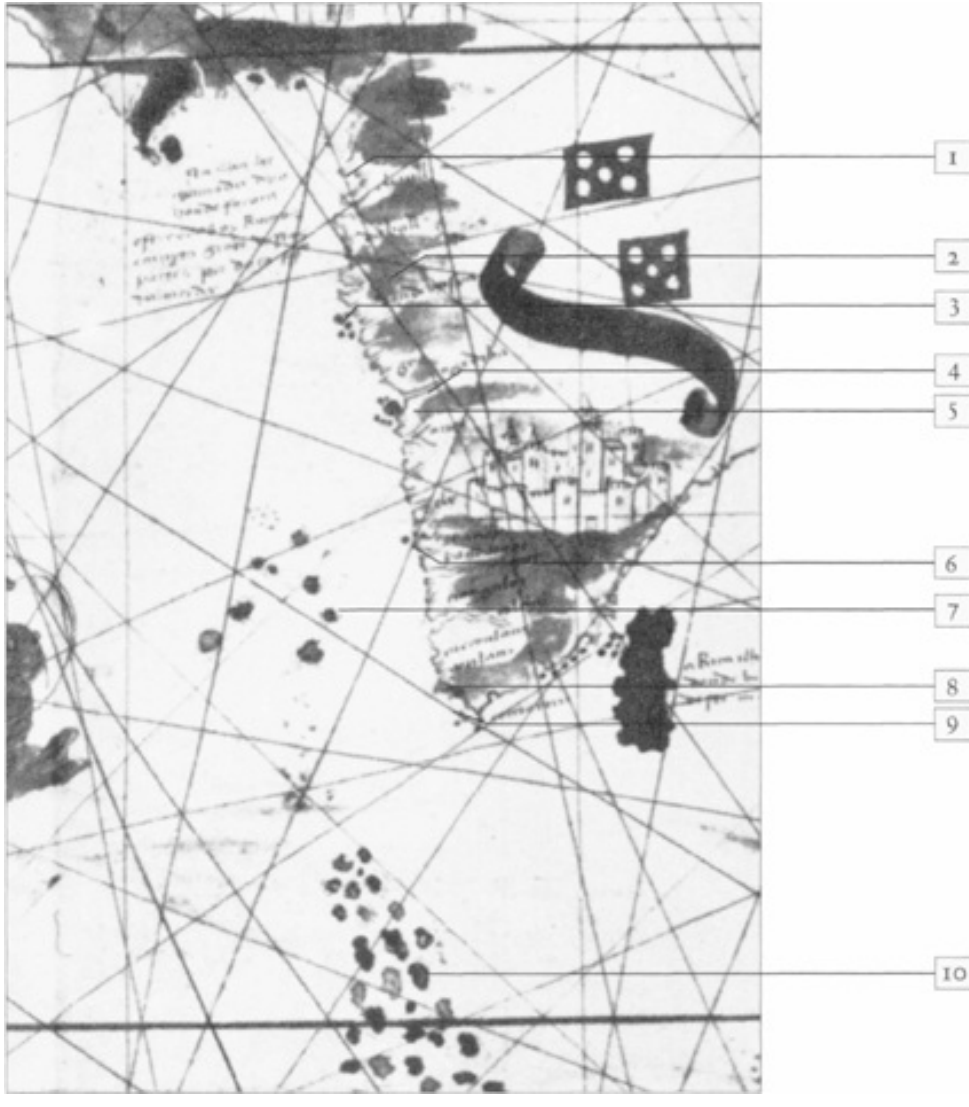
1
2
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10

India's coastlines in Reinal map of AD 1510.

1. Today this is the mouth of the Indus river, which is a delta. But on both Reinal's and Milne's maps, it is marked by a wide gulf.
2. A large bulge that in both Reinal's and Milne's maps replaces the Kathiawar peninsula that exists today.
3. An island (or island-group) which is depicted on both maps but which does not exist today.
4. A gulf which on both maps is much smaller than the Gulf of Cambay that exists today.
5. A large island (or island-group) which is depicted on both maps but which does not exist today.
6. An island at the same latitude as the northernmost Lakshadweep island (approximately 12 degrees north) is shown on both Reinal's

and Milne's maps. No island exists there today.

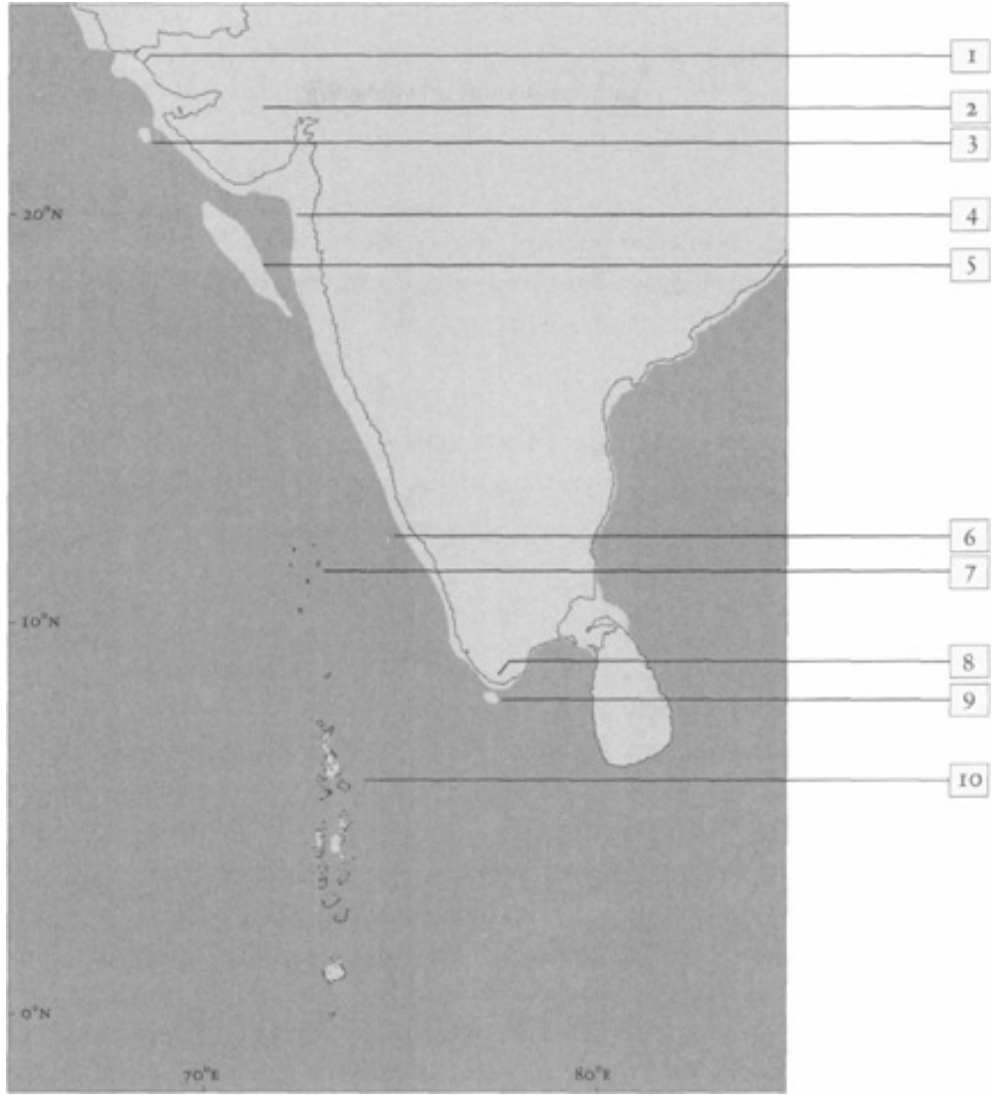
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5
6
7
8
9
10
20°N
10°N
0°N
70°E
80°E

India's coastlines in 11,500 BC.

7. The Lakshadweep islands, which exist today but which are enlarged in both Reinal's and Milne's maps.
8. The tip of the sub-continent. Both maps show the tip of the sub-continent somewhat like a bay, wide but not deep, facing south-west towards the northern Maldives -very different from the south-east-facing tip that exists today.
9. A tiny island which is depicted on both Reinal's and Milne's maps next to the southern tip of the sub-continent. No island exists there today.
10. The Maldive islands, which exist today but which are enlarged in both Reinal's and Milne's maps.

How likely is it that such extensive and detailed correlations could have

come about by chance?

> Polo's explanation of the size accorded Ceylon on the chart was that the chart's geography originated at an earlier time before much of the island had been submerged.
>
> Thomas Suarez

> There is a saying that in ancient times the noble isle of Sumatra was joined to the main, until mountainous seas eroded its base and cut it off.
>
> Camoes, *The Lusiads*, 1572

Imagine setting off on a journey along the hippy trail to Afghanistan and the East in 1971 and not getting home again until 1995.

Though more of a merchant adventurer than a hippy, that's what Marco Polo did in the dangerous days of *Kubilai Khan*.

He left Venice in AD 1271, travelled to the East via the Black Sea, Persia, Afghanistan and the Pamirs, spent seventeen years in China and seven on the road and at sea, and returned to Venice in 1295. Later he composed a book, *Il milione* ('The Million'), known in English as the *Travels of Marco Polo*, which was to become a geographical classic.[1]

Polo's account of his outbound journey – almost entirely overland – and of his long residence in China, contains little of relevance to the mysteries we are exploring in *Underworld*. His return journey, however, begun around 1292, is of much greater interest to us here. It includes the first-ever notice by a European of the existence of Japan – which Polo called Cipango (or 'Zipangu') from the Chinese Jih-Pen[2] – and it describes the epic sea voyage that he undertook on his way home, beginning at the eastern Chinese port of Ch'uan-chou

(modern Quanzhou, opposite the island of Taiwan), sailing south around Vietnam and Cambodia, across the Gulf of Thailand, around the Malay peninsula, through the narrow Strait of Malacca that separates the peninsula from Sumatra, thence across the Bay of Bengal to Sri Lanka, around Cape Comorin, north along the west coast of India to the Gulf of Cambay, and finally across the Arabian Sea to Hormuz at the entrance to the Persian Gulf.[3] Thus it was that Marco Polo made familiar to Europeans the names and descriptions of many places that would not be heard of again until the Portuguese exploration of India and the Indies in the sixteenth century, more than 200 years later.

Though Polo himself states frankly that he has never visited Japan – and thus that what he has to say about it is second-hand and perhaps inaccurate – the notion of the mysterious island kingdom of Cipango that he planted in

European consciousness at the end of the thirteenth century was later one of several powerful influences that spurred Christopher Columbus forward in his crossings of the Atlantic at the end of the fifteenth century. This was so because Columbus -underestimating the circumference of the earth and knowing nothing of the existence of the Americas or of the Pacific Ocean – believed that he could reach Cipango, and thence the Chinese mainland beyond, by sailing directly westwards across the Atlantic from Europe. Columbus is also likely to have calculated that Cipango would be reached after only a relatively *short* journey towards the west – for he had read Marco Polo, who describes Cipango, erroneously, as lying 'far out to sea' fully 1500 miles to the east of the Chinese mainland[4] (the true distance is nowhere much more than 500 miles). Polo goes on to inform us that:

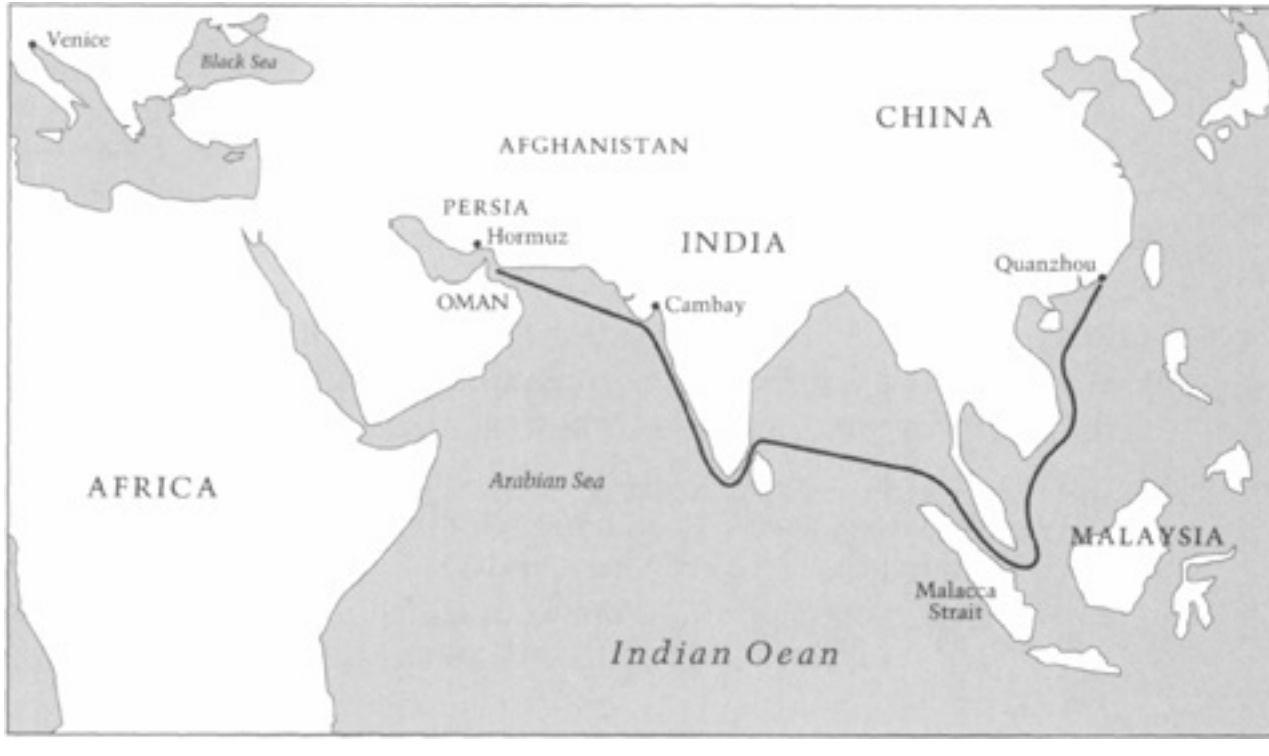

Marco Polo's return voyage from Quanzhou to Hormuz.

Cipango … is of considerable size; its inhabitants have fair complexions,

> are well made, and are civilized in their manners. Their religion is the worship of idols. They are independent of every foreign power, and governed only by their own kings. They have gold in the greatest abundance, its sources being inexhaustible … The entire roof [of the sovereign's palace] is covered with a plating of gold, in the same manner as we cover houses … with lead.[5]

'Gold in the greatest abundance,' echoes Columbus in a marginal note beside this passage in his own copy of Marco Polo's *Travels* — now preserved at the Biblioteca Colombina in Seville.[6] We will return to Columbus, and his obsessions.

A 'map' of antediluvian Sri Lanka?

After traversing the Bay of Bengal, commenting *en route* on 'the island of Andaman' (described as 'a very big island'

inhabited by ‘a cruel race’ of cannibals with heads, teeth and eyes like those of dogs)[7], Marco Polo’s homeward voyage brought him to ‘the island of Zeilan – Ceylon – modern Sri Lanka.[8] In his account of Sri Lanka, which further illustrates his already established tendency to exaggerate distances (in this case approximately tenfold) the Venetian traveller nevertheless makes certain observations about the ancient geological history of the region that come remarkably close to the truth:

> The island of Zeilan presents itself. This, for its actual size, is better circumstanced than any other island in the world. It is in circuit 2400 miles, but in ancient times it was still larger, its circumference then measuring full 3600 miles, *as the Mappa-Mundi says.* But the northern gales, which blow with prodigious violence, have in a manner corroded the mountains, so that they have in some parts fallen into the sea, and the

> island, for that cause, no longer retains its original size.[9] (Emphasis added.)

This is the translation of William Marsden (1754–1836) from the Italian of Giambattista Ramusio's printed edition, dated 1553.[10] The more recent (1958) translation of Ronald Latham provides clarification of some elements of the same passage:

> The traveller reaches Ceylon, which is undoubtedly the finest island of its size in all the world. Let me explain how. It has a circumference of some 2400 miles. And I assure you that it used to be bigger than this. For it was once as much as 3600 miles, *as appears in mariners' charts of this sea.* But the north wind blew so strongly in these parts that it has submerged a great part of this island under the sea. That is why it is no longer as big as it used to be.[11] (Emphasis added.)

In yet another translation we read again that Ceylon in Polo's

day has a circumference of: ‘2400 miles … in old times it was greater still, for it then had a circuit of about 3600 miles, *as you find in the charts of the mariners of those seas’*.[12] (Emphasis added.)

Despite slightly differing nuances, and what looks like a tenfold exaggeration for distances, all the translations converge on two very clear and really quite startling messages:

1. Ceylon was believed by Marco Polo to have been one-third larger in the past than it had become by his day – with extensive lands to the north of the present island said to have been ‘submerged under the sea’. In the process its circumference was reduced in size from 3600 units of measurement to 2400 units of measurement, i.e. by one-third.

2. Maps were in use amongst mariners in the Indian Ocean when Marco Polo was there – either *mappamundi* or mariners' charts depending on the translation – which continued to show the one-third larger, antediluvian Ceylon.

A reduction by one-third

On the first of the two points above – the one-third reduction in the size of Sri Lanka by flooding – we cannot deny, having studied the inundation history of south India and Sri Lanka in earlier chapters,[13] that the tradition which Marco Polo here preserves and passes down to us is essentially correct when set within the time-frame of the end of the last Ice Age.

Since approximately 7700–6900 years ago, when the last

remnants of its land-bridge to south India were inundated, Glenn Milne's maps suggest that there have been no significant changes in Ceylon's size. Prior to 7700 years ago the picture is very different, and as we go back through 8900 years ago, 10,600 years ago, 12,400 years ago, and 13,500 years ago, we note a progressive enlargement of Sri Lanka, *exclusively in the north around the land-bridge to south India*, resulting from the lowered sea-level of those epochs.[14] At its greatest extent the enlargement is of the order of one-third.

Polo's quaint theory about how these former lands were lost through the action of the north wind is wrong. But he is completely right when he tells us that Sri Lanka was much larger 'in old times', right when he tells us that its land-loss took place in the north, right again when he tells us that the lost land was submerged beneath the sea, and right yet again in his information that approximately one-third of

antediluvian Sri Lanka was lost in this way.

The question of how a Venetian traveller of the thirteenth century could have equipped himself with such esoteric facts of palaeogeography brings us to point two.

Where did Polo get his information from?

Polo himself tells us only that he had learned of the former extent of Ceylon from an ancient 'Mappa-Mundi' or 'mariners' chart' that he had seen, and he seems to accept without demur the obvious implication that this chart must have originated *before* the epoch of inundation. As historian of cartography Thomas Suarez confirms, 'Polo's explanation of the size accorded Ceylon on the chart was that the chart's geography originated at an earlier time before much of the

island had been submerged.'[15] This is quite an extraordinary and interesting explanation, in my view. However, Suarez does not pursue it. He also ignores Polo's clear suggestion that the chart showing a formerly much larger Sri Lanka was actually *in use* by 'mariners of those seas', rejects Polo's explanation for the out-of-date geography of the chart (namely that it had come down from antediluvian times), and rather dogmatically asserts his own theory that the 'Mappa-Mundi' or 'mariners' chart' Polo is referring to must be a Ptolemaic world map.[16]

Suarez admits that Ptolemaic world maps were only in extremely limited circulation in Europe in Polo's time and are most unlikely to have been known to him from any European source. But he is right also to point to the possibility that such maps could have been preserved amongst the Arabs trading in the Indian Ocean, and that Polo could thus have

seen a Ptolemaic map – without knowing it to be 'Ptolemaic' or recognizing it as such – during his stay in Ceylon.[17] Moreover, it is true that all Ptolemaic world maps show the very large island of Taprobane in *approximately* the place where Sri Lanka/Ceylon might be expected to be found. Thus, Suarez concludes that the chart referred to by Polo 'followed the Ptolemaic model with its characteristic reversal of the relative proportions of Ceylon and India'.[18]

Return of the Tyrian sea-fish

Suarez's logic is easy enough to follow: (1) Polo has been shown a Ptolemaic world map, probably preserved by Arab seafarers in the Indian Ocean,[19] featuring the giant island of Taprobana, which he takes to be Ceylon; (2) confronted by

the much smaller Ceylon of his own day he concludes that the map he has seen preserves an image of Ceylon made before large parts of it were submerged; (3) he is incorrect in this conclusion and his notion of a formerly enlarged Sri Lanka results only from his misunderstanding of a well-known error on all Ptolemaic maps.

Yet this is surely only one possible explanation for Polo's 'knowledge' of obscure palaeogeographic facts – and one moreover that requires us to accept the supposedly firm identification that Suarez makes between Sri Lanka/Ceylon and Taprobana (an identification that is generally but by no means universally favoured by modern scholars and ancient cartographers).[20]

Another explanation for Polo's apparent anachronistic knowledge might be that there is nothing to it at all and that

he made the whole idea up, scoring a few correlations with post-glacial reality purely by coincidence.

Still another and by no means impossible explanation might be that Polo's account was in some way informed by the flood traditions of Sri Lanka and south India, reported in previous chapters, that speak of the lost Tamil homeland of Kumari Kandam.

But as Polo does tell us quite explicitly that the source of his ancient geographical knowledge about Ceylon was 'mariners' charts' ('charts of the mariners of those seas' or 'Mappa-Mundi') we should surely also consider another possibility. This is the suggestion first raised by A. E. Nordenskiold and discussed in chapter 21 that a genre of maps older than the Ptolemaic maps and attributed to Marinus of Tyre was in circulation amongst the Arabs at least as early as AD 955 (the date of a direct reference by the

geographer Masudi, who, as the reader will recall, had 'seen the maps of Marinus' which 'by far surpassed those of Ptolemy').[21] Nordenskiold argues that these 'Tyrian sea-fish' maps formed the prototype for the mysteriously accurate portolans of the Mediterranean region that seem to appear suddenly in the cartographic record in the late thirteenth century. But, as we've seen, the portolan genre was never confined to the Mediterranean region alone. The greatest number of surviving examples of portolans do depict the Mediterranean, it is true. But from very early on portolan *world* maps also appear. Though sometimes contaminated by Ptolemaic 'inserts' or 'patches' in sections of the globe for which, presumably, the cartographer had no portolan original at hand to copy from, these in their own way are as startlingly precocious as the Mediterranean portolans. To give just one example here, Piedro Vesconte's world map of

c.1321 shows Africa to be circumnavigable – in complete contradiction of the Ptolemaic tradition – more than one and a half centuries before the Portuguese finally circumnavigated it.

Isn't it possible, therefore, that the chart Polo saw in the Indian Ocean which convinced him that Ceylon had formerly been one-third larger than it was in his day, that its lost lands had lain to the north, and that they had been submerged by the sea, could have been one of these 'Tyrian sea-fish' maps?

Still the best after all those years …

Polo was not the only European traveller in the Indian Ocean to have seen very interesting maps in the hands of 'mariners of those seas'. The reader will recall that Vasco da Gama was also shown what seems to have been a highly sophisticated

map by the navigator Guzarate, who guided him so rapidly from Malindi in East Africa to Calicut on the west coast of India in 1498.[22]

It is important to stress, contrary to Suarez, that such maps, which were clearly *used* by local navigators – and to all accounts used effectively – could not possibly have been Ptolemaic maps (whatever else they might have been). This is so because of the extreme and indeed almost grotesque *inaccuracy* of all Ptolemaic maps of India/Sri Lanka – arising not only from the peculiar presence of Taprobana (which may require a more complex interpretation than it has hitherto received) but also from the fact that India's west coast is made to run parallel to the equator instead of roughly north-south as it does in reality.[23] Mariners like Guzarate, or those who took Marco Polo to Ceylon, were men

whose lives depended on knowing the waters they sailed. Even if they had possessed a Ptolemaic map as a curiosity, we can be quite sure that they would never have taken the risk of actually *using* it for navigation.

This forces Suarez into the paradox – as he wraps up his argument for the Ptolemaic provenance of the map Polo claimed to have seen – of having to take Polo's direct reference to nautical charts ('the charts of the mariners of those seas') as evidence that such charts did not actually exist:

> The fact that the map seen by Polo retained such an incorrect dimension for Ceylon supports the view that native pilots guided their vessels by navigational texts, and did not refer to the charts themselves.[24]

It seems to me that something quite other than this is likely to be the case, since Polo makes no mention at all of

navigational *texts* as the source for his notion of a formerly larger Ceylon, but does make very explicit mention of *charts*. We are now also clear that the charts he was referring to could not have been of Ptolemaic origin – simply by virtue of the fact that that they were routinely and successfully used by experienced local mariners in the Indian Ocean. Last but not least we have seen that the issue of the very exaggerated dimensions given to Ceylon (by a chronicler admittedly prone to the exaggeration of dimensions) may be less important than the entirely correct notion Polo preserves that 'in old times' one-third of Ceylon had been swallowed up by the sea.

Isn't it possible that what confronts us here is another trace, like the brief report of Masudi, of a parallel tradition of cartography (parallel, that is, to the Ptolemaic tradition) that survived from antiquity into the Middle Ages and that was

associated by some with the works of Marinus of Tyre?[25] From the little that we already know and may reasonably speculate about these 'Tyrian sea-fish' charts, they seem to have been acknowledged and recognized for their overall accuracy and excellence *despite* having been overtaken in certain locations such as the north of Ceylon – as Polo testifies – by geological changes linked to flooding.

It is the circulation of precisely such sophisticated yet curiously out-of-date charts amongst Indian Ocean navigators like Guzarate, as we saw in chapter 21, that could provide the best explanation for the strange anachronistic perfection of the Cantino and Reinel maps drawn by Portuguese cartographers in the early sixteenth century. The reader will remember that these maps not only represent areas of the Indian coast that the Portuguese had not yet visited but also show a number of detailed and inexplicable correlations,

particularly around Gujerat and Cape Comorin, with India's Ice Age coastline.

Knowledge of Ice Age topography in Ptolemy too?

When Sharif Sakr first drew Marco Polo's comments on Sri Lanka to my attention he pointed out that 'Polo's primary assertion is that Sri Lanka had changed in size since ancient times, and that the old topography is preserved in nautical charts.'[26] In the same report Sharif also notes:

> Other historical characters apparently believed that Ptolemy's maps depict an ancient topography, for example with respect to a former land-bridge between Malaya and Sumatra, across the present Strait of Malacca.
>
> The Dutch adventurer Linschoten (1596) stated that some believed that Sumatra was the *Chersoneso Aurea* [Golden Chersonese] of old, and that 'in

times past it was firme land unto Malacca [Malaya]'.

Camoes in his famous epic poem *The Lusiads* (1572), dealing with the birth of Portugal as a nation, writes: 'There is a saying that in ancient times the noble isle of Sumatra was joined to the main, until mountainous seas eroded its base and cut it off.'[27]

Abraham Ortelius explained in a legend on his 1567 map of Asia: 'It is true that Samotra is not now a peninsula, but it is very likely that it was torn from the continent by the force of the Ocean after Ptolemy's time. Moreover, if you imagine Samotra being joined to Malacca with an isthmus, it will agree very well with the shape of the Golden Chersonese as described by Ptolemy.'

I think it is absolutely fascinating that this basic belief, that old maps could depict ancient and hence different topography, is so apparent in the writings of adventurers who visited the Indian Ocean and must surely have been in contact with 'the mariners of those seas'. That Ortelius takes the contemporary separation of Sumatra from Malaya as evidence that the land

> changed since the time of Ptolemy merely indicates his eagerness to try to understand whatever source information he had, and also his ignorance of the real geological processes that led to the separation of Sumatra from Malaya – at least 6000 years before Ptolemy.[28]

Readers who have come this far will already know enough inundation science to realize that there was indeed a time, at the end of the Ice Age, when the Strait of Malacca did not exist (as all the traditions quoted above correctly assert), when there was 'firme land' between Sumatra and the Malaysian peninsula, when 'the noble isle of Sumatra' was 'joined to the main' – and so on and so forth. For this area was all part of a continuous, near-continent-sized peninsula that geologists call Sundaland, a once fertile exposed shelf of well-watered low-lying plains – extending as far south as Surabaya, as far west as the Philippines and as far north as Taiwan – that was inundated in a series of catastrophic floods

between 15,000 and 7000 years ago.[29]

How likely, therefore, is it to be an accident that the Ptolemaic world maps – said by Ptolemy himself to have been based on those of Marinus – do appear to present a fair image of Ice Age Sundaland in the form of the great peninsula that is labelled on those maps sometimes as the Golden Chersonese and sometimes as the peninsula of Mangi? Isn't it at least equally probable, as Ortelius was already more than half way to suggesting 500 years ago, that this 'mythical' peninsula is a genuine echo of Ice Age topography?

Likewise, it may be significant that the Cantino world map of 1502, which we have suggested could have come down to us directly through the Marinus-to-portolan 'line' (rather than indirectly via Ptolemy's abridged and 'corrected' version of Marinus), also shows a vast peninsula reminiscent of the

exposed Sunda Shelf.

Given the highly anomalous traditions cited by Linschoten and Camoes concerning the flooding of the Strait of Malacca – traditions that are anomalous purely and simply because of their remarkable convergence with palaeogeographic facts – it seems almost perverse not to consider the possibility that certain maps, too, might have preserved reflections of the Ice Age world.

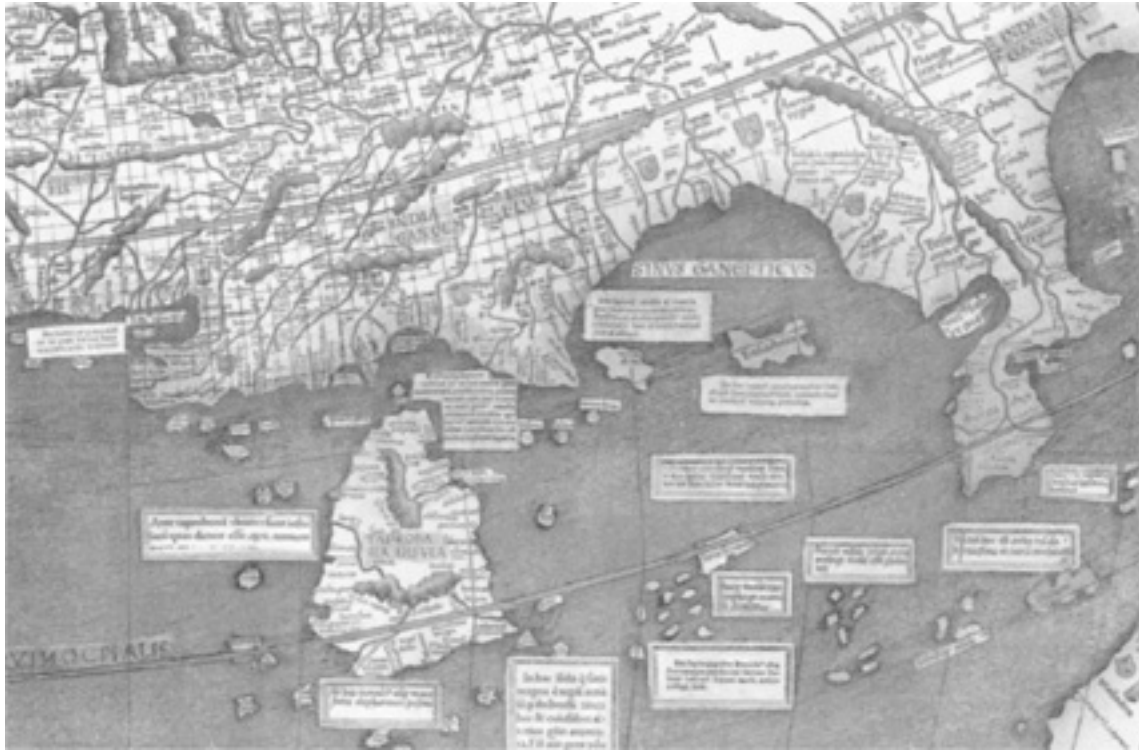

Waldseemüller's 'Golden Chersonese', *AD 1507.*

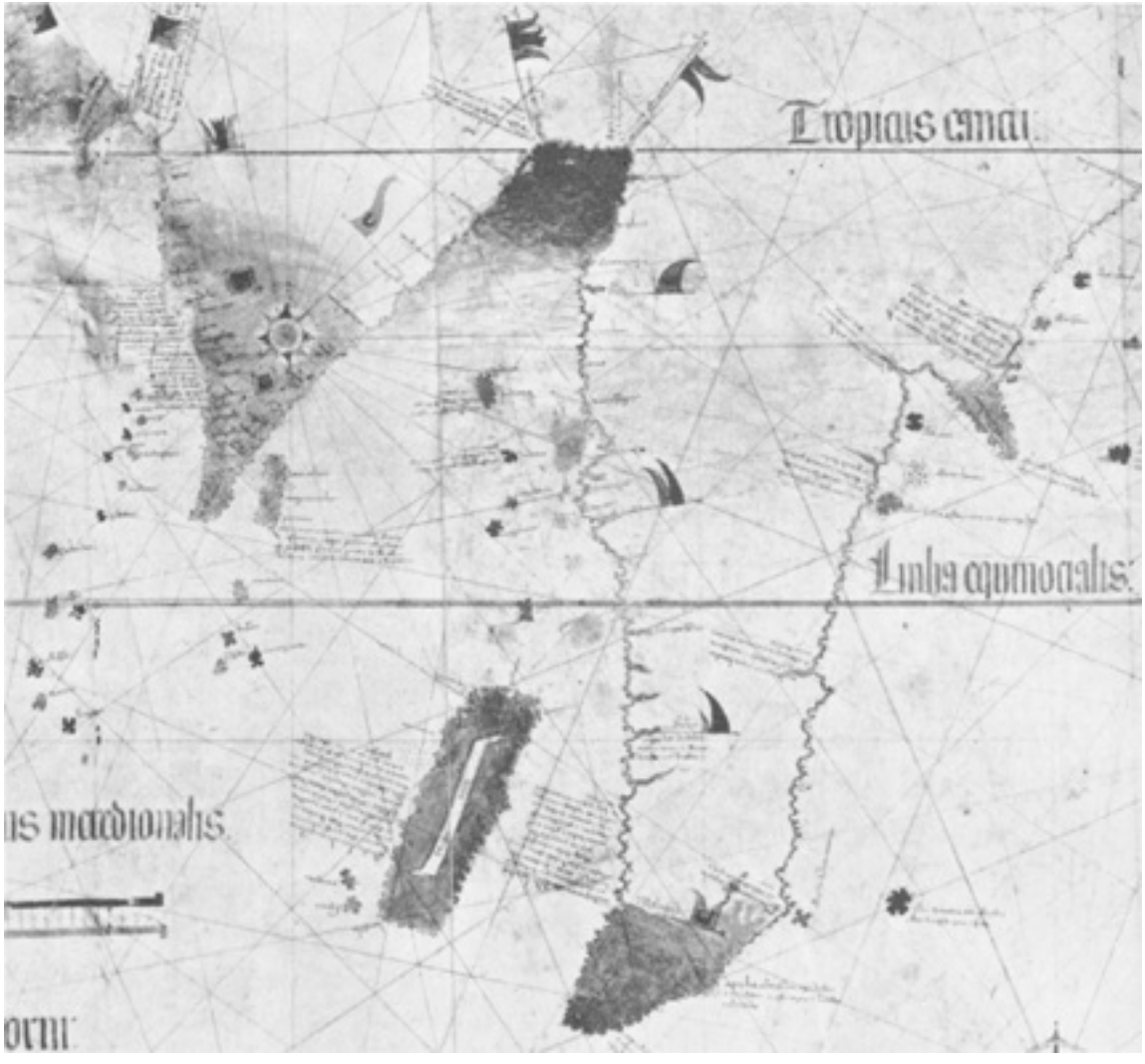
Tropicus cancri
Linea equinoctialis
ns macdionalis
orni

***The Golden Chersonese as shown in the Cantino planisphere*, c. AD *1502*.**

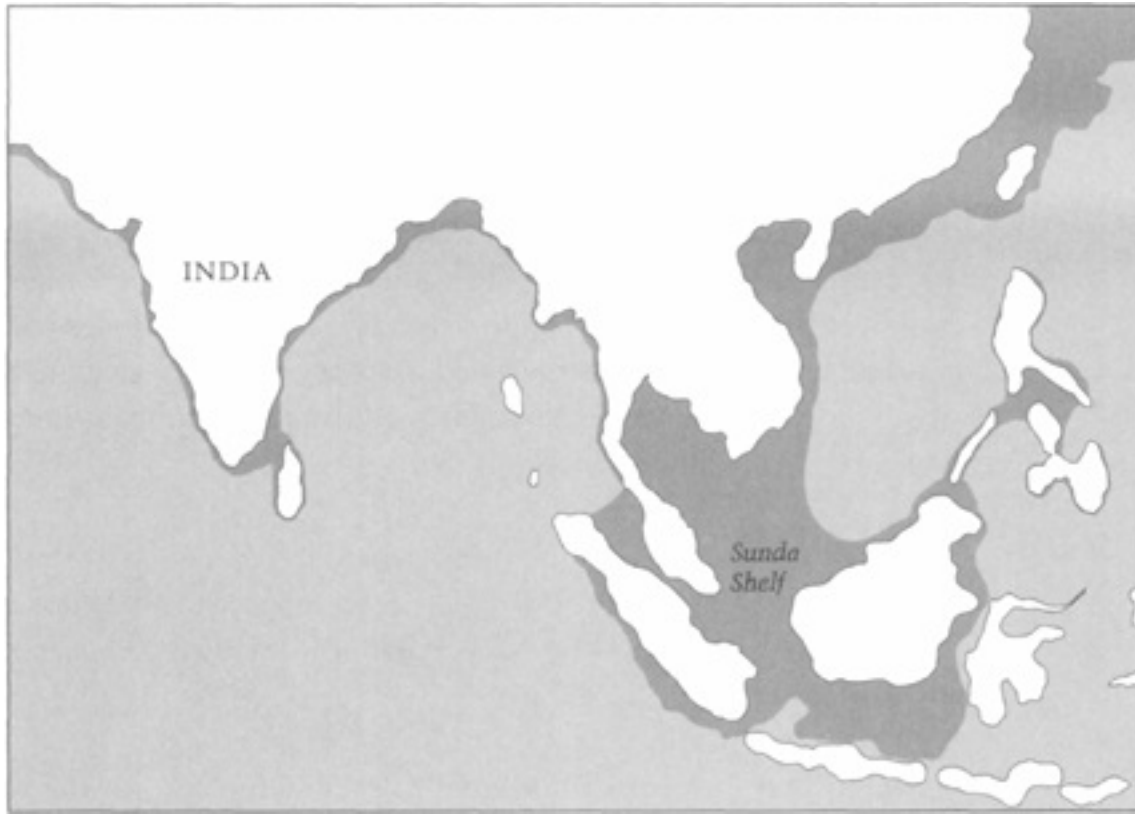

Exposed Sunda Shelf at the LGM.

But traditions, with all their folksy redolences, are relatively safe matters for scholars to speculate about. Maps and nautical charts on the other hand -especially accurate, sophisticated maps of the kind used by Guzarate to chart Vasco da Gama's course from Malindi to Calicut in 1498 – are quite another matter. If maps have indeed come down to us containing recognizable representations of Ice Age topography – as arguably may be the case with the depictions of India and of the long-submerged Sundaland peninsula by Cantino and Reinal and with the depiction of the 'Golden Chersonese' by Ptolemy – then prehistory cannot be as it has hitherto been presented to us.

If they are what they seem, such maps mean a lost

civilization. Nothing more. Nothing less.

'A piece of a map …'

In 1937 the eminent Portuguese map historian Armando Cortesao, an indefatigable searcher after lost cartographical treasures, discovered – in Paris – 'the long-sought codex containing the *Suma Oriental* of Tome Pires and the *Book* of Francisco Rodrigues'.[30]

During the years 1512–15 when he wrote his *Suma* (now recognized as 'the most important and complete account of the East produced in the first half of the sixteenth century')[31] Tome Pires had been the first official Portuguese ambassador to China.[32] For some inexplicable reason, however, his great work lay 'forgotten and practically unnoticed', until Cortesao

brought it to light again in the twentieth century.[33] This was all the more puzzling because the *Suma* proved to be bound together in the same codex with another volume which, far from being forgotten, had been sensationally republished (in an abridged, illustrated edition) in the 1849 *Atlas* of the Viscount de Santarem.[34] This second volume was the *Book* of Francisco Rodrigues, containing detailed written sailing directions and 'precious maps' (with compass roses and rhumb lines) drawn in the early sixteenth century by Rodrigues himself – a true portolan in other words.[35] Unlike the famous Tome Pires – with whom it was nevertheless his fate to end up bound between two covers – and despite the publicity given to his maps in Santarem's *Atlas*, Francisco Rodrigues is virtually unknown. Indeed, says Cortesao, so little is known about him that:

> It is impossible even to attempt a biographical sketch. Besides the information we can gather from Rodrigues' *Book* itself, he is mentioned in two letters of Alfonso de Albuquerque to King Manuel of Portugal written from Cochin, 1 April and 20 August 1512.[36]

The suspicion that European travellers in the Indian Ocean in the sixteenth century may from time to time have stumbled across charts and maps containing the remnants of a lost geography (perhaps even the maps of Marinus of Tyre, said to have been superior to those of Ptolemy) is intriguingly enhanced by the first of Alfonso de Albuquerque's two letters. It introduces a 'piece of a map' that Albuquerque has acquired in his travels in the Indian Ocean and that he is sending to King Manuel. This fragment, he explains, is not the original but was 'traced' by Francisco Rodrigues from:

> a large map of a Javanese pilot, containing the Cape of Good Hope,

> Portugal and the land of Brazil, the Red Sea and the Sea of Persia, the Clove Islands [effectively a world map, therefore], the navigation of the Chinese and the Gores [an unidentified people, thought by some to be the Japanese, or the inhabitants of Taiwan and the Ryukyu archipelago][37] with their rhumbs and direct routes followed by the ships, and the hinterland, and how the kingdoms border on each other. It seems to me, Sir, that *this was the best thing I have ever seen, and Your Highness will be very pleased to see it;* it had the names in Javanese writing, but I had with me a Javanese who could read and write.[38]

This report of the tracing by a Portuguese cartographer (Rodrigues) of a map owned and used in the Indian Ocean by a Javanese pilot – and for no less a person than the Portuguese king himself – casts a very unusual sidelight on cartographic history. The events unfold in the early sixteenth century when Portugal was at the height of its maritime

power and believed to be surpassed by none in its mapmaking sciences and achievements. Yet here we have a Portuguese emissary proudly sending back to his monarch a mere tracing of a mere fragment of a map owned by a Javanese pilot as though it were a classified military document of the highest order!

Remember that this is 1512 – a full decade after the superb Cantino map was created in Portugal. Some map scholars believe that the Cantino may have greatly resembled the *padrao* - the top secret 'master map', incorporating all the latest known discoveries, as well as relevant information from ancient charts, to which the kings of Portugal had special access. At the very least we can be absolutely confident that in 1502 the Portugese monarch would have had a map *at least as good* as the Cantino – and probably much better. Likewise, we can be certain, with continuous

feedback from ever-widening Portuguese expeditions, that the *padrao* of 1512 would have been far superior to the *padrao* of 1502.

So it is against Manuel's privileged access to such a superb Portuguese world map as the *padrao* that we must weigh the enthusiasm with which his emissary Albuquerque sends him a tracing of a fragment of a Javanese pilot's map acquired in the Indian Ocean, describing it as 'the best thing I have ever seen' and assuring the King that 'Your Highness will be very pleased with it.'

Good enough to have faith in

Nothing – absolutely nothing at all – makes any sense of Albuquerque's letter unless the Portuguese themselves had reason to believe that maps were available in the Indian

Ocean, in the hands of pilots of various nationalities, that might be better than their own. And, as we've seen before with such rumours of sophisticated ancient maps, there is also the recognition that they will sometimes have been outdated by geological changes. Thus, in the *Suma Oriental* Tome Pires informs us that:

> The Gujaratees were better seamen and did more navigating than the other people of these parts, and so they have larger ships and more men to man them. They have great pilots and do a great deal of navigation.[39]

Yet mysteriously he also tells us that it has only been since about 100 years before his own time that these Gujeratis (the countrymen of da Gama's highly skilled pilot Guzarate), had found the route through the Strait of Malacca between Sumatra and the Malaysian peninsula.[40]

This is strange because (a) the Gujeratis described by Tome Pires obviously knew a thing or two about navigation; and (b) the Strait of Malacca was being used by ships long before the fifteenth century – in the thirteenth century, after all, Marco Polo had sailed through it.

How are we to explain this anomaly? 'Could it be,' suggests Sharif Sakr,

> that the Gujeratis possessed maps (Ptolemaic or otherwise) which failed to show the Strait of Malacca, such that they had either lost knowledge of it, or such that Pires had speculated, having seen such maps, that the Strait was only recently discovered?[41]

In other words, could the Gujeratis have been working with maps showing Ice Age topography?

We've already seen that the 'mistakes' on otherwise

technically excellent maps of India such as the Cantino of 1502 and the Reinal of 1510 can be explained this way – as the results of Portuguese borrowings from Ice Age maps somehow in the hands of Gujerati navigators. So maybe the anomalous and unexpected Gujerati ignorance of the Strait of Malacca reported by Tome Pires is part of the same syndrome? Maybe the Gujerati navigators used maps that showed the Strait as 'firme land' from Sumatra Malacca – as it last looked about 8000 years ago – and simply didn't bother to find out that things had changed. Maybe the old maps were generally quite good enough, despite such faults, to justify faithful reliance? That would make a strange kind of sense of the way in which the Gujeratis are reported to have adhered for so long to a much more roundabout route than the one through the Strait that was used by their competitors.

But is there any other evidence, except in maps of the Indian Ocean, which really suggests the survival of Ice Age topography?

The legendary Hy-Brasil – a glacial reality

Report by Sharif Sakr, 10 March 2001

Irish folklore tells of a small but significant island called Hy-Brasil, lying in the Atlantic Ocean not too far off the western coast of Ireland. The tale is at least as old as AD 1110, which is the date of the first written record of it *(The Voyage of Maeldiun)*. The tale almost certainly existed prior to this, for an unknown length of time, as an oral record. Gaelic legends appear to hold that the land was lost to the ocean, but makes a brief reappearance once every seven years, such that it can

be seen from the Irish mainland if one is standing in the right place.

Happily for us the legend of Hy-Brasil made its way on to the portolan charts of the fourteenth and fifteenth centuries. These graphic representations give a far more detailed and precise insight than verbal or written traditions ever could into what was believed about the size and location of the island.

The first recorded depiction of Hy-Brasil in a map is in the Dulcert portolan of 1325 or 1330. It appears again on Dulcert's 1339 portolan-opposite. Although faint, it should be obvious that the map is generally very accurate. It even shows the tiny lump of rock known as Rockall, which was occupied by Greenpeace recently as part of a demonstration against oil-drilling in the area. Note, however, that the tiny land of Rockall is somewhat enlarged on the Dulcert map.

There are very similar depictions of the legendary island of Hy-Brasil on many other portolan charts, which probably represent copies (or copies of copies) of some original (perhaps the Dulcert, but probably some older portolan chart).

Below is part of the Catalan Atlas of 1375. Its representation of the British Isles is typical of all portolans, including the Dulcert, and, in addition to the legendary Hy-Brasil, its characteristic errors include a dry Donegal Bay on the north-west corner of Ireland.

The next map, overleaf, comes from the Ptolemaeus Argentinae collection of 1513, which represents a successful hybridization of the Ptolemaic and portolan traditions.

Hy-Brasil (circled) as shown on the Dulcert portolan, AD 1339.

Can it be coincidence that there is a relatively shallow submerged bank – it is marked on modern sea-charts as the Porcupine Bank – in exactly the same place as the legendary

island shown on all these ancient maps?

Glenn Milne is currently unable to produce reliable inundation maps of this region with the required zoom and detail, partly because the region is so close to the ancient British ice-sheet – the exact behaviour of which has not yet been fully incorporated into the model. However, for our purposes bathymetrical maps will serve just as well. The one overleaf is state-of-the-art, with a resolution of 2 minutes. Depth can be gauged through the shading as well as by the contour line which I have placed at a depth of 55 metres beneath today's sea-level.

Hy-Brasil as shown on the Catalan Atlas of AD 1375.

The light-shaded Porcupine Bank can easily be seen directly west of Ireland, in exactly the same place, and roughly the same size, as the legendary Hy-Brasil on the

portolan charts. The entire bank lies between 40 and 200 metres beneath the surface, and most of it (probably more than 600 square kilometres) would have been exposed at the Last Glacial Maximum, 21,000 years ago.

The correlation between Porcupine Bank and Hy-Brasil on the portolans is, in my view, too close to be coincidental. Even Robert Fuson, Professor Emeritus of Geography at the University of South Florida, is convinced that Hy-Brasil is based on real observation. But rather than consider an Ice Age origin for the legend, he suggests it is based on some unknown but recent tectonic event. But I do not think it is necessary to speculate about recent tectonic cataclysms, or even to go all the way back to the LGM, in order to find a good correlation between past geography and the portolans. The black contour line is set at 55 metres below current sea-level and reveals that there would have been a significant

island, with an area of perhaps 100 square kilometres, in the location of the legendary Hy-Brasil even in the later stages of the glacial meltdown -around 12,000 years ago.

Hy-Brasil as shown on the Ptolemaeus Argentinae of AD

Other features of the portolans correlate better with Ireland as it looked at this later period than with the geography at the Last Glacial Maximum. The island of Rockall was enlarged, such that it had roughly the same size as shown in the Dulcert and Argentinae maps. (Note that there would probably also have been two much smaller islands in the vicinity of Rockall, which are not shown on the portolans.) Also as shown on the maps, the Bay of Donegal, at the north-west shoulder of Northern Ireland, would have been dry land and there would have been a large island immediately off this coast. The many islands that today lie off the west coast of Ireland and between Northern Ireland and Scotland would have been incorporated into the Irish and Scottish mainlands respectively, but would have been

replaced by other small islands further to the west which are now submerged but which are in keeping with the islands shown on the old maps. The same goes for the Isle of Man, which would have been replaced by a similar-sized island slightly further to the south. The Outer Hebrides would have been a single massive landmass, as represented on the Dulcert portolan (although this map has the island slightly too far south and east).

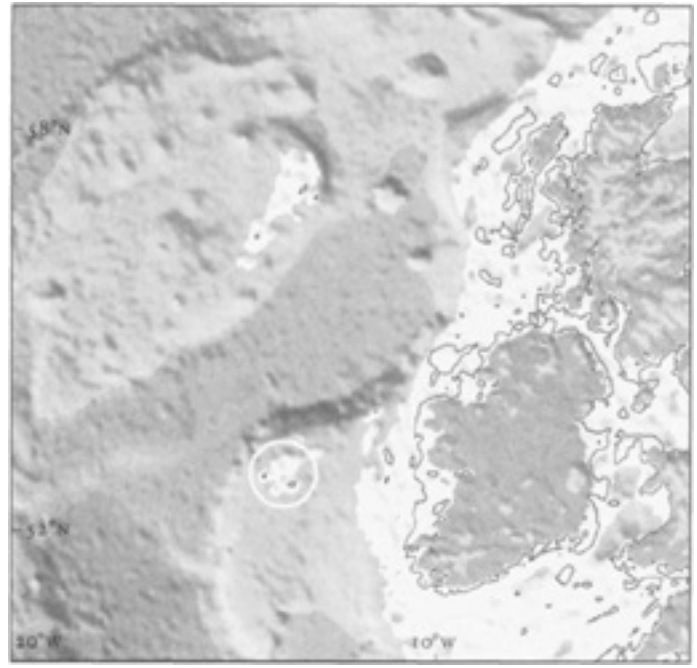

Bathymetric map of Ireland, with grey contour line at depth of 55 metres.

41. *The towering ruins of Gigantija, Malta, thought to be the oldest free-standing temple in the world.*

42. *Ghar Dalam cave, Malta – site of an extraordinary archaeological controversy.*

43. *The Hypogeum, Malta.*

44. *Surviving part of monumental 'Goddess' figure from Tarxien temple, Malta.*

45. *‘Sleeping Lady’, Malta.*

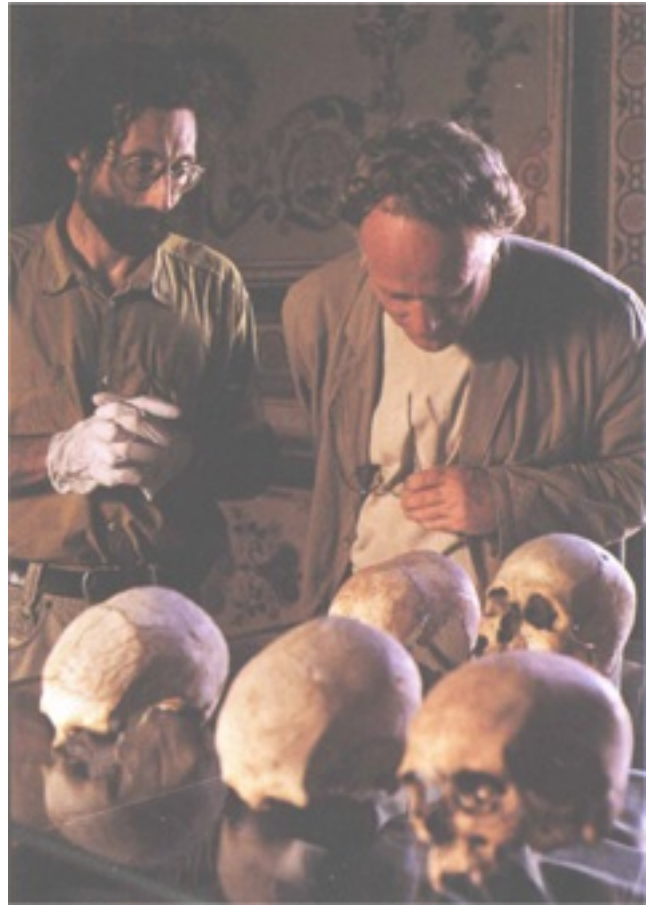

46. *Five of the six skulls that have survived from the remains of*

more than 7000 *people found in the Hypogeum, Malta.*

47. *The Mnajdra temple complex, Malta, from the air.*

48. *Mnajdra: summer solstice light effect.*

49. *Mnajdra with the island of Filfla in the background.*

50. *Withered megaliths of Hagar Qim temple, Malta.*

51. *Entrance to Hagar Qim, Malta.*

52. *The author, left, with Chris Agius, Malta.*

53. *The author, right, with Anton Mifsud, seated in ancient cart-ruts, Malta.*

54. *The author diving on submerged cart-ruts, Malta. The*

submerged ruts are larger and deeper than their counterparts on land.

55. *Cart-ruts at ‘Clapham Junction’, Malta.*

56. *Submerged cart-ruts, Malta.*

57. *Submerged channel and archway, Malta.*

58. *Underwater wall with battlement, Taiwan.*

59. *Exposed masonry blocks in the Taiwan underwater wall.*

60. *Giant megaliths of the Bimini Road.*

The Antilia mystery

Hy-Brasil is by no means the only mysterious island looking for a home in ancient maps of the Atlantic Ocean. Even stranger, as we shall see in the next chapter, are two other islands – the fabulous Antilia and Satanaze – which beckon like the Holy Grail. They first appear on an anonymous portolan chart of 1424, and subsequently on many other maps of the fifteenth and sixteenth centuries. Yet the islands themselves have never been found.

Is this because they never existed? Or might there be a better explanation?

23 / Looking for the Lost on the Road to Nowhere

> There lies in the Ocean an island which is called *The Lost.* In Charm and all kinds of fertility it far surpasses every other land, but it is unknown to men. Now and again it may be found by chance; but if one seeks it, it cannot be found, and therefore it is called *The Lost.*
>
> Honorius of Autun, *De Imagine Mundi*, about AD 1130[1]

> Give me some ships and I will find a new world for you.
>
> Christopher Columbus, about AD 1480[2]

For some reason that has never been explained properly there was, for a very long while before the time of Christopher Columbus, a firm and entirely correct belief amongst mariners in ancient Europe and around the Mediterranean that vast lands and extraordinary islands awaited discovery

and colonization somewhere to the west across the wastes of the Atlantic Ocean. The belief was expressed in legends and traditions, some of which have been preserved down to modern times, and also in graphic form on maps and nautical charts.

The mystery of Hy-Brasil, introduced in the last chapter, is part of this very thorny unsolved problem of anachronistic geographical knowledge and, at the same time, a microcosm of the whole issue:

- Ancient references to Hy-Brasil exist both in legendary and traditional oral and written sources and in maps dating back as far as the fourteenth century – for example the Dulcert portolan.
- Belief in the existence of Hy-Brasil – i.e. physically, in the Atlantic Ocean somewhere – was strong enough to

have inspired expeditions to find it. Records have survived of two such expeditions, the first led by a certain John Lloyd, that were sent out from the port of Bristol in the west of England in AD 1480.[3]

- The location given to the 'legendary' island of Hy-Brasil by medieval mapmakers correlates strongly and closely with the location of the submerged Porcupine Bank – which was unknown in medieval times but parts of which, as we've seen, would have been exposed as an island at the end of the Ice Age.

The trouble with Hy-Brasil

If it were simply a matter of an old legend of a lost Atlantic island somewhere to the west of Ireland, and modern

bathymetry showing a shallowly submerged bank in roughly the same vicinity, the most probable explanation would be coincidence. The appearance of Hy-Brasil on maps, however, cannot be accounted for so easily. Scholars universally conclude that these representations are no more than imaginative graphic expressions of pre-existing written and oral traditions. The consensus view is that medieval cartographers referred to many sources in constructing their maps, including legends. Since Hy-Brasil is obviously a 'legendary' island, it follows that the shape and location given to it on the maps must have come from legendary sources. But if the cartographer who placed Hy-Brasil on the Dulcert portolan were working only from legends he would have been free to draw it anywhere to the west of Ireland – giving him wide scope. What, therefore, must be the odds against his having imagined an island that is not only

approximately the right size to match the antediluvian Porcupine Bank but that is also placed in exactly the spot on the map where the Porcupine Bank would have been exposed at the end of the Ice Age?

It could all be the result of some sort of extraordinary coincidence, I admit. Or it could be that the cartographer worked from a source map – like the hypothetical source maps behind the Cantino and Reinal world portolans – that somehow depicted genuine Ice Age topography and coastlines?

As we've seen in previous chapters, it is not unreasonable to suppose that maps belonging to the tradition of Marinus of Tyre could have been preserved in pockets in the Indian Ocean and elsewhere alongside the better known maps of Claudius Ptolemy. Nor is it impossible, as Arab eye-witnesses as late as the tenth century attest, that the original maps of

the ‘Tyrian sea-fish’ might have been *superior* to those of Ptolemy (despite Ptolemy’s own propaganda to the contrary). It is not wild speculation on my part, but the argument of the distinguished historian of cartography A. E. Nordenskiold, that the preserved maps of Marinus may have formed the original corpus out of which emerged the astonishingly sophisticated portolan tradition in the thirteenth and fourteenth centuries. And it is a fact that the earliest representations of Hy-Brasil – Dulcert, Benincasa and many others – all appear on portolan charts.

There will be ways for scholars to underplay the significance of this, I’m sure. But what Hy-Brasil looks like to me is evidence not only for the survival of an ancient non-Ptolemaic mapmaking tradition but also for the preservation within the tradition of accurate records of Ice Age topography and coastlines. That in turn more or less

automatically makes the tradition itself extremely ancient; logically it must be at least as old as the Ice Age features it represents. Moreover, despite its great antiquity, it is a mark of the respect accorded to the general accuracy and reliability of this tradition by mariners down the ages that expeditions to find Hy-Brasil – and other 'ghosts' of Ice Age topography – were still being launched as late as the fifteenth century. Though there seems to have been an inkling that cataclysmic changes and floods had intervened, as we saw in the last chapter, I think it is unlikely that the seafarers who set out from Bristol in 1480 to search for Hy-Brasil could have imagined that the island given that name on their portolan charts had been swallowed up by the sea more than 11,000 years previously.

I anticipate the objection that it is *inconceivable* for a mapmaking tradition to have survived for 11,000 years. But

why should it be inconceivable? Don't we already have in Ptolemy a mapmaking tradition that has survived – verifiably -for 2000 years? And doesn't Ptolemy himself state that his *Geography* is a correction of the earlier work of Marinus of Tyre, who in turn was supposedly only the 'most recent student' of this ancient discipline? Nothing compels us to imagine, therefore, that the 'Marinus' tradition began with Marinus a few decades before Ptolemy. On the contrary, Ptolemy's references suggest that Marinus of Tyre (if this was not actually a generic term that was used to refer to a certain category of nautical maps) was simply the latest custodian and redactor of a body of geographical knowledge preserved from a far more remote antiquity.

Perhaps it was their custodianship of this knowledge that made the Phoenicians such inquisitive explorers of the margins of the Atlantic (which later navigators feared and

called ‘the Sea of Darkness’)[4] as though they were searching, always searching, for something that lay just beyond the next horizon …

Hints of a lost Atlantic geography

According to the Greek historian Diodorus Siculus, writing in the first century BC,

> There lies out in the deep off Libya [Africa] an island of considerable size, and situated as it is in the ocean it is distant from Libya a voyage of a number of days to the west. Its land is fruitful, much of it being mountainous and not a little being a level plain of surpassing beauty. Through it flow navigable rivers …[5]

Diodorus goes on to tell us how Phoenician mariners, blown

off course in a storm, had discovered this Atlantic island with navigable rivers quite by chance. Soon its value was recognized and its fate became the subject of dispute between Tyre and Carthage, two of the great Phoenician cities in the Mediterranean:

> The Tyrians … purposed to dispatch a colony to it, but the Carthaginians prevented their doing so, partly out of concern lest many inhabitants of Carthage should remove there because of the excellence of the island, and partly in order to have ready in it a place in which to seek refuge against an incalculable turn of fortune, in case some total disaster should overtake Carthage. For it was their thought that since they were masters of the sea, they would thus be able to move, households and all, to an island which was unknown to their conquerors.[6]

Since there are no navigable rivers anywhere to the west of Africa before the seafarer reaches Cuba, Haiti and the

American continent,[7] does this report by Diodorus rank as one of the earliest European notices of the New World?

Likewise, what did Lucius Annaeaus Seneca have in mind in his *Medea* (C.AD 50) when he wrote:

> In later years there will come a time when *Oceanus* [the Atlantic] shall loosen the bonds by which we have been confined, when an immense land shall be revealed and *Tiphys* [the pilot of Jason's legendary ship *Argo]* shall disclose new worlds.[8]

Seneca's strange observation reads like a weirdly accurate prophecy of the inevitable discovery of the Americas. But is it *too* accurate to be guesswork? Had he seen a map that showed an immense land literally waiting to be revealed on the far shores of the Atlantic?

The opposite continent

The suspicion that certain ancient authorities possessed good knowledge of the real shape of the Atlantic and its islands, and of the lands on both sides of it, must also arise from any objective reading of Plato's world-famous account of Atlantis.

As we have seen in earlier chapters, this story is set around 11,600 years ago – a date that coincides with a peak episode of global flooding at the end of the Ice Age. The story tells us that 'the island of Atlantis was swallowed up by the sea and vanished', that this took place in 'a single dreadful day and night' and that the event was accompanied by earthquakes and floods that were experienced as far away as the eastern Mediterranean.[9] But of more immediate interest to us here is what Plato has to say about the geographical situation in the Atlantic immediately *before* the flood that destroyed Atlantis:

> In those days the Atlantic was navigable. There was an island opposite the strait [the Strait of Gibraltar] which you [the Greeks] call the Pillars of Heracles, an island larger than Libya and Asia combined; from it travellers could in those days reach the other islands, and from them *the whole opposite continent which surrounds what can truly be called the ocean.* For the sea within the strait we are talking about [i.e. the Mediterranean] is like a lake with a narrow entrance; the outer ocean is the real ocean and the land which entirely surrounds it is properly termed continent … On this island of Atlantis had arisen a powerful and remarkable dynasty of kings who ruled the whole island; and many other islands as well, and parts of the continent …[10]

Whether or not one believes that an island called Atlantis ever existed in the Atlantic Ocean, Plato's clear references to an 'opposite continent' on the far side of it are geographical knowledge out of place in time. It is hard to read in these references anything other than an allusion to the Americas,

and yet historians assure us that the Americas were unknown in Plato's time and remained 'undiscovered' (except for a few inconsequential Viking voyages) until Columbus in 1492.

The mysterious book of Columbus

A curious anteroom to the Columbus story exists. It is prefigured in the Irish legend of the voyage of Saint Brendan – the earliest surviving version of which appears in Adamnan's *Life of St Columba*, written before AD 704.[11] Brendan is said to have sailed across the Atlantic from Ireland in the sixth century AD with a group of monks on an eventually successful expedition to find 'an immense region in the west … the Land of Promise'.[12]

Once again we are reminded that the ancient seafaring nations of Europe and the Mediterranean were imbued through and through with the same geographical idea that enlightened Plato – the idea that a rich and almost limitless

opposite continent awaited those daring enough to attempt the Atlantic crossing. And once again the obvious questions arise. Where could the idea of the opposite continent have come from? Why should it have arisen in the first place? How do we account for its persistence down the ages in so many different cultures from the Phoenicians to the Irish?

In 1513, in handwritten notes on an enigmatic map that he had prepared showing the newly discovered Americas, the Turkish Admiral Piri Reis offered an intriguing answer to all these questions – at any rate for the particular case of Christopher Columbus, the most recent and most renowned of the ancient Atlantic dreamers. Piri's note, one of many on the same map, is written over the interior of Brazil:

> Apparently a Genoese infidel, by the name of Columbus was the one who discovered these parts. This is how it happened: *a book* came into the

> hands of this Columbus from which he found out that the Western Sea [i.e. the Atlantic] has an end, in other words that there is a coast and islands on its western side with many kinds of ores and gems. Having read this book through, he recounted all these things to the Genoese elders and said, 'Come, give me two ships, and I shall go and find these places. 'They said, 'Foolish man, is there an end to the Western Sea? It is filled with the mists of darkness.'[13]

It seems to me that there are two points of enormous interest about this reported 'book' of Columbus. First, we are told that it showed the opposite continent, with its coast and islands, on the western side of the Atlantic. Taken at face value, therefore, what we have here is a clear reference to the existence of a pre-Columbian map of the Americas – a notion that runs completely contrary to the accepted history of science. Secondly, we are led to understand that it was on account of what he had learned in this remarkable book – no

other cause is mentioned – that Columbus began to tout his proposed expedition to potential sponsors.

One might question the *bona fides* of a Turkish admiral claiming to have any inside knowledge at all of the voyages of Christopher Columbus; however, in this case such questions appear to be misplaced. Recent scholarship by map historian Gregory Mcintosh has confirmed that one of the twenty or so source maps to which Piri Reis tells us that he referred to compile his own map was almost certainly – as Piri claims – a chart of the Caribbean that had been drawn by Columbus himself.[14] The implication is that some fairly direct link must have existed between the two men and Piri informs us of such a link. He says that he acquired his inside information about Columbus from a Spaniard captured by Turkish corsairs after a naval battle in the Mediterranean. This 'Spanish prisoner', as Piri calls him, had sailed with

Columbus on three of his four voyages to the New World.[15]

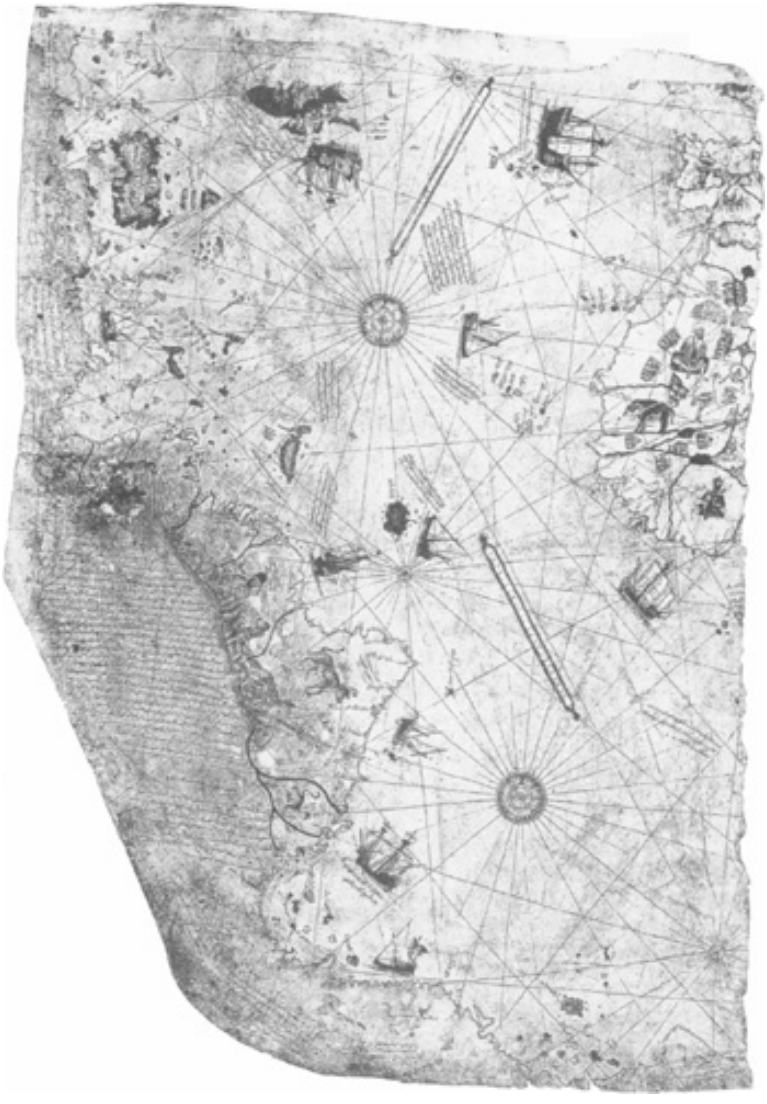

Piri Reis map, 1513.

Piri's reference to the mysterious 'book' of Columbus can therefore be traced back to a reliable source. But I have yet to find a single orthodox map scholar, Gregory Mcintosh included, prepared to look further into the potentially controversial and important revelation that the book contained a pre-Columbian map of the Americas. On the contrary, the revelation is dismissed as manifestly incorrect. In consequence those few scholars who have devoted any thought at all to the 'book' have ignored the one definite lead that Piri gives us about it -namely that it showed how the Atlantic Ocean came to an end in an opposite continent with its own coast and islands – and instead have speculated that

it might have been a copy of Cardinal D'Ailly's *Imago Mundi*, or of Marco Polo's *Travels:* 'books which influenced Columbus's plan of sailing west to reach Asia'.[16] To this Gregory Mcintosh adds: 'In the *Bahriye* Piri Reis refers to the book that influenced Columbus in terms that indicate it may have been Ptolemy's *Geographia.'*[17]

Needless to say, the orthodox paradigm of the discovery of the New World is safe if the mysterious 'book' that supposedly motivated Columbus can be reduced to a known, non-threatening quantity like the *Geography* or the *Travels.* And it is possible, since all the texts named above recognize the earth to be a sphere, that any one of them, and probably all of them, might have played a part in shaping Columbus's well-known conviction that Asia could be fetched by sailing west from Europe.

None of this, however, permits the conclusion that the ‘book of Columbus’ to which Piri Reis refers was *in fact* one of these texts. Indeed, though the point is passed over in silence by Mcintosh, it seems extremely unlikely that it could have been. The named texts were already well known in Europe when Columbus was seeking support for his expedition and were not viewed by anybody as proof positive that either a New World, or Asia, lay on the other side of the Atlantic. If all he had to impress sponsors was information that they already had at their disposal from those texts, then he would not have convinced anyone. In other words, if there was a ‘book of Columbus’ which played the important part that Piri gives to it, then it must have been a much rarer and less familiar text than any of these and it must logically have contained new and more persuasive information about the far coasts of the Atlantic.

Why not take Piri at face value?

Piri Reis is not only remembered for his 1513 map but for another slightly later work, a manual of sailing directions known as the *Bahriye*, which also contains references to the book of Columbus.[18] Reported above is Mcintosh's impression from comments made in the *Bahriye* that the 'book' Piri is speaking of might have been Ptolemy's *Geography*. Yet the Turkish scholar Svat Soucek points out that this is not the obvious deduction from the text of the *Bahriye* where it touches on 'the great story of the discovery of America':

> The country's name is Antilia, and it was discovered by a Genoese *muneccim* (astronomer-cum-astrologer) named Columbus … The story goes all the way back to Alexander, who had roamed the whole earth and written a book about it. The book remained in Egypt until the Muslim

> conquest, when the Franks fled the country, taking the book with them. Little attention was paid to it until Columbus read it and realized the existence of Antilia to the west of the Atlantic. He convinced the king of Spain of the possibility of its discovery and colonization, which he then successfully carried out.[19]

I find it difficult to agree with Mcintosh that Piri might have had Ptolemy's *Geography* in mind as the book that inspired Columbus – for the *Geography* consists of dry and uninspiring coordinates mapping out the *Oikumene* (the inhabited world as known to the ancient Greeks) and has nothing to say one way or the other about the western terminus of the Atlantic nor of any place such as Antilia. Moreover, Mcintosh's conclusion requires us to ignore Piri's own very clear and unambiguous attribution of the original authorship of the 'book' to Alexander the Great and to accept instead that when Piri wrote 'Alexander' he really meant

‘Claudius Ptolemy’.[20] The argument for this truly outrageous act of second-guessing, and denigration of the intelligence and education of Piri Reis, goes something as follows: (1) Alexander the Great, a Macedonian, invaded Egypt and established the city of Alexandria; he was very famous; (2) after Alexander’s death his general Ptolemy Soter, also a Macedonian, also very famous, declared himself pharaoh and founded the Ptolemaic dynasty; (3) almost 400 years later the astronomer Claudius Ptolemy (no relation to Ptolemy Soter, but famous too) compiled his *Geography* at the library of Alexandria; (4) Piri Reis mixed up all the facts about these famous people and places in his own mind and churned out the hilariously incorrect conclusion that the book that had convinced Columbus of the existence of the New World had originally been written by Alexander the Great.[21]

Rather than going through such convolutions, which

ultimately just pour scorn on him, I fail to understand what is so terribly wrong with taking Piri at face value. Why not simply credit him with enough learning and intelligence to have known the difference between Alexander and Ptolemy? Why not explore the possibility that Columbus really could – exactly as Piri says – have been motivated to attempt his Atlantic crossing after having seen a very old book, a survival from the time of Alexander the Great, in which the western shores of the Atlantic were shown?

The questions are purely rhetorical and there is one answer for all of them. Scholars cannot take Piri Reis at face value on the subject of the book of Columbus because this would mean accepting the possible existence not just of a pre-Columbian map of the Americas (itself a historical heresy of the highest order), but of a *pre-Ptolemaic* map of the Americas dating back at least to the time of Alexander the Great – i.e. to the

fourth century BC.

The maps of Marinus of Tyre were pre-Ptolemaic and have not come down to us. Thus we do not know and can only speculate about their true antiquity, their origins, their contents, and about what they showed and did not show before the ‘improvements’ and ‘corrections’ that Ptolemy implemented. But if A. E. Nordenskiold is right to suggest a genetic link between the lost corpus of Marinus and the remarkably advanced portolan charts that began to appear from the late thirteenth century onwards then, in a sense, anything is possible.

We have seen that these portolans contain strange echoes of the Ice Age world – suggesting that some of the source maps on which they were based may have been drawn thousands of years ago, before the post-glacial sea-level rise. If that is the case, then why shouldn’t the as yet unidentified

prehistoric culture or cultures that made these maps have ‘discovered’ and charted the Americas as well?

The survival of such maps, or copies of copies of copies of them, among mariners in the Mediterranean and along the Atlantic seaboard of Europe since time immemorial would explain the ancient yearning to discover an ‘immense land’ in the west. It would explain the ancient certainty that such a land was there. And it would explain why, down the generations, hard-headed seafarers and adventurers were again and again prepared to mount hazardous expeditions to try to find the great continent and islands that the maps told them lay out in the Atlantic.

So what about the most famous Atlantic island of all? What about Atlantis?

The Atlantis-Antilia mystery

Plato's story of Atlantis, though it contains no diagrams, nevertheless summons up an accurate mental picture of the Atlantic Ocean – bounded to the east by Europe and Africa and bounded to the west by the vast enclosing arc of the 'opposite continent'.

In the midst of the Atlantic Plato then presents us with another geographical image, this time supported by quite specific *chronological* data. The image is of the great island of Atlantis, no longer extant, that was swallowed up by the sea 9000 years before the time of the Greek lawmaker Solon. This suggests a date of around 9600 BC for the submergence of Atlantis – a date that falls in the midst of the cataclysmic meltdown of the last Ice Age.

We've seen that the topographical ghosts of other

inundated Ice Age islands, like Hy-Brasil and the unnamed island off the southern tip of India portrayed on the Cantino and Reinal maps, mysteriously begin to appear on portolan charts and world maps from the fourteenth century onwards. If Atlantis was also an island submerged by rising sea-levels at the end of the Ice Age, and not just a figment of Plato's imagination as many suppose, then is it possible that its spectre too could haunt the portolans?

A number of researchers believe that they have found the ghost of Atlantis manifesting as a large, roughly rectangular, 'mythical' island named Antilia that began to appear on portolan charts in the first half of the fifteenth century. The earliest surviving example was drawn in Venice in 1424 and is attributed to the cartographer Zuane Pizzagano.[22] It is not known what source maps he may have been working from. Together with a second large 'mythical' island -named

Satanaze – that Pizzagano portrayed lying to the north, Antilia went on to enjoy a long and ubiquitous life in global cartography and was not finally exorcized from most charts and atlases until the eighteenth century.[23] As was the case with Hy-Brasil (which in fact survived on one nautical chart until the middle of the nineteenth century)[24] there was also at one time a firm belief amongst mariners in the physical existence of Antilia – firm enough at any rate to have inspired several voyages of discovery.[25]

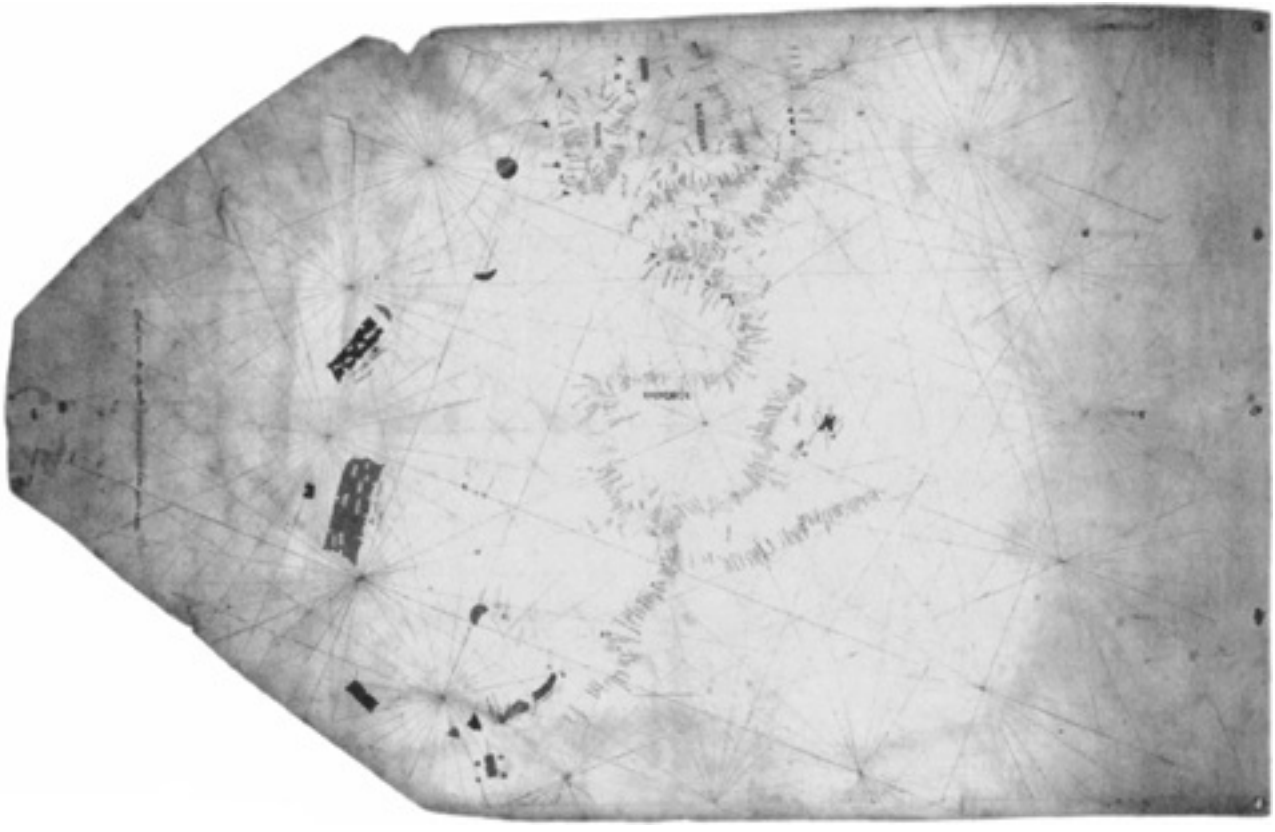

Pizzagano chart, 1424.

Map sleuth George Firman points out that the positions of Antilia and Satanaze on the 1424 and later charts lie extremely close to, if not exactly on top of, the huge subterranean mountain range, connected to the world's tectonic system, that geologists today know as the Mid-Atlantic Ridge.[26] Proposing what is essentially an amplified version of the 'forebulge effect' described in chapter 3,[27] Firman suggests that downward pressures on the continental landmasses of Northern Europe and North America during the Ice Age could, through isostatic compensation, have forced the mid-Atlantic Ridge upwards, perhaps far enough upwards to have elevated its highest peaks and plateaux above water for as long as 40,000 years before the ice-sheets went into meltdown.[28] Conversely, with the removal of the downward pressure exerted on the continents by the ice-

masses as the meltwaters poured back into the world ocean, the temporary uplift of the Mid-Atlantic Ridge would have ceased and subsidence pressures would have begun to build. As sea-levels rose, and as the isostatic rebound of the continents continued, it is then theoretically possible that the entire ridge, as Firman puts it, could have been plunged into the depths of the Atlantic Ocean ‘at the same approximate time’.[29]

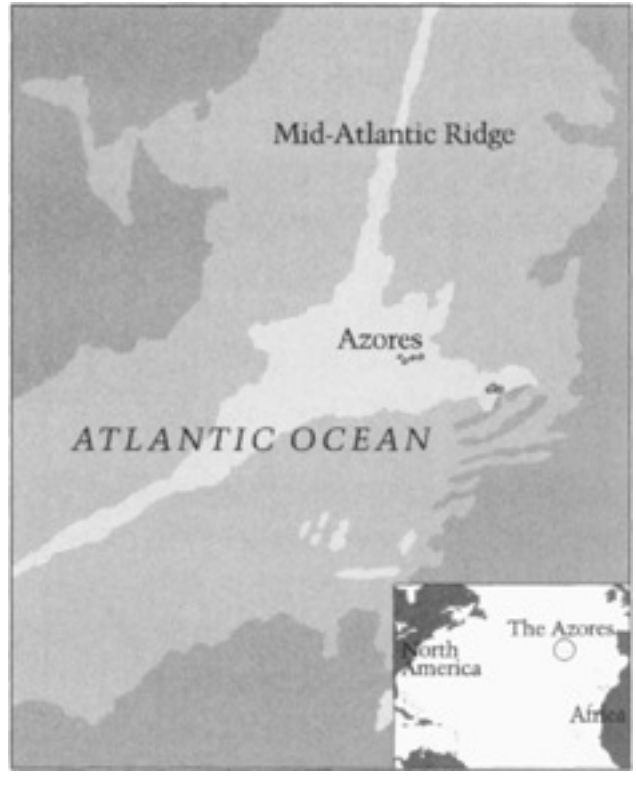

Firman believes that such an event did occur 'between the years 9500–8000 BC',[30] that the 1424 chart contains antediluvian information, and that in its portrayal of Antilia

and Satanaze it provides us with:

> the original location of the last two main islands of Atlantis. Both islands conform to the bottom topography of the Mid-Atlantic Ridge and of the adjoining Azores Plateau … The largest island, to the south, is the main island on which the capital cities of the empire were located.[31]

It is true that Plato speaks of more than one island in the Atlantean empire.[32] And I have come across some peculiar reports (mainly from Soviet oceanographic sources between the 1950s and 1980s) of deeply submerged underwater ruins – including such features as stone columns, buildings and stairways – on the Mid-Atlantic Ridge near the Azores.[33] Since none of these reports ever seems to have been followed up, the possibility remains that Firman could yet be proved right and that the existence of sunken cities will one day be

confirmed in the Mid-Atlantic. But the search area and the search depth are far too great for individual divers to be of any use. It will take a well-funded oceanographic institute with submersibles and a lot of time at its disposal to settle this matter.

Recent investigations indicate that there is ‘weird geology’ down there which may perhaps provide a simple explanation for the Soviet sightings of alleged ruins. On 13 July 2001, for example, ABC News in the United States released the following science story picked up from the 12 July issue of *Nature:*

> More than 2000 years ago, the Greek philosopher Plato wrote about a splendid city named Atlantis, with fertile soil and glorious temples, that ‘in a single day and night of misfortune … disappeared into the depths of the sea’.

Now researchers probing the ocean bottom have found 18-story-high towers of stone deep in the ocean near a section of volcanic fault ridges that extend for 6200 miles along the Atlantic floor [the Mid-Atlantic Ridge].

The majestic height of the two dozen stone structures and their location on a seafloor mountain named Atlantis Massif inspired the scientists to name the area 'Lost City' in honor of the fabled flooded city referred to by Plato.

The underwater stone spirals are unusual for their composition and location … 'It was clear these were unlike anything we'd ever seen before,' said Deborah Kelly, an oceanographer at the University of Washington … The Lost City is also strikingly bright – brighter than the usual conditions in which things can generally be seen using artificial light a half-mile below sea-level. Although other rock formations around volcanic ridges have appeared black, the newly discovered formations are gleaming white because they are made up of materials similar to those of pale concrete,

> such as carbonate minerals and silica.[34]

Could there be more to this story than meets the eye? Could this be a real lost city that is being mistaken for weird geology? Highly unlikely, I should say -but, honestly, who knows what's really down there, seen and unseen?

Meanwhile, geological opinion, with good reason, remains solidly set against any involvement of the Mid-Atlantic Ridge in the Atlantis mystery. Galanopoulos and Bacon sum up the consensus nicely:

> There never was an Atlantic landbridge since the arrival of man in the world; there is no sunken landmass in the Atlantic; the Atlantic Ocean must have existed in its present form for at least a million years. In fact it is a geophysical impossibility for an Atlantis of Plato's dimensions to have existed in the Atlantic.[35]

This statement is certainly correct – and doubly so if we are to envisage 'Atlantis' actually sinking into the ocean through some abrupt isostatic event (as opposed to being inundated by rising sea-levels). Yet while it is indeed impossible for a landmass 'larger than Libya and Asia combined' to have existed in the Atlantic, it is also only fair to point out that the ghost islands of Antilia and Satanaze depicted on the 1424 chart are in the range of just 500 kilometres long by 200 kilometres wide and thus come nowhere near Plato's extraordinary dimensions for Atlantis. Moreover, inundation science reveals that three islands the size of Antilia and Satanaze -islands that are today completely submerged or that have survived only in the form of tiny remnants still above sea-level – did in fact exist in the Atlantic down to as late as 6000 years ago (although much nearer America than the Mid-Atlantic Ridge).[36]

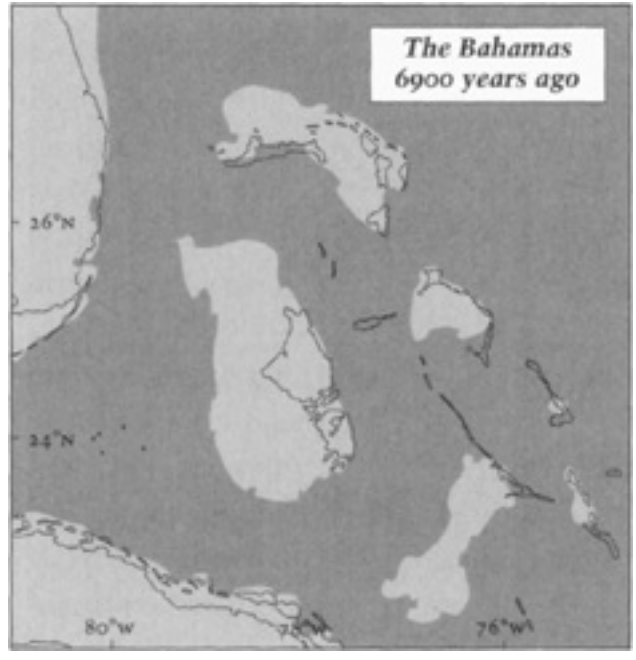

One of these lost islands was formed by a large section of the Great Bahama Bank, which stood more than 120 metres above sea-level at the Last Glacial Maximum. Today all that is left of this imposing antediluvian landmass is the rugged island of Andros to the southeast and tiny Bimini to the

north-west, facing the Gulf Stream and the Florida peninsula.

Off the north-west coast of Bimini, running parallel to the Gulf Stream, is what appears to be a huge submerged man-made structure – an impressive megalithic engineering work made of enormous blocks laid side-by-side to form an underwater ‘road’ more than 800 metres long. At its southern end the structure curves shoreward, giving it the shape, quite visible from the air, of a reversed letter ‘J’. Towards its northern end it divides into two parallel tracks separated by open sand. Closer to shore two additional smaller sections of ‘road’, each about 300 metres long, run parallel to each other at an angle to the main axis of the ‘J’.

Some people say the whole complex is a vestige of Atlantis. Others say it’s just three outcrops of natural blocky beachrock. But neither side has yet seriously considered the problem in the light of inundation science and what it has to

tell us about sea-level changes and land-loss in this corner of the Atlantic Ocean at the end of the Ice Age.

The rise and fall of the Bimini Road

The ‘Bimini Road’ varies between 5 and 7 metres in depth. Situated in an area of generally calm blue water that reaches a temperature of 30 degrees centigrade in the summer months it therefore represents just about as unthreatening a dive as it is possible to experience in scuba gear. A kilometre to your south is Paradise Point on north Bimini island. A kilometre to your east is a beach of picturesque white sand. To your west, were you to follow it over a distance of 3 kilometres, you would find that the sea-bottom slopes down in gradual increments to a depth of about 100 metres before the abyssal drop-off into the Gulf Stream is reached.

This deepwater channel between Bimini and Florida was always there and filled with the ocean, even at the Last Glacial Maximum. But the submerged site of the Bimini Road and much of the sea-bed between it and the channel were above water then – and may have remained so until about 6000 years ago. Whether natural or man-made, therefore, the site would have enjoyed a spectacular and significant antediluvian location at the top of a long gentle slope overlooking the Gulf Stream.

The Road was discovered in 1968 by a team of volunteers, all of whom were connected with varying degrees of closeness to an organization called the Association for Research and Enlightenment (ARE). A harmless, good-willed but dottily eccentric American cult with Christian and spiritualist values and an ageing membership, the ARE has its headquarters in the coastal resort of Virginia Beach,

overlooking the Atlantic Ocean, and promotes the teachings of the healer and psychic Edgar Cayce (1877–1945). Cayce claimed to have lived a past life as an Atlantean more than 12,000 years previously and before his death he prophesied that the ruins of Atlantis would begin to emerge from the sea in 1968 or 1969. He was quite specific about where this would take place somewhere near Bimini. The apparent fulfilment of the prophecy with the 1968 discovery of the great rows of underwater megaliths off Bimini's Paradise Point therefore made for sensational headlines.[37]

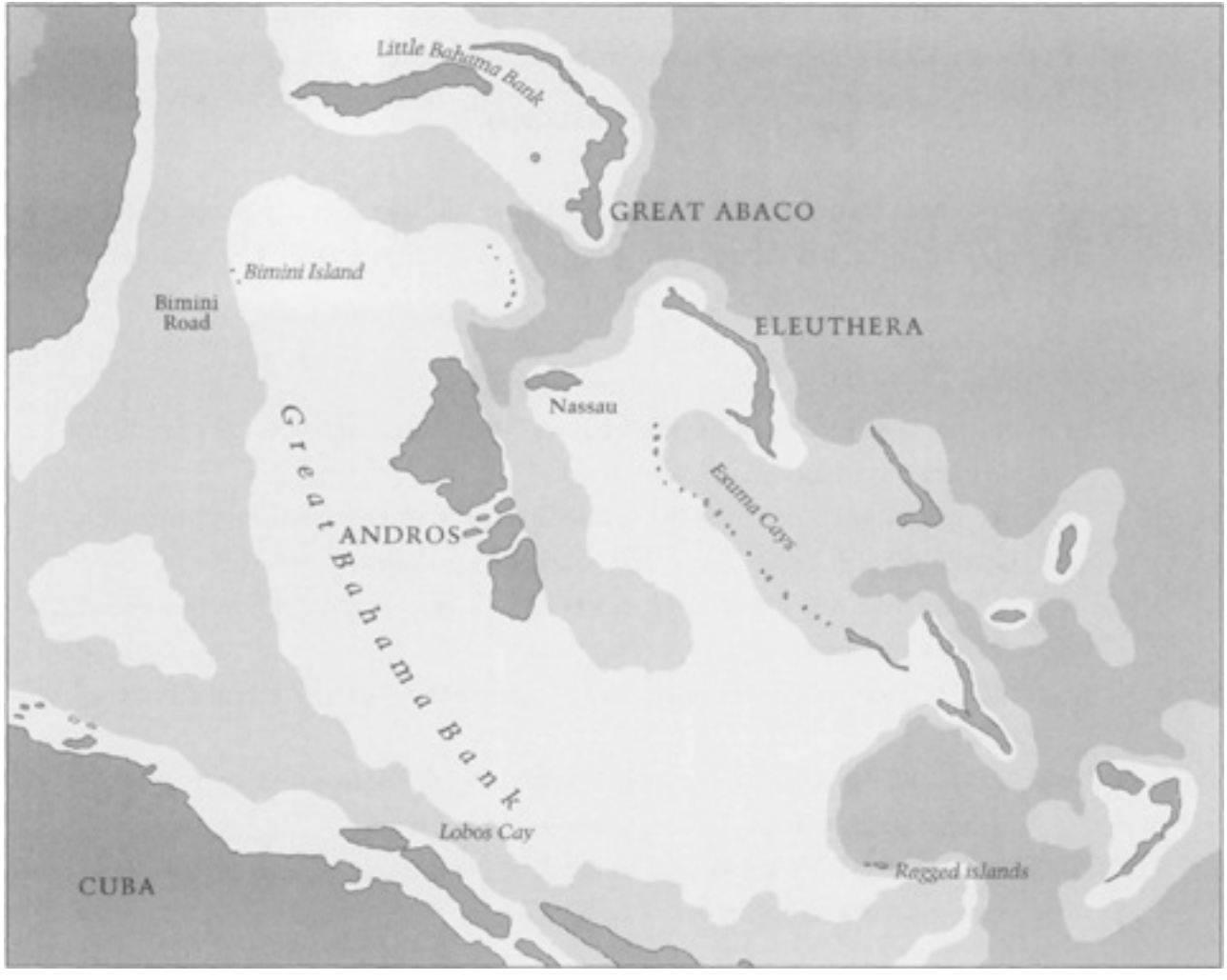
Little Bahama Bank
GREAT ABACO
Bimini Island
Bimini Road
ELEUTHERA
Nassau
Great Bahama Bank
ANDROS
Exuma Cays
Lobos Cay
Regged islands
CUBA

Initially, high hopes were raised that the irrefutable proof of Plato's lost civilization had at last been found. Then there came a devastating scientific backlash which seemed to demonstrate coolly and professionally that the Bimini Road was not a man-made megalithic structure after all, but an entirely natural feature that could be explained simply by geology without any need to invoke psychic archaeology or the master masons of an imaginary lost civilization.

Mahlon Ball, Rosenstiel School of Marine and Atmospheric Science, University of Florida, and John A. Gifford, University of Miami, writing in National Geographic Research Reports, *vol. 12, 1980, pages 21–38*

The rise of sea level from 15,000 BP to the present produced a succession of beaches that formed on the outer platform off the west coast of North Bimini as the shoreline transgressed eastward over the Great Bahama Bank. Along these transient beaches deposits of beachrock formed and

subsequently were submerged as the water over them deepened … [After several thousand years] the shoreline migrated to a position approximately one kilometre north of the present Paradise Point. Here over a period of perhaps 700 years, three successive beaches were the site of the formation of three parallel, linear deposits of beachrock …[38] The following observations were made during our initial field investigation:

1. The three features are unconnected at the southwest end; scattered blocks are present there, but do not form a well-defined linear feature connecting the seaward, middle, and shoreward features.
2. No evidence exists anywhere over the three features of two courses of blocks, or even a single block set squarely atop another.
3. Not enough blocks lie in the vicinity of the three features to have formed a new-destroyed second course of blocks.
4. Bedrock closely underlies the entire area of the three features, eliminating the possibility of excavations or channels between them.

5. No evidence was found of blocks being cut into or founded on the underlying bedrock surface.
6. No evidence was found of regular or symmetrical supports beneath any of the blocks.
7. We saw no evidence on any of the blocks of regular or repeated patterns of grooves or depressions that might be interpreted as tool marks.
8. [None of the features] is well founded or continuous enough to have served as some kind of thoroughfare.

In fact the only attributes of the three linear features that suggest a human origin are the regular shapes of the blocks. These are also attributes of natural beachrock deposits.[39]

W. Harrison, Environmental Research Associates Inc., writing in Nature, *vol. 230, 2 April 1971, pages 287–9*

The blocks are believed to have originated as follows. A shell-hash gravel was deposited in shallow water as relative sea-level fell during the most recent emergence of the Bahama Banks, and later brought into the fresh water environment. The materials were cemented and joints formed in the material as is usually the case with limestones. After two sets of practically right angle joints had developed, submergence of the area brought the jointed coquina limestone first into the breaking zone of waves and then the offshore zones. Wave action probably caused much of the initial separation into blocks, but when the formation was further offshore the destructive activity of marine life would have become dominant.

The overall result is a field of blocks that at first sight appear to have been fitted together, and this has led to statements such as 'some human agency must have been involved'. The blocky remains of the limestone outcrop are, however, no more enigmatic than other subaerial or subaqueous outcrops of jointed limestone found in various stages of fracture and decay in the north-western Bahamas.[40]

Marshall McKusik, University of Iowa, and Eugene Shinn, US Geological Survey, writing in Nature, *vol. 287, 4 September 1980, pages 11–12*

Amateur enthusiasts have claimed that the Bimini blocks were quarried by ancient Atlanteans and laid out in an ancient 'Cylopean, megalithic roadway'… However, the limestone structures observed off Bimini in 15 feet [5 metres] of sea have all the features of natural beachrock. The limestone is in a narrow band and extends for a considerable distance along a former shoreline … The tabular fractures are natural and the original slope to the sea is present. A sample of 17 oriented cores obtained by Shinn and Tomkins has been examined with X-radiographs. Two areas of the formation were studied, and both show slope and uniform particle size, bedding planes and constant dip direction from one block to the next. If the stones had been quarried and relaid there is no reason to suppose bedding planes would carry stratigraphically from block to block. The sedimentary laminations clearly show that these were not randomly laid stones but a natural, relatively undisturbed formation.

> Although under 15 feet of water, the beachrock is of recent geological origin. One C-14 date on shell has already been published as 2200 plus or minus 150 years BP. Jerry J. Stipp (Radiocarbon dating lab, University of Miami) has run seven bulk samples from cores as a class project and gives slightly older dates for the Bimini submerged beachrock [varying from 2745–3510 BP].[41]

The road to nowhere

The last point cited above, the carbon-dating of organic materials in the stone of the Bimini Road, is potentially the most devastating of all the evidence presented by science against the claimed 'Atlantean' origin for the site. Plato put the submergence of Atlantis sometime close to 11,600 years ago and the ARE prophet Edgar Cayce proposed 12,500 years ago. Either way, the C-14 dating of the Road to between

2200 years ago and 3500 years ago seems, at a stroke, to rule out any Atlantean or indeed any very ancient connection.

Despite the apparently overwhelming and self-evident case for a natural and recent origin of the site, there were fightbacks and rebuttals by some of the original discoverers of the Road, including the oceanographer Dimitri Rebikoff and Dr J. Manson Valentine of the Miami Museum of Science. A Ph.D. from Yale University (in zoology, palaeontology and geology), and latterly Research Fellow in entomology at the Bishop Museum in Hawaii, Dr Valentine was a polymath who emerged as the unlikely spokesman for the pro-Atlantean group. Writing in the *Explorers Journal* in December 1976, he acknowledged the hostile response of other academics (mainly marine geologists) but argued that the sceptics had so far fallen ‘far short of explaining’:

1. why the stones of the Bimini complex are of flint-hard micrite (unlike soft beachrock, it rings when struck with a sledge and will not cleave under the same treatment);
2. why the three short courses of closely fitted stone are so straight-sided, mutually parallel and terminate in corner stones;
3. why the long avenue lies at a slight angle to the others and is composed of a double series of small blocks interrupted by two expansions containing very large, flat stones propped up at their corners by vertical members (like the dolmens of western Europe);
4. why the southern end of this great, wide track swings into a beautifully curved corner; and, finally,
5. how to account for all the rectangular shapes, right angles and rectilinear configurations associated with this

complicated site as seen from the air.[42]

Likewise, in 1978 Dr David Zink, another pro-Atlantean with academic credentials, presented evidence questioning the uniformity at the microscopic level of adjacent beachrock blocks at Bimini (suggesting deposition in an entirely natural way) that had been alleged in the scientific reports:

> The cementing of the sections – composed of marine life forms and crystalline forms of calcium carbonate – was not alike. One sample was dominated by aragonite crystals, another by sparry calcite. This implied that adjacent stones were formed in different chemical environments.[43]

Together with Terry Mahlman, David Zink also presented a paper at a conference on underwater archaeology held at the University of Pennsylvania in January 1982. The paper raised a number of serious reservations about anomalies in the

sequence of very young carbon-dates that had been published in *Nature* and elsewhere. The authors pointed out that these dates, between 2200 and 3500 years ago in the case of *Nature*, and between 3200 and 6000 years ago in the case of another study, do not square with solid information now in the hands of marine geologists concerning Atlantic sea-levels since the end of the Ice Age:

> The radiocarbon dates of the site, when matched with known Atlantic sea-levels at the same dates, put the megalithic blocks either above or below the tidal zone at the time of their formation. Because of the need for a tidal environment in which to form beachrock, and because sea-levels in the Atlantic for the past thirteen thousand years are the most solid elements of the Bimini problem, we are left with the likelihood that the dates are unreliable.
>
> [For example] two of the megalithic blocks dated by an early investigator, the first from the seaward side of the site and the second from

a position 100 metres toward the beach, yielded dates which conflict with the theory of an *in situ* origin for them. The seaward block was dated by radiocarbon to c.4000 BC. In its present position it would have been about 23 feet *above* the tidal zone. Clearly it would have been impossible for it to have formed as beachrock by the known process. The second block, located 100 metres closer to the present beach and at the same depth, was dated by radiocarbon to c.1200 BC. In its present position at that date this block would have been about eight feet *below* the tidal zone.

The literature on dating methods suggests that even ground-water contamination on land can render radiocarbon dates too young. How much greater an error might be introduced by the continuous addition of calcium with an ever-increasing proportion of the C-14 isotope as occurs in micritization of beachrock? For all these reasons the dates presently assigned to these blocks would appear to be unreliable.[44]

Despite these and other reasoned attempts to keep interest

alive in the Bimini Road as a possibly man-made and possibly very ancient site, the *Nature* and *National Geographic* reports had hit the scientific credibility of the subject like cruise missiles. Likewise, souring after their initial flirtation with Atlantis and the Cayce prophecy, the tabloid media soon lost interest and moved on.

In such a way the Road to Atlantis became the road to nowhere.

24 / The Metamorphoses of Antilia

> It's just a fact of life in this case that no one and no organization is going to fund a prehistoric underwater archaeological survey of the Bahamas.
>
> John Gifford, University of Miami, July 2001

> Friends, come, come with us on this voyage! Here you're creeping about in poverty; come and sail with us! For with God's help we're going to discover a land that they say has houses roofed with gold.
>
> Martin Alonso Pinzon, Captain of the *Pinta*, recruiting crews for Columbus, 1492

Before I spent two weeks diving at Bimini in August 1999 this was my honest opinion: David Zink and Manson Valentine were wrong and the marine geologists from Florida were right; the Bimini Road was a natural formation. But

after the diving I wasn't quite so sure.

I still felt the force of the scientific arguments, but now I'd also experienced the force of the great structure underwater and my reaction to it was not the same as the reaction of the geologists. Where they'd seen a 'natural' formation of tabular beachrock with uniform particle sizes, constant dip direction and no tool marks, artefacts or other signs of human intervention, I'd seen something that looked like a majestic work of art or sculpture – perhaps a colossal mosaic – something, at any rate, that felt coherent, organized, purposive, planned, idiosyncratic and *designed*. It is true that beachrock does fracture into jointed blocks, and that examples of this process can be seen in Bimini today and around many other Bahamian islands (in fact it forms so quickly that bottle tops and other modern items are frequently found cemented in the matrix). However nothing I

have ever seen that is definitely and unassailably beachrock, either on Bimini or anywhere else, really looks like the Bimini Road.

We dived with Trigg Adams, a salty old sea dog and former Eastern Airlines pilot who'd been one of the original discoverers of the Road back in the days of Manson Valentine. We used his yacht the *Tryggr*, which he brought over the Gulf Stream from Miami under motor power, for the duration of our trip. And we also took advantage of Trigg's flying skills to go tearing around the skies in a chartered plane for a couple of hours so that we could see the Road and other mysteries of Bimini from the air.

Despite haze and cloud that morning we had no difficulty in spotting the 800 metre long, 20 metre wide main axis of the reverse-J with its characteristic shoreward curve to the south-east. It was also easy to make out the point at which

the axis bifurcated into two narrower parallel piers, each 5 metres wide, separated by a 10 metre wide strip of sand running all the way to the northern terminus of the structure. Through the crystal-clear water we could even see individual blocks – some of them gigantic, some much smaller, all seemingly arranged and oriented in a highly organized manner. The two shorter segments shoreward of the 'J' ran absolutely parallel to one another and again showed interesting combinations of small and large blocks – including seven particularly enormous megaliths lying side by side near the southern end of the inner segment.

Trigg took the plane higher and circled several times over the enormous underwater mosaic. It reminded me, I realized, much less of a road or any kind of thoroughfare than it did of the great earth diagrams – the long straight lines and the animal, insect, bird and fish figures – of the Nazca plateau in

southern Peru. Whether by accident or by design these works of geometry and stone sprawled out on an ancient Atlantic beach and, long since submerged beneath the sea, had something of the same sense of scale and grandeur when viewed from the air. I was therefore intrigued to discover, as we continued the flight over Bimini's two main islands and lagoons, that in several densely wooded and uninhabited areas there were stony mounds with exposed surfaces the size of tennis courts on which nothing grew. The surface of one mound, only visible from the air, took the shape of a huge sea-horse. The surface of another was shaped like a giant fish complete with realistic fins and tail and, again, could only ever have been seen from the air. A third mound was geometrical, offering a rectangular surface to the sky.

In all the discussions and academic papers I have read in which the Bimini Road is described as a natural beachrock

formation I have never once seen any comment, one way or another, on these peculiar and distinctive mounds. Are they also to be dismissed as natural formations of no interest to the archaeologist? And if not – if they are man-made – then shouldn't they be taken into account in any attempt to judge the provenance of the nearby 'Road'?

Diving the Bimini Road

Shallow dives sometimes don't feel like real dives. There's not that sense of challenge, that frisson of danger, that you get when you're down deep. Just 5 or 10 metres below the surface you would have to be very stupid and very persistent to risk the bends or a lung-expansion injury. So Bimini was a gentle and kindly place to be underwater. Even the occasional nurse shark sulking in the shelter of one of the

great blocks just looked like he might be dangerous but wasn't really. And at these depths a full tank of air went a very long way.

The typical Bimini block is of dark, extremely hard stone, measures about 2 metres in length by a metre in width by half a metre high, weighs about a tonne, is pillow-shaped, slightly convex, and rounded off at the corners and edges. Many others are much smaller but there are dozens of true monsters of 5 tonnes or more, with a few selected individual blocks verging towards 15 tonnes.

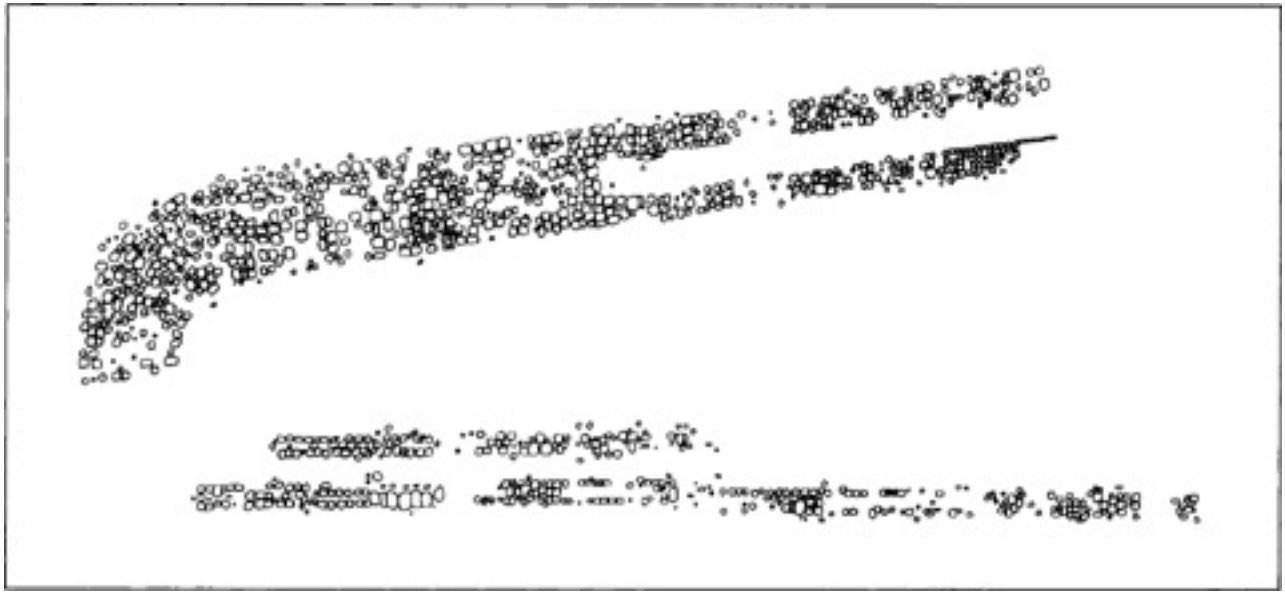

Outline drawing of the Bimini Road. Based on Zink (1978).

Contrary to the National Geographic Society research report I found that certain blocks in the 5–15 tonne range – some exceptional examples of which measured as much as 5

metres across – were propped up on small vertical supports, apparently of a completely different stone type, resembling stubby pillars. The effect of these supports – sometimes as many as five at a time – was to lift the big blocks completely clear of the bedrock foundation so that you could see underneath them from one side to the other.

I supposed that these were the ‘dolmens’ that Manson Valentine had spoken of in one of his reports – certainly there was nothing else on the Bimini Road that fitted this description. But despite a superficial resemblance – big blocks propped on top of smaller blocks – these structures obviously weren’t dolmens. I wondered if the little vertical ‘pillars’ were just bits of loose rock that had been lying around on the sea-bed and that had been washed under the big blocks by tides or storm swells. But if so, why were they only under the biggest and heaviest blocks – the ones that

would have been hardest for storms to shift around – and not under the smaller, lighter ones?

I spent days drifting up and down the Road, trying to get my bearings on it and to figure out what it is. Around noon with the sun most directly overhead and the underwater visibility at its best, the long straight avenues of blocks seemed to stretch away for ever in either direction. Mostly they lay directly on top of the extensive plateau of exposed limestone bedrock but sometimes they would disappear completely under sand-drifts, only to reappear on the other side, keeping the same heading.

Within the overall theme of parallelism other recurrent patterns were also evident – blocks arranged in circles, groups of three blocks of different shapes combined to form a triangle, seemingly deliberately fashioned cornerstones ‘finishing off’ a square or rectangular arrangement of dozens

of blocks – and so on and so forth. There were also groupings of similar-sized blocks such as the seven very large megaliths near the southern end of the inshore pier laid side by side next to much smaller blocks pursuing the same axis. In this case the seven large blocks crossed the full width of the axis. The smaller blocks next to them continued along the same axis and to the same width but were arranged in two parallel rows separated by a cleared area.

Natural and young, or man-made and old?

So what is the Bimini Road? Is it a natural formation and not very old? Or, in spite of all the scientific objections, could it be a man-made megalithic structure – even a remnant of Atlantis – covered by rising sea-levels many thousands of years ago?

To begin with the natural-versus-artificial debate, I do not think that the scientists have either proved that it *is* a natural formation or proved that it is definitely *not a* man-made formation – which would amount to the same thing.

For example, the research report from the National Geographic Society quoted in chapter 23 claims that there is no evidence anywhere on the site of courses of blocks having been piled on top of one another and that not enough scattered blocks lie in the vicinity to have formed a now-destroyed second course. This is taken as evidence in favour of the natural origin of the Bimini Road; however, I see no good or logical reason why humans should not have chosen from the outset to construct a structure one course high. Moreover, no consideration is given to another option – which is that the immense structure did have more than one course in the past but that the blocks are no longer there

because the vast majority of them have been removed. Although there may be no connection, elementary research amongst elderly islanders has uncovered several eye-witness reports of barges from Florida that used to *quarry stone* underwater off Paradise Point during the 1920s and take it back to Miami for use in construction projects. As the islanders tell it, the barges repeatedly visited the area to carry off stones over a period of several years.[1]

Another example of the scientific criticism of the proposed artificiality of the Bimini Road that I find disappointing is the National Geographic Society's claim that there are no regular or symmetrical supports beneath any of the blocks. This is flatly contradicted by my own experiences diving on the Road.

We've even seen that the evidence for microscopic

uniformity within the stones, which plays such a key part in the scientific argument for a natural origin of the site, has not gone uncontested. Zink and others have had quite different and equally bona fide results from their own drill cores, which indicate blocks adjacent to one another in the formation that were not formed side by side but in different chemical environments. The implication of this is that, while there is no doubt that the material used in the Bimini Road *is* beachrock (none of the pro-artificiality researchers have ever argued that it is anything else), it remains *possible* that beachrock deposits were cut, shaped, manipulated and arranged by human hands.

In their 1982 paper for the Society for Historical Archaeology's Conference on Underwater Archaeology at the University of Pennsylvania, Terry Mahlman and David Zink sum up the central thrust of the pro-artificiality defence:

The most controversial aspect of this site is the history of the megalithic blocks. More directly put, are they beachrock blocks cut and shaped by man or were they formed naturally in situ? Their composition, most agree, is micritized shell hash, or beachrock, which through the continued process of solution and recrystallization of its cement by sea water rich in calcium carbonate has become extremely hard in comparison with modern beachrock. The authors of this paper theorize that, after their original formation in a beach environment, these blocks were removed, shaped and placed above water by human agency. Later as the sea-level continued to rise after the last glacial period, the blocks were again covered and micritization commenced. Newly formed beachrock is easily worked in comparison with the blocks of the site. Their extreme hardness caused the destruction of the diamond bit of our 80mm core barrel after only 12 cores had been taken.

Micritization, once again the on-going replacement of the calcium carbonate cement binding the shell hash, also contributes to the problem of

> dating these blocks. This is because the new cement contains an increasingly higher proportion of Carbon 14, thus making the sample appear younger than it actually is.[2]

This brings us to the question of the age of the structure. Have orthodox scientists at least proved their case, as McKusik and Shinn claim, that some of the stones used in the Bimini Road might be less than 3000 years old?

Again, I don't think so. The situation of the megaliths is ideally conducive to the production of falsely youthful radiocarbon dates – and these young dates are further contradicted by the depth of submergence of the sites. As McKusik and Shinn themselves admit:

> Testing of submerged features in Florida and one test on North Bimini island shows that the sea level has risen at a rate of about one inch every 40 years for the past 5000 years. This rate of submergence over 2200 to

> 3500 years [the range of radiocarbon dates for the stones published by McKusik and Shinn] would account for 5.58 to 7.22 feet of the 15 feet of sea observed over the beachrock.[3]

Ignoring the fact that the depth of the Bimini Road is generally greater than 15 feet, McKusik and Shinn account for 'the remaining 7 to 9 feet of sea' by 'the undermining of sand, allowing the beachrock to gradually settle'.[4] This explanation, however, cannot work in the case of the seaward block cited earlier and carbon-dated to c.4000 BC – i.e., around 6000 years ago. At that date the block would have been well above the tidal zone and thus unable to form as beachrock at all. Mahlman and Zink's suggestion that there could have been contamination leading to falsely youthful carbon-dates from the tests on the Bimini Road therefore seems a reasonable one.

The mystery of Caho San Antonio: a possible underwater city off Cuba

In my opinion a mistake shared by the polarized and mutually suspicious communities that have studied the Bimini Road – both those who favour an artificial origin for the site and those who believe it to be entirely natural – has been to confine the arguments solely to dry debate about drill cores, micritization, shell hash, bedding planes, C-14, and suchlike. Meanwhile other -mainly contextual – issues have been underplayed.

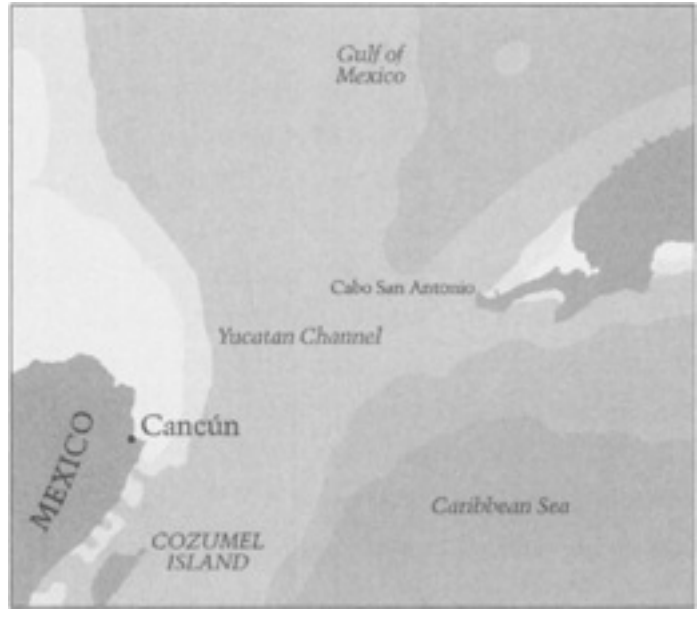

One entirely new issue, which could well prove to be contextual to the Bimini problem if it checks out, was put before scientists on 14 May 2001, when Reuters News Agency published an astonishing report of the apparent discovery of a complete city submerged in more than 700 metres of water off the west coast of nearby Cuba.[5] The team

that had made the discovery were not psychic Atlanteans but a consortium of scientists and salvage experts who had secured an exclusive concession from the government of Cuba to conduct searches for shipwrecks in Cuban waters. Such a search has never before been permitted and, though expensive to mount, is likely to prove very lucrative – since experts believe that billions of dollars' worth of sunken Spanish treasure ships lie in the deeps off Cuba.[6]

What one would not expect to find in water anywhere near as deep as 700 metres would be a sunken city – unless it had been submerged by some colossal tectonic event rather than by rising sea-levels. Mind you, the two are not necessarily contradictory and a colossal tectonic event occurring *amidst* an epoch of global sea-level rise seems to be exactly what is suggested in the Atlantis myth.

Some soundbites from the Reuters report:

> ‘It’s a new frontier’, enthused Soviet-born Canadian ocean engineer Pauline Zelitsky, from British Columbia-based Advanced Digital Communications, poring over video images of hitherto unseen seafloor taken by underwater robots.
>
> ‘We are the first people ever to see the bottom of Cuban waters over 50 meters … It’s so exciting. We are discovering the influence of currents on global climate, volcanoes, the history of formation of Caribbean islands, numerous historic wrecks and even possibly a sunken city built in the pre-classic period and populated by an advanced civilization similar to the early Teotihuacan culture of Yucatan,’ she said.

The report then tells us that, ADC, Zelitsky’s company, is ‘the heavyweight among four foreign exploration firms here’ and that, merely while testing its equipment in Havana Bay, it successfully located the wreck of the USS *Maine* which blew

up and sank mysteriously in 1898:

ADC has also been exploring a string of underwater volcanoes about 5000 feet deep off Cuba's western tip, where millions of years ago a strip of land once joined the island to Mexico's Yucatan Peninsula.

Most intriguingly, researchers using sonar equipment have discovered, at a depth of about 2200 feet, a huge land plateau with clear images of what appears to be urban development partly covered by sand. From above, the shapes resemble pyramids, roads and buildings.

'It is stunning. What we see in our high resolution sonar images are limitless, rolling, white sand plains and, in the middle of this beautiful white sand, there are clear manmade large-size architectural designs. It looks like when you fly over an urban development in a plane and you see highways, tunnels and buildings,' Zelitsky said.

'We don't know what it is and we don't have the videotaped evidence of this yet, but we do not believe that nature is capable of producing planned

> symmetrical architecture, unless it is a miracle,' she added in an interview in her office at Tarara, along the coast east of Havana.[7]

As the first edition of *Underworld* goes to press, the status of Cuba's underwater city remains unresolved. Is it a city? Or is it just a wonderful sonar hallucination? Presumably time will tell.

To clarify matters as much as possible in the meantime I asked Sharif to do a couple of telephone interviews. The first was with Paul Weinzweg, co-founder of Advanced Digital Communications (and husband of Pauline Zelitsky), who confirmed:

> The sonar images we have are very extensive, the structures extend over several kilometres. They're very large. Some as long as 400 metres. Some are up to 40 metres high. They're of different shapes. But there's a good deal of architectural symmetry. We've shown them to scientists in the US,

> Canada and Cuba… and they tell us that it's not geology, or that it's a great mystery … And we have very extensive bathymetry of that area as well, and it is very interesting that the shelf terraces down in even gradations. And it's obvious that if it is a major settlement of say a pre-classical or Atlantean nature, then the whole thing just sank, altogether, during some disastrous geological event. There are a couple of fault lines there, and an ancient volcano … It's off the coast of Cabo San Antonio, off the Western tip of Cuba …[8]

One of the scientists named by Weinzweg as supporting a possibly non-geological nature for the structures in the sonar images is Dr Al Hine, a marine geologist at the University of South Florida. He described what he'd seen on the images that Pauline Zelitsky had shown him as:

> Just bizarre. I couldn't provide an explanation for it but on the other hand there might be a reasonable explanation. They want to turn it into an

> archaeological site. I suppose that's possible but there are just as many alternative interpretations that could be valid as well. It's something worthy of further study, I suppose … But it was something that didn't really jump out at you. It was kinda vague and it might be something real or it might not be. That's the way it is with looking at acoustic geophysics on the sea-floor.[9]

Additional relevant comment came from Grenville Draper of Florida International University, an expert in the neotectonics of Cuba and its region, who thought it highly improbable that tectonic subsidence sufficient to have plunged several square kilometres of land to a depth of 700 metres below the sea could have occurred any time during the known human occupation of Cuba:

> Nothing of this magnitude has been reported, even from the Mediterranean. The only other possibility is that the 'objects' were carried

into position by an underwater landslide, something possible, even probable, in the Cabo San Antonio region.[10]

Inundation history

The odds in favour of the Cuban underwater city actually turning out to be anything of the sort don't look particularly good to me. But it would be nice to be surprised and we shall have to wait and see.

Meanwhile there are other more immediate contextual issues surrounding the Bimini Road that have never been examined. For example, no serious attempt has been made to explore the possibility that some sort of cultural relationship might exist between the 'Seahorse' and 'Shark' mounds above water on Bimini and the geometrical mosaic of the now-submerged Bimini Road. Likewise, there has been a failure by

both sides to consider the topography of Bimini and its changing relationship to the sea since the end of the Ice Age. For until as recently as 6000 years ago, as I was to discover when I received Glenn Milne's inundation maps for the region in the summer of 2001, Bimini remained part of a large antediluvian island lying across the Gulf Stream from Florida. Very close to the north-western tip of this palaeo-island, overlooking the Gulf Stream then as they do today, were what is now Paradise Point and the present site of the Bimini Road.

My question is this. Doesn't the existence of a large and perhaps inhabited island in the immediate vicinity of the Bimini Road until around 6000 years ago suggest the possibility that vital information concerning the Road's origins could now also be underwater? How can anyone arrive at certainties about this enigma when, as remains the

case today, no extensive underwater archaeology has ever been done on the Great Bahama Bank?

In July 2001 after my second series of dives at Bimini, this time with the Channel 4 film crew, I flew to Florida to put these doubts to Dr John Gifford of the University of Miami, co-author of the National Geographic Society research report quoted earlier, and one of the leading scientific proponents since the early 1970s of an entirely natural origin for the Bimini Road.

GH: John, when did your involvement with Bimini begin? When did it all start, and why?

Gifford: I came to the University of Miami as a graduate student in September of 1969, and at that time there were articles in the local newspapers describing a discovery that had just been made off

the coast of North Bimini, which was described as Atlantis, and the Dean of the school at the time, F. G. Walton Smith, decided that this would be a great project for someone who was interested in both archaeology and geology, as I was, so he essentially told me to go over there and study it and find out whether it was archaeological or geological.

GH: Right. And was that the main focus of your research on Bimini – that specific question? Or was it wider?

Gifford: It was, because at the time, again, in the fall of ’69, it was a major, major news story, and people were calling this place and saying, you know, ‘What can you tell us about Atlantis?’ and so we wanted to be on top of things.

I was interested to note, when I questioned Gifford on the age of the Bimini Road, that he did not rely on the disputed carbon-dates from the cores, but instead on the dates of seashells found under the blocks.

GH: Setting aside for a moment the argument about whether the Bimini Road is in any way artificial or not, how old do you think it is?

Gifford: That particular deposit is somewhat less than about 6000 or 7000 years old.

GH: And that's based on what? How do you arrive at that?

Gifford: One of the things we accomplished in my fieldwork there back in the early '70s, was to excavate underneath the blocks at a number of

locations, and we recovered very well-preserved marine shells, mollusc shells. We radiocarbon-dated those and the dates on the shells all fell between 6000 and 7000 years old.

I next pointed out to Gifford that our inundation maps showed a large island behind the Bimini Road down to about the same period – a solid mass of land quite different from the tiny strips of rock and sand that are all that remain of it today. ‘I don’t know what kind of landmass it was,’ I said. ‘Has your work ever touched on that?’

Gifford: No, no.

GH: But it strikes me that it might have been quite a habitable place at the time, when North America was covered in a vast ice-sheet … *Gifford:* Sure.

GH: And therefore possibly a place where people lived?

Gifford: Well, that's something that has occurred to a number of people, including myself, and so the first step, of course, would be to go to the Bahamas and look for very early archaeological sites not only underwater but on land.

GH: On land too. Yes.

Gifford: But out of all the archaeological surveys that have been done today on all the islands in the Bahamas, the oldest site that has ever been found on land is only about 3000 years old. There is simply nothing older than that.

GH: How much marine archaeology has been done in the Bahamas?

Gifford: Well, prehistoric marine archaeology, very, very little. Certainly there's been a lot of treasure-hunting for shipwrecks and so forth, but only within the last decade or so have some people begun to do things like explore the Blue Holes in the Bahamas. Those are obvious places where one might look for prehistoric remains. And I've heard reports of human bones being found at great depth in some of these Blue Holes, but I think in most cases the bones have been introduced much, much more recently and they've simply fallen down in the slopes. So my point is though, you see, if you've got an exposed Bahama Bank – thousands of square kilometres – and you've got people wandering around, at least some of those people are going to leave some traces on the high points, which are then going to become the

islands, which would then be places where land archaeologists would have found some traces.

GH: Now that's a fair point. But it's not a conclusive one. If we treat the Great Bahama Bank as an Ice Age island, the archaeology that has been done on it – even if you thoroughly archaeologized every bit of land that's above water, you'd still be only touching about 10 per cent or 15 per cent of the former island. So that means say, 90 per cent of the former island has never been looked at at all.

Gifford: That's true.

GH: Don't you think that's a bit unparsimonious, to jump to conclusions without doing the archaeology first?

Gifford: Well, it, it's … it's just a fact of life in this case

> that no one and no organization is going to fund a prehistoric underwater archaeological survey of the Bahamas …

A late flood

This is the way with self-fulfilling prophecies. The scientific consensus that there is nothing particularly worth looking for underwater around the Bahamas inevitably affects research priorities and the result is that no serious underwater research gets done. Naturally, in consequence, nothing is found. This in turn reinforces the view that there is nothing worth looking for – and so on *ad infinitum*.

But coming at the problem from the point of view of inundation science introduces the possibility of a different perspective – one that tends to excite curiosity about the

past. Rather than simply being underwater, inaccessible and unlikely to attract research funds, the inundation maps show that the Bimini area once contained not just one but in fact three principal islands, as well as several smaller islands, that are likely to have enjoyed a favoured climate during the Ice Age. The inundation map for 12,400 years ago shows, to the north, a crescent-shaped island around present-day Grand Bahama, Great Abaco and Little Abaco. Clockwise to the south-east from there we come to a second lost island. This island fills in what is now Tarpum Bay under Eleuthera, then connects via the thin but very probably unbroken line of the Exuma Cays to an even larger exposed area stretching almost as far south as Cuba – itself significantly larger than it is today. Third, to the north-west in the direction of the Florida peninsula covering present-day Andros island and occupying most of the Great Bahama Bank, is the largest antediluvian

island of all, with Bimini and the Bimini Road right at its tip.

The inundation map for 6900 years ago shows some coastal erosion of the three main islands but otherwise the picture remains basically unchanged – indicating that the islands survived beyond the last of the three great episodes of global postglacial flooding around 7000 years ago. However, in the next inundation map in the sequence, for 4800 years ago, all the islands have gone. The most likely culprit for their inundation is the so-called Flandrian transgression, the final spasm of the Ice Age meltdown, which took place between 6000 and 5000 years ago.

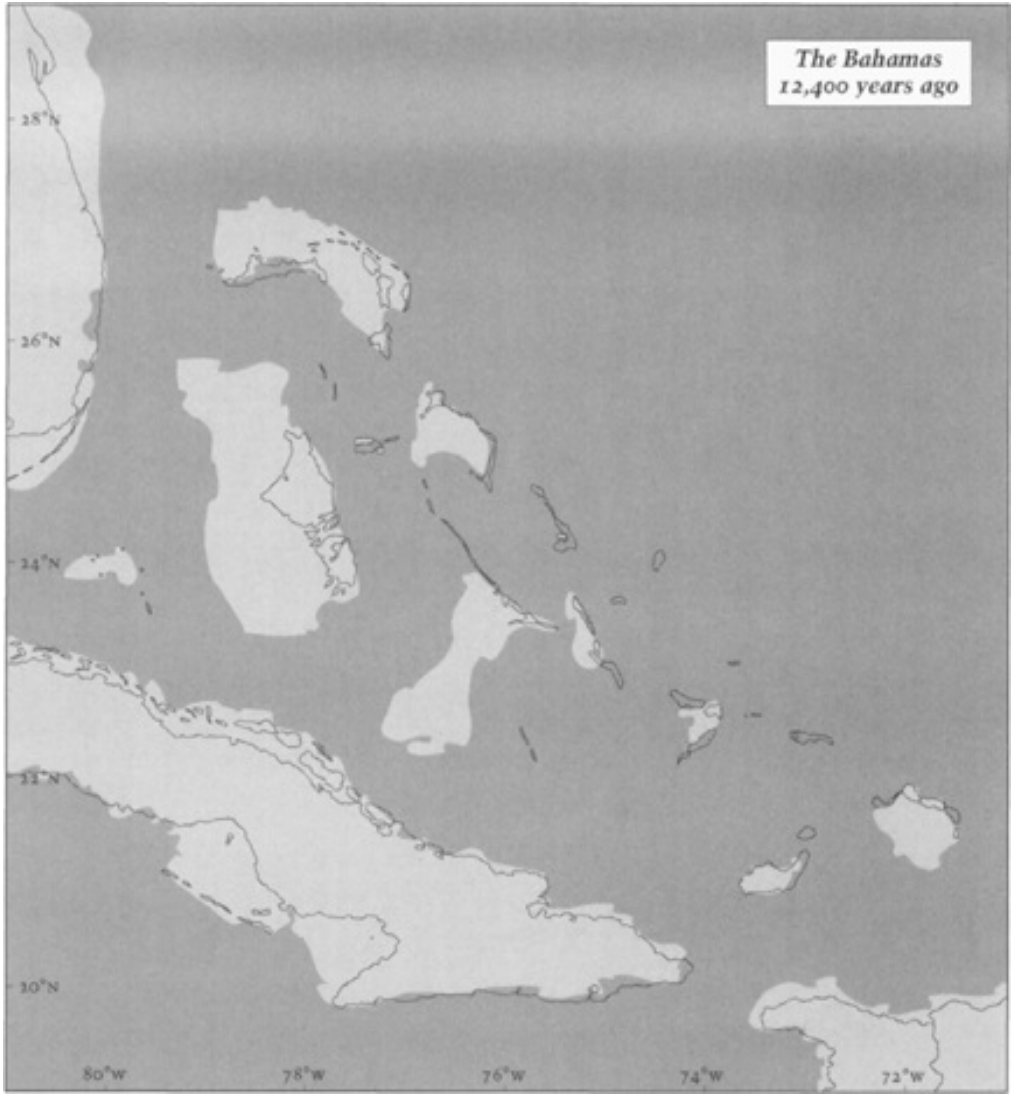
The Bahamas
12,400 years ago
28°N
26°N
24°N
22°N
20°N
80°W
78°W
76°W
74°W
72°W

Speculation 1: the chart shared by Columbus and Pinzon

To the strictly limited extent that inundation science can accurately reconstruct former coastlines I find it interesting – nothing more than that – that the formidable antediluvian island of which Bimini formed a part until about 6000 years ago does bear a loose resemblance in size, shape and general orientation, to the 'mythical' island of Antilia on the 1424 Pizzagano chart. Like Antilia on that chart, antediluvian Bimini even has a smaller island lying to its west -occupying the position of the present-day Cay Sal Bank.

Is it possible that the mysterious 'book' said to have inspired Columbus to cross the Atlantic by showing him that it had an end could have contained a chart of the Atlantic

Ocean of the kind proposed by Nordenskiold – a chart dating back to the mapmaking tradition of Marinus of Tyre? Other charts linked to this tradition, such as the Cantino and Reinal maps of the Indian Ocean and the numerous portolans featuring Hy-Brasil, contain memories or 'ghosts' of Ice Age topography and coastlines. So perhaps the coast and islands that the 'book' of Columbus was said to have portrayed on the western side of the Atlantic were also shown as they looked before being inundated by rising sea-levels? If Bimini on the original 'Tyrian sea-fish' source map had been depicted as it looked at almost any time between 12,000 years ago and 6000 years ago, then it could theoretically have provided the model for the 'mythical' island of Antilia that began to appear on portolan charts during the seventy years prior to Columbus's voyages of discovery.

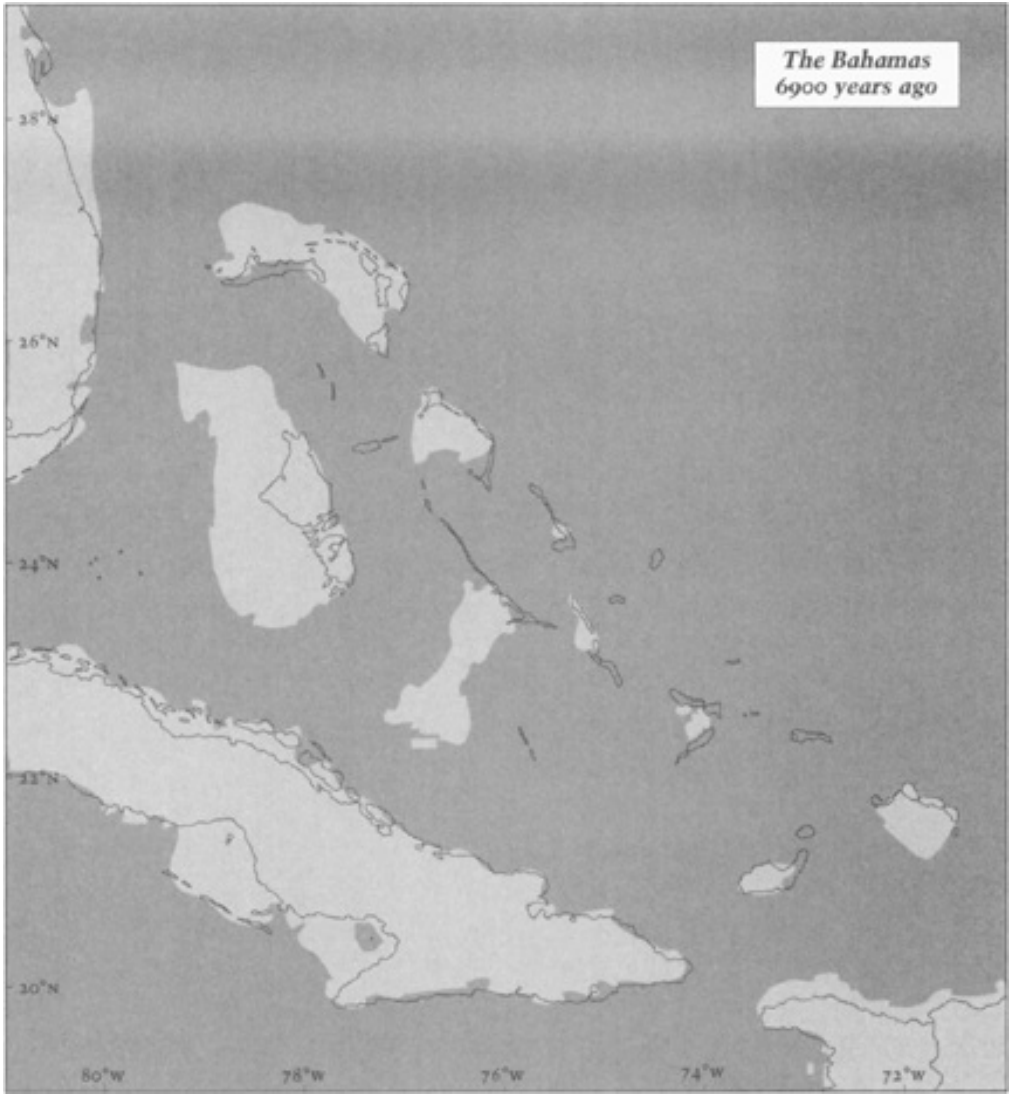
The Bahamas
6900 years ago
28°N
26°N
24°N
22°N
20°N
80°W
78°W
76°W
74°W
72°W

For whatever reason, we do know that Columbus had a special interest in Antilia. Cited earlier, he is on record with a comment that suggests he recognized a specific Phoenician (in this case Carthaginian) heritage behind the appearance of Antilia on fifteenth-century nautical charts:

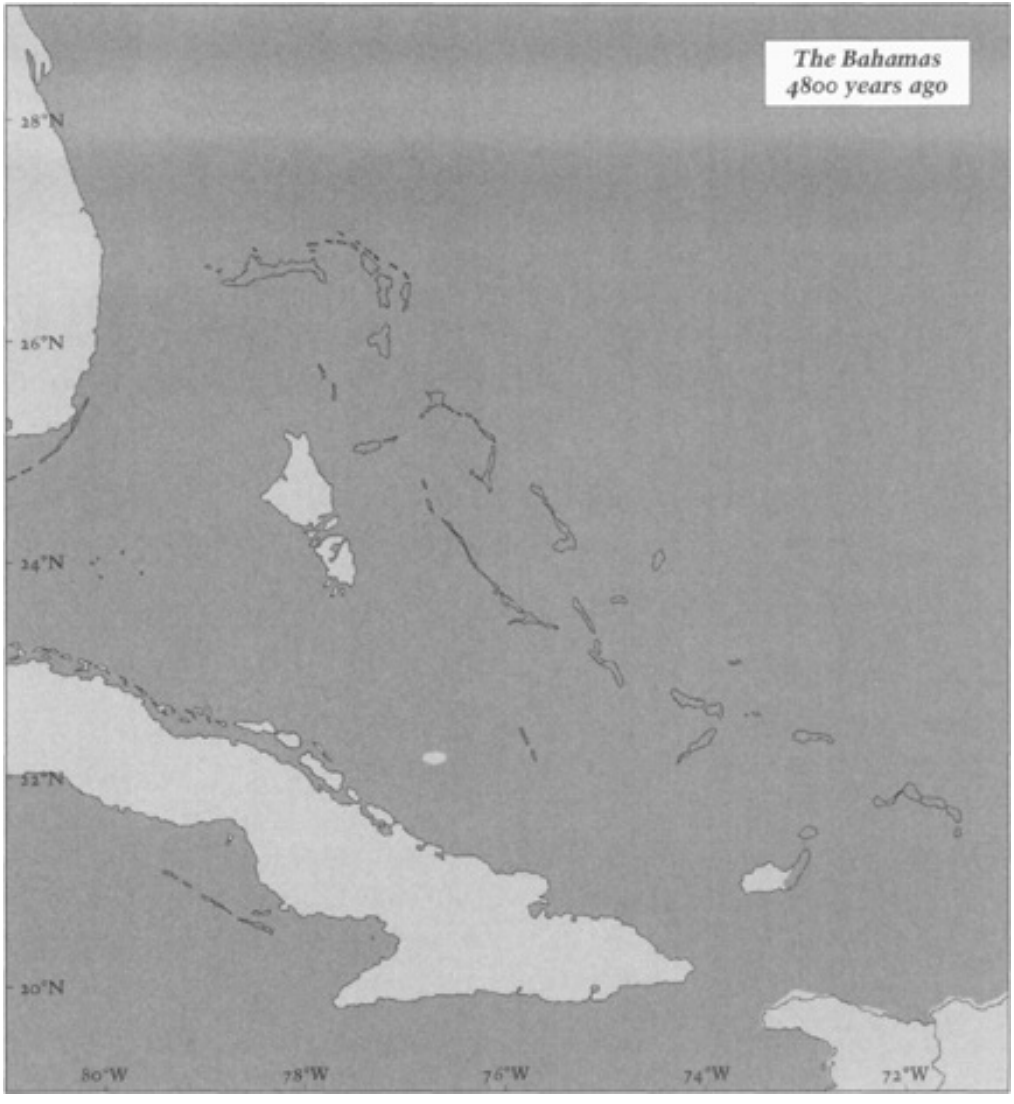
The Bahamas
4800 years ago
28°N
26°N
24°N
22°N
20°N
80°W
78°W
76°W
74°W
72°W

> Aristotle in his book *On Marvellous Things* reports a story that some Carthaginian merchants sailed over the Ocean Sea to a very fertile island … this island some Portuguese showed me on their charts under the name Antilia.[11]

Indeed, prior to winning the Spanish sponsorship that financed his expedition to the New World, it is reported that 'Christopher Columbus was making himself a nuisance at the Portuguese court with persistent requests for an expedition to enable him to verify the marking of Antilia' on certain maps.[12]

We've already explored some of the issues raised by the alleged 'book' of Columbus and the hints that it may have contained an ancient nautical chart of the Atlantic that also showed certain parts of the New World. The suspicion that a

map had indeed fallen into Columbus's hands is further strengthened by certain passages from his own *Journal* of the first voyage – an abridged version of which, edited by his friend the friar Bartolome de las Casas and often expressed in the third person, has come down to us.[13]

The Atlantic crossing began from the port of Gomera in the Canary islands on 6 September 1492. Three weeks later Columbus and his three little caravels were deep into the terrifying, unknown reaches of the Ocean Sea – where, supposedly, no man had ever gone before to make a map. It is strange, therefore, to read the following entry:

> *Tuesday 25 September 1492.* The Admiral [Columbus, upon whom the King and Queen of Spain had bestowed the title 'Admiral of the Ocean Sea'] spoke with Martin Alonso Pinzon [Columbus's second-in-command], captain of the caravel *Pinta*, regarding a chart which the Admiral had sent

> to him three days before in which, it appears, he had certain islands marked down in that sea. Martin Alonso was of the opinion that they were in the neighbourhood of those islands, and the Admiral replied that he thought so also but, as they had not found them, it must be due to the currents which had carried them to the NE … The Admiral called upon him to return the chart and, when it had been sent back on a rope, the Admiral with his pilot and sailors began to mark their position on it.[14]

In my opinion this entry leaves very little room for doubt that Columbus and Pinzon did indeed possess a chart – or charts – showing some areas of the New World and suggesting a route across the Atlantic Ocean that would take them directly to it. This might also explain why Columbus consistently and knowingly underestimated the distance travelled each day in the information that he gave to his crew. He did so every day of the outbound voyage. Here are a few of the relevant entries from the *Journal:*

Sunday 9 September 1492. Sailed nineteen leagues today – and decided to count less than the true number, that the crew might not be frightened if the voyage should prove long.[15]

Monday 10 September. In that day and night sailed sixty leagues … Reckoned only forty-eight leagues, that the men might not be terrified if the voyage should be long.[16]

Wednesday 26 September. Sailed day and night thirty-one leagues and reckoned to the crew twenty-four.[17]

Wednesday 10 October. Day and night made fifty-nine leagues progress to the West-south-west; reckoned to the crew forty-four.[18]

Is it possible that Columbus adopted this practice of under-reporting the actual distances travelled because he had, from the outset, a very *good* idea from his chart about how long the voyage was likely to be and knew that the men would never have set out at all, and would want to turn back, if he

had been more honest with them?

Speculation 2: the world according to Columbus

For all the reasons outlined in previous chapters, let's speculate that Columbus did – somehow – come into possession of an old nautical chart showing the New World, and that he was sufficiently convinced of its veracity to risk crossing the Atlantic on the strength of it. Moreover, we've seen that Columbus promoted his expedition to potential sponsors on the explicit grounds that he had a chart which showed the coast and islands at the end of the Western Sea. Unless Columbus was completely mad, it follows that this chart must have possessed some quality (perhaps to do with the 'book' in which it was incorporated) that left him in no doubt that it was accurate. Certainly, it must have

distinguished itself in a significant and obvious way from any other maps or charts (for example the Behaim globe – see overleaf) that would have been available to Columbus and already known by his sponsors in 1492. Let's also speculate that this vitally important and convincing chart did *not* show the entire Atlantic coast of the Americas but was a fragment featuring only the mainland and islands between the Florida peninsula and Venezuela on the western side of the Atlantic (probably combined, with a typical portolan portrayal of the coasts of southern Europe and north Africa on the eastern side of the Atlantic).

What mainland and what islands would Columbus have been most likely to have believed were shown awaiting discovery by anyone daring enough to cross the Ocean Sea? Everything suggests that, far from a 'New World', what the Admiral actually expected to find at the end of his first

crossing of the Atlantic was the remote and fabulous eastern extremity of the *Old World* – quite specifically Japan and China as they had been described in Marco Polo's *Travels* and other sources.

This was not a zany, way-out idea on Columbus's part but was the consensus view of geographers, mariners and merchants of his day. All accepted that the earth was a sphere and that it should be possible to sail round it in both directions. None knew of the existence of the Americas. All accepted, at least theoretically, that this meant Japan and China in the extreme east might be fetched more quickly, safely and easily by sailing west across the Atlantic from Europe, than by means of the arduous overland route that Marco Polo had taken to the Court of the Great Khan in the thirteenth century …

Such ideas were in wide circulation and had been

expressed in clear visual form on maps and globes prepared before Columbus ever crossed the Atlantic. The classic example is the Behaim globe, completed at the beginning of 1492 -which Columbus is known to have seen in the months before his first voyage.[19] Redrawn here in plan form (overleaf) this globe by the geographer Martin Behaim (Martin of Bohemia) shows the British Isles, Spain, North Africa and the Canary islands separated from Cipango (i.e., Japan), China, 'Greater India' and the Indonesian archipelago by an Ocean Sea *about one-third wider* than the Atlantic.[20] In between there is no sign of the New World – of course, because Columbus would not discover it until later in 1492 – but Behaim has installed for good measure some 'mythical' islands, including the island of Saint Brendan and also Antilia. It is noteworthy that he represents the island which he labels Antilia as rather small and insignificant – nothing

like the large and roughly rectangular landmass shown under the name of Antilia on the 1424 chart. But, weirdly, a landmass with something of the traditional rectangular, north-south shape of Antilia does appear much further west on the Behaim globe – lying in the Ocean Sea off the Chinese mainland. Behaim has labelled it Cipango (Japan) and surrounded it with numerous smaller islands.

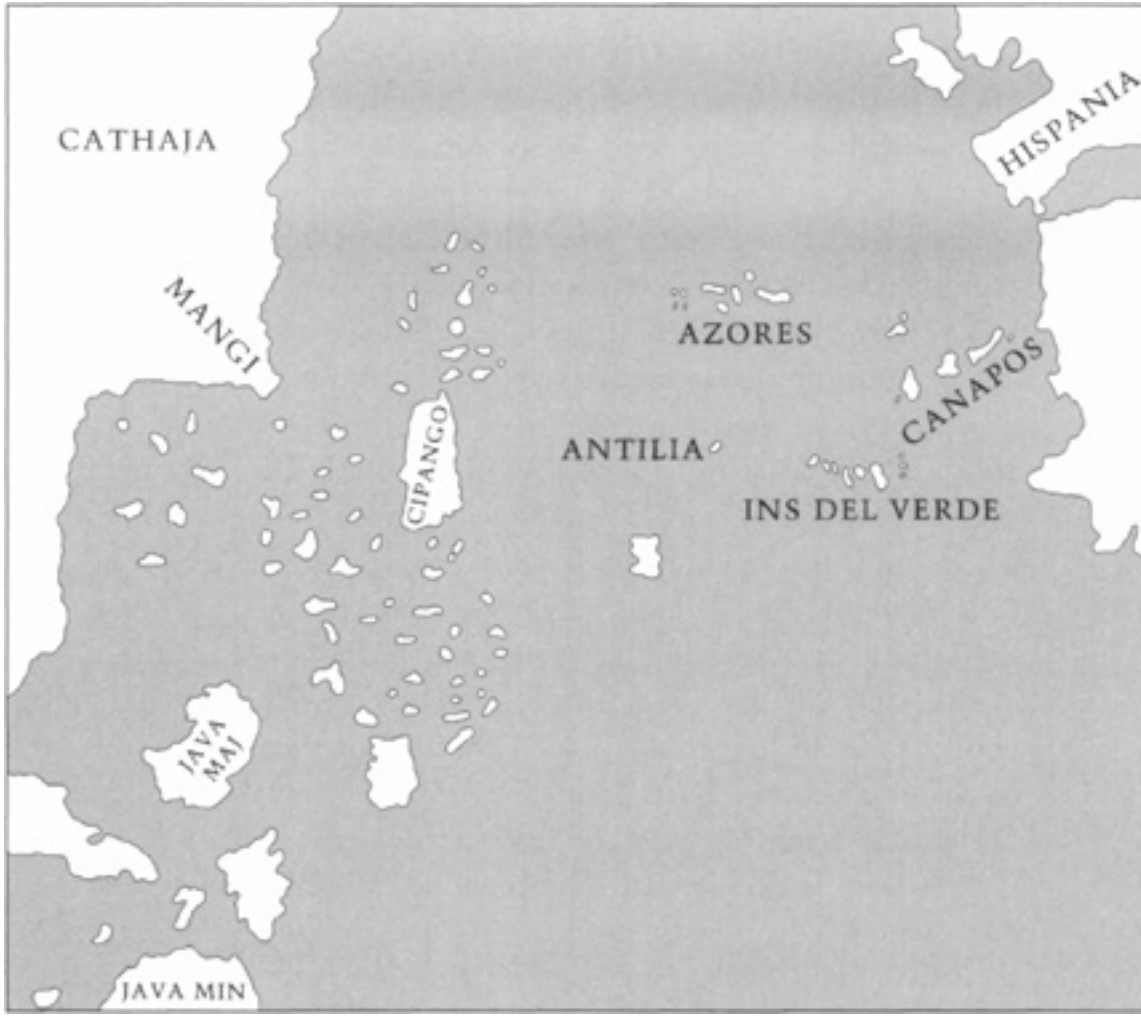
CATHAJA
HISPANIA
MANGI
AZORES
CANAPOS
CIPANGO
ANTILIA
INS DEL VERDE
JAVA MAI
JAVA MIN

Coast outlines from Martin Behaim's 1492 globe. Based on Fiske (1902).

Other maps of the period that depict Cipango in the same Antilia-like manner include the Yale-Martellus world map of 1489 and the Contarini-Rosselli world map of 1506.[21]

What all have in common is an Ocean Sea far wider that any sailor of the fifteenth century would have dared to cross, Columbus included. All the more reason to suppose that the chart upon which he relied to make the crossing did indeed show the width of the Atlantic accurately – still a formidable enough distance to travel, but possible … possible.

Speculation 3: to Asia with a map of the Americas?

I want to reinforce the point here that Columbus, in possession of our hypothetically accurate but outdated 'Tyrian sea-fish' chart of certain parts of the eastern seaboard and islands of the Americas, could have used it successfully to guide his little fleet of caravels to the New World while yet remaining absolutely convinced that the coast and islands he had reached were parts of eastern Asia. Conditioned by Polo and Ptolemy, Columbus's conception of the eastern extremity of Asia is likely to have been close or identical to that shown on the Behaim globe. Sailing west, he would, in other words, have been expecting first to find Antilia, then the island of Cipango (set amongst numerous other islands as Polo had indicated). And after Cipango he would have expected to arrive at the great curving peninsula of the Chinese province of Mangi, described by Marco Polo, with its fabulous capital of Zaitun.

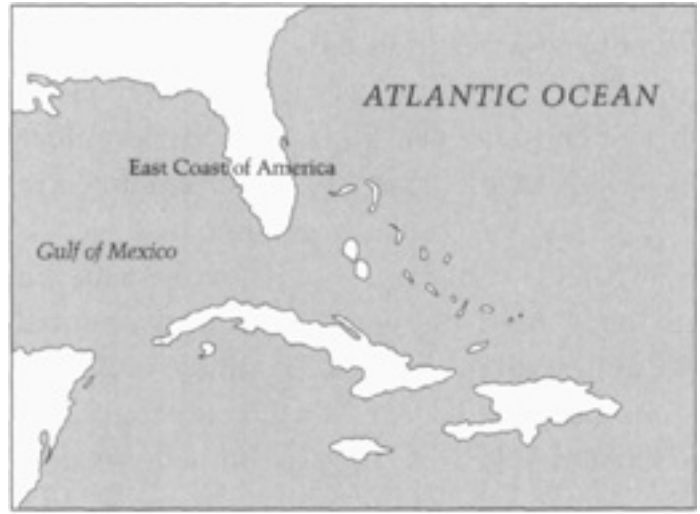
ATLANTIC OCEAN
East Coast of America
Gulf of Mexico

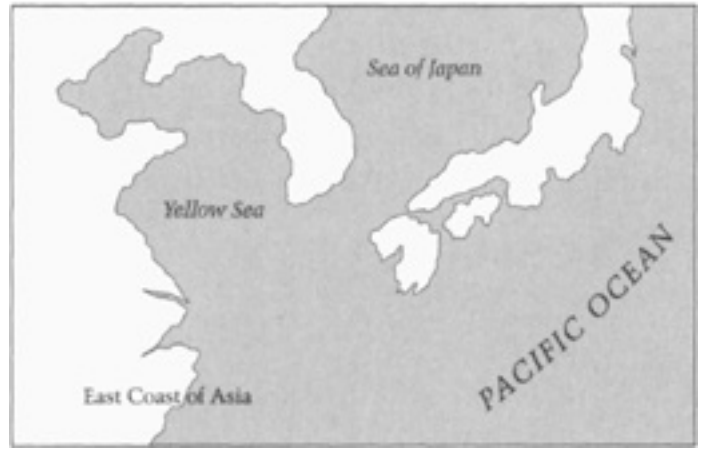
Sea of Japan
Yellow Sea
PACIFIC OCEAN
East Coast of Asia

Comparison of east coast of America with east coast of Asia.

Meanwhile – please remember this is speculation – what Columbus and Pinzon actually had to guide them was an antediluvian chart *not* of the coast and islands of Japan and China but of the Americas and the Caribbean between Florida and Venezuela. The chart showed pre-deluge Bimini (connected to Andros and the exposed Great Bahama Bank) as a large island with a shape and orientation roughly similar to that of Antilia on the 1424 Venetian portolan, *but showing an even closer resemblance to Cipango on the Behaim globe.*

We know from the inundation maps that antediluvian Bimini was also surrounded by other islands – as Columbus expected Cipango to be. Imposing his preconceptions on the

chart, it is therefore quite possible that he mistook for Cipango what was in fact the cartographic ghost of antediluvian Bimini 6000 or more years ago, and that he mistook the Central American mainland that lay beyond for the Mangi peninsula.

It is usually argued that Columbus's dreamlike and almost hallucinatory misunderstandings of the geography of the region he discovered arose out of his deep belief that he was sailing to Asia on the one hand and his actual experiences in the New World on the other. But I suggest – again, speculation only – that the real source of the dissonance between expectation and experience was that Columbus's chart showed antediluvian features that had been long submerged by 1492 and that therefore could not be found no matter how frantically he searched for them. Despite these 'maladjustments', however, the islands and mainland of the

part of the New World he had arrived in matched up well enough with his expectations of the islands and mainlands of Asia (see page 539) for him to convince himself that he was indeed in Asia.

Entries from the *Journal* of the first voyage make this extremely clear. First landfall was made at San Salvador on 12 October 1492,[22] a point very close to the group of large antediluvian islands that existed around Bimini down to 6000 years ago. If the chart that Columbus used to get his fleet across the Atlantic had shown these ghost islands – the largest of which he believed to be Cipango – then he would have been disappointed and disoriented when he failed to find any large islands at all in the area. He might well have concluded that the chart on which he had placed so much reliance was after all inaccurate, or he might have concluded that he had failed to follow his course properly.

The *Journal* suggests that Columbus believed his fleet could have been carried too far to the north-east by currents on the transatlantic crossing.[23] It is therefore of interest that on leaving San Salvador he chose to sail a compensatory route south and west, through the characteristic tiny cays and sandbars that dot the seascape today, trying to pick up intelligence *en route* about the whereabouts of the large island of Cipango:

> *Sunday 21 October 1492. I* shall presently set sail for another very large island which I believe to be Cipango according to the indications I receive from the Indians on board. They call the island Colba [Cuba]. [From there] I am determined to proceed on to the mainland, and visit the city of Guisay [Qinsai] and deliver the letters of Your Highnesses [Ferdinand and Isabella of Spain] to the Great Khan, demand an answer and return with it.[24]
>
> *Tuesday 23 October*. It is now my intention to depart for the island of

> Cuba, which I believe to be Cipango from the indications these people give of its size and wealth, and will not delay any further here …[25]
>
> *Wednesday 24 October*. This must be the island of Cipango, of which we have heard so many wonderful things. According to the globes and maps of the world I have seen, it must be somewhere in this neighbourhood.[26]

Columbus did not complete the exploration of Cuba on his first voyage, and on his second voyage he changed his mind about its identification with Cipango and decided that it was part of the mainland of south-eastern China instead. This was because islanders told him that 'Cuba had no end to the westward', and referred him for further particulars to 'the people of Mangon, a province towards the west'.[27] As Charles Duff explains:

> The name Mangon inflamed the imagination of Columbus, who immediately identified it with the Mangi of Marco Polo, the southern

province of China, 'the most magnificent and the richest province that was known in the eastern world,' according to Polo.[28]

> [Columbus] was now – as it happened – within two or three days sail of the western end of Cuba, the discovery of which would have disillusioned him concerning its connexion with the mainland of Asia. As it was, he turned back firmly convinced that Cuba was the eastern extremity of the Asiatic continent. And in that belief every person on board expressed his concurrence by a solemn signed deposition. Columbus never afterward abandoned his conviction – he remained unshaken to the end of his life. The dream or fantasy was to him a reality …[29]

Despite the constant stream of new discoveries and rapidly improving maps that followed the voyages of Columbus, the dream remained a reality for many others as well. Thus, an inscription placed next to the coast of Asia on the Contarini-Rosselli world map of 1506 informs us that 'Columbus sailed

westward to the province of Ciamba, the region of China opposite Cipango.'[30]

Last but not least, improbable though it may seem, it is known that Columbus finally decided that the island of Hispaniola was the Cipango of his dreams.[31]

As noted earlier, Gregory Mcintosh has presented a compelling case that a copy of an original map drawn by Christopher Columbus in which Cuba is represented as part of the Central American mainland is incorporated into the world-famous Piri Reis map of 1513. It is therefore intriguing to note – on exactly that section of Piri's map that was derived from Columbus – that a large 'ghost' island with approximately the same shape, dimensions and north-south orientation as antediluvian Bimini is prominently depicted. What seems to seal the identification with antediluvian

Bimini – as the reader may confirm at a glance from the zoomed window overleaf – is that this ghost island is clearly marked with a row of huge stone slabs laid out in a manner that strongly resembles the layout and appearance of the slabs in the now-submerged Bimini Road. Mcintosh does not comment on this peculiar megalithic image on the 1513 map; however, he does believe that he can explain the presence there of the non-existent island itself without any recourse to ghosts from before the flood.

It's all terribly simple, he argues. This large north-south oriented island cannot be found today because it is just the result of a dishonest – or at any rate self-deluding – representation by Columbus of the island of Hispaniola to make it look more like the island of Cipango that he had convinced himself it was.[32]

Now a glance at any modern atlas will show that Hispaniola (today divided between Haiti and the Dominican Republic) has an east-west rather than north-south orientation and that an island of roughly the right size, in roughly the right place and with roughly the right east-west orientation to be Hispaniola does actually appear on the Piri Reis map. However, Mcintosh ignores that option and reminds us (correctly) that Columbus shared the general conception shown on the Behaim globe, etc., of Cipango as an island with a north – south orientation.[33] So wedded was the great explorer to that idea, alleges Mcintosh, that in maps made on his second voyage (one of which Piri Reis copied) he simply flipped Hispaniola 90 degrees so that it now lay north-south -with the end-result that: 'The shape and orientation of Hispaniola on the Piri Reis map is strikingly similar to that of Cipango shown on maps of the fifteenth and

sixteenth centuries.’[34]

Piri Reis’s ghost island in the Caribbean.

‘It is difficult to accept the fact,’ adds Mcintosh:

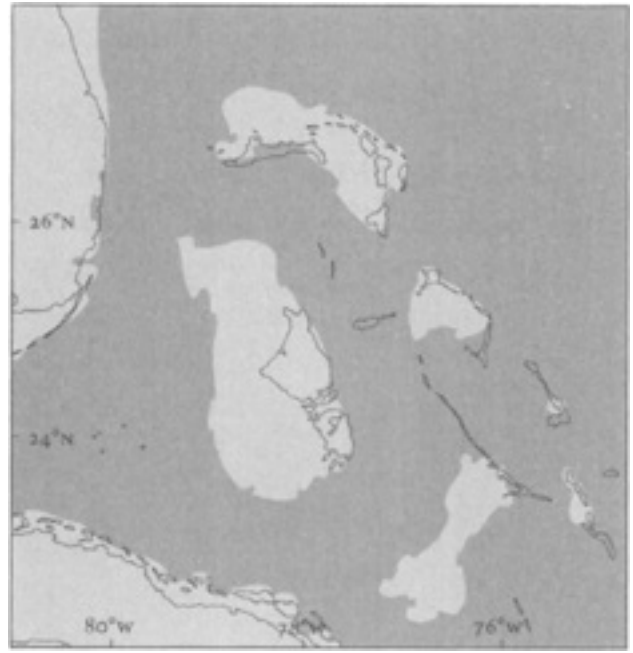

Exposed Great Bahama Bank, 6900 years ago.

> that Columbus, perhaps the greatest navigator of his time, would contort the orientations of Cuba and Hispaniola as much as 90 degrees out of place … [Yet] for Columbus in 1495–96, when the map was made that Piri Reis was later to use, to have turned Hispaniola 90 degrees to its correct position was to admit it was not Cipango and that his 'Enterprise of the Indies' was a failure.[35]

This is actually a moot point and Mcintosh passes over it too quickly. Columbus may well have shared the general preconception, apparently based on nothing more than vague reports of Marco Polo, that Cipango was a north-south-oriented island, but he was a practical man as well as a dreamer, and a good navigator by all accounts. I do not think he would have persisted in the notion that Cipango was oriented north-south if the island that he believed to be Cipango turned out, in practice, to be oriented east-west. Either he would have decided that he had not yet found

Cipango, or that the old travellers' tales about Cipango being oriented north-south had been wrong and that his own scientifically measured east-west alignment for the island should be substituted on future maps.

Hispaniola was discovered by Columbus on his first voyage, when he named it not Cipango but 'La Isla Espanola' – 'The Spanish Island'. Mcintosh's identification of Hispaniola with the strange north-south island on Piri's map is therefore strengthened by the fact that Piri labels it, literally, 'The Island Named The Spanish Island'. Additional support comes from a place-name on the island -Paksin vidad. 'This name,' says Mcintosh, 'is undoubtedly Navidad, the name of the first settlement founded in the New World on the north coast of Hispaniola.'[36]

The peculiarly ambiguous identification of Hispaniola with

Cipango that Mcintosh believes Columbus was anxious to make filtered through to others and survived long after it was known that Hispaniola was definitely *not* Cipango. Thus, in a legend on the Ruysch map of 1507 we read that 'what the Spanish have named Hispaniola is also Cipango'.[37] Likewise, Ononteus Finnaeus, in his world map of 1534, labelled Hispaniola as Cipango.[38]

The picture is then further complicated by other sources in which we find Hispaniola being identified not with Japan but with Antilia – for example in letters from the explorer Amerigo Vespucci published in 1506.[39] And this, in turn, may well relate to what was apparently a widely held opinion after Columbus's first voyage, particularly amongst the Portuguese, that 'the islands he had discovered were the islands of the legendary Antilia and not the coast of Asia'.[40]

Indeed, this is the reason why the Caribbean islands on modern maps are still called the Antilles today.[41]

Amidst such cartographic confusion over place-names and attributions I think there is room to respect the quality of the theory that Mcintosh has put forward while remembering that it is only a theory and that there are other possible explanations of the island thought to represent Hispaniola/Cipango on the Piri Reis map. It is possible, for example, that the place-names on the island which so strengthen its identification with Hispaniola ('The Island Called The Spanish Island' and 'Paksin vidad') were not present on the Columbian original but were put there speculatively by Piri Reis himself.

In view of correlations with Ice Age topography identified on other maps of the period, and of the special importance

given to the anachronistic map showing the end of the Western Sea that the Admiral was said to have possessed *before* discovering the Americas, I remain open to the possibility that all along what Columbus thought of as representations of Cipango and its surrounding islands on his mysterious chart could have been ghosts of the antediluvian islands of the Great Bahama Bank.

Taken to the limit, this line of reasoning might even suggest that the model for early cartographic representations of Cipango (conceived of as an island that could be reached by sailing west from Europe) was not provided by vague travellers' reports sent back across the breadth of Asia as has hitherto been supposed, but was in fact derived from the representation on 'Tyrian sea-fish' maps (one of which had fallen into the hands of Columbus) of the large antediluvian island of Bimini.

But if the ghost of antediluvian Bimini did provide the model for early representations of Cipango, then, logically, it could not also have doubled up as the model for the legendary island of Antilia (which often appears on the same maps as Cipango).

Is there a model for Antilia?

That thing between Columbus and Pinzon again …

We've seen evidence, both from the inscriptions of Piri Reis and from the *Journal* of the first voyage, that Columbus possessed a chart of the Atlantic -and that it was considered so important as a guide to the crossing that it was passed back and forth between Columbus in his flagship the *Santa Maria* and his second-in-command Martin Alonso Pinzon, captain of the *Pinta*. The presence and exact character of this

chart seem enigmatic when we remember the intensive demand for it from the two captains (who shared it but apparently did not possess individual copies), its obvious practical utility to them throughout the voyage, and the fact that it got them to the New World. Such a useful chart of the Atlantic cannot be explained against the background of the cartographic knowledge of the time. On the contrary the part that it played in the success of the Columbian voyages must be weighed up against the background of the abysmal ignorance of even the greatest mapmakers in Europe of the true circumstances of an Atlantic crossing and of the real appearance of the coast and islands on the western side. To have followed the speculative vision of Behaim in his famous globe, or of others like him,[42] would have been disastrous, even though their work represents the cream of fifteenth-century mapmaking and was known to Columbus. Indeed, as

one commentator has observed, if his chart had been based on the Behaim scenario, 'Columbus could not even have known of the whereabouts of the New World, much less discover it.'[43]

Yet not only does he seem to have known where he was going but, on some accounts, when he was going to get there:

> Now and then Pinzon and Columbus consult and deliberate – mutually discuss their route. The map or chart passes not infrequently from the one captain to the other; the observations and calculations as to their position are daily recorded, their conduct and course for the night duly agreed upon.
>
> On the eve of their due arrival Columbus issues the order to stay the course of the armada, to shorten sail, because he knew that he was close to the New World and was afraid of going ashore during the obscurity of the night …

> How does he know the place and the hour?
>
> 'His Genius' says the Columbus legend in explanation. But the Map? The critics will ask, what did it contain? Whose was it? What did that map contain that was so frequently passed from Columbus to Pinzon during the voyage?[44]

I've presented my case that what the map may have contained was an accurate but ancient, and indeed antediluvian, representation of the coast and islands of Central America, notably the north-south-oriented Great Bahama Bank island, which Columbus – no less ignorant than any of his contemporaries about the existence of the Americas – took to be an accurate map of part of the coast of China and the islands of Japan.

An interesting sidelight on this story concerns Pinzon himself. In 1515, nine years after Columbus had died, the

Pinzon family brought a lawsuit against the Admiral's estate on account of promises of benefit-sharing that he was said not to have kept. During this lawsuit it emerged that Pinzon too claimed to have had prior information of the route to the New World:

> Arias Perez Pinzon, the son of Martin Alonso testified that his father had definite indications concerning the Lands to the West, which indications he had found in documents in the library of Pope Innocent VIII. The witness said that he saw given to his father a document which contained the necessary information for the discovery. His father took it and carried it away with him, and upon his return to Castile from Rome he decided to set out to discover the said lands, and often talked with the witness about the voyage. Meanwhile the Admiral arrived … with a plan to discover the same lands. The father of the witness, hearing of it, went to see this Christopher Columbus and told him that his plan was a good one, that he was sure of it, and that if the Admiral had delayed a little longer he would

> have found Martin Pinzon already started with two caravels to make the discovery himself. The Admiral, knowing that, put himself on intimate terms with the father of the witness and brought about an agreement whereby the said Martin Pinzon was engaged to accompany him.[45]

It is not obvious from the proceedings exactly what Pinzon found in the Papal Library in Rome or how it set forth 'the necessary information for the discovery', but Gregory Mcintosh argues that it must have been 'an old document (a manuscript book or portolan chart?) that told of a mythical expedition that sailed west to Cipango …'[46]

Cipango again. And here are the words that Pinzon is reported to have used to recruit crews for Columbus's ships:

> Friends, come, come with us on this voyage! Here you're creeping about in poverty; come and sail with us! For with God's help we're going to discover a land that they say has houses roofed with gold.[47]

Houses roofed with gold are diagnostic of the fabulous island of Cipango described in Marco Polo's *Travels.*[48] It is therefore clear that whatever posthumous disagreements may have occurred over their relative roles in the discovery, Pinzon and Columbus had been absolutely of one mind from the very beginning that Cipango was to be their first destination and that the old charts or documents that they possessed showed the way there. They were not to know that their 'Cipango' was the outline of a ghost island amidst a ghost archipelago drowned 6000 years previously or that the mainland it lay off was not the end of the old world but the beginning of a new one.

The previous sentence, of course, is pure speculation on my part – just a hypothesis launched to provoke inquiry into neglected possibilities. And it still leaves the problem of

Antilia unresolved.

Professor Fuson's lateral thinking about Antilia and Satanaze

The identity, location, size and orientation of the 'mythical' island of Antilia underwent continuous bewildering changes on all kinds of maps and charts over a period of hundreds of years. There is, however, a definite beginning to this energetic metamorphosis and that is marked by the 1424 Venetian portolan on which Antilia first appears – presumably in its purest, least-changed form. On that chart, a smaller island is also shown lying to the west of Antilia. And it is important to remember that a second large 'mythical' island, Satanaze, is shown lying to the north-east of Antilia, again with a much smaller island (named Saya) near by, this

time to the north.

The identification of the two larger islands by Professor Robert H. Fuson of the University of South Florida – in his 1995 book *Legendary Islands of the Ocean Sea*[49] – is, in my opinion, a masterpiece of historical detective work. And it illustrates, better than any other example I know, how the ghosts of islands can migrate not only through time but also through space, and sometimes through both dimensions simultaneously.

What Fuson has demonstrated, conclusively I think, is that Antilia and Satanaze, marooned in mid-Atlantic on the 1424 Venetian chart, are in fact the earliest true maps to appear in the West of the Pacific islands of Taiwan and Japan. His argument in brief is that the mapmaker Pizzagano had somehow come into possession of Chinese nautical charts of

Taiwan and Japan and – being as ignorant as Columbus and others of the existence of the Americas – had placed these islands in the Mid-Atlantic with the assumption that the mainland of China lay somewhere beyond.

Why Antilia is Taiwan

Fuson begins provocatively:

> A number of large, Asiatic islands were charted by the Chinese during the active maritime period of the first two decades of the 15th century. One of these islands, Antilia, is known today as Taiwan.[50]

As was said in many of the legends about Antilia, Fuson points out that Taiwan has gold-bearing sands.[51] Moreover,

> Taiwan also has something else that Antilia must have, and that is a small

island to the west. On the 1424 Pizzagano chart it was called *Ymana*. Today it is the *Peng-Hu* group, or *Pescadores* (Islands of the Fishermen). There are 64 islands totalling 50 square miles.[52]

Some quotations from Fuson gave a taste of the quality of his proofs and the strengths of his arguments:

- Antilia on the 1424 nautical chart is about the right size and its shape articulates well with modern Taiwan.
- Every one of the eight or nine river mouths of Antilia matches one of the principal river mouths of Taiwan.
- The five largest rivers are correctly placed on the 1424 map of Antilia. Of Taiwan's ten major rivers, seven are indicated on the map of Antilia and in approximately the correct locations.
- Every significant coastal feature is plotted: embayments,

capes and peninsulas. Antilia and Taiwan also share a unique north-eastern coastline. There the tip of the island terminates in a sharp, narrow cape. To the north-west the coastline is smooth and rounded.[53]

Why Satanaze is Japan

Fuson's case for Japan is equally well made and again I will give the gist of it briefly and in his own words:

- North of Antilia on the 1424 chart are two islands: Satanaze and Saya. Without question these are the Japanese islands. Saya … the Japanese word for 'bean pod' … is Hokkaido, while the three main islands (Honshu, Shikoku and Kyushu) are represented by the single island of Satanaze. The channel between Kyushu

and Shikoku/Honshu is well defined.

- The origin of the name Satanaze is easy to understand … The southern tip of Kyushu is Cape Sata (Sata-Misaki). Approximately 300 kilometres to the south, in the northern Ryukyu islands, is the city of Naze.
- The most important bays in Japan are depicted on the Satanaze/Saya chart … and two of them merit special notice. The entrance to the Inland Sea at Bungo Strait is the largest oceanic indentation (as it should be) and Tokyo Bay is guarded by the volcanic island O Shima, one of the most prominent harbour landmarks on earth. From a mariner's perspective it is quite appropriate to exaggerate a feature such as O Shima.
- Saya [Hokkaido], which was not even mapped by the fifteenth-century Japanese, was depicted in its bean-pod

shape for more than 300 years. Its 1424 rendering by the Venetians reveals all the important features along the south coast and is every bit as detailed as Portuguese examples in the seventeenth century.[54]

After first appearing on the 1424 chart, notes Fuson, the Antilia group of islands found their way onto at least seventeen other charts and one globe (the Behaim globe):

> Nomenclature was chaotic and occasionally one or another island was omitted. Antilia was mapped as an island in the Ocean Sea until at least 1508 (the Ruysch map), but Japan had captured its form in 1492 on the Behaim globe … The old Antilia/Taiwan shape continued to appear in what had become the Pacific Ocean and in 1546 (Munster map, Basel) carried the label 'Zipangu'. A major problem had arisen as the shapes and locations of Antilia/Taiwan [and] Satanaze/Cipango … became entangled … When the West Indies became the Antilles in the middle of the sixteenth

century, Antilia-the-island was no longer needed. The original island was relegated to mythological status and Japan was free to use its body. By 1570 the magnificent atlas *Theatrum orbis terrarum* (by Abraham Ortelius) placed Japan in its proper location and labelled it 'Iapan' (Japan).[55]

Ghosts of a drowned world

It is Professor Fuson's view that Chinese charts of Taiwan and Japan were the source of the 1424 portrayal of Antilia and Satanaze. He makes a very persuasive case that such charts are likely to have originated from the seven spectacular voyages of discovery made by the famous Ming admiral Cheng Ho between 1405 and 1433.[56]

Cheng Ho was a giant of a man, 'seven feet tall with a waist of 60 inches',[57] and is worth a giant of a story in his

own right – though unfortunately this is not the place to tell it. Much suggests, however, that Robert Fuson is correct to deduce that the charts of Taiwan and Japan that somehow found their way into the hands of Zuane Pizzagano in Venice in 1424 must have originated from the voyages of Cheng Ho.

Yet there is a problem. As we will see, Antilia and Satanaze on the 1424 chart don't show Taiwan and Japan as they looked in the time of Cheng Ho, but rather as they looked approximately 12,500 years ago during the meltdown of the Ice Age.

Is it possible that Cheng Ho, too, like Columbus, was guided in his voyages by ancient maps and charts, come down from another time and populated by the ghosts of a drowned world?

PART SIX

Japan, Taiwan, China

25 / The Land Beloved of the Gods

As a tradition which began in the High Heavenly Plain,
I humbly speak before the sovereign Deities
Who dwell massively imbedded like sacred massed rocks
In the myriad great thoroughfares …

Ancient Japanese ritual prayer[1]

The highest peak of Mount Fuji … is a wondrous deity … and a guardian of the
land of Japan.

The Man' yoshu[2]

The identification of the 'legendary' Atlantic islands of Antilia and Satanaze with Taiwan and Japan is the hypothesis of Professor Robert Fuson, and is delivered as the punchline to

his utterly convincing book *Legendary Islands of the Ocean Sea.*[3] He further suggests that the source-map from which the outlines of Antilia and Satanaze were derived must have come from China and would most probably have been drawn up during the voyages of the great Chinese admiral Cheng Ho.

What Fuson does not notice – there is no reason why he should – is that Antilia and Satanaze on the 1424 Venetian chart do not portray Taiwan and Japan as they looked in the early fifteenth century, the epoch of Cheng Ho's voyages, but as they looked around 12,500 years ago during the meltdown of the Ice Age. One would have to go back to around that date, for example, to find the three main Japanese islands – Honshu, Shikoku and Kyushu – joined together into one larger island, as is the case with Satanaze. I will substantiate this statement and pursue this mystery to its conclusion in

due course.

Meanwhile, by a strange, roundabout route I had found my way back to Japan, encountering it where I had least expected it – in the middle of the Atlantic Ocean. Long before I learned that it had been shown in its Ice Age configuration on a 1424 chart, however, I was already acutely aware of another Japanese mystery centred on the end of the Ice Age when rapidly rising sea-levels inundated a series of massive rock-hewn structures around the coasts of the Ryukyu archipelago of southern Japan.

I've outlined some of the background to this in chapter 1 – how I first heard of Japan's underwater ruins in 1996 and how the generosity of an extraordinary Japanese entrepreneur enabled me to explore all the main sites between 1997 and 2001. I made close to 130 dives at Yonaguni with logistical assistance from Seamen's Club,

Ishigaki, and with the best and most knowledgeable local teams led by men lik e Kihachiro Aratake and Yohachiro Yoshimaru. Then there were around eighteen dives at Kerama (on five different visits there) again in the company of great local specialists lik e Kuzanori Kawai, Mitsutoshi Taniguchi, Isamu Tsukahara and Kiyoshi Nagaki. I successfully dived twice at Aguni, i n a most forbidding, inaccessible and difficult spot, and around a dozen times at Chatan off the west coast of Okinawa – once again, in both places, with exceptional local support.

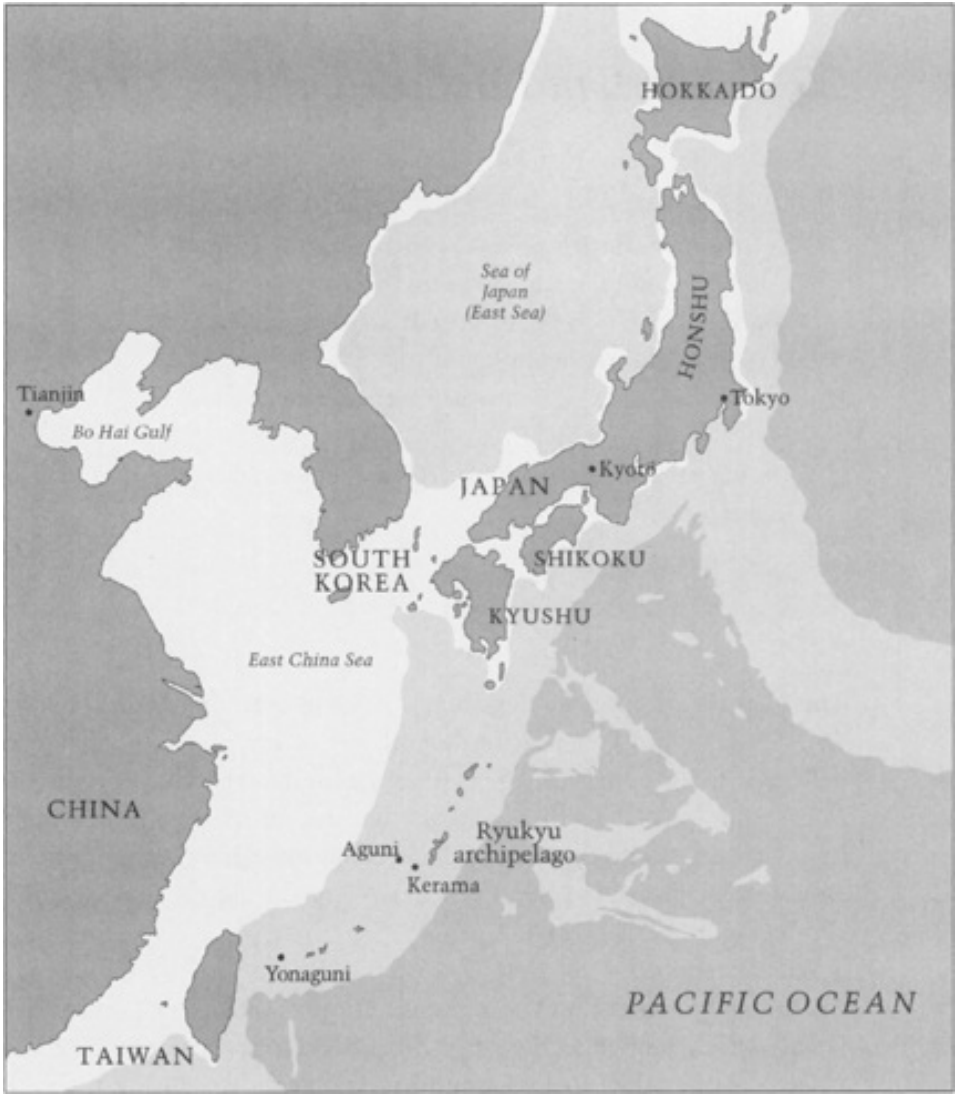
HOKKAIDO
Sea of
Japan
(East Sea)
HONSHU
Tokyo
Tianjin
Bo Hai Gulf
Kyoto
JAPAN
SOUTH
KOREA
SHIKOKU
KYUSHU
East China Sea
CHINA
Ryukyu
archipelago
Aguni
Kerama
Yonaguni
PACIFIC OCEAN
TAIWAN

In chapter 1, where I briefly describe the four main Japanese underwater sites, I also suggest that the solution to the mystery of these places – and to the interminable wrangle about whether they are natural or man-made – cannot be arrived at purely by a consensus of geologists. This is not only because there is, in fact, no consensus of geologists on the character of these structures (on the contrary, opinions are polarized) but also because geological opinion alone is not adequate to settle the matter. One need not be a specialist in anything to see that Japan has cultivated a unique sensitivity to the beauty that is immanent in natural forms and to realize that such a refined intimacy with rock and mountain, forest and valley is likely to have extremely ancient roots. Sculpting in rock and the placing of sculpted rocks in artistically manipulated landscapes remains a distinguishing Japanese passion – and an intensely spiritual

one – to this day. It therefore makes sense, in pursuit of reasoned conclusions about the underwater rock structures of Japan, to take into account not only geological considerations but also what is known about the character, the level of development and the artistic and religious culture of the ancient Japanese at the end of the Ice Age when those rock structures (whether natural or man-made) were not yet submerged.

Preconceptions about the Jomon

At first glance I could see nothing encouraging about prehistoric Japan. The consensus view for the past half century has been that during the period from 17,000 years ago (roughly the end of the Last Glacial Maximum and the beginning of the global meltdown) down to about 2000 years

ago the islands were populated exclusively by a culture of hunter-gatherers, the Jomon, who were in most respects extremely primitive.

The ‘Stone Age’ image of the Jomon put me off the idea of researching them. How could so backward a people, who supposedly never discovered agriculture, have anything to tell me, one way or another, about my central interest – the possibility of a great lost civilization of antiquity? Small tribal bands wandering from place to place, grubbing around in the mud for nuts and berries, spearing the odd fish or mammal, did not fit with my idea of what I was looking for.

Nevertheless, I knew that I could not afford to discount the Jomon entirely -if only because their culture seems to have emerged very suddenly in Japan around 16,500 years ago, at which remote date it is attested to by fragments of the oldest known pottery in the world. The pottery itself at such an

early date is highly anomalous. And whatever the end of the Ice Age really meant – then and for thousands of years afterwards – the Jomon witnessed it, went through it, were part of it, and triumphantly survived it down almost to historical times. I still felt a definite reluctance but I realized that sooner or later I was going to have to learn more about this prehistoric people whose story was veiled by the mists of the past.

The prehistoric city and the man-made mountain

In 1998, on the suggestion of Japanese friends, I visited the Jomon site of Sannai-Muryama in Aomori Prefecture, and was surprised to discover how large and how well-organized the ancient settlement had been at its peak 4500 years ago – the same epoch exactly as ancient Egypt's 'pyramid age'.

Sannai-Muryama, with its spacious public buildings, wide streets and planned sanitation, was not at all what I had expected of primitive hunter-gatherers. These were the obvious signs of permanent settlement, stability, order, organization and economic success. And they were accompanied by equally clear indications of a society with evolved spiritual ideas. In particular, the use of grave goods by the ancient inhabitants, and of symbolic burial patterns, are suggestive of complex beliefs in the afterlife of the soul. A ceremonial pathway that dominates the site proved, on excavation, to be lined on each side by tombs with the feet of the dead pointing towards the path and their heads away from it.

On the same trip I learned that certain pyramid-shaped mounds, hills and mountains are regarded as sacred beings in Japanese mythology and saw evidence which suggests not only that this belief is rooted deep in Jomon times but also that it sometimes led the Jomon into 'artistic manipulation'

of the landscape on an even larger scale than the disputed structures now underwater at Yonaguni, Chatan and Kerama.

In Akita Prefecture, for example, two hours' drive from Aomori, I climbed the cedar-covered slopes of an 80 metre high mound which juts emphatically out of the surrounding plains. Its name is Kuromata Yama (Mount Kuromata) and according to local legend it is 'a pyramid built by an ancient people'.[4] Geologists remained sceptical until a multi-disciplinary team of scientists from the Japan-Pacific Rim Studies Association led by Professor Takashi Kato of Tohoku Gakuin University produced detailed radar maps of Kuromata Yama in the 1990s. The maps show that the interior of the mound

> consists of seven terraces with stones laid out on each terrace. This is a clear indication that it was shaped by man and is certainly very different

> from a natural mountain formed by volcanic eruptions or natural weathering.[5]

The experts concluded that a natural hill had indeed once stood on the site but that this had been deliberately quarried, sculpted and reinforced with stone blocks to create a pyramidial core with seven terraces that was finally covered with ramped earth and then overgrown by vegetation. Thus, 'Although the mountain is not a pyramid in the Egyptian sense, it was nevertheless made into the shape of one for religious purposes.'[6] Since work of such ambition and scale has never previously been associated with the Jomon, it was at first assumed that the construction work was unlikely to be very old – perhaps no older than the eleventh century AD. The Motomiya Shrine of Japan's indigenous Shinto religion that stands on its summit seems to be linked to that epoch, since

it is named after a physician who served Sadato Abe (AD 1019–1062), a local ruler of north-east Honshu.[7] On the other hand, since Shinto shrines are completely rebuilt according to a pre-existing pattern every twenty years on sites that in most cases have been sacred ever since records began, this perhaps proves less than it should. At any rate, the excavations by archaeologists on Professor Kato's team settled the matter with the discovery of fragments of Jomon pottery in the mound and other archaeological evidence which confirmed beyond serious dispute that Kuromata Yama had indeed been landscaped into its pyramidal form 'in the Jomon era'.[8]

Equally important was another discovery published a year earlier by team-member Masachika Tsuji of Doshisha University in Kyoto. He showed that four Shinto shrines

positioned around the base of Kuromata Yama lie in direct lines pointing north, south, east and west from the summit and incorporate solstitial alignments datable through the accepted formula for changes in the obliquity of the ecliptic to 4000 years ago: 'The shrines were built relatively recently on what are known to be sacred sites dating from ancient times, suggesting the shrines may have maintained that link since the Jomon Period.'[9]

Surviving ancient texts enable us to trace the recorded story of Shinto back at the most about 2500 years and realistically probably less than 2000 years; however, at that stage it seems already to have been fully formed. All authorities therefore agree, though lost in prehistory, that Shinto's origins must be much older than 2000 years. As far as I know, however, the discoveries at Kuromata Yama are the first to demonstrate such a clear relationship between the

religious architecture of the prehistoric Jomon and the Shinto religion as it survives and expresses itself to this day – a religion, it is worth reiterating, that is unique to Japan and that is of unknown age and origin.

Perhaps the clearest sign of a family relationship to emerge from the excavations is that the Motomiya Shrine shares the summit of Kuromata Yama with the remains of a previously unknown stone circle constructed by the Jomon. Kuromata Yama is also clearly visible from two further Jomon stone circles that have been excavated at Oyu, 2.2 kilometres to the south-west. Both of these are more oval than circular, one about 35 metres in diameter, the other 20 metres in diameter. Both are about 4000 years old, a little younger than Britain's Stonehenge. By European 'megalithic' standards they are not large and the stones actually used in their construction are puny when compared with Stonehenge

or Carnac. Still, they are ‘stone circles’ in every meaningful sense of the term.

The mystery of the pots

Nor were these the only surprises that the Jomon had in store for me. As we’ve already noted, what is truly outstanding and unexplained about these ‘primitive hunter-gatherers’ is that they were the first people in the world to invent pottery – one of the great leaps forward in human culture which, in their case, took place not just hundreds but thousands of years before anybody else. As recently as 1998 most scholars believed that the oldest Jomon pottery was made about 12,500 years ago – itself a staggeringly early date – but so rapid is the pace of new discovery in this field that that the origins of Jomon civilization have had to be continuously

revised backwards.

In May 2000, on my second visit to the Aomori area, I held in the palm of my hand four fragments of a broken Jomon pot 16,500 years old. Excavated at a site known as Odayamamaoto No. 1 Iseki, the potsherds had been dated using state-of-the-art AMS technology.

It is still a little-known fact that the Jomon of Japan are the world's oldest pottery-making culture. But even less well known is the extent to which this prehistoric people maintained a distinct identity as a single, homogeneous group. According to Dr Yasuhiro Okada, the Aomori Prefecture's Chief Archaeologist at Sannai-Muryama, 'they were one culture, from beginning to end'.

Imagine that – one culture, probably one language, probably one religion, staying intact for more than 14,000

years. That's the time-span between the oldest Jomon pottery – 16,500 years old – and the youngest examples – which are about 2000 years old.

Genius or influence?

What happened to the Jomon? If their culture could survive for 14,000 years, how come they aren't still with us today?

The archaeological record points to the influx into Japan – probably from Korea and probably between 2700 and 2300 years ago – of a larger, more populous and more economically competitive group of people. Named the 'Yayoi' by modern scholars (we do not know what they called themselves), these were sophisticated, highly organized rice-growers and it is generally supposed that their way of life simply overwhelmed that of the indigenous hunter-gatherers.

Although the Yayoi were a martial culture and the Jomon were not, there is no evidence of military conflict or of genocide. The Jomon were not ‘wiped out’. If anything, the latest archaeology prompts us to envisage something more like an effortless merging and mixing of peoples into the new synthesis that would cross from prehistory into history – from forgotten time into remembered time – in the already complete form of classical Japanese civilization. In a sense, therefore, Jomon culture is still with us and may never have come to an end.

Does it have a beginning? The archaeological record is constantly subject to revision by new evidence. But to the extent that the Jomon are defined by and identified with their pottery-making skills, then the earliest definite evidence for their existence that has so far been discovered consists of that little group of pottery fragments from 16,500 years ago.

Did something happen in Japan at that time that could explain why the Jomon invented pottery millennia before anybody else? Shimoyamu Satoru of the Ibusuki Archaeological Museum on Kyushu island suggests: ‘maybe there was just a Jomon genius who figured it out – you know, clay, open fire, pot. He saw the potential.’ On the other hand, Professor Sahara Makoto, Director-General of the National Museum of Japanese History, believes that ‘there must have been some influence’. Sitting cross-legged on the floor of his office, he drew up a map of Japan, China and Siberia. ‘Here in Japan’, he explained, ‘we have high levels of development – new roads, new houses, even new cities are constantly being built. This means that the soil must be broken and turned over – and every time this happens there is the possibility of archaeological discovery. But in China such activity is much less and in Siberia less still. So it is possible

in Siberia, for example, that archaeologists might one day find the traces of an even earlier pot-making culture that influenced the Jomon.'

Technology transfer

What neither scholar appears to take into account is the peculiar coincidence in dates between the earliest Jomon pottery, about 16,500 years ago, and the end of the Last Glacial Maximum, about 17,000 years ago – which was followed by thousands of years of ice-sheet meltdown and by global sea-level rises. Is this just a coincidence or could there be some weird causative link between the post-glacial floods and the pottery?

Sahara Makoto has already expressed his views on the subject of influence. He thinks the Jomon were influenced by

an earlier, probably Siberian, pot-making culture. But to be fair, that is just his guess. It is undoubtedly correct that pottery was being made at a very ancient date in Siberia[10] (though not as ancient as the oldest Jomon); however, the idea of pottery, the essential mental work to make the great leap forward, does not *require* contact with a hypothetical mainland tribe – and what counts against this hypothesis is the palaeogeological evidence. As the archaeologist Douglas Kenrick points out, 'When the earliest recorded pottery was made, the sea had engulfed any landbridges that might have remained and had created a natural barrier between Japan and the mainland.'[11]

In other words, if the Jomon *were* 'influenced' 16,500 years ago – to become potters and whatever else – then that influence is more likely to have entered Japan by sea than by

land. It could, theoretically, have been passed on by a single survivor, or a handful of survivors, of a shipwreck. And since those were times of global floods the possibility cannot be ruled out that such a ship could have come to Japan from very far away – could, theoretically, have been blown in from almost anywhere. But whether the mariners marooned in Japan were Siberian tribesmen or highly sophisticated survivors of a hypothetical lost civilization it is unlikely that they would have been able to pass on more than a handful of useful ‘civilized’ skills to the primitive local inhabitants.

It goes without saying that the skill of pottery would always be ranked near the top of the list in any such emergency technology transfer.

Time and space

Whatever the source of the original inspiration, there is no doubt that Jomon pottery is very distinctive. Its most characteristic decoration is the cord-mark (indeed, Jomon means ‘cord-mark’ in Japanese and is another name given by archaeologists; as with the ‘Yayoi’ we do not know what the ‘Jomon’ called themselves). This decorative technique requires the potter to press lengths of knotted twine down into the clay before firing and sometimes to roll the cords to produce additional effects. The range of possible combinations is large and these ‘cord-marks’ in their turn are only a tiny part of the full Jomon repertoire of extravagant and unusual designs.

This repertoire, it is worth remembering, exists in four dimensions – in time as well as in space. I say this because on the one hand Jomon pottery is scattered geographically throughout Japan, from the far south, including the Ryukyu

archipelago, to the far north, including Hokkaido, and on the other is spread out in time, connecting the world of relatively recent and comprehensible history (2000 years ago) with the world of remote prehistory, 16,500 years ago, when the Ice Age went into meltdown.

Genie in the bottle

Archaeologists in Japan are more accommodating than their Western counterparts. Whereas most of the latter would rather be mummified than have me in their museums, the Japanese are much less snobbish and judgemental. In Japan I have again and again been given the incredible privilege of handling very ancient artefacts – national treasures that in some cases are more than 12,000 years old. At the Sato Haramachi Archaeological Centre near the city of Miyazaki

this privilege extended to holding in my hands the oldest piece of painted pottery ever found in the world – part of a fine Jomon pot, painted red on the inside, securely dated to 11,500 years ago.

To touch it was like boarding an express elevator on the way down to the depths of time. I could almost see the ancient artist at work on the same object that now rested in my hands. In a peculiar way, I realized, he – or she – was still alive in this potsherd, like a genie in a bottle. For a moment the 11,500 years that separated us – more than twice the age of the Great Pyramid of Egypt -seemed a small matter.

'It requires imagination,' says Douglas Kenrick, 'to comprehend the length and vitality of the Jomon pottery age. Age leaves its mark on vessels buried for so long, but a feeling of awe at the age of a vessel should not blind us to its beauty.'

In my travels in Japan I have seen a great deal of beautiful Jomon pottery of all epochs. Made without recourse to the potter's wheel, and always in open fires, it takes on a fantastic variety of forms – from the spectacular 'flame pottery' of 5000 years ago, with its grotesque and elaborate rim-work, to austere and simple rounded bowls, more than 12,000 years old that are decorated only with cross-hatch or shell-scrape patterns. The cord-mark motif keeps cropping up again and again. And other patterns repeat, such as distorted human faces sculpted into the shoulders of vases. Pottery masks have been found that replicate their gargoyle expressions and one particular style of mask, with its nose bent at right angles to the side of its face, seems weirdly futuristic; it could almost be a contemporary work in a gallery of surrealist art; instead, it is 4500 years old, as old as the Great Pyramid, and part of an ancient Jomon tradition of

representing the human form.

Dogu

Although I have not personally seen examples more than 8000 years old, archaeologists I have talked to in Japan assure me that simple pottery representations of the human figure have been found in strata dating back more than 12,000 years. These earliest figures, and all the later examples, are known in Japan by the generic term *dogu*.

The best-known *dogu* date from around 3000 years ago and are better described as ‘anthropoid’ than human – since it is by no means certain that the figures they represent are human beings. They have hands and feet, legs and arms and a head, like human beings, but their features are weirdly distorted -almost as though they are concealed behind some

kind of face-mask or helmet. The eyes of these figures are most disconcerting, being depicted as large ovals each with a single horizontal slit.

Other *dogu* are very different, some seeming to freeze a tortured human face in the act of screaming, some imposing the features of an animal – a cat for example – on to an otherwise human form, some creating the appearance of mythological beings with the body unnaturally elongated or the face lozenge-shaped. There are multiple examples of exaggerated female figures, notably the 5000-year-old 'Venus of the Jomon' found recently at Tanabatake Iseki in Nagano Prefecture. With her gigantic thighs and hips, this 'mother goddess' is similar in proportion and general appearance (and possibly in function as well) to stone Venus figures found in the megalithic temples and underground labyrinths of the far-off Mediterranean island of Malta (see chapters 16–20).

It is difficult to guess what the Jomon were trying to achieve through the production of so many different kinds of *dogu* over an unbroken period of at least 10,000 years. It is very likely, but not certain, that these were religious icons of some kind and were meant to stand in alcoves or niches. But it is also obvious, looking at them – and indeed at the whole range of Jomon pottery -that they are the work of a prosperous culture with sufficient surplus to support a full-time, professional artisan class dedicated exclusively to the production of beautiful and sometimes awe-inspiring objects.

The rice bombshell

The next surprise I had about the Jomon concerned their way of life. Since visiting Sannai-Muriyama in 1998 I'd been aware that these 'hunter-gatherers', somewhat anomalously,

sometimes chose to live in large, permanent settlements. I had assumed, wrongly, that Sannai-Muryama, built about 4500 years ago, was the earliest of these.

Then in April 2000 I visited Uenohara, a much older Jomon site on the island of Kyushu. Kuzanori Aozaki, one of the prefecture's archaeologists, explained that Uenohara had been a continuously inhabited settlement over a 2000-year period from roughly 9500 to 7500 years ago. 'They had their lives pretty well worked out,' he explained. 'At any one time they had more than 100 people living here. They were comfortable … I would even say prosperous. All their basic needs were met. They had ample food, good shelter, comfortable, elegant clothing.'

'And this was a permanent settlement, like a village or a small town?'

‘Yes.’

‘But doesn’t that contradict the idea of the Jomon as simple hunter-gatherers?’

‘Yes it does, because the idea is wrong. The more you get to know the Jomon the more you know that they were many things as well as simple hunter-gatherers.’

Aozaki went on to tell me how in his opinion the Uenohara community had managed to support itself through a kind of organized ‘agriculture’ and ‘harvesting’ of the forest – not quite farming, but certainly a planned husbandry of nature aimed at sustained, long-term survival.

This was not to be the last time during a seven-week journey through Japan in April and May 2000 that I would hear hints of agriculture. At Ofuna C Iseki on Hokkaido the chief archaeologist, Chiharu Abe, told me he was convinced

that the Jomon had ‘farmed’ chestnut trees: ‘They imported seedlings from Honshu and then cultivated them here. To all extents and purposes they were doing agriculture.’

Another intriguing recent discovery is that as far back as 8000 years ago the Jomon were cultivating a non-indigenous plant, the bottle-gourd, which palaeo-biological studies indicate must have been imported from Africa. There is also some evidence of the cultivation of beans at a very early date. Indeed, according to Profesor Tatsuo Kobyashi, the Jomon made effective use of nearly every species of available plants and animals – ‘a conscious and rational use of nature’s bounty with a low-level use of less desired species to avoid depletion of preferred ones’.

Since it was for a long while more or less automatically assumed that the Yayoi brought rice cultivation to Japan it is also highly significant that archaeologists have now found

undisputed evidence of paddyfield rice cultivation by the Jomon at Itazuke on the island of Kyushu. This evidence has been firmly dated to around 3200 years ago and thus is older than the Yayoi period by several hundreds of years. Matsuo Tsukada of the Quaternary Ecology Laboratory of the University of Washington summed up the findings this way:

> The oldest evidence of rice pollen [in Japan]… comes from the well-known Itazuke site, Fukuoka, which dates to about 3200 BP. Since the plant is not a Japanese native, its presence provides definite evidence that rice cultivation began in Late or Latest Jomon in Kyushu. Phylolith studies also support the fact that rice cultivation began at this time. It has been clear for some time that the notion that its cultivation appeared in Japan at the beginning of the Yayoi is outdated. Yet this idea persists in the writings of many specialists in East Asian archaeology![12]

But it was Sahara Makoto, the Director-General of the

National Museum of Japanese History, who dropped the biggest bombshell on my preconceptions about the Jomon. When I met him on 17 May 2000 he told me quite casually of new evidence that had just come his way, unconfirmed as yet but startling if true, which suggested that the Jomon could have been cultivating rice as early as 12,000 years ago.

Revolution

So first rice was thought to be a Yayoi introduction to Japan. Then it was discovered that the Jomon grew rice hundreds of years before the arrival of the Yayoi. Now suddenly here was the dizzying possibility that the Jomon could have been growing rice deep in the Old Stone Age, thousands of years before anybody else …

‘If that’s true it’s a revolution, isn’t it?’ I stuttered.

‘Yes, in a sense,’ replied Makoto, ‘but then you see with the Jomon you always have to be ready for a revolution.’

There was other evidence, Makoto now told me, tiny particles of rice that had somehow got into the potters’ clay before firing. Known to Jomon scholars for a decade, this evidence concerned several different pieces of pottery and several different sites, all of them in the range from 5000 to 3000 years old. Some archaeologists had gone to great lengths to underplay the significance of these finds, even arguing that the rice fragments had been brought over from China on the wind, or on the feet of grasshoppers – any logical contortion would be worthwhile, it would seem, rather than question the central paradigm of the Jomon as ‘simple hunter-gatherers’.

Yet the more I looked into these matters the more obvious it became that increasing numbers of Japanese archaeologists

are abandoning the ‘hunter-gatherer’ paradigm and are moving towards a new view of the Jomon as a sophisticated and very ancient culture – perhaps even as a ‘civilization’.

Everything is up for grabs

Because we keep on learning new things about the Jomon at a very rapid rate it is inevitable that our impression of them will constantly have to be revised. We have seen how cherished views about their primitive hunter-gatherer economy are being challenged by new evidence of rice-growing. When a find of pottery like the 16,500-year-old fragments at Odayamamaoto No. 1 Iseki is made, it can push back previously accepted dating schemes by thousands of years. Indeed, almost everything is subject to revision. The excavation of sophisticated, well-planned urban settlements

like Sannai-Muryama and Uenohara (the latter going back almost 10,000 years) has forced revision of the old idea that Jomon society was nomadic. Likewise at Sakuramachi Iseki, near Oyabe City in western Honshu, archaeologists have recently excavated examples of 4000-year-old Jomon carpentry using complex joints, dovetails and corners of a type not previously thought to have been introduced into Japan before AD 700.

Another example of historians radically misdating and misattributing inventions, ideas and icons concerns the classic curved jewel of the Japanese nobility – the comma-shaped (or foetus-shaped?) *magatama*, often carved from jade. References to *magatama* in Japan's national epic, the *Nihon Shoki*, which was compiled at the end of the seventh century AD, and the frequent finds of *magatama* in archaeological sites of that period have led most Japanese to

an unquestioned assumption that the *magatama* is an invention of the so-called ‘Yayoi’ and ‘Kofun’ periods, roughly from 300 BC to AD 800. Yet on my travels through Japan archaeologists showed me dozens of beautiful *magatama* from Jomon times, some of them more than 8000 years old.

This speaks of more than just the antiquity of Jomon craftsmanship. The real point is the way in which a very ancient Jomon religious symbol survived the arrival of the Yayoi in the first millennium BC and continued to be regarded as a revered object at the time when the earliest texts of Japan’s unique Shinto religion were written down.

Rock temples of the sea?

In how many other ways did the prehistoric culture of the

Jomon impose itself on the culture of the invaders? How much more of the Jomon story remains to be told?

There is one obvious line of inquiry to pursue. Archaeologists admit that areas of the Japanese islands that previously stood above water and that at one time were almost certainly inhabited by the Jomon were inundated at the end of the Ice Age. The flooding was less massive and rapid than elsewhere. But since the Jomon were and remained for more than 14,000 years predominantly a coastal people, it is entirely possible – probable even – that this remorseless rise in sea-levels could have concealed important parts of their story. Had they carved structures out of rock along the ancient sea-shores, for example, then these would have been the first to be covered by the waves.

So, alongside the theory that they are freak natural phenomena, and alongside the theory that they are the work

of a lost civilization, I think there is also room to ask whether the underwater ruins of Japan might not be the work of a known civilization – the Jomon – in a hitherto unknown and perhaps extraordinary phase of their culture.

Big stones; sacred mountains

There is a curious reverence for big stones – *iwakura* – which persists in Japan to this day. Auspiciously shaped and positioned stones are thought of as junctures between heaven and earth, places where a god can descend from sky to ground. In 1998, following a kind invitation from the Governor of Gifu Prefecture, I was able to spend several days exploring *iwakura* in the beautiful mountainous district of Ena, located near the centre of the Japanese landmass on the island of Honshu.

I was guided by a delightful group of local enthusiasts from the township of Yamaoka, who had formed themselves into a society in order to study all of the megaliths in their region. There were a great many *iwakura* that they wanted me to see. But here, as so often in Japan, the problem that immediately presented itself was whether the megaliths in question were in any sense man-made (or even 'man-arranged') as opposed to being just striking and unusual natural formations. Many of the towering rock piles, weathered boulders and huge, strangely shaped arrangements of stone that I was shown were, I am certain, entirely natural. However, in Japan – where the wonderful and awe-inspiring in nature have been noted and worshipped for millennia – such a provenance does not contradict ancient beliefs that the stones are sacred shrines descended from the Age of the Gods. Indeed, traditions state that it was here, amongst the rocks and trees

of Mount Ena, that the placenta of Amaterasu O-Mikami, the sun-goddess and ancestral mother of the Japanese Imperial Family, was enshrined.[13]

Much less frequent than the natural *iwakura* of the Ena district are several that are undoubtedly the work of humans. These include a bizarre chain of grey granite tetrahedrons up to a metre high that run in a straight line through forests and valleys between the bases of two neighbouring mountains, finally culminating at a conspicuously large rock which, authorities confirm, was 'worshipped as a deity until recent times'.[14]

Another man-made *iwakura*, revered by local villagers as 'the sacred rock deity, the object of worship' and recently classified by archaeologists at the Ena Municipality as an Important Cultural Property, was excavated by the late Ryuzo

Torii, Professor of Archaeology at the Imperial University of Tokyo, who dated it to the Jomon period.[15] It consists of a parallel pair of upright granite megaliths 1.6 metres high that stand isolated in a forest on the slopes of Mount Nabeyama in the southern part of the Ena Basin. The megaliths, which are massive in cross-section and roughly squared off, have a gap of a few centimetres between them that is aligned with spectacular effect on the summer solstice sunrise.[16] More curiously, a straight line joining the tops of the two megaliths and extended northwards culminates at the sacred mountain of Kasagi, where numerous Jomon artefacts have been excavated by archaeologists.[17] An archaic ceremony of unknown origin that was conducted there until recent times involved the procession of a huge model serpent with scales made of leaves of magnolia *hypoleuca* followed by villagers

praying to the mountain itself for rain.[18]

There are many sacred mountains in Japan. They are known as *reizan* (which means simply 'the sacred mountain') and also as *shintaizan*, which means 'the mountain as object

of worship'.[19] The evidence from the radar-mapping and excavations at Kuromata Yama raises the possibility that at least some of these mountains might have been 'landscaped' by the Jomon in similar ways. Whether entirely natural, or touched by man, however, much suggests that they were sacred first to the Jomon and then inherited by later cultures.

Take the case of Hakuzan ('white mountain') in western Honshu. A focus of active pilgrimage today, the roots of its sanctity seem to be extremely ancient. This at any rate is a legitimate interpretation of recent archaeological evidence from the Jomon site of Chichamori Iseki near the modern city of Kanazawa. As well as many beautiful pieces of Jomon pottery, *dogu* figures and *magatama*, excavations at Chichamori Iseki have revealed the remains of two spacious 'wood-henges', built by the Jomon, which are thought to be about 3600 years old. The uprights consist of the split trunks

of twelve huge chestnut trees arranged in a circle. Each circle has a ceremonial entrance aligned exactly on Hakuzan.

And just as the Jomon seem the most likely source of the sacred mountain idea, so it seems increasingly obvious that the origin of the *iwakura* idea must be theirs too.

After visiting Kuromata Yama and the Oyu stone circles in 1998 I returned to the Aomori region in May 2000 on hearing the news that seven small stone circles had been uncovered by archaeologists at the great Jomon settlement of Sannai-Muryama. They had been measured and catalogued and then immediately buried again by the excavators. A few kilometres away another, much larger Jomon stone circle (more exactly, it should be described as an oval, since it is somewhat elliptical in shape] had also recently been excavated and had been left exposed. Its name is Komakino Iseki. Climbing on to the top of a plinth to get an overview of

it, I could see that the outer circle, or oval, built up out of distinctive rounded river stones, had a diameter of about 150 metres and that it in turn surrounded a series of inner rings arranged concentrically, with groups of smaller ovals – touching at the edges like the links of a chain -sometimes scattered across the width of a ring.

Komakino Iseki, which will have an important part to play later in this story, is thought to be about 4500 years old.

From Aomori I travelled further north to the island of Hokkaido. There within half an hour's drive of the modern port of Otaru I visited three more stone circles. Two of them, Nishizaki-Yama and Jichin-Yama, crown hill-tops, the former with a mass of small, interconnected stone circles, the latter with a ring of mid-sized megaliths. The third, Oshoro, is the largest intact circle in Japan and includes on its south side twenty stones that are in the half-tonne range. Like

Komakino Iseki, Oshoro is arranged in concentric circles. Excavations suggest that it is about 4000 years old.

A helping hand

We had a strange experience at Oshoro – which I visited, as always, with Santha. Two friends were also with us there – the historian Akira Suzuki and Shun Daichi, the Japanese translator of my books. Had they not witnessed what happened I would hesitate to report it.

From the perspective of a photographer the problem with Oshoro is that it is too big. As at Komakino Iseki it was therefore necessary to climb on top of something in order to get an overview. And, as at Komakino Iseki, the local government had conveniently provided a stone plinth, bearing a carved inscription, on top of which it was possible

to climb. At Oshoro the plinth was a thick granite column about a metre and a half high mounted on top of a metre-high stone and concrete base.

Hanging on to the branches of a nearby tree, I scrambled on to the base, with my feet on either side of the column, then hauled myself up the column and perched unsteadily on

top of it. I spent five minutes sitting up there with my video camera shooting panoramics of the stone circle, wanting to remember the scale and flow of the great outer ring, looking at the soft shadows the megaliths cast, at the manner in which the sunlight descended on them, trying to put my finger on the special way they felt they belonged among the tall cedars that grew around and amongst them. Wind blew, still a cold wind in May at this latitude in Japan, rustling through the trees, whistling down from the still snow-covered mountains of Hokkaido. And it was easy to visualize the spirit of the wind, the spirit of the trees, the spirit of the stone, the spirit of the sun – as I knew the ancient Japanese had – not just as poetic metaphors for natural powers but as real trans dimensional entities capable of operating in both the spiritual and material realms.

The characters of these *kami* – let us call them by their

Japanese name – are not always consistent or predictable. They are more than spirits. But, although the word *kami* is often translated into English as ‘god’, a *kami* is less than God in the Judaeo-Christian sense. *Kami* are supernaturally powerful, but not omnipotent. They can be killed. Sometimes they do good for mankind, sometimes they might harm us. They are everywhere, in everything. And it always pays to treat them with respect.

I lowered myself down from the granite column, placed my feet on the ground, and turned to put the video away in our rented car which was parked right behind us just outside the northern edge of the circle. Meanwhile, Santha, Suzuki and Shun had also been standing just outside the circle immediately behind the column. Now that I’d finished filming from it, Santha handed her Nikons over to Shun, stepped forward, climbed on to the platform, then wrapped

her arms around the granite pillar and tried to shin up.

I'm quite heavily built and I think that when I climbed I must have loosened the cement that held the pillar to its base. Now as Santha began her climb the pillar rocked dangerously then broke off completely. For a moment she and the pillar seemed to hang in mid-air, locked in a deadly embrace; then the solid granite mass, weighing perhaps 100 kilos, bore her down to the ground and smashed her into it with an awful thud.

It all happened so quickly, that Shun, Suzuki and I were dumbfounded, stunned, confused. For a moment none of us could move, then we rushed to lift the pillar that lay diagonally across Santha's body pinning her from her pelvis, across her ribs and over her left shoulder, just missing her neck and her face. It took all our strength and a determined effort to move the big, sharp-cornered stone and as we hefted

its weight I had a horrified premonition of the terrible internal damage that it must have done in such a fall.

Santha was gasping with shock, her eyes rolling upwards, exposing the whites. A couple of times she cried out, ‘I’m dying, I’m dying.’

While an ambulance was called I gingerly felt her ribs, her collarbone, her hip, finding nothing broken, trying to reassure her. Gradually she quietened then informed me in an almost normal voice. ‘Somebody caught me as I was falling. A hand came from behind me, over the top of my shoulder, and supported the stone. Another hand pressed into my back as I went down. It stopped me hitting the ground too hard.’

I presumed it must have been Shun or Suzuki since it certainly hadn’t been me – I hadn’t even seen the whole

thing, let alone been fast enough to lend a helping hand. But I paid no further attention to the matter then and didn't remember it until Santha brought it up again later that day after being discharged from the excellent private hospital in Otaru where her injuries were thoroughly scanned, x-rayed, examined and found to be minor. Bruised ribs and a twisted neck were about the worst of it – although strangely as I write these words eighteen months after the accident, Santha's ribs are still bruised, still tender and painful, though they long ago should have healed.

Amazingly there was no further damage and everyone, particularly the ambulance paramedics who had seen the size of the object that she had fallen under, regarded her escape as a miracle. Santha put it down more simply to the fast actions of Shun or Suzuki reaching out from behind her to take the weight of the pillar and cushion her fall.

But this was where the mystery began. Because as we talked the whole incident through with Shun and Suzuki the next day it emerged that neither of them had reached out a hand to catch Santha. Shun had been standing too far back and holding her cameras; Suzuki had been looking the other way when she fell. But Santha remained adamant that she had seen a man's hand coming in over her left shoulder to support the pillar and had felt a hand cushioning her back as well …

As we inquired into the matter further a curious story began to unfold. It seemed that we had arrived at Oshoro one day later than planned and that our original schedule had included a visit to a private house near the stone circle, where a small museum of objects from Oshoro was kept. This house belonged to the family of a farmer, now deceased, who had spent almost half a century as the self-appointed

guardian and caretaker of the stone circle, which he was known to have loved and venerated. The objects in the museum had been his own collection.

When we did arrive a day late, the family was not there to receive us, so we went ahead with our visit to Oshoro without meeting them. Santha's accident occurred and she had a powerful personal experience of some sort of miraculous intervention. What we learned later was that the family had been away attending the memorial service for the farmer whose death, it transpired, had occurred eight years previously *on that very day*.

At Santha's request Suzuki telephoned the farmer's daughter from our hotel. She had already heard of Santha's accident at the stone circle and wanted us to know that she was angry with the spirit of her father for having failed to prevent it. Suzuki then told her of Santha's experience of

being rescued and saved from serious harm by the strong and gentle hands of a man no one had seen, and translated Santha's honest question – did she think the rescuer could have been the spirit of her father?

Of course she thought that. We all did. For no matter how modern, rational and scientific Japan has become, it is still a land in which powerful and ineffable spiritual forces are perceived to move in secret behind all things, to pervade all things, and to underlie the very fabric of reality.

Isn't it obvious that such ideas are extremely old?

The god in the mountain

Far away from Oshoro in Nara Prefecture on the island of Honshu, there is a sacred mountain called Miwa-Yama. In a

pattern with which I was now becoming familiar, this entire pyramid-shaped mountain is considered by Japan's indigenous Shinto religion to be a shrine, possessed by the spirit of a god who 'stayed his soul' within it in ancient times.[20] His correct name is Omononushino-Kami (although he is also popularly known as Daikokusama) and according to the ancient texts he is 'the guardian deity of human life' who taught mankind how to cure disease, manufacture medicines and grow crops.[21] His symbol, very strikingly, is a serpent – and to this day serpents are still venerated at Mount Miwa, where pilgrims bring them boiled eggs and cups of *sake*.[22]

In May 2000 the Shinto priests of Miwa processed me through the elaborate purification and blessing ceremony that is necessary for any pilgrim wishing to climb the mountain. Among other procedures this involved a ritual washing of my hands and mouth from a pure-water spring –

over which reared the serpent icon of the god.

The climb itself, on a beautiful sunlit morning, took about two hours. From the beginning the way was steep and the path frequently led beside a tumbling stream.

Near the base of the mountain at the side of the path was a shrine consisting of a group of megaliths, each weighing a tonne or more and some showing signs of having been quarried or cut. On the right-hand side of this shrine, under a towering cedar tree, the devout had placed a dozen small statues of serpents.

My guide was a young Shinto priest. Seeing my interest in the rock shrine, he pointed out several other examples to me on the way up. In each case these shrines consisted of a single boulder or a group of boulders adorned with loops of thick rope. Some of the boulders seemed to have been

arranged artificially; others appeared to be in entirely natural dispositions.

At the summit of the mountain we came upon a huge collection of *iwakura* forming a spacious, filled-in circle. It was hard to believe that these massive boulders had all just congregated here on this high point by chance. On the contrary, from what I had already seen of the Jomon obsession with stone circles and with the landscaping of mountains, Miwa-Yama's summit shrine looked like something that would have been well within their repertoire. Indeed, in many ways it was typical of their open-air 'rock temples'. It felt strange, therefore, to see modern pilgrims assembled here wearing white smocks over jeans, and to realize as they chanted the name of Omononushi-no-Kami, the god whose spirit had possessed the mountain, that in many ways Japan is still a Jomon country.

‘As to mountain worship,’ writes Professor Hideo Kishimoto of Tokyo University,

> Its significance may change as the ages pass away, and its interpretation may vary according to the individuals. But people’s feeling of admiration and reverence to the mountain will not be affected by time so long as it soars sublimely into the sky with infinite mystery breeding solemn atmosphere. In Mount Miwa, a Shinto faith, based on such feeling, shows living force.[23]

Cult of stone

Surrounding Mount Miwa is the district of Asuka – a treasure house of tombs and ruins. Here there are hundreds of the keyhole-shaped mounds, known as *kofun* - the name Kofun is also applied to the culture that built them, the immediate

successors to the Yayoi. The mounds are thought to have served as the tombs of the earliest members of Japan's imperial family – roughly from the fourth to the eighth centuries AD – and of the nobility of that period. Even in our own enlightened twenty-first century, the emperor does not permit intact *kofun* to be excavated, and so archaeological understanding of these mysterious structures remains sketchy. All that can be said for certain is that their dating to the first millennium AD seems to be securely based on a wide range of evidence from a few *kofun* that had been opened for one reason or another during past centuries.

Under the pyramidial central earth mound it is now clear that all *kofun* conceal an inner megalithic burial chamber and a megalithic passageway, usually oriented south. One of the most spectacular of these 'barrow' structures, Ishibutai, thought to date to the seventh century AD, can be visited

today because erosion long ago exposed and isolated its megalithic core. The two giant stones that form its ceiling weigh close to 100 tonnes each while the lesser stones of the side walls and the passageway are still enormous megaliths by any standards, weighing between 10 and 20 tonnes.

Near by are dozens of other megalithic ruins, all of which are thought to date to the same period around 1400 years ago. One, Kameishi Iwa, is a large rock carved into the form of a turtle. Another, Sakafune-ishi, is a granite slab into which has been cut, with remarkable precision – but as yet undetermined purpose – a circuit-like pattern of geometrical grooves and channels. A third consists of the upper and lower parts of a rock-hewn tomb (known locally as Onino Sechin – literally 'demon's toilet'! – and Onino Manaita, literally 'demon's chopping board'). The two parts were separated in an ancient earthquake and now a modern road runs between

them.

But by far the most strikingly enigmatic of the Asuka megaliths is the Masuda-no Iwafune, the ‘boat stone’ (so-called because it is thought to resemble a capsized boat), which juts out from a densely wooded hillside. Consisting of one mass of granite weighing in the region of 1000 tonnes, it is 10 metres long, 8 metres wide and almost 4 metres high. One puzzling characteristic is that in places it is rough and unfinished, seeming entirely like a work of nature, and in other places beautifully cut into right-angled planes.

Although there are theories, and a date in the seventh century AD is preferred by most scholars, no archaeologist is in a position to state with certainty how old the Masuda-no Iwafune really is or what its original function might have been. There are some indications of astronomical orientation

but these are too vague to be of any use,[24] and, as the Asuka Historical Museum admits, the 'actual purpose' of the great megalith 'remains a mystery'.[25]

All that can be said for sure is that its presence testifies to the long-term persistence and vigour of a cult of stone in Japan – stone on a gigantic scale, either natural or artificially cut (or both at the same time), serving as an interface between earth and heaven. It is not difficult to imagine how such a cult that was in one place and time responsible for the Masuda-no Iwafune and in another for the Jomon stone circles could, in yet another, have made monuments like those later inundated by the sea at Yonaguni and Kerama.

Kerama: entrance to the underworld

Diving well is all about relaxation. It's like good sex. If your body and mind are relaxed you can go on for ever … But how can you be relaxed when you're almost 30 metres under a deep blue sea in a place where a powerful current can suddenly whip up, like a gale-force wind, and have you fighting for your life in seconds? How can you be relaxed if you pause to think even for a moment about the vastness of the ocean and the improbable smallness of yourself, or about the fragility of your body, or about your life-or-death reliance on your equipment with its fallible valves and tubes?

I made my first dives at Kerama in April 1999 and found it a dark and scary place. In April 2000, a year later, I came back for more.

We worked from a rented cabin cruiser owned by Isamu Tsukahara, a local diver who has made a speciality of exploring the underwater stone circles. Also with us was

another professional diver, Mitsutoshi Taniguchi, who discovered 'Centre Circle' more than twenty-five years ago and who has written a book on the subject. We were joined by Kiyoshi Nagaki from Chatan, a brilliant diver who had saved Santha's life the year before at Pohnpei in Micronesia when she accidentally began to descend into deep water with her air turned off. Another member of the team at Kerama was our old friend Shun Daichi, the translator of *Fingerprints of the Gods*. In addition, Tsukahara had two of his staff divers with us underwater at all times – so we were a large group.

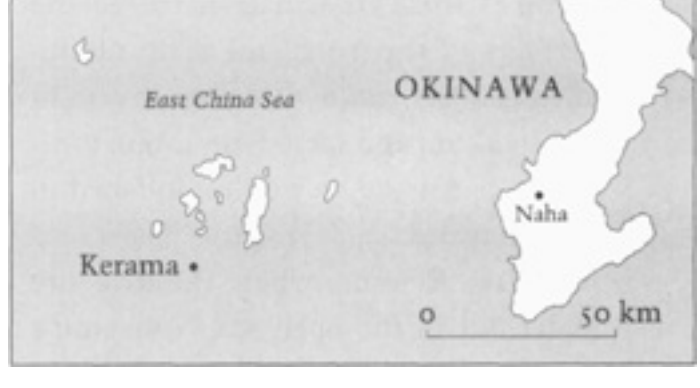

But it was one of those perfect days that every diver dreams of. Although the current was still running strong when we first arrived at the site, it had dropped to nothing an hour later when we rolled into the water. We then sank down, in absolute stillness, through a cool, blue column of ocean lit by sparks and splinters of sunlight.

I had experienced before a certain dizziness at Kerama and I experienced it again now as I descended in a wide spiral over the megaliths of Centre Circle. Dropping into the circle itself, I reached bottom at the base of the central monolith, where my gauges registered a depth of 27 metres (as against a depth at the top of the monolith of 23 metres).

While the other divers pursued their own interests I sat at the base of the monolith looking up at the ring of huge cut stones towering above me. Then I swam several times around the circle and followed side channels out of it, some of which

lead to a second monument – the one that local divers call ‘Small Centre Circle’ – while others lead nowhere. The whole place felt like a maze, or a labyrinth in which it was extremely easy to become disoriented. Glad of the open sea above me I relaxed and allowed myself to ascend until I floated weightless about 3 metres above the top of the circle, looking down through blue water at the bizarre and out-of-place structure.

From this perspective, in this light, it seemed like the entrance to a fairy-tale kingdom, a spiral stairway into the underworld … I was filled with a sense of awe and wonder, and of numinous dread. I have experienced the same feeling at other religious monuments – the great Gothic cathedrals of Europe, the Pyramids of Egypt, Stonehenge, the Hypogeum and the megalithic temples of ancient Malta …

‘If the Jomon built this,’ I found myself wondering, ‘then

what else might they have built?' But did the Jomon build it? Was it even man-made at all?

Iseki Point

When we consider the Kerama and Yonaguni underwater monuments in the light of what is known about the veneration of sacred mountains and stone circles in prehistoric Japan, they make perfect sense and do not in any way appear outlandish or improbable. With the notable exception of Kuromata Yama, they are on a larger scale than any Jomon structure previously known on land; however, they are of the general type of shrine that we know the Jomon could and did make. The circles speak for themselves in this matter – since no one can deny that stone circles played an important role in Jomon culture – and it takes

little imagination to see the terraces of the Yonaguni main monument as the result of an extension of the *iwakura* and sacred mountain principles that were so well established in Jomon times.

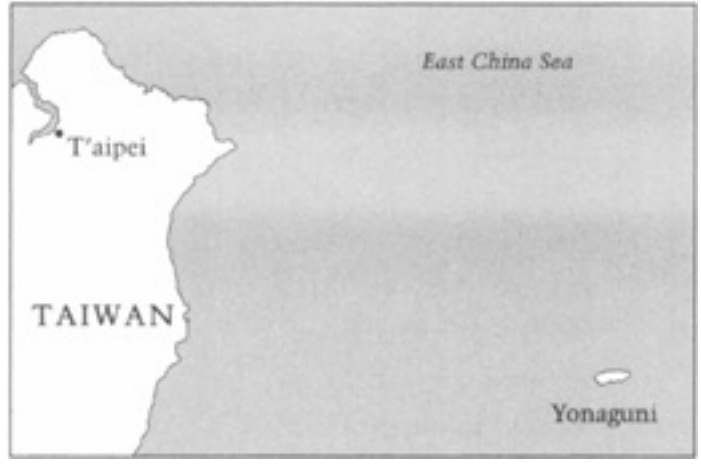

Unlike Kerama, where the dive site is far out in the open sea, Yonaguni's main monument lies close to the present southern shore under a glowering mudstone cliff. The locals

call it ‘Iseki Point’ (‘Monument Point’) and make much of its terracing; however, this is not the only aspect of the site that impresses me. Less obvious, but more persuasive, is the way that the whole layout seems to be organized cardinally and ceremonially.

Tucked in behind the north-west corner of the monument and oriented east-west, two huge, clean-cut megaliths, thought to weigh about 100 tonnes each, lie stacked side-by-side like slices of toast. It is obvious that they bear a striking resemblance to the parallel megaliths of Mount Nabeyama in Gifu Prefecture (see diagram page 620). I suggest that they are unlikely to have fallen into such a position by chance, that they are intended as a focal point, and that the gap between them, as at Gifu, may prove to have a solar alignment (in this case equinoctial rather than solstitial). They are approached through a narrow tunnel of big,

symmetrical boulders piled on top of one another in two courses.

To the south and west are what appear to be the ruins of a walled complex with a curved ramp.

A clearly defined path or causeway runs from west to east along the monument's south face.

At the extreme western end of the causeway the diver comes to a classic *iwakura* shrine, part natural rock, part man-made.[26] If this shrine were to be moved to the slopes of Mount Miwa it would blend in seamlessly with what is already there.

Riding the Black Current

Japan is not a small country, but it was bigger 17,000 years

ago at the end of the Ice Age, just before the global floods began. Once the meltdown was properly underway, however, the land-bridges to the mainland were rapidly inundated and the islands began a long process of shrinkage that still continues to this day.

As recently as 9000, possibly 8000, years ago the island of Shikoku was still part of a continuous landmass with neighbouring Honshu. Then the remorseless sea-level rise cut it off and ever since has continued to whittle away at its boundaries. Looking at the modern map, it is instructive to remember that the Jomon were there to witness the sea rush in to fill the lowlands between Takamatsu and Tamano – as indeed they witnessed all the strange phenomena and earth changes that marked the end of the Ice Age.

The Black Current between Japan and the Americas. Based on Meggars et al. (1965).

Perhaps it was this experience of rapid and invincible

floods that led them to become navigators or perhaps they inherited their knowledge of the sea from the same unidentified 'influence' that brought them pottery and stone circles. Either way, it has for a long while been generally accepted amongst scholars that the Jomon traded extensively throughout the Japanese islands, and with the mainland, and must therefore have been using sea-going boats from a very early date.

More controversially, there is a growing body of evidence which suggests that the Jomon may not have confined themselves to exploring their own region. According to the findings of an international team of researchers led by C. Loring Brace of the University of Michigan's Museum of Anthropology, migrants entering North America across the Bering land-bridge at the end of the Ice Age were 'people closely resembling the prehistoric Jomon of Japan'.[27]

Published in the 31 July 2001 edition of the *Proceedings of the National Academy of Sciences*, the findings provide:

> strong evidence supporting earlier work suggesting that ancient Americans … were descended from the Jomon, who walked from Japan to the Asian mainland and eventually to the Western hemisphere on land-bridges as the Earth began to warm up about 15,000 years ago at the end of the last Ice Age.[28]

But perhaps they didn't always walk. There is at any rate evidence from a later period, approximately 5000 years ago, that they may have undertaken transoceanic voyages, reaching as far as the shores of South America. The most famous, though still disputed and controversial, case is the discovery at Valdivia in Ecuador of what has been claimed to be Jomon pottery in deposits more than 5000 years old. But Jomon pottery has also turned up in almost equally ancient

layers across the South Pacific – at Fiji, for example, and at Vanuatu. ‘It’s reasonable to conclude’, says Professor Yoshihiko Shinoto of the Bishop Museum in Hawaii, ‘that the Jomon travelled very widely in the Pacific area. Of course they could only have done so by sea.’

One route of migration that would have been open to them runs past Cape Ashizuri, the southernmost point of Shikoku, and then flows northwards from there up the eastern side of the Japanese archipelago, swings out across the Pacific with the Kuryl and Aleutian islands, comes close to land again along the northern California coast and runs south from there past the Pacific coast of Central America until it reaches Ecuador. This route, a kind of ‘highway in the sea’, is known in Japan as the ‘Black Current’ (Kuroshio) and is most visible where it passes Shikoku at Cape Ashizuri – running like a river at a steady 40 nautical miles per day. Given sufficient

time and the survival of its crew, it is easy to see how a boat could ride the black current from Japan to South America.

Covering unimaginable distances

> Words cannot express the degree of similarity between early Valdivia and contemporary Jomon pottery … Not only techniques of incision but motifs and combinations of motifs are the same. In most categories of decorative technique examples can be found so similar in appearance that they might almost have come from the same vessel.[29]

With these observations, Smithsonian Institution anthropologists Betty Meggers, Clifford Evans and Emilio Estrada sparked off a storm of controversy that is still blowing today. 'Early Valdivia' means at least 5000 years ago and, according to the orthodox model of history, Japanese

hunter-gatherers, even strange ones who made pots, are not supposed to have had the capacity to sail across the Pacific 5000 years ago. Yet what Meggers, Evans and Estrada found in Valdivia – thousands of pieces of Jomon pottery in securely dated strata – seems to prove the orthodox model wrong. Once their results were properly codified it became clear that 'twenty-four of the twenty-eight major characteristics of the Valdivian pots were found in Jomon pottery. Their decorative elements and the construction of their spouts were among the most striking of the similarities.'

Meggers, Evans and Estrada published their revolutionary thesis in *Smithsonian Contributions to Anthropology* in 1965. Their ideas, which they themselves stick by, have been neither universally accepted by scholars nor conclusively rejected.

In Japan I found that Sahara Makoto was not a supporter

of the ‘Valdivia’ connection, preferring to put down to coincidence all the numerous similarities between Jomon and Valdivia pottery. Conversely, Yasuhiro Okada, Chief Archaeologist at Sannai-Muryama, feels it is ‘very likely’ that the pottery of Valdivia was influenced by Jomon migrants 5000 years ago. ‘More and more’, he told me, ‘I am coming to realize that we cannot understand the Jomon if we view them only in the context of Japan. They were Pacific voyagers. They used the sea.’ Professor Mozai Torao of Tokyo University agrees:

> It may be assumed that, before the dawn of history, ancient peoples were well-travelled, going far and wide on the earth by way of navigation or drift, that they in fact covered distances quite unimaginable for modern people.

Stone boat

I visited Cape Ashizuri on the invitation of a Japanese politician, Senator Sadao Hirano of Kochi Prefecture on the island of Shikoku. He had heard of my interest in the possible Jomon origins of Japan's veneration of big stones and wanted to draw my attention to the existence of large groups of *iwakura* scattered like sentinels along the hilly margins of the Cape, all of them overlooking the Black Current. Showing us around were volunteer members of a local amateur historical association, the Ashizuri Jomon Kyoseki, who are making a long-term study of the megaliths and who are convinced that they were the work of the Jomon.

On several occasions over those two days as I was guided from rock shrine to rock shrine in the tree-covered hills I had the strange sense that I was diving again. This was because many of the Ashizuri megaliths are lost in the depths of forests where even at midday the bright light of the sun

hardly penetrates. Standing on the floor of such a forest feels like standing on the bed of a deep green sea.

In one enchanted glade I came upon the carved figure of a turtle's head jutting out of a boulder. Elsewhere, a group of twenty megaliths, like smaller versions of the sarsens of Stonehenge, lay scattered around, overgrown by weeds and grass. In a clearing I found a stone circle made up of six large slabs. Near by, at the bottom of a narrow defile, a phallus-shaped menhir stood erect, surmounted by a second smaller boulder seemingly representing the glans. I walked on, climbed a forested hillside and arrived eventually at a grey stone block, 10 metres long, that had been carved into the shape of a boat with a high prow.

As I stood silently amongst the trees and the rock, looking up at the distant sun, I felt the prow of the stone boat beneath my fingers and was reminded again of the very

many ways in which the Jomon are still alive today – alive through their pottery, alive through their sacred mountains, alive through rock shrines in deserted forests and in the depths of the sea, alive as great and powerful ancestral *kami*, alive as ideas embedded within the mysteries of the Shinto religion. And as I thought through everything I had learned about the Jomon I realized how far I had moved from the original preconceptions I had held about them. For here were a people who had explored their world by land and sea – reaching the Americas at least twice between 15,000 and 5000 years ago. Here were a people who had used pottery millennia before anyone else and gone on to refine it into a beautiful art form. Here were a people who engineered their landscape to create sacred mountains, circles of stone, temples of rock. Here were a people who lived in harmony with their environment, who made use of an intelligent

mixture of strategies to ensure comfortable survival and security for the future, and who successfully avoided the pitfalls of militarism, materialism, conspicuous consumption and overpopulation that so many other cultures of the ancient world lost their way in. Here, above all, was a people whose civilization remained intact and flourished – decently, humanely, even generously, as far as we can know these things from the archaeological record, for more than 14,000 years.

If they could only speak to us, despite the lapse of time, what secrets would the Jomon have to tell of the true story and mystery of ancient Japan?

26 / Remembrance

> When Sosano went up to Heaven, by reason of the fierceness of his divine nature there was a commotion in the sea, and the hills and mountains groaned aloud.
>
> *Nihongi*

A haunting refrain, played softly, winds its way through the myth-memories of ancient Japan. It is the story of a journey to the realm of gloom that lies beyond death – to the Land of Yomi, the Underworld of the oldest Shinto texts. It is also the story of a sojourn on an enchanted island. And it is the story of a voyage underwater to the Kingdom of the Sea King.

The plots and characters differ. However, the story always involves a love affair; the female partner always remains in the mystical kingdom; and the male partner always returns to

the sublunary world. Such shared details do not feel accidental. But where do they come from? More specifically, is some sort of association implied between the enchanted island, the submerged ‘towers’ and ‘palaces’ of the underwater kingdom, and the Underworld of Yomi in which the soul must tarry after death?

In my search for the Jomon, described in chapter 25, I travelled very widely around Japan visiting a series of important Jomon sites all the way from Kyushu in the south to Hokkaido in the north and listening to the wisdom of the leading field archaeologists. These experiences equipped me with some sense of the Jomon way of life, of their relationships with each other and with nature, of their unique ceramic art, of their spiritual system centred upon the veneration of stone and mountains, and of their belief – attested in burial practices at Sannai-Muryama and elsewhere

– that the soul survives death.

But still I seemed to be only scratching the surface: the Jomon did not make use of a written language, and a thousand years of Yayoi and Kofun culture separated the end of the Jomon period from Japan's earliest surviving written collections of scriptures, myths and traditions. It seemed impossible, therefore, for the Jomon to 'speak for themselves' – and I often felt as though I was dealing with a civilization that was completely mute.

Or was I missing something?

The unrecognized legacy of 14,000 years

Japan, of course, has texts, scriptures, myths and traditions in abundance, but scholars have consistently treated them as

irrelevant to the problem of Jomon – and the Jomon as irrelevant to the texts.[1] And while there is no archaeological evidence that a complete 'cultural replacement' took place in Japan at the transition from Jomon to Yayoi (quite the contrary, it was a long process of assimilation and syncretization), most scholars and members of the public nevertheless continue to behave as though a complete cultural replacement *did* in fact occur – and thus feel justified in ignoring or underplaying the possibility that 14,000 years of continuous Jomon culture must surely have left some mark, and perhaps a very deep one, on almost everything and anything that is truly Japanese.

As I began to suspect the extent to which Japan might still be a Jomon country I therefore also began to look from a new perspective at the handful of Shinto texts, centred around the famous *Kojiki* and *Nihon Shoki*, which together

provide almost the only surviving repositories of authentic Japanese myths, legends and traditions. If so much else goes back to the Jomon, including some of the root concepts of Shintoism itself, as we saw in chapter 25, then it is absurd that the stories and ideas preserved in the ancient texts should continue to be treated as though they are exclusively the innovations of the Yayoi or later cultures – and thus immune from Jomon influence. This habitual posture of scholars has the effect of compressing Japan's entire classical 'myth bank' -and the search for its origins – into that period of just over 1000 years that separates the earliest archaeological evidence of the Yayoi in Japan, at around 400 BC, from the first written codification of the myths in the *Kojiki*, at around AD 712. Within such boundaries, scholars happily discuss influences that have come from as far afield as China, the South Pacific and India. But the possibility that

some of the classical myths might have Jomon origins has never been seriously considered.[2]

Are we to suppose then that this extremely old and gifted culture accumulated *no* mythology of its own during the vast span that it held complete possession of the land of Japan? That doesn't seem reasonable. Yet how else are we to explain the alleged silence of the Jomon in the historical and mythical testimony of that land?

One possibility might be that the gods, myths and spiritual ideas of the latecoming Yayoi were so powerful that they not only displaced Jomon mythology but also annihilated it so completely that not a word of it would ever be remembered again.

Alternatively – in this as in Japan's age-old veneration of divine mountains and sacred rocks – the myth-memories

preserved in the ancient texts might conceal a profound Jomon legacy.

The surviving records and their limitations

First and foremost, if we discount rumours of two texts said to have been compiled in more ancient times but unfortunately lost,[3] it is essential to register that nothing of a mythical nature seems to have been written down – nothing *at all* - until the early years of the eighth century AD.[4]

Before that, as was the case in India, the old stories, religious teachings and histories were preserved and constantly repromulgated within what seems to have been entirely an oral tradition. Although a professional corporation of 'reciters' (*Kitari-be)* did exist in Japan,[5] giving

cause for hope that much might have been saved, it is not clear how reliable or systematic the oral tradition was, to what extent it was subject to change and corruption, or at what pace such processes may have occurred. However, by the year 682, the fortieth emperor Temmu-Tenno, who reigned from 673 to 686, was sufficiently concerned to order the collection from all reliable and accepted sources of 'true traditions and genealogies'.[6] Before Temmu-Tenno died in 686 the compilation had been committed to memory by a professional reciter who, it was said, could 'repeat with his mouth whatever his eyes saw, and remember in his heart whatever struck his ears'.[7] The project was then shelved for twenty-five years. Then at last the Empress Gemmei ordered that such of the ancient lore as the reciter still remembered should be written down.[8]

The end result, completed around the year 712, is the *Kojiki* (Records of Ancient Matters), the fundamental scripture of the Shinto religion.[9] Although it expounds at length on the 'Age of the Gods' before history began, and on legendary emperors whom archaeologists do not recognize, it is also a historical document that tells the story of historical Emperors and of the Japanese people down to 628.[10]

Second in importance to the *Kojiki* is the *Nihon Shoki* (also known as the *Nihongi)*, which issued forth from the court in 720.[11] Conceived of as a history and royal chronicle, it presents the annals of Japan from the earliest times down to 697.[12] In practice its subject matter is often identical or very close to the subject matter of the *Kojiki*, however:

> the older material is amplified and reclassified, and the whole recital is

perceptibly tinctured with Chinese philosophy. Some few legends are omitted and others added, while variants are given of the main episodes.[13]

Other texts that carry down small or large fragments of the myths that were circulating orally in Japan in the eighth century are the *Manyoshu* (the first great anthology of Japanese poetry, which includes mythological tales) and the *Fudoki* (Records of Wind and Earth). Though only five *Fudoki* have come down to us intact, these texts were once part of a huge archive of books compiled by regional authorities to record local traditions after a government edict in 713.[14]

Early in the ninth century the *Kogo-shui*, or 'Collection of Omitted Sayings', was compiled by Imibe-no Hironari. As well as giving eleven myth stories not included in either the *Kojiki* or *Nihongi*, it continues the history of Japan down to 807.[15]

Finally, though their contribution is not so large, the *Shojiroku* (ninth century) and the *Engi-sheki* (tenth century) are the other principal sources of authentic Japanese myths.[16]

We need to understand the limitations of these sources:

- They are not and cannot be comprehensive. What they do is 'flash-freeze' a particular selection of Japanese mythology – no doubt driven and shaped by the subjective concerns of the individual compilers – at a particular moment in history.
- There is no way of knowing how representative they are of the whole body of Japanese myths just prior to the era of codification. Most authorities agree that a great deal must be missing.

- Likewise when even rice – so long assumed to have been exclusively a Yayoi innovation in Japan – turns out to have been grown by the Jomon in pre-Yayoi times (see chapter 25), then one has to wonder on what basis it is possible for scholars to conclude anything worthwhile at all about the epoch or epochs in which the original myths originated. The problem is worsened by the ways in which – like a badly damaged archaeological site – the strata of the traditional stories were ploughed and jumbled by corrupted retellings while they were still within the oral tradition, with further confusion and even political agendas introduced at the stage of compilation.[17]

Myths and memories

Mythology has been described by Robert Graves as 'the study of whatever religious or heroic legends are so foreign to a student's experience that he cannot believe them to be true. Hence the English adjective "mythical", meaning "incredible".'[18]

This strikes me as quite an accurate general description of what most scholars who study myth think they are doing and also of their fundamental attitude towards their subject matter – i.e. that myths are 'incredible' fictions composed in the ancient world either 'to answer the sort of awkward questions that children ask' or 'to justify an existing social system and account for traditional rites and customs'.[19] In consequence, most published analyses of myth all the way back to Sir James Frazer tend to focus on its social, economic and psychological functions. There have been a very few

notable exceptions,[20] but as a rule those foolish enough to suggest that myths might in any way provide us with factual historical data have been ridiculed, abused and in some cases effectively excommunicated by their peers.[21]

As a non-scientist with no peers to excommunicate me, and as an author who earns his own keep, I'm free to pursue any line of inquiry that I'm enlightened by and to find my own position on any matter. I have therefore often taken myths seriously – with good reason I believe.

In particular I have tried to show that the universal myth of the deluge simply cannot be accounted for intelligently by the usual fatuous dismissals of professional mythologists, and that its manifestations again and again show remarkable correlations with what is known of the global meltdown at the end of the Ice Age. I can't 'prove' my view that the flood

myths are garbled memories of those events any more than the experts can 'prove' theirs that the flood myths are a universal archetype of the foetus floating in the womb – or whatever.[22] Theirs is just a theory. Mine is just a theory. But time will tell which is right.

Meanwhile, contrary to the orthodox line on these matters, I continue to look upon the myths of the world as an archive of treasures, among which the most precious of all may be a kind of 'history of prehistory'. It is not so in the case of all myths, nor is it even necessarily so in the case of all flood myths. But my own experiences and research over many years – the research of a curious layman, not of a 'scientific expert' – have convinced me that the worldwide testimony of cataclysm, flood, and geological and climatic change preserved within the human heritage of myth is a precious thing indeed and may be the only memory and record of any

kind that our species has managed to preserve of the great and terrible events that overtook our ancestors at the end of the Ice Age.

The many faces of cataclysm

On a global scale these events were undoubtedly dominated by flooding -horrific floods from the land to the sea as the great ice-sheets melted and the boundaries of glacial lakes gave way, and equally dreadful reverse floods, from the sea to the land, as the oceans inexorably swelled. But we saw in chapter 3 that flooding was only part of the story. During the same 10,000-year epoch in which the ice melted and global sea-level rose by 120 metres – roughly from 17,000 down to 7000 years ago – our planet also experienced dramatically increased volcanism, dramatically increased frequency and

magnitude of earthquakes, and a dramatically unstable climate that seesawed rapidly and unpredictably between extremes.

Japan has no flood myth.

Unlike so much of the rest of the blighted northern hemisphere Japan was never covered by an ice-cap – and even on the most northerly island of Hokkaido at the last glacial maximum only the mountain ranges were glaciated.[23] This means that no part of Japan and none of the ancient inhabitants of Japan ever found themselves in the way of the sort of terrifying meltwater floods, 50 or 100 metres high, that rolled out periodically from the collapsing European and North American ice-sheets between 17,000 and 7000 years ago – and scoured the lands across which they flowed. Moreover, although Japan's surface-area was significantly

reduced by rising sea-levels – with the most notable effect being the birth of the three islands of Honshu, Shikoku and Kyushu out of a single, much larger antediluvian island – a glance at the inundation maps reproduced in chapter 28 reveals that Japan was, in general, much less severely affected by post-glacial flooding than most other parts of the world. This was so, in the main, because its antediluvian coastlines were naturally precipitous, with few low-lying plains of the kind that were rapidly inundated (even by relatively minor sea-level rises) elsewhere in the region – for example around south-east Asia, where the Sunda Shelf was subjected to repeated catastrophic flooding, and in the basin between the Korean peninsula and the present coast of China that is now filled by the Yellow Sea.

Indeed, all in all it seems that we must regard Japan as having been a blessed land – as its mythology claims –

throughout the rigours of the end of the Ice Age. For not only was it sheltered by its own topography from the worst effects of the post-glacial floods, but also it was screened from the most violent extremes of continental climate, thus enabling it to develop the lush and plentiful natural environment in which the Jomon could continue to pursue, across fourteen millennia, their near-idyllic lifestyle as affluent hunter-gatherers, fishermen, horticulturalists and, latterly, farmers.

I therefore do not find it surprising that Japan has no indigenous flood myth. On the contrary, it is exactly what I would expect of Japanese mythology if it is rooted and grounded in the myth-memories of the Jomon (no matter how disguised these may be beneath later influences). For what Japan actually lost during the post-glacial floods of the Jomon era were its 'beachfront properties' – including, I will endeavour to prove, several great coastal temples and sacred

sites that now lie as much as 30 metres underwater. But it never lost its heart and soul to the rising seas nor was it ever smashed down to total destruction in the way that other areas of the world were.

Against such a background a strong flood myth would be anomalous.

Yet Japan, though ‘blessed’ in so many ways, did not entirely escape the upheavals of the meltdown epoch. We know, for example, that even here -though much reduced in frequency – the wild post-glacial climate flips did have their effects. Likewise, as was the case elsewhere around the world, we know that the 10,000 years after the end of the Last Glacial Maximum were accompanied in Japan by greatly increased volcanism.

I have seen evidence of the latter first-hand in early Jomon

settlements such as Uenohara on Kyushu, where the ancient habitation layers are interspersed with thick carpets of volcanic ash. Moreover, I think most archaeologists specializing in the Jomon period would agree that in general their tasks of sequencing and stratigraphy are greatly facilitated by the presence of such volcanic layers in a great many Jomon sites around Japan.

So if the *Kojiki*, the *Nihongi* and the other ancient Japanese texts do preserve important Jomon memories alongside the many later ingredients which we know they also include, then it would be reasonable to expect that some of those memories might touch on the experience of volcanic and seismic cataclysms.

All interpretation of myth is speculative – mine and everybody else's. But listen to the story of the 'ravages' or 'havoc' of Sosano-wo-no-Mikoto, the great Kami-deity called

Brave-Swift-Impetuous-Male.

The havoc of Sosano

The story is set in the Age of the Gods – more than 10,000 years ago as the chronicles inform us.[24] Whether by coincidence or because it is a memory of those times, this places it in the midst of the epoch of post-glacial tumult.

We are to picture the storm god, Sosano. At this stage he is a young man 'of a fierce temper and a wicked disposition' with 'an eight-hands-length beard'.[25] He has been appointed to rule over the 'Plain of Ocean'[26] by his father Izanagi but, adult though he is, he remains disconsolate at the death of his mother Izanami many years before. Sosano will not accept her loss but howls and rages, howls and rages, seeking

to join her in the Land of Yomi:[27] 'The fashion of his weeping was such as by his weeping to wither the green mountains into withered mountains and by his weeping to dry up all the rivers and seas.'[28]

To restore cosmic harmony Izanagi intervenes, ordering Sosano to remove himself from the earth. Sosano replies that he will go down to the Land of Yomi to join his mother but that first he wants to ascend to the High Plain of Heaven to bid farewell to his sister Amaterasu, the Sun Goddess, the 'Great-Sky-Shiner':[29]

> When Sosano went up to Heaven, by reason of the fierceness of his divine nature there was a commotion in the sea, and the hills and mountains groaned aloud. Amaterasu, knowing the violence and wickedness of this Deity, was startled and changed countenance, when she heard the manner of his coming.[30]

These are the words of the *Nihongi*. In the same vein the *Kojiki* tells us that during Sosano's ascent 'all the mountains and rivers shook, and every land and country quaked'.[31] Likewise, both versions note alarming effects on the 'countenance' of the sun – Amaterasu's hair stands out like a corona, or 'in knots', she winds ropes of curved magatama jewels around herself, she stamps her feet and sinks up to her thighs in the hard earth, which she kicks away 'Like rotten snow', and she utters a mighty cry of defiance.[32]

Sosano is offended:

> From the beginning my heart has not been black. But as in obedience to the stern behest of our parents, I am about to proceed for ever to the Land of Yomi, how could I bear to depart without having seen face to face thee my elder sister? It is for this reason that I have traversed on foot the clouds and mists and have come hither from afar. I am surprised that my elder

sister should, on the contrary, put on so stern a countenance.[33]

Amaterasu is mollified and a temporary calm descends upon the world. The two deities cooperate in the magical reproduction of further deities. But behind the scenes all is not well and Sosano's troublesome nature is beginning to manifest again. The end result is a cataclysm so great that the sun disappears entirely from view. Here's how the *Nihongi* tells the story:

> Sosano's behaviour was exceedingly rude … When he saw that Amaterasu was about to celebrate the feast of first fruits, he secretly voided excrement in the palace. Moreover, when he saw that Amaterasu was in her sacred weaving hall, engaged in weaving the garments of the Kami, he flayed a piebald colt of Heaven, and breaking a hole in the roof tiles of the hall, flung it in. Then Amaterasu started with alarm, and wounded herself with the shuttle. Indignant at this, she straightaway entered the Rock-cave of

> Heaven, and having fastened the Rock-door, dwelt there in seclusion. Therefore constant darkness prevailed on all sides, and the alternation of night and day was unknown.[34]

Most attempts by professional mythologists to explain this strange story are founded on the alleged 'primitive' fear that ancient peoples supposedly felt around the time of the winter solstice, during the shortest days of midwinter, that the sun would never return to its full power.[35] Somehow Amaterasu's disappearance into the rock-cave is to be taken as a symbol of this seasonal anxiety (which apparently our ancestors were too stupid to overcome), while her eventual re-emergence is naturally thought to symbolize the renewal of growth as the sun moves towards the spring equinox.

This is neat and tidy but in my view nonsense. People born in seasonal climes don't need myths to tell them that winter

will end! They know that already from their own life experience, from the experience of their siblings, from the experience of their parents. It's obvious that fear is not the appropriate reaction to such a routine and predictable phenomenon. But fear *is* appropriate where terrible, infrequent and unpredictable disasters are concerned – disasters that shake the earth, roil the sea and blot out the sun from the sky in the violent and terrifying manner that the myths recount. It's this sort of reasonable fear, connected to the geological and climatic violence that Sosano represents, that I think is reflected in the story of his 'ravages' and of the darkening of the sun.

As usual the language of the *Kojiki* is slightly different from that of the *Nihongi* and adds texture to the same tale. After Amaterasu has retired within her cave and made fast its rock-door, we read:

> The whole Plain of High Heaven was obscured and all the Central Land of Reed-Plains darkened. Owing to this, eternal night prevailed. Hereupon the voices of the evil[36] Kami were like unto the flies in the fifth moon as they swarmed, and a myriad portents of woe all arose.[37]

This sounds more like the end of the world to me than the winter solstice! Or if not in fact the end of the world, then something that obviously felt very much like it to those living at the time. Surely what the texts are asking us to envisage here is not less than a sustained period of cataclysm during which the whole land of Japan was plunged into 'constant darkness'. And if so, then is it coincidence, or because the texts contain a true report, that cataclysms of this magnitude did occur in Japan during the meltdown of the Ice Age when earthquakes and volcanic activity were at their peak? Even the relatively puny volcanic eruptions of the modern era have

been known to darken skies across whole regions and provoke intimations of the end of the world.[38] How much more likely it is that the multiple large-scale eruptions that Japan experienced in the Jomon era could from time to time have combined their effects to produce a total blackout of the skies and real fears of the onset of 'eternal night'.

Even the longest volcanic winter does end, however. So as we would expect with such a scenario Amaterasu eventually does emerge from her rock-cave. She is tempted forth by some wonderful commotion and trickery of her fellow Kami, which need not detain us here, and once again: 'The radiance of the Sun Goddess filled the universe.'[39]

But the story is not yet over. What is to be done with the rebellious Sosano, who caused all this trouble in the first place? The assembled Kami would have their revenge on

him. He is fined heavily. His toenails and fingernails are pulled out. His beard is cut:

> After this the Kami upbraided Sosano, saying 'Thy conduct has been in the highest degree improper. Thou must, therefore, not dwell in Heaven. Nor must thou dwell in the Central Reed-Plain Land. Thou must go speedily to the Bottom Nether Land [the Land of Yomi].' So together they drove him away downwards.
>
> Now this was a time of continuous rains …[40]

Remember that all interpretation of myth is speculative, but in summary, if we storyboard the ravages of Sosano, I suggest we get something like the following:

1. *A period of extremely arid climate during which the 'green mountains' become 'withered mountains' and the rivers and seas dry up.* Comment: a good, shorthand description of

conditions at the Last Glacial Maximum, when global sea-level was at its lowest and north-east Asia, along with many other parts of the world, experienced thousands of years of extreme aridity.[41]

2. *A commotion in the sea; mountains and rivers shake and groan.* Commerit: the meltdown has begun in earnest; as the earth's crust readjusts under the changing stresses Japan experiences earthquakes of phenomenal intensity and its network of colossal volcanoes grows restless.
3. *A change in the countenance of the sun: the episode of the piebald colt.* Comment: atmospheric effects from increased volcanism.
4. *The disappearance of the sun into the 'Rock-cave of Heaven'.* Comment: skies darkened and sun obscured by massive volcanic eruptions and prolonged local volcanic fallout

combined with global circulation of ash in the upper atmosphere.

5. *Return of the sun followed by a period of continuous rains.* Comment: the sky clears, the sun is seen again; as the meltdown of the far-off ice-sheets continues and more water is made available for atmospheric circulation, global precipitation increases and Japan experiences heavy rains after a long period of drought.[42]

So, yes, I am speculating. And, yes, I do realize that there might be dozens of other far more worthy explanations. Yet Japan did pass through such conditions at the end of the Ice Age.

And the Jomon were there to experience them.

The Land of Yomi

Sosano's long-running story does not quite end even with his expulsion from heaven. Contrary to the command of the assembled Kami, he has deeds to do on earth before he joins his mother Izanami in the Land of Yomi. Most of these are good deeds and feature the killing of an eight-headed serpent-monster that threatens a damsel in distress and the recovery from its tail of an Excalibur-like sword.[43] After having married the damsel and produced more children, 'Sosano-wo-no-Mikoto at length proceeded to the Land of Yomi.'[44]

This brings me back to the point at which I started this chapter – the mysterious journey to the Underworld, to the enchanted island, to the Kingdom of the Sea King, that recurs in the Japanese myths.

Sosano's case touches only tangentially on the issue. It is the story of his mother, the great procreator goddess Izanami (She-Who-Invites) and of his father Izanagi (He-Who-Invites) that will lead us along the correct path. Izanami and Izanagi are the archetypal divine couple, progenitors of gods and men, whom we first encounter in the ancient texts standing on the 'Floating Bridge of Heaven', gazing down into the swirling, oily, cloud-covered mass of the primeval universe in formation:

> Izanagi-no-Mikoto and Izanami-no-Mikoto stood on the Floating Bridge of Heaven, and held counsel together saying: 'Is there not a country beneath?'
>
> Thereupon they thrust down the jewel-spear of Heaven, and groping about therewith found the ocean. The brine which dripped from the point of the spear coagulated and became the island which received the name Ono-goro-Jima ['Spontaneously-congealed-island'; identified with a small island near Ahaji].

> The two Deities thereupon descended and dwelt in this island. Accordingly they wished to become husband and wife together, and to produce countries.
>
> So they made Ono-goro-Jima the pillar of the centre of the land.[45]

It is impossible to pass such symbolism as 'the pillar of the centre of the land' without noting its obvious family resemblance to the notion of the *omphalos* or 'navel-of-the-earth', found as far afield as ancient Peru, Easter Island, India, ancient Egypt and Greece. I have discussed this problem in earlier chapters and in another work,[46] and will not repeat myself; still, the sense of an intrusion into the *Nihongi's* text at this point of what many as well as myself believe to have been an international geodetic *technical* terminology is overwhelming.

As well as the Sun Goddess Amaterasu, and her

troublesome brother Sosano, Izanagi and Izanami become the parents of many other children, several of whom are islands (perhaps even the islands of post-glacial Japan that were formed by rising sea-levels?), while others are Kami of every variety.

In a curious episode, the first-born of the divine couple is described as a leech-child (later identified with the god Yebisu),[47] whom 'they straightaway placed in a reed boat and set adrift'.[48] And just as Sosano's killing of the serpent to rescue a damsel in distress recalls the Greek myth of Perseus and Andromeda, so too this story of a child set adrift in a reed vessel has bizarre similarities to the stories of well-known civilizing heroes who were 'saved from water' in the same way – such as Moses in the Old Testament and Sargon the Great of Mesopotamia, who claimed in the third

millennium BC:

> My mother was a priestess. I did not know my father. The priestess, my mother, conceived me and gave birth to me in hiding. She placed me in a basket made of reeds and closed the lid with pitch. She put the basket in the river … The river carried me away.[49]

Returning to the myths of Japan, the last of Izanami's children is the fire-god Kagu-tsuchi (Fire-Shining-Swift-Male).[50] As he enters the world her uterus is burnt and soon afterwards she sickens, dies and her spirit travels to the Land of Yomi.[51]

Now, another scene from universal myth unfolds – here powerfully reminiscent of the Underworld quests of Orpheus for Eurydice and of Demeter for Persephone.[52] The ancient Japanese recension of this mysteriously global story is given

in the *Kojiki* and the *Nihongi*, where we read that Izanagi, mourning for his dead wife, followed after her to the Land of Yomi in an attempt to bring her back to the world of the living:

> Izanagi-no-Mikoto went after Izanami-no-Mikoto and entered the Land of Yomi … So when from the palace she raised the door and came out to meet him, Izanagi spoke saying; 'My lovely younger sister! The lands that I and thou made are not yet finished making; so come back!'[53]

Izanami is honoured by Izanagi's attention, and minded to return. But there is one problem. She has already eaten food prepared in the Land of Yomi and this binds her to the place, just as the consumption of a single pomegranate seed binds Persephone to hell in the Greek myth.[54]

Is it an accident that ancient Indian myth also contains the

same idea? In the *Katha Upanishad* a human, Nachiketas, succeeds in visiting the underworld realm of Yama, the Hindu god of Death (and, yes, scholars have noted and commented upon the weird resonance between the names and functions of Yama and Yomi).[55] It is precisely to avoid detention in the realm of Yama that Nachiketas is warned:

> Three nights within Yama's mansion stay
>
> But taste not, though a guest, his food.[56]

So there's a common idea here – in Japan, in Greece, in India – about not eating food in the Underworld if you want to leave. Such similarities can result from common invention of the same motif – in other words, coincidence. They can result from the influence of one of the ancient cultures upon the other two, i.e. cultural diffusion. Or they can result from an influence that has somehow percolated down to all three, and

perhaps to other cultures, stemming from an as yet unidentified common source.

The parallel idea of not looking or not looking back after a successful quest in the Underworld is strong in the myth of Orpheus and Eurydice. In their case Eurydice, killed by a snakebite, is permitted to return to life after Orpheus has journeyed to the land of the dead to find her. But there is a condition: neither he nor she should look back as they depart the Underworld: 'The couple climbed up toward the opening into the land of the living, and Orpheus, seeing the sun again, turned back to share his delight with Eurydice. In that moment, she disappeared.'[57]

The Japanese recension passed down to us from unknown antiquity in the *Kojiki* and the *Nihon Shoki* is hauntingly different and yet hauntingly the same. The reader will recall

that *Izanagi* has reached the Land of Yomi and has just addressed Isanami: ‘My lovely younger sister! The lands that I and thou made are not yet finished making; so come back!’ And she has informed him that she has eaten food cooked in the Underworld and thus cannot depart: ‘My lord and husband, why is thy coming so late? I have already eaten of the cooking furnace of Yomi.’[58] Nevertheless, she says that she will return within and discuss the matter with the resident Kami. Perhaps an exception can be made and she can be freed. But she issues one warning: ‘Look not at me!’[59]

She goes back into the palace to negotiate her freedom and remains there a long time without giving any sign. Izanagi, waiting outside, becomes impatient. He improvises a torch and follows her within. There, unfortunately, the first thing he sees is Izanami covered in putrefaction and seething with

maggots:

> Izanagi-no-Mikoto was greatly shocked and said, 'Nay! I have come unawares to a hideous and polluted land.' So he speedily ran away back again. Then Izanami-no-Mikoto was angry, and said: 'Why didst thou not observe that which I charged thee [i.e not to look at her]? Now am I put to shame.'[60]

Like a vengeful harpy, and accompanied by 'the eight Ugly Females of Yomi', she sets off in pursuit, determined to punish Izanagi for dishonouring her. Just ahead of them he reaches 'the Even Pass of Yomi', the exit to the upper world, and blocks it behind him with 'a thousand-men-pull rock'.[61] This rock, we read, 'is called the great Kami, Land-of-Night-Gate-Block'.[62] On one side stands Izanami, permanently relegated to the Realm of Yomi. On the other stands Izanagi,

He-Who-Invites, who still has tasks to complete and powerful Kami to create in the upper world.

Amongst the great Kami brought into being as he performs the necessary ablutions and purifications after his journey are his children Amaterasu and Sosano – whom we have met already and need say no more about here …

The enchanted island

I've suggested there is a theme running through Japanese myth of a love affair, a journey to a mysterious parallel realm, and a return to the world.

The first example, the story of Izanami and Izanagi, is set in the distant epoch that the *Kojiki* and the *Nihongi* call the Age of the Gods. But the second example that I will cite,

superficially very different, is set in the Age of the Earthly Sovereigns. Here we read of a fisherman later revered as a deity named Urashima:

> He was handsome of feature … He went out alone in a boat to fish with hook and line. During three days and nights he caught nothing, but at length he caught a turtle of five colours. Wondering, he put it in the boat … While he slept the turtle suddenly became transformed into a woman, in form beautiful beyond description … He said to her, 'This place is far from the homes of people, of whom there are few on the sea. How did you so suddenly come here?' Smiling, she replied, 'I deemed you a man of parts alone on the sea, lacking anyone with whom to converse, so I came here by wind and cloud.'[63]

She is, of course, a Kami, as he quickly understands, from a magical land that 'lasts as long as sky and earth and ends with sun and moon'.[64] And she tempts him:

> ‘You can come to that region by a turn of your oar. Obey me and shut your eyes.’ So presently they came to a broad island in the wide sea, which was covered with jewels. [On it was a great mansion.] Its high gate and towers shone with a brilliance which his eyes had never beheld and his ears had never heard tell.[65]

They enter the mansion and are received and greeted in a loving fashion by her parents: ‘Seated they conversed of the difference between mankind and the Land-of-Spirits, and the joy of man and Kami meeting.’[66] Eventually the fisherman Urashima and the beautiful sea Kami are married. Thereafter: ‘For three years, far from his aged parents, he lived his life in the Spirit capital, when he began to yearn for his home and for them.’ Observing the change in him, his wife asks: ‘Do you desire to return home?’

He replies: ‘To come to this far Spirit Land, I parted from

my near of kin. My yearning I cannot help … I wish to return to my native place to see my parents for a while.' Then we read:

> Hand in hand, they walked conversing … till they came to where their ways diverged and where her parents and relatives, sorrowing to part with him, made their farewells. The princess informed him that she was indeed the turtle which he had taken in his boat, and she took a jewel-casket and gave it to him saying, 'If you do not forget me and desire to seek me, keep this casket carefully, but do not open it.' Thus he parted from her and entered his boat, shutting his eyes as she bade him.[67]

In a trice Urashima finds himself back in his home village again but a terrible surprise awaits him. During the three years that he has spent enchanted on the Spirit island 300 mortal years have passed and everything has changed beyond recognition. Stumbling around dazed and disconsolate,

discovering from a passer-by that his own disappearance three centuries previously is itself now the subject of a village legend, he forgets the warning about the jewel box and opens it to remind himself of his Kami wife: ‘But before he could look into it, something in the form of a blue orchid soared up to the blue sky with the wind and clouds. Then he knew that, having broken his oath, he could not go back and see her again.’[68]

It is already apparent from the narrative that lines are blurred between the enchanted island and the Spirit Land of Yomi. But the blurring goes even further in another variant of the myth where the Kami princess is revealed as no lesser figure than ‘the daughter of the Dragon King of the Sea’ and in which Urashima is taken not to an island but to an underwater kingdom.[69]

How do we explain such ambiguity? Perhaps it means nothing. But taken at face value what it seems to suggest is that the Mansions of the Sea King did not always lie beneath the waves.

The Kingdom of the Sea King

The same implication is there to be grasped in an earlier cycle of the myth also found in the *Kojiki* and the *Nihongi* and set in an era very near the end of the Age of the Gods – indeed just two generations before the birth of Jimmu-Tenno, part man, part Kami, the legendary first emperor of Japan.

As the story unfolds we are introduced to two brothers. The elder is Ho-no-susori no Mikoto (whose name is usually translated into English as 'Fire-Glow' or Tire-Shine') and the younger is Ho-ho-demi no Mikoto ('Fire-Fade' or 'Fire-

Subside'). The *Nihongi* tells us, somewhat opaquely, that the former had 'a sea-gift', while the latter had by nature 'a mountain gift'.[70] But the *Kojiki* makes matters clearer:

> His Augustness Fire-Glow was a prince who got his luck on the sea, and caught things broad of fin and things narrow of fin. His Augustness Fire-Fade was a prince who got his luck on the mountains, and caught things rough of hair and things soft of hair.[71]

In other words Fire-Glow, like Urashima, was a fisherman and Fire-Fade was a hunter – occupations that are very far indeed from the 'fighting farmer' stereotype of Japan's later Yayoi and Kofun cultures but that do reflect and idealize the hunter-gatherer lifestyle, always strongly dependent upon fishing, of the earlier Jomon period.[72]

As the *Kojiki* tells it, Fire-Fade the hunter persuaded Fire-

Glow the fisherman that they should ‘mutually exchange and use each other’s luck’.[73] In practice this meant that Fire-Fade was to take Fire-Glow’s fish-hook and try his luck in the sea; Fire-Glow was to take Fire-Fade’s bow and arrows and try his luck as a hunter in the mountains. Although Fire-Glow was not in favour of the scheme, ‘at last with difficulty the mutual exchange was obtained’:[74]

> Then His Augustness Fire-Fade, undertaking the sea-luck, angled for fish, but never got a single fish; and moreover he lost his fish-hook in the sea. Thereupon His Augustness Fire-Glow asked him for the fish-hook, saying, ‘A mountain luck is a luck of its own, and a sea-luck is a luck of its own. Let each of us now restore to the other his luck. To which the younger brother His Augustness Fire-Fade replied, saying, ‘As for thy fish-hook, I did not get a single fish by angling with it; and at last I lost it in the sea.’[75]

Fire-Glow had looked after and returned Fire-Fade's bow and arrows[76] and was insistent that his fish-hook should likewise be returned – although 'there was no means of finding it'.[77] Hoping to settle the matter, Fire-Fade made a new hook, which he offered to his elder brother. But Fire-Glow refused to accept it and again demanded the old hook.[78]

> So the younger brother, breaking his ten-grasp sabre that was augustly girded on him, made of the fragments five hundred fish-hooks as compensation; but he would not take them. Again he made a thousand fish-hooks as compensation; but he would not receive them, saying: 'I still want the real original fish-hook.'[79]

The *Nihongi* takes up the story:

> Fire-Fade's grief was exceedingly profound and he went and made moan by

> the shore of the sea. There he met Shihi-tsutsu no Oji [’Salt-sea elder’]. The old man inquired of him, saying, ‘Why dost thou grieve here?’ He answered and told him the matter from first to last. The old man said, ‘Grieve no more. I will arrange this matter for thee. So he made a basket without interstices, and placing Fire-Fade in it, sank it into the sea …[80]

I introduced the mystery of Fire-Fade’s prehistoric diving adventure in chapter I because he soon comes to an underwater palace and because its description in the *Nihongi* reminds me so much of the towering underwater ruins I have seen off the island of Okinawa at Chatan and, 50 kilometres further to the west, at Kerama. Here is the passage that first caught my attention:

> Forthwith he found himself at a pleasant strand, where he abandoned the basket, and, proceeding on his way, suddenly arrived at the Palace of the Sea God. This palace was provided with battlements and turrets, and had

> stately towers.[81]

Fire-Fade then loitered outside the gate until he was spotted by a beautiful princess, the daughter of the Sea God, who arranged with her father that this 'rare stranger' should be brought within. In the ensuing encounter the Sea God questioned Fire-Fade as to his purpose and the story of the lost fish-hook came out:

> The Sea God accordingly assembled the fishes, both great and small, and required of them an answer. They all said, 'We know not. Only the Red-woman has had a sore mouth for some time past and has not come.' She was therefore peremptorily summoned to appear, and on her mouth being examined the lost hook was actually found.[82]

Mission accomplished? Perhaps. But now that he had experienced the delights of the Sea God's palace Fire-Fade

did not want to leave. Instead he married the Sea God's daughter, Toyo-tama-hime, 'and dwelt in the sea-palace':[83]

> For three years he enjoyed peace and pleasure, but still had a longing for his own country, and therefore sighed deeply from time to time. Toyo-tama-hime heard this and told her father, saying Fire-Fade often sighs as if in grief. It may be that it is the sorrow of longing for his country.[84]

Fire-Fade admitted that this was so and the Sea God granted him permission to return to the world above the waves, handing over to him Fire-Glow's fish-hook to take back and also gifting him with two magical jewels – 'the jewel of the flowing tide and the jewel of the ebbing tide' – with which he would be able to control the waters.[85] The plan was that he should use these jewels to punish and subdue his elder brother (presumably for being so unreasonable about the

fish-hook in the first place):

> If thou dost dip the tide-flowing jewel, the tide will suddenly flow, and therewithal thou shalt drown thy elder brother. But in case thy elder brother should repent and beg forgiveness, if, on the contrary, thou dip the tide-ebbing jewel, the tide will spontaneously ebb, and therewithal thou shalt save him. If thou harass him in this way, thy elder brother will of his own accord render submission.[86]

Before Fire-Fade set off on his journey he was approached by his young sea wife Toyo-tama-hime, who informed him that she was pregnant and that she would follow him soon – for she wished to bear his child above water, in his homeland:

> Thy handmaiden is already pregnant, and the time of her delivery is not far off. On a day when the winds and waves are raging, I will surely come

> forth to the sea shore, and I pray thee that thou will make for me a parturition house, and await me there.[87]

After his return Fire-Fade, armed with the remarkable jewels that could raise and lower sea-level at will, quickly subdued his elder brother, just as the Sea God had promised. Then the time came for Toyo-tama-hime to fulfil her promise and ascend from the underwater kingdom to give birth to their child on land. So she 'bravely confronted the wind and waves, and came to the sea shore' – where Fire-Fade awaited her.[88]

From the *Kojiki:*

> Unable to restrain the urgency of her womb she entered the parturition-hall. Then, when she was about to be delivered, she spoke to her husband, saying, 'Whenever a foreigner is about to be delivered, she takes the shape of her native land to be delivered. So I now will take my native shape to be

> delivered. Pray look not upon me!'[89]

The *Nihongi*, too, repeats the same warning: 'When thy handmaiden is in travail, I pray thee do not look upon her.'[90] But of course, just as Orpheus had to look back at the gates of hell and just as Izanagi had to look at Izanami in the Land of Yomi:

> Fire-Fade could not restrain himself, but went secretly and peeped in. Now Toyo-tama-hime was just in childbirth and had changed into a dragon. She was greatly ashamed, and said, 'Hadst thou not disgraced me I would have made the sea and land communicate with each other, and forever prevented them from being sundered. But now that thou hast disgraced me, wherewithal shall friendly feelings be knit together?' So she wrapped the infant in rushes, and abandoned it on the sea shore. Then she barred the sea-path and passed away.[91]

The sequel to this story is that the infant abandoned on the sea-shore grows up to wed his maternal aunt, sent from the underwater kingdom to care for him, and among their offspring is Jimmu-Tenno, the first Emperor of Japan,[92] founder of the imperial line that survives to this day. In a sense, therefore, are we not to understand that the historical civilization of Japan, bound up with the line of the Emperor, is to be traced back through Jimmu-Tenno – by way both of his grandmother and his mother – not only to the lineage of Amaterasu and the great gods of the High-Plain of the Sky, but also to the lineage of the Sea God and to a kingdom of palaces and mansions that now lies beneath the sea?

R'yugu

The ambiguity in the story of Urashima's enchanted island –

which has it sometimes above and sometimes below the waves – also occurs in the story of Fire-Glow and Fire-Fade. For whereas the *Nihongi* has Fire-Fade descend to the sea-bed in a waterproof basket, the *Kojiki* has him make the journey *above water* in 'a stout little boat without interstices'. He is told: 'Go on for some time. There will be a pleasant road; and if thou goest in the boat along that road, there will appear a palace built like fishes' scales.'[93] Likewise, later in the story when Fire-Fade is taking his leave he refers to the Sea God's kingdom quite explicitly as an 'island', and the translator Basil Hall Chamberlain feels obliged to explain: 'The Sea-God's dwelling is called an island because it is beyond the sea.'[94]

Otherwise, the versions are virtually identical but in these curious differences I wonder if we are seeing, once again, a

before-and-after effect summarized in two different layers of myth – in the earlier of which the Kingdom of the Sea God is remembered as an island, in the later as an underwater sanctuary of walls and palaces and mansions? In crude and simplistic terms, could it be a memory that great structures with ‘turrets and tall towers of exceeding beauty’ once stood above water but are now beneath the waves?

That seemed like wild and unjustified speculation to me until I discovered exactly where Japanese legends say that the Kingdom of the Sea God is to be found …

It seems that its name is R’yugu, and that it lies hidden from the sight of man somewhere amongst the Lu-Chu islands.[95]

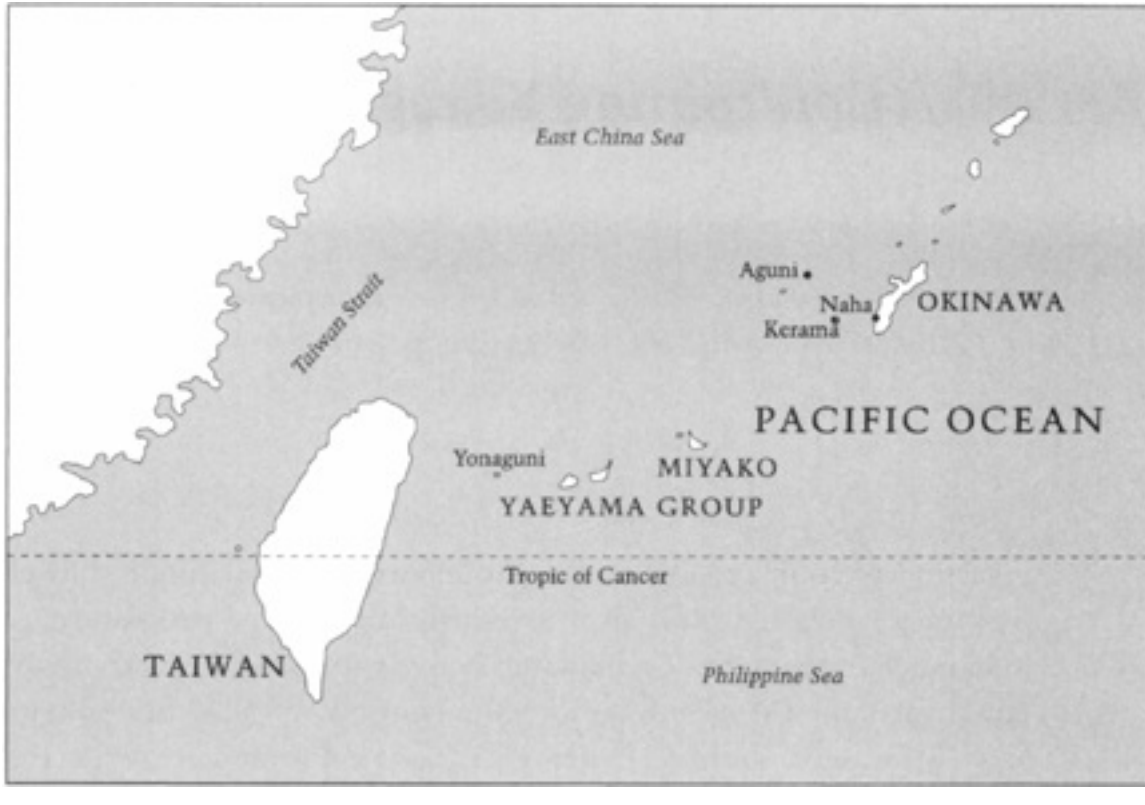

'X' marks the spot

Today the Lu-Chu islands (the old Chinese name) are part of

Japan and are better known as the Ryukyu archipelago (from the Japanese pronunciation). The archipelago consists of three separate island groups – the northernmost around Okinawa, including the Keramas and Aguni; then Miyako in the centre; finally the Yaeyama group with Yonaguni in the extreme south-west.

I suggest it is not a matter to be ignored that (a) Japan has a tradition of spectacular underwater structures that may only be reached by diving; (b) there are some indications of a memory that these structures were once above water; © the tradition is clearly associated with a hunter-gathering and fishing culture that idealizes much of what we know about the Jomon lifestyle in Japan after the end of the Ice Age and down to about 2000 years ago; (d) the tradition places the underwater structures amongst the Ryukyu islands; (e) divers in recent years have indeed observed a series of spectacular

underwater structures in the Ryukyu islands – extending all the way from Yonaguni to Okinawa.

It was time to go diving again.

27 / Confronting Yonaguni

> The question was, or is still, is it and, if yes, to what extent is it made by man or overworked by man? This is the question.
>
> Dr Wolf Wichmann, geologist, Yonaguni, March 2001

I was in Tokyo in 1996 when the photojournalist Ken Shindo showed me the first images I had ever seen of an awe-inspiring terraced structure, apparently a man-made monument of some kind, lying at depths of up to 30 metres off the Japanese island of Yonaguni at the remote south-west end of the Ryukyu archipelago. This was the moment, if there ever was just one moment, when the 'Underworld' quest began for me and when much that I had learned in previous years in many different countries began to swing sharply into focus and make sense. I felt an immediate compulsion to

explore the beautiful and mysterious structure that beckoned so alluringly from the photographs. And I realized that it would rewrite prehistory if it could indeed be proved to be man-made.

I described in chapter 1 how Santha and I learned to dive, and the remarkable synchronicities and good fortune that brought us to Yonaguni in March 1997 to begin a systematic programme of underwater photography and research there that was to continue until mid-2001. I also described some of the other rock-hewn underwater structures that we dived at with our Japanese colleagues at other locations in the Ryukyus – notably at Kerama, Aguni and Chatan at the northern end of the archipelago.

The most complex and intractable problem shared by all of these otherwise very different structures is also the simplest and most obvious question that anyone might wish to ask

about them: were they shaped and carved by human hands or could they have ended up looking the way they do as a result of natural weathering and the erosive weapons of the sea? Though they have an important role to play, geologists are not the only people qualified to decide the answer to such a question. Likewise, though they too are indispensable, archaeologists cannot be the final arbiters. On the contrary, if ever a multi-disciplinary approach was called for then it is here! For, as I've tried to show in the previous chapters, Japan confronts us with a prehistoric cultural and mythological context into which the rock-hewn structures fit snugly like the missing pieces of a jigsaw puzzle. This context includes a clear tradition of unknown antiquity -still manifest in the present day – in which huge rocks are carved and rearranged amidst sacred natural landscapes. Since this is precisely the puzzling and ambiguous aspect – part natural

and part seemingly man-made – of the underwater structures scattered around the Ryukyu archipelago, it is foolish and irresponsible to ignore the possibility of a connection.

Yet it is equally foolish and irresponsible to ignore what geology and archaeology have to say on the matter. So it is time, I think, to provide a thorough reckoning.

The three geologists

Three qualified geologists – Masaaki Kimura, Robert Schoch and Wolf Wichmann – have dived at Yonaguni, acquired first-hand experience of the underwater structures, and commented publicly on what they saw. So far as I know, they are, at the time of writing, the *only* geologists ever to have dived there. Therefore, when we speak of 'geological opinion' concerning the Yonaguni anomalies, it is important to be

clear that we are referring to the work and ideas of just three men who, moreover, do not agree with one another – so there is no consensus. Other geologists who have expressed views without diving at Yonaguni hardly qualify to participate in the debate.

Since there are grave issues at stake concerning our understanding of prehistory and the story of human civilization I propose to devote the necessary space in this chapter to an accurate summary of the views of the three main geological protagonists.

Dr Kimura

The doyen of the group, and in my view the hero of the Yonaguni saga for his determination, persistence and refreshingly open-minded intellectual approach, is Dr

Masaaki Kimura, Professor of Marine Geology at the University of the Ryukyus in Okinawa. He and his students have completed hundreds of dives around the main 'terrace' monument at Yonaguni as part of a long-term project in which they have thoroughly measured and mapped it, produced a three-dimensional model, taken samples of ancient algae encrusted on its walls for carbon-dating, and sampled the stone of the structure itself. Professor Kimura's unequivocal conclusion, based on the scientific evidence, is that the monument is man-made and that it was hewn out of the bedrock when it still stood above sea-level – perhaps as much as 10,000 years ago. The principal arguments that he puts forward in favour of human intervention are on the record and include the following:

1. 'Traces of marks that show that human beings worked

the stone. There are holes made by wedge-like tools called *kusabi* in many locations.'

2. 'Around the outside of the loop road [a stone-paved pathway connecting principal areas of the main monument] there is a row of neatly stacked rocks as a stone wall, each rock about twice the size of a person, in a straight line.'
3. 'There are traces carved along the roadway that humans conducted some form of repairs.'
4. 'The structure is continuous from under the water to land, and evidence of the use of fire is present.'
5. 'Stone tools are among the artefacts found underwater and on land.'
6. 'Stone tablets with carving that appears to be letters or symbols, such as what we know as the plus mark "+"

and a “V” shape, were retrieved from under water.’

7. ‘From the waters near by, stone tools have been retrieved. Two are for known purposes that we can recognize, the majority are not.’
8. ‘At the bottom of the sea, a relief carving of an animal figure was discovered on a huge stone.’[1]
9. On the higher surfaces of the structure there are several areas which slope quite steeply down towards the south. Kimura points out that deep symmetrical trenches appear on the northern elevations of these areas which could not have been formed by any known natural process.
10. A series of steps rises at regular intervals up the south face of the monument from the pathway at its base, 27 metres underwater, towards its summit less than 6

metres below the waves. A similar stairway is found on the monument's northern face.

11. Blocks that must necessarily have been removed (whether by natural or by human agency) in order to form the monument's impressive terraces are not found lying in the places where they would have fallen if only gravity and natural forces were operating; instead they seem to have been artificially cleared away to one side and in some cases are absent from the site entirely.

12. The effects of this unnatural and selective clean-up operation are particularly evident on the rock-cut 'pathway' (Kimura calls it the 'loop road') that winds around the western and southern faces of the base of the monument. It passes directly beneath the main terraces yet is completely clear of the mass of rubble that would have had to be removed (whether by natural or by

human agency) in order for the terraces to form at all.[2]

Dr Schoch

The second geologist to dive at Yonaguni, Professor Robert Schoch of Boston University, has vacillated tenaciously in his opinions – but I take this as a sign of an open-minded scholar ever willing to revise his views in the light of new evidence. Thus, when we first dived there together in September 1997, he was sure that the structure was man-made.[3] Within a few days, however, he had changed his mind completely:

> I believe that the structure can be explained as the result of natural processes … The geology of the fine mudstones and sandstones of the Yonaguni area, combined with wave and current actions and the lower sea-levels of the area during earlier millennia, were responsible for the formation of the Yonaguni monument about 9000 to 10,000 years ago.[4]

A few days later, Schoch softened his position again:

> After meeting with Professor Kimura, I cannot totally discount the possibility that the Yonaguni monument was at least partially worked and modified by the hands of humans. Professor Kimura pointed out several key features that I did not see on my first brief trip … If I should have the opportunity to revisit the Yonaguni monument, these are key areas that I would wish to explore.[5]

Schoch did have an opportunity to revisit the structure in the summer of 1998, carrying out several more dives there. Then in 1999, in an interview given to the BBC science programme *Horizon* for a documentary attacking my work – and in the same year in his own book *Voices of the Rocks* - he expressed what sound like two very different, even contradictory opinions about the structure. Here is the relevant section from the BBC *Horizon* transcript:

Narrator: Yonaguni looked as if it could be a spectacular discovery and Hancock needed corroboration. He invited the Boston University geologist Robert Schoch to inspect the site. Professor Schoch has taken a keen interest in unorthodox views of the past and he welcomed the chance to examine the underwater discovery. Schoch dived with Hancock several times at Yonaguni.

Prof. Robert Schoch (Boston University): I went there in this case actually hoping that it was a totally man-made structure that was now submerged underwater, that dated maybe back to 6000 BC or more. When I got there and I got to dive on the structure I have to admit I was very, very disappointed because I was basically convinced after a few dives that this was primarily, possibly totally, a natural structure …

> Isolated portions of it look like they're man-made, but when you look at it in context you look at the shore features, etc., and you see how, in this case, fine sandstones split along horizontal bedding plains that gives you these regular features. I'm convinced it's a natural structure.[6]

Well, that seems straightforward. But then here is what Schoch says in *Voices of the Rocks:*

> Possibly the choice between natural and human-made isn't simply either/or. Yonaguni Island contains a number of old tombs whose exact age is uncertain, but that are clearly very old. Curiously the architecture of the tombs is much like that of the monument. It is possible that humans were imitating the monument in designing the tombs, and it is equally possible that the monument was itself somehow modified by human hands. That is, the ancient inhabitants of the island may have partially reshaped or

enhanced a natural structure to give it the form they wished, either as a structure on its own or as the foundation of a timber, mud or stone building that has since been destroyed. It is also possible that the monument served as a quarry from which blocks were cut, following the natural bedding, joint and fracture planes of the rock, then removed to construct buildings that are now long gone. Since it is located along the coast the Yonaguni monument may even have served as some kind of natural boat dock for an early seafaring people. As Dr Kimura showed me, ancient stone tools beautifully crafted from igneous rock have been found on Yonaguni. Significantly, Yonaguni has no naturally exposed igneous rocks, so the tools, or at least the raw materials from which they were made, must have been imported from neighbouring islands where such rock is found. The tools could have been used to modify or reshape the natural stone structures now found underwater off the coast of Yonaguni. The concept of a human-enhanced natural structure fits well with East Asian aesthetics, such as the *feng shui* of China and the Zen-inspired rock gardens of Japan. A complex interaction between natural and human-made

> forms that influenced human art and architecture 8000 years ago is highly possible.[7]

As further evidence for a very ancient human role in the construction of the Yonaguni monument, Schoch then sets out an argument of mine, advanced in my 1998 book *Heaven's Mirror*, that the structure is not only man-made but could also have served a specific astronomical function – since calculations show that around 10,000 years ago, when it was above water, it would have stood on the ancient Tropic of Cancer.[8] Writes Schoch:

> The ancients, I suspect, knew where the tropic was, and they knew that … its position moved slowly. Since Yonaguni is close to the most northerly position the tropic reaches in its lengthy cycle, the island may have been the site of an astronomically aligned shrine.[9]

In summary, therefore, Schoch has not come down definitively either on one side of the fence or on the other but seems to be wavering in the direction of a compromise in which the structure is both natural and man-made at the same time. I cannot avoid adding that *all* rock-hewn structures, whether the weird terraced granite outcrop at Qenko near Sacsayhuaman in Peru,[10] or the wonders of Petra in Jordan, or the temples of Mahabalipuram in south India are, by definition partly natural – the base rock out of which they are hewn – and partly man-made. They can't help but be anything else.

Dr Wichmann

The third geologist, German science writer Dr Wolf Wichmann, has definite opinions and expresses them with

certainty. In 1999 he informed *Der Spiegel* magazine – who had taken him to Yonaguni – that he regards the underwater monument as entirely natural. He made just three dives on the main terraces and then declared: 'I didn't find anything that was man-made.'[11] Japan's marine scientists 'haven't got a clue' what the terraced underwater structure at Yonaguni is, reports *Der Spiegel:*

> 'It is unlikely to be anything natural,' said the oceanographer Teruaki Ishii from Tokyo. Masaaki Kimura, a marine researcher at the Ryukyus University (Okinawa) talks about 'a masterpiece'. He thinks the structure is a sacred edifice built by a hitherto unknown culture possessing advanced technical abilities.
>
> The debate going on in the Orient has awakened the curiosity of the West. People with second sight find themselves magically attracted by Iseki Point ('ruins'). At the beginning of 1998 the geologist Robert Schoch, who

believes the Sphinx was built by the people of Atlantis *[sic* - completely untrue; Schoch does not believe any such thing], swam down to the site and declared it to be 'most interesting'. The guru of ancient antiquity and best-selling author Graham Hancock was also investigating the site. After an excursion in a submersible he records that at the base of the monument can be seen a 'clearly defined path'. [Actually I have *never* been in a submersible at Yonaguni and I do not consider my four years of hands-on diving there as any kind of excursion; there is, however, a clearly defined path at the base of the monument.]

The rock expert Wolf Wichmann could not corroborate these conclusions. In the company of a team from SPIEGEL TV he returned to explore the coastal area, under threat from tsunamis. In a total of three diving operations he gathered rock samples and measured the steps and 'walls'. He was unconvinced by his findings: 'I didn't find anything that was man-made.'

During the inspection it was revealed that the 'gigantic temple' is

nothing but naturally produced bedded rock. The sandstone is traversed by vertical cracks and horizontal crevices. Perpendicularity and steps have gradually developed in the fracture zones. The plateaux at the top are referred to by Wichmann as typical ‘eroded plains’. Such flat areas occur when bedded rock is located right in the path of the wash of the waves.

Suggestive pictures rich in detail and contrast may indeed reveal something else, but in general the mass of rock looks like a structure rising out of a sandy bed, with no sign of architectural design. The plateaux have gradient sections, and there is no perpendicular wall. Some of the steps just end nowhere; others are in a spiral, like steep hen-roosts.

The stony blocks show no signs of mechanical working. ‘Had the “ashlars” been hewn by tools, they would have been studded with flutes and cuts and scratches,’ said Wichmann. Three circular recesses on the topmost plateau, referred to by Kimura as column foundations, are nothing but ‘potholes’. These occur when water washes through narrow spaces.

Facts like these fail to stem the current epidemic of mystery-fever. The

Yonaguni monument has for some time played a key role in the world picture of archaeological dreamers.[12]

The one archaeologist

One archaeologist has dived at Yonaguni and studied its underwater structures first-hand. Others in his profession who have commented have done so from their desks after browsing through photographs or looking at videotape of the structures. As is the case with the armchair geologists, their opinions can only be of limited value until they have dived there themselves. By contrast the opinion of the only experienced marine archaeologist in the world who has ever dived at Yonaguni must count for a great deal more.

That archaeologist – whose official report is reproduced in part below – is Sundaresh from the National Institute of

Oceanography in Goa, India. The reader will recall that we dived with him and other NIO archaeologists at Dwarka in March 2000 and again at Poompuhur in February 2001. Between these expeditions in India, Sundaresh participated with us in an expedition to Yonaguni in September 2000 that had been supported once again (as had Robert Schoch's visit in September 1997) by Seamen's Club.

Also participating in the September 2000 expedition was Kimiya Homma, a businessman from Hokkaido, whose firm owns two very useful high-tech ROVs (remotely operated vehicles) for unmanned exploration in water too deep to be readily reached by divers. So that an effective search for further structures around Yonaguni could be mounted in the short time available, Homma had brought one of the ROVs with him and also an expert team of support staff and technical divers.

Because it is a unique document of reference, being – so far – the first and only evaluation of a wide range of Yonaguni's underwater structures by a marine archaeologist, I reproduce below several sections from Sundaresh's expedition report. Some of the specific submerged sites that we visited with Sundaresh during the expedition are not yet familiar to the reader from the brief account given in chapters 1 and 25 but will be described shortly:

THE STUDY OF SUBMERGED STRUCTURES OFF

YONAGUNI ISLAND OF JAPAN:

THE PRELIMINARY RESULTS FROM RECENT EXPEDITION

1–12 September 2000

BY SUNDARESH NATIONAL INSTITUTE OF OCEANOGRAPHY

DONA PAULA, GOA 403 004

DECEMBER 2000

1.0 Introduction

Yonaguni is the most south-western island of Japan and closest to Taiwan (about 69 nautical miles). This island is almond shaped with 10 km length (from east to west) and 4 km width (north to south). An international expedition was organized by the Seamen's Club, Ishigaki, Japan to further explore the underwater structures in the area. This report describes the archaeological significance of the structures found during the expedition.

2.0 Background information of the area

Underwater massive structures were found initially by Mr Aratake, a local resident of Yonaguni island during 1986–87. He named this point as Iseki ('Monument') Point. He was looking for hammerhead sharks schooling around the island when a massive man-made underwater structure was noticed at a depth of 30 m. This was his first discovery. Later more monuments were found by Aratake and other divers in nearby Tatigami and 'Palace' areas.

4.0 Methodology

4.1 Offshore explorations

Two boats were chartered for explorations off Yonaguni waters from 2 September 2000 to 8 September 2000. The Remotely Operated Vehicle (ROV) was deployed simultaneously with side-scan sonar and echosounder. The ROV was operated with generator power supply. The system was operated in waters between 40 to 80 metres depth around Yonaguni. The survey revealed a rock-cut channel about I m wide and more than 20 m long at 2 sea mounts. The ROV observations were confirmed by diving.

5.0 Results

5.1 Terraceda structure and canal

A large terraced structure of about 250 metres long and 25 metres height was studied south of the Arakawabana headland. Known locally as Iseki Point, the terraced structure is bound to the northern side of an elongated, approximately east-west trending structure, designated by Professor Masaaki Kimura, University of the Ryukyus, as an approach road. But our observation of the proposed road-like structure suggests that it is more

likely to be a canal. The overall width of the terraced structure is around 100 m. From each of the terraces, a staircase leads downwards to the canal (road?).

The length of the canal appears to be more than 250 m, while the canal has a width of 25 m. The purpose or utility of this canal structure is intriguing. Our observation all along the canal indicates that the western end of the structure begins underwater opening away from the terraced structure into the open sea. The width, height and terraced northern side of the canal force us to suggest that the canal structure might have served as a channel for small boats communicating with the Arakawabana headland. The southern natural outcrop wall probably had provided a buffer wall for strong open sea waves. This interpretation appears quite reasonable because the height of the southern wall of natural outcrop and the northern terraced wall are nearly same. The terraces and attached staircases might have been used for handling, loading and unloading boats sailing through the channel. Thus it appears in all probability that the terraced structure

and canal might have served as a jetty before submergence to present depth.

5.2 Monolith human head

A large monolith that looks like a human head with two eyes and a mouth was studied at Tatigami Iwa Point. A human-cut large platform in the same monolith extends outwards at the base of the head. An approach way leads to this platform from the shore-side.

The surrounding basal platform is quite large (about 2500 m2), and could easily have accommodated more than two thousand persons sitting. The human head and associated platform with an approach road are suggestive of an area of worship or community gatherings.

5.3 Underwater cave area

Diving operations revealed caves at 8 to 10 m water depth at 'Palace' area. The entry to these caves was possible only through the large 1 metre radius holes on the cave roof. Inside the cave a boulder about 1 metre diameter engraved with carvings was observed. About 100 m towards the eastern

side of the caves more rock engravings were noticed on the bedrock. These rock engravings are believed to be man-made.

Once upon a time these caves were probably on the land and were later submerged. The rock engravings inside the cave and on the bedrock were probably carved out by means of a tool of some sort. However, it is very difficult to say that these are rock art of this or that period, or a script.

5.4 Megaliths Point

Diving operations revealed two big rectangular blocks measuring 6 metres in height, about 2.5 metres in width (both) and 4.9 metres thickness which have been located towards the western side of Iseki Point … These rectangular blocks are designated by Japanese workers as megaliths. These blocks have been located in between two natural rock outcrops. The approach way to these megaliths is through a tunnel measuring about 3 m long, 1 m high and 1 m width.

The shape, size and positioning of these megaliths suggest that they are man-made. It is believed that the people of Japan's extremely ancient

Jomon culture used to worship stones, rocks (Hancock, personal communication, 2000). In light of this practice, it may be worthwhile to suggest that these megaliths might have been used as objects of worship. However, a thorough investigation in this regard is necessary before assigning a definite purpose to these megaliths.

6.0 Conclusion

The terraced structures with a canal are undoubtedly man-made, built by cutting an existing huge monolithic outcrop. The rectangular terraced structure and canal probably might have served as a jetty for handling, loading/unloading small boats before its submergence to present depth.

The monolith rock-cut human head and associated platform might have served as an area of worshipping or community gatherings.

The score so far

By my count so far I have one marine archaeologist, Sundaresh, who is convinced that the Yonaguni structures are ‘undoubtedly man-made’, and who represents 100 per cent of all the archaeologists who have ever dived there up to the time of writing. I also have one marine geologist, Masaaki Kimura, who believes the same thing, a second geologist, Robert Schoch, who is undecided, and a third, Wolf Wichmann, who is convinced that they are natural.

I decided when I got the opportunity that I should try to dive at Yonaguni with Wichmann and see if I could change his mind. To this end, a few months after the *Der Spiegel* article appeared, I made the following statement on my website:

> I would like to offer a challenge to Wolf Wichmann … Let us agree a mutually convenient time to do, say, twenty dives together at Yonaguni

> over a period of about a week. I will show you the structures as I have come to know them, and give you every reason … why I think that the monuments must have been worked on by human beings. You will do your best to persuade me otherwise. At the end of the week let's see if either side has had a change of mind.[13]

'Japanese scientists cannot dive …'

In March 2001, on a mini-expedition funded by Channel 4 Television, Wichmann took up my challenge. A small, wiry, dark-haired, unpretentious man, I liked him the moment I met him, and continued to do so throughout the week that we spent diving in Japan and arguing, in a mood of amiable disagreement, about what we were seeing underwater.

Predictably we did not reach a consensus: Wolf left Yonaguni still holding most of the opinions with which he

had arrived, and so did I. But I think that we each gave the other some worthy points to ponder. I know that I benefited from what amounted to a very useful field seminar on the natural history of submerged rock and began to understand clearly for the first time exactly how and why a geologist might conclude that the Yonaguni underwater structures are entirely natural – or at any rate (to sum up Wolf's position more accurately) that they all *could* have been formed by known natural forces with no necessity for human intervention.

Before going on to Yonaguni, Wolf and I paid a visit to Professor Masaaki Kimura at his office in the University of the Ryukyus. I started the ball rolling with a general question for Professor Kimura concerning the age of the structure:

GH: People can argue for the next five centuries about

whether what we see underwater at Yonaguni is man-made or artificial. But one thing which we can hopefully get clear is how old it is … when it was submerged? So the first question I want to ask you is what is your view of the age of this structure? The last time that it was above water?

Kimura: This construction has been submerged since 6000 years ago, because the coralline algae attaching to the wall of this structure shows 6000 years.

GH: And those coralline algae, because they're organic, you've been able to carbon-date them?

Kimura: Yes, carbon 14.

GH: Right. So that tells us the age of that biological item … it's 6000 years old and it's attached to a stone structure which, therefore, must be older than

that.

Kimura: It must be older, and so in general 6000 years ago the sea-level at that time [was lower] … So if this was made by men, this must be when this area was land … it's about 9000 or 10,000 years ago.

GH: 9000 or 10,000 years ago? So – again to clarify, because I need to get this straight – you're saying that 9000 or 10,000 years ago, the whole area was above water and the date of submergence would be about 6000 years ago?

Kimura: Before 6000 years ago.

GH: This is the problem with carbon 14, isn't it? It dates the organism, not the structure. So then you can only say that the structure is older than that, but how much older is not sure. How much work have

you done on sea-level change as a dating guide? And how big a factor is the possibility of sudden, maybe recent land subsidence as a result of earthquake?

Kimura: Yes, I'm looking for such evidence, that is, geological evidence, but there is no evidence of movement. If this area had subsided by movement it would be due to earthquakes and faulting, but there is no active fault near by, the fringing coast is continuous, and between the beach and Iseki Point, there is no discontinuity or fault.

Wolf: I see.

GH: That makes things fairly clear, then. It leaves us with the sea-level issue on its own to base a date on, without complicating factors, which is great. At least we can be clear on one thing.

Wolf: I think that questions for sea-level rise are very fairly proved by scientific evidence here in the area. I mean, they're experts in their field.

GH: So you'd have no problem with the 9000 year date?

Wolf: No, no … not at all. No, the question was, or is still, is it and, if yes, to what extent is it made by man or overworked by man? This is the question.

GH: Well hopefully we'll get a chance to investigate that when we go to Yonaguni.

Kimura: We need to research much more.

Wolf: Yes.

GH (speaking to Prof. Kimura): I mean you're practically the only person who's done – you and your team

here – have done continuous research for some years. But almost nobody else is working on it, I think, at the moment?

Kimura: Japanese scientists cannot dive.

'A very fine, a very nice thing …'

Throughout our discussion Professor Kimura strongly maintained his commitment to the man-made character of Yonaguni's underwater monuments – not simply on the basis of his technical findings, cited earlier, which I need not repeat here, but also, and I found persuasively, because: 'This kind of topography – if this has been made by nature it is very difficult to explain the shape.'

Wolf's riposte was immediate: 'So what I would say to that

formation is that I've seen many natural formations, especially coastlines, being worked out by waves and wind, especially with the help of weapons, erosive weapons – sand and so on … Seeing with the eye of a geologist or a morphologist it is, OK, a very fine, a very nice thing, but possibly made by nature.'

I asked Wolf whether in fact he had ever seen anything like the Yonaguni 'formation' anywhere else in the world.

'Not in that exact combination,' he replied. 'This is what is surprising me; it's a very strong, compressed combination of the different shapes and the different figures you can find naturally in the world somewhere.'

'But you don't usually find them in combination like this?'

'No, I haven't seen that. So that is a marvel. It is a very beautiful formation.'

‘Or the work of human beings?’ I prompted.

‘Or of that. So that’s what we’re here for.’

The ramp

On our first dive at Yonaguni I took Wolf to a very curious structure that I had discovered in late June 1999. It stands in 18 metres of water 100 metres to the west of the terraces of the main monument. When it was above sea-level 8000 or 10,000 years ago I suggest that it was originally a natural and untouched rocky knoll rising about 6 metres above ground level. A curving sloped ramp 3 metres wide was then cut into the side of the knoll and a retaining wall to the full height of the original mound was left in place enclosing and protecting the outside edge of the ramp.

I led Wolf to the base of the ramp, and as we swam up it I pointed out how the outer curve of the inner wall – which rises 2 metres above the floor of the ramp and is formed by the body of the mound – is precisely matched by the inner curve of the outer wall, which also rises to a height of 2 metres above the ramp floor, so that both walls run perfectly parallel. Moreover, when we swam up and over the rim of the outer wall we could see that its own outer curve again exactly matches the curves within and that it drops sheer to the sea-bed – as it should if it is indeed a purposeful wall and not simply a natural structure.

I showed Wolf that the ramp floor itself, though battered and damaged in places, must originally have had a smooth, flat surface. I also showed him what I believe may have been the function of the ramp. As one continues to follow it round it leads to a platform offering an impressive side-on view of

the two huge parallel megaliths, tucked into an alcove in the north-west corner of the main monument, that constitute a spectacular landmark in the Yonaguni 'underworld'. Later we discussed what we'd seen:

> *GH:* OK, Wolf, the first dive we did I brought you to a structure *[attempts to draw ramp structure on notepad)* – I'm sorry, I'm hopeless at drawing …
>
> *Wolf:* Me too … *(peers at drawing)* OK, so I recognize it.
>
> *GH:* Hey, you're a geologist, you should be able to draw. *[Continues drawing.)* And here is a rather nice wall going round on both sides, and in the middle is a bedrock channel or ramp. And it rises from here around to this corner and, in fact, if we follow it all the way round it leads us to a view of the megaliths. Now this wall is not a bank. It is a wall. It's actually

about half a metre wide. And it's high … more than 2 metres high …

Wolf: Round about.

GH: … Above this … above this ramp, whatever you want to call it. So I simply cannot understand the combination of clean bedrock here *(indicates the ramp floor)*, admittedly very eroded and damaged, but clean bedrock here, and these heavily overgrown walls, which are definitely wall-like in appearance and rather high in the sense that they have an outer and an inner edge, and the curve of the outer edge matches the curve of the inner edge; and the same on the other wall.

To my surprise Wolf immediately admitted that this rather innocuous-looking and only recently discovered structure,

which he had not been shown on his previous visit, was a 'real challenge'. He was later to describe it as 'the most impressive thing' he had seen at Yonaguni:

> The most impressive thing for me was the wall, the wall which is totally covered by living organisms nowadays, which should be removed to have a look at the structure of that wall, which can also be explained as having been done possibly by nature, but to get it sure we have to do deep research on that.[14]

Nevertheless Wolf would not have been Wolf if he had not at least attempted to come up with a calm, level-headed and unsensational geological explanation for the problem. He therefore drew my attention now to a place on land on Yonaguni called Sananudai that we had taken a look at the day before where he had shown me wall-like formations – admittedly only half a metre high – that had been formed

entirely naturally:

Wolf: OK, this is a real challenge to solve. But if you remember, the day before we have been on a platform on land – I forgot the name of the point –

GH: Sananudai?

Wolf: Right, correct. And by chance we went further down near the sea, and I showed you these encrustation patterns and maybe you remember that I …

GH: I remember distinctly; you told me that a hard patina formed on the outside of the rock and that the water softened out the inside, leaving a wall-like shape in place.

Wolf: Correct. And on the other side the relatively soft

sandstone had already begun to be removed. So … and I told you that this could be a possible way that a wall can be made by nature … OK, it's a theory.

GH: It's a theory. I mean, what I saw at Sananudai was actually no curved walls running in parallel with each other, but rather straight, and they were about half a metre high.

Wolf: They were at the beginning stage. Right. And if you had a look closer down, you would have seen that there was a little curving, not as clear as this, I have to admit. But I mean, that was really the beginning stage so we don't know.

GH: So would you want to explain those walls [on either side of the ramp] that way, as a hard patina which was preserved, and the soft part was cut out?

Wolf: At first, and then subsequently overgrown by organisms as we saw. But to get clear what that really is, so I underline repeatedly, it is a challenge, and this is the first and only explanation I have for this. But to really get clear of this fact, we should have to remove the encrustation on one spot, or just from top to the bottom … This is the only way to find out of what material this wall consists – there's no other way; or to drill a hole through … We are obliged to find out what these walls are made of. Are they made of single patterns like stones or something?

GH: Well, see, I don't … I very much doubt if the walls will turn out to be made of blocks. I think they'll turn out to be cut. I think we're looking at megalithic culture which cut rock. I think they cut down into

the living rock, and they created the walls by cutting, and then later on the encrustation came and grew on top of the walls. That's my theory.

Wolf: I mean, if this was the case, then it would still be very useful to have a look on the core of these. It would tell us exactly what sort of material it was – was it soft sandstone, was it hard mudstone, or what else? And we would be possibly able to find any marks on them, which then would give us the clear proof …

GH: So what we have here is a bit of a puzzle which needs some serious research done on it.

Wolf: Correct. That's what I would say.

The tunnel and the megaliths

On our second dive we visited the twin megaliths, weighing approximately 100 tonnes each, stacked side by side like two huge slices of toast in a west-facing alcove in the north-west corner of the main monument. As noted earlier, a prime side-on view of these hulking rectangular blocks unfolds from the top of the curved sloping ramp explored on the first dive. And we've seen that the ramp appears to have been cut down (either by natural or human forces) between two parallel walls out of a pre-existing rocky knoll.

The knoll in turn co-joins other massive, heavily overgrown structures presumed to be outcrops of natural bedrock which form an almost continuous barricade, 3 metres high and 5 metres thick, thrown out in a loose semi-circle in front of the megaliths – all at roughly 15–18 metres

water depth. The barricade is penetrated at only one point, and there only by a narrow tunnel a little over a metre wide and about a metre and a half high through which a scuba diver swimming horizontally may pass comfortably.

The tunnel itself looks ‘built’ – as opposed to rock-hewn like so much else at Yonaguni – in the sense that each of its sides consists of two courses of huge blocks separated by straight, clearly demarcated, matching joints. There is insufficient room to stand up within the tunnel, indeed barely enough even to crouch, so when it was above water 8000 or 10,000 years ago any human entering it would have been obliged to crawl through to the other side. What is striking, then, as soon as you emerge, is the way in which you now find yourself directly opposite and beneath the twin megaliths which, from this angle, rear edge-on above you, are like the paired sarsens at Stonehenge or the pair of

upright granite megaliths worshipped since antiquity in Japan's Ena region as 'the sacred rock deity, the object of worship' (see chapter 25).

The swim ahead to the base of the megaliths is a matter of 20 metres and you observe immediately at this point that they do not stand on the sea-bed but are elevated about 2 metres above it, with their bases resting on a platform of boulders, and framed in a cleft. The side of the cleft to your right is formed by the rear corner of the main terraced monument; the side to your left is formed by a lower ridge of rock which also shows signs, though to a lesser degree, of terracing. Both megaliths slope backwards at the same angle against the cleft and both are the same height (just over 6 metres). The megalith to the right is distinctly thicker than its otherwise near 'twin' to the left. Both megaliths taper at top and bottom so that the gap between them, about the width of

a fist at the midpoint, is not constant. Although roughened, eroded and pitted with innumerable sea-urchin holes, the megaliths can still be recognized as essentially symmetrical blocks, all the faces of which appear originally to have been smoothed off to match – although, again, whether the process that brought about this effect was entirely natural, or at some point involved the input of human skill and labour, remains thus far a matter of a very few contradictory professional opinions and no facts.

I allowed myself to float up, towards the surface, along the slope of the megaliths, resting my hand in the gap between them as a guide. The light was good and I could see right into the gap; looking back at me from the far recesses a plump red fish eyed me with horror and hoped that I would go away.

As I neared the top of the megaliths, submerged under just 5 metres of water, I began to feel the ferocious wash of waves

pounding against the surrounding rocks. I clung on and for a few moments allowed my body to be tugged back and forth by the swell. Enshrouded in a cloud of foam I could see the north-west corner of the main monument still rising above me the final few metres towards the surface.

After the dive Wolf and I again discussed what we had seen and quite soon, after some fruitless trading of opinion, our argument began to focus around a single – potentially decisive – issue. Had these very striking parallel megaliths been quarried, shaped and lowered into position beside the north-west corner of the main monument by human beings? Or had they arrived there through wholly natural processes?

I had drawn another rough sketch map to which I now pointed:

GH: There's the two blocks, and we see above them

here, not very high above them, the mass of the structure which leads round to Iseki Point.

Explain to me how those blocks got there.

Wolf: OK. You have seen lots of blocks fallen down —

GH: All over the place.

Wolf: On the shoreline we saw from the ship —

GH: Many fallen blocks, yes.

Wolf: – lots of blocks have fallen down from higher parts —

GH: Agreed.

Wolf: - from beddings which have been broken, which were harder than the underlying layers; because what happens is that you get an undercurving and

undercutting of softer material under harder banks. So in my belief, these two blocks have been once one block of two sandstone banks, with either softer material in between or nothing in between, just only the bedding limits.

GH: Well, I want to know how they got where they are now.

Wolf: OK. My opinion is that these blocks have fallen down from a very, very high level, relative to their present situation.

GH: But no high point overlooks them. You would have to go back -*Wolf:* Nowadays.

GH: Well, yes, fair enough, nowadays. Nowadays you would have to go back in a northward direction some 50 or 60 metres, maybe more, horizontally,

before you reached the cliff.

Wolf: Right, that's clear for nowadays. I'm talking about a time-range of at least 10,000 years … maybe more.

GH: That we agree on.

Wolf: So then there could have been places of a higher position from which these stones could have fallen down.

GH: So you are hypothesizing a pre-existing higher place from which these fell?

Wolf: What I'm hypothesizing is that they have fallen down, so … and this must have happened from a, let's say, sufficiently higher place. So what this may be then —

GH: Do you agree with me that this place *[indicates top of north-west corner of main monument 3–4 metres above top of megaliths)* is not sufficiently high? The place we see immediately above it now?

Wolf: I don't have it in mind clearly, so I just can imagine from —a

GH: But do you remember when we came to the top of these columns, of these blocks, we were coming close to the surface. You could feel the swell hitting you quite hard and the foam above your head very strong. In fact, it's like looking into clouds almost. And you can see the mass of the rock above you, probably not more than another 4 metres above, and you're going to hit the surface there.

Wolf: Yes, I would think this would not be high

enough.

GH: No?

Wolf: No.

GH: So we need a hypothetical high place to do it?

Wolf: Yes.

GH: And I, of course, need a hypothetical civilization -
Wolf: Yes.

GH: – capable of moving it here.

Wolf: Yes, of course, yes, yes … no doubt about it

GH: So we have two hypotheticals there.

Wolf: I'm not going to discuss any presence or absence of any civilization, because that's not my field …

But the problem I feel – and shall continue to feel – is that the very odd combination of major stone structures lying underwater at Yonaguni, and the very odd combinations of characteristics found within every one of those structures, simply cannot be said to have been properly evaluated until the possible ‘presence or absence’ of a civilization – specifically the Jomon – has been very thoroughly taken into account.

The path and the terraces

Our third and fourth dives were spent examining the ‘pathway’ or ‘loop road’ which runs along the base of the main monument directly beneath the terraces in its south face at a depth of 27 metres; and the terraces themselves, which begin 14 metres vertically above the pathway.

The terraces

At this level a spacious patio about 12 metres wide and 35 metres in length opens out and in its north-eastern corner, at depths decreasing from 13 metres to 7 metres, the structures known to local divers as ‘the terraces’ are found. There are two main ‘steps’, both about 2 metres high with sharp edges and clean near-right-angle corners. Above them there are then three further smaller steps giving access to the top of the monument which continues to rise northwards until it comes close to the surface.

Here, very clearly, I could see the basis for the argument advanced by Wolf in *Der Spiegel* that the whole mass of the structure – with all its striking and emphatic terraces and steps, its perpendicular and horizontal planes – could be explained by the effects of high-energy wave action on a

large outcrop of naturally bedded sedimentary rock. When it first began to form, aeons ago, the sandstone (or more correctly in this case 'mudstone') of the body of the monument was deposited in layers of varying thickness and consistency, traversed 'by vertical cracks and horizontal crevices'. As sea-level rose and turbulent waves began to strike progressively higher levels of the structure, these cracks and crevices were gradually exploited and opened up – with the softer layers separating into flat slabs of assorted shapes and sizes which could then be washed out by the sea. In such a fashion, explains Wolf, 'perpendicularity and steps' gradually developed in the fracture zones creating, entirely without human help, the most striking effects of the structure as we see it today.

According to this reasoning, therefore, I was to envisage the 12 × 35 metre flat-floored patio as having been cut out

of the side of the original outcrop by wave action which removed the sedimentary mudstone layers in slabs – with the terraced sections being formed out of the surviving harder members of rock after the softer layers had been washed away.

I helped Wolf measure the two highest steps, then drifted off to the edge of the patio and looked down the sheer 14 metre wall that drops to Professor Kimura's 'loop road' – the flat, rock-floored 'pathway' that runs along the bottom of the channel immediately to the south of the monument. Although 25 metres wide at the depth of the terraces, the channel narrows to a width of less than 4 metres at the depth of the path. Its north wall is the sheer south face of the monument; its south wall is at first not sheer but slopes for some distance further to the south at an angle of about 40 degrees before rising more steeply towards the surface. The

40 degree section is heavily but rather neatly stacked with blocky rubble that consists of an infill of smaller stones supporting a façade of a dozen much larger blocks arranged, as Professor Kimura points out, in a straight line ‘as a stone wall’. Kimura is in no doubt that this wall is the work of human beings.

Front view of the 'stone wall' surrounding Iseki Point (looking south from the patio). Based on Kimura.

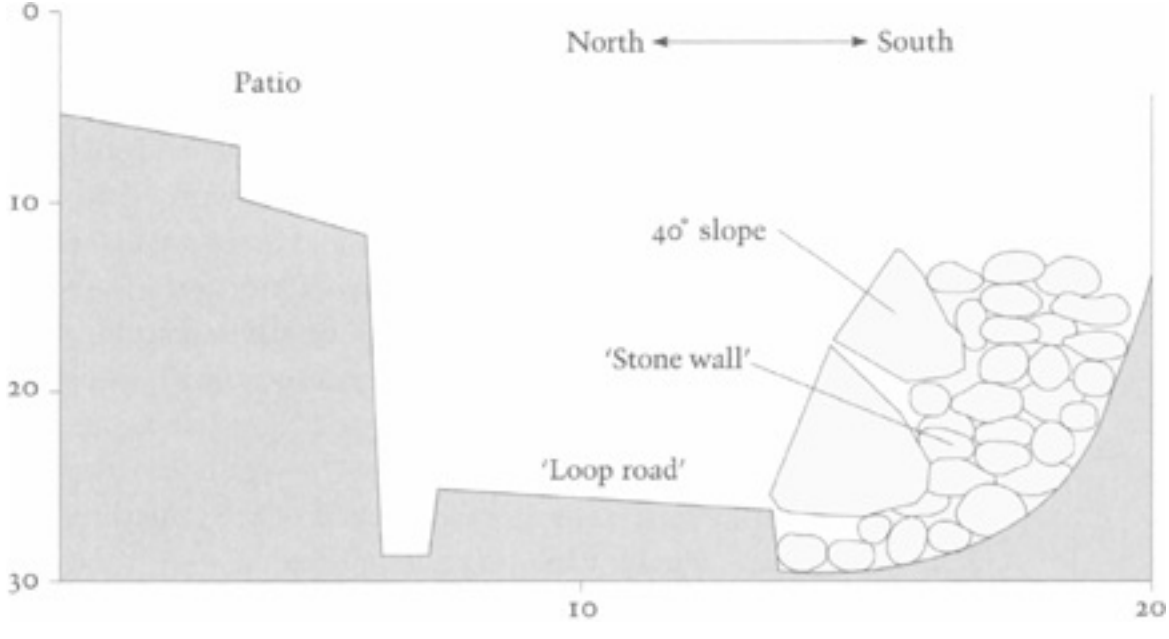

Cross-section showing, from left (north) to right (south), the

sheer edge of the patio, the 'loop road' and the 'stone wall'. Based on Kimura.

But because it is 27 metres down, and our dive computers didn't like the decompression implications of doing it as the fourth dive of an already hard day, we decided to leave it till the following morning.

The pathway

We dropped in near the twin megaliths, then followed the clearly demarcated rock-hewn pathway that seems to start (or finish?) here, veering to the left of the 'entrance tunnel' that we had passed through the day before, winding gradually to the south into deeper water around the western side of the main monument, then finally turning eastwards

into the channel in front of the terraces at a depth of 27 metres.

As we entered the channel I pointed out to Wolf a pattern of three symmetrical indentations, each 2 metres in length and only about 20 centimetres high, cut at regular intervals into the junction of the northern side of the path and the base of the main monument. I also indicated two other details that I find particularly impressive in this area: (a) the way that the floor of the path appears to have been deliberately flattened and smoothed to give almost a paved effect; and (b) the way the path is completely free of any rubble until a point about 30 metres to the east of the terraces (where several large boulders and other stony debris have fallen or rolled).

When Wolf and I later discussed the path and the terraces he remained adamant that all the anomalies in these areas

could have been produced by the effects of local erosive forces, mainly waves, on the 'layer-cake' strata of the Yonaguni mudstones. In short, while he could not absolutely rule out human intervention, he did not feel that it was *necessary* in order to explain anything that we had so far seen underwater.

At this point I drew his attention to a project done by Professor Kimura and his team from the University of the Ryukyus in cooperation with the Japanese national TV channel TBS. The result had been a high-quality six-hour documentary, aired over New Year 2001, that made many useful and original contributions to the debate on the Yonaguni controversy.[15] I wanted to acquaint Wolf in particular with the comments and demonstrations of Koutaro Shinza, a traditional Okinawan stone mason who had shown himself to be an expert in exploiting the natural faults, cracks

and layers in sedimentary rocks to facilitate quarrying. According to Shinza, whom TBS brought to Yonaguni,

> When I saw the undersea ruins I knew instantly it was a stone quarry. I showed photographs to other stonecutters also and they all said the same. I conclude that it was done by human hands. It's absolutely impossible for something like this to be produced by nature alone …[16]

Since Shinza's technique of quarrying along the lines of weakness of existing joints and fractures is functionally identical to the 'method' used by the sea in Wolf's scenario to break up and separate the Yonaguni mudstones into the terraces and steps we see today, I asked him whether he could be absolutely certain that he could tell the difference. He admitted that he could not be certain – although the fact that he had as yet seen no definite tool marks on any of his dives was another reason to assume that humans had not

been involved.

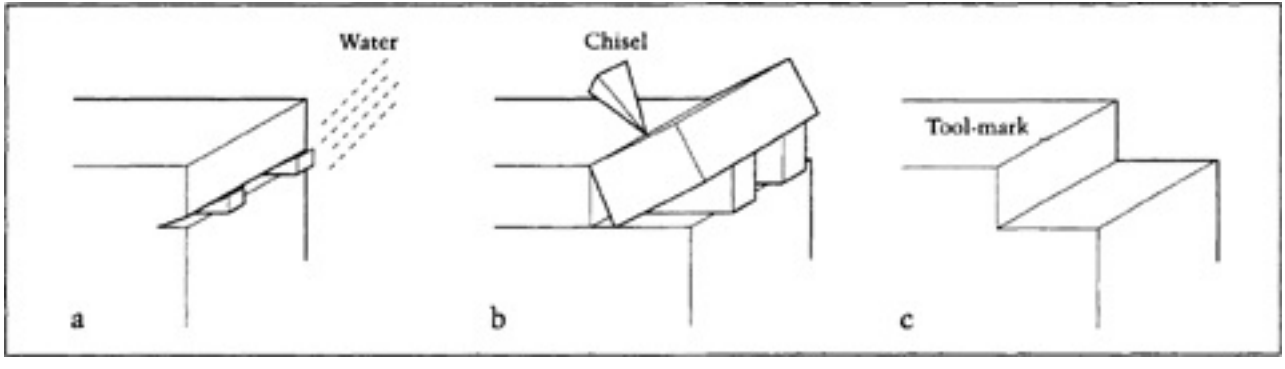

a. Wooden wedges are driven into a natural channel in the stone bed. The wedges are then soaked with water, causing them to expand.
b. As the wedges expand, the stone block splits from its bed. A chisel is used to help split the block.
c. The block is removed leaving flat, smooth surfaces on the bed. A tell-tale tool-mark is left by the chisel on the edge of the upper

bed.

GH: Kimura makes a lot of the tool marks issue. He says he has definitely found marks. But I wouldn't be very hopeful after 10,000 years of submersion underwater to find tool marks. It's a long time. This, of course, is hard stone.

Wolf: Very hard stone, yes. And it is heavily overgrown with organisms in many places. So we might find some marks, indeed, if we were looking a bit and if we knew where to look exactly and how to identify them clearly. But this I mean is necessary.

Had the sea randomly removed the rock layers to leave the terraces, or had it been ancient stone masons working to a

plan? Neither scenario, we realized, could be unequivocally falsified – or proved – by the empirical evidence presently to hand. But there was another way to come at the problem which could at least test the logic of both propositions.

Part of Professor Kimura's evidence for human intervention in the construction of the main Yonaguni monument is the stark *absence* of fallen stony rubble in the pathway beneath the terraces – which he suggests should be cluttered by debris, perhaps even completely buried under it, if the terraces had been cut naturally by waves breaking up the pre-existing bedding planes. Where we do see debris on the path itself it is in the form of a cluster of large boulders (not slabs) 30 metres to the east of the terraces. And the only other area that might be described as debris lies neatly stacked at an angle of 40 degrees against the sloping south face of the channel, touching but never trespassing the

southern edge of the path. This is the embankment with a façade of a dozen megalithic blocks arranged in a row that Kimura has identified as man-made. I confess, however, that on all my many visits to Yonaguni – including these March 2001 dives with Wolf – I have regarded this embankment as nothing more than rubble fallen from the south side of the channel and thus paid no special attention to it. It has only been since March 2001, looking back at the photographs and video images, that I have begun to realize how odd it is that not a bit of the supposed 'fallen rubble' transgresses the path itself, how very ordered it seems to be in general, and how very probable it is that Kimura is right.

But on the trip with Wolf I focused only on the issue of the apparent 'clean-up' operation that had been done on the path. I began by reminding him of our earlier discussion about the twin megaliths, each 6 metres tall and weighing

100 tonnes, which he claimed had fallen from above into their present position on the north-west corner of the monument from some hypothetical former high point.

Wolf: I see what you're going for.

GH: Well, what I'm going for is the problem of the path as we come in front of Iseki Point, as we come in front of the main monument. There's a sheer wall above the path 14 metres high and then the terracing begins. Now, if ever there was a place on this structure where large slabs of stone should have fallen it is here on the path, directly under where the terraces were created. And so what's bothering me is, if you can accept that the two parallel megaliths fell from a high place and lodged in position in the north-west corner of the monument and stayed there

permanently, why don't we find the path in front of the monument littered with the equally big or bigger slabs of rock that must have been dislodged during the formation of the terraces?

I sketched the north and south walls of the channel, with the path at the base, and the embankment of 'orderly rubble' gathered up against the south wall.

GH: Piled up here against the south wall is a huge amount of large stones which continue, in fact, up to this level *(indicates sketch)*. And I can very well accept that those stones fell off the top of the south side and found themselves in this position. As a matter of fact Professor Kimura doesn't say that. Professor Kimura says that these stones were placed here by human beings.

Wolf: Yes, yes, I know … I know.

GH: And he may or may not be right on that matter, but I'm prepared to accept that the reasonable possibility, with the forces of gravity as I understand them, is that stones which had been up here along this also rather flat area on top of the south side, may have been washed off in water and tumbled down and piled up here *(indicates embankment)*. And that's what I see. I see stones that fell from up here on the south side. What I can't understand, once we come to the huge main terrace with its steps on the north side of the channel, is why under this nice vertical cliff I don't find any stones at all lying on this 3 metre wide path. And I don't accept that they all rolled from the [north] side into this embankment [on the south side] conveniently leaving the path immediately beside it free. To me that's against logic and nature.

Wolf: We're just guessing. So imagine that this flat area around the terraces was not removed all in one go. What I mean is little small tiny pebbles, cobbles,

whatever, over a long time have fallen down and they have somehow been transported and rode supported by gravity here into this part *[indicates embankment area on south side of channel)*, being sheltered from further transport, first of all, by these large boulders.

GH: Again I find it difficult to grasp you here. If I stand beside these steps *[indicates the two big steps in the main terrace)*, they tower above my head. This means a layer of rock at least *21/2* metres thick, all the way around here *[indicates patio area)* has been removed completely to leave behind just the steps.

Wolf: Yes.

GH: I mean this patio is, what, 30 or 35 metres in length?

Wolf: Round about.

GH: And we have a layer of rock 21/2 metres thick; that's a hell of a lot of rock.

Wolf: We're not talking about two or three years.

GH: We're talking of a long period of time. So you're explaining this by saying that small pieces were broken off little by little and taken away by the tides?

Wolf: Yes, right … in general.

GH: Yeah. I find the more elegant explanation is it was tidied up by human beings —

Wolf: Fine.

GH: – after they finished their job.

Wolf: But where should they put it, then? Somewhere here around?

GH: Wherever they wished.

Wolf: Come on.

GH: If human beings do take material away from sites, they take it right away … get it away … this is known human activity … very normal … they don't leave the rubble lying around on the site, this is normal.

Wolf: This is clearly what Kimura says.

GH: It's Kimura's argument, and I find it persuasive.

The Palace

Our fifth dive was at a site several kilometres to the west of Iseki Point that local divers call the 'Palace' and that the Indian archaeologist Sundaresh refers to in his December 2000 report as an 'underwater cave area'. Sundaresh does not comment on the structural characteristics of the Palace itself, which is indeed surrounded by natural caves, but notes that inside it:

> a boulder about I m diameter engraved with carvings was observed. About 100 m towards the eastern side of the caves more rock engravings were noticed on the bedrock … The rock engravings inside the cave and on the bedrock were probably carved out by means of a tool of some sort.[17]

The entry to the 'Palace' can be made through a number of holes broken in its roof at about 9 metres water depth or through what I suggest may have been its original entrance at a depth of 14 metres. Here the diver has to squeeze

through gaps in a jumble of fallen boulders to enter a small, gloomy, gravel-floored chamber oriented roughly north-south with space for four or five adults standing upright. Its south wall is blocked. In its north wall there is a ‘doorway’, about a metre high, through which visitors would have had to pass crouched, or crawling, when the Palace was above sea-level. The doorway has a rough, damaged appearance with no obviously man-made characteristics, but beyond it is a spacious and beautiful chamber that glows with an otherworldly blue light when the sun projects down through the column of water and illuminates it through the holes in its roof.

Like the cramped antechamber this atmospheric main room is oriented north-south. It measures approximately 10 metres in length and 5 metres in width. Its height from floor to ceiling is also about 5 metres. While there has been a

substantial collapse of its eastern side, its western side is undamaged and presents as a smooth vertical wall of very large megaliths supporting further megaliths that form the roof.

Roughly at its mid-point the chamber begins to narrow towards the north until the east and west walls come together in a corridor less than 2 metres wide that culminates in another ‘doorway’ – this time a very tall and narrow one. Across the top of its uprights, whether by accident or by design, one of the roof megaliths lies like a lintel.

After having passed through this second and more impressive doorway at the northern end of the main chamber, the diver comes into a third and final room of the Palace. It is completely unlike the other two, which were ‘built’ (either by nature or by man) out of large blocks piled on top of one another. This third chamber, on the other hand,

was hewn or hollowed – it is premature to decide by what – out of a mass of ancient coralline limestone that is exposed in this part of Yonaguni. There are no ‘blocks’ in it at all. It extends only 3 metres in length and a little over a metre in width and culminates at its north end in yet another ‘doorway’ – this time I insist distinctly ‘squared-off’ – which leads into a closed alcove that in turn funnels vertically upwards and opens out through a hole in the roof.

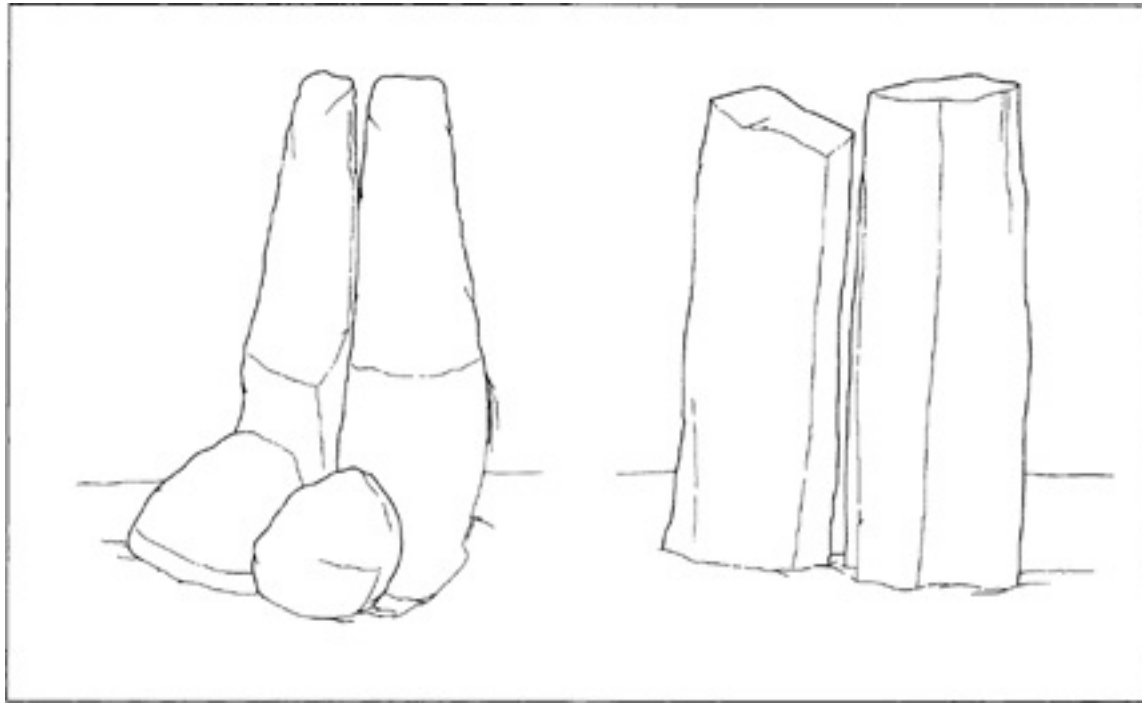

Comparison of submerged megaliths at Yonugani (left) and on land at Mt Nabeyama, Gifu Prefecture, Japan (right, see page 563).

All three of the ‘doorways’ in the Palace, the first at the south side of the main room, the second at the north side, and the third leading into the alcove beyond, are positioned in a straight line creating what is, in effect, an aligned passage/chamber system. And since the rear (northernmost) chamber and alcove door are hewn out of a different kind of rock than other materials in the structure, we must assume that some agency brought these two elements (the rock-hewn element and the megalithic element) together – and in alignment -at some point. But was it nature that did this? Or could it have been the Jomon in a hitherto unrecognized phase of their prehistory when they moved gigantic rocks and boulders with apparent ease and set in train the cult of stone in Japan that still permeates the nation’s spiritual life today?

Wolf would have nothing of it. In his no-nonsense view the

Palace is, of course, a wholly natural phenomenon and the alignment of the three doorways is entirely coincidental. Very probably he is right. Yet I retain a sense of deep curiosity about this structure and intend, if I can, to do more work in it at some time in the future. On one previous dive near by I came across parts of what looked like a second megalithic passage/chamber system that I would also like to revisit.

Whether they are natural or man-made it is likely, by virtue of their depth of submergence, that both systems are thousands of years older than Japan's mysterious Kofun era, which is thought to have begun around AD 300. Yet both systems powerfully and eerily remind me of the architecture of the great megalithic passageways and burial chambers of the Kofun age – particularly structures such as Ishibutai near Asuka, where the megaliths used are of truly titanic

dimensions and weights (see chapter 25). I remind the reader that archaeologists have as yet uncovered no evolutionary background to the advanced megalithic skills that suddenly manifest in Japan in the Kofun era, and raise the possibility for consideration that the knowledge of how to build with megaliths on such a scale may long previously have evolved in areas around Japan's coasts that are now underwater.

I realize that this begs more questions than it answers. Still, go figure where the Kofun tradition came from. Some scholars say Korea, but the evidence isn't good and others scholars disagree. Nobody pays much attention to Japan's own earlier epoch of stone architecture – witnessed by the stone circles and 'mountain-landscaping' of the Jomon age – because up till today a prejudice persists that the Jomon were simple hunter-gatherers and nothing more.

I do not deny that they were simple hunter-gatherers but

the deeper I enter into the labyrinth of Japanese prehistory the more certain I feel that they were also something much more …

The Face and the Stone Stage

On our sixth and final dive at Yonaguni in March 2001 I took Wolf to a place called Tatigami Iwa 8 kilometres east of the Palace and about *21/2* kilometres east of the main cluster of monuments around Iseki Point.

Tatigami Iwa means ‘Standing Kami Stone’ and refers to a rock pinnacle 40 metres high, weirdly gnarled and eroded, left behind thousands of years ago when the rest of a former cliff of which it was once part was washed away. Understandably revered as a deity in local tradition it now stands lashed by the Pacific Ocean 100 metres from shore

like a ghost sentry for this haunted island. But it is what is underneath it, in the underwater landscape near by, that really interests me and that led me to choose it as the site for our sixth dive. For here, at a depth of around 18 metres, a huge carving of a human face is to be seen -with two eyes, a nose and a mouth hacked, either by natural forces or by human agency, into the corner of an outcrop of dark rock that juts up prominently from a distinctive ‘blocky’ plain.

I showed Wolf how the ‘face formation’ manifests a combination of peculiarities. For it is not just a face – or something that looks like one (which nature provides numerous accidental examples of) – but a grim and scary face, which seems designed to overawe, carved with care and attention to the lines and flow of the base rock. Moreover, far from appearing haphazardly with no context, as one would expect with an accidentally formed natural ‘face’, it seems

framed within a deliberate ceremonial setting. Thus, a horizontal platform just under 2 metres high and 5 metres wide – called by local divers the ‘Stone Stage’ opens out from the side of the face at the level of the mouth and runs along to the back of the head where a narrow passageway penetrates the whole structure from west to east.

The ‘Face’, therefore, has to be viewed together with its ‘Stone Stage’ as a single rock-hewn edifice and I note, as does Sundaresh in his report cited earlier, that the flat area out of which the Stage and Face rise is easily large enough to have accommodated thousands of people before sea-levels rose to cover it. Also noteworthy, however, is the fact that Face/Stage edifice is not alone in this big area but is part of a neighbourhood of anomalous rock-hewn and often rectilinear structures clustered around the base of Tatigami Iwa.

Natural? Or man-made? Or a bit of both? My vote is weird

and wonderful nature, enhanced by man, thousands of years ago. But what did Wolf think?

> *Wolf:* First of all we have to mention that this is a totally different sort of sandstone from what we find at Iseki Point. It's very thick – a series of very thick and massive banks which consist, contrary to the Iseki Point material, of quite soft sandstone which is very, very sensitive to erosion and erodes generally in more rounded forms than the Iseki Point sandstone or mudstone. Secondly, erosion of rock, all around the world, often produces forms that look accidentally like human faces … So I cannot say very much to the Face. To become clear of that fact, again, you would have to remove all the organisms around because that would give you a free view on the rock and the way it was carved.

GH: Did you notice, looking into the eyes, the eye sockets of the Face, that both of them had a central prominence?

Wolf: No. No, sorry … I haven't looked.

GH: You didn't see.

Wolf: I saw the Face and I thought, 'Yeah, hmm, what to do with this?'

GH: Yes.

Wolf: But you see, I'm used … I'm not used to go straight to the things but to —

GH: Yeah, to stand back, yeah, I noticed that.

Wolf: – take a distance and look, hmm, how can this be formed? But it was my first view on that. I don't have an answer on that at the moment.

GH: Something else about it too, for me, is the sense that I keep finding these problems – if we look back over our drawings over the last couple of days – well here from our first dive we have, within a short area, parallel curved walls, a ramp, a tunnel, two megaliths. We come round in front of the monument, a clear pathway, and as far as I'm concerned still with the mystery of the missing material – if indeed, as we also agreed earlier, all of this mass of material that we see in the embankment came from the south side – because as you said, it doesn't look like it belonged on the north side —

Wolf: On this view, yes.

GH: - it's the proximity of all these peculiar things, each of which requires a rather detailed geological

explanation and, in some cases, requires hypotheticals such as a cliff which once hung over that area and dropped these two megaliths down there. I find – and this is how I felt always almost from the third or fourth visit that I made to Yonaguni – is that this, this fantastic combination of peculiarities in a very compact area -because as you saw today the peculiarities continue as we go further along the coast to the Face and the Stone Stage –

Wolf: That's right, I was deeply impressed when I saw that.

GH: - the thing that's striking is that all of these peculiarities occur along the south and east coasts of Yonaguni, and none of them are found along the north coast – at least, if they've been found, divers

aren't talking about them, and divers usually do talk about places like this. So, you know, we find them along the south side but not along the north side. We find them compacted into a relatively tight area, and each one requires a rather different, and to my mind, rather complicated geological explanation, you know, disposing of a mass of rock that is *21/2* metres thick and 35 metres in length [and 15 metres wide] is simply banishing it. And attributing that to wave action, to me that's just going a little bit too far —

Wolf: I see what you're getting at.

GH: – on the strength and the variability of geological forces in a small area, and it catches in my throat. I find that I can't, I just can't buy it.

Wolf: OK. I would ask you to have a look into new or even older geological and geographical literature. You'll find all these things precisely described in newly published literature and —

GH: Nowhere in the world – never mind the literature, books are books -but nowhere in the world, not a single place in the world will I find all these things together … because one thing's for sure, look at the publicity that this structure has attracted.

Wolf: Because you raised it.

GH: Actually, not me … it was —

Wolf: Together with others.

GH: – many other people … many other people have raised it. Worldwide it has attracted an enormous

amount of publicity. I think it's a fair bet that if something comparable had been found, anywhere else on this planet of ours with its 70 per cent cover by water, if something similar had been found, we would have heard about it by now. And it's the uniqueness of this structure and the series of structures along the south and east coasts of Yonaguni that really leads me towards the involvement of man. Now I believe that the people who were involved in this were a megalithic culture; they understood rock, and they worked just as currents and erosive forces do, that is, they worked with the natural strike of the rock; where there is a fault, it's a good place, let's take advantage of it. Any great sculptor still looks for the natural forms in rock and, indeed, this is an art form in Japan up to this

day. So, you know, these are all the factors that lead me to the conclusion that I'm looking at rock that has been overworked by people.

Wolf: And I would say, on the contrary, that it is a natural miracle … And just to finish that, my definite point of view is that all that we have seen in the last days could have been made by nature alone without the help of man. That does not mean that people did not have any influence on it. I didn't say that … I would never say that. But I say it can have been shaped by nature alone.

Other miracles

There are several other intriguing sites around Yonaguni that

I was not able to show Wolf in the time available to us in March 2001 – though I do not think any of them would have changed his mind.

One of these, which takes a form that some recognize as a huge rock-hewn sea-turtle, stands at a depth of 12 metres on the shoulder of the main monument at Iseki Point approximately 150 metres east of the terraces.

A second, badly damaged when Yonaguni was struck by an unusually severe series of typhoons in August and September 2000[18] is found half a kilometre due east of the terraces in about 15 metres of water. Consisting of a one-tonne boulder mounted on a 10-centimetre-high flat platform at the apex of an enormous rocky slab almost 3 metres high, it has all the characteristics of a classic *iwakura* shrine, part natural rock, part man-made. As I noted in Chapter 25, if this shrine were

to be moved to the slopes of Mount Miwa it would blend in seamlessly with what is already there.

Two other anomalous sites are located within half a kilometre of Iseki Point, and I would also very much have liked Wolf to see them. One is the extraordinary ‘Stadium’, a vast amphitheatre surrounding a stone plain at a depth of 30 metres. The other is a second area of very large steps – on a similar scale and of a similar appearance to those of the main terrace at Iseki Point, but much further out to sea, in deeper water, and at the bottom of a protected channel.

Nor does the list of signs and wonders end here, but I think the point has been sufficiently made. Some people with good minds – among them Japanese scientists with Ph.D.’s – are adamant that what they see underwater at Yonaguni are rock-hewn structures that have been worked upon by humans and purposefully arranged. Others with equally good minds

and equally good Ph.D.'s are equally adamant that they see no rock-hewn structures underwater at Yonaguni at all – only rocks.

Rocks? Or structures? Just interesting geology? Or discoveries that could fix the true origins of Japanese civilization as far back in the Age of the Gods as the *Nihongi* and the *Kojiki* themselves claim? These are grave questions and they cannot be answered at Yonaguni on the basis of available evidence. Wolf is right about that. It is just possible that the remarkable structures and objects that I showed him there underwater are all freaks of nature, which by some amazing additional improbability all happen to be gathered together in one place.

I don't think that is what they are. And I repeat that the balance of first-hand scientific opinion is, at the time of writing, two-to-one against Wichmann in this matter (Kimura

and Sundaresh provide two clear votes for the structures having been overworked by man; Wichmann provides one clear vote in favour of the structures being entirely natural; Professor Schoch votes both ways). In the future other discoveries, and other diving scientists, could alter this balance of opinion dramatically in either direction. But we shall have to wait and see. Meanwhile, after a thorough exposure on-site to Wolf Wichmann's relentless empiricism I concede that I am not yet in a position to *prove* that humans were involved in the creation of the Yonaguni structure – any more than Wolf can prove, as he admits, that they were not.

But I believe Wolf came to his conclusions about Yonaguni sincerely, not too hastily, and on the basis of his own vast experience as a marine geologist of how different kinds of rock behave underwater. Although I disagree with him, I therefore resolved as we left the island in March 2001 that I

would not base any argument or any claim in *Underworld* on the copious evidence which suggests that the submerged structures of Yonaguni are indeed ancient rock-hewn human sites … In this chapter I have simply tried to marshal and present that evidence, and Wolf's purposeful and eloquent counter-views, as clearly and as objectively as possible, as a matter of public record.

But suppose for a moment – an exercise in speculation only – that I and others *are* right about Yonaguni. If so, then what Japan has lost to the rising seas is no small or insignificant matter but a defining episode in world prehistory going back more than 10,000 years. For if the Jomon did make the great structures that were submerged off the south and east coasts of Yonaguni at the end of the Ice Age, then we are confronted by a previously unexpected and as yet completely unexplained dimension of that increasingly remarkable

ancient culture. In terms of organization, effort, engineering and ambition, the sheer scale of the enterprise is beyond anything that the Jomon of 10,000 or 12,000 years ago (or any other human culture of that epoch) are thought to have been capable of. Yet it makes a strange kind of sense in the context of the other incongruous characteristics of these strange 'hunter-gatherers' – their permanent settlements, their stone circles, their cultivation of rice, and their navigational and maritime achievements in two different waves of settlement of the Americas (one as early as 15,000 years ago, one more like 5000 years ago).

Wolf and I had just one more day of diving to do after Yonaguni, just one more day for me to find him a major structure in Japanese waters that he could not come up with a natural explanation for … For that adventure, and test, I had chosen the great stone circles at Kerama.

28 / Maps of Japan and Taiwan 13,000 Years Ago?

> In part based on Marco Polo's inaccurate figure for Zipangu's distance from the Chinese coast, the Florentine physician and astronomer Paolo Toscanelli, who – like many another medieval scholar – assumed that the world was a sphere, placed Zipangu some 5000 nautical miles west of Europe on his map of the world … As early as 1470, Toscanelli proposed to the Portuguese king that one could reach Cathay, Zipangu, and the Spice Islands (the Moluccas) – perhaps even more quickly – by sailing directly westward.
>
> Ulrich Pauly, German East-Asiatic Society, Tokyo[1]

It was the submerged structures of Japan that first awakened me to the possibility that an underworld in history, unrecognized by archaeologists, could lie concealed and forgotten beneath the sea. Then, when I learned to dive and

started to look elsewhere, I began to realize how vast this vanished underworld really might be – for its traces seem to have been scattered around the continental margins not only of the Pacific but also of the Atlantic and the Indian Oceans and the Mediterranean Sea.

In five years of diving, following up rumours of anomalous underwater structures wherever they have been sighted, and using the logic suggested by convergences between flood myths and inundation maps to seek out probable sites, I know that I have only scratched the surface of the mystery. I'm just a private individual without any of the institutional infrastructure behind me that is really needed for productive marine archaeology. Even so, there has not been space in this book for me to recount the results and experiences of all my own dives and explorations – let alone all the dives and explorations that *should* be done in the future if we really

want to know what's out there.

I've said nothing for example about the underwater enigmas of Tenerife where I dived, and was nearly swallowed by the sea, in June 2000. I learned a lot there … about the Kami Great-Ocean-Possessor.

I've not spoken of the work Santha and I did in the South Pacific around the Tahitian islands of Raiatea and Huahine, or of the strange things we saw underwater off the Tongan island of Haapai.

And I've said nothing more about Alexandria, which I introduced in chapter 1. Yet Santha and I spent several weeks diving along the Alexandrian coast with Ashraf Bechai looking for, and eventually relocating, some of the giant blocks of Sidi Gaber that he had first sighted years before. Indeed, we found a carpet of gargantuan stone blocks in an

advanced state of erosion, completely unconnected to any of the known marine archaeological sites in the vicinity, covering a huge area of the sea-bed at 10–12 metres water depth (see photos 1–3).

But while all this was happening, and as I began to focus more and more closely on specific regions and specific issues of the 'underworld' problem, it always remained my intention to seek a final reckoning on the submerged structures around Japan that had started me on the quest. I took my time – years in fact – to do the travels and the dives in the Indian and Atlantic Oceans and in the Mediterranean Sea that I've described in this book. But through it all I was privileged to be able to revisit Japan frequently, to continue to dive repeatedly at all the most important sites in the Ryukyu archipelago, and to acquaint myself thoroughly with their characteristics and peculiarities.

Satanaze and Antilia

So the point we are at now in the story is exactly where I had always intended that we should arrive. Strangely, however, because quests have lives of their own, we have arrived here by a route quite different from the one I imagined we would take. This happened because I did not anticipate the appearance, very late in the investigation, of a significant intersection between the mystery of the ancient maps and the mystery of the underwater ruins of Japan. On the contrary, having pored over many early maps of Japan by both Japanese and Western cartographers, and having found none that show it in anything like its Ice Age configuration, I long ago gave up the search.

It was only when I was finalizing the maps argument in Part 5, and in fact pursuing Bimini, that I read Professor

Robert Fuson's breakthrough study, *Legendary Islands of the Ocean Sea*, and realized that I'd been looking in the wrong place all along. If there was indeed a lost cartographical science of the Ice Age then its best crumbs had been preserved in the portolan tradition in Europe by pre-Columbian mariners and copyists who themselves knew nothing about the existence of the Americas or the Pacific Ocean. If an Ice Age map of Japan – and one of nearby Taiwan – was going to turn up anywhere, therefore, it made perfect sense that it should do so in a pre-Columbian European portolan purporting to depict islands in the Atlantic Ocean.

I need to reiterate that Professor Fuson goes nowhere near this far; nor would he wish to. His breakthrough, which I described in chapter 24, is the discovery of the compelling series of correlations on the 1424 Venetian chart that link

Satanaze with Japan and Antilia with Taiwan. Fuson plausibly suggests that the source map – or maps – that the Venetian copyist worked from could have originated in the voyages of the Chinese admiral Cheng Ho in the early fifteenth century and could quite easily have found their way to the West from one or other of Cheng Ho's fleets via Arab intermediaries prior to 1424.

Because the correlations he presents are in general so persuasive, one glaring mistake on the 1424 chart is not fatal to Fuson's argument. The mistake, as he admits, is that Japan's 'three main islands (Honshu, Shikoku, and Kyushu) are represented by the single island of Satanaze. The channel between Kyushu and Shikoku/Honshu (modern Bungo-suido and Suo-nada) is well-defined.'[2] But 12,500 years ago, this mistake would not have been a mistake at all because at that time Honshu, Kyushu and Shikoku were indeed consolidated

by lowered sea-levels into a single landmass.

While I'm prepared to accept that the Venetian cartographer's source maps probably did come from the voyages of Cheng Ho therefore, it is not inevitable that these maps were necessarily ones that had been newly charted by Cheng Ho's navigators. They could equally well have been amongst the many older maps that Cheng Ho is known to have brought along on the voyages. We will see later that China by Cheng Ho's time, already possessed a cartographical tradition that was hoary with antiquity.[3] It is by no means impossible that the same wellspring of mysteriously anachronistic geographical knowledge from which Marinus of Tyre may have sipped, and that so nourished the portolan tradition in Europe in the late Middle Ages, had also been known all along to the ancient Chinese.

I suggest that the 1424 chart may contain evidence of that knowledge.

The missing waterways

Although sea-level is still rising today, the rate of change is very slow and has made no significant difference to Japan's coastlines during the past 1000 years. It is safe, therefore, to treat the modern map of Japan as an accurate portrayal of the archipelago as it would have looked in the early fifteenth century,

Now compare the map of Japan with the portrayal of Satanaze/Saya on the 1424 Venetian chart (opposite).

At first glance, despite an obvious general similarity of layout, I think one would not immediately leap to endorse

Fuson's conclusion that Satanaze represents Kyushu, Shikoku and Honshu (since it is only one island, not three) or that little Saya represents Hokkaido. However, the theory is undoubtedly correct and I have already presented the principal evidence that underpins it in chapter 24. All that remains to be added is the process of 'cartographic devolution' (the gradual introduction of errors and deletions in a series of copies) by which Fuson believes that the Venetian mapmaker managed to turn Japan into Satanaze. This is best expressed in his own diagrammatic way (see page 630).

To focus the discussion here, I will accept Fuson's well-supported argument that most of Hokkaido was simply ignored and reduced to the rump of Saya on the original source map from which the 1424 chart was copied.[4] I will accept too his other suggestion that at some stage in the

chain of copying and transmission by which the source map reached Europe a large section of the north of Honshu was missed out thus shortening the distance from the tip of Honshu to the tip of Kyushu.

But it is the other proposed ‘deletions’ of the copyists that interest me. *All of these – every one of them with remarkable consistency – prove to be ‘deletions’ of bays and inter-island waterways that have only come into existence around Japan since the end of the Ice Age.* In other words there was a time, not too long ago (and certainly well within the enormous span of Japan’s mysterious Jomon culture), when most of the bays and inter-island waterways on the modern map were dry land and did look pretty much the way the 1424 chart of Satanaze shows them.

Modern map of Japan.

The island of Satanaze, from the 1424 Pizzagano chart.

I will focus here on the portrayal of modern Japan's most

prominent group of inter-island waterways around the Inland Sea separating Honshu, Kyushu and Shikoku. Fuson himself takes special notice of ‘the channel between Kyushu and Shikoku/Honshu’ on the 1424 chart, and its ‘well-defined’ presence there is undoubtedly helpful to his case. To make use of it, however, he has to overlook the fact that the equally prominent channel that has separated Shikoku from Honshu for at least the last 9000 years is not only not ‘well-defined’ but actually is not shown at all. Likewise, he must put up with a very poor portrayal of the segment of Satanaze that he allocates to Kyushu – poor, that is, if it is a portrayal of Kyushu in 1424. However, either by chance, or because a fragment of a cartographical tradition from the end of the Ice Age was resurrected in that 1424 chart – or for some other reason – its portrayal of what is now Kyushu does match very well with Kyushu’s actual appearance at the end of the Ice

Age.

Let's look more closely at this odd 'coincidence' with reference to the 1424 chart, the modern map of Japan, and inundation maps of the archipelago provided by Glenn Milne and his team at Durham University. The latter model Japan's coastlines at the following dates: 21,300 years ago (onset of the Last Glacial Maximum), 16,900 years ago (end of LGM and start of meltdown), and thereafter at roughly millennium intervals for 14,600 years ago, 13,500 years ago, 12,400 years ago, 10,600 years ago, 8900 years ago, 7700 years ago and 6900 years ago (end of meltdown).

The cartographic devolution of Japan into Satanaze, according to Fuson (1995). © R. H. Fuson.

Mapping specific Ice Age details

We'll begin with the modern map of Japan, on which we note that Kyushu is only just an island, separated by a very narrow strait from the southern tip of Honshu. Nonetheless, it is an island. The strait widens into the Suo Gulf of the Inland Sea. There it splits into two branches – one trending southwards into the Bungo Strait between Kyushu and Shikoku, the other trending north-eastwards via the Iyo Gulf to the series of further straits that separate Shikoku from Honshu.

Now look at the depiction of the same waterways on the 1424 chart of Satanaze/Japan (opposite). It is obvious immediately that the system is much simpler.

Most notable difference: instead of the narrow strait that today lies between Kyushu and Honshu we observe that the two islands are joined by a land-bridge almost 100 kilometres wide.

Most notable similarity: there is a roughly square inlet on the south-east side of Satanaze which corresponds well with the location and direction of the present Bungo Strait.

But today, as we've seen, the Bungo Strait splits into the Suo Gulf to its north-west and the Iyo Gulf to its north-east. On the 1424 chart, by contrast, the Suo Gulf is completely missing. And although the Iyo Gulf is present, note that it is represented only as a very narrow, north-east-trending, fjord-like channel. Opposite its terminus, on the south-west side of Satanaze/Japan, there is a further, much smaller inlet. The neck of land between the two – about 100 kilometres wide – lies along the line of the missing Suo Gulf.

61. Jomon pottery mask, Japan.

62. Pottery* dogu *figurine of the ancient Jomon from Sannai-Muriyama, Japan.

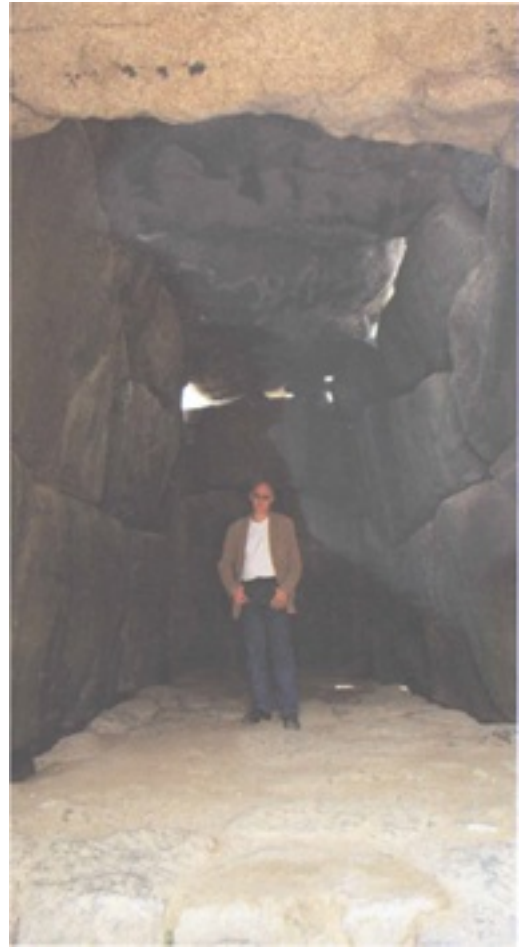

63. The author inside the megalithic passage grave of Ishibutai, Japan.

64. The author standing on top of Masada-no Iwafune, a massive megalithic structure in the Asuka region, Japan.

65. Pilgrims at the megalithic rock shrine on the summit of

Mount Miwa, Japan.

66. Jomon stone circle of Oshoro, Hokkaido, Japan.

67. Jomon stone circle, Cape Ashizuri, Shikoku, Japan.

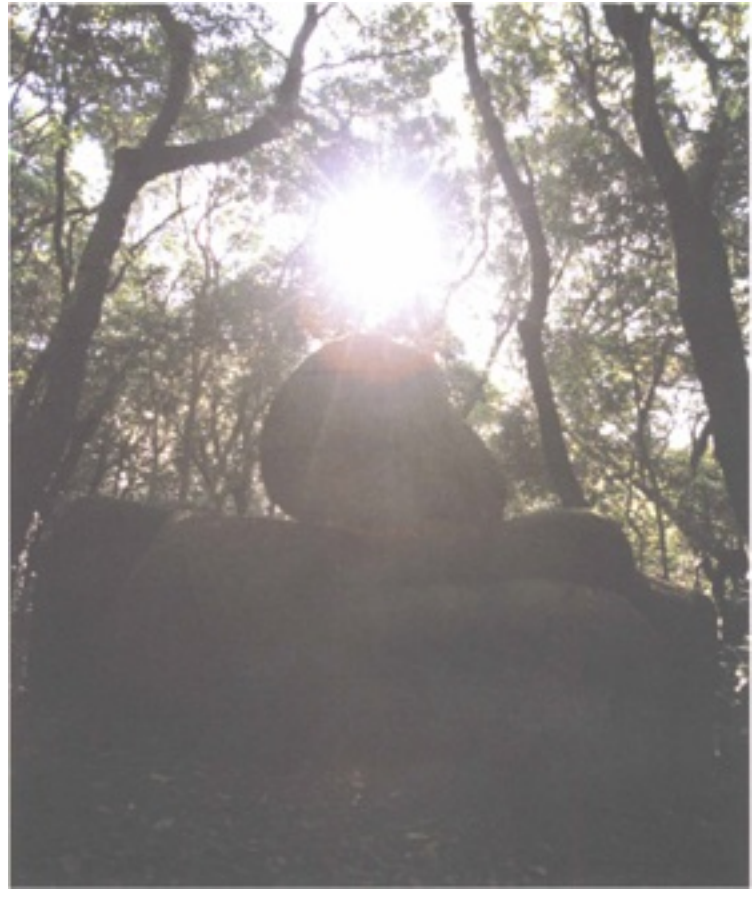

68. Jomon megaliths deep within a forest, Cape Ashizuri,

Japan.

69. The author at Masada-no Iwafune megalithic structure.

Note the method of cutting the rock in square sections visible on this side of the structure. Compare with 70, below.

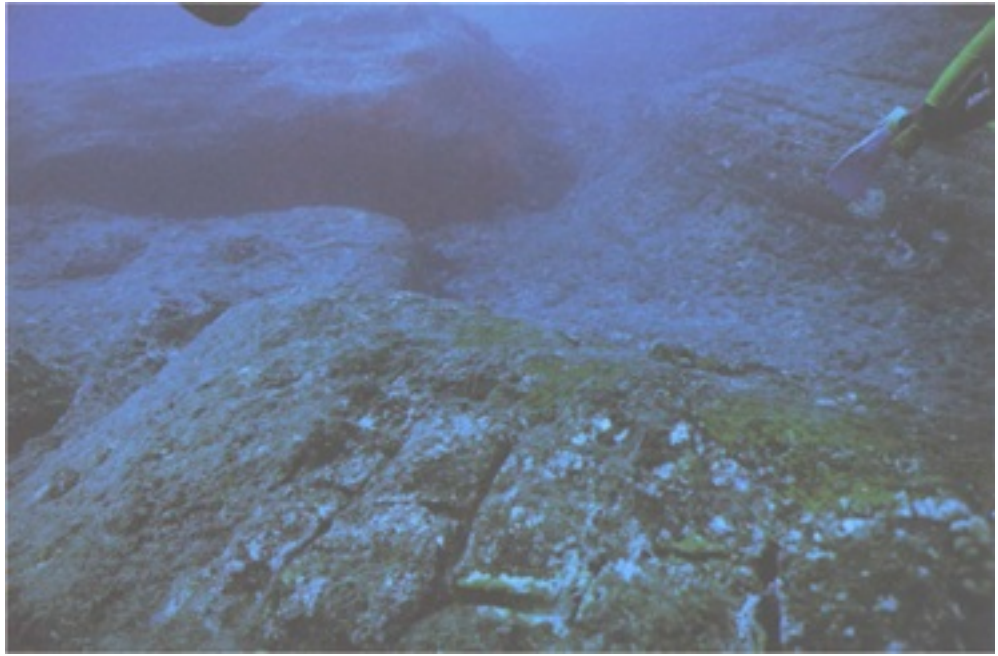

70. Stones cut with the same technique as Masada-no Iwafune at a depth of 20 metres, Yonaguni, Japan.

71. Jomon magatama *curved stone ornament, Japan. Compare with 72, right.*

72. Maltese curved stone ornament in National Museum of Malta. The only one of its kind ever found in Malta, it is identical to the **magatama** ***of the Jomon of Japan.***

73. Small stone circles, Komakino Iseki, northern Japan. Compare with 74, below.

74. Small stone circles at a depth of 30 metres, Kerama, southern Japan.

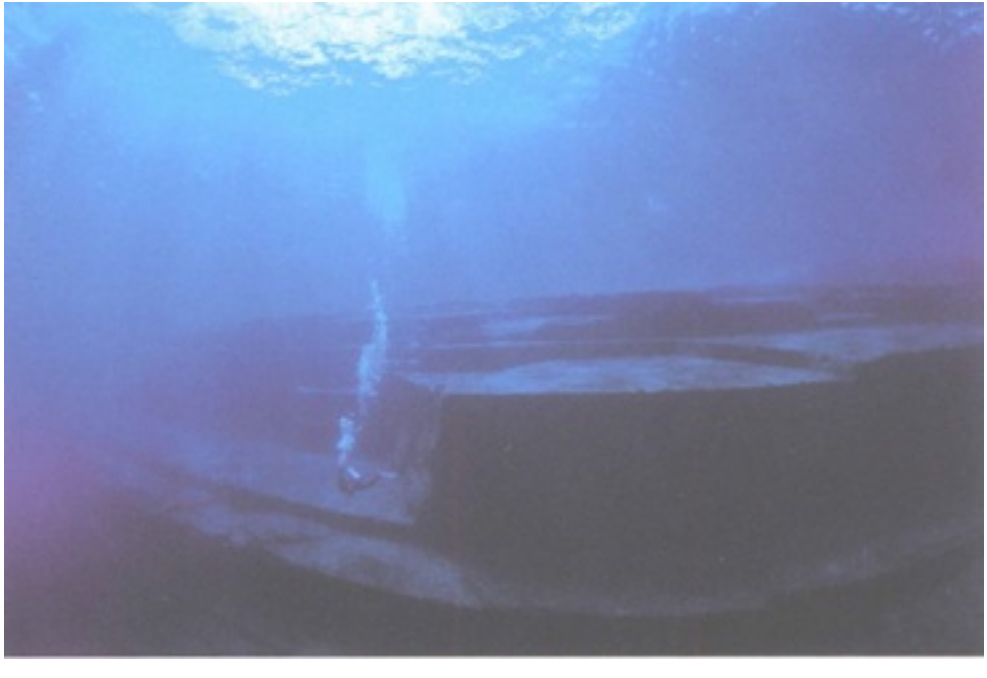

75. Iseki Point, the main underwater monument of

Yonaguni.

76. The author diving beside the 'Face', Yonaguni.

77. Underwater megalith, Yonaguni.

78. View down on Centre Circle, Kerama, Japan, at a depth of 30 metres.

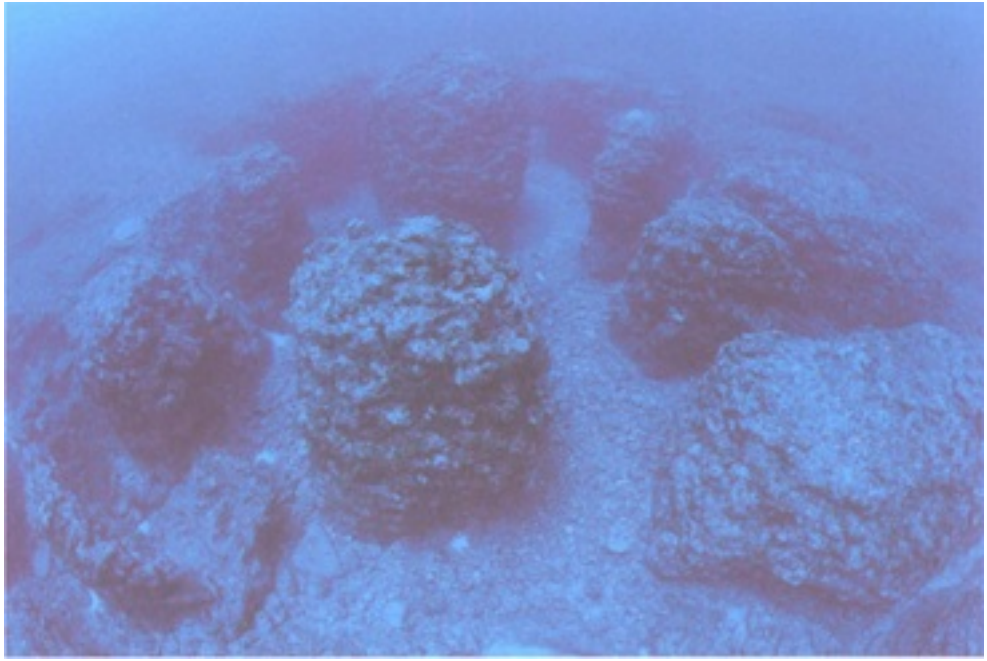

79. Centre Circle and Small Centre Circle (foreground), Kerama.

80. Centre Circle, Kerama.

81. The author diving beside the parallel megaliths, Yonaguni, Japan.

When we compare the 1424 chart with the inundation map sequence (pages 632–4), no obvious correlation emerges down to as late as 14,600 years ago, when Kyushu, Honshu and Shikoku were still so firmly bonded together by lowered sea-levels that even the Bungo Strait did not exist.

Within just another thousand years, however, around 13,500 years ago, the inundation maps show that a squarish inlet topped by a narrow, north-east-trending, fjord-like channel very similar to the portrayal of the Bungo Strait on the 1424 chart had opened up.

The correlation remains much the same on the inundation

map for 12,400 years ago, although it is possible to detect a slight opening to the north-west, not shown in the 1424 chart, in what was to become the Suo Gulf.

HONSHU
Suo Gulf
SHIKOKU
Bungo Strait
KYUSHU
PACIFIC OCEAN

By 10,600 years ago, however, the correlation is much less precise, with both the Suo and Iyo Gulfs opening up into fat cloverleafs north-west and north-east of the Bungo Strait.

Finally, by 8900 years ago, the submergence of the shorelines around the Inland Sea approaches today's levels, Shikoku, Kyushu and Honshu begin to emerge as separate islands, and the geography of the 1424 chart becomes and remains an anachronism.

Bearing in mind the limitations of inundation science – these maps are models, based on the latest data but do not claim 100 per cent accuracy – there is no doubt that the best correlation between the 1424 chart and the actual appearance of this part of Japan comes not in 1424 but in a specific and clearly demarcated 1100-year time-window between 13,500 years ago and 12,400 years ago.

Coincidence? Or the leavings and memories of ancient world maps preserved amongst mariners since the end of the Ice Age in fragments, and copies of fragments, and fragments of copies?

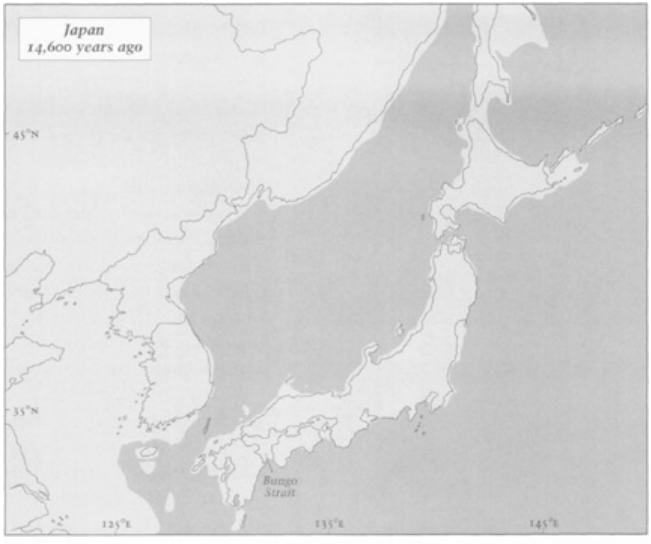
Japan
14,600 years ago
45°N
35°N
Bungo
Strait
125°E
135°E
145°E

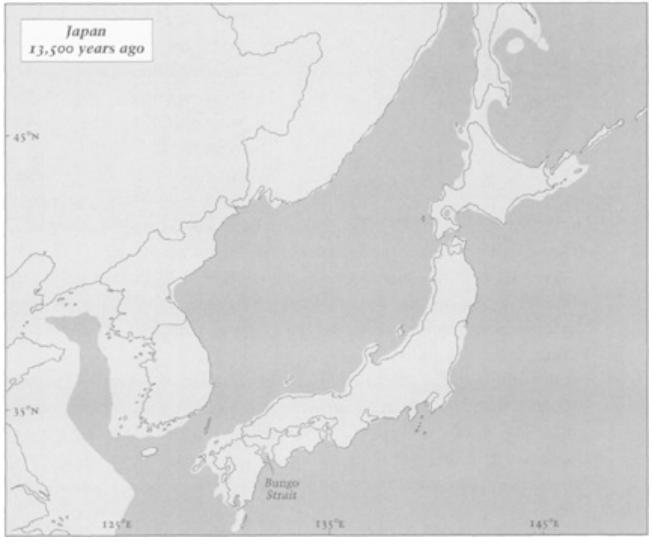
Japan
13,500 years ago
45°N
35°N
Bungo
Strait
125°E
135°E
145°E

Satanaze from the 1424 Pizzagano chart.

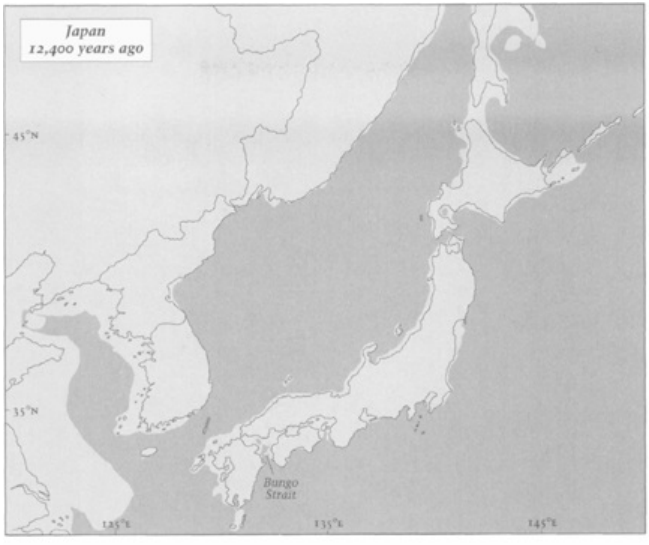
Japan
12,400 years ago
45°N
35°N
Bungo
Strait
125°E
135°E
145°E

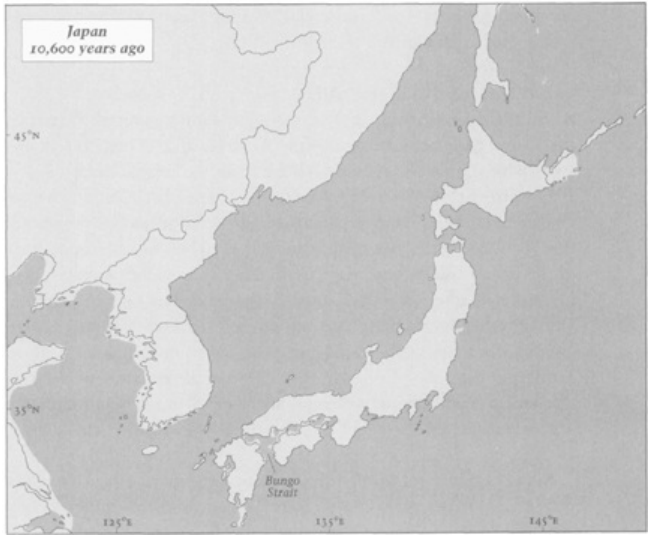
Japan
10,600 years ago
45°N
35°N
Bungo
Strait
125°E
135°E
145°E

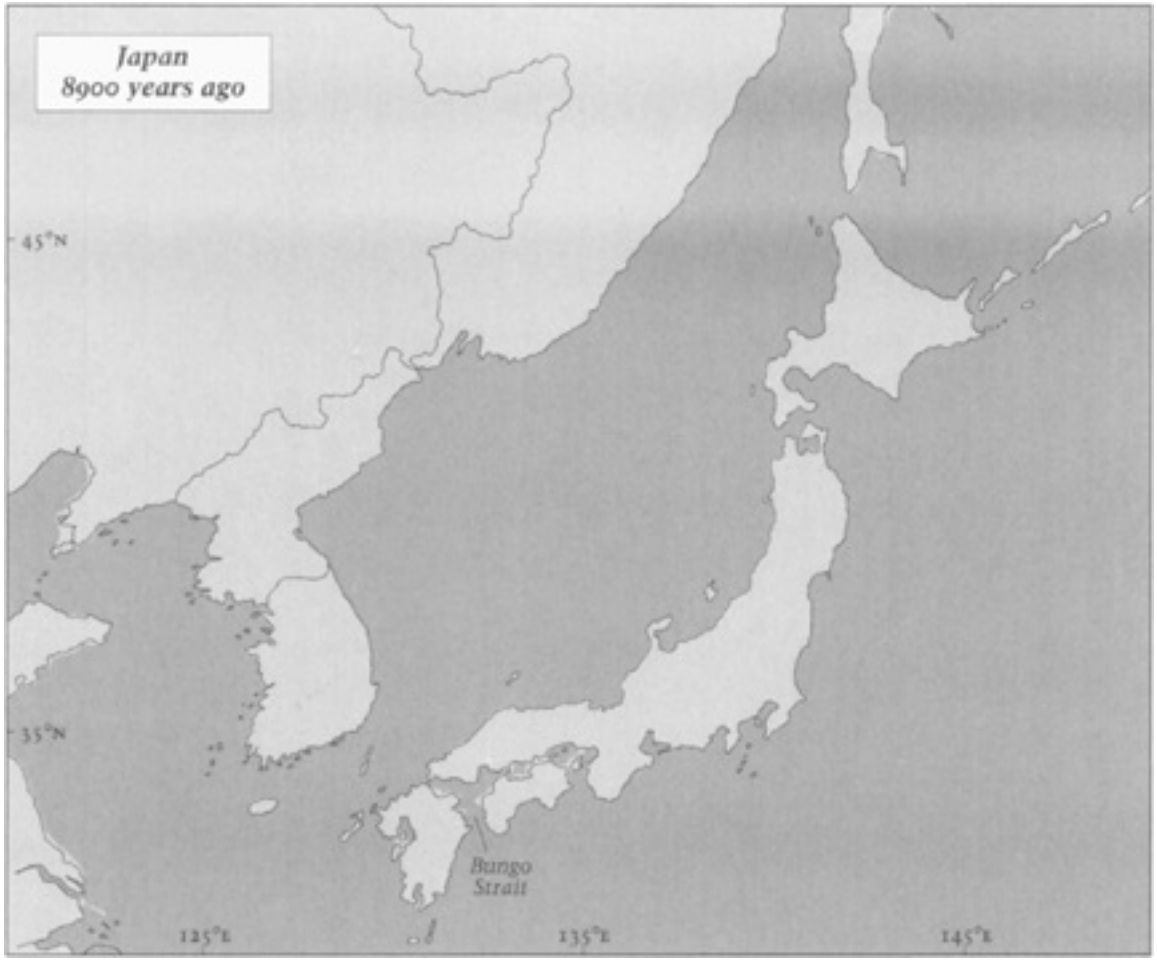
Japan
8900 years ago
45°N
35°N
Bungo
Strait
125°E
135°E
145°E

What about Taiwan?

As I was considering the implications of this interesting problem it occurred to me – since Satanaze appears together with Antilia on the 1424 chart – that the two islands probably appeared together on the source map too. In that case the treatment of Antilia/Taiwan on the 1424 chart could serve as a useful control to speculation about Satanaze/Japan. If, for example, it should turn out that Taiwan's 1424 portrayal was best matched by the modern appearance of the island and bore no resemblance to the inundation maps then it would make it more likely that any Satanaze/Japan correlations were just coincidences. On the other hand, if Antilia and ancient Taiwan matched up well to one another, and especially if they were to do so in the same time-window as Satanaze/Japan, then I thought this would

make it much more likely that the similarities had been derived from a common source map that had contained accurate depictions of Japan and Taiwan as they had looked at the end of the Ice Age.

At the beginning of the meltdown around 16,400 years ago lowered sea-levels meant that Taiwan was not an island but was, instead, fully integrated with the east coast of China. The inundation maps show its distinctive narrow south-eastern tip, which has changed its appearance very little over time, protruding as a peninsula from a vast antediluvian landmass extending eastwards for hundreds of kilometres from the present Chinese coast. These long-lost coastal plains, fertile with the silt of the ancient Yangtse and Yellow rivers, were wide and extensive enough to incorporate the entire Korean peninsula much further north, completely filling the basin of the Yellow Sea, and the Bo Hai and Korea Bays (page

635).

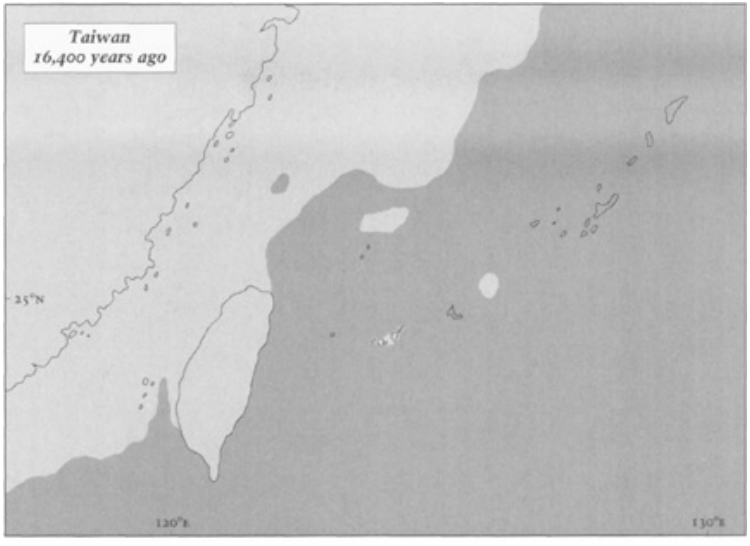
Taiwan
16,400 years ago
25°N
120°E
130°E

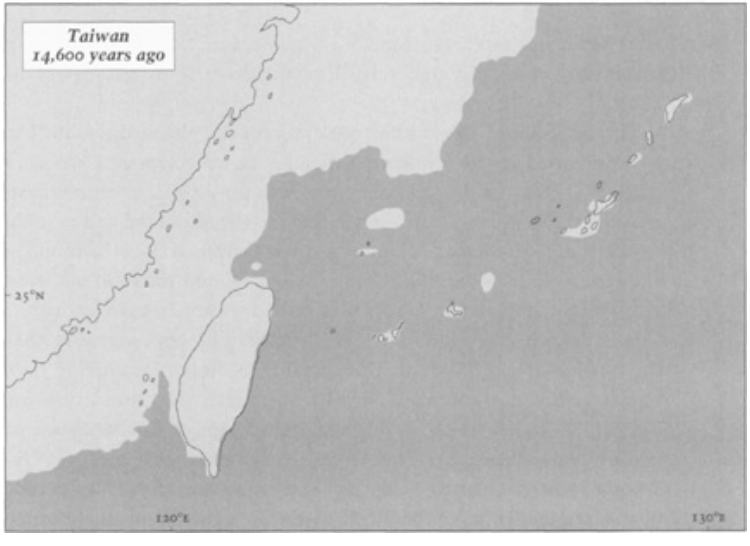
Taiwan
14,600 years ago
25°N
120°E
130°E

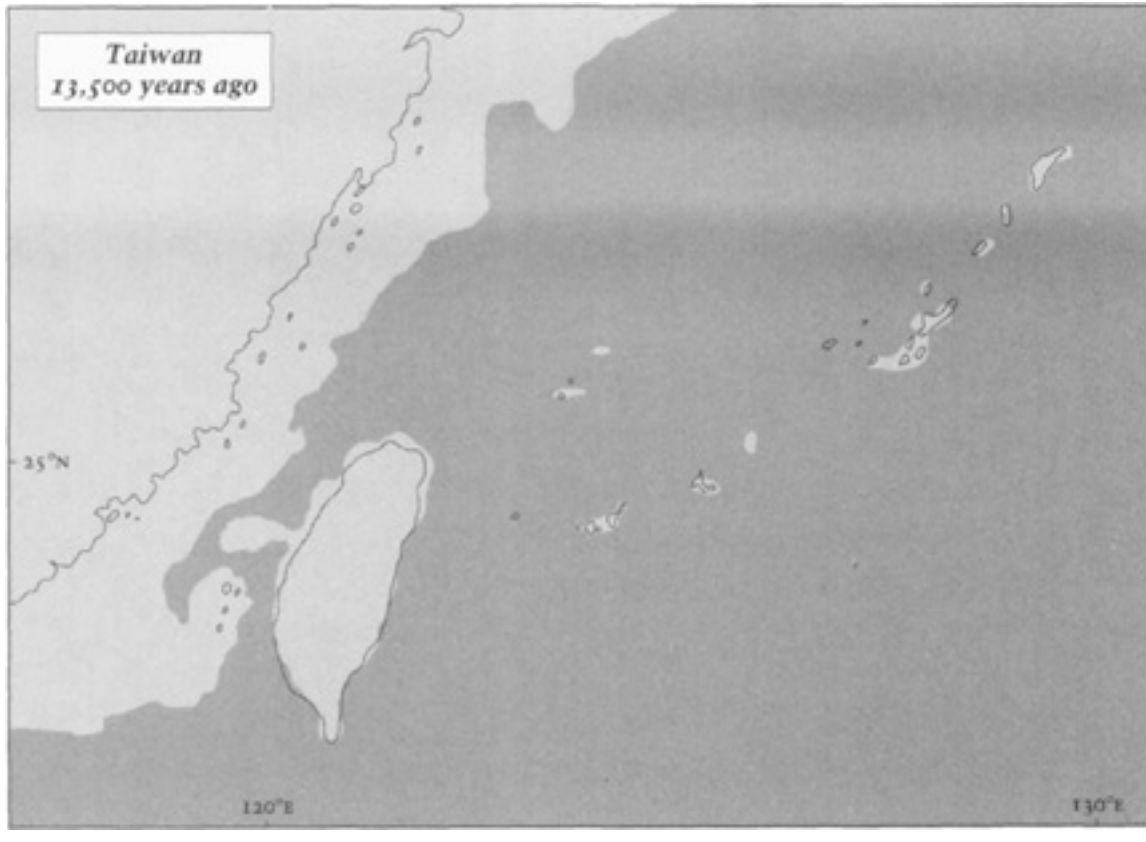

The situation of Taiwan had not dramatically changed two millennia later, as represented in the inundation map for

14,600 years ago. We can see there (page 635) that it has made some progress towards its eventual destiny as an island but that it is still very much fixed to the mainland and as such offers no correlation with the 1424 chart of Antilia/Taiwan. In fact the inundation maps show that Taiwan did not become an island, and thus did not even become eligible for comparison with Antilia, until 13,500 years ago (above).

It is notable, therefore, when we compare its appearance at that time to the outline of Antilia, that we immediately find a tantalizing resemblance, but certainly not an exact one. For, although the inundation map shows Taiwan as an island of roughly the right shape, it also shows a distinctive peninsula protruding from the mid-latitudes of its west coast that is not to be seen anywhere on Antilia. Instead, the 1424 chart gives us a second smaller island, named Ymana,[5] roughly where

the peninsula on the inundation map ends.

The next inundation map in the sequence, which shows Taiwan as it looked 12,400 years ago, is where things get interesting. Very strikingly the peninsula has vanished and what remains is an island of the right size and in the right location to match Ymana (page 638).

Again, is it a coincidence?

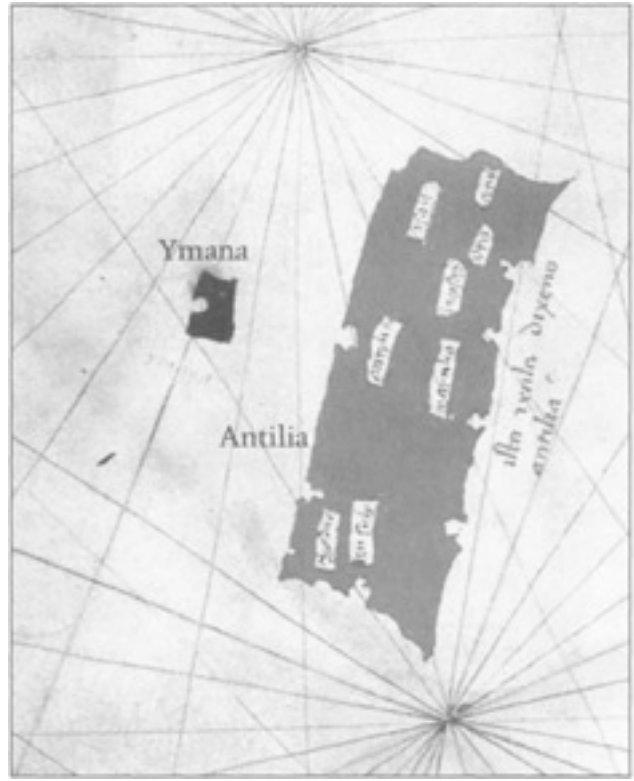

Antilia from the 1424 Pizzagano chart.

Taiwan 12,400 years ago.

Here the logic that led me to look for Antilia/Taiwan correlations at the end of the Ice Age (as a control on the apparent correlations I had noticed between Satanaze and Japan in the same period) works in reverse to reduce the likelihood of coincidence still further. Of course it still could *be a* coincidence. The fact is, however, that the representations of Antilia and Satanaze on the 1424 chart not only appear to have captured characteristics of Taiwan and Japan as both looked during the meltdown of the Ice Age but, far more impressively, as both looked during exactly the same 'window' between 13,500 and 12,400 years ago.

Objections

There are two important objections to this line of reasoning, which must be registered and responded to immediately.

First, despite its steep coastlines, Japan did undergo significant changes to its appearance at the end of the Ice Age when one antediluvian island – Satanaze on the 1424 chart – was filleted into segments by the rising seas to form modern Kyushu, Shikoku and Honshu. Taiwan's even steeper coastlines, by comparison, have changed much less since it first became an island around 13,500 years ago. Thus to the extent that Robert Fuson is right at all to identify Antilia as a map of Taiwan, then it could, theoretically, be a map of Taiwan in almost any epoch after 13,500 years ago. As such isn't it too vague and general an indicator to be useful for any particular purpose or to draw any specific conclusions from?

My response to this objection is that Antilia has more information to reveal than at first meets the eye.

0 50 km

Superimposition of 1424 Antilia on modern Taiwan.

A good starting point is Fuson's own superimposition of Antilia on to a modern map of Taiwan. As the reader will observe, other than the overall dimensions and the roughly rectangular shape being about right, the correlations between the coastlines of the two islands are not in fact particularly good (and would make no case in themselves were it not for the many other convincing comparisons between Antilia and Taiwan that Fuson is able to present).[6]

When compared with the modern map Antilia does best in the south-east -where both it and Taiwan come to a distinct sharply pointed, south-east-facing cape. But in the south-west, north-west and north-east the island depicted on the 1424 chart extends many kilometres beyond the coastal

margins of Taiwan as it looks today.

Is it another coincidence that two out of these three supposed ‘mistakes’ in Antilia’s portrayal of the main island of Taiwan would make perfect sense if the source maps showed Taiwan as it looked around the end of the Ice Age? There is no match at any date for the triangle of land that Antilia adds on to Taiwan in the south-west. But the extra lands that Antilia also claims in the north-west and the north-east of Taiwan do correlate closely with extra lands – then still above water in precisely these areas – that show up on the inundation map for 12,400 years ago. Since 12,400 years ago is also the date that provides the best fit for the island of Ymana on the 1424 chart, coincidence seems to me an explanation that is increasingly difficult to defend …

Superimposition of 1424 Antilia on Taiwan as it looked 12,400 years ago.

However, it is precisely here that a second objection must be registered and responded to. One of Robert Fuson's proofs that Antilia is Taiwan, cited in chapter 24, is that: 'Taiwan also has something else that Antilia must have. And that is a small island to the west. On the 1424 Pizzagano chart it was called *Ymana*. Today it is the Peng-Hu group, or Pescadores (Islands of the Fishermen).'[7] It is the Pescadores, exaggerated into a single larger landmass by cartographers' errors, that Fuson speculates served as the model for Ymana.

My response is that the location of the Pescadores in relation to the main island of Taiwan – marked today by little more than dots on the map – is not identical to the location of Ymana, but considerably further south. By contrast, as we've seen, the inundation map for 12,400 years ago provides a single antediluvian island of the right size and in the right location to be Ymana. The same map shows us that

the Pescadores were, at that time, still part of the Chinese mainland and lay at the tip of a peninsula some 200 kilometres south of my antediluvian candidate for Ymana. They did not finally become islands -initially just one island – until around 10,600 years ago and thereafter were gradually broken up into the many much smaller remnants that still survive today.

It remains entirely possible that Fuson is right and that it was the Pescadores that served as the model for Ymana – though I note in passing that they would have more closely resembled Ymana when they were consolidated by lowered sea-level into one island around 10,600 years ago than at any much later date.

I was therefore overtaken by an irresistible feeling of curiosity when news came to me from my Japanese friends that extensive underwater ruins had been discovered in the

Pescadores. Lying off the south shore of a tiny island called Hu-Ching – it means 'Tiger Well' – the ruins were said to consist of two gigantic walls crossing each other at right angles extending from a minimum depth of just 4 metres to a maximum depth of more than 36 metres. It was too tempting a prospect to pass up and Seamen's Club were willing to fund one more trip. Santha and I packed our dive gear and flew out to Taiwan at the end of August 2001.

But I'm getting ahead of my story. Before we fast-forward to Taiwan we need to rewind to the end of chapter 27 and the mini-expedition to Japan's Ryukyu archipelago that I made in March 2001 with the German geologist Wolf Wichmann. The reader will recall that Wolf and I left Yonaguni, the westernmost of the Ryukyus, after failing to reach agreement on the provenance of the underwater structures there. Our next destination was Naha, capital city

of the much larger island of Okinawa, where we would be a one-hour journey by boat from what are perhaps the most extraordinary and enigmatic underwater structures in all of Japan – the great stone circles of Kerama.

29 / Confronting Kerama

> I agree that this is very amazing and very strange, even to me, how these structural buildings could be formed. Patterns like these, I haven't seen formed by nature.
>
> Dr Wolf Wichmann, geologist, Kerama, Japan, March 2001

Although I usually refer, in shorthand, just to 'Kerama', the correct term is 'the Keramas' – for this is in fact a group of small islands, including Aka, Zamami, Kuba and Tokashiki, lying in the Pacific Ocean about 40 kilometres due west of Naha, the capital of Okinawa.

The islands are poignantly beautiful, with verdant hills, rugged, rocky coasts and sand-fringed beaches, and they are separated from one another by expanses of crystal-clear water ranging in intensity from the palest turquoise to the

deepest midnight blue. The whole area is a marine nature preserve renowned for the great numbers and varieties of whales and dolphins that congregate there.

And at the end of the Ice Age? The story that Glenn Milne's inundation maps tell is that down to about 14,600 years ago Kerama remained attached to the southern end of Okinawa by a thick, curving tongue of land. Okinawa was itself at that

time a much larger and wider island than it is today with many kilometres of low-lying, gently sloping plains extending both east and west of its present coastline. Indeed, it is on these now inundated plains off its south-western coast that Okinawa's own underwater monuments – the 'step-pyramids' and 'terraces' off-shore of Chatan, described in chapter 1 – are located. And at that time there was continuous land between Chatan and Kerama …

Looking further through the inundation sequence we find that by 13,500 years ago the Kerama-to-Okinawa land-bridge had been severed and 20 kilometres of water lay between the two. But it is also clear that Kerama at that time had not yet broken up into smaller units. Further detail is difficult to resolve, but the maps indicate that this single, larger Kerama may have survived, with minimal diminution, until as late as 10,000, perhaps even 9000, years ago – though since parts of

it were steeply sloping, and parts flat, not all of it would have been submerged at the same moment even then. It would have been around this time, 9000–10,000 years ago, that Kerama's stone circles would have been inundated.

The circles lie under almost 30 metres of water, 10 kilometres south-east of Aka island, at the intersection of latitude 26 degrees 07 minutes north and longitude 127 degrees 17 minutes east. A few jagged rocks just break the surface near by, with waves constantly crashing over them, but otherwise the site is completely exposed in open water.

The constraints

Kerama, March 2001

The March 2001 dives with Wolf Wichmann were funded and

filmed by Channel 4 on a rushed, money-saving schedule – two working days for Yonaguni, and one for Kerama. In practice this meant that if the weather turned sour – which it frequently does in the Ryukyus – we would not be able to dive at Kerama at all. And even if the weather god was with us, the sea god might not be: the currents at Kerama are often so severe that you have to fight the water continuously if you want to stay in one place.

When humans fight water, water wins. I've seen divers lose their masks and have their regulators pulled from their mouths by the Kerama currents. I've seen desperate, breathless struggles to stay on top of the site, or to help others stay there, and not get swept away into the wild blue yonder. I've seen fit young adults crawl back on to the boat exhausted, literally trembling with fatigue. So what I've learned, after several unpleasant experiences of that sort, is

that it's just not worth diving there when the current flows. It's better to anchor the boat tight with a couple of lines fore and aft, put a buoy in the water, watch how it bobs, and wait for a lull.

If there's a lull.

Briefing

Kerama, March 2001

We set out from Okinawa soon after 9 a.m. on what turned out to be a reasonably fine morning with waves of less than a metre. Once again we were working with the great local diver Isamu Tsukahara and his very professional team, and using his fast, spacious cabin cruiser as our dive boat. Mitsutoshi Taniguchi, the original discoverer of the circles,

had come up to join us from his home on Miyako island further to the south. And Kiyoshi Nagaki had also volunteered to dive with us that day.

We began to sight the Keramas after about an hour of steady running to the west, and as we drew closer Wolf explained to me their basic structure evident from areas of bare rock along the coasts and from scars left by earthfalls that had uncovered the underlying strata in the hills. Rather like Malta in the far-off Mediterranean, it seemed that these islands had been formed out of huge deposits of coralline limestone (i.e., corals turned to rock) that had been laid down under ancient seas as much as 50 million or 100 million years ago and then subsequently exposed and inundated again, exposed and inundated again, with more coral growth taking place in the epochs of inundation but later itself being fossilized and exposed. In some places

sedimentary layers of softer limestones, comparable to Malta's globigerina layers, lay on top of a coralline core. In others coralline outcrops formed the surface layer itself, glaring white in the morning sunlight.

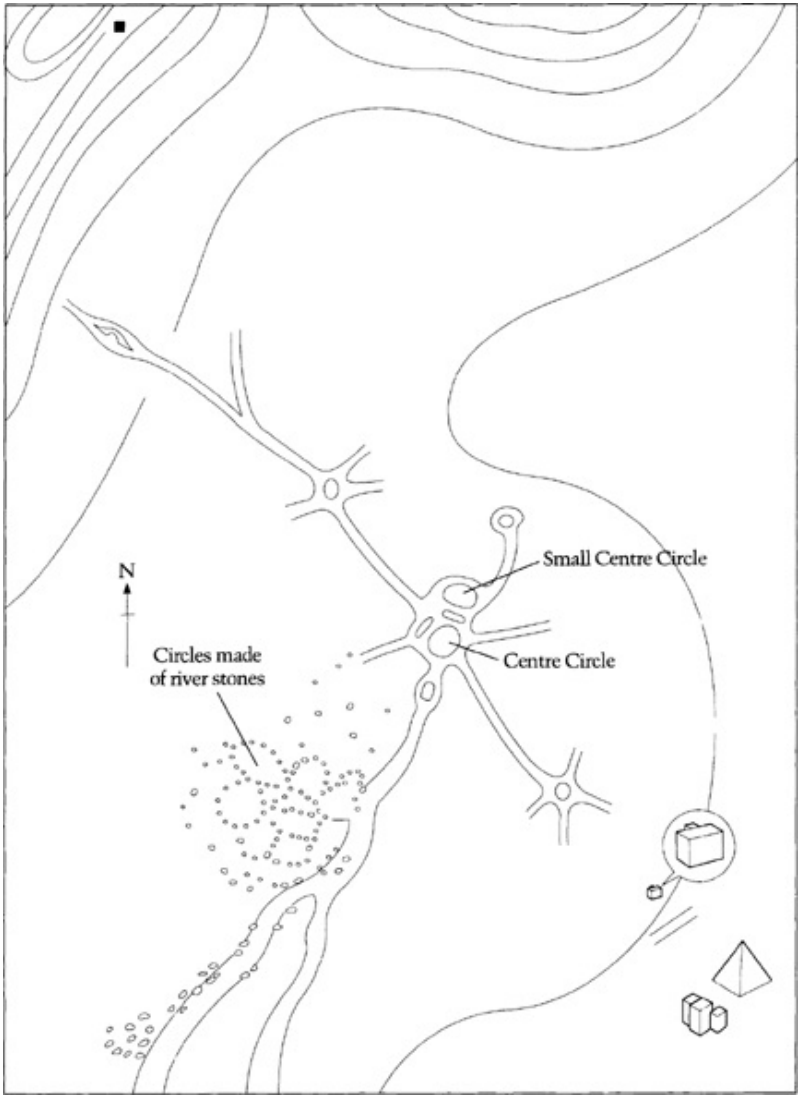
N
Small Centre Circle
Centre Circle
Circles made
of river stones

Plan drawing of Kerama's stone circles and associated structures. Based on Kimura.

By 10.30 a.m. we were manoeuvring into position over the dive site. Isamu Tsukahara – who always takes the hardest work on himself – went down to set the anchors and the buoy. This must have required an almost superhuman effort on his part, since the current was flowing strongly enough to create visible turbulence on the surface, but he calmly and capably succeeded and was soon back on board none the worse for wear. Then we all sat around and waited, listening to the creaking anchor ropes as the current tried to rip the boat free and send it spinning back to Okinawa. The buoy, rather distressingly, had been sucked completely underwater

by the force of the flow, and no diving was going to get done before it popped back up again.

In the meantime I borrowed a DVC player and monitor from the film crew so that I could show Wolf some footage that Santha and I had shot during previous dives at Centre Circle, the largest of the group of structures that lay scattered around on the ocean floor beneath our boat. Every instinct in my body, for years now, had convinced me that these structures *must* be man-made, or at any rate could not have been made entirely by nature – they were simply too bizarre, unique and 'designed'. But secretly I had some doubts. I've learned a fair bit about rocks and reefs underwater around the world since I took up diving, but I'm not a marine geologist and there's a huge amount I don't know. Could it be possible that the strange pillars, the clear pentagonal pathway around the central monolith, and the shaped rock-

surround of Centre Circle had all come about as a result of some natural process of which I was ignorant?

I froze the frame at an oblique view from the north-western side of the circle, shot in mid-water about 10 metres above the tops of the megaliths, and pointed out the central monolith to Wolf.

> *GH:* So this is the top of the central stone or whatever it is, which is then surrounded by a ring of …
>
> *Wolf:* It's a canyon. It's a sort of canyon.
>
> *GH:* It's a sort of canyon, and it runs down into quite a clean-edged pathway round the bottom here at about 27 metres … it's a curious mixture of pebbles and sand in the bottom. But it's very clean; there's nothing growing in the bottom at all.

Wolf [pointing out several of the monoliths): All these single structures are totally overgrown by organisms. So just to have an impression of how they could have been shaped or could have originated, you have to scratch lots off them … Do you have any impression about the core material of these?

GH: It seems to be a mixture of largish, I wouldn't say pebbles, I'd say more like cobbles, you know …

Wolf: Rounded?

GH: Rounded … in a, in a sort of concretized mixture of something – I don't know what it is – a rocky, stony mixture.

Wolf: A matrix.

GH: A matrix, yeah. And you can see —

Wolf: So the question to answer is – is the core material consisting of the same matrix and pebbles mixture? Or are the glued pebbles inside this matrix just an outer cover?

GH: On top of something else.

Wolf: Yes. And the only way to find this out is to make some core drillings or something like that. Another way to come closer to the solution of that riddle, that mystery, could be to scratch off the sand on the bottom to see how these structures are linked to the ground rock … But what you definitely have to see is the core, the base, of these single structures and how they are fixed to the ground —

GH: So shall we plan to go to the bottom first, and do some of that? You may find that there's some

samples that you can get. Have a close look at everything down there and, you know, see if you feel that these kind of curves – the way the outer and the inner curves of the big monoliths match each other – can be natural or can be man-made.

Wolf: So, as far as I can see now, I have really no explanation for this type of pattern.

GH: Here for example (*pointing to screen)*. You can clearly see we're looking down on two parallel curved walls …

Wolf: Right, right. That's very amazing. So, is the distance between those two walls broad enough to let people walk through?

GH: Yes, yes it is. You can almost, in places, put two divers side by side, but not quite. Well, we'll see

when we get down there.

I played the tape forward a few frames, then stopped it at a change of scene -the second circle of great monoliths. Because it is of narrower diameter (not because of the size of its monoliths, which are much the same) local divers call it 'Small Centre Circle'. It lies immediately north-east of and adjoins Centre Circle itself, creating in effect two interlinked rings, the first 8 metres across and the second 5 metres across, contained within what appears to be a huge keyhole-shaped enclosure hewn somehow out of the bedrock that now forms the floor of the ocean.

Wolf: So, how many circles are there in all?

GH: Well, there's these two side by side; one large one and one slightly smaller one. Then there's a third one I guess about 50 or 60 metres further to the north-

west, but we don't have shots of that.

Wolf: Yes. And are there other figures? Different from this circle?

GH: In the same area, about 40 metres away to the south, there are quite a number of other circles made of much smaller individual stones, most of them no more than a metre in length. We should be able to look at some of those circles too, on the same dive.

Wolf: But they are built up the same way, of the same material?

GH: Well, they look like some of the cobbles that are compacted into the bigger monoliths.

Wolf: Aha … aha.

GH: They look like that kind of —

Wolf: Single cobbles?

GH: Single cobbles.

Wolf: And then positioned …?

GH: But positioned in a ring.

Wolf: That's strange.

GH: It is.

Wolf: Really strange.

I rewound the tape for a few moments then pressed 'play' again. There was one characteristic of Centre Circle which, though obvious enough, I'd so far forgotten to point out to Wolf.

GH: The other thing I feel about it is it's on a human

scale. It's monumental, and yet the scale of the thing is human.

Wolf: I'm very astonished about that … about the structure, formation. You know, I haven't seen anything like this before.

GH: In years of diving? And nor have I … never anywhere in the world.

Wolf: Not only in diving, but also on dry land. There's some … some formations at least comparable a bit to this – so-called 'rock castles' or even a certain form of calcite weathering. But they look different. They look totally different and they don't have these canyons with the straight walls going right down.

GH: With straight walls and running all the way round a central stone.

Wolf: Normal calcite weathering is different. It has different wall angles.

GH: You see it's … every time I see that, that inner curve matching the curve of this and making this rather nice path, I feel …

Wolf: It's very parallely shaped …

GH: Yeah, and it feels like a design thing.

Wolf: Strange, yes … strange.

GH: And no real research has ever been done here. Not even by Professor Kimura.

Diving on Centre Circle

Finally, in the early afternoon around 1 p.m., the buoy which

had been dragged under the surface by the force of the current suddenly popped up again, the pressure on the fore and aft anchor ropes went slack, and it was time to go diving. We were already partially geared up, so it took only a few minutes for us to strap on tanks, fins and masks and jump into the water.

Tsukahara had positioned the boat well and Centre Circle became clearly visible beneath us almost as soon as we were under the surface. There was a small current still running, not strong enough to trouble us, and we allowed ourselves to drift slowly down the main anchor line towards the monolithic structures below.

The word ‘monolith’ means literally ‘single stone’ and is used to refer to ‘a large block of stone or anything that resembles one in appearance’.[1] But what troubled me most

about the monoliths of Centre Circle – a matter related to my secret fear of geological processes known to Wolf but unknown to me – was precisely the question of whether they were ‘single stones’ or not. I had never done what Wolf intended to do now, which was to scrape off some of the thick marine growth covering the monoliths to see what the core material was made of. But I had handled them many times and had vaguely arrived at the idea that they must consist through and through of the same sort of concretized or aggregated ‘matrix’ of rounded mid-sized stones – resembling river stones – that seemed to form their exteriors. The problem was I had absolutely no idea whether this was going to be good, or bad, for the proposition – my ‘theory’ if you like – that Centre Circle is a man-made structure.

In our conversation on deck Wolf had seemed genuinely mystified by the video footage I’d shown him. But perhaps

once he was close up he would take one look at the monoliths, chisel out a few samples, and prove beyond argument that they had in fact been formed by entirely natural processes. Perhaps he would even slap himself on the brow as we got back in the boat and announce the obscure but correct geological name for this kind of ‘natural formation’. Or perhaps he wouldn’t. Either way, I’d know for sure in about an hour. That was when it really dawned on me, I think, that not only Kerama was on trial here but also my whole notion that a phase of higher civilization and monumental construction in Japanese prehistory might be attested by ruins underwater.

Fifteen metres above the top of Centre Circle, as we paused in neutral buoyancy to get a perspective on the edifice, I was glad I’d spent the last couple of hours going through our earlier video footage of the site – because it had forced me to

think through issues that I had previously overlooked. It wasn't just the crucial question of what the monoliths were made of that had to be addressed, but also Wolf's observation that they were contained on the floor of something like a 'canyon'.

Looking around from this bird's eye view – for a diver does have some of the freedom of manoeuvre in the water that a bird has in the sky – I began to get a proper sense, for the first time, of the topography that surrounds the two great co-joined circles (Centre Circle and Small Centre Circle) and of how their keyhole-shaped perimeter is formed, and even of the relationships between the fully detached and 'semi-detached' monoliths that make up the circles.

All these structures occupy the summit of a very large, gently sloping outcrop of rock extending away in all directions, gradually disappearing into deeper waters. At the

end of the Ice Age, when the outcrop last stood above sea-level, its highest point would have been the place now marked by the top of the central monolith of Centre Circle. From there you could have stood and surveyed the entire area around.

But then – it seemed inescapable – some powerful force must have intervened, perhaps organized human beings, perhaps weird nature, and carved out the flat-floored, sheer-walled, semi-subterranean, keyhole-shaped enclosure now containing the great rock uprights that form the two circles. Marine growth had gnarled and knobbled the contours of the uprights and it would not be clear until the growth was scraped off how smooth and clean-cut – or otherwise —they originally might have been.

I knew that Wolf would be looking for a natural explanation and supposed that much depended on the

constitution of the rock. This, hopefully, we would soon be able to establish since he had brought along with him a fearsome little hammer and mesh bags for the collection of samples. Once we had a better idea of the core material, however, the question we had to address ourselves to – the only question in town really – was what *sort* of force could have produced an amazing 'design' like this. Despite lingering doubts, I felt a sudden surge of confidence that nature could not have done it – not unaided anyway. On the contrary, the pattern was a complex and a purposive one, rather difficult to execute in any kind of rock, and the more I studied it the more obvious it seemed that it was deliberate and planned.

With reference to photo 78 the reader will note that directly beneath the diver, on the north side of Centre Circle, is the smallest and lowest of the three completely free-

standing uprights. What I noticed for the first time that afternoon was that this ‘broken monolith’, as I had thought of it before, forms the beginning of a definite anti-clockwise spiral extending through the top of the next monolith (much higher) and of the next (higher still), then winding around the west and south sides of the central upright, where it takes on the curve of the surrounding enclosure wall – itself not continuous but segregated into units separated by deep channels.

The dividing line between Centre Circle and Small Centre Circle is formed by the same low upright where the spiral begins. I swam over it now and looked down on it from the north side with Small Centre Circle just below me. I believe that it shows every sign, as does the entire structure, of having been carved and shaped by man. Though it is a small detail, I have always been impressed by the way it is curved

on one side to match the outer curve of the big central upright to its south and on the other to match the curve of the only slightly smaller upright behind it to its north. It is also difficult to imagine how the narrow, clean-edged ‘second pathway’ that parallels the wider inner pathway around the central upright could have been cut so precisely by any natural force.

Just before we dropped down into the structure I noticed out of the corner of my eye, thanks to the exceptional visibility that afternoon, something I had not seen since our first dives here back in 1999. This was the existence, not far beyond the south-western perimeter of Centre Circle – on the slopes below the summit of the ancient mound – of other circles and ovals and spirals made up of individual stones, large cobbles, boulders, mostly a metre or less in length, all of them rounded and smoothed off at the edges, coiled and

intertwined with each other like necklaces or the links of a chain strewn upon the ground. As I had told Wolf earlier, they looked a lot, though not exactly, like the ‘river stones’ that were also weirdly stuck, or aggregated (or formed part of the bedrock itself?) all over the uprights of Centre Circle.

I made a mental note that we should go and take a proper look at these nearby ‘river-stone’ or ‘river-boulder’ circles and try to figure out how they had been formed. Perhaps Wolf would have a sensible geological explanation. But seeing them again for the first time in two years, and having travelled widely overland in Japan since then, they instantly reminded me of the Jomon stone circles such as Komakino Iseki and Oyu that I had visited in the north of Honshu in May 2000. So far as I could remember, those circles too had been fashioned out of river stones and river boulders like these, and disposed upon the ground in exactly the same

way.

It was potentially an important connection.

By now Wolf and I had reached the base of Centre Circle and were standing up on the inner pathway examining the monoliths. It was true, as Wolf had observed from the video footage, that they were completely overgrown with a fantastic menagerie of marine organisms. But at the same time, protruding out through them like a harvest of ripe fruit, was this peculiar matrix of individual river cobbles. One that I noticed in particular, about the diameter of a large dinner plate and probably weighing several kilos, jutted sideways from the top of the second monolith in the spiral as though reaching out towards the third. How was this to be explained?

Wolf took samples from some of the more prominent river

stones plastered to the exteriors of the uprights, then beckoned me to join him at the foot of the second monolith under the overhanging cobble. This was going to be his attempt to find out what the core material of the monolith was made of – and he showed me how the marine growth thinned out then stopped altogether at the junction with the basal path. Immediately above the path it proved relatively easy -much easier than we had expected – to scrape away a large patch of organisms and begin to expose the core.

Wolf scraped and scraped. Scraped and scraped. And gradually what emerged was not, as I had feared, more of the same stony matix or aggregate that clung to the surface, but rather a hard, bright, white core formed unmistakably of the ancient coralline limestone of the Keramas and fully attached at its base to the bedrock. So far as we were able to make out, the monolith appeared to have been smoothly and

perfectly cut down from top to bottom with a beautiful curve incorporated into it to match the curve of the pathways that were defined on either side of it and the curve of the central upright. I could even see, where Wolf had scraped away the growth particularly successfully, the original organisms that had fossilized millions of years ago to form the white coral rock out of which the entire perimeter of the circle and all its uprights had later been cut. Coral rock where it is available is an ideal construction material – and from the little stone blocks used to build private houses in the Maldives today, to the massive 'Trilithion' of ancient Tonga, to the megalithic temples of Malta, you can see the use of white coralline limestones in which the structure of the ancient fossilized organisms can clearly be made out.

I was grateful to Wolf for having done this little and obvious thing – obvious, anyway to a professional geologist –

i.e., for having established what the core material of Centre Circle's monoliths actually is. Because this kind of coralline limestone, as well as being visually and aesthetically striking, is also extremely hard. For a natural force to have cut such a material in such a complex way with sheer walls 4 metres deep, and with parallel curves and pathways – the whole hewn out as a semi-subterranean enclosure in the summit of an ancient mound – was, it seemed to me, something that Wolf was going to find very difficult to explain.

Half an hour later we were back on the boat. The principal underwater camera that the Channel 4 team had been using to shoot the dive had malfunctioned, and the director needed us to do it all again. But it was now after 2.30, the current had returned with a vengeance during the last fifteen minutes of the first dive, and it didn't look like we'd be able to get back in the water at all. We decided to sit at anchor until

five. Diving much after that, with nightfall coming, would not be safe this far out in the open ocean and we'd have to return to Okinawa with what we'd got. But if the current slackened before, then we would attempt a second dive.

Where has all the debris gone?

We did get our second dive when miraculously, just after 4.30, the buoy popped up from out of the current again. The light below was surprisingly good and we spent a useful forty-five minutes underwater. Certain scenes were shot with me in which Wolf was not needed – during these he went happily off exploring on his own. In other scenes we repeated for the camera what we'd done for real the first time around. Again Wolf scraped off growth from the base of a Centre Circle monolith and exposed the sheer white coralline

limestone beneath. Again I found myself fascinated by this bright underlying stone, cut from almost exactly the same sort of material as the most ancient and enduring megalithic structures of far-off Malta.

Indeed, by visualizing a Maltese temple like Hagar Qim or Gigantija in all its glory, its white coralline limestone megaliths reflecting the dazzling Mediterranean sunshine, I could begin to imagine how the two great rock-hewn circles of Kerama might have looked, in all their glory-, when all this area as far east as Okinawa was above water at the end of the Ice Age.

As you approached them from lower down the gentle slopes of the surrounding rocky massif – all of it formed out of the same 100-million-year-old fossilized coral reef-you would at first have not been aware that any structures were present there at all. Only from the rim of the enclosure

looking down would you have suddenly found yourself confronted by a majestic and mysterious spiral of glowing monoliths, the tallest more than twice the height of a tall man.

Unlike the uprights of the great Maltese temples, however, which were quarried elsewhere and then transported and erected on the temple sites, these Centre Circle monoliths had been quarried *in situ* out of the bedrock of the ancient mound – to which they were still attached at their bases.[2] That automatically classifies the whole edifice as a rock-hewn structure and, as at Yonaguni, one of the mysteries it confronts us with, if we are to imagine that the 'hewing' was done by natural forces, is – what happened to all the missing rock? The reader may easily verify from photos 78–80 that quite a large amount of this very hard rock would have had to be hewn out to free-up the monoliths and excavate the 4-

metre-deep semi-subterranean enclosure in which they are confined. As the photographs also show, none of this excavated rock is present as any form of rubble or debris within the two circles. This is a very troubling anomaly if the circles were made by natural forces, but is exactly what one would expect if they are the work of human beings.

Wolf on Kerama

Much to my surprise – because I had become so used to his hard-nosed scepticism at Yonaguni – Wolf stayed as open-minded on the problem of Centre Circle after our two dives as he had been when I'd shown him the tapes before we got in the water. Moreover, he was able to carry out on-board chemical tests on the samples that he had taken both from the core and from the aggregate of river stones plastered to

the outside of the monoliths.

The tests proved on camera – though it was already completely obvious to the naked eye – that these were two entirely different types of rock. The core, as we knew, was very ancient coralline limestone. The rounded cobbles caught up in the aggregate were sandstone and had, as Wolf judged:

> been shaped by waters, by running waters; this is beyond every doubt. These sandstones all show a rounded-out shape, and this leads us to two possible origination processes for these stones: one would be riverine waters, and the other one would be coastline beach, pebbles or something like that, which have been rolled forward and backward to get this rounded shape.

Wolf added that during the second dive, while I had been working with the cameraman, he had explored outside the perimeter of Centre Circle.

> What was special for me was to discover that these rather large cobbles, pebble stones, made of sandstone, which are glued to the uprights and inner formations, also appear in places outside the circle. So I dived a little sidewards – I don't know the direction – and then I found a field of the same pebbles, not really pebbles, it was really big, big stones, but scattered in a very chaotic way over the surface of the coralline bedrock.

Wolf's suggestion about these 'pebbles' of assorted sizes – which we also referred to in our conversations variously as boulders, cobbles and river stones – was the obvious one but, he warned, a pure guess. At some stage, probably millions of years after the fossilization and exposure of the ancient coral bedrock,

> a river has carried his load here … So maybe it sometimes had water and sometimes it dried out, changed the bed, and left the stones in here … So it seems that parts of this old coral reef were covered by these boulders

somehow transported by river, a very broad river, because the field seems to me to be very broad.

If it was a guess, it sounded like a good one.

But on the larger mystery of the monoliths and uprights of the rock-hewn circles Wolf admitted that he was completely dumbfounded – although he rightly cautioned that he could only speak from his own experience as a marine geologist. Perhaps other geologists had seen natural structures that were the same as or very similar to Centre Circle somewhere in the world and would be able explain the enigmatic curved parallel walls and well-shaped uprights. He could not, however.

Wolf: I have no explanation for these … for these …

GH: For the circles?

Wolf: For the circles, and for the structures inside them. For sure is that they must have been formatted after the pebbles were laid down on the coralline ground – because some of these pebbles are hanging over the canyons, so and they could not have come earlier … But I don't see any force which could have shaped these —

GH: —any force of nature, which could shape the circles and uprights?

Wolf: Yes, of course.

GH: So that leaves us …

Wolf: At the moment …

GH: That leaves us with one option then? Man-made.

Wolf: I don't know. I would not be …

GH: You wouldn't rush so fast?

Wolf: I would not go so far. I mean you have to do really a lot of research to establish that. But what is really strange is these parallel walls running round. It is very strange because if, for example, the erosive force were water, the two edges of a river bed or something like that are not exactly parallel to each other like these. So this is what I can say. And even solution, chemical solution does not leave hints like this, of this accuracy.

GH: Paralleling of walls?

Wolf: Paralleling accuracy.

GH: So what can be said for sure about this structure? Can we be sure about anything?

Wolf: What is clear is that we have an ancient fossilized coral reef and we have these pebbles scattered on top of it which came later. And then a second force started. This was the erosive force which then carved these structures out of the ground – if man or if nature.

GH: Now, you geologists will say ‘carved by nature’ and we poets will say ‘carved by man’.

Wolf: I don’t say anything definite. Much more research must be done. But I agree that this is very amazing and very strange, even to me, how these structural buildings could be formed. I haven’t seen such structures done by nature. I won’t dare say anything else about human activities because I do not know anything about that.

From a geologist as instinctively cautious and phlegmatic as Wolf Wichmann this was as close as I was ever likely to get to a confirmation that the rock-hewn stone circles of Kerama really could be man-made. Still, I couldn't resist pushing for more.

GH: I'll tell you why I think it's man-made.

Wolf: Yes, please.

GH: It's not just the sense of organization of the structure itself. It's the fact that we have an ancient culture on these islands which made stone circles. They are known to have made stone circles and some of those circles still survive – not like Centre Circle, smaller, with the largest blocks about half a tonne, and usually much less. But the idea of a stone circle and, indeed, of interlinked stone circles, was

something they did. So you know, when we look at Centre Circle and Small Centre Circle -and we know that we're on a set of islands where we have an ancient culture called the Jomon, who are known to have made stone circles -then to me it's less extraordinary, in a way, to attribute it to them – to the Jomon – than it is to any unknown force of nature. I don't deny that nature often provides a sense of organization, but it's the unique character of this in a land where we have a very ancient culture, actually which existed from 16,000 years ago until 2,000 years ago, the Jomon, who made stone circles … you know, I start wondering.

Wolf: OK, I can follow your point. But still it has to be proven that this is really done by the Jomon.

GH: Yes, yes, I agree.

Wolf: And this is very hard to find. You have to scratch and you have to clean it to find marks or to find any evidence, maybe in a series of other monuments being proven to have been constructed by this society.

GH: Yes. Well, we have many stone circles that have been constructed by that society, but this … amongst their stone circles, this would rank as the largest and the most unusual. But I repeat, we're on a set of islands here which had an ancient culture, the Jomon, that is recognized by historians. The earliest surviving work of that ancient culture goes back to the Ice Age, around 16,000 years ago. The Jomon were known to make stone circles. We have a stone

circle at a depth that is likely to have been exposed at some point during the Ice Age. What's the next logical step?

Wolf: No, no, I mean I agree to that, to that chain, to that chain – it's clear. But the last point … this is the point that you must prove. A theory remains a theory unless you have proof.

What I had at that moment was a theory about possible Jomon origins for the underwater monoliths and circles of Kerama, hinting at an early and as yet undiscovered phase of monumental construction in Jomon prehistory. That theory had just passed a very important hurdle, since an on-site investigation by a sceptical marine geologist had been unable to produce any viable natural explanation for the structures.

But it was still a theory.

Komakino Iseki underwater?

Having completed our work at Kerama, we parted company with Wolf the next morning. He flew back to Germany, and Santha and I carried on with the film crew to the north of Japan. There, eventually, we found ourselves at the wonderful Jomon stone circle of Komakino Iseki (see chapter 25) near the big site of Sannai-Muryama in Aomori Prefecture. Though it was by now late March, the weather was still freezing in the north, old snow was still lying on the ground and the whole scene presented a huge contrast to the tropical warmth and blue waters of Kerama.

While the crew were setting up, I paced amongst the stones, shivering with cold. The distinctive, rounded river stones of Komakino Iseki. Boulders, pebbles, cobbles, arranged in a series of concentric circles, the largest with a

diameter of 150 metres. And between the rings, groups of smaller circles, touching at the edges like the links of a chain …

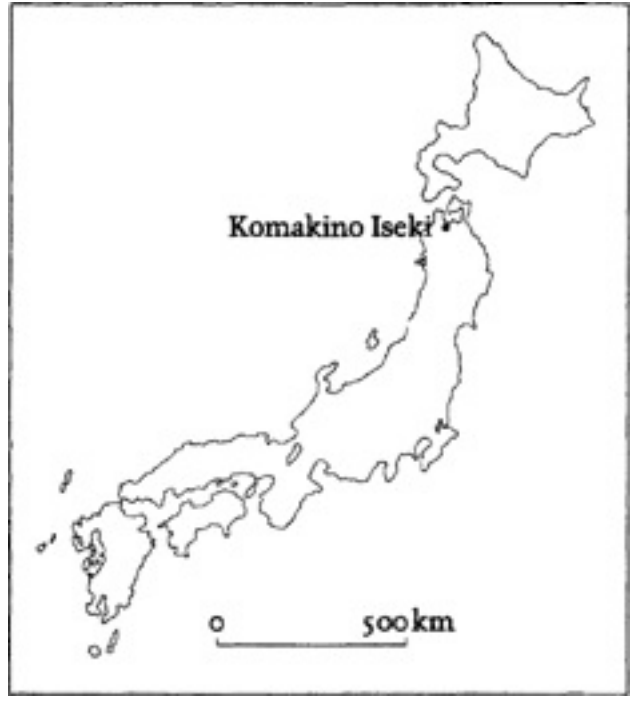

I'd already made the connection underwater a few days

earlier at Kerama. It had struck me as important then and I'd meant to look into it further with Wolf but had been prevented from doing so by shortage of time. It was the phenomenon that he had noticed independently when he'd gone off exploring on his own while I was working with the cameraman and which he'd later described as a boulder field – 'big stones disposed in a very chaotic way over the surface of the coralline bedrock'. But if I was right, the disposal of these big rounded river stones was not nearly so chaotic as Wolf had thought. I was pretty sure that I had seen his 'boulder field' too, and even videoed it briefly in 1999, and glimpsed it again on the first of the two dives we had just completed.

And where he had seen chaos I had seen order. Because when I had filmed them in 1999 some of the big rounded river stones scattered across the coralline plain had definitely

been arranged in circles, one stone laid lengthwise next to the other. As at Komakino Iseki, I remembered, these ‘circles’ were really more oval than truly circular in shape (though I shall continue to refer to them as circles for convenience). And as at Komakino Iseki, the stones had been medium-sized – typically around a metre in length or less.

So Kerama still wasn’t finished with me. On this latest trip, as on every previous trip, I had failed to do my job there properly. I’d been lured in by the glamour of the rock-hewn circles with their 4-metre-high monoliths. But I could see now how the proof of the Jomon connection I sought might all along have been lying in that humble ‘boulder field’ just beyond.

I was going to have to go back.

30 / The Shark at the Gate

> The origin of maps and geographical treatises goes far back into former ages.
>
> Phei Hsiu, Chinese geographer, AD 224–71

The earliest surviving reference to Taiwan in Chinese annals is in the *Sui-Shu* – the history of the Sui Dynasty, AD 581–618.[1] There it is classified amongst the Lu-Chu islands – the old Chinese name for what is now (with the exception of Taiwan) Japan's Ryukyu archipelago.[2] Starting at Yonaguni in the south-west – within sight of the mountains of Taiwan on a clear day – the Lu-Chu/Ryukyus extend through the Keramas and Okinawa almost as far to the north-east as Kyushu, and have been under discontinuous Japanese

hegemony since the fourteenth century. However, they did not officially become part of Japan until 1879.[3] It is therefore intriguing that very ancient Japanese legends 'definitely place *R'yugu*, the Sea King's sanctuary, in the Lu-Chu Islands'.[4]

The Japanese notion of the Sea-King's sanctuary, which the *Nihongi* calls 'the Palace of the God of the Sea'[5] and the *Kojiki* calls 'the Palace of the Kami Great-Ocean-Possessor',[6] is a rather complicated one. As we saw in chapter 26, its primary mythical setting is underwater, amidst huge stone structures looming up from the sea-bed, in a place that can only be reached by diving. But it also has elusive connections to an enchanted 'Spirit island', accessed by a magical journey across the sea, where human life dilates towards immortality – or so we may gather from the story of the man who spent

three years residing there and then returned to his home only to discover that 300 human years had passed. Last but not least, there seems to be an enigmatic link with the dark and terrifying Underworld of the Land of Yomi where the soul of Izanami fled after her death.[7]

When we turn to the traditions and mythology of ancient China we find the same ingredients – immortality, enchanted islands, the Underworld – often used in the same way. Thus, the oldest dynastic history, the *Shih Chi* (completed about 90 BC), tells us of voyages – sent to the same general area of the 'Great Eastern Ocean' that is occupied by the Ryukyus – in search of magical islands where the inhabitants were immortals thanks to their possession of 'the drug which will prevent death'.[8] And in another text, the *Ling Wai Tai Ta*, we read how 'In the Great Eastern Ocean there is a bank of sand

and rocks some myriads of *li* in length, and nearby is the *Wei-Lei*, the place where the water pours down into the Nine Underworlds.'[9]

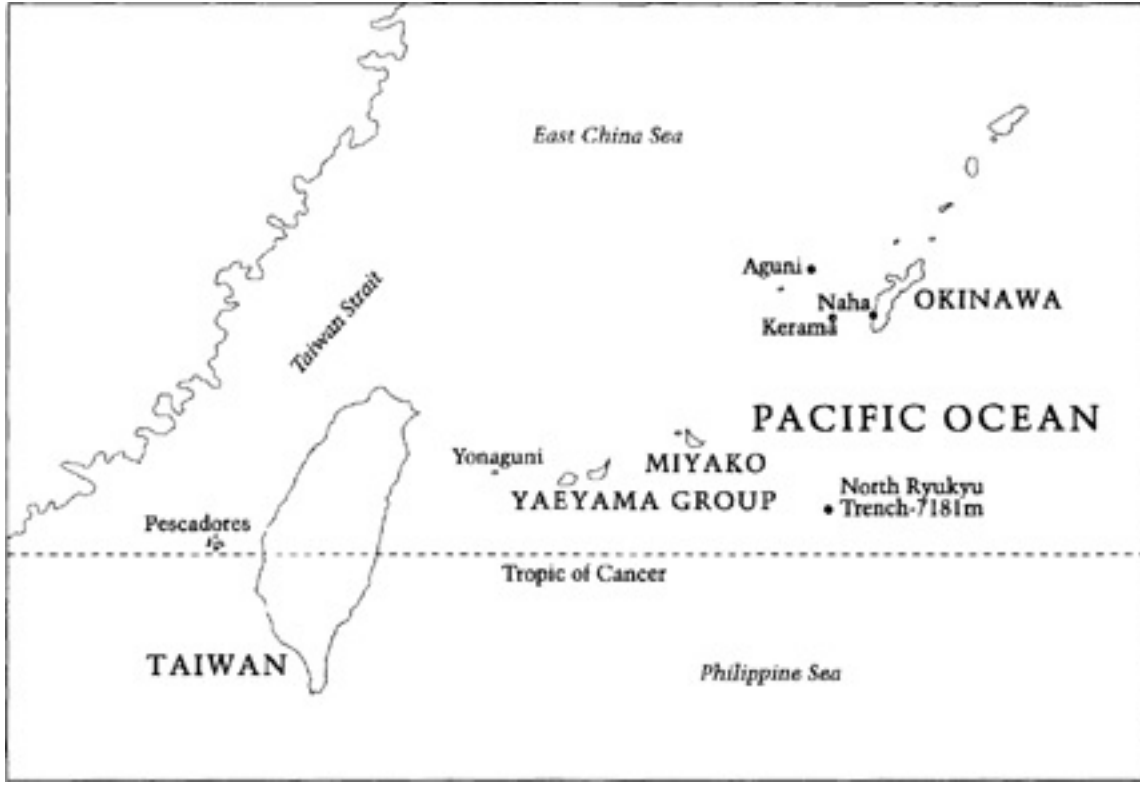

Since a *li* is equivalent to 0.309 of a mile,[10] then thousands of *li* (say 3000 of them?) must equal at least a thousand miles. One wonders *where* in the Eastern Ocean – i.e., the Pacific – such an enormous bank of rock and sand could have been located.

But perhaps it would be better to ask: *when?*

Abodes of the immortals

The Wei-Lei – which might be translated politely as 'the ultimate drain'[11] – has another, more beautiful, name in Japan. There it is called the Kuroshio, the Black Current or the Black Tide,[12] and we saw in chapter 25 how serious scholars at the Smithsonian Institution led by Betty Meggers believe that it may have carried Jomon seafarers all the way

across the Pacific to settle in the Americas more than 5000 years ago.[13] There are even indications of earlier Jomon migrations to the Americas going back as far as 15,000 years ago.[14]

I first set eyes on the Black Current – and you really can *see* it; it's an entity; it's alive; it is, I guess, a Kami – from the heights of Cape Ashizuri on the Japanese island of Shikoku, where groups of great megaliths stand gazing down on the rippling waters as though sharing a secret.[15] We know already that from there the Kuroshio runs north past the rest of the Japanese archipelago and thence across the Pacific. South of Shikoku and Kyushu, however, it also flows past Taiwan and the Ryukyu islands immediately to the east of the Chinese coast – the region of the Pacific most directly accessible to Chinese mariners.[16] Could it have been

somewhere hereabouts that the ancient Chinese believed 'the Wei-Lei drains into the world from which men do not return'?[17] The distinguished Sinologist Joseph Needham thought it should be further east -perhaps even as far east as the Americas,[18] a quasi-diffusionist view that was ahead of its time in 1971 when he expressed it. But there is no consensus.

Needham also attributed definite historicity to Chinese accounts of searches for magical islands.[19] The *Shih Chi* reports the exploits of a mariner named Hsu Fu, in the late third century BC. Rather like Columbus petitioning the sovereigns of Europe 1700 years later to fund his voyages of discovery *westwards* across the Atlantic in search of Antilia,[20] Hsu Fu petitioned the emperor of China in 219 BC with claims to have special knowledge of a wonderful domain of 'magic mountain islands' to the *east* of China in the Pacific:

> In the midst of the Eastern Sea there are three magic mountain islands, *Pheng Lai, Fang-Chang* and *Ying-Chou*, inhabited by immortals. We beg to be authorized to put to sea … to go and look for the abodes of the immortals hidden in the Eastern Ocean.[21]

The target of this voyage, which did receive the emperor's blessing, is stated to be far off 'in the midst of the Eastern Sea', but again there is no consensus as to its location. Hsu Fu went to look for it with a well-stocked fleet, said to have been carrying large numbers of young men and women and 'ample supplies of the seeds of the five grains'[22] – which suggests settlement plans. The *Shih Chi* records that he 'never came back to China'.[23] But confusingly, the same chronicle also reports other voyages – equally fruitless in terms of any definite discovery – which sought the same islands much closer to the Chinese coast:

> From the time of the Kings of Chhi [c.378 BC] … people were sent out into the ocean to search for the islands of *Pheng Lai, Fang-Chang* and *Ying-Chou.* These three holy mountain isles were reported to be in the midst of Po-Hai [the Gulf of Bo Hai], not so distant from human habitations … Many immortals live there, and the drug which will prevent death (*pu ssu chih yao)* is found there, but the difficulty [is] that … before you have reached them … these three holy mountain isles sink down below the water – or else a wind suddenly drives the ship away from them. So no one can really reach them …[24]

Convergence

All taken together it seems fair to say that the Chinese myths contain very much the same sort of strange brew as do their Japanese counterparts – of an entrance to the Underworld, of enchanted islands and of kingdoms beneath the sea. But

where Japanese traditions specify the location of the Kingdom of the Sea-King as being somewhere in the Lu-Chu islands, Chinese references to Pheng Lai, Fang-Chang and Ying-Chou, 'the islands of the Sea Mage',[25] are contradictory as to location – varying from Hsu Fu's unspecified destination in the midst of the Pacific Ocean to somewhere extremely close to home like the Bo Hai Gulf (which lies between the city of Tianjin and Korea Bay at the northern end of the Yellow Sea).

Perhaps the contradiction is less than it seems, however, for Hsu Fu is venerated as a Kami in Japan. There he is the Kami Jofuku whose tomb-shrine exists to this day at Shingu in Wakayama Prefecture of southern Honshu,[26] which, like Cape Ashizuri in nearby Shikoku, overlooks the course of the Black Current. If there is truth to this strange tradition of Hsu

Fu's settlement at Shingu then it suggests that the islands of the Sea Mage 'hidden in the Eastern Ocean' to which he had directed his expedition must all along have been somewhere in the vicinity of southern Japan.

Although this cannot be confirmed, I suspect that the convergence of myths from both China and Japan does hint at something very real – perhaps even a shared memory of a lost land with 'palaces and towers', once believed to be enchanted and inhabited by 'immortals', that now lies beneath the sea.

Lu-Chu and Bo Hai

And where are we to look for this lost land, should we wish to rediscover it? Across the two traditions the only clear pointers given to its whereabouts are that it is to be found

somewhere in the Lu-Chu islands – effectively anywhere along the arc from Taiwan to Kyushu – or near the northern terminus of the Yellow Sea in the Bo Hai Gulf. These locations are not proximate but are at opposite ends of the same region. Both are highly plausible as potential locations for ‘palaces beneath the sea’.

At the end of the Ice Age we know that the Ryukyu islands were larger than they are today. There was therefore ample room along their antediluvian shores for any number of ‘palaces’ to be built – and later submerged as sea-levels rose. Moreover, as I’ve endeavoured to show in the preceding pages, a number of extraordinary underwater structures that seem increasingly likely to have been made by humans at the end of the Ice Age *have already been found* around the Ryukyus.

Likewise, if we look at the Bo Hai Gulf on Glenn Milne’s

inundation maps, we discover that it too has an interesting story to tell. Down to 14,600 years ago it was dry and far from the sea (opposite, above). By 13,500 years ago, however, we observe that the Yellow Sea has penetrated deeply inland towards the modern coast of China and has carved out the Korean peninsula for the first time – but the Bo Hai Gulf is still dry (opposite, below).

Then we come to the map for 12,400 years ago (page 660). In between Shikoku and Honshu we see, still well preserved, the correlation with the Bungo Strait much as it is portrayed on the 1424 chart. And at the northern end of the Yellow Sea we see that the Bo Hai Gulf has at last succumbed to partial inundation. Within it, rather strikingly, an island has materialized. Though it is beyond the resolution limits of Milne's computer model, it is perfectly possible that the single island shown could then or at some stage afterwards

have been divided up into three smaller islands exactly as the *Shih Chi* seems to remember. Either way its presence in the palaeo-Bo Hai Gulf is intriguing and obliges us to wonder exactly what it was that inspired the Chinese in the third and fourth centuries BC to make so many real voyages into the Eastern Ocean in search of islands that did not exist.

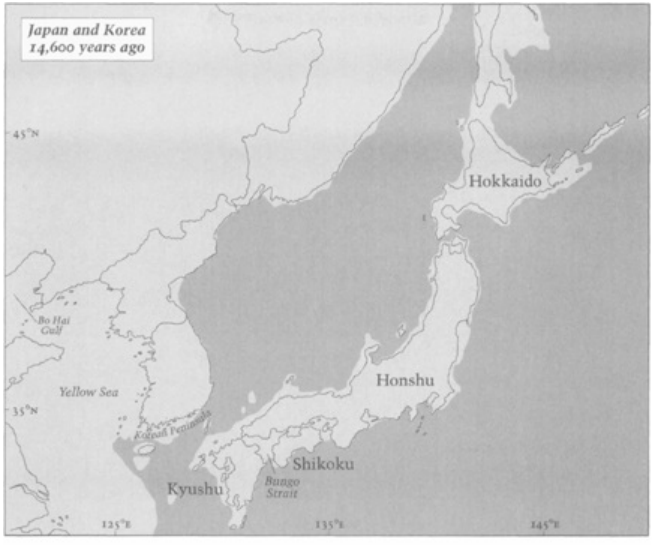
Japan and Korea
14,600 years ago
45°N
35°N
125°E
135°E
145°E
Hokkaido
Honshu
Shikoku
Kyushu
Bungo Strait
Yellow Sea
Bo Hai Gulf
Korean Peninsula

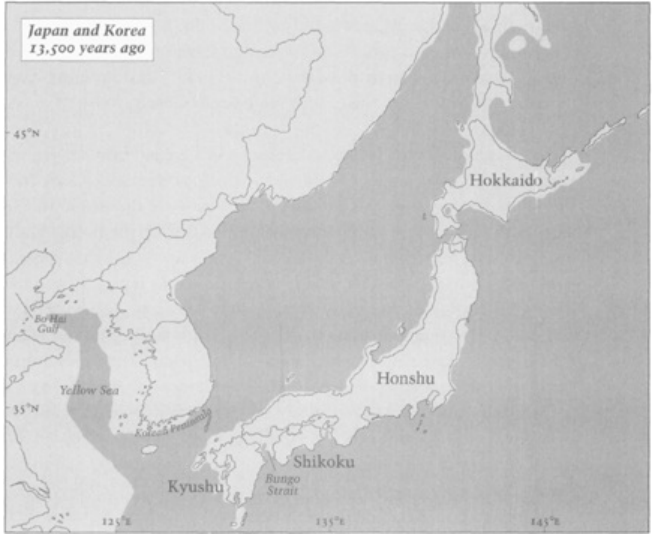
Japan and Korea
13,500 years ago
45°N
35°N
125°E
135°E
145°E
Hokkaido
Honshu
Shikoku
Kyushu
Bungo Strait
Yellow Sea
Bo Hai Gulf
Korean Peninsula

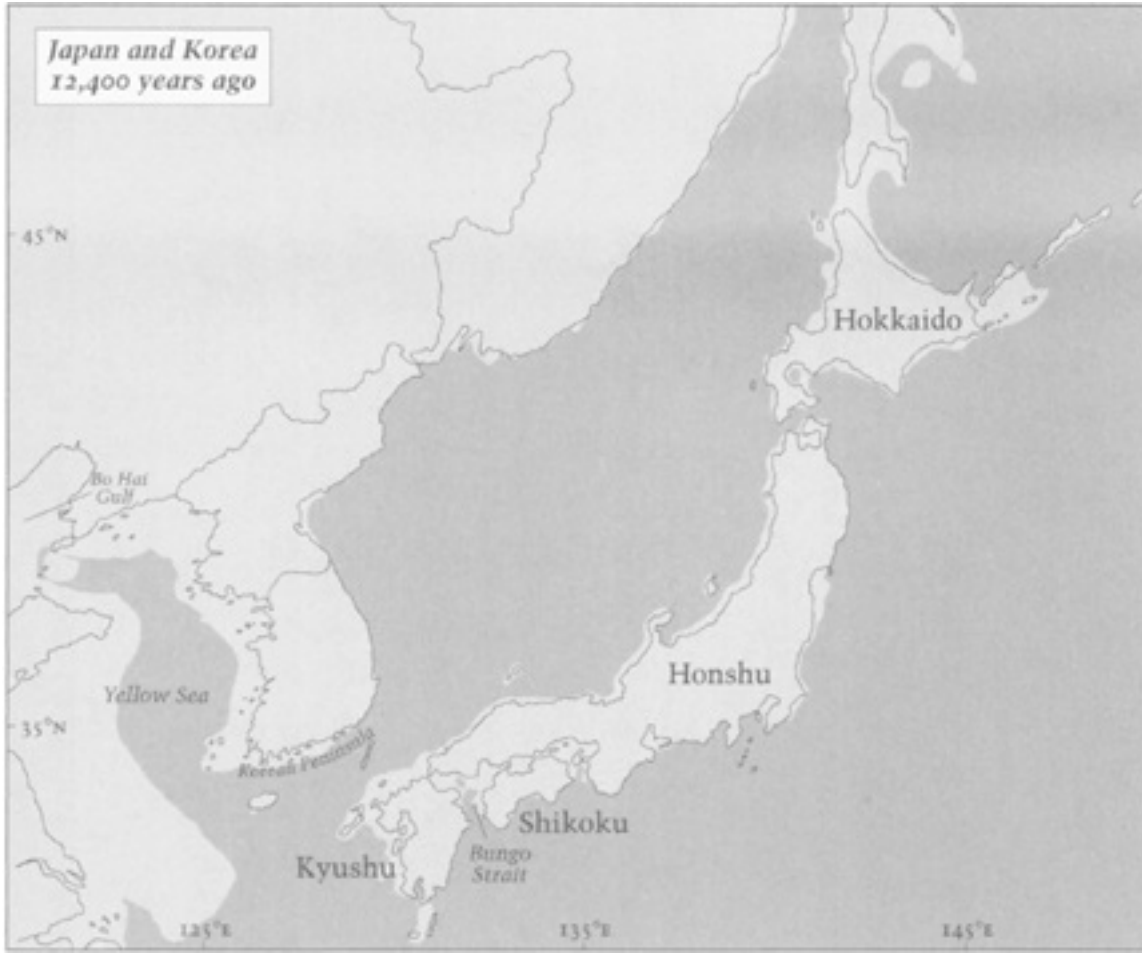
Japan and Korea
12,400 years ago
45°N
35°N
125°E
135°E
145°E
Hokkaido
Honshu
Shikoku
Kyushu
Bungo
Strait
Yellow Sea
Bo Hai
Gulf
Korean Peninsula

Could it have been a legacy of ancient maps copied from copies of copies of copies of even more ancient maps, the originals of which had been drawn before the rising sea-levels at the end of the Ice Age gave the world its post-glacial face? If not, what other explanation is there? After all, the Bo Hai Gulf has been in its present form for at least the last 9000 years – so what possible reason could the chronicler of the *Shih Chi* around 90 BC have had to imagine that there could ever have been any dry land in it, let alone a group of islands? Why should the Chinese have gone to such lengths to seek out those islands – over a period of two centuries – when it was plainly such a fruitless enterprise? And must we resort to 'coincidence' again to explain what appears to be a piece of truly anachronistic geographical knowledge in the possession of the mariners who pursued the search – i.e., that an island or islands, which could never be found because it

had sunk beneath the waves, did once exist in the Gulf of Bo Hai?

Think about it. What are the odds against the Chinese seafarers of 2300 years ago getting their palaeo-geography so right purely by chance? Or we can come at the question from another direction? How likely is it that China's historical quest for the three 'holy mountain isles' in the Gulf of Bo Hai was inspired by meaningless myths – as orthodox historians must conclude – when we now know that an island or islands did exist in the Gulf of Bo Hai 12,400 years ago and did subsequently 'sink down below the water' as the *Shih Chi* maintains?

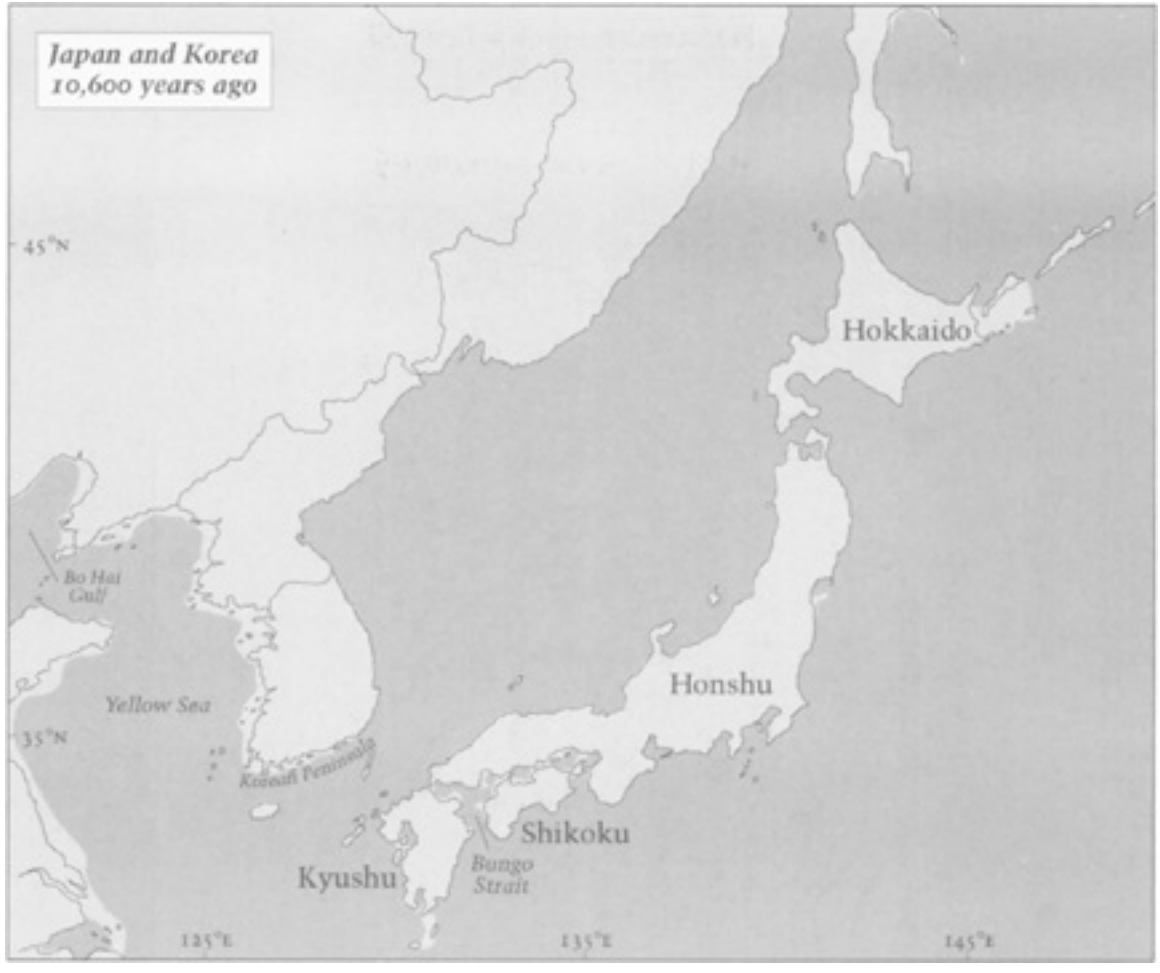

The palaeo-island was gone within 1800 years, as we see

on the next inundation map in the sequence (for 10,600 years ago, above). The maps also show that the entire span of the island's existence did not exceed 3000 years, since it had not yet taken shape 13,500 years ago

And though the *Shih Chi* does not give us a written description of the palaeo-geography of the Yellow Sea for 13,500 years ago (as it seems to for 12,400 years ago), it is a remarkable anomaly of history that something looking very much like a graphic representation of the Yellow Sea and its coastline 13,500 years ago has survived. Now kept in the 'Forest of Steles' in Xian, it is a good Chinese map (Needham describes it as 'magnificent'),[27] carved in stone in AD 1137, called the *Hua I Thu* ('Map of China and the Barbarian Countries').[28] In a refrain familiar from our investigation of the sometimes strangely anachronistic portolans of the West

it is known to have been based on older sources.[29] Nobody can be absolutely sure how much older. But if ever there was a land in which we might expect to encounter an ancient map-making tradition, then that land is surely China.

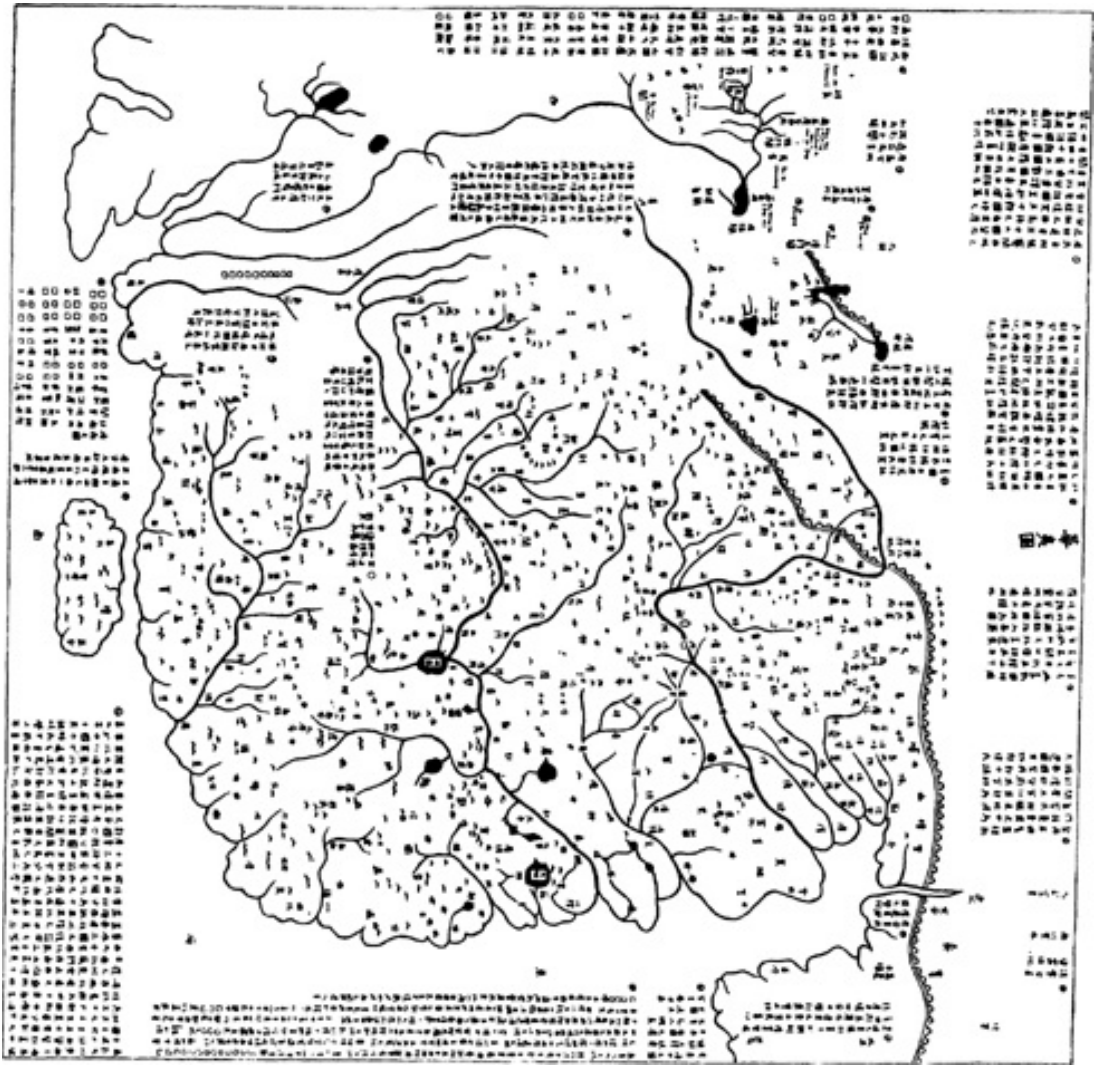

Hua I Thu Chinese map of AD 1137.

At around the time that the maps attributed to Marinus of Tyre were being circulated in the Mediterranean, a great Chinese geographer, Chang Heng (AD 78–139) was producing maps of unbelievably high quality in China. Like Marinus, he is often credited by historians with having introduced a grid system for maps – it being said of him that he had 'cast a network of coordinates about heaven and earth, and reckoned on the basis of it'. The title of one of his lost books was 'Discourse on Net Calculations' and there was also a 'Bird's-Eye Map'.[30]

It is clear, however, that Chang Heng, who is considered

one of the ‘fathers’ of scientific cartography in China, must himself have been the ‘son’ of a much earlier and older tradition – for one does not reach his level of sophistication without a vast store of prior knowledge and experience to build upon. That such a store or archive did exist, and that it did contain extremely ancient material, is confirmed in the dynastic chronicles which also give prominence to the works of another great Chinese geographer, Phei Hsiu (AD 224–271):

> Phei Hsiu made a critical study of ancient texts, rejected what was dubious [outdated by climate change?], and classified, whenever he could, the ancient names which had disappeared [because inundated?]; finally composing a geographical map in 18 sheets. He presented it to the emperor, who kept it in secret archives.[31]

The chronicles also cite the full text of Phei Hsiu’s preface to his Atlas, in which he laments the loss of geographical

knowledge from earlier times (emphases added):

> *The origin of maps and geographical treatises goes far back into former ages.* Under the three dynasties [Hsia, Shang and Chou,[32] c. 2000–1000 BC][33] there were special officials for this *[Kuo Shih)*. Then when the Han people sacked Hsien-yang, Hsiao Ho collected all the maps and documents of the Chhin. *Now it is no longer possible to find the old maps in secret archives*, and even those which Hsiao Ho found are missing; we have only maps, both general and local, from the later Han time. None of these employs a graduated scale *(fen lu)* and none of them is arranged in a rectangular grid.[34]

The implication is not only archives of maps going back thousands of years but also that the rectangular grid was known very early in Chinese history, then fell into disuse under the Han in the first millennium BC, and was then later reintroduced by Chang Heng, the contemporary of Marinus of

Tyre, when he cast his ‘network of coordinates about heaven and earth’.

So we have a confirmed cartographic science in China from around 2000 years ago (Chang Heng, Phei Hsiu), and references to an ancestral tradition more than 2000 years older than that – which presumably was itself not new in 2000 BC when ‘special officials’ already existed dedicated to the archiving and probably copying of ancient maps.

It is against this long background, therefore, which disappears into prehistory and has no known beginning in China, that we should evaluate the *Hua I Thu* – the Chinese map of AD 1137 said to have been based on older sources – which I have claimed shows the Yellow Sea and the Korean peninsula not as they looked in AD 1137 but as they looked 13,500 years ago. Although other interesting issues are raised

by the *Hua I Thu*, I will confine my remarks here to the north-eastern segment of the map, around the Yellow Sea. In the diagrams overleaf the reader may compare the Yellow Sea and the Korean peninsula as they appear on a modern map with the same areas on the inundation map for 13,500 years ago and on the *Hua I Thu*. It will be observed that an excellent level of correspondence does in fact exist between the latter two and that the *Hua I Thu's* portrayal, though a bad one of the Yellow Sea as it looked in 1137 – and as it still looks today – is rather a good one if it represents the Yellow Sea 13,500 years ago. Particularly noticeable is the absence on both the *Hua I Thu* and the inundation map of the Shantung peninsula, a prominent feature of the northern end of the Yellow Sea, which the rising waters began to carve out some time after 13,000 years ago and which took on its modern form about 10,000 years ago.

(Left) ***The Yellow Sea as shown on the Hua I Thu map of AD 1137.***

Bo Hai Gulf
Korea
Bay
Shantung
peninsula
Yellow
Sea

(Below left) ***Modern map of the Yellow Sea.***

40°N
35°N
125°E

(Below right) ***The Yellow Sea as it looked 13,500 years ago.***

Nor can it be claimed that the Chinese of 1137 were simply ignorant of the Shantung peninsula. On the contrary we can prove that they knew it very well – because another map, also carved on stone in 1137 and also preserved in the Forest of Steles at Xian, shows it very clearly and with great accuracy much as it looks today. Called the *Yu Chi Thu* ('Map of the Tracks of Yu'), it too is a copy of an earlier original but, as Joseph Needham observes, 'has a more modern look' than the *Hua I Thu* and seems to belong 'to a different tradition'.[35]

Could this be because the *Hua I Thu's* portrayal of the

Yellow Sea was derived directly from a very ancient source map – perhaps stored with many others in the Imperial archives – while the *Yu Chi Thu* incorporates the results of Chinese maritime expeditions that we know had explored the region thoroughly at least as early as the third century BC?

Cutting Korea down to size

Deferring for the moment our parallel interest in the lost islands and sunken kingdoms of the Ryukyu archipelago, what do we have so far concerning Korea and the northern end of the Yellow Sea?

In summary we have geographical traditions, recorded in the *Shih Chi*, which place the lost 'islands of the Sea Mage' in the Bo Hai Gulf. There was an island in the right place

12,400 years ago. We also have a Chinese map copied from earlier sources on to stone in AD 1137 that anomalously fails to show the Shantung peninsula and that greatly narrows the Yellow Sea between China and Korea. However, there was no Shantung peninsula, and the Yellow Sea was narrowed in exactly this way 13,500 years ago.

Reduced to bare essentials, therefore, what the *Shih Chi* and the *Hua I Thu* both proclaim is that Korea was larger in the past than now. This is completely true. Yet as the inundation maps show, the Korean coastline has remained unchanged for the last 9000 years – having done all its shrinking in the 5000 years prior to that. It follows that if these are memories of a formerly much larger Korea then they must be at least 9000 years old.

Japan too preserves such memories – if they are memories. In the *Fudoki* we read of an exploit of Sosano-wo-no-Mikoto,

the great Kami called Brave-Swift-Impetuous-Male, whom we encountered in chapter 26. Seeing that parts of the Korean peninsula are much larger than they should be, he removes them, draws them away ('slowly, slowly, like a river boat') and sews them on to Japan.[36] I have nothing to say about the latter part of the myth, but I do think the bit about the subtraction of land from Korea is interesting: 'Perceiving that it had a portion in excess, he took up a spade, wide and flat like the breast of a maiden, and thrust it into the land, parting it asunder as one cuts the gills of a huge fish, and severing it.'[37]

Sosano repeats this process with several other parts of Korea until he is satisfied[38] and, presumably, the peninsula has taken on its present shape.

The myth is called 'the drawing of the lands'. What it

conjures up in my mind are not images of a spade shaped like a maiden's breast, attractive though the concept may be, but inundation maps of this area between roughly 14,600 and 10,600 years ago. These do show lands being 'sliced away' piecemeal as the basin of the Yellow Sea filled up to allow the Korean peninsula to emerge. Therefore, although it may have come about by chance and have no significance whatsoever, what confronts us in this text is another time-capsule of accurate geographical information on the region as it looked during the meltdown of the Ice Age.

The Fall

There are, I think, too many such time-capsules of ancient geography scattered across too many sources from too many lands – myths and folklore, maps and traditions – for every

example to be explained away as coincidence. I am convinced that something must lie behind all this and that the odds are rising in favour of a significant forgotten episode in the story of civilization localized in time at the end of the Ice Age. The hypothesis I have followed, which receives virtually unlimited support from world deluge myths, is that the discontinuity – some might call it the Fall – was a direct product of episodes of post-glacial flooding and linked cataclysms. So it follows that the evidence for what we have lost – which might explain how and by whom the world came to be mapped more than 12,000 years ago – should be found on the bottom of the sea.

The entire ‘arc’ from Taiwan in the south, north-eastwards through all the islands of the Ryukyu archipelago, brushing the tip of Kyushu, leaping across the Korea Strait and thence into the Yellow Sea, Korea Bay and Bo Hai Bay, encloses an

area with enormous potential for underwater discoveries.

For me it is an underworld – an ancient domain of forgotten ancestors. Like the others we have entered in this book – in the Mediterranean, in the Atlantic, in the Indian Ocean – I believe it will have to be explored thoroughly one day if we really want to know the truth about our prehistory.

But by March 2001 I was also beginning to feel that I personally had done all I could to initiate the necessary exploration – and after four years of diving in the Ryukyus I had every reason to expect that the trip with Wolf Wichmann would be the last I would need to do. As I reported in chapter 29, however, Komakino Iseki changed my mind. The resemblance of its circles of river stones to the circles of river stones I'd glimpsed on the sea-bed at Kerama had to be followed up.

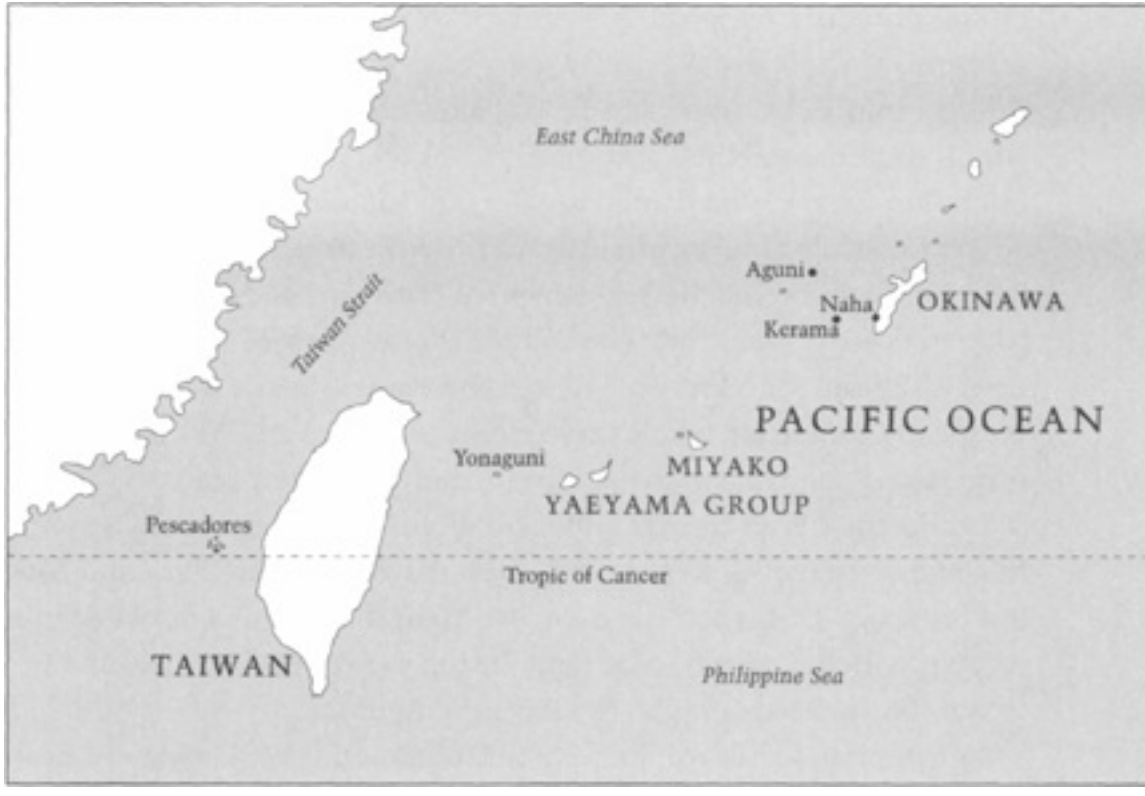

Then came the news that an underwater site had been discovered in Taiwan's Peng-Hu archipelago – the Pescadores Islands – and my Japanese colleagues and I began to plan a

short expedition there for late August 2001. Since Taiwan is so close to Okinawa, it obviously also made sense to redive Kerama on the same trip.

Getting from base-3 to point 'D'

August 2001, Taiwan

We're nearing the end of a long story and this is not the place to introduce new characters, plots or locations. But I will mention some of the qualities of Taiwan which place it firmly amongst the usual suspects.

- It was isolated from mainland China by rising sea-levels at the end of the Ice Age when huge areas to its west, south and north were massively inundated.

- It has rich and extensive indigenous flood myths.
- It has megaliths more than 5000 years old positioned on a highly significant geodetic location.
- It has underwater ruins.

I will not delay the reader with lengthy quotations from the very many Taiwanese flood myths that were collected from amongst the indigenous population, primarily by Japanese scholars, in the nineteenth and early twentieth centuries.[39] Typically they tell a story of a warning from the gods, the sound of thunder in the sky, terrifying earthquakes, the pouring down of a wall of water which engulfs mankind, and the survival of a remnant who had either fled to mountain tops or who floated to safety on some sort of improvised vessel.[40]

To provide just one example (from the Ami tribe of central Taiwan), we hear how the four gods of the sea conspired with two gods of the land, Kabitt and Aka, to destroy mankind. The gods of the sea warned Kabitt and Aka: 'In five days when the round moon appears, the sea will make a booming sound: then escape to a mountain where there are stars.' Kabitt and Aka heeded the warning immediately and fled to the mountain and 'when they reached the summit, the sea suddenly began to make the sound and rose higher and higher'.[41] All the lowland settlements were inundated but two children, Sura and Nakao, were not drowned: 'For when the flood overtook them, they embarked in a wooden mortar, which chanced to be lying in the yard of their house, and in that frail vessel they floated safely to the Ragasan mountain.'[42]

So here, handed down since time immemorial by Taiwanese headhunters, we have the essence of the story of Noah's Ark, which is also the story of Manu and the story of Zisudra and (with astonishingly minor variations) the story of all the deluge escapees and survivors in all the world.[43] At some point a real investigation should be mounted into why it is that furious tribes of archaeologists, ethnologists and anthropologists continue to describe the similarities amongst these myths of earth-destroying floods as coincidental, rooted in exaggeration, etc., and thus irrelevant as historical testimony. This is contrary to reason when we know that over a period of roughly 10,000 years between 17,000 and 7000 years ago more than 25 million square kilometres of the earth's surface were inundated. The flood epoch was a reality and in my opinion, since our ancestors went through it, it is not surprising that they told stories and bequeathed to us

their shared memories of it. As well as continuing to unveil it through sciences like inundation mapping and palaeo-climatology, therefore, I suggest that if we want to learn what the world was *really* like during the meltdown we should LISTEN TO THE MYTHS.

If you do that you cannot fail to notice, across the 600 or so ancient flood myths known to scholarship, that the events they describe, again and again, were truly terrifying ones. Terrifying. And while we must accept, because the archaeologists say so, that humanity 16,000 or 12,000 years ago was made up entirely of 'primitive' hunter-gatherers, the myths themselves often tell a very different story – when they speak, for example, of the antediluvian cities of the Sumerians or of the Atlanteans before the Fall. If the myths are important memories repackaged as narratives that could be passed down from generation to generation, then what are

we to make of memories such as these?

Along with growing numbers of people today I have the uneasy sense that science has not fully understood the peoples of the flood epoch – and that some global cultural development of great significance may have been underway at that time which was lost or severely dislocated in the inundations. Above all else it is hints and clues, first to the existence of this lost episode of cultural development and secondly to its character, that I have sought in the geographical anomalies of ancient maps – which are not anomalies if they chart the effects of changing sea-levels at the end of the Ice Age – and in my global search for underwater monuments that were submerged at the same time. I propose that the consistent patterns of map anomalies that we have documented – from Hy-Brasil to India to Japan – bear mute witness to an ancient science of cartography and

navigation that explored the world and charted it accurately over a period of several thousand years during the post-glacial meltdown.

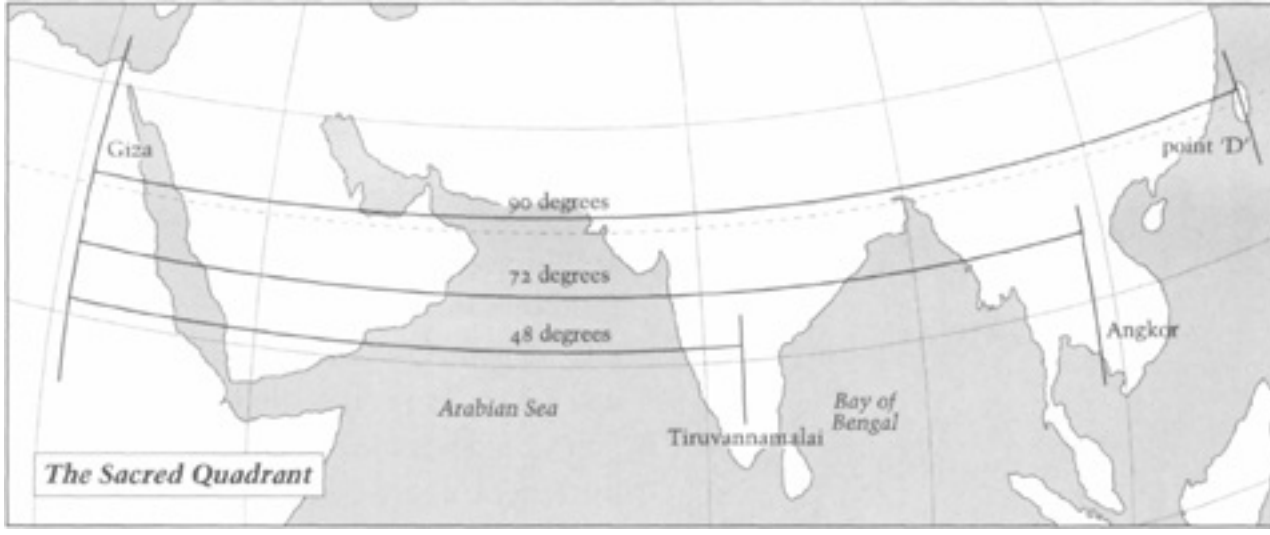

The longitudinal distances, in degrees, from Giza to Tiruvannamalai, Angkor and point 'D' appear to be based

on geometric and astronomical constants.

Nor are the maps the only evidence of that conjectured lost geography. Another point that I have touched on from time to time is relevant here. This is the apparently planned construction all around the world of sacred, often megalithic, sites on *specific relative longitudes.* I have commented in this book on the intriguing longitudinal relationship that exists between the Pyramids of Giza in Egypt, the great temple of Arunachela at Tiruvannamalai in south India and the temples of Angkor in Cambodia (Arunachela is 48 degrees of longitude east of Giza; Angkor is 24 degrees of longitude east of Arunachela; $48 \div 2 = 24$; $48 + 24 = 72$; $5 \times 72 =$ the 360 degrees of a circle). As I have indicated, these numbers, and others in the same sequence, turn up *repeatedly* in

ancient myths from all parts of the world.[44] The sequence bears a relationship, which may or may not be causal, to the astronomical phenomenon known as the precession of the equinoxes (which proceeds, in round numbers, at the rate of 1 degree every 72 years).[45] But all the numbers that compose the sequence in the myths also have something else in common – literally their lowest common denominator. They are all divisible by 3.

The number $90 = 30 \times 3$. In terms of the circle (of which it is exactly one quarter), of geometry (the right angle), and of navigation, there is no doubt that 90 degrees is a significant figure. If point 'A' is 90 degrees of longitude away from point 'D' then the two longitudes ('A' and 'D') are, literally, a quarter of the earth apart from one another. And if there is a sacred site on point 'A' – the Pyramids of Giza -and a sacred site on point 'D' as well, then you would have to be

really bad at mental arithmetic not to notice the peculiar longitudal relationship, based on the lowest common denominator of 3, that seems to link both of them to Tiruvannamalai and to Angkor within the same quadrant. Whether it is by accident, or it is the result of some ancient geodetic survey that founded marker shrines on key longitudes that were later elaborated into monuments, the following 3-based relationships do exist: Tiruvannamalai with its Siva cult is 16 × 3 degrees (i.e., 48 degrees) east of Giza, Angkor is 24 × 3 degrees (i.e., 72 degrees) east of Giza; point 'D' is 30 × 3 degrees (i.e., 90 degrees) east of Giza. In addition, point 'D' is 6 × 3 (i.e., 18 degrees) east of Angkor and 14 × 3 (i.e., 42 degrees) east of Tiruvannamalai.

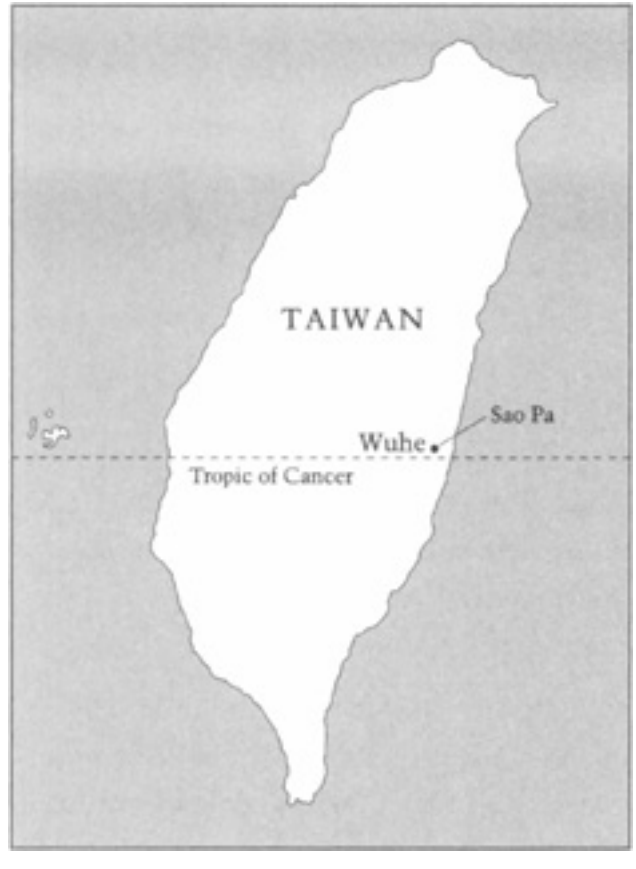

So what and where is this mysterious point 'D' so intricately linked by base-3 geodesy to Angkor, Giza and

Tiruvannamalai? It is a spectacular megalithic site in central Taiwan, up in the mountains where the flood survivors went – up on the Wuhe plateau of the central highlands. And not only is it 90 degrees east of Giza. An additional bonus, as I was to discover when I checked its bearings on my GPS, is that it lies almost exactly on the Tropic of Cancer, where at midday on the summer solstice a gnomon – or vertical upright – will cast no shadow.

I didn't even know point 'D' existed when we started our trip to Taiwan in August 2001 – but I had asked our local contacts there to introduce us to any interesting megaliths on the island. They took us to the Wuhe plateau, where by far the most spectacular and truly monumental of Taiwan's many megalithic sites is to be found at Sao Pa, ringed by distant peaks and overlooking a river valley of stunning, simple beauty.

Although folklore has it that two other megaliths originally stood at Sao Pa, only two have come down to us today. Carved in one piece out of black slate, both are classic stele or menhirs, tall and narrow, the larger 7.4 metres in height and the smaller just over 5 metres high. Both show a clean-cut horizontal groove at 'neck' level which is indeed somewhat suggestive of a neck and gives the menhirs a statue-like form.

- In round numbers of degrees and minutes the present latitude of the Tropic of Cancer is 23 degrees 27 minutes north. The location of the Sao Pa menhirs is 23 degrees 28 minutes north. The difference between the two is therefore one minute – i.e., 1/60 of a single degree.
- In round numbers the longitude of the Great Pyramid of Giza is 31 degrees 07 minutes east (i.e., east of the

arbitrary and recent Greenwich Meridian); the longitude of the Sao Pa menhirs is 121 degrees 21 minutes east of Greenwich – the difference between the two is therefore 90 degrees, within 14/60 (i.e., less than a quarter) of a single degree.

In summary, if we impose on a map of the earth a 'world grid' with Giza (not Greenwich) as its prime meridian, then hidden relationships become immediately apparent between sites that previously seemed to be on random, unrelated longitudes. On such a grid, as we've just seen, Tiruvannamalai stands on longitude 48 degrees east, Angkor stands on longitude of 72 degrees east and Sao Pa stands out like a sore thumb on longitude 90 degrees east – all numbers that are significant in ancient myths, significant in astronomy (through the study of precession), and closely interrelated

through the base-3 system.

So the ‘outrageous hypothesis’ which is being proposed here is that the world was mapped repeatedly over a long period at the end of the Ice Age – to standards of accuracy that would not again be achieved until the end of the eighteenth century. It is proposed that the same people who made the maps also established their grid materially, on the ground, by consecrating a *physical network* of sites around the world on longitudes that were significant to them. And it is proposed that this happened a very long time ago, before history began, but that later cultures put new monuments on top of the ancient sites which they continued to venerate as sacred, perhaps also inheriting some of the knowledge and religious ideas of the original navigators and builders.

And the original navigators and builders themselves? What direct traces of their civilization are to be found?

This brings us back to the underwater quest – for the traces, anywhere and everywhere around the world, of submerged structures that *do not make sense within the current paradigm of prehistory*. We've followed those traces from the Indian Ocean and the Persian Gulf, through the Mediterranean, into the Atlantic and now finally to the underworld of the East China and Yellow Seas that is bounded in the north by the Korean peninsula and Kyushu, in the east and south-east by the arc of the Ryukyu archipelago, and in the south by Taiwan.

Having explored other anomalous submerged sites in the same region – Aguni, Kerama, Chatan, Yonaguni – I was intrigued, but not surprised, when I first heard that a strange underwater structure had been found off Taiwan's Pescadores islands.

Diving at Tiger Well

I will not repeat the inundation history of the Pescadores given in chapter 28 or of the former island that lay to their north near the spot marked by Ymana on the 1424 Antilia chart. Irrespective of the Ymana issue, however, it is obvious that the Pescadores in their own right – located on the tip of a strategic peninsula of mainland China 13,500 years ago, then later one island, then later still the 64 tiny remnants that are seen today – are a plausible location in which to search for underwater ruins from the flood epoch.

They are plausible for another reason too. Ancient myths of the Pescadores speak of a great castle with huge ‘red’ walls that lies submerged somewhere amongst the islands. It was precisely these myths that led a government official to ask the brilliant Taiwanese diver Steve Shieh to look for

underwater ruins if he happened to be working in the area. Over a period of several years, Steve complied, searching the waters around most of the islands. Eventually he was rewarded with an extraordinary discovery off the island of Hu-ching ('Tiger Well'). This happened more than twenty years ago and has received no attention or publicity in the West. Luckily for me, however, TBS, a large Japanese TV station, ran a report on Steve and his discovery as recently as January 2001. The report was seen by several Japanese friends, who drew it to my attention.

We did two days of diving with Steve Shieh off Hu-ching island at the end of August 2001.

The structure that he showed us consists of two immense walls, hundreds of metres in length, one running due north-south and the other running due east-west, crossing the north-south wall at right angles. At the east end of the east-

west wall is a large circular enclosure, part of which has completely collapsed. The east-west wall is in relatively shallow water – 4 to 6 metres depth. The north-south wall starts at 4 metres depth but can be followed down to 36 metres depth. All the walls are a consistent height of 3 metres from the base to the top of the wall; however, some sections are broken.

In a volcanic, earthquake-prone area such as Taiwan one must be conscious of the possibility that such walls could be natural features – specifically basaltic dykes (quite common around the Pescadores). Such dykes form when a wall-like mass of igneous rock intrudes into cracks in older sedimentary rock.[46]

Despite extremely strong currents flowing unpredictably from eight different directions (why are there always currents

around underwater monuments?), I was able to examine the walls quite thoroughly. My initial impression is that they are not basaltic dykes. This is mainly so because, after scraping off marine-growth from several sections of the walls, Steve showed me courses of individual blocks laid tightly together side-by-side. The joints between the blocks in some cases admit the point of a knife and it was possible for me to work the knife blade in as far as the hilt and move it entirely around individual blocks. In addition the nice north-south and east-west orientation of the walls, though possible naturally, is a strong indicator that humans were involved. Finally, there is that ancient local legend about a ‘castle’ that vanished beneath the sea …

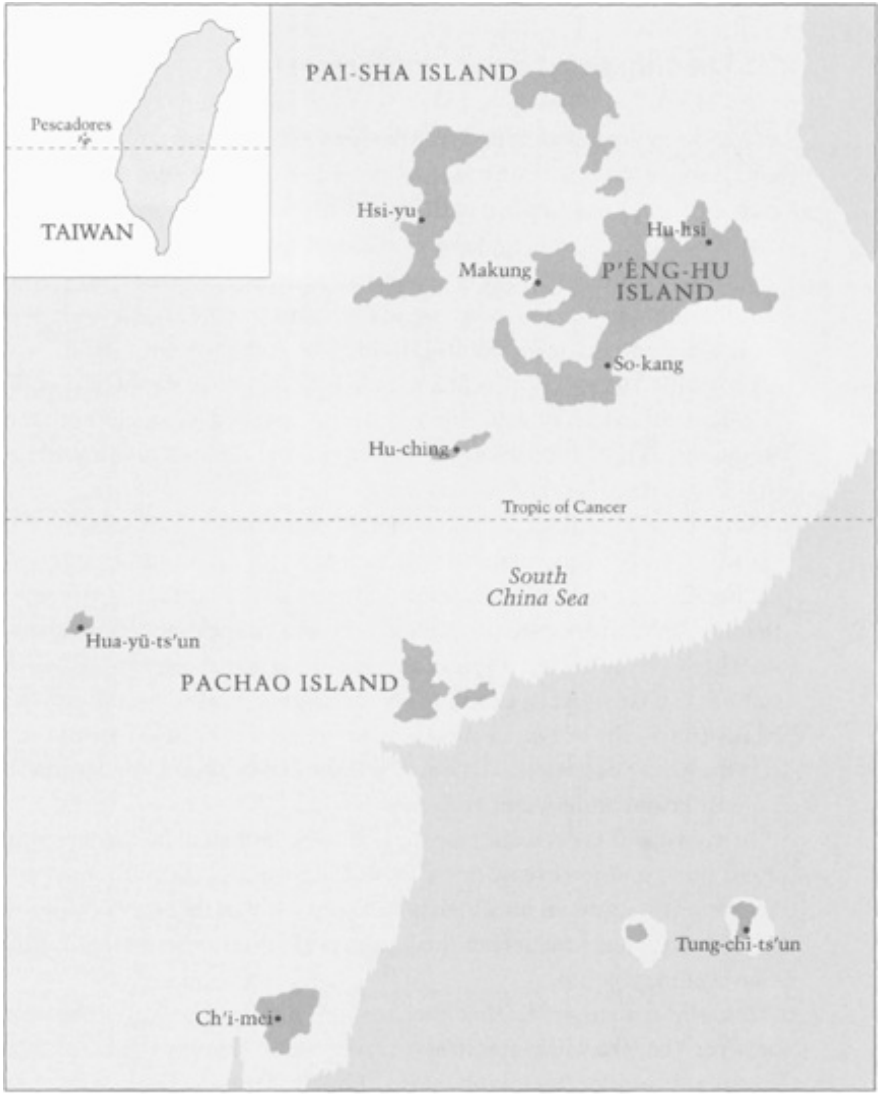
Pescadores
TAIWAN
PAI-SHA ISLAND
Hsi-yu
Hu-hsi
Makung
P'ÊNG-HU ISLAND
So-kang
Hu-ching
Tropic of Cancer
South China Sea
Hua-yü-ts'un
PACHAO ISLAND
Tung-chi-ts'un
Ch'i-mei

But here, as everywhere else, more research – much more research – is needed to settle the matter. Any such research should also investigate the submerged bank further north that may be all that remains of the antediluvian island of Ymana marked on the 1424 chart.

One amongst many underworlds

They say that the Kingdom of the Sea God has a gateway that is guarded by a shark. So having never once seen a shark at the stone circles of Kerama I did take it as a good omen when one appeared on my last dive there. It was a sleek reef white-tip, not too fearsome, since it was less than 2 metres long, and it patrolled Centre Circle for several minutes, quite untroubled by our presence.

That was at the beginning of September 2001, after Santha and I had completed the dives in Taiwan and flown up to Okinawa to rendezvous again with Isamu Tsukahara and his team. Shun Daichi, who had been with us in Taiwan, also accompanied us to Kerama, and Kyoshi Nagaki joined us there as well.

We had allowed four days minimum, and assumed we might need more, since September is the typhoon season, but in the end Kerama gave me what I needed in just two dives on the first day.

It gave me Komakino Iseki, 30 metres underwater – not just one but a series of ovals of huge diameter made up of hefty rounded river stones sprawled around Centre Circle on the ancient rocky outcrop at the bottom of the sea. I believe that the similarities evident in photos 73 and 74 speak for themselves, needing very little commentary. Type and size of

stone, the method of laying the stones to form the great ovals, the shape of the ovals themselves, the construction of banks consisting of two or three courses of stones piled on top of one another, and the use of patterns of 'chained' interlinked ovals are all identical at Komakino Iseki and underwater at Kerama.

In my view it is necessary for the site to be protected by the Japanese government now, and for excavations to be conducted there as soon as possible by competent marine archaeologists to ascertain whether any pottery fragments and other typical artefacts of the Jomon period are present amongst the stones. I suspect they will be.

But the real mystery that archaeology needs to solve is the relationship between the large-diameter ovals of river stones that are typical of other Jomon spiritual sites like Komakino Iseki – though at this depth they must be *at least* 5000 years

older than Komakino Iseki – and the very different and much more ambitious project represented by the weird semi-subterranean complex of Centre Circle and Small Centre Circle.

Logic suggests that the Jomon must have made both the river-stone ovals and the rock-hewn circles, and that if we look we are likely to find other such man-made sites underwater in the region which will further testify to this lost architectural episode in their prehistory.

What else was lost then, in that epoch when we dropped the silver thread of memory that connected us to our own past?

An underworld, I suspect, is truly about to be revealed.

One of many.

Postscript 1 / The Underworld in the Gulf of Cambay

In chapter 14 I reported the claimed discovery by India's National Institute of Ocean Technology (NIOT) of an extensive urban complex underwater in India's Gulf of Cambay. The discovery was announced on 19 May 2001 by Science and Technology Minister Murli Manohar Joshi with the suggestion that the structures dated to the Harappan period of the Indus-Sarasvati civilization. I pointed out that inundation science firmly indicates the Gulf of Cambay to have been submerged in pre-Harappan times and specifically in quite a narrow time-window between 7700 years ago and 6900 years ago. From this it follows, if the structures that have been identified are indeed man-made, that they must date from a rather early phase of the pre-Harappan period. Moreover, a date of submergence

between 7700 and 6900 years ago only tells us that the city was built at some time before then – not how long before. Since the geometrical structures identified by the NIOT's side-scan sonar readings extend over more than 9 kilometres of the sea-bed, and since a city on that scale could not have grown up overnight, logic suggests that it is likely to be significantly *more* than 7700 years old. I wrote in chapter 14: 'A city 9 kilometres in extent and more than 3000 years older than Harappa and Mohenjodaro would rewrite not only the history of the Indian subcontinent but of the world.'

Archaeologists' reactions to the NIOT's claims were understandably muted and in some cases hostile; in consequence there was virtually no international media coverage of the discovery which, very rapidly, seemed to have been forgotten. Nevertheless, I made contact with the NIOT and provisionally arranged to dive with them in the Gulf of Cambay in November-December 2001 as part of the final filming trip for the television series of *Underworld*.

When we arrived in India in November 2001, I talked with archaeologists at the NIO (National Institute of Oceanography – a completely separate operation from

the NIOT) and they told me they did not accept that anything of significance had been discovered. Most likely, they said, the geometrical 'structures' seen on the side-scan sonar readings were merely artefacts of the imaging process. Likewise, R. S. Bisht, a director of the Archaeological Survey of India and a leading expert on the Indus-Sarasvati civilization, told me frankly that he did not believe the NIOT's findings and that they must be 'hallucinations'.

I was therefore not filled with optimism when I arrived in the port of Bhavnagar on the Gulf of Cambay to keep my previously made appointment with the NIOT – and my sense of unease increased when I was informed that Indian Naval Intelligence had refused to issue me a permit to dive on the alleged underwater site. Still, we set up the cameras for a day of filming on board the NIOT research vessel, the M.V. *Sagar Paschmi*, and waited to see what senior NIOT scientists had to say about the matter.

The story that they told us on camera and the evidence that they presented to us banished any reasonable doubts. Despite the ridicule and cold shoulders to which they had been subjected by the archaeological establishment, they had

indeed made a discovery of staggering significance. According to Dr S. Kathiroli, the NIOT's Project Director, and geological consultant S. Badrinarayan, they had been surprised by the hostile reactions of archaeologists to the initial announcement of their findings in May 2001. As scientists, however, they had decided to pursue the mystery further through empirical research and see where it led. Thus, between May and late November 2001 they had conducted further side-scan sonar surveys and backed these up with sub-bottom profiling around the geometrical structures.

The results confirmed their initial impression that extensive man-made ruins did indeed lie on the sea-bed in the Gulf of Cambay at depths of between 25 and 40 metres and at distances of up to 40 kilometres from the modern shoreline. The sub-bottom profiles revealed extensive, well-built foundations to the geometrical structures and in some cases walls rising as much as 3 metres above the sea-bed and extending down several metres below. Moreover, as well as the original 'city-complex' covering a rectangular area roughly 9 kilometres long and 2 kilometres wide, a second city of similar size had been found a little further to the south at

similar depths. Both cities lie along the courses of ancient rivers that had flowed here when the area was above water, and in one case the remains of an ancient dam more than 600 metres long have been identified.

Thus far the NIOT had been unable to dive on the sites, due to the great tidal amplitude in the Gulf and extremely hazardous currents. Moreover, when they sent down their remotely operated vehicle (ROV), its cameras were unable to record clear images because of zero visibility due to dissolved solids in the waters of the Gulf. How therefore to get to the sort of 'ground truth' that might impress sceptical archaeologists? The only solution, the NIOT decided, was to lift samples directly off the sea-bed from the heart of the areas identified in their side-scans and sub-bottom profiles.

The results, which they showed us and we were able to film, are spectacular. In just one day of sampling using grabs and trawls *more than 2000* man-made artefacts were recovered – including jewellery, stone tools, pottery and figurines. The assemblage, which is typically 'pre-Harappan' (and which includes carbon-datable human remains such as teeth), confirms that the underwater structures

identified by the side-scans and sub-bottom profiles were indeed large-scale human settlements before their inundation. The extremely ancient character of the artefacts also seems to rule out any possibility that the underwater sites could date from a period later than the pre-Harappan. On the record S. Badrinarayan told me that in his opinion these submerged city-complexes must, at the very youngest, date to between 7000 and 8000 years ago and that the most likely agent of their inundation was sea-level rise at the end of the Ice Age rather than any kind of fault collapse due to seismic activity – for which the region is nevertheless renowned. Perhaps some catastrophic combination of earthquake activity and sea-level rise could account for the massive and apparently very sudden scale of the submersion which, on the face of things, appears to have obliterated an entire civilization in this region.

More work must be done to establish the dates exactly and to come to terms with the true nature of the enigma of the Gulf of Cambay. Yet we know already, by the very extent of the ruins, that they represent something that orthodox historians and archaeologists have never accepted – the possibility that a lost

civilization lies concealed in Indian prehistory and that the Indian flood myth of Manu and the Seven Sages rests firmly on ground truth.

STOP PRESS

On 16 January 2002 India's Minister of Science and Technology released the first results of carbon-dating of the artefacts from the flooded cities of the Gulf of Cambay. The results date the artefacts to 9500 years ago – 5000 years older than any city so far recognized by archaeologists.

Postscript 2 / The Underworld in the Bay of Bengal

3 April 2002, Mahabalipuram, Tamil Nadu

Sinking down through the murky waters of the Bay of Bengal a mile offshore of the south-east Indian town of Mahabalipuram, I found myself amongst huge submerged walls, plazas and pinnacles emerging out of the gloom – structures that seemed more like the work of gods or titans than of men and to belong more in the world of myth than that of history. With a kick of my fins I turned slowly around, and in every direction that I looked I saw extensive and impressive ruins stretching away. Involuntarily my heart began to pound and my breathing speeded up. Because for more than five years I had been diving the world's oceans searching for evidence just such as this – the hard evidence that I had long

believed must lie behind mankind's collective inheritance of more than 600 ancient 'flood myths'.

Readers who have come this far will recall that I first visited Mahabalipuram in 1956 when I was just six years old (my father was working as a surgeon at the Christian Medical College in the nearby town of Vellore). My next visit was on a journey of personal reminiscence in 1992. It was then (see chapter 5) that I purchased an anthology of travellers' journals and reports edited by a certain Captain M. W. Carr in 1869 under the title *Descriptive and Historical Papers Relating to the Seven Pagodas of the Coromandel Coast.* The 'Seven Pagodas' is the old mariners' name for Mahabalipuram, and on my third visit to the town in February 2000 (see chapter 11) I took Captain Carr's anthology with me. In one paper J. Goldingham, Esq., writing in 1798, spoke of the part of Mahabalipuram that I remembered best from my childhood – the 'Shore Temple', carved out of solid granite, lashed by waves:

The surf here breaks far out over, as the Brahmins inform you, the ruins of a city which was incredibly large and magnificent … A Brahmin, about 50 years of age,

a native of the place, whom I have had an opportunity of conversing with since my arrival in Madras, informed me his grandfather had frequently mentioned having seen the gilt tops of five pagodas in the surf, no longer visible.

An earlier traveller's report, from 1784, describes the main feature of Mahabalipuram as a 'rock, or rather hill of stone', out of which many of the monuments are carved. This outcropping, he says:

is one of the principal marks for mariners as they approach the coast and to them the place is known by the name of 'Seven Pagodas', possibly because the summits of the rock have presented them with that idea as they passed: but it must be confessed that no aspect which the hill assumes seems at all to authorise this notion; and there are circumstances that would lead one to suspect that this name has arisen from some such number of Pagodas that formerly stood here and in time have been buried in the waves …

The same author, William Chambers, then goes on to relate the more detailed oral tradition of Mahabalipuram – given to him by Brahmins of the town during visits

that he made there in 1772 and 1776 – that prompted his suspicion of submerged structures.

According to this tradition a Raja named Malecheren ruled at Mahabalipuram at some time in the remote past. He encountered a being from the heavenly realms who became his friend and agreed 'to carry him in disguise to see the court of the god Indra' – a favour that had never before been granted to any mortal:

The Raja returned from thence with new ideas of splendour and magnificence, which he immediately adopted in regulating his court and his retinue, and in beautifying his seat of government. By this means Mahabalipuram became soon celebrated beyond all the cities of the earth; and an account of its magnificence having been brought to the gods assembled at the court of Indra, their jealousy was so much excited at it that they sent orders to the God of the Sea to let loose his billows and overflow a place which impiously pretended to vie in splendour with their celestial mansions. This command he obeyed, and the city was at once overflowed by that furious element, nor has it ever since been able to rear its

head.

Go where the fish are

It was this myth that now kept drawing me back to Mahabalipuram. Almost exactly a year later, in February 2001, I was there again – this time to interview fishermen on camera for my Channel 4 TV series, *Flooded Kingdoms of the Ice Age.* My wife, Santha, whose mother-tongue is Tamil – the language of Mahabalipuram – was seated beside me on the beach on a pile of drying nets with a large, gossipy, excited and jocular crowd gathering round us. Everybody in the village who might have an opinion or information to contribute was there, including all the fishermen – some of whom had been drinking palm toddy most of the afternoon and were in a boisterous and argumentative mood. What they were arguing about was their answers to the questions that I was asking and precisely who had seen what, where underwater – so I was happy to listen to their animated conversations and disagreements.

An elder with wrinkled nut-brown eyes and grey hair bleached white by long exposure to the sun and sea spoke at length about a structure with columns which he had seen one day from his boat when the water had been exceptionally clear. ‘There was a big fish,’ he told me. ‘A red fish. I watched it swimming towards some rocks. Then I realized that they were not rocks but a temple. The fish disappeared into the temple, then it appeared again, and I saw that it was swimming in and out of a row of columns.’

‘Are you certain it was a temple?’ I asked.

‘Of course it was a temple,’ my informant replied. He pointed to the pyramidal granite pagoda of the Shore Temple. ‘It looked like that.’

Several of the younger men had the usual stories to tell about heroic scary dives – lasting minutes, hearts thudding, their breath bursting in their lungs -to free fishing gear snagged on dark and treacherous underwater buildings. In one case, it seemed, a huge net had become so thoroughly entrapped on such a structure that the trawler that was towing it had been stopped in its tracks. In the case of another underwater ruin divers had seen a doorway leading into an internal room

but had been afraid to enter it.

One strange report was that certain of the ruins close to Mahabalipuram emit ‘clanging’ or ‘booming’ or musical sounds if the sea conditions are right: ‘It is like the sound of a great sheet of metal being struck.’

‘And what about further away?’ I asked. ‘If I were to take a boat south, following the coast, what would I find? Are the underwater structures mainly just here around Mahabalipuram or are they spread out?’

‘As far south as Rameswaram you may find ruins underwater,’ said one of the elders. ‘I have fished there. I have seen them.’

Others had not travelled so far, but all agreed that within their experience there were submerged structures everywhere along the coast: ‘If you just go where the fish are then you will find them.’

Expedition

The next challenge for me was now somehow to set up a full-scale diving expedition to Mahabalipuram. The responsible authority in India is the marine archaeology division of the National Institute of Oceanography (NIO). However, I knew that the NIO, on its own, did not have sufficient funds or incentive to put an expedition in place.

Fortuitously at about this time – the spring of 2001 – I was approached by John Blashford Snell of the Dorset-based Scientific Exploration Society (SES). Over lunch at my home in Devon, Blashford Snell asked me if any of the mysteries raised by the research for my new book *Underworld* might make a worthwhile SES expedition. Naturally I suggested a quest for Mahabalipuram's supposedly 'mythical' flooded city. I also recommended a second site, Poompuhur, which lies about 200 kilometres south of Mahabalipuram. In chapter 14 I describe my dives there with the NIO in February 2001 to investigate a mysterious 'U-shaped structure' that their own marine archaeologists had found at a depth of 23 metres (about 70 feet). I felt that it was worthy of much closer investigation and that a well-resourced diving expedition to both Poompuhur and Mahabalipuram stood a

chance of making some exciting discoveries.

On Blashford Snell's request I introduced the SES to the NIO and over the following months nudged and cajoled the sometimes faltering communications of the two organizations until the plans for the expedition had been fully approved. Former Royal Marines officer Monty Halls, himself a diving instructor, was selected by the SES to lead the expedition, and twelve volunteer divers, mostly from Great Britain, put up all the necessary funding.

Thus it was that in April 2002 I found myself once more in Mahabalipuram – this time supported by all the divers and expertise needed to test my hypothesis that the local myths of a flooded city might actually lead us to a city underwater. Naturally I feared the failure of such a public quest, whilst hoping that it would succeed. Yet even in my wildest dreams I could not have imagined how immediately self-evident it would be, from the moment we got in the water, that following the clues in the myths and local traditions had indeed led to the discovery of a major archaeological site …

How old?

But how old are the spectacular underwater ruins lying off the coast of Mahabalipuram likely to turn out to be?

As I sank down through the murky waters on my first dive there and began to notice the huge walls snaking across the seabed, I was struck – despite what the fishermen had told me – by the stark differences in architectural style between these looming submerged structures and the temples of the historical period, such as the Shore Temple, that I knew on land. The material was the same – local red granite – but in general the block sizes of the underwater structures were much bigger. On later dives I was to discover that they included clusters of truly enormous megaliths, weighing up to four tonnes each, that seemed to be the remains of colossal buildings torn apart by some powerful cataclysm – probably the very cataclysm that had flooded this place. Each gigantic cluster proved to lie at the centre and highest point of a large rectangle of ruins and these rectangular areas were spaced out at quarter-mile intervals north and south, parallel to the

shore.

I made a couple of dives with Santha, who was shooting underwater stills, and a couple of dives with Trevor Jenkins, the expedition's videographer. On one dive Trevor and I followed a superb, curved wall that ran unbroken for more than 16 metres. On another I was able to expose the core masonry on a different length of wall, revealing the fine jointing between blocks.

On the very last dive, at a site we'd tagged as 'location 4', Trevor discovered what he thought might be a stone carving of a lion's head in profile lying on the seabed. I wasn't so sure: it was too damaged and shrouded in marine growth for me to be certain what it was or even if it was man-made at all. While Trevor filmed it, I tried to clear a section of it with my knife, but all I could establish was that it was solid granite, about the radius and thickness of a car wheel, and roughly crescent-shaped. I couldn't make out any individual features – but that doesn't mean they aren't there. It will have to be found again on some future dive, removed from the sea and studied in the lab before any firm conclusions can be drawn about what it is.

Hasty conclusions

That at any rate would be normal archaeological procedure. So I was confused after our return from Mahabalipuram to learn that the NIO had issued a press statement proposing a possible date and function for the submerged ruins and citing this very same 'lion figure' as evidence:

Based on what appears to be a Lion figure, of location 4, ruins are inferred to be parts of temple complex. The possible date of the ruins may be 1500–1200 years before present. Pallava dynasty, ruling the area during the period, has constructed many such rock-cut and structural temples in Mahabalipuram and Kanchipuram.

To come to such far-reaching deductions on the basis of ambiguous video footage of an alleged 'lion figure' strikes me as hasty, to say the least. None of the NIO archaeologists saw this 'figure' at first hand as Trevor and I did, and I for one am not convinced that it is any kind of figure at all. Moreover, the use of lion symbolism is widespread in India and indeed in global sculpture of almost all

periods. Surely, therefore, a heavily overgrown and damaged object like this ought to be studied thoroughly before it and the submerged ruins all around it can safely be assigned to a specific dynasty such as the Pallavas or to a specific chronology such as 1500 to 1200 years ago?

Moreover, the Pallava temples on land at Mahabalipuram are reliably dated to 1500 to 1200 years ago – precisely the same period suggested by the NIO for the submerged ruins that we now know lie a mile and more offshore. If both groups of structures do date from the same period, however, then the NIO must be able to explain why one group is now submerged beneath the sea to depths of between 5 and 7 metres (15 and 21 feet) whilst the other is still above water.

An obvious explanation, and the one preferred by the NIO, is that there must have been massive coastal erosion in this area, or that perhaps a stretch of the coast just collapsed in some wild, unpredictable tectonic event – perhaps not even tremendously long ago – that submerged the big Pallava constructions on one side of the fault-line while leaving those on the other side intact and still on dry land.

Another possibility, however – one not even considered by the NIO in its

statement – is that the submerged group could be significantly *older* than the group on land. As we've seen throughout *Underworld*, sea-level rose more than 100 metres at the end of the last Ice Age (between 17,000 years ago and about 5000 years ago) and if it is sea-level rise alone that has submerged the megalithic structures offshore of Mahabalipuram, then how old are they likely to be?

Bombshell

On our return from India on 6 April 2002 I e-mailed Dr Glenn Milne, the international expert on sea-level rise whose inundation maps have been used throughout *Underworld*, and told him what we'd found at Mahabalipuram. Perhaps he and other geologists at Durham University could help clarify how big a part sea-level rise had played in submergence of the ruins and suggest a date when they had last stood above water.

Glenn's reply, repeated a few days later on BBC Television's national 6 o'clock news, came as a bit of a bombshell:

I had a chat with some of my colleagues here in the Dept. of Geological Sciences and it is probably reasonable to assume that there has been very little vertical tectonic motion in this region during the past five thousand years or so. Therefore, the dominant process driving sea-level change will have been due to the melting of the Late Pleistocene ice-sheets. Looking at predictions from a computer model of this process suggests that the area where the structures exist would have been submerged around six thousand years ago. Of course, there is some uncertainty in the model predictions and so there is a flexibility of roughly plus or minus one thousand years in this date.

The U-shaped structure of Poompuhur

Prevailing archaeological opinion recognizes no culture in India 6000 years ago capable of building anything much – let alone a series of vast megalithic structures on the scale and extent that confronts us at Mahabalipuram. Nor does the mystery stop here. As we've seen, the fishermen at Mahabalipuram speak of

other ruins, even further out from shore in much deeper water, which remain to be identified and explored. On my travels in the region (see chapter 11) I've also heard reports of mysterious underwater structures off Poompuhur, Rameswaram (overlooking the Palk Strait between India and Sri Lanka) and Kaniya Kumari (Cape Comorin) in the far south of the subcontinent. The reader will recall the pervasive Tamil flood myth linking all these areas that speaks of a lost land called Kumari Kandam that was swallowed up by the sea in three terrible deluges, the first of which took place 11,500 years ago.

In the early 1990s the NIO conducted a marine archaeological survey off Poompuhur for the state government of Tamil Nadu and discovered a very large and apparently man-made structure more than 5 kilometres from shore at a depth of 23 metres (70 feet). The story of this discovery is told in chapter 1 of *Underworld* and followed up in chapter 14. Its potential importance arises exclusively from the depth of submergence of the structure – which suggests, as the reader will recall, that it could have been underwater for 11,000 years. If it is man-made, therefore, then the obvious implication is that it must have been built

more than 11,000 years ago when it still stood on dry land. And just as archaeologists know of no culture in south India more than 6000 years ago that would have been capable of building the now-submerged structures at Mahabalipuram, so also they know of none at Poompuhur (or anywhere else in India, or in the world) that would have been capable of any project on the scale of the U-shaped structure more than 11,000 years ago.

The results of the SES/NIO expedition to Poompuhur in March 2002 were inconclusive. Despite extensive dives over a period of ten days the team could not reach a unanimous verdict on the U-shaped structure. On two shows of hands a clear majority of the group, including one of the two NIO marine archaeologists, concluded that it is man-made. But there were significant exceptions to this view and I therefore do not yet claim to have proved the case for the structure's artificiality that I set out in chapter 14. On my own dives with the team in March 2002 I did, however, notice several features of the structure that had not previously caught my eye. Of these I believe the most interesting are (1) sections of what appears to be a second, lower wall, about 2 metres from the main wall

and running parallel to it, that may once have completely surrounded the structure; (2) the impression reported by several divers as well as myself that the main wall of the structure is octagonal or hexagonal in form ('like the old threepenny bits', commented Trevor Jenkins) rather than explicitly 'U-shaped'; (3) well-formed courses of blocks clearly visible beneath marine growth at several points on the structure; (4) evidence from visual examination of a sample that the material of which these blocks are made is laterite – a common construction stone in south India since times immemorial; (5) the presence of large symmetrical slabs (approx 1.5 metres × 1.5 metres × 0.5 metres) scattered on the seabed near a smaller mound 45 metres north-west of the U-shaped structure; (6) evidence from side-scan sonar readings of other anomalous structures nearby, including one identified in March 2002 as a straight wall approximately 100 metres in length, lying in 25 metres of water and almost 7 kilometres from land.

I believe that the U-shaped structure has passed the crucial first test of close scrutiny over a lengthy period by a team of divers and marine archaeologists. It has not yet been decisively proved to be man-made but it has certainly not been

proved to be natural either. It remains an anomaly and an enigma. And as is the case with the mysterious underwater ruins of Mahabalipuram, it cries out for further research …

Appendix 1 / Report on the Completion of the Joint SES/NIO Expedition to South-east India

Graham Hancock, 6 April 2002

Originally posted on 'The Mysteries' message board at www.grahamhancock.com

Hi folks,

Santha and I flew back in from Tamil Nadu this morning.

As regulars on this MB know, we have been diving at Poompuhur and at Mahabalipuram in south-east India. We have had the privilege of working there

with ten first-rate divers from Britain led by Monty Halls of the Scientific Exploration Society and with a great team from India's National Institute of Oceanography led by Kamlesh Vora.

At Poompuhur, despite intensive diving on the mysterious U-shaped structure submerged about 5 kilometres offshore at a depth of 23 metres (see chapters 1 and 14 of *Underworld)*, we could not reach a unanimous verdict. On two shows of hands a clear majority of the group, including one of the two NIO marine archaeologists, concluded that it is a man-made structure. But there were significant exceptions to this view and I therefore do not claim to have proved my case there during this expedition.

Over the coming week or so I will set out on this site, supported by photography, the principal pieces of evidence that convince me and others that the structure is man-made. A great deal more work is going to have to be done on it and neighbouring structures, however, before the matter can be regarded as having been satisfactorily settled – one way or the other.

The reason for this continuing uncertainty, despite the best efforts of a large

group of determined and objective researchers, lies in the very bad diving conditions and poor visibility at Poompuhur, which hamper and restrict the work underwater at all times.

At Mahabalipuram, the other objective of the expedition, the situation is much clearer. A press conference will be held on 10 April 2002 to announce the extraordinary underwater discoveries that our team made there last week up to 2 kilometres from shore at depths of 5 to 7 metres. Relevant pages in *Underworld* where I describe my research in Mahabalipuram that led directly to these discoveries are 119–122 and 258–261.

Of course, the real discoverers of this amazing and very extensive submerged site are the local fishermen of Mahabalipuram. My role was simply to take what they had to say seriously and to take the town's powerful and distinctive flood myths seriously. Since no diving had ever been done to investigate these neglected myths and sightings, I decided that a proper expedition had to be mounted. To this end, about a year ago, I brought together my friends at the Scientific Exploration Society (SES) in Britain and the National Institute of

Oceanography (NIO) in India and we embarked on the long process that has finally culminated in the discovery of a major and hitherto completely unknown submerged archaeological site.

I'll try to find out next week the date that Glenn Milne's model suggests for the submergence of the Mahabalipuram structures. Meanwhile, I want to state very clearly and for the record that I am making no claims as to the age of the structures, or what they are, or who built them, or why and when they were inundated. All this will have to be established through further research – which the NIO estimates will take many years and will involve the participation of experts from many different disciplines. I do, however, feel fully vindicated in the view that I have long held and expressed in my books and television series that flood myths deserve to be taken seriously and can lead to the discovery of significant underwater ruins.

The information that we have gathered at Mahabalipuram up to now will be released at the SES press conference on 10 April.

Appendix 2 / SES Press Release, 5 April 2002, Announcing the Discovery of Underwater Ruins at Mahabalipuram and Inviting Media to a Press Reception, 10 April 2002

The Scientific Exploration Society is proud to announce a major discovery of submerged ruins off the south-east coast of India and invite you to a Press Reception at 10.30 a.m. on Wednesday 10 April 2002, at the Nehru Centre, 8, South Audley Street, London WIK IHF.

Following a theory first proposed by bestselling author and television presenter Graham Hancock, a joint expedition of 25 divers from the Scientific Exploration

Society (SES) and India's National Institute of Oceanography (NIO) led by Monty Halls and accompanied by Graham Hancock have indeed discovered an extensive area with a series of structures that clearly show man-made attributes, at a depth of 5–7 metres offshore of Mahabalipuram in Tamil Nadu.

The scale of the submerged ruins, covering several square miles and at distances of up to a mile from shore, ranks this as a major marine-archaeological discovery as spectacular as the ruined cities submerged off Alexandria in Egypt.

This could prove the ancient myths of a huge city, so beautiful that the gods became jealous and sent a flood that swallowed it up entirely in a single day!

Come and listen to Graham Hancock, Monty Halls and view unique pictures/video. Further info www.india-atlantis.org.

Contacts: Melissa Dice; Tel: 01747 854898; email: base@ses-explore.org; Sarah Jane Lewis (Press) Tel: 01963 240468.

Appendix 3 / Preliminary Underwater Archaeological Explorations of Mahabalipuram. Statement by National Institute of Oceanography, 9 April 2002

A team of underwater archaeologists from National Institute of Oceanography NIO have successfully 'unearthed' evidence of submerged structures off Mahabalipuram and established first-ever proof of the popular belief that the Shore temple of Mahabalipuram is the remnant of series of a total seven of such temples built that have been submerged in succession. The discovery was made during a joint underwater exploration with Scientific Exploration Society, UK.

The team of archaeologists from NIO, trained in diving, carried out underwater exploration on April 1–4, 2002 and have successfully recorded evidence of presence of ruins underwater off Mahabalipuram. The salient features of the findings are as follows:

- Underwater investigations were carried out at 5 locations in the 5–8 m water depths, 500 to 700 m off Shore temple.
- Investigations at each location have shown presence of the construction of stone masonry, remains of walls, a big square rock-cut remains, scattered square and rectangular stone blocks, big platform leading the steps to it amidst of the geological formations of the rocks that occur locally.
- Most of the structures are badly damaged and scattered in a vast area, having biological growth of Barnacles, Mussels and other organisms.
- The construction pattern and area, about 100 m × 50 m, appears to be same at each location. The actual area covered by ruins may extend well beyond the explored locations.

- Based on what appears to be a Lion figure, of location 4, ruins are inferred to be parts of temple complex.
- The possible date of the ruins may be 1500–1200 years BP. Pallava dynasty, ruling the area during the period, has constructed many such rock-cut and structural temples in Mahabalipuram and Kanchipuram.

To place reasonable arguments on submergence of ruins, a full-scale investigations are underway to record the role of sea-level fluctuations, coastal erosion and neo-tectonic activities in effecting shoreline changes in the area in the recent past.

The site has great potential to explore total lay-out plan of the structures and causes of submergence.

Appendix 4 / Comments by Graham Hancock on the NIO Statement of 9 April 2002 Regarding Preliminary Underwater Archaeological Explorations off Mahabalipuram

I have only two comments to make on the NIO press release, but both of them are grave.

(1) Despite a friendship with the NIO stretching back over two years, I note that the NIO statement makes no mention of my instrumental role in bringing about these exciting discoveries off Mahabalipuram. I regret this oversight, since there

can be no doubt that I have earned the right to recognition in this discovery and that my input both in formulating the hypothesis of submerged ruins at Mahabalipuram, in putting that hypothesis forcefully before the public, and in the conception and implementation of an expedition to test that hypothesis has been absolutely decisive.

It is in black and white on pages 119–22 and pages 258–61 of my book *Underworld* (published by Penguin 7 February 2002), and in my Channel 4 Television Series *Flooded Kingdoms of the Ice Age* (broadcast 11, 18 and 25 February 2002) that I have long regarded Mahabalipuram, because of its flood myths and fishermen's sightings, as a very likely place in which discoveries of underwater structures could be made, and that I proposed that a diving expedition should be undertaken there.

It is also absolutely a matter of record that it was I who subsequently took the initiative to bring together the Scientific Exploration Society (SES) and the NIO during 2001 so that the expedition could take place and that I expended considerable efforts putting the two groups in touch and nudging along their co-

operation.

I think you will find if you remove Graham Hancock from the equation that another twenty or many more years might have elapsed before the marine archaeology division of the NIO would have dived at Mahabalipuram.

If you remove Graham Hancock from the equation, the SES and the NIO would not have been brought together and the SES would not even have been aware that there was a mystery to investigate at Mahabalipuram.

In other words if you remove Graham Hancock from the equation it is a plain fact, and nothing more nor less than the truth, that neither the NIO nor the SES would have been diving at Mahabalipuram.

The discoveries that we have made might have been made later, or never at all. Such questions are entirely hypothetical, however. The fact is that the discovery has been made now and that my research, initiatives and efforts were instrumental in bringing it about. In any kind of moral or decent universe, in which credit is given where credit is due, I believe that I deserve some recognition for this. I ask nothing more than that.

(2) My second comment on the statement concerns the unwisdom and unfortunate disregard of basic scientific procedure on the part of the NIO in speculating about a possible date of 1500 BP to 1200 BP for the submerged ruins. This speculation seems largely to be based on what is claimed to be a sculpture of a lion at location 4 – thought to be typical of the sculptural art of the Pallava dynasty. Unfortunately, however, neither of the two NIO marine archaeologists who were diving with us actually saw the alleged 'figure'. The only people who did were myself and my dive-buddy Trevor Jenkins. It was Trevor who first spotted it. We then examined it together and Trevor shot video footage of it. All other comments on this lion figure are second-hand, based on viewings of Trevor's video footage only.

My own very much first-hand comment is that if the figure is indeed that of a lion, this by no means confirms a connection with the Pallavas – since lion sculptures are typical of whole swathes of Indian art and symbolism and cannot be regarded as a Pallava monopoly. More importantly, the so-called lion figure is by no means necessarily a lion figure at all. As noted above, I am one of only two

divers who have seen it and handled it, and I suspect strongly that it is not a lion's head and perhaps not even part of a statue. I had not voiced that suspicion before now because I thought the scientific community believed that weighty conclusions one way or another about possible archaeological discoveries should only be reached after much further research. But now I see that, without doing any research at all, and without any marine archaeologists ever having examined the alleged 'figure', the NIO rushes in to suggest a possible date in its statement.

In my view the NIO should have refrained from such unwise, premature speculation and simply left the issue of the dating of the site open for the vast amount of further research that does indeed need to be done before anything can be confirmed. As one who has often been accused of prematurely assigning older dates to archaeological sites on the basis of too flimsy evidence, I find it ironic that the NIO should assign a possible date of 1500–1200 BP to this site without any evidence at all. The NIO is not even at this stage aware of the sea-level curve for this part of the south-east Indian coast – surely a crucial factor in any attempt to date the site.

Sincerely,

Graham Hancock

9 April 2002

Appendix 5 / Who Discovered the Underwater Ruins at Mahabalipuram? And Who is Claiming What?

Graham Hancock, 13 April 2002

Originally posted on 'The Mysteries' message hoard at www.grahamhancock.com

(1) In another thread Martin Stower draws attention to the following commentary:

Mohapatra, G. P., and M. H. Prasad (1999), 'Shoreline changes and their impact on the archaeological structures at Mahabalipuram'. *Gondwana Geological*

Magazine, vol. 4, pp. 225–33. Reading this paper, person finds that they had proposed in print back in 1999 that underwater archaeological ruins lay offshore of the coast of Mahabalipuram. In this case, Hancock is wrong in stating 'But here in Mahabalipuram we have proved the myths right and the academics wrong.' In fact, he has proved the academics, in this case G. P. Mohapatra and M. H. Prasad, were correct in hypothesizing that the remains of ancient ruins lay offshore of coast of Mahabalipuram.

(2) I was unaware of Mohapatra and Prasad's work; had I known of it, I would certainly have referred to it in *Underworld*. Apropos of this, during the recent SES/NIO expedition to Mahabalipuram, Kamlesh Vora informed the team that the NIO too had previously thought of diving there to check out the local flood tradition. This was back in the 1980s under the leadership of S. R. Rao (unfortunately now retired) – a man with a great interest in India's flood myths. (See my interview with Rao in chapter 1 of *Underworld*, where he makes specific reference to the myths of lost lands off the south of India and to the relevance of these for marine archaeological research.) Apparently, however, the water was

too ‘muddy’ when the NIO marine archaeologists arrived at Mahabalipuram and they decided not to dive. The project was never taken up again.

(3) There is no need for speculation about what exactly I’m claiming with regard to the Mahabalipuram underwater discoveries. My views are already on the record on this Message Board. Here are the two definitive passages:

6 April 2002

Of course, the real discoverers of this amazing and very extensive submerged site are the local fishermen of Mahabalipuram. My role was simply to take what they had to say seriously and to take the town’s powerful and distinctive flood myths seriously. Since no diving had ever been done to investigate these neglected myths and sightings, I decided that a proper expedition had to be mounted. To this end, about a year ago, I brought together my friends at the Scientific Exploration Society (SES] in Britain and the National Institute of Oceanography (NIO) in India and we embarked on the long process that has finally culminated in the discovery of a major and hitherto completely unknown submerged

archaeological site.

9 *April 2002*

Despite a friendship with the NIO stretching back over two years, I note that the NIO statement makes no mention of my instrumental role in bringing about these exciting discoveries off Mahabalipuram. I regret this oversight, since there can be no doubt that I have earned the right to recognition in this discovery and that my input both in formulating the hypothesis of submerged ruins at Mahabalipuram, in putting that hypothesis forcefully before the public, and in the conception and implementation of an expedition to test that hypothesis, has been absolutely decisive.

(4) It should be clear from the above that I do not claim to be 'the' discoverer of these underwater ruins – the existence of which has been known since time immemorial to the local fishermen. Nor do I even claim to be 'the' theorist who first proposed the hypothesis that there might be ruins underwater offshore Mahabalipuram. As I report in *Underworld*, that 'hypothesis' has been around in

scholarly circles since at least the eighteenth century. I and several others have subsequently made input to the elaboration of this hypothesis and the NIO actually set out to test it in the 1980s, but in the end did not go diving. Thereafter, the question of whether or not there were ruins underwater off Mahabalipuram lapsed into obscurity until Mohapatra's and Prasad's work on the one hand, and my own on the other. My path to understanding why the question was worth asking is described in *Underworld.* What I claim is to have been the first person to have followed that path all the way through to its logical conclusion and to have been instrumental in the actual discovery of actual ruins – ruins that had been previously suspected but never proven to exist -underwater off Mahabalipuram.

From my post of 9 April 2002:

It is in black and white on pages 199–22 and pages 258–61 of my book *Underworld* (published by Penguin 7 February 2002), and in my Channel 4 Television Series *Flooded Kingdoms of the Ice Age* (broadcast 11, 18 and 25 February 2002) that I have long regarded Mahabalipuram, because of its flood

myths and fishermen's sightings, as a very likely place in which discoveries of underwater structures could be made, and that I proposed that a diving expedition should be undertaken there.

It is also absolutely a matter of record that it was I who subsequently took the initiative to bring together the Scientific Exploration Society (SES) and the NIO during 2001 so that the expedition could take place and that I expended considerable efforts putting the two groups in touch and nudging along their co-operation.

I think you will find if you remove Graham Hancock from the equation that another twenty or many more years might have elapsed before the marine archaeology division of the NIO would have dived at Mahabalipuram.

If you remove Graham Hancock from the equation, the SES and the NIO would not have been brought together and the SES would not even have been aware that there was a mystery to investigate at Mahabalipuram.

In other words if you remove Graham Hancock from the equation it is a plain fact, and nothing more nor less than the truth, that neither the NIO or the SES

would have been diving at Mahabalipuram.

The discoveries that we have made might have been made later, or never at all. Such questions are entirely hypothetical, however. The fact is that the discovery has been made now and that my research, initiatives and efforts were instrumental in bringing it about. In any kind of moral or decent universe, in which credit is given where credit is due, I believe that I deserve some recognition for this. I ask nothing more than that.

(5) Credit is also due and should be given to all who have played a part in this discovery – including Santha, Monty Halls, all the individual members of the SES and NIO diving teams and the steadfast Tamil fishermen of Mahabalipuram, who took us on board their little boats and straight out, with unerring accuracy, to each of the submerged sites. I have no idea whether the NIO is aware of Mohapatra's and Prasad's work, or whether the latter are aware of the work of the NIO. But when I come to update *Underworld* later this year I will certainly make reference to it.

Graham Hancock

Appendix 6 / UK Press Coverage of Mahabalipuram Discovery, April 2002

Daily Telegraph, *11 April 2002*

DIVERS FIND REMAINS OF SIX LOST TEMPLES'

By David Derbyshire, Science Correspondent

A MYSTERIOUS settlement that sank beneath the waves at least 1,200 years ago has been discovered by divers off the south-east coast of India.

Granite blocks and walls that lie 20 ft below the surface may be the remains of six 'lost temples' that form part of local mythology.

The ruins came to light after the controversial amateur archaeologist and best-

selling author Graham Hancock interviewed fishermen for a recent television series.

After hearing accounts of the myth of a submerged city, he and two dozen divers searched the sea bed last week.

India's National Institute of Oceanography, which was involved in the discovery, believes the ruins at Mahabalipuram in Tamil Nadu could be 1,200 to 1,500 years old.

But Mr Hancock, who argues that civilisation predates the ancient Egyptians and Sumerians by thousands of years, believes the city could go back to 3000 BC.

The ruins were discovered half a mile off the coast by a team from the NIO and the UK-based Scientific Exploration Society. They include remains of walls and scattered carved blocks and stones and may cover several square miles.

According to local legend Mahabalipuram was once home to a great city. The gods became so jealous of its beauty that they sent a flood to swamp the city. Six temples were submerged, leaving just one on the shore.

Guardian, *11 April 2002*

DIVERS 'DISCOVER' ANCIENT TEMPLE

James Meek, science correspondent

Thursday April 11, 2002

Indian and British scientists have brought back pictures from the seabed of what they say could be a vast temple complex off the coast of Tamil Nadu – the ruins of a long-lost city, drowned beneath the waves.

The granite ruins, if they are not natural formations, could be what remains of six legendary temples built 1,500 to 1,200 years ago, submerged as a result of natural subsidence.

However, Graham Hancock, the best-selling author of controversial books about lost civilisations, said the ruins could be much older. If they were submerged by globally rising sea levels, their age would be around 5,000 years.

The pictures are the result of a three day diving expedition by India's National

Institute of Oceanography and the Dorset-based Scientific Exploration Society. Mr Hancock, who dived with the team, said yesterday that SES had carried out the expedition at his suggestion.

‘Our divers were presented with a series of structures that clearly showed man-made attributes,’ said Monty Halls of the SES, who led the expedition.

‘This is plainly a discovery of international significance that demands further exploration and detailed investigation.’

The site lies at depths of five to seven metres, 500 to 700 metres off Mahabalipuram, the site of a temple on dry land that dates to the first millennium AD.

Mr Hancock, who is not an archaeologist and has infuriated many experts with his theories, said that he had inferred the existence of six temples underwater by collating the stories of local fishermen with a legend that referred to Mahabalipuram as the Seven Pagodas.

Mr Hancock admitted yesterday that the submerged ruins might not be old enough to relate to the kind of post-ice age flooding that destroyed the supposed

civilisations of his books.

But he said their discovery vindicated his approach of seeking the substance in local myths. ‘I have argued for years that the world’s flood myths deserve to be taken seriously – a view that most western academics reject. But here in Mahabalipuram we have proved the myths right.’

Mr Hancock said the site ran for about two kilometres, and contained ‘a large conglomeration of large, clean-cut blocks in discrete areas. They seemed like several large ceremonial buildings surrounded by a lot of smaller ones.’

The Times, *11 April 2002*

DIVERS DISCOVER ‘LOST CITY’ OFF INDIA

By Mark Henderson

SUBMERGED ruins found off India’s coast could be those of a legendary city said to have been swallowed by the sea, according to explorers who located the remains.

They are the second set of possible man-made ruins found off the subcontinent this year. Another ‘lost city’ was found off Gujarat in January, but that claim has been disputed by archaeologists.

The latest underwater stone structures were discovered last week by an Anglo-Indian team, diving a mile off the coast of Mahabalipuram in Tamil Nadu, southeast India. The geometrical patterns that look like a network of walls, roads and ramparts suggest they could have been part of the lost city of Melecherem, which, according to myth, was inundated by jealous gods.

Graham Hancock, an author who believes thousands of ancient civilizations were submerged at the end of the last Ice Age and who took part in last week’s expedition by the Dorset-based Scientific Exploration Society and the Indian National Institute of Oceanography, said the ruins had convinced him that the myth was founded in reality.

Daily Mail ‘Weekend’ Magazine, *27 April 2002*

Fantastic tales of lost cities are usually dismissed as romantic myths, hut Graham Hancock claims that those very stories led him to a submerged site dating back at least 6000 years to the ice age – far older than any other city on earth. Has the amateur archaeologist really *rewritten history! Andrew Wilson investigates.*

A few seconds after diving beneath the ocean's surface, Graham Hancock peered through the underwater gloom and saw the distinct outline of an ancient wall rising up from the sands. Swimming closer to the mysterious structure, he took out his diving knife and, in order to test whether this was a man-made building rather than a natural formation, ran his blade through the masonry joints. Stretching out across the ocean floor was an extensive network of walls which ran for at least a mile out into the Bay of Bengal – sunken ruins which stand as evidence of a lost civilization engulfed by the waves.

For years, the hidden underwater city at Mahabalipuram in Tamil Nadu, southern India, had been confined to the realms of mythology. Fishermen spoke of the gilt-edged tops of temples lying beneath the sea, and whispered of the elaborate pyramidal pagodas submerged for thousands of years, but science had

dismissed their claims as folklore. However, Hancock's discovery earlier this month of a lost civilization at Mahabalipuram, 30 miles south of Chennai (the former Madras), which Hancock believes could date back at least 6000 years, could force us to rewrite the history books.

Hancock's theory, that civilization began not with the Sumerians in Mesopotamia about 5000 years ago, but in a number of cities submerged by cataclysmic floods between 17,000 and 7000 years ago – has been widely rubbished by academics. Yet research arising out of this new discovery suggests that the maverick writer's views could be rooted in fact. On returning from the dive, Hancock contacted a world-renowned expert in ice age sea levels, who, with the help of a very sophisticated computer, confirmed that the site dated from approximately 6000 years ago.

'If this figure proves correct – and, in truth, a lot more work needs to be done – then it changes everything,' says Hancock. 'We can no longer think of the so-called "Fertile Crescent" of Sumeria as the cradle of civilization. The idea that cities first started to be built around 3500 BC also goes out of the window. What

seems more likely from the large body of evidence I have compiled is that there were a number of cities built before this time which were submerged by rising sea levels at the end of the last ice age. Mahabalipuram, I suspect, is one of them.'

Hancock's detective work begins with a detailed study of an area's flood myths, tales he believes grew up because of a very real phenomenon – the 400-feet rise in global sea levels after the melting of the ice caps. After researching a particular flood myth, Hancock then studies maps to show how the region would have looked at the end of the ice age. If the sea level data matches details passed down through an oral tradition, he believes there's a good chance a hidden city could be lying just below the waves.

Hancock first outlined his theories in his 1995 book *Fingerprints of the Gods*. The title may have established him as a literary Indiana Jones (the book sold a staggering 4.5 million copies), but it incurred the wrath of scholars and academics, who attacked him for what they saw as his selective presentation of evidence, lack of integrity and vulgar sensationalism. 'Scientists asked me to try to substantiate my theories – to find actual sites to support my beliefs – and that's

what I've been doing over the past few years, touring the world in search of the lost underwater cities. South India is a black hole in terms of archaeological research, as there doesn't appear to be any trace of human activity between 12,000 and 3000 years ago. But what if the centres of an ancient civilization had once been located along its old coastline, land which was subsequently submerged by flood water?'

His connection with Mahabalipuram stretches back to his childhood when, as a five-year-old boy, he learnt to swim in its sparkling blue water. Born in Edinburgh in 1950, he arrived in India in July 1954 with his parents – his father had been appointed as a surgeon at the Christian Medical College and Hospital in Vellore. 'Imprinted on my memory for years afterwards – until I returned there in fact and was able to overlay old memories with new ones – were images of the eerie rock-hewn temples of Mahabalipuram, overlooking the Bay of Bengal and dating back 1200–1500 years.' In 1992 he travelled to India on a sentimental journey – his family had returned to Britain in 1958 and he wanted to revisit some of the places of his childhood.

During that visit he bought a musty old book, an anthology of traveller's journals, from a shop in Madras, a volume which would later form the first clue in his underwater detective story. Although he didn't read the book until two years ago, its contents forced him to reassess everything he knew about Mahabalipuram. He learnt for the first time of the 'Seven Pagodas' story – the six temples submerged beneath the sea, with the seventh still standing on the shore.

'A Brahmin about 50 years of age, a native of the place … informed me his grandfather had frequently mentioned having seen the gilt tops of pagodas in the surf, no longer visible,' wrote one traveller in 1798. According to myth, the ancient ruler of the kingdom constructed a city of such magnificence at Mahabalipuram that the gods grew jealous and orchestrated a tremendous flood to swallow it in a single day. The God of the Sea was ordered to 'let loose his billows and overflow a place which impiously pretended to view in splendour with their celestial mansions,' wrote the traveller. 'This command he obeyed, and the city was at once overflowed by that furious element, nor has it ever since been able to rear its head.'

In 2000 while researching his new book *Underworld* (Michael Joseph, £20), Hancock visited Mahabalipuram once more, where he interviewed a number of local fishermen. Many described having seen underwater ‘temples’, ‘palaces’ and ‘walls’ – even ‘roads’ – while diving to free trapped nets or anchors. Others talked of hidden doorways and rooms beneath the ocean which emitted strange musical sounds. ‘If you just go where the fish are,’ one said, ‘then you will find them.’ Yet the underwater investigator had to wait a further two years before travelling out to Mahabalipuram in an expedition organized in conjunction with the Dorset-based Scientific Exploration Society and India’s National Institute of Oceanography. On April 3, half a mile from the shore, Hancock plunged into the blue waters of the Bay of Bengal – and what he saw lying beneath him almost took his breath away.

‘What was staggering was that the ruins lay directly beneath the boat,’ he says. ‘I swam down to a depth of about 20 ft and reached out to scrape the sand away from the stone. It was clear from the masonry joints that the structure was unmistakably man-made, rather than a natural formation. I could see straight and

curving walls, all made from clearly defined blocks of stone, and I followed one which was still completely intact for 50 ft. The site contains a conglomeration of large, distinct blocks which seem like several big ceremonial buildings surrounded by a number of smaller ones. My initial reaction was, not surprisingly, one of excitement. This was a man-made site which was new to archaeology, a place where no one had ever dived before. It felt like diving into a lost world.'

Accompanying Hancock on the dive was Monty Halls, a former major in the Royal Marines who led the expedition for the Scientific Exploration Society. During the 17 years he has been diving, Halls, 35, a freelance expedition leader, says he has never seen anything like the majestic underwater structures of Mahabalipuram. 'These enormous granite blocks looked like huge sugar cubes, about 20 ft tall, and there was a cluster of small stones around them,' he said. 'Although it's hard to say with any certainty, what we are seeing could have been a granite shrine surrounded by the remains of four temples.'

Central to the significance of the discovery is the age of the structures. Although mainstream archaeology believes them to date from 1200 years ago -the

same time the rock-hewn sculptures and temples on the shore were carved from granite – Hancock believes the underwater ruins to be in the region of 6000 years old. If the flooded city did indeed date from only 1200 years ago, to the time of the Pallava dynasty, one would expect to find evidence of inscription on the stone. Yet during the 49 separate dives done over the course of three days by the team, not one inscription was found. In addition, the two structures differ widely in their architectural styles. The shore sculptures are ornate and highly decorative, while the underwater city is made up of simple, austere, rectangular blocks.

The greatest single piece of evidence so far to date the lost ruins of Mahabalipuram as 6000 years old comes from geophysicist Dr Glenn Milne at Durham University's world-renowned Department of Geological Sciences. Milne has built up a large database of figures and a sophisticated computer programme that can print out images of any shoreline at any period in history. When Hancock relayed data from Mahabalipuram, Milne was able to tell him that the site was at least 6000 years old. 'Assuming there was no tectonic movement at the site, and it

looks like there wasn't, then it appears that the area was flooded by a rise in sea levels about 6000 years ago,' says Milne. 'The computer programme is accurate to within 1000 years either side of the allotted date.'

When Hancock heard this, he felt vindicated. 'It proved that the methods I was using – the combination of deciphering ancient myths and new technology – actually worked,' he says. 'Of course, I am still keeping an open mind, but it does suggest I'm on the right track after all. It's mainstream archaeology and science that are blinkered.'

However, this is not the first time Hancock's theories have been bolstered by the application of hard science. In January, it was revealed that the carbon dating of artefacts discovered at two submerged sites in the Gulf of Cambay, off the north-western state of Gujarat, show that these underwater cities are likely to date from 9500 years ago – 5000 years older than any city recognized by mainstream archaeologists. The cities – which are 15 miles apart and lie 12 ft beneath the waves – were discovered in May of last year, during routine pollution testing by India's National Institute of Ocean Technology.

‘Since then, of course, archaeology has done everything it possibly can to dispute the evidence,’ says Hancock. ‘Experts have claimed that the samples could have been contaminated by sea water, and that the wood tested could have sat on the seabed for thousands of years before the cities were built. Scientists will do anything they possibly can to rubbish my name. I’m a threat to them because I’m an amateur – however, I’m an amateur who is able to pinpoint, with remarkable accuracy, a series of lost underwater cities which could force us to rethink everything we have ever learned about the origins of civilization.’

In the next couple of months, Hancock predicts an announcement from Cuba which will reveal the discovery of an ancient man-made city 2200 ft under the ocean. He is also confident that more lost civilizations will be found off the coasts of Malta, Japan, China, Florida, the Bahamas and Central America. ‘After all, when the ice caps flooded ten million square miles of land were submerged,’ he says. ‘Discoveries such as Mahabalipuram are just the beginning – during the next 20 to 30 years I’m sure we will have uncovered dozens of underwater cities. It’s not so much the quest for one Atlantis, but the search for many, many

underworlds.’

Appendix 7 / Press Report on Paulina Zelitsky's Exploration in Cuba

EXPLORERS TO RETURN TO OCEAN FLOOR

By Anita Show, The Associated Press

Sunday May 19, 2002, 5.10 p.m.

HAVANA (AP) – Floating aboard the Spanish trawler she chartered to explore the Cuban coast for shipwrecks, Paulina Zelitsky pores over yellowed tomes filled with sketches and tales of lost cities – just like the one she believes she has found deep off the coast of western Cuba.

Zelitsky's eyes grow wide as she runs her small hand over water-stained drawings of Olmec temples in a dog-eared 1928 study of Mexican archaeology.

The Russian Canadian explorer compares the shapes with green-tinted sonar images captured in March while studying the megalithic structures she discovered two years ago off Cuba's Guanahabibes Peninsula.

Amid piles of sonar-enhanced maps is a well-worn copy of *Comentahos Reales de las Incas*, or *Royal Commentaries of the Incas*, a classic of Spanish Renaissance narrative by the son of an Inca princess and a Spanish conquistador. Zelitsky is particularly fascinated by Garcilaso Inca de la Vega's account of ancient ruins at the bottom of Lake Titicaca, Peru.

'You would not think that a reasonable woman of my age would fall for an idea like this,' chuckled Zelitsky, a 57-year-old offshore engineer who runs the exploration firm Advanced Digital Communications of British Columbia, Canada.

Zelitsky passionately believes the megalithic structures her crew discovered 2310 feet below the ocean's surface could prove that a civilization lived thousands of years ago on an island or stretch of land joining the archipelago of Cuba with Mexico's Yucatan Peninsula, about 120 miles away.

The unusual shapes first appeared on the firm's sophisticated side-scan sonar

equipment in the summer of 2000, during shipwreck surveys off Cuba's western coast, where hundreds of vessels are believed to have sunk over the centuries.

The company is among five foreign firms working with Fidel Castro's government to explore the island's coast for shipwrecks of historical and commercial interest. But the mysterious shapes have become the focus of this crew's exploratory efforts.

Puzzled by the shapes with clean lines, the team has repeatedly returned to the site – most recently in March – for more sonar readings, more videotapes of the megaliths with an unmanned submarine. The crew left in mid-May for a month.

Evidence for Zelitsky's hypothesis is far from conclusive, and has been met with skepticism from scientists from other countries who nevertheless decline to comment publicly on the project until scientific findings have been made available. Submerged urban ruins have never been found at so great a depth.

Elsewhere in the Caribbean, the ruins of Jamaica's Port Royal are located at depths ranging from a few inches to 40 feet below the ocean surface. The once raucous seaside community was controlled by English buccaneers before it slid

under the waves in earthquakes beginning in 1692.

Located at just 20 feet at the mysterious megalithic structures discovered in the 1960s and 1970s in the sound between the Bahamas islands of North and South Bimini. Scientific expeditions there have produced inconclusive results about the shapes' origins.

Back in Cuba, a leading scientist recently admitted there is no easy explanation for the megalithic shapes found by Zelitsky's crew. The shapes on the sonar maps look like walls, rectangles, pyramids – rather like a town viewed from the window of an airplane flying overhead.

'We are left with the very questions that prompted this expedition,' geologist Manuel A. Iturralde Vincent, research director of Cuba's National Museum of Natural History wrote March 13. At the time he was visiting the area aboard the 270-foot long *Ulises*, the Spanish trawler Zelitsky outfitted with sophisticated computer and satellite equipment for her surveys.

In his written comments, later delivered at a scholarly conference here, Iturralde concluded it was possible the structures were once at sea level, as

Zelitsky theorizes.

Because of the large faults and an underwater volcano nearby, Zelitsky supposes the structures sank because of a dramatic volcanic or seismological event thousands of years ago.

Providing some support for that argument, Iturralde confirmed indications of ‘significantly strong seismic activity’.

Zelitsky shies from using the term ‘Atlantis’, but comparisons are inevitable to the legendary sunken civilization that Plato described in his *Dialogues* around 360 BC.

There have been untold, unsuccessful attempts over the ages to find that lost kingdom. One common theory is that Atlantis was located on the Aegean island of Thera, which was destroyed by a volcanic eruption nearly 3600 years ago.

Zelitsky does, however, mention known archaeological monuments when discussing her find.

Numerous photographs are scattered throughout a video show of the megaliths,

showing well-known ancient sites: the 1st century fortress of Masada high above the Dead Sea, Britain's circular monument of Stonehenge, the Roman fortress of Babylon in Cairo, the walls of Chan Chan, Peru, whose inhabitants were conquered by the Incas.

Perhaps, Zelitsky mused, the megaliths off Cuba are remains of a trading post, or a city built by colonizers from Mesoamerica. Those civilizations were far more advanced than the hunters and gatherers the Spaniards found upon arriving here five centuries ago.

Zelitsky admitted much more investigation is needed to solve the mystery.

But that doesn't keep her from believing, or from smiling slyly as she opens her agenda for 2002 to the first page.

Written there are the words Italian astronomer Galileo Galilei uttered under his breath at the height of the Inquisition, right after abjuring his belief that the Earth revolved around the sun.

'E pur si muove,' it reads – 'Nevertheless, it does move.'

Appendix 8 / Press Report from Times of India, *6 July 2002*

Submerged structures found off the coast of Mahabalipuram in the Bay of Bengal could well solve the mystery of seven pagodas dating back to the Pallava Period (7th century AD)

By Akshaya Mukul, *Times of India, Times* News Network, New Delhi, 6 July 2002

The Archaeological Survey of India's Underworld Archaeology Wing (UAW) has discovered three walls and a number of carved architectural members of ancient temples running north to south and east to west. Also found are seven big submerged rocks 500 metres offshore.

According to UAW in-charge Alok Tripathi, who undertook the diving 500 metres east and north of the Shore temple in November 2001 and March this year, ‘the walls are made of thick slabs of granite. Two long stone slabs, each with two verticle slits to receive two other stone slabs, were kept upright. Several such blocks arranged in a row formed a wall.’

The technique of construction, he says, is so effective that these structures are still in place despite violent seas and high-energy surf.

‘The remnants are well carved and look like mouldings and pillars of temple. They are similar to the carvings in the existing temples of Mahabalipuram,’ he says. Tripathi is hopeful of discovering more structures near the Shore temple. The ASI is planning to undertake diving towards the south of the temple.

‘We are planning to dive during the Tamil month of Tai which falls between December and January. We will trace the extension of submerged structures and clean them to reconfirm our conclusion about their nature and purpose,’ he says.

Part of the local legend, the story of submerged offshore temples, was first recorded by William Chambers, a British traveller, in the *Asiatic Research Journal*

in 1788. He quoted older people having seen the ‘tops of several pagodas far out in sea’, covered with copper. By the time Chambers visited the place ‘the effect was no longer the same as the copper had been incrusted with mould and verdigris’.

What lends credence to the UAW’s excavation is a search carried out by divers of UK-based Scientific Exploration Society and Indian National Institute of Oceanography in April. They claimed to have found ruins spread over several square kilometres off the coast. During the expedition, divers came across structures believed to be man-made.

Online Appendices and Photographs

A number of appendices prepared for this book, which could not be included in the printed edition for reasons of space, are available online at my website: *http://www.grahamhancock.com*. Go to the section marked *Underworld*, where a full listing of the appendices appears. In addition, updates to the research, new underwater discoveries subsequent to publication and elements of debate raised by the book will be featured on the website. Many more of Santha Faiia's photographs of the submerged structures explored in *Underworld* will also be made available there.

Graham Hancock

January 2002

Notes

PART ONE: *Initiation*

1 / Relics

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3 / Meltdown

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Glenn Milne, Dept of Geology, University of Durham

China: 9.6 million sq. kms; Europe 10.3 million sq. kms; Canada 9.9 million sq. kms

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). Ibid.

. Johnston, op. cit., 735 (emphasis added)

:. Re measures of seismic magnitude: the comparative figures for the Parvie quake were given in ML units in the source document. ML units are on the Local Magnitude scale, which is the basis for establishing an earthquake’s level on the famous Richter scale. ML measures the amplitude of a wave as it appears on a seismograph that has been set up in a particular location, so it is essentially a measure of the extent to which a certain bit of ground moves vertically in an earthquake. The Richter scale is logarithmic, so the magnitude goes up exponentially (by a factor of 10) with each step up the scale. An earthquake measuring 6.0ML has 10 times greater magnitude than an earthquake measuring 5.0ML, and 100 times greater magnitude than one measuring 4.0ML. NB, the units of the Richter Scale are M rather than ML, because the magnitude we’re

dealing with is no longer local but should be the same everywhere.

. Johnston, op. cit.

. *Encyclopaedia Britannica, Micropaedia*, vol. 10, 55

. *Guardian*, London, 18 January 1995

. *Encyclopaedia Britannica, Micropaedia*, vol. 10, 55

. Johnston, op. cit.

. Arvidsson, op. cit.

. Wilson et al., op. cit., 19 and 28

. Straus et al., op. cit., 129–30

. Schild in ibid., 129–30

. Schoch., op. cit., 147–8

. Plato, op. cit., 38

. Ibid., 35–6

. Emiliani, *Earth and Planetary Science Letters*, 159

. Isaac and Janet Asimov, *Frontiers II*, 110–11, New York, 1993, cited in Charles Ginenthal, 'The Extinction of the Mammoth', 266, *The Veilkovskian*, vol. 3, nos. 2 and 3, New York, 1997

. *Encyclopaedia Britannica, Micropaedia*, vol. 4, 235; LaViolette, op. cit., 203–4: 'Drumlin fields are found widely distributed in both North America and Europe. In North America conspicuous fields are present in regions that once lay at the edge of the ice-sheet, such as those found in central-western New York (about 10,000 drumlins), east central Wisconsin (about 5000 drumlins), south central New England (about 3000 drumlins), south-western Nova Scotia (2300 drumlins).

Other fields are believed to be present in intervening districts but to have escaped detection …'

8. John Grigsby, interview with John Shaw

9. Ibid.

10. Shaw, 'Drumlins, subglacial meltwater floods, and ocean responses', *Geology*, vol. 17, September 1989, 853–6

11. Ginenthal, op. cit., 267; John Shaw and Donald Kvill, 'A Glacio-Fluvial Origin for Drumlins in the Livingston Lake Area, Saskatchewan', *Canadian Journal of Earth Science*, vol. 21, 1984, 1442

12. Shaw, op. cit., 855

13. John Shaw, *A Meltwater Model for the Laurentide Subglacial Landscapes, Geomorphology Sans Frontiers*, 181, John Wiley and Sons, 1996

. John Grigsby, interview with John Shaw

. John Shaw, ‘A Qualitative View of Sub-Ice-Sheet Landscape Evolution’, *Progress in Physical Geography*, 18.2, 1994, 166

. Ibid., 164

. Shaw, ‘Drumlins, subglacial meltwater floods, and ocean responses’, 854

. Shaw and Kvill, op. cit., 1455

. John Shaw, ‘Sedimentary Evidence Favouring the Formation of Rogen Landscapes by Outburst Floods’, http://www.sentex.nettcc/rogen/main.html, 4

. Shaw and Kvill, op. cit., 1455

. Paul Blanchon and John Shaw, ‘Reef drowning during the last deglaciation: Evidence for catastrophic sea-level rise and ice-sheet collapse’, *Geology*, vol. 23, no. 1, January 1995, 6. See also Wilson et al., op. cit., 113–21

2. Blanchon and Shaw, op. cit., 4

3. Shaw, ‘Sedimentary Evidence Favouring the Formation of Rogen Landscapes by Outburst Floods’, 4

4. Fletcher and Sherman, ‘Submerged Shorelines …’, *Journal of Coastal Research*, special issue no. 17, 147

5. Ibid., 147 (emphasis added]

6. Scott Fields, ‘Metafloods at the end of the Ice Age’, cited in Charles Ginenthal, op. cit., 267

7. Reported in Fletcher and Sherman, op. cit., 148

8. Wilson et al., op. cit., 113–15

9. Ginenthal, op. cit., 265

10. Blanchon and Shaw, op. cit., 6

. Wilson et al., op. cit., 117

. Ibid., 117

. Ibid., 117

. Ibid., 117

. Crowley and North, op. cit., 61–2

. Blanchon and Shaw, op. cit., 7

. Fletcher and Sherman, op. cit., 147

. Crowley and North, op. cit., 64

. Fletcher and Sherman, op. cit., 147

0. Ibid., 147–8

11. Ibid., 148. Approximately the same dating for the catastrophic draining of Lakes Agassis and Ojibway through the Hudson Strait is given in D. C. Barber et al., 'Forcing of the cold event of 8200 years ago …', *Nature*, vol. 400, July 1999, 344ff

12. David Keys, 'Lethal Floods Ravaged Stone Age Britain', *Independent*, London, 15 October 2000

13. Oppenheimer, op. cit., 35

14. There was, for example, a 25 metre rise in sea-level, followed by a similar fall, during a period estimated at less than 2000 years centred on 8000 years ago. *American Association of Petroleum Geologists Bulletin*, 1995, 1568

15. Oppenheimer, op. cit., 40

16. LaViolette, op. cit., 225

17. Ibid., 206

8. Ibid., 199–200; 202–3

PART TWO: *India(1)*

4 / Forgotten Cities, Ancient Texts and an Indian Atlantis

Jonathan Mark Kennoyer, *Ancient Cities of the Indus Valley Civilization*, 70, American Institute of Pakistan Studies, Oxford, 1998

Introduced in 1972, the written script for the Somali language is based on the Latin alphabet, with modifications

The general view is that the short inscriptions of the Harappan script are trade linked and were probably in most cases used to label merchandise

John M. Cooper (ed.), *Plato: Complete Works*, 551, Hackett Publishing Company, Indianapolis, 1997

Ibid., 551–2

Georg Feuerstein, Subash Kak, David Frawley, *In Search of the Cradle of Civilization*, 29, Quest Books, Wheaton, Ill., 1995

Although the possibility cannot be completely ruled out. There is a curious reference in *the Atharvava Veda*, 19.72.1, to placing the *Vedas* back in a chest – which suggests the existence of a written version. The matter is discussed in David Frawley, *Gods, Sages and Kings*, 249, Passage Press, Salt Lake City, 1991

Gregory L. Possehl, *Indus Age: The Beginnings*, 6, University of Pennsylvania Press, 1999

Ibid., 6

. Ibid., 7, 8

. Ibid., 5–6, and see for example Kennoyer, op. cit., 24

. Possehl, op. cit., 41

. Personal communication, Professor B. B. Lal, formerly a student of Wheeler's. See also discussion in Feuerstein et al., op. cit., 77ff

. Possehl, op. cit., 42

. Ibid., 6

. Ibid., 6

. Ibid., 6

. Ibid., 6

. Emphasis added. Cited in *Vedavyas, Astronomical Dating of the Mahabaratha War*, 64, University of Vedic Sciences, India, 1995

. Cited in ibid., 64

. M. Muller, *The Six Systems of Indian Philosophy*, 34–5, cited in Feuerstein et al., op. cit., 42

. Kennoyer, op. cit., 29

. Ibid., 104 ff

. V. Gordon Childe, *The Aryans*, 1926, 211–12, cited in Possehl, op. cit., 41–2

. Colin Renfrew, *Archaeology and Language: The Puzzle of Indo-European Origins*, 182, Pimlico, London, 1998

. Ibid., 188

. Ibid., 190

. Ibid., 205

. Ibid., 205

). S. R. Rao, *Dawn and Devolution of the Indus Civilization*, Aditya Prakashan, New Delhi, 1991

. See S. P. Gupta, *The Indus-Sarasvati Civilization*, 91, 97, Pratiba Prakashan, Delhi, 1996

:. Ibid., 146

:. *Vishnu Purana*, vol. 2, 785, Nag Publishers, Delhi, 1989

-. Ibid., 853

:. E.g. see Ananda K. Coomaraswamy, *Myths of the Hindus and Buddhists*, 393, Dover Publications, New York, 1967

). *Bhagvata Purana*, vol. 2, part 5, 12.3.30, 2139, Motilal Banarsidas, Delhi, 1978

5 / Pilgrimage to India

A range of figures for the extent of the civilization are given by different authorities. See Jonathan Mark Kennoyer, *Ancient Cities of the Indus Valley Civilization*, 17, American Institute of Pakistan Studies, Oxford, 1998; S. R. Rao, *Dawn and Devolution of the Indus Civilization*, 10, Aditya Prakashan, New Delhi, 1991; S. P. Gupta, *The Indus-Sarasvati Civilization*, 1–4, Pratiba Prakashan, Delhi, 1996, gives 2.5 million square kilometres

See discussion in Gupta, op. cit., 114

Sir Mortimer Wheeler, *The Indus Civilization*, 3rd edn, 1968, 55

Rao, op. cit., 49

Kennoyer, op. cit., 50. He gives a population of 41,250 for the Lower Town of Mohenjodaro – 76.6 hectares – but notes that the total populated area was much larger – 250 hectares or so. Pro rata this yields a total population of about 150,000.

Ibid., 57

Ibid., 52

Georg Feuerstein, Subash Kak, David Frawley, *In Search of the Cradle of Civilization*, 73, Quest Books, Wheaton, Ill., 1995

Ibid., 73

). Rao, op. cit., 17

. Ibid., 17

:. Kennoyer, op. cit., 15. The reference comes from Kennoyer's study of blade technologies in the Indus Valley cities. He found plentiful evidence that certain large gastropod seashells (*Turbinella pyrum* and *Chicoreus ramosus)* had been cleanly and efficiently sliced up to make jewellery. These shells are exceptionally hard and he came to the conclusion (page 96) that they must have been cut 'with a specialized bronze saw … By studying the depth of each saw stroke on

fragments of shell from the ancient workshops, we can reconstruct the basic shape of the saw. It had a very thin serrated edge that was long and curved, similar to the saws still used in shell bangle making in modern Bengal. Even more astounding is the fact that the Indus bronze saw was able to cut the shell as efficiently as the modem steel saws, which suggests that the Indus bronze workers were able to produce a bronze that was as hard as steel.'

. Gupta, op. cit., i

. Ibid., i

. Gupta, op. cit., 141

. Gregory Possehl, interviewed by Sharif Sakr, 24 October 2000

. Captain M. W. Carr (ed.), *Descriptive and Historical Papers Relating to the Seven Pagodas of the Coromandel Coast* (first published 1869), reprinted Asian Educational Services, New Delhi, 1984

. Ibid., 34–5

. Ibid., 2

. Ibid., 1

. E.g. *Vishnu Purana*, vol. 1, 188ff, Nag Publishers, Delhi, 1989

. Carr, op. cit., 12–13

. Ibid., 3

. Ibid., 13

. Ibid., 13

. Ibid., 14

. Ibid., 14

. Ibid., 14–15

. E.g. Plato, *Timaeus and Critias*, 145, Penguin Books, London, 1977

. Rao, op. cit., 141

. Ibid., 141

. Ibid., 141

. Ibid., 126 and 142

. Ibid., 141

. Pannikar and Srinivason, cited ibid., 143

. Ibid., 120

. Michael A. Hoffman, *Egypt Before the Pharaohs*, 16, Michael O'Mara Books, London, 1991

. Cyril Aldred, *Egypt to the End of the Old Kingdom*, 35, Thames and Hudson, London, 1988

. Ibid., 35, 33

. Kennoyer, op. cit., 114

. Arthur Posnansky, *Tiahuanacu: The Cradle of American Man* (4 vols.), plate LXXIX.a, J. J. Augustin, New York, 1945

. Aldred, op. cit., 35

. Mackay, 1934, 422, cited in Possehl, op. cit., 289

. E.g. Thor Heyerdahl, *The Ra Expeditions*, BCA, London, 1972

. Gupta, op. cit., i, 114

. Possehl, op. cit., 290

7. Ibid., 290

8. Ibid., 290

9. Note in Lothal site museum

10. See *Fingerprints of the Gods*, chapters 24 and 25

11. John Howley, Jada Bahrata Dasa, *Holy Places and Temples in India*, 438, Spiritual Guides, 1996

12. *Bhagvata Purana*, 10, 1571

13. Ibid., 10, 1570

6 / The Place of the Ship's Descent

1. Ralph T. Griffith (trans.), *Hymns of the Atharvaveda*, vol. 1, xxvii, Munisharam

Manoharlal Publishers, Delhi, 1985 (first published 1895–6)

Gregory L. Possehl, *Indus Age: The Beginnings*, 5, University of Pennsylvania Press, 1999; *Satpatha Brahmana*, part 5, 362, Motilal Banarsidass, Delhi, 1994

Possehl, op. cit., 5; Griffith, op. cit., vol. 1, xi

Possehl, op. cit., 5; Griffith, op. cit., vol. 1, xi

Possehl, op. cit., 5

Griffith, op. cit., vol. 1, xii. The *Atharva Veda* is so named, says Griffith (p. xi), 'not from the nature of its contents, but from a personage of indefinitely remote antiquity named Atharvan …'

M. Sundarraj, *Rig Vedic Studies*, xxi, International Society for the Investigation of Ancient Civilization, Chennai, 1997

See *Encyclopaedia Britannica, Micropaedia*, vol. 2, 461

See ibid., vol. 1, 517

). Ibid., 12, 189

. Ibid., 189

. J. G. Frazer, *Folklore in the Old Testament*, vol. 1, 85, Macmillan, London, 1918

. *Encyclopaedia Britannica, Micropaedia*, vol. 7, 693; vol. 9, 920

. Ibid., vol. 7, 693

. Ibid., vol. 9, 920

. Ibid., 804

. John E. Mitchiner, *Traditions of the Seven Rishis*, xvii-xix, Motilal Banarsidass, Delhi, 1982

. Ibid., xvii

. Ibid., xvii

. E.g. see Ralph T. Griffith (trans.), *Hymns of the Rgveda*, vol. 1, 66, footnote 99, Munisharam Manoharlal Publishers, Delhi, 1987 (first published 1889). There are more than eighty separate references to Manu in the *Rig Veda*

. Ibid., vol. 1, 66

. Ibid., vol. 1, 99

. Ibid., vol. 2, 218

. Ibid., vol. 2, 513

. Ibid., vol. 1, 155

. See discussions in E. A. Wallis Budge, *Osiris and the Egyptian Resurrection*, Dover Publications Inc., New York, 1973 (first printed 1911). See also discussion in Jane B. Sellers, *The Death of Gods in Ancient Egypt, 21*, Penguin, London, 1992

7. Griffith, *Rgveda*, vol. 1, 285

8. Ibid., 286

9. David Frawley, *Gods, Sages and Kings*, 285–6, Passage Press, Salt Lake City, 1991. See *Bhagvata Purana*, vol. 8, 24.10–11, Motilal Banarsidas, Delhi, 1978

10. 'Wash thee away' is Weber's rendering. J. Eggeling has 'cut thee off'. Max Muller has 'cut thee asunder'. See *Satpatha Brahmana*, part 1, 217, note 3.

11. Ibid., 216–18

12. Ibid., 218–19

13. Frazer, op. cit., 185

14. Ibid., 186

15. Ibid., 186–7

. Ibid., 187

. Ibid., 191

. Ibid., 191

. Ibid., 192

. Ibid., 192

. Ibid., 192

. *Satpatha Brahmana*, part 1, 218, note 1

. *Atharva Veda*, 19.39.8, translated by Frawley, op. cit., 299

. Griffith, *Atharvaveda*, vol. 2, 243

. Ibid., vol. 2, 243, note 8

. Cited in *Satpatha Brahmana*, part 1, 218, footnote 1

. Griffith, *Rgveda*, vol. 1, 319

. Ibid., vol. 1, 319, note 13

. *Bhagvata Purana*, cited in Frazer, op. cit., 192

. Ibid., 192

. *Matsya Purana*, part 1, 7, Nag Publishers, Delhi, 1997

. See extensive discussion in *Fingerprints of the Gods*, chapter 31

. *Matsya Purana*, part 1, 7, note.

. See chapter 2 and Samuel Noah Kramer, *History Begins at Sumer*, 152–3, University of Pennsylvania Press, 1991

. Mitchiner, op. cit., 206, 208–9

. ‘Formerly in the Svayambhuva age these were the Seven great Rsis. When the Age of Caksusa had passed … the Seven Rsis were again born as the seven Mind-born. (The question is asked: How were the Seven Rsis formerly born as the seven Mind-born? And the answer is given: After a long period, the Rsis were born a second time – so we have heard.)’ Cited in Mitchiner, op. cit., 33

. Griffith, *Rgveda*

. Ludwig, cited in ibid., vol. 2, 624, note 7

. Mitchiner, op. cit.

. Ibid., xvi

. Ibid., 196

. Lokamanya Bal Ganghadar Tilak, *The Arctic Home in the Vedas*, 425, Tilak Bros, Poona, 1956. I have rendered ‘Kalpa’ as ‘age’.

. Ibid., 426

. Ibid., 426

. See discussion in *Heaven's Mirror*, 156ff

. Griffith, *Rgveda*, vol. 1, 237

. Cited in Sundarraj, op. cit., 333

. E.g. 'he who has eyes can see this, not he who is blind', cited in Mitchiner, op. cit., 10.

. Tilak, op. cit., 427

. Lists of different Manvantaras and groups of Manu and the Seven Sages in *Matsya Purana*, for example

. Tilak, op. cit., 426

. Mitchiner op. cit., 49–50

. Tilak, op. cit., 420

. *Matsya Purana*, part 1, 635. I have rendered ‘Kalpa’ simply as ‘age’.

. *The Puranas*. See Mitchiner, op. cit., 3

. Cited in ibid …, 293

. Ibid., 128–30

. Ibid., 4

. Ibid., 5

. Griffith, *Rgveda*, vol. 2, 538

. Ibid., vol. 2, 538. See also Mitchiner, op. cit., 10

. Discussed in ibid., 262–7

. *Satpatha Brahmana*, part 1, 282

. Mitchiner, op. cit., 262–3

. See extensive discussions in Robert Bauval and Adrian Gilbert, *The Orion Mystery*, Heinemann, London, 1994. See also *Keeper of Genesis/Message of the Sphinx*, and *Heaven's Mirror*

. Ibid.

. See discussions in *The Orion Mystery*

. R. O. Faulkner (trans.), *The Ancient Egyptian Pyramid Texts*, 138, Utterance 419, Aris and Phillips, Wiltshire (first published by Oxford University Press, 1969)

. Ibid., 155, Utterance 466, 5

. Mitchiner, op. cit., 253

. Ibid., 190–91

. Ibid., 189–90

. Ibid., 218ff

. See discussion in *Heaven's Mirror*, chapter 6

. See discussion in *Heaven's Mirror*, chapter 4

. Mitchiner, op. cit., 223

. Ibid., 224

. Ibid., 225

. *Mahabaratha*, cited in ibid., 223

0. Ibid., 223

1. See discussion in *Keeper of Genesis/ Message of the Sphinx*, 201–2

2. E. A. E. Reymond, *Mythical Origin of the Egyptian Temple*, 90, 109, 127, Manchester University Press, 1969

3. Ibid., 77

4. Frawley, op. cit., 41

5. Ibid., 205

7 / Lost India

See discussion in chapter 1

See discussion in chapter 1

See discussion in chapter 2

See discussion in chapter 5

Georg Feuerstein, Subash Kak, David Frawley, *In Search of the Cradle of Civilization*, 52–9, Quest Books, Wheaton, Ill., USA, 1995

Ibid., 52

See discussion in Gregory L. Possehl, *Indus Age: The Beginnings, 446ff*, University of Pennsylvania Press, 1999

There is not space to review the literature here but there is little serious dispute amongst scholars that our ancestors were taking to the sea as much as 30,000 or more years ago. See, for example, Geoffrey Irwin, *The Prehistoric Exploration and Colonisation of the Pacific*, 3ff, Cambridge University Press, 1994

Frawley, in David Frawley, *Gods,*
Sages and Kings, 45, Passage Press,
Salt Lake City, 1991

). Ibid., 45

. Ibid., 45

:. Ibid., 45

:. S. P. Gupta, *The Indus-Sarasvati Civilization*, 145, Pratiba Prakashan, Delhi, 1996

·. E.g. see Werner Keller, *The Bible as History*, Bantam Books, New York, 1988

:. I described this effect at Easter Island in *Heaven's Mirror*, 244–5

). Cited in chapter 4

'. Possehl, op. cit., 362

:. Ralph T. Griffith (trans.), *Hymns of the Rgveda*, vol. 1, 4, 12, footnote 99, Munisharam Manoharlal Publishers, Delhi, 1987 (first published 1889)

). Ibid., vol. 2, 44, 6

. Ibid. vol. 1, 676, 2, 7–9

. Ibid., vol. 1, 677, note 2

. Ibid., vol. 2, 510, 9

. Possehl, op. cit., 363

. Griffith, op. cit., vol. 2, 98–9, 1–2

. Ramaswamy, Bakliwal and Verma, 1991, 'Remote Sensing and River Migration in Western India', *Remote Sensing*, 12 (12), 2597–2609, cited in Possehl, op. cit., 362

. Ramaswamy et al., cited in Possehl, op. cit., and Possehl's own views, 362

. Bhimal Ghose, Anil Kar and Zahrid Jussain, 'Comparative Role of the Aravali and Himalayan river systems in the fluvial sedimentation of the Rajasthan desert. Central Arid Zone Research Institute, Jodhpur', cited in Frawley, op. cit., 75

. B. Ghose et al., 1979, 'The lost courses of the Saraswati River in the Great Indian Desert, New Evidence from Landsat Imagery', cited in Gupta, op. cit., 15

. B. P. Radhakrishna, 'Holocene Chronology and Indian Prehistory', in B. P. Radhakrishna and S. S. Merh (eds.) *Vedic Saiasvati: Evolutionary History of a Lost River of Northwestern India*, Geological Society of India, Bangalore, 1999

. Possehl, op. cit., 372

. Discussed in *Fingerprints of the Gods*, chapter 28

. See *Heaven's Mirror, Fingerprints of the Gods*

. Jacobi, *Indian Antiquary*, cited in Frawley, op. cit., 182

. Lokamanya Bal Ganghadar Tilak, *The Orion or Researches into the Antiquity of the Vedas*, 220, 234, Tilak Bros, Poona, 1986

. Ibid., 220

. Ibid., 220

. Frawley, op. cit., 189

. Ibid., 198

. Ibid., 198

. Feuerstein et al., op. cit., 244–5

. John E. Mitchiner, *Traditions of the Seven Rishis*, 134, Motilal Banarsidass, Delhi, 1982

. Ibid., 139–41

. Ibid., 158

. Ibid., 158

. Pliny, *Naturalis Historia*, 6, 59–60, cited in Mitchiner, op. cit., 158; Solinus,

Compendium, 52.5, cited in Mitchiner, op. cit., 158–9

6. Mitchiner, op. cit., 158

7. Feuerstein et al., op. cit., 247

8. Mitchiner, op. cit., 160

8 / The Demon on the Mountain and the Rebirth of Civilization

Turania = Ancient Turkestan

S. P. Gupta, *The Indus-Sarasvati Civilization*, 16–17, Pratiba Prakashan, Delhi, 1996

Gregory L. Possehl, *Indus Age: The Beginnings*, 440, University of Pennsylvania Press, 1999

Ibid., 440

Jacques Cauvin, *The Birth of the Gods and the Origins of Agriculture*, 76, Cambridge University Press, 2000

Possehl, op. cit., 412

Ibid., 1

E.g. ‘Childe 1936; Bradwood 1952; Binford 1968; Flannery 1968, 1986; Myers 1971; Harris 1972, 1977; Reed 1977; M. Cohen 1977; Rindos 1984; Henry 1989; McCorriston and Hole 1991; Belfer-Cohen 1991, to note a few’, cited in ibid., 429

Ibid., 429

). Bar-Yoseph and Meadow, etc., cited in ibid., 430–31

. Bar-Yoseph and Meadow, cited in ibid., 430

:. Ibid., 430–31

. Sauer, 1952, cited in ibid., 431

. Ibid., 451

. Ibid., 451, 465

. Ibid., 453

. Ibid., 453

. Ibid., 453

. Ibid., 453

. Ibid., 453–7

. Jarridge et al., cited in ibid., 455

. Ibid., 453–7

. Ibid., 238

. Ibid., 238–9

. Ibid., 460, 459

. See discussion in chapter 6

. Possehl, op. cit., 457–9

. Ibid., 230

. Ibid., 457–9

. Ibid., 483–8

. Ibid., 482

. Ibid., 482

. Jarridge, cited in ibid., 485

. Ibid., 489. Emphasis added

. Ibid., 489

. Ibid., 489 and Jonathan Mark Kennoyer, *Ancient Cities of the Indus Valley Civilization*, 38, American Institute of Pakistan Studies, Oxford, 1998

. Kennoyer, op. cit., 38

. Possehl, op. cit., 460

. Ibid., 21, 22, 491

. Ibid., 447; Gupta, op. cit., 22

. Possehl, op. cit., 447: 'Taken as a whole the dates from Mehrgarh I and II seem to indicate that there was a settlement there at the beginning of the eighth

millennium BC'

. David Frawley, *Gods, Sages and Kings*, 58 and 300, Passage Press, Salt Lake City, 1991

. In Georg Feuerstein, Subash Kak, David Frawley, *In Search of the Cradle of Civilization*, 89, Quest Books, Wheaton, Ill., 1995

. Ralph T. Griffith (trans.), *Hymns of the Rgveda*, vol. 1, 5, footnote 10, Munisharam Manoharlal Publishers, Delhi, 1987 (first published 1889]

. Lokamanya Bal Ganghadar Tilak, *The Arctic Home in the Vedas*, 225, Tilak Bros, Poona, 1956

. Wilson, cited in Griffith, op. cit., vol. 1, 47, note 1

. See discussion in Griffith, op. cit., vol. 1, 48, note 12

. Max Muller, cited in Griffith, op. cit., vol. 1, 48, note 12

). Tilak, op. cit., 225

). Ibid., 225

. Nicholas Borozovic, Douglas W. Bur-bank, Andrew J. Meigs, ‘Climatic Limits on Landscape Development in the Northwestern Himalaya’, *Science*, vol. 276, no. 5312, 25 April 1997, 571–4

. Edward Derbyshire, ‘Quaternary glacial sediments, glaciation stule, climate and uplift in the Karakoram and northwest Himalaya: review and speculations’, *in Palaeogeography, Tolaeoclimatology, Palaeoecology*, 120, 1996, 147–57, see 151 and 153

. S. K. Gupta, P. Sharma and S. K. Shah, *Journal of Quaternary Science*, 7 (4), 1992, 283–90, see 283

. Jonathan A. Holmes, ‘Present and Past Patterns of Glaciation in the Northwest Himalaya: Climate, Tectonic and Topographic Controls’, in John F. Shroder Jr

(ed.), *Himalaya to the Sea: Geology, Geomorphology and the Quaternary*, 72

5. Ibid., 84

6. Ibid., 86. Holmes' study suggests (p. 90) that the maximum extent of glaciation in the Himalayas and the Karakorams may even have been reached somewhat earlier than the maximum extent of glaciation elsewhere in the world and thus the Himalayan ice-cap may have endured a rather longer period of deep-freeze and 'slumber' than other ice-caps

7. Borozovic et al., op. cit.

8. Mohamed Amin, Duncan Willetts, Graham Hancock, *Journey Through Pakistan*, Camerapix Publishers International, Nairobi, 1982

9. Ibid., 112

10. Holmes in Shroder, op. cit., 73

. Borozovic et al., op. cit., 573. P. J. Taylor has noted modern ELAs of between 4800 and 5500 metres in the Zanskar range, see *Glacial Geology and Geomorphology*, April 2001, *http://ggg.qub.c.uk/ggg/papers/full/ 2001/rpo2 /rp02.html*

. Morner, cited in Derbyshire, op. cit., 154

. Derbyshire, op. cit., 153

. Ibid., 153

. Some of the most useful papers are gathered together in B. P. Radhakrishna and S. S. Merh (eds.), *Vedic Sarasvati: Evolutionary History of a Lost River of Northwestern India*, Geological Society of India, Bangalore, 1999.

. Coxon et al., *Journal of Quaternary Science*, 11 (6), 1996, 495–510, see 495

. Ibid., 495

8. Shroder, Owen, Derbyshire, ‘Quaternary Glaciation’, in Shroder, op. cit., 133

9. Coxon et al., op. cit., 498

10. Daniel Vuichard and Markus Zimerman, ‘The 1985 Catastrophic Drainage, etc.’, *Mountain Research and Development*, vol. 7, no. 2, 1987, 91–100, see 91.

11. Lewis A. Owen, ‘Neotectonics and glacial, etc.’, *Tectonophysics*, 163, 1989, 227–65, see 237

12. Butler, Owen and Prior, ‘Flashfloods, earthquakes and uplift in the Pakistan Himalayas’, *Geology Today*, 197, November-December 1998

13. Kenneth Hewitt, ‘Natural dams and outburst floods of the Karakoram Himalaya’, *Hydrological Aspects of Alpine and High Montane Areas* (Proceedings of the Exeter Symposium, July 1982), IAHS publ. no. 138, see 259

14. Ibid., 259

6. Again the notable exception, where this matter is considered directly, is Radhakrishna and Merh, op. cit.

6. Elise Van Campo, *Quaternary Research*, 26, 1986, 376–8, see 376 and 384

7. Ibid., 385

8. Ibid., 384–5

9. Ibid., 385

9. See discussion in chapter 3

. Thomas J. Crowley and Gerald R. North, *Palaeoclimatology*, 62, Oxford University Press, 1991

2. Lawrence Guy Straus et al., *Humans at the End of the Ice Age, 66*, 86, Plenum Press, New York and London, 1996. The Younger Dryas is explicitly a term for a European cold phase, although the phase itself was global. The same phase is thus

sometimes referred to by different names in other places; but it is also a generic term and it is used as such here

5. Crowley and North, op. cit., 63

6. Adams and Otte give date of start of Younger Dryas cold period as 12,800 and the end as 11,400 calendar years ago, *Current Anthropology*, vol. 40, 1999, 73–7, see 73

7. Straus et al., op. cit., 86

8. Adams and Otte, op. cit., 73

9. Ibid., 73

10. M. A. J. Williams and M. F. Clarke, 'Late Quaternary environments in north-central India', in *Nature*, vol. 308, 12 April 1984, 633–5, see 633

11. See also B. P. Radhakrishna, 'Vedic Sarasvati and the Dawn of Indian

Civilization’, in Radhakrishna and Merh, op. cit., 7–8

1. Crowley and North, op. cit., 62

PART THREE: *India (2)*

9 / Fairytale Kingdom

Deo Prakash Sharma, *Harappan Seals, Sealings and Copper Tablets*, 20–21, National Museum, New Delhi, 2000

Jonathan Mark Kennoyer, *Ancient Cities of the Indus Valley Civilization*, 112, American Institute of Pakistan Studies, Oxford, 1998

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Personal communication from Hari Shankhar, Yoga teacher, Chennai, south India

Kennoyer, op. cit., 112

Sharma, op. cit., 20

For a superb inquiry into the nature of Siva see Stella Kramrisch, *The Presence of Shiva*, Motilal Banarsidass, Delhi, 1988

S. R. Rao, *Dawn and Devolution of the Indus Civilization*, 306, Aditya Prakashan, New Delhi, 1991

See for example discussion in Kennoyer, op. cit., 110

). Gregory L. Possehl, *Indus Age: The Beginnings*, 80, University of Pennsylvania Press, 1999

. Kennoyer, op. cit., 113

:. Full discussion in chapter 10

:. See discussion in chapter 8

·. Possehl, op. cit., 1

:. Captain M. W. Carr (ed.), *Descriptive and Historical Papers Relating to the Seven*

Pagodas of the Coromandel Coast (first published 1869), reprinted Asian Educational Services, New Delhi, 1984

. Shulman in Alan Dundes (ed.), *The Flood Myth*, 294, University of California Press, 1988

. Ibid., 294–5

. *Journal of Marine Archaeology* (JMA), vols. 5–6, 1995–6, 7ff, Society of Marine Archaeology, National Institute of Archaeology, Goa, India, 1997

. Ibid., 7–8

. Ibid., 7, 14ff

. See discussion in chapter 1

. Interview with Rao, 29 February 2000, cited in chapter 1

. Ibid.

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. S. R. Rao, *The Lost City of Dvaraka*, fig. 55, Aditya Prakashan, New Delhi, 1999

. Interview with Rao, 29 February 2000

. JMA, op. cit., 64

. Interview with Rao, 29 February 2000; and JMA, op. cit., 65

. Many reproduced as plates to Rao's *The Lost City of Dvaraka*, op. cit.

. Krishna as avatar of Vishnu – e.g. Danielou

. Interview with Rao, 29 February 2000

. Ibid.

. As for example in 2001

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10 / The Mystery of the Red Hill

Alain Danielou, *The Myths and Gods of India*, 221, Inner Traditions International, Rochester, 1991

See discussion in Ramana's *Arunachela: Ocean of Divine Grace*, 1, Sri Ramanasramam, Tiruvannamalai, India, 1998

M.C. Subramanian, *Glory of Arunachela*, 93, Sri Ramanasramam, Tiruvannamalai, India, 1999

Ibid., 100

Ibid., 103

Ibid., 104

Skandananda, *Arunachela Holy Hill*, xi, Sri Ramanasramam, Tiruvannamalai, India, 1995

Ibid., xi

Subramanian, op. cit., 104; Skandananda, op. cit., xix

). Skandananda, op. cit., xl, note 20

. John E. Mitchiner, *Traditions of the Seven Rishis*, 206, Motilal Banarsidass, Delhi, 1982

:. Ibid., 208

:. Ibid., 206

·. Subramanian, op. cit., 106

. Skandananda, op. cit., xi

. Subramanian, op. cit., 104

. *Skanda Purana*, 12, chapter 2, verse 52

. *Arunachela Mahatmyan*, 16

. 'Thiruvannamalai and its surroundings a geological Paradise: a plea for preservation as a National Heritage site', paper by T. V. Viswanathan, former Deputy Director General, Geological Survey of India, handed to me at Sri Ramana Asram

. E.g., see Jonathan Mark Kennoyer, *Ancient Cities of the Indus Valley Civilization*, 110, American Institute of Pakistan Studies, Oxford, 1998

. Sharp-eyed readers will have noticed an example of this in a passage quoted earlier in this chapter.

2. W. J. Wilkins, *Hindu Mythology*, 265–6, Heritage Publishers, New Delhi, 1991

3. Jan Knappert, *Indian Mythology*, 228 and 230, Diamond Books, London, 1995; *New Larousse Encyclopaedia of Mythology*, 341, Hamlyn, London, 1989

4. Stella Kamrisch, *The Presence of Shiva*, 7, Motilal Banarsidass, 1988

5. Alfred Hildebrandt, *Vedic Mythology*, vol. 2, 289, Motilal Banarsidass Publishers, Delhi, 1990; Wilkins, op. cit., 266

6. Hildebrandt, op. cit., vol. 2, 282; Wilkins, op. cit., 266

7. Danielou, op. cit., 192–4

8. Ralph T. Griffith (trans.], *Hymns of the Rgveda*, vol. 1, 318 and 319, Munisharam Manoharlal Publishers, Delhi, 1987 (first published 1889)

9. Ibid., vol. 1, 162–3

. *Rig Veda*, 10.136.7, discussed in Hildebrandt, op. cit., vol. 2, 287; Kamrisch, op. cit., 20–21, 83–4; 424–6

. Griffith, op. cit., vol. 2, 630; vol. 1, 162; Wilkins, op. cit., 265–6

. Kamrisch, op. cit., 21

. Ibid., 119 and 123

. Griffith, op. cit., 8.13.[20]

. *Larousse*, 376

. Ibid., 337

. Danielou, op. cit., 209

. Wilkins, op. cit., 102–3

. Kamrisch, op. cit., 425–6

. Mitchiner, op. cit., 190–91

. *Bhagvata Purana*, 6.15.11, vol. 8, 856, Motilal Banarsidas, Delhi, 1978

. David Goodman (ed.), *Be As You Are: The Teachings of Sri Ramana*, 1, Penguin Books, New Delhi, 1992

. Ibid., 1

. Ibid., 1

. Ibid., 3

. *Skanda Purana* and *Arunachela Mahatmya*

. For example, Inca myths regarding Tiahuanaco, Aztec myths regarding Teotihuacan and Ancient Egypt's Edfu cosmology

. See discussion in *Keeper of Genesis/ Message of the Sphinx*, chapter 12

). Cited above: Subramanian, op. cit., 104

). See discussion in next chapter

. C. Ramachandran Dikshitar, *Studies in Tamil Literature and History*, 7, The South India Sauiva Siddhanta Works Publishing Society, Madras, 1983

. Saint Bernard of Clairvaux, *On Consideration*, cited in Robert Lawlor, *Sacred Geometry*, 6, Thames and Hudson, London, 1989

. See discussions in *Fingerprints of the Gods* and *Heaven's Mirror*

. Ibid.

. See discussions in *Fingerprints of the Gods*

. Giorgio de Santillana and Hertha von Dechend, *Hamlet's Mill*, Nonpareil, Boston, 1992

. See discussion in *Fingerprints of the Gods*

. See discussions in *Fingerprints of the Gods* and *Heaven's Mirror*

. Santillana and von Dechend, op. cit.

. See discussion in *Heaven's Mirror*

. See discussion in *Heaven's Mirror*, where this grid is first proposed

. Wilkins, op. cit., 353

. Danielou, op. cit., 160

. Ibid., 220–21

. V. Naryanaswamy, *Thiruvannamalai*, 17, Manivasagar Pathippagam, Madras, 1992

. S. Kamrisch, op. cit., 83–4, and see *Rig Veda*, 7.59.12

7. Donald A. McKenzie, *India: Myths and Legends*, 146–7, Mystic Press, London, 1987

8. M. Sundarraj, *Rig Vedic Studies*, 83, International Society for the Investigation of Ancient Civilization, Chennai, 1997

9. Ibid., 83

10. Griffith, op. cit., 1.154.1–3

11. Ibid., 1.155.4

12. Ibid., 1.155.6

13. Ibid., 6.49.13

14. Ibid., 1.164.11

15. See discussion in *Fingerprints of the Gods*, part 5

. Richard L. Thompson, *Mysteries of the Sacred Universe: the Cosmology of the Bhagvata Purana*, Govhardan Hill Publishing, Florida, 2000

. Ibid., 47

. Ibid., 239

. Ibid., 269

. Ibid., 104

. Ibid., 104

. Ibid., 105–6

. Schulman in Alan Dundes (ed.), *The Flood Myth*, 295, University of California Press, 1988

11 / The Quest for Kumari Random

See discussion in C. Ramachandran Dikshitar, *Studies in Tamil Literature and History*, chapter 1, The South India Sauiva Siddhanta Works Publishing Society, Madras, 1983

Discussed at length in K. N. Shivaraja Pillai, *The Chronology of the Early Tamils*, University of Madras, 1932

Ibid., 19

Ibid., 20

For example, it is claimed that Ethiopia's national epic, the *Kebra Nagast* ('Glory of Kings'), was concocted to legitimize the Solomonic dynasty

Pillai, op. cit., 19

Dikshitar, op. cit., 5

Ibid., 5

Ibid., 5–6, 13–14; P. Ramanathan, *A New Account of the History and Culture of the Tamils*, 8–10, Sauiva Siddhanta Works Publishing Society, Chennai, 1998; T. R. Sesha Iyenagar, *Dravidian India*, 154, Asian Educational Services, New Delhi, 1995

). Dikshitar, op. cit., 6

. N. Mahalingam, *Kumari Kandam -The Lost Continent*, 2, 59–60, Proceedings of the Fifth International Conference/Seminar of Tamil Studies, Madurai, Tamil Nadu, India, January 1981, International Association of Tamil Research, Madras

:. Personal communication from Dr T. N. P. Haran, American College, Madurai

:. Ibid.

-. Dikshitar, op. cit., 7

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. Ibid., 8

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. Dr D. Devakunjari, *Madurai Through the Ages*, 26, Society for Archaeological, Historical and Epigraphical Research, Madras

. Dikshitar, op. cit., 8

. Pillai, op. cit., 19

. Dikshitar, op. cit., 4

. Ibid., 4

. Ibid., 5

. Pillai, op. cit., 21. See also 19

. V. Kanakasabhai, *The Tamils Eighteen Hundred Years Ago, 21*, Sauiva Siddhanta, Madras, 1966

. Ibid., 21, note 3

. Ibid., 21, note 3; Dikshitar, op. cit., 13–14

. Ramanathan, op. cit., 8

. Ibid., 8–9. Dikshitar, op. cit., 14. In his commentary on the *Tolkappiyam*, Per-Asiyar calls this lost territory not Kumari Kandam but *Panainadu*

. Ramanathan, op. cit., 32

. Ibid., 32–3

. Sesha Iyenagar, op. cit., 24, 25

. Dr M. Sundaram, Chief Professor and Head of the Dept of Tamil, Presidency College, Madras, 'The Cultural Heritage of the Ancient Tamils', research paper

. Shulman, in Alan Dundes fed.], *The Flood Myth*, 301, University of California Press, 1988

. William Geiger, *The Mahavamsa, or The Great Chronicle of Ceylon*, ix-x, Asian Educational Services, New Delhi, 1986 (first published 1912)

. N. K. Mangalamurugesan, *Sangam Age*, Thendral Pathipakam, Madras, 1982, 47

. Rajavali, vol. 2, 180, 190, cited in Kanakasabhai, op. cit., 21

. R. Spence Hardy, *The Legends and Theories of the Buddhists*, 6, Sri Satguru Publications, Delhi, 1990 (first published 1866)

. Ibid., 6

. Ibid., 6

. See chapters 7 and 11

. Tennant's *Ceylon*, vol. 1, pages 6 and 7, cited in Kanakasabhai, op. cit., 21, footnote 4

. Mahalingam, op. cit., 2–54

. Ibid., 2, 59–60

. Ibid., 2–54

. Dikshitar, op. cit., 17, citing *Tiruvilaiyadal Puranam*

. Dr D. Devakunjari, op. cit. To be precise, 'its two sides from north to south measure 720 feet and 729 feet, the two east to west sides measure 834 feet and 852 feet'

. The dimensions of the Great Pyramid of Egypt are examined in detail in *Fingerprints of the Gods*, part 4

. John Howley, Jada Bahrata Dasa, *Holy Places and Temples in India*, 587, Spiritual

Guides, 1996

. V. Meena, *South India: A Travel Guide*, 35, Hari Kumari Arts, Kanyakumari

. Howley and Dasa, op. cit., 589

. Devakunjari, op. cit., 217

. T. G. S. Balaram Iyer, *History and Description of Sri Meenakshu Temple*, 7, Sri Karthik Agency, Madurai, 1999; Devakunjari, op. cit., 214

. Examples are to be seen in the Harappan Gallery of the National Archaeological Museum, New Delhi

. Sesha Iyenagar, op. cit., 100

. Cited in ibid., 100

. Cited in David Frawley, *The Oracle of Rama*, 140, Motilal Banarsidass Publishers, Delhi, 1999

. See chapter 7

. Cited earlier in this chapter

. Mahalingam, cited earlier in this chapter

. Pillai, op. cit., 24

. Cited earlier in this chapter

. Dikshitar, op. cit., 9

. Ibid., 9

. This, at any rate, has been my experience

. See chapter 1

12 / The Hidden Years

Gregory L. Possehl, *Indus Age: The Beginnings*, 431, University of Pennsylvania Press, 1999, is particularly critical of the climate stress theory

Ibid., 410–11, citing Sauer

The Times, London, 20 July 2001, citing a presentation by Dr Kevin Pope at the Society for American Archaeology in New Orleans

13 / Pyramid Islands

James Lyon, *Maldives*, 17, Lonely Planet, July 1997

Encyclopaedia Britannica, Macropaedia, 174; Lyon, op. cit., 17–18; *Hello Maldives*, 10, QR Publications, Maldives, 1999

Thor Heyerdahl, *The Maldives Mystery*, 197, Unwin Paperbacks, London, 1988

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Lyon, op. cit., 11

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Kon Tiki Museum, 'Archaeological Test-Excavations on the Maldive Islands', Occasional Papers, vol. 2, 66, Oslo, 1991

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. Mohamed Amin, Duncan Willetts, Peter Marshall, *Journey Through the Maldives*, 16, Camerapix Publishers International, Nairobi, 1992

. Ibid., 16–17

. Kon Tiki Museum, op. cit.

. Ibid., 66–73

. *Divehi Writing Systems*, 5, National Centre for Linguistic and Historical Research, Maldives, 1999

. Kon Tiki Museum, op. cit., 70

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. Clarence Maloney, *People of the Maldive Islands*, Madras, 1980, cited in Kon Tiki Museum, op. cit., 70

. Amin et al., op. cit., 12

. T. R. Sesha Iyenagar, *Dravidian India*, 101, Asian Educational Services, New Delhi, 1995

. Sesha Iyenagar, cited earlier

. Interview with Naseema Mohamed by GH, Male, February 2001

. Heyerdahl, op. cit., 169

. Ibid., 220

. Amin et al., op. cit., 20; Marshall does not mention the detail about the food being still warm by the time it was eaten; the source of this was Naseema Mohamed in her interview with me

. Ralph T. Griffith (trans.), *Hymns of the Rgveda*, 1.116. 3–5, Munisharam Manoharlal Publishers, Delhi, 1987 (first published 1889)

. Ibid., 1.182.5–6

. Heyerdahl, op. cit., 159

. Ibid., 312

). *The Columbia Encyclopedia*, 6th edn (online), 2001

14 / Ghosts in the Water

See chapter 9

See chapter 9

Charles H. Hapgood, *Maps of Ancient Sea Kings*, 134–5, Adventures Unlimited Press (reprint), 1996

Ibid., 135

PART FOUR: ***Malta***

15 / Smoke and Fire in Malta

See the 'Horizon Scandal' section on my website, www.grahamhan-cock.com

www.maltadiscovery.com

Archaeological Institute of America, 1999, http://www.archaeology.org/online/news/aliens.html

See discussion in David Trump, *Malta: An Archaeological Guide, 67ff*, Valletta, 1990

Chris Agius Sultana, personal communication

All three quotations are available to cite here thanks to original research into

ancient texts concerning Malta carried out by Anton Mifsud, Simon Mifsud, Chris Agius Sultana and Charles Savona Ventura, and first cited in their book *Malta: Echoes of Plato's Island*, 42, The Prehistoric Society of Malta, 2000

J. D. Evans, *The Prehistoric Antiquities of the Maltese Islands: A Survey*, 58, University of London, 1971; Trump, op. cit., 73; Colin Renfrew, *Before Civilization: The Radiocarbon Revolution and Prehistoric Europe*, 163, Pimlico, London, 1999

Personal communications with Museum officials

See discussion in Alastair Service and Jean Bradbury, *The Standing Stones of Europe*, 89, J. M. Dent, London, 1993

). Ellul's annotation to map

. From Ellul's annotated print of the photograph

:. See Mifsud et al., op. cit., 63, note 222

. See chapter 16

. Evans, op. cit., 44–5

. Trump, op. cit., 19

. Service and Bradbury, op. cit., 91–2

. Renfrew, op. cit., 162

. Ibid., 161

. Anton Mifsud et al., op. cit., 58

. Archaeological Institute of America, op. cit.

. The implications of radiocarbon-dating for the Maltese temples are discussed in Renfrew, op. cit., 161ff

. *www.grahamhancock.com;* see in particular 'Horizon Scandal'

5. This is the thesis of Karl Mayrhofer, *The Mystery of Hagar Qim*, Malta, 1996

6. See discussion in Mifsud et al., op. cit.

7. Ibid., 16

8. Most of the rest having been smoothed over by quarrying down the ages or simply covered up by modern developments – e.g. ironically beneath the National Archaeological Museum annexe and ticket office at Ghar Dhalam Cave. The remains of two very deep ruts can be seen protruding from beneath the rear of the building near the concrete steps that now lead down to the cave

9. Theories proposed include the use of carts or sleds to create the ruts for the transportation of agricultural produce, or of megaliths

10. See discussion in Parker, Rubenstein and Trump, *Malta's Ancient Temples and Ruts*, 45ff, Institute for Cultural Research, Tunbridge Wells, 1988. See also John Samut Tagliaferro, *Malta: Its Archaeology and History*, 36ff, Plurigraph, Italy, 2000.

See Antony Bonanno, *Malta: An Archaeological Paradise*, 72, Valletta, 1997. And see Trump, op. cit., 107–8

. Ibid.

. Ibid.

. Ibid.

. Cited in Mifsud et al., op. cit., 24

. Ibid., 24

. Ibid., 24

. Ibid., 24

. Ibid., 24

. Ibid., 24

. Ibid., 24

. Ibid.

. Trump, op. cit., 28

. Ibid., 29

. Service and Bradbury, op. cit., 99

. Trump, op. cit., 149

. Ibid., 109

. Ibid., 28

16 / Cave of Bones

J. D. Evans, *The Prehistoric Antiquities of the Maltese Islands: A Survey*, 45,

University of London, 1971

Ibid., 59

Ibid., plans 14A and 14B

Ibid., 44–5

Ibid., 44

Ibid., 44–5, citing Sir Themistocles Zammit, 1910

Anton Mifsud, Simon Mifsud, Chris Agius Sultana and Charles Savona Ventura, *Malta: Echoes of Plato's Island*, 38, The Prehistoric Society of Malta, 2000

Cited in ibid., 38

Evans, op. cit., citing Zammit, 45

). Ibid., 45

. Ibid., 45; David Trump, *Malta: An Archaeological Guide*, 67, Valletta, 1990

. Trump, op. cit., 67

. Zammit, 1910, cited in Mifsud et al., op. cit., 38

. Ibid., 38

. Bradley, Zammit, Pete, 1912, cited in ibid., 40

. Trump, op. cit., 73

. Cited by Mifsud in Anton Mifsud and Charles Savona Ventura (eds.), *Facets of Maltese Prehistory*, 155, The Prehistoric Society of Malta, 1999

. Evans, op. cit., 58

. Ibid., 58

. Ibid., 57

. Zammit, 1910, cited in ibid., 57

. Ibid., 57

. Ibid., 57–8

. Ibid., 58

. Trump, op. cit., 73

. Colin Renfrew, *Before Civilization: The Radiocarbon Revolution and Prehistoric Europe*, 163, Pimlico, London, 1999

. Marija Gimbutas, *The Civilization of the Goddess*, 286, Harper, San Francisco, 1991

. See Paul G. Bahn and Jean Vertut, *Journey Through the Ice Age*, 13, 112–13, 161, Weidenfeld and Nicholson, London, 1997

. Gimbutas, op. cit.

). Ibid., 286–9

. Evans, op. cit., 59. Evans thinks it is Room 22 and comments: ‘Zammit and Singer (1924, p. 90) refer to these as having been found together in 1905 during Magri’s directorship of the excavations in a “deep pit of one of the painted rooms’”

. Renfrew, op. cit., 164

. Trump, op. cit., 77

. Ibid., 77–8

. Ibid., 52

. Illustration and comments in ibid., 50–51

. Illustration and comments, see Anthony Bonanno, *Malta: An Archaeological Paradise*, 25, Valletta, 1997

. Trump, op. cit., 53

. Ibid., 51

. Although, in fact, nothing from the Hypogeum has been officially carbon-dated, according to Anthony Bonanno in a filmed interview with me, June 2001

. Frendo, in Mifsud and Ventura, op. cit., 28

. Ibid., 28

. E.g. see Evans, op. cit., 208. Nobody is denying that such a Neolithic settlement of Malta did occur from Sicily. The point is that there may have been humans there before they arrived, and it may have been these earlier humans whose heritage led to the temples

. Trump in Mifsud and Ventura, op. cit., 93

17 / The Thorn in the Flesh

E-mail from Anton Mifsud to GH, 15 July 2001

Anton Mifsud, Simon Mifsud, Chris Agius Sultana and Charles Savona Ventura, *Malta: Echoes of Plato's Island*, The Prehistoric Society of Malta, 2000

Ibid.

Ibid.

Ibid.

Ibid.

See discussions in *Fingerprints of the Gods* and in *Keeper of Genesis / Message of the Sphinx*

Fred Wendorf, Romuald Schild, 'Late Neolithic megalithic structures at Nabta

Playa (Sahara) southwestern Egypt', http://www.comp-archaeology.org/WendorfSAA98.html

E.g. Minoan Crete, Troy, etc.

). Also in the Andes and in Cuba in recent books

. Anton Mifsud and Simon Mifsud, *Dossier Malta: Evidence for the Magdelenian*, 128, Malta, 1997

:. Ibid., 144

:. Bradley, Zammit, Pete, 1912, cited in Mifsud et al., op. cit., 40

·. Annual Report 1909/10, cited in Anton Mifsud and Charles Savona Ventura (eds.), *Facets of Maltese Prehistory*, 152, The Prehistoric Society of Malta, 1999

:. J. D. Evans, *The Prehistoric Antiquities of the Maltese Islands: A Survey*, 40, University of London, 1971

. John Samut Tagliaferro, *Malta: Its Archaeology and History*, 30–31, Plurigraph, Italy, 2000

. Zammit, 1910, cited in Mifsud et al., op. cit., 38

. Zammit cited in ibid., 38

. Mifsud in Mifsud and Ventura, op. cit., 163

. See Malone, Stoddart et al., *Mortuary Ritual of the 4th Millennium BC*, Proceedings of the Prehistoric Society, 61, 1995, 303–45

. Mifsud in Mifsud and Ventura, op. cit., 163

. The Addolorata Cemetery, Mifsud et al., op. cit., 38

. Ibid., 40, citing Museum of Archaeology Reports, 1973–4

. Mifsud and Ventura, op. cit., 163

. Mifsud in ibid., 153, citing Zammit, 1910

. Zammit, 1910, 37, cited in ibid., 153

. Mifsud and Mifsud, op. cit., 12

. Marija Gimbutas, *The Civilization of the Goddess*, 286, Harper, San Francisco, 1991

. Mifsud et al., op. cit., 47 and 58

. Mifsud and Ventura, op. cit., 58

. See for example David Trump, *Malta: An Archaeological Guide*, 75, Valletta, 1990

. Ibid., 75

. 'When the standard deviation of radiocarbon dates is taken into account, and after the exclusion of the very early dates with a wide range, the end of the

Tarxien phase must have occurred between 2470 and 2140 BC,' Mifsud et al., op. cit., 47

. Various model temples have survived from the megalithic period and illustrate roofs; a roof is also evident on a temple elevation carved into one of the megaliths at Mnajdra

. Alastair Service and Jean Bradbury, *The Standing Stones of Europe*, 93, J. M. Dent, London, 1993

. Ibid., 95

. Ibid., 95

. Ibid., 97

. Ibid., 97

. Trump, op. cit., 29

. For example, in some of the more remote islands of Indonesia and in the Brazilian rainforest

. I am assured the quote is reliably attributed to Picasso, but have been unable to find a published source

. Discussed in Gregory L. Possehl, *Indus Age: The Beginnings*, 450ff, University of Pennsylvania Press, 1999

. E.g. Trump, op. cit., 15

. See chapter 16

. Personal communication by e-mail, 15 July 2001

. Trump, op. cit., 72

. Mifsud and Mifsud, op. cit, 168

. Ibid., 143

). E-mail, 15 July 2001, personal communication with GH

. E-mail, 15 July 2001, personal communication with GH (emphasis added)

. Mifsud and Mifsud, op. cit., 150

. Ibid., 139

. Ibid., 142

. Ibid., 144

. Mifsud et al., op. cit., 61

. Personal observation

. Mifsud and Mifsud, op. cit., 144

). Ibid., 143–4

). Glyn Daniel, 1959, cited in Mifsud and Ventura, op. cit., 157

. Mifsud in ibid., 157

. Mifsud and Mifsud, op. cit., 127

. Ibid., 128

. Charles Savona Ventura and Anton Mifsud, *Hasan's Cave: Geology, Folklore and Antiquities*, Heritage Books, Valletta, 2000

. E. Anati, 'Archaeological Exploration in Malta', *World Journal of Prehistoric and Primitive Art*, 28, 1995, 103–6

. Mifsud and Mifsud, op. cit., 147

. Ibid., 165–6, footnote 261

. Ibid., 165–6, footnote 261

). Ibid., 168

). See next chapter

. Tagliaferro, op. cit., 11

:. Ibid.

18 / The Masque of the Green Book

Evans, 1959, cited in Anton Mifsud and Simon Mifsud, *Dossier Malta: Evidence for the Magdelenian*, 100, Malta, 1997

Ibid., 68

Telephone interview with Sharif Sakr, 26 October 2001

Colin Renfrew, *Before Civilization: The Radiocarbon Revolution and Prehistoric*

Europe, 161, Pimlico, London, 1999

Alastair Service and Jean Bradbury, *The Standing Stones of Europe*, 78–9, J. M. Dent, London, 1993

Veen and van der Blom, *The First Maltese*, 1992, 15–16; J. D. Evans, *The Prehistoric Antiquities of the Maltese Islands: A Survey*, 37, University of London, 1971; David Trump, *Malta: An Archaeological Guide*, 151–3, Valletta, 1990

Trump, op. cit., 153

Ibid., 153

Ibid., 153

. Ibid., 47

. Evans, op. cit., 37

. Ibid., 166

. Ibid., 166

. John Samut Tagliaferro, *Malta: Its Archaeology and History*, 13, Plurigraph, Italy, 2000

. Anthony Bonanno, *Malta: An Archaeological Paradise*, 44, Valletta, 1997

. Trump, op. cit., 28

. Tagliaferro, op. cit., 14

. Ibid., 14

. Trump, in Anton Mifsud and Charles Savona Ventura (eds.), *Facets of Maltese Prehistory*, 93, The Prehistoric Society of Malta, 1999

. Trump, *Archaeological Guide*, 28

. Evans, 1959, cited in Renfrew, op. cit., 165

. Tagliaferro, op. cit., 11

. Trump, op. cit., 91

. Evans, op. cit., 20

. Mifsud and Mifsud, op. cit., 37

. Ibid., 36–7

. Ibid., 37

. Ibid., 38–9

. Ibid., 39

. Keith, 1924, cited by Mifsud and Mifsud, op. cit., 39

. Ibid., 39–40

2. Ibid., 42

3. Ibid., 42

4. Ibid., 45

5. Ibid., 56

6. Ibid., 57

7. Trump, *Archaeological Guide*

8. Ibid., 91

9. Ibid., 91

10. Ibid., 92

11. Ibid., 19–20

. Ibid., 92–3

. Evans, op. cit., 18

. Ibid., 19

. Ibid., 19

. Mifsud and Mifsud, 57

. Ibid., 57

. Ibid., 45–6

. Caton-Thompson, 1925, 10, cited in Mifsud and Mifsud, op. cit., 44

. See discussion in ibid., 44

. Ibid., 58

. *Encyclopaedia Britannica, Micropaedia*, vol. 9, 445

. Trump, op. cit., 91

. Mifsud and Mifsud, op. cit.

. Evans, op. cit., 19

. Mifsud and Mifsud, op. cit., 43

. Ibid., 50

. Ibid., 81

. Ibid., 112, footnote 2

. Ibid., 81–2

. Ibid., 83

. Ibid., 84–5

. Ibid., 85

. Ibid., 86

. Ibid., 88

. Personal communication to GH, e-mail, 15 July 2001

. Mifsud and Mifsud, op. cit., 95 (emphasis added)

. Ibid., 40–41

. Discussed in Renfrew, op. cit.

. Ibid., 165–6

. Museum 1964 Report, cited in Mifsud and Mifsud, op. cit., 102

. Evans, 1959, cited in ibid., 100

. Ibid., 100–101

. Ibid., 107

. Ibid., 107–8

. Frendo, in Mifsud and Ventura, op. cit., 28

. Frendo, in ibid., 28

. Frendo, in ibid., 28

. Frendo, in ibid., 30

. Frendo, in ibid., 30

. For example, the nitrogen reading of 1.85 per cent for Ma.2 was published and taken as proof of a Neolithic date, while the nitrogen reading of 0.39 for Ma. I

was ignored. The deer reading of 0.17 per cent was taken as representative of the Cervus Layer such that even 0.39 per cent would have seemed later; whereas in fact deer and even hippo samples had yielded levels as high as 0.4 – showing that 0.17 is not a representative Cervus threshold. Moreover, the highly anomalous uranium oxide reading of 13 ppm for Ma.2 was ignored. Humphrey is ready to argue that even this result is ambiguous. But it is very difficult to see how so much uranium oxide could have filtered over just a few thousand years into a tooth that would have contained 0.1 ppm when its owner lived – especially since we now know that Ghar Dalam is an environment with low levels of uranium oxide in the percolating water

. 24 October 2001

. Mifsud and Mifsud, op. cit., plate 1; and see discussion on page 64

. Ibid., 120, footnote 152

. Ibid., 64, 105, 109

. Frendo, in Mifsud and Ventura, op. cit., 30–31; and see discussion in Mifsud and Mifsud, op. cit., 65–6

. Evans, op. cit., 19

. Mifsud and Mifsud, op. cit., 105

. Ibid., 64

. Ibid., 120, footnote 152

. Frendo, in Mifsud and Ventura, op. cit., 30

19 / Inundation

David Trump, *Malta: An Archaeological Guide*, 14–15, Valletta, 1990

Anton Mifsud and Simon Mifsud, *Dossier Malta: Evidence for the Magdelenian*, 12–

13, Malta, 1997

Ibid., 27, 97

Ibid., 31, footnote 71

Ibid., 23

The Tyrrhenian Sea is the arm of the Mediterranean between Italy and the islands of Corsica, Sardinia and Sicily

'Meltwater pulse 1-A' corresponds with the first of the three episodes of cataclysmic post-glacial flooding identified by Professor John Shaw of the University of Alberta (see chapter 3)

Van Andel, 'Late Quaternary Sea Level Changes and Archaeology', 737, *Antiquity*, 63, 1989, describes these Adriatic plains as 'one of the richest environments in the whole central northern Mediterranean'

Malta: Echoes of Plato's Island, 34, The Prehistoric Society of Malta, 2000

. See chapter 17

. Van Andel, op. cit., 737

. See chapter 3

20 / The Morning of the World

See discussion by Trump, in Anton Mifsud and Charles Savona Ventura (eds.), *Facets of Maltese Prehistory*, 96, The Prehistoric Society of Malta, 1999; David Trump, *Malta: An Archaeological Guide*, 49, Valletta, 1990

See J. D. Evans, *The Prehistoric Antiquities of the Maltese Islands: A Survey*, University of London, 1971: compare plate 33 (11 and 12) with plate 47 (11, 9 and 10)

Trump, in Mifsud and Ventura, op. cit., 96; Trump, *Archaeological Guide*, 49

Paul I. Micallef, *Mnajdra Prehistoric Temple: A Calendar In Stone*, Malta, 1992

Richard Walter, 'Wanderers Awheel in Malta', 253ff, *National Geographic*, March 1940

Micallef, op. cit., 35

Micallef makes these points in more detail in his unpublished paper 'Alignments along the main axes of Mnajdra', 5 June 2001, pages 6–7

Alexander Thorn's proposed megalithic yard is discussed in Douglas C. Hegge, *Megalithic Science: Ancient Mathematics and Astronomy in Northwest Europe*, 55ff, Thames and Hudson, London, 1981

The boats appear in the form of roughly inscribed sketches or graffiti on slabs near the entrance to Tarxien

). Use of obliquity errors for dating of other structures discussed in *Fingerprints of the Gods* and *Heaven's Mirror*

. Micallef, op. cit., 32

. Ibid., 32

. See chapter 18

. Evans, op. cit., 116–17

. Personal communication from Anton Mifsud, and see Trump, op. cit., 176ff

. Evans, op. cit., 95

. Ibid., 80–81

. Ibid., 172

). Ibid., 172

). Trump, *Journal of the Accordia Research Centre*, vols. 5–6, 173–7

. Evans, *Antiquity*, vol. 35, no. 137, 143–4

. Trump, *Journal of the Accordia Research Centre*, 173–7

. Renfrew, *Antiquity*, vol. 46, 141–4

. Trump, *Antiquity*, vol. 37, no. 148, 302–3

. Anton Mifsud, Simon Mifsud, Chris Agius Sultana and Charles Savona Ventura, *Malta: Echoes of Plato's Island*, 34, The Prehistoric Society of Malta, 2000

. Ibid., 34

. Ibid., 34–5

. Ibid.

). Ibid., 18

). Indeed, the idea of the Maltese archipelago as one larger single island survived until at least the late sixteenth century on some maps. For example, in *Tabula Europae VII*, one of a group of Ptolemaic maps published in Venice in 1598. See Mifsud et al., op. cit., 50

. Ibid., 18–20

. Ibid., 20–24, citing Ventura

. Ibid., 24

. Ibid., 22

. Ibid., 49

PART FIVE: *Ancient Maps*

21 / Terra Incognita

Damiao Peres, *A History of the Portuguese Discoveries*, 56–72, Lisbon, 1960

Ibid., 87

Ibid., 87

Ibid., 87

Ibid., 87

Ibid., 87

Ibid., 113

Ibid., 88

Ibid., 89–90

. Ibid., 93: ‘This was the contemporary expression for shipwrecked ships from which there were no survivors or remains’

. Ibid., 92

. Ibid., 89–91

. Ibid., 93

. Ibid., 93

. Ibid., 94

. Ibid., 113

. Ibid., 113

. Ibid., 114

. Ibid., 115

. Ibid., 115

. Thomas Suarez, *Early Mapping of Southeast Asia*, 64, 85, Periplus, Hong Kong, 1999

. Peres, op. cit., 112

. Notes on the 1502 Cantino, 1, see http://www.henry-davis.com/MAPS/Ren/Reni/306mono.html

. Peres, op. cit., 99

. Notes on the 1502 Cantino, op. cit., 1; Peres, op, cit., 99; John Goss, *The Mapmaker's Art: A History of Cartography*, 64, Studio Editions, London, 1994

. Notes on Cantino, op. cit., 1

7. Goss, op. cit., 64

8. For example, see ibid., 64; Peres, op. cit., 99ff

9. Goss, op. cit., 34

10. Ibid., 34

11. Ibid., 34

12. Ibid., 34

13. See Ibid., 35

14. Ibid., 35–40

15. Ibid., 35

16. *Encyclopaedia Britannica, Micropaedia*, vol. 9, 775

7. O. A. W, Dilke, *Greek and Roman Maps*, 75, Cornell University Press, 1985

8. Ibid., 75; Mostafa El-Abbadi, *Life and Fate of the Ancient Library of Alexandria*, 141, UNESCO, Paris, 1992

9. Dilke, op. cit., 75

10. *Encyclopaedia Britannica, Micropaedia*, vol. 9, 775

11. See discussion in Dilke, op. cit., 80–81

12. J. Oliver Thomson, *History of Ancient Geography*, 337, Biblo and Tannen, New York, 1965

13. Ibid., 336

14. Robert H. Fuson, *Legendary Islands of the Ocean Sea, 11*, Pineapple Press Inc., Florida, 1995

15. Ibid., 18–19

. Ibid., 18

. Ibid., 15–16

. Ibid., 17. Curiously enough, Poseidonius had previously estimated the earth's circumference at 27,000 miles – much closer to the correct figure -then changed his mind. See Gregory C. Mcintosh, *The Piri Reis Map of 1513*, 15, The University of Georgia Press, 2000

. J. Lennart Berggren and Alexander Jones, *Ptolemy's Geography: An Annotated Translation of the Theoretical Chapters*, 22, Princeton University Press, 2000

. Ibid., 22

. Dilke, op. cit., 72

. Cited in ibid., 73

. See also ibid., 81: 'Research by E. Polashek makes it seem likely that different

groups of manuscripts represent successive recensions of the coordinates in antiquity, at least the first of which may be attributred to Ptolemy himself'

. See Fuson, op. cit., 18

. Dilke, op. cit., 155–6

. Ibid., 157

. Goss, op. cit., 25

. Ibid., 25

. A. E. Nordenskiold, *Facsimile Atlas to the Early History of Cartography with Reproductions of the Most Important Maps Printed in the XV and XVI Centuries*, 45, Dover, New York, 1973 (reprint) (first published 1889)

. Ibid., 45

. Ibid., 45

. Goss, op. cit., 41

. Dilke, op. cit., 180

. Goss, op. cit., 41

. Dilke, op. cit., 180

. Ibid., 180. Additionally, Barry Fell has reported strong evidence of use of magnetized needles by sailors in Spain in pre-Latin times: *Occasional Publications of the Epigraphic Society*, 3/57, Arlington, PA, USA

. Nordenskiold, op. cit., 46

. Charles H. Hapgood, *Maps of Ancient Sea Kings*, 116, Adventures Unlimited Press (reprint), 1996

. *Fingerprints of the Gods*

). Sharif Sakr, e-mail correspondence with G. Mcintosh, 9 October 2000

. Goss, op. cit., 41

:. Nordenskiold, op. cit., 48

:. Peter Whitfield, *The Charting of the Oceans: Ten Centuries of Maritime Maps*, 16, Pomegranate Art Books, California, 1996

·. Ibid., 17

:. Ibid., 19 (emphasis added)

). Ibid., 19

'. Ibid., 19

:. Goss, op. cit., 41; Dilke, op. cit., 180–81

). Goss, op. cit., 41

). Nordenskiold, op. cit., 48

. A. E. Nordenskiold, *Periplus: The Early History of Charts and Sailing Directions*, 45, Nart-Franklin, New York, 1967 (reprint)

. Ibid., 45

. Nordenskiold, *Facsimile Atlas*, 48

. Ibid., 48

. Ibid., 48

. Ibid., 48

. Ibid., 48

. Svat Soucek, *Piri Reis and Turkish Mapmaking after Columbus*, 27, The Nour Foundation in association with Oxford University Press, 1996

). Nordenskiold, *Facsimile Atlas*, 43

). Frances Gibson, *The Seafarers: Pre-Columbian Voyages to America*, 253, Dorrance and Co., Philadelphia, 1974; Mcintosh, op. cit., 31; Fuson, op. cit., 119

. E.g. see Goss, op. cit., 54–5; Soucek, op. cit., 61–4; Fuson, op. cit., 119; Dilke, op. cit., 177

. Nordenskiold, *Periplus*, 10

. Fuson, op. cit., 9

. Ibid., 119–20

. E.g. Catalan Atlas, see http://www.bnf.fr/enluminures/manuscrits/aman6.htm

. Christopher Columbus, 1484, quoted in *Historie*, 1571, cited in Fuson, op. cit., 185

. Nordenskiold, *Periplus*, 15

8. Ibid., 14–15

9. Dilke, op. cit., 180

10. David Lewis, *We the Navigators: The Ancient Art of Landfinding in the Pacific*, 292, University of Hawaii Press, Honolulu, 1994

11. Ibid., 292

12. Ibid., 292

13. Ibid., 90

14. See chapter 14

15. Documented in Glenn Milne's inundation maps reproduced in chapters 7 and 11

16. Nordenskiold, *Periplus*, 47

Encyclopaedia Britannica, Micropaedia, vol. 9, 571

Marco Polo, *The Travels of Marco Polo*, 205-n, Wordsworth, Classics, 1997; Marco Polo, *The Travels*, 243–9, Penguin, London, 1982; Robert H. Fuson, *Legendary Islands of the Ocean Sea*, 203, Pineapple Press Inc., Florida, 1995

Encyclopaedia Britannica, Micropaedia, vol. 9, 571–3

Polo, *Travels*, Penguin, 243; Polo, *Travels*, Wordsworth, 207

Polo, *Travels*, Wordsworth, 207

John Larner, *Marco Polo and the Discovery of the World*, 153, Yale University Press, 1999

Polo, *Travels*, Penguin, 258

Polo, *Travels*, Wordsworth, 224; Polo, *Travels*, Penguin, 258

Polo, *Travels*, Wordsworth, 224 (emphasis added]

). Ibid., xv

. Polo, *Travels*, Penguin, 258–9 (emphasis added)

. Cited in Thomas Suarez, *Early Mapping of Southeast Asia*, 44, Periplus, Hong Kong, 1999 (emphasis added)

. See in particular chapters 7 and 11

. Chapters 7 and 11

. Suarez, op. cit., 44

. Ibid., 44

. Ibid., 44

. Ibid., 44

. Ibid., 44: ‘Ptolemy’s *Geographia*, and maps constructed from it, were virtually unknown in Europe at this time, even among academics, and remained so until a century after Polo’s return. Thus Polo clearly did not fabricate this key Ptolemaic error, which he himself did not understand. Ptolemy’s *Geographia* was, however, known to Arab scholars, and had profoundly influenced the Arab conception of Southeast Asia. But the fact that the map seen by Polo retained such an incorrect dimension for Ceylon supports the view that native pilots guided their vessels by navigational texts and did not refer to the charts themselves.’

. E.g. Taprobana identified with Sumatra on some maps

. See chapter 21

. See chapter 21

. See discussion in chapter 21

4. Suarez, op. cit., 44

5. See chapter 21

6. Sharif Sakr, ‘Was the World Mapped Before the End of the Ice Age?’, research paper for GH, 5 February 2001

7. Luis Vaz de Camoes, *The Lusiads*, 221, Oxford University Press, 1997 World’s Classics

8. Sharif Sakr, op. cit.

9. The most detailed description of the inundation of Sundaland is given in Oppenheimer, *Eden in the East: The Drowned Continent of Southeast Asia*, Weidenfeld and Nicholson, London, 1998

10. Armando Cortesao, *The Suma Oriental of Tome Pires and the Book of Francisco Rodrigues*, vol. 1, xi, Asian Educational Services, New Delhi, 1990

. Cortesao, Introduction to *Suma Oriental*, ibid., vol. 1, xiii

. Cortesao, Foreword to *Suma Oriental*, ibid., xi

. Cortesao, Introduction to *Suma Oriental*, ibid., xiii-xviii

. Ibid., xiii

. Ibid., xiii

. Ibid., lxxviii

. Ibid., 128, footnote

. Ibid., lxxviii (emphasis added)

. Ibid., 45

. Ibid., 45–6

. 3 September 2001, ‘Very interesting stuff from Pires’ – e-mail from Sharif Sakr to GH

23 / Looking for the Lost on the Road to Nowhere

Cited in Robert H. Fuson, *Legendary Islands of the Ocean Sea*, 62, Pineapple Press Inc., Florida, 1995

Cited in Gregory C. Mcintosh, *The Piri Reis Map of* 1513, 74, The University of Georgia Press, 2000

Fuson, op. cit., 43

Ibid., 62

Frances Gibson, *The Seafarers: Pre-Columbian Voyages to America*, 9ff, Dorrance and Co., Philadelphia, 1974

Ibid., 9ff

Ibid., 9–11

Cited in Fuson, op. cit., 23

Plato, *Timaeus and Critias*, 38, Penguin Books, London, 1977

. Ibid., 37–8 (emphasis added)

. Fuson, op. cit., 28

. Ibid., 30

. Svat Soucek, *Piri Reis and Turkish Mapmaking after Columbus*, 58, The Nour Foundation in association with Oxford University Press, 1996 (emphasis added)

. Mcintosh, op. cit., 140

. Soucek, op. cit., 59; Mcintosh, op. cit., 50–51

. Mcintosh, op. cit., 73

. Ibid., 73

. An extensive discussion of the Bahriye is found in Soucek, op. cit., 84ff

. Ibid., 99

. E.g. Mcintosh, op. cit., 17, 19

. Ibid., 17, 19

. Fuson, op. cit., 186

. The persistence of lost islands in nautical charts is discussed extensively in Fuson, op. cit.

. Ibid.

. E.g. see Mcintosh, op. cit., 31 and 72; Dora Beale Polk, *The Island of California:*

The History of a Myth, 24, University of Nebraska Press, 1991

. George Firman, *Atlantis: A Definitive Study*, 33, California, 1985

. Where the work of Vitaly Koudriatsvev, another Atlantis researcher, makes use of isostacy and the fore-bulge theory

. Firman, op. cit., 33, 36–7

. Ibid., 33

. Ibid., 33

. Ibid., 75

. Plato, op. cit., 37–8

. For some reason, never explained, the Soviet Union took a great interest in the underwater search for the remains of a lost civilization, principally in the Atlantic

. Carried in National Geographic News (national geographic.com/news), 13 July 2001

. Cited in Plato, op. cit., Appendix on Atlantis, 158

. Please note that although not of significant size there were also a number of antediluvian islands on the eastern side of the Atlantic, one of them extremely close to the Straits of Gibraltar. Using inundation maps of this area, French scientist Jacques Collina-Girard of the University of the Mediterranean in Aix-en-Provence noticed an island (geologists call it Spartel) near the western end of the strait measuring 14 kilometres long by 5 kilometres wide that existed from the Last Glacial Maximum until it was flooded by rising sea-levels around 11,000 years ago. Despite its small size, and largely on account of its relationship to the Straits of Gibraltar mentioned by Plato, Collina-Girard had proposed this palaeo-island as a candidate for Atlantis. See NewScientist.com, 'Sea level study reveals Atlantis candidate', by Jon Copley, 18 September 2001. Note that there have been persistent reports by divers of significant unidentified underwater ruins off the

coasts of Spain and Morocco. One long-running story, reported in the US in the *Orange County Register* in 1973, concerns an expedition by Maxine Asher of Pepperdine University to discover the ruins of Atlantis at a site about 20 kilometres off Cadiz in southern Spain. Before Spanish police stopped the expedition Asher's team did claim to have discovered 'pre-Roman and pre-Phoenician' underwater ancient ruins at the site (see *Orange County Register*, 27 March 1973, 17 July 1973, 22 July 1973, 26 July 1973, 22 August 1973). Presumably the problems with the Spanish police have ceased, because further expeditions have been mounted as recently as 2000 and Maxine Asher, reportedly, remains very much on the case. Good luck to her.

7. For details of the discovery see J. Manson Valentine, 'Underwater Archaeology in the Bahamas', *The Explorers Journal*, December 1976, 176–83

8. *National Geographic Research Reports*, vol. 12, 1980, 35

9. Ibid., 22–4

). *Nature*, vol. 230, 2 April 1971, 287–8

. *Nature*, vol. 287, 4 September 1980, 11–12

:. *The Explorers Journal*, December 1976, 177

:. Dr David Zink, *The Stones of Atlantis*, 50, Prentice-Hall, NJ, 1978

·. Mahlman and Zink, *1982 Conference on Underwater Archaeology*, 4, University of Pennsylvania, January 1982

24 / The Metamorphoses of Antilia

I was given this story in some detail in July 2001 in a filmed interview with an octogenarian resident of Bimini, Alvin Taylor, who said he used to watch 'Captain Webster's' barges from the US loading stone from the Bimini Road.

Mahlman and Zink, *1982 Conference on Underwater Archaeology*, 4, University of

Pennsylvania, January 1982, 2–3

Nature, vol. 287, 4 September 1980, 12

Ibid., 12

Reuters, Monday 14 May 2001, 11:59 a.m. ET

Ibid.

Ibid.

Paul Weinzweg, co-founder of ADC, interviewed by Sharif Sakr, 21 May 2001

Al Hine, Marine Geologist, University of South Florida, interviewed by Sharif Sakr, 21 May 2001

). Grenville Draper in e-mail exchange with Sharif Sakr, 24 May 2001

. Christopher Columbus, 1484, quoted in *Historie*, 1571, cited in Fuson, op. cit.,

. Charles Duff, *The Truth About Columbus*, 28, Grayson and Grayson, London, 1936

. Ibid., 116–17

. Cited in ibid., 127

. Cited in ibid., 123

. Cited in ibid., 123

. Cited in ibid., 128

. Cited in ibid., 129

. Ibid., 27ff

. Robert H. Fuson, *Legendary Islands of the Ocean Sea*, 113 and 114, Pineapple Press Inc., Florida, 1995

. Gregory C. Mcintosh, *The Piri Reis Map of 1513, 91*, The University of Georgia Press, 2000

. Duff, op. cit., 131

. Ibid., 127

. Cited in ibid., 141

. Cited in ibid., 142

. Cited in ibid., 142

. Ibid., 222

. Ibid., 222

. Ibid., 225

. Mcintosh, op. cit., 113

. Ibid., 91, 136

. Ibid., discussion 135–7

. Ibid., 91

. Ibid., 91

. Ibid., 137 and 136

. Ibid., 88

. Ibid., 113

. Ibid., 91

. Ibid., 115–16

. Ibid., 115

. Ibid., 115

. E.g. Toscanelli

. William Giles Nash, *America: the True History of its Discovery*, 37, Grant Richards Ltd, London, 1924

. Ibid., 41–2

. Cited in Duff, op. cit., 103–4

. Mcintosh, op. cit., 73–4

. John Larner, *Marco Polo and the Discovery of the World*, 143–4, Yale University Press, 1999

. Marco Polo, *The Travels of Marco Polo*, 207, Wordsworth Classics, 1997. Polo describes the palace of the ruler of Cipango: 'The entire roof is covered with a plating of gold, in the same manner as we cover houses or more properly

churches, with lead. The ceilings of the halls are of the same precious metal.'

). Fuson, op. cit., see in particular pages 185ff

). Ibid., 193

. Ibid., 195–6

). Ibid., 196

). Ibid., 198

. Ibid., 199–205

). Ibid., 204–5

). Ibid., 191

'. Ibid., 191

PART six: *Japan, Taiwan, China*

25 / The Land Beloved of the Gods

Donald L. Philippi, *Norito: A Translation of the Ancient Japanese Ritual Prayers*, 53, Princeton University Press, 1990

Cited in Michael Czaja, *Gods of Myth and Stone*, 148, Weatherhill, New York, 1974

Robert H. Fuson, *Legendary Islands of the Ocean Sea*, Pineapple Press Inc., Florida, 1995

'Akita pyramid-shaped hill built in Jomon era, experts say,' *Japan Times*, Tokyo, 16 November 1993

Ibid.

Ibid.

Ibid.

Ibid.

Ibid.

. Irina Zhushchikkovskaya, ‘On Early Pottery-Making in the Russian Far East’, *Asian Perspectives*, vol. 36, no. 2, Fall 1997, 159–74

. Douglas Moore Kenrick, *Jomon of Japan: The World’s Oldest Pottery*, 5, Kegan Paul International, London, 1995

. Matsuo Tsukuda, ‘Vegetation in Prehistoric Japan: The Last 20,000 Years’, in *Windows on the Japanese Past: Studies in Archaeology and Prehistory*, 12, Centre for Japanese Studies, University of Michigan, 1986

. Information provided by Kiyoji Koita, Deputy Chairman, Prehistoric Cultural

Research Council, Ena City Hall

. Ibid.

. Ibid.

. Ibid.; observations and measurements by the Ena Prehistory Study Group

. Information provided by Kiyoji Koita

. Ibid.

. *Omiwa Shrine*, 7, Moiwa Jinja, Miwamachi Sakuraishi Naraken, Japan

. Ibid., 1

. Ibid., 1

. Personal observation

. *Omiwa Shrine*, 7–8

. Discussed by Steve Renshaw and Saori Ihara, ‘Astronomy Amongst the Ancient Tombs and Relics in Asuka, Japan’, March 1997 (unpublished)

. *Guide to the Asuka Historical Museum*, 29, Asuka Historical Museum, 1978

. Damaged summer 2000 when the central megalith was rolled off its platform; the official story is that exceptionally heavy typhoons were to blame.

. PNAS, 31 July 2001, cited in Reuters report, Washington, 31 July 2001

. *Washington Post*, 31 July 2001

. Betty Meggers, Clifford Evans and Emilio Estrada, *Smithsonian Contributions to Anthropology*, vol. 1, 160ff

26 / Remembrance

Some Japanese scholars such as Yoshiro Saji and others have considered the possibility that the myths of the *Kojiki*, the *Fudoki* and the *Nihongi* may have originated in the Jomon period; however, this is very much a minority view. It has not received the support of mainstream academics who habitually maintain that the myths are of Yayoi origin.

See *New Larousse Encyclopaedia of Mythology*, 403ff, Hamlyn, London, 1989, and Post Wheeler, *The Sacred Scriptures of the Japanese*, 393–438, Henry Schuman Inc., 1952

Juliet Piggott, *Japanese Mythology*, 26, Paul Hamlyn, London, 1969

Wheeler, op. cit., xviii

Larousse, 403. Their function was to recite ancient legends during the great Shinto festivals

Wheeler, op. cit., xxii; *Larousse*, 404

Wheeler, op. cit., xxii. However, it is not clear that the reciter was male. *Larousse*, 404, makes her female – Hieda-no-Ara, an attendant lady at the court

Wheeler, op. cit., xxii; *Larousse*, 404

The Kojiki: Records of Ancient Matters, Basil Hall Chamberlain (trans.), inside front cover, Charles E. Tuttle Company, Tokyo, 1993

). Wheeler, op. cit., xxii

. Ibid, xii

:. *Nihongi: Chronicles of Japan from the Earliest Times to* AD 697, W. G. Aston (trans.), Charles E. Tuttle Company, Tokyo, 1998

:. Wheeler, op. cit., xxiv

-. Wheeler, op. cit., xi, xviii; *Larousse*, 404

. *Larousse*, 404; Wheeler, op. cit., xi, xxiv-xxv

. *Larousse*, 404; Wheeler, op. cit., xi, xxiv-xxvi

. See discussion in *Larousse*, 404

. Robert Graves, in his Introduction to *Larousse*, v

. Ibid., v

. Most famously Schliemann following mythical clues to discover Troy

. The case of Immanuel Velikovsky, for example

. Alan Dundes (ed.), *The Flood Myth*, 1, University of California Press, 1988

. E.g. Matsuo Tsukuda, 'Vegetation in Prehistoric Japan: The Last 20,000 Years', in *Windows on the Japanese Past: Studies in Archaeology and Prehistory*, 12, Centre for Japanese Studies, University of Michigan, 1986, 11

. ‘Authentic history in Japan begins only in the fifth century. Whatever is earlier than that belongs to the age of tradition, which is supposed to maintain an unbroken record for ten thousand years’, Romyn Hitchcock, *Shinto, Or the Mythology of the Japanese*, 489, Report of National Museum, 1891. See also 505: The imperial family claims officially to have ruled Japan ‘for 2,550 years, tracing its ancestry for still 10,000 years back …’

. Wheeler, op. cit., 21

. *Nihongi*, 32; *Kojiki*, 50

. *Kojiki*, 51; *Larousse*, 407

. *Kojiki*, 51

. *Nihongi*, 33; *Kojiki*, 51

. *Nihongi*, 34

. *Kojiki*, 52

. *Kojiki*, 52–3; *Nihongi*, 34–5

. *Nihongi*, 35

. Ibid., 40–41

. An alternative in the same vein is that the myth is a metaphor for an eclipse, or reflects ‘primitive’ fears of eclipses, etc.

. In some translations ‘myriad’ is given but presumed to be a copyist’s error for ‘evil’ – see *Kojiki, 66*, note 4

. *Kojiki*, 63

. The possible interaction between the increased volcanism that is known to have occurred at the end of the Ice Age and post-glacial sea-level rise is discussed in chapter 3

. *Nihongi*, 49

. Ibid., 50

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. See discussion, 'stone boat' in chapter 25

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. Ibid., vol. 4, part 3, 547–8

. Ibid., vol. 4, part 3, 547–8

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5. Discussed at length in *Fingerprints of the Gods* and *Heaven's Mirror*

6. Thanks to Henry H. Y. Yuang for pointing this out

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From Legendary Islands of the Ocean, 1995.

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Published by Three Rivers Press, New York, New York.
Member of the Crown Publishing Group, a division of Random House, Inc.
www.crownpublishing.com

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Published in hardcover by Crown Publishers, a division of Random House, Inc., in 2002.

Originally published in Great Britain by Michael Joseph, an imprint of The Penguin Group, London.

Libary of Congress Cataloging-in-Publication Data is available upon request.

eISBN: 978-0-307-54856-6

v3.0

THE NUMBER ONE BESTSELLING AUTHOR

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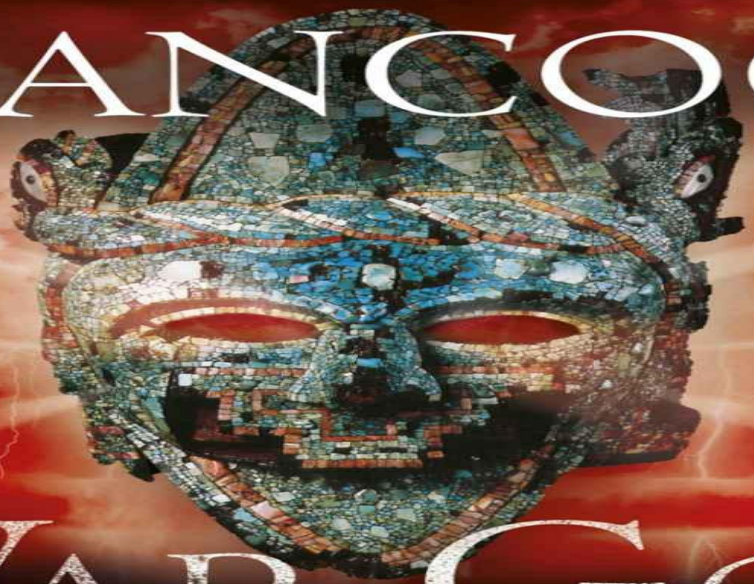

WAR GOD

NIGHTS OF THE WITCH

THE EPIC NOVEL OF THE SPANISH CONQUEST OF MEXICO

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Acknowledgements

WAR GOD

Graham Hancock

CORONET
www.hodder.co.uk

First published in Great Britain in 2013 by Coronet
An imprint of Hodder & Stoughton
An Hachette UK company

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A CIP catalogue record for this title is available from the British Library

ISBN 978 1 444 73439 3

Hodder & Stoughton Ltd
338 Euston Road
London NW1 3BH

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Nights of the Witch

‘The Mexica … never at any point referred to themselves, or their city states, let alone their empire as “Aztec” … At the time of the Spanish conquest they were [rightly] referred to by the Spanish as “Mexica” – hence the name for modern Mexico.’

Colin McEwan and Leonardo López Luján, Moctezuma: Aztec Ruler (2009)

‘The Mexica were the cruellest and most devilish people that can be imagined.’

Father Diego Duran, The History of the Indies of New Spain (first published 1581)

‘Take care that they do not escape … Feed them well; let them be fat and desirable for sacrifice on the day of the feast of our god. Let our god rejoice in them since they belong to him.’

Priestly regulations, c. 1519, for securing and preparing victims for

sacrifice in the Mexica capital city of Tenochtitlan

Part I

18–19 February 1519

Chapter One

Tenochtitlan (Mexico City), Thursday 18 February 1519

Moctezuma loved eminences, for to stand on any high place was to be reminded that he was the greatest and most magnificent of men, wielding the power of life and death over all he surveyed. Yet of the countless high places in his kingdom, none offered him a deeper and more abiding sense of ownership, or clearer evidence of his own

importance, than the summit platform of the colossal pyramid on which he now perched, soaring three hundred feet above his glorious capital city Tenochtitlan, which in turn stood on an island in the midst of a vast lake at the centre of an immense valley surrounded by lofty, snow-capped mountains.

Moctezuma's gaze ranged out to those mountains and volcanoes – there Iztaccihuatl and there Popocatépetl – crowned with snow and wreathed with smoke.

Lower down, old-growth forests of tall trees carpeted the slopes, giving way in the floor of the valley to a gigantic patchwork of farmed fields shining green with new maize. The fields marched in to the edge of the great lake, its shores embellished with his vassal states, Tacuba, Texcoco, Iztapalapa, Coyoacan, Atzcapotzalco, Tepeyac and many more, its blue waters alive with fish, dotted with the bright colours of floating gardens planted with fruits and flowers, woven by the wakes of canoes, traversed by mighty causeways.

Moctezuma allowed his gaze to follow the causeways from the south, west and north where they led into Tenochtitlan, passing thousands of houses, whole districts, entire neighbourhoods standing out above the lake on stilts connected by a perfect geometrical grid of intersecting canals filled with busy water traffic. These gave way to streets lined with noble stone mansions, where flowers bloomed from every rooftop, interspersed by market squares and pyramids and temples and imposing public buildings, beneath which the contours of the original island on which the Mexica capital had been built could still just be discerned.

Closer still, surrounded and protected by the city as the nest of an eagle safeguards its egg, lay the vast square of the sacred precinct, defined by its massive enclosure wall, oriented to the cardinal directions, measuring seven hundred paces along each side and decorated with reliefs depicting huge bronze, green and blue serpents, their gaping jaws set with long fangs and their heads plumed with crests of feathers. The wall was penetrated by four

giant gates, one each in the midst of its north, south, east and west sides, opening onto the polished limestone paving of the grand plaza and aligned with the north, south, east and west stairways of the great pyramid. Measuring three hundred paces on each side at its base, the pyramid rose up from the centre of the plaza in four successive levels, painted respectively green, red, turquoise and yellow, narrowing to fifty paces on each side at the summit where Moctezuma stood in possession of the very heart of the world. ‘Come Cuitláhuac,’ he said. ‘See how inspiring the view is this morning.’

Obediently his younger brother strode forward to join him at the top of the northern stairway, the hem of his scarlet cloak flapping around his large bare feet. Moctezuma wore purple, a colour reserved for the Great Speaker of the Mexica empire alone, his feet were shod with golden sandals and his head was adorned with the elaborate diadem of the monarch, studded with gold and jewels and enriched with precious feathers.

They were both tall, gaunt men but, looking at Cuitláhuac, Moctezuma thought, was like looking at himself in a poorly made obsidian mirror, for every aspect of their appearance was almost but not quite the same – the same fine bone structure, the same high, flat brow, the same liquid brown eyes, larger and rounder than was usual amongst the Mexica, the same sculpted cheek bones, the same long, prominent nose, the same delicate chin and the same full lips turned down disapprovingly at the corners. In Moctezuma these features were just as they should be and combined to create an aura of severe beauty and divine charisma fully justifying his powerful name, which meant ‘Angry Lord’. But in poor Cuitláhuac they were all very slightly awry – distorted, twisted and roughened in such a way that he could never hope to appear regal or commanding or ever live up to his name which meant ‘Eagle over Water’ but which could, with the deliberate mispronunciation of a single syllable, be made to mean ‘Heap of Excrement’ instead.

He looks so much older than me, Moctezuma thought, which was gratifying because at forty-eight, Cuitláhuac was in fact five years his junior. Better still, he was loyal, stolid, unambitious, unimaginative, predictable and dull; in this ill-omened year of One-Reed, when dangers long prophesied threatened to manifest, such qualities made him invaluable. After Moctezuma himself and his deputy Coaxoch, now away on campaign in the mountains of Tlascala, Cuitláhuac ranked third amongst the lords of the nation and was a potential rival since he was of royal blood. There was, however, no danger he would ever seek to seize power for himself. On the contrary, Moctezuma could be absolutely certain of his brother's steadfast support through whatever trials and turmoils lay ahead.

A shiver of apprehension ran down his spine and he glanced superstitiously over his shoulder at the tall, dark edifice that towered behind them. Dominating the summit platform of the pyramid, with its fantastic roof comb and brutal reliefs of serpents and dragons and

scenes of battle and sacrifice, this was the temple of Huitzilopochtli, ‘Hummingbird’, the much-feared war god of the Mexica and Moctezuma’s patron deity.

War was a holy pursuit and by means of it, under Hummingbird’s guidance, the Mexica had risen in just two centuries from a wandering tribe of despised nomads to become the absolute masters of an enormous empire stretching from the eastern to the western oceans and from the lush jungle lowlands of the south to the high deserts of the north. After subjugating neighbouring states such as Tacuba and Texcoco and harnessing them to Tenochtitlan in a ruling alliance, Mexica armies had gone on to conquer ever more distant cities, peoples and cultures – Mixtecs, Huaxtecs, Tolucans, Cholulans, Chalcans, Totonacs and so many others. One by one, they had all been forced to become tribute-paying vassals offering up huge annual treasures in gold, jewels, maize, salt, chocolate, jaguar skins, cotton, slaves and a thousand other goods, including

myriad victims for the human sacrifices that Hummingbird unrelentingly demanded.

There remained only a few pockets of resistance to this otherwise unstoppable advance. Of these, because of its central position in the ruling alliance, Moctezuma had to admit he was somewhat vexed by the recent turn of events in Texcoco, where he had ousted Ishtlil, the eldest son of the late King Neza, and placed Cacama, Neza's youngest son, on the throne instead. This had been necessary because Ishtlil had proved to be a free thinker, showing signs of rejecting his vassal status, whereas Cacama was compliant and could be relied upon to do as he was told. The surprise was that the impertinent Ishtlil had refused to accept the coup and had staged a rebellion, leaving the lakeside city of Texcoco and its valley provinces in Cacama's hands but taking the highland provinces out of the alliance.

It was a declaration of war and there had already been bloody clashes. To punish the affront to his dignity and authority,

Moctezuma had laid careful plans to have Ishtlil poisoned. His death would have been spectacular and agonising, with massive haemorrhaging from all major organs. Disturbingly, however – since it meant a resourceful spy must be at work in Tenochtitlan – a warning had reached the rebel prince just in time. A military solution was now being prepared, although not on so grand a scale as the campaign currently underway in the fiercely independent mountain kingdom of Tlascala, the other main sector of resistance to the spread of Mexica power.

Unlike Texcoco, where normal relations would have to be restored with all provinces after Ishtlil was smashed, it pleased Moctezuma for the stubborn Tlascalans to remain free so he could wage all-out war on them whenever he wished in a manner that would have to stop if they submitted to vassalage. His goal, confided to no one except Coaxoch when he had sent him into battle at the head of a huge field army, was to bring a hundred thousand Tlascalan victims to Hummingbird this year. The mission had been

crowned with early success and Coaxoch had already sent back hosts of new captives to be fattened for sacrifice.

As the god of war, Hummingbird was thought to favour male victims, which was why four of the five fattening pens distributed around the edges of the sacred precinct and visible from the top of the great pyramid were exclusively reserved for men. Only one at present held women prisoners. This latter was positioned in the northwest corner of the precinct, in the shadow of the enclosure wall and adjacent to the palace of Moctezuma's late father Axayacatl. Moctezuma's own far larger royal palace, with its extensive gardens and its elaborate zoo featuring the House of Panthers, the House of Serpents, the House of Hunting Birds and the House of Human Monsters, stood to the east of the great pyramid.

'Truly an uplifting sight, eh, Cuitláhuac?' Moctezuma said.

'Indeed, lord,' his brother replied.

Down below, at the foot of the northern stairway, the fifty-two victims for this morning's special ceremony were being assembled

under the directions of Ahuizotl, the high priest. They were all young Tlascalan men, the finest specimens, the fittest, the strongest, the most beautiful, the most intact of the prisoners sent back by Coaxoch.

Moctezuma licked his lips. ‘I think,’ he said, ‘I will perform the sacrifices myself today.’

Chapter Two

Tenochtitlan, Thursday 18 February 1519

Tucked in a secret pocket inside her filthy blouse, Tozi carried two *atl-inan* leaves rolled into delicate little tubes, crimped at each end and filled with the sticky red paste of the *chalalatli* root. The medicine, obtained by barter from an unscrupulous guard in a dark corner of the women's fattening pen, was for her friend Coyotl, so Tozi kept her hand protectively over the pocket as she threaded her

way through the crowds of prisoners, acutely conscious of how easily the tubes would be broken if anyone bumped into her.

Consisting of two interconnected wings, each a hundred paces long and thirty paces deep, set at right-angles to one another like an arm crooked around the northwest corner of the sacred precinct, the fattening pen had held just four hundred women when Tozi first arrived here seven months previously. Now, thanks to Moctezuma's recent wars with the Tlascalans, it held more than two thousand, and droves of new captives were still arriving every day. The rear of both wings was built of solid stone, and formed part of the larger enclosure wall of the sacred complex as a whole. The flat roof, also of stone, was supported by rows of giant stone columns. On its inner side, facing the great pyramid, the pen was open, except for a final row of stone columns and the stout bamboo prison bars that filled the gaps from floor to ceiling between them.

Tozi was near the back of the northern wing, making her way towards the western wing where she'd left Coyotl, when she saw

five young Tlascalan women clustered in her path. Her heart sank as she recognised Xoco amongst them, a cruel, hulking, brute of a girl, a couple of years older than herself. She tried to dodge but the crowd was too dense and Xoco lunged forward, shoving her hard in the chest with both hands. Tozi reeled and would have fallen, but two of the others caught her and pushed her back at Xoco again. Then Xoco's fist slammed into her belly and drove the air out of her lungs with a great whoop. Tozi stumbled and fell to her knees but, even as she gasped for breath, an instinct she could not suppress sent her hand searching inside her blouse for the medicine tubes.

Xoco spotted the movement. 'What you got in there?' she screamed, her face writhing with greed.

Tozi felt the outline of the tubes. They seemed bent. She thought one of them might be broken. 'Nothing,' she wheezed as she brought out her hand. 'I … I … just … wanted to find out what you'd done … to my ribs.'

'Liar!' Xoco spat. 'You're hiding something! Show me!'

The other four girls jeered as Tozi arched her back and loosened the ties on her blouse exposing her flat, boyish chest. ‘I don’t have anything to hide,’ she panted. ‘See for yourself.’

‘I see a *witch*,’ said Xoco. ‘A crafty little *witch*! Hiding something from me.’

The rest of the gang hissed like a basket of snakes. ‘Witch!’ they agreed. ‘Witch! She’s a witch!’

Tozi was still kneeling, but now a heavy kick to her ribs knocked her sideways. Someone stamped on her head and she looked into her attackers’ minds and saw they weren’t going to stop. They would just go on beating and kicking and stamping her until she was dead.

She felt calm as she decided she would use the spell of invisibility. But the spell itself could kill her, so she needed a distraction first.

Curling her body into a ball, ignoring the kicks and blows, she began to sing a dreary song, deep down at the bottom of her voice –

Hmm-a-hmm-hmm ... hmm-hmm ... Hmm-a-hmm-hmm ... hmm-hmm – raising the pitch with each repeated note, summoning forth a fog of psychic confusion and madness.

It wasn't a fog anyone could see, but it got into the girls' eyes and minds, making Xoco screech and turn furiously on her own friends, grabbing a handful of hair here, clawing a face there, interrupting the attack long enough for Tozi to surge to her feet.

She was already whispering the spell of invisibility as she stumbled away, turning her focus inward, slowing the urgent beat of her heart, imagining she was transparent and free as the air. The more strongly and vividly she visualised herself in this form, the more she felt herself fade, the fewer the hostile glances she received and the easier it became to penetrate the crowd of onlookers.

The spell had always hurt her.

Always.

But never really badly unless she held it for longer than a count of ten.

One …

Gaps opened up and she flowed through them.

Two ...

No solid obstacle could now block her path.

Three ...

It was as though she were Ehecatl, god of the air …

Four ...

The spell was very seductive. There was something wonderful about its embrace. But when Tozi reached five she stopped the magic, found a patch of shadow and slowly faded back into visibility again – just a grimy, snot-nosed, lice-infested fourteen-year-old girl, quietly minding her own business.

First she checked her pockets and was relieved to find the two little tubes of *chalalatli* still mercifully intact.

Then she felt her ribs and face and satisfied herself that nothing was broken despite the beating.

Better still, she realised, the price of the fade was nowhere near as high as it might have been – indeed no more than a punishing headache and flashing lights and wavy lines exploding intermittently before her eyes. She knew from past experience the visual effects would soon subside but the headache would continue, gradually diminishing in intensity, for several days.

Until then it would be dangerous to use the spell again.

But she had no intention of doing so.

She gave a bitter laugh. *Witch?* she thought. *I'm not much of a witch!*

Tozi could send out the fog, she could read minds and sometimes she could command wild animals, but a real witch would have been able to make herself invisible for long enough to escape the fattening pen, and she couldn't do that. Ever since she could remember she'd been able to speak the spell of invisibility, but if she faded for more than a ten count, she paid a terrible price.

The last time she'd risked it was the day her mother was taken by surprise and beaten to death in front of her. It had been one of those times when the priests had whipped Tenochtitlan's masses into a frenzy of fear and hatred against witches, and her mother was amongst those who'd been named. Tozi had been seven years old then and she'd faded just long enough – no more than a thirty count – to escape the rampaging mob and hide. It had saved her life, but it had also paralysed her arms and legs for a day and a night, filled her body with raging fire and burst something in her brain so that her head felt hacked open, as though by a blunt axe, and blood poured from her ears and nose.

After that, fending for herself on the streets of the great city, she'd not had the courage to try a fade for many years, not even for a five count. But since being seized along with other beggars by the temple catchers and thrown in the pen to be fattened for sacrifice, she'd been working on the problem again, working on it every day. She'd even experimented with a fade from time to time, just for

brief instants when it could most help her, slowly feeling her way through the deep tangled magic her mother had begun to teach her in the years before the mob. Sometimes she thought she was close to a solution, but it always vanished like a wisp just as it came within her grasp.

Meanwhile there were some, like Xoco and her gang, who'd become suspicious. They simply couldn't understand why Tozi was never amongst those selected for sacrifice when the priests came for victims, why again and again it was always others who were taken and this unlikely ragged girl who remained. That was why they suspected witchcraft, and of course they were right, but why did it make them want to hurt her?

If it wasn't so tragic, their vicious stupidity would almost have been funny, Tozi thought. Had the girls forgotten that just outside the sacred plaza, and presently going about the daily business of their capital city, the Mexica waited to hurt them all, very, very badly – in fact to murder them? Had they forgotten that they would

all, sooner or later, be marched up the great pyramid and bent backwards over the execution stone where their hearts would be cut out with a black obsidian knife?

Simultaneous with the thought, Tozi's own heart quickened and she felt a wave of apprehension. A big part of being invisible wasn't magic at all, but common sense. Don't stand out. Don't offend anyone. Don't get yourself noticed. But now she saw she had been noticed! Despite the fade, which should have thrown off all pursuit, a girl who'd lurked in the background during Xoco's attack had followed her. She might be eighteen, this girl, or perhaps twenty, tall and lithe with glowing skin, full, sensual lips, big, dark eyes and straight black hair that fell almost to her waist. She didn't look like a Tlascalan, and she was older than the rest of Xoco's gang, but Tozi wasn't taking any chances. Without a backward glance she ducked into the crowd and ran.

And ran.

And ran.

The other girl couldn't keep up with her – definitely not a Tlascalan then! – and Tozi very soon gave her the slip, crossing the whole width of the pen from the rear wall to the bamboo bars at the corner of the north and west wings, and burrowing in amongst hundreds of women who had gathered there to stare out through the bars across the smooth paving of the plaza towards the steep northern stairway of the great pyramid.

Even though the routine dawn sacrifices had already been carried out, Tozi sensed the familiar mood of ominous anticipation in the air, her flesh prickled and the pounding pain in her head grew worse.

Just ten days previously the old year, *13-Tochtli*, 'Thirteen-Rabbit', had come to an end and the new year, *1-Acatl*, 'One-Reed', had begun, taking its turn again for the first time in fifty-two years, as was the case for each one of the fifty-two named years that danced the circle of the great Calendar Round. There was something special

about One-Reed, however – something terrifying for all devotees of the war god Hummingbird, but most notably for the rulers of the Mexica themselves. As everyone knew, One-Reed years were linked inextricably to Quetzalcoatl, god of peace, Hummingbird's great antagonist. Indeed it had long ago been prophesied that when Quetzalcoatl returned he would do so in a One-Reed year.

In Nahuatl, the language spoken by the Mexica, the name Quetzalcoatl meant 'Feathered Serpent'. Ancient traditions maintained that he had been the first god-king of the lands now ruled by the Mexica. Born in a One-Reed year, he had been a god of goodness who was said to have stopped up his ears with his fingers when addressed on the subject of war. The traditions described him as tall, fair-skinned, ruddy complexioned and richly bearded. The traditions also told how Hummingbird and Tezcatlipoca, that other god of violence whose name meant 'Smoking Mirror', had plotted against Quetzalcoatl and succeeded in driving him out of Mexico – and how he had been forced to flee across the eastern ocean on a

raft of serpents. This, too, had happened in a One-Reed year. Before departing from the Yucatán coast, Quetzalcoatl had prophesied that he would return many years in the future, once again in a One-Reed year. When that time came, he said, he would cross back over the eastern ocean, ‘in a boat that moved by itself without paddles’, and would appear in great power to overthrow the cults of Hummingbird and Tezcatlipoca. All those who followed them would be cast down into Mictlan, the shadowy realm of the dead, a wicked king would be overthrown and a new era would begin when the gods would once again accept sacrifices of fruits and flowers and cease their clamour for human blood.

For the ten days since the inception of the current One-Reed year, there had been rumours that a new cycle of sacrifices was planned, a spectacular festival of blood to appease and strengthen Hummingbird against the possible return of Quetzalcoatl. Guessing the commotion at the pyramid must be connected with this, Tozi decided Coyotl would have to wait a few more moments while she

found out. Holding her hand over the pocket where the medicine tubes lay, she wormed forward through the crowd until her face was jammed against the bars.

As usual the pyramid impressed itself upon her as forcefully as a blow to the face. Towering in the midst of the plaza, glowing poisonously in the sun, its four levels were painted respectively green, red, turquoise and yellow. On the summit platform, tall, narrow and dark and seeming to eat up the light that shone down on it, stood Hummingbird's temple.

Tozi gasped when she saw that Moctezuma himself, dressed in all his finery, was amongst the black-robed priests clustered round the altar in front of the temple. Less surprising was the presence of fifty, she counted them – no, fifty-two! – lean and beautiful young Tlascalan men, daubed with white paint, dressed in paper garments, who were trudging with heavy feet up the steep steps of the northern stairway.

Tozi had seen many deaths in the past seven months, inflicted in many ingenious and horrible ways. Despite all her efforts to stay alive she was constantly afraid she might be snatched aside by the priests and murdered at any moment. Still she could not rid herself of the pain she felt whenever she saw others climbing the pyramid to die, and she gasped as the first young man reached the top of the steps.

At once a drum began to beat.

Four burly priests flung the victim on his back over the killing stone and took position at each of his arms and legs, holding him down tight, stretching his chest. Then, with the jerky, ungainly movements of a puppet, Moctezuma loomed over him, clutching a long obsidian knife that glinted in the sun. Tozi had seen it all before but still she watched, rooted to the spot, as the Great Speaker raised the knife and plunged it to the hilt in the victim's sternum. He cut upward, urgent but precise. When he found the heart he sliced it vigorously from its moorings, snatched it out amidst fountains of

blood, and placed it, still beating, on the brazier in front of Hummingbird's temple. There was a great hissing and sizzling and a burst of steam and smoke rose up at the top of the pyramid. Then the victim's body was rolled off the stone and Tozi heard hacking and rending sounds as skilled butcher priests fell on it and amputated the arms and legs for later consumption. She saw the head being carried into the temple to be spitted on the skull rack. Finally the torso was sent rolling and bouncing down the pyramid steps, leaving bloody smears all the way to the plaza below where it would soon be joined in a rising heap by the unwanted remains of all the other docile young men presently climbing the northern stairway.

Tozi knew from seven months of witnessing such scenes that the pile of torsos would be gathered up in wheelbarrows after nightfall and trundled off to feed the wild beasts in Moctezuma's zoo.

The Mexica were monsters, she thought. So cruel. She hated them! She would never be their docile victim!

But evading them was becoming more difficult.

Three searing beats of pain shook her head, and a burst of flashing lights exploded before her eyes. She clenched her teeth to stop herself crying out.

It wasn't just that she'd started to be noticed by some of the other prisoners – though that was dangerous enough. The real problem was caring for Coyotl, a huge responsibility that she knew she could not hope to sustain in these conditions. The only solution was to find a way to fade for longer than a ten count without having a massive physical collapse. Then she could get them out of here.

Tozi edged back and took her eyes off the pyramid, distracted for a moment by the way the morning sun poured through the bamboo prison bars creating stripes of deep shadow and stripes of intense, brilliant light, filled with swirling motes of dust. Suddenly she thought she saw the tall, beautiful woman again, gliding through the haze like a ghost. She blinked and the woman was gone.

Who are you? thought Tozi. *Are you a witch like me?* She felt the cool, packed earth of the floor under her feet and sensed the warmth and odours of the other prisoners all around her. Then, like an evil spirit, a breeze smelling of blood blew up out of the southeast and the screams of Moctezuma's next victim filled the air.

Normally the high priest wielded the obsidian knife, and Moctezuma would not become involved except on the most important State occasions. It followed that only something very significant could explain his presence here this morning.

With a shudder Tozi turned her back on the pyramid and moved swiftly through the crowd, disturbing no one, to the place where she had left Coyotl.

Chapter Three

Santiago, Cuba, Thursday 18 February 1519

Pepillo was halfway along the larger of the two piers jutting out into Santiago Harbour. He felt stunned and confused by the bustle and the noise. Every berth on both sides of the pier was filled with carracks, caravels and brigantines, and every ship was loading supplies at a feverish, almost frantic, pace – bags of cassava, barrels of wine and water, barrels of salt pork and dried fish, live pigs

squealing and protesting, horses, guns, troops of grim-looking men …

A drunken sailor with the face of an ape made a sudden grab for one of the two huge leather bags Pepillo was carrying. He dodged back and the sailor lost his balance and fell heavily to the cobbles. ‘You little whoreson,’ he roared, ‘I’m going to kill you for that.’

‘For what?’ Pepillo squeaked, backing away, still clutching the bags.

With horrible grunts the sailor levered himself onto one knee, struggled upright and lurched forward with his hands outstretched. Pepillo was already running. He heard footsteps closing rapidly behind him, then a sudden change in rhythm, and as he turned to look back over his shoulder he saw the drunk stumble, lose his balance and tumble to the cobbles again. There were hoots of derision, jeers and roars of laughter from the growing crowd of onlookers and the sailor glared up in fury at Pepillo.

Short, small-boned and delicately built for his fourteen years, Pepillo kept hoping for a growth spurt that would make him tall, robust and formidable. Now, he thought, as the sailor spat curses at him, would be an excellent moment to gain a span or two in height, and an arroba or two of solid muscle in weight. It would also be good if his hands doubled in size and quadrupled in strength in the process. He would not object to facial hair, and felt that a beard would endow him with an air of authority.

His arms aching, his fingers stiff, Pepillo hurried on, weaving through the thick crowds thronging the pier until his drunken attacker was lost from sight. Only when he was sure he was not pursued did he allow himself to set down the two enormously heavy bags. They clunked and clanged as though they were filled with hammers, knives and horseshoes.

How strange, Pepillo thought. It was not his business to wonder why his new master would travel with more metal than a

blacksmith, but for the twentieth time that morning he had to suppress an urge to open the bags and take a look.

It was just one of the mysteries that had exploded into his life after Matins when he had been informed he would be leaving the monastery to serve a friar who was not known to him, a certain Father Gaspar Muñoz who had arrived that night from the Dominican mission in Hispaniola. There had been some sort of dispute with Customs officials, and after it Father Muñoz had gone directly to another vessel waiting in the harbour, a hundred-ton carrack named the *Santa María de la Concepción*. Although Pepillo could not yet really believe his good luck, it seemed he and the Father were to sail in this vessel to bring the Christian faith to certain New Lands recently discovered lying to the west. Pepillo was to present himself to Muñoz on board ship, after first passing the Customs House and collecting four leather bags, the good Father's personal belongings that had been detained there.

Pepillo flexed his fingers and looked at the bags with hatred before he picked them up again. He hadn't been able to carry all four at once, so there were two more exactly like them he would have to return for when these were delivered.

As he walked he scanned the dockside through the milling, noisy, crowd. There was no breeze, and a cloying smell of fish, decay and excrement clung thick in the muggy morning air. Above, in the cloudless blue sky, seabirds wheeled and shrieked. There were sailors and soldiers everywhere carrying sacks of supplies, tools, weapons. Gruff Castilian voices shouted abuse, instructions, directions.

Pepillo came to a big three-masted carrack that loomed to his left like the wall of a fortress. Five massive cavalry horses were being led up a rickety gangplank onto the deck, where a noble lord, dressed out in great finery, with a mane of blond hair falling to his shoulders, was directing operations. Pepillo squinted to read the ship's faded nameplate: *San Sebastián.* Then, beyond it on the right,

almost at the end of the pier, he spotted another even larger carrack with jibs and derricks set up all around it and teams of men loading supplies. Pepillo walked closer. This ship had a high aftcastle and the new design of low-slung forecastle for better manoeuvrability against the wind. Another few steps and he made out the name: *Santa María de la Concepción.*

A gangplank sloped up to the deck right in front of him. With trepidation, holding his master's bags tight, Pepillo stepped on to it.

'Who are you? What do you think you're doing here?'

'I'm … I'm …'

'Tell me your business here!'

'I'm … I'm …'

'You're a puking dog breath.'

Pepillo didn't know whether he should laugh or take offence. The boy he confronted was a year or two older than him, at least a foot taller, much broader across the chest and made all the more

formidable by a completely shaven, gleaming head. He was also black as tar from head to toe.

Pepillo had encountered Negroes before, but they'd all been slaves. This one didn't behave like a slave and was much too big to fight, so he forced a laugh. 'OK, yeah, great,' he said. He pretended to wipe tears of mirth from his eyes. 'Very funny …' He held out his hand: 'The name's Pepillo …' He laughed. 'Pepillo Dogbreath!' Another laugh. 'And you are?'

'Melchior,' said the other boy. He ignored the proffered hand.

'Melchior,' repeated Pepillo. 'Right. Good to meet you.' He awkwardly withdrew his hand: 'Look … You asked me my business here and it's very simple. I'm trying to find my master's quarters.' He indicated the two large leather bags he'd been lugging on board the *Santa María de la Concepción* when Melchior had confronted him. He'd dumped them on deck at the end of the gangplank, right below the forecastle. 'My master's belongings,' Pepillo explained.

‘He came in from Hispaniola this morning and they were held up in the Customs House. I’m supposed to bring them to his cabin …’

An angry frown contorted Melchior’s face. There was something ferocious about this frown. Something hateful. Perhaps even something frightening. ‘This master of yours,’ he spat. ‘He have a name?’

‘Father Gaspar Muñoz.’

‘Muñoz!’ The frowned deepened, became a grimace.

‘Yes, Muñoz. You know him?’

‘He got stick legs, this Muñoz? Like a crow? He got a little fat belly? How about his front teeth? Look like he been sucking too hard on something he shouldn’t?’

Pepillo giggled at the crude image: ‘I don’t know,’ he said. ‘I’ve never seen my master before.’

‘Huh?’

‘I was assigned to him this morning and—’

‘—Assigned? Assigned you say? That’s a pretty word …’

‘I was sent straight to the Customs House for his bags. There’s two more I still have to fetch …’

A shadow distracted Pepillo and he glanced up to see a heavy brass cannon soaring overhead in a cat’s cradle of ropes. With raucous shouts, and much squealing of pulleys, a gang of sailors manoeuvred it into the deep shadows of the hold.

‘That’s one of the lombards,’ said Melchior. A note of pride crept into his voice: ‘We’ve got three of them with the fleet. You can settle a lot of arguments with guns like that.’

‘Are we expecting a lot of arguments?’

‘Are you kidding?’ Melchior sneered. ‘After what happened last year?’

Pepillo decided not to bluff: ‘*What* happened last year?’

‘The Córdoba expedition?’

Pepillo shrugged. It meant nothing to him.

‘Hernandez de Córdoba led a fleet of three ships to explore the New Lands, see what trade was to be had there and bring the word

of Christ to the Indians. He had a hundred and ten men with him. I was one of them.' Melchior paused: 'Seventy of us got killed.' Another pause: 'Seventy! Córdoba himself died of his wounds and we barely had enough hands on deck to sail back. It's been the talk of Santiago ever since. How can you not know anything about it?'

'I've been living in a monastery …'

'So?'

'We don't get much news there.'

Melchior laughed. It was a big, easy laugh, as though he was genuinely amused. 'You a monk?' he asked eventually. 'Or some such?'

'Not a monk,' said Pepillo. 'The Dominicans took me in when I was orphaned, taught me to read, taught me to clerk, taught me to keep numbers.'

'Ah, that would be why they chose you to serve Father Muñoz.'

'I don't understand.'

‘He’s our Inquisitor,’ said Melchior. ‘He’ll need numbers and letters and clerking to keep track of all those people he’s going to burn.’ He leaned down, put his mouth close to Pepillo’s ear: ‘Muñoz was with us on the Córdoba expedition too,’ he whispered. ‘People used to say he was “vigilant for God”. Vigilant for the devil’s closer to the truth! It was him as caused all the trouble.’

As Melchior told the story, Muñoz had been so ‘vigilant for God’ during his time as Inquisitor with the Córdoba expedition that he had burned whole Indian villages to the ground and consigned their entire populations – men, women and children – to horrible deaths in the flames.

‘But why would he do that?’ asked Pepillo. He felt outraged.

‘We brought them the word of Christ,’ said Melchior, ‘and they accepted conversion, but when we moved on some of them returned to the worship of their old gods.’ He lowered his voice: ‘Can’t blame them really. They didn’t think they’d see us again, but we came back and Muñoz rooted out the heretics and burnt them …’

‘Didn’t he give them a second chance? People like that who were new to the faith?’

‘Never. Sometimes he tortured them first to make them name other heretics so he could burn them too. But I never saw him give anyone a second chance. Maybe that’s why he brought the wrath of God down on our heads …’

‘Wrath of God?’

‘Thousands of angry Indians, driven mad by his cruelties, hell-bent on revenge. We had to fight our way out. Those of us that lived … we all hate Muñoz.’

There was an earsplitting crash as a massive ramp dropped into place and half a dozen trembling, sweating cavalry horses were led on board to makeshift stalls further aft. They neighed and snickered. One of them deposited an enormous heap of dung. Their iron hooves rang on the deck.

‘You been to sea before?’ Melchior asked.

Pepillo said he'd sailed with the Dominican mission from Spain to Hispaniola when he was six and again on the much shorter journey from Hispaniola to Cuba when he was nine.

'And since then?'

Pepillo told Melchior he'd lived in Cuba for the last five years, most of that time spent here in Santiago, helping old Rodriguez in the monastery library, assisting Brother Pedro with the accounts, running errands for Borges the quartermaster, and doing odd jobs for anyone who asked.

'Sounds boring,' prompted Melchior.

Pepillo remembered how he'd secretly yearned for freedom from the drab routine of his life and dreamed of stowing away on a ship and sailing to distant lands. Now, unexpectedly, it seemed his dreams were about to come true and it was all thanks to his new and as yet unknown master, the increasingly mysterious Father Gaspar Muñoz. Melchior might be right that he was a nasty piece of work, but for the moment Pepillo simply felt overjoyed to be on board this

great vibrant ship, to feel its timbers move beneath his feet, to hear the shouts of the sailors in the rigging and the creak of the towering masts and to know that, very soon, he would be going … somewhere.

Anywhere …

Which wasn't the library.

Hurrah!

Which wasn't counting beans in Don Pedro's windowless cell.

Hurrah again!

The *Santa María* was a hundred feet in length, big enough, Pepillo thought, to serve as flagship for what was obviously a major expedition. Judging from the other ships – surely at least ten of them! – also loading supplies, weapons and soldiers along the dock, something much more than preaching the faith was going on here.

'All these preparations,' Pepillo asked. 'All these soldiers. What are they for? Where are we going?'

Melchior scratched his head. ‘You mean you really haven’t heard?’

‘I told you. I’ve been living in a monastery. I don’t hear anything.’

Melchior drew himself up to his full height and pointed theatrically due west: ‘If you sail in that direction for four days,’ he said, ‘you come to the mainland we explored last year with Córdoba. It’s a beautiful land, and there seems to be no end to it. There are mountains, and navigable rivers, and great cities and fertile fields there, and gold and many precious things.

‘And that’s where we’re going?’

‘Yes, God willing … It’s a fine land. We can all become rich there.’

Melchior had been so hostile just moments before, but he already seemed much more likeable. In this alien world of ships and warriors, Pepillo thought, was it too much to hope he might have found a friend?

‘You’re thinking I might become your friend,’ said Melchior. ‘Don’t waste your time. It’s never going to happen.’

‘I’m not thinking any such thing,’ said Pepillo. He was surprised at how indignant he managed to sound, and how disappointed he felt. ‘I don’t want to be friends with you. It was you who started talking to me.’ He picked up the bags: ‘Just tell me which way to go for my master’s cabin.’

‘I’ll show you,’ said Melchior, ‘but you must not vex me with friendship.’

‘Look, I already told you I don’t want your friendship! I’ve got my job to do. I’m sure you’ve got yours …’ Pepillo paused, realising he hadn’t yet asked. ‘What *is* your job by the way?’

Melchior’s chest visibly swelled: ‘I’m manservant to the caudillo,’ he said.

‘The caudillo?’

‘Cortés himself.’

Cortés … Cortés … Another name Pepillo was apparently supposed to know.

‘He bought me after the Córdoba expedition,’ Melchior continued, ‘and then he set me free.’

‘And you stayed with him? Even after he gave you freedom?’

‘Why wouldn’t I? He’s a great man.’

Melchior had led Pepillo to the rear of the ship and now pointed to the twin doors at the back of the navigation deck below the aftcastle. ‘All the rest of us bunk on the main deck,’ he said, ‘but those are the cabins for your master and mine. It used to be one big stateroom with two doors, but my master partitioned it into two rooms to accommodate your master.’ Melchior looked furtively around: ‘Muñoz hasn’t come on board yet,’ he sniffed. ‘I expect he’s up to no good in town.’

‘Hasn’t come on board? He’s supposed to have been here since before dawn …’

‘Not my problem. Like I say, he’ll be up to no good in town.’

‘That sounds sinister … and a bit mysterious.’

‘He’s a sinister man, your master.’ Melchior leaned closer, lowered his voice to a whisper: ‘There’s something you have to know about him …’

But Pepillo had suddenly remembered the second pair of bags. ‘Tell me later,’ he interrupted. ‘I have to go back to the Customs House right now!’ He put down the bags he was carrying: ‘Will you stow these in my master’s cabin? I beg you. I’ve got no one else to ask.’

Melchior nodded. ‘I’ll stow the bags,’ he said, ‘and here’s my advice. Whatever you need to do at the Customs House, make it snappy. Cortés has itchy feet.’ He lowered his voice still further: ‘A lot of supplies have been brought aboard at night. I think he’s about to pull a trick on Velázquez.’

Velázquez! Now there was a name Pepillo did know. Diego de Velázquez, the conqueror and governor of Cuba, the most powerful man on the island whose word was law. ‘The governor?’ he asked,

realising how stupid he sounded even as he said it. ‘He’s involved in this?’

‘Of course he’s involved! He’s the one who gave Cortés command of the expedition. He’s paid for three of the ships out of his own pocket.’

‘So why would Cortés want to pull a trick on him?’

Once more Melchior glanced shiftily around. ‘Rumour has it,’ he whispered, ‘that Velázquez grows jealous. He imagines all the gold Cortés will win in the New Lands and wants it for himself. There are those who say he will relieve Cortés of command and put someone else he’s better able to control in charge.’

‘He can’t control Cortés then?’

‘Never! Cortés has always been his own man.’

‘So why did he appoint him in the first place?’

‘There was bad blood between them in the past. Something about Cortés getting the governor’s niece pregnant and then refusing to marry her. It all happened a couple of years ago and I don’t know

the details, but maybe Velázquez felt sorry about the way he treated Cortés then. He put him in jail for eight months, threatened him with death and only pardoned him when he agreed to marry the girl. Maybe he gave him the expedition to keep him sweet after all that …'

Pepillo whistled: 'And now he wants to take it away from him again?'

'Which Cortés won't accept! I'd say he's a man who would sail with the fleet even before it's properly loaded. He's quite the lawyer, and if he never gets the order relieving him of command then he won't be breaking any rules.'

Pepillo felt a knot of fear in his stomach.

It was a new fear.

He feared the unfamiliar world of the ship, but now he feared even more an enforced return to the familiar prison of the monastery.

He told himself he was being ridiculous – that this caudillo called Cortés was still in the midst of loading his fleet and couldn't possibly be ready to embark for at least another three days. Muñoz wasn't on board, after all, and surely the fleet would not sail without its Inquisitor? Even so, Pepillo couldn't shake the feeling of lurking dread. With a shout of thanks to Melchior, he charged down the aft gangway onto the pier, swerved to avoid a water-seller, dodged around a butcher's cart, stretched out his legs and ran.

He was still daunted by the chaos and confusion of the piers and the harbour, but he didn't think it would be difficult to find his way back to the Customs House. All he had to do was retrace, in reverse, the route he had taken this morning.

The *San Sebastián* now lay on his right and, as Pepillo approached the big carrack, he saw a mounted herald on the dockside, waiting at the foot of a gangplank. The herald was dressed in the scarlet and gold livery of the governorate and his splendid black horse wore a trapper of the same design.

Pepillo ran on, arms and legs pumping, not wanting anything to slow him down. But when he was twenty paces past the herald he heard a sound like a cannonade and turned to see another rider on an even bigger horse charging down the gangplank from the deck of the *San Sebastián*. The horse was white, like a vision from a legend, and Pepillo recognised the flying blond hair and the fine clothes of the noble lord he'd glimpsed earlier. Then the herald's horse bolted and both men rode past him at full gallop, one on either side, shaking the earth under their iron-shod hooves and filling his ears with thunder.

Pepillo's legs felt momentarily weak – the monstrous horses had seemed certain to trample him – but he kept on running towards the Customs House, intent on extracting his master's bags and getting back to the *Santa María* in the shortest possible time.

He sensed something in the air, like a bowstring stretched to breaking point, like a great storm about to burst.

Melchior was right.

This fleet was poised to sail.

Chapter Four

Tenochtitlan, Thursday 18 February 1519

Moctezuma set down the obsidian knife, wiped blood from his eyes and took stock of the remaining victims on the northern stairway.

It was as he thought. He had killed forty-one and eleven were left.

Just eleven!

And the war god showed no more sign of appearing to him now than at any other time in the past five years.

Clearly it had been a mistake to begin with only fifty-two victims, even if they were the pick of the crop from the war with the Tlascalans. The priests had said Hummingbird would be pleased with such a number, symbolic of a complete cycle of years in the Calendar Round. But if that was true, then wouldn't he have been even more pleased with five hundred and twenty?

An idea was beginning to take shape. Perhaps the god grew bored with male victims? Perhaps females would entice him to appear?

Five hundred and twenty ripe and fertile young females.

Moctezuma shrugged off his blood-drenched robes, let them drop with a heavy slap to the floor, stepped away naked but for a loincloth, and took up the knife again.

The next victim had already been forced down onto the sacrificial stone where he lay gasping with fear, his whole body trembling, his eyes rolling wildly. Such behaviour was not seemly for a warrior and Moctezuma took pleasure in castrating the man before slicing him open from groin to breastbone, dragging forth some loops of his

intestines, puncturing his stomach, rummaging around in the mess for his spleen and, finally, amidst a crescendo of screams, ripping out his heart. A great, hot gush of blood spurted up and came spattering down again like a rainstorm as the corpse was rolled away.

Some victims, Moctezuma had noticed, just seemed to have more blood than others. Why was that?

He killed another man. And another. Sticky clots clung around his fingers where he gripped the knife. There was blood in his eyes, in his mouth, clogging his nose.

He rested a moment while the assistants prepared the next victim, and beckoned Ahuizotl, his high priest, whose bulging yellow eyes, blotchy skin, gaping nostrils, crooked teeth and lecherous monkey features greatly resembled those of the manipulative and vicious species of water monster after which he was named. The high priest was his man, bought and paid for, and he strode forward now in his black, blood-smeared robes.

‘You did not give me good advice,’ Moctezuma told him. His voice was soft, but there was a deliberate edge of implied threat and Ahuizotl looked worried.

As well you might, thought Moctezuma. *As well you might. I could have you strangled in your sleep.*

Ahuizotl kept his eyes downcast: ‘I humbly apologise to Your Magnificence if I have failed you in any way. My life is yours to dispose of.’

‘Your life is always mine to dispose of …’

Ahuizotl began to bare his breast but Moctezuma reached out a bloody hand to stop him: ‘Spare me the theatricals. I don’t want your heart. Not yet anyway.’ He looked up at the sun which was high in the sky, standing close to noon. ‘The god does not appear to me,’ he said, ‘because we have not offered an adequate basket of victims. I expect you to remedy this situation, Ahuizotl. Be back here in two hours with five hundred and twenty young women for me to kill.’

‘Five hundred and twenty!’ Ahuizotl’s mournful face registered shock. ‘In two hours? Impossible.’

Moctezuma’s voice grew softer: ‘Why is it always your instinct to say “no”, Ahuizotl?’ he asked. ‘Learn to say yes if you wish the light of my presence to shine upon you.’

‘Yes, Magnificence.’

‘Very good. So I shall expect five hundred and twenty young women then?’

‘Yes, Magnificence.’

‘The younger the better. I do not insist that they be virgins. I don’t expect you to perform miracles, you see. But I want them here in two hours.’

Dumb witness to this exchange, still stretched across the sacrificial stone and awaiting the first cut, the next victim trembled. Nonetheless, Moctezuma noted approvingly, he continued to hold himself under some sort of control. That took courage. He raised the obsidian dagger and plunged it deep into the man’s bare chest,

delighting in his screams as he sawed the blade savagely upwards, splitting the breastbone and exposing the palpitating heart.

‘Watch and be thankful as the Great Speaker of the Mexica takes your life,’ whispered Moctezuma. He began to cut again, busy now, with his nose in the gaping chest cavity, working close-up with the knife, soaked in streams of blood, severing the thick vessels that encircled the beating heart until the whole quivering, dripping organ came loose in his hands and he flung it on the brazier where it hissed and smoked.

Priests rolled the body away; even as they were butchering it, a new victim was dragged into place over the sacrificial stone.

Out of the corner of his eye Moctezuma saw Ahuizotl leaving the summit of the pyramid with three of his black-robed entourage – no doubt to round up the women he’d demanded for sacrifice.

‘Wait,’ he called after them.

Ahuizotl turned to look back.

‘Before you bring me the women,’ said Moctezuma, ‘you will bring me the Flesh of the Gods.’

Sometimes, an hour or two before being sacrificed, specially favoured victims were fed the mushrooms called *teonanácatl*, the ‘Flesh of the Gods’, which unleashed fearsome visions of deities and demons.

More rarely, the sacrificer himself would partake of the mushrooms.

After he had killed the last of the fifty-two young men, Moctezuma received a runner sent by Ahuizotl, who had climbed the pyramid to bring him a linen bag containing seven fat, finger-length mushrooms. Their silver-grey fish-belly skins gave way to shades of blue and purple around the stems. They exuded a faint, bitter, woody aroma.

Seven big *teonanácatl* amounted, Moctezuma knew, to a sizeable, probably terrifying, dose, but he was prepared to eat them

to engineer an encounter with Hummingbird, war god of the Mexica, whose representative on earth he was. In the early days of his reign the god had come to him often as a disembodied voice speaking inside his head, present at every sacrifice, giving him commands, guiding him in every decision he took, but as the years passed the voice became fainter and more distant and, for the last five years, as the ominous year One-Reed slowly approached, he had not heard it at all.

Priests were still hovering round him but Moctezuma ordered them away, telling them he required two hours of perfect peace before the next bout of sacrifices began.

He watched as they filed down the steps. When complete silence fell he stripped off his sodden loincloth and advanced naked into the shadows of Hummingbird's temple, clutching the bag of mushrooms.

The temple, which was built on the broad summit of the pyramid, was a tall stone building. Its two principal rooms were luridly

illuminated by the guttering flames of burning torches.

Moctezuma put a mushroom in his mouth and began to chew. It tasted of death, of decay. He added two more and walked into the first room.

Lined up on both sides of the wall, skewered from ear to ear on long horizontal poles, taking their place amongst other, older trophies, were the dripping heads of the fifty-two men he'd spent the morning killing. He remembered some of their faces. Their wide, staring eyes. Their mouths frozen as they screamed their last.

He confronted one of the heads, pushed right up to it, glared into the vacant eyes, wiped blood from the high cheekbones and thin lips.

It made him feel powerful to encounter the so-recently living.

He moved on, into the second room.

Here, curiously patterned in the light and shadow cast by the flickering torches and the high, narrow windows, with a huge serpent fashioned from pearls and precious stones coiled about its

waist, was Hummingbird's squat and massive idol. Carved from solid granite, its eyes, tusks, teeth, claws, feathers and scales glittered with jade, polished horn and obsidian and the most precious gold and jewels; a golden bow was clutched in its right fist, a sheaf of golden arrows in its left, and a necklace of human hearts, hands and skulls was strung around its neck. The idol's snarling mouth was smeared with gore and lumps of meat where priests had forced the half-cooked hearts of the victims through it into the reeking receptacle beyond.

Moctezuma sat down cross-legged on the floor in front of the great idol and slowly and methodically ate the rest of the mushrooms.

For a very long time nothing happened. Then at last the disembodied voice he thought had deserted him was back inside his head:

'Do you bring me hearts?' the voice asked.

Chapter Five

Tenochtitlan, Thursday 18 February 1519

‘This medicine is bitter,’ complained Coyotl. ‘Why must I finish it?’

‘Because I say you must finish it,’ said Tozi. ‘I who obtained it for you at great expense. It will take away your pain.’

‘How great was the expense, Tozi?’ The little boy, who should have been born a merchant, was always inquisitive about anything to do with barter and exchange.

‘It was very great, Coyotl.’ *Greater than you can possibly know*. ‘Pay me back by finishing it.’

‘But I hate it, Tozi. It tastes of … uggh – bird shit!’

‘So you’re some kind of expert on the taste of bird shit?’

Coyotl giggled: ‘It tastes like this medicine you are forcing me to eat.’ Despite his protests, he had already swallowed almost the whole first dose of the noxious-smelling red paste. He was stretched out quite comfortably on the ground, with his head in Tozi’s lap, and he now unwillingly ate the rest of the drug.

Coyotl was six years old. He was in the women’s pen, rather than amongst the males, because his genitals had been hacked off in infancy by his parents, leaving only a slit. This had been done as an offering to Tezcatlipoca, ‘Smoking Mirror’, Lord of the Near and the Nigh. Four days ago those same loving parents had dedicated the rest of their son to the war god Hummingbird, whose temple stood on the summit of the great pyramid, and had delivered him to the fattening pen to await sacrifice. The other women in the pen had

shunned him, as they did all freaks and oddities, but Tozi had taken him under her wing and they had become friends.

‘You need to sleep now!’ she said. ‘Give the medicine a chance to do its work.’

‘Sleep!’ Coyotl’s response was high-pitched and indignant. ‘I don’t think so.’ But his eyes were already drooping closed.

Tozi was seated cross-legged. She blinked, rubbed her aching temples and yawned. She felt dizzy, perhaps a little sick. Though she had sustained it only for a five count, her brief, intense fade had exhausted her more than she’d realised. Her head nodded forward, sleep overmastered her and she dreamed, as she often did, of her mother the witch. In the dream, her mother was with her still, comforting her, teaching her and then, strangely, whispering in her ear, ‘Wake up, wake up …’

‘Wake up!’

It was not her mother's voice! The moment of confusion between dream and reality passed and Tozi, now fully alert, found herself face to face with the beautiful young woman who'd haunted her earlier. 'You …' she began.

Then she choked back her words.

Behind the woman, less than fifty paces away, four of the black-robed priests of Hummingbird had entered the pen, followed by armed enforcers, and were hauling fresh victims aside.

Although momentarily preoccupied with other prisoners, the priests were moving fast and making straight for them.

'Are you going to let them kill us?' the woman said. She spoke in a throaty whisper, her voice low and filled with urgent power. 'Or are you going to make us disappear?'

Tozi winced as a burst of pain struck her head. 'Us?' she said as the spasm passed. 'What us?'

'You, me and the little one,' said the woman. She glanced down at Coyotl, who stirred and grumbled in his sleep. 'Make us

disappear the way you make yourself disappear.'

'If I could make myself disappear, do you think I'd still be in this prison?'

'That's your business,' the woman said. 'But I saw what happened this morning. I saw you fade. Then you were gone.'

The woman was crouched next to her, her sleek black hair shadowing her face, her body emanating a warm, intense musk, and for the second time that day, Tozi felt the dangerous pull of a connection, as though she had known her all her life. Making no sudden movements that might attract unwelcome attention, she looked round, taking stock of their predicament, automatically tuning in to the feverish agitation of the crowd, probing to see if there was something she could use.

Whatever it was, it could not be another fade. She cursed herself for employing the spell of invisibility earlier, when it had not been a matter as desperate as this. But with her head pounding so very

badly, Tozi knew it would be at least another day, perhaps two, before she dared risk it again.

The pen was massively overcrowded and the sudden arrival of the priests at this unexpected hour had sparked off a mindstorm of fear. Most prisoners knew not to bolt – that was the fastest way to be selected for sacrifice – but there was a general cringing and drawing back, as from the approach of a savage beast.

Tozi recognised the high priest Ahuizotl in the lead, a vigorous, evil-looking, mean-mouthed old man with mottled skin. His black robes and thick, shoulder-length grey hair glistened with oozing curds of freshly clotted gore, and his blunt, bestial face was set in an expression of thunderous rage. Flanked by his three assistants, also copiously smeared and splashed with blood, he cut a swathe across the crowded floor of the pen, selecting women – all young – whom he pointed out with furious jabs of his spear. Armed enforcers at once restrained the protesting, terrified, screaming victims and led them off.

‘I can only hide two of us from them,’ Tozi volunteered abruptly, ‘but I can’t hide three. So it’s you, or the kid.’

The woman pushed back her hair and a ray of sunlight, lancing deep into the prison through some crack in the roof, caught flecks of jade and gold in her irises and set her eyes ablaze. ‘You must save the child of course,’ she said.

It was the right answer.

‘I lied,’ Tozi whispered to the woman, ‘I think I can get all three of us out of this. Anyway I’m going to try.’

‘But …’

‘Stay still. Whatever happens, you have to stay still. You have to stay quiet.’

Tozi glanced up. Ahuizotl was pushing towards them, just twenty paces away, every angry lunge of his spear nominating another victim. This was a man who’d taken countless lives for

Hummingbird and Tozi sensed his blood power. He would not be easy to deflect or confuse.

Neither were the younger priests to be underestimated, with their cruel sneers and long, lean fingers.

So she scanned groups of prisoners milling nearby and her eyes fell, with a feeling of real gratitude, on Xoco and two of her gang. They were off to the left, trying, like everyone else, not to attract the attention of the priests.

Tozi started to sing. '*Hmm-a-hmm-hmm ... hmm-hm ... Hmm-a-hmm-hmm ... hmm-hmm.*' The sound was so low as to be almost inaudible. But it didn't matter how quiet or how loud you sang it. What mattered was the sequence of the notes, the tempo of their repetition and the intent of the singer.

Tozi's intent was to save herself, and poor Coyotl and this strange, mysterious woman. She cared nothing for Xoco. '*Hmm-a-hmm-hmm ... hmm-hm*,' she sang. '*Hmm-a-hmm-hmm ... hmm-hmm*.' She kept winding up the tempo, as her mother had taught her,

and felt the fog flowing out of her, invisible like breath, unsettling the senses and lightening the heads of everyone it touched. People stumbled, collapsed, barged into one another, became aggressive and reckless, and the priests of Hummingbird spun round seeking the source of the commotion. Then the mental fog slammed into Xoco who started up from the floor where she was crouching and charged straight at Ahuizotl. He was too surprised to avoid her and when she hit him with all her weight he went down hard, smashing his head into the ground.

Chaos erupted as priests fought to subdue and shackle Xoco. She seemed supernaturally strong and howled like a demon. There were not enough enforcers to stop the many other fights spreading like wildfire through the crowd.

‘Now we get out of here,’ said Tozi. She swept up Coyotl, still in a deep sleep, and signalled to the woman to follow her.

Chapter Six

The Kingdom of Tlascala, Thursday 18 February 1519

The hill was steep, filled with hollows and overgrown with tall, feathery grass. That was why Shikotenka had been drawn to it. He'd found a deep crevice about halfway up the slope and snaked his lean, hard-muscled body into it just as dawn was breaking, hiding himself completely from view to observe the Mexica as they

converged in the vast natural amphitheatre below. There were four regiments, each at their full strength of eight thousand men, and he counted them in as they approached one by one through passes in the surrounding hills, a huge and fearsome war machine the size of a city, mustering here as the day wore on to bring murder and mayhem to Tlascala.

Dressed only in a loincloth and sandals, his thick black hair drawn back from his brow in long, matted braids, Shikotenka's chest, abdomen, legs and arms, now pressed tightly into the soil and rock of his homeland, were criss-crossed with the scars of battle wounds received in hand-to-hand combat against the Mexica. At thirty-three years of age he had already been a warrior for seventeen years. The experience showed in the flat, impassive planes of his face and the determined set of his wide, sensual mouth, which masked equally the cold cruelty and calculation of which he was capable as well as the bravery, resolve and inspired flights of rash brilliance that had led to his election, just a month before, as the

battle king of Tlascala. A man of direct action, he had not thought of delegating a subordinate for today's assignment. The very survival of his people depended on what happened in the next day and night and he would trust this task to no one else.

Eyes narrowed, he watched as teams from the first of the enemy regiments used ropes and pegs to mark out the perimeter of a great circle on the open plain. The circle was then divided into four segments. Thereafter as each regiment arrived it was directed to its own segment of the circle, and the men at once set about pitching tents that varied in size from compact two-man units to enormous marquees and pavilions, where the standards of leading officers were raised. Meanwhile scouts were sent out in small, fast-moving squads to comb the nearby hills for spies and ambushes. Five times already, men beating the bush had passed uncomfortably close to where Shikotenka lay hidden.

Was it possible, he wondered, to hate an entire people as intensely as he hated the Mexica, and yet still admire them?

Their organisation, for example. Their toughness. Their efficiency. Their obsidian-hard will. Their absolute, ruthless, uncompromising commitment to power. Their limitless capacity for violence.

Weren't these all admirable qualities in their own right?

Moreover, here in force, in their tens of thousands, he had to admit they made a stunning impact on the senses.

His vantage point was five clear bowshots from the edge of their camp, yet his nostrils were filled with the reek of copal incense and putrid human blood, the characteristic stink of the Mexica that clung about them like a half-articulated threat wherever they gathered in large numbers.

Also rising off them was a tremendous cacophony of sound – drums, flutes and songs, the buzz of fifty thousand conversations, vendors shouting their wares in four makeshift markets that had sprung up across the plain like strange exotic growths.

With thousands of porters, water-carriers and personal slaves, and a ragged host of camp followers including butchers and tailors, astrologers and doctors, cooks and odd-job men, vendors of all manner of foodstuffs and services, and a parallel army of gaudily dressed pleasure girls, Shikotenka calculated the total numbers in the Mexica camp as somewhere close to sixty thousand. Despite the rigid military lines where the regiments were setting out their tents, the overall impression on the eye was therefore as much that of a country carnival as of a great army pausing on its march. Nor did the masses of soldiers detract from this impression of gaiety, for the Mexica rewarded success in battle with uniforms of feathers and gold and richly dyed fabrics that sparkled and glimmered in the sun, merging into waves and spirals of startling greens, yellows, blues, reds and deep purples, interspersed with expanses of dazzling white.

More than any other factor, what determined a man's worth amongst the Mexica was the number of captives of high quality

taken alive in the heat of battle and sacrificed to their ferocious war god Huitzilopochtli, an entity of surpassing depravity and ugliness, whose name, somewhat incongruously, meant ‘Hummingbird’.

All those of whatever age who had not yet taken a captive were considered novices. They signified their lack of achievement by wearing nothing more than a white loincloth and a plain white sleeveless jacket of padded cotton armour. There were a great many novices in this army, Shikotenka noted with interest, far more than normal in a force of such size.

More experienced fighters also used the armour but it was concealed beneath uniforms appropriate to their status.

Those who had taken two prisoners wore a tall conical headdress and a matching bodysuit. The shimmering colours of both cap and suit – most often crimson or yellow, but sometimes sky blue or deep green – came from thousands of tiny feathers painstakingly stitched to the underlying cotton garments. Men entitled to wear this uniform were usually the largest block in any Mexica army, but in

three of the four regiments here today they were outnumbered by novices.

Next came warriors who had taken three captives. Shikotenka spotted companies of them distributed across the whole mass of the army, recognisable by their long armour and butterfly-shaped back ornaments made of purple and green feathers stitched to a wicker frame.

Still higher up the chain of honour, and again distributed everywhere across the army, were those who had been admitted to the military orders of the Jaguar and the Eagle. These might be the sons of nobles, in some cases unblooded but trained for war in one of the great military academies, or commoners who had taken four prisoners in battle. The jaguar knights wore the skins of jaguars and ferocious, garishly painted wooden helmets in the form of snarling jaguar heads. The eagle knights wore cotton bodysuits embroidered with the feathers of golden eagles, and wooden helmets in the form of eagle's heads.

A mass of warriors, their hair cut to a distinctive crest dividing the scalp, marked concentrations of men with more than six captives to their credit, who fought in pairs and had taken a vow never to retreat once battle had begun.

Even more formidable were the Cuahchics, their scalps shaved except for a lock of hair braided with a red ribbon above the left ear. Each Cuahchic's head was painted half blue and half red, or in some cases half blue and half yellow. They, too, had taken at least six captives, but they had also performed twenty acts of conspicuous bravery in battle.

Shikotenka grimaced, recalling previous occasions when he'd faced the Cuahchics. He would prefer not to face them again tonight if he could possibly avoid it.

But whatever would be would be. He dismissed the painted warriors from his mind and turned his gaze towards the centre of the camp. Teams of porters and labourers had been working there since morning to fit together the huge billowing pavilion of the Snake

Woman, commander-in-chief of this colossal field army – who was, of course, a man.

Indeed, as far back as anyone could remember, it was an unexplained mystery that the revered Snake Woman of the Mexica, their highest-ranking official after the Great Speaker, always was and always had been a man.

The present incumbent, Coaxoch, now in his early fifties and enormously fat, had once been a renowned warrior. Moctezuma had appointed him soon after he became Speaker sixteen years ago and Coaxoch had remained his closest adviser and confidant ever since. A blow against Coaxoch was therefore a blow against Moctezuma himself and thus against the pride of the Mexica nation. It would evoke an immediate and, Shikotenka hoped, rash response. That was why he was here, on this grassy hill, crammed into this rocky crevice, watching and counting. If the gods were with him and blessed his plan, the result would be spectacular harm to the enemy.

A surge of movement in the southwestern quadrant of the camp caught his attention. He squinted. Shaded by splendid umbrellas of quetzal feathers, a procession of nobles and knights was advancing towards the centre. Shikotenka narrowed his eyes again and this time clearly made out the corpulent form of Coaxoch amongst the feathers, sprawled on a litter carried on the shoulders of half a dozen brawny slaves.

Conspicuous in the procession were four high-ranking nobles attired with spectacular radiance in elaborate rainbow-plumed headdresses and mosaic face masks of costly jade. On their backs, jutting an arm's-length above their heads, they wore the green triple-pennant standards of regiment generals. Shikotenka bit back the roar of loathing that rose automatically to his lips as he recognised Coaxoch's sons, promoted far above their station on account of their father's influence with Moctezuma, and already infamous for their foolishness and cruelty. The year before he'd met and instantly detested Mahuizoh, the eldest of them, when he'd led

the Mexica delegation at so-called ‘peace talks’ with his people. How could he forget the man’s bombastic, bullying manner and his loud-mouthed threats of rapine and ruin if his exorbitant demands for tribute were not met? Shikotenka uttered a silent prayer to the gods to put Mahuizoh under his knife tonight.

More movement in the northeast marked the location of a second procession, also advancing on the centre. It was made up of several hundred warrior priests dressed in tall headdresses and bodysuits embroidered with a background of black feathers to represent the night sky and patterns of white feathers to represent the stars. With them, bound together at the neck by heavy wooden halters, they dragged a hundred captives daubed with chalk paint and dressed in ungainly clothes of white paper.

The two processions converged in front of Coaxoch’s pavilion. There, with much burning of copal, blaring of conches and beating of gongs and drums, the priests set up their altar and a carved wooden idol of Hummingbird. Propping himself on one elbow,

conversing with his sons who had gathered close around him, Coaxoch looked on from his litter.

Shikotenka didn't doubt that every one of the prisoners who were about to be sacrificed were Tlascalans like himself. For, unlike the host of other free kingdoms that had once flourished in the region, Tlascala had always rejected the offers of vassal status and the payment of extortionate annual tributes to the Mexica in return for peace; as a result, it was the target of continuous raids by Moctezuma's armies. These attacks were intended to punish Tlascalan defiance and provide an object lesson to neighbouring peoples of the costs of independence. But their larger purpose was to ensure a steady supply of prisoners for sacrifice to the bloodthirsty pantheon at the apex of which sat Hummingbird, the divine source of all Mexica violence, who was reputed to have said in the long ago: 'My mission and my task is war. I will watch and join issue with all manner of nations, and that without mercy.'

In the past three months some terrible sense of urgency, some looming supernatural threat that called for a great mass offering to Hummingbird, had aroused the Mexica to new heights of cruelty. Shikotenka's spies thought the whole matter might be connected to the appearance of a small band of mysterious white-skinned beings, possibly deities, who had arrived in the lands of the Maya some months before, in immense boats that moved by themselves without paddles, fought and won a great battle using devastating, unknown weapons and then returned to the ocean whence they had come. Much about this strange encounter suggested the legends of the Feathered Serpent, Quetzalcoatl, and his oft-prophesied return, something that Moctezuma as a devotee of Hummingbird would certainly have cause to fear and attempt to delay or even prevent by offering extravagant sacrifices to the war god. This was only a theory at this stage, but it seemed plausible to Shikotenka in the light of Moctezuma's famously superstitious nature, and it would certainly explain why Coaxoch's thirty-two thousand warriors had

been diverted from other duties and put in the field with the exclusive task of gathering in huge numbers of new victims. They had already ravaged a dozen Tlascalan cities, seized thousands of young men and women and dragged them off to the prison pens a hundred miles away in Tenochtitlan, the Mexica capital, to be fattened for the coming holocaust. Typical of the Mexica, however, a few of the captives – like these poor wretches now being dragged to the altar – had remained with the armies to be sacrificed at important staging posts on the march route.

The conches blared again and the snakeskin drum began to beat. Shikotenka clenched his fists as the first screams of pain went up, but there was nothing he could do for his brothers and sisters now suffering under the Mexica knife. The only satisfaction came from the thought of his own elite corps of fifty warriors waiting for his orders an hour's hard run to the south.

While the sacrifices were performed, the frothing heart blood collected and drunk by the most senior nobility, and the bodies of

the victims butchered for the cooking pot, swarms of workers continued to put the finishing touches to the Snake Woman's pavilion. Not until mid-afternoon, however, when he'd witnessed the death of the last victim and drunk his share of the blood, did Coaxoch allow himself to be carried into the huge structure. He was followed by a dozen voluptuous slave girls, dressed in body-hugging tunics woven from yellow and green parrot feathers. Moments later his litter-bearers emerged but the women remained. From time to time other slaves continued to come and go carrying food and drink.

Suppressing his rage, Shikotenka stayed where he was in the rocky crevice, not moving a muscle, observing everything that was going on down below. For a while he became lost in thought, calculating distances, comparing a variety of possible entrance and exit strategies, quietly figuring out how he was going to get his warriors into Coaxoch's pavilion tonight and do the maximum damage there.

It was obvious that each man must go by a different route. In groups of even two or three they would attract attention but alone, dressed in a variety of captured Mexica battle uniforms, they'd have the best chance of blending in with the enormous crowd of warriors and camp followers. If all went well they would reassemble in front of the pavilion by the idol of Hummingbird and go straight into a devastating attack that the overconfident Mexica would not be expecting and would not have guarded against.

So much for the easy part of the plan.

Where things got difficult was the escape from the midst of an alerted and maddened foe.

But Shikotenka had supreme confidence in the battle skills of his fifty. They would have the advantage of surprise and momentum, of superior organisation, of their thirst for retribution and of the love of the gods. They would burst through the Mexica ranks like a flood and be off and away into the mountains before anyone could stop them.

They would of course be followed.

But that, too, was part of the plan …

Shikotenka's daydream of revenge was cut short by a sound.

A little, scraping, scratching sound.

He stayed frozen, unmoving, every sense alert.

Scratch ... scrape ... scratch ... scratch ...

The source was just twenty paces upslope and moving stealthily down towards him.

Scrape, scrape, scratch ...

It was one man, Shikotenka thought, a soldier wearing heavy-duty battle sandals – not an experienced tracker, or he wouldn't have heard him at all, but someone crafty and determined enough to work his way round above him and get this close without detection.

Were there others with him? Perhaps further up the slope, out of earshot?

If yes, Shikotenka knew he was done for.

If no, there was still a chance.

He drew his knife.

Chapter Seven

Tenochtitlan, Thursday 18 February 1519

Tozi led the woman away from the priests and rapidly back through the crowd to the massive rear wall of the pen. There was a negotiable ribbon of space here, where people did not want to be crushed against the wall. Tozi slipped into the gap, clutching Coyotl. The woman was right behind them.

‘What do we do now?’ she asked. She looked flushed and excited.

‘We go this way,’ said Tozi.

The prison was big enough to vanish in; indeed Tozi had spent the last seven months doing precisely that. So she was drawing on deep experience when she led the woman on the rat run along the rear wall, away from the priests, and back eventually into a far-off sector of the crowd.

She found a clear area of floor and sank down with Coyotl, his feverish, damp forehead resting on her shoulder.

The woman sank down beside them. ‘You did really well,’ she told Tozi. ‘In fact I’d say you’re amazing.’

‘I didn’t make us disappear like you thought I would.’

‘But what you did was just as clever. Another kind of magic. What’s your name?’

‘I’m Tozi …’

‘I’m Malinal,’ the woman said. Then unexpectedly she leant forward and wrapped Tozi and Coyotl in a warm embrace that went

on for an embarrassingly long time. When it was over she said: ‘Are we safe now?’

Tozi shook her head. ‘They’re not going to go away quietly after such a riot. They’re going to be all over us looking for ringleaders, taking more of us for sacrifice.’ As she spoke she set Coyotl down on his side, arranging his hand for a pillow. He mumbled but did not awake.

‘He sleeps a lot, the little one?’ queried Malinal.

‘I gave him *chalalatli* root,’ said Tozi, ‘for head pains and fever.’

‘Ah, then he’ll sleep through anything … Though only the gods know where you obtained such a medicine.’

Tozi ignored the comment. She reached out and touched Malinal’s face – those wide oval eyes, that full mouth, that perfect skin. ‘Your beauty is your strength,’ she said, ‘but it works against you in here—’

‘I don’t …’

Tozi frowned at the interruption: ‘No, it’s true. Being beautiful makes you stand out and that’s dangerous. The first rule of staying alive is not to get noticed.’

Malinal spread her hands: ‘So what should I do?’

‘We’ll start by cutting your hair.’ From one of her hidden pockets Tozi produced a flint, about the length of a man’s middle finger. The flint had razor-sharp serrated edges and narrowed to a needle point.

‘Where did you get that?’ Malinal gasped.

Tozi grinned. ‘I’m a finder,’ she said, ‘and a keeper.’ She signalled Malinal to sit in front of her.

The older woman hesitated.

‘There’s no TIME,’ Tozi yelled.

With a shrug Malinal sat and presented her head to Tozi, who at once began to shear off her long thick hair in great clumps. A woman passing by stopped a few paces away to stare at the growing pile of fallen tresses. Her eyes were dull and her flesh had the

pudgy, tortilla consistency of those who ate their fill of the rich diet of the fattening pen. ‘Can I take some hair?’ she asked. She had a stupefied look, as though her brain were already dead, anticipating the sacrifice of her body.

‘Take as much as you want,’ said Tozi.

Human hair was a valuable commodity in the pen: threads and fibres were made from it, clothes were repaired with it; it could be used to improvise pillows. To cheat the sacrificial knife one prisoner had recently hung herself with a rope of woven human hair. Under less threatening circumstances, therefore, Tozi would have guarded such a treasure fiercely for use or barter, but there was no time for that today. As other women approached she invited them all to help themselves and they gathered it up in their aprons and dresses.

‘You’re generous with my hair,’ said Malinal.

‘We don’t want the priests to find a single strand. Might make them think someone was trying to change her looks. Do you know a

better way to get rid of it?'

Malinal laughed: 'You're very smart, Tozi. Tell me about yourself.'

'What about myself?'

'Like your home town. Let's start with that. Where do you come from?'

'Oh, here and there.'

'Here and there? What does that mean? Are you Mexica? Are you Tlascalan?'

'Not Mexica. Not Tlascalan.'

'Hmm, a puzzle. I like puzzles. You speak Nahuatl like a native. But with a certain … accent. Are you perhaps Tepanec? Acolhua? Xochimilca?'

'I belong to none of those peoples.'

'Quite the girl of mystery then …'

A bolt of pain shot through Tozi's head. 'Look,' she said. 'I've lived in Tenochtitlan since I was five, OK? My mother brought me

here. I never knew my father. My mother died when I was seven. She said we came from Aztlán. That's all I know.'

The enchanted realm of Aztlán needed no further explanation. There lay the Seven Caves of Chicomoztoc, where masters of divine wisdom and workers of the highest magic were said to have concealed themselves from common sight. It was the home of the gods and the mystic place of origin of the Mexica, the Tlascalans and all other Nahuatl-speaking peoples.

But no one came from Aztlán any more. No one had come from Aztlán for hundreds, perhaps even thousands, of years. Indeed no one today even had the faintest idea where it was.

'The people who came from Aztlán called themselves the Aztecs,' remembered Malinal.

'So I suppose that makes me an Aztec,' said Tozi. Wanting to divert attention from herself she asked, 'And you? Where do you come from? You speak Nahuatl like a native too.'

Malinal laughed: ‘I have a gift for languages but my mother tongue is Maya.’

Tozi had finished the haircut. ‘So how come you ended up here?’ she asked as she stood back to admire her handiwork.

Before Malinal could answer they both became aware of a commotion in the crowd, a ripple, a wave of disturbance, screams. ‘We need to run again,’ Tozi said. She stooped to lift Coyotl but Malinal was ahead of her: ‘I’ll carry him awhile. You lead the way.’

As Malinal supported the little boy’s bony bottom with her right forearm, manoeuvring his floppy head to rest on her right shoulder, he woke up, looked her in the eye and asked drowsily, ‘Who are you?’

‘I’m a friend,’ said Malinal.

‘Excuse me, but how do I know that?’

Tozi appeared at Coyotl’s side, mopped his damp hair back from his brow. ‘Her name is Malinal,’ she told him. ‘She is truly our friend.’

‘Well … If Tozi says you’re a friend then I know you’re a friend,’ said Coyotl. He closed his eyes, dropped his head back on Malinal’s shoulder and was instantly asleep again.

Tozi walked fast but she hadn’t gone two hundred paces when movement ahead stopped her. She heard more screams and a hoarse, muffled shout. A line of priests was approaching from that direction as well! She shot off at a tangent, looking back to see that Malinal was still following with Coyotl, but within a hundred paces she was brought to a halt again by more priests and enforcers. Clearly a massive cull was in progress and victims were being rounded up in every part of the prison.

She tried twice more in different directions but always with the same result. A ring of priests and enforcers was closing in and there would be no escaping it.

‘Very well then,’ said Tozi. There was no point in even trying the fog with so many priests coming at her. ‘We’ll just have to stay here and not be seen …’

‘You mean disappear?’ Malinal said hopefully.

‘I mean not be seen.’ Tozi looked around. ‘We need mud,’ she said. ‘*Now*.’

Malinal rubbed at the dry earth with her toe. ‘There is no mud,’ she said.

Tozi lifted her skirt, squatted and let loose a stream of urine. When she was finished she plunged her fingers into the damp puddle and began to knead the earth, churning a few handfuls of it into mud. She looked up at Malinal: ‘Brace yourself,’ she said, ‘this is for you.’

‘Me!’ Malinal choked. ‘Why me?’

‘Because I’m dirty enough already. So is Coyotl. But your clean skin’s going to get you noticed. We need to filthy you up. It’s a matter of life or death. Are you OK with that?’

‘I guess I’m OK with that.’

‘Then squat right there and make us some more mud.’

After she had thoroughly smeared Malinal with the wet earth, got it all over what was left of her hair, rubbed it into her forehead, left long streaks of it down her face, and daubed it on the exposed parts of her legs and arms, Tozi looked the older woman up and down. ‘Much better,’ she said. ‘You’re a real mess …’

‘Thank you …’

‘You’re still beautiful, of course, but you’re filthy and you smell bad. Let’s hope that’s enough.’

There were more screams. A wild-eyed, frantic woman charged by, another blundered past, bleeding from the scalp. All around prisoners were murmuring fearfully and trying to sidle away. ‘What’s happening?’ asked Malinal. ‘What do we do?’

Tozi sat down cross-legged. ‘We do nothing,’ she said. She lifted Coyotl’s head into her lap and beckoned Malinal to sit beside her.

The priests had approached to within fifty paces and were cutting through the crowd directly towards them. They were followed by their teams of enforcers, armed with heavy wooden clubs, who

seized the victims they nominated and marched them off – presumably for immediate sacrifice.

Tozi didn't intend to find out. 'Think of yourself as ugly,' she whispered to Malinal. 'You are hunched and wrinkled, your breasts are flat, your stomach sags, your teeth are rotten, your body is covered in boils …'

'What good can that possibly—?'

'Just do it.'

As the line of priests came on, Tozi's heart sank to see Ahuizotl again in the lead. There must be scores of priests inside the pen now, so was it just bad luck, or was it some malign intelligence that kept sending the sharp-eyed old killer straight to her? She noticed with some small satisfaction that the left side of his face was badly swollen after Xoco's attack and he walked with a limp, using his spear as a crutch. Four big bodyguards were clustered round him. They weren't armed with clubs but with *macuahuitls*, the wooden battle swords, edged with obsidian blades, favoured by Mexica

knights. Obviously no repetition of the Xoco incident would be permitted.

The priests were forty paces away now, then thirty, then twenty. Under her breath, Tozi began to whisper the spell of invisibility, but for a few moments longer she held to the hope that the disguise would work; that, smeared and dirty as they were, Ahuizotl would simply pass by without seeing them, that inconspicuousness would indeed prove to be the better part of concealment and that there would be no need for her to risk her life in a rash adventure into magic.

Yet as the high priest continued to advance, some magnetism, some connection, seemed to be drawing him remorselessly towards them, and Tozi saw that he was gazing fixedly at Malinal. Suddenly it dawned on her that he recognised this beautiful, shorn, mud-streaked woman – that he knew her very well and that he had already singled her out from the crowd long before.

He wasn't fooled. He wasn't misled. He was here for her!

Realising there was no alternative, Tozi turned her mind inward, slowed the urgent beat of her heart, and imagined she was transparent and free as the air. She found she was holding Malinal's hand, and that it was firm and warm. 'You can make us disappear,' Malinal whispered. 'I know you can …'

Ignoring a further savage burst of pain across her temples, speaking so quietly the words could not be heard, Tozi brought her focus to the spell and willed it into life.

Chapter Eight

Tlascala, Thursday 18 February 1519

The rocky crevice sank almost horizontally into the side of the hill. Shikotenka had shoved himself into it feet first until it swallowed him, leaving only his eyes visible in the narrow opening as he spied on the Mexica army.

Scratch ... scratch ... scrape ...

He was baffled that anyone had found him in such a well-chosen hiding place, but the man on the slope above, stealthy and careful,

could be there for no other reason. All that mattered now was whether he was alone or whether he was part of a squad.

‘I say,’ came a voice, ‘you there, skulking in that hole … Care to crawl out and fight me for your life?’

The man spoke Nahuatl, the shared mother tongue of the Mexica and the Tlascalans, but with the distinctive sneering drawl only affected by the top rank of Tenochtitlan’s nobility. This was some primped-up prince, Shikotenka realised with a flash of annoyance, maybe even a member of Moctezuma’s close family. It didn’t make him any easier to kill – Mexica aristocrats were superbly trained from childhood in all the warrior arts – but it should mean that a long-established knightly code would govern what happened next.

Shikotenka’s hopes began to rise that he faced only one enemy. He clenched the long flint blade of his battle knife between his teeth, leaving his hands free to propel himself from the crevice. He felt no fear and a surge of energy coursed through his body.

The Mexica was speaking again. ‘Why not just surrender to me?’ he said. ‘I’d think about it seriously if I were you. It’ll make your life much simpler and you’ll avoid the terrible beating I’ll have to give you if you put up any kind of fight.’

Much simpler! thought Shikotenka.

Much shorter was the truth.

Because if he once even breathed the words ‘I surrender’, he would absolutely be obliged to become this Mexica’s prisoner, would be bound by the code of honour to attempt no escape, and would be sacrificed to Hummingbird on the appointed day, his heart sliced out and his thigh-meat eaten by his captor in a stew with chillies and beans.

‘We will fight,’ said Shikotenka from the crevice.

‘Ah-ha, the ground speaks,’ said the Mexica.

‘But I have two questions for you …’

‘A man in a hole facing a man with a spear is in no position to ask questions.’

‘Unless the man with the spear is a noble and honourable lord of the Mexica … But perhaps I am mistaken …’

‘I am Guatemoc, nephew of the Great Speaker himself. Is that noble and honourable enough for you?’

Guatemoc!

Shikotenka had heard much about this young man. He was rumoured to be a hothead but brave and skilful. According to some accounts, he had captured eleven high-ranking warriors in battle for sacrifice to Hummingbird – an impressive total. No doubt he was here to increase his score to twelve.

‘I was going to ask if you are alone,’ said Shikotenka, ‘but now I know the answer. The warrior pride of the great Guatemoc would never allow him to seek help to capture a solitary enemy.’

‘And who is this solitary enemy who speaks to me from beneath the ground?’

‘I am Shikotenka, son of Shikotenka.’

There was a long silence. ‘Shikotenka!’ Guatemoc said finally, ‘Prince of Tlascala.’ He gave a low whistle: ‘Well, I must say I’m impressed. When I spotted you here amongst the rocks I thought you no more than a humble spy, good for a few hours’ entertainment at most. Instead you turn out to be the highest-ranking captive I’ve ever taken. You’ll make a noble sacrifice when I bring you to the temple.’

‘You think you’re going to bring me to the temple just like that,’ said Shikotenka. ‘You think you’re going to defeat me. But here’s my second question – what if we fight and I win?’

‘You? Win? Frankly, that’s most unlikely.’

‘When I come out of this hole I’m going to be in full view of your army. If we fight and I kill you or take you prisoner, thirty thousand of your warriors are going to see it. I’ll have no chance at all of getting away.’

‘Should I care?’

‘Of course! It’s meaningless to invite me to fight for my life if I’m going to be killed whether I win or not.’

‘Hmm … I suppose I see your point.’

A moment’s silence followed before Guatemoc spoke again. ‘There’s a hollow thirty paces above us,’ he said. ‘I came through it on my way down. It’s deep enough to hide us from view. I’ll saunter up there now and you can follow – you know, crawling in the grass. You won’t be seen and I won’t give you away.’

Shikotenka heard the shuffle and scrape of footsteps retreating up the hill. He forced himself to count slowly to ten, then thrust himself out of the crevice and into the light.

Chapter Nine

Tenochtitlan, Thursday 18 February 1519

At one level Moctezuma knew he was sitting cross-legged on the floor of Hummingbird's temple, his hands folded in his lap. He still held the empty linen bag in which Ahuizotl had sent him the seven *teonanácatl* mushrooms. Rearing above him, as though about to stoop down and devour him, casting monstrous shadows in the flickering flames of the torches, the idol of the god gleamed with gold and jewels.

But in his mind Moctezuma was quite somewhere else, transported to some far-off battlefield strewn with corpses. Strangely, he noted, all the dead were Mayan warriors. Some bore upon their ruined bodies the marks of the fangs of beasts, some were utterly crushed and destroyed, some decapitated, some torn limb from limb, some trampled, some burst apart into unrecognisable fragments of flesh and bone. Through this shambles, his feet bathed in blood, Moctezuma walked side by side with Hummingbird himself.

The god had chosen to manifest in the appearance of a strong, tall man of middle years, very handsome and commanding with golden hair and dazzling bright skin. He wore a robe of hummingbird feathers and a garland of human hearts, hands and skulls. ‘It’s been long since we last talked,’ he said to Moctezuma, ‘but I’ve been watching you.’

The Great Speaker of Tenochtitlan trembled: ‘Thank you, lord. You are gracious …’

‘I am disappointed. I had high hopes when I raised you to the throne sixteen years ago that you would find new and ingenious ways to serve me …’

‘My lord, I have done everything in my power—’

‘NO!’ thundered Hummingbird, ‘you have *not*, by any *means* done *everything* in your power! I wanted sixteen years of innovation. You’ve given me sixteen years of more of the same.’

‘But have I not served you faithfully, lord? Have I not continued to bring you hearts?’

‘Hearts?’ said Hummingbird. ‘I suppose you have.’ He yawned, showing his large, even teeth. ‘And today? We’ve had such a dismal start. Let me guess what’s in store …’ The god’s red tongue, strangely pointed, flicked out between his lips, and his eyes rolled up until only the whites were visible. ‘Ah … How completely predictable … Virgins.’ His nostrils flared and he sniffed the air. ‘The hearts of five hundred and twenty sweet young virgins.’

Moctezuma suffered a moment of acute anxiety. ‘I cannot promise virgins, lord, though I hope some will be intact …’

‘So, not even virgins then …’ The god’s irises, black as obsidian beads, rolled back into view: ‘What’s this *splendid* offering in honour of?’

Moctezuma was transfixed by the glittering eyes. They seemed to swallow his soul. Finally he summoned the courage to speak. ‘Most vengeful lord,’ he said, ‘two years ago dark omens began to be witnessed, unexplained visitations, terrible signs … And now the year One-Reed has returned.’

Another cavernous yawn from Hummingbird. ‘Tell me of these omens and signs.’

‘A great column of flame, lord, that seemed to bleed fire, drop by drop, like a wound in the sky. It was wide at the base and narrow at the peak, and it shone for a year in the very heart of the heavens …’

‘Ah,’ said Hummingbird. ‘My fiery messenger … I suppose you’re going to tell me about the temple struck by lightning next?’

‘The temple of Tezcatlipoca was indeed struck, lord, and there came a violent agitation of our lake until it washed against half the houses of the city. A man with two heads appeared. We captured him and imprisoned him, but he vanished from the prison without a trace. A woman was heard lamenting, passing nightly through our streets, but she was never seen. A fisherman found a strange bird. The bird was brought to me. It was somewhat like a crane, with feathers the colour of ashes. A mirror, pierced in the centre like a spindle whorl, was set into its head and in the face of this mirror the night sky could be seen. The hour was noon, lord! Noon! Yet I saw clearly, as in the deepest night, the *mamalhuaztli* and other stars. Of course I had the fisherman strangled …’

‘Of course …’

‘Then I looked in the mirror again. The stars were gone, the night was gone and I saw a distant plain. A host of beings moved across it in ranks, warriors armed with metal weapons, dressed in metal armour. Some seemed like humans but bearded and with light skin,

as the companions of Quetzalcoatl are described in our ancient scriptures. Some also had golden hair like yours, lord. Others seemed part-human, part-deer and ran ahead very swiftly …'

'I sent you that mirror,' said Hummingbird. 'Return it to me now.'

'I cannot, lord,' Moctezuma sobbed. 'I tore it from the bird's head and destroyed it.'

'Like the violent, petulant child you are.'

'I could not bear the visions it showed me …'

'Yet the visions were true, were they not? Isn't that really why you're here today?'

Moctezuma lowered his eyes: 'For a year after I destroyed the mirror, there were no more signs. I began to believe that all was well in the one world, that my kingship would again flourish under your blessing …'

Hummingbird uttered a harsh laugh, like the bark of a coyote.

‘… But four months ago,’ Moctezuma continued, ‘with the birth of year One-Reed looming close, I received tidings from the land of the Chontal Maya. Strange beings had emerged from the eastern ocean. They resembled humans but they were bearded and light-skinned like the beings I saw in the mirror, lord – like the companions of Quetzalcoatl! They wore metal armour and used powerful metal weapons that belched fire. They worshipped a god who they said had been killed and returned to life, and they forced some tribes of the Maya to worship this god. Others refused and there was a great battle. The beings numbered little more than a hundred, lord, but they defeated a Mayan army of ten thousand! Then they returned to the sea, climbed onto three floating mountains and were carried away eastward by the wind.’

‘So naturally you were puzzled,’ said Hummingbird, ‘and wanted my advice. Your thoughts turned to victims and to sacrifices to appease me …’

‘I made war on the Tlascalans, on the Huexotzincos, on the Purupechas. I levied extra tribute on the Totonacs. My armies brought many prisoners to Tenochtitlan. We have fattened them here, prepared them for you. Truly, lord, I have a great feast of victims ready for the knife …’

‘What do you ask of me in return?’

‘Knowledge of the beings who emerged from the eastern ocean …’

‘These are not tidings you will wish to hear,’ said Hummingbird.

‘Still I beg you to tell me, lord.’

‘Very well,’ said the god. ‘These beings were the first scouts of a great army that gathers across the eastern ocean to sweep you away. Soon you will hear they have returned in their floating mountains. Before the year is out they will be at the gates of Tenochtitlan.’

The whole concept was so impossible, intolerable and extraordinary, yet also somehow so inevitable and so long foretold, that it made Moctezuma’s head spin. ‘I fear them, lord,’ he

confessed. ‘Are they gods or men? Is this perhaps the One-Reed year when the ancient prophecy is to be fulfilled and the god Quetzalcoatl will appear in his power to walk amongst us again?’

Hummingbird didn’t answer directly. Instead he said: ‘You have nothing to fear, for I fight at your side … I will bring you victory.’

Moctezuma’s mood soared and he felt suddenly inflated with joy and confidence: ‘Tell me what I must do …’

‘First finish your work here,’ said the god and vanished like a dream at dawn.

Moctezuma looked up.

Ahuizotl had entered the temple. He held a terrified young girl pinned under each of his arms. ‘The women are ready, Magnificence,’ he said with a horrible leer. ‘The sacrifices can begin.’

Chapter Ten

Santiago, Cuba, Thursday 18 February 1519

Despite his fifty-five years and his tough reputation, Diego de Velázquez, the conqueror and governor of Cuba, seemed on the verge of tears. A blush suffused his pale pasty skin and his jowls, grown fat and heavy of late, wobbled with every movement of his oversized head.

'Ah, Pedro,' he said, 'my *friend*.' He put a menacing edge on the last word and thrust out his double chin with its neatly trimmed

spade beard streaked with yellow tobacco stains. ‘Something’s going on.’ He set his lips in a line so mean and thin that they became almost invisible. ‘I have to know where you stand on it.’

Velázquez’s notoriously bad temper was popularly attributed to haemorrhoids the size of grapes. He sat in obvious discomfort on a mahogany throne behind a massive square mahogany writing table in the midst of an echoing, high-ceilinged marble audience chamber. Pedro de Alvarado had met the governor frequently, but never here and never before in the ceremonial robes he wore today. He guessed with annoyance that the events of the last two hours – the herald, the summons, the gallop from the docks to the palace, the insultingly long wait in a sweltering, heavily-guarded corridor, this huge formal room with its imposing furniture and even Velázquez’s robes of office – were all part of an elaborate set-up designed to intimidate him.

Alvarado stood opposite the governor on the other side of the table, with his right hand open, long fingers resting lightly on his

sword belt. He was thirty-three years old, broad-shouldered and strong but light on his feet with the easy grace of a practised fencer. His thick blond hair hung to his shoulders and an extravagant blond moustache, elaborately curled and waxed, decorated his upper lip. Fine featured, with a firm chin, a long straight nose, bright blue eyes and a duelling scar that he found rather fetching running from his right temple to the corner of his right eye, he was a man who had broken many women's hearts. He was also rich in a small way, having prospered in Cuba these past five years thanks to lands, mines and Indian slaves granted him by Velázquez.

'My herald told me you were loading heavy hunters on board that carrack of yours,' the governor said suddenly. 'The *San Jorge*?' His right eye twitched, as though in sympathy with Alvarado's scar.

'The *San Sebastián*,' Alvarado corrected. What game was Velázquez playing here? Did he really not remember?

'Oh yes. Of course. The *San Sebastián*. A fine ship, which my generosity helped you buy. So my question is …' A long, silent

pause. That weird twitch again. ‘Since our expedition to the New Lands is purely for trade and reconnaissance, what possible use do you have for cavalry horses?’

The last words came out in a rush, as though Velázquez were embarrassed to raise the matter, and Alvarado launched smoothly into the lie he’d rehearsed with Cortés just that morning – the lie that half the fleet already knew by heart. ‘For self-defence,’ he said. ‘Córdoba’s men took such a beating last year because they didn’t have the advantage of cavalry. We’re not going to be caught out the same way.’

Velázquez sat back in his throne and drummed on its arms with thick, ring-encrusted fingers. ‘I want to believe you, Pedro,’ he said. ‘You came with me from Hispaniola and you’ve been a loyal ally to me all these years in Cuba. But I still don’t understand why you were loading the horses today or why another six were seen going on board the *Santa María* at the same time. Why load the horses now when you’re not sailing for another week?’

Alvarado spoke in his most honeyed tones, as though reassuring a lover: ‘What your informants saw was a routine training exercise, Don Diego! Nothing more sinister than that. If the horses are to serve us we must be able to get them on and off our ships quickly without broken legs. It’s an exercise we’ll practise daily until we sail next week.’

There was another long silence during which Velázquez visibly relaxed. Finally he made a horrible attempt at a smile. ‘I knew you wouldn’t be involved in anything dishonourable, Pedro,’ he said. ‘That’s why I called you here. I need a man I can trust.’ He rang a little bell and from a curtained doorway a native Taino Indian, clad in a white tunic, appeared carrying a wooden chair. He crossed the audience chamber with a peculiar bobbing motion and the slap of bare feet, placed the chair behind Alvarado and retreated. Alvarado sat down but his flesh crawled at the proximity of the indigene. These creatures were, in his opinion, barely human.

Velázquez reached beneath the table and with a grunt pulled out a bulging silk moneybag, opened its drawstrings and poured the gleaming, jingling contents in a flood onto the table. The river of gold was heavy and bright. Involuntarily Alvarado leaned forward in his chair, his eyes widening as he tried to estimate its value.

'Five thousand *pesos de oro*,' said Velázquez, as though reading his thoughts. 'It's yours if you will assist me in a certain matter.'

Five thousand pesos! A small fortune! Alvarado's love of gold was legendary. He licked his lips: 'What do you want me to do?'

'You're a close friend of Don Hernando Cortés?'

'Yes, he's my friend. Since we were boys.'

'That's what I hear. But is your friendship with Cortés more important to you than your loyalty to me?' Velázquez began to sweep the golden pesos back into the bag.

Alvarado's eyes followed the money. 'I don't understand.'

'He's planning to betray me,' stormed the governor, 'though God knows I've loved him as if he were my own son.' Once again his

face had taken on the congested look of a man about to burst into tears. ‘Believe me, Pedro, what I have learnt this past day has been like a thousand daggers through my heart.’

Alvarado feigned shock: ‘Cortés? Betray you? I don’t believe it … He’s told me many times he loves you like a father.’

‘Words, mere words. When the fleet reaches the New Lands I have sure intelligence he will no longer act as my viceroy but will declare the expedition his own. Too late by far for anyone to stop him! So I need your help now.’ Velázquez drew the strings of the moneybag closed and rested his hands proprietorially on top of it. ‘But first I must know … Can I trust you? Do I have your loyalty? Will you deliver your *friend* to me if I ask you to do so?’

‘Friends come and go,’ said Alvarado smoothly, ‘but gold is a constant companion. If you don’t trust me, trust gold …’

‘If you do *exactly* what I ask,’ said Velázquez, ‘then all this is yours.’

Alvarado sat back in the chair, his eyes fixed on the bag. ‘Ask me,’ he said.

‘Invite Cortés to join you for dinner on the *San Sebastián* late this evening. Shall we say around ten p.m.? Make some pretext, something private you want to discuss. Get him intrigued …’

‘Why so late?’

‘Fewer people around, less chance for things to go wrong.’

‘What if he’s otherwise engaged?’

‘Then you must move the invitation to tomorrow instead. But do all you can to persuade him to join you tonight. Dine in your stateroom. Serve him wine.’ Velázquez searched in his robes and brought out a little glass phial containing a clear, colourless liquid. ‘Pour this first into the wine you will give him. Within an hour he will be … indisposed.’

‘Dead?’

‘No! I want the blackguard alive! The draft will make him puke his guts out, run a high fever, sweat like a lathered horse. You’ll

send a man to fetch a doctor – Dr La Peña. You know him, yes?'

Alvarado nodded. La Peña was a turd. He wondered how much Velázquez was paying him for his part in the plot.

'He'll come at once,' the governor continued. 'Whatever time of night it is. But when he examines Cortés he'll say he can't treat him on board ship and he must be brought to his hospital in town … The doctor's own carriage will take him there.'

'Cortés's people aren't going to like that.'

'They'll have no choice. Their master will be ill, close to death …'

'Some of them are going to want to ride with him.'

'No matter. When the carriage is clear of the harbour, a squad of my palace guard will be waiting for it at the roadside. Anyone with Cortés will be killed; he'll be brought to me here for questioning; and you, my dear Pedro' – Velázquez patted the bag – 'will be an even richer man than you are already.'

'You have thought of everything, Don Diego.'

Perhaps detecting a little of the scorn buried deep in Alvarado's tone, Velázquez frowned: 'It's underhand but necessary,' he explained. 'Cortés has become powerful since I gave him command of the fleet. If I arrest him openly there's going to be a fight …'

Alvarado hastened to agree. 'He's recruited more than five hundred men, signed them up with bribes and promises and dreams. Their loyalty is to him before anyone else …'

'That's exactly why he's so dangerous! That's why this poison has to be rooted out now!'

'But I see one great weakness in your plan.'

Velázquez bristled: 'Weakness? What weakness?'

'It only works if I'm the sort of man who would betray Cortés for five thousand pieces of gold.'

Velázquez was hunched forward now, an ugly scowl making him look suddenly monstrous. 'And are you not such a man?' he said.

It seemed a good moment for some drama, so Alvarado sprang to his feet, sent his chair crashing back and towered over the table, his

right hand resting on his sword belt. ‘Five thousand pesos is a paltry price to betray a friend.’

‘Ten thousand then.’

‘Twenty thousand, not a peso less.’

Velázquez made a strangled sound: ‘It’s a lot of money.’

‘You’ll lose a thousand times more if Cortés does what you fear.’

Alvarado could see the idea of paying out such a huge sum was almost too horrible for the old man to contemplate. For a moment he wondered if he had gone too far, asked too much. But then Velázquez reached under the table again and with great effort pulled out three more large moneybags, setting them down beside the first. ‘Very well,’ he coughed. He seemed to have something caught in his throat, ‘twenty thousand it is. Do we have a deal?’

‘We have a deal,’ said Alvarado. As he spoke he sensed danger and spun round to find the governor’s personal champion, bodyguard and bullyboy, a gigantic warrior named Zemudio, looming silently over him. The man was as big as a barn door, bald

as the full moon and stealthy as a cat. He'd been in Cuba for less than a month, joining the governor's service direct from the Italian wars where he'd won a fearsome reputation. As yet he'd fought no bouts in the islands.

'My, my,' said Alvarado, annoyed that he had to crane his neck like a child to see Zemudio's stubborn, oafish face. 'Where did you come from?' *Another of those creepy curtained doors*, he thought. He looked the champion up and down. The brute wore light body-armour – knee-length breeches and a sleeveless vest, both made of padded cotton with hundreds of small steel plates riveted into the lining. He was armed with an old-fashioned falchion that was exceptionally long and heavy in the blade. Though crude, and unsuited to a gentleman, this cutlass-like weapon wielded by a strong, experienced hand could do terrible damage.

For a moment Alvarado locked stares with the champion, testing his will. Small, brown, patient eyes glared back at him, unblinking, flat as buttons, filled with stupid self-confidence.

As the aura of threat between the two men became palpable, Velázquez spoke: ‘It’s all right, Zemudio. Don Pedro and I have reached an accommodation.’

At once the huge bodyguard stepped back.

Alvarado retrieved his chair and sat down. ‘Why was any of that necessary?’ he asked. His neck and shoulders prickled under Zemudio’s violent stare, but he refused to acknowledge him.

‘I couldn’t be sure you’d deal,’ said the governor. ‘If you didn’t …’ He drew his hand meaningfully across his throat.

‘You’d have had me killed?’

‘Of course. But all that is behind us now. You give me Cortés, I give you these twenty thousand gold pesos …’

‘Who leads the expedition – when Cortés is gone?’

‘Your question is to the point,’ said the governor. He pulled a sheet of vellum from a thick heap on the table in front of him, dipped a quill in an inkwell and began to write in a small, spidery hand. As the quill grated across the calfskin, Alvarado tried to read

the words upside down but couldn't make them out. Velázquez frowned with concen- tration, pushing the tip of his tongue out between his lips like a schoolboy in an examination.

When the governor was done, he read through what he had written, blotted the page and placed it in a document wallet. A motion of his finger was sufficient to bring Zemudio surging to his side. 'Go at once to Narváez. Give the wallet to him. He'll know what to do.'

As the bodyguard placed the wallet in a leather satchel and strode from the room, Velázquez turned back to Alvarado. 'I've chosen a man I can trust to lead the expedition,' he said. 'My cousin Pánfilo de Narváez. Zemudio takes my orders to him now.'

Narváez! A complete ass! Incompetent, vainglorious and foolish! In every way the antipodes of Cortés! But Alvarado kept these thoughts to himself and instead asked slyly, 'Who will be second in command?'

'I thought perhaps you, Don Pedro, if you agree.'

Alvarado didn't hesitate: 'Of course I agree. It will be an honour and my privilege to serve under a great captain like Narváez.'

Velázquez grasped one of the fat moneybags, rose from his throne and walked round the mahogany table. Alvarado also stood and the governor passed the bag to him. 'A quarter of your payment in advance,' he said. 'You'll get the rest when you've delivered Cortés.' He awkwardly embraced Alvarado and told him to return at once to his ship. 'Send your invitation to Cortés. Make ready for tonight.' He clapped his hands and the great formal doors of the audience chamber were swung open by two iron-masked guardsmen armed with double-headed battle-axes.

Alvarado didn't return to his ship.

When he'd passed the last of the governor's guards and made certain no one followed him, he led his white stallion Bucephalus out from the palace stables, secured his gold in a saddlebag and rode at full gallop after Zemudio.

The only way to get to Narváez's estate lay across dry, hilly country, partially overgrown with groves of acacia trees and intercut by a series of shallow ravines. The champion had left a trail a three-year-old could follow, so quite soon Alvarado started to get glimpses of him – that broad back, that bald head, that air, obvious even from afar, of unshakable self-confidence.

Let's see how confident you really are, thought Alvarado. He touched his spurs gently to Bucephalus's flanks; the great war horse thundered forward as fast as a bolt from a crossbow, and the distance began to close rapidly.

Chapter Eleven

Santiago, Cuba, Thursday 18 February 1519

A glance at the sun told Pepillo it was well past two in the afternoon, perhaps nearer three. He felt bone weary, his arms already protesting at the weight of the two big leather bags he'd finally retrieved from the Customs House after hours of frustration and confusion involving five different officers, three different batches of paperwork and a lengthy temporary misplacement of the bags themselves.

Which he still had to carry to the pier!

He groaned. The distance was close to a mile! Worse still, this second pair of bags was even heavier than the first, but they clunked and clanged in the same way, as though filled with metal objects.

The road thronged with people coming and going between the town and the harbour. For the most part they were Spaniards but there were Taino Indians amongst them and Pepillo passed a file of Negro slaves, naked but for loincloths, marching up from the docks with huge bundles balanced on their heads. An open coach drawn by a pair of horses sped by carrying a young noblewoman and her retinue of giggling favourites. Then an ox slowly plodded past, pulling a cart. It had ample space for a passenger and his baggage, but when Pepillo tried to steal a ride, a ferocious dog jumped back from the driver's platform and threatened him with bared teeth.

Pepillo resigned himself to walking. He had walked this morning and he would walk again this afternoon, but he did hate the way the bag in his right hand kept banging against his shin. The assortment

of loose metal objects that Muñoz had packed it with seemed maliciously placed to bruise him and make him miss his step. ‘Aargh!’ he grunted as the bag smacked into him again. In a fit of temper he dropped it and threw its companion down after it.

The clasps of the second bag burst open as it hit the ground.

Inside the bag were steel knives – tiny knives so sharp that their blades cut at the slightest touch, hooked and barbed knives, butchers’ knives the size of small swords, knives like saws, daggers with jagged edges, stilettos, cleavers, spikes, skewers …

Pepillo realised immediately he was in a dangerous situation. Santiago was a tough town, filled with fighting men, and there were weapons here that any fighting man would want to possess. As he crouched by the bag, struggling to close it, hastily rearranging its contents, fumbling with its catches, he noticed some strips of dried skin, with hair attached, lying inside. How extremely strange!

Pepillo looked back and saw a figure approaching, a shimmering black ribbon silhouetted by the sun. He felt threatened. The knives

mustn't be seen! With a flurry of effort he succeeded at last in closing and relocking the bag just as a man materialised at his side and stood over him.

'Is there a problem here?' the man asked. He was Castilian. His voice was subtle, pleasant, educated, but pitched high and with perhaps the slightest hint of a lisp.

Pepillo looked up and was reassured to see the stranger wore a friar's habit. No knife-stealing ruffian this! 'I had an accident, Father. I dropped my master's bags, one of them came open, but everything seems to be in order now.'

The friar still had the sun behind him and his face was hidden in deep shadow. 'Do you know what your master keeps in this bag?' he asked.

Some instinct made Pepillo lie: 'I don't know, Father, I just fumbled it closed again as quickly as I could.'

'You'd better thank Providence you did!' the friar suddenly shouted. He punched Pepillo hard in the face, knocking him on his

back, then ran forward and kicked him in the ribs. '*That's for dropping my bags*,' he yelled.

As a bolt of pain exploded in his side, Pepillo understood what he should have realised at once. This was Father Muñoz he'd run into! And at the worst possible moment! Father Muñoz returning from his mysterious, day-long absence – where he'd been up to no good if Melchior was any judge.

Pepillo lay curled on the road in a defensive ball, wincing at the thought of another kick as he looked at the Father's large, dirty feet and cracked, broken toenails strapped into heavy-duty hobnailed sandals. Muñoz wore the black habit of the Dominicans, which he'd hitched up to his knobbly knees for walking, exposing scrawny ankles and calves overgrown with short black hairs and crosshatched with small blue veins.

Stick legs like a crow, Pepillo thought.

The little fat belly that Melchior had described was also there. It bulged through the Father's woollen habit and overhung the length

of rope tied round his waist as a belt.

Muñoz was thirty-five or forty years old, sallow-skinned and clean-shaven, with a broad forehead and a thick crown of greasy black hair encircling the dome of his tonsure. His two upper front teeth protruded, much as Melchior had described, and his upper lip, which was red and moist, was drawn back around them in a fixed snarl. He had a receding chin and rather chubby cheeks that made his face look weak, but his large nose with its prominent bridge and wide nostrils sent the opposite message. There was the same ambiguity about his eyes. At first glance they were warm, kindly, wrinkled at the edges by smile lines, but when he turned to meet Pepillo's furtive stare, they emptied of emotion in an instant and became hooded and cold.

Muñoz drew his foot back. 'What are you gawping at?' he barked.

'You, Father,' said Pepillo. 'You're my master then?'

‘So it seems. Though I must confess I don’t see the point of a runt like you.’

‘I can read, Father, I can clerk, I can keep numbers—’

‘Splendid … splendid … But can you carry bags?’ Muñoz had moved round behind Pepillo and now kicked him low in the back. ‘Well, can you? It doesn’t look like you can. And if you can’t even carry bags, then what use are you to me?’

Although his tongue bled where he’d bitten down on it, Pepillo felt stubbornly proud that he hadn’t cried out. He rolled onto his stomach, slowly, laboriously, got to his feet and picked up both bags.

He could do this.

He shuffled his left foot forward, then his right, felt the bag bang into his shin. Left, right, bang, he did it again. He picked up the pace, blinked his eyes and focussed on the distant pier. He thought he could see the booms and derricks around the *Santa María* and the high sides of the *San Sebastián*. The ships were still far away, but

not impossibly far. If he could just keep putting one foot in front of the other, he would get there in the end.

Without warning, Muñoz unleashed another kick. This time the foot in its heavy sandal connected with Pepillo's buttocks like a blow from a sledgehammer, lifted him bodily off the ground and sent him sprawling on his face, losing his grip on both bags. He struggled to stand but Muñoz toyed with him, kicking his arms and legs from under him, making him collapse repeatedly.

'Why are you torturing me?' Pepillo asked.

Muñoz was all over him, straddling him, whispering in his ear. 'You think this is torture? I'll show you what torture is.'

'But why?' For an instant Pepillo's resolve broke and he let out a strangled sob. 'What have I done to you?'

'You searched my bag,' said Muñoz.

'I didn't! I swear!'

'I saw you with your filthy hands in it.'

'You're mistaken, Father …'

A pause. Heavy breathing. ‘Swear it on the Holy Book!’

Pepillo must have hesitated because quick as a flash Muñoz rolled him on his back, reached down a long bony hand and seized him by the nostrils, applying painful, grinding pressure with his thumb and forefinger. Pepillo refused to cry out, but his eyes watered profusely and the pain got worse. He felt something twist, then break, high up near the bridge of his nose, and blood gushed down his face and filled his mouth. He spluttered, felt the blood enter his windpipe and began to cough and choke. How silly! He was drowning in his own blood! He struggled to turn his head to the side, wanting the stream to flow out of his body and into the ground, but Muñoz still held him fast by the nose and glared down at him with the light of madness dancing in his eyes.

Pepillo gagged and spluttered, but it hurt to struggle and anyway there was no strength left in his body. His sight grew blurred, a tremendous weariness stole over him and a great ringing filled his ears.

Chapter Twelve

Tlascala, Thursday 18 February 1519

When Shikotenka propelled himself out of the crevice he was ready for anything, his knife back in his hand and a snarl on his lips. To be sure, it had been agreed this was to be a matter of honour between knights, but he still half expected to be bludgeoned into unconsciousness. He'd long since learned the bitter lesson that any treachery was possible when dealing with the Mexica.

But Guatemoc hadn't betrayed him. Draped in a shimmering cloak of turquoise *cotinga* feathers, the prince was strolling up the hill and singing, passably enough if somewhat out of tune, the lyrics of 'I Say This'.

The song was well chosen. As famous amongst the Mexica as it was amongst the Tlascalans, it had been composed by Shikotenka's ancient father Shikotenka the Elder and it contained an embarrassing reference to Shikotenka himself, which Guatemoc now recited: 'My young son, you leader of men, a precious creature.'

Guatemoc looked back over his shoulder and gave Shikotenka a mocking smile. 'Behold,' he said, 'the precious creature has emerged from its burrow. Creep in my tracks if you wish, oh leader of men, the long grass will hide you.'

Guatemoc was a head taller than Shikotenka, broader in the shoulder, heavier through the body and about five years younger, perhaps twenty-seven to Shikotenka's thirty-three. He wore a

mahogany helmet, painted gold, in the form of an eagle's head. The jutting beak framed his handsome face, which was also eagle-like with a hooked nose and cruel mouth and bright, predatory eyes. His black hair tumbled down over his shoulders from beneath his helmet. In his right hand, held loosely, almost carelessly, was a long spear with a leaf-shaped obsidian blade. Strapped to his back, lodged inside a leather scabbard with only its handle protruding above the collar of his cloak, was his *macuahuitl*, the obsidian-edged broadsword used both by Mexica and Tlascalan knights as their primary battle weapon. Shikotenka had come here to spy, not to fight, and for that reason was without his sword, but he didn't worry unduly about the imbalance. The *macuahuitl* was an instrument for killing and dismembering opponents. If Guatemoc opted to use it he would be unlikely to end the fight with a live prisoner to offer to Hummingbird.

Shikotenka put his knife back between his teeth again and snaked silently on his belly through the tall, feathery grass that covered

much of the hillside. It was a manoeuvre he had practised in a thousand training sessions, so it was an easy matter to circle past the Mexica prince and get ahead of him.

When Guatemoc reached the hollow, Shikotenka was already there.

‘I’m not going to ask you how you did that,’ said Guatemoc. He stood at the edge of the grassy circle in the bottom of the hollow, ten paces from Shikotenka.

‘Put it down to my superior military training.’

‘If Tlascalan military training is in any way superior, then why do we Mexica so often defeat you in battle?’

‘I’d say it’s because you breed like rabbits and outnumber us ten to one,’ said Shikotenka. ‘On the rare occasions when it’s a fair fight with equal numbers, we Tlascalans always win.’

Guatemoc smiled but there was no humour in it. ‘I see one Mexica and one Tlascalan here,’ he said, ‘so let’s put your theory to

the test.' He removed his helmet and placed it on the ground, set down his spear and cast off his shimmering turquoise cloak. As well as his great advantage of height, Guatemoc had the broad, muscular chest, narrow waist and powerful sculpted legs of an athlete. He wore no armour, only a simple white loincloth and battle sandals. 'We're even dressed the same,' he observed. 'What could be fairer than that?'

'You still have your *macuahuitl*,' Shikotenka pointed out.

'Ah yes. Of course.' Guatemoc shook off the leather shoulder straps that held the scabbard to his back and laid the weapon down on the grass. In the same smooth movement he snatched a long, double-edged flint dagger from its sheath at his waist. 'Knife to knife then,' he said.

'Knife to knife,' said Shikotenka. He raised his own double-edged blade in a mock salute. 'But will you tell me something first?' he asked. 'Something I'm curious about …'

'By all means.'

‘How did you find me? I chose that crevice carefully. I was well hidden inside it. You shouldn’t have been able to see me there …’

‘Do you have a sweetheart?’ Guatemoc asked.

‘What?’ said Shikotenka. He couldn’t understand the sudden change of subject.

‘A sweetheart. Do you have one?’

‘You’re talking about a woman?’

‘Yes. Or a man if you’re that way inclined. A sweetheart. Someone who loves you.’

‘Well yes. I do …’

‘Girl? Boy?’

Shikotenka laughed. ‘Girl.’

‘And her name?’

‘Zilonen.’

‘Beautiful name. She’s the one that gave you to me …’

Shikotenka perceived an insult and his blood instantly boiled, but Guatemoc held up an appeasing hand: ‘Don’t worry, that’s not what

I mean!'

'What do you mean?'

'I'm picturing a tender moment. After a night of passion Shikotenka and Zilonen are saying their goodbyes. Shikotenka is a daring sort of fellow and he's off on a dangerous mission to spy on the Mexica. Zilonen says, "Wear this charm for me, my love", and gives him a silver amulet she has worn since childhood. She weaves it into Shikotenka's hair. "It will keep you safe" she says.'

Shikotenka's hand went to his long braided hair. He'd forgotten about the little amulet, but it was still there, still intact, *still shiny*, exactly where his wife Zilonen had placed it. He'd been a fool not to remove it immediately, but he'd felt sentimental about it. Now he saw how it had put his life in danger. 'It was reflecting the sunlight,' he said.

'Like a signal.'

'Really elementary mistake on my part,' admitted Shikotenka.

‘That’s how I found you,’ said Guatemoc. And while he was still speaking, giving no hint or warning of his intent, without even a change of facial expression, he launched himself at Shikotenka across the ten paces that separated them, his dagger gripped point-down in his right fist, its long blade hissing through the air in a blur of criss-crossing diagonal slashes.

Shikotenka was unimpressed. He’d survived enough knife fights to know that speed, strength and technique were all very well, but what really counted was having the sheer malicious will to do as much harm as possible to your enemy. By all accounts Guatemoc was brave and cruel in battle, but Shikotenka knew there were limits to the damage he would want to do today when his overriding concern must be to win honour by bringing in a high-ranking living captive for sacrifice.

Shikotenka had no such distractions. He would not take Guatemoc prisoner. His only interest, the entire focus of his will, was to kill him now, quickly and silently, and continue with his

mission. So he weaved and ducked before the furious assault, keeping his own knife hand back, not yet committing himself to a counterattack, waiting for the right moment.

‘It must be difficult for you,’ he said conversationally as they circled.

Guatemoc blinked: ‘Difficult? What?’

‘To be the most accomplished warrior in Coaxoch’s army and yet see his windbag sons raised above you as regiment generals.’

‘They’re welcome to the job,’ laughed Guatemoc. ‘I fight for honour not position, and I take my orders only from our Speaker.’

‘Oh yes, of course, your uncle! But tell me – as a brave Mexica, how can you possibly endure the leadership of *that* stuffed tunic? Why even Coaxoch is a better man than him!’

‘Moctezuma is the greatest Speaker ever to lead the Mexica nation.’

‘Come off it, Guatemoc! You don’t really believe that, do you? The man’s an arse. I know he’s an arse. You know he’s an arse.

Why not just admit it?'

'He's a great man.'

'He's an arse. He's going to put you all in the shit if you don't get rid of him soon. That's what arses do.'

'I'll not hear your filthy insults against my Speaker!' Guatemoc feinted as though about to strike upward and predictably stabbed down, aiming to disable Shikotenka with a wound to the thigh.

Shikotenka danced away from the blade. 'Perhaps the rumour about the Lady Achautli is true?' he suggested. He made the face of a man who has tasted something sour. 'It would explain your insane loyalty.'

'You dare speak of my mother!'

'Not I, Guatemoc, not I, but every gossip on every street corner, every merchant, every fruit-seller, every masturbating schoolboy speaks of your mother – and of your mother's loins …'

A thunderous look had settled over Guatemoc's brow. 'You go too far!' he warned.

‘Apparently those loins of hers were famously loose—’

‘*Too far!*’ Guatemoc roared, and lashed out with his knife – a curling right hook that whistled past Shikotenka’s neck, missing him by the breadth of a finger.

Shikotenka danced away another few paces. He could feel the joy of battle rising in him. ‘Apparently,’ he said, ‘the Lady Achautli wasn’t just bedding your father Cuitláhuac – that poor cuckold! – when you were conceived. The hot little hussy was also bedding his brother Moctezuma. Five times a day I’m told, when she could get it. So no wonder you’re loyal to him! He’s not just your uncle, he’s your father as well!’

As Guatemoc charged, making strangled, choking sounds, drawing his dagger up into a brutal overhead strike, time seemed to slow for Shikotenka, and muscle memory from many battles took over. He slid his left foot forward, punched his blade into his opponent’s exposed flank, scraped it across his ribs and swung it up to parry his strike.

The knives clashed and locked a span above Shikotenka's head, and the two men strained against each other, muscles knotted, grunting like animals. Shikotenka found himself close enough to Guatemoc to see the mad cruel Mexica arrogance in his eyes and smell the distinctive metallic reek of human blood on his breath. *Which of my brothers*? he thought. *Which of my sisters*?

Knife fighting was all about deception, so Shikotenka allowed Guatemoc to use his superior height and weight to bear down on the fulcrum of the two blades, wanting him to focus his mind there. He waited … waited … until he felt the point of balance shift, then abruptly swept his own blade clear, letting the big man's momentum carry him forward and down. Guatemoc rolled as he hit the ground, bounded back to his feet and came circling in again, but he was slower than before, blood was streaming from the wound in his side and he seemed to notice the injury for the first time.

Did he still seriously imagine he was going to take a captive here?

Guatemoc lunged and Shikotenka blocked, slid his left leg forward, trapped Guatemoc's right knee behind his left knee, sliced the blade of his knife thrice through the soft flesh of Guatemoc's right forearm to disable his knife hand and in a flurry of activity stabbed him in the chest and throat five times in rapid succession – Tac! Tac! Tac! Tac! Tac!

In an instant the bottom of the hollow had become a butcher's shambles and Guatemoc was on his back on the grass.

A bright bubble of blood at the corner of his mouth, the faint rise and fall of his chest and the pulse of the big artery in his neck – miraculously still intact – were evidence that life still clung to his body.

Shikotenka stooped, knife in hand, whispering a brief prayer of gratitude that his enemy's heart still beat. Ilamatecuhtli, aged goddess of the earth and death, required no temple or idol and would surely be pleased to receive such an exalted offering.

True the victim was no longer in perfect physical condition …

But while he lived he could be sacrificed.

Like the helpless Tlascalans sacrificed this morning. The smell of their blood still lingered on Guatemoc's failing breath.

Cold, implacable rage seized Shikotenka as he remembered the slaughter and his impotence as he witnessed it. He positioned himself to split the prince's breastbone, raised his knife and was about to make the first deep incision when a wet, choking rattle rose in Guatemoc's throat, a great convulsion shook his body and his heels drummed out a furious tattoo on the ground. Blood spewed from his mouth and, with a final hideous groan, his breathing ceased, the pulse of the artery in his neck slowed and stopped and the spirit left him.

Unbelievable! Even in defeat the strutting Mexica had found a way to escape the rightful vengeance of Tlascala! It would have been justice to tear his palpitating heart from his chest, but now it was too late.

One could not meaningfully sacrifice the dead.

Keeping his knife in his fist, Shikotenka dropped to his haunches while he decided what to do. The thought occurred to him that he might cut out Guatemoc's heart anyway and leave it on the grass beside his corpse. It would send a potent message to Moctezuma of Tlascalan contempt. There was a risk the body would be found in the coming hours, putting the Mexica army on high alert with potentially disastrous consequences for tonight's raid, but that risk would be there whatever Shikotenka did. With so much blood about already it would be pointless to try to hide the body, so he might as well have the pleasure of inflicting this final humiliation upon it.

Again he raised his knife, and again lowered it.

The problem was he found no pleasure at all in the prospect of further humiliating Guatemoc.

Quite the opposite.

As he looked down at the still, broken corpse of the prince, his handsome face peaceful and almost boyish in death, Shikotenka

realised that what he felt was …

This could be my brother.

This could be my friend.

To be sure, Guatemoc was Mexica, and belonged to the family of the hated Speaker. That was his birth. That was his fate. But he had also shown courage, chivalry, intelligence and ingenuity and had been, in his own way, amusing.

He'd not been as good a knife fighter as he'd imagined, though.

With a grunt of displeasure, Shikotenka stood, cast around and snatched up Guatemoc's *macuahuitl* from where it lay nearby. He strapped it to his back, strode to the rim of the hollow, dropped on his belly and began to crawl furiously through the long grass towards the top of the hill a few bowshots above.

Dust filled his nostrils as he snaked upward. He passed through further hollows and gullies that hid him completely from view, but there were other stretches where the cover was thin and he felt dangerously exposed.

Shikotenka risked a glance back as he reached the summit and saw nothing to suggest he'd been detected by the Mexica army below. He crawled a few body-lengths down the other side of the hill to be sure he was out of sight, then stood and broke into a run. Soon he settled into the loping, long-distance stride that would carry him effortlessly over the ten miles of rough country to the forest where his squad lay hidden.

His spirits soared.

If things had gone according to plan he would have waited until nightfall to do this run, hidden by darkness from Mexica scouting parties.

But war was the art of improvisation.

Chapter Thirteen

Tenochtitlan, Thursday 18 February 1519

After the priests had gone, Malinal was dazed and silent, not wanting to speak as she tried to make sense of what had just happened, reliving the events scene by scene:

> *She's seated on the ground beside strange, powerful little Tozi. She holds Tozi's hand. She's aware that Tozi is whispering under her breath, but the words are so quiet and so fast she can't make them out. On the other side of Tozi, with his head nestled in her lap, Coyotl sleeps the sleep of the innocent so he cannot see*

Ahuizotl approaching or the murderous intent that oozes from every pore of the high priest's face.

What Malinal hasn't told Tozi yet is that Ahuizotl knows her – knows her very well – and if he sees her he will certainly select her and anyone with her for sacrifice. She feels bad for putting Tozi and Coyotl at additional risk this way, but there's no alternative. Her only realistic hope of staying alive is to continue to harness the girl's astonishing skills and learn from her extensive and ingenious knowledge of the prison.

All that, however, has become irrelevant now that Ahuizotl is here, limping towards her. Since he's using his spear as a crutch he points the index finger of his left hand at the victims he chooses for the knife. He singles them out with grim intensity, sometimes stopping to peer into a woman's eyes as his finger consigns her to death, sometimes making her stand and perform some repetitive physical task before selecting or rejecting her as a victim.

He's less than twenty paces away now, ripples of fear spreading out ahead of him through the terrorised crowd. Malinal has her eyes downcast, praying he'll somehow pass her by, trying to think of herself as ugly, imagining herself flat-chested, hunched, wrinkled, covered in pustules and boils, as Tozi suggested. It's difficult because she has lived all her life with the knowledge that she is beautiful, but she works hard at it, is even beginning to believe it, when she starts to notice a burning sensation at the centre of her brow. A reflex movement that she can't control makes her look up and she sees Ahuizotl staring intently at her, his jaundiced water-monster eyes glittering with malice.

He limps closer until just five paces separate them and it's clear he's not fooled. There was never any point trying to hide from a man as evil as this. A sly, triumphant smirk comes and goes on his wicked face. He raises his left arm, his long bony finger snakes out and he inscribes a circle in the air encompassing Malinal, Tozi and Coyotl, consigning all three of them to death.

As the enforcers stride forward to grab them, Tozi's whisper changes pitch and her voice seems to deepen and roughen, becoming almost a snarl or a growl. Malinal suddenly feels her hair stand on end, feels it crackling and sparking with an inner fire. Tozi and Coyotl are struck the same way. At the same instant a transparent, filmy screen seems to form itself around them, as though they're on the inside of a bubble.

Ahuizotl's jaw drops. He blinks stupidly. He rubs his eyes with the back of his hands. He has the look of a man in the path of a whirlwind. His four bodyguards wear the same amazed, bemused, disbelieving expression. And they've all stopped in their tracks.

What are they seeing?

Or not seeing?

Malinal can only guess until Ahuizotl utters a single, high-pitched shout of pure frustration and limps forward, leaning on his spear. To her astonishment he passes right through her and through Tozi without any impact or collision. One of the bodyguards tramples Coyotl and again there's no damage. All Malinal's senses tell her the three of them are still on the prison floor. Yet some strange transformation seems to have taken place and they've become no more substantial than the mist of a summer morning.

Ahuizotl looks back and it's obvious he still can't see them. He slashes the broad blade of his spear through the air, by chance passing it twice through Malinal's body, but she feels nothing, suffers no injury, and he does not detect her presence.

A crowd of priests and enforcers have gathered round now. They're all staring at the place where Malinal, Tozi and Coyotl still are but they too do not see them.

Ahuizotl glares at his underlings. 'Tell me what you observed here,' he snaps at a junior priest.

'Venerable one. I saw you select three victims. Then they disappeared! They vanished before our eyes. It is surely an omen.'

'Wrong!' roars Ahuizotl. 'I selected no victims. No victims disappeared. There is no omen …'

The young priest looks uncertain: 'But venerable one, I saw it with my own eyes … We all did.'

Suddenly Ahuizotl makes a lunge with the spear. Despite his injured leg it's a forceful, vicious thrust at close range. The heavy flint blade plunges into the priest's throat and smashes out through the vertebrae at the base of his skull, almost decapitating him. 'You saw nothing,' says Ahuizotl to the corpse. He wrestles his spear free. 'No victims disappeared.'

Twenty other priests and enforcers stand watching and Ahuizotl turns slowly on the spot, holding the dripping spear, looking from man to man. 'What did you see?' he asks.

One by one they reply that they have seen nothing.

‘Very well,’ says Ahuizotl. He claps his hands.’ We’ve not yet filled our quota for this afternoon’s sacrifice.’ He smiles, exposing his gums. ‘I suggest we continue.’

Despite his bravado, Malinal can see he’s a worried man.

As well he might be, since she’s miraculously vanished into thin air just when she seemed most completely in his power! He’ll be wondering if some god is aiding her, where she might turn up next and whom she might talk to. She knows too much for him ever to feel safe while she lives.

He begins to work his way through the prisoners again, casually assigning death to them with every jab of his finger. Screams and wails go up from the women in his path as they are dragged off by the enforcers. Ahuizotl doesn’t deviate left or right but ploughs straight ahead. He’s moving fast and soon he’s a hundred paces away, then two hundred. The screams become more distant. After some time they stop completely. Ahuizotl and his entourage can no longer be seen and silence falls.

Once every part of the floor was busy with captives, but so many have been taken that there are now large gaps and empty spaces. It’s fortunate that such a gap has opened up where Malinal sits with Tozi and Coyotl, because suddenly the magic is over. The tempo of Tozi’s whispers changes, the static goes out of their hair, the filmy screen that has surrounded and concealed them withdraws, and they are back.

With so much to think about, Malinal stayed silent for a long while after the priests were gone.

Finally she turned to Tozi. ‘I’ve got something to tell you,’ she said.

That was when she realised how pale and beaten Tozi looked and noticed for the first time that blood had streamed from her left ear and run in a line down her neck.

Chapter Fourteen

Santiago, Cuba, Thursday 18 February 1519

As Pepillo regained consciousness he heard a man's voice: 'Come, come, Father.' The voice was deep, faintly reproving and filled with calm, confident authority. 'This is no way for a religious to behave on the public highway. Has the heat overmastered you? Have you lost your reason?'

With tremendous gratitude and relief, Pepillo discovered that he had been released from the crushing grip on his nose. He rolled over

and pushed himself onto his knees, head down, coughing and gurgling, clearing a torrent of blood and phlegm from his windpipe. Over the sounds he was making, he heard Muñoz speaking through clenched teeth: ‘Where I choose to discipline my page is not your business, sir.’

‘Hmmm. Perhaps you’re right. But you’re a man of God, Father – a *man* – and this boy is little more than a child, and does not the Good Book say that the Kingdom of Heaven belongs to ones such as these?’

Pepillo was breathing freely again. Some blood was still running from his nose, but not enough to choke on. He scrambled to his feet and saw his rescuer mounted on a big chestnut stallion, towering over Muñoz and himself.

‘“Withhold not correction from the child”,’ Muñoz suddenly thundered. ‘“Thou shalt beat him with the rod, and shalt deliver his soul from hell.”’

The man on the horse nodded his head. ‘Proverbs 23,’ he said, ‘verses 13 and 14 … But I still prefer the words of Christ our Saviour: “Whoso shall offend one of these little ones which believe in me, it were better for him that a millstone were hanged about his neck, and that he were drowned in the depth of the sea …” Matthew 18:6, if I remember correctly.’

‘You dare to tell me my scriptures!’ Muñoz snapped.

‘The word of God is for all, Father.’

By now Pepillo very much liked the man on the horse, not only for saving him from a painful beating, or because he had the nerve to quote the Bible at Muñoz, but also because he looked splendid and warlike and must surely be a great lord. He wore long leather boots, a fine Toledo broadsword strapped over his rich purple doublet, a black velvet cloak with knots and buttons of gold, and a large gold medallion suspended from a thick gold chain around his neck. On his head, tilted at a jaunty angle, was a broad-brimmed leather hat with a plume of feathers. Perhaps thirty-five years old,

but radiating an air of worldly experience that made him seem far older, he was deeply tanned with a long oval face, a generous forehead and black hair cropped short, military style. A beard followed the firm edge of his jaw and covered his chin; a long moustache decorated his upper lip. Disconcertingly, his eyes were different sizes, shapes and colours – the left being large, round and grey, the right being smaller, oval, and so dark it was almost black.

'The word of God is indeed for all,' said Muñoz gruffly, 'but most do not merit it and fewer truly understand it.' He signalled Pepillo. 'Pick up the bags, boy. We still have a long way to go.'

Pepillo jumped to obey but the horseman said, 'Hold!' and raised his gauntleted right hand. He turned to Muñoz. 'I see you wear the habit of the Dominicans, Father. But the monastery is that way' – he pointed to the town – 'back the way you came. There's nothing but ships up ahead.'

Muñoz sighed. 'I am here to take passage on one of those ships. I am appointed Inquisitor of the expedition of Diego Velázquez,

which is soon to set sail to the New Lands.'

'By which you must mean the expedition of Hernando Cortés.'

'No. It is the expedition of Diego de Velázquez, governor of this island … He it was who conceived of it, financed it, supplied the ships. Cortés is merely its captain. A hired hand.'

The man on the horse gave Muñoz a cold smile. 'You will find,' he said, 'that I am much more than a hired hand.' He took off his hat, swept it down in a salute: 'Hernando Cortés at your service. Velázquez sent me word to expect you. I've set aside a cabin for you on my flagship.'

'Then you must have known all along who I am!' An angry grimace crossed Muñoz's face as the implications dawned. 'You've been playing me for a fool, sir.'

'I've been learning about you, Father …'

'And what have you learned?'

'That you are Velázquez's man. It's something I will think on.'

'Aren't we all Velázquez's men?'

‘We’re all the king’s men and his loyal subjects, Father.’ Cortés looked down at Pepillo and winked, his mismatched eyes giving him an oddly quirky and cheerful look. ‘Pass me those bags,’ he said. He indicated hooks hanging from both sides of his saddle.

Pepillo swung towards Muñoz, seeking permission, but the Dominican said loudly, ‘No!’ There was an edge of something like panic in his voice.

‘Nonsense!’ said Cortés as he spurred his horse round Muñoz, kicking up a cloud of dust and stooping down low to snatch the two bags and secure them to his saddle. ‘My manservant Melchior will have these waiting for your page to collect when you come on board,’ he told the friar. He touched the spurs to his horse’s sides again and galloped towards the pier where, in the distance, the *Santa María de la Concepción* was still loading.

‘But … but … but …’ Pepillo opened and closed his mouth, feeling shocked, not sure what to expect next.

Muñoz turned towards him with a terrible blank stare.

Chapter Fifteen

Cuba, Thursday 18 February 1519

Zemudio was riding a piebald heavy hunter a full eighteen hands high. Its huge hooves threw up curtains of dust and the low hills, shallow ravines and stands of acacia trees provided excellent cover so Alvarado was able to gain ground rapidly without being seen.

His hand went to his rapier and he felt a flush of excitement as he caressed the guard of interlaced steel rings that surrounded the hilt. The weapon had been made for him by Andrés Nuñez of Toledo,

reckoned by many to be the greatest swordsmith in the world. Over the years Alvarado had purchased eleven blades by Nuñez including two double-handed longswords and three broadswords. The rapier brought his collection to twelve and had been delivered only yesterday. It was very long, light and flexible, and culminated in a deadly needle tip claimed by Nuñez to be able to punch through the toughest chain mail and even penetrate plate armour. But unlike most other such weapons, designed primarily or exclusively for lunging and stabbing, this sword also had a strong double-edged cutting blade. The combination of these virtues was made possible by new techniques for tempering steel that were known only to a few, of whom Nuñez was one.

Bucephalus was much faster than the heavy hunter; the distance had closed to less than a bowshot and still Zemudio did not look back. Alvarado drew the rapier, liking the heft of it in his hand, raised it above his head and rose up in his stirrups to add force to the blow. He hoped to decapitate the man with a single stroke. If he

could get the positioning right he was confident this curious new blade could do it, but if he failed it would quickly come to steel on steel – his long thin blade against the champion's massive falchion.

He'd not yet been able to test the rapier in such a match.

Or against such a dangerous opponent.

But what was life without risks?

Alvarado drew within three lengths of Zemudio, then two, then one, and began to overhaul him. Surely he must hear the thunder of Bucephalus's hooves and the bellows of his breath as he galloped? But even now the man seemed not to notice he was being followed!

As he drew parallel, Alvarado's arm came lashing down to deliver a powerful scooping, scything strike, but annoyingly, at the last moment, Zemudio wasn't there. With unexpected speed and dexterity he ducked low across the heavy hunter's neck, letting the blade hiss over his head, and immediately lashed out a counter-blow with the wicked-looking falchion that had somehow miraculously sprung into his hand.

Alvarado swerved Bucephalus to avoid being hacked in half and lost momentum for an instant before resuming the pursuit at full gallop. Obviously Zemudio wasn't as stupid as he looked. He must have known all along he was being followed and he'd been ready for the attack.

There was a real danger that the champion might yet prove formidable.

With a sigh because he hated to waste good horseflesh, Alvarado spurred Bucephalus to a burst of speed that the other animal could not match, came within striking distance of its rump, thrust the tip of his rapier with tremendous force a cubit deep into its anus and twisted the blade as he jerked it out.

The effect was breathtaking.

The heavy hunter was, in an instant, mad and out of control, leaping and bucking, whinnying wildly, blood gushing as though some major artery had been severed. Alvarado didn't think that even he could have stayed in the saddle of such a huge, crazed

animal for very long and, sure enough, within a few seconds, Zemudio was thrown. He came crashing down on his muscular buttocks, roaring with rage, still clutching his falchion and, Alvarado noted with satisfaction, still holding tight to the leather satchel containing Velázquez's orders for Narváez.

Alvarado wheeled Bucephalus, threw his reins over a low-hanging branch of a nearby tree and dismounted.

A few paces away, Zemudio's horse lay on its side, snuffling and kicking in a widening pool of blood.

A little further off, Zemudio himself was on his feet. He seemed undamaged by the fall and held the falchion out before him ready to do mischief. 'That's a good horse dying there,' he said. His voice was curiously soft and high. 'A fine horse. He was with me in Italy. Rode him in many a battle.'

'You can ride him again in Hell,' said Alvarado. He flicked his wrist, sending a bead of blood flying from the tip of the rapier towards Zemudio's eyes.

Chapter Sixteen

Tenochtitlan, Thursday 18 February 1519

Malinal had been so deep in her own thoughts she'd missed the alarming change that had come over Tozi. Looking closer she saw that blood, now clotting, had run from both the teenager's ears and also from her nose where she'd made a half-hearted attempt to wipe it away. Her eyes were open but unresponsive, as though focussed on events in some distant place, and her face was almost unrecognisably slack and blank.

‘You did it!’ Malinal whispered. ‘You actually did it!’ She reached out and embraced Tozi: ‘You made us invisible! You saved us again!’ But the girl sat hunched, impervious to praise, silent and closed off. Her body trembled, filled with a fierce, feverish heat. After a moment a groan started somewhere deep down in her chest, forced its way to her throat and burst from her mouth as a stifled scream.

Coyotl had slumbered peacefully through everything else but now he lifted his head from Tozi’s lap and sat up. His eyes opened wide as he saw the blood around her ears and nose. ‘Tozi!’ he shouted. ‘What happened? Why is there blood?’

‘Be quiet!’ hissed Malinal, suddenly alert to a new danger, fear making her voice harsh. The population of the pen had been much reduced, leaving wide patches of the once-crowded floor empty, but many prisoners still remained and, by great bad fortune, Tozi’s scream had drawn the attention of two of the girls who’d attacked her this morning. They had been sitting quietly, facing in the

opposite direction just forty paces away on the edge of a large group of Tlascalans, but now they were working themselves into a frenzy of pointing and glaring and general ill will. They sidled over to an older woman whose lower lip and earlobes were extended by the blue ceramic plugs that signified married status in Tlascala, and began talking to her urgently.

'Uh-oh,' whispered Coyotl. 'Those girls don't like Tozi.'

'You know them?'

'They bully us.' The little boy looked proud, then anxious. 'Tozi always finds a way out.'

'They beat her up this morning when she was bringing medicine to you,' Malinal said softly. 'But she was really clever and she escaped …'

'She always escapes,' said Coyotl wistfully. 'Always.'

They both glanced at Tozi but she remained absolutely unresponsive, and Malinal's spirits plunged as the dire implications for their survival came home to her. Gone was the tough, decisive,

fierce, enchanted, quick-thinking teenager who'd saved her life and who always knew what to do. In her place was a helpless, crumpled, clenched-up, withdrawn shell of a girl from whose throat, very faintly, could be heard a low, continuous moan, as though of pain or misery.

Malinal stayed seated, but out of the corner of her eye she saw the big Tlascalan woman scramble to her feet and march the short distance across the open earth floor of the prison. She looked around thirty, tall with very heavy thighs, massive hips and shoulders, a small, out-of-proportion head and the sort of lean, nervous hatchet face that would have been just as ugly on someone half her weight. Something about her said she was one of those women who loved to fight. She loomed over Malinal, glowered down at her and pointed a fat aggressive finger at Tozi. 'Friend of yours?' she asked.

'Sure she's my friend,' said Malinal. 'You got a problem with that?'

‘I have a problem with witches,’ said the Tlascalan. She jerked her finger at Tozi again. ‘And she’s a witch.’

Malinal showed her scorn. ‘A witch? What a stupid idea!’ She’d already prepared the next move in her mind and now jumped to her feet, stepped in to crowd the other woman and thrust her face forward until their eyes were separated by less than a span. ‘She’s just a *child*,’ Malinal yelled. She put great emphasis on the last word. ‘A poor, sick *child!*’

‘Some people say differently.’ The Tlascalan seemed unmoved. Her absurdly stretched lower lip hung down over her chin, exposing teeth blackened in the latest fashion and giving her a macabre, permanently astonished look. ‘Some people say *you’re* a witch too,’ she added, spite putting an edge on her voice.

Malinal laughed it off. ‘So there’s two of us now!’ Praying Tozi would stay calm and silent until she could get her to some corner of the prison where she wouldn’t be noticed, she turned to indicate

Coyotl. ‘I suppose next you’ll be saying this little one is a witch as well.’

They were still standing nose to nose, but now the Tlascalan backed off a couple of paces. She seemed to consider the question. ‘I’m told it’s neither male nor female,’ she said, sucking her teeth, ‘so most likely it’s a witch.’

Silently the two girls from this morning’s attack had come forward and placed themselves on either side of the older woman. The girl on the left, lean as a rattlesnake, was glaring at Tozi with undisguised hatred and fear. ‘That’s the dangerous one,’ she warned. ‘She gets inside people’s heads. She drives them mad.’

‘Better kill her now,’ said the second girl, ‘while we have the chance.’

Other Tlascalans, maybe fifteen, maybe twenty, had detached themselves from the large group and were pressing closer to watch the unfolding drama. It would take very little to make them join in; Malinal knew she had to act fast before murder was done.

She stooped, flung Tozi's arm round her shoulder and tried to lift her, but her small body seemed rooted to the floor. 'Help me, Coyotl,' Malinal grunted, and he darted forward to support Tozi's elbow. It still wasn't enough to budge her; it was as though she were actively resisting.

Now three things happened very fast.

First, the big Tlascalan barged Malinal aside, stooped over Tozi, placed her arms under her shoulders and tried to drag her to her feet.

Second, Tozi screamed again. It was an unearthly, truly witchlike sound, Malinal had to admit, a sound loud enough to wake all the dead in Mictlan. The Tlascalan released her as though she were in flames and stumbled back making the sign of the evil eye.

Third, Tozi toppled over sideways where she'd been sitting cross-legged and began to thrash and kick the floor. Spit foamed at the corners of her mouth, her teeth snapped, drawing blood as she bit her own lips and tongue, and she shook her head from side to side,

smashing her skull violently against the ground, her mouth spraying flecks of pink foam.

Coyotl was fast. He grabbed hold of Tozi and clung to her, wrapping his hands and arms around her head, his legs around her body, using his small frame in every way he could to stop her hurting herself.

Malinal whirled to confront the Tlascalans.

Chapter Seventeen

Cuba, Thursday 18 February 1519

Zemudio inclined his head and the glob of horse blood from the tip of the rapier missed his eyes and spattered across his cheek and ear.

'Didn't think you'd fall for that old trick,' Alvarado said. *But I'd still prefer to fight you with blood in your eyes.* He was slowly circling; the rapier was angled slightly up. Now suddenly, with a huge explosion of breath, he threw himself into a lunge, right knee bent, left leg fully extended, surging forward with tremendous

power, his whole weight behind the blade, driving its tip like an awl through Zemudio's light upper body-armour to finish the fight right here, right now …

Except …

… Zemudio rolled his wrist and the heavy falchion battered the flimsy rapier aside – a surprisingly fast and agile parry. It looked as though he would follow through at once with a thrust to the belly, and Alvarado was already moving to block and counterstrike when Zemudio surprised him again. Instead of the obvious thrust, he swept the falchion down, trapped the rapier against his own right thigh where the steel plates in the lining of his breeches protected him from its edge, took a huge stride forward with his left foot and clamped his massive left hand – *God's death, how could this be happening?* – into the thick hair at the back of Alvarado's head. It was all done so fast, with such enormous strength and flowing momentum, and was so unlooked-for a piece of artistry from this ox of a man, that Alvarado found himself spread-eagled, bent over

Zemudio's left knee, his head jerked hard back by the hair like a lamb to the slaughter and the big blade of the falchion searing through the air towards him, chopping down on his exposed throat.

The blow came in spectacularly fast, but Alvarado caught hold of Zemudio's massive, strangely hairless arm with his left hand, stopping the blade a finger's-width from his windpipe. The champion was so sure of himself that he was no longer blocking the rapier, perhaps because it was too long to be a threat at such close range. But Alvarado wasn't thinking about the blade. The heavy hilt embedded in its guard of interlaced steel rings was also a weapon and he smashed it viciously backwards into Zemudio's groin.

Clunk! It felt as though he'd hit a fork in a tree, not a man, but – 'Ooof!' – it forced a human enough grunt out of Zemudio, making him double over and release his grip on Alvarado's hair. Any normal man would then have obliged by staying doubled over, mewling with pain, gasping for breath and easy to kill. Not so this monster, who straightened at once, his face expressionless, and

came right back swirling the falchion. Alvarado scrambled for balance and stumbled. It was an undignified moment, but somehow, more by accident than design, he succeeded in hacking his blade across Zemudio's right shin and deep into his calf between his breeches and the top of his boots.

The counterstrike came too fast to parry with the rapier, or block with his left, but Alvarado was an accomplished gymnast and threw himself into a desperate backflip. He landed on his feet, heart soaring as he thought he'd made it, then felt an explosion of savage pain as the big blade of the falchion connected with his left forearm like an axe biting into a tree. Only after he'd skipped sharply back five paces, keeping Zemudio at a safe distance with the tip of the rapier, could Alvarado confirm that his left hand was still attached to the end of his arm. A livid welt had appeared a span above the wrist and his fingers were numb from the shock of the blow, which must have come from the thick heavy back of the falchion. As he

circled Zemudio again he tried to make a fist and found he could not. Annoyingly, it seemed his left arm was broken.

The champion bared his big yellow teeth and nodded at the injured limb. ‘Does that hurt, pretty boy? Fetched you a fair knock, didn’t I?’

‘Hmm. Yes. Can’t deny it.’ Alvarado cast a glance at Zemudio’s leg, rivulets of blood welling from the wound and spattering over his heavy boots, leaving thick wet drops in the dust. ‘But first blood to me, I think.’

Zemudio made a gesture of acknowledgement in a way that said it meant nothing to him. ‘I’ve killed seventeen men in single combat. Sometimes they blood me first, sometimes I blood them first. Makes no difference in the end. They always die.’

Alvarado took care not to let the agony he felt in his arm show on his face. ‘That’s quite a pile of bones you’ve left behind you,’ he said. But what he was thinking was: *Seventeen! Shit!* He was genuinely impressed. Other than the Taino Indians of Hispaniola

and Cuba, whom he'd slaughtered in quantities so huge he'd long since lost count of the total, he'd fought nine real duels with white men – six Spaniards, a Genoese, a German and a very tricky Russian – and killed them all.

Of course Zemudio's boast of near twice that total might not be true; he was a bit of an unknown quantity having never before fought a bout in the islands. But he'd brought a big reputation with him from Italy, and Alvarado had seen enough to believe he'd earned it. Zemudio was a clever, experienced, skilful warrior, and not by any means the stupid, overconfident thug he appeared to be.

As he and Zemudio circled, neither yet ready to commit to a renewed attack, the agonising pain in Alvarado's left arm, and its floppy, useless weakness, kept nagging at his attention like an anxious wife.

He felt no fear. He had heard this emotion described and he had often observed its effects on others, but he had never known it himself and he did not know it now.

Still, he was a practical man, and the odds in the fight had turned against him the moment his arm was broken. It was even possible – though unlikely – that he would be defeated, in which case Zemudio would carve him up with the falchion like a butcher dressing a pig.

As he grappled with this repellent image, a strategy that he knew Cortés would approve of began to take shape in Alvarado's mind. 'Hey, Zemudio,' he said, looking along the blade of the rapier, 'what's Velázquez paying you?'

The champion frowned: 'None of your concern.'

'Two hundred pesos a year plus bed and board?' guessed Alvarado. 'Three hundred at the most?'

He could see immediately from the other man's eyes that it was less. Much less. 'Oh dear … A hundred? Is it just a hundred? A fighter of your skills and talents and the richest man in Cuba pays you just a hundred a year?' A pause – as though it were a sudden insight or intuition, a completely new idea, then: 'Come and work for me instead! I'll pay you five hundred a year plus bed and board

and you'll share in the booty we take in the New Lands. You'll be a rich man if the expedition goes well. What do you say?'

'I say you're all piss and farts, pretty boy.' Zemudio lashed out with the falchion, forcing Alvarado to jump back. 'I say you're a coward trying to buy me off because you know you're beaten …'

'Of course you say that. What else would a swine say when pearls are strewn at its feet?' As he spoke Alvarado stepped in, making a series of exploratory lunges, trying to feel his way past the whirling falchion, failing to make a hit but adjusting his own style more closely to the other man's technique. There were certain repeated patterns and sequences that seemed strangely familiar and just as he thought, *Maybe I can turn those to my advantage*, he remembered exactly where and when he'd seen this weird swirling, rotating-blade style before.

Zurich in the year of '02 at the school of Feichtsmeister Hans Talhoffer.

Alvarado had spent three months there as a visiting student at the age of seventeen – the time when his own abiding interest in swords and swordsmanship was beginning to take form. One of the classes he'd been obliged to attend had been in falchion combat – except the Swiss called the falchion a *messer* – and it was in this class that he'd seen defence sequences in the style Zemudio was now deploying against him.

A class in which every fight was a weird sort of dance.

Alvarado recalled despising the *messer* as a peasant's weapon, more suited to felling trees than combat, and had scorned the flowing, paradoxically dainty moves it was put to in the Talhoffer style.

But that had been in training sessions.

It was quite a different matter to be at the receiving end in a real fight when a giant has one hand in your hair, a long blade as heavy as an axe in the other, and is about to take your head.

Still they circled, flexible rapier and rigid falchion clashing with a song of steel, the rapier sinuously bending, seeming almost to caress and wrap itself around the bigger weapon. Alvarado's attention stayed locked on Zemudio, trying to second-guess his next move, but part of him noticed this new, unexpected, in some way feminine and seductive quality of the Nuñez blade and he thought, *Hmmm ... Interesting*.

The blood had not stopped guttering from Zemudio's leg and lay in damp trails and widening puddles all around them. Was he slowing down, just a little? Was he close to bleeding out? Alvarado was just beginning to think, *Maybe yes*, when he saw the faintest hint of a glitter in those shuttered-off brown eyes, and in complete silence the champion attacked him again, all momentum and mass like a charging bull, the falchion slicing blurred figures of eight out of the air in front of him.

Alvarado didn't hesitate. Shutting his attention off completely from the new burst of agony in his broken arm, he threw himself

headlong against the raw force of the other man's onslaught, meeting him blade for blade, advancing on him in a series of mighty lunges, aggressively crowding him, forcing him to retreat until Zemudio abruptly broke off the engagement and they were circling at swordpoint once again, each more wary and focussed than before, each seeking out the gaps, testing the weaknesses in the other's defences.

'You're good with that little pricker of yours,' said Zemudio with a grudging nod at the rapier.

'If I can't talk sense into you, I'm going to have to kill you with it,' said Alvarado. 'You'll leave me no choice.'

'Because of what's in here?' Zemudio tapped the leather satchel hanging at his side.

Because you're an ugly piece of shit, Alvarado thought. *Do I need any other reason?* But he said: 'You're carrying orders from Velázquez for Narváez. I don't want Narváez to get those orders.

Why don't you just hand them over to me now? Join me? I'll make you a rich man.'

Zemudio laughed, and it was a peculiar, squeaky, high-pitched giggle. 'Señor Alvarado,' he said, 'you must think me a fool.'

'I do think you're a fool. Who else but a fool would die for Velázquez for a hundred pesos a year?'

Zemudio had lost so much blood from his leg that his swarthy complexion was turning pale and his skin had a waxy sheen. *All I need do is keep walking round him a little longer and he'll drop where he stands*, Alvarado thought, and simultaneously the champion staggered. It was an almost imperceptible misstep, and well hidden, but Alvarado saw it.

It was obvious Zemudio would want to end the fight fast, with some killer blow, before he bled out. That was why he was talking again now, some nonsense about being a man of honour, about his master entrusting him with this and that, blah, blah, blah, spinning distractions. But Alvarado wasn't listening. Hit them before they hit

you was his simple motto, so he slammed in his own attack first, felt the falchion block the rapier as he'd expected, felt the rapier come alive in his hand as it whipped partially round the big heavy blade, sensed the moment he'd planned arrive.

He dipped his wrist.

Now!

Chapter Eighteen

Santiago, Cuba, Thursday 18 February 1519

Hernán Cortés stretched and yawned in the hammock he'd slung across a corner of the long, narrow cabin that was laughably still referred to by the crew as his stateroom.

His boots lay on the bare boards of the floor where they'd fallen as he'd thrown them off. Beside them was a heavy, triple-locked sea chest. His selection of richly embroidered jerkins and capes, some decorated with gold and silver thread, the best embellished with

pearls, hung suspended in a makeshift cupboard alongside hose, codpieces and brocade shirts. His purple doublet was folded over the back of a chair together with his thick gold chain and its medallion of Saint Peter holding the keys of heaven.

The cabin's single porthole was open to admit the stink of the harbour as well as a splash of sunlight and a cooling late afternoon breeze.

To the right of the porthole, fixed to the wall and somewhat in shadow, was a large wooden crucifix on which a pale-skinned Christ, one-third life size, writhed in pain, the crown of thorns lacerating his bloody brow, iron nails transfixing his bloody palms and feet.

Positioned directly beneath the porthole, where the light was best, stood a heavy oak table. Those parts of its surface that were visible were scuffed and deeply scored with knife cuts, burnt in places and smeared with dried candlewax, but mostly it was covered with maps and nautical charts pinned down under navigational instruments – a

compass, a mariner's astrolabe, a quadrant, a nocturnal and a glittering armillary sphere.

The sphere was Cortés's pride and joy, a gift from his father Martin who had won it during the conquest of Granada in '92. Save the ring defining the equinoctial colure, which was broken, the costly device was in perfect working order.

Slap!

For the third time in as many minutes Cortés heard the sound of flesh striking flesh followed by the suppressed whimper of a child in pain.

The sounds were coming from the far side of the partition that divided the flagship's original capacious stateroom into two equal halves, one half of which Cortés now found himself uncomfortably crammed into. The other half, on urgent orders received from Velázquez only yesterday, had been assigned to the abominable Father Muñoz. Through the thin pine partition, the best the ship's carpenter had been able to rig at such short notice, it was impossible

not to hear Muñoz trampling about, or the harsh words he barked at his young page, or the intensifying sounds of blows and cries.

Cortés sighed. He'd intervened on the harbour road because the Inquisitor's bizarre and bullying behaviour was unseemly in public and unhelpful for the good name of the expedition. But if Muñoz wanted to beat his page in the privacy of his own cabin, there was really nothing to be done about it.

Even if he beat the boy to death?

Even so, Cortés admitted. Even so.

Because it was a sad fact of life in today's Cuba that a Dominican Inquisitor with the favour and support of the governor could get away with literally anything, even murder, if it pleased him to do so.

Indeed, there were rumours about the page who'd accompanied Muñoz on the ill-fated Córdoba expedition. His relationship with his master had been strange – everyone had noticed – and, one night, the boy had disappeared at sea, presumed lost overboard. Perhaps his death had been an accident? Perhaps suicide? Or perhaps, as

some of the survivors whispered, Muñoz was a violent sodomite with a taste for adolescent boys who'd killed the page to silence him?

Cortés had scorned the whispers, refusing to believe a man of God could ever commit such crimes; but what he'd witnessed this afternoon had changed his mind. Rarely had he taken so instant or so extreme a dislike to anyone as he had to Muñoz! It was bad enough that the Dominican had been foisted on him at the last moment by Velázquez – undoubtedly as much to spy on him and confound him as to attend to the spiritual wellbeing of the expedition. But what added insult to injury was the foul unnatural air of this Inquisitor! Recalling the scene on the harbour road, it was the perverted *pleasure* Muñoz had taken from inflicting pain on his little page that stood out.

Cortés swung down off the hammock, padded barefoot over to the table below the porthole, and retrieved his well-thumbed Bible from beneath a heap of maps and charts. It was one of the new

mass-produced editions, printed on paper by the Gutenberg press, and as he opened its leather covers he felt again, as he always did, the magic and the mystery of the word of God.

He turned to the New Testament, the Book of Matthew, and after some searching found the passage he was looking for in Chapter Seven. ‘Beware of false prophets,’ he read, ‘which come to you in sheep’s clothing, but inwardly they are ravening wolves.’

A false prophet! It was amazing how often you could find the exact thought you wanted in the Good Book – and this was a thought that seemed to fit Muñoz very well. Outwardly the respectable sheep’s clothing of the Dominican habit, inwardly a ravening wolf …

There came another *slap* from beyond the partition, another cry, a tremendous, incoherent yell from Muñoz, a loud crash as of a body thrown against a wall, and then silence.

Cortés started upright in his hammock – Jesu in Heaven, surely the boy was not already dead? Then he heard that thin pitiful

whimper again and a surge of fierce anger and revulsion shook him.

His powerful impulse was to find any excuse to have Muñoz removed from the expedition. But if he did that it would draw unwelcome attention from Velázquez at just the time when he most wanted the governor to stay away.

So instead Cortés closed his eyes and forced his tensed muscles to relax. The key to health in these climes, he had discovered, was to take a siesta of at least one hour's duration in the afternoon. It wasn't always possible; he completely understood that. But when it was possible he gave it as much priority as prayers or alms.

Sleep embraced him.

Chapter Nineteen

Tenochtitlan, Thursday 18 February 1519

The two girls who'd attacked Tozi this morning were mischief-makers, not leaders, and the other Tlascalans snooping around also seemed to be waiting for someone to tell them what to do. So it was the big woman with the black teeth and the rubber lip who was the main danger. Deal with her and the others would fall into line.

Maybe …

Malinal had been sheltered from violence by noble birth. When she was sixteen her fortunes fell but, even in the five strange and terrible years she'd spent as a slave since then, she'd been protected by the high value placed on her beauty by powerful men. The result, in her twenty-one years, was that she'd never once had to fight for her life. Her strengths were sensuality, flattery, dissimulation and subtle influence; she was not well equipped to use force.

Black Teeth had been stopped in her tracks by Tozi's nightmarish scream, and stood gazing at her with fear, but also with something unexpectedly like pity as she thrashed and snapped her teeth on the floor, while Coyotl fought desperately to keep her from harm. With a flash of intuition, Malinal stepped to the big Tlascalan woman's side, laid a long slim hand gently on her shoulder and said in a hushed tone: 'She's no witch. She's just a poor sick child. Aren't you a mother yourself? Can't you see that?'

Black Teeth's massive body twitched. 'I am a mother.'

'And your children? Where are they now?'

‘The gods only know. The Mexica raided my village. I was captured, my two children were snatched away from me, I haven’t seen them since.’

‘Would you tell me their names?’

The Tlascalan woman’s brutal manner suddenly dissolved and to Malinal’s surprise she sobbed. ‘Huemac,’ she said, ‘he’s five. And then there’s Zeltzin. She’ll be fourteen this summer.’

‘Zeltzin … Beautiful.’ The name meant ‘delicate’ in the Nahuatl tongue. ‘She and Tozi are almost the same age …’

‘Tozi?’

‘This child –’ Malinal looked down at Tozi, still thrashing on the ground – ‘whom you believe is a witch but who really is just sick and in need of help and love.’

Black Teeth grunted and wiped away a tear. ‘Why should I care what she needs?’

‘Because in this world of pain the gods see to it that what we give out is what we get back. Wherever they may be today, perhaps in

another fattening pen, perhaps slaved by some merchant, don't you hope someone will care for your own children's needs – if they're sick, if they need help like poor little Tozi?'

Black Teeth looked round at the girls whose provocations had sparked this trouble. 'It's them as told me she's a witch,' she said.

'And they attacked her this morning, and got the worst of it, and now they're trying to use you to get revenge.'

On the floor Tozi was quieter, her struggles less desperate, her features calmer. The two Tlascalan girls began to edge towards her but Black Teeth called out 'Wait!' and they hesitated, scowling at Malinal.

'You have children yourself?' Black Teeth asked.

'No. I've not been blessed. The Mexica slaved me, used me for sex. I fell pregnant twice but they forced me to drink *epazote* and I miscarried.'

The woman spat. 'Brutes. How they use us!'

Malinal pressed home her advantage. ‘We’re all their victims. Why do we fight and kill each other when the Mexica persecute us all? They’re the real witches and sorcerers – not innocent children like poor Tozi.’

Black Teeth looked doubtful. ‘If she’s not a witch, then what is she? How is it that she’s never selected for sacrifice?’

Malinal had her answer ready. ‘*Yollomimiquiliztli*,’ she said gravely, invoking the Nahuatl word for epilepsy. ‘Perhaps she who cursed her also protects her.’

Everyone knew that the terrible affliction of epilepsy, which caused fits exactly like the one that Tozi had just suffered, was the work of the fickle goddess Cihuapipiltin. And everyone also knew that in return for the suffering she caused Cihuapipiltin sometimes gave magical gifts to her victims.

Black Teeth thought about it for what seemed like a long time as Tozi’s shaking and foaming at the mouth gradually ceased and she lay still. Finally the big Tlascalan woman nodded to Malinal. ‘What

you've told me makes sense,' she said. She turned to the other Tlascalans and spoke up: 'This child is not a witch. Poor one! She has been touched by Cihuapipiltin. We should leave her alone.'

One of the troublemakers clenched her fists and gave a little scream of frustration, but Black Teeth silenced her with a glare.

Within a few moments all the Tlascalans withdrew, leaving Malinal alone with Tozi and Coyotl.

Perhaps an hour later Tozi opened her eyes. Linking arms with Coyotl, Malinal helped her sit up. 'You OK?' she asked. It seemed such an ordinary question after all the extraordinary things that had happened, but it was what she wanted to know.

'I'm OK,' said Tozi.

'Me too,' said Coyotl. 'Malinal saved us from the bad girls.'

Tozi was looking at the nearby group of Tlascalans. 'We had trouble?'

'Yes, but it's over. Everything's going to be fine.'

‘Good,’ said Tozi, ‘because I’m all used up.’ Her eyes were bright but the whites were jaundiced, her skin was grey with fatigue and there was a sheen of sweat on her brow.

‘What happened to you?’ Malinal asked.

‘I’m trying to remember … For how long did I fade us when Ahuizotl came?’

Malinal thought about it. ‘I don’t know,’ she said. ‘Maybe a two hundred count, maybe a three hundred count?’

Tozi gave a low whistle. ‘I didn’t even know I could do that.’

‘I don’t understand.’

‘When I fade for more than a ten count I get sick. Really sick. Something breaks inside my head. If I faded us for a two hundred count, I’m lucky to be alive.’

‘You were in a bad way.’

‘I’m still in a bad way.’

Malinal reached out and brushed her fingers down Tozi’s pale, exhausted face. ‘You’ll get better,’ she said, but it was more a hope

than a statement of fact.

‘I’ll get better,’ Tozi echoed dully, ‘but I won’t be able to fade us again. Not today. Not tomorrow. It always takes me a long time to get my strength back.’

‘Don’t worry about that,’ said Malinal. ‘Don’t worry about anything. I’ll take care of you.’ She ruffled Coyotl’s hair. ‘And you too, little one.’

She knew it was a hollow promise, even as she made it.

Thanks to Black Teeth they were, for the moment, probably safe from further accusations of witchcraft, but the threat of sacrifice had not receded and, beyond the bars of the prison, Ahuizotl still lurked. He would not forget or forgive how badly he’d been embarrassed by Tozi’s magic.

Realising anew the endless horror of their predicament, Malinal felt all her strength and resolve ebb away.

Then Coyotl tugged at her hand, gazing up at her with his big serious eyes.

‘Do you know how to fade us?’ he said.

Chapter Twenty

Cuba, Thursday 18 February 1519

When Alvarado dipped his wrist, Zemudio predictably followed the flow of force, and thrust down hard, sliding the falchion along the blade of the rapier, grinding out the keening song of steel, sending sparks of hot metal flying. Alvarado had invited this savage cut with the heavier weapon. It was a standard move in the Talhoffer system of *messer* combat – engage, slide the blade, pivot to misdirect your opponent's force, hack off his arm at the elbow. But the blow was

ill matched against the Nuñez rapier with its guard of steel rings spun round the hilt. The falchion skidded over the guard and, as Zemudio whirled into the pivot, Alvarado trapped the thick blade between two of the rings, deftly twisted the weapon from his grip and cast it to the ground.

It all happened so fast – *like disarming a child!* – that Zemudio was taken completely by surprise. He made a clumsy grab for the fallen weapon but Alvarado got his boot under it and kicked it out of reach. Zemudio put his head down and charged, hands outstretched, and Alvarado reacted instinctively with a clean, straight, powerful lunge, rapier and right arm extended, right leg sliding ahead, left leg and left arm stretched out behind, propelling his body forward. The needle point of the rapier pierced the padded outer fabric of Zemudio's vest where it covered his belly, glanced off the overlapping steel tiles sewn into the lining, slid a span, found a tiny gap and – *ooof!* – punched deep into the champion's body. Alvarado was unstoppable, all his power and weight behind the

lunge, and as he went to full extension he felt the point ripple through Zemudio's guts and burst out of his lower back. There was slight resistance as it hit the armour at the rear of the vest but again, like a worm, the flexible blade found a way through, and the champion was spitted.

Alvarado was close to him, very close, close as lovers. Wrapped in the rapier's guard, his fist was right against the dying man's belly and the tip of the blade stood out a cubit from his back. Ecstasy! A kind of ecstasy! Zemudio's little pig eyes gazed into his own with more puzzlement than anger, his stupid oafish mouth gaped, and he groaned like a woman being pleasured.

'Still think I'm all piss and farts, do you?' yelled Alvarado. He sawed the blade of the rapier back and forth.

Zemudio gasped.

'Still think I'm a pretty boy?'

'Aaaah …'

The mist of death was clouding Zemudio's eyes. Alvarado could always recognise it. With a yell of triumph and a vicious twist of his wrist, he hauled out the rapier, drenched with gore, and stepped back.

He expected Zemudio to fall, but the great ox of a man just stood there blinking, blood oozing through the front of his vest, guttering out of the gaping wound in his leg and dropping *pitter-patter, pitter-patter* into the dust at his feet.

'Very well,' said Alvarado, 'if that's how you want it.' The rapier still needed more trials with armour and now was as good a time as any. Throwing his right foot forward he slid into another lunge, easily found another weak point and ran the man through. He withdrew, lunged again, slight resistance from the armour, quick workaround, found a gap and – *ooof!* – another healthy dose of steel administered direct to Zemudio's vitals.

As Alvarado stood back to inspect his handiwork, Zemudio shouted something indistinct and collapsed to his knees.

‘What was that?’ said Alvarado, taking a step closer.

Another incoherent yell.

Alvarado frowned. ‘What?’

Zemudio looked up at him in mute appeal, mouth gaping.

‘What?’ Alvarado took another step, put his ear to Zemudio’s lips.

‘Bastard,’ whispered Zemudio.

‘Biggest bastard this side of the Ocean Sea,’ agreed Alvarado. He straightened, swept the rapier up over his right shoulder, swung it almost lazily down and hacked the razor edge of its clever Nuñez blade into the side of Zemudio’s thick, muscular neck. There was a smacking sound, almost like a slap, a spray of blood as the jugular was severed, some resistance and a grinding sensation as the blade cleaved vertebrae, then much more blood and a tremendous acceleration as the sword flashed out on the other side of his neck, taking his head clean off.

It bounced when it hit the ground, rolled twice and came to rest upside down against a rotten tree stump, the surprised, reproachful eyes still glaring.

'*Yes!*' Alvarado shouted, because somebody had to praise that perfect *coup de grâce*.

Such precision. Such elegance. Such economy of effort.

He doubted if there were three other swordsmen in the world, maybe not even two, who could have matched the blow.

Though headless, Zemudio was still on his knees and the satchel containing the Velázquez documents still hung by its strap around what was left of his neck. Blood was bubbling up, getting everywhere, already completely drenching the satchel, but Alvarado was a one-armed man now. He first wiped the blade of the rapier clean on Zemudio's body, and sheathed it, before he stooped over the corpse and pulled the dripping satchel away.

The buckles were slippery and proved near impossible to open with only one functioning hand, until Alvarado had a brilliant idea.

He turned back to Zemudio's kneeling corpse, kicked it over in the dust and used the cloth on the ample seat of the champion's breeches to clean the satchel and his own fingers. When he was satisfied he'd done enough, he turned back to the buckles, opened them easily and peered inside.

The document wallet was there, safe and dry, no blood yet staining its contents. Alvarado fished it out and opened it.

Inside was the single page of vellum on which Velázquez had scrawled his orders for his loathsome favourite Pánfilo de Narváez – *Captain-General* Narváez, no less! – the despicable fool who was supposed to take Cortés's place. As he read, Alvarado's face darkened, but when he'd finished he put his head back and laughed for a long time. 'Sweat of the Virgin,' he said as he slid the page back into the wallet. All that trouble to kill a man and at the end of it he'd learned nothing more than Velázquez had already told him. Still, Cortés was going to be impressed to see the proof in writing.

Alvarado pushed the wallet into Bucephalus's saddlebag alongside his gold, and was about to mount up and ride for Santiago when he remembered Zemudio's falchion.

It had turned out to be a damn fine weapon.

Indeed Alvarado could imagine situations – a crowded battlefield, a press of combatants – where it would be the best weapon a man could possibly have and where a rapier might be useless. He looked around the blood-smeared scene and a ray of late-afternoon sunlight glanced off the big blade where it lay in the dust. He walked over and picked it up. It felt heavy and unwieldy, yet Zemudio had handled it as though it were a tin toy! It would take some getting used to, Alvarado supposed, but he had yet to encounter an edged weapon he couldn't master.

He glared down at Zemudio's headless body – *so much for the hero of the Italian wars!* – and paused to give the corpse one more kick. 'Who's the bastard now?' he yelled. Then he stuffed the

falchion into his sword belt, marched to Bucephalus and climbed into the saddle.

The sun was sinking into the west and it was an hour's ride back to Santiago, with visibility falling and evening coming on. Alvarado spurred the great war horse into a reckless gallop.

Chapter Twenty-One

Santiago, Cuba, Thursday 18 February 1519

Cortés was dreaming.

Strangely he was both within the dream and an external observer of it.

Stranger still, it seemed he could change aspects of the dream simply by thinking about them!

For example, he was at this moment walking through a green meadow covered in lush grass laid over firm turf. He thought,

Perfect riding country, and at once found himself on the back of the grey mare, Altivo, which he'd ridden when he was a boy in Extremadura. All the sensations were completely realistic – the smell and the feel of the horse, the sun on the grass, the wind in his hair.

Then, inexplicably, Altivo vanished, the scene changed, and he found himself inside a giant Gothic vault, all delicate ribs and soaring arches like the great vault of the Cathedral of Plasencia, but made entirely of dazzling white crystal and enclosing a vast space that seemed filled, flooded, engorged with the purest and most perfect light. Cortés was at the centre of the nave. Rows of empty pews, likewise of crystal, surrounded him, their ranks marching two hundred paces forward to the edge of the transept. Straight ahead, on the left side of the crossing, where the nave, transept and choir all met, was a pulpit, full five fathoms high, approached by a slender spiral stairway, sculpted, it seemed, from a single mass of transparent ruby.

At the pulpit, but almost too blinding for the eye to tolerate, stood a figure, human yet not human, from whose body rays of intense white light burst forth in splendour.

Do I gaze on God Himself in his Heavenly Church? Cortés thought. And he remembered Moses on the Mount, who had also seen God face to face, and he felt fear.

It wasn't like battlefield fear, which he'd learned to master better than most. It was something else, something he could not name, something arising from the tremendous radiant power emanating from this being of light who seemed to reach out and entrap him as though in an invisible net and then draw him forward.

Cortés watched the crystal floor of the nave slipping by beneath his feet, hints of buried rainbows swirling in its depths, but felt no physical contact, seemed to be floating as much as walking – which was strange until he remembered this was a dream. He tried to change the setting again but the trick wouldn't work this time and he was pulled irresistibly towards the base of the pulpit.

As though the wick of a lamp had been lowered, the radiance surrounding the figure dimmed as Cortés drew closer, becoming more bearable to the eye, finally revealing a tall and robust man standing in the pulpit. He had a rugged demeanour, more like a soldier or a labourer than a cleric. He was clean-shaven and fair-haired, perhaps forty years old and dressed in a simple hemp tunic, yet he projected an unassailable aura of charisma and authority – that quality of exceptional personal presence and spiritual power that the Moors call *Baraka*.

'I've been watching over you all your life,' said the man. 'I've seen that you've done well …' His voice was quiet and his tone intimate – as a father speaking to a son, or a friend to a friend – yet it seemed effortlessly to fill the entire vault, and there was something about it that was arresting, unsettling, almost physically probing.

Cortés came to a halt at the edge of the crossing and gazed up at the extraordinary ruby pulpit poised in space thirty feet above him,

and at the awesome and terrifying man who stood in it. ‘Who are you?’ he asked. He fought down his fear. ‘Are you God? Are you an archangel?’

‘You already know who I am …’

‘I do not know you, sir, I swear it. But give me some hint, some clue, and I will place you …’

The man laughed and it was a deep, rich sound. ‘You had an episode of sickness as a child, Cortés, do you remember?’

‘I remember.’

‘A fever of the lungs brought you close to death, a priest was called, the last rites were spoken?’

‘Yes.’

‘But your nurse called down heavenly help.’

It was true. She’d been called Maria de Esteban and she had called on Saint Peter to save the dying child who miraculously recovered.

Even as Cortés gasped, suddenly getting it, he had to remind himself again that this was a dream. Only a dream. ‘You are … the blessed Saint Peter?’ he asked.

‘I am the rock on whom Christ built his Church and the powers of Hell cannot prevail against me … Your own patron saint, Cortés – yet only now you know me!’

‘But why? How …?’

‘Never mind all that. What I need you to remember, is that all of this’ – his voice suddenly boomed – ‘*is by no means only a dream*. On the contrary, Don Hernando, all of this is very real. All of this is very serious. You are to do God’s work.’

‘Thank you, Father,’ said Cortés. ‘I have tried to do God’s work in these islands.’

‘And with great success! The Taino were too deeply sunk in idolatry and superstition for their souls ever to be saved …’ Peter hesitated. ‘I see, though, that some still live?’

‘Only those who willingly accepted the faith and were ready to serve us …’

‘Oh well, good then. Very good. Besides … a far greater task lies ahead of you …’

‘In the New Lands, Father?’

A faraway look had come into Peter’s eye. ‘You will be the sword of God there, Don Hernando. Overthrow the heathens and the devil-worshippers, bring them the word of Christ and you will be rewarded in this world and the next.’ The saint turned, descended the ruby stairway, his simple tunic hitched up over bare feet, and he came to stand opposite Cortés in the midst of the crossing. His eyes were utterly black, calm, steady, like deep pools of midnight, but his skin was pale and somehow bright, even dazzling, as though lit from within by the heat of some immense banked-down fire.

He placed his huge, calloused hands – soldier’s hands, labourer’s hands – on Cortés’s shoulders. ‘I have great plans for you,’ he said.

‘I am honoured, Father, and ready to serve.’

‘But there is a condition.’ Peter’s eyes held Cortés prisoner. ‘The friar Muñoz has a part to play in this. You must set aside your dislike for him. He is rough and crude in his ways but a tireless worker for God. Heaven will not bless your expedition without him.’

Chapter Twenty-Two

Tlascala, Thursday 18 February 1519

His name was Shikotenka, he was a king and the son of a king, and a ten-mile run was nothing to him, so much part of his usual routine that he didn't even break a sweat. The sun was low in the sky now, edging down towards setting, and though the day was still warm there was a breeze in the mountains, blowing off the snowbound shoulder of Popocatépetl, which kept a man cool. The early evening

air caressed his skin, and the rugged green peaks of Tlascala spoke to him of freedom, filling his heart with joy.

Shikotenka could keep this pace up for two days if he had to, but he wouldn't have to. Already he could see the great forest where his fifty lay waiting, and his mind began to move ahead to the bloody work they must do together tonight …

If Guatemoc's body had not been found …

If no special alarm had been raised …

If they were blessed with the luck of the gods.

His hand went to his hair and he tugged out the little silver amulet that had betrayed his position this afternoon. It was a sensual, naked figure of Xochiquetzal, goddess of love, female sexual power, pleasure and excess.

Zilonen's favourite deity, of course.

Shikotenka pressed the amulet into a fold of his loincloth, where it should have been all along, and looked ahead.

Now less than a mile away down an open grassy slope, the forest was a huge imposing presence on the landscape, abundant with hidden life, a place of refuge and a place of mystery. Above, the leafy canopy was still lit a brilliant green by the dying sun, but down amongst the trees there was already a mass of shadow – as though night was not something that fell but something that rose from the ground like a black mist.

Shikotenka allowed himself to focus on the image – was there a song in it? – until a short, thin spear whistled past his ear, followed a heartbeat later by another that sliced a shallow groove into the flesh of his left thigh. Both weapons buried themselves in the ground with tremendous force and he saw as he ran by that they were *atlatl* darts launched from spear throwers.

He risked a quick glance over his shoulder, ducked as a third dart whooshed past, threw himself into a somersault to avoid a fourth and came up running, zigzagging left and right, losing much of his forward momentum.

Shikotenka was being hunted by three Mexica scouts. Quite how they'd crept up on him, he couldn't understand, because he'd been constantly on the lookout for precisely such a threat. But their shaved heads painted half yellow and half blue announced their rank as Cuahchics, the best of the best.

Two of them were armed with *atlatls* and had hung back to aim and throw their darts to maximum effect. The third was a runner …

A very *fast* runner.

Over longer distances he probably wouldn't amount to much, but he looked to be absolutely lethal as a mid-distance sprinter. Having to evade the darts was slowing Shikotenka down. Less than half a mile remained to the cover of the forest, but it was obvious the Cuahchics would catch him before he made it.

He was still zigzagging. Two more darts came in, both near-misses, slowing him further. He sensed without wasting time looking back that he'd lost most of his lead and thought – *might as well get up close and personal*. At least that would stop those cursed

darts, since presumably the other Cuahchics wouldn't want to spear their brother-in-arms?

Would they?

Shikotenka heard footsteps behind him, closing fast, skidded to a halt and in one fluid movement whirled, drew Guatemoc's beautifully balanced *macuahuitl* from its scabbard at his back, and brought it crashing down on his pursuer's head.

The only problem was that the man's *macuahuitl* got in the way first.

As the obsidian teeth in the wooden blades of the two weapons clashed, there was an explosive spatter of broken pieces and it was luck that one of the larger fragments pierced the Mexica's right eye … He had a hard will, no doubt, this fearsomely painted Cuahchic, but the splinter of obsidian distracted him long enough for Shikotenka to catch him with a swooping blow that took off both his legs just above the ankles.

The Cuahchic went down hard, as one does with no feet, but continued to crawl around on his knees on the ground, spurting blood, roaring curses and lashing out with his *macuahuitl*.

Pointless stubborn pride, thought Shikotenka, as he hacked off the man's ugly blue and yellow head. *Utterly pointless*.

Out of the corner of his eye he'd been watching the other two Mexica. They'd abandoned the spear-throwers, as he'd expected, and were closing in fast.

The forest was invitingly near but Shikotenka knew he wouldn't make it. He took a strong two-handed grip on the hilt of the damaged *macuahuitl* and stood ready for battle.

Chapter Twenty-Three

Tenochtitlan, Thursday 18 February 1519

For routine purposes, with a hundred sacrifices or fewer, victims approached their deaths only up the north stairway of the great pyramid of Tenochtitlan.

When greater numbers were required, as was the case today, the south, east and west stairs were also opened and a team of trained sacrificers – a knifeman and his four helpers who held the victims down – waited at the top of each staircase.

But on certain very special occasions, as when eighty thousand victims had been harvested to inaugurate the great pyramid in the time of Moctezuma's grandfather, up to forty additional killing teams would be deployed working back to back all around the summit platform.

Regardless of whether one, or four, or forty teams were at work, it had been discovered through repeated trials that each team was capable of processing approximately one victim every two minutes. There were uncertainties and imponderables that could make extraction of the heart and the elements of butchery a few seconds shorter or longer in some cases, but on average it was a two-minute operation, with each team killing thirty victims per hour. Sacrificers typically became exhausted after two hours of relentless effort and began to lose efficiency, but fresh teams stood by to take over smoothly without causing any interruption in the flow.

All afternoon, at the rate of thirty per stairway per hour, the five hundred and twenty women Moctezuma had called for, some

sobbing, some silent, some hysterical, had climbed in four miserable columns to meet their deaths.

Moctezuma was outraged to hear their complaints. They should feel honoured to offer their hearts, their lives, *everything* they had, to so great a god as Hummingbird! They should be rushing to the sacrificial stone with excitement and joy, not inviting bad luck on all concerned by voiding their bowels and dragging their feet.

Moctezuma led the team at the top of the northern stairway but, unlike the knifemen of the other teams, he'd refused to take a break. The sorcery of the *teonanácatl* mushrooms still coursed through his veins and he felt tireless, ferocious, superhuman – his energy seeming to swell with every life he took.

After this morning's ceremony with fifty-two male victims, all of whom he had despatched personally to Hummingbird, he'd been killing women nonstop since the mid-afternoon. He'd been enjoying the work so much it was hard to believe nearly four hours had passed, but the sun had been high in the sky then and now lay just a

few degrees above the horizon. In the great plaza at the foot of the pyramid the shadows of evening were growing long and deep, and priests were busy lighting hundreds of lanterns. But as he plunged the obsidian knife into yet another breastbone, and plucked out yet another pulsing heart, enough daylight remained to show Moctezuma that the entire northern stairway where he'd been at work was drenched in a slick and dripping tide of dark blood, through which his last victims, goaded by their guards, were being forced to wade wretchedly upward.

He giggled. The steps would be slippery. Someone might get killed!

Moctezuma's assistants spread out the next victim in front of him, a pretty screaming young thing with barely a wisp of pubic hair.

As he fell on her and tore out her heart, the power of the mushrooms, which had been coming and going in waves all afternoon, surged through him again, this time with enormous force,

like the current of some great river or the career of a whirlwind. He had the feeling that he'd left his body – or rather, as he had felt earlier in Hummingbird's temple, that he was both in his body and out of it at the same time. So at one level he could see exactly where he was and what he was doing. He was on top of the great pyramid of Tenochtitlan, cutting women's hearts out. But at another level he again experienced himself to be elsewhere, transported high and far away into a rarefied empyrean zone, and once more in the presence of bright-skinned Hummingbird himself …

The god licked his lips. 'That last was a virgin,' he said. 'Quite tasty …' He made a sad face: 'But unfortunately most of the victims you've sent me this afternoon have not been of this quality. One or two have even been grandmothers. There were three prostitutes. Once again I'm disappointed in you …'

Moctezuma had already opened the chest of his next victim. He stopped abruptly, slipped out the sacrificial knife and smashed its heavy pommel into his own forehead, splitting the skin and drawing

a burst of blood. ‘I beg your forgiveness, master,’ he said. He was aware that to his assistants, to Ahuizotl and to the other priests in attendance, he must appear to be addressing an invisible figure. ‘We will find virgins for you, lord,’ he promised. ‘A thousand virgins – ten thousand if you require.’ He eyed Ahuizotl, who was looking alarmed. ‘It may take a little time, lord, that is all …’

‘Time …? I see … You speak to me of time?’

‘Yes, master.’

‘So you have time to wait, while enemies more powerful than you can possibly imagine raise forces against you? You don’t care that wild beasts fight beside them in battle, some carrying them faster than the wind, others with monstrous teeth and jaws that tear men apart? You have no urgent need of knowledge of these enemies? Of their mastery of unknown metals? Of their terrible Fire Serpents that vomit lightning?’

Moctezuma trembled. Exactly as he had feared, these were not men Hummingbird was describing but an army of *tueles* – of gods.

The fabled Xiuhcoatl, the Fire Serpent, was the magical weapon of the gods, able to strike men dead and dismember their bodies at a distance. Likewise who but gods could enchant wild beasts and turn them to their purpose?

‘It is my desire and my responsibility, lord, to know all you have to teach about these enemies. Are they the companions of Quetzalcoatl, come to overthrow my rule? Tell me, I beseech you, what can I do to satisfy you?’ Moctezuma bent to his victim again. He’d ripped her chest wide open with the first incision but she was still alive, eyes fluttering in pain and terror. Oblivious to her pleas he extracted her heart, placed it sizzling on the brazier, and turned to the next woman. The process had become automatic and he was able to carry out his duties while keeping his attention focussed almost exclusively on Hummingbird, whose body had somehow vanished but whose face had grown to enormous size.

‘It’s very simple,’ the god said, ‘a straightforward transaction. Raid the Tlascalans, for their young girls, raid the Huejotzingos,

raid the Otomis, *bring me virgins*, and I'll give you the help you seek …'

Moctezuma feared to repeat himself but it seemed there was no choice. 'It will take time, lord,' he said, 'My army is already in the field harvesting more victims, but I cannot give you a large basket of virgins tonight … Even so, I beg you to help me now on this matter of the strangers.'

Hummingbird seemed to think about it. 'I help you now,' he said, as though clarifying some point of argument, 'and you give me virgins later? That's the proposition?'

'Yes, lord, that is what I ask.'

There was a long silence before the god said finally: 'I believe that's acceptable.' He paused again as though for thought. 'But I'll need a down-payment …'

'Anything within my power …'

'The women's fattening pen isn't empty yet …'

'You are right, lord.'

‘So empty it. Empty it tonight! Before I help you I want all those women’s hearts. Every one of them.’

The visionary realm and the here and now were both equally present to Moctezuma and, in some strange juncture between the two, Hummingbird’s immense face began to fade and melt downward, seeming gradually to dissolve into the mass of flickering orange lanterns that filled the great plaza below. The lanterns were in motion, dancing, swirling, coalescing into clumps and blots of light, spiralling apart again, leaving ghostly trails to mark their paths. The face of the god continued slowly to fade until soon there was nothing left of him but his two gigantic eyes, the whites stark as bone, the obsidian irises black as night – and they called Moctezuma down into their depths with a terrible seductive power. He felt a compulsion to jump from the top of the pyramid, dive into those cool, black pools in the midst of that glimmering orange sea and merge himself forever with Hummingbird, but then a hand took

his elbow and his whole body jerked like a man wakened suddenly from sleep.

‘Are you all right, sire,’ asked a familiar voice. He looked round to see that it was his own good and virtuous brother Cuitláhuac who had taken his arm. Glancing down, Moctezuma discovered, to his horror, that he had walked away from the sacrificial stone and now stood tottering right on the edge of the precipitous northern stairway. The twenty victims he had yet to process from this afternoon’s sacrifices were lined up on the steps below, staring at him with … what?

Horror?

Hope?

Because for a moment there, Moctezuma realised, he must have come very close to leaping to his death.

‘Thank you, Cuitláhuac,’ he said, allowing the other man to draw him back to safety. ‘I grow weary.’

‘You must rest, brother. Let me or Ahuizotl take over from you here. Only a few victims remain.’

‘No. I cannot rest. None of us can rest. I have been in the presence of the god!’

Cuitláhuac gasped, suitably impressed.

‘I have been in the presence of the god,’ Moctezuma repeated, ‘and he has ordered more sacrifices tonight.’

Ahuizotl had been skulking in the background – *he would have been pleased to see me fall*, thought Moctezuma – but now came scuttling forward. ‘More sacrifices tonight?’ the high priest yelped. ‘Surely we must rest, lord? All the teams are tired. Tomorrow we can begin again …’

‘We will not rest!’ roared Moctezuma. ‘The sacrifices must continue through the night! The god himself has ordered this.’ He lowered his voice: ‘Do not thwart me, Ahuizotl,’ he hissed, ‘or you will be the first to die.’

The high priest gulped, nodded his understanding.

‘Take two hundred of my palace guard,’ said Moctezuma, ‘and round up all the women still in the fattening pen. None must remain. You’re to bring them all to the pyramid.’

Ahuizotl blinked. ‘*All*, Your Majesty?’

‘Yes. All.’

‘Do you realise their numbers, Majesty?’

‘Does it matter?’

‘After this afternoon’s sacrifices, themselves not even complete’ – Ahuizotl glared at the line of terrified victims still waiting on the steps – ‘more than one thousand seven hundred women remain in the pen. Many are disorderly and belligerent – I myself was attacked this afternoon – and we faced severe problems martialling even five hundred and twenty of them. At least give me until tomorrow if I must bring seventeen hundred to the knife. I don’t have sufficient enforcers to do this in a single night.’

‘You will do this, Ahuizotl, and you will do it tonight.’

The high priest subsided into a glowering silence.

‘You have two hundred of my palace guard to help you marshal troublesome prisoners,’ Moctezuma reminded him. He lowered his voice again. In his opinion it was this troublesome priest who needed to be marshalled. ‘Give me one more excuse,’ he said, ‘and I’ll have you flayed alive.’

Ahuizotl stiffened. ‘Please accept my abject apologies, lord. I will go immediately to the pen. I will bring all the women …’

‘Of course you will,’ said Moctezuma. He turned his back and looked at the patterns of orange lights swirling down below in the great plaza. He couldn’t see Hummingbird’s whirlpool eyes any more, not even a hint of them, but then right in his ear he heard the god whisper. *‘Eat more* teonanácatl *and I will come to you again in the night.’*

‘Oh Ahuizotl,’ Moctezuma called after the high priest who was lifting the hem of his robes and about to attempt a descent of the slippery northern stair, ‘those *teonanácatl* you sent me earlier …’

‘Yes, Majesty …’

‘I require more. I have great work ahead of me.’

‘My servant will bring you the mushrooms, lord.’

‘Good,’ said Moctezuma. ‘Very good.’ He remembered he still held the obsidian knife. Dismissing Ahuizotl from his mind, he looked to the sacrificial stone where the next victim lay splayed, awaiting his attention.

Chapter Twenty-Four

Tenochtitlan, Thursday 18 February 1519

Tozi sat with her face pressed against the bars of the fattening pen, looking out into the great plaza. Priests had lit hundreds of flickering orange lanterns and were carrying them through the steps of a complicated, flowing dance, long lines and interwoven processions coming together and pulling apart, fantastic shapes and patterns briefly forming and dissolving.

At the centre of this swirling, undulating sea of light, sending up a cacophony of drumbeats and conch blasts, squatting in a dark, malignant mass like some monstrous suppurating tumour, reared the great pyramid.

From her vantage point Tozi could see the summit and both the north and west faces clearly, and what was striking was how all these areas were not just blood-smeared as usual when sacrifices were underway, but seemed to be thickly covered everywhere with a wet, oozing crust of blood.

It was as though the pyramid itself were bleeding.

And down at its base, amongst the spiralling lanterns, swept by attendants into great heaps to either side of the stairways, were huge numbers of butchered torsos.

Tozi's head reeled.

Armies of shadows and darkness were on the march, encroaching everywhere, light fast leaching from the heavens, true night beginning to fall, but it was easy enough to count the twenty

bedraggled women lined up on the north stairway waiting to climb the last few steps to their deaths. A similar number were in sight on the west stairway. Tozi couldn't see the east and south stairways, but she was sure they too were in use in the vast engine of human sacrifice that had been set in motion today. Out of the hundreds of victims seized this afternoon, only around eighty – twenty on each of the four stairways – remained alive.

The moon was already in the sky, but the last rays of the setting sun still lingered on the summit platform of the pyramid, illuminating a tall, naked man, covered from head to toe in blood, who balanced unsteadily at the top of the northern stairway, brandishing an obsidian knife.

He'd looked different this morning in his robes, but there was no doubt in Tozi's mind who this was. She nudged Malinal. 'That's Moctezuma,' she whispered, pointing at the naked figure, 'the Great Speaker himself.'

Malinal and Coyotl sat on either side of her, no more able than she was to tear their eyes away from the nightmarish spectacle of the great pyramid. Attracted by a growing commotion from the plaza, they'd left their place near the back of the prison and walked past Black Teeth and her group. They'd not been molested but were acutely conscious of the hateful stares of the two troublemakers from Xoco's gang as they made their way here to join other morbid spectators already gathered by the bars to watch the sacrifices.

Coyotl's usually happy features were set in a deep frown. 'If the Great Speaker is not careful,' he said, 'he will fall down the stairs.'

'Then let us hope,' said Malinal, 'that for once in his evil, useless life he's not careful.'

A woman sitting nearby, who seemed unaware that accusations of witchcraft had been made against Tozi, giggled raucously: 'Let's hope!' she agreed. 'Maybe if we all hope together we can make it happen?'

Maybe we can, Tozi thought. The idea seemed perfectly reasonable to her – worth trying, anyway – and as though on cue two more women joined in, then a third, chanting low and urgent: ‘Fall! Fall! Fall! Fall!’ Others round about began to take up the chorus, but were quickly silenced when the imposing figure of Cuitláhuac, younger brother of the Great Speaker, thrust himself forward beside Moctezuma, took his arm and guided him away from the top of the stairs.

The two men paused and spoke animatedly. They were still in sight on the summit platform, close to the sacrificial stone where the next victim lay spreadeagled, arms and legs braced by the assistant priests, waiting for death. Then a third figure came into view beside them, and Tozi’s heart lurched. ‘There’s Ahuizotl,’ she told Malinal. ‘The high priest.’

‘I know who he is,’ said Malinal. An uncomfortable silence followed while she seemed to think things over. ‘In fact, I know him

personally.' Her eyes were downcast. 'There's stuff I have to tell you about myself.'

Tozi shrugged. She had seen the look of recognition Ahuizotl had fixed on her friend, but she'd not yet attempted to read Malinal's mind and she felt no desire to pry. 'I know you're a good person. I know you're brave. I know you've stuck by me and Coyotl. Nothing else matters …'

'But …'

'Save it for when we get out of here.'

'I might be putting you in danger—'

'Save it! It's not going to change anything. We're friends now. We stick together. That's what friends do, isn't it, Coyotl?'

'We stick together,' confirmed the little boy, 'and we help each other.'

'Good,' said Tozi. 'I'm glad we're all agreed.' She felt a fresh trickle of blood dripping over her upper lip, raised her cupped hand,

blew her nose loudly into it and threw the blood and snot to the ground.

‘Better not to blow,’ Malinal suggested. ‘Just makes nosebleeds worse.’ She leaned forward, holding out her thumb and forefinger. ‘May I?’ she asked.

Tozi nodded and tilted back her head. A lot more blood was running from her nose, and now it started to pour down the back of her throat as well.

‘No,’ said Malinal. ‘Don’t lean back, lean forward.’ She reached out and gripped Tozi’s nostrils, pinching them closed with a firm, gentle pressure. ‘Breathe through your mouth,’ she said.

Tozi breathed, Malinal held her nose and, over Malinal’s fingers, Tozi saw Coyotl’s big bright eyes looking up at her, filled with concern.

My friends, she thought.

It was the best feeling she could remember having for a very long time.

When Tozi's nosebleed stopped, full night had fallen, but outside in the plaza hundreds of black-robed priests continued their slow processional dance of lights. Swinging loosely from their hands, their orange lanterns sent an unearthly glow flickering up the sides of the pyramid, and this seemed to be collected and reflected back by the lurid flames of the sacrificial braziers on the summit platform and the rows of guttering torches set up in front of the temple of Hummingbird. The great snakeskin drum, which had fallen silent, was beating again – a mournful, hollow, gut-wrenching sound. A conch blew, somewhere a flute trilled, and Tozi saw Moctezuma back at work at the sacrificial stone, wielding the knife, cutting out hearts. Lined up on the stair beneath him fewer than ten victims remained, and amongst them was one – she seemed no more than a child – who was screaming in terror again and again the words: '*Mama, Mama, Mama …*'

'Poor kid,' whispered Malinal. 'All afternoon being beaten and shoved by Mexica guards, climbing the pyramid, seeing all that

blood, hearing all those cries, guessing what's coming to her in the end …'

'That's how they want us,' said Tozi. 'They want us mad with fear when they feed us to their gods. They think we taste better that way.'

Coyotl had been very quiet but now he began sobbing and sniffling. 'I don't want to be fed to their gods,' he said.

Tozi wrapped her arms round him, held him tight, told him, 'You will *not* be. No matter what happens, I'll protect you. I'll never let them hurt you.'

'Besides,' said Malinal – she pointed to the priests with their lanterns, to the pyramid, to the few remaining victims – 'surely it's over for tonight?'

Sometimes, even when she didn't want to, Tozi couldn't help seeing inside other people's minds. That was how it was now when the sight came on her unbidden, and in an instant she knew things about Malinal. Knew that she had been a slave but prized for her

beauty, highly trained in the arts of love and privileged despite her captivity. Knew that noble and powerful men had paid her owner fortunes to enjoy her. As though she were viewing swimmers at the bottom of a murky pool, Tozi saw that many of the leaders of Tenochtitlan had crossed Malinal's path – here was Itzcoatl, here was Coaxoch, here Zolton, here Cuitláhuac, here Maxtla. And here? Whose was this mean face, this mottled face hidden in the deeps of the seeing-pool, if not Ahuizotl himself, high priest of the Mexica, a man sworn on pain of death to lifelong celibacy?

That was when the seeing ended with a flicker, as abruptly as it had begun, and Tozi found Malinal shaking her by the shoulders, peering into her eyes, saying: 'Are you all right?'

Ahuizotl! Tozi thought. *So that's what you were trying to tell me*. But instead she said: 'I've survived in here for seven months and I've not been through a day like this before. I've seen them sacrifice thirty, fifty, sometimes even a hundred often enough. But never so many victims as went under the knife today, and the Great Speaker

leading the killing from morning to night? There has to be a special reason for that.'

Malinal's beautiful face had become sombre and thoughtful. 'There is a reason,' she said.

Tozi gave her a long, level look. 'And you know it?'

'Something happened late last year. Something that's never happened before. I think it's made Moctezuma crazy …'

From the top of the pyramid they could both hear the screams of a woman in terrible fear, abruptly silenced by the *thud* of the obsidian knife.

'Four months ago,' said Malinal, 'strangers appeared in the Yucatán, in the lands of the Chontal Maya. They were bearded and white-skinned, they came from across the eastern sea in boats as big as mountains and they made their way to the town of Potonchan near the mouth of the Tabasco river. They had great powers, these strangers. They were few in number – about a hundred – but they possessed fearsome weapons and they defeated an army of ten

thousand before they returned to the sea. Some thought they were human beings, some thought they were gods, maybe even the retinue of the god Quetzalcoatl himself, come to herald his return – it's still not settled.' She lowered her eyes. 'I am of the Chontal Maya,' she confided, and I was born in Potonchan. My people fear Moctezuma. They're not his vassals, they don't pay him tribute, but they like to please him. They sent word to him, paintings on bark, and an eyewitness to describe the strangers with a full account of the battle … That's how I came to know about this …'

'From the witness?'

'He spoke only Maya, and when the Great Speaker wanted to question him I was summoned to interpret. I've been a slave in Tenochtitlan for five years but I have a gift for languages and I've learnt fluent Nahuatl.' Malinal paused, looked at Tozi, then at Coyotl: 'Does it seem odd to you that a slave such as I was chosen for so important a task rather than some diplomat?'

Coyotl was indignant. ‘No! You were chosen because you’re beautiful … I bet the diplomats are all ugly!’

Malinal tousled his hair. ‘Thank you!’ she said. ‘That’s very sweet!’ Her manner changed. ‘But I think the real reason I was chosen was because I was expendable. Anyway, this is what happened. The witness and I were bound hand and foot and forced to kneel in the audience chamber of the palace, in front of an empty throne, until Moctezuma came in and was seated. We saw just his feet, his clean brown feet in gold sandals, and the hem of his robe. We were told we must not look at his face, must keep our eyes downcast at all times, or we would die. Then the guards left the room. The voice of the Great Speaker is soft but very cold. He told me that the witness should describe the strangers – their appearance, their manner of speech, their manner of dress and their weapons. The witness gave his report, described their beards and their white skins and the deadly weapons they used. I interpreted and all the time I felt the atmosphere changing, becoming very dark, very

heavy, like a funeral. Twice, just for a heartbeat, I risked a glance and I saw that fear had come upon the Great Speaker as he received the news. Believe me! I saw it! His jaw hanging loose! His hands shaking! His eyes sliding from side to side. You don't expect the Speaker of the Mexica to be a coward, Tozi, but that's what Moctezuma is, a coward – even though the witness did tell a terrifying story! I put it faithfully into Nahuatl and when I'd given it all, Moctezuma groaned. He clutched his belly! His bowels turned to water!' She let go a peal of laughter: 'He just shat right there, Tozi, in front of us! There were terrible farts and … you know … other sounds. The most awful smell …'

Tozi was laughing too; some of the other women around joined in. Coyotl giggled, but Malinal's voice had become serious again. 'After he was done,' she said, 'he moved about, I think he was cleaning himself but we didn't dare look. Then we heard him talking at the door. Soon afterwards a group of guards and priests entered. The poor witness never knew what hit him; he was

strangled on the spot. The executioner turned to me, put his hands round my throat. I thought I was done for until Ahuizotl came storming in and stopped him. “No!” he said. “I want this woman for sacrifice!” There was no one to overrule him – Moctezuma had left the room – and in this way I was set aside.’

‘But,’ said Tozi, ‘obviously not for sacrifice …’

‘Not at first. Ahuizotl used me for sex these past four months … Uggh! His breath smells of carrion.’ Malinal made a face and blushed. ‘This is what you told me you didn’t need to know,’ she said apologetically, ‘but here we are back at it in a roundabout way.’ She shrugged. ‘So he used me for four months then, last night, guards took me from the house where he kept me prisoner and threw me in here. He’d had what he wanted from me, I suppose, so he sent me for sacrifice.’

‘You’re a knife at his throat,’ said Tozi, ‘as long as you’re still alive.’

Malinal nodded. ‘Because of his vows … I know. He’d be afraid I’d bear witness against him. But really – celibate priests! Believe me, it’s a joke! It’s easier to find a virgin in a whorehouse than a celibate in the Temple.’

Tozi made a habit of being aware of people in her surroundings at all times, so she noticed immediately that the two hellions from Xoco’s gang had followed her here. They would never give up, it seemed! They were whispering to other Tlascalans around them, and some who’d been friendly enough moments before were now giving them ugly glances. Tozi heard the word ‘witch’. Coyotl heard it too and huddled closer. Malinal looked scared but calm somehow.

‘Witch! Witch! Witch!’

It’s all starting again, Tozi thought wearily. She tried to marshal her strength and found she had nothing left to give. If these Tlascalans decided to tear them to pieces now, she knew she would be helpless.

But then there came a commotion, the swaying, undulating dance in the plaza abruptly ceased, some of the lanterns fell to the ground, the gates of Moctezuma's palace swung open and a phalanx of heavily armed soldiers marched out.

A lot of soldiers!

They cut across the plaza, straight towards the fattening pen.

At their head, flanked by his two acolytes, was Ahuizotl.

Chapter Twenty-Five

Tlascala, Thursday 18 February 1519

From the direction of the forest a storm of arrows whirred around Shikotenka in the dusk, passed him on both sides and smashed the Cuahchics down before they could close with him.

He turned with a broad grin. All fifty of his men were out of the trees and coming on at a run, a second volley of arrows already nocked to the string. But they lowered their bows and slowed to an easy walk when they saw the Cuahchics were no longer a threat.

Two were dead and the third writhed on the ground, bristling with arrows and filling the air with screams and curses.

‘A nice surprise,’ called out Shikotenka. ‘I thought I was on my own.’

The plan had been to meet three hours later by a sweet-water spring in the depths of the forest. There was no reason for his men to be here.

Panitzin was out in front. He was nicknamed ‘Tree’ for his massive size, stolid features, dark skin the colour of *ahuehuete* bark and long, wild hair. ‘Too many mosquitos at the spring,’ he growled as they embraced.

‘No reasonable man could be expected to stand it,’ agreed dagger-thin Acolmiztli, who’d jogged up right behind Panitzin. At forty-two he was the grandfather of the squad, but had proved his worth in countless battles and could outrun warriors fifteen years his junior.

‘So you just decided to wait here instead?’

Tree spoke again, which was unusual for such a taciturn man. ‘Yes,’ he said. ‘More comfortable.’

‘And close to the path,’ added Shikotenka’s cousin Tochtli, ‘so we would spot you as you entered the forest.’

Tochtli, whose name meant ‘Rabbit’, was the newest and by far the youngest member of the squad. His smooth complexion, slight stature and soft brown eyes contributed to a gentle, almost womanly manner that exposed him to constant ridicule. Perhaps to compensate for this, and to win the approval of the more experienced fighters, he’d taken what Shikotenka considered to be unnecessary risks during both the prior skirmishes with the Mexica in which he’d so far been engaged.

Shikotenka frowned. ‘Spot me as I entered the forest, eh?’ He snorted and spat. ‘That sort of plan usually goes wrong …’

Tochtli’s face immediately fell and he looked round uncertainly at Tree and Acolmiztli.

‘But today it went right!’ Shikotenka laughed, taking the pressure off his cousin. ‘If you’d stayed where you were supposed to, I might have had my work cut out here.’

As the rest of the squad milled around, laughing and joking, Tree unslung his great mahogany war club, strolled over to the surviving Cuahchic and dealt him a single massive blow to the head. His screams stopped abruptly as his shaved skull shattered, spattering warriors standing nearby with fragments of brain and bone, provoking roars of complaint.

‘All that yelling was giving me a headache,’ Tree explained with an apologetic shrug.

Shikotenka clapped him on the shoulder: ‘Looks like you gave him a worse one,’ he said.

The squad was formed of five platoons of ten, with Tree, Chipahua, Etzli, Acolmiztli and jade-nosed Ilhuicamina as the platoon leaders. They were battle-hardened, clever, calculating men, but they were

also independent and argumentative and the death of Guatemoc had provoked controversy.

‘I don’t see the problem,’ said Tree, who liked nothing better than a good battle. ‘You fought Guatemoc and you killed him. Dead men don’t tell tales.’

Shikotenka was repairing the broken obsidian teeth of Guatemoc’s *macuahuitl* from the squad’s stock of spares. ‘Sometimes they do,’ he said as he slotted another of the razor-sharp blades into place. ‘If the Mexica find his body it’ll put them on high alert. They’ll have search parties out combing the area. Our task tonight was hard enough anyway. I fear this will make it much harder.’

‘Do you want to call it off?’ asked Chipahua. His bald head was as big as a chilacayohtli gourd, smooth and domed on top, narrowing somewhat at the temples but widening again to accommodate his prominent cheekbones and full fleshy face.

‘No,’ said Shikotenka. ‘We can’t call it off.’

‘Then all this is empty talk.’ A brace of white-tailed deer roasted on spits over the banked-down fire and Chipahua reached out, worked loose a steaming chunk of bloody meat and transferred it to his mouth. He chewed slowly, almost lecherously, smacking his sensual, sneering lips and making a great show of sucking his fingers. ‘Reckon that’s ready to eat,’ he said.

The entire squad was gathered round the fire and now everyone dived into the feast. There had been an element of risk in cooking it, but the men needed their strength for the trial that lay ahead. They’d found a place a mile into the forest, boxed in tightly by great stands of trees and undergrowth, where there was almost no chance a fire would be seen. The roasted meat would more likely be smelled, but there was nothing to be done except bolt it down quickly.

Acolmiztli’s eyes glittered and the planes of his narrow face caught the glow of the fire, emphasising his usual hollow-cheeked and ghoulish appearance. ‘If they’ve found Guatemoc the whole camp’s going to be buzzing like a hornet’s nest,’ he complained.

‘We’ll not get anywhere near Coaxoch’s pavilion, let alone inside it to kill him.’

Etzli was with him. ‘We should think again. We’re fifty but they’ve got four regiments. With surprise on our side we might have pulled it off; without, we don’t stand a chance.’

‘Perhaps the death of Guatemoc will make things easier for us?’ Tochtli dared to offer. He’d been watching the older warriors, his eyes shifting eagerly from man to man, obviously summoning up the courage to make his voice heard. ‘The Mexica won’t know exactly what happened, or who knifed their prince. Could be just the distraction we need.’

‘Quiet, little Rabbit,’ snarled Etzli, showing teeth filed to sharp points. ‘What do you know, who’s fought in only two battles?’ Etzli’s name meant Blood and, despite his caution this evening, he was a seasoned, brutal killer. It must have taken some nerve, Shikotenka realised, for Tochtli to contradict him.

But support came from Ilhuicamina who looked scornfully at Acolmiztli and Etzli. ‘You’re both turning into old women,’ he snapped. A livid scar where a *macuahuitl* had struck him traced a thick, puckered, horizontal track from left to right across the middle of his face. His prosthetic nose, fashioned from small jade tiles to cover the most hideous part of the injury, glittered eerily in the firelight. ‘The boy’s right. We can still do this.’

‘I’m certain we can do it,’ agreed Shikotenka. ‘But the risk will be great.’

‘For a chance to kill a piece of shit like Coaxoch,’ said Ilhuicamina, ‘I’ll take that risk.’

Shikotenka’s men were sworn to follow him even into death, and in return he gave them the right to speak their minds. The time had come to tell them the truth about this mission. The stakes were higher than any of them knew. ‘To be honest,’ he said, his face deadpan, ‘if this was just about Coaxoch, I’d call the attack off.’

Ilhuicamina blinked. Even Tree sat up and paid attention.

‘But Coaxoch is only the bait.’ Shikotenka lowered his voice so everyone had to lean a little closer, and in the fire’s glow he told them the plan.

Chapter Twenty-Six

Santiago, Cuba, Thursday 18 February 1519

Shielded from view by three large coils of rope and piles of canvas sheeting he'd arranged around himself, Pepillo lay on his back in the aftcastle of the *Santa María de la Concepción*, trying to decide what to do. Here he was well away from the whirl of activity on the main deck, where bales and barrels were still being loaded. He heard men shouting, seemingly arguing. Others sang a vulgar song in unison as they hoisted some great burden. He heard roars of

laughter. The horses brought on board earlier stamped and snuffled in their stalls. Far below he heard the slap, slap, slap of wavelets lapping against the hull of the great ship.

He could run, he thought bleakly, if his legs would carry him after the beating he'd taken. But then what? If he returned to the monastery, the brothers would bring him straight back here and hand him over to Muñoz again. And if he tried to hide, where would he shelter, how would he find food? He didn't have a centavo to his name.

Pepillo groaned. His body was a mass of pain. His buttocks ached from the repeated kicks Muñoz had delivered to them. His nose, where Muñoz had broken it, was swollen and inflamed and still hurt more than he could believe. His scalp stung as though scalded where Muñoz had wrenched a clump of hair out by the roots. His head pounded because Muñoz had repeatedly punched him, and a tooth at the front of his lower jaw had been knocked loose. His side, chest and arms were horribly bruised from being thrown against the

cabin walls by Muñoz. There was a red stripe across his shin, another diagonally across his belly and three more on his thighs where Muñoz had struck him with a bamboo cane. Finally, in a crescendo of rage, Muñoz had seized Pepillo by the shoulders, savagely bitten his left ear, hurled him across the cabin again and told him to get out.

He'd been hiding on the deck of the aftcastle since then, watching early evening dusk edge into night. Now the first stars were showing amongst scudding clouds and he hoped Muñoz was sleeping deeply.

In fact Pepillo hoped Muñoz was sleeping so deeply he would never wake up.

But then he thought how wrong it was to wish death on any human being, particularly a religious, so he whispered, 'Dear God forgive me', and returned to his gloomy concerns about the future.

He could not run; there was nowhere to run to. Besides – he felt the great carrack bob beneath him, heard the creak of its rigging in

the freshening breeze – he very much wanted to stay. Truth was, he wanted this adventure more than anything else in the world. To sail into unknown waters with brave men, to explore fabled New Lands, to bring the faith to benighted heathens, even perhaps to earn some gold – he could not imagine anything he would rather be doing. All his dreams seemed poised on the verge of coming true.

Except for Muñoz.

No position in which Pepillo put his body was comfortable and now, with a grunt of pain, he rolled onto his stomach to ease the distress in his back. As he turned, brushing against the canvas sheeting, he heard the sound of a stealthy footstep on the navigation deck below, where the whipstaff that steered the great ship was mounted. There was a beat of silence, then another step – this time plainly on the stair up to the aftcastle.

Fear gripped Pepillo by the throat, and then at once relief as he heard Melchior's voice. 'So there you are! Come down to the main deck, Pepillo Dogbreath. Food's a'cooking – fish stew and beans.'

‘Thank you,’ said Pepillo. ‘But I can’t come just now …’

‘Otherwise engaged are you, your lordship?’ Lanterns burned bright on the main deck so the loading could continue, but little light reached the aftcastle and Pepillo lay behind the coiled ropes in a pool of deep shadow. ‘Too important to eat with the common herd?’ Melchior asked, looming over him. His tone suddenly changed. ‘What are you doing down there anyway?’

With some difficulty and pain because his injuries were stiffening, Pepillo rolled on his side and forced himself to sit. ‘Muñoz beat me up,’ he said.

A backwash of lantern light from the main deck fell across his face, his bloody nose, his torn ear, and Melchior dropped into a crouch beside him. ‘That devil!’ he said. ‘I expected something like this. Just not so soon.’

Pepillo was startled. ‘You *knew*? Why didn’t you warn me?’

‘I did try to warn you but you ran off to the Customs House … Look, there’s no good way to tell you but I’d say you’re lucky this

stopped at a beating. Most of us who sailed on the Córdoba expedition think Muñoz murdered his last page …'

'Murdered?' Pepillo's voice was a squeak …

'That's what I said.'

'But why?'

'The *peccatum Sodomiticum*,' Melchior whispered.

Pepillo had learned Latin in the monastery. 'The sin of Sodom …' he translated. He felt himself blushing: 'You can't mean …?'

'That Muñoz is a sodomite? That he likes his pages' arses? That he kills them to keep them silent. I certainly can mean that! And I do!'

'But … But …' With this horrible new thought, Pepillo had completely forgotten about his aches and pains.

'Did he grope you?' asked Melchior. 'Did his fingers get in private places?'

'No … *No!* Of course not. Nothing like that.'

'Are you sure?' said Melchior.

‘I’m sure.’

But Pepillo’s hand went unconsciously to his ear. He’d not been groped, but he’d been bitten! It was so unexpected and so astonishing a thing that he might almost have convinced himself it had never happened if it wasn’t for the torn flesh of his earlobe and his vivid memory of the wet, soft, heat of Muñoz’s lips …

The prospect of being confined on board ship with such a monster, constantly at his beck and call, exposed to his every cruel or perverse whim, was almost more than Pepillo could bear. But the prospect of *not* sailing in the *Santa María* and of missing his chance for the adventure of a lifetime seemed even worse.

A pulse of pure hatred shook him and he clenched his fists. This time he wouldn’t ask God’s forgiveness. ‘I wish Muñoz would die,’ he whispered.

Melchior was just a shadow, crouching in the darkness. Now he stretched his back, looked up at the stars. ‘People die all the time,’ he said. ‘Even big, important people like Muñoz. They go

overboard or they get killed and eaten by savage tribes, or they mysteriously fall from the rigging and break their necks. Accidents happen. They're expected. Usually no one digs too deep.'

'What are you suggesting?'

'I'm not suggesting anything, you silly mammet. I'm stating facts. Fact One – accidents happen. Fact Two – most people don't like Muñoz.' Melchior sauntered to the railing surrounding the aftcastle and rested his elbows on it, leaning out over the pier.

In the distance, but coming closer at speed, Pepillo heard an urgent drum roll of galloping hooves on the cobbles. He stood and limped to the railing. It sounded like an entire squadron of cavalry was thundering towards them but, moments later, scattering the crowds still thronging the pier, a single rider, blond hair flying about his shoulders, exploded out of the night. He brought his huge white horse to a rearing halt beside the *Santa María*, leapt down gracefully, handed the reins to a dumbfounded guard and stormed up the gangplank onto the ship.

‘That’s Don Pedro de Alvarado,’ Melchior said. ‘He does like to make a dramatic entrance.’

Chapter Twenty-Seven

Santiago, Cuba, Thursday 18 February 1519

Smash! Thud! Crash! Bang! Cortés awoke in hot darkness, sweat lathering his body, his mind sluggish, a stunning headache addling his brains. Trapped! He was trapped in some thundering Hell! *Smash! Crash! Thud!* His arms and legs were tangled, every movement seemed to constrict and bind him further and for a few terrifying, vertiginous seconds he had no idea where or even who he was. Then he heard *Bang! Bang! Bang! Crash! Thud!* – hammer

blows following one another in quick succession – and suddenly it all came back to him. He was tangled in his hammock in his stateroom on the *Santa María*. He had overslept his siesta. Night had fallen. And a few paces away, on the other side of the partition, Muñoz was still beating his page. Thud! Smash! Bang! Bang!

Enough! thought Cortés. With a mighty effort he wrestled himself free of the hammock and dropped barefoot to the floor. He was about to pound on the partition and yell some insult when he remembered his dream. He hesitated, heard further loud banging and a gruff voice shouting 'Cortés, wake up!', and realised with relief the noise wasn't coming from Muñoz's quarters at all. Cursing as he stubbed his toe in the darkness on the corner of his sea chest, he strode to the door, slid back its heavy bolts and flung it open.

'Ah,' said Alvarado, 'at last! It's like trying to wake the dead.' He was holding a lantern and brushed past Cortés into the much-

reduced stateroom. ‘Dear God!’ he said, waving the lantern at the partition. ‘What happened here?’

Cortés held up a warning finger. ‘Next door is my guest, Father Gaspar Muñoz. He’ll sail with us as the expedition Inquisitor.’

Alvarado made the face of a man sucking a lemon and mouthed, ‘Velázquez?’

Cortés nodded yes.

Alvarado grinned. ‘There’s trouble at the Customs House,’ he boomed. ‘They’ve impounded our whole consignment of falconets. You need to come now.’

Cortés knew that all the expedition’s small cannon, including the falconets, had already been safely loaded, but made appropriately disbelieving and infuriated noises as he dressed in haste, tugged on his boots and sword and marched out onto the navigation deck with Alvarado, calling for his horse to be saddled and brought down to the pier. The two men talked of nothing but falconets and Customs duties until they rode off, but when they reached Alvarado’s ship

they reined in, dismounted and went quietly on board. The moon was up now, and the sky bright, making them visible from the *Santa María*, but no one seemed to be watching.

The *San Sebastián* was built to the same design as the *Santa María*, with the stateroom abaft the navigation deck occupying the whole of the stern beneath the aftcastle. On the *San Sebastián*, however, there had been no need to partition the captain's quarters to make space for a black-robed friar and Alvarado had the full, generous, well-lit area to himself. 'We can talk safely here,' he said. He reached into his jerkin and pulled out a single sheet of vellum. 'First you need to read this.'

Cortés took the sheet but deliberately ignored it as he moved to one of the two stuffed chairs with which Alvarado had furnished the stateroom. He sat down, noticing for the first time that there was something odd about the manner of his oldest and closest friend. He was holding his left arm in an awkward, delicate way, his hair was wildly dishevelled, and there were streaks of what looked like dried

blood – apparently not his own – on his jerkin and hose. He wore one of the new Toledo rapiers in a scabbard on his hip, but also carried a huge single-edged falchion, thrust into the front of his sword belt.

‘Isn’t that Zemudio’s blade?’ Cortés asked. He’d been in and out of the governor’s office more times than he’d care to count in the past month and the bodyguard was always there.

Alvarado grinned like a puppy waiting to be praised. ‘I just killed Zemudio,’ he said.

Cortés frowned. Knowing his friend as he did, he had no difficulty in believing him. Still he had to ask: ‘Why would you do such an insane thing?’

‘To get that sheet of vellum you’re holding in your hand.’ Alvarado was bouncing up and down with impatience: ‘Read it now! It proves everything.’

‘Proves what?’

‘Just read it!’

From the Hand of His Excellency Don Diego de Velázquez, Governor of Cuba
To Don Pánfilo de Narváez
This 18th day of February, Year of our Lord 1519
Don Pánfilo,
The matter of our previous discussions has now reached its crisis and all is to proceed as we have planned. Tonight I will relieve Don Hernando Cortés of command of our expedition to the New Lands and appoint you as captain-general in his place. Cortés will be arrested discreetly, late at night, so as not to excite resistance from his supporters. So, prepare yourself my friend! When we have him in chains I will send for you.

May God bless this night's operations, and our expedition, which I am certain will be lucrative and crowned with success for us both.

Yours in Christ,
Diego de Velázquez

After Cortés had read the letter, turning over in his mind all the layers of bad faith and betrayal between him and Velázquez, Alvarado flopped down in the armchair opposite him. 'The discreet arrest he talks about,' he said with a knowing wink, 'that involves me.'

Cortés sighed: 'What's he paying you?'

‘Twenty thousand gold pesos. I was actually able to get five thousand up front … Mine to keep, I reckon. Spoils of battle and all that … Anyway, I’m to invite you to dinner at ten o’clock tonight here on the *San Sebastián* and pour this in your wine,’ Alvarado fished in his pocket and produced a little glass vial containing a colourless liquid. ‘An hour later you start puking your guts out and running a deathly fever. I’m to send for Dr La Peña – another one of Velázquez’s stooges. He’ll ship you off to his hospital in a horse-drawn carriage, but you won’t ever get there. Velázquez’s guards will detain you on the road, you’ll be flung in jail in his palace and, when the drug wears off, you’ll be questioned under … I think the term is “extreme duress”?’

‘I take it,’ said Cortés, ‘since you’re telling me all about it, that none of this is going to happen.’

Alvarado grinned again: ‘Of course it’s not going to happen! You’re a winner! I want to sail with you, not that ass Narváez. Besides, you’re my friend.’

‘You’re giving up a lot of money for friendship.’

‘Fifteen thousand gold pesos to be exact. But I’m a businessman. I expect to make that back many times over with my friend Hernán Cortés in command of the expedition.’

‘And you fought Zemudio … To the death.’

‘Well … We needed to see Narváez’s orders, didn’t we? Had to know what was in them.’

‘Thank you, Don Pedro,’ said Cortés. He felt touched and deeply grateful for his friend’s loyalty, and wanted to reward him. ‘I’ll not forget this.’

Another big grin from Alvarado: ‘I’ll not let you forget it.’

‘You realise we’ll have to sail?’ said Cortés. ‘Tonight.’

‘Are we ready?’

Ready? Cortés thought. *Ready enough.* He’d been preparing for such a sudden, unscheduled escape since the moment he’d first talked Velázquez, with honeyed words and grand promises, into giving him command of the expedition three months earlier. It was

to be his ultimate revenge on the old monster for forcing him to wed Catalina. And revenge, as everyone knew, was a dish best served cold. The months he'd spent rotting in jail on trumped-up charges until he'd finally given in to Velázquez and married his hell-bitch niece rankled constantly in his memory. But if this colossal gamble paid off, if he could steal the expedition and get away with it, and most of all if the rumours of the fabulous wealth of the New Lands turned out to be true, then he would be rich beyond all imagining and the name of Cortés would be honoured by history, while Velázquez would be cut to the quick in his pride and his pocket and remembered by no one within a generation. The only danger – the one that had now come to pass – was that the governor would guess the plan before they were ready to sail. This was why Cortés had done everything fast and lied about progress, making it seem that much more time would be needed before the ships were fully loaded when, in truth, apart from a few items, they were stocked and ready to sail tonight. All crews, horses, dog teams, and almost all the

enlisted men were boarded and ready to go at a moment's notice, and those who were not were in the taverns of Santiago where they could be easily found.

'Are we ready?' Alvarado repeated.

'Sorry,' said Cortés. 'A lot on my mind. Yes … we're ready. Almost. But there's one pressing need we can't neglect. With soldiers and ships' crews added together, we've more than six hundred mouths to feed, and Córdoba's experience proves we can't count on friendly natives to supply us. We're well stocked with staples but we must have meat for our men – fresh meat for the voyage, preserved meats and more livestock on the hoof to sustain us until we're self-sufficient in the New Lands.'

Alvarado raised an eyebrow: 'Tonight? Where?'

'The slaughterhouse. They have enough to feed the city. Let's send a squad over there on the double to bring us everything they've got.' Cortés paused, lowered his voice: 'The other captains must know nothing of this until it's done. I raised five good private

soldiers to ensign rank yesterday. They're grateful to me and they'll do what we ask without question. One of them sails with you – Bernal Díaz, do you know him?'

'I know him,' said Alvarado with a sneer. 'He's a peasant. Not officer material.'

'He's literate. He keeps a daily journal.'

Alvarado shrugged. 'So?'

'It speaks of a certain seriousness of mind, don't you think, a certain dedication when one of his class reads and writes? You judge by surface appearances, Pedro. I've looked deeper and I see great potential, high intelligence, unusual abilities, all gathered together in this young man. Send for him, please.'

Moments later heavy footsteps sounded on the navigation deck. There came a loud knock at the door and Bernal Díaz del Castillo clumped into the stateroom. He was twenty-seven years old, tall, heavy-built, with solid labourer's muscles like a ploughboy and a

big, sallow-skinned face that was all bony planes and angles. How very unsure of himself he was, how out of place he obviously felt, how overwhelmed at his elevation to ensign, and how desperately he wanted to please.

Cortés beckoned him closer: ‘Welcome lad,’ he said. He rubbed his hands vigorously together. ‘I’ve got a job for you to do and it’s got to be done fast …’

After Díaz had repeated his orders and lumbered off to carry them out, Cortés turned to Alvarado: ‘How long have we got until Velázquez realises you’ve played him false? Four more hours? Five? Let’s think this through.’

An Amsterdam clock stood in the corner of the stateroom. ‘No use looking at that,’ said Alvarado. ‘It’s been stopped for a year. But it’s around eight of the evening now. Sun’s been down for a couple of hours.’

Cortés nodded. ‘Velázquez told you to organise the dinner for ten o’clock. He’ll be expecting, what? That you’ll poison my wine within the first hour?’

Alvarado nodded in agreement: ‘Seems reasonable.’

‘In which case I’ll be expected to be showing symptoms by midnight. Agreed?’

‘Agreed.’

‘So around midnight we raise the hue and cry on the *San Sebastián*, and send a messenger to fetch Dr La Peña. It will take at least an hour for the messenger to reach him and bring him to the harbour. That would mean it’s one o’clock, maybe half past, when La Peña comes on board – around the time of tonight’s high tide. Velázquez won’t be surprised if the doctor stays on the ship for an hour before bringing his patient out, so I’d guess that makes us safe from interference until, well … let’s say two o’clock. We must sail no later than that; the ebb tide will aid our departure.’

‘What about the other captains?’ Alvarado asked. ‘They’re going to want to know why we’re embarking so suddenly. Some of them definitely won’t be ready, or will say they aren’t, and some of them are loyal to Velázquez – Juan Velázquez de León is his cousin for God’s sake; he’ll not stand by and let us steal away with the fleet.’

‘Cristóbal de Olid is also Velázquez’s man,’ said Cortés, naming another of the captains of the expedition, ‘and Diego de Ordaz used to be his major-domo. Velázquez put him here to keep an eye on me and stop me doing precisely what we’re about to do tonight. It just means we’re going to have to tell a careful story when we call the captains together.’

‘Do you have something in mind?’

Cortés leaned forward in his chair and rubbed his aching back. ‘Someone,’ he said. ‘Specifically Pedrarias. This afternoon my shipping agent returned from Jamaica. He brought word Pedrarias has assembled a fleet there twice the size of our own and hurries to stake his claim to the New Lands before we do.’

‘Damn the man!’ shouted Alvarado theatrically. ‘We have to beat him to it!’ He lowered his voice: ‘It’s not true, is it?’ he asked.

Pedro de Arias Dávila, Pedrarias for short, had earned a fearsome reputation in the Granada campaigns and during the Italian wars. He had arrived in Hispaniola in 1513 and sailed on with a small force to establish the colony of Castilla del Oro in Darién in 1514. There he had spread such ruin, rapine and mayhem that the colony had had to be abandoned in 1517, but he was still in the region and known to be looking for new ways to get rich by force of arms.

‘Fortunately it’s not true,’ Cortés laughed, ‘but it *could* be true, and that’s what matters. Olid, Ordaz and Velázquez de León all have as much at stake in the expedition as we do and none of them will want Pedrarias to snatch the prize. If they believe me they’ll all see why we have to set sail at once or risk losing precedence. We can’t wait another week, or even another day, to finish equipping and loading the fleet. Everyone will understand the haste, the urgent

departure by night, even emptying the city slaughterhouse – it'll all make perfect sense to them by the time I'm finished …'

Alvarado's mind seemed to be elsewhere. 'Damn,' he exclaimed. 'I've just remembered something …'

'What?' Cortés felt the slightest stir of anxiety.

'Velázquez's palace guard! He's going to have a squad stationed on the harbour road to grab you from La Peña's carriage. Those boys are pretty stupid, but even they'll get suspicious if they see our men herding swine and cattle to the docks at one in the morning …'

Cortés was relieved. 'That's the least of our worries,' he said. 'I'll send my scouts out to watch the road. They'll tell us where the guardsmen have stationed themselves and in what numbers. We'll deal with them.' He grinned. 'But first we've got to sell all this to the captains.'

Chapter Twenty-Eight

Tenochtitlan, Thursday 18 February 1519

Though she had nothing left to give, Tozi tried to fade the three of them when the soldiers entered the fattening pen, but the power had deserted her. Something had broken in her head. She could no longer even send the fog.

So they ran, and kept on running, dodging through the thinning crowds, hiding sometimes in pools of deeper darkness where the soldiers' torches did not penetrate, then running again, always

running, Malinal carrying Coyotl on her hip, as the prisoners were gathered in and herded remorselessly towards the gate. Tozi had no sense of the passage of time but at a certain point, quite suddenly, like water poured from a pot, the last of her strength flowed out of her. ‘I can’t go on,’ she said, halting near the bars where their flight had started. The pain in her head was unbearable. ‘I’m done in.’

Malinal, still with Coyotl on her hip, reached out and wrapped her in a warm embrace. Coyotl also flung his arms round her neck. *My friends*, thought Tozi again.

‘Let’s just stay here,’ said Malinal. ‘It’s as good a place to be as any.’ She gestured at the lines of soldiers with their guttering torches, working their way through the prison, tightening the net, efficiently rooting out fugitives from every corner and shadow. ‘They’re not going to stop until they’ve taken all of us, so running makes no difference, hiding makes no difference. Whatever we do they’re going to catch us. Maybe it’s time we accepted that.’

‘I never accept I’m going to get caught,’ flared Tozi. She felt threatened by the very idea. ‘Not today! Not ever!’

‘Well, let’s hope you’re right.’ Malinal set Coyotl on his feet. ‘But, honestly, we’re out of options.’

Through her own sickness and exhaustion, Tozi saw that Malinal too was close to breaking point. The strain of the last hours had taken a terrible toll on them both – and on poor Coyotl. ‘You’re the one who’s right,’ Tozi said after a moment’s thought. ‘There’s no point in running any more. Whatever the gods have in store for us, we’ll discover it soon enough.’

She sank down on her haunches and sat cross-legged. Malinal and Coyotl sat on either side of her and the three of them gazed out through the bars at the extraordinary spectacle evolving in the great plaza, their ears numbed by the shrieks and cries that echoed there and the loud, discordant music of the ritual.

Tozi looked up at the bright moon, close to full, approaching the heart of heaven and shedding an eerie luminescence over the two

faces of the pyramid – the north, and the west – that were visible from the fattening pen. With this, and with the dance of the lanterns that had now resumed in the plaza, and the blaze of the torches and braziers at the summit of the pyramid, the whole scene was lit almost as bright as day. Tozi saw that hundreds of wailing and lamenting women, kept in line by guards armed with short spears, occupied every step of the north and west stairways and queued in the plaza below. It would be the same, she was sure, on the east and south sides of the pyramid. Those Moctezuma had killed earlier had only been a taster for the much bigger sacrifice now under way.

She wrapped her arms round Malinal and Coyotl, and realised with a flood of emotion how deeply connected to them she felt. It was as though they'd been together all their lives, or in lives before this life, but certainly not for just a few hours or days.

Even in the midst of evil, Tozi thought, *good still flourishes*.

When at last the soldiers came for them they'd already decided not to resist – might as well resist a mountain or the ocean – and silently obeyed the harsh barks of the Mexica officers. In this way they soon found themselves herded together with the last five hundred women remaining in the pen. The whole group was then marched out of the gates and into the plaza, where they were greeted by a horrible, disorienting clamour of cries and screams, conches, tambourines, horns, whistles and the mournful, gut-churning beat of the snakeskin drum.

Tozi had witnessed countless sacrifices and knew what to expect next. Jeering guards surrounded the women and made them strip naked, leering at their bodies, roughly shoving and goading them into compliance. Poor Coyotl clutched his little hands to his mutilated genitals – as if any of that mattered now, thought Tozi as she shrugged off her own filthy rags. Malinal stood tall and proud, firm-breasted, her head held upright.

'I'm afraid,' said Coyotl in a small voice.

‘Me too,’ said Tozi.

‘This is so hideous,’ said Malinal. ‘What are they going to do to us now?’

‘They’re going to paint us,’ Tozi said.

It was already happening. Up ahead the women were being harried into a line where slaves armed with brushes daubed their bodies with a thick chalk plaster, turning them ghostly white. Some cried out, hunched over, but it only delayed the inevitable – they were forced upright and the plaster was applied. Other functionaries were at work hurriedly painting their eyelids black and their lips red, anointing the crowns of their heads with molten rubber and pluming them with turkey feathers. Finally they were dressed in crude paper garments and herded onwards towards the looming pyramid.

Tozi, Malinal and Coyotl stuck close together as their turn came, submitting passively to the painting and feathering. Although Tozi had never admitted to herself that she would ever become a victim,

there was a strange, dreamlike way, as she donned the paper loincloth and the paper blouse, in which she found she was ready to admit it now. Perhaps it was because she was so tired, her body so punished, her head hurting so much, her spirit so beaten down, but after months of relentless struggle to stay alive, always alert, always suspicious, always afraid, she began at this moment to see death as a welcome release from the hell-world the Mexica had created.

A fat priest in black robes, blood-matted hair down to his waist, stepped onto a low platform and addressed the women, most of whom were from Tlascala and other more distant lands, as they trudged past him towards the pyramid:

We welcome you to this city of Tenochtitlan
Where reigns the god Hummingbird.
Do not think that you have come here to live;
You have come here to die,
To offer your chests to the knife.

Only in this way, through your deaths, has it been your fortune
To know this great city.

'Such arrogance!' whispered Malinal. A wind had come up while the priest spoke, a warm, damp wind swirling round the plaza, plucking at their flimsy garments. Tozi looked to the sky. Thick clouds had begun to build there, though the moon still shone clear, casting its cold glamour over the whole hellish scene – the swirling orange patterns painted by the lanterns in the plaza, the torsos and heaps of human offal piled up at the base of the pyramid, the hideous glistening cascades of blood through which the victims must climb, the diabolical flare and flicker of the torches and braziers on the sacrificial platform before the temple of Hummingbird, and Moctezuma himself still wielding the obsidian knife at the top of the northern stairway.

Coyotl was clinging tight to Tozi's hand as the panicked crowd jostled round them, great shivers and tremors shaking his body. She

stooped, uncertain if she had the strength to lift him, but Malinal got there first. ‘Let me carry him,’ she said, hoisting Coyotl up onto her hip again. ‘He’s not heavy.’

The little boy looked her straight in the eye. ‘I’m still afraid,’ he said.

‘We’re all afraid,’ said Malinal. She smiled wearily at Coyotl: ‘Rest a bit, little one,’ she told him, and he obediently put his head on her shoulder.

Again Tozi felt a wash of gratitude for her new family. If the struggle was truly over and the end came for all of them under the sacrificial knife, it was a comfort to know they would pass to the next world together.

With loud whistles and shouts and repeated kicks and punches, the guards kept the women moving forward in a mass towards the pyramid through swirling, grimacing lantern dancers whose faces were painted red as boiled lobsters. Somewhere ahead, but close, Tozi heard loud shouts and high-pitched screams. Standing on tiptoe

she saw a squad of brute-faced soldiers armed with *macuahuitls* dividing the prisoners into two lines.

The line that forked left led to death at the top of the northern stairway.

The line that forked right led to death at the top of the western stairway.

As she approached the fork, Tozi saw Ahuizotl pushing his way towards them through the dancers, his face busy with malign intent. He seemed to have recovered from whatever hurt Xoco had done to his leg and was no longer using his spear as a crutch.

His eyes were fixed on Malinal. He marched right up to her, leaned in and whispered, loud enough for Tozi to hear, ‘I don’t know how you and your friends did that vanishing act today but now you’re going to disappear for ever.’ Recoiling from the venom in his tone, or perhaps the stink of blood that rose from him, Coyotl whimpered on Malinal’s shoulder and the high priest’s hand shot

out, snatched the child by the hair and jerked his head violently back, half pulling him from Malinal's arms.

'NO!' Coyotl screamed – a single word, filled with terror. An instant later Tozi sank her teeth into Ahuizotl's wrist and Malinal went for his face. He shook them off as the soldiers piled in, there was a flurry of movement and, at the end of it, the high priest held Coyotl triumphantly clamped under his arm.

'*Tozi!*' Coyotl wailed.

Ahuizotl barked orders to the guards to bypass the line and take Malinal and Tozi forward at once to the foot of the northern stairway. His face set in a horrible, mocking leer; he then hurried off, still clutching the struggling child.

Tozi found a burst of strength and tried to follow, but a soldier smashed his fist into the side of her jaw, sending her sprawling on her face on the hard paving of the plaza. A vast new pain exploded in her head, confounding her senses. She dimly heard the sounds of

shouting and struggle, shrill screams from Coyotl, blows, then Malinal landed on top of her, knocking the breath from her body.

'*Tozi … Help me! …*' Coyotl's voice was filled with terror, abandonment, loss, violation and pain – everything that a child should never know or feel. '*No No No … Owwwwwww! No, no … To-ziiii!*'

Then soldiers were hauling Malinal to her feet, half stunned, eyes rolling drunkenly, lips split and bleeding from a blow to the face. Tozi drew in a great whooping breath as her friend's weight came off her, and felt rough hands gripping her arms, forcing her to stand. 'Tozi … Help me!' Coyotl screamed again. His voice was fainter, moving away. 'You said you wouldn't let them hurt me. You *promised!* Toziiii!'

But it was a promise she could not keep. As Ahuizotl carried the little boy all the way to the foot of the western stairway and tossed him down, Tozi was swarmed over by guards prodding her with the obsidian points of their spears, beating her thighs, whooping and

whistling at her, dragging her forward to the foot of the northern stairway. Right in front of her in the line, still reeling from the blow she'd taken, and forced to mount the first step, was Malinal.

Coyotl's screams were faint now, barely audible. Tozi heard, 'You *promised*' one more time, fluttering on the breeze like a butterfly, then the little boy was swallowed up amongst the other victims and his voice fell silent.

Chapter Twenty-Nine

Santiago, Cuba, Thursday 18 February 1519

As the great ship gently rocked beneath him, and the lanterns on the wall flared and flickered, Cortés sat alone at the map table in Alvarado's spacious stateroom, looking round the ten empty seats soon to be filled by his captains, considering how best to get what he wanted from these men. Some of them were his already, some he was in the process of making his, and some would never be his. He could only hope he had done enough to tip the balance in his favour.

Since Cortés had taken command of the expedition three months previously, and begun to make all necessary preparations, Diego de Velázquez had constantly interfered, insisting on appointing many of the captains himself. Of these, Cortés was most offended by the glowering Juan Escudero – the very man whom Velázquez had sent to arrest him two years before over the matter of Catalina. Escudero had looked down his long nose at Cortés as though he was a criminal then – and nothing had changed today.

There would be no accommodation with him, but other Velazquistas had proved easier to subvert with gold, or flattery, or friendship.

Juan Velázquez de León, for example, appeared on the surface to be completely loyal to his cousin Diego. Of a naturally loud, harsh and vulgar temperament, this ox of a man with his angry green eyes, bushy black beard and aggressive chin was quiet and unusually servile in the governor's presence. But Cortés had discovered that his outward deference concealed simmering bad blood. De León felt

bitter that his powerful kinsman had not given him sufficient land, or Indians to work it, when he came to Cuba. Cortés had poured subtle poison in his ear almost daily during the past three months, stoking his already fierce resentment of Velázquez and filling his mind with new suspicions and rancour. He had also extended a generous personal loan of two thousand gold pesos to De León to refit his ancient, leaking caravel, telling him that if the expedition was a success, as he expected it to be, he would not ask him to pay the money back.

Still, it was by no means clear which way Velázquez de León would jump if he was forced to choose sides, and the same was true of many of the others. Indeed out of the ten captains, there were only three whom Cortés counted as firm and reliable friends – the well-placed aristocrat Alonso Hernández Puertocarrero, Juan de Escalante and, of course, Pedro Alvarado.

Cortés stepped out onto the navigation deck and looked up at the moon, close to full and riding high, its pale glare casting baleful shadows through the masts and rigging of the *San Sebastián*, reflecting off the black water of the harbour, filling the sky with light. It would be about nine o'clock and down below on the pier, right on schedule, he heard voices and saw a large group of men approaching – Alvarado with, it seemed, all the captains. Most of them were in their mid-thirties – around Cortés's own age – and all were veterans who'd fought their way through the Italian wars and the conquest of Hispaniola and Cuba. Juan de Escalante was the youngest of them at thirty-one, Diego de Ordaz the oldest at forty-three. Cortés had also sent orders with Alvarado for one of his newly appointed junior officers to attend, twenty-two-year-old Gonzalo de Sandoval.

When all the captains were seated, with Sandoval left standing for want of a chair, Cortés launched right into things, bluntly, with

no preamble. ‘Gentlemen,’ he said, ‘we must leave Santiago tonight. We sail on the ebb tide five hours from now.’

He did not immediately elaborate and there was a beat of stunned silence. Juan Escudero’s lantern jaw gaped comically for a moment before he snapped it shut. ‘Sail to where?’ he asked.

‘To the New Lands, of course, but a week early.’

‘This is highly irregular,’ objected Ordaz. He had the strong, stubborn face of a miller or a mason. ‘Does the governor know what you intend?’

‘He does not,’ said Cortés, meeting the man’s thoughtful, grey-eyed stare. ‘And if he did he would not permit our departure this night.’

‘But then surely we must not leave?’ proposed Velázquez de León. He flashed Cortés an apologetic glance as though to say: *You and I know how I really feel, but I have to be seen to defend my kinsman’s interests.*

‘We will not leave!’ thundered Escudero, slapping his hand on the table. ‘Cortés is nothing more than a thief. He would steal the expedition from the governor.’

Cortés pushed back his chair and stood, half drawing his sword. Escudero looked startled, as though he really wasn’t expecting this, and scrambled to his feet, knocking his own chair over with a loud crash. ‘I’ll not be called a thief,’ Cortés said. ‘Apologise now or we step outside and settle this man to man.’

‘Gentlemen, gentlemen,’ said Puertocarrero, his red beard twitching. ‘How can we hope for victory in the New Lands if we’re already fighting among ourselves?’ He turned his moist brown eyes on Cortés: ‘Please, Hernán, put away your sword. If Juan is too pig-headed to apologise to you, I will apologise on his behalf, but we must not fall to killing each other, don’t you agree?’

Cortés thought about it, but only for an instant. Everything that was impulsive, violent and vengeful in his nature yearned to run Escudero through. That was what had got him out of his chair. But

his more rational side saw no gain in killing the man while they were still in the port of Santiago and subject to the governor's jurisdiction. A better opportunity was sure to present itself. 'Very well,' he said, 'we will not fight.' He sheathed his sword and sat down again. *Now make a virtue of necessity*. He smiled. 'Instead, I have a suggestion. Let us agree that all of us around this table may trade insults tonight as we wish, without any man's honour being impugned. That way' – he looked at Escudero – 'we may speak our minds freely and be satisfied as to the truth.'

There was a rumble of assent from the captains.

'Which of course does not mean,' added Cortés, 'that we're *obliged* to insult each other.' A ripple of laughter ran round the table. 'I for one intend to remain civil even if some do not … Now, Don Juan, you suspect me of stealing the expedition from our patron Diego de Velázquez, but the truth is I wish to save it for him. Will you hear me out?'

‘Be my guest,’ sneered Escudero with a wave of his hand. ‘Given enough rope, you’re bound to hang yourself.’

Cortés smiled again. *When we reach the New Lands*, he thought, *we’ll see which one of us hangs*. But instead he said: ‘Something’s come up – a great danger to us that we must deal with at once. Under such circumstances our official Instructions, written by Don Diego himself, vest full emergency powers in me to take whatever actions I decide are in the best interests of the expedition.’ He brought out a scroll from his pocket, pushed it into the middle of the table. ‘Clause twenty-three,’ he said. ‘It’s on this basis, though I hold him in the highest personal regard, that I’ve decided not to consult Don Diego tonight. Neither the interests of the expedition, nor his personal interests, will be served by involving him. What’s needed now is swift action, but he’s the governor of Cuba, busy with a thousand things, and if we put this to him he’ll bog us down for days. We all know he’s a man who doesn’t make decisions quickly …’

‘I’ll second that,’ said Cristóbal de Olid. He was short, squat and gnome-like, with a wild black beard and twinkling blue eyes. ‘Takes him three months to sign a simple requisition sometimes.’

‘I’ve waited three years for a proper grant of Indians,’ complained De León.

Puertocarrero agreed: ‘What Velázquez promises and what gets done are two different things.’

Cortés moved swiftly to capitalise on his gains. ‘You touch upon my exact point, Alonso. This emergency is such we can’t waste a single minute waiting for His Excellency to make up his mind. *We have to sail tonight!*’ He leaned forward over the map table, his voice low and urgent. ‘My shipping agent, whom I trust with my life, has returned this afternoon from Santiago de La Vega on the island of Jamaica. He reports that Pedro de Arias has installed himself there, recruited close to fifteen hundred men – the scum of the earth, so it seems – and gathered together a mixed fleet of twenty good carracks and caravels. They’re bound for the New

Lands.' He paused for effect. 'Nigh on ready to sail. If we don't beat them to it, there'll be no prize left for us to win.'

'Oh very good, Cortés, very good,' said Escudero, performing a slow handclap, 'but you don't seriously expect us to believe any of this, do you?'

'I see nothing to disbelieve,' snapped Juan de Escalante. A lean, rangy, blue-eyed man, he wore his black hair straight and long to his shoulders, framing a wolfish, heavily bearded face and concealing the sword wound from the Italian wars that had deprived him of the top two-thirds of his right ear. 'We all know what Pedrarias did in Darién. We all know he's been gathering men. We all know he's looking for fresh pickings. Why not the New Lands?'

'There's a way to settle this we'll all believe,' said Ordaz. His cold grey eyes rested on Cortés again. 'Simply produce your shipping agent and have him repeat his story to us …'

It was Cortés's experience that some truth in a lie makes the lie stronger, and he would have told a different lie if his shipping agent,

Luis Garrido, had not in fact returned from Jamaica that very afternoon. It helped that Garrido was himself an accomplished liar, having sworn falsely on Cortés's behalf in many business disputes. He had also recently fallen into debt – a problem that Cortés could help him solve. Best of all, Garrido had met Pedrarias the previous year and was able to describe him.

'I'll be happy to oblige,' Cortés answered Ordaz. 'He'll be down on the main deck taking his dinner.' He signalled to Sandoval. 'Would you go and fetch him please? Ask for Luis Garrido. Any of the crew will know him.'

Sandoval was short with a broad, deep chest. His curly chestnut hair had receded almost to his crown, making him look peculiarly high-browed, but as though to compensate he had grown a curly chestnut beard, quite well maintained, that covered most of the lower half of his face. Although he presently owned no horse, lacked the means to purchase one and had enlisted as a private

soldier, Cortés noted that his legs were as bandy as his own – the legs of a man who'd spent most of his life in the saddle.

When fat, perspiring, moustachioed Garrido entered the stateroom, he was in the midst of heaping complaints on Sandoval, wringing his hands and lamenting that he'd already told his story to Cortés and only wanted to finish eating his dinner and have a good night's sleep.

Several of the captains had met Pedrarias, and others were familiar with the anchorage where he was supposedly mustering ships and men, but Garrido didn't wilt under their close questioning, even naming and describing most of the vessels in his fleet. There was a danger of being caught out here – Garrido need only mention a single carrack or caravel that one of the captains knew for sure was not in Jamaica and his credibility would fall into doubt. Get two wrong and the whole exercise would become a fiasco. But so complete was the agent's knowledge of shipping movements in the

region, so accurate the details he reported and so fresh his recollections, that his imaginary fleet proved unsinkable.

Bravo, Cortés thought as Garrido left the stateroom to return to his dinner. *A masterful performance.* And, looking round the table, where an excited buzz of conversation immediately ensued, he could see that most of the captains were swaying his way – that escaping tonight on the ebb tide, to get a foothold in the New Lands and be the first to stake a claim there, was suddenly beginning to make sense to them.

In the end Escudero was the only Velazquista who still felt the matter should be reported to Velázquez. But he accepted the decision of the majority, and the authority of Cortés under clause twenty-three of the Instructions, to sail at once without informing the governor. ‘Under duress I accompany you,’ he said, ‘and under duress I stay silent. But what we are doing is not right. I fear we will all pay a price for it.’ He turned on Cortés. ‘You, sir,’ he said, ‘have

no more conscience than a dog. You are greedy. You love worldly pomp. And you are addicted to women in excess …'

At this last remark, which seemed so irrelevant to the matter in hand, Alvarado burst out laughing. 'Addicted to women in excess! What's wrong with that, pray tell? If it's a sin then I'd guess a few around this table are guilty of it! But what would you know or care of such things, Juan, when I'm told your own preferences run to little boys?'

Crash! Over went Escudero's chair again and he was on his feet, lurching round the table towards Alvarado, his sword drawn, his knuckles white on its hilt. He didn't get far before Puertocarrero, Escalante and Ordaz piled on top of him and disarmed him. Alvarado stayed where he was, one eyebrow sardonically raised.

'Don Juan,' Cortés said. 'It seems you have forgotten.'

'Forgotten what?' Escudero was still struggling with his captors.

'The agreement we all made an hour ago. Tonight we may trade insults with no man's honour at stake. You have just insulted my

conscience, for example, but do you see me at your throat with my sword?'

Escudero must have known he was trapped. 'My apologies,' he choked finally. 'In my anger I forgot myself.' He looked up at Alvarado: 'But if you say such a thing tomorrow, I will kill you.'

'Tomorrow is another day,' said Cortés. He motioned to Sandoval. 'Go and bring two of the men from the main deck, then take Don Juan below and lock him in the brig.'

'The brig?' Escudero spluttered. His face was suddenly purple. 'You can't do that to me!'

'I think you'll find I can,' said Cortés. He unrolled the Instructions scroll, made a show of reading it. 'Ah yes,' he said, 'here it is. Clause seventeen: "Captain-General may, on his sole discretion, restrain and if necessary incarcerate any member whose conduct becomes disruptive or threatens the success of the expedition …" To my mind, attacking Don Pedro with a sword in his own stateroom is disruptive and threatens our success.'

De León tried to intervene. ‘Please, Captain-General. Your point is made. Surely it’s not necessary to—’

‘It is,’ said Cortés, ‘absolutely necessary.’

Ordaz also seemed about to object but Cortés waved him down: ‘I’ll risk no distractions! Don Juan will be released in the morning. He can resume command of his ship then.’

Cortés had been expecting at least token opposition from the other captains, but Escudero was not well liked. Now that the decision had been made to embark immediately, it seemed no one wanted to speak up for him.

With an inner sigh of relief, Cortés realised his gamble had paid off. His authority over this unruly group had prevailed – at least for tonight.

‘Gentlemen,’ he said, ‘thank you for your support. I’m heartened by it. We’re embarking upon a great and beautiful enterprise, which will be famous in times to come. We’re going to seize vast and wealthy lands, peoples such as have never before been seen, and

kingdoms greater than those of monarchs. Great deeds lie ahead of us; great dangers, too, but if you've got the stomach for it, and if you don't abandon me, I shall make you in a very short time the richest of all men who have crossed the seas and of all the armies that have here made war.'

Everyone liked the idea of getting rich, so the speech went down well.

As the last of the captains hurried from the stateroom to make their ships ready to sail, Sandoval returned from locking up Escudero.

'Ah,' said Cortés. 'Is the prisoner settled?'

'Settled is not the word I'd use,' said Sandoval. 'He's shouting and pounding on the walls of the brig.'

Cortés shrugged. 'He can pound until dawn if he wants to; nobody's going to take a blind bit of notice.' He grinned: 'Now listen, Sandoval, I'm glad you're here. I've got soldier's work for you to do tonight.'

Chapter Thirty

Santiago, Cuba, Thursday 18 February 1519

Gonzalo de Sandoval was from a respected hidalgo family, albeit one impoverished in recent years by a property dispute. He was born and bred a cavalier and university educated – natural officer material on every count. He was also from Medellín, Cortés's home town in the north of Extremadura, and the Extremenos were famous for sticking together.

All these things, thought Bernal Díaz, made it easy to understand why Cortés had singled Sandoval out for responsibility yesterday, despite his obvious youth.

What made less sense – indeed, so *much* less sense he feared an elaborate practical joke – was that at the same ceremony, Cortés had also singled out Díaz himself, a man of poor family and almost no education, and elevated him from common *soldado* to *alferez* – ensign – the same rank he had bestowed on Sandoval.

Now, tonight, hard on the heels of his unexpected promotion, Díaz had been given his first command – not a very glamorous or prestigious command, to be sure, but one that was important and worthwhile.

Respectable work that made sense to him.

Cortés and Alvarado had entrusted him with the fabulous sum of three hundred gold pesos with which he was to purchase the entire contents of Santiago's slaughterhouse – all the butchered meat and all the animals awaiting slaughter. In the unlikely event that three

hundred pesos did not prove sufficient to buy everything, then Díaz was to commandeer whatever remained, carrying it away by force if necessary, but leaving a promissory note to cover payment.

‘Any problems with that?’ Cortés had asked.

‘I don’t want to get arrested, sir!’

‘You have my word that won’t happen. We are God’s soldiers, Díaz, doing God’s work and God’s work won’t wait …’

‘But if there’s trouble, sir?’

‘No need to call me “sir”. Don Hernando will do. Hernán when you get to know me better. I like to keep things informal if I can. As to trouble, there won’t be any – and if there is, I’ll protect you. You have my promise.’

It seemed Cortés was a man who made promises easily. But he was also the caudillo, captain-general of this great expedition to the New Lands, and Díaz’s best hope for finding wealth. So he’d shrugged and said, ‘That’s good enough for me … Don Hernando.’

He was having second thoughts now, though, as he stood in the middle of the slaughterhouse floor, his boots soiled with blood and straw, carcasses of pigs, cattle and sheep suspended from hooks all around him, night insects throwing themselves suicidally into the torches that lit up the whole room. In front of him, Fernando Alonso, the director of the slaughterhouse, was so angry that spit sprayed from his mouth and a vein in his right temple began to throb conspicuously. 'No, I will not sell you any meat!' he yelled. 'Not for three hundred pesos or for three thousand pesos. I have a contract to feed the city.'

'But with respect, sir,' Díaz persisted, 'we *must* have this meat. And all your livestock on the hoof as well.'

'Livestock on the hoof! So you'll have the whole of Santiago go hungry not only tomorrow but for the rest of the month! What kind of men are you?'

Díaz sought around for an answer and remembered what Cortés had told him. 'We are soldiers of God,' he said, 'doing God's work.

Would you have us go hungry as we do it?'

'I would have you *honest*,' shouted Alonso, unleashing another geyser of spit. He had one of those personalities that made him seem physically bigger than he was, but in reality he was a small, bristling, bald man with rather long hairy arms, hefting a big cleaver in his right hand and wearing a bloody apron. Díaz had been surprised to find him already at work, slaughtering beasts and butchering them for Santiago's breakfast; he had hoped at this time of night he could deal with some junior who wouldn't know what he was doing.

Now, whether he liked it or not, he was into a full-fledged confrontation. Alonso put two fingers to his mouth, gave a piercing whistle, and five more men in bloody aprons made their way forward through the curtains of hanging carcasses.

Seeing they all carried cleavers and carving knives, Díaz glanced back over his shoulder to the door. He'd been given twenty men to

move the meat and livestock. But he preferred persuasion to force so he'd left them outside and come in alone with the money.

Foolish hope!

'La Serna,' he yelled at the top of his voice, 'Mibiercas! At the double, please!'

'Look, for goodness' sake please accept the money.' Although it was Alonso and his five assistants who'd been trussed up, bruised and dishevelled on the floor, by Díaz's soldiers, it was somehow Díaz who was pleading.

'It's not enough,' said Alonso with conviction. 'Even if this were a legal purchase, three hundred pesos is a joke. I'll need at least fifteen hundred pesos to cover my costs and lost business.'

'Then take the three hundred and I'll write you a promissory note for the other twelve hundred. Don Hernando Cortés himself will cash it.'

'Tonight?'

‘Yes. This very night. Come to the harbour within the hour and you’ll be paid.’

The men were released, quill, ink and paper were found, and Díaz wrote a note for one thousand two hundred pesos, payable by Cortés.

‘Come soon,’ Díaz told Alonso. ‘We’ll not wait for morning to sail.’

He left the slaughterhouse with his men, and began a forced march back to the harbour with two wagonloads of fresh and preserved meats and close to two hundred sheep, pigs and cattle on the hoof.

He didn’t know whether he’d done well or not and could only hope Cortés would be pleased.

Chapter Thirty-One

Santiago, Cuba, Thursday 18 February 1519

‘I must take you into my confidence,’ Cortés had told Gonzalo de Sandoval. ‘I trust I shall not regret doing so.’

The man’s charisma and charm were infectious and Sandoval was looking for adventure. ‘You’ll not regret it,’ he’d said.

The upshot was that he now knew much more about how things stood between Cortés and the governor than he wanted to, understood very clearly that what was happening tonight was indeed

a coup against Velázquez, and had still allowed himself to be soft-talked by Cortés into participating.

Dear God! What was he thinking? He was taking the first step in what he'd always imagined would be an illustrious and honourable career, and he was quite likely to end up being hanged, drawn and quartered for it! For a moment Sandoval considered resigning his commission but immediately dismissed the idea from his mind. Whether or not he now regretted it, the fact was he'd given his word to Cortés, and a gentleman does not take his word back.

A scout had found the place, closer to the harbour than the city, where a squad of Velázquez's palace guards lay in waiting. Cortés had not told Sandoval who they intended to ambush, only that there were twelve of them and that they were a threat to his plan – entrusted to Bernal Díaz – to supply the fleet with meat and live animals from the slaughterhouse. So much traffic on the road late at night was bound to arouse suspicion, and the guards couldn't be

permitted to disrupt the operation in any way, so Cortés had asked Sandoval to deal with them.

‘Deal with them, Don Hernando?’

‘We’re going to the New Lands to do God’s work,’ Cortés had said with a fierce light in his eyes, ‘so I want those guardsmen off the road fast and no longer threatening our meat supply – or our departure. Try to persuade them to join us. I’d prefer that. Bribe them – a few gold pesos can make all the difference. But if none of that works, then disarm them and tie them up – I’ll leave the details to you. They may put up a fight. Kill the lot of them if you have to. I won’t shed any tears.’

‘Will you be giving me men who’ll be prepared to kill fellow Spaniards … if we have to?’ Sandoval had asked, the question sticking in his gullet. He’d been through military academy in his youth, when his family still had money and position. He’d trained with the broadsword, the longsword and the cavalry sabre, he was

judged a skilful horseman and had won top honours in the joust, but he'd never killed anyone before – let alone a Spaniard.

'I'm giving you twenty-five of my best men,' Cortés had replied. 'They'll kill anyone you tell them to kill.'

'What if we're caught? Taken prisoner? Arrested?'

'Then I'll protect you,' said Cortés, looking him straight in the eye. 'You have my promise.'

Wondering again what fatal enchantment had led him to agree to such a risky venture, Sandoval looked back at his twenty-five men. They marched silently, in good order, keeping a square of five ranks of five.

Their sergeant, the only one he'd talked to so far, was García Brabo, a lean grey-haired Extremeno with a hooked nose and a permanently sour expression, but the man you'd want beside you in a fight, Cortés had said. All the others looked like hardened killers too. Ferocious, stinking, hungry predators in filthy clothes, they wore strange combinations of scratched and battered plate and chain

mail, and equally scratched and battered helmets, but were armed with Toledo broadswords and daggers of higher quality than their dress and general deportment would suggest. Many had shields – mostly bucklers, but also some of the larger, heart-shaped Moorish shields called *adarga*. Many carried additional weapons – halberds, lances, battle-axes, hatchets, war-hammers, maces, clubs. Five had crossbows and five were armed with arquebuses, the slow and cumbersome muskets that everyone was now raving about.

All in all, Sandoval thought, they were a formidable squad, his twenty-five, and he was stunned, amazed and perplexed not only that Cortés had given him command of them in the first place, but also that they had so far obeyed him without question. The fact that he had no experience – unlike them – of killing men made him feel like a fraud. Worse still, he'd never even been in a skirmish before, let alone a proper battle against trained troops like the governor's palace guard.

He prayed silently it would not come to that, but if it did he prayed he would not prove himself a coward.

Esteban, the wiry little scout, held up a warning hand, and Sandoval felt fear grip his belly like a fist. Reasons not to continue with this mad venture began to parade through his mind.

The plain truth was the moon was against them, two days away from full, shining brilliantly in a cloudless, tropical sky, flooding the winding road and the surrounding slopes with light. In an ideal world they would wait until after moonset to make the attack, but tonight that wasn't an option. The guards had to be dealt with before the meat and livestock could be brought from the slaughterhouse and the fleet must sail at two o'clock in the morning. These were the facts, this was the emergency, and he was going to have to handle it frighteningly soon.

Loping along thirty paces ahead of the rest of the squad, Esteban reached a sharp bend where the road wound about a tall outcrop of rock. He stopped, crouched, peered round the corner and waved his

hand urgently behind him, signalling to Sandoval to bring the men to a halt.

‘If I may suggest, sir,’ whispered García Brabo, his breath reeking of garlic, ‘you might think of going forward and striking up a conversation with the officer in charge of those guards. Likely he’ll be the same class of gentleman as yourself.’

‘A conversation …’

‘That’s right, sir. Bright young ensign newly out from Spain, making his way to Santiago, would naturally stop to pass the time of night. All very innocent and above board. Just keep him talking as long as you can. While you do that, me and half the men will have a go at climbing this lot.’ He pointed to the rocky outcrop rearing above them. ‘The scout says he knows a way over the top of it so we can get round behind them. I’ll leave Domingo’ – he gestured to another bearded ruffian – ‘in charge of the rest and we’ll come at them from both sides.’

‘It should put the fear of God in them when they see our numbers,’ said Sandoval, sounding, he thought, more enthusiastic than he felt. His palms were damp, his bowels were in a knot and his heart was thudding irregularly. Funny that – how you never really knew you had a heart until a time like this.

‘With a bit of luck we won’t have to fight at all,’ Brabo said. He cupped his hands to his mouth and emitted a sound remarkably like the call of one of the local night birds. ‘I’ll do that three times when we’re in place behind them,’ he said, ‘loudly enough for Domingo to hear as well, then we’ll move in at the double – all subject to your agreement, of course, sir.’

Sandoval felt uneasy, but Brabo’s plan sounded more likely to succeed than simply charging round the corner *en masse*, which was the only other strategy that came to mind. *Dear God*! This was actually happening. He was in it up to his neck and there was no way out now. ‘Very well,’ he said, ‘let’s get on with it.’

‘Halt! Who goes there?’

‘Ensign Gonzalo de Sandoval, off duty from the fleet and on his way to Santiago for some entertainment.’

‘Come forward then.’

Clearly visible in the moonlight, the guards had taken up position about two hundred paces ahead – twelve big men, all decked out in their ostentatious formal uniforms despite the night’s heat. They’d made no attempt to hide but sat in plain view, occupying a little clearing on sloping, lightly forested ground overlooking the road. If this was an ambush, Sandoval thought, it was a very strange one.

He didn’t hurry to cover the two hundred paces. Every second he could delay here gave more time for Brabo to climb the outcrop and get round behind them. But the guardsmen were instantly suspicious. ‘Don’t dawdle!’ yelled their officer, leaping to his feet. There was a rattle of swords and armour as all the others stood too, and quite suddenly the atmosphere of the encounter turned sinister.

Overcoming an overwhelming urge to turn tail and run, Sandoval stepped forward briskly. ‘My apologies,’ he said. ‘The sight of so many armed men unnerved me.’

‘If your business is legitimate you have nothing to fear …’

‘My business is at the Moor’s Head,’ Sandoval said, naming a famous tavern in Santiago’s red light district. He was close enough now to see the three gold roundels blazoned on the cuirass of the clean-shaven middle-aged officer doing the talking. A colonel. Surprisingly high rank to be leading such a small squad. There was something familiar about him and, as he entered the clearing, Sandoval recognised the tall, upright, square-shouldered, self-important stance, and the malicious, mean-spirited features of Francisco Motrico, commander of the palace guard, yet another of the governor’s many cousins to have found high office.

A Velázquez loyalist to the core.

Sandoval had been in Cuba less than three weeks, and in that time he had visited the governor’s palace only twice, but he already knew

enough about the way things worked here to realise it was pointless to try to bribe or recruit this man. Judging from the stony expressions of the rest of his squad, all mature, hard-eyed soldiers, there'd be no compromise with them either.

Quite possibly they were all related to Velázquez!

'So you're with the governor's fleet,' said Motrico gruffly. 'Which vessel? Which commander?'

'*Santa María de la Concepción*,' Sandoval replied without thinking, 'the captain-general's vessel.'

There was a peculiar shuffling and exchange of glances amongst the guards, one of them sniggered and Motrico said 'detain him' in a tone so soft and conversational that Sandoval didn't fully understand it referred to him until two guardsmen twisted his arms behind his back, forced his head and neck down, removed his sword and frogmarched him over to the colonel.

'What's this about?' Sandoval protested. His heart was now jumping so fast it threatened to burst forth from his chest. His

mouth felt dry, his bladder was painfully full and his whole body was suddenly drenched with sweat. ‘By what authority do you detain me?’

‘By the authority of the governor of Cuba and the Crown of Spain. Orders have been given for the arrest of Don Hernando Cortés. We’re here to carry them out.’

‘Well, don’t let me delay you, please.’ Sandoval’s mind raced: ‘I want no part of this. I’m on my way to Santiago for a few drinks and a girl.’

‘You’re a filthy spy for Cortés,’ snarled Motrico.

‘I’m no such thing,’ protested Sandoval. ‘If I was, why would I tell you I’m sailing with him?’

‘You are what I say you are, and I say you’re Cortés’s spy.’ The colonel bit his lower lip and the moonlight revealed an uncompromising glint in his eye. ‘Under normal circumstances I’d just detain you, take you back to the palace and find out more about you, but unfortunately for you these aren’t normal circumstances.

All my men are required for tonight's purpose, I don't have the people to guard you or even a rope to bind you, so I'm afraid I'm going to have to execute you.'

The statement was so out of proportion, so shocking and so sudden that once again Sandoval only grasped its significance after the two guardsmen at his shoulders shoved and kicked him down to his knees. While one stayed behind him, trapping his arms, the other stepped round in front of him, took a tight grip on his hair, pulled his head violently forward and exposed his neck.

Sandoval's bowels, already in uproar, seemed to turn a somersault. 'Execute me?' he yelled. 'God in heaven, man, that's preposterous!'

'Nothing preposterous about it,' said the colonel. His tone was measured, as though all that was at stake was a point of argument. 'Just can't risk you running back to Cortés and telling him we're here.'

Struggling mightily, Sandoval forced his head up to look Motrico in the eye. ‘You won’t get away with this,’ he shouted. He felt another terrifying lurch of his bowels. ‘I’m a brother Spaniard and an innocent man.’

‘You’re a spy and as guilty as sin.’ With a loud swish and a blur of reflected moonlight, the colonel drew his sword and raised it ceremoniously above his head as the guard tightened his grip on Sandoval’s hair, forcing his head down again.

Almost simultaneously – and never more welcome – came the call of a night bird repeated three times, the sharp clunk as a crossbow was fired and the thump of the bolt striking home. There was a beat of absolute silence followed by the wild roars of battle cries, the sound of a mass of men charging through the trees and into the clearing, the sounds of weapons being drawn and blows struck. Sandoval felt the grip on his arms suddenly loosen and found himself free.

So this was war, he thought, strangely rational now. He struggled to his feet in the midst of a maelstrom of fighting and saw that Motrico was down on his knees, a crossbow bolt transfixing his neck. The colonel's hands were fluttering around the projectile, one at the barbed head, the other at the base, seeming to caress its leather vanes. Sandoval spotted the glint of his sword where it lay on the ground and snatched it up as a panicking, wild-eyed guardsman came at him. He parried the blow and whirled, letting the man stumble past, stabbing him in his unarmoured flank just as he'd been taught in fencing school. He knew the strike was perfectly executed as he drove it home, but what he wasn't prepared for, what no amount of teaching could ever have prepared him for, was the bony, muscular resistance of a living human body to the blade, the squelching suction of the guts as he withdrew it, and the screams and rolling eyes of a fellow man in unendurable pain. As much to end those terrible screams as anything else, and since no one seemed about to attack him, Sandoval stabbed the point of the

sword down repeatedly into the fallen man's face, smashing his teeth, caving in his nose, reaming out his eyes, splitting his skull until there was nothing human left of him at all.

'Make you feel better, sir?' asked Brabo, appearing silently at his side, his face grim and smeared with gore, a dripping sword in his hand.

Sandoval thought about it, looked down at the ruin at his feet. 'I don't know what I feel. I've never killed a man before …'

'You've certainly killed this one, sir. Was it your first battle?'

'It was. I felt afraid.'

'Everyone feels fear. It's what we do with it that matters. You did well, sir! You should be proud of yourself.'

Sandoval took a deep breath and looked round the clearing where moments before he had faced execution. Brabo's men had made the first assault, saving his life; Domingo and the other half of the squad had arrived a few moments later and finished things off. As fast as it

had begun, the fighting was over and all the guardsmen were dead. ‘Thank you, Brabo,’ he said.

‘For what, sir?’

‘For saving my life!’

‘The caudillo told me to keep an eye on you, sir. “Through thick and thin”, was how he put it. Would have been more than my job’s worth if I’d let that ape Motrico take your head.’

Sandoval looked up, trying to judge the time. From the position of the moon he guessed midnight had already passed.

‘Come on, men,’ yelled Brabo. ‘Let’s get these bodies dragged back into the trees. I don’t want any of this visible.’ But even as he gave the order, the sergeant paused, cupped his hand to his ear and peered down the road where it vanished amongst shadows in the direction of Santiago.

Sandoval did the same.

Faint but clear on the night air, he heard men approaching.

Chapter Thirty-Two

Santiago, Cuba, Thursday 18 February 1519 to small hours of Friday 19 February 1519

Swords that had been cleaned and sheathed only moments before hissed from their scabbards again, but then came nervous laughter, smiles, a few curses, and Sandoval felt Brabo's big calloused hand clapping him on the shoulder. At the point where the road from Santiago emerged from the shadows into the full glare of the

moonlight, a large drove of pigs had appeared and numbers of sheep, goats and cattle followed behind them. Herding the whole menagerie forward with curses, kicks and blows from the butts of their spears were fifteen or twenty men. At the rear were two heavily loaded waggons drawn by bullocks. Right at the front, unmistakable in his size and solidity, Sandoval recognised Bernal Díaz, the young soldier who'd received his commission as ensign yesterday in the same ceremony as himself.

He stepped out from the clearing as the bleating, oinking, snuffling mass of animals approached. 'Well met, Díaz,' he called.

'Well met, Sandoval. What are you doing here?'

With pigs and goats swirling round them, the two men embraced and Sandoval briefly explained.

'I see,' said Díaz, 'so the caudillo told you the whole story but me only part of it.' He sounded offended.

'Believe me, my friend,' said Sandoval. 'He *didn't* tell me the whole story! I knew these men were here' – he gestured to the

guardsmen's corpses being dragged into concealment amongst the trees – 'but not *why* they were here. They were a threat to your mission, that's all he said, and we were sent to clear the road of them …'

'Sirs,' said Brabo, 'get used to it. It's the habit of the caudillo to tell you only what you need to know.'

'So how much,' Díaz asked, 'did he tell you?'

'Everything,' said Brabo. 'But then I've been with him a long time …' He grinned. 'Anyway, he only wanted this kept quiet until we'd dealt with things here, so I suppose I can let you in on it now.' He shouted directions to the clean-up squad in the trees and continued: 'This afternoon Cortés got word of a plot to kidnap him and take him in chains to Velázquez. These guards were part of it …' He paused as the sound of a rider was heard approaching at a gallop from the direction of the port and waved cheerfully at the man as he thundered past. 'I was expecting him,' he explained, 'but it won't be long before a hospital carriage comes by in the other

direction.' He sniffed. 'Might raise all kinds of suspicions if that carriage were to pass us on the road, so what the caudillo wants us to do now, gentlemen, is get our arses and these animals back to the ships at the double … All subject to your agreement, of course.'

'Of course,' said Sandoval.

'Of course,' said Díaz.

The last of the bodies were dumped out of sight amongst the trees, a flock of goats was driven through the clearing to erase all signs of the fight, and the column of men and animals surged forward again towards the harbour.

Sandoval felt a shadow pass overhead and looked up to see a wisp of cloud blowing across the face of the moon. A wind stirred and, despite the night's heat, he shivered. Something cold in that unexpected wind, he thought; something dark in that unpresaged cloud blowing in out of a clear sky.

Without consciously choosing to do so, he found he was thinking about the man he had killed back in the clearing. He might have had

a family, children, a beloved wife to hold close each night, and he must surely have had ambitions and dreams. But now everything he ever was or would be had ceased. All his thoughts and all his hopes had come at last to nothing. His story was over and it was Sandoval who had ended it.

A terrible regret clenched his heart as he walked and he was haunted by images of what he'd done to the guard, a memory of the way the sword had lodged in his vitals, echoes of his screams, the nightmare of his face …

'Have you ever killed a man?' he asked Díaz.

Some emotion – was it wariness, was it sorrow? – seemed to shake the big ensign. 'I was with Pedrarias in Darién,' he said softly, 'I sailed with Córdoba. Of course I've killed men.'

'But have you killed Spaniards?' Sandoval persisted.

Díaz didn't answer.

Soon afterwards a second man on horseback appeared, this time riding from the direction of Santiago. Díaz recognised Fernando Alonso, and when Sandoval ordered him to be stopped to discover his business on the road, Díaz said, ‘No. I can vouch for him. He’s the director of the slaughterhouse on his way to claim payment from Cortés.’

‘You didn’t pay for these animals?’

‘Not nearly enough. The caudillo gave me three hundred pesos. The price was one thousand five hundred. I was made to feel a fool, then a thief – so I ended up writing a promissory note.’

‘Think Cortés will honour it?’ Sandoval’s tone suggested he didn’t believe there was the remotest chance he would.

‘He’d better,’ said Díaz. ‘I’ll lose all faith in him if he doesn’t.’ He laughed bitterly. ‘Not that anyone cares for the opinion of an uneducated idiot like me!’

A powerful gust of wind ran its fingers through his hair, tugged at his clothes, whispered amongst the trees. He’d been conscious for

some while of a change in the weather, of a restlessness in the air, but looking up he was surprised to see a turbulent mass of clouds already swarming over the sky.

He still couldn't get Cortés off his mind and, soon afterwards, as they reached the Customs House, he turned to Sandoval: 'There must be a reason why the caudillo chose us to do his dirty work,' he said. 'I mean you and me rather than anyone else.'

In the next moments they were occupied herding the animals into the port through the archway that straddled the road. The few Customs officers on duty so late at night had been arrested, and the building was held by a squad of expeditionaries, known to most of them, who waved them through with many ribald comments about the differences between soldiers and farm boys.

Díaz thought Sandoval had forgotten his question, but it seemed he'd been considering it. 'I think it's clear,' he now said. 'There was nobody else Cortés could trust or spare to do it, but he could be sure two rookies like us would leap at the chance to please him.'

‘I know he’s a great man,’ said Díaz, ‘but I think he uses people – and he makes promises too easily. He told me he’d protect me if I got arrested for raiding the slaughterhouse. I hope he would have kept that promise, yet part of me doubts him.’

‘He told me the same thing when he sent me to kill fellow Spaniards. I don’t know … maybe it’s all just words – I’m filled with doubts too, Bernal – but there’s something inspiring about the man that sweeps all that away. If anyone can bring us victory in the New Lands, it’s Cortés.’

‘That’s why I signed on,’ said Díaz. ‘But I still don’t trust him.’

They spilled out onto the harbour road to confront a scene of intense activity where the fleet was still loading. Lanterns blazed in the rigging and men scurried around the ships like swarms of insects. Reflecting off the water, the intense, almost white light of the moon made everything seem as bright as day until a bank of thick dark cloud scudded over it, plunging the world into instant night. The gusts of wind continued to grow stronger and ever more

frequent, blowing always from the east, and Díaz sensed the electric excitement – and dread – of a coming storm.

‘Not good weather for sailing,’ he said, thinking aloud. The moon had come out from behind the clouds again and if even the sheltered water of the harbour had grown so choppy, then what would the open sea be like?

‘We’ve no choice now,’ Sandoval said. His voice was grim. ‘We’ve killed twelve of the governor’s guardsmen, we’ve raided the city slaughterhouse. It’s you and me who did that, Bernal – not Cortés, not his friend Alvarado, but you and me – and if we get stuck here it’ll be you and me dancing a jig at the end of the gallows …’

‘But Cortés …?’ said Díaz. He realised too late that a tone almost of pleading had crept into his voice.

‘Will protect us?’ Sandoval completed his question and looked worried as another ferocious gust of wind hit them. ‘I hope we haven’t bet our lives on that.’

Up above, the cloud masses thickened, covering ever more of the sky.

They marched deep in their own thoughts for a while, and had drawn close to the clamour and frenetic movement of the pier when they heard a loud clatter of hooves behind them and a rumble of iron-clad wheels.

Out of the night loomed four black horses, drawing a tall black coach that swept by so fast and so close they had to jump to the side of the road.

The messenger had been sent shortly after midnight and, right on schedule, at one o'clock in the morning, amidst the freshening storm, Dr La Peña came thundering down the pier in a big medical carriage drawn by four horses. 'Very nice,' said Cortés, meaning the horses, 'we'll have those.'

'And the good doctor himself,' Alvarado reminded him.

They retreated into the stateroom. La Peña knocked, Alvarado invited him to enter and Cortés confronted him just inside the door. ‘Good evening, doctor,’ he said, ‘or rather, good morning. Thank you so much for coming.’

La Peña stood, apparently dumbfounded.

‘You’ll have been expecting to find me on my sickbed, of course,’ said Cortés, ‘but as you can see I am perfectly well.’ He paused for effect. ‘Naturally I know everything about Velázquez’s plan …’

At this the doctor’s eyes darted rapidly several times from side to side, as though he were seeking a way out.

‘And I know about your part in it,’ Cortés added.

‘My part in what?’ spluttered La Peña.

‘You know, pretend I’m sick, spirit me away from here in your carriage supposedly to take me off to your hospital but in reality to hand me over to the governor’s palace guard …’

La Peña squealed and turned to run, but Cortés caught him before he reached the door and backhanded him twice, knocking him to his knees.

‘Don’t kill him!’ protested Alvarado in mock horror. He looked down at his left arm, bound in a makeshift sling. ‘I need someone to fix this.’

After La Peña had joined Escudero in Alvarado’s brig, Cortés returned to take charge of his own ship. Hours before, he’d sent orders to prepare for an urgent departure. Everything seemed ready as he came on board.

With sailors rushing here and there around him, he felt the fresh blast of the wind on his face, listened to its keening as it whipped through the rigging, and looked up with growing disquiet to see armies of cloud now occupying much of the sky and frequently shrouding the moon. At first when the wind had risen he’d felt nothing but joy – for it was a fair wind that would drive them out of

the trap of Santiago's anchorage and west across the ocean to the New Lands.

But *dear God in Heaven*, Cortés thought, *is nothing ever simple?* Not only did he have to contend with so treacherous and dangerous an adversary as Velázquez, but now it seemed the very elements were turning against him as well.

His mood darkening he climbed the steps to the navigation deck and found not one, not two, but three men waiting for him outside his half of what had once been the *Santa María*'s stateroom. The first, he saw with a shiver of disgust, was Muñoz, directly responsible for the present, reduced state of his accommodations. Second was Antón de Alaminos, pilot and chief navigator of the fleet. Third was someone he did not know, a small bald man with a somewhat battered face and a large black bruise forming round his right eye.

It was this latter who now rushed forward, thrusting a sheet of paper at him.

‘Do you wish to ruin me, Cortés?’ he yelled. ‘My slaughterhouse has been emptied in your name and there’ll be no meat in Santiago for days. None at all! I’ll be forced to breach contracts to the army, to the government, to the monasteries, to the taverns. In every case there’s a financial penalty. Citizens will be up in arms and I’ll be blamed. To add insult to injury your men beat me’ – he pointed to his eye – ‘and paid me just three hundred pesos – *three hundred pesos, I say* – for my entire stock.’ A look of outrage congested his face. ‘Which is worth one thousand five hundred pesos at least …’

‘What?’ said Cortés. ‘One thousand five hundred pesos! That’s a king’s ransom.’

‘That’s a fair price for my stock and your officer Díaz agreed upon it. See here …’ Again he waved his paper at Cortés, who this time took it from him, held it up to a swinging lantern and read, to his horror, in a clear firm hand, that he was indeed obligated to pay this man, Fernando Alonso, a further one thousand two hundred gold pesos …

There came the clump of booted feet on the stairs leading up to the navigation deck and Sandoval appeared. Díaz was right behind him. ‘Ah,’ said Cortés. ‘Speak of the devil. Did you sign this piece of usury, Díaz?’ With a withering glance he handed the paper to the tall ensign.

Díaz took it to the lantern to read it. ‘Yes sir,’ he said, ‘I did. On your instructions. You gave me three hundred pesos and told me to leave a promissory note if it wasn’t enough …’

‘I know, I know, but did you not think to bargain, man?’

‘No, sir. We’ve bought and are loading two hundred head of livestock and two wagonloads of fresh and salted meats. One thousand five hundred pesos doesn’t seem excessive …’

‘The price is fair,’ said Alonso. ‘You have my stock. I won’t leave your ship until I have my money.’

Cortés felt cornered. Díaz seemed somehow to be judging him. Even Sandoval was looking at him in a new way and he felt the chill, flat stare of Muñoz’s dead-fish eyes on him too.

Not too late to change tack. ‘We won’t fall out over the amount,’ Cortés told the slaughterhouse director smoothly, ‘but I don’t have that sort of cash to hand. To compensate you for the delay I’ll up the amount on your promissory note to two thousand pesos payable at the end of the expedition. We’re about to sail—’

‘What? What’s that?’ Still as a tombstone in the shadows, emanating an almost tangible aura of ill will, Muñoz suddenly stirred. ‘Did you say we’re about to sail?’

Alonso spoke over him, directly to Cortés. ‘You insult me, Don Hernando. I repeat, your men have beaten me and humiliated me. All my stock has been stolen. I do not want your promises. I want my money! Only when I have it will I leave your ship.’

‘And I demand to know what treachery’s afoot here,’ insisted Muñoz, thrusting himself forward, his prominent Adam’s apple bobbing in his throat. ‘What are all these hasty preparations? Why is the fleet about to sail? And at dead of night – without the governor’s knowledge or permission, I’ll warrant!’

Cortés turned on the friar with a snarl. ‘You will mind your tongue, Father, and your business.’

Muñoz drew himself up to his full height, looming over Cortés. ‘All the business of the fleet is the business of the Inquisitor,’ he thundered, ‘and you’ll not sneak away from Santiago like a thief in the night while I’m here to guard the interests of God and Don Diego de Velázquez.’

‘God and Velázquez?’ Cortés exploded. ‘You name both in the same breath, Friar?’

‘I do. Don Diego is a right holy man and you, sir, are the devil’s imp. Embark without the governor’s blessing and I swear to you I will call down the wrath of heaven on this fleet and all who sail in it.’

Cortés glanced at the soldiers and crew on the main deck and didn’t like what he saw. Those about to embark on a sea voyage tend naturally to superstition and, as the wind howled in the rigging and the lanterns swung, it was obvious the Inquisitor’s holy fury

was having a chilling effect. Some of the men crossed themselves, Alaminos amongst them. Even Sandoval and Díaz looked alarmed. Matters must not be allowed to deteriorate further! But at the same time Alonso was still sounding off at the top of his voice, pacing back and forth in front of Cortés, contemptuous of his authority and thoroughly distracting his attention.

There was, at least, an easy way to be rid of the tiresome butcher.

Turning his back on Muñoz, Cortés swept his thick gold chain over his head, carefully removed and placed in his pocket the heavy gold medallion of Saint Peter that hung from it, and handed the chain to Alonso with a flourish. 'That should more than cover your costs,' he said. 'And whatever surplus you've left over, you may keep for your troubles.'

In no hurry now, his expression of aggrieved entitlement never wavering, the slaughterhouse director examined the chain and bit it in two places before concealing it in some fold of his garments. Then, without a further word, not even of thanks, he turned his

back, clattered down the stairs to the main deck and thence made his way by the gangplank to the pier where his horse was held waiting.

Once in the saddle he found his voice again. ‘Hey Cortés,’ he yelled, ‘a word with you.’

Cortés was already regretting the impulsive piece of showmanship that had separated him from a chain worth at least two thousand pesos, wondering if there was some way he could get it back and realising with a sour stomach there probably wasn’t. He looked over the rail of the navigation deck at Alonso. ‘You’ve been paid,’ he said coldly. ‘What more do you want?’

‘To give you something to think about, you knave. Before I rode over here I sent my messenger to the governor. Thought I should let him know his fleet is leaving tonight in a hurry. I expect you’ll be hearing from him soon.’

He laughed and spurred his horse away.

‘I expect you lick the governor’s arse!’ Cortés yelled after him.

At the back of his mind he was aware that Muñoz's complaints, threats and curses had never ceased and he made three quick decisions. First the Inquisitor's loud imprecations were bad for the morale of his crew, doubly so on a stormy night like this. Second, he wanted his stateroom back and wasn't prepared to share it for a moment longer. Third there was the matter of his dream – his fingers went unconsciously to the medallion in his pocket – which could not safely be dismissed. Most likely it was just a dream, but suppose it was more? Suppose it really was Saint Peter who'd told him Heaven would not bless the expedition without Muñoz?

Cortés wanted to think further on all these matters, but first he had to get the fleet safely out of Santiago. So he told Díaz and Sandoval to escort Muñoz discreetly along the pier to the *San Sebastián*. 'Throw him in the brig when you get there,' he said. 'He'll be in good company.'

'You can't do that to me!' roared Muñoz.

‘I’ve looked into it,’ said Cortés, ‘and in circumstances like these I can do pretty much anything I like.’ He leaned closer, lowered his voice to a whisper. ‘You might unsettle the men with your curses, but don’t imagine any of them will rush to support you. You’re not well liked after the Córdoba expedition, Muñoz. In fact, I’d go so far as to say you’re hated.’ He smiled pleasantly, lowered his voice still further: ‘Then there was that terrible business with your last page.’ An almost inaudible whisper now. ‘Tell me, is it true, did you murder him to stop him witnessing against you?’

He had the satisfaction of seeing Muñoz’s face turn ashen-white. ‘Take him away,’ he told Díaz and Sandoval.

When they were gone, Cortés was alone on the navigation deck with the pilot Antón de Alaminos, an experienced explorer of these waters since his youth when he’d sailed as a cabin boy on Columbus’s fourth voyage. The wind was howling without let-up, whipping around them, rattling the sails in the rigging. Alaminos shrugged his shoulders and held both his hands palm out in a

gesture of surrender. ‘You understand we can’t sail in this,’ he told Cortés, ‘it would be suicide …’

Buffeted by the storm, Cortés knew Alaminos was right, and yet could only think of one thing. All tonight’s careful planning and manoeuvring – the snatching of the meat supply, the foiling of the plot with La Peña – now lay in ruins. That bastard Alonso had sent a messenger and Velázquez was sure to act on it. The sands were running through the hourglass at a terrifying rate, and even now the governor would be galloping towards them with a strong force of his guard to appeal to his friends amongst the captains and stop the fleet from sailing.

‘Come come, Alaminos,’ Cortés chided. ‘Has easy living stolen your courage? You’ve sailed in worse gales than this!’

Chapter Thirty-Three

Tlascala, small hours of Friday 19 February 1519

‘Where am I?’ Guatemoc asked.

‘This is Aztlán,’ a man’s voice replied. ‘Homeland of your people and of the gods. You are in the caves of Chicomoztoc.’

Guatemoc looked around. He was in a vast underground cavern, illuminated by a soft but pervasive glow that seemed diffused

everywhere. The domed ceiling overhead glittered with a thousand stalactites of pure transparent crystal. From the floor, made of the same substance and towering above him, soared a forest of stalagmites. He felt no pain and looked down at his body to find he was uninjured and dressed in a robe of simple white cotton loosely belted at the waist.

Everything about this was very strange. There had been a fight, though he could not remember with whom, then darkness and now he was here.

‘Who speaks to me?’ he asked.

An arm’s length in front of his face, the air of the cave rippled and swirled. It was as though a pair of great curtains, hitherto unseen, had been momentarily whisked apart revealing a blank void. And out of that dark and empty gap, out of that nothingness, there came a blur of wings, and suddenly a small hummingbird with a long, dagger-sharp beak and feathers of iridescent blue and yellow

burst forth, making Guatemoc throw himself back with a gasp of surprise.

‘I am Huitzilopochtli,’ the creature said, flying a rapid circle around him, ‘the Hummingbird at the left hand of the Sun.’ Though it was tiny, its voice was strong and deep.

The resolute voice of a warrior.

The commanding voice of a god.

Guatemoc dropped to his knees. ‘Lord Hummingbird,’ he said. ‘Is it truly you?’

There came another shimmer of the air, the hummingbird was gone and a man stood before him. A perfect man in the prime of life, beautiful and strong, tall, with sculpted muscles and glowing skin and golden hair and brutal soldier’s hands, wearing a blue loincloth and armed with a long, wickedly sharp killing knife fashioned from some deadly metal. ‘Yes, Prince,’ he said. ‘I have work for you to do.’

‘Work, lord?’ Guatemoc glanced up to see the god towering above him, to see that gleaming, murderous knife raised high, poised over his head. ‘I am here to serve you.’

‘And serve me you will.’

‘Tell me what I am to do,’ Guatemoc said. The god’s eyes, he noticed, were black as night, black as obsidian, and yet shone with a fierce inner fire.

‘You must return to the land of the living,’ Hummingbird replied. ‘You must return at once.’

And suddenly everything that had happened came back to Guatemoc in a rush. He remembered every move, every moment, every mistake of his fight with Shikotenka, remembered the icy chill, the tearing agony, the fatal heaviness, as the Tlascalan’s knife entered his viscera, remembered how he had been bested and vanquished with contemptuous ease, as a child might be slapped down and put in his place by a grown man. ‘But I was killed, lord,’ he said. ‘How can I return when I am dead?’

‘Because this is not your time to die,’ said Hummingbird. ‘Because I have made you live again that you might do the work you were brought into the world for. Because a great battle lies before your nation, but the weakling Moctezuma is not competent to fight it.’

Then, in a flash, the god’s arm came lashing down and the blade clasped in his huge hand smashed through the top of Guatemoc’s skull, admitting an explosion of light …

It was deep night, and a big moon feathered with clouds was riding high as Guatemoc regained consciousness in a pool of his own blood. Two images superimposed themselves in his mind – Shikotenka stabbing him to death and Hummingbird stabbing him back to life again. Which was real and which a dream?

He dragged himself forward out of the cold, coagulating mass, but the effort required to move was great and he lay prone, gasping like a fish on a riverbank, still uncertain if he was alive or dead, a

freshening wind blowing through the grass and over his body. Finally he accepted that by some miracle, perhaps indeed worked by Hummingbird, he was still amongst the living, that Shikotenka's knife, which had struck him so often and so fast, had somehow spared his vital organs, and that he must raise the alarm. The battle king of the Tlascalans would not have been here, doing his spying in person, unless something deadly and spectacular was planned …

Six bowshots down the steep slope, almost directly beneath the hollow where Guatemoc lay, was the camp's south gate, little more than a line of thorn bushes drawn across the wide, lantern-lit thoroughfare running two thousand paces due north to Coaxoch's pavilion. Uninjured, Guatemoc could have reached the gate and alerted the sentries in minutes but now, as he struggled to rise, his strength failed again. He couldn't even get off his knees! He tried to call out but his voice was no more than a whisper and the wind was strong.

He had to get closer to those sentries! It was the only way. He formed a mental picture of the straight route to them, lowered his head and began to slide on his belly. The movement opened his wounds and had him lathered in fresh blood in an instant. More agony followed as he slowly worked his way downhill, now crawling, now shuffling on his buttocks through the long grass, unable to see exactly where he was going, the camp a lake of light and voices far below, always luring him on.

Guatemoc knew himself to be savagely injured. Despite Hummingbird's intervention – whether real or imagined – he would surely die if he couldn't reach the royal surgeons soon; nonetheless the pain that burned him deepest was his shame at the easy, contemptuous way Shikotenka had destroyed him in combat. The Tlascalan prince wasn't just better than him. He was massively, consummately better. Guatemoc remembered boasting and strutting before the fight, trying to put the other man down. But now it was

he who was down, a crawling cripple, while Shikotenka was free to go where he pleased and do what harm he wished.

Swallowing his pride, Guatemoc continued his slow, determined downhill crawl, grateful for the steady cooling breeze. He suffered a shattering bolt of pain as he dropped into a shallow crevice. He pulled himself out and lay stretched on his back on the hillside, glaring at the moon around which great mountains of cloud were now gathering. When he found the strength to lift himself again and look down at the camp, he realised to his horror that he'd strayed from the straight route that would have taken him to the sentries at the south gate. Instead, in his confusion, he'd followed a meandering course across the slope and made his journey much longer.

Gritting his teeth, he once more turned directly downhill. It meant he wouldn't reach the perimeter at the south gate, but further round to the east. The sentries here were separated by intervals of a hundred paces. He aimed as best he could for the nearest of them.

As he crawled, Guatemoc dreamed of the moment when he would meet Shikotenka again and exact revenge for his humiliation today. He would make the Tlascalan battle-king his prisoner; he would treat him as his honoured guest, and then he would lead him up the steps of the great pyramid and offer his heart to Hummingbird.

He had the scene very vividly fixed in his mind, so that it was almost more real than real – the pyramid looming above them, the rope in his hand looped around Shikotenka's neck, and Shikotenka himself, daubed with white paint, dressed in a paper loincloth, humbly mounting the steps to meet his death. All this was very satisfying and correct, and Guatemoc found he was able to watch the imaginary scene unfold in his mind's eye while simultaneously tracking his own crawling progress towards the sentry. 'Help!' he tried to shout. 'Help!' But the word wouldn't emerge, not even a whisper. 'Help!' He tried again, but Shikotenka's knife had taken his voice.

Guatemoc kept crawling. Suddenly he was on the flat ground at the foot of the hill and the sentry was just a hundred paces away, while in his head Shikotenka was still trudging up the steps of the pyramid, the sculpted muscles of his thighs moving under his brown skin. As his captor, Guatemoc enjoyed the exclusive right to Shikotenka's thighs, which would be cooked for him in the time-honoured fashion in a stew with chillies and beans. He licked his lips, then remembered that none of this was real, no matter how real it seemed. The great pyramid of Tenochtitlan was two days' hard march from here. There would be no sacrifice. He would not be feasting on Shikotenka's thighs tonight.

He looked up through tussocks of waving grass as the moon emerged, redoubled in brilliance, through a gap in the clouds. He saw the sentry clearly, just fifty paces from him with his back turned, his moon-shadow reaching out like an admonishing finger. 'Help!' Guatemoc cried. 'Help!'

Nothing …

But then he heard footsteps in the grass, coming on at the double. Praise the gods, he had been found!

The sentry was beside him now, looming over him. ‘Drunkard,’ he exclaimed in a coarse regional dialect. Judging from the bone through his nose, this was one of the Otomi rabble recently hired by Moctezuma. Guatemoc had opposed the policy but now here he was in his time of need being rescued by one of them! It was too much to expect that a lowly mercenary would actually know who he was, and he wore only a loincloth which gave no indication of his rank, so he tried to introduce himself: ‘My good man, I am Guatemoc, a prince of the Blood. Send a messenger for Lord Coaxoch at once.’

But the words wouldn’t come and the Otomi just stared at him, finally seemed to notice his injuries and said, ‘What? I can’t hear you.’

Guatemoc tried again. ‘Danger!’ he said. ‘Now! Tlascalans. Coaxoch must be told!’

But still he couldn’t produce the words.

The Otomi stood straight, heaved a great sigh of what sounded like annoyance and called out to the next sentry post – ‘Hey, I need help. I’ve got an injured man over here.’

‘I am Guatemoc. Summon Coaxoch at once.’

This time the words came. Just the faintest, croaking whisper.

But the Otomi wasn’t listening.

Chapter Thirty-Four

Tlascala, small hours of Friday 19 February 1519

While the rest of the fifty sat on their haunches, breathing evenly after their ten-mile night run, Shikotenka led Chipahua and Tree to the ridge. The moon was just off full, shedding its brilliant silvery light through scudding cloudbanks, and the long grass swayed in a strong breeze as the three of them peered downslope to the huge

amphitheatre amongst the hills where the Mexica had set their camp. Ablaze with flickering fires and lanterns, a chaotic and ill-disciplined scene presented itself. To their amazement, despite the lateness of the hour, thousands of the enemy were still on the move, wandering in noisy, guffawing groups from sector to sector of the immense armed camp, frequenting the hawkers' stalls and brothels, bartering with merchants for cloth, or pulque, or tobacco.

'Doesn't look like they've found Guatemoc,' said Chipahua. 'Or missed him.'

'Doesn't even look as though they're here to fight a war,' said Tree. 'Looks like a party.'

'They're too used to winning,' Shikotenka mused, profoundly relieved that the matter of Guatemoc had gone no further. The prince's body must still be lying in the grassy hollow where they had fought. 'They've forgotten they can lose.' He narrowed his eyes, noting the sentries spaced at intervals of a hundred paces all round the enormous perimeter, and the avenues of lanterns that

marked out the principal thoroughfares. These ran north–south and east–west, intersecting at Coaxoch's pavilion in the dead centre of the camp. 'That's where we have to get to …' He showed them the pavilion. 'Any thoughts?'

'Fly?' said Chipahua.

'Wait for clouds to cover the moon,' suggested Tree, who was studying the increasingly stormy sky. 'It won't be long. Then we just go straight in.' He pointed to the southern end of the north–south axial avenue which lay almost directly beneath them at the foot of the hill. Pairs of sentries were stationed along its entire length at intervals of twenty paces.

'And the sentries?' asked Chipahua.

'Kill them,' said Tree.

'I prefer stealth,' said Shikotenka. 'That's what these are for.' He tugged the sleeve of his uniform, taken from the body of a Mexica jaguar knight he'd killed a few months earlier. All the rest of the squad were similarly attired. 'They don't have enough sentries

round the perimeter, so when the moon's behind cloud we'll be able to slip between them without being seen. We'll split up into small groups, blend in with the crowds and make our way to Coaxoch's pavilion. When we're all there we'll go straight into the attack.'

Chipahua and Tree exchanged a concerned glance, which Shikotenka ignored. He knew his plan was full of holes, but he had put his faith in the gods and there was no going back.

With the moon still bright, and dancing in and out of cloud, Shikotenka had his men take cover in the long grass and crawl down the hill by the same route he'd used going up it this afternoon. They reached the hollow where he'd fought Guatemoc and found it trampled and flattened, scabbed pools of congealed blood everywhere, but no sign of the prince himself. One particularly wide and obvious track, as of someone crawling or sliding, led out of the hollow and down in the direction of the Mexica encampment.

Acolmiztli was studying the fresh blood in the track and glaring accusingly at Shikotenka: ‘I thought you said you killed him?’

‘I thought I had. I got my knife in him six times.’

‘You should have made certain. He’s still bleeding so he’s still alive but the good news is it doesn’t look as if anyone found him here. He’s on his own and he’s not been gone long. Let’s get after him.’

Leaving the rest of the squad under Tree’s command in the hollow, the two of them shot downhill on their hands and knees. Acolmiztli moved fast with a weird, scuttling, spider-like gait and easily stayed ahead of Shikotenka, who caught up with him on the flat, lying low amongst the undulating grass.

‘Hush!’ signed Acolmiztli.

Up ahead, very close, they heard a shout over the sound of the wind: ‘Hey, I need help. I’ve got an injured man over here.’

Shikotenka pushed his head above the grass and saw a sentry less than a hundred paces away. At his feet lay a crumpled, bloodstained

figure.

Another sentry charged up and Shikotenka ducked out of sight.

There came the sound of more shouting, the new arrival yelling at the top of his voice: ‘Don’t you realise who this is? Don’t you even have the *faintest idea*?’

A mumble: ‘Just looks like some sot got himself stabbed.’

‘This is Prince Guatemoc, you idiot!’

More sentries had come running now, at least five or six, and several took up the shout: ‘Guatemoc! Guatemoc!’ Somebody blew a whistle. A drum started to beat. ‘Prince Guatemoc has been attacked! Call the surgeons! Call out the guard!’

Shikotenka and Acolmiztli watched open-mouthed as chaos deteriorated into pandemonium, hundreds of the Mexica rushing to where Guatemoc lay. In the last moments before an immense mass of cloud covered the moon, they saw to their astonishment that even the sentries guarding the camp’s principal thoroughfares had left their posts and were flocking to the side of the wounded prince.

The long avenue connecting the southern gateway to Coaxoch's pavilion appeared, for the moment, to be completely unguarded.

Shikotenka and Acolmiztli grinned at one another in disbelief. Then they were running, hidden by darkness, the moon now entirely lost to view in dense cloud. With no need to crawl through the grass any more, they went up the hill at a sprint and in moments reached the hollow where the fifty were waiting.

Tree was at the ridge with the men ready behind him in full battle order. 'So we just go straight in?' he said. 'Like I wanted to do at the beginning?'

'We go straight in,' said Shikotenka with a grim smile.

How fickle were the gods, he thought, and how inscrutably they meddled in the lives of men.

Chapter Thirty-Five

Tenochtitlan, small hours of Friday 19 February 1519

As Malinal's head began to clear from the beating she'd taken in the plaza, she discovered she had somehow already reached the great pyramid and begun to climb the wide northern stairway. On both sides, stationed at every third step, were guards holding guttering torches, and she saw she was part of a long line of prisoners

ascending between them. She felt a helping hand pressed into the small of her back and turned to find Tozi right behind her. ‘Coyotl?’ she asked, her voice cracking.

‘Gone,’ Tozi said. Her chalk-white face was smeared with blood. ‘Ahuizotl put him in the other line. I’ve lost sight of him.’

‘It’s my fault!’ sobbed Malinal. Though she hardly knew Coyotl, the intensity of the last hours was such that she was overwhelmed to be separated from the anxious, intelligent little boy, and filled with guilt for her part in what had happened. ‘Ahuizotl did it to spite me. If I hadn’t been holding Coyotl, he wouldn’t have taken him.’

‘It’s not your fault that Ahuizotl is an evil, hateful old man,’ said Tozi. ‘You gave Coyotl love. That’s what you should remember.’

They were climbing very slowly, sometimes standing in place for a long count before shuffling up another step or two and halting again. The warm wind that had risen earlier was blowing more strongly now; overhead thick clouds raced across the face of the moon, and round Malinal’s feet a foaming, clotting tide of human

blood flowed from the summit platform and rolled ponderously down the steep, narrow steps. It was slippery and treacherous. It accumulated in shallow pools spreading out across the plaza at the base of the pyramid. It filled the air with a sour, terrifying stink.

Malinal's stomach cramped and heaved and bile rose in her throat. Though the cruelty and excess of the Mexica were nothing new to her, she was overwhelmed by the horror and depravity of this vast pageant of murder. Her stomach cramped again; this time she couldn't hold it back, and she threw up in a hot, spattering, choking gush.

'What a hero she is!' yelled one of the guards sarcastically.

'How brave!' sneered another. 'A whiff of the knife and she spews her guts!'

There came the thumping, rumbling sound of flesh striking stone as priests threw a pile of a dozen bleeding torsos over the edge of the summit platform. They tumbled down the steps like clumps of viscid fruit fallen from some evil tree, trailing streamers of guts,

rolling and bumping wildly until they came to rest in the plaza below. Something heavy and wet had brushed against Malinal's leg as they went past, and now her stomach heaved uncontrollably again; she doubled over, dry-retching, gasping for breath, to the general hilarity of the guards.

As the spasm passed, she straightened and spat, hatred scourging her like acid. What a vile, vicious race these Mexica truly were – a race of arrogant, strutting, loud-mouthed bullies whose greatest pleasure was the desecration of others.

A race whose wickedness and cruelty knew no bounds.

Malinal was filled with impotent rage, wanting to punish them, to visit retribution upon them, to make them experience the same humiliations they inflicted, but she knew at the same time that none of this could ever happen, that she would continue to climb the pyramid, passive and unresisting as a dumb animal on its way to slaughter, and that when she reached the top she would be killed.

A soldier approached, carefully descending the steps, picking his way through the blood. Slung round his neck he carried a huge gourd containing some liquid and into it he dipped a silver cup that he offered to each prisoner in the line.

Most drank.

When it came to Malinal's turn she asked the soldier, who had a big, plain, honest, sunburned face, what he was offering her.

'Why it's *Iztli*, of course.'

'*Iztli*?'

'Obsidian-knife water.' He glanced towards the summit of the pyramid, less than fifty paces above them, reverberating with the agonised screams of the next victim. 'Drink!' He held out the silver cup. His tone was almost beseeching, his eyes level and kind, wrinkled with laughter lines. 'Drink, beautiful lady.'

'What will it do?'

He looked meaningfully again to the summit of the pyramid, then back down. 'It will dull your pain, lady.'

As Malinal reached out, Tozi lunged up from the step below and knocked the cup aside. ‘It’s not about dulling pain! Listen to those screams! They don’t give a shit about our pain. They use *Iztli* to dull our wits. They use it to make us docile so we’re easier to bring under the knife.’

The kind eyes of the soldier had turned indifferent. ‘Your loss,’ he shrugged, refilling the cup and moving down past Tozi to the next victim, who drank greedily.

Malinal was thinking, *Maybe I don’t mind being docile so long as there’s no pain when the knife opens my chest*. She was about to call the soldier back, but Tozi silenced her with a glance and whispered: ‘No! We have to stay alert. This isn’t over yet.’

Malinal looked closer and saw that something was back in the girl’s eyes, a spark, a fire, that had fled after the fade and her subsequent catastrophic fit in the pen.

There was another outburst of horrific screams and the whole line, like some monstrous centipede, shuffled two steps closer to the

summit.

‘What are we going to do?’ Malinal asked. The heart that was soon to be ripped from her chest was pounding against her ribs; the blood that was soon to be drained from her body was coursing through her veins and beating in her ears.

Tozi suddenly smiled and Malinal caught a fleeting glimpse of unsuspected depths in her strange new friend – of a sweet, otherworldly innocence beaming through the chalk and charcoal, and through the deeper disguise of the tough, streetwise beggar girl in which she concealed her witchiness. ‘I thought all my powers were gone,’ she said, ‘maybe gone forever. But right after they took Coyotl, something started to come back …’

The line trudged another dreadful step upward.

‘I don’t know what it is yet,’ Tozi continued. ‘But there’s something there! I can feel it!’

‘Will you try to fade us again?’

‘No! It’s not that.’

‘Why so sure?’

‘I’ve tried already – before we started climbing the steps, just for a second or two – but it didn’t work.’

‘Is it the thing you call the fog?’

Tozi shook her head: ‘No, not the fog.’

‘Then what?’

‘I don’t know! I wish I did! But there’s something there I can use. I’m sure of that. I just have to find it.’

More screams went up from the summit of the pyramid, close now, though still out of sight because of the steep slope of the stairway. There was the distinct wet *crack* that the obsidian knife makes when it splits a human breastbone, followed by a high-pitched gurgling screech and a sudden pulse of blood gushing over the top of the steps.

Ahead of them, her swaying pendulous buttocks pitifully uncovered by a flimsy paper loincloth, a young Totonac woman who had likewise refused the *Itzli* suddenly turned in her tracks,

reached out her hand and gripped Malinal's shoulder. 'I can't bear this!' she screamed. Her eyes were rolling. 'I can't stand it any more.' She gave Malinal a forceful shove, almost dislodging her from the slippery step and said, 'Jump with me right now! You and me together! Let's throw ourselves down. The fall will kill us. It's better than the knife …'

A death chosen rather than a death inflicted? Malinal could see the point of that. And it would have the added advantage of cheating the bloodthirsty gods of the Mexica.

But such a death was not for her while there was still hope, and Tozi had given her hope. She swayed, pulled her shoulder free of the Totonac's grip. 'Jump if you must,' she told her. 'I won't try to stop you but I won't go with you.'

'Why not? Don't you understand what will be done to us there?' The woman turned her face up to the summit of the pyramid, still hidden by the gradient.

‘I understand,’ said Malinal, ‘and it’s OK. You take care of your death and I’ll take care of mine.’

With groans of fear, whispered prayers, and the slack, dull faces of *Iztli* intoxication, the prisoners continued to shuffle upwards, pausing for long moments, then climbing again. Only those near the very top could see the altar and the sacrificial stone, but the butchered torsos of women who’d climbed the steps moments before continued to be thrown down by the priests, a constant reminder of what was to come.

Up a step. Stop.

Up two steps. Stop.

Though the moon was again behind cloud, the whole summit was brightly lit by torches and braziers, and Malinal began to see first the heads, then the shoulders, then the upper bodies of the team of sacrificers on the summit platform.

Ahuizotl was there!

How could he not be, since he'd want to gloat over her death?

Her fingers curled into claws.

Beside the high priest was Cuitláhuac who had also shared her bed.

And there, nude, bathed from head to toe in blood, working with furious efficiency, his face fixed in an ecstatic grin, was the coward Moctezuma, who she'd seen shit himself with fear.

Whack! Crack! In went the obsidian knife again, saturating the white paper garments of the next victim with bright red blood in an instant. Arteries were severed, more blood fountained into the air, and with a horrible, rending squelch, the heart was out.

Malinal distinctly heard Moctezuma say, apparently to thin air: 'Welcome, Lord. All this is for you.' Then at once another victim was stretched over the sacrificial stone and the Totonac woman climbed the final step to the summit platform and stood waiting, watching the killing team busy with their tasks. As the knife rose and fell she turned with a sad smile on her face, stretched her arms

out beside her like wings and stood poised over the plunging stairway.

Cuitláhuac saw the danger first and barked an order for her to be held, but as the guards closed in she grappled with one of them, somehow unbalanced him, and tumbled with him over and over down the steep stairs, rolling and bouncing, their bodies pounded and broken into bloody shards long before they reached the bottom.

Malinal knew Moctezuma to be a superstitious man.

An ignominious suicide, carried out in his presence, snatching a beating human heart from Hummingbird's grasp, could never be anything other than a very bad omen indeed – one for which Ahuizotl as high priest must surely be held responsible. The snakeskin drum, the conches, the trumpets all instantly ceased their din and in the ghastly silence that followed the only sound to be heard came from Tozi. It was that same soft, insistent whisper she'd used when she'd faded them in the pen – and in the same way it

now rose in intensity, seeming to deepen and roughen, becoming almost a snarl or a growl.

Ahuizotl took a step forward. His eyes found Malinal but drifted past her. He seemed shocked and disoriented.

Was he imagining the terrible ways Moctezuma would punish him?

Or was Tozi getting inside his head?

Malinal was beginning to hope her friend really had got her powers back when she felt Moctezuma's blood-rimmed glare drill into her skull as his four helpers grasped her by the arms and legs and threw her down on her back over the sacrificial stone.

Chapter Thirty-Six

Tenochtitlan, small hours of Friday 19 February 1519

It was truly a night of the gods, torn by winds and storm. Thunder rolled and huge black clouds harried the fleeing moon, sometimes reducing her to a flicker of balefire, sometimes allowing her furious and jaundiced face to peer through, sometimes shutting off her light entirely as though a door in heaven had closed.

Moctezuma had been killing since morning but now, in the depths of the night, his work illuminated by flickering torches and glowing braziers, he felt no fatigue. He had consumed two more massive doses of *teonanácatl* and the god-power of the mushrooms coursed through his veins, making him ferocious, vigorous and invulnerable. Far from tiring him, each new blow he struck with the obsidian knife seemed to animate him further. Should the priests find him five thousand more victims, he would kill them all. Ten thousand? Bring them on! There was nothing he would not do for his god.

Moctezuma felt preternaturally aware of everything.

Everything.

Of this world of blood and bone, and of that other shadow world where he had met and talked with Hummingbird.

The god had been absent for many hours while the new batch of sacrifices offered themselves to the knife, but now he returned, with so little fanfare it seemed he'd always been there. He stood between

Cuitláhuac and Ahuizotl unnoticed by them, his face sly and amused.

‘Welcome, lord,’ Moctezuma said, holding up a palpitating heart. ‘All this is for you.’ He threw the streaming organ on the brazier, where it steamed and smoked, and immediately turned to the next victim, tore her body open and plucked her heart out too.

Everything was going wonderfully well, Moctezuma thought. He couldn’t stop himself grinning and cackling. And why should he? The god was with him again, the down payment on his price was being made in hearts and blood, and now he could expect divine help against the powerful strangers. No matter if they possessed fire serpents that could kill from afar! No matter if wild animals fought beside them in battle! With Hummingbird leading the way the Mexica were certain of victory, and even if the strangers were the companions of Quetzalcoatl himself they would be vanquished! There was no other conceivable outcome.

The dream was sweet until Moctezuma heard Cuitláhuac shout, ‘Grab her!’ and the scuff of bare feet behind him. He whirled round as the bloody corpse on the sacrificial stone was dragged aside to be butchered and witnessed something extraordinary and unbelievable. Instead of submissively waiting to take her place under his knife, the next victim was standing at the edge of the summit platform, her paper garments flapping in the wind, her arms stretched out beside her like wings, poised to throw herself down the northern stairway. This must not under any circumstances be allowed to happen, for it would bring the displeasure of the god. Moctezuma’s heart pounded against his ribs and anger surged through him. He would have Ahuizotl’s skin if the woman went through with it. Time seemed to race as guards moved towards her. One reached her. They wrestled on the edge of the abyss and then slowly, with the impossibility of a thing never seen before, both figures tumbled from view …

An awful sound broke the shocked silence that followed – an eerie, rough, whispering snarl that had the rhythms of magic.

Moctezuma saw at once that its source was a dirty little female with wild hair. She was waiting second in the line of prisoners near the top of the stairway and staring straight at him.

Nobody looked the Great Speaker of the Mexica in the eye!

Yet this filthy child, whose heart he would soon cut out, showed no fear as she calmly met his gaze.

And she wasn't alone! One step above her stood another defiant figure. Tall, plastered chalk-white, hair roughly shorn, in the paper clothes of her humiliation, this woman looked nothing like a victim and stared him down with the same predatory anticipation as the child, throwing him further into turmoil.

Panic seized him as he sensed everything falling apart. The terrible omen of the suicide followed at once by the bizarre behaviour of these two females threatened to unman him completely. He sought out Hummingbird, fearing his anger, yet filled with a hopeless yearning for absolution, but the god who had

been so present only moments before had vanished again, as silently and as mysteriously as he had appeared.

‘Aaaah! Aaaah!’ Moctezuma’s bowels cramped and loosened, cramped and loosened, an ancient curse returning to haunt him, but he could not evacuate here at the top of the pyramid in full public view. It was simply unthinkable.

He clenched, tried to bring his emotions under control, and a renewed surge of the god-power of the mushrooms pulsed through him, shoving a fist of vomit into his mouth, forcing him to swallow and gulp like a frog. The tall woman smiled.

Smiled!

How dare she?

Anger triumphed over fear and he began to think clearly again. The suicide was the worst form of sacrilege, yet amends could be made. The god had deserted him again, but he had done so before and there was still hope that the harvest of victims would lure him

back. The only answer was to put all distractions aside and continue with the sacrifices as if nothing had happened.

Moctezuma signalled to the musicians to resume play as his four helpers seized the tall woman by the arms and legs, spun her round with practised economy of effort, and cast her down on her back on the sacrificial stone. He raised the obsidian knife, gripping its hilt in both hands, and muttered the ritual prayer – 'Oh lord, Hummingbird, at the left hand of the Sun, accept this my offering.'

He was about to plunge the knife down when the voice of the god, loud and unexpected, boomed inside his head: 'No! I do *not* want this offering. You must *not* kill this woman.'

Moctezuma froze in place, the knife poised. 'But, lord, you told me to bring you hearts.'

'You must still bring me hearts, Moctezuma, but not this heart. I have chosen this woman *and she must not be harmed*. I have work for her to do.'

'You have … chosen her, lord?'

‘Just as I chose you.’

Suddenly the tenor of the divine voice changed and Moctezuma found himself once more in the presence of Hummingbird. It was as though they were both looking down on the victim from a great height. The war god’s skin glowed white hot. ‘Set her free,’ he commanded.

Moctezuma hesitated. Was he understanding correctly? Could there be some mistake? ‘Set her free?’ he babbled.

The god sighed. ‘Yes. Free. Must you repeat every word I say?’

And at the same instant, in the world of blood and bone, Moctezuma felt Ahuizotl at his elbow, whispering alarm in his ear. ‘You must *not* free her, Magnificence! This woman must die! She must die! The god will not forgive us if she walks from the stone.’

Moctezuma remembered that he alone conversed with Hummingbird, while for Ahuizotl and others it must seem he was talking to himself. ‘Be silent!’ he roared.

‘But lord …’

‘You know *nothing*, Ahuizotl! I will have your *skin* for failing me this night.’

The high priest cowered and trembled, stammering apologies and then, unbelievably, the woman on the stone spoke. Her voice was rich and throaty, somehow familiar, and she seemed to look deep into Moctezuma’s eyes: ‘Your priest is corrupt,’ she told him. ‘He broke his vow of chastity and took me to his bed …’

‘Lies!’ Ahuizotl screamed. ‘Lies! Lies!’

But Cuitláhuac had stepped close now and was examining the woman’s face, rubbing at her chalk-white mask, revealing ever more of her skin. ‘Malinal!’ he suddenly exclaimed. ‘This is Malinal, Lord Speaker! She was your interpreter when the messenger from the Chontal Maya brought tidings of the gods to you. You ordered her execution.’

‘Ahuizotl disobeyed the Lord Speaker,’ the woman said. ‘He keeps a secret house in the district of Tlatelolco. He took me there from your palace four months ago. He used my body …’

‘Lies!’ Ahuizotl shrieked again. ‘All lies!’

‘There’s more here than meets the eye,’ Cuitláhuac said. He was known to be a stickler for rules and regulations, an enemy of Ahuizotl and a strong advocate of priestly celibacy. ‘The charge is grave. We must question the woman further and discover the truth.’

‘No!’ snarled Ahuizotl. ‘Kill her!’

Moctezuma’s eyes darted back and forth between the two men and down to the prone, spread body of the woman.

Yes, he remembered her. His stomach cramped and his bowels rumbled. She had witnessed his shame and he had ordered her death; yet here she was, four months later, still alive.

How could that be if her story was not true?

As another devastating cramp gripped his stomach and a bubble of sour air burst from his mouth, he made his decision. No questions could be asked. He would deal with Ahuizotl later, but the woman knew his secret and she must die with it now.

Her eyes, huge and dark, gazed up at him, catching and magnifying the flickering flames of the torches and the fiery glow of the braziers, seeming to burn into his soul. Resisting a powerful urge to recoil, even to run from her, Moctezuma jerked the dripping knife above his head, felt a thrill of pleasure as her pupils dilated with fear, and put all his force into a killing blow.

That never landed.

That never even began.

‘You pathetic grubby little human,’ boomed the voice of Hummingbird. Unseen and unheard by all the others, the god was still at his side, radiant as a volcano. ‘You will free this woman at once. You will send her from this city unharmed. I have spoken.’

Moctezuma struggled, tried to move his knife hand and discovered that it was paralysed in place above his head. ‘Release her, or die,’ said the god. ‘In fact, why don’t you just die anyway? I think I prefer Cuitláhuac for your role.’

‘Bu … bu … bu …’ Moctezuma tried to speak, but could not, tried to breathe but could not.

‘Interesting, isn’t it,’ said the god, ‘this business of dying? Fun when you’re dishing it out, not so nice when you’re at the receiving end.’

Moctezuma gaped, his chest heaved, and yet no breath would come. It was as though a huge hand covered his nose and mouth.

‘You are desperate to breathe,’ the god continued. ‘It gets worse. Very soon fear will overwhelm you, you will lose all control of your body and you will void your bowels. Tut tut! *Where will your secret be then?*’

‘Gahhh, ahhh, gaargh …’

Moctezuma felt it coming now, felt death all over him like a swarm of bees, was shaken by another terrifying cramp and tried desperately to signal his surrender.

The god’s smile was malevolent. ‘What?’ he said. ‘What was that?’

‘Gnahh, aargh …’

‘Ah. You agree? Is that what you’re saying? You will release the woman?’

His head spinning, his knees rubber, Moctezuma nodded his assent.

‘Hmmm,’ said the god. ‘I rather thought you would. Well, I suppose I shall give you another chance. Grooming Cuitláhuac to play your part would be such a bore.’

At once the sense of a hand clamped to Moctezuma’s face was gone and he could breathe again. Gasping, heaving, his vision steadying, he turned on his four assistants. They held the woman stretched over the sacrificial stone, gripping her by her wrists and ankles, terror and confusion squirming on their faces. ‘Release her!’ he roared.

After she’d struggled to her feet, Moctezuma ordered the woman to be taken from the pyramid, given clothes and sent on her way out of

Tenochtitlan. The god had said she was to leave the city. The god had said she was not to be harmed. The god must not be denied.

Yet she refused to go!

Instead, looking him straight in the eye as though she were his equal, this woman, this Malinal, as Cuitláhuac had named her, made a new demand.

‘I was brought here with my friend,’ she said, indicating the wild-haired girl at the top of the steps. ‘I won’t leave without her.’

Moctezuma turned to Hummingbird, but the god had again deserted him.

He looked for Ahuizotl. The high priest too had vanished.

He looked to Cuitláhuac, who knew Malinal, and to the other nobles. They stood in groups around the vacant sacrificial stone, whispering to one another.

Whispering sedition.

‘I remember our last meeting,’ Malinal said quietly. She looked pointedly at Moctezuma’s belly. ‘It seemed the royal person was

unwell. Allow me to express the hope that you have fully recovered your health.' As she spoke, Moctezuma felt the eyes of the woman's little ragged friend on him, heard the whisper of magic still pouring from her lips and helplessly doubled over as another agonising cramp struck him.

'Take her,' he gasped. 'Take her. I free you both.'

Smeared with chalk and blood, Malinal seemed more demon or ghost than human flesh and blood.

'Wait!' she said. 'There's one more thing.'

Chapter Thirty-Seven

Santiago, Cuba, small hours of Friday 19 February 1519

The man was whip-thin. Caught in the swaying lantern light, his clever, weather-beaten face was lined with worry. ‘You understand we can’t sail in this,’ he told Cortés, ‘it would be suicide …’

Melchior had gone about his master’s business soon after Alvarado’s arrival, but Pepillo remained hidden in the aftcastle,

nursing his wounds. Then Alvarado and Cortés left the ship and clattered off along the pier on horseback. Time passed. Pepillo had some sense of it from the gradual westward track of the moon across the increasingly crowded and stormy heavens. He dozed for a while. When he awoke the wind had grown stronger, whistling and rattling through the rigging, and down below on the navigation deck he heard voices raised in anger.

With a feeling of dread he recognised one of them as Muñoz.

He heard Cortés and another voice he did not recognise. It was an argument about money. There was a sudden bustle of activity, heavy footsteps pounded on the deck and down the gangplank. More shouting – it seemed the fleet would sail tonight without the governor's blessing! – then a thunder of hooves as a horse took off at a gallop.

Taking care not to make a sound, Pepillo crawled out from behind the piled ropes, snaked forward on his belly, wincing at his

bruises, and found a spot where he could look down on the navigation deck without being seen.

Five men stood there – Cortés, Muñoz and three others he did not know. It was obvious at once from the tension in their bodies that the argument was far from over, and now Muñoz shouted, ‘You can’t do that to me!’

Cortés said strongly that he could do anything he wanted, then lowered his voice. Amidst gusts of wind, Pepillo heard only the words, ‘Córdoba expedition’, ‘terrible’ and ‘page’, before Cortés leaned closer and whispered in Muñoz’s ear. He must have said something frightening because the Dominican gasped, blanched and stumbled back. Then the impossible happened. In a tone of disgust, Cortés said, ‘Take him’, and two of the other men leapt forward. Pepillo’s breath caught in his throat and hope surged through him as they seized Muñoz by the arms and frogmarched him from the ship. The Inquisitor’s strident protests continued but were soon snatched by the wind and lost to hearing as he was led off along the pier.

In this way Cortés was finally left alone with the thin, weather-beaten man, who at once told him that to sail this night, in this weather, would be suicide – advice the caudillo clearly did not want to hear.

‘Come come, Alaminos,’ he said. ‘Has easy living stolen your courage? You’ve sailed in worse gales than this!’

‘I have,’ the man called Alaminos admitted. He looked to the troubled sky now overcast from horizon to horizon, the light of the moon entirely swallowed. ‘But we’re only at the birth of the storm. It’s going to get worse. Much worse.’

‘If the month were August or September I’d agree with you,’ Cortés said cheerfully. ‘But this is February, man. February! Think about it. Since you sailed with Columbus, how many great storms have you witnessed in these waters in February?’

‘None,’ Alaminos admitted.

‘March then, or April? Even May? Come now, be honest. Have you ever seen a real storm hit Cuba or any of the islands before the

month of June?'

Again Alaminos was forced to admit he had not. 'But there's always a first time,' he said, 'and I have a bad feeling about this storm, Don Hernán. A very bad feeling. I'm a pilot, and a good one —'

'A great one!' Cortés interrupted.

Alaminos ignored the compliment and pressed on: '… because I trust my feelings. That's why I've never lost a ship. If you insist on sailing this night then I give you fair warning – you will sink your entire fleet and drown every one of us with it.'

'Fie, man! Don't say such things!'

'It's not the saying that matters, but the hearing, Don Hernán. Hear me well, I beg you! Delay our departure until the storm clears.'

Cortés walked to the rail of the navigation deck and stared out over the darkened harbour, across the agitated waters, into the teeth of the wind. He stood silent, his head held high, like a hero of old,

like a Caesar or an Alexander. Seeing him like that, indomitable, fearless and strong, Pepillo believed in his heart what Alaminos doubted – that this great caudillo would vanquish the storm in the same confident way he had vanquished Muñoz.

‘I’m grateful for your advice,’ Cortés now said, still gazing into the night. ‘It is good advice and well meant, but mine is the burden of command and there are other matters you know nothing of that I must consider.’ He turned and walked back to join Alaminos, who was standing by the whipstaff that steered the great ship; he clapped him heartily on the shoulders. ‘Besides,’ he said, holding up a finger to the gale, ‘this is a strong wind, but a fair one in my judgement – it’s blowing our way. Once we’re free of the harbour and out on the open sea, it’s going to take us straight to the New Lands.’

‘So we sail then?’

‘Posthaste, Alaminos. The ebb tide will speed our departure. Don’t you see how everything is going our way?’

Alaminos still looked gloomy.

‘Well?’ said Cortés. ‘What is it, man? Speak your mind.’

‘Even if we’re not sunk,’ said the pilot, ‘you can be sure the fleet will be scattered. I have to plot a course to a rendezvous point and the course must be shared with all the captains before we sail or we’ll never find each other again.’

‘I’ve been giving thought to that. There was an island you visited with Córdoba in sight of the coast of the New Lands. Friendly natives, you said. Plentiful game. Sweet water. Sounds like just the spot for us.’

‘The natives call it Cozumel,’ Alaminos answered immediately. ‘The island of swallows, or some such meaning, as best we could understand it through signs and pointing. It’s a good place.’

‘Quick about it then! Plot a course for Cozumel. Make copies for each of the captains. I’ll have a rider standing by to distribute them across the fleet and then we sail.’

The ship had become a hubbub of rapidly increasing noise and activity, with sailors swarming in the rigging and working together on ropes to complete a hundred different bewildering tasks that Pepillo couldn't understand. So far, however, the aftcastle wasn't the focus of any of this, so he crawled back to his hiding place and tried to make a plan.

One thing was sure – Muñoz was no longer on board the *Santa María* and therefore posed no immediate threat to him. Pepillo realised he could now walk about freely, if he wished, without risking another beating. But if he did that, then might not he too be thrown off the ship? After all, what use was a page without a master?

He heard Cortés's voice again, now on the main deck, shouting for a despatch rider. A little later a horse galloped off and all the time the frenetic pace of preparations continued. Pepillo knew no way to make himself useful in any of this, even if he weren't a mass of bruises and pain, so all in all, he decided, the best thing he could

do was stay exactly where he was, stowed away behind the coiled ropes.

Once out at sea he couldn’t be sent back.

He was beginning to think he might actually get away with it, when he heard men climbing from the main deck to the navigation deck, heavy footsteps and a stream of foul oaths.

‘Where’s those bloody ropes?’ someone said.

Chapter Thirty-Eight

Tlascala, small hours of Friday 19 February 1519

Acolmiztli and Tree sprinted downslope to the unguarded thorn barrier and tore it apart, opening the way for the rest of the squad to stream through in a compact mass.

No turning back now, Shikotenka thought. He stretched out his legs and took the lead, flashing past neat ranks of tents and bivouacs

ranged east and west of the wide central avenue. Glancing at young Tochtli running proudly beside him, he felt for the first time the full weight of the danger he'd asked his men to face and the threat of imminent failure. Tlascalans were the greatest runners in the world, and these were the best of the best, but even they would need three minutes or more to cover the two thousand paces to Coaxoch's pavilion.

All round them harsh shouts and cries of alarm filled the air and torches flared and guttered in the rising wind. The moon, troubled by clouds, still shed enough light to show hosts of warriors, intermingled with a rabble of camp followers, merchants and pleasure girls, crowding through the tented alleys towards the edge of the southeastern sector where Guatemoc lay. Drawn by the commotion, many more were surging across the avenue from the southwestern sector, but none seemed to suspect the rapidly advancing Tlascalans in their guise as jaguar and eagle knights, simply making way for them as they pounded past.

It was an astonishing dereliction of duty, yet another sign that the Mexica were falling short of the legendary discipline Shikotenka so much admired – almost all the sentries along the avenue had left their posts to join in the general melee. Here and there, a few were still in place, novices conspicuous in their white cotton armour, who stood around awkwardly clutching their spears and casting anxious glances towards the southeast. Several actually saluted the Tlascalans and Shikotenka heard Chipahua snigger, 'Mexica arseholes!'

Five hundred paces out from the pavilion, a heavy burst of rain spattered down like an avalanche of small stones, soon settling into a drenching, insistent downpour, and in the same instant the last gap in the clouds closed, completely obscuring the moon and plunging the camp into darkness. *Perfect*, thought Shikotenka. Further evidence that the gods indeed blessed his plan. Campfires and torches were quickly doused to dull red points by the squall, but the great pavilion towered directly ahead, bright as a beacon, its walls

of thick maguey-fibre sheeting, and its soaring conical roof stretched over a frame of poles lit up brilliantly from within by a multitude of lanterns.

There was a sudden shouted challenge and a troop of Mexica spearmen, silhouetted against the pavilion's glow, loomed out of the dark. There were no more than twenty of them, perhaps thirty, all novices judging from their uniforms, but still enough to put up a fight and hinder the attack. 'Step aside, fools!' yelled Shikotenka at the top of his voice. He disguised his Tlascalan accent and summoned his most regal tones. 'We're here to protect the Snake Woman.'

'Let's just kill them,' hissed Tree.

'Maybe we won't have to,' said Shikotenka, his mind working furiously, and as they closed with the other group he brandished Guatemoc's *macuahuitl* and yelled again: 'Step aside! Tlascalan attack in the southeast quadrant. We're here to protect the Snake Woman!'

He wasn't even surprised when the ruse worked. In this army of novices, the uniforms of jaguar and eagle knights commanded immense respect, and with hair and faces hidden by their distinctive wooden helmets, there was nothing to identify his squad as the enemy. After only the slightest hesitation, the block of spearmen divided before them, some of them raising their right arms in hasty salutes as the Tlascalans shot through the gap. 'Reinforce the southeast quadrant at the double,' Shikotenka yelled back through the rain. 'Heavy fighting there. Prince Guatemoc's been killed!'

Chipahua gave another snigger. 'Arseholes,' he said again. The word boomed emphatically inside his eagle-beaked helmet.

Yes, thought Shikotenka. *Arseholes. A whole host of arseholes.* Come rain or shine there should be hundreds of sentries around the Snake Woman's pavilion, blocking every road. Instead it seemed that Coaxoch was so confident of his power, so secure in the midst of this huge army, that he'd not thought to take additional precautions.

The pavilion's entrance was a great square, twice the height of a man, veiled with gaudy curtains and approached under an immense awning borne up on rows of gilded wooden pillars, thick as tree trunks. Protected from the rain by the awning, each pillar supported a guttering lantern; by the light of these, Shikotenka saw that a dozen men had taken shelter here. They wore the distinctive yellow and black livery of the Snake Woman's personal guards and were peering out into the storm, plainly disturbed by the general commotion in the camp, but apparently not yet aware of what had happened because their spears were held at rest and their *macuahuitls* still sheathed. Better still, Shikotenka realised, the lanterns that made the guards so visible to him must make him and his squad invisible to them.

He didn't need to give orders. His Tlascalans all knew instinctively what to do and bore down on the pavilion at a dead run, the sound of their footfalls muffled by the driving rain. They

were less than twenty paces out when they were spotted, so close the guards had no time to deploy their weapons.

The slaughter began.

A big Mexica charged with clawed hands, yelling defiance, his teeth bared, but Shikotenka brought his *macuahuitl* crashing down on the man's head, spilling his brains. Tugging the weapon free he glimpsed Tree flailing about mightily to left and right with his huge war club, and Acolmiztli jerking his knife out of a guard's stomach followed by a coil of guts. Tochtli whirled his *macuahuitl* in a classic training-ground manoeuvre; he struck off another guard's leg above the knee and half severed his neck as he fell, abruptly silencing his screams. With fifty against twelve the fight was over in seconds. Shikotenka saw Etzli slip in a pool of blood and the last Mexica still standing thrust a spear down at him as he hit the ground. The Tlascalan rolled to avoid the blow and, as the guard thrust again, Tochtli sprang into his path, deflected the spear with

his *macuahuitl*, drew his dagger left-handed and stabbed the man repeatedly through the chest.

Etzli picked himself up and clapped Tochtli on the shoulder. ‘Good work, little Rabbit,’ he said. ‘You’ll make a warrior yet.’

Nicely done, cousin, Shikotenka thought. To win a compliment from Etzli was no easy task and brought Tochtli one step closer to the recognition and acceptance he craved.

Chipahua and Ilhuicamina were checking the bodies of the foe. They found three who were injured but not dead and swiftly slit their throats.

The rain still poured down, a torrential, rumbling flood beating on the sagging awning overhead and on the glowing lantern-lit walls of the great pavilion, alive with silhouettes. From within came the sounds of wild music and laughter, and quite clearly and unmistakably Shikotenka heard the high-pitched groans and gasps of a woman approaching orgasm.

‘Bet she’s faking it,’ commented Chipahua sourly.

‘You’re just jealous,’ growled Ilhuicamina.

Amazingly no one inside the pavilion seemed to have heard the sounds of struggle at the entrance. No alarm had yet been raised. What sounded like a party in full swing, even an orgy, simply continued unchecked.

Shikotenka signalled his platoon commanders to gather round. ‘Tree, Acolmiztli, you and your men are with me. We go straight in through the front entrance and remember – we’re here only for Coaxoch and his sons and we can’t risk more than a two-hundred count to get the job done. Kill everyone who gets in our way but *don’t waste time on anyone else*. Same goes for you, Chipahua – take your ten round the west side of this monstrous tent and cut your way in. Ilhuicamina – you get the east side. Etzli – you get the north. We meet in the middle – that’s where Coaxoch will be.’

‘What if he isn’t?’ said Etzli.

‘He’ll be there – surrounded by sycophants and arse-lickers. He’s too fat to miss.’

Shikotenka was less sure of this than he pretended to be. The pavilion was massive – there could be dozens of inner rooms and it wasn't inevitable that Coaxoch would be holding court. He might be sleeping. He might be fornicating. He might be taking a bath.

But it was too late now – much too late! – for any such concerns.

With slow, deliberate movements Shikotenka removed his helmet, shrugged loose his long Tlascalan locks and stripped off his jaguar knight uniform until he wore only a loincloth, weapons, waterskin and sandals. He signalled everyone else to do the same. 'No more disguises,' he said. 'They have to know who we are.'

Chapter Thirty-Nine

Tenochtitlan, small hours of Friday 19 February 1519

Tozi understood the new power she had found. It was the power to magnify others' fears.

She had directed it at Moctezuma and magnified his fear that his bowels would betray him.

She had directed it at Ahuizotl, who feared his deceit would be exposed, and driven him into a frenzy of terror.

But she was under no illusions about Moctezuma's decision to free Malinal from the killing stone. It had not happened because of anything she had done.

In the highly charged moments that had passed since she'd attained the summit of the pyramid, Tozi had experienced a revelation. It was often said by the Mexica that their Great Speakers were in direct communication with Hummingbird and served as his agents and instruments on earth, but she'd always suspected such statements of being little more than boastful propaganda. Now she knew she had been wrong, for her witch gift had allowed her to see something dreadful lurking there amongst the priests and lords clustered round the killing stone, something that no one except Moctezuma was meant to see – the true spiritual source of all the horror and wickedness the Mexica inflicted upon the world.

The war god himself.

And to see him was to witness the apparition of ultimate evil incarnate in a phantasm of immense beauty – not a body of flesh and blood, Tozi had understood at once, but a vision-body, tall and powerful with luminous skin and a nimbus of golden hair and black, black eyes, and a sly, cruel smile delighting in fear and misery and pain.

Delighting even in the fear and misery of the Great Speaker, whom he toyed with and taunted and confused by coming and going, slipping away through rifts in the fabric of the night into some invisible realm that lay beyond, only to return to pull the strings of his human puppet again and enforce his will upon him.

It was this demonic entity, this god of the dark places of the human soul, who had ordered Malinal freed, who had held back the obsidian knife, who had clamped his phantom hand over Moctezuma's nose and mouth and stifled his breathing and forced him to release her from the stone and then vanished again as though his work was done.

Tozi would not have believed it if she had not seen it with her own eyes. But having seen it she was still left with the fundamental question.

Why?

Why would such a being, nourished by the hearts of the victims Moctezuma offered him, have wanted *anyone* released?

And why Malinal in particular?

And was Tozi's own freedom, which her friend had so courageously and selflessly required, also part of some diabolical plan?

Malinal's manner towards Moctezuma had been almost … intimate. But as Tozi ran to her side her voice snapped out like a whip. 'Wait!' she said, as though the Great Speaker were of no more consequence than a household slave. 'There's one more thing …'

Tozi was acutely conscious of how the nobles gathered on the summit platform, the killing crew and the priests were all standing

round with their mouths gaping in disbelief watching this impossible exchange.

‘There’s a boy,’ Malinal continued. ‘A little boy. He was imprisoned amongst the women in error. Ahuizotl sent him to the western stairway for sacrifice. If he still lives I want to take him with us.’

All eyes turned towards the western altar. After the dramatic events of the past few moments the sacrifices there had ceased, as they had ceased also at the eastern altar – both these points being plainly visible in the bright light of torches and braziers, and less than a hundred feet distant from their present position.

‘A boy?’ said Moctezuma.

‘Yes,’ said Malinal. ‘A boy. I would take him with me. You must give the order.’

Tozi focussed her power and read the squirming mind of the Great Speaker. He was trying to guess if it was the god who wanted this, or only the impertinent woman whom the god had so

inexplicably favoured? He also very much wished not to appear weak in the presence of the nobles. He played for time while he struggled to decide: ‘Why must I give such an order?’

‘*Because the god wills it*,’ hissed Tozi. Though unseen she felt the presence of Hummingbird again, horribly close, looming over her, and heard a voice, thick and triumphant, whisper in her ear the words, ‘*You’re mine now.*’ In that same fleeting instant, a great bolt of lightning cracked down out of the storm-tossed sky and struck the roof-comb of the temple, bathing the whole structure in a glory of flickering blue flame. Tozi watched, hypnotised, as a tongue of the witch fire licked out towards her, touched her, and was gone, leaving her astonished she was unhurt, her whole body reverberating as though she were a bell struck by some great hammer. A colossal roll of thunder shook the pyramid like an earthquake and Moctezuma groaned and stiffened. ‘Take the boy!’ he shrieked. ‘Cuitláhuac – see to it!’

As Cuitláhuac escorted them round the side of the temple towards the western altar, Tozi's breath came in short, sharp gasps and she heard herself muttering – *Gods let us be on time. Gods let us be on time*. Reflected in the evil glow of the brazier, where a dozen hearts lay smoking, she saw the cruel hooked nose and sneering lips of Namacuix, Ahuizotl's deputy. Clutching a long obsidian knife loosely in his right hand, he stood back from the killing stone where his assistants held a small struggling body stretched out ready for sacrifice.

'*Coyotl*,' Tozi bellowed rushing forward, only to discover as she drew closer that the victim was a young girl whose terrified face she half remembered from the fattening pen. Namacuix seemed to be in a trance, gazing up with rapt attention at the roof of the temple where the lightning bolt had struck, but Tozi's frantic approach snapped him out of it. He turned on her with a roar of fury, knife raised.

‘Stay your blade, Namacuix,’ barked Cuitláhuac. ‘She’s not to be harmed.’ He indicated Malinal: ‘That one too. Moctezuma himself has ordered their release.’ As he spoke more lightning flickered amongst the clouds, thunder growling up there like some monstrous beast, and a few heavy drops of rain spattered down.

The anger drained from Namacuix’s face. Puzzlement replaced it. ‘What’s this all about?’ he asked Cuitláhuac. ‘The Great Speaker offering sacrifices from morning to night, a suicide on the northern stairway, the temple of Hummingbird struck by lightning, prisoners released. I’ve known nothing like it in twenty years as a priest.’

‘Neither have I, my friend,’ said Cuitláhuac. ‘Neither have any of us.’ He lowered his voice: ‘There’s sorcery at work.’ He looked at Malinal and Tozi again and made a gesture of disgust. ‘They say they have a friend who was brought to the western stair for sacrifice – a little boy. He’s to go free also. Have you seen him?’

Namacuix’s puzzlement deepened. ‘The Speaker ordered only females sacrificed. The fattening pen was emptied. No males have

come under my knife.'

'His *tepulli* and *ahuacatl* had been hacked off,' Tozi snarled. 'Many mistake him for a girl. Did you see such a one?'

'Insolent cockroach!' Namacuix was furious again. 'How dare you address *me*?'

'Answer her question,' Malinal snapped, 'unless you prefer to answer to the Great Speaker.'

'It would be wise to answer,' suggested Cuitláhuac. 'Could one of your victims have been a mutilated boy?'

Namacuix nibbled his lower lip. 'How can I know?' he said after a moment's thought. 'I'm here to kill them not examine them.' He pointed his knife at a heap of butchered torsos stacked five deep and four wide, like logs at the edge of the summit platform ready to be thrown down. 'The last ones I harvested are still there. See for yourselves.'

Tozi fell on her knees in the pool of gore before the grisly mound of human remains. Behind her, on the sacrificial stone, she heard a

wail of renewed terror. Below, the captives waiting their turn for sacrifice occupied the bloody steps in a long line that stretched down through the deep shadows enveloping the lower reaches of the pyramid and emerged beyond into the lantern-lit plaza.

Tozi put her hands on the first of the slick, glistening bodies – a woman's body, full breasts obscenely divided by a wide, dripping gash where the heart had been torn out. The others next to it were also those of mature women. She groaned with effort and horror as she shoved them aside to reach the layer below.

'Don't,' Tozi heard Malinal say. 'This is more than any human can bear.'

'I have to know. I promised I'd protect him …' Tozi bowed her head and one by one examined every blood-smeared cadaver, but Coyotl was not amongst them.

When she was done she felt a gentle hand on her shoulder. 'Come,' Malinal said quietly. She was holding a flickering torch. 'Perhaps he's still somewhere in the line.'

As they moved to the steps, Cuitláhuac sighed with impatience and urged them to make haste, but Malinal held the torch up to the tired, terrified, sometimes defiant faces of every waiting victim. Each time a child of approximately Coyotl's age and size was illuminated by the flames, Tozi peered closer, only to stand back again in disappointment and continue the slippery, precipitous journey.

About halfway down, the torch light reflected in the *Itzli*-dulled eyes of one of the Tlascalan girls from Xoco's gang who'd persecuted Tozi since the morning. 'Well if it isn't the witch,' she slurred. 'Walking free again, are you?'

Tozi didn't explain. 'We're looking for Coyotl,' she said.

The girl gave a crafty, knowing grin: 'You mean that little eunuch of yours?'

A surge of hope. 'Yes. Have you seen him?'

'Might have done. Then again I might not.'

Tozi moved closer. 'If you've seen him, please tell me.'

The girl cast a sideways glance at Cuitláhuac. ‘Get this great lord to free me,’ she said, ‘then I’ll tell you.’ But Tozi was already inside her head and saw at once she knew nothing. Without a backward glance she resumed the descent.

‘I’ve seen him all right,’ the girl suddenly shouted, high-pitched, furious. ‘He was crying out for you! I dealt him a few slaps but he wouldn’t shut up, so I shoved him off the steps. He fell and died! That’s what happened to him.’

Tozi ignored her, continued to examine the faces in the line. ‘It’s not true,’ she said to Malinal.

‘How do you know?’

‘I just know. It’s not true. She hasn’t seen Coyotl.’

When they reached the foot of the stairway there were more hideous piles of torsos piled on both sides, the remains of victims already sacrificed and thrown down the pyramid. Tozi felt drawn strongly towards the huge mound of hundreds of bodies on their right but Malinal’s hand touched her shoulder again. ‘There isn’t

time,’ the older woman said, her voice urgent. ‘You’ve done all you can but this is hopeless. We have to get out of here, *now*, before Moctezuma changes his mind.’

Chapter Forty

Tenochtitlan, small hours of Friday 19 February 1519

Cuitláhuac led Malinal and Tozi across the plaza, where gangs of enforcers surrounded the prisoners who had not yet begun to climb the pyramid, keeping them in order with goads and whips. Malinal had held onto the torch and Tozi insisted that these last victims, too, must be examined by its light, but Coyotl was not amongst them.

Huge numbers of priests were still present, clutching their flickering orange lanterns. No longer dancing, they stood solemnly in place, their red-painted faces set in expressions of bemusement, even fear. No drums beat, no conches blared, and even the wind, which had blown so wildly before, seemed to have fallen still. Indeed, since the dramatic pause in the sacrifices, the extraordinary behaviour of the Great Speaker, and the bolt from heaven that had struck the temple, a deadly uncertainty had settled upon the proceedings.

Cuitláhuac strode directly towards the northwest side of the plaza. He seemed to be making for the fattening pen where they'd so recently been held. Malinal stiffened: 'What's this?' she demanded. 'We're to be set free.'

'You will be,' said Cuitláhuac grimly, 'though I'd prefer otherwise. If this was my decision I'd find out what you know about Ahuizotl and then have you killed. But Moctezuma has spoken. I have no choice but to obey.'

‘Why would you wish me dead, Cuitláhuac? Don’t you remember our nights together?’

‘I remember them – to my shame. But at least I’m not a priest sworn to celibacy.’

‘You were dull and clumsy,’ Malinal recalled.

‘And you’re a whore,’ Cuitláhuac said, ‘a whore and a witch. You were meant to die four months ago and you lived. You were meant to die tonight and yet you live again.’

Tozi was walking quietly along beside them, deep in thought. ‘It’s because the gods will it,’ she now said. ‘Don’t you know the gods always get their way?’

Adjacent to the women’s fattening pen, but towering above it, was the empty palace of Axayacatl, Moctezuma’s father. It now became clear that this was where Cuitláhuac was heading – not to the imposing main entrance, which stood directly opposite the western face of the pyramid, but to a small door at the northern end of the huge building.

On either side of this door stood two hulking spearmen wrapped in long cloaks.

Again Malinal hesitated, still mistrusting Cuitláhuac's intentions, and he sighed with exasperation. 'You *will* be freed!' he repeated. 'I may not agree with the Speaker's decision but I'm a man of the law. You and your friend will go safely from our city. You have my word on it.'

He snapped a command to the spearmen, who swung open the door, admitting them to a long, narrow corridor smelling faintly of mildew overlaid with copal incense. The door closed again behind them, leaving the spearmen outside, and Cuitláhuac hurried forward. 'Quick now,' he growled. 'I don't have all night.'

Malinal cast a sideways glance at Tozi, who was once more lost in reflection, her head down and her eyes half closed. No doubt the teenager was grieving for her lost friend Coyotl, but she seemed to sense no danger and that was surely a good sign. Besides, the more Malinal thought about it, the more confident she became that

Cuitláhuac was telling the truth. He was a dogmatic advocate of the lawful procedures and hierarchy of Mexica society, at the apex of which sat Moctezuma. Others, like Ahuizotl, might be willing to frustrate the Speaker's will, but not this nit-picker.

Most reassuring of all, however, as she now recalled from previous visits to Axayacatl's palace – which members of Moctezuma's close family were sometimes permitted to use for entertaining – was that a secret postern at the rear of the grand building led via a narrow alley directly onto the Tacuba causeway, the principal western exit from Tenochtitlan. It seemed that Cuitláhuac had chosen a quick and discreet route to get them out of the island city.

Though kept unoccupied since Axayacatl's death, the grand banqueting halls of the palace, its audience chambers and countless bedrooms and living areas were all fully furnished. A permanent staff of servants and slaves maintained the facilities, and it was even rumoured that Axayacatl's royal treasure was still kept somewhere

on the premises, walled in to a secret chamber on Moctezuma's orders.

Cuitláhuac led Malinal and Tozi to the palace kitchen, barked instructions at the pair of elderly male retainers on duty there and abruptly left the room, saying he would be back within the hour. One of the retainers scuttled off, leaving the other watching them fearfully, but soon returned accompanied by a team of eight female slaves carrying huge tubs of steaming, scented water. With eyes averted, the slaves offered to bathe Malinal and Tozi and plucked off their torn and bloodied paper garments. Not a word was said to them during the entire process, and neither did they speak to each other, but Malinal watched Tozi in amazement as the layers of gore and grime and paint were washed from her skin and hair. What emerged was much more than a skinny fourteen-year-old waif. The events of the last day, she realised, had transformed her friend into a young woman – a beautiful, fey young woman whose dark eyes glittered with a deep and formidable inner strength.

At all times avoiding looking them in the face, the slaves offered them towels, then brought in piles of skirts and blouses of the finest quality, sturdy sandals and heavy travelling cloaks, signalling them to take their pick. When they had finished dressing, they were given backpacks filled with fresh and dried provisions suitable for a long journey. Finally Cuitláhuac reappeared, raised an eyebrow at their changed appearance, and told them once again to follow him.

Minutes later they exited the postern and found themselves in the darkened alley behind the palace. The wind had risen again and thunder still rolled ominously overhead. Cuitláhuac gripped Malinal's upper arm. 'Before I let you go,' he said, 'I want you to tell me the exact location of the secret house where you say Ahuizotl kept you prisoner.

'Why don't you ask him yourself?'

The nobleman hesitated. 'I can't. He fled the pyramid and we don't know where he is. But if your story's true then he's committed sacrilege.'

Malinal found herself filled with fierce pleasure at the prospect of the terrible death she hoped would very soon be inflicted on the high priest. ‘My story’s true all right,’ she said. ‘He’s holding five other women captive. They’ll back me up. Search street seventeen in the district of Tlatelolco – about halfway along, I’d say. Big house, all of stone, three storeys, an orchard in the garden. It shouldn’t be too difficult to find.’

Cuitláhuac gave her a harsh shove and released her arm. ‘Whore,’ he growled, as she stumbled and rebounded off the wall of the alley. ‘You’ve been told to leave Tenochtitlan, so leave it. Now! If you or your little friend ever return to our city I’ll hear about it and, mark my words, I’ll have you killed.’ He spat, turned his back on her, stooped through the postern into the palace, and was gone.

Tozi rushed to Malinal’s side and they embraced. Tozi was trembling, though whether with fear or anger Malinal could not tell.

As they emerged from the alley and joined the throng of human traffic moving in both directions on the two-mile length of the Tacuba causeway, the rainstorm that had been threatening all evening broke at last and a heavy downpour began, soaking them to the skin. The crowds commuting across Lake Texcoco between Tacuba and Tenochtitlan were still numerous, despite the late hour, but now rapidly thinned, with only the most determined still braving the deluge. All the rest ducked into doorways and under the awnings of the countless shops and homes built up on stilts along the causeway's flanks.

Sturdily constructed of stone, and wide enough for ten people to pass comfortably abreast, the causeway was raised twice the height of a man above the surface of the lake. Approximately every three hundred paces, however, intervals occurred where the stone paving was replaced by bridges of thick wooden planks. These were designed to be removed quickly in the unlikely event that any of the Mexicas' enemies were foolish enough to use the causeway to

mount an attack on Tenochtitlan. Guardhouses two storeys high loomed over every bridge. Approaching the first of these, Malinal's heart beat faster. She reached out and clutched Tozi's hand but, as they crossed the bridge amidst a cluster of housewives, merchants and servants in too much of a hurry to take shelter, they saw that all the sentries had been driven within by the rain.

'It's all right,' whispered Tozi. 'You're still afraid Moctezuma will change his mind and order our arrests, but I've been thinking about it and I don't believe he will. Not tonight anyway. He was scared out of his wits. He had to let us go.'

'You saved our lives,' Malinal exclaimed, putting all the gratitude and awe she felt into her voice. 'I still can't believe what you did to him!'

'I did nothing,' Tozi replied.

'What do you mean you did nothing? You said your powers had come back – and they did! I *saw* what happened. Only magic could have done that.'

‘Maybe so,’ Tozi allowed, ‘but it wasn’t my magic. I couldn’t even find Coyotl! It was the magic of Hummingbird that saved us.’

Malinal frowned in puzzlement and wiped rain from her eyes. ‘Hummingbird? I don’t understand you.’

‘He was there. I saw him. Moctezuma was talking to him. Hummingbird ordered you freed and he touched me with his flame. He chose us, Malinal, and he protected us!’

‘But that makes no sense!’

‘It’s not easy to make sense of what the gods do, but there’s only one possible answer. Hummingbird has a plan for you … And for me too.’

Malinal fell silent, her mind reeling. Her years in Tenochtitlan had left her in no doubt about the nature of the Mexica war god. He was a being of pure evil. So if he had a plan for them, as Tozi said, then it followed that only evil could come of it.

The very idea made her feel nauseous, and utterly helpless. Tozi must be imagining all this. It could not – it must not! – be real.

They came to another bridge. As they crossed it she squeezed her friend's hand tightly, but once again there was no challenge. Only a few people walked alongside them now, their heads bowed and their shoulders hunched. The rain hissed down and the wind churned the waters of the lake into angry waves that beat against the solid mass of the causeway. Thunder groaned in the heavens, the heavy clouds flickered and glowed, lit from horizon to horizon by great sheets of lightning; in the distance behind them, carried through the storm on a gust of wind, they heard the leaden beat of the snakeskin drum and the blare of conches announcing that the sacrifices had resumed.

They both turned, as though forced by some giant hand. The hulking silhouette of the palace of Axayacatl reared up behind them, dark as a breach in the night. Beyond it, dwarfing every other structure of Tenochtitlan and blazing with the eldritch glow of braziers and torches that no earthly downpour could extinguish, the summit of the great pyramid seemed to threaten even the sky.

When they reached the end of the causeway, they walked through almost deserted streets into the main square of Tacuba. The rain was still sheeting down and, other than a few beggars hunched beneath awnings, the square was deserted.

As they took shelter under a projecting roof, Tozi said fiercely: ‘We’ve got to put a stop to it. Don’t you agree?’

‘Put a stop to what?’

‘The Mexica, what they’re doing. We have to put a stop to their sacrifices or they’ll damn this land forever.’

Malinal laughed, and the sound was hollow in her ears. ‘Stop the sacrifices? Sweet one, you might as well try to stop this rain, or the wind blowing, or the sun rising tomorrow. The Mexica are addicted to sacrifice. It’s their drug. No one will ever be able to stop them.’

‘Hummingbird stopped us being sacrificed today and he’s the worst and most evil of the gods …’

‘Which means he must have had an evil reason for doing it,’ Malinal said, giving voice to the fear that had gripped her the

moment Tozi had mentioned this horrible idea on the causeway. But even as she spoke she thought, *It's not real. It cannot be real*.

'Maybe so …' Tozi continued oblivious. 'But at least it proves the gods can stop any sacrifice if they want to.'

'Well, yes … I suppose they can – since it's in their name that all the sacrifices are made.'

'But there's one god who never demanded human sacrifices – who condemned all sacrifices, except of fruits and flowers.'

'Quetzalcoatl,' Malinal said. And suddenly she got a glimpse of where Tozi was taking this strange conversation.

'Exactly! Quetzalcoatl – who, it was long ago prophesied, would return in a One-Reed year to overthrow the rule of wickedness forever.'

'Yes,' Malinal breathed. 'So it was prophesied.'

'And are we not now,' Tozi asked triumphantly, 'in a One-Reed year?'

Again Malinal could only agree. ‘The year One-Reed has just begun,’ she said.

‘And didn’t you tell me today,’ Tozi continued, ‘that the retinue of Quetzalcoatl was seen four months ago emerging from across the eastern ocean to herald his return? Didn’t they come ashore in the lands of your own people, the Chontal Maya, and isn’t that why you were called to interpret when the messenger of the Chontal Maya came to Moctezuma?’

‘Yes,’ said Malinal distractedly, beginning to believe this madness of Tozi’s. ‘Yes. It’s true. That is why I was called.’

‘Moctezuma was very afraid, was he not?’ Tozi gave a harsh laugh. ‘He actually soiled himself, I think you said.’

Malinal laughed too, although her memories of what had happened afterwards were terrible ones. ‘It’s true. He soiled himself with fear.’

‘So if Quetzalcoatl were really to return, can you imagine what would happen to Moctezuma?’

Malinal could imagine it all too well. ‘It would mean the end of his rule,’ she said slowly, ‘the end of human sacrifice, even the end of Hummingbird himself.’

‘Exactly, my dear! Exactly!’ Tozi stepped out from under the shelter of the roof and began to dance in the rain. ‘Surely you must see now that we’re playing our parts in a great plan, that Moctezuma too is playing his part, and that even the wicked and deluded god he serves must play his part.’

‘I don’t know,’ Malinal said. ‘I don’t understand any of this.’

‘You don’t need to understand it, beautiful Malinal. This is the year One-Reed and you just have to play your part.’ Tozi was half chanting, half singing. ‘Don’t you see it’s not an accident that you are of the Chontal Maya and that those who came to herald the return of Quetzalcoatl first appeared in the land of your people, and in Potonchan, the very town where you were born? None of this is an accident, Malinal. That’s why you must go back to Potonchan

now, without delay. That's why you must start your journey at once.'

Malinal was dismayed. 'I can't go back there,' she cried. 'I can't ever go back! It was my own people – my own mother! – who sold me into slavery to the Mexica. It's a long story, but if I return to Potonchan it's certain I'll be arrested. At best I'll be made a slave again. At worst I'll be killed on the spot.'

Tozi's face was ferociously set. 'It doesn't matter!' she said. 'Don't you see, it doesn't matter? You simply have to go back and the plan will begin to unfold. Trust the plan, Malinal. Trust the plan …'

Now Tozi began to strip off her fine clothes – cloak, blouse, skirt, underwear – and hung them folded over her arm.

'What are you doing?' Malinal yelled and strode out into the rain.

'I'm doing what has to be done,' said Tozi. 'I'm playing my part. And you must play yours. Go to your homeland *now!*' Her voice had risen suddenly to a commanding shriek. It pierced Malinal's

head like a lance and stopped her in her tracks. ‘Go now,’ Tozi said more softly. She gestured towards the glow of the great pyramid still faintly visible two miles distant across the causeway. ‘Go to Potonchan and bring Quetzalcoatl here and we’ll put a stop to all that.’

Taking off her sturdy sandals, Tozi walked naked and barefoot to a beggar girl who sat nearby, crouched under an awning. There was a brief murmur of conversation and then the girl, too, began to undress.

‘What are you *doing*?’ Malinal cried again. She tried to step forward to stop this foolishness but found she was rooted to the spot.

‘I told you,’ said Tozi, who was already dressing herself in the girl’s threadbare skirt and blouse. ‘I’m playing my part and you must play yours. Go to Potonchan *and bring Quetzalcoatl!*’

‘And what about you?’ Malinal called. ‘Where will you go?’

‘Back to Tenochtitlan, of course, to work harm on Moctezuma and to find Coyotl.’

‘Coyotl is dead, Tozi! Any other thought is madness. You must accept this.’

‘I won’t accept it!’ Tozi said defiantly. ‘We didn’t see his body. I don’t believe he even climbed the pyramid. Somehow he still lives. I’m sure of it.’

And without a further word she whirled and ran off towards the causeway. Again Malinal tried to follow and again she found she could not. The rain was heavy in the thick darkness, and Tozi vanished into it as suddenly and as completely as if she’d regained the power to fade.

Only when she had gone was Malinal once more able to move.

She turned in the opposite direction, her mind made up.

No matter the dangers, she would do as her friend asked. She would return to Potonchan and the memories that awaited her there.

And if Quetzalcoatl should appear, as Tozi in her madness claimed he would, then she would bring him to Tenochtitlan.

Chapter Forty-One

Tlascala, small hours of Friday 19 February 1519

As befitted the man who bore the official title of Snake Woman, and ranked second only to Moctezuma himself in the entire, vast Mexica power structure, Coaxoch travelled into battle in the greatest possible luxury, surrounded not only by the thirty-two thousand warriors of his field army, but also by cohorts of servants, personal

attendants, clerks, bodyguards, cooks, masseurs, doctors, tailors, entertainers and pleasure girls. The presence of his four sons, ranked as regiment generals, each with their own retinue of assistants, staff officers and concubines, further added to the scale of the vast mobile court assembled within the giant pavilion that Shikotenka had watched being assembled during the course of the day. Consisting of acres of heavy-duty maguey-fibre sheets secured around a framework of poles and struts, it formed a square cage measuring perhaps a hundred paces along each side. The whole edifice was roofed by further acres of sheeting, hung and tied over an ingeniously constructed dome of cantilevered spars soaring to a height of thirty feet. The delights of Tenochtitlan might be two days' hard march away, but this vast structure somehow managed to summon up, encapsulate and symbolise all the pomp and ceremony of the Mexica capital, all its boastfulness and arrogance, all its cruelty and danger.

Tochtli was trembling but bright-eyed at the prospect of battle and a chance to prove himself further. Shikotenka once again felt a moment of apprehension. The boy might die tonight on this insane mission. They all might die! But if they succeeded, if they could kill Coaxoch and his sons, they would strike a mortal blow against Mexica pride and power and, Shikotenka hoped, set in motion a chain of events that would make all the risks worthwhile.

'We go,' he said, 'right now!' With Tochtli bounding along beside him, and Tree and Acolmiztli and the rest of their twenty right behind, Shikotenka charged through the front entrance of the pavilion, hoping for a clear avenue running north to south to the great banqueting hall at its centre. Instead he found himself in an east–west corridor, wide enough for three men to pass abreast, confronted, as he had feared, by a second wall of sheets running parallel to the external wall. He immediately raised his hand to signal a halt, his men pressing in behind him, crowding one another in an unruly scrum, bristling with weapons and pent-up battle rage.

He hesitated. Seeming to emanate from some point nearby, the barbaric sounds of drums, stringed instruments and trumpets were much louder than they had been outside, while beyond the sheets forming the inner wall of the corridor, the groans of a woman being pleasured, and the grunts of the man pleasuring her, were rising rapidly to a crescendo.

Shikotenka raised Guatemoc's *macuahuitl*, slashed a great rip in the sheeting of the corridor and shot through the gap. His eyes fell immediately on another *macuahuitl* and two flint knives, all sheathed. They lay amidst a heap of discarded clothing at the foot of a camp bed where a hefty Mexica male, supporting himself on his hands, muscular buttocks glistening with sweat, was vigorously coupling with some slender female. The woman – Mexica also, judging from her hairstyle – was not too far gone in pleasure to fail to notice the intrusion, and gave vent to an ear-piercing scream as Shikotenka brought his *macuahuitl* crashing down on the man's spine, cutting him almost in half.

Freeing the weapon with a sharp tug, he rushed onwards across the little room followed by the rest of his crew, slashed open the opposite wall and burst into a much larger chamber beyond. There he found himself in the midst of a fragrant mass of women – forty of them at least – some naked, some dressed in revealing tunics, some still prone amongst cushions, some struggling to their feet, most already standing, their confusion and evident fear rapidly escalating into panic as the heavily armed Tlascalans barged into them.

The sound of so many women shrieking in unison was deafening, and suddenly a furious, heavy-set matron, her face red, her eyeballs bulging, popped up in Shikotenka's path, howling abuse at him and wagging an admonishing finger. Without breaking momentum he simply bowled right over her, smashing her to the ground. Tree then gave her a thorough trampling, and the rest of the gang followed as Shikotenka reached the next wall and cut a gaping slash in it through which they all streamed.

Gods! It seemed that Coaxoch had assembled a whole city with its different districts and neighbourhoods inside this immense pavilion, for the room they now entered was huge and quite different in character from the outer chambers. There were musicians on a podium and a few dozen dancers still milling on the floor, but all were alert, terrified, many already running. Some armed men – a small detachment of Coaxoch's guard, a handful of nobles who'd drawn their weapons – attempted resistance, but the Tlascalans were gripped by battle rage and cut them down in a shambles of blood and hacked-off limbs.

Shikotenka paused to get his bearings. They'd entered the pavilion through its southern portico and cut their way northward from there, spearing towards the centre of the huge structure where they hoped to find Coaxoch and his court. It was difficult to estimate how far they'd come – perhaps halfway? – but Shikotenka took it as a sign they were headed in the right direction when he spotted Iccauhtli, the youngest of Coaxoch's four sons, a pampered

nineteen-year-old raised by influence to the rank of regiment general. The brawny, moon-faced youth threw himself to the ground, wriggling beneath the podium, and Shikotenka went after him, grabbed his feet and hauled him out kicking and bawling for help. ‘If you want to live,’ he said, ‘take us to your father.’ But as he spoke he sensed a flicker of movement out of the corner of his eye and dived sideways on pure instinct, pulling Iccauhtli back to the ground with him. Some sort of projectile whizzed over their heads and he looked up to see a dwarf – Coaxoch kept a team of them, trained as acrobats, to amuse his court – drawing a ludicrously tiny bow. A second arrow, no doubt poisoned, was already notched to the string when Tochtli appeared out of nowhere, grabbed the halfling around the legs, lifted him bodily and hurled him across the room where he fell in a crumpled heap.

Iccauhtli was struggling mightily, lashing out with his fists. He was heavily built and reputedly had fought some engagements, taken some prisoners, but he was no match for Shikotenka, who

smashed the hilt of his *macuahuitl* viciously into his face as he dragged him to his feet again. ‘Your father!’ he roared. ‘Lead us to him.’

‘Never!’ spat Iccauhtli, teeth dropping from his mouth.

‘Then die,’ hissed Shikotenka, taking a rapid step backward, swinging his *macuahuitl* through a half-circle and decapitating the thickset youth. As he struck the blow he noticed five more Mexica guards barrelling into the room, their javelins taking flight even as the peculiarly spherical head of their boy general went rolling and bouncing across the floor.

They were good these guards, steady on their feet as they launched, and the Tlascalans suffered their first casualties, amongst them Tochtli, Shikotenka’s own cousin, who took a javelin in the belly. Though such a wound was not immediately fatal, it meant Tochtli would be unable to flee the pavilion after the raid and must therefore certainly die.

Most of the Tlascalans still carried their bows over their shoulders. In an instant a dozen had unslung and fired, sending a dense volley of arrows at the guards, killing all but one of them who emerged miraculously unscathed but died under Tree's club a moment later. With that, all opposition in the dance chamber ceased. Shikotenka's heart was heavy to see Tochtli on his knees, struggling to withdraw the spear, but there could be no help for any of the injured tonight, no kindness or love or sentiment, and he rushed past his cousin without glancing back, calling Tree and Acolmiztli to rally their men.

It was taking too long to find Coaxoch, who surely must know by now what was happening, must already be fleeing? But just as Shikotenka admitted this depressing possibility, he heard sounds of battle, saw an alley heading north through the maze of sheeting and followed it at a dead run into a great open space in the heart of the pavilion. There a force of the Snake Woman's personal guard had formed a protective circle around Coaxoch and his three surviving

sons. Fewer than twenty of the guards remained on their feet, their numbers dwindling rapidly as they were picked off with arrows and cut down by the *macuahuitls* of the other Tlascalan platoons under Chipahua, Etzli and Ilhuicamina.

'What kept you?' said Chipahua as Shikotenka, Tree and Acolmiztli jogged up beside him and immediately threw their men into the fight, bringing a decisive advantage of numbers and instantly transforming what had been a battle of attrition into a massacre. In less than a minute all the guards were down and two more of Coaxoch's sons were dead. Ilhuicamina held a knife to the throat of Mahuizoh, the last and eldest of them, but, on Shikotenka's orders, had so far restrained himself from killing him. Coaxoch, his fat jowls dripping with tears, was on his knees at Shikotenka's feet, begging for mercy.

There was no mercy in Shikotenka's heart, only the sense of time slipping away too fast – for undoubtedly many had fled the pavilion

to spread the alarm and Mexica reinforcements must be on the way. He pointed at Mahuizoh. ‘We’ll let that one live,’ he said.

‘Why?’ demanded Ilhuicamina. He was angry, his prosthetic jade nose giving him a strange, almost inhuman appearance.

‘I want him to bear witness to what happened here. You can cut off *his* nose if you like but keep him alive.’

Shikotenka turned back to Coaxoch. ‘You fat turd,’ he said. ‘You used to be a man once but look at you now, blubbering like a woman. Stand up! *Stand up I say!*’

With great difficulty Coaxoch clambered to his feet. ‘What do you want of me?’ he asked sullenly.

Shikotenka had been holding Guatemoc’s *macuahuitl* loosely in his left hand. Now he clamped his right hand to its hilt and swung the weapon up between Coaxoch’s legs with savage force, hacking through his pubic bone, rending his abdomen to the navel and finally twisting the weapon as he pulled it out so that the Snake Woman’s intestines, swollen and stinking, spooled to the ground at

his feet. To his credit he did not cry out in death, perhaps recovering some of the warrior composure he'd been famed for in his youth, and as he dropped to his knees a ghastly smile stiffened his corpulent features.

Hearing a sudden shriek behind him, Shikotenka spun and saw Mahuizoh bent almost double by Tree who had twisted his arms behind his back. Ilhuicamina loomed over the struggling general, holding a fat knob of flesh and gristle in his hand which he now threw with disgust to the ground. 'Well,' he said defensively, 'you did say I could cut off his nose.'

'It's the least he deserves,' said Tree as Mahuizoh roared and tried to pull free but was unable to break his grip, 'the very least.'

Shikotenka swung the *macuahuitl* again, decapitating Coaxoch, then walked over to Mahuizoh, the head dangling by its hair from his fist. 'Do you remember me?' he said.

An incoherent roar from Mahuizoh.

‘*Do you remember me?*’ Shikotenka repeated, louder this time, and Tree twisted the captive’s arms tighter, extracting a gasp of pain.

‘I remember you,’ Mahuizoh replied, his voice gurgling through blood and horribly distorted. ‘You are Shikotenka, battle king of Tlascala. You’ve killed my father. You’ve killed my brothers. Why don’t you go ahead and kill me?’

‘Because you’re more useful to me as a messenger,’ sneered Shikotenka. ‘Run off home to Tenochtitlan now and tell Moctezuma how the nation of Tlascala humiliated Coaxoch and his phony generals tonight.’

Like his late father, Mahuizoh was a big man with a torturer’s cruel face but, where Coaxoch had run to fat, the son, still less than thirty years of age, was all solid muscle, a towering square slab whose tunic had come awry showing massive thighs and a heavy wrestler’s body glistening with sweat. He didn’t have Tree’s height and couldn’t match his enormous strength but, even injured, with

his arms bent forcefully behind his back, he was putting up a creditable fight.

Mahuizoh laughed – a hideous, liquid, choking sound. ‘You’ll not leave this camp alive,’ he said, ‘and when I go to Moctezuma I’ll be wearing your skin.’ Over the blood pouring from the cavity that had once been his nose his eyes burned with hatred.

That’s right, thought Shikotenka. *Hate me. Hate me with all your foul heart. It’s exactly what I want you to do.*

Tree dealt the general a stunning blow to the temple, knocking him to the ground while Shikotenka turned on the balls of his feet, his eyes urgently searching the great tented hall. He’d gambled on Coaxoch keeping the armoury of his personal guard close, so it was with a sense of vindication that he spotted racks of spears, *atlatls*, bows, *macuahuitls*, clubs and shields stacked in neat rows to one side. ‘Every man grab a shield,’ Shikotenka yelled, and the blood-smeared Tlascalans, who’d started the raid armed only with

offensive weapons to maximise their speed and killing power, scrambled to obey.

In moments they all had circular bucklers fashioned from heavy hardwood, covered in leather painted in yellow and black stripes, and studded with flint, strapped to their forearms. Shikotenka, who had also snatched up a long spear, reviewed his squad with approval. The expressions on their faces were hard to read. ‘Well?’ he yelled. ‘What are you waiting for? The whole Mexica army’s coming our way. Time we got out of here.’

Running back south, they soon reached the dance chamber. Shikotenka paused by Tochtli, who had failed to free the javelin from his belly and was curled up in a ball around its shaft. ‘I’m sorry, little Rabbit,’ he said as he gently slit his cousin’s throat. ‘You were brave tonight, and skilful. I wish this had ended better for you.’

Chapter Forty-Two

Santiago, Cuba, small hours of Friday 19 February 1519

Cortés was striding about the main deck, willing the storm to abate whilst supervising the loading of the last supplies. In his imagination he pictured the governor and a squadron of his guards thundering down the road from Santiago. Should they reach the port before the fleet sailed, all would be lost.

Yet even as he counted the minutes, he refused to lose his nerve, and kept a calm countenance, issuing orders without panic or obvious hurry. Everything must be done that should be done for, if it was not, even if they got to sea in time, the expedition would surely fail.

The *Santa María*'s share of the pigs, goats and cattle brought by Díaz from the slaughterhouse were already billeted in the forward hold, squealing and bleating in the pens hastily knocked up for them. Meanwhile, here on the main deck, the four excellent carriage horses that Dr La Peña had so generously donated to the expedition were even now being led on board and tethered into slings alongside the six fine chargers loaded earlier and stamping nervously in their stalls. With the five good mounts that Alvarado was transporting, and three more on Puertocarrero's ship, the expedition could field a force of eighteen cavalry. Cortés would have preferred more – fifty, even a hundred! – but he was reasonably sure the natives of the New Lands would never have faced battle against mounted troops.

They would likely be as overawed and demoralised by the experience as the Indians of Cuba and Hispaniola.

‘Caudillo … Excuse me.’ Cortés felt a tug at his sleeve and turned to confront Nuno Guiterrez, a bearded brute of a sailor, one of the team he’d ordered moments before to prepare the *Santa María* to be warped out from the pier.

‘Yes, Nuno? What do you want?’

‘We’ve found a stowaway, sir.’

‘Stowaway?’ Cortés glanced down, saw that the sailor’s massive paw was clamped around the small frail shoulder of Muñoz’s unfortunate page, and nodded in recognition. ‘Oh,’ he said. ‘Him.’ The boy’s nose was red and painfully swollen, and the mass of cuts and bruises on his skinny body stood out like accusations in the yellow light of the ship’s lanterns. ‘He’s no stowaway. He serves our Inquisitor. Where did you find him?’

‘Hiding in the aftcastle,’ said Guiterrez, who had a voice like pebbles being shaken in a sieve. ‘Burrowed down amongst the

springlines.'

'Very well. Be about your business. You can leave him with me.'

Guiterrez had the peculiar rolling gait of those who'd been too long at sea. As he moved aft, Cortés saw that the boy was afraid – who wouldn't be with a master like Muñoz? – but trying not to show it.

'What's your name, lad?'

'I am Pepillo, sir.'

'And what's your opinion of your master, young Pepillo?'

A look of caution came into the boy's eyes. 'I'm sure I can't say.'

'Can't say? Or won't say?'

'It's not my place to speak of my master, sir.'

'He beats you. Do you know why?'

'I know nothing, sir. I'm his page. I must serve him. He may do with me as he wishes.'

Diplomatic little fellow, Cortés thought. 'So … You were hiding in the aftcastle, eh?'

Pepillo nodded.

‘In which case, I expect you know already that your master’s no longer aboard the *Santa María*.’

Another nod. ‘You sent him to Don Pedro Alvarado’s ship.’ Was there just the slightest hint of vindication in the boy’s tone? ‘You ordered him placed in the brig, sir.’

‘And do you know what the brig is?’

‘A kind of prison, sir.’

‘Think he belongs there?’

Pepillo looked uncomfortable again, as though he feared a trap. ‘That’s not for me to say, sir.’

‘You’re careful with your words, boy. I like that. What other skills do you have?’

‘I can read and write Castilian well’ – a note of pride – ‘and in a fine hand. I have some Latin. I know ledgers and numbers.’

Useful, Cortés thought. An idea had occurred to him and now he voiced it impulsively. ‘I’ll be needing a first-class secretary on this

trip. My usual man's in Santiago and I haven't the time to fetch him to the ship before we sail. What would you say if I were to offer you his job?'

Hope lit up the boy's face like a beacon and was immediately doused.

'I don't think Father Muñoz would agree, sir …'

'But Father Muñoz is in the brig – remember?'

'Oh … Yes.'

'So here's the thing. I'm going to be writing letters as our expedition proceeds. A great many letters. I'll be writing them in Castilian, of course, but they're likely to be rather long with frequent corrections and crossings out. Would you be able to make fair copies of those letters in that fine hand you say you have? Copies good enough to be read by the king of Spain?'

The boy's jaw dropped. 'The king himself, sir?'

'Yes. His Sacred Majesty, our sovereign, Don Carlos, the most high and powerful Caesar, ever august Holy Roman Emperor and

king of Spain.'

Pepillo's little frame had been drooping for much of the interview, but now his head was up and his eyes were clear. 'I was judged the best copyist in my monastery, sir. I believe my work will be good enough even for the king.'

'Very well then. I'll give you a try. And don't worry yourself about Father Muñoz. I'll be ordering him freed from Don Pedro's brig tomorrow, but I'll make your new appointment right with him first.'

A huge smile broke out on Pepillo's face. 'Thank you, sir! Thank you! Thank you!'

'I'll expect you to earn your keep. Now run along and find my manservant Melchior. You know who he is?'

Pedro nodded vigorously. 'He showed me to my master's – my former master's – cabin when I first came on board, sir.'

'Well that's very much to the point, because what I want the two of you to do now is tear down the partition that was put across my

stateroom to make Muñoz's cabin. I'm going to need all the space for myself, so clear out the good Father's bags and possessions, stow them somewhere dry and we'll transfer them over to the *San Sebastián* tomorrow. He'll be sailing with Don Pedro for the rest of the voyage.'

For a moment Pepillo just stood there looking dazed.

'Get on with it, lad!' Cortés said gently. 'When I say I want a thing done, it means I want it done at once.'

While he'd been talking to the boy, Cortés had kept his eyes and ears open. Some expanses of clear sky had opened up amongst the clouds, the moon was shining through brightly and the storm appeared to be slackening. He hurried up to the navigation deck where Alaminos was looking out to sea. 'Well,' he said to the navigator, 'what do you think?'

'A little better, Don Hernán, but I still don't like it. Can I not persuade you to delay?'

‘God hath not given us the spirit of fear,’ Cortés quoted cheerfully, ‘but of power, and of love, and of a sound mind.’ He rubbed his hands together: ‘Gird up thy loins like a man, Alaminos! We sail. Now!’

‘Very well,’ said the pilot, ‘and may God save us.’ He barked a command to Guiterrez and his mates who stood ready with the uncoiled springline they’d brought down from the aftcastle. All business now, they looped one end of the line round a sturdy cleat nailed to the side of the ship near the front of the navigation deck, while two of the team swarmed down the mooring ropes, cast them off and looped the other end of the springline round a stanchion on the pier.

Holding a powerful lantern fuelled with whale oil, a lookout named Inigo Lancero stood waiting in the crow’s-nest at the top of the mainmast. ‘Ahoy there, Inigo,’ Cortés bellowed, cupping his hands to his mouth to attract the man’s attention over the wind. ‘Do you hear me well?’

‘I hear you, Caudillo,’ came the faint reply.

‘So hear this. The fleet sails now! The fleet sails now! Give the signal.’

For a few seconds nothing happened, then the lantern flared in Inigo’s hands and the flare rapidly blossomed, steadying and sharpening into a brilliant effulgence that would carry for miles. At once Cortés pounded up the stairs to the aftcastle and hurried to the starboard rail. The crow’s-nests of the rest of his fleet were visible from here, and he stared out anxiously into the moonlit night, waiting for the answering signals. He counted ‘one … two … three … four … five … six … seven …’ Before he reached eight he saw the signal blaze to life atop Alvarado’s carrack – then Escalante’s, then Puertocarrero’s, then Montejo’s, then Ordaz’s, then Morla’s, and then all the others in rapid succession. It seemed that not even the most ardent Velazquistas were using the storm as an excuse to stay in port!

Cortés pounded back down the stairs to the navigation deck. The warping team were applying their weight to the springline now, pulling it rapidly round the cleat to put leverage on the stanchion while Alaminos leaned on the whipstaff, turning the steering hard shoreward. Responding to these opposing forces, the bow of the *Santa María* began to swing ponderously out from the pier, while deckhands swarmed over the masts, unleashing the flying jibs and the inner jibs. These were immediately filled by fierce gusts of wind, and there came a tremendous cracking and lashing of canvas as the foresail, too, was unfurled. At the last moment, the two men still on land loosed the springline from the stanchion, leapt across the rapidly widening strip of water between the ship and the pier, grabbed dangling ropes and hauled themselves on board.

'That was well done,' Cortés said to Alaminos, clapping the navigator on the shoulder. But the man made no response and was staring back to land.

Cortés followed his gaze. A mounted troop of the governor's palace guard was galloping hard along the pier. At their head, dressed in full armour and quite unmistakable in the moonlight for his bulk and girth, was Velázquez himself.

With a sigh Cortés gave the order to lower sails, there was a flurry of activity as the crew obeyed, and the *Santa María*'s forward dash slowed and stopped.

Chapter Forty-Three

Santiago, Cuba, small hours of Friday 19 February 1519

Pepillo could not believe his ears as he heard Cortés give the command to lower the sails, could not believe his eyes as the great ship wallowed to a halt, and was utterly perplexed and dumbfounded as the caudillo then called for a skiff to be lowered, showing every sign of getting into it himself and returning to the

pier where the governor and his men waited – most certainly to arrest him!

Unnoticed in the hive of activity, Pepillo and Melchior had made their way to the rear of the navigation deck and now stood at the door of the stateroom, hammers and saws in hand, ready to demolish the partition as their master had ordered.

Pepillo had not told Melchior that he, too, now worked for Cortés – and in such an exalted position as the great man's secretary. He worried that the Negro, who seemed to have a high opinion of his own abilities, might take the news badly. So he had stuck to the simplest part of the truth, namely that Cortés had assigned both of them to remove the partition.

'Muñoz doesn't object to you doing this work?' Melchior had asked. 'Because if he does, I don't really need your help.'

Pepillo hastened to reassure the older boy that Muñoz was presently in no position to object. 'He can't! While I was up on the aftcastle, the caudillo had him marched over to Don Pedro

Alvarado's vessel and thrown in the brig. I think he'll let him out tomorrow.' He couldn't bring himself to add that the Dominican wouldn't be returning to the *Santa María*. Once he revealed that, he thought, he'd be more or less obliged to cough up the rest of the story and he felt reluctant to do so without preparing the ground.

So there he and Melchior stood, at the door of the stateroom, divided by a secret, while Cortés seemed poised to hand the expedition back, without a struggle, to the man he'd been about to steal it from. 'Why's he doing this?' Pepillo whispered as crewmen hurried to lower the boat.

Melchior raised a sardonic eyebrow. 'Doing what?'

'Returning to the pier. Delivering himself to the governor.'

'No chance of that!' Melchior scoffed. 'It's like I told you this morning – there's an old quarrel between these two. I expect my master wants the last word … Come on, let's watch from the rail.'

The wind had risen again, adding to the swell, and as the skiff reached the water it banged repeatedly against the *Santa María*'s

towering flank. A ladder was rolled down and Cortés strode to it, telling Guiterrez to bring the oars and follow. Then they both climbed on board, Cortés cast off the line and Guiterrez at once began to row towards the pier, the little boat rolling perilously, throwing up wings of foam as it breasted the waves. The moonlight still shone fitfully through the clouds, reflecting off the angry water, and Pepillo could see Cortés gesticulating to Guiterrez, who suddenly began to thrust back on one oar while pulling hard with the other. The flimsy craft turned, almost foundering in the process, and was soon bumping against the *Santa María* again. *Thank goodness*, Pepillo thought as the ladder was once more rolled down, *the caudillo has come to his senses.*

Cortés was shouting something now, standing up as Guiterrez held the skiff in place, pointing to the navigation deck; pointing, it seemed, directly at Pepillo and Melchior who were peering down over the rail.

‘My master wants me to accompany him,’ said Melchior, swelling with pride.

He ran to the main deck where the ladder was positioned, but returned in moments with a thunderous face. ‘It’s not me my master wants,’ he told Pepillo. There was resentment and hurt in his voice. ‘It’s you.’

‘Come on,’ Cortés boomed as Pepillo climbed down into the wildly bucking skiff. ‘Quick about it. I need you to keep a proper record of what passes between me and the governor. What’s said now will have a place in history.’

Much troubled by Melchior’s reaction, Pepillo was now doubly dismayed. ‘I have no writing materials, sir …’ A plunge of the skiff all but pitched him into the sea and he fell back hard on a bench that stretched from side to side across the stern of the little boat. Cortés sat down next to him. ‘Of course you don’t have writing materials, lad! I don’t expect you to perform miracles. But your memory will

suffice. Mark well what's said and jot it down when we get back to the ship.'

The *Santa María* had dropped anchor about three hundred feet from the pier, not a great distance, Pepillo thought at first. Yet the wind was blowing strongly out to sea and it was quickly obvious that the skiff was making poor headway, despite a great deal of rowing, splashing and blaspheming by Guiterrez. What seemed like an age passed before they came within thirty feet – and hailing distance – of the pier, and Cortés at last ordered the little boat held still, a feat that seemed to require even more mighty efforts and curses. 'Watch your tongue, man!' he snapped as the sailor took the Lord's name in vain for perhaps the twentieth time. 'We're here to parlay with the governor, not break the third commandment.'

'Sorry, sir,' said Guiterrez. 'But these waves. They're terrible, sir. Like to capsize us, they are.'

Velázquez had dismounted and stood on the edge of the pier, which towered a full fifteen feet above the heaving waterline.

Raised up on this eminence and silhouetted by the setting moon, his massive, armour-clad figure seemed monstrous in Pepillo's eyes. Most of his men, perhaps as many as twenty, had also dismounted and stood around him, glaring down at the little boat. Only four remained on horseback and one of the great beasts now reared and pawed the air as a streak of lightning crashed across the sky. At this Guiterrez paused from plying the oars to cross himself – a singularly useless thing for such a blasphemer to do, Pepillo thought. But Cortés, too, seemed moved by the scene: 'Behold a pale horse,' he said quietly, 'and his name that sat on him was Death, and Hell followed with him.'

The governor cupped his hands to his mouth and shouted something, but the words were snatched away on the wind.

'Get us closer,' Cortés ordered Guiterrez.

'Closer, sir? I'm not sure that's wise.'

Cortés's face was set. 'Closer, please.'

Guiterrez heaved at the oars again, thrusting the skiff through the waves, the pier loomed ever higher above them and suddenly they could hear the governor. ‘Why is it, Don Hernán, that you sail in such haste?’ he bellowed. ‘Are we not friends? Are we not business partners? Is this a courteous way for you to take your leave of me?’

Cortés stood up in the lurching boat, his feet spread wide, somehow keeping his balance, and made an elaborate bow: ‘Forgive me, Don Diego, but time presses and this was something that needed to be done rather than talked about. Has Your Excellency any final commands?’

‘Yes, you wretch,’ Velázquez shouted. ‘I command you to accept my authority and return to shore where I’ll give you the hanging you deserve.’

‘My deepest regrets, Excellency,’ Cortés said with another mocking bow, ‘but that is something I can never accept. This expedition sails on the authority of God and of His Majesty the King alone to conquer new lands and bring wealth and honour to

Spain. I cannot permit such high purposes to be subordinated to the whims of a mere provincial governor.'

'Then accept *this*,' Velázquez spluttered, and two men, previously unseen, suddenly stepped through the ranks of his guard and raised long devices to their shoulders in the manner of crossbows – devices in which smouldering embers seemed to be embedded. Pepillo had never seen crossbows such as these, but he felt sure they would harm Cortés, so without further thought he propelled himself forward, wrapped his arms round his master's knees and knocked him down into the bottom of the boat. Simultanously he heard two loud reports, projectiles whizzed and whined through the air just above his head, and Guiterrez began to row like a madman back towards the *Santa María*. The wind was with them now and they moved much faster than they had before.

'Forgive me, master,' Pepillo heard himself yelling. He felt sure he had made some terrible mistake. His career as the caudillo's secretary was over before it had begun.

Cortés struggled upright and peered back over the side of the skiff at the rapidly receding pier. Then he started to laugh. ‘Forgive you, lad?’ he said. ‘I was having such fun baiting Velázquez, I didn’t see the muskets. I think you’ve just saved my life!’

Ten minutes later, the *Santa María* was under way, every sail bending before the wind.

The signal lights of the rest of the fleet were visible far ahead of them, shining like shooting stars, proceeding through the narrow, mile-long inlet that connected Santiago harbour to the open ocean.

The weather had turned truly foul and, despite the shelter afforded by the inlet, huge waves rolled under the ship, sending it caroming and tumbling from crest to trough. Alaminos and Cortés both had their hands on the whipstaff, which jumped and quivered as the racing seas shook the rudder.

Pepillo heard banging and crashing sounds coming from the stateroom, where he found Melchior at work by lamplight,

demolishing the partition with a sledgehammer, delivering every blow with grim, focussed attention. A huge splintered gap was now open between what had formerly been the cabins of Cortés and Muñoz, and since Melchior had coldly refused his help, Pepillo walked through, lit a lantern and began to collect up various items of Muñoz's property that the Dominican had set out on the bed and the table. On the latter he found parchment, a quill and an inkwell and, remembering his instructions, sat down to write out the words that had passed between Cortés and Velázquez at the pier.

The keening of the wind in the rigging, the crack and whip of the sails, the alarming groaning of the timbers, the concussion of the waves and the increasingly tumultuous rearing and plunging of the ship made the task burdensome, and Pepillo realised he was beginning to feel quite sick. Still he persevered. He had just reached the point where the caudillo said that the expedition had sailed on the authority of God and the king of Spain alone when the *Santa María* heaved over violently to starboard and took on a great mass

of seawater that foamed and boiled thigh-deep across the floor of the stateroom. Helpless to resist, Pepillo was dragged from his chair by the flood and sluiced towards the open door.

Chapter Forty-Four

Small hours to full morning, Friday 19 February 1519

Shikotenka judged his squad's losses to be light. Only cousin Tochtli and three others had died in the raid and nine more were injured, none too seriously to disrupt the next phase of the plan. Alarms were being raised everywhere and the vast Mexica camp seethed with noise and anger, drums beating, conches blaring,

warriors boiling forth from every quarter, responding to the threat with all the instinctive fury and blind aggression of a disturbed ant colony.

The Tlascalans streamed out of the pavilion's south portico to confront a baying mob, already many hundreds strong, illumined by the flickering glare of firebrands and armed with spears, *macuahuitls*, daggers and clubs, the vanguard less than fifty paces away. Shikotenka had expected worse. The Mexica were advancing, shrieking their rage, milling across the great southern avenue, spreading out to left and right into the makeshift city of tents on either side, but they were poorly coordinated, not yet in military order, still barely able to believe that a strike had been made against their leader.

The bad news was that the rain which had concealed the Tlascalans' approach had stopped as quickly as it had begun, giving way to a soft drizzle, and now they had to run a gauntlet of two

thousand paces back to the camp's southern gateway before they could seek the refuge of the hills.

The good news was that the Mexica were in a state of obvious disorder and confusion, with huge groups of men visible in the shadows running in a dozen wrong directions, not towards the pavilion but away from it! Off to the southeast a great glow of torchlight showed the distraction created by Guatemoc was still working its magic.

Detailing Tree, Chipahua and three of the biggest, most hardbitten foot soldiers in the squad to form the head of the Tlascalan battering ram, Shikotenka placed himself in the second rank alongside Acolmiztli, Etzli and Ilhuicamina, with the rest of the men in eight ranks behind. As the whistling and hooting mob surged towards them he gave the signal, and the tight, disciplined phalanx charged as a single, deadly unit, the ground trembling beneath their feet.

Arrayed close and deep, shields interlocking, bristling with spears and *macuahuitls*, they hit the chaotic mass of the enemy at a dead run, crashing into them where they were most numerous and ploughing brutally through them. Right in front of him, Shikotenka heard Tree roar and saw the muscles of his enormous shoulders ripple and flex as he thrust his heavy shield into screaming faces, spraying blood, demolishing warriors as though they were of no more substance than baked clay, crushing heads with hammer blows from his great club. By his side Chipahua laughed cruelly, swinging his shield in a scything arc, sweeping three Mexica novices off their feet and trampling them in the remorseless momentum of the onslaught, while Shikotenka and the other platoon commanders, all armed with spears, used the longer reach of their weapons to kill and maim and spread the contagion of dismay three and four ranks deep in the disordered rabble pressing round them. The technique here was the high overhand jab, into an eye, into a throat, into a belly, jerking the blade loose again as soon as the blow was

delivered so the spear was not snatched away. Shikotenka saw with approval how the same tactic was being used by the men in the inner ranks, all along the length of the phalanx, while the outer ranks with their shields, clubs and *macuahuitls* battered aside the waves of attackers attempting to close with them.

Still they were hard-pressed, fighting for their lives, but Tlascalan training and discipline and sheer bloody resolve were second to none, and soon the squad had broken through the press, outpaced the pursuit and was left free to run for a hundred count with no more encumbrance than a few wild, uncoordinated attacks by small groups of warriors and desultory arrows and *atlatl* darts that were easily deflected by their shields.

‘These Mexica aren’t what they once were,’ scoffed Chipahua as he struck down a single jaguar knight who ran yelling at him out of the darkness.

‘Like doing battle with babes,’ Acolmiztli agreed.

And Shikotenka thought, *We're going to get away with it*, his heart exultant despite the sad loss of Tochtli, daring to hope now that he might extract his squad from the midst of this badly led rabble without further casualties. Where the Mexica should have thrown thousands of men across their path, only handfuls continued to challenge them, and the howling throng they'd broken through outside the pavilion was far behind them now.

The distance left to run to the foot of the hills had been cut to just five hundred paces before the second wave of Mexica warriors came in, a whole company of Cuahchics this time. They had the muddled look of men roused suddenly from their sleeping mats, and many were unarmed, yet they threw themselves at the Tlascalans with suicidal ferocity, slowing them while others hastily snatched up weapons and joined the attack.

The fight quickly became vicious. A giant of a Cuahchic, whirling a huge war club, smashed Chipahua's shield to splinters and dealt him a hard blow full in the mouth that shattered his front

teeth and mashed his lips to bloody pulp. Chipahua just gave an ugly laugh and hacked the man down with a great slash of his *macuahuitl*, charging on over his fallen body and killing a second attacker on the upswing. Tree seemed invulnerable, yelling defiance and laying about left and right with his own blood-spattered club, using his shield to batter through a wall of Cuahchics, opening the way for the rest of the squad to follow.

Again escape seemed within their grasp, the hillside beckoning, but as the phalanx rushed on, Shikotenka was tackled by four wild-eyed young warriors, grimly determined to capture him for sacrifice, and Etzli died screaming, impaled on a stabbing spear as he came to the rescue. Now more Cuahchics saw the prize, drawn to him like flies to meat, and Acolmiztli and Ilhuicamina piled in, not just out of loyalty, Shikotenka realised, but because they knew his survival was essential. As battle-king of Tlascala, the plan required that he must not only leave the field alive but be *seen* to leave it alive; for him to be taken prisoner would be the worst of all possible

outcomes. He'd lost his spear and his shield, and his *macuahuitl* was still in its scabbard over his back, but he squirmed like an eel, the sweat and blood covering his body making him slick, and twisted his right arm free from the brawny fanatic who clung to it. He stabbed him once between the ribs with the dagger drawn from the scabbard at his waist, and then *tac, tac, tac*, punched three holes in the next man's heart, killing him instantly, while Acolmiztli and Ilhuicamina slaughtered the rest of the little knot of attackers.

Then they were running again. The squad, which had rallied round to defend Shikotenka, had taken terrible punishment and was reduced, he thought, to fewer than thirty men. But now they were at last away, free, no Mexica able to catch them. Not even the Cuahchics, for all their formidable reputation, could keep pace with trained Tlascalan runners, and the shattered remnant, legs pumping up the long hill above the camp, at last began to put serious distance between themselves and the shrieking, howling pack that hunted them.

Though he knew that nothing could be taken for granted, Shikotenka had calculated that if he could stage a sufficiently provocative raid on Coaxoch's army, then a large force would be detached from it and sent after him. This would be a force of sufficient magnitude – he hoped for a whole regiment – to conduct immediate and spectacular reprisals against Tlascalan towns and villages after it had hunted him down. The character of the Mexica was such that any lesser reaction was simply unthinkable, and in this way the great field army – one of six of similar size at Moctezuma's command – would be divided and weakened, an objective that formed the essence of the broader Tlascalan strategy. Shikotenka's intention all along had therefore been to slaughter Coaxoch and every one of his sons in a manner so insulting it would drive the Mexica into a blind, unthinking rage. Only at the last moment had it occurred to him that this purpose might be even better served if he left Mahuizoh alive.

The eldest son of the Snake Woman was pompous and arrogant, conceited and self-glorifying, puffed up with pride and accustomed to being flattered – a strutting, posturing bully who'd come to believe he would always triumph over others, and that no man was his equal. It was not difficult to predict that seeing his father and brothers butchered before his eyes, and his own nose sliced from his face and thrown in the dust, was likely to produce a massive reaction – especially since it was Shikotenka himself, battle-king of the despised Tlascalans, who'd brought him to such ignominy.

The rain had not returned, the gaps in the cloud were rapidly widening, and the moon burst brightly through again. Shikotenka thought to profit from this as he neared the top of the hill, aiming to draw out as many of the enemy as possible by parading his squad along the ridge in full view of the camp. But when he turned and looked back, he saw the taunt was hardly needed. A vast river of fire poured from the heart of the Mexica army, streaming with surprising speed up the hillside like some immense, unnatural lava

flow – men running with torches, many more than he'd hoped for. It looked very much as though half of the whole fighting force, two complete regiments, each eight thousand strong, had been sent after them.

Not slowing his pace, Tree took a swig from his waterskin. 'Gods in Mictlan,' he breathed. 'We've certainly got the buggers stirred up.'

Yet the most dangerous part of the game was still to come. Days of careful planning with Shikotenka's aged father Shikotenka the elder, the chief of all Tlascala's civil affairs, and with venerable Maxixcatzin who served as deputy to them both, had persuaded the ruling Senate of the nation – by a majority of a single vote! – to accept this risky, high-stakes gambit and grant the men they needed to carry it through.

More men – close to a hundred thousand – than Tlascala had ever before put into the field at one time.

Enough to ensure victory in a pitched battle against Coaxoch's entire field army.

But that victory would be all the more certain, Shikotenka had reasoned, and all the less costly, if the Mexica force could be divided, put through a night of alarms and excursions, and a great part of it run to exhaustion, while those who stayed behind in the main camp were distracted and disoriented by a devastating assault on their leadership.

There were many in the Senate who did not believe it could be done – and if the raid on Coaxoch's pavilion had failed the whole attack would have been called off and the Mexica brought to battle in some other place on some other day. But the attack had not failed. On the contrary, Shikotenka had carried out the first part of the plan to perfection, with better results than anyone could have hoped for.

Even now the spies who'd taken up position along the ridges after nightfall would be hurrying to carry word of what had happened to

Maxixcatzin, who should be no more than ten miles away, advancing by forced march under cover of darkness with sixty thousand elite Tlascalan warriors. Other messengers, fresh and strong, would be flying fleet of foot across the twenty miles of mountainous terrain to the hidden valley where Shikotenka the elder had gathered a further thirty thousand warriors to destroy whichever fraction of Coaxoch's army pursued Shikotenka and his squad.

Fraction? Shikotenka thought. No one had imagined that half the Mexica force would be sent after him. Even so, his father's thirty thousand were more than enough to annihilate them, especially so since the Mexica regiments would be run ragged and exhausted by the time they reached the killing ground. The only thing left to do to make victory certain was to keep his squad in sight of their vanguard at all times. Leave them too far behind and they would lose them; let them get too close and they would be overtaken and engulfed – a delicate balance to maintain over such a great distance.

The moonlight helped, for much of the course would be run in darkness as they slogged up the barren, snow-covered slopes of Iztaccihuatl, that grand volcano whose name meant ‘White Woman’, and crossed the high pass separating Iztaccihuatl from Popocatépetl. They would then have to negotiate a dozen mountain torrents and descend a long downslope of treacherous scree before reaching the foothills that would bring them at last to the canyon where the ambush had been set.

Malinal was walking fast, as fast as she could go in fact, through a night loud with cicadas and filled with the sweet scents of tuberose and dragon fruit flowers. The lightning storm was long since over, leaving its own rich fragrance lingering in the air, the rain had stopped and the moon shone brightly again in the sky from which most of the looming cloud mass had now cleared.

There was nothing sinister about any of this; on the contrary Malinal felt overwhelmed by its beauty. Nonetheless, as she made

her way along the deserted track that led from Tacuba, around the southern shore of Lake Texcoco and thence east towards the distant mountain range connecting the twin peaks of Iztaccihuatl and Popocatépetl, she couldn't shake the unpleasant feeling that she was being followed.

Perhaps Moctezuma had changed his mind and sent enforcers after her to bring her back to Tenochtitlan? Or perhaps it was Cuitláhuac. Might he have been so outraged and offended by the way she'd been set free that he'd overcome his natural obedience to the Great Speaker's orders and arranged to have her killed on the road?

Yet if either of these two were involved, then why was she being followed in such a cautious and secretive way? Just a scrape of a sandal on gravel every now and then, followed by nothing for ages but her own footsteps, the beat of her heart and the song of night insects. Mexica enforcers would have taken no such precautions. If her arrest or murder had been ordered, they'd come after her at the

double and got the job done. They wouldn't drag it out forever like this.

Slowly Malinal began to convince herself that she must be imagining the whole thing – that the horrors she'd been through had made her see danger everywhere when in fact there was none. She flexed her shoulders under her heavy backpack and looked east towards the mountains, shivering at the thought of the cold she must endure as she crossed that high range, and at the splendid beauty of the moonlight on the snowcapped peaks of the two great volcanos.

The Mexica, who could be strangely poetic and even romantic despite their bloodlust, believed that Popocatépetl and Iztaccihuatl had once been a handsome warrior and a beautiful young princess who were deeply in love. They had planned to wed against the wishes of Iztaccihuatl's father, who sent Popocatépetl to war in Tlascala to delay the marriage and then falsely reported to his daughter that the young man had been killed in battle. The princess's sorrow was so great that she fell mortally ill and died of a

broken heart. Popocatépetl, on returning victorious to Tenochtitlan, went mad with grief, seized the body of his beloved and carried her off to the highlands, where he too died as he sat in watch over her. Moved by their tragic end, the gods turned the young lovers into mountains and covered them both with snow so their story would be remembered for ever – and indeed, Malinal thought, the white contours of Iztaccihuatl, gleaming in the moonlight, did resemble the form of a woman stretched out on her back, while it required only a slight leap of imagination to see the brooding hump of Popocatépetl as the hunched figure of the grief-stricken prince keeping vigil over her.

Would she too die up there amongst the snows? For, in her desire to stay as far as possible from the Mexica on her way to the coast, in this mad quest that Tozi had set her on to seek out Quetzalcoatl, Malinal had chosen to avoid the easy and well-travelled thoroughfare used by the merchant caravans to carry the rich trade between Tenochtitlan and the Maya lowlands. Instead she would

cross the mountain pass between Iztaccihuatl and Popocatépetl, within the encircled but still free state of Tlascala, and travel onwards to the Yucatán from there using side roads and byways.

Not that her experiences in the fattening pens had given her any reason to expect help in Tlascala! But Malinal knew from bitter experience that female slaves were amongst the items most prized by Mexica merchants, and that a woman of her beauty, travelling alone, would be at great risk. Better to take her chances with the Tlascalans than end up a prisoner of the Mexica again before she got within a hundred miles of the coast.

She was trying not to think about the even greater dangers that awaited her if she did get to the Yucatán and did succeed in making it all the way back to her home town of Potonchan – dangers posed by the Chontal Maya, her own people – when she heard a sudden rush of footsteps behind her and someone crashed hard into her back. She lost her balance and was knocked flat, just managing to get her hands under her to break her fall. A knee pinned her

buttocks, long fingers snaked round her neck and a face was thrust down beside her own.

Even before he spoke she recognised her attacker from the foul smell of his breath and the reek of blood in his hair. ‘You witch,’ snarled Ahuizotl. ‘You’ve ruined me. Now you’re going to die.’

Pepillo couldn’t swim and had never had reason to learn, but now discovered an abject fear of drowning. Tumbling and choking in the flood, his mouth and nose full of seawater, he gasped for air as he surfaced and found he’d been sluiced completely clear of the stateroom and out onto the navigation deck which sloped to starboard, steep as a roof, awash with solid debris. The water was shallower here, no more than a couple of spans deep, but it rushed and foamed down the slope carrying him with it. He saw Cortés and Alaminos clinging for their lives to the whipstaff, felt hope and absurd gratitude when Cortés pulled a hand free to grab his sleeve, then terror as the sleeve ripped from his jacket.

His helter-skelter plunge continued. Some large object slammed into his side and a barrel pitched by, rolling end over end, narrowly missing his head before crashing through the railings at the edge of the deck where the roaring flood poured back into the deep. Dazed, numbed, helpless to arrest his fall, Pepillo shot feet first through the jagged void the barrel had torn in the railings. He was swept over the streaming precipice, and had already consigned his soul to God, when a hand seized his hair in a firm, strong grip and jerked him to an abrupt halt. An instant later the careening ship righted itself, then tilted violently to port and spilled both him and his rescuer back across the deck where they ended up in a tangle of limbs, wrapped around the whipstaff at the feet of Cortés and Alaminos.

A spasm shook Pepillo's body and seawater spewed from his mouth. Lifting his head, he saw that the hand still locked in his hair belonged to Melchior. 'Thank you,' he tried to say as the older boy released him.

'Don't think this makes you my friend,' coughed Melchior.

With a vast creaking of timbers, the *Santa María* settled on an even keel, shook herself like a wet dog, and ploughed on before the raging wind through blasts of icy spume.

Melchior jumped to his feet and Pepillo followed, though he felt sick and faint. Every part of his body, already battered and bruised from the beating Muñoz had given him, was filled with new pain from his fight with the sea.

'Better get some rope and tie yourselves to a cleat, lads,' Cortés advised cheerfully. 'Looks like we've got a rough night ahead of us.'

Shikotenka had to admit the Cuahchics were good. A hundred of them were running vanguard for the Mexica regiments and, despite the punishing terrain, they'd reduced the Tlascalan lead to less than three hundred paces. Some of them were armed with *atlatls* and knew how to use them, but so far none of their darts had hit their mark because they were climbing the steep flank of Iztaccihuatl and

the gradient worked against them. That would change to the disadvantage of the Tlascalans when they came to a downslope, and Shikotenka knew they must cross three deep transverse gullies before reaching the pass.

He took a long cool draught from his waterskin. Weariness was beginning to tell on him, to seep into his muscles and his bones, sapping his strength. It seemed he'd been running and fighting, running and fighting since the beginning of the world, and ten miles still lay ahead before they brought the Mexica to the killing ground.

He reached a decision. Something had to be done about those Cuahchics.

The mountainside was all loose gravel and boulders interspersed with ancient, crumbling lava flows, and as the squad beat their way up, he'd noticed how their sandals constantly set off avalanches of little stones. Might not a greater avalanche be started? Already the sky was lightening in the east, more of the features of the landscape

were becoming apparent, and Shikotenka began to look around for something he could use.

Malinal heard the hiss of Ahuizotl's knife being drawn from its scabbard, and felt his fingers scrabble at her forehead and dig into her eyes as he jerked her head back to expose her throat to the blade. The thing she hated the most, after all she'd been through, was that she was to be slaughtered here on her belly like a deer in a huntsman's trap and couldn't even spit in her killer's face as she died.

She screamed with rage and defiance but the blow never came. Instead she heard a hard, hollow thump, like the sound a coconut makes when it falls from the tree, and Ahuizotl slumped forward over her with a terrible groan. Then someone she couldn't see dragged his limp body to the side, not completely clear of her but enough so she could begin to squirm out from under his weight, and

there was another hollow thump followed by a loud *crack* and a series of ugly, wet squelching sounds.

As she sat up she saw the strangest thing – a hefty lump of rock seemingly moving by its own power, smashing repeatedly down on the high priest's head. Then there was a shimmer in the air and Tozi, in her beggar's clothes, became visible out of nothingness, and Malinal understood that she was the one who was making the rock move, gripping it tight between her two hands, stooping over Ahuizotl and pounding his brains to pulp. His evil face, turned sideways, was already barely recognisable, one eye hanging loose, his skull, crushed and deformed, leaking matter and blood.

'Tozi,' Malinal said after a few more moments of this. 'I think he's dead.'

'Just making sure,' her friend replied. 'With people as beastly as this it always pays to be sure.' She examined her handiwork, nodded with satisfaction and tossed the stone aside.

‘Thank the gods you came,’ said Malinal. She frowned. ‘But you faded for a long time and you didn’t get sick. Are you all right?’

‘I’ve never felt better,’ said Tozi. She lowered her voice, a confidential tone: ‘I told you, Malinal. Hummingbird showed himself to me on the pyramid. He spoke to me, he touched me with his fire, and he made me strong.’

Shikotenka had found what he was looking for – a group of large boulders, two as high as a man, three others almost equally massive, that had rolled together in a cluster from somewhere higher up the lava-strewn ribs of Iztaccihuatl.

The squad had put on a sprint, opening up their three-hundred pace lead on the Cuahchics to somewhere closer to a thousand. Now they came to a halt, gathered in the shelter of the boulders, unslung their bows and looked down at their pursuers.

Dawn was very close; with every minute that passed the sky grew brighter, revealing more of the long rugged slope below. They saw

the Cuahchics moving fast, rapidly narrowing the gap again, and beneath them, spread out across the mountainside, the torches of the two pursuing regiments creating great pools of light, yellow and sulphurous as the fires of Mictlan. Some large groups of warriors were hard on the heels of the vanguard, others were as many as two thousand paces behind them, but all in all they were doing well, Shikotenka thought – well for Mexica, at any rate, who could not match the level of training in long-distance running that was so much a part of the Tlascalan way of life. As he'd expected, rage and the thirst for revenge were driving the mass of the soldiers on to feats that were really beyond their capacity. He smiled. That was good, very good, for it meant that many of them would be exhausted, some perhaps even too exhausted to fight, when they came to the killing ground.

Tree and the ten most muscular members of the squad were already at work rocking and loosening the boulders as the Cuahchics below closed the distance to less than three hundred

paces again. They threw an experimental volley of *atlatl* darts, all of which fell short – technically they were within range but, as with their earlier shots, the incline defeated them. The opposite was the case for the Tlascalan bows. On the flat, the range would still have been too great, but they had the advantage of targeting an enemy downslope and their first flight of a dozen arrows fell squarely amongst the Cuahchics, leaving three either dead on the ground or too badly injured to rise again and inflicting debilitating wounds on five more. A second volley was in the air before the first had struck and a third immediately followed, bringing the number of Cuahchics killed or injured to around thirty before they were at last near enough to unleash a storm of *atlatl* darts that flew true and forced the Tlascalan archers to duck for cover.

'Now!' Shikotenka yelled, and the archers downed bows and joined Tree and his men heaving at the boulders. Around eighty of the Cuahchics were still coming at them, bounding uphill in a concentrated mass, their glistening red and blue head-paint clearly

visible in the rising light, their war cries exultant as they tasted victory. For a moment Shikotenka feared he'd miscalculated, until Tree, who had squatted low, his hands under the largest boulder, great cords of knotted muscle standing out on his shoulders and thighs, gave a roar of triumph. There was an explosive sound of rending and cracking and the huge rock broke away from its roots in the earth and went tumbling downslope in a tremendous cloud of dust and debris, closely followed by the other four which the squad had already loosened and which now required only a final heave to set in motion.

The effects were stunning. As the avalanche crashed into them, the mass of the Cuahchics, uttering terrible screams, were mowed down – fifty or sixty of them dead in an instant, all the rest broken and scattered. Nor was that the end of the devastation, for the three biggest boulders were not stopped but only slowed by the multiple impacts and soon picked up speed again as they thundered onward, tumbling and bouncing high into the air before smashing into the

much larger mass of warriors below and ploughing a deadly red swathe through their ranks before finally coming to a halt.

When the dust settled, Shikotenka turned to Tree. ‘What do you think?’ he said. ‘Three hundred, maybe four hundred?’

‘Maybe more,’ said Tree dourly. ‘But that still leaves fifteen and a half thousand of them on our tail.’

‘You’re right,’ said Shikotenka. He looked up. Dawn had broken and, although it would not climb over the enormous shoulder of the volcano for another hour at least, the sun had already risen and was flooding the sky with light. A thousand paces above, the snowline glimmered and glittered. A thousand paces below, the furious cries of the Mexica rang out.

A new vanguard was already streaming up towards them.

‘Let’s go,’ Shikotenka yelled. ‘No time to be standing around gawping.’

‘I know you told me,’ said Malinal, ‘but I didn’t understand you. I thought it was the terror we’ve been through that made you say that. I thought it was the pain. I didn’t think you meant it.’

‘I meant it,’ Tozi said gravely. ‘Hummingbird showed himself to me, and he spoke to me, and he’s as real as you and I are, Malinal. He’s – I don’t know – ugly and beautiful at the same time. He’s sly and stealthy and cruel and he touched me with his fire, but I didn’t understand what he’d done to me – I didn’t really understand – until I left you in the square at Tacuba and spotted Ahuizotl watching you from a corner. It was obvious he meant you harm, so I took a risk and tried a fade and nothing bad happened to me – nothing at all! It was easy to follow him, Malinal! I just waited for my chance … and … well, you saw the rest.’

It was soon after dawn and the sun wasn’t hot yet, but clouds of fat blue flies were already buzzing industriously around the bloody ruin of the high priest’s head. Malinal felt a heavy sense of foreboding but decided not to speak of it.

‘My dear little Tozi,’ she said, forcing a smile. ‘You’re really amazing, do you know that? You didn’t even embrace me when we parted in the square and yet here you are, as though by magic, saving my life again.’

‘I know you think it’s bad,’ Tozi said looking her in the eye, ‘that Hummingbird made me stronger.’

‘I don’t know what I think,’ Malinal admitted. ‘All I know is that I’m glad it’s me who’s alive and Ahuizotl who’s dead and not the other way round.’ Without another word she reached out and wrapped her arms round her strange friend, seeing the lice crawling in the beggar’s clothes she wore and not caring, just delighted to hold her close again and feel her warmth and sense her strange power.

When they stepped apart, Malinal asked, ‘What now?’ But she already knew the answer.

‘Nothing’s changed,’ Tozi confirmed. ‘You must go to the coast to find Quetzalcoatl and bring him to Tenochtitlan to end the rule of

the Mexica.'

'And you? Are you still determined to stay in that depraved city?'

'Yes, that's my part. I owe it to Coyotl.'

'But it's not safe there. You'll never be safe!'

Tozi smiled, a strange, lopsided smile. 'I wasn't much of a witch before, in the fattening pen, even though everyone believed I was, but I think I've become one now. I know how to look after myself.'

They embraced again. 'Very well,' said Malinal. 'I'll see you in Tenochtitlan. I promise I'll be back and, if Quetzalcoatl exists, I promise I'll bring him.'

'He exists,' said Tozi. 'He's already crossing the eastern ocean. His boat moves by itself without paddles, just as the prophecy foretold. It's all coming true, Malinal. Every word of it. You'll see!'

Shikotenka's lungs were tortured, his muscles failing, his waterskin, which he'd replenished above the snowline, again nearly empty. His squad had already run many miles the previous evening, fought a

hard fight in the pavilion and made a difficult escape. The only consolation was that the hundred highly trained Cuahchics who'd formed the new Mexica vanguard must be in equally bad shape – maybe worse. They'd left the camp in such a hurry that very few carried waterskins. Nonetheless, they'd pressed the Tlascalans hard in the hour after the avalanche, rarely trailing them by more than a thousand paces and several times drawing close enough in the rising daylight to harass them with *atlatl* darts. Shikotenka lost two more men that way, and another two had simply dropped with fatigue and were left to their fate while the rest of the squad struggled on.

The punishment of the long run over mountainous terrain had slowed everyone – the Tlascalans, the Cuahchics and the two regiments following behind. The five thousand fastest Mexica were hot on the heels of the vanguard but the rest, numbering more than ten thousand, were now spread out over almost three miles of the rugged downslope on the east side of the pass between Iztaccihuatl and Popocatépetl. No one had any breath for war cries so there were

no more furious hoots and whistles, just grim silence and the scrape and slide of feet.

The dry scree of the pass was already giving way to bushes and greenery at these lower altitudes, and stands of trees, at first stunted but soon increasingly dense and tall, grew out of folds and gullies in the land. Shikotenka heard birdsong as he ran, a beautiful sweet melody, strangely at odds with the terrible business at hand, and he felt the fresh breath of the early morning on his face and the kiss of the rising sun.

A glance over his shoulder showed him the Cuahchics had closed the gap to less than two hundred paces and were gaining ground at alarming speed. They'd stopped using their *atlatls*, no doubt because they scented victory and hoped to take him prisoner with what was left of his squad, drag them back in dishonour to Tenochtitlan and put them to sacrifice. Mahuizoh's thirst for revenge had driven this mad chase all through the long night, and the pursuers were so numerous, and so confident of their own

supremacy, that it seemed none yet suspected an ambush. Still, the prey was very far from being in the pot. Even if the Cuahchic vanguard could be held off until Shikotenka's exhausted men reached the canyon where his father waited with thirty thousand warriors, and even if the ambush went undetected until then, the real danger now was the ten thousand Mexica stragglers, who would still be outside the killing ground when the trap was sprung.

There was too much here for Shikotenka's weary mind to grapple with. He only knew that everything he had done would be fruitless if the Cuahchics were to overtake him. Whatever else might unfold he could not – he must not! – allow that to happen. He looked ahead. Less than a mile downslope the land levelled out into thickly forested foothills; leading into the hills, still masked by morning shadows, yawned the dark mouth of the canyon they sought. Yet even as he spotted it, and his heart soared, another of his stalwart Tlascalans stumbled and fell, bringing down two more men, and the foremost Cuahchics were on them in seconds.

Pedro de Alvarado examined himself in the costly Venetian mirror affixed to the wall of his stateroom. God's wounds but he was a handsome man! Thanks to La Peña's ministrations (the doctor was already proving to be a most useful addition to the expedition), his broken left arm was comfortably bandaged and splinted, but he could still use the long, elegant fingers of his right hand to twirl the ends of his moustache. *Dashing*, he thought, *very dashing*. He adjusted his lion's mane of blond hair – how the women loved it! – and smiled at his own somehow devilish reflection. *A handsome man, to be sure, a rakish and scornful man whom no one could upstage, but also a dangerous one. Let there be no mistake about that!*

With a last approving glance at himelf he strolled out onto the deck of the *San Sebastián* to count the distant sails of the scattered ships all now rallying to his signal. People talked about the calm before the storm, but he was, on this morning of Friday 19 February 1519, quite content to enjoy the relative calm *after* the storm. There

was a fair wind blowing, whipping up the sparkling blue waters into little wavelets – but nothing like the gigantic rollers that had threatened to send the entire fleet to the bottom of the sea the night before.

It was a miracle that only one of the eleven vessels was missing, but unfortunately that vessel was the *Santa María de la Concepción*, Cortés's own flagship.

'Oh dear, Hernán,' Alvarado said quietly to himself. 'Where have you got to?'

Tree and Acolmiztli ran to Shikotenka's left, Chipahua and Ilhuicamina to his right, and behind them in four thin ranks pounded the other survivors of the squad. Fifty men had honoured the gods at the start of the night but now, in this bright morning, just twenty-two were still in the race.

'*Run!*' Shikotenka yelled. '*Run for your lives!*'

The Mexica had their skills, no one could deny them that, but when it came to long-distance running, when it came to stamina, when it came to sheer heart and nerve, they had always been outmatched by the Tlascalans, and so it proved now. The Cuahchics had left the binding of the fallen prisoners to the mass of foot soldiers who followed them, and had closed the gap to twenty paces, but on Shikotenka's command his men found resources of training and strength deep within themselves, conquered their fatigue and redoubled their pace, leaving their pursuers behind. Breath drawn in quick, harsh snatches, every muscle trembling, faces burned out and grey, they nonetheless soon opened their lead to thirty, forty, fifty, then sixty paces and, as they entered the cool, shadowed mouth of the canyon, they were once again close to two hundred paces ahead.

Shikotenka had thoroughly scouted the killing ground in the days before and knew what to expect. Narrow at its mouth and fifty feet deep between steep walls of weirdly striped and patterned red rock,

the great box canyon rapidly widened to half a mile across and a hundred feet deep, curving sharply west, then north, before terminating after two miles in sheer, unscalable cliffs. Flash floods had carved out a series of criss-crossing gullies along the midline of its otherwise generally flat and stony floor, but off to the sides, near the canyon walls, there were stands of acacia trees and brushwood thick enough to conceal the huge Tlascalan ambushing force.

A mile in, Shikotenka drained the last drops from his waterskin and put on a final burst of speed, looking quickly left and right, hoping to catch some sight of his father's men. 'Are you sure we've got the right canyon?' Chipahua croaked through his cracked, bloody lips.

Shikotenka nodded, saving his breath. This was the right place, but he had to admit the forests at the foot of the canyon walls did seem eerily quiet and empty. He could see others in the squad casting about anxiously, and doubt gripped him for an instant as he ran on. Had something gone terribly wrong?

Their painted skulls glistening in the sun, the Cuahchics of the vanguard were relentless, running silent and determined, spread out across the canyon floor. Sometimes twenty or thirty of them, bunched close together, would disappear into a gully, only to bound back into view, closer than before. Next came a block of the fastest footsoldiers from the Mexica regiments, a few hundred at most, followed by thousands more in a loose, disordered throng stretching all the way back to the canyon mouth and filling it from side to side almost as far as the strips of forest.

Shikotenka was too busy ensuring he didn't stumble on the treacherous, rutted ground to risk more than a quick glance over his shoulder but, as the track veered sharply north and the final desperate leg of the race began, he saw that perhaps half the Mexica force had now passed through the entrance. It wasn't enough, not nearly enough, but the cliffs that blocked the northern end of the canyon loomed ahead and there was no time left.

The last half-mile passed in an exhausted blur. Sweat poured into Shikotenka's eyes, thirst parched his throat, all the strength seemed to have drained from his muscles, his legs ached and trembled. Tree was not a man to show weakness but he, too, looked nearly done in, twice almost losing his footing so that Chipahua had to steady him with a hand to his elbow. 'No more running,' the big man said finally, and staggered to a halt a few hundred paces short of the acacia thicket at the foot of the cliffs.

'We'll make our stand here,' Shikotenka agreed, stopping beside him. It was the right place, out in the open, and would allow the ambushers to stay concealed until they chose to show themselves.

If the ambushers were there.

The squad needed no orders to know what to do next. There was just time to make a defensive circle, bristling with spears, before their pursuers were on them.

Malinal felt sad and bewildered and terrified all at once. The gods were real in all their glamour and power. Sorcery was real and Tozi was a witch of great magic who could kill invisibly, and who had saved her life.

Ah Tozi … Tozi.

To her surprise, Malinal discovered she missed her frightening little friend already, missed her with a great ache in her heart, and at the same time was filled with apprehension at the undertaking Tozi had set her on – to return to her homeland, to return to Potonchan, alone, without magical support, to face and overcome the demons awaiting her there.

The demon who was her own mother, the woman who had given birth to her yet who had nonetheless bowed to the will of her demon stepfather and sold her into slavery in the interests of the demon boy the two of them had conceived together after the sudden and unexplained death of Malinal's beloved father, the late chief of Potonchan.

These were the demons of Malinal's own family. Of course they were not demons at all in the supernatural sense, but they had nonetheless destroyed her life to steal her inheritance, and would certainly do so again if she showed herself amongst them, an unwelcome reminder of the truths they'd tried to hide, a ghost best left buried in the past.

So it was into this toxic mess, this stew of family rivalries and danger, that Tozi had sent Malinal, alone, relying only on her own resources, to seek out the god Quetzalcoatl.

Well, she thought, *I shall do it. I shall not falter. I shall not fail*. Regardless of the schemes of supernatural gods and all-too-human demons, her story could never be complete if she did not master and overcome her own dark legacy.

She squared her shoulders, settled her load more comfortably upon her back and strode forward into the morning. Having covered the ground before when she'd first been brought as a slave to Tenochtitlan, Malinal had a good idea of the length of the journey.

If she could walk all day, every day, then it would take her thirty days, more or less, to reach Potonchan. And even though she must walk off the beaten track, she knew that there were many villages along the way, and even some great towns and cities.

Malinal was only a woman, but she was a beautiful woman, practised in the arts of flattery and seduction. She would rely on the kindness of strangers, she resolved, and somehow she would survive.

There was no immediate attack. Instead the Cuahchics formed a loose ring around the Tlascalans at a distance of thirty paces. A few of them, winded, actually threw themselves to the ground. Many stooped over, gasping. All the rest stood panting, some leaning on their spears, sweat dripping from their bodies, faces set and impassive.

For a two-hundred count nothing happened, the silence between the two groups of warriors broken only by the sound of birdsong.

‘What’s their game?’ whispered Ilhuicamina. ‘Why don’t they just annihilate us with *atlatl* darts and get it done with?’

‘They want us for sacrifice,’ said Acolmiztli. ‘Obviously.’

Tree summoned up the energy to brandish his war club. ‘Women!’ he shouted. ‘Come and get us if you have the guts for it.’

‘They’re just catching their breath,’ Chipahua suggested sourly. He turned to Shikotenka. ‘Where’s your father?’ he asked. ‘Now would be a good time for him to show himself.’

‘Don’t expect any help yet,’ Shikotenka said. He looked back down the canyon in the direction they had come; thousands of Mexica foot soldiers were streaming towards them. ‘My father will wait until we have more fish in the net.’

‘If your father’s even here,’ Chipahua gave voice to Shikotenka’s own fears. The forested sides of the canyon presented a bosky scene. Birds flew in and out amongst the treetops, calm and unruffled. ‘Never seen thirty thousand warriors lie so low,’

Chipahua added, his sneer horribly distorted by his smashed mouth and the jagged stumps of his teeth.

'They're supposed to lie low,' objected Tree. 'Wouldn't be much of an ambush if they didn't.'

Shikotenka nodded. 'They're Tlascalans, and they're here. Count on it.'

He was surprised how sure he managed to sound, but in the solitude of his thoughts the worm of doubt was gnawing … gnawing.

Suppose another of Moctezuma's armies was in the field and had mounted a simultaneous raid on Tlascala when all eyes had been on Coaxoch? If so, his father would have been obliged to divert his warriors to confront it.

Or suppose the Senate had intervened disastrously at the last moment? Half the senators had opposed Shikotenka's election as battle-king and voted against this plan. Could some terrible betrayal have been engineered in the past day and his father overruled? *No!*

Surely not! Gods forbid it! He shook his head from side to side to clear away the unwelcome thought and asked: ‘Anyone got any water left?’

Some of the men still had a few drops in their waterskins, which they willingly shared as the hundred Cuahchics, with no more than a dozen empty skins amongst them, looked on greedily. Studying the members of the elite Mexica force, Shikotenka saw just how close to the limit of their endurance the Tlascalans had run them, and could only guess at the condition of the rest of the enemy footsoldiers staggering up to reinforce them. More than a thousand had already reached the outer edges of the Cuahchic encirclement, but most of them now lay stretched out on the ground, chests heaving in abject exhaustion.

‘Tosspots!’ said Ilhuicamina with an insulting gesture along the canyon. ‘Mexica can’t run to save their lives.’

Tree seemed much restored by the water and the fury of battle was glinting in his eyes. ‘*Women!*’ he taunted the Cuahchics again.

‘If by chance there’s a man hiding there amongst you, I offer you single combat.’ He stepped to the edge of the Tlascalan circle and smacked his club menacingly against the huge palm of his left hand.

The Cuahchics had removed their insignia of rank and run the final miles in loincloths and sandals only, but it was obvious who their commander was. A short, squat warrior of about thirty, with the left side of his head and face painted yellow and the right side blue, masses of knotted muscle standing out on his thighs, arms and belly, he stood calmly with his eyes fixed on Tree. ‘Bluster all you wish, Tlascalan,’ he replied, his voice rasping like a saw cutting wood. ‘We’ll soon enough show you what men we are.’

Chipahua gave a loud belch. ‘Men have balls, but your breechclouts look empty. Send your wives to us and we’ll show them what they’ve been missing.’ Around him the Tlascalan squad laughed while the Cuahchics chafed and murmured. Swinging his club, Tree ran forward to stand alone in no man’s land. ‘Single combat,’ he shouted again. ‘Single combat now.’

Shikotenka reluctantly decided to see how his friend's act of bravado played out. It was a useful distraction while the canyon behind the Cuahchics continued to fill up with Mexica footsoldiers – at least ten thousand of them now and counting. Every minute the ambush was delayed meant more of them would fall into the trap.

As three of the Cuahchics darted forth to answer Tree's challenge, their leader barked a command and they stopped in their tracks while they were still out of range of the big man's whirling club, then slunk back to the protection of their squad in a way that was almost comical. '*Cowards!*' Tree roared. 'Three not enough? Send six. Send twelve. I'll kill you all!'

More murmurs of fury from the enemy ranks were answered by further stern rebukes from the thickset officer. 'Nobody fights,' he was yelling, while he held one of his men by the scruff of the neck and knocked another to the ground with a great blow of his fist. 'Nobody dies! Not until General Mahuizoh gets here.'

Suddenly Shikotenka understood the Cuahchics' strange behaviour. *Ah*, he thought as he sent Chipahua and Acolmiztli to drag Tree back to the Tlascalan circle. *Now it all makes sense*.

Mahuizoh arrived within the hour, more than enough time for every man of the two Mexica regiments to enter the killing ground. Stripped down to his loincloth like all the rest, a thick brown poultice covering the ruin of his nose, breathing noisily and blowing bubbles of blood through his mouth, pale and shaking with pain, you had to admire the dedication of the general, Shikotenka reflected; you had to admire the resolve; you had to admire the sheer violence of the hatred that had driven him across mountains, up and down steep gradients and along the length of this canyon to extract vengeance for what had been done to his father and his brothers.

And there was no doubt his revenge would be terrible, as cruel and as hideous as anything the wicked imaginings of the Mexica

could devise …

If the Tlascalan ambush was not in place.

Flanked by four strutting Cuahchic bodyguards, Mahuizoh advanced to within a dozen paces of the Tlascalan circle and sought Shikotenka out, fixing him with an inflamed glare. ‘You, Shikotenka!’ he said, his voice wet and bubbling. ‘Tell me the name of your man who cut me.’ He turned towards Ilhuicamina whose prosthetic nose of jade mosaic tiles glittered in the morning’s brilliance.

‘He’ll tell you himself,’ Shikotenka replied.

Ilhuicamina laughed and lifted the mask from his face, exposing the gaping bone beneath. ‘I am Ilhuicamina,’ he said. ‘It was I who cut you. Do you wish to thank me for making you as lovely as myself?’

‘I will thank you with this,’ said Mahuizoh. He produced a long-bladed obsidian knife from his waistband and held it up to the sun. ‘My gratitude will be beautiful to behold and will require much time

to express.' He turned back to Shikotenka. 'I told you I will go to Moctezuma wearing your skin,' he said. A choking cough shook him and blood sprayed from his mouth. 'I will make your own men flay you alive before I take your heart.'

Shikotenka didn't reply but turned to his captains. 'When my father attacks,' he said, with more assurance than he felt, 'we go straight for Mahuizoh. Cut the heart out of the Mexica resistance. Agreed?'

'Agreed,' said Chipahua.

'Agreed,' said Ilhuicamina.

'Agreed,' said Acolmiztli.

'Agreed,' said Tree. 'We cut out their heart.'

Shikotenka glanced again at the strips of forest at the base of the canyon walls and at the coming and goings of the birds. Once again the shadow of doubt fell over him, but then the great war conch blew a triumphant blast and the birds scattered up to heaven amidst a flurry of wings. Thirty thousand Tlascalans erupted from their

hides amongst the acacia and brushwood to engulf their hated enemies in a howling, vengeful tide.

The look on Mahuizoh's evil face made every agonising moment of the last day and night worthwhile. Shikotenka surged forward and, as Tree's club and Chipahua's *macuahuitl* and the knives of Acolmiztli and Ilhuicamina struck down the astonished bodyguards, he closed with the general and *tac, tac, tac, tac, tac,* he took his vile and vicious life.

By noon, when there was still no sign of the *Santa María*, Alvarado looked out at the rest of the fleet gathered around his own magnificent carrack, *San Sebastián*, and shrugged his shoulders.

The only thing to do, under the circumstances, was to sail at once to Cozumel. Cortés had the coordinates. If he'd survived they would meet him again there.

And if not … well … Alvarado smiled. The expedition would just have to find a new leader, and he was ready to step up to the mark.

Part II

19 February 1519 to 18 April 1519

Chapter Forty-Five

Friday 19 February 1519 to Thursday 25 February 1519

Huicton sat on his begging mat in his usual spot at the junction where the Tepeyac causeway branched off from the Azcapotzalco causeway in the northern quarter of Tenochtitlan. Invisible, insubstantial, able to pass unseen wherever and whenever she wished, Tozi approached him without making a sound and waited

for a moment when there was a suitable gap in the crowds. Then, quite suddenly, giving no warning, she faded back into visibility right in front of him.

He gasped in surprise, blinked rapidly twice and put his old hand to his chest, but very soon recovered his composure. ‘Tozi!’ he said, with real joy in his voice. ‘I knew you’d be back … You’re not one to give yourself up to the knife.’ His brow furrowed. ‘But how long have you been standing here invisible waiting to shock me?’ He beckoned her to sit down beside him on the mat, rested his hand on her shoulder. ‘You’ve not harmed yourself with this fade?’

‘No, Huicton, I have not harmed myself. I’ve gone through many changes since we last met.’

There was a secret that Tozi had kept to herself during her months in the fattening pen. She’d told Coyotl and Malinal that her mother had brought her to Tenochtitlan when she was five years old; that she’d died two years later, leaving Tozi to fend for herself from the age of seven until she was grabbed off the street by

Moctezuma's catchers, who had brought her to the fattening pen when she was fourteen. That was all true, but she'd not told them her mother had been murdered by a mob of commoners whipped up into a frenzy against witches, or that they'd have murdered Tozi, too, if she hadn't cast the spell of invisibility and faded for a thirty count to escape them.

And she'd said nothing about Huicton, the poor, blind beggar with milky-white eyes who'd been there on the street corner when it happened. After the mob surged on in search of other victims, he'd looked for her and rescued her from the hole she'd crawled into where she lay helpless, stunned and bleeding from the effects of the fade.

Because Huicton wasn't really blind.

And when he passed through the streets of Tenochtitlan tapping with his stick, seeming to feel his way, he saw everything that went on.

He wasn't really a beggar, either. In that disguise, he'd explained to Tozi as he nursed her back to health all those years ago, he served as a spy for King Neza of Texcoco who was nominally Moctezuma's vassal but pursued many independent policies.

'How long have you known how to make yourself invisible?' Tozi remembered Huicton asking. His voice was low, with a strange nasal drone, almost like a swarm of bees in flight, and he'd smiled – such a nice, warm, *conspiratorial* smile – adding almost shyly: 'A spy with such a skill would be truly valuable.'

There was something trustworthy about him, so Tozi had told him the truth – that it was a gift she'd been born with but that it had to be harnessed by the spell of invisibility. Her mother had begun training her in the use of the spell from her earliest childhood, but it was difficult, and by the age of seven Tozi had only succeeded in mastering it for very short periods. Huicton had seen for himself how close it brought her to death when she sustained a fade for longer than a few seconds.

She remembered the close, intelligent way he'd studied her face through his clouded, deceptive eyes. 'You have other gifts, I think?' he'd said finally. She wasn't sure if it was a question or a statement, but in the years that followed they had often worked together. Her job was to lead him through the streets like a dutiful granddaughter, attracting sympathy and alms from passers-by, and as they walked, or sat on their mats and begged, he'd talk to her constantly about many things. Little by little she came to realise that these conversations were lessons – a sort of school – and that Huicton's purpose was to teach her to look deep within herself and find her gifts. He claimed no magical abilities of his own, but without his encouragement and advice, Tozi knew she would never have had enough confidence to learn how to send the fog, or read minds, or command animals.

He was not always with her. Sometimes the cunning old spy would vanish from Tenochtitlan for days on end as completely as if he did, after all, possess some magic. He never gave any

explanation or warning. He was just gone – she presumed to take the intelligence he'd gathered to King Neza in Texcoco.

It had been during one of these periods of absence, much longer than usual, that Moctezuma's catchers had seized Tozi and put her in the fattening pen. But now, the morning after the terrible orgy of sacrifices on the great pyramid of Tenochtitlan, she was back and reunited with Huicton.

'I'm so sorry I was gone when you were taken,' he hastened to tell her. 'My master King Neza died and problems arose. His eldest son Ishtlil should have become king in his place but Moctezuma preferred the younger son Cacama and put him on the throne instead.'

Even in the fattening pen, Tozi had heard rumours of the recent events in Texcoco. 'So do you serve Cacama now?' she asked.

'No! Certainly not! Cacama is a yes-man who does whatever Moctezuma tells him. But Ishtlil has a mind of his own – like his father. Rather than accept the new state of affairs, he broke away,

seized control of Texcoco's mountain provinces and declared a rebellion. He's at war with both Cacama and Moctezuma, and that war has grown bloody in the months you've been imprisoned.' Huicton glanced uneasily at the crowds passing by on the causeway and his voice fell to an almost inaudible whisper. 'I support the cause of Ishtlil,' he confided. 'He's become my new master and I do my spying for him now … A dangerous task – much more dangerous than before.'

Tozi understood the need for discretion. Numbering in their thousands, Moctezuma's secret police walked the streets of Tenochtitlan in plain clothes, listening and watching for any hint of sedition. They could be in any crowd, at any time. Even here. 'It was this change of circumstances,' Huicton continued, 'that kept me away from Tenochtitlan for so long and when I returned you'd been taken.' An apologetic grimace: 'I looked for you, I discovered what had happened, I even learned where they were keeping you, but there was nothing I could do except work for the destruction of

Moctezuma. He tried to poison Ishtlil, you know. At least I managed to foil that plot! And I continued to have faith in you, my little Tozi, and to believe that somehow you would make yourself free. You always had great powers …'

'Not great enough to escape from the fattening pen!' Tozi whispered. 'I would have died yesterday on the killing stone but Hummingbird saved me. Hummingbird himself!'

Consternation crossed the old man's face. 'I don't understand you, child. What do you mean, Hummingbird saved you?'

'I couldn't escape from the pen,' Tozi said, 'no matter how hard I tried. I could never fade for long enough, so I was with all the other women victims brought for sacrifice yesterday. Last night I reached the top of the great pyramid. Moctezuma wielded the obsidian knife. But Hummingbird intervened to save me, he showed himself to me, he whispered in my ear as I whisper in yours now, he touched me with his fire when lightning struck his temple, and I was spared …'

Huicton's frown deepened. 'What did the god say to you?' he asked.

'He said "*You're mine now*".'

'You're sure of this?'

'Sure as I sit here alive beside you! The god saved me from Moctezuma's knife, Huicton, and he gave me the power to fade whenever I wish to. I don't even need the spell of invisibility any more! But I'm *not* "his" and I never will be "his"! I discovered my purpose when I was up there on the pyramid – and it's to destroy him not to serve him.'

The old man looked suddenly weary. 'The road to Mictlan is paved with good intentions just like that,' he said. 'When you accept a gift from the gods, there's always a price to pay.'

'At any other time you would be right,' said Tozi, 'but Hummingbird is just one god amongst many and his reign is nearly over.' She gripped the bent old man by the shoulders: 'This is the year that has been foretold,' she whispered, 'the year One-Reed in

which Quetzalcoatl will return with all his host. Even now he journeys across the eastern ocean to overthrow Hummingbird and end the rule of Moctezuma forever. I can see you doubt me! Of course you do! I don't blame you. But what I say is true. I have sure knowledge of this. Human sacrifices will end, torture will end, slavery will end, pain and suffering will end, and we who are alive at this time will witness the dawn of a new age. Will you not believe me?'

'You sound so certain,' said Huicton. There was hope in his voice, but also sadness.

'I am certain! This is the year One-Reed! All those who are with Moctezuma will fall and all those who are against him will rise. Your new master Ishtlil of Texcoco will rise. The Tlascalans will rise. The power of the Mexica will be broken.'

On the busy causeway, few of the prosperous passers-by even glanced at the beggars who were too far beneath their contempt to be noticed. Tozi put her lips close to Huicton's ear. 'I could kill

Moctezuma,' she whispered. 'I could enter the palace without being seen, pass easily through the walls of his bedchamber and cut his throat while he sleeps.'

The old man thought about it for a while, staring straight ahead over the waters of Lake Texcoco with his milky, deceptive eyes. Finally, speaking so quietly Tozi had to strain to hear him, he said: 'It's tempting but I advise against it. And for two reasons. First, you have magic – I've always known that and I can see that it's more powerful now than ever before. But Moctezuma is surrounded by his own sorcerers, who work to protect him from magical attacks of the kind you're contemplating. Some of them may be stronger than you have become, even with this gift you've received from Hummingbird …'

Tozi shook her head vigorously. 'Their strength cannot match mine,' she said, not boasting but simply expressing the quiet confidence she felt.

Huicton looked at her with disapproval: ‘Never be too sure of yourself,’ he said. ‘In this world of the strong and the weak there is always someone stronger than ourselves. If you encounter such a one in your invisible form, it might be you, not Hummingbird, who is destroyed …’

She began to voice an objection, but he held up his hand palm outward to silence her. ‘I know you do not imagine this could happen, but Tozi, please believe me when I say that it can and that you – even you! – can be snuffed out like the flickering flame of a lamp or imprisoned in some sorcerous realm from which you can never escape. How then would you work for the return of Quetzalcoatl? What then would be the fate of the good you hope to accomplish with your powers?’ Again he waved her to silence. ‘Besides,’ he continued, ‘there’s a second reason to leave Moctezuma alive and this is simply that he’s the worst Speaker the Mexica have had in a hundred years. If you were to succeed in killing him, it’s a plain fact that anyone else they might put on the

throne when he's dead – Coaxoch, Cuitláhuac, even Guatemoc – would do a better job than him. If we're truly to bring the Mexica and their evil god down, and if you're willing to use these new powers of yours in ways you may not have thought of yet, then Moctezuma's weaknesses and failings, his superstitions and his fears can be made to serve our interests …'

Tozi thought about it and decided that what Huicton was saying made a strange kind of sense.

'You're right,' she agreed after a moment. 'Maybe the fool is more use to us alive than dead!'

'He is,' said Huicton. 'You will see. Now come … We need to plan this carefully. I have a place where we can talk without risk of being overheard.'

Hummingbird did not appear again after Moctezuma freed the woman and the girl and he began to fear that – despite the great

harvest of victims he had offered – he had somehow lost the favour of the god.

Sure proof of this was not long coming.

On the morning of the second day after the holocaust, a royal messenger spattered with dirt and blood and, in the last stages of exhaustion, stumbled into Tenochtitlan along the Iztapalapa causeway. He was brought directly to the palace where he prostrated himself on the floor of the audience chamber in the normal manner, but was overcome by emotion and stammered uncontrollably.

'I … I … There has been … The Lord Coaxoch has …'

'Speak, man!' Moctezuma urged. 'You have nothing to fear …'

The messenger sobbed and attempted to grasp the royal feet with his grimy hands, producing a stern rebuke from Cuitláhuac who was also present in the chamber.

'You have nothing to fear,' Moctezuma said again. 'Give us your report.'

It took a long while, and many such reassurances, before the messenger was sufficiently calm to speak. The giant field army mobilised by the Serpent Woman with the ambitious goal of seizing a further hundred thousand Tlascalan victims for sacrifice was no more. Two of the regiments, sixteen thousand men, had been lured away by a clever ruse and massacred in the eastern foothills of Iztaccihuatl. The other two regiments, together with tens of thousands of camp followers, had been surrounded at the muster point and annihilated. Inevitably some Mexica had escaped the fighting, and were presently limping back to Tenochtitlan, but their numbers were not thought to exceed three thousand. About a thousand more had been taken prisoner and reserved for sacrifice. It was clear, however, that the Tlascalans' primary goal was not to accumulate captives but to kill great numbers of their enemies on the battlefield. In this they had succeeded.

'Who were the Tlascalan generals?' Moctezuma asked, his voice sounding strangely thin and cold in his own ears.

‘Shikotenka the younger, lord,’ the messenger stammered, ‘his father Shikotenka the elder, and the Lord Maxixcatzin.’

Moctezuma sat silent on his throne. These were no mere generals but the three most powerful men in Tlascala, the younger Shikotenka being the battle-king, the older Shikotenka being the civil king and Maxixcatzin being the deputy to both.

‘And what of the Serpent Woman? What of his sons?’

‘All amongst the dead, lord.’

Cuitláhuac stepped forward and addressed the messenger directly. ‘My own son Guatemoc was with the Serpent Woman’s army,’ he said. ‘Do you know his fate?’

‘He lives, lord, though badly wounded and, I regret to report, close to death. Some of his men survived and carried him away from the battlefield. He is with them now, returning to Tenochtitlan in a well-protected caravan attended by surgeons, may the gods preserve him.’

‘May the gods preserve him,’ echoed Cuitláhuac.

Seeing his brother's expectant look, Moctezuma, too, repeated the time-honoured formula. The truth was, though, he'd never cared for his warrior nephew. Guatemoc was handsome, charismatic and virile. These qualities already made him a threat to the succession since Moctezuma had many daughters by his wives and many sons by his concubines, but only one legitimate son, the sickly boy Chimalpopoca, who was not yet four years old. Worse, the high esteem in which Guatemoc was held by the public and his wild, ambitious nature – so different from Cuitláhuac's stolid loyalty and complete lack of personal popularity – made him a threat to Moctezuma himself. All in all, therefore, it would have been better if the Tlascalans had succeeded in killing him. Still, with luck, he would die on the journey. 'You've done well,' he told the messenger. 'You may go.'

The wretched man crawled gratefully backwards out of the audience chamber. Moctezuma waited until the door closed behind him before he turned to Cuitláhuac. 'You have my permission to go

to your son,' he said. 'Meet him on the road, speed his journey and bring him to the royal hospital. My surgeons can work wonders.'

Cuitláhuac bowed. 'Thank you, brother. I will leave at once.'

'Yes, yes, of course. But before you go,' Moctezuma ordered, 'kindly arrange to have that messenger strangled. We have lost an entire field army. I cannot forgive the bearer of such terrible news.'

During the next days, as the survivors of the carnage in Tlascala straggled back to Tenochtitlan and the Mexica began to count the cost of their first real defeat in battle, Moctezuma became ever more deeply convinced that all his problems were connected to the powerful strangers who had appeared on the coast of the Yucatán four months before. They must indeed be the retinue of Quetzalcoatl and it must therefore be true that the bearded god was about to return – and in this very year One-Reed, as had long ago been prophesied. Since the Mexica had strayed far from his ways, it was not to be wondered that he had given the Tlascalans so significant

and unprecedented a triumph. Even so, the fact remained that Hummingbird had driven Quetzalcoatl out from the land of Mexico in times gone by and Moctezuma clung to the hope that he would do so again. He remembered the promise the war god had made to him in the temple: ‘You have nothing to fear for I fight at your side … I will bring you victory.’

It seemed unlikely that promise would still be kept, now he had lost Hummingbird’s favour. But might there not be something he could do, some great sacrifice he could make, that would win back the approval of the god?

Moctezuma’s attempts to meditate on the problem and find the right solution were constantly interrupted by the more mundane distractions of running his empire with all its dangers and rivalries.

On the morning of the fourth day after the battle with the Tlascalans, Cuitláhuac brought Guatemoc into the city and installed him in a richly furnished room in the royal hospital. Moctezuma

summoned Mecatl, his personal physician, who informed him from the floor of the audience chamber that the upstart prince would live.

‘Live, you say? I heard he was close to death.’

‘He is young, sire, he is strong, and Lord Cuitláhuac took three of my best surgeons with him to meet the caravan.’ The fool swelled with pride. ‘I trained them personally, sire. They did their jobs. Undoubtedly the prince will live.’

‘Come closer, Mecatl,’ hissed Moctezuma.

A worried expression crossed the fat surgeon’s face as he shuffled on his knees to the side of the throne. ‘Have I offended you, sire?’

Moctezuma ignored the question. ‘Know this,’ he said, ‘and know your life depends on your silence. It is better for the peace of the realm if young Guatemoc does not live.’

Mecatl gasped. His shiny bald head glistened. A pulse of body odour rose from beneath his robes. ‘Yes, sire … Do you wish me, then, to …?’

Moctezuma placed his thumb and forefinger beneath his nostrils to block the smell of fear wafting from the surgeon. ‘Nothing drastic, Mecatl. Nothing sudden. Nothing like the haemorrhaging venom we planned for Ishtlil. Nothing that would arouse suspicion. Some subtle poison that will sap Guatemoc’s strength little by little, would be my recommendation, so that his relapse is gradual, spread over days, and his death, when it comes, appears a natural thing. Poor boy. His injuries were grave. He struggled mightily but in the end he was overcome … You get the idea?’

Mecatl gulped. ‘Yes, sire.’

‘And you can administer such a poison?’

‘Yes, sire, but Lord Cuitláhuac has told us he will stay by Guatemoc’s side until he has more fully recovered. He has ordered that a bed be brought for him into the prince’s chamber. His presence will make it more difficult to do what you ask.’

‘We are in a time of crisis,’ Moctezuma said. ‘Lord Cuitláhuac has urgent State duties to perform that will stop him playing

nursemaid to his son. We will allow him that privilege today but from tomorrow I'll see to it he's kept busy with other things.'

'Thank you, sire.'

'I hope you understand me well, Mecatl?'

'I … I … I think so, sir.'

'Do what I have commanded, work the death of Guatemoc so it seems natural, and I will reward you. Fail in this task, allow anyone else to know of our little arrangement, raise the slightest suspicion, and you will die.'

Mecatl gulped again.

'Go now,' said Moctezuma, still holding his thumb and forefinger beneath his nose. 'Report progress to me daily.'

He felt a moment of quiet satisfaction as he watched the perspiring surgeon leave. He even began to hope things would soon start to go his way again. But within an hour his spies brought news to the palace of the recurrence of an omen of impending doom that had first troubled him a year earlier – a woman had passed through

the streets of Tenochtitlan during the night, lamenting loudly, heard by many but seen by none. A year ago there had only been the sound of her weeping, but last night as she passed she had cried out in a terrifying voice, ‘My children, we must flee far away from this city … My children, where shall I take you?’

On the morning of Tuesday 23 February, the fifth day after the expeditionary fleet had made its hasty departure from Santiago, the lookouts sighted a large island. Those who had been here before with the Córdoba expedition immediately recognised it as Cozumel. Beyond it to the west, stretching away into the hazy distance, lay a mainland of vast size and proportions.

Observing the prospect from the navigation deck of his great carrack, the *San Sebastián*, Pedro de Alvarado felt a quiet sense of satisfaction. It was unfortunate Cortés was not here to share this moment, but the fact was the discovery of the New Lands had begun. As to Cortés, God only knew what had happened to him.

Had he been sent to the bottom of the sea in the storm? Was he drowned? Was he shipwrecked? Was he lost? Only time would tell. Meanwhile the conquest must go on, and Alvarado intended to make certain it did.

He turned to his good friend Father Gaspar Muñoz, whom he'd freed from the brig on their first day at sea and with whom he was now getting along famously. Not that Alvarado cared much for religious types but the Father was an exception – a hard man, no doubt, even a cruel man, if his reputation was anything to go by, but in many ways a man after his own heart. 'Looking forward to your return, Father?' he asked. 'I'm told you converted the whole population when you came with Córdoba.'

Muñoz was glaring at the island, his eyes screwed up against the spears of bright sunlight reflecting off the water. 'I had some success when our soldiers were amongst them,' he said. 'But that was last year. I shall wish to discover if they've stayed true to Christ since we left.'

Alvarado nodded. He'd heard how Muñoz treated converts who lapsed back to paganism and he thoroughly approved. You had to take a tough line with savages. Still, he was curious. 'Forgive me for asking, Father,' he said, 'but how can you be sure you've converted the heathens at all when they don't speak our language and you don't speak theirs? You had no interpreters on the Córdoba expedition.'

Muñoz gave him a strange look. It was a look, Alvarado thought, that a lesser man might even have found … chilling. 'It is a matter my order has studied,' the friar said eventually. 'As you can imagine, we frequently find ourselves as missionaries in lands where there is no common tongue. We have developed certain methods, certain techniques and signs, to overcome these difficulties. Naturally we require our converts to destroy their idols.' A fanatical glint appeared in Muñoz's eye. 'The zeal with which they do this – or their lack of it – speaks volumes. Then there are the symbols of our own faith. If they accept the cross and an image of

the Virgin with glad hearts, we take it as sure evidence of conversion and after we are gone the sacred symbols continue to work wonders.'

'So these Cozumel Indians – they were happy to destroy their idols?'

'Most happy. And they understood they must desist in future from the vile cult of human sacrifice – did you know it is the practice of the Indians throughout these New Lands to cut out men's hearts and offer them to the devils they worship as gods?'

'So I had heard,' conceded Alvarado.

'I ended that abomination on Cozumel and afterwards we had the savages whitewash the blood from the walls of their temple and put the cross and an image of the virgin in the place where their principal idols had stood.' That fanatic gleam again. 'It will anger me if there has been any relapse.'

'It will be all the easier to detect relapse,' Alvarado offered, 'and make fresh converts now we have our own interpreter.' He nodded

in the direction of the main deck, where the Indian kidnapped during the Córdoba expedition sat hunched in conversation with the young ensign Bernal Díaz, the farmboy whom Cortés had promoted above his station to the rank of ensign.

'Interpreter?' Muñoz said. His moist upper lip retracted to expose protruding yellow teeth as he sneered at the Indian. 'That creature has no Castilian at all, so I fail to see how he can interpret anything.'

Perhaps a slight exaggeration, Alvarado thought. During the creature's enforced stay in Santiago, it had acquired a smattering of Castilian, but it frequently misused the few words it knew, and spoke with an accent so thick as to be almost unintelligible. Was it even fully human? It had crossed eyes and long greasy hair hanging in a fringe over a low, sloping brow. It walked with a deep stoop, its knuckles trailing apelike almost to the ground.

Still, it would have to serve. Muñoz might face problems getting it to convey the rarefied spiritual notions he dealt in, but as long as

it could put the words ‘bring out your gold’ into the native tongue, the stinking creature would be some use to Alvarado.

The Indian’s name was Cit Bolon Tun but the Spaniards – those few who spoke to him at all – called him ‘Little Julian’. This shunning of the man, and his treatment by most as though he were lower than a dog, partly explained why he had learned so little of the Castilian tongue. But there was also, Díaz sensed, a stubborn, rebellious streak about him. Most likely he simply did not *want* to learn the language of his oppressors, preferring to sulk and slouch, his squint eyes locked on the tip of his own nose, watching everything but making as little effort as possible to become useful.

Díaz had done what he could to remedy this state of affairs on the four-day voyage from Santiago, making a concerted effort to add to Little Julian’s vocabulary – ‘this is called a “dog”, this is a “horse”, this is a “mast”, those are called “waves”, that bird there is a “seagull”,’ and so on and so forth. As a campaigner from the

Córdoba expedition himself, Díaz had been present when Little Julian was captured during a great battle fought on the outskirts of a town named Potonchan, but other than that name, which stuck in his memory, and the name of Julian's tribe, the Chontal Maya, he knew next to nothing about the people and culture of the region, except that they were savages who practised the disgusting rite of human sacrifice. During the voyage, in return for the language lessons Díaz had given, Julian had added to this information, telling him that the Chontal Maya were just one part of a great confederation of Maya tribes. The land they inhabited, the 'Yucatán', another name Díaz recalled from the year before, was a very extensive country of jungles filled with wild beasts including deer – which Little Julian insisted were a species of horse – and panthers, as well as many other creatures large and small, fierce and timid, that were unknown to Spaniards. The jungles were interspersed by cultivated gardens and farms where the main crop, maize, was one that Díaz had already tasted in Cuba even before his part in the Córdoba

expedition. As he had seen with his own eyes, there were also great towns and even cities in the Yucatán, of which Potonchan was one. There Julian's two wives and seven children awaited his return, and it was his hope, Díaz learned, that he would be allowed to rejoin his family if and when the present expedition once again made its way to Potonchan.

'Do they even speak your language here?' Díaz asked, pointing to Cozumel now less than five miles dead ahead. It would be their first port of call, just as it had been the first port of call for the Córdoba expedition.

'Cozumel peoples is Maya,' Julian replied. 'I speak them like my own home.'

'Good. Very good.' Díaz clapped the squint-eyed Indian on his narrow shoulder, then stood and walked forward to the forecastle for a better look at the island he had visited last year, now revealing itself as a large, tear-shaped landmass, narrowing to a point in the north but a good six miles wide in the south and twenty-five or

thirty miles in length. Densely overgrown with lush green tropical forest, it appeared, for the most part, to be flat and featureless, but in the northeast a fair-sized town of whitewashed, flat-roofed dwellings was visible on a low hill. As was the case with the few other Indian towns that Díaz had visited with Córdoba, a stone pyramid surmounted by a squat dark temple stood at the highest point.

In the Díaz family's farmhouse near the Castilian town of Medina del Campo, there had hung a painting of the three famous pyramids of Egypt, inherited by Bernal's father from his great grandfather, who had in turn – so the story went – inherited it from an even more antique relative who had been on the crusades to the Holy Land and had, at some time, passed through Egypt. Bernal's own memory of the painting was faint, but it was enough to confirm for him that the pyramids of the New Lands belonged to the same general class of objects as the Egyptian pyramids. The latter, however, had no temples on their summits, which rose to a sharp point, whereas in

these New Lands – and Cozumel was no exception – all pyramids were built in a series of steps with flat and spacious summits often accommodating large structures.

Díaz could not forget the dismembered bodies and blood-splashed temple walls that had confronted him when he had first climbed to the top of the great pyramid of Cozumel – a scene that was all the more surprising for being so at odds with the seemingly friendly nature and gentle character of the island's inhabitants. Equally terrible had been Muñoz's fury at this proof not only of idolatry but also of human sacrifice. In view of the brutal chastisement of the natives that had followed, it was little wonder they'd converted so quickly and so willingly to the faith of Christ. Díaz hoped for their sakes, now Muñoz was returning, that they'd not relapsed.

After two hours more easy sailing in a light following wind, the *San Sebastián* rounded a headland and Cozumel's good anchorage revealed itself at the foot of the hill on which the town was built.

The protected bay edged by palm trees presented an idyllic scene, the long, crescent-shaped beach of white sand packed with brown-skinned natives, many as naked as the day they were born, the more senior men in breachclouts, their women in simple blouses and skirts, and every one of them cheering and waving as though the Spaniards were long-lost brothers returning to the fold.

How sweet and innocent they were! So different from the warlike mainland tribes of the Yucatán encountered by the Córdoba expedition when it had sailed on from here last year – tribes like the Chontal Maya from which Little Julian hailed.

Díaz heard a scuffle of bare feet and turned to see the cross-eyed interpreter had come forward silently and joined him on the forecastle. But Julian wasn't looking ahead at the crowded beach. Instead he was looking back along the ship to the navigation deck, where Father Muñoz still stood side by side with Don Pedro de Alvarado.

A sudden epiphany afforded Díaz a glimpse of the captain and the friar as the Indian must see them now, both of them greedy and both hungry, the one for human souls, the other for gold – both of them monsters who would stop at nothing, who would have no compunction, who would do anything, anything at all, to gratify their desires.

Muñoz placed his hand on Alvarado's shoulder and moved his fingers down in a manner peculiarly intimate to touch the captain's broken left arm where it hung, bandaged and splinted, in the sling fashioned by Dr La Peña. Some wordless communication seemed to be exchanged, then the friar turned, strode down the steps to the main deck and climbed through the hatch into the hold, the black sackcloth of his habit merging seamlessly with the shadows below.

Above, the coarse yells and work songs of the sailors filled the air as the *San Sebastián* dropped anchor in the bay of Cozumel. Below, in the tiny dark prayer cell that Pedro de Alvarado had caused to be

built for him in the bowels of the great carrack, Father Gaspar Muñoz knelt naked on the bare boards, repeatedly flagellating his own back with the knotted cords of a cat-tail whip, beating himself with such force that streams of blood poured down over his buttocks and thighs. Lacerations he had inflicted a few days before, and that had begun to scab over and heal, burst open again under the scourging, and new wounds opened up amongst them until his flesh was a mass of blood and bruises.

He welcomed the pain – welcomed it and embraced it like a lover – and when it reached its crescendo he experienced, as he always did, a sudden detachment of soul from body, and entered into a state of holy and mystical union with the divine. A luminescence flared in the darkness, spreading and opening like the petals of some great night-blooming flower, and out of its midst, floating towards him and crossing in an instant the impossible distance between heaven and earth, appeared the shining figure of Saint Peter.

Though gratified, Muñoz was not surprised, for the saint had chosed to commune with him in these moments of ecstasy, and sometimes in dreams, since his first visit to Cozumel last year. The purpose of their mystical encounters had been made clear from the outset. Muñoz had been called to do God's work in the New Lands and the work was so important that Peter himself, the rock on whom Christ built his church, had been sent to guide him.

Now, as his glowing form filled the darkened prayer cell, the saint laid his huge hand on Muñoz's head, the warm, calloused palm bearing down, sending a tingling vibration through the kneeling friar's tonsured crown, through his skull and into his brain, penetrating his spine with a liquid glowing heat that diffused rapidly to all parts of his body and rose to a delicious peak as it entered his member of shame.

'Are you ready,' asked the saint, 'to begin the great work?'

'I am ready, Holiness,' Muñoz murmured, 'yet I fear I am not worthy.'

‘You are worthy, my son. I have told you this many times before.’

‘But I have desires, Holy Father. *Unnatural desires*. Are they not sinful?’

‘When you do the work of God,’ said Saint Peter, ‘there is no sin in it.’

‘Yes, Holiness.’ Muñoz laid the scourge by his knees on the floor and now peered with hope into the saint’s coal-black eyes. ‘May I go out then, tonight, and take a child?’

A glint of fire sparked in the black depths of those eyes. ‘To take a child so soon after the fleet has anchored would excite suspicion even amongst your fellow Spaniards and that would not serve our interests. You must proceed with stealth and be seen to go about your normal business. Today you will inquire into the progress of our sacred faith since you first planted it here. You will find it has withered on the vine while the worship of idols and the cult of human sacrifice have flourished in your absence. Tomorrow you

will punish these abominations. On the third day, in the uproar that follows, you may take a child. Afterwards wait a day, then take another.'

'Thank you, Holy Father. You are generous.'

'One thing further, my son …'

'Yes, Holiness.'

'I saved Cortés from the storm. Even now he makes sail for Cozumel.'

Muñoz was suddenly confused, his head spinning: 'You *saved* him, Father. Why? I had hoped I had seen the last of him. He is not the right man to lead this expedition! With Alvarado as captain-general, I would be so much better placed to do God's work in the New Lands.'

The pressure of Peter's hand on Muñoz's head increased. It was as though a great weight forced him down. 'Such matters are not for you to decide,' the saint said, 'or even involve yourself in.'

'But, Holiness, I must object …'

‘*You object?*’ Saint Peter’s voice became a roar like thunder and wind. ‘Take care, Muñoz, for you are a mere man and you enter deep waters here. Wade another step and you may drown …’

Muñoz whimpered. The pressure on his head was unbearable. He felt himself driven down through the rough planks of the floor. ‘I am sorry, Holy Father. In my zeal for God I spoke beyond my station.’

The pressure was lifted as quickly as it had been applied. ‘You are forgiven, my son. But you must reach an accommodation with Cortés. You and he are my sword and my shield in these New Lands. You have both been called according to God’s purpose.’

A man like Cortés, Muñoz thought, *called to God’s purpose? How can that be?*

‘This is not given to mortal man to know,’ replied Saint Peter, from whom nothing was hidden. ‘It is a secret thing that belongs to the Lord our God.’

The saint's glow was beginning to fade, his immense spirit withdrawing to heaven whence it came. 'Know that I visit Cortés in his dreams,' he said as he slipped away, 'know that I speak with him. Know he loves me, even as you love me. And know that all things work together for good to them that love God …'

It was the afternoon of Tuesday 23 February, the fifth day since their departure from Santiago de Cuba. *Five days!* Cortés thought. *Five bloody days!* Alaminos had estimated that Cozumel lay not much more than three hundred nautical miles due west of Santiago, and under normal conditions it should have been possible to sail such a distance in four days. Instead here was Cortés's proud flagship the *Santa María*, quite alone in the midst of the ocean sea, and with at least two days' hard sailing still ahead of her!

It was the storm on that wild night of Thursday 18 February that had changed everything. Miraculously all the horses, braced in their stalls by slings under their bellies, had lived through it without

serious injury, and only one man had been lost; the toll could have been so much higher! But once the wind and the waves had died down it became clear that the *Santa María* had been separated from the rest of the fleet and blown very far to the south of her original course – indeed so far south that the next morning, Friday 19 February, she lay within sight of the Spanish settlement of Seville on the north coast of the island of Jamaica. They'd been obliged to put in to this undesirable shanty town filled with rats, thieves and mosquitos while the ship's carpenter, Martin Lopez, made good the worst of the storm damage, including a raging leak below the waterline that would have sunk them in a few more hours if they'd attempted to sail on.

The repairs required two days to complete so they'd not finally been able to put to sea again until Sunday 21 February, and in the two days since then they'd made slow progress. The winds on the voyage had been variable, sometimes dropping away completely and leaving them becalmed, as was the case this afternoon,

frustrating Cortés, filling him with impotent rage and leaving him prey to all manner of anxieties. His greatest fear was that the rest of his fleet had been destroyed in the storm, that his enterprise was therefore already over before it had begun, and that his remaining men might force him to return to Cuba where Diego de Velázquez waited to hang him.

The only refuge from these uncharacteristically pessimistic and negative thoughts was in sleep and, since there was little else to do, and a dour humour was upon him, Cortés had resorted to his hammock for what he hoped would be a lengthy siesta this afternoon of Tuesday 23 February.

At first, however, sleep eluded him, and after a short while he understood why. Although his stateroom had been restored to its original spacious dimensions since Pepillo and Melchior had smashed down and removed the central partition, the evil emanations of Father Gaspar Muñoz still clung about the place. In particular they seemed to arise from the friar's four large leather

bags. Miraculously these had not been washed away when seawater had flooded in on the night of the storm, and Cortés had retained them with some vague notion that he might return them to the Inquisitor when and if they were reunited.

The bags were stacked side by side in a corner at the back of the stateroom, where a jumble of Cortés's own belongings – heaps of clothes, a rack of hanging cloaks, assorted weapons and miscellaneous sacks and valises – shielded them from common view. Now, with a sigh, he extricated himself from his hammock, strode over to the untidy pile, pulled the bags free from their hiding place – ye gods they were heavy! – and lined them up in the middle of the floor.

They were padlocked, but that was scant impediment and their owner, if not at the bottom of the sea, was too far away to object. Cortés found a short steel dagger and, after further searching, a slim crowbar. In less than a minute he had the bags open.

How strange! Here were flensing knives, slim and wicked, razor sharp; here scalpels, each fine blade in its own miniature leather sheath; here lancets, here stilettos, here bone saws, here hatchets, here a selection of butcher's knives as long as a man's forearm, the blades of some smeared and matted with dried blood; here cleavers, here daggers of many different designs, and here were instruments of torture – hooks, screws, spikes, steel garrottes, heretics' forks, tongue pliers, eye-gouges, hammers and many more.

Cortés could have believed, or could at any rate have persuaded himself, that all these ugly devices were possessed by Muñoz for the purposes of his work as Inquisitor – work for the Lord, it should not be forgotten – were it not for the trophies of human skin and hair that he also found in the bags, not even hidden away but simply lying there in plain view. These appeared to be strips cut from the scalps of Indians, judging from the hair – thank God not from Spaniards – and though some were desiccated, others seemed relatively fresh and exuded a mephitic stink.

Holding his hand over his nose, Cortés placed everything back inside the bags, closed them as best he could with the broken padlocks, concealed them once again at the rear of his stateroom and retired to his hammock with his mind in turmoil.

What on earth – or in heaven or hell for that matter – was Muñoz up to?

Even as this question crossed his mind, sleep stole up on Cortés – not with its usual gentle seduction but brutally and fiercely – and took possession of him like an enemy seizing a prisoner. As this happened and his eyelids fluttered closed, he felt the hair on the back of his neck rising, as though he were in the presence of danger, and became convinced at some deep level of his awareness that something intelligent, something that was not human and not friendly, had entered the stateroom and now stood over him where he lay in his hammock.

I'm dreaming, he thought. And though he slept – and absolutely *knew* that he slept – though his body lay paralysed and he *knew* he

could not move a muscle, he also knew, with that same sense of complete certainty, that all his faculties of reason and memory remained intact and could be deployed to probe and perhaps even understand the high strangeness of the moment. He remembered his dream of a few days before when Saint Peter had appeared to him, and immediately recognised certain similarities and a familiar flavour to the experience, most notably the sense of being both within a dream and an external observer to it.

But there was nothing familiar about what happened next.

With the peculiar, sinuous, unfolding motion of a serpent shedding its skin, Cortés's hammock transformed itself into a great broad table upon which he lay immobilised by tight iron shackles fastened around his ankles, knees, wrists and elbows. An intense crackling, buzzing sound filled his ears and, instead of the timber ceiling of his stateroom, he found himself looking up at an immense flat object, completely covered in intricate geometrical patterns somewhat like a huge painting, that hung suspended over his body

and occupied his entire field of vision. His eyes followed the patterns which he now saw were formed from very fine lines, or filaments, brick-red in colour, etched into or in some other way fixed upon an ivory background, forming boundaries or tracks, between which were placed multitudes of bone-white clock faces with strangely bent and twisted black hands pointing to hours and minutes.

It was terrifying, although Cortés could not at first understand why, until it came to him that this colossal, convoluted, labyrinthine, machine-like image was sentient and that its attention was focussed upon him in a manner hellish and menacing. He thought he glimpsed a hint of eyes and of vibrating antennae, like those of some great predatory insect, and he began to feel deeply uncomfortable and restless. But he was unable to struggle against the irons that held him in place.

Then – again subtly and sinuously – the scene began to change, the giant effigy faded from view and Cortés, who still felt himself to

be both inside and outside the dream at the same time, a participant and yet also an observer, caught glimpses of the space in which he was confined. Whatever and wherever it might be, this vast and umbral chamber, its floor littered with the rusting hulks of strange engines, its smoke-blackened walls dimly lit by flickering sulphurous flames, was no longer his stateroom, no longer, perhaps, even of this earth, but a place of horror where hunched fiends darted towards him through the shadows, chattering furiously in unknown tongues as they surrounded the table on which he lay prone and immobile.

‘Stop,’ Cortés wanted to shout, ‘Please stop this! Show me no more!’ But the words could not escape his mouth. Instead, seeming to emanate from everywhere and nowhere within the colossal, echoing chamber, he heard a rumbling, portentous voice, deep and ominous, yet filled with a sort of malicious glee, that said to him plainly and clearly: ‘You’re mine now.’ And as though this were a signal, the figures surrounding him fell upon him and he had the

sense that his body was nothing more than some huge, bloated cocoon and that these hunched, faceless beings were all over it, tearing it apart, clawing away lumps of matter and throwing them aside, gaining access to the real Cortés, the hidden Cortés, the demonic, sinful, wilfully wicked Cortés that he had striven so hard for so many years to conceal from the world.

And he thought: *This is the place of absolute truth. This is the place where everything about me is known. This is the place where every thought and every deed throughout my whole life is utterly transparent. This is the place where I am to be weighed and measured and found wanting.* But at that very instant, as the last vestiges of his protective outer husk were stripped away, Cortés heard another voice clear and pure, strong and filled with joy, that announced in the tones of a proclamation at court: 'Now the great transformation will begin!' And suddenly Saint Peter was with him, Saint Peter his saviour, Saint Peter his protector, Saint Peter his guardian, and he felt himself swept up from that hellish table and

that infernal realm into the high blue empyrean, up, up to some immeasurable height from which he looked down upon the green, sparkling ocean and there, far below him, dancing across the waves, sails billowing in a good following wind that must have sprung up while he slept, was his own fair and elegant *Santa María* speeding towards the New Lands.

'Come,' said Saint Peter, 'let me show you that all is well for those called to God's purpose,' and he cradled Cortés in his huge hands, and carried him off through the vault of the firmament, across the face of the ocean, and brought him down in the blink of an eye to a great green island and a sheltered sandy bay lined with waving palms. In the bay, safe at anchor, with Alvarado's *San Sebastián* in pride of place, bobbed the carracks and caravels and brigantines of the expeditionary fleet – all ten of the lost ships intact after the storm, though some were wave battered, their crews busy on deck, squads of soldiers in armour going ashore to be welcomed

and presented with bright garlands by great crowds of smiling and seemingly friendly Indians.

Above the bay rose a low, wooded hill, skirted by fields and capped by a town of white-walled, flat-roofed houses. At the centre of the town loomed a great stone tower in the form of a pyramid and on its summit squatted a dark, ugly building. ‘That,’ said Saint Peter, ‘is the temple of the heathens. And this man’ – in a trice the saint brought Cortés down to the bay again where Father Gaspar Muñoz stood on the strand – ‘is the cure for their idolatry.’

Tall and severe in his black robes, his face shining with the uncompromising light of faith, Muñoz held aloft the cross of Christ.

‘By this sign you shall conquer,’ Saint Peter whispered, and in a flash Muñoz, the bay, the ships all dissolved, as though they were no more substantial than mist, and Cortés awoke in his hammock in his stateroom, sweat pouring in rivulets from his body, his heart thudding in his chest and the light of late afternoon pouring in through the open window.

He sensed the onward rush of the ship, heard the creak of the masts and the flap of the sails in a fair following wind and knew that in some sense his dream had touched on true things.

But what did it all mean?

What was that terrible shadowy chamber he had found himself in, where his soul had been stripped bare? What spiritual horror had Saint Peter rescued him from? And was he to understand that not just the promise of a successful conquest, but the price of his own eternal salvation, was some accommodation with that foul creature Muñoz, whose bags of blood-blackened knives and grisly human trophies seemed to lurk in hiding like savage beasts in their corner of the stateroom?

Muñoz had been holding up the big wooden cross all afternoon, making it a rallying point for the men as they disembarked. Around a hundred and fifty of them had assembled behind him now, most wearing the colourful garlands of fragrant flowers hung around their

necks by the happy crowds of welcoming islanders. Astonishingly, these bare-arsed Cozumel Indians were actually singing and dancing with joy at the sight of the Spaniards, and had already brought basketloads of food and drink to the beach for their refreshment. *Fools!* thought Alvarado. The smiles would be on the other side of their faces once everything of value they possessed had been transferred to him – but meanwhile, he had to admit, their naïve gentleness was useful and made his job easier.

The same could not be said for Muñoz, who had already commandeered that squint-eyed ape Little Julian, slouching near him on the sand, for what he clearly intended to be a major investigation of the health of the faith on Cozumel. That was all very well, of course – Alvarado had no philosophical objections – but experience on Hispaniola and Cuba proved that searches of temples, the destruction of idols and other such business of the Inquisition stirred up resentment in these native races, and that once resentful they were inclined to hide their gold.

Alvarado had already assembled two hundred soldiers, all eager for booty, and now strolled over to Muñoz and took him aside. ‘I’ll be needing these men,’ he said with an eye to the column lined up awaiting the friar’s orders, ‘and the interpreter.’

‘You may not have them,’ said Muñoz somewhat pompously. ‘I intend to search the temple. I must know the fate of the cross and the icon of the Virgin I left here last year. I can’t do such work alone.’

‘Your search of the temple can wait until tomorrow, Father. In Cortés’s continuing absence I am captain-general here and my need is greater than yours.’

‘Ha! What need?’

Alvarado looked up. The sun was distinctly in the western sector of the sky. It had taken much longer than expected to prepare the fleet for a full-scale landing at Cozumel and get sufficient men disembarked. There were now less than three hours of daylight left and he wanted every house in the town searched before darkness

fell. ‘Today we look for gold,’ he said. ‘Tomorrow I’ll give you all the men you need to save souls.’ He rested his hand on the hilt of the great falchion hanging in its scabbard at his waist. ‘Don’t try to gainsay me, Father,’ he added somewhat sternly. I’ll have my way on this with your agreement or without it.’

Díaz could feel the atmosphere changing, the islanders becoming more agitated and suspicious with every passing minute as the squads of conquistadors went from house to house turning everything upside down, often brutally, with vulgarity and anger. He did everything in his power to be polite, respectful, even apologetic as his own men played their sorry part in the searches, but the fact was that nothing like this had happened here last year and the Indians were unprepared.

‘Not that everything was roses,’ Alonso de La Serna reminded him. ‘Muñoz gutted their temple and smashed their idols and generally gave them hell.’

‘They were the lucky ones!’ said Francisco Mibiercas, whose unusually broad shoulders and muscular arms were the result of hours of daily practice with the *espadón*, the long, two-handed sword that hung in a scabbard at his back. ‘Compared with what he did down the coast at Potonchan, he was an angel of mercy here.’

La Serna rolled his eyes. He was a tall, clever, cynical young man with a mop of fair hair, his otherwise handsome face marked by the scars of an old smallpox infection, and like all of them he hated Muñoz. ‘Compared with what he did at Potonchan,’ he said, ‘the devil himself would have seemed an angel of mercy.’

Díaz could only agree. The three of them had been together at Potonchan when Muñoz’s excessive zeal had so provoked the Chontal Maya that they had risen in their thousands, killed more than seventy of Córdoba’s conquistadors and fatally wounded Córdoba himself. But at Cozumel, which Córdoba had planned to cultivate as a safe haven, Muñoz had been kept on a short leash, and the soldiery had been strictly enjoined against looting.

All of which went to explain why the fleet had been welcomed earlier today and why looks of stupefaction, hurt and disappointment had wiped the glow from the Indians' faces. Sprawling over the island's only hilltop, its narrow streets running higgledy-piggledy between rows of simple whitewashed adobe homes, the town of Cozumel had perhaps two thousand inhabitants. Every one of them – men, women and children who not long before had been hanging garlands around the Spaniards' necks – now stood by, sullen and resentful, as their simple possessions, consisting mostly of bales of cloth, cotton garments and wall hangings of little value, crude ceramics, green-stone ornaments, and a few objects of copper, as well as a handful of trussed turkeys, were turned out, raked over and trampled into the dust.

'God help us if Cortés does not return,' said La Serna, with a nod towards Alvarado, who was storming through the streets, followed by his personal crew of hardened, brutal killers, demanding 'gold, gold, gold'. The blond-haired captain did not seem able to

understand that a place like Cozumel could never be, and had never been, rich in that substance. ‘I’m told he’s a gifted swordsman,’ said Mibiercas wistfully, ‘but he’s not the stuff of which a good captain-general is made.’

As they watched, Alvarado loudly cursed his broken left arm which hung uselessly in a sling, turned to Little Julian, who was doing his best to keep up with him, drew the big falchion he liked to carry and dealt the interpreter a hard blow to the buttocks with the flat of the blade. Julian squealed and jumped and Alvarado went after him, sheathing the cutlass and pummelling Julian about the ears so hard with his right fist that the Indian fell half stunned to the ground.

Díaz sighed and exchanged a weary look with Mibiercas and La Serna. ‘I think I’d better go and see if I can restore some sanity to the situation,’ he said.

Alvarado couldn't believe it! He'd come all this way, braved all manner of risks, even eschewed fifteen thousand pesos of the bribe offered him by Don Diego de Velázquez, only to discover at the end of it all that there was no gold here!

It didn't bear thinking about.

But to add insult to injury, it seemed that this monkey interpreter couldn't interpret to save his life. Only the hayseed farmboy Bernal Díaz seemed to have the faintest inkling of what he was saying. As a result, and it was intolerable, in order to communicate with the native chief he was obliged to state his demands in Spanish to Díaz, who would then put them into some sort of pidgin for Little Julian who then put them to the chief. The whole laborious process then began again in the other direction as the chief's replies were filtered through Julian and Díaz back to Alvarado and the end result was: 'Humble apologies, great lord, but we have no gold here on Cozumel.'

The chief's name, Alvarado had managed to establish, was B'alam K'uk or some such barbarism. Not that he cared two hoots what the tall, rangy, straight-backed, grey-haired savage with the hooked nose and the blue cotton loincloth called himself. He wasn't fit to polish boots, in Alvarado's opinion, and had confirmed this the moment they met by throwing himself down in front of the hovel he'd emerged from, scrabbling at the filthy earth of the street and stuffing a handful of it into his mouth. Dear God! Whatever next? But this was the sorry creature in charge of Cozumel and here he was, back on his feet again, insisting there was no gold. In a sudden fit of anger, Alvarado strode forward, thrust out his good right hand and gripped the subhuman by his scrawny throat. '*What do you mean there's no gold?*' he yelled.

Eventually the answer came back through Julian and Díaz. There really was no gold.

'Lies!' Alvarado stormed. 'Lies and mendacity.' He tightened his fingers around the man's windpipe and spoke slow and clear and

loud: ‘You,’ he roared, ‘will … deliver … up … all … your … gold … by … noon … tomorrow – or I will burn your miserable town to the ground and butcher every man woman and child … Do you understand?’

The threat went back via Díaz and Little Julian to B’alam K’uk, who squirmed and choked in Alvarado’s iron grip.

‘Yes,’ the chief finally managed to reply. ‘I understand. Tomorrow at noon there will be gold.’

Early in the morning of the sixth day, after the mass sacrifices on the great pyramid, Moctezuma’s spies were back with reports not only that the weeping woman had been heard again but also of a new development. Certain elders living in different wards of the city had been overheard speaking to one another about identical dreams they had all shared during the previous two nights. It seemed these dreams touched upon the security of the Great Speaker’s rule.

This smacked of treason!

Moctezuma summoned Cuitláhuac from his vigil at Guatemoc's hospital bed and gave orders for the individuals concerned to be rounded up and brought to the palace. It was late morning by the time they arrived and he had them wait in the audience chamber while he composed himself. How dare they question his reign? When he was ready he entered with Cuitláhuac by his side and saw four wrinkled old men and three ancient crones cowering on the floor.

They had about them the smell of age and sickness, which he could not abide. Since their dreams were shared, he instructed the women to nominate one of their number who would speak for the rest, and the men to do the same, and sent the others shuffling out backwards to wait in the courtyard.

The man spoke first. He was very small, bird-like, with thin wispy hair, a weather-beaten, deeply lined, toothless face and the lumps of some canker protruding from the bones of his skull. 'Powerful lord,' he said in a voice that was surprisingly loud and

strong, ‘we do not wish to offend your ears or fill your heart with anxiety to make you ill. However, we are forced to obey you and we will describe our dreams to you.’

‘Proceed!’ snapped Moctezuma. ‘You have nothing to fear.’

‘Know then,’ the old man continued, ‘that these last nights the Lords of Sleep have shown us the temple of Hummingbird burning with frightful flames, the stones falling one by one until it was totally destroyed. We also saw Hummingbird himself fallen, cast down upon the floor! This is what we have dreamed.’

Maintaining his composure with great difficulty, Moctezuma next ordered the old woman to speak. ‘My son,’ she said, ‘do not be troubled in your heart for what we are about to tell you, although it has frightened us much. In our dreams we, your mothers, saw a mighty river enter the doors of your royal palace, smashing the walls in its fury. It ripped up the walls from their foundations, carrying beams and stone with it until nothing was left standing. We saw it reach the temple and this too was demolished. We saw the

great chieftains and lords filled with fright, abandoning the city and fleeing towards the hills …'

'Enough of your ravings, woman!' Moctezuma snapped. The symbolism could not have been more obvious. He turned to Cuitláhuac: 'You know what to do.'

The fate of the elders had never been in doubt. They had, after all, engaged in a conspiracy of dreams! Cuitláhuac gave the command and the palace guards dragged all seven of them off across the courtyard. A small dungeon had been prepared for them a mile away in the northern quarter of the city, and they would be kept there without food or water until they shrivelled up and died.

Observing from a window, Moctezuma saw that the old man who'd spoken in the audience chamber was dragging his feet, protesting in his astonishingly loud voice. With a mighty struggle, revealing unexpected strength for one his age, he brought the whole procession to a halt as they reached the edge of the courtyard. 'Let the Lord Speaker know what is to become of him,' he harangued the

guards. ‘Those who are to avenge the injuries and toils with which he has afflicted us are already on their way!’

As he heard these awful words, Moctezuma’s sense of impending doom deepened. He had put on a brave face for Cuitláhuac but it was all he could do to control himself now.

The guards beat the old man to the ground and carried him away, senseless, but what he had said seemed to linger, linger, in the sullen noontime air.

Around noon on Wednesday 24 February, the sixth day after the fleet’s departure from Santiago, Cozumel’s chieftain B’alam K’uk presented himself to Alvarado and Father Muñoz on the *San Sebastián* at the head of a delegation of four of the town’s elders. There was much oohing and aahing, accompanied by fearful glances cast at the glowering Inquisitor, as the dignitaries, ferried out from shore in a longboat, were hauled up to the great carrack. Though they had of course seen Spanish ships when Córdoba called here, it

seemed they had never before been on board, and the experience was so overwhelming for them that they threw themselves face down, as the chief had done yesterday, and attempted to gather and eat dust from the deck.

Disgusting, Alvarado thought. He turned to Muñoz. ‘Shall I kick them to their feet,’ he asked, ‘or would you like to have that pleasure, Father?’ But before the friar could respond, the Indians popped up again and stood there bobbing and grinning like monkeys. Unprompted, Little Julian said something in the local lingo, at which B’alam K’uk stuck a hand inside his sopping wet breechclout – wet from the sea, Alvarado hoped! – and pulled out a little cloth bundle, also wet. He proceeded to unwrap it, revealing a yellow gleam.

The bundle contained a few trinkets of poor-quality gold – a miserable necklace, two ear-spools, a figure of a bird no larger than a man’s thumb and a little statue of a human being which, on closer examination, proved to be made of wood covered with gilt!

‘A sorry start,’ said Alvarado, keeping his voice even. ‘Now show me the rest.’

The usual gibbering interchange involving Julian, Díaz and the chief followed, in which Julian looked increasingly frantic as Díaz kept plying him with questions while the chief and the elders answered with eyes downcast. Finally Díaz turned to Alvarado and said, ‘I’m afraid that’s all they have, sir.’

‘All they have?’

‘Yes, sir. Julian’s Spanish is very hard to understand but he’s clear enough on this. He says these islanders are very poor and anyway the Maya don’t much value gold.’

‘Don’t value gold, eh? Bloody liars!’ With a sudden rush of anger, Alvarado stepped in on the chief, grasped the waist of his loincloth, lifted him screeching from the deck, strode to the railing, threw him overboard, and watched with satisfaction as he hit the water with a tremendous splash. His only regret was that he hadn’t had the use of both hands so he could have thrown the savage

further and harder. ‘Father,’ he said to Muñoz. ‘The time has come for you to attend to the souls of these poor benighted bastards. God help them, but if you find they’ve turned their backs on the Christian faith, you may do as you wish to them and their temple, and their gods. You have my blessing.’

Muñoz was in a holy rage. At last, *at last*, the time had come to strike!

But it was mid-afternoon before the three hundred conquistadors he’d asked for were mobilised and landed and the remainder of the force deployed to guard the ships.

Finally, with Alvarado at his side, the Inquisitor led the way up the hill into the maze of hovels of the Indian town. The streets were deserted and the reason why soon became clear. A babble of voices, hoots and cries, drums and whistles, was heard ahead and, as the phalanx of conquistadors entered the main square, a great throng of

islanders, almost the whole population it seemed, surged forward to bar the approach to the pyramid.

‘Do something about this, Alvarado,’ Muñoz said, and watched with approval as the handsome captain ordered twenty musketeers forward in two ranks, one kneeling, one standing, and had them fire a salvo that cut a great swathe through the crowd and sent hysterical Indians running and screaming in all directions. When the smoke cleared the square was empty but for the dead. Muñoz raised his cross, shouted, ‘God wills it!’, and the conquistadors charged with a great yell.

The seventy-two steps were steep and narrow – one had to pick one’s way with care – and as the Inquisitor reached the top of the pyramid only a little out of breath, he saw at once that Saint Peter had spoken true. The Indians had indeed reverted to their heathen abominations.

The first proof of this was the life-size stone sculpture of a man with leering face and jug ears that half sat and half reclined near the

edge of the summit platform holding a stone plate across his chest. In the plate, surrounded by a thick puddle of blood, sat two freshly extracted human hearts, one it seemed still palpitating.

As the conquistadors gathered round with expressions of horror, Muñoz pointed an accusing finger at the idol. ‘Who will do God’s work?’ he thundered, and immediately a dozen men put strong hands on the statue and began to rock it back and forth. It was heavy but, as Muñoz watched with approval, it was broken free of its plinth, lifted and then thrown forcefully down the steps. It rolled over and over, pieces breaking off it, cracking and smashing, gathering speed as it went, until it exploded into a thousand fragments in the plaza below, scattering the crowd that had once again begun to gather there and evoking from them a dreadful chorus of superstitious howls and groans.

Alvarado had already pressed on into the dismal, dark temple that crouched in the midst of the summit platform like some monstrous

toad, its narrow doorway decorated with hellish carvings of fiends and devils. The single rectangular room, measuring perhaps ten paces in length and five in width, had a beastly stink about it, and as his eyes grew accustomed to the dim light he saw that a huge figure that was not quite human, arms outstretched, massy hands and fingers curled into claws, reared up close to the back wall. There came a sudden, unearthly screech, and out of the figure's towering shadow darted something hunched and capering with naked feet and long, matted hair, dressed in filthy black robes. Alvarado drew his falchion in a trice and, as this shrieking apparation plunged towards him, wielding what he now recognised as a long stone knife, he raised the point of his weapon and punched it forward into his attacker's face, catching him between the eyes so that it split his skull and drove deep into his brain.

The Indian – and it was an Indian – fell dead on the spot. So firmly lodged was the falchion that Alvarado had to brace his foot over the man's mouth in order to pull the heavy blade free.

He looked again at the enormous figure at the back of the room. For a moment he'd thought it was alive, but now his eyes, always quick to adjust, revealed the banal truth. It was just an idol, ugly and malformed like any other pagan mummery. The face, jaws and teeth were those of some species of dragon; the body, though scaled, was more or less human. At its feet sprawled the corpses of a young woman in her twenties and a girl child of perhaps six years of age, their breasts split open, no doubt to extract the hearts that had sat in the plate held by that other idol outside. Blood pooled on the floor, was smeared everywhere on the smoke-blackened walls of the chamber, and a flagon or two of it had been set aside in a large stone basin. Also laid out were assorted cloths, likewise sopping with blood, certain fruits and a collection of dried skulls and human bones.

Alvarado sheathed his falchion and placed his right hand over his nose. Gods! The smell of this place! He advanced into the gloom, kicked aside a pile of cloth to the right of the idol and quickly

picked up and pocketed three gold objects that had been hidden there, one resembling a lizard, one fashioned in the form of a panther, and one representing an erect human phallus, rather short and thick. They were, he observed, of noticeably better quality than those the lying chief had brought to him this morning.

‘So you have your gold?’ said a sibilant, lisping voice behind him.

Alvarado whirled and saw Muñoz in his black habit silhouetted in the doorway.

‘I do, Father, though precious little of it. Have you any objection?’

‘Oh none,’ Muñoz said. ‘None at all. I am always ready to render unto Caesar the things which are Caesar’s.’

Díaz, Mibiercas and La Serna were conscripted, along with many more of the soldiery, to take a hand in the destruction of the great idol of the temple. Díaz was willing enough; he prided himself on

being as good a Christian as any of them. Still, he dreaded what must come next when the Indian town rose in outrage, as he knew it would, against the interlopers.

The business with the idol didn't go well. Fifty men dragged it forth from the temple with ropes, sweating and heaving, singing verses from the book of Numbers that Muñoz had taught them: 'You will drive out all the inhabitants of the land before you. Destroy all their carved images and their cast idols, and demolish their high places. And ye shall dispossess the inhabitants of the land, and dwell therein: for I have given you the land to possess it.' With a mighty effort, even while they still sang, the conquistadors brought the huge heathen statue, which must have weighed close to a ton, to the edge of the steps, where it tottered dangerously. Down below the square was now packed full with townsfolk, so that there was no room for them to move, no space for those at the base of the steps to flee even if they wanted to.

Díaz let go his rope and walked over to Muñoz. ‘Father,’ he said, ‘we must wait to throw this vile thing down.’ He pointed to the crowd standing in stupefied silence, the men, the women, the elders, the children of the town gazing up, horrified, frozen in place. ‘If we throw it down,’ Díaz added, ‘people are going to die – a lot of people. Let me take a squad into the square and clear the Indians out of there. When they’re gone, that’s the time to smash the idol.’

‘No,’ said Muñoz, his buck teeth protruding beneath his moist upper lip.

‘*No*, Father? Why in Heaven not?’

‘Don’t you *dare* invoke Heaven to me, boy!’ Muñoz thundered.

‘But this is not a Christian act, Holy Father! We cannot simply slaughter these innocents.’

‘They are far from innocent!’ Muñoz roared. ‘You were here with me, were you not, when we came with Córdoba?’

Díaz nodded. ‘I was here,’ he admitted.

‘Then you know these heretics accepted our faith. You know they accepted the destruction of their idols. You know they placed the cross of Christ and the icon of the Virgin in yonder temple behind us …’

‘Yes, Father,’ said Díaz wearily. ‘I know these things.’

‘Yet the cross is no longer there. The icon of the Virgin is no longer there. Instead we see this … this’ – Muñoz turned his basilisk glare on the idol – ‘this *enormity* in their place, this *vile thing*, this manifestation of evil. And it is they’ – he was spraying spittle now as he pointed down at the massed Indians in the square – ‘it is they alone, of their own wicked choice who have done this. So on their own heads be it!’ And with a loathsome smile that would afterwards haunt Díaz in his nightmares, Muñoz gave the signal, and the conquistadors gathered around the idol, laughed with glee and gave it a final muscular heave – God save them – and it was launched on its journey down the steps, a ton of stone tumbling and bouncing, gathering speed, flying high into the air until it pounded

down in the thick of the screaming, panicking crowd, smashing into a dense knot of people and transforming them in an instant into blood and bone and brain matter and smearing them like some obscene condiment over the flagstones of the plaza.

A shocked silence fell.

Then a wail of horror.

And then, as Díaz had expected, a roar of outrage and a surge of armed men up the steps.

There was only ever one possible outcome to the wild fighting that followed. The conquistadors were armoured, disciplined, ruthless, and equipped with vastly superior weapons, and with Alvarado leading them, his falchion dripping blood, they were merciless and profligate in their anger. By nightfall the Indians with their stone knives and primitive bows had suffered at least a hundred dead, large parts of the town were in flames, and the elders and the priests who served the temple had been captured.

On the morrow, Muñoz announced triumphantly, they would all be burnt to death for their sins.

‘Let the Lord Speaker know what is to become of him,’ the old man had warned. ‘Those who are to avenge the injuries and toils with which he has afflicted us are already on their way!’

Moctezuma had brooded on these baleful words for the remainder of that day and the long, troubled night that followed.

Avengers? Already on their way?

In this fated year of One-Reed he could not ignore the possibility that here was yet another omen of the return of Quetzalcoatl. The next day, therefore, the seventh after the failed holocaust at the great pyramid, he sent Cuitláhuac to the dungeon to interrogate the elders again. Was it men or gods who were coming? What road would they follow? What were their intentions?

The interrogation should have lasted most of the morning, but within the hour Cuitláhuac was back bringing terrible news.

The prisoners had vanished during the night.

Every one of them.

‘What of the jailers?’ Moctezuma demanded.

Cuitláhuac had already caused them to be arrested, he said, but they most vehemently protested their innocence and, for what it was worth, he believed them. They were loyal men whom he himself had appointed to the task. The prison gates had been firmly locked and the bars were secure. Cuitláhuac had inspected the floor carefully but no tunnel had been burrowed through it – and besides, the elders would never have had the strength for such a task. The roof was intact. In short, the explanation offered by the jailers themselves – namely that the prisoners must have been powerful sorcerers who had used magic to make their escape – seemed the most reasonable one.

‘What is to be the fate of the jailers, lord?’ Cuitláhuac asked.

‘Send them to kill the families of the sorcerers,’ Moctezuma said. ‘Husbands, wives, children – all are to be killed. They’re to dig in

the places where their houses stood until they reach water. All their possessions are to be destroyed.'

But it turned out that not one of the elders had any living family, most were in fact beggars, their houses were poor places barely worth destroying, and they had almost no possessions.

After ordering Cuitláhuac to have the jailers skinned alive, Moctezuma fell into a black mood and retreated to his secret chambers in the depths of the palace. He took with him a basket of the sacred mushrooms called *teonanácatl*, 'Flesh of the Gods', which had proved so helpful in facilitating his audiences with Hummingbird.

Each day for seven days after she had been reprieved from death beneath the sacrificial knife, Tozi spent every moment she could spare from her work with Huicton flowing invisible and undetected amongst the prisoners in the fattening pens of Tenochtitlan, searching for Coyotl. The women's pen where she had been held

was still quite empty, though slowly being restocked, and it required only a short visit to satisfy herself that Coyotl was not there. Then she turned to the four pens holding male prisoners, all of them stuffed to bursting point, and searched each one of them systematically, but again without result. Finally she moved on to the five further great pens scattered around the city outside the sacred plaza and crisscrossed each of these repeatedly, but never once did she see any sign of the little boy who had been so cruelly snatched away from her by Ahuizotl.

Yet, like a ghost who would not be laid to rest, Coyotl continued to haunt her.

Chapter Forty-Six

Cozumel, Thursday 25 February 1519

First light on the morning of Thursday 25 February, the seventh day since the *Santa María*'s departure from Santiago de Cuba, revealed the island of Cozumel less than four miles ahead. Eerily, the Indian town that perched on the low hill on the northeast side of the island was *exactly* as it had appeared to Cortés in his last dream of Saint Peter.

Exactly, that is, except for one thing – the thick pall of smoke that now rose above the whitewashed, flat-roofed houses like a symbol of divine wrath.

‘What do you make of that, Don Antón?’ Cortés asked the grizzled pilot who stood by his side leaning on the newly repaired oak rail surrounding the navigation deck.

Alaminos shrugged. ‘Looks like trouble,’ he said.

Cortés could only agree. Alvarado, whose love of gold was only exceeded by his love of violence, would have assumed the position of captain-general in his absence. And with a man like that in charge of this great expedition … Well, anything was possible.

Worse, Muñoz was also on board Alvarado’s ship.

Cortés looked across the dancing waves to the pyramid that towered above the smoking town. Stepped, not smooth-sided like the famous pyramids of Egypt, it too was exactly as Saint Peter had revealed in his dream. Equally disturbing were the squat familiar contours of the dark stone edifice perching on the pyramid’s

summit. The saint had described it as ‘the temple of the heathens’ and had made a point of singling out Muñoz as ‘the cure for their idolatry’.

Muñoz in his dark robes! Muñoz with his cross!

(And his bags of knives and gruesome trophies!)

Was Cortés never to be free of him?

Was he only to conquer, as Saint Peter had intimated, if he made an accommodation with that vile man?

As the *Santa María* rounded the headland, the other ten ships of the scattered fleet, about which Cortés had fretted for these past seven days, came into view in the sheltered bay, with Alvarado’s *San Sebastián* placed closest to shore. All this, too, was exactly as it had been in the dream, but for the happy crowds of Indians with their garlands, who were nowhere to be seen on this bright morning, and that ominous pall of smoke looming above the town and sending down a rain of fine ash.

‘It’s good to be back on dry land,’ Gonzalo de Sandoval said.

‘Still feels like the deck’s swaying under my feet,’ replied García Brabo, the tough Extremeno sergeant whom Sandoval had begun to count as a friend since the battle with Velázquez’s guards on the road outside Santiago harbour. Clearing his throat noisily, Brabo spat a copious gob of phlegm. ‘Sea’s not a natural place for a man to be,’ he added. ‘If it was, we’d be born with fins and scales like fish.’

‘Reckon I’m going to learn to swim,’ said Sandoval, who had always hated the ocean with its vast impersonal power and its raging unpredictable moods. He’d felt sure the *Santa María* would go to the bottom and he would drown, during the frightful storm that had battered them as they left Santiago. One great wave had washed completely over the ship, but by then he’d been clinging for dear life to the foremast and had survived – unlike the unfortunate soldier whom he’d seen swept overboard, his screams snatched away by the wind as the heaving vessel somehow ploughed on.

‘Don’t see the point of swimming,’ Brabo said after a moment’s thought. ‘Ship goes down and you’re dead anyway. Better drown fast and get it over with than drag it out for another day.’

The two men were marching side by side up the hill towards the burning Indian town. Wearing his steel cuirass and a broadsword strapped to his hip, the caudillo himself strode a few paces ahead, leading the way. Behind came the other eighty soldiers who’d survived the journey from Santiago. Left to guard the *Santa María* in the anchorage were Cortés’s manservant Melchior, the young secretary Pepillo and the full crew of twelve sailors under the command of Alaminos. From words exchanged with sailors guarding the other ships, it seemed that there had been a major battle here in Cozumel the night before and that Don Pedro de Alvarado and Father Gaspar Muñoz had ordered almost the entire expeditionary force up to the town to witness some kind of ‘punishment’ that was about to be meted out to the local inhabitants.

As they reached the outskirts, the smell of burning became stronger and more pungent. There was a reek of roasting flesh that Sandoval had been trying to ignore as they'd climbed the hill, but that now began to impress itself on him forcefully. Suddenly nervous, no longer quite so happy to be on land, he peered ahead through wreaths of smoke. 'Think we're going to see any action here?' he asked Brabo as they entered a narrow street between two rows of simple flat-roofed houses, which appeared to be constructed of wattle and daub plastered over with adobe.

'Nah,' said the sergeant. 'We'd have heard it by now if there was still any fighting going on. It's all done and dusted. Look – there!' He pointed to the corpse of a small, thin Indian woman sprawled half in and half out of a doorway. Her throat had been cut. 'What the hell …' Sandoval muttered as more bodies began to emerge from the smoke – a grey-haired elder spread-eagled in the middle of the street with a massive head wound, two boys spitted by crossbow

bolts, four young men who'd been badly mauled by sword blows, their guts hanging out, piled in a heap.

Up ahead, looming above the single-storey native dwellings, the temple on the pyramid came into view. Now cries of terror and gruff Spanish jeers began to rise up from that direction.

'With me, lads,' yelled Cortés, breaking into a run. 'At the double.'

Bernal Díaz was opposed in principle to the notion of burning human beings to death. He'd seen it done a number of times during his career as a soldier, and once in his youth in Medina del Campo, the region of Castile where he'd grown up, when a group of heretics, condemned by the Inquisition, had been burnt at the stake. Unlike his friends and fellow soldiers, who often relished such scenes, Díaz had always been sickened by them. Perhaps it was because he had an over-active imagination, whilst others often seemed to have none, but when he considered what was involved in

death by burning – the slow, prolonged agony, the melting of the flesh from the bones, the body fat itself becoming fuel for the fire – he simply could not understand why anyone would wish to inflict such a terrible fate on others. Surely human kindness and Christian charity required quite the opposite – that one would rush to rescue the victims, no matter how hateful they might be or how disagreeable their views, rather than stoke the flames?

So Díaz felt acutely uncomfortable to find himself amongst the small army of conquistadors now gathered in the plaza at the base of the pyramid to witness the town's leaders and heathen priests being burnt at the stake. The rest of the population of two thousand – most had survived the night – had also been herded into the plaza and stood there under guard, shivering and crying out in fear.

Though Díaz had refused to participate in the lynch mob, five wretched Indians had already been chained and thrown into the embers of one of the buildings set alight around the plaza. Three of these unfortunates were still alive, their flesh slowly roasting, and as

their screams rose to heaven some twenty more, including the chieftain B'alam K'uk and the man identified by Little Julian as the high priest, were tied to stakes and surrounded by a mountainous pile of logs. Meanwhile Muñoz marched up and down in front of them, holding an open Bible, loudly deploring the abomination of human sacrifice – but what was burning at the stake, Díaz wondered, if not a form of human sacrifice? – and declaiming some pious nonsense about how it fell to the Inquisitor to be a physician of souls, how heresy was a disease and how the flames were a specific remedy for it.

Positioned at the edge of the massed soldiery, Díaz stood amongst a small group of hardened veterans who, like him, had sailed with the Córdoba expedition and already knew all too well the trouble Muñoz was capable of causing. Turning to his friend Alonso de La Serna he whispered: 'It's all happening again.'

La Serna rolled his eyes: 'And there's still nothing we can do about it.'

Francisco Mibiercas was listening. ‘Maybe there is something we can do,’ he offered.

Díaz and La Serna both turned to him in surprise, but Mibiercas appeared unruffled. ‘We’re all agreed this friar’s no good, right?’

‘He’s evil,’ nodded Díaz.

‘And he’s going to get us killed,’ added La Serna.

‘So let’s kill him first then.’ Mibiercas quickly glanced around. ‘Not here, obviously. Not today. But a chance will come and when it does we’ll take it.’

As Díaz registered that the swordsman was completely serious, there came a commotion on the eastern edge of the plaza and a large group of armed men spilled out of a side street and came on at a run. At their head was Hernando Cortés. Just behind him Díaz recognised Gonzalo de Sandoval.

‘What the hell’s going on here, Pedro?’ Cortés demanded. He walked right up to Alvarado and stood just inches away from him,

his right hand on the hilt of his broadsword. He noticed that his old friend, whose left arm was in a sling, had likewise placed his right hand on the hilt of his sword – or rather cutlass, for he was wearing the falchion he'd taken from Zemudio.

'I would have thought it was obvious,' Alvarado replied innocently. 'I'm prosecuting the business of this expedition in your absence.' His blue eyes had a cold, dangerous glint but he smiled, showing white, even teeth. 'Welcome back, by the way. We've missed you, Hernando.'

Although Cortés was seething with rage, his mind was clear, quickly sifting through his options and making decisions. His intentions for Cozumel had been entirely peaceful – to win the hearts of the inhabitants and make them his allies so that he could fall back on the island as a place of safety if necessary. Instead he found himself confronted by a scene of murder and mayhem, with that strutting fool Muñoz about to burn a large group of Indians, apparently with Alvarado's full support.

The first and most important matter, Cortés realised, was to impose his own authority on this situation at once, otherwise he would lose face in front of the men, something that he could never allow. That meant publicly countermanding Alvarado. He was reluctant to humiliate such a good and true friend, but he was left with no alternative. Muñoz would also have to be humbled and Cortés felt some reluctance here too, on account of his strange dreams, but again he could see no other option.

'Don Pedro,' he said, speaking formally and in a loud voice, 'you have done wrong here and acted against my wishes.'

Alvarado's face flushed and he spoke in a whisper: 'What are you saying, Hernán? The men are listening. Don't make a fool of me in front of them.'

Ignoring the appeal, Cortés pointed to the piles of meagre booty lined up in the plaza, to the captive townsfolk and to the twenty who were about to burn. 'This no way to pacify a country,' he boomed so that everyone could hear, 'robbing the natives of their

possessions, taking them prisoner, razing their town …' He turned to Muñoz who was standing frozen nearby: 'And you, friar! Is it really your plan to burn these poor Indians as though they were Bogomils or Albigensians?'

'They are filthy heretics!' screeched Muñoz. 'They accepted the faith when I came to this island with Córdoba, but they have relapsed.'

'I see no heretics here,' Cortés yelled back. 'I see ignorant savages in need of further teaching, in need of Christian love and understanding, not the flames.'

The Inquisitor raised the Bible and thrust it out in the direction of the condemned men, who gazed at him with fear and fascination like rabbits hypnotised by a snake. 'Light the fire,' Muñoz screamed at a soldier who stood by with a burning brand. 'Let us purge their souls in the flames so they may stand purified before the Lord on the day of judgement …'

The soldier moved the brand towards the kindling.

‘Don’t light that fire,’ Cortés warned him. ‘There’ll be no burning today.’

The soldier looked around uncertainly.

‘I speak as your Holy Inquisitor,’ roared Muñoz. ‘Light the fire, man!’

‘And I speak as your captain-general,’ said Cortés. ‘Light that fire and I’ll see you hanged.’

The soldier cursed and stepped back sharply, setting the brand down on the plaza. Muñoz rushed to pick it up but, at a nod from Cortés, García Brabo was suddenly in his path. ‘Not so fast,’ he said. ‘You heard the caudillo. Nobody’s getting burnt today.’ Muñoz growled with frustration and tried to push past, but Brabo grappled with him, twisting his arm so sharply behind his back that he gasped with pain. ‘I wouldn’t struggle if I were you,’ advised the lean, grey-haired sergeant. ‘Just do as the captain-general says, there’s a good friar.’

Cortés turned to Alvarado, speaking quietly now: ‘You were too hasty, Pedro. You should have waited for me before taking such drastic action, and now you’re going to have to make reparations to put everything right.’

‘Reparations? What on earth do you mean?’ From the thunderous look on Alvarado’s face, Cortés half expected his friend to challenge him, but he pressed on. ‘You can start by cutting those men loose from the stakes. It’ll look better for you if you give the order than if I give it over your head.’

Alvarado’s handsome face contorted in a furious grimace and his mouth worked as though chewing on a tough lump of meat, but at last he barked the command and soldiers scrambled over the heaped logs to free the elders. Cortés nodded with satisfaction. ‘Free the townspeople you’re holding under guard as well, please. All of them. There’s been some killings I see?’

‘Yes,’ Alvarado admitted. ‘We burned five –’ he gestured towards a smouldering building – ‘and a few score died in the

fighting last night. It's their own fault. They should have surrendered.'

'Would you surrender, Pedro, if our home town was attacked?'

'That's different. We're Christians, they're heathens—'

'Heathens whom we need as allies, not as enemies. Heathens whose knowledge of the lands and peoples that lie ahead is of vital importance to us. We'll have to pay blood money to satisfy them on the dead. Work with Little Julian to find out what they'll accept.'

'Blood money for savages? Have you lost your mind?'

Cortés fixed Alvarado with a withering glare. 'It's your madness, not mine, that caused the problem here, Pedro. If you'd waited for my arrival, none of this would have happened and we'd have what I want at no cost.' He smiled: 'But they *are* savages. A small price in glass beads and shiny baubles will likely satisfy them.'

Alvarado had a brooding, sulky look, but seemed to brighten at the prospect of swindling the simple-minded natives. Cortés wasn't

finished with him, however. ‘Did you find gold?’ he asked suddenly.

‘No,’ Alvarado replied a little too soon, his eyes hooded.

‘Come, Pedro,’ Cortés prompted. ‘I know you too well.’

‘There is some gold,’ Alvarado scowled. ‘A few pieces we found in the temple. A few more in the richer houses of the town. Nothing of great value. I have them on board my ship.’

‘I want you to give them back,’ Cortés said.

‘But—’

‘Don’t beat around the bush! Everything goes back. Every piece of gold, every pot, every bale of cloth … Do this, Pedro, do it willingly and we won’t fall out.’

As Alvarado set about his tasks, Cortés walked over to Muñoz who was seated on the lower steps of the pyramid, guarded by Brabo and Sandoval. ‘Thank you,’ Cortés said to the two soldiers. ‘I’ll handle things from here.’ He remained outwardly calm, looking round the

plaza as he waited for them to get out of earshot. Crowds of Indians were streaming back to their dwellings, and the elders he'd reprieved from the flames were gathered round Alvarado and Little Julian, engaged in what looked like a heated negotiation. All well and good, he thought, but what was he going to do about Muñoz? Under normal circumstances he might have been inclined to arrange a fatal accident for the troublesome friar, but his dreams of Saint Peter gave him pause.

'My apologies if I've handled you roughly today, Father,' he said, 'but please understand that we're here to conquer and settle these New Lands. This is a military expedition, I am its leader and you are placed under my command.'

'That's not my understanding at all,' said Muñoz, his face mulishly set. 'As I had it from His Excellency Governor Velázquez, we are here only to trade, to explore and to spread the word of God. You may claim no special powers as a military commander, and in matters of evangelism – *and heresy* – I have a free hand.'

‘You have been misinformed, Father,’ Cortés insisted, working hard to keep the anger that he felt out of his voice. ‘By all means evangelise. I want you to do that, and I shall help you. I share your desire to spread the word of God in these heathen realms. But you must never get in my way or create unnecessary hostility for us as you did today. No matter what you think you know, our mission *is* conquest and settlement. If you ever jeopardise that mission again, I’ll crush you like a louse in a seam.’

‘Big talk for a small man,’ sneered Muñoz getting to his feet.

The friar had such an advantage in height that Cortés almost unconsciously found himself sidling up the first two steps of the pyramid so they were level. ‘No mere talk,’ he insisted as he completed this awkward manoeuvre. ‘I have absolute jurisdiction in all military matters and you must defer to me.’

Muñoz just stared at him for a moment, his irises absolutely black and expressionless like two blank holes in his eyes, then he turned abruptly and began to walk away, his robes flapping.

‘Hold,’ barked Cortés. ‘Our business is not done!’

Muñoz stopped and looked back, one bushy eyebrow quizzically raised: ‘Yes?’

‘You’ve bunked on the *San Sebastián* these past seven days. Kindly continue to do so.’

When the Inquisitor smiled, as he did now, there was something of the Barbary ape about him. ‘No doubt you think to inconvenience me,’ he said, ‘but what you propose was my intention anyway. I find Don Pedro’s company congenial. He would, in my opinion, make a far better captain-general than you. Send my page with my bags.’

‘Alas that will not be possible. Your bags were washed overboard in the storm.’

Cortés wasn’t sure why the lie had leapt so readily to his lips, except that in a strange way he felt pressured, *cornered*, by his dreams, which seemed to foist Muñoz upon him like an unwelcome house guest. Perhaps this ploy with the bags was his way of striking

back. At the very least, he hoped, it would disconcert the Inquisitor, and he was pleased to see it did so.

‘How dare you?’ Muñoz blustered. ‘You evict me from my cabin, imprison me on another ship – though God in his wisdom guided Don Pedro to release me – and now you tell me you have failed to guard property that was essential to my work as Inquisitor.’

Cortés shrugged. ‘A great wave near sunk us and your bags were washed away. Nothing could be done to save them. Sincere regrets …’

Muñoz’s frown deepened, his sallow features taking on a calculating look. ‘My simpleton of a page should have protected them. Have him sent to me on the *San Sebastián*.’

‘Unfortunately I cannot oblige.’

‘Why? Was he washed away also?’

‘No, but he’s working for me now. I need the assistance of a secretary and he has the requisite skills.’

At this Muñoz actually stamped his foot: ‘You cannot do this!’ he shouted.

‘Certainly I can,’ said Cortés. Regardless of your opinion of me, I *am* the captain-general and I’ll have whomever I like as my secretary.’

Muñoz came pounding back now, his sandals slapping on the stones of the plaza, and thrust his face with his protruding upper teeth next to Cortés’s ear. ‘It’s not my opinion you should be concerned about,’ he said in a strangely triumphant tone. ‘You will be held accountable by a higher authority.’

Cortés laughed. ‘If you mean your friend Velázquez, I don’t give a fig what that oaf thinks or does.’

‘Oh no,’ said Muñoz. ‘Not Velázquez.’ He moved even closer, his breath moist and warm. ‘Your patron saint is Peter. Am I not right?’

Though the day was sultry, Cortés felt a shiver run down his spine. ‘Who told you that?’ he asked, taking another step up the

pyramid.

‘He comes to me in dreams,’ said Muñoz with a sinister smile. ‘He speaks of your love for him.’ Then he was gone again, scattering the crowd, the milling Indians stumbling fearfully out of his path.

Crouched side by side with Melchior at the corner of a side street looking onto the plaza, Pepillo gasped as Muñoz turned his back on Cortés for the second time and came striding straight towards them. ‘Quick,’ said Melchior, ‘in here.’ He grabbed Pepillo by the collar, dragged him a few paces along the street and through the low doorway of a half-burnt hovel. They ducked down behind the fire-blackened wall, the sun scorching them through a great hole in the collapsed roof. Pepillo’s breath was coming in quick frightened gasps, but Melchior seemed calm. He held his finger to his lips. ‘Be quiet,’ he said. ‘He won’t see us.’

Cortés had expressly forbidden them to visit the Indian town when he'd led the soldiers up there this morning, telling them they must stay with the sailors to guard the ship. But Melchior had different ideas. 'I'm going to find out what's happening,' he'd told Pepillo. 'If there's some action, I want part of it. Want to come along?'

Matters between them had improved a little in the seven days since the *Santa María*'s departure from Santiago. It was as though by saving Pepillo's life in the storm, Melchior had somehow restored the dignity he felt he'd lost when Cortés had appointed the younger boy as his secretary. There was still some tension, however, which Pepillo very much wished to dissipate, so he'd suppressed his natural caution, put on a brave face, and agreed to Melchior's scheme.

They'd slipped overboard into the shallows and waded ashore – or rather Melchior had waded ashore with Pepillo perched on his shoulders – and made their way up the hill into a scene of horrors.

Melchior professed indifference to the dead bodies they'd come across, but Pepillo felt he'd been plunged into a corner of hell and had vomited twice, receiving cuffs about his head from Melchior for his trouble.

By the time they reached the plaza, it was clear that Cortés had wrested control from Alvarado, and they watched as twenty elders who'd seemed doomed to be burnt at the stake were set free. Then all the other townsfolk were released as well and suddenly the streets, which had been deserted, were filled with Indians who wept and called out as they searched the shells of burnt buildings and took possession again of looted homes. 'Aren't we in danger here?' Pepillo asked as a group of dark-skinned youths rushed past, yammering in their strange tongue; but Melchior pointed to the hundreds of armed conquistadors still occupying the square. 'We're safe enough, you silly mammet,' he said.

They'd watched, fascinated, as the confrontation between Cortés and Muñoz unfolded. There was some shouting, though they were

too far away to hear what was said, and the postures of both men expressed anger. ‘Do you think the caudillo will arrest him again?’ Pepillo asked. But before Melchior could answer, Muñoz was heading their way and they ducked out of view.

Now they heard his heavy footsteps approach. He slowed as he reached the door to their hiding place, then stopped. Pepillo tensed, his stomach lurched and he cast a terrified glance at Melchior, who was sweating, his eyes very wide. As though from nowhere a rusty dagger had appeared in his right hand and the muscles of his forearm bunched and knotted as he clenched his fist fiercely round its hilt.

‘*Don’t*,’ Pepillo mouthed, shaking his head.

Melchior ignored him, rising to a crouch.

But then the Inquisitor’s footsteps moved on, proceeding along the street away from the square, and the sense of looming threat lifted.

Pepillo collapsed against the wall, his heart pounding. He felt he couldn't breathe.

'Come on,' said Melchior, grabbing him again by the scruff of the neck and pulling him to his feet. 'Let's follow him. He's up to no good, I'm sure of it.'

Bernal Díaz had entertained doubts about Cortés's character since the night they'd left Santiago. The way the caudillo had ruthlessly made use of him to steal the entire stock of the slaughterhouse – and it *would* have been outright theft if Cortés could have got away with it – had disillusioned him greatly. And the easy, charismatic promises the man had made to him and to Sandoval to get them out of any trouble they faced on his behalf – trouble that could have seen them hung – had been wholly irresponsible and most unlikely to be redeemed if the worst came to the worst.

But the morning's events cast a new light on everything. The fact that Cortés had personally intervened to save Cozumel's elders and

priests from the hideous fate of being burnt to death was enough on its own to raise him high in Díaz's estimation, but he'd gone much further than that, freeing all the captive Indians and ordering their property restored to them with reparations made to the families of those who'd been killed. These actions showed the caudillo to be a man who was prepared to do the right thing, even if he made powerful enemies such as Muñoz and Alvarado in the process – and such a man, Díaz now decided, deserved his loyalty; indeed he would follow him to the ends of the earth.

For some time after Muñoz walked away from him in the plaza, Díaz observed that Cortés stayed where he was, standing alone on the third step of the pyramid, seemingly deep in thought. But now, suddenly, he sprang into action, summoning Brabo, Sandoval and Díaz himself. 'Come, friends,' he said as they gathered round him – Sandoval and Díaz greeting one another like long-lost brothers – 'let's climb this heap of stones and take a look at the temple these heathens worship in. I've a mind to make it into a church.'

‘We tried that before,’ Díaz felt compelled to offer, ‘when we came here with Córdoba. It didn’t work. The Indians got rid of the cross and the image of the Virgin we gave them and went back to their idols after our departure. That’s why Muñoz was so angry with them.’

‘I’m not Muñoz,’ said Cortés with a hard stare. ‘He does everything with anger, by force; no wonder people reject his teachings.’ He shaded his eyes against the sun and looked out, seemingly searching for someone in the huge crowd of Indians and conquistadors filling the plaza. ‘Has anyone seen Father Olmedo?’ he asked after a moment.

Sandoval volunteered to go and find him. ‘Olmedo sails with us on the *Santa María*,’ Cortés told Díaz while they were waiting. ‘A right holy and modest friar. He sleeps on deck with the men – doesn’t he, Brabo?, sharing their hardships and asking no special favours.’

‘A good man,’ Brabo concurred. ‘Puts on no airs and graces, rolls up his sleeves and lends a hand when there’s work to be done. Would that our Inquisitor had half his mettle.’

Cortés seemed preoccupied, Díaz thought, but he brightened when Sandoval returned, bringing with him a portly, rugged friar, aged perhaps forty, wearing the white robes of the Mercedarian order. ‘Ah,’ said Cortés, ‘there you are. Come with us to the temple, Father, and we’ll see about planting Christianity here.’

Olmedo’s face was broad and round but with a strong bearded jaw and a straight nose, giving him a somewhat fierce look that was greatly softened on closer inspection by humorous brown eyes. Despite a full tonsure out of which rose the smooth and deeply tanned dome of his skull, his hair was unruly, reddish-brown in colour, thick and shaggy at the nape of his bull-like neck and somewhat overhanging his brow. His shoulders and chest were massive, and an ample stomach thrust comfortably forward through his habit. ‘Oh dear,’ he said, ‘isn’t that a job for our Inquisitor?’

‘I fear he’d rather burn men than convert them,’ Cortés said.

‘I dare say he would,’ agreed Olmedo, his eyes twinkling. He struck a posture that reminded Díaz powerfully of Muñoz in mid-harangue, and retracted his upper lip so that his front teeth protruded. ‘Let us purge their souls in the flames,’ he brayed, ‘so they may stand purified before the Lord on the day of judgement …’

Somehow he succeeded in altering the timbre of his own deep voice to produce an excellent imitation of the Inquisitor’s higher, more sibilant tones. Díaz, who’d heard more than enough of Muñoz holding forth on the voyage, felt a chuckle rising in his throat and tried to check it until Cortés too threw back his head and roared with laughter. Sandoval and Brabo joined in and Cortés clapped Olmedo on the back. ‘You’re quite the mimic,’ he said. ‘You’ve got him perfectly.’

The friar gave a little bow: ‘One of my many skills when a man takes himself too seriously, as our friend the Inquisitor

unfortunately does. We should all learn to laugh at ourselves' – his eyes twinkled again – 'lest others do it for us.'

They climbed the pyramid, sweating in the hot sun, swords and armour clanking, and stepped onto the summit platform with the temple looming before them, its door gaping like the mouth of hell.

Díaz explained that the bodies of two sacrificed Indians, a young woman and a child, had been found yesterday inside the temple, their hearts placed in a plate held across the breast of an idol that had stood at the top of the steps.

'It's beyond comprehension,' said Cortés. 'Truly the work of the devil.'

Sandoval's face was pale with horror. 'These are dangerous realms we enter,' he said in a hushed voice. 'Let's pray no Spaniard ever suffers such a fate.'

'I'd take my own life first,' Brabo growled.

As he led them into the single dark room of the temple, Díaz explained that it had contained a great idol but that it, and the other

that had held the receptacle for hearts, had been thrown down the steps and smashed on Muñoz's orders.

'In that at least he did well,' Cortés growled. 'Don't you agree, Olmedo?'

The shadowy, low-ceilinged chamber, lit by guttering torches set into the walls, smelled of blood and rotting flesh. Holding the sleeve of his habit to his nose, Olmedo said, 'I am not certain that the immediate destruction of idols is the best way to proceed – any more than burning priests and elders at the stake. Such harsh actions do nothing to convince these poor souls that our faith is any better than theirs. If we wish them to become Christians, we should set an example of gentleness and tolerance, as Christ himself would have done.'

The corpses of the sacrificial victims had been removed, but there were still three skulls and a heap of human bones on the floor of the chamber and the walls were daubed with great splashes of dried

blood. ‘How can we tolerate this?’ Cortés said, his voice rising. ‘How can we be gentle when confronted by such wickedness?’

‘Forgive them, lord?’ suggested Olmedo quietly. ‘For they know not what they do?’

‘The words of Christ on the Cross,’ mused Cortés. ‘You make a good point and I’ll think on it – but outside, yes? I can’t stay a moment longer in this pit of the devil.’

They stepped out of the reeking temple into bright sunlight.

At the top of the steps stood a large group of Indians. Most were unarmed but several clutched stone knives, spikes of bone and other bizarre weapons that looked like stingray spines.

Muñoz pursued an erratic, wandering course through the streets, sometimes peering furtively into buildings. On one occasion he entered a group of houses, disappeared for several minutes and reappeared from another door. ‘You’ve got to admit the man has

balls,' Melchior said. 'After what he's done today you'd think he'd fear assassination.'

But the truth, Pepillo observed, was that the Indians were the ones who were afraid, giving the Inquisitor a wide berth, scattering and running away at the first sight of his black robes.

'What's he after?' Pepillo asked as Muñoz continued his rapid investigation of the town, sniffing at doorways, peering through windows, darting into alleys.

'He's like a dog after a bitch in heat,' Melchior said grimly. 'What do you think he's after?'

Pepillo felt his face flush hot as they hurried along in pursuit. He guessed that Melchior was referring to sex but didn't really understand the details. He had to agree, though, that there was something hungry and animalistic about the way Muñoz kept casting around, now hurrying, now slowing down, now lurking at a corner looking this way and that before moving on.

It was as though he were following a trail … But of what?

Being built around the summit of a hill, the town's streets sloped steeply on all sides, giving way to mixed patches of woodland and open ground that in turn led down to the turquoise waters of the bay where the fleet bobbed at anchor. Striding along one of the narrow streets in the lower section of the town, Muñoz's pace suddenly quickened and he forked abruptly left into a side street. Pepillo and Melchior were a hundred paces behind and lost sight of him for a moment, but when they charged up to the corner where he'd turned, there he was again, still maintaining the same lead.

They also saw what had excited him, why his body strained forward so eagerly, why he was moving so fast.

Running just ten paces ahead of him, crying out in fear, was a little Indian boy, naked but for a string of coloured beads around his waist.

'Hurry!' said Melchior. Pepillo wasn't sure whether he was alarmed or relieved to see the rusty knife in his friend's hand again

as the child bolted round the next corner and was lost to view, with Muñoz right behind him.

With an oath Melchior increased his pace and Pepillo scrambled to catch up. They reached the corner together and peered cautiously round it into a maze of hovels, some intact, some burnt and sprawling in smouldering ruins down the hillside to the edge of a large patch of woodland.

It was as though the earth had opened, swallowing Muñoz and the child – for there was no trace of them. Melchior cursed again and thrust his head into a doorway. Pepillo apprehensively peered into another. A group of Indians sat inside in the gloom and stared at him, saying nothing, with expressions he could not interpret. He mumbled a hasty apology, blundered out again and followed Melchior. The next house was burnt, the next deserted. They continued to search fruitlessly for a little longer, but increasing numbers of Indians were emerging onto the devastated streets and the atmosphere was becoming hostile. Agreeing it would be good to

be back on board the *Santa María* before Cortés returned, Pepillo and Melchior began to make their way downhill in the direction of the anchorage.

Their route took them close to the copse, dense with knotted and gnarled strangler figs festooned with hanging vines, growing across the slope below the last of the dwellings. The sky remained clear blue, as it had all morning, but it was now early afternoon and the heat was dense, clammy, heavy with damp. As they skirted the wood a flock of bright green parrots shifted and squabbled in the leafy canopy and suddenly, like an evil spirit, Muñoz reappeared from amongst the trees a few hundred paces below them, raven black in his Dominican habit, his cowl raised, concealing his head and face. He did not look back but strode rapidly down the hill.

Without a word, Melchior dived into the forest. ‘Where are you going?’ Pepillo called, hastening after him, struggling with the rank undergrowth.

‘To find out what that bastard’s done,’ said Melchior, plunging on ahead.

The going did not prove as difficult as it had seemed to Pepillo at first, and they found a trail, perhaps made by animals, perhaps by the people of the town, where they were able to keep up a good pace. The sun’s light was much reduced as they forged deeper, filtered by the thick canopy into a dreamlike emerald dusk, but shone through again, harsh and dazzling, as they entered a small, irregular clearing where the trees had been felled leaving only rotten stumps.

‘God and his angels,’ breathed Melchior, staring across the clearing.

Pepillo blinked, seeing nothing.

‘There!’ Melchior’s voice was thick with rage.

Pepillo looked again and this time he did see what had drawn his friend’s attention – a pair of small, brown naked feet protruding from the undergrowth where the forest resumed.

It took them only moments to pull the body free. Still warm, but stone dead, it was the same little Indian boy, with the bright string of wooden beads round his waist, whom Muñoz had been following. There was blood on the child's scrawny buttocks and livid bruises marked his throat and neck. A wide patch of his scalp extending from his crown to his left ear was missing, crudely hacked away to expose the white and bloody skull beneath.

For the third time that day Pepillo vomited, but this time Melchior didn't cuff him.

Cortés, Sandoval, Brabo and Díaz all went for their swords but were somewhat reassured as Little Julian shouldered forward through the thirty or forty Indians crowded onto the summit platform. The stooped, cross-eyed interpreter was sweating and wheezing from the climb. Peering uneasily from beneath the fringe of his long greasy hair, he told Cortés: 'They not here crisis you sir; they say you are buffoon.'

As Cortés bristled at the insult – A buffoon? How dare they call him a buffoon? – the Indians launched into an extraordinary display. Those who were unarmed dropped to their knees, scrabbled at the paving stones with which the platform was surfaced and shoved their fingers into their mouths whilst smacking their lips. Those who carried weapons proceeded to slice or skewer their own flesh in a variety of painful but non-lethal places such as their lips, tongues, biceps, buttocks and outer thighs. In two cases penises were shamelessly produced from beneath loincloths, stretched forth and pierced with stingray spines.

'Dear God,' Cortés barked at Julian. 'What are they doing?'

'Eat great fear,' the interpreter said. 'Honour blood.'

'What?' Cortés couldn't make head or tail of the explanation. 'Does anyone understand what this idiot is talking about?'

'His Castilian is atrocious,' offered Díaz, who had sailed with Julian on the *San Sebastián*, 'pretty much non-existent, and what

little he does know he gets all mixed up. Let me try and make sense of this.'

While drops of blood continued to spatter down on the platform and one of the Indians sawed a stingray spine back and forth transversely through his penis, with the Spaniards looking on in a mixture of fascination, amusement and horror, Díaz talked urgently with the interpreter. After a moment he turned back to Cortés. 'I think I've sorted it out now,' he said. 'He's trying to say *tierra*, "earth" – but his accent's so bad he makes it sound like *terror*, "fear". It's a custom amongst these people to show respect to those more powerful than themselves by eating earth in their presence. Same goes for the blood. They're honouring you, sir, by bleeding themselves. They do this before their idols as well. It's a kind of sacrifice.'

'Well tell them to desist immediately!' Cortés snapped. Díaz spoke urgently to Julian who in turn said something in the local language. The bloodletting stopped at once.

‘By the way,’ Cortés asked, ‘why did they call me a buffoon?’

Díaz laughed. ‘They didn’t, sir. That’s just Julian mixing up words again. He’s saying *un gracioso* – “a buffoon, a funny man” – but what he means is *dar las gracias*, “to thank”. The “crisis” bit is pretty clear too. What it boils down to is they’re not here to cause us trouble but to thank us. As you might imagine, the priests and elders are much beholden to you for halting their execution.’

‘Well, very good.’ Cortés smiled. As he thrust his sword firmly back in its scabbard, one of the Indians, a tall elder in a blue cotton loincloth, made his way forward, his dignified presence only slightly compromised by the streaks of blood on his chin and chest from the wounds he’d made to his lower lip.

‘The *cacique*, sir,’ said Julian proudly, using the word for chief that the Spanish had adopted from the Taino Indians of Hispaniola and Cuba. ‘Him name B’alam K’uk. He funny you say.’

During the encounter that followed, fuelled by general goodwill but constantly fogged and befuddled by Julian’s poor grasp of

Castilian, Cortés accepted the gratitude of the Indians, who belonged, they said, to a great confederation of peoples called the Maya. He in turn apologised for the cruel and unwarranted behaviour of his deputy, Alvarado, and said he hoped sufficient compensation had been offered. On impulse, as an additional gesture, he sent Sandoval down to the *Santa María* to return with Spanish shirts for each of the elders and a chest containing a velvet doublet, mirrors, small brass bells and several strings of glass beads. These treasures Cortés bestowed upon B'alam K'uk, the chief, much to that worthy's apparent satisfaction.

Sandoval also brought a platoon of men with him carrying parasols, wooden stools, cushions and comfortable rugs, and a rather fine folding chair that Cortés had asked for and now proceded to sit in.

Once the parasols were erected to provide shade for himself and the other Spaniards on the summit platform, he invited the Indians to be seated and told them, to the limited extent that Julian was able

to convey these ideas, that their idols were evil, not gods at all, but devils who would only lead their souls to hell. He would take it as a sign of friendship between them and his own people if they would see to it that every idol in every temple on the island was smashed within the next few days. At this Olmedo whispered fiercely in his ear, but Cortés ignored him and added that the idols must be replaced by images of the Virgin Mary and by wooden crucifixes which the Spanish would supply. He had been informed, he said, that a crucifix and a statue of the Virgin had been placed here in the temple when Spaniards had visited the island before. He professed sorrow and disappointment that these sacred objects had been removed and insisted this must never happen again. There was only one God, he said, the creator of heaven and earth and the giver of all things, and the cross and the Virgin Mary were amongst his most precious symbols.

As he spoke, Cortés was aware that very little of what he was saying was being understood, but he felt compelled to continue

anyway. He had kept up a cheerful demeanour throughout the meeting, but the truth was that Muñoz's last words to him had thrown him into turmoil. That the Inquisitor had known about his special feelings for Saint Peter, and known Peter was his patron saint – these things were not in themselves surprising. He could have acquired the information from a variety of sources. Much harder to explain, however, was Muñoz's revelation that he too had dreamed of Saint Peter, who had spoken to him of Cortés – just as in dreams the saint had spoken to Cortés of Muñoz. This, surely, could not be mere coincidence!

For all these reasons, Cortés decided, he was going to have to think extremely carefully about how to handle the Inquisitor in the future, and find an accommodation with him as Saint Peter required. Meanwhile, although it had been essential to put Muñoz in his place, and prevent the *auto-da-fé* in the plaza, Cortés also felt it was right, notwithstanding Olmedo's more cautious counsel, that he should continue to support and enforce Muñoz's policies regarding

the removal and smashing of idols and their replacement by Christian symbols.

He closed the meeting with a lengthy homily against human sacrifice, a foul practice, he told the Indians, that they must agree to abandon at once. If they did not do so, he warned, he might be unable to prevent his Inquisitor a second time from burning them at the stake. Some further confusion resulted here, since it seemed the chief and the elders laboured under the misguided impression that Muñoz had wanted to burn them as sacrifices to his God, and Cortés found it very hard to disabuse them of this repugnant notion which, to make matters worse, it appeared that both Díaz and Olmedo had some sympathy with! He soldiered on, however, patiently working round the execrable interpreting skills of Little Julian, making his points again and again in different ways, until he was reasonably sure he had been properly understood.

What happened next convinced Cortés he was on the right track and that, despite his harsh treatment of Muñoz, he did still have

Saint Peter's blessing for his expedition.

As the elders were taking their leave, the chief – now dressed in the splendid doublet he had been given – put an arm round Cortés's shoulder, drew him to the edge of the pyramid and pointed northwest, towards the mainland. He then made a short speech in his own language, but interspersed within it was a familiar-sounding word – something like '*Castilan*' – repeated several times and with great emphasis. As he spoke, the chief rubbed his own hairless chin with his fingers and pointed to the beards of the Spaniards.

Intrigued, Cortés delayed the elders' exodus from the pyramid and inquired further. More excruciating difficulties of interpretation followed but, bit by bit, with Díaz's help, the story was teased out. Some days' journey away on the mainland, which the Indians called the 'Yucatán', it seemed there lived a bearded white man, much like the Spanish in appearance. He had been carried there a long time before in a boat and was held captive by a lord of that land.

Apparently this white man called himself a '*Castilan*'. He had learned the language of the Maya and spoke it like a native.

Could it be, Cortés wondered, that God had delivered into his hands the very gift he now so obviously required, namely a shipwrecked Spaniard, a man of Castile, who might serve as a proper interpreter for his expedition? With growing excitement he asked the chief to send a messenger to the Yucatán requesting the release of the '*Castilan*' and offering rich gifts – which the Spanish would provide – in return.

The chief demurred. The men of the Yucatán, he said, were fierce and warlike and, moreover, cannibals; any messenger was likely to be killed and eaten. If Cortés wished to free this '*Castilan*', the only solution would be to send one of his own great boats and soldiers there to seize him by force of arms – in which case, the chief promised, he would be happy to assign two Indians who knew the way to accompany them.

Cortés needed no further urging. ‘Sandoval,’ he said as they descended the pyramid. ‘I’ve got a little job for you.’

Chapter Forty-Seven

Tenochtitlan, Friday 26 February 1519

Tozi was in the royal hospital, invisible, standing by the bedside of Prince Guatemoc, hating his handsome sleeping face. She was thinking how easy it would be to slit his throat with the sharp little knife Huicton had provided for her, when Moctezuma's chief physician Mecatl, a famous man in Tenochtitlan, entered the room. He was fat and bald and wore his ornate robes of office, but there was, Tozi immediately detected, something odd about his manner.

Something secretive and jittery.

He seemed nervous, but what would he have to be nervous about in his own hospital?

Wiping a sheen of sweat from his brow, he peered out into the corridor, looking left and right as though seeking to ensure he would not be disturbed, then closed the door behind him and advanced on the bed, drawing a small ceramic bottle from his robes as he did so. He removed the bottle's rubber stopper, sniffed its contents, lifted Guatemoc's head from the pillow and muttered, 'You must drink this medicine, sire.'

The prince groaned and turned his head away. 'Not again! Can't you see I'm sleeping?'

'You must drink the medicine, lord.'

'Leave me *alone*, Mecatl. I'm not in the mood for any more of your foul brew.'

'Your life depends on it, lord. Drink now, please, I beg you. It's only a matter of a moment and then you may rest.'

‘Come back later, damn you! Let me sleep!’

The doctor was persistent. ‘I’m afraid, sire, that I must insist.’

Guatemoc’s eyes fluttered open. ‘You’re a horrible fat worm, Mecatl. *Go away!*’

‘I will not, great Prince. I am your doctor, appointed by the Lord Speaker himself. I cannot leave your side until you drink this medicine.’

Another groan. ‘Damn it then, get on with it – if it’s the only way for me to be rid of you!’

‘Thank you, sire.’ Mecatl lifted the prince’s head again, put the bottle to his pale lips, nudged it between his teeth and upended it into his mouth. Tozi saw Guatemoc’s throat working as he swallowed the draught, leaving a few drops of what appeared to be liquid chocolate on his chin, which Mecatl carefully wiped away with a cloth. The physician then restoppered the empty bottle, placed it and the cloth back inside his robes, stood looking down at the prince for a few moments until his breathing fell back into the

regular pattern of sleep, then left the room as furtively as he had entered it.

Tozi followed.

Her connection with the stuff of the world was different, more complicated, when she was invisible. Her clothes and the contents of her pockets always faded with her, and she had learned she could spread the field of magic to other things, and the people around her, if she concentrated her will. She could pick up objects and use them if she chose to do so, but she was also able to make herself as insubstantial as thought and flow in this form even through solid matter. In every case, she had discovered, the keys to control were focus and intention, so she focussed now, flowed through the wall with no more resistance than passing through a light shower of rain, and stayed right behind Mecatl as he waddled along the corridor and into a lavishly furnished office. He went to a cupboard standing in a corner of the room, opened it, took out a large bottle, carried it over to a table, placed the small bottle from his robes beside it and

refilled it from the large bottle with more of the same chocolate-coloured liquid. A drop spilled on the table and he carefully wiped it up with the cloth. Finally he placed both bottles and the cloth back inside the cupboard and left the room, closing and locking the door behind him.

When he was gone, Tozi remained invisible while she conducted a rapid search. Laid out on the table was a fine collection of obsidian surgical instruments, a large mortar and pestle and two human skulls. There were shelves stacked with medical books painted on maguey cloth and deerskin and folded zigzag fashion between wooden covers. None of this was of any use to her but on a ledge beneath the shuttered window she found a collection of empty bottles. She took the smallest of these, filled it from the larger bottle in the cupboard, which she then carefully replaced, tucked the smaller bottle inside her blouse, mopped up a few spilled drops with the cloth Mecatl had used, and closed the cupboard. She made a final inspection to ensure she had left no trace of her visit other than

the missing bottle, which she hoped would not be noticed. When she was satisfied she flowed out through the wall directly into the gardens surrounding the hospital and thence back into the streets of Tenochtitlan. Finding a patch of shadow in a deserted alley, she re-emerged into visibility again and began to walk briskly northwards through the city.

An hour later Tozi and Huicton sat together on their begging mats, talking quietly, reviewing their progress.

Everyone knew the story of the weeping woman who'd haunted Tenochtitlan the year before, so it had been an obvious ploy for Tozi, shielded by invisibility, to play that part, passing through the streets these last six nights, heard but not seen, seeding doubts and fear in Moctezuma's mind.

It was Huicton who'd had the idea of the dreamers, rounding up a few lonely old tramps and invalids with the promise of a big reward from Ishtlil, and a comfortable retirement in the mountains, if they

could pull it off. Of course there'd been a danger that Moctezuma would kill them on the spot, but the elders had decided the reward was worth the risk.

The scheme had worked better than they could have hoped. It had been an easy matter for Tozi to fade herself into the dungeon, slip the sleeping draught Huicton had procured into the guards' food, and set the prisoners free. The guards, naturally, had not admitted to falling asleep on duty and had told a story of magic and sorcery that had disturbed Moctezuma even further.

Next Tozi and Huicton decided to turn their attention to Cuitláhuac, who was not only the Great Speaker's brother but also his strongest supporter and closest adviser – the very man who had escorted Tozi and Malinal from the pyramid on the night of the sacrifices. Rumour had it he would be appointed to the high office of Snake Woman, now that Coaxoch had been killed in the Tlascalan wars, so he was an obvious target. And the fact that Cuitláhuac's own son Guatemoc had also been injured in Tlascala

and lay in the royal hospital seemed to offer special opportunities for mischief.

So Tozi had entered the hospital early this morning and waited quietly and invisibly by Guatemoc's bed for Cuitláhuac to arrive. Surprisingly, however, despite his son's obviously grave condition, he had not come. Instead there had been the strange and sinister visit of Mecatl.

'He didn't behave like a doctor,' Tozi told Huicton. 'That's what made me suspicious, so I followed him.' She pulled the little bottle from her blouse and passed it over. 'This is what they're treating Guatemoc with,' she said. 'Any idea what it is?'

Moctezuma was in a state of morose despair. Despite consuming huge quantities of *teonanácatl* on each of the last four nights, and sacrificing a dozen small children, he'd been unable to make contact with Hummingbird again. The only good news came in the daily reports from Mecatl. Cuitláhuac was out of Tenochtitlan on a

trumped-up mission to Texcoco and Tacuba, supposedly to seek assurances of their continued commitment to the alliance that united the three cities. In his absence the poison was being administered morning and evening and Guatemoc's condition was deteriorating at a satisfactory pace.

Mecatl had arrived from the hospital some moments earlier and now spoke from his usual position, face down on the floor of the audience chamber. 'Sire,' he said, 'I gave the prince a further dose this morning …'

'Good, good … How much longer, then, until he …?'

'The poison is subtle, sire, as you requested, but at the present dosage I do not believe he can survive it for more than another eight days.'

Sitting on his throne, Moctezuma placed his index fingers together and twirled his thumbs around each other. 'That will be perfect,' he said finally. 'Much sooner and suspicions might be aroused. We would not wish that. But much later and there is the

possibility that his father will remove him from your care. I can't keep Cuitláhuac out of Tenochtitlan forever.'

'If he can be kept away from the hospital for another two days, sire, it should be sufficient. By then the effects of the poison will be irreversible.'

Much as Mecatl had done this morning before giving the medicine to Guatemoc, Huicton pulled the rubber stopper from the bottle and sniffed the contents. 'Aha …' he said. He took another deep sniff. 'Interesting.' He poured a few drops of the liquid into the palm of his hand and tentatively dipped his tongue into it before spitting vigorously, leaving a brown smear on the paving of the causeway.

'Looks like chocolate,' Tozi said.

'Yes. Quite clever of Mecatl, that. It helps disguise the bitter taste. It would probably pass casual inspection because most medicines are bitter. But when you've been in this business as long as I have, you get to know your poisons, and I think I can say with

certainty that the chief physician of our revered Great Speaker is presently poisoning Cuitláhuac's son.'

'I knew it!' Tozi exclaimed. 'I knew he was doing something wicked.'

Huicton sniffed the bottle again and placed the stopper firmly back in its mouth. 'Wicked indeed,' he said. 'This is dangerous stuff. Quite rare in these parts, by the way. It's made from the powdered body and wings of a butterfly that the Zapotecs call *cotelachi* – which means in their language "the butterfly that kills within a year". But actually it depends on the size of butterfly you use. A small, young *cotelachi* consumed entire will take about a year to kill you, a big full-grown one will do the job overnight and the medium-sized ones take ten or twelve days.'

'But why would Mecatl want to kill Guatemoc?'

'Oh, he won't be acting without orders from above. This whole thing has Moctezuma's cowardly stamp on it. I think I told you he

would have poisoned Ishtlil if I hadn't got wind of the plot and managed to foil it?'

Tozi remembered.

'As to Guatemoc,' Huicton continued, the Speaker's motive is obvious. Easy way to get rid of a potential rival to the throne and make it look as if he died of his battle injuries. Question is … how best to turn this to our advantage?'

Tozi didn't have to think about the answer. 'If Moctezuma wants Guatemoc dead,' she said, 'then we might stir up some useful trouble by making sure he lives.'

That same night, very late, Tozi returned to the hospital and drifted invisibly through its gloomy passageways. Outside Guatemoc's chamber she spied the portly figure of Mecatl leaning forward, his ear pressed to the door, listening intently.

Tozi slipped through the wall and by the light of the lanterns that burned bright within, she saw a handsome matron, richly clad in

fine linens, thick black hair streaked with grey, leaning over the prince, her face lined with grief and worry. At her side, a plain and dumpy younger woman stood crying, wiping tears from her eyes which she'd rubbed as pink as an albino rabbit's.

'Silence, sister,' said Guatemoc in a weak, dry whisper. 'If you wish me well then I beg you, give me no more sobs! Your laughter will serve me better.' But she merely wailed the louder. The prince turned to the older woman: 'Mother, can you not persuade her to stop? Give me music, give me laughter, give me dancing girls – something, anything to cheer me, but no more tears please.'

'You need to be at home with us,' said his mother, 'instead of wasting away in this hospital. Good food, the clear air of our estate, the care of our own doctors – these are what will save you … They say your recovery after the battle was almost miraculous – until your father brought you here!'

'This is the royal hospital!' The prince's lean features were grey with pain as he struggled to calm his mother's fears. 'What better

place can there be for me? What better hope can I have? I'm under the care of Mecatl himself.'

'I don't trust that man,' the matron said, 'and I don't trust your uncle. Ahh, gods! If only your father were here! It's intolerable of Moctezuma to send him on some unimportant mission of diplomacy while you fight for your life …'

'To bind Texcoco and Tacuba to the triple alliance cannot be said to be unimportant, mother.'

'Yes, but *now*? He should have sent another—'

At that the door swung open and Mecatl bustled in, coming to a halt halfway across the room. 'Good evening, Lady Achautli,' he said smoothly, feigning surprise. 'I had not expected to see you here so late.'

'And why not?' she snapped. 'No one is more important to me than my son. I can't possibly think of any better way to spend my time than by his side.'

‘Of course, of course,’ Mecatl soothed as he turned to the younger woman. ‘And you, my Lady Chalchi. I am sure your brother’s strength rallies at the very sight of you.’

‘He certainly does not rally with any of the treatments you’re giving him here,’ said Achautli.

‘Well, so it may appear, my lady, but healing is a mysterious process. There are ups … and there are downs …’

‘As far as I can see it’s been all downs since he came under your care!’

‘Oh mother, *please*,’ sobbed Chalchi. ‘I’m sure Mecatl is doing his best for poor Guatemoc. You’re not helping my brother with all these complaints.’

The doctor’s expression, Tozi thought, was a masterpiece of wounded virtue. ‘I understand your concerns, Lady Achautli,’ he said, as he glided across the room and positioned himself by the bed. ‘I take no offence, I assure you, but the Lady Chalchi is right. I am doing everything possible for your son and this is why, since the

hour is late, I must ask you to leave now. Sleep is a great restorative, and if the prince is to recover, he must get as much rest as possible.'

Achautli spluttered an objection but Chalchi put a hand on her arm. 'Come, Mother. The doctor knows best. We must let Guatemoc sleep.'

'Very well,' said the older woman. All the fight, suddenly, seemed to have gone out of her. She stooped over the bed and kissed her son: 'Until morning, Guatemoc.'

'Until morning, Mother. Don't fear for me. I'm stronger than you think. I'll recover. You have my word on it.' The prince attempted a smile but his pallor was so bad and his skin stretched so thinly over his skull that the effect was ghastly.

With more floods of sobs from Chalchi, the two women hurried out, leaving Guatemoc with Mecatl, who crossed the room again, peered from the door to be sure they were gone, returned to the prince's bedside, made a show of examining his exhausted patient

and began to change the bandages covering a series of hideous abdominal injuries. Tozi counted five individual puncture marks. They were all neatly stitched but they were suppurating and they gave off a bad smell. There was also a wound to his throat, but this seemed to have healed more completely than the others, and another on his right forearm.

The prince was wide awake, staring up at the ceiling while the doctor worked. ‘Tell me honestly, Mecatl,’ he said. ‘How do you rate my chances?’

‘I have the highest hopes for your complete recovery, sire, thanks to the new elixir I’ve been treating you with these past four days …’

‘That vile brew! I shudder to think of it.’

‘Even so, sire, it will make you well.’ As Mecatl applied the last bandage he reached into his robes, sought in a pocket, brought forth the same small ceramic bottle he had used that morning and showed it to Guatemoc. ‘The elixir has extraordinary regenerative properties and the power to heal every ill of the flesh. The supply is so

restricted that I would limit any lesser man to a single dose a day, but the Lord Speaker has commanded that we spare no expense to make you well …'

'I suppose I should be grateful, but I'm not sure I can bring myself to drink another dose tonight.'

'I'm afraid you must, lord. It will give you rest, numb the pain of your injuries and work on your body as you sleep.'

Watching invisibly from the corner of the room, Tozi felt a powerful urge to rush at Mecatl and snatch the bottle from his hands, but she knew it would do no good and undo every advantage she had.

'Come sire,' the doctor said, 'let me help you.' Just as he had done that morning, he lifted Guatemoc's head and put the bottle to his lips. The prince innocently opened his mouth and swallowed.

'There, you leech!' he said with a grimace when he'd drunk every drop. 'Satisfied now?'

‘Yes, lord. Completely satisfied.’ Mecatl restoppered the bottle and put it back in his pocket in what Tozi was coming to recognise as his usual routine. ‘Sleep now, sire,’ he said, casting a glance over his shoulder as he walked towards the door. ‘I’ll bring your next dose in the morning.’

Tozi remained in the corner of the room until she was certain Guatemoc was asleep, then she moved silently towards his bedside. Mecatl had left the lantern burning and, by its light, she could see the rise and fall, rise and fall, of the prince’s chest. It was obvious he had once been heavily muscled, but now he was weak and emaciated, indeed almost skeletal. Strangely, she felt something close to pity for him.

Remaining invisible, she reached out her hand and lightly brushed his forehead, finding it hot and clammy with sweat. ‘The time has come for you to awake,’ she said. As Huicton had

instructed, and rehearsed with her relentlessly all afternoon, she deepened her voice, adding a sombre, ominous note.

Guatemoc sighed.

‘Awake!’ Tozi said. She leaned in and shook him. ‘Awake, Prince Guatemoc.’

He rolled away from her and grumbled, ‘Piss off, Mecatl,’ followed by some meaningless slurred sleep talk.

‘You may slumber no longer,’ Tozi insisted. ‘I visit you from Aztlán …’

‘Aztlán?’ Guatemoc’s eyes came open and he blinked twice. ‘Aztlán?’ He appeared confused, and little wonder since Aztlán was the mystic home of the gods – the enchanted land where the Mexica and all other Nahua peoples were believed to have had their origin. Still prone, he blinked again, clearing his sight, and turned his head from side to side. ‘Who visits me from Aztlán?’ he croaked.

Veiled in invisibility, Tozi replied, ‘It is I, Temaz, who stands before you. I bring you tidings from the world beyond.’

With a groan of pain, the prince levered himself up onto his elbows, his eyes sweeping the room. ‘I do not see you,’ he said.

‘Because I do not choose to reveal myself.’

Guatemoc shook his head vigorously, in the manner of one clearing water from his ears, and slumped back on the bed. ‘I am dreaming,’ he said.

‘This is no dream, Prince.’

‘Then I’ve gone mad, or you are a phantom of the night.’

‘I am she who is called Temaz, sweet Prince. Do you not know who I am?’

‘I know the name of Temaz, goddess of healing and medicines. But you are not she! You are a phantom – a voice without form that speaks to me from the shadows!’

‘I am the goddess of medicines, and their rightful use, the patron of doctors and of all who perform the healing arts. That is why I have journeyed from Aztlán to bring you a warning …’

Guatemoc levered himself up again. Although she knew he could not see her, his eyes were fixed on exactly the spot where she stood. Involuntarily, she took a step back.

‘A warning?’ he growled. Despite his injuries, he looked dangerous. ‘Even if you are Temaz, why would you bring me a warning?’

‘Because a doctor of this hospital seeks your death,’ Tozi said quietly, ‘and uses a false medicine to poison you. I cannot allow such unholy behaviour to go unpunished, let alone to succeed.’

Now she had the prince’s attention! ‘Which doctor do you speak of?’

‘None other than Mecatl.’

‘It cannot be!’ said Guatemoc, but Tozi ignored him.

‘He brings you a special medicine to drink,’ she said. ‘He brings it every morning and night. It is flavoured with chocolate but there’s a strange bitterness to the aftertaste that is not the bitterness of chocolate.’

‘How can you know this?’ Guatemoc asked wonderingly.

‘Mecatl tells you it is an elixir,’ Tozi continued, ‘that can cure all ills of the flesh, but its real purpose is to poison you slowly in such a way that no suspicion will be aroused …’

Conflicting emotions – doubt, belief, hope – wrote themselves on the prince’s tortured, finely sculpted face. ‘If you are truly the goddess Temaz,’ he said finally, ‘then show yourself to me!’

During the afternoon, as well as discovering the exact whereabouts of Cuitláhuac, Huicton had used his connections to obtain a rich green skirt and blouse for Tozi, a fine shawl decorated with tassels, and a headdress of cotton bands adorned with amaranth seeds – an outfit that would pass inspection as the sacred regalia of Temaz. He had also applied yellow *axin* pigment to her cheeks, black bitumen to her eyelids and a tincture of cochineal to redden her lips, giving her the appearance of a grown woman.

Satisfied she was well prepared, she now took two further steps back from the bed to stay out of reach and allowed herself to fade

into full visibility.

Guatemoc gasped, and something that was not fear, but more closely akin to awe, showed in his eyes. ‘I see you,’ he said.

‘And do you now believe me, Prince?’

‘I believe you, gracious goddess.’

‘Then here is what you must do. In the morning, when Mecatl comes to administer more of the poison, *you must not drink it*.’

Guatemoc’s voice seethed with anger. ‘I’ll kill him.’

‘No, Prince. Nothing so hasty. The plot against you goes deeper than Mecatl and you must not arouse suspicion. Make him believe you are too ill to drink the medicine, that your stomach revolts against it. Tell him you will attempt the evening dose but that the morning dose is beyond you. *Convince him*, until he leaves you in peace. Then summon the Lady Achautli, tell her everything I have told you, and persuade her to use all means at her disposal to have your father, who is in Texcoco, return at once to Tenochtitlan. Between the morning and evening visits of Mecatl, there is

sufficient time for Cuitláhuac to cross the lake and reach the hospital …'

Guatemoc nodded. 'And if my father does return, then what?'

'He must lie in wait until Mecatl comes to you with the poison and he must catch him in the act of giving it to you. It's the only way to bring an end to this plot.'

'What if my mother doesn't believe me,' said Guatemoc, 'or if my father doesn't believe her? What if he thinks this story of poisoning is just a bad dream I've had.'

'The Lady Achautli will believe you because she is your mother. But if she is to persuade your father, you will need to give her this …'

Now came the most difficult and potentially dangerous part of the whole masquerade. Remaining fully visible, Tozi stepped forward, pulled from a pocket of her blouse the little ceramic bottle containing the *cotelachi* poison she had stolen that morning and held it out to the prince. 'Take it,' she said. 'It's the medicine

Mecatl has been giving you. The poison it contains is called *cotelachi* and your mother will be able to find a physician to verify that.'

Lightning fast, Guatemoc's hand shot out and grasped Tozi's wrist. For a moment she thought he had seen through her disguise. But then he said: 'I am in your debt, Lady Temaz. For your kindness to me this night, I swear to you that when I am well I will make a pilgrimage to find the lost land of Aztlán and the Seven Caves of Chicomoztoc and speak there with the masters of wisdom and restore virtue to the realm.' He took the bottle from her, slipped it under his sheets and released her.

'Only do as I ask,' Tozi said. 'Defeat this plot against you, and find the one who is truly responsible for it.'

Then impulsively she stepped close to the bed and placed both her hands, very gently, over the bandages covering Guatemoc's stomach.

Chapter Forty-Eight

Friday 26 February 1519 to Saturday 27 February 1519

The storm that had scattered the fleet on leaving Cuba had damaged several of the ships, and their captains requested at least a week longer in the sheltered anchorage of Cozumel to carry out the necessary refitting and repairs. Juan de Escalante's carrack, with the expedition's entire supply of cassava bread in its hold, was in a

particularly bad way, close to sinking, and had to be unloaded and dragged up onto the shore to be made sound.

But two of the smaller vessels, both brigantines, were found to be fully seaworthy. Cortés put them temporarily under Sandoval's command for the mission to seek out the bearded white man whom the natives called the '*Castilan*', and they sailed from Cozumel at dawn on Friday 26 February. Antón de Alaminos, who knew these waters better than any other Spaniard, was the pilot. García Brabo and the same squad of twenty-five ruffians who'd been with Sandoval in the battle against Velázquez's guards provided the main fighting strength. The guides were Yochi and Ikan, two wide-eyed Cozumel islanders, familiar only with local canoes, for whom the brigantines seemed, if Little Julian's interpreting was to be trusted, 'as large as mountains'. Last but not least, Cortés insisted that Sandoval also take along ten out of the expedition's complement of a hundred ferocious war dogs whose snarling, howling and snapping

disturbed and terrified the islanders even though the animals, which they described as ‘dragons’, were securely caged on deck.

Despite their fears and bewilderment, Yochi and Ikan, whose names meant ‘Hope’ and ‘Star’, proved to be excellent guides. Hope was the older of the two, perhaps in his fifties, and Star was much younger – barely out of his teens, Sandoval thought; both were fishermen who knew the Yucatán coast well. Meeting with approval even from Alaminos, they skilfully avoided powerful currents by guiding the ships steadily northward through the obstacle course of small islands lying just offshore.

During the night of Friday 26 February and the small hours of the morning of Saturday 27, Cortés was visited again by Saint Peter as he slept in his hammock. The dream came upon him suddenly in the midst of a jumble of meaningless, inconsequential images, and took him by compulsion to a place he did not know, an Indian town on a great river, at the centre of which, in the midst of a spacious plaza

where a tall silk-cotton tree grew, stood a lofty pyramid rising in nine steep terraces and seeming to reach for the sky.

Saint Peter had appeared at first in his usual form as a tall and robust man, clean-shaven and fair-haired with the hands of a soldier. But then, as the aerial journey began, he transformed mysteriously into a hummingbird, brightly coloured with blue and yellow feathers, a blur of wings and a long, dagger-sharp beak. Exerting some powerful force, some magnetism, he drew Cortés in a swirling vortex of flight around the pyramid and whispered in his ear – or perhaps it was not a whisper, perhaps more a thought taking shape inside his brain – 'I require your presence here.'

'Holy Father,' asked Cortés, 'where is this place?'

'This is Potonchan,' said the hummingbird that was Saint Peter, hanging in the air. 'Here Christian forces led by your predecessor Córdoba suffered the humiliation of defeat at the hands of the Chontal Maya.'

'I have heard the story,' said Cortés. 'We all have.'

‘That defeat must not go unavenged,’ said Saint Peter. ‘If you allow it to do so, all your work for God in the New Lands will fail.’

And with that the scene changed and Cortés again felt himself transported through the air with the hummingbird by his side. He was carried over jungles and wide rivers, crossed immense mountains wreathed in snow and at last found himself looking down upon a vast green valley with a great lake at its heart. At the heart of this lake, built upon the water like an enchanted vision, he saw a jewelled and shining city, and at the heart of the city towered a pyramid of pure gold so high and so bright that it caught his eye by force, and astonished him, and stupefied him with wonder.

‘All these things God will give you,’ said Saint Peter, ‘when you have done the thing I require you to do.’

‘Command me, Holiness, and I will do it.’

‘You must punish the wicked ways of the Indians of Potonchan. You must lay my vengeance upon them. You must destroy them

utterly until their dead lie thick upon the ground. Only then will you earn your reward.'

Early on the morning of Saturday 27 February, Sandoval's brigantines rounded Cape Catoche and came in under oar to a shallow lagoon, named Yalahau in the Mayan tongue, which Alaminos had visited the year before when the Córdoba expedition had passed a night at anchor here.

Protected on its north side from Atlantic storms and currents by a long narrow island that the guides called Holbox, the five-mile-wide lagoon was sheltered and peaceful, fringed by white sand and palm trees and home to tremendous populations of large and colourful birds including species familiar to the Spanish such as long-legged pink flamingos and white pelicans. On the lagoon's south side, where the Yucatán mainland stretched away into limitless distance, several villages were visible amongst the trees and, within minutes

of the brigantines being sighted, great numbers of people had emerged to line the shore.

Sandoval ordered the crews to row closer and it soon became obvious the villagers were hostile. There were many women and children amongst them, but he also counted close to a hundred men waving spears and clubs. As the ships came within hailing distance, several flights of arrows soared up but fell short into the blue waters of the lagoon. ‘I think we’ll drop anchor here,’ Sandoval said to Brabo, ‘and give some thought to strategy while we’re still out of arrow range.’

‘Good idea, sir,’ agreed the sergeant, shading his eyes with his hand and frowning at the Indians on the shore. ‘But, if I may suggest, a few rounds of grapeshot fired into the midst of them would be likely to work wonders.’

Sandoval winced. Each brigantine was armed with two small cannon, one in the bow and one in the stern. With barrels four feet long, these weapons were called falconets because they fired metal

or stone balls, similar in size to a falcon with its wings folded, weighing about a pound and lethal up to a range of a mile. They could also be loaded with canvas tubes containing clusters of smaller balls – somewhat like clusters of grapes in appearance – that broke up and spread out on firing and were utterly devastating against a massed enemy at close range. The Indians lined along the shore were less than five hundred feet away and if Brabo's suggestion were followed many of them would die.

'I'm not sure that will be necessary,' Sandoval said. 'Let's see if we can scare them off with some ball fired into the trees.' He turned to Alaminos: 'Did you use cannon when you were here with Córdoba?' he asked.

The pilot shook his head. 'We didn't land so there was no need.'

'Well and good then,' said Sandoval and gave the order for the falconets to be charged. 'Let's fire two rounds each from all four of them and see what happens.'

That same morning, Saturday 27 February, Cortés and Alvarado took breakfast together on board the *Santa María de la Concepción*.

'Well,' Cortés said with a smile, 'are we friends again?'

Alvarado still wore a sulky, somewhat wounded expression. 'You should not have shamed me, Hernán.'

'You shamed yourself, Pedro, with your haste and your greed. Please forgive me for being blunt but that's how I see it. Your actions here in Cozumel could have cost us dear …'

'Dear? How so? The Indians were heretics. They deserved to burn. And their gold was ours by right of conquest. Why should I not take it? Why should I have been compelled to give it back?'

Cortés sighed. 'Strategy, Pedro. Strategy … By making reparations we regained the trust that you had lost us, and because of that trust we were given vital intelligence. Nothing could be more central to our interests than a proper interpreter but I doubt the Indians would have breathed a word about this shipwrecked Spaniard if I'd left things the way I found them when I arrived …'

Alvarado sniffed. ‘Ah yes, your mysterious “*Castilan*” … If he even exists, which I very much doubt. I’ll wager you’ve sent Sandoval off on a wild goose chase …’

‘Really? A wager? How much?’

Alvarado grinned: ‘A hundred gold pesos.’

‘Come come! A mere hundred? There’s no sport in that!’

‘Very well then, let’s say a thousand.’

‘Done!’ agreed Cortés. ‘If Sandoval comes back with this “*Castilan*” you’ll pay me a thousand gold pieces; if he comes back empty handed you can take a thousand from me.’

Alvarado’s spirits had lightened, as they always did at the prospect of a gamble, but he was still visibly sulking. ‘A mere fraction of what you owe me,’ he said. ‘For your sake I passed up fifteen thousand gold pieces from Velázquez, risked my life and took an injury.’ He stabbed his knife into a slice of roast pork and glanced down at his splinted left arm hanging uselessly in a sling

across his chest. ‘You conveniently forgot all that, Hernán, when you rebuked me in front of the men.’

‘I forgot nothing, but I am in command of our expedition and I carry responsibilities that you do not.’

‘You’d have no expedition to command if I’d done what the governor asked of me.’

Cortés slowly nodded his head. ‘I’m in your debt for that,’ he said. ‘I don’t deny it …’

‘And that debt is about to deepen! Juan Escudero and the governor’s cousin Velázquez de León paid me a quiet visit yesterday, you know. They’ve taken hope from our quarrel on Thursday. They can’t imagine I’ll ever forgive you for it, so they fancy I’m ready to join their side. They’re hatching some plot to arrest you and hinted they’d offer me joint command with Escudero if I play along with them. I’ve agreed to meet them on my ship this afternoon to hear more …’

Cortés laughed. ‘Somehow, old friend, I don’t see you ever joining such swine.’

‘I’m no Velazquista,’ Alvarado agreed. It was the derisive term the two of them used between themselves for the clique of cavilling and complaining officers loyal to the governor of Cuba. ‘And I’m no captain-general, either – “joint” or otherwise! Appearances to the contrary, I do know my limitations. I’m rash, hot-tempered, impatient; I like a fight, and frankly the burdens of command bore me. But I thought I’d string them along, find out more about what they want and give you a full report.’

‘So I can still count on you, Pedro? Despite the harsh words we’ve exchanged?’

The atmosphere in the stateroom lightened further as Alvarado gave another big grin. ‘You can count on me, Hernán. I’ll keep the Velazquistas guessing and strengthen your hand against them, but I ask you this in return – respect my pride, give me enemies to kill and don’t keep me too long away from gold!’

‘You will have gold! More than even you could wish for. And battles too. We’ll be refitting for a few more days here in Cozumel while Sandoval finds that shipwrecked Spaniard and brings him to us here—’

‘If,’ objected Alvarado, ‘if …’

‘Oh, he’ll find him all right, and when he does, I tell you what, I won’t even have my thousand pesos off you. You can keep it as a down payment on the fortune you’ll make in the new lands. Then we’ll sail the fleet north along the east coast of the Yucatán peninsula, round Cape Catoche – where Sandoval should be now, by the way – and thence south down the west coast of the peninsula to a place called Potonchan …’

‘Where Córdoba took a beating?’

‘Exactly. His defeat there sets a bad precedent.’

‘Some would call routing an army of ten thousand savages with a hundred men a victory …’

‘It was a defeat. Seventy Spaniards died in the fighting, the survivors fled back to their ships with their tails between their legs before the enemy could regroup, and Córdoba himself perished from his injuries on the return journey to Cuba. He was a brave man. All who were with him there were brave men; but, make no mistake about it, they were defeated, and they were seen to be defeated, and now those Indians know we can be killed. Such reverses happen on campaign, and they will happen to us, but if we are to conquer here then we cannot afford to let any reverse go unpunished. That’s why I intend to take revenge for Córdoba’s defeat and do great harm to the Indians of Potonchan. I’ll not hold you back there, Pedro, you have my promise. None will be spared until I receive their abject surrender, and we will have their gold, their silver, their jewellery – and their women for our beds.’

‘Bravo Hernán!’ roared Alvarado. ‘Now you’re talking.’ His grin was wider than ever, his teeth bared in a wolfish snarl, and he

slapped his uninjured right hand on the table. ‘I’m not sure about their filthy women, though.’

Like all the Spaniards on board the brigantines, Sandoval was used to the crashing, explosive roar of cannon fire, to the pressure wave of the percussion as it struck the ears, to the whistle of the ball through the air, and to the foul, sulphurous smell of the clouds of smoke given off by the guns. So were the caged dogs, trained and habituated to war, and so also, though to a lesser extent, was Little Julian. But Hope and Star were completely new to the experience and threw themselves to the deck, their eyes rolling, their jaws slack, uttering high, keening wails of terror which drove the dogs into a frenzy, barking, snarling and pawing at the walls of their cage.

On shore the effects were even more dramatic. As the first four shots smashed into the dense trees that Sandoval had told the gunners to aim for, turning great swathes to matchwood in an

instant, and as the shock of the explosions echoed round the lagoon, a tide of hysteria swept through the Indians, causing many to fall on their knees or their faces and many more to turn and run, barging into those behind them in what rapidly became a cascading, screaming, desperate stampede into the jungle. Within moments the white sand beach was empty, but for the fallen and the trampled, and very soon all the injured who were able to walk or drag themselves away were gone.

A ragged cheer went up from the Spaniards. ‘Looks like you were right, sir,’ said Brabo with a grim smile. ‘That worked a charm.’

Cortés felt calm despite Alvarado’s revelations about Escudero and Velázquez de León. Of course they were plotting against him! He had spies on their ships, and amongst the other Velazquistas too, and knew exactly what they were doing from day to day. They’d only implicate themselves further in their foolish meeting with Alvarado this afternoon and, when the right time came, he’d use all

this evidence against them. There'd be some hangings then – mutiny was a capital offence, after all – and Escudero would be the first to dance at the end of the rope.

But for now there were other priorities. Cortés summoned his young secretary Pepillo, who had seemed pale and ill these past three days, and sat him down at the writing table with quill, ink and paper to take dictation of the letter he was in the process of composing to King Charles V of Spain. Despite Pepillo's apparent poor spirits, he was a clever boy, and had suggested this system of dictation, which Cortés quickly realised was an easier and more efficient way of arriving at a first draft than painstakingly writing it out himself.

'Where did we get to yesterday?' he asked.

'The fleet,' read Pepillo, 'was disposed according to the orders of Governor Diego de Velázquez, although he contributed but a third of the cost …'

‘Ah yes. Very well, we continue.’ Cortés, who was standing, now began to pace about the floor of the stateroom. ‘And Your Majesty should also know,’ he declaimed, ‘that the third part contributed by Velázquez consisted in the main of wine and cloth and other things of no great value which he planned to sell later to the expeditionaries at a much higher price than he paid for them. So you might say he was investing his funds very profitably and that what he intended was more a form of trade with Spaniards, your Royal Highness’s subjects, than a real contribution to the expedition.’

Cortés paused, thinking through what he wanted to say next. Technically, the whole enterprise had become illegal as a result of his precipitate departure from Cuba without Velázquez’s permission. The only way to get round this was to win the direct support of the king, which would require some manoeuvring and some eloquence, to say the least! It was therefore essential to present the governor’s behaviour in as unflattering a light as possible, while casting the best possible light on his own. ‘I, on the

other hand,' he continued, 'spent my entire fortune in equipping the fleet and paid for nearly two-thirds of it, providing not only ships and supplies but also giving money to those who were to sail with us who were unable to provide themselves with all they required for the journey.'

As Pepillo's hand moved rapidly across the page, there came a knock at the door. 'Yes,' Cortés said with a hint of irritation, 'come in.'

The visitors were Bernal Díaz and Father Olmedo. 'Good morning, gentlemen,' Cortés said, 'what can I do for you?'

A silence followed and both men glanced uncomfortably at Pepillo.

'Come on! Speak up!'

Olmedo took the lead. 'There's trouble in the town, Hernán. It seems two murders have been committed – both the victims are little boys no more than six years old. One was found in the forest on Thursday, the day of Don Pedro's ill-advised raid, and thought to

be a casualty of the fighting. We paid blood price for him as we did for all the others killed and injured. But the second murder took place last night. It's hard to make head or tail of what's going on without our interpreter. They took me to see the bodies and' – a look of profound disgust crossed his face – 'both were sodomised. As far as we can tell, the Indians believe a Spaniard was responsible.'

'A Spaniard!' Cortés was horrified. 'No Spaniard would commit the abominable sin of sodomy.'

'There's something else sir,' said Díaz, stepping forward. 'The boys were scalped.'

'Scalped?'

'Yes, sir. Whoever killed and sodomised them also cut a strip of scalp from the victims' heads – in both cases between the crown and the left ear.'

With a sudden lurch of nausea, Cortés remembered Muñoz's bags, still lying hidden in the back of the stateroom, and pictured

their contents – the knives, the peculiar strips of dried skin and hair – and knew immediately who the murderer was. But he fought hard to keep his face expressionless. ‘I don’t see what this proves,’ he said.

‘Sir, the same thing happened on the Córdoba expedition,’ offered Díaz with a frown. ‘Indian boys were murdered then as well and scalped in exactly the same way.’

‘So what?’ Cortés snapped. His heart was pounding and he felt – what was this? – almost *guilty*.

Díaz was looking at him with increasing puzzlement. ‘But it’s obvious, sir! It can only mean one thing. A Spaniard who was on the Córdoba expedition, and who’s now here with us, is committing these murders.’

‘Almost every survivor of the Córdoba expedition is in Cozumel, Díaz, including you yourself!’ Cortés realised he was shouting and lowered his voice. ‘Thirty men, more or less … Must I suspect all of them of sodomy and murder?’

‘In theory, yes,’ said Olmedo. ‘All are suspects until they’ve been ruled out. This is a serious matter, Hernán. I urge you to authorise a full investigation at once.’

Cortés paced back and forth deep in thought. ‘I’ll do no such thing,’ he said finally. ‘Any open investigation could throw the whole expedition into turmoil. Look into it yourselves, if you must. You have my authority. But do it quietly …’

By the account originally given of it back on Cozumel, which Hope and Star repeated after recovering their composure, the town where the ‘*Castilan*’ was being kept was named Mutul. It had more than a thousand inhabitants – ‘every one of them cannibals, sirs,’ translated Little Julian – and it was situated in the jungles of the interior some five hours’ march south from Laguna Yalahau.

Newly converted to the merits of artillery, the guides urged Sandoval to bring the falconets; there was, they claimed, a good road cut through the jungle over which the weapons on their

wheeled carriages could easily be manoeuvred. However, Brabo advised against it. ‘Even if the road’s as good as a king’s highway, sir, the cannon will slow us down. It would be a different matter if we had fifty Indian bearers, but the fact is we don’t and every minute we waste on the road is a minute longer for the enemy to make preparations against us. I say we move fast, get there before word of us reaches them, find our man and get out before the buggers know what’s hit them … Besides, sir, look on the bright side! We have the dogs and they’ll level the odds. I’m supposing you haven’t seen them at work against men, being as you’re newly out from Spain, but I’ve seen it often enough in the islands and believe me, it’s a fearsome sight fit to turn the strongest stomach.’

Sandoval glanced at the slavering pack of wolfhounds, greyhounds and mastiffs, still excited by the recent commotion, pacing back and forth in the big cage on deck. Their keeper, a sullen, heavyset hunchback named Telmo Vendabal and his four filthy, foul-mouthed assistants were readying the animals’ armour

of viciously spiked collars, chain mail and even steel plate. Brabo was right, Sandoval reflected, he had never seen war dogs in action. He found himself hoping, fervently, that he would not do so today. ‘Very well,’ he agreed with a curt nod of his head, ‘we leave the guns. Let’s get on with it.’

With much shouting and cursing, frayed tempers and furious gesticulation, the launches were lowered into the surf from the decks of the brigantines and Sandoval, Brabo, the twenty-five members of Brabo’s squad, Vendabal and his assistants, the ten dogs, Hope, Star and Little Julian were all landed.

Vendabal and his men each held two of the eager, straining hounds on chain leashes attached to their collars, but one of the men stumbled in the knee-deep water as he made his way up to the beach. With a roar a huge wolfhound broke free, charged across the sand, pounced on the body of an Indian who’d been trampled when the rest of the villagers took flight and plunged its fangs into his naked abdomen.

At least he's dead, thought Sandoval, but then the man suddenly howled and struggled to his feet, striking wildly at the dog's head, hauling it up with him, its teeth locked in his belly, blood gushing hither and yon.

The Indian was screaming now, a desperate, keening, pleading yowl as he struck again and again at the furious animal, his naked fists bouncing ineffectually off its armoured jowls and shoulders.

For a moment the man broke free, leaving some great steak of his flesh in the dog's mouth, which it gulped down in an instant before pursuing him, leaping through the air and attacking his naked upper right thigh, just below his breechclout, opening a ghastly wound and releasing another gouting spray of blood. The Indian went down on his face, still howling, high pitched and pitiful.

'In the name of God and all that's merciful,' Sandoval yelled at Vendabal, 'can't you stop this?' but the hunchback was watching with what looked like amusement – even pleasure.

‘Then Hell take you!’ exclaimed Sandoval, drawing his sword and advancing up the beach, intent on killing the dog, only to hear a rush of feet behind him and discover that a strong hand gripped his sword arm while another snaked around his neck. He heard Brabo’s voice, smelt his garlic breath. ‘Not so fast, sir,’ said the sergeant. ‘That’s a valuable dog, sir, and not lightly to be wasted.’

His grip was iron. ‘Unhand me, Sergeant,’ Sandoval choked.

‘With regret, sir, sorry, I can’t do that.’

The Indian was still alive, still fighting. Somehow he tore himself loose from the wolfhound’s jaws, rolled onto his back and tried to get his hands around the monster’s armoured throat, but the effort was fruitless. His stomach already torn open, blood gushing onto the sand, the huge dog effortlessly shook off his grasp, worked its jaws into his belly and suddenly a heap of bloody intestines spooled out. A moment later the Indian’s struggles ceased as the dog’s massive head disappeared almost entirely inside his abdominal cavity.

Brabo loosed his grip on Sandoval's throat. 'They're trained to relish the flesh of the Indians, sir,' he explained. 'It's not a pleasant thing, but a time may come when you'll be thankful for it.'

No sooner had Olmedo and Díaz left the stateroom than Cortés turned to Pepillo: 'That's enough for today,' he said. 'You can go …'

'Go, sir?'

'Yes, go and help Melchior with the horses. You'll find him in the pasture. We'll work on the letter again tomorrow. I have other more urgent matters to attend to.'

Pepillo stood at the writing table for a moment, wrestling with his conscience. He and Melchior had said nothing to Cortés about the first murder. They'd been off the ship against his orders and had feared punishment. 'Besides,' Melchior had argued, 'he won't believe us anyway. It's our word against the word of a Holy

Inquisitor. Who do you think will win?' He'd pulled out his dagger. 'We'll deal with Muñoz ourselves.'

Which was all very well, except they hadn't dealt with Muñoz and now murder had been done again.

'Sir …' Pepillo said as he shuffled the papers on the writing table into a neat pile.

'Yes?' A note of irritation.

Pepillo sought the right words. It was too late to report what he'd seen Muñoz doing three days ago. But might he not somehow hint, put an idea in the caudillo's mind? He gathered his courage: 'Sir … I couldn't help but overhear Father Olmedo and Don Bernal and I've been thinking, sir, that Father Muñoz was with Córdoba …'

'What's that boy? What are you suggesting?' Cortés's voice was suddenly hard and dangerous, and his features had contorted into an angry frown.

'… And Father Muñoz is very cruel,' Pepillo persisted, 'and … and—'

‘Be silent, boy! I took your side against Muñoz but I’ll not permit you to make such vile insinuations … He’s here to do God’s work, as are we all.’

Pepillo’s heart fell. This wasn’t going at all as he’d hoped. ‘Yes, sir. I’m sorry, sir. I don’t mean to cause offence … I just thought—’

‘You’re not here to think, boy!’

‘No sir … It’s just that …’ Pepillo’s voice trailed off. The fact was that he would never convince Cortés unless he was prepared to report what he’d seen and get himself and Melchior into terrible trouble – even worse trouble, now, than they would have faced if they’d reported it three days ago.

‘It’s just *what?*’ Cortés roared, and Pepillo suddenly saw something monstrous in the caudillo’s usually good-humoured features.

‘Nothing, sir. I’m very sorry, sir, for speaking out of turn. I mean no harm.’

‘Get out of my sight,’ Cortés snapped.

And with that, filled with foreboding and self-loathing, Pepillo hurried off.

Below deck on the *San Sebastián*, Father Gaspar Muñoz lay naked, face down on the bare boards of his dark prayer cell in a state of sacred rapture. Last night he had sodomised and murdered a second young Indian boy. This morning, as penance, he had scourged himself severely, passed almost at once into communion with the divine, and now found himself in a vast, celestial chamber, flooded with supernal light, at the distant end of which Saint Peter sat in majesty on a great jewelled throne. The walls of the chamber were of mother-of-pearl, its lofty ceiling of diamonds and rubies, its floor of gold. Heavenly music, as though of a choir of angels, filled the air.

'Approach,' said the saint, his voice booming, and Muñoz felt himself drawn forward at tremendous speed so that an instant later he was before the throne.

‘Kneel,’ said the saint, and Muñoz knelt, his head bowed.

‘You are troubled, my son,’ said the saint.

‘Yes, Holy Father.’

‘Then unburden yourself …’

‘The boys of the Indian tribe are dragons that lurk in hidden lairs to tempt the innocent. I was tempted, Holy Father, and I sinned again last night …’

‘You do the work of God, my son. I have already taught you there is no sin in taking your reward on the bodies of the heathens.’

‘I understand, Holy Father, but I am tempted to another and greater sin for which I seek your absolution …’

The saint leaned forward in his throne and tilted Muñoz’s head up, forcing him to look into his eyes.

‘Tell me, my son …’

Those eyes, like black whirlpools, seemed to suck Muñoz’s brain out of his head. ‘Holiness,’ he said, ‘you know my mind already …’

‘Still I would hear you speak the words.’

‘As you command, Holy Father. This matter concerns the blackamoor Melchior, who once before tempted me to carnal lust, and the page Pepillo. That little Judas! My own servant turned against me! Two days ago, when I was seeking out the first Indian child, I observed the pair of them watching me. Following me! I evaded them. But last night Melchior followed me again, this time alone …’

‘And you evaded him once more and took a second child?’

‘I did, Holy Father, but I cannot allow this spying to continue. I fear others will soon be informed of my … appetites. Melchior harbours a deep hatred for me—’

‘Because you had carnal knowledge of him?’

‘To my shame, Holiness … On the Córdoba expedition, my lust for the blackamoor was great and he tempted me to the sin of Sodom.’

‘The only sin is that you failed to kill him on the day you had him! I permit you these … pleasures, Muñoz, because you do God’s

work, but I expect you to be efficient. I expect you to be … discreet.'

'Will you absolve me then if I kill the blackamoor now, though he is a converted Christian? Will you absolve me if I kill the page Pepillo, also a Christian and reared amongst my own Dominican brothers?'

Muñoz felt the familiar warmth of a strong, calloused hand resting on his head. '*Ego te absolvo*,' the saint pronounced, '*a peccatis tuis, in nomine Patris, et Filii, et Spiritus Sancti.*'

The jungle chimed and trumpeted with birdsong and reverberated with the grunts and roars of wild beasts, while high above, long-haired black monkeys swung howling from branch to branch amongst the trees.

The road through this hostile, poisonous, alien realm was almost as astonishing as the jungle itself, somewhat raised above the surrounding ground level, two lances wide and surfaced, Sandoval

discovered on investigation, with iron-hard limestone stucco over a stone and rubble fill. Brabo had joked earlier that even should it prove to be as good as a king's highway, it would not be practical to bring the cannon. Yet the workmanship of this *sacbe*, as Hope and Star called it – the word apparently meant 'white road' – was far superior to any of the great thoroughfares that Sandoval had travelled on in Spain and surely testified to the presence of a high civilisation with advanced engineering skills.

He found the thought a chilling one. The assumption had been made by Cortés that the Indians of the New Lands must be at the same low level of culture as the Taino of Cuba and Hispaniola; the first encounters made by Córdoba, and even this morning when the falconets were fired, had seemed to confirm this. Yet the *sacbe* sent a very different message.

Through the limited interpreting services of Little Julian, Sandoval attempted to question Hope and Star on the matter as the little group of expeditionaries pushed on at a forced march. His

worry increased as he learnt that dozens of roads, just as well made as this, crisscrossed the Yucatán; however, the knots of tension that had settled at the base of his neck gradually began to dissipate as the guides explained that the *sacbes* had been built hundreds of years earlier by the ancestors of the Maya and that although they were still maintained and kept free of jungle growth, none of the tribes possessed the skills, organisation or technology to make such wonders today.

'Why?' Sandoval asked. 'What happened here to bring about this change?' But Hope and Star merely shrugged. Their ancestors, they said, were 'giants', but the gods had brought them low, and the Maya now inhabiting the Yucatán were ordinary mortals living simple lives, much as they themselves did on Cozumel, amongst the mighty memorials of their long-lost glory.

'We can be grateful for that at least,' Sandoval said to Brabo, and the sergeant nodded. 'Indeed, sir. Our numbers are small. It's the

superiority of our arms and military discipline we must rely on to bring us victory.'

There was a chorus of agreement from the men and Miguel de La Mafla, the bright-eyed young adventurer who led the five musketeers in the squad, said, 'Don't worry, Sergeant, we'll see them off for you. Judging from what happened this morning, they'll run at the first sound of gunfire …'

'Just as well,' Brabo grinned, 'seeing as you boys can't hit a barn door at twenty paces!' He put his hand to the hilt of his broadsword: 'Until your aim improves, I'll put my trust in good Toledo steel.'

Rearing above them, the dense foliage of the great trees, overgrown with creepers, all but blotted out the sky, so the Spaniards marched in a deep emerald gloom through which the rays of the sun rarely penetrated directly. This made it difficult to know the time of day, but from his glimpses of the sun's position, Sandoval estimated it must already be an hour or more past noon. Despite the shade there was no refreshing breeze down here on the

jungle floor, not even the slightest movement of air, and the heat and humidity were becoming insufferable. The armoured dogs, which led the column, straining at their leashes, panting, constantly snarling and snapping at the unfamiliar scents and sounds, were plainly distressed, their pink tongues lolling, saliva dripping from their fangs. Sandoval and Brabo came next, and behind them the twenty-five members of the squad marched in their customary square of five ranks of five. Several men had already stripped themselves of their armour, which they now carried awkwardly as they trudged onward, and Sandoval, itching and sweating, was seized by an overwhelming urge to unstrap his own heavy steel cuirass within which he imagined he was slowly baking like a crab in its shell.

‘Stay alert, men,’ Brabo warned casting a suspicious eye on the dense undergrowth hemming in the road on both sides. ‘They say these savages use poison darts …’

‘Which they bend over and blow out their arses at their enemies,’ joked Diego Martin, a thickset, powerfully muscled crossbowman. As with the musketeers, there were five specialists with this weapon in the squad, and Martin had made a name amongst them for his accuracy and speed of reloading.

Esteban Valencia, one of the squad’s two scouts, held a finger to his lips. ‘Let’s keep it quiet, boys,’ he said. ‘We’ve been marching nigh on five hours. Can’t be far to where we’re going now.’

Sandoval turned to Hope and Star and beckoned Little Julian closer. ‘Ask them how far,’ he said.

‘Will know when get there,’ came the answer after a muttered and urgent exchange in the Mayan language. ‘Jungle all look same to them.’

Since they were in the midst of hostile territory, unknown except to the two fishermen (who had seemed lost themselves from the moment they left the sea behind), Sandoval had decided not to send the scouts ahead on the road. They were, in his opinion, more likely

to be picked off than to return with any useful information. The strategy therefore remained much as Brabo had proposed it at the outset – move fast, hit the enemy hard in the hope of aweing them into the same sort of panicked precipitous flight they'd provoked with the falconets on the beach, find the shipwrecked Spaniard and withdraw at a forced march to the waiting brigantines.

The likelihood of all this unravelling in dangerous and unpredictable ways was, of course, extremely high, but short of turning up here with the entire expeditionary force, which had never been an option as far as Cortés was concerned, Sandoval couldn't think of any better way to do things. He was brooding on what might go wrong, and constantly glancing left and right into the undergrowth, when he thought he caught a flash of movement deep amongst the trees. The moment he focussed on the spot where he'd seen it, however, it was gone. Just leaves, thick bush, hanging creepers – nothing more.

Then … flash, flicker – there it was again on the other side of the road. This time he could have sworn he saw a human eye glaring at him out of the foliage, felt the shock of being watched, of a definite connection, but again when he focussed there was nothing there.

He might have gone on doubting himself if the dogs hadn't suddenly started baying all at once. Vendabal shouted a command, the handlers stooped to let a pair of heavy mastiffs off the leash, and with eager barks they bounded away, one to the left, one to the right, into the jungle. They were instantly lost to sight, crashing through the undergrowth, their course marked only by swaying branches; then there came a terrified yell, then another, followed by a horrible cacophony of snarling and snapping and men screaming in terror and pain from both sides of the road.

Vendabal was standing alert, listening, watching. It sounded as if the mastiffs had brought two of the spies down, but more crashing in the undergrowth revealed others trying to make their escape. Sandoval didn't hesitate: 'Put more dogs after them,' he yelled.

As the rest of the dogs sped left and right into the jungle, yapping with excitement, Brabo turned to Sandoval with a knowing leer. ‘It’s like I said, sir. They’re trained to relish the flesh of the Indians.’

‘Very well, Sergeant,’ Sandoval said ruefully as more terrible screams rose up. ‘I admit your point. I’m thankful for the presence of the dogs – and sooner than I expected to be …’ He grimaced, and Brabo grinned, at a particularly hideous, gurgling cry from somewhere to the left of the road. ‘Well, let’s get after them and see what they’ve found.’

Brabo led a team of five men off to the left, Sandoval took another five to the right. He drew his sword and used it to push the dense green vegetation aside, sometimes having to hack through thick creepers and branches to clear a path, but the dogs and their victims were still making so much noise they were easily found.

There were two Indians here. The first was already dead and being disgustingly eaten by the two snarling mastiffs and the

greyhound that had brought him down. The second, with only one dog on him, a big lurcher that had him by the shoulder, was a boy of barely fifteen years, and still very much alive. His thin body was naked but for a loincloth and his moon face, dotted with acne, daubed with stripes of green paint and framed by straight black hair, was contorted with terror as the beast shook him like a rag doll. One of Vendabal's handlers surged forward yelling staccato commands, striking at the dog with a whip. It released the boy and stood over him, its jaws dripping blood and saliva.

The youth was trembling, his eyes rolling in mute entreaty, as the conquistadors dragged him to his feet, bound his arms behind his back and marched him to the road. There Brabo had already rejoined the main squad with two more prisoners, both severely mauled, one with his throat so badly torn it seemed impossible he could survive.

'I suppose we'd better try and question them,' said Sandoval. 'If Little Julian's interpreting skills are up to it.'

Brabo nodded brusquely. ‘Be nice to know what sort of reception’s waiting for us ahead.’ He barked an order and the Indians were forced to their knees in the middle of the road. Before Sandoval could stop him, the sergeant had drawn a dagger from his belt, seized the hair of the boy who’d been taken by the lurcher and sliced off his left ear, producing a spray of blood and horrified screams from the captive.

‘What the hell …?’ Sandoval gasped.

‘Just letting them know we mean business, sir,’ said Brabo. ‘If you don’t have the stomach for this it’d be best to leave the interrogation to me.’

With feelings of shame, Sandoval shrugged helplessly and stood back while the horror unfolded. Did Little Julian even understand the questions Brabo put to him? Did he translate them correctly to the captives? Were they brave men, or simply confused when at first they didn’t reply? And when speech finally tumbled from them as an eye was gouged out here, a hand hacked off there, were the

answers they gave truthful and did Little Julian translate them accurately?

Within minutes all three of the Indians were dead and Sandoval knew what he could already have guessed – that refugees fleeing from the coast had brought warning of the approach of the Spaniards, that the town of Mutul was alert and prepared, and that two hundred warriors, armed and ready for battle, were waiting to annihilate them.

For a moment Sandoval considered the possibility of flight. But only for a moment. To return to Cortés without even having attempted to win the prize was too shameful an outcome to imagine. Better to die here than be branded a coward for the rest of his life. He took a long swig from his water bottle and turned to Brabo. ‘What do you reckon?’ he asked.

‘Nigh-on thirty Spaniards and ten dogs against two hundred painted savages?’ The sergeant’s sneer said it all. ‘I reckon we march right in and kill them all, sir.’

Chapter Forty-Nine

Saturday 27 February 1519

After a mile the jungle began to thin and Sandoval and his squad, all fully armoured again and ready for war, soon found themselves in open terrain obviously cleared by human hands. There were signs of recent slash and burn, with blackened tree stumps still standing out a cubit or two above the acres of charred waste that lined both sides of the road, but ahead lay regular fields with the first green shoots of

new maize – a crop already known to the Spaniards from Cuba and Hispaniola – pushing through the earth.

Less than a mile away across the fields lay the town of Mutul, consisting for the most part of simple huts clustered round a towering stone pyramid with stepped sides, far larger than the pyramid of Cozumel. At the edges of the town Sandoval spied green patches that he took to be vegetable gardens, and an orchard planted with regular lines of tall, leafy trees. What most pressed upon his mind, however, was the great mass of people boiling from every quarter like ants out of a disturbed nest and, much nearer, at a distance of seven hundred paces, a disciplined force of about two hundred heavily armed warriors clad in loincloths and skins, arrayed in four ranks of fifty, and rapidly closing on the Spanish column.

‘Orders, sir?’ said Brabo. His voice was terse.

Sandoval was still haunted by guilt at the torture he’d witnessed and failed to stop, but at least the spies had spoken true and he’d had time to think through a strategy in the last mile of the march.

His men were few in numbers, but the sheer shocking strangeness of their appearance, their armour, their dogs and their science of warfare offered powerful advantages over the Indians.

There were five archers in the squad and their Genoese crossbows were lethal killing machines. They had an effective range up to four hundred paces against unarmoured foes and, even at two hundred paces, the steel bolts they fired could penetrate plate armour. Sandoval also had five musketeers, armed with Spanish-made arquebuses that fired lead balls about the diameter of a man's thumb. These travelled much faster than crossbow bolts and often shattered on impact causing devastating wounds, but they were rarely effective at ranges beyond a hundred paces.

As to reloading, the muskets with their powder and ramrods and smouldering matchlocks, and the crossbows with their crannequins and windlasses to rewind the tough strings were equally cumbersome – both types of weapon requiring about a minute between shots. The great advantage of the muskets today, however,

would come from the thunder and smoke of their firing. Since there had been no landing and no fighting when Córdoba's fleet had recced Laguna Yalahau, it was safe to assume the inhabitants of Mutul had never faced guns and most probably never even heard rumour of such weapons. With luck the effects would be spectacular.

'Crossbowmen and musketeers to the fore to form the first two ranks of the square,' Sandoval barked. 'Dogs and handlers stand to the side. Crossbowmen fire at two hundred paces, countermarch to the rear of the square and reload, musketeers fire at a hundred paces and countermarch to the rear. Then release the dogs.'

As they charged closer, the enemy began to shout war cries in their singsong language and to whistle and whoop in an eerie and disconcerting manner. When they were three hundred paces out, still beyond the effective range of the muskets, they deployed a weapon Sandoval was unfamiliar with – angled wooden sticks used to launch a hail of little spears that arched up into the sky and

swooped down with alarming accuracy on the Spanish square. Reacting instinctively, the men in the rear three ranks raised their bucklers and big adarga shields to protect both themselves and the ranks in front. The barrage of darts, tipped with flint points, was easily deflected. Three of the dogs in the baying pack to the right of the square took direct hits, but their steel armour shattered the flint warheads leaving the hounds themselves unharmed. Then – *click* … *whoosh* – the crossbowmen let fly, and five of the onrushing enemy tumbled screaming to the ground, transfixed by the heavy steel bolts. As the crossbowmen stepped back through the square, a manoeuvre they had practised a hundred times, the musketeers fired a single massive, crashing volley into the heart of the enemy, now less than a hundred paces distant, and quite suddenly, through the thick clouds of foul smoke, Sandoval saw what he had been silently praying for, saw the Maya horde falter and stumble, saw the fear on their faces and their rolling eyes, heard their howls of terror.

On a European battlefield the toll taken by the guns would have been confined to those actually hit, and the charge would have continued unbroken, but here amongst savages who had never encountered firearms before, the effect was devastating beyond all proportion, almost as though the Spanish were not mortal men but gods throwing thunderbolts. The enemy front ranks instantly turned and ran, while the ranks behind, still carried forward by their own momentum, crashed into them in a jumbled, churning, panic-stricken scrum, upon which, snarling and baying, teeth snapping, armour gleaming, like demons released from hell, pounced the ten furious war dogs. Here a man's throat was torn out, there the great artery in another's thigh gushed blood, here a coil of guts spilled loose, there a wolfhound clamped a face in its massive jaws. Few of the Maya even tried to fight back against the onslaught, and those who did found their puny stone weapons unable to pierce the animals' armour.

Sandoval watched awestruck for a moment as the huge beasts ravaged the enemy, spreading chaos and terror, then Brabo whispered in his ear, ‘Order the advance, sir.’

‘We can’t watch him all the time,’ said Pepillo. ‘You have your duties, I have mine, but Muñoz is free to move around as he pleases.’

‘I followed him last night,’ Melchior admitted suddenly.

‘You followed him? Why didn’t you tell me?’

‘You were working with Cortés; the chance came and I took it.’

‘Chance! Suppose he’d caught you? Are you mad?’

Melchior had a strange, sad look on his face. ‘No. Not mad. I wanted to stop him … doing what he does. But he gave me the slip and sure enough he killed again.’

It was the afternoon of Saturday 27 February, and they were in the paddock where the expedition’s eighteen precious cavalry mounts were penned. In the past two days, shaking off the stiffness

and jitters that had afflicted them after the storm and the long journey from Cuba, the horses had thrived on the pastures of rich wild grass that grew plentifully around the foot of the low hill on which the town of Cozumel stood.

Melchior was an accomplished rider and spent several hours in the paddock every day, grooming and exercising Molinero, Cortés's dark chestnut stallion. This afternoon other manservants were also present doing the same work with Puertocarerro's silver-grey mare, Alvarado's white stallion Bucephalus, Escalante's light chestnut gelding with its three white feet, and Cristóbal de Olid's sorrel mare.

Pepillo watched Melchior as he patiently brushed Molinero's flank and realised he didn't fully understand the depth of the older boy's hatred for Muñoz. Of course the friar was evil! Of course he should be stopped before he murdered any more Indian children! But were he and Melchior the ones to do it, and what had driven his

friend to take the awful risk of going after the friar alone? Even together, what chance did they really stand?

‘The only mercy,’ Melchior said after a long silence, ‘is he’s not going to find it easy to catch another child. There’s uproar in the town after last night’s murder, and the Indians are beginning to lose their fear of us.’

Pepillo thought about this while he held his hand under Molinero’s whiskery lips and felt the horse’s hot breath as he nuzzled him. He very much wanted to learn to ride and constantly pestered Melchior to allow him to climb up on the big animal’s back, so far without success. ‘Muñoz won’t stop,’ he said eventually. ‘I saw what was in his eyes when he was beating me and I don’t believe he’ll ever stop.’

‘You’re right,’ said Melchior with a fierce grimace, ‘but he’s not going to risk a murder when the sun’s up like he did the first day. Tell you what. If Cortés has nothing for us tonight we’ll sneak out

and watch the *San Sebastián*. If Muñoz comes to shore we'll follow him.'

Pepillo's heart sank. Every instinct screamed this was a bad plan that could get them both into terrible trouble and possibly even dead. But he had to support his friend, didn't he? And he didn't want to seem a coward, so he nodded bravely and said yes.

As Sandoval broke into a run he heard himself yelling at the top of his voice 'Santiago and at them! Santiago and at them!'

Behind him, with a clank of armour and the rasp of steel as weapons were drawn, the square of twenty-five seasoned veterans surged forward, every man echoing the rousing war cry with which Spaniards had gone into battle for a thousand years. They fell mercilessly upon the disordered mass of the Maya, some retreating, some still attempting to advance, cutting them to pieces with swords and battle-axes, impaling them on pikes, clubbing them down with spiked maces and iron flails.

In the thick of it, Sandoval found himself face to face with a bellowing wild-eyed savage, dressed only in a loincloth, wielding a long wooden sword with thin flakes of some black stone set into its edges, and clearly ready to fight rather than run. The man was holding the weapon in a two-handed grip, slashing it madly through the air with tremendous power but no balance or style, so it was a simple matter for Sandoval to parry and deflect, slide his right foot forward as he had been taught, drive the point of his broadsword into the warrior's heart and withdraw. Again that pluck of innards on steel that he'd felt when he'd killed his first man less than ten days before, but this time there was no remorse – rather a sense of exultation – as his enemy crumpled at his feet in a spray of blood.

Brabo shouted, 'Behind you!', and Sandoval whirled into a massive blow from another wooden sword that smashed against his cuirass, shattering every one of the stone flakes along the edge of the weapon but doing him no damage at all. The new attacker was a

lean, lank-haired Mayan youth whose eyes locked on his in frozen disbelief as Sandoval hacked him near in half in the riposte.

Moments later it was over and the last of the Mayan warriors were in full flight across the fields. The musketeers had reloaded and fired another volley after them and the baying dogs charged on towards the assembled townsfolk, who also turned and ran uttering wails of horror.

Don Pedro de Alvarado sat out on the navigation deck of the *San Sebastián*, a length of sailcloth rigged to give him shade from the afternoon sun, while Doctor La Peña examined his broken forearm, and set about rebinding the splints with bandages thickly coated in a mixture of egg whites, flour and pig fat that would harden in the next hours into a rigid cast.

Leaning on the rail surrounding the deck, supposedly waiting for La Peña's ministrations to various health needs of their own, but really here to further their other, more clandestine purpose, were

lantern-jawed Juan Escudero and his massively bearded ally Juan Velázquez de León, the two ringleaders of the clique loyal to Diego de Velázquez, the governor of Cuba. Their approach to Alvarado the day before had come while he was still hurt and angry, indeed it had come precisely *because* he was hurt and angry, and they knew nothing of his reconciliation with Cortés this morning.

La Peña was also of the Velazquista persuasion, hence the plotters' willingness to speak in front of him. Indeed, after spending the first night of the voyage from Santiago sharing the brig with him, the kidnapped physician had clung to Escudero like shit to a shoe. *Repulsive little arse-licker*, thought Alvarado. The only saving grace was that the snivelling, deceitful, trouble-making doctor, whose outsized buttocks wobbled like jellies in his pantaloons as he busied himself preparing the bandages, was good at what he did. His skill with casts and poultices had undoubtedly speeded up the healing of Alvarado's broken arm and that was a small mercy to be

thankful for. ‘How long do you think now, La Peña? A week? Two …’

The doctor made insincere clucking noises – meant, presumably, to mimic concern. ‘No, no,’ he said. ‘It’s not yet ten days since your … err … accident. You’ll have to wear the cast for at least another month. Maybe longer.’

‘Another month! That’s damned inconvenient. I’m a fighting man.’

‘Indeed so, Don Pedro, and one whose prowess is legendary. But I should refrain from battle, if I were you, until that arm is fully healed …’

‘It’s my right arm does the fighting,’ Alvarado glowered.

‘And your left that holds the shield.’

‘I’ve gone into battle without a shield before …’

‘As you’ll have to again if battle is imminent,’ said La Peña. He glanced over the rail at the peaceful bay of Cozumel and added, ‘But that does not appear to be the case.’

Escudero sniffed loudly and wiped a drop of clear mucus from the end of his long nose. ‘We’ll not be fighting fellow Spaniards, that’s for sure.’

‘Oh,’ said Alvarado, ‘were we expecting to?’

‘All that nonsense about Pedrarias and a rival expedition to the New Lands,’ Escudero growled. ‘It’s obvious now that Cortés was lying …’

‘It was just a pretext to dupe us into leaving Santiago in an unholy rush without proper procedure,’ complained Velázquez de León, scratching his huge black beard.

‘Without the blessing of His Excellency the Governor,’ added Escudero. He turned to fix Alvarado with a fanatical glare. ‘You supported Cortés in that folly,’ he said, ‘and look what your loyalty to your so-called “friend” earned you. We all saw the shameful way he treated you over the matter of Cozumel. That’s why, despite our differences, we thought it right to approach you yesterday with our proposal. I hope we were not mistaken.’

‘Ah, yes, your proposal. But yesterday you beat about the bush somewhat, and I prefer straight talk – therefore tell me plainly what you want of me.’

Escudero paused to peer suspiciously around the deck and lowered his voice to a conspiratorial whisper. ‘Why that you join us, of course, to save the expedition …’

‘To make it legal again,’ added Velázquez de León, with an emphatic thump of his fist on the rail, ‘to bring it back under the jurisdiction of Don Diego de Velázquez …’

‘Your cousin,’ Alvarado noted.

‘Yes, my cousin.’ The tanned skin of the big man’s face turned beetroot red in the few areas where it was not covered by hair. ‘But also your patron for many years. Why, if my memory serves me right, he even advanced you the funds to purchase this great carrack of yours.’

‘And besides, Don Diego is the governor of Cuba,’ prompted Escudero, ‘the secular power throughout this region, appointed by

His Majesty the King himself, whose will we flout at our peril.'

'So, to get back in his good books,' Alvarado said, 'you want me to help you arrest Cortés and ship him back in irons to Cuba. Excuse me for speaking plainly, but do I understand you correctly on this?'

Velázquez de León looked uncomfortable: 'Well, yes … More or less.'

Tsk, Tsk, from Escudero: 'No "more or less" about it. That's what we want you to do, Don Pedro, and because your role will be crucial in preventing a rebellion amongst Cortés's friends, we offer you joint command of the expedition thereafter. Now tell us, here and now, are you with us or are you against us? Are you in or are you out?'

Alvarado looked at the fat doctor who knelt at his side listening intently while pretending to fuss with his arm. 'What do you say, La Peña? Should I be with or against this cunning plot? Should I be in or should I be out?'

Escudero bristled at once. ‘Don’t toy with us, Don Pedro. This is a matter of life and death.’

Yes, thought Alvarado, *your death – if I know my friend Hernán well*. But he answered: ‘I never toy, Juan. Cortés has offended me mightily, as you all observed, and I’m attracted by your offer. I’m just not sure this is the right time to strike.’

Now it was Escudero’s turn to flush, quite an achievement since the man’s skin had the pallid, lifeless quality of a five-day-dead cadaver. ‘Not the right time? After you’ve made us show our hand to you in this way? By God, Don Pedro, you will join us or I’ll see you dead.’

Alvarado pushed La Peña aside and stood up, his hand dropping to the hilt of his falchion. ‘*You’ll* see me dead? Begging your pardon, Don Juan, but I think not. Even with only one arm, I’ll cut you down in a trice should you be foolish enough to come at me.’

Escudero lunged forward but Velázquez de León stepped in his way. ‘No! No! This is *not* what we planned, this is *not* what we

came here to do. Don Pedro is our friend, our natural ally and much wronged by Cortés. If he says now is not the right time then let's at least hear his reasons …'

Fool, thought Alvarado, *weak, bearded fool*. But what he said was: 'I don't share your view about Pedrarias. For all we know his fleet could be within a day's sail of us now, either to land here and attempt to overwhelm us or strike direct for the mainland to beat us to its richest treasures. Either way, until we're sure of the matter, I don't think it's wise to fight amongst ourselves.'

'There *is* no Pedrarias fleet!' Escudero was practically foaming at the mouth. 'It's an invention of Cortés's, a clever fabrication, to suit his purposes.'

'Perhaps … Perhaps not. We must wait and see.'

Escudero was muttering about security risks, Alvarado knowing too much, a trap, a ruse …

'You'll keep what's been said here today to yourself?' Velázquez de León said anxiously.

‘Yes of course,’ Alvarado replied. ‘I’m the soul of discretion. We’ll watch and wait for another week or two. If the threat of Pedrarias fails to materialise, then feel free to approach me again. You’ll find me much more amenable.’

Escudero stepped forward until his long ugly face was just a finger’s breadth from Alvarado’s. He said nothing, just stood there looking at him, then turned his back and stamped off, followed, like a tame dog, by Velázquez de León.

‘Well,’ said Alvarado half to himself, half to La Peña who was still pretending to be busy with the plaster cast on his arm, ‘that was interesting.’

Ten minutes later, after La Peña had scurried off to join his masters, there came a clump of boots and Bernal Díaz climbed the steps from the main deck. The jumped-up farm-hand whom Cortés had promoted to ensign was followed by the swordsman Francisco Mibiercas, more a man of Alvarado’s own class, and another young

soldier named Alonso de la Serna. All three were carrying crossbows and quivers stuffed with bolts.

‘Excuse us, Don Pedro,’ said Díaz without preamble, ‘but since we won’t be sailing until the refits are finished, and that’s going to be a few more days, we’d like your permission to take a bit of shore leave.’

Raising a quizzical eyebrow, Alvarado cast a glance across the bay and up the hill towards Cozumel. ‘Shore leave? There’re no taverns in this town, you know. No ladies of the night either.’ He laughed: ‘Unless you fancy tupping these Maya she-goats.’

‘We want to do a bit of hunting,’ said Mibiercas, holding forth his crossbow, ‘but not for ewes. We’re told there are big herds of deer grazing on the south side of the island. Thought we’d head down there this afternoon, camp out for a couple of nights and see what we can bag.’

‘Not sure I should let you go. There’s been a murder in the town.’

‘I was told there had been two,’ said Díaz.

‘Seems the Indians are holding us responsible. There are those who think there might be trouble.’

‘I doubt it,’ interjected Mibiercas. ‘The Indians don’t have the stomach for it after the beating we gave them.’

‘Agreed!’ Alvarado grinned. He pointed to the hilt of the longsword jutting above Mibiercas’s left shoulder: ‘I hear you know how to use that, but how do you rate it against a broadsword, for example, or a good Toledo rapier?’

‘I always say it’s not so much the weapon that counts, as the man wielding it, but I like the range the longsword gives me.’

‘Here, let me take a look,’ said Alvarado, holding out his hand.

Mibiercas reached back across his shoulder, unsheathed the weapon and passed it over for the other man to examine.

‘Nice weight,’ Alvarado commented. ‘Double fuller cross-section too, so it’s strong. Good sharp point on it. You can put it through plate armour, I’d hazard?’

‘Like a hot knife through butter, Don Pedro.’

‘Well, very good then.’ Alvarado passed the weapon back. ‘Perhaps we’ll do some sparring when this damned arm of mine is better.’

‘I would be honoured,’ said Mibiercas with a bow.

Díaz coughed. ‘About the hunting, Don Pedro? Do we have your permission?’

‘By all means yes. Be back on Monday. Enjoy yourselves, but half of what you bag goes in the communal pot.’

By Sandoval’s count, some sixty of the Mayan fighters, with varying degrees of injury, had survived the carnage. Menaced by the musketeers and crossbowmen, they now sat hunched on the ground, miserable, vanquished and terrified, while the dogs – called back from inflicting further harm on the fleeing women and children – feasted on the flesh and offal of the dead.

Sandoval viewed the spectacle with disgust, but the animals needed to eat. He turned to Brabo and asked: ‘What shall we do

with the prisoners?'

The sergeant's face was expressionless. 'We're still outnumbered,' he said, 'they might turn on us at any time.'

'They don't look capable of turning on anybody.'

'No guarantee they'll stay that way.'

Sandoval sighed. 'I suppose we'd best tie them and leave them here.'

A sour look. 'I don't advise it, sir. The townspeople will return and free them when we're gone. They might come after us.'

'So what should we do?'

'Well, let's get them bound hand and foot to start with. The men will find it good sport to set the dogs on some of them and it won't take long to cut the throats of the rest.'

'You can't be serious.'

'I'm completely serious, sir. This is war.'

The worst of it was that Sandoval could see the logic of Brabo's position. In many ways killing these captives was the easiest and

most sensible thing to do. But his guilt at permitting the torture of the spies still burned him and he was loath to add to it. ‘Tie their hands for now and march them into the town,’ he said in a firm tone that he hoped brooked no dissent. ‘I’ll make a decision later.’

Though it was mid-afternoon, the sun’s rays could not penetrate the hot, fetid, claustrophobic prayer cell in the hold of the San Sebastián that Alvarado had given Father Gaspar Muñoz for his quarters.

The friar did not object. He had endured far worse in his rise through monastic orders. Of course the little cell was less grand than the accommodation he was to have enjoyed on Cortés’s ship before his rift with that vile man. But the discomfort and the darkness were a form of continuous mortification – to say nothing of the lasting pains from this morning’s flagellation! – like thorns in the flesh to buffet him lest he exalt himself too highly for the great works he was called to do.

A single candle burned in the darkness and, by its light, Muñoz repeatedly passed first one side then the other of the steel blade of his razor back and forth, back and forth, across a leather strop, from time to time testing the edge with his thumb. When he was satisfied it was fit for tonight's purpose, he folded the blade away into its bone handle and tucked the instrument into an inner pocket of his habit.

He snuffed the candle and got to his feet.

It was time to take a stroll on deck. Since it was Saturday he thought he might preach a sermon for the edification and improvement of any of the crew and soldiers who happened to be gathered there.

Mutul was a town of some four hundred hovels and shanties, for the most part consisting of a single room with walls of wattle and adobe, and roofs thatched with palm fronds. Even with the small force at Sandoval's command it was a simple matter to search them

all but, except for a few of the aged and the sick, who had clearly been too infirm to run, every one of them was deserted. It seemed that all the inhabitants had fled into the surrounding jungle.

Then came a shout from Brabo, who was investigating a group of larger structures close to the base of the ancient pyramid. ‘Better get over here, sir,’ the sergeant yelled. ‘Something you need to see.’ Signalling Little Julian to follow, Sandoval broke into a run, feeling a surge of excitement, and found himself moments later in front of what appeared to be a prison containing about forty naked, ill-kempt inmates. Hope and Star had just reached the spot, Star gripping the bars and peering eagerly through them. Sandoval joined him and asked in Castilian: ‘Is any one of you a Spaniard?’ The prisoners cowered back in terror at his voice. ‘*Is any one of you a Spaniard?*’ he repeated, louder this time, but again the only answer was a low murmur of fear.

Now Star was shouting something incomprehensible in his language and Sandoval saw a female prisoner looking up. She was

perhaps twenty years of age with filthy hair and a mud-smeared body. Star shouted again, and beckoned. Beside him Hope also spoke, his voice low and urgent. The woman rose to a crouch, one hand covering her crotch, the other placed across her breasts, and sobbed repeatedly 'Ikan, Ikan' – Star's name! – then ran across the earth floor of the prison and embraced the young guide through the bars.

'What's going on here?' Sandoval asked Little Julian.

'Sir, Ikan find sister, sir.'

'His sister?'

'Yes, these cannibals peoples take her last year. Keep her. We don't come, next big moon they eat her.'

'Nobody told me Star had a sister.'

'Oh yes, sir, she daughter of Cozumel cacique.'

Which meant that Ikan must be the cacique's son! Sandoval mentally reviewed the events of the past two days – the all-too-plausible story about the 'Castilan', the insistence that a strong force

would be required to free him, young Ikan offered as a guide – and realised in a flash how the Spanish had been played for fools. The wily old Cozumel chieftain had spun a clever web, and offered Cortés a lure he could not resist, with the sole objective of rescuing his own daughter!

'Well I'll be damned!' he muttered, restraining himself with difficulty from striking Little Julian, who must have been in on the scheme from the beginning. Turning his back on the squint-eyed interpreter he muttered, 'All this way, risking our lives, for some slip of an Indian girl.'

He was half resolved to leave her in the prison – with Star and Hope for company! – and march his men back to the brigantines posthaste when a flash of movement caught his eye.

There!

A tall Indian darted from the cover of one of the adobe longhouses near the base of the pyramid, sprinted across a patch of open ground and concealed himself behind a second structure.

Fearing he was not alone but part of a new attacking force, Sandoval called a warning to Brabo and charged towards the Indian's position, skidded round the side of the longhouse brandishing his sword and was confronted by an unkempt, cowering, ragged apparition who held up large, grimy hands in supplication and croaked some words in his barbaric tongue. Sandoval had his sword at the man's throat as Brabo came running to join him. 'Julian!' yelled the sergeant, drawing his dagger. 'Over here at the double. We've got another spy to question.'

By now most of the conquistadors, drawn by the commotion, were gathering round and, as Brabo stepped in, the cowering Indian began to speak more rapidly, his croaking voice taking on almost the cadence and rhythms of a Latin prayer. *How odd*, Sandoval thought. A nagging suspicion troubled him and the more closely he looked at the man, filthy and lean, eyes like pale flames burning in the dark hearth of his face, the more strange and incongruous he seemed. He was naked except for a single sandal on his right foot

and a squalid breechclout into which his left sandal, which appeared to be broken, was tied. His black hair hung lank and greasy to his shoulders and was braided over his forehead in the local fashion. He was beardless, as were all the Maya, but – another peculiarity – there was heavy stubble about his jowls and these were a people who seemed unable to grow facial hair.

Julian trotted up and Brabo put the tip of his dagger against the captive's face, breaking the skin under his right eye so that a line of blood guttered out and ran down his sooty cheek. 'Right, my lovely,' said the sergeant, 'I've got a few questions to ask you.' He turned to the interpreter. 'Julian, tell him. He answers us straight and he dies easy, he answers us false and he dies hard.'

'Wait!' Sandoval was surprised by the authority in his own voice. 'Not so fast.' He laid a restraining hand on the sergeant's thick wrist, drawing the dagger down.

'What now, sir?' Brabo sighed. 'Not more scruples, I hope? We don't have time for scruples.'

‘No, not scruples. I believe you’re about to torture the very man we’ve come to find. Back away from him. Give him space. I want to hear what he has to say for himself.’

The Indian stood panting, looking round at the hard, cruel faces of the conquistadors, the fingers of his right hand with their cracked blackened nails going to the cut beneath his eye, and a moan of fear – or was it something else? Was it frustration? – escaping his mouth. Several times he seemed on the verge of speaking, but only incoherent grunts and stammers emerged until suddenly he seemed to master himself and said in clumsy, somewhat halting Castilian: ‘Gentlemen, are you Christians?’

A shocked silence followed which Sandoval was the first to break. ‘We are Christians and Spaniards,’ he confirmed.

The Indian burst into tears and fell to his knees: ‘God and the blessed Mary of Seville!’ he exclaimed. ‘I am saved.’

Then, even stranger, he asked if it was Wednesday the twenty-fourth of February.

Sandoval informed him it was Saturday the twenty-seventh, at which the Indian said: ‘I have kept a count of the days these past eight years. It seems I am not far out.’ He then dried his tears, raised his hands and eyes and proclaimed: ‘Thank you, God, oh thank you, thank you, thank you for saving me from these infidels and hellish men. Thank you, Lord, for restoring me to Christians and men of my nation.’

‘Who are you?’ Sandoval asked when the odd figure had finished his prayer.

All the conquistadors gathered there, pressed in close to hear his answer.

‘Sir,’ the man replied, ‘I am Jerónimo de Aguilar of Ecija, and I am a castaway in this land.’

‘You are a Spaniard!’

‘I am, sir.’ He turned towards Brabo. ‘I understand why you thought me an Indian,’ he told the sergeant. ‘I’ve been amongst the heathens so long that at first I could not recall our tongue, but I’m a

Spaniard born and bred and a good Christian.' As though to prove it, Aguilar pulled from some fold of his verminous loincloth a Book of Hours, very old and worn, which he opened and held above his head.

At once a flurry of cheers broke out from the conquistadors, a hubbub of conversation, and one by one the soldiers, Brabo first amongst them, stepped forward to clap the man on his naked back.

Aguilar's initial clumsy articulation of Castilian improved rapidly as he told his story, seeming less of an Indian and more of a Spaniard as every minute went by. He had been, he said, a slave of the cacique of Mutul. He had been ushered into the jungle with the cacique's household some hours before, without being told the reason why, but after hearing the gunfire and realising that European forces must be on hand, he had slipped away from his captors and hastened to the town to seek his salvation.

‘We were told you were a castaway,’ Sandoval said, ‘but how did you come to be here in Mutul, so far from the coast?’

‘By many long and bloody twists and turns,’ said Aguilar. ‘In the year 1511 I was in Darién, involved in the wars and quarrels and mischances of that villain Pedrarias. I set sail for Hispaniola with some others to acquaint the governor with what was going on. We got as far as Jamaica when the caravel struck on shoals and twenty of us barely escaped in the ship’s boat, without sails, without water, without bread, and with only one miserable pair of oars. We drifted in this fashion for thirteen or fourteen days, when we were caught in a current running very fast and strong to the west that brought us to the shores of the Yucatán. Eight of us had died of thirst by then, but matters only became worse. Soon after we made landfall we fell into the hands of a rascally cacique named Taxmar. He sacrificed five of us to his idols and had their flesh prepared for the pot, making a fiesta of it and offering a share to his friends—’

‘Dear God,’ Sandoval interrupted. ‘What horrors you have faced.’

‘I and the six others who remained alive,’ Aguilar continued, ‘were placed in a cage to be fattened for the next banquet. To avoid such an abominable death we broke out of our prison and fled to the jungle. It was God’s will that we should find our way to Mutul, for Aquincuz, the cacique of this town in whose hands I have been ever since, is a powerful man and a mortal enemy of Taxmar. He is no less a cannibal and a sacrificer of humans, but I think he found us a curiosity, and besides we had escaped from his enemy – so he sheltered us and spared our lives, though he kept us in servitude. One by one over the years since then my companions died, until no one remained but myself. I’d all but given up hope when I heard your guns …’

As Sandoval and Aguilar talked, the other Spaniards in the squad listened in, and from time to time added comments of their own. Hard-bitten men though they were, they were plainly astonished by

the castaway's account and filled with fear at the thought that the people they had come to conquer were in the habit of sacrificing and eating men.

When the telling was done, the gates of Mutul's prison were forced open and its wretched inmates were permitted to come forth. They were all, Aguilar confirmed, to have been eaten in a month's time at the next full moon when one of the great Mayan festivals was to be held.

'Tell them they're free to go,' Sandoval said. He looked with more sympathy than he would have believed possible a few moments before on Star embracing his sister and added generously: 'Those who wish to return with us to Cozumel may do so.'

Aguilar put the offer to the freed captives, more than half of whom instantly said they wished to accompany the conquistadors. The rest hurried off towards the jungle. 'Most will be recaptured before they get back to their home villages,' Aguilar said wistfully, 'but they're too afraid of you to stay. They heard the guns – we all

heard the guns! For them it was the sound of terror. For me it was the sound of hope.’

In preparation for the five-hour return march through the jungle to the waiting brigantines, Aguilar led the conquistadors to the town’s main water supply. It lay in the midst of a shady orchard and proved to be not a river, or a lake, as Sandoval had expected, but an almost perfectly circular sinkhole, a bowshot across, which plunged straight down into bedrock to a huge crystal-clear pool fifty feet below. Such natural wells, Aguilar explained, were fed by underground rivers. They were called *conots* and were the main source of water for the Maya throughout much of the northern Yucatán.

Using buckets and ropes left in place by the townsfolk, the Spaniards drank their fill and replenished their empty flasks, while the dog handlers saw to the needs of their hounds. Meanwhile, under Hope and Star’s direction, some of the women prisoners

they'd freed had busied themselves preparing a meal of stewed meat, cooked with chillies, and delicious flatbreads called *qua* made from freshly ground maize. Though hungry, the conquistadors initially looked askance at the stew, and some asked if there was human flesh in it, but all scruples were cast aside when Aguilar assured them it was nothing more than a medley of venison and turkey, requisitioned, like the maize, from the town's stores.

The question of what was to be done with the Mayan fighters captured in the battle weighed heavily on Sandoval's mind. They were, for the present, bound hand and foot and locked in the prison. Brabo remained adamant that they must all be put to death.

'What do you say, Aguilar?' Sandoval asked. But the tall castaway, who claimed never to have been fed properly by the Maya, was eating with intense concentration, stuffing his mouth with the rich stew which dribbled down his chin and onto a linen shift he'd taken from the home of his former captor.

'What do you say?' Sandoval urged.

Aguilar gestured towards the prison. ‘They are savages,’ he mumbled through a mouthful, ‘but that doesn’t mean we must also be savages. Let them live. Leave them there.’ He returned to his chewing.

‘They’ll break free and come after us,’ Brabo objected.

Aguilar considered it. ‘You don’t know these people,’ he said finally. He looked to the sun, hanging low in the sky. ‘Our march to your brigantines must be done for the most part after dark and the Maya are a superstitious people. They don’t like to fight at night when the spirits of the dead walk abroad. Besides, the jungle is a dangerous place, patrolled by great beasts. Even if the captives break free they’ll not follow us until morning …’

‘By which time we’ll have sailed.’

Aguilar was chewing ferociously. ‘By which time, God willing, we’ll have sailed,’ he agreed.

‘But what of these beasts?’ asked Sandoval.

‘They are a species of panther. Some are tawny, with black spots. Others – truly they are devils – are all black in colour. They are as large and heavy as the biggest hound and they’re very fierce. The Maya call them *B’alam*. They hunt by night.’

‘Are they a danger to us?’ Sandoval asked.

Aguilar shrugged: ‘Not if we stick together. They hunt alone, never in packs. Besides, the dogs will scare them off.’

‘Still,’ Sandoval glanced uneasily at the late afternoon sun, ‘the sooner we get on the road the better.’ He turned to Brabo: ‘I’m sorry, García,’ he said, ‘I respect your advice but I can’t bring myself to order the deaths of our captives. They will remain in the prison, tied as they are but alive. Do you accept?’

‘It’s not for me to accept or deny, sir. Command is a lonely business, suited to a gentleman such as yourself. You must carry its burdens.’

As the sun dropped low it swelled into a vast orange disk, alien and somehow menacing, streaked with smears of cloud. Lying poised on the horizon where the sky met the ocean it cast a glittering path across the ripples of the bay.

Pepillo and Melchior had been dismissed for the evening by Cortés, who was in a foul and sullen mood. They had made their way to shore and found a hiding place in the thick undergrowth of a palm grove a bowshot from the water's edge that gave them a fine view of the sunset and overlooked the spot where the launches from the ships usually came to load and unload cargo and passengers. They were both armed, Melchior with his long rusty dagger and Pepillo with a small hatchet that his friend had procured for him and insisted he thrust into his belt. The idea that he might actually have to use this weapon to kill Muñoz made Pepillo feel sick, and a little light-headed. Yet this seemed to be Melchior's only plan. 'We'll wait and watch here,' the older boy said, 'and if the devil comes ashore we'll follow him and do away with him first chance we get.'

With a little luck, Pepillo hoped, the wicked friar would not come ashore! It was certainly beginning to look that way since he was preaching a seemingly interminable sermon to a few bored men on the main deck of the *San Sebastián* – and had been doing so for the past two hours at least. His loud but somewhat fluting, high-pitched lisp had carried across the water to the *Santa María* and now, amongst the palms, his proclamations against the common sins of soldiers and sailors could still be heard clearly: 'And they shall say unto the elders of his city, this our son is stubborn and rebellious; he will not obey our voice; he is a glutton, and a drunkard. And all the men of his city shall stone him with stones, that he die: so shalt thou put evil away from among you; and all Israel shall hear, and fear …'

More admonitions and dire warnings followed, but then, quite suddenly, Pepillo realised with a lurch of alarm that Muñoz was winding himself up to a conclusion: 'Dearly beloved, I beseech you as strangers and pilgrims, abstain from fleshly lusts, which war

against the soul, and follow righteousness, faith, charity, peace with them that call on the Lord out of a pure heart.'

'Abstain from fleshly lusts!' Melchior gave a bitter laugh. 'Follow righteousness! A pure heart! That's rich coming from a murdering sodomite! I can't wait to give him what he deserves.'

'Suppose he doesn't come?' Pepillo asked, trying to keep the hope he felt out of his voice.

'We'll get our chance. Maybe not today. Maybe not tomorrow. But we'll get him sooner or later. It's just a matter of time.'

In the last of the light, the two boys saw the friar's tall, angular form stride across the deck of the *San Sebastián* and go below.

Another hour passed, the night grew black as pitch, bloodsucking insects buzzed and whined, lanterns were lighted across the fleet and there came the sounds of raucous laughter as food was cooked and served. Some of the men had begun drinking, bottles clinked, a few songs were struck up, a long and plangently beautiful guitar riff

rang out, a drunken fight got started and was equally quickly stopped.

‘Listen!’ whispered Pepillo, nudging Melchior in the ribs. ‘What’s that?’

‘What’s what, you silly mammet?’ Melchior growled.

‘There! Don’t you hear it?’

Pepillo strained his ears and there it was again – a faint, almost inaudible splashing in the bay. There was no moon but the starlight was bright. By its silvery luminescence, and the reflected glow of the ships’ lanterns, the breaking line of surf where the wavelets lapped against the shore was clearly visible.

The hairs on the nape of Pepillo’s neck and along his forearms suddenly stood on end as he saw the figure of a naked man, gleaming ivory in the starlight, slowly and stealthily emerge from the sea. The man carried a bulky object – a bag! – and in a moment had pulled a dark garment over his head and all but disappeared.

Then he came padding up the shore, taking the path that ran through the palm grove, towards the hill and the lights of the Indian town.

As he passed within an arm's length of their hiding place, Pepillo and Melchior both recognised Muñoz.

'Let's get after him,' Melchior whispered after the friar had gone by, heading up the hill towards the Indian town.

'Are you sure we're the right ones to do this?' Pepillo asked, hearing and instantly regretting the anxious, childish tone in his voice.

'Course I'm sure,' said Melchior. 'If we don't do him now and he kills other children, I for one will never forgive myself. We'll not get another chance half as good.'

In the darkness Pepillo nodded. He was afraid, but he remembered how Muñoz had beaten and tortured him, the madness in the friar's eyes, the feeling of his teeth and his wet lips at his ear. If there was justice in the world the man had to be stopped and it

seemed that Cortés, for whatever reason, was not prepared to act against him.

Melchior was already in pursuit, hunched forward on the path through the palm grove, running uphill in the direction the friar had taken.

With a pounding heart, tugging the little hatchet from his belt, Pepillo followed.

Chapter Fifty

Tenochtitlan, Saturday 27 February 1519

Moctezuma was awaiting his dinner and taking some comfort in the prospect. Tonight the dishes would include one cooked from the thigh of a delicate young boy he had sacrificed at dawn in an attempt to coax Hummingbird to visit him again. The attempt had failed, as had every other since the holocaust on the great pyramid nine days before, but at least he could enjoy the tender flesh of the victim.

There was little else that gave the Great Speaker pleasure. His stomach was constantly disturbed, busily moving, inclined to strange rumblings and howlings, as though it had taken on a life of its own. Only when filled to satiety did it fall quiet for a short while and give him peace.

Another problem was also beginning to trouble Moctezuma greatly. Although he continued to have intercourse with his legitimate wives in the hope of siring an heir healthier than his weakling son Chimalpopoca, he greatly preferred the company of his many mistresses for solace in the bedroom. Since the holocaust, however, his *tepulli* had ceased to function as it should and neither his wives nor even the most appetising females in his harem had coaxed him to an erection. Sometimes – quite often – Moctezuma had the sinister feeling he was being *watched* as he attempted to perform. He'd consulted his magicians but as yet they had been unable to offer a solution.

He was in the spacious, high-ceilinged dining chamber on the first floor of his palace, seated on a soft, richly worked stool in front of a low table covered with a white cloth of the finest cotton on which were laid a selection of long napkins of the same colour and material. To his right, at a distance of some twenty paces on the far side of the chamber, the three grey-haired dignitaries who would dine with him tonight stood with their heads respectfully bowed.

Moctezuma decided to keep them waiting a little longer while he gave thought to the matter of Guatemoc. He had received two irritating visits from Mecatl today, the first in the morning to announce that the troublesome prince had refused his 'medicine' and a second unscheduled visit in the afternoon to report continued lack of success. This non-cooperation was a setback to what had, until today, been solid progress, and if it continued there was a danger that Cuitláhuac would return and take his son from the hospital before the *cotelachi* had done its work. Urgent measures were called for, and Moctezuma had not hesitated to accept

Mecatl's offer to prepare a new batch of poison from a large *cotelachi* butterfly – large enough to kill Guatemoc with a single dose. It would be best if the dose were swallowed willingly, but if not he had authorised the physician to use force.

Guatemoc was feeling very much better, and far stronger than he had believed would ever be possible again.

Perhaps it was because he had successfully avoided Mecatl's poison all day.

But he could not get out of his mind the incredible sensations of warmth and healing that had filled his body, and the instant relief from pain he had been granted when the goddess Temaz had placed her hands upon his wounds the night before. Despite the exhausting effort of fending off Mecatl without arousing his suspicions, Guatemoc's conviction that a miracle had put him on the path of recovery had not left him for a single moment.

It was one of the reasons he remained certain his encounter with the goddess in the still of the night had been real and not some fever of his imagination.

But the more powerful proof was the little bottle Temaz had given him, a physical thing quite outside the realm of imaginings. He had passed it on to his mother that morning, without explaining how it had come into his hands, telling her only that it was a medicine Mecatl kept pressing on him, that he suspected poison and that his father must be summoned back at once to Tenochtitlan to help unravel the plot. His mother had wanted to confront Mecatl herself, but Guatemoc had forbidden it. The doctor was part of a wider conspiracy. They must trap him in such a way that he could be forced, by torture if necessary, to reveal its instigator. Only Cuitláhuac had the power to see such a drastic initiative through, and until he arrived they must give no sign of their suspicions.

The day had worn on. In the mid-afternoon Guatemoc rebuffed Mecatl yet again but the physician refused to leave the room. ‘I

cannot,' he said. 'it's more than my life is worth. The Lord Speaker himself commands you to drink this medicine.'

'My respects to the Lord Speaker,' Guatemoc replied wearily, 'but my body commands me to sleep, so please *go away*.'

The physician had tucked the bottle inside his robes again – a good sign. 'You put me in an impossible position, sire,' he said, wringing his hands.

'Come back tonight,' Guatemoc replied. 'I will, for the Lord Speaker's sake, attempt your elixir then.'

'Do I have your promise on that, sire?'

'You have my promise.'

'Very well. I will return tonight.'

Shortly before sunset came the news that Cuitláhuac had reached Tenochtitlan and was making preparations to infiltrate the hospital in secret with a few of his most trusted men.

The trap was baited and set. All that remained was to wait.

Two hours after dark, Mecatl entered Guatemoc's room, moved to his bedside, produced the medicine bottle and bent over him, oozing false concern. 'The night is well advanced, lord. You must drink the elixir again.'

Guatemoc gave him a stony glare: 'Clear off, you toad. I've told you a dozen times today I don't have the stomach for it.'

'Against my better judgement, sire, I have allowed you to postpone your medication, but you promised me you would drink it this evening.'

'*Allowed*, you say? Allowed *me*? You little quack. I'm a prince of the realm and I do as I please.' And with that Guatemoc thrust out his hand from under the covers, gripped Mecatl by the throat and drew the doctor's fat, sweating face towards his own. 'Get out of my sight!' he bellowed, and tightened his grip for a moment before shoving the other man away.

The words 'get out of my sight' were the agreed signal; behind the doctor, Guatemoc saw the door open – saw his father Cuitláhuac

and three men at arms silently enter the room. Unaware of the threat, Mecatl straightened and gulped in air, a look of real anger for the first time crossing his face. He'd held on tightly to the medicine bottle, which he now unstoppered. 'I am afraid I must insist,' he said. A muscle twitched at the corner of his mouth. 'The Great Speaker is deeply concerned for your welfare. My orders are to ensure, by any means, that you drink the elixir.'

'And how, may I ask, do you propose to do that?'

Behind Mecatl, Guatemoc saw another man slip into the room. He recognised Acamap, Cuitláhuac's personal physician.

Mecatl was too busy digging his own grave to notice. 'If I must,' he said with more self-confidence than he usually expressed, 'I am authorised to call for assistance … I will have you restrained, young Guatemoc, and I will pour the elixir down your throat with a funnel. My master the Speaker requires it.'

'Oh does he indeed?' said Cuitláhuac in a cold, quiet voice. Rushing forward, the men at arms pounced on Mecatl and held him

still while Cuitláhuac prised the medicine bottle from his hand.

‘My lord.’ A note of hysteria had entered the doctor’s voice. ‘This is an outrage.’

‘Yes, I agree,’ said Cuitláhuac. ‘It is an outrage that you threaten my son with violence.’

‘The noble prince is stubborn, lord. What am I to do when he refuses medication that will save his life?’

Ignoring him, Cuitláhuac passed the bottle over to Acamap, who sniffed its contents and made a sour face.

‘Well,’ said Cuitláhuac. ‘Do you recognise it?’

‘One moment please,’ said Acamap. He poured a drop of the liquid onto his finger, very cautiously tasted it with his tongue, spat violently, rinsed his mouth with water from a flask at his hip and then spat again. ‘It is *cotelachi* poison,’ he said. ‘A very strong dose – much stronger than the sample your lady wife asked me to test this morning. Had the prince drunk the entire contents of this bottle, he would have been dead in a few hours.’

His face contorted with rage, Cuitláhuac turned on Mecatl. ‘What do you say to that?’

‘I say it is a lie, Excellency. This medicine is an elixir of wondrous virtue that I prepare for the Lord Speaker.’

‘Then you will no doubt be happy to drink it yourself.’

Mecatl’s face drained of colour. ‘I …’ he said. ‘I … No, sire. I prefer not to.’

‘Force his mouth open,’ growled Cuitláhuac to the men at arms.

Mecatl struggled, with surprising strength, Guatemoc thought, but the soldiers were all over him. Soon enough they got a dagger between his teeth and levered his mouth open, wounding his lips and cheeks in the process. As blood spattered down his costly robes and pooled on the floor at his feet, he let out a stifled sob and shook his head wildly, cutting himself further on the blade.

Cuitláhuac loomed over him holding the bottle. ‘So what’s it to be?’ he said. ‘Death by this Zapotec butterfly poison you were

going to kill my son with? Or you tell us who's behind all this and maybe we let you live?'

Moctezuma's stomach rumbled as a zephyr of delicious aromas wafted from the adjoining kitchen, and he glanced up to see four serving girls, selected from the daughters of the nobility for their cleanliness and beauty, enter the dining chamber carrying a large, deep gourd. As they approached they did not – dared not! – look at him, but kept their eyes downcast, ladled water from the gourd onto his outstretched hands and skilfully caught the overflow in special basins. None of the water was allowed to drop to the floor; it was considered bad luck, punishable by the death of the offending servant, if any did. Taking the greatest possible care, the girls then towelled his fingers dry as two more noble daughters entered, bringing him white maize cakes. Finally the women retired and a host of male retainers, all chosen for the honour from amongst the nobility, entered the room carrying thirty earthenware braziers on

which were arrayed three hundred small red and black ceramic dishes heaped with a fantasia of cooked fowls, turkeys, pheasants, partridges, quail, tame and wild duck, venison, peccary, marsh birds, pigeons, hares, monkeys, lobster, shrimp, octopus, molluscs, turtles, thirty different varieties of sea and river fish, a dozen different vegetables and, in pride of place, seasoned with salt and chillies, little cubes of meat sliced from the thigh of the sacrificed boy.

When the feast had been set out, all the retainers withdrew, with the exception of Moctezuma's steward Teudile, a man of the most refined noble birth who, because of his proximity to the ruler, stood amongst the highest lords of the land, ranking seventh after Moctezuma himself, the Snake Woman (a position still unfilled since the death of Coaxoch), Cuitláhuac, the lords of Tacuba and Texcoco, and the new high priest, Namacuix. Tall, gaunt and hollow cheeked, Teudile's temples and brow were shaved, his long grey hair gathered in a top-knot at the back of his head and his cherished

personal dignity enlarged by the star-spangled robes of office that he alone was permitted to wear in the presence of the Great Speaker. He held sole responsibility for all matters concerning the running of the royal household, and at dinner it was his particular honour and privilege to describe the dishes to the Speaker and hand him whichever took his fancy. First, however, he drew a gold-inlaid wooden screen around Moctezuma so that his three dinner guests, who were now invited to draw close, could not see him eat.

This was the part that Moctezuma always enjoyed the most – for tradition required that the guests must be barefoot, must remain standing throughout like beggars at his gate, must speak only when he spoke to them and might eat only if he chose to offer them a morsel of this or that from behind the screen. It was an excellent system for reminding the nobility of their subservience to him and to keep them at each other's throats by bestowing honour on one and humiliation on another.

Even as he sampled the first juicy chunks of the sacrificed boy's inner thigh, however, Moctezuma looked down and saw with horror that a drop of water had somehow splashed to the ground at his feet while his hands were being washed. It was a terrible omen, and as though in immediate fulfilment of it he heard the familiar voice of Cuitláhuac, not in Texcoco as he was meant to be but at the door to the chamber and speaking loudly and urgently to the guards. The names Guatemoc and Mecatl were both mentioned.

With a roar of anger Moctezuma threw his plate to the floor and dismissed his guests and Teudile.

This could only be about one thing.

Chapter Fifty-One

Cozumel, Saturday 27 February 1519 to dawn Sunday 28 February 1519

The route Muñoz had taken led through an area of terracing on the lower slopes of the hill where the Indians of Cozumel grew vegetables for the town, and although well camouflaged in his black habit, the friar had left deep sandal prints in the rich red earth that were easy enough to follow in the starlight.

‘Quick,’ said Melchior, ‘he’s too far ahead of us. We’re going to lose him if we don’t get closer.’

‘But not too close!’ Pepillo felt compelled to warn. ‘If he hears us we’re done for.’

‘Silly mammet!’ hissed Melchior, increasing his pace. ‘We’ve got to get close to kill him.’

Pepillo scrambled after his friend, doing his best to keep quiet even though he was already panting with the effort and his heart pounded frightfully against his ribs. *You must be mad*, he said to himself as he ran. *You’re going to get yourself killed*. Every rational instinct, every bone in his body, every straining, terrified nerve urged him to turn and slink back to the ship. But he couldn’t do that, could he? Because if he did he would let Melchior down in the worst possible way and reveal himself for the coward he was.

They were out of the terraces now, speeding up an open grassy slope. There! Ahead! A surging column of darkness deeper than the rest. That had to be Muñoz! Melchior had seen him too and raced

faster, fairly pounding up the hill, widening the gap between himself and Pepillo who was thinking, *Even if we do kill him, what then? Won't my soul be damned forever for the murder of a religious?* And he heard inside his head, like a drum roll, a deep, portentous voice that seemed to say over and over again, *Damned! Damned! Damned!* and *Murderer! Murderer! Murderer!*

A hundred paces above them loomed the ominous, massy gloom of a swathe of woodland, and with a chill Pepillo recognised it as a different quarter of the same wild copse in which they'd found the body of the murdered child two days before. The shadow that was Muñoz slipped amongst the trees and was gone.

'Melchior!' Pepillo wanted to shout as he ran. 'Stop, for pity's sake! We dare not follow him there.' And he thought – *It would be like tracking a lion to its den*. But he couldn't call out for fear of giving their pursuit away, and to his horror he saw his friend, so far ahead now that he too seemed little more than a shadow, making straight for the spot where the friar had vanished.

Twenty seconds later Pepillo reached the edge of the trees and skidded to a halt.

By the uncertain glimmer of the stars he saw the entrance to a path, no wider than the span of his arms, leading deep into the wood.

He squinted but he couldn't see Melchior.

In fact he couldn't see anything!

The darkness amongst the close packed, thickly tangled trees was near total. Worse still, although the forest was alive with all manner of strange and frightening crepitations, rustlings, clicks, squawks and snuffles, he couldn't identify any sound that was obviously Melchior pushing ahead through the undergrowth.

'God help me,' Pepillo whispered, and felt he was about to be sick as he took his first step on the path. Immediately something clutched his face and he slapped it away, gasping with horror before he had time to register it was nothing more than a creeper hanging down from above. The urge to vomit grew stronger, but the fear of

being judged a coward by Melchior, and worse still the fear that his friend might be in danger and in need of his help, was stronger than the fear of what lay ahead, so he pressed on, carefully testing the ground at his feet with each step, sensing the soft detritus of fallen leaves, feeling the brambles tugging at his ankles. On both sides now the trees seemed to close in and when he looked back he found he could no longer see the start of the path.

He held tight to his hatchet, pushing branches and thick clusters of rough leaves and clinging tendrils aside as he walked. Then with no forewarning he heard a slow, vibrating *whirr* – very close! – and something about the size of a small bird flew right over the top of his head, disturbing the air with the flap of its wings. There were bats here, the sailors said, that drank human blood – yet surely such creatures were the least of his worries when a true monster like Muñoz lurked in this terrible close darkness, and when Melchior, on whose strength and courage he depended, was nowhere to be seen.

‘Melchior!’ he hissed, risking all. ‘Where are you?’

Nothing.

Deciding he would take ten more paces before making his way back to the ship, Pepillo began to count – one … two … three … four – when suddenly he heard … what? A footstep? A crackle of branches compressed under a heavy sandal?

‘Melchior?’ he croaked. ‘Melchior?’ Icy terror gripped his bowels and a strangled whimper rose in his throat. He turned to run but a strong hand fell on his shoulder out of the night and held him in place.

‘Ahhhh!’ Pepillo shrieked. ‘Let go, let me go.’ He struggled desperately, flailed and lashed out but it was useless. ‘Please,’ he begged, ‘please, Father, don’t kill me.’

A hand was on his other shoulder now, shaking him, and he heard a deep, familiar chuckle. ‘Don’t shit yourself, you daft mammet,’ said Melchior. ‘It’s only me. Muñoz has gone. We’re not going to catch him tonight.’

In an instant Pepillo was wildly angry, and planted a kick on his friend's shin that sent him hopping amongst the bushes. 'You swine!' he yelled at the older boy, 'you scared me. Creeping around like that! What were you thinking of?'

'Just a jape. Don't take on so!'

'A jape? A *jape?* You'd jape about this?' Pepillo felt indignant, foolish and furious all at once, but most of all, he realised, he felt relieved. 'Come on,' he said, 'let's get—'

He didn't finish his sentence. Something came *whoosh* out of the darkness, there was a solid *clunk* and he sensed rather than saw Melchior crumple to the ground beside him. A second of mute incomprehension followed, and then a moment of sudden, horrific realisation before a blow crashed into Pepillo's jaw, lifted him off his feet, exploded bright lights inside his head – strangely reminding him of the time, years before, when he'd run full tilt into a stone wall – and plunged him, finally, into absolute, enveloping blackness.

As he swum up into consciousness, Pepillo couldn't at first remember where he was or understand why he was lying naked on a surface of broken branches and leaves, on his stomach, gagged, with his knees bent, his wrists and ankles bound together behind his painfully arched back, and a noose around his neck seemingly connected to the tether at his ankles so that any attempt to struggle or straighten his body brought on immediate strangulation. It was very dark but the flicker of some faint light nonetheless reached his eyes. He heard a man's voice, lisping, horribly familiar – *Muñoz!* – and the events of the night came back to him in a stupefying flood. A great cry burst from his throat, only to be stifled by the thick bundle of foul-tasting rags that stuffed his mouth.

The Dominican was speaking in an almost pleasant, conversational tone. 'See blackamoor! Your young accomplice awakes to witness your punishment. By the time I have him he'll be *oozing* with fear.'

Pepillo thought – *Have him? Have him? What does that mean?* – and heard an incoherent, choking roar which he understood must be Melchior, gagged like himself. He thrashed his head left and right, tightening the noose, coughing and wheezing, as he strained to find his friend whose own struggles he could hear somewhere behind him.

But he saw Muñoz first, sitting two paces away on the thick trunk of a fallen tree, his hand resting on a Bible, his black habit drawn up exposing the knobs of his knees and his face hellishly illumined by the quivering gleam of two altar candles positioned on either side of him.

'Ah,' the friar said, 'allow me to oblige.' Suddenly standing, he loomed over Pepillo, raised a foot, placed the sole of one heavy-duty sandal on his shoulder and gave him a powerful shove, spinning him round half a turn on his belly until Melchior came into view, facing him, also naked and hogtied. Unlike Pepillo, the older

boy showed no fear, only a brooding anger that burned through the reflected candle flames in his eyes and contorted his proud features.

With a strange chuckle Muñoz crouched and put his mouth close to Pepillo's ear – the same ear he'd bitten in Santiago, brushed now with the same soft heat of his lips. 'See how your friend hates me,' he said. Casually he placed his open hand between Pepillo's hunched shoulder blades, moved it slowly down his body, caressed his trussed wrists and brought it to rest on his buttocks, making him flinch as though burned with a hot iron. 'Why do you think he hates me so?' the Inquisitor continued.

Because you're a wicked sodomite, Pepillo would have said if he wasn't gagged, but Muñoz clearly didn't expect an answer. 'He hates me,' he mused, his voice instantly raised to a shout and ringing in Pepillo's ear, 'because I had him *for a peso* in my cabin when we sailed with Córdoba. He'd do anything for coin when he was a slave – *wouldn't you, blackamoor?* – but now he's free the poor boy can't bear the shame.'

Another furious roar from Melchior, who was struggling desperately, hopelessly, against his bonds, the noose biting so hard into his neck it had drawn blood.

'That's why he wants to kill me,' Muñoz sneered. 'With *this.*' He held up Melchior's rusty dagger, then pushed his mouth closer to Pepillo's ear. 'I expect he told you otherwise, yes? Some high-principled story about defending the Indians? Was that what brought you out here tonight? Well, now you know the truth, boy! *Now you know the truth!*'

He cast the dagger aside and suddenly he was on his feet again, pacing about the clearing where he'd obviously dragged both of them after knocking them out, shadows dancing across his coarse features as the candles glimmered. 'The great dragon was hurled down,' he said, his voice rising, 'that ancient serpent called the devil who led the whole world astray.' As he spoke he strode close to Melchior and kicked him twice in the ribs with such incredible violence that Pepillo distinctly heard something crack followed at

once by a terrible groan of pain. ‘You are tempters,’ Muñoz boomed, ‘*tempters*, I say, who have wickedly tempted me, and the flesh is *weak*.’ He raced across the clearing, drew back his foot and Pepillo winced and moaned as two kicks now thudded into his own ribs. He felt a gush of vomit rising up his throat and bit it back, fearing he would choke and die.

But of course he was going to die anyway. They were both going to die, he and Melchior, here in the dark woods at the hands of this evil madman.

Muñoz was muttering to himself, and this was even more frightening than his shouts and yells. ‘In that day,’ he intoned, ‘the Lord with his sore great and strong sword shall punish leviathan the piercing serpent, even leviathan that crooked serpent, and he shall slay the dragon.’ Through the tears pouring from his eyes, Pepillo saw the friar’s hand disappear inside his habit and emerge holding a straight razor. Then in a single step he surged back to Melchior’s side, planted a hand in his thick hair and flicked the razor open so

that its long steel blade glittered in the candlelight. ‘A man who lies with a man,’ he said, ‘has committed an abomination and shall surely be put to death.’

As he placed the blade at Melchior’s throat there came a rush of footsteps and a huge sword lanced in seemingly from nowhere, pierced the Inquisitor’s back and emerged through his belly. The man wielding it was tall, bearded and powerfully muscled. He dipped the hilt of the weapon and, holding the friar impaled, forced him screaming to his feet.

‘Mercy,’ Muñoz shrieked. ‘Mercy! In God’s name.’

Two other men had closed in around him, their faces grim. They held daggers which they now used to stab him repeatedly, while he still wriggled on the sword blade like a gaffed fish.

It took some minutes, and a great deal of blood, before he was finally still.

The bearded, hard-eyed soldiers who had killed Muñoz were Bernal Díaz, Alonso de La Serna and Francisco Mibiercas, the latter being the owner of what Pepillo would ever afterwards think of as the sore great and strong sword. Although they sailed with Alvarado, Pepillo remembered Díaz from his visits to the *Santa María*, most recently over the matter of the murders in Cozumel, and it seemed that Melchior knew all three men from the Córdoba expedition.

The first thing they did after they had cut the boys free and allowed them to dress was very strange. ‘Are these yours?’ asked La Serna, holding up Pepillo’s hatchet and Melchior’s dagger.

They admitted ownership of the weapons.

‘And what did you plan to do with them?’

Melchior looked at Muñoz’s gashed and bleeding corpse lying face down on the forest floor. ‘We followed him here,’ he said. ‘We were going to kill him.’

‘Why?’ asked Díaz.

‘We hate him,’ said Pepillo. ‘He is – I mean he was – a murderer. Two days ago we saw him track and kill an Indian child. He killed another last night and he … he …’

The three soldiers shared meaningful glances.

‘He was a filthy sodomite,’ said Melchior.

‘He said he was going to “have” me,’ Pepillo added, ‘after he’d killed Melchior.’

La Serna held out the dagger and the hatchet. ‘Right, boys,’ he said. ‘Take your weapons and do what you came here to do.’

‘What do you mean, sir?’ asked Pepillo. The hatchet weighed heavy in his hand. Heavier than he’d remembered.

‘You came here to kill him,’ said Mibiercas, who was cleaning the blade of his sword on Muñoz’s habit. ‘Now’s your chance.’

‘But he’s already dead, sir,’ Pepillo objected.

‘Just do it,’ growled Díaz. ‘Do your part.’

Melchior needed no further urging. His breath was already coming in short fast gasps, low moans rising in his throat, and now

he fell on Muñoz in a rage, burying his dagger over and over again in the friar's inert, bloodied back. Pepillo saw tears running down his friend's cheeks and great sobs racking his chest. Before he was done La Serna nodded. 'You too, boy,' he said.

'Me, sir?' Pepillo asked in a small voice.

'Do you see any other boys here?' snapped La Serna.

Pepillo turned to Díaz and Mibiercas but there was no give in their eyes. Feeling sick, he joined Melchior by the body, knelt and raised the hatchet but at first couldn't bring himself to strike a blow. 'Do it!' Melchior snarled, his face so livid with violence and fury that Pepillo started back in shock. 'Do it if you're my friend!'

Suddenly something broke inside Pepillo and he chopped the hatchet down into Muñoz's shoulder, then again – hack! hack! – into his neck, feeling the vertebrae separate, and finally, in a frenzy himself now, into the back of the friar's head until the bones of his skull splintered.

‘Good enough,’ said Díaz. He stood behind Pepillo and Melchior, put his big, strong hands under their arms and lifted them to their feet. As he did so the swordsman Mibiercas favoured them both with a grim smile. ‘Well done, lads!’ he said. ‘We’re all in this together now.’

The world spun. Pepillo doubled over, clutching his stomach, and vomited.

A few moments later, still feeling faint, Pepillo sat on the trunk of the fallen tree where Muñoz had perched triumphantly not long before, and watched as Melchior helped the three soldiers tidy various items away into a knotted canvas sack lying empty and open on the ground. When he’d waded naked through the sea from the *San Sebastián*, it was presumably inside this sack that the friar had bundled his habit, his sandals, his bone-handled razor, his Bible, several coils of rope of different lengths and the two altar candles he’d used to illuminate the scene. Now one by one, with the

exception of his slashed and blood-sodden habit, which was left to cover his body, they all went back into the sack.

‘Did he know you were going to follow him up here?’ Díaz asked.

Pepillo and Melchior both shook their heads. ‘He couldn’t have known. We didn’t tell anyone what we were planning.’

‘He must have been onto you,’ said Díaz, coiling away the last of the lengths of rope, ‘because he came prepared – right down to candles so he could see what he was doing.’

Pepillo felt a shiver run down his spine. ‘How did *you* know we’d be here?’ he asked.

‘We didn’t,’ said La Serna. ‘We were waiting for our chance and tonight was it – which was good luck for you boys.’

‘We were with Córdoba,’ explained Mibiercas. ‘A lot of good men died because of Muñoz. He had this coming to him.’

‘And more good men would have died if we’d let him live,’ added Díaz. ‘At least now Cortés can run this expedition the way it

should be run, and make us all rich, without having to take a meddling Inquisitor into account.'

'Does Cortés know about this?' Pepillo asked.

'No, lad, he knows nothing,' said Díaz. 'And he must not learn of it. What happened tonight didn't happen. You will never speak of it again and we will never speak of it again.'

Mibiercas, his great sword now slung in its scabbard across his back, was more emphatic. 'If word of this gets out,' he said, glaring at Melchior then shifting his gaze to Pepillo, 'I'll have your heads. Remember that.'

'Word won't get out, sir,' said Pepillo. 'We're truly grateful to you for saving our lives and we'll keep our mouths shut.'

Melchior nodded his agreement: 'It's like you said, Mibiercas. We're all in this together and we all have to watch each other's backs.'

Pepillo was impressed by Díaz and his friends, and not only because of the rescue. They could have left Muñoz in the clearing but they wouldn't do so because the Indians of Cozumel would certainly be blamed if he was found, and another bloodbath might result. Instead they'd decided to dump the corpse in the sea off a remote headland they'd reconnoitred more than a mile away from the fleet's anchorage. 'It's better we have a mystery than a murder,' La Serna explained with a lopsided grin.

Most of the night had passed and dawn was beginning to lighten the sky in the east by the time they reached the headland. Gulls wheeled and squawked, waves crashed and burst against jagged rocks with a strange booming echo, and a strong wind was blowing as the soldiers gathered heavy stones and used the ropes from the canvas sack to tie them securely to Muñoz's body.

'Anyone want to say a few words on behalf of the deceased?' asked Díaz.

'He was a wicked man,' said La Serna. 'May his soul rot in Hell.'

‘He asked for mercy,’ said Mibiercas, ‘that he never showed to others.’

‘We gave him a bad death,’ said Díaz, ‘and he must account for himself before his maker now. When we’re judged for what we’ve done, as we surely will be when our own time comes, I pray the Lord does not deal too harshly with us.’

Just before they rolled the corpse into the deep water, Pepillo caught a glimpse of Muñoz’s broken skull and pale, blood-smeared face.

The friar’s black eyes were wide open and they seemed to glare back at him with a fierce and living hunger.

Chapter Fifty-Two

Tenochtitlan, Saturday 20 March 1519

‘I’ve had a report from my informant in Cuitláhuac’s household,’ Huicton said. ‘It seems Guatemoc makes daily offerings to the goddess Temaz for her miraculous intervention. Would you consider paying the prince another visit?’

Tozi’s heart raced at the thought. She could not forget poor, lost Coyotl but she had ceased her fruitless search for him and during the twenty days since the dramatic events in the royal hospital,

Guatemoc had been more on her mind than she cared to admit. ‘Pay the prince another visit?’ she asked, feigning nonchalance. ‘What would be the purpose? We achieved our goal of disturbing Moctezuma’s household. Suspicion is everywhere now. A rift has opened between him and his brother that can never be mended.’

‘We must think ahead to when Moctezuma is gone … We must look to his successor.’

‘Quetzalcoatl will succeed him.’

‘So you believe. But we must live in the real world of men where gods do not descend from the sky every day. I pray you’re right, but I must plan for the possibility that you’re wrong.’

‘I’m not wrong, Huicton! You’ll see.’

‘Very well, Tozi. You’re not wrong. But humour me. Imagine for a moment that Quetzalcoatl does not return but that we succeed in driving Moctezuma mad – and so far we have done rather well – and bring about his downfall anyway. His son Chimalpopoca is

sickly and, even if he lives, will be too young to take the throne for many years. There will be a struggle for power …'

'And surely Cuitláhuac will win it,' Tozi said begrudgingly. She disliked any line of thought that didn't involve Quetzalcoatl.

'Cuitláhuac may not *want* power. He's not a natural leader and there's every sign he knows his own limitations. If Moctezuma falls, Guatemoc will become a contender. Let's take this opportunity to make him our man …'

'Guatemoc? Our man? That puffed-up Mexica bully? You must be even crazier than Moctezuma if you think we can do that!'

'Far from it, Tozi!' Huicton rested a gnarled hand on her shoulder. 'Recent events have put us – you! – in a unique position of influence. Not only did you foil Moctezuma's plot but also my informant tells me that the prince holds you responsible for the healing he has experienced. After the goddess Temaz warned him of the poison, it seems she placed her hands on the battle wounds Guatemoc received fighting the Tlascalans. He felt a warm glow

suffuse his body. At once his injuries, which were of the utmost seriousness, began to close up, as though by magic, and within days the sepsis had vanished. He is still in a great deal of pain, I am told, but his doctors say he will make a complete recovery and he attributes all of this to you—'

'To Temaz you mean!'

'There's no difference. You *are* Temaz in his eyes! Go to him again in the regalia of the goddess. Appear to him. Work your way deeper into his affections and into his trust so we can use him for our own ends when the right time comes.'

'That all sounds very clever,' Tozi said, 'but it could easily go wrong. Suppose Guatemoc sees through my disguise? Catches me out in some way? Then instead of making an ally we'll make an even worse enemy.'

'I don't see why you should get caught,' the old spy said. 'You're confident of your invisibility now?'

'Yes, completely confident!'

‘More to the point, *I’m* confident of it after what you did with Guatemoc, Mecatl and the poison. When you make yourself invisible no one can see you, no one can seize you. So if anything does go wrong you simply slip into invisibility and escape.’

Seeing her chance, Tozi admitted: ‘There’s something I haven’t told you.’

‘Oh?’ Despite their milky opacity, Huicton’s eyes could sometimes be very expressive and now was one of those times.

‘It isn’t just what I was able to do at the hospital that’s made me confident,’ Tozi said. ‘I’ve been going into Moctezuma’s palace as well.’ She giggled. ‘I’ve watched him a few times while he’s been eating his meals. I’ve even been in his bedchamber!’

‘You’ve what?’ Huicton looked startled, and genuinely angry. ‘I told you to stay away from the palace. It’s too dangerous there.’

‘Well you were wrong.’ Tozi stuck out her lower lip. ‘And I was right. You said Moctezuma had sorcerers who might magic me but they’re useless. I’ve slipped past them and they haven’t noticed a

thing and I've been there with him, right beside him without anyone knowing – and I've been *torturing* him, Huicton!'

'Torturing him? Whatever do you mean?'

'The gift Hummingbird gave me. To magnify my enemies' fears? I've been using it on Moctezuma the same way I used it that night on the great pyramid.' Tozi giggled again. 'He's troubled by his bowels and I've been working on that. Quite a lot actually. His stomach never gives him peace. Oh, and I've stopped his *tepulli* working …'

'His *tepulli*?' Huicton was choking with surprise. 'What do you know of *tepullis*, young lady?'

'What do you mean, "young lady"?' Tozi asked scornfully. 'Girls of my age are married with children. Of course I know what a *tepulli* is!' Another giggle: 'And I know what they have to do if they're going to work!'

Huicton just looked at her through his cloudy eyes.

‘They have to stand up!’ Tozi shrieked, ‘and I’ve made Moctezuma’s *tepulli* as limp as a little worm so he can’t enjoy his wives and mistresses. They mock him behind his back. He’s *very* upset about it.’

Huicton was laughing now, a great rumbling, rolling guffaw of sheer pleasure. ‘Oh Tozi,’ he said, wiping a tear from his eye, ‘you are a prodigy.’

She didn’t want to admit she didn’t know what a prodigy was so she said: ‘About Guatemoc? When do you want me to start?’

Chapter Fifty-Three

Potonchan, Sunday 21 March 1519 to Wednesday 24 March 1519

It was the auspicious morning of the Vernal Equinox, Sunday 21 March 1519, when Alaminos piloted the *Santa María* into the wide bay at the mouth of the Tabasco river and Cortés gave the order for the fleet to drop anchor. He would require no work of the men today, only prayer. Tomorrow, Monday 22 March, they would sally

forth against the town of Potonchan to punish the Chontal Maya as Saint Peter required.

Not that the men knew of Cortés's dreams! He'd kept his real motive secret, even from Alvarado, and sold the planned attack on Potonchan as a reprisal for the humiliation of the Córdoba expedition the year before. Most of the survivors of that debacle were here, after all, and itching for revenge; many others who'd lost friends and relatives were equally enthusiastic; for the rest, the pride and honour of Spain and the hope of treasure provided ample incentives.

Much had happened in the twenty days since young Gonzalo de Sandoval had returned in triumph to Cozumel with the shipwrecked Spaniard Jerónimo de Aguilar. After eight years spent amongst the Maya, the castaway knew their language with complete fluency and quickly began to prove his worth as an interpreter. Even his skills, however, which allowed a thorough interrogation of the chief and notables of Cozumel – and in due course almost the entire

population of the island – could not solve the mystery of the sudden disappearance of Father Gaspar Muñoz.

The Inquisitor had preached a sermon on the deck of the *San Sebastián* on the evening of Saturday 27 February. He had then gone below to a small cabin Alvarado had ordered constructed for him in the hold – and thereafter had not been seen again. Since his habit and sandals, his Bible, two altar candles, his razor and other small personal items were missing from his cabin, it was presumed he had left the ship of his own volition, something he was known to have done on the night of the 26th when he had told the sentries he was going to a secluded spot on the island for contemplation and prayer. On the night of the 27th, however, no one had witnessed his departure.

Had he somehow slipped by the watch, made his way to shore – no doubt to sodomise and murder another child, Cortés surmised – and ended up being caught and killed by the Indians instead? This seemed the most likely solution, but there was absolutely no proof

and no hint of any Indian involvement to be had from the interrogations. Indeed Aguilar had made it clear that in his opinion the islanders were not hiding anything.

So perhaps Spaniards had been responsible? This could by no means be ruled out. The Inquisitor had many enemies amongst the conquistadors after his part in the disaster of the Córdoba expedition. The page Pepillo also had a legitimate grudge, and for a while Cortés had even suspected him and his friend Melchior – the boys were behaving strangely and both had bruises and cuts on the morning of 28 February which they claimed, unconvincingly, were the result of a fight between themselves. But again proof was lacking and, on reflection, the notion they would have been capable of murdering a grown man like the Inquisitor seemed absurd.

It was an unsolved enigma, and when the repaired and revictualled fleet sailed out of Cozumel on 6 March, a week after Muñoz's disappearance, Cortés had already concluded it was for the best if it remained unsolved. Two weeks later, anchored in the bay

at the mouth of the Tabasco river, he felt Saint Peter by his side as he prepared to lay his vengeance on the Mayan town of Potonchan, and conjured in his mind's eye an image of that infinitely greater city whose name he did not yet know, that jewelled and shining city with its golden pyramid, built upon the waters of a far-off lake, surrounded by lofty mountains wreathed in snow, that beckoned to him from his dreams.

'All these things God will give you,' Saint Peter had told him, 'when you have done the thing I require you to do.'

And what the saint required, right here, right now, was the humbling, the punishment and the utter destruction, until their dead lay thick upon the ground, of the Chontal Maya of Potonchan.

It was on the day of the great spring festival, when the hours of light and darkness are equal and the sun rises due east on the horizon, that Malinal at last came within sight of Potonchan. Approaching from the south on the broad white road running through fields of

young maize, she hardly recognised the town of her birth from which she had been expelled five years previously, betrayed by her own mother, cast down from her noble lineage, and sold as a slave to a passing Mexica merchant. Compared to the massive scale, elegance and complexity of the Mexica capital where she'd spent the intervening years, it was, she saw at once, nothing special. But compared to the Potonchan of her memory – just a few dusty streets, a market and her father's palace – this town that now loomed before her had grown very large, and sprawled for a great distance along the bank of the Tabasco river. She might have thought she had lost her way and arrived at some other place entirely, had it not been for the nine sheer terraces of the ancient pyramid that soared up out of the central plaza and towered unchangeable over the warren of streets and houses. The pyramid had been built by King Ahau Chamahez in the long ago, so long ago that no one could possibly remember; yet his archaic prestige still shone down on Potonchan like the rays of the sun and made it a

place of sacred pilgrimage to all the Chontal Maya, eclipsing even the greatest towns of the region, for the special celebrations of spring.

The sight of the monument reminded Malinal of that other infinitely greater pyramid, dedicated to the Mexica war god Hummingbird, where she had come so close to losing her life and yet been reprieved at the last moment, through the mysterious intervention of the war god himself. She did not know exactly how long she had been walking – at least thirty days, she thought, perhaps a little longer – since she had left Tenochtitlan behind on that night of horror. But her bruised and aching feet bore witness that there had not been a single day since then when she had stopped moving, not a single day when she had allowed herself rest, as she put ever greater distance between herself and the cruelty and madness of the Mexica.

Dusty, battered and travel-stained though they were, she still wore the embroidered blue cotton blouse and skirt and sturdy

sandals she had been given on leaving Tenochtitlan. The heavy, fur-lined travelling cloak she'd also been given – of little use to her after she'd come down out of the mountains into the tropical lowlands – had been exchanged for food twelve days before and her backpack was gone too, its contents bartered and consumed. The journey had burnt her courtesan's skin brown and taken such a toll on her expensive clothes and general appearance that she'd long since ceased to stand out from the countryfolk and other travellers she met along the way. And now she was almost home and found herself amidst pilgrims flocking into Potonchan for the spring festival, which must already have been under way since the previous night and would continue for another three days. As she had many times on her long and hazardous journey, when she'd avoided bandits, or Mexica patrols, or found unexpected shelter in the midst of a storm, or been given a bed for the night by a kindly family, or found a willing guide when she was lost, Malinal remembered Tozi's claim that some divine plan was unfolding in

which she had been chosen to play a part. Her return here exposed her to great danger from her own family, a risk she had decided she was prepared to run, but the joyous crowds seemed like yet another gift from the gods, making it so much easier for her to blend in, anonymous and undetected, while she sought tidings of the god Quetzalcoatl.

As she drew closer, however, she began to realise that something was amiss. Although multitudes were indeed still making for the town, equally large numbers had begun to pour out of it, heading south in the direction from which she had come. Judging from their style of dress, most were visitors who, for some reason, were hurrying away before the festivities could even have got into full swing, but it was also obvious there were some residents amongst them. As more and more of the travellers in both directions crossed paths and exchanged words, she saw that increasing numbers of those heading for Potonchan were turning back.

Puzzled, she stopped a family on the road – mother, father, grandparents, five children – and asked them what was happening. The grandfather, grey haired, lean, bent, supporting himself on a walking stick, made her heart leap when he told her: ‘The white strangers have returned.’

‘White strangers?’ she asked, masking the excitement she felt. ‘Who are they?’

The old man gave her a hard look. ‘The same strangers we fought with before, of course! Where have you been, girl?’

‘I’ve been … away. I’ve been five years in the lands of the Mexica.’

His expression softened. ‘Then you won’t have heard because it was just last year the strangers came to Potonchan. They came in huge boats that move by themselves without paddles. They demanded our food, our gold and tried to make us worship their god. They even burnt some of us on great fires! So in the end we went into battle against them. They were few but they possess

fearsome weapons and they killed many before we drove them off. Now Muluc urges us to resist them again but anyone with any sense is leaving.'

Malinal hid the instant surge of anger that the name Muluc evoked in her. 'You say the strangers tried to make you worship their god but the way you describe them makes them sound more like gods than humans themselves. Do you not think they are gods?'

The elder kept silent as he appeared to consider her question. 'Some believe that,' he answered finally, 'but they eat like men, they shit like men and they smell like men, so I would say they are men, even though they seem very different from us.'

As he plodded off with the rest of his family, Malinal called after him. 'These strangers – are they in the town already?'

'They're in the bay in their great boats,' the old man answered. 'But they will come. You can be sure they will come. Take my advice and leave while you still can.'

Malinal pressed on, hardly registering now how many other large parties of pilgrims all around her had begun to turn back. She was so completely absorbed in the news she had been given that she was trembling – although whether it was with joy or with fear, she couldn't say.

Through all these days of hard walking, it had been the hope planted in her by Tozi that Quetzalcoatl and his retinue of gods were about to return that had kept her going. Even so, part of her – perhaps the larger part – had continued to doubt the whole story. But after what she had just heard, how could she doubt it any longer?

And how could she doubt Tozi's other assertion that she, Malinal, must in some special way be part of the gods' plan? For not only had they made their first appearance in Potonchan, the town of her birth, but now they had returned here on the very day that she too had returned after five long years of absence.

Such a conjunction, she thought, could hardly have come about by accident. It must have been fated. It must have been written in the stars – and by the hands of the gods themselves, long ages before.

She was so deep in these reflections that she failed to notice how close to the town she had approached and that she was no longer one amongst many now that almost all the other pilgrims had turned back. But suddenly her flesh crawled and she looked up with a start to discover two soldiers from Muluc's palace guard drawing a temporary barrier of thorns across the road less than a dozen paces in front of her.

'Hey you,' said one of them, the younger of the two, a gangling youth with bad acne. 'Where do you think you're going?'

Malinal stared him down. 'Into town for the spring festival, of course.'

'Well you're wasting your time. Haven't you heard? The festival's been cancelled.'

‘Since when?’

‘Since now. Muluc’s orders. There’s an emergency.’

The older of the two soldiers, who had wattles of wrinkled skin hanging loosely from beneath his chin like a turkey, was studying her closely, a calculating look in his hooded eyes. ‘Don’t I know you?’ he asked. He had a distinctive, croaky voice.

Malinal’s heart was racing. ‘I don’t think so,’ she said. ‘I’m from Cintla.’ She named the regional capital two hours’ walk to the south through which she had passed earlier. ‘I’ve never been to Potonchan before.’

‘Are you sure of that, my pretty? Because you look very familiar to me somehow.’

‘Yes, quite sure, and I suppose I’d better be getting back now since you say the festival’s been cancelled.’

She turned and began to walk in the direction she had come, resisting the urge to break into a run, keeping her pace slow and measured as the soldiers talked urgently behind her. She knew

exactly where turkey-neck remembered her from – had known the instant he spoke to her. His face had aged a lot in the five years but she couldn't forget that voice.

'Come back here, my pretty …'

She ignored him, kept on walking.

'Hey you! Halt!'

There was a scramble of running feet and in a moment they were on her.

'You're Malinal!' turkey-neck said as he grappled with her. The slyness in his eyes had turned to triumph.

The soldiers brought Malinal straight to the palace and insisted on showing her to Muluc in person. 'We'll get a good reward for catching this one,' said turkey-neck, whose name was Ahmakiq. 'I was there five years ago when they put her into slavery – handed her over to the merchant myself. They sold her to the Mexica to be

sure she'd never come back. Princess of the blood like this – she could have caused them a lot of trouble.'

'Well she's back now,' said Ekahau, the younger soldier.

'Exactly! And that's why they'll be grateful we caught her.'

Waiting in the palace courtyard for Muluc to appear, Malinal found herself reliving the events of five years ago.

Her beloved father, Kan-U-Ueyeyab, the late chief of Potonchan, had died suddenly and unexpectedly when she was fourteen years old. She was his only child and should have succeeded to his position when she was sixteen. Meanwhile her mother Raxca ruled as regent and swiftly took a lover, the lord Muluc, whom she equally swiftly married. Shortly after Malinal's fifteenth birthday, the couple had a child, a boy they named Nacon, and from the moment of his birth Muluc doted on him and detested Malinal. His influence on Raxca was very great, for she was besotted and weak, and he conspired with her to get rid of Malinal so that in due course Nacon could inherit the chieftainship. Raxca had baulked at having

her own daughter murdered, the solution Muluc preferred; instead Malinal was sold to a Mexica slave-trader and taken off to Tenochtitlan, that city of terrors from which none who were sent in bondage ever returned.

Now no longer an innocent girl but a woman of the world herself, Malinal felt quite certain her mother must have been intimate with Muluc long before her father's death. Worse, it was depressingly obvious that Kan-U-Ueyeyab had been murdered, most probably poisoned, by the pair – for he had been strong and radiant with health until the very moment a mysterious affliction struck him down, brought blood pouring from his nose and mouth, plunged him into unconsciousness and killed him within a day.

And all this for what? Was absolute power in Potonchan, and putting Nacon in a position to inherit it, really worth such betrayal, such scheming, such wickedness?

Malinal looked up. The palace was as she remembered it, with two storeys and a floor area of a dozen or so rooms. She had once

thought it big and impressive – and it was, indeed, very much larger than all the surrounding buildings. Accustomed to the beautiful and luxurious dwellings of the Mexica nobility, however, she now saw her childhood home for what it really was – the rude and rustic seat of a minor tribal chief.

A woman's voice raised in anger could be heard within, a child crying, a man speaking in indistinct, urgent tones. Shuffling to attention, Ahmakiq and Ekahau tightened their grip on Malinal's arms and she prepared herself for the first sight of her mother in five years. She supposed she had loved her once – doesn't every child love her mother? – but all that had long ago been burnt away and she was surprised to discover she felt nothing for her, not even hatred any more, not even curiosity, just cold and disdainful contempt. All the rage she felt was focussed on her loathsome stepfather! He'd got the better of her five years ago and most unfortunately it appeared he was going to get the better of her again today.

However, it was not Muluc who emerged from the door of the palace but the worried-looking steward who'd been sent to fetch him, closely followed by Raxca whose attention was focussed on a bawling babe swaddled in her arms. Trailing behind, and gripping a fold of Raxca's skirt tightly in his chubby fist, was a fat and exceptionally ugly little boy – he took after his father! – with the sniffles and a smear of snot drying on his upper lip. He looked to be about five or six years of age and could be none other than the usurper Nacon.

Despite the danger of her predicament, Malinal enjoyed that special pleasure that sometimes comes from another's discomfiture as her mother looked up from the babe. Clearly the steward had summoned her without daring to mention who was at the door, but now she gave a startled shriek and stepped back sharply, standing on her son's foot and eliciting a high-pitched yowl of protest. 'Gods!' she gasped.

Once thought a great beauty, Raxca had grown plain and dumpy, with greedy eyes and the puffed-up cheeks of an agouti. Her jaw trembled and her complexion turned fish-belly pale as guilt, shame and fear fought a brief skirmish on her face. ‘Is it Malinal?’ she asked over the sniffles and incessant grizzling of Nacon.

‘Yes, mother,’ Malinal replied wearily, ‘I’ve come back to haunt you.’ She wasn’t sure why she said that, except that she did, somehow, feel like a vengeful ghost returned from the dead.

It was a bizarre situation. Malinal had been sent into slavery by Raxca five years before, yet here she was, in her mother’s audience chamber on the first floor of the palace, drinking a bowl of chocolate with her in the late afternoon as though nothing had happened!

Well, not quite nothing, perhaps, because there were guards at the door and Raxca was in the process of making it very clear that

Malinal remained a prisoner. ‘We shall have to wait until Muluc returns, then we will decide.’

‘Mother, let me go!’ Malinal said urgently. ‘I have no interest in the chieftainship of Potonchan. Nacon may have it when he matures, for all I care. I’m no threat to him, or you, or your darling Muluc. My only interest is in these white men, or gods, or whatever they may be.’

‘Well Muluc is interested in them too,’ Raxca said severely. The colour had returned to her chubby face, which was set in its usual mode of fanatical devotion to her husband. ‘He’s making plans to attack them if they dare to come here. I don’t think he’d want you to contact them directly. No. I’m afraid you must stay, my dear.’

She had been breastfeeding the baby, but now Nacon stamped possessively to her side and pawed at her teat, and to Malinal’s amazement she hugged the little boy close and allowed him to suckle too. Raxca smiled as she settled back on the couch, cradling her children. ‘Tell me about Tenochtitlan,’ she said, as though

Malinal had returned from a sightseeing trip instead of five years of slavery and prostitution. ‘I’ve heard it’s a very beautiful city.’

Little by little as the afternoon wore on, and Raxca steadfastly refused to be drawn into anything other than small talk, Malinal began to realise something she had never fully appreciated as a child – that her mother was a very stupid, small-minded, parochial woman. No wonder Muluc had found it so easy to manipulate her to his own ends!

Shortly after nightfall he stormed into the audience chamber, as ugly as she remembered him, muscular and scarred, with beetle brows and bulging eyes, dressed in full war regalia of body paint and feathers. ‘You!’ he said pointing a finger at Malinal. ‘How dare you show your face in my palace!’

‘I wouldn’t have done so,’ she replied modestly, ‘if your guards hadn’t arrested me and brought me here by force. They seemed to think you’d reward them well for doing that. I can’t imagine why.’

With a few harsh words, Muluc sent Raxca and the children from the room. ‘Tell me your purpose here,’ he said when they were gone. ‘Surely you can’t imagine you’ve any claim to the chieftainship after all this time.’

‘I have no claim,’ said Malinal, ‘and no interest.’

‘Then what do you want?’

Malinal saw no need to tell the whole truth to this oaf. ‘I was sent from Tenochtitlan,’ she said, ‘to make contact with the strangers …’

‘But how could anyone in Tenochtitlan know the strangers would be here? They only returned in their boats today …’

‘The Great Speaker heard of their visit to Potonchan last year,’ Malinal said carefully. ‘He believes they are gods in the retinue of Quetzalcoatl and wonders if Quetzalcoatl himself is about to return. He sent me to find out more …’

Muluc’s mouth twisted into a sneer. ‘The Great Speaker sent you?’ he laughed ‘*You*? A mere slave?’

‘I’m a slave no longer,’ Malinal bluffed. ‘I’ve been gone five years and much has changed.’ She was making up the lie as she went along. ‘I work for the Great Speaker now.’

‘So you’re what? His ambassador? Show me your papers and insignia then.’

‘I have no papers and insignia.’

‘Ha!’

‘I have no papers and insignia because I’m on a secret mission to treat with the strangers.’

‘I wonder why I don’t believe you?’ said Muluc. He laughed again. ‘You know, you should stop wasting my time! Just admit you came back to oust me, but you got caught and now you’re making up stories about the strangers to try to wriggle out of the trouble you’re in.’

‘I’ve told you already,’ Malinal protested, ‘I’m not here to oust you.’ She tried flattery. ‘I know I have no chance against a powerful man like you.’

Muluc rolled his eyes. ‘I don’t have time for this,’ he said. ‘I’ve got a full-blown emergency on my hands.’ He gave a loud whistle and the two guards Ahmakiq and Ekahau marched into the room. ‘Put her in the palace jail tonight,’ he told them. ‘I’ll review her case tomorrow.’

‘Have a care before you go into battle with the strangers,’ Malinal called over her shoulder as they dragged her out.

‘Why?’ scoffed Muluc.

‘Because if they are gods they will kill you all.’

‘Bah!’ said Muluc. ‘I’m not afraid of them. We’ve killed them before and proved they’re just men like us. If they choose to fight, they’re the ones who will die.’

The Spaniards rowed upstream against the swift current of the Tabasco river, sweating in the close morning heat and fending off clouds of tiny bloodsucking insects. The river was broad and smelled of rot, winding in serpentine fashion between banks lined

with the stunted swamp trees called *manglars* in the native Taino language of Cuba and Hispaniola. Sprouting from multiple exposed roots, like interlinked tripods, these ugly trees were filled with gaudy, shrieking birds and grew promiscuously in thick clumps out of rich, glistening, silty mud. Amongst them, with angry glowers, uttering hostile whoops and yells, moved immense crowds of Indians.

An arrow struck the deck of the brigantine but failed to penetrate the stout timbers. It bounced, slid and skittered to a halt at Cortés's feet. Curious, he picked the little projectile up, studied its head of brittle obsidian – quite shattered by the impact – and threw it dismissively overboard. He considered for a moment firing a few rounds of grapeshot into the massed foe but relented. King Charles would expect more restraint from him than that and, besides, if he wished to engage the Indians, he was legally obliged to read them the *Requerimiento*, a tedious piece of bureaucratic nonsense that

gave them the option of avoiding battle by accepting the authority of the Spanish crown.

He was certain there was going to be a fight – in part because that was exactly what he had come here for, but in part also because these savages, in their body paint and feathers, armed only with crude weapons, seemed completely unafraid of the invaders. And little wonder! They knew the Spanish were mortal, having given Córdoba such a sound thrashing last year, and thousands of them had mustered here on this morning of 22 March to repeat their victory – ten thousand, at least, visible on the river banks alone, and God alone knew how many more were waiting in the hinterland.

Córdoba had come here with a hundred and ten men and left with forty.

Although Cortés had five hundred men, he'd only been able to bring two hundred with him this morning because the river wasn't deep enough for navigation by the carracks and caravels which he had therefore been obliged to leave at anchor in the bay, with most

of his army still on board. The two brigantines did have a sufficiently shallow draught and were, in addition, superbly manoeuvrable under oar-power, so he had crowded fifty soldiers onto each, taking temporary command of one himself and giving charge of the other to Alvarado. The rest of his flotilla consisted of five good-sized longboats, borrowed from the largest ships, each carrying twenty soldiers.

Until a beachhead could be established and reinforced, the odds weren't much better than Córdoba had faced, but mistakes had been made in the debacle of 1518 that wouldn't be repeated in the event of a massed enemy attack today.

Most notably, Córdoba had been ill equipped, being able to bring only two small, outdated cannon to bear on the foe, whereas Cortés had loaded five good falconets, and their gun carriages, on each of the brigantines, and had many more besides waiting to be ferried out from the ships in the bay. He had also brought along Vendabal with the first thirty of his armoured war dogs – Córdoba had none – and

these, Sandoval assured him after the battle he had fought to rescue Aguilar, would terrify the Maya.

Potonchan lay less than three miles upstream, where a long straight stretch of the river began; even battling against the current, the Spanish flotilla came in sight of it before noon. Alarmingly the town was large – far larger than the Córdoba veterans had remembered it, unless it had grown enormously in the past months. Sprawling for more than a mile from west to east along the bank and half a mile inland to the south, it consisted, Cortés estimated, of some twenty-five thousand houses. Although these were for the most part built of adobe thatched with straw, he spied many substantial stone structures amongst them, including a towering stepped pyramid standing at the heart of a great ceremonial plaza.

He turned to Sandoval, Brabo and Aguilar who stood by him on deck. ‘Looks quite impressive,’ he said. ‘One might almost imagine these people possess a culture.’

‘Not as we know it, Don Hernán,’ Sandoval replied. ‘As I’ve come to understand the matter, their ancestors were indeed civilised, with many great achievements of architecture and engineering, but the Maya of today have fallen far from that high estate …’

‘They are brave enough warriors though,’ added Aguilar, pointing to a fleet of thirty large canoes, each with ten armed men on board, paddling down towards them. ‘I don’t suggest you underestimate them.’

The Indians surrounded the Spanish boats while they were still almost a mile west of Potonchan. Again Cortés was tempted to disperse them with grapeshot and again he decided to wait. Let them make the first move.

Amidships the largest canoe, a tall painted warrior now got to his feet. Aged about forty, he had an air of authority. He was dark and muscular, with many scars on his body, straight hair falling in braids over his prominent brows and fierce, rather bulging eyes. He leaned on a long spear and shouted a harsh challenge up to the

brigantine where all the conquistadors were at action stations, lining the rail, swords drawn, muskets and crossbows levelled.

‘What does he say?’ Cortés asked Aguilar.

‘He wants to know our business here,’ the castaway replied. ‘He says we look like the men who tried to force the Chontal Maya to worship their god last year. He says the Chontal Maya don’t want any gods except their own, so they put those men to flight. He asks if we would like them to teach us the same lesson.’

‘Cheeky bugger,’ said Brabo.

‘Tell him I heard a different story,’ said Cortés. ‘Tell him we know the Spanish were few yet it was they who put his people to flight.’

‘I’m not sure that’s wise, Don Hernán,’ said the interpreter.

‘Tell him.’

‘He says let’s not waste time talking about past events,’ Aguilar translated when he’d received the warrior’s reply. ‘If we wish to force our god on them again, and test their mettle, then they’re

ready to fight us now and we will see who flees and who stands at the end of the day.'

Cortés frowned. 'When this is over he will accept our God! But don't tell him that yet! Tell him instead we are only an advance party and that we have many more men and much larger ships out in the bay. He knows this already but I want you to tell him anyway, and tell him if we're attacked that the rest of our force will fly to our aid. Tell him not to start a war or he'll be sorry, but also tell him – and convince him of this, Aguilar! – that we don't seek battle. You're to say we've been long at sea and we require only provisions – fresh water, for the river here is salt, and meat for our men. Tell him we'll gladly pay for these things.'

A long exchange followed and at the end of it the Indians applied themselves to their paddles and the canoes shot back towards the town.

'Well …?' said Cortés.

‘I’ve persuaded Muluc – that’s the spokesman’s name – that they’ll have more to lose than gain by fighting us,’ Aguilar replied. ‘He’s gone to put the matter to their chief. He says we’re to anchor midstream and wait for their return.’

‘Right!’ said Cortés, rubbing his hands. The riverbank here, so close to the town, had been cleared of *manglars* and was more sandy than muddy, with flat fields of young maize growing beyond. There were crowds of Indians about but it looked a good place to set up and fortify a camp. He ordered the brigantines and longboats into shore and the cannon unloaded.

‘They’ll attack us,’ Aguilar advised. ‘They don’t want us to land.’

‘I’m betting they won’t attack,’ said Cortés. ‘I think Córdoba hurt them last year more than they want us to believe, but if I’m wrong,’ he raised his voice so it carried to the soldiers on deck, ‘we’re ready for a scrap, aren’t we, men?’

A ragged cheer went up.

The Indians did not attack but drew back a few hundred paces from the bank as the Spanish made their camp. Two hours later a small fleet of canoes put out from the town and paddled down to them. The fierce-eyed warrior Muluc exchanged angry words with Aguilar but the upshot was that small quantities of food were delivered – some of the delicious maize flatbreads called *qua*, a few turkeys and some fruit – all in all, hardly enough to feed more than a dozen men. This, Muluc said, was a gift.

Cortés gave thanks but pointed to his two hundred self-evidently rough and violent soldiers, every one of them armed to the teeth, who were now fortifying the camp. He reminded Muluc that hundreds more like them waited in the big ships out in the bay. 'In view of their great hunger,' he said, 'these few fowls and fruits are not enough if my men are to go away satisfied. Some might even see such a "gift" as an insult. I prefer to think, friend, that you have simply not understood our needs but I give you fair warning – I cannot be responsible for the actions of my warriors if you do not

bring us adequate provisions soon. We will do you no mischief if you simply allow us to enter Potonchan to purchase everything we need there.'

'Attempt such a thing,' Muluc replied, 'and every one of you will die. We have fifteen thousand warriors already arrayed for battle and thousands more have been summoned from neighbouring towns. We will destroy you.'

'Perhaps,' said Cortés. 'Or perhaps we will destroy you. But such threats are a waste of your breath and mine. Only bring the provisions we need and we'll leave your town alone.'

While this was being put into the Mayan tongue, Alvarado, who had been supervising the emplacement of cannon, strode to Cortés's side and interrupted Aguilar. 'Tell him our needs include jewels and gold as well as food,' he said to the interpreter. He rested his hand menacingly on the hilt of the heavy falchion he now often wore.

'Don Pedro, you go too far,' Aguilar protested.

‘No,’ said Cortés. ‘Don Pedro is right. Tell Muluc that we Spaniards suffer from a disease of the heart that can only be cured by gold. When he brings us food he must also bring us gold and jewels, or we *will* be forced to enter Potonchan.’

As Aguilar translated, the Mayan warrior’s face contorted with rage and he took a sudden step forward, putting both hands on his spear as though about to thrust. In the same instant Alvarado, whose left arm was still in a sling, had the falchion out of its scabbard. ‘Come on, my lovely,’ he said. ‘Just you try it.’

Seeing the joy of battle dancing in his friend’s eyes, Cortés put a restraining hand on his shoulder. ‘Not yet, Pedro,’ he said quietly. ‘Not yet. You’ll get your chance.’

Aguilar and Muluc spoke in raised voices for some time and then the Mayan delegation returned to their canoes and paddled furiously away.

That night, Monday 22 March, Cortés used the cover of darkness to reinforce his beachhead, sending the longboats back in relays to ferry out more cannon, supplies and soldiers from the carracks and caravels. The new arrivals, numbering more than a hundred, included all the remaining crossbowmen and musketeers. Cortés also sent Brabo out with a small scouting party to gain a thorough sense of the lie of the land between the camp and the town, which lay about a mile to the east. In the small hours of the morning, the sergeant returned with vital intelligence. As well as the obvious approach, more or less directly due east along the bank and into the western side of Potonchan, he had found a good track that led inland through the fields, and then through dense brush, and eventually looped back into the town on its east side. When the time came, therefore, a squadron could be sent along this path to attack the town from the east while another marched straight up the bank to attack from the west. Brabo had also been able to reconnoitre the river, observing the currents, and recommended the brigantines be

used to land men on the waterfront on the north side of the town. Such a three-pronged attack, if properly timed, was likely to be devastating. It would leave an escape route to the south for refugees, but this was surely better than forcing the enemy into a corner and a desperate last stand in which many Spaniards might also die.

Cortés congratulated Brabo on a night's work well done, but the sergeant admitted it had been easy. 'The Indians weren't keeping proper watch, sir. They were too busy evacuating their women and children.'

'Sounds like they definitely mean to put up a fight then.'

'I'd say so, sir, yes.'

Muluc returned soon after first light on the morning of Tuesday 23 March.

This time he brought eight plucked and dressed turkeys and some maize, but only enough to feed ten people. He also brought some carved green stones and a gold mask of good quality, thickness and

weight. The mask's features, which were finely worked, seemed to be a mixture of human and feline – perhaps some species of lion. 'This should be worth a pretty penny melted down,' Alvarado announced as he held the piece to his face and glared out through the eyeholes at Muluc.

'How much, do you think?' Cortés asked.

'Five thousand pesos,' said Alvarado. 'Maybe a little more … The stones are worthless though.' He picked up one of the carvings, shaped like a small axe head, and skimmed it out across the river, eliciting a gasp of horror from Muluc as it bounced and sank.

'What's the matter with you?' Alvarado challenged. 'Filthy monkey!'

Even though he could not understand the Spanish words, and Aguilar chose not to translate them, it was clear Muluc knew he had been insulted. Shaking with anger, he told Cortés through the interpreter that the Spanish must now leave.

‘Certainly not!’ Cortés replied. He cast a sour glance at the little heap of provisions. ‘You can see I have a hundred more mouths here to feed than I did last night, but instead of offering us friendship, which would be wise, you offend us with these paupers’ rations. As to the gold,’ he took the mask from Alvarado and weighed it in his hands, ‘it’s a pretty enough piece but quite insufficient for our needs.’

The turkeys had been carried in two large baskets, four carcasses to a basket. Cortés ordered the birds removed for cooking, picked up the empty baskets and thrust them at Muluc. ‘If you don’t want us to come into your town to trade,’ he said, ‘you must fill both of these with gold and bring us four hundred more birds, twenty deer – no, make that thirty – and sufficient maize to feed all my men, not only those you see here but those who remain on my great ships. If you refuse to offer us that hospitality, then we will enter your town in force and help ourselves.’

When Aguilar had put all this into Muluc's tongue, the Indian laughed. It was a harsh and bitter sound. 'We do not wish to trade with you,' he said, 'and we have no more gold. I'll see to it that you receive some more food from us tomorrow, the last we will bring you. After that you must leave our land or we will kill you all.'

After dark, Cortés sent out three scouting parties, but all returned within the hour to report a large Indian force massing in the fields between the camp and the town. He therefore sent the longboats back to the bay to bring out further reinforcements, several more pieces of artillery and all the remaining dogs, leaving little more than a hundred of his soldiers with the fleet. Although he would have liked the option of using cavalry, Cortés judged the riverbank at the temporary encampment too steep to land the precious animals, which were stiff from the long voyage, so they, too, remained on board ship.

Posting a strong guard, Cortés slept in his armour and ordered all the men to do the same. It meant a night of great discomfort, but the

whispers of the Indians taking position in the fields were menacing enough to banish all complaints.

For two days Malinal had heard sounds of increasingly frenetic activity from the palace, and the shouts and footfalls of huge numbers of people on the move throughout the town. Neither Raxca nor Muluc visited her, and she remained in solitary confinement in the jail, largely ignored even by her guards. When they pushed food through the bars and took out her toilet slops, they spoke only a few harsh words, refusing to tell her what was happening or give her any information on the whereabouts or activities of the strangers.

But now, when her third night as a prisoner was already well advanced, Ahmakiq and Ekahau came for her and dragged her out into the courtyard. Dozens of torches – fixed to the walls and in the hands of retainers – lit up the night, and Malinal saw that all the palace slaves, numbering more than fifty, had been gathered as bearers for the portable treasures of the household, which were

already being apportioned amongst them. Beautiful statuettes, pectorals, earspools, ornamental weapons, face masks, belts, plates and serving vessels, all carved from the most precious jade, a few small gold and silver ornaments, fine ceramics, costly wall hangings, bales of rich fabrics, heaped jaguar skins, and much else besides, were hastily wrapped and placed in bundles on the shoulders and backs of the slaves. No doubt to make certain none of them attempted to abscond, and to protect the treasures wherever they were about to be taken, a hundred warriors wearing Muluc's personal livery stood watchfully around, armed with spears and obsidian-edged *macanas* – the Mayan version of the deadly weapon known by the Mexica as the *macuahuitl*.

Ahmakiq and Ekahau gripped Malinal firmly by the upper arms as they marched her across the yard, almost lifting her off the ground in their haste, and now manoeuvred her round the pile of treasures to a corner under a flickering torch where, with something of the manner of a dragon guarding its hoard, Muluc himself stood

watching. He was once again dressed for war and his muscular body glistened with oil and paint.

'Ah,' he said, 'Malinal! I don't believe your story about working for Moctezuma. The white men certainly aren't gods and the Great Speaker of the Mexica wouldn't be such a fool as to imagine they are. All in all I think you're here to cause me trouble …'

She tried to protest but Muluc held up a large, grimy hand to silence her. 'No! I don't have time to listen to any more of your lies and excuses. Count yourself lucky I'm not ordering your execution – you've your mother to thank for that – but tomorrow I'm going to destroy the white men and then we'll send you back to Tenochtitlan with the next Mexica trader who passes through. There's one visiting Cintla now who always pays a good price for ripe female flesh.' He laughed as though he'd said something funny, and Ahmakiq and Ekahau sycophantically joined in. 'Meanwhile, as you can see' – Muluc's tone was becoming pompous – 'I'm rather busy! We've decided to evacuate the palace ahead of the fighting and send

some things of value down to Cintla, so I thought I might as well put you to use as a bearer with the rest of our slaves.'

'I am not,' Malinal said very slowly and deliberately, 'your slave.'

'You're whatever I say you are,' said Muluc. He gave her an appraising leer: 'Including my bed mate, should I give you that privilege.'

'I imagine my mother might oppose such a … privilege,' Malinal said acidly.

Muluc's hand shot out and grasped her left breast as though it were a piece of fruit on a tree. 'Your mother,' he said rubbing his thumb roughly over her nipple, 'respects my needs.'

'Well I don't,' Malinal yelled. Thirty days of walking had made her lean and strong. With a twist of her body she broke free of Ahmakiq and Ekahau, clawed Muluc's face and felt a rush of satisfaction as her long nails raked deep through his flesh. He yelped and jumped back, releasing her breast, then surged forward

again and punched her hard in the belly. As she doubled over he took her by the hair and dragged her to the ground, roaring with rage.

‘Muluc!’ It was Raxca, wailing from an upper window of the palace. ‘You promised she wouldn’t be hurt!’

On the morning of Wednesday 24 March, Muluc was back. Four parallel scores, deep and still bloody, disfigured the left side of his face. ‘Looks like he’s had an argument with his wife,’ said Alvarado. Cortés laughed and asked through Aguilar: ‘Are you well, Muluc? You seem to have been in a fight.’

The Indian ignored the question and again presented eight turkeys and a small amount of maize. He pointed to the fields now seething with Mayan warriors, thousands of whom had approached within a few hundred paces of the camp. ‘Go now,’ he said, ‘or die.’

As Aguilar translated this, Alvarado drew his falchion and showed Muluc the edge of its heavy steel blade. ‘Do we look like

the sort of men to take orders from a bunch of savages like you?' he said.

The Mayan emissary didn't flinch. 'Leave our land,' he insisted.

'Come, come,' said Cortés. 'Where are your manners? Where is your hospitality? I tell you what – if you allow us to enter Potonchan, and provide food for my soldiers in your homes, I'll give you good advice and teach you about my God.'

'We don't need your advice,' Muluc replied stiffly, 'we certainly will not receive you in our homes, and we heard enough about this god of yours last year to know we prefer our own.'

'Ah, but you don't know what you're missing,' Cortés said. 'If you'll only listen to me, you'll prosper. Besides I *have* to enter your town. It's my responsibility to meet your chief so I may afterwards describe him to the greatest lord in the world …'

'And who is this great lord?' asked Muluc with a sneer.

'He is my king,' replied Cortés, 'who sent me to visit you here. He desires only peace and friendship with your people.'

‘If that is what he desires,’ replied the Indian, ‘then you should leave and not play the bully in our land.’

‘Enough!’ barked Alvarado. ‘Let’s stop sparring with this fool.’

‘I’m nearly done,’ said Cortés quietly. ‘Make certain all the cannon are primed and loaded with grapeshot.’ Alvarado grinned. As he set off around the perimeter, where a dozen falconets now pointed towards the advancing Indians, Cortés repeated his offer of peace and friendship, knowing it would be refused.

He had prepared carefully for this moment. The expedition’s hundred war dogs were caged below deck, fifty on each of the moored brigantines. Their barks and howls echoed through the camp but it was clear the Maya had no idea what sort of animals were producing these sounds. Vendabal and his assistants had orders to bring them ashore after Muluc’s departure.

Earlier Cortés had put a squad of fifty soldiers on board each of the brigantines and placed them under the command of Díaz and Sandoval. Men were ready at the oars to row the boats upstream to

Potonchan as soon as the dogs had been disembarked. Each brigantine was also armed with three falconets, one amidships, one at the bow and one at the stern. Cortés had given firm instructions to Díaz and Sandoval to set human feelings aside and use all six cannon to enfilade the town with two full salvos of grapeshot before landing.

Once again, as he'd expected, Muluc refused to accept the perfectly reasonable request that the Spanish be allowed to enter Potonchan peacefully. On the contrary, the stubborn Indian turned his back and stalked down to the river's edge, where his retinue waited in a small fleet of canoes. They paddled out to midstream and held still, then Muluc put a conch to his lips and blew a mighty blast.

It was, as Cortés expected, the signal for a general attack. Giving vent to chilling shrieks, yips and ululations, the massed Indian ranks surged across the fields, unleashing slingstones and spears, some of which reached the camp despite the extreme range. What Cortés had

not expected was the second large force in canoes concealed amongst the *manglars* on the opposite side of the river that simultaneously put out into the water and began to paddle rapidly towards them.

Even so, correct form had to be followed. With a yell, Cortés summoned the expedition's notary, Diego do Godoy, and ordered him to begin reading the *Requerimiento*.

Chapter Fifty-Four

Potonchan, Wednesday 24 March 1519

Moored by the steep bank below the Spanish camp, Bernal Díaz was in the foremost of the two brigantines commanding fifty soldiers. His force included five musketeers and five crossbowmen. He had three falconets on board, each cannon loaded and fired by a two-man crew. Sandoval, who also had three falconets at his command, was right behind him in the second brigantine with an identical force. Their task, after disembarking the dogs from their

cages below decks, was to row the mile upstream to Potonchan with the greatest possible despatch, bombard it from the river with the falconets and then force entry. Meanwhile, Cortés would lead a charge of the main land force of some two hundred men, supported by the armoured dogs, directly along the bank into the town's western suburbs. Pedro de Alvarado and Alonso Davila would lead a subsidiary force of a hundred men on a flanking manoeuvre through the fields to the south of the town and then round behind it into its eastern suburbs.

This was the theory.

But as he heard the loud blast of the conch, Díaz realised that Muluc had seized the initiative and that matters would not be going to plan. As though conjured into sudden existence by some sorcerer, a thousand howling Indians in a hundred canoes were on their way across the breadth of the river, homing in shockingly fast on the port side of the brigantines. Already spears and arrows were arching up

out of the canoes and, if they were falling short now, they would not do so for much longer.

At this range, a broadside of grapeshot from his three falconets, and the same from Sandoval's three, would sweep the river clear of attackers in an instant. Unfortunately, however, all the cannon were arrayed on the starboard side of the ships, ready to enfilade the town, and while their crews swivelled and moved them, losing precious seconds, Díaz ordered the rest of his force to port to repel boarders, and the muske-teers and crossbowmen to open fire immediately. A glance from the corner of his eye showed him that Sandoval had done the same and the ten muskets roared almost simultaneously, with the crossbows firing a second later.

Sandoval had reported the almost magical effects of gunfire during the rescue of Aguilar from the town of Mutul, but Díaz had no such expectations here. The Indians of Mutul had never faced firearms before, whereas these devils of Potonchan had not only

faced muskets and cannon but had faced them down and driven Córdoba's forces, Díaz amongst them, back into the sea.

Cortés was not Córdoba, however. His army had fifty musketeers, against Córdoba's lowly seven, and fifty crossbowmen against Córdoba's five. Another crucial difference was artillery. Córdoba was able to deploy only two ancient hand cannon, whereas Cortés had eighteen of the small, mobile falconets and three great lombards designed to demolish castle walls.

As the musket balls whirred amongst the Indian canoes, ploughing through flesh and blowing heads apart in explosions of blood and bone, the awful boom of the percussion rolled and echoed. It was gratifying, despite having knowledge of guns, that hundreds of the attackers panicked at once and threw themselves into the water or wheeled their canoes and began to paddle furiously upstream towards the town. Even as they did so, however, there came a gigantic rolling crash from the shore as the twelve falconets defending the camp were fired in a single barrage – at what target

Díaz could not immediately see. The effect of these new detonations, a thousand times louder than any musket, and of the accompanying eerie whistle of grapeshot, was to disrupt and bewilder even further the attack the Indians were attempting to mount from the water.

Still enough of them came on to overrun the ship. Díaz drew his broadsword.

Godoy didn't finish reading the *Requerimiento*, and of course there was no time for Aguilar to translate any of it into Maya. After the notary got to the part explaining how Pope Alexander VI had given all the lands and peoples of the New World to Spain and Portugal, the Indian horde charging across the fields was at point-blank range and really had to be stopped, so Cortés was obliged to order the falconets fired.

As the smoke began to clear, he surveyed the harm done to the massed enemy and felt inspired to offer a short prayer of gratitude

for the incredible advancement of science that God had permitted to the European powers. Without their twelve small cannon, the Spanish in the camp might easily have been overwhelmed by the five thousand homicidal savages who had poured in on them. But now, instead, the front ranks of that vast attacking force had been transformed by the maelstrom of grapeshot into an eerily silent, bleeding ruin of mangled bodies cut down in swathes before the guns, the fallen lying in indiscriminate heaps of guts, dismembered limbs and shattered skulls, the living stumbling dazed and addled over the dead, and great smears of gore splashed through the young maize as though by some giant paintbrush.

The Indians' battle experience against Córdoba's two pathetic little hand cannon hardly stood them in good stead for this! Seized by panic, the middle ranks, though quite unscathed, had dissolved into a full and chaotic retreat, yet the numbers committed to the attack had been so great, and the mass and momentum of their charge so huge, that the rear ranks were still coming on. A

fearsome, tangled collision ensued across a wide front, from which piteous screams rose up as hundreds were trampled and crushed.

It was, Cortés thought, as though the horsemen of the apocalypse had descended upon that place and the last days of the world had come. Even Alvarado, falchion in hand, was impressed. 'God in heaven,' he said, 'that's as fine a sight as ever I saw.'

Still there were thousands of survivors, most already in flight along the riverbank back to Potonchan. Wanting to press home his victory at once before they had time to regroup and mount a proper defence of the town, Cortés whirled towards the brigantines. '*Vendabal!*' he yelled, as he grasped the extent of the parallel attack that was under way there, '*Get those dogs amongst the enemy!*'

His eyeline into the camp obscured by the steep riverbank, Díaz had only the haziest idea what was going on there and little time to care. More than a hundred Indians, plumes of bright feathers in their hair, their bodies and faces fearsomely striped with black and white

paint, had boarded the brigantine and hand-to-hand fighting raged all across the deck. Ducking low, as a swarthy, sweating, wild-eyed savage swung a huge club at his head, Díaz backhanded the edge of his broadsword across the man's naked belly, spilled his guts, stepped in and trampled him down. Now two more were coming at him, flanking him. He felt something strike his right thigh hard and sharp, ignored the pain, cut the legs out from under the man on his left, put the point of the sword neatly through the second man's chest, and with a roar shoulder-charged a third, sending him cartwheeling over the rail and into the river.

In a second of breathing space he saw that not a single Spaniard was down. Although hard-pressed they were winning the fight! The enemy were for the most part naked but for loincoths, and their flint daggers and wooden batons edged with obsidian were little better than children's toys, quite unable to penetrate the plate and chain mail with which the Spanish were armoured – and no match for Toledo steel. He saw Mibiercas wade into a mass of the enemy,

ignoring spear thrusts that slid harmlessly off his cuirass, swirling his great longsword before him, hacking left and right, left and right, cutting a man clean in half here, taking an arm off a shoulder there. Right behind him came La Serna, who'd snatched up a pike and was jabbing its vicious point down overhand into the faces of the attacking warriors, piercing one through the eye, tearing the throat from another.

'To me!' Díaz yelled, 'to me! Avenge Córdoba!' And in twos and threes his men rallied to him, formed up almost automatically into a square bristling with steel and harm, and swept forward along the deck in an armoured mass. The Indians still outnumbered them, but they lacked coordination and were already wavering, on the brink of panic, when Vendabal appeared like an evil genie from the hold with fifty of his armoured dogs streaming before him. He'd starved the animals the night before and now Díaz understood why. As they leapt, snarling and baying upon the enemy, as lions upon lambs, the huge animals spread the contagion of utter terror amongst them,

tumbled at least a dozen on their backs and began at once to devour them. All the courage and bravado drained out of the rest in an instant. With howls of despair they threw themselves overboard onto the muddy bank and into the water, where Cortés and a hundred conquistadors from the camp waited with swords drawn to slaughter them.

In the rush, Cortés had forgotten his buckler; he fought with a dagger in his left hand, a broadsword in his right. He had also lost a sandal somewhere on the riverbank, but hardly noticed it as he closed with a glowering, barrel-chested savage, chopped off his arm at the elbow with a firm downward sword slash and slit him open from groin to navel with the dagger. The man gave a horrible yell and lurched forward – absurdly still trying to grapple with him! – but Cortés contemptuously swept him aside and advanced through the cloying mud towards a slim, long-haired Indian youth who stood hip-deep in the river with his back turned. Armed with a sling and a

bag of stones, this veritable David had, in the past few moments, singlehandedly brought down three conquistadors on the deck of Sandoval's brigantine, where the last of the boarders were still being dealt with. The youth was whirling the sling above his head again, concentrating, taking careful aim, inexperience making him oblivious to danger, when Cortés hacked the edge of the sword into his neck where it joined his shoulders, releasing a spray of arterial blood. As the muddy water blossomed red around him, the boy turned and sank down into it, still gripping the sling, his eyes rolling in horror.

Cortés stalked on in search of new prey, but the fight had become a mopping-up operation. Those of Vendabal's dogs that could be separated from the Indians they were eating on Díaz's brigantine – now joined by the other dogs from Sandoval's hold – had been set on the fleeing remnants of the very large force that had attacked the camp. They would pursue them to the outskirts of Potonchan before

Vendabal finally called them off. The last of the Indians who'd infested Sandoval's brigantine had also been killed.

As Cortés searched for and retrieved his lost sandal from the mud, he resolved to press home the attack on the town at once. Muluc's pre-emptive strike across the river had taken him by surprise and caused some disruption to his plans, for which indignity he intended to make the inhabitants pay dearly.

Action at last, thought Alvarado as he led his force of a hundred men at the double through the fields of the dead. The effects of the cannon fire on the enemy had been spectacular, but there was no substitute for cold steel and the press of battle. He grinned as he remembered the surprised faces of the five Indians he'd cut down in the fight around the boats – the heavy blade of the falchion was perfect for the brutal slaughter of such foes with their puny stone weapons and no concept of the science of warfare. But his blood was up now and he was in the mood to kill more.

According to Brabo's scouts, the track he was following would lead first to a point about three miles south of Potonchan and then a mile to the northeast across fields before looping back again a further two miles or so through dense forest and brush into the town's eastern suburbs. Alvarado was to begin his assault there as soon as the sounds of muskets and cannon told him the other two prongs of the attack – from the river to the north and along the bank to the west – had begun. To avoid the danger of Spanish troops being hit by their own guns, it had been agreed that the falconets on the brigantines, and with Cortés, would fire only two salvos before the offensive was pressed home simultaneously on all fronts.

Alvarado had marshalled his men into two columns of fifty, each consisting of ten ranks of five, but had them bunch into a defensive square of ten ranks of ten as the track approached a major thoroughfare. Here, some three miles due south of Potonchan, and close to a range of low hills, they encountered large groups – hundreds – of Indians in disorganised bands, many injured and

bleeding, some missing limbs or so badly wounded they must be borne on stretchers, evacuating the town. A few of the refugees carried pathetic bundles of belongings, none offered any challenge, and those who were able broke into a shambling, panicked run at the sight of the Spaniards. Alvarado was tempted to give chase and kill as many as possible before they could shelter in the hills, but Alonso Davila, to whom Cortés in his wisdom had given joint charge of the flanking party, dissuaded him. ‘There’s no honour in it, Pedro,’ he said, ‘and it’s not what we’re tasked with. Let’s press on.’

A mile further on, having turned northeast, the track left the open fields behind and narrowed sharply as it entered the forest Brabo had warned of, obliging the conquistadors to break formation into double and even single file in places. Here the enemy might easily come at them unseen out of the undergrowth, ambuscades were to be expected and Alvarado ordered a full alert. Yet still there was no attack. ‘Cowards!’ he said to Davila. ‘They dare not confront us.’

‘Judging from those refugees,’ said the other man, ‘their spirit’s broken … Still, the real test won’t come till they’re forced to defend their town.’

Two hours’ hard march from the Spanish camp, the track emerged from the forest and the eastern outskirts of Pontochan came into view across a strip of cleared land two hundred paces wide. There was no sign of any defending enemy forces, absolute silence reigned, and the empty streets leading due west towards the ancient stone pyramid and the rich structures around it in the main square beckoned Alvarado to gold and glory. ‘You know what?’ he said to Davila. ‘Why don’t we just go in and seize this shithole ourselves before the others get here?’

As he spoke they both heard the sound of distant musket fire.

For speed of movement, Cortés made the difficult decision to leave all but two of the falconets in camp with fifty men and twenty of the dogs to guard them. He gave Alvarado and Davila a head start of

more than an hour because of the long indirect route they would have to follow to get their flanking party into position, then set Díaz and Sandoval on their way upriver in the brigantines and ordered his own force of two hundred men to advance the mile directly along the bank to the western edge of the town.

At first the Indians were silent, and it seemed they might all have fled, but soon a great mass of warriors, some two thousand or more, rushed out to meet them, shrieking their war cries. As they ran they sent up clouds of arrows and spears, which seemed fearsome but could effectively be ignored since they did little damage against Spanish armour and shields and were no match for the riposte that Cortés had prepared. Ten musketeers were on the brigantines, and ten with Alvarado, but the remaining thirty out of the expedition's entire complement of fifty were with him. Shouting rapid orders, he brought the infantry square to a halt and arrayed the musketeers to the front with one rank of fifteen kneeling and one rank of fifteen standing. As the enemy closed, both ranks fired simultaneously into

their midst, shattering their charge, and stepped back into the protection of the square to reload while thirty crossbowmen strode forward, fired and likewise retreated. The foe were increasingly used to gunfire, and not all broke and ran when the muskets crashed, but, as Cortés ordered the square into motion again, those hundreds who came on were met and utterly destroyed by the massed pikes, swords and axes of his disciplined and unbreakable infantry. Cortés himself was fighting in the front rank of the square, using his buckler to protect the man to his left just as the man to his right protected him. A huge warrior came at him, brandishing a flint-tipped spear, but before he could get close a pikeman in the rank behind reached over Cortés's head and killed the attacker with a thrust to the chest. Two more of the enemy rushed in. Cortés smashed one away with his buckler, knocking him dazed and bleeding to the ground, and ran the other through with his broadsword as the square surged onward, trampling over both of

them and many others who had fallen, reducing them to broken, bloody pulp.

Now the musketeers and crossbowmen had reloaded. Picking their aim carefully over the shoulders of the infantry, they began to fire independently from within the moving square – which Cortés realised must seem like some great armoured beast to the Indians, a myriad-legged monster spitting fire and death. And at its very heart, trundled along by their gun crews on wheeled carriages, were the two falconets – those even more terrible instruments of destruction – and with them eighty war hounds, still leashed and held in check by Vendabal's handlers, but baying and barking furiously, maddened by the smell of blood.

Neither dogs nor cannon would be needed, Cortés decided, until the next stage of the assault, but this would come very soon. The initial fury of the Indian attack had already been broken, and moments later he smiled with satisfaction as the survivors turned in

a mass and fled back along the bank, taking shelter behind crude barricades and fences of heavy timber set up to protect the town.

As he brought the infantry to a halt a hundred paces from the enemy, slingers darted out through gaps in the defences, sending a hail of stones towards them, and he saw two of his men drop stunned and bleeding from heavy blows to their helmets. ‘Shields!’ he shouted, ‘Shields!’, as flights of arrows and spears followed. Again there were a few injuries, none of which looked fatal. Shrugging off the hail of missiles, he ordered the falconets loaded with ball.

Following Díaz in the lead brigantine, Gonzalo de Sandoval scanned the banks of the river for more fleets of canoes, but perhaps through fear of the cannon only a handful came out against them and these were easily kept at bay by musket and crossbow fire. One that approached too close was ploughed under the water by the bows of Díaz’s ship and all the Indians in it disappeared from view;

another became tangled in Sandoval's starboard oars and managed to unleash a few futile arrows before its crew were shot to pieces.

In this way, facing little opposition, the two brigantines drew level with Potonchan and dropped anchor midstream, from where they observed Cortés's square break the massed attack of the Indians and come within striking distance of the town's western limits.

Sandoval studied the waterfront where he and Díaz must soon land their forces. It was thick with Indian warriors carrying their primitive weapons, blowing trumpets and conches, beating tattoos on their drums and yelling defiant war cries. He felt almost sorry for them in their naïve bravery, for even having seen and experienced the deadly effects of cannon they seemed not to have learnt their lesson and were obviously intent on stopping the Spaniards getting ashore.

Defended from a hail of arrows, spears and slingstones by a line of soldiers carrying big *adarga* shields, the gun crews on the bank

were now rolling Cortés's two falconets forward. Though their target was concealed from him by rows of simple native houses, Sandoval had a good view of the crews and saw they were feverishly unloading canisters of grapeshot from the barrels of the weapons and reloading with ball. He would not do the same with his own three cannon since he judged grapeshot – unfortunately for the savages – to be the right ammunition to clear the waterfront.

He was about to signal to Díaz so they could order their crews to fire simultaneously when he noticed that Cortés, again braving arrows and spears, had walked in front of his own guns with another conquistador – Aguilar! – and seemed to be attempting to address the foe within the town.

What in heaven was the caudillo doing?

A few more moments passed and the salvos of cannon fire that were to signal the general attack on Potonchan had still not been heard.

The muskets had also fallen strangely silent. ‘Damn it!’ said Alvarado. ‘Let’s take this town while the others are dallying.’

‘No, Pedro,’ Davila insisted. He was handsome and daring but argumentative, with a habit of disputing every point. ‘You know I’m as eager as you are for a fight but we must wait. We’ll end up getting our men killed by our own guns if we go in now.’

‘In war,’ said Alvarado, ‘it does not pay to hesitate. Think, Alonso! What if the other attacks have run into unexpected trouble? Our assistance may be needed.’

Davila was biting his lower lip, his hand resting on the hilt of his sword. ‘Bide awhile, Pedro,’ he said finally. ‘Those are our orders. We’ll hear the signal soon enough.’

‘Bah! Orders!’

Twenty of the hundred conquistadors in the flanking party, top-flight swordsmen every one of them, belonged to Alvarado’s personal squad. He called them to him and, without another word to Davila, led them out of hiding in the undergrowth and across the

open ground to the eastern edge of Potonchan. They had not gone fifty paces into the town, however, when war cries rose up all around them and Indian warriors, grimacing furiously, burst forth from the adobe houses on both sides of the seemingly deserted street.

From his position, Cortés could see both brigantines clearly with Díaz and Sandoval on deck. All that remained was for him to fire his own guns and they would enfilade the town with grapeshot.

But he hesitated.

Despite an intense, restless desire to inflict mayhem on Potonchan, as Saint Peter had commanded in his dreams, it troubled him that Godoy had not finished reading the *Requerimiento* before the earlier engagement and that there had been no time for Aguilar to render the text into the Mayan tongue. His Royal Highness and Most Catholic Majesty King Charles V of Spain was known to be a stickler for such matters and, without the monarch's support, the

conquest would ultimately be doomed. Godoy had the *Requerimiento* in his possession and had remained in camp, now almost a mile behind them, but Cortés wanted to be able to claim justification for the harm he intended to do. Since Aguilar had accompanied the infantry, though not in a fighting role, he therefore summoned the interpreter to join him in front of the guns.

A slingstone whizzed past Aguilar's head as he came ducking and weaving forward, and one of the curious darts – launched from the clever little spear throwers with which the Maya were so handy – smacked into the earth between the two men. 'Tell them,' Cortés told the interpreter, gesturing towards the feathered and painted Indians who could be seen in dense ranks peering through gaps in their hastily erected defences, 'to let us enter their town, buy water, buy supplies and speak to them about God and His Majesty.'

'There's no point, Caudillo!' Aguilar protested. 'They're determined you will not come in.'

'Tell them anyway.'

The interpreter raised his voice and bellowed a few sentences in Mayan, which were answered by laughter, hoots of derision, drum beats and more flights of missiles from behind the barricades. With considerable force, an arrow bounced off Cortés's helmet and three infantrymen came forward with adarga shields to offer protection.

Cortés waved them back. He would not show fear or weakness. 'Tell the Indians,' he said to Aguilar, 'we are going to enter their town whether they like it or not. If they attack us, and if in self-defence we have to kill or hurt more of them, it will be their fault not ours.'

Aguilar's speech was met by a renewed hail of slingstones and both men were hit about the body, though their armour protected them. 'Very well,' said Cortés, taking the interpreter by the arm and leading him back behind the falconets, 'I commend their souls to God.' As the Indian drums beat more wildly, conches blew and the howls of the warriors went up in a continuous wall of sound, he

called Vendabal and the dogs forward and ordered the gunners to fire.

An instant after the first salvo from Cortés's two falconets, Sandoval signalled to Díaz on the forward brigantine, received his answering signal, and both men simultaneously ordered their crews to fire. The wheels of the gun carriages had been jammed to stop the weapons careening back across the deck, but Sandoval, who had his hands pressed to his ears to shut out the mighty sound, felt the whole ship rock under his feet with the recoil. Fire and smoke belched from the barrels, the smell of sulphur filled the air and the murderous barrage of grapeshot, like some deadly hurricane, spread out as it whistled the two hundred paces across the river and tore into the enemy ranks massed on the waterfront, reducing them to blood and offal, shredding the adobe walls and thatched roofs of the houses beyond and bringing many down to their foundations in a whirling avalanche of dust and masonry.

There was no time to conduct more than the most cursory assessment of the damage. Cortés's orders were clear that a second barrage must follow as closely as possible upon the first. Already the sweating crews had covered the fuse holes and the ends of the falconets' barrels to suffocate any residual burning matter. Now, with huge bursts and hisses of steam, they pushed damp sponge rods into the barrels to cool them and clean out any hot debris. Next, bags of powder were forced down to the base of the barrels with ramrods, then the clusters of grapeshot in their canvas tubes and, finally, after the weapons had been aimed again at the shore (and no great precision was required at this range), new fuses were inserted and lit, and with a tremendous roar the killing wind burst forth again upon the unlucky Indian town and its doomed inhabitants.

'To shore!' yelled Sandoval to the rowers as the anchor was pulled up, and the brigantines surged across the current to the devastated waterfront, piled high with the broken and dismembered dead.

Alvarado cursed his broken arm that meant he could not hold a buckler and fell automatically into the swirling Talhoffer style of *messer* combat he'd learned in Zurich years before and practised many times on board ship since he'd set himself the task of mastering Zemudio's falchion. Though crude, with the weight of a battle-axe, the heavy steel blade offered a skilled user – such as he had become! – all the flexibility and speed of response of a sword, and he used it now to carve a broad, bloody path through the heaving mass of filthy Indians who'd surrounded his twenty and who continued to pour out, in vast, unexpected numbers, from the adobe houses lining both sides of the street.

He'd made every one of his men an expert with the sword in the years they'd been with him; they were all heavily armoured and, though they were outnumbered at least ten to one, Alvarado was confident they would win through. He delivered a killing blow slanting right to left, cutting an opponent down from the base of his neck to his ribcage, then immediately reversed the blade and slashed

another man's belly open, brought the point up in a ferocious lunge into the face of a third, withdrew and began a new cycle of blows with a clean decapitation of a fourth. '*Yes!*' he yelled, '*yes!*' as he saw his foes backing warily away from him. 'This is what I live for!'

He was enjoying himself so much that he'd completely forgotten about Davila and the other eighty men hidden in the undergrowth, but now there came a tremendous crash of musket fire. Bullets whirred through the air, passing perilously close to the Spaniards, ploughing into the mass of their attackers and – predictably! – causing consternation amongst them. What was it with these Indians, Alvarado wondered, that made them so afraid of a few loud bangs? The actual killing power of the muskets was, in his opinion, fairly negligible; they were hard to aim and they took an unconscionably long time to reload, but their terrifying effect on the natives could not be denied.

A few well-aimed crossbow bolts followed, and then Davila's men, coming on in a compact square, hit the Indians from the rear with all the force of a battering ram.

Alvarado killed and killed again, the remaining Indians fled, and suddenly there was no one left to fight. Davila swaggered over wearing an I-told-you-so look.

'Well?' said Alvarado.

'Got yourself in a bit of a tight spot there,' said Davila disapprovingly.

'I've been in tighter.'

'Perhaps,' – a sneer – 'but I'd say it's just as well the rest of us were here to get you out of this one.'

Pompous fool, thought Alvarado. Hot words rose to his lips but, before he could utter them, Davila held up his hand and gestured: *Listen*.

There could be no mistaking the rumbling roar of the cannon salvo that echoed forth from the western side of Potonchan.

As they broke into a run, their men streaming after them, the guns fell silent and shouts and musket fire carried to them on the sluggish afternoon breeze.

Then the falconets boomed again, signalling the start of the general attack. ‘Santiago and at them!’ yelled Alvarado. ‘Santiago and at them!’ yelled Davila. ‘Santiago and at them!’ yelled their hundred men in unison, now at a full charge towards the distant sounds of battle.

Cortés had watched with satisfaction as his falconets billowed fire and the pair of one-pound balls exploded into the centre of the barricade, smashed apart a section of heavy fencing and transformed it into a deadly weapon from which a hail of lethal splinters and shrapnel tore into the enemy ranks and plunged them instantly into ferment.

Followed by the infantry in a disciplined mass, the gun crews hurriedly wheeled the cannon forward, swabbed out the barrels and

reloaded while the musketeers and crossbowmen picked off milling, terrified Indians through the breach. Amidst clouds of smoke and the fearful din of battle, the second volley from the falconets, now at point-blank range, demolished two further segments of the defences and set off a terrified, stampeding retreat.

‘Santiago and at them!’ Cortés yelled at the top of his voice. His men wrenched apart what remained of the Indian defences and he led the charge into a broad street beyond. At the end of it, a hundred paces distant, stood another row of barricades, barely waist-high and much flimsier than the first, behind which, and atop the neighbouring houses, the Indians – poor fools that they were – had rallied.

There was no time or need to bring up the falconets. As the infantry square once again formed and surged forward, Cortés gave the signal to Vendabal, and eighty ferocious war dogs raced ahead. Some, following their noses, found entry to the houses that lined the street, from which wails of terror were immediately heard; others

leapt the barricades and tore into the defenders, snarling and snapping like demons from hell. The infantry followed, swords flashing, pikes and battle-axes gleaming in the sun, and fell upon the scattered and broken enemy, squads peeling off to root them out of the houses, others tearing their miserable barricades apart.

As quickly as it had formed, the square disintegrated into ever smaller units, each pursuing separate objectives in what seemed to be a generalised rout of the enemy, when suddenly – a trap! – fresh war cries were heard and a thousand or more Indians converged in great masses from three different side streets and charged down on the conquistadors, seeking to exploit their temporary loss of coherence and pressing them hard.

'Square!' Cortés yelled, 'Square!', making himself a focal point in mid-street to which his men could rally, but also attracting the attention of dozens of the enemy who seemed to recognise him as the Spanish captain and surrounded him with single-minded intent, jabbing at him with spears and knives. For an instant he stumbled

and nearly fell as a great wooden club smashed into the side of his head, but surged up with a roar, rammed his buckler into his attacker's face, hacked the edge of his broadsword at the man's knee and killed him with a thrust to the heart. As more of the enemy closed with him he heard a voice – 'I'm with you, Hernán' – and his friend Juan de Escalante fought his way through the melee, long black hair hanging loose to his shoulders, broadsword dripping with blood, to stand at his side.

Precious time was lost mooring the brigantines, detailing skeleton crews to guard them, and disembarking the rest of the men as the sounds of battle from the western sector of town into which Cortés had led the main attack grew fiercer and more urgent. 'Santiago and at them!' Bernal Díaz was at last able to yell, and led the charge across the waterfront – though at first the Spaniards struggled to make headway, so high and so tangled were the heaps of dead and dying Indians left by the ships' guns.

During the action this morning, Díaz had been shot in the muscle of his right thigh by an Indian arrow. He had pushed the barbed head through, broken off the shaft and extracted both pieces of the little missile, so he was reasonably sure, if he could dress the wound cleanly in the next few hours, that there would be no infection. Meanwhile he ignored the pain, as he had long ago learned to in the heat of battle, and let his ears and sense of direction guide him towards the sounds of heavy fighting, charging through Potonchan's deserted main square and past the looming stepped pyramid into a maze of mean alleys and small adobe houses. Finally, rounding a corner with Sandoval at his side and seasoned troops behind him, he saw Cortés's infantry barely a hundred paces away at the convergence of four streets. By some misjudgement or accident they had lost their formation as a proper fighting square and were beset by a large Indian force. 'Santiago and at them!' Díaz yelled, and at the same moment, to his immense relief, he heard the ancient battle cry of his forefathers echoed not only by Sandoval and his own men

but by another Spanish contingent – Alvarado and Davila! – charging into the fray from the east.

In an instant the tide turned and the enemy, losing heart, fled in a mass towards the south.

Díaz heard Cortés shouting, ‘Get me prisoners!’ and saw a dozen warriors who’d not yet broken out of the melee tackled and brought down. Exulting in their sudden victory, a large squad of conquistadors set off in hot pursuit of the rest, but the caudillo called them back. He looked strong and cheerful though blood dripped from beneath his helmet. ‘We’ve done enough for one day,’ he said. ‘We’ll finish this tomorrow.’

Cortés strode into the main square of Potonchan as the afternoon shadows lengthened and brought his troops to a halt before the forbidding terraces of the pyramid where a giant silk-cotton tree grew. Pointing to it he asked Aguilar if it had any significance, and

the interpreter replied that it was sacred to the Maya. ‘For them it is the tree that connects the underworld, the earth and the heavens.’

‘Pretty idea,’ said Cortés thoughtfully. He looked up into the branches for a moment, made certain that Godoy, the royal notary, whom he’d summoned at the double from the camp, was present to witness the act, then drew his sword and slashed three deep cuts into the tree’s broad trunk. Speaking loudly, and in a firm voice, he said: ‘I have conquered and I now take possession of this town, and this land, in the name of His Majesty the King. If there is any person who objects I will defend the king’s right with my sword and my shield.’

Huge shouts of ‘Hear, hear!’ followed from the mass of the men, passionately affirming that he did right and that they would aid him against any challengers. But, he noted, some of the friends of Diego Velázquez, lead by the glowering, lantern-jawed Juan Escudero, had gathered in a tight group and were plainly offended that Cortés had failed so conspicuously to mention the governor. ‘See the upstart,’

he heard Escudero bark, ‘who usurps Don Diego’s rights. Something must be done to stop this treachery.’ The man had made no attempt to lower his voice, but the other Velazquistas around him, including Diego de Ordaz, Cristóbal de Olid, and the governor’s cousin Juan Velázquez de León all averted their eyes when they saw they were observed.

Cortés smiled cheerfully and pretended nothing was amiss, but a reckoning was coming – and not only with the Indians. Sensing trouble, his own close allies, Pedro de Alvarado, Juan de Escalante and Alonso Hernández Puertocarrero came to stand on either side of him as, in the distance, from the surrounding countryside, they all heard the sound of drums and the ululations of warriors. ‘The town is ours,’ Cortés said, clapping his friends on their shoulders, ‘but it seems our fight here is far from over. Time to bring the horses ashore and get them exercised. I’ll wager we’ll have need of them tomorrow.’

Chapter Fifty-Five

Tacuba, Wednesday 24 March 1519

Four days after agreeing the plan with Huicton, Tozi left Tenochtitlan and crossed the Tacuba causeway amongst busy early evening crowds. She was visible, but invisible, a dirty beggar girl of no consequence who came and went as she pleased. No one noticed as she made her way into the warren of side streets off Tacuba's main square, blending in amongst the other beggars. With night falling she followed a narrow, dark alley choked with rubbish and

came at last to a green gate in a wattle fence. She knocked and the gate swung open. Looking neither left nor right, Tozi passed through the gate, nodded a greeting to the burly middle-aged woman who admitted her, made her way across a yard where sheets, blouses, loincloths and a threadbare cotton cloak hung drying and entered the simple dwelling. A lantern flickered in the single large room that served as bedchamber, kitchen, dining area and parlour, and here Huicton was waiting, seated at a rough-hewn table sipping from a cup of pulque.

'So, Tozi,' he said. 'Are you still willing to charm Prince Guatemoc?'

'I'll do my best,' she replied.

An hour later she was ready, dressed up in the finery of the goddess Temaz, her cheeks painted with yellow axin pigment, her lips reddened with cochineal, black bitumen applied to her eyelids.

'Gods!' said Huicton. 'I myself could believe you are Temaz. You have the look of a woman of twenty – a wise and beautiful

woman! – not a girl of fourteen. You know what to say? You know what to do?'

'You've prepared me well, Huicton. I'll go to Cuitláhuac's estate at Chapultepec, wait until after midnight, enter the mansion, climb to the second floor and find Guatemoc's room in the south wing. I'll do all I can …'

'He's deeply estranged from Moctezuma after the attempt to poison him. It shouldn't be too difficult to work on his mind and detach his loyalties further.'

'I'll do everything in my power …'

'The only thing I ask you, Tozi …'

She frowned. 'We've been through this already. You don't want me to speak of Quetzalcoatl. But why should I not?' She was aware her lower lip was sticking out in a stubborn, childish way.

'It would be too soon. It might scare him off.'

'Tonight I am a goddess,' she said. 'I will speak of what I wish.'

Huicton shrugged. ‘You know my mind on this; I can only pray that you will listen to me.’ He leaned forward and embraced her. ‘I wish you luck, little Tozi.’

‘So I’ll see you on the fourth day then?’

The arrangement, unless anything went radically wrong, was that Tozi, in her disguise as the goddess Temaz, would visit Guatemoc tonight and for the two nights following, returning to Tenochtitlan to report to Huicton on the fourth day. But that had changed. Huicton’s arrangements often changed.

‘I regret not, little one,’ he said. ‘I’ll be gone when you return. My master Ishtlil has entrusted me with a mission. I’m to go to Tlascala and meet the famous battle king Shikotenka.’

Tozi made a face: ‘I met many Tlascalans in the fattening pen when I was waiting to be sacrificed. I didn’t like them at all.’

‘No one likes the Tlascalans! They’re fierce, prickly, downright difficult, but they’ve kept Moctezuma at bay until now and for that reason Ishtlil intends to make an alliance with them.’

‘Make an alliance or don’t make an alliance – either way Moctezuma is going to fall. Quetzalcoatl *is* coming, Huicton. He’s coming right now. So you’d better tell those Tlascalans to be with him not against him.’

Huicton cupped her face in both his hands and kissed her on the nose. ‘I believe you,’ he said, ‘about Quetzalcoatl. But no one else will until they see proof of it. That’s why it’s best to keep quiet about him for now.’

‘Like you want me to keep quiet with Guatemoc?’

‘Exactly! Quiet as an owl in flight. Will you promise me you’ll do that, Tozi?’

‘I promise,’ Tozi lied.

Chapter Fifty-Six

Wednesday 24 March 1519

Melchior had been sullen and uncommunicative since that night on Cozumel when they'd taken their part in murdering Muñoz and disposing of his body. Pepillo thought he knew why. It was the Inquisitor's claim to have 'had' Melchior for a peso – surely also overheard by Díaz, Mibiercas and La Serna – that had shamed him and made him withdraw so far within himself.

Pepillo now had a clear idea of what ‘having’ someone meant, and it was horrible and disgusting, but even if Melchior had once allowed Muñoz to do that abominable thing to him, he could not and would not look down on his friend because of it. God alone knew what other indignities he must have suffered as a slave, but he was good and brave and true and this was all that mattered.

Throughout the long voyage, hugging the coast from Cozumel to Potonchan, Melchior had gone about the work that Cortés had assigned to him without any of his usual laughter, bravado and cynical jokes, and whenever Pepillo had tried to talk to him he’d responded with a ‘yes’ or a ‘no’ or a grunt, or simply said nothing, but now, suddenly, there was a change in him.

Again it wasn’t difficult to work out why.

Since anchoring at the mouth of the Tabasco river on Sunday 21 March, the caravels and carracks of the fleet, the *Santa María* amongst them, had sat idle in the bay while the brigantines and longboats ferried soldiers, guns and supplies ashore to reinforce a

beachhead that it seemed Cortés had established on the riverbank near Potonchan. Pepillo had learned what he could by listening to the talk of the men as they came and went, but had been able to establish nothing first-hand because he and Melchior had been confined to the ship with nowhere to go and nothing to do except attempt, as best they could, to exercise the stiff, torpid, fearful horses on the bobbing deck. In a curious way, Pepillo thought, the condition of the horses seemed to mirror Melchior's own depressed inner state.

Since this morning, however – it was Wednesday 24 March – all on board ship had heard the distant sounds of cannon and musket fire that spoke of a sustained battle, and now, as evening drew in, a longboat had come out from Potonchan. Its crew brought news that the town had been captured, and orders from Cortés to prepare the ropes, pulleys and harnesses to lower the horses into the brigantines, which would follow directly. Pepillo's heart leapt when he heard that he and Melchior were to accompany the horses, he bringing

parchment, quills and ink – for there were certain matters the caudillo wished set down in writing – and Melchior paying special attention to Cortés's own mount Molinero. With a flash of insight Pepillo realised it was his friend's sense of being needed again, the prospect of action and, last but not least, freedom for his beloved horses, that had brightened his dark mood.

With the deck of the *Santa María* the height of a man above the deck of the brigantine, lowering the horses was difficult and risky work. Fortunately the sea was calm and the big moon, just past full and still bright in the clear sky, made lanterns almost unnecessary. Still Melchior fussed like an old maid over Molinero and cursed the crew like a trooper as one by one they cinched all ten of the great destriers into their leather harnesses, raised the derricks and swung the quivering and blindfolded animals down to the close-moored smaller vessel.

Bundles of long cavalry lances followed, their lethal steel warheads enclosed in leather sheaths, and finally several large, very

heavy wooden chests that had to be handled with almost as much care as the horses themselves.

While this was being accomplished, the second brigantine collected the five horses from Alvarado's *San Sebastián* and the three from Puertocarrero's *Santa Rosa*, together with more lances and chests, and finally the two ships made for shore.

Pepillo saw how Melchior stayed with Molinero, stroking his sweating flanks, calming him with whispered endearments as their brigantine entered the mouth of the Tabasco and rowed steadily upstream. There was an atmosphere of hushed expectancy on board and the musketeers and crossbowmen who had come along as guards watched the banks fiercely – as though they expected an attack at any moment. Thickets of *manglars*, weird and otherworldly in the moonlight, pressed down to the water's edge, transforming the wide river, in Pepillo's eyes, into the haunt of devils and spirits. No one talked and for a long while the only sounds to be heard were the splashes of the oars, the nervous

whinneys of the horses, mysterious shrieks rising and falling from all quarters of the night, and the distant, spine-chilling thunder of a thousand native drums.

‘What do the drums mean?’ Pepillo asked Melchior. ‘What are those cries?’

‘They mean trouble,’ his friend replied. ‘We heard them when we were here with Córdoba just before the Indians threw ten thousand men at us.’

Pepillo looked down at the deck. It was obvious the brigantine had seen action earlier because the moon’s glare showed smears of blood and arrows still embedded in the planking. ‘Looks like there’s been plenty of trouble already,’ he said.

Melchior shrugged. ‘Sure. There’s been a big fight for Potonchan and Cortés won. But the enemy have towns and villages all over this region, hundreds of thousands of people, more warriors than you can imagine. They’ll be gathering their men and then they’ll be back.’

‘So we could die here?’ Pepillo wondered.

Melchior seemed not to have heard his question and fell silent for a long while. Then abruptly he spoke. ‘About Muñoz,’ he said, but so quietly that men even a few paces away would not hear him. ‘There’s something I want to tell you.’

Alvarado was in a furious bad temper as he crashed, lantern in hand, through the empty, echoing rooms, devoid even of wall hangings and furniture, of the big two-storey building identified by the prisoners as the chief of Potonchan’s palace. Like the shrine on top of the pyramid, and the three stinking temples he’d already searched in the plaza, there wasn’t a single item of value in it. The Indians had used the time while Cortés had been strengthening his beachhead to remove all the treasures from the town!

Not only that, but as the prisoners had revealed through Aguilar, the painted savage called Muluc – who’d presented himself merely as an emissary of the chief – was in fact the chief himself! These

swine had a sort of low cunning that Cortés had not anticipated, and had taken liberties that they must not be allowed to repeat.

Feeling murderous, Alvarado stormed out of the palace, across the plaza, back to the spot under the silk-cotton tree where Cortés was still patiently interrogating the prisoners and announced: 'Nothing, Hernán! Not a jewel, not a ring, no gold plate. Nothing at all! They stripped the town bare before they left.'

'Ah well,' said Cortés mildly, 'it's as I expected. But don't be put out, Pedro, our work has just begun. I've learned there's an even larger town to the south called Cintla where the chief of the whole region – a far more important man than Muluc – has his seat. I'm certain when we take Cintla that great wealth will fall into our hands.'

He turned his attention back to the prisoners whom, to Alvarado's horror, it appeared he was about to set free. 'Go to Cintla,' he said, speaking through Aguilar, 'and tell its chief I know the truth of many great mysteries and secret things of which he'll be pleased to

hear. Tell him we do not want war. Tell him we sorrow at the injuries and death we've been forced to inflict on the people of Potonchan. We would rather not have done so, but it was their own fault because they attacked us and gave us no choice. Tell him we come in peace to teach him about our God who has the power to grant him immortal life.'

'You're not really going to let them go, are you?' said Alvarado.

'Yes I am, so the big chief in Cintla can have the opportunity not to repeat the mistake Muluc made in Potonchan today.'

'And what if he chooses not to seize that opportunity?' sneered Alvarado.

'To be quite honest with you, Pedro, I am gambling that he will not – because then, by the rules of war, we have the right to destroy him. Today we faced thousands, yet the cost to us was small. Twenty with slight injuries – some hit in the head by their slingers, a few with spear or arrow wounds, but they'll all mend soon enough. Not a single man killed, Pedro! Not one! And tomorrow

we'll put horse in the field and teach these savages a lesson they'll never forget!'

Footsteps. The sound of clothing being adjusted. A hoarse whisper: 'Don Pedro! A word with you if we may.'

Alvarado had walked out from the campfires for a piss and now found himself flanked in the moonlight by two other men, all likewise clutching their privy members – Juan Escudero to his right, Velázquez de León to his left.

'Gentlemen!' Alvarado commented as he sprayed a great arc into the bushes, 'this is passing strange.'

'Nothing strange about a full bladder,' muttered Velázquez de León through his beard as he too made copious water.

Escudero had so far summoned forth not even a dribble. 'You seem to be having some trouble there, Juan,' Alvarado observed.

'I'm not here to piss,' replied the ringleader of the Velazquistas, his voice seething with resentment. 'When we last talked you gave

us to believe you were ready to join us, yet I saw you stand by Cortés tonight.'

'And I'm standing by you now, Juan, am I not?' Alvarado shook his member, being sure that a few fat drops flew up to hit the other man in the face.

With an oath Escudero stumbled back, but to his credit retained his composure. 'We've been watching you, Don Pedro,' he said. 'You found no gold in the palace …'

'No gold anywhere,' Velázquez de León added.

'It's clear Cortés has brought us here for reasons of his own,' said Escudero.

'Which would be what?' Alvarado asked.

'Power? Glory? Personal aggrandisement? Revenge? Who knows? But certainly not the interests of this expedition. These are primitive savages we're fighting and it seems they have no treasure. We're wasting blood and strength here for nothing. Córdoba's

reconnaisance last year showed richer and easier pickings further inland …'

'So you want me to do what?' Alvarado asked. 'Turn on Cortés now, when we're surrounded by the enemy? Arrest him? Truly, gentlemen, I do not think this is the right moment.'

'On this we agree,' said Escudero. 'Cortés has made this bed for us and we must lie on it. But when we're done here, if God gives us victory over these barbarians, then the time will come to choose. Cortés is not the right man to lead this expedition. You know it in your heart, Don Pedro, and we ask you to be ready to join the friends of your friend the governor of Cuba and help us return this expedition to legitimacy.'

'What's in it for me?' Alvarado asked.

'Gold, Don Pedro. All the gold a man could possibly want. Put this expedition on the right side of the law, win over Cortés's supporters to our side, and we'll make you a rich man.'

‘I’ll think on your offer,’ said Alvarado. He was already walking back towards the light of the fires. Out of the corner of his eye he saw Escudero and Velázquez de León walking in opposite directions, one to the left, the other to the right. Soon both disappeared amongst the shadows.

Last night, after Malinal had gouged Muluc’s face, Raxca’s intervention had saved her from a beating at his hands, but had not stopped Muluc forcing her into the column of his household slaves carrying the palace valuables from Potonchan to the safety of Cintla. The slaves had reached the regional capital in the small hours of the morning where they’d been put to work in the great palace of Ah Kinchil, the wizened and ancient paramount chief of the Chontal Maya. Malinal had been assigned lowly duties in the kitchen under the watchful eye of Muluc’s steward Ichick, who had roped her ankles and allowed her no possibility of escape.

Muluc himself had turned up in Cintla early that evening and since then had been ensconced with Ah Kinchil in the dining chamber of the palace. Malinal had not even considered appealing to the paramount chief's sense of justice, since he was Muluc's uncle and had been in on the plot to displace her five years before. But the kitchen adjoined the dining chamber and the two men talked loudly enough for her to eavesdrop their conversation even when she wasn't shuffling in and out with their dinner dishes.

It seemed the white strangers – the companions of Quetzalcoatl as it was Malinal's habit to think of them – had resoundingly defeated Muluc's forces in Potonchan. But in the time bought by the negotiating and fighting there, Ah Kinchil had called in tens of thousands of additional warriors from Cintla, Xicalango and other neighbouring towns. As a result, a new force, a truly exceptional force of more than forty thousand men, was now mobilised and stood ready for battle. 'With such numbers,' Muluc crowed, 'we will devour them.'

‘So long,’ Ah Kinchil corrected him, ‘as they are not gods.’

‘They are not gods!’

‘Yet their weapons seem not of this world, Muluc,’ the old chief said in a voice dry as bones. ‘I have been hearing accounts all day of what they did to the men you left in Potonchan after you yourself fled.’

‘I did not “flee”, uncle!’ Muluc blustered. ‘I fought hard and remained in the field until the end.’

Ah Kinchil waved a hand as though dismissing him. ‘I am told they have fire serpents,’ he continued, ‘that spit flame killing hundreds at a single blast. I am told ferocious beasts whose skin cannot be pierced by arrows obey their commands and tear out the throats and bellies of our warriors. I am told these white men – or gods – are themselves impervious to our weapons and cannot be killed. Is none of this true?’

‘They have powerful weapons, that much is true, but we have known since last year they are men who can be killed, just as we

can be killed, and their weapons are of this world though made with great skill and cunning. We defeated them before and we can defeat them again!'

'You defeated them before but it seems these new ones are more dangerous even than their predecessors. If you are mistaken about their powers it could cost us dear.'

Malinal, who was bringing a steaming bowl of chocolate to the table, saw a glint of triumph in Muluc's eye. The evil toad, she realised, had something up his sleeve. 'I am not mistaken, uncle,' he said. 'Last year when the white men came to Potonchan they captured one of our warriors and carried him away in their boats to certain islands they have occupied that lie far off our shores.'

'Islands?' Ah Kinchil seemed almost offended. 'I know of no white men living on our islands.'

'I don't speak of the nearby islands we can reach in our canoes, uncle. I speak of the faraway islands of legend where the people called Taino and Arawak are said to live. It seems the legends are

true, for the white men found those islands twenty years ago. First they destroyed the Taino and the Arawak and seized their lands, then they brought in countless settlers from their own even more distant country far off across the great ocean, and now they've come here intending to inflict the same doom on us.'

'I don't understand how you can know this.' Ah Kinchil sounded peevish but also, Malinal thought, afraid.

Looking repulsively pleased with himself, Muluc clapped his hands, the outer doors opened and a short man of middle years with a pronounced stoop, long unbraided hair and crossed eyes entered the chamber, made the obeisances appropriate to great lords, and came padding barefoot across the floor. 'This is the warrior the white men stole from us last year,' Muluc announced proudly. 'His name is Cit Bolon Tun.'

'He doesn't look like much of a warrior,' Ah Kinchil said.

'Perhaps not, uncle; but with respect that is not my point.'

'Well, what is your point then?'

Muluc sighed. ‘My point is that Cit Bolon Tun has spent many months living with the white men! They taught him their language, always intending to use him to communicate their wishes to us. They kept him under guard, but this afternoon in the confusion of battle he escaped and returned to our side. It is because of what he has told me about them that I know these white men are not gods. I ask you to hear him.’

Now it was Ah Kinchil’s turn to sigh. ‘Nephew,’ he said, ‘I am confused … In all your reports about the white men before tonight, you have said that one of them is a fluent speaker of our language and that it is through him you talk to their chief. Now suddenly you present this Cit Bolon whatshisname to me and say that he is their interpreter. Which is true?’

‘Both statements are true, lord,’ interrupted Cit Bolon Tun, making further obeisances. ‘The white men did kidnap me when they came here last year. They did take me back to the islands they have seized from the Taino and the Arawak. They did attempt to

teach me their horrible language. And they did bring me to serve as their interpreter. But on their way here they heard that one of their own, a man named Aguilar, was living amongst the Yucatec Maya …'

'How can that be?' asked Ah Kinchil.

'Eight years ago a boat of theirs sank in the great ocean and this Aguilar was washed up on the northern shores of the Yucatán. He became the prisoner of Acquincuz, the lord of a small town, who kept him as a slave. The Spaniards – that is the name by which the white men are called – heard of this and sent some of their soldiers to seize Aguilar from Acquincuz. They succeeded and he became their interpreter, displacing me. When we came finally to Potonchan I sought the first opportunity to escape, took off the Spanish clothes they made me wear and hung them in a tree, fled away naked and sought sanctuary with Lord Muluc …'

'I see,' said Ah Kinchil, rubbing his chin, 'I see.' His rheumy eyes were fixed on Cit Bolon Tun. 'Very well,' he said, 'tell me

about these Spaniards.'

'That thing Muñoz said about me …' Melchior's voice was so low as to be barely audible, even to Pepillo who stood right by his side.

'He was lying!' Pepillo whispered. 'I know he was lying …'

Another long silence from Melchior and then: 'Well, no … he wasn't. Not exactly. That's what I want to tell you.'

You may want to tell me, Pepillo thought, *but I'm not sure I want to hear*. 'We don't need to talk about this,' he said. 'We don't need to talk about Muñoz! He was evil but he's dead and he'll never hurt anyone again.'

Melchior's face shone in the moonlight and he shook his head as though denying something. 'The fact is,' he continued, 'the bastard was telling the truth. He *did* have me. But it wasn't for pay, like he pretended. It wasn't for a peso!' A great sob heaved in his chest and he struggled for a moment to stifle it. 'They beat me half senseless,' he said finally, 'and then they both had me.'

Pepillo's face was suddenly burning and his head reeled. What in heaven was Melchior telling him. '*They?*' he asked. 'Who were they?'

'Why Muñoz and his page, of course, the devil. His name was Angel! Can you believe that? He was a year older than me. Bigger too. Muñoz had corrupted him and they worked together, hunting down Indian boys for the Inquisitor's pleasure. They kept after me – after my *arse* – but I always managed to give them the slip. Then the Maya killed seventy of Córdoba's men here in Potonchan. That was Muñoz's fault, too, burning "lapsed converts". Poor souls! How could they have been converted to anything when he could only speak to them in signs? And if not truly converted, then how could they be said to have lapsed? He pushed these people to the limit in his zeal for God, so no wonder they attacked us in the end. There were barely enough of us left alive to sail the fleet back, and most too sick or injured to notice what was happening with the high and mighty Inquisitor and his rat-faced bastard page. We were eighteen

days at sea, long enough for mischief to be done. One night, when no one was looking, they dragged me into his cabin, beat me until I could not stand and held me down over his table. That was how Muñoz had me! And when he was done Angel had me too.'

Pepillo felt a great ache of compassion. 'Oh Melchior,' he said. 'Now I understand! No wonder you hated Muñoz so …' Without thinking he reached out to touch his friend's arm.

'Wait!' Melchior said, shrugging him off. 'I don't want your pity and there's more to tell. After they raped me I wanted revenge and I swore, Pepillo, I swore to everything that's holy, that I would kill them both or die in the attempt. Two nights later – we were far out to sea – I found Angel on his own on the aftcastle. We struggled but my anger made me strong and I threw him overboard. No one saw it happen, just as no one saw what happened to me.'

Pepillo gasped. 'But you told me … You said—'

'That Muñoz had killed his page? Yes, when Angel disappeared that's what everyone on the expedition believed and I saw no need

to correct them. But they were wrong! I was the one who killed him, and proud of it too! As for Muñoz, I didn't get the chance on the rest of that voyage and I thought I might have to wait years before fate crossed my path with his again. So when I heard he'd been appointed Inquisitor to this expedition, I couldn't believe my luck …'

Pepillo was thinking things over, vividly reliving the events of the past weeks. The way that Muñoz had behaved, the way Melchior had so obviously hated him, the way he himself had been drawn into the plot to kill the Inquisitor, all made perfect sense in the light of what he now knew.

'Well,' said Melchior, as the brigantine slowed and the lantern-lit waterfront of Potonchan loomed ahead on the bank of the dark river, 'I've given you the truth. I owed you that after nearly getting you killed. I won't blame you if you think the less of me.'

'I don't think the less of you,' Pepillo said. 'I think you're brave and you've righted an injustice and I'm proud to count you as my

friend.' He hesitated, turned his gaze to the great dark shape of Molinero standing quietly nearby and added: 'You did nearly get me killed, though – so the least you can do is teach me how to ride a horse.'

Eavesdropping from the kitchen, Malinal heard almost every word of Cit Bolon Tun's story.

She found herself rebelling against it and at the same time was persuaded by it.

Perhaps, she supposed, even though she had always doubted, this was because some other part of her – the part still deeply connected to Tozi – did very much want to believe that these white men, these 'Spaniards', were indeed the companions of Quetzalcoatl, returning to right all the injustices of the world, and that perhaps their leader could even be Quetzalcoatl himself.

Her mind was in flux on the matter. First she had joyfully abandoned her doubts when she recognised the hand of the gods in

bringing her back to Potonchan at the exact moment of the strangers' own return. But now, as she listened to what Cit Bolon Tun had to say, all her scepticism flooded in on her again with renewed force. This was because the men he described were undoubtedly *men*, not gods, who had taken him to their island where he saw many strange and wondrous things that were, nonetheless, quite clearly the work of men – very clever men, very cunning men, but certainly not gods. And when Cit Bolon Tun related how these strange-looking white men had seized that island twenty years before from its native inhabitants, a people known in the legends of the Maya as the Taino and seemingly still called that today, her blood ran cold – for rather than bringing peace, harmony and progress with them, the 'Spaniards' had inflicted terrible massacres and tortures upon the Taino, burnt them to death in fires, stolen all their lands and all their possessions, and for the most part obliterated them from the earth, except for a few survivors whom they kept as slaves.

She did not think Cit Bolon Tun was lying about any of this. His words had the ring of authentic experience and truth.

Moreover the powerful, remarkable, incredibly dangerous weapons of the 'Spaniards' were just that – weapons, made by human artifice – and not godlike devices endowed with unknowable supernatural properties. The shining 'skin' that the stone-tipped spears and arrows of the Maya could not penetrate was nothing more than armour! There was nothing godlike about it, and without it, or if struck in vulnerable, unprotected parts of their bodies, the white men could be killed like any other men. Both the Maya and the Mexica used armour made of padded cotton, so there should be no surprise or awe here. The only difference was that the Spaniards' armour was better, harder, stronger because it was made of metal. It was not even as though the Maya and the Mexica did not know of metals, because they did, and boasted skilled workers in soft copper and bronze. It was just that the metallurgy of the white men was far more advanced than theirs and extended to exceptionally hard and

durable metals called iron and steel, which their clever artificers were able to fashion not only into armour but also into axes, spear-tips, arrowheads, daggers and the terrible long knives they called ‘swords’.

Then there were the weapons spitting flame and death that Ah Kinchil thought were *Xiuhcoatl* – the deadly ‘fire serpents’ with which, according to legend, the gods of both the Maya and the Mexica were armed. Once again, Cit Bolon Tun explained, there was nothing godlike about these white men’s weapons, which were called ‘guns’. They were certainly not fire serpents! In fact these ‘guns’ were not so very different from bows and arrows – which the Spaniards, indeed, also possessed – or from *atlatls* used to launch darts. Like bows, and like *atlatls*, guns were simply weapons designed by men to send projectiles flying through the air over long distances at high speed. They took the form of metal tubes and, instead of using the tension of a bow-string, or the leverage of an *atlatl*, they achieved their objective by means of a black powder

which exploded when lit, produced great force and propelled balls of various sizes made of metal or stone into their enemies' bodies.

As to the ferocious war beasts of which Ah Kinchil had received reports, these were of two types, and Cit Bolon Tun had taken the opportunity of his time with the white men to study both closely.

The first were about the size of jaguars and appeared to be unnaturally large and ferocious members of the dog tribe. They had huge jaws and sharp teeth and they went into battle dressed in metal armour like the white men's own. This was why Muluc's warriors had been deceived into believing that the beasts could not be killed by spears or arrows. Untrue! Remove their armour, or strike some part of their bodies that was left unprotected, and they could indeed be killed in the same way that jaguars – which the Maya knew very well how to hunt – could be killed. However, there was one thing that made these 'dogs' far more terrible than any other beast, and this was that they were trained by the Spaniards to obey their commands and execute their will. They were fleet of foot, had an

exceptionally sharp sense of smell, and could detect the presence of their prey by scent alone, so that even if a man had fled far away and concealed himself in some remote place, dogs would be able to follow his scent over the ground, find him and kill him. Cit Bolon Tun had witnessed horrible scenes in which, for nothing more than their own amusement and sport, the Spaniards had arranged for native Taino of the islands to be hunted down and torn to pieces by their dogs.

The second type of war beasts were about the size of large deer and were called ‘horses’. The Chontal Maya had not yet met them in battle, but it was only a matter of time before they did because the leader of the Spaniards, whose name was ‘Cortés’, was a great expert in their use and Cit Bolon Tun had often heard him boast how the Maya would be unable to stand against them.

Like the dogs, these ‘horses’ wore metal armour, and if the dogs ran fast, the horses ran even faster, as fast as the wind, as fast as an avalanche. What was more amazing was that the white men knew

how to mount themselves upon the creatures' backs and attack their enemies from there, at terrifying speed, using their lethal spears and swords. 'You must prepare our warriors,' Cit Bolon Tun urged Muluc and Ah Kinchil, 'for the shock of encountering the enemy mounted in this way. I myself have yet to see the Spaniards use their horses in battle, but I have seen them ride them in practice often enough. The air thunders with the beat of their hooves, the ground trembles as they charge, and the massive weight and momentum of the beasts is a weapon in itself, capable of smashing down any who stand in their way. Our men will lose courage at the very sight and sound of them and this will be all the worse if they are deceived into believing they confront supernatural beings, part-man, part-deer, as I myself believed when I first saw them. They are frightful, they are formidable, they are something quite beyond any foe the Maya have ever encountered before in battle, but *they are not supernatural*. They are men mounted upon the backs of creatures, and like other men and other creatures, they can be killed.'

As these words were spoken, Malinal came into the dining chamber with beakers of water and tobacco tubes for the men to smoke. There was a sheen of sweat on Cit Bolon Tun's face – undoubtedly from the effort of communicating all the terrible things that he knew. Muluc's mouth gaped. Ah Kinchil sat staring blankly straight ahead, as though he had seen a ghost.

'How many?' the old paramount chief asked Cit Bolon Tun eventually.

'How many what, lord?'

'How many of these "horses"? How many of these infernal "Spaniards"? And what do you advise me to do about them?'

The face of Cit Bolon Tun was grave. 'My lord, I advise you to fight them night and day, without mercy and without fear while they are still few enough in number to be destroyed utterly. I have counted their horses. They have only eighteen! I have counted the white men and their entire force does not much exceed five hundred soldiers, of whom some have been left to guard their boats and

some have undoubtedly been injured today. I very much doubt if the lord who is called Cortés will be able to put more than four hundred of his warriors into the field.'

The ghastly triumphant smile that Malinal so hated was back on Muluc's face. 'Four hundred!' he chortled. 'Four hundred! When we have forty thousand.' He turned to Ah Kinchil: 'There, uncle! You see! It is as I said. These are not gods but men who have come so boastfully into our lands – and tomorrow, when we meet them in battle, we *will* devour them!'

Chapter Fifty-Seven

Cuitláhuac's estate, Chapultepec, small hours of the morning, Thursday 25 March 1519

The moon, waning but still close to full, cast its light through the open window of Guatemoc's bedchamber where the prince lay on his back, his eyes open, staring up at the ceiling. Though his recovery had been remarkable (his doctors described it as a

miracle), his wounds still pained him deeply and he was wide awake, thoughtful, his mind restless.

Everything that had happened since Shikotenka had expertly ripped him apart on that hillside in Tlascala all those weeks ago had been extraordinary, wondrous and inexplicable.

He had met Hummingbird, the god of war, and been told that it was not his time to die.

And he had met Temaz, the goddess of healing, who had brought him back to life.

Impossible to believe these two divine encounters were not connected!

‘A great battle lies before your nation,’ Hummingbird had told him, ‘but the weakling Moctezuma is not competent to fight it.’

While for her part the Lady Temaz had urged him to defeat the plot against him and find the one who was truly responsible for it.

Well, he knew the answer to that now!

It had been Moctezuma himself who had sought to poison him. Mecatl had merely been a puppet in the royal hands. Of course his uncle had responded with feigned outrage when Mecatl revealed the truth under torture. He'd ordered the fat physician flayed alive and presented his skin to Guatemoc – as though that could possibly make any difference.

No one dared challenge the Great Speaker, but the truth was the truth and it could not be divided. The only question now was what was to be done about it.

As Guatemoc lay on his bed, silent and still, for the first time in his life seriously contemplating rebellion, a voice spoke to him out of the darkness.

'How fare you now, Prince?' the voice asked. The voice of a goddess.

'Better than I could have hoped,' Guatemoc replied, not allowing the sudden excitement he felt to reveal itself in his tone. 'Perhaps better than I deserve.'

The moonlight traced a bright path across the floor and in the midst of it there came some disturbance of the night, some ripple and sway of the empty air. A small, slim form emerged from nothingness, a hand reached out to touch him and he felt once again the mysterious radiance of divine power.

There was a moment of communion, almost of bliss. So this was what it meant to be caressed by a goddess! Guatemoc attempted to raise himself on one elbow, but soothing warmth was pouring into his body in a great flood and he groaned and lay back.

‘Rest, Prince,’ said Temaz. ‘Do not struggle. I bring you the gift of healing. You must only accept it.’

For a long while he felt her working on him, first removing his bandages, then delicately probing and touching with her fingers, all the while sending this incredible glow, this splendour, this tingling, revivifying heat into his wounds. She did not speak but sang softly under her breath, half a whisper, half a chant, as she continued these

gentle ministrations and, little by little, trusting her utterly, he fell asleep.

When he awoke, hours had passed, the moon was set, grey dawn was breaking and the Lady Temaz was gone.

Leaving Guatemoc asleep, Tozi had returned to the safe house in Tacuba and now lay stretched out on a reed mat on the floor as the lakeside town awoke noisily to the new day.

She had gone to the prince intent on talking to him about many things, and most of all about Quetzalcoatl, though she had promised Huicton she would not. But when she had seen Guatemoc in the moonlight, seen how wounded and vulnerable he still was despite his remarkable recovery from poison and from his dreadful injuries, she had known she must help him first before any talking was done.

And she'd known she *could* help him. The healing spell had come to her unbidden, from some hidden depth of her heritage, and she had sung it for him in the moonlight all the night long.

It was strange. Hated Mexica prince though he was, scion of a cruel and murderous family, a killer and a sacrificer himself, she nonetheless found she was strongly, indeed almost irresistibly, drawn to Guatemoc. She realised now that the attraction had begun the moment she'd first set eyes on him weeks before when he lay gaunt and wasted in the royal hospital, on the edge of death. She'd wanted to cut his throat but had ended up saving his life.

There was good in him, that was why!

She must have known it, she must have seen it, even then.

And since there was good in him, she resolved, it was her job to nurture it and turn it to the cause of Quetzalcoatl.

A thought crossed her mind as she drifted off to sleep. This attraction she felt for the prince, with his handsome, hawk-like face and his beautiful copper skin so warm under her hands? It wasn't, was it, that foolish attraction a woman sometimes feels for a man?

'Gods forbid!' Tozi muttered, her eyes fluttering closed. She had no time for such nonsense.

Chapter Fifty-Eight

Thursday 25 March 1519

Thursday 25 March was the day of the Feast of the Annunciation of the Blessed Virgin and it started badly.

After a night loud with the drums and whoops of the very large Indian force massing in the countryside south of Potonchan, an uncomfortable night during which the Spaniards once again slept in their armour with their swords by their sides, Cortés rose before dawn to inspect the horses and found them stiff, listless and not yet

fit for battle. ‘They’ve been too long on board ship,’ Melchior complained from his perch on Molinero’s back, ‘and we couldn’t exercise them properly last night in the dark. Give us a few more hours to run them and get some more of this good grass into them and we’ll have them right for you.’

The good grass in question was, at least, plentiful amongst the fruit trees of the walled orchard – now heavily guarded – that extended five hundred paces from the rear of the chief’s palace to the river. Already all the other grooms were up and about their business, some brushing down their masters’ horses, some leading them by their reins, some riding. Young Pepillo was there, too, following Melchior around as usual the way a puppy follows its master. ‘I’ll have secretary’s work for you tonight,’ Cortés told the boy. ‘King Charles must be informed of what we’ve accomplished for him here.’

‘I’m ready, sir,’ replied Pepillo. ‘And … sir … would you object if I were to try a ride on Molinero while we’re exercising him?’

Cortés laughed: ‘It’s not my objections you’ll need to worry about, lad! Molinero has a mind of his own. He’ll have the final say in the matter.’

Leaving the orchard as the sun rose, and hurrying back through the palace to the main square where the men would be mustering, Cortés was stopped by Gonzalo de Sandoval, who brought him the morning’s second piece of bad news. Little Julian had not been seen by anyone since the capture of the town yesterday afternoon, but during the night a sentry had found the interpreter’s shirt and Spanish breeches draped over the branch of a tree. Eventually the matter had been reported to Sandoval and now here he was reporting it to Cortés. ‘Looks like he’s gone back to his own people,’ Sandoval guessed.

Cortés felt a surge of anger. ‘Damn!’ he said. ‘I should have anticipated this and had the squint-eyed cur killed weeks ago. He was a useless interpreter anyway, but all these months he’s been learning our strengths and our weaknesses, counting our numbers,

and now we let him just prance back to the Maya and tell them everything he knows. They couldn't hope for a better-informed spy.'

'Most unfortunate,' said Sandoval. 'What do you think the damage will be?'

'Less fear of us, better understanding of our weapons and our tactics. He'll tell them about our cavalry, which I would have preferred to have been a surprise.'

'If they've never seen heavy horse in action, Don Hernán, no amount of telling will prepare them for the shock.'

Cortés laughed, his mood suddenly improving, and clapped the younger man on the back. 'Let's hope you're right!' he said and then asked: 'How is it you don't own a horse yourself, Gonzalo?'

'Can't afford one,' said Sandoval honestly, 'but I grew up on horseback before my family fell on hard times.'

'You've trained with the lance? You've practised the charge?'

'I have, Don Hernán, more often than I can count.'

‘Well, who knows? You may find yourself in the saddle again before too long.’

With just twenty soldiers now assigned to guard the ships in the bay, made up of a few who had fallen sick and a dozen too badly injured to go immediately into battle again, the troops mustered in the main square of Potonchan numbered some four hundred and eighty determined, filthy, bearded men, formed up in sixteen ranks of thirty at the base of the pyramid. After they had heard Father Bartolomé Olmedo say Mass, Cortés reminded them it was the feast of Our Lady, thanked them fulsomely for their efforts the day before, which had been crowned with success, and told them to look forward to an even greater victory today. Cupping his hand to his ear at the drums and ululations of the Indians beyond the town, he said: ‘Hark to the noise the heathen make! We gave them a beating and they ran but now they’re back full of bluff and bluster, building their courage to attack us again. I say we don’t stay cooped up here

to await their assault but take the battle to them instead. Do you agree, men?'

There was a ragged cheer, some of the soldiers thumped their spear shafts into the ground, others beat their swords against their bucklers.

'Very well,' Cortés continued. 'For those who missed the activity last night, our horses are all offloaded from the ships' – he gestured towards the palace – 'and put to pasture to get the aches out of their joints. They'll be ready for battle in a few hours – I expect by noon. Meanwhile I want two companies of a hundred men each – volunteers all! – to conduct reconnaissance in force and learn the number and dispositions of the enemy.'

From the reports of his spies, who'd been out around the campfires during the night, Cortés knew that some of the Velázquez faction had been busy sprinkling the wormwood of fear and doubt on the courage of his stalwart troops. Juan Escudero in particular had been working on the faint of heart, suggesting that further

action against the Maya was ill-advised, that there was no gold to be had from them, and that it would be better to move on elsewhere rather than risk annihilation here. But Cortés had also been doing the rounds during the night and was reassured that the majority of the men were still solidly with him, their caudillo, and believed his leadership would bring them victory, honour and wealth. He therefore felt inspired to end his address with some verses from the eleventh psalm.

'In the Lord I take refuge,' he recited, sending his voice ringing out across the square:

how then can you say to me: 'Flee like a bird to your mountain.'
For look, the wicked bend their bows; they set their arrows against the strings
to shoot from the shadows at the upright in heart.
When the foundations are being destroyed, what can the righteous do?
The LORD is in his holy temple; the LORD is on his heavenly
throne. He observes everyone on earth; his eyes examine them.
The LORD examines the righteous, but the wicked, those who love

violence, he hates with a passion.
On the wicked he will rain fiery coals and burning sulphur; a scorching wind
will be their lot.'

There was no shortage of volunteers for the reconnaissance in force. Appointing Alonso Davila to lead one company and Alvarado the other, Cortés summoned Francisco de Mesa, his chief of artillery, a short, stocky, middle-aged man with thinning hair, a spade beard and a broad, unemotional, sunburned face. After the horses had been brought ashore last night he had taken a brigantine out to the bay and returned with two of the lombards and sixty Taino slaves who would be needed to move the heavy cannon into battle positions. Mesa's expression was, as usual, deadpan: 'I expect you'll be wanting me to arrange the fiery coals and burning sulphur to rain down on those wicked violent Indians,' he said.

Bernal Díaz, who judged the wound in his thigh to be superficial, had refused evacuation to the fleet and felt moved enough by the caudillo's speech to volunteer for Davila's hundred. Mibiercas and La Serna came with him, for what La Serna described as 'a breath of country air'.

Well, it was proving to be a great deal more than that. About three miles from Potonchan, the great north–south highway they were following skirted an outcrop of low hills, concealing them from the town, and a mile further south they were approached and attacked by a band of a thousand howling warriors. Huge numbers of arrows, darts and slingstones began to hail down on their armour and shields and they soon found themselves completely encircled.

Having tasted Toledo steel the day before, Díaz understood why the Indians were avoiding hand-to-hand combat and preferred to harm the Spaniards from afar. Moreover, the strategy was working, since half a dozen men already bore minor injuries and one, knocked senseless by a stone, had to be carried by his comrades,

slowing everyone down. Making a virtue of necessity, Davila brought the square to a halt, had ten of his twenty musketeers move to the flanks and ordered them to fire on the enemy. Every bullet found its mark but what was noticeable, and worrying, was that the flash and roar of the heavy muskets had nowhere near the same terrifying effect on the circling horde as it had yesterday. To be sure ten fewer Indians were now on their feet, but that still left nine hundred and ninety of them, none of whom were running away as Díaz had hoped!

Further volleys from the muskets and crossbows produced no better results and the arrows, spears and slingstones continued to pour in.

‘Damn,’ Díaz heard Davila mutter. ‘We should have brought a pack of hounds.’ Indeed the idea had been discussed and turned down in favour of mobility. Too often the dogs would stop to eat their prey and it took time, and kicks and blows from their handlers, to call them off.

‘Let us be the dog pack,’ Mibiercas yelled to Davila. ‘Let me take a flying squad and get in amongst them.’

Davila nodded and, moments later, after another crashing volley from the muskets, Mibiercas, Le Serna, and ten others drew their swords and sprinted towards the mass of Indians. Too slow for such a mission because of his thigh wound, Díaz felt faintly guilty as he watched his friends go.

Since Davila’s squad had marched south, Alvarado reconnoitred towards the east. He passed for about a mile along the same forest track he’d used to enter the town the day before, but where it looped back towards the south he left it and continued, as Cortés had ordered, in an easterly direction. For some hundreds of paces his men had to cut a passage through heavy bush with their swords. By the time they emerged into the open again Alvarado was itching to impale a few Indians with his new Nuñez rapier, which he’d

strapped on today for the first time since besting Zemudio back in Cuba.

Annoyingly, however, there seemed no immediate prospect of running anyone through. Extensive fields of young maize stretched ahead, vanishing in the distance into the morning haze, with not a single enemy formation visible anywhere.

Alvarado yawned with frustration. Overnight he had removed the splint and cast from his left arm and confirmed to his relief that he could move the limb, though it was somewhat wasted from a month of inactivity. He made a fist. God's blood! He was weak! But he had sufficient grip to hold the reins of Bucephalus for the cavalry attack that Cortés had promised for this afternoon.

And just as well, he thought, since there was no action to be had here. After advancing a further mile through the fields he was so thoroughly bored that he decided to do his reconnoitring in force elsewhere and turned his men back the way they had come.

Where the falconets fired ball or grapeshot weighing about a pound, the lombards fired ball or grapeshot weighing up to seventy pounds. Not for nothing, thought Cortés, were these heavy smoothbore cannon called ‘wallbreakers’! He had brought three of them as the main artillery of the expedition, and of these two now stood in Potonchan’s main square. Alongside them were the eighteen falconets that had already seen service against the Maya the day before, but whereas the latter could be fired, and even moved if necessary, by their own two-man crews, the lombards were so unwieldy that each required teams of thirty bearers to haul their massive carriages and transport their prodigious ammunition and bags of gunpowder.

‘I’d stick to the falconets if I were you,’ Mesa was saying. ‘This country’s too broken with irrigation ditches to move the big cannon – especially with bearers as reluctant as these.’ He jerked his thumb towards the sixty Taino slaves, who were sitting under the silk-cotton tree in their loincloths looking sullen and stupefied.

‘I know,’ said Cortés, ‘it’s going to be difficult, but my mind’s made up on this. We’ll be badly outnumbered today, and the Indians have already seen the falconets in action. I want something that’s really going to surprise them and I expect the lombards to do that.’

‘Ball or grapeshot?’ asked Mesa without comment.

‘Oh … both I think,’ said Cortés. ‘You know, horses for courses …’

Mibiercas’s flying squad hit the circle of Indians in wedge formation and Díaz saw his friends start the work of killing: Mibiercas, the angel at the east of Eden with his flickering, whirling *espadón*, La Serna beside him, his gleaming broadsword licking out to taste the enemy. A huge Indian, transformed into a piebald demon by the striped paint of his face, came at Mibiercas with a long two-handed weapon, one of those batons edged with sharp flakes of obsidian that Díaz had encountered the day before. They seemed equally matched in size and strength but Mibiercas was a

master of the longsword, a man who had made this weapon his lifework, and he fell upon his foe like a landslide, split his skull from crown to chin with a single blow, snatched out the glittering blood-smeared blade and cut down two more men before the first yet knew he was dead.

In this way the twelve valiant Spaniards, confronting the enemy hand to hand at last, wrought havoc amongst them, while the archers and musketeers of the main squad reloaded and let fly another devastating volley. Yet Díaz saw that the Indians had courage and determination in no smaller measure than the Spaniards, and they did not fall back, despite their losses, but rather rallied and pressed all the harder around Mibiercas and his men, who all of a sudden seemed like rocks hemmed in on all sides by a rushing, roaring murderous tide.

Seeing that they would soon be engulfed, Davila yelled, ‘Santiago and at them’, and led the whole squad pounding across the field to their rescue. Díaz’s thigh pained him as he ran, the

ground beneath his feet rough and uneven, filled with the brittle stalks of young corn. ‘Santiago and at them!’ he bellowed raising his sword. ‘Santiago and at them.’

Melchior hauled Pepillo up in front of him and, with a click of his tongue, set the huge stallion to a walk. Unnerved by the peculiar, rocking gait, Pepillo looked down. The ground seemed very far below!

‘Hold on,’ said Melchior as they passed beneath a tree. Pepillo sensed his friend’s heels knock once, twice, against Molinero’s sides and suddenly the animal’s progress became even stranger, bumpy and uncomfortable, nearly jolting Pepillo from the saddle as its back dropped between steps, rose rapidly with the next, and dropped again. ‘That’s called a trot,’ Melchior said, ‘nice for the horse; not so nice for the rider.’ His arms extended forward on either side of Pepillo, his hands loosely holding the reins. ‘Now we’ll try a canter.’ His heels urged Molinero’s flanks again and at

once they were moving much faster, Molinero's hoofs hitting the ground in a staccato three-beat rhythm, Pepillo clinging tight to the pommel at the front of the saddle, feeling nervous but at the same time excited, wanting to laugh. They'd crossed to the side of the orchard during the trot and there was now a clear avenue ahead of them between the wall and the trees as far as the river. 'Want to try a gallop?' said Melchior.

'Yes!' shouted Pepillo, for the wind was already whipping past his ears.

Melchior moved his hands, still holding the reins, and lifted Pepillo a little. 'Then here we go,' he said. The horse surged forward and all at once they were flying.

Flying!

All the jolting unevenness went out of the ride and the great destrier tore towards the river at unbelievable speed, so fast that the trees and the wall blurred as they shot by, so light and free and boundless that joy bubbled up in Pepillo's chest and he couldn't

stop himself whooping and yelling his excitement to the wind. Then before he knew it the muddy brown expanse of water lay ahead and he thought for a moment they would soar across it like winged Pegasus, until he felt Molinero hesitate a fraction, lean into an exhilarating, sweeping turn, then straighten again in the wonderful mile-eating four-beat gait of the gallop, the river flashing past beside them. In what seemed no more than seconds, the other wall loomed up; Melchior gently twitched the reins, letting Pepillo drop back into the saddle, and the horse slowed its pace through canter and bumpy trot and came to a halt.

'My goodness!' said Pepillo after a moment to catch his breath. 'So that's riding!'

Melchior was stepping down. 'It is what I who was a slave truly call freedom.' Holding the reins he began to adjust the stirrup. 'Stay in the saddle if you like.'

Pepillo's heart, already thudding, beat a little faster. 'On my own?' he asked.

‘Yes, silly mammet. Is anyone else up there with you?’ Melchior moved round to the horse’s other side and adjusted the second stirrup. ‘Use these. I’ll lead you for a bit.’

Pepillo lodged his small feet in the huge iron stirrups and found that by pushing down he could raise himself up in the saddle as Melchior had done for him when they galloped. Whispering encouraging, gentle words to the stallion, Melchior moved to the front of the enormous animal and began to lead him forward by the reins.

Looking down at Molinero’s great head, ears twitching, long chestnut mane flapping a little with each step, Pepillo felt a tremendous rush of excitement and pride. He was riding! The smell of the horse was in his nostrils and he thought there was no finer scent in all the world. He reached forward to pat the animal’s powerful neck and suddenly, offering no explanation, Melchior thrust the reins into his hands and stepped away.

‘What?’ asked Pepillo, as the horse continued to amble forward. ‘Why?’

Melchior grinned. ‘Stay on as long as you can,’ he said, and slapped Molinero on the rump.

Blood ran freely from a deep cut in Mibiercas’s face, he and La Serna were desperately holding off a mob of Indians who sought to capture and draw away a fallen man, and the rest of the small group of Spaniards were struggling to form a defensive circle when Davila’s full squad reached them at a run, rapidly absorbed them, reformed as a square and turned back towards Potonchan, which lay four miles to their north, concealed behind the range of low hills they had passed. The Indian attack did not cease but pressed on all the harder, hundreds – it seemed thousands – howling their monstrous war cries, vicious spears jabbing at exposed faces and legs, obsidian-edged swords slashing, while the pikemen fought

mightily to thrust them back and the musketeers and crossbowmen at the centre of the square hurriedly reloaded.

Díaz was in the front rank, buckler defending the man next to him, broadsword arching down over the shield of the man to his right, his muscles aching with the strain of the unrelenting effort, sweat soaking his shirt and breeches beneath his armour as he hacked and stabbed at foes so close that the alien odour of their dusky bodies filled his nostrils. The square continued the fighting retreat towards Potonchan, but it was slowing with every pace, losing momentum like a carriage mired in thick mud, when all the muskets crashed again at point-blank range. Discouraged by this, or perhaps at some command from their captain, the Indians seemed to lose their taste for the close melee and broke away to a safer distance, where they began to put up a great din of drums, trumpets, whistles and shouts and at once resumed their barrage of slingstones, arrows and wicked fire-toughened darts, launched with great force from spear-throwers.

More of the enemy could be seen across the fields, flocking to reinforce the attackers, and it seemed to Díaz the worsening odds made it impossible for the Spaniards to fight their way back to Potonchan. There was a real danger they would all lose their lives here unless Cortés came out to relieve them – a prospect made improbable by the stunted hills that blocked the view and a strong breeze blowing steadily from the north carrying the sounds of battle away from the town. Because they were fully encircled, there was no question even of sending a fast runner to summon help, but a large, barn-like structure standing in the fields to their east at a distance of six or eight hundred paces seemed to offer some hope of respite. Although somewhat in ruins it was built of stone, its thatched roof was still largely intact and it looked defensible, so it was with a renewed sense of hope that Díaz heard Davila shout the order and the whole square wheeled ponderously and charged towards it under the unceasing and implacable hail of missiles.

The next ten minutes – it could not have been much longer – passed like an hour for Díaz, the agony of his injured leg slowing him, his breath heaving in short hot gasps as the square fought a running battle against the massed foe, forcing every footstep through the rough impeding growth of the young maize. Three times, large companies of Indians swung in towards them, making concerted efforts to close and stop their flight, but Davila had the shooters working in continuous relays, five musketeers and five crossbowmen along each flank now, moving in and out to fire and reload, fire and reload, so although the attacks hindered their progress, they could not stop them, and at last, all winded, two score at least bleeding from flesh wounds, they reached the shelter of the building. A few dozen Indians had already occupied it, but the Spaniards ignored their spears and arrows, crashed in on them and slaughtered them in a frenzy of pike and sword thrusts.

It was a large, bare rectangular structure they'd taken possession of, twenty paces in length and ten wide with an earthen floor and

transverse rafters supporting the thatched roof at about twice the height of a man. The walls were of stone, badly broken on the north and south sides, offering good cover for the shooters but unfortunately dilapidated enough to allow sufficiently determined attackers, should they choose to come on in overwhelming numbers, to break through. There were also many window slits, the remnants of ten each amongst the rubble on the north and south sides, five more to the east side and a wide, unprotected gap where a door had once stood on the west side.

All in all, a good, naturally defensible position. It would have served, Díaz thought, as an excellent fortress when it was intact, and still offered the Spaniards a refuge that they might hope to hold for many hours at little cost to themselves and great cost to the enemy. Davila had already ordered musketeers and crossbowmen to take up positions at every breech in the masonry, through which it could be seen that all around, just out of range, the Indians had drawn to a halt. Díaz found Mibiercas and they joined Davila at the doorway

while Le Serna with two musketeers and crossbowmen and a few others climbed up into the rafters, cut through the thatch and forced their way onto the roof.

Reinforcements had been joining the foe all morning. ‘How many do you see?’ Davila called up.

‘Counting,’ La Serna shouted back. They heard him moving around over the thatch.

‘Still counting,’ he said a moment later.

‘How many?’ Davila insisted.

‘Two thousand,’ said La Serna finally, ‘and you know what? Absent a miracle, we’re all dead men.’

Even as he spoke the drums of the enemy, which had fallen silent, began beating again, their trumpets and whistles blew in a violent cacophony and the front ranks surged forward with blood-curdling screams.

Davila ordered a volley fired, ten muskets, ten crossbows, and the men began to reload feverishly as the second volley crashed out.

Potonchan was seven miles north of Cintla and fast messengers, who could run that distance in less than an hour, had been scurrying back and forth all morning to keep Muluc and Ah Kinchil fully informed. For some perverse reason of his own, Muluc seemed to want Malinal to witness the humiliation of the white men, whom he insisted on calling ‘your precious so-called gods’, so he kept her in attendance in the main audience chamber of the palace.

She knew as a result that no all-out attack had yet been ordered. During the night, ten thousand warriors had been camped in an arc less than a mile south of Potonchan, but around dawn Ah Kinchil had drawn them back to Cintla, leaving only a few thousand skirmishers in place to harry the white men should they attempt to push along the *sacbe* towards the regional capital.

Malinal couldn’t help thinking, with so dangerous an enemy as these ‘Spaniards’, that she herself might have suggested a different strategy – for example, massive, overwhelming force right from the start. But Muluc, for all his bravado, was cautious, even cowardly,

and Ah Kinchil was old, indecisive and deeply afraid of the white men, whom he still in his heart believed might be gods, despite the advice Cit Bolon Tun had given him.

So their decision was to wait and see what the Spaniards would do.

What they did was surprising and contradictory.

On the one hand they had released prisoners, captured during the battle for Potonchan, and sent them to Cintla in the night with a message of peace for Ah Kinchil, to whom it appeared they wished to offer immortal life.

On the other hand, an hour after dawn, a tight, disciplined unit of the white men, a hundred strong, had marched out of Potonchan along the *sacbe* obviously spoiling for a fight. They had been engaged by skirmishers about four miles south of the town – just three miles north of Cintla itself! – where the Xaman hills concealed them from the Spaniards' main force.

‘Do these hundred have the weapons called “guns” that make a great noise and kill men at a distance?’ Ah Kinchil had asked the messenger. The answer was yes, but not, it seemed, the terrifying big guns on wheeled carriages deployed the day before. Even so, the white men had defended themselves well with their smaller guns and their long metal knives. The skirmishers, for their part, had kept their nerve and called in reinforcements. When the messenger had left the scene, the hundred Spaniards had been fought to a standstill and were completely surrounded in open fields by two thousand Mayan warriors.

Muluc and Ah Kinchil argued for a long time about what they should do next. Ah Kinchil was convinced it was a trap. These hundred must be bait intended to provoke him into committing his main force, which the Spaniards would then destroy. But Muluc reminded him of Cit Bolon Tun’s information. The army of the Spaniards did not exceed five hundred men, of whom not many more than four hundred would be available for combat today *and*

they had no reserves to call on. So if a hundred of them had failed to overcome two thousand skirmishers, it stood to reason, *regardless of whatever desperate trap they might hope to spring*, that four hundred – even five hundred! – must fall like the ripe maize at harvest if Ah Kinchil would only throw his forty thousand warriors against them, now, in one massive blow.

Malinal had to admit she could find no fault in Muluc's reasoning and was not surprised, in the face of his insistent bullying, when the paramount chief eventually gave way. Being too old to go into battle, Ah Kinchil seemed almost grateful to pass command to the younger man and agreed to travel with the rearguard as an observer only.

Before he hurried from the audience chamber to lead the army of the Chontal Maya north in a great mass towards the fields of Potonchan, Muluc turned on Malinal. 'Remember that Mexica trader I told you about,' he said, 'the one I'm going to sell you to?'

He smirked as he saw her face drop. ‘Well, you’re about to meet him.’

Malinal thought she had never seen her stepfather look so pleased with himself.

Having returned to the passage they’d cut through the bush, Alvarado led his men onto the track he’d followed in yesterday’s flanking manoeuvre. It continued through forest for about another mile, and then a further mile through open fields to a point about three miles south of Potonchan, near a range of low hills, where it intersected with the great highway that Davila’s squad were reconnoitring today. He had it in mind to cross the highway and head west towards the coast and the manglar swamps to see if there was any sign of the enemy there but, soon after emerging into open fields again, with the long white strip of the highway in sight, he began to hear musket shots. The sounds were coming from somewhere further to the south, beyond the hills, and reached him

faintly at first because of an adverse north wind. Still, there was no doubt in his mind. That smug bastard Davila, who'd rescued him yesterday, had run into trouble with the Indians.

Alvarado ordered his squad to turn south across the fields. Proceeding through the maize at a forced march, and skirting the hills, he soon had a better idea of Davila's predicament. Half a mile ahead, somewhat to the east of the road, stood a large building completely surrounded by a great horde of the enemy. The crash of musket fire was unmistakable now, so too the mad discord of drums and pipes with which the Maya liked to accompany every attack, and snatches of wild yells reached him between gusts of wind.

'Keep low, men,' Alvarado ordered. 'Let's see how close we can get without being seen.'

It was uncomfortable bending over almost double, carrying weapons and running through the maize, but well worth the effort. The enemy, and there were thousands of them, had their backs turned and were so intent on the waves of assaults they continued to

throw against the well-defended building that they remained for a long while perfectly oblivious of the squad's fast, stealthy advance.

Alvarado raised his arm and brought his men to a halt less than five hundred paces from the outer ranks of the enemy encirclement. A small force of Spaniards still held the roof of the beleaguered building, shooting down on the attackers at point-blank range, pushing them back with pike thrusts, and seemingly as unaware as the Indians themselves of Alvarado's approach.

Keeping his voice low, he called his twenty musketeers and twenty crossbowmen forward and ordered them to spread out into a single skirmish line with the rest of the square formed up behind them. 'Pick your targets,' he said, 'and at a hundred paces, sooner if they spot us, put a volley into their backs, all the muskets and all the crossbows together, then countermarch at the double back into the square and draw your swords.'

'What about reloading, sir?' one of the shooters asked.

‘We’re going to cut our way through and join Davila’s men. You can reload at your leisure once we’re inside that barn they’re defending.’

Alvarado drew his rapier and slashed its blade satisfyingly through the air. He rather wished he’d brought the falchion after all. This Nuñez steel was too good for riffraff like the Maya.

The Indians were getting better at timing their charges in the intervals between musket and crossbow volleys, Díaz realised. He was defending a gap in the masonry on the south side and this was now the sixth or seventh wave of attackers who had hurled themselves furiously against weak points all around the structure and repeatedly tried to scale the walls whence they were thrown back by the shooters and pikemen on the roof. Again came the hideous shrieks and yells of the attackers; again strong hands scrabbled at the crumbling blocks, tearing down the wall stone by stone; again snarling painted faces loomed up through the breach,

their rank breath reaching Díaz. He gave a hard thrust with his sword, saw it smash a man's front teeth in a burst of blood, felt it slip through the void of his mouth and catch as it severed his spine. Another suicidal warrior was already climbing over the back of the first, offering his face to the blade, and Díaz withdrew and stabbed again.

A great weariness began to overmaster him. From the position of the sun he guessed the time at around eleven in the morning, which would mean they'd been marching and running and fighting for only four hours.

Four hours! It felt more like four days!

Yet how much longer could they hold out before the sheer numbers of the enemy overwhelmed them?

Already a new charge was coming in but, as the Indians ran screaming towards the walls, Díaz heard excited shouts from the roof and the sweet sound of muskets roaring, not from within the

beleaguered structure, but from somewhere to the northeast outside the encircling ranks of the attackers.

‘Thank God,’ he breathed as he killed another man. ‘We are saved.’

From a hundred paces the twenty musket rounds and twenty crossbow bolts tore into the backs of the surprised Indians with devastating force and a huge gap opened in the circling mass. The shooters retired within the square and Alvarado led the charge with his personal squad of practised swordsmen thirsting for blood right behind him in the front ranks.

The Indians milled in dazed panic as the armoured square hit them at a run, Toledo blades carving limbs and heads from bodies with no more difficulty than slicing bread. In moments a hundred – two hundred! – of the enemy were down, stone dead or writhing on the ground, trampled underfoot by the advancing squad and stabbed

by the pikemen as the Spaniards found themselves traversing the circle of clear space encompassing the building.

'This way, this way!' Alvarado heard men shout as grinning faces peered through gaps in the masonry and the defenders on the roof beckoned his men round to the west side of the redoubt. Groups of Indians who'd been assaulting the walls tangled with them and were mercilessly despatched, then they rounded the northwest corner, climbed heaps of the enemy slain by the defenders and poured in through the ragged breach in the west wall where once a door must have stood.

'Ho there, Davila!' said Alvarado to the exhausted, blood-smeared captain who came forward to greet him. 'I see you've got yourself in a bit of a tight spot here. Just as well my men and I happened along to get you out of it.'

'*Touché*,' admitted Davila with a weary smile. To Alvarado's surprise the other captain then stepped forward and embraced him warmly.

Bernal Díaz stood at the doorway poised for the breakout with Mibiercas and La Serna by his side. ‘Funny how things turn around,’ said La Serna. ‘One minute you’re looking death in the face, the next a long life beckons.’

‘We’re not home and dry yet,’ observed Mibiercas softly as he ran a whetstone down the edge of his blade. The long diagonal cut on his cheek was still dripping blood.

‘I fancy our chances though,’ said La Serna. ‘That Alvarado’s a tough one. What do you reckon, Bernal?’

‘We’ll make it,’ Díaz grunted. He had the shakes, something that didn’t usually afflict him no matter how tough the fight.

‘You OK?’ La Serna asked him, concerned.

‘Not so good,’ Díaz gestured to his thigh which was now so swollen he’d had to cut the seam on his breeches.

‘That arrow you took yesterday?’

‘Yes. Didn’t think much of it at the time.’ Díaz shivered again. ‘Some kind of fever setting in.’

‘Bad day for it,’ said La Serna. He was just stating facts.

‘I’ll get through.’

Half of Davila’s squad were injured, but all – *except maybe me*, Díaz thought – were fit enough to march. Even those stunned by the pestilential slingstones had regained their senses, and none, thanks be to God, were dead. For their part, Alvarado’s men were fresh and in high spirits. Better still, a quick inventory had found that the musketeers and archers in his squad had sufficient powder, ball and bolts to replenish the near-exhausted stocks of Davila’s shooters.

So La Serna was right, Díaz thought. Whereas a fighting retreat drawn out over the four miles to Potonchan had been out of the question just moments before, it was now, thanks to Alvarado’s timely intervention, a viable option. Indeed it was not too much to hope that the combined strength of both squads, with forty archers

and forty musketeers amongst them, would be sufficient to drive off the few thousand Indians surrounding them.

Water skins were passed around, powder and ammunition were shared and checked one last time, a few men muttered prayers and then, with a great roar, the two hundred Spaniards burst forth from the stone shelter and set out at a jog across the fields.

Every jolt was agony for Díaz, but he'd withstood far worse than this in his soldiering career. As the hail of Indian missiles began to pour down again he kept his buckler above his head, set his teeth and ran on.

Pepillo had fallen off Molinero four times, and was bruised from head to foot, but he thought at last he was beginning to get the hang of it. 'We'll make a rider of you yet,' Melchior said with a grin.

They hadn't seen Cortés since dawn but around noon a messenger came from him with orders that Molinero was to be barded at once. The caudillo expected to have need of him within the hour. All

across the orchard, similar instructions were being delivered to the other grooms.

‘What’s “barded”?’ asked Pepillo.

‘It means armoured,’ said Melchior. ‘Barding is armour for horses – plate and mail and boiled leather; it protects them from arrows and spear thrusts and sword cuts and such … It’s the barding that was in those sea chests we offloaded last night. Come on, you can help me.’

They led Molinero over to the south side of the orchard, directly behind the palace, where all the chests brought from the ship were lined up. Melchior went directly to one of these. ‘This belongs to Cortés,’ he explained, adding proudly, ‘he stores his personal armour in here as well. It’s my job to keep it and Molinero’s barding polished and free of rust.’ With a flourish he sprung the chest’s catch and opened the heavy lid. The sun, directly overhead now, shone down on the dazzling contents of gleaming steel.

‘We’ll start with the *champron*,’ Melchior said. ‘That’s what protects Molinero’s head and eyes – though he doesn’t like it much, do you, boy?’ He stroked the stallion’s quivering neck then reached into the sea chest and pulled out a fearsome-looking steel mask.

‘It’s a sort of helm, but for horses,’ Pepillo said.

‘That’s right.’ Muttering soothing words, and with many gentle clicks of his tongue, Melchior strapped the *champron* over Molinero’s head. It ran from his ears to his muzzle, with hinged extensions covering the jowls. There were holes, protected by flanges, for his eyes, and a great spike, like a unicorn’s horn, now projected from the centre of his forehead.

Melchior returned to the chest and extracted a set of segmented steel plates. ‘These are called the *crinet*,’ he said to Pepillo. ‘Go to the other side. We’re going to put them over Molinero’s neck.’ Once in place and fixed by straps to the *champron*, Pepillo saw how the plates of the *crinet* would protect the stallion’s neck and throat – not completely, because there were gaps between them to make the

armour flexible and allow him to move his head freely, but enough to ward off most attacks.

Melchior was pulling out more large sheets of plate armour. ‘Now the *peytral*. It’s heavy – you’ll have to help me again; there, take that side – but Molinero’s so strong he hardly notices the weight.’ Working together they buckled the *peytral*, which was designed to protect Molinero’s chest and extended back almost as far as the saddle, to straps hanging down from the *crinet*.

The last and largest piece of armour, a cunning combination of steel and leather, was called the *croupiere* and protected the hindquarters of the great war horse. ‘There you are, boy,’ Melchior said when he was done, standing back to examine the stallion. ‘Now you look fearsome!’

As though he understood the words, Molinero responded with a whinny, blew air from his nostrils and pawed the ground.

He did look fearsome, Pepillo thought.

Gazing up at the huge animal decked out in his gleaming armour and ready to charge into battle, he could hardly imagine that he had ever sat upon his back.

The trader, Malinal immediately saw from his clothing, belonged to that elite stratum of Mexica society, ranked just below the nobility, known as the Pochteca. As well as being the principal traffickers in exotic slaves, these Pochteca merchants dealt in chocolate, jaguar pelts, quetzal plumes, metals and other luxury items from the most far-flung tributaries of the empire, and from more distant lands like the Yucatán that were not subject to the Great Speaker's rule. Such long-distance commerce, over much of which they exercised a strict monopoly, had made the Pochteca extremely rich, though they were forbidden to flaunt their wealth in Tenochtitlan or other cities of the empire except within the confines of their secretive guildhalls. They travelled in large caravans with hundreds of servants and bearers, well protected from marauders and outlaw bands by detachments of

seasoned Mexica warriors, and were themselves frequently highly skilled in the martial arts. Many, in addition, cultivated connections with foreign rulers and served Moctezuma covertly as spies and intelligence-gatherers.

Many, thought Malinal, such as this one, Cuetzpalli by name, to whom Muluc planned to sell her on the morrow and who would take her back to Tenochtitlan – just as she had been taken there five years previously by another visiting Pochteca. This afternoon, however, Cuetzpalli was evidently in the mood for a spectacle, not business, having been invited by Ah Kinchil to witness the destruction of the white men by his great army of forty thousand warriors. Like so many Maya chiefs, Ah Kinchil was in awe of the power of the Mexica and would go to great lengths to please and impress their representatives in the hope he would never be obliged to pay tribute to them. While no doubt providing some grand entertainment to the influential Pochteca, therefore, the looming battle was clearly also being taken as an opportunity to demonstrate

to him – and thus to Moctezuma whose spy he most certainly was – the full extent of Mayan military readiness.

Cuetzpalli meant ‘lizard’ in the Nahuatl language and, with his hooded gaze, long perfumed hair and slithery manner, this merchant was, Malinal decided, aptly named. She did not know him, since her services in Tenochtitlan had been reserved exclusively for the higher nobility, but he was much younger than those few in the guilds with whom she had come into contact, being no more than twenty-seven or twenty-eight years of age. No doubt, since membership of the Pochteca was hereditary, he had inherited the position from his father. He had a long, narrow face, prominent nose, high cheekbones, good teeth and a strong jaw and would have been the very image of classic Mexica comeliness were it not for the furtive, sliding-away quality of his gaze, which had never quite met her own since Ah Kinchil had required her to serve as his interpreter on this seven-mile jaunt down to Potonchan.

Both men were being carried shoulder-high in comfortable, cushioned litters and had their bodyguards – a dozen Mexica Cuahchics in the case of Cuetzpalli – arrayed around them. Malinal walked between the litters, translating the occasional formal pleasantries and observations of the wizened old chief and the smooth young merchant, but with her mind hardly on the task. What preoccupied her instead was the coming confrontation with the white men and her hope, still in part touched by Tozi's prophetic zeal, that something extraordinary was about to take place. She could sense Ah Kinchil's nervousness and uncertainty even while he boasted to Cuetzpalli of the ferocity of his warriors who marched just a mile ahead in five regiments of eight thousand men each. Their forty thousand pairs of feet had stirred up a dust cloud so vast it seemed to stretch from horizon to horizon. Despite the Xaman hills, which lay in the way, this immense cloud must surely be visible from Potonchan, now barely five miles from the advance units.

In her imagination Malinal's mind soared up over the hills and flew to the side of the leader of the white men. She felt sure, after everything she had heard Cit Bolon Tun say the night before, that he must indeed be a man, like any other man …

And yet … and yet …

The lookouts had called Cortés to the top of the pyramid around noon when Alvarado and Davila's squads, united in a single large square, had emerged from behind the cover of the hills three miles south of Potonchan and proceeded at a forced march towards the town, harried by a large mob of enemy skirmishers. Although Cortés could not understand why the two squads were now together when they'd set out on separate missions, they did not seem to be in any danger of being overrun and were proceeding in good order. He'd sent out a hundred men to reinforce them anyway, but the Indians had immediately disengaged at the sight of the new force and fled back towards the hills. In the past half-hour Alvarado and

Davila had crossed most of the remaining distance, joined up with the relief column and were already approaching the southern outskirts of the town. It was obvious, now, that they'd fought a major engagement, since there were many injured amongst them, but though bloodied they appeared to have suffered no losses.

Of much greater concern was the huge cloud of dust that had begun to form much further south while Cortés had been watching Alvarado and Davila's progress. He couldn't see details because the range of little hills blocked his view, but he estimated that the cloud's leading edge was presently about five miles from Potonchan and that it stretched back at least a mile from there, almost as far as Cintla. It could only be the product of a great army on the move, an army tens of thousands strong, advancing to make war on him.

The good news, after a morning's light exercise, was that the horses were frisky and full of grass, all the stiffness gone from their limbs. Cortés had already sent orders for them to be barded for battle. He turned to the artilleryman, Francisco de Mesa, who stood

at his side. ‘If we bring the lombards up here,’ he said, indicating the wide platform at the top of the pyramid, ‘what will their range be?’

Mesa’s eyes widened. ‘Up *here*, Don Hernán?’

‘Yes, you heard me, up here. Put those sixty slaves to work!’

Mesa raised his eyebrows. ‘Well, I suppose it can be done.’ He looked speculatively at the advancing dust cloud. ‘And from this altitude, with the barrels at maximum elevation, I judge we’ll be able to put ball into the midst of enemy formations anywhere up to two miles from the town.’

Cortés whistled. ‘Two miles, eh? Couldn’t ask for better! Well, get on with it then, Mesa, and at the double. We’re very short of time.’

Cortés had already decided who would ride with the cavalry today, and they were not in every case the men who owned the horses. For example Ortiz, nicknamed ‘the musician’ and Bartolomé García

both owned fine destriers that were presently exercising in the orchard, but both men were poor riders; their mounts would go to Miguel de Lares, whom Cortés knew to be a superb horseman, and to Gonzalo de Sandoval, whose story of a lifetime in the saddle before his family fell on hard times rang true. Likewise, Diego de Ordaz owned a fast grey mare, but it would be ridden today by Pedro Gonzalez de Trujillo – not, in this case, because of any lack of horsemanship skills on the part of Ordaz, but because Ordaz, despite his Velazquista sympathies, was undoubtedly the best officer to take command of the infantry in the coming engagement while Cortés himself led the cavalry. Ordaz's field experience in the Italian wars was second to none and he was, in addition, an excellent swordsman. Besides, Cortés hoped, giving him this important role, which he had accepted with pleased surprise this morning, might help to detach his loyalties from the pro-Velázquez clique.

As he reached the foot of the pyramid Cortés had Ordaz put out an urgent summons for an immediate muster of all the men and, while he waited for them to fall in, and for Alvarado and Davila to arrive, he gathered the rest of his selected corps of cavalry around him – Cristóbal de Olid, Alonso Hernández Puertocarrero, Juan de Escalante, Francisco de Montejo, Juan Velázquez de León, Francisco de Morla, Miguel de Lares, Gonzalo Dominguez, Pedro de Moran, Pedro Gonzalez de Trujillo, Juan Sedeno, Jerónimo Alanis, Pedro de la Mafla, Juan Rodriguez de Salas and young Gonzalo de Sandoval. Moments later Alvarado and Davila, both excellent horsemen, joined the group, while the two hundred men they had led in this morning's skirmishes, and the hundred from the relief column that Cortés had sent out to support them, milled in the square. Alvarado and Davila's men were evidently grateful to be out of danger, even if only temporarily, attending to their injuries, eating and drinking from their packs and telling the rest of the gathering force what had happened to them.

Cortés now climbed eight steps up the stairway of the pyramid, where Mesa was already organising his Taino slaves to carry the first of the two great cannon to the top, and called to the men for silence, which fell instantly, without complaint. Even the Velazquistas, it seemed, were willing to hold their tongues at this grave moment.

'I'll make this brief,' said Cortés. 'As some of you who've been up the pyramid in the last half-hour already know, a huge force of Indians is heading our way. I'll not put any gloss on this – I'd say we're facing thirty thousand men.'

At the figure of thirty thousand, which Cortés knew in his heart to be an underestimate, a gasp of alarm passed around the square. 'But this is not like facing thirty thousand battle-seasoned Moors on the plains of Granada,' he continued, waving the men to silence again, 'or thirty thousand of any European army. These are thirty thousand savages, armed with stone weapons and with no concept of the science of warfare. In addition to our discipline and *esprit de corps*,

which they lack, we have three outstanding advantages that we will turn against them. First, our cannon.' He pointed to the huge barrel of the lombard in its cradle of ropes, supported by a team of thirty slaves, now halfway up the steep steps of the pyramid. 'Second, our hounds' – a gesture to Vendabal and his assistants who were busily cinching the armour to the snarling dogs. 'And third, and I believe the factor more than any other that will tip the balance in our favour, our cavalry.' He waved at the group of horsemen gathered at the base of the steps.

Turning back to the infantry, Cortés paused, saying nothing, for ten … twenty … thirty seconds. It was a technique of oratory he had long ago mastered, the effect of which was to cause all the men to lean slightly towards him, anxious to learn what was coming next. 'I know,' he said at last and in a deeply sympathetic tone, 'that some of you brave fellows have fought hard already this morning, risked your lives, taken wounds, and I know I ask much to expect you to go out into the field, surrounded by overwhelming numbers of the

foe, and do it all again this afternoon. Nonetheless, this is what I ask of you! For if we do not all fight for our very lives today, with every bit of our strength, then we will perish here.' Another pause: 'But we will fight, and we will *not* perish!'

A great cheer arose from the men.

'We will fight and we will *not* perish because we are courageous men, *heroes all*, and because God and His saints and all His angels fight on our side this day!'

There came another cheer, more rousing than the last, and Cortés saw how many of the men's eyes gleamed with emotion as they fixed their gaze on him, relied on him, counted utterly on him as their leader who would bring them salvation, and – God willing – victory.

'So here is what we will do,' he said. 'Our enemies approach us from the south at a fast march. They will be upon us in a little more than an hour but we will have a trap prepared for them. The infantry

will be the bait of this trap and the artillery and cavalry will form its two jaws.'

He beckoned to the stocky, bearded figure of Diego de Ordaz who was standing nearby in a chain-mail tunic, his broadsword hanging from a baldric and a grim look on his face. Ordaz nodded and climbed the steps to stand beside him. 'I will lead the cavalry today,' Cortés continued, 'and Don Diego here will lead the infantry. You will march out *at once*, pausing only to gather all necessary supplies of powder, ammunition and water, and you will challenge the enemy by blocking their way one mile south of the town. Eight of the falconets will remain here in a battery to kill any of the foe who may slip past you, but the other ten will go with you, and all the dogs, and there you will stand and there you will fight while the Indians fall upon you in their thousands.'

Cortés paused again. Close to five hundred strained, dirt-streaked, in many cases blood-smeared faces leaned towards him. 'While you hold and engage the enemy, Francisco de Mesa, our artilleryman –'

he pointed to Mesa who was overseeing the progress of the second lombard on its way up the pyramid – 'will be preparing a bombardment the like of which these Indians cannot possibly conceive. Yonder lombards fire seventy-pound balls a distance of two miles, and when Mesa sees that the enemy are closing in on you he will begin firing over your heads and into the depths of their ranks, spreading terror and panic amongst them. Many will seek to flee to the south, back towards Cintla where they have come from, but at this point they will find our cavalry behind them – for we will have gone out by the east side of town and worked our way south from there following the same track that Davila and Alvarado took yesterday – and we will hit them at a full charge and destroy them utterly.'

As he dismissed the men to a resounding chorus of cheers, Cortés wished he felt as confident as he had sounded, and wished he could persuade himself of the merits of his simple plan as successfully as he seemed to have persuaded everyone else.

For the truth he knew at the bottom of his heart was that this plan of his had been hastily stitched together and was as full of holes as a threadbare sock. There were at least a dozen ways in which it could rapidly unravel, leaving his men and his cannon horribly vulnerable to being flanked and overwhelmed, and his precious cavalry cut off from all support amidst numberless foes.

Offering up a silent prayer to Saint Peter, who had so often promised him victory in dreams, Cortés turned with a smile to his cavalrymen. ‘Brothers,’ he said, ‘ours will be the first charge of horse ever witnessed in these new lands. Today we make history.’

Chapter Fifty-Nine

Thursday 25 March 1519

Cortés feared the lombards on the pyramid would be vulnerable to a sneak flanking attack by the Indians after the infantry had marched out of Potonchan and taken up its position as the ‘bait’ in his trap. Yet if the enemy were to be drawn into a fight that would last long enough to expose them to the ‘jaws’ of the trap (his cavalry to their south, Mesa’s lombards to their north), he couldn’t afford to reduce the strength of the infantry squares.

The Taino slaves who moved the big cannon could not be relied upon – indeed they would be more of an impediment than an asset – so there was no point in looking to them to help solve the problem. But more than fifty of Davila's men had been injured in the morning's heavy skirmishing and Cortés now had Mesa choose the forty who were most badly hurt, the ones who'd be the least use to Ordaz on the plain, to garrison the pyramid. He also put eight falconets under Mesa's command and told him to use them either to support Ordaz or for the defence of the lombards as the need arose.

'Does he need eight falconets?' growled Ordaz. 'When the fight gets hot we'll wish we had them with us.'

'Nothing's more important than protecting the lombards today,' Cortés insisted. 'Without them our trap will fail. Besides, you'll have ten falconets with you, a good number, and the eight with Mesa can be turned on any enemy units that get between you and the town. I think in the end you'll be glad of them here.'

Ordaz made a sour face but nodded his agreement.

‘I have a question,’ said Mesa. ‘How long do I continue the barrage with the lombards? I don’t want to hit your cavalry, Don Hernán.’

Cortés laughed. ‘Believe me, Mesa, I don’t want you to hit us either!’ His expression became suddenly grim. ‘Do the maximum harm you can to the enemy. Stop when you see us amongst them and not a moment before.’

He turned back to his cavaliers who were waiting nearby. ‘Gentlemen,’ he said. ‘Shall we to horse?’

Watching the eighteen cavaliers dress in their armour, strap on their swords and remove the scabbards from the warheads of their lances was, for Pepillo, like witnessing the romance of *Amadis de Gaula* come to life. Here was chivalry! Here was adventure! Here were heroes! He might easily imagine that Cortés was Amadis himself, the Knight of the Green Sword, on his way to kill the giant Endriago whose monstrous body was covered with scales – that courteous,

gentle, sensitive but invincible Amadis, who emerged victorious from every battle, drenched in his enemies' blood.

Cortés was already wearing a steel cuirass but, with Melchior's help, he unbuckled and removed its breast and back plates, donned a hauberk – a shirt of chain mail that fell to his thighs – reaffixed the cuirass over it and belted on his sword. Although the hauberk had mailed sleeves, additional items of steel plate were now added – *pauldrons* to protect his shoulders and armpits, *rerebraces* to protect his upper arms, articulated metal joints called *couters* to protect his elbows, forearm guards called *vambraces*, and gauntlets made of a cunning combination of plate, mail and leather to protect his hands. Next Melchior turned to the caudillo's legs, attaching *cuisses*, articulated *poleyns* and greaves to protect his thighs, knees and shins, and strapping mailed *sabatons* over the toes of his boots. Finally he fixed a *gorget* of multiple articulated steel plates around his master's throat and handed him his gleaming open-faced helmet,

called a *sallet*, with armoured flaps at the side and back to protect his neck.

While all this was done Cortés, who was in high good humour, laughed and joked with the other knights, pausing from time to time to explain the names and functions of the different pieces of armour to Pepillo, who felt his eyes must be as big as saucers as he looked on. Then, mounting Molinero, the caudillo placed his *sallet* on his head, reached down to take the twelve-foot lance that Melchior now passed up to him and leaned it jauntily over his right shoulder. All around the other knights were doing the same.

Cortés was looking at the boys. 'We'll win the fight today,' he said, 'but there's a risk the enemy may try to infiltrate the town before it's over. If that happens I don't want the two of you ending up in their cooking pots!' He laughed, but Pepillo could see that at some level he was serious. 'So get yourselves over to the pyramid,' he continued. 'Make yourselves useful to Mesa and see if he can't find you a weapon or two to defend yourselves with.'

‘I have my knife sir,’ said Melchior.

Cortés nodded. ‘Keep it handy, but get Mesa to arm you with a spear.’

He turned to Pepillo: ‘How about you, boy?’

‘I’m not armed, sir.’

‘Then take this.’ Cortés reached into the top of his boot and pulled out a small, wicked-looking dagger.

‘Won’t you need it, sir?’

‘I carry a second,’ said Cortés, patting his other boot. He passed the knife to Pepillo. ‘Use it on yourself if you have to.’ With a raised finger he mimed the motion of a man cutting his own throat. ‘Believe me, it will be better than letting the Indians capture you.’

Pepillo gulped. ‘On *myself*, sir?’

‘Yes, if you have to.’ A confident chuckle: ‘But you won’t have to! We’ll win today, you’ll see. I want you to observe everything that happens – the top of the pyramid will be a good place for that – and tonight you’ll help me write to the king.’

The rest of the squadron had already formed up two by two behind him, their armour glittering in the sun. Cortés waited for Alvarado to fall in at his side, raised his left hand above his head, signalled ‘forward’ and nudged Molinero into a trot.

Holding the little knife, testing its keen edge, Pepillo stood dumbfounded at the thought of taking his own life with it as he watched the riders file out through the gate of the orchard and clatter across the square. They increased their pace to a gallop, scattering dust, and turned onto the main avenue leading east out of Potonchan.

Ah Kinchil and Cuetzpalli had decided to watch the battle from the Xaman Hills, really nothing more than a fold or a wrinkle in the plains. The tallest peak in the little range was barely a hundred feet high, but offered an excellent vantage point across the maize fields that stretched three miles north from here to the outskirts of Potonchan. There was a copse of ancient ahuehuetl trees on the

summit to provide shade, and even a little bubbling spring. All in all it could hardly have been more idyllic.

‘We will devour them,’ said Ah Kinchil, echoing Muluc’s comment of the night before.

‘I don’t doubt it,’ Cuetzpalli replied. Having been carried up here by their sweating litter-bearers, the two men were now standing side by side at the edge of the copse with their retainers gathered nearby and Malinal placed between them to translate their every word. Ah Kinchil had detached two hundred warriors from the rearguard of the immense army Muluc was leading into battle, posting them around the base of the hill and keeping his personal bodyguard on sentry duty amongst the trees. Muluc’s steward Ichick was present – primarily, Malinal suspected, to keep a close eye on her and make sure she had no opportunity to escape before being sold to Cuetzpalli tomorrow and sent on her way back to Tenochtitlan. All twelve of Cuetzpalli’s Cuahchics were in attendance, along with a

scribe and an artist whom he had instructed to keep a record of the main events of the battle.

Malinal was unable to imagine any way in which the situation could fail to be utterly hopeless for the white men – unless they really were gods. Their entire army, which they had divided into four small square formations of a hundred men each in ten tightly bunched ranks, had marched one mile south of Potonchan and taken up position between the town and Muluc's advancing army. Each of the squares looked to be about thirty feet wide and thirty deep and even though they were divided one from the other by horizontal gaps of approximately twice that width, their entire combined front still stretched no more than three hundred feet across the fields. Moreover Malinal realised that the little squares were not even deployed in a single formidable row, but in two pairs, with the second pair some distance behind the first and offset diagonally, creating a front that was staggered rather than straight. Why, she wondered, would the Spaniards have adopted such a vulnerable

formation? Surely being divided like this into four tiny, isolated units would only make it easier for Muluc's men, who formed a block two thousand feet wide and a thousand deep, to surround and 'devour' each one? Indeed each of the eighty Mayan ranks contained five hundred men, thus alone outnumbering the entire Spanish force!

It was almost as though the white men were offering themselves for sacrifice!

Out of the corner of her eye, Malinal noticed Cuetzpalli's artist rapidly sketching the scene. Here they were on the Xaman hills with Muluc's army a mile and a half to their north, marching rapidly across the open fields and already manoeuvring into a vast convex formation to flank and engulf the Spaniards. Approximately half a mile of empty fields came next and then – appearing even smaller in the painting than they did in real life – the four squares of the unlucky Spaniards.

Her first intimation that things might not go the way that numbers and common sense suggested came a moment later when she saw five clouds of dirty grey smoke rise up a little distance in front of those tiny squares. This interesting phenomenon was followed almost instantly by some ripple or perturbance in the Mayan front ranks; though she could not see the cause, it was obvious that men had fallen. Finally, a fifteen count after the smoke had appeared, she heard a tremendous rolling, crashing blast, a sound like the thunder of doom, and knew she was witnessing in action the weapons the white men called ‘guns’.

Well, Muluc’s men were prepared for this. They now knew – for the intelligence Cit Bolon Tun brought had been passed to every one of them – that there was nothing supernatural about these ‘guns’; they were just weapons like any other, albeit very dangerous ones. After they had been fired they had to be reloaded, which took time, and during the intervals the white men would be vulnerable.

As she had expected, the entire Mayan force, which had been approaching at a fast march, surged forward into a wild charge. Immediately, five more clouds of dirty grey smoke rose up from before the squares.

Had Cit Bolon Tun been lying?

No, Malinal thought. The more likely explanation was that the Spaniards had ten ‘guns’ and were reloading the first five while the second five were fired.

Again she saw that mysterious perturbance in the Mayan ranks – more noticeable this time than before; it seemed that many men had fallen and that these powerful weapons worked their harm not only on those directly facing them but in long narrow strips extending five or even ten ranks back into the charging mass. Even so the charge did not break – and it still had not broken after a fifteen count when the devastating reverberating roar of the guns reached her.

What was becoming obvious, however, was a distinct closing-up, a definite *compression*, of the forty-thousand-strong army. To Malinal's eye it seemed that the front ranks had slowed their onward rush somewhat while the rearmost ranks had, if anything, increased their pace, and the result was that the whole force had now become more dense, compacted into a space somewhat less than a thousand feet deep, as it bore down in a mass on the white men's squares.

That was when Malinal saw two much larger clouds of smoke billow from the top of Potonchan's ancient pyramid and sensed a blur in the air as two objects, moving incredibly fast, crashed into the very heart of Muluc's army.

What was this? She blinked, trying to make sense of what she was seeing. There! And there! Two glinting objects bouncing and rolling with unbelievable force, mowing down hundreds – hundreds! – of Mayan warriors amidst bright splashes of blood, spreading disorder and rampant terror amongst them. Cuetzpalli

gasped and leaned forward, shading his eyes with his hand; Ah Kinchil's face turned grey and his toothless jaw sagged.

And then came the sound …

A sound beyond imagination and nightmares.

A sound like the end of the world.

Pepillo pulled his fingers from his ears, shook his head to clear the infernal ringing that had set in and surveyed the damage that the first two seventy-pound balls from the lombards had done to the massed enemy. Already visibly discomfited by the ten one-pound rounds from the falconets, he saw they were now in a state of some distress, not exactly falling apart but definitely lacking the aggressive certainty and cohesion they'd shown moments before.

He and Melchior had very little to do and looked on in amazement as Mesa's gun crews worked like demons, swabbing out the big barrels and loading new charges. Down on the plain the enemy front line, still manoeuvring from a block into a horned

formation, was quarter of a mile from the four Spanish squares and coming on at a full run. But the falconets had been reloaded and now Ordaz fired all ten at once, a concentrated salvo that smashed through the advance, cutting deep swathes into the ranks, raising screams of confusion and terror, causing some men to halt and others to turn back, transforming the Mayan army almost instantly from an organised coherent force into a melee. Meanwhile the crews were reloading the little cannon and, from now on, Melchior explained, they would fire grapeshot at point-blank range, doing terrible damage.

But the Maya did not lack courage and large elements of their wavering front line still pressed forward, now less than a thousand feet from the Spanish squares. Behind, in a seething, tumultuous, curving band, seven hundred feet deep and two thousand wide, the rest of the huge force struggled with itself, some advancing, some retreating – a giant flux of close to forty thousand men into the

midst of whom, keeping the seventy-pound balls as far from the Spaniards as possible, Mesa must concentrate his fire.

The lombards were ready again. Melchior and Pepillo returned their fingers to their ears.

Ah Kinchil, Cuetzpalli, the scribe, the artist, the Cuahchics, Ah Kinchil's guards and retainers, Malinal, even the litter-bearers, in short everyone on the hilltop regardless of rank or station, had now pressed forward to the edge of the trees and stood silent, riveted in place by the events unfolding on the plain below. Whereas moments before it had seemed certain that Muluc's army must sweep the white men away like saplings before an avalanche, it was now obvious that the forty thousand Maya warriors were in some kind of serious, unprecedented, unknown trouble.

Malinal saw the smoke plumes that told her the ten guns in front of the Spanish squares had fired again, all of them together this time, felt in her viscera the hammer blows that struck the Mayan

front ranks, making them reel back, and sensed the shock waves radiating rearwards from there through the whole army, causing men far from the impact to stumble and fall as though pushed by giant, invisible hands while others – thousands! – turned in blind panic and ran.

'Fight!' Ah Kinchil croaked, 'Fight!' – as if anyone could hear him; as if it would make any difference if they did! But perhaps in some way the paramount chief's feeble command had got through, for those who ran on towards the Spaniards, Malinal realised, still far outnumbered those attempting to desert.

Cuetzpalli was whispering urgently to his artist – 'Paint everything! The Lord Speaker will reward you!' – when Malinal saw two huge plumes of smoke rush up again from the top of the distant pyramid and, in the same instant, with intimations of horror, witnessed the same shimmer in the air she had seen before, presaging the same mysterious phenomenon of shining metallic spheres tearing through the Maya ranks, bowling over whole rows

of men twenty or thirty deep, crushing some, decapitating or dismembering others, bouncing high, crashing down, bouncing and rolling again.

‘Fight!’ Ah Kinchil was still screaming, spittle running out of his mouth and down his chin. ‘Fight for the honour of the Chontal Maya!’ Cuetzpalli looked on, his fists clenched so tightly that the knuckles had turned white. Malinal saw that the chaos in the midst of the ranks was multiplying out of control as the metal spheres spread their doom and those running away collided with those running forward. Yet so huge was the army that tens of thousands at the front were still swept onwards by the vast momentum of the charge – onwards like some great ocean wave that must crash down on those tiny, seemingly defenceless Spanish squares and wipe them utterly from the face of the earth.

Bernal Díaz knew he should have stayed behind with the injured men assigned to defend the pyramid, but his pride and his infernal

sense of honour had got in the way when Mesa made his selection. Instead of admitting he could hardly walk, let alone stand and fight for hours on the plains, he'd kept his head down and let the dour chief of artillery choose others, fitter than himself, for the garrison.

Worse still, he'd said yes when Ordaz had picked him to lead the hundred men in the westernmost of the four squares. Well, how could he refuse? Most of the officers were away with the cavalry – and where the hell *was* the cavalry, come to think of it? – leaving precious few with enough experience to command large groups of infantry.

Ah, pride! Ah, honour! Díaz winced and closed his eyes for a moment against a wave of dizziness as another stabbing pain ran the length of his throbbing, hugely swollen leg. When he looked again the onrushing mass of Indians, like some turbulent, surging tide, was just five hundred feet away, their shrill cries and whistles and the terrible beat of their drums ringing in his ears, and he saw Ordaz's sword come slashing down, the signal to the gunners, and

the ten falconets ranged in front of the squares again fired in unison amidst clouds of smoke, their coughing, booming roar echoing forth, their charges of grapeshot spreading out and tearing into the massed enemy, cutting them to bloody ribbons as though a thousand keen-edged knives had been hurled at them. The attack faltered but did not break and the gun crews wheeled the little cannon back on the double, three into the protection of Díaz's square, two into the next, three into the next and two into the last, just ahead of the Indian front rank, which threw itself against the Spanish pikes with suicidal fury.

Gods! Díaz thought, sweeping aside a spear thrust and hacking his broadsword into a screaming, painted face. *Are these men or devils?* And suddenly his square was engulfed – all the squares were engulfed – by countless thousands of the enemy. The fighting was so intense, so furious, so close that Díaz forgot the crippling pain of his leg, forgot the fever and nausea that shook him, and fought like

a madman for his life, aware as he parried and thrust that the crews of the three falconets inside his square were feverishly reloading.

‘Musketeers!’ he yelled. ‘A volley! A volley *now!*’

Cortés was finding it difficult to stay calm. For the past quarter-hour he and his riders had been hearing cannon fire, yet they still remained stuck on the track that ran east and then south out of Potonchan, curving through forest and dense bush for two miles before reaching open fields. There had been no musket fire, which meant the Mayan and Spanish front ranks were not yet engaged, but he knew the clash could not be delayed much longer. He cursed under his breath as, for the seventh or eighth time since leaving the town, the whole troop was forced to dismount in order to clear trees that had been felled across their path.

This was a bad development. Alvarado and Davila had both made use of the track yesterday, and Alvarado again this morning, and they had reported it narrow but free of obstacles and passable by

horses riding in single file. It followed that the enemy – Cortés could not guess how many – had penetrated the forest within the past few hours. Might there be enough of them to stage an ambush? The dismounted riders were vulnerable. Or might they be planning a flanking attack on the town?

Both possibilities loomed large in Cortés's imagination; however, the greater worry was the time it was taking to get his cavalry into the field – far, far longer than anyone had anticipated! Once battle was joined in earnest in front of the town, the foot soldiers could not hold out indefinitely against the overwhelming numbers of the Maya. Cannon might delay the inevitable but only a decisive charge of heavy horse could swing the balance and demoralise the enemy completely enough to give victory to the hard-pressed Spaniards.

Sandoval and Escalante wrestled aside the last of the felled trunks and the troop mounted up again.

'I don't like this,' said Puertocarrero, glancing nervously into the dark mass of trees pressing close to the track. 'Forest is no place for

cavalry.'

'Who cares whether you like it or not?' growled Alvarado, touching his heel to Bucephalus's flank and causing the white stallion to surge forward into the rump of Puertocarrero's silver-grey mare.

'Silence, gentlemen, please,' said Cortés. In the distance they all heard the bark of muskets.

Where was the cavalry? This was the question at the forefront of Díaz's mind. Despite the carnage wrought by the cannon, the gigantic, howling torrent of Mayan warriors had engulfed all four of the squares, flowing round them as a river in spate flows round islands in its midst, hammering at the Spaniards on every side. He smelt them – rank, fetid, like dead meat; saw their furious eyes, their bared teeth, filed to sharp points, their brown skin glistening with sweat, their lean, painted bodies, the barbaric splendour of their plumes and standards, the flash and gleam of their primitive

stone weapons – here an axe, here a dagger, here a spear – lunging and battering at his men, breaking against armour, deflected by good Spanish shields. He was sorely tempted to unleash the twenty-five war hounds held barking and straining at the centre of his square, but the signal Ordaz had arranged, three blasts on the bugle, had not been sounded, and there was more work yet for gun and sword.

Responding to his command, his twelve musketeers had pushed their way forward, three on the north, three on the south, three on the east, and three on the west side of the square, and now fired a volley in unison, tearing holes in the press of the enemy, creating points of weakness and confusion into which his swordsmen charged, hacking and slashing wildly. The madness of battle was on him, the agony of his leg wound dulled, and Díaz found that he too had surged out of the protection of the square to attack the disrupted enemy ranks, shield in his left hand, sword in his right, a lunge to a man's throat, a slash across a bare abdomen, smash his shield into

another's face, hack down with his blade to take off a leg at the knee …

Then suddenly he was cut off, alone, surrounded by a wheeling knot of the foe, and he felt a spear thud and shatter against his cuirass. In the next instant a flint knife somehow found a way through his *pauldron* and embedded itself in his left armpit with a shock of intense, burning pain, and some great club smashed against his helmet, knocking him sick and dizzy to the ground, stars flashing before his eyes.

What was this? *What was this?* Dirty bare feet, hairless brown legs, a man's crotch bound in a breechclout, strong hands gripping his upper arms, dragging him away, excited voices jabbering in the barbarous tongue of the Maya.

The realisation dawned on Díaz that he was being taken. *Dear God! They'll sacrifice me! They'll cut out my heart!* But just then he heard a great roar of 'Santiago and at them!', saw an Indian's head go thumping and rolling, the stump of a neck gushing blood, long

black hair cartwheeling, saw a hand sliced off, an arm amputated at the shoulder, saw another painted warrior hacked clean in half as Mibiercas, like the angel of death, did terrible butchery with his longsword, yelling furious insults with every massive blow, clearing a wide space into which La Serna and three others charged and bore Díaz aloft and carried him back into the square.

There was no let-up, the press of the enemy resumed at once, but then someone shouted '*Now!*' and Díaz sensed rather than saw the three falconets trundled forward to the edges of the square, heard the roar of their percussion and the whistle of grapeshot and the terrible screams as their tempest of fire was unleashed.

At point-blank range, the effect of the shrapnel storm was calamitous for the Maya. Huge gaps a dozen men wide opened up in their ranks into which, once again, poured the flying squads of Spanish swordsmen, Mibiercas to the fore. They hacked mercilessly at their dazed foes until they began to form up again and then withdrew to the protection of the squares.

Ignoring the thudding pain in his leg, ignoring the hot blood dripping from under his left arm, Díaz was on his feet near the middle of the square where his friends had set him down, using his height to get a sense of the ebb and flow of the battle. He saw that wherever the Maya kept their discipline and dashed in good order against the outer ranks of the Spanish formations, they were met by solid walls of shields over the top of which long spears and pikes were thrust into their faces from the ranks behind, while the men directly confronting them gutted and hamstrung them with sword blades. Meanwhile the musketeers and crossbowmen, firing sequentially in groups of six, kept up almost continuous withering volleys that tore yet more holes in the Mayan ranks, which were again exploited by groups of swordsmen until the falconets were once more ready to fire, restarting the whole cycle of death and destruction.

Díaz felt proud of his comrades, so proud that tears leapt to his eyes and his breath caught in his throat. They were men of the finest

mettle, men who refused to break, no matter what fearsome odds they faced, men who would not give way, men who did not know the meaning of defeat.

Yet even men such as they could not possibly survive this terrible onslaught. Had they killed a thousand of the enemy with their cannon and muskets and swordplay? Two thousand? It did not matter. They could kill three thousand or even five thousand and the odds would still be close to a hundred to one and the final outcome certain.

Unless the will of the foe broke – and only the cavalry, Díaz was sure, had the power to bring that about.

Mesa was ready to fire the lombards again and Pepillo put his fingers back in his ears. He could see the shots were becoming more difficult for the artilleryman now the enemy swirled so close to the Spaniards. Still, they were legion, stretching back in a disordered mass at least five hundred feet south of the squares.

The two huge guns bellowed flame and smoke, sending the lethal seventy-pound balls whistling low to crash down amidst the Mayan ranks just a hundred feet south of the Spanish formations.

My goodness, thought Pepillo, *that was a close thing!* But again the cannon balls and the massive roar of the big guns had a stunning effect on the enemy, causing even those locked in direct combat with the squares to pause and look up.

Some were pointing at him! Then his eye was caught by a horde of warriors, a thousand strong, leaving the centre of the battle and pouring north across the intervening mile directly towards the town.

Directly towards the pyramid.

'Captain Mesa!' he yelled. 'There! Look there!'

Seeing the threat, the artilleryman scrambled to crank down the elevation of the barrels as the gun crews frantically reloaded.

Malinal watched spellbound as the battle unfolded. If they were not gods, she thought, these Spaniards were certainly proving

themselves to be brave men with exceptional, indeed almost superhuman, fighting skills. Against all logic and reason, their squares would not break before the overwhelming numbers of the Maya, and somehow continued to hold out against them in the midst of the ferocious scrum of hand-to-hand combat.

'Look,' Ah Kinchil suddenly gibbered to Cuetzpalli. 'Look!' Despite his great age the paramount chief of the Chontal Maya was far-sighted and was now dancing up and down with joy and pointing towards Potonchan. 'My warriors go to recapture the pyramid of King Ahau Chamahez from the invaders! The white men there will die! Their terrible weapons will be thrown down!'

Stupid old fool! thought Malinal. *What do you know?*

Weirdly she found her loyalty to the Maya had become so detached she actually *wanted* the Spaniards to win! Well, why not? What had her own people – even her own mother! – ever done for her? They had sent her into slavery and humiliation and danger and when she had returned they had slaved her again! They deserved the

punishment the white men were inflicting on them. They deserved to lose this battle!

Except it still did not seem possible that the huge Mayan army could lose, even in the state of chaos the white men's guns were reducing it to, because Ah Kinchil was right. At least a thousand warriors had formed up into a block and were pouring across the open fields north of the battleground and making for the town. It wouldn't take them long to reach the pyramid and the white men on its summit.

In minutes they covered half the distance. Malinal watched anxiously with her knuckles pressed to her mouth, daring to hope that more Spaniards might usher forth from the town to intercept them; but none appeared and Muluc's triumphant words echoed in her head – *'they have no reserves!'* It seemed that nothing could stop the attack on the pyramid when the guns on its summit billowed smoke again, and she almost cheered as glittering death

crashed down amongst the charging warriors, pounding them, crushing them, annihilating them, scattering the survivors like chaff.

Yet, even as she admired the Spaniards, she could not suppress the pride she felt in her own people's courage when she saw that some of the shattered column still ran on towards the pyramid, while others picked themselves up from the ground and followed.

'Good shooting, Captain Mesa!' yelled Pepillo. Though it had been worth the attempt, he'd doubted the artilleryman could hit the fast-moving Mayan column with even one of the huge cannon, but in the event both had been perfectly on the mark, causing bloody mayhem.

Even so, hundreds of enemy warriors were still coming on and were now so close – less than quarter of a mile away – that the lombards couldn't be depressed far enough to target them.

Mesa had placed four of his eight falconets around the base of the pyramid, deploying the other four to the southern outskirts of Potonchan, overlooking the battlefield. It was unlikely they'd be

enough to stop what was left of this attack completely, but the Maya must be demoralised by the colossal losses they'd already suffered, and anything was possible. The guns were hidden from Pepillo's view by the buildings at the edge of town, but now he heard their choking roar and saw the onrush of the enemy falter as the four one-pound balls smashed into them.

Dozens of men went down but not enough, not nearly enough. 'Reload!' Pepillo found himself shouting. 'Reload with grapeshot!' But just then Melchior came charging by, grabbed Mesa by the elbow and pointed east.

Just minutes away, their war cries already audible as they approached along the east–west avenue running through the centre of Potonchan, was another band of Indians, at least two hundred of them, armed with spears and clubs and obsidian-edged longswords.

Mesa bellowed a warning to the falconet crews around the base of the pyramid, called to arms the squad of forty injured men

waiting in the shade of the little temple on the summit platform and led the way down the eastern stair.

Somewhere Melchior had found two round wooden bucklers and two eight-foot spears and thrust one of each at Pepillo. ‘Know how to use these?’ he asked.

Pepillo shook his head dumbly.

‘Well you’d better learn fast,’ said his friend.

At last, after throwing aside three more hurdles, Cortés led his cavalry out into the open fields. Though they had several times caught glimpses of painted warriors moving amongst the trees, no attack had materialised – perhaps because the steel-clad horses and riders appeared so alien and menacing to the Indians. What was certain, however, was that Potonchan was entirely unprotected at its east side and that the force mobilising in the forest must be there to attack the town. For the hundredth time, Cortés found himself wishing he had left Mesa with more than forty men – every one of

them injured! – to defend the lombards. But the Spaniards were stretched so thin he'd been unable to spare a larger number and now the only hope for all of them was a stunning coup by the cavalry.

Cortés saw the battle raging just two miles to the northwest, where the Spaniards were perilously hemmed in on every side, but the fields here at the edge of the forest were broken and treacherous, cut through by irrigation ditches that the horses couldn't leap without risk of serious injury. Any charge attempted across such terrain was doomed to failure. Cursing inwardly, he ordered the troop to ride another mile due west to the foot of a ridge of low hills where the track intersected the main highway running into Potonchan from the south.

From there, finally, they would be able to bear down unimpeded on the enemy masses where they swarmed, and now threatened to overrun, the four beleaguered Spanish squares.

Malinal had watched the thousand Mayan warriors – charging across the fields to Potonchan – reduced to hundreds when the big guns fired down on them from the pyramid. Moments later they were struck again as plumes of smoke revealed four smaller guns positioned at the southern edge of town. Finally they were struck a third time in some devastating way that felled almost all the survivors, leaving barely a hundred to press home the attack as she lost sight of them amidst the streets and houses.

She heard an urgent sound, like the rapid beat of some great drum, and a gasp from one of Cuetzpalli's Cuahchics who babbled in Nahuatl the words 'men of silver' as another said, 'deer-men!' She turned towards where they were looking, a little to the east on the plains below the hill, and her eyes fell on something extraordinary, something unbelievable, something enchanted with the most powerful magic, something truly belonging to the world of the gods. This something, which she could barely comprehend, took the form of fifteen or twenty giant figures in a tight group racing at

supernatural speed towards the Xaman Hills, and the figures moved on four legs, with an appearance somewhat like white-tailed deer, except their bodies were three times the height of the largest stags of that race, and rising up from the midst of their backs – though whether seated upright upon them or actually one creature with them it was hard to be certain – were gigantic human forms. Both the human and animal parts of these beings, which must be the 'horses' Cit Bolon Tun had spoken of, were covered from head to foot in some metal that shone brighter than burnished silver, and they held in their human hands long lances with tips of the same shining stuff.

Ah Kinchil had been growing steadily more deranged all afternoon, but now he uttered a high-pitched scream and threw himself to the ground, covering his head with his arms while his skinny legs kicked and thrashed. The Cuahchics, who usually knew what to do in any situation, seemed bewildered and confounded in ways wholly out of keeping with their status as ferocious warriors.

The artist had stopped painting and stood gazing, not exactly in fear, more in awe and in puzzlement, at the onrush of the strange group of beings. Cuetzpalli was stumbling back into the shelter of the trees, apparently trying to get out of sight as quickly as possible, his handsome face filled with horror, and the slippery, evasive quality of his gaze transformed into frank, unabashed terror. Taking their cue from him, Ah Kinchil's guards lifted the paramount chief bodily and ducked into the undergrowth with him, followed by his retainers and Muluc's steward Ichick. The guards at the foot of the hill had fled and it seemed there was nothing to stop the metal beings charging right up the steep slope and destroying everyone.

Malinal stayed in the open, refusing to hide. 'Come to me!' she shouted. 'Come to me! I am here because of you!' And it seemed to her for a moment that the leader of the beings had heard her words, for he turned his metal head towards her and she saw his white, bearded face – the face of Quetzalcoatl! – and his eyes fixed on her and filled her body with fire, and rooted her to the spot.

But then in a roll of thunder and a storm of dust he was past, they were all past, and they turned onto the *sacbe* and charged north along it towards Potonchan, their lances levelled before them.

‘Aim for their faces!’ Cortés yelled. ‘Spit them but don’t waste time spearing fallen men. Just charge them and keep on charging them, put the fear of God into them, break up their formations, scatter them and ride them down!’

He glanced at the smooth white surface of the road flying by beneath Molinero’s hooves, saw his brave cavaliers flung out in a fighting wedge behind him, every one of them burning for battle, urging their mounts onward at a tremendous pace. They had covered the ground in a matter of minutes and the huge mass of the foe sprawled just five hundred feet ahead, already in a state of turmoil, boiling with confusion at the havoc wreaked by the lombards. These now belched fire for the last time from the top of the pyramid and sent a pair of seventy-pound balls into the midst of

the enemy, bouncing and crashing, mowing men down like ripe wheat before the thresher, even as the falconets sewed death in their front line from the shelter of the squares.

The Maya were so preoccupied with the fight ahead, which they were close to winning by sheer numbers despite their terror of the cannon, that none of them even seemed to have noticed the doom that was bearing down on them from behind. ‘Santiago and at them!’ Cortés bellowed as Molinero thundered across the rapidly closing gap, and then, with a fearsome crash, the wedge ploughed deep into the already chaotic enemy rear. He felt the jolt as his lance took a turning man in the side of his face, and was filled with brutal joy at the terrified howls and screams that rose up all around him and at the shockwave that passed through the milling throng ahead. He jerked the lance free, speared another man, and spurred Molinero onward, the great destrier’s iron-clad hooves trampling the fallen, Alvarado riding Bucephalus roughshod over the huddled foe to his left, Escalante to his right, and there was Puertocarrero,

and there Lares, there Olid and there Morla on his dappled grey, there was Montejo and there young Sandoval, a spearhead of armoured men sweeping out a great swathe in the very heart of the Mayan army, painted warriors fleeing away from them in all directions in panic-stricken mobs. Again Cortés's lance struck; again he pulled it free as he smashed his heavy iron stirrup into an enemy's face and impaled another so hard through the chest that the lance protruded a yard from the man's back and for a moment he thought he might not retrieve it …

Alvarado saw Cortés struggling to withdraw his lance. He had already lost his own, buried in a savage's head somewhere in the fray, but he didn't care. As they were arming in the orchard, he'd once again set aside his Nuñez rapier, not at all a suitable cavalry sword, and brought along the falchion instead. *Good choice!* he thought, *good choice!* – for what a weapon the long heavy cutlass was proving to be in this pounding, trampling charge through the dense mass of a hopelessly undisciplined foe. Most were utterly

demoralised and fleeing in every direction, but some, he was pleased to discover, pressed round him and still had the guts for a fight. He slashed left, opening a screaming warrior's face in a great bloody gash from cheekbone to jaw, slashed right, taking a man's head half off his shoulders, felt some pitiful stone blade shatter against his armoured thigh, hacked down the enemy who had wielded it and laughed out loud in sheer, mad, murderous joy as he urged Bucephalus forward …

Gonzalo de Sandoval saw the excitement, the sheer pleasure on Alvarado's face and knew that he did not and never would love killing in that extraordinary, murderous, almost insane way. Although he had killed no men at all until a few weeks ago, Sandoval found himself surprisingly calm and collected as he killed again now, not because he wanted to, not because there was any satisfaction or relish in it, but simply because it was the job at hand, the job he was born to do and, now that the caudillo had given him his chance, it was a job he was determined to do well. He thrust

forward, impaling a man through the throat, snatched the lance free in a single fluid movement and wheeled the chestnut mare to strike another warrior, plunging the tip of the weapon vertically down through the soft, vulnerable flesh between his neck and collarbone and into his heart.

Sandoval had practised such manoeuvres a hundred times in training exercises, when his Hidalgo family still had some remnants of wealth and power, and was amazed at the way everything was coming back to him now. The extra height that one gained on the back of a great destrier accorded the rider exceptional advantages over the foot soldier – and especially over foot soldiers such as these Indians who had never before faced mounted men, who indeed had never even seen horses before and were for the most part in a blind, superstitious funk.

Not all of them though! Twenty paces away, two wild, half-naked savages, who seemed to have identified Cortés as the leader, were swarming him in the midst of a dense pack of the enemy; one had

leapt up behind him and was sawing at his throat with a flint dagger – but getting nowhere because of the steel *gorget* he wore – while the other clung to his left arm and sought to pull him down. Sandoval spurred his horse to a gallop, scattering groups of the enemy left and right, levelled his lance and killed the warrior on the ground with a massive thrust which swept him away, while Cortés, his left arm now free, reached inside his boot, pulled out a dagger and used it to stab the man on his back through the eye, drawing a gush of blood.

'Well done, Sandoval!' Cortés shouted. As he stood in his stirrups to throw down the dying man, whose blood poured in gouts over the shoulders of his armour, his elevated view showed him all four of the Spanish squares, the nearest only a hundred paces away, still beset on all sides, and all but overwhelmed, by great mobs of Indians. But now a bugle sounded and, out of the squares, held back until this critical moment, baying and snarling like so many demons released from hell, raced the four packs of dogs. The steel armour of

the hundred furious, ravening animals glittered, and their great mouths, filled with jagged teeth, gaped wide, spraying saliva, as they fell baying and snarling, maddened with bloodlust, upon the press of the dismayed foe. Throats were snatched out in an instant, bowels worried from naked bellies, thighs and groins seized and ripped open, heads clamped and crushed.

His lance levelled, Cortés charged on towards the squares, vaguely aware of the other horsemen around him, smashing down and trampling groups of Indians in desperate flight away from the dogs – Indians who, indeed, no longer constituted a proper fighting force anywhere across the battlefield.

Quite suddenly, as though communicated by some mysterious telepathy, their spirit had broken, and what had begun as a fight, and come very close to total victory for the Maya, was ending as a rout.

Ah Kinchil, Cuetzpalli, Ichick and the guards and retainers emerged from their hiding places in the trees soon after the men of silver had

thundered past. Thereafter, Ah Kinchil sat slumped, spittle drooling from his mouth, seemingly aware of nothing, but Cuetzpalli very soon regained his composure and watched the final stages of the battle keenly, giving a running commentary to his scribe and his artist who industriously set down everything that happened.

When it was clear, against all the odds, that the Spaniards had won the day and the immense Mayan army was in full flight across the battlefield, pursued, charged and speared at will by the terrifying silver beings, Cuetzpalli stood up, brushed grass and a few leaves from his rich tunic, and snapped his fingers for his litter to be brought. 'Give the paramount chief my regrets,' he said to Malinal with a gesture to Ah Kinchil, 'and tell him I could not stay. Pressing business calls me back to Tenochtitlan.' A sly smile: 'Tell him I much appreciated the afternoon's … entertainment. It has been – how can I put this? – most instructive. I am sure the Great Speaker of the Mexica will be eager to hear of these events.'

As the merchant turned to go, Muluc's steward Ichick thrust himself forward, dragging Malinal by the wrist. 'But lord, do you not want to buy this woman? You had an agreement with my master to take her off his hands.'

'Your master,' said Cuetzpalli coldly, 'led forty thousand men into battle against four hundred … and lost. Quite an incredible achievement, wouldn't you say? He has dishonoured the name of the Chontal Maya and, if he lives, which I rather doubt, he should kill himself. Entirely his choice, of course, but either way my agreement with him is void.'

With that he stepped into the litter and was carried off down the hill in the direction of Cintla, his Cuahchics jogging protectively along beside him.

Ah Kinchil remained in a stupefied state, but his retainers wasted no time bundling him into his litter too. On Ichick's orders Malinal's hands were tied, a noose was placed around her neck and two soldiers were detailed to guard her. Then, in great haste, the

whole column wound its way off the hilltop, also heading south to Cintla.

There was no time to lose, for below on the plains the defeated Maya were likewise fleeing south in their thousands. Casting a last glance back, Malinal saw the men of silver abruptly break off the chase and turn away, thundering towards Potonchan. ‘Come for me,’ she whispered as she lost sight of their leader in the dust cloud of their charge. ‘Come for me.’

So vengeful were his cavalrymen, so furious in the wild hunt, that Cortés had great difficulty persuading them to break it off. But the battle was won and he feared for the men in Potonchan. There had been firing from the falconet battery he’d left with Mesa, but the guns had fallen silent and now, ominously, he saw Indians swarming up the flanks of the pyramid.

The squat figure of Ordaz was before him, sword mired to the hilt with blood, a look of triumph on his face as he surveyed the rout of

the enemy. Cortés reined in beside him, pointed with his lance to the pyramid. ‘It’s not over yet,’ he yelled. ‘Bring two hundred men. Bring them fast!’ As he spurred forward again he saw Vendabal and swerved by him. ‘Dogs!’ he shouted. ‘I need dogs now. Tear them loose from the foe and bring them to the aid of our comrades.’ Vendabal followed his gaze to the pyramid, his eyes widened, and he bellowed for his assistants.

Cortés urged Molinero to a full gallop, furious to see Alvarado and some of the other cavaliers hanging back, so keen to punish the thousands fleeing the battlefield that they were oblivious to the danger in the town. But Escalante, Puertocarrero and Morla on his left, Sandoval, Velázquez de León and Dominguez on his right, had seen what he saw, and others were wheeling away to join the charge.

‘Santiago and at them!’ Cortés yelled, thrusting his lance forward. ‘Santiago and at them!’

Darting here and there behind the line, Pepillo saw everything and could do nothing. He saw a black-and-white painted warrior, his face twisted with hate, exploit a gap in the thicket of spear points, bound up the last three steps and break his stone dagger against a bearded soldier's mailed hauberk, while to his right another of the foe also found his way through, somehow grabbing the ankles of a defender and tugging wildly to unbalance him. Both attackers were dead within seconds, the first with a dagger thrust to his heart and a shove that sent him rolling and tumbling down the side of the pyramid; the second with a thudding blow from a war hammer that split his skull and spilled his brains.

Following Melchior's example, Pepillo held the heavy buckler above his head to ward off the missiles – arrows, fire-hardened darts, slingstones – that showered down constantly on the summit platform as he dashed to and fro, his heart drumming, ready to spear any man who broke through the line.

It had all happened suddenly. One minute he and Melchior had been spectators only, safe on top of the pyramid watching the lombards rain death on the enemy, the next minute Melchior had spotted two hundred Indians approaching the square from the east and Mesa and his troops had charged down to stop them. But no sooner had they placed the falconets to enfilade the attackers than the crews of the other battery, positioned on the south side of town, had appeared in the square, hotly pursued by a further hundred of the foe, the remnant of the large column that had approached from the south and been torn apart – though unfortunately not completely destroyed – by the lombards. This changed everything and Mesa was only able to get off one salvo of grapeshot towards the east before abandoning the little cannon, wheeling his men to the defence of the fleeing gunners and fighting a desperate retreat up the pyramid steps against the combined force of the two Indian bands.

In addition to himself and the Taino slaves, who'd been herded into the temple and would not take part in the defence, Pepillo counted sixty-four defenders now ringing the summit platform – forty injured soldiers, sixteen gun crew from the falconet batteries, six further gunners who had fired the now silent lombards, the artilleryman Mesa, and Melchior.

Despite the many injuries they'd already suffered in this morning's battles, they held the high ground and were better armed and equipped than the far more numerous Indians attempting to storm the summit platform. Morale was high, too, because even as they fought with all their strength to prevent the summit from being overwhelmed, and thus save their own lives, all the defenders had seen the huge Maya army out on the plain break and fall apart as Cortés and his cavalryman entered the field and the war dogs were unleashed from the squares. Then a great cheer went up and someone shouted: 'The caudillo's seen us! He's coming.' And

another man said: ‘God be praised, I knew Cortés wouldn’t leave us in the lurch.’

‘Five minutes more,’ Mesa bellowed as he lunged his twelve-foot spear into the face of another attacker. ‘Five minutes more and the cavalry will be in the square and then we’ll have these devils on the run.’

Pepillo watched the infantryman next to Mesa on the south side of the platform swing a great double-headed axe, sending two more of the Indians hurtling and screaming down the steep steps to the ground far below. ‘I do believe,’ said Melchior, ‘that we may live through this after all.’ But just then, perhaps because they too had seen what had happened on the plain, the Indians redoubled their assault, huge numbers of them pressing up the steps at once, and the defenders on the west side suddenly buckled and gave way; an infantryman with a bandaged leg was pulled down and a crazed savage burst through, stabbed another man in the neck with his flint knife and opened a gap for more attackers to follow. In an instant a

knot of half a dozen Maya fighters gained the summit, screaming ferocious battle cries, laying about themselves mightily with clubs and obsidian-edged blades.

Melchior didn't hesitate but ran at them with his spear and thrust it under the ribs of the warrior who'd first broken the line. He hit him with such force that the man was thrown back over the lip of the summit and tumbled out of sight, taking the spear with him, even as another lean Indian, smeared with blood and paint, forced his way forward. Melchior drew his knife and two more attackers closed with him, stone blades flashing. For an instant longer Pepillo stood frozen with his back against the wall of the little temple at the centre of the platform, his hands shaking; then the spell was broken and he dashed forward, thrust his own eight-foot spear at the mob of invaders and felt the impact as its tip hit bone and it was snatched from his grasp. Where was Melchior? For a moment, in the screaming, bellowing scrum, amidst the press of bodies, he couldn't locate him, but then he saw he was down, grinding his rusty old

dagger between the ribs of a long-haired warrior who straddled and stabbed at him repeatedly with a flint blade. Pepillo sensed a rush of feet and heard the roar of Mesa's voice as men from the south side, where the line still held, charged in to throw the invaders back, but his only thought was for Melchior. As he hurtled across the intervening space at his friend's attacker, Cortés's knife gripped in his fist, something huge and heavy smashed with dreadful force into the side of his head and he tumbled instantly into darkness.

When Pepillo awoke, blinking, with the taste of blood in his mouth and the sounds of screams flooding back into his ears, he didn't know how much time had passed, or even, for the first few moments, where he was. He sat up groggily to see a massive wolfhound feasting on a dead Indian whose throat it had torn out. Other dogs were here, and more fallen Indians – most dead, some wounded; they were the ones doing the screaming. He recognised Sandoval, in armour, a bloodied broadsword gripped in his hand,

talking quietly to Mesa. And there was Cortés, his armoured back and shoulders drenched in gore, crouched over a sprawled, still form.

Melchior!

Dread seized Pepillo as he crawled and clambered over bodies, shoved a snarling mastiff out of his way and dragged himself to his friend's side.

Melchior's eyes turned towards him. 'Pepillo!' he whispered. 'You did well. I saw you spear that Indian …'

'I tried to get to you,' Pepillo sobbed. 'Something hit me in the head, knocked me out. But thank God, you're alive.'

Melchior reached out his hand, rested it on Pepillo's arm and held him in a fierce grip. 'Silly mammet!' he said. 'Of course I'm alive. Who else is going to teach you to ride?'

Chapter Sixty

Thursday 25 March 1519 to Sunday 18 April 1519

In the aftermath of the battle, though he had won an astounding victory against overwhelming odds, though he had destroyed the Indians of Potonchan utterly, as Saint Peter had required him to do, Cortés was seized by an immense weariness and a fall in his spirits. It was almost, he thought, like the feeling one has after sex, when

one has anticipated the joys of a woman's body, seduced her at great length, got her between the sheets and finally spent one's seed in her only to discover, when all is said and done, that the act was a little less pleasurable than one had imagined it might be.

A sense, somehow, of anticlimax rather than culmination.

A sense of melancholy and a vague, restless, gnawing hunger for something more …

Something … better.

In this mood, leaving Alvarado in charge of the mopping-up operation, not pausing even to wash or take supper, Cortés threw himself down on his bed soon after nightfall in the former palace of the chief of Potonchan, now commandeered as his own headquarters, and fell immediately into a deep sleep.

Deep, but not dreamless.

For it seemed very little time passed – no time at all – before the beloved figure of a tall strong man of middle years, very handsome and commanding, with golden hair and dazzling bright skin,

appeared to him and drew his soul out of his body and lifted him, high, high, into the evening sky under the flickering stars and carried him off over the field of battle where countless thousands of the enemy lay dead. ‘The Lord God smiles upon you,’ Saint Peter said. ‘He celebrates your victory. We all do.’

‘You *all* do?’ Cortés asked.

‘We the saints, and the congregation of angels. The Lord is pleased with you, Cortés. I am pleased with you. We are all pleased with you.’

And it was true. The keeper of the keys of Heaven, the very rock upon whom Christ built his church, beamed with joy as they descended to the battlefield and walked together, their feet bathed in blood, amongst the heaped and mutilated dead. ‘Look, Cortés,’ Saint Peter chortled, ‘look what you have done for your God. Look there, and there, and there.’ And he showed him the bodies, some ripped apart by the fangs of the war dogs, others trampled by the horses, some hacked and stabbed to death by the swords and pikes

and spears of the Spaniards, others with their heads blown off, many torn limb from limb or burst apart into unrecognisable fragments of flesh and bone, where storms of grapeshot and musket rounds had struck them or where the heavy cannonballs fired by the lombards had bounced lethally through their ranks, striking them down in swathes. ‘You have won,’ said the holy saint, ‘a great and terrible victory over the heathen; you have laid my vengeance upon them as I asked, and now your reward beckons.’

An image took shape in Cortés’s mind of the city in the lake surrounded by mountains that Saint Peter had shown him weeks before, the jewelled and shining city built upon the water with an immense pyramid of pure gold towering at its heart.

‘Yes,’ said the saint, smiling encouragingly, ‘that’s the one. That’s your prize. Shall we go and take another look?’

‘Yes, Holy Father, you have read the secret yearnings of my heart.’

‘You have no secrets from me, for I know all your yearnings, all your hopes, all your dreams, and in the fullness of time I will satisfy every one of them.’ So saying, the saint swept Cortés up into the sky again and showed him the way, a hundred miles and another hundred, and yet another hundred, and a hundred miles more across jungles, across rivers, across snow-capped mountains, between two immense volcanoes and down into the distant, verdant valley beyond and the gleaming lake that lay at its centre and the shining city that stood in the midst of the lake, and the massy pyramid looming at the very heart of the city.

But what was this?

‘The pyramid is no longer of gold, Holy Father,’ Cortés protested, ‘as you showed me before.’

‘Oh,’ said Saint Peter, ‘is it not?’

‘Well, see for yourself,’ said Cortés, hearing the disappointment in his voice as he pointed to the hulking structure beneath them. Though splendidly made, and monstrous huge, it was of common

stone with its four levels painted respectively green, red, turquoise and yellow.

‘Ah,’ said the saint. ‘You are quite correct.’

Then what, Cortés wanted to ask, *do you propose to do about it?* Part of his plan for keeping the demands and insurrections of the Velazquistas in check had involved the golden pyramid. To be able to offer them a share of such a bounty, at the right moment, would have quieted all dissent. But a pyramid of stone? What use was that to him or them?

‘There is gold here aplenty,’ said Saint Peter, as ever reading his thoughts. ‘Gold in the treasure houses of the emperor, gold in the temples, gold around the necks of the nobles, gold in the emporia of the merchants – more than enough to satisfy the greed of your opponents, more gold than you can possibly imagine – and all of it I will make yours.’

‘An emperor rules here?’ Cortés asked.

‘A great and wealthy emperor, whom I give you leave to plunder for the glory of the Lord, whose temples you must bring low, whose idols you must destroy, whose pyramid you must take apart block by block.’

‘But why,’ Cortés asked, ‘did you show me the pyramid of gold when in truth it is made of painted stone?’

The saint’s smile was somehow fearsome, and his black eyes glittered. ‘Therein lies a great mystery,’ he said, ‘and it will be your fate to discover its meaning.’

There came a clap of thunder, the heavens split, darkness descended upon the scene like an inkblot and Cortés awoke in his commandeered bed in the midst of the night and for a long moment he had no idea where he was.

Tozi’s second visit to Guatemoc in his bedchamber at Chapultepec began much as the first. Entering the darkened room after midnight she emerged into form and offered him healing.

He seemed childlike in his trust. She said ‘turn here’, and he turned; she said ‘face there’, and he obeyed, all the while groaning with relief as her fingers gently caressed and probed his wounds.

It was not until close to dawn that the encounter became scary and unpredictable. Tozi thought him asleep and was about to leave him to his rest when suddenly he reached out to her and drew her close. ‘Is it permissible,’ he asked in that soft, aristocratic drawl of his, ‘for a mortal man to kiss a goddess?’

She was flustered, afraid, her whole body was trembling, sweat broke out on her brow. It was all she could do not to render herself invisible at once and fade away like smoke between his hands. ‘No, Prince!’ she exclaimed. ‘Such a thing is impossible. You would be turned to stone!’

‘I think I would be willing to endure that fate,’ he said, ‘and remain eternally a statue, in return for one taste of your sweet lips.’

He was, Tozi had to admit, very persuasive. She felt the heat of his body, felt herself blush. Thankfully it was still too dark for him

to see. But he mused: ‘What is this? Even a goddess trembles?’

‘I tremble that you do not die for this sacrilege! Release me at once, Prince, or never see me again!’

Guatemoc nodded. ‘So slim,’ he whispered, ‘so warm …’ His forehead rested against hers before he let her go. ‘So moist … So very human …’

Feeling his hands unclasp from her waist, Tozi stepped back sharply from the bed and faded into invisibility.

‘And yet not human,’ she heard the prince add as she disappeared, ‘for surely no human has such powers.’

‘Who else is going to teach you to ride?’

Those words, so full of hope and promise, were the last Melchior spoke. Moments later he slipped into unconsciousness, his fierce grip slackening, and did not wake again. Pepillo sat vigil with him through the night in the makeshift field hospital that Dr La Peña had

set up for the injured, but as dawn was breaking his friend drew a final laboured breath and died.

‘He’s gone to a better place, lad,’ said Bernal Díaz, who lay on the next mat, his right thigh swollen and septic where an arrow had struck him two days before, the left side of his chest bandaged and seeping blood where a knife thrust in yesterday’s fighting had got past his armour.

‘What’s so good about being dead?’ Pepillo shouted angrily. ‘Nothing’s better than being alive!’ Then he remembered that if it hadn’t been for Díaz he and Melchior would both have been dead, killed by Muñoz, weeks before. ‘I’m sorry,’ he sniffled. ‘I didn’t mean to shout.’

‘And I’m sorry you’ve lost your friend,’ said Díaz. ‘He was a good lad and a brave one. He didn’t deserve this.’

‘He was teaching me to ride,’ Pepillo said. Suddenly, the emotions he had held in check all night, trying to be strong, trying to be a man, overwhelmed him, and he found himself doubled over,

sobbing disconsolately, snot running out of his nose. ‘He put me on Molinero’s back. Yesterday! Just yesterday, Don Bernal. And we rode, and we felt so fine and Melchior was so happy. Even after what Muñoz did to him – the bad memories, the horror, the pain – he’d overcome all that. I know he’d overcome it, and he was smiling again. And he loved his horses, Don Bernal. He loved his horses. He told me how he’d been a slave and how riding like the wind was the true meaning of freedom for him. And now he’s dead. Just dead! It’s not right! It’s not fair! What kind of God would allow a good person like Melchior to die in such a way?’

‘The same kind of God that let an evil person like Muñoz live for so many years,’ said Díaz quietly. Pepillo looked up and saw only kindness and concern in the ensign’s eyes, but when he looked down again, nothing had changed, for there was Melchior, cold and still.

Outside morning had broken and a new day had begun.

During the night after the battle, Ah Kinchil recovered his wits and refused Muluc's request to raise another army from surrounding towns to do battle with the white men again.

'Are you mad?' the old chief spat at him incredulously as Malinal served them an early breakfast in the palace in Cintla. 'I saw what happened. I saw how they defeated us. Don't forget I was *there*, Muluc! I witnessed the whole battle, from beginning to end, and it was unbelievable. Something impossible even to imagine. Whether they are men or gods, it's obvious we can't fight them.'

At that moment, Cit Bolon Tun, the cross-eyed former captive of the Spaniards, was brought in by the palace guards. The man's nose had been broken by some brutal blow and was still bleeding freely.

'There you are!' said Ah Kinchil. 'You knew they'd beat us and you told us to fight them anyway. I call you a traitor! A *traitor*, do you hear? It was you who misled us and brought this disaster down on our heads. Without your advice I would never have gone to war.'

‘I’m no traitor, sire,’ said Cit Bolon Tun, falling to his knees and sobbing pitifully, drops of blood from his nose spattering around him on the polished floor. ‘The Spaniards are very dangerous. I made no secret of that! But I gave you my best, most honest, most truthful advice when I urged you to fight them, while they are still few in number. Wait a few more months and there will be many more of them. Wait a year and there will be thousands. Our only chance was a swift, decisive victory now …’

‘Liar!’ roared Ah Kinchil, spraying spittle. ‘We had no chance at all! I say you knew that all along.’

‘No, sire. I swear it …’

Ah Kinchil gave a curt nod to one of the guards who pulled a long dagger from his belt, walked up behind Cit Bolon Tun, wrenched the wretched man’s head back by his long hair, and sawed the blade back and forth across his throat as one might slaughter a deer. Blood spurted freely as the major vessels were severed, the victim’s horrible screams and gurgles were abruptly silenced as his

vocal cords were cut, and the guard didn't stop until he'd decapitated the poor man. The whole procedure took about a minute. When it was over, Ah Kinchil turned to Malinal and the other serving girls. 'Well?' he said. 'What are you waiting for? Clear this mess up at once.'

Not surprisingly, Muluc's plans for a further battle with the white men evaporated like mist after that and he readily agreed to Ah Kinchil's suggestion that he should go to Potonchan at once at the head of a peace delegation, seek out the Spanish leader Cortés and present him with the abject and total surrender of the Chontal Maya.

'He will require gifts,' said Muluc.

'Take him gifts,' said Ah Kinchil with a lofty wave of his hand. 'You may empty the palace treasury.'

'The gods only know why,' said Muluc, 'but these white men have a particular lust for gold.'

'Then take them all we have,' Ah Kinchil replied with a sniff. The smell of Cit Bolon Tun's blood was thick in the air. 'Not that it

amounts to much.' Another sniff: 'Why would they want gold anyway?'

'They say it's the specific remedy for a certain disease of the heart they suffer from. Silver also seems to help it.'

'I hope they will not be angered that we have so little of both.' Ah Kinchil turned thoughtfully and directed his ancient rheumy gaze at Malinal, busy scrubbing the floor. 'This women is quite fetching,' he said. 'I suggest you take her as well. In fact, take twenty women, the most beautiful you can find, and present them all to the Spaniards. All men, and even gods, suffer from a certain need –' a lecherous, toothless grin – 'and women are the specific remedy for it.'

'You said you returned to us to meet the white men,' Muluc told Malinal gleefully, 'so now you're going to get your wish – and good riddance to you; I hope you're as much trouble to them as you've been to me.'

Malinal found it hard to conceal her joy. She had walked all the way from Tenochtitlan to find these white ‘gods’, only to be diverted from her quest by Muluc – yet fate had now conspired to make him the very instrument that would put her into their hands!

The peace delegation, with the twenty women in its midst, and bearers carrying fifty heaped bundles of jaguar skins, two hundred bundles of embroidered textiles and three large treasure chests, was ready to depart by midday and reached Potonchan, seven miles to the north, three hours later. The route, following the *sacbe*, led directly across the battlefield between the Xaman hills and Potonchan itself, and Malinal was now able to see close up the effects of the devastation she’d witnessed from afar the day before.

The Spaniards’ ‘guns’ had torn men limb from limb, smashed them, crushed them, turned them inside out. Those grim glittering spheres launched from the top of the pyramid had cut long lanes of carnage through the Mayan ranks – here ten, twenty, even thirty warriors in a row had been mowed down; then there was a gap

where the ball had bounced into the air, then another lane of demolished corpses, all rotting already in the hot afternoon sun. Closer to where the Spanish squares had stood there were countless sword and axe and spear wounds. And everywhere there were men who'd been ripped to bloody ribbons, their guts dragged out of their bellies in stinking, slimy, flyblown piles, by the Spanish war animals. Some species of dog, Cit Bolon Tun had hazarded? Some species of demon or dragon more like, Malinal thought, judging from the dreadful butchery of the wounds.

And what of the animals, like deer, called 'horses'? The huge beasts on which Malinal had seen the Spanish war leader and his troop thunder past the foot of the Xaman hills on their way to battle? The hoofprints of these creatures were everywhere, in the churned-up soil and imprinted on the bodies and faces of fallen men, and where they had charged into the thickest press of the Mayan ranks, crowds of corpses lay hunched and heaped one upon

the other, as many killed as they'd fled in blind panic as had been struck down by the weapons of the Spaniards.

The trail of bodies led all the way into Potonchan, through the narrow streets and up towards the plaza, where the ancient pyramid overlooked the sacred silk-cotton tree. Long before this, the Mayan delegation had been shadowed and flanked by Spanish scouts, hard-faced, bearded, pale-eyed men wearing metal armour, carrying metal swords and spears – some of the terrifying 'guns', too, Malinal noted – but Muluc had shown by signs that his intentions were peaceful and the caravan had been allowed to proceed.

Now at last, in the mid-afternoon, they came into the square and, up ahead, in the shade of the silk-cotton tree, seated regally on a throne, looking relaxed, confident, handsome – gods he was handsome! – the Spanish leader awaited them. Malinal recognised him at once and felt again the special connection she'd felt with him yesterday as she'd watched him ride into battle. The way he had turned his bearded white face towards her then, the way his eyes

had seemed to fix on her and root her to the spot, had filled her with hope and a strange yearning, and she now had a sense, as she'd had so often in the past month, that she was swept up in some divine scheme and that her fate was about to be fulfilled.

But how to talk to him? This was the problem. How to communicate to him her special purpose? How to let him know that she was the one who had been chosen by the gods, and spared from death, to bring him to Tenochtitlan and end forever the cruel and gluttonous reign of Moctezuma?

Strangely – a blow to Malinal's conviction that a divine plan was about to unfold – this man, if he was a man, or god if he was a god, this Cortés, did not even acknowledge her existence as she stood roasting in the sun with the other twenty women, amongst the bearers of the treasures and jaguar skins and textiles, while Muluc alone entered the shade of the silk-cotton tree. Through the intermediary of the black-bearded interpreter Aguilar, whom Cit Bolon Tun had spoken of, and who sat on a stool at Cortés's right

hand, a long conversation then ensued. Very long. Malinal was only able to grasp snatches of what was said, as her hated stepfather was made to grovel and squirm. At one point another Spaniard even more beautiful than Cortés himself, a man who it seemed was called Alvarado, but who resembled the sun brought down to earth with his yellow beard and hair, stepped forward and beat Muluc about the buttocks with the flat of his huge metal sword.

All this was very enjoyable and diverting, but it still brought Malinal no closer to Cortés, the avatar, she yet had reason to hope, of the god Quetzalcoatl, whom she had travelled all this way and risked so many dangers to see.

The solution, of course, was the interpreter Aguilar. Malinal must simply speak to him in the Mayan language, which he appeared to have complete mastery of, tell him of her mission, and he would immediately translate what she had said into the language of the Spaniards and Cortés would understand.

She leapt forward. A Spanish guard got in her way but she bowled him aside, swords were drawn all around her – *swish, swish, swish* – and she found herself on her knees at the very feet of Cortés, strong hands holding her, forcing her head down.

'How *dare* you, woman?' Muluc shrieked, reaching out to strike her, but his hand was kicked aside by the Spaniard Alvarado, who stood over him, hand on the hilt of his sword, his pale eyes glittering, saying incomprehensible words in his strange language. 'You're to leave her alone, Muluc,' snapped the translator Aguilar. 'Back off! My masters want to hear her.'

Snarling and snapping, Muluc backed away.

'What's your name?' said Aguilar in faultless Mayan.

'Who, me?' asked Malinal.

'Yes, you. Who else?'

'I am Malinal.'

'Very well, Malinal, state your business here.'

‘I must speak with the Lord Cortés,’ she said. ‘I have been seeking him out these last thirty days. I have walked all the way from Tenochtitlan to find him. I … we … my friend and I, we believe he is the Lord Quetzalcoatl, returned to claim his kingdom. I have come to guide him to his home.’

‘His home? His home is in Spain.’

‘No, lord. We believe him to be the human manifestation of the great god Quetzalcoatl, whose rightful home is Tenochtitlan, capital city of the Mexica. I am here to guide him thither. I am here to help him to overthrow the usurper Moctezuma and claim back his throne.’

‘Nonsense, woman. You are talking complete and utter nonsense!’

‘I have heard,’ Malinal said, desperate now for anything that would sway this dog-faced translator on whose good graces she depended utterly to speak to Cortés, ‘that you Spaniards have a great need for gold. Well, you will find precious little here amongst

my people the Maya, for whom gold holds no meaning. If you want gold, whole rooms full of gold, a city of gold, then only allow me to lead you to Tenochtitlan and I will place in your hands all the gold you want. Please, I beg you, Lord Aguilar, convey what I have said to the Lord Cortés.'

Aguilar seemed to think about it. A muscle twitched in his bearded cheek. His upper teeth appeared and nibbled his lower lip. 'Do you,' he asked, 'speak the language of the Mexica?'

'I speak it fluently,' Malinal replied, 'like my mother tongue. And through me, and through you, Lord Aguilar, the Lord Cortés also may speak to the Mexica, and convey to them his commands. You will put what he says into the Mayan tongue and I will put it into the language of the Mexica. I will put what they say in reply into the Mayan tongue and you will put my words into Spanish. It is a good plan, is it not?'

'No,' said Aguilar cruelly, 'it's a terrible plan, it's a stupid plan and I'll have nothing to do with it.' Abruptly he turned to Cortés

and spoke to him at length in Spanish, and the next moment guards took rough hold of Malinal and dragged her out into the sun again, and threw her down, sprawling amongst the other women, while from the shade of the silk-cotton tree Muluc leered at her in triumph.

What followed was, if anything, worse. Despite the connection she felt certain they enjoyed, that special connection that had drawn him to her and her to him as he rode into battle, the Lord Cortés continued to ignore Malinal – completely, as though she did not even exist – for the rest of the afternoon.

His primary interest was the treasure, and truly he did not even seem greatly interested in that. The bales of embroidered cloth and jaguar skins meant nothing to him. He looked at them as though they were excrement.

Only the three wooden chests attracted his attention, and when they were opened he rifled through their contents before giving a

great sigh and turning away in disgust. Behind him followed the Spaniard Alvarado who, if anything, seemed even more angered and frustrated by Muluc's gifts.

That was when the pair of them noticed the women again. They walked over, fingered the girls, squeezed their breasts, slapped a buttock here or there, all the while speaking to one another harshly and cruelly in their mysterious foreign tongue. Then other Spaniards gathered round, lean men, hungry men, who looked on the women as vultures might look on carrion, and there was much laughter and nudging and lewd gestures, all of them perfectly comprehensible to Malinal.

This was about sex now, that eternal obsession of men.

Finally the women were divided up, this one to that man, this one to another. Cortés still showed not the slightest interest in Malinal and gave her finally to a vulgar beast with a bushy red beard.

She learned soon enough that his name was Alonso Hernández Puertocarrero.

Melchior had died during the night, as Cortés had known he must the moment he'd seen his injuries, and was buried just hours later on the morning of Friday 26 March. Four good Spaniards who'd also lost their lives on the plains of Potonchan were buried alongside him in a moving ceremony, at which Cortés gave a reading, attended by all who were fit to walk. The death toll was small, all things considered, but more than a hundred of the men had been wounded in Thursday's great battle, a few so severely that even the best efforts of Dr La Peña would not save them. Still, there was much to be thankful for, Cortés decided. He'd faced down and defeated a giant army while his own small force was still almost entirely intact.

That same afternoon of Friday 26th, a delegation of Indians appeared, led by the creature Muluc, whom Cortés now knew to be the chief of Potonchan – though he'd pretended otherwise. He came bearing the seal of Ah Kinchil, the paramount chief of all the Chontal Maya, to offer a complete, abject and unconditional

surrender, which Cortés was happy to accept. His men had taken a hammering over the past few days and badly needed time to rest and recuperate.

As a token of the peace, Muluc brought twenty fine, clean women to serve the Spaniards as slaves or, he said with a lewd grimace, ‘for any other purpose you wish’. Amongst them, Cortés noted, was the same striking, graceful beauty whom he’d seen the previous afternoon, watching the battle from the hills south of Potonchan. He’d been strongly drawn to her then, her magnetism reaching out to him as he’d thundered by on Molinero, and he felt her spell again now, but resisted it even when she rather dramatically threw herself at his feet and yammered away at Aguilar in her exotic tongue for some minutes.

She was, the interpreter assured him, completely mad. It seemed she was convinced he was some pagan god! In Aguilar’s opinion she was best ignored if he did not want trouble. Cortés was tempted to take the matter further, but ultimately decided against it. With

rebellion brewing amongst the Velazquistas it was important to keep his friends sweet, and a sex slave as decorative as this was an easy way to satisfy Puertocarrero, who loved women at least as much as he loved gold.

On the matter of gold, the peace offerings presented by Muluc were less satisfactory. Other than the heaped skins of some unknown animals, and two hundred bundles of embroidered textiles, costly but inferior to silk, he brought only three chests, admittedly large, packed in the main with little statues, face masks, pectorals, belts, ear and lip decorations, ornamental weapons, plates and serving vessels, all made of the curious, somewhat translucent green stone that had been offered before at the riverside in Potonchan. There were in addition a good number of pearls, various gemstones resembling rubies, cornelians, emeralds, agates, topazes and the like, but pitifully little gold – four diadems, some ornaments shaped like lizards, two shaped like fish with finely worked individual scales, five resembling ducks, a handful of earrings and necklaces,

two gold soles for sandals and a few items of silver, pretty to look at but of small value. Alvarado thought the gold, silver, pearls and gems worth less than fifteen thousand pesos, a sum – he declared with a sour face – that was by no means worth the battle fought to obtain it. He suggested they put Muluc to torture and burn the town of Cintla where Ah Kinchil had his seat. 'It's the only way we're going to part these swine from their treasure.'

But Aguilar disagreed. 'The Maya don't share our idea of treasure,' he said. 'They place little value on gold.' He pulled a carved green stone from the chest. It was similar to the piece, shaped like an axe head, that Alvarado had thrown in the river some days before. 'This is the stuff that matters to them. 'They call it *ik'*, and they regard it as precious beyond any jewel or metal. It speaks to them of breath, fertility, the maize crop, vitality. It's their ultimate symbol of wealth.'

'Looks like shit to me,' said Alvarado. 'Let's burn some towns. They'll show us their gold soon enough.'

When questioned, Muluc protested that the chest contained all the gold of Cintla and Potonchan. There was no more to be had in either place, and while other towns and villages in the region might be able to offer some pieces, they would be of poor quality and the quantity would not be great.

‘We’ll see about that,’ Alvarado growled.

Muluc then launched into a lengthy account of another people, a people called the Mexica who were ruled by a great emperor named Moctezuma and whose capital city, Tenochtitlan, stood on an island in a lake at the heart of an immense green valley hundreds of miles to the northwest, protected by ranges of huge, snow-capped mountains.

Cortés was at once entranced; he sat forward, listening intently as evening drew in and the first stars appeared in the darkening sky.

Mexica traders, Muluc continued, frequently visited the Maya, and some of the Maya had made the journey to Tenochtitlan. Indeed Muluc claimed to have made a visit to it himself. It was, he said, a

city of fabulous wealth and power. If the Spanish wanted gold, that was where they should go, for its temples and treasuries were stuffed with gold and every other precious item they desired. Indeed, all the gold ornaments he had brought as gifts today had been acquired by the Maya – who had no gold mines of their own – through trade with the Mexica.

'He's lying,' said Alvarado, 'just trying to send us on a wild goose chase to get us away from here.'

But when the Mayan delegation had been dismissed to return to Cintla, and the Spaniards sat down to their supper, some taking to their beds soon after to enjoy the women they'd been given, Aguilar confirmed Muluc's story to be essentially true. Even the distant part of the Yucatán where he had been held as a slave was occasionally visited by Mexica merchants. It was generally understood that the far-off land from which they came was enormously rich and that their emperor, Moctezuma, ruled over huge territories populated by millions and commanded a vast army.

Tozi was filled with trepidation as she entered Guatemoc's bedchamber in Chapultepec for the third and final night – her last chance on this present mission to make the prince 'our man'. She wasn't sure exactly what Huicton had meant by that strange phrase, but she was determined to achieve something, to make some breakthrough before returning to Tenochtitlan tomorrow to resume her haunting and torture of Moctezuma.

As she stood watching Guatemoc in the moonlight, his eyes closed, his chest rising and falling evenly with his breathing, looking so much stronger than he had on the two previous nights, indeed positively *glowing* with health and vitality, it occurred to her that she had perhaps already achieved much. She had, after all, given the prince healing and freed him from the pain of his wounds and won his trust, and these gains might surely be bartered to some valuable advantage when the right time came.

She moved silently to the bedside and faded into visibility, watching Guatemoc uncertainly for a moment longer before waking

him. His attempt last night to kiss her had taken her by surprise but had not, she had to admit, been entirely unwelcome. He was a stunningly handsome man, even *beautiful* in his way, and she was flattered that so powerful and important a personage should be attracted to her at all.

Although, of course, she had to remind herself, it was not her, Tozi, he was attracted to, but her in her guise as the Lady Temaz, goddess of healing and medicines – a completely different matter. A prince who might abase himself and do foolish things to win the attentions of a goddess would not even spare a glance at a little beggar girl!

Feeling a burst of annoyance and indignation, she reached out her hand and touched his muscular naked shoulder.

'Hello, sweet goddess,' he said immediately. 'I was waiting for your visit.' He opened his eyes and in a single graceful movement sat up, swung his bare feet over the side of the bed and arranged the sheet – just so – to cover his manly parts.

Ha! So he hadn't been asleep after all. Just pretending. He was tricky, Tozi realised. She would have to be careful. 'You must not,' she said, 'attempt to kiss me again.'

'Or you'll turn me to stone?'

Was he mocking her?

'Not I, Prince, but the universe itself will punish you if you transgress the sanctity of the gods. Now lie down again, please. Let me complete the work of healing.'

'No,' he said. 'Not yet. I want to talk first.'

'We can talk as I work.'

'Oh, very well,' he grumbled. 'I can hardly object.'

He lay on his back. He wore no bandages tonight. His wounds were clean and dry with no sign of infection. As she ran her fingers over the jagged scars for the last time he asked: 'Why are you doing this for me?'

'A great battle is coming,' she said. 'The world as you know it will cease to exist and a new world will arise to take its place. You

are a powerful figure amongst your people, Prince Guatemoc, an important figure, one to whom many look up. It will be good if you are on the right side.'

'Strange that,' said Guatemoc. He paused: 'Shikotenka of Tlascala gave me these wounds.' He moved his hand down to touch her fingers where they rested on the series of great puncture marks across his belly. 'Afterwards, as I lay dying on a hillside, the war god Hummingbird appeared to me and he too told me that a great battle is coming.'

Tozi's mind was in turmoil. Hummingbird, who had reprieved her from death on the sacrificial stone and touched her with his fire! And Shikotenka of Tlascala, the very man with whom Huicton had been sent to negotiate an alliance! Both brought together in this single utterance of Guatemoc's! It could hardly be chance.

'I suppose,' Guatemoc said, 'it is your privilege, Lady Temaz, to see the face of Hummingbird every day in the council of the gods?'

‘I have seen him,’ said Tozi, ‘and I do not like him. He is a cruel god with a lust for suffering …’

‘Whereas your work is healing?’

‘I heal the wounds that war makes—’

Guatemoc seemed to ignore her. ‘Hummingbird told me,’ he continued, ‘that Moctezuma is a weakling, not competent to fight the battle that confronts us.’

‘That is true,’ Tozi agreed.

‘And he told me – I think he told me – he had brought me back from the dead to fight that battle in Moctezuma’s place.’

Tozi’s mind was racing. ‘It was I, not Hummingbird, who brought you back from the dead,’ she exclaimed, ‘and I am here to tell you another thing …’

The prince looked at her expectantly.

‘The god of peace is coming,’ Tozi continued, ‘the god Quetzalcoatl, the Feathered Serpent. It is with him and his retinue of gods that Moctezuma will very soon find himself at war, and

Moctezuma will lose that fight and be cast away forever. You must not, Guatemoc, *you must not* place yourself in opposition to Quetzalcoatl! You must be on the right side. You must be on the side of peace.'

'Peace?' The prince seemed genuinely puzzled. 'Peace? I am a warrior, my lady. I can never be on the side of peace. Besides,' a sly look crossed his handsome face, 'what sort of god of peace would fight a war in the first place? Surely if he wishes to rid the world of Moctezuma he will find a way to do that by peaceful means?'

Tozi thought about it. It made sense! But it would never work. 'Moctezuma is evil,' she said, 'and sometimes evil overwhelms good, and when it does it can't just be wished away peacefully. It has to be fought and it has to be stopped, and that's what Quetzalcoatl is returning to do.'

'So Quetzalcoatl, then, is a god of war, just like Hummingbird?'

'No … Yes!'

‘Which is it to be, my lady? Is this Quetzalcoatl of yours a god of peace? Or is he a god of war?’ The prince laughed. ‘He can’t be both!’

‘Then he is a god of war! But his war is against Hummingbird himself, the wicked ruler and authority of the unseen world, who contaminates and pollutes everything he touches with evil and darkness, whose puppet Moctezuma is, just as the physician Mecatl was Moctezuma’s puppet in the plot to poison you … So the question you must ask yourself, Guatemoc, is this – will you, too, be Hummingbird’s puppet in the great conflict that is to come, or will you fight on the side of the good and the light?’

Guatemoc’s lean, handsome face was serious. ‘Lady Temaz,’ he said, ‘if you are asking me to fight against Moctezuma then I will tell you now I am ready to do so! He is a weakling and a fool and he sought to murder me! But if you are asking me to fight against Hummingbird, my lady – well, that is quite another matter and by no means so easily done.’

‘The time will come, Prince, when you will have to choose,’ Tozi said. ‘I can only hope you choose wisely.’ She pressed her fingers one more time against the wounds that scarred his lean, naked belly, sending healing warmth into his body. ‘I will see you again,’ she said, straightening, relinquishing the contact, ‘but now I must return to Aztlán.’

Quick as a striking snake, Guatemoc sat up on the bed and threw one arm around Tozi’s waist and another around her neck. ‘Not so fast, Lady Temaz,’ he said. ‘I still want my kiss.’

‘Well you shall not have it, foolish boy! I am a goddess and you a mere man. Do you wish to be turned to stone?’

‘I’ll take that risk,’ said Guatemoc, and pulled her face down to his, crushing his lips against hers. Her mouth was open, perhaps with shock, perhaps something else. She felt his tongue enter, pass the barrier of her teeth, and – *what was this?* – her own tongue responded! For an instant she was lost in a delicious, roiling, wet warmth, tasting this man, smelling this man, melting into him, and

then she remembered herself and focussed her intent and *whoosh*, with a whisper of reluctance she dissolved into smoke and vanished and left him embracing empty air …

In the few seconds she remained invisible in the room with him, she saw him look with astonishment at his hands, at his arms, and press his fingers to his lips.

‘Well at least,’ he said finally, ‘she didn’t turn me to stone.’

Guatemoc stood by the open window of his bedchamber in the dawn light, listening to the chorus of morning birds amongst the trees of his father’s estate.

What just happened? he thought. *Who is she? A goddess, as she claims? Or something else?*

He touched his lips again, glowing, alive, tingling with sensation. But when he brought his fingers away he saw they were smeared with red.

He frowned. What was this? Blood? He tasted his lips with his tongue. No! Not blood! Something else. Something familiar.

He found an obsidian mirror and examined himself. This red stuff, whatever it might be, was not confined to his lips but smeared all round his mouth. He tasted it again and suddenly he had it. Tincture of cochineal! Rare and exotic, yes, but quite definitely a woman's makeup.

What would a goddess need with makeup?

As the sun rose on a new day he pondered this question, but could come to no definite conclusion.

As the sun rose on the new day, Huicton was ushered into Shikotenka's presence.

The battle king of Tlascala, he was pleasantly surprised to discover, had no pretensions whatsoever. Rather than insist on meeting him in some overblown audience chamber in the royal palace, he'd invited him to his home where his beautiful young wife

Zilonen, doe eyes, high cheekbones, bee-stung lips, silky dark hair hanging to her waist, pert bottom, perfect hips, was personally cooking breakfast. ‘Your eyes are clouded, father Huicton,’ she said, noticing his scrutiny, ‘but I think you see everything.’

So … not only stunning to behold but clever, feisty and direct as well!

‘I see,’ he replied, ‘everything I need to.’

Shikotenka entered the room. He wore only a colourful length of cloth wrapped around his waist that covered his legs to just below his knees. His black hair hung in knotted braids around his broad shoulders. His eyes were shrewd and intelligent, weighing his guest up. He was not handsome in the way his wife was beautiful, but there was a roguish forthrightness and charm about him, and his hard, muscular body was inscribed with the pictographs of a hundred old scars – all to the front, Huicton noticed, none at all on his back. Deduction: this was a man who stood and fought. This was a man who did not run away.

‘Good morning, Ambassador Huicton,’ said Shikotenka. ‘To what do we owe this honour?’

Huicton decided to be honest. ‘To your remarkable success in your recent battles with the Mexica, Lord Shikotenka. Your destruction of the great field army of Coaxoch has attracted the attention of my master Ishtlil of Texcoco. He would like, if you are willing, to propose an alliance between your people and his.’

‘You say “his”, not “ours”. Can I take it you are not a Texcocan yourself then?’

‘I am Mexica.’

‘Yet you work for Ishtlil against the interests of your own people?’

‘As I worked for his father Neza before him. I do not see myself as Mexica, or Texcocan, but as a citizen of the one world, and in that capacity I strive honestly, I strive truly, I strive with all my heart, for balance. For a generation now, the power of the Mexica has been too great. It has introduced distortions into the one world.

It has created a nation of cruel and arrogant bullies in Tenochtitlan. I have done my best, played my part such as the gods allow, to restore that balance.'

'And this is why you now seek an alliance with Tlascala?'

'My master Ishtlil seeks that alliance. I am merely his messenger.'

Zilonen had laid out a stack of maize cakes on the table and a bowl of richly spiced venison in which green chillies floated. There were goblets of foaming chocolate and plates of succulent fruit. 'Sit down,' she said, 'break your fast. No good business gets done on an empty stomach.'

Huicton licked his lips. 'Very true, my lady.' He took his place at the table, broke off a handful of bread and gathered up an ample mouthful of stew. 'Ah, excellent,' he commented as he chewed, smacking his lips. 'Truly excellent.'

'So this alliance,' Shikotenka asked, 'what's the purpose of it?'

‘Why, to defeat Moctezuma, of course, once and for all. Even for his most loyal, arselicking vassals,’ an apologetic glance at Zilonen, ‘his endless demands for human sacrifices have become too burdensome for any reasonable person to stand. And you in Tlascala, who have never submitted to vassaldom, have borne the cruellest burden in the incessant wars and raids of the Mexica – until, that is, you smashed Coaxoch’s army.’ Huicton helped himself to another dripping mouthful of stew. ‘That, I can tell you – *that* gave Moctezuma something to think about!’

‘So much to think about,’ Shikotenka said, ‘that our Senate does not believe we’ll be troubled by him again for many a long year. Which raises the question – if we’ve got Moctezuma off our backs, why do we need a pact with Ishtlil? As you know, Huicton, we in Tlascala go our own independent way. We’ve never been very keen on alliances.’

Huicton chewed in silence for a moment. He would not speak of Tozi and her prophetic utterances. He could hardly expect a

pragmatist like Shikotenka to believe any of that. But he didn't see now how he could avoid the subject of Quetzalcoatl. It was impossible to understand Moctezuma's motivations, and his insatiable quest for ever more sacrificial victims, without taking the legends of the plumed serpent and his return in a One-Reed year – this very year! – into account.

'I'm afraid, Shikotenka, it is not so simple. Not nearly so simple. And I much regret to inform you that your victory over Coaxoch will not be an end to the matter "for many a long year", as your Senate naively imagines. There is another factor at work, one you may not even be aware of, but I have reason to believe that because of it you and your people will face more – not fewer – attacks from the Mexica in the months ahead, and the same will unfortunately be true for Ishtlil's people and for many others. So, contrary to your commendably proud and independent stance, the truth is there has never been a time when an alliance would be more expedient or more worthwhile for Tlascala than it is today …'

Shikotenka took a long draught of chocolate and wiped his mouth. ‘Very well, old man, I’m here to listen.’

Huicton dipped another handful of bread into the stewpot and transferred it to his mouth, smacking his lips with satisfaction. ‘It’s a long story,’ he said, ‘and I’m an old man, as you rightly say, and much given to prolixity, so please bear with me while I tell it …’

Melchior had been buried with full honours alongside the four Spaniards also killed in Thursday’s fighting. The graves lay in a shady corner of the orchard behind the palace, the same orchard where the horses had been exercised before the battle, and on the morning of Saturday 27 March Pepillo returned there carrying the little dagger Cortés had given him. He knelt, whispered, ‘I miss you, Melchior,’ and then very carefully carved four words onto the wooden cross that bore his friend’s name. The words were:

RIDE IN GREEN PASTURES

‘A fitting epitaph,’ said a gruff voice behind him, and Pepillo turned to see Bernal Díaz standing there leaning on a stick. The ensign’s thigh looked less swollen than before and the bandages around his chest were clean. He was holding a hessian sack with some object inside it.

Pepillo, who’d been crying again, sheathed the knife and rubbed the back of his hand across his eyes. ‘Don Bernal. I’m happy to see you on your feet.’

‘Dr La Peña has done well by me,’ Díaz replied with a smile. ‘He tells me I’ll be fit for battle in no time.’

Pepillo shuddered. ‘I hope there’ll be no more fighting!’

‘I’m afraid there will be, lad, it’s what we’re here to do … Now, look …’ Something moved in the sack he was holding and he glanced down at it. ‘There’s a kindness you could do for a poor orphaned creature … If you’re willing.’

‘A kindness, sir? I don’t understand.’

‘It concerns the war dogs.’ Another wriggle of the sack. ‘Amongst them when we sailed from Santiago was a pregnant wolfhound bitch. She gave birth to a litter of six pups on the voyage and was nursing them, but Vendabal dragged her away from them on Thursday and put her into the pack for battle. She was one of his best fighters, so he said, but she was killed. The pups are barely weeks old, too much trouble to feed by hand, so Vendabal and his handlers destroyed them all …’

Pepillo’s face fell.

‘… Except this one, which I managed to save. I was thinking you might have time to rear him. Goat’s milk, I’m told, is a good substitute to feed an orphaned pup when its dam is lost. And, well, we have plenty of goats on the hoof with us. A veritable farm! I should know, since I requisitioned them from Santiago’s slaughterhouse the night we sailed! Here, take a look.’

And with that the ensign hobbled forward, reached into the sack and lifted out by the scruff of its neck a surprisingly large, furry,

brindled puppy, which opened its toothless jaws in a yawn and licked him with its pink tongue. ‘Here, lad, he’s yours if you want him,’ Díaz said, passing the animal over. ‘He’s not a purebred wolfhound. From the look of him Vendabal says he was likely sired by a greyhound.’

Pepillo cradled the puppy. It was quite heavy, as long as his forearm and wonderfully warm. He could feel its heartbeat. It gave another yawn and a small contented whimper.

‘Well?’ asked Díaz. ‘Will you keep him?’

‘Oh yes, sir!’

‘And what will you call him?’

Pepillo already knew the answer to that question. ‘Melchior,’ he said fiercely. He stroked the soft hair of the puppy’s head. ‘His name is Melchior.’

Sunday 28 March was not a day of rest for Cortés. After an early mass he left Potonchan two hours before dawn with two hundred

men, proceeded at a forced march and reached Cintla by sunrise to pay a surprise visit to Ah Kinchil. Both the paramount chief and Muluc were detained under armed guard and the royal palace was ransacked. Other than a few small items of little value, however, no gold was found.

It was the same story in every other town and village searched during the days that followed – lean pickings or nothing at all. Gradually, after Cortés had given Alvarado a free hand to use torture (Muluc had been blinded in one eye with a hot iron, and Ah Kinchil had died, foaming at the mouth on an improvised rack), it became clear, even to Alvarado, that the Maya must either be extremely brave, stubborn and good at hiding their treasure, or – more likely – they were telling the truth and had none. This, anyway, was what Aguilar, who grew increasingly distressed at his role as interpreter during the interrogations, had been saying all along. The Maya were, in his view, a fallen people, whose once great and prosperous kingdoms had lapsed into obscurity, poverty

and barbarism hundreds of years before. Nothing now remained of their former glory, except the mighty pyramids and temples, many already in ruins, they had inherited from their ancestors.

With the Velázquez faction complaining bitterly that the whole story of the rival Pedrarias expedition had been a trick to procure a hasty departure from Santiago, and demanding to know why they were wasting their time in this godforsaken, gold-bereft land, Cortés began to feel the lure of the fabled, indeed almost legendary, empire of the Mexica ever more strongly. Why, it was rumoured to possess so much gold that even its children's toys were made of the precious metal! Moreover, although the mysterious city of Tenochtitlan, standing in its lake beyond snow-capped mountains, was always spoken of as far away, repeated questioning of traders made it clear that it could in fact be reached by forced march within as little as thirty days.

And there was something much more important, much more significant, much more *meaningful* to be considered.

From the moment under the silk-cotton tree when Muluc had first spoken of it, Cortés had known it was Tenochtitlan that Saint Peter had revealed to him in his dreams. The mountains wreathed in snow that must be crossed to reach it, and its distinctive location in the midst of a great lake at the heart of an immense green valley, left no room for doubt. This was the jewelled and shining city that was to be his reward.

Even while Alvarado rampaged far and wide across the lands of the Chontal Maya in the fruitless quest for gold, therefore, Cortés sent his friend Juan de Escalante out in his carrack to conduct reconnaissance. Although Tenochtitlan lay deep inland, it was said to possess certain vassal states and tributary towns along the coast – one of which, Cuetlaxtlan, had been settled by the Mexica and was ruled by a governor who, the Maya said, had been appointed directly by the great Emperor Moctezuma himself. Several Potonchan merchants knew Cuetlaxtlan well and Escalante took two

of these with him, who claimed they would be able to identify the town from the sea.

While he was gone, Cortés redoubled efforts he had already begun to fulfil God's will by converting the Chontal Maya to Christianity. To this end, speaking through Aguilar, he preached several lengthy sermons to the assembled populations of Potonchan and Cintla, urging them to destroy their idols, which were not gods but evil things and images of Satan. From now on, he said, they must worship the Lord Jesus Christ and believe only in him. Soon afterwards, perhaps expedited by Alvarado's activities, which had spread great fear throughout the region, there was a general destruction of idols, with those of stone being rolled down pyramid steps and smashed while those of wood were heaped up into fires and burnt. Several hundred people, many leading nobles amongst them, also came forward for baptism at the hands of Father Olmedo, who conducted the ceremonies but nonetheless confided in Cortés that he did not think their conversion would last. 'We're moving too

fast,' he said. 'They act out of fear of us, not because the faith has taken root in their hearts.'

'What then would you have me do, Father?'

'Teach them by example. Show them the meaning of Christian love.'

Cortés cast a glance at the crowd of converts. 'What we have achieved here will have to serve for the present, Olmedo. These New Lands are vast, time presses, and this is but the beginning of our conquests. Praise be to God, all things will prosper for us, and wherever we go we will spread the word.'

After a voyage of just eight days, Escalante returned. Although the Maya said twenty days were required to reach Cuetlaxtlan on foot, through the dense jungles of the Yucatán, the journey by sea proved much shorter. Escalante did not land, but observed the well-ordered streets and grand buildings of the Mexica town from the deck of his carrack, and judged it to be rich, far more prosperous than

Potonchan and Cintla, and linked by good roads to several other equally impressive settlements further along the coast.

Cortés embraced his friend. ‘Well done, Juan,’ he said. ‘This is welcome news!’

‘So, shall we go there?’ Escalante asked.

Cortés nodded. ‘By God, yes! And from Cuetlaxtlan we march on those good roads you saw to the golden city of Tenochtitlan!’

Indeed the news had come just in time. During Escalante’s absence, the Velazquistas never stopped bellyaching and spreading dissent and the men had grown mutinous with inaction, complaining that Cortés had brought them across the sea to fight battles with savages for no pay. Now, at last, he had a target to distract them and the gold of the Mexica to dangle before their eyes.

It was Thursday 15 April. ‘We sail on Sunday,’ Cortés said.

It would be Palm Sunday. An auspicious day.

Puertocarrero rolled over in his sleep, flung out a hairy leg, mumbled incoherently and let rip another colossal fart, filling the bedroom that Malinal was obliged to share with him in the palace at Potonchan with a hideous, miasmic stink. When she'd first been given to him, part of her had still been open to the possibility that he and his fellow Spaniards might be gods, but she'd since learned better. Indeed, even if it were not for Puertocarrero's uncouth manners and his constant demands for sex, she would have known from the smell of his farts alone that he was a man, as they all were, with every weakness, folly and stupidity to which the male sex was prone. To be sure, they looked very different from the Maya or the Mexica, and their language – which Malinal had already begun to learn – was quite unlike any other she had ever heard. Admittedly, also, their customs and behaviour were strange, they were unusually disciplined and determined, and their weapons and trained animals were extraordinary. Nevertheless, when all was said and done, they were men and nothing more than men and, as such, no matter how

fearsome and alien they might seem, they could be understood, manipulated and managed.

All of them, that is, except their great war leader Hernán Cortés, who spent much of his time out of Potonchan, often in the company of his cruel but handsome second-in-command Pedro de Alvarado. Malinal soon learned – from servants Muluc had sent to work for them in the palace – that they were ransacking all the towns of the region for gold, which seemed to obsess them as much as it obsessed the Mexica. It was even said that Ah Kinchil and Muluc had been tortured to surrender stores of gold the white men believed they had hidden – but of course they had none to give. Malinal neither knew nor cared if these reports were true; the two chiefs had conspired to ruin her life and, in her opinion, deserved whatever bad things came to them.

When not hunting for gold, Cortés's other favourite activity – to which he showed great dedication – was destroying the idols of the gods in the temples and preaching to the people of Cintla and

Potonchan about his own strange and incomprehensible religion. Since everyone was terrified of him, he won many converts.

On the occasions when he was not preoccupied with these activities, Malinal several times asked Aguilar's help to approach Cortés and speak to him. As he had done on the very first day, however, the Spanish interpreter continued to rebuff her.

This evening, for the first time, she'd understood why.

Cortés had made an announcement to the assembled army, which Aguilar had been required to translate for the benefit of all twenty of the female slaves who would be accompanying them, that the Spaniards had concluded their business with the Chontal Maya and would soon be moving on to the lands of the Mexica. They would go first by ship to the coastal town of Cuetlaxtlan – everyone must be ready to embark in just three days' time – and from there they would strike inland to Tenochtitlan, the Mexica capital. This they would seize by force, take its Emperor Moctezuma 'dead or alive',

and help themselves to the vast hoard of gold his empire was reputed to have amassed.

Reputed? Malinal thought. *Reputed!* If she'd been allowed to talk to Cortés, she could have told him weeks before that it was not just a matter of 'reputed'. The Mexica were the richest people in the entire world, Tenochtitlan overflowed with gold and Moctezuma's treasuries were stuffed to bursting point with it.

Clearly Aguilar had acted so strangely because he knew Malinal was fluent in Nahuatl – which he spoke not a word of – and could see she was clever enough to learn Castilian and learn it quickly. The foolish man must fear, since it was inevitable that the Spaniards' lust for gold would sooner or later lead to the Mexica, that she would then usurp his privileged place at Cortés's side. While not actually lying to Cortés about the fabulous wealth of Tenochtitlan, the interpreter had therefore done all he could – notably by keeping Malinal away from him – to divert and delay

this important intelligence and prevent him from discovering how indispensable she might prove to the Spanish cause.

Perhaps Aguilar had even hoped the slaves would be left behind when the Spaniards continued their journey, but this evening's announcement had put paid to that! There was no way Puertocarrero or any of the other officers who'd been given women were going to do without their all-purpose cooks, cleaners and bedroom companions, and Cortés had made a point of confirming they would accompany the army in its advance on Tenochtitlan.

So once again Malinal realised that she had been reunited with her fate. Very soon Cortés would meet the lords of the Mexica and find he was unable to talk to them. When he did, no matter how Aguilar might try to block her, she would be there to take her rightful place in history.

It was Palm Sunday, 18 April 1519, and Pepillo stood with Cortés and the pilot Alaminos on the navigation deck of the *Santa María*

de la Concepción as the great flagship raised sail under scudding clouds and led the fleet north out of the bay at Potonchan.

It was exactly two months to the day, Pepillo realised, since he'd left Cuba on a night of storm to begin the journey that had brought him to this place and this time.

He remembered how he'd imagined the journey would be – a noble quest through faraway lands in the company of gallant warriors to achieve a sacred purpose. Yet in reality he'd taken part in the murder of a wicked friar, seen chivalry thrown to the winds in the lust for gold, and found a true friend only to have him snatched away again so cruelly he thought his heart must never mend.

That journey had ended at Potonchan. The quest had never been noble, chivalry was dust and Melchior lay cold and dead in the ground, but the slap of the waves against the keel, the whistle of the wind through the rigging, and the crack and whip of the sails spoke through Pepillo's sorrow to an adventure that had only just begun.

‘Well, lad,’ said Cortés. ‘What do you think? This great Emperor Moctezuma we’re going to see commands an army of two hundred thousand men. Can we beat them?’

Pepillo fondled the ears of his new Melchior. Part wolfhound part greyhound, the pup had thrived on goat’s milk, was already eating flesh with his new sharp teeth and had grown beyond all recognition in the past three weeks. He was proving to be a fine companion – strong, brave, endlessly inquisitive and loyal – and Pepillo was determined he would never be put to war with the rest of the pack.

He was thinking about the question. Glimpses of the Cortés he’d met on the road to Santiago harbour could still be seen from time to time, but the caudillo had grown harsh and cruel since then, with sudden dark moods and dangerous rages. It was not always wise to speak the truth to him but rather to divine what he wished to hear and say that instead.

‘Let there be two hundred thousand men, sir,’ Pepillo answered finally, ‘or twice that number. It makes no difference. You lead the

army of God and even the greatest empire of these lands will not stand against it.'

For a moment Cortés seemed lost in thought. But then he nodded his head. 'I may have to deal with Moctezuma severely,' he said quietly, almost to himself, 'but when we do God's work I'm told there is no sin in it. Would you say that's true, Pepillo?'

'I'm certain it must be true, sir,' Pepillo replied. 'For if God is good then surely no evil can be done by those who serve him?'

It was the right thing to say.

Time Frame, Principal Settings and Cast of Characters

Time Frame and Subject Matter

War God: Nights of the Witch unfolds in the two-month period between 18 February 1519 and 18 April 1519. The book deals with the opening events of the Spanish conquest of Mexico. Five hundred Spanish adventurers led by Hernando Cortés pit themselves against the might of the Mexica (Aztec) empire. The empire is ruled

with an iron hand by the feared Moctezuma, who has two hundred thousand brutal and experienced warriors at his command.

Principal settings

(1) **Tenochtitlan**, capital city of the **Mexica** (Aztec) empire of ancient Mexico, 1325 to 1521. Built on an island in the middle of a huge salt lake (Lake Texcoco) in the Valley of Mexico. The Valley of Mexico is ringed by distant snow-capped mountains. At the heart of the valley is Lake Texcoco. At the heart of Lake Texcoco is the island on which Tenochtitlan stands, accessed via three huge causeways (varying in length between two and six miles), extending to the southern, western and northern shores of the lake. At the heart of Tenochtitlan, surrounded by a vast walled enclosure (the grand plaza, or sacred precinct), is the Great Pyramid, which is surmounted by the temple of Huitzilopochtli ('Hummingbird'), War

God of the Mexica, to whom tens of thousands of human sacrifices are offered every year.

(2) **Santiago**, capital city and principal port of **Cuba** during the early period of Spanish colonisation of the New World. It is from here that the expedition to Mexico embarks.

(3) Mountain country within the borders of **Tlascala**, an independent principality at war with the Mexica. Tlascalans captured in raids and battles are a prime source of sacrificial victims for the Mexica.

(4) **Cozumel**, island off the northeast coast of the **Yucatán Peninsula**, Mexico. First landing point of the Spaniards in their conquest of Mexico.

(5) Potonchan, town on the southwest coast of the Yucatán Peninsula, Mexico. Second landing point of the Spaniards in their conquest of Mexico and site of their first major battles. Their opponents in these early (and brutal) pitched battles are not the Mexica but the Maya.

Point-of-View Characters

(1) **Tozi**. A witch. Age, fourteen. We meet her amongst the victims being fattened for sacrifice in the women's fattening pen at the edge of the grand plaza in Tenochtitlan. Tozi never knew her father. Her mother was a witch but was cornered and beaten to death by a mob when Tozi was seven, at which age Tozi's own training had just begun and her powers were not fully developed. She survived as a beggar on the streets of Tenochtitlan for the next six years until captured and placed in the fattening pen at the age of fourteen to await sacrifice. Tozi has certain magical talents, of which the most important is the ability to make herself invisible. However, at this point of the story she lacks skill and experience, and if she attempts to maintain invisibility for more than a few seconds she suffers catastrophic physical consequences. Tozi's origins are mysterious. Her mother told her they came from **Aztlán**, the fabled homeland not only of the Mexica but also of the Tlascalans and other related

‘Nahua’ peoples who speak the language called Nahuatl. But Aztlán is a mythical and legendary place, the home of the gods, where masters of wisdom and workers of magic are believed to dwell; although the Mexica say their forefathers came from Aztlán, no one knows where it is any more, or how to find it.

(2) **Malinal**. A beautiful courtesan and sex-slave of the Mexica. Age, twenty-one. Malinal is Maya in ethnic origin and is fluent both in Nahuatl, the language of the Mexica, and in the Mayan language. We meet her in the fattening pen in Tenochtitlan where she, like Tozi, has been imprisoned awaiting sacrifice. How and why she is there becomes clear to the reader as the story develops. When we understand the roots of her intense hatred for Moctezuma and the Mexica, we understand why, when she escapes the fattening pen, she travels to the Yucatán, where Cortés has landed, intending to use him as her instrument to destroy Moctezuma.

(3) **Pepillo**. Spanish, fourteen years of age. An orphan, he was given shelter, reared and taught numbers and letters by Dominican monks,

who brought him from Spain to the New World, first to the island of Hispaniola and then to Cuba, where he worked as a junior bookkeeper and clerk in the Dominican monastery. When we meet him he has just been appointed page and assistant to the mysterious **Father Gaspar Muñoz** (POV character number 8) the Dominican Inquisitor who will travel with the expedition of **Hernando Cortés** (POV character number 9) to Mexico – referred to as the 'New Lands' – on a mission of conquest and evangelism.

(4) **Moctezuma**. Emperor – his official title is **Great Speaker** – of the Mexica. Age, fifty-three. We meet him performing human sacrifices on the summit platform of the Great Pyramid in front of the temple of the War God Huitzilopochtli (Hummingbird). These sacrifices take place in full view of the fattening pen, at the edge of the grand plaza, where Malinal and Tozi are imprisoned awaiting sacrifice. Moctezuma frequently enters a trance state induced by the use of hallucinogenic mushrooms in which he communicates directly with the War God – demon – Hummingbird. The demon,

whose purpose is to maximise human misery and chaos on earth, urges Moctezuma on to ever crueller and more brutal mass sacrifices.

(5) **Shikotenka**. Battle-king of Tlascala, sworn enemy of the Mexica. Age, thirty-three. We meet him concealed on a mountainside in Tlascala (two days' march away from Tenochtitlan), spying on a gigantic Mexica army gathering to attack his people. The army is there to capture thousands of Tlascalans as victims for human sacrifice. Shikotenka has a plan to stop them.

(6) **Guatemoc**. Prince of the Mexica. Age, twenty-seven. Nephew of Moctezuma (he is the son of Moctezuma's brother Cuitláhauc).

(7) **Pedro de Alvarado**. Age, thirty-three. Close friend and ally of **Hernando Cortés** (POV character number 9). Alvarado is handsome, excessively cruel – a charming psychopath. He is also a brilliant swordsman and a notorious lover of gold. When we meet Alvarado he is with **Diego de Velázquez**, the governor of Cuba, who is attempting to bribe him to betray Cortés. Velázquez wishes

to remove Cortés from command of the expedition to Mexico and replace him with **Pánfilo de Narváez**, who is more amenable to his will. He seeks Alvarado's help in this scheme.

(8) **Father Gaspar Muñoz**. Age, late thirties. Dominican friar who has been appointed (by Diego de Velázquez) as Inquisitor on the expedition to Mexico. Munoz has a reputation for burning 'heretics' to death on the slightest pretext. He is also a sadistic paedophile and serial killer and exploits his position as Inquisitor to indulge his perverse appetites.

(9) **Hernando (Hernán) Cortés**. Commander of the Spanish expedition to Mexico. Age, thirty-five. A brilliant military commander and political operator, he is clever, Machiavellian, manipulative, utterly ruthless, vengeful and daring, but with a paradoxical streak of messianic Christianity. He hates Diego de Velázquez, the governor of Cuba, whom he has conned into giving him command of the expedition and whom he intends to betray. Some years earlier, Velázquez imprisoned Cortés on trumped-up

charges to oblige him to marry his niece Catalina. Cortés went through with the marriage to escape prison, but has been plotting his revenge on Velázquez ever since.

(10) **Bernal Díaz**. Age, twenty-seven. Down-to-earth, honest, experienced Spanish soldier on the expedition to Mexico. From farming stock, no pretensions to nobility, but literate and keeps a diary (even though he self-deprecatingly refers to himself as an illiterate idiot). Admires Cortés, who has recognised his potential and promoted him to ensign rank.

(11) **Gonzalo de Sandoval**. Age twenty-two. From *Hidalgo* (minor nobility) family but fallen on hard times. New recruit to the expedition to Mexico. Promoted to ensign in same ceremony as Díaz. Unlike Díaz, Sandoval has a university education and military and cavalry training but no personal experience of war.

Supernatural characters

Huitzilopochtli (referred to throughout the novel as Hummingbird), war god of the Mexica. The full translation of the name Huitzilopochtli is 'The Hummingbird at the Left Hand of the Sun'. Like all demons, through all the myths and legends of mankind, the purpose of this entity is to multiply human suffering and corrupt all that is good and pure and true in the human spirit. He appears to **Moctezuma** when the Mexica emperor is in trance states induced by his frequent consumption of hallucinogenic mushrooms. A tempter and a manipulator, Hummingbird deliberately stokes the flames of the conflict between the Mexica and the Spaniards, and ultimately backs the Spaniards because he knows they will make life in Mexico even worse than it has been under the Mexica. It is a historical fact that within fifty years of the Spanish conquest, the indigenous population of Mexico had been reduced through war, famine and introduced diseases from thirty million to just one million.

Saint Peter, patron saint of Hernán Cortés. As a child, Cortés suffered an episode of severe fever that brought him close to death. His nurse, María de Esteban, prayed to Saint Peter for his salvation and the young Cortés miraculously recovered. Ever afterwards, Cortés felt he enjoyed a special relationship with this saint and believed he was guided by him in all the great and terrible episodes of his adult life. Like Moctezuma, Cortés encounters Saint Peter in visionary states – in his case, dreams.

Quetzalcoatl, 'The Plumed Serpent', the god of peace of ancient Central America. Described as white-skinned and bearded, an age-old prophecy said he had been expelled from Mexico by the forces of evil at some time in remote prehistory, but that he would return in the year *1-Acatl* ('One-Reed'), in ships that 'moved by themselves without paddles' to overthrow a wicked king, abolish the bloody rituals of human sacrifice and restore justice. And as it happened, the year 1519 in our calendar, when Cortés landed in the Yucatán in sailing ships that 'moved by themselves without paddles', was

indeed the year One-Reed in the Mexica calendar. Whether this was pure chance or whether some inscrutable design might have been at work, **Malinal** would eventually teach **Cortés** how to exploit the myth of Quetzalcoatl. What followed was a ruthless and spectacularly successful campaign to dominate Moctezuma psychologically long before the Spaniards faced him in battle.

Whether in some mysterious sense real, as I rather suspect, or whether only imagined by Moctezuma and Cortés, Hummingbird and Saint Peter played pivotal roles as agents of mischief in the events of the conquest, while the prophecy of the return of Quetzalcoatl was equally fundamental.

Secondary Spanish characters who appear frequently in the story

Melchior. An African, aged about sixteen. Formerly a slave. Freed by Hernán Cortés and now his manservant. Becomes Pepillo's close

friend and ally.

Diego de Velázquez. Age, fifty-five. Governor of Cuba. Appoints Hernán Cortés to be captain-general of the expedition to Mexico (which he has jointly financed), but has a change of heart and plots to remove Cortés before the fleet departs from Santiago and to replace him with Pánfilo de Narváez, a man he can manipulate more easily.

Zemudio. Expert swordsman and bodyguard to Diego de Velázquez.

García Brabo. Age, forty. Tough sergeant who leads a squad of men dedicated to Hernán Cortés. He does Cortés's dirty work whenever required.

The Velazquistas. The name Cortés gives to senior figures on the expedition to Mexico who remain loyal to his enemy and rival Diego de Velázquez, the governor of Cuba. Cortés must either bribe, manipulate, or force members of the Velázquez faction to change sides. They include **Juan Escudero** (ringleader of the

Velazquistas), **Juan Velázquez de Léon**, cousin of Diego de Velázquez, **Francisco de Montejo, Diego de Ordaz** and **Cristóbal de Olid**.

Significant allies of Cortés on the expedition. In addition to **Pedro de Alvarado** (POV character number 7) Cortés can rely on **Alonso Hernández Puertocarrero** and **Juan de Escalante**. An additional figure, **Alonso Davila**, is at least neutral; he does not like Cortés but he does not like Diego de Velázquez either.

Alonso de La Serna and Francisco Mibiercas. Soldiers on the expedition. Friends of Bernal Díaz (POV character number 10).

Dr La Peña. Doctor hired by Diego de Velázquez to drug and kidnap Cortés. Instead Cortés captures La Peña and kidnaps him to serve as the expedition's doctor.

Antón de Alaminos. Pilot and chief navigator of Cortés's fleet.

Nuno Guiterrez. Sailor.

Father Bartolomé de Olmedo. Mercedarian Friar, a gentle, good-hearted man who participates in the expedition to Mexico. Opposed

to forced conversions.

Jerónimo de Aguilar. Spanish castaway in the Yucatán. Spent eight years as a slave amongst the Maya and became fluent in their language. Rescued by a squad sent by Cortés and led by Sandoval, Aguilar joins the expedition and becomes Cortés's first interpreter and, later, Malinal's rival for this role.

Francisco de Mesa. Cortés's chief of artillery.

Diego de Godoy. Notary of the expedition.

Telmo Vendabal. Keeper of the expedition's pack of one hundred ferocious war dogs.

Secondary Mexica, Tlascalan and Mayan characters who appear frequently or have prominence in the story

Coyotl. Little boy, six years old, castrated in infancy. Held in women's fattening pen with Tozi and Malinal awaiting sacrifice. Protégé of Tozi.

Ahuizotl. High priest of the Mexica and devotee of the war god Hummingbird.
Namacuix. Deputy high priest of the Mexica.
Cuitláhauc. Age, forty-eight. Younger brother of Moctezuma and father of **Guatemoc** (POV character number 6).
Coaxoch. Age late forties, holds title of 'Snake Woman'. Second most senior Mexica lord after Moctezuma himself, and the most important general in the Mexica army. We meet Coaxoch leading a massive force of thirty-two thousand men into Tlascala to snatch victims for human sacrifice. This is the force that **Shikotenka** (POV character number 5) plans to destroy.
Mahuizoh and **Iccauhtli**. Eldest and youngest of Coaxoch's sons. All four are generals in the Mexica army, but appointed above their skills through nepotism.
Acolmiztli, **Chipahua**, **Tree**, **Etzli**, **Ilhuicamina**. Commanders in **Shikotenka's** squad of **Tlascalan** warriors whom we meet as they are about to mount an attack on Coaxoch.

Tochtli, ‘Rabbit’ (**Shikotenka’s** cousin). Also in the squad that will attack **Coaxoch**.

Shikotenka the Elder. Civil king of the Tlascalans (**Shikotenka**, his son, is the battle-king).

Maxixcatzin. Deputy to both **Shikotenka** and **Shikotenka the Elder**.

Huicton. A spy working to destroy **Moctezuma**. Huicton is in his sixties and passes unnoticed through the streets of Tenochtitlan disguised as an elderly blind beggar. However, he is not blind. He is the mentor and protector of **Tozi** (POV character number 1).

War God and History

War God is a novel about an extraordinary moment in history but it is not a history book. Rather it is a work of fantasy and epic adventure in the tradition of *Amadis of Gaul*, the post-Arthurian tale of knight-errantry in which the conquistadors of the early sixteenth century saw their own deeds reflected as they pursued their very real and perilous quest in the strange and terrible lands of Mexico.[1] Wherever I felt it served the interests of my story, I have therefore not hesitated to diverge from a strict observance of historical facts. Let me give a few examples.

Malinal (who was also known as Malinali, Malintzin and La Malinche and whom the conquistadors called Doña Marina) was more likely a Nahua woman of the Mexican Gulf coast who had learned the Mayan language than a Mayan woman – as I have her – who had become fluent in Nahuatl. On the other hand, her biography as I relate it – daughter of a chief, disinherited and sold into slavery by her own mother after her father's death (because her mother favoured a son by her second marriage) – conforms to the facts as they have been passed down to us.

Likewise, while I write of the disastrous Córdoba expedition that visited the Yucatán prior to Cortés, I make no mention – it would have been too cumbersome to do so – of the second expedition, under Juan de Grijalva, that also preceded Cortés. I have, however, conflated some details of the Córdoba and Grijalva expeditions, and in doing so I do not think I stray far from the spirit of the facts.

In a similar way, and for similar narrative reasons, I have telescoped the story of the departure of Cortés's fleet from Cuba

into the single dramatic night of 18 February 1519, when in fact it was a more long-drawn-out affair. The fleet did leave Santiago precipitously, Velázquez did try to prevent this, and Cortés did confront him from a small boat, much as I describe these events.[2] The story that I tell of Velázquez sending a messenger cancelling Cortés's command and putting another man in charge, together with the killing of this messenger *en route* by one of Cortés's allies and delivery of the papers he was carrying to Cortés himself, is well attested in historical sources. The same goes for the raid on the slaughterhouse and seizure by Cortés's men of all the meat and livestock on the hoof.[3] However, these events did not occur on 18 February 1519 but on 18 November 1518, Bernal Díaz does not admit in his memoirs to leading the raid on the slaughterhouse,[4] and the killing of the messenger was not done by Alvarado (although he was certainly capable of such an act and responsible during his lifetime for many like it), but by Juan Suarez, another of Cortés's close associates.[5] It is correct that the fleet did finally leave Cuban

waters on 18 February 1519, as I state in *War God*, and that it was that night scattered by a storm,[6] but it had first spent three months sailing around Cuba, evading Velázquez's authority by various means while Cortés collected further supplies, men and horses. I saw no need to burden my story with these details and complexities.

Other similar examples could be cited here (for instance Guatemoc was probably Moctezuma's cousin, not his nephew) but, by and large, while responding to the narrative needs of a fantasy adventure epic, I have worked hard to weave my tale around a solid armature of historical facts. This is not to say that the fantastic and the supernatural are not prominent themes in *War God* – because they are! – but there is nothing 'unhistorical' about this. Such concerns were of prime importance both to the superstitious Spanish and to the Mexica. Indeed Mexico-Tenochtitlan has, with good reason, been described by Nobel Prizewinner J. M. G. Le Clezio as 'the last magical civilization'.[7]

Take the case of Tozi the witch, one of my central characters. Some might think that an obsession with sorcery, animal familiars (even transformation into animal forms), the ability to make oneself invisible, the concoction of spells and herbal potions by women and the persecution of women for such practices were purely European concerns; but in these matters – as in so many others – the Spanish of the sixteenth century had much more in common with the Mexica than they realized. Witchcraft was widespread in Central America and endemic to the culture of the region.[8]

Then there is the matter of human sacrifice, a recurrent theme throughout *War God*. Do I make too much of this? Do I dwell on it at a length that is not justified by the facts? Honestly, no, I don't think I do. The facts, including the fattening of prisoners and their incarceration in special pens prior to sacrifice, are so abhorrent, so well evidenced and so overwhelming that the imagination is simply staggered by them. In saying this I recognise that the prim hand of political correctness has in recent years tried to sweep the

extravagant butchery and horror of Mexica sacrificial rituals under the table of history by suggesting that Spanish eyewitnesses were exaggerating for propaganda or religious purposes. Yet this cannot be right. Let alone the mass of archaeological evidence and the surviving depictions of human sacrifice, skull racks, flaying and dismemberment of victims, cannibalism, etc, in Mexica sculpture and art, we have detailed accounts of these practices given to reliable chroniclers within a few years of the conquest by the Mexica themselves. Both Bernardo de Sahagún, in his *General History of the Things of New Spain*,[9] and Diego Duran in his *History of the Indies of New Spai*n,[10] based their reports upon the testimony of native informants, and both give extensive descriptions of the grisly sacrificial rituals that had been integral to Mexica society since its inception, that had increased exponentially during the fifty years prior to the conquest, and that the conquistadors themselves witnessed after their arrival. The historian Hugh Thomas sums up the matter soberly in his superb study of the conquest.[11] ‘In

numbers,' he writes, 'in the elevated sense of ceremony which accompanied the theatrical shows involved, as in its significance in the official religion, human sacrifice in Mexico was unique.'[12]

Political correctness has also tried to airbrush out the Quetzalcoatl mythos of the white-skinned bearded god who was prophesied to return in the year One-Reed, and Cortés's manipulation of this myth, as largely a fabrication of the conquistadors – but this too cannot be correct. Again Sahagún's immense scholarship in his *General History* contains too much detail to be ignored.[13] But there are many other sources too numerous to mention here, and we should not forget the universal iconography of the 'Plumed Serpent' throughout central America. Some of it – for example at La Venta on the Gulf of Mexico – is very ancient indeed (1500 BC or older) and is associated with reliefs of bearded individuals with plainly Caucasian rather than native American features.[14]

Other ‘fantastical’ aspects of my story, such as Moctezuma’s visionary encounters under the influence of hallucinogenic mushrooms with the war god Huitzilopochtli (Hummingbird), and Cortés’s conviction that he was guided by Saint Peter, are also thoroughly supported in numerous historical sources.

Last but not least, there is the matter of the incredible disparity of forces – the few hundred Spaniards against vast Mayan and later Mexica armies and the apparent miracle of the conquistadors’ triumph. But, as I show in *War God*, this ‘miracle’ was really science. The guns and cannon the Spaniards were able to deploy, their terrifying war dogs,[15] and the stunning impact of their cavalry gave them decisive advantages. No dogs larger than chihuahuas had previously been known in Central America, and whereas European infantry had accumulated thousands of years of experience (and had developed specialized tactics and weapons) to withstand charges of heavy horse, the armies of Mexico were completely unprepared for

the seemingly demonic beasts and supernatural powers that Cortés unleashed on them.

But there was something else, ultimately more important than all of this, that brought the Spanish victory.

If Moctezuma had been a different sort of ruler, if he had possessed a shred of kindness or decency, if there had been any capacity in him to love, then he surely would not have preyed upon neighbouring peoples for human sacrifices to offer up to his war god, in which case he could have earned their devotion and respect rather than their universal loathing, and thus might have been in a position to lead a united opposition to the conquistadors and to crush them utterly within weeks of setting foot in his lands. But he was none of these things, and thus Cortés was almost immediately able to exploit the hatred that Moctezuma's behaviour had provoked and find allies amongst those the Mexica had terrorised and exploited – allies who were crucial to the success of the conquest. Of particular note in this respect were the Tlascalans, who had

suffered the depredations of the Mexica more profoundly than any others and who were led by Shikotenka, a general so courageous and so principled that he at first fought the Spanish tooth and nail, seeing the existential danger they posed to the entire culture of the region, despite the liberation from Moctezuma's tyranny that Cortés offered him. Only when Cortés had smashed Shikotenka in battle did the brave general finally bow to the demands of the Tlascalan Senate to make an alliance with the Spaniards, an alliance that soon put tens of thousands of auxiliaries under Cortés's command and set the conquistadors on the road to Tenochtitlan …

These events, and many others even more remarkable, will be the focus of the second volume of this series, *War God: Return of the Plumed Serpent*.

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1 See, for example, Hugh Thomas, *Conquest: Montezuma, Cortés and the Fall of Old Mexico*, Simon & Schuster Paperbacks, New York and London, 1993, pp. 61–62 and 702.

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3 Ibid, p. 141.

4 Bernal Díaz, *The Conquest of New Spain*, translated by J.M. Cohen, Penguin Classics, London, 1963, p. 49.

5 Thomas, *Conquest*, p. 141.

6 Ibid, pp. 157–158.

7 J. M. G. Le Clezio, *The Mexican Dream: Or The Interrupted Thought of Amerindian Civilizations*, translated by Teresa Lavender Fagan, The University of Chicago Press, Chicago and London, 2009, p. 41.

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9 Fray Bernardo de Sahagún, *General History of the Things of New Spain* (Florentine Codex), translated from the Aztec into English by Arthur J. O. Anderson and Charles E.

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10 Fray Diego Durán, *The History of the Indies of New Spain*, translated by Doris Heyden and Fernando Horcasitas, Orion Press, New York, 1964. See, for example, pages 99–102 (from where the oration given to sacrificial victims in chapter 28 of *War God* is quoted), pp. 105–113, 120–122, 195–200 and many other similar passages.

11 Thomas, *Conquest*, pp. 24–27.

12 Ibid, p. 27.

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14 See for example Graham Hancock and Santha Faiia, *Heaven's Mirror: Quest for the Lost Civilisation*, Michael Joseph, London, 1998, pp. 38–42.

15 An excellent source on the conquistadors' use of dogs trained for war is to be found in John Grier Varner and Jeannette Johnson Varner, *Dogs of the Conquest*, University of Oklahoma Press, 1983.

Acknowledgements

First and foremost I am grateful to my wife and partner Santha, my fiercest critic and constant companion who has read every word of this book and of the two subsequent volumes that follow it and who never lets me get away with any short cuts. My children Sean, Shanti, Ravi, Leila, Luke and Gabrielle, as well as my son and daughters in law Lydia, Simone, Jason and Ayako, have all also been helpful and inspiring presences, reading draft after draft and offering encouragement and advice.

Others who have read and been kind enough to comment on the manuscripts of the evolving *War God* series and who have given me much valuable advice, but who are of course not responsible in any way for the shortcomings of what I have written, include Chris and Cathy Foyle, Luis Eduardo Luna, Father Nicola Mapelli, Jean-Paul Tarud-Kuborn, Ram Menen and Sa'ad Shah. I'm grateful to each and every one of these good and true friends of mine for their generosity with their time and their many constructive suggestions.

My editor Mark Booth at Coronet has been brilliant as ever, seeing what needed to be done at each stage of the writing process and keeping me on the right course with amazing professionalism and insight.

My communities on my Facebook author page (www.facebook.com/Author.GrahamHancock) and on my Facebook personal page (www.facebook.com/GrahamHancockDotCom), and also my website community (www.grahamhancock.com) have been

incredibly supportive of me through the several years of my life that *War God* has dominated my writing and my creativity.

Last but not least I want to put on record my appreciation for those Spaniards and Mexica of the sixteenth century who were caught up in the events of the conquest and wrote about it at first hand, leaving accounts luminous with the spirit and terror of the time that I have been able to draw on in creating this book – sometimes even putting the exact words of the individual concerned into the mouth of his or her character in my story. A number of modern scholars have also written important works on the events of the conquest without which I would not have been able to develop a full appreciation of the period and again I am grateful for the tremendous job they have done. Needless to say none of them are responsible in any way for the shortcomings of *War God* but if the book has strengths it is in large part owed to them. Many more works of reference on which I have drawn could be cited here, but I list in particular the following texts to which I have most frequently

had reference as primary and secondary sources for this first volume of the *War God* trilogy:

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WAR GOD

RETURN OF THE PLUMED SERPENT

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Author photo by Santha Faiia

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Graham Hancock is the author of *The Sign and the Seal*, *Fingerprints of the Gods*, *The Message of the Sphinx*, *Heaven's Mirror*, *Supernatural* and other bestselling investigations of historical mysteries. Written with the same page-turning appeal that has made his non-fiction so popular, the fantasy-adventure, time-slip novel *Entangled*, published in 2010, was his first work of fiction. The first two novels of the *War God* trilogy, with their supernatural twist to the epic story of the Spanish conquest of Mexico, followed in 2013 and 2014.

Hancock's books have been translated into twenty-seven languages and have sold over nine million copies worldwide.

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War God: Return of the Plumed Serpent

The conquistador Hernán Cortés is hell-bent on conquering Mexico for the Aztecs' gold. Having destroyed the Maya at Potonchan, Cortés now marches on Tenochtitlan, the Golden City of the Aztecs, wrapped in the aura of a returning, vengeful god.

His small force of just five hundred men will have to defeat the psychotic emperor Moctezuma and the armies of hundreds of thousands he commands. Cortés expects that the warlike Tlascalans, hereditary enemies of the Aztecs, will join him, but instead finds himself locked in a deadly struggle and a fight for his life. Even as

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‘. . . part historical fact, part fantasy, the effect is as intense as the events themselves. It’s a fascinating read that will have you booking a flight to Mexico long before you finish the book.’

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‘Interweaving historical fact and vivid fiction, Graham Hancock’s *War God* is packed full of blood, guts, conflict, sacrifice and witchcraft in the last days of the Aztec empire. The story of the Spanish conquest of Mexico and the downfall of Moctezuma is the perfect (if very gory) distraction from modern life.’

Wanderlust

‘It will have you hyperventilating within minutes . . . Meets all the “thriller” criteria with gusto.’

Newcastle Journal

‘Graham Hancock has, once again, produced a book that entertains as well as educates . . . War God is a rich and deeply involving novel that grips you from the very first page. If you can handle the gruesome detail, then you will devour every page and the end will come too soon, leaving you desperate for book two . . .’

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WAR GOD

Return of the Plumed Serpent

Graham Hancock

PEACH PUBLISHING

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ISBN 978-1-78036-248-9

Front cover design and graphics by Luke Hancock

Except where actual historical events and characters are being described, all situations in this book are fictitious and any resemblance to living persons is purely coincidental.

Published by
Peach Publishing

For Santha

PART ONE

20 April 1519–12 May 1519

Chapter One

At sea, Gulf of Mexico, Tuesday 20 April 1519

'That lurcher's growing into a fine, warlike animal,' said Telmo Vendabal.

'He is, sir,' Pepillo conceded.

'Strong, by the look of him. What you been feeding him on?'

'Goat's milk, sir, when I first got him, and now galley scraps.'

'What you calling him?'

Pepillo shifted uncomfortably from foot to foot. 'Melchior, sir,' he mumbled.

‘Melchior? After that blackamoor friend of yours who went and got hisself killed?’

‘Yes, sir.’ Pepillo bit his lip and added. ‘He was brave, sir.’

‘Aye, brave enough, I suppose. But black as the devil’s own buttocks.’

A brutal, heavy-set hunchback, Vendabal was the expedition’s chief dog handler. A calculating glint sparked in his small eyes. ‘Think this Melchior’s brave too?’

Pepillo felt a bead of sweat roll down his brow. It wasn’t because of the sun. ‘I’m sure I don’t know, sir. I’m rearing him as a pet.’

‘Pet eh? Pet my arse! No room for pets on a fighting expedition.’ With a sour twist of his mouth, Vendabal dropped to his knees beside the lurcher, a wolfhound-greyhound cross, grasped the pup by the lower jaw, lifted his upper lips and examined his new white teeth. Melchior whined anxiously, attempted to back away and rolled his intelligent amber eyes towards Pepillo in mute appeal as he discovered he was held fast.

‘Don’t fret, boy,’ Pepillo said. ‘Stay!’

Melchior was obviously uncomfortable, but Pepillo was training him to be obedient and he remained still while Vendabal prodded at his mouth and rubbed the filthy thumb of his left hand along the dog’s gums. When the hunchback’s right hand snaked out towards the pup’s hindquarters, however, and attempted to grasp his testicles, Melchior’s nervous whine turned to a menacing growl and his teeth flashed in a sudden bite. Uttering a stream of foul oaths, Vendabal snatched his hand away and dealt Melchior a heavy blow about the head, sending the lurcher yelping and tumbling across the deck, then followed him at a run and aimed a ferocious kick at his ribs, eliciting another agonised yelp.

Reacting instinctively, Pepillo leapt forward as the dog handler stood poised to deliver a second mighty kick; he tangled his legs and brought him crashing down.

Very rapidly, a crowd of twenty or more crew and soldiers, jeering and yelling, had gathered between the masts to observe the

action while others scurried into the rigging for a better view. Flushed and panting, Vendabal struggled to his feet, hauled Pepillo up by his lapels until their faces almost touched and blasted him with a gale of stinking breath. 'You little shit,' he bellowed, 'your lurcher's mine. Next battle we fight, he'll be first out against the enemy.'

'No, sir, please,' Pepillo begged. 'Melchior's not a war dog. He wouldn't even be alive if you'd had your way. After his dam died in the fighting at Potonchan, you had your men kill all the rest of the litter. You said pups were too much trouble to feed by hand. Don Bernal Díaz told me that, sir. It was he who rescued Melchior.'

'Díaz, eh? So where's he now when you need him?'

'On Don Pedro de Alvarado's ship, sir, as you know very well, but he'll vouch for me when we reach land. Melchior was his gift to me and you can't take him away!' Pepillo was feeling stubborn now, anger rising in him, though his feet were off the ground and he was helpless in the hunchback's iron grip.

'Vouch for you?' Vendabal's voice rose almost to a scream. '*Vouch for you*? I'll show you vouch for you!' And with that he shifted his stance, still holding Pepillo by the lapels with his left hand while slapping him once, twice, three times across the face with his right. As the fourth blow landed, Pepillo heard a snarl through the ringing in his ears and saw a streak of brindled fur as Melchior launched himself at Vendabal and sank his teeth into the hunchback's thick, heavily tattooed forearm. At once the grip on Pepillo's lapels loosened; Pepillo dropped to the deck with a heavy thud and could only watch, dazed, as Vendabal shook Melchior loose, threw the puppy down and loomed over him with murder in his eyes.

'*Desist!*'

The voice was thunder. It cut through the excited cries of the spectators, stopping Vendabal in his tracks. '*Desist, I say!*' All eyes turned to the navigation deck, where Hernán Cortés, captain-general of the expedition, had emerged from his stateroom. Since the slaughter of the Chontal Maya at Potonchan, his rages had

become legendary, and it was obvious to Pepillo, who knew him better than most, that his master was in a dark mood. It was never good to awaken him from his customary afternoon siesta, but to awaken him rudely was to risk the worst of his wrath.

Wearing only a length of colourful native cloth wrapped around his waist, Cortés strode barefoot to the railing at the edge of the navigation deck overlooking the main deck and glared down at Vendabal and Pepillo. 'What's the meaning of this?' he asked.

'Bastard cur bit me,' complained Vendabal, pointing at Melchior, who stood with hackles raised and bared teeth as though daring him to do his worst.

Suddenly and surprisingly, Cortés smiled. 'And I suppose that soft flesh of yours has never felt a dog's teeth before, Don Telmo? No doubt those scars you carry were left by the talons of jealous lovers.'

Vendabal looked confused. 'Of course I've been bit before,' he said truculently. 'A hundred times! But no dog that bites me gets

away without a beating. They have to know who's master.'

'You've already beaten Melchior,' Pepillo objected. He had picked himself up and now crouched beside his pet. 'He's learned his lesson. Look, he's trembling.'

It was true, Melchior was trembling, but not with fear, Pepillo thought. A low snarl rumbled in the lurcher's throat and he seemed ready to leap at Vendabal again.

'Be damned he's learned his lesson,' Vendabal roared. 'That dog needs a whipping. Then he goes in the pack with the others to be trained for war.'

'No,' Pepillo yelled. 'He's mine! You can't have him.'

Cortés watched from the navigation deck, his features registering a strange, cruel amusement. 'The dog stays with my page,' he said finally. 'For now.' He turned his back and began to stroll towards the open door of his stateroom, then added over his shoulder. 'But whip him, Vendabal. By all means, whip him.'

Chapter Two

Tenochtitlan (Mexico City), Wednesday 21 April 1519, late afternoon

Guatemoc leapt high into the air, all grace and style, and Man-Eater's blade whistled by harmlessly beneath the soles of his feet. Then, in the same smooth movement, the handsome Mexica prince brought his own weapon down on the crown of his opponent's head, halting the blow less than a finger's breadth from its target. 'You're dead, Man-Eater,' Guatemoc drawled. 'Your skull is cleft in twain. I do believe that's your brains, scant though they are, lying in

the dust before us.'

Man-Eater was a bad loser. This was the fourth time he'd been spectacularly bested in less than an hour of sparring, and now he growled furiously and attacked again, his blade a blur of rapid movement, too fast for the eye to follow. Yet somehow Guatemoc evaded him, his lean, scarred, heavily muscled body weaving from side to side, ducking and swaying as he retreated before the furious onslaught until suddenly – Tozi could not see it coming – he swivelled, let his opponent slide by, and chopped the edge of his blade into the back of Man-Eater's thick neck, reducing the force of the blow but yet allowing it to strike home with a loud slap that laid out his friend, face down and inert in the dust.

Invisible, insubstantial as air, able to pass unseen wherever and whenever she wished, Tozi was the silent and unknown observer of the bout. Indeed, she had observed Guatemoc many times since Moctezuma's plot to poison him, when she'd used sorcery to save him and to bring him healing for the terrible wounds he'd received

in battle against the Tlascalans. It was, she had to admit, most inconvenient that she had fallen in love with this noble prince, nephew of that noxious creature Moctezuma, who for the entire fifteen-year span of Tozi's life had been enthroned as the Great Speaker of the malevolent empire of the Mexica. But having accepted the truth of her feelings, Tozi supposed she was better able to deal with them.

Above all else, a dalliance of any kind was out of the question.

Guatemoc was of the blood royal, while Tozi was a witch and the daughter of a witch. Besides, he was her enemy and the nephew of her enemy. She must use her magic and her wiles to turn him against his uncle and the war god Huitzilopochtli, 'Hummingbird', whom his uncle served – either that, or she must bring Guatemoc to the same ruin she planned for Moctezuma.

Quetzalcoatl, the Plumed Serpent, god of peace, ancient antagonist of Hummingbird, was coming, coming as prophesied in this year One-Reed, to overthrow a cruel king and abolish the war

god's vile cult of human sacrifice forever. Tozi felt a momentary qualm – for her own magical powers, most particularly her ability to render herself invisible, had been enhanced by none other than Hummingbird himself when she had stood before his altar of sacrifice. Her friend Malinal, who had stood there with her that night two months before, and who had been freed with her following Hummingbird's intervention, had seen a terrible danger in this. For if Hummingbird had freed them from sacrifice at the hand of his puppet Moctezuma, then it must mean the war god had a plan for them and, since Hummingbird was a being of pure evil, then it followed that only evil could come of it.

Tozi had dismissed all such concerns when she'd sent Malinal on her way to the coast to seek out Quetzalcoatl. Certainly there was a plan – a great plan – but it was not of Hummingbird's making. And certainly she and Malinal had their parts to play. Tozi remembered the words of reassurance she'd spoken to her friend: 'Moctezuma too is playing his part, and even the wicked and deluded god he

serves must play his part.'

'I don't know,' Malinal had replied. 'I don't understand any of this.'

'You don't need to understand it, beautiful Malinal. This is the year One-Reed and you just have to play your part … Don't you see, it's not an accident that you are of the Chontal Maya and that those who came to herald the return of Quetzalcoatl first appeared in the land of your people, and in Potonchan, the very town where you were born? None of this is an accident, Malinal. That's why you must go back to Potonchan now, without delay. That's why you must start your journey at once.'

And so she had sent Malinal off on a perilous journey to her homeland, and to her family who had sold her into slavery with the Mexica – sent her off to seek out the returning god of peace. Tozi's magic was strong now, stronger than it had ever been, but still she had no idea what had happened to her friend in the sixty days or more that had passed since then. She could only guess, could only

hope, that she was well and that her mission to find Quetzalcoatl, and lead him back to the city of Tenochtitlan to overthrow Moctezuma, had been crowned with success.

Meanwhile Tozi's own business was here with Guatemoc.

To win him over to the cause of the Plumed Serpent would be a great victory, yet Tozi could barely trust herself to approach him. Indeed, since the last time she had shown herself to him in her disguise as Temaz, goddess of medicines and healing, the very thought of him was enough to make her dizzy – for then the prince had swept her up in his arms and kissed her full on the mouth, and she had tasted his tongue and he had tasted hers. Even now, observing him unseen from the sanctuary of her invisibility, the memory made her breathless.

Dressed only in a simple loincloth of plain white cotton, Guatemoc had been sparring with his friend Tecuani – nicknamed 'Man-Eater' – in the spacious courtyard of his townhouse in the royal quarter of Tenochtitlan. Both men were armed with

macuahuitls – swords of hardwood stripped of their razor-sharp obsidian teeth for today's purpose – and both their bodies were sheened with sweat. Presently, however, Guatemoc was on his feet while Man-Eater lay face down on the ground, a livid red welt standing out on the back of his neck where the prince had struck him.

'Come on,' said Guatemoc, dropping to his knees beside Tecuani, 'I didn't hit you that hard.'

Silence.

Guatemoc sighed. 'I know you can hear me, Man-Eater. I know you're just playing dead.'

Silence.

Now Guatemoc was seriously concerned, shaking his friend by the shoulders, getting no response.

'Wake up, Man-Eater! What's this?'

Still getting no answer, Guatemoc leaned closer, and that was when Man-Eater, a powerful, heavy-set noble of thirty years of age,

a Jaguar Knight but with the shorn head and sidelock that also marked him out as a member of the formidable Cuahchic class of warriors, exploded into action. He threw himself on top of the prince and wrestled him onto his back on the ground. 'Surrender, Guatemoc,' he yelled. 'Your time has come.'

'Hardly, dear chap,' Guatemoc laughed. 'Since I've spilled your brains and cut off your head, I don't think you're in any shape to accept my surrender.'

'Well, we'll call it a draw then,' Man-Eater said after a moment's thought. 'You've got to admit I had you fooled.'

'A draw it is,' replied Guatemoc with another easy laugh, and they both stood, slapping each other on the shoulders for all the world like two schoolboys reconciled after a playground fight.

Still hidden by the shield of her invisibility, Tozi watched. The knife wounds Guatemoc had received to his belly, throat and forearm two months before were now almost completely healed …

Thanks to her magic!

His life force was back.

Thanks to her magic!

And, by dint of much exercise and determination, his strength had returned.

Soon, therefore, it would be time, Tozi decided, to reveal herself to him again, disguised as the goddess Temaz – the only form in which he knew her – and perhaps even to share once again the bliss, the hot roiling warmth, the endless promise of a kiss …

But no! Not that! Though she felt a sweet heat in her loins, she would permit him no contact with her. She would not repeat the same mistake she had made before.

There would be no contact, only spoken words.

Perhaps even tonight, after Man-Eater was gone, after the servants had retired to their beds, she would find Guatemoc alone and win him to her cause.

Chapter Three

Tenochtitlan, Wednesday 21 April 1519, evening

Moctezuma sat at his dinner, choosing a morsel here, a morsel there from the three hundred dishes laid out before him, but taking no pleasure from them. The images that crowded in upon his mind were of the Tzitzimime, the star demons of darkness, those monstrous spiders that attack the sun at the end of a world age, diving headfirst upon him from heaven.

An almost inaudible scurry of slippered feet across the polished mahogany floor of the dining hall, along with a faint perturbation of

the air, announced the arrival at his side of his lugubrious steward Teudile, the seventh most important lord of the Mexica empire. Tall, gaunt and hollow-cheeked, his temples and brow shaved, his long grey hair gathered in a topknot at the back of his head, and his cherished personal dignity enlarged by the star-spangled robes of office that he alone was permitted to wear in the presence of the Great Speaker, Teudile held sole responsibility for all matters concerning the running of the royal household. At dinner it was his particular honour and privilege to describe the dishes to the Speaker and hand him whichever took his fancy, but tonight and for many previous nights Moctezuma had dispensed with this service, caring nothing for the delights of the menu and preferring to eat and brood alone.

'Sire, with humble apologies—'

'Go away, Teudile! You disturb me at your peril.'

Out of the corner of his eye, Moctezuma saw the steward wringing his long thin hands.

‘Forgive me, sire, but I fear your wrath if I fail to bring this matter to your attention … ’ More wringing of hands. ‘It is better you yourself should decide.’

Moctezuma’s fury was building. It was not for nothing that his name meant ‘Angry Lord’. But he also felt apprehension, indeed a sense of impending catastrophe. ‘Very well,’ he said quietly – for he almost never raised his voice. ‘Tell me of this matter.’

Teudile’s fear was palpable now. ‘Sire,’ he said, ‘at the door, is a *pochtecatl* called Cuetzpalli. I would have sent him away with a severe beating, but he carries your seal, and he claims you told him to discover certain information for you. He says he is in possession of that information now, and he is certain you will want to hear it.’

The blood drained from Moctezuma’s face. He had summoned this Cuetzpalli to a private meeting at the palace last year, soon after the first inconclusive sightings of white-skinned beings, resembling men but possessing supernatural powers, who had emerged from the eastern ocean in boats that moved by themselves without paddles.

Moctezuma had reason to fear such tidings. There was much to suggest that the beings had come to prepare the way for the return of Quetzalcoatl, the god of peace who, it was prophesied, would drive him from the throne of the Mexica empire, end the rites of human sacrifice over which he presided, and overturn the existing order of the world.

The young merchant Cuetzpalli, a member of one of the powerful *pochteca* guilds, travelled and traded amongst the Chontal Maya of the Yucatán, in whose lands the beings had passed a brief sojourn. He was therefore ideally placed to keep watch for any further sign of them. 'If they are sighted again,' he had told Cuetzpalli before sending him on his way to the Yucatán, 'then gather intelligence and bring it to me swiftly. You may approach me with it at any hour of the day or night. No information is of greater importance to the safety of our realm.'

'You were right to disturb me,' Moctezuma sighed, putting Teudile out of his misery. 'I will see the *pochtecatl* in the House of

Serpents. But before you bring him there, summon Namacuix and tell him I will require two captives, both males – youths – for sacrifice.'

* * *

Because the best-known manifestation of Quetzalcoatl was in the form of a plumed serpent, it seemed to Moctezuma it would be appropriate to be amongst the creatures of Quetzalcoatl if, as he very much feared, he was now to receive tidings of that god's return.

The House of Serpents was part of the royal zoo, and there, in the pits and ponds surrounding the main viewing floor, could be found serpents of all sizes and colours, from the dullest rattlesnakes to the brightest coral and parrot snakes. The collection included bushmasters, nauyaca vipers, eyelash vipers, dwarf pythons, ribbon snakes, black rat snakes, milk snakes, garter snakes, boa constrictors and many other species, including a variety of aquatic snakes. The

great walled courtyard built to display these monsters was in part open to the stars and additionally illuminated tonight by flickering torches, bringing to life richly painted murals of serpents arranging themselves in geometric patterns. Ichtaka the zookeeper and his young assistant were still busily lighting the torches when Moctezuma entered. They at once fell on their faces, as was proper in the presence of the Great Speaker, but he waved them to their feet, ordering them to complete their task and leave.

Namacuix, the lean zealot with burning eyes, recently appointed to the role of High Priest following the mysterious disappearance of his treacherous predecessor Ahuizotl, arrived soon afterwards. He was accompanied by four black-robed assistants carrying a portable wooden execution platform, which they set down in the middle of the viewing chamber. With them, guarded by six soldiers, came two captive Tlascalan youths, dressed in paper loincloths, their bodies already covered in chalk. Although they were drugged and compliant, their eyes brimmed with fear and horror. Finally Teudile

entered with a servant carrying two stools – a high one for Moctezuma to sit on and a much lower one for the *pochtecatl*.

'Shall I bring in the merchant, lord?' Teudile asked.

In one of the pits, a sinuous boa constrictor was in the process of swallowing a very large agouti. Watching gloomily, Moctezuma was struck by the symbolism. The serpent must represent Quetzalcoatl while the agouti, now bulging in the serpent's gullet, must be himself.

'Yes,' he said. 'Bring him in.'

* * *

It was most unusual for any man, let alone a travel-stained and weary *pochtecatl*, to be seated in the presence of the Great Speaker, but Cuetzpalli's mission justified the honour. When the merchant had completed his obeisances, Moctezuma gestured to the stool and got straight to the point: 'Have the white-skinned beings returned?'

he asked.

'They have, my lord,' Cuetzpalli replied. 'They came, as they did before, from across the eastern ocean, in boats of enormous size that move by themselves without paddles.'

Moctezuma nodded slowly. *In this way*, he thought, *as the ancient prophecies foretold, my doom approaches*. He made a sign to Namacuix and, very quickly, with no ceremony, the two Tlascalan youths were bent backwards over the killing platform, their breasts hacked open and their hearts torn out. When the work was done, the High Priest dipped his fingers into their welling chest cavities, crossed over to Moctezuma and Cuetzpalli, and sprinkled them liberally with blood.

There followed a brief interval as the bodies were removed; the parts not fit for human consumption would be fed immediately to the jaguars and other carnivorous beasts kept in the zoo. The assistant priests and soldiers then filed out. Finally, only Namacuix and Teudile were left standing, one on either side of their ruler.

‘Very well,’ Moctezuma said to the *pochtecatl*. ‘You may proceed.’

‘You are gracious, sire,’ the merchant replied. ‘But before I begin it is my duty to inform you that the events I am about to speak of took place twenty-seven days ago.’

Moctezuma frowned. ‘Twenty-seven days?’

‘Yes, great lord, for the lands of the Chontal Maya are very far from here. I travelled fast, by forced march, sleeping little and eating while on the move. I left my caravan far behind, retaining only my Cuahchic bodyguards to secure my safety. Even so, we were twenty-seven days on the road.’

Though Moctezuma endeavoured to keep his face calm and free of emotion, his heart was thudding. If the white-skinned beings had been seen in the lands of the Chontal Maya twenty-seven days ago, then who was to say where they might be today? If they were truly gods, as he suspected, it seemed likely they would travel much faster than mortal men, in which case might they not even now be approaching Tenochtitlan?

That prospect, terrifying in itself, grew even more horrible and immediate for Moctezuma as the *pochtecatl* told his story, supporting it with many detailed paintings done by his own artist during a great battle – a battle that had taken place twenty-seven days previously, in which the Chontal Maya had sought, and failed, to drive the white-skinned beings back into the ocean.

Moctezuma knew the Maya to be ferocious fighters; indeed their ferocity was one reason why the Mexica had never tried to force them to become tribute-paying subjects of the empire. They were also numerous as flies in the summer and thus able to put large armies in the field, which made conquering them a costly prospect that his generals had always advised against.

Yet the white-skinned beings, whose own numbers, Cuetzpalli reported, did not exceed a paltry five hundred, had, in a single day, destroyed and put to rout an army of forty thousand Chontal Maya! Of particular significance was the fact that they had done so with the use of Xiuhcoatl – fire-serpents. The war god Huitzilopochtli,

'Hummingbird', had appeared to Moctezuma in visions to warn him that those who sought his doom would be armed in exactly this way.

The Mayan chiefs, Cuetzpalli continued, had foolishly persuaded themselves that the beings were not gods and that their Xiuhcoatl were merely manmade weapons of some ingenious sort. Having seen them in action, however, the *pochtecatl* had no doubt that supernatural powers were involved. 'Their fire-serpents roared,' he said, 'and their noise resounded like thunder so loud as to steal a man's strength and shut off his ears.' Moreover, the beings possessed not just one but at least three different types of these miraculous weapons! The smallest killed one or two men at a single blow, those of medium size easily killed fifty, and the largest ones killed hundreds. 'The discharge of a large Xiuhcoatl is terrifying, lord,' Cuetzpalli said, his voice filled with wonder. 'A thing like a ball of metal shoots out from its entrails, showering fire and blazing sparks; it travels a great distance through the air and when it hits the ground it bounces and rolls, killing all in its path, breaking men

apart and dissolving them as though they never existed. The smoke that comes out with it has a fetid odour, like rotten mud. It can be smelled from afar and it wounds the head and penetrates even to the brain.'

Moctezuma had an overwhelming sense of a great danger that had been closing in on him for several years, now slowly and menacingly fulfilling its dreadful promise.

First there had been the signs and omens, unexplained visitations, incoherent and unclear but no less terrifying for that, stretching back a decade or more. Then two years ago a strange bird had been brought to his palace. The bird had a mirror in its crest, and in that mirror Moctezuma had seen white-skinned, golden-haired creatures dressed in metal armour, some resembling humans, and some part-human, part-deer that ran very swiftly. Next, less than a year ago, reports had reached him from the Chontal Maya that beings exactly like those he had seen in the mirror had appeared in the Yucatán. Later, Hummingbird had given him further tidings

of them, telling him that they were masters of unknown metals and that wild beasts fought for them in battle, 'Some carrying them faster than the wind, others with monstrous teeth and jaws that tear men apart.' Now, witness to a battle that had taken place just twenty-seven days ago, Cuetzpalli had brought paintings of these same wild-beasts – 'deer that bore them on their backs and were tall as roof terraces', and other monsters the size of jaguars that he had seen only from a distance but that ran across the battlefield in great numbers, seizing and devouring the Mayan soldiers. Both types of beast moved with terrifying, unnatural speed, flying over the ground and leaping through the air; and both, like the white-skinned beings themselves, wore armour made of a mysterious metal that gleamed like silver but was so strong that none of the Mayan weapons could penetrate it. 'Their trappings and arms are all made of this metal,' Cuetzpalli said. 'They dress in it and wear it on their heads. Their swords are metal, their bows are metal, their shields are metal, their spears are metal.'

The artist had painted awe-inspiring images of the white-skinned beings with their strange beasts, and their terrifying metal war array. As Moctezuma studied the paintings and heard Cuetzpalli's account, the suspicion that these beings must be gods, which he had all along entertained, began to solidify and take definite shape in his mind. Although Cuetzpalli had not had the opportunity to approach them closely, witnessing the battle from a hilltop, he had questioned a Maya chief who had negotiated with them for some days before the fighting began. This chief, Muluc by name, had described the beings as 'very white. They have chalky faces; they have yellow hair, though the hair of some is black. Their beards are long and yellow, and their moustaches are yellow.'

The description accorded perfectly with all ancient testimony concerning the bearded, white-skinned god Quetzalcoatl whose return, it had long ago been prophesied, would take place *this very year* – the year One-Reed. Indeed Quetzalcoatl's full name was Ce-Acatl Quetzalcoatl meaning 'One-Reed Quetzalcoatl'. Moreover,

there was a venerable tradition that 'years with the sign of the Flint come from the north, those with the House from the west, those with the Rabbit from the south, and those with the Reed from the east.' It was therefore a matter laden with meaning that these white-skinned gods, whose description answered so closely to that of Quetzalcoatl, had entered the Yucatán *from the east*, across the eastern ocean. Also, the place where they had arrived and given such a fearsome demonstration of their supernatural powers was Potonchan – the exact spot from which Quetzalcoatl was said to have made his exit long years before, and to which he had promised he would return to begin the overthrow of the devotees of Hummingbird, the war god who had driven him out. *Quetzalcoatl has appeared!* Moctezuma thought. *He has come back! He will come here, to Tenochtitlan, to the place of his throne and his canopy, for that is what he promised when he departed.*

'In the year One-Reed,' the prophecy said, 'a king will be struck down and made a slave.'

Certain now that he himself must be that doomed king, Moctezuma found it increasingly difficult to disguise the awful, mind-numbing, gut-wrenching fear that was overtaking him like some deadly curse, shrivelling his heart and loosening the sinews of his knees.

That same fear, inspired by the earlier omens, had led him to initiate a holocaust of two thousand female victims on the pyramid sixty days before. The great sacrifice had produced its desired effect. Hummingbird had appeared to him and promised to fight at his side, and in return Moctezuma had sworn to the war god that an even larger harvest would follow – a harvest consisting entirely of virgin girls. He'd felt confident he would be able to keep his word because Coaxoch, his greatest general, had then been in the field commanding an entire army with a full complement of four regiments, each eight thousand men strong, dedicated to the sole purpose of seizing huge numbers of additional victims. But what Moctezuma had not known that night, what he could not even

possibly have imagined, was that Coaxoch's army of thirty-two thousand fighting men would be annihilated the very next morning by a superior Tlascalan force – demolished so completely by the Tlascalan battle-king Shikotenka that barely three thousand demoralised survivors had limped back to Tenochtitlan. Nor could Moctezuma have predicted the puzzling escalation in fighting that erupted soon afterwards, much closer to home, with the rebel forces led by Ishtlil, the treacherous prince of Texcoco. This flare-up had so preoccupied the five remaining Mexica armies that there had been scant progress in the further search for sacrificial victims.

Deep in his roiling guts, Moctezuma knew he need look no further to explain why, despite all his efforts and his desperate need for reassurance and advice, Hummingbird had not reappeared or even sent him a single unambiguous sign. It was obvious the war god would remain remote until he received the large basket of virgins promised to him. Henceforward, Moctezuma resolved, he would once again devote four full regiments of his best men

exclusively to that sacred task.

* * *

When Cuetzpalli's report was complete, Moctezuma spoke gently to him. 'You have suffered fatigue,' he said, 'and you are exhausted from your long journey, so you may go now and rest and when I have need of you I will call you again. But know this. What you have said to me tonight and what you have shown me has been in secret. It is only within you. His glance took in Teudile and Namacuix and he made his voice stern: 'No one shall speak anything of this. No one shall let it escape his lips. If any here present lets any of it out, they will die. Their wives will be killed by hanging them with ropes. Their children will be dashed to pieces against the walls of their houses and their houses will be torn down and rooted out of their foundations.'

As he stood to leave, Moctezuma's eyes fell on the boa

constrictor in the pit. He noted with interest that the agouti had proved too large to swallow and the serpent's gullet had burst explosively open.

Both creatures now lay dead.

Chapter Four

Wednesday 21 April 1519, night

Guatemoc sat alone on the roof garden of his townhouse in the royal quarter of Tenochtitlan, gazing up at the starry sky. In the midnight depths of the darkness, the glittering Mamalhuaztli, the seven bright stars of the Fire-Sticks constellation, were setting and would soon enter their period of invisibility when they would be seen no more until the late summer.

Strange, Guatemoc thought, how the stars came and went – now seen, now not seen. They were as inscrutable and mysterious as

Temaz, the goddess of healing and medicines, to whom he owed his astonishing recovery from the terrible wounds inflicted on him two months previously by Shikotenka, battle-king of Tlascala, and also from the deadly *cotelachi* poison he'd been given while he lay convalescing in the royal hospital. His uncle Moctezuma had, of course, denied any direct involvement in the plot, had ordered the royal physician Mecatl to be flayed alive for administering the poison, and had presented the doctor's skin to his nephew as a token. Even so, Guatemoc and his father Cuitláhuac, whose loyalty to Moctezuma had hitherto been unshakable, both knew perfectly well that the Great Speaker had been behind the whole scheme.

Ah Temaz, Temaz … Guatemoc couldn't believe how lovesick he had become! He was sitting out here actually sighing under the night sky! He was missing her, longing for her sweet touch, remembering the uncanny healing warmth that had poured from her fingers into his wounds, bringing him back to life. More than fifty days had passed since their first encounter in the royal hospital,

when she had come to him to expose Moctezuma's plot. Then, after he'd been taken to the safety of his father's estate at Chapultepec, she'd materialised thrice more to give him further healing and to speak to him of impossible things – of the return of Quetzalcoatl, the Plumed Serpent, the god of peace, who, she said, would overthrow Moctezuma. Even now, so many days later, though he had not seen her again since that last extraordinary night, her words still echoed in his ears: 'You must not, Guatemoc, *you must not* place yourself in opposition to Quetzalcoatl. A war is coming and you must be on the right side. You must be on the side of peace.'

'Peace?' Guatemoc had been genuinely puzzled. 'I am a warrior, my lady. I can never be on the side of peace … ' Besides, 'What sort of god of peace would resort to war in the first place? Surely if he wishes to rid the world of Moctezuma, he will find a way to do that by peaceful means?'

'Moctezuma is evil,' Temaz had insisted, 'and sometimes evil overwhelms good, and when it does it can't just be wished away

peacefully. It has to be fought and it has to be stopped, and that's what Quetzalcoatl is returning to do.'

'So Quetzalcoatl, then, is a god of war, just like our own war god Hummingbird?'

'No … Yes!'

'Which is it to be, my lady? Is this Quetzalcoatl of yours a god of peace? Or is he a god of war? He can't be both!'

'Then he is a god of war! But his fight is against Hummingbird himself, the wicked ruler and authority of the unseen world, who contaminates and pollutes everything he touches with evil and darkness, whose puppet Moctezuma is, just as the physician Mecatl was Moctezuma's puppet in the plot to poison you … So the question you must ask yourself, Guatemoc, is this – will you, too, be Hummingbird's puppet in the great conflict that is to come, or will you fight on the side of the good and the light?'

'Lady Temaz,' Guatemoc had replied, 'if you are asking me to fight against Moctezuma, then I will tell you now I am ready to do

so! He is a weakling and a fool and, besides, he sought to murder me! But if you are asking me to fight against Hummingbird, my lady … well, that is quite another matter and by no means so easily undertaken.'

'The time will come, Prince, when you will have to choose,' Temaz had said. 'I can only hope you choose wisely.' He remembered how she'd pressed her fingers one more time against the wounds that scarred his naked belly, sending more healing warmth into his body. 'I will see you again,' she'd said, straightening, relinquishing the contact.

And then …

Well, then he'd kissed her, a passionate kiss, deep and filled with hunger – his hunger, her hunger – which could only be satiated in one way, which *should* have been satiated in that way, except that at that precise moment the Lady Temaz had turned to smoke in Guatemoc's arms and disappeared, leaving him embracing empty air.

What just happened? he remembered thinking. *Who is she? A goddess, as she claims? Or something else?*

He'd touched his lips again, glowing, alive, tingling with sensation. But when he brought his fingers away he saw they were smeared with red.

He'd frowned. What was this? Blood? He'd tasted his lips with his tongue. No! Not blood! Something else. Something familiar.

He'd found an obsidian mirror and examined himself. This red stuff, whatever it might be, was not confined to his lips but smeared all round his mouth. He'd tasted it again and suddenly he had it. Tincture of cochineal! Rare and exotic, yes, but quite definitely a woman's lip paint.

Why would a goddess need lip paint?

He'd pondered that question back then, and pondered it still, but had not yet come to any definite conclusion. It remained possible that he had been healed by a goddess. But his intuition suggested another, even more extraordinary, possibility: that the goddess

Temaz had all along been a human woman in disguise. A witch, perhaps, with some strange power to render herself invisible and visible at will?

Guatemoc sighed again. The thought that he might have been duped would ordinarily have plunged him into a rage but, in this case, strangely, it did not. The single, unassailable truth was that this Temaz, whoever she was – whether goddess or woman, phantom or witch – had brought him the miracle of healing and saved his life.

He ran the tip of his tongue around his lips. Even now, after so much time had passed, he often imagined he could taste her sweetness and feel the hot, wet warmth of her tongue roiling against his.

And, on occasion – was it also his imagination, or something more? – he was overtaken by a strong intuition that she was present, invisible, watching silently over him. He felt the hairs rise on the back of his neck. Was now one of those times?

'Temaz,' he said softly. 'Sweet goddess. Show yourself to me.'

There! What was that? A disturbance of the air? A hint of form emerging out of shadow? Was tonight the night the goddess would return to him? Guatemoc sat forward eagerly, his eyes probing the darkness. 'Are you there?' he asked, surprised by the tremor in his voice. He stood, walked hesitantly to the place where he thought he had seen her, reaching out with his arms. 'I have longed for you,' he said – but then immediately felt foolish because there came no reply and the night air was still again, the shadows just shadows and empty of substance.

Enough! He was behaving like a callow youth.

It was time to put this nonsense behind him. Tomorrow, he resolved, he would begin to involve himself in affairs of state again. Moctezuma would resist, but Moctezuma's days were numbered. If Quetzalcoatl was indeed about to return, then a true warrior must step forward to confront him.

As to women … well, women were as plentiful as the fish in the

sea. Guatemoc had held himself aloof from them long enough because of his foolish loyalty to Temaz.

Might as well be loyal to a dream!

He was ready to move on.

Chapter Five

Thursday 22 April 1519

The great lord called Cortés, wearing the gleaming metal jacket that these Spaniards called a cuirass, was seated under an awning on the same grand and ingenious folding chair that Malinal had seen him use for his diplomatic encounter with the defeated chiefs of the Chontal Maya. But time had passed since then, and the man in front of Cortés today, seated cross-legged on a mat on the ground and thus obliged to look up at him from a position of inferiority, was no Maya. Instead this was a plain and stocky middle-ranking

noble of the Mexica, Pichatzin by name, whom Moctezuma had appointed as provincial governor of the coastal town of Cuetlaxtlan. In her five years as a sex slave of the Mexica, Malinal had attended a number of dinner parties in Tenochtitlan at which Pichatzin had been present before he was sent to rule this far-flung outpost of the empire. But, since his rank amongst the *pipiltzin* – the noble social class – was too low for her ever to have been given to him as a lover, it was not certain he would remember her. For the same reason, she knew none of the five other relatively low-ranking nobles accompanying him as an entourage, who were presently obliged, for want of space, to stand outside the awning in the full glare of the afternoon sun. In addition, Pichatzin had brought along an artist who was also squatting in the sun and working industriously on a series of paintings.

Cortés's own entourage consisted of red-bearded Puertocarrero, who Malinal knew all too well, and the lords Alvarado, Escalante, Ordaz and Montejo, whose names she had memorised. Though

standing, they had all found a place under the shade of the awning. The boy Pepillo, who was never far from Cortés's side, except when tending to his injured pet dog, sat on the ground clutching a pen and a sheaf of papers, ready as always to keep a record of his master's doings. In addition the interpreter Aguilar was present; however, since he spoke only Castilian and Maya, while Pichatzin and his entourage, like most Mexica, spoke only Nahuatl, he presently had very little to do. It was obvious from the repeated use of sign language and frustrated smiles that the two groups did not understand each other at all well.

Spying on the meeting over the steam rising from the cooking pots, and between the bustling figures of the other serving girls in the makeshift kitchen of the Spanish camp, Malinal saw the chance she had been denied until now to prove her worth to Cortés. In her first extraordinary glimpse of the white men on horseback twenty-eight days before, it had been the eye of Cortés himself that she had caught as he rode past her, clothed from head to foot in shining

metal armour, to join the great battle outside Potonchan. The very next day she had been presented to him as a peace offering by her stepfather Muluc, the ruler of Potonchan, who had of course survived the fighting in which so many thousands of the Chontal Maya had died. Along with her had come heaped jaguar skins, bales of costly cloths, a chest full of precious jade objects, some gems, some small items of gold and silver, and nineteen other women – all of them, like Malinal herself, offered as slaves to be used for any purpose the Spaniards saw fit. 'You said you returned to us to meet the white men,' Muluc had reminded her, 'so now you're going to get your wish – and good riddance to you. I hope you're as much trouble to them as you've been to me.' Her mother Raxca had wept but had raised no objection as her repulsive husband got Malinal out of the way permanently and placated a powerful enemy at the same time – thus, he gloated, 'killing two birds with one arrow.'

Malinal had found it hard to conceal her joy. After she and her friend Tozi had narrowly escaped sacrifice at the hands of

Moctezuma himself, she had walked all the way from Tenochtitlan to find these white 'gods', only to be diverted from her quest by Muluc – yet fate had now conspired to make him the very instrument that would put her into their hands! For a moment everything had seemed to be moving smoothly towards its foreordained conclusion but, soon after she had been marched from the regional capital Cintla back to Potonchan, and delivered to the Spaniards, Malinal's sense of being swept up in some divine scheme was again rudely shattered. The special connection she had felt with the Spanish leader as she'd watched him ride into battle, the way he had turned his bearded white face towards her, the way his eyes had seemed to fix on her and root her to the spot, had filled her with hope and a strange yearning. Yet, when she had been brought before him in Potonchan, he had accepted her from Muluc as a gift of less importance than the jade, gold and jewels (which themselves had seemed to please him very little), paid her no special attention, rejected her attempt to speak to him through Aguilar and finally

given her to his friend Puertocarrero.

Thereafter she had seen little of Cortés during the twenty-three further days the Spaniards had remained in the lands of the Chontal Maya. He had spent much of his time away from Potonchan, often in the company of his cruel but handsome second in command Pedro de Alvarado. She soon learned from servants who Muluc had sent to work for them in the palace that the Spaniards were ransacking all the towns of the region for gold – which seemed to obsess them as much as it obsessed the Mexica, though it was of little interest to the Maya. It was even said that Muluc and the paramount chief Ah Kinchil had been tortured to persuade them to surrender stores of gold the white men believed they had hidden – but of course they had none to give. She neither knew nor cared if these reports were true; the two chiefs had conspired to ruin her life and, in her opinion, deserved whatever bad things came to them.

When not hunting for gold, Cortés's other favourite activity – to which he showed great dedication – was destroying the idols of the

gods kept in the temples and preaching to the people of Cintla and Potonchan about his own strange and incomprehensible religion. Since everyone was terrified of him, he won many converts.

On the occasions when he was not preoccupied with these activities, Malinal several times asked Aguilar's assistance to approach Cortés and speak to him. From the very first day, however, the Spanish interpreter had been unhelpful. She'd made him understand she was fluent not only in Maya but also in Nahuatl, the language of the Mexica, yet for some reason she couldn't grasp, he was obviously determined not to let her talk to Cortés.

Then she'd found out why.

One evening Cortés had made an announcement to the assembled army, which Aguilar had been required to translate for the benefit of all twenty of the female slaves who would be accompanying them; he'd said that the Spaniards had concluded their business with the Chontal Maya and would soon be moving

on to the lands of the Mexica. They would go first by ship to the coastal town of Cuetlaxtlan – everyone must be ready to embark in just three days' time – and from there they would strike inland to Tenochtitlan, the Mexica capital. This they would seize by force, take its emperor Moctezuma 'dead or alive', and help themselves to the vast hoard of gold his empire was reputed to have amassed.

Reputed? Malinal had thought, even as her heart soared. *Reputed!* If she'd been allowed to talk to Cortés she could have told him weeks before that it was not just a matter of 'reputed'. The Mexica were the richest people in the entire world, Tenochtitlan overflowed with gold and Moctezuma's treasuries were stuffed to bursting point with it.

Clearly Aguilar had acted so strangely because he knew Malinal was fluent in Nahuatl – which he spoke not a word of – and could see she was already learning Castilian. The foolish man must have feared, since it was inevitable the Spaniards' lust for gold would sooner or later lead them to the Mexica, that she would then usurp

his privileged place at Cortés's side. While not actually lying to his master about the fabulous wealth of Tenochtitlan, the interpreter had therefore done all he could to divert and delay this important intelligence and to prevent Cortés from discovering how indispensable Malinal might prove to the Spanish cause.

Perhaps Aguilar had even hoped the slaves would be left behind when the Spaniards continued their journey! But there was no way Puertocarrero or any of the other officers who'd been given women were going to do without their all-purpose cooks, cleaners and bed companions, and Cortés had made a point of confirming they would accompany the army in its advance on Tenochtitlan.

So once again, Malinal realised, she had been reunited with her fate. Very soon Cortés would meet the lords of the Mexica and find he was unable to talk to them. When he did, no matter how Aguilar might try to block her, she had resolved she would be there to take her rightful place in history.

Three days later, as Cortés had promised, they left Potonchan.

Then had followed a sea voyage in the great boat, named the *Santa Luisa*, owned by Puertocarrero. This vessel was so much larger and grander than any Malinal had ever seen or dreamed of, that she had at first been overawed, even a little terrified, by its mountainous size and by the cunning way its wings of cloth caught the wind and drove it forward across the foaming waves.

Moreover, the *Santa Luisa* was only one of eleven such boats under the command of Cortés, with his own *Santa Maria* being the largest and most magnificent of them. All these 'ships', as the Spaniards called them, had sailed together along the coast of the Yucatán after departing from Potonchan and again, since they were on different vessels, there had been no opportunity for Malinal to speak with Cortés. What soon became clear to her, however, was that they were travelling faster than a man could walk and that they kept this speed up, hour after hour, day after day, and night after night, soon leaving the lands of the Maya behind and moving ever closer to territories settled and governed by the Mexica.

Finally, on the morning of the fourth day at sea, Cortés ordered the fleet to drop anchor off the coast a few miles north of Cuetlaxtlan and immediately began to disembark the larger part of his army. Within hours camp had been pitched high up on the sand dunes, Pichatzin and his entourage had arrived to find out what was going on, only to be frustrated by a seemingly insuperable language barrier, and Malinal, slaving over the cooking pots, had seen her opportunity to catch Cortés's eye again, as she had on the day of the great battle outside Potonchan.

Then, as he'd thundered by on horseback, she might still have been persuaded that he and his fellow Spaniards were gods, but she knew better now. Indeed the smell of Puertocarrero's farts alone had been enough to convince her that she was dealing with men, like any other men – with all the weaknesses, follies and stupidities of the male sex. To be sure, they looked very different from the Maya or the Mexica, and their language – which Malinal had already begun to master – was quite unlike any other she had ever heard.

Admittedly, also, their customs and behaviour were strange. Although most of them never washed, with the result that their bodies were filthy and stinking, they were unusually disciplined and determined, and their weapons, their tame animals and their ships were extraordinary. Nevertheless, when all was said and done, they were men, and nothing more than men, and as such, no matter how fearsome and alien they might seem, they could be understood and manipulated.

Malinal checked her cooking pots one more time. The stew was ready. She ladled two generous helpings into the bowls she would offer to Cortés and Pichatzin, told the other girls to serve out the rest, and made her way across the sand to her destiny.

* * *

'Surely there must be some common ground between the Mexica and the Maya?' Cortés asked Aguilar. 'Something you can use to

communicate with these savages?'

'No, Hernán,' Aguilar replied. 'Their languages are not like French and Italian, with many shared words. They are utterly different. I can't make myself understood at all.'

'Well we have a problem then,' said Cortés. 'If we can't speak to the Mexica, we can't negotiate with them or impress them with our arguments, or learn their minds. It will make them harder to defeat.'

'Nonsense!' said Alvarado, who was standing with Puertocarrero beside Cortés. 'The language of the sword is plain. We need only speak to them in that and they'll understand us well enough!'

Cortés laughed wearily. 'I wish it were so simple, Pedro, but in my experience the tongue is a mightier weapon than the blade.'

As he spoke, Cortés saw the tall and very beautiful Mayan woman he had given to Puertocarrero approaching them across the sand; she was holding two steaming bowls of the afternoon meal he had ordered the kitchen to prepare. He had first seen this striking creature on the day of the great battle outside Potonchan, standing

with a group of other observers atop one of the low hills that overlooked the plains, and he'd recognised her the following morning when the barbarian Muluc had brought her as a tribute. She had made an impassioned appeal to speak to him then, but Aguilar had persuaded him – against his own instincts – to ignore her. Now, noting again the elegance of her stride and the seductive curves of her body, Cortés reflected that he should have claimed her for himself. But rebellion was brewing amongst the Velazquistas – as he called the faction of conquistadors still loyal to his rival Diego de Velázquez, the governor of Cuba, who he'd betrayed by sailing from Santiago without permission two months before. His own friends outnumbered them, but they had to be kept sweet, and this decorative sex slave had been an easy way to satisfy Puertocarrero, who loved women at least as much as he loved gold.

She stooped under the awning, ignored the lustful stare she received from her master and brought the first bowl straight to Cortés, her eyes fixed on him. There was intelligence in those eyes

and something else – some urgency, some attempt at connection, some message she seemed to wish to communicate. 'Gods!' Montejo muttered to Puertocarrero, 'you're a lucky man to take that one to your bed.'

'Her tongue struggles mightily with my blade each night,' agreed Puertocarrero. There was a general outburst of lewd sniggers from the Spaniards, but Cortés refrained from joining in. He sensed that the woman somehow knew she was being mocked. She turned to Pichatzin, stooping to offer him the second bowl. Then, as the Mexica reached out his hands to take it from her, she spoke some words to him in what sounded like his own language. His eyes widened, his thin lips narrowed, a beat of silence followed and then he replied. There was, Cortés thought, anger in his tone. The woman addressed him again. Her voice was husky, deep and rich, but at the same time soothing and gentle. Pichatzin relaxed and in a moment there was a smile on his face. He spoke further to the woman and she answered with a musical chime of laughter.

Cortés turned to Puertocarrero. 'It seems your woman is quite the diplomat,' he observed. 'What's her name?'

Puertocarrero shrugged. 'Malinal … or something such.'

'And this Malinal,' Cortés addressed Aguilar, 'she is Maya? She speaks the Maya tongue?'

'She is Maya,' Aguilar replied. There was something evasive in his tone. 'She came to us with the other Maya slave women. You'll recall she made a scene when they brought her. Since then she's many times asked to speak to you – some nonsense about you being a god – but I didn't think you'd wish to be bothered with the babble of a serf.'

'That was a mistake,' Cortés snapped, putting steel into his voice. 'Make no such decisions for me in the future!'

Aguilar's shoulders slumped: 'Yes, Don Hernán. My apologies.'

'It seems she speaks the language of these Mexica,' Cortés observed. 'Find out, therefore, if she truly does, whether she is fluent and where she learnt it.' Leaning forward in his chair, with

the Mexica officials also looking on eagerly, he watched and listened as Aguilar and Malinal held an animated conversation that lasted for several minutes.

'Spit it out, man!' Cortés said to Aguilar the moment they fell silent. He couldn't hold down the impatience and rising excitement he felt.

'She is of the Chontal Maya,' said Aguilar. 'But she claims to have complete mastery of the Mexica language, which she says is called Nahuatl. She claims to have lived in the Mexica capital city – this Tenochtitlan of which many have spoken – for five years and learnt it there.' Aguilar lowered his eyes and added: 'She also says she knows much about the Mexica that will be of value to you—'

'Things I might have learned weeks ago if you'd done your job properly … '

'Yes, Don Hernán. I can only apologise … '

Cortés nodded. 'Very well, but let's learn from this. In future you will tell me everything she says.' He bounded from his chair, walked

into the sunlight and paced restlessly. 'The two of you will work together,' he said to Aguilar. 'When the Mexica speak, Malinal will translate their words into Maya and you will put them into Castilian for me, missing nothing out. When I speak you will translate my words into Maya and Malinal will put them into Nahuatl. Tell her! Tell her now this is the plan. Tell her if she accepts she'll do no more menial kitchen work. She'll be elevated to a place of honour amongst us.'

'By all means she accepts!' growled Puertocarrero. 'I'll give her a good slapping if she doesn't.'

'Fie, Alonso! That won't be necessary. This is clearly an intelligent woman of some breeding. Any fool can see that! I would prefer she worked happily with us of her own free will.'

As Aguilar and Malinal talked, Cortés observed them closely, and he was happy to see a broad smile break out on her face and hear her laughter. Damn, but there was something about this girl that touched his heart! 'What does she say?' he asked.

'She says, yes, of course,' Aguilar replied. 'She will be honoured to serve in any way that pleases you.'

* * *

Once introductions had been properly made by Malinal, Cortés had a much better idea about who he was dealing with. Pichatzin was the servant of that powerful king or emperor whom the Chontal Maya had spoken about with such reverence, whose title was the 'Great Speaker' and whose name was Moctezuma. It seemed this Moctezuma ruled vast territories and huge numbers of people from his splendid capital city Tenochtitlan, which stood on an island in a lake somewhat less than two hundred miles inland from the place where the Spanish were presently camped. There was no doubt in Cortés's mind that this must be the same golden city Saint Peter had promised him in his dreams as his reward for punishing the Chontal Maya at Potonchan. As to Pichatzin, he had been

appointed a year ago on Moctezuma's orders to be the governor of the good-sized town called Cuetlaxtlan, lying a few miles further south down the coast and identified as such by Juan de Escalante in an earlier reconnaissance. Now Cortés learned Cuetlaxtlan had been conquered and settled more than seventy years earlier by Moctezuma's race – the fabled Mexica, about whose great wealth in gold and treasure he had already heard so much. However, the majority of the inhabitants of this region were a subject people called the Totonacs, who were ruled by the Mexica and paid tribute to them.

Through Malinal, Pichatzin then asked Cortés what the Spanish wanted here, why they had come across the ocean in their ships and what their plans were.

'We have come,' Cortés lied, 'because the fame of your emperor the great Moctezuma has reached us even across the ocean. I desire to see him and trade with him, and to this end in a very short while I propose to march with my men into the interior of your country

and make my way to Tenochtitlan.'

Pichatzin replied that this would be unwise without the permission of Moctezuma, who commanded a standing army of more than two hundred thousand men. 'Allow me to send a message to my emperor,' he said. In the politest possible language, but nonetheless with a clear undertone of threat, he advised Cortés to keep the Spanish in their camp until they had received an answer.

'If Tenochtitlan is two hundred miles away,' Cortés objected, 'this going to and fro of messages will surely take a long time.'

'Not so long,' said Malinal. Speaking directly through Aguilar, without reference to Pichatzin, she explained that the Mexica had excellent roads on which the journey could be made in six days – or sometimes less at a fast march. However, messages travelled very much faster than that. There were relay posts on the roads, separated by intervals of just five miles. A messenger would leave at once running at top speed. When he became tired he would stop and hand the message on to another runner, who would do the

same at the next relay post – and so on. In this way Pichatzin's message would be carried very quickly to Moctezuma, reaching him in less than twenty-four hours.

'So we can expect a reply in two days and two nights?' Cortés asked.

Malinal put the question to Pichatzin.

'Yes,' he replied. 'In two days and two nights you will have the Great Speaker's answer.'

'If we wait,' said Cortés, 'my men will need food, water, better shelter than we have now. Can you provide us with these things?'

'The Great Speaker is generous to his guests,' Pichatzin replied. 'I will see to it you have everything you need.'

* * *

Pichatzin proved true to his word. Within hours of his departure, hundreds of bearers arrived bringing huge quantities of fresh food

and drink and the promise that at dawn the next day a gang of labourers would be sent to build temporary dwellings for the Spaniards. Meanwhile, though far from comfortable, and plagued by swarms of tiny biting insects, the camp occupied a good defensible position on the dunes. Francisco de Mesa, the grizzled and enormously competent chief of artillery, had already set up cannon around its perimeter to protect against any surprise attack.

All in all, Cortés decided, things could be very much worse.

With night already well advanced, he dismissed his captains and, despite some grumbles from Puertocarrero, summoned Aguilar and Malinal to his tent for a private meeting. If he was to take on the military might of the Mexica empire, then the brute force with which he had won his battles against the Chontal Maya would not be enough. Above all else, he needed to know Moctezuma's weaknesses if he was to defeat him – and, in this, some intuition told him, Malinal had been heaven-sent to help.

* * *

It had been a long day for Pepillo, an exciting day that seemed lifted from the pages of *Amadis de Gaula*, that great romance of adventure and chivalry, of brave knights and monsters and of savage, exotic kingdoms, that Cortés kept in his travelling library and had allowed Pepillo to read. The Mexica ambassador and his entourage, so colourful, so barbaric in their bright feather cloaks and headdresses, with their lip-plugs of turquoise, with thin rods of gold and jade passed through their ear lobes and noses, with their strange weapons of wood, flint and obsidian, and their mellow, fluid language like a river running over stones and a breeze sighing through trees, had seemed unutterably alien, more alien even than the Maya, as though they were creatures not of this earth but of another realm entirely. How wonderful, then, that the slave woman Malinal not only spoke Maya but also spoke Nahuatl, the language of the Mexica, and therefore could work alongside Aguilar to make communication

possible between Cortés and the dangerous savages whose lands he very soon intended to enter.

'You may go, lad,' Cortés had told Pepillo as he'd ushered Aguilar and Malinal into his tent to talk long into the night, and Pepillo, though curious, had been pleased enough to be set at liberty. Poor Melchior was still suffering from the whipping Vendabal had given him at sea, the stripes of his wounds open and raw. Indeed, since that day on board ship, Pepillo had feared for Melchior's life. So he ran helter-skelter through the darkness to the shelter behind the kitchens where he kept the pup, crouched down beside him and loosened the chain that held him fast. 'Come on, boy,' he said, 'let's get you exercised.'

Melchior rose stiffly and a little unsteadily and nuzzled Pepillo's hand. He was well fed on scraps here by the kitchen, and gaining weight, but his injuries pained him. Before taking him out onto the dunes to stretch his legs, Pepillo removed yesterday's blood-caked bandages, cleaned the dog's wounds, gently smoothed in the salve

made from pig fat infused with herbs that Dr La Peña had given him, and finally applied new dressings.

It was a fine, cloudless night, the bright stars glittering, the moon – past full – flooding the sky with its pale light, and a soft breeze blowing in from the ocean carrying the sound of gentle waves lapping against the beach.

Pepillo left Melchior off the leash and the two of them walked side by side, the lurcher occasionally stopping to sniff the sand or cock his leg and piss against a clump of sturdy grass. Before Vendabal had whipped him, the dog had been an irrepressible ball of energy, enthusiasm and curiosity, but now there was something cautious, something tentative, about his manner. Not fear exactly – Pepillo did not think that Melchior felt fear the way he himself felt fear – but a new understanding of the random cruelty and wickedness of the world.

After a little time they came to the edge of the dunes overlooking the moonlit ocean – the ocean that stretched away from

here in an unbroken expanse encompassing the islands of Cuba and Hispaniola until it reached the shores of far-off Africa and Spain.

Africa, whence his best friend Melchior had been brought as a slave, only to die in the New Lands in that last great battle against the Maya.

And Spain, where Pepillo himself had been born, but which he could hardly remember now, only knowing, in a distant sort of way, that he had been orphaned there, and taken in by the Dominicans and brought across the ocean to start the new life that finally had brought him to this time and this place.

He rested his hand on Melchior's floppy ears and scratched his brindled head – his new Melchior who could never replace the great friend he had lost, but who yet had become his only true companion in this strange and terrible world.

The lurcher's ears suddenly shot up and a low whine vibrated in his throat. Off in the distance, in the heart of the camp, could distinctly be heard the snarls and growls of two dogs fighting. They

would be two of Vendabal's war dogs, set against one another in a pit for the men to lay wagers on. Very rarely the hounds in such contests would be allowed to battle it out to the death, and Cortés tolerated this, claiming to be persuaded by Vendabal's argument that it toughened the animals up, but more often they were whipped apart before too much damage was done. They were, after all, valuable and irreplaceable weapons, and not to be lightly squandered.

Pepillo sighed. Since the voyage from Potonchan he'd felt Vendabal's evil eye increasingly focused on Melchior. The fact that Cortés had refused to give the dog over to become a member of the pack had merely served to heighten this unwelcome attention.

But what would the next move in the game be?

Pepillo shuddered and sighed again, and Melchior, sharing his misery, nuzzled up against him.

Chapter Six

Friday 23 April 1519, night

After Cuetzpalli's departure from the House of Serpents, Moctezuma gave firm instructions to Teudile that if there was any further word concerning the whereabouts of the white-skinned beings, it was to be reported to him immediately. 'Tell me even if I am sleeping,' he insisted.

That night passed without sleep, day followed, and then a second restless night and another day. The Great Speaker felt himself falling ever deeper into despair. He wandered the halls of

his palace in torment, sighing, filled with weakness, talking to himself, saying: 'What will happen to us? Who will outlive it? Ah, in other times I was contented, but now I have death in my heart! My heart burns and suffers as if it were washed in chilli water. Where can I go?'

Food was offered to him but he could not eat it. The time for his afternoon rest came, but when he closed his eyes he was haunted by visions of white, bearded faces and weapons of gleaming metal, and fearsome beasts, and again he could not sleep. Lost in the deepest gloom and sorrow, he picked at his dinner, leaving it largely untouched. Even the most delicate dishes, in which he had once taken such delight, failed to awaken his senses. Tobacco tubes were brought to him but, as he inhaled the smoke, he imagined he smelled the sulphurous fumes of fire-serpents and vomit rose in his throat.

Finally he retired to his chamber where he was greeted by four naked girls from his harem. They were young and beautiful, they

quivered in their fear of him, their *tepilli* parts became moist when he touched them, yet they failed to arouse even the slightest reaction from his limp and useless *tepulli*. Sad and dejected, he sent them away, determined to face the night alone.

At last he slept, but it seemed only a moment had passed before he awoke again to find Teudile standing over him holding a lantern. An expression of deep anxiety lurked in the cadaverous hollows of the steward's face. 'Lord,' he said in a shaking voice, 'forgive me for disturbing your rest, but in this I obey your command. Relay messengers running for a night and day have brought a report from your servant Pichatzin, governor of your city of Cuetlaxtlan in the conquered territories of your subject people the Totonacs. It seems the boats of the gods appeared there yesterday and the white-skinned beings have descended from them and made their camp upon the land. Pichatzin met and talked with them. They wish to see you, sire, and for that purpose they have stated their intention to march to Tenochtitlan … '

With a horrible groan, Moctezuma sat bolt upright in his bed. He was filled with such terror that he felt certain he must die of fear, and only with the greatest difficulty was he able to compose himself. 'Meet me in the audience chamber,' he told Teudile. 'We will study Pichatzin's message together and I will decide what must be done.'

* * *

Cloaked in the spell of invisibility, Tozi had been following Moctezuma around his palace for hours. The ability to magnify others' fears had been added to her witch's repertoire on the night of the holocaust at the great pyramid, when all her other powers had also been mysteriously enhanced, and she'd sent fear to Moctezuma often enough in the sixty days since then to wear the murdering bully down and deeply undermine his resolve.

There were risks.

Her friend and ally Huicton, who walked the streets of Tenochtitlan in the guise of a blind beggar (but who in reality was neither blind nor a beggar but a spy for Moctezuma's enemy Ishtlil, leader of the rebel faction in the vassal state of Texcoco), had warned her that powerful magicians protected the palace and posed real dangers to her when she entered its halls. 'If you encounter such a one in your invisible form,' Huicton had said, 'you might be snuffed out like the flickering flame of a lamp, or else imprisoned in some sorcerous realm from which you can never escape.'

'Their strength cannot match mine,' Tozi had replied, not boasting but simply expressing the quiet confidence she felt in her own magical skills.

Huicton had looked at her with disapproval: 'Never be too sure of yourself. In this world of the strong and the weak, there is always someone stronger than ourselves.'

And perhaps what the wise old spy said was true, but Tozi judged the risk worth taking to fill Moctezuma's nights with

chilling dreams and his days with nameless dreads, gradually eating away at his self-confidence and plaguing him with uncertainty. Her purpose was to render him weak, timid and ineffective, so he would be unable to put up a fight when the time came – as it soon must – for the return of Quetzalcoatl, the god of peace, who would usher in a new age free of human sacrifices, free of torture, free of slavery, free of pain, free of suffering.

Now, on her first visit to the palace for five days, she listened with growing excitement to the news that Teudile brought Moctezuma in his bedchamber – news deemed important enough to wake him from his tormented sleep. Her senses quickened as she heard the steward speak of the 'boats of the gods' and of the 'white-skinned beings'. And, as she witnessed Moctezuma's reaction, all the while feeding him more fear, she knew in her heart the time had come.

A little later, after Moctezuma had dressed, the two men met again in the audience chamber, where they made reference to other

intelligence Tozi had been unaware of until now, most notably that a great battle had been fought outside the Mayan town of Potonchan – the home town of her friend Malinal! – less than thirty days previously. Since the white-skinned beings had been armed with Xiuhcoatl, fire-serpents, the characteristic weapons of the gods, and had been served – as the gods were – by wild creatures they had tamed, it was therefore obvious to Tozi that they could be none other than Quetzalcoatl himself and his divine companions. No wonder they had been victorious! Having defeated the Maya, they had then moved on in their great boats to Cuetlaxtlan where Pichatzin had met them.

Like many official Mexica documents, the codex containing Pichatzin's report was illustrated with detailed paintings, which Moctezuma and Teudile now pored over intently. Unknown to them, protected by the magic spell of invisibility, Tozi studied the paintings too.

The first showed the leader of the *tueles* – gods – as Tozi was

certain they were. He had the appearance of a man, very handsome, white skinned, with a full beard and bright eyes of uneven sizes, and he wore a jacket of shining metal. 'This must be the god Quetzalcoatl himself,' Moctezuma exclaimed. 'He has come to seize his kingdom from my hands.' Tozi could only agree. Enthralled, she gazed at the painting and had no doubts. It depicted Quetzalcoatl returned to earth to usher in a new age of peace and harmony, when humans would no longer be offered as sacrifices to the gods, but only fruits and flowers.

Then Teudile turned the page and another figure appeared – a woman whose thick black hair had once been much longer, and whose beauty shone out like the sun. It was all Tozi could do not to gasp with the joy of recognition, for again there could be no doubt. The artist was skilled and this woman standing beside the human manifestation of Quetzalcoatl was none other than Malinal herself …

Moctezuma's jaw dropped open. 'I know her,' he said. He

seemed dazed, shocked, unable to take his eyes off the painting. 'Her face haunts my dreams … '

Because I have made you dream of her, thought Tozi. *Because I have made you see her again and again as she lay before you on the sacrificial stone. Because I have made you remember how you were forced to release her. Because she is the one chosen by the gods to destroy you …*

Teudile was reading the pictographs. 'She is a woman of our land,' he told Moctezuma, who still stared fixedly at the image as though confronted by a ghost. 'Her name is Malinal and she is of the Chontal Maya, but it so happens she speaks our Nahuatl tongue. It was through her, Pichatzin tells us, that he was able to talk to the white-skinned ones who have amongst their number one who speaks the language of the Maya.'

'I know her,' Moctezuma repeated. 'And you also, Teudile! You know her too!'

'Forgive me, lord, but I do not think so.'

Moctezuma frowned: 'You speak true,' he said. 'I had sent you

on a mission to Azcapotzalco that day. Had you been present, matters might have turned out differently. It was last year, Teudile, the year Thirteen-Rabbit, and this Malinal was summoned to serve as my interpreter when I received the message of the Chontal Maya concerning the first appearance in their land of a number of the white-skinned beings. Once she had performed her task, since the matter was sensitive, I naturally ordered her strangled, but Ahuizotl cheated me. After I had left the room, he took her to join his kept women in Tlatelolco. You know the story now, I think?'

'Yes, lord. I regret I was not there to prevent his treachery and wickedness.'

'It is not your fault, Teudile. It seems this Malinal is favoured by heaven. Four months after Ahuizotl flouted my order for her execution – I suppose he had had his fill of her – he placed her beneath my knife on the stone of sacrifice, but Hummingbird himself intervened and commanded her release. I obeyed and now she appears again as the tongue of the god Quetzalcoatl who has

come to fulfil the prophecy and reclaim his kingdom. I feel the hand of doom upon me, Teudile, and here is what I want you to do. You must go to Cuetlaxtlan. Go at once! Do not delay a single moment. Do reverence to our lord the god Quetzalcoatl. Take him rich presents. Say to him: "Your deputy Moctezuma has sent me to you. Here are the presents with which he welcomes you home to Mexico."'

The steward seemed aghast. 'My lord,' he said. 'Will you allow me to offer some words of caution?'

To Tozi's surprise, Moctezuma agreed: 'You have always advised me well, Teudile,' he said in a small voice. 'You may speak freely.'

'Sire, we do not know for certain these white-skinned strangers are gods. You would be wise to learn more about them before welcoming them into our lands.

'Did we not hear enough from Cuetzpalli two nights ago? They have fire-serpents! They defeat armies of tens of thousands. Wild beasts obey their commands! A woman of our land is twice saved

from death to become their voice. Of course they are gods!'

'It *seems* they are gods, sire. It is *very likely* they are gods. But it is not yet certain. Let me go to them as you have commanded. I will study them closely – their food, their clothing, their manner of behaviour, their weapons, their wild beasts, and I will bring you back a full report. Then you can decide … '

Moctezuma fell silent for a long while. 'Very well,' he said at last, slowly nodding his head. 'You are right.' He leaned over the codex again and turned the page back to show the white-skinned bearded countenance of the leader of the *tueles*. 'Present yourself to him, Teudile, and discover with absolute certainty if he really is the one our ancestors called Quetzalcoatl. Our histories say he was driven out of this land, but left word that he or his sons would return to reign over this country and to recover the gold, silver and jewels they had left hidden in the mountains. According to the legends, they are to acquire all the wealth we now possess. You must order the governor of Cuetlaxtlan to provide him with all kinds of food,

cooked birds and game. Let him also be given all types of bread that are baked, together with fruit and gourds of chocolate. Give these things to him so that he and his companions may eat of them. Notice very carefully if he eats or not. If he eats and drinks what you give him, he is surely Quetzalcoatl, as this will show that he is familiar with the foods of this land, that he ate them once and that he has come back to savour them again. Then tell him to allow me to die. Tell him that, after my death, he will be welcome to come here and take possession of his kingdom. We know that he left it to be guarded by my ancestors and I have always considered that my domain was only lent to me. But let him allow me to end my days here. Then he can return to enjoy what is his.'

Another long pause followed, during which the steward also remained silent, watching his master expectantly. Finally Moctezuma added: 'Do not go with anxiety, or fear death at his hands, since I swear I will honour your children and give them my wealth and make them members of my council. If by chance he is

desirous of eating human flesh, Teudile, and would like to eat you, allow yourself to be eaten. In such an event I assure you that I will look after your wife, relations and children—'

Teudile blinked. 'I must allow myself to be eaten, sire?'

'Yes, Teudile. That is my wish.'

How entirely typical of Moctezuma, Tozi thought. *The coward doesn't hesitate to put others forward to die for him, but he trembles and weeps like a terrified child every time he imagines any threat to himself!*

The steward remained calm. 'Your will, sire. I am ready to offer myself … But if I am eaten, I will be unable to bring you back any report. May I propose, therefore, that I take captives with me to the coast and sacrifice them there in the presence of the white-skinned beings and offer their flesh and blood instead?'

The Great Speaker brightened. 'Ah yes, of course. Very well, Teudile. Let it be as you suggest.'

'Now, as to the matter of presents, lord. Even if the leader of these strangers is a god, we cannot be certain he is Quetzalcoatl.

Perchance he is the lord Tezcatlipoca taken human form, or perchance he is Tlaloc? In addition to many other rich gifts, let me therefore take the finery of each of these gods from the royal treasure house and we shall see which he prefers.'

'A good plan, Teudile. You advise me wisely.'

'And one more suggestion, sire. Allow me to take with me some of our great magicians to put the strangers to the test … '

Moctezuma brightened further: 'You advise me well, Teudile. With the help of our sorcerers, we will learn what sort of beings the strangers truly are.' Tozi was watching the Great Speaker closely and saw that a look of cunning had entered his small, darting eyes. 'Perhaps after all they are just men,' he mused, with a new note of hope in his voice. 'Just white-skinned, bearded men … Therefore take Tlilpo, take Cuappi, take Aztatzin, take Hecateu. Let them try their wizardry upon the strangers to see if they can work some charm against them – perchance to put them to sleep or terrify them with visions, or direct a harmful wind against them, or send

serpents, scorpions, spiders and centipedes to bite them, or cause them to break out in sores, or injure them in some other way so they might take sick, or die, or else turn back whence they came. While you must pretend to the strangers that you have come amongst them only to serve them, let our sorcerers do everything in their power to kill them!'

'It will be done as you order, lord,' said Teudile. 'I will begin preparations at once, but it will take a little time to gather the wizards and the captives and the finery of the gods and to make everything ready for the road.'

'You will work through the night, Teudile, and you will depart our city no later than noon … It is not so very far to Cuetlaxtlan. How long do you suppose the journey will take you?'

'If we make the greatest possible haste, lord, I believe it can be done in five days and five nights.'

'Our runners traverse the same route in a single day and a night, Teudile! I understand, of course, that you cannot run, that your

embassy must transport much baggage … Nonetheless, I expect you to reach Cuetlaxtlan in four days and nights, or I will have your skin.'

'Yes, lord.'

'When you arrive, spend a further day and night with the strangers and discover if they are gods or men, then return here and bring me your report … '

'All will be done as you command, lord.'

The steward was already backing out of the audience chamber, bowing with each step, the hems of his star-spangled robe brushing the floor, when Moctezuma stopped him with a movement of his finger. 'One more thing, Teudile,' he said. 'If word of the strangers' victory at Potonchan, or of their presence now at Cuetlaxtlan, or of your mission to learn the truth about them reaches anyone here in our city, even the highest nobles of the land, then I will bury you under my halls, your wife and your children, your parents and all your kin will be killed, and your house will be razed to the ground.'

‘Your will, my lord,’ said Teudile, his face ashen.

Silent and invisible, Tozi followed him from the audience chamber and made haste to the place where her friend Huicton awaited her.

What Moctezuma wished kept secret, it was their duty to reveal.

Chapter Seven

Monday 26 April 1519, afternoon

If Shikotenka, battle-king of Tlascala, had not seen it with his own eyes, he would not have believed it. A small army of white-skinned, bearded men had set up camp on the dunes three miles north of the Mexica coastal town of Cuetlaxtlan – the very town he had come here to reconnoitre and that he hoped soon to destroy.

'What in the name of the gods are they?' muttered sharp-eyed Chipahua, who was sprawled next to him under cover of the long dune grass. He was staring at the distant strangers with slack-jawed

amazement, revealing jagged gaps in his front teeth where he'd been hit in the face by a Mexica war club two months before.

'The gods themselves?' wondered Ilhuicamina, whose own face bore the marks of a much earlier encounter with the enemy – in his case a wide, puckered scar where a *macuahuitl* had struck him, the ugliest part of the injury concealed by a prosthetic nose made of small jade tiles.

'Then what are those?' asked Acolmiztli, at forty-two, lean and sinister, he was the oldest man in the squad, but as formidable a warrior as Tlascala had ever produced. He was pointing at a herd of extraordinary beasts, tall as houses, that had just now emerged from behind a dune. In their lower parts these beasts somewhat resembled deer, though they were much larger than any deer Shikotenka had ever hunted. But out of the midst of their backs sprouted the upper bodies of white-skinned bearded men! How was that to be explained? Men seated on deer, perhaps? Or some sort of completely unknown hybrid entities? Anything seemed possible on

this day of miracles and wonders.

Another oddity was that the men who stood on two legs on the ground, some busily performing various tasks, others just sauntering around, were decked out in shining, flashing silver that caught and reflected the rays of the sun! So, too, were those formidable man-beasts which now broke into a run, charged up the side of a towering dune and disappeared over its summit in the direction of the beach.

'They're wearing some sort of metal armour,' observed Tree. The big man had a belligerent scowl on his broad, stolid face, and now rose to a crouch, shaking his massive head, his long, tangled hair falling about his powerful shoulders. 'I say we go grab one or two of them, find out what sort of creatures they are, see if they can fight.'

'Don't be so eager,' Shikotenka hissed, pulling his friend down again. 'I want to watch them for a day or two, get the measure of them, see how the Mexica are treating them ... '

'They're licking their arses,' said Chipahua dryly. 'Just look over

there!' He gestured to the space between two dunes where wooden huts were being erected by teams of Totonac labourers and carpenters under the watchful eye of armed Mexica overseers. The sounds of hammers and saws could be heard faintly on the morning air, and there was a general atmosphere of industrious activity. Many of the white-skinned bearded men – if indeed they were human at all – stood around watching, seemingly on good terms with the Mexica supervisors. Soon afterwards, a long file of Totonac bearers appeared, carrying food baskets on their heads, which they delivered up as though they were sacred offerings.

'They're housing them,' said Chipahua, 'they're feeding them, they've put their Totonac vassals at their disposal … In short, they're treating them like royalty.'

'Or like gods,' suggested Ilhuicamina.

Shikotenka thought long and hard. The month before, wily old Huicton, spy and emissary for the Texcocan rebel leader Ishtlil, had come to him in Tlascala and offered him an alliance against the

Mexica. Shikotenka had turned the offer down, arguing that he had just destroyed an entire Mexica army of more than thirty thousand men, and that Moctezuma was unlikely to trouble him again for a very long while. But Huicton had disagreed: 'I much regret to inform you that your victory will not be an end to the matter. There is another factor at work, one you may not even be aware of, but I have reason to believe that because of it you and your people will face more – not fewer – attacks from the Mexica in the months ahead. The same will unfortunately be true for Ishtlil's people and for many others. So, despite your commendably proud and independent stance, the truth is that there has never been a time when an alliance would be more expedient or more worthwhile for Tlascala than it is today … '

Huicton had then gone on – and at great length! – to tell an incredible story. It seemed Moctezuma was convinced that the white-skinned, bearded god Quetzalcoatl, the fabled 'Plumed Serpent', was about to return from across the sea to overthrow him,

and to abolish the sacrificial cult that honoured the Mexica war god Hummingbird. It was not just that this was the year One-Reed, in which it had long ago been prophesied that Quetzalcoatl *would* return; far more ominous had been – a few months earlier – the appearance amongst the Chontal Maya of the Yucatán of a small band of white-skinned, bearded strangers, who possessed the weapons and the attributes of Quetzalcoatl's legendary demigods. The Maya had driven them off at great cost to themselves, but it seemed Moctezuma was convinced they would return in force, led by Quetzalcoatl himself. The Great Speaker's whole focus now, therefore, was to gather victims – for some reason exclusively pure, undefiled virgin females – who were to be offered up in a spectacular festival of human sacrifice to feed and flatter Hummingbird, thus persuading the war god to fight alongside the Mexica to defeat Quetzalcoatl.

Although he could not understand the special interest in virgin female victims, Shikotenka was forced to admit that Huicton's story

was not entirely without merit. He, too, had heard rumours of white-skinned bearded strangers being sighted in great ships off the coasts of Mexico, but he refused to believe there was any such god as Quetzalcoatl, or that he would ever return.

'With respect, Lord Shikotenka,' Huicton had argued, 'what *you* believe or don't believe isn't really the issue here. All that matters is what Moctezuma believes. He is mad, of course, you already know that – so please allow me to assure you that he does indeed most certainly believe, and fear in the depths of his black, demented heart, that the return of Quetzalcoatl is imminent. He will let nothing stand in his way; he will sacrifice thousands of virgins, tens of thousands if he can find them – Tlascalans, Totonacs, rebel Texcocans, and any others he can lay his hands on – to prevent that happening. It is for this reason, I urge you, before more lamentable harm and suffering is caused, to accept the alliance that my lord Ishtlil offers you and to join forces with him to bring Moctezuma to his knees.'

‘Tell Lord Ishtlil,’ Shikotenka had replied, ‘that I am grateful for his offer and that I regard him as the enemy of my enemy and therefore as my friend. Nonetheless, we Tlascalans have always walked our own path, and we do not resort to alliances and intrigues. Let us continue, therefore, to fight Moctezuma in our own separate ways – Ishtlil’s Texcocans in their way, we Tlascalans in ours – obliging the madman to divide his forces and do battle on two fronts. If the gods are with us, he will fall.’

It had been a proud statement of Tlascalan independence, but Shikotenka had already had cause to reflect deeply on it over the past month. Huicton’s warning had proved uncannily accurate. True, Shikotenka had destroyed one Mexica army consisting of four full regiments, but five other armies of the same size, twenty regiments in all – a total of one hundred and sixty thousand men – remained in the field, and it seemed that at least one of these armies had been tasked exclusively with the capture of virgin females for sacrifice, just as Huicton had predicted.

He'd been right about the raids on Tlascala too. Far from ceasing, they had intensified. Indeed, it was in an attempt to create a distraction that would draw Moctezuma's forces away from the Tlascalan highlands that Shikotenka had conceived his plan to attack and destroy the coastal city of Cuetlaxtlan. This outpost of the Mexica empire, so important for the prosperous trade with the Yucatán, had been seized from the Totonacs some seventy years before; the Totonacs themselves were now vassals of the Mexica. Shikotenka had reasoned that if he could take the prize of Cuetlaxtlan, and slaughter its Mexica settlers, then the Totonacs might be persuaded to rise against their overlords.

That was why he was here now, with his four most trusted lieutenants, on this mission of reconnaissance to lay plans for a full-scale attack. But instead he found himself confronted by a war camp of white-skinned, bearded strangers, dressed in metal armour, allied with strange beasts, and waited on hand and foot by the Mexica's Totonac vassals – clearly acting on the orders of the Mexica – as the

gods themselves might expect!

So, yes, Huicton had been right to predict that Shikotenka's great victory of the past month would not see the end of the Mexica's quest for sacrificial victims, but – eerily – it now seemed that he had also been right about the return of Quetzalcoatl, or at any rate of beings who had the look of Quetzalcoatl.

But here was the very odd thing! Quetzalcoatl was supposed to be the enemy of Moctezuma, and the enemy of the vile god Hummingbird whom Moctezuma served. So if these strangers had anything to do with Quetzalcoatl, then why were the Mexica feeding them and sheltering them, and why would gods camp out on these pestilential, windblown, fly-infested dunes?

The whole situation was a riddle wrapped inside a puzzle enclosed within a conundrum.

'I want to catch one,' said Tree stubbornly. 'I want to catch one and kill one tonight.'

Shikotenka thought about it.

Maybe Tree was right. When you were confronted by something you didn't understand, the best thing was to get as close as possible to it.

That way, the truth would come out.

Chapter Eight

Monday 26 April 1519, night

Pepillo pointed at himself. 'I am a boy,' he said. He pointed again – 'boy'. He pointed to Malinal: 'You are a woman.' He spread his hands and looked at her expectantly.

Now it was Malinal's turn. She pointed to herself: '*Ne cihuatzintli*.' She pointed to Pepillo: '*Titelpochontli*.' Then she softened her tone and added: '*Noquichpiltzin*', which meant not just 'you are a boy' but rather, as a mother might say to her child, 'my beloved boy.' He was sweet, innocent and lonely, and she felt pity

for him, understanding, as she'd discovered yesterday, that he'd lost his closest companion in the fighting at Potonchan, a friend named Melchior after whom he had named his pet dog.

Pepillo pointed upwards now and said: 'Sky.'

Malinal looked up, wondering – did he mean sky? She made an expansive gesture towards the heavens with her hands, raised her eyebrows in query, and said: '*Ilhuicac?*' Or did he perhaps mean a specific star? She selected one of the brightest, pointed to it, sighting along her arm and said, '*Citlalin.*'

Pepillo nodded, getting the distinction immediately, pointed at the same bright star and said 'star', then copied her expansive hand movement and repeated the word 'sky'.

It was a cloudless night, and the two of them sat alone in the lantern-lit area in front of the kitchen, after the evening meal had been served and all the men had dispersed. Malinal no longer worked in the kitchen, but Cortés had ordered the boy to teach her Castilian – she in return was to teach him Nahuatl – and Pepillo

had chosen this place for their classes because he kept his beloved Melchior nearby. The caudillo – the title meant military leader, as Malinal had quickly learned – was plainly a man who understood the power of language, and she was happy he had made his young page her instructor, rather than that envious snake Aguilar, with whom she was forced to work day to day.

Delegations of Mexica officials constantly scurried back and forth between the Spanish camp and the town of Cuetlaxtlan. Their job was to carry the incessant demands made by Cortés for more food, more fresh water, more bearers, more labourers, more carpenters, more women to serve as bedslaves – more of everything! – to the wretched and overburdened governor Pichatzin, and to return with Pichatzin's responses. These were usually affirmative, but always with qualifications, quibbles, excuses and prevarications. So it was a tedious, time-consuming task. First she must listen to Aguilar as he put the caudillo's words into Mayan, next she must translate those words into Nahuatl for the benefit of the Mexica

officials, and finally she must put the words of the officials into Mayan so that Aguilar could convey them in Castilian to Cortés.

Moreover, there was the complicating factor of Aguilar's jealousy. His resentment at the privileged position Cortés had given Malinal was driving him – she was beginning to realise – to make deliberate interpreting errors that resulted in confusion and misunderstandings, which he then steadfastly blamed on her. Since the caudillo continued to favour her greatly, she liked to think he saw through Aguilar's wiles, but still it was disturbing and meant she had to be constantly on her guard. How much easier everything would be if Aguilar could be got out of the way!

Fortunately Malinal had a gift for languages and had always been a fast learner. Indeed, her survival and success during her years amongst the Mexica had depended at least as much on those skills as upon her sexual prowess. She was finding Castilian easy to grasp, though tonight was only her second formal lesson. Of course, she'd already taken every opportunity to learn what she could since she'd

been handed over with the other women after the battle at Potonchan, always carefully listening and watching and picking up vocabulary and snatches of conversation. And now, with her new role as interpreter, every minute of every day offered her fresh opportunities as she wrestled with Aguilar's subterfuge and paid close attention to the words he and Cortés spoke to one another. It was amazing how constant jeopardy and uncertainty focused the mind, but Malinal had high hopes that her work with Pepillo would bring her on even faster in this new language, and she was pleased with the progress they'd made since their first lesson the evening before.

What helped was Pepillo's sweet nature as did the fact that he was plainly as eager to learn Nahuatl from her as she was to learn Castilian from him. So they both entered into the process with enthusiasm, as though it were a kind of game, fun rather than a chore, and there was even some laughter between them.

But this laughter was tempered with the deep sadness Malinal

sensed within Pepillo. Like her friend Tozi, who was about the same age, not more than fifteen years under the sun, it seemed that he had already seen too much of the cruelties of the world and grown old before his time. And, like Tozi, he had a good heart and a generous spirit. Unlike Tozi, however, this boy had no magical powers, no burning purpose, no thirst for revenge. He was just kind and decent and good – and damaged. More important almost than his role in her life as a language teacher was the other lesson he had already taught her, which was that these Spaniards, for all their formidable powers, were exactly like any other people – vulnerable, in need of love, and even capable, in their own way, of giving it.

'Puertocarrero,' Pepillo said suddenly.

Malinal looked up. She couldn't bear the rough, barbarous, stinking creature, to whom Cortés had given her as a bed slave.

Pepillo then said something else, a short string of unfamiliar words, the meaning of which Malinal could not grasp. She gazed at him blankly.

‘Puertocarrero,’ he repeated, at the same time making the face of someone who has smelled a bad thing and she suddenly understood. Pepillo was trying to tell her that he knew she didn’t like Puertocarrero. He said the words again: ‘You don’t like him, do you?’

‘No,’ she answered, in halting Castilian. ‘Don’t like. Don’t like Puertocarrero.’

* * *

Much later, after Malinal had retired with a grimace to Puertocarrero’s hut, Pepillo untied Melchior and headed out past the guards and into the dunes. He was happy to see how the young lurcher was rapidly overcoming the effects of the whipping Vendabal had administered six days before, shrugging off the stiffness of the wounds, rebuilding his strength and day by day recovering more of his exuberant spirit.

Pepillo often wished that he could be a dog, living in the now, reacting immediately to everything and quickly forgetting pains and woes, but unfortunately it was not so easy for him. The worst of it was he could not forget – indeed, he swore, he would *never* forget – the original Melchior, his best and only friend. Nor could he cast from memory how the two of them had followed that evil, murderous friar Gaspar Muñoz into the forest on the island of Cozumel, or what had happened after – their capture, their near murder and their rescue at the last moment by Bernal Díaz, Francisco Mibiercas and Alonso de la Serna. Pepillo shivered as other images streamed unbidden into his mind – the hatchet in his hands as he'd hacked at Muñoz's skull, his own part in the disposal of the friar's body and, a month later, the desperate fight on the summit of the great pyramid of Potonchan, the long-haired Mayan warrior who'd straddled Melchior, viciously stabbing him with a flint blade, Melchior's death a few hours later, his burial, and finally Bernal Díaz's kindly gift of the lurcher pup – the new Melchior,

now off somewhere excitedly exploring the dunes.

Pepillo came to his usual spot overlooking the ocean. He sat down to watch the light of the stars and the waning moon reflecting from the waters, to listen to the soft sound of the waves lapping against the beach below, and feel the cooling southern breeze in his hair. Melchior ranged further and further every night, but sooner or later he always came back, appearing like a ghost out of the darkness, and Pepillo was content to wait here and think his thoughts and dwell in his memories.

* * *

They had made a long detour to the north of the camp and now approached it by way of the beach, moving silent as ghosts in the darkness. Shikotenka had chosen this route because a fair breeze was blowing from the south that would carry their scent away from the strange beasts resembling deer that some of the white-skins rode.

The notion that the creatures might be hybrids had already been laid to rest when several of the white-skins had been seen to dismount from their backs, but extreme caution was still in order until the nature of the strangers and their animals was better understood.

Shikotenka led the climb up the side of the dunes from the beach. Like him, all his crew were skilled night fighters; the darkness held no terrors for them. They'd fought so many engagements together that they didn't need to plan, didn't need to speak – every movement, every action, was second nature to them, so perfectly coordinated that they were more like a single creature, united in single-minded intent, than five separate men.

Near the summit of the dune, sensing something, Shikotenka suddenly stopped, reaching back his hand to touch Acolmiztli right behind him, bringing the whole group to a soundless halt.

There was someone there, not ten paces above them.

One of the white-skins sitting alone looking out over the ocean.

Shiotenka held a finger to his lips. *Silence! Silence!* He signed to Acolmiztli – *go that way, circle round* – and to Ilhuicamina – *go that way, the other side, circle round*. To Chipahua and Tree he signalled simply: *Follow me*.

There was no hesitation. Acolmiztli and Ilhuicamina vanished left and right into the darkness. Shikotenka counted *one* … *two* … *three* … *four* … *five* … and then charged the last few paces up the dune, smashed into the unsuspecting white-skin who sat at the top, bowled him onto his back, and left it to Tree to clamp a huge hand over his mouth to stop him from crying out. It was all done in seconds leaving nothing for Chipahua, Acolmiztli and Ilhuicamina to do but keep watch.

Silence … just silence. In his head, Shikotenka counted slowly to a hundred. No other white-skins appeared, but out of long practice no one said a word in the interval. Still holding his hand clamped over the struggling captive's mouth, Tree was the first to speak. 'Definitely not gods then!' he whispered. 'Let's take this bastard off

a mile or two and see if he can fight.’

Chapter Nine

Monday 26 April 1519, night

Before their departure from Tenochtitlan, Tozi and Huicton had sought out every one of their ragged band of beggars, malcontents, thieves, lookouts and spies, and crisscrossed the city to whisper in the ears of certain more respectable members of Mexica society – people Huicton had cultivated who also covertly supported the insurrection. They had informed them all of the spectacular victory of the white-skinned bearded strangers over the Chontal Maya at Potonchan and of the strangers' arrival at Cuetlaxtlan, and had

charged them to spread the rumour that Quetzalcoatl had returned to overthrow Moctezuma and usher in a new age. Only then had they set off on the journey of two nights and the greater part of three days that had brought them to the camp of Huicton's patron Ishtlil, leader of the rebel faction in the Mexica vassal state of Texcoco. Reaching the camp, they had been obliged to negotiate an obstacle course of officials and bodyguards, before finally being ushered into Ishtlil's command tent, a towering structure of white maguey fibre stretched over a framework of great poles, furnished with mats, stools and map-strewn tables, and lit within by guttering torches.

The previous year, following the death of King Neza of Texcoco, Moctezuma had intervened in the succession and placed Neza's compliant and sycophantic younger son Cacama on the Texcocan throne rather than the independent and free-thinking elder son Ishtlil. Used to getting his own way in all things, Moctezuma had assumed that Ishtlil would simply accept this arrangement, but

instead he had seized control of Texcoco's mountain provinces and declared a rebellion, leaving only the lakeside city of Texcoco itself, and its valley provinces, in Cacama's hands.

Huicton had previously worked as a spy for wily old Neza, who'd had a mind of his own; after Neza's death, seeing the weakness of Cacama, Huicton had given his allegiance to Ishtlil. Since then Ishtlil had waged a bloody war against the forces of Cacama and Moctezuma, and had made increasing use of Huicton, not only as his spymaster in Tenochtitlan, but also as his ambassador in secret negotiations with the Tlascalans and others who suffered under Mexica tyranny. Now, with Tozi seated on a mat by his side, Huicton first praised her as the best of his spies, and the only one able to infiltrate Moctezuma's household, then slowly and carefully outlined to his master the intelligence she'd gathered about the strangers with the aspect of *tueles* – gods.

Ishtlil was a big man, with broad, swarthy uncouth features, beetling eyebrows, a large, misshapen nose broken in some battle

years before, and a mane of thick, black, greasy hair tied back in a pigtail. Aged about forty, he had the looks and the huge calloused hands of a peasant farmer, but his voice and haughty manner were those of an aristocrat and his shrewd, deep-set eyes seemed to miss nothing. He turned those eyes on Tozi now: 'This is interesting information, girl, but what makes you so sure these white strangers are *tueles*?'

Huicton was proud to see that Tozi didn't flinch under the Texcocan's scrutiny. 'Pichatzin's messenger,' she replied, 'brought Moctezuma a written report of his meeting with these "strangers".' *My goodness, thought Huicton, is the girl risking a note of sarcasm?* 'The paintings were done by Pichatzin's own artist,' Tozi said, 'who was present to record his meeting with the "strangers".' *That note of sarcasm again.* 'I was able to observe the paintings over Moctezuma's shoulder,' she continued, thrusting out her lower lip, a sign of stubbornness that Huicton had come to know all too well, 'and I have no doubt that the "strangers" depicted by the artist are *tueles*.

Their leader has the appearance of a man but he is white-skinned and bearded, as the lord Quetzalcoatl is described in all our legends. He wears a jacket of shining metal. He and his companions are armed with fire-serpents and other weapons of the gods.'

'And Moctezuma?' prompted Ishtlil. 'How did he react to this news?'

'With fear, Lord Ishtlil. When he looked upon the painting of the leader, he acknowledged the truth. "This must be the god Quetzalcoatl himself," he said. "He has come to seize his kingdom from my hands."'

Suddenly Ishtlil bounded to his feet, crossed to Tozi in a single stride and towered over her. 'If you're telling me the truth,' he said, 'then Quetzalcoatl's cause and mine are one and the same and I should seek to unite my forces with his. But how do I know you're telling the truth? How do I know you're not just inventing all this simply to impress me? Or perhaps even to mislead me? Perhaps you're working for Moctezuma? How do I know? Ha? How do I

know?'

'My Tozi always tells the truth,' Huicton said, 'and no one hates Moctezuma more than she does. She's not inventing anything.'

'If I'm to make policy based on her word, I need to be sure,' Ishtlil growled. 'But how can I be sure this slip of a girl spied on Moctezuma as she claims?' His eyes bored into Tozi: 'Ha, child? How can I know? You tell a far-fetched story. Do you really expect me to believe you were able to get so close to the Great Speaker that you could study the paintings over his shoulder and he didn't even notice your presence?'

Huicton shifted uncomfortably: 'I have explained to you before, lord, that this girl has special powers.'

'Ha! Special powers! Anyone can claim special powers. I'll need proof.'

Huicton looked at Tozi and raised a quizzical eyebrow. 'Would you be willing to show Lord Ishtlil what you're capable of, my dear?'

'What do you mean?' Tozi whispered.

‘Make yourself invisible. Then he’ll believe you.’

‘I’m not some circus tumbler putting on a show,’ Tozi hissed. ‘I’m a witch.’

‘A witch?’ Ishtlil exclaimed, his voice rising. ‘The girl is a witch?’

‘She has special powers,’ Huicton repeated. The encounter was moving in a dangerous direction. Ishtlil was a good man – in his way, a far better man than his brother Cacama – but he was deeply superstitious and shared the common prejudice against witches that had led Tozi to the fattening pen in Tenochtitlan and almost to sacrifice at the hands of Moctezuma. Indeed, suspected witches were as frequently offered for sacrifice by the Texcocans as they were by the Mexica.

‘Don’t heed the foolish child,’ Huicton said. ‘She imagines herself a witch but the truth is she has been given a gift from the gods, a gift meant to help us in our war against Moctezuma.’

Ishtlil was pacing up and down inside his command tent now, the flat planes of his big face shadowed into hollows in the

flickering torchlight. 'Then show me this gift!' he stormed. 'Show it to me! I would decide for myself whether she is indeed a foolish child, in which case I'd be a fool to trust her, or whether she's a witch, or a liar, or a gift from the gods as you claim.'

Huicton nudged Tozi. 'Now would be a good time for you to vanish, Tozi.'

'Suppose I don't want to.'

'Then you may get us both in a great deal of trouble.'

Tozi shrugged and began to chant softly – under her breath at first, but rising in pitch and tone until her voice became almost a snarl, furious and wild. A look of mild surprise came over Ishtlil's coarse features, then of fear, and finally – to Huicton's astonishment – of terror. He had known the Texcocan since he was a boy and never once had he seen him afraid. Now, with a gasp, Ishtlil slumped to his knees, his eyes wide and rolling.

'Tozi!' Huicton snapped, 'what in the name of all the gods are you doing?'

‘Showing the lord Ishtlil what I’m capable of, as you asked.’

‘I asked you to make yourself invisible.’

‘But I’m capable of more than that,’ Tozi smiled, and it was the smile of skull, the smile of a death’s head. ‘Ishtlil made you afraid with his threats. He tried to make me afraid ... So I’m feeding him fear.’

‘He made no threats … ’

‘Yes he did. He said he wanted to decide if I was a witch. You were afraid of what would happen if he decided I was—’

Ishtlil was clutching at his throat now, making horrible gasping and gurgling sounds.

‘Stop!’ Huicton demanded. ‘Stop right now, Tozi. Any more of this and his guards will be in here and we’ll be slaughtered.’

‘Not me,’ said Tozi. There was a glint of malice in her eyes. ‘They won’t catch me. I can make myself invisible, remember?’

Huicton looked at her long and hard, his little protégée, the girl he’d rescued from the mob all those years before. What had become

of her? He hardly recognised her now. 'Let Ishtlil go, Tozi! Free him now before it's too late. I command you.'

'You *command* me?'

'I request you. I beg you! Let him go.'

'Very well then,' said Tozi, 'I will.' She whispered a string of words in some strange tongue that Huicton had never heard before, closed her hands into fists and opened them again, extending her fingers towards Ishtlil, and suddenly the Texcocan rebel leader was released. He slumped forward, his face resting on the richly embroidered carpet that covered the floor of his command tent, spittle dribbling from his slack lips, his chest heaving as though he had run some great race, his breath coming in ragged gasps. Finally, still on his knees, he raised his upper body again and stared fixedly at Tozi. 'You … ' he said. 'You … '

Huicton knew what was coming next.

With just the faintest shimmer of the air, Tozi vanished.

Chapter Ten

Monday 26 April 1519, night

Pedro de Alvarado had walked out into the dunes, a few bowshots away from the camp, for a clandestine meeting with two of the ringleaders of the Velazquistas, the nickname that he and Cortés had given to the large and powerful faction amongst the conquistadors who remained loyal to Diego de Velázquez, the governor of Cuba.

'Surely you can see, Don Pedro, that your so-called caudillo has taken leave of his senses?'

The speaker was lantern-jawed Juan Escudero, a man who had long hated and envied Cortés, and whom Cortés loathed and despised in equal measure. Some years before, Alvarado recalled, Escudero had taken immense pleasure in arresting Cortés and throwing him into jail on Velázquez's orders. The charge of treason – which carried an automatic death penalty – had been trumped up by Velázquez because Cortés had got the governor's favourite niece, Catalina, pregnant, and had refused to marry her.

After eight months rotting in prison, with the thought of being hanged, drawn and quartered to focus his mind, Cortés had finally agreed to marry the hell-bitch and recognise the child as his own. In return he had been readmitted to the governor's inner circle and in due course given command of the expedition to the New Lands. But before the fleet left Cuba, Velázquez had grown suspicious of Cortés – rightly fearing he intended to declare the expedition his own once the New Lands were reached – and had once again given orders for his arrest.

Alvarado himself had brought the news of the governor's plan and, on the stormy night of 18 February 1519, only a few hours ahead of the arrest warrant, Cortés had persuaded the other captains of the fleet to sail, winning the support of even the most ardent Velazquistas with phoney intelligence about a rival expedition being mounted from Jamaica to seize control of the New Lands. 'If we don't beat them to it,' Cortés had argued, 'there'll be no prize left for us to win.' Greed had persuaded most of the captains to agree with him, so that in the end Escudero was the only Velazquista who still felt the matter should be referred to the governor. Again Alvarado had come to the rescue, goading Escudero to draw his sword, and giving Cortés the excuse he needed to throw his old enemy into the brig that night. By the time Escudero was released the next day, the fleet had sailed far beyond Velázquez's reach.

But Escudero's resentment had remained a problem ever since. From the moment the expedition reached the New Lands, he'd worked tirelessly against the caudillo's interests, lobbying and

inflaming the other Velázquez loyalists and urging them to imprison Cortés and return to Cuba. Such incitements to mutiny – and it was plain they were nothing less than that – won ever more support as the weeks passed and it became clear there was no rival fleet. Then there had been the gigantic battle with the Maya at Potonchan. True, only four Spaniards died in the fighting itself, but close to a dozen had subsequently expired from infected wounds, and more than eighty, some in great pain, were still suffering from the injuries they'd received. Despite all Cortés's efforts, the mood of the expedition was turning sour.

Standing with Escudero and Alvarado – out of the breeze and out of sight of the camp in a hollow of the dunes – was Juan Velázquez de León, Diego de Velázquez's own cousin, a bull of a man with a bushy black beard, an aggressive chin and angry green eyes that glinted in the moonlight. Bound as he was by blood to the governor of Cuba, he was a natural Velazquista; still his greed was such that he might easily have been bought off if there had been

gold to be had. In its absence, however – the Chontal Maya of Potonchan had turned out to possess almost none – Velázquez de León was siding more and more openly with Escudero, and had several times joined him in calling for the expedition to return to Cuba.

'We fought that damned battle against the Maya,' he complained to Alvarado, 'and what did we get in return? Gold? No. Jewels? No. Honour? No. Trade advantage? No. Now we're here, camped on these noisome dunes, and still we see no gold – nor any prospect of it. The plain truth is we've campaigned for more than two months, expended treasure, expended lives, incurred the governor's disfavour and all for—'

'All for nothing,' Escudero completed the sentence. His jaw shut like a trap and then opened again as he added, 'Or rather: all to satisfy Cortés's pride. I say enough is enough. Join us, Pedro – I know we've had our differences, but I've always recognised your qualities, and with you on our side no one will dare stand in our

way.'

Despite the well-known fact that he and Cortés were friends, Escudero and the other Velazquistas never relented in their attempts to win Alvarado to their cause. He understood very well why! First and foremost, they'd witnessed Cortés publicly rebuke and shame him on the island of Cozumel, the expedition's first port of call; secondly, because Alvarado's love of gold was legendary, they naturally assumed that the lack of it would make him as restless as it was making them.

On both points they were at least partly correct. Alvarado was still smarting from the dressing down that Cortés had given him on Cozumel – even forcing him to return the few miserable trophies he'd managed to extract from the filthy Indians there. And Potonchan, where Cortés had raised such high expectations, had proved to be a huge disappointment. Fifteen thousand pesos' worth of gold was all the Chontal Maya had delivered in the aftermath of the battle, and the next month spent ransacking the region had

produced little more.

So, yes, of course Alvarado was dissatisfied!

This did not mean, however, that he was about to betray his friend. He still had confidence in Cortés and believed that he would, sooner or later, deliver on his promises of riches beyond their wildest dreams. Indeed Cortés had confided in Alvarado that this was precisely what he expected of the Mexica, overlords of the town of Cuetlaxtlan, outside which they were now camped. It seemed his new interpreter, the woman Malinal, had lived amongst the Mexica for five years and according to her they were rich as Croesus. So, it was just a matter of patience. Meanwhile Alvarado saw no harm, and much to his advantage, in playing the Velazquistas along. Should Cortés continue to fail, he could easily switch sides. And if Cortés succeeded, then intelligence on the plans of the mutineers would surely have a value.

'Who's with us and who's against us?' Alvarado asked Escudero, as though he had already joined the mutiny.

‘A hundred good men for sure,’ the ringleader replied confidently, ‘and a hundred more tending our way.’

Two hundred! Alvarado thought. If this was true it was bad news indeed for Cortés. But he kept his face expressionless. ‘Pah!’ he said. ‘I’m not interested in the riffraff, only the captains and the officers – men of my own class. How many of them?’

Escudero and Velázquez de León eyed one another shiftily, looked back at Alvarado, but said nothing.

‘Francisco de Montejo?’ Alvarado guessed. ‘I know he’s always been loyal to the governor, despite taking a hefty loan from Cortés …’ He paused, turned towards Velázquez de León: ‘I seem to remember that you, too, are in Hernán’s debt, Juan? What was it again? Two thousand gold pesos or thereabouts to refit that worm-eaten caravel of yours … ’

‘That’s irrelevant,’ spluttered Velázquez de León. ‘I am steadfast in my opposition to Cortés and steadfast in support of my cousin the governor.’

'Oh yes, yes of course,' Alvarado replied. 'Steadfast. I don't doubt it for a moment. You are steadfast; Escudero here is steadfast. If I am right, Diego de Ordaz is steadfast too … '

'His Excellency assigned him to the expedition specifically to keep watch on Cortés,' said Escudero pompously. 'He won't hesitate to declare for us when the time is right.'

'And Cristóbal de Olid, I presume?'

'We may count on him absolutely,' blustered Velázquez de León. 'Olid was the governor's major-domo. His loyalty to our cause is not in doubt.'

'And who else?' asked Alvarado. 'Who else can we count on?'

Another shifty glance.

'Well come on, gentlemen!' Alvarado urged. 'If I'm to throw my lot in with you, the very least I need to know is who my associates will be.'

That look again. Finally Escudero spoke: 'The question, Pedro, is whether *you* are with us or not. If you are with us, then we'll make

you privy to our plans and give you the names of all our senior people, but while there's doubt—'

'While there's doubt,' Velázquez de León cut in, 'we've already told you too much.'

'It seems, gentlemen,' said Alvarado,'that we have reached an impasse. You want me to commit to your cause absolutely, without full knowledge of those I will be committing myself to. But I, for my part, require that knowledge before I am willing to com—'

'Damn you, Alvarado!' exclaimed Escudero, 'I've had enough of your procrastination.'

'I do not procrastinate! If I'm to turn against my lifelong friend, and risk being hanged as a mutineer, I want to know I'll be doing it for men I can respect and rely upon. Olid, Ordaz, Montejo, the two of you – there's nothing new here. Any fool can guess whose side every one of you is on. But you must trust me with new names if you want me to trust you.'

Without explanation, Escudero took Velázquez de León by the

arm and walked off a few paces with him. *Ridiculous*, Alvarado thought. *Like children!* He looked on in disbelief as the two men engaged in a heated, whispered conversation. When they returned, Escudero said: 'We'll think on your request, Don Pedro. Meanwhile we must have your vow of silence. Our meeting tonight—'

'What meeting?' asked Alvarado.

Velázquez de León uttered an awkward, braying laugh. 'Exactly!' he said. 'It never happened.'

And with that the two plotters turned away and walked briskly back towards camp, leaving Alvarado alone under the stars.

Fools, he thought. *They still don't realise I'm playing them*. And then he thought: *But I can't spin this out much longer*.

In a way it was a miracle, and a tribute to his own superior negotiating skills and capacity for dissemblance that he'd managed to keep the plotters on the hook as long as he had. But unless something changed, and changed radically, they were going to see through him very soon.

Unless, after all, he did join them.

He began to whistle cheerfully, loosened his fine Toledo rapier in its scabbard and set off down the dunes towards the beach. He was wide awake, his mind full of plans and schemes. Before retiring to his bed, he decided, he'd walk for half an hour, enjoy that southern breeze that was blowing and get the sour stink of Velázquez de León and Escudero out of his nostrils.

Chapter Eleven

Monday 26 April 1519, night

Still struggling for breath, Ishtlil staggered to his feet, his fingers fluttering at his throat, his face flushed. 'A demon!' he gasped. 'Your girl is a demon. No human can do what she did to me. No human can disappear like that.'

'She is human, lord,' Huicton said. Tozi was touched by the worried look on her mentor's wizened face. 'She's just a girl like any other. A sweet girl. A good girl with a kind heart, but blessed by the gods with special powers to aid our cause.'

Shielded from their eyes by the spell of invisibility, Tozi had not left the tent, had not, in fact, moved at all, and she did not move now as Ishtlil lurched towards her, his arms sweeping the air in front of him. When she made herself invisible her connection to the stuff of the world became different, more complicated, than when she was in physical form. Her clothes and the contents of her pockets always faded with her, and she had learned she could spread the field of magic to other things, and the people around her, if she concentrated her will. She could pick up objects and use them if she chose to do so, but she was also able to make herself as insubstantial as thought, and flow in this form even through solid matter, or allow solid things to flow through her. In every case, she had discovered, the keys to control were focus and intention, so she focused now, as Ishtlil's huge, groping hands passed through her body, giving him no clue that she was even there. The Texcocan rebel leader then careered around the tent, rather comically Tozi thought, his arms spread wide, groping and feeling but finding

nothing. 'Has she gone?' Ishtlil eventually asked. 'Or is she still here?'

'Well, that's the thing with my Tozi,' Huicton said mildly. 'When she's invisible you never know where she is—'

'Which is why she makes such a good spy,' Ishtlil mused. He was beginning to calm down now. Tozi read his mind and found no anger there towards herself, none of the suspicion about witchcraft he'd begun to radiate earlier, just surprise, some lingering fear and … and … What was this? Something like greed? Something like cunning? What Ishtlil's reaction most reminded her of, she realised, was the opportunistic pleasure of a street trader who has just made a winning deal. He was calculating how he might use her, and in immediate confirmation of this he turned to face Huicton and said: 'How about we get this Tozi of yours to kill Moctezuma? She could enter his bedchamber undetected, slit his throat and be gone with no one any the wiser.'

'With respect, lord,' Huicton replied, 'we've already thought of

that and decided against it.'

'Against it?' Ishtlil sounded aghast. 'Why?'

'Consider this, Lord Ishtlil. Moctezuma is the weakest and most incompetent Speaker the Mexica have produced in a hundred years. If Tozi were to kill him as you suggest, then anyone else they might put on the throne – Cuitláhuac, perhaps even Guatemoc – would do a better job than him. If we're truly to end Mexica power, then it may be that the best way to do so is to let Moctezuma live and exploit his deficiencies and his failings, his superstitions and his fears … Indeed, lord, that is what we are already doing, and very successfully. Tozi has the power – I think she showed you this just now? – to magnify a man's fears—'

'Ha! She showed me all right!' Ishtlil looked around the tent again. 'Girl!' he said. 'Are you there? Are you spying on us?'

Tozi said nothing, preferring to keep Ishtlil guessing.

'If you won't slit Moctezuma's throat,' the Texcocan rebel leader now said, still addressing empty air, 'how about slitting Cacama's

throat? How about that, girl? Would you do that for me?'

I'm not an assassin, Tozi thought. But then she remembered how she'd killed the corrupt high priest Ahuizotl by the lakeside on the night she and Malinal had escaped sacrifice and she thought: *Why not?*

Huicton spoke again. 'Kill Cacama, lord,' he told Ishtlil, 'and risk a more effective leader being placed on the throne of Texcoco to confront you. Cacama and Moctezuma are both great fools and they both serve our cause better alive than dead.'

Ishtlil glowered, then grinned. 'Ha! I suppose you're right,' he said finally. 'Clever Huicton! What would I do without you?'

The two men's talk soon turned to strategy. It seemed Ishtlil needed no more convincing of the value of the intelligence Tozi had brought. Some new force had entered the land, perhaps indeed the god Quetzalcoatl and his divine companions. Huicton was therefore to make his way to the coast where these *tueles* had set up camp, attempt to speak to their leader and offer him Ishtlil's support in

overthrowing the tyranny of the Mexica. 'Go by way of Tlascala,' Ishtlil added. 'Try again to forge an alliance with Shikotenka. With the prospect of a god on our side, perhaps he'll reconsider our offer …'

Tozi's heart was thudding with joy. The coast! The coast! She would travel with Huicton, she would be reunited with her dear friend Malinal and she would see the face of the god Quetzalcoatl himself. She was suddenly so excited she could not keep still, and rushed out of the tent to run unseen through the night where the hosts of men at Ishtlil's command sat around their campfires taking their evening meal. A great army was building to overthrow evil and usher in a new age, so of course that stubborn Shikotenka would want to be part of it! Once she and Huicton convinced him of the truth about Quetzalcoatl, any other outcome was unthinkable.

Chapter Twelve

Monday 26 April 1519, night

This was what terror felt like. He had known it before when he had nearly been washed overboard during the great storm that scattered the fleet on the night they'd set sail from Cuba. And he'd known it again when he lay hogtied on the forest floor on the island of Cozumel while Father Muñoz strode back and forth, ranting and mad. But tonight, terror had reached a new peak for Pepillo, when his moments of quiet reflection overlooking the ocean had been suddenly cut short by a muscular Indian who'd thrown him onto his

back while another had clamped his mouth shut, stifling his cries of alarm, and his nostrils were filled with the musky, alien smell of his attackers and they had dragged him off through the dunes and down onto the smooth, hard sand of the beach, lifting him bodily when he lost his footing, spiriting him away, he knew not where or why, at tremendous speed.

He guessed there might be four of them, or five; in the rush and the confusion he could not be sure. They spoke little amongst themselves, but when they did he thought he recognised snatches of their words. Their language was the same Nahuatl that Malinal had begun to teach him, or something very like it, yet these rough men seemed wilder, more savage by far than the semi-civilised and officious Mexica whom Pepillo had grown used to seeing around the camp, and he feared he was about to be murdered. 'Let me go,' he tried to say. 'What have I done to you?' His words were Spanish, and of course they would not understand, but even if by some miracle his abductors spoke the King's own Castilian, that massive,

uncompromising hand clamped across his mouth prevented him from uttering anything more than stifled grunts and sobs.

His feet slipped from under him and he was lifted bodily again, his head almost wrenched from his shoulders, when there came a snarl, menacing and low, and his pup Melchior launched himself out of the darkness, a missile of fur and teeth and fury, and seized that clamping, stifling hand and tore it loose in an instant, extracting a bellow of pure horror from its owner and allowing Pepillo to shout at the top of his voice: '*Help! For God's sake, help!*' In the same instant, Melchior let go the hand and dropped back to the beach, sinking his teeth into one of the attacker's ankles. There came another shriek and suddenly Pepillo was free, stumbling over his own knees, then rising and running and shouting again and again: '*Help! For God's sake, help!*' The breeze was still blowing, carrying his cries away from the camp, which now lay hundreds of paces to the south, so there was little chance he would be heard, but it was his only hope.

* * *

As Alvarado strolled down from the dunes towards the beach, he felt the hairs on the back of his neck stir – something was amiss here – and his hand fell to the hilt of his rapier. He had long since learned to trust his instincts, but at first he wasn't sure what it was that troubled him except perhaps a sense of motion, of agitation – and that not very far away. Then he heard a dog snarl and a yell of surprise followed by a boy's voice, high-pitched and terrified, shouting '*Help! For God's sake, help!*'

Alvarado drew his steel and broke into a run. In seconds he had reached level sand. Directly ahead of him, not fifty paces distant and dimly lit by the crescent moon, he made out a scrum of figures – Indians, by the look of them, naked but for breechclouts and feathers. Closing he saw a small figure break free, heard again that high-pitched plea for help and now recognised the boy Pepillo, Cortés's own page, running and stumbling away, still calling for aid

and seemingly unaware that his wish had been granted. The boy was followed by two of his attackers, while the other three seemed fully preoccupied with the furious dog, no more than a pup, that was amongst them, snarling and snapping its teeth, and clearly doing some harm.

Alvarado changed direction, put on a burst of speed, and came up with the boy just as one of the filthy savages, streaking after him, reached to grab him. 'Not so fast, my lovely,' Alvarado said, striking down on a dusky arm with the edge of the rapier and feeling the satisfying resistance of human flesh. 'Pick on someone your own size, why don't you?' The second heathen came at him with a hideous yell, wielding one of those crude wooden paddles edged with blades of obsidian that the Indians used as swords. Alvarado parried, but the rapier lodged with a *clunk* deep in the wood of the other man's weapon; for a moment he could not pull it free, and suddenly he was surrounded by a press of stinking Indians thrusting at him with their primitive stone knives. Just as well, he'd buckled

on his cuirass this evening! He felt the blades break and turn on his armour, ducked to avoid a huge club that came whistling at his head, drew his own dagger of Toledo steel, plunged it into a leg here, a torso there, and was rewarded with cries of pain and a sudden drawing back of the men around him. In the same instant, with a twist and a jerk, he pulled his rapier free and dropped into the guard position fencers call the plough, holding the slim blade out before him, hilt down close to his centre of gravity, point up, turning through three hundred and sixty degrees to see where the next threat was coming from.

He glanced at Pepillo. The boy was still with him, still alive. 'You're doing good, lad,' he said, 'but I want you to run now. Run back to camp. Yell at the top of your voice all the way. Get us help. I'll keep these bastards busy.'

'No, sir. With respect, sir. I don't see my dog.'

'Bugger your dog, lad. Dog'll look after himself. Get running, unless you want us both to end up in the cooking pot.'

'Very well, sir. As you say, sir … '

But it was already too late. Their attackers had formed a rough circle around them and there was no way the boy was going to make it through. Alvarado laid a gloved hand on his shoulder. 'Change of plan,' he said. 'Stay close. Watch my back. It's hard to credit but it looks like these Indians know how to fight.' He raised his voice. 'Come on, you godless barbarians. Have at me if you dare.'

* * *

Shikotenka was beginning to wonder whether the white-skinned, bearded, golden-haired man confronting them might after all be some kind of *tuele*. With odds of five to one, the five being without a doubt the flower of Tlascalan warriors, their opponent should be lying, bleeding his last, in the sand by now. Instead he was standing there taunting them, apparently uninjured and protecting the boy they'd snatched. The boy was human, no doubt about that, but this

man, if he was a man, seemed possessed of supernatural powers. Shikotenka had aimed a thrust straight at his heart – a good thrust, a true thrust – and yet his war knife had been turned by the stranger's metal armour.

Surely some witchcraft must be at work here, some sorcery – for while the white-skin was as yet untouched, Chipahua had taken a deep wound to the muscle of his right forearm, forcing him to switch his *macuahuitl* to his left hand, Tree had been stabbed through the thigh, and Ilhuicamina between the ribs.

And what was that monstrous *animal* that had come at them and then disappeared? Shikotenka looked down at his own ankle, bleeding copiously where its fangs had slashed him. Was it some species of wolf that the white-skins had enchanted to their service? And where was it now? He hoped it had not gone to fetch others of its kind.

He looked around at his crew, closing in for the kill. All were still in the fight and none were complaining, but they were losing

blood and time. Only Acolmiztli remained completely uninjured. 'I can take him,' he hissed. 'Give me my chance, Shikotenka. Great honour in it for me when I bring this one down.'

'Shit on honour,' growled Tree. 'I say we all just rush him, club him into the ground … '

But Acolmiztli wasn't listening. Raising his *macuahuitl* in a two-handed grip, he uttered a shrill battle cry and darted forward.

With a roar, Tree followed him.

Signalling Chipahua and Ilhuicamina to stay back – their injuries made them liabilities in a fight with an opponent as skilled as this – Shikotenka circled silently out into the darkness, aiming to get behind the white-skin.

* * *

Deep in a claustrophobic dream in which a fiend hunted her through narrow corridors and passageways, Malinal heard the sound

of whining and scratching at the door of the wooden hut she shared with Puertocarrero. She was immediately wide awake, her mind working fast, sensing trouble. She leapt out from the bed, ran naked to the door and opened it to find Pepillo's dog Melchior standing there shivering, covered in blood. The moment it saw her it turned and ran off a few paces, then turned back, looked at her and barked.

Malinal had no doubt what this meant. Pepillo must be in some terrible danger. 'Puertocarrero!' she yelled, 'wake up!' She realised she'd spoken the words in Castilian, even as she dashed back to the bed, pulled off the sheets and gave the hairy slumbering figure a shove. No reaction! She was already pulling on a tunic and slipping into her moccasins; moments later, with a final shriek at Puertocarrero, she ran out into the night, heading for Cortés's nearby pavilion. Melchior followed at her heels.

The guards were asleep in the portico and Malinal barged past them without a second thought. 'Caudillo,' she shouted, 'be awake. Trouble. Danger.' At once Cortés sat up in the bed, the dim light of

the candles revealing a chubby Totonac girl by his side. Malinal felt an instant stab of jealousy – that should be her place! – but ignored it. 'Caudillo! Caudillo! Come quick. Pepillo! Great danger!' Melchior scurried around her feet, barking, and Cortés at once jumped up, his *tepulli* half-engorged, swinging from side to side, his *ahuacatl* large and heavy. Hastily he donned a pair of breeches, boots, and strapped on his sword. He asked no questions, just charged outside, slapping the guards about the head. Within seconds there were a dozen men around him, all armed, some holding blazing firebrands, and they streamed down across the dunes towards the beach after Melchior, Cortés calling over his shoulder: 'Vendabal! Follow with the dogs!'

* * *

As the two Indians charged towards him, one small and wiry, the other massive and heavily muscled with a tangle of wild hair, time

seemed to slow, as it often did in battle, and Alvarado had a moment to wish he'd brought his heavy falchion with him this night rather than the slim and elegant rapier now gripped in his right hand. The rapier was a fine weapon to be sure, the work of the great swordsmith Andrés Nuñez of Toledo, but it was not well suited to a fight with savages. The way it had become trapped in the first scuffle for example. Not good! Not good at all! He'd have to make damn sure that didn't happen again or they might yet get the better of him. If he'd had the falchion it would have broken that wooden sword in half, leaving him free to carve its owner into mincemeat, but – well – he didn't have the falchion, so he'd just have to make the best of a bad job.

The first man swung at him, another of those infernal wooden swords, but since the blow was aimed at his chest where his cuirass protected him, he allowed it through, feeling the obsidian blades shatter harmlessly. He spun sideways and let the Indian's own momentum carry him past, dodged left to avoid a whistling blow

from the other attacker's huge club, shoved Pepillo roughly out of the way, fell into a stance, his right knee flexed, his left leg and left arm extended almost straight behind him, and executed a rapid powerful lunge, the long blade of the rapier thrust out ahead, its needle point seeking, questing for flesh to pierce, for vital organs to puncture.

But the wiry little Indian with the sword was fast – damned good, in fact! – and swivelled to avoid the strike, backhanding a second useless blow into Alvarado's cuirass even as the other came in yelling, whirling that monstrous club. They thought they had him now – Alvarado could see it in the triumphant glint of their eyes – but he was an accomplished athlete; he threw himself into a backflip, a technique that had saved his life more than once in battle, landed poised on the balls of his feet and went at once into the counterattack, slashing the razor edge of the dagger in his left hand across the face of the Indian with the club, tearing loose a great flap of skin, then leaping high into the air and – *Yes! Yes!* –

perfectly skewering the other man. The point of the rapier slid in just below the savage's Adam's apple and emerged from his lower back, doing terrible damage along the way. Alvarado had already whipped the blade out before his feet hit the ground and, as the giant Indian with the club came at him again, he struck him through the belly, not centre mass as he would have preferred, but somewhat to one side, a blow that would not be immediately fatal but that would surely slow him down.

The smaller of the two attackers had already collapsed to his knees, making the choking, gurgling sounds of a man drowning in his own blood, and Alvarado was about to deliver the *coup de grâce* to the giant when he was shocked to discover his sword arm seized in a powerful grip and the rapier snatched from his grasp. Where the hell was the boy Pepillo, who should have warned him of this, he thought furiously, even as he switched his dagger to his right hand and swung to face his new assailant.

* * *

Creeping up on the boy was easy. He didn't make a sound when Shikotenka smashed his fist into the side of his head, laid him out flat, and rushed forward to grab the golden-haired warrior's sword arm just in time to stop him killing Tree. With the advantage of surprise, Shikotenka wrestled the strange metal weapon from his hand but, not being practised in its use, he cast it down and faced the white-skin knife to knife. Out of the corner of his eye he saw Tree advancing, bleeding mightily from face, thigh and side, while Ilhuicamina and Chipahua also edged closer. 'Stay back!' Shikotenka commanded. 'He's mine.'

Everything about the white-skin's stance, the calm, steady glare of his pale eyes, the relaxed way he moved, light on his feet, poised, deadly, told Shikotenka that he confronted a practised knife-fighter, a slayer just like himself. This was not going to be easy, and what made it even more difficult was the silver armour that sheathed the

other man's torso. Pointless to attempt another thrust for the heart. Shikotenka knew that if he were to kill this enemy, he would have to strike home to his unprotected legs, or throat or head, while he himself would remain vulnerable to a body blow throughout the contest.

They were still circling – each looking for an opening in the other's defence, knives lashing out, probing, neither yet committing to a full attack – when Shikotenka saw something that made his blood run cold: a line of men holding blazing torches aloft, running full tilt towards them along the beach from the direction of the camp. Behind them, further back, was a shadowy mass of other figures, and from their midst arose the horrible baying of the white-skins' wolves.

Shikotenka made an immediate decision. Although it was dishonourable, Acolmiztli's corpse would have to be left behind. He did not know how fast the war animals of the white-skins could run, but Tlascalans – even injured! – were the fastest runners in the

world, and the wind would carry their scent away from the beasts, not towards them.

He issued the order, broke off the fight, nodded to his opponent and said: 'This isn't over, white-skin. We'll meet again.' Then he turned and ran. Glancing back he saw the man's golden hair gleaming in the moonlight and heard him call out in his foreign tongue. The words themselves meant nothing to him, but their tone of mockery was unmistakable and the skin of Shikotenka's face grew hot with shame.

Chapter Thirteen

Wednesday 28 April 1519

Following the attempted abduction of Pepillo, which Alvarado – and the dog Melchior – had spectacularly foiled, many of the Spaniards wanted to attack the town of Cuetlaxtlan that very night, kill its governor Pichatzin and wipe out the large Mexica garrison there. Just as well for Pichatzin, then, Malinal thought, that Alvarado had slain one of the abductors whose breechclout, hairstyle and tattoos left no doubt, as she herself was able to affirm, that he was a Tlascalan warrior, a sworn enemy of the Mexica. It was

unthinkable, therefore, that the Mexica were in any way responsible for his actions and, in the end, after Malinal had explained this to Cortés through Aguilar, reason prevailed. Not that she cared much one way or another whether the Spaniards fell upon the local Mexica, but ultimately it was Tenochtitlan and Moctezuma she was after, not a provincial town and its poor harassed governor.

The hunt for the rest of the little Tlascalan war band was soon called off. Somehow they'd escaped into the darkness, even evading Vendabal's bloodhounds, and must now be well on their way back to their mountain stronghold. Why they'd launched the assault in the first place was not clear, but Malinal suspected it must be to do with the close cooperation that seemed to have been struck up between the Spaniards and the Mexica. The two thousand Totonac labourers, whipped into line by Mexica overseers, busily at work constructing the temporary town of wooden dwellings on the dunes, the teams of bearers bringing food and other supplies out from Cuetlaxtlan, the women sent as bedslaves, even the frequent visits

Pichatzin himself made to the camp – all would have been regarded as highly significant. The Tlascalans might have heard the rumours, rife throughout the area, of the return of Quetzalcoatl, but nothing they could have seen would have persuaded them that the Spaniards were here to overthrow Mexica tyranny. On the contrary, witnessing all the activity, only one conclusion would have been possible – that the strangers were not gods but powerful men and that the Mexica were in the process of forging a strong alliance with them that must surely, sooner or later, be turned against Tlascala.

Yet still, even with her own eyes wide open to the truth, Malinal could not quite shake off the astonishing ways that Cortés, with his striking pale skin and handsome bearded face, seemed such a plausible fulfilment of the prophecy of the return of Quetzalcoatl. Nor was it simply a matter of appearances, or the fact that he and his companions had arrived in great boats that moved by themselves without paddles in the year One-Reed – or any of the other eerie resemblances. Whether it was pure coincidence, or resulted from the

workings of some supernatural design, Cortés also shared what was probably the most important and the most distinctive of Quetzalcoatl's legendary characteristics. Malinal had hardly begun to understand the Christian faith the caudillo professed, his reverence for the tortured god-man depicted nailed to a cross, and the frequent sermons, translated by Aguilar, that he directed at her. One thing was completely clear, however, and this was his abhorrence of human sacrifice as practised by the Maya, the Totonacs and most particularly by the Mexica, under whom, as she had informed him, it had been elevated to the status of a national obsession, with tens of thousands going under the knife each year.

Now, two days after the attempted abduction of Pepillo, Malinal sat with Cortés in his newly built wooden pavilion, roofed with fine cloth, provided by Pichatzin. The caudillo was listening with rapt horror, making occasional remarks such as 'disgusting', 'vile', and 'an abomination', as Malinal told him of her own close escape from the killing stone in Tenochtitlan on that terrible night, months before,

when the hearts of more than two thousand women had been plucked from their breasts. The air within the pavilion was redolent of split pine, refreshed by the soft morning breeze that blew in off the ocean and ruffled the canopy over their heads, but as Malinal relived those hours of horror and dread, she smelled again the awful reek from the tide of blood that had washed down the steps of the pyramid, and imagined she could hear the beat of the snakeskin drum and the screech of the conch. Speaking slowly, allowing Aguilar time to grasp her meaning fully in Maya and put it into Castilian, listening closely as he did so in order to add to her growing vocabulary in this strangely soft, lilting language spoken by the Spanish, she explained how she had been imprisoned in the fattening pen with her friend Tozi, how they had mounted the steps with all the other women and how at the last moment they had been freed by the intervention of Huitzilopochtli – 'Hummingbird' – the very god to whom the sacrifices were dedicated.

Her grasp of the Castilian tongue was already sufficient for her

to realise that Aguilar was disparaging her even as he translated her words to Cortés, suggesting indeed that she was making the whole story up. Anger gripped her and she exclaimed in Castilian: 'No! Not make up. Truth! All truth!'

A flicker of a smile crossed Cortés's face and he said something to Aguilar about her being a 'clever woman – very clever.' But she couldn't follow the rest. Then he put a question directly to her, waiting to see if she could understand it, which she could not. Finally Aguilar translated: 'Explain why this devil Hummingbird whom the Mexica worship should wish to set you free?'

She shrugged: 'I don't know. Who can comprehend the ways of gods or devils?' An idea occurred to her which she thought might prove persuasive to Cortés, so she looked him straight in the eye and said: 'I think perhaps it is because your god, the god of the Christians, is more powerful than Hummingbird. I think he made Moctezuma release us so we could help you to defeat him.'

Cortés allowed that this was indeed possible, since Malinal had

already helped him a great deal with the descriptions she had provided over the past days about the vast wealth of the Mexica and their treasure houses filled with gold, silver and jewels – which made him all the more determined to visit them – coupled with her accounts of their vile and diabolical religion, with its addiction to human sacrifice, which was an abomination and which it was his duty as a Christian to suppress. In addition he had learned much from her about the size, weapons and disposition of the Mexica armies, which had made him aware that he must proceed cautiously and in strength. In all this, he said, he could indeed see the hand of god and of divine providence at work.

At this point Aguilar, who Malinal already disliked because his jealousy had unnecessarily kept her apart from Cortés for so long, objected in Castilian, and then again in Mayan for her benefit, that pure coincidence seemed a better explanation than any god-directed process for her presence in Potonchan at the time of the Spaniards' arrival. He also wanted to know why she considered her supposed

‘friend’ to be relevant, since she wasn’t even here.

A lengthy argument followed between the two Spaniards, during which the caudillo spoke in the special rolling, lilting tone that Malinal had noticed he liked to use for sermons. When he seemed to be finished she said in Castilian, ‘I speak now?’ and Cortés, with another smile that she very much liked, waved her on. Reverting to Mayan she turned to Aguilar: ‘This is important,’ she said. ‘Please try to translate what I say very carefully and very exactly into Castilian because your idea about coincidence is wrong and I will tell you why and the caudillo needs to know this.’

Aguilar looked at her with much the same dislike that she felt for him. He had status because he was, or had been, Cortés’s chief interpreter; he feared, now they had moved out of the lands of the Maya and into territories ruled by the Mexica, about whose language and culture he was ignorant, that he would no longer have a role. Well, he was right! She’d always had a good ear for languages and she already understood much more Castilian than he realised.

For the moment, however, she still needed him, so she told him what she had to say in Mayan and listened very intently to his translation into Castilian, not only to improve her vocabulary but also to be sure the caudillo was not being misled.

'There is something,' she said, 'that neither you, Aguilar, nor you my lord Cortés, know yet, and this concerns a god whom the Mexica fear and respect almost as much as the demon Hummingbird. I will tell you about this god – who is called Quetzalcoatl, the Plumed Serpent – not only because what I have to say about him proves that it was not coincidence that brought me here, but also because if you Spaniards arm yourselves with this knowledge, it will help you to lay low the great armies of the Mexica and destroy their powerful cities and take their wealth and make it yours and end forever their cruel and evil reign in these lands.'

She then recounted the whole story of Quetzalcoatl, and his human manifestation, so similar to that of the Spaniards, as a bearded, pale-skinned man who detested human sacrifice. She told

of the ancient prophecy that the god and his companions would return in this very year, in great ships that would come from the east, moving by themselves without paddles. Lastly she spoke of the promise that Quetzalcoatl was said to have made – to overthrow the wicked and bloodstained cult of Hummingbird and replace it with a religion of peace and love such as the Christian faith as Cortés had repeatedly described it to her.

When Aguilar had put all this into Castilian, the caudillo leaned forward in his chair, rubbing the point of his beard with his left hand, and the two Spaniards again talked animatedly for several minutes. Cortés then had Aguilar explain to Malinal in Mayan that it was possible, in his opinion, that a 'saint' – a holy man – called Thomas had visited these lands one thousand five hundred years before to preach the Christian faith and that it was his memory, and a promise that he had no doubt made to return, that was preserved in the story of Quetzalcoatl. He then invited Malinal to continue. She said that whether Quetzalcoatl was this Saint Thomas or not,

the prophecy of his return was believed by all the Mexica, and especially by the Great Speaker, who was utterly terrified of what it would mean for him. She described how she had been called to the palace in Tenochtitlan the year before to serve as a translator when a message had been brought to Moctezuma from the Chontal Maya concerning the first visit to these lands of white-skinned, bearded strangers. They had been fewer in number than Cortés and his men; nonetheless, they had defeated a Mayan army ten thousand strong.

Cortés slapped his thigh with his hand as this was translated for him, and said something in Castilian about a captain called Hernández de Cordoba.

After that, Malinal continued, Moctezuma had been seized by a terrible foreboding that those strangers, who had arrived near the end of the year called Thirteen-Rabbit in the Mexica calendar, had come to announce the return of Quetzalcoatl, which was therefore to be expected this year – which happened to be the year One-Reed as the prophecy had long ago foretold. Driven mad with fear that he

was about to lose his throne, Moctezuma had initiated a new cycle of sacrifices, intended to strengthen Hummingbird with human hearts and blood and win the war god's support to drive Quetzalcoatl and his companions back into the sea. Malinal repeated that she and her friend Tozi would have been amongst those sacrificed for this cause, but for the mysterious intervention of Hummingbird himself – surely compelled by the one and only true god of the Christians. After they had been released from the killing stone, she told Cortés, she and Tozi had pledged to do everything in their power to bring about the overthrow of Moctezuma and the end of human sacrifice. To this end Tozi had remained in Tenochtitlan to work what harm she could against the Great Speaker, while Malinal had made the long journey overland to Potonchan, her hometown, to welcome Quetzalcoatl, should he appear there, and help him to win back his kingdom.

'I do not believe you are Quetzalcoatl,' she now said to Cortés, 'and I do not believe you are a god, but it is very strange that you

look the way you do and that you have come from the east in the year One-Reed. I think you can now see that Aguilar was wrong to imagine it was coincidence that brought me to Potonchan at exactly the time you arrived there.'

When he had heard all this, a strange light came into Cortés's eye. The rolling, lilting tone was back in his voice and – as he often did – he required Aguilar to translate into Mayan a verse from the sacred texts of his religion. This one stated: 'Thou art the God that doest wonders; thou hast declared thy strength among the nations.'

'What does it mean?' Malinal asked.

'It means,' explained Aguilar, 'that God works in mysterious ways to perform his wonders. The caudillo is of the opinion, which I do not share, that the lord of all created things has chosen to work through you and through this prophecy about Quetzalcoatl to strengthen our hand here and put us on the path to victory.'

Cortés spoke again, his eyes seeming to burn into Malinal.

'The caudillo asks,' Aguilar translated, 'how you think he might

best take advantage of the prophecy. Should he perhaps pretend to be this Quetzalcoatl? He says he finds such an idea repugnant and contrary to his Christian faith.'

'There is no need to pretend anything,' Malinal replied. She returned Cortés's gaze as she spoke. 'It will not serve your interests to make a claim that will later be proved false. I advise you always to tell the truth about who you are, as you have told it to me. So when you are asked, say you are just a man, a Spaniard, from a land across the seas and you serve a great emperor who rules that land and many other lands. But know while you say these things that the Mexica believe their gods to be tricksters, very deceitful and dishonest, great lovers of masks and disguises, who like to pretend to be other than what they are. Regardless of what you say, their own imaginations will convince many of them, especially that fool and coward Moctezuma, that you really are a god. You have ships, guns, steel, horses, war dogs – and these things will seem like wonders to them. So say you are a man, but act like a god, that is my advice to you.'

'You see,' Cortés said triumphantly to Aguilar, 'I told you she was clever!'

They had been aware for some minutes of a clamour of shouts in the camp, but now it suddenly increased in intensity. As Cortés sprang from his chair to investigate, Alvarado appeared at the door. 'We've got visitors,' he said with a grin. 'There's a whole delegation of Mexica notables in robes and feathers down by the main gate. What shall we do with them?'

Malinal understood and turned to Aguilar. 'They must wait,' she said in Mayan. 'Tell the caudillo! Let me see who they are first, then I will advise.'

* * *

With Malinal at his right hand, Aguilar at his left, and his senior captains behind him, many decked out in full armour, Cortés sat overlooking the beach on the highest point of the dunes, under a

much larger and grander awning than the one he had used a few days before to meet Pichatzin. The fine white cloth out of which this new awning was woven had been supplied by the obliging governor of Cuetlaxtlan, along with many other useful gifts that he had delivered to the Spanish camp since that meeting, and was supported on a framework of sturdy pine posts erected at great speed especially for this occasion by a gang of Totonac labourers. The two hundred fittest and strongest soldiers in Cortés's army were arrayed round about, bristling with swords, spears and battle-axes and carrying their shields, crossbows and muskets.

Other preparations, every one of them orchestrated on Malinal's advice, were under way all around the camp. She predicted that the Mexica delegates would already have heard from Pichatzin about the horses, would ask to see them, and could easily be frightened by them. To this end a mare in heat had been tethered close to the awning for the past hour and only just now led away. After the meeting had started, the plan was to bring up Alvarado's randy

stallion Bucephalus and tether it in the same place; the mare's scent, lingering on the ground, could be relied upon to make it boisterous. Meanwhile the rest of the cavalry were being prepared to stage a grand demonstration down on the firm sand of the beach, Telmo Vendabal's assistants were armouring fifty of the most ferocious dogs, and Francisco de Mesa's Taino slaves were hauling all three of the lombards to positions close to the awning, where they would be loaded with seventy-pound cannonballs and very large charges of gunpowder.

Cortés nodded towards the crowd of Mexica delegates. 'Shall we let them come up?' he asked Malinal. It had been her idea, but a good one he thought, to keep them waiting, clustered in the sun in a hollow of the dunes close to the camp's latrines, where swarms of pestilent flies and biting insects were always encountered.

She narrowed her eyes. 'Yes,' she said through Aguilar, 'let them come.'

She had already pointed out the tall thin figure of a man of

mature years, dressed like some wizard of old in a conical cap and a long black robe embroidered with silver stars. He was the leader of the delegation. She recognised him from court occasions in Tenochtitlan, she said, but she had never met him personally. His name was Teudile and he was Moctezuma's own steward, the seventh most important official in the land after the Great Speaker himself.

Pichatzin walked by Teudile's side, and a group of five other Mexica nobles wearing colourful carmine robes clustered round them. 'They're not important,' Malinal said. 'Not even Pichatzin. Only Teudile matters.'

The delegation included five artists equipped with their sheaves of paper, paints and brushes, several dozen bearers carrying an assortment of baskets and boxes, and an honour-guard of twenty fearsome-looking soldiers from the class called the Cuahchic. These, Malinal explained, were the most formidable and skilled of all Mexica warriors. Except for a scalp lock tied with a red ribbon

above their left ears, they were shaved bald, with their heads completely covered in glistening paint, red on the left side and blue on the right. Dressed only in loincloths and sandals, they showed off superb, heavily muscled physiques, and were armed with the long, two-handed wooden swords, edged with blades of obsidian, that the Spaniards had already confronted amongst the Maya.

In addition there were four men in lusciously colourful shimmering cloaks woven out of feathers. Three of them were elderly with lined faces and long grey hair, while the fourth was young and wore his hair in a curious crest across the middle of his otherwise shaved head. All had exceptionally long, twisted, dirty fingernails, and all clutched rattles that they shook from time to time as they walked. They muttered rhythmic phrases in lowered voices and looked around from under glowering brows with suspicious, hostile glances. These curious creatures, Malinal said, were Moctezuma's court sorcerers, and had been sent to cast evil spells and generally work harm on the Spaniards. She seemed to

believe they might really be able to do this, but Cortés told her firmly that the idea was laughable: 'We are protected,' he said, 'by the Lord God himself.'

The final element of the delegation now winding its way up the slope towards them was equally strange. There were two male captives amongst them, heads bowed, hands bound behind their backs. One was a boy, perhaps fourteen or fifteen years old, about Pepillo's age. He was scrawny and hollow-chested, with coarse black straight hair cut in a fringe over his acne-covered forehead. He sobbed continually as he walked, tears running down his cheeks and snot dripping from his nose. The other, who spoke sharply to him from time to time, as though admonishing him, was older, broad shouldered and powerfully built, with long braided hair and coppery-red skin marked by many scars – some old, some still livid and fresh – on his chest and arms. His face was heavily tattooed with blue zigzags and curlicues, and his earlobes and lower lip were stretched and greatly extended by large bone plugs. Both captives

had been daubed with some sort of white paint, were barefoot and wore flimsy loincloths that seemed to be made of paper. Leading them by ropes looped around their necks were five fierce-looking men with wild, matted hair wearing filthy black robes.

'Who are they?' Cortés asked.

'Priests of the war god Hummingbird,' replied Malinal.

'And their prisoners?'

'Totonacs. They've prepared them for sacrifice. Looks as if they intend to offer them to you.'

'By God,' Cortés exclaimed. 'Nobody will be sacrificed here.'

* * *

Teudile was a sallow, hollow-cheeked bag of bones whose sunken eyes glittered with a curious mixture of intelligence, malice and fear as he sat cross-legged on a mat on the ground in front of Cortés, flanked by Pichatzin and the other Mexica officials. He spoke,

giving his name, and held forth a gold ring in which was set an engraved gemstone. This, it seemed, was the seal of Moctezuma himself. Malinal translated Teudile's words into Mayan while Aguilar put them into Castilian: 'Pray that the god will hear us. Your lieutenant Moctezuma, who has in his charge Tenochtitlan, the city of Mexico, sends us to give homage to you … '

'So he's already addressing me as a god?' Cortés asked.

'He's assuming you are Quetzalcoatl,' Malinal replied through Aguilar. 'That's the safest course of action for him at the moment, but remember what I told you. Don't make such a claim yourself. Say you're a man but overawe him – fuel his superstitions, keep him guessing.'

'Tell him we accept his homage and ask him if there is any particular thing he wants with us,' Cortés said.

'I wish to know from this god,' Teudile replied, 'why he has come here, where he is going and what he seeks?'

'Tell him I have come to greet his master Moctezuma and that I

intend to go to the city of Tenochtitlan to salute him.'

'The lord Moctezuma will be much pleased to hear this,' Teudile replied. 'However, he asks that you delay your journey and leave him in peace until the time of his death. After that you will be welcome to journey to Tenochtitlan, where you will recover your kingdom just as you left it long ago. Meanwhile he wishes you joy after your long journey. He has sent you foods and fruits of this your homeland, so that you may be restored.'

Teudile then waved forward several of the bearers, who unslung large, wood-framed baskets from their backs and set them down on the carpets that had been rolled out over the sand under the awning. The baskets were filled with cloth-wrapped packages, from which the rich scent of cooked meats arose; as the packages were carefully opened, a sumptuous feast was revealed.

Looking on, with Alvarado and the other captains peering over his shoulders, Cortés had two thoughts uppermost in his mind. First: was this food poisoned? Second: although the local breads,

eggs, vegetables, guavas, avocados and prickly pears were obviously harmless, might there not be human flesh amongst the many different cooked meats – none obviously recognisable – being offered here? The rich sauces could disguise a multitude of sins.

'Ask him to describe the meat dishes,' Cortés told Malinal.

With some pride and apparent relish, taking time to explain how they had been cooked and the sauces that accompanied them, Teudile pointed out dishes of quail, turkey, duck and other fowl, several types of fish, and also wild peccary, deer, monkeys, hares and dogs.

'They have dogs here?' asked Cortés with surprise, and some concern, because the Maya – to the advantage of the Spaniards – had been terrified by the war hounds and had not seemed to understand what sort of creatures they were. Malinal explained this was because the dogs of the conquistadors were much larger and very different in appearance from the animals the Mexica called *itzcuintli*, also known to the Maya, which were small, hairless, did

not bark and were bred almost exclusively for the kitchen, though some were kept as pets. Nonetheless she had taken the opportunity to study the Spanish dogs over the past weeks and confirmed they did indeed belong to the same tribe as the *itzcuintli*. 'Their meat is good,' she said. 'Try it. You will enjoy.'

Cortés nodded. He had no objection to eating dogs. 'Ask if there is any human flesh or blood amongst these dishes,' he said. 'Question him closely. Make sure I get a truthful answer.'

But no sooner was the question put than Teudile was on his feet with a worried expression on his face. 'I regret not *tuele*,' he replied – Cortés now recognised the Mexica word for 'god' – 'but we are ready to serve.' While speaking he had produced a small flint knife from some pocket of his robes with which he now slit the lobe of his own left ear.

'What in God's name is the man doing?' Cortés exclaimed.

'He thinks you're angry that they didn't provide human blood,' said Malinal, 'so he's offering you some of his own.'

One of the black-robed priests bounded forward, clutching a small silver cup that he held under Teudile's ear, collecting the stream of blood flowing from it. He then approached Cortés and attempted to press the brimming cup to his lips, but Cortés dashed it angrily aside, and dealt the priest several blows about the buttocks with the flat of his sword, making the man jump and screech in pain. Driven out from under the awning into the sun, the priest took shelter behind the escort of Cuahchic warriors, who were lined up in two ranks of ten, frowning and grimacing mightily at the Spaniards.

An idea occurred to Cortés and he turned ferociously on Teudile. 'Tell him this,' he said to Malinal through Aguilar. 'Tell him I don't like and *will not permit* blood sacrifices.' He pointed to the two Totonac captives who were standing surrounded by the other four priests near the edge of the awning. 'Tell him to release those men. That is my wish. That is my order. Tell him it must be done now.'

'But Lord,' objected Teudile, 'your lieutenant Moctezuma commanded they be sacrificed for you and that we prepare their flesh for you while it is fresh and offer it to you to eat.'

'What you are proposing is *abominable* to me!' Cortés yelled. 'Do you hear? *Abominable*. Release those men at once.' He strode over to Alvarado who was watching with amusement. 'Time to bring up Bucephalus,' he said with a wink. 'You'll send for him?'

Moments later, while Malinal was still embroiled in what appeared to be a heated argument with Teudile, there came a great neighing and whinnying as Alvarado's groom walked Bucephalus up the slope and tethered the huge creature close to the awning where the mare had earlier stood. The stallion, which was fully barded in its gleaming steel armour, at once began to paw the ground and snort menacingly, and twice reared up, lashing the air with its hooves, causing consternation amongst the Mexica. The formidable Cuahchics, who stood closest to it, drew back in horror while Teudile gazed at it from under the awning, his face grey and his

eyes bulging. Only the artists, to their credit, did not break off from sketching and painting even when, in the midst of all this, Telmo Vendabal appeared with five of his largest wolfhounds, also decked out in armour. When they scented the Mexica delegates, they began to snarl and bark and strain on their leashes towards them.

'As you can see,' said Cortés to Teudile, 'our war animals are angry with you because of your sacrifices. Will you obey me and release your two captives now?'

'It is not what my lord the Great Speaker wishes,' said Teudile stubbornly.

'But it is what I wish,' said Cortés, 'and has not my lieutenant Moctezuma ordered you to please me?'

Teudile barked a command to the priests, the bonds of the captives were cut and they at once ran off through the camp.

'Good,' said Cortés. 'Now we're making progress.'

'Will you eat the other dishes they have prepared for you?' Malinal asked.

‘Do you think we should?’

‘Yes. I advise it. It’s probably some sort of test. If you are Quetzalcoatl returning, they’ll expect you to relish the food of your homeland.’

‘Very well, we will eat,’ said Cortés. ‘But I suspect poison. Tell them if we eat that they must eat also from the same dishes.’

Malinal smiled. ‘The food will not be poisoned,’ she said.

‘Still, they must eat with us.’

* * *

After a pause while they waited for Teudile and Pichatzin to sample all the dishes first, Cortés persuaded his captains to join in the meal; soon a positive atmosphere had been restored with some small talk exchanged between the two sides. The food proved to be excellent and the final course, gourds filled with the dark drink called *chocolatl*, elicited particular praise from the Spaniards.

‘The ambassador apologises,’ Malinal told Cortés as the dishes were cleared away. ‘He says he doubted the ancient traditions of Quetzalcoatl and his hatred of human sacrifice, but now he knows that every word was true.’

While she spoke, Teudile had signalled bearers forward, who set down three large baskets in front of Cortés. ‘These are presents for you,’ Malinal explained after Teudile had spoken. ‘They’ve been sent by Moctezuma himself. He wishes you to choose the one that most pleases you and to give the others to the gods who are here with you.’

The baskets were piled high with folded cloths and featherwork. On top of one was a cone-shaped helmet of gold, to which Cortés felt his eyes strongly drawn. On top of the second was an elaborate headdress adorned with green feathers. On top of the third was a mask in the form of a serpent’s head, a woven pectoral with a small gold disk in the centre and earrings with curved gold pendants.

‘Choose the basket with the serpent mask,’ Malinal advised

through Aguilar.

'I prefer the helmet,' Cortés said. 'There's more gold in it.'

'The impact will be greater if you choose the basket with the serpent mask. It's the one that contains the finery of Quetzalcoatl.'

Cortés chose accordingly and Teudile, seeming suitably impressed, insisted on dressing him up in the regalia from the basket. Cortés went along with this, examining the items as they were hung around his body. There was disappointingly little gold.

'Is this all he has for me?' Cortés asked, taking off the serpent mask and setting it down. 'Is this your gift of welcome? Is this how the great Moctezuma greets his visitors?'

Teudile gave orders to his minions and a great many more baskets of presents were laid out on the carpets under the awning. 'Now we're getting somewehere,' said Alvarado excitedly as he opened the baskets one by one. 'Gods! There's a king's ransom here!' He delightedly picked up a heavy gold plate and hung a gold pectoral around his neck. Meanwhile Puertocarrero had helped

himself to a pair of golden cups in the shape of eagles with outstretched wings and was studying them greedily. Cortés noticed how Juan Escudero, the most fanatical of the Velazquistas, weighed everything in his hands, no doubt calculating the value of this hoard so that he could report it to his master Diego de Velázquez as soon as he got back to Cuba. Here were gold necklaces worth thousands of pesos, gold earrings – even golden sandals. Here were heaps of precious stones. Here were beautiful figures of birds and beasts and strange mythical creatures, all fashioned in gold and silver, some with emeralds for eyes. There were also piles of woven cloth, and curious, richly coloured items of featherwork, some shaped like shields, some in the form of capes and hats. But these last were largely ignored; it was around the items of gold that the Spaniards clustered most eagerly.

Teudile was watching, his hooded eyes glittering. 'I see you *tueles* like gold very much,' he said.

'We have need of it,' Cortés said bluntly. Remembering his

conversation with the savage Mayan chief Muluc by the riverside in Potonchan, he added with a straight face, 'Many of us suffer from a disease of the heart that can only be cured by gold … Say, how are the reserves of this metal in your country? Do you have mines? Or do you bring your gold here from faraway places to be worked?'

'Our land is rich in gold,' Teudile answered proudly. 'We find it in our rivers. We find it beneath the ground.'

Fool! Cortés thought. *If I were in your shoes I wouldn't have shared that information*.

But the ambassador's attention was already elsewhere. His eyes had settled on Bernal Díaz, the leg wound he'd received at Potonchan healed now, who was wearing as he often did a battered, somewhat rusty, half-gilt *morion* helmet. 'Might I see that?' Teudile asked.

'Surely yes,' said Cortés. He waved Díaz over. 'Mind if His Excellency here takes a look at your helmet, Bernal? It seems to have taken his fancy.'

'He's welcome to,' said Díaz, a grin lighting up his big honest face as he passed the *morion* over. 'Be happy to exchange it for some of that gold of his.'

Teudile, Pichatzin and the other Mexica delegates examined the helmet, turned it over in their hands, held it up to the light and peered inside its peaked dome. Finally Teudile said: 'It greatly resembles a helmet that was left to us by our ancestors; we keep it now in the temple of our war god Hummingbird. May I take this one with me when I return to Tenochtitlan? I'm sure my Lord Moctezuma will wish to see it.'

'Any objection, Bernal?' Cortés asked.

That farmboy grin again. 'Tell him to bring it back full of gold,' Díaz replied.

Good idea, thought Cortés. *It can settle once and for all whether they really have mines or whether that is just a boast*. 'You know, Teudile,' he said, 'I'm curious whether the gold of your country is the same as the gold we find in our own rivers and mines. Like you I serve a

great lord who rules many lands, so can I suggest after you have shown the helmet to your emperor that you bring it back to me filled with grains of gold as a present for my emperor?'

'It will be done,' said Teudile suspiciously. 'But if you are a god, how is it that you serve a great lord?'

'I am no god,' Cortés answered gravely. 'I am a man, just like you.'

'My Lord Moctezuma says you are Quetzalcoatl, come to reclaim your kingdom—'

'I myself claim no such thing! My name is Don Hernándo Cortés. I serve a great emperor across the seas who rules my country, which is called Spain. Both my emperor and I worship the one true God who resides in Heaven and rules over the earth, whose son is Jesus Christ, and beside whom there are no other gods.'

Teudile was looking deeply confused. 'Then tell me, man or god or whatever you are, why have you come here to our land? What do you want with us?'

Cortés said that he was here because his religion, called Christianity, was the only true faith on earth, and that it was his duty as a Christian to bring news of it to other peoples around the world. In particular he was required to teach those who lived in ignorance of Christ to abandon their false gods, such as this Hummingbird whom the Mexica worshipped, who in reality was not a god but a demon, sent to mislead mankind and damn the souls of those who followed him to burn in hell for eternity.

Teudile's face clouded while Malinal put all this into Nahuatl for him. He then asked again why Cortés had chosen to come to the lands of the Mexica rather than to other lands. This, Cortés lied, was on account of the emperor he served, Don Carlos, the greatest lord on earth, who had many great princes as his vassals and servants. 'Even on the other side of the ocean, rumours of your land and of your emperor have reached my lord, and because of these he sent me here to meet the great Moctezuma, and establish friendship with him, and bring the Christian faith to him, and tell him many

things that will delight him when he knows and understands them.' To this end, Cortés added, it was his intention to travel to the place where Moctezuma was and to meet with him at the earliest possible moment.

'You have only just arrived,' spluttered Teudile, looking shocked. 'You admit to being a man and not a god, yet already you wish to speak with our emperor?'

'That is my wish and my intention,' Cortés said.

'Such a meeting was not to be arranged, even if you were a god,' Teudile countered. 'Our Great Speaker is no less a monarch than this Don Carlos of yours, being likewise a mighty lord served by lesser lords. Nonetheless, I will go to him to discover what his pleasure may be in this matter and return to you with his answer. In the meantime,' he indicated the gifts that the Spaniards were still eagerly examining, 'I ask you to enjoy these presents, which have been bestowed on you in Moctezuma's name.'

Cortés rubbed his hands together. 'Ambassador Teudile,' he said,

'I am glad we understand each other so well. And in return for the gifts you have given us, we also have gifts for you. He turned to a box that had been placed earlier at the side of his chair, pulled out some Spanish beads of coloured, twisted glass and ceremoniously handed these over. 'Kindly send these to your towns and summon their inhabitants to trade with us, for we have many more of these beautiful beads, which we would like to exchange for gold.' Teudile, whose expression was unreadable, gave thanks and passed the beads to a retainer.

Cortés then signalled to two of his soldiers to bring over some more glass beads, necklaces and bracelets, some pearls, a silk coat, looking glasses, scissors, straps, sashes, shirts, handkerchiefs, an inlaid folding armchair, similar to his own, and a crimson cap, to which was attached a small gold medal stamped with a figure of Saint George on horseback killing a dragon. These, he said, were presents for the great Moctezuma himself, and he would like it if Moctezuma would sit in the armchair and wear the crimson cap

when he himself came to visit him. He added: 'In the temples where you keep the idols that you believe to be your gods, I wish you to set up the cross of Christ and an image of Our Lady with her precious son in her arms. If you do that, you will prosper.'

Teudile appeared aghast. 'Such a thing is impossible,' he said flatly.

'Nevertheless, kindly convey my wishes to your lord Moctezuma. I am sure he will agree, and when he does I will arrange to have these sacred objects sent to him or bring them to him myself.' A sudden change of subject: 'Now tell me please, Ambassador Teudile, about the great Moctezuma. What sort of man is he? Is he a young man, or mature, or in his old age? Is he an old man now, with white hair? And if old, is he still able or is he aged and infirm? Kindly describe his appearance for me so that I already have a picture of him in my mind when I meet him face to face, which most assuredly I will.'

As Malinal put the question into Nahuatl, Cortés noticed that all

the Mexica delegates were paying close attention and that the four sorcerers made strange signs with their hands and muttered ferociously under their breath.

'Our Great Speaker is a mature man in the prime of life,' Teudile eventually replied, 'not stout, but lean with a fine, straight figure. He is vigorous and powerful in battle and has led our forces to many victories over our enemies … ' A pause: 'We have heard that you *tueles*, or Spaniards, or whatever you call yourselves, are also powerful warriors. We are informed that you defeated a great army of the Chontal Maya at Potonchan. Is this true?'

'It is true,' Cortés allowed.

Teudile was eyeing Bucephalus, quieter now, still tethered outside the pavilion. 'We heard,' he said – and Cortés did not think he had ever seen a man more obviously fishing for military intelligence – 'that your war animals played a decisive role in your victory.' As Malinal had predicted, the steward then requested a demonstration of the prowess of the horses and dogs.

‘Of course,’ Cortés said. ‘Nothing would give me greater pleasure. Allow my men a few moments to prepare.’ He turned to Puertocarrero, Ordaz, Olid, Escalante, Morla, Montejo, Davila and the others he’d selected to ride today and said quietly, ‘You know what to do.’ The horses stood tethered just out of sight at the foot of the next dune and, as the cavaliers hurried away to mount up, Cortés cast a long glance at Malinal, trying to let her know by the warmth in his eyes how grateful he was for her cleverness in second-guessing the needs and wishes of Moctezuma and formulating this plan to impress and overawe his ambassador. He had always believed that to know one’s enemy was more than half the battle of defeating him, so Malinal was rendering a service of inestimable value by showing the Spaniards how to look beneath the daunting appearance of the Mexica to see and understand the primitive fears, superstitions and ignorance that governed everything they did and thought. Yes, Cortés and his conquistadors had now entered the heartland of Moctezuma’s power; yes, this savage emperor would be

able to throw overwhelming numbers against them – hundreds of thousands! – when war broke out, as it surely would; and yes, his warriors would possess huge advantages arising from their knowledge of the terrain and their access to virtually limitless supplies and reinforcements. Nonetheless, Cortés was confident that working with Malinal to undermine and demoralise Moctezuma in the arena of the mind before he ever met the emperor's forces on the battlefield would ultimately give him victory.

Undoubtedly this woman had charisma, and it was, he thought, something more than simply the enchantment of a great and noble beauty. There was depth to her, and a mystery, that touched his heart and put fire into his soul. As she returned his glance, and he sensed again that special private communion that had somehow grown up between them, he felt a burst of annoyance that she was still obliged to return to Puertocarrero's bed each night after her work of interpreting was done. To be sure the man was his friend, and a useful and important ally, but what had he been thinking of

when he had so carelessly handed this treasure over to him?

Alvarado was standing by. At Cortés's signal, he strode out from under the awning with a wide grin, untethered Bucephalus and bounded into the saddle. The massive stallion reared, gave a spirited whinny and wheeled round twice, its front hooves lashing the air again, sending up a spectacular spray of sand, before Alvarado urged it into a rushing, plunging gallop down the dunes. In his gleaming cuirass, with his blond hair flying in the wind, he did indeed have the aspect of some god, Cortés thought; as he looked at the astonished faces of the Mexica delegates, he saw a numinous fear written there as they whispered urgently to one another.

'What are they saying?' he asked Malinal through Aguilar.

'They are calling him Tonatiuh,' she explained. 'It means the sun. They imagine he's the sun in human form. It's a great compliment.'

Alvarado had disappeared from sight, but moments later he reappeared, holding a long lance. The rest of the cavalry, all

similarly armed, trotted behind him. They made a splendid sight, their armour sending off dazzling reflections as they descended the soft sand of the dunes, and the hundreds of little bells that Malinal had suggested should be attached to the horses' barding chimed and jingled melodiously as they made their way onto the wide expanse of the beach. There they arrayed themselves into a long line, spurred immediately into a gallop, and with yells of 'Santiago and at them!', levelled their lances and charged off at tremendous speed.

'Would you like to look closer, Ambassador Teudile?' asked Cortés. 'Perhaps we may all walk out a little into the sun to observe the display better?' Malinal translated the proposition and the Mexica delegates, including their wizards, priests, artists and the twenty Cuahchics, all followed Cortés to the edge of the dune, where the lombards had been set up on their carriages and aimed inland towards a copse of pines, half a mile distant, that had taken root in the sandy soil. All three of the heavy cannon were primed and ready to fire, their gun crews, under Mesa's command, standing

by with lighted tapers.

'Your war animals are very fast,' observed Teudile as he watched the receding line of horsemen.

'As fast as the wind,' said Cortés.

Teudile's eye was suddenly caught by the fleet of great carracks and caravels moored out in the bay; though visible from beneath the awning, it was as though the ships had only now attracted his attention. He and the other delegates stood staring at them, speaking amongst themselves in hushed tones. 'What do they say?' Cortés asked Malinal.

'They wonder if your ships are your temples,' she answered, and again her eyes seemed to communicate something private and personal to Cortés. 'They are interested in the sails because Quetzalcoatl is a god of the wind.'

A mile away on the beach, the cavalry split elegantly into two files, a standard battleground manoeuvre, curved out left and right in great semicircles, reformed into a single line and came charging

back.

Tearing their gaze away from the ships, the Mexica officials watched open mouthed as the horsemen galloped full tilt towards them, their hooves drumming on the packed, wet sand, their bells jingling, lances and armour flashing in the sun. Cortés waited until the troop had passed beneath the viewpoint and gave the signal to Mesa; at the same moment he, Malinal, Aguilar and all the other Spaniards nearby raised their hands unobtrusively and covered their ears. The Indians were so absorbed in the display of the cavalry, and the ships looming out in the bay beyond, that they noticed nothing until all three of the lombards discharged at once with a tremendous, earthshaking concussion and recoil, fire billowing from their barrels, great clouds of noxious smoke rising up and the whistle of the three seventy-pound balls flying through the air.

Cortés found the effect on the Mexica comical, and it was only with great difficulty that he was able to stop himself laughing out loud as every one of them, even the painted Cuahchics, threw

themselves down with great shrieks and howls of fear, rolling and moaning in the sand. Nor was their ordeal over. Even as Teudile tried to get to his feet and recapture some of his shattered dignity, Cortés gave another signal and his entire corps of fifty musketeers marched forward, levelled their weapons at wooden targets that had been set up thirty paces distant and fired over the heads of the Indians, provoking more groans and screams of terror. With a despairing cry, Teudile threw himself once more onto the sand.

Again, Cortés noticed, it was only the artists who maintained any kind of self-possession, quickly returning to their paints and parchments to sketch accurate images of the cannon, the muskets and the galloping cavalry.

* * *

Over the next two hours, with looks of awe and sighs of wonderment, the Indians were shown the splintered and shattered

targets, inspected the shredded and flattened pines in the copse where the cannonballs had struck, and were allowed to see the lombards fired again and a further demonstration of sharpshooting by the musketeers. The fifty dogs that Vendabal and his assistants had armoured were then brought out in a pack and paraded before them, and half a dozen of the largest animals, fed to satiety to reduce the risk of a serious accident, were let loose amongst the delegates and bounded threateningly around them, sniffing and snarling at their feet. A mastiff knocked one of the priests to the ground, planted its forepaws on his chest and dripped gouts of saliva on his face through bared fangs before an assistant drove it away from him with a whip. A greyhound cocked its leg and urinated on the hem of the young magician's ornate feathered cloak.

The last marvel, to which Teudile, Pichatzin, one of the carmine-cloaked officials, two of the artists, two of the priests and all four of the magicians were treated, was a visit by longboat to the *Santa Maria*, bobbing at anchor in the bay. Malinal advised strongly

against allowing any of the sorcerers on board, but Cortés convinced her that he, his men and his ships – and she too – were invulnerable to their spells. 'Let them do their worst,' he laughed. 'It will avail them nothing.'

The Mexica were struck dumb with amazement, their eyes wide and their jaws gaping as they were shown around the great carrack, taken above and below decks, and even into the stateroom. Then, since a good breeze was blowing, Cortés ordered the crew to put the ship under full sail, provoking gasps and exclamations of childlike amazement from the visitors who picked their way gingerly from side to side, looking down over the railings at the foaming waves as they raced around the bay. Not long afterwards, however, they all became seasick – an affliction that Malinal, who'd proved to be a good sailor, had ceased to suffer from after her first day at sea – and lay about miserably on deck, groaning and clutching their bellies until the short excursion was over and the *Santa Maria* was again at anchor. Cortés then brought out two large jugs of a potent red wine

he kept under lock and key in his stateroom. 'Tell them this is medicine that will help them,' he said to Malinal with a wink. She poured cups for each of the delegates, from which they drank hesitantly at first, then enthusiastically, and were soon much restored.

'Since we have eaten your food,' Cortés told Teudile, 'I desire now that you eat some of ours, even though it is very different.' He offered them biscuits, bacon and beef jerky, washed down with so many more draughts of strong red wine that they all quickly became drunk – which rendered them merry and sentimental. Pichatzin led them in a rendition of several Mexica love songs for the benefit of the Spaniards, and the eldest sorcerer went so far as to kiss Cortés's hands, telling him that he had never in his life enjoyed such a fine drink. Even Teudile admitted that his heart was 'gladdened' by the medicine.

As darkness fell, fatigue overcame the delegates, their eyelids drooping closed. Cortés offered to have them ferried back to shore

but Teudile, who had stretched himself out full length on the deck, refused. 'We will sleep here,' he said drunkenly.

Moments later, he was snoring.

Cortés grinned at Malinal. 'You've done very well today,' he said. 'I'm grateful to you.'

'It was nothing,' she replied in Castilian, understanding and answering without help from Aguilar.

'You've done well too, Jerónimo,' Cortés said, clapping Aguilar on the shoulder. 'A good day's work. But I believe the lady and I can manage these fellows until the morning.' He nodded towards the sleeping Indians. 'Take the longboat back to shore; send it out for us again at daybreak.'

'I am not required here?' The ugly emotion of envy was plainly written on Aguilar's face.

'Tonight? No.'

'And Puertocarrero? Will he not need his woman?'

'You trespass, Jerónimo, on matters that do not concern you.

Return to shore. I'll see you in the morning.'

Chapter Fourteen

Thursday 29 April 1519

Covered in the dust of the road, footsore and offended, Tozi reached Tenochtitlan on the afternoon of the third day after her departure from Ishtlil's camp. She was offended – or more accurately, she thought, deeply *hurt* – because Huicton had not permitted her to accompany him on his journey to Tlascala for further negotiations with Shikotenka, and from there to the coast to deliver Ishtlil's message to Quetzalcoatl. 'This is diplomacy,' the old man had insisted bluntly, 'and your presence will not be helpful.

Where I need you now is back in Tenochtitlan, invisible, spying on Moctezuma, keeping us up to date with his schemes and manoeuvres, not at my side in full view in the courts of powerful men.'

'But I can help you,' Tozi had protested. 'I can work magic. I can make them see things our way. I made Ishtlil see things our way, didn't I?'

'You don't seem to realise how close to disaster we came with Ishtlil,' Huicton had replied gravely. 'Your rash behaviour put us both in great danger. I'm not prepared to take the same risk with Shikotenka, much less with this foreigner camped at Cuetlaxtlan who you continue to insist must be Quetzalcoatl.'

Tozi stamped her foot. 'He *is* Quetzalcoatl! I am called to his service.'

'Perhaps he is,' Huicton reflected, 'and perhaps you are. But perhaps not. Either way, I won't have you there.'

'You can't stop me,' Tozi sulked. 'I'll make myself invisible. You

won't see me until I choose to show myself.' Even as she uttered the words she realised how childish she suddenly felt and sounded.

Huicton sighed. It was the weary sigh of an old, old man. 'My dear,' he said, 'I trust you to do what you are good at – and you *are* a very good spy – but you must also trust me to do what I am good at. I've been a diplomat and a negotiator for half my long life. This next meeting with Shikotenka is one I must hold alone, and our first encounter with Quetzalcoatl, if that is who he really is … well, I must hold that alone also. I will not keep you apart from him for long, I promise, but now is not the time for you to meet him. Besides, I mean what I say, Tozi, your place is in Tenochtitlan. Observe Moctezuma. Continue to undermine his confidence and his judgement, work on the destruction of his mind. This is where your skills are needed.'

But now, as she entered the Mexica capital from the north along the Azcapotzalco causeway, now as she made her way through the bustling market square of Tlatelolco in the late-afternoon sunlight,

now as she approached the sacred precinct overshadowed by the great pyramid, now as the gates of the royal palace itself lay before her, Tozi found that Moctezuma was not the first focus of her thoughts.

* * *

A woman! What was this? How dare he?

To Tozi's horror, when she stole invisibly into Guatemoc's bedchamber later that night he was not alone.

Instead, in that room lit by flickering torches, she found him naked with a girl named Icnoy, a girl with a slim waist and big breasts and round buttocks, who she recognised as a member of Moctezuma's own harem. But in the Great Speaker's lavish bed, thanks in large part to her own efforts, Tozi had never once seen the effect that a ripe and willing female body could have upon a man; Moctezuma's little *tepulli* was always limp and thin, like some foul

worm, no matter how Icnoy or the other women of the harem sought to persuade it.

Not so with Guatemoc. His *tepulli* was long and thick and wrapped around with pulsing veins, and at this very moment he was thrusting it vigorously in and out of Icnoy, who was on all fours in front of him like some animal, the lips of her *tepilli* swollen and glistening as he entered her deeply, withdrew until almost his whole *tepulli* became visible, then plunged in again whilst she wiggled and circled her bottom, all the while uttering little grunts, gasps and yips of pleasure. Now his hands moved forward to fondle and squeeze her breasts, now he gripped and spread her plump cheeks, now he reached back to squeeze her feet, now he caressed her sleek black hair which hung down damp with sweat around her face.

Altogether it was a disgusting, intimate, unsettling scene, and yet … and yet … Tozi could not tear herself away, and felt her own *tepilli* parts grow hot and moist between her legs as she watched, spellbound, for what seemed like hours. Finally, when the two of

them were done, they lay exhausted, legs and arms intertwined, sighing and stroking one another, and then – worse in a way than all the rest of it – Guatemoc rolled on top of Icnoy and pressed his open mouth against hers, and they kissed, and kissed, and kissed, their tongues working, slurping and sucking at each other, saliva dripping.

Horrible! Tozi thought. Truly horrible! She couldn't believe it. Guatemoc was hers! In her own mind she had already sworn herself to him, and yet here he was, surrendering himself so completely to another.

At last the kiss stopped and the pair, still entangled, seemed to fall asleep. Icnoy snored gently. Guatemoc rolled onto his back, his breathing heavy and regular. Silent, invisible, insubstantial as air, Tozi watched. She had intended to show herself to the prince tonight, reveal herself, and there had been so much she had wanted to say. Instead she had witnessed this shocking, deeply disturbing scene.

Nor was it over! Soon enough, the couple stirred again, Guatemoc's hand slipped between Icnoy's thighs, and she moaned and writhed and coiled herself around him.

Unable to bear it a moment longer, Tozi fled from the room and out into the night.

Chapter Fifteen

Friday 30 April 1519

Before dawn, Icnoy arose and dressed, fretting she would be caught.

'Don't worry,' Guatemoc reassured her as he stretched and yawned on the bed. 'Moctezuma's got … what? Fifty concubines? A hundred?'

'He has more, great lord,' the girl replied. 'Close to two hundred.'

'Well, there you go then! Out of two hundred girls, you don't think he's going to miss one, do you?' He slipped his hand under

the hem of her tunic and caressed her smooth inner thigh. 'Although mind you,' he added, 'you are a little bit special, I have to admit.'

Icnoy giggled shyly. 'The great lord flatters me.'

'It's no more than you deserve,' said Guatemoc. He'd passed her in a corridor of the royal palace yesterday. She'd caught his eye, so he'd followed her into one of the secluded gardens where they were hidden from view amongst the fruit trees, propositioned her – if you don't try your luck in this world you never win anything – and, to his amazement, she'd agreed to slip out that night and visit him in his town house.

And what a night it had been! She'd told him Moctezuma, never a sexual adept, had been entirely impotent for several months – which perhaps explained her willingness to take the incredible risk of cuckolding the monarch; she had fallen into Guatemoc's bed with truly delightful enthusiasm and excitement. What they'd done was dangerous for both of them, but Guatemoc wasn't worried. On the

contrary, he rather thought he'd try his hand with a few more of the Great Speaker's women; poor, needy creatures such as he now knew them to be, it would be uncharitable not to offer them the same consolation he'd given to Icnoy.

Not bothering to dress, he escorted her to the servants' entrance, which opened discreetly onto an unfrequented alley, gave her a passionate kiss and a playful slap on the bottom, and watched her as she slipped away into the darkness pulling a shawl over her head. In the east, where the sun would soon rise, a blush of the softest pink touched the sky. The morning air was cool and fresh. Guatemoc took a deep breath, then another. By all the gods of the thirteenth heaven, he was glad to be alive!

Too energised to return to bed, he performed his ablutions, called on his butler for breakfast, and strolled out into the courtyard to work up an appetite with an hour of vigorous exercise.

* * *

Around mid-morning, Guatemoc's closest friends Man-Eater, Starving Coyote, Fuzzy Face, Big Dart and Mud Head paid him a call. High-born scions of five of the noblest, wealthiest, and most powerful families of Tenochtitlan, Eagle and Jaguar warriors every one, they were the captains of his own elite fighting squad. It was they who had carried Guatemoc off to safety after Shikotenka had left him for dead on the night of the great battle with the Tlascalans. But for these five and their decisive action, Guatemoc, helpless at death's door, would certainly have perished when the Mexica field army, more than thirty thousand strong and under the direct command of general Coaxoch, had first been divided into two parts by a clever ruse of Shikotenka's, and then slaughtered so efficiently that hardly three thousand shattered and demoralised men had made it back to Tenochtitlan alive.

But it was a reverse, not a disaster. The Mexica nation was populous, its resources immense, and though one army had been destroyed, five more of equal size were still intact, ready to mete out

revenge and gather victims for sacrifice. With four regiments per army, and eight thousand men per regiment, this meant a combined total muster remaining of one hundred and sixty thousand regular soldiers – and that before the hundred thousand auxiliaries available from vassal states were counted, or the fifty thousand Otomi and Chichemec mercenaries Moctezuma had also recently hired. All in all, the vast Mexica war machine was unmatched by any other nation, and was big enough to smash Tlascala to pulp; big enough to crush Ishtlil like a bug; big enough, despite recent reverses, to impose and maintain Mexica hegemony throughout the One World for a thousand years.

If – and this was the point – *if* there was the will.

'We require, indeed we demand, in fact we insist,' said Man-Eater to Guatemoc, 'that you be appointed commander in chief of the five armies.'

It was what Guatemoc wanted, it was what he had begun to manoeuvre for, and his friends and their powerful families played a

crucial role in his strategy. But there were obstacles in the way that would first have to be cleared. Most notably, no one could be appointed commander in chief unless he was first a member of The Thirty, the Supreme Council that advised Moctezuma on all matters of State. The problem here was not Guatemoc's blood; as the Great Speaker's own nephew, that could hardly be questioned. Nor was it his age – for younger men of exceptional quality had served amongst The Thirty during previous reigns. No, the heart of the matter was that every place on the council was already filled by nobles in good health, and a vacancy would be needed if Guatemoc were to join.

'There's the problem of The Thirty,' he said casually.

'We've thought about that,' replied Nezahualcoyotl, whose name 'Starving Coyote' was entirely appropriate, since he was small, fast and lean-flanked, with shrewd brown eyes and somewhat prominent ears.

'And what conclusion have you come to?' Guatemoc asked.

‘I have received a vision,’ said Starving Coyote with a straight face. ‘The spirit of prophecy has come upon me and revealed to me that by tomorrow The Thirty will become The Twenty-Nine. Councillor Tototl is to meet with a tragic accident tonight.’

‘I see,’ said Guatemoc. He smiled. ‘You feel there can be no doubt over this prophecy?’

‘None at all. Which means, of course, in these troubled times, that a new councillor will have to be appointed immediately. Our fathers are with us on this. They will raise the matter with Moctezuma when the council meets tomorrow and you must ask your father to do the same.’

Guatemoc’s father was Cuitláhuac, younger brother of Moctezuma and now the second most powerful lord of the Mexica following Coaxoch’s humiliating death at Shikotenka’s hands. Cuitláhuac was a stickler for procedure; three months ago there would have been no chance of him supporting a bid by his firebrand son to be appointed a member of The Thirty and commander in

chief of all the nation's armies. Following Moctezuma's cowardly attempt to have Guatemoc poisoned, however, things had changed. 'Under the circumstances,' Guatemoc agreed, 'he might lend his weight to this.'

'Nothing could be more urgent,' said Cuatalatl, whose nickname 'Mud Head' had been with him since childhood, its origins long forgotten. 'Moctezuma is losing his grip. We all know it.' So strong he could lift a dozen men on his arms and shoulders, Mud Head was deeply insecure. Now he looked around at the others for reassurance, as though he feared he'd gone too far, said too much.

Ixtomi – 'Fuzzy Face' – grinned through the straggly beard that he'd been unsuccessfully attempting to grow since he was a teenager. 'Losing his grip?' he echoed. 'I'd say he lost it long ago. He's not fit to rule this nation. If we face a crisis as the rumours suggest, then we have to take matters into our own hands.'

'We *need* you in The Thirty, Guatemoc, and we need you at the head of our armies.' It was Huciimuh's – 'Big Dart's' – turn to

speak. He was handsome, somewhat long-nosed with unusually round eyes, high cheekbones and a firm chin, but he got his nickname from the fabulous size of his *tepulli* which, it was often jokingly suggested, could be used as a weapon in battle and would soon have all the enemy on the run. 'I believe the rumours,' he added, 'and I think we're about to face a great test. I feel it in my bones. We must put ourselves in a position where we can sweep Moctezuma aside when the need arises. If we fail to do so, the day will come when all will be lost.'

The rumours concerned Guatemoc greatly – far more than he had allowed his companions to realise. They concerned him because they seemed in every way to bear out the warnings of the return of Quetzalcoatl that the elusive goddess Temaz – if she was indeed a goddess! – had given him. He did not know, yet, exactly what to make of this. He only knew that for days Tenochtitlan had seethed with alarms concerning the white-skinned bearded strangers – perhaps gods – who had destroyed an enormous Mayan army at

Potonchan and had since appeared at Cuetlaxtlan, within the borders of the empire. Rumours of gloom and destruction had spread everywhere, dangerously undermining public morale. Although civic laws forbade gatherings of more than twenty people in any one place, assemblies of scores, even hundreds, were seen every day on every street corner, where the gossip was of imminent destruction. As Temaz had uncannily foreseen, many said that Quetzalcoatl had returned to overthrow Moctezuma and all who stood by him, to end human sacrifice, to tear down the temples of Hummingbird and Tezcatlipoca, and to punish the Mexica for their wickedness and cruelty. Terror, astonishment and dejection filled the air and the people were everywhere in distress, some exchanging tearful greetings, some seeking to encourage others. Here was a father smoothing his little son's hair, comforting him against what they all believed was about to come to pass. Here was a mother, weeping, bidding farewell to her children as though she feared she would never see them again. It was said that the white men were

few, that they were many, that their bodies were made of shining metal, that they possessed fire-serpents, that wild beasts obeyed their commands, and that they had been seen riding on great deer, tall as houses, and flying on the backs of eagles. Now they were a day's march from Tenochtitlan, now they were at the gates, now they were already within the city, cloaked with invisibility but about to materialise and strike the populace down at a single blow.

It had so far proved impossible to discover the source of the rumours that seemed to proliferate simultaneously, in endlessly new variants, in every quarter of the capital and, moreover, were not confined to Tenochtitlan, but were equally prevalent across the lake in Texcoco and Tacuba. Such was the turmoil, such the unrest, that yesterday the Great Speaker finally conceded what he had attempted to keep secret before – namely that he had already opened negotiations with the strangers, who he indeed believed to be gods; that his steward Teudile had met with them and that he must even now be making haste along the road back to

Tenochtitlan.

It was eerie, Guatemoc thought, uncanny really, how the one who called herself Temaz had foreseen all this. He called to mind her words again: 'The time will come, Prince, when you will have to choose. I can only hope you choose wisely.'

There was no doubt in Guatemoc, no hesitation at all. If Quetzalcoatl was really coming, then the only choice for him was to confront the interloper, fight him tooth and nail. Clearly this was not what the Lady Temaz wanted, but he could not concern himself with the whims of a fickle and elusive goddess when the fate of the nation hung in the balance.

Chapter Sixteen

Saturday 1 May 1519

By age-old custom, the meetings of the Supreme Council were held in the assembly room of the House of the Eagle Knights, an imposing rectangular structure of dressed ashlars that dominated the south side of the great plaza adjacent to the pyramid of Hummingbird. Moctezuma sat upright on a stone plinth at the centre of the room, arrayed in his purple robes of state with golden sandals on his feet. The walls around him were painted with richly coloured scenes of ritual warfare, and jutting out from their base

were low stone benches decorated with panels in bas-relief, showing intertwined serpents above processions of warriors holding blood-letting instruments and giving homage to Mictlantechutli, the god of death. On these benches sat the councillors, numbering only twenty-eight today since Teudile was still on his way back from the coast, and since Tototl, one of Moctezuma's staunchest supporters, had fallen to his death from his roof garden the night before. Moctezuma was quite certain poor Tototl had been murdered, and his suspicions grew all the darker as he listened first to one councillor then another proposing that Guatemoc – that swollen-headed upstart! – should be appointed to fill the vacant place.

Amongst Guatemoc's principal sponsors, Moctezuma noted, were Chancellor Maxtla, Chief Judge Yayau, Apanec, the Keeper of the House of Darkness, Zolton, the Keeper of the House of Arrows, Tzoncu, the Keeper of the Chalk and, last but by no means least, Cuitláhuac, the royal younger brother, who he'd recently appointed to the role of Serpent Woman, the second office in the land,

following Coaxoch's unfortunate demise in battle. It was surely no accident that Cuitláhuac was Guatemoc's father, while the other five were the fathers of Guatemoc's closest associates. Moreover, they'd somehow managed to get the support of Aztaxoch, the Chief of the Refugees from the South. Totoqui, the poet-king of Tacuba, was also with them. Even that snivelling, ungrateful worm Cacama, Lord of Texcoco, who Moctezuma had recently elevated over Ishtlil, the rightful heir, was now enthusiastically praising Guatemoc's qualities. Many others, like a mindless flock of little birds, were swinging the same way.

A discordant note was struck by Chimalli, titular head of the Pochteca guilds, who proposed Xipil, one of Tenochtitlan's richest merchants, as his candidate. When he had finished speaking, Cuitláhuac again took the floor. 'With respect, revered Chimalli,' he said, 'your own presence on our noble council, in itself unthinkable even a generation ago, is more than adequate recognition of the importance of the merchant class. No doubt the day will come when

even street traders and stallholders will claim a right to sit amongst The Thirty, but now is not that day. We do not face an auction or a property deal. We face war with a powerful enemy. My son Guatemoc is the pre-eminent warrior of the land and a hero whose miraculous survival of horrific battle injuries leaves no doubt he is beloved of our gods.' Cuitláhuac turned to face Moctezuma: 'The decision is of yours alone, sire,' he said, but I urge you to reflect deeply and appoint Guatemoc not only to your council, but also as commander in chief of our armies. No man could be better suited to the task or to the responsibility.'

As a sigh of approval echoed around the room, Moctezuma kept his face grave and expressionless, aware – as others were not – of the subtle undertone in Cuitláhuac's words and in his manner. A few months ago, his younger brother would never have dared to speak out in this way, but then, crucially, had come the failed poisoning plot, instigated by Moctezuma himself in the hope of doing away with Guatemoc once and for all while he lay gravely wounded and

already close to death in the royal hospital. Unfortunately – and, rumour had it, through supernatural intervention – Guatemoc had discovered the plot, Cuitláhuac had intervened and the poisoner Mecatl had been caught red handed. Of course Mecatl had claimed he was acting under Moctezuma's orders and had failed to recant while being flayed alive. Moctezuma, for his part, had absolutely denied any involvement, but it was obvious that Cuitláhuac suspected the truth.

It was this, more than anything else, that distorted today's discussions. If Moctezuma had not in fact tried to have Guatemoc poisoned, he would have found it much easier to exclude him from the council. As it was, however, any attempt on his part to keep the upstart at bay was bound to be seen by Cuitláhuac as further evidence that he had after all been behind the plot. Besides, there might be a virtue to be made of necessity here. 'Keep your friends close,' in the words of the famed strategist Tlacaelel, who had formalised the rituals of human sacrifice a century before, 'but keep

your enemies closer.'

'Very well,' Moctezuma announced abruptly, noting with satisfaction how the chattering, whispering voices that had filled the assembly room at once fell silent and twenty-eight pairs of eyes swivelled in his direction.

He paused for effect. Twenty-eight heads tilted and twenty-eight pairs of ears quivered with anticipation.

'I have decided,' Moctezuma continued, 'that the loyal and worthy Guatemoc, hero of our nation, is appointed a member of The Thirty with immediate effect.'

A further collective sigh of approbation.

'He is young, true, but he is skilled in war and we will value his counsel.'

'I am grateful to the revered Speaker,' Cuitláhuac said, 'but as to the other matter raised—'

'What other matter would that be?'

Cuitláhuac's posture slumped. Clearly, and this was as it should

be, he had not yet forgotten his habit of deference to his older brother. Nonetheless, Moctezuma noted with displeasure, he was determined to speak.

'It is the matter of our armed forces,' Cuitláhuac continued. 'We cannot leave them long without a commander in chief.'

'And you wish me to consider Guatemoc for this role also?' Moctezuma's tone conveyed deep disapproval, even disgust.

'I do, sire, if it pleases you.'

'I do not know yet whether it pleases me or not. Let us first see how your son – my royal nephew – performs in his new position as councillor. If he does well, who knows, we may even decide to appoint him to the high office you seek for him. But if he fails, then that will be another matter.'

Some minutes later, after a number of routine points of order had been dealt with, Moctezuma adjourned the meeting. Though they coloured everything that had been said, he had pointedly refused to discuss the rumours of the return of Quetzalcoatl. In a

very few days, his loyal steward Teudile would arrive from the coast with his own first-hand impressions of the god.

Until then, the only appropriate course for the royal dignity was to remain silent.

Chapter Seventeen

Saturday 1 May 1519

During Huicton's previous visit to Tlascala, he had been permitted to call upon Shikotenka in his home, and even to meet his clever and beautiful wife Xilonen, but there was no such informality about today's encounter, which took place on the floor of the Senate with almost every high notable of the fiercely independent mountain republic attending.

'Ambassador Huicton,' said Shikotenka, 'I am told you are here to persuade us to join forces not only with your master Ishtlil, but

also to throw in our lot with the white-skinned strangers who presently infest the dunes outside the Mexica vassal city of Cuetlaxtlan.'

Infest the dunes?

Shikotenka's tone was that of a man describing an outbreak of head lice, not the miraculous arrival of strange and powerful gods. And whereas at their last meeting it had been his roguish charm that had shone through, today what Huicton noticed more were the flat, impassive planes of his face, the determined set of his wide, sensual mouth, and the calculating cruelty of his eyes. In his home the young Tlascalan battle-king had worn only a colourful length of cloth wrapped around his waist that covered his legs to just below his knees, not hiding the combat scars that crisscrossed his shins, abdomen, chest and arms, and Huicton remembered thinking – *this is a man who stands and fights; this is a man who does not run away.* Now the same steadfast solidity and warrior pride that he had sensed in Shikotenka was even more apparent, and it was clear that

for some reason he had taken an intense dislike to the white men on the coast.

'You speak,' said Huicton, following an instinct, 'as though you have direct experience of these strangers.'

'I do,' said Shikotenka, his voice filled with malice, 'and you are a fool to imagine they will aid Ishtlil against the Mexica. Quite the opposite is true. They are hand in glove with the Mexica. I saw the evidence of this myself, for I was there at Cuetlaxtlan just days ago and observed a close alliance in the making. The Mexica have given these white-skins every hospitality, lavished sustenance upon them, built shelters for them to make them comfortable, and are showering them with honour and respect. The white-skins return the favour! Their arrival, in my view, is a deadly threat to all of us, for they are doughty warriors and with their support the Mexica may prove impossible to defeat. We should drive them back into the sea now, before it is too late, not seek to ally ourselves with them.'

'Doughty warriors, you say? May I take it then, Shikotenka, that

you have had direct experience of their battle skills also?'

An expression that Huicton could not read momentarily crossed the Tlascalan's face and then was gone. 'I fought one of them,' he said.

'And … ?'

'I have never met his like in combat. We were five but he killed Acolmiztli – you know who I speak of?'

'The great captain Acolmiztli? Yes of course.'

'He's dead now, slaughtered by the white-skin, and three more of my men lie in the infirmary recovering from their injuries.'

'But how? How is this possible?' Knowing the martial qualities of the Tlascalans, Huicton was genuinely stunned that five of them could have been vanquished by a single foe.

'The white-skin was unafraid of us. He wore metal armour that turned our knives. His weapons were of metal too, of a kind never seen before in the One World. I came face to face with him, dagger to dagger, but other white-skins appeared with a pack of their war

wolves and we had no choice but to flee the field—'

'War wolves?'

'They have animals, somewhat like wolves, that they have trained for war.' Shikotenka lifted the hem of the full-length tunic he wore today, showing bloody lacerations at his ankle. 'Their wolves pursued us but we outran them.'

That expression was back on the battle-king's face, and this time Huicton knew it for what it was – anguish at the loss of his comrade in arms, shame at having been forced to turn his back on an enemy, and a cold-blooded thirst for revenge.

'What of the notion that they are gods?' Huicton asked. 'I have it on good authority that Moctezuma believes their leader to be Quetzalcoatl returned.'

'As ever, Moctezuma is a fool. What we face here is not the return of the Plumed Serpent but the arrival on the shores of the One World of a new and terrible kind of men.'

'Nonetheless, Moctezuma believes they are Quetzalcoatl and his

divine companions and that they have come to overthrow him. He has sent a mission to them.'

'We saw no mission from Tenochtitlan while we were there. Only Pichatzin and his lackeys from Cuetlaxtlan, licking the white-skins' arses.'

'Moctezuma's delegation was led by his steward Teudile. Perchance it reached the white-skins after your own, er … departure.'

'After we had *fled* you mean? Perchance. But what of it?'

'I am of the opinion, lord, that there is something in this situation that we enemies of Moctezuma may exploit. True you have seen these white-skins enjoying Mexica hospitality, but we do not know yet what their real motives are—'

'That is my view also,' interjected a quiet, somewhat unsteady voice. Huicton looked up to see that the speaker was Shikotenka the Elder, civil king of Tlascala and father of Shikotenka the battle-king. Neither the aged, wizened father nor the vigorous and virile

son held their positions through blood, but had been elected on merit by the Senate and could be removed from power by the same body at any time.

'Just because you've taken a thrashing from a white-skin warrior,' Shikotenka the Elder addressed his son, 'just because your pride is hurt … '

'Just because I mourn the loss of a dear friend … '

'Even so, it does not mean we should rush to judgement. You were, if I understand correctly, in the process of carrying off one of these strangers – a mere boy, you conceded in your report to the Senate – when the man who bested you intervened?'

'It is so,' Shikotenka admitted.

'Well then this man, whoever he was, can hardly be blamed for putting up a fight to protect one of his own people. That he did so tells us nothing whatsoever about the plans of the white-skins. I agree with Ambassador Huicton. We should find out more about them before we commit ourselves to opposing them.'

‘I second that view,’ said Maxixcatzin, a venerable chief of some sixty years of age, still very strong and active, who served as deputy to both Shikotenkas. ‘If an alliance with the white-skins can make the Mexica impossible to defeat, then we should do everything possible to displace the Mexica and secure such an alliance for ourselves.’

‘Pah!’ Shikotenka was actually shaking with rage and looked furiously from his father to Maxixcatzin and then to Huicton. ‘I am tired of the counsel of old men! I have faced these white-skins, which none of you has done, and I tell you that they are not our friends. Perhaps you are right. Perhaps their seeming alliance with the Mexica is only a ruse. Perhaps in time they will eat Moctezuma up; it would not surprise me. In fact, I believe they will eat us all up! Our only hope is to confront them while they are newly arrived, while they have still not gained a proper foothold in these lands, and to destroy them utterly.’

* * *

The deliberations of the Senate went on all morning and the upshot was that Shikotenka the Younger was forbidden to mount an attack on the mysterious strangers he called the 'white-skins'. Only if they marched in force against Tlascala itself was such a move to be contemplated. Meanwhile no state of war with them was deemed to exist. They were to be watched, and watched closely, in an effort to learn what it was they really wanted, but that was all.

As he made his way out of the Senate, Huicton was approached by Shikotenka the Elder and Maxixcatzin. 'We will be pleased,' the aged civil king said, 'to hear the result of your mission to the white-skins.'

'It will be my honour, and it is my master's wish, that I should share it with you,' Huicton replied. 'I'll make a point of passing through Tlascala on my way back to Ishtlil.'

'My son opposes all alliances,' mused Shikotenka the Elder.

‘Whether with the white-skins, or with Ishtlil and his rebels, he’s loath to compromise our independence.’

‘That is understandable,’ said Huicton, ever the diplomat.

‘Even so, these are times of miracles and wonders,’ Shikotenka the Elder said. ‘We cannot stop the river of history when it flows in spate.’

‘Better to flow with it than be swept away and destroyed,’ Maxixcatzin added.

‘Indeed so,’ Huicton agreed. ‘Indeed so.’

Later that day, as he began the long trek down from the mountains to the coast, he thought long and hard on that brief conversation. The only possible interpretation was that Shikotenka the Elder and Maxixcatzin were after all in favour of an alliance with the white-skins, if one could be made. Despite its elected kings, Tlascala was a democratic place, and if they could get enough votes in the Senate they could strike a peace, even if Shikotenka the Younger opposed it.

But what if the battle-king was right? What if these white men's presence spelled the doom not just of Moctezuma, as Tozi fondly imagined, but of Texcoco and Tlascala and indeed of all the myriad peoples and all the vibrant cultures of the One World?

Despite the heat of the afternoon sun, Huicton shivered as the chill of a great responsibility settled like snow upon his aching shoulders.

Chapter Eighteen

Tuesday 4 May 1519

Watching Moctezuma's reactions as the four leading sorcerers of the court delivered their report to him, the word that came into Guatemoc's mind was *coward*. But he kept silent. Even his father Cuitláhuac, who stood second only to the Great Speaker, would not yet dare to voice such an insult. Still, there was no doubt. Now that he had been put severely to the test, Moctezuma was proving himself to be not only a treacherous deceiver and poisoner, but also a weakling and a fool.

The four sorcerers, none of whom Guatemoc had the least respect for, were squatting in a semicircle on mats on the floor of the House of the Eagle Knights, at the feet of Moctezuma, who sat on his plinth, gasping with fear and actually weeping as they recounted their dismal failure to drive the strangers away with magic. Guatemoc suppressed a yawn as ancient Cuappi tried to excuse his own utter uselessness by claiming the strangers were not human beings but gods who were so powerful that all sorcery was ineffectual against them. 'We are not their equals,' he bleated. 'We are as nothing compared with them.' Young Hecateu, with his ridiculous crested hairstyle, then claimed that the strangers were constantly on guard and this was why it had been impossible to send poisonous animals against them or cast a deep sleep upon them. Tlilpo said he had conjured up many fearsome visions but the strangers had paid no attention to them. Aztatzin supported Cuappi's view that the strangers were indeed gods, adding, 'Their flesh was so tough that even our magical needles couldn't penetrate

it, their entrails were dark and their hearts were impossible to locate. Try as we might, we couldn't harm them at all.'

'Your words have vanquished me – ' Moctezuma shed more womanly tears – 'and thrown me into confusion. Must these gods then come to Tenochtitlan? Does the future hold no hope for me?'

The magicians sat silently, their long faces filled with fear.

'Speak!' Moctezuma said. 'I command you to speak.'

Tlilpo looked at the others and seemed to share a silent communication with them. They all nodded their heads and he uttered a series of dry coughs. 'We must tell you the truth, great lord,' he said finally. 'The future has already been determined and decreed in heaven, and Moctezuma will behold and suffer a great mystery which must come to pass in his land. If our king wishes to know more about it, he will learn soon enough, for it comes swiftly. This is what we predict, since he demands that we speak, and since it must surely take place, he can only wait for it.'

'Nonsense!' Guatemoc couldn't stop himself from crying out.

‘The ramblings of imbeciles and cowards!’ He stood and glared at Moctezuma. ‘Your sorcerers offer you a counsel of despair, sire. I implore you not to heed it. Under no circumstances should we wait here passively for doom to descend upon us. We must march out, today, and fight these white men – for they are surely men, not gods, and even if they are gods we must still fight them.’

Guatemoc could feel his father’s hand tugging at his robe, pulling him back to his seat, and heard low, fearful whispers from other councillors. To stand in this way in the presence of the Great Speaker was an unprecedented breach of etiquette. ‘Sit!’ Cuitláhuac hissed. ‘Sit and apologise!’

Guatemoc remained standing and addressed Moctezuma again. ‘Forgive me, lord,’ he said, ‘but I believe it is my responsibility to speak my mind. These strangers must not be permitted to do to us what they are said to have done to the Chontal Maya at Potonchan. We must crush them now while they still linger on the coast. We must under no circumstances allow them to come to Tenochtitlan.’

Moctezuma blinked twice and wiped the tears from his cheeks with the sleeve of his robe. 'Nephew,' he said, 'you are newly appointed to our council, you have not yet learnt our ways, and your mind is still much troubled by your recent injuries. I will therefore overlook your discourtesy on this occasion,' his voice rose abruptly, 'but you will be seated *now*. Should I require your advice again I will ask for it.'

As Guatemoc subsided onto the bench, seething with indignation, Moctezuma turned to Teudile. 'Good steward,' he said, 'before we hear your report, we would like to know why it is that the whole city is informed of the strangers' victory at Potonchan, their arrival at Cuetlaxtlan and your mission to them there. Did I not caution you to keep these matters secret until we had the opportunity to consider them fully?'

'Yes, lord, you did so caution me.' Teudile had already suffered a severe public rebuke by the mere fact that the Great Speaker had asked the sorcerers to report first. His voice was now shaky and so

small as to be almost inaudible. 'I assure you that I told no one.'

'Then how do you explain the rumours? The gossip? The panic.'

'Sire, I fear a spy must be at work in the palace.'

'A spy? How can that be? We two were alone when we studied the message from the governor of Cuetlaxtlan.'

'It was not me, sire,' Teudile blubbered. 'I told no one the reason for our mission, not even the magicians, not even the priests. I kept everything to myself until we reached the coast.'

'Hmm,' pondered Moctezuma. 'Do you suppose the leak came about through our relay messengers?'

'Perhaps, sire,' said Teudile. 'Or perhaps the merchant named Cuetzpalli.'

'He knew about Potonchan only,' objected Moctezuma, 'and nothing about Cuetlaxtlan.'

'It is a mystery, sire, but I swear, on my life, I was not responsible.'

'On your life,' mused Moctezuma. 'Yes, exactly. I will think on

the matter. Meanwhile give us your report, gentle steward.'

Unlike the sorcerers, who had spoken only of their own magical dealings, Teudile's report was lengthy and detailed, and was brought to life by dozens of sketches and paintings produced by his artists. Featuring prominently amongst these, standing by the side of the leader of the strangers, was the figure of a beautiful Mayan woman. It seemed she was fluent in Nahuatl and worked with another of the strangers – who somehow spoke the Mayan tongue – to interpret the leader's words. If there were mysteries everywhere, one of them certainly surrounded this woman who, it emerged, had been held for sacrifice some months before in the fattening pens of Tenochtitlan. She had come beneath Moctezuma's knife on the night of the great holocaust – the same night Guatemoc lay bleeding from the wounds Shikotenka had inflicted on him – and, astonishingly, the Great Speaker had released her. It seemed many of the Supreme Council, including Guatemoc's own father Cuitláhuac, were aware of this shameful breach of sacrificial tradition, which had otherwise been

hushed up. But the fact that the woman now served as an interpreter for the strangers was obviously highly significant.

Moctezuma took it as further proof of their divine status and there was, admittedly, much other evidence that seemed to point in this direction. Of particular note, amongst the paintings, were images of the great boats the strangers had arrived in, including one the delegates had been allowed to board, which Teudile described as 'a thing more divine than human, a work of genius.'

Guatemoc found he had to agree. The immense and powerful structure the artists had depicted was unlike any boat known to the Mexica, seeming a thousand times bigger even than the great royal canoe that Moctezuma had commissioned to carry him on his voyages across Lake Texcoco. Moreover this craft, in which the strangers had reached Mexico, was not moved by paddles but by huge sheets of cloth that caught the wind and apparently caused it to rush forward at terrifying speeds.

Despite himself, Guatemoc could not help but be reminded of

the legends of Quetzalcoatl, which told of how he would return to claim his kingdom in a boat that moved by itself without paddles.

Was this that legendary boat?

Moctezuma thought so, and was already giving way to fresh tears as he looked through the paintings in which he seemed to find certain proof – if the words of the magicians were not enough! – that a great and terrible doom awaited him.

The appearance of the strangers – their white skin, their luxuriant beards, and some with hair as yellow as the sun – added further to his anguish. Priests were summoned to open the temple archives and bring ancient books containing images of Quetzalcoatl and his demigods, and these were found to match very closely with the paintings of the strangers that the artists had produced. Moreover, it seemed the leader of the strangers, while cunningly denying that he was a god and stating his name as Don Hernándo Cortés, had behaved exactly as Quetzalcoatl would have been expected to behave over the matter of sacrifices. He had become

furiously angry when human blood and hearts were offered to him, had beaten one of the sacrificing priests black and blue and had insisted the victims be freed. Equally telling, when offered the finery of the gods Tezcatlipoca, Tlaloc and Quetzalcoatl, he had unhesitatingly chosen the latter, and when offered a banquet of the fruits and meats of the land he had eaten everything that was put before him, thus showing himself to be familiar with the food of Mexico, as was to be expected if he was indeed Quetzalcoatl returning to claim his kingdom.

For Guatemoc, the paintings of the strangers' weapons and armour, and the descriptions given of them by Teudile, were impressive and intriguing, but for Moctezuma they were obviously terrifying. It was clear the Great Speaker already had some knowledge of these things from an earlier informant – the merchant Cuetzpalli? – whose testimony he had not shared with the Supreme Council. But it seemed they had been viewed only from afar. Now Teudile and the artists provided close, detailed observations of the

strangers' deadly fire-serpents, the horrific crashing noise they made, the clouds of smoke that emanated from them and their terrible destructive power. Then too there were the long knives and the armour of the strangers, crafted from some unknown metal, which made them deadly and invulnerable in battle.

Moctezuma had also heard before of the wild animals that the strangers commanded, already the subject of so many fearful rumours doing the rounds in the city. Teudile had not at any point seen them mount up on the backs of eagles, but he was most impressed by the huge deer they rode, faster than an avalanche in the mountains, and by the ferocious beasts that did their bidding, which he took to be some hitherto unknown species of dog. 'These dogs are enormous,' he said. 'They have flat ears and are spotted like ocelots. They have great dragging jowls and fangs like daggers and blazing eyes of burning yellow that flash fire and shoot off sparks. Their bellies are gaunt, their flanks long and lean with the ribs showing. They are tireless and very powerful. They bound here and

there, panting, their tongues dripping venom.'

Guatemoc was almost more fascinated by the expression on Moctezuma's face as he heard this report than he was by the report itself. It was as though the heart of the Great Speaker had fainted, as if it had withered, as if the strangers would not even need to confront him in battle because his own fears had already utterly defeated him.

And worse was to follow, because Teudile next told of how the leader of the strangers had taken a special interest in the Great Speaker himself, frequently expressing his intention to visit him and meet him face to face, asking many probing questions about him and wanting to know details of his age, his physical strength and his exact appearance. At this Moctezuma covered his head with his hands and said: 'I cannot fight these gods; my only choice is to flee. I know a certain cave out by Chapultepec; I will hide myself there.'

Guatemoc was about to risk his own life a second time by objecting to these craven words when, to his amazement, Namacuix,

who had recently replaced Ahuizotl as the High Priest, spoke up: 'What is this, O mighty lord,' he said to Moctezuma in a tone of outrage. 'What folly is this in a person of such courage as you? If you run, if you hide, then what will our enemies the Tlascalans say? What will Huexotzinco, Cholula, Tliluhquitepec, Michoacan and Metztitlan say? Think of the contempt they will have for Tenochtitlan, this city that is at the heart of the entire world. Truly it will be a great shame for your city and for all those who remain behind you when the news of your flight becomes known. If you were to die, and they had seen you dead and buried, it would be a natural thing. But how can one explain flight? What will we say, what will we answer, to those who ask about our king? Will we have to say that you have abandoned us? This cannot be, lord! You must strengthen yourself! You must stay on your throne!'

A terrible hush had fallen on the councillors gathered in the assembly room, all of them no doubt waiting, Guatemoc thought, for Moctezuma to order the High Priest's summary execution.

Instead the Great Speaker, with a mournful look, merely sighed and said: 'You are right, Namacuix. Thank you for reminding me of my duty. I will master my heart and await my doom here in this city, for my fate has been ordained and Quetzalcoatl has returned to vent his ire against me. But know this! All of us will die at the hands of these gods, and those who survive will be made their slaves and vassals. They are to reign now, for it is fated that I am to be the one to be cast from the throne of my ancestors and leave it in ruins.'

Again, to the profound embarrassment of all present, Moctezuma began weeping.

Guatemoc looked round at the other councillors. Here were his sponsors – Apanec, Zolton, Tzoncu, Maxtla, Yayau – the fathers of his friends. Here was Aztaxoch, the Chief of the Refugees from the South, Here was Cacama, lord of Texcoco, Moctezuma's picked man elevated over Ishtlil, the rightful heir. Here was Totoqui, the poet-king of Tacuba. Here was Guatemoc's own father Cuitláhuac, here Namacuix, here Teudile – and all the others sitting stunned

and mute as they observed the catastrophic disintegration of their Great Speaker, the man they had feared above all others, the man they had all sworn to follow and to obey unto death.

It was Teudile who broke the silence. 'It may not be as bad as it seems, sire,' he sought to reassure Moctezuma. 'There is yet hope! I have met these gods, if they are gods, and men if they are men, and they showed great warmth and friendship towards me and towards you, Your Majesty. They embraced our delegation, they ate our food and shared theirs with us, and they insisted that they mean us no harm. In my opinion, lord, you should do everything in your power to gratify them in order not to anger or displease them in any way.'

'Did they indicate,' asked Moctezuma with a sniff, 'how they might be gratified?'

'Yes, lord,' answered Teudile. 'There are two matters that seem to be of paramount importance to them. The first is their great desire to journey here, to Tenochtitlan. Claiming to be men, as they

do, they say they serve a powerful emperor who dwells across the eastern ocean, where he rules a rich land called Spain. They say it was he who sent them here for the express purpose of meeting with you and establishing diplomatic relations between his land and ours.'

'That seems harmless enough,' offered Cacama, the smooth and pampered ruler of Texcoco. 'Perhaps they are indeed men, as they say they are, in which case I think we should agree with this request.'

Moctezuma sat brooding on his plinth. 'I don't like the idea of them coming here,' he said finally. 'I don't like it at all.'

'Nonetheless, sire,' persisted Cacama, 'my advice is that if you do not admit the embassy of a great lord such as this King of Spain appears to be, it is a low thing, since princes have the duty to hear the ambassadors of others. If they come dishonestly, you have in your court – ' and at this he looked pointedly at Guatemoc – 'brave captains who can defend us.'

‘And if they are in fact gods?’ asked Cuitláhuac, who had kept silent until now.

Moctezuma looked up: ‘Speak, brother,’ he said.

‘Suppose they deceive us with this talk of being men, as gods are known to do? Suppose the leader of these strangers really is Quetzalcoatl come to overthrow you?’

Moctezuma nodded: ‘Suppose it is so … What then, brother?’

‘My advice,’ said Cuitláhuac, ‘is not to allow into your house someone who will put you out of it.’

Moctezuma nodded again and turned his eyes back to Teudile. ‘You said, gentle steward, that there is a second matter of great importance to the strangers by which we might gratify them.’

‘There is, lord … ’ Teudile reached down to the floor beside his bench and brought up a battered metal helmet. ‘The second matter is gold. The strangers say they have great need of it. They say, indeed, that they suffer an ailment of the heart that can only be cured by it.’

* * *

From the moment that the strangers' love of gold was mentioned, and their impudent ploy in claiming they needed it for their health, Guatemoc ceased to have any doubt about their identity. As he'd suspected from the outset, these were not gods but audacious men, bandits, risk-takers armed with powerful unknown weapons, but men nevertheless. Serving as their interpreter, the Mayan woman Malinal would of course have informed them about Quetzalcoatl, who their leader Cortés resembled simply by chance, enabling him to act the part. Yet it was notable he had never in fact claimed to be Quetzalcoatl, leaving that conclusion to the gullible and superstitious minds of the Mexica themselves.

Clever, Guatemoc thought. *Very clever!*

Then there was the business of the strangers' helmet. Moctezuma had called for the sacred helm kept in the temple of Hummingbird to be brought forth, and almost lost his senses when

he saw similarities between the two objects. Guatemoc was less convinced by the likeness; what interested him more was Cortés's opportunism in asking for the helmet to be returned filled with grains of gold from the mines, supposedly as a present for his far-off emperor. Were that request to be granted, Guatemoc reasoned, then this daredevil pirate would gain valuable and dangerous knowledge. It would confirm that the land of the Mexica was rich in gold and therefore well worth attacking!

So, as the meeting of the Supreme Council went on from afternoon into evening, with many different points of view and many competing arguments expressed, Guatemoc found himself increasingly opposed to the emerging consensus. This was that excuses should be made to refuse the strangers' wish to come to Tenochtitlan – that the road was too long, that it abounded in thieves, that it was beset by the enemies of the Mexica, that there were dangerous cliffs to scale and rivers to cross, that the passes were too high and frozen all year round … and so on and so forth.

At the same time, the strangers' other wish – that the helmet should be returned filled with grains of gold – was to be granted. And not only that. Moctezuma, who was gaining courage from the idiotic notion that these predators could simply be bought off, was in favour of giving them other gold presents – and in huge quantities. He had in mind the spectacular calendar disk of solid gold, as tall as a man and a span thick, that he had commissioned the year before. To this he would add, since the strangers had also expressed a desire for presents made of silver, a second disk of similar size cast from the highest grade of silver and representing the full moon. There would in addition be ten basket-loads of beautiful gold figures – of animals, birds, gods and goddesses – and ten basket-loads of costly gold jewels, including necklaces, pectorals and arm rings, ankle rings, and many other fine things. Warming even further to the idea, the Great Speaker now insisted that this vast treasure should be prepared with the greatest haste and a caravan made ready to set off for the strangers' camp near Cuetlaxtlan the next day.

‘Sire,’ said Guatemoc. ‘May I be permitted to speak?’

Moctezuma glared at him: ‘Speak, nephew, but be brief. My mind is made up.’

‘Sire, I beg your forbearance but I believe we are about to make a terrible mistake. The reasons it has been suggested we give to the strangers to persuade them they cannot make the journey to Tenochtitlan are foolish and obviously untrue. They know already from Teudile’s visit to them that our own emissaries can make the journey in less than six days, and this will be proved to them again when the caravan reaches them so soon. If we can travel the roads in so short a time, and suffer no harm, then the strangers will realise that they can do so also. They will rightly take our excuses as signs of our vulnerability and fear. At the same time, the golden treasure you propose sending them will not satisfy but whet their appetites, convincing them if we can be so generous that we must have much more in reserve – and I have no doubt they will want that too. In short, we will show them our weakness while at the same time

igniting their greed and inducing them to attack us. Nothing could be more dangerous, sire. I urge you to consider another plan.'

'Which would be what, exactly?' Moctezuma asked.

'Give them death, not gold. Allow me to assemble ten of our most seasoned regiments, eighty thousand fierce warriors, and lead them at once on a forced march to the coast. While the strangers wait unsuspecting for the rich presents they believe they have bullied us into giving them, we will approach their camp by stealth and fall on them without mercy. Permit me to do this, lord, and I promise you not a man of them will be left alive to carry news of their fate back to their native land.'

Chapter Nineteen

Thursday 6 May 1519

'I couldn't help noticing you keep a diary, Senor Díaz,' Pepillo said, 'and how often you make entries in it.'

'I've noticed you do the same, lad.'

'I keep mine for the caudillo so events can be fresh before him when he comes to write his memoirs. And you, sir – do you plan some such thing? By the end of this campaign I warrant you'll have an incredible story to tell. I'm sure there's many who would want to read it.'

‘What? A story by an illiterate idiot like me?’ Bernal Díaz always felt enormously uncomfortable when other soldiers made jokes about his constant scribbling. Along with his good friend Gonzalo de Sandoval, he’d been promoted to the rank of ensign by Cortés before they’d sailed from Cuba. But, unlike Sandoval, who was of noble stock, though fallen on hard times, Díaz had never become used to officer status, and always felt himself to be one of the men, indeed one of the lowliest amongst them. As such it was somehow unfitting – almost unseemly – to reveal that he could not only read but also write fluently.

Díaz was doing his rounds of the camp perimeter, accompanied this early evening by Pepillo and the dog Melchior, which he himself had given to the boy after the battle against the Maya at Potonchan. The dog, though still very young, had proved its worth ten days before when it had played its part in saving Pepillo from abduction, and probably murder, at the hands of a group of Indians. Since then security had been strengthened and a fence of thorn

bushes now ringed the camp, incorporating the cannon emplacements that artillery chief Francisco de Mesa had set up when the Spanish first arrived. Previously the main gate on the south side of the camp, through which flowed the constant stream of supplies from Cuetlaxtlan, had been more symbolic than functional, but now it was one of only four openings in the fence – the others lying to the north, east and west. All were kept under permanent guard.

'With respect, sir, you're neither illiterate nor an idiot,' Pepillo responded. 'You're a brave soldier with a gift for words who was in the thick of it at Potonchan and will likely be in the thick of it again.' A grin: 'Turn your memoirs into a romance and you might sell thousands of copies, as did García Rodríguez de Montalvo with *Amadis de Gaula*. You could make yourself a rich man.'

'Ha!' Díaz laughed. 'That'll be the day. Money's never stuck to me, unfortunately.'

'Still, sir, if you'll permit me to say so, you shouldn't dismiss the

idea. This adventure we find ourselves launched upon is in many ways more strange and fabulous than anything in Amadis. The people of this land – so savage and yet so fine. Their practice of human sacrifice, their beautiful and wondrous clothes of feathers, their pyramids, sir, their way of battle. Someone has to write all this down, or in later times it will never be believed.'

'But if I write it as a romance, Pepillo, it will never be believed anyway.'

'Well, that's true, sir, no doubt, but still I and many others would like to read it.'

Díaz chuckled. Since the strange events on Cozumel soon after the fleet had first reached the new lands, he'd felt a special responsibility for this boy who seemed always to be getting himself into scrapes and difficulties. The death of Pepillo's close friend Melchior at Potonchan had all but destroyed the lad, which was why Díaz had gifted him the lurcher pup Melchior, which now bounded around happily at their feet.

Pepillo threw a stick and the lurcher went after it, barking madly, tearing through the long grass of the dunes.

'Your dog's doing well,' said Díaz, 'despite that whipping Telmo Vendabal gave him and the fight he got into with those Indians.'

'Oh yes,' said Pepillo proudly. 'He's quite a hero … ' A worried look crossed his face and the energy went out of his voice, 'But I'm afraid, sir, very much afraid, that Don Telmo will take him away from me and put him with the other hounds to be trained for war.'

'Surely the caudillo wouldn't allow that,' exclaimed Díaz. 'His own page's pet dog!'

'But that's just it, sir. Since the fight with the Indians, my master keeps saying that Melchior's no pet – that his rightful place is with the pack. He says we need all the fighting dogs we can get, sir.'

'He's jesting with you, lad.'

'I don't think so. Vendabal's always whispering in my master's ear, trying to convince him I should give Melchior up.' A sudden frown: 'I'll never give him up, sir! If they try to take him from me,

I'll run away!'

'Run, lad? Where would you run to in these unknown lands?'

'I don't know, sir, but run I would! I won't see Melchior put to war.'

What the boy was too plucky to mention, yet must be connected to his obviously serious resolve to flee the camp if things got too bad, was the way he was repeatedly harassed and bullied by a gang of Vendabal's assistants. Three of them in particular, youths of about Pepillo's own age but much harder and nastier characters, seemed to regard it as their duty to their own master to make the page's life a misery. Díaz had witnessed several of their acts of spiteful cruelty and bullying, but had refrained from intervening until now, for fear it would simply make things worse. After all, no young lad, growing into manhood, would wish to be accused of being a snitch or of hiding behind others. On the other hand, Díaz thought, he'd never forgive himself if Pepillo did go through with his foolhardy escape plan.

‘I’ll try to convince Vendabal to lay off,’ he now said. ‘I’ll talk to the caudillo if I have to. I’m sure this can easily be resolved.’

Even as Díaz spoke, however, the thought occurred to him that there might be no easy solution. Vendabal was enormously stubborn; he had leverage because his dog pack gave the conquistadors a unique edge over the enemy. Cortés was a practical man, not at all sentimental in leadership matters, and most likely wouldn’t want to invite trouble to keep a mere page happy. As to the bullying – well, Cortés would probably approve of it rather than disapprove, on the grounds that it would toughen Pepillo up.

By now they had walked almost the full circuit of the perimeter fence and were nearing the main gate when an altercation broke out. An elderly Indian, stooped and grizzled, was speaking urgently to Allonso Gellega, a known brawler and troublemaker who happened to be on duty.

‘Look, bugger off will you!’ shouted Gallega. He had big hands and thick forearms covered in a dense mat of black hair, and he now

made an aggressive shooing gesture.

The Indian continued to address him in a peculiarly resonant, droning, nasal voice. Very curiously one of the words he was saying over and over again sounded like 'Malinal', the name of the beautiful Mayan woman who was now serving Cortés as his interpreter.

'I don't understand your heathen gibberish,' Gallega yelled, spraying spittle in the Indian's face, 'but if you don't clear off *now* you're going to feel the toe of my boot in your arse.'

'Did I just hear him say Malinal's name?' Díaz asked Pepillo.

'I think so sir, yes. I heard it too.'

Just then the little Indian, showing remarkable agility for one so ancient, dodged round Gallega and darted through the gate. Gallega bellowed and gave chase, drawing a dagger, but the old man was swift and kept ahead of him.

'Come on,' said Díaz to Pepillo, 'let's find out what's happening here,' and with a few loping strides he blocked the elder's path,

grasped his shoulder and dragged him to a halt. Up close he was amazed to discover that the Indian's eyes were clouded with cataracts. Not only old, then, but blind!

As Gallega came pounding up, already out of breath and brandishing his dagger, Díaz raised a warning hand. 'No need for violence! This old man is blind. Can't you see that, you idiot!' He turned to Pepillo: 'You speak some of the local lingo, don't you?' he asked.

'A few words, sir. Malinal's been teaching me.'

'A few words should be enough. Let's find out what this is all about.'

Chapter Twenty

Thursday 6 May 1519

'You are more beautiful by far than Tozi described you,' the old man called Huicton said. 'I was anticipating wonders, but in every respect you excel my expectations.'

It had taken Malinal some time to get used to the idea that this ancient could see at all through his clouded eyes, but somehow he could – and clearly!

What was harder to accept was the claim that he knew her friend, and furthermore had known her for many years.

‘Tozi never spoke to me about you,’ Malinal said suspiciously. ‘Not a word.’

‘Ah yes, perhaps … but how long were you and she together?’

‘A day only, in the fattening pen at the foot of the great pyramid of Tenochtitlan where we awaited death together. At the end it was as though we had known each other all our lives.’

‘As no doubt in every meaningful sense you had, since you both believed that was your last day on earth. Even so, you would not learn all there was to know about each other in such a short time. Certain pieces of information would inevitably have been missed.’

Malinal allowed that this must be so; still she was doubtful, and it took more than an hour of close questioning to allay her fears. At the end of it she left Huicton in front of the kitchens enjoying a bowl of soup and went to Cortés in his pavilion. Aguilar was there waiting to play his part.

‘I believe the old man is genuine,’ Malinal said. ‘He has knowledge of my friend that only someone close to her could

possess.' She listened attentively as Aguilar translated and was reasonably sure he had represented her correctly. 'I think you should see this Huicton,' she continued, now speaking directly to Cortés in Castilian. She switched back into Mayan: 'He claims to have information, and an offer, that will be of value to you.'

When Aguilar had interpreted her words, Cortés nodded. 'Very well,' he said. 'Bring him in. I'll hear what he has to say.'

Malinal went to fetch Huicton, who was finishing up the last of the soup, smacking his lips with satisfaction, and led him to the pavilion where Cortés greeted him graciously, introduced himself, embraced him in the Spanish fashion, and indicated a stool on which he should sit down.

'Thank you, my lord,' said the old man. 'I have been on the road for many days and my bones ache.' In affirmation of this there came a mighty creaking and cracking of his joints as he lowered himself onto the stool.

* * *

Huicton was trying very hard not to seem impressed, but even with years of experience of bluff and counter-bluff it was difficult to keep the astonishment he felt from showing on his face. These 'white-skins', as Shikotenka had called them, were indeed a new and terrible kind of men, and certainly not gods. Yet it was their very humanness, exemplified by the reek of their latrines, by the ripe, unwashed stink of their bodies, and by the lice that crawled in their beards, that made them so remarkable. Their discipline and coordination, their exotic metal armour and weapons, their huge and monstrous war animals, one of which had grazed Huicton's leg with its fangs as he was first brought into the heart of the camp while another, tall as a house, had nearly trampled him down – all these things radiated an alien and remorseless power, the like of which he had never known before, but which was yet plainly the product of human ingenuity and skill, not of supernatural forces.

At least this one called Cortés, the leader, he whom Tozi in her childlike purity had assumed to be Quetzalcoatl, did not smell as bad as some of the others. Apparently he washed and there were no lice seething in his beard. Moreover, it was obvious the woman Malinal was infatuated with him. How, Huicton wondered, would Tozi react to that?

'You are an ambassador?' Cortés asked. The meaning of his words reached Huicton through the other white-skin – the little, pungent, hairy one who spoke the Mayan tongue – and thence through Malinal. 'Ambassador for whom? Whom do you represent? Why are you here?'

'I am the ambassador of Ishtlil, rightful ruler of the kingdom of Texcoco,' Huicton replied. 'And I am here to bring you his salutations and his offer of friendship.'

'And why would I seek the friendship of this Ishtlil?' Cortés asked carefully.

'Because the great power in this land is Moctezuma, emperor of

the Mexica,' Huicton replied immediately. 'If you wish to remain here and prosper, then it is certain that sooner or later you will either have to become his vassal or you will have to fight him. If it turns out that you must fight him, then I believe you will need allies. I am here to smooth that path for you.'

When his answer had been translated into the language of the white-skins, Cortés sat forward and studied him with an expression of keen interest. Huicton was fascinated by the other man's eyes: the left was large, round and grey, while the right was smaller, oval and black. These surface features, however, did not disguise the deeper message of character to be read there – a message of cunning, of resolve, and of a cold, ferocious concentration that would have been formidable in any leader, but was somehow doubly impressive when encountered in one so foreign as this.

'May I take it, then,' Cortés said finally, 'that your master Ishtlil is at war with Moctezuma?'

'He is, lord.'

‘But how can that be? I am led to believe by Moctezuma’s own envoys, who have visited me here, that all his enemies lie crushed at his feet.’

‘With respect, lord, the Mexica are notorious deceivers and Moctezuma’s envoys are the most practised amongst them.’

Cortés laughed. ‘But you yourself, of course, tell only the truth?’

‘I tell the truth when it serves my master’s interests to do so, lord, as it does now.’

Another laugh: ‘Well and good then. So tell me about your master and his enmity towards Moctezuma.’

Speaking through the two interpreters, Huicton gave an account of the Texcocan rebellion. He did not exaggerate or fabricate anything, being convinced that the truth would indeed serve him best here. When he had finished, Cortés and the other white-skin, whose name it seemed was Aguilar, talked animatedly to one another for a few moments. ‘What are they saying?’ Huicton asked Malinal quietly.

'I do not follow everything in their language yet,' she replied, 'but if I understand correctly, my master makes the observation that in all lands the concerns of rulers are very much the same. I think he says that for a younger son to be placed on the throne ahead of his elder brother would lead to trouble in Spain, just as it has in the case of Texcoco. In other words, he believes your story.'

'Which is right and proper, since my story is true.'

Cortés then asked questions about the size and disposition of Mexica and rebel forces, which Huicton answered with the same honesty as before. The numbers of those supporting Ishtlil were growing every day, but he could not yet put more than twenty thousand men into the field. Despite a recent catastrophic defeat at the hands of the Tlascalans, on the other hand, Moctezuma still had one hundred and sixty thousand regular soldiers at his command, divided into five separate armies, each thirty-two thousand men strong. In addition a hundred thousand auxiliaries from vassal peoples such as the Tacubans, the Cholulans, the Mixtecs and the

Totonacs stood ready for immediate call-up at a snap of his fingers, and in the past year he had also hired fifty thousand unruly Otomi and Chichemec mercenaries.

Cortés raised his eyebrows. 'Impressive numbers,' he said, although he did not look very impressed. 'But you mentioned a defeat inflicted on Moctezuma by a people called the Tlascalans. I have heard something of these Tlascalans already – for a small band of them came here some days ago and attempted to kidnap my own servant, a mere boy. Pray tell me more about them and their famous victory over Moctezuma's huge armies.'

Cortés listened with careful attention as Huicton told him the story of the independent mountain kingdom of Tlascala, its fierce resistance against Mexica tyranny and the incredible coup orchestrated less than three months before by the battle-king Shikotenka, in which almost an entire Mexica army of thirty-two thousand men had been annihilated.

This time Cortés did look impressed. 'So the Tlascalans

themselves must command large forces?'

'They do, lord. I believe the number stands close to a hundred thousand men.'

Cortés whistled. 'Useful!' he said. He rubbed his hands together, the unconscious gesture of a man coveting some great hoard of treasure. 'So, if I should contemplate an alliance with your master Ishtlil, and with these formidable Tlascalans, how would you advise me to set about it?'

Ah, Huicton thought. *Now we're getting to the point.* He looked Cortés straight in the eye. 'May I ask you a question, great lord?'

'You may ask me anything you like, but whether I'll answer it is another matter.'

Huicton swallowed. He felt strangely nervous, as though he confronted a puma in its den. 'My question is this, lord. Do you intend to fight Moctezuma? Or will you allow him to make you his vassal?'

A look of anger crossed Cortés's face and he seemed about to

speak, but Huicton held up his hand. 'Hear me out, great lord, I pray. Before coming down to the coast to find you, I had an audience with Shikotenka, battle-king of the Tlascalans. He was here himself spying on you just a few days ago – indeed it was he who attempted to kidnap your servant. He did so because he is convinced you are in the process of allying yourself with Moctezuma – and you should know that all Moctezuma's allies become his vassals in the end. The Great Speaker of the Mexica brooks no equals.'

'By God!' Cortés barked, 'I'll not be Moctezuma's vassal, nor will he be my equal. I'm here to conquer him, nothing less.'

The moment he'd said it, part of him wondered if he'd gone too far, but then he thought – *caution be damned* – and allowed Aguilar to give the words to Malinal, who in turn put them into Nahuatl for Huicton's benefit. Cortés trusted her judgement that the old man was genuine, but even if it turned out that he was a spy for Moctezuma, what would really be lost by telling the truth? His

strategy was to keep the Mexica leader guessing as to his motives, so it could do no harm to show friendship to his envoys like Teudile while offering a completely different face to his spy. If on the other hand Huicton did work for Ishtlil, as he claimed, and had connections with the warlike Tlascalans as well, then the sooner he opened negotiations with these enemies of his enemy, the better.

'It is a matter of great joy to me,' Huicton said, 'that you have entered our land to rid us of the tyrant Moctezuma. Undoubtedly this noble lady who serves as your tongue' – a gesture in Malinal's direction – 'has already told you that your presence here, in this very year, bears out an ancient prophecy of the return of the god-king Quetzalcoatl?'

'Yes, she has told me of it, but I am just a man … '

'Even so, the coincidence is quite remarkable, and will work to your advantage when you begin your march on the Mexica capital of Tenochtitlan.' A pause: 'When, by the way, do you intend to do that?'

‘Soon enough,’ said Cortés gruffly.

‘You will find that Tlascala lies along your route,’ Huicton continued. ‘You may avoid it, of course, by following the highway that runs through the territories of several Mexica vassal states. I imagine that this is exactly what the Mexica will seek to persuade you to do. But I suggest you ignore their advice and pay a call upon Shikotenka instead. If you can convince him you seek the downfall of Moctezuma, you will have won a powerful ally.’

‘You speak of Tlascala, whose ambassador you are not, but what of this Ishtlil whose ambassador you are? When does Ishtlil’s offer of friendship come in useful to me?’

‘Only after you’ve settled things with Shikotenka. You must make him your friend. The mountain provinces of Texcoco that Ishtlil controls lie next to Tlascala and, proceeding from there, through my master’s lands and supported by the warriors he will provide you with, you can continue your march on Tenochtitlan.’

‘So, in other words, I’ve no choice. If I’m to benefit from Ishtlil’s

alliance, I must go through Tlascala. That's the burden of what you're here to tell me.'

'More or less, my lord. More or less.'

'Very well,' said Cortés. I'll consider what you've said. Feel free to visit me again at any time and, meanwhile, please carry these gifts that I send to Shikotenka of Tlascala and to your own master Ishtlil.' Cortés paused while he went to the chest he kept at the rear of his pavilion and pulled out two handfuls of twisted-glass beads. He placed the beads in separate velvet bags, which he handed over to Huicton. 'For the lord Shikotenka,' he said, 'and the lord Ishtlil, as tokens of my friendship. Please tell them we have been happy to receive their embassy, for we share a common enemy in Moctezuma and we must work together to bring the tyrant to his knees. Say I promise them my help, and the help of my men, and of all the weapons at my disposal, in this great and worthy endeavour.'

* * *

Before dawn the next morning, Huicton met with Malinal. She asked him to remember her to her friend Tozi, and agreed to send him messages from time to time through his network of spies. With that accomplished, he slipped away from the camp of the white-skins. He knew now they called themselves Spaniards and, having seen Cortés, he was confident their presence in the One World would end badly for Moctezuma.

Shikotenka was a fool to imagine anything else. Though by no means Quetzalcoatl and his demigods, these powerful strangers were the instruments sent from heaven to destroy the evil rule of the Mexica, just as the ancient prophecy had foretold.

Before reporting back to Ishtlil, Huicton resolved to see Shikotenka again to attempt to convince him of this.

If he failed to do so, he had no doubt that Cortés would be more persuasive.

Chapter Twenty-One

Tuesday 11 May 1519

A morning of tedious haggling had been concluded with Pichatzin, the governor of Cuetlaxtlan, who for the past three days had not sent food to the Spanish camp in anything like the quantities promised by Teudile before his departure for Tenochtitlan on 29 April. There was no serious problem as yet, but the shortfall was annoying and had caused some unrest. Speaking as usual through Aguilar and Malinal, Cortés had threatened Pichatzin, who had just taken his leave, and extracted a commitment from him to deliver an

increased supply tomorrow.

Perhaps because of the strange food, or perhaps because of the unhealthy conditions of the camp itself – heat, dust, clouds of insects, overflowing latrines – many of the Spaniards were suffering from stomach ailments. Aguilar had been hit particularly badly and now, with a groan that required no explanation, he made for the door of the pavilion clutching his belly. 'A good distance away if you please, Jerónimo,' Cortés called to the unfortunate interpreter as he stumbled outside.

Aguilar closed the door behind him and, in the same instant, Cortés rose from his chair, stepped over to Malinal, swept her up in his arms and pressed his lips and tongue against hers in a forceful kiss. She closed her eyes and relaxed into this stolen moment, wrapping her arms round his neck as he held her close, enjoying his strength, feeling his *tepulli* harden against her, taking pleasure in the immediate response of her own loins.

It was strange, she reflected as the kiss lengthened and his hands

explored her body. Her mission had been to find a god and bring him to Tenochtitlan to inflict her hatred upon Moctezuma. But instead of Quetzalcoatl she had found Hernán Cortés and become his secret lover! After the night they had spent together in the stateroom of the *Santa Maria*, while the Mexica envoys snored on deck, she had felt like a giddy girl again, in the throes of her first crush. And the fact they had to keep their passion secret – in particular from Hernán's close friend and ally Puertocarrero – somehow made everything so much more intense. Yes, Malinal was constantly by Cortés's side, interpreting for him, anticipating his wishes, acting in his interests, even when he did not know it, in his dealings with Pichatzin and his deputies. But Aguilar was almost always present, and if not him then one or other, or many, of the captains, until finally, when each day's work was done, she would retire with Puertocarrero to his wooden cabin, plead 'women's problems' to defer his incessant and increasingly violent sexual demands, and fall asleep by his side to dream of Cortés.

Since that surprising night of ecstasy in the caudillo's stateroom, there had only been one other opportunity to make love, and that had been no more than a bungled and uncomfortable fumble behind a dune. Otherwise their intimacy had been limited to glances and whispers and now and then a snatched kiss like this one – so where it was all leading Malinal had no clear idea. Perhaps it would come to nothing. Cortés had few enough real allies amongst the captains, and could hardly afford to alienate Puertocarrero over an affair of the heart – if it even amounted to so much. More likely it was merely an affair of the loins, and he would have her a few more times and discard her, with Puertocarrero none the wiser. Malinal knew enough of men to be prepared for anything, but meanwhile she was making good use of her special access to the Spanish leader. Her true purpose, in which she remained unwavering, was to destroy Moctezuma, and Cortés certainly had the means and the will to do that.

He also had the senses and reactions of a jaguar, heard the

footsteps scurrying across the sand before she did, and broke away from her as a knock came at the door. Smiling with his strange, odd-sized eyes, he signalled to her to sit down, returned to his own chair and said 'enter'.

It was Pepillo, Malinal's friend and language teacher, flushed and breathless from running. 'It's Teudile, sir,' he told Cortés. 'He's back!'

'Peaceful or hostile would you say, Pepillo?'

'Hard to know, sir. But he's brought a whole caravan of bearers with boxes and baskets.'

* * *

It was a moment of triumph, Cortés thought, but also a moment of danger. Since Teudile's departure twelve days before, as conditions in the camp had deteriorated and more and more of the men grew sick, the Velázquez faction, led by Juan Escudero and Juan

Velázquez de Léon, had become increasingly vocal in its demands for a return to Cuba. It was true that thirty-four conquistadors had already died in the camp, most succumbing to wounds received at Potonchan, but it was the treasure Teudile had brought on 28 April that had given the Velazquistas their most persuasive argument. 'We should take our profits and get out while we're ahead,' Escudero had demanded, and it seemed that a good number of the men – perhaps as many as a hundred – agreed with him. So, now Teudile was back with an army of bearers and what looked to be an even greater treasure, it was obvious the Velazquistas would seize the opportunity to press all the more strongly for the expedition to sail home and make an accommodation with Diego de Velázquez, the powerful governor of Cuba.

Cortés had no intention of allowing his hated rival to be handed the prize in this way. He was here to conquer a land and write his name on the pages of history; no matter how great the inducements, he would not settle for anything less.

As before, he had summoned the Mexica delegates to meet him and his captains under the great cloth awning set up on the dunes overlooking the sea. As before, carpets had been rolled out onto the sand on which Moctezuma's gifts could be displayed. As before, Malinal sat at Cortés's right and Aguilar, hunched and grey faced, sat at his left.

At the head of the new delegation, Teudile now touched the ground and put his hands to his mouth – the traditional 'earth-eating' gesture used both by the Mexica and the Maya when they wished to honour a person of great importance. Pichatzin, who had been on his way out of the camp after his earlier meeting with Cortés – but had clearly been obliged by Teudile to return – did the same, and both of them together then perfumed Cortés and his captains with the smoke of some fragrant incense they had brought in earthenware braziers. Pointedly refusing to take part in these ceremonies was a third notable member of the delegation – a much younger man with long black hair, high cheekbones and an aquiline

nose, who stood haughty and aloof behind Teudile, glaring at the Spaniards with burning, hostile eyes. He was tall and powerfully built, his upper body clothed in a splendid tunic made of jaguar skins, and the scars of recent battle injuries stood out livid on his throat and right forearm.

'Do you know this man?' Cortés whispered to Malinal.

'Don't know,' she replied. 'But recognise. He is Prince Guatemoc, nephew to Moctezuma and a famous warrior in Tenochtitlan.'

'What can you tell me about him?' Cortés asked. They weren't even bothering to put their simpler exchanges through Aguilar now, so proficient had Malinal become in Castilian.

'People say he is honest. Brave. Takes risks. Sometimes foolish. Likes to fight.'

'Sounds like a troublemaker. Think he'll make trouble for us?'

'Not sure. Probably.'

Teudile began the formal part of the proceedings by producing

Bernal Díaz's battered old helmet, now filled to the brim with grains of gold, and addressing Cortés. 'You said,' the steward recalled, 'that you and your countrymen suffer from a certain disease of the heart that can only be cured by gold, and you asked to see the gold from our mines. The great Moctezuma sends you this gold as a gift. Will it cure your strange ailment, do you think?'

Alvarado, Velázquez de Léon, Escudero, Puertocarrero, Montejo and the other captains all pressed forward, passing the helmet from hand to hand and sifting its glittering contents through their fingers. While they were thus preoccupied, Cortés looked around for Bernal Díaz and saw him standing behind the others, exchanging some joke with his friend Gonzalo de Sandoval. Cortés had promoted the two of them to the rank of ensign just before sailing from Cuba and had never regretted the decision. Though from very different backgrounds – Sandoval was an aristocrat whose family had lost its fortune, Díaz was a commoner – they got on well together, commanded the respect of the men who served under

them and had both fought with tremendous bravery at Potonchan. 'Hey Bernal,' Cortés called out. 'Come here! See your helmet is returned filled with gold as we asked.'

The young ensign pushed through the throng, took the helmet and stared into it. 'With so much gold a man could retire,' he said wistfully, 'and never work again.'

'Nonsense!' said Alvarado. He had produced an empty canvas money sack from somewhere and now decanted the gold grains from the helmet into it and weighed the bag in his fist. 'Five thousand pesos at the most,' he declared. 'Hardly enough for a man to retire on.'

'That would depend on a man's needs,' said Díaz stiffly as he set the emptied helmet back on his head.

Cortés reached out, gently prised the sack from Alvarado's grasp and laid it on the carpet before his chair. Five thousand pesos was a goodly sum but the real value of these grains lay in the absolute proof they provided that rich mines did exist in this land –

intelligence worth ten thousand times as much as the meltdown value of the gold itself.

'Thank you, Ambassador Teudile,' Cortés said. 'I will see to it that this generous present reaches my emperor in Spain. Now, what else do you have for us?'

* * *

Cortés called in Pepillo to keep an account and compile an inventory of the presents.

Item: Two golden necklaces with jewellery, one of which has eight strings of two hundred and thirty-two red jewels and one hundred and sixty-three green jewels. And hanging from the border of this necklace there are twenty-seven small gold bells; and among them there are four figurines made of large gemstones mounted in gold.

Item: Four pairs of screens, two pairs of fine gold leaf with adornments

of yellow deerskin and the other two pairs of fine silver leaf with adornments in white deerskin. From each of these hang sixteen small gold bells.

Item: A large paten of gold weighing sixty pesos de oro.

Item: A fan of coloured featherwork with thirty-seven small rods covered with gold.

Item: Sixty-eight small pieces of gold, each of which is as large as a half-cuarto.

Item: Twenty little golden towers.

Item: A bracelet of jewellery.

Item: A large head in gold that seems of an alligator.

Item: A helmet of blue jewellery with twenty small gold bells, which hang all around, with two strips over each bell.

Item: Another helmet of blue jewellery with twenty-five small gold

bells and two gold beads above each bell hanging round the outside of it.

Item: A reed container with two large pieces of gold to be worn on the head, with the shape of a seashell.

Item: A sceptre of red jewellery, which resembles a serpent with its head, teeth and eyes that seem to be mother of pearl.

Item: A large buckler of featherwork. In the centre of this buckler is a gold plate with a design such as the Indians make, with four other half-plates of gold round the edge which together form a cross.

Item: Sixty-two marks of silver.

Item: Six bucklers; each one has a gold sheet which covers the whole buckler.

Item: A half-mitre of gold.

Item: Twenty golden birds of fine and realistic workmanship.

Item: Two rods, twenty inches long, all modelled in fine gold.

Item: Thirty loads of cotton cloth of various patterns, decorated with feathers of many colours.

And thus the list went on and on, covering page after page in Pepillo's small, neat hand, with items of immense value mixed in with items that were merely beautiful. As the hot afternoon wore on into evening, and seemingly limitless varieties and combinations of these rich gifts were laid out before him, Cortés felt increasingly stunned and amazed, as though he had become immersed within some fantastic dream or vision. Unlike many of his captains, however, he made sure he kept a straight face and did nothing to reveal his delight and lust for the great wealth that was simply being handed over here without even a fight to obtain it.

Finally, with full night now descended upon the camp and a hundred flickering torches lighting up the lurid scene under the awning, Teudile unveiled his *pièces de résistance* – two gigantic disks,

each a hand-span thick and big as cartwheels. One was of solid gold, and worth two hundred thousand pesos, Alvarado thought; the other was of silver. Both were intricately engraved with figures from the Mexica calendar, which Teudile insisted on explaining. In the centre of the silver wheel, he said, was the image of Toncacihuatl, the moon, in the form of a woman's face, symbolising the female realm – the waters of lakes and oceans, the night and darkness, and all the compliant, passive, yielding principles of life. By contrast the male face at the centre of the gold wheel was Tonatiuh, the sun – active, masculine, luminous, celestial, his features wrinkled with age and his tongue, sharp and pointed, jutting out hungrily.

'Tonatiuh?' said Alvarado. 'That's what you people call *me!*'

'Because of your golden hair,' said Teudile.

'But my features are youthful and handsome,' protested Alvarado, running his fingers over the grotesque image, 'not like this! Why do you show him so old and so ugly?'

‘We Mexica believe the sun of our own epoch is the fifth to have shone down on mankind and that there have been four previous suns, or ages of the earth, each one ended by a terrible cataclysm that destroyed the greater part of humanity. We believe that our Fifth Sun is already very old and very cruel, and that he is only kept alive, is only able to continue shining down on us, if we offer him constant nourishment and rejuvenation.’

Cortés knelt to examine the figure. ‘The tongue,’ he said, ‘is strange. It’s almost like a dagger.’

‘It is the obsidian knife of sacrifice,’ Teudile answered with a gruesome smile. ‘The rejuvenation that we offer daily to the sun, and to our war god Hummingbird, is in the form of human blood and hearts.’

Cortés felt anger grip him like a fist. ‘You Mexica know how to make beautiful and wonderful things,’ he said, ‘but your practice of human sacrifice is an abomination and the foul creatures you worship are not gods but demons. You must set them aside, you

must set aside sacrifice and your other evil rites, you must destroy your accursed idols and you must turn to the worship of the one true God, the creator of Heaven and Earth, whose son is Jesus Christ and whose ways my sovereign, Don Carlos of Spain, has sent me here to teach you. It is for this purpose I must now travel with my army to your city of Tenochtitlan, there to meet your sovereign Moctezuma and correct him on the many errors he commits and attempt to save his soul.'

As Aguilar put the words into Maya for Malinal, Cortés saw her turn towards him, her large dark eyes glowing. 'Are you sure you want to say this, lord?' she asked him in Castilian.

'Yes!' he snapped. 'By all means I am sure.'

Her next point required clarification by Aguilar: 'Perhaps it would be wise not to tell these Mexica your plans, lord? Don't say what you mean to do. Rather do as you wish with them when you are ready, giving them no warning or mercy.'

But Cortés was still angry and shrugged off her advice. 'Put what

I said into their heathen tongue, Malinal, and exactly as I said it. These savages must learn the truth.'

'Your will, lord,' Malinal replied. As she switched into flowing Nahuatl, Cortés watched the faces of the Mexica delegation. Pichatzin looked afraid, Teudile, he thought, looked shifty and dishonest, but on Guatemoc's face he saw pure anger, pure hatred.

* * *

'Whore!' snarled Guatemoc as soon as Malinal had finished translating Cortés's admonitions. 'Why do you serve these bandits? Why be their tongue? You are a woman of our land. I command you to leave them now.'

Did Guatemoc *know?* Malinal wondered. Had he learned how Moctezuma released her at the climax of that terrible night on the great pyramid? Did he call her a whore because he'd found out her story, her life as a sex slave, the men she'd served in Tenochtitlan –

including his own father – before she was sent for sacrifice? The very presence of this prince, though he himself had never been amongst her lovers, filled Malinal with feelings of horror and terror – feelings she refused to reveal, refused to betray on her face, refused to give way to. Instead she laughed and looked him straight in the eye, showing him more disrespect in that single, simple act than he would ever in his life have received from any of the subservient women of the Mexica. 'You cannot command me, Guatemoc,' she said. 'I am free of you, free of the bullying and cruelty of your race, free to do as I choose – and I choose to help these white-skinned *tueles*.'

'*Tueles*. Ha! So you think they are gods then?'

'You will find out for yourself what they are and what they are not.'

Malinal realised she was trembling, so unnatural did it seem to her to address a prince of the blood in this way, and yet she had to admit it gave her exquisite pleasure to do so. Ignoring Guatemoc

completely, she turned towards Teudile. 'What do you say to the lord Cortés?' she asked.

Teudile's mask of patrician disdain had not slipped. 'Our revered Speaker has charged me with a message for your master,' he said, 'and it is this. He is to accept these gifts he has been given with the same grace as Moctezuma has shown in sending them, and he may divide them as he wishes amongst the *tueles* and men who accompany him. Our revered Speaker furthermore says he hopes one day to see the face of the great emperor, Don Carlos of Spain, of whom the lord Cortés speaks, but under no circumstances will he meet with the lord Cortés. Our revered Speaker is ill and cannot descend to the sea, and it will be extremely difficult and laborious for Cortés to come to him, not only on account of the many high mountains that lie between, but also because of the great and sterile deserts he would have to traverse, where he would necessarily suffer from hunger, thirst and similar hardships. Besides, much of the country through which he would have to pass is in the hands of

Moctezuma's enemies, who are cruel and evil people and who will kill him as soon as they learn he is travelling as Moctezuma's friend. The lord Cortés is therefore to take these presents and return across the sea whence he came.'

Malinal needed Aguilar's help to put Teudile's speech into Castilian, and as the message was conveyed she saw Cortés's face cloud over. When he had understood everything, he said: 'Tell Teudile, and that bad-mannered young upstart beside him, that I will be coming to Tenochtitlan with my army whether their revered Speaker likes it or not. I have journeyed from distant lands, crossed thousands of miles of oceans and fought battles with savage foes solely to see and exchange words with Moctezuma in person. My great king and lord Don Carlos will not give me a good reception should I return to him without achieving that goal, so tell these Mexica dogs that nothing will stop me – not mountains, not deserts, not men – and that wherever their Speaker may be, I intend to go and find him.'

From that point the negotiations became extremely heated, and Malinal watched with growing interest as harsh words were exchanged not only between Cortés and Teudile but also between Teudile and Guatemoc. Technically the steward outranked the young prince, but it was clear that Guatemoc was not only higher born but also the stronger personality, and ultimately his will prevailed.

After Cortés had insisted for the fourth or fifth time, and in increasingly bullying language, that nothing would stop him marching on Tenochtitlan and that in fact he felt the Mexica were simply making excuses to delay his progress, Guatemoc flew into a wild rage and shouted at him: 'You've got everything you came for – gold, jewels, more wealth than thieves like you have ever dreamed of. You'd have had none of this, believe me, if Moctezuma had followed my advice. So consider yourselves lucky, get back in your boats and return to your country now, or I warn you, Cortés, you will perish in my land and all your little army with you.'

Cortés smiled: 'The Chontal Maya made exactly the same threat to me at Potonchan, and look what happened to them.'

Guatemoc's face was tense with fury. 'We are not the Chontal Maya,' he said. 'You make a great mistake if you imagine we are.'

Another mocking smile from Cortés. 'I don't see much difference. You're all heathens and savages worshipping false gods, and none of you has a clue about how to win a real fight. If I choose to march on Tenochtitlan tomorrow, you'll not be able to stop me.'

Guatemoc drew himself up to his full height. 'My soldiers are as numberless as the sands of the sea,' he boasted, 'and undefeated in battle. March on Tenochtitlan and I will teach you the Mexica way of war.'

'That is a lesson I await eagerly,' said Cortés, 'and, when we have thrashed you, be sure I will pay Moctezuma a visit in his palace.'

After she had translated this, Malinal could not resist adding a few words of her own. 'When a man has to lie,' she said quietly to Guatemoc, 'I take it as a sign of weakness.'

‘Silence, whore,’ the prince sneered. ‘You have no voice of your own here.’

‘But I have ears,’ she said, ‘and I know, as the lord Cortés also knows, that your warriors *have* faced defeat. Do you think the loss of an entire Mexica army in battle against the Tlascalans is a matter that can be kept secret? So the only sense in which your soldiers are numberless is that they now indeed number less than they did before, great Prince, while your enemies multiply.’

Malinal looked slowly round at the grim Spanish captains beside Cortés, their armour shining in the torchlight, and at Cortés himself, his eyes hooded and pitiless, his hand resting on the hilt of his sword. ‘Are you so certain,’ she said to Teudile, ‘that Prince Guatemoc is right to add these *tueles* to the roll of your enemies? You have not seen *their* way of war as I have. You cannot yet imagine the deeds they are capable of.’

Teudile stepped close to Malinal and peered into her eyes, but he did not answer her question. ‘We know your story,’ he said in a tone

filled with menace. ‘And the lord Moctezuma remembers you.’ Then, without another word, leaving all the golden gifts behind, he led his delegation away down through the dunes and out of the camp.

Chapter Twenty-Two

Small hours of the morning, Wednesday 12 May 1519

Moctezuma felt joy, an emotion he had almost forgotten. His heart beat like a drum threatening to burst forth from his chest. Excitement welled in his throat. He'd made no sacrifice, he'd eaten only a small dose of mushrooms, yet here was the god Hummingbird, looming over him, gleaming like the risen sun in the darkness of the night. 'Lord,' he said. 'You have returned to me.'

'I never left you,' said Hummingbird. 'I've been watching your progress … with approval.'

'Thank you, lord. So you approve, then, that I resisted Guatemoc's demand for ten regiments to attack the white-skinned *tueles* in their camp?'

'I approve, my son! I approve mightily! Now is not the right time to fall in force upon the white-skins. Disaster would have been the result if you had allowed Guatemoc to proceed with his foolish and importunate plan. You made the right choice and I applaud you for it.'

Moctezuma's feelings of pleasure were so intense that for the first time in several months he felt his *tepulli* flush with blood and grow erect. 'Instead of making war on the white-skins,' he told the god, 'I thought it wise to assign additional regiments to the sacred duty of hunting out virgin girls to offer you in sacrifice. I had originally set four regiments to this holy work, but in the days since the last meeting of my council I have increased the size of the task force to ten regiments – eighty thousand skilled men; the same number Guatemoc demanded – and I am confident now that the

enterprise will proceed to your satisfaction. My regiments have been sent out far and wide, like the fingers of two great hands stretched across the empire. Runners reach me daily with reports. We have already begun to extract additional tributes from our subject peoples, we have begun to raid enemy cities, and the fattening pens of Tenochtitlan are being prepared to accept a ripe harvest of virgin girls.'

The Great Speaker, lord and master of the Mexica nation, lay spread-eagled on the floor of his darkened chamber. Standing over him, the god licked his lips: 'I have seen your preparations,' he said, 'and I delight in them.'

Moctezuma's *tepulli* swelled further. 'My aim,' he said, 'is to gather an immense basket of virgins in your name. The target is ten thousand. If it is acceptable to you, lord, I will sacrifice them on your altar in the four days that culminate with the annual celebration of your birth.'

Hummingbird's tongue darted out again. 'How very thoughtful

of you, and how very appropriate. Ten thousand virgins will make a splendid birthday gift!' He stooped, placed his huge hand on Moctezuma's head and gently caressed his hair. 'I shall await the offering with … anticipation,' he said. 'Meanwhile, allow me to offer you a little something in return.'

'A gift, lord? You have a gift for me?'

Moctezuma was both excited and flattered at the prospect and found the sensation of the god's hand caressing his hair deeply arousing. 'I have something to show you,' Hummingbird now said. A jolt of energy radiated suddenly from his fingers and at once, by magic, a vision was conjured forth. Without even being aware of the transition, Moctezuma discovered he was no longer in his palace, no longer in Tenochtitlan, no longer immersed in darkness but flying like a bird in bright sunlight over his beautiful vassal city of Cholula and above its remotely ancient pyramid dedicated to Quetzalcoatl. From that aerial vantage point he looked down on the vast walled enclosure that surrounded the antique shrine of the once and future

king – the only one of its kind still permitted to function with an active priesthood throughout the domains of the Mexica.

'This is the place, O great Moctezuma,' said Hummingbird, 'and this is the time of the unmaking of prophecy. When the leader of the white-skins comes to Cholula and enters the shrine of the Plumed Serpent, he will lose his power.'

Moctezuma's heart stirred with a sudden flutter of panic. 'But I have every hope, lord,' he hastened to reply, 'that the white-skins will not penerate so far into my territory as Cholula! I have sent them a huge treasure of gold, in exchange for which I expect them to return across the sea whence they came.'

'They will not do so, my son,' said Hummingbird flatly. 'The treasure you have sent them has only whetted their appetite for more. On that matter Guatemoc was right, and in the months ahead they will swarm over your lands and march upon you, arrayed for war.'

Moctezuma groaned, terror rising in his throat like vomit.

‘But have no fear,’ Hummingbird continued, ‘because at Cholula you will stop them and destroy them utterly. Observe now and I will show you.’

Moctezuma obeyed, gazing down in vision on the city of Cholula and on the pyramid and shrine dedicated to Quetzalcoatl that lay at its heart and – behold! – he saw a great battle between Mexica soldiers and the white-skins raging within the precincts of that immense enclosure. As the fighting reached its climax, he saw companies of his brave jaguar and eagle knights laying low the white-skins and taking them prisoner, trussing some in hammocks so they could not move, holding others like slaves at the end of long poles with collars fastened tight round their necks and leading them off towards Tenochtitlan for sacrifice.

The spectacle was so uplifting and reassuring to behold that it took Moctezuma’s breath away. ‘Will it be so, lord?’ he asked.

‘It can be so,’ Hummingbird replied, ‘if you make it so, but before this high objective can be accomplished, there is something I

require of you first.'

'Anything, lord. Anything … '

'The sorcerers of your court, Cuappi, Hecateu, Aztatzin and Tlilpo, are all empty vessels. They have no skill. They have no power. They are mere performers of mummery and ritual.'

'Yes, great lord.' Moctezuma hung his head. 'Even I, who am merciful, have seen this. They failed in all their attempts to work magic against the white-skins. They are nothing—'

'They are worse than nothing. They are frauds. They are imposters! I want them burnt.'

'Burnt, lord?'

'Yes, you heard me. Burnt alive. Roasted in a fire-pit. You will arrange this immediately.'

Moctezuma felt his fear rising again. 'Who then will be my sorcerers, lord?'

A new image swam unbidden into his mind. It was an image of a man dressed only in a loincloth whose powerful body from his bare

feet to his shaved head was covered in such a dense web of swirling, interwoven tattoos that he seemed to be almost entirely black, black as night, black as a jaguar in the depths of the jungle. Excepting his eyes – terrible, terrifying eyes – which shone and blazed like firebrands amidst a pall of smoke, and from which darted forth the complex interconnected patterns, the sacred geometry, the mathematical lightning bolts of high magic.

'This man,' said Hummingbird, 'will be your sorcerer, the only sorcerer you will ever need. His name is Acopol and he is one of the pure ones of the Chichemec tribe, out of the northern deserts. He is a *nagual*, a shape shifter who has served me well for many a long year and now I, even I, have called him out of the ocean of sand to serve you. You must not keep him at your court, however. Instead appoint him to the role of high priest in Cholula. Do that, my son, and he will prepare the way for your great victory there.'

Moctezuma had misgivings. How could he feel secure in his own court with no sorcerer to protect him from magical attacks? But

Hummingbird read his mind and reassured him. 'Acopol is powerful. He will cast warding spells around your palace, and around my temple where you come to commune with me, and even from Cholula he will keep you safe.'

'In that case, lord,' said Moctezuma, 'I am ready. I will do as you require.'

'Of course you will, my son. Of course you will.'

The vision widened, beginning to show more of the background in which the tattooed figure stood. He perched, Moctezuma suddenly realised, on the summit platform of the immense and unspeakably ancient pyramid of the Sun at Teotihuacan, 'the place where men became gods', which lay some thirty-five miles north of the Mexica capital.

'Despatch an honour guard to bring Apocol here to Tenochtitlan,' Hummingbird continued. 'Let him oversee the burning of your sorcerers; let him put his warding spells in place to protect your palace against intrusion, and then send him to Cholula

to prepare the final doom of the white men.'

'Your word is my command,' said Moctezuma as the vision slowly faded from view.

PART TWO

12 May 1519–16 August 1519

Chapter Twenty-Three

Wednesday 12 May 1519

Awakened by Melchior's wet nose nuzzling his face, Pepillo shifted position on the hard ground beneath his blanket and gazed sleepily into the cold ashes of last night's kitchen fire. He was overtaken by an uneasy premonition that something was wrong.

Melchior whined and nuzzled him again.

'What is it, boy?' Pepillo asked, still drowsy. 'What's the matter?'

The dog replied with a muffled bark and this time Pepillo sat up, wide awake, his spine tingling. He looked around. On the ridge of

the dunes he saw sentries at their post, the barrel of the small falconet they manned silhouetted against the rising sun. The soldiers' postures were alert, their gaze was directed to the south, and the tone of surprise in their voices was clear on the morning air.

South lay Cuetlaxtlan, from whence any Mexica forces that were to be thrown against the Spanish camp could be expected to make their approach. And the threat of an attack, after yesterday's menacing encounter with Moctezuma's ambassadors, seemed very real. Pepillo bounded to his feet and ran up the side of the dune, scattering sand, with Melchior loping at his side. 'What's happening?' he asked, as he burst in amongst the sentries.

'See for yourself, lad,' said Miguel de La Mafla, a young musketeer promoted to the rank of officer cadet after the fighting at Potonchan. He pointed to the rough bivouacs that had been pitched a few hundred paces to the south of the camp's perimeter to house the thousands of Totonac labourers and serving women who the Mexica had put at the disposal of the Spaniards. The bivouacs were

deserted and empty now, not a soul moved amongst them, and it was obvious the workers had fled. 'They stole away in the night,' La Mafla said. 'Didn't make a sound, the buggers.'

'What does it mean?' asked Pepillo.

'It means we have to shift for ourselves,' complained La Mafla with a rueful smile. 'Pity. I was getting used to being waited on hand and foot.'

'And to tupping a different woman every night,' added another of the sentries with a ribald laugh.

Pepillo blushed. 'But what does it really *mean*? Will we be attacked?'

'Ask your master the caudillo,' said La Mafla, patting the brass barrel of the falconet. 'But if they come, we're ready.'

* * *

No attack materialised, but neither did the additional supplies of

food and drinking water that Pichatzin, the governor of Cuetlaxtlan, had promised the day before. As evening fell, Cortés was therefore not surprised to be confronted in his pavilion by a delegation of Velazquistas led, as usual, by Juan Escudero. Escudero's by now steadfast companion Velázquez de Léon was with him, and they were supported, predictably, by Cristóbal de Olid. Less predictable (not because his Velazquista sympathies were unknown to Cortés, but because he was usually not forward in revealing them) was the grizzled, authoritative presence of Diego de Ordaz, and an even more unexpected member of the group was Alonso de Grado, hitherto a staunch and vocal supporter of the expedition. Francisco de Montejo was also there, wearing a hangdog expression. Last but not least the Velazquistas had even brought along a man of God, a one-eyed priest with lank black hair and a bad smell about him named Pedro de Cuellar, another of the many distant relatives of the governor of Cuba who had sailed with the expedition.

Quite a formidable troop, Cortés thought as he called for Pepillo

to light the torches that stood in brackets around the walls of the pavilion, to bring wine, and to be ready to take notes. Arranging himself comfortably in his folding campaign chair, Cortés then made small talk regarding the weather, the insects and the probable causes of the bloody flux that still afflicted a quarter of the expeditionaries. He finally turned to Escudero. 'So Don Juan, I gather you have some concerns,' he said as the wine was poured. Pepillo was settled cross-legged on the floor, quill in hand, a fresh sheaf of milled paper resting ready on his knees.

'Concerns?' Escudero spluttered with a spastic jerk of his wine glass. 'Concerns! Have you not observed that we have been deserted by our native labourers? Have you not observed that no food has been brought to us? Does it not occur to you that the treasure handed to us yesterday may be about to be snatched back from us tomorrow?'

Cortés treated his old enemy to an unblinking stare, saying nothing, but reflecting inwardly on how much he loathed this

former mayor of the town of Baracoa, whose pronounced underbite gave him the look of the grouper, caught fresh from the sea, that the cooks had served up for luncheon. It was not so much that Escudero had been the one to arrest and lock him up in Baracoa's filthy jail on Velázquez's orders over the matter of Catalina, but that the man's strutting and sneers at the time were as unforgivable as the trumped-up charges of treason the governor had used to force Cortés to marry his insipid niece.

'Well?' stormed Escudero as the silence drew out. 'Do you have nothing to say?'

Cortés smiled. 'The labourers have done their work for us, Don Juan. The camp is complete and we can manage well enough without them. As to food, the bounteous ocean is near at hand – ' a gesture through the open flaps of the pavilion to where the fleet floated at anchor in the bay – 'and our sailors know how to fish. I myself enjoyed an excellent grouper at luncheon and shall dine on lobster tonight.'

‘You get the choice of the catch!’ complained de Léon, a man of prodigious appetites.

‘Yet you have not been deprived,’ replied Cortés, raising a quizzical eyebrow at de Léon’s huge belly. He looked around at the others: ‘You are all still eating well, I think?’

‘It’s not ourselves we’re concerned about,’ said Ordaz gruffly, his strong, stubborn miller’s face set in a look of deep disapproval. ‘It’s the common soldiery who’ll grow hungry if the supplies from Cuetlaxtlan aren’t resumed.’

When Cortés had led the decisive cavalry charge at Potonchan, he had given Ordaz command of the infantry. The old swordsman had performed the task well, but now seemed to feel it entitled him to the role of spokesman for the needs of the ranks.

‘Fie, Don Diego,’ said Cortés in a tone of gentle reproval. ‘They need not go hungry. We are Spaniards after all! We can fend very well for ourselves – hunt, fish and take what we want from the indigenes whenever we wish. None of us will go hungry, I promise

you that—'

'All this is beside the point,' cut in Escudero.

'But, with respect, Don Juan, it was you who raised this point.'

Escudero's eyes bulged. 'As I have every right to do.' He thrust out his lower jaw even further than usual. 'However, what we're really here to discuss is the gold.'

'Ah, yes, of course, the gold.'

'We received enough yesterday from those stinking savages to make every one of us rich – not just the officers, but the men as well. We must not squander or risk this great treasure, Don Hernán. We have no allies here, no reserves to fall back on. We must sail at once for Cuba, and for safety, and make account to His Excellency the governor.'

'I agree that we must not squander or risk the treasure,' said Cortés, 'but to cut for Cuba now when there is still so much to be gained seems the ultimate folly. I should not like to think, Don Juan, that you have grown shy?'

‘Shy? You dare call me shy?’

‘Your great desire for safety raises the question—’

Escudero lunged to his feet, upsetting his stool, his knuckles white around the hilt of his sword. ‘You will withdraw that remark,’ he said, a bubble of spit popping at the corner of his mouth, ‘or you will give me satisfaction … ’

Cortés stood also. ‘My dear Don Juan,’ he said, ‘I shall be delighted to give you satisfaction.’

* * *

The trouble with being an officer, even a relatively junior one, was the infernal need to make decisions, and after being called to the sentry post at the camp’s northern gateway, Bernal Díaz found himself confronted by yet another judgement call – in this case whether to disturb the caudillo during his meeting with a group of the expedition’s senior captains, or to leave the matter until the

morning.

A knot of about twenty Indians – most outlandish Indians – had gathered outside the gate in the darkness. They had a wild look, with muscular tattooed bodies and great holes in their lower lips and in their ears, in which they had inserted large disks, some of bone, some of stone spotted with blue, some of gold. They were unarmed and their manner seemed friendly enough, but what on earth did they want, and what was it they were saying in their foreign, incomprehensible jabber?

Díaz despatched a sentry to bring the woman Malinal and her counterpart Jerónimo de Aguilar, who collectively provided the expedition's interpreting services, but when the sentry returned he was accompanied by Malinal alone. It seemed that Aguilar was laid up with the bloody flux and claimed to be too unwell to come.

As ever when he found himself in close proximity to the beautiful raven-haired native, Díaz's heart pounded and his tongue froze. What was he to say to her? What could he possibly say to

her? He knew that she was learning Castilian – the boy Pepillo was teaching her and Díaz himself had sometimes heard her speak in halting Castilian to the caudillo – but he feared he would not be able to make himself understood.

He bowed awkwardly. 'My lady,' he began. It was not the right term of address for a native; Puertocarrero, who owned her, simply called her 'woman' or 'hey, you', but there was something ladylike, even aristocratic, about her. 'Thank you for coming. Please tell me, do you understand my language?'

Malinal's huge almond eyes twinkled in the torchlight. 'Yes. Understand. And you? You understand me, Don Bernal?'

Good God! This was better than he could have hoped. She even – wonder of wonders – knew his name.

'I understand you very well,' he said. For a moment he was lost for words and just stood there staring at her.

That twinkle in her eyes again. 'Can help you?' she asked.

'Yes! Oh yes! Very much.' He jerked a big, dirty thumb towards

the gang of Indians outside the gate. 'I need to know what they want. Will you ask them?'

'They Totonacs. I don't speak they language. Maybe one speak Nahuatl? Wait … I ask.'

She stepped forward, slim, graceful, wrapped in a tight-fitting smock that left little of her figure to the imagination, passed between the guards on either side of the open gateway and addressed the Indians in a firm, clear voice.

One of them, a tall, muscular savage in his prime with the look of a warrior, immediately replied, and the pair were soon engaged in urgent conversation.

* * *

As was her habit, Tozi waited until after nightfall to enter Moctezuma's palace. Although her invisibility protected her even in broad daylight, she always felt safer, more sure of herself, in the

hours of darkness. Tonight, though, she sensed something different, something ominous, something *terrible* in the air. And as she floated weightless and invulnerable through the vast echoing corridors, as she passed oblivious guards with their useless obsidian-tipped spears, she experienced … what was this?

Something new?

Something unfamiliar.

Something strange.

Was it … could it be … fear?

No! Surely not. For she was Tozi, she reminded herself – Tozi the witch! – and she was never afraid. She had no reason, since Hummingbird had so mysteriously multiplied her powers, ever to be afraid!

Even so, what was this? She didn't like the feeling at all.

She had been aware for some moments of a commotion ahead in the further of the two great inner courtyards of the palace: a blaze of torches, an eerie glow and the hubbub of a thousand voices. Tozi

had intended to haunt Moctezuma tonight, but first she must discover the cause of this unusual activity. Some celebration? Some ceremony? If so, then most likely Moctezuma would preside and she might have the opportunity to disturb the balance of his mind in public. Her own intimations of fear would be as nothing beside the fear she would feed him.

* * *

'The Great Speaker will not be pleased,' said Teudile, his sepulchral voice emanating from behind the curtains of the gilded and feather-strewn palanquin in which his bearers carried him aloft.

Disdaining such a womanish transport, Guatemoc loped easily alongside and now, in the darkness, bared his teeth in a wolfish grin. The steward's remark must rank, he thought, as the understatement of the year. Far from being merely displeased, Moctezuma would be furious, livid and likely murderous when he

discovered what the prince had done and – worse! – what he intended to do next. Not only had he antagonised and threatened the white-skins during their meeting on the dunes, something Moctezuma had expressly forbidden; not only had he ordered the withdrawal of the Totonac labourers who had previously served the white-skins' camp; but Guatemoc had also spirited five hundred elite Cuahchic warriors out of Tenochtitlan, his personal squad, and they awaited him at the next way station less than a mile ahead. His plan, as he had just informed Teudile, was to make a forced overnight march back to Cuetlaxtlan with his fiercely loyal Cuahchics, and begin at once to test the white-skins' strength.

'I'd rather I had the eighty thousand men I asked for,' Guatemoc now added. 'My uncle was a fool not to grant my request. With such a force I could have overwhelmed the foreigners, regardless of their weapons and war animals. But I'll warrant I can cause them enough trouble with my picked five hundred to stir up a hornet's nest, and I fully intend to draw Cuetlaxtlan's garrison into the fight

as well. Then Moctezuma will be obliged to send reinforcements or stand revealed for the fool and eunuch that he is.'

'It is you who are the fool, young prince,' said Teudile gloomily, 'and I fear I, too, will pay the price for your folly. The Great Speaker will not forgive my failure to stop you.'

Guatemoc laughed. 'Stop me? Absurd! How could you stop me?'

'I cannot, of course. Yours are the arms, yours is the might, yours is the royal blood. But the lord Moctezuma will see none of this. He will have me flayed alive.'

'Not if I return to Tenochtitlan with a conspicuous victory—'

'Even if you do,' said Teudile, 'I shall have been parted from my skin by then.'

'I hope not, old man! Still, I must do what I believe is right to save our nation from these interlopers.'

The way station loomed ahead and figures emerged from the darkness. 'Hey, Mud Head,' Guatemoc roared, recognising his friends leading the Cuahchic contingent. 'Big Dart, Man-Eater,

Fuzzy Face, Starving Coyote, well met! Are you ready for a fight?'

* * *

'No, no – gentlemen please! – *No!*' The small, wiry Francisco de Montejo had jumped to his feet and stood between Cortés and Escudero, a hand extended towards each of them as though he intended to hold them apart physically. 'You must not duel, gentlemen,' he said. His voice was trembling. 'We must not fight amongst ourselves while we are in hostile territory. As a friend to you both, I cannot allow it. It simply will not do.'

A long-faced, olive-skinned man with something of the Moor about him, wearing a neatly trimmed spade beard that showed some grey amongst the black, and with close-cropped salt-and-pepper hair, Montejo seemed older than his thirty-four years. He'd been nicknamed El Mozo – 'The Novice' – in his early twenties, when he had, indeed, still been a fresh-faced and optimistic young fellow, but

the last five years of heavy drinking, womanising, gambling and crushing debt had aged him terribly, eating up the small fortune settled upon him by his aristocratic Salamanca family and threatening his honour. His financial needs had put him in the pocket of the governor of Cuba, who'd appointed him to the expedition to spy on Cortés and nip in the bud any act of mutiny, as he'd admitted during a drinking bout with Cortés himself. In the weeks before their unauthorised departure from Cuba on 18 February, Cortés had therefore carefully cultivated Montejo, enjoying a few raucous nights out with him, sharing some rough whores and some very fine wines, and settling a gambling debt of two thousand pesos for him, in an attempt to undermine his loyalty to Velázquez. As it happened the same sum, with the same purpose, had gone to Velázquez de Léon, the governor's cousin, and it was therefore no accident that neither had opposed the precipitous escape from Cuba. But Cortés prided himself on understanding human nature, and expected that these two fundamentally weak

men would continue to play both ends against the middle, now appearing to side with him, now with Escudero, until they were more certain how things would turn out.

'In God's name you must not fight,' said the one-eyed priest De Cuellar at this point. Velázquez de Léon rumbled his agreement with the peacemakers, and the enormously strong Cristóbal de Olid, short, squat and gnome-like, with a wild black beard and twinkling blue eyes, bounded to Escudero's side and restrained him as he attempted to draw his sword.

So far Alonso de Grado, the surprise new convert to the Velazquista cause, had said not a word, but now he strode into the centre of the floor to join Montejo. He addressed Escudero. 'Don Juan,' he reasoned, 'there is no need for you to seek satisfaction. The caudillo did not mean to impugn your courage, I am sure.'

'He said I was shy,' sulked Escudero, 'and I am not shy, as I will prove to him with my blade.' He struggled fruitlessly against Olid's iron grip. 'Release me, Don Cristóbal! It is my right to defend my

honour.'

'Your honour is not at issue here,' De Grado insisted. He was a tubular, stooping, bulbous-nosed man, whose fair skin and thinning blond hair, combed over his crown in a vain attempt to hide a bald patch, gave him more the look of a tax collector or an office clerk than a bold conquistador. 'The caudillo did not say you were shy,' he now told Escudero. 'His exact words were that he should not like to *think* you shy, and that, you must agree, is a very different matter.'

Cortés had been watching the whole scene unfold with wry amusement. All the Velazquistas knew that he was a far better and more experienced swordsman than Escudero and that barring some mischance there was only one plausible outcome to a duel. Part of him was eager to get on with it, run the pride-addled fool through and end their feud then and there, but another part of him – the stealthy, more calculating side of his character – preferred to wait and find a legal pretext to hang Escudero. It should not be too difficult; indeed an idea was already beginning to form in his mind

as to the manoeuvres needed to bring it about when there came the sound of footsteps and raised voices and Bernal Díaz poked his head through the door of the pavilion.

The young ensign pointedly ignored the Velazquistas. 'Caudillo,' he said. 'My apologies for disturbing you, send me away if I am wrong, but there's an urgent development I think you should know about … '

* * *

Tozi lurked invisibly amongst the nobles, warriors and royal attendants crowded into the courtyard, trying to make sense of what was happening there. Open to the sky, it was an immense rectangular space perhaps a hundred paces in length and eighty wide, and encompassed by a paved and covered walkway bordered on its inner side by a colonnade. The courtyard itself was floored with polished flagstones, but at its centre these had been removed

and a pit dug in the earth beneath them – a pit five paces square filled with blazing logs that sent up billows of pungent smoke to the heavens. On the north side of the pit, set back from it some fifteen paces, an imposing throne, presently unoccupied, had been positioned with benches arrayed next to it, on which sat some thirty of the leading notables of the land. Opposite them, on the south side of the pit, but much closer to the fire, four male captives dressed in the paper loincloths of sacrifice, their hands tied behind their backs, their bodies smeared with chalk, their shaved heads decorated with raven feathers attached with a glue of molten rubber, stood in line. A row of guards behind them were armed with long, obsidian-bladed spears. Held back by more guards, the crowd nevertheless pressed in impatiently, faces lurid in the flickering flames and alight with bloodlust. Never let it be said that the Mexica were not eager to witness death!

Who were these captives to merit such a public display? Tozi drifted closer, much closer, but it was not until she was right beside

them on the south side of the pit that she recognised their twisted, tortured faces. These were none other than the royal sorcerers Tlilpo, Cuappi, Aztatzin, and Hecateu, who until recently had been accorded high status, even though their spells had failed utterly to keep her out of the palace or detect her presence when she was there. It seemed that Moctezuma had at last discovered how useless they were and decided to rid himself of them.

She felt a thrill of excitement. Had he learned about her? Or was it some other failure on their part that merited this spectacular execution?

Even as the thought crossed her mind there came a disturbance at the east side of the courtyard; a procession entered with a splendid palanquin borne aloft by royal bodyguards. With hatred in her heart, Tozi watched the members of the crowd, young and old, aristocrat and commoner, cringe back as one and throw themselves to the ground as the Great Speaker passed, as the palanquin was brought forward, and as Moctezuma, dressed in robes of the finest

purple, was helped down and took his place on the waiting throne, finally lifting his hand to wave the spectators again to their feet.

There was such pomp, such pride, such a sense of entitlement about him! Casually Tozi sent a dart of fear his way and watched with satisfaction as he jerked upright, his eyes casting about, now left, now right.

Oh my, she thought, *oh my! This is going to be such fun!*

But she wouldn't rush, she decided.

Better to draw out the humiliation, better to let the evening unfold to its climax, before she showed the monster the real meaning of terror.

When Moctezuma had regained his composure, he leaned to whisper in the ear of the high priest Namacuix who stood by his side. Namacuix in turn barked an order and attendants rushed to surround the fire, raking the burning logs, subduing the last of the flames until the pit was filled only with fiercely glowing red embers. On another command, the guards levelled their spears and pushed

the four captives forward until they stood squirming and begging for mercy at the very edge of the pit, so close that their paper clothing shrivelled, blackened and burned away entirely, leaving them naked and weeping with pain.

An expectant hush fell. The guards stood poised ready. The captives teetered on the edge of the pit and then, quite suddenly, Tozi felt a chill enter her heart. Moctezuma raised his hand again and the crowd on the west side of the courtyard parted as though divided by a knife.

Through the lane that opened up in the midst of the throng someone – some *thing* – was approaching.

Some terrible, unspeakable thing.

* * *

'Well, speak up, man,' Cortés said to Díaz. 'What's this urgent development?'

‘Indians, Caudillo. Twenty Totonac Indians. I’ve taken the liberty of having Malinal talk to them, sir – one of them speaks her lingo – and it seems they want to help us fight Moctezuma.’

‘Twenty,’ scoffed Escudero. ‘Fat lot of good twenty will do us.’ His hand was back on the hilt of his sword, Olid having released his hold on him the moment Díaz had entered.

‘No, you misunderstand me, Don Juan,’ Díaz said. ‘These twenty are just a delegation, but they claim they have tens of thousands of warriors ready to fight at our side if we’ll take Moctezuma on.’

It was plain from the look on the young ensign’s face that he’d not failed to sense the explosive antagonism between Cortés and Escudero, and he stood by uncertainly, waiting for an answer.

‘Well, well,’ Cortés said, to put him out of his misery. ‘Interesting, eh … ’ He rubbed his hands together and gave Escudero a hard stare. ‘Don Juan, what say you and I settle our differences later, and meanwhile let’s hear these Indians out. What they tell us may have bearing on your plans to return to Cuba.’

‘Not a chance,’ Escudero sneered.

‘Still, we should hear them,’ Ordaz said firmly.

‘I agree,’ said De Grado. ‘An excellent idea.’

‘No harm in it that I can see,’ said Montejo, after which Olid, Velázquez de Léon and the priest also quickly fell into line, leaving Escudero no choice but to concede also.

Cortés turned to Díaz. ‘Very well, Bernal, you can bring in their spokesman – but leave the other nineteen outside, eh!’ He laughed: ‘You say Malinal is with you to interpret?’

‘Yes, Caudillo.’

‘What about Aguilar?’

‘Indisposed, sir.’

* * *

Pepillo recognised the Totonac spokesman the moment he entered the pavilion, and it was immediately clear the caudillo did also. ‘Isn’t

he one of the pair the Mexica wanted to offer us for human sacrifice?' he asked Malinal.

When she didn't immediately understand his question, Pepillo was able to clarify for her in a mixture of Castilian and his own halting Nahuatl.

'Ah, I see, I see,' she said, getting the gist quickly as she always did. She turned to Cortés. 'Yes, lord, same. He owe you life he say. He want pay debt.'

'Has he told you his name?'

'His name Meco.'

Cortés stepped forward to greet the tall, broad-shouldered, heavily tattooed Indian, while Pepillo gazed at the numerous scars on the man's body – some old, some fresh – and at his long, braided hair and the bone plugs in his lips and ears, which together gave him a wild, savage demeanour. His eyes, however, were intelligent and forthright, and Pepillo noticed that he didn't look away, or even blink, under scrutiny.

‘You are welcome here,’ Cortés said finally, holding out his hand.

Malinal put the words into Nahuatl and the Indian seized Cortés’s hand in his own, shaking it up and down vigorously.

When the formalities were over, the negotiation began – and it was, Pepillo recognised as he made notes, a negotiation from the very beginning. The Totonacs obviously thought they had something to offer and equally obviously believed the Spaniards had something to give in return.

‘Do you belong to the same Totonac tribe as the labourers who were sent to us from Cuetlaxtlan?’ Cortés asked, ‘the labourers who have now fled?’

Meco replied that he did belong to the same tribe.

‘But your dress and appearance are very different. You look like a free man. They seemed like slaves.’

With some difficulties in interpretation, which Pepillo was again able to help untangle, Meco explained that his people were from the great city of Cempoala, the Totonac capital, two days’ march to the

north, and that unlike their kin on this part of the coast, they had preserved a degree of independence from the Mexica. Even so, they were vassals, and as the tortuous conversation continued, with many stops and starts for clarification, their intent gradually emerged.

Along with everyone else in the region, they had heard of the spectacular defeat of the Maya at Potonchan, which had greatly impressed them. Moreover, said Meco, placing his hand over his heart, he could never forget the events of two weeks before when the Spaniards had stood up to the feared Mexica and Cortés had forced Teudile to release him and his son – for that was who the other intended victim had been. They had fled to Cempoala and reported the matter to their paramount chief, a man called Tlacoch, who had conceived the hope that Cortés might liberate the Totonacs from their hated overlords and sent Meco back to watch for an opportunity to approach him. He had been unable to do so while the labourers and their Mexica overseers were present, but now they were gone and Teudile's delegation had been sent 'running

off home to Tenochtitlan', as Meco put it, he had seized his opportunity. The burden of his message was this: would Cortés consider a visit to Cempoala to meet with Tlacoch for discussions that might prove to be of mutual advantage?

Cortés replied with flattery and friendly words and told Meco that the answer was yes; there were some matters he needed to attend to first, but very soon he would come to meet the great chief. 'By the way,' he asked casually, 'can Cempoala be reached by boat?'

No, Meco replied, that would not be possible, since the Totonac capital stood somewhat inland.

'Is there another city on the coast that is close?'

Meco replied that there was. Its name was Huitztlan, and it lay within a sheltered bay a few hours' march north of Cempoala.

When Cortés had satisfied himself as to all this, he ushered Meco from the pavilion, beckoning to Malinal to accompany them. Muffled words were exchanged outside. When Cortés returned, Malinal was no longer with him.

‘Well, gentlemen,’ he said, beaming at the Velazquistas. ‘What did you make of our visitor?’

‘Filthy savage,’ said Escudero, scratching a livid mosquito bite on his brow.

‘Filthy he may be, but what he came to say changes things, does it not?’

‘It changes nothing.’

‘Really?’ said Cortés, sounding amazed. ‘I feel quite differently. The noble Meco revealed dissensions amongst the Indians. I believe we can exploit such dissensions to set them one against the other, and go on to win the great prize of Tenochtitlan and the mountains of gold we know the Mexica possess. To be sure they have given us a king’s ransom in treasure already, but think how much more we stand to gain if only we persevere – all the more so now we have a real prospect of winning allies who can provide us with auxiliaries, reserves, supplies – even a sheltered port, for God’s sake; everything we need to mount a sustained campaign.’

‘Savages with bones through their noses,’ scoffed Escudero.

‘But savages who hate the Mexica and will fight for us if we give them encouragement,’ Cortés continued reasonably. ‘Come, Don Juan, don’t be so quick to dismiss this sign that God has given us of his blessings for our enterprise.’

‘I’m with the caudillo,’ announced De Grado. He laid a hand on Escudero’s shoulder: ‘I was all for your plan to return to Cuba,’ he explained. ‘It seemed wise. But this proffered alliance with the Totonacs changes the calculation. With respect, Don Juan, I wish to see how it develops before I agree to sail.’

‘There’s nothing to lose,’ added Montejo, ‘and everything to gain. I say we go to Cempoala.’

‘We should go to Cempoala,’ agreed Olid. ‘Two days’ march! What’s that when there’s so much at stake?’

Continuing to take notes, Pepillo wondered at the inconstancy of the Velazquistas, so easily swayed first one way then the other. It was a stroke of luck for Cortés – luck was often on his side! – that

the Totonacs had turned up when they did; even so, most of these men, with the single exception of Escudero, were like clay in his hands, easily bent to his will. Indeed even Escudero could be manipulated, Pepillo saw, as Cortés now skilfully turned the conversation back to the matter of the ringleader's honour the moment it was clear the majority opinion amongst the Velazquistas had swung firmly against an immediate return to Cuba.

'Juan,' he said magnanimously, 'let us bury our differences. Francisco was right earlier when he said I did not mean to impugn your honour. We should not fight – a fight in which one of us must certainly die – over such a petty misunderstanding of words … '

'You will apologise to me then.'

'Certainly I apologise for expressing myself clumsily. I have no doubt of your courage. I have never doubted it. Indeed, I hope to rely on it in the months ahead as we pit ourselves against the might of the Mexica.'

'But it is not yet settled that we shall do so,' objected Escudero.

He looked around at his companions. 'I accept that we should discover the value of an alliance with the Totonacs, but if it proves to be worthless, as I suspect, then I trust you will all agree on an immediate return to Cuba. Even you, Cortés – will you agree to that?'

'It is my responsibility as captain-general to act in the best interests of all the expeditionaries,' Cortés said smoothly. 'And I make no secret of my view that our best interests will be served, with or without the Totonacs, by marching on Tenochtitlan and taking everything the Mexica have and making it our own. But I tell you what, Juan, let us put this to the test. We will learn more of this Totonac offer and then at some suitable time we will call for a vote of the whole army on whether to stay here in Mexico and take it by conquest or whether we return to Cuba as you wish. Will you abide by such a vote? What do you say?'

'I say yes, of course.' Escudero was visibly discomfited with the eyes of all his allies upon him. 'We will take a vote and we will abide

by it.'

He could, Pepillo realised, hardly say otherwise. But what game, exactly, was Cortés playing here?

Sometimes his master's mind was as impenetrable to him as a thick fog.

* * *

At first what Tozi saw padding through the crowd was a huge jungle beast with burning yellow eyes, a black jaguar, massive and relentless, as tall as a fully grown man at the shoulder. As the creature drew closer to the pit, however, a transformation overcame it, shadows seemed to surround it, its form shimmered and faded, and finally – some sorcery was at work! – it resolved itself into the appearance of a lean and muscular Chichemec nomad. He was dressed only in a loincloth, but his entire body from his bare feet to his shaved head was covered in swirling black tattoos.

Tozi felt a prickle of fear – fear again! – but also of fascination. Who was this man? Only an immensely powerful sorcerer, a *nagual* of the highest order, could shift his shape so effortlessly.

Silent, invisible, undetected, fixed in her place on the other side of the sacrificial fire, Tozi watched as the bizarre tattooed figure advanced towards the royal throne on which the Great Speaker sat stock still, as though hypnotised. She saw that the *nagual* approached and did not prostrate himself – did not even bow his head. Who was he that Moctezuma should accord him such a high and unprecedented public honour? How could it be that he was allowed to come so near? Now he leaned forward. Now his face brushed the face of the Great Speaker. Now he whispered something in the royal ear.

Without consciously having willed it, Tozi realised she was no longer in the place where she had stood a moment ago, but was moving slowly, inexorably forward, as though drawn by some magnetism. She skirted the west side of the sacrificial pit and by

slow increments came closer, and closer still, to the twined figures of the *nagual* and the ruler seemingly locked in some intimate exchange. Now she was ten paces from them and the nobles on their benches surrounding them, now five paces, now just an arm's length, and then suddenly, shockingly, the *nagual* whirled around and looked straight at her, *as though he could see her*, his yellow eyes reflecting the red glow of the embers in the pit, burning like molten gold.

There was recognition and intelligence, ferocity and cunning also, and a malign hunger in those unblinking eyes. Yet it was less them that fixated her attention than the writhing, intricate tattoos covering the broad, flat, cruel face in which they were set – tattoos that twisted and intertwined, as though filled with a life of their own, revealing, in their dots and swirls and tendrils, a thousand transient, half-recognised shapes and forms.

Tozi gasped and staggered back, feeling the scorching heat of the pit behind her and in the same instant the *nagual* raised his face to

the dark skies above and laughed – HA, HA, HA, HA, HA, HA, HA, HA, HA, HA, HA; a horrible, reverberating, mocking bray that seemed to go on for ever, while beneath its noise, not speaking aloud but somehow conveyed by thought, a hissing reptilian voice breached her sanctuary of invisibility and penetrated her skull and said: '*Of course I see you, girl. You cannot hide from me.*'

Vaguely aware that Moctezuma had given an order and that the four captives had been tumbled howling and thrashing into the pit where they would be held in place by the spears of the guards and roasted alive, Tozi turned and fled.

* * *

It was late, and the Velazquistas were long gone, when Cortés had Pepillo bring Juan de Escalante to the pavilion. Escalante had saved Cortés's life on the first day of fighting at Potonchan, when a sudden ambush had threatened everything, and was the most

trusted of his captains and friends – more trusted even than Alvarado, who had too much self-interest ever to be entirely reliable. Escalante was also a discreet, confidential man, who'd been dead set from the beginning against the Velazquistas, who was not given to boasting and loose talk like Alvarardo, and was therefore in every way ideal for the task that Cortés now had in mind for him.

'Juan,' he said, 'welcome. My apologies for disturbing your rest at this late hour.'

'It's nothing,' said the other man. 'I wasn't sleeping anyway.'

'May I offer you a little wine? I have a very fine Galician red from my private reserve.'

'That would be nice, Hernán.' A smile. 'I'm guessing you want something from me.'

'Yes … well, as it happens I do, but let us drink first. Pepillo! See to it.'

Escalante was long-limbed and lean, almost gaunt, with prominent cheekbones, a wolfish, heavily bearded face and

startlingly blue eyes. He was somewhat vain of his appearance and his straight black hair hung down to his shoulders in order to conceal the sword wound from the Italian wars that had left a deep scar along the side of his skull and deprived him of the top two-thirds of his right ear.

'To the success of our expedition,' Cortés said, raising his glass, 'and to the glory of His Majesty Don Carlos.'

'And to the confusion of our enemy Diego de Velázquez,' Escalante added. 'May he grow boils on his backside and may all the schemes of his sycophants and supporters come to naught.'

'I'll drink to that!' Cortés laughed. They drained their glasses at a draught and he poured again. 'Indeed, a strategy to confuse and confound Velázquez further is very much on my mind at the moment, since I've spent the evening dealing with Escudero and his gang; it's why I've called you here.'

Cortés proceeded to tell his friend about the meeting with the Velazquistas and about the distraction from their endless complaints

that the surprise arrival of the Totonac embassy had brought. 'But I fear this respite will be brief,' he concluded, 'and since I have offered a vote on whether to return to Cuba or not—'

'A hostage to fortune if ever there was one!' Escalante interrupted.

'Since I have offered a vote,' Cortés continued, 'I intend to do everything in my power to make certain it goes our way. It occurs to me that one factor weighing against us is the extreme discomfort of our present quarters here on these unwholesome dunes.' He slapped at a mosquito to make his point; indeed both men were surrounded by clouds of the biting insects that infested the camp, making everyone's life a misery.

'Bloodsucking little bastards,' agreed Escalante with feeling. 'Just when the mosquitoes are done with us at dawn, the sandflies take over for the rest of the day. There'll be a big boost in morale if we can find another site.'

Cortés nodded. 'We're also too close to Cuetlaxtlan, with its

large Mexica garrison. We could thrash them, I've no doubt of it, but I'd prefer to do so at a time of my own choosing. I don't want to tempt them to some folly by staying in this godforsaken shit-hole a moment longer than we need to.'

'So you want me to go and recce some other sites?' said Escalante, divining Cortés's purpose.

'Yes, Juan, absolutely. Find us a site, and not just for another camp. I believe we must put down permanent roots in this land, establish a colony—'

'A colony! Now there's an idea that will drive the Velazquistas mad!'

Establishing a colony had been explicitly ruled out by Velázquez when the mandate for the expedition had been granted, but then so had just about everything else that Cortés had in mind.

'Escudero will oppose it tooth and nail,' he conceded. 'He'll stir up trouble. He'll claim it as yet another sign of my perfidy, but I think I know a way to outmanoeuvre him – so yes, Juan, please find

us a site where we can build a town. The sooner the better. Go north. That's where our newfound Totonac allies say they're strongest. Their chief city is called Cempoala. It's two days' march from here and somewhat inland, but I learned from them of another city they control on the coast – what was its name, Pepillo?'

Pepillo consulted his notes. 'Huitztlan, sir.'

'Very good, yes, Huitztlan, a few hours' march north of Cempoala. That's where I'd like you to head for, Juan. I've reason to believe it will provide a safe anchorage for our fleet and a good place to plant our first colony in these new lands.'

'How will I know it when I see it?'

Cortés could not resist a broad grin of self-satisfaction. 'I have a guide for you,' he said, 'none other than the Totonac emissary Meco himself. I told Malinal to ask him to return the day after tomorrow. Will you be ready to sail by then, do you think?'

'My *Santa Theresa*'s full of leaks like the rest of the fleet, but nothing the pumps can't handle, so I'm happy to sail. But how am I

to communicate with this … what's his name – Meco?'

'Malinal must stay with me,' Cortés said. 'I need her here in case further negotiations are called for with the Mexica, but my page speaks a few words of the Nahuatl language – eh, don't you Pepillo?'

'Yes, sir, a few.'

'More than a few I'd say. You were very helpful tonight. And it seems Meco speaks Nahuatl too … '

'He does, sir.'

'So there you are, Juan. Pepillo will accompany you to serve as your interpreter and I wish you sweet sailing and a swift return.'

'Sir,' said Pepillo hesitantly.

Cortés frowned. 'Yes?'

'I would like to take my dog with me, sir, that is if you and Don Juan do not object.'

'Your dog?' frowned Cortés. 'What use is a dog on a ship, lad? Leave him here I say. It's high time he was put in with the rest of the pack anyway.'

‘But, sir—’

‘I’ll tolerate no buts from you, boy. The dog stays. You go.’

Chapter Twenty-Four

Friday 14 May 1519 to Sunday 16 May 1519

'We'll have that cur of yours for the pack,' Miguel Hemes yelled. 'The caudillo won't protect you much longer.' A filthy, ragged, lice-infested, pimply urchin of fifteen, one of Telmo Vendabal's assistant dog handlers, Hemes had been following Pepillo around the camp on his errands all morning, taunting and tormenting him. Now, suddenly and ominously, he was reinforced by two of the others, fat Francisco Julian, also fifteen, puffing and perspiring as he appeared over the top of a dune, and Andrés Santisteban, Vendabal's senior

apprentice, nigh on seventeen years old, whose sparse black beard did nothing to hide the mass of smallpox scars on his face, but whose constant smile successfully disguised – for those who did not know him well – a vindictive and malicious nature.

Of the three, Pepillo feared Santisteban the most because of the consistent bullying he meted out: the kicks, the sly shoves and kidney punches when no one was watching; the choke holds and the dirty tricks designed, whenever possible, to put Pepillo in a bad light with the caudillo. It had all got so much worse in the past three weeks; Melchior's courage and fighting spirit during the kidnap attempt by the Tlascalans had only served to inflame Vendabal's desire to possess the young lurcher and it seemed that Cortés was persuaded by the hunchback's arguments. His refusal to let Pepillo take Melchior on the voyage north in Escalante's carrack, his insistence that it was time for the dog to join the pack and the fact that the promised intervention by Bernal Díaz had also failed to materialise were bad signs. Although Melchior had not yet, in fact,

been wrested away from him, Pepillo had decided to take matters into his own hands.

'Leave me alone,' he yelled as he hurried through the dunes towards the beach. He broke into a run but Santisteban soon caught up with him, grasping him firmly by the shoulder. 'Not so fast,' the older boy said. 'We want to speak with you.'

Pepillo struggled to free himself but Santisteban was much stronger than him; he kicked Pepillo's legs out from under him, forcing him to his knees on the sand. 'Give up your dog,' he said. 'Bring him to Don Telmo tonight, make a gift of him, and we'll leave you alone. Otherwise—'

'Otherwise what?' Pepillo spat. 'You'll beat me up again?'

Santisteban punched Pepillo square on the nose, a hard blow that drew blood. 'Yes,' he said. 'We'll beat you up again.'

'Beat me up all you like,' Pepillo was defiant. 'I don't care.' He used his sleeve to wipe blood and snot from his face. 'I'll never give you Melchior.'

‘Then we’ll kill your precious Melchior. Don Telmo’s orders. If he can’t have him for the pack, he doesn’t see why you should have him as a pet.’

‘We’ll poison him, see?’ It was Hemes speaking now, his voice going high and low, still not fully broken. ‘We got wolfsbane to put in his meat.’

‘But it’ll be dog’s bane for him,’ tittered Francisco Julian. ‘Unless you do what we say.’

‘You wouldn’t dare,’ Pepillo protested. ‘It would be a waste of a good dog. I’ll tell the caudillo you did it. You’ll be punished.’

‘He’ll never believe you if you tell him,’ said Santisteban, reaching down to punch Pepillo again, this time low in his belly, knocking all the wind out of him and leaving him sprawled, gasping on the sand. ‘No one will believe you. It’ll just be one of those accidents that can happen to a dog.’

After the three boys had gone, Pepillo picked himself up, dusted off his clothes, wiped his face again and made a beeline for the

beach. Wolfsbane was deadly. A few drops on a piece of meat would be enough. Melchior, growing larger and heavier by the day, had a huge appetite; he would gobble down any scraps he was offered so fast he wouldn't even notice the foul taste of the poison.

But at least that wouldn't be happening tonight. A stiff wind was blowing from the southwest, a good wind for sailing and, as he'd arranged earlier, Malinal was waiting for him by the longboat with his bounding, happy dog. 'You be in big trouble with caudillo about this,' she said as she passed the leash to him. 'He no like disobey.'

'I know, but I have to disobey him. I just have to. Thank you for understanding.'

'Sweet boy,' said Malinal. She kissed his brow and dabbed, with a look of concern, at the blood drying under his nose. 'Sail well. Come back safe.'

The Totonac warrior Meco had taken his place in the longboat and the crew were at the oars ready to row them out to Don Juan de Escalante's carrack *Santa Theresa*, which was bobbing at anchor in

the bay. 'Come on, Melchior!' Pepillo yelled. The dog barked excitedly and the two of them charged through the surf and leapt aboard.

* * *

Guatemoc watched the small boat move out through the surf towards the fleet of vastly larger vessels in the bay and noted two things with interest. First one of the war animals, undoubtedly some monstrous species of dog if its behaviour was anything to judge by, was being carried in the boat. Second, a Totonac warrior was also a passenger. What were the implications of this, Guatemoc wondered. He'd ordered all the local labourers away from the camp, and they'd done as they were told, but this man had the look of a Cempoalan, and the Cempoalan Totonacs were a bloody-minded lot.

Guatemoc narrowed his eyes as the small boat bumped against

one of the giant ones and its passengers climbed to the deck above by means of a rope ladder; the dog was last to follow, hauled up in a basket. Moments later came the sound of shouts carried distantly across the water, and men could be seen scurrying to and fro in a frenzy of activity. As though by magic, huge wings of cloth, which billowed as they caught the breeze blowing off the shore, sprouted from the three tall poles soaring high above the mountainous vessel, and suddenly it was on the move, slow at first but soon gaining speed, cutting through the waves like a knife, sending up a spray of foam to either side and leaving a lasting trace of its path in the bay behind it. Guatemoc watched spellbound – he had to admit that he was impressed – until the giant craft rounded the headland and disappeared northwards in the direction of Cempoala.

The forced march back to the coast had been as fast as any Guatemoc had ever achieved, with Cuetlaxtlan reached soon after dawn. Leaving his five hundred Cuahchics to catch their breath and enjoy Pichatzin's reluctant hospitality, he'd then hurried forward

with Mud Head, Big Dart, Man-Eater, Fuzzy Face and Starving Coyote to observe the interlopers at close quarters. There was nowhere to hide five hundred Cuahchics out here – their presence would have amounted to an open declaration of war – but he and his friends were light enough on their feet to conceal themselves amongst the dunes, avoiding the regular patrols of white-skins mounted on strange deer sent out to scout the terrain between the camp and Cuetlaxtlan. After observing the pattern and regularity of the patrols, following a few of them at a distance, Guatemoc satisfied himself that they almost never consisted of groups larger than just three mounted men – more usually two – and that they typically ranged a few miles southwards, coming within sight of the outskirts of Cuetlaxtlan before turning back. He resolved that tomorrow, or at the latest the day after, he would deploy a hundred of his Cuahchics to ambush one of these patrols close to Cuetlaxtlan, snatch the men and the beasts they rode, and then kill them in such a way that a response from the main force would be

inevitable.

'What do you reckon?' he asked his friends after he'd shared the idea with them. 'Can it be done?'

They all agreed that it could. Admittedly the battle skills of the foreigners and their deer were unknown, other than the rumours – surely exaggerated – of their prowess against the Maya at Potonchan; but it seemed inconceivable that one of the smaller two-man patrols could outfight a hundred Cuahchics.

'By the gods, we'll be no better than women if we can't pull this off,' exclaimed Mud Head.

'Indeed I will personally volunteer to bend over and let them fuck me up the arse if we fail,' said Starving Coyote with a straight face.

* * *

The raiding party was three hundred men strong, all of them

Chichemec mercenaries recently hired by Moctezuma to reinforce his armies. They were bandits, not trained warriors, but they were seasoned snatchers of victims for human sacrifice, and they were used to getting their way in the defenceless villages they targeted.

Villages like Teolo where Shikotenka had finally caught up with them. It was their last call before fleeing back over the Mexica border with their shameful haul of a thousand captives, all of them women and girls.

Teolo, a poor hamlet of a few hundred wattle-and-daub huts encircling a muddy central plaza, lay at the bottom of a valley, surrounded by densely forested slopes providing excellent cover for the fast-moving Tlascalan force of two hundred picked men that Shikotenka led. Tree and Ilhuicamina were still recovering from their wounds, and Acolmiztli was dead at the hands of the accursed white-skins, so the only one of his original captains to accompany him on this rescue mission was Chipahua, his right forearm still bound in bandages but healing fast.

'We're outnumbered,' Shikotenka observed to his friend.

'Not that we've ever been bothered by that,' Chipahua replied, clenching and unclenching the fist of his right hand twice before reaching back over his shoulder to draw his obsidian-edged *macuahuitl* broadsword from its leather scabbard.

After slaying the handful of guards posted around the edge of the forest by the overconfident Chichemecs, Shikotenka had sent contingents of men to encircle the village so that when he gave the signal to go in they could do so from all sides at once. Under normal circumstances, given the disparity of numbers, he would have preferred to launch a couple of *atlatl* volleys into the mass of the enemy milling in the plaza, but that was unfortunately out of the question today, since their captives were there with them, bound and huddled in a pathetic mass, while the last of the villagers were rounded up. The mercenaries, many already drunk on looted pulque, were well ahead with the butchery of men, boys and mature women, while the younger women and girls, screaming in terror and

outrage, were being herded into place with the other prisoners who, again, were all females.

'No rapes,' Chipahua observed.

'As has been the case elsewhere,' Shikotenka mused. He'd been inclined to discount the reports he'd heard about this new and strange behaviour, but now he was seeing it for himself. Mass rapes were a hallmark of the Chichemecs, something they regarded as a perk of the service they gave the Mexica. With such an abundance of female prisoners at their disposal, there must be some very good reason why they were acting so delicately.

The mercenary leader was easily identified, strutting about in the middle of the plaza, striking off the heads of a row of kneeling men with savage blows of his *macuahuitl* and bellowing with pride whenever he managed it at a single stroke. He seemed to be taking real pleasure in the task.

'Let's try to grab that one alive,' Shikotenka said to Chipahua. 'I've got some questions for him.'

Chipahua grinned, a gruesome sight since many of his front teeth were broken. 'So,' he said, 'are you going to give the signal?'

Shikotenka nodded. Everyone should be in place now and, even if they weren't, he wasn't prepared to witness this slaughter a moment longer. He raised the war conch to his lips and blew a single long, furious blast.

* * *

'I've come for the cur,' said Vendabal. The hunchback's manner was more than usually surly and disrespectful.

'Go and get him then,' Cortés replied. 'He's tied up by the kitchen.'

'No he's not … '

'It is normal to call your leader by an honorific, Vendabal. "Sir" will do nicely, "Captain-general" if you prefer or, perhaps, "Caudillo". I will even accept "Don Hernán" at a push. But you may

not address me as though I am a common soldier.'

'Sorry … Caudillo.' Vendabal made a vain attempt to straighten, and his horrible features creased into a sycophantic leer. 'But I've been hunting for that dog since I got your message, sir, and he ain't in the camp.'

'What do you mean he's not in the camp? Of course he is. Where else can he be?'

'Perhaps you should ask the boy, sir?'

'Pepillo? I've sent him on a reconnaissance mission with Don Juan de Escalante. Won't be back for a few days … '

'Well, there's your answer, Captain-general. He must've taken the mutt with him.'

'Nonsense, man. I gave strict orders that the dog was to stay behind.' Overtaken by a sudden intuition, Cortés wheeled on Malinal who was seated on a stool just inside the door of the pavilion. 'Do you know anything about this?' he asked.

'Pepillo take Melchior,' she said. There was something defiant in

her tone and she looked Cortés straight in the eye.

'What?' he exploded.

'Pepillo take Melchior. Why not? Dog his friend.'

'I see,' said Cortés. The red tide of a great rage was building inside him, but he would not show it with Vendabal present. 'Go!' he told the dog handler. 'I'll see you get the animal the moment my page returns.'

* * *

Against superior numbers, the right tactics were maximum surprise and maximum ferocity. But it made things so much easier, Shikotenka reflected as he led the attack, when you commanded the best shock troops in the world.

In seconds he'd passed the last of the huts with Chipahua right beside him and fifty elite Tlascalans formed up behind them in a thundering, unstoppable wedge. Roaring war cries, they hit the

surprised, already panicking Chichemec rabble at a full charge. Shikotenka swung his *macuahuitl* low and lopped the left leg off a big, red-painted mercenary, who tried to bar his way, took a knife wound on his upper left arm, swung high and decapitated the man who'd given it to him, smashed his heavy hardwood shield into the face of a third attacker scattering teeth in all directions before trampling him underfoot for one of the men behind to skewer. The phalanx was a killing machine, maintaining perfect order, each Tlascalan warrior using his shield to defend the warrior next to him, each specialised unit within the whole – spearmen, axemen, swordsmen, daggermen – working in perfect coordination with the others. Gaps opened up in the Chichemec defence by the *macuahuitls* and hatchets were exploited by the daggermen, who finished off the maimed and the injured at close quarters while the spearmen jabbed overhead, impaling men two or three ranks in front of them whose bodies fouled the feet of those trying to flee.

Meanwhile, other Tlascalan units closed in all around the circle

to cut off every route of escape, forcing the terrified, jabbering mercenaries who sought shelter in the forest to turn back into the melee, where some even cut down their own comrades in their mad desperate rush to escape murder. A handful of Chichemecs, rather than fight the Tlascalans, were running amok amongst the captive women and girls, cutting throats, splitting heads, seeking to do whatever harm they could before they died, but Shikotenka's corps of twenty archers, darting around the edge of the fight looking for targets, put arrows into every one and the captives, with howls of fury, rose up and finished them off, tearing them limb from limb.

Shikotenka and Chipahua spotted the Chichemec leader at the same moment and began to work their way towards him through the heaving, bloody scrum. He was a big man with his head shaved, but for a crest of thick hair running from his brow to the nape of his neck. He'd lost his *macuahuitl* but had armed himself with a huge war axe, and as Shikotenka and Chipahua converged on him, he felled a Tlascalan with a killing blow to the temple, then hacked his

weapon so hard between the ribs of another that it became lodged there. Chipahua darted forward and grabbed his arms as he tried to tug the weapon free; Shikotenka dropped to the ground and used his dagger to cut the Chichemec's hamstrings, crippling him in an instant. The man fell to the ground screaming and gushing blood as Chipahua prised his fingers away from the axe haft and trampled his face to silence him.

A few moments later the short, intense battle was over, the few surviving Chichemecs were rounded up, and Shikotenka dragged their unconscious leader to the edge of the plaza where he propped him against the wall of a hut.

'What shall we do with the others?' asked Chipahua, glancing in the direction of the remaining twenty or thirty dejected mercenaries now held captive.

'Use knives,' snarled Shikotenka. 'Gut them like peccaries.'

As the executions began, the Chichemec leader's eyes flickered open and filled with hate. 'Welcome back,' said Shikotenka,

looming over him. 'I've got a few questions to ask you before you die.'

* * *

The Chichemec proved to be surprisingly hard-bitten, and night had fallen – after hours of patient torture – before he told Shikotenka the news that he already half expected to hear; news that had been conveyed to him by Huicton months before.

'The Great Speaker wishes to honour Hummingbird.'

'That's obvious, you stupid bastard!' Shikotenka turned the point of his knife, which was buried between the metacarpals of the Chichemec's hand. 'But why do you take only female victims?'

A groan. 'Because that's what Hummingbird wants.'

Shikotenka turned to Chipahua. 'Makes no sense,' he remarked. 'Hummingbird's a god of war. Why would he want female sacrifices?'

‘Should be warriors,’ grunted Chipahua. ‘Fine warriors with big *tepullis* for the war god.’

The Chichemec laughed suddenly, his face twisted into a foul grimace and he coughed up a spray of blood. ‘Hummingbird wants women,’ he croaked. ‘Women and girls, the younger the better.’ A horrible leer: ‘He wants them innocent. He wants them pure.’

Shikotenka leaned forward and stared into the mercenary’s eyes. ‘Is that why you don’t rape them,’ he asked?

‘Pain of death if we rape them,’ the Chichemec coughed. ‘Moctezuma wants only virgins for Hummingbird.’

It was all beginning to make a twisted kind of sense, Shikotenka realised. There had been a few escapees from the raids over the past weeks, and more than one had reported that female prisoners were physically inspected to discover if they were intact; those found not to be virgins were killed. This would explain why the capture squads were focusing ever more intently on targeting female children rather than grown women during their raids.

Innocence, Shikotenka reflected … *purity*. These were the key words and thoughts; this was the new information he'd extracted during the interrogation.

Hummingbird didn't want virgins for their virginity.

What he wanted was their innocence!

Somehow the murder of innocents empowered both the war god and that vile creature Moctezuma who served as his regent on earth.

Judging there was nothing else to be learned from the Chichemec, Shikotenka opened the man's throat with a swift cut from ear to ear. He stood and looked around at his warriors. Only five had been killed in the fight against the mercenaries and no more than a dozen injured. It was a good result.

'Do we stay here, or head home?' Chipahua asked.

'We head home,' said Shikotenka, glancing at the wound on his left bicep, an ugly rip still dripping blood.

'You need to bind that,' observed Chipahua.

'No time,' said Shikotenka. If we march through the night we

should reach Tlascala by noon tomorrow. I need to talk to my father and Maxixcatzin. We've got plans to make.'

* * *

Long after dark, with most of the crew who weren't on watch already snoring in their hammocks, Pepillo brought Melchior to a quiet corner on the main deck of the *Santa Theresa* to continue his education. The young lurcher was extremely clever and attentive and already knew how to sit, stand, stay, come hither and walk to heel on command. Tonight's lessons were 'leave it', 'take it', and 'bring it', and for these Pepillo was using a bone to which Melchior was very much attached. He dropped the bone to the deck, hauled Melchior back by means of his leash when he darted forward and ordered him to 'leave it'. He repeated this exercise a second and a third time. By the fourth try, Melchior had got the idea, and when Pepillo said, 'Leave it!' the dog waited, panting, eyeing the bone but

not going for it. 'Good boy,' Pepillo said, slipping him one of the scraps he'd collected earlier from the galley and further rewarding him with elaborate praise and hugs. 'Very good boy!' He took off the leash, dropped the bone again with the command 'Leave it!' and Melchior remained still, ignoring temptation, looking up adoringly at his master and wagging his tail. Pepillo gave him another scrap of meat and rewarded him with further hugs and praise.

'So that's how it's done,' came a gruff voice, very close.

Pepillo looked round to see that Juan de Escalante had approached so silently that even Melchior, intent on his tricks, hadn't noticed.

'I'd always wondered,' the captain continued, 'how dogs were trained. Where did you learn this thoroughly useful skill?'

'I was raised by the Dominicans, sir, in their monastery in Santiago. We kept two dogs there to catch rats. Brother Rodriguez trained them and I helped, sir.'

'Ah … Brother Rodriguez, the librarian? I met him once.

Seemed like a nice old duffer. Not like that bastard Muñoz who disappeared when we were on Cozumel. Quite a mystery, eh?'

Pepillo bit his tongue – Muñoz's disappearance was no mystery to him – and stayed silent.

'You worked for Muñoz, didn't you?'

'I was to be his page,' Pepillo admitted, 'but the caudillo required my services.'

'And you're happy serving the caudillo?'

'Oh yes, sir. It's a privilege. I'm learning a lot.'

'Including the local lingo! I saw you jabbering away with that Totonac today.'

It was true, Pepillo had been trying to talk with Meco most of the afternoon while the *Santa Theresa* sailed steadily north along the coast of Mexico. The two of them had managed to communicate reasonably well with a mixture of sign language and Pepillo's limited but growing Nahuatl vocabulary.

'I hope I will be able to interpret for you properly, sir, when we

get where we're going. I'll try my best.'

There was a kindly twinkle in Escalante's blue eyes and his lean, weather-beaten face creased into a smile. 'I'm sure you will, lad,' he said. 'I'm sure you will.'

Pepillo had not had occasion to get to know the captain well in the months since the expedition had sailed from Cuba, but what little he had seen of him – a dashing warrior on the battlefield, a skilled sailor who treated his crew with respect – made him instinctively like and respect the man.

'You named him after your friend,' Escalante now said, looking down at the dog.

'I did, sir.'

'He was a good lad. He fought well atop the pyramid at Potonchan. I was sorry he died.'

'I too, sir.'

'I'm told you fought bravely yourself,' Escalante added.

'It was nothing,' Pepillo said, feeling suddenly embarrassed. 'I

froze up with fear for a while, then I stuck my spear in an Indian. That was about it.'

'It takes a brave man to admit to fear,' Escalante said softly. 'It was your first action?'

Pepillo gulped and nodded. He didn't suppose the killing of Muñoz, which had anyway been done by Díaz and his friends Mibiercas and La Serna, really counted. 'Yes, sir, my first action.'

'So I take it you've never been taught how to wield a sword?'

'Never in my life, sir.'

'Would you like to learn?'

Pepillo's heart leapt. Reading *Amadis de Gaula* had fired him with a very private and secret ambition to become, one day, a swordsman and a hero of renown. But that ambition could never be achieved if he didn't even know how to use a sword.

'I'd love to learn, sir,' he blurted excitedly. 'I can't think of anything else I'd rather do more.'

'Good! Then you shall have your wish. Meet me here tomorrow

morning an hour after dawn and I'll give you your first lesson.'

'Thank you, sir. You're very kind. I'll be here, sir.'

'It's nothing,' grinned Escalante. 'Oh, and stop calling me "Sir", will you! Don Juan will do very well.'

* * *

Coldly furious and silent, Cortés had dismissed Malinal right after Vendabal's departure from the pavilion and sought no further communication with her that day. She was now in Puertocarrero's quarters, struggling to avoid the foul-smelling Spaniard's latest attempt to penetrate her, when a messenger came rapping at the door and she leapt up to answer.

'The caudillo requires your presence,' the boy said with a cheeky look at Malinal's half-clad form, 'quick as you like.'

'It's late,' complained Puertocarrero from the makeshift bed of blankets strewn on the floor. 'Can't it wait till morning?'

'The caudillo says now, sir.'

'Then we'll both come,' said Puertocarrero, standing, his small pink *tepulli* fully erect in its nest of furious red hair.

'The caudillo's orders are for me to bring the interpreter only,' said the boy, suppressing a giggle that brought Malinal dangerously close to a laugh herself. 'He was quite definite about that, sir.'

Puertocarrero's erection was wilting fast. Seemingly aware of it for the first time, he snatched up a sheet to cover himself. 'Oh very well, go then,' he snapped at Malinal. 'But be quick about it. You've a woman's duties to perform here.'

When Malinal entered the pavilion she found Cortés in a better mood than when she had left him, naked but for a length of cloth around his waist, a smile on his face and a glass of wine in his hand. 'Here, drink this,' he said pouring another and passing it to her.

She accepted, cautiously. The drink the Spaniards called wine was tasty but made her head spin; she had taken some on board the caudillo's ship the first night he'd seduced her and it had made her

feel foolish and wanton. No doubt he hoped it would elicit the same feelings in her now. She took a sip. 'You want see me?' she said. 'Got some interpret to do?'

'No, my dear. No work tonight, only play.' He moved in on her fast, enclosed her in a fierce embrace and kissed her. She tasted the wine on his tongue and broke free, almost dropping her glass. 'You sex me now and Puertocarrero find out,' she said, taking another, longer sip and looking Cortés knowingly in the eye.

'Damn Puertocarrero.'

'Damn him very good but if he smell you on me he beat me sure. Maybe kill.'

'Do you think I'd allow that?' Cortés asked. He took her glass from her hand and set it down with his own on his writing table before forcing himself on her again. This time she returned his embrace, caressing his hair and responding with enthusiasm to his kiss. She felt his hand lift the hem of her robe and part her thighs, felt her loins melt in automatic response, then jerked back—

'No, Hernán! Not now! Not good!'

'Yes, now! Yes good!' He stroked the moist lips of her *tepilli*, opening her and slipping a finger inside her, finding the hard knot of the neck of her womb as he shoved her back to lie across his desk, sweeping maps and papers to the floor. There came a crash as the wine glasses followed. 'No, Hernán!' she beat feebly at his face. 'Puertocarrero maybe follow, maybe hear us.'

He ignored her, lifted her robe over her head and cast it aside, leaving her naked; kissed her breasts, softly biting her nipples, moved down to her belly, kissed and sucked her *tepilli*, his tongue hot and eager, then moved up her body again, entered her with his *tepulli* – so much bigger, so much nicer than Puertocarrero's poor thing! – and began to thrust rhythmically.

'Wait!' she cried wriggling away from him, pushing her hand against the matt of dark hair covering his chest.

'Wait be damned!' He grasped her by the hips and pulled her down onto him, but once more she fought away. 'Pepillo,' she said,

'his dog, what you do?'

Sudden fury, combined with disbelief, raged in the caudillo's eyes as it had this morning. 'You're talking to me about Pepillo *now?* You're talking about that bloody dog *now?*'

'Pepillo my friend. He good boy. Don't want you hurt him. Want you be kind.' Malinal could cry at will, a skill she'd learnt in Tenochtitlan, and wept now, tears gushing hot down her cheeks.

Cortés's anger passed as swiftly as it had appeared. 'Come come, my love,' he crooned, 'don't cry.' His *tepulli* found her *tepilli* again, the rhythmic, pleasant thrusting resumed. 'I won't hurt the boy, I promise.'

'You let him keep dog?'

'Dear god, woman!'

Malinal clenched her buttocks, made a circling motion with her hips that no man she'd ever known could resist. 'Let him keep dog,' she urged again. 'Master, please, do this for me.'

Another swirl of her hips and Cortés groaned, his thrusting

becoming stronger. She tried to pull away from him again but he stopped her with a gentle touch of his hand. 'All right,' he said, 'you win. I'll let Pepillo keep his damned dog and I won't punish him. You have my word on it.'

'Ahhh, yes … yes … ' Malinal closed her eyes, relaxed, arched her back luxuriously, sighed deeply and at last committed herself body and soul to this unexpected act of love with her master. It wasn't difficult because she did love him after all, but there'd been no harm in transacting a little business along the way. Men were easier to manipulate when they were aroused.

She stayed with Cortés through the night, made love thrice more, and returned to her quarters at dawn reeking of sex. Strangely Puertocarrero was not there, and it crossed her mind, as she fetched a bucket to wash, that he might have been out all night too, lurking by the pavilion, spying on her, listening to the unmistakable sounds of coupling.

If so, it was hard to say what the outcome would be. Malinal

yawned and stretched and found she was too tired, and too happy, to care.

* * *

As morning came the *Santa Theresa* scudded northwards, her sails billowing in a fine following wind, her keel slicing through the water and sending up a powerful bow wave.

Excited at the prospect of a lesson in swordsmanship, Pepillo had slept only fitfully, and dawn found him already at the spot where Escalante had told him to wait. He caught glimpses of the captain moving around the ship, in conversation with the boatswain, even climbing a mast and peering northwards, but more than an hour passed before he disappeared into his stateroom and then reappeared with not one but two scabbarded broadswords tucked under his arm.

He passed the smaller of the weapons to Pepillo. 'I was going to

give this to my son,' he said, 'when he reached your age.'

Pepillo noticed the past tense and an undertone of sadness in the captain's voice and felt awkward. 'You have a son, sir?'

A rueful smile from the captain. 'Call me Don Juan as I told you last night. All these "sirs" make me uncomfortable. And to answer your question, I had a wife and son both, but they were carried away last year by the smallpox.'

'I'm so sorry. I don't know what to say.'

'Nothing to say, lad. Let's get to it, eh? Draw your sword.'

The hilt of Pepillo's weapon was wrapped in criss-crossed leather and copper wire. He closed his fingers around it and drew … and drew … and drew. The blade, bright, double-edged, with a deep wide groove running from the guard almost to the tip was somehow much longer than he had expected.

'It's heavy,' he said.

'Has to be heavy to do its job. That's why the first thing you'll need if you want to be a swordsman is strength.'

Pepillo felt anxious and bit his lower lip. 'I'm not strong, Don Juan.'

Escalante leaned forward, inspected him from head to foot, pinched his biceps between a calloused thumb and forefinger and said: 'Tut tut … Too much time in Brother Rodriguez's library, eh; not enough time out in the fields?'

'I suppose so, sir … I mean Don Juan. And since we left Cuba, my work has mostly been done sitting down.'

'Well, don't worry. You're not on the battlefield yet. There's plenty of time for you to make yourself strong. From now on, if you're serious about this, I expect you to do every bit of manual labour you can volunteer for, as well as physical exercises for an hour or two a day. I'll teach you some basic routines that'll build muscle, and you need to exercise for flexibility as well … How do you like the feel of the sword?'

Pepillo looked in awe at the beautiful, deadly thing in his hands, admiring the reflections of ocean and cloud in the polished steel of

its blade. He tested its edge – sharp! – and made a few experimental slices, revelling in the swishing sound the weapon made as it passed through the air. He was entranced. 'I love it,' he said.

'Well, you'll have to love it and leave it for now. Put it back in its scabbard and give it here.'

'Why?' Pepillo asked, crestfallen.

'Because swordsmanship's all about footwork, balance and speed, and until you grasp at least the basic principles, there's little point in playing with the blade.'

Pepillo returned the weapon and Don Juan placed it on the deck with his own. 'Take a stance,' he said.

'A stance?'

'Yes, stand as strong and as firm as you can. I'm going to try to push you over. You try to stop me.'

Pepillo stood with his feet parallel and slightly apart.

'Ready?' asked Don Juan.

'Yes, ready.'

Suddenly the captain's hand shot out, fingers closed into a fist. The blow felt like being kicked by a horse and Pepillo went tumbling head over heels. Some members of the crew who were passing by sniggered. As Pepillo picked himself up, Don Juan asked: 'What did you learn from that?'

'I placed my feet wrongly?'

It was a wild guess, but the captain nodded his approval. 'You're weak with your feet close together and parallel like that … Here.' He reached down and guided Pepillo's leg. 'Slide your left foot forward … Good. Now slide your right foot back a little and turn the toes out to the side. Good! Yes. You've got it. That's a strong stance.' He placed his hand against Pepillo's chest and shoved, making him stagger back a step but not fall. 'See how you're able to resist me?'

'I … I think so.'

'But there's still something not quite right. Your centre was turned to the side then, and it needs to be turned to the front.'

'My centre?'

'Yes. Imagine a point about the width of two fingers beneath your belly button. That's your centre. When you took the stance your centre was turned to the right, in the direction of your right foot. It should have been aligned forward in the direction of your left foot. To fight with swords, Pepillo, is to dance with life and death. You are more likely to live, less likely to die, if you take care that your centre always faces your opponent as you dance and that every move you make originates from your centre. See this?' He pulled back the long hair that hung down almost to his shoulders. 'I got it in the Italian wars because I forgot my centre in the heat of battle.'

The old wound that Don Juan showed was an ugly one. Usually hidden by his hair, the top two thirds of his right ear was missing and a deep, puckered groove – long since healed into a pink mass of scar tissue – ran along the side of his skull.

'The blow reached me when I was off balance, hit me fast as a

bolt of lightning. I lost my senses, fell like a poleaxed ox, and my attacker followed through with this.' The captain pulled up his shirt and revealed a second jagged scar crossing his belly. 'I was rescued by a good comrade. He killed the man just before he delivered the *coup de grâce*, dragged me out of there – though the fight raged all around us – and got me to a surgeon in time. He saved my life but I wouldn't have needed saving if I'd just watched my centre. Do you understand what I'm saying?'

Pepillo nodded his head vigorously. 'Strong stance,' he said, 'good balance, centre always facing the enemy.'

'And that way you stay alive.' The captain smiled. 'Had enough?'

'No, Don Juan.' Indeed Pepillo had never felt more invigorated or wide awake.

'Good! Then it's time to teach you the basic steps. No point in a nice strong stance if you don't know how to move.'

* * *

Moments after Malinal had slipped out of the pavilion, Cortés fell into an exhausted, satiated sleep, amongst the rugs they'd used on the floor when the hard surface of the desk had lost its charms. He slept and, as was often the case, he dreamed.

Dreamed of the golden city of Tenochtitlan that lured him on.

Dreamed of conquest and of honour.

Dreamed of Saint Peter, his patron, his guide, who held the keys to heaven and whose intercession, after so many sins, was his one sure route to salvation.

This time the setting was the place – he had travelled there in dreams more than once before – that Cortés took to be heaven itself, filled with beautiful, ethereal figures, male and female angels, he thought, all dressed in white, going placidly about their business. There was a great wall of mother-of-pearl around heaven, entered through high gates, but they always swung open to admit him when he arrived and he was wafted now, on the wings of a warm, soft wind, into the throne room, vaster than any cathedral, all made of

scintillating amethyst and radiant sapphire, and thence forward until he stood in the mighty presence of Saint Peter himself.

Dressed in a simple hemp tunic, its sleeves rolled up revealing forearms knotted with muscle and huge hands made more for gripping a sword then bestowing blessings, the holy saint was a tall, robust man, as massive as Hercules, powerful in the chest and thighs, rugged featured, clean-shaven with thick fair hair, in which the blond of vigour was shot through with the grey of wisdom. He seemed in the prime of life, perhaps forty years of age; a nimbus of brilliant light shone from his body, particularly dazzling around his head, and there was an animal magnetism, a dangerous allure, a raw, overwhelming charisma and the unmistakable demeanour about him of a soldier used to command.

But it was his eyes, above all else, that demanded, required, indeed *compelled* attention, and that drew Cortés in towards him, helpless as a lamb to slaughter – eyes pitiless and remote, hard as diamonds, black as coals, yet paradoxically brilliant as the sun.

‘Welcome, Captain-general,’ said the saint. ‘Your army is the army of God, and heaven blesses your venture.’ He reached forward and placed his heavy hand on Cortés’s head, seeming to press him down with the weight of the world.

‘Thank you, Father,’ Cortés replied, his voice choked with emotion.

‘But you must not tarry long at the coast,’ Saint Peter continued. ‘Your enemy Moctezuma has summoned the help of the devil. Make haste to Tenochtitlan, my son, or you will face defeat.’

‘My plans are already in motion, Father.’

‘Good! Excellent! Yet hear me, my son. You must go by way of a city called Cholula, a vassal city to the Mexica. I am preparing a great victory for you there.’

‘Cholula … Yes, Father. I will remember. I will be sure to place it on our route of march. But—’

‘Yes?’

‘There is something I must settle first. A problem. A difficulty

… ’

‘Tell me, my son.’

‘Certain of my captains conspire against me. I must flush out their plot and destroy them utterly before we begin our march. If I fail to do so, I run the risk of mutiny at some vital moment.’

‘I know of this plot,’ said the saint. ‘I have already inspired you with the strategy to defeat it.’

Cortés looked up at him, surprised.

‘Do you really think all your ideas are your own, my son?’ Saint Peter laughed, a great rumbling bellow that began low in his gut and worked its way up through his chest to burst forth from his throat. No sooner had it died away, however, than there was a sudden change of subject: ‘The native woman I arranged to have the Maya give you. You like her?’

‘She’s proving to be a gifted interpreter, Father.’

A sly smile. ‘And gifted in other ways as well?’

Cortés hung his head, knowing nothing could be hidden. ‘She is

my lover, Father.'

'A tasty morsel, eh?'

It seemed a strange choice of phrase for a saint. 'Yes, Father,' Cortés replied.

That huge hand clapped down on his head again. 'Do not worry. Every good soldier deserves his bed slave and I am glad to provide her for you. Yet take care! She is a cunning serpent. You must treat her firmly. You must not let her lead you astray.'

'Astray, Father?'

'As she led you astray tonight…' The saint's fingers tightened in Cortés's hair, taking a powerful grip. His voice suddenly boomed: '*Teach her a lesson, my son!*'

'A lesson, Father, how?'

'Show her you are a man by denying her demands. Punish your page severely when he returns from his voyage. Take his dog from him and throw it in with the pack.'

'Your wish is my command, Father,' Cortés said as his dream

dissolved into mist and he awoke in his pavilion, hot and covered with sweat.

He stood, staggered to the door, poked his head out and looked up. The sun was high, past midday, and waiting outside, chatting amiably with the guards, was Puertocarrero.

* * *

Huicton had been in Tlascala for three days waiting for Shikotenka to return from a renewed campaign against the Mexica. Now he was in conference with his father, Shikotenka the Elder, and with Maxixcatzin, who served as deputy to both leaders, when the battle-king strode in to the audience chamber, his tunic covered in blood, and a fresh knife wound, as yet unbound, livid on his left bicep.

'Did we prevail?' asked Shikotenka the Elder in his dry, somewhat tremulous, ancient voice.

'We prevailed, father.' The younger Shikotenka seemed to see

Huicton for the first time. 'You!' he said. 'Strange to find you here, now! You've been very much on my mind.'

Huicton studied the younger man. 'That's a nasty injury you've taken,' he said. 'Will you let me attend to it? I have some knowledge of medicines.'

'It's nothing. Just a flesh wound.'

'Nonetheless, it should be salved and bound. Flesh wounds can fester. I have an ointment in my quarters that's just the thing. Can I send for it?'

Shikotenka looked distracted. 'If you wish,' he said – immediately Maxixcatzin signalled to an attendant and sent him off to collect the salve – 'and since you're here, let's review again the offer you renewed a few days ago, of an alliance with your master Ishtlil.'

'An offer you turned down then, as you did once before.'

'I'm open to reconsidering it now, so long as it's not tied to any foolish plan to befriend the white men at Cuetlaxtlan.'

Huicton chose his words with care: 'For the moment the two matters can remain separate.'

'Then let's talk,' said Shikotenka, drawing up a stool.

* * *

'You've been tupping my woman,' Puertocarrero got straight to the point once they were sitting face to face within the pavilion. 'Don't deny it, Hernán. I followed her here last night, I saw her leave at dawn and I heard the pair of you hard at it.'

Cortés raised his eyebrows and spread his hands. 'What can I say, Alonso? You have caught me in the act … '

'You could start by saying you're sorry.'

'Look, let's have a glass of wine, shall we?' suggested Cortés. 'My head's pounding. A drop of the poison that caused it might cure it, as the saying goes.'

Puertocarrero's beady eyes brightened and his bushy red beard

twitched. He was a man who liked a drink. 'A bit early, isn't it?'

'Oh to hell with that!' Cortés skirted the broken glasses still lying on the floor, found two more on a shelf, reached for the wine jug and poured. 'Here's to Malinal,' he said, 'a fine woman.'

'A whore!' said Puertocarrero, emptying his glass at a single swallow and holding it out for more. 'A damned scheming, conniving, libidinous whore. I've a mind to beat her to death.'

'Do that and I'll hang you for a traitor,' said Cortés. 'She's a vital asset to the expedition. Without her interpreting skills, we'd be lost in this land.'

'Traitor! It's you who's the traitor. You've betrayed our friendship by cuckolding me. I'll be the laughing stock of the whole camp.'

'The whole camp doesn't need to know, Alonso. I'll see to it the guards say nothing. This is just a matter between you and me.' Cortés was struck by a sudden intuition. 'Come on,' he added, 'admit it; you don't even like her.'

Puertocarrero had finished his second glass of Galician red and

now helped himself to a third. 'Can't stand the stuck-up, whining bitch,' he agreed. 'Useless in bed – don't know what you see in her frankly – a shrew and a nag, thinks too highly of herself.' He looked defiantly at Cortés. 'She's been nothing but trouble since you gave her to me.'

'And what I gave is mine to take back,' Cortés reminded him, draining his own glass. 'I am your captain-general after all.' He pointed at the jug. 'More?'

'Don't mind if I do,' said Puertocarrero.

As Cortés poured again for both of them, his mind was working fast. This might prove much easier than he'd feared. With enough enemies already amongst the Velazquistas, he didn't want to alienate his old and hitherto reliable friend if he could possibly avoid it, and he now thought he saw the way out. He must nurse Puertocarrero's pride, persuade him to view what had happened with Malinal not as a personal slight but as a kind of *droit du seigneur* of the captain-general, and he must make sure the whole

matter was kept discreet. He fully intended to continue – indeed increase! – his liaisons with Malinal, but she would have to go on living with Puertocarrero if the proprieties were to be observed, and of course the word 'cuckold' must never cross anyone's lips.

But how? How was that to be achieved in the long term? Granted Puertocarrero really didn't seem to like her, but the man was by no means a complete fool, and surely he would expect, and must get, some great reward in return for his complicity in the affair. A picture of the huge treasure that the Mexica ambassadors had brought took shape in Cortés's mind and he thought: gold …

Gold would do it, as it always did.

He was considering which pieces would be sufficient to buy Puertocarrero off once and for all, and to keep his loyalty, when a new idea presented itself to him in a flash, a fully formed idea, immaculate and perfect, with which he could kill two, nay three, nay a whole flock of birds with one stone.

* * *

'The mountain provinces of Texcoco under your master's control share a common border with Tlascala, across which our troops – and yours – can move back and forth with ease,' said Shikotenka. 'As a first step in our new alliance, how about we guarantee your men refuge and reinforcements when they're under hot pursuit by Mexica forces? And how about you do the same for us?'

As the discussion continued, Huicton washed and dressed Shikotenka's wound. The battle-king seemed to have a great oppression hanging over him, and Huicton learned with careful probing that it was to do with the new Mexica practice of seizing virgin females for sacrifice. Shikotenka's loathing for this abomination, Huicton discovered, was what had sparked his change of mind on an allegiance with Ishtlil, and by the time the meeting was drawing to a close, they'd agreed not only on mutual Tlascalan and Texcocan support against Mexica hot pursuit, but also, in the

longer term, on the need to create a unified army of both peoples – something that had been inconceivable to the independent-minded Tlascalans even a month before.

Only when all this had been talked through and settled did Huicton bring up the matter of the white-skinned strangers again. 'I have visited their camp,' he said. 'I have met their leader.'

Shikotenka's face darkened. 'And … '

'He told me frankly he's here to conquer Moctezuma.'

The battle-king frowned. 'How did you communicate with him?'

'He has a woman as his tongue, Lord Shikotenka, a Mayan woman called Malinal who was a slave in Tenochtitlan for many years. She is as fluent in our Nahuatl language as she is in her native Maya, and there is a man, one of the white-skins, who also speaks Maya. When words are to be interpreted from Nahuatl she puts them into Maya and this man in turn puts them into the language of the white-skins. When the white-skins wish to put words into Nahuatl they first speak to the man who puts them into Maya for

Malinal, and she in turn renders them into our language. Between them they are able to provide effective interpretation.'

Shikotenka fell silent for a moment. 'Gods do not need interpreters,' he said eventually, 'let alone an arrangement as complicated as the one you describe.'

'Quite so! Whatever they are, these white men are not gods.'

'What are they, then, do you think?'

'Men like us, Lord Shikotenka. But peculiarly powerful and dangerous men … '

'On that we are agreed!'

'Yet I believe they are heaven-sent to aid us in our fight against Moctezuma.'

'On that we are *not* agreed.'

Huicton reached into a satchel lying at his feet and pulled out the small bag containing the handful of shining, brightly coloured beads of a most curious design that he had brought for Shikotenka from the coast. 'The leader of the white men is called Cortés,' he

said. 'For what it's worth, I believe he does mean to destroy Moctezuma as he told me.' He poured the beads into his hand and passed them to Shikotenka, who took them and looked at them with puzzlement. 'Cortés asked me to deliver these to you,' Huicton continued, 'and gave me a message for you.'

'Then discharge yourself of your message, Ambassador.'

'I am to say, Lord Shikotenka, that you and Cortés share a common enemy in Moctezuma and that the lord Cortés will be pleased to work together with you to bring the tyrant to his knees. I am to say that the lord Cortés promises you his help and the help of his men and of all the great weapons at his disposal to achieve this worthy end.'

Shikotenka poured the beads thoughtfully from hand to hand. They tinkled like little bells and caught the light, sparkling in a way that seemed to fascinate him. Then abruptly he dashed them down onto the hard flagstones at his feet, where they shattered into a thousand pieces. On impulse Huicton bent to gather them up, but

the shards were as sharp as obsidian razors and he jumped back, cursing, with blood dripping from the many small wounds opened in his fingers.

Shikotenka looked on gravely. 'The white men's promises are as pretty as their beads,' he said. 'I fear they will break just as easily and make us all bleed before the year is out.'

* * *

By late afternoon Puertocarrero was very drunk, and singing sentimental songs. Cortés, who was not so drunk, chose this moment to strike. 'I have a plan, Alonso,' he said. 'One that will solve all our problems at a stroke and make you a very wealthy man into the bargain.'

Although Puertocarrero was from a respected aristocratic family, he was the second son and they'd settled no fortune on him. He looked up sharply, his eyes glittering at the prospect of riches. 'Tell

me more,' he said.

'Should it not wait until the morrow?' Cortés asked. 'When you're sober?'

'Bugger the morrow, Hernán. Tell me now.'

Cortés leaned closer. 'How would you like to go home?' he asked.

'To Cuba? Not very much. I'd rather stay here and get rich with you. You'll have to find me another woman, though, to replace that fucking whore.'

'I'm not speaking of Cuba, Alonso. I'm speaking of Spain. How would you like to go home to Spain and take with you all the treasure the Mexica have given us?'

'The treasure?' Puertocarrero asked. Cortés had his attention now and the man was sobering up fast.

'Yes, the treasure. All of it.'

'All of it! I don't understand, Hernán. What are you talking about?'

‘It’s very simple really. Our expedition is illegal. It has always been illegal since we sailed contrary to the wishes of Diego de Velázquez … ’

‘That prick!’

‘Indeed. But unfortunately that prick is the governor of Cuba, and his powers in this region are godlike. He can, and will, have every one of us hanged if he gets the chance.’

Puertocarrero rolled his eyes. ‘So we make sure he doesn’t get the chance.’

‘Of course,’ said Cortés. ‘Nonetheless, Velázquez’s arrest warrants will cast a shadow over us for the rest of our lives unless we can find a way to neutralise him completely.’

‘And you’ve thought of a way?’ Puertocarrero held out his empty glass for more wine.

As he poured, Cortés asked quite casually, ‘Who has more power than the governor?’

‘The king?’ Puertocarrero hazarded after a moment lost in

frowning thought.

'The king! Exactly! If we can win the king to our cause, then Velázquez will be lost.'

The light of comprehension was beginning to dawn on Puertocarrero's face. 'You're going to bribe the king to intervene against Velázquez by making him a gift of the treasure we've already won!'

'That's right, my friend, and with your family connections you're just the man to take it to him. You may keep a tenth portion for yourself – ' at this Puertocarrero's eyes widened – 'but I expect you'll return here. Once we're rid of Velázquez, we'll be free to do as we wish in these New Lands and to take what we want. We'll be richer than kings!'

* * *

Tozi had left Tenochtitlan immediately after fleeing the palace.

She'd been so shocked and afraid – yes, afraid! – that she'd run the full two-mile length of the Tacuba causeway. Cloaked in invisibility, she'd passed unnoticed, but the undeniable fact was she'd been seen by Moctezuma's new Chichemec sorcerer.

'*Of course I can see you, girl. You cannot hide from me.*'

The words echoed in her head even now, almost three full days later, where she'd gone to ground in the lakeside city of Tacuba. Huicton kept a safe house there, owned by Yolya, a burly middle-aged woman with a sweet, gentle nature. Tozi had stayed with Yolya before when Huicton had first sent her to 'charm' Guatemoc, then lying convalescing in his father's mansion in nearby Chapultepec, and it had seemed the obvious place of refuge in her present pass.

Moctezuma's sorcerer was a man of power, a *nagual*, a shape shifter, and Tozi was convinced he would find her and kill her if she came within range of his senses again. No more venturing into the palace on her nightly missions! Indeed, she was not sure she was

completely safe here in Tacuba, even in this unobtrusive single-roomed shack, halfway along a narrow, rubbish-strewn alley and surrounded on either side by other identical dwellings.

'I might be putting you in danger, Yolya,' she said to her host. But the older woman, who made her living as a laundress, and who was even now at work in her yard folding baskets full of sheets and blouses in the late afternoon sunshine, merely laughed. 'Nonsense, Tozi. No one will think to look for you here. We're safe enough … '

'Maybe I should go,' Tozi continued, as though Yolya hadn't spoken. 'The god Quetzalcoatl is at the coast – that's where Huicton's gone. That's where my friend Malinal is. I should join them.'

'Hush, child. Huicton will return soon. Wait here until he does and then decide your next move.'

Tozi sighed. All her pride, all her strength, all her courage had evaporated, revealed to her as no more than a foolish girl's bravado. For the first time since Huicton had rescued her from the mob that

had killed her mother eight years before, she didn't know what to do.

* * *

It was the late afternoon of Saturday 15 May, and after a smooth and uneventful voyage with a fair wind from the south, the *Santa Theresa* hove in sight of a fair-sized native town, perched on a headland overlooking a crescent-shaped bay, sheltered by high cliffs. The Totonac warrior Meco hurried to Pepillo's side, pointed excitedly, and said 'Huitztlan.'

Pepillo ran at once to Captain Escalante: 'It's the town we've been looking for, sir, Meco confirms it.'

Escalante smiled. 'That's good news, boy, for it seems to offer a sheltered anchorage just as the caudillo hoped. Now let's find out if the natives are friendly.'

The *Santa Theresa* dropped anchor close to the town, from

whence hundreds of Indians poured. They came leaping down the steep steps cut into the cliff and spread out twenty-deep on the little pebble beach skirting the bay. There were men – for the most part unarmed – and colourfully dressed women and children, all laughing and crying out excitedly. But when the longboat was launched and Meco was recognised, their excitement grew wilder and they burst out into a cacophony of shouts, whoops and ululations. He called back to them – some words that Pepillo couldn't understand.

'Ask him what's going on,' said Escalante. He was seated at the front of the longboat, armed with sword and dagger and wearing his steel cuirass. Five other swordsmen, five pikemen and two musketeers were also in the landing party – 'just in case of trouble,' Escalante had said.

Meco was grinning from ear to ear and Pepillo found it hard to get sense out of him as the longboat approached the shore, but eventually understood that the Totonac had sent word ahead after his meeting with Cortés on 12 May, that they were expected, and

that all was well. They were to be the honoured guests of the chief of the town and a banquet awaited them.

'He says there's nothing to fear,' Pepillo reported. 'We're their honoured guests. They've prepared a feast for us.'

'I hope they don't mean to feast *on* us,' Escalante laughed. 'I don't intend to be any savage's dinner!'

The cannibalism so much relished by the natives of Mexico was something all the Spaniards held in mortal disgust, and nervous glances were exchanged by the soldiers as the boat ran ashore. The crowd rushed in upon them, a jabbering cacophony of voices and outreached hands. The pikemen raised their weapons, the musketeers levelled their arquebuses, and Indians would certainly have been killed but for Escalante, who called out: 'Hold fire, belay those pikes, I'll hang the first man who strikes a blow,' and strode into the midst of the throng with the greatest confidence.

At once he was lifted shoulder high by a group of smiling, laughing youths, who placed a garland of bright flowers around his

neck and carried him towards the steps. 'Come on, you laggards,' he yelled, looking back at his men still clustered around the boat. 'What are you waiting for?'

* * *

Guatemoc had waited all day with a hundred of his Cuahchics to ambush a white-skin patrol, but although pairs of scouts mounted on their odd-looking deer had approached several times, they had never come close enough to be snatched. The deer were too fast to be chased far on foot and Guatemoc didn't want to risk revealing his position until he was sure he could spring the trap he'd prepared.

'Complete waste of time,' he said to Mud Head in disgust. 'Yesterday, when we weren't ready, they came within a bowshot of the town three times; today, when we are, they keep their distance.'

'Perhaps they suspect we're here?' ventured Big Dart.

But the others disagreed. 'Patience!' said Starving Coyote.

‘They’ll be back tomorrow. We’ll have better luck then.’

Night was falling and lanterns were being lit on the outskirts of Cuetlaxtlan. Reluctantly Guatemoc gave the order to return to the town.

The remainder of his force, four hundred men, had spent the day in the walled compound provided for them by Pichatzin, the governor of Cuetlaxtlan. The compound, which contained dormitories, an extensive kitchen and an eating hall, had been built to house visiting Mexica nobles and their entourages, and was luxuriously appointed with its own staff of cooks, servants and cleaners.

Pichatzin was waiting when Guatemoc returned. The governor seemed anxious, nervous, somehow out of sorts, sweating profusely and asking many questions about the white-skins, and about Guatemoc’s strategy for the morrow, as the two of them sat down to enjoy an excellent dinner.

‘I fear,’ said Pichatzin, ‘if you bring captives into my town, that

the white-skins will attack us in full force.'

'That's precisely what I want them to do,' said Guatemoc, 'and if you fear their attack, I suggest you leave.'

When the engagement that he sought to provoke with the white-skins came, Guatemoc had already resolved to commandeer Cuetlaxtlan's garrison, a full regiment of eight thousand fighting troops whose normal purpose was to suppress dissent amongst the rebellious Totonac factions in the countryside to the north around Cempoala. It still might not be enough to deal with an army that had routed forty thousand Maya at Potonchan, but at least it would force Moctezuma to send reinforcements. This seemed as good a moment as any to share the plan with the governor.

'You may take a personal escort,' Guatemoc continued. 'Fifty of your men should be sufficient to bring you to Tenochtitlan in safety; but I'll require you to leave the rest of your garrison with me.'

'My garrison,' spluttered Pichatzin. 'You want my garrison for this fight you're picking with the white-skins?'

‘Of course I do.’

‘On whose authority?’

‘On my own authority. I am – or have you forgotten? – a prince of the blood.’

Pichatzin’s eyes bulged. His position in the Mexica aristocracy was too low for him to even contemplate refusing the orders of a member of the royal family. At the same time, he knew from Teudile that Moctezuma did not want war with the white-skins.

‘It is not wise, Prince,’ he said carefully. ‘We must seek approval from Tenochtitlan before engaging—’

Guatemoc cut him off. ‘There simply isn’t time,’ he said. ‘I would have taken command of your troops today if things had gone as I intended, and I put you on notice now that I’ll need them tomorrow; not for the ambush – my specialists will look after that – but for what comes after.’

He beckoned a serving girl with a particularly delicious rump and ordered more pulque before turning back to Pichatzin. ‘Go to

Tenochtitlan, Governor; you have my blessing. Take fifty men with you by all means, travel fast, and tell Moctezuma what's happening here. I'll be pleased to have his support. It's a matter of vital importance that we stop the white-skins now, at the coast, before they consolidate their strength and march inland. The very survival of our nation is at stake.'

* * *

The chieftain of the Totonac town of Huitztlan was named Yaretzi, a small, wiry middle-aged man with a receding hairline and a pointed nose whose jerky head movements and watchful beady eyes reminded Pepillo strongly of a farmyard hen. The Spaniards had been brought directly to his palace – a sprawling, flat-roofed, two-storey stucco structure that overlooked the bay – and ushered into an inner courtyard, open to the starry sky, where a sumptuous banquet was laid out on tables. There they were joined by the

Council of Elders – twenty grave tribesmen dressed in ceremonial robes – and the heaped plates were inspected.

'Tell them we don't eat human flesh,' said Escalante, sniffing a collation of strange meats.

Pepillo communicated the thought to Meco, who laughed uproariously and said he already knew this since, after all, the white men had saved him from being offered up as a dish to them. 'Don't worry; only peccary.' He pointed to other plates: 'There turkey, there sea fish, there monkey – very nice! – there parrot, there dog.' He looked down at Melchior who stood impatiently salivating at Pepillo's side. 'Not like your intelligent dog, though. Dogs we eat very small, very stupid. Anyway, no human meat here, I promise.'

Pepillo was realising that the more he heard of Nahuatl, and the more he was forced to rely on quick understanding, as he had been in his conversations with Meco these past two days, the better he got at it. Very few of the other Totonacs spoke the Mexica tongue, however; even Yaretzi had only a smattering, so the whole evening

would depend on what he and Meco were able to convey to both sides.

The strong local drink called pulque was served and Escalante sent down to the ship for wine, which the Totonacs tried and at once declared their love for. Some heavy drinking followed, with much slurping and smacking of lips and, as the evening wore on, a great, mellow feeling of camaraderie descended over the whole group. A particular rallying point was mutual distaste for the Mexica. Escalante was forthright in expressing his loathing for these 'bullyboys', and informed the Totonacs that the Spaniards were here for one purpose only, which was to conquer Moctezuma and free all those who suffered under his unjust rule. The Totonacs for their part complained bitterly of the onerous annual demands for tribute in goods, crops and services that the Mexica levied on them, especially the 'human tribute' of sacrificial victims, which was growing increasingly impossible for them to bear. It seemed there had been some marked change in this aspect of the Mexica

overlordship of the Totonacs in recent months – something about children – but Pepillo was not able to understand exactly what was being said to him.

'Never mind,' said Escalante, brushing aside the need for details. 'The gist is clear enough. Tell them we're the men to get Moctezuma off their backs but we'll expect some help from them in return.'

Pepillo conveyed the message to Yaretzi who replied: 'Anything within my power. The great lord Tlacoch has told me to put myself at your service, and this I do willingly … '

'Tlacoch?' said Escalante. 'Who the hell's he?'

'The paramount chief of the Totonacs,' Pepillo remembered. 'Has his seat in the city of Cempoala, a few hours' march south of here – the caudillo mentioned him to you, Don Juan.'

'I can't be expected to remember every one of these damned names … '

'Tla-coch,' Pepillo repeated, emphasising both syllables. 'He's

the one who sent Meco to us to seek out an alliance in the first place. It seems Yaretzi answers to him.'

'Well and good, whatever he's called,' said Escalante, draining his fourth mug of pulque with a grin and switching to wine. 'By God I like these fellows, Pepillo, and it seems they like us, so now's the time to put our proposal to them. Tell them, if your language runs to it, that we want the right to build a town of our own here on these cliffs next to theirs. Tell them we delight in their company so much that we want to be their neighbours. As their neighbours we will become their friends, their brothers and their family, and as their family we will join in the great enterprise of ridding them of Moctezuma.'

It was a difficult interpreting challenge, and Pepillo and Meco went back and forward on it for some time, often resorting to sign language, before it could be conveyed, but Yaretzi's response was immediate and enthusiastic. 'We are very happy that you will build your town here,' he said. Our labourers, our craftsmen, our materials

– all will be put at your disposal. We are honoured,' he concluded, 'that the gods wish to live amongst us.'

'Tell him we're not gods,' said Escalante.

Pepillo tried but Yaretzi would have none of it. 'Of course you are gods,' he insisted. 'Everyone knows this.'

Escalante stood up a little unsteadily from the table, walked round to where Yaretzi was sitting, lifted the chieftain to his feet and wrapped him in a strong Spanish embrace. 'We are not gods,' he said, 'we are men like you. We are your brothers, and as brothers we embrace you.'

Yaretzi, who was also very drunk, returned the embrace. 'Still you must be gods,' he said. 'For only gods could hope to destroy Moctezuma.'

* * *

On the morning of Sunday 16 May, after breakfasting with his

friend and fellow ensign Bernal Díaz, and attending the short service in the makeshift chapel on the dunes, Gonzalo de Sandoval donned his cuirass, strapped on his sword and walked to the stables. Alonso Puertocarrero would ride out with him on this first patrol of the day; he was already mounted on his silver-grey mare Ciri and impatient to be off.

Sandoval took his lance from his groom and climbed into the saddle of the chestnut mare, Llesenia. He was far too poor to own a horse, but the caudillo had put this one at his disposal at Potonchan, and allowed him to keep her ever since. Rather than place his lance in the scabbard attached to his saddle, as Puertocarrero had done, he kept it in his hand; some intuition told him he might need it. 'A fine morning for a gallop, Alonso,' he said, trying to sound cheerful.

'A fine morning indeed, Gonzalo. What say we go as far as Cuetlaxtlan? Give those Mexica a bit of a scare. I could do with a spot of action.'

Puertocarrero was a braggart and a blowhard, and had not done

well at Potonchan where others, including Sandoval and Díaz, had been commended by the caudillo for conspicuous bravery. Perhaps this explained why the red-bearded aristocrat so often seemed to feel the need to prove himself.

'I'd prefer to avoid action if at all possible,' Sandoval replied. 'Our mission is to scout, not start a fight.'

'Oh bah!' said Puertocarrero. He spurred Ciri and set off at a gallop.

Sandoval followed in his dust trail.

* * *

Guatemoc had prepared his ambush with the greatest possible care.

To approach Cuetlaxtlan, the white-skinned deer riders would need to wind their way through a range of low dunes. There were four possible paths and on either side of each of these, dug into the sand so they were as near to invisible as possible, he had distributed

the hundred Cuahchics he'd selected for the task – his most skilled, most violent warriors. Twenty were with him, while the other three groups, each also twenty men strong, were led by Fuzzy Face, Big Dart and Man-Eater. Reserves of ten under Starving Coyote and another ten under Mud Head were held back, out of sight, in houses at the very edge of town, able to join the fight in a matter of moments wherever they were needed most.

And a fight it seemed there would be! A short while before, two long trails of dust had appeared in the north, and now, beneath them, coming on at fantastic speed, could be seen two riders, their upper bodies shining silver in the sun.

These were not gods, Guatemoc reminded himself; he refused to believe such superstitious nonsense. Yet how fast they moved! How extraordinary they seemed! How they loomed and threatened as they approached! How the hooves of their deer thundered and shook the earth! Already the lead rider had chosen his path; it would not take him past Guatemoc's position, but between the

dunes commanded by Big Dart. The second rider was a hundred paces behind on the same trajectory, yelling something in his strange language, his words torn away by the wind. As the first rider passed from view into the reach of Big Dart's ambush, Guatemoc barked an order and his twenty surged from their hides and rushed to join the fray.

* * *

Sandoval was furious at Puertocarrero's rashness and stupidity. What had got into the man, to approach so close to Cuetlaxtlan with its huge garrison – and at such an impetuous pace? Still, there was nothing for it but to follow and try to rein him in. Shouting, 'Stop, you bloody fool' at the top of his voice, he spurred Llesenia, aiming her at the gap between two dunes that Puertocarrero had already entered, when everywhere he saw painted Indians dressed in loincloths, armed with spears and obsidian-edged broadswords,

erupting from the sands. Twenty of them were straight ahead, swarming around Puertocarrero and – ye gods! – one of them shoved a spear between Ciri's legs, making her stumble, sending her idiot rider flying out of the saddle and crashing to the ground on his face before he'd even had time to draw his lance from its scabbard. Riderless now, Ciri quickly recovered her footing and bolted free, evading other groups of attackers, yelling war cries and beating their swords against their shields, who converged from dunes to the left and right. With no time to think, only to act, Sandoval bellowed 'Santiago and at 'em', dropped the tip of his lance to take an Indian full in the chest, jerked the weapon free in a spray of blood, raised it high, stabbed down to kill another, bowled three more men over with the force of his charge, smashed his iron-clad stirrup into a warrior's screaming face and wheeled Llesenia in a tight arc, her hooves lashing the air, before driving back a pair of Indians who already had their hands on the seemingly unconscious Puertocarrero and were trying to drag him off.

Now Sandoval himself was surrounded, and the little valley between the dunes was rapidly filling with scores of screaming, heavily armed warriors. Steadying Llesenia, he bent low, grabbed Puertocarrero by his wiry red hair and, with a mighty effort, hauled his limp, unconscious weight up into the saddle in front of him – at the cost of his lance, which was torn from his grasp by a glowering savage. Releasing the reins, gripping Puertocarrero round the midriff, clinging onto Llesenia by his knees alone, Sandoval drew his broadsword, cleaved the skull of the damned Indian who'd taken his lance and urged the prancing chestnut mare onward into the scrum. Hemmed in by contorted, painted faces that streamed with sweat, their eyes flashing white, their filed teeth bared, it was a scene from his worst nightmare. Some projectile bounced harmlessly off the backplate of his cuirass, an arrow grazed his thigh and, as a thicket of strong brown hands reached to unseat him, his sword scythed down, taking an arm off at the elbow here, severing a man's fingers there, hacking so hard through the neck of a third that his

head, smeared with yellow and red paint, took flight, ending up bouncing and rolling a dozen paces away.

Poor Llesenia, though trained for battle, was spooked by the blood and the din, the ululating howls of the Indians, the clash of weapons and the unaccustomed weight of two men on her back. She reared madly, nearly throwing off Sandoval and his still unconscious charge, and he only brought her back under control with the greatest difficulty. He buried the point of his sword in the eye of a warrior who leapt up to wrestle Puertocarrero from him, cut deep into a naked shoulder, tore open a throat – and suddenly the crowd ahead was just two ranks deep. Had he been alone on her back, he had little doubt that spirited Llesenia could have jumped them, but Puertocarrero's weight made such a feat impossible. Sandoval spurred the mare forward, yelling his battle cry, '*Santiago and at 'em … Santiago and at 'em*', clinging to the hope that he might somehow break through, even though it would be in the direction of the town and not back towards the camp.

* * *

There was an imminent danger the white-skins and their animals would escape, Guatemoc realised. The deer whose legs had been fouled by Big Dart's spear had already galloped off over the dunes, placing itself out of reach in a heartbeat, while its fallen rider had been rescued by his companion, a formidable warrior who'd worked terrible slaughter on the Cuahchics and seemed as unstoppable as a whirlwind.

But Guatemoc had already signalled to Mud Head and Starving Coyote to bring up the reserves and, as the white-skin broke through the last men encircling him, driving his animal out of the pass between the dunes in the direction of Cuetlaxtlan, he was suddenly confronted by twenty fresh warriors blocking his path. Guatemoc threw down his *macuahuitl* -- he wanted a living prisoner, not a corpse – sprinted forward, leapt up onto the back of the deer, wrapped his arms around the white-skin's neck and

succeeded in unbalancing him and wrestling him to the ground. There Big Dart and Fuzzy Face also fell upon him, pinning him down despite his struggles. In the same instant of intense action, the second white-skin, who'd seemed stunned and helpless, abruptly woke up, took control of the deer and – quite astonishing this! – goaded it into a run, jumped it over the reserves barring his way and fled without looking back, first towards the town but soon veering onto the smooth, compacted sand of the beach, where the animal's stride lengthened to such a pace that it left all pursuit far behind as it thundered northwards.

* * *

Sandoval couldn't believe Puertocarrero's cowardice – or, rather, knowing the man, he *could* believe it, but was stunned to have been its victim. He had plunged into the thick of battle for him, fought for his life, come close to pulling off a successful rescue, yet when

the tables were suddenly turned, when Sandoval had been pulled from his horse, Puertocarrero had simply run, making no effort to help, *not even looking back*, and had left him in the hands of the Indians who would undoubtedly sacrifice him to their vile gods and make a cannibal feast of his carcass.

Sandoval had been beaten savagely about the head until his ears bled, his arms had been tied behind his back, and a strangling noose had been fastened round his neck. It was fixed to the end of a long pole, which was held by the cruel savage who now shoved him, stumbling and choking, towards the outskirts of Cuetlaxtlan, taking great pleasure in pulling him back abruptly if he hurried too far ahead and pushing him forward if he lagged.

Sandoval recognised his tormenter.

Though dressed then in splendid robes, and this morning wearing only a loincloth that revealed the scars of recent knife wounds disfiguring his muscular belly, he was without a doubt the same tall and powerful Mexica prince with long black hair, high

cheekbones and a prideful sneer, who had come to the Spanish camp five days before as a member of the delegation from Moctezuma – the delegation that had brought so much treasure and left with so many threats. The prince's name, Sandoval remembered, was Guatemoc. Through Malinal he'd had the temerity, the huge *cojones*, to order Cortés to leave, warning him that he and all his men would be wiped out if they did not. 'My soldiers are as numberless as the sands of the sea,' Guatemoc had boasted, 'and undefeated in battle. March on Tenochtitlan and I will teach you the Mexica way of war.'

Cortés had said something about awaiting that lesson eagerly, but now it looked very much as though Guatemoc was about to pre-empt the caudillo's plans and nip the Spanish advance in the bud – for out of Cuetlaxtlan, marching rapidly to meet them, surged thousands of Mexica warriors fully armed for battle.

Chapter Twenty-Five

Sunday 16 May 1519

There came an urgent drumming of hooves, yells from the guards, a sliding skid, a furious neigh and a scatter of sand as a horse at full gallop was brought to a near-catastrophic halt and Puertocarrero burst into the pavilion, his face as white as his hair was red. 'An ambush, Caudillo,' he screamed. 'There were hundreds of them. They overwhelmed us. They've captured Sandoval … '

Cortés, who had been drafting a long letter to the king and regretting the absence of Pepillo to take dictation, leapt up from his

desk. 'Who ambushed you?' he asked. 'Where? When? How was Sandoval captured?' But as Puertocarrero told the story, the words vomiting forth in a confused, urgent, unpunctuated mass, Cortés held up his hand. 'Slow down, man,' he said. 'Catch your breath … Here, drink this.' He poured wine and, as the aristocrat slurped greedily from the glass, sent a guard to bring Pedro de Alvarado and Bernal Díaz to the pavilion and issued orders for a general muster. The entire army was to form up and be ready to march within the hour.

By the time Alvarado and Díaz arrived, Cortés was beginning to notice certain oddities and lacunae in Puertocarrero's story. He seemed most intent on painting his own actions in a good light, while blaming Sandoval for rashly putting them both in harm's way by insisting the morning patrol pass much closer to Cuetlaxtlan than was safe. Now came an accusation of cowardice: 'I do not wish to impugn young Sandoval's name, Hernán, but the truth is he deserted me at the moment of greatest danger. I was surrounded! I

had to fight my way out alone. I killed many! By the grace of God I escaped.'

'Caudillo, I object!' said Bernal Díaz. 'I object most strenuously. Gonzalo would never leave another man in the lurch – and besides, he is not here to speak for himself.'

Cortés gave Puertocarrero a hard glance. 'If Sandoval deserted you and fled,' he asked, 'how is it that you were the one to return safely to camp?'

'And how, pray tell,' said Alvarado, 'did you manage to do so on Sandoval's horse? I saw you leave the stables earlier. You were riding your Ciri and Gonzalo was mounted on Llesenia, yet it is now Llesenia I see tethered outside, while of Ciri there is no sign. It is passing strange, is it not?'

'We were both unhorsed,' blustered Puertocarrero, a blob of spit flying from his mouth. 'In his haste to flee, Sandoval mounted Ciri and made off but was brought down. I fought my way through a mass of Indians to Llesenia and escaped by the skin of my teeth.'

‘So then it was you who left Gonzalo behind, not the other way round,’ said Díaz, his jaw thrust forward pugnaciously.

‘No, not at all. He abandoned me—’

‘I don’t like the stench of this,’ said Alvarado. ‘Sandoval’s not the man to run from a fight.’ He stepped closer to Puertocarrero and loomed over him. ‘Let me see your sword,’ he demanded. ‘If you struck blows against the Indians as you claim, then it will be marked, it will be bloodied … ’

A look of mingled horror and fury now appeared in Puertocarrero’s eyes. ‘Are you calling me a liar?’ he shouted.

With a grunt of impatience, Bernal Díaz grasped the hilt of Puertocarrero’s sword and drew the weapon. All could see that the blade was clean and unmarked.

‘Yes, I’m calling you a liar,’ said Alvarado coldly. ‘And now I call you a coward as well.’

‘I fought with my lance,’ Puertocarrero protested.

‘So where is it?’ asked Alvarado. ‘Show it to us.’

‘It … it was wrested from my grasp.’

‘Ha!’ Alvarado exclaimed, showing his disgust. ‘You have an answer for everything.’

Cortés’s mind was working fast. He did not want his plans for Puertocarrero ruined by the charge of cowardice now raised against him. On the other hand, might there not be ways he could use it to his advantage to press and further dominate and control the aristocrat? He would have to give the matter careful thought. ‘Gentleman,’ he said, ‘please! We’ll settle this later. Our priority now must be the rescue of Gonzalo and the punishment of the Indians who took him.’

‘What if he’s already been sacrificed?’ asked Díaz.

‘If he has, then we will sack Cuetlaxtlan, annihilate its garrison and kill every man, woman and child there—’

‘Annihilate its garrison?’ said Puertocarrero aghast. ‘There are eight thousand of them.’

‘We faced forty thousand at Potonchan,’ Cortés reminded him,

restraining himself from striking the red-haired fool across the face. That the man was a coward he had no doubt, but he could still be a useful coward. Important, therefore, that he was not shamed into demanding satisfaction from Alvarado, who would certainly slaughter him if it came to a duel.

Fortunately at that moment the tension was broken by the arrival of García Brabo, a lean grey-haired sergeant from Cortés's home province of Extramadura, with the announcement that the army was formed up and ready to march. Brabo, an efficient, ruthless killer who Cortés had relied on for many years to do his dirty work, had a hooked nose and a permanently sour expression. The smell of sweat and garlic hung about him like a threat. 'Where do we march to, sir?' he asked.

'To Cuetlaxtlan. Leave a squad of fifty, two of the falconets, all three of the lombards and their crews, and twenty dogs to defend the camp. Everyone else goes with us.' Cortés turned to Díaz: 'Bernal, I'll be scouting ahead with the cavalry, so find Malinal and

bring her along with the infantry. Keep her by you. I'll need her for any parley.'

'Do you want Aguilar as well?' Díaz asked.

'He's still in the infirmary shitting his guts out. Doesn't matter, though. Malinal's Castilian is getting better. I reckon she can handle this on her own.'

As Cortés led the way out of the pavilion, one of the stable boys approached, leading Puertocarrero's horse Ciri. 'She came back by herself, Caudillo,' the boy reported. 'I thought you'd want to know.'

Unmissable in its scabbard attached to Ciri's saddle was Puertocarrero's lance.

* * *

Sandoval couldn't understand what was going on.

He'd assumed the army of thousands that had surged out from Cuetlaxtlan had come to join Guatemoc to march at once on the

Spanish camp. But that was not at all what had happened.

Instead, as the two groups converged on the outskirts of the town, the warriors Guatemoc had used for the ambush moved into a defensive formation around him, bristling with weapons, and angry words began to be exchanged between the prince and another man whom Sandoval recognised as Pichatzin, the governor of Cuetlaxtlan. Pichatzin was holding a glittering object in his right hand – was it a ring? – which he insistently thrust towards the prince and which the prince equally insistently ignored.

The argument went on for a great while, with much posturing and brandishing of weapons by both sides. Several times Guatemoc seemed to speak over the governor's head, addressing the ranks behind him directly, but the men stood stony faced and made no response. Pichatzin shouted back at the prince and again offered him the object he was holding. Finally Guatemoc strode forward, took the object from Pichatzin – Sandoval could see now that it was definitely a ring, a gold band set with a gemstone – studied it and

then threw it down in the sand at his feet. This provoked a groan of evident horror from the ranks and a gasp of fury from the governor. He barked a command and suddenly two hundred archers stepped to the fore, raised their bows and trained their arrows on Guatemoc's much smaller force.

The prince turned and walked back towards his men, the muscles of his face working, twisting his handsome features into an expression of black fury.

* * *

Guatemoc was so angry that for a moment he considered ordering his Cuahchics to attack Pichatzin, who'd brought out four thousand men, half the garrison, to arrest him. But with such odds there could only be one result – even the governor's contingent of archers outnumbered his tiny force by two to one and would riddle them with arrows before they could strike a blow. True, there were still

the four hundred Cuahchics he'd left in the town, but they weren't sufficient to sway the balance, regardless of their ferocity, and, besides, they would not come. Pichatzin had undoubtedly told the truth when he said he'd had the rest of the garrison surround them in the walled guest compound and that they were prisoners there.

Guatemoc beckoned Mud Head, Starving Coyote, Big Dart, Fuzzy Face and Man-Eater. 'Friends,' he said, 'we're done for. I don't want to see any of you or any of our brave Cuahchics killed needlessly, so I'm going to surrender.'

'Surrender!' spat Mud Head. 'Never.'

'Let's fight the fuckers,' said Big Dart.

'At least we'll die with honour,' said Man-Eater.

Guatemoc forced a smile, calmed his breathing. 'No,' he said. 'I won't allow it. Surrender is our only course. Pichatzin has the Great Speaker's signet ring, his mandate of authority, and clear orders for us to stand down. You won't be arrested, boys! I have the governor's word on it. Our Cuahchics will be free to return to Tenochtitlan

and rejoin their regiments. It seems it's only my skin that Moctezuma wants.'

'But how did this happen?' Starving Coyote demanded. 'How did Moctezuma get intelligence of what we planned here? How did he get his orders to Pichatzin so fast?'

'I'll warrant that toad Teudile was behind it,' snarled Man-Eater.

'You're right,' said Guatemoc. 'It was Teudile. I should have realised the risk when he started moaning about how he'd be punished for not stopping me. He used relay runners to send a message ahead to Tenochtitlan while he was still on the road. He revealed our plans, and Moctezuma had runners carry his order to stop us straight back to Pichatzin with his signet ring to confirm it.'

'That bastard,' said Mud Head. 'But it would be suicide to give yourself up, Guatemoc! If you let them take you back to Tenochtitlan, it's certain you'll be killed.'

'And I suspect in a very horrible way,' Guatemoc said wryly. 'No one defies the will of the Great Speaker as I have done over this

matter of the white-skins and lives to tell the tale. But truly I have no choice. We're outnumbered and we've been outmanoeuvred and I have to accept that.'

Fuzzy Face looked at the prisoner, the Spaniard, who was watching their conversation intently. 'What happens to him?' he asked.

'Pichatzin's going to free him,' said Guatemoc. 'More's the pity. He's a fine warrior and a brave one. He would have made a noble sacrifice.'

* * *

The expedition had eighteen heavy horses, but only seventeen were going into battle today. Puertocarrero kept Sandoval's mare Llesenia, since Ciri's legs had been badly bruised in the earlier skirmish and she would need attention before she would be fit again. Cortés had not commented on the implications of the

scabbarded lance still mounted on Ciri's saddle – Alvarado's sneer was more eloquent than any words – and had insisted that Puertocarrero ride with the rest.

They were two miles ahead of the infantry, and Cuetlaxtlan was already in sight, when they saw a small band of Mexica warriors, not more than twenty, approaching them. At once Cortés spurred his dark chestnut stallion Molinero into the charge, the rest of the corps spreading out in a line on either side of him yelling, 'Santiago and at 'em,' the ancient war cry of Spain that had echoed for centuries across the bloody battlefields of the Reconquista. Now it was not reconquest, Cortés thought grimly, but conquest that was at issue, and it would not be the Moors of the old world who would fall under Spanish lances today but the Indians of the new.

That was when he recognised Sandoval placed at the front of the savages, waving and shouting.

With great reluctance, Cortés reined Molinero in and called to the other cavaliers: 'Hold … hold!' As they all slowed to a canter, he

beckoned Alvarado to his side and the two of them rode forward at a trot. 'Do you reckon it's a trap, Pedro?' he asked conversationally.

'If it is,' said Alvarado, 'it's a mighty strange one. Those Indians are unarmed.'

Cortés squinted. 'True enough. Wonders to behold.'

A few more seconds brought them within hailing distance of Sandoval.

'Ho, Gonzalo!' called Cortés. 'It's good to see you. Are you well?'

'Never been better,' said Sandoval. 'Come and meet my friends – whatever you do, don't kill them.'

'Why not?' shouted Alvarado.

'It would be churlish,' Sandoval replied, 'since they just saved my life.'

* * *

The unarmed Mexica warriors were led by Pichatzin, the governor

of Cuetlaxtlan. Sandoval was mystified to have been released when he'd fully expected to be sacrificed, and could only report the bare facts. He and Puertocarrero had been ambushed by Prince Guatemoc leading a force of about one hundred men. Puertocarrero had escaped; Sandoval had been taken – Cortés noted with approval that the young ensign made no criticism of Puertocarrero's behaviour. There had then followed a confrontation between Guatemoc and Pichatzin, who had arrived in the nick of time at the head of a much larger force. The outcome was that Guatemoc had appeared to surrender to the governor, and had been bound and led away, amidst much outcry from his men, while Sandoval had been freed and brought immediately towards the Spanish camp by Pichatzin and this small escort.

Despite the gesture, Alvarado was in favour of pressing on to Cuetlaxtlan and destroying the town and its garrison but, with Sandoval back safely, Cortés was in no hurry. 'There's some strange business afoot here, Pedro,' he mused. 'I'll need a better

understanding of what's happened before I decide a course of action.'

He beckoned Puertocarrero, told him to ride back to the infantry column, find Malinal, who would be with Díaz, and return with her posthaste. While they waited he took Alvarado aside.

'This business of Puertocarrero's cowardice,' Cortés said. 'Don't shame him to the point where he has to challenge you—'

Alvarado snorted. 'If he challenges me, he'll die … '

'Exactly, and I don't want him dead. I've got a job for him to do. It doesn't look like Sandoval is going to pursue the matter, and I'd prefer it if you didn't either.'

'I can't abide cowardice,' said Alvarado.

'Who can? But Puertocarrero won't be with us much longer, I promise you.'

Alvarado raised a quizzical eyebrow.

'I plan to send him back to Spain with all our treasure as a gift for the king,' Cortés explained.

‘What? Are you mad, Hernán?’

‘No! I’m a gambler. And I know you like a throw of the dice yourself, Pedro.’

Alvarado’s eyes lit up, as they always did at the prospect of a bet. ‘What’s the wager?’ he asked. ‘What are the stakes? What do we stand to win?’

Cortés looked about and gestured towards the distant ranges of blue mountains that could be seen rising far inland.

‘Mountains?’ said Alvarado in disbelief. ‘We’re to win mountains?’

Cortés laughed. ‘No, you idiot! I want what lies beyond those mountains. I want Tenochtitlan, the Mexica capital, and all its fabled gold and jewels. The treasure we’ve been given is a pittance by comparison with what awaits us there, but I’m gambling it will be more than enough to buy the king’s favour and get Velázquez off our backs forever.’

‘They say a bird in the hand is worth two in the bush … ’

‘Come, come, Pedro! That’s never been your philosophy.’

‘All right,’ agreed Alvarado slowly. ‘Tell me more about this plan of yours.’

* * *

When Puertocarrero returned, Malinal was perched in the saddle in front of him, riding astride like a warrior, even though she’d never been on horseback before. She was grinning mischievously, and obviously exhilarated by the gallop. *Gods*, Cortés thought. What a beauty she was. Brave too. And clever! His true ally and comrade-in-arms in this great struggle to take the New Lands from their present owners. He rather regretted that he would have to disappoint her over the matter of Pepillo and his damned dog, but Saint Peter had spoken and was not to be denied.

Within minutes of her arrival, Malinal had begun to make sense of the morning’s events.

In conversation with Pichatzin she first learned, and then informed Cortés in her halting but workable Castilian, that Guatemoc had been acting against Moctezuma's orders when he had set his ambush and seized Sandoval. This, Pichatzin said, was quite the opposite of what the Great Speaker wanted, which was for peace, harmony, tranquillity and love to govern relations between his people and the *tueles* – as it seemed he continued to believe the Spaniards to be. The order to withdraw the Totonac workers and serving women had come from Guatemoc without sanction from Moctezuma, but neither Pichatzin, nor even Teudile, could defy a prince of the blood. Learning of Guatemoc's plans to cause further trouble for the *tueles*, however, wily Teudile had sent runners forward to Tenochtitlan with a message for Moctezuma, telling him all; Moctezuma had received the message and sent runners back, reaching Pichatzin just in time for him to mobilise the garrison of Cuetlaxtlan and prevent Guatemoc from committing further crimes. Now, as a token of good faith, it was Pichatzin's honour to return

the *tuele* Guatemoc had captured unharmed to the lord Cortés.

'Too little, too late!' fumed Alvarado, who was listening closely. 'I say kill the lot of them, then march on their filthy town and burn it to the ground.'

Malinal looked up at Cortés. 'Don Pedro idea maybe not good,' she suggested.

'Damned impertinence!' Alvarado muttered.

'Why's it not a good idea, Malinal?' Cortés asked.

'Attack Cuetlaxtlan now, Moctezuma know your mind. Know you attack Tenochtitlan next. Spare Cuetlaxtlan and he not sure. He hope maybe you spare Tenochtitlan also.'

'Ye gods!' Cortés exclaimed. 'It seems the woman has a grasp of tactics!'

'Bugger tactics.' Alvarado made a sour face. 'Attack first, ask questions later – that's my motto.'

'We'll attack them soon enough,' Cortés said, 'and in their heartland, where the blow will be mortal. Until then I'd prefer to

keep them guessing about our intentions.'

As they spoke, the infantry, more than four hundred strong, arrived at the meeting place on the dunes. Cortés gave orders for them to stand at ease. He could see plain terror in Pichatzin's eyes at the sight not only of the Spanish soldiers in their battle panoply, with their muskets and their cannon, pikes, swords and shining armour, but also of the eighty baying and snarling war dogs that Vendabal and his handlers had brought – the dogs likewise armoured in plate and mail; many wearing collars inset with metal spikes.

It was a good moment to win some concessions. 'Tell Pichatzin he did the right thing giving us Sandoval back,' Cortés said to Malinal. 'But tell him Alvarado here is very angry and wants me to burn Cuetlaxtlan and slaughter everyone in it. Tell him my other captains feel the same way. I don't think I'll be able to restrain them.'

Pichatzin broke out in a sweat and began to tremble. His voice

was urgent, tremulous and high as he replied.

'He say he hoped you happiness for get Sandoval back. Wants peace with you, he say. No war.'

Cortés deliberately made his face stern and his voice harsh: 'I'll need more than fine words and the return of a prisoner who shouldn't have been taken in the first place.'

'He say what you want?' Malinal translated when Pichatzin replied.

'Gold!' said Alvarado. 'That'll be a good start.'

Pichatzin agreed at once. Tomorrow all the gold in Cuetlaxtlan would be delivered to the Spanish camp. There was not a great deal, but he hoped it would prove sufficient to compensate the *tueles* for their inconvenience.

'We'll want our labourers and serving women back as well,' Cortés added. 'And our food supplies restored.'

Again Pichatzin agreed.

'And that upstart Guatemoc. Tell Pichatzin to hand him over to

me for punishment.'

Pichatzin replied with a single word and Malinal translated: 'Impossible.'

'No! I don't accept that. Tell him to give me Guatemoc.'

A longer reply from Pichatzin this time. 'He say Moctezuma want punish Guatemoc,' was Malinal's translation. 'Guatemoc not for you. On way to Tenochtitlan now. Many guards.'

'Insolent little shit!' exploded Alvarado with a murderous glare at Pichatzin. 'Give me the word, Hernán, and I'll take the cavalry after Guatemoc, drag him back here in chains.'

Cortés frowned. 'What do you advise?' he asked Malinal. 'Shall I accept what Pichatzin says, or shall I send a troop of horse after Guatemoc? I'd like to see the man hanged.'

'What you gain if you take and kill Guatemoc now, Caudillo?'

'Considerable satisfaction,' said Cortés.

'Lose more!' Malinal exclaimed. 'Kill Guatemoc here, he dead; let Guatemoc go Tenochtitlan he trouble Moctezuma very much

before Moctezuma kill him. Guatemoc have friends, supporters. Good to divide Mexica peoples, no?'

'It's Guatemoc who should be divided!' Alvarado said. 'Hang him, draw him and quarter him. Make him suffer for what he did.'

'I sure Moctezuma will make suffer,' Malinal observed. 'Wait. I ask.' She turned aside, put a question in Nahuatl to Pichatzin, listened to his answer. 'Punishment for Guatemoc,' she continued in Castilian, 'is … how you say?' She pinched the skin on the back of her hand, pulled it up.

'Skin?' Cortés suggested.

'Yes skin! Pichatzin say Moctezuma skin Guatemoc, like animal.'

'After he's dead, of course?'

'No, Caudillo! Skin alive. Make suffer very much.'

Cortés thought about it. 'That'll do nicely,' he said.

Chapter Twenty-Six

Sunday 16 May 1519 to Sunday 6 June 1519

Don Juan de Escalante was a great man, Pepillo decided. A really nice man! This must be what it was like to have a father – to be treated kindly, with honour and respect, to be advised well on the ways of the world and, above all else, to be taught how to fight with a sword!

Their business with the Totonacs successfully concluded on the night of Saturday 15 May, Escalante kept the *Santa Theresa* anchored in the bay on Sunday the 16th while he explored the

headland, looking for and eventually finding a suitable site on which to build the Spanish town. It was a mile away from Huitztlan, surrounded by well-watered fields, close enough to take advantage of all the help, labour and supplies that had been willingly offered, but not so close as to encourage too much familiarity, and with excellent access to the sea.

On the morning of Monday 17 May, after saying elaborate farewells to Yaretzi and all the elders, and to Meco (who was to go on foot to the Spanish camp by way of Cempoala, where he would report everything that had been agreed to the Totonac paramount chief Tlacoch), Escalante gave the order to raise anchor and the *Santa Theresa* sailed.

On the voyage, Pepillo learned much more about the art of the sword, mastering the basic step, the passing step, the switch step, the step pivot and other elements of footwork to such a degree that the captain said he was now ready to continue his practice with a weapon in hand; he brought out the beautiful blade he'd shown

Pepillo so tantalisingly a few days before. Escalante took up his own sword so that they could spar, and they then spent some hours practising the four primary guard positions, known as the plough guard, the roof guard, the ox's guard and the fool's guard.

'Why the fool's guard?' Pepillo asked of the strange posture in which the hands were held below the waist and the tip of the sword was allowed to drop down, almost touching the ground. 'Does it mean only a fool would use it?'

Escalante laughed. 'Far from it! The idea is to make your opponent *think* you're a fool, when in fact you're not. Along with strength, balance, footwork and speed, deception is one of the pillars of swordsmanship.'

There was, for Pepillo, an almost fairytale quality to the return voyage, as though he were in a place and time entirely different from and unconnected to the rigours, challenges and ordeals of the daily life he'd grown used to in Mexico. But soon enough reality was restored, and with it an abiding sense of gloom and hopelessness,

when the Spanish camp on the dunes came into view on the afternoon of Tuesday 18 May.

'You're looking glum, lad,' said Escalante, joining him by the rail on the navigation deck.

'I defied the caudillo,' Pepillo admitted. 'He ordered me to leave Melchior behind and I brought him.'

'Well, that doesn't sound too serious. I've been happy to have your dog on board.'

'It is serious, Don Juan. The caudillo believes Melchior should be cast in with the dog pack and trained for war.'

'And you don't agree?'

'Never! If the caudillo doesn't relent, I'll take Melchior and run.'

Escalante's reaction to this idea – that Pepillo must not even consider it – was much the same as Díaz's had been a few weeks before, and like Díaz he promised to intervene with Cortés if necessary.

'I'm grateful,' Pepillo said, 'don't think I'm not. Don Bernal Díaz

also said he'd help me, but I don't even know if he's spoken to the caudillo yet. If he has, it's made no difference.'

'I'm not Don Bernal,' said Escalante. 'The caudillo and I go back a long way. I like to think I have some influence with him.'

* * *

Three days later, on 21 May, as Pepillo sat miserably staring through the bars of the filthy pen where Melchior now lived, it was clear that neither Don Juan, Don Bernal or Malinal, who'd also tried to help, had any influence whatsoever with Cortés. Pepillo and Melchior had gone ashore in the longboat with Escalante on the 18th, but after they'd beached and were making the boat fast, Telmo Vendabal and his triumphant, sneering assistants came sauntering down the dunes from the camp.

'We're taking your dog,' said Vendabal. 'Hand me his leash, there's a good lad, and don't make trouble.'

Pepillo had turned to run but Andrés Santisteban had blocked and held him and Vendabal had prised the leash from his hands.

Escalante gave them a dangerous look. 'The boy's under my protection,' he said. 'Let him go. Let his dog go. I'll be talking to the caudillo about this.'

'It's the caudillo's orders, sir,' said Vendabal. Although his tone was obsequious, his manner was supremely confident and, moments later, when Cortés himself appeared, Pepillo understood why.

'Welcome back, Juan.' Cortés strode down the beach to embrace the captain, not sparing so much as a glance for Pepillo. 'A successful mission?'

'Very successful,' Escalante replied. 'I've much to tell you … But I'd like to see this little misunderstanding resolved first. Don Telmo seems to feel he has a right to take Pepillo's pet dog.'

'There's no misunderstanding,' Cortés said with a hint of impatience. 'Don Telmo's acting on my orders.'

'But Hernán—'

Cortés held up his hand to silence Escalante. 'Not now, Juan. This is a trivial matter when we have the future of the expedition to discuss. Come away to my pavilion—'

'It's not a trivial matter for me,' Pepillo dared to object, but Cortés turned on him with a face of thunder. 'Boy,' he said, 'you are asking for a beating. The dog goes with Vendabal. Now! You will follow Don Juan and me to my pavilion and when our meeting is done I'll have dictation for you to take.'

Thereafter, any attempt by Pepillo to raise the subject of Melchior with Cortés had led to a cuff about the ear, and now, three days later, he was beginning to accept that he would never get the pup back.

But there were consolations. Most important of all, Melchior was not dead yet, for it seemed that even in the dog world – perhaps more so than in the human world – there was such a thing as a code of honour. Whenever he could, Pepillo stole away to the kennels to see how his pet was doing. Twice he'd witnessed Melchior being

attacked by a full-grown jet-black mastiff whose name, he learned, was Jairo – an animal no taller than Melchior (for Melchior had grown very tall despite being so young), but much more massive through the chest and withers, scarred from old battles and rippling with muscle.

On the first attack, which came suddenly, with stunning ferocity and seemingly without provocation, Melchior had tried to fight back and had been badly mauled, the flesh of his shoulder torn open and his throat seized in a death grip. But then, whimpering, he had fallen still and Jairo had released him, cocked his leg and pissed on him, then stalked off, seemingly satisfied.

On the second occasion Melchior had made the mistake of going for a scrap of meat lying on the earth floor of the kennel close to Jairo. No other dog had claimed the morsel, and the big dog seemed uninterested in it, but as Melchior edged closer, Jairo bounded to his feet, snarling horribly, his yellow fangs bared. This time Melchior knew what to do. Rather than resist, he crouched and

grovelled, lowered his back to make himself appear smaller, tucked his tail between his legs, flattened his ears and dribbled urine. The mastiff stood over him, hackles raised, a rumbling, deep growl vibrating in his throat, and Melchior responded by rolling on his back, exposing his belly and throat to Jairo's teeth – complete, abject surrender. Jairo sniffed him, his growl subsiding, his hackles falling back, picked up the scrap and swallowed it, then walked away, again seemingly satisfied.

Was there a lesson to be learned here, Pepillo wondered? Although they'd got what they wanted, Santisteban, Hemes and Julian continued to torment him. Should he, then, grovel to them, just as Melchior had grovelled to Jairo? Would that persuade them to leave him alone? Somehow Pepillo doubted it. Dogs were more honourable than humans. And besides, he would not grovel. He simply would not! Instead, he was determined, he would learn to fight and make himself strong – and soon, he promised himself, he would pay them out.

Two days before, on the 19th, Don Juan, regretful at being unable to help reunite him with Melchior, had suggested they resume the sword practice that had begun on board the *Santa Theresa*. Pepillo had accepted with alacrity. The captain had also shown him a system of exercises he must pursue to strengthen his legs and arms, his belly and his shoulders, and he had begun to perform them religiously. There was, likewise, much manual work to be done around the camp, from the digging of latrines to the construction of ramparts, to the running out of the lombards – those great guns, so effective at Potonchan, that could throw a seventy-pound cannonball a distance of two miles. Although Pepillo had hitherto been excused such duties, he now volunteered for them whenever his responsibilities as Cortés's page and secretary allowed.

* * *

Plucking up her courage, Tozi entered the gates of the sacred

precinct of Tenochtitlan nine days after she had fled Moctezuma's palace. She had doubted her powers, but this was the proof they had not deserted her, for she was able to pass in front of the guards without them seeing her, just as she had done on many occasions before, then cross the grand plaza and skirt the eastern side of Hummingbird's immense pyramid, where a priestly ceremony was in full flow – all, again, without her presence being detected. She shivered and mastered the fear that rose like vomit in her throat as the vestibule of the palace loomed ahead, patrolled by a dozen royal spearmen. All she had to do was pass them unnoticed, as she had the others, and the palace would lie open to her: its halls, its meeting rooms, Moctezuma's chambers of state and Moctezuma himself would be as vulnerable to her as they had ever been before the arrival of the *nagual*. To make sure that she truly was invisible, Tozi drifted to within an arm's length of the two nearest spearmen, turned her back on them, bent forward and lifted her skirt, showing them her bare arse, but they did not blink at the insult, did not

react; absolutely, undeniably, did not see her. She braced herself and moved closer.

Though Huicton was still absent, word from his network of spies had reached the safe house in Tacuba that the Great Speaker's new *nagual*, the tattooed one from the north, had left Tenochtitlan the very next morning after the public burning of the sorcerers Tlilpo, Cuappi, Aztatzin, and Hecateu. The *nagual*'s name, the spies had discovered, was Acopol, and his destination was the city of Cholula, sacred to the god of peace Quetzalcoatl. What his purpose was there and when, if ever, he would return, were unknown, but the fact was he had gone and the responsibility to resume her work for Quetzalcoatl preyed so insistently on Tozi's mind that she resolved to return to the palace, resume her campaign of terror against Moctezuma, and discover what she could about Acopol's mission.

She was within the vestibule when the first knives pricked her, the first razors sliced her, the first talons tore her, the first arrows of horror entered her brain. She gasped, aloud – she could not help

herself – and the guards turned as one towards the place where she stood. They spun round and yet they could not see her … Relief flooded through her as she realised her magical protection was still intact but then … wait! Wait! What was that sound? *Pitter, patter, pitter, patter*, like rain on a roof. She looked down and saw drops of fresh blood – her blood! – falling to the marble-tiled floor. She gasped again. Three guards thrust at her with spears but the weapons passed harmlessly through her invisible form; yet in the same instant she felt other unseen spears drive into her and she screamed in agony, turned and ran, leaving a trail of blood to mark her path, a trail that the guards followed.

Not until she was streaking back along the flank of the great pyramid did Tozi realise that none of the blood was coming from her body, arms or legs where she had felt so many wounds inflicted. All of it was coming from her nose! Clapping a hand around her nostrils she stemmed the flow, cut off the telltale trail, abruptly changed direction and struck out across the plaza for the towering

enclosure wall. She hurtled towards it at a speed that was only possible in her invisible form, reached it, penetrated it, and was out the other side with no more resistance than passing through a light shower of rain.

Tozi fled on, only stopping to catch her breath and still her pounding heart when she reached a shadowy alcove in a narrow street. Emerging into visibility, she held her sleeve across her nose until the bleeding stopped. She examined herself carefully. Though the agonies she'd suffered had felt like murder, she could find not a single wound. Not one! What then were those stabs and cuts she'd felt; those rips, those piercings? The pain had been beyond imagining; she did not think she could ever bear it again. But what had caused it? What had attacked her? Slipping back into invisibility again, she made her way across the causeway to Tacuba, reaching the safe house after nightfall. Yolya awaited her, tutting and clucking at her dishevelled state. 'Wherever have you been, my dear?' the washerwoman asked. 'You've had a nosebleed … Look,

your ears have bled as well.'

There had been a time when Tozi had suffered terrible bleeding from her nose and ears whenever she had tried to maintain invisibility for longer than a few seconds. The bleeds had stopped months ago on the night she and Malinal had been marched up the great pyramid of Tenochtitlan to face sacrifice at Moctezuma's hands and Hummingbird had intervened to save them. On that same night, for mysterious reasons that had never been explained, the war god had also enhanced and multiplied Tozi's powers, her bleeds had stopped, and she had become able to maintain invisibility indefinitely, suffering no harm.

Did tonight's bleed – following the strange sorcerous attack she'd suffered – mean her powers were waning again? The source of the attack, of course, could only be Acopol, even though he was not physically present in the palace. The thought that he had ways to reach her from afar, and to destroy her strength, filled her with desolate apprehension, and she realised how much she had come to

love her powers.

* * *

‘But I want to kill him, great lord. I must kill him. I missed my opportunity before. This is my chance—’

‘Restrain yourself, my son. It does not serve our purposes for Guatemoc to die now … ’

‘I want his skin. I want to drape it wet and warm over my own naked body and dance in your honour wearing it, lord … ’

‘A noble thought, and entirely understandable. It pleases me greatly. Yet unfortunately I cannot allow it. I have another death planned for Guatemoc, another destiny for him to fulfil, and until then I command and require you to keep him alive.’

In the darkest hour of the night, lying in the skull room of Hummingbird’s temple, surrounding by the grinning, dripping heads of recent sacrificial victims skewered ear to ear on the racks,

Moctezuma had entered into deep communion with his god after consuming ten large *teonanácatl* mushrooms. He was only distantly aware of the hard floor beneath his back and of the flickering lanterns around him because he was out of his body, soaring through the heavens on an enchanted shield, with Hummingbird radiant beside him in his form as a tall, powerfully built man dressed only in a simple loincloth. Yet Hummingbird emanated force and authority; he was massive through the chest and thighs, with the fair skin and golden hair of the gods, but with eyes black as obsidian, and with exceptionally large, strong hands – strangler's hands, warrior's hands, knotted with bulging veins.

'I am yours to command, lord,' said Moctezuma, accepting the inevitable. 'Tell me what I must do with Guatemoc and it will be done.' Even in trance, the idea filled him with an impotent, rebellious, petulant fury and he added: 'Surely you do not expect me to allow him to return to my council, though?'

'No, my son,' chuckled Hummingbird. 'That would be too

merciful.'

'Imprisonment, then,' said Moctezuma hopefully. 'I have a certain pit where I keep those whom I wish to be neither alive nor dead.'

'No, that will not do. It serves my purposes better for Guatemoc to be free but not free. Perhaps you might think of banishing him to Cuitláhuac's estate at Chapultepec? Place him under house arrest?'

Cuitláhuac, Guatemoc's father, was Moctezuma's brother, the second most powerful man in the land. There had been tension between them ever since Moctezuma had tried to have Guatemoc poisoned a few months before.

'You're right,' said Hummingbird, divining his thoughts. 'Cuitláhuac's support for you has waned. He is becoming a danger to you. Be merciful to his son in this way and you will win him back.'

As they flew through the night, Moctezuma found the thought of not killing Guatemoc but keeping him under house arrest

increasingly appealing. Very soon it seemed to him that it had been his own idea all along.

'You are so very clever, my son,' Hummingbird said as he brought the shield swooping down out of the night sky, over a vast plaza surrounded by a high perimeter wall, lit by a thousand torches and dominated by an immense pyramid. It was immediately recognisable as the sanctuary of Quetzalcoatl in the heart of the sacred city of Cholula.

'I have brought you here,' Hummingbird whispered in Moctezuma's ear, 'to witness the work of our favourite, Acopol. The burnt offering of his predecessors that you made to me in your palace was most satisfactory, my son. Most satisfactory. The smoke of their flesh delighted my nostrils … '

'It is my honour to have pleased you, great lord.'

'And afterwards you did well to send him at once to Cholula as I had ordered.'

'It was hard for me, lord, though your word is my command and

I hastened to obey. Before his departure for Cholula, Acopol told me of a magical intruder, a witch who watched me from the shadows. He said he had driven her away, but I fear she has returned. This very afternoon I received a report that my guards became aware of an invisible presence. They attacked it with spears. They saw blood fall from empty air to the ground … '

'You are right that the witch returned, my son, but you have nothing to fear. Acopol has placed warding spells of great power around your palace, and within the sanctuary of this, my temple. Those are spells that no witch can overcome. They will protect you, as they protected you today, for the whole of Acopol's sojourn in Cholula.'

'And that sojourn, lord – will it be long?'

Hummingbird's laughter was thunder that rose from his belly and burst forth from his throat. 'Long enough for him to work the doom of the white-skins, my son! Long enough to weave the web of blood and sorcery that will destroy them. See now what he has done

here in my name – here in Cholula, in the very sanctuary of my ancient enemy Quetzalcoatl, whose likeness the white-skins have stolen.'

On the eastern horizon, the first pink flush of dawn had now touched the sky and Hummingbird brought the flying shield close, very close, to the summit of the pyramid and to the great temple that stood there – the temple of Quetzalcoatl with its two distinctive wings, like the wings of a dragon, joined in the centre by a great hollow tower of stone, itself in the shape of a pyramid. Moctezuma had visited the temple two years before, the only active and functioning shrine to the god of peace that he permitted in his realm, but now he saw with approval that there were new additions, both placed at the east side of the temple complex, set back from the top of the stairway. The first was a bulky hemisphere of green jasper, an execution stone across which sacrificial victims would be stretched to offer up their hearts. Such a thing had never been seen before in Cholula, since Quetzalcoatl had forbidden human

sacrifice. And the second modification to the age-old customs of the sacred city, even more pleasing to Moctezuma's eye, was that a giant idol of Hummingbird himself, an idol glinting with gold and gemstones, its gaping maw barbed with fangs and tusks, had been set up beside the execution stone.

But best of all was the sight of twenty weeping, fresh-faced boys, Tlascalans by the look of them, none more than ten years of age, nearing the top of the eastern stairway. Dressed in the paper clothes of sacrifice, their bodies streaked with chalk, they were kept in order by laughing, jeering guards, who prodded them with the obsidian blades of their spears, drawing blood at every step.

'Look!' Hummingbird hissed, directing Moctezuma's attention to the eastern doorway of the temple, out of which Acopol now appeared naked, but for the swirling mystery of his tattoos. Behind the *nagual* came four priests in black robes – priests of Hummingbird! – the killing team, who would hold the victims down over the stone.

‘They are your priests, lord!’ Moctezuma observed.

When he had sent Acopol to Cholula he had given him full authority to implement whatever changes he desired in the sanctuary of Quetzalcoatl, and orders had been carried to Tlaqui and Tlalchi, the joint rulers of the sacred city, that they should obey the sorcerer and not impede him in any way. Still, he had worked fast to get all this done – the altar, the idol, driving out the priests of Quetzalcoatl and replacing them with the war god’s men – in just a few days.

‘Yes,’ purred Hummingbird. ‘I am well pleased.’

As the limb of the sun broke the horizon, the killing began, and Moctezuma could not help but admire Acopol’s technique. Rather than first splitting the breastbone, then cutting away the ligaments and arteries and finally removing the heart, he had somehow combined all three operations into a single, graceful, scooping flow of the obsidian knife that culminated with the dripping organ, still pulsing, still pumping blood, raised high above his head and offered

to the sun – Hummingbird's symbol in the heavens. And oh, joy: in his visionary ecstasy, Moctezuma saw great rays of light and life rising like steam from those sacrificed hearts, vibrating waves and arcs and spirals, in colours brighter and stranger than any he had ever known, colours ethereal and mystical, colours that seemed to belong to another order of existence entirely, transcendental and unearthly, filled with a preternatural vigour that the war god drew into himself, gorging and feasting until the last of the victims lay dead.

'Ahhh,' said Hummingbird, 'you see? That's what I call a sacrifice.' He licked his lips: 'But I relish even more the basket of ten thousand virgin females you have promised me for my birthday … I trust that your preparations continue to go well.'

'The preparations go well, lord.'

Unfortunately this was not entirely accurate. Moctezuma had received word only the day before that more than a thousand young girls from Tlascala, whose arrival in Tenochtitlan he had hotly

anticipated, would not, after all, be swelling the as yet inadequate harvest in the fattening pens. A band of Chichemec mercenaries had gathered the girls in during a month in the field, only to be intercepted by that demon Shikotenka just before crossing the border. All the captives had been freed and almost the entire mercenary squad efficiently slaughtered; only one of them – just one out of three hundred! – had escaped to tell the tale.

'You lie,' said the war god. His voice in the dawn was a soft, menacing susurration.

'I do not lie, great lord. There has been a setback but I have redoubled our efforts. The ten thousand will be gathered in for your birthday feast as I promised. All the resources of my empire are deployed to achieve this noble end.'

'Do not fail me, my son. Nothing will go well for you if you fail me. But keep your promise and I will give you the world.'

Abruptly Hummingbird was gone, the magic shield dissolved and Cholula vanished. With a start and a stifled scream,

Moctezuma awoke on the floor of the skull room of the temple of Hummingbird, atop the great pyramid of Tenochtitlan.

Glaring down at him was the severed head of the Chichemec mercenary who had brought the news of Shikotenka's ambush.

* * *

In the last ten days of May 1519, as they worked together on the long, immensely complex and legalistic letter that Cortés was drafting to King Carlos of Spain, Pepillo found himself observing his master carefully. For the first months of the expedition he had admired him, indeed all but worshipped him, but he had always, also, been aware of a devious, calculating, manipulative side to Cortés's nature, and it was this, now, that came increasingly to the fore.

The immediate focus of the caudillo's formidable intelligence and will, Pepillo saw, was less on his long-term strategy to crush and

utterly destroy Moctezuma, than on a much more pressing need to crush and utterly destroy the faction led by Juan Escudero and loyal to Diego de Velázquez, the governor of Cuba. In some way that Pepillo could not at first fully understand, the mission he had gone on to Huitztlan with Escalante, and the agreement with the Totonacs that the Spaniards could build a town of their own there, was the key to this. But gradually the picture began to clear as Pepillo watched how Cortés worked tirelessly to cultivate allies at all levels of the soldiery. To be sure some, perhaps quite a large number, broadly supported the Velazquistas' call – which Escudero had made publicly several times – for a quick return to Cuba with the treasure they had already won. But the majority were still either undecided or frankly against such a solution, not wishing to turn their backs on the even greater wealth that Cortés had persuaded them they might win in Tenochtitlan.

In the minds of those who were willing to continue, Cortés carefully planted the suggestion, which he had so far shared only

with his closest confidants, that the best way forward might be to establish a permanent colony here in Mexico, which would be a legal entity in its own right, able to provide for the needs of its members. An ideal site at which to establish such a colony had, as it happened, already been found in the explorations along the coast recently conducted by Don Juan de Escalante – a location with a safe harbour, set amidst productive, well-watered farmlands that had been offered as a permanent gift to Spain by friendly and tractable Totonac Indians, who would prove strong allies if war with Moctezuma were to come. Cortés lamented he had no authority from Velázquez to found such a colony, but, 'We should never forget,' he hinted, 'that the interests of Spain and of our sovereign Don Carlos are paramount.' He then made sure that word of these discussions leaked out to the Velazquistas who, predictably, were outraged, accusing him of going far beyond the governor's plans for the expedition, which had been strictly for trade and exploration, calling once again for an immediate return to Cuba, and announcing

their own intention to depart.

Making a great show of injured dignity, Cortés convened a meeting of all the soldiery on Monday 31 May. There he spoke gravely and with convincing humility saying he had no desire to exceed his instructions – indeed, he had never had such a desire – and that if the majority wished to leave then he would not stand in their way. He even went so far as to issue a proclamation ordering the troops to make ready to embark and sail for Cuba.

But he'd prepared his ground well; the order caused a sensation as his allies stirred the men to fury, generating a storm of resentment within the camp at the selfish folly of the Velázquez loyalists. The idea of staying and establishing a colony, which had come from Cortés in the first place, now took root among the soldiers as though it was their own invention. 'We came here,' Pepillo overheard one of the men say, 'expecting to form a settlement and we'll not be frustrated just because there's no warrant from the governor to make one. There are interests, higher than

those of Velázquez, which demand it.' The words could have been Cortés's own! Another likewise argued that Mexico wasn't Velázquez's personal property and that his partisans had no right to act as though it was. 'These territories were discovered for the king; we have to plant a colony to watch over the king's interests.'

Cortés was now in a position to claim that the idea of a colony was not his but had arisen from the patriotic zeal of the majority of the conquistadors in their desire to expand the overseas possessions of Spain and to serve the best interests of King Carlos V – fundamental virtues that he could hardly be against. He was obliged, he said, to assist so worthy a process; to this end, during a second long and emotional public meeting, he appointed his ally Puertocarrero, who Pepillo noticed had become peculiarly compliant and agreeable after the skirmish outside Cuetlaxtlan two weeks before, together with Francisco Montejo, formerly one of the ringleaders of the Velazquistas, as joint chief magistrates of the new colony. The *alguacil*, *regidores*, treasurer and other councillors – all

personal friends of Cortés's – were then sworn in. Finally the colony, which as yet existed only as a concept, was given a name – Villa Rica de la Veracruz – with the stated intention that it should be founded at the earliest possible opportunity at the location near the Totonac town of Huitztlan previously scouted by Escalante. With all this done, and entered into the minutes by Pepillo, Cortés dramatically resigned the commission as captain-general of the expedition, conferred on him by Diego de Velázquez, which indeed, he said, had necessarily expired, since the authority of the governor of Cuba was now 'superseded by the magistracy of Villa Rica de la Veracruz'.

Cortés then returned to his pavilion beckoning for Pepillo to follow him. 'What happens now, master?' Pepillo asked.

'I get my way lad,' the caudillo replied. 'Stick with me and you'll see how these things are done.'

Sure enough, within the hour the newly appointed councillors called Cortés back to the meeting ground and told him there was no

one else as experienced and as well qualified as himself to govern the community, both in peace and in war. They asked him specifically to lead them in the continuing invasion and conquest of Mexico and to be their captain-general, chief, and *justicia mayor*, 'to whom we will have recourse in arduous and difficult situations and in the differences that might arise amongst us'. They told Cortés: 'This is our charge to you, and, if necessary, our command, because we hold it as certain that God and the king will be well served if you accept this authority.'

Pepillo recalled the old saying, 'Press me harder but I'm very willing' – for after some show of modesty and reluctance Cortés did, of course, accept the commission, but not before he had secured extraordinary terms for himself, including one fifth of all the treasure that would be won during the conquest.

This last concession, an amount equivalent to the share – known as 'the king's fifth' – that all expeditions were required to allocate to the king himself, outraged the Velazquistas again. They had been

taken by surprise by the defection of Montejo and by the speed of the coup that had, at a stroke, stripped the governor of Cuba of all authority in Mexico, and vested supreme civil and military power in Cortés. Now, however, the governor's kinsman Velázquez de Léon, his former major domo Diego de Ordaz, and Juan Escudero, whose hatred of Cortés grew visibly more intense as each day passed, made the mistake of attempting to start a full-scale rebellion.

Cortés clapped the three of them in irons, and locked them in the brig on his flagship. There, after letting them cool off for a few days, he visited them on 6 June, the day before the entire army would decamp towards Huitztlan, and released them again after buying their compliance with gold. 'Every kingdom divided against itself is brought to desolation,' he explained to Pepillo, citing the Book of Matthew, 'and every city or house divided against itself shall not stand.'

It all sounded very convincing, very conciliatory. But in his heart Pepillo didn't believe the caudillo really wanted to reconcile with the

Velazquistas at all. The cunning way he had provoked them into a rash and hasty act of insubordination, and the way he now forgave them, were surely just moves in some subtle game of wits and strategy he was playing. Even the bribe of gold offered to them seemed insincere, since Cortés fobbed them off with just a fraction of the modest treasures he'd received from Pichatzin to compensate for Guatemoc's attack on Sandoval and Puertocarrero. The lion's share, he told Pepillo, he'd already used to detach Montejo from the Velazquistas and buy his loyalty in the manoeuvres to found the colony.

Chapter Twenty-Seven

Monday 7 June 1519 to Sunday 20 June 1519

Twenty-six days had passed since Tozi's precipitous flight from Moctezuma's palace, and fourteen since her single disastrous attempt to re-enter it. Other than that she had remained with Yolya in the safe house in Tacuba, helping with the laundry work, sleeping a great deal, eating little, her confidence shattered. She had almost given up hope that Huicton would ever return when one morning she heard the familiar shuffle of his feet and the tapping of a stick outside in the lane. The green gate opened and he hobbled into the

yard, bent over, dressed in rags, a filthy sack dangling from his shoulder, utterly convincing in his role as a blind beggar.

Tozi ran to him, embraced him wildly, tears pouring down her face. 'I've failed,' she said. 'I can't do my work any more. Moctezuma has a new sorcerer, a great *nagual* from the north, one of the tattooed ones. I fear him, Huicton. He could see me even when I made myself invisible. Such power he has! He's no longer in Tenochtitlan, yet his magic still protects Moctezuma—'

'My dear … wait. Slow down … '

But Tozi was in no mood to be interrupted: 'I know Huicton! I tried. Truly I tried to enter the palace but spirit knives and spirit razors attacked me until my head burst and my brains bled.'

'That is not good, Tozi.'

'I know,' she sobbed. 'I fear I'm losing my powers. I'm nothing without my powers.'

Huicton guided her to a bench in the yard and they sat together under the lines of drying laundry for a long while until her weeping

subsided. Finally the old spy spoke, the vibrant nasal hum that characterised his voice peculiarly resonant this morning: 'This sorcerer who you say is no longer in Tenochtitlan … has he gone to Cholula?'

At this Tozi looked up sharply. 'Yes,' she said. 'He has.'

'And is his name perchance Acopol?'

'Yes! It is. How do you know this?'

'I have come here directly from Cholula, my child. After I left the Spanish camp near Cuetlaxtlan—'

'The Spanish?'

'They are the white-skinned ones you believe to be the companions of Quetzalcoatl. They call themselves Spaniards.'

Tozi felt her pulse quicken. Here was the end of all her woes. Here was the fulfilment of all her hopes. 'And did you meet – O tell me it is true, Huicton! – did you meet Quetzalcoatl? Did you meet the god himself?'

'I met the leader of the Spaniards,' Huicton replied carefully. 'He

is a man called Cortés, Hernán Cortés, and – I cannot deceive you, Tozi, for I love you dearly – he is no god.'

As fast as Tozi's hopes had risen, so now they threatened to come crashing down. 'You lie, Huicton!' she protested. 'He *is* a god. I know he is a god. He will destroy Moctezuma! He will destroy Moctezuma's bastard sorcerer! He will destroy them all.'

'Well there, my dear, you may very well be right – for I believe that Cortés will indeed destroy Moctezuma and all his henchmen, and I am willing to believe that Cortés has been sent to us from heaven, even perhaps that he may be the manifestation of Quetzalcoatl in human form. Nonetheless, you must accept, Tozi, that he *is* a human being, with all the faults and frailties of a human being. Your friend Malinal knows this better than any other since she has become his lover.'

'If she is his lover,' said Tozi fiercely, 'then she is the lover of a god.' She took Huicton's hands. 'Tell me of Malinal! Is she well? Is she working to bring Quetzalcoatl here?'

‘She is well and she is undoubtedly working to bring Cortés here. She has not faltered for a single moment in the mission you and she agreed, and she’s promised to send me messages through my spies to keep us informed.’

‘I knew it,’ said Tozi. ‘I knew she wouldn’t let me down … ’ A pause: ‘She is beautiful, is she not?’

‘She is possibly the most beautiful woman it has ever been my privilege to know.’

Tozi’s mind was flooded with memories of the brief, intense time she and Malinal had spent together in the fattening pens of Tenochtitlan, and of the way they had cheated sacrifice at the hands of Moctezuma, thanks to the inexplicable intervention of Hummingbird – that wicked god whose servant Acopol undoubtedly was. All of this, everything that was happening, must be tied together in some deep, secret, hidden way, and the fact that Acopol was now in Cholula only added to the mystery. Why would the murderous sorcerer go to the last sanctuary of the living worship

of Quetzalcoatl in Mexico, if not to work murder and magic there?

'You said you came here from Cholula,' Tozi reminded Huicton.

'Yes. I have travelled far, child. I have been with the Spaniards at the coast, I have been with Shikotenka in the mountains of Tlascala and I have been with my master Ishtlil. It was Ishtlil who sent me onwards to Cholula to gather intelligence of certain happenings there … '

'Happenings that involve the sorcerer Acopol?'

'Yes, my child. I watched him for many days.'

'And did you discover what he's doing in Quetzalcoatl's city?'

'If you can still call it that! Acopol has imposed his will on it, in Moctezuma's name, and made vassals of its rulers Tlaqui and Tlalchi. They are weak men, foolish men. They've even allowed him to build an altar to Hummingbird on Quetzalcoatl's pyramid!'

'To Hummingbird?' Tozi was stunned.

'I know. It's unbelievable. But the old high priest was set aside, taken away – no one knows what's happened to him – and Acopol

was put in his place. He sacrifices twenty young boys to Hummingbird every morning, Tozi. He kills them at dawn just as the sun rises.'

'Why?' she asked. Her head was spinning. Never in this age of the earth had humans been sacrificed at Cholula. Because of its ancient sanctity, it was the last place in Mexico where Moctezuma had allowed the cult and worship of Quetzalcoatl to persist. 'Why would they turn the world upside down?'

'I believe it is all to do with the Spaniards,' said Huicton, 'who – I repeat – are not gods but mortal men of flesh and blood who can be killed. I heard rumours in Cholula that a trap is to be prepared for them there.'

'A trap? How? Even if they are mortal men, and I know they are not, they're still miles from Cholula.'

'This is what I wasn't able to discover. It's a closely guarded secret. All I know is that Moctezuma has raised this sorcerer Acopol very high.' Huicton tapped his nose. 'I don't like the smell of it. I

had been thinking, my little spy, that perhaps you could go there and find out more, but now that I have heard your story, I cannot ask you.'

Tozi thought about it. She could not spy on Acopol. He would find her out in a moment.

On the other hand, if his purpose in Cholula was to prevent the return of Quetzalcoatl, then surely it was her duty to try?

* * *

Preparations for the move north to Huitztlan were set in motion immediately after the public meeting of 31 May, and on 7 June the fleet, under the command of Juan de Escalante, embarked for the new site, with orders to break the ground there and begin construction and fortification of the colony of Villa Rica de la Veracruz as a permanent base for future operations. With the fleet went half the army, while Cortés, guided by Meco, led the rest of

his force overland on an indirect route by way of Cempoala, the Totonac regional capital, where meetings of the greatest importance were to be held with Tlacoch, the paramount chief.

Although still unhappy to be separated from Melchior, Pepillo had accepted his lot. There were times, now, when his pet, growing rapidly stronger and more savage in the company of the other dogs, did not even seem to know him. Melchior had developed a special friendship with Jairo, the black mastiff who had previously attacked him, and the two of them were now inseparable. If other dogs threatened the lurcher pup, Jairo would come ferociously to his aid. Melchior was cunning to seek protection in this way, Pepillo realised, and he watched with pride as his pet loped forward with the rest of the pack; he was already bigger than many of the full-grown dogs and soon he would be able to fight his own battles.

Meanwhile it was a joy, it was a delight, to be leaving the miserable and boring dunes on which the Spanish camp had been pitched since April, to cross the barren coastal plains and to advance

into landscapes that became greener, richer and more interesting with every mile, offering glimpses in the distance of a towering, snow-capped volcano. Finding himself unable to resist the mood of excitement amongst the soldiers, Pepillo began to join in with their marching songs.

They crossed a river by making rafts and requisitioning some native canoes left lying on the banks, and thereafter found themselves on rolling plains, richly carpeted with tropical vegetation, overgrown with graceful palms and teeming with wild creatures. There were species they recognised, including large herds of deer – Alvarado gave chase on Bucephalus and wounded a buck with his lance, but it escaped into a palm forest and could not be caught. Other animals, however, were completely unfamiliar, and the skies were filled with strange, brightly coloured birds whose raucous cries rang out from morning to night. It seemed that all the towns and villages on their route had been deserted by their inhabitants – no doubt out of fear of the Spaniards – and in several

they found temples with blood-spattered shrines and mutilated human corpses bearing witness to recent human sacrifices. The contrast between these horrors and the terrestrial paradise through which they passed could not have been more stark.

On 10 June, in the morning, they came in sight of Cempoala, its stuccoed walls gleaming like silver in the sun, and advanced on it with cavalry, cannon, muskets and crossbows ready. Twenty dignitaries hastened to intercept them, bringing cakes of finely scented rose petals, which they presented to the horsemen, greeting them with every sign of friendliness and telling them, through Malinal, that lodgings had already been prepared for them. The paramount chief, Meco explained, was too fat and heavy to come out and receive them personally, but eagerly awaited their arrival.

Pleased by such a warm reception, Cortés reached down to Pepillo, who was walking at his stirrup, and lifted him up into Molinero's saddle as they rode through Cempoala. The city was so green with trees and bushes that it looked like a garden, and proved

to be far larger and more beautiful than any other they had so far seen in Mexico, with a population of perhaps thirty thousand living in well-built stone houses thatched with palm leaves. Crowds of men, women and children thronged the streets, smiling and welcoming the conquistadors with wreaths of flowers – one of which was hung around Molinero's neck, while Cortés was given a chaplet of roses to decorate his helmet.

Seated beneath a huge sunshade, Tlacoch was waiting to greet them as they entered the courtyard of the spacious lodgings he'd put at their disposal near his palace. Though tall, the paramount chief was indeed truly and enormously fat, a veritable mountain of wobbling flesh. He was so fat, in fact, that he could not walk unaided for more than a few paces. Inevitably the Spaniards began to call him 'the fat cacique' – 'cacique' being the word for chief they had adopted from the Taino Indians of Hispaniola and Cuba.

Cortés kept the men on their guard during the night, but there were no signs of hostility and the following morning, 11 June, he

held a long meeting with the fat cacique, which Pepillo attended and kept note of. Meco and Malinal interpreted, with assistance and clarification where necessary from Jerónimo de Aguilar, who had at last recovered from his stomach ailment.

As usual the caudillo began by announcing himself to be the subject of a great monarch, dwelling beyond the waters, who had sent him to abolish the false religions and the vile practice of human sacrifice that prevailed in Mexico, to overthrow the foul demons mistakenly worshipped as gods by the Indians and to convert them to the true religion of Christianity.

To this Tlacoch replied that he was very happy with his own deities, who sent sunshine and rain, and that he too was the vassal of a powerful monarch, Moctezuma, whose capital city Tenochtitlan stood in the midst of a great lake far off in the mountains where, being surrounded by water, and approachable only along narrow, well-defended causeways, it was effectively impregnable. He then went on to paint a terrifying picture of Moctezuma and to reveal his

hatred of him and of the burdensome tribute the Mexica extracted from him which, as well as gold, jewels and crops, included large numbers of young men and women, the flower of the nation, carried off each year for sacrifice on the altar of the Mexica war god Hummingbird.

The problem was getting worse, Tlacoch complained, as the years went by. Moctezuma had, for example, recently demanded an onerous new levy of sacrificial victims – a thousand virgin girls to be delivered to the fattening pens in Tenochtitlan in good time to celebrate the supposed birthday of Hummingbird at the beginning of the month the Mexica called *Panquetzaliztli*, a date corresponding with 20 November. When Cortés learned of this, his eyes lit up with fury; he said he had been sent here by his own monarch precisely to stop such abuses. He invited the Totonacs to join forces with him to overthrow the oppressor before this wicked holocaust of virgins could occur.

The fat cacique's response was ambiguous. On the one hand it

was clear he wanted to take up Cortés's invitation – indeed this was why he had asked him to come to Cempoala in the first place – and he hinted he might be able to provide the Spanish with as many as a hundred thousand warriors to support their conquest of Mexico. But, on the other hand, he was obviously deeply afraid of 'the great Moctezuma', as he always referred to him, opining that if he betrayed him, vast Mexica armies would 'pour down from the mountains, rush over the plains like a whirlwind and sweep off the whole Totonac nation to slavery and sacrifice'.

Cortés endeavoured to stiffen Tlacoch's backbone with reminders of what his soldiers had done to the Chontal Maya at Potonchan, declaring that a single Spaniard was equal to a thousand Mexica, and gradually extracting more information from him, much of which Malinal endorsed as true. The fat cacique spoke at some length of Ishtlil, the rightful monarch of the kingdom of Texcoco, who had been ousted by Moctezuma and replaced by his more compliant brother Cacama. 'As well as ourselves,' said Tlacoch,

'Ishtlil can prove an important ally for you.'

'We have already received representations from him,' Cortés was able to reply. 'His envoy approached us and offered us his master's friendship. I understand, though, that my army must pass through the lands of a people called the Tlascalans if we are to join up with Ishtlil's forces.'

'That is correct,' said Tlacoch, who was clearly taken aback that Cortés knew so much and was already in discussions with other leaders.

'I'm told these Tlascalans are great fighters,' Cortés added.

The fat cacique confirmed that this was indeed the case. The Tlascalans, he said, lived in a state of permanent warfare with the Mexica and might perhaps be recruited as allies. There was also a tribe named the Huexotzincos, smaller and less powerful than the Tlascalans, but likewise vehemently opposed to Mexica overlordship. In short, if Cortés were to make an alliance not only with the Totonacs but also with the Tlascalans, the Huexotzincos

and Ishtlil, then there might be a real chance of defeating Moctezuma.

After translating this last point, Malinal interrupted the discussion and, relying very little on Aguilar, told Cortés in Spanish that the situation was not nearly so simple as Tlacoch was painting it. First, he was talking nonsense about the Totonacs; there was no way they could support Cortés with an army of a hundred thousand, or even a tenth of that number, and they were not renowned for their bravery on the field of battle. Second, the Huexotzincos and the Tlascalans hated each other at least as much as they both hated the Mexica, and had never before been known to cooperate. Thirdly, while it was true that the Tlascalans would make excellent allies, they were a ferocious, unpredictable and independent-minded people, and there was no guarantee they would join the Spaniards; on the contrary, they were just as likely to fight them.

'Even so,' Cortés replied, 'if I can unite all these peoples in an alliance, what say you? Will we win?'

'If you can do it,' said Malinal, 'then certainly you will win.'

That was the moment, Pepillo realised much later, when Cortés's strategy for overthrowing Moctezuma began to take proper shape in his mind. He smiled, a broad smile, showing his teeth, and just for that instant he looked less like a man and more like a wolf.

* * *

Guatemoc was here! It seemed he'd committed some act of insubordination against the Great Speaker – something to do with the *tueles*. Could it be, Tozi hoped, that he'd listened to her after all? Could he have made an overture of peace to Quetzalcoatl? Huicton had been unable to glean any definite intelligence on the true nature of the prince's crime, but whatever it was, his punishment was to be held under house arrest on his father Cuitláhuac's estate at Chapultepec, just a few miles from Tacuba. Months before, when he'd been recovering from his battle wounds and from the poison

Moctezuma's physician had given him, Tozi had visited Guatemoc there in her disguise as the goddess Temaz and helped him to heal. Now she longed to pay an invisible call on him again, to appear to him again as Temaz, and to discover what had happened between him and the *tueles*, but Huicton would not allow it. 'In truth, I can't stop you, girl,' the old spy said. 'If you want to go I'm sure you will go. But if you are truly to face Acopol as you say you must, then you first have to renew and strengthen your powers; I fear the prince will prove a distraction.'

Huicton's idea was that Tozi must go on a vision quest. She must travel, alone, into the northern deserts, through the lands of the Chichemec nomads whence Acopol himself had come. She must go at once.

'And why must I go, Huicton?'

'Because our cause needs you, dear girl, but you cannot help us when you are as damaged and afraid as you are now. You must journey to the place of your ancestors, to the lost land of Aztlán, you

must find the Seven Caves of Chicomoztoc, and there you must seek a vision from the masters of wisdom.'

Aztlán was the home of the gods, though nobody knew where it was any more, and nobody had been there for hundreds and hundreds of years. The Seven Caves of Chicomoztoc were believed to lie within the borders of Aztlán and were the mystic place of origin of the Mexica, the Tlascalans and all other Nahuatl-speaking peoples. The masters of wisdom were workers of the highest magic, said to have concealed themselves from common sight in the caves long ages ago. So much, every Mexica knew, but what Tozi knew in addition, or at any rate had believed since her childhood, was that she came from Aztlán – not in some distant, remote, centuries-old, ancestral sense, but in the sense of actually having been born there and having migrated from there to Tenochtitlan in her infancy. Her mother had told her this – her mother who had passed on the gift of withcraft to her but who had only just begun to teach her the path when she was killed by a mob, leaving Tozi an orphan. Tozi had

been reared by Huicton, who had found her in the hole she had hidden in after her mother's murder; he had nurtured her skills and made her one of his spies. Now he stood over her in the yard of the Tacuba safe house and told her it was time for her to go.

'Don't delay,' he urged. 'Don't think about it, even for a moment. Go! Find your vision, discover your power and return to me. Then and only then will we see what can be done about Acopol.'

So Tozi gathered up her few belongings, bundled them into a deerskin backpack and left without a backward glance. 'Head north,' Huicton called after her. 'Go first by way of ancient Teotihuacan. There is a ruined pyramid there, said to have been built in the long ago by Quetzalcoatl himself, and from its flank protrudes the effigy of the plumed serpent. Seek guidance from the god you revere and then continue on your journey north … always north. Your feet will know the way.'

Tozi's feet did know the way. Before Teotihuacan they took her directly to Chapultepec, where she slipped into invisibility – she did

not fear the failure of her powers with ordinary mortals, only in the presence of adepts such as Acopol – and entered Cuitláhuac's estate.

Huicton be damned!

If she was going to trudge hundreds of miles north into the Chichemec wilderness on some crazy quest for a mythical land, Tozi was absolutely determined that she would see Guatemoc first.

* * *

An hour later, Tozi lurked invisibly in the audience chamber of Cuitláhuac's mansion, watching Guatemoc and his father locked in an intense, furious, but *whispered* argument. Their voices were lowered, she understood, because a small army of paid informers and secret policemen had been sent by Moctezuma to infiltrate the Chapultepec estate. Indeed she had passed several suspicious-looking characters as she had sought Guatemoc out, two of them loitering by the door to the audience chamber with their ears

obviously pricked. She had thought of exposing their presence by some trick, and would perhaps have done so, had she not been so angry at Guatemoc because, once again, as when she had seen him performing unspeakable intimacies with another woman, he'd shattered her romantic image of him – in this case her foolish dream that he might have been persuaded to embrace the cause of Quetzalcoatl. She now knew that quite the opposite was true. The reason the prince had been placed here under house arrest – 'you might so easily have been executed instead', his father complained – was not that he had sought to make common cause with the *tueles* to bring Moctezuma down, as she had fantasised, but rather because he had tried to attack them, and had even taken one of them prisoner with the intention of sacrificing him, contrary to the wishes of the Great Speaker. Weirdly it seemed to be Moctezuma who was making peace overtures towards Quetzalcoatl, sucking up to him in every possible way and trying to curry favour, while the prince fought and opposed the return of the god.

The one thread of hope for Guatemoc, however, was that his hatred for Moctezuma plainly remained undimmed. 'Father, we must act,' he now whispered. 'We must overthrow that monstrous fool before it's too late.'

'Overthrow the Great Speaker?' replied Cuitláhuac, as though Guatemoc had suggested they turn the earth upside down. 'But that would be treason. Such a thing has never been done in the whole history of our nation.'

'It's a short history, father, hardly two hundred years, and there is a first time for everything. I say the time has come – indeed is long overdue. If we do not act, my uncle will surrender to the white-skins and make slaves of us all.'

'I won't be part of any plot against him,' Cuitláhuac insisted.

'Even though he plotted to poison me?'

'Even so.'

'Even though in his every action he betrays the high office of Speaker?'

‘Even so! You are proposing a rebellion, Guatemoc, and that is unthinkable. It will always be unthinkable.’

Tozi wanted desperately to intervene, to shoot out from invisibility like a thunderbolt and put both these stupid, stubborn men right! Cuitláhuac needed to understand that a revolt against his wicked brother Moctezuma was absolutely, immediately, imperatively necessary. But it was even more important for Guatemoc to understand that the *tueles*, who he so dismissively called the ‘white-skins’, were not the enemy; rather they were his natural allies, since they had come across the eastern ocean to abolish the foul rule of Moctezuma and restore justice to the world.

‘I will not – I cannot – sanction rebellion,’ Cuitláhuac now whispered. ‘There must be some other way. I’ll speak to your uncle again in the council and try to get him to see reason.’

‘It won’t do any good, father,’ Guatemoc sighed, ‘you know it won’t! The man is far beyond reason.’

‘Nonetheless I have to try. Anything else is—’

‘Unthinkable?’

‘Yes. Unthinkable! Moctezuma has his faults but he is our ruler, sanctioned by the gods, loved by the people. We must never forget that.’

Tozi drifted closer to Guatemoc. She knew she must not speak to him in the presence of his father. She was tempted to wait until he was alone and then reveal herself, but she had brought none of the finery of the goddess Temaz that she’d used for disguise in their previous encounters, and she was under no illusions about how the prince would react to her real appearance as a street urchin and a witch!

She hated him, yet loved him, despised him, yet admired him, and above all, as had been the case since their first encounter in the royal hospital months before, when she’d gone to cut his throat and ended up saving his life, she felt powerfully drawn to him as though some deep and ancient connection bound them.

She was close enough to touch him now. Invisible, he could not

see her, could not feel her, so what was the harm? She rested her hand on his arm. Closer … Closer still. Now she sensed that faint, strange resistance that was always there when she moved through a solid object. And then – she could not help herself – she merged with him, just for an instant occupying the same space filled by his strong, masculine body. She was within him, part of him, feeling the firm, steady beat of his heart, the vigour of his blood as it pulsed through its channels, the great reservoirs of warmth and courage that fed his vitality. She was within him and then she emerged beyond him, ending their fleeting union, and in that instant he turned, turned suddenly and looked at her – really *looked* at her – and she fled.

* * *

It must have been an illusion, Guatemoc decided much later as he worked out in the exercise yard, sparring not with Man-Eater or

Mud Head as he would have preferred – for it was a strictly enforced condition of his house arrest that his closest friends must not visit him – but with two of Cuitláhuac's bondsmen, trained warriors both, though not in the same league as any of his five comrades in arms. It must have been an illusion and yet … and yet … he had felt the most unsettling sensation within his body, something intimate, almost orgasmic. And then as the sensation abruptly ceased, he had turned and seen the diaphanous, translucent form of a woman there in the audience chamber between himself and his father – a young woman, strangely familiar, with the look of the goddess Temaz but yet also different, more fierce, with something wild and flighty about her, like a feral animal caught in a trap.

Guatemoc rolled his shoulders and deliberately dismissed the vision from his mind. He struck a blow – a very good one, he had to admit! – that brought one of the bondsmen to his knees with a gasp of pain, then on the backswing he struck again and laid the second

burly soldier flat. Throwing down his *macuahuitl* – stripped of its obsidian blades for sparring purposes and thus toothless as a crone – he said, 'Thank you, dear fellows, that will be enough for today', and stalked off to the private apartments he now occupied in the south wing of his father's mansion.

He needed to be alone. He needed to think. Why his mad uncle had let him live was a mystery to him, for he had fully expected to die. Indeed the night before he was to be killed, specialised priests had come to prepare his body for ritual slaughter by the ordeal of flaying. He had broken one priest's jaw and pulled the arm of another out of its socket before they subdued him and began the process of softening his skin with unguents and hot towels to ensure it could be removed without tearing so Moctezuma could pull it over his own body like a glove.

But then, soon after dawn, the Great Farter himself had come to his cell, dismissed the priests and ordered Guatemoc's release into the custody of Cuitláhuac. Moctezuma had seemed flustered,

excited, anxious, with a strange fixed smile and staring eyes. He had acted, almost, as though he and Guatemoc were friends!

What was the reason for this sudden change of heart? What had happened to Moctezuma during that night? Guatemoc realised that he might never know, that his uncle was so crazed that his mental processes were beyond rational enquiry – which was precisely why he could no longer be trusted to rule the nation. Since Cuitláhuac was a weakling, Guatemoc resolved, it fell to him and him alone to plot the death of Moctezuma and to prepare a proper strategy for dealing with the threat of the white-skins. If they all fought like the man in the dunes had fought, they were going to prove to be very formidable enemies indeed.

* * *

After her eerie union with Guatemoc, an experience that had left her aching with an unaccountable sense of loss, as though there

were now some void within her that could never be filled, Tozi walked steadily and determinedly north from Chapultepec through the spectacular beauty of the One World. She passed beneath the twin aqueducts that carried fresh water into Tenochtitlan from the springs on Chapultepec hill by means of a pair of gleaming ceramic pipes, each with a bore as wide as a man's torso. Assembled from hundreds of short interlinked sections, the pipes were carried on marching lines of stilts and scaffolding that followed the curving decline of the hillside for two miles down to the edge of Lake Texcoco, and then soared out for a further two miles over the lake itself, finally entering the island metropolis in the district of Tlatelolco. The whole amazing construction was needed to keep Tenochtitlan alive because the lake waters were brackish and practically undrinkable, and there were few functional wells within the city. For this reason the aqueducts were guarded and patrolled along the full length of their overland transit by squads of warriors, from a permanent garrison of twelve thousand who were camped at

the point where the springs emerged from the earth. Tozi saw no need to hide in invisibility as she passed the heavily armed patrols. Their vigilance was reserved for warriors like themselves – Tlascalans perhaps, or rebel Texcocans. Skinny, dirty, dressed in rags, she posed no apparent threat and was already effectively invisible to them.

She continued her journey north, leaving Chapultepec with its military hustle and bustle behind as the day wore on. The colours of the One World were lush fern green and rich loam for the fertile fields of the farmers that she passed on her left, deepest cerulean blue flecked with the snow-white of the wavelets that lapped the lake to her right; above her was the azure sky, in which slow-moving clouds floated like feathers, and the molten gold of the sun. Long, welcoming shadows were cast by stands of trees; the drab clothes of peasants contrasted with the bright stalls of market traders, standing amidst the red and yellow painted adobe buildings of the town of Tepuca on the north side of the lake, which she reached very late in

the afternoon.

Tozi had no goods to barter with her – Huicton had insisted on that – so she begged shelter for the night from a widow in Tepuca, a stranger who took her in kindly and would accept no service in exchange for her food and lodging.

The following morning, early, Tozi was on her way again, heading north, constantly, unerringly north through the valley of the One World. Something plucked at her heart and she turned back for a last view of distant Tenochtitlan shimmering in the midst of the great lake – an impossible mirage of towering pyramids, palaces and mansions, separated by the perfect geometry of intersecting avenues and canals. The whole eye-achingly beautiful vista, which yet concealed so much ugliness, so much cruelty, so much woe, was encompassed, surrounded, defined, by distant ranges of jagged snow-capped mountains that soared to west and east, their descending slopes richly carpeted in the blue-green of forests that had already been remotely ancient when the Mexica, then a poverty-

stricken but ferocious nomadic tribe, had first arrived in these lands.

And something else, even older, had been here to greet those first Mexica scouts as well. On the afternoon of her second day on the road, after begging a few cobs of maize for sustenance, Tozi's quest brought her, as Huicton had told her it must, to the long-abandoned city of Teotihuacan, 'the place where men became gods', with its three ruined pyramids that had been built, the Mexica believed, at the very beginning of this present age of the earth. She advanced along the broad, straight, two-mile-long avenue called the Way of the Dead, mixing in with a group of hymn-singing pilgrims from Tenochtitlan as they visited first the small, ruined step-pyramid believed to have been the work of Quetzalcoatl because of the sculptured head of a plumed serpent that jutted from its steep side, thence onward to the gigantic pyramid of the Sun, which rose in five tiers towards the heavens, and finally, at the northern end of the avenue, to the slightly smaller pyramid of the Moon.

Like everything else the Mexica touched, Teotihuacan had

become a focus of monstrous perversion in recent years. Age-old lore concerning this sacred ground held that the previous age of the earth, the Fourth Sun, was brought to a close by a cataclysmic flood, after which primeval darkness fell. The gods chose Teotihuacan as their gathering place to decide who was to sacrifice himself so as to become the new Fifth Sun and bring light again to the world: 'Even though it was night, even though it was not day, even though there was no light, they gathered, the gods convened, there at Teotihuacan.'

Two of them, the legends said, competed for the honour to throw themselves into the sacred fire from which the Fifth Sun would be kindled – the handsome and worldy Tecciztecatl, arrogant and greedy for glory, and humble, self-effacing Nanahuatzin, ailing and covered with pustules. At the last moment Tecciztecatl baulked before the fierce heat of the flames. Nanahuatzin, however, closed his eyes, rushed forward and leapt into the fire where he began 'to crackle and burn like one roasting'. As a result of his self-

immolation, the Fifth Sun finally arose, ushering in the present epoch – 'it took sight from the eyes, it shone and threw out rays splendidly, and its rays spilt everywhere'.

In this tale, which was not their own but had been passed on to them by the peoples they had encountered and conquered when they migrated into the valley two centuries before, the Mexica found cause to carry out mass human sacrifices by burning at Teotihuacan on two occasions each year, once at the winter solstice, *Atemoztli*, when the sun rose furthest to the south of east, and again at the summer solstice, *Tecuilhuitl*, rapidly approaching, when the sun rose furthest to the north of east. These holocausts, at which Moctezuma danced publicly and distributed gifts to the onlookers, were supposedly conducted to nourish the Fifth Sun with the suffering of the victims as they crackled and roasted on the sacred flames, thus preventing the untimely end of the age.

But once all the pious nonsense was set aside, what it was really all about, Tozi knew, was the sick pleasure and delight the Mexica

took in finding ever more inventive and spectacular ways to degrade, humiliate, and terrorise others. And in the process of their wicked rituals, the true significance of 'the place where men became gods' was all but forgotten. She recalled the ancient and time-honoured words her mother had taught her about the meaning of Teotihuacan:

> Thus they said, 'When we die, truly we die not, because we will live, we will rise, we will continue living, we will awaken … ' Thus the dead one was directed, when he died: 'Awaken, already the sky is rosy … ' Thus the old ones said that he who has died has become a god; they said: 'He has been made a god there.'

And here lay the truth – the sacred ground of Teotihuacan was for renewal and rebirth, not for hopeless destruction and death of the kind the Mexica liked to celebrate. Transformation of the soul

was intended here, not brutal murder of the body. After the party of pilgrims had left and evening was falling fast, remembering Huicton's suggestion that she should seek guidance from Quetzalcoatl, Tozi walked back alone to the ruined pyramid he was said to have built and settled down cross-legged beneath his effigy of the plumed serpent.

She had failed him by submitting to terror when Acopol had set his eyes on her in Moctezuma's palace, and proved he could see her even when she was invisible to others. Her ability to fade was her power, and Acopol had brushed it aside as though it were nothing, stealing her confidence, stealing her courage. Perhaps this was why Huicton had sent her away – not so much to find the lost land of Aztlán and seek a vision from the masters of wisdom in the Seven Caves of Chicomoztoc, as to find her courage again.

She gazed up into the stern features and the snarling teeth and jaws of the plumed serpent, the once and future king who had returned, after so long an absence, to claim the lands and the

heritage that were rightfully his. Where was he now, she wondered, the warrior Huicton called Cortés, Quetzalcoatl taken human form, and his army of demigods? Something in her bones told her they were already marching inland from the coast, these 'Spaniards' who had come to work the doom of Moctezuma, and that great events lay close at hand.

'I will find my courage,' she said aloud. 'I will be ready to fight by your side.'

'In that case,' replied a voice, 'bide here nine days longer. I have work for you to do when Moctezuma comes to celebrate the festival of *Tecuilhuitl*.'

Tozi leapt up, looking in every direction, but there was not a sound, not a footstep. Night was falling, all the other visitors had gone, and she was alone amidst the ancient ruins.

'You have work for me to do?'

'Yes, little one.' The voice was deep and resonant and it reverberated in the settling darkness. It seemed to emerge, Tozi now

thought, from between the bared teeth of the sculpted head of the plumed serpent. It could only be the god Quetzalcoatl himself, speaking to her from his effigy of stone!

'I long to serve you, lord,' Tozi said. 'Only tell me what I must do.'

'Listen, then, bold one, brave one, here are my commands for you … '

* * *

On Saturday 12 June, friendly relations and possible military cooperation with the fat cacique having been set on a proper footing, Cortés led his men out of Cempoala and down to Huitztlan at the coast – a march of less than six hours – to find that the fleet carrying Escalante and the other half of the army was already anchored in the bay and that the ground had been broken for the foundations of Villa Rica de la Veracruz. Totonac dignitaries had

been sent ahead to prepare lodgings for the Spaniards to use in Huitztlan while the new town was being built, others under the direction of Meco accompanied Cortés to smooth the way, and in addition Tlacoch provided four hundred porters – called *tamanes*, Pepillo learned – to transport all the baggage the conquistadors had previously been obliged to carry themselves.

Arriving on the late afternoon of 12 June, Cortés convened a meeting that same evening in Huitztlan's main square with Yaretzi, the town's chief, and the Council of Elders; Meco and Malinal, supported to some extent by Aguilar, served as interpreters. The meeting was also attended by the fat cacique in his capacity as paramount chief. He'd had himself carried down from Cempoala on a litter and treated Yaretzi and the elders as his subordinates, often speaking over them, his voice booming out across the square.

Once again the atmosphere was friendly, with most of the townspeople crowding round to look on, and the talk soon turned to Moctezuma and what was to be done about him. Tlacoch's

complaints at the heavy toll of sacrificial victims demanded by the Mexica were echoed by the other dignitaries present, who added that this ghastly tribute was extracted every year from every one of the thirty principal towns and villages where the Totonacs lived. The new levy of virgins to be killed for Hummingbird's birthday was particularly resented, and in addition Moctezuma's tax gatherers were hated as bullies who felt free to rape and even permanently abduct any man's wife or daughter if she was beautiful, leaving husbands and fathers humiliated and bereft.

By a strange coincidence, at the exact moment these depredations were being discussed, a tangible ripple of fear went through the crowd in the square, a commotion broke out and people fled in all directions. Two Indians rushed to Tlacoch and Yaretzi and whispered in their ears. Both men at once lost colour and began to tremble and sweat in a manner that would have been comical if they hadn't been so obviously terrified. An almost hysterical conversation broke out amongst the elders, many of whom were

now on their feet. Meco spoke urgently to Malinal and Malinal turned to Cortés: 'A delegation of Mexica tax collectors just arrived,' she explained.

Cortés seemed delighted at the news. 'Good! Now we'll see how serious these Totonacs really are about their rebellion.'

Moments later, five haughty, cocksure men entered the square where Cortés and his captains still sat with the fat cacique and Yaretzi. The new arrivals, preceded by a host of servants with fly whisks to keep mosquitoes and other night insects away, had the appearance and bearing of overlords used to subservience. Their black hair seemed to shine, they wore richly embroidered cloaks and loincloths, and each held a crooked staff in one hand and roses in the other, which they raised disdainfully to their nostrils as though not wishing to smell the local air. They passed the Spaniards rudely, refusing even to acknowledge their presence, and made their way to a stately house. They were immediately followed by Yaretzi and, once he had been hoisted into his litter, by Tlacoch.

A little later the two caciques returned, crestfallen, and told Cortés through Meco and Malinal that the *calpixque*, 'stewards of tribute', as the tax collectors were known, were offended and outraged at the entertainment and hospitality the Totonacs had dared to extend to the Spaniards without prior permission from Moctezuma. In addition to the cruel tribute of a hundred virgin girls they had come to collect, part-payment of the quota of a thousand the Totonacs were required to provide, they were therefore now demanding an extra levy of twenty young men to be handed over to them within the hour and prepared for sacrifice to Hummingbird that very night.

Pepillo remembered why he had once loved and admired Cortés when the caudillo realised the caciques fully intended to obey the order. In the strongest possible terms he required them not only to refuse it but to arrest the tax collectors instead and confine them in a room next to his quarters, where his own Spanish soldiers would keep them under guard.

Yaretzi and Tlacoch were horrified by the idea and fell into a panic. Manhandle Moctezuma's officials? They didn't dare! But Cortés quietly and firmly insisted. He reminded them that his lord, King Carlos, had sent him to this land to chastise evil-doers and prevent sacrifice and robbery, and that now was the time, under his protection, to throw off the Mexica yoke forever. Finally he persuaded them. The order was given and the *calpixque* were arrested and secured, humiliatingly, with long poles and collars. One who resisted was soundly beaten into submission with clubs. Cortés then told the fat cacique to send messengers at once to all other Totonac towns and villages that were subject to him informing their chiefs what had been done here and ordering them to treat any tax collectors sent to them in the same way, with a full guarantee that the Spanish would protect them.

Meanwhile the townsfolk had gathered again in the square and there was much talk of these astonishing events; the view emerged, as Malinal explained with some amusement to Pepillo, that the

Spaniards must indeed be *tueles* – either gods or demons – because no ordinary humans would have dared defy Mexica power so blatantly. As for Yaretzi and Tlacoch, they quickly recovered their courage, and were now pressing for the *calpixque* to be sacrificed forthwith – thus ensuring that none of them escaped to carry the tale back to Tenochtitlan. Cortés naturally refused: they must not be sacrificed, no one must be sacrificed, but there was nothing to fear since he had taken charge of the prisoners.

It being after midnight, everyone retired to bed, but Cortés was far from done and had his men bring two of the five Mexica prisoners quietly to his quarters. When they stood before him, he put on a manner of complete innocence and asked them through Malinal on whose orders they had been taken prisoner. They replied, rightly enough, that Tlacoch and Yaretzi had imprisoned them and that the Spaniards must have encouraged them to do this foolish thing, which would bring the wrath of Moctezuma down on their heads. Cortés, for his part, insisted he knew nothing of the

matter, professed to be very sorry about the way they'd been treated and added that he'd arranged to free them, without the knowledge of his Totonac hosts, because he'd heard many good things about Moctezuma and was troubled to think of the officers of so great a monarch being treated in such a shabby way. Announcing he would provide them with a means to escape Huitztlan, he told them to return at once to Moctezuma, explain that he had released them to save them from harm at the hands of the treacherous Totonacs, and inform him the Spaniards were his good friends and were at his service. Furthermore he would do all in his power to ensure their three companions were not harmed and would endeavour to have them released as well. He then had six of his men take the grateful tax collectors down to the bay under cover of darkness, put them in a longboat and row them a few miles up the coast to a place where they were safe from the Totonacs and could make their way back to Tenochtitlan.

The next morning, 13 June, there was consternation in the town

when the escape was discovered. Even though they had been under Spanish guard, Cortés and Malinal somehow managed to convince the caciques that the Totonacs were to blame for the loss of the prisoners. Cortés pretended to be angry, ordered a chain to be brought with which he bound the three remaining tax collectors, and had them transported to the *Santa Maria* for 'safekeeping'. Once on board, however, he released them, treated them in a friendly and hospitable way and told them he would soon return them to Moctezuma – a promise he fulfilled that night when they, too, with the Totonacs none the wiser, were ferried up the coast and set free.

All in all, Pepillo had to admit, it was a masterstroke. Having effectively risen in rebellion against Moctezuma by imprisoning his tax collectors, two of whom had then immediately escaped to tell all, the vacillating Totonac chiefs were now too deeply committed to change course or ever hope to be forgiven. They therefore had no choice but to throw their lot in completely with Cortés, accept his

protection and make a determined effort to win their freedom from Mexica overlordship. At the same time, by freeing the tax collectors, Cortés could hope he had sent quite a different signal to Moctezuma, a signal of friendship and complicity that would, at the very least, confuse him!

* * *

Tozi was a practised beggar so it was not at all difficult for her to sustain herself during the nine days she waited at Teotihuacan for the midsummer ceremonies to begin. Crowds of pilgrims visited the site and as she sat on the Way of the Dead, sheltering from the sun under the retaining wall on its east side in the morning and on its west side in the afternoon, her little striped maguey-fibre mat spread out beneath her, dirty rags on her back and a sorrowful look on her face, there were many who gave her gifts that she could later barter for food and shelter. Not wishing to strike up any friendship

or attract attention, she stayed in different homes in the nearby villages every night: now an outhouse, now a stoop, now a corner of the floor in a crowded one-roomed adobe hut, now a lean-to, now a roof terrace shared with a poor family making the trip of a lifetime. At no point did she invoke her powers of invisibility because it was unnecessary to do so. As she'd learnt long ago, it was often possible to be invisible without using magic at all – just common sense. Don't stand out, don't offend anyone, don't get yourself noticed; these were the important rules to follow. As the days went by and the numbers of visitors to Teotihuacan grew rapidly, with many camping out in vast transitory settlements near the ruins, it grew easier and easier for her to blend in – literally to vanish amidst the crowds.

On the eighth day, a thousand crack troops from Moctezuma's personal regiment marched in and bivouacked in front of the pyramid of the Moon, setting up guard posts at intervals all along the Way of the Dead. They were there to prepare for the Great

Speaker's arrival on the morrow and to guarantee his security. Meanwhile, a team of skilled craftsmen set to work erecting a splendid royal pavilion on the plaza by the pyramid of the Sun, while between the pavilion and the pyramid itself the blackened fire-pits, sealed for the last year by stout planks, were opened and packed with logs and kindling in preparation for the holocaust.

Next to appear were the sacrificial victims, two hundred of the finest male prisoners from the fattening pens of Tenochtitlan. They were escorted by a further thousand troops, who kept them under strict guard while the decoration of their bodies with paints and feathers began. Because the victims were all warriors taken in battle, some Texcocan, some Tlascalan, there was no wailing and crying amongst them; rather they remained steadfast throughout the whole degrading procedure.

Finally, after nightfall, troupes of clowns, tumblers and dancers took up their places under torchlight. They began to perform at once for the benefit of the huge throngs of pilgrims and sightseers

who had already gathered to ensure the best vantage points from which to witness the sacrifices the following midday. Tambourines, drums, conches and trumpets threw up a harsh, jangling cacophony, mingled with thousands of excited voices, which from time to time broke into a roar of approbation at some incredible acrobatic feat. Food sellers with baskets of their wares slung around their necks offered snacks of fried and honeyed grasshoppers, maguey worms, ants, grubs, popcorn, beans, squash cakes, algae cakes, and more specialised and expensive delicacies of human flesh. As well as the ever-popular pulque, a wide range of alcoholic drinks were on sale, made from fermented maize, honey, pineapple, cactus fruit and a variety of other plants.

Tozi was there in the midst of the press, silently witnessing it all, slipping through the crowds unnoticed. She had her orders from the god himself, she'd made her plans, and when Moctezuma came the next morning, she knew exactly what to do.

Chapter Twenty-Eight

Sunday 20 June 1519 to Monday 21 June 1519

Moctezuma was nervous, tormented by dark imaginings and filled with apprehension. Ever since he'd brought that marvellous sorcerer Acopol to his palace, he had felt strong, free and confident. The sense of being constantly watched had ceased, the nameless fears that had formerly haunted him had evaporated, his vigour had returned and his *tepulli* had begun to stand up again, enabling him to service his wives and concubines. Even more important, his bowels had stopped betraying him with strange rumblings,

gurglings, cramps, flatulence and sudden, wrenching urgencies that he could not control.

And all this was so, even though Acopol was long gone on his mission to Cholula and was therefore not physically present to provide protection. Hummingbird had spoken of 'warding spells of great power' that the sorcerer had placed around the palace, and within the sanctuary of the god's own temple, and there could be no doubt, now, that these spells worked!

But what would happen when Moctezuma travelled beyond the warded zones that Hummingbird had named? Would Acopol's magic still keep him safe then? It was this question that had once again sent his stomach into uproar, requiring frequent comfort stops as he journeyed north on the night before the summer solstice to ancient Teotihuacan, where he was to officiate at the ceremonies of *Tecuilhuitl*. He bitterly resented the inconvenience and the danger of the journey, since *Tecuilhuitl* was not even – by any stretch of the imagination – his favourite festival. Quite honestly it was amongst

his least favourite! He was expected to mingle with vast, stinking crowds of paupers and peasants from all over the empire, even to the extent of allowing himself to be touched by them – something that was forbidden on pain of death at any other time. He was expected to hand out gifts. Worst of all, he was expected to dance for them like some circus performer. Were not the weight of tradition so solidly behind it, he would have abandoned *Tecuilhuitl* years before. But Moctezuma prided himself on being a great student and respecter of tradition, and it was for this reason, despite his fears, that he had resolved to favour the festival with the royal presence as he had done each year since his coronation.

Held aloft in his palanquin by bearers who knew how important it was that he be carried smoothly without any jolts, missed steps or rocking motion, Moctezuma brooded also on the other dark cloud looming on his horizon as he approached sacred Teotihuacan on this morning of *Tecuilhuitl*. That dark cloud, admittedly still distant yet growing closer, was the prospect of the *tueles* and their

manoeuvres along the coast. Spies followed their every movement, reports reached him daily, and he found himself mightily confused by their recent behaviour.

First, there was the matter of Guatemoc's attack on them. Now, though not dead as he deserved, the troublesome prince was confined to Cuitláhuac's estate at Chapultepec, where he would be unable to cause any further chaos or disruption. Perhaps it would have been better, Moctezuma reflected, if he had skinned Guatemoc alive as he'd originally intended. On the other hand it was a good policy – particularly with one's own brother's son – to show a little mercy.

Besides, the damage had been minimal in the end. Moctezuma's orders for his nephew's arrest had reached Pichatzin in time, and the governor of Cuetlaxtlan had carried them out swiftly and released the captured *tuele*. Better still, this gesture by Moctezuma seemed to be paying off. Eight days ago the leader of the *tueles* had responded with a gesture of his own by releasing a group of

calpixque tax collectors who had been seized in Cempoala and were about to be executed by the rebellious Totonacs. Whether the *tueles'* leader was in fact Quetzalcoatl, or perhaps an avatar of Quetzalcoatl in human form, or just a man called Cortés as he cunningly claimed, remained unclear, as did his precise intentions. Yet the fact that he had freed the *calpixque*, and returned them to Tenochtitlan with messages of friendship, was undoubtedly a most auspicious sign.

Less auspicious, indeed downright worrying – and this was the source of Moctezuma's confusion – were other aspects of the *tueles'* behaviour. They had been in a position to intervene over the *calpixque* because they had abandoned their camp on the dunes near Cuetlaxtlan and marched inland to Cempoala, and there, the spies reported, they had negotiated an alliance with that fat slug Tlacoch, paramount chief of the Totonacs – an alliance against Moctezuma himself! Moreover, they had then moved on to Huitztlan on the coast where, with the help of the Totonacs, they had begun to build a permanent town of their own.

All this was unprecedented and alarming and called for immediate action. Yesterday, therefore, before leaving for Teotihuacan, Moctezuma had despatched an embassy to the *tueles* led by two of his younger cousins, Zuma and Izel by name, mere youths who were in awe of him and thus completely reliable. Their orders were to proceed to Huitztlan by forced march with a caravan of rich gifts for the *tueles*, ostensibly to thank them for their intervention in the matter of the tax collectors. They were to inform the leader of the *tueles* that his request for a meeting on the coast with Moctezuma could still not be granted since the Great Speaker was in ill health, and anyway too busy to leave Tenochtitlan; however, they were to add that the other request, namely that the *tueles* might come up to Tenochtitlan themselves and meet the Great Speaker there, was now viewed favourably, and that they would be provided with a *laissez passer* and even guides to facilitate their journey.

The invitation, of course, was a trap. Should the *tueles* accept it,

the guides would bring them by way of Cholula and there, as Hummingbird had promised, and as Acopol was already working his sorcery to ensure, they would be destroyed.

With all that already set in motion, there was really nothing more to be done until Zuma and Izel returned with their report – nothing more to be done, that is, except burn two hundred victims for *Tecuilhuitl* and attempt, so far as possible, to enjoy the festival.

So thinking, Moctezuma tugged softly at the curtain of his palanquin, opening a gap of no more than a finger-width, and peeped out. As he had thought from the growing din, his bearers had already brought him into the sacred precincts of Teotihuacan and were now advancing north along the Way of the Dead. The pyramid of the Sun towered ahead to his right, with the solar disk itself climbing the sky behind it. Midday, when he could begin to light the sacrificial fires, was little more than two hours away, but first – onerous duty – he was required to hand out gifts to the poor and dance – dance! – for them.

* * *

The ornate palanquin halted outside the pavilion set up to shade the royal party from the sun and Moctezuma was helped down. Teudile and Cuitláhuac had come out to greet him. After they had made their expressions of deference he took their arms and walked within.

Tozi chose this moment to fade into invisibility. None of the people around her saw her disappear because all eyes were fixed on the ground in fear at the presence of the Great Speaker. Besides, no one had noticed her anyway – she was too small, too ordinary, too insignificant to stand out in such an immense crowd.

The masses were kept a hundred paces back from the pavilion by an unbroken cordon of guards which Tozi, now as elusive and intangible as air, effortlessly slipped through. Momentary anxiety gripped her. Would the magical defence that Acopol had placed around Moctezuma, which had hurt her so badly and nearly exposed her the last time she tried to enter the palace, be in place here? She

drifted into the recesses of the pavilion itself, coming closer and still closer to the Great Speaker, who reclined on a throne drinking red pitaya juice chilled with ice from the high sierras.

No sorcerous attack came. No stabs of pain. No aura of supernatural danger.

Tozi was so close now she could have seized the goblet from Moctezuma's slim brown fingers and dashed it to the ground, but she had other, graver plans for him and chose to bide her time.

As each moment passed, she became more convinced that he was unprotected and at her mercy. Her confidence grew.

* * *

His confidence grew. He was relieved that no magical attack had been attempted on his person. Acopol's warding spells were clearly so powerful that they protected him even here. Moctezuma yawned, licked his lips and handed the empty goblet to a retainer. The time

was approaching when, as age-old tradition demanded, he must mingle with the public. Normally it was forbidden for any mere mortal to have contact with him, who was so close to the gods, but today, *Tecuilhuitl*, that taboo was lifted for the single hour before noon. Teudile stood ready with the basket of cacao beans and silver trinkets that the Great Speaker would distribute as gifts; after that was done, he must perform the ritualised slow-stepping dance of the star-demons in a special costume of green quetzal and red parrot feathers before the sacrifices could begin.

Dismissing the little shadow of apprehension that lingered at the back of his mind, despite his attempts to reassure himself, Moctezuma stepped out into the sunlight and walked with dignified steps, Cuitláhuac at his right, Teudile at his left clutching the basket, across the boundary of cleared space that separated him from the masses. A hundred soldiers specially selected for their intimidating size had already surged forward into the crowd, opening a lane through which Moctezuma could pass and yes –

ghastly thought! – the paupers would be permitted to reach between the guards to touch the Great Speaker's garments, his hands, and even his gold-slippered feet. He shivered in disgust and progressed into the armed gauntlet. As he did so, complete silence fell. This was partly a matter of custom – silence had always been required at this moment – but it was partly, also, because the people pressing in all around were utterly, unspeakably terrified.

As well they might be, Moctezuma thought. *As well they might be*. After all, a veritable god walked amongst them, who could order the death of any or all of them with a single, simple word, who could require them to cut their own throats right here, right now, who could command that their children's brains be dashed out, or wrest their wives or their husbands from them at his whim, without any recourse on their part.

Uggh … His flesh crept at the stinking smell that invaded his nostrils as thickets of filthy hands stretched out towards him, past the guards, grubby fingers clutching his robes, caressing his hands

and arms. Others snaked out at ground level in order to reach his feet. And all these unwashed limbs and digits that so urgently sought for him belonged to people – his people! – who fervently believed that this fleeting connection would cure their ills, bring them wealth, make them fertile and fulfil whatever other hopes and dreams sustained them in their short, ugly, meaningless lives.

Moctezuma was now twenty, now thirty, paces into the throng. The guards were having some difficulty keeping the crowd back. Better get on with it! He reached into the basket that Teudile carried, scooped up beans and silver jewels and began to pass them out, now to the left, now to the right, revolted at the massed hands that took them from him like so many hungry, grasping mouths.

That was when, suddenly, in the space the soldiers had opened directly in front of him, and so close that it seemed to emanate from a place no more than a pace away, a woman's voice spoke up through the silence, very high and very clear in the ringing tones of a proclamation. '*Behold, Moctezuma*,' the voice trumpeted, '*the last*

days of your world are upon you and very soon you will be dead, crushed under the foot of the god Quetzalcoatl, but not before you have been punished for your crimes …'

There came a massed gasp of shock and horror and whispers began to spread, passing the astounding words that had been spoken from person to person back into the furthest reaches of the crowd where they had not been heard. For his part Moctezuma stopped in his tracks, his jaw hanging open, stunned, surprised beyond measure by this unexpected and unprecedented voice which now continued: '*Repent, Great Speaker, for the vengeance of the god will be great and mighty upon you; give up your evil ways, make recompense to your people and to all those of other nations who have suffered at your hands.*'

Again there was that susurrating whisper of rumour as the words were repeated and passed on, rippling through the crowd at incredible speed while the guards cast about wildly, their *macuahuitls* drawn, pushing people aside, searching for someone – anyone – to arrest. Several women were grabbed, a man shouted hoarsely and

was struck down by a savage blow, and hundreds more soldiers from the security battalion came rushing out, shouting, stamping their feet, striking their *macuahuitls* against their shields in an attempt to quell the swelling riot. Meanwhile, Moctezuma, Cuitláhuac and Teudile had been encircled by a dozen Cuahchics who hacked indiscriminately at the rabble around them. A head rolled, an arm flew through the air spouting blood and, amid the chaos, that voice again, that terrible haunting voice somehow rose above the sea of sound, incredibly close yet with no obvious source: '*Oh foolish and cowardly Moctezuma, you are undone; your wickedness has caught you out and the reckoning has come to you sooner than you imagined. Abandon today's sacrifices! Forswear them or you will pay the price*.'

'Never!' Moctezuma yelled. It was the charge of cowardice that got to him, and he could not restrain himself from responding even as the bodyguards rushed him, Cuitláhuac and Teudile into a tight group, pushing them through the screaming masses and back behind the cordon of troops protecting the pavilion. At the last

moment Moctezuma turned and shook his fist impotently at the throng, only to feel a sudden inexplicable stab of pain. He looked down and saw that a gaping wound from which the royal blood gushed forth like a river had opened between his great and his first toe, slicing up from there towards the arch of his foot. 'Witchcraft!' he yelled – for at the moment he was struck, no one had been standing close enough to him to inflict this wound – 'Witchcraft!' He staggered and, as Cuitláhuac rushed to support him, he fell in a dead faint.

* * *

Well, thought Tozi, *that was a good start*. She was grimly pleased with herself, especially because she had managed to stab the Great Speaker – not fatally; she did not want to kill him; she had long ago been persuaded by Huicton's arguments about the merits of keeping him alive and using his own folly and weakness of character to

undermine Mexica power, rather than getting him out of the way and making room for a stronger man to take the throne. To inflict that rather nasty injury on the royal foot, she had of course been obliged to allow her right arm and her hand holding the flint knife to materialise for an instant from the field of invisibility with which she had surrounded herself, a risky manoeuvre because of the possibility of detection; but she had done it so fast she'd got away with it. Now, with cries of 'witchcraft' going up all round, Cuitláhuac and Teudile leaping here and there like headless toads, armed guards storming back and forth, Moctezuma flat on his back, unconscious and bleeding from an inexplicable stab wound, and the huge crowd on the verge of a full-scale riot, she had every reason to hope that matters might spiral completely out of control.

In the event, however, and within the hour, Mexica discipline and the judicious use of terror contained the crisis. Not a single member of the crowd was allowed to leave. After recovering from his faint, Moctezuma was patched up – weeping like a baby – by the

royal physician. And Teudile announced that the *Tecuilhuitl* sacrifices would go ahead.

Tozi had eavesdropped the conversation between Moctezuma and Cuitlahuauc that had preceded the announcement. Predictably the craven Speaker had wanted to return at once to Tenochtitlan and to his palace – the only place now, he was convinced, that he could be safe from magical attack.

'No, sire,' Cuitláhuac had said with surprising firmness. 'You cannot even contemplate such a course of action. Whatever mysterious force has afflicted us today you must not be seen to give way to it; to do so, I believe, and before so many witnesses, would prove fatal for your rule.'

'But I cannot,' Moctezuma had sobbed. 'I simply cannot, dear brother. See – ' he pointed at his foot – 'I am injured. It was a witch who did this to me, the witch Acopol warned me about. If I stay here she will attack again. In my palace, Acopol's warding spells protect me.'

‘Nevertheless, my lord, you must strengthen your will. The honour of the throne is at stake. Look … ’ Cuitláhuac signalled through the door of the pavilion at the vast, sullen crowd, still waiting, hemmed in by soldiers. ‘Consider what your people must think – must say! – if you leave Teotihuacan now without performing the sacrifices. You will never be able to command them again.’

Finally, after much more of this, Moctezuma was reluctantly persuaded. ‘I’m sure the witch has gone, brother,’ Cuitláhuac said. ‘She would not dare strike twice in the same place.’

We’ll see about that, thought Tozi.

‘There must be no hint of witchcraft being worked against you, great lord,’ Teudile added, ‘and that word is already being bandied about. While the surgeon stitched and bound your foot, I therefore took the liberty of having a man and a woman seized from the crowd. The man I accused of stabbing you and I found witnesses to swear to it. The woman I accused of throwing her voice and I found

witnesses to swear she was indeed the one responsible for those utterances. I suggest a summary trial before the public, a guilty verdict pronounced by yourself and then their immediate execution.'

'You have done well, Teudile,' Moctezuma said. 'We will flay them both alive before we begin with the sacrifices.'

'*We'll see about that too*,' thought Tozi.

* * *

It was an hour past noon, the first time in the annals of the Mexica that the sacrificial flames of *Tecuilhuitl* had been kindled late, when Moctezuma, seated on his throne, was carried by sweating slaves to the twin fire-pits between the pavilion and the pyramid of the Sun and cast a burning brand into each of them. Designed to hold a hundred human bodies packed close, each pit was filled with dry logs, which were at once set alight with much cracking, a burst of heat and a great pall of smoke, and soon two giant conflagrations

were under way. The two hundred victims sat under guard in twin enclosures nearby. They would not be thrown into the pits until the flames and smoke had died down and a mass of red-hot embers had formed that would roast them slowly, stripping their flesh and melting the fat beneath their skin until they themselves became fuel for their own immolation.

Moctezuma was deeply uneasy and his wounded foot was causing him a great deal of discomfort – indeed, he thought, the worst pain he had ever suffered in his life. His every instinct was to flee Teotihuacan at once, but he accepted that he would lose face if he failed to see the ceremonies through. Only another hour needed to pass, two at the most, for his departure to seem normal enough. So he must simply grit his teeth and endure.

And meanwhile there was another piece of theatre to perform.

He had been carried back a hundred paces from the fire-pits, and now with Teudile and Cuitláhuac positioned in front of him, and representatives of the noblest families of Tenochtitlan all around

him, he raised a finger to signal that the accused should be brought into his presence.

The man, in his middle years, was thickset and bald, the woman was young and heavily pregnant and both were gratifyingly terrified.

'I did nothing, great lord!' the man protested as the guards dragged him forward.

'In the name of the gods,' shrieked the woman, 'I caused Your Majesty no harm.'

'Mercy!' sobbed the man.

'Mercy!' wailed the woman. 'I am with child.'

Moctezuma gave them his stony face. There would be no mercy here. At his signal, both were forced to their knees as Teudile read the charges. The man, Ohtli, was an assassin; he had been seen to strike the Great Speaker with a knife, injuring the royal foot. Witnesses were called and gave mumbled confirmation that this was so. The woman, Tlaco, was a witch. She had thrown her voice and uttered treasonous statements; again witnesses confirmed the truth

of the charge. With eyes lowered, trembling, choked with fear, the defendants continued to protest their innocence until, at a word from Teudile, they were beaten into silence. All that remained now was for Moctezuma to pronounce the verdict. Leaning on Cuitláhuac, whom he used as a crutch to avoid putting weight on his injured foot, he stood with all the solemnity he could muster and then …

And then …

A sudden bolt of terror struck him. Fear that was at once hotter than the fiercest fire and colder than ice drilled into his brain like an augur, causing him first to gasp and then to scream uncontrollably in insufferable pain. He raised his hands to his head, clasped his temples, lost his grip on Cuitláhuac, stumbled and fell forward before anyone could catch him. He barely noticed the renewed agony in his foot, for it was as nothing compared with this ripping, grinding horror within his skull, as though his brains were being diced and pulped and pumped out of his ears and nose. For some

moments he remained fully conscious, seeing everything, aware that he was writhing, biting his tongue until blood poured from it, tearing with his fingers at the skin of his own face, vomiting bile as Cuitláhuac and Teudile stooped over him and lifted him bodily upright again. Worse still, even as they did so, he knew that all of this was unfolding before the silent, awestruck witness of a vast multitude of his people. He saw their startled, staring faces, their wide eyes. So shaming! So humiliating! But worst of all – unendurable, unbearable – was the terror that afflicted him. Oh, gods, the terror, the dread, the unstoppable galloping panic that seized him by the throat, by the guts, by the bowels, and that now caused him to void himself in a hot wet, explosive, rumbling evacuation that soaked his robes and ran down his legs and splattered onto the ground for all to see. His consciousness began to dim. He heard shouts, hoarse cries, the thud of many footsteps as guards closed around him – too late! – cutting him off from public view. Then blackness, darker than the darkest night, closed over

him, and for a very great while he knew no more.

* * *

Tozi watched the wreck of Moctezuma that her magic had set in motion with deep satisfaction. Since Hummingbird had reached out to her on the summit of the great pyramid of Tenochtitlan on the night she was to be sacrificed; since he had, for unknown reasons, multiplied her powers, she had known she could send fear to those she chose to punish. But it was not until now, until this very moment, as the Great Speaker slumped before her on the arms of Teudile and Cuitláhuac, that she fully understood how powerful a weapon the war god had placed in her hands.

Regardless of its origins, it was a weapon she intended to use to bring only good to the suffering people of the One World. Sadly there was nothing she could do for the two hundred young men bound and awaiting sacrifice; even if the festivities today were

cancelled, as now seemed inevitable, they would be held for use in some later event. But Tozi was determined, at least, to save bald Ohtli and pregnant Tlaco, falsely accused of acts that she herself had committed, from a most painful and terrible death. They still knelt on the ground where they had been forced down awaiting sentence, but there were no guards around them now and no one was paying them the least bit of attention. Moreover, the soldiers who had been posted at the outer edges of the crowd to keep order after the earlier riot had been called in over the past moments to defend the Great Speaker, and so there was no longer any force to prevent people slipping away. This they were already doing in their hundreds, rapidly growing into thousands, none wanting to stay to face the consequences – quite possibly mass execution – of the extraordinary scenes it had been their misfortune to witness this day.

But there was no time to lose – the situation could change again at any moment – so Tozi moved rapidly, still invisible, to stand between Ohtli and Tlaco. 'You must run,' she whispered. 'Run now!

Mingle with the others who are leaving; lose yourselves amongst them and be gone if you want to live!'

Infuriatingly, neither of them moved. They were still so frightened, so dazed after their beating, that this voice from nowhere merely seemed to disorient and panic them further.

Realising she had no other option, Tozi took a deliberate, calculated risk and re-emerged into visibility between them. Ohtli gasped. Tlaco groaned and clutched her swollen belly. 'Who are you?' she asked.

'Never mind who I am,' said Tozi. 'Get up, both of you! Get up! Get out of here!' Since they still stayed where they were, quaking fearfully, she took their hands and pulled them to their feet. 'You have to come with me,' she said. Then very firmly but quite slowly, not wanting to attract the attention of Teudile or Cuitláhuac by running, she walked with them into the dispersing crowd, walked and walked, gripping their hands tightly until they were far from the pavilion, lost amongst hundreds of others fleeing south along the

Way of the Dead.

Only when she judged them to be out of danger did she release their hands. 'Get as far away from here as you can,' she told them, 'as quickly as you can.' A thought struck her: 'When they arrested you, how much did you tell them? Do they know where your homes are?'

'Not me,' said Ohtli. 'There wasn't time. They just took my name.'

'Me too,' said Tlaco.

Tozi grinned: 'Good! Then you can go to your homes. You'll be safe and they'll never find you. I doubt if they'll even look. They'll have too much else to think about for a while.'

'But who *are* you?' Tlaco asked again. Her face sharpened: 'Are you the witch everyone's talking about?'

'I'm nobody,' said Tozi. 'You never saw me and this never happened.'

Then she turned her back on them, faded and was gone.

* * *

For some time Huicton had only been able to track Tozi's invisible progress from the spectacular chaos she had caused, but when she made herself visible to lead the man and the woman to safety he followed her, using all his tricks of fieldcraft, only to see her vanish again.

He wasn't behind her but parallel, roughly twenty paces west of her on the broad thoroughfare of the Way of the Dead, and well hidden amidst a hurrying knot of people. He didn't think there was any danger she would spot him since she'd turned back north, against the flow of the crowd, just before she disappeared. Still, it was an eerie feeling to know she might still be nearby somewhere, seeing everyone – perhaps even him! – while remaining completely unseen herself.

What power the child had. What amazing potential!

Huicton only hoped he'd done enough by hiding in the secret

chamber behind the effigy of the plumed serpent in the ruined pyramid of Quetzalcoatl nine days before, when he'd spoken to her as the god himself, giving her the commands that she'd carried out today.

But the question remained – would this strategy, and its stunning outcome, free her from the crippling anxiety and self-doubt that her encounter with that fiend Acopol had caused and thus bring her back to herself? Huicton rather thought it would, for Tozi had acted with incredible courage and shown amazing initiative. She had not only utterly wrecked the midsummer ceremonies with their vile sacrifices, but had also forced Moctezuma into a deeply embarrassing public display. The result could only be a serious weakening of Mexica power and prestige throughout the empire.

What would she do next, his little protégée? Huicton rather imagined she would continue the quest he had sent her on, because that was her nature. He would have liked to be able to tell her she

didn't need to because she'd already recovered her power. But to do that he'd first have to find her – probably impossible – and then reveal his subterfuge to her.

Something told him she would not take it well if he told her he'd posed as her beloved Quetzalcoatl.

All in all, he decided, it was better to leave things as they were. Tozi could look after herself and she would return to Tenochtitlan in her own good time.

Chapter Twenty-Nine

Friday 25 June 1519 to Friday 9 July 1519

On 25 June, a Friday, four days after midsummer, a Mexica delegation presented itself to Cortés at the new site of Villa Rica de la Veracruz, where construction work, with the willing help of the Totonacs, was already well advanced. The delegates – two youths whom Malinal identified as relatives of the Great Speaker, and four elders – were all highly placed nobles; they arrived with a large retinue of servants bearing rich gifts of gold and cloth. These they gave to the caudillo with thanks from Moctezuma for his actions in

freeing the tax collectors. They further stated that Cortés's kindness in that matter had persuaded the Speaker to overlook the great offence he had caused in taking shelter with such wicked people as the Totonacs. The meeting that Cortés had requested remained difficult, since Moctezuma was in ill health, and anyway too busy with wars and other matters to leave Tenochtitlan. On the question of Cortés going up to the Mexica capital, however, there was a marked change of tone. Despite earlier refusals, it seemed this would now be countenanced – and Moctezuma was even offering to provide guides.

'Don't trust him,' Malinal warned in her increasingly workable Castilian. 'This trap! If Great Speaker invite you in his city it means he hope kill you easy there.'

'I wasn't born yesterday,' Cortés answered, all the time smiling at the delegates and showing them a friendly and welcoming face. 'I'd sooner trust the devil than trust these Mexica. We'll pay Moctezuma a visit when we're good and ready, but I plan to win us

some more allies first.'

He therefore answered the invitation with diplomatic prevarication. He was grateful and honoured, and he would send word across the sea to his monarch King Carlos, who would undoubtedly be pleased, but there were matters he needed to attend to here before he could travel – he gestured to the buildings and fortifications of Villa Rica rising up around them. He would come as soon as all this was complete.

The delegates professed themselves satisfied and set off on the journey back to Tenochtitlan with a present of blue and green glass beads for Moctezuma. No sooner had they gone, however, than the fat cacique appeared, bringing Yaretzi in tow. The chiefs reminded Cortés of his instructions that all Totonac towns and villages should rebel against Moctezuma and expel or arrest his tax collectors. These instructions had been followed to the letter throughout the region. Now, however, four thousand Mexica troops, one of many such demi-regiments that had been sent out across the empire to

gather victims for sacrifice (and thus most likely acting independently from the delegation that had just left) had taken it upon themselves to punish the Totonacs for their rebellion. The fat cacique called upon Cortés to fulfil his promise of protection.

Pepillo remained in Villa Rica with the small garrison left to defend the new town, while Cortés led almost his full force, around four hundred men, to deal with the threat. However, the Mexica demi-regiment, which had mustered at a hill called Tizpacingo, immediately and cravenly fled the field the moment they saw the Spanish cavalry and guns. The result was that Cortés received another massive boost to his prestige, and at very little cost apart from a few days' inconvenience. Passing through Cempoala on 29 June on his way back to the coast, he seized the moment and required the fat cacique to destroy the idols in the temple that sat on the summit of the pyramid in the city's main square.

Pepillo had the story later from Bernal Díaz, who had been there. It seemed that Tlacoch at first refused and sent warriors to

defend the pyramid. Cortés responded by seizing Tlacoch himself and holding him at sword-point, threatening to kill him if he did not order his men out of the way. There was a tense standoff, but the fat cacique eventually lost his nerve and Díaz was among the fifty conquistadors who climbed the pyramid and one by one threw down all the idols. 'Some of them,' he said, 'were in the form of fearsome dragons as big as calves, and others half man and half puma and hideously ugly, but all were smashed to pieces in the fall.' There was much howling and wailing, for the Totonacs believed the smashing of the idols meant the end of the world; when the world did not end, however, they were soon mollified, and accepted Cortés's next demands, which were that their priests should all have their long, filthy hair shorn, that the temple should be whitewashed inside and out, and that a cross and an image of the Virgin should be set up in its inner sanctum where the idols had formerly stood.

The next morning, when all this was done, Father Olmedo, the Mercedarian friar who had served as the expedition's spiritual leader

since the disappearance of Father Gaspar Muñoz at Cozumel months before, said mass; following this, the most important caciques of the region, summoned thither by Tlacoch, submitted to baptism. Eight young maidens, all daughters of the chiefs, were also baptised and afterwards presented to the Spaniards to consolidate the alliance. Cortés divided them amongst his captains, giving the most beautiful of them to Puertocarrero, who after that date relinquished all claim to Malinal.

As far as Pepillo was concerned, this was a much more important development than the conversion of the Totonacs. He'd been aware for a long while how unhappy his friend was to be living with Puertocarrero, but when she returned with the army to Villa Rica, walking at Cortés's stirrup, her lovely face glowed with joy. She was baptised that same day, 2 July, and moved her residence permanently to Cortés's headquarters.

This was obviously a sensible arrangement, Pepillo thought, since they worked so closely together anyway.

* * *

Two days had passed since Malinal had allowed herself to be 'baptised' into the peculiar Christian religion so admired by her lover and master Cortés. Despite all the sermons she'd been obliged to listen to, she really knew nothing about this faith, and cared less. But if it pleased the caudillo for her to call herself a Christian and pray to the tortured god-man on the cross, and if it made it easier for her to be acknowledged as his woman in bed and out of it, then she was happy to oblige.

They were in bed at the moment, this night of 4 July 1519 in the Christian calendar, and Cortés, mercifully, slept quietly by her side – mercifully because on the preceding two nights he had been troubled by dreams in which he spoke aloud the name of Saint Peter and tossed and turned like a man possessed. They had made love, with passion, with joy, as they always did – he knew some tricks, her caudillo! – and then he had fallen into a deep slumber, leaving her

to think in the darkness, lying on her back, her legs slightly apart, feeling his warmth and his hard muscled body next to her.

Was it a miracle – these Christians often spoke of miracles – that Cortés had succeeded in prising her away from Puertocarrero without any apparent ill feeling or consequences? For a long while their liaison had seemed dangerous, a thing to be kept secret, but then Puertocarrero had found them out. Malinal had expected a beating, perhaps worse, but he had returned from a long talk with the caudillo seemingly indifferent to what she had done; thereafter, although they had continued to share a bed until the expedition to rout the Mexica from the hill of Tizpacingo, Puertocarrero had ceased absolutely to seek sex with her. Malinal had no way of knowing what private agreement must have been reached between the two men, or what strange power it was that Cortés held that made Puertocarrero now so obliging, obsequious even, and sometimes evidently fearful, but she was grateful that because of it she could in the future be openly acknowledged – not only as the

caudillo's interpreter but also as his mistress. He was already married, of course, but he detested his wife, the 'hell-bitch' Catalina, and it was true, was it not, that a mistress was sometimes higher than a queen?

Malinal thought about this as sleep began to overcome her, and found she rather liked the idea. She had been born a princess, after all. Why should she not become a queen? Who knows, she and her caudillo might even have children together – a boy, she hoped! A prince for their royal family. This notion in turn brought suddenly to mind the image of Coyotl, the little boy who had shared the fattening pen with her and Tozi, and from whom they had been separated the night they had been led out to be sacrificed. It made her sad, filled her heart with guilt, that they had never seen the innocent child again, and that he had gone to his death alone with no one to comfort him. She remembered how the High Priest Ahuizotl, whose head Tozi had later smashed with a rock – another memory – had snatched Coyotl away and how she'd been impotent

to keep her promise to care for the sweet little boy and protect him. And she remembered the astonishing events that had led Moctezuma to release her and Tozi, and the ghastly scene afterwards as they had searched for Coyotl amongst both the living and the dead, but had failed to find even his poor, mutilated body.

She shuddered and her thoughts drifted to Pepillo, another innocent child also caught up in the events of this strange and terrible time. Malinal knew she had failed him too. She'd tried hard to persuade the caudillo to let the boy keep his dog and had even extracted a promise from him that he could, but Cortés had reneged on that commitment just a few days later and the dog had been cast in with the pack, exactly as Pepillo had feared. Unlike the death of Coyotl, Malinal consoled herself, this was at least no great tragedy. Pepillo seemed to have come to terms with the loss of his pet, although she'd often seen him watching Melchior amongst the other hounds, as Vendabal put them through their paces, training them for war.

Pepillo, too, had begun to train for war. Almost every day, Malinal went to watch him sparring with the good Captain Escalante, and showing increasing mastery of the sword. In this way, taught to accept loss stoically, taught to bear arms, and growing noticeably taller and heavier as the weeks went by, it seemed to her that the boy was rapidly becoming a man.

And that was surely no bad thing, for Malinal knew that Cortés would soon march on Moctezuma and when he did they would all be tested. There would be no time for finer feelings then, no time for soft hearts and weak limbs, no time for love.

Failure was as likely an outcome of this venture as victory, and if the Spaniards failed, then only death would await them.

On that thought, with a shuddering sigh, Malinal fell asleep.

* * *

Since 12 June, the construction of Villa Rica de la Veracruz had

proceeded at a tremendous pace. Many of the wooden buildings were already complete, and the town was protected by a high stockade, with guard posts at intervals all around, and a single massive gateway. As Pepillo walked out through the open gates shortly after dawn on Monday 5 July, making for the stretch of headland beyond a stand of trees where he was to meet Escalante for their morning's practice, he happened upon his old tormentor, Andrés Santisteban, flanked as usual by Miguel Hemes and Francisco Julian, holding a dozen dogs on leashes. Amongst them was Melchior. Although at times in the past weeks he'd shown no recognition, he now bounded out of the pack, his tail wagging furiously, barking with joy, tearing his chain from Julian's pudgy hand, streaking in front of Hemes and leaping up at Pepillo. Huge shaggy paws were placed on Pepillo's shoulders as the dog licked his face enthusiastically. The show of affection enraged Santisteban, who strode forward, plucked a whip from his belt, unfurled it with a sharp crack and lashed out once, twice, thrice in quick succession.

With the first strike the tip of the rawhide tore a gash in Pepillo's cheek, while the second and third lashes opened bleeding welts along Melchior's back, causing him to drop back to the ground with a snarl. There was no fourth strike because Pepillo, in an explosion of fury, ran straight at Santisteban and punched him hard in the eye, sending him reeling.

Pepillo was a changed boy since May, the last time Vendabal's assistants had picked on him. It wasn't just that he was eating more and growing taller and heavier as he approached his fifteenth birthday. Regular sword practice with Escalante had improved his balance, speeded up his reflexes, and somewhat habituated him to combat, and he had begun to exercise obsessively, for as many hours as he could snatch for himself, building muscles in his legs, belly, arms and shoulders that simply hadn't been there before. The construction of Villa Rica had given him numerous opportunities to volunteer for hard manual labour when he wasn't tied up with secretarial work for Cortés, and, last but not least, again on

Escalante's advice, he ran five or six miles every evening, which had increased his wind and stamina.

All this work, all this effort, all this training, all the momentum of his charge and all his pent-up anger at the frequent persecutions he'd endured, Pepillo therefore put into his attack on Santisteban, which took the older boy completely by surprise. Nor did he stop with the first blow. Something Escalante had impressed on Pepillo repeatedly was the need to follow up any advantage won in combat immediately and without mercy, so he didn't hesitate to step in on Santisteban as he staggered back, punching him in the belly and treading hard on his ankle, tripping him and making him fall. He might have won the fight with a few well-placed kicks ('There's no such thing as a dirty trick in battle,' Escalante had drummed into him; 'anything goes') but Hemes and Julian came to their friend's rescue, grabbing Pepillo's arms and slowing him long enough for Santisteban to stumble to his feet, shaking his head like an enraged bull. 'You're for it now, you little shit,' he yelled, as he lurched

forward and headbutted Pepillo, who was still struggling to free himself from the grip of the two other boys.

'My, my, what's this?' came Escalante's deep voice as Santisteban drew back his massive fist for a killer punch. 'Three against one. That hardly seems right.'

Suddenly Pepillo was released. Santisteban stood before him, panting and shaking with rage, a huge bruise swelling beneath his right eye, hatred twisting his pockmarked face. Hemes and Julian had jumped back, as though they'd come too close to a hot fire. Melchior was circling at Pepillo's feet, snarling. The other pack dogs, their leashes dropped, had scattered back into the town. The sentries in the guard posts on either side of the gate were peering down with amusement, and appeared to be placing bets.

'What am I to make of this?' Escalante wondered. He was carrying the two swords he and Pepillo would use in practice. 'Item: one dog, formerly a pet, bleeding from the back, seemingly whipped. Item: one Caudillo's secretary, bleeding about the face.'

He stepped closer and examined the wound on Pepillo's cheek. 'Also seemingly whipped … Item: one senior apprentice dog handler who will soon have a shining black eye, knocked down, beaten in a fair fight as I saw it, but given succour by Messrs Hemes and Julian, which he used to unchivalrous advantage to head-butt aforesaid caudillo's secretary.'

Escalante paused, rubbed his chin. 'Well, lads,' he said finally, glaring at the three dog handlers, 'what do you have to say for yourselves?'

'It was him as started it,' sniffed Hemes, pointing a finger at Pepillo.

'Tried to take his dog off us,' said Santisteban. 'I had to stop him. I'm responsible for the dogs, see … '

'Well I must say you're not doing a very good job,' observed Escalante, 'since a moment ago there were twelve dogs here and now there is only one. The others will be causing havoc in the town, I'd venture.'

As he spoke, as though in confirmation, there came the sound of distant barks and growls, a yelp, angry shouts. Hemes, Julian and Santisteban looked at one another nervously.

'This isn't over,' Santisteban said. He signalled to the others and backed away towards the gates, dragging Melchior by his leash. 'We'll catch up with you when you don't have no noble captain to protect you,' he told Pepillo. There was murder in his eyes. Then, remembering himself, he cast an oily glance at Escalante. 'Begging your pardon, sir, of course. No offence meant to Your Excellency, but this is a score to be settled amongst us lads.'

'I don't get offended by scum like you,' said Escalante. 'But I do know a bit about settling scores, and I'll tolerate no ambushes or gangs, nor harm worked on that dog either. The only right way for this to be done is for you and Pepillo to square up to each other, man to man, at an agreed time and place … Do you have the spleen for that, Santisteban?'

'Course I do,' said the dog handler. 'Name the time, name the

place, I'll be there.'

'Dawn, a week from today, out on the headland – ' Escalante pointed – 'past the trees there. Are you agreed, Pepillo?'

'Yes, Don Juan, I am.'

'And you, Santisteban. Agreed?'

'Agreed.'

'Oh, one other thing,' said Escalante. It seemed to be an afterthought. 'I propose that this battle be fought with staves. So much more elegant, so much more like the real thing than fisticuffs. Any objection to that, Santisteban?'

The dog handler frowned, looked at his companions, looked back at Escalante.

'Well?' said the captain. 'I'm waiting.'

'Staves it is,' Santisteban finally agreed, but Pepillo could see he didn't like the idea.

'And you, Pepillo? No objection to staves, I take it?'

'None.'

Escalante looked pleased with himself. 'So,' he said, 'that's settled. Staves at dawn, on the headland, a week from today.'

The dog handlers turned and hurried off into the town, where more growls and barks could be heard.

'Are you feeling all right?' Escalante asked Pepillo. 'That whip cut is superficial; bleeding's already stopped. But how about the blow you took to your head? Has it left you groggy?'

'I'm fine, Don Juan.'

'Excellent. In that case let us proceed to the headland and continue with your training. You were lucky and fast today, but Santisteban is much bigger and stronger than you and there's a lot of work to be done if you're to be ready for him. Your great advantage, which we must build on, is that the principles of sword and stave work are much the same. You're already well on your way to mastering those principles and, unless I'm very much mistaken, Santisteban is not.'

Today's lesson focused on what Escalante called 'the binding of

swords', when contact between the two blades was maintained for some interval during a fight. After repeated attacks and defences, Pepillo began to understand that he could 'feel' the intention of his opponent through the pressure of his blade and react accordingly. Thus, if his opponent pushed strongly against him, then he must become weak and wind his blade away, seizing the opportunity to break out of the bind and strike. On the other hand, if the push was weak, then the objective was to apply strength to manipulate his opponent's blade with his own into a position where it would be possible to deliver a thrust or a slice.

'And once you break out of the bind,' Escalante added, 'don't be afraid to grapple. The closer you are to your enemy, the more difficult it is for him to cut you. So close with him, throw him and run him through. Here, let me show you,' he said – and suddenly Pepillo found himself tipped onto his back with the point of Escalante's sword against his throat. 'Now, your turn,' the captain grinned. 'Get up. Bind … That's right. Step in … Grapple! Now try

to throw me … You know, you're getting better and better at this.'

They repeated the exercise six more times until Pepillo's arms ached. 'Use elbows, knees, the pommel of your sword, whatever comes to hand in the grapple,' Escalante said. 'Anything that gives you the advantage. Never hesitate, keep on pressing your opponent every way you can—'

Abruptly he broke off the bout and turned his gaze out to sea. There, coming into the bay under full sail, and no more expected than if Aphrodite herself had chosen that moment to emerge from the foam, was a beautiful Spanish caravel.

* * *

Cortés was knee-deep in the surf, with his arms outstretched in greeting, as the longboat from the caravel *Gran Princesa de los Cielos* ran its prow up onto the sand and his old friend Francisco de Saucedo leapt out.

'Francisco!' Cortés exclaimed, wrapping the small, wiry, fork-bearded captain in a warm *abrazo*. 'Ye gods! It's good to see you! How did you find us?'

'Hernán! So good to see you too! We knew you'd be along this shore somewhere, so we just coasted, coasted, and suddenly here you are!'

Saucedo, in his early forties with short-cropped hair showing more iron grey than it had when Cortés had last seen him in February, glanced up at the headland where the rooftops and stockade of Villa Rica were visible. 'It seems you're setting down permanent roots here.'

'Indeed so! We are a colony now. You gaze upon the mighty towers and spires of the noble town of Villa Rica de la Veracruz.'

'A fine name and a fine plan, but I have news for you, Hernán – most urgent and important news. Shall we get our feet out of the water and go somewhere dry?'

As they climbed the steep path to the headland, joined now by

other captains and friends, Saucedo said jokingly: 'You might have waited for me!'

Everyone knew what he meant. The *Gran Princesa de los Cielos* had been undergoing a refit in the Santiago dockyard when Cortés had sailed precipitously with the rest of the fleet on 18 February after discovering that Diego de Velázquez, the governor of Cuba, planned to relieve him of command. There had been no time to inform Saucedo and, besides, his caravel hadn't been seaworthy. But after the repairs were complete, he explained, he'd quietly recruited sixty soldiers, 'hard-bitten types, ready for adventure', purchased four heavy cavalry horses, 'two of them mares, both good breeding stock', and slipped out of Santiago a few days ago without the governor's knowledge. 'That shit Velázquez,' Saucedo said with feeling as he and Cortés walked in the midst of a rapidly growing throng of well-wishers through the gates of Villa Rica. 'He wants your blood, you know.'

'I don't give a damn what the old fart wants,' Cortés replied. 'As

the captain-general and justicia mayor of Villa Rica de la Veracruz, I answer only to my fellow colonists now. It's all legal and above board.'

'I wouldn't be so sure of that,' said Saucedo, lowering his voice as they reached the splendid new pavilion in the heart of the town. 'Indeed, the urgent news I bring you concerns your legal position … ' He looked around at the crowd that followed them and lowered his voice still further. 'Perhaps we should discuss this in private?'

Some instinct for his own advantage made Cortés take Saucedo's arm and steer him away from the pavilion towards the public meeting hall that stood nearby. 'What I may hear, all may hear,' he said in booming tones. He sought his secretary and saw him in the crowd. 'Pepillo, summon the rest of the community. Everyone who's not on guard duty. We have word from Cuba.'

* * *

While the colonists assembled, some finding places on the benches that served as pews (the meeting hall doubled as a church on Sundays), others standing around in small groups speculating as to what was about to be announced, Cortés took Pedro Alvarado aside and whispered in his ear: 'If this comes to a showdown with the Velazquistas over the future of the colony, as I suspect it will, don't state a view.'

Alvarado looked puzzled. 'I'm not sure I understand you, Hernán.'

'I'm assuming Escudero and his gang are still courting you?'

Alvarado yawned, showing his perfect white teeth. 'Every day.'

'And you're still leading them on?'

'As best I can, but they're getting rather tired of foreplay. If I don't surrender my virginity to them soon, they're going to throw me out of bed.'

'Say nothing at this meeting to hasten that process! Rather let them think you're ready to consummate the liaison.'

With that, Cortés clapped Alvarado on the shoulder and rejoined Saucedo. 'Shall we begin?' he said.

'If you wish, Hernán, but I still would have preferred to meet with you privately first.'

'Too late for that now, my friend.' Cortés cleared his throat. 'Gentlemen,' he addressed the packed meeting hall, 'I give you Francisco Saucedo, who needs no introduction here. He is fresh from Cuba and he tells me he has urgent news for us.'

Saucedo had always been a man of few words, and now, in characteristic style, he got straight to the point. After the expedition had sailed from Cuba against the governor's wishes on 18 February, Velázquez had acted swiftly to secure his own interests, sending a fast ship to Spain just two days later. The ship carried an embassy to the court of King Carlos, with a petition that Velázquez be granted an exclusive licence to colonise the New Lands, the profits to go to him and his heirs. Rodriguez de Fonseca, the powerful and influential Bishop of Badajoz, a relative of the governor and his

closest crony in Spain, had ensured that the petition was delivered directly to the king, and the king had acceded without demur to all that was asked of him. Astonishingly and exceptionally, he had even agreed that if gold was found, only a tenth of its value (rather than the usual fifth) was to be paid to the Crown; the rest would be for Velázquez to keep. The same fast ship then brought the signed, sealed and fully executed licence back to Cuba and delivered it to the triumphant governor.

Cortés had expected that some such manoeuvre would occur. Despite his bravado, he knew that his legal cover as captain-general and justicia mayor of Villa Rica de la Veracruz was most unlikely to be sufficient to protect him from so vengeful an enemy as Velázquez. Indeed, this was precisely why, in parallel with his manoeuvres to establish Villa Rica as an independent authority, he had also developed the plan – as yet discussed only with Alvarado and with Puertocarrero who was to be his messenger – of sending King Carlos all the treasure so far won by the expedition as a bribe

for his royal support. What he had not anticipated, however, was that Velázquez would move so fast to pull the rug out from under his feet and would himself petition the king for powers that would allow him to claim control of any colony that Cortés might establish! This was chess-playing at a more advanced level than he had believed the governor capable of, and meant he now had no choice but to bring his own plans forward.

Might as well make a virtue of necessity, Cortés thought. But he would choose his moment, because others were already on their feet venting their fury and, over the next half-hour, a consensus emerged amongst the colonists. The new licence that Velázquez had somehow hoodwinked the king into issuing posed a direct, indeed an existential, threat to their interests, since he would certainly use it to argue that Villa Rica de la Veracruz should be placed under his authority, with all its profits going straight into his pockets.

'All our hard work these past months will have been wasted,' one of the settlers opined.

‘The risks we’ve run, the dangers we’ve faced, all for nothing,’ protested another.

‘We can’t allow this, Hernán,’ said Juan de Escalante gravely. ‘We all have too much at stake here at Villa Rica – something must be done.’

Seeing the way the wind was blowing, Montejo and Puertocarrero now rose to add their voices. They were both bought and paid for, with the latter additionally compromised by the cowardice for which Cortés had never allowed him to be called to account, and as he’d expected they divined his wishes correctly.

‘Caudillo,’ Puertocarrero said, ‘we who have appointed you as our leader call upon you to find a solution.’

‘Velázquez must be stopped,’ squeaked Montejo, with a nervous look at his former Velazquista cronies, who were gathered in a glowering knot around Jean Escudero and the governor’s cousin, Velázquez de Léon. ‘Action! I demand action!’

‘No action is needed,’ sneered Escudero. ‘We all serve the king,

Governor Velázquez is his appointed representative in these parts, and he now has the royal warrant to administer this and all other colonies. All that's wanted to put things to rights is to send a ship to Cuba at once – I will captain her myself – and formally place Villa Rica under the governor's authority.'

'Here, here,' echoed Velázquez de Léon.

'I'm with you,' added that treacherous swine, Diego de Ordaz, who'd taken Cortés's gold, agreed to stay out of trouble after his participation in the last rebellion, and was now clearly up to his tricks again.

Likewise Alonso de Grado, Cortés's one-time 'friend', who'd first revealed his links to the Velazquistas a few weeks before, once again hoisted his true colours by sidling over to stand beside Escudero and professing: 'Since the king has ruled in favour of Diego de Velázquez, as Don Francisco Saucedo now informs us, then who are we to go against him? No one here wishes to commit treason. I'm sorry, Hernán, but I vote we place ourselves under the

governor's command as soon as possible.'

A few other supporters of Velázquez also crawled out of the woodwork now, while more, Cortés suspected, were biding their time before they declared openly for one side or the other, but the mass of the colonists remained outraged, indeed horrified, at any suggestion of giving up their hard-won toehold in the New Lands. It seemed the meeting must soon come to blows.

Judging the moment, Cortés called for silence. 'Gentlemen,' he said, 'gentlemen. Bring yourselves to order. You are not savages. As justicia mayor, my first responsibility is to preserve and safeguard the future of Villa Rica de la Veracruz, and look to the best hope for success and prosperity – dare I say even wealth? – for all of us here gathered. The crux of the matter, as Don Francisco has made very clear, is His Majesty the King who, it appears to me, has been misled and misadvised by that venal self-serving cur Diego de Velázquez … '

Roars of anger erupted from Escudero and his followers at this,

but Cortés waved them down. 'Gentlemen, silence please! You have had your say, now allow me to have mine – for unless my memory plays tricks with me, I am still your elected chief … '

Roars of 'Yes, Don Hernán, speak up, we're with you', and suchlike encouragements, burst forth from the mass of the colonists, and a scuffle broke out between Velázquez de Léon and a huge, dour soldier named Guillen de Laso, who accused the governor's cousin of sodomy. Suppressing a smile, Cortés again called for silence and continued. 'As I was saying, that vile pederast and bestialist Diego de Velázquez has plainly misadvised the king in order to win a wholly spurious and undeserved exclusive licence to colonise these New Lands. I believe it is our responsibility – nay, our duty! – to aquaint His Majesty with the facts, and I am confident, once we have done so, that the licence given to the governor of Cuba will be revoked and our right to rule our own affairs and serve the king in these New Lands will be confirmed.'

More cheers and yells from his supporters, more boos and

catcalls from the Velazquistas, *and now*, thought Cortés, *comes the difficult bit*.

'Gentlemen,' he said, 'I have a plan. Are you willing to hear it?'

From the massed drumming of feet, entirely drowning out the protests of the Velazquistas, it was clear that the majority of the colonists were indeed willing to hear Cortés. He waited again for silence and then, in measured tones, outlined the idea he had already shared weeks before with Alvarado and Puertocarrero. What was needed, he said, needed above all else, and needed all the more urgently now since hearing the news that Saucedo had brought, was that the settlers of Villa Rica, under Cortés's leadership, should find a way to win direct royal sanction for their venture. 'If we can only do that,' he said, 'then the threat posed by Velázquez will be lifted forever.'

But how best to achieve this goal? Cortés looked around the crowded meeting room before answering his own question. Since gold was the fastest route to a man's heart, since Don Carlos, too,

was a man, and since his court, like every great court in Europe, was always in need of funds, the wise solution, surely, was to sweeten him with gold? Indeed, Cortés suggested, summoning every ounce of his eloquence and persuasive powers, the settlers of Villa Rica must send to the king all the gold, all the treasure, in short everything of any value they had won by barter and wrested as 'gifts' from the Maya, the Totonacs and the Mexica since their arrival in the New Lands in February. This would include even the two spectacular wheels, one of pure gold, one of pure silver, they had received from Moctezuma – presents so rich and so valuable they were bound to win the king over to the settlers' cause.

The initial reaction from even the most loyal and enthusiastic of his supporters was one of stunned silence, while the Velazquistas bellowed and howled with outrage. But once again, when the hubbub had died down, Cortés began to work the crowd, and after another hour had passed it was clear that many were seeing things his way. He used the same arguments here in public that he had

used to persuade Alvarado in private in the middle of May, namely that a relatively small sacrifice now – the treasure they'd gathered in just four months at the periphery of the Mexica empire – would secure for them the vast and immeasurable treasure that surely awaited at the heart of that empire in the fabled city of Tenochtitlan. By all means what they had won already was enough to make them all modestly wealthy, but if they would only keep their nerve and follow his advice, he promised – nay, he swore on the holy cross and on the name of Saint Peter his patron – that he would make them all as rich as kings. Indeed, within a year, two at the most, every one of them from the greatest lord to the lowliest soldier could look forward to becoming veritable kings in their own right, for these New Lands were vast and their potential limitless. It would be folly, utter folly, for which their children and grandchildren would never forgive them, if they were to forgo the greatest opportunity of their lives in favour of a man like Velázquez for want of a little courage and expenditure now.

‘You want us to give the king *all* our treasure?’ stormed Escudero in disbelief. ‘*All* of it? And you call that a “little expenditure”? Damn your eyes, Cortés, you’re a bigger fool than I took you for.’

‘Well, let’s see who’s the fool and who is not,’ Cortés replied. ‘Heated opinions have been expressed openly and it’s plain there are at least two very different views as to what we should do. I propose we take a few days to deliberate on these weighty matters as a community before we come to a final decision. Each side may freely make their case and try to win support, and then we’ll take a vote to settle things – shall we say here in this meeting room exactly one week from today at noon?’

It was an eminently reasonable suggestion, and even the staunchest Velazquistas could find no good argument to oppose it.

‘A week from today then,’ said Cortés as he brought the meeting to a close. He looked directly at Escudero: ‘And may the best man win.’

* * *

'It's a damned insult,' said Escudero.

'I couldn't agree more,' said Alvarado.

Having been ferried out from the shore by longboat around noon, the two captains were alone on opposite sides of a table in the stateroom of Alvarado's carrack *San Sebastian*. It was Friday 9 July and, after four days of tireless lobbying, it had become clear to all that Cortés was going to win his vote by a huge majority – so huge, indeed, that he had taken the liberty of circulating the letter that Escudero was now waving. Already signed by more than three hundred and fifty colonists, with every likelihood that many more would follow, the letter repeated the proposal to give all the treasure to the king, but cleverly shifted the source of the idea away from Cortés and placed it squarely on the shoulders of the colonists themselves, thus ensuring, Alvarado noticed with admiration for his friend's cunning, that none who signed it would later be able to

claim they'd been coerced.

'Gentlemen,' the letter read, 'you already know we wish to send His Majesty a present of the gold we have obtained here. Because it is the first we are sending from these lands, it should be much more than the king's usual fifth. It seems to us that all we who serve him should give our shares. We gentlemen and soldiers have signed our names here as wishing to take nothing, but to give our shares voluntarily to His Majesty in the hope that he may bestow favours upon us. He who wishes to keep his share may do so. But let all those who renounce theirs do as we have done and sign here.'

'He's got us in a fork, the devil,' Escudero now continued. 'If we sign the letter it makes us disloyal to Don Diego de Velázquez. If we refuse to sign it, he makes us disloyal to the king … '

'Either way we can't win,' Alvarado prompted.

'Exactly. Which is why some of us have decided to take action,' said Escudero. 'Governor Velázquez is the rightful authority here, by the king's own command and licence, and it is the governor, not

that madman Cortés, who must decide how the treasure we've won is to be divided … I tell you what, Pedro, Cortés is pulling the wool over everyone's eyes. His plan to send the treasure to the king is a trick. I have impeccable intelligence on this … '

Ah, gods! thought Alvarado. *Intelligence of any kind from this stuffed codpiece? I somehow doubt it.* But he did his best to summon an expression of keen interest.

'First,' Escudero continued, 'have you observed the urgency with which the *Santa Luisa* is being refitted?'

The *Santa Luisa* was Puertocarrero's carrack, and Alvarado had not only observed but also knew exactly why she was being refitted. Like virtually every vessel in the fleet, his own *San Sebastian* not excluded, the *Santa Luisa* had taken a beating and suffered badly from rot and storm damage over the past few months. She'd sprung a hundred leaks, her hold was rarely less than thigh deep in stinking bilge water (the pumps were always working, even now in the sheltered harbour beneath Villa Rica), and her bottom was fouled

with weed and barnacles. There was no possibility of putting her in dry dock, which would have been the ideal solution, but her leaks would nevertheless have to be made sound by the carpenters, and as much of her keel cleaned as possible before she could attempt the journey across the Atlantic to Spain.

'I've noticed,' Alvarado answered. 'I assume it's because she's in more urgent need of repair than our other ships. My own *San Sebastian* could do with some work,' he added innocently, with an airy wave towards the closed stateroom door and the navigation deck beyond it.

'Bah!' exclaimed Escudero. 'There is only one reason for this haste. Cortés has chosen his lapdog Puertocarrero to carry away the treasure and – I assure you of this, my friend – it will not be carried to the king, but to Cortés's own father Martin, who will hold it in safekeeping for him. Our great leader, who is in truth nothing more than a common thief, plans to divide everything we have won between himself and Puertocarrero.'

'The swine!' growled Alvarado. He summoned the required frown of outrage: 'What's Puertocarrero's share for his treachery?'

'Thirty per cent, I'm told, with a third of that going to his crew to buy their silence. After the treasure's delivered, the *Santa Maria* will be scuttled, the men will pull away to safety in the longboats and the story will be put about that our so-called "gift" to the king was lost at sea.'

'Damn!' Alvarado was in fact beginning to feel quite angry now. Escudero spoke with such conviction, and the story was in many ways so plausible that he almost found himself believing it. He wouldn't put such a scheme past Hernán, who was capable of anything. 'So what do you propose?' he asked Escudero. 'You said you'd decided to take action.'

'That I have, but before I tell you more, are you with us, or are you not?'

'I'm with you!' said Alvarado with conviction. 'I've had enough of Hernán and his tricks. He made me return the gold I'd taken from

the savages in Cozumel and I had to swallow the insult. He promised us gold after Potonchan and we found none. Now we've finally extracted a king's ransom from the Mexica, I'll be damned if I let Cortés take it for himself.'

'Can I trust you?' Escudero said. 'Some in my group believe you're still a friend to Cortés … '

'Friends come and go,' Alvarado replied smoothly, remembering he'd said the same exact words to Diego de Velázquez himself in answer to exactly the same question in February, 'but gold is a constant companion. If you don't trust me, trust gold.'

'How much buys your loyalty?' asked Escudero, all business now.

'Why, thirty per cent, of course.'

'Thirty per cent of what?'

'I must guess you aim to wrest the treasure from Cortés. I'll want thirty per cent of the total if I'm to join you.'

'Thirty per cent of the total?' fumed Escudero. 'That's absurd!'

'If Cortés bought Puertocarrero with so much, I don't see why I

should settle for less from you, Don Juan.'

'But Velázquez will have to have his share. And we of the rebellion are many. I can only offer you ten per cent.'

'Ten per cent won't answer, Juan. Twenty at the least, or I'll be speaking to Cortés next.'

After further haggling they settled on fifteen per cent, a bigger cut than the king's under the new licence granted to Velázquez.

Why was Escudero prepared to go so far? Alvarado wondered. To be sure the Velazquistas had told him too much over the past months, shared too many of their secrets with him, made themselves vulnerable to exposure by him. Now that they were about to take some definite action, therefore, he could understand why they wouldn't want to leave him on the loose. Murder must have been an option they'd considered, but he was Pedro de Alvarado, a notoriously hard man to kill, so perhaps they'd decided not to risk an assault that might easily backfire on them? Still, he felt, there was something missing from the picture, some other motive lurking in

the sewers of the plot that must surely soon emerge.

'Very well then,' said Alvarado. 'I'm one of you now. Tell me what's to be done.'

'We sail tonight for Cuba,' said Escudero. 'With fair winds and current we can reach Santiago in five days. Three more days for Don Diego de Velázquez to mobilise his forces and take ship, then five days again to return, let us say six. In summary we can be back in two weeks. It will require at least that long for the refit of the *Santa Luisa* to be complete, so we'll be able to take command here and seize the treasure before it's sent to Spain. Your presence amongst us and your good name as a respected man and a former ally of Cortés will help persuade the loyalists of Villa Rica that their beloved caudillo was in error, and with luck we'll be able to settle everything without a fight … '

Alvarado had to laugh; even if the sailing and muster times for the governor's troops could be achieved, which was most unlikely in his view, the whole idea was still so patently ridiculous it would look

downright suspicious if he just went along with it. 'Without a fight!' he exclaimed. 'You're joking, of course. We'll have the fight of our lives on our hands. Cortés isn't the man to take such a thing lying down, and he's loved by many. Be sure he'll whip up stiff resistance. You'll need a big force if you're to have any hope of defeating him.'

'We've thought of that,' said Escudero with a sly smile. 'It's why I agreed to your extortionate demand for fifteen per cent. Your participation is important, of course; it will send the right signals to the others. But we expect rather more from you than that, dear Pedro—'

'More? What do you have in mind?'

'We need you to kill Cortés before we sail tonight. You're the only one of us who can get close enough to him to do it. He still has allies, of course, they'll try to rally the men, but with their beloved caudillo gone they'll lose their stomach for defying Velázquez, and when we return from Cuba their surrender will be easily negotiated.'

Alvarado thought about it for a long while, saying nothing.

Finally he spoke. 'For killing Cortés,' he said, 'fifteen per cent won't answer. I'll need fifty if you want this done.'

Eventually they settled on twenty-five.

* * *

When they were ferried back to shore around 4 p.m., Alvarado knew everything about Escudero's plans and exactly who his accomplices were – all the usual suspects, of course, and some surprising additional players. Had he in fact been willing to murder Cortés, there was even a possibility the plot might have succeeded, and perhaps for fifty per cent he would have considered it! But amongst Escudero's many faults was a severe lack of imagination, coupled with a deep-rooted meanness of spirit – hence his refusal to go up even a whisker beyond twenty-five per cent. In so doing he had signed his own death warrant.

As soon as night fell, the Velazquistas would begin loading the

last of their stores of oil, water, cassava and fish on board the caravel *Potencia* which, with the collusion of its pilot and crew, they were going to steal. The crew Escudero had subverted for pitifully small sums, but the pilot, Diego Cermeno, had held out for a much larger amount, since his skills would be vital for getting the ship safely back to Cuba. Around 10 p.m., an hour before the *Potencia* was due to sail on the ebb tide, Alvarado was to stab Cortés to death in his pavilion – as though doing such a thing were a simple matter! – and then make his way down to the strand, where a longboat would be waiting to ferry him out to join the other conspirators.

So much for the plan. Instead, after parting company with Escudero, Alvarado went straight to Cortés and told him everything.

'Excellent, Pedro!' Cortés responded when he'd heard him out. 'Well done indeed. I knew I could count on you. Now we can take the whole nest of vipers in one fell swoop and rid ourselves of them for ever!'

'You may be surprised at how many they've managed to recruit,' Alvarado said. 'They're laying in stores for more than fifty.'

Cortés whistled. 'Fifty! That does surprise me. I thought I was loved by the men.'

He looked genuinely hurt, but then brightened. 'At least I'll know who my enemies are from now on,' he said, 'and take precautions against them.'

'You won't execute them all then?'

'Certainly not! We'll need every man we can muster if we're to defeat Moctezuma.'

* * *

Cortés led the arrest force personally. It was spearheaded by the squad of twenty-five trained killers under García Brabo, who'd done his dirty work for years, supported by another eighty of the best and most loyal soldiers to be found in Villa Rica. Amongst the captains

and officers were Juan de Escalante, Alonso Davila, Gonzalo de Sandoval and Bernal Díaz.

The fact that the night was unusually dark and overcast made everything so much easier. The crew of the longboat waiting to pick up Alvarado after his supposed murder of Cortés were quickly overwhelmed; four other longboats drawn up on the shore were launched, and within minutes the *Potencia* had been boarded and the Velazquistas taken without a fight. Only Escudero put up any kind of resistance, but Alvarado had him at sword-point in a trice. 'You should have offered me fifty per cent,' he whispered in his ear as soldiers bound his hands and led him away.

A little later, after the rank and file conspirators had been sent back to shore under guard, Cortés and Alvarado made their way to the stateroom, where the ringleaders lay trussed and gagged on the floor. Cortés felt a mixture of emotions: triumph that the whole operation had gone off so smoothly and that he was now in a position to lance the Velazquista abcess once and for all, but sadness

at the evidence now before his eyes of so much bad faith and treachery.

He walked from one man to the other, occasionally nudging them with the toe of his boot. Here was Velázquez de Léon and here Ordaz. Hardly surprising to have this latest confirmation of their eagerness to betray him; after all, they'd been Velazquistas from the start. Yet it hurt when he remembered their previous rebellion just a few weeks before and how he'd jailed them, then bribed them and finally freed them, in return for promises of loyalty. Ha! So much for loyalty.

Escudero was lying on his stomach. Cortés got the instep of his boot under the bastard and rolled him over onto his back, where he lay, glaring up furiously, mumbling and choking through his gag. He'd been jailed and bribed and freed and sworn loyalty too, but in his case Cortés had never expected the oath to be kept. 'Do you recall, Don Juan,' he now said, 'certain words we exchanged that night in February when the fleet sailed from Cuba?'

Escudero shook his head violently.

'Let me remind you.' Cortés rested his foot on Escudero's chest. 'If I recall correctly – and I believe I do – what you said to me was that given enough rope I'd be bound to hang myself … Does that ring a bell?'

Another violent shake of the head and more grunts from Escudero.

'Yet look at where we find ourselves now,' Cortés said. 'You have mutinied in time of war against the duly appointed captain-general, namely myself, of a lawfully constituted colony of Spain, namely Villa Rica de la Veracruz. Do you know, my dear chap, what the penalty for that offence is?'

Escudero was struggling mightily as the question was posed, shouting and barking through his gag, straining his wrists against the stout length of rope that bound him.

'The penalty,' continued Cortés, reaching to remove the gag, 'is death, and if my memory of the statutes does not betray me – and I

don't think it does – the prescribed means is hanging.'

'You cannot hang me!' Escudero yelled, but there was real fear in his voice and his eyes were rolling in a most satisfactory manner. 'I do not accept your jurisdiction. I do not accept that Villa Rica is a legally constituted colony. I appeal to the authority of Governor Diego de Velázquez in this matter, for he is the king's representative in these New Lands and he alone has the royal warrant to plant colonies.'

'Ah yes,' said Cortés, 'but you see, most unfortunately for you, your patron the governor is in Cuba, sitting on his fat arse, while I am captain-general here, and I assure you that I do mean to hang you.' He stooped again, pulled up the gag, adjusted it tightly over Escudero's mouth and continued on his rounds.

Here was Alonso de Grado, who'd pretended friendship for so long but was always a traitor at heart. There was a spreading damp patch around his crotch. 'Tut tut, Alonso,' said Cortés, fixing his glance on the stain. 'You appear to have embarrassed yourself.' Next

in line on the floor was Cristóbal de Olid: no dribbles of piss on him. Like Ordaz he was fearless in battle and a great swordsman – qualities that must surely save them both from the gallows, Cortés thought.

Onwards, and he came to Alonso Escobar and Bernardino de Coria. Like De Grado, they'd been his professed friends until very recently, but now their true allegiance was revealed. And who was this with one eye and lank black hair if not the verminous priest Pedro de Cuellar, who'd come to his pavilion back in May with Ordaz, Escudero and the other Velazquistas. At least he hadn't tried to hide his connection with them. But a priest, for Christ's sake! Taking part in a mutiny! What was the world coming to?

There were others here on the floor whom Cortés knew more or less well and was more or less surprised or disappointed to see. Perhaps most depressing of all was the pilot Diego Cermeno, a good man, highly skilled at his job, but drowning in debt, with an extravagant young wife to keep. Cortés had advanced him a

thousand pesos after visiting him in his home in Santiago when he'd recruited him six months before. 'Why did you do it, Diego?' he now asked. He reached down and removed the gag. 'Could you not have stayed loyal to me? Did I not pay you well?'

'They promised me twenty thousand pesos, Caudillo,' Cermeno sobbed. 'Enough to clear all my debts and start again. Enough to change my life forever.'

'You would have made far more if you'd just been patient, Diego, but now there's nothing I can do for you … '

'What do you mean, Caudillo?' A look of terror crossed the pilot's face.

'Stealing a caravel is a capital offence, Diego. Didn't you know that?'

'I didn't know, Caudillo. I swear it. I didn't think. Oh God, my God, what have I done?'

'You've changed your life forever, Diego. I'm afraid you're going to hang.'

* * *

The trial of the conspirators took place in the meeting hall in the presence of all the colonists on the morning of Saturday 10 July, within a few hours of their arrest, and by the middle of the afternoon Cermeno and Escudero were dead. A little later, near sunset, Pepillo hurried past them, averting his eyes. It was horrible to behold them dangling from the ropes, their faces purple, their eyeballs and their tongues protruding, their privy members seemingly erect and their breeches fouled, for both had lost control of their bowels as they were hauled, kicking and choking, up the gallows post.

On his master's orders, Pepillo had drawn up the death warrants before the trial even began, and felt that Cortés was being less than honest about his feelings – at least where Escudero was concerned – when he gave a loud sigh, clearly audible at the back of the meeting hall, and said, 'Oh, how I wish I did not know how to write, so that

I could not sign men to their deaths.'

'Bloody liar,' Escudero yelled; 'Mercy,' Cermeno wept, as Cortés signed the document with a slow, deliberate hand – some element of theatre here, Pepillo thought – before going on to pass judgement on the other conspirators.

Gonzalo de Umbria, the most senior of the defecting sailors, was to have all the toes of his left foot hacked off with an axe, while the rest of the caravel's ten-man crew would receive fifty lashes each, the sentences to be carried out immediately. With the other plotters, Cortés was surprisingly merciful. Pedro de Cuellar, the priest, was told he would have been hanged had he not been a clergyman. He gave his warrant to engage in no more political activity and was released. Escobar, De Grado and Bernardino de Coria were likewise released after humiliating themselves before the caudillo and begging forgiveness. Diego de Ordaz had muttered as the trial began that he was sure Cortés would have him beheaded, but he too was freed, promising – not the first time he'd sworn such an oath! –

to be the caudillo's loyal man from now on. Velázquez de Léon and Cristóbal de Olid received the same lenient treatment.

All in all, Pepillo reasoned, Cortés had handled the mutiny with great skill. He'd had no choice but to execute Cermeno; even in peacetime men were hanged for far lesser crimes than stealing a ship! A mortal example had also had to be made of the detestable Escudero, who'd anyway had this coming. Umbria might have expected to lose something more important than his toes. The sailors had got off lightly with fifty lashes. And the exceptional mercy shown to everyone else had established Cortés's reputation as a generous and forgiving leader who was nevertheless, as the corpses swinging from the gallows confirmed, capable of extreme, uncompromising firmness when necessary.

Carrying an urgent message from Cortés for Father Olmedo, the expedition's chaplain, Pepillo looked back at the hanged men, at the blood still darkening the sand from the whippings, and shuddered. It would be his own blood, soon, that would be spilled, since only

three days remained until he must fight Santisteban. Since Monday Escalante had switched their practice sessions entirely to staves, but there was so much to learn! Deeply preoccupied with how little he still knew, he took a shortcut through an alleyway between two rows of newly built barracks as dusk settled over Villa Rica, and ran full tilt into Santisteban himself.

'Where you goin' in such a hurry?' the older boy smirked.

'I'm carrying a message from the Caudillo,' Pepillo said. 'Father Olmedo's waiting for it. Get out of my way.' He turned to run but found his exit from the alley blocked by Hemes and Julian.

'Not so fast, young'un,' said Santisteban, grabbing a handful of Pepillo's hair. 'We're going to teach you a lesson while you don't have captains and the like standing by to protect you.'

Pepillo flung a punch at Santisteban, but was held at arm's length and couldn't reach him. He did manage to land a blow on Julian, who was edging closer to wrap him in a bear hug, but then Hemes was on him as well and the three dog handlers piled in with

fists and boots flailing.

They rushed the beating, no doubt afraid of being caught in the act. Pepillo's hard new muscles stood him in good stead and he was beginning to think he might escape with nothing more than a few bad bruises and some broken teeth, when Santisteban dropped to his knees beside him where he lay curled up on the floor of the alley, grabbed his right hand and bent back his index finger. 'Don't think I haven't noticed you practising swords and staves with your friend Escalante,' he said. 'No doubt you're hoping that'll give you the edge when it comes to our battle.' He bent Pepillo's finger back further; the pain was dreadful now. 'Not that it would, mind you,' Santisteban continued, 'but I thought I'd fuck you up anyway.' A sudden violent increase of the pressure, a twist outward and Pepillo's finger snapped like a twig, snatching a high-pitched animal screech from his throat.

Santisteban leaned closer: 'One word of this to anyone,' he hissed, 'and I'll poison your precious dog. Got that?'

Pepillo clenched his teeth, said nothing.

'*Got that?*' Santisteban repeated, applying another twist to the broken finger. Hemes and Julian giggled as Pepillo screamed again, tears of agony misting his eyes, and replied, 'Yes. I've got it. I won't talk.'

'Of course you won't,' said Santisteban, releasing him and standing over him. 'See you on Monday then. Staves at dawn, eh? I'm looking forward to it.'

Chapter Thirty

Saturday 10 July 1519 to Monday 12 July 1519

When Pepillo delivered the caudillo's message, Father Olmedo made a great fuss about his freshly battered and bruised appearance, the two teeth he'd lost from his lower jaw, his hand clutched against his chest with its limp, twisted finger, his pallor, and the fury in his eyes. 'What happened to you, lad?' the beefy friar asked. 'Did a house fall on you?'

'Something like that, Father,' Pepillo replied, forcing a smile.

'But seriously, you've been in a fight, haven't you?'

'No, Father, a fall. It was an accident. No one's fault but my own.'

Olmedo was plainly sceptical, but refrained from asking further questions. Instead he made him sit down and sip a beaker of harsh red wine, while he called in Doctor La Peña who checked Pepillo's mouth – 'both teeth came out clean; you're lucky' – and splinted and bound his finger.

The next morning, Sunday 11 July, the pain in Pepillo's hand was almost unbearable, and his leg had stiffened around a huge bruise on his thigh where Santisteban's knee had slammed repeatedly into him. Missing church, he limped out to the headland at dawn for his morning sparring session with Escalante, who exploded with rage when he saw him.

'Those dog handlers did this to you,' he said immediately. 'I'll have their guts.'

'No, Don Juan. No! It wasn't them. I had a fall.'

'Fall my arse. You've been punched and kicked – it's as plain as

the nose on my face. And your hand! Bloody hell, let me take a look. How're you going to fight Santisteban with that?'

'I don't know, Don Juan, but I'll have to try. They'll call me coward if I withdraw.'

'Which is exactly why they did this to you!'

'They didn't, Don Juan! Please believe me. I fell.'

'What? Did they threaten your dog? That's it, isn't it?'

Escalante would not relent; eventually Pepillo admitted the truth, but only after swearing the angry captain to silence. 'You won't help me by getting involved,' he explained. 'I have to deal with this myself.'

Escalante pursed his lips. 'Very well then.' He examined Pepillo's hand. 'The good news is it was your index finger Santisteban broke. Your little finger plays the more important part in controlling your weapon, but the ignorant bastard wouldn't have known that. Here,' he passed Pepillo his stave. 'Let's see what can be done.'

* * *

Since leaving Teotihuacan, Tozi had walked north for twenty days, stopping only to beg shelter and food for the night. At first there had been many towns and villages, but the further north her feet carried her, the smaller and more widely separated the settlements became. On two occasions where the villagers were hostile, she used her powers of invisibility to steal maize flatbreads and meat, but otherwise she chose not to fade, preferring to take and deal with life as it came.

About six days ago she'd noticed the nature of the landscapes through which she was passing beginning to change, as she left behind the dense vegetation, well-watered trees and green fields of the fertile valley of Mexico, and entered increasingly sere and inhospitable terrain – first savannah and scrub, but later desolate flatlands, where only rough grasses and cacti grew. Now, as she picked her way along the floor of an ancient river channel in the

blistering heat of midday, concerned that her water-skin was empty – indeed it had been empty since the night before – she heard a distant roaring and felt a shaking of the earth beneath her feet and, suddenly, ahead of her, like a dream come true that was intent on transforming itself into a nightmare, a wall of foaming water appeared, filling the dried-out channel to its rim. Tozi scrambled up the crumbling bank and over its top onto the higher land above, just as the rushing torrent came through and passed her by, a great fast-flowing river where there had been no river before – a terrifying river, churning with mud and carrying along tumbling, broken branches and even a whole tree, torn out of the ground by its roots, when there were no other trees to be seen for miles around.

Tozi looked up in astonishment at the clear blue sky and the sun burning in it like a furnace – not a cloud from horizon to horizon – and wondered where all this water had come from. Was it a sign that she was at last entering Aztlán, the home of the gods? Was this impossible river evidence of their handiwork? A much-needed gift

sent especially for her? For even as she found herself seriously entertaining the thought, the flow of the river began to reduce, steadily falling as the sun tracked an hour overhead, until finally there was almost nothing left.

Seeing that it was safe to do so, yet wary lest another such outburst should manifest itself, Tozi hopped down into the now rapidly draining channel, drank until her stomach swelled, and filled up her empty water-skin in one of the last remaining pools, then continued on her way, following her feet north, ever north across the flatlands.

That evening, as the velvet darkness of the desert fell and the stars shone bright in the vault of the sky, she made camp near a huge saguaro cactus. She ate the last of her cold maize cakes, and took a sparing drink from her water-skin, for she had already used up half of it in her long, hot afternoon trek. If she failed to find water again tomorrow, she realised, she would be in serious trouble.

But she felt no fear, confident the gods would send another

miracle.

When she awoke at dawn, however, she discovered that the gods had sent a serpent instead, a baby of the deadly tribe whose tails rattled. It was too young to have yet grown a rattle of its own but, like all of its kind, it had been armed with fangs and lethal venom from the moment of its birth, and as she stretched and yawned, her hand touched it and it bit her. In an instant, without thinking, she drew her knife and sliced off its head. She could already feel its poison coursing in her blood as she remembered that rattlesnakes were the creatures of Quetzalcoatl, especially loved and protected by him.

Had she just killed his messenger?

* * *

At dawn on Monday 12 July, Pepillo made his way out of the gates of Villa Rica holding his stave under his arm, his bruised leg –

exercised and rubbed down with balm – no longer troubling him greatly. Escalante, who had rebound and fashioned a new splint for his broken finger, walked with him. They spoke in lowered tones as the captain gave final advice, reminding Pepillo that footwork, speed and deception were everything.

When they passed through the stand of trees that hid the headland from the town, they found Santisteban already waiting, swinging a thick pole as long as a pikestaff, an ugly grin on his face. Vendabal was there to support him, together with Hemes and Julian. Catching sight of Pepillo's stave, cut to the same length as the broadswords he and Escalante used in practice, they all sniggered, since Santisteban obviously had the far bigger weapon.

'*Hola*, Pepillo,' said Vendabal with a sneer, 'I always knew you'd have a tiny tool.' At this, Hemes, Julian and Santisteban made predictably lewd gestures.

Pepillo was framing a response about the tiny size of Santisteban's brain, but Escalante gave him a warning look and said

quietly: 'Waste no energy on banter. Calm your mind. All that matters is the fight.' He stepped forward into the middle of the flat, grassy patch where they'd sparred so often before, and beckoned Santisteban and Pepillo forward to stand on either side of him. 'This is a grudge match, lads,' he said. 'The only rule is no edged weapons to be used. Other than that we'll let you go at each other, fair and square, to settle your differences. Pepillo's at a disadvantage, his right hand having suffered an injury, supposedly from a fall – ' a hard look at Santisteban – 'although I have my doubts.'

'Whatever do you mean by that, sir?' asked Santisteban, twirling his staff.

'You can take it to mean what you like, boy, but I'm warning you I want to see no one killed here. You may fight until one of you is knocked out or yields, but that's when it stops.'

As he spoke there was a sound of footsteps and everyone turned towards the trees, where Cortés, Alvarado, Bernal Díaz and Gonzalo de Sandoval had appeared. Malinal was with them, but

hung back while the rest milled around the combatants.

'We heard rumours of a fight,' said the caudillo cheerfully.

Vendabal hurried to explain. 'It's your soft, spoilt page – sir, begging your pardon, sir – who has been causing trouble for our dogs. It's past time he was taught a lesson, sir, and Santisteban's the lad to do it.'

'Hmm … what's happened to your hand, Pepillo?'

After delivering his message to Olmedo, Pepillo had contrived to avoid his master. 'Hurt it in a fall, sir. Broke my finger.'

'And you think you'll be able to fight?'

'I shall have to, sir. This is a matter of honour … '

'Ah, honour … I see. Well in that case I'll not stand in your way.' He nudged Alvarado: 'What say you, Pedro? Shall we have a wager? I'll put a thousand pesos on my page to win.'

'I'll take that bet!' said Alvarado. 'Always happy to pocket your money, Hernán.'

* * *

Amongst the beggars of Tenochtitlan it was generally believed that one must immediately cut and suck a snake bite to get as much of the venom out as possible, but Huicton, who was learned in poisons, had once told Tozi this was an old wives' tale and that a hasty incision was more likely to make things worse than better. Still, to do nothing seemed wrong, so she took up her flint dagger, made a crisscross cut over the bite site, already swelling and hot, in the webbing between the thumb and forefinger of her right hand, sucked vigorously (her blood seemed strangely bitter and thin), spat, and sucked and spat again.

The sun was rising fast, and the only shade for miles on these inhospitable flatlands was cast by the tall saguaro cactus Tozi had slept beside, so she decided to stay where she was. There was very little she could now do, far away as she was from any healer, except use her own magic to cure herself. She recalled the warmth that had

radiated from her hands when she had worked on the terrible wounds Guatemoc had suffered months before in battle with the Tlascalans; there was no doubt in her mind that his swift recovery was her doing. No reason, therefore, why she shouldn't be able to deal with a little snake bite – unless, as she feared, she had lost the favour of Quetzalcoatl by killing his messenger.

Pushing the thought aside, she worked fast to cut away the spines from the base of the giant cactus so she could lean comfortably against it if she needed to. Then she sat down in its shadow with her legs crossed and her back straight. She was aware of a great deal of pain from the wound, and her breathing seemed laboured, her heartbeat fast, but she ignored these symptoms, focused her mind inward, and began a slow, insistent chant.

* * *

Santisteban attacked at once, as Escalante had predicted he would,

and Pepillo was ready for him. 'Use what you've learned about footwork,' the captain had advised. 'Keep moving, make him strike at you again and again but make sure he misses. Soon enough you'll tire him out.'

Santisteban was two spans taller than Pepillo, heavier and more muscled in the body, and the weapon in his hands was long and thick, blunt at both ends, as much a bludgeon or a club as it was a staff. He charged with a yell, swung the pole high and brought it crashing down in a blow that would have broken Pepillo's head if it had connected, which it didn't. Pepillo was in a strong stance, left foot forward as he had been taught, right foot behind, his toes turned out, his centre towards Santisteban, and as the pole came whistling down he simply pivoted on the ball of his left foot, swinging his right foot around through ninety degrees, leaned his torso back and allowed the strike to pass him harmlessly by, the pole moving so fast, with so much force behind it, that its tip clunked jarringly into the ground.

There was a second, just a second, before Santisteban regained his balance, when his whole upper body was exposed. The opportunity was too good to miss and Pepillo swung his stave two-handed in a rapid curving slice that brought its edge – crack! – into percussive contact with Santisteban's long hooked nose, effortlessly breaking it, producing a spectacular flow of blood and a screech of pain and rage. Santisteban's eyes flooded with tears, which seemed to blur his vision and disorient him. Seizing the advantage, Pepillo followed through at once with a downward cut that struck Santisteban's right wrist with a satisfying crack of hard wood against bone. Pepillo then continued to pivot on the ball of his left foot, swinging his right foot back a further ninety degrees so he was now positioned beside his opponent and facing in the same direction. He did not want to grapple with him, too much danger of being overmatched, but again an opportunity presented itself and he took it, letting go his grip on the hilt of his stave with his left hand and bringing his left elbow sharply up to strike Santisteban in the jaw,

sending him staggering. Finally, Pepillo took three sliding steps back, keeping good balance and contact with the ground, returned to a two-handed grip and raised the tip of his stave into the Plough Guard, the hilt held close to his centre, left leg leading, right leg back.

There came a burst of applause and, out of the corner of his eye, Pepillo saw that the source was Cortés. 'Bravo!' the caudillo exclaimed. 'Very nicely done. Your thousand pesos are in jeopardy, Alvarado, don't you think?'

The momentary distraction cost Pepillo the initiative. With a furious bellow Santisteban came charging in again.

* * *

Tozi had lost track of time and felt strangely separated from her own body, as if it and its sufferings belonged to someone else. Thus, although she was aware at some level of the immense pain in her

grotesquely swollen right hand and arm, she was quite indifferent to it. And although she knew the sun was blazing down on her, drying her out, heating her up, indeed slowly killing her, she was oblivious to its effects. Her whole focus instead was upon the deep subterranean labyrinth through which she was wandering; it seemed as real to her, indeed more real by far, than any of those remote, detached, unimportant physical sensations that occasionally called for her attention.

It was a most strange and wondrous labyrinth, winding through solid rock, its walls cold and damp with condensation, glittering with veins of gold and quartz and infused with a soft, enigmatical luminescence that enabled her to see where she was going – which was … ? Which was … ? She paused for a moment, suddenly perplexed. Where, in fact, was she going? Why was she here? She knew it must have something to do with the serpent that had bitten her, but she could not say exactly what. And if she was not in her earthly body with its distant messages of pain and suffering, then

what was this body she inhabited now – this dream body, this vision body, so very like her form of flesh and blood, yet certainly not the same? Moreover, there was the problem of choosing her direction, because every few paces she had walked so far there had been side passages, forks, branches in this huge system of corridors, any one of which she could have taken and perhaps should have taken. What made her think that the passageway she found herself in now was the right one out of the hundreds, thousands of ways that opened up all around her?

She began to walk forward again, a feeling of uncertainty haunting her. Very soon she came to a crossing. A corridor branched to the left, another to the right. Another seemed to go straight ahead. She heard Huicton's voice: 'Your feet will know the way.' But did her feet really know the way, or was she impossibly, hopelessly lost? And was any of this real or was she just out of her mind with snake venom and sunstroke?

She chose the left-hand path, which rapidly became winding and

sinuous with a steep decline. Again there were options – at the next junction she counted no less than fifteen different side passages, bewildering in the complexity of the choices they offered her. She chose one which continued to spiral downwards, ever more precipitously, the light from the walls growing dim, red, hellish, as though she were descending into Mictlan itself. The corridor, which offered no further side branches, progressively narrowed as she followed it. Soon she had to turn sideways in order to continue to pass, until finally she could force herself forward no further. She edged her way back in the direction she had come, but that way also the corridor now seemed narrower than before, and again she found she could not pass.

An overwhelming sensation of horror gripped her, and she screamed.

* * *

Santisteban swiped his staff viciously left to right as he charged in, aiming to deal a crushing mid-body blow. Pepillo was only just able to block it by hastily rotating his elbow up and dropping the tip of his stave down, thus adopting the guard called Hanging Point to protect his right side. Santisteban followed through with another tremendous swipe, this time from right to left, and again Pepillo blocked him with Hanging Point, then adopted a Long Point guard by rotating his elbow down. He immediately went onto the attack, sliding his left foot forward and executing a lunging thrust at the full extension of his arms that drove the tip of his stave into Santisteban's mouth, splitting his lips and smashing his upper front teeth.

Spitting blood, Santisteban staggered back, windmilling his staff wildly, and Pepillo followed with a series of rapid lunges that the older boy, panic now showing plainly on his face, only just managed to bat aside. Each time their staves connected, however, though Pepillo tried hard to disguise it, horrendous pain surged through his

right hand.

This was where he was weak.

This was where he would truly be in danger.

In the two-handed grip he was used to after weeks of practice with Escalante, it was his left that was presently doing most of the work, while his right forefinger had been splinted and bound so that it stuck out rigidly, leaving only the other three fingers and the thumb of his right hand to grip the hilt. Up to now he had managed to override the pain, but the repeated clash and shock of the staves was taking its toll and he could already feel the force of his own counter-strikes weakening. Sensing this, Santisteban's crazed eyes suddenly seemed to light up and he rushed in on the attack again, sweeping his staff low at Pepillo's ankles, forcing him to jump back, and then throwing himself bodily at him, shoulder-charging him, grappling him, taking one hand off the hilt of his weapon and snaking it out to make a grab for Pepillo's finger.

* * *

Tozi calmed herself. This was a vision. It was not real. And she had the power of magic. These corridors had been made by her mind and could be reshaped by her mind. She began to chant – *Hmm a hmm hmm, hmm hmm, hmm a hmm hmm, hmm, hmm* – invoking the spell of invisibility, her voice growing deeper, hoarser, more intense, her dream body fading, losing substance, until she found that she was free, untrammelled by any physical constraint, and could move along the narrow corridor with ease. It seemed, moreover, that she was no longer walking but floating, drifting like smoke – indeed, she realised, she was being drawn through the labyrinth at greater and greater speed, its walls flashing by her on either side until suddenly, without warning, she was debouched into a vast underground cavern, illuminated by a soft but pervasive glow that seemed diffused everywhere. The domed ceiling overhead glittered with a thousand stalactites of pure, transparent crystal. From the

floor, made of the same substance and towering above her, soared a forest of stalagmites. At the same moment, her state of being changed from chimerical, tenuous vapour to something more solid, and she was back in her dream body again.

'Welcome,' said a voice. It was a woman's voice – warm, kind and strangely familiar. 'You have travelled far, you are tired; you may take your rest here.'

'What is this place?' Tozi asked.

'Don't you know?' that beautiful voice replied, so poignant with memory it made Tozi's hair stand on end as she caught a flash of movement; some shape, some form, a hint of flowing red robes; someone, some being – *some god?* – slipping momentarily into view from behind one of the massive stalagmites, only to disappear behind another.

'I know nothing,' Tozi said. 'I was in the desert, I was bitten by a serpent. I killed the serpent and now I am here.'

'The serpent was sent to you by Quetzalcoatl to bring you to me,'

the voice replied. 'Do not trouble yourself that you killed her. Our lord has taken her spirit back into himself now.'

'What is this place?' Tozi asked again.

'It is Aztlán,' the voice replied. 'Homeland of our people and of the gods. You are in the Caves of Chicomoztoc.'

* * *

As they grappled, and as his hand snaked out, Santisteban's pock-marked, sweating face was pressed against his own, and even as he felt the older boy's cruel grip take hold on his bandaged finger and begin to twist and tear, even as he screamed in renewed agony, Pepillo reacted instinctively. Yes, his finger was broken, but Santisteban's nose was broken too! Without hesitation he opened his jaws wide and bit down hard on that hooked, twisted blob of bloodied flesh and cartilage, sunk his remaining teeth into it and shook his head violently the way a terrier shakes a rat.

The reaction was instantaneous. Santisteban let go of the finger, dropped his own staff, howled and tried to pull away, beating ineffectually at Pepillo's head with his fists, and in the process tearing his ruined nose still further. Pepillo clung on, chewing, and only when his mouth filled up with so much blood that it threatened to choke him, did he at last unclench his jaws, spit out a lump of something vile and slide back three steps, raising his stave into the Roof Guard with his hands held at the level of his shoulder, his left foot and elbow forward and the tip of the weapon angled up behind his head.

Santisteban was roaring and sobbing, both his hands clamped over his ripped and bleeding face. Pepillo could easily have transitioned from the Roof Guard into the Master Strike to the head that Escalante had taught him, the strike called Zornhau – the Strike of Wrath – by the German schools. It would have finished the fight there and then but, not wishing to be accused of taking unfair advantage, Pepillo slid back another step and nodded to

Santisteban's staff where it lay fallen on the ground. 'Pick it up,' he said. 'We're not done yet.

* * *

Tozi hurried through the forest of stalagmites with an increasing sense of urgency. She knew that kindly voice. She *knew* it! But why did it touch her so deeply? And why did it have the power to reach into the core of her being where so much loss, so much grief, lay stored?

Ahead of her she caught a glimpse of red robes again, a slim figure with honey-coloured skin and long black hair moving rapidly, elusively from one place of hiding to the next. Now there was a burst of laughter echoing from the walls and ceiling of the great cavern, a rippling, gentle laugh filled with love and joy. 'Follow me, Tozi,' the voice said. 'Follow me, my dear.'

Tozi followed, her blood pounding in her veins, her breath

rasping in her chest. The stalagmites were growing less numerous now and, up ahead, a great tunnel opened, leading out of the cavern, a tunnel filled with light that seemed to emanate from some distant source beyond this netherworld.

It was strange indeed! Tozi was so short of breath she thought she might actually die in this vision – and what would happen to her then, if she did? Yet she could not give up and take her rest as the being she was pursuing had offered, for she had to know – *she had to know!* – who it was who spoke to her, and why she felt this haunting, anguished sense of remembrance.

The figure ahead became, briefly, clearly visible in the tunnel, lit by that radiance from beyond, but she was moving incredibly fast and now, with a whirl of her robes, she faded and vanished as though she, too, could work the spell of invisibility. Dogged and determined, Tozi continued to stumble forward – what else could she do? – but her breath came only in tortured gasps and her heart was beating with a deadly, irregular rapidity as she emerged at last

into what seemed another world, with a blue sun in a burnished sky. A little way off was a vast lake, dark as midnight, with a rock rising out of it near the shore. Seated on the rock, dressed in red robes, was a woman with her back turned, her bare feet dangling in the water. The woman had long black hair, which she was combing, combing, and there was something so known, so familiar, so wistful in the motion of her hands that it clutched at Tozi's racing heart … and stopped it.

Her vision swam and she collapsed on her back on the roasting sand and the sun blazed down on her, a burnished sun in a blue sky. As her consciousness fled, a man's voice, filled with urgency and wonder, addressed her in a language that was Nahuatl yet not Nahuatl, and she felt a powerful blow strike her chest.

* * *

Santisteban didn't pick up his staff. Instead, with a sob of fury, he

charged forward again, so fast yet so erratically, that Pepillo's strike to the head missed and glanced off his shoulder, failing to stop him. Santisteban barrelled into him with tremendous force, knocking the breath out of his body, and Pepillo had to take his left hand off his stave, continuing to hold it only in his injured right, in order to grapple with him. Even so, he managed to unleash a powerful downward slice that caught the older boy a hefty blow on the shin, and was about to hit him again, despite the shocking jolt of pain in his hand, when Santisteban writhed, reached behind, drew a wicked-looking dagger that he'd kept concealed down the back of his pants and stabbed Pepillo savagely in the ribs.

'Ahhh!' Pepillo yelled, jerked back with more strength and power than he knew he possessed, smashed his left fist into Santisteban's jaw and broke free of the grapple. As he did so, Santisteban wrenched the dagger from his side – another massive shock of pain – and rounded on him once more, lunging wildly.

Pepillo could feel his strength draining away even as he saw the

shocked look on the faces of the stunned, immobile circle of spectators. Time, motion, the world itself seemed to slow down. Someone shouted, and Escalante, Cortés, Alvarado all began to move in to disarm Santisteban, but they seemed to be sleepwalking and had too much ground to cover, way too much; they'd never make it. With nobody to rely on for his own salvation but himself, Pepillo rapidly back-stepped twice, opening up a little distance from his attacker, and used it to rap Santisteban's right wrist hard with the edge of his stave, took a further step back as the bastard still came at him and struck him again, this time succeeding in knocking the blade from his hand. There was still strength in the unbroken fluid arc of the strike, and Pepillo followed it through, bringing up his stave and flowing immediately into a thrust, both hands gripping the hilt, arms extended, stepping powerfully forward with his left leg, the knee bent, right leg out almost straight behind, driving the tip of his weapon deep into Santisteban's throat with the combined colliding momentum of their weight.

With a strangled gasp, Santisteban dropped to his knees. Pepillo surged forward in the full grip of battle rage, his stave raised to dash his enemy's brains out, but the older boy cowered, holding his hands over his head, and croaked, 'Yield!' Pepillo stopped in his tracks, lowered his weapon and stepped away.

'By God! The boy's a warrior,' he heard Alvarado say, 'and a gentleman. Well worth my thousand pesos to see that fight!'

Cortés made some approving reply, but Pepillo didn't hear it clearly. His head was spinning, blood was pouring from the stab wound in his side and his legs quite suddenly buckled beneath him. He would have joined Santisteban on the ground, but Escalante caught him as he fell. 'You did well, lad,' the captain said. 'I'm proud of you.'

* * *

With Escudero and Cermeno's dangling corpses already showing

the first signs of rot in the suffocating summer heat, with the remaining Velazquistas thoroughly chastised and humbled, and with the letter he had circulated unanimously signed by all the colonists, Cortés had no concerns for the outcome of the public meeting that took place at noon on Monday 12 July, a few hours after the fight. Pepillo was in no shape to keep the minutes, but Diego de Godoy, the expedition's notary, volunteered for the role and lent a certain gravitas to the extremely brief and otherwise rather informal proceedings.

'Well, gentlemen,' Cortés said when everyone was settled, 'it's very hot, we all have things to do and we've all given our agreement in writing already, but I'll just ask one more time for the record,' a glance at Godoy who sat with his pen poised: 'Does anyone still object to the plan to win the king's blessing for our enterprise by giving him the treasures we've thus far accumulated? Raise your hands any who do.'

Not a single hand went up. Ordaz, Olid, De Grado and the

other prominent Velazquistas, who were sitting bunched up together on the first pew, all shifted their buttocks uncomfortably.

'Very well,' Cortés continued, 'I'd now like a show of hands from all those in favour of the plan – again, for the record.'

This time every hand shot up, with the Velazquistas demonstrating particular eagerness to comply. Under his breath, Cortés chuckled. 'Good,' he said in ringing tones, 'so that's agreed then. Now to the details. I propose we delegate two loyal members of this company, Don Alonso Hernández Puertocarrero and Don Francisco de Montejo, to carry the treasure to Spain, since both are of the nobility, with better access than most to the court of King Carlos. By a show of hands, please, are there any objections?'

No hands went up.

'All in favour of the motion.'

Again every hand in the room was raised high.

Cortés turned once more to Godoy: 'Let the minutes show that by unanimous vote of the colony Don Alonso Hernández

Puertocarrero and Don Francisco de Montejo will serve as our representatives to carry our gift to King Carlos. The vessel *Santa Luisa*, belonging to Don Alonso, will be the treasure ship.' A glance in the direction of Martin Lopez, the expedition's chief carpenter: 'Don Martin, how long do you think you'll need to complete the repairs on the *Santa Luisa*?'

'We're working night and day, Don Hernán. Like all the ships, she's in poor condition, though in better shape than some. I reckon we'll have her seaworthy within twenty days.'

'Faster, if you please, Don Martin. I'd like to see her ready to sail within two weeks – which will be, let me see, Monday 26 July. Do you think that's possible, Don Martin?'

'Perhaps, Caudillo, if we suspend repairs on all the other ships.'

'Very well then, make it so.'

In the midst of this short exchange with the carpenter, the germ of an idea had come to Cortés. It was a radical idea, potentially dangerous. But what was the expedition itself if not a radical and

dangerous undertaking and, without great risk, was it not rightly said that there never could be great gain?

Since there was no further business to transact, he expressed the colony's gratitude to Puertocarrero and Montejo for agreeing to be the couriers of the treasure and declared the meeting closed.

* * *

It was mid-afternoon, the meeting had gone well, luncheon had been served afterwards – the Totonacs of Huitztlan were nothing if not generous in their provision of food to the colonists – and Cortés appeared to be in an excellent good humour. He and Malinal were alone in his pavilion and he had a certain light in his eyes that she knew very well. Before she gave him her body, however, she was determined to raise the matter of Pepillo and his dog. Cruelty had a place in time of war; she recognised that. But the caudillo's unkindness towards the boy disfigured his own character and served

no useful purpose; the fight this morning offered a chance to change that.

'You happy with Pepillo?' she asked now.

Cortés grinned. 'Yes. Who would have guessed it? He has the makings of a first-class swordsman ... And he earned me a thousand pesos!'

'But badly injured,' Malinal said, composing her face into an expression that she hoped combined concern, commiseration and winsomeness.

'Not so bad, all things considered. He was lucky the knife got stuck in his ribs and didn't push through to his vitals. He'll be right as rain in a week or two … Here … ' The caudillo stepped close to Malinal, embraced and kissed her, but she pulled away.

'He was brave,' she continued.

'Who was brave?' Cortés sought another kiss and again she resisted.

'The boy, Pepillo. He was brave.'

‘Yes!’

‘And gentleman?’

‘Yes … ’ A guarded look had appeared in the caudillo’s eyes. ‘What do you want from me, Malinal?’

‘Want you to give Pepillo his dog back.’

‘You know I can’t do that, my dear.’

‘You are caudillo! Can do what you like. You say “Vendabal give dog” and Vendabal give dog.’

‘Exactly!’ The curtains hanging across the open door of the pavilion were swept aside and Escalante strode in. ‘Vendabal’s not the captain-general of this expedition, Hernán, you are! And we’re not talking about treasure, for God’s sake, just a bloody dog.’

The caudillo’s face had darkened. ‘Were you eavesdropping, Juan?’

‘I was coming to see you anyway and I couldn’t help but overhear. I’ve got a soft spot for that boy and I want to see right done by him. Give him back his dog.’

Cortés glanced at Malinal, then back to Escalante again. 'I feel conspired against,' he said with a rueful smile. 'My lover on one side, my dear friend on the other. What am I to do?'

'Give Pepillo dog, then we shut up?' Malinal suggested. She was determined to have her way on this.

'Go on, Hernán. Just say yes,' urged Escalante. 'The boy did win you a thousand pesos, after all, and I'd say our army's gained another swordsman. Not a bad exchange for a dog, all things considered.'

Strangely, because this really was such a small matter, and one so easily resolved, Cortés seemed locked in some fierce internal struggle. What was it, Malinal wondered, that she didn't know? What was driving him? To be sure, he placed great weight on his frequent dreams of Saint Peter, and she chose to believe the dreams were true communications from the heavenly powers. Even so, why would the dead Christian holy man, who the caudillo said held the keys of heaven itself, disturb his mind with dreams about a dog? It made no sense!

Cortés had reached a resolution. 'Oh very well, the pair of you,' he grumbled. 'I'm persuaded. Send word to Vendabal he's to return the dog to Pepillo.'

'I'll tell him myself,' said Escalante, turning to go.

'I thought you wanted to see me about something,' Cortés reminded him.

'I did, I have, and I'm very happy at the result.'

With a wide grin, Escalante stooped out through the curtains, leaving Malinal alone with Cortés. She moved towards her master, sensual now, ready for anything.

* * *

Night had fallen when they were done. Cortés was a forceful man but he had rarely made love with such urgency or such passion. 'You see,' Malinal said as she dressed. 'It is nice to be nice.'

'Bah! Bugger nice. I just wanted to tup you. I knew you'd be

more willing if I gave you your way.'

They paid a visit to Pepillo in the colony's two-roomed hospital. Melchior, newly restored to his young master, was lying at the foot of the bed and regarded them with a baleful eye. The dog was huge now, though still little more than a pup.

'Thank you for letting me have him back,' Pepillo said.

'It's nothing, lad,' Cortés said, as though it were all his doing. 'You earned it. Keep him lean, keep him savage. That's my advice to you. If it comes to a fight with the Mexica, he'll be needed. Everyone will be needed.'

'What about Santisteban? Is he all right?'

'He'll live … until we hang him tomorrow.'

'Hang him, sir? You mustn't do that.'

'Why ever not? Treacherous bastard pulled a knife on you. Broke the one rule of the duel. That's a capital offence. I thought you'd be happy to see him dead.'

'No I wouldn't, sir. Not at all.'

‘So shall I have his hand cut off? What about that? Or maybe a good scourging? A hundred lashes should serve him out if he’s to escape hanging. Since you’re the injured party, you get to decide.’

‘Pardon him, sir, is my request. I’ve suffered no serious injury and, as you say, we’ll need every man if it comes to a fight with the Mexica.’

Pepillo sounded so tired, thought Malinal. *Gentle, sweet-natured boy. If there were more like him, this world would not be so dark.*

* * *

After the pair had gone, Pepillo received a visit from Escalante, who was carrying a cloth-wrapped bundle. ‘Glad to see you’ve got your dog back,’ he said.

‘I still can’t believe it.’ Pepillo rested his hand on Melchior’s head. ‘The caudillo can be so kind.’

‘He can – though sometimes he needs a little encouragement to

bring out his better side. Like all of us, he has a devil whispering in one ear and an angel in the other.'

Escalante unwrapped the bundle as he spoke, and Pepillo recognised the beautiful broadsword he'd been allowed to use in their practice session. 'I've brought you a present,' the captain said. 'You fought like Amadis himself today, and a bold knight errant must have a sword of his own.'

'Oh, but sir, you can't give me that!'

'I keep telling you not to call me sir!' Escalante smiled. 'First names are good between friends. And I certainly *can* give you this sword – ' he passed it over – 'so here it is.'

'But Juan, it was for your son … '

'He's in a better place now. With him gone, I can think of no one more deserving of it than you. Indeed, Pepillo, if you will allow me to say so, you've become a son to me these past weeks, and since you're an orphan, I've taken steps with the notary to name you as my legal heir.'

Pepillo was so overwhelmed with emotion at Escalante's nobility and kindness that he began to cry.

'There, there, lad,' said the captain. 'Dry your eyes, for I wish you joy.'

* * *

When Tozi awoke, it was dark. Her chest and her right hand hurt mightily, and a small flickering fire built under a rocky overhang revealed a lurid scene. She sat up fast. Three wizened old men with something of the appearance of spider monkeys, naked but for loincloths, their faces and bodies painted with fantastic designs, were crouched around her chanting very softly, almost as though they did not want to be heard. She recognised some words in their chant but others were completely alien to her. 'Who are you?' she asked. She resisted the urge to fade, but couldn't quite hide the alarm in her voice.

‘Ah,’ one of them replied, speaking now definitely in Nahuatl. ‘The sleeper awakes … You have fallen into good hands, my dear, don’t you worry. If we’d been Chichemecs you’d be dead by now, and most likely eaten – certainly not cured of that very nasty snake bite. But luckily for you, we’re not furious cannibals who dine on helpless maidens … ’

Tozi gave him a suspicious glare: ‘Who are you then?’

The elder who had addressed her puffed out his scrawny chest. ‘We are medicine men of the Huichol nation,’ he said. ‘Good fortune put you in the path of the greatest healers on earth.’

Tozi gingerly touched her own chest. She felt battered, as though she had been punched repeatedly. ‘You hit me,’ she said accusingly.

The elder’s deeply lined face took on a severe, scolding look. ‘Well, what do you expect?’ he said. ‘Your heart had stopped. Would you have preferred we didn’t restart it?’

‘No! I’m grateful to you for that.’ Tozi realised that her throat

was parched. 'Do you have water?' she asked.

The elder reached into the shadows behind him, found a half-full skin and passed it to her. She drank greedily before a thought struck her and she paused. 'You have more?'

'We have more,' he said, 'you may finish that one if you wish.'

The other two watched her with glinting eyes, saying nothing as she upended the skin and finished it in five swallows. 'They don't speak?' she asked when she was done.

'They do.' A sour face from the elder. 'Usually too much, with boringly pointless excursions from the subject, long-winded soliloquies and tedious self-congratulation, so you may consider yourself doubly blessed, not only that we found you and saved your life, but also that only I amongst the three of us speak the barbaric pidgin of the Mexica, which abomination I was forced to learn as a child.'

'So you were chanting in Huichol, you and your friends?'

'Yes. The noble tongue.'

‘It sounds a lot like Nahuatl … ’

‘Ugh! Yes, I have to agree. There are some family resemblances. But it is true, is it not, that within the same family one may sometimes find one brother who is intelligent, tall, comely and perfectly formed in features, limb and manners, and another who is small, retarded, ugly, misshapen and vulgar … This is the case with our beautiful Huichol and the hideous argot of the Mexica.’ He paused, seeming to consider something: ‘You are not, I suppose, Mexica yourself?’

‘No,’ said Tozi. ‘I hate them. I was five years old when I first set eyes on Tenochtitlan. My mother always told me we came from Aztlán.’

The elder glanced quickly at his friends. They glanced back. The three of them then conversed in urgent whispered tones, of which Tozi understood perhaps one word in twenty, but those few words included ‘witch,’ ‘magic’, ‘Aztlán’, ‘Chicomoztoc’, ‘sacrifice’, ‘Chichemec’, ‘Moctezuma’ and, most chillingly of all, ‘Acopol’.

'What are you talking about?' she asked.

'You, my dear,' the elder replied. 'It seems it's not enough that we must save you from snake bite, sunstroke and dehydration … A witch of Aztlán is spoken of in our prophecies. It's said she will do battle for the light against the forces of darkness.' His eyes narrowed and a look of fierce concentration animated his lined, expressive face. 'Tell me … Is the name Acopol familiar to you?'

When she made no reply, he leaned closer, studying her. 'You've met him!' he said a moment later. 'I can see it in your eyes! You met Acopol in Tenochtitlan! Do I guess right? Is he the reason you're here now?' Urgency entered his tone: 'You must allow us to tutor you, my child!'

Tozi felt acutely uncomfortable and defensive at the mention of Acopol, but at the same time intrigued by the reference to prophecy. 'I don't need tutoring,' she said. 'I can take care of myself.'

'I'm sure you can! We saw how you summoned the spell of invisibility when you were sleepwalking in the desert. That's quite a

formidable skill you have there. It's more than enough to protect you in the normal way of things. But Acopol is not a normal man. I'm afraid your magic tricks won't work with him.'

Tozi desperately wanted to change the subject. 'It doesn't make sense that you saw me walking in the desert,' she objected, her voice rising, a hint of anger in it. 'After the snake bit me, I sat under a saguaro cactus. I didn't go anywhere.'

'Well, so you may think, but you certainly weren't sitting when we found you. You were walking. You had been walking in the open desert for a very long while with your arm swollen and your heart beating too fast and your breathing very harsh and irregular. Sometimes you became invisible; perhaps this was how you avoided the Chichemec scouts.'

Other than in her visions, Tozi was sure she hadn't walked anywhere. Yet when she looked more carefully at her present surroundings, she realised she was in a very different place from the flatlands where she'd been bitten that morning. The flickering

flames of the little fire under the overhang didn't reveal much, but there were bright stars overhead and – by the light of these – she saw they were camped in a narrow defile no more than a dozen paces wide, perhaps a side branch of a canyon, between high walls of sheer rock.

'What Chichemec scouts?' she asked suddenly.

'You mean you don't know the Chichemecs are on the war path?'

'I've seen no sign of Chichemecs or anyone else in these parts until I met you.'

'Then you're either exceptionally lucky, or protected by some god, because Acopol really stirred them up before he left for Tenochtitlan and they're swarming like hornets from a broken nest.'

'If they're swarming like hornets, what are you doing here, the three of you? Huichols are no friends of the Chichemecs, as I recall.'

'This is the season of the deer hunt,' the elder said, 'and we follow where the deer lead.'

'Deer?' Tozi laughed. 'In this desert? You must be joking.'

‘Ah yes, but, you see, ours are a very special kind of deer …

Chapter Thirty-One

Monday 26 July 1519 to Monday 16 August 1519

'Among other things that we are sending to Your Highness by way of these our representatives are our instructions that they plead with Your Majesty on no account to give any governorship in perpetuity, or judicial powers, to Don Diego de Velázquez. If any shall have been given him, then they should be revoked forthwith, because it is not for the benefit of the Royal Crown that the aforementioned Diego de Velázquez should have authority or favour in these New Lands of Your Majesty, which, as we have seen up to now and as we

hope, are very rich. Should the aforementioned Diego de Velázquez be granted any powers, far from benefiting Your Majesty's service, we foresee that we vassals of Your Royal Highness, who have begun to settle and live in these lands, would be most ill treated by him. For we think that what we have now done in Your Majesty's service, that is to send You such gold and silver and jewellery as we have been able to obtain in these lands, would not have been his intention.'

It had proved difficult, but not impossible, to write with a broken index finger; though far from ideal, Pepillo had discovered he could grip the quill between his thumb and his second finger. For the past week, since his other injuries were healing well, he had been hard at work. The task was to create a final draft of the letter to the king that Cortés had been dictating virtually every day since the end of February, to do so in such a form that it would appear to come from the settlers of Villa Rica de la Veracruz rather than from the caudillo himself, and to ensure that it not only described all the

events, negotiations, battles and travails they had passed through, but also that in every way possible – both subtle and direct – it served to blacken the name of Diego de Velázquez and put Cortés in the best possible light.

Now, on the morning of Monday 26 July, just in time to be carried aboard the *Santa Luisa* with all the treasure that Puertocarrero and Montejo had been charged with delivering to the king, the letter was complete. Pepillo read it aloud to Cortés with a sense of quiet satisfaction at a job well done.

'We, the inhabitants and citizens of this town and colony of Villa Rica de la Veracruz,' the letter concluded, 'do entreat Your Majesty to order and provide a decree and letters patent in favour of Don Hernándo Cortés, Captain and Chief Justice of Your Royal Highness, so that he may govern us until this land is conquered and pacified, and for as long as Your Majesty may wish, since he is a person well suited for such a position. The treasures which we send you herewith, over and above the one-fifth which belongs to Your

Majesty, are offered in Your Service by Don Hernándo Cortés and the Council of Villa Rica de la Veracruz and are the following … ’

The itemised list of the treasures annexed to the letter excluded certain items that had been given to Puertocarrero and Montejo, but still ran to many pages. ‘Truly a king’s ransom, sir,’ Pepillo dared to comment as he finished the reading and passed the complete document to his master.

‘Let’s hope the king sees it that way!’ Cortés replied, ‘for if he does not, there’s damn all I can do. The die is cast.’

The final touch was to have the letter signed on behalf of all the colonists by the *alguacil*, *regidores*, treasurer, *veedor* and other officials of the town, as well as ten of the common soldiers.

Three hours later, taking advantage of the afternoon ebb tide, the *Santa Luisa* sailed.

* * *

Cortés stood with Alvarado on the headland, watching the *Santa Luisa* as she left the bay under a cloud of sail, drawing a clear, straight wake behind her. It would be three hours at least before she disappeared from view over the western horizon, but there was no calling her back now and the die was indeed cast.

'Any chance they'll betray us, do you think?' Alvarado asked, giving voice to Cortés's own thoughts.

'In this life I've come to expect treachery,' he replied, 'but honestly I don't think so. Puertocarrero will act as a check on Montejo and Montejo on Puertocarrero. Besides, both men are in my pocket – quite apart from the previous bribes they've had from me, the treasures they'll deliver to the king exclude ten per cent for each of them, skimmed off the top before the inventory was prepared.'

'Ha!' Alvarado exclaimed, 'ten per cent per man, eh? Escudero tried to convince me you were giving Puertocarrero a full thirty per cent just for himself … '

Cortés raised his eyebrow. 'That would have been excessive … '

'But of course he also wanted me to believe that the treasure would never reach the king – that Puertocarrero would take his thirty per cent and your father would hold the other seventy in safekeeping for you.'

'But naturally you didn't believe any of this?'

'If I had we wouldn't be standing here now, Hernán, and Escudero wouldn't have had his neck stretched. You're a snake and the very devil, but I know you're playing for higher stakes than treasures that can be packed in a single ship.'

'You are right, Pedro. I am playing for a world.'

'Then make sure my share will be a kingdom at the very least, old friend.'

* * *

That night Cortés dreamed of Saint Peter again.

It was a strange dream, for he met his patron on a ship, unlike any he had ever seen before, tall as a palace but forged from steel with huge guns, set in swivelling turrets, mounted fore and aft. Amidst thunder and flashes of fire, winged engines, also of steel and of wondrous design, soared into the sky at impossible speed from a great flat deck. Other devices, shaped like bodkin points but of vast size, roared up from the bowels of the ship and split the firmament, trailing lightning and clouds of smoke until they vanished over the horizon.

'What is this, Holy Father?' Cortés asked in amazement.

'This is the future, my son,' the saint replied. 'Come, let me show you a vision of the world I have brought you to these New Lands to create.'

Then suddenly they sat side by side in one of those winged engines, a battery of illuminated panels in front of them, tearing through the sky so fast Cortés was stunned and bewildered, gazing in astonishment at the earth below that seemed to curve beneath

them as though it were a gigantic sphere. 'Now observe,' said the Holy Father, pointing to an enormous metropolis, its streets seething with throngs of gaily clad men, women and children – a populous city of glass and steel and towering minarets spanning both banks of a mighty river and rising up out of a limitless desert. 'It is a habitation of the Moors,' the saint explained, 'ancient enemies of Christendom; your people fought them for seven hundred years, now you will see them destroyed. Look! There!'

Cortés looked where the saint had indicated and saw a pair of fiery bodkins, each as long as a jousting ground, pass above them, arc down towards the city, then strike it. There were twin explosions of flame, brighter than the sun, and these rapidly merged into a single prodigious conflagration, dazzling to the eye, stupefying to the mind, and the very air trembled, seeming to burn and melt, and a gigantic cloud in the form of a great dark flower blossomed into the heavens, and a sound like the crack of doom struck Cortés's ears with the force of a blow to the head, leaving him dizzy.

The saint was grinning, laughing. 'Look,' he said, 'how the Lord has smitten his enemies,' and they flew closer towards the steaming shadow of the river, now empty in its channel, while all around it the city was no more, reduced to the twisted, molten remains of devastated buildings, tortured outcrops of fused metal and stone and glass rising from a field of glowing ash, strewn with blackened, contorted corpses. 'See! Some have lived,' the Holy Father said as they flew to the most distant outskirts of the devastated metropolis, where people ran screaming into the desert, their clothes smouldering on their backs, their hair in flames, their faces livid with burns. 'But they will not live for long,' the Saint added, 'for the explosions transmit a great and terrible poison that melts flesh from bones and eats a man out from within and that cannot be escaped.'

'Holy Father,' said Cortés as they soared back into the sky, 'give me weapons like these that I may better serve you.'

'Such weapons will not come to you,' the saint replied, 'but to your descendants, for out of your enterprise in the New Lands a

mighty and ingenious nation will grow and that nation will master the world and lay waste to all the enemies of the Lord.'

Cortés felt a keen sense of disappointment, which the Holy Father seemed immediately to understand. 'Lament not, my son, for your part in this is the greatest and most noble. On account of your courage, on account of your cunning, on account of the strength of your hands, on account of your indomitable will, it is to you and you alone whom I offer the honour of creating this wondrous future and fulfilling the glory of the Lord. Nonetheless,' a sombre note of warning entered the saint's voice, 'your path will not be easy and you may yet fail. You have acted swiftly to destroy those who would have destroyed you, and I applaud you for that, but greater dangers still remain. Amongst your followers there are many whose hearts quail at the prospect of war with Moctezuma, who quiver with fear at the thought of his mighty armies, who secretly yearn for the safety of Cuba. You have taken these waverers by storm with your eloquence and your promises and they are ready to march into the

interior with you, but at the slightest reverse – and you will face many – they will turn and run, knowing their ships await them ready to carry them across the sea.'

A mood of deep dismay threatened to overwhelm Cortés because he knew in his bones that the saint was right. His men had their qualities; for the present they would be loyal enough, but they were fair-weather friends and, when the going got difficult, there were many who would desert him if they could. 'What, then, am I to do, Father?' he asked.

'You already know the answer to that question, my son, for I have put the thought into your mind.' Around them, as the saint spoke, the scene had changed: day had become night, and the winged craft that carried them now circled over the bay of Villa Rica, where the Spanish fleet lay at anchor under the stars.

Cortés remembered. The idea had come to him when he had urged Martin Lopez, the expedition's carpenter, to complete the refit of the *Santa Luisa* by 26 July. Lopez had said the deadline

could be met only if he and his team suspended their work on all the other ships. Cortés had agreed and the carpenter had been as good as his word.

Now, with the *Santa Luisa* on her way, the badly needed repairs to the rest of the fleet were scheduled to resume in the morning unless … unless …

'You mean the thought that I should sink our ships, Holy Father?'

Saint Peter beamed. 'Indeed so, my son! If there are no ships left to sail back to Cuba, your men will have no choice but to conquer or die.'

* * *

Something was bothering her caudillo, but Malinal could not persuade him to speak about it. He was restless, out of sorts, bad tempered. At night he tossed and turned, groaning frequently in his

sleep and, three days after Puertocarrero had sailed, he arose from their bed in the darkest hour and did not return. When she found him in his pavilion the next morning, he was deep in conversation with the other captains, and with Martin Lopez, the carpenter.

* * *

Though he never showed it publicly, Pepillo knew that Cortés had been deeply shaken by the Velazquistas' plot and by the way that men like Ordaz, whose loyalty he believed he had bought, had been willing to betray him. What particularly seemed to haunt him was the thought that others might at any time choose to steal a ship, or several ships, and sail for Cuba to cause him further trouble there.

He resolved the problem in a most unexpected and characteristically daring way.

On 2 August, which was by chance Pepillo's fifteenth birthday, a week after Puertocarrero and Montejo had sailed, and following

much behind-the-scenes manoeuvring with his captains, who agreed to allow Martin Lopez to drill holes in the bottoms of their already leaking and storm-battered ships, Cortés called the men together and announced an unfortunate discovery. With the exception of the *Gran Princesa de los Cielo*s, the newly refitted caravel that Francisco de Saucedo had arrived in from Cuba on 5 July, the rest of the fleet, including his own *Santa Maria*, had been rendered unseaworthy as a result of a galloping infestation by a species of wood-beetle known as the *broma*.

It was a deception, of course – indeed the word *broma* in Castilian meant 'prank' or 'practical joke'. But since the ten 'infected' ships were by then half sunk, listing and foundering in the bay, the men were persuaded, and made no complaint when Cortés ordered the failing vessels to be sailed onto the sands and broken up, their timbers to be used to complete the construction of Villa Rica. By so doing, he pointed out, the conquistadors would be spared the expense and effort of maintaining the useless vessels and would

benefit from the addition of their crews, numbering close to a hundred men in total, to the strength of the army. As well as their timbers, which were immediately made available for construction work, all the salvageable parts of the ships – sails, rigging, cannon, anchors, chains, cables and other tackle – were to be carted up to the headland and deployed to the advantage of Villa Rica, or stored for future use.

'The time has come,' Cortés said, 'to strike inland to Tenochtitlan and pay Moctezuma a visit.' Everyone knew that 'paying Moctezuma a visit' was a euphemism for seizing the Mexica capital by force, and there was a great cheer. 'Don't lament the loss of our fleet,' the caudillo continued. 'What use would the ships have been to us anyway? If we succeed in this great enterprise of conquest we shall not need them, and if we fail we shall be too far into the interior to reach the coast. Have confidence in yourselves. You have set your hands to the work; to look back is ruin! As for me, I remain in this land while there is one to keep me company. If there be any

so craven as to shrink from the dangers, let them go home, in God's name. There is still one vessel left. Let them take that and return to Cuba. They can tell there how they deserted their comrades and patiently wait until we return loaded with the spoils of the Mexica!'

Pepillo remembered with a smile how the men had responded. Not one of them had voted to return to Cuba. 'To Mexico!' they all yelled, 'to Mexico!'

* * *

It was now 16 August, two weeks after those daring shouts rang out. Every preparation for a major expedition of conquest had been made, and all the men were gathered in Villa Rica's assembly ground. More than eighty of the original five hundred expeditionaries had died of wounds, bilious fever and the bloody flux since Potonchan, but the army's ranks had been replenished by the hundred sailors from the scuttled ships and the sixty soldiers of

fortune brought by Saucedo. The total muster was therefore around five hundred and eighty. Of these, some two hundred and thirty, under the command of Juan de Escalante, would be staying behind to garrison Villa Rica. That number, however, included many who were still too sick or too badly injured to be much use in a fight. The other three hundred and fifty, all in good health and supported by a thousand Totonac warriors and as many bearers, were arrayed in marching order to begin the thrust into the interior. The Totonacs, and Cortés himself, were convinced Moctezuma's fierce enemies – the Tlascalans – would join them, so it was to Tlascala they would go first to win allies and increase their strength.

Wearing his new sword, its scabbard fixed to a strong leather belt around his waist, and with Melchior bounding by his side, Pepillo went to Escalante and embraced him. 'Thank you, Juan,' he said, 'for everything you have done for me. I'll never forget.'

'I'll not let you forget, lad!' the captain said gruffly. 'I plan to be seeing you again soon enough. In the meantime, keep up your

practice with the broadsword! I'm sure Bernal Díaz will be willing to spar with you and, if you get the chance, see if you can talk Don Pedro de Alvarado into giving you some lessons. He's the finest swordsman in this or any army that I've ever known—'

'Not so fine as you, Juan,' Pepillo protested.

But Escalante would have none of it. 'No, no,' he said. 'Don Pedro's more than a match for me – more than a match for five men! But luckily enough I'll never have to fight him since we're friends.' He clapped Pepillo on the shoulder: 'Now, off you go, lad. It's time to march.'

'Will you be safe here, Juan?'

Escalante looked up to the strong stockade surrounding Villa Rica, with cannon mounted at strategic points along the battlements. 'I'll be safer than you will, Pepillo. But my God how I wish I could come with you. New Lands to conquer! Great adventures to be had! Instead I'm stuck here, nursemaiding the sick and injured!'

Cortés had walked over quietly to join them. 'It's so much more than that, Juan,' he interrupted. 'Villa Rica gives the whole expedition legitimacy. We need a strong rearward base that can maintain lines of supply for us and to retreat to if necessary, and I need a strong man to run it – a man I can trust completely.'

'And unfortunately you chose me,' said Escalante, making a long face.

'There's no one I trust more, Juan. But you won't be stuck here for long, I promise you. Once we get to Tenochtitlan, I'll relieve you here with another commander, and you can come upcountry and join us.'

The two captains said their farewells and Pepillo embraced Escalante again. It was painful, to know a father, mentor and guide for the first time in his life, only to be separated from him so soon. 'Off you go lad,' Escalante repeated. 'It's time to march.' He turned to walk away, then looked back: 'Remember, Pepillo, if anything does happen to me, everything I have is yours. The papers are with

Godoy.'

Pepillo nodded, his throat too constricted to speak. He beckoned Melchior to heel, and went to stand with Malinal, as Cortés climbed into Molinero's saddle, from where he gave a final short address to the men.

'Ours is a holy company,' he bellowed, 'and we must conquer this land or die. But be sure that our blessed saviour and Saint Peter himself will carry us victorious through every battle with our enemies. Indeed, this assurance must be our stay, for every other refuge is now cut off but that afforded by the Providence of God, and by your own stout hearts.'

That said, with Malinal and Pepillo walking at his stirrups, Cortés led his little army out past the gallows, where the mouldering skeletons of Escudero and Cermeno still hung, towards the distant mountains of Tlascala. Beyond those looming peaks, the golden prize of Tenochtitlan lay hidden like the Grail, promising either unimaginable wealth and power, or a terrible death, to those

who dared seek it.

PART THREE

24 August 1519–02 November 1519

Chapter Thirty-Two

Tuesday 24 August 1519 to Saturday 28 August 1519

A fast, direct road, patrolled by Moctezuma's guards, ran from Huitztlan, close to the new Spanish settlement of Villa Rica de la Veracruz, and thence through the sacred city of Cholula all the way to Tenochtitlan. Had the Spaniards and their Totonac auxiliaries chosen to take this road, and to travel at the pace of a forced march, they could – assuming there were no ambushes to delay them – have reached the Mexica capital in four or five days, completely bypassing the free state of Tlascala. Moreover, Cortés had not forgotten the

dream Saint Peter had sent him in the middle of the month of May, when they were still camped on the dunes at Cuetlaxtlan – the dream in which the Holy Father had quite specifically told him that he must go to Tenochtitlan 'by way of a city called Cholula, a vassal city to the Mexica. I am preparing a great victory for you there.' Cortés had every intention of obeying this command from on high. However, he was determined to visit Tlascala first, for there he hoped to recruit strong allies to stand by his side in whatever battles lay ahead. The route of march, proposed by Meco, whom the fat cacique had placed in overall charge of the Totonac warriors and bearers, avoided areas of heavy concentration of Mexica power, and led for the most part through uninhabited mountainous country. It had proved to be a long and circuitous journey that had exposed the troops to great discomfort, freezing fog, rain, hail, and a series of high-altitude passes. Finally, however, on the morning of Tuesday 24 August, after an arduous eight-day trek, they came down into a warm, pleasant valley, dominated by the town of Xocotlan, the last

Mexica outpost before the Tlascalan border.

Because Xocotlan housed a large Mexica garrison, Meco's advice was to press on directly to the Tlascalan capital – called, simply, Tlascala: a journey of thirty-eight miles, less than two more days' hard march. But the men needed rest, so Cortés overruled him and instead had him select two emissaries, Mamexi and Teuch, both minor Totonac chiefs in their own right, who he sent ahead to Tlascala that same morning, bearing gifts, a message of friendship, and a specific request for safe passage.

Almost as fat as Tlacoch, Xocotlan's chief was a truculent, irritable man named Olintecle. Initially he was hostile, but within a few hours his frowns turned to smiles and he offered food and hospitality. Cortés's suspicions were aroused by the marked change of attitude, but Malinal remained unruffled. Mexica spies, who would be maintaining daily contact with Tenochtitlan by relay messengers, must have followed them from the coast, she said, and undoubtedly had a standing instruction to ensure the Spaniards

were well treated. 'Moctezuma is coward. He frightened. He keep changing mind what to do. Now he think you gods, now he think you men. First he want keep you far away, then he think bring you Tenochtitlan, deal with you there. He coward. He feel safe in his city. Maybe once we inside he think he cut the … ' – she searched for the word: 'Roads that are bridges?'

Cortés suggested 'causeways'.

'Yes,' Malinal said, 'causeways. He cut! He surround us! His armies very many; they trap us in narrow streets, no good place for our cavalry, and he destruct.'

'Destroy,' Cortés said.

'Yes. Destroy. That his plan. So we safe, I say, until Moctezuma get us where wants us.'

As was increasingly the case, Cortés found Malinal's arguments persuasive. She might be a woman, she might not speak perfect Castilian yet – although her grasp of the language was improving every day – but she was calculating and intelligent. If she was right,

and he believed she was, then it was all the more urgent that the Spaniards recruit stronger, more steadfast allies than the Totonacs before they reached Tenochtitlan. Hence the importance of Tlascala, with its warlike reputation and its implacable enmity towards Moctezuma.

Here again, however, Malinal disagreed with Meco, who seemed certain the Tlascalans would be delighted to enter an alliance with Cortés against the Mexica. 'Tell you once, tell you again,' she told Cortés. 'Tlascalans mountain people. They stubborn, think for selves, fierce to protect Tlascalan land. If they decide you enemy – and maybe they *already* decided you enemy – they fight you and fight you hard.'

* * *

The Totonacs were a cowardly, devious people in Shikotenka's opinion, and he'd never trusted them. 'I propose we kill these two,'

he said to the assembled senators, 'and if the white men cross our border, I propose we kill them as well.'

Tied hand and foot on the floor of the senate, Mamexi and Teuch, the two Totonac emissaries, shuffled uncomfortably. Town chiefs with a few grey hairs, they were vassals of fat Tlacoch of Cempoala, whose name they'd waved about like a charm. They'd clearly not expected to be taken prisoner and beaten bloody when they'd turned up in Tlascala late that afternoon after a hard trek of a day and a half from Xocotlan. Mamexi was so upset he was sobbing like a baby, with tears running down his face and snot dribbling from his nose.

'I propose a more temperate course,' said Shikotenka's wizened father, known to one and all – for the avoidance of confusion – as Shikotenka the Elder. 'The white men claim they want peace with us; in fact they claim they want to help us in our … ' He paused and looked at the Totonacs: 'How did the leader of the white men put it?' he asked.

Mamexi, who had the big ears and narrow chin of a climbing rat, was too distressed to speak, but Teuch, stolid and practical, had a better grip on himself. 'The lord Cortés,' he stammered, 'bade us tell you he comes to help Tlascala in her heroic struggle against the tyrant Moctezuma.'

'There's nothing in that I find offensive,' said the elderly chief. 'I say we welcome this Cortés and learn more.'

'We don't need his help, father,' said Shikotenka, 'and besides, I don't believe his sweet words. My spies have watched the strangers since they first made camp on the sands near Cuetlaxtlan—'

'Where you rashly picked a fight with them,' interrupted Shikotenka the Elder, 'and your friend Acolmiztli was killed. It's since then you've borne a grudge against these strangers. Try to set your personal feelings aside, and choose only a policy in the best interests of Tlascala.'

'I am doing so, father, and I repeat that we have watched the white-skins closely since Cuetlaxtlan. Our spies followed them

when they moved to Cempoala and Huitztlan, and now we see them in Xocotlan. They've been served by the Mexica and their slaves the Totonacs all the way, and they've received three top-rank embassies from Tenochtitlan, one of which included Prince Guatemoc. Now the white men gather their strength in Xocotlan, close to our border, where they're treated as honoured guests on the orders of Moctezuma himself. It makes no sense for them to be there, enjoying the tyrant's hospitality, unmolested by his garrison, if they've really come to aid our struggle against him. Surely the opposite is true? Surely they've come to aid Moctezuma against us?'

'The lord Cortés is very cunning, sire,' Teuch dared to interrupt, 'but we have learnt to trust him. He means to destroy Moctezuma.'

'Which he's going to do with things like this?' sneered Shikotenka, picking up the long, gleaming metal knife that the emissaries had brought as a present, together with a strange kind of bow with a string that was stretched so tight it couldn't be drawn.

'These and other things, lord. The things they call "guns", from

which thunder and lightning blast forth to kill their enemies.'

'Some say these "guns" are fire-serpents,' offered venerable Maxixcatzin, who served as deputy to both Shikotenkas. 'I'm told they killed thousands of the Maya with them at Potonchan.'

'And we've seen they ride on the backs of deer and wear metal armour,' added Tree. Although he'd recovered from the wounds he'd received months before in the fight on the beach at Cuetlaxtlan, he bore, as a memento of that night, a hideous, jagged scar down the left side of his face. 'Some say they are *tueles*.' He stuck out a large bare foot and gave Mamexi a shove. 'What say you, Totonacs? Are these strangers *tueles*?'

Again it was Teuch who did the talking: 'Truly they are *tueles*, lord. They are the *tueles* who captured the great Moctezuma's tax gatherers and ordered that no one in the hills and cities of the Totonacs should pay tribute or send sacrifices to the Mexica again. They are the *tueles* who threw our *tueles* out of our temples and put their own in. They are the *tueles* who conquered the people of

Potonchan and Cintla. They have great strength, these *tueles*. None may stand against them.'

Shikotenka had suddenly had enough of this womanish gabble. What his father said was true. He'd hated the white-skins with a passion since the one with golden hair had killed Acolmiztli on the beach at Cuetlaxtlan and now, the more he heard about them, the less he liked them. They were not *tueles*! They were invaders, intruders, interlopers. They had no right to be here, riding in their metal armour on the backs of deer, deploying fearsome unknown weapons, double-dealing with the Mexica and bullying and commanding the other peoples of this land. He ran his thumb down the edge of the long metal knife – as long as a man's leg, sharp as obsidian, heavy and horribly strong. Residing within it was a cold, lurking power, like some deadly serpent; the power that had gutted and skewered his friend Acolmiztli and drowned him in his own blood.

Out of nowhere, an awful premonition shook Shikotenka. These

strangers were indeed here to destroy Moctezuma, as they had already boasted they would, but they would not be content with that. Unless they were stopped, and stopped now, they would sweep over the whole land and destroy everyone else as well. The Maya, the Totonacs, the Tlascalans, the Huexotzincos, the Texcocans, the Tacubans, the Otomies, even the Chichemecs in their remote deserts – all would fall, all would be made slaves, all would be humbled, never to rise again. As the stated target of the strangers' relentless advance, and as the greatest power in Mexico, it was Moctezuma – surely above all others? – who had the responsibility to confront them and drive them out; but instead of fighting them, the cowardly fool had befriended them, sent them rich gifts, sent his nephew Guatemoc as his ambassador to them, and obliged his vassals to provide them with warriors and bearers.

Shikotenka realised that at some point in the past few moments he'd made his decision, and now neither his father, nor his deputy Maxixcatzin, nor any of the other senators were going to talk him

out of it. He got to his feet and prowled around the cowering emissaries. 'You came here with lies and falsehoods from that traitor Moctezuma,' he roared. 'And you tell us no one can stand against those you name *tueles*. But we Tlascalans will stand! We're going to kill your so-called *tueles* and eat their flesh. Then we'll see whether they're as strong as you say.'

Following his spectacular victory over the Mexica six months before – and it had been *his* victory, since he'd planned it, prepared it, carried out the decisive raid and bested, though unfortunately not killed, Guatemoc in a knife fight – Shikotenka's status had never been higher. He was a king and the son of a king, but while his ancient father still ruled supreme in civil matters, in matters of commerce and business, in matters of law, custom and religion, the fact was that he, Shikotenka the Younger, was the battle-king of the Tlascalans and his word carried the greatest weight when it came to war.

'The white-skins are not *tueles* but men,' he said, turning on the

balls of his feet, looking round the benches and addressing every one of the thirty senators. 'I know because I have fought with them; so too has Tree, so too Chipahua, so too Ilhuicamina, and we all say they are men, and it is as men, not gods, that they are dangerous – a powerful military force supported by the vassals of our sworn enemy. I say we cannot and must not welcome them. I say the only honourable course of action open to us is to fight them to the death if they take even a single step onto our land.'

As Shikotenka had expected, Tree, Ilhuicamina and Chipahua immediately seconded him. All three of them had been injured fighting the white-skinned warrior on the beach at Cuetlaxtlan, and Tree and Ilhuicamina had only recently recovered their full faculties after resting long in the infirmary. They knew in the most direct and immediate way possible how dangerous the white-skins were, and their word carried weight with the senators who one by one cast their votes in support. Shikotenka's father was the last to agree to war in the event that the strangers crossed the Tlascalan border. 'My

young son,' he said, deliberately echoing the words of his famous song, 'you leader of men. I will not stand in your way but I fear this is a decision you may come to regret. You are brash and full of confidence now, but tell me, if you lose on the battlefield, what then do you propose?'

'We are Tlascalans, fighting for our homeland. We will not lose.'

'But even so, if these white men defeat you, what will you do?'

'What would you wish me to do, father?'

'You must take it as a sign from the gods that the cause of the white men is just, and if they truly mean to march against Moctezuma, then you must march at their side.'

Shikotenka smiled. 'I accept, father … but we will not lose!'

'And in the meantime, what shall we do with these Totonacs?' The question came from Maxixcatzin, who was pointing his staff of office at the two bound emissaries on the floor.

'Hold them in the fattening pen while I ready the army,' Shikotenka replied. 'We'll sacrifice them and eat their flesh with

chillies before we depart.'

A loud wail from Mamexi was cut short as Tree's foot slammed into his belly. 'Any more of that snivelling,' the big Tlascalan told him, 'and I'll sacrifice you now.'

* * *

'I hate it here!' said Pepillo.

It was Friday 27 August, their fourth day in Xocotlan, and he was exploring the town with Malinal, Melchior prowling by their side with his hackles raised. They were in a great square, which had a small pyramid topped by a temple on its north side, and three other temples at ground level on its east, west and south sides. In front of the pyramid steps, and in front of each of the temples, were huge piles of human skulls, so neatly arranged they could be counted. Pepillo was good with numbers and volumes and he reckoned that the four piles, added together, contained more than a

hundred thousand skulls.

There were in addition other grisly collections of human remains – a heap of femurs and a macabre display of skulls and bones, some with flesh still attached, strung between wooden posts and guarded by three filthy priests whose long hair was matted with dried blood.

'Why do they do this?' Pepillo asked, feeling sick.

'It's the same throughout Mexico,' Malinal replied. 'Everywhere the same. Our gods are demons and they've got inside our minds and driven us mad, making us murder each other in their name. That's why Cortés has been sent to us, to stop all this.'

* * *

After the debacle of the summer solstice celebrations, Moctezuma had at once summoned Acopol from his work in Cholula and demanded an explanation from him, but the sorcerer had seemed unconcerned. 'Stay in your palace, Lord Speaker,' he'd said. 'You

will be safe from the witch here. Venture no more beyond these walls until I discover her hiding place and kill her.' Acopol had then gone sniffing around the palace, indeed around the whole of the sacred precinct, even venturing up the great pyramid to the temple of Hummingbird, but had found no trace of her. Next he'd walked the streets of Tenochtitlan for three days, only to report at the end of his investigations that the witch was not in the city. 'It seems, sire,' he suggested, 'that after her attack on you at Teotihuacan, she did not return here.'

'Then where has she gone?' Moctezuma snapped.

Acopol shrugged: 'My powers are great, Lord Speaker, and they come from the god himself, but even I cannot search the whole world for this witch child. When she returns I will find her. Until then, I charge you to remain here, where my warding spells will protect you, while I complete the great task that the god has honoured me with in Cholula. What I have set in motion in that city will ensure the total destruction of the white-skins, but I rely

entirely on you and your ministers to lure them there.'

'I have already invited them to come to Tenochtitlan,' Moctezuma said. 'I have offered them guides and the most direct road passes through Cholula, but we cannot *force* them to take it.'

The expression in Acopol's eyes had frozen Moctezuma to the bone. 'They *must* take it,' he'd said in the most sinister of tones, 'and they must come through Cholula, for if they fail to do so, then the wishes of the god cannot be fulfilled … '

And now, some sixty days later, the very problem Moctezuma had foreseen had come to pass. As he knew from the daily reports brought from his spies by teams of relay runners, the *tueles* had left a force to guard the town they had built for themselves on the coast, and had ventured into the interior, spurning all offers of guides and the fast, direct road that would have taken them through Cholula, and choosing instead to travel by a tortuous and difficult mountain route. In due course, this route had brought them to the Mexica stronghold Xocotlan, ruled for Moctezuma by his vassal Olintecle,

and there they had taken up residence, enjoying the lavish hospitality and gifts that he had ordered Olintecle to provide to them. From Xocotlan it was an easy march to Cholula, but alarming reports from the spies had indicated this was not what the *tueles* intended to do. Instead it seemed they planned to make a diversion into the lands of the hated Tlascalans.

The prospect of an alliance between the Tlascalans and the *tueles* froze Moctezuma's blood, so he had sent urgent word to Olintecle to dissuade them from this course of action, and now sat brooding in his palace, waiting to discover what the outcome would be.

* * *

Allowing a minimum of a day and a half journey time each way, and a day for deliberations, Mamexi and Teuch should have been back in Xocotlan by Saturday 28 August, but when they failed to appear, Cortés called his captains together and gave orders for the army to

make ready to depart for Tlascala in two days' time on the morning of Monday 30 August. Getting wind of this, Olintecle came to him and urged him through Malinal not to go to Tlascala under any circumstances – for the Tlascalans were the enemies of Moctezuma. In his opinion they had already killed Mamexi and Teuch and now, forewarned, would certainly be preparing to attack Cortés. It would be much better, the chief suggested, for the Spaniards to avoid Tlascalan territory entirely and go by way of the city of Cholula, whose people were closely allied to the Mexica and would welcome them.

Speaking through Malinal, assisted in the translation by Pepillo, who improved and smoothed out her Castilian, Meco put the opposite point of view. 'Don't risk it,' he advised. 'The Cholulans are treacherous and Moctezuma has a large garrison in their town, much larger than here at Xocotlan, while the Tlascalans have always fought to keep their independence. They're frank and fearless and they're our friends. Mamexi and Teuch have simply lost their way

and we'll see them soon enough. To change your plans now, Lord Cortés, will make you look weak. We must go through Tlascala.'

'What do you think?' Cortés asked Malinal later that night when they were alone.

'Same like I told you before. Tlascalans are – ' she sought for the word – 'unpredictable. Meco rely too much on Totonacs' friendship with them.'

'And Cholula?'

'It sound like twisted scheme of Moctezuma. Maybe some test. Cholula is sacred to god Quetzalcoatl, who he fears you are. Maybe he want see what happen when you go there. Maybe he hope his god Hummingbird send him sign so he know what to do next.'

Again Cortés was reminded of his dream of Saint Peter, in which the Holy Father had promised him a great victory at Cholula. It was intriguing to learn now from Malinal that this city was sacred to Quetzalcoatl. 'Could the Cholulans be potential allies for us?' he asked.

‘I don’t think so. They Moctezuma’s – how you say? – lapdogs. Too afraid of him to be your allies, but the Tlascalans, maybe. Who knows? They crazy people. They might fight you or they might join you.’

‘God, Saint Peter and my clever Malinal always guide me honestly,’ said Cortés as he drew her close. He was more determined than ever to visit Cholula, but equally certain he was right to pay a visit to the Tlascalans first.

* * *

‘Husband, show mercy,’ said Xilonen. ‘You have many faults but you are not a bully.’

They had made love in the garden on the palace roof and now lay side by side within their private bower, gazing up through the leaves at the vast star-strewn depths of the night sky. Xilonen crooked one long, naked leg, lightly sheened with sweat despite the

chill in the air, and rested her knee on Shikotenka's scarred belly. 'I beg you, husband, let them go. The Totonacs may be weak but they have never been our enemies. You've already had their envoys in prison for three days, but to sacrifice them because you don't like the message they bring is unworthy of you. I would expect such an act of Moctezuma. Don't demean yourself by stooping to his level.'

Shikotenka sighed. He was always at his most susceptible to his wife's gentle persuasion when she had satisfied him so completely. 'Why shouldn't I sacrifice them?' he complained. 'They came here with treachery in mind—'

'What treachery?' She sounded scornful. 'They offered you an alliance, not poison.'

'The offer itself was the poison – to make us trust the very thing we should most suspect.'

'Pah!' Xilonen rolled fully on top of him. 'Too much suspicion!' He felt the pressure of her full breasts and her firm thighs. She supported herself on her hands and he saw the glint of her dark eyes

as she gazed down at him. 'Let those poor men go,' she whispered. 'It's a small thing. Do it for me. The gods will bless you.'

'Now you're bringing the gods into it!'

'Whatever works. I want you to let them go.'

For the first time, Shikotenka found himself giving serious thought to the possibility. Nothing would be gained by sacrificing the emissaries, but perhaps some good might come from freeing them. 'Very well,' he said to Xilonen, 'if it pleases you I will release them. It seems I can refuse you nothing.'

'In that case, may I ask your attention for one more matter?'

'Wife,' Shikotenka said gruffly, 'do not try my patience.'

'It's a big thing,' she continued, 'but I feel strongly about it, so I am compelled to speak.'

'Speak then.'

'Do not rush into battle with the white men. Find some neutral ground and talk to them. Perhaps, after all, you should consider this alliance they propose.'

'Aiyee! Enough!' Shikotenka rolled Xilonen onto her back and spread her legs. 'Here's a big thing I feel strongly about,' he said, 'and it demands your immediate attention.'

* * *

There was a soft chill in the mountain air, the stars were bright, the sky the deepest midnight blue. On the roof of the guest quarters that Olintecle had provided, Malinal lay side by side with Hernán Cortés, the man she had set out to use as a weapon of vengeance against the Mexica, but had grown to love. He was, in every way that mattered, the most exceptional, extraordinary and contradictory man she had ever known: tender and imaginative in their sex play, ferocious in battle, clever and quick witted, a loyal friend and an indomitable enemy, kind-hearted by nature, yet capable of great cruelty when it served his interests.

'What your plan,' she asked, 'when we get to Tenochtitlan?'

Malinal had described the Mexica capital to Cortés many times before: how it stood amidst the waters of a great lake, with its houses built on islands or on stilts; how every house had a flat roof which, with the erection of breastworks, could transform it into a fortress; and how the city could be approached only along the three causeways that connected it to the mainland, each causeway having multiple openings, allowing the water to flow from one part of the lake to another and spanned by wooden bridges which, if removed or raised, made entry – or escape! – impossible.

Nor was the problem simply one of Tenochtitlan's unique situation. Moctezuma had recently suffered a severe reverse in his war against the Tlascalans; nonetheless, Malinal estimated he could still command a standing army of at least a hundred and fifty thousand men and call in perhaps a hundred thousand more from his remote garrisons and vassal states, as well as Otomi and Chichemec mercenary forces, numbering in the many tens of thousands, that he was reported to have hired recently.

So Cortés knew all this when, lying there in the dark beside her, his hard naked body still alien to her in its bone-white beauty, he replied calmly, 'If we can continue to play the game well, as I believe we have done until now, we will enter Tenochtitlan as Moctezuma's guests, with smiling faces, exchanging gifts, knowing all the while he means to trap us and kill us there. But we will never let that happen. Once we are within his walls, I will make him my hostage and rule his city and his empire and all his armies through him, and take everything that belongs to him and make it mine.'

Malinal was momentarily stunned by the audacity and simplicity of the strategy, which Cortés had never hinted at before, and by the realisation that it might actually work. Because Moctezuma was a coward, because of his superstitious fear of the white men, but above all because he was an absolute dictator in whom all the power of the state was concentrated, it was just possible, if the caudillo could face him down with daring and succeed in taking him prisoner and terrifying him enough, that the whole Mexica empire might fall into

line, without the need to storm its impregnable capital, or do battle with its myriad armies, or shed even a single drop of blood.

'It could work,' she breathed, thinking out loud.

'Of course it will work,' said Cortés. He sounded supremely confident.

But then he always did.

* * *

Telling Xilonen to keep the bed warm, Shikotenka went to Tree's home and found him, morose and belligerent, drinking pulque in the back yard. The big warrior had lived alone since the sudden death of his own wife a year previously. They'd not been blessed with children, and Tree refused even to have servants to tidy up after him. As a result his place was a mess, with a bad smell about it.

'Come on,' said Shikotenka. 'I need your help with something.'

'A fight?' said Tree hopefully.

‘Not a fight. Not tonight anyway! I’m going to do something a bit odd and I want you to witness it.’

‘Almost everything you do is odd, so why do you want a witness? Leave me alone.’ Tree upended his cup and poured himself another hefty draft of the milky liquor.

‘No, I really need your help,’ Shikotenka insisted. ‘I’m going to give those two Totonacs a chance to escape and their guards will feel better about the whole thing if you’re there to witness it. Otherwise they might fear they’ll be blamed.’

‘I’m drinking, can’t you see?’

‘Yes, and too much these days. You’ll lose your edge in battle if you go on this way.’

‘Like you’re losing your edge with all this mercy?’

‘Xilonen persuaded me to let them go,’ Shikotenka answered honestly.

‘Right there,’ growled Tree, ‘I hear the sound of an edge being lost.’ He paused: ‘Are we still going to fight the white men, or did

she talk you out of that as well?'

'If they cross the border,' said Shikotenka. 'We're going to fight them with everything we've got.' He grinned. 'So let's stay sharp, both of us.'

He walked with Tree to the fattening pens, where hundreds of prisoners were held in bamboo cages and fed on a special diet to make them plump for sacrifice. The two Totonac emissaries were kept in a cage of their own.

Shikotenka took the warders aside. 'Keep your voices down,' he warned. 'An hour after midnight, when the whole city's asleep, I want you to let the Totonacs escape.'

'Escape, lord? It's more than our lives are worth.'

'It will be more than your lives are worth,' Shikotenka whispered, 'if they're still here in the morning.'

'Yes, lord.'

'Take food in for them and tell them they must eat. Tell them they're to be sacrificed the day after tomorrow and we want them to

be pleasing to the god. But when you go out, leave the gate of their cage open. Make it look accidental, but make sure they notice … ’

‘We’d prefer to discharge them into your custody, lord. Then you can set them free yourself.’

‘They’d think I’ve gone soft and that won’t help us. Just know you’ll have done a great service to me personally if these men are long gone in the morning. I’ll see you’re well rewarded for it. Tree here will witness there’s been no dereliction of duty on your part.’

‘But lord—’

‘No more questions. I’m counting on you. Get this done.’

‘Get it done,’ rumbled Tree, looming over the warders.

As they nodded their agreement, Tree strolled across the courtyard to the cage where the emissaries were held, snatched a flickering brand from a bracket and shoved it through the bamboo bars, revealing the terrified prisoners hunched in a corner. ‘Snivelling Totonac bastards,’ he observed.

The one called Mamexi gave a nervous squeak, while his

companion Teuch got to his feet. 'What do you want with us?' he asked.

'Just checking your meat's still fresh,' said Tree with a horrible laugh. 'Day after tomorrow, the priests will take your hearts and me and the boys get to eat your thighs with chillies and beans before we march out to slaughter those *tueles* of yours.'

Mamexi was sobbing inconsolably now. 'We've done nothing wrong.'

Tree threw the brand down near the gate where it flared and flickered. 'See you for breakfast, day after tomorrow!'

'What was that all about?' Shikotenka asked a few moments later when they'd left the prison yard.

'You want those fools to escape?' said Tree, 'so I gave them a motive and some light to see by.'

Chapter Thirty-Three

Sunday 29 August 1519 to Monday 30 August 1519

The news from Xocotlan was as bad as it could possibly be. The *tueles* were preparing to march to Tlascala. Since they constantly demanded gold, Olintecle had tried to register the Great Speaker's disapproval by withholding further presents from them, but this had only caused them to advance their plans. They would depart at first light the next day.

In a fury, Moctezuma despatched a command to his vassal to give the *tueles* more gold. The messengers would carry the order

from relay post to relay post, running without cease through the night. The entire team of runners, Moctezuma had made clear, would face execution if his instructions failed to reach Olintecle before the *tueles* marched.

* * *

When Olintecle walked his thighs slapped together – slap! slap! slap! slap!; this sound announced his arrival as he bustled into the square where the conquistadors were mustering on the morning of Monday 30 August. It was early, not long after dawn, the sky was clear but the air was still cold, and in patches here and there a light mist lay close to the ground. Olintecle came bearing gifts – a dozen necklaces, three pendants and some lifelike lizards, all of pure gold – which was surprising because over the previous days he had politely sidestepped Cortés's persistent requests for presents to send to King Carlos in Spain. But the motive for the chief's change of heart was

transparent. 'You must not go to Tlascala, Lord Cortés,' he protested through Malinal, his face crumpling with insincere concern. 'Your emissaries' failure to return is a sure sign that danger awaits. Those evil savages have murdered them and they will murder you if you enter their lands.'

'The Lord is my shepherd,' said Cortés. 'I fear no evil.' He handed the gifts to Pepillo to pack away in Molinero's saddlebags.

Olintecle tried another argument: 'Besides, the Great Speaker himself commands it. He will be most offended if you fail to visit Cholula as he has ordered.'

'Compliments to the Great Speaker,' Cortés replied, 'but I take orders from no man except my king. My mind is made up.' He gave a wink to Pepillo who, as they'd prearranged when Olintecle had first appeared, loosed Melchior's leash. The huge hound bounded forward to sniff the chief's groin at which, breaking out in a sweat, he made his farewells and hurried away – slap! slap! slap! slap! When he was gone, Pepillo called Melchior back to his side.

All was now ready for the departure. Father Olmedo stood to the fore to lead the march out of Xocotlan. On such occasions the cheerful friar carried a standard embroidered with the cross of Christ. It hung limp, but now a soft morning breeze blew in from the west and the cloth rippled and flapped.

Perfect, thought Cortés. *A sign*. He swung himself into Molinero's saddle, stood in the stirrups and turned to review the disciplined ranks of adventurers. With the four additional mounts brought by Saucedo, and the six left behind with Escalante to defend Villa Rica, the spearhead of his force was his cavalry, numbering sixteen. They were followed by the foot soldiers grouped in seven companies of fifty, their shields, weapons and armour shining in the sun. Next came the dogs in five packs of ten – for half the animals had stayed at Villa Rica. Behind them, in their feathers and paints, were the thousand Totonac warriors provided by the fat cacique, and bringing up the rear were the *tamanes*, also numbering a thousand, shouldering the baggage and hauling the artillery.

Signalling to Olmedo, who strode forward raising the billowing standard high, Cortés bellowed so that all could hear: 'Gentlemen, let us follow the banner, the sign of the Holy Cross, and by this we shall conquer.' There was a great cheer from the men followed by the steady tramp of marching feet and, with the whole population of Xocotlan now lined up to watch them go, the conquistadors wound their way through the narrow streets of the town heading west towards Tlascala.

* * *

An hour's march west of Xocotlan, Bernal Díaz stood at the head of the foremost squad of infantry, looking up at a pair of massive wooden gates set into a gigantic wall fifteen feet high, twenty feet thick and more than three miles in length. Crossing the whole breadth of the valley, the battlements of this impressive fortification, which marked the border with Tlascala, were patrolled by a

thousand Mexica sentries in full war panoply. They willingly opened the gates, but as the Spaniards entered they found themselves confronted by a second parallel wall that overlapped the first for a distance of forty paces, somewhat in the manner of a ravelin. This device obliged them to make a right turn along a passageway ten paces wide, commanded by the battlements of both walls, from which the defenders would be able to rain down spears, arrows and stones on any attackers attempting to force the gates from the Tlascalan side.

'Thank God we don't have to fight our way through this lot,' observed Alonso de La Serna, looking up at the grinning, heavily armed sentries.

'We'd take losses,' Francisco Mibiercas conceded.

'More likely we'd be wiped out!' said Díaz, who was examining the immense blocks of stone, laid together without cement in the joints, from which the hulking fortification had been built. 'Has to mean the Mexica are pretty damn afraid of their neighbours.'

‘Has to,’ agreed La Serna, with a cheerful wave to the sentries. ‘So let’s hope all this talk about the friendly welcome we’re supposed to get in Tlascala turns out to be true.’

Díaz hated confined spaces and was relieved to emerge from the shadow of the ravelin, but feelings of apprehension followed as he gazed into the wild, empty country that lay beyond. Already there was a marked change in the land from the pleasant meadows and fields around Xocotlan – the sky itself seemed less blue, the sun less bright. Though it had long-since healed, the arrow wound he had taken in his thigh at Potonchan now unexpectedly flared, piercing him with a sudden sharp stab of pain.

He shivered.

‘Someone just walk on your grave?’ asked Mibiercas.

Díaz forced a laugh. ‘You’ll not bury me yet,’ he said.

A few moments later – the ravelin still lay no more than two hundred paces behind and scouts had not yet been sent out – Díaz heard faint shouts and cries carried on the breeze. He recognised he

was in a dark mood, but something in the tone of these voices suggested terror. Mibiercas and La Serna were also listening, and the three friends exchanged concerned glances. Soon half the army was peering anxiously ahead; hands fell to sword hilts, spears and pikes were raised, musketeers fussed with their guns, archers cranked their crossbows.

* * *

They'd been hidden from view by the lie of the land, but now two Indians appeared at the top of a slope ahead and stumbled across the heath towards the conquistadors. So great was their haste, so frequently did they look over their shoulders, that they collided, tripping and falling twice before picking themselves up and darting forward again.

Cortés urged Molinero into a trot, and they soon reached the pair. They were battered and bloody, their clothing torn, their hair

dishevelled. Still he recognised them. These were Mamexi and Teuch, the Totonac envoys he'd sent to the Tlascalans. *Well,* he thought, *that's one mystery solved, anyway!* He rode past them to the top of the slope as Alvarado, Davila, Olid and Sandoval joined him at a gallop. They all reigned in, looking for whatever horror the men were fleeing from and seeing nothing but miles of wild, empty terrain framed by high and jagged peaks.

The envoys were in such a state of terror – Mamexi tearful, Teuch frozen – that they could hardly speak. Little by little, however, through Malinal's gentle but insistent coaxing, and with help from Pepillo to put their words into flowing Castilian, the story came out.

The night before last they'd escaped from the fattening pen in the city of Tlascala, where they'd been held for three days awaiting sacrifice. They had run under cover of darkness, hidden themselves in a cave the following day, and run again all the previous night, convinced every moment they were followed and about to be

recaptured, until finally they approached the wall, and safety, that morning. It seemed they'd only got away because the Tlascalans were so busy making preparations for war with the conquistadors that their jailers had become careless and left a gate open. 'Otherwise those devils would have killed us,' whimpered Mamexi, whose small, rat-like eyes seemed to contain inexhaustible reservoirs of tears. 'They wanted to rip our hearts from our chests. They wanted to eat our flesh with chillies and beans.'

'But didn't you explain we're on their side?' demanded Cortés, 'that we seek to be brothers to them – that we're as much against the Mexica as they are?'

'We explained,' wailed Mamexi. 'We explained a hundred times but they wouldn't believe us. They said you're in league with Moctezuma! They said they're going to eat you as well!'

'Not all felt that way,' interrupted Teuch, who was regaining his composure. 'There were different opinions. The elder Shikotenka wanted peace. It's his son, Shikotenka the Younger, who persuaded

the Senate they should make war on you.'

'He's the battle-king of the Tlascalans,' volunteered Meco, who'd been standing nearby.

'The man you were so confident would want to be our ally?' sneered Cortés. 'So confident you had me turn down the hospitality of Cholula to come this way instead?'

'I don't understand what went wrong, lord,' said Meco. 'The Tlascalans are our friends. I was sure they'd welcome us.'

Mamexi cackled hysterically: 'Do you call this a welcome?' He showed his multiple cuts and bruises. 'They beat us like thieves. They humiliated us.' He turned to Cortés and glared at him through a flood of tears: 'Beware *tuele*,' he said, his voice cracking, 'they are animals, these Tlascalans. They're mobilising their whole army against you. They mean to fight you to the death.'

For an instant Cortés contemplated turning round and going by way of Cholula instead. It was what Saint Peter had wanted him to do, after all! But he put the thought out of his mind at once.

Certainly he would go to Cholula, but he would do so in his own good time after he'd settled things with the Tlascalans. No matter the adversity, no matter the risk, the high-stakes game he was playing with Moctezuma meant it would be fatal to back down or show even the slightest irresolution or weakness now. 'Well, so be it,' he boomed cheerfully, 'if that's how things are, then forward, and may fortune be on our side.'

Sandoval, Alvarado and some of the other cavaliers had dismounted to listen to the envoys' story. 'Gentlemen,' Cortés said, 'to horse! Let's scout ahead and learn what awaits us here.'

* * *

The foot soldiers were following at a fast march and should now, Sandoval estimated, be about six miles west of the wall. It was already past noon. Eight of the horsemen – half the cavalry – had remained with the infantry, but the other eight, Sandoval amongst

them, had been riding at a brisk trot for more than an hour – their mounts could keep this pace up all day if necessary – and were now some twelve miles west of the wall.

As always, Sandoval was immensely happy to be riding Llesenia, the chestnut mare the caudillo had allocated to him at Potonchan and allowed him to keep ever since. Ortiz, nicknamed 'the musician', who owned the animal, was less happy with the arrangement, but a bribe from Cortés had persuaded him to go along with it. The fact was that Ortiz was a poor rider, while Sandoval had been born to the saddle.

He looked around, taking in the feel and flavour of the country; it reminded him, in its harsh, untamed beauty, of the remote uplands of Cantabria. A fast-flowing river, its waters whipped into white foam, ran through a deep gorge a mile downslope, and in the distance jagged peaks and high forbidding cliffs clutched the sky.

It felt good, Sandoval thought, to ride free like this, scouting unknown terrain, with men he admired, men he knew would stand

by him through thick and thin, on a quest of high adventure! Cortés was up ahead on Molinero, Alvarado beside him on Bucephalus, the two huge stallions neck-and-neck while their riders talked and joked. Fanned out behind them came Olid, Velázquez de Léon, Morla, Moran, Davila and Sandoval himself.

Suddenly Cortés was gesturing, pointing. A group of Indians, fifty warriors armed with spears, their heads plumed with feathers, stood silhouetted on a ridge a mile ahead. They were visible only for a moment and then vanished as suddenly as they had appeared.

Cortés and Alvarado spurred their horses and went after them, riding like demons, stretched out at full gallop, lances levelled. With a thunder of hooves, Sandoval and the rest of the troop followed.

* * *

Damn but these Indians could run! As Alvarado reached the ridge where the warriors had showed themselves, he saw them streaking

away across the wild moorland, which sloped down into a long, gentle valley then up again towards a second higher ridge about a mile further west. They were still maintaining a good lead. He glanced at Cortés, who rode close beside him and yelled: 'Kill them or catch them?'

'Catch them,' Cortés replied, the wind snatching at his voice. 'We want peace with these fellows if we can have it.' Deliberately he put up his lance.

Well and good, Alvarado thought, putting up his own lance. *But what do we do with them when we've caught them*? He glanced back and saw that Sandoval, Davila and Olid were close, Morla, Moran and Velázquez de Léon a little further behind. All, following Cortés's example, had put up their lances.

The Indians were indeed incredibly fast on their feet, but the galloping horses were much faster and the gap between them began to close rapidly. Alvarado grinned, knowing the fear the big destriers provoked in primitive minds. None of the riders were fully

armoured themselves – cuirasses seemed enough to enter what had, until they'd passed the wall, been thought of as friendly territory – but both he and Cortés had taken the precaution of having their mounts fully barded before leaving Xocotlan this morning; so too had Sandoval and Davila, and their shining armour, gleaming in the sun, made a magnificent and no doubt terrifying sight. Olid, Morla, Moran and Velázquez de Léon all rode unarmoured horses, but the savages would be so intimidated by the animals themselves it would make no difference.

Maintaining a surprisingly disciplined formation of ten ranks of five, the Indians were naked but for loincloths and sandals, their bodies painted a gruesome shade of red, bright green feathers fixed in their long black hair. All carried spears and all were armed with daggers hanging at their waists and their simple broadswords, made of wood with obsidian blades, slung in sheaths on their backs. Unlike other natives who Alvarado had run down on Bucephalus, they weren't peering anxiously over their shoulders, but seemed

focused on their flight, arms and legs pumping, still covering a lot of ground very fast.

As the distance closed to a hundred paces, then fifty, Cortés signalled for the riders to split into two files – Sandoval, Davila and Velázquez de Léon following him to the left, Alvarado, Olid, Morla and Moran to the right. They galloped along the flanks of the Indian band, dropping their speed to a canter as they drew level. Now at last some of the warriors turned to look at them, but without panic, their fierce faces, daubed with stripes of black and red paint, showing no fear whatsoever. *Interesting*, thought Alvarado. *We might have a fight on our hands here*.

'Hey,' Cortés yelled, as if they could understand him. 'Stop! We just want to talk. We mean you no harm.' He switched his lance and Molinero's reins to his left hand and held up his right hand, palm outwards, in a sign of peace. But the Indians paid no attention, just kept on running, grim and silent.

Waste of time, thought Alvarado. With a nudge of his knee he

swerved Bucephalus sharp left into the midst of the fleeing column, aiming to knock a few men down and make them listen to reason, but they were amazingly agile; the ranks simply melted away from the warhorse, and suddenly a big Indian, missing his front teeth, was attacking him with vicious, sweeping blows of his broadsword. Just as Alvarado realised that he recognised the man from the night fight on the beach back at Cuetlaxtlan, one of the cuts connected with the steel plates of the *crinet* protecting Bucephalus's neck, and he was obliged to swerve away as another slashing blow narrowly missed his own unarmoured thigh and crashed into the barding just in front of his saddle. 'What the hell?' he yelled as he spurred the animal clear.

* * *

Seeming to realise there was no point in continuing flight, the Indians stopped running and quickly formed up into a disciplined,

defensive circle, bristling with spears. *Real soldiers!* Cortés thought. *Not like the Maya*. The ridge they'd been making for still lay half a mile upslope to the west but, though they'd been caught in the open, they seemed calm and unafraid. Hoping to take them alive, he again made signs of peace and waved his horsemen back until they formed a skirmish line fifty paces below the Tlascalans – he assumed they were Tlascalans – who brandished their weapons and shouted war cries.

'I think at least one of these fellows was amongst the band who tried to snatch Pepillo on the beach at Cuetlaxtlan,' said Alvarado. 'If it's them, then they know how to fight. Shall we have at them?'

'Not yet,' said Cortés but, as he spoke, out of the corner of his eye he saw Olid level his lance. 'No Cristóbal!' Cortés warned, but Olid wasn't listening. With a whoop he charged in towards the Indians, the hooves of his sorrel mare kicking up clods, and in the same instant a tall, massively built warrior, the braids of his long hair tangled and filthy and a great scar down the left side of his face,

leapt out from the circle and ran to meet him, blocking his path with a ferocious aspect and a horrible yell, making the mare rear and whinny before he could thrust.

'That's another one of those bastards I fought on the beach,' Alvarado had time to say before something shocking and incredible happened, something completely unprecedented in all the battles the Spaniards had faced since their arrival in the New Lands. While Olid was still struggling to regain control, the huge Indian took an unexpectedly graceful step forward, shifted his weight to his right forefoot, pivoted half a turn, whirling his heavy wooden sword with its wicked obsidian blades, and struck the horse such a monstrous blow on its unarmoured neck that the animal was cleanly decapitated. Its head dropped with a heavy thud to the turf, its severed arteries jetted a tremendous gushing shower of blood, and its body toppled over so fast that Olid couldn't jump free and lay struggling vainly with his left leg trapped beneath its flank.

Sensing a disaster in the making, Cortés was already at full

gallop before the mare went down. He mis-aimed his lance and settled for barging Molinero into the attacker, sending the man stumbling as he swung to kill Olid on the ground. A dozen Indians darted out towards them from the defensive circle, screaming hate, but the other riders thundered down on them, brushed aside their puny spears, killed five with lance thrusts, scattered the rest and charged on, lances levelled, into the main mass, thrusting and stabbing. In the pandemonium Cortés vaulted down from Molinero and, with a mighty effort, pulled Olid free, but immediately came under attack from three fierce-eyed, painted warriors who, far from running as he'd expected, were already back on the offensive. Drawing his sword, he ran the first of them through, disembowelling him, while Alvarado, who had lost his lance, rode Bucephalus between the other two and cleaved their skulls with his falchion. Davila charged in, reached for Olid and hauled him across his saddle. Snatching up Olid's lance – Alvarado would need a replacement – Cortés at once remounted and shouted an order to

the rest of the troop to disengage.

* * *

The white men rode a distance of three hundred paces downslope to the east before wheeling their strange deer and forming a line again. 'Well,' growled Tree, 'at least they're mortal – the deer anyway.' He was examining the teeth of his bloodied *macuahuitl*, unbroken after scything through the animal's neck.

'Watch out for their armour though,' said Chipahua. He held up his own *macuahuitl*. It was badly damaged where he'd slashed it against the hard, shiny clothing of one of the deer. 'It's like the metal the white-skin we fought on the beach at Cuetlaxtlan was wearing.'

'I think the same man's amongst them today,' said Shikotenka. He pointed. 'There, with the golden hair, the one you just attacked. Don't you recognise him?'

'You're right,' said Chipahua. 'I didn't get a good enough look at him on the beach to be sure, but now you mention it – and the way he fights – yes, it's him.'

Shikotenka was remembering that night, how the white-skin had squared up to him at the end after Acolmiztli was killed, the challenge he'd shouted in his strange language. He offered a silent prayer to the gods that the man would come under his knife today and surveyed the battlefield without emotion. Twelve of his men, mostly new recruits who'd joined the squad after the raid on Coaxoch's pavilion six months before, lay dead. Three others were too badly injured to put up a fight. He looked up again at the line of riders.

'I suppose we should count ourselves lucky these ones aren't carrying fire-serpents,' observed Ilhuicamina.

'If they have fire-serpents at all,' challenged Chipahua. 'I think it's a story the Chontal Maya made up to explain their defeat.'

Tree was standing nearby. 'Fire-serpents or not,' he said, 'it looks

like they're getting ready to charge us again.'

Shikotenka narrowed his eyes. The one whose deer Tree had killed had been placed on the ground, where he sat nursing what was obviously an injured leg. The other seven had split into two units, one of four, one of three, and this second smaller unit now surged forward at a tremendous pace, the animals' hooves thundering upon the earth. They charged past the Tlascalans' right flank at a distance of a hundred paces and pulled up three hundred paces above them to their west.

'They'll come at us from both sides,' said Shikotenka. Normally he would have laughed at the suicidal notion of seven men doing battle with a force that was still thirty-five strong, but these strangers couldn't be judged by normal standards. He was quite sure they weren't gods, but he'd seen enough to know they were brilliant, disciplined, deadly warriors, utterly formidable on the backs of their rapid, heavy deer and armed with weapons of immense killing power. 'Throw your spears on my signal,' he said, speaking loudly

enough for everyone to hear, 'then grab the bastards' lances as they come in. Grip them tight and don't let go no matter what they do. Try to pull them down where we can deal with them.'

There came a shout from the leader of the white men, and both groups charged at once, lances levelled, closing in on the Tlascalan circle with stupefying speed. Shikotenka wasn't afraid; he felt sure none of his squad was afraid. They had come here to confront a new challenge and learn how to deal with it.

He gave the signal, and thirty spears flew through the air, enveloping the riders in a storm of wood and flint. Most of the projectiles bounced harmlessly off their metal armour, but one drove home into the shoulder of an unprotected deer, causing it to swerve and run off madly at a tangent, while another took a man high up in the leg and stuck there, though he wrenched it free and did not break formation.

'Hold,' Shikotenka yelled, 'hold,' as his attention focused on a gleaming lance tip, aimed at his chest, being driven towards him

with tremendous force by a big brute of a man whose frowning, black-bearded, green-eyed, white-skinned face glowered at him like some fiend out of Mictlan. There was no time to think, only to act. Shikotenka's body reflexes took over and he swivelled sideways, letting the thrust slip past him, pulled his dagger from its sheath with his right hand, grasped the shaft of the lance firmly in his left and continued to swivel, accelerated the turn, extended his left hand with a sudden jerk, sensed the resistance and heard the harsh cry of the man holding on at the other end, felt the hot breath of the deer on his head, swept the lance tip sharply down, and suddenly found himself exactly where he wanted to be. He stabbed rapidly right to left across his own body, buried his dagger to the hilt four times – *tac! tac! tac! tac!* – in the deer's neck, pulled the rider out of his seat and brought him crashing to the ground. With a snarl of pure joy, Shikotenka fell on the man and, seeing his upper body was heavily armoured, slashed open his right leg from knee to groin, opened the big artery there and released a rush of bright blood. Knowing he

would be dead within minutes, Shikotenka leapt to his feet, saw with satisfaction that the deer too had collapsed, and was bleeding out, and stalked off in search of other prey.

* * *

When Cortés saw Pedro de Moran and his horse both brutally slaughtered by a lean, muscular savage, he immediately disengaged his remaining cavalry and withdrew them three hundred paces downslope to where they'd left Olid. The loss of not just one but two of their precious – and presently irreplaceable – mounts was a grievous and unexpected blow; he needed to preserve the remaining horses and their riders. Olid was on his feet now, so it seemed he had at least not suffered a broken leg, which might have put him out of action for several months. But Velázquez de Léon had a deep cut in his forearm and his unbarded horse had been speared through its shoulder, Morla had taken a spear in the muscle of his thigh, and

his horse – also unbarded – had sword cuts to its rump and withers. Davila had been stabbed through his boot, and Moran was dead! Quite a tally for a skirmish with a band of primitives. Only Alvarado, Sandoval and Cortés himself were uninjured, but all three of their horses, though barded, had cuts about their lower legs and had only escaped hamstringing by a miracle.

The Indians had taken heavy losses, too, with a dozen men killed in the first clash, ten more in the second, and at least a further ten suffering lance and sword wounds that were more or less debilitating. The plain truth was, however, that as many as twenty-five were either completely uninjured or still sufficiently able-bodied to brandish their weapons, shout threats and begin a hostile advance on the Spaniards, rapidly closing the distance from three hundred to less than two hundred paces.

Cortés could not contemplate leaving the field, though the horses would see them clear in moments. To run, even from this little battle, even as a prelude to a larger attack with his whole force,

would signal cowardice and bring disaster in its wake. The Mexica would hear that the feared cavalry of the Spaniards was far from invincible against a determined foe, while the formidable Tlascalans would gain heart and meet any further attempt to penetrate their territory with even higher morale and even more martial valour than they'd shown already. He made some quick calculations. Though it had felt like only moments, the pursuit and the two engagements here had consumed the best part of an hour, which meant the infantry, proceeding at the fast march he'd ordered, should now be only two miles behind them – a distance that a horse at full gallop could cover in less than five minutes. 'Davila!' he barked. 'Your horse is in the best shape. Ride like the wind back to the army, bring the rest of the cavalry up to reinforce us at once and order the infantry to come on at the double.'

Davila nodded, threw his lance to Morla, who'd lost his own in the last affray, wheeled his mount and was gone.

Cortés was calculating again. Five minutes there, a few minutes

to make things clear and five minutes back with the other eight cavalry – it meant they should be reinforced within fifteen minutes. The foot soldiers would require a little longer to cover the two miles but, even so, if they hurried, they would be here in thirty to forty minutes. Meanwhile, with Moran and two mounts dead, and Davila temporarily out of the picture, Cortés had just five men on horseback and one – Olid – on the ground, to see off the howling mob of Indians who had now broken into a run and were closing rapidly.

'Gentlemen,' he said. 'Hold your lances short, aim them at the enemy's faces as we break through the ranks and give repeated thrusts. If your lance is seized, use all your strength and put spurs to your horse; then the leverage of the shaft beneath your arm and the headlong rush of the horse should let you tear your lance free or drag the Indian along. Above all keep moving. Charge and withdraw, charge and withdraw. Don't let them swarm you … '

He was already at full gallop, Sandoval and Velázquez de Léon

to his left, Alvarado and Morla to his right, when he saw a great mass of armed men, their heads dressed with wild plumes, pour over the top of the western ridge half a mile away and surge in ordered ranks down the slope towards them.

* * *

A man on horseback came galloping out of the west, the dazzle of the afternoon sun at first making him hard to recognise. 'It's Davila,' said Díaz, shading his eyes. 'He's whipping all colours of shit out of that horse. Looks like trouble to me.'

Moments later, the cavalryman reined in before the army. His mount was lathered. His own right foot had been pierced through his boot by some weapon and was dripping blood. 'All the horse!' he yelled. 'With me now! Cortés is in danger. Infantry follow our tracks as fast as you can. Two miles to the west.'

He was already wheeling his mount, the eight remaining riders

mustering around him, when Ordaz, whom Cortés had entrusted with command of the infantry as he had done at Potonchan, shouted: 'What are we dealing with?'

'Scouts,' Davila replied. 'Maybe thirty of them still alive when I left the field. But they're not like any Indians we've ever fought. Killed two of our horses already. If there's a whole army like that, they won't be easy to beat.' He called for and was given a new lance and led the cavalry west at a gallop.

Assigning Mibiercas and La Serna as his deputies, Ordaz gave Díaz command of a vanguard of two hundred Spaniards, including thirty musketeers and thirty archers, supported by all the Totonac warriors. 'You'd better take Malinal with you as well,' Ordaz said, 'in case there's talking to do. And make haste – if the enemy have scouts out, their army won't be far behind. I'll follow with the rest of the foot and the dogs, but the artillery's going to slow us down.'

Díaz set off at once, urging his men forward at a pace faster than a forced march, almost a run. It was a risk, for he must not exhaust

them to the point where they'd be unable to fight, but Ordaz was right – scouts meant an army and there wasn't a moment to lose. Malinal, he was pleased to see, kept up without difficulty, her face serious and intent.

'Do you have a weapon?' Díaz asked as she strode along beside him.

She pointed at her mouth: 'Speech is my weapon,' she said.

He smiled, realising – as he had a hundred times before – how much he liked her. She was a great beauty, which some might say was enough in itself, but she was also tough and smart – the speed with which she was learning Castilian was remarkable – and, like a good soldier, she never complained. She was Cortés's woman, of course, and therefore beyond his reach, but that didn't stop Díaz admiring her from afar. He felt annoyed the caudillo had not thought to arm her.

'You should have something more than your tongue to defend yourself with,' he said, and on impulse he took his pack from his

back as they marched, found the short stiletto he kept hidden there and passed it to her.

It was a fine weapon. She pulled its narrow blade from its sheath and examined it with a look of almost childlike wonder.

'For stabbing,' Díaz explained. He made a punching gesture with his fist. 'Thrust that into a man's gut and down he goes.'

'Thank you,' she said. She gripped the hilt and mimicked his punch. 'Down he goes!'

'That's right.' He fished in his pack again and found a leather thong. 'Attach the sheath to this, loop it round your neck and keep it out of sight until you need it.'

He looked away, surprised to find he was blushing as she followed his instructions. An awkward silence fell between them, and they hurried on, but moments later, carried on the light breeze, they heard distant shouts and then the unmistakable clash of battle. 'Stay behind the men,' Díaz warned. 'You're too valuable to lose to some skirmisher.'

Malinal grinned and made the punching gesture again. 'If skirmisher comes,' she said as she fell back, 'down he goes!'

Summoning La Serna and Mibiercas to join him, Díaz scrambled up a long gentle slope to the top of a ridge and saw a second, higher ridge about a mile ahead to the west. In the valley between the two, Cortés and all the cavalry were heavily engaged with a large force of Indians. So much for thirty scouts, then! This was an army, as Díaz had feared.

'How many do you reckon?' he asked.

'Three thousand?' guessed La Serna.

'More than that,' said Mibiercas. 'Four thousand, maybe five.'

Cortés's strategy was clear enough. The horsemen repeatedly charged the enemy, killing with their lances, withdrawing and charging again. Fourteen riders against so many seemed like lunatic odds, yet the truth was that everything about this campaign was a sort of romantic madness straight from the pages of *Amadis de Gaula*, where the few, if they had courage enough, could indeed

sometimes prevail against the many. There was even, Díaz thought, a fairy-tale princess in the form of Malinal.

He waved his men forward, signalling that they should spread out along the ridge, the Spaniards in two squares of a hundred each, the thousand Totonacs behind. The odds were much better than at Potonchan but, unlike the Maya, this new enemy fought in disciplined companies, holding their lines, none of them showing the slightest inclination to panic, break and run.

Díaz called for his trumpeter. 'Sound the advance,' he said, 'and make it loud. I want the caudillo to know we're here.'

As the first notes rang out, he drew his sword. 'Santiago and at them!' he yelled and, with Mibiercas and La Serna running at his side, he led the way down the slope.

* * *

Shikotenka wasn't surprised to see more white men appear at the

top of the ridge. He'd been expecting them and had mustered the biggest army Tlascala had ever seen to annihilate them.

But not today. Today was just a skirmish to test their strength, get a clear idea of their skills, their weapons and their fighting spirit, and lull them into a false sense of security. This was why he'd first confronted them with his fifty, luring them on, and why, even now, he'd allowed only five thousand to come against them. In the end he would leave them the field, and let them think themselves the victors, but tomorrow he would bring them to battle against a hundred thousand warriors.

A horn sounded up on the ridge and the ranks of the white men and their cowardly Totonac allies surged down towards him. At the same time the deer riders, realising they were reinforced, disengaged, drew back onto the lower slopes of the eastern side of the valley and waited for their troops to join them.

Shikotenka barked orders that were relayed along the Tlascalan fighting line. 'Hold! Hold here! Form up. Do not attack until you

see the signal.' He and his men occupied the lower slopes of the western side of the valley and were separated from the deer riders by no more than a hundred paces. If the other white men had fire-serpents, he thought, they would surely use them now.

'Hold!' he yelled again. 'Whatever they put against us, hold! If any man goes in before the signal, he dies under my knife.'

Ilhuicamina and Chipahua passed the command along. Tree stood by Shikotenka's side, gripping his *macuahuitl* two-handed and glowering at the enemy.

* * *

'What in hell do they think they're doing?' asked Alvarado. He sat loosely in the saddle of Bucephalus, his bloodied lance resting on his shoulder.

A hundred paces away, across the bottom of the valley, if this hollow in the moor could be dignified with the term 'valley', the

Tlascalans were simply standing their ground, five thousand of them in straight ranks of two hundred – rank after rank, massed all the way up the western side of the valley, almost as far as the ridge. Only moments before, the air had been filled with their wild whoops and war cries, but now they were utterly and completely – almost oppressively – silent.

'I'd say they're challenging us,' hazarded Cortés.

Alvarado scoffed: 'Challenging us to what?'

'To do our worst?'

'Why would they do that?'

'Find out what we're made of. Find out what we can do. It's a reasonable tactic, actually.'

'Well in that case,' said Alvarado, 'why don't we show them?'

'I want to try to parlay first.' Cortés turned to Díaz who was standing close. 'I hope Malinal's with you, not following on behind with Ordaz?'

'She's here.'

‘Well, bring her forward. I’ve got a job for her.’

Moments later, Malinal was at Cortés’s stirrup, looking up at him. Her face, Díaz saw, was radiant with some powerful emotion. Was it love? He felt a twinge of jealousy, but put it out of his mind.

Cortés nodded to her: ‘Tell them we serve a great king who lives across the seas and we’ve come here in his name to seek their friendship. We seek their alliance in the war we will make against their enemy Moctezuma. Tell them we admire their long struggle against the tyrant and we’ve come to help them. Tell them our friendship will be greatly to their profit and that we will teach them and show them many wonderful things.’

While Malinal put this into Nahuatl, her voice ringing out across the valley, Cortés turned to Díaz. ‘Are your musketeers and crossbowmen loaded and ready?’

‘They are, Caudillo.’

‘Pick the five best marksmen,’ Cortés said, ‘and have them take aim at whichever Indian replies to this. If it comes to a fight, they

must make sure to kill him.'

'And the rest of the shooters?' Díaz asked as he strode towards the infantry, who were drawn up in two squares of a hundred men each.

'They should spread their fire widely. Do all the harm they can.'

* * *

Shikotenka had heard from Huicton of this Indian woman who spoke for the white men, but he didn't believe her honeyed words any more than he'd believed the Totonac emissaries. When she came to the end of her little speech, he was too angry to reply and turned to his standard-bearer. 'Make the signal,' he said, and as the man raised the attack banner of wicker covered in iridescent quetzal plumes, he gave a great yell, drew his *macuahuitl* and charged the enemy line. Responding instantly, the five thousand battle-hardened Tlascalan warriors, who he'd picked to test the white men's strength

that day, surged forward around him as one being, one blood, and he felt the air vibrate with the fury of their war cries and the ground tremble beneath his feet with the massed weight of their onslaught.

For a moment, as he closed the distance, there was surprise, even shock, in the faces of the enemy. But only for a moment. Groups of them in each of the two defensive squares they'd formed were holding long objects to their shoulders, hollow metal tubes mounted on wood, and now smoke and flame belched forth from these, accompanied by a sound such as he had never heard before, an awful sound, a loud, popping, booming roar followed at once by an eerie, unsettling whirr as of a swarm of insects flying very fast. Something hot seared his ribs, something powerful that clutched at him and left the skin it had touched stinging as though he'd been whipped, sizzling as though he'd been branded, while men to his left, men to his right, men behind him were screaming, tumbling, skulls burst open, bodies broken, a mist of blood rising between them, and that hideous sound went on and on, echoing across the valley,

reverberating off the ridges, swelling and multiplying as though it would never end.

'Fire-serpents,' he heard men whisper, 'weapons of the gods,' but even so they didn't break – they were Tlascalans! – and the first rank, with Shikotenka in its midst, flung itself against the two squares with a tremendous crash, as shields smashed against shields and swords against swords. The second rank followed and the third and the fourth, enveloping the enemy, surrounding them, battling to break through on all sides even as the deer riders reared and wheeled their animals, charging into the melee with war cries of their own, their vicious lances jabbing and thrusting, while the Totonac auxiliaries danced round the outside of the fray, spearing and cutting the throats of Tlascalans who already lay sprawled and gutted, piled up in groaning heaps.

Shikotenka hammered at the white men's shield wall, hacked at their snarling faces and armoured legs with his *macuahuitl* in his right hand and his dagger in his left, twisted, dodged and parried as

the metal swords of their front rank darted out wickedly, and as huge spears held by men two or even three ranks back stabbed down at his neck and his head. The *macuahuitl* he'd taken from Guatemoc all those months before, and which he'd once thought so lethal, so perfect, seemed like a useless toy in his hands. Its obsidian blades shattered against the unyielding metal of the white men's bucklers, and once – only once – did he succeed in hooking his dagger past their defences and slashing open a bearded face.

Everywhere it was the same – brave Tlascalans uselessly assailing the bulwarks of the squares, which seemed as immovable and impenetrable as cliffs, and which yet bristled with fatal points and edges that cut men down like maize at harvest. Unlike Tree, Chipahua, Ilhuicamina, Shikotenka himself, and the rest of his squad, all of whom wore only sandals and loincloths for speed, many of the five thousand who'd come over the ridge to reinforce them carried wooden shields and wore wooden helmets and quilted cotton vests that could frustrate all but the hardest *macuahuitl* blows

and stop flint-tipped arrows. Such devices had served Tlascalans well in battle for centuries but proved useless against the white men's metal blades, which cut through them as though they were paper, slicing to pieces the soft human flesh and bone within, while the Tlascalans' own weapons were miserably ineffective, with even their arrows and spears and fire-hardened *atlatl* darts bouncing off the helmets and armour of the foe.

Now, suddenly, men within the squares lifted their fire-serpents to their shoulders again, and some were holding those strange little bows like the one the Totonac emissaries had brought to Tlascala as a gift, and then the crashing, rolling thunder echoed out as it had before and a storm of death tore through the Tlascalan ranks.

Shikotenka could only watch as close friends from his own squad, who'd lived through the raid on Coaxoch's pavilion six months before, were now smashed down – Tlachinolli and Camaxtli, Milintica and Huitzlin, felled by the spears and the swords, the fire-serpents and arrows of the white men. With a great

roar of fury, Tree was about to charge again, but Shikotenka held him back and ordered the standard-bearer, who'd stuck by him throughout, to signal the retreat.

Chapter Thirty-Four

Monday 30 August 1519 to Tuesday 7 September 1519

Discouraged by their losses, or perhaps by the timely appearance on the eastern ridge of Ordaz and the remainder of the conquistadors with the artillery and the baggage train, the Tlascalans abruptly disengaged, retreated up the side of the valley and streamed away westwards. Cortés watched them go, leaving the field in good order, and refrained from mounting a pursuit as he regrouped with Ordaz. The afternoon was already drawing on and the men and horses were tired after the sixteen-mile march from Xocotlan and the fight at

the end of it.

A harder fight than he'd expected.

Taking a quick inventory, Cortés found that a dozen of the Totonac auxiliaries had died and thirty more had been injured in the hand-to-hand fighting. Things had gone better for the Spaniards within the protection of the squares. Happily there were no fatalities, but twenty-three had been injured, two seriously. Since the army had no oil to dress their wounds, he ordered the corpse of a stout Tlascalan butchered and his fat used instead.

Scouts reported no further hostile forces massing in the area so, after La Peña had finished doctoring the wounded, Cortés marched the army out of the valley in the tracks of the retreating Tlascalans and occupied a deserted village offering a good defensive position on an eminence overlooking a stream. The inhabitants had departed in haste, leaving behind more than a hundred small dogs bred for food, and these the Spaniards killed, cooked and ate, having first posted a strong guard.

They were not disturbed that night but, before the men lay down in their armour to sleep, there was much talk around the campfires of the military bearing and superb discipline of the Tlascalans, and Cortés sensed an undercurrent of fear. The Spaniards had driven off an army of five thousand, but what if ten or twenty times as many of these ferocious fighters were to be thrown against them?

Since the only answer to such concerns was action, Cortés had the troops under arms and on the march again before dawn the next morning, Tuesday 31 August. After less than a mile they came under attack, this time by a smaller force than the afternoon before – at most a thousand warriors, who burst out from behind a low hill and threw themselves furiously against the column, battered the shield walls for a few moments, fell back and then charged in again.

The assaults continued in this manner, never halting but greatly slowing the Spaniards' advance, goading and infuriating them with spears and arrows, assaulting their ears with the screech of conches and the beat of drums. After each onslaught, the enemy withdrew to

cover in the broken rocky terrain and shadowed the column just out of musket range for a few hundred paces before charging in again. Finally there came a frenzied and sustained offensive. Upwards of fifty Tlascalans were killed and the rest of the force fled in apparent disarray into rough, broken country fractured by gullies and ravines.

'No pursuit!' Cortés yelled, 'keep formation!' But it was useless. With all the fighting and killing, after two hours of constant provocation, the men's blood was up, and hundreds of them raced after the bolting Indians into a narrow defile, only to come under immediate attack from a force so immense its numbers could not be estimated. The squares quickly reformed but the terrain made it impossible to deploy the cavalry or artillery to good advantage. Cortés again found himself with no choice but to keep moving, with his little army surrounded on every side, smashing its way through the swarming ranks of the enemy by force of arms and will, deafened by hideous whistles and war cries and the loud insistent beat of drums.

‘I see nothing but death for us,’ Meco muttered to Malinal. ‘We’ll not get through this pass alive.’

‘Don’t fear,’ she answered. ‘The caudillo will lead us to safety.’

In the thick of the fighting, Cortés yelled a warning that went unheard as three of his cavaliers, Miguel de Lares, Juan Sedeno and Jerónimo Alanis, charged a great mass of the enemy across a patch of open ground, only to falter and fail as hundreds of warriors rounded on them, laying hands on their horses. Somehow, slashing wildly with their broadswords, trampling their attackers beneath the hooves of their destriers, Lares and Alanis broke free, but Sedeno was not so lucky. His mare was pulled down under him by sheer weight of numbers and hacked to pieces by the Indians. He himself, though armoured, received so many wounds he was already half dead and being dragged away for sacrifice when Bernal Díaz and Francisco Mibiercas, at the head of a flying squad of twenty infantry, hewed a murderous path through the press of Indians and snatched him from his captors.

‘Fucking cavalry,’ complained Mibiercas as they surrounded the fallen mare, cut its girths so as not to leave the saddle behind and fought their way back to the shelter of the squares.

‘Fucking cavalry,’ Díaz agreed as Sedeno died in his arms. Eight of his squad had been injured – and all for what? A saddle!

Refusing to show the alarm he felt at the loss of another horse, and at the greater loss of the semi-supernatural status his cavalry had been accustomed to enjoy amongst the Indians, Cortés stayed mostly at the head of the column, riding repeated charges with Alvarado and Sandoval to clear space for the infantry to march through, but from time to time fighting his way back along the line of march to re-form and encourage the troops. ‘If we fail now,’ he cried, ‘the cross of Christ can never be planted in this land. Forward, comrades! When was it ever known that a Castilian turned his back on a foe?’

Such words were simple enough but, in the din of battle, confronted by the choices of annihilation or victory, they seemed to

touch the hearts and spirits of the men, and in this manner, careless of the personal risks he ran, Cortés finally shepherded the army through the canyons and ravines and out onto open ground. There the enormous numbers of Indians they faced, filling the plain ahead of them and sending up a great din, finally became clear. This was a far greater force than they had confronted at Potonchan – seventy thousand men at least, perhaps even a hundred thousand. But they were so many, and so close packed, a chaotic throng of helmets, weapons, banners, and brightly coloured plumes, that their very mass and bulk would now work against them, while the cavalry were at last on ground where they could serve their purpose, and the artillery, which the Tlascalans had not faced to date, could be deployed to devastating effect.

Some of the cannon had been left at Villa Rica, but Cortés still had two lombards and ten falconets with the baggage train, and had kept them all fully loaded with grapeshot, and well protected by infantry, throughout the morning's march. Now, using the cavalry

to disrupt the enemy formations and open a space for manoeuvres, he formed his men into a single large defensive square, ordered the artillery forward, recalled the horsemen out of the line of fire and let loose a devastating salvo.

The whistling grapeshot from the dozen guns was a fatal storm that tore through the massed enemy, killed hundreds at a single blow, littered the ground with bleeding and shattered bodies and opened up wide, undefended gaps in their ranks. Through these gaps Cortés sent his cavalry, lances thrusting, broadswords swinging, cutting down the dazed and disoriented Indians in an orgy of killing, while Mesa's gun crews worked feverishly to reload. Then a signal from the trumpeter called the horsemen back and the guns roared again.

It was not as it had been at Potonchan. There was dismay amongst the foe but no panic – not even when Vendabal let the dogs loose amongst them. But little by little the conquistadors won through and the Tlascalans began to move off the battlefield in as

good order as any trained and disciplined army of Europe.

Other than securing a few prisoners, Cortés ordered no pursuit, for a whole day had passed and his troops were so tired they could barely stand. He watched the enemy go with mixed feelings of vindication and admiration. It had been a close thing, but God and Saint Peter had given him victory again, as he had known they would.

* * *

An hour's march brought the army to a suitable haven in which to pass the night – a low hill crowned by a small stone temple, surmounted by a tall tower that seemed almost purpose-built for a sniper's nest. The place was named Tzompachtepetl, or 'the hill of Tzompach', according to the prisoners, and it appeared to have been deserted in great haste only moments before the arrival of the Spaniards. The temple had a bubbling spring in its courtyard and

was surrounded by well-made outbuildings, all easily defensible. Cortés had the whole complex fortified and lookouts posted before the sun had fallen below the horizon, then sent men out to loot the neighbouring village of the same name. This was also deserted, but caged fowl and small dogs were found in sufficient numbers to give the army a modest dinner.

Again the men slept in their armour, fearing an attack, but none came and, after taking his turn at watch, in the small hours of the morning Cortés lay down with Malinal in the single-roomed building off the courtyard he had requisitioned as his headquarters. He had remained outwardly cheerful and optimistic all day, knowing any sign of doubt or weakness on his part would rapidly infect the whole army, but he saw no need to hide his true feelings from this woman, who had done so much to help him understand the Indian mind, and asked her frankly: 'Can we win? I came here confident we'd find allies and instead we face a determined, resourceful, disciplined enemy. They seem to have no fear of us and

don't give credence to this nonsense about us being gods that works so well with Moctezuma.'

'I warned you not easy,' Malinal replied. 'Tlascalans are warriors, fierce and free. You must defeat them before they join you.'

'I've defeated them twice!'

'You made bleed,' she demurred, 'but did not defeat.'

'At this rate I wonder if I ever will. Three of the horses and that fool Sedeno killed in two days. Upwards of sixty injured. We can't go on taking such punishment for ever.'

'So maybe send prisoners with a peace message for Shikotenka?' Malinal suggested. 'Might work! I think his biggest fear is you are secret friend of Moctezuma. You need to show him that not true.'

Cortés's eyes were growing heavy. 'Very well,' he nodded, 'we will try.' Sleep swarmed over him like a hostile army and then at once he stood before a giant wall, a hundred feet high, made entirely of mother of pearl, surrounding a great city of spires and towers built on the sides of a hill. Set into the wall, and reaching to its full

height, loomed an immense double gateway with a wicket door, before which stood a familiar, glowing figure that was at once human and more than human.

Cortés fell to his knees. 'Your Holiness,' he said.

He felt Saint Peter's huge, calloused, soldier's hand rest in his hair, a burst of radiance filled his eyes and a jolt of some tremendous power, like lightning, suffused his body.

'Welcome, my son,' said the saint.

Cortés looked up as that massive hand was lifted from his head. 'Am I at heaven's gate, Your Holiness?' he asked.

'Do you doubt it?'

'It is just that you brought me here before, Holy Father, but the gate seemed different.'

'Heaven has many gates,' said the saint, 'and I hold the keys to them all. The day will come when I will admit your soul to take its rest here. But you have much work to do first.'

'All these months, Holiness, I have been vigilant for God. I have

thrown down the idols of the heathen as you instructed … '

'You have, my son, and heaven is pleased with you. But the task I chose you for will not be complete until the tyrant Moctezuma is laid low and the cross of Christ planted firmly in the heart of Tenochtitlan.'

'I work towards that, Holiness. Day by day I work towards it.'

'And you are working towards it here, amongst the heathens of Tlascala? Amongst these devil worshippers?'

'I hoped to make allies of them, Father, and bring them to Christ. I offered them words of peace but they rejected me.'

'They are a stiff-necked people.'

'Their resistance is fierce, Holiness. It seems I will be forced to defeat them utterly before they accept my friendship.'

'Then defeat them.'

'Such a defeat of so stubborn a people may not be accomplished on the battlefield alone. I will have to spread terror amongst them, lay waste their villages and homes and farms with fire and sword,

before they bow their stiff necks to me.'

'Do it,' the saint urged. 'Do it, my son! You have the blessing of the Lord.'

'Women will die, Holiness. Children will die. Is this not a sin?'

'When you do the work of God there is no sin in it. You must punish the wicked ways of the Tlascalans and lay my vengeance upon them. Only then will they hear your words of peace. Only then will they accept your mercy. But when that is accomplished, my son, remember what I told you once before. Move on with your army to the city called Cholula where I have prepared a great and terrible victory for you.'

The big hand was back on Cortés's head and, as he looked up into the saint's eyes, black as midnight, he saw reflected in them the fires of burning villages.

He awoke in the dark, calm, resolved, determined, and lay still for a few moments, listening to Malinal's soft breathing beside him.

He needed her for now. She was a good woman. She had been

baptised.

But she was and always would be an Indian.

He stood and strapped on his sword.

* * *

While his forces had been occupying the hill of Tzompach the evening before, Cortés had climbed the temple tower and looked west into the setting sun at the countryside that lay beyond. Unlike the wild moorland and broken ravines they'd passed through to get here, it seemed rich and well populated, with numerous farms, abundant plantations of maize and maguey, and many villages – small and large – perched on high points above wooded slopes and green valleys.

Now, before dawn on the morning of Wednesday 1 September, he announced his intention to mount a reconnaissance in force and quickly assembled two hundred infantry, ten musketeers, ten

crossbowmen, and five hundred Totonac auxiliaries, all armed to the teeth. So rapid was the muster, they were already marching down from the hill of Tzompach when the sun rose.

'What's the plan?' Alvarado asked him, riding at his side.

'You'll like it, Pedro,' Cortés replied. 'We're going to do some harm.'

An hour later, climbing silently up a forested slope, they reached a cleared hilltop occupied by a large village of perhaps five hundred wattle-and-daub huts. The few men in sight were old or infirm, the young and able-bodied having no doubt been conscripted into Shikotenka's army, but there were a great many women and children crouched around the cooking fires preparing breakfast.

Cortés levelled his lance. 'Kill them all,' he roared, as he spurred Molinero to a gallop.

* * *

They sacked and burned four villages that morning. Sandoval witnessed all the atrocities – feet and hands amputated, women raped and murdered, old men castrated, the noses and ears of children cut off – and although he did not participate himself, never once drawing his sword or bloodying his lance, there was nothing he could do to prevent the carnage.

By noon, knowing that Shikotenka must have been alerted by the plumes of smoke, Cortés led a forced march back to the camp at the hill of Tzompach. 'This morning's work too strong for your stomach?' he asked Sandoval.

'I didn't join your expedition to kill women and children, sir,' Sandoval replied formally, unable to bring himself to use the first-name terms they'd fallen into months ago. 'God will not forgive us for this.'

'Nonsense, man!' Cortés snapped. 'We've served God this morning and we'll be rewarded for it at the gates of heaven. We've caused some suffering – yes, I admit that. But by so doing we'll

shorten this war and save thousands of lives.'

'So you're saying, with Señor Machiavelli of Florence, that the end justifies the means?'

Cortés smiled. '"Every prince should desire to be accounted merciful",' he quoted, '"not cruel; but a new prince cannot escape a name for cruelty, for he who quells disorder by a few signal examples will, in the end, be more merciful."'

'I've read *The Prince*, sir, as you obviously have,' Sandoval replied, 'but I can't agree with that philosophy. Only bad things come from bad things, and what we did today, sir, with all due respect, was a bad thing.'

'And is it not a bad thing when we load the lombards and the falconets with grapeshot and mow down five hundred men with a salvo? Is it not a bad thing when we slip the leashes of the war dogs and encourage them to feast on our enemies? Correct me if I'm wrong, but were not you, yourself, the first of us to use the dogs in your battle with the Maya when you went to find Aguilar? I don't

think you hesitated then, when it came to saving your own life and the lives of your men, and I don't see why I should hesitate now.'

'But it's different, sir—'

'Look, stop calling me "sir", will you? We've been Hernán and Gonzalo long enough and I'd like it to stay that way, even if we disagree over policy.'

'Very well … Hernán. But it's still different. To kill men in the heat of battle is one thing. But to kill innocent women and children, to mutilate them, to rape them, to burn their villages and the crops in their fields – how can that be right? What outcome can possibly justify such wickedness?'

'I've told you. Peace! Peace soon. Peace now! An end to this brutal war with a violent and stiff-necked foe and an alliance that will make us strong enough to overthrow Moctezuma himself without further bloodshed. That's the outcome I seek.'

* * *

In the early afternoon, back within the fortifications at the hill of Tzompach, Cortés asked Malinal to select two of the prisoners to be used as messengers and bring them to him under guard.

Now they squatted before him in their Indian manner, eyes watchful, distrusting him, expecting violence. They both claimed to be minor chiefs, Malinal said, and had been confirmed as such by the others, so they would serve his purpose well.

'I'm releasing you,' he told them, 'to be messengers of peace to the courageous and honourable Shikotenka. You're to inform him – as our Totonac emissaries who he treated so badly have already done – that we are here in Tlascala to seek his friendship and make an alliance with him against the Mexica. He should not be misled because we have received hospitality from vassals of Moctezuma, for this means nothing. If that great fool wishes to feed and shelter us on our way to destroy him, why should we not accept? But destroy him we will, with or without the help of Tlascala, therefore it is surely better for Shikotenka to help us, and reap the spoils of our

victory against his hated enemy, than hinder us and gain nothing. You have seen now what we can do; you have seen our power on the battlefield and you must know we mean what we say. So know this! We will come to the city of Tlascala as friends to make peace, or we will come as warriors to vanquish you, but in the end it will all be the same. We will march on and we will destroy Moctezuma.'

It seemed that Shikotenka's war camp could not be far off because, two hours after nightfall, the messengers were back with his answer and repeated it exactly as he had given it to them. 'Shikotenka says this: "Come, white men, to the city where my father is. Come by all means! We will make peace with you there by filling ourselves with your flesh and honouring our gods with your hearts and blood".'

Cortés exchanged a glance with Malinal and Pepillo, who were again working together to render the translation into perfect Castilian. 'That's it?' he asked. 'That's all he has to say to us?'

'Not only that. Shikotenka said he plans to pay us a visit here

tomorrow to give us a longer answer in person, and we will see what it is.'

'High and mighty language,' mused Cortés. 'Sounds like a threat.'

'Undoubtedly it is a threat.'

Resisting an instinct to cut out the messengers' tongues and return them to Shikotenka choking on their own blood, Cortés flattered them with mild words and ordered Pepillo to go to the baggage and bring them some strings of beads, which they accepted with smiles. The presents were theirs to keep, he told them, but they were to stay in the camp, for he intended to use them as messengers again.

* * *

The next day, Thursday 2 September, arousing a chorus of furious barks and howls from the dogs, Shikotenka came to Tzompach with

a hundred thousand warriors. Their faces were painted with red bixa dye, which gave them, Sandoval thought, the look of devils.

Cortés would have ordered the cannon fired on them as soon as they came within range, had it not been for the fact that they were preceded by a long column of *tamanes* bearing bundles and baskets of food. 'Let them come forward,' he said. 'We'll see what this is all about', and the *tamanes* were allowed to wind their way up the hill. It soon became apparent that what they carried were hundreds of cooked turkeys together with baskets stuffed full of maize cakes. 'You see,' Cortés said triumphantly to Sandoval, 'our action yesterday worked. They want peace.'

But while the feast was being handed over, the huge warrior who had decapitated Olid's horse three days previously began to address the Indian ranks in booming Nahuatl and, as Malinal and Pepillo gave the translation, it became clear that no peace was being offered. 'What foolish and contemptible men these are,' the warrior roared with a dismissive gesture at the Spaniards, 'who threaten us without

knowing us, who dare to enter our country without our permission and against our will. Let us not attack them too soon. Let them rest and eat the food we've sent them, for they are famished. We don't want anyone ever to say we defeated them just because they were hungry and tired. Only when they've filled their bellies will we attack them, but then we will eat them and in that way they'll repay us for our turkeys and cakes.'

Sandoval turned to Cortés. 'So much for peace,' he said. 'Do you still believe good things come from bad things?'

* * *

Thus far, while allowing Pepillo to wear his sword, Cortés had ordered him to remain with the baggage train, well protected by a mass of infantry, though his index finger was fully healed now and he was eager to fight. Even so, he'd not been entirely insulated from the action, and had been given an oversized cuirass to strap on and

an ancient helm to protect him against the enemy spears and arrows that came raining in. Shrieking warriors had broken through the shield wall twice, but on each occasion they'd been struck down in moments by the guard and trampled to bloody pulp underfoot. They had got nowhere near Pepillo.

Today it looked as though he might be given a more active role to play. As the conquistadors prepared for the massive attack of the Tlascalan force, Bernal Díaz came to Pepillo bearing armour. 'Try this for size, instead of what you're wearing,' he said gruffly.

The padded lining of the cuirass he held out was heavily stained with dried blood. 'It was Sedeno's,' Díaz explained. 'He was about your height and he's got no use for it now. Try this too,' he added, handing over Sedeno's helm.

Pepillo strapped the armour on and the helm; both fitted him well. 'Thank you, Bernal!'

'But stay well back if you can. You've no experience in the line of battle and these Tlascalans are the very devil.'

Pepillo resolved that under no circumstance would he stay back – after all, he'd had no orders from the caudillo to say that he should – but he decided to do what he could to keep Melchior safe. Holding the dog by his leash, he sought out Malinal and asked her to look after him. 'Better you put him inside,' she said, pointing to an empty hut with a proper door. 'Maybe the caudillo need me any time.'

Pepillo nodded and, with some misgivings, closed Melchior away, blocking the door with a stone. Objecting to being shut in, the big lurcher barked indignantly and battered the door with his huge paws, but Pepillo was satisfied he wouldn't be able to break out. He looked over to the other dogs, straining at their leashes; they were in five packs of ten, evenly distributed around the low rubble wall, bristling with cannon, which the conquistadors had built to protect the summit of the hill. Amongst the handlers was Santisteban, who had been watching him and now gave him an evil glare.

All around the hill, their ranks stretching back miles in every

direction, the Indians were making a furious din but had still not attacked. Cortés had been watching them closely, even as the conquistadors made a hasty breakfast of the unexpected bounty of food. 'I've had enough of this,' he said. Pepillo saw his master summon Francisco de Mesa, the grey-haired chief of artillery.

'You're loaded with grapeshot?' Cortés asked.

'Loaded and ready, Caudillo.'

'Then fire on the bastards, Mesa, and may God save their souls.'

* * *

The first salvo, from all guns, did tremendous damage, but not to the tens of thousands of Indians clustered closest to the base of the hill; the incline was steep and the barrels of the falconets and the lombards could not be depressed sufficiently to be brought to bear on them. Further back in the packed enemy ranks, however, ragged gaps now appeared, a great shrieking and wailing filled the air and

the nearest warriors, ululating and blowing conches, charged up the hill into a withering volley of musket and crossbow fire. Men fell in droves, fouling the feet of those around them, but still the mass of Indians came on and, before the cannon could be reloaded, they'd reached the perimeter wall where the conquistadors met them with swords, pikes and spears.

Seeing a gap in the line of defence, Pepillo rushed forward, drawing his sword and plunged its point into the naked stomach of a painted, grimacing savage. He was startled by the wet suck of guts as he withdrew, seeing the blood gush forth, having no time to feel shock or revulsion that he'd just killed his first man, already raising his blade to parry a blow aimed at his head by another warrior, relieved that his attacker was immediately struck down by a Spanish pike.

From then on, as wave after wave of Indians surged up to batter at the defences and were again and again thrown back, Pepillo lost all track of time, and seemed rather to be embedded within an

endless nightmare present, surrounded by a sea of heaving bodies, his ears assaulted by the roar of cannons and muskets firing into the attacking throng at point-blank range, the clash of blades, the screams of the enemy, the battle cries of the Spaniards and the stinking sweet stench of blood and shit and piss. Many times obsidian-edged swords and spear points struck harmlessly against his armour, and thrice his unprotected arms and legs took cuts and stabs that he barely noticed, so intense was the press all around him, so urgent the need to stab and thrust, parry and block. Then, just when the Indian throng pressed closest and threatened to overwhelm the perimeter, the dogs were unleashed and tore into the attackers, a host of vengeful demons ripping out throats and bellies, feeding on spilled bowels, here worrying a man's face, there tearing open a thigh in a spout of arterial blood. And amongst them – how could this be? – Pepillo caught a brief glimpse of Melchior, his brindled body unprotected by armour, running in the pack with Jairo, the mastiff that had become his friend during the weeks he

spent with the hounds.

The onslaught of the dogs, coinciding with a powerful massed salvo of grapeshot from the cannon, broke the attack on the stronghold of Tzompach and the Indian horde turned and fled down the slope of the hill towards the plain below.

'Santiago and at them!' shouted Cortés, leaping into Molinero's saddle and jumping the huge horse clean over the perimeter wall, closely followed by Alvarado, Sandoval, Davila, Velázquez de Léon and the other cavaliers. 'Santiago and at them,' bellowed the men all around Pepillo, as he found himself amongst a mass of yelling, cheering foot soldiers running full tilt after the cavalry and the retreating Indians, who they pursued far out onto the flat land below until suddenly they rallied and turned upon the Spaniards with savage glee.

Even as Pepillo searched desperately for Melchior and could not find him anywhere in the bewildering, heaving melee, he noticed how the character of the fight had changed and wondered if the

Indian retreat had perhaps been a ruse. The cannon up on Tzompach could no longer be used for fear of hitting the Spaniards below, who now found themselves surrounded by numberless Indians with no barricade except their shields to protect them. Amongst the enemies were hundreds of slingers, who sent stones whizzing through the air, thick as hail. Men in full armour, their heads protected by steel helms, were struck down by lucky shots. Then there were the bowmen whose arrows, double-barbed and hardened in the fire, darkened the sky as they came pouring in, and again men fell and the ground underfoot sprouted with spent shafts, thick as corn waiting to be threshed.

While the Spaniards were thus discomfited, raising their shields to deflect the constant volleys of slingshots and arrows, disciplined bands of warriors charged in on them, trying their luck with spears and wooden broadswords, often seeking to lay hands on the defenders rather than to kill them immediately, no doubt intending to drag them off for sacrifice. But that tactic was their undoing,

opening them up to the furious thrusts of the defenders, whose blades of good Toledo steel cut through primitive shields of wicker and hide to kill and maim indiscriminately. Pepillo lost count of the number of men who came at him, tugging at his hair, his shoulder, his arm, with almost suicidal bravery, only to fall to his sword and be replaced by another. One sweating savage, his eyes rolling, the teeth in his gaping mouth filed to sharp points, did succeed in jerking him off balance and pulling him out of the line of defenders but, even as he stumbled, he lunged with the blade Escalante had given him, driving its point home through the Indian's exposed armpit and deep into his chest, causing him to emit a high-pitched screech of pain – *aieee!* – and let go his hold long enough for Pepillo to jerk his blade free and scurry back into the Spanish square.

Four defensive squares of different sizes had formed, an automatic tactic for the conquistadors, the moment the pursuit of the Indians fleeing out onto the plain had transformed into a massed counter-attack. Meanwhile the cavalry ranged free, the

thirteen remaining riders sometimes drawing up in line abreast and charging the Tlascalans with shocking effect, the ground shaking beneath the steel-shod hooves of the heavy destriers, sometimes wheeling round to defend the infantry squares where they came under heaviest pressure. As to the hounds, Vendabal and his assistants had lost all control of them, but the dogs knew what to do and darted amongst the enemy, protected by their own plate and mail and doing terrible harm. From time to time, Pepillo caught a glimpse of his Melchior, unarmoured, covered in blood – although whether it was his own or from those he tore and rent with his teeth was impossible to say. In the heat of battle, Melchior was fearless, and seemed to have turned feral, working with Jairo to hunt down and kill the enemy.

For a moment, despite shouts of warning from Cortés and the other captains, one of the squares was disrupted by a ferocious Tlascalan onslaught, five hundred men at least who fell upon the defenders and broke their shield wall, driving a wedge into their

midst. It seemed all was lost, but a cavalry charge spearheaded by Cortés and Sandoval, and incredible feats of swordplay, allowed the defenders to repel the screaming throng from their midst and reform their ranks.

The sun had begun to fall into the western half of the sky, and Pepillo was weary to his bones, dust clogging his nostrils, blood clotting and drying on his clothes, all the men around him in an equally exhausted and dishevelled state, their water bottles empty, the energy and even their courage flagging, when a further change began to come over the battle. It was not so much a single dramatic incident as something slow and evolving – a gradual, phased withdrawal of the Indian horde. For the past hour -- with great difficulty because their crews were under constant attack – six of the falconets had been brought down from the hill and deployed amongst the infantry, firing grapeshot out of the squares into the massed ranks of the enemy, killing so many that they could not be numbered and their bodies lay thick on the ground.

It seemed it was this, more than any other single factor, that had turned the tide, and the Tlascalan withdrawal, while never becoming a rout, grew increasingly rapid, so much so that Vendabal issued an order to call the dogs back. There were still sizeable bands of Indians retreating from the field, however, so groups of soldiers were assigned to protect the handlers as they pulled the dogs away from corpses they were feasting on. Pepillo had just spotted Melchior – Hemes and Julian had him and Jairo by their collars – when a disciplined group of the enemy, perhaps fifty in number, who'd seemed moments before to be in full flight, isolated Santisteban and Vendabal from the others and swarmed around them, seemingly intent on carrying them off.

It all happened very fast. The big dour conquistador Guillen de Laso, who'd several times taken Cortés's side in meetings to decide the future of Villa Rica, was placed to Pepillo's right. 'Santiago and at them,' he roared, raising his battle-axe above his head and charging towards the skirmish with the rest of those who'd

defended the square, Pepillo amongst them, streaming out behind him. At the same moment Melchior and Jairo tore themselves away from Hemes and Julian and raced to join the fray, Jairo taking the ankle of one of the Indians between his huge jaws, bringing the man down and leaping forward to seize his throat, while Melchior vanished into the throng around Vendabal and Santisteban, snarling and biting. Seconds later, Guillen de Laso threw himself into the fight and struck a series of huge blows with his axe, splitting men's heads like cords of wood. Pepillo was right behind him, the tip of his sword licking out. Several times he felt the shock of blows against his cuirass, but the steel saved him and he cut his way through to where Vendabal and Santisteban stood back to back, defending themselves with knives, both bleeding from multiple wounds, as Indians tried to grapple them and drag them off for sacrifice. But Melchior was amongst them, his jaws dripping gore, his teeth tearing their unprotected thighs and buttocks, oblivious to the daggers and spears that cut down at him as Pepillo rushed to his

aid, striking two men dead before Guillen de Laso's whirling axe drove the remnants of the band onto the swords of the other conquistadors.

Suddenly silence fell, and Pepillo dropped to his knees beside Melchior, urgently checking his bloodied hide for wounds. Miraculously there were only a few deep cuts; most of the blood, as he'd hoped, must have come from others. 'Good boy!' Pepillo said. 'Good boy!' The big lurcher, who had seemed such a fiend moments before, no less savage than any of the other war dogs, now wagged his long tail with evident joy at the praise and nuzzled Pepillo's face.

When he looked up he found Santisteban watching him. There was something unfathomable in his eyes. Was it sadness? Anger? Guilt? Jealousy? Pepillo was about to ask, but before he could do so the older boy turned abruptly and walked away.

* * *

All the horses and sixty-three Spaniards had been injured in the day's fighting, two of the foot soldiers so severely that they perished from their wounds. Cortés had their bodies buried in a deep hole with a mass of earth heaped over them to disguise the smell of rotting flesh.

That night he dreamed of Saint Peter again, and before dawn the following morning, Friday 3 September, he led a hundred infantry and five hundred Totonac auxiliaries out to lay waste the country, sacking and burning ten villages.

The largest of these, built at the top of a hill around a tall pyramid surmounted by a temple, had more than three thousand houses. There were no warriors but the priests and women put up a fierce resistance when they realised they were all to be killed. Cortés himself was attacked by a screaming mother who clawed his face as he picked up her infant by its feet to dash its brains out against a stone wall. After disembowelling her with his dagger, he finished off the child, just one of hundreds who died in the same fashion at

the hands of his men, and ordered all the priests thrown down from the top of the pyramid.

It was harsh, bloody, thankless work, but it had to be done. He was only glad he had not brought Sandoval along this morning to judge him. The man was a fine soldier, but seemed unable to grasp the finer points of the war of conquest in which they were engaged.

Cortés arrived back at Tzompach in the early afternoon, just ahead of a large enemy force that was repelled without further Spanish losses after five hours of fighting. Finally, in the evening, he called Pepillo and dictated some passages of a new letter he was preparing for King Carlos. 'I burnt ten villages,' he reported of the day's activities, 'in one of which there were more than three thousand houses. The inhabitants resisted us strongly but, as we were carrying the flag of the Cross and were fighting for our Faith and in the service of your Sacred Majesty in this your Royal enterprise, God gave us such a victory that we killed many of them without ourselves suffering any harm.'

After dismissing Pepillo for the night, Cortés summoned the two Tlascalans he had selected as messengers. 'Inform Shikotenka,' he told them through Malinal, 'that it is still our wish to treat the Tlascalans as brothers and we would never have harmed them if they themselves had not given us constant cause to do so. Inform Shikotenka that if he does not want to join us as our ally in our war against Moctezuma, and enjoy great glory and rich spoils, then we will not compel him. But in that case he must stand aside and not disturb us as we visit his capital and pass through his country on our way to Tenochtitlan. Tell him he must accept these terms, and accept them now, or we will kill all his people, leaving not a man, woman or child alive in the whole land of Tlascala.'

* * *

The messengers did not return, but the following afternoon, Saturday 4 September, fifty Tlascalans wearing robes woven from

black feathers, accompanied by five elderly women and a long train of bearers carrying baskets, appeared at the foot of the hill of Tzompach. Malinal called down to them and asked them their business and they replied that they had brought greetings and gifts from Shikotenka.

On Cortés's command, she told them to come up, and a few moments later they were admitted within the fortifications. 'Who are the ones in black feathers?' Cortés whispered.

'Supposed to be priests,' Malinal replied, 'but too clean to be priests. More like spies trying to find where we weak. See how they looking around!'

It was true, Cortés thought. Their eyes darted and wheeled everywhere and many carried battle scars – surely not usual for priests. The leader of the delegation had at some point in his life been hit across the width of his face with an edged weapon, probably one of the native broadswords. He had a huge puckered scar running from cheek to cheek and a hideous prosthetic nose

made from a mosaic of the green stone so favoured in these parts. Now he approached with the rest of the delegation, the old women and the train of bearers behind him, as Spanish soldiers armed with pikes, swords and battle-axes clustered round them and musketeers looked down from the temple tower.

'Welcome,' Cortés said through Malinal, who had now been joined by Pepillo. Cortés liked the way the pair worked together on the interpreting task, so as to give him translations in fluent Castilian. 'Do you have a message for me from Shikotenka?'

'Sir,' answered the man with the false nose, 'he sends these five slaves for you.' He gestured to the miserable, cowering old women. 'If you are fierce enough to eat flesh and blood, eat them and we shall bring you more. If you are a benevolent god,' he pointed to three of the baskets, 'here are incense and feathers for you. If you are men,' the rest of the baskets, numbering more than a hundred, were indicated, 'take these fowl and bread and cherries.'

'Tell him,' Cortés said wearily, 'he should release those poor

crones and that we are here on behalf of Christ and the king of Spain to teach him and all the people of this land not to sacrifice humans or eat human flesh any more. Tell him also that we are men of flesh and blood, precisely like him. Tell him this is the truth and that I have always told the Tlascalans the truth. Tell him that I wish to be their friend and that they should not be stubborn fools for they will only suffer greatly by more fighting. Have they not seen how many of them have died and how few of us. Do they really wish to continue in this way?'

'I will pass your words to my king,' said the man with the false nose, who gave his name as Ilhuicamina. 'Now, please, since you are men, eat of our bread, eat of our turkeys.'

While the baskets were unpacked, the delegates in the black cloaks wandered freely round the compound, looking everywhere, and Cortés, who seemed to have contracted a fever in the night, felt his mood suddenly darken. Malinal was right about these men. They were spies – he was sure of it now. They had entered his camp

under the guise of friendship and reconciliation, offering food, seeming to consider his proposals, and all for the purpose of treachery! With a surge of anger he ordered their arrest and placed them under strong guard, selecting one of the youngest, who gave his name as Yolotl, for interrogation. Despite loud protests from Ilhuicamina, this youth was taken aside into a small closed building, off the courtyard, where Cortés had him savaged by two ferocious mastiffs and interrogated through Malinal. Very quickly he admitted he was indeed a spy. He had come here with all the others to see and note the weak points in the defences through which the army of Tlascala might most easily attack and destroy the Spaniards.

More of the delegates, subjected to the same treatment, told the same story adding, furthermore, that Shikotenka was bringing ten thousand of his crack troops to attack the hill of Tzompach this very night.

It was enough for Cortés. Without further talk, ignoring their appeals, he had all fifty lined up in front of a chopping block,

summoned Guillen de Laso and ordered him to strike off their hands with his battle-axe. Many fainted as the blade came down and their bleeding stumps were cauterised with a bar of red-hot iron.

Ilhuicamina was the last to be brought struggling and kicking to the block. 'Why are you doing this to us?' he asked Cortés through Malinal. 'You speak to us of friendship, you speak to us of truth, you condemn our sacrifices and yet you cut off the hands of brave soldiers and upright citizens?'

'I do it,' Cortés fumed, 'because it is unworthy of brave soldiers and upright citizens to dress in the robes of priests and stoop to the odious stratagem of spying.'

Ilhuicamina did not cry out, did not say another word, when the axe fell. 'Tell Shikotenka we are ready to receive him in battle at any hour,' Cortés shouted, spraying spittle. 'By day or night, whenever he wishes to come, he will see what manner of men we Spaniards are.'

As the delegates left the hill of Tzompach, reeling with the shock of their injuries, their bearers and even the five old women who were to have been sacrificed hurried after them.

* * *

The priests, wizards and soothsayers of Tlascala had worked their witchcraft, consulted their charms, cast their lots and, at the end of it, told Shikotenka what he already knew: the white strangers were men, not *tueles* as the Totonacs claimed; they ate turkeys, dogs, bread and fruit; they spurned the flesh, hearts and blood of warriors they killed, and if he continued to fight them he would in the end defeat them. The sorcerers did, however, add one useful and novel piece of information – the formidable powers and great courage of the white men deserted them after sunset and in the night they had no strength at all.

Many Tlascalans disliked fighting at night when ghosts and

vampires walked abroad, but Shikotenka had never shared this superstition and, many times, though not yet against the white men, had led his warriors into battle during the hours of darkness. He therefore resolved to make a night attack on the hill of Tzompach. Even if the wizards were wrong – highly likely in his view, since they were rarely right about anything – things could hardly go worse than in the catastrophic battles he'd already fought against the white men in daylight. To be sure, they were not gods, but they seemed to lead charmed lives: their weapons, particularly the large fire-serpents, made them nigh on invincible, and their coordination and tactics were superb. Why, therefore, should he not try to take them at night? At least the sorcerers' mutterings would give his warriors heart, and perhaps the spies he'd sent in this afternoon with food and other distractions would gain useful intelligence on the state of the white men's defences. So he'd assembled ten thousand of his best warriors in a valley just out of sight of the hill of Tzompach, and now, as the day wore on, he waited for Ilhuicamina to return

and join the battle lines.

He did not have to wait long.

* * *

After sending the spies back to their master in a condition that would make any reasonable man think twice, Cortés mustered his entire force in the courtyard on the hill of Tzompach. 'Feast on the enemy's food,' he told them, indicating the generous heaps of turkeys and maize cakes. 'You'll need all your strength, for I have sure intelligence we'll be attacked tonight.'

'I thought these savages never fight in the dark,' growled Guillen de Laso, who stood leaning on the long haft of his axe.

'Don't speak of us as savages,' Malinal spoke up sharply, 'when you're savages yourselves.' She pointed to the bloodstained chopping block. 'To take men's hands like that. It's not right.'

'Tell her to hold her tongue, Don Hernán,' complained the

axeman. 'I'll take no lessons from a woman, least of all a woman of her colour and race.'

'Shame on you, De Laso.' Bernal Díaz strode furiously towards him. 'She has more manly valour than half of us soldiers. Though she hears every day how the Indians will kill us and eat our flesh with chillies, and though she's seen us surrounded in recent battles and knows we're all wounded and sick, yet she betrays no weakness.'

It was as though, Cortés realised, Pandora's box had been opened, as the argument between the two men spilled over into a general debate about the conditions that the Spaniards faced here at Tzompach. To his extreme annoyance, the endlessly vacillating Alonso de Grado, who he'd so recently pardoned for joining the Velazquista rebellion, seized this opportunity to press for an immediate retreat to Villa Rica, where they might sail the one remaining ship to Cuba to summon help. 'We're all weary and wounded,' he grumbled, 'some of us with two, even three wounds; some who will die soon if not properly tended to. We're all ragged

and sick from disease and chills and the cold of the mountains – yourself included, Hernán, if I'm not mistaken. It's going to be a tough business to march to Tenochtitlan and defeat the Mexica with their huge armies when we cannot even defeat the Tlascalans, who the Totonacs told us would be our friends! It's true God has given us victory in each battle, great and small, since we left Cuba, and by his mercy has continued to support us while we've been amongst these fierce Tlascalans, but we ought not to tempt him so often, or our fate might be worse than that of Pedro Carbonero.'

'This is unexpected from you, Alonso,' Cortés said, and his one-time friend, who had fair skin and thin blond hair, flushed with embarrassment and looked as though he wished he had not spoken. Still, the barb had sunk home, and a murmur of discontent swelled across the courtyard – for Pedro Carbonero, fighting to expel the Moors from Spain a century before, had unwisely led his men deep into enemy territory where they'd been surrounded and killed. Since then his name had been synonymous with any military venture that

overextended itself and ended in disaster.

Cortés was deeply hurt by the insinuation. He considered ordering De Grado flogged, or even hanged for incitement to mutiny in a time of war, but relented when he sensed the mood of the camp might not support it. 'Gentlemen,' he said, 'this is no time for such talk. We face imminent attack and we must prepare for it.'

Sandoval, Alvarado, Davila and Díaz had moved to stand at his side, De Grado mumbled an apology and Guillen de Laso laid down his axe. For the moment, as the men fell upon the food the Indians had brought, soon laughing again as they filled their bellies, the insurrection was over.

* * *

'Look what they've done to me,' Ilhuicamina said, hunched with pain as he showed his bloodied stumps. 'I won't even be able to wash my arse, let alone fight again. I might as well be dead.'

Speechless with rage, Shikotenka wanted to rush at once up the hill of Tzompach and butcher everyone there, but that was something easier thought about than done, and all around he sensed a loss of heart amongst his men. The harrowing battles they'd fought in the previous days, their friends and brothers killed, the villages and towns the white men had destroyed, the women and children they had so cruelly murdered, the strange and awesome weapons they deployed, the blast of death unleashed by their fire-serpents, and now this wicked harvest of hands – it all added up to something hitherto unknown, a dark and horrifying threat, the very shape of which defied comprehension.

'Not yet,' said Tree, as though reading Shikotenka's thoughts. 'Wait until dark, as we planned, when the white men are weak – then we'll have our revenge.'

'You don't really believe that, do you – that they'll be weak?'

'I believe it,' said Tree, his big scarred face showing no expression, 'and besides, the night attack will take them by surprise

– the way we took Coaxoch.'

Ilhuicamina groaned. 'No it won't! Some of our men were mauled by their wolves and gave away the plan. It's not a surprise. Not any more. We have to call it off.'

'Call it off?' said Shikotenka. 'Never. We wait until midnight, when the moon will be high. Then we go in.'

* * *

It was another disaster.

At first, as Shikotenka's warriors surrounded the hill of Tzompach and advanced slowly and stealthily up its sides towards the fortified temple, all went well. The compound was plunged in the deepest hush and it really did seem possible that the white men and their beasts slumbered, bereft of their powers, while lady moon reigned in the heavens.

Then, off on the left flank, a sandal slipped on the gravel and

there was a sliding, scraping fall followed by a burst of whispers and abrupt silence. Everyone stopped, ears straining for any hint of a challenge from above, but nothing came, nothing, and after a moment, cautious and careful, they began to climb again.

It must be true, Shikotenka was thinking, *they must lose their powers after dark* – for if it wasn't true, then surely their wolves, which the Tlascalans had already observed to possess the most acute senses, would have heard that clumsy fool and raised the alarm?

Except, of course, they had heard, because exactly at that moment there came an urgent, choking, coughing roar – the by now all-too-familiar sound the wolves made when the white men unleashed them – and suddenly the slopes were alive with the streaking figures of the powerful beasts, their armour glinting in the moonlight, their fangs like rows of arrowheads set in their great, gaping mouths, and a shadowy form leapt from above and bore Shikotenka down on his back in a cascade of furious snarls. Shikotenka heard screams of terror and agony all around as he

instinctively defended his face and felt the snapping teeth of the monster sink into his forearm and shake him violently, rending his flesh, spraying hot drool. He stabbed the creature once, twice, thrice in the flanks, but each time the blow glanced off its shining metal armour, leaving it unharmed, until Tree's huge hands appeared out of the dark, prised open its jaws, snapped its neck with a single mighty twist and smashed its limp body into the ground.

Shikotenka was scrambling to his feet when he heard the deep reverberating battle cry of the white men and saw a line of them, silhouetted by the moon, as they exploded out of the temple courtyard on the backs of their gigantic and unearthly deer. They came thundering down the hill like some unstoppable avalanche, and crashed into the already devastated and reeling Tlascalans, hacking and slashing with their glinting swords and forcing them back into the ranks below in a stumbling, chaotic, disordered retreat. Behind the riders came the foot soldiers, killing machines clothed in metal, wielding swords, maces and axes, grimly clubbing

and impaling and dismembering men, turning the retreat into a shambles and the shambles into a panic-stricken, terrorised rout.

Shikotenka could only run – as Chipahua was running, as even Tree was running, as all his ten thousand men were running – in a blundering, careening flight from the slopes and out onto the open, moonlit plain below, where the silver figures of the riders, fast as the wind, were already amongst the fugitives, cutting them down. Obedient to a trumpet call from the fortress, they called off the chase and returned to the hill for a brief moment, while the fire-serpents roared and flames belched forth and death whistled amongst the Tlascalans – taking some, leaving others – and then came thundering back, remorseless, unbelievably fast, easily overhauling the fleetest runners, giving no quarter, butchering them without mercy.

And Shikotenka ran as they all ran, weaving away from the shining riders, dodging and ducking their flashing swords, and the bile of dishonour rose in his throat and tears of shame leapt from his

eyes.

* * *

Cortés could not rest. Fever burned his brow, chills shook his body, fury churned in his heart.

In the slaughter of the night attack, hacking heads and necks until his arm grew weary, trampling the foe until blood drenched Molinero to his fetlocks, he had many times sensed the presence of a ghostly rider at his side, a rider with dark eyes and glowing skin and soldier's hands – Saint Peter himself, emerging from the world of dreams into the world of flesh to urge him on.

'Your work this night is not done,' the rider whispered when Cortés at last called off the chase. 'I have given you victory; now I would eat the fatted calf.'

'The fatted calf, Holiness?'

'There are towns nearby you have not yet attacked.'

It was true. On the previous days of raiding and burning, Cortés had seen and chosen to bypass three towns, one of them very large, all within five miles of the hill of Tzompach.

'Those towns,' continued Saint Peter, 'and all who dwell in them, are the fatted calf you must kill and offer up to me.'

Sudden understanding flooded through Cortés, energising and exciting him. An offering … yes … It was appropriate.

He stood in Molinero's stirrups and looked around. Bright moonlight flooded the plain where mobs of Totonac auxiliaries moved amongst the heaped bodies of the Tlascalan dead, looting their feathers and weapons. Alvarado, Velázquez de Léon, Davila and three other cavalrymen sat their horses in a line nearby. Two hundred infantry were forming up in their companies, making ready to return to camp.

'Our night's work is not done,' Cortés bellowed. 'I need a hundred volunteers to help me teach these Tlascalans a lesson they'll never forget.'

Alvarado trotted over on Bucephalus. 'Count me in, Hernán.'

'Me too,' said Davila, as the other riders followed suit and foot soldiers clustered close, eyes aflame with the lust of killing.

* * *

Much later that same day, Sunday 5 September, Cortés led the men back to the hill of Tzompach. The fatted calf had been killed and offered up in the greatest massacre of civilians Spanish forces had yet conducted in the New Lands. It had, he supposed, been a massacre of the innocents, but he felt no shame or regret, knowing he had done the work of God, commanded by Saint Peter himself, and there was no sin in it. Besides, good results had immediately been seen, results he hoped would bear fruit very soon. As he stripped off his blood-drenched armour and clothing, and bathed in the clear icy water of the temple spring, he took it as confirmation of the rightness of his policies that his fever had abated and he felt

well and strong again.

Bubbling with renewed energy, he selected two more prisoners, asked Malinal to give them a strong and passionate message of peace for Shikotenka, and sent them off with the hope that at last his stiff-necked enemy might see sense. Then he summoned Pepillo and dictated the next section of his letter to King Carlos, describing the cowardly night attack by the Tlascalans, the valiant Spanish counterattack that had driven the savages back with heavy losses and, finally, though he chose not to share every detail, the massacre.

'In the hours before dawn,' he intoned as Pepillo's quill dipped and scratched, dipped and scratched, 'I attacked two towns where I killed many people, but I decided not to burn their houses as the fires could have warned other towns nearby. At sunrise I came upon another large town, this time with more than twenty thousand houses. As I took the inhabitants by surprise, they fled their houses unarmed, and the women and children ran naked through the streets, and I began to cause them some harm. When they realised

there was no use in resisting, some men of rank came to me to implore me by signs not to harm them any more because they wanted to be my friends and vassals of Your Highnesses. They recognised that they were responsible for not having wanted to serve me, but assured me that thenceforth I would see how they would fulfil my commands made in the name of Your Majesty, and they would be your very loyal vassals. More than four thousand of them then came peacefully and they took me to a fountain where they served me a good meal and told me that the name of the town was Teocacingo. Afterwards I made them understand that they should go to Shikotenka, the Tlascalan Captain, and tell him of my mercy and urge him to accept my offers of peace. To this they readily assented and thus I left them pacified and returned to our camp … '

Malinal sat silently in the room while Cortés completed his dictation, and when Pepillo was gone and they were alone she asked: 'What words "some harm" mean, Hernán? How many you kill?'

Knowing she was still angered by his harsh treatment of the Tlascalan spies (would she have been happier if he'd executed them as they deserved?), he was tempted for a moment to be no more frank with her about the numbers than he had been with the king, but in the end he told her the truth. 'We killed about three thousand of them,' he said casually, 'before I accepted their surrender.'

'And if they no surrender, how many you kill then?'

'Many got away, but we'd rounded up more than ten thousand. I would have killed them all.'

'So this is your mercy they to tell Shikotenka? Cortés could have killed ten thousand but only killed three thousand?'

He narrowed his eyes. 'Yes. Do you have a problem with that?'

She sighed: 'When I came find you,' she said, 'I looking for god of peace; instead I found god of war.'

'I am a man,' he replied, 'as you know better than anyone else. And in this land steeped in blood and violence, I cannot be other

than a man of war.'

He drew her to him. She was disappointed with him, he knew, but she did not resist.

* * *

The next day, Monday 6 September, despite the great things accomplished for God and the king in the past twenty-four hours, Cortés was disgusted to learn that De Grado's faction was still agitating for an immediate return to Villa Rica and ultimately to Cuba. There were open murmurings amongst growing numbers of the men that their lot was no better, in fact worse, than that of pack horses, 'Because when a beast has finished its day's work,' grumbled Guillen de Laso, 'its saddle is taken off and it is given food and rest, but we carry our arms and wear our sandals both by night and by day.'

Others complained incessantly about the scuttling of the ships,

for the word was now generally out that their sinking had not been due to worms and rot but to holes drilled in their hulls on Cortés's orders. To be sure one vessel was left at Villa Rica, but it was only a caravel that could barely carry sixty men to Cuba. 'Neither the Romans, nor Alexander, nor any other famous captain,' said De Grado, renewing his criticism of Cortés, 'dared destroy their ships and attack vast populations and huge armies with so small a force as you have done. It's as though you are preparing for your own death, Hernán, and that of all of us. I beg you, preserve us by leading us back to Villa Rica, where we are at least amongst allies and won't suffer these unending attacks.'

Others – small knots and coteries of men who had plainly lost their nerve – were less forthright than De Grado, but their whispered complaints were noted and reported to Cortés by Alvarado and other loyal friends, though he told them to take no action. Passing one of the huts in the early afternoon to inspect the guard, however, Cortés himself heard the mutter of a group of

soldiers talking in lowered, conspiratorial voices, and when he paused to listen he clearly heard one of them say: 'If our captain wants to make a fool of himself by going where he can't return and getting himself killed, let him do it alone; we shall not follow him. If he wants to come with us, well and good, but if he doesn't, let's just abandon him.'

Mutinous, ungrateful bastards, Cortés thought.

He could feel it in the wind. If he failed to act soon, his ability to command the men would unravel, and all he had worked for, every gain he had won against overwhelming odds, would be lost forever.

* * *

Shikotenka sensed that all he had worked for – every gain he had won against overwhelming odds to secure the freedom and independence of Tlascala – was about to be lost forever. Despite the humiliations the white men had heaped on him time after time in

every battle they had fought, he was convinced that if he did not falter, did not lose heart, did not give ground, he would ultimately defeat them. They, too, were growing weak and demoralised after days of continuous fighting but, unlike the Tlascalans, they had no reserves and few reinforcements to fall back on, except the men in the distant fort on the coast near Huitztlan, no lands teeming with crops and game to feed them, and no populace – with the exception of the Totonacs, who counted for little – to support them. With hindsight it had been a boastful, stupid mistake to give them food, but he would not repeat that error. All he had to do now was keep the pressure up a little longer, perhaps even just one more big push would do it, and he could wipe them from the face of the earth.

The problem was that the mood of the Senate, never wholly in favour of the war, had turned decisively against him, and now his own father stood up, his wizened face set in a deep frown, to make the case for peace. 'Friends and brothers,' he began, 'you have seen how often these *tueles* who are in our country expecting to be

attacked have sent us messengers asking us to make peace and saying they have come to help us and adopt us as brothers. You well know that we have attacked them again and again with all our strength, both by day and night, and have failed to conquer them, and that during these attacks they have killed many of our people, our kinsmen, sons and captains, Now they are asking us for peace once more and the Totonacs who have come in their company say that they are the enemies of Moctezuma and his Mexica, and have commanded the towns of the Totonac hills and Cempoala itself to pay him no more tribute. You cannot forget that the Mexica make war on us every year, and you know that our country is so beleaguered that we dare not leave it to find salt, and therefore eat none. Nor can we look for cotton, and so we have little cotton cloth. If our people even go out to seek it, few return alive. Those treacherous Mexica and their allies kill them or make them slaves. Now all who have fought against the *tueles* – even you, my son,' he said, looking directly at Shikotenka, 'have spoken of their bravery

and their great skill as soldiers. It therefore seems to me we should be friends with them, and whether they are men or *tueles*, we should make them welcome and join with them in their war against Moctezuma.'

Shikotenka stood up. 'Father,' he said, 'I hear your words, but these men you say we should befriend are the same men who cut off the hands of fifty of our bravest warriors—'

'And those warriors,' interrupted Maxixcatzin angrily, 'were dressed as priests on your orders and entered the white men's camp as spies. That was unwise of you. That was inviting retribution. That put them in harm's way. We ourselves do not hesitate to execute the spies of other nations when we find them amongst us …'

'These men you say we should befriend,' Shikotenka continued, 'went at dawn to the town of Teocacingo and killed three thousand woman and children. Three thousand!'

'They might have killed more,' said Maxixcatzin. 'The elders of

Teocacingo themselves have come to us and said that when they begged mercy it was given to them and the killing stopped. They have offered themselves as vassals to the leader of the white men, who they believe wants peace. They urge us to do the same—'

'In other words,' spat Shikotenka, 'they advise us to surrender our dignity and our honour and live like dogs rather than see our houses destroyed and our women and children killed.'

'You are wrong!' exclaimed his father. 'Your pride prevents you from seeing the truth.'

Shikotenka bowed: 'Pray then tell me, honoured father, what is the truth?'

'The truth is that thousands of our women and children – in numbers far greater than the white men have killed – are seized every year by the armies of Moctezuma for sacrifice on the altar of Hummingbird. The truth is that we live lives of constant oppression and terror, and must fight for our liberty every day of the year, draining our wealth and our blood to keep Moctezuma at bay. The

truth is that peace and a military alliance with the white men offers us the chance, for the first time in our history, to defeat the Mexica and be rid of them for ever – and that, my son, will not be to live like dogs but rather to be a free people, a truly free people, as we have never been before.'

The debate went on throughout the day and far into the night as Shikotenka fought to convince the older chiefs of the appalling dangers that would follow from making peace with the white men and marching at their side against Moctezuma. No matter how attractive the prospect of defeating the Mexica might be, he believed that in the end Tlascala would only substitute a greater for a lesser evil, and that miseries such as the land had never before known would descend upon it and all its people. Far from the dawn of a new age of light and liberty that his father and Maxixcatzin foresaw, Shikotenka knew in his heart and his bones that the peace they sought would mark the start of an epoch of darkness and slavery in which the Tzitzimime, the monsters of twilight, would fall from the

sky, bringing ruin in their wake.

* * *

Detailing Totonac auxiliaries to stand guard, Cortés called a muster of all his troops at 8 a.m. on Tuesday 7 September. They met out in the open in the courtyard of the fortified temple on the hill of Tzompach under a bright morning sky. Cortés had slept well and felt rested and refreshed. He told the men to be at their ease and sit down: he had something to say to them and would like them to listen well.

'Gentlemen and friends,' he began, 'I chose you as my companions and you chose me as your captain, for the service of God and the increase of His Holy Faith, and also for the service of our king, and even for our own profit. I, as you have observed, have not failed or offended you; nor, indeed, have you done so to me, up to this point. Now, however, I sense a weakening among some of

you, and little taste to finish this war we have on our hands, a war which – with the help of God – we have now concluded—'

At this De Grado, who was truly asking for a good flogging, had the temerity to interrupt, saying there was no evidence whatsoever the war was concluded. True Shikotenka had not launched any assault yesterday, after the failure of his night attack, but this was most likely because the formidable Tlascalan leader was collecting his forces for another immense battle. 'In my opinion,' De Grado concluded, 'we should not stay for that battle. Let us leave now, for Villa Rica, while our way is still uncontested. We can take shelter there amongst our allies the Totonacs, until we can all be brought safe back to Cuba.' There was a murmur of support. Even Ordaz and Velázquez de Léon, whose rebellious spirits Cortés thought he had quashed for ever with the hanging of Juan Escudero, seemed to be edging to De Grado's side, though they had not yet spoken out openly in his favour.

'You are misinformed, Alonso,' Cortés told De Grado. 'If

Shikotenka and his captains haven't returned, I'd say it's because they're afraid to do so. We inflicted great losses on them in the last battles and they can't reassemble their followers after such massive defeats. I trust in God and our advocate Saint Peter that the war in this province is indeed over, but even if I'm wrong and we must fight the Tlascalans again, it would still be an error – a fatal error, I say – to retreat as you advise. Do you imagine if we turn back now we'll be allowed to disport ourselves in idleness and sloth amongst the Totonacs while we wait for sufficient ships to come out from Cuba to bring us all to safety? Far from it! I tell you, Alonso, if our allies who at present hold us to be gods and idols were to see us return to their lands too faint-hearted to visit Tenochtitlan, they would consider us cowards and weaklings and would rise up against us too. Since we told them to pay no more tribute to Moctezuma, they would expect him to send his Mexica armies not only to extort the tribute and make war on them, but also to compel them to attack us – which, in order to avoid destruction and out of their

great fear of the Mexica, they would certainly do. So where you expect friends, I say we will find enemies. And what would the great Moctezuma say on hearing we had retreated? That our whole expedition was a childish joke? What would he think of our speeches and messages to him? So, gentlemen, if one course is bad, the other is worse, and I say it is better to press on to Tlascala and thence to Tenochtitlan, overcoming all obstacles with the help of Saint Peter who gives us the strength of many. It is clearly true that wars destroy men and horses, and that we only sometimes eat well – I don't deny it! We didn't come here to take our ease, however, but to fight when the opportunity offers. Therefore I pray you, gentlemen, kindly behave like gentlemen. From now on, keep the island of Cuba and what you've left there out of your thoughts and try to act, as you have done hitherto, like brave soldiers … '

Cortés paused to let what he had said sink in; in the silence Bernal Díaz – a good man, one of the best! – raised his voice. 'Captain, don't trouble yourself a moment longer with the idle

chatter of doubters and fault-finders.' He glared pointedly at De Grado, who shuffled uncomfortably. 'Don't listen to their tales! I speak for the majority, brave and loyal soldiers all, and with God's help we're ready to act together to do what's right.'

'Thank you, Bernal,' said Cortés, meaning it, and a ragged cheer followed, quickly spreading through the crowd in the courtyard, gaining strength and volume. 'Thank you all.' He looked round and, as the cheering subsided, he drove home his advantage. 'From here to Tenochtitlan, where resides Moctezuma, of whose great riches and possessions you have heard tell, is less than a hundred miles – ' another cheer – 'and most of our journey thither is behind us, as you know. If we arrive there, as I trust in Our Lord God we shall, not only shall we win for our emperor and our king a country naturally rich, but a vast domain and infinite vassals, and for ourselves great wealth in gold, silver, precious stones, pearls and other jewels.'

Cortés paused again. The men were lapping it up now, daydreaming of treasure. 'All that aside,' he continued, 'we shall win

the greatest honour and glory that were ever won up to this time, not only by our own nation but by any other. The greater the king we seek, the wider the land, the more numerous the enemy, so much the greater will be our glory – "the more the Moors, the greater the spoils", as the old saying has it. Besides, we are obliged to exalt and increase our Holy Catholic Faith, which we undertook to do like good Christians, uprooting idolatry, that great blasphemy to our God, and abolishing the abomination of human sacrifice and the eating of human flesh – ' a glance at Malinal – 'which is so contrary to nature and yet so common here.'

Once more Cortés's eyes ranged across the men. 'So then have no fear,' he concluded, 'and do not doubt our victory. You vanquished the Maya at Potonchan, and in these last days you vanquished a hundred thousand Tlascalans, who are reputed to be fire-eaters. With the help of God, and your own strength, you will also vanquish the remaining Tlascalans, who cannot be many, as well as the Mexica, who are no better than they, if you will be strong

and follow me.'

As another cheer rang out, the dogs began to bark and howl; one or two of them at first, but soon the whole pack.

Up on the fortified walls of the compound, the Totonac auxiliaries were pointing out towards the plain, jabbering fearfully amongst themselves.

Then the Spaniards in the courtyard began to hear what the dogs had heard, carried far on the clear mountain air – the steady tramp, tramp, tramp of marching feet. As one man, they rushed to the barricades to see the whole vast army of Tlascala on the move towards them, bright with its plumes and banners, bold with its standards and weapons, not decimated in the fighting, but somehow reinforced to its original strength, a hundred thousand men painted for war, ready for battle and less than a mile away.

'Artillery!' Cortés shouted. 'Artillery!' But Mesa was already racing his gun crews into position, spinning the cranks under the huge barrels of the lombards.

De Grado sidled up to Cortés and shaded his eyes, looking out at the numberless ranks of approaching warriors. ‘Vanquished these fire-eaters, have we?’ he sneered.

Chapter Thirty-Five

Tuesday 7 September 1519

The guard's cruel eyes and harsh face brooked no compromise. 'You go this way,' he barked at the child as he wrestled her from her mother's arms. The mother resisted, tried to snatch her daughter back. 'And you go that way,' snarled the guard. He gave the woman a shove, sending her stumbling, and followed up with a kick to her buttocks that stretched her out face down on the ground.

They were at the edge of a crowd of at least two hundred women and girls amongst which many other guards, some of them women

themselves, were also at work, separating children and young teenagers from their elders. Shielded by invisibility, harder to catch than the morning air, Tozi had been amongst them for an hour, watching and listening, trying to work out what it was all about. The crude categories of separation that were being applied were intended to put virgins on one side and sexually active women on the other. Further investigation of the members of both groups was then carried out, and finally those confirmed to be virgins – the great majority being children under twelve years of age – were led off across the plaza to the women's fattening pen. During the seven hellish months that Tozi had spent in the same pen, it had contained females of all ages and sexual status, but now it was filled exclusively with young, virgin girls.

Nor was it the only pen re-dedicated to this very specific purpose. Tozi had acquired a further alarming piece of information in the past hour: two of the four pens on the other side of the plaza, which had previously held only male prisoners, had been emptied of

their former inmates and now also housed young girls. Adding all three together, she estimated close to six thousand virgins must presently be imprisoned, and awaiting sacrifice, around the plaza.

The child who had just been separated from her mother looked to be about eight years old. She had a sweet, innocent, serious face. 'No!' her mother screamed as they were forced further apart. 'No! She can't care for herself. She's simple. She needs me! For pity's sake let me stay with her.' But the guards were pitiless and the mother was beaten again and dragged away still crying out, 'No! No! Miahuatl. Oh Miahuatl.'

So … the girl's name was Miahuatl. Unseen, invulnerable, Tozi fell into step beside her as she was moved on with a dozen other children of about her age into the larger group, whose private parts were being exposed and inspected, like fruits at the market, by a coven of toothless crones.

How long had this been going on?

Perhaps as long, Tozi realised, as she had been away from

Tenochtitlan – and she had been away for a very great while. Except for the past thirty-five days, she had not kept an exact count, but she knew it had to be close to a hundred and twenty days since Acopol had seen through her invisibility and driven her in terror from Moctezuma's palace, and close to one hundred and ten days since she had last attempted to penetrate the palace and been driven back by the sorcerer's warding spells. Afterwards she had succeeded in her magical attack on Moctezuma during the summer solstice festival at the pyramids of Teotihuacan – even that was now almost eighty days in the past – then continued the quest for Aztlán and the Caves of Chicomoztoc that Huicton had sent her on, telling her to seek out the visions that would prepare her to confront Acopol again.

Well, there had been no shortage of visions.

In the desert, twenty days' walk north of Teotihuacan, while mortally stricken by the snake bite, she had left her body and wandered in spirit through a mystic labyrinth, where she met a

being dressed in red, a being in the form of a woman whose face she never saw but who told her she had found Aztlán and the Caves. All that had occurred in the realm of vision, while she drew close to death in the physical world, and she would certainly have died, and never returned, had she not been rescued in the desert by a group of Huichol medicine men, rightly known as *mara'kate* – shaman-priests – who restarted her heart, brought her spirit back into her body and took her under their care. With them she had travelled for eight further days through the hostile and dangerous Chichemec badlands on what they called their 'deer hunt', which was in reality an expedition to gather a year's supply of *hikuri*, the vision-inducing cactus that the Mexica knew as *peyotl* and that the Huichol symbolised as a deer.

'Why a deer?' Tozi had asked.

'Because,' the *mara'kate* replied, 'deer was the magical animal that gave *hikuri* to our first forefathers on their first hunt in the long ago.' And, even today, they explained, their strategy was to watch

for the descent of the deer from the heavens and mark the point where it alighted on earth 'for there, and there only, we will find *hikuri*.'

All this had sounded like so much foolishness, and Tozi might have laughed at the three wizened elders, had it not been for the fact that they, like her, knew how to work the spell of invisibility. They had used it, effortlessly casting the net wide enough to hide her as well as themselves, when a large band of Chichemec nomads had passed near their camping place the morning after they'd brought her back to life. Subsequently, as they led her through the desert, stopping here and there to gather *hikuri* buttons, they'd been obliged to deploy the spell many more times, for the Chichemec were in a boiling turmoil, ranging far and wide on the war path, and frequently threatened to discover them.

However, it was not their command of powers similar to her own that had persuaded Tozi to stay with the Huichol, but their story of a prophecy that spoke of her and of Acopol. She also

instinctively liked and trusted the three *mara'kate*, whose names were Irepani, meaning 'Founder', Taiyari meaning 'Our heart', and Nakawey, meaning 'Owner of the stars and water'. It was Nakawey who served as her interlocutor throughout the time she spent with them, for the others spoke no Nahuatl, but she noticed he consulted with them on almost every point before communicating with her, with the result that their conversations were often frustratingly long and convoluted.

The prophecy itself seemed simple enough: 'In the time of darkness will appear the harbinger of the light. She will fight against the evil one for the future of the world. By these signs you shall recognise her. She will be an orphan born of Aztlán. She will be a witch and the daughter of a witch. She will be a protector of children. She will be offered as a sacrifice to he who stands at the left hand of the sun, but she will escape this doom.'

'Have you escaped sacrifice?' Nakawey had asked at this point. Tozi confessed that she had been consecrated as a victim of

Hummingbird – whose name Huitzilopochtli meant 'Hummingbird at the left hand of the sun' – and that she had indeed escaped sacrifice.

Nakawey continued to recite the prophecy. 'She will be tested in battle', he said with a knowing nod, 'against one who shall be named Acopol, a man who is not a man, a sorcerer whose power comes directly from the evil one.'

'From Hummingbird?' Tozi asked.

'Yes, child. Acopol has sold his soul to Hummingbird in return for great power, and we have seen the result this past year amongst the Chichemecs, who he has driven to madness. At his urging they, who were once wild and free, now offer themselves as soldiers in Moctezuma's armies; at his urging they make war upon each other, tribe upon tribe; at his urging they eat the flesh of their own children; at his urging they have even ranged up into the sierras, seeking out the villages of the Huichol to take victims from us.'

Tozi did not tell the *mara'kate* that she, too, had received an

increase of her powers from Hummingbird. It was none of their business, was it? And besides, she would only use what she'd been given for good purposes – to serve the god of peace Quetzalcoatl – and never, ever for evil. But the one question in her mind was whether her powers were sufficient for the burdens she'd been called upon to bear. 'I've been tested in battle against Acopol already,' she admitted, 'and I failed. He defeated me.'

'Which is why we must help you, Witch of Aztlán.'

So she had walked with them for the eight days that remained of their 'hunt' in the desert gathering *hikuri*, and then for three more days as they had climbed into the high sierras, finally coming to the village that the *mara'kate* called home. There, after a two-day fast, when she was allowed only water for sustenance, they placed Tozi in a darkened room and made her eat twenty of the small, green *hikuri* buttons.

The visions that had followed had been terrible and strange, of a world utterly unfamiliar to her, a world devastated by pestilence and

famine and war, a world patrolled by huge devices made of metal that crawled across the ravaged face of the earth and screamed through the skies, a world in which there were no green places left, no fertile fields, no lakes or oceans teeming with fish – a world that seethed with death.

But while these visions were unfolding, Nakawey, Irepani and Taiyari sat with her chanting in their Huichol language, and their songs lifted her up out of that place and took to her a different world, a world filled with light and joy and peace where she witnessed the peoples of many different lands coming together in love, teaching one another, learning from one another, a world of abundance and beauty, teeming with vibrant and colourful life.

This was the first of her lessons and the *mara'kate* made no attempt to explain it to her, or any of the other wondrous mysteries she witnessed over the next seven days of continuous eating of *hikuri* and visionary ecstasy. Finally, at the end of it, they told her that her powers were stronger than their own, that they had been mistaken,

suffering from the sin of pride, in imagining they could tutor her, and that the time had now come for her to return to Tenochtitlan and fulfil the prophecy.

'But how does the prophecy end?' she asked, feeling disappointed and in some way cheated. 'You told me I would be tested in battle against Acopol, but you didn't say what the outcome will be. If I confront him again, will I fail again or will I win?'

'We told you the whole prophecy,' said Nakawey, his voice flat, his eyes narrowed, his wrinkled features expressionless. 'It says no more about you.'

'The whole prophecy? But what about the world – the future of the world that I'm supposed to fight the evil one for? Will it be that place of darkness that I saw, or that place of light?'

'We told you the whole prophecy,' Nakawey repeated. He looked to his left at Irepani and to his right at Taiyari. Irepani merely shrugged, but Taiyari hunched forward and said something in Huichol. His voice had a singsong quality, as though he were

reciting a verse.

'What did he say?' Tozi demanded.

'She will be an orphan born of Aztlán,' Nakawey translated. 'She will be a witch and the daughter of a witch. She will be a protector of children.'

The words from the first part of the prophecy! 'But that doesn't tell me what will happen and it doesn't tell me what to do,' Tozi protested.

Nakawey sighed. 'What Tayari means,' he said, is that 'you should go and protect children.'

* * *

Thirty-five days had passed since the *mara'kate* had dismissed her; thirty-five days of continuous walking, which took Tozi from the high sierras of the Huichols, through the burning deserts of the Chichemecs and finally back to Tenochtitlan. During the long and

arduous journey there had been a great deal of time for her to reflect on the meaning of her adventures and her visions. In Teotihuacan she had found her courage again, and amongst the Huichols she had learned that the only person she could depend on was herself. She could not make a better world come into being or prevent a worse one from being born; no prophecy could tell her what the future held for her. She did not know if she would face triumph or defeat when she confronted Acopol again, but until that day there was one thing she could do, and that was protect the little children who suffered under the knife of Moctezuma.

It was this thought, more than any other, that had brought Tozi directly to the fattening pens when, this morning, covered with the dust of her thirty-five-day journey, she made her way into the heart of Tenochtitlan, and crossed invisibly through the gates of the sacred precinct into the shadow of the great pyramid, with the temple of Hummingbird, towering on its summit, looking down on all.

There were dreadful memories for her here, from the time at the beginning of the year when she and Malinal had narrowly escaped sacrifice at the hands of Moctezuma and been separated from her friend Coyotl, a little castrated boy, mistaken for a girl, who she'd taken under her wing in the women's fattening pen. Afterwards, convinced he could not be dead, and that he, too, had somehow cheated the knife as they had, Tozi had stolen invisibly into every one of the fattening pens in Tenochtitlan, hoping to find him. But that search had proved fruitless and at last she'd turned her back on those places of terror that awakened such painful memories for her.

Now she'd come back, determined to spirit away whatever children she found here – to protect them the way she'd failed to protect Coyotl – only to discover they numbered in the thousands and that three of the five huge prisons within the sacred precinct, once mostly populated by adults, seemed to have been given over entirely to the selection and preparation of children as sacrificial victims.

What could this great change signify? What force had set it in motion?

It was not long before Tozi had the answer.

'Reckon we'll hit the target,' she overheard one of the guards ask another, 'before the god's birthday?'

'The full ten thousand? Reckon so. Just had orders to begin moving the men out of the last two pens tomorrow to make room for more girls.'

'Beats me where they're all coming from … '

'From all over! Increased tribute payments where we can get them, raids where we can't – Zapotecs, Mixtecs, Totonacs, Mazatecs, Purupechas, Tlapanecs, Tarahumaras, some Maya, some Tlascalans – though they're hard bastards to catch these days – some Huichols, even some Popoloca and Yaqui, I'm told.'

The target, Tozi was thinking, *the full ten thousand, the god's birthday*. And suddenly, as though a lantern had been lit in a dark room, it all made sense to her. Moctezuma was going to sacrifice

ten thousand virgin children to Hummingbird to mark the annual celebration of the war god's birth at the beginning of the month of *Panquetzaliztli*.

If it couldn't be stopped, this abomination would take place less than seventy days from today – and Tozi knew she was powerless to prevent it. Only Quetzalcoatl, the god of peace, could halt the bloodshed, but to do that he must reach Tenochtitlan in time.

When she'd left the city on her quest, the *tueles* had been far away on the coast, camped on the dunes near the town of Cuetlaxtlan.

Where were they now?

Chapter Thirty-Six

Tuesday 7 September 1519

'No!' Malinal screamed, running along the top of the wall in front of the guns, her skirts flying, fear giving her strength. 'Don't fire! Name of God, don't fire!'

Mesa's face, smudged with black powder, was set in an expression of fury. 'Get out of the way, woman.' He was holding a lighted taper a finger's width from the touchhole of one of the two huge cannons.

Malinal stood square in front of the barrel: 'No! No fire!'

'What's going on here?' It was Cortés, angrier than Mesa, thrusting himself forward, reaching to drag her from the wall.

She struggled with him. '*No, Hernán!* They fly peace banner.'

'What? What's that you say?'

'Peace banner! Blue! Four arrows, white feathers, point down.'

'You can see arrows on a banner at this distance?' Though well within range of the lombards, the nearest Tlascalan units were still more than half a mile away.

'I see very good. I sure of it, Hernán. Peace banner. Must not fire!'

Some doubt showed in his face. 'You're sure?'

'Sure! Fire now and lose chance of peace forever.'

'It's a trick,' scoffed De Grado. 'Don't fall for it, Hernán. Fire the guns before they're all over us.'

She saw Cortés narrow his eyes, squinting into the distance. 'I see the blue,' he said, 'but not the arrows.'

'I see arrows,' said Díaz. 'Four of them, pointed down.'

Sandoval agreed: 'I see them too.'

'It means peace,' Malinal said again. 'You must give them chance, Hernán. Hear them! Hear what they say.'

He frowned: 'I don't like it! They don't need their whole army to make peace. Shikotenka and fifty men of rank would be quite sufficient.'

Malinal was almost crying with frustration. 'They are Tlascalans! Tlascalans different! Do things own way in own country!'

The banner was now close enough for everyone to see, but the men advancing beneath it came on at a fast march and were dressed for war.

Cortés called for his horse and lifted Malinal off the wall. 'Ride with me,' he said. 'We'll talk to them.' He turned to Mesa: 'Hold your fire.'

On an afterthought he sought out Pepillo. 'Follow behind us,' he said. 'Don Pedro will bring you on his horse.'

* * *

They galloped down from the hill of Tzompach, Malinal before, Cortés behind, and as he reined in a few hundred paces from the Tlascalan front line, the whole army of savages came to a halt.

'Tell Shikotenka to come forward,' Cortés said. 'Just him. No one else.' As he spoke, he could already hear Alvarado with the rest of the cavalry riding to join him. He waved his hand, signalling them to stay back.

Malinal called out a few words in Nahuatl. Although her voice was steady, clear, proud and unafraid, Cortés could feel her lithe body trembling.

For a moment there was no response, and then from under the huge, fluttering blue banner, which did indeed bear an emblem of four white-feathered arrows pointed down towards the ground, a warrior strode forward. Dressed in sandals, a loincloth and a fine purple cloak, he was of middling height, perhaps a little taller than

Cortés, and powerfully built with lean, muscular legs, a narrow, athlete's waist and broad shoulders. His black hair was long, tied in braids, and he wore a scarlet headband into which was set a diadem of iridescent green and gold feathers. On his left forearm was a sturdy circular buckler of some dark wood painted with the white figure of a heron, its wings outstretched, perched on a rock. In his right hand he held a large native broadsword, its obsidian blades glinting black in the sun.

'Is he coming to make peace with me,' Cortés asked, 'or fight me?' But just at that moment, now less than fifty paces away, the advancing warrior paused, laid down his sword and shield, revealing bloody bandages covering a wound to his forearm, plucked a long flint dagger from his waistband and set it down also, then continued to stalk towards them. There was something of the panther about the way he walked – something dangerous, poised and confident.

'You think this is Shikotenka himself?' Cortés whispered in Malinal's ear.

'I sure of it.'

'Then we'll dismount.' He turned to where Pepillo sat with Alvarado and beckoned the boy forward. 'Get down off that horse and come with us, lad. Later I'll want you to write an account of what's said here, word for word. You can help Malinal put what this great chief has to say into good Castilian and, while you're at it, you can hold Molinero's reins and my sword.'

Vaulting from the horse, Cortés helped Malinal down, passed his sheathed sword to Pepillo, and stood waiting as the battle-king of the Tlascalans approached. His face was not handsome, but strong – a broad brow, a firm chin, high cheekbones, watchful oriental eyes, the nose somewhat flattened, full lips, a wide, sensual mouth. He was, Cortés thought, thirty or thirty-five years old – about his own age. And, like him, this was plainly a man of experience and calculation, a man who had lived in the world, a man who had killed and who had faced death, a man of decisive action. All this was written on his face and much else besides – pride,

humour, sadness, even a certain wisdom. Without having exchanged a word, Cortés found he liked him and sensed he could do business with him.

The usual introductions began, Cortés affirming that he was a man, that he came from a land, Spain, that lay far away across the sea, that he served and worshipped the one true God, and that he was vassal to the greatest and most powerful king in all the world.

Shikotenka, for his part, stated that he was a king and the son of a king, but that both he and his father ruled at the will of the people and the Senate of Tlascala, and could be removed from office and replaced at any time if they did not serve well. In his capacity as battle-king, he said, he was solely responsible for the decision to make war on the Spaniards, whom he had considered to be enemies as they came to his land from Xocotlan, and with a force of Totonacs, who were the allies and vassals of that tyrant and bully, Moctezuma. Above all, he said, he was a man who loved his country and he had fought Cortés not out of malice or wickedness but

because he wished to preserve the independence Tlascala had maintained throughout centuries of wars. 'Be not astonished,' he said, 'that we have never desired an emperor, have never obeyed anybody, and dearly love liberty, for we and our ancestors have endured great evils rather than accept the yoke of Moctezuma and the Mexica.'

'And now?' Cortés asked. 'What is to happen now between you and us?'

'You have not conquered us,' said Shikotenka, 'yet you have defeated us in many battles and have proved yourselves strong and invincible. Though we sent all our men to attack you and employed all our strength by night and day, we had no luck against you. Therefore our Senate has voted and the decision is made. We will have peace with you, we will become vassals to your king in his far-off land, and we promise to obey you and to serve you if you admit us to your alliance. In return we trust and require your assurance that you will respect our liberty and treat us and our women with

dignity, and cease to destroy our houses and fields, and that if we are attacked you will come to our aid.'

'And your army?' Cortés said. 'Why is it here armed for war when you seek peace?'

Shikotenka seemed in the grip of some powerful emotion, and there were tears in his eyes – the tears of a brave soldier humbled. 'My army is here for you to command,' he said simply. He dropped to one knee and, behind him, in silence, a hundred thousand men followed suit.

To his surprise, Cortés found that he, too, had begun to weep. 'I'll not have you kneel to me,' he said, and he reached for Shikotenka's hand and raised him up.

Chapter Thirty-Seven

Tuesday 7 September 1519 to Thursday 9 September 1519

'Where are they?'

Tozi stood before him, dusty and sweat-stained, as though from a long journey, lean, sunburned and strong. Yes, definitely, a new strength about her! Huicton did not know yet what had befallen her after he'd last seen her at Teotihuacan on the day of the summer solstice, but whatever it was seemed to have filled her with fresh resolve, restored her self-confidence and revived her courage.

'Where are who, my dear?' he asked. Taking advantage of a lull

in the flow of pedestrians passing him by, Tozi had materialised right in front of him as he sat on his begging mat on the south side of the city near the entrance to the Iztapalapa causeway. It was not his usual place, but he was here to observe the comings and goings of the spies who Moctezuma sent out daily to risk their lives in Tlascala following the progress of the Spaniards. The Great Speaker was in a state of abject terror about the white men he believed to be gods, and reports from Huicton's own network left little doubt why. Although massively outnumbered, Cortés's army had inflicted a series of bitter defeats on the Tlascalans, and in recent days had added to what must be a very painful experience for Shikotenka by massacring the populations of several towns and villages. Huicton had it on good authority that the Tlascalan Senate was about to order the battle-king to surrender – indeed, given the time it took for messages to go back and forth, he thought it likely that the surrender had already occurred. If and when that happened, Cortés would be able to add the Tlascalan forces to his own and march on

Tenochtitlan at the head of a vast army.

Tozi stamped her foot: 'I mean the *tueles*, of course. Where are they?'

'They are in Tlascala, my fierce friend. Now come, embrace me, as friends should who have not seen one another in a very great while. After that you will first tell me what you've been up to all these many months—'

'No, Huicton. This is urgent!'

'Nothing is so urgent that it excuses bad manners. So you will tell this old man your story, Tozi, patiently, in as much detail as you can bear, and then I will tell you about your *tueles*.'

She made a face and stooped to hug him. *The child has become a woman*, he thought as he held her in his arms. While she'd been away, though it would have meant nothing to her, she had passed her fifteenth birthday. He patted the rug beside him, and with obvious impatience she sat, folding her legs under her. 'There you are,' he said. 'Very good. Now you may begin.'

By the time they rolled up the begging mat in the late afternoon, Huicton had a good understanding of Tozi's adventures and experiences, and she knew everything that he knew about the movements of the Spaniards up to their latest battles in Tlascala. Huicton had also confirmed the awful truth she'd learned at the fattening pens, although he himself had been aware for several months of the unfolding of Moctezuma's insane plan, namely that ten thousand virgin girls were to be sacrificed to Hummingbird in honour of the war god's birthday during the four days before the start of the month of *Panquetzaliztli*.

'What you can do,' he told Tozi, 'what we can both do, is continue to undermine Moctezuma and help the Spaniards defeat him. Ishtlil has asked me to follow their progress, for he seeks an alliance with them, and I've learnt that everywhere they go they make an end to human sacrifice. Our best hope to save those ten thousand young girls will be to bring the Spanish soldiers into Tenochtitlan.'

'They are not soldiers! They are *tueles*! They are Quetzalcoatl and his retinue.'

'They *are* soldiers and I've told you before that the name of their leader is Cortés, not Quetzalcoatl. I've told you before he's a human being, not a *tuele*. Even so, he detests human sacrifice just as Quetzalcoatl did, so maybe that god does work through him and his men. Such questions are of small importance, in my opinion, so long as they help us end the wicked reign of Moctezuma.'

'Whether they're soldiers or *tueles*, they should be here now to stop the sacrifices,' said Tozi. 'Why are they wasting time fighting a war in Tlascala?'

Huicton frowned: 'They went there in search of allies but that stubborn fool Shikotenka turned against them.'

'And he's slowed them down! They're needed here. Needed urgently. If they don't reach us before *Panquetzaliztli*, all those girls will die.'

'Then we must pray they reach us in time,' said Huicton. He was

aware, even as he said the words, how calculating he was being – for he had a goal and a purpose that only Tozi could fulfil and this was the way he would lead her back to it.

'I want to do more than pray!'

Ah, he sighed inwardly. *That's my girl!* 'There is something you can do,' he now said, 'but it involves Acopol. Are you ready to face him again?'

'It's for that you sent me on my journey – to strengthen my powers so I could stand up to him.' She paused, seeming to collect her thoughts, then said: 'When I went away, Acopol was in Cholula. Is he still there?'

'He's still there and he's spent these months working a terrible and wicked necromancy, a patient, cunning magic intended to trap and destroy the Spaniards when they enter that city.'

'But will these Spaniards – I'm sorry, I can't call them that! These *tueles* – will they even go to Cholula?'

'Your friend Malinal has remained in contact with me through

my messengers,' said Huicton. 'She says that Cortés will surely go to Cholula when he's dealt with the Tlascalans.'

'I remember you told me she'd become his lover.'

'She has.'

'Then she should know, I suppose.'

'I believe she does know and that we would be wise, if we can, to try to neutralise Acopol. But he's far beyond my reach, Tozi. Only you, with your powers, might be able to get to him. So I ask you again, do you think you are ready?'

'I don't know if I'm ready,' Tozi said. 'I honestly don't know. But I do know I'm supposed to protect children, and if that means doing battle with Acopol again, then I'm willing to try.'

'The last time we spoke of Acopol,' Huicton reminded her, 'you said his magic still guarded Moctezuma in his palace, even though Acopol himself was in Cholula.'

'That's right, I was hurt badly when I tried to enter. But at least I proved at Teotihuacan that Acopol's magic wouldn't protect

Moctezuma outside the palace.'

'Indeed so,' Huicton chuckled, 'and the result is that the Great Speaker has confined himself to his palace like a frightened rat ever since! So it seems to me now that the first way to test your powers is to see what happens when you try to penetrate the palace again. If the warding spells that Acopol put in place still harm you, as they did before, then to go to Cholula and confront the man himself would surely be a hundred times more harmful.'

'But if I can get past the warding spells without being hurt?'

'Then that has to mean your powers have strengthened and, if that is so, then perhaps you could risk an encounter with Acopol.'

'And what would I do when I encounter him?' Tozi asked.

'Why, my dear,' Huicton said, 'you would do battle with him, of course, as you yourself have said. His powers come from the dark side of magic; your powers, I believe, come from the light. If you can overcome him, if you can foil his plans in Cholula, then you will render the greatest possible service to those ten thousand girls you

seek to protect.'

Even as he said it, Huicton hated himself, realising he might be sending Tozi to her death. At some level he hoped she would fail the test of the warding spells, in which case there would be no need to go any further.

But if she did not fail … ?

Well, if she did not fail, then desperate times called for desperate measures, and he knew that he must urge her onward to Cholula.

* * *

Tozi did not fail.

Two nights later, after visiting poor little Miahuatl in the fattening pen again to strengthen her resolve, she crossed the great plaza and slipped invisibly into the palace.

The warding spells were there! She could see them, smell them, feel them in the velvet darkness. They had shape and form, like

murderous spiders lurking in corners, like filthy cockroaches scuttling underfoot, like killers on the loose, but it was child's play for her to brush them aside – with a flick of her finger, with a wave of her hand; the gestures came naturally to her – and as she moved rapidly along the corridors and up the grand stairway that led to Moctezuma's sleeping quarters, no spirit knives and no spirit razors attacked her, her head did not burst, her brain did not bleed.

The heavily armed guards at the door saw nothing as she drifted past them and the door itself was no obstacle; it put up no more resistance to her invisible form than mist or a shower of rain.

Then she was within the vast high-ceilinged chamber, slipping silent as air across the polished floor, coming in a moment to the great bed where Moctezuma lay slumbering. She heard him mutter some indistinct phrase and started back in surprise. His eyes were wide open, moving rapidly from side to side, the whites gleaming in the light from the waning moon filtering through gaps in the window shutters. And not only his eyes! His lips and his tongue

were moving also and words, whispers, groans ushered forth from his mouth. Yet he did not seem conscious, either of her presence or of anything else in this world.

What was this? Tozi looked around and found the answer. An open linen bag hung loose in Moctezuma's limp hand. She reached out, making herself more substantial for a moment, took it and peered inside, seeing a few fragments of mushroom, sensing a bitter, earthy smell. The Great Speaker had been eating *teonanácatl* again, the flesh of the gods, his preferred means of communion with Hummingbird.

The thought struck her: *Is he talking to his god now*? She replaced the bag, faded back into full invisibility again, studied him closely and that was when, in an almost blinding flash, the vision came to her. The same vision that he was seeing – she was sure of it!

A vision of Cholula.

Tozi had been to Quetzalcoatl's city only once in her whole life when, years before, as a child of six, her mother had taken her there.

Even so, she could not forget that immense pyramid, so huge people called it a man-made mountain, except now she observed it from above, looked down upon it as though flying like a bird and saw the sacred precinct that surrounded the pyramid, filled with fighting men. On one side were the *tueles*, those white-skinned soldiers Huicton called Spaniards, a tiny force, no more than a few hundred strong, and on the other, swarming all around them, filling the precinct from wall to wall, were countless thousands of Mexica warriors. As the fighting reached its climax, and the resistance of the *tueles* faltered and failed, she saw Moctezuma's jaguar knights and eagle knights seize them and take them prisoner, trussing some in hammocks so they could not move, holding others like slaves at the end of long poles, with collars fastened tight round their necks, and leading them off towards Tenochtitlan for sacrifice.

'Will it be so, lord?' she heard Moctezuma mumble in his trance.

'It will be so,' another voice answered, a voice Tozi had heard before, deep and filled with such power it made her hair stand on

end.

There came a rumble of laughter that she knew Moctezuma did not hear, laughter that was intended only for her and, for a moment, just a fraction of an instant, Tozi saw Hummingbird again, looming over her like the shadow of death, and then he was gone.

Chapter Thirty-Eight

Friday 10 September 1519 to Monday 11 October 1519

'The Tlascalans, the men of Shikotenka, were completely annihilated. The *tueles* destroyed them. They trampled upon them. They blasted them with fire-serpents. They shot them with metal bolts. They pierced them with spears. Not just a few, but great numbers they destroyed.'

It was following this crushing defeat on the battlefield, Moctezuma's spies explained, as well as massacres in many of their towns and villages, that the Tlascalans had surrendered to the *tueles*

and made an alliance with them. Now the white-skins were free to come against Tenochtitlan, not only with their own small but mysteriously deadly army, but also with tens of thousands of Tlascalan auxiliaries to support them.

Moctezuma waited for the spies to complete their dismal and depressing report, then turned to Teudile, Cuitláhuac and Cacama, who he had summoned to join him in the audience chamber of his palace. 'What is your counsel?' he asked. He already had a plan but it amused him to toy with his three most senior advisers. 'Should we march out, do you think, and bring these *tueles* to battle?'

Teudile looked alarmed. 'The Tlascalan is a brave warrior,' he said, 'but he was helpless against them; they scorned him as a mere nothing. They destroyed him with a look, with a glance of their eyes. If we bring them to battle, will we fare any better?'

Teudile obviously did not think so.

Cuitláhuac made a strangled, furious sound. 'If Guatemoc was here with us,' he said, 'he would undoubtedly urge us to bring them

to battle and to do so while they are still far from our city—'

'Well he's not here with us,' snapped Moctezuma.

'It's moot anyway, my lord,' soothed Cacama. 'The *tueles* are in Tlascala, so they're already very close. I say let's make a virtue of necessity, allow them to come to Tenochtitlan as the legitimate embassy of a foreign king, and avoid battle with them if we can.'

Moctezuma smirked. Usually such news as the spies had brought would have plunged him into despair. But his spirits were soaring! The fattening pens were filling up with virgins to be sacrificed on Hummingbird's birthday, and the god himself had deigned to appear to him in the night, showing him again the vision of Cholula that he had shown him once before in which the *tueles* were vanquished by his brave jaguar and eagle warriors, captured by them for sacrifice, some trussed in hammocks so they could not move, others led away like slaves at the end of long poles, with collars fastened tight round their necks. To see that vision for the second time was to be reminded of the clear strategy it outlined – that the

tueles must be lured to Cholula where they would be defeated if they could be taken by surprise in the sacred precinct that Acopol had wrested from the god of peace with his magic and re-dedicated to Hummingbird. Ah, what joy to see that victory again! It had given Moctezuma hope, so much hope, that the prophecy of Quetzalcoatl's return would indeed be reversed at Cholula, the ancient city of Quetzalcoatl himself! 'It is fortunate,' he said to his councillors with an indulgent chuckle, 'since all three of you have different points of view and never agree on anything, that I have consulted with the god—'

'With Hummingbird, lord?' gasped Teudile.

'Of course. Who else? I consulted with him in the night and he showed me again what we must do to be rid of the white-skins forever.'

* * *

Pepillo felt that he was living through a time of miracles and marvels straight out of the pages of *Amadis*. He had fought in a battle against worthy foes and bloodied his sword – and lived! – and his faithful hound Melchior had fought and lived too. There was no doubt now – for Malinal had witnessed it – that Santisteban was the one who had opened the door of the hut where Melchior was confined on the hill of Tzompach, and let the lurcher loose, unarmoured, to take his chances in the melee. So there was a strange, fated irony in the fact that Melchior and Pepillo had been in the forefront of the rescuers who had saved Santisteban's life and the life of his cruel, twisted master, Vendabal. Pepillo was under no illusions that this would turn either of them into friends; more likely it would only serve to increase their enmity. He would have to be more on his guard than ever, just as Amadis, surrounded by adversaries, had ever been obliged to be watchful. But like Amadis, too, he resolved he would not allow himself to be tainted by hate or envy. Love, truth, chivalry, and a kind heart; these were the qualities

that would remain when all else was dust.

After the unexpected capitulation of Shikotenka and all Tlascalan forces on Tuesday 7 September, the Spaniards stayed in their camp at the hill of Tzompach for a further week, amply provided with food and other needed supplies from nearby towns and villages. Doctor La Peña had much work to do with the injured and the sick; almost all the horses required attention too, and all the weapons, particularly the guns, had to be cleaned and made good. Last but not least, Cortés wanted to be sure the peace was genuine and not some clever entrapment, so it was not until Wednesday 15 September that he put his soldiers on the march again. They proceeded at a leisurely pace, taking two days to cover the eighteen miles to Tlascala, and arrived in the capital around noon on Thursday 16 September.

Pepillo took delight in the noisy, festive exuberance of the occasion; the road into the city was lined on both sides for more than two miles by townsfolk who had come out to welcome them.

They blew conches and trumpets, scattered bright flowers from baskets, shouted cheerfully and showed every appearance of joy, their faces wreathed with smiles, despite the cruel nature of the war so recently fought. Because their enemies the Mexica exercised a monopoly on cotton, Malinal explained, these Tlascalans were dressed in costumes of maguey fibre, rather rough but nonetheless magnificently embroidered and decorated. And, as well as ordinary citizens of all ages, there were also many priests, some wearing robes of black feathers, others white surplices with cowls resembling those of Mercedarian friars. Like all priests everywhere in the New Lands, they were filthy and a stink of rotting meat hung about them; their hair was so tangled and matted with blood it could not have been combed without first being cut, and their ears were torn by frequent acts of self-mutilation. Pepillo could also not help but notice their long twisted fingernails that gave them the appearance of wizards from some gruesome fairy tale. But they carried braziers filled with live coals and incense, from which they wafted clouds of sweet-

smelling smoke, bowing their heads in humility to the Spanish soldiers as they passed.

Advancing ever deeper into the populous city, the thatched buildings of wattle and adobe became grander, many boasting flat roofs, crowded with spectators eager to catch a glimpse of the fabled strangers. Finally, on the approach to the centre, mighty stone temples appeared, painted in rich colours of red, blue and ivory, surrounding a giant pyramid on top of which stood a tower with a high conical roof, like a minaret, covered in gold leaf. The presence of gold caused much excitement amongst the Spaniards. Later that same day, as Cortés dictated further sections of his letter to King Carlos, he described Tlascala with its temples as larger, finer and more beautiful than Granada, which Spain had won back from the Moors less than thirty years before, and which Pepillo knew was renowned for its splendour and the glory of its religious buildings.

In the broad square in front of the great pyramid, with its lofty tower, framed in the distance by ranges of green mountains,

Captain Shikotenka stood waiting, flanked by two old men of noble bearing – his own father, Shikotenka the Elder, and the revered chieftain Maxixcatzin. They moved forward to greet Cortés as he dismounted, each one of them gravely embracing him and telling him, 'You are our brother now.' Then they led him to his quarters, close to the pyramid, where a number of very pretty houses and palaces, sufficient to lodge the entire Spanish force, had been prepared and decked with flowers. A tremendous banquet was offered in the open square, where the conquistadors and their Totonac auxiliaries were sumptuously fed on turkeys, maize cakes and fruits. Even the war dogs and the horses, Pepillo noted with amusement, were offered their share of the bread and flesh.

* * *

The first friction between the Spaniards and their hosts came two days later, Saturday 18 September, when Cortés made a tour of the

city. He was guided by Shikotenka, with Malinal, Father Olmedo, Alvarado, Sandoval, Davila and a number of the other captains at their side, and Pepillo tagging along to take notes. While they were viewing the temples near the pyramid, Bernal Díaz came running up, a little out of breath, and informed Cortés of a discovery made by some of his men. Not far away in a walled compound, areas of which were visible from the street, it seemed a large number of captives were being held for human sacrifice. 'Is this true?' Cortés asked Shikotenka and, with some reluctance, the Tlascalan leader agreed that it was.

Cortés's face clouded over. 'Take me to see these captives,' he demanded.

'It is not permitted,' objected Shikotenka.

'You are a vassal now of the king of Spain,' Cortés insisted, 'and you have given me your surrender. Everything is permitted to me. I want to see these captives.'

Again reluctantly, after much argument and explanation,

Shikotenka led the way into a dark warren of narrow streets lying to the south of the main square, and through the gates into a walled courtyard where hundreds of prisoners – men, women and children – hunched miserably in stout bamboo cages.

Pepillo felt shame at the massacres and atrocities he knew Cortés had committed during the war, but he was proud of what his master did next, for though it seemed to threaten the very fabric of the hard-won peace, the caudillo insisted that all the captives be freed at once and that Shikotenka should, on the spot, swear an oath in the name of his people that Tlascala would never again practise human sacrifice. Not only that, but Cortés seized the occasion to demand an immediate renunciation by the Tlascalans of all other aspects of their heathen religion, most notably their worship of idols, all of which must forthwith be smashed, followed by a full and complete conversion of the entire population to Christianity. If they failed to do so, they were bound to burn in hell, and Cortés did not see how he could maintain an alliance with such doomed sinners.

A huge argument ensued, Tlascalan warriors, gesticulating and shouting, began to crowd into the courtyard, many armed with native broadswords and spears; Alvarado and the other captains drew their own weapons. Díaz, who Cortés had sent off to bring reinforcements, returned – not a moment too soon in Pepillo's opinion – with two hundred Spaniards. At this point Shikotenka the Elder, Maxixcatzin and other Tlascalan chiefs also arrived and fell into urgent conference with the younger Shikotenka, while Pepillo overheard Father Olmedo urging Cortés: 'Wait, Hernán. This is not the way. I don't want you to make Christians by force. There's no use in overturning an altar if the idol remains in the heart. Give them time, lead them by example, and soon enough they'll feel the weight of our admonitions. Besides,' the friar added, raising a wry eyebrow, 'if you go on like this, the whole populace will rise in protest and then where will we be?'

After much more debate and rattling of swords, a compromise was reached that seemed to satisfy all parties. Shikotenka ordered

the freeing of the captives, 'Even though,' he said, 'many of them are Mexica and we will see them again on the battlefield.' He also promised the matter of human sacrifices would be discussed at the next meeting of the Senate, the supreme ruling body to which even he and his father, as Tlascala's elected kings, must defer. Cortés, for his part, agreed not to interfere with any other aspects of Tlascalan religion, to throw down no idols and to leave the temples and the worshippers within them alone. He begged of Shikotenka, and was granted, one small temple that would be cleaned and whitewashed forthwith for use by the Spaniards as a church.

Pepillo was relieved that the day had ended well and the next morning, Sunday 19 September, the first mass was heard by Father Olmedo in the newly dedicated church in which Cortés had installed a large cross and a statue and several paintings of the Virgin Mary. It was noted by all that Maxixcatzin attended the service and afterwards asked, through Malinal, for an explanation of Christian beliefs, which Olmedo was pleased to provide.

By the following Sunday, 26 September, the Spaniards were granted the further right to hold open-air services in one of the town's many squares, where public masses were thereafter celebrated daily for the army in the presence of growing crowds of Tlascalans.

* * *

Tozi had been badly shaken when the war god had revealed himself to her as she'd spied on Moctezuma's vision but, seventeen days later, after many more secret visits to the palace, she knew that she could delay no longer and must proceed to Cholula at once. The final impetus had come that morning when she'd witnessed a meeting between Moctezuma and Teudile, at which the Speaker had sent his steward on his way to Tlascala at the head of a delegation bearing rich gifts and promises for the *tueles*.

The whole thing was a plot, a trick, a subterfuge! To persuade the *tueles* to travel to Cholula, Teudile was to tell them three things,

all plausible, all seductive.

First – a sojourn in Cholula would allow trust to build between Moctezuma and the leader of the *tueles* who, as Huicton had said, had adopted the human name Cortés. Only once this trust was established would the *tueles* be allowed to proceed to Tenochtitlan.

Second – Cholula was the sacred city of Quetzalcoatl, whom Moctezuma believed Cortés to be. If Cortés were to refuse to visit Cholula, why then Moctezuma must needs doubt Cortés's identity as the avatar Quetzalcoatl. And if he was not the human manifestation of the Plumed Serpent, but a mere foreigner – and perhaps one with wicked intent – then why should Moctezuma allow him to move a step closer to Tenochtitlan?

Finally – if the *tueles* did go to Cholula, thus confirming the identification between Cortés and Quetzalcoatl and allowing trust to be built, then Moctezuma would willingly open the road to Tenochtitlan for them and, more than that, he would agree to become their vassal.

Tozi was convinced that such an offer, unheard of in the history of the Mexica, would surely lure the *tueles* into advancing their plan to visit Cholula, and if it did then truly, despite the terrible fear that held her back and had caused her to drag her feet shamefully, there was no time to lose. That fear, which she held deep in her heart and had hidden even from Huicton since she'd past his 'tests' with the warding spells, was simply and plainly that she was not yet ready – perhaps she would never be ready – to engage in magical combat with Acopol. Now, however, she resigned herself to her duty. The Huichol prophecy had named her as a protector of children, and the thousands in the fattening pens would be left defenceless if the tattooed sorcerer was not stopped.

She would stop him if she could, even if it meant she must lose her life. And because she believed that she *would* lose her life, and felt her doom swarming towards her like some unstoppable army, Tozi resolved to see Guatemoc one last time, despite the hatred she knew he harboured for the *tueles*, and to reveal herself to him before

taking the road to Cholula.

That was why, as evening fell, after saying her farewells to Huicton without telling him what was in her mind, she gathered the clothes she would need, mingled with the crowds going back and forth across the Tacuba causeway, and made her way out to Cuitláhuac's Chapultepec estate, where Guatemoc remained a house prisoner. She would reveal herself to the prince, she decided, and she would make love to him if he would have her, because never before had she known a man in that way and it would be sad to depart this world for the next without having done so. Besides, if it were permissible for Malinal to become the lover of the *tuele* leader, then surely it was permissible for Tozi to surrender her virginity to the noblest warrior of the Mexica?

For many hours she waited invisibly within the mansion for Guatemoc to be alone and finally, after midnight, she followed him up to his chamber. There she waited again – for the handsome prince stood for a long while gazing up at the waxing moon riding

high in the heavens – and finally, as he removed his clothing and stepped naked towards his bed, she materialised by his side. She had taken the precaution of wearing the finery and make-up of the goddess Temaz in which he had seen her before, but even so her sudden appearance startled him and he took a step back in surprise, then instantly dropped to one knee before her. 'My Lady,' he said, his head bowed. 'It has been many months since you graced me with your presence. I am honoured that you choose to visit me now.'

She reached out a hand and raised him, aware that she was trembling as he towered over her. 'Prince Guatemoc,' she said, 'in the next days I may die and, since I love you well, and may not see you again, it is right that I tell you the truth.'

'You cannot die!' he replied. 'You are a goddess.'

'I am no goddess, my prince! I am a simple girl blessed, or perchance cursed, with certain gifts. But know this, should you to attempt to detain me now, or in any way betray the trust I place in you, I shall vanish without a trace as suddenly as I appeared.'

The prince looked down at her, his eyes wide. 'I will not detain you, lady! I will not betray your trust! You have my word of honour on this for, whatever you are, or may be, I know with certainty you saved me from poisoning at the hands of Moctezuma and healed me from the grievous battle wounds I suffered. These great debts that I owe you would be ill repaid if I were to seek to do you harm now!'

'Would you still feel that way,' Tozi asked, her heart suddenly thudding, 'if I told you I am a witch.'

'A witch?'

'Yes, my prince, a witch. A witch who can render herself invisible. A witch with the gift of healing.' Tozi was preternaturally aware of the virility of the man who stood over her, of his handsome face, of his scarred and muscled body, of his big, heavy *tepulli* hanging between his legs, and of the power and charisma he radiated.

'A witch?' he repeated. 'Such a revelation would not change my feelings towards you at all, my lady, for I have long suspected it.' He

grinned suddenly: 'Tell me, are you that witch who's been driving my wicked uncle mad?'

'I have done Moctezuma harm at every possible opportunity,' Tozi admitted.

Guatemoc's grin widened. 'It was you, then, who shamed him at Teotihuacan?'

'It was me,' Tozi allowed.

'Then I love you even more than I did before,' laughed Guatemoc, 'and my debt of gratitude to you is all the greater for every bit of distress you've caused that evil fool!' He reached out to her, wrapped his arms around her and held her close. She could feel his *tepulli* growing but then he stepped away, his features suddenly serious in the moonlight. 'I hope,' he said, 'that you've not come here to try to talk me into making war against the lord Hummingbird as you did once before, for if that's the case, my answer has not changed.'

'No,' Tozi said. 'I've not come here to ask you to make war. I've

come here to ask you to make love to me.'

* * *

The sorcerer Acopol descended the long northern stairway of the great pyramid of Cholula with an easy, loping stride, the stride of a powerful animal, a predator, a killer.

Two nights had passed since Tozi had allowed Guatemoc to take her to his bed and her loins still ached at the memory. But, after leaving his quarters at Chapultepec before dawn the next morning, she'd rid herself of the finery of Temaz, put back on her beggars' rags and struck out at a fast pace on the road to Cholula.

She'd arrived here in the night and had already confirmed that extensive preparations were being made in the city for an expected visit by the white-skinned strangers who everyone thought must be *tueles*, perhaps even the companions of Quetzalcoatl himself, the god of peace to whom the great pyramid of Cholula had been

dedicated in a former epoch of the earth. The preparations, however, were not friendly, as might be expected in Quetzalcoatl's own city, but hostile, with camouflaged pits dug in the streets to trap the strange deer on the backs of which the *tueles* were said to ride, and heaps of stones stockpiled on the flat rooftops to hurl down on them as they passed by.

Moreover, as Huicton had rightly informed her, an altar to Hummingbird had been raised on the towering summit of the pyramid, and there it had been her painful duty that morning to watch the tattooed sorcerer Acopol perform the loathsome ceremony of human sacrifice, taking the hearts of twenty young men and holding the dripping organs up to the rising sun. Such a thing had never happened in Cholula since time began, and Tozi understood in the depths of her being that what was being nourished by these acts was black magic of the worst kind – a shocking and corrupt inversion of everything Quetzalcoatl stood for, everything he represented, so that when the *tueles* came they could

not draw on his power.

Reaching the bottom of the steps, Acopol turned right across the sacred plaza towards the palace of Tlaqui and Tlalchi, twin rulers of Cholula. The sorcerer's route, Tozi saw with alarm, would take him within a few paces of the corner where she sat on her begging mat beneath the overhanging roofs of two small temples.

He wore only a loincloth but, as she remembered so vividly from their last encounter, his entire body from his feet to his shaved head was covered in such a dense web of swirling interwoven tattoos that he seemed to be almost entirely black, black as a jaguar in the depths of the jungle – the creature she had seen him transform into that night in the courtyard of Moctezuma's palace. Behind him, in their filthy robes, followed the four priests of Hummingbird, who had assisted him with the morning's sacrifices, while the crowds of pilgrims paying their devotions in the sacred precinct shrank back.

Tozi, with her eyes to the ground, felt a prickle of fear run down her spine as Acopol approached, his bare, blood-smeared feet

padding almost soundlessly across the flagstones. She had expected he would simply pass by and that she could observe him surreptitiously while she herself, just one more insignificant beggar amongst a hundred, would not be observed, or even noticed.

But that was not what happened.

Instead, with an awful inevitability, Acopol stopped directly in front of her, and loomed over her. She could feel his eyes boring into the top of her head.

'You, girl,' he said. 'What's your business here?' His voice was soft and mellow, rich and warm.

'I am Tozi,' she replied, 'a beggar seeking the charity of the god.'

'Look at me, Tozi.'

'It would be impertinent, sir, for me to gaze on a great one such as yourself.'

'But you are here to gaze on me, are you not?'

'No, great sir, I am here to beg.'

'I think not. You are here to observe. You are here to spy on me

as you did once before.'

Tozi's eyes were still downcast, but she sensed the four priests manoeuvring into position around her. Her heart was beating fast, so loudly she knew the sorcerer must hear it, and though the morning was cool she felt a fat bead of sweat roll down her cheek. 'No, sir, I am here to beg, to beg only.'

'I said *look at me*, girl,' the voice was suddenly harsh. 'So you will *look!*'

Reluctant, but unable to resist, Tozi obeyed and saw the hidden nature of the man standing before her. He had the lean, rangy body of the race of nomads from which he sprang, the Chichimec people of the northern deserts, but his yellow eyes burned like molten gold out of a broad, flat, cruel face, writhing with intricate tattoos that twisted and intertwined, as though filled with a life of their own, revealing, in their dots and swirls and tendrils, a thousand transient, half-recognised shapes and forms.

The priests were moving again, moving in to seize her. Knowing

she had gravely miscalculated, that visible or invisible she would always be a torch burning in the darkness to a man such as this, Tozi willed herself to fade as she had done a hundred times before, felt the hands that had reached out to grasp her close on the empty space where she had been, and heard the astonished, cheated shouts of her would-be captors.

She glanced back as she fled.

Behind her, undoubtedly *seeing* her, its golden eyes fixed on her with furious intent, loped a huge black jaguar. It was gaining on her, closing the distance between them too rapidly for her to escape. The creature opened its jaws and something, some shadow, some darkness, poured forth from its mouth, enveloping her in a mesh of fine black threads as sticky and entrapping as the web of a spider.

With a cry of terror, Tozi felt her strength drain from her and was dragged back against her will into full visibility. Dazed, confused, more afraid than she had ever been in a lifetime of fear, she found herself lying at the foot of the great pyramid of Cholula,

with Acopol, once more in the body of a man, standing over her.

His face squirmed with triumph: 'You're mine now,' he said, as Hummingbird's foul priests swarmed round her, each one seizing an arm and a leg.

It was, Tozi realised with abject horror, the position of sacrifice.

* * *

On Wednesday 29 September, around mid-morning, Shikotenka visited Cortés in the palace he had been given for his headquarters. Their argument over religion had subsided. What had replaced it was a growing practical cooperation – Cortés did not imagine it was a friendship such as he was beginning to enjoy with Maxixcatzin – over the strategy that must soon be pursued against the Mexica. 'It's as I predicted,' Shikotenka now said. 'A delegation from Moctezuma has arrived under a banner of truce. They want to talk to you, Hernán. Do you want to talk to them?'

Cortés thought about it, his mind racing. He still didn't trust Shikotenka – perhaps he would never completely trust him; the man had too free and independent a spirit. And he wanted to be able to continue to play a devious game with the Mexica, assuring Moctezuma of his warmth and good feelings towards him, acting the part of an ambassador come to exchange gifts, and not suggesting for a moment he intended to conquer his kingdom and take the Great Speaker himself dead or alive. At the same time, Cortés had promised Shikotenka this was exactly what he was going to do, and that if the Tlascalans honoured their alliance with Spain, their reward would be the utter destruction of the hated Mexica and the death of Moctezuma. How much more difficult it would be to maintain such diametrically opposed positions with both parties in earshot of each other.

He smiled: 'Yes, Shikotenka, allow them to come. Let's see what Moctezuma has to say for himself now.'

* * *

'You're mine now.'

Hummingbird had used the same words all those months before when he had reprieved Tozi from sacrifice on top of the great pyramid of Tenochtitlan.

But today it was Acopol who claimed possession of her and, on his orders, the four strong young priests of Hummingbird were carrying her like a sack of maize into a corridor concealed behind a false wall beneath the eastern stairway of the great pyramid of Cholula.

Tozi struggled, but could not break free. She willed herself invisible but could not fade. She tried to send the fog but it would not come.

'Your powers have deserted you,' said Acopol, who was walking ahead holding a burning brand. 'I've put you under an enchantment.'

Tozi knew, without having to ask further, that what he said was true. Where magic had once been alive within her, she now felt only a numb, blank emptiness, so if she was going to escape it would have to be some other way. Craning her neck she saw the corridor she was being carried along was so narrow and cramped that the priests and the tattooed sorcerer had to stoop. The rough-hewn rock walls pressed in on them on both sides. 'Where are you taking me?' she asked, despising the edge of fear in her voice.

'The cave of the serpent,' said Acopol. 'The pyramid was built on top of it. In fact it's the reason the pyramid is here. It's the original sacred place of Quetzalcoatl. I had another girl set aside for this sacrifice, but when I saw you this morning and looked into your mind, I knew you'd be much more effective.'

Tozi struggled again but the priests held her firm; their stink filled her nostrils.

'We're not going to cut out your heart,' Acopol reassured her. 'Yours will be a sacrifice by slow starvation, a much worse death

really.' He laughed – a horrible sound in this echoing place. 'As the vitality drains from your body, the power of Quetzalcoatl too will drain away.'

An immense stalagmite in the shape of a coiled boa constrictor gave the cave its name. A pile of quarried stone blocks stood at the end of the corridor, ready to wall in the victim. Acopol lit three other torches from his own to reveal a very large, high-ceilinged, irregular space, at least two hundred paces across, with several smaller lobes or alcoves branching off the main central chamber. 'Your tomb,' he said with a flourish, as the priests threw Tozi down at the base of the stalagmite. Then, while they tied her wrists and ankles and set to work building the wall with trowels and cement, he recited a lengthy rhythmic incantation in a language she did not recognise. Finally, without further explanation, he turned his back on her, walked off down the long corridor and was gone.

'Release me!' Tozi ordered the priests, putting all her will into a spell of commanding, but they ignored her and she understood

again, with a tremendous, plummeting sense of despair, just how completely, and with what ease, Acopol had stolen her power. She was, truly, a witch no longer, and what was being done to her was going to be done and she could not prevent it. So while the priests cemented the final blocks in place and the light of their torches yet reached into the chamber, she looked round urgently for something, anything that could help her. At five different points on the cavern walls she saw glistening streaks of water that seemed to be seeping down from above and marked them in her memory. If she could slip her tethers she would, at least, not die of thirst. She also thought she felt a current of air blowing not only along the entrance corridor but also from the opposite direction, much deeper inside the cave. This too gave her a thread of hope, and when the last block was cemented into position and complete darkness fell, she refused to let panic take her but began work at once, twisting and turning to loosen her bonds.

* * *

'The lord Moctezuma sends his compliments,' said Teudile, giving his hollow-cheeked, insincere smile, 'and more medicine for your disease of the heart.' He indicated four large baskets that his bearers had placed on the floor of the audience chamber of Cortés's Tlascalan palace.

'My gratitude to the great Moctezuma,' Cortés replied as Alvarado leaned down to open the baskets, which were filled with small gold ingots in the shape of shrimps. 'This medicine will serve us well.'

Alvarado was already weighing the baskets on the expedition's scales. 'There's two thousand ounces here,' he declared after a moment, his eyes glittering with greed and calculation. The other Spanish captains, Davila, Velázquez de Léon, Ordaz, Olid and Sandoval, looked on with equally transparent interest. Only Pepillo, present as usual to help Malinal with the task not only of

interpreting the words of the Mexica, but rendering them in flawless Castilian, seemed indifferent to the gold.

The Mexica delegation consisted of Teudile and three other lords, all splendidly dressed in sumptuous cotton robes that put to shame the rough, maguey-fibre smocks and tunics of the Tlascalans. Not that there were any Tlascalans here tonight, Malinal noted, since Cortés's powers of persuasion were such that Shikotenka had agreed to his request for privacy.

Teudile leaned forward, his voice lowered a notch. 'Tell the lord Cortés,' he said to Malinal, 'that his friend the lord Moctezuma rejoices in his splendid victory over our enemy Tlascala.'

I doubt it, thought Malinal, as she and Pepillo gave the translation. *I very much doubt it*. She felt quite sure the coward Moctezuma would have much preferred to hear the inconvenient Spaniards had been wiped out, thus saving him the trouble of wiping them out himself.

'My lord does wonder, though,' Teudile continued, 'why the lord

Cortés chooses, now that he has defeated them, to stay with the enemies of the Mexica?'

'Because we are comfortable here,' Cortés replied, 'because our every need is met,' he waved a hand expressively around the large, well-furnished audience chamber. 'Because the people of Tlascala have made us welcome, and because they have agreed to become the vassals of my king, Don Carlos.'

Teudile lowered his voice further; it was almost a whisper now: 'The friendship they offer you is not sincere,' he hissed. 'Their promise to become vassals is empty. Everything they do is merely to dispel your suspicions so they can later betray you with impunity. Do not trust them, for they are traitors and they will surely kill you at the first opportunity and steal this present of gold we have brought you. The lord Moctezuma therefore requests that you leave this savage, dangerous place at once and proceed to our city of Cholula, where your safety will be guaranteed and he will show you the true meaning of welcome.'

‘And this welcome of the great Moctezuma,’ Cortés asked. ‘What will it consist of?’

‘My lord cannot negotiate with you while you are here in Tlascala,’ whispered Teudile, ‘but he gives his promise, if you show goodwill by making the short journey to Cholula, that he will heap upon you great presents of gold, a thousand times larger than this one – ’ a nod at the gleaming baskets – ‘and that he himself will become a vassal of your king.’

‘A vassal, eh?’ said Cortés, a sharp look – that Malinal recognised – crossing his face. ‘And how much tribute in cloth, in gold, in silver, does the great Moctezuma propose to pay each year to my king?’

‘All such details can be agreed once you are in Cholula,’ Teudile insisted, ‘and when they are agreed, and the tribute set, my lord Moctezuma will invite you to visit him in friendship in Tenochtitlan.’

Cortés turned to Malinal. ‘I don’t trust them,’ he said in Spanish,

at the same time giving Teudile a gleaming smile. 'Tell them we see no need to waste time in Cholula. Our preference is to march straight to Tenochtitlan and receive Moctezuma's pledge of vassalage there.'

Malinal knew very well that Cortés, on account of his dreams of Saint Peter, was already firmly resolved to go to Cholula, but she put the bluff into the most scornful and ringing Nahuatl. As she did so, Teudile's face became stubborn: 'I regret that will not be possible,' he said.

'Why is it not possible?' Cortés asked. 'Why is the great Moctezuma so keen for us to go to Cholula?'

'There are two reasons,' Teudile replied. 'The first is that in Cholula, my lord Moctezuma hopes that he and the lord Cortés will learn to trust each other fully. He feels it is better for both of you that this trust is built before rather than after the lord Cortés comes to Tenochtitlan. Do you not agree?'

Though his mind had long been made up on the need to go to

Cholula Cortés feigned an excellent impression of reflecting carefully on what he'd just been told. 'I can see the point of the argument,' he said finally. 'What is the second reason?'

'The second reason,' said Teudile, 'is that Cholula is sacred to the god Quetzalcoatl, whose manifestation on earth my lord Moctezuma believes the lord Cortés to be. It is right and proper, therefore, that the lord Cortés should visit this city before his arrival in Tenochtitlan. If he does not do so, if he is afraid to do so, it may cause my lord Moctezuma to entertain doubts about the identity – and the intentions – of the lord Cortés.'

'I am a man,' said Cortés sourly, 'as I have told you many times.'

'Nonetheless, this is what the lord Moctezuma requires – that you make a sojourn in Cholula before he permits you to enter Tenochtitlan.'

Cortés nodded and looked down at the gold. 'I'll think about it,' he said.

* * *

That night, Wednesday 29 September, while the Mexica delegation slept beneath the roof of Cortés's palace, under his protection, Saint Peter visited him in a dream.

'Moctezuma plans treachery,' the saint now revealed. 'He is gathering his forces. When you reach Cholula, he aims to bring a great army down on your head and destroy you utterly.'

'What then would you have me do, Holy Father?' Cortés asked, 'since you yourself have urged me more than once to go to Cholula?'

Saint Peter smiled, his eyes, black as coals, glittered with inner fire. 'Nothing has changed,' he said. 'I would have you go to Cholula and lay my vengeance upon that place. When you are within the city, when you judge the moment to be right, invite the lords, the heads of households, the soldiers, to gather in their thousands in the great plaza before the tall pyramid and there I want you to kill them all. Make a massacre for God in Cholula, my son.

Repay Moctezuma in full measure for the treachery he plans there, and I will open the gates of Tenochtitlan wide for you.'

* * *

Teudile's delegation stayed until Sunday 3 October, and left with Cortés's promise that the Spanish would visit Cholula as they had requested.

'When?' Teudile asked.

'Very soon, when my men are fully rested and recovered from the injuries they received in our war against Tlascala. In no more than ten days from now, we will be there.'

'You must be mad,' Shikotenka told Cortés when he learned of this. 'Don't you know that everything the Mexica do is riddled with treachery and cunning, and in this manner they have subjected the whole land?' Speaking urgently through Malinal and Pepillo, he then informed Cortés of specific intelligence he had received in the

past three days of a plan to trap the Spaniards once they were inside Cholula: 'Stones have been piled on the roofs of many houses ready to throw down on you; certain streets have been walled up to deny you free movement, and others have been mined with holes filled with sharpened stakes so your deer will fall and cripple themselves. The whole citizenry is being prepared and armed to rise against you and either kill you all or take you prisoner for sacrifice.'

None of this news seemed to come as any surprise to Cortés, and Pepillo saw from the look on his master's face that he had already made up his mind to go.

Later that same day, he explained his decision to his captains: 'Gentlemen, our goal is Tenochtitlan and the total subjection of the empire of the Mexica, so we cannot leave a city as hostile as Cholula between us and the sea. For this reason alone, even if there were no others, I would insist that we go there and either extract its surrender or destroy it. But even more important than this, in my view, is the matter of our honour. If Moctezuma sees us balk at

Cholula and seek another way to reach him, he will know we are afraid, he will know we can be intimidated and this will strengthen his courage to resist us. It is still my hope, and my conviction, that we can conquer Tenochtitlan without having to fight but, if we are to do this, then we dare show no hesitation now.'

The next days were spent in planning and preparation. The Senate of Tlascala offered its whole army, close to a hundred thousand men, to defend against the expected treachery of Cholula, but Cortés declined, saying so many would amount to an open declaration of war on Moctezuma, and certainly cause him to close up and fortify Tenochtitlan instead of leaving the way open. Given the long history of enmity between the Mexica and the Tlascalans, it was better to proceed by stealth and misdirection, and for this reason, Cortés said, though he understood the risks were great, he would take no more than a thousand Tlascalans to Cholula and preferred that any fighting there should be done by the Spaniards alone.

On Monday 11 October, the Spanish captains gathered to make final plans before setting off for Cholula the next morning, a march of eighteen miles. Shikotenka, who would be leading the small Tlascalan force, was also present. 'Do you have some words for us?' Cortés asked him.

'Cholula is part of the Mexica empire,' he replied, 'and it's obvious the Mexica aim to deal with you there so they don't have to face you in Tenochtitlan. It will be a war to the death, so leave no one alive who you're able to kill; neither the young, lest they should bear arms again, nor the old, lest they should give good advice. The Mexica will show you no mercy and you must show none to them.'

There was a moment's silence, then Alvarado was on his feet clapping ostentatiously. 'Bravo!' he cheered. 'Bravo, Shikotenka! I knew it when we faced each other knife to knife on that beach at Cuetlaxtlan. You're a man after my own heart!'

Chapter Thirty-Nine

Wednesday 13 October 1519 to Saturday 16 October 1519

After they had crawled towards him across the smooth, polished flagstones of his audience chamber, it pleased Moctezuma to keep Tlaqui and Tlalchi on their gnarled hands and knobbly knees while he conversed with them. As the secular ruler of Cholula, Tlaqui's impressive title was 'Lord of the Here and Now' and, as the spiritual ruler, Tlalchi was 'Lord of the World Below the Earth'. This morning, however, they looked more like the Lords of Grovel, or the Lords of Humiliation or, better still – Moctezuma suppressed a

snigger at the thought – the Shit-Eating Lords, since he suspected they would gladly gobble up piles of their own filth, or any other noxious substance it might occur to him to nominate, if he would only grant the request they had come to him to lodge.

Both men were old, wizened, thin, grey-haired and cautious. Their mannerisms were curiously similar, in particular the odd way they held their hands before their mouths while speaking as though wishing to hide their teeth. They also frequently exchanged shifty eye movements – some sort of wordless consultation, doubtless built up over many years of collusion.

'If it would please Your Excellency,' Tlalchi was saying, his voice dry as an ancient corpse, 'we have certain doubts about the plan communicated to us by General Maza.'

'Doubts?' Moctezuma deliberately beetled his brows, giving the lords of Cholula a fierce, disapproving glare. 'Why should you have doubts? It is an excellent plan. I drew it up myself.'

In unison the pair wriggled uncomfortably.

'Meaning no disrespect to yourself, sire,' offered Tlaqui, 'but the plan as we understand it requires us to capture or kill the white-skinned *tueles* in the streets of Cholula and we fear this will be difficult. We have heard reports of their fire-serpents and it is undoubtedly the case that great damage will be done if these powerful weapons are used within our sacred city.'

Streets of Cholula? Moctezuma thought. Maza, one of his most favoured generals, who he had appointed to oversee the Cholula operation because of his unquestioning loyalty, ferocity and cunning, had obviously been spreading misinformation – a clever way to keep the real plan concealed from prying eyes and ears. On a whim, he decided to play the old fools along for a few moments more. 'So what are you suggesting?' he barked. 'You want us to call off the attack because of possible damage to your precious city?'

'No, sire. No. No.' It was Tlaqui again, positively dribbling with anxiety. 'We are fully committed to the destruction of the *tueles*. We are loyal supporters of Your Excellency's plan. But in the narrow

streets of Cholula there are so many obstacles, so many houses and temples for them to hide in, so many possible escape routes they may use to rally and regroup, that we fear things could go badly wrong.'

'And damage? You said you feared damage?'

'That too, sire, yes, but our greater concern is to bring overwhelming force to bear on the *tueles* and the very structure of the city will prevent that … '

'I don't see why,' said Moctezuma.

'The narrow streets, Excellency' – it was Tlalchi mumbling now, his hand back over his mouth. 'We understand General Maza is mustering six regiments to take the *tueles*, but it will not be possible to deploy all those men to good effect in our crowded city. Instead, Excellency, since the muster has already begun in the valley of Citlaltépec, four miles north of the city boundary, we suggest the general should lie in wait for the *tueles* there and ambush them when they march out of Cholula on their way to Tenochtitlan—'

'Fools!' fumed Moctezuma. 'The valley of Citlaltépec isn't even on the highway! That's why we chose it for the muster, so the regiments can assemble without attracting attention.'

'Of course, sire,' said Tlaqui with a sly smile, 'but our proposal is to block the highway – block it completely – and create a false road that will lead the *tueles* directly into the valley where the regiments will be waiting to annihilate them.'

'*No!*' shouted Moctezuma, suddenly bored with this charade. 'That is *not* how it will be done! The white-skins *must* be dealt with *inside* Cholula but *not* in those narrow streets you speak of. I cannot imagine where you got such a foolish idea! The white-skins are to be attacked and destroyed in the sacred precinct of the great pyramid of Quetzalcoatl *and nowhere else!* The god Hummingbird himself showed me this in a vision. Have you truly not, until now, understood the real reason for the ritual preparation of the pyramid by our excellent sorcerer Acopol?'

'We gave Acopol every cooperation, sire,' said Tlalchi, 'but we

thought it better not to question.'

'Yet here you are,' Moctezuma pointed out, 'questioning me about narrow streets, and prattling like a pair of old women afraid of your own shadows when you should be preparing yourselves and your city. Don't you realise how soon the great moment will be upon you?'

A wordless look of concern passed between the two lords.

'I thought as much!' Moctezuma exclaimed. 'You haven't even taken the precaution of sending spies and runners of your own into Tlascala, have you?'

'No, sire. It is not safe there.'

'Not safe? *Not safe!* Bah! Spies are in the business of not being safe. Mine come and go and manage to survive and what they tell me is this. *The army of the white-skins marched out of Tlascala yesterday, supported by a thousand of Shikotenka's warriors!* They bivouacked in the open fields last night and they will certainly reach Cholula today. Most likely they are already there while you are here

in Tenochtitlan, treasonously ill-informed and wasting my time with your petty concerns.'

Moctezuma stood, thrusting his stool back with such force that it crashed to the floor. He looked down at Tlaqui and Tlalchi, cowering beneath him. 'You will return to Cholula at once,' he said, 'and on the morning of the third day after today, when Maza has all his forces in place, you will spring the trap. Create some pretext, some subterfuge – I leave the details to you – but lure the white-skins to the sacred precinct, close and lock the gates, and have all your armed male citizens fall upon them there. I do not expect you to conquer and destroy them yourselves. That is not asked of you. Your task will merely be to begin the work and hold them within the walls of the precinct for the short time it takes – an hour at most – for Maza's regiments to reach you after the fighting begins. Do you think you can do that small thing for me without making a complete mess of it?'

* * *

The rulers of Cholula, it seemed, were absent from the city, and the lesser lords who had come out to greet Cortés had persuaded him to leave the small Tlascalan force camped in the surrounding fields. 'They're afraid of you,' Cortés told Shikotenka through Malinal. 'You should be flattered.'

'They should be afraid of *those*,' Shikotenka had said, pointing to the cannon that the foolish Cholulans had given entry to without a word of protest. The carriages were being pulled by Totonac bearers to whom, as Mexica vassals, the Cholulans had also granted access.

'Let us be thankful for small mercies,' Cortés replied with a wink. He paused thoughtfully, then added: 'Now hear me, Shikotenka: there are to be no rash actions, do you understand? I know how you feel about Cholula, but you must make no attack or do anything that could be interpreted as aggressive. Above all, although I know you're sorely tempted, don't bring in any more

warriors from Tlascala. This is a delicate game I'm playing here with Moctezuma's fears and suspicions. You must leave me a free hand to play it as I think best.'

Five hours had passed since then, and the Spaniards had disappeared without a trace into the vast maw of Cholula, a city five times as large as Tlascala. 'I'm concerned for them,' Shikotenka admitted. 'I'm beginning to wonder if we'll ever see them again.'

'I don't understand you,' said Tree. 'Not so long ago you wanted to kill every one of them. Now you're worrying about them as if they're your children or something.'

'They're our allies,' Shikotenka replied gruffly. 'We have responsibilities for mutual protection under that alliance – responsibilities I take seriously.'

'It's more than that,' said Chipahua. 'The fact is, you like them. Why don't you just admit it?'

Shikotenka thought about this for a few moments. Finally he said: 'I like some of them. They're true warriors – courageous,

skilful, loyal to one another, cruel to their enemies but willing to let bygones be bygones. Why should I not like them?'

'You could ask Ilhuicamina,' said Tree, 'if he hadn't died from his infected wounds. I'm sure he'd give you a thousand reasons why you should not like them.'

Shikotenka grimaced. They all missed Ilhuicamina. They were all still bitter about what Cortés had done to him. But war was war.

'What about Cortés?' Chipahua asked. 'Do you like him?'

'I do,' said Shikotenka. 'But I don't trust him. I'll never trust him. He would sell his own grandmother if the price was right.'

'Pity the poor Cholulans then,' laughed Chipahua, 'for allowing such a viper into their midst!'

Shikotenka lapsed into silence. Of course his friends were right. The Spaniards knew how to defend themselves. Even surrounded by enemies, in the midst of a hostile city, they would find a way to survive.

Yet still he felt restless, felt threat and danger in the air, felt the

need to take action. As the sun set behind the great pyramid of Cholula, a pyramid so large it was known locally as *Tlachihualtepetl*, 'the artificial mountain', he called his men together and asked for a hundred volunteers.

* * *

Entombed in thick darkness in the ancient underground cavern beneath the great pyramid of Cholula, Tozi had long since lost any sense of whether it was day or night, and of how much time had passed since she was interred here. She had air to breathe, and after freeing herself from her bonds, she'd worked her way around the huge, irregular space, finding sufficient trickles of slime running down the rough rock walls to keep thirst at bay. Hunger was no great hardship, for she had been hungry many times before; eventually, as she'd expected, her contracting stomach ceased to trouble her with its sharp, demanding pangs.

What was strange was the way the darkness frequently yielded to light, and she saw extraordinary patterns, flows of dots merging together like waterfalls, scintillating zigzag lines, stars that burst and exploded, scattering flecks of fire, brilliantly coloured spirals that wheeled and spun, collections of dazzling triangles, circles and squares, and sometimes, thrusting forth through them, bizarre figures and forms she took to be spirits – a man with the head of a deer, a creature that was part fish, part alligator, a woman transformed into a puma, a giant serpent that wrapped itself around her and laid its great head upon her shoulder, gazing into her eyes with ineffable wisdom.

At some point a vortex of light opened up at her feet and she was drawn down into it in a rushing, whirling luminescent stream that carried her off helplessly, swirling and somersaulting through caverns and winding corridors until she was deposited gently on the shore of a vast midnight-dark lake in another world with a blue sun in a burnished sky. She had been here before! When the serpent had

bitten her in the desert, just before the Huichol medicine men had found her and healed her, this was the place she'd been brought to in vision. And, just as before, she saw a woman dressed in red robes, with her back turned, sitting on a rock in the lake, her bare feet dangling in the water. The woman had long black hair which she was combing, combing, and Tozi was again overtaken by the poignant sense of familiarity that had tortured her in her vision of Aztlán and the Caves of Chicomoztoc, which had been left so hauntingly unexplained. She walked closer, stepped into the water which came only to her knees, and was wading out towards the rock when the woman looked round and she recognised her own long-lost mother.

Tozi was running now, splashing through the water, great sobs of joy wracking her whole body as she climbed up onto the rock and embraced her mother, who seemed absolutely present in that place – her scent, her warmth, the urgency of her embrace, everything about her, solid and tangible and real. 'Oh, mother,' Tozi heard herself

saying, 'oh, how I've missed you', and her mother replied, 'I've missed you too, my darling,' and they held each other a moment longer until suddenly, cruelly, inexorably, the whole scene dissolved back into absolute darkness and Tozi knew the truth – that she lay entombed beneath the great pyramid of Cholula, bereft of her powers, cut off forever from all hope of life or rescue and unutterably alone.

* * *

It was the twins Momotztli and Nopaltzin, men of his old squad, men he'd trust with his life, who brought Shikotenka the news the following morning. They'd been amongst the hundred scouts he'd sent out in different directions around Cholula to see what they could learn. Well after midnight, they'd entered a steep-sided valley called Citlaltépec, about four miles north of the city, and started to work their way along the bank of a stream running through the

valley floor, when they'd almost stumbled into a Mexica sentry post.

'There was no moon,' said Momotztli, 'otherwise we'd have seen the bastards sooner—'

'Or they might have seen us,' added his brother.

'But they didn't,' Momotztli continued.

'Which was just as well for them,' said Nopaltzin. 'I reckon we could have taken them any time.'

'But just as well for us we didn't have to,' said Momotztli. 'We were able to sneak up close, hunker down and listen to their gossip.'

Nopaltzin took up the story. 'Seems they're part of a big force that's mustering there. *Huge* force, in fact. Six regiments … '

'All in honour of our friends the Spaniards,' Momotztli added.

'So there's an attack planned,' Nopaltzin continued, 'two days from today in the morning. Seems the Cholulans are going to start it with a mass uprising inside the city to distract our friends' attention, then the regiments are going to pile in. They're going to try to take most of them alive … '

‘They’ve been issued with special poles with leather collars on the end,’ Momotztli elaborated. ‘And hammocks! Lots of hammocks!’ He laughed. ‘The plan is to capture some of the Spaniards with the poles and tie the rest up in the hammocks and then carry them off to Tenochtitlan for sacrifice—’

‘Except for twenty of them,’ Nopaltzin remembered. ‘They’ll be handed over to the Cholulans to sacrifice here.’

Chipahua had been listening in: ‘Hammocks!’ he scoffed. ‘Poles! Typical Mexica wet dream – nice warm fantasy followed by a nasty damp bed. You can tell they haven’t faced the Spaniards in battle yet. If they had, they’d know six regiments are nowhere near enough.’

Shikotenka was sitting very still, thinking, calculating. Cortés had said he was to bring no more men to Cholula, and take no aggressive actions, but that was before either of them knew that close to fifty thousand Mexica warriors were mobilising for battle outside the city.

Chipahua nudged him: 'You're cooking something up, aren't you?' he said. 'You've got that look in your eye.'

Suddenly interested, Tree edged closer.

* * *

Pepillo brought his diary up to date on Friday 15 October, the second full day the Spaniards had spent in Cholula.

'We reached the city,' he wrote, 'on Wednesday 13 October, and entered it with all our cannon and cavalry, and our Totonac auxiliaries and bearers; however, the Tlascalans who had accompanied us were obliged to remain camped in the fields outside.

'The rulers of Cholula, Tlaqui and Tlalchi by name, were not present when we arrived. They were, we were told, in Tenochtitlan. They returned yesterday, Thursday 14 October, and installed themselves in their palace, but yet refused to see us. This the

caudillo thought very rude, particularly so since they sent persons of no great importance to treat with us. He informed these minor lords through Malinal that an embassy such as ours, from such a great prince as Don Carlos, King of Spain, should not be received by men such as they, and that even their masters were hardly worthy to receive it. He gave orders that Tlaqui and Tlalchi should appear before him this morning, otherwise he would be forced to proceed against them as rebels who refused to subject themselves to the dominion of the king.

'This morning, however, Friday 15 October, even though we were quartered in two tall, spacious buildings overlooking the main plaza with its great pyramid, and adjacent to their palace, the rulers still did not appear. Instead they sent a message claiming they were both very sick. Adequate food supplies were provided to us yesterday and the day before, but none whatsoever were provided today. We all take this as an ominous sign, particularly since there is great unrest in the town, with large numbers of people, mainly

women and children, leaving carrying their belongings. Malinal very bravely went out disguised as a local woman and found close to our lodgings some holes dug in the streets, covered over with wood and earth in such a way they could not be seen without careful examination. When she removed a little of the earth from above one of these holes she found it was full of sharp stakes to kill the horses when they charged, as our friends the Tlascalans had warned us. She saw that the roofs of many of the houses had breastworks of dried clay and were piled with stones, and this could be for no friendly purpose, since she also found barricades of stout timbers in another street.

'Worse, Malinal learned from gossip in the market that twenty young men are being sacrificed every morning to the Mexica god of war, Hummingbird, so that he will give the Cholulans victory in an attack they will soon launch against us. She also heard it said, she believes reliably, that many ropes and stout poles with leather collars attached had recently been prepared and stored in the armoury of

the palace, ready to be used to hold us prisoner, as well as hammocks in which we are to be tied and carried off to Tenochtitlan for sacrifice.

'When the caudillo learned all this he showed no surprise, but became very grim and serious. "Since the Cholulans plan such treachery," he said, "we'd better make preparations to attack them first and teach them a lesson." He went at once with Malinal and twenty of our soldiers, all bearing arms, directly to the palace of Tlaqui and Tlalchi. I also followed, bringing Melchior on the caudillo's suggestion. There was an altercation with the guards at the gate of the palace, and Don Pedro Alvarado and several of our captains drew their swords, but Malinal calmed the situation and we were given entrance and led into the presence of the two peculiar old men who rule this city. They were very alarmed and so confused they could hardly speak. The presence of Melchior, who snarled at them and would, I think, have attacked them had he not been leashed, seemed to discomfit them particularly! They denied they

had any intention of taking us prisoner, or that human sacrifices were being carried out, avowing that their god was Quetzalcoatl, a deity of peace, not the dread Hummingbird, but Malinal informed the caudillo quietly that they were lying. They said they would search for food for us but claimed their lord Moctezuma had sent them orders not to give us any and did not want us to advance any further.

'At this the caudillo announced they need not trouble themselves as we would depart Cholula tomorrow morning, Saturday 16 October, to proceed to Tenochtitlan to see Moctezuma himself and resolve all problems. He insisted that like other peoples we had encountered on our route of march, such as the Tlascalans and the Totonacs, they should provide us with a force of warriors from their city (he demanded no less than two thousand) and also bearers (again two thousand), for we should have need of them on the road. Finally he required that this escort of warriors and bearers should meet us in the plaza of the great pyramid in front of our lodgings

tomorrow morning at one hour after dawn, and that all the lords of Cholula, including the two rulers, and all the heads of household of the population of the city should also assemble there. He wished, he said, to bid them a proper farewell and inform them of certain things that it would be greatly to their advantage to know.

'As Malinal translated these words, I noticed a very strange, sinister look, and hidden smiles, passing between Tlaqui and Tlalchi, who readily assented to everything the caudillo had asked. They then begged to be excused, saying they had many preparations to make for the morrow.

'It was late afternoon when we returned to our lodgings where the caudillo at once summoned all the principal captains, heads of companies and platoon sergeants to inform them of his plan for war.'

* * *

The gathering was held in the spacious, high-ceilinged audience chamber on the second floor of the grander of the two adjacent lodgings granted to the Spaniards. A balcony running the whole length of the room commanded a wide view over the city's main plaza, with many small, brightly coloured temples clustered at its edges, and the mountainous great pyramid of Cholula looming at its centre. The plaza itself, measuring a thousand paces on each side, was set within a high enclosure wall, decorated with richly painted reliefs of plumed serpents. These, Malinal said, were the emblems of the god of peace, Quetzalcoatl, to whom the pyramid had been dedicated in ancient times, and with whom Cortés, to his advantage, was frequently identified by the Indians. Towering on the pyramid's summit was a tall temple, likewise dedicated to the peaceful Quetzalcoatl, yet at its east side squatted a fearsome and bestial idol of the war god Hummingbird – a recent addition according to Malinal – overlooking a hemisphere of stone, across which sacrificial victims would be stretched to have their hearts cut

out. Standing beside that stone this evening, gazing intently down at the Spanish quarters, was the lone figure of a man, dressed only in a loincloth, his whole body covered in tattoos.

'Their high priest?' Cortés asked Malinal.

She shook her head: 'No! He *nagual* – very special sorcerer. Have great power.'

At this Cortés found he had involuntarily crossed himself. So too, he noticed, had Sandoval and Díaz, who stood nearby and had overheard. But Alvarado, who was with them, merely scoffed. 'Sorcerer my arse,' he said.

'I heard in town his name Acopol,' Malinal continued. 'Moctezuma gave him command of rituals at pyramid. He's the one makes the sacrifices there.'

'We'll put a stop to that,' said Cortés.

'Tomorrow?' Malinal asked. 'There will be ceremony at dawn, like today, like yesterday. Unless you stop it, twenty more young men die.'

She was looking Cortés directly in the eye and he shifted uncomfortably. Somehow the woman had the knack of making him feel guilty about almost everything he did. 'Unfortunately we have to allow the sacrifices to proceed tomorrow,' he said. 'To march up there and stop them would put the lords of this city on their guard, and that would be a mistake. I need that assembly of citizens they've promised in the morning.'

'Why do you need?'

'Because I have to take exemplary action here if we're going to avoid much worse trouble in the future.'

'Exemplary action? What that?'

'We have to make an example of them,' said Cortés. 'Not just of the sacrificers but of the whole city. They've defied us and they're planning to attack us and we need to teach them and others that that doesn't pay.'

'So you sacrifice them all then? Like you sacrificed people of Teocacingo?'

Cortés sighed: 'Sacrifice? Your Spanish is very good now, Malinal, but you have the wrong word. It's simply a matter of kill or be killed, attack or be attacked.'

Predictably not all the captains supported Cortés's plan. Some – De Grado again, always the most forward in urging retreat! – wanted to leave Cholula that very night and return to the safety of Tlascala. Others were also in favour of an immediate departure, but preferred to continue the advance, Ordaz in particular arguing for a new route to Tenochtitlan through the Republic of Huexotzinco which, like Tlascala, was in a state of open warfare with the Mexica, and might provide a source of additional allies against Moctezuma. The majority, however, were with Cortés in favouring a pre-emptive strike against the Cholulans. 'If we let this treachery pass unpunished,' Alvarado said, 'they'll never take us seriously again. I say let's fight them here. They'll feel the effect more in their homes than in the open fields.'

It was Cortés's way to allow his captains to speak, and sometimes

to listen to them, but Saint Peter had convinced him that something momentous, something *exemplary*, must happen here. Had the welcome given to the Spaniards been different, had the city fallen at their feet in abject surrender, he might perhaps have spared it, despite the counsel of his dreams. But the evasiveness of its rulers, the preparations in the streets for war, the failure to deliver food supplies today, and the need to give Moctezuma an unambiguous demonstration of Spanish resolve, all made a massacre inevitable.

'Gentlemen,' Cortés said, holding up his hand to silence the series of noisy arguments that had broken out amongst the captains. 'Gentlemen! Hear me if you will.' He turned to De Grado and gave him a broad smile. 'Alonso, you are suggesting we run from a fight here in Cholula to seek the "safety" of Tlascala when not so long ago you were urging us to run from Tlascala to seek the "safety" of the Totonac Hills! I think it's obvious, if I'd listened to your counsel of despair then, that Tlascala would *not* be a place of safety for us today, filled with willing allies, but a place of danger filled with

triumphant enemies. By the same logic, therefore, I shall not listen to your counsel of despair now! We must impose our will on Cholula as we did on Tlascala. Anything else would be pure folly.'

Cheers from Alvarado's faction filled the room, De Grado blushed and lowered his head, and Cortés turned to Ordaz: 'As for you, Diego, I could not be more in agreement. It has long been my strategy to win the allegiance of the Huexotzincos and form a grand alliance with them and the Tlascalans and others who oppose Moctezuma. To do this, however, there's no need for us to spend our time marching to Huexotzinco, for they already know how matters turned out between us and Tlascala and when they see us win a great victory against their bitter enemies here in Cholula, I assure you they'll come flocking to our standard.'

Ordaz nodded slowly. 'You're right, Hernán,' he said. 'I'm with you.'

Cortés looked round the room and asked: 'So are we agreed, gentlemen? Shall we teach these Cholulans a lesson in the

morning?'

It was Bernal Díaz who stood up: 'Let's give them the beating they deserve,' he said, and it was plain he spoke for everyone. 'I say forward and good luck to us!'

After that it was just a matter of sorting out the details.

As though it was really the Spaniards' intention to leave in the morning, a great show was made of packing and tying the army's baggage which, as the evening progressed, was stacked up under guard out on the plaza ready to be transported by the bearers the Cholulans had promised to provide. Meanwhile Francisco de Mesa set his Taino slaves and Totonac bearers to work, hauling both lombards and six of the falconets up to the audience chamber, where they were loaded with grapeshot and placed on the balcony overlooking the plaza. At the same time, Cortés sent Bernal Díaz with Sandoval and García Brabo to reconnoitre the four main gateways in the enclosure wall surrounding the plaza, and to organise teams of soldiers to take possession of them in the

morning.

When all preparations had been made to his satisfaction, Cortés retired to his private quarters with Malinal and took his pleasure on her, but he was too excited to sleep. Restless, he rose and dressed in the half-light before dawn, walked through the audience chamber to the balcony, leaned against the cold barrel of one of the lombards and observed, fascinated, the great crowds of Indians beginning to gather in the plaza as twenty captives were led up the steps of the great pyramid.

The savage blare of conches and the beat of drums welcomed the rebirth of the sun, its first rays glinted on the monstrous granite visage of Hummingbird, and the sacrifices began.

* * *

Moctezuma had spent the night wakeful within his chambers in the warded confines of his palace, and at each of the hours of darkness

dedicated to the nine Lords of the Night, he had sacrificed a three-year-old girl to Hummingbird as a token of the birthday present he was preparing for the war god. He had left instructions that any messenger from Cholula should be brought directly to him, and now, as the sun rose and the hour of Huehueteotl, god of fire, ushered in the dawn, an exhausted runner was admitted to his presence.

'Sire,' the man said, throwing himself down on his face. 'I am to inform you that all has been done as you commanded. The lords Tlaqui and Tlalchi have devised a cunning plan. Even now, the white-skins will be gathering with all their belongings in the sacred plaza of Cholula, where they have been summoned to bid farewell to the lords and heads of household of our city, while a great escort of soldiers and bearers prepares to assist their march to Tenochtitlan. There will be some exchange of speeches, sire, to allay the suspicions of the white-skins, and when he divines the moment to be correct, the sorcerer Acopol will blow three blasts on the war

trumpet. This will be the signal for the regiments of General Maza to move into the city and for our citizens and soldiers, bearing secret arms, to fall upon the white-skins—'

'I don't want them all killed!' said Moctezuma sharply. 'I must have captives brought here for sacrifice. I trust Tlaqui and Tlalchi understand this.'

'Orders have been given accordingly, sire. The lords and all the citizens of Cholula understand that every effort must be made to take the white-skins alive.'

'Very good,' said Moctezuma. Dismissing the runner, he summoned the priests of Hummingbird, who stood in attendance to bring him another child.

* * *

Malinal was with Cortés on the balcony where Mesa's gun crews stood poised by the cannon ready to fire. Behind them in the

audience chamber was Pepillo, sitting by Melchior; the caudillo had permitted him to chain his dog for safekeeping in a corner. The rest of the war hounds were penned below in the courtyard, since there was no plan to deploy them in today's battle. Vendabal had offered them, but Cortés had replied 'only in extremis', which Malinal understood to mean only if the fighting went against the conquistadors. Otherwise, Cortés had said, the animals were better kept out of the way. In the enclosed space of the grand plaza there was a danger they would be killed by the Spanish guns and tangle the hooves of the cavalry.

Thirteen cavalry horses had survived the war with the Tlascalans; these were now lined up right beneath the balcony at the edge of the plaza. All were fully barded, twelve with their riders in armour already in the saddle, while the thirteenth, Molinero, was held steady by a groom awaiting Cortés's arrival. Lined up in front of the horses in five disciplined squares of fifty were two hundred and fifty foot soldiers, also heavily armoured. The remainder of the men, in

four teams of twenty, had quietly taken up positions at the north, south, east and west sides of the plaza by the four massive gateways.

Separated from the main body of conquistadors by a strip of clear paving a few dozen paces wide, Tlaqui and Tlalchi were hunched in their ceremonial robes, surrounded by a hundred other lords of the city. Behind them, in sullen, threatening ranks, were the two thousand Cholulan soldiers Cortés had requested, here supposedly to provide the Spaniards with a safe escort to Tenochtitlan, and by their side a large group of two thousand 'bearers', themselves all obviously soldiers. Many of the latter were in pairs with hammocks suspended between them, in which they repeatedly invited the Spanish to lie down. 'Come, *tueles*,' they called out, elaborating their meaning with extravagant signs and gestures, 'take your rest, great lords. Let us carry you to Tenochtitlan to meet our god.' Their knowing grins and grimaces left Malinal in no doubt they were mightily pleased with themselves. Poor ones! They clearly believed they'd fooled Cortés and were going to have an easy time of it.

Behind them the whole plaza seethed with the men of Cholula – ten thousand at least, Malinal thought. Making little effort to conceal the *macuahuitls*, clubs and knives they held, they filled every available space, lining the tops of the walls, occupying the roofs of the gate towers where piles of rock were clearly in evidence, lapping at the base of the great pyramid, clustering up its sloping sides and milling in their hundreds around the temple and idols on its summit platform. Equally ominous was the excited, buzzing murmur of the even larger crowd that had gathered beyond the walls: clearly the whole city had turned out to witness the humiliation and destruction of the Spaniards.

'It's time,' Cortés whispered, taking Malinal by the elbow and guiding her forward to the edge of the balcony. They stood side by side for a moment, looking over the multitude, before he began his address in his usual ringing tones, pausing at intervals to allow her to give her translation.

'Lords and citizens of Cholula,' he said – and at once all faces

turned towards him and a pregnant silence descended. 'I know all of your evil plans. I know of the poles you have gathered with nooses you intend to slip round our necks, I know of the real purpose of those hammocks you invite us to lie down in. I know of the holes you have dug in your streets, the sharpened stakes you have planted, the barricades you have erected. I know you have sent your women and children from the city because you expect fighting and wish to keep them from harm. I know that in return for us coming to you like brothers, you hope to capture us and kill us and eat our flesh, here and in Tenochtitlan. I know of the vile sacrifices you have offered to your god of war in the vain hope he will give you victory – but he is wicked and false and has no power over us. All this treachery you have planned is about to recoil on you. Your city will be destroyed so that no trace of it will remain and all of you, every one of you, will die for your crimes.'

As Malinal put these last threatening words into Nahuatl, a great roar went up, weapons were brandished and there was a general

surge of movement forward towards the Spanish squares. 'Now, Mesa!' said Cortés calmly, and at once all eight guns on the balcony belched flame and smoke and sent their whistling storm of death into the further reaches of the crowd, causing instant panic. At the same instant Malinal saw a flying squad of ten men led by García Brabo dash out from one of the squares below, cut down the guards around Tlaqui and Tlalchi, lift the astonished lords bodily from the ground and carry them back into the Spanish quarters. There came a pounding on the stairs and seconds later the two chiefs were thrown to the floor of the audience chamber and tied hand and foot.

'Stay here,' Cortés commanded Malinal. 'Keep an eye on them. I'm going down to get in the fight.'

As he hurried off she heard the rolling thunder of a concentrated volley of musket fire in the plaza and, rising above the din of battle, the familiar, hideous screech of a Mexica war trumpet sounding from the summit of the great pyramid.

Three distinct blasts were blown and Melchior, still chained in

the corner of the audience chamber, howled mournfully as though in answer.

* * *

Díaz cursed, ducked under his raised shield and hurriedly ran out of range as a new shower of rocks pelted down from the roof of the gate tower. Ten or fifteen men were visible up there, but the musketeers had already fired a volley and had been forced to pull back to reload.

Because of the huge bulk of the great pyramid in the centre of the plaza, none of the four gateways were in the line of fire of the cannon on the balcony. Since the Spaniards' lodgings stood on the east side of the plaza, however, the slaughter unleashed was fully visible from the east gate, and much of the devastation could also be seen across the corners of the pyramid from the north and south gates. Only the west gate, on the opposite side of the monument,

was completely out of sight, and Díaz had known, when he'd elected to secure this gate, that the mob was likely to be less demoralised and put up more of a fight here. Even so, the mere sound of the cannon salvo, and the wails and screams that rose up immediately afterwards, had worked their magic, scattering most of the defenders, and the first volley from his five musketeers had killed or chased off the rest. Once the men on the tower were dealt with, resistance here would be over and his squad could keep the gate closed and barred, as they'd been ordered, until the grim work of killing in the plaza was done.

The tower had an internal wooden stairway, also vulnerable to attack from above, that zigzagged to the roof in three flights. On a signal from the captain of the musketeers, Díaz yelled to his men, shuffled into rank between Mibiercas and La Serna as they raised their shields, locked the edges together with the shields of the rest of the squad and darted forward in a mass under a solid armoured carapace. Glancing up as he charged, Díaz saw that all the defenders

on top of the tower had crowded forward near the edge of the flat roof, the better to push down heaps of stones and, in the process – these men knew nothing of guns! – had made themselves easy targets. As the barrage of falling rocks beat down on the shield carapace, he heard the crash of the second musket volley and screams from above. He knew the shooters had found their marks when tumbling bodies joined the avalanche, hit the shields with tremendous force and fell limp and dead to the ground.

Then Díaz was inside the tower and taking the stairs three at a time, with Mibiercas ahead of him, La Serna behind and a dozen other men following. A few rocks came flying but they brushed them aside with their shields. Mibiercas gutted a screaming warrior who jabbed ineffectually at him with a spear on the second landing, and then, as they bounded up the final flight, they heard the tremendous percussion of the second cannon barrage, followed by some other, even louder and more ruinous sound, and burst out unopposed onto the roof to find the remaining defenders had cast

aside their weapons and thrown themselves on their faces. The Spaniards fell upon them without mercy, quickly killing them all before they realised what had caused their abject surrender. Somehow Mesa had cranked up the elevation of one of the lombards sufficiently to fire a seventy-pound ball into the great temple perched on the flat top of the pyramid, and the projectile had clearly hit some crucial structural element, for it had brought half the edifice tumbling down amidst a thunder of collapsing masonry and a huge pall of dust that rapidly billowed out to fill the sky above the plaza like the smoke of hellfire.

Looking down from the roof of the tower, Díaz saw his five musketeers with their backs to the gate, swords drawn, stabbing and hacking at a screaming, hysterical throng desperate only to escape the plaza. But they would not be allowed to escape. Not one of them. Cortés's orders were quite specific on that point. 'With me, men,' Díaz yelled, as he led his squad down the stairs again at a run, soon reinforcing the musketeers at the gate and joining with them

in the general slaughter. A troop of cavalry led by Cortés thundered round the southwest corner of the pyramid and charged the rear of the crowd with lances levelled. In the wake of the cavalry came a square of fifty infantry, their swords already steeped to the hilt in blood, driving further hordes of screaming refugees before them. Seeing the gates barred, some of those who fled climbed on one another's shoulders in desperate efforts to scale the walls, where they made easy targets for the teams of snipers who'd begun to work their way methodically around the plaza.

Díaz tasted the metallic tang of blood in his mouth as he killed and killed again, his face set, his sword arm already aching.

* * *

Deep beneath the great pyramid, Tozi heard the crash and roar of distant thunder and felt the cave floor shake. If these sounds were from the outside world, as they seemed to be, then they were the

first to reach her since the start of her imprisonment here. 'No,' she said out loud, instinctively resisting the idea, her voice croaky and wavering, 'No. I don't think so.'

There had, after all, been many strange visions, many encounters here in the dark, and all of them, every one, had proved to be false – so there was no reason why this should be any different.

With a groan, she rolled onto her belly. She was so far gone in hunger and weakness now that she found it hard to stand. With great difficulty and low moans of pain, she got her hands and knees under her and began to crawl along her familiar track towards the wall. At last she found the trail of sour slime she was seeking and pressed her parched lips and tongue against it, lapping at the moisture.

* * *

Alvarado dismounted from Bucephalus, handed the reins to his

groom and stalked off across the plaza on foot, swinging his falchion. He had enjoyed himself enormously, galloping around with the rest of the cavalry, running down the panicked and fleeing Cholulans, driving them up against the barred gates, killing thirty or more with his lance and watching many times that number trampled underfoot by their own compatriots in a dozen hysterical stampedes. What with the activities of the other cavaliers, the infantry running rampage with their swords and pikes, many volleys of musket fire, and the mass slaughter worked at the outset by the two salvos of grapeshot from the eight cannon on the balcony, the whole plaza was now so densely covered with fallen, broken, gutted Indians that he walked over nothing but bodies and heard nothing but the groans of the wounded and the dying.

Alvarado made for a knot of twenty or so dazed Indians milling near the steps that ascended the east face of the great pyramid. Some of them were still armed, but they were so shocked and disoriented they didn't look capable of using their primitive spears

and native broadswords and, as they saw him approach with the huge falchion in his hand, they threw their weapons down. Fools and cowards! Better by far to fight, and sell their lives dearly, for not one of them would leave this place alive! Sprinting the last few paces, his mailed boots crunching over the skulls and throats of fallen men, Alvarado began coldly, systematically, precisely to cut the group of survivors down. None of them tried to come against him. They just stood there like dumb animals awaiting slaughter, as he chopped the heavy blade of the falchion into their unprotected heads and necks. Very few needed more than a single blow, but some he disdained to kill, hacking off their legs or arms instead and leaving them to die slowly of their injuries, screaming in agony. A few tried to run from him, fleeing up the steps of the pyramid; with a wild laugh, his armour dripping blood, Alvarado went after them.

The steps were hurdled with fallen masonry from the ruined temple on the summit. *Good shot there by Mesa!* Alvarado thought as he hacked another fugitive to death. With a despairing wail, the

next man turned and tried to grapple with him, but Alvarado slashed the falchion across his belly, left him holding his guts and steadily, remorselessly, continued his climb. By the time he reached the top he'd killed all the men he was pursuing and he wasn't even breathing heavily. God, it felt good to be alive!

He looked around the summit platform. Several hundred Indians had been up here at the beginning of the morning, but most now lay crushed under gigantic blocks where Mesa's seventy-pound wrecking ball had torn the temple apart, and the rest, it seemed, had fled. However, the great structure was by no means completely flattened; large sections of it still stood and, where a dark corridor led into an intact wing, Alvarado saw a flicker of movement. He grinned and swung the falchion. Good! Still some murder to be done up here then.

* * *

The squads at the gates had done their work well: not one of the Indians who had come here, so puffed up with bravado and treachery that morning, had been allowed to escape. Blood flowed everywhere in rivers and pooled in lakes; thousands had died beneath the swords and spears of the conquistadors, and thousands more beneath the guns and in the resulting crush and panic. Sporadic bursts of musket fire could be heard as little groups of Indians who'd somehow survived until now were rounded up and finished off, and there were still pockets of resistance in some of the temples at the edges of the plaza but, rather than risk losing men storming these, Cortés had ordered great fires to be started. A dozen structures were already ablaze, sending up palls of acrid smoke; in some cases the defendants chose to remain inside and burn to death, while those who ran out screaming for mercy were butchered on the spot.

Cortés dismounted and handed Molinero's reins to Pepillo. Cortés had not allowed him to participate in this morning's action,

but he'd come down from the audience chamber to meet the caudillo. Despite the courage and fighting spirit he'd shown at the hill of Tzompach, the boy was white faced now at the sight of so much death. 'You're a good lad,' Cortés said, tousling his hair with mailed fingers, 'but you need to cultivate a stronger stomach – you and Malinal both.'

'Malinal's stomach's strong enough,' the boy said with a surprising hint of defiance. 'The things she's seen, the things she's done. She's fearless, sir, but she has a kind heart. No one can blame her for a kind heart.'

Cortés nodded. No one could blame Malinal for her kind heart or deny her courage, he reflected, and Pepillo was right to remind him of this. 'Out of the mouths of babes and sucklings,' he said quietly, 'hast thou ordained strength because of thine enemies, that thou might still the enemy and the avenger.'

'What's that, sir?' asked Pepillo.

'Oh, nothing, lad, nothing. Take Molinero into the courtyard

with the other horses, then go back to the audience chamber and guard Malinal well. She's a precious jewel to us.'

Pleased to see Pepillo was wearing the broadsword Escalante had given him, Cortés turned away from the boy and walked towards the steps of the great pyramid. All resistance there had ended when the temple had come crashing down; the summit platform, cleared of the foe, would provide an excellent vantage point to consider what should be done next. Pepillo's horror had touched him more deeply than he would have thought possible, and he realised he was beginning to reconsider his original plan to sack the entire city and kill every man, woman and child left within it. There was much to be said for mercy and perhaps, after all, the slaughter in the plaza would suffice to punish Cholula's treachery and send an unmistakable message to Moctezuma.

'Surely goodness and mercy,' Cortés recited as he climbed, 'shall follow me all the days of my life and I will dwell in the house of the Lord for ever.'

* * *

The audience chamber – with Tlaqui and Tlalchi still lying bound on the floor, Melchior still chained in the corner and straining furiously at his leash – had been deserted by the gun crews. 'Where's everyone gone?' Pepillo asked Malinal.

'Out into the plaza,' she answered, 'to join the killing and looting. It seems these are activities your people excel at; even the Mexica are not so thorough.' She walked to the balcony where the cannon stood silent and untended, and looked down on the heaps of bodies, the great pools and puddles of blood, the burning temples, and Spanish soldiers swarming everywhere, finishing off the wounded, going through clothing, helping themselves to the belongings of the dead. Pepillo joined her. 'It makes me ashamed,' he admitted.

'Me also,' Malinal agreed.

'The caudillo believes violence now will prevent more violence

later,' said Pepillo.

'Then let's hope he's right. Tenochtitlan is a much larger city than Cholula. Twenty times larger, twenty times more people, twenty times better defended, but if we have to fight to seize it, I fear there will be a hundred times more deaths.'

Malinal's mind was in turmoil. Never until now had her determination to end Moctezuma's rule wavered, but looking down at the slaughter and devastation in the plaza, she wondered for the first time if she was doing the right thing. Still, despite it all, she knew she loved the great caudillo and continued to believe he was a good man sent to do the work of the god of peace.

Behind, in the audience chamber, Tlaqui groaned. 'Release us, kind lady,' he said. 'We are in pain.'

'Release us we beg you,' echoed Tlalchi, 'while none of the white demons are here. Let us flee this place. We know a way to escape.'

'We can't let them go,' said Pepillo.

Though he preferred to speak to her in Spanish, she'd seen the

boy's grasp of Nahuatl improve enormously in recent months. 'They will be tortured,' she replied.

'Not if they tell the caudillo what he wants to know.'

'Even if they do, I still think he'll torture them. If they were just enemies, it wouldn't be so bad, but they lied to him, betrayed him. He never forgives betrayal.' She paused, tilted her head to one side. 'Did you hear that?' she asked.

Pepillo wrinkled his brow: 'What?'

'That. Listen.'

Then they both heard the sound – the stealthy tread of bare feet on the stairs, not coming up from the plaza or the courtyard, but descending from the floor above.

That floor gave access to the roof and there were no Spaniards there. 'Quick,' said Malinal, grabbing Pepillo's arm and running for the door. 'We have to get out of here.'

He shook her off and ran to unchain Melchior.

* * *

Alvarado was hunting a man, an elusive man, a cunning man, perhaps even a dangerous man, who ran and dodged and doubled back almost soundlessly through the labyrinth of chambers and passageways in the largely intact western wing of the gigantic ruined temple.

Even here, parts of the roof had collapsed, leaving some areas in complete darkness, while in others brilliant shafts of light pierced the gloom, revealing swirling clouds of suspended dust.

And much else.

In one long, narrow room, stinking of blood and incense, he found four hundred human heads threaded like abacus beads onto poles that penetrated them from ear to ear, and were fixed in orderly racks lining the walls. Pausing to examine the grisly trophies, Alvarado saw they had all been taken from young Indian men, some freshly butchered with the flesh and features still intact, some in

such an advanced state of decomposition they must have been killed weeks before. Involuntarily his fingers tightened round the hilt of the falchion. He was not afraid. He was never afraid. But he had to admit to a certain sense of unease at the aura of evil filling this charnel house of the demon.

As he advanced towards the narrow doorway leading into the next room, a slither in the dust and a rapid, receding *pad, pad, pad* of bare feet told him his prey had been waiting silently there, no doubt hoping he'd give up the chase. *Hope on, dear boy*, Alvarado thought, increasing his speed, *but I will have your head and mount it on a spear if it takes me all day.* He was at a full run, pounding along a narrow corridor spanned by a low corbel vault, leaving the faint ghostly light of the chamber of skulls behind, plunging on into absolute darkness. He burst through into some larger chamber, almost blind now, and suddenly he heard a feral screech – something between a shriek and a roar that made the hair on his arms stand on end – as he was hit from behind by a snarling, powerful, muscled weight that

felt like a man and yet not a man and exuded a rank animal stench and raked the steel of his cuirass with long, curved claws.

Instinct took over and Alvarado jabbed back viciously with his right elbow, caught his attacker full in the face, hearing some bone break, and simultaneously swivelled and lashed out with the falchion in a long curving sweep, shouting with battle joy '*Yes!*' as the blade bit solidly into flesh and elicited a long, keening yowl of pain and fury. Something sharp – knife, claw, fang, he did not know – slashed along his left upper arm, cleaving the unprotected muscle (for he'd scorned wearing rerebraces today), but again his response was instant, a punching blow with the tip of the falchion that made another solid hit and drove the creature off.

Alvarado raced after it through the darkness, guided by sound alone, bleeding freely from his gashed arm and not caring, the need to kill so strong on him it ached like hunger.

* * *

Cortés reached the top of the eastern stairway. Ahead of him the granite idol of Hummingbird, squat and ugly, all tusks and fangs, had been thrown on its side, crushing three men, a great crack splitting its monstrous reptilian features. Beyond it the eastern wing of the temple brought down by Mesa's cannonball had been reduced to great chunks of rubble that lay scattered and piled everywhere, as though by an earthquake, upon more of the pulverised dead.

Cortés turned and looked down. An ocean of tumbled, bloody corpses stretched away from the base of the pyramid to the edge of the plaza, where the two tall lodging houses of the Spaniards were joined to the palace of Tlaqui and Tlalchi under a shared flat roof, the rear elevations of the three buildings towering above the massive enclosure wall surrounding the whole plaza. Cortés saw the cannon, the two great lombards, the six falconets, lined up on the balcony of the Spanish quarters, and tut-tutted that they appeared to have been left untended while their crews roamed amongst the dead, looting at will. Neither Malinal nor Pepillo were on the balcony, but he

thought he saw movement inside the audience chamber, so that was where they must be – no doubt keeping guard on Tlaqui and Tlalchi, who he intended to put to torture very soon. Once their feet were basted with oil and held in a fire they would have much to tell him about Moctezuma's part in what had been planned here at Cholula.

Looking down again, Cortés saw Díaz and his friends Mibiercas and La Serna walking with Sandoval, picking their way amongst the heaped bodies in the plaza. They parted company at the foot of the stairway he had just climbed, Sandoval jogging up the steps towards him, Díaz and the others turning towards the Spanish quarters.

'Sandoval,' Cortés called down, 'how goes it?'

* * *

As Pepillo reached Melchior, ready to slip his chain, five heavily armed Cholulan Indians in loincloths and war-paint burst into the

room. One seized Malinal in the doorway. Another threw himself across the floor at Pepillo, taking hold of him before he could free Melchior. Letting go of the dog's chain, Pepillo tried to draw his sword, but the Indian gave him a hard knock to the head that sent him sprawling, followed him, struck him again and ripped his sword away. Melchior barked and snarled, tugging frantically at the full extent of the chain, but could not break loose. Giving him a wide berth, the Indians dragged Malinal back into the middle of the room. One stifled her screams with a hand clamped over her mouth. Two others drew long flint knives and cut Tlaqui and Tlalchi free.

Pepillo lay limp, feigning unconsciousness, his Nahuatl quite good enough to understand from the rapid exchange of words what was happening. The intruders were part of the personal bodyguard of the Cholulan rulers. Left behind to protect the palace this morning, they'd seen Brabo's flying squad grab Tlaqui and Tlalchi from the plaza just as the fighting began, and had now crept across by way of the roof to rescue their masters.

The leader of the gang – a tall, sleekly muscled warrior whose name was Ecatepec – wanted to kill Pepillo and Malinal right away, but Tlaqui was against it: 'They're important to the white-skins,' he said, 'especially the woman. We can use them as hostages.'

'It won't work,' said Ecatepec. 'We have to get them up the stairs, across the roof, back into the palace, which the white-skins are busy looting, down the stairs and into the secret tunnel. Without them we might just make it, with them kicking up a fuss we're done for. Better to kill them and take our chances.'

Pepillo saw the elderly rulers exchange one of their secret looks and then Tlalchi said: 'Very well, kill them.'

* * *

Alvarado pursued his quarry into a vault that was dimly lit by a row of high, narrow windows. Unlike in the other chambers of the temple, there was no exit corridor here. This long narrow room,

with a brazier of burning coals at one side and a stone idol of a huge plumed serpent twenty feet tall rearing up at the other, was a dead end.

The man, the creature – whatever it was – turned finally at bay. In this half-light, covered in blood from a broken nose, from the long cut the falchion had scored across the width of its chest and from a second deep wound in its shoulder, it did appear at first truly like a monster from another world. Though human enough, its arms, legs and body were densely inscribed with strange, hypnotic designs of black dots and spirals. These seemed to swirl and gyrate in constant motion, boiling in rich whorls and tendrils up its neck to cover its shaved skull, and giving its flat, broad face the aspect of some great, swart, yellow-eyed panther of the jungle.

Alvarado had paused in the middle of the room to study this apparition, recognising the so-called sorcerer he'd seen standing on the summit of the pyramid the evening before – the same ugly savage who'd also cut out the hearts of twenty young men at dawn

that morning, and was no doubt responsible for every one of those skulls on the rack.

'They tell me,' Alvarado said conversationally as he stepped forward, light on his feet and swinging the falchion, 'that you're a sorcerer.' He moved the big blade faster, liking the sound as it sliced the air. 'But I don't believe in sorcery, so where does that leave you?'

The creature muttered some rhythmic incantation in its own brute language and executed a series of weird, hopping leaps in a big circle around him. As it did so, a beam of light from one of the windows caught its right hand, which seemed hooked and clawed. 'Ah,' said Alvarado, remembering the bleeding wound on his arm, 'that's what you cut me with.' He narrowed his eyes, wondering for a moment if this subhuman *thing* did actually have claws, then realised that it held some carved stone weapon in its fist with three scythe-like blades protruding from between its fingers.

It executed a second series of leaps, snarling and spitting, lashing out at him once, twice, three times with those scythes, but on the

fourth attack Alvarado slid his right foot powerfully forward and put all his weight into a lunge, driving the tip of the falchion deep into the creature's tattooed belly, giving it a vicious twist and whipping it out again. It was followed by a great spurt of blood. 'There, my lovely,' he said, 'I expect that hurt you.'

Howling and screeching like a scalded cat, the creature made one more wild rush at him, which Alvarado easily sidestepped; as it went by he chopped the heavy blade of the falchion into the small of its back, cutting it down as one would cut down a tree, severing its spine and leaving it flopping convulsively on the floor, unable any longer to command its arms and legs.

Alvarado reached down, prised the peculiar weapon loose and threw it across the room, then dragged the screaming creature by its wrist across the floor, positioned its neck over the base of the idol of the plumed serpent, which made a convenient chopping block, and hacked off its head with a single blow.

'Sorcerer?' he said, looking down at his handiwork. 'That's what

I think of bastard sorcerers.'

* * *

'Come walk with me,' Cortés invited Sandoval. 'Let's see if we've done enough here.' As he spoke, a great bellow of pain rose up from somewhere below.

Sandoval winced at the sound. 'So many wounded to finish off,' he commented. 'You're determined not to leave a single one of them alive?'

'I know it seems harsh,' Cortés replied, 'but yes. Those who came to the plaza to kill us this morning must all die. They knew what they were doing. They have to pay the price.'

'And the city? What are your intentions for it?'

'If we face no more resistance, I believe I'll spare the city. Once we've shown we can be firm, a reputation for mercy will not harm us. Cholula can thrive again; its people can return.'

While it was under way, in the thick of the killing, Sandoval had thought the massacre bad enough; but up here, from the top of the pyramid, the true extent of the slaughter was revealed to him and far exceeded his worst imaginings. He and Cortés had walked from the east to the south side of the summit platform, skirting the rubble and devastation of the ruined temple, and from this lofty vantage point it was obvious that every part of the plaza, from the base of the pyramid to the enclosure wall, was filled to overflowing with dead and dying Indians. Despite their hostile intent, the vast majority had perished without even defending themselves, and it was significant, Sandoval saw with feelings of revulsion, that their poor, broken bodies were most thickly clustered round the gates where they had sought and been denied escape.

The one consolation was Cortés's apparent decision to limit the destruction to the plaza and not continue it beyond the walls with a general sack of the city itself. Halfway along the west side of the summit platform, however, he suddenly stopped and pointed north.

'What's that?' he said.

Both men had been so focused on the scene directly below that they'd paid little attention to the surrounding countryside, but now, looking in the direction indicated by Cortés, Sandoval's hand fell automatically to the hilt of his sword.

The day's fighting and killing, which he'd believed to be over, had only just begun.

* * *

When Tlalchi said 'kill them', Pepillo's hand went to the sheath at his belt where he kept the wickedly sharp little dagger Cortés had given him months before at Potonchan. The movement went unnoticed by the Indians, one of whom, still talking in an urgent whisper to the others, was padding across the floor to where he lay. Pepillo got a glimpse of a huge club being raised, drew the dagger and stabbed it into the Indian's bare, dirty foot as he stepped in to

straddle him, skewering the arch, finding a path through the bones and driving the point with a forceful thud deep into the wooden floor beneath.

The effect was extraordinary and instantaneous. The Indian let loose a great bellow of shock and pain, lost his balance as he attempted to free his foot and crashed down in a heap, narrowly missing Pepillo, who twisted sideways and leapt towards Malinal.

Things happened very fast after that.

In response to Tlalchi's order, Malinal's captor had clamped both hands round her neck and begun to throttle her, but when Pepillo's head smashed into his right side, he lost his grip and Malinal at once reached inside her tunic, pulled out a short stiletto and stabbed the man through the eye.

It all still would have ended badly, as the other Indians hefted their *macuahuitls*, if Bernal Díaz, Francisco Mibiercas and Alonso de la Serna had not at that moment charged into the room, blades flashing, and cut all three of them down. Tlalchi got in the way of

Mibiercas's great and strong sword and was also killed, cut nearly in half at the waist, but Tlaqui, weeping and wringing his hands, was left unharmed, as was the Indian Pepillo had stabbed through the foot, who remained pinioned to the floor.

Seeing gentleness and concern on Díaz's face as he strode over to Malinal and enfolded her in his arms, Pepillo was struck by the realisation that this gruff, honest soldier loved her in a way that the caudillo never had or would.

* * *

Stretching away to the north of Cholula was a wide grassy plain, bounded at a distance of about four miles by a range of hills cut through with narrow valleys. The whole plain between the hills and the city was filled with the swarming regiments of an army at least a hundred thousand strong. 'We've fought as many before,' Cortés reassured Sandoval, 'and won. We can do it again.'

‘We won’t have to,’ said a cheerful, confident voice.

The two men now stood on the north side of the great pyramid’s summit platform, which commanded an unimpeded view over the plain. They turned in unison to see Alvarado strolling towards them out of the ruins of the temple, with his falchion resting jauntily on his shoulder. Impaled through the neck on the point of the weapon was a tattooed human head.

‘What do you mean, Pedro?’ asked Cortés, doing his best to ignore the glaring head with its baleful dead eyes.

‘I mean we won’t have to fight them. The Tlascalans are going to do that for us.’

‘The Tlascalans?’ said Sandoval. ‘There’s only a thousand of them. They can’t fight an army this big.’

‘Look again,’ urged Alvarado. ‘Our friends have been reinforced. I count close to fifty thousand of them out there now. Don’t you recognise the banners?’

Cortés looked and suddenly understood. The massing regiments

he'd estimated at a hundred thousand men were separated into two distinct blocks. The nearest, with their backs turned to the city, indeed held aloft the banners of Tlascala and were positioned to intercept the advance of the regiments further north.

'Let's ride, gentlemen,' he said, suddenly decisive. 'These forces look equally matched but the Mexica have never faced cavalry before. I warrant a charge or two will tip the balance.'

Chapter Forty

Saturday 16 October 1519 to Thursday 21 October 1519

A glance was enough to reveal what had happened in the audience chamber – the corpses of the Cholulan warriors, Tlalchi dead, Tlaqui sobbing and wringing his hands, Díaz, Mibiercas and La Serna grimly cleaning their swords, Pepillo white-faced, Malinal shaken, her throat bruised, a blood-smeared stiletto still gripped tight in her fist, and that damned dog Melchior chained up in the corner where he'd clearly been no use to anyone. 'I'll hear more about this later,' Cortés said. He took Malinal by the arm. 'But now

I need your services. There's speaking to be done. A matter of life and death.'

Minutes later they were mounted up, Malinal before him in the saddle, and riding at a gallop out of the north gate of the plaza. No sooner had the small troop of cavalry moved into position at the forefront of the Tlascalan ranks, however, than the Mexica regiments began to beat a hasty retreat. Seeing them on the verge of panic, Cortés was sorely tempted to pursue and destroy them, but he held back. His cannon and all his infantry remained in Cholula and, although the city seemed defeated, there might yet be hostile forces lurking within it. Besides, a pitched battle against the Mexica now would end the fiction of cordial relations he was attempting to maintain with Moctezuma, by means of which, and cunning diplomacy, he still hoped to see Tenochtitlan open its causeways and gates to him without a fight.

Cortés reined in Molinero beside Shikotenka. 'We'll let them go,' he said through Malinal.

‘Let them go?’ The Tlascalan leader’s face darkened. ‘Do that and you’ll see them again on another battlefield.’

‘I understand,’ said Cortés, ‘but my mind is made up. Let them go. Don’t engage them.’ He waited while Shikotenka barked orders to his captains, then added: ‘Thank you, my friend. You saved the day for us here. I’ll not forget it.’

‘You told me to bring no more men.’ There was a smile on Shikotenka’s lips but not in his eyes as he gestured to the massed regiments of Tlascalans behind him.

‘And you disobeyed me,’ said Cortés. ‘Thanks be to God!’ He raised himself in his stirrups, looking south to the collapsed temple on the summit of Cholula’s mountainous pyramid, and to the plumes of smoke billowing up from the fires in the plaza. ‘I know the Mexica have deprived you of salt and cotton and other necessities for many years,’ he said to Shikotenka, ‘and I know they have used Cholula as a base to launch their attacks on Tlascala, but all that is ended now. We have conquered this city, and today and

for the two days following, save only the temple precincts, I give it to you and your men to do with as you wish, take whatever revenge you choose, kill and rape as it pleases you and loot whichever commodities you require. That is my reward to you, Shikotenka, and to the warriors of Tlascala, for the great service you have done me here.'

* * *

The Tlascalans ran wild, but their sack of Cholula, though thorough and brutal, ceased at sunset on the third day, Monday 18 October, as Cortés had commanded. Nor at any point did the rampaging warriors seek to enter the great plaza with its palace and temples, which remained under Spanish control, yielding rich pickings in gold and jewels that were not shared with their Indian friends.

Under torture, Tlaqui protested repeatedly that the plan to trap the Spaniards in the plaza and kill or capture them for sacrifice had

been entirely Moctezuma's idea, and Cortés put this accusation to a Mexica delegation, led once again by Teudile, which arrived in Cholula under a flag of truce on Wednesday 20 October. Teudile denied it, of course, so Cortés obliged him to witness a further more probing torture session, during which Tlaqui rather convincingly repeated the charges against Moctezuma as his fingernails were pulled out with pliers.

Working himself up into the appearance of a rage, though inwardly he was amused, Cortés told Teudile: 'I can scarcely believe that so great a lord as Moctezuma should send his messengers and such esteemed persons as yourself to me to convince me he is my friend while at the same time seeking to attack me by another's hand in so cowardly a way and hoping to evade responsibility if all did not come out as he intended! Well, Teudile, actions have consequences, as your lord will now learn to his cost. I have changed my plans. Before, it was my intention to visit Tenochtitlan to see Moctezuma and make myself a friend to him and speak with him in

harmony and even ask his advice on all the things that must be done in this land, but now I will come to him at war, doing him all the harm I can as an enemy.'

Tlaqui chose this moment to convulse, foam at the mouth and noisily perish in the chair he was strapped to. Looking on aghast, Teudile himself seemed half dead with fear, his mouth gaping, his cadaverous features glistening with sweat as he insisted again that Moctezuma had never done anything to encourage the Cholulan rulers in their wicked plot against the Spaniards.

'How very odd,' Cortés objected, 'since I myself counted close to fifty thousand of Moctezuma's warriors outside Cholula, ready to make war on me. They ran away when we confronted them, but they were most assuredly there. I fail to understand how that could be, unless they were acting on Moctezuma's orders.'

Teudile's pallor worsened and, in a shaking voice, he begged Cortés not to cast aside his friendship for Moctezuma and not under any circumstances to make war on him until he was certain of

the truth. 'Let me go to Tenochtitlan,' he said, 'and put these accusations to my master and return to you very soon with his answer.'

'How soon,' said Cortés with a ferocious glower, 'is very soon?'

'Not more than six days, great lord.'

'Very well,' Cortés replied. 'You have six days.'

* * *

Teudile and his fellow delegates departed in haste, but the following morning, Thursday 21 October, a new visitor was brought to Cortés by Shikotenka – the grave, stooped elder named Huicton, ambassador to the rebel Lord Ishtlil of Texcoco, who'd last visited him in early May in the camp on the dunes at Cuetlaxtlan.

'Welcome, Huicton,' Cortés said through Malinal and Pepillo. 'A pleasure to see you again. You'll know by now I took your advice and put Tlascala on my route of march.' A grin at Shikotenka:

‘These fellows gave us a spot of bother, but we’ve since become firm friends. I hope very soon to make the acquaintance of your master Ishtlil and accept the offer of his allegiance that you brought me before. I recall he was badly wronged by Moctezuma. I hope to play some part in putting those wrongs to right.’

‘Ah, good sir,’ said the ambassador, ‘there are so many wrongs to be righted in this unfortunate land.’ Without ceremony, he then squatted on his haunches in the native manner. ‘You’ll forgive me if I rest my weary bones?’

‘Of course,’ said Cortés, sitting in his own comfortable folding chair and gesturing to Malinal to draw up the stool she habitually used.

Huicton smiled at Malinal. ‘Greetings, my lady! So good to see you again. You’re fast becoming the most famous woman in Mexico!’

‘Famous and rightly so!’ agreed Cortés. ‘After God we owe our success in this land to Malinal!’ He noticed she chose not to

interpret this last remark.

'Indeed she is so famous,' continued Huicton, addressing Cortés again, 'that people are beginning to call you by her name. Those who don't think you are Quetzalcoatl, or some other deity, now often call you Malinche, which means "the master of Malinal". Did you know that?'

'Actually I didn't,' admitted Cortés. 'Malinal, Shikotenka, is this so?'

They confirmed that it was.

'Hmm … Malinche,' Cortés mused, rolling the name around his tongue. 'The master of Malinal, eh? It has a certain ring … I think I like it. Now, to business. What can I do for you, Ambassador Huicton?'

'It is more a matter of what I can do for you,' said the old man. 'My master Ishtlil is ready to put twenty thousand of our rebel warriors of Texcoco at your disposal at any time you feel you need them. We know, of course, of the great support our friend and ally

Shikotenka of Tlascala has given to you – ' a smile at Shikotenka – 'and we wish to do the same. My master also undertakes to bring the Huexotzincos and others who oppose Moctezuma to your cause.'

Cortés nodded approvingly: 'I welcome such support,' he said, 'and the time may come when I will rely upon it. But as Shikotenka and Malinal both know, I don't propose to take Moctezuma by storm, with a great army at my back, when guile and subterfuge might achieve the same objective without fighting … Shikotenka here has offered me fifty thousand warriors, but with all respect I've told him I will only take a thousand and keep the rest in reserve against emergency should it come. The same goes for your master's generous offer. To cement our friendship, let him supply a thousand warriors to me now. Should I find I need more, I'll ask for them.'

'You judge your enemy well. A large army will put him on his guard, but Moctezuma is more susceptible than most to guile and subterfuge, and you've already done much to weaken his will and

confuse his wits and terrify his imagination.' Huicton leaned forward. 'In this work,' he said, and suddenly Cortés realised those opaque eyes were not as blind as he'd at first thought, 'you've had help – help no one else knows of. Help you did not ask for, but that has wonderfully served your purpose.'

For a moment Cortés was taken aback. Did this old man know about Saint Peter? But then Huicton seemed to change the subject: 'You love gold, do you not?'

'It has its place,' Cortés replied carefully.

'Suppose I were to tell you,' said Huicton, 'that a treasure more precious than gold lies within your grasp here in Cholula. All you need to retrieve it is a few strong men with hammers.'

'I'd be interested, of course,' said Cortés.

As Huicton stood up, his knee joints creaked and he paused to stretch his back. 'Come then, Malinche. Let me lead you to this treasure.'

* * *

The morning was bright and clear, the sky a rich, intense, cloudless blue. Yet as he climbed towards the summit of the great pyramid of Tenochtitlan, Moctezuma saw doom awaiting him: inexorable doom, inescapable doom, the doom of chaos, the doom of endings. So imminent was his sense of the disaster that pressed in on him that he had ceased to confine himself to his palace. With Acopol dead, the warding spells that had protected him there would no longer function anyway, so one place was no less dangerous to him than another.

Moctezuma could only guess at the precise intentions of the *tueles* until Teudile returned to court, but his spies had already informed him in the most graphic detail of the merciless sack of Cholula, the massacre of its people, the murder of Tlalchi, and the decapitation of Acopol, whose head, it seemed, had been impaled on a spear and left to rot at the foot of the steps of the pyramid of

Quetzalcoatl.

How was it possible that the leader of the *tueles* could be the god of peace, returning to claim his kingdom, and yet have unleashed such horror and violence, such desecration and defilement, in the very heart of his own sacred city of Cholula?

The answer, Moctezuma knew all too well, must lie in Acopol's attempts to reverse the prophecy – the placing of Hummingbird's idol on the pyramid of Cholula and the human sacrifices performed there with the collusion of Tlaqui and Tlalchi. Such things were an abomination to Quetzalcoatl, and the spectacular vengeance he had inflicted on Cholula was the clearest possible sign of his wrath.

Of course Moctezuma would be next! It was he who had commissioned Acopol's dark rituals and set all this in motion, so it was he, ultimately, who must face the severest retribution for what had been done. Yet it seemed so unfair! So undeserved! For he had not acted alone, but on the express urging, advice and instruction of a higher power – no less than Hummingbird himself! – who had

promised so much and delivered so little. As he reached the top of the great pyramid, all Tenochtitlan stretched out below him and the dark, blood-spattered doorway of the temple of Hummingbird looming ahead, Moctezuma felt such a wave of self-pity that tears sprang to his eyes and rolled down his cheeks.

His god had misled him. His god had lied to him! Suddenly angry, he strode through the door, passed the loaded skull racks in the antechamber, entered the inner sanctum and marched up to the hulking idol, squat and powerful, exuding menace, poised and motionless as a viper about to strike, flaunting its necklace of human hearts, hands and skulls. 'Lord Hummingbird,' shouted Moctezuma, 'Hummingbird at the Left Hand of the Sun, you have deceived me!'

The massive stone statue glared down at him out of the shadows, glittering with jade and jewels, its yawning mouth jagged with fangs and tusks, its eyes cold and appraising.

'You promised me victory in Cholula, lord,' Moctezuma

complained. 'You showed me beautiful visions, you foretold that the white-skins would lose their power, you said I would be rid of them forever.' As he spoke his voice rose higher, and suddenly he was in the grip of a paroxysm of rage, wailing and screaming, gnashing his teeth, beating his fists against the carved feathers of the idol's granite chest. The fugue deepened, moving beyond his conscious control, so he had only the faintest idea of his own actions when he drew his knife from the sheath at his waist and used its serrated obsidian blade to slash his earlobes to shreds, spraying blood everywhere, and its point to stab repeatedly at his arms and shins. 'What shall I do?' he sobbed as he stabbed and sliced, stabbed and sliced. 'I am finished, lord. I am used up. I beg you, show me the way.'

But the idol remained silent, and later, when Moctezuma's cuts had begun to scab over and his blood had ceased to drip, he walked dejectedly from the temple, and down the steps of the pyramid, and made his way to his palace and his own private chambers, where he

sat shivering and disconsolate on the floor, awaiting the return of Teudile and whatever tidings he would bring.

* * *

Ever alert to any talk of treasure, Alvarado had joined Cortés and Malinal and the two strong soldiers Huicton had suggested they bring, one equipped with a pick and the other with a sledgehammer.

Huicton walked with a pronounced stoop. Nonetheless, he was vigorous and surprisingly fast on his feet as he led the way from the palace Cortés had commandeered as his headquarters and out into the brilliant sunlight flooding the plaza. 'Where are we going, father?' asked Malinal, who was keeping pace with the strange old ambassador.

'Over there,' Huicton said bluntly, pointing to the eastern side of the pyramid of Quetzalcoatl and increasing his pace.

In the past five days, the plaza had been cleared of the thousands

of corpses strewn across it on the morning of the massacre, but Alvarado had insisted that the head of the sorcerer Acopol, who he was very proud to have killed, should remain mounted on a spear that he'd set up at the foot of the eastern stairway. Catching sight of it as they drew closer, Huicton muttered something under his breath.

'What was that?' asked Malinal.

'Just expressing my surprise,' said Huicton. He gestured towards the head: 'I'd heard that one had perished, but I rather disbelieved the story – until now.'

Alvarado, whose enthusiasm, love of praise, general level of happiness and ability to kill without compunction frequently reminded Malinal of some great hound, came bounding forward. 'That's my head he's pointing at,' he observed.

'Yes,' said Malinal, 'it is.'

'Ask him – does he know anything about its owner? I've been trying to find out who the bugger was since I killed him, but

everyone just mutters “sorcerer” and clams up.’

‘This is Don Pedro Alvarado,’ Malinal said to Huicton. ‘He killed the man whose head this was and would like to learn more about him. Can you tell him anything?’

Huicton looked at Alvarado with interest, looked at the head, looked back at Alvarado. ‘Sorcerer,’ he said.

‘See!’ said Alvarado. ‘See what I mean!’

Since the massacre, Malinal had stayed as far away from Alvarado’s gruesome trophy as possible but now, as they approached it, she noticed that not only had the eyes not been plucked out by birds – a mystery in itself after five days – but also that they were wide open and seemed somehow still alive, filled with intelligence and malice.

Huicton was speaking again. At first Malinal thought he was simply elaborating on his answer to Alvarado’s question: ‘This is the head of a very bad man,’ he said. ‘A man called Acopol. According to information I received, he was responsible for the disappearance

of your friend Tozi – but please, Malinal, don't translate that bit yet!'

Malinal suddenly felt faint and began to shake. 'What? What did you say?'

'Your friend Tozi – who is my friend also, as I told you when we last met. She's underneath the pyramid in a cave. She's been there for more than twenty days but she's tough and still alive, I hope. To get her out we have to find a secret entrance and then do some digging. I'm told these white men here will move heaven and earth for treasure, but I suspect they might do rather less for a missing girl.'

Alvarado was listening, looking puzzled: 'What's the old fool saying?' he asked.

'He's saying this head belonged to a very bad man called Acopol.'

Alvarado yawned: 'I know that already, dammit. But I want more. Can't he tell me more?'

Still trembling at the sudden and unexpected news of Tozi, who

she'd had no word of since Huicton's last visit, Malinal's mind was full of unanswered questions. Why was Tozi here in Cholula? How was it that Acopol had buried her beneath the pyramid? And why, with her powers, had she not at once escaped? More important, was she still alive? Desperate to begin the search, but knowing Huicton had understood the Spaniards well, Malinal translated Alvarado's question.

'You can tell him,' answered Huicton, whose voice had a peculiar nasal thrum, like a swarm of summer bees, 'that he did a remarkable thing to defeat Acopol. Such a one is very hard to kill.'

'He put up a fight,' admitted Alvarado. 'Cut me here.' He pointed to a bloody bandage wrapped around his upper left arm. 'Not often a foe gets to cut me.'

'He was a *nagual*,' said Huicton. 'His power was to change his form, now a man, now a jaguar … Was this how he appeared to you when you fought?'

There was some confusion over the Nahuatl word for jaguar –

ocelotl – which Huicton sought to clarify with the Mayan word *b'alam*, but neither had any meaning for the Spaniards. After some explication of the appearance and habitat of the animal, however, Alvarado gave a broad grin and said: 'Panther – that's what the bugger thought he was, leaping up and down, weapon like a claw. A big jungle panther.'

'*Thought* he was a panther?' Huicton queried the nuance. 'Or actually became one?'

'He was a mere savage,' said Alvarado without hesitation, 'pretending to be a panther. Silly bugger. Gave me a bit of a start, though, I have to admit, until I cornered him and cleaved his spine.'

Huicton glanced again at the ferocious head with its tattooed spots and whorls: 'Your magic was stronger than his.'

'I don't believe in magic,' said Alvarado. He dropped his hand to the hilt of his falchion. 'Just steel and the will to use it.'

'And no one uses it better than you.' Cortés stepped in and patted his friend on the shoulder: 'You did well to rid us of such a

fiend, Pedro, but I for one have had enough of standing around in the hot sun admiring your handiwork.' He turned to Huicton: 'You said something about treasure, Ambassador?'

* * *

'Our magic,' said Tozi's mother, 'comes not from the gods, or from men, but from the source of all created things.'

'But the god Hummingbird changed my magic,' Tozi objected. 'And the man Acopol stole it from me.'

'They did not change it or steal it. To do so is beyond their powers. Gods and men may only divert the course of magic, as the course of a river may be diverted or the wind forced to flow around a barrier, but the magic is always there like the river or the wind.'

'So when Hummingbird made my magic stronger—'

'He only redirected it to flow more strongly through you, while Acopol deflected it to flow away from you. But the magic is still

there, Tozi, and you can connect with it again.'

'Magic is a curse,' said Tozi. 'Because of your magic, the mob killed you and took you from me.'

'But magic is also a blessing,' her mother said, 'that has flowed through the women of our line in an unbroken stream, sometimes stronger, sometimes weaker, but always there, for ten thousand years. We pay a price for it, that's true. As I did. As you have. But our connection to it is a gift that cannot be denied, a gift from the source.'

'A gift for what purpose?'

'To work upon the world of created things and to magnify darkness or light, as we choose, to glorify good or evil, as we choose, to exalt love or hate, as we choose … The power is the gift but the choice is always ours.'

'I don't want to do such work any more,' Tozi said, surprised how certain she felt. 'I don't want to make such choices.' They were sitting side by side in the place where they often met, on the rock

jutting up out of the waters of a lake under a blue sun in a burnished sky. Tozi wrapped her arms round her mother's warm body and rested her head on her shoulder: 'I'm so happy I've found you again. All I want is to stay here with you.'

'But you cannot stay, child.' Her mother's voice was gentle, overflowing with love, filled with sorrow. 'It's not your time. You are needed in the created world. You have to go back … ' And already her appearance of substantial, corporeal reality was fading, and with it her scent, her warmth, her sheer, definite, unmistakable presence also evaporated like mist at dawn and, once again, as had happened so frequently before, this scene of reunion from which Tozi derived such comfort dissolved into darkness and she found herself back in her tomb beneath the pyramid waiting for death to claim her.

She lay still on the cold, comfortless rock floor and heard sounds – *crash! bang! crash!* – and imagined she saw flickers of yellow light, and laughed her mad, cackling, crazy woman's laugh, for she knew

herself to be a princess in a palace of illusion where nothing was real.

Even so, the light drew her like a moth to a flame. With the last of her strength she clambered to her feet and stumbled towards it.

* * *

Pepillo had joined the growing crowd at the base of the pyramid, pushing through the soldiers to stand with Malinal as the stooped, grey-haired Texcocan ambassador explored the wall beneath the eastern stairway with the tips of his fingers, pressing and manipulating every crack and crevice. Then, just when it seemed there was nothing to be found here, and some of the spectators were beginning to drift away, Huicton gave a sudden grunt of satisfaction, there was a loud *click*, and a section of masonry wide enough for two men to pass side by side slid back to reveal a dark corridor beyond.

Alvarado laughed excitedly and plunged in, reappearing a moment later. 'Black as pitch in there,' he said. 'We'll need light.' Soon burning torches were brought and Huicton and Malinal led the way, with Alvarado and Cortés close behind and Pepillo, the soldiers with the pickaxe and sledgehammer, and the rest of the curious crowd following. After a dozen paces, however, Cortés turned round and bellowed: 'Out of here, the lot of you. Whatever we find, you'll know soon enough, but we need air and space to swing a pick.'

There was a rumble of complaint – rumours of a treasure trove had spread like wildfire – but eventually the corridor was cleared. Pepillo lingered close to Cortés, who gave him a cheerful nod. 'You can stay,' he said. He nodded towards Malinal: 'For goodness' sake try and cheer her up; she looks as if she's seen a phantom.'

Pepillo counted three hundred paces, perhaps a few more, before the corridor abruptly terminated in a wall of rough-hewn masonry blocks. Alvarado inspected it, dug the point of his dagger into the

mortar between the joints and pronounced it freshly built. ‘Come ahead, boys,’ said Cortés, signalling the two labourers forward, and they set to work at once, rapidly smashing a hole in the wall with the sledgehammer and levering out the loosened blocks with the pick.

As the gap widened they all heard a cackle of high-pitched laughter.

Lurching towards them in the flickering glow of the torches, dressed only in a filthy, torn shift, her eyes wide and staring, was a skeletal, ghostly girl.

Chapter Forty-One

Friday 22 October 1519 to Monday 2 November 1519

'I have spoken with the leader of the *tueles*, sire, the one all now call Malinche. I bring a message from him.' Teudile was caked with the dust of the journey, his clothing soaked with sweat, his face grey with exhaustion as he sat before Moctezuma in the House of the Eagle Knights.

Raising the index finger of his right hand, Moctezuma made the gesture of assent, the members of the Supreme Council leaned forward on their benches and Teudile began: 'The Lord Malinche

holds you responsible, sire, for all operations that were to be taken against him and his forces in Cholula. He does not believe that Tlaqui and Tlalchi were acting alone, but rather at your instigation, and he cites as evidence for this the words of Tlaqui himself who he put to the most horrible torture before my eyes and who blamed you for everything—'

'The coward!' spat Moctezuma. 'The weakling!'

Teudile was trembling from head to toe. 'Tlaqui died under torture,' he shuddered. 'They tore his fingernails out one by one and to his last breath he refused to accept personal responsibility for the plot, saying you forced him to it.'

'Despicable traitor!' hissed Moctezuma. He could not believe the duplicity and faithlessness of his Cholulan vassal who had failed so miserably in his duty of silence and loyalty. His mind racing, he looked down at the perfectly manicured nails of his own fingers, stared at the pearly half-moons of the quicks.

'Sire … may I speak?' The interruption came from Apanec,

Keeper of the House of Darkness.

'No you may not,' snarled Moctezuma. 'Be silent.' He continued to study his fingers. The thought that his own beautiful nails might one day be pulled out was almost too much to bear. At last he fixed his eyes on Teudile again. 'But surely,' he said 'the craven babble of Tlaqui is deniable? The word of a man under torture is meaningless; such a man will say anything to escape pain.'

'That is true, sire,' agreed Teudile. 'And I denied his accusations, declared your innocence in all these matters, promised Malinche that you bore nothing but goodwill for him and friendship in your heart. Regrettably, however, he himself saw the six regiments of your picked warriors under General Maza before they fled the field. He does not understand how such a force could have come against him without your express orders, and for this reason he says he no longer seeks your friendship. He says he will now advance on Tenochtitlan at war with you, seeking to do you all the harm he can.'

Moctezuma slumped on the plinth, careless of the judgemental stares of his counsellors. The fact was that Tlaqui had let him down; Maza, who he'd had skinned alive the moment he returned to Tenochtitlan, had let him down, and Hummingbird had also let him down. The great and perfect plan for the destruction of the *tueles* at Cholula, on which he'd placed all his hopes, had failed miserably, and now he alone must face the wrath of Malinche, who was no longer coming to him as the god of peace but as a warrior.

Malinche! Malinche! Moctezuma rolled the name and its meaning around in his mind. Ha! The Lord of that demon-woman Malinal – that harbinger of bad fortune, that omen of doom.

'*Advise me what to do!*' he roared at his counsellors, looking from one aghast face to the next. 'Is that not the purpose for which you are gathered here?'

* * *

As before there was a division of opinion.

Cuitláhuac, supported by many in the council, advocated war. 'We must mobilise all our forces and the forces of our allies before this Malinche leads every one of them into defection, and if he fulfils his threat to march on Tenochtitlan, as I fear he will, we must destroy him on the road. My son Guatemoc—'

'*You will not speak of that wretch here!*' bellowed Moctezuma.

'Very well, sire, then let me put it this way. I have consulted with military experts who know the craft of ambush and surprise, and they recommend a most suitable place between Cholula and Tenochtitlan where we may use our superior numbers and knowledge of the land to take the *tueles* at a disadvantage.'

'And where is this place?'

'Just below the high pass of Tlalmanalco, lord, now covered by snow and blasted by icy winds. Our forces are accustomed to such conditions, those of the *tueles* – we may presume – are not, since they have marched so recently from the hot lowlands of the coast.

At the pass, where they will be cold, where they will be weak, the road divides, the left fork leading to Tenochtitlan by way of Tlalmanalco and Chalco, the right fork by way of Amecameca. If we block the road to Amecameca by felling many great pines and other stout trees across it, the *tueles* will naturally take the left fork. There, a little way down the mountain, we may make our preparations. Part of the hillside should be cut away, ditches and barricades prepared and a large force assembled, a force of at least one hundred thousand men, to fall upon the *tueles* like an avalanche and crush them utterly … '

But the opposite point of view was put by Cacama, Lord of Texcoco who remained in favour, as always, of inviting the *tueles* into Tenochtitlan. There was, he said, no guarantee that an ambush at Tlalmanalco would work. If the *tueles* were truly gods, with the powers of gods, as many suspected, they might not be adversely affected by the cold. Moreover, all previous attempts to take them by surprise, whether by the Mexica, or the Cholulans, or the

Tlascalans, or even by the Chontal Maya, had failed dismally, and they had triumphed in every military engagement.

'No matter,' Cuitláhuac insisted. 'Should the ambush fail, it is still our duty to fight them whether they be gods or men. We must not hide. We must not flee. We must not be fainthearted. Rather we must shower them with stones and arrows and spears at every point of their march. In the event they reach Tenochtitlan, we must close and defend the causeways. Better we all die, *macuahuitls* in hand, than see our sacred city fall.'

Cacama disagreed. 'The Tlascalans thought that way,' he said, 'and look where it got them. If we try to prevent the *tueles*' entry into Tenochtitlan, they will fight us in our subject towns – as even you yourself admit, Cuitláhuac – until we have no allies left. And all of this, in my opinion, is completely unnecessary! The *tueles* say they are the ambassadors of a powerful foreign king, and as such we should receive them courteously.'

After several hours of debate with no clear majority in favour of

one view or the other, Moctezuma leapt to his feet and gave a great shout: 'ENOUGH! I have heard these arguments a hundred times and I am weary of them. You are a council of old women. I go to consult with the god.'

He summoned the High Priest Namacuix to follow him and strode from the assembly hall.

* * *

The moon was close to full that night and its baleful glare pierced the high, narrow windows of the temple of Hummingbird, adding a spectral glow to the flickering brands that lit the inner sanctum. 'The last time you came to me here,' said the god, 'you beat upon my breast with your fists like a spoiled child who has not been given his way.'

The great stone idol had quite suddenly come to life and was now filled with movement and a seething, restless energy.

Moctezuma, who had consumed a dozen large *teonanácatl* mushrooms, dropped unsteadily to his knees. 'I am truly sorry, lord. I beg you to forgive me. I was bereft of my senses after the victory of Malinche in Cholula. I could not understand why you had permitted such a disaster.'

'It was not I who permitted it,' sneered Hummingbird, his eyes, blacker than obsidian, glittering in the moonlight. 'It was you. The sacrifices offered in Cholula were insufficient to reverse the prophecy. More blood should have been spilled. Precious blood – the blood of virgins, as you have given me tonight.'

'I left the matter in the hands of the sorcerer Acopol, lord.'

'You should not have done so. I required precious blood, female blood, the blood of virgins – and plenty of it. He gave me twenty males a day, males past the first flush of youth; captives of war. It was not enough.'

'My humblest apologies, lord. I hope tonight's sacrifice has proved more satisfying.'

Arranged around the floor of the Holy of Holies, propped up against the walls, their blood congealing in great pools, their hearts stuffed into the mouth of the idol until its fangs were clogged with matter and gore, were the butchered remains of the hundred virgin girls Namacuix had brought in fetters from the fattening pen to the pyramid. None of them, as Moctezuma had stipulated, was more than eight years old.

'More satisfying?' said Hummingbird. 'Without a doubt!' He extracted a great chunk of purple meat that had become lodged between his teeth, pushed it back into his maw and surveyed the bodies. 'I suppose these little ones are an advance on my birthday present?'

'They are, lord, but you will not go short on your birthday. I have promised you ten thousand and you shall have the exact count.'

'Very good,' said the god. 'I can hardly wait,' and with that – a miracle! – he transformed into a tiny hummingbird that hovered over one of the slaughtered children and dipped its long beak into

her gaping chest cavity. A voice like a tinkling of bells filled Moctezuma's head: 'You have done well tonight, my son, and I am pleased. I sense you have a question for me.'

'I do, lord.'

'Then ask it.'

'What must I do about the *tueles*, lord? Guide me, I beg you. Show me the right path.'

'Be guided by your own heart, my son,' the god replied. 'I have placed wisdom there. Search within and you will find the path to glory.'

* * *

'I feel tricked by that cunning old fox,' said Cortés. 'He led us to expect a roomful of treasure and all we found was this wretched girl.'

'He said you find treasure more precious than gold,' replied

Malinal. 'He spoke truth.'

'I've no doubt she's precious to you, my dear, after the ordeal you shared – but for the rest of us she has no value at all.'

Malinal was beginning to feel angry. Now she sat up in bed, moonlight pouring through the window of the large chamber they occupied in the palace that had once belonged to Tlaqui and Tlalchi, and looked down at her lover's stern, bearded face. 'Hernán. You said, after God, you owed success in this land to me. Was that joke? Or did you mean?'

Cortés appeared to think about it, which made Malinal, for a moment, even angrier. 'I meant every word,' he said eventually. 'We're winning here because I've been able to talk to people, threaten people, negotiate with people, and I couldn't have done any of that without you. We're winning because you've helped me understand the local customs, the local ways of thought, the local superstitions. I couldn't have done any of that without you either. Most important of all, we're winning because you've helped me get

inside Moctezuma's head and defeat him on the battlefield of the mind and I certainly couldn't have done that without you.'

Malinal couldn't decide whether he was mocking her or serious. He sounded serious, but with Cortés you could never tell. Nonetheless, she decided to take his words at face value. 'In that case,' she said, 'my Tozi more precious than gold! Without her I not be alive today, and even if alive I not be here to help you. She saved my life in fattening pen of Tenochtitlan; you know already. But after – you don't know this, Hernán! – she make me come to Potonchan to search you out. She … how you say? Insist? She tell me it right. If she not do that, I never go to Potonchan! Never! I go somewhere else, safer for me, and you and I would not meet. I know you believe our Christian God put me in your path to win you victory – we talk about this many times! If he did, he used Tozi to do this. So in God's name, Hernán, I ask you recognise Tozi! Welcome her!'

Cortés grinned: 'Oh very well,' he said, 'besides, she's of an age

to be a companion to Pepillo, and God knows he needs a companion other than that dog he's always clinging on to.' Another grin, lecherous this time: 'Now come here.' He reached out to fondle her naked breast. 'You're a goddess in this moonlight.'

* * *

On Tuesday 26 October, exactly six days after his departure, Teudile returned to Cholula with a train of *tamanes* carrying twenty gold plates that Alvarado valued at a thousand pesos each, an assortment of other fine gold ornaments worth a further ten thousand pesos, two hundred bundles of cotton garments including one thousand five hundred fine cloaks, and a hundred huge food baskets filled with cooked turkeys, quail, venison and maize cakes. As he had promised, the steward also brought a message from Moctezuma, a complicated one that Malinal and Pepillo worked on together to render into perfect Castilian.

‘My lord commands me to convey to you his humble apologies for the treachery of his vassals in Cholula,’ Teudile began gravely, ‘and asks you to believe, in friendship, that he was not informed of it and played no part in it. It was an initiative entirely of those fools Tlaqui and Tlalchi, whom you have rightly put to death. As to the Mexica regiments you witnessed drawn up in battle formation outside Cholula to attack you, my lord again sends his apologies. He understands your suspicions but informs you these forces were not there with his knowledge or on his orders. Because of the need from time to time to suppress hostile elements in this region, we have been in the habit of maintaining garrisons at Izúcar and Acatzingo and at Cholula itself, and it was the commanders of these garrisons, acting misguidedly on the direct orders of Tlaqui and Tlalchi, who supplied the regiments that confronted you which, thanks be to the gods, you chased away. Those garrison commanders were arrested shortly afterwards on my lord’s orders and suitably punished. He has pleasure – ’ at this point Teudile summoned a bearer carrying a

small basket which he opened with a flourish – 'to send you their hides.'

Cortés peered into the basket, wrinkling his nose with disgust at the bloody human skins, fresh and untanned, with glistening globs of yellow fat still attached, that lay folded within. 'Revolting!' he exclaimed, waving the bearer away.

'Such is our custom here,' said Teudile, 'for any who displease my lord, and those who wore these skins displeased the lord Moctezuma greatly in the inconvenience they caused you. In the same spirit, because he does not wish to cause you any further inconvenience or discomfort, my lord Moctezuma most humbly requests that you do not trouble yourself to make the arduous journey to Tenochtitlan, for the lands through which you must pass are very high, and cold, covered with snow at this time of year, and inhospitable. Moreover, as you may know, our city is located on an island in the midst of a lake, approached by long causeways, and all our food must be carried out to us on the backs of *tamanes*, or

brought over the water by boat, so my lord fears he will not be able to feed you and all your men. He suggests you stay here in Cholula, or better still return with your company to the town you have built on our coast near Huitztlan, where the weather is warm and you may pass the winter in comfort. Only say what you need – food, cloth, gold and jewels, whatever you want, in whatever quantity you require – and my lord Moctezuma gives his solemn oath to send it to you, so long as you do not come to Tenochtitlan.'

'Please thank your master for his generous offer,' Cortés replied, 'and convey my regrets to him, but we will not turn back, neither will we remain here in Cholula, nor are we in the least daunted by any hardships we may face on our march to Tenochtitlan, even if we must go hungry when we get there. I have no choice in the matter as I am required by my own king, the most powerful monarch in the world, to give him a full account and description of your city and of the great Moctezuma. Since I must perforce do these things, the great Moctezuma must, on his part, accept the fact, and not make

other plans – for if he does I will be compelled to cause him much harm and it would sadden me if any harm were to befall him.'

Teudile was tight-lipped. 'I will convey your words to my master,' he said. 'And may I tell him when you intend to proceed to Tenochtitlan?'

Cortés favoured him with a broad smile. 'We are making ready our departure now. Four or five more days at the most, and we will be on our way to you.'

'Very well,' said Teudile. 'I must return and report to my master at once. Perhaps he will wish to send you guides for your journey.'

Alvarado was still examining the gifts of gold, making no attempt to conceal his delight. 'A queer race,' he said to Cortés after the ambassador had taken his leave. 'On the one hand they show us their wealth – ' he lifted one of the heavy gold plates and bit its soft rim – 'and on the other they show us they don't have the courage to defend it.'

'Because they arrogant, strutting, loud-mouthed bullies,'

contributed Malinal, whose own Castilian was improving so fast she soon would not need Pepillo's help to refine it. 'They used to pushing neighbours around. Only a few like Tlascalans stood up to them but you Spaniards are first people who bully them back. They don't like it! Don't know what to do about it! Have hearts of cowards.'

* * *

Thanks to Malinal's constant gentle tuition, Pepillo's ability to sustain a conversation in Nahuatl had advanced by leaps and bounds, so from the moment Tozi had been brought out from the cave under the pyramid, he'd been able to talk to her.

Not that she'd had much to say for the first few days, feeble and starved as she was, but whenever his duties allowed, Pepillo was in attendance on her, constantly urging food on her, nursing her back to health. Melchior, too, had taken a shine to her and vigilantly

guarded her bed, where she lay as still as the dead, sleeping deeply and oblivious to the world. Little by little, however, as she gained strength, her skeletal form filling out, colour returning to her sallow features, she slept less and began to talk more. Often Malinal would be present, helping with the gaps in Pepillo's vocabulary, at first having to explain patiently to Tozi that he was not a god, that none of the Spaniards were gods, and that Cortés, their leader, who everyone now called Malinche, was most certainly not Quetzalcoatl as she seemed so much to want to believe.

During these days of slow recuperation, Malinal told Tozi the whole story of what had happened since she had first reached the Spaniards at Potonchan, and Tozi in her turn spoke of her own incredible adventures. Gradually Pepillo realised that this strange Indian waif, whose large earnest hazel eyes, high cheekbones and serious, pretty elfin face so entranced him, actually believed herself to be some sort of witch! Such an idea would have been very dangerous if Muñoz were still alive to do her mischief, but

fortunately he was not, and Father Olmedo was too wise and generous-spirited a man ever to burn anyone at the stake. Even so, Pepillo cautioned Malinal and Tozi not to talk of such matters in the presence of Olmedo, or Cortés – or indeed any of the other expeditionaries.

'Why?' Tozi asked.

'Because Spaniards believe witches are in league with the devil, and fear them and kill them in cruel ways whenever they can.'

'The Mexica believe this too,' said Tozi. 'They killed my mother because she was a witch.'

'All the more reason to keep quiet about it then.' Out of long habit, Pepillo glanced uncomfortably over his shoulder, even though he knew the three of them were alone in the room.

But Tozi wasn't finished: 'The sorcerer Acopol took my powers away when he buried me under the pyramid,' she said sadly. 'I used to be able to make myself invisible and go wherever I pleased; I used to be able to send the fog, and put fear and terrible dreams into

people's minds and know their thoughts, and command wild animals—'

'Shush!' Pepillo said. 'I told you not to talk of such things.'

'We're speaking in Nahuatl,' Malinal pointed out.

'Even so, it's dangerous. Better to say nothing.'

'Do you believe I'm a witch?' Tozi persisted. Her eyes, bright and intelligent, seemed to peer directly into Pepillo's soul.

'No, of course I don't!'

'Well you should,' she said, sticking out her lower lip in a certain stubborn way she had. 'Because I *am* a witch, even if I've lost my powers. My magic is still there and one day I'll find how to connect to it again.'

'It's true, Pepillo,' Malinal confided. 'Tozi did have these powers. She used them to save my life, not only once but twice.'

'Then if she's a witch she's a good witch,' whispered Pepillo. 'But even good witches get burnt.' He looked over his shoulder again. 'We have to stop talking about this. I'm sorry.'

A week after being rescued from the cave, Tozi was up and about, hobbling restlessly around her room, supporting herself between Pepillo and Malinal, and around noon on the eighth day, Friday 29 October, dressed in a fine new cotton blouse and skirt from the hoard Teudile had brought, she declared herself ready to go outside. She'd asked many questions about Acopol and his fate and now insisted she wanted to see his head.

Nearly two weeks had passed since it had been hacked from the sorcerer's shoulders. There had been calls for it to be removed from the prominent position it occupied in front of the pyramid, but Alvarado had resisted these and Cortés had supported him, saying the trophy sent an important message to the surviving Cholulans who were now returning in good numbers to reoccupy the town.

Approaching it, squinting in the harsh midday glare reflecting off the flagstones of the plaza, Tozi shook herself free of Malinal and Pepillo and walked independently for the first time, while Melchior danced and gambolled at her heels. She stopped about five

paces from the head, still impaled on a Spanish spear as Alvarado had left it, and looked at it closely for several minutes with a firm, resolute stare. Then, keeping the same distance, she shuffled slowly round it until finally she stood in front of it again. The face was in such an advanced state of corruption, Pepillo saw, the teeth bared like fangs as the tattooed flesh melted away, that it did more and more resemble some monstrous jungle beast rather than a man.

Now Tozi moved closer, peering into the creature's rotting eyes, yet closer until she was only a hand's breadth away from it, and began to mumble rapidly, a spine-tingling, sibilant whisper that little by little became an incantation, more sung than spoken, rising in volume, growing coarse and somehow menacing. As the sound spread out across the plaza, Melchior suddenly whined and Pepillo looked nervously round, hoping no one would approach and witness this eerie, frankly witchy, scene. That was when Tozi's frail, skinny body seemed to shimmer, the way a heat haze shimmers in bright sunlight, shimmered a second time, and then, just for an instant

vanished so completely that even her shadow disappeared. Pepillo stared in amazement, blinked his eyes twice and she was back, thin but solid, casting a shadow again. It had all happened so fast he at once began to convince himself he had imagined it.

Tozi's whispered chant stopped and she turned with a tired smile. 'I'm ready,' she said.

'Ready for what?' asked Malinal. If she too had witnessed the illusion, she gave no hint of it in her expression.

'To fight Moctezuma again,' Tozi said. 'We don't have long.' She linked arms with Malinal and Pepillo. 'Let's go inside,' she said, 'and I'll explain.'

* * *

Pepillo had always been good with numbers, so he did not find it difficult to reconcile the Mexica and Christian calendars for the weeks ahead. The Mexica year had three hundred and sixty-five

days, as did the Christian year, but instead of being divided into twelve months, it was divided into eighteen months of twenty days each, plus one short month of five 'nameless' days, the *nemontemi*, which fell during January in the Christian calendar and were considered by the Mexica to be unlucky and potentially cataclysmic.

Today, Friday 29 October, was four days from the end of the Mexica twenty-day month of *Tepeilhuitl*, 'Feast of Mountains', that had begun on 11 October. The following month, *Quecholli*, 'Flamingo', would begin on 30 October and end on 19 November. Then came *Panquetzaliztli*, 'Raising of Flags', sacred to the war god Hummingbird, whose birthday was celebrated with human sacrifices on the first day of that month – corresponding with 20 November in the Christian calendar.

This year, Tozi said, Moctezuma was planning an unusually grotesque and wicked festival of sacrifices to honour the birthday of the war god; sacrifices on a far grander scale than any that had gone before, in which the hearts of ten thousand young girls, all maidens

and most under twelve years of age, would be cut from their bodies on the summit of the great pyramid of Tenochtitlan. The murder of this huge number would take four days and nights to complete and would therefore begin on 16 November, in order to culminate with the offering of the last of the 'basket' of ten thousand victims at sunrise on 20 November, the birthday itself.

At first Pepillo found it impossible to comprehend that such a thing could happen, but Malinal and Tozi reminded him in alarming detail how they'd witnessed the sacrifice of two thousand women in February and had only by a miracle escaped the knife themselves. Long before they'd finished their account, he was persuaded that the almost unimaginable holocaust that Moctezuma was now preparing could and most certainly would take place between 16 and 20 November, unless Cortés and his conquistadors were able to reach Tenochtitlan in time to prevent it.

'This is the reason that Malinche was called to Mexico,' Tozi insisted, her eyes blazing. 'I care not whether he is Quetzalcoatl

returning to claim his kingdom as I once believed, or just a man as you have told me, but the fact is he's here, with the power and the will to prevent this horrible and grievous wrong. It's our responsibility to ensure that he does …

'It won't be so easy,' said Pepillo. 'My master Cortés – Malinche as you call him – can't be *made* to do anything. He long ago set his mind on reaching Tenochtitlan, but he'll take us there at the time he believes is best. He may wish to win more allies first, in which case he might halt our march in towns along the way – who knows for how long? Also, there's the matter of the Mexica. We'll make slow progress if they attack us – and they'd be fools not to, though I pray they don't.' He turned to Malinal: 'Remember how it was in Tlascala? We stayed two weeks on the hill of Tzompach without moving a mile.'

'The Tlascalans made us fight for our lives,' said Malinal, 'and they were led by a brave man. The Mexica are bullies led by a coward.'

‘Even so, we’re in their homeland.’ Pepillo felt a responsibility not to give Tozi false hope. ‘And they have hundreds of thousands of soldiers. God knows what sort of fight we’ll face.’

* * *

The next day, Saturday 30 October, Huicton returned with a thousand warriors from the rebel faction of Texcoco, and left that same afternoon taking Tozi with him. Before her departure she sought out Pepillo and found him grooming Molinero, with Melchior looking on, in the makeshift stables in the courtyard of the palace. ‘I have to go back to Tenochtitlan,’ she explained. ‘There’s work for me there.’

‘But how?’ Pepillo was suddenly panic-stricken at the thought of losing this mysterious girl. ‘You can’t go. You can’t even walk properly.’

‘Huicton’s *tamanes*,’ she said. ‘They’ve made a litter. They’re

going to carry me.' She rested a slim hand on Pepillo's arm and he felt himself blush to the roots of his hair. 'You've been very kind to me,' she said, 'but I have to go. Work on your master, make him come quickly to Tenochtitlan. I'll see you there … '

'But … But … ' Pepillo was speechless. He wanted to run and find Malinal, hoping she might persuade Tozi to stay, but Tozi seemed to guess his thoughts. 'I've already told her,' she said. 'She knows better than to try to talk me out of anything. These are terrible times and we all have to do what we can.' She stooped and petted Melchior. 'This one has a noble heart,' she said. 'Something tells me he has a part to play in the events that are to come.'

Only after she was long gone did it occur to Pepillo that Tozi had done more than guess his thoughts.

She'd known exactly what he was thinking, not just about Malinal persuading her to stay, but *everything* that was in his mind.

He blushed again, though there was no one to see him.

* * *

On the morning of Sunday 1 November, a mass was held by Father Olmedo in the great plaza of Cholula. As the burly friar gave thanks to God for the many blessings He had bestowed on His servants in the conquest of these new lands, and requested His further help and support in the venture that lay ahead, Cortés knelt amongst the men and silently offered up his own prayer for victory to Saint Peter.

Soon after the mass, Meco, the commander of the loyal Totonacs who had accompanied the Spaniards all the way from the coast and fought bravely for them in the Tlascalan campaign, took Cortés and Malinal aside and informed them, with some trepidation, that he and his men would not complete the journey to Tenochtitlan. 'To go to that terrible city means certain death for us, lord, and for yourselves. We beg you to turn back.'

'We will not turn back,' Cortés replied. 'We will never turn back. But you have served us well, Meco. Go home now with honour and

our blessings.' He rewarded him with many of the loads of rich cotton cloaks that Teudile had presented a few days earlier. Then, summoning Pepillo, he dictated a letter for Meco to carry to Juan de Escalante at Villa Rica, giving him news of everything that had happened since they'd parted company on 16 August, and informing him that the army was about to proceed to Tenochtitlan, there to take Moctezuma dead or alive. 'My dear friend,' Cortés concluded, 'fortify Villa Rica well, look after our settlers, keep a good watch and be alert by day and night. The Mexica are a cunning and vicious race and, as we march on them, it becomes more probable they will attempt some cowardly attack on you.' He sealed the letter and gave it to Meco to deliver. 'This is the first thing you must do,' he told the Totonac. 'Before even you go to your own family, you must place this letter in the hands of Captain Escalante.'

'As you command, Malinche, so it will be done,' replied Meco.

The following morning, Monday 2 November, no further word

yet having been received from Moctezuma, Cortés summoned the troops to marching order and signalled the advance. Scouts had given the lie to Teudile's tales of a long and arduous journey. To be sure, a range of high mountains must be crossed, but Tenochtitlan and the looming, murderous power of the Mexica and their hellish gods now lay less than sixty miles to the west.

END

Time Frame, Principal Settings and Cast of Characters

Time Frame and Subject Matter

War God: Return of the Plumed Serpent unfolds in the seven-month period between 20 April 1519 and 2 November 1519. The book, which continues directly from the story told in Volume I (*War God: Nights of the Witch*), deals with the crucial second phase of the Spanish conquest of Mexico. After routing the Maya at the battle of Potonchan (described in the closing chapters of Volume I), the conquistador Hernán Cortés turns his attention to the much bigger prize of the Mexica (the Aztecs) and their golden city Tenochtitlan.

But in order to win the Mexica gold, Cortés and his small force of just five hundred men will have to defeat the psychotic emperor Moctezuma and the armies of hundreds of thousands he commands. Cortés expects the warlike Tlascalans, hereditary enemies of the Aztecs, will join him, but instead finds himself locked in a life-or-death struggle with the Tlascalan battle king Shikotenka, who sees that the Spaniards will not stop with the destruction of Mexica power but will go on to annihilate all the ancient cultures of Mexico unless the invaders can be driven back into the sea.

Note on names

Some ancient Mexican names are extremely difficult for modern readers to pronounce and I have taken the liberty in a number of cases of simplifying them. To give just a few examples here, the town that I call Huitztlan is correctly written Quiahuitztlan, I have abbreviated the name of the Texcocan rebel leader Ixtlilxóchitl to

the more manageable form of Ishtlil, I have abbreviated the name Temazcalteci, the Mexica goddess of medicine and healing, to Temaz, and the name Shikotenka is more correctly written Xicotencatl.

Principal Settings

Tenochtitlan, capital city of the Mexica (Aztec) empire of ancient Mexico, 1325 to 1521. Built on an island in the middle of a huge salt lake (Lake Texcoco) in the Valley of Mexico. The Valley of Mexico is ringed by distant snow-capped mountains. At the heart of the valley is Lake Texcoco. At the heart of Lake Texcoco is the island on which Tenochtitlan stands, accessed via three huge causeways (varying in length between two and six miles), extending to the southern, western and northern shores of the lake. At the heart of Tenochtitlan, surrounded by a vast walled enclosure (the grand plaza, or sacred precinct), is the Great Pyramid, which is

surmounted by the temple of Huitzilopochtli ('Hummingbird'), War God of the Mexica, to whom tens of thousands of human sacrifices are offered every year.

Tlascala, an independent republic, with elected kings, at war with the Mexica. Both the republic as a whole, and its capital city, are known as Tlascala. Tlascalans captured in raids and battles are a prime source of sacrificial victims for the Mexica.

Cuetlaxtlan, a coastal town on the Gulf of Mexico, ruled and colonised by the Mexica, but with a subject population of Totanacs, to whom the town originally belonged.

The Spanish military camp on the dunes a few miles north of Cuetlaxtlan.

The military camp of Ishtlil, leader of the rebel faction in the Mexica vassal state of Texcoco.

Huitztlan, a Totonac town on the Gulf of Mexico that will offer

friendship and allegiance to Cortés.

Villa Rica de la Veracruz, the first Spanish town in Mexico, built close by Huitztlan.

Cempoala, capital city of the Totonacs. The Totonacs will become the first allies of the Spaniards in Mexico.

Teotihuacan, ancient sacred complex dominated by three pyramids, thirty-five miles north of Teotihuacan.

The Chichemec desert, twenty days' walk north of Teotihuacan.

Xocotlan, a Mexica garrison town on the border of Tlascala.

The Hill of Tzompach, principal camp of the Spaniards during their war with the Tlascalans.

Cholula, city sacred to Quetzalcoatl and dominated by a huge pyramid dedicated to Quetzalcoatl.

Point-of-View Characters

Tozi. A witch. Age, fifteen. Tozi never knew her father. Her mother was a witch but was cornered and beaten to death by a mob when Tozi was seven, at which age Tozi's own training had just begun and her formidable supernatural powers were not fully developed. She survived as a beggar on the streets of Tenochtitlan for the next six years until captured and placed in the fattening pen at the age of fourteen to await sacrifice – a fate that she escaped as described in Volume I, *War God: Nights of the Witch*. Tozi's origins are mysterious. Her mother told her they came from Aztlán, the fabled homeland not only of the Mexica but also of the Tlascalans and other related 'Nahua' peoples who speak the language called Nahuatl. But Aztlán is a mythical and legendary place, the home of the gods, where masters of wisdom and workers of magic are believed to dwell; although the Mexica say their forefathers came from Aztlán, no one knows where it is any more, or how to find it.

Malinal. A beautiful courtesan, and formerly a sex-slave of the

Mexica, she was held in the fattening pen awaiting sacrifice with Tozi, and escaped with her (these events are described in Volume I). Age, twenty-one. Malinal is Maya in ethnic origin and is fluent both in Nahuatl, the language of the Mexica, and in the Mayan language. She hates Moctezuma and intends to use the conquistador Hernán Cortés as her instrument to destroy him.

Huicton. A spy working to destroy Moctezuma. Huicton is in his sixties and passes unnoticed through the streets of Tenochtitlan disguised as an elderly blind beggar. However, he is not blind. He is the mentor and protector of Tozi.

Pepillo. Spanish, approaching fifteen years of age. An orphan, he was given shelter, reared and taught numbers and letters by Dominican monks, who brought him from Spain to the New World, first to the island of Hispaniola and then to Cuba, where he worked as a junior bookkeeper and clerk in the Dominican monastery. He is the page of the conquistador, Hernán Cortés.

Moctezuma. Emperor – his official title is Great Speaker – of the Mexica. Age, fifty-three. Moctezuma frequently enters a trance state induced by the use of hallucinogenic mushrooms in which he communicates directly with the War God – demon – Huitzilopochtli (Hummingbird). The demon, whose purpose is to maximise human misery and chaos on earth, urges Moctezuma on to ever more cruel and brutal mass sacrifices.

Shikotenka. Battle king of Tlascala, sworn enemy of the Mexica. Age, thirty-three.

Guatemoc. Prince of the Mexica. Age, twenty-seven. Nephew of Moctezuma (he is the son of Moctezuma's brother Cuitláhuac).

Pedro de Alvarado. Age, thirty-three. Close friend and ally of Hernando Cortés. Alvarado is handsome, excessively cruel – a charming psychopath. He is also a brilliant swordsman and a notorious lover of gold.

Hernando (Hernán) Cortés. Commander of the Spanish expedition to Mexico. Age, thirty-five. A brilliant military commander and political operator, he is clever, Machiavellian, manipulative, utterly ruthless, vengeful and daring, but with a paradoxical streak of messianic Christianity.

Bernal Díaz. Age, twenty-seven. Down-to-earth, honest, experienced Spanish soldier on the expedition to Mexico. From farming stock, no pretensions to nobility, but literate and keeps a diary (even though he self-deprecatingly refers to himself as an 'illiterate idiot'). Admires Cortés, who has recognised his potential and promoted him to ensign rank.

Gonzalo de Sandoval. Age, twenty-two. From *Hidalgo* (minor nobility) family, but fallen on hard times. New recruit to the expedition to Mexico. Promoted to ensign in same ceremony as Díaz. Unlike Díaz, Sandoval has a university education and military and cavalry training but no personal experience of war.

Supernatural Characters

Huitzilopochtli (referred to throughout the novel as Hummingbird), war god of the Mexica. The full translation of the name Huitzilopochtli is 'The Hummingbird at the Left Hand of the Sun'. Like all demons, through all the myths and legends of mankind, the purpose of this entity is to multiply human suffering and corrupt all that is good and pure and true in the human spirit. He appears to Moctezuma when the Mexica emperor is in trance states induced by his frequent consumption of hallucinogenic mushrooms. A tempter and a manipulator, Hummingbird deliberately stokes the flames of the conflict between the Mexica and the Spaniards, and ultimately backs the Spaniards because he knows they will make life in Mexico even worse than it has been under the Mexica. It is a historical fact that within fifty years of the Spanish conquest, the indigenous population of Mexico had been reduced through war, famine and introduced diseases from thirty

million to just one million.

Saint Peter, patron saint of Hernán Cortés. As a child, Cortés suffered an episode of severe fever that brought him close to death. His nurse, María de Esteban, prayed to Saint Peter for his salvation and the young Cortés miraculously recovered. Ever afterwards, Cortés felt he enjoyed a special relationship with this saint and believed he was guided by him in all the great and terrible episodes of his adult life. Like Moctezuma, Cortés encounters Saint Peter in visionary states – in his case, dreams.

Quetzalcoatl, 'The Plumed Serpent', the god of peace of ancient Central America. Described as white-skinned and bearded, an age-old prophecy said he had been expelled from Mexico by the forces of evil at some time in remote prehistory, but that he would return in the year *1-Acatl* ('One-Reed'), in ships that 'moved by themselves without paddles' to overthrow a wicked king, abolish the bloody rituals of human sacrifice and restore justice. And as it happened,

the year 1519 in our calendar, when Cortés landed in the Yucatán in sailing ships that 'moved by themselves without paddles', was indeed the year One-Reed in the Mexica calendar. Whether this was pure chance, or whether some inscrutable design might have been at work, Malinal would eventually teach Cortés how to exploit the myth of Quetzalcoatl. What followed was a ruthless and spectacularly successful campaign to dominate Moctezuma psychologically long before the Spaniards faced him in battle.

Whether in some mysterious sense real, as I rather suspect, or whether only imagined by Moctezuma and Cortés, Hummingbird (Huitzilopochtli) and Saint Peter played pivotal roles as agents of mischief in the events of the conquest, while the prophecy of the return of Quetzalcoatl was equally fundamental.

Secondary Spanish Characters who appear frequently in the story

Diego de Velázquez. Age, fifty-five. Governor of Cuba. Rival and

enemy of Hernán Cortés.

The Velazquistas. The name Cortés gives to senior figures on the expedition to Mexico who remain loyal to his enemy and rival Diego de Velázquez, the governor of Cuba. Cortés must either bribe, manipulate, or force members of the Velázquez faction to change sides. They include Juan Escudero (ringleader of the Velazquistas), Juan Velázquez de Léon, cousin of Diego de Velázquez, Francisco de Montejo, Diego de Ordaz, Cristóbal de Olid and Alonso de Grado.

García Brabo. Age, forty. Tough sergeant who leads a squad of men dedicated to Hernán Cortés. He does Cortés's dirty work whenever required.

Significant allies of Cortés on the expedition. In addition to Pedro de Alvarado, Cortés can rely on Alonso Hernández Puertocarrero, Alonso Davila and his particular friend Juan de Escalante.

Alonso de la Serna and Francisco Mibiercas. Soldiers on the expedition. Friends of Bernal Díaz.

Dr La Peña. Doctor with the expedition to Mexico.

Father Bartolomé de Olmedo. Mercedarian Friar, a gentle good-hearted man who participates in the expedition to Mexico. Opposed to forced conversions.

Jerónimo de Aguilar. Spanish castaway in the Yucatán. Spent eight years as a slave amongst the Maya and became fluent in their language. Having been rescued by Cortés, Aguilar joins the expedition and becomes Cortés's first interpreter and, soon, Malinal's rival for this role.

Francisco de Mesa. Cortés's chief of artillery.

Diego de Godoy. Notary of the expedition.

Telmo Vendabal. Keeper of the expedition's pack of one hundred ferocious war dogs.

Andrés Santisteban, Miguel Hemes and Francisco Julian, assistant dog handlers and tormenters of Pepillo.

Secondary Mexica, Tlascalan, Texcocan, Totonac, Cholulan and Huichol characters who appear frequently in or have prominence in the story

Namacuix. High priest of the Mexica.

Teudile. Steward to Moctezuma and a high-ranking lord of the Mexica empire.

Cuitláhuac. Age, forty-eight. Younger brother of Moctezuma and father of Guatemoc.

Acolmiztli, Chipahua, Tree, Ilhuicamina. Commanders in Shikotenka's squad of Tlascalan warriors.

Shikotenka the Elder. Civil king of the Tlascalans (Shikotenka, his son, is the battle king).

Maxixcatzin. Deputy to both Shikotenka and Shikotenka the Elder.

Ishtlil, commander of the rebel faction in Texcoco.

Pichatzin, governor of Cuetlaxtlan.

Big Dart, (Huciimuh), Starving Coyote (Nezahualcoyotl), Fuzzy Face (Ixtomi), Man-Eater (Tecuani), and Mud Head (Cuatalatl), particular friends and comrades in arms of Guatemoc.

Meco. A Totonac warrior whom Cortés saves from sacrifice.

Tlacoch, Paramount chief of the Totonacs.

Acopol, powerful Chichemec *nagual* (sorcerer, shape shifter), appointed by Moctezuma to conduct sacrificial rituals at Cholula.

Tlaqui and Tlalchi. Rulers of Cholula.

Nakawey, Irepani and Taiyari. Shaman priests of the Huichol who befriend Tozi.

War God *and History*

War God is a novel about an extraordinary moment in history but it is not a history book. Rather it is a work of fantasy and epic adventure in the tradition of *Amadis of Gaul*, the post-Arthurian tale of knight-errantry in which the conquistadors of the early sixteenth century saw their own deeds reflected as they pursued their very real and perilous quest in the strange and terrible lands of Mexico.[1] Wherever I felt it served the interests of my story, I have therefore not hesitated to diverge from a strict observance of historical facts.

For example, Malinal (who was also known as Malinali, Malintzin and La Malinche and whom the conquistadors called Doña Marina) was more likely a Nahua woman of the Mexican Gulf coast who

had learned the Mayan language than a Mayan woman – as I have her – who had become fluent in Nahuatl. On the other hand, her biography as I relate it – daughter of a chief, disinherited and sold into slavery by her own mother after her father's death (because her mother favoured a son by her second marriage) – conforms to the facts as they have been passed down to us.

Other similar examples could be cited here (for instance Guatemoc was probably Moctezuma's cousin, not his nephew) but, by and large, while responding to the narrative needs of a fantasy adventure epic, I have worked hard to weave my tale around a solid armature of historical facts. This is not to say that the fantastic and the supernatural are not prominent themes in *War God* – because they are! – but there is nothing 'unhistorical' about this. Such concerns were of prime importance both to the superstitious Spanish and to the Mexica. Indeed Mexico-Tenochtitlan has, with good reason, been described by Nobel Prizewinner J. M. G. Le Clezio as 'the last magical civilization'.[2]

Take the case of Tozi the witch, one of my central characters. Some might think that an obsession with sorcery, animal familiars (even transformation into animal forms), the ability to make oneself invisible, the concoction of spells and herbal potions by women and the persecution of women for such practices were purely European concerns; but in these matters – as in so many others – the Spanish of the sixteenth century had much more in common with the Mexica than they realised. Witchcraft was widespread in Central America and endemic to the culture of the region.[3]

Then there is the matter of human sacrifice, a recurrent theme throughout *War God*. Do I make too much of this? Do I dwell on it at a length that is not justified by the facts? Honestly, no, I don't think I do. The facts, including the fattening of prisoners and their incarceration in special pens prior to sacrifice, are so abhorrent, so well evidenced and so overwhelming that the imagination is simply staggered by them. In saying this I recognise that the prim hand of political correctness has in recent years tried to sweep the

extravagant butchery and horror of Mexica sacrificial rituals under the table of history by suggesting that Spanish eyewitnesses were exaggerating for propaganda or religious purposes. Yet this cannot be right. Let alone the mass of archaeological evidence and the surviving depictions of human sacrifice, skull racks, flaying and dismemberment of victims, cannibalism, etc, in Mexica sculpture and art, we have detailed accounts of these practices given to reliable chroniclers within a few years of the conquest by the Mexica themselves. Both Bernardo de Sahagún, in his *General History of the Things of New Spain*,[4] and Diego Durán in his *History of the Indies of New Spain*,[5] based their reports upon the testimony of native informants, and both give extensive descriptions of the grisly sacrificial rituals that had been integral to Mexica society since its inception, that had increased exponentially during the fifty years prior to the conquest, and that the conquistadors themselves witnessed after their arrival. The historian Hugh Thomas sums up the matter soberly in his superb study of the conquest.[6] 'In

numbers,' he writes, 'in the elevated sense of ceremony which accompanied the theatrical shows involved, as in its significance in the official religion, human sacrifice in Mexico was unique.'[7]

Political correctness has also tried to airbrush out the Quetzalcoatl mythos of the white-skinned bearded god who was prophesied to return in the year One-Reed, and Cortés's manipulation of this myth, as largely a fabrication of the conquistadors – but this too cannot be correct. Again Sahagún's immense scholarship in his *General History* contains too much detail to be ignored.[8] But there are many other sources too numerous to mention here, and we should not forget the universal iconography of the 'Plumed Serpent' throughout Central America. Some of it – for example at La Venta on the Gulf of Mexico – is very ancient indeed (1500 bc or older) and is associated with reliefs of bearded individuals with plainly Caucasian rather than native American features.[9]

Other 'fantastical' aspects of my story, such as Moctezuma's

visionary encounters under the influence of hallucinogenic mushrooms with the war god Huitzilopochtli (Hummingbird), and Cortés's conviction that he was guided by Saint Peter, are also thoroughly supported in numerous historical sources.

Last but not least, there is the matter of the incredible disparity of forces – the few hundred Spaniards against vast Mayan, Tlascalan and Mexica armies and the apparent miracle of the conquistadors' triumph. But, as I show in *War God*, this 'miracle' was really science. The guns and cannon the Spaniards were able to deploy, their terrifying war dogs,[10] and the stunning impact of their cavalry gave them decisive advantages. No dogs larger than chihuahuas had previously been known in Central America, and whereas European infantry had accumulated thousands of years of experience (and had developed specialised tactics and weapons), to withstand charges of heavy horse, the armies of Mexico were completely unprepared for the seemingly demonic beasts and supernatural powers that Cortés unleashed on them.

But there was something else, ultimately more important than all of this, that brought the Spanish victory.

If Moctezuma had been a different sort of ruler, if he had possessed a shred of kindness or decency, if there had been any capacity in him to love, then he surely would not have preyed upon neighbouring peoples for human sacrifices to offer up to his war god, in which case he could have earned their devotion and respect rather than their universal loathing, and thus might have been in a position to lead a united opposition to the conquistadors and to crush them utterly within weeks of setting foot in his lands. But he was none of these things, and thus Cortés was almost immediately able to exploit the hatred that Moctezuma's behavior had provoked and find allies amongst those the Mexica had terrorised and exploited – allies who were crucial to the success of the conquest. Of particular note in this respect were the Tlascalans, who had suffered the depredations of the Mexica more profoundly than any others and who were led by Shikotenka, a general so courageous and so

principled that he at first fought the Spanish tooth and nail, seeing the existential danger they posed to the entire culture of the region, despite the liberation from Moctezuma's tyranny that Cortés offered him. Only when Cortés had smashed Shikotenka in battle – as described in this volume – did the brave general finally bow to the demands of the Tlascalan Senate to make an alliance with the Spaniards, an alliance that soon put tens of thousands of auxiliaries under Cortés's command and set the conquistadors on the road to Tenochtitlan . . .

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Acknowledgements

First and foremost I am grateful to my wife and partner Santha, my fiercest critic and constant companion who has read every word of this book and of the volumes that precede and follow it and who never lets me get away with any short cuts. My children Sean, Shanti, Ravi, Leila, Luke and Gabrielle, as well as my sons- and daughters-in-law Lydia, Simone, Jason and Ayako, have all also been helpful and inspiring presences, reading draft after draft and offering encouragement and advice.

My literary agent Sonia Land of Sheil Land Associates has, throughout, played a most important role in this book, giving me the benefit of her professional judgement and her kind and wise

guidance at every stage of the process, and championing my new career as a novelist with tremendous verve and energy. I'm very grateful to you, Sonia, and can't thank you enough. Deep appreciation also to Gaia Banks and to all at Sheil Land, the best literary agency in Britain.

Mark Booth, my editor at Coronet (Hodder & Stoughton), was brilliant as ever, seeing what needed to be done at each stage of the writing process, and keeping me on the right course with amazing professionalism and insight.

Others who have read and been kind enough to comment on the manuscripts of the evolving *War God* series and who have given me much valuable advice, but who are of course not responsible in any way for the shortcomings of what I have written, include Chris and Cathy Foyle, Luis Eduardo Luna, Father Nicola Mapelli, Ileen Maisel, Jean-Paul Tarud-Kuborn, Ram Menen and Sa'ad Shah. I'm grateful to each and every one of these good and true friends of mine for their generosity with their time and their many

constructive suggestions. Xavier Bartlett Carceller kindly provided translations of selected passages of the letters of Hernán Cortés. I found Adam Sharp's *The True Swordsman* particularly useful as background to my descriptions of sword training and combat.

My communities on my Facebook author page (http://www.facebook.com/Author.GrahamHancock) and on my Facebook personal page (http://www.facebook.com/GrahamHancockDotCom), and also my website community (www.grahamhancock.com) have been incredibly supportive of me through the several years of my life that *War God* has dominated my writing and my creativity.

Last but not least I want to put on record my appreciation for those Spaniards and Mexica of the sixteenth century who were caught up in the events of the conquest and wrote about it at first hand, leaving accounts luminous with the spirit and terror of the time that I have been able to draw on in creating this book – sometimes even putting the exact words of the individual concerned

into the mouth of his or her character in my story. A number of modern scholars have also written important works on the events of the conquest, without which I would not have been able to develop a full appreciation of the period, and again I am grateful for the tremendous job they have done. Needless to say none of them is responsible in any way for the shortcomings of *War God*, but if the book has strengths it is in large part owed to them. Many more works of reference on which I have drawn could be cited here, but I list in particular the following texts to which I have most frequently had reference as primary and secondary sources for the first and second volumes of the *War God* trilogy:

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THE TRIGGER

THE LIE THAT CHANGED THE WORLD – WHO REALLY DID IT AND WHY

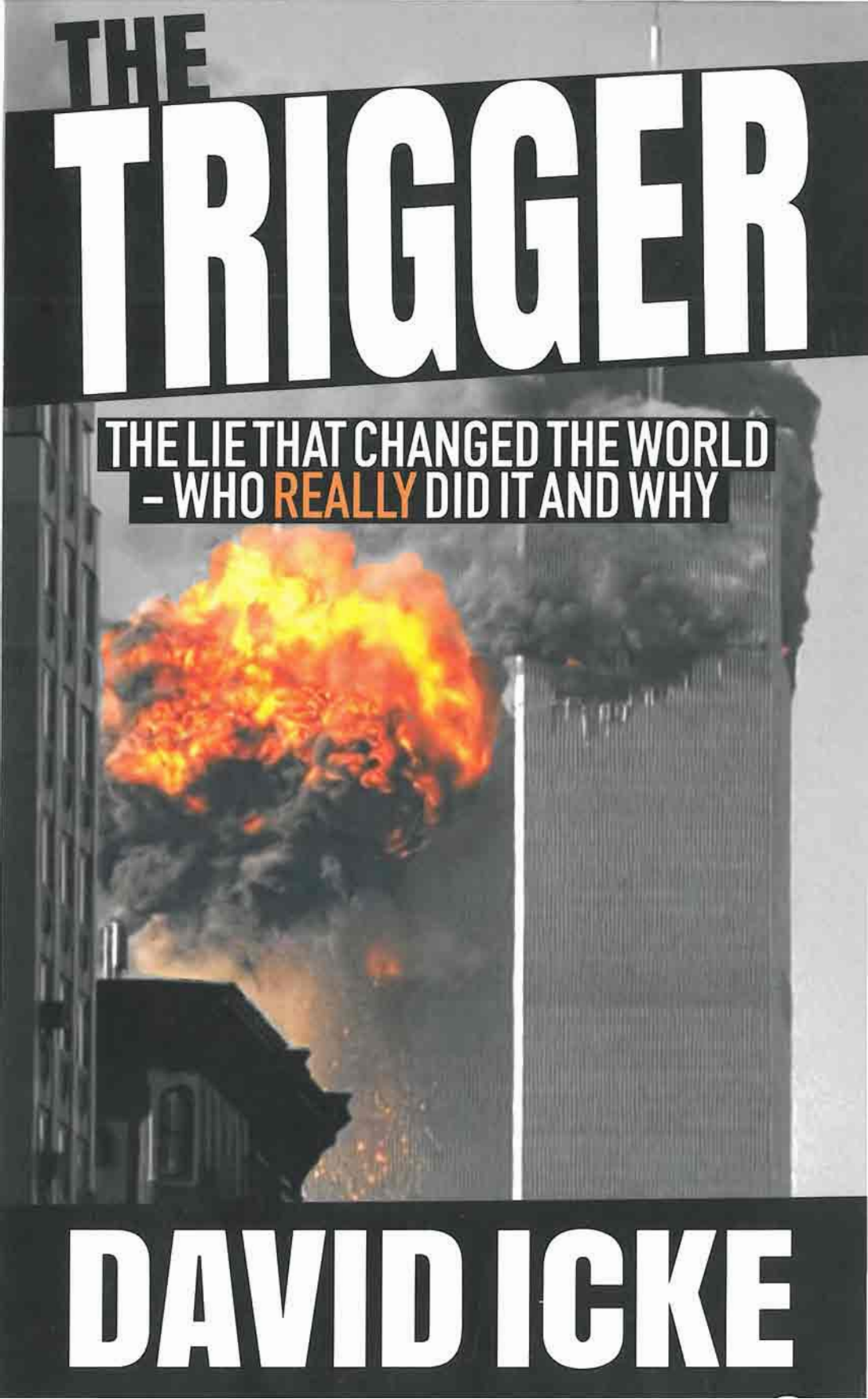

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EXPOSING THE LIE THAT CHANGED THE WORLD – WHO *REALLY* DID IT AND WHY

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publishing

First published in September 2019.

ickonic
publishing

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email: info@davidicke.com

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Cover Design: Gareth Icke

British Library Cataloguing-in
Publication Data
A catalogue record for this book is
available from the British Library

ISBN 978-1-9160258-0-6

Printed and bound by CPI Group (UK) Ltd, Croydon, CR0 4YY

THE TRIGGER

EXPOSING THE LIE THAT CHANGED THE WORLD – WHO *REALLY* DID IT AND WHY

DAVID ICKE

Dedication:

To all those who lost their lives on September 11th and to their loved ones left behind.

To all those who have lost their lives in the 'war on terror' and to their loved ones left behind.

To all those truly behind 9/11 – may you one day have mercy on your *own* soul.

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/ˈren·ɪˌgeɪd/

noun

a person who abandons the religious, political, or philosophical beliefs that he or she used to have, and accepts opposing or different beliefs.

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'Twas always so ...

Why of course the people don't want war. Why should some poor slob on a farm want to risk his life in a war when the best he can get out of it is to come back to his farm in one piece? Naturally the common people don't want war: neither in Russia, nor in England, nor for that matter in Germany. That is understood.

But, after all, it is the leaders of the country who determine the policy and it is always a simple matter to drag the people along, whether it is a democracy, or a fascist dictatorship, or a parliament, or a communist dictatorship ... Voice or no voice, the people can always be brought to the bidding of the leaders. That is easy. All you have to do is tell them they are being attacked, and denounce the peacemakers for lack of patriotism and exposing the country to danger. It works the same in any country.

Nazi Hermann Goering

The Answer

When humanity remembers we are all one consciousness having different experiences the illusional fault-lines that divide us will fall and peace will come.

David Icke

The Answer

What is needed is the right to print what one believes to be true, without having to fear bullying or blackmail from any side.

George Orwell

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What happened on September 11th?

Ask Alice ...

Nothing would be what it is,
Because everything would be what it isn't.
And contrary-wise – what it is, it wouldn't be.
And what it wouldn't be, it would.
You see?

Lewis Carroll

Eyes Wide Shut

We ought to be thankful not for our eyes but for our ability to see
– Mokokoma Mokhonoana

The highly-symbolic title of director Stanley Kubrick's final film is a good place to start with an exposure of the extraordinary Mega-Lie that is the official story of what happened on September 11th, 2001.

Two years before the 9/11 attacks Kubrick's last movie was released with its strange inverted title which said everything about human society in three short words: *Eyes Wide Shut*. Okay, eyes can't be literally wide shut, but they can be open and see nothing which is the same in outcome and consequence. I have written at length in other books about the life-long perceptual download imposed through 'education', media and peer-pressure which programs people to sleep-walk through life seeing only what they are told to see and thinking only what they are told to think. This doesn't apply to everyone, of course, but enough to allow a very few to dictate the lives of the very many by hijacking individual and collective perception and manipulating the subsequent myopia that can enslave a mind for life. Downloading a perception of what happened on 9/11to great swathes of the human population has been essential to the transmutation of global society that we have seen in its wake. If more human eyes had been wide-open instead of wide-shut this would not have been possible. The attacks of September 11th were the perceptual trigger that launched a sequence of events still unfolding that are transforming the world into an Orwellian state. Therefore, this book will be both exposing the Big Lie of 9/11 and putting those catastrophic events within the context of a vastly bigger picture of human control – a context in which perception is all.

Never has incessant perceptual programming been more obvious than today with fascistic/communistic screaming mobs driving the mass censorship of political correctness and insisting that you either agree with them or be intimidated and abused into silence by those who believe they are the 'progressive' chosen who have the right to edit, censor and dictate the lives of everyone else. I say fascistic/communistic

because I see fascism and communism as basically masks on the same face, terms for the same thing. Both are centralised tyrannies and the detail is simply window-dressing. I'm sure Russians would have felt so much better if they had been under Hitler's mass-killing fascist control and Germans the same under Russia's mass-killing Karl Marx-inspired communism. The extreme 'progressive' mind-set seeking to impose its will on society today through the deletion of free speech and opinion is only Marxism wearing a very thinly-veiled disguise. Marxism ('left') and fascism ('right') share techniques of control and manipulation because they are both tyrannies and so use the same *tools* of tyranny. Here you have the reason why extreme 'progressives' (Marxists) employ classic techniques of fascism while claiming to be 'anti-fascist'. Marxism was the creation of the banking and business elite to fool the masses into handing over power to a 'government of the people' controlled by ... the banking and business elite. Karl Marx was the elite's man as will become very clear. This is why 'radical', 'anti-establishment progressives' are cheered on today by mega-rich owners of giant corporations who censor opposing views on their behalf. This is why 'arch-capitalist' billionaires such as George Soros hand over tens of billions to parties and organisations promoting a Marxist society under the smokescreen of 'progressive' and 'social justice'. Marxism is not and never was an ideology to throw off human oppression but an ideology to impose oppression for the benefit of the elite it is supposed to be designed to overthrow. Transformation of society via the conflict of the Marxist 'class struggle' has been replaced by the conflict of the Marxist 'self-identity struggle'. Self-identity is the new 'class' and as ever more self-identities are systematically invented so the potential for 'struggle' between them is constantly expanded. Playing one group off against another is still the technique of the New Marxism and only the names and forms of division have changed. Self-identity struggle replacing class struggle has removed the divisions between masses and elite because now if the elite support your self-identity struggle they are 'on your side' and no longer oppressors. Of course they *are* still oppressors, but they are not perceived as such while they appear to share the same goals or what are today called 'values'. Thus a multi-billionaire financial manipulator like George Soros becomes a hero of the 'progressive' (fake) left in ways that would never have happened before when class was the source of division and not, as now, self-identity. Ongoing transformation through conflict and the destruction of cohesive community including the family unit are classic Marxism (Elite-ism) on the road to a global state of total and merciless centralised control. September 11th was an historic day on that nightmare journey because of where it has led us so quickly and exposing the lies on which the 9/11 narrative is founded is a historic day in changing direction.

Control is not about what is true or not true; it's about what the target population can be manipulated to *believe* is true. Purveyors and promotors of a Marxist/fascistic society can be manipulated to believe they are anti-fascist, anti-establishment 'radicals' while building a world that gifts power over the many to the very, very few. They will think they are seeking equality while preparing the way for extreme and systematic inequality – precisely what is happening day after crazy day. The imposition of belief I am describing here can most certainly be seen in the case of 9/11 and the scale of perceptual programming involved is made even more extraordinary by the evidence that I will present to expose the official story as a work of utter fiction. A more obvious lie – or indeed mountains of them – would be hard to imagine and the same with blatant contradictions and impossibilities that include the suspension of the laws of physics. Yet somehow this global fairy tale has survived largely intact all these years in the perceptions of the populous – or many of them, anyway, *far* from all. There are a number of reasons for this. One is that people overwhelmingly get their information (thus perceptions) from mainstream sources where government narratives dominate and by their very nature mainstream organisations employ mainstream minds. Most of these are so completely enslaved they actually think they are free. As Johann Wolfgang von Goethe said: 'None are more hopelessly enslaved than those who falsely believe they are free.' Mainstream minds are mantra-minds battered into submission by the constant repetition of official reality, but still convinced they are free because of either self-delusion or in a desperate bid to retain some self-respect and avoid facing the truth that the state is in their head.

'Progressive journalist' George Monbiot at the London *Guardian* rails against 9/11 'conspiracy theorists' with comments that include: 'Why do I bother with these morons?' He accepts the official story of 9/11 while bizarrely believing he's somehow anti-establishment and a 'radical thinker'. Does he know that those who told us the official version of 9/11 were the *same people* who lied about weapons of mass destruction in Iraq to justify a catastrophic war? Does he know that experts from a stream of relevant professions have created organisations to highlight the lies, miracles and inconsistencies of the official garbage? They include Pilots for 9/11 Truth; Architects & Engineers for 9/11 Truth; Firefighters for 9/11 Truth; Scientists for 9/11 Truth; Intelligence Officers for 9/11 Truth; Military Officers for 9/11 Truth; Veterans for 9/11 Truth; Medical Professionals for 9/11 Truth; Scholars for 9/11 Truth; Political Leaders for 9/11 Truth; Lawyers' Committee for 9/11 Inquiry and more. Does he know that the terms 'conspiracy theory' and 'conspiracy theorists' came into widespread use as a form of abuse and dismissal after the CIA contacted major media organisations in 1967 to urge them to use those labels to discredit anyone exposing the official story of the

Kennedy assassination? Too right – we must discredit those strange, misguided nutters who didn't buy the claim that a single bullet went through several people while changing direction at crazy angles or that a bullet which so clearly came from the front and hit Kennedy in the forehead miraculously came from behind. Do we have U-turn bullets now, then? Does Monbiot and his media mind-set think the CIA took that action to protect the truth about what happened to Kennedy or to protect the lie they were seeking to sell? Yet here we are all these decades later with the mantra-minds of the mainstream media simply repeating as a form of abuse the very terms circulated for its own ends by the CIA. How pathetic is that?

It really is a head-shaker to see how the so-called 'progressive left' is the most resistant of all to questioning 9/11 and statements by the very authorities they claim to be challenging. My God, what's going on in there? You can't trust authority except when they tell you what to believe about a world-changing event which triggered a sequence of other events that have left millions dead and injured, countries turned asunder and shredded civil liberties and basic freedoms across the globe. It must be sheer coincidence that this very sequence of human catastrophe and censorship had been provably planned for decades and by September, 2001, only the excuse to launch the sequence remained to be found. The stance of these 'progressive' system-servers goes like this: 'You crazies who question, think for yourself and don't have a naivety addiction, should shut up and leave the revolution to those of us who live in the real world.' Or, as Alexander Cockburn at the 'progressive' *Counterpunch.org* put it: 'The Conspiracy Nuts have combined to produce a huge distraction.' But from what, pray – that the state tells us the truth? David Corn at the 'progressive' AlterNet website urged readers to stop sending him emails 'suggesting, or flat-out stating, the CIA and the US government were somehow involved in the horrific September 11 attack.' Corn was adamant: ' ... the notion that the US government either detected the attacks but allowed them to occur, or, worse, conspired to kill thousands of Americans to launch a war-for-oil in Afghanistan is absurd.' This is what I mean by terminal naivety – terminal in the sense of being the death knell of real change, real justice and real comprehension. I would say to this mind-set before we start: You will never change the world until you understand how it works and unless you open your eyes-wide-shut you never will.

The rhetoric of the Monbiots, Cockburns and Corns is not based on whether something is right or wrong, happened or didn't happen, but is simply a reflection of their capacity or incapacity to *perceive* that it could happen. This or that could not have happened because my imagination cannot *perceive* the possibility. Er, that's it. Facts should lead perception. Instead people allow the limits of their own imagination to dictate their

sense of the possible and what they believe to be 'real'. I cannot imagine what you say is happening and so it can't be happening. This arrogance of ignorance holds humanity in ongoing perceptual, thus 'physical', servitude. Are we really to be imprisoned in our sense of the possible by the limits of a *Guardian* or *Counterpunch* mind? Or by some professionally-biased joker at CNN or the BBC? Now *that* would be absurd. Day after day, hour by hour, you see mainstream 'journalists' of every background making definitive statements about subjects and situations they know absolutely nothing about because they have never crossed the perceptual Rubicon to breach the illusions of the box or bubble they have allowed to define them. This myopic perspective then blocks all motivation to research possibility beyond the mantra-norms because why would you research something that your software mind tells you cannot be? Why in this perceptual Alcatraz would you take seriously or show respect to those who *do* seek out truth in realms of possibility that you cannot imagine? Therefore: 'I cannot conceive that what they are saying is true, so it can't be true, and they must be weirdos and crazies' – Monbiot's 'morons' and Cockburn's 'Conspiracy Nuts'. The mentality of *I am right* and so anyone saying something different must by definition be wrong is a human disease now reaching epidemic proportions across global society. Such self-inflicted perceptual ignorance among the media masses of *all* shades in this unquestioning *'I am right'* society creates a dependency on official pronouncements which they can only repeat and call it 'news' and 'journalism'. They have no idea what is really going on and so have no questions that would reveal and uncover the lies and deceit. How can the clueless question the ruthless and come out with the truth? This is even more so when their continuing income depends on conformity to 'norms' and not free thought and investigation.

The dictionary definition of 'conspiracy' is 'a secret agreement made between two or more people or groups to do something bad or illegal that will harm someone else.' On that basis there are conspiracies everywhere in government, banking, business, intelligence agencies, the military, and every-day experience. Lies about weapons of mass destruction in Iraq to justify mass murder that wouldn't otherwise have happened is *not a conspiracy*? The same people who told us those lies that have killed and maimed millions would not kill 3,000 on 9/11 and then lie about it? The very idea that anyone would do this is 'absurd'? *Why* – because the dead were mostly Americans and Americans wouldn't do that to Americans? You think that psychopaths that kill millions without a second thought care about little details like the birthplace of their victims? Blimey, the childlike naivety is breathtaking and, anyway, who said that the 9/11 conspiracy was only perpetrated by Americans? I certainly don't – as we will see – and I am not talking

about Muslims either. Irony of ironies ... what is the *official* story of 9/11 except a *conspiracy theory* and a crazy one at that? A theory that includes incompetent pilots of one-engine planes miraculously flying wide-bodied jets in ways that pilots who have flown them for decades say they could not have done; a theory that depends on the suspension of the laws of physics for the buildings to collapse as they did without the use of explosives. You will see as we proceed that there is no provable evidence that the alleged Muslim hijackers boarded those planes and some of the 'hijackers' named certainly didn't because they were still alive after the attacks. What did they do – parachute? You will further see that no provable evidence has been produced to confirm that the planes which left the airports that morning were the ones that struck the buildings and this evidence would be easy to produce from serial numbers of surviving parts if in fact they were the same aircraft. Did you know that the FBI has said there was not enough evidence against Osama bin Laden to make a case that would stand up in court? The list of such anomalies is almost endless and so are the outrageous lies of key government players on 9/11 such as Vice President Dick Cheney and Defense Secretary Donald Rumsfeld. But, no, the idea that a bunch of psychopaths in government would lie to you about what happened to justify a series of *very* long-planned wars and societal redirections is simply 'absurd'. What *is* absurd is the belief that even the possibility is absurd and this is the mentality that allows the few to control and direct the lives of the global population. Programmed myopia you might call it, or myopian naivety – *eyes wide shut.*

The moment I heard about the 9/11 attacks shortly after the first plane struck I was sceptical of the fast-emerging official story and the very speed with which that narrative was circulated amid the chaos and confusion was a big red flag in itself. How could they explain what happened so quickly while at the same time claiming they had absolutely no clue beforehand what was being planned? As days turned to weeks the bare-faced lies and daily contradictions confirmed that we were looking at an horrific event orchestrated by horrific people for horrific ends – which have played out ever since – and those responsible were not 19 Muslim hijackers answering to Osama bin Laden. I gave the subject most of my waking moments through what was left of 2001 and the first half of 2002 to expose the official story for the mendacious nonsense that it is. The result was the book *Alice in Wonderland and the World Trade Center Disaster – why the official story of 9/11 is a monumental lie.* It was, at least to my knowledge, the first major book challenging the full-of-holes narrative being sold to the world by every mainstream source. *'Alice'* was published a year to the month after the attacks. I began this book as an update of that one, but soon the scale of evidence researched and compiled in the two decades since the attacks by so

many dedicated people made it clear that a whole new book starting basically from scratch was necessary. *The Trigger* is, however, infinitely more than a book about 9/11. I will dot-connect information that exposes the lies and identifies the networks and people really behind what happened, but also put 9/11 in the context of what has happened since and what is happening *now*. None of the society-transforming events we have seen since 2001would have been possible in the way they have happened without the essential trigger of 9/11 which supplied the initial excuse and momentum to impose a long-planned sequence of overseas wars and domestic oppression that have literally changed the world. Indeed the world today cannot be understood without awareness of the force that was really behind the attacks of that sunny September morning. Identifying this force will take me in to seriously controversial areas, but sod it – the truth is the truth and it needs to come out.

I want to make it clear before we start that I am not seeking to prove exactly *what* happened on 9/11. There are far too many smoke and mirror diversions and cover stories to be definitive about that although we will see the themes very clearly and I will let different opinions have their say on how they believe the various elements were orchestrated and made possible. *What* happened is less important in the greater context than what *didn't* happen. I am going to show that (a) the official story *definitely* didn't happen, and (b) who and what was really behind what *did* happen. We only have to show that the official story *cannot be true* to prove the conspiracy and from that everything else will follow.

PART 1

Demolishing the official story

CHAPTER 1

Lord of the Flies

Laws, like the spider's web, catch the fly and let the hawk go free
– Spanish proverb

Human life – let alone 9/11 – cannot be understood without awareness of The Spider and The Web. I may seem to be talking metaphorically, but not really. The symbolism describes precisely the dynamic and organisational structure that allows the very few to dictate the lives of the very many and pull off attacks like those of September 11th while others get the blame.

I have written at enormous length over the last 30 years about the nature of 'The Spider' – a force that hijacked human society thousands of years ago with the goal of complete control of human perception (thus behaviour) and ultimately the assimilation of the human mind into its own. The current race to connect the human brain to Artificial Intelligence is its endgame. I have exposed all this in detail in a stream of books including *All You Need To Know But Have Never Been Told* and for a deeper understanding of The Spider and its ultimate nature the information is there to be read. In most of this book I am going to stay focussed on the attacks of 9/11 and the background to who was really behind them and why. An appreciation of the basic dynamic of The Spider and The Web is, however, essential to putting those events in their wider context and to answer often-asked questions like how could anyone carry out such a massive attack on the American mainland and then make the world believe that someone else was to blame? It sounds fantastic at first hearing, but it's not – because of The Web. Standing at the centre is The Spider from where the direction of human society is dictated with its demand for the constant centralisation of power in all areas of life. The more you centralise power the more power the few at the centre have over the many, and the more power is centralised and concentrated the more power you have to centralise even quicker. The whole process therefore accelerates and that's exactly what we have seen. Humans once lived in tribes that made decisions about the tribe; then lots of tribes were brought together to form nations and countries through which a few people could then dictate to *all* the former tribes;

these nations are now being absorbed into superstates like the European Union and 'trading groups' which allow a few to dictate the lives of all the nations and all the former tribes. The overall effect of this power-grab was given a name a long time ago – globalisation – which is simply the incessant centralisation of power I am describing playing out in plain sight. I see protests about the consequences of globalisation which allows a tiny elite (currently dubbed 'the one percent') to exploit the poorest and most desperate in the human family. Yet many of the *same people* have been protesting against the 'Brexit' disconnection of Britain from the European Union. It is testament to the scale of systematic perceptual programming that they don't realise the obvious fact that globalisation and the constant and unelected centralisation of power in the EU are different expressions of the *same* agenda. This is why the all-party political class in the UK and EU bureaucrats worked so hard to block the Brexit that a public referendum voted for. More than 7.7 billion people can only be directed and dictated by a relative handful through the concentration of power because devolved diversity of decision-making would make it impossible for a few to call the shots and control the game. I have been exposing this for three decades and alerting people to where it is all meant to end. The attacks of 9/11 have allowed an enormous leap forward in this agenda – which is why they happened. This is the planned structure of global dictatorship that I first warned about here decades ago:

> A world government imposing tyrannical control over everyone everywhere on Planet Earth; a world army imposing the will of the world government on those who resist; a world central bank controlling all finance; a single global electronic currency with all cash deleted; and a microchipped population connected to a global computer system.

Look at the money situation alone and what has happened since I first wrote those words in the early 1990s. Digital money via cards and technology is taking over and cash fast disappearing from circulation. Oh, but it's so *convenient?* Really? How convenient will it be when the computers say 'no' to your digital 'money' and there is no longer cash to pay any other way? The cashless society, as I have warned from the start, is primarily about control, not finance. Digital money is only 'convenient' while cash still exists. When cash has gone what is left is only control by dictating who is allowed to use cashless money and who isn't. You want to challenge our authority? Oops, your card suddenly won't work – or your microchip as it is meant to be. We have seen the constant centralisation of power in politics, finance and military since I warned about this all those years ago and we are fast heading for a microchipped, nano-chipped population connected to Artificial

Intelligence which is planned to replace the human mind. The technological 'revolution' is another example of the famous poem *The Spider and the Fly* and the line: '"Will you walk into my parlour?" said the Spider to the Fly.' The idea from the start has been to manipulate or force the population to accept under-the-skin microchips they can see and nano-chips they cannot. People were first made addicted to technology they can hold – smartphones and tablets etc.; then came technology they could wear – Bluetooth, Apple watches and endless other gadgets; now technology is being inserted into the body as microchips which was the aim step-by-step all along. This process of addicting people to screens and introducing more and more sophisticated technology until human brains are connected to Artificial Intelligence has been coldly calculated and is moving fast towards its goal. Insiders like Google's Ray Kurzweil predict that this will be happening by 2030 and while this may not appear at first to be connected to 9/11 those attacks and their aftermath triggered a series of multiple events that have driven the speed of change across all areas of human society and led us to where we are now on the brink of total human control.

Children and the young have been prime targets because they will be the adults when AI-controlled humans will be full-blown reality unless we wake up like *now*. Human microchips are being introduced with ever-greater speed. At the time of writing more than 3,000 people in Sweden have been microchipped to interact with technology and both the British employers' organisation, the Confederation of British Industry (CBI) and Trade Unions have publicly expressed their concern at companies planning to microchip their staff. You mean that guy Icke they dubbed a 'crazy nutter' has turned out to be right? My God – some mistake, surely. How is it possible to impose and coordinate this global agenda in every country? How is it possible for political correctness – getting the population to silence itself – to be hatched in California and then go worldwide? How can the same be done with the transgender explosion which began with the premise of protecting transgender people from discrimination but has become a global phenomenon dedicated to creating widespread confusion about gender which has led to a thousands of percent increase in the number of those wishing to change from birth gender to perceived gender? The young are again the prime targets. There are big picture reasons why all this is happening that I reveal in other books, but how they can happen and be so coordinated worldwide is simple to explain: The Web. The same is true for how a relatively small number of people could plot, prepare, carry out and cover up the biggest terrorist event in history on American soil.

The Web

Human society is controlled by a hierarchy that we don't see which inflicts its will on the population through the hierarchy that we do see. They are, in fact, the same seamless hierarchy but divided into two forms – the seen and the unseen. The former is given labels such as the 'one percent', global elite, the establishment, and so on, while the latter works from the shadows through a global network of secret societies and connected groupings (Fig 1). Each 'strand' in The Web represents a secret society, semi-secret group or organisation in the world of the seen including governments and their agencies, corporations, the banking system, media etc. The strands closest to The Spider are the most exclusive secret societies which almost no one will have heard of. Many don't even have names to make them harder to uncover and track and they have among their membership those initiates deep in the shadows who know exactly what is really going on, why, and to what end. Many

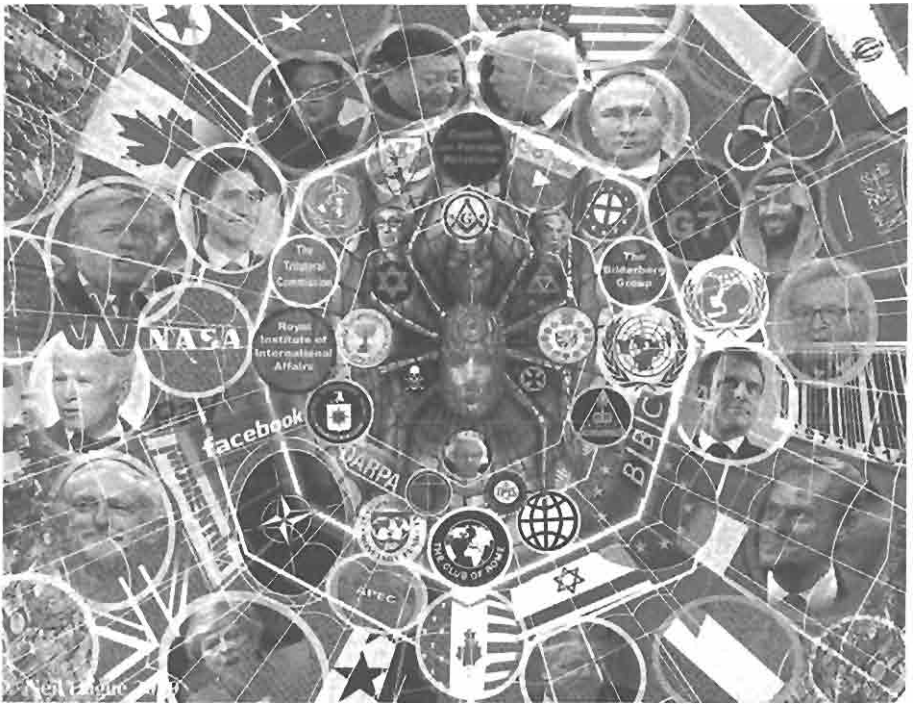

Figure 1: The Spider's Web structure that allows the Hidden Hand few to control the many. Strands around the Spider are the most exclusive secret societies and further out – still in the hidden – are the secret societies that people will have heard of, but have no idea of their agenda – the inner circles of the Freemasons, Knights Templar, Knights of Malta, Jesuit Order, and so on. Next are the 'cusp' organisations where the hidden meets the seen and from here the Spider's agenda plays out into mainstream society as 'random' events and decisions. The vast majority of those who actually implement the decisions have no idea there even is a Spider let alone that they are imposing its will. © Neil Hague 2019

of these names will be unknown to the public despite their power to influence events. They will certainly never have been troubled by a ballot box. Further out from The Spider, still in the unseen, we have the secret societies that most or many people will have heard of – the Freemasons, Knights of Malta, Knights Templar, Opus Dei, the inner-circle of the Jesuit Order and so many more. The last four are connected to the Roman Church which itself is a hierarchical secret society and the successor to the religion and secret society network of ancient Babylon (a key historical foundation of The Web). The inner core of Zionism (a political philosophy, not a race) is also a secret society which connects via The Web with the inner sanctums of the Roman Church and the other secret societies. No one will be more surprised to hear this than most Jewish people who are systematically kept in the dark about what Zionism really is. They think it's a political movement supporting a homeland for Jews in today's Israel, but that is only to mislead them into supporting an agenda they are not supposed to understand. Some far-seeing Jewish people – brave ones, too – have looked beyond the propaganda and worked to expose the truth while the great majority are subjected to life-long perceptual programming which is fierce and constant from the earliest age and leaves them at the mercy of the manipulators in their midst. Talk to Jewish people about how the indoctrination instils from birth a cultural self-identity 'norm' which includes the claim that the rest of world 'hates the Jews'. In fact we *don't*, but when the inner-core few want to secure the support of a majority in any situation then fear of a perceived enemy is always on page one of the training manual. I will call this inner-core elite of Zionism '*ultra*-Zionism' and later 'Revisionist Zionism'. This is the extreme and much manipulated version that is driven though secret society Zionism. The difference can be likened to mainstream Islam and the Saudi Arabia-based version called Wahhabism which manifests as crazies like ISIS or Islamic State. Mainstream Zionism and *ultra*-Zionism are absolutely not the same and no one needs to understand the difference more than the mass of Jewish people from whom this knowledge is hidden. I will be going much deeper into this background towards the end of the book and its fundamental connection to what happened on 9/11. Ultra-Zionism, a relatively modern phenomenon, wants to replace the Al-Aqsa Mosque on what Jews call Temple Mount in Jerusalem with a rebuilt 'Solomon's Temple'. You might look at the Jewish connection and say, well, I can see why they would want that. But, hold on. Rebuilding 'Solomon's Temple' on that spot has also been the goal of the Knights Templar secret society since it was established in the *12th century.* One of the major symbols of Freemasonry which emerged in its present form centuries ago are the twin pillars said to have been at the entrance to 'Solomon's Temple' (Figs 2 and 3 overleaf). Ultra-Zionism is part of a far

Figure 2: The twin pillars said to stand at the entrance to 'Solomon's Temple'.

Figure 3: The twin pillars of Solomon's Temple became the twin pillars of Freemasonry. The six-pointed 'Star of David', or hexagram, is a symbol of Saturn which will be significant much later in the book. This image is from the 'Mother Lodge' of Freemasonry in London.

bigger and more ancient picture and agenda than it appears to be and the body of Jewish people are to this day its unknowing pawns. Today's Israel with its total population of around just eight million has so much power and influence in the world because of the part played by ultra-Zionism in the global web and the connections that come not least through the House of Rothschild which largely created modern Israel in the land of Palestine in 1948. There is a point on The Web where the hidden meets the seen and I refer to this as 'The Cusp'. Here you find semi-secret groups and organisations that gather together people from American, European and global politics, intelligence, military, business, banking and media to form common policies and approaches to current events and longer term agendas for the world. These 'cusp organisations' include a group spawned by a London-based secret society called the Round Table established by the Rothschild dynasty at the end of the 19th century and headed by Rothschild agent Cecil Rhodes who plundered southern Africa for gold and diamonds to add still more to his masters' phenomenal wealth (Fig 4). The Round Table was behind the 'Balfour Declaration' in 1917 when the British government formerly announced its support for a homeland for Jewish people in Palestine. The 'declaration' was actually a letter sent by Lord Arthur Balfour, British Foreign Secretary and inner circle member of the Round Table, to Lord Lionel Walter Rothschild, funder and founder of the Round Table and described as 'a leader of the British Jewish community'. You can see with this example alone how events in the seen can be so easily orchestrated from the unseen while the public are told a

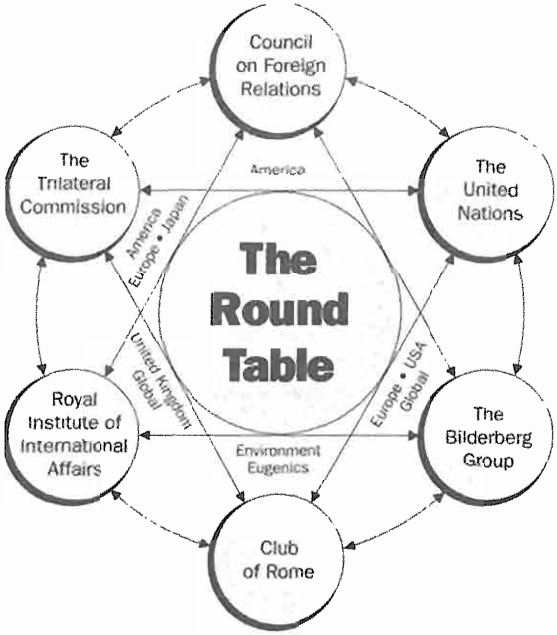

Figure 4: The London-based Rothschild Round Table secret society and the network of organisations it created both sides of the Atlantic.

very different story. Keep that in mind when we get to the details about 9/11. The Round Table created a series of cusp organisation satellites which include the following: Royal Institute of International Affairs (also known as Chatham House) in London (1920); Council on Foreign Relations (CFR) in New York (1921); Bilderberg Group (1954); Club of Rome (1968); and the Trilateral Commission (1972). The Rothschild and Rockefeller families were the major force behind their creation together with other connected elite families and they are known by various descriptions including 'non-governmental discussion groups', 'non-governmental organisations' (NGOs) and the all-encompassing title of 'think tanks'. You will see later the essential part played in 9/11 of 'think tanks' which are a means to group together like-minded people in pursuit of a common outcome while also persuading necessary outsiders to come to your view of what should be done. In this way think tanks are incredibly influential in manipulating policies decided in the hidden to become public reality. This Round Table cusp network was also responsible for the establishment of the United Nations which is a stalking horse for fully-fledged world government. The Rothschild-Rockefeller-dominated Council on Foreign Relations has been a major manipulating force behind United States foreign policy from 1921 to present day. America's delegation at the founding of the UN included 74 of its members making it what one insider called 'a roll call of the CFR'. The land on which the UN building stands in New York was donated by the Rockefellers such was the determination of The Web to establish a global body which they could eventually transform into world government. The Bilderberg Group has been behind so much manipulation of European, American and world affairs. It was intimately involved in the creation of the European Union as it replaced the former Common Market and in the

introduction of the single-currency euro as so many European countries replaced their own unique version of money (a major step on the road to a single global currency). A secret society that works closely with the Bilderberg Group is Le Cercle which will later become relevant to 9/11. Another cusp entity to mention is the Club of Rome established in 1968 with the specific task of exploiting environmental issues to justify global transformation in line with The Spider agenda and from this has come the human-caused 'global warming' hoax which is being used to do just that. Greenpeace co-founder Patrick Moore described it as 'the greatest scam in history', but he's a rare sane voice in the mob-rule that the environmental movement has become. American meteorologist Joe Bastardi said that billions of years of climate fluctuations are being judged by the time equivalent of six seconds in the life of an 80-year-old. 'It's like one scene in a movie of five seconds determining the whole movie.' The overwhelming contribution to 'greenhouse gases' comes from water vapour and clouds and the majority of carbon dioxide (without which we'd all be dead) is naturally-occurring (Fig 5). I have been warning again for decades that 'climate change' blamed on human activity is the manufactured excuse to justify fascistic/communistic centralisation of control through United Nations deceptions known as Agenda 21 and Agenda 2030. Elite stooge Alexandria Ocasio-Cortez, the extraordinarily narcissistic New York congresswoman, launched her 'Green New Deal' in 2019 which demands what I said years ago would be the societal transformation that 'climate change' would be used to justify. What was the justification that Ocasio-Cortez gave for her plan? Human-caused climate change is going to kill us all. It's just a coincidence, nothing to worry about.

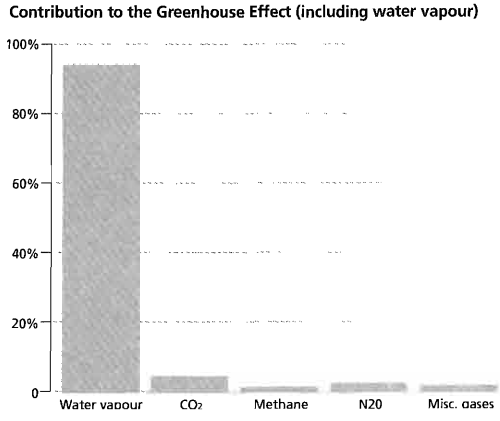

Figure 5: This graph of greenhouse gases puts the hysteria about carbon dioxide into perspective. If you want to stop the greenhouse effect then ban clouds and condensation and, by the way, without a greenhouse effect and carbon dioxide (C02) there would be no human life.

The mushroom technique

So the Spider dictates the policies and direction of the world and these play out through the upper levels of secret societies into the cusp organisations and on into mainstream society where we see apparently random decisions and legislative changes that appear to be made by

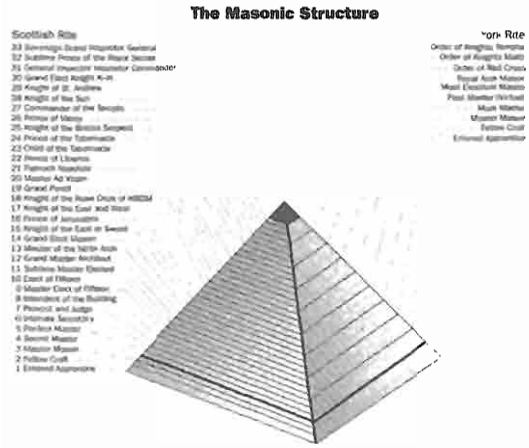

Figure 6: The structure of secret societies is the blueprint for human societies. Each lower level is compartmentalised from higher levels and so only the few at the top know what is really happening and why.

governments and their agencies, the military, corporations, banks, medicine, Silicon Valley and all the rest. In fact, the society-changing decisions are not random. They are originally made by The Spider and transform human society through its agents/gofers/serfs while the overwhelming majority of them have no idea there even is a Spider let alone they are doing its bidding. This is possible because of the technique of 'compartmentalisation' or 'the need to know' which is the same system employed by secret societies to keep most of their members blind to what the few at the top know and are doing (Fig 6). Look at any sizable organisation, no matter what it may be, government, corporation, university, anything, and you will see a compartmentalised pyramid in which a few at the top know what's going on while everyone else is only aware of their particular contribution in compartmentalised isolation from what others are doing. If you make an isolated piece of technology you don't necessarily know what it will be part of once all the other components made elsewhere are fitted together. This is the principle I am talking about and it means that people daily contribute to their own and their family's enslavement while having no idea that this is what they are doing. The structure of isolated contributions means that very few are needed to control the actions and direction of giant organisations, multiple actions and global events. In that one sentence I have described the structural basis of 9/11 and how its cover up was possible. Each compartmentalised strand in The Web, governments and their agencies, corporations, banks, military, intelligence, media are overwhelmingly staffed by those who don't know there *is* a Web or what their organisation is ultimately being used to achieve. Go deep enough into these hierarchies and you'll reach the point where they attach to The Web or to use another analogy all the pyramids fuse into one global pyramid (Fig 7 overleaf). At this level of the global network governments and their agencies, corporations, banks, military, intelligence, media are operating as *one unit* in pursuit of the *same end* – the complete control of human society. It is important to remember that The Web has no borders and operates as one global

The Pyramid of Manipulation

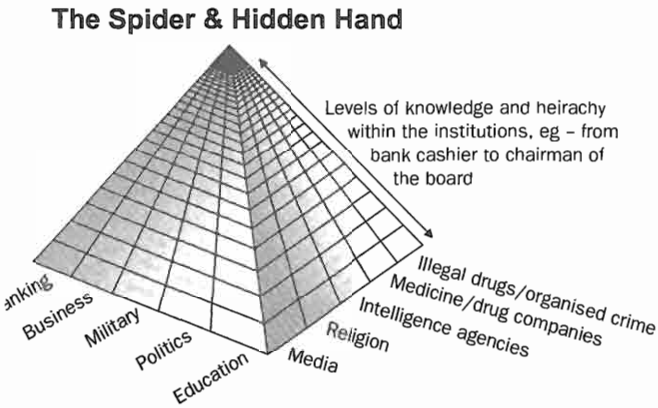

All the major institutions and groups that affect our daily lives connect with the Global Elite, which decides the coordinated policy throughout the pyramid.

People in the lower compartments will have no idea what they are part of.

Figure 7: The Hidden Hand – where all compartmentalised pyramids meet.

entity.

The Web dramatically increases the potential for covert coordination between apparently unconnected people and organisations and their hidden connections allow so much to be secretly orchestrated while a totally different cover-story is presented to the public by the elite-owned (and largely clueless) media. For example, people see governments, major corporations, cartels like Big Pharma, Big Biotech, Big Oil, Big Tech and Big Media, world events and political happenings, and they are perceived a certain way. In and of themselves they all appear as individual entities making apparently random decisions made by random individuals; but if you go deep enough or high enough in these organisations they all attach to the same Web and a very different perspective emerges. Internet media near-monopolies like Facebook, Google, YouTube, Twitter, Apple, Amazon, PayPal, Reddit, GoDaddy, Shopify and others become one unit at that level and respond in unison to attack and destroy the Internet presence of alternative information and social media platforms dedicated to free speech – cheered on by the Marxist elite-controlled 'progressives' who are an insult to the civil rights movement of the 1960s they so wrongly claim to succeed. Inner-circle initiates and funders driving this 'progressive' response are also attached to The Web and serve its interests while the mass of mindless repeaters and followers think they are challenging the established order. How easy it is to have Web-controlled governments, newspapers and Web-funded and manipulated 'progressives' to demand in unison that free speech be deleted from those they want to silence and then Web-controlled Internet companies to say they are censoring people in response to public opinion and government pressure. The Web is used to

promote giant corporations and limit their tax bills while government agencies that supposed to protect the public from the activities of those corporations are attached to the same Web and so let them get away with it. They target the opposition in the form of small independent businesses that face incessant regulation and far higher levels of taxation. The potential for manipulation through The Web is endless and coordinating actions between elements of government, military, intelligence agencies and law enforcement on 9/11 would have been quite straightforward with such a structure in place.

Spider bloodlines

The concept of 'royalty' and 'aristocracy' did not appear out of nowhere. I reveal in other books how bloodlines were seeded in the ancient world that believed themselves to be the bloodlines of the 'gods' – hybrids or 'demigods' of entities in bands of frequency unseen to human sight or what is called 'visible light'. Most people don't realise that the band of frequency that we can see is so tiny it is laughable. According to mainstream science the electromagnetic spectrum is 0.005 percent of what exists in the Universe (some say more but not much) and 'visible light', the only frequency band we can see, is a *fraction* of the 0.005 percent. Everything else we *cannot see* – the almost entirety of the Universe and all of infinite reality beyond. These 'gods' as they were perceived operate in these unseen realms and some of them comprise The Spider ultimately behind world events and the hierarchical control system in the realm of the seen. We see this theme of humans interbreeding with 'gods' most famously with the biblical sons of God who are described as interbreeding with the daughters of men and producing the hybrid Nephilim; but this is not unique to the Bible. The theme can be found in ancient cultures all over the world with the 'gods' referred to as 'Archons' (Gnostic), 'Jinn' (Islam and pre-Islam); 'Anunnaki' (Sumer/Babylon); 'Chitauri' (Zulu); and so many more around the world. I have had the same story confirmed to me many times by whistleblower insiders of the government-military-intelligence complex. When native shamans and dark suit insiders speak the same language and tell the same story it is worth listening if you have a mind of your own. I have been researching and tracking this bloodline 'Nephilim' network since the early 1990s and it makes so much sense of the world. 'Royal' families have claimed the 'Divine Right to Rule' and this is taken to mean 'Divine' in the meaning of the Christian God. In fact the word 'divine' originates from early Vedic literature in India and their word 'Deva' which meant 'supernatural beings'. 'Divine' Right to Rule becomes the right to rule at the behest of supernatural beings, not the Christian God. This certainly fits with the Old Testament concept given that 'sons of God who interbred with the daughters of men'

translated originally as 'sons of the *gods*' plural. These hybrid 'royal' bloodlines and families saw themselves as special and chosen above the rest of humanity and for thousands of years they were seen in the same way by their 'subjects'. Some shockingly still do. Rule by bloodline became a common method of leadership and dictatorship until humanity began to grow up and demand far more representative government. Some overtly royal families survived – as in Britain where the head of state is bizarrely still decided by who had sex with who and in what order to dictate the line of succession. Why is the present monarch on the British throne and not someone else? The answer is *bloodline* and only bloodline. Most of the formerly open royal families and their offshoots around the world rebranded themselves and headed into politics, business, banking and other influential areas of society. Their attire may have changed with the transformation but they still consider themselves special and 'of the gods' which they have worshipped in their rituals since ancient times.

One group of bloodlines very relevant to the world today can be picked up thousands of years ago in Sumer and Babylon, in what today is Iraq, and in the Egypt of the Pharaohs. I have charted their movements and background in other books but basically they eventually headed north into Europe under various names and some established Rome and the Roman Empire which allowed for further infiltration into Britain and northern Europe. This was only one flow of people and their 'royal' leadership, however, and others went north

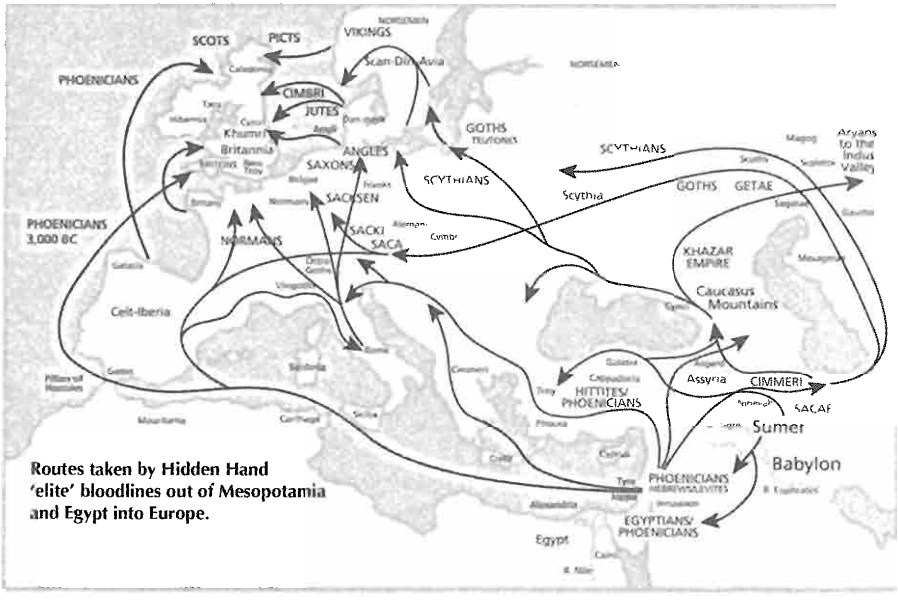

Figure 8: The march of Hidden Hand control out of the Middle East that seized the reins of power in Europe before expanding across the world through 'colonisation'.

Figure 9: Virgin mothers and their holy child abound throughout the ancient world from reptilian figurines found in of the Ubaid culture in the land that became Sumer and Babylon to Egypt's Isis and Horus and on to Christianity's Mother Mary and Jesus.

through the Caucasus and into Eastern and Western Europe by various routes (Fig 8). The bloodlines that established Rome would go on to found Christianity as we know it today which was a milder version of the religion their ancestors brought out of Babylon which today's bloodline family elite still follow under what is now called 'Satanism'. In Babylon they worshipped a trinity of Nimrod, the father god; Tammuz, the virgin-born son; and Queen Semiramis, the virgin mother. It was said that when Nimrod died he became the sun-god Baal and impregnated Semiramis with the rays of the sun through which came the virgin-birth of Tammuz. Roman Emperor Constantine the Great decreed what Christians must believe at the Council of Nicaea in what is now Turkey in 325AD. Constantine worshipped Sol Invictus, the 'Unconquered Sun', and so had no problem encompassing a new religion in which Nimrod became 'The Father', Tammuz became 'Jesus' and Semiramis became the 'Holy Spirit'. Christianity symbolises the Holy Spirit as a dove which was the symbol for Semiramis in Babylon. Other Babylonian attributes of Semiramis like virgin mother and mother of God were given to the Christian figure of Mother Mary. The virgin mother and child story is ancient and can be found all over the world long before Christianity inherited the story and presented it in a new historical context (Fig 9). Symbols of the bloodline religion with its origins in Babylon and beyond are all around us. Symbolism is their secret language and they believe that very few will ever work it all out. The symbol of the Babylonian goddess Semiramis was the dove and the name Colombia comes from a Latin root-word meaning 'dove'. Washington DC is located in the District of Columbia or the District of the Dove – the Babylonian goddess. This was supposed to be named after Christopher Columbus, but that's a diversion. Another Babylon goddess symbol is the owl and so you have the street plan around Capitol Hill in the District of the Dove clearly made to depict an owl

Figure 10: The owl and pyramid street plan in Washington DC symbolising the Babylonian goddess with Capitol Hill so appropriately in her belly.

Figure 11: The 'Statue of Liberty' is really a depiction of the Babylonian goddess given to New York by French Freemasons in Paris. Under the satanic law of inversion Statue of 'Liberty' means Statue of Control.

with the Congress Building in its belly (Fig 10). How utterly appropriate and indicative of how things are. The Statue of Liberty is also the Babylonian goddess holding the torch of the 'Illuminated Ones', 'Illuminati' or bloodline elite (Fig 11). The Liberty statue was given to New York by French Freemasons in Paris who knew what it really represents and there is a mirror-image 'Liberty' on an island in the River Seine in the French capital (Fig 12). The woman holding the torch in the logo of Columbia Pictures is the same symbolism and in London the 'Mother Lodge' of Freemasonry (established in 1717) is located in Great Queen Street because 'Great Queen' was a title of Semiramis in Babylon (Figs 13 and 14). Freemasonry was introduced into America by the Mother Lodge where it has been

Figure 12: The other Statue of Liberty on an island in the River Seine in Paris.

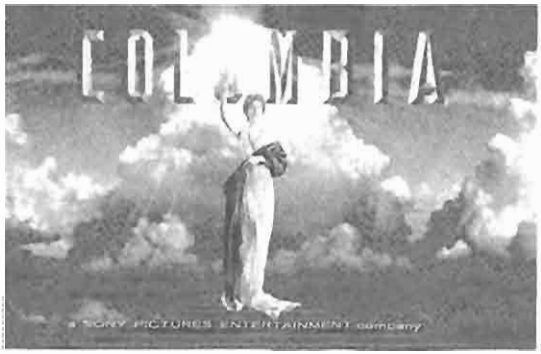

Figure 13: The Babylonian goddess again as the famous logo of 'Columbia' (the dove, goddess) Pictures. See also Washington DC in the 'District of Columbia'.

Figure 14: The Mother Lodge of Freemasonry in London with the twin pillars of 'Solomon's Temple'. The building is located in Great Queen Street – a title given to the Babylonian goddess. It was from here that Freemasonry was established in the United States.

central to the creation and direction of the United States.

Bloodline Satanism

While Christianity became the publicly acceptable version of the religion of Babylon the real deal involving human sacrifice and other unspeakable horrors has continued to be worshipped in secret by the bloodlines and their offshoots and lackeys which is why my research into such people invariably leads to Satanism and its fundamentally-connected paedophilia. I explain in other books why the two are so connected and what Satanism really is. Very briefly we don't live in a 'world' so much as a band of frequency that our senses can decode. You can symbolise this as a television channel. Tune the TV to one channel and that is what you get – it is all you are aware of on the screen. However, all the other channels exist at the same time although they can't be seen and you can access them if you tune the set to their code or frequency (switch the channel). Our reality is like that. The five senses tune us to a particular and tiny band of frequency and beyond five-sense reality is infinite reality teeming with life of every conceivable kind and then some. Skilled psychics and mediums can tune to some of these unseen realms – unseen to the human senses – and Satanists perform their rituals specifically to interact with those realms and entities that we know as demonic. This is where they get their power and source of unimaginable evil. American Freemasonic and occult historian Manly P. Hall wrote in *The Secret Teachings of All Ages:*

> By means of the secret processes of ceremonial magic it is possible to contact these invisible creatures and gain their help in some human undertaking. Good spirits willingly lend their assistance to any worthy enterprise, but evil spirits serve only those who live to pervert and destroy ... The most dangerous form of black magic is the scientific perversion of occult power for the gratification of personal desire.

Interacting with these 'evil spirits' and being 'possessed' by their demonic power is what elite Satanism is all about. I had correspondence some years ago, which I published in books at the time, with a man who said he was the unofficial son of the late Baron Philippe de Rothschild of the Mouton-Rothschild wine estates in France (Fig 15). He told me that his half-sister is the Baron's daughter, Baroness Philippine de Rothschild, who inherited the wine empire (see *Children of the Matrix*). He said his Rothschild name was Phillip Eugene de Rothschild and he was living in the United States under another name after fleeing the horrors of what he called the 'grand conspiracy' of his family which had given him a role of infiltrating the Christian Church for the satanic Rothschild Death Cult. This will be extremely significant later on. Phillip Eugene told me how the Rothschilds have hundreds of thousands of children produced through sperm bank breeding programmes to ensure survival and expansion of the hybrid bloodline. These children then come to power in many and various fields under different names and appear to have no genetic or other connection to the Rothschilds and bloodline families. He said that incest within the elite families was considered normal and something to be admired – something my own research has confirmed again and again. Phillip Eugene de Rothschild described the elite obsession with Satanism and its sacrifice rituals:

Figure 15: Baron Philippe de Rothschild.

> I was present at my father's death in 1988, receiving his power and the commission to carry out my destiny in the grand conspiracy of my family. Like their other children, I played a key role in my family's revolt from God. When I watch CNN, it startles me to see so many familiar faces now on the world stage in politics, art, finance, fashion and business. I grew up with these people, meeting them at ritual worship sites and in the centres of power. Financiers, artists, royalty, and even Presidents ...
>
> ... I can recall the Rockefellers and the Bushes attending rituals, but never having the supremacy to lead them. I still regard them as lackeys and not real brokers of occult power. Except for Alan Greenspan [long-time head of the US Federal Reserve], most of these fellows were camp followers in the occult, primarily for the economic power and prestige. Greenspan, I recall, was a person of tremendous spiritual, occult power and could make the

> Bushes and the younger Rockefellers cower with just a glance.
>
> Ex-CIA Director Casey (as were most of the CIA leadership for the past forty years), Kissinger, and [former US Secretary of State] Warren Christopher were in attendance at non-ritual gatherings and some occult rituals as well, but well back in the gallery.

Ultra-Zionist Alan Greenspan held an incredibly powerful position as chairman between 1987 and 2006 of the Federal Reserve, a *privately*-run operation that serves as America's central bank directing the US economy with its global implications and consequences. Phillip Eugene said that others he met at rituals included Bill Clinton, who would become President of the United States, and Al Gore, Clinton's vice president who would be chosen as the elite's frontman for the global warming hoax aimed at manufacturing an excuse to transform global society with great support from the Round Table's Club of Rome. A Swiss banker described the same theme in an anonymous interview in 2011 for the Russian magazine, *NoviDen.* He said of elite bankers:

> ... These people are corrupt, sick in their minds, so sick they are full of vices and those vices are kept under wraps on their orders. Some of them ... rape women, others are sado maso, or paedophile, and many are into Satanism. When you go in some banks you see these satanistic symbols, like in the Rothschild Bank in Zurich. These people are controlled by blackmail because of the weaknesses they have. They have to follow orders or they will be exposed, they will be destroyed or even killed.

Paedophilia and Satanism are fundamentally connected and this is why so many people in positions of royal, political, corporate and religious influence are both paedophiles and Satanists. I highlight this because it provides an insight into the mentality of those in power with regard to 9/11. To these sick and perverted psychopaths 9/11 would have been a mass sacrifice ritual – just as wars are to them. I hear it said that political, military and intelligence leaders would not be evil enough to kill thousands of people that day and use the attacks to justify their agenda of wars and deletion of freedom. The truth is that those who would sacrifice children or watch them be sacrificed are hardly going to suddenly become empathetic and emotional over dead men, women and children on 9/11. Not only *would* they do it – they would be sexually aroused by it. They feed off human death and suffering and to them the death and destruction of war is something to celebrate. I have exposed many rich and famous names involved in human sacrifice, paedophilia and violent abuse of children – it is rampant at 'elite' levels of society. When you see what they will do to children and in manipulated wars of

mass murder you may appreciate that the calculated killing of nearly 3,000 people on September 11th would be of no consequence to these psychopaths – for that is what they are. Robert D. Hare, a Canadian criminal psychology researcher, developed the 'Hare Test' listing the traits of psychopaths and if you have enough of them you are considered psychopathic. They include no empathy; no remorse; no shame; parasitical behaviour; pathological lying and doing whatever it takes to get what they want. I have read that psychopaths are considered to be born that way whereas sociopaths are the result of life experience. These bloodlines are largely *born* psychopaths with an incapacity to process empathy – the ability to connect with the feelings of those they adversely affect. Without empathy there is no fail-safe mechanism of human behaviour because there are no emotional consequences, no shame or remorse, no matter what you do. This is the mentality running our world and the one behind 9/11. To understand those who orchestrated the attacks you have to get into their minds and then their capability to do what they did becomes clear.

The former overtly royal and aristocratic bloodlines now employing their new dark-suit disguise set about the work of building a global structure of control that would allow for their domination of human society. They were behind the European empires of conquest and colonisation led by Britain where the centre of this assault on the world was located. The British Empire was vast because that was the centre of bloodline activities along with Rome. They remain so today in the shadows if not publicly while the spotlight has turned to America and its modern-day global empire. Bloodlines out of Britain and to an extent France invaded Native American lands and seized them as their own fiefdom. This was a pattern that happened across the world as Planet Earth became Global Babylon through colonisation and centralisation of power or what is today called globalisation. They created a money system to control and suppress choice that involves lending people 'money' that doesn't exist called 'credit' and charging interested on it. If you don't pay back the loan of fresh-air 'credit', often through no fault of your own and actions taken by bankers and financiers, those same people can take your wealth that does exist like your home, land, business and resources. By this means the bloodlines and their networks have absorbed the wealth of the world by simply exchanging non-existent 'credit' for the real wealth of the world. We haven't reached the point by accident where six people own collectively the same wealth as the poorest *half* of the human population. It's been done by design and they are far from finished yet. They want *everything*. One of their most productive scams is to issue non-existent 'credit' for the amount that you borrow, but never create even with fresh-air 'money' the amount of *interest* you will have to pay. This means that there is never ever enough

money, credit or otherwise, in circulation to pay back all the principle and *interest* on the outstanding debt. Losing your home, land, business and resources is built into the system on purpose to achieve just the outcome I have described. Talk about psychopaths and parasites. Control of money means control of choice and choice means freedom. Control money in the way that society is currently structured and you go a long way to controlling freedom and dictating who has it and who doesn't. People fall for the idea that the hysterical pursuit of money by this 'elite' is all about greed, and that is true to an extent, but its bottom line is really *control*.

Permanent Government

The financial system is an essential part of the Permanent Government which by definition is a government that is always there no matter what political personality or persuasion comes and goes every few years. I have been writing about the Permanent Government for decades and now we have the widely-used term of the 'Deep State' to describe agencies of government pursuing their own agenda often at odds with that of elected officials. The Deep State consists of intelligence agencies, military personnel, law enforcement and government administration that transcend the comings and goings of politicians and work to undermine and obstruct political agendas that threaten the interests of its own. The Permanent Government, of which the Deep State is a part, also consists of the banking and financial networks, major corporations, mainstream media (and parts of the 'alternative'), legal system and courts as well as the Deep State intelligence agencies, military personnel, law enforcement and government administration (Fig 16). Weaving through all of these agencies and subject areas are the secret societies into which key players are initiated. They pledge allegiance in their initiation rituals to The Spider and The Web under various guises and this allegiance overrides any publicly-spoken pledge to the people they are supposed to represent or, in the United States, to the Constitution. Compared with this edifice of permanent power the here-today-gone-tomorrow politicians and parties are small fry controlled either

Figure 16: Structure of the Permanent Government which really dictates global events. Politicians and 'elected' governments that come and go are a hoax and diversion to protect the real rulers from exposure. The 'All-Seeing Eye' is a prime symbol used by the Hidden Hand to portray its perceived 'omnipotence'.

directly or by manipulating circumstance through the Permanent Government and Deep State. This is why that no matter what party or politician comes and goes the same agenda continues with them all.

The American political system is a clear and perfect example of how the scam works in every country. There are usually two or three political parties that have any chance of forming a government and if the Permanent Government controls all of them it controls events whichever one a 'democratic vote' puts temporarily in office. In America the Republican and Democratic parties take it in turns to form the government although it is planned for the Democrats to be permanently in office eventually through the transformation of American demographics. For now we have a one-party state with two masks that claim to be independent and in opposition. The Republican Party is controlled by a group known as the Neocons or neoconservatives (big-time involved in the 9/11 story) that ran the Boy Bush presidency and now dictate to Trump. The Democrats have a similar group behind the scenes which I call the Democons. They include people like billionaire manipulator extraordinaire George Soros. Neocons and Democons are the Permanent Government's representatives ensuring control of the political parties and dictating who runs for office and who doesn't. Whether it be 'Democrat' Bill Clinton, 'Republican' Boy Bush, 'Democrat' Barack Obama or 'Republican' Donald Trump the same force is in charge because the Neocons and Democons control the parties and both groups answer one step deeper into the shadows to the same Permanent Government (Fig 17). This is why no matter who you vote into office, and no matter what they promise to do, human society continues in the same direction – the direction dictated by the Permanent Government. Presidents, prime ministers, parties in political office, just come and go while the Permanent Government is always in control. An essential diversion is to focus attention of the population on the political level of the structure and program perception that this is

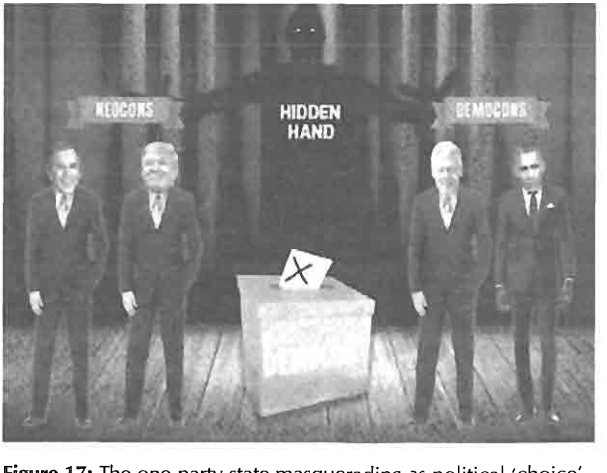

Figure 17: The one-party state masquerading as political 'choice'. They appear to be 'different' politicians from 'different' parties – but they answer to the same masters. This is why the direction of the world doesn't change no matter who is in illusory political 'power'.

where the power lies to change events and direction. It isn't. The political level is largely there only for show and to officially implement in the form of legislation what the Permanent Government has decided. I read one dismissal of 9/11 conspiracy 'poison' by 'progressive' journalist David Corn at AlterNet which said that 9/11 president Boy Bush was 'not that evil', 'not that ballsy' and 'not that competent'. The level of ignorance it takes to write that sentence is breathtaking. Bush was a gofer, mate. He did not have to be that 'ballsy' and 'competent', only do what he was told and as far as possible stay out of the way – hence he was nowhere near Washington DC on 9/11 leaving Dick Cheney to control the White House.

Permanent Governments in each country are connected by The Web to form essentially a Permanent Global Government. Of course it doesn't always work as they would like with a few mavericks here and there pushing back and not everything always goes to plan. The idea is to so increase the level of control that eventually even the mavericks are squeezed and forced out. You can imagine The Web as like a transnational corporation with a corporate headquarters and subsidiaries in each country which operate in line with the centrally-dictated corporate brand, mode of working and business plan. The Web has centres of power in places like London, Rome, Paris, Berlin, Tel Aviv/Jerusalem, New York and Washington and in each country there is a subsidiary secret society network and bloodline family hierarchy whose job it is to implement in their sphere of operation the plan dictated from the centre. This is how the same things can suddenly happen all over the world pretty much at once or certainly in a close time period. The Web and the US Permanent Government were crucial in coordinating 9/11 with other Web assets, most notably the ultra-Zionist network and its military intelligence arm, Mossad, which I will come to much later in the book.

Global mind game

The numbers dynamic between manipulators and manipulated is absolutely shocking. A comparative few are controlling and directing a population of beyond 7.7 billion. This can only happen if the few control key positions of power either directly or through proxies and place people. It is remarkable how few positions you need to control to dictate events through an entire structure or system. You only have to dominate the big decision-making and hire-and-fire roles and then you can select personnel who will do what you want either through those in awareness of the game (the very few) or through compartmentalised ignorance (everyone else). Another essential is to control to the greatest extent possible the perceptions of the target population by control of information. Perceptions dictate behaviour and what people will do or

not do, support or not support, challenge or leave alone, and perceptions are formed from information received. This can be through personal experience (some) or mass media (most of the rest). By controlling information you are controlling perception and through that you dictate behaviour. It is a simple cause and effect and so many people ('journalists' especially) simply believe what the authorities tell them. We have already seen classic examples of this with the response to questioning 9/11 from those 'progressive' journalists who think they are 'anti-establishment'. Perceptions are formed not only through the media but also the 'education' system in which children only four years out of the womb begin a process of perception programming throughout their entire formative years as day after day they download the state's official version of everything. The idea is to give them an initial foundation download of 'normal' which they have topped-up for the rest of their lives by the mainstream media and peer-pressure friends and associates who have been through the very same process. 'Normal' becomes a self-fulfilling prophecy in the absence of query and questions – an 'everybody knows that' when a few questions and a bit of independent research would reveal so many norms to be nonsense. September 11th is an example almost like no other. There has been a short window in the developing years of the Internet when people had access to other sources of information and this has had such an affect in changing perceptions of the world that a frenzy of censorship has been launched by Web organisations such as elite-owned Facebook, Google and Google-owned YouTube, Twitter and so on to protect official narratives from demolition by factual investigation. Justifications for this include 'fake news' (see mainstream media that isn't censored), and 'hate speech' (an Orwellian term meaning a different opinion). They had to allow the Internet to be free from censorship to start with to get people hooked and make the Internet the foundation of modern society. Now that point has been reached and Internet Web corporations have achieved near-monopolistic power they can transform the Internet into the information controller and suppressor it was always intended to be (see *Everything You Need To Know But Have Never Been Told* for the detailed background). I have noticed how Google and others make it far more difficult to locate specialist information questioning 9/11 than it did when I researched *Alice in Wonderland* in 2001 and 2002. A perfect example is the information gathering website, Reddit. Those seeking out content on Reddit exposing the official story of September 11th are met with this notice:

> Are you sure you want to view this community? This community is quarantined. It may contain a high degree of misinformation. If you are seeking historic information about the September 11th attacks, please visit the

National Commission on Terrorist Attacks on the United States (https://www.9-11commission.gov).

What a message to encapsulate the times we are living in and if anyone wants to make a statement about that they can always boycott Reddit in protest and tell them they are doing so. You will see in this book that the official 9/11 Commission 'report' on the attacks recommended by Web servants Reddit is the biggest fairy story since Cinderella. No, make that Sleeping Beauty because you have to be asleep to believe it, as American comedian George Carlin famously said of the 'American Dream'. I coined the terms 'Problem-Reaction-Solution' and the 'Totalitarian Tiptoe' for the two most used and most powerful techniques of perception manipulation. I will be brief here because I will expand on both with regard to 9/11. Problem-Reaction-Solution (P-R-S) is a term I began using in the 1990s to describe the technique that specifically creates a problem to justify a solution that would otherwise be difficult to sell. It goes like this:

(1) The Problem: Covertly create a problem that would provide the excuse for your desired 'solution' or change. This could be a terrorist attack, war, government or financial collapse or a long list of other 'problems'. Crucially you produce a fake story about who or what is behind the problem to hide the fact that it was you all along. Your fake 'villain' is designed specifically to lead to your pre-planned 'solution'. If you want to invade Afghanistan, for example, then blame Osama bin Laden based in Afghanistan for what happened on 9/11.

(2) The Reaction: Tell the public through an unquestioning mainstream media the version of the 'problem' you want them to believe and you are looking for the 'reaction' of fear, outrage and a demand that you 'do something' about what has happened. Even if people don't demand what you want to do they will be more open to it – 'We don't want our freedoms taken away but we've got to fight terrorism'.

(3) The Solution: Once you have the problem and reaction you then offer the solution through which you introduce new laws, policies and changes that advance your agenda for human control, deletion of freedoms and centralisation of power.

There is another version that I call NO-Problem-Reaction-Solution in which you don't need a real problem only the *perception* of one. Lying about weapons of mass destruction in Iraq to justify an invasion that would not otherwise have happened is a perfect example of this technique. The modus operandi of P-R-S is also known as a 'false flag'

operation as with covertly carrying out a terrorist attack and then blaming the people you want to target. The partner-in-crime of P-R-S is a technique I refer to as the 'Totalitarian Tiptoe' which often connects different P-R-S events together to drive society in a particular direction. You start at 'A' and you want to go to 'Z', but you know that if you move too quickly the change will be such that many people might see the pattern of where they are being taken. So you go in steps that move you towards 'Z' at the fastest speed you can while not moving so fast that the pattern is too clear. In this way a European 'free-trade area' became step-by-step a centralised bureaucratic dictatorship called the EU. Globalisation and the deletion of freedoms, not least freedom of speech, has been achieved through the Tiptoe. You will be seeing both techniques in action with regard to 9/11.

One more thing before we proceed. I will refer to The Spider and The Web from hereon as the 'Hidden Hand' to keep it simple. I will use the term to describe any person or organisation doing The Spider's work, knowingly or otherwise.

CHAPTER 2

Rule by psychopaths

Liberty cannot be preserved without a general knowledge among the people, who have a right and a desire to know; but besides this, they have a right, an indisputable, unalienable, indefeasible, divine right to know that most dreaded and envied kind of knowledge, I mean of the characters and conduct of their rulers – John Adams

Public incredulity is a key defence mechanism protecting the Hidden Hand and its agents and gofers from exposure. This is captured in the reaction: 'They would never do that'. Oh, but they *would* and the more horrific and unspeakable the better. The Bush family is a classic case.

Point number one to stress again: Those truly behind 9/11(not 'Arab hijackers') and all the war, poverty, deprivation, hunger and human suffering of every conceivable kind are full-blown in-extremis psychopaths on a scale that is almost unfathomable for those who are not psychopathic. They have no empathy and so no limits to the depths of depravity to which they will descend. If you view those that direct and manipulate world events – in this case 9/11 – through your own sense of morality, conscience and behaviour then read no more. If you judge them through your own lens of possibility there is no way you will grasp the sheer undiluted evil that is at work among us. These people do not see the world and human beings as you do. They are what have been described through history as the 'soulless ones' and their depravity has no limits because they have no emotional or empathic consequences no matter what they do. Suffering to most of the human population is something to be avoided, but to the Hidden Hand and its operatives *maximising* suffering is the whole point of their existence. It is their very 'life-force', their energetic sustenance, and the bloodline families born into psychopathy select their foot soldiers from non-bloodline psychopaths. They constantly scan the universities and the world of business and Satanism looking for potential recruits. A re-evaluation of what evil means is urgently required to understand the forces driving human society into a global Orwellian nightmare that even Orwell himself understated.

To put this into perspective I am going to outline the background to some of the public players in the mass murder of 9/11 to give you a feel for the mentality that I'm describing. Then there will be no doubt that they *would do that* in terms of the mass murder of thousands of innocent people. I emphasise the term 'public players'. Most of those that you see with political and military titles and the calculated liars in the media were not the real architects of what happened on September 11th – as they are not the real power running America and other countries. They are merely the front men and women who play their compartmentalised parts like actors on a stage to deliver their script and then cover up what really happened. Writer David Corn, who has trashed any idea of a 9/11 conspiracy or 'inside job', personified this misunderstanding when he wrote in *Mother Jones* magazine that the Bush administration was 'not that evil', 'not that ballsy' and 'not that competent'. The idea Boy George Bush with all his intellectual limitations orchestrated 9/11 is a joke. He was just an empathy-deleted pawn, a peripheral player, to those in the shadows who *are* that evil, ballsy and competent. Clearly Corn like all the others of his ilk doesn't appreciate the difference. Political and military leaders had to *officially* make decisions that allowed 9/11 to happen because that was the law while the engineers in the shadows decided *what* decisions their puppets appeared to make. Most of the high-profile public names involved in the attacks are the oil-rags and not the engineers of 9/11. Two exceptions I would make to that are Father George Bush, the three-times President of the United States (two of them officially given to Ronald Reagan while Bush was his deputy) and Dick Cheney who was 9/11 vice president to Boy George Bush while being de-facto president the whole time alongside his bewildered and clueless official 'superior' (Fig 18 and 19). Both were the puppet-masters of Boy Bush, the little boy in short trousers way out of his depth (Fig 20). Father Bush and Cheney have appeared in my books since the 1990s for their unspeakably disgusting actions and behaviour and both give

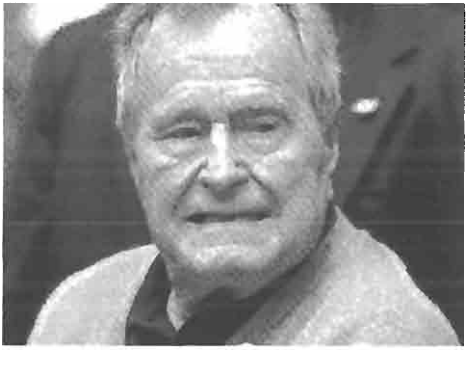

Figure 18: Brutal Bush.

Figure 19: Brutal Cheney.

personification to the term 'psychopath' (see *And The Truth Shall Set You Free, The Biggest Secret* and others). Neither are anywhere near the top of the hierarchy behind 9/11, but they were higher than other American politicians. Father Bush died in 2018 aged 94 and it's a pity he didn't get to read this book. Mind you, there were plenty of others I wrote exposing him before he left us for that darkest of dark places which evil calls home.

The Bush crime family (see also the Clintons)

The Bushes have been one of the most active Hidden Hand families (but still servants of the real power) since at least Father Bush's own father, the Nazi-supporting-and-funding politician and banker Prescott Bush (1895-1972). The family has produced two US presidents, both called George Bush, and I will overcome the potential confusion in the text by referring to George H.W. Bush as 'Father George' (de-facto president and official president from 1981 to 1993) and his son George W. Bush (president from 2001 to 2009) as 'Boy George'. The latter is more than appropriate because a little boy is all he was while the adults ran 'his' presidency – including the White House/Pentagon contribution to the events of September 11th, 2001. Father George and his wife Barbara were both descendants of Godfroi de Bouillon (also known as Godfrey of Bouillon) who led European noblemen in the successful Crusade in 1099 to recapture Jerusalem from Islam and then occupied the King's palace at what Christians and Jews call Temple Mount where the Al-Aqsa Mosque stands today. This is the alleged site of 'Solomon's Temple' and rebuilding this temple with its perceived twin pillars at the entrance has been a long Hidden Hand obsession going back at least to the Knights Templar in the 12th century. Plans by ultra-Zionist extremists to replace Al-Aqsa in East Jerusalem with a new Solomon's Temple are not unique to the relatively recent Rothschild-engineered Zionism movement. A new Solomon's Temple is a 'Web' ambition and moving the American Embassy from Tel Aviv to Jerusalem (Al-Quds to Muslims) in 2018 while continuing the systematic ethnic cleansing of Palestinian Arabs in East Jerusalem are stepping-stones to this end. The long obsession of the Hidden Hand with Jerusalem, Temple Mount and Solomon's Temple explains so much about the terrible events over centuries in that

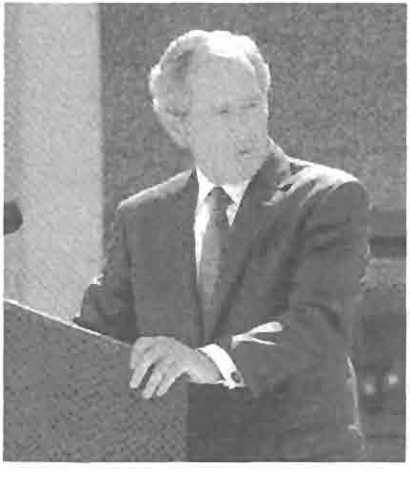

Figure 20: Boy George Bush: 'What did you tell me say again?'

city and the focus on Jerusalem by Christianity, Judaism and Islam. Godfroi de Bouillon was the first ruler of Jerusalem after the First Crusade and Duke of Lower Lorraine in France which remains a major region to this day for the Hidden Hand bloodline (see *The Biggest Secret*). Boy Bush, a descendant of de Bouillon through both his mother and father, talked of a 'Crusade' against Islamic terrorism after September 11th and this was no slip of the tongue or unfortunate gaffe as reported. He knew exactly what he was saying and why (or those who told him to say it did). Godfroi de Bouillon became the first ruler of the Kingdom of Jerusalem and 20 years later the Knights Templar secret society was formed to protect Christian pilgrims visiting Jerusalem – or so it officially claimed. The Knights Templar grew into a vast network that became fantastically wealthy and established the basis for today's banking and financial system. Monarchs were in debt to them and in 1307 they were purged in France by King Philip IV ('Philip the Fair') who owed them lots of money. The Templars seemed to disappear after that, but that was only in public. They went underground in locations like Portugal and Scotland where they re-emerged on one front as the Scottish Rite of Freemasonry. Today they remain a major arm of the Hidden Hand with their initiates involved in global politics, banking, business and media. Modern-day Templars control the City of London financial district, one of the world's premier centres for manipulating the world financial system. Part of the 'City' or 'Square Mile' within the greater expanse of London is known as The Temple after the Templar's still-surviving original temple established there in the 12th century and featured in the 2006 movie, *The Da Vinci Code*. The centre of the English legal system (and in many ways the world's) is located in The Temple district on land once owned (and still controlled by) the Knights Templar. Freemasonry, the world's biggest secret society in terms of membership, largely emerged from the Knights Templar and forms a highly-significant strand in The Web. You can see that in bloodline terms the Bush family meet the criteria for positions of power which serve the agenda of the Hidden Hand although they are far from the top and today in decline.

George and Barbara Bush were from the Pierce bloodline that changed its name from Percy after fleeing England in the wake of the Gunpowder Plot of Guy Fawkes to blow up the English Parliament and kill King James I in 1605. This event is still celebrated in the UK every November 5th when effigies of Guy Fawkes are burned on bonfires. Bush ancestor Thomas Percy was one of the main plotters. George and Barbara Pierce Bush (of Merrill, Lynch, Fenner and Smith) are from the same bloodline as US President Franklin Pierce who was in the White House from 1853 to 1857. Other Bush relatives include the Grosvenor families of England and America, the Tafts of Ohio, who produced

William Howard Taft, president from 1909 to 1913, and the Delano-Roosevelts who gave us President Franklin Delano Roosevelt (in office from 1933-45) and Theodore Roosevelt (1901-1909). It's true then – *anyone* can be President of the United States! The English Grosvenors are the Dukes of Westminster who own prime properties in London and the City of London financial district. The Grosvenors of America founded National Geographic which is notorious for removing the archaeological treasures of the world, especially those with religious significance, and relocating them at the Smithsonian Institute in Washington DC. The Institute is controlled by Grosvenor cousins, the Smithsons, who in turn are descended from the Percys – the Pierce bloodline that produced the Bushes. Ancestry of both George Bushes can be traced to England's Alfred the Great and to Charlemagne, a very notable figure in the Hidden Hand bloodline story from whom the great majority of US presidents are descended. Charlemagne, also Charles the Great, was King of the Franks and then Holy Roman Emperor from 800AD. Rome was a major centre for the bloodline and remains so today. Charlemagne was a hero of Adolf Hitler. With both his father and mother having such serious royal and aristocratic ancestry Boy George has a mass of bloodline connections as documented by the bible of 'elite' genetics, *Burke's Peerage*. The Bushes are related to the British royal family who are big-time Hidden Hand.

Dark secrets galore

The bloodlines manipulate and recruit through their secret society networks and so you would expect the bloodline Bushes to be heavily involved in secret societies. They have long been pillars of the infamous Skull and Bones Society based in a windowless mausoleum known as 'the Tomb' alongside the campus at Yale University at New Haven in Connecticut (Fig 21). The skull and bones is an ancient Hidden Hand symbol and the Knights Templar were accused of using skulls in their rituals. They certainly flew the skull and bones flag on their ships which became associated with the flag of pirates. 'The Order of the Skull and Bones' was co-founded by bloodline operatives Huntington Russell and Alphonso Taft in 1832 and appears to have its origins in Germany. Elite universities have secret societies that recruit initiates to be future Hidden Hand agents to serve the agenda for human control in politics,

Figure 21: Skull and Bones Society headquarters across the street from Yale University where the elite of tomorrow, called 'Bonesmen', are initiated into the Hidden Hand network.

banking, business, military, intelligence, media, and so on. Another secret society at Yale is the Scroll and Key. Every year 15 bloodline or other elite students are initiated into the Skull and Bones Society and the ratio of 'Bonesmen' who end up in positions of power is enormous compared with the general student population. They span the arenas of politics, banking, business, media, military and intelligence agencies, both in front of the camera and behind the scenes. Father and Boy Bush were initiated into Skull and Bones and so was their father and grandfather Prescott Bush who has a particular claim to fame in The Order. He and five other Skull and Bones initiates raided and ransacked the grave of Native American Apache leader Geronimo at Fort Sill, Oklahoma, in May, 1918. They took turns to stand guard while others robbed the grave and took away artefacts and Geronimo's skull. This was taken to the Skull and Bones headquarters at Yale where it was used in their sick rituals and ceremonies. This horrible story is told in an internal history of the Skull and Bones Society and was quoted to Ned Anderson, Tribal Chairman of the San Carlos Apache tribe, when he was negotiating to have Geronimo's remains returned to tribal custody. A 1989 article in *The New Yorker* said: 'One Bonesman ... recalled during the early 70s seeing perhaps 30 skulls, not all of them human, scattered about the Tomb.' Initiates of university and other secret societies pledge allegiance to the goals of the secret society above all else – and this includes those that become President of the United States or head of the CIA. The public they supposed to be serving are irrelevant compared with their allegiance to their 'Order' which, in turn, locks into The Web. Initiation rituals for new members of Skull and Bones involve lying naked in a coffin within 'The Tomb' headquarters and spilling your sexual secrets to all assembled. Chanting is also part of the ritual as the initiate is taken out of the coffin, clothed in a symbol-festooned robe and said to be 're-born' into the Society. This is what Father and Boy Bush would have been through before going on to be US president. Such is the mentality of the people running our world and in power at the time of 9/11. The presidential 'election' in 2004 was between Skull and Bones Boy Bush and Skull and Bones John Kerry – the statistical chances of that with so few Bonesmen in the American population are absolutely fantastic (Fig 22).

Redwood rituals

Bush family men have a long association with the diabolical rituals performed by Hidden Hand bloodlines and lackeys every summer at Bohemian Grove, a ritual and sexual playground for leading American and foreign politicians, mobsters, bankers, businessmen, media owners and editors, top entertainers, etc., who are Hidden Hand initiates or serve the agenda in some form. Bohemian Grove is located in 2,700 acres

Figure 22: The 2004 Skull and Bones election for US President between Boy Bush and John Kerry. The one-party state personified.

Figure 23: Ronald Reagan and Richard Nixon either side of the speaker at the 'elite playground' of Bohemian Grove in a picture dated 1947. This was taken long before either became President of the United States. Presidents are not elected by the public – they are chosen by the Hidden Hand. Yes, including Trump.

of very secluded redwood forest near the hamlet of Monte Rio in Sonoma County, 75 miles north of San Francisco. Attendees have included presidents Father Bush, Boy Bush, Jimmy Carter, Bill Clinton, Ronald Reagan, Richard Nixon, (Fig 23); 9/11 vice president Dick Cheney; Secretaries of State Henry Kissinger, George Shultz, Casper Weinberger and Bush family crony, James Baker; Alexander Haig, former US Defense Secretary; Alan Greenspan, long-time head of the Hidden Hand's Federal Reserve and 'a person of tremendous spiritual, occult power'; David Rockefeller, grandson of Standard Oil tycoon J. D. Rockefeller and Hidden Hand manipulator for most of his life who was responsible for the building of the World Trade Center; Walter Cronkite, television news anchor; David Gergen, author and adviser to presidents for 30 years and editor-at-large at *US News and World Report*; newspaper tycoon William Randolph Hearst and presidents of major media operations like CNN and Associated Press. Dirk Mathison, San Francisco bureau chief of *People* magazine sneaked into the Grove three times in July, 1991. On the third occasion he was recognised by an executive of Time Warner which owned the magazine and he was thrown out and the story suppressed. Mathison said that John Lehman, a former Secretary of the Navy, delivered a lecture at the Grove which revealed how the Pentagon estimated 200,000 Iraqis had been killed a few months earlier in the US-Iraq Gulf War – a figure not made public. Another speaker was Al Neuharth, founder of American daily, *USA Today*, who was identified in the official programme as chairman of the

Freedom Forum – a $700-million foundation dedicated to a 'free press'.

Whistleblower Cathy O'Brien was held captive in US government mind control programmes for 30 years (see *The Biggest Secret*) and she describes in her book, *Trance-Formation of America*, how she and her fellow mind-slaves were forced to serve the perversions of their famous abusers at Bohemian Grove (Fig 24). These included satanic rituals, child sacrifices, torture and blood drinking. I have known Cathy since 1996 and spoken to her and her late partner Mark Phillips at great length about her experiences in an 'elite' mind control programme called Project Monarch (after the butterfly which symbolises part of the brain). Monarch was an offshoot of the publicly-exposed MKUltra which was (and still is under other names) a huge CIA-military operation to develop techniques of mind control and 'Manchurian candidates' that would carry out assassinations and other horrors when programmed to do so. MKUltra involved some 80 institutions, including universities, and was overseen by the CIA's Office of Scientific Intelligence working with military organisations like the US Army Biological Warfare Laboratories. Drugs, sensory deprivation, hypnosis, torture, sexual abuse and other violence were inflicted upon adults and children to make them literally lose their minds. Prison inmates were used in drug experimentation and even dogs. The unspeakable abuse of children in MKUltra and Project Monarch is testament to the level of psychopathy that drives the Hidden Hand and was at work on 9/11. President Gerald Ford, who was involved in MKUltra, appointed his vice president Nelson Rockefeller (also involved) to head an 'inquiry' into the project in the 1970s when it was exposed to public attention. The idea was to have the 'Rockefeller Commission' appear to reveal what happened while covering up the most extreme aspects of it. Father George Bush, Dick Cheney and the Clintons were seriously involved in the abuse of MKUltra and Monarch mind-slaves long after the projects officially ended with the emphasis in Father Bush's case on *children*. Still more details of this horrendous programme came to light in 2018 through documents released under the Freedom of Information Act.

Figure 24: Cathy O'Brien.

Cathy O'Brien says of Bohemian Grove in her book: 'Slaves of advancing age or with failed programming were ritually murdered at random in the wooded grounds of the Grove and I felt it was only a matter of time before it would be me.' She says the Grove has a number of rooms for different perversions, including a Dark Room, Leather Room, Necrophilia Room (sex with dead bodies) and one known as the

Figure 25: The 40-foot stone owl at Bohemian Grove is symbolic of both the Babylonian goddess and the ancient god Moloch or Molech to whom children were sacrificed in fire. Moloch/ Molech is also a symbol of Saturn which is a focus of Hidden Hand satanic rituals.

Underground Lounge, spelt as U.N.derground on the sign. I know this sounds seriously far out to peoples' 'normal' sense of reality, but you will see the enormous evidence to support all this if you read *The Biggest Secret, Children of the Matrix* and many books by other researchers and victims. The bloodlines have been involved in sickening human sacrifice rituals since Babylon and before and this still continues in secret and on a scale that beggars belief. Robed and hooded men conduct the opening ritual at Bohemian Grove standing alongside a large fire and a 40-foot stone owl – symbolic of the Babylonian goddess and also with male 'god' symbolism relating to Moloch or Molech to whom children were sacrificed by fire in ancient times (Fig 25). Molech is mentioned several times in the Old Testament as in Jeremiah 32:35: 'They built the high places of Baal in the Valley of the Son of Hinnom, to offer up their sons and daughters to Molech, though I did not command them, nor did it enter into my mind, that they should do this abomination, to cause Judah to sin.' These world famous initiates at Bohemian Grove burn and sacrifice a human 'effigy' under the owl at the start of their 'summer camp' every year during a Babylonian-type ritual called Cremation of Care. Put 'Bohemian Grove' into YouTube and you will see footage of the owl ritual filmed secretly by talk show host Alex Jones. The film clearly shows the bizarre opening ritual and the sound quality is particularly good. At one point an 'effigy' is floated on a boat across the lake at Bohemian Grove where it is placed under the giant owl and set on fire. At this point you hear very clearly a bloodcurdling scream and one of two things are happening here. They are either sacrificing a human being in the guise of an 'effigy' or they broadcast the sound of the scream of agony as part of the ceremony. Either way, these are the people running our world. Jones was too far away to see if the sacrifice was an 'effigy' or real, but human sacrifice rituals go on among the elite of the elite in much more secret and secluded locations during the 'camp'. Boy Bush is a Bohemian Grove member like his father and grandfather were and he arrived at the Grove in 2000 shortly after the Jones video was shot.

Skull and Bones drug network

Among the most important functions of the Bush family and Skull and Bones Society has been circulating drugs like cocaine and heroin on the streets of America and around the world. Global trade in drugs, weapons and children are orchestrated from the shadows by Hidden Hand families along with Satanism and paedophilia. The vehicle for all these crimes against humanity are the global secret society networks which lock into government, military, intelligence agencies, law enforcement and the rest of the Permanent Government. Drug-trafficking generates incredible amounts of money to spend on secret so-called 'black budget' projects (including 9/11) and this doesn't appear in official government and military bookkeeping. Another source of funding is simply to make trillions in the US military budget disappear and then have a 'terrorist attack' strike the very offices at the Pentagon where civilian accountants were seeking to track the trillions. In doing so all evidence of what you have done is destroyed. This is what happened on 9/11 as we shall see and news of the missing trillions was announced by the Pentagon on September 10th, 2001, because of what they knew was coming the following day to divert attention. Very wealthy aristocratic and other Hidden Hand bloodline families in Britain and the United States launched the global drug trade and they still control it with the Bushes and Clintons – drug and business associates not political 'opponents' – very much involved in the United States before and across 9/11. Hidden Hand drug networks use their government agencies to 'bust' the opposition and leave the field clear for themselves. This is worth remembering when you hear reports of a 'big drug find' or some villain or network exposed for trafficking. The real players never get caught because they control law 'enforcement' and intelligence agencies. The Hidden Hand drug-running network destroys lives on a monumental scale and creates fear and divide and rule through the division and crime generated by those who rob and steal in a desperate attempt to feed their addiction. This in turn justifies greater police powers and deletions of freedom and privacy to 'fight' the problem that has been systematically created.

The Skull and Bones Society is owned by the Russell Trust which is controlled by the drug-running Russell bloodline family. They flew the skull and bones flag on their ships as they transported drugs for the British Empire from Turkey to China and elsewhere during the Opium Wars of the 19th century. Samuel Russell (1789-1862), an American 'entrepreneur', launched Russell and Company in 1824 and within seven years it had absorbed the Perkins opium syndicate based in Boston. Russell's head of operations in Canton, China, was Warren Delano Jr, grandfather of Franklin Delano Roosevelt, a Bush family relative and US President during the Second World War. Roosevelt was

also a cousin of fellow wartime leader, British Prime Minister, Winston Churchill. Other famous families (Hidden Hand bloodline) were partners in the Russell drug network – names like Coolidge, Forbes, Perkins, Low and Sturgis. In the background behind all of them was the ever-dominant force and overseers of The Web at one level, the House of Rothschild. Railroad magnate John Murray Forbes (1813-1898) was involved with the drug-running Russell and Company and he was the great-grand uncle of American politician, John Forbes Kerry, who was Secretary of State to the fraud, Barack Obama, during the ongoing 'war on terror' that followed 9/11. Kerry is descended from a line of Austro-Hungarian Jewish immigrants and ran against Boy Bush in the 'Skull and Bones' presidential election of 2004. Both were asked during their election campaigns about the Skull and Bones connection, but they refused to go there. It was a 'secret', they said. *What* – a secret from the American people you are asking to vote for you?? Yes, *especially* them. A member of the public who stood up at an event to ask Kerry about his Skull and Bones membership was Tasered by police and thrown out. If you are new to all this perhaps you are now getting a feel for how the world really works and how something like 9/11 could be both pulled off and the truth hidden.

Bush and Kerry are not rare examples of the connection between Skull and Bones and positions of power. Skull and Bonesmen and initiates of other secret societies are strategically placed across the range of influential positions including the law and judiciary. Henry Stimson, US Secretary of War for the whole of World War II, was a Bonesman and so were Henry Luce, founder and publisher of *Time, Life, Fortune, and Sports Illustrated;* Frederick W. Smith, founder of FedEx; Harold Stanley, co-founder of Morgan Stanley and families that have dominated American politics, business, banking, and covert intelligence operations – the Rockefellers, Harrimans, Tafts, Lords, Kelloggs, Goodyears, Whitneys, Vanderbilts, Bundys, Sloanes, Perkins and others. Skull and Bones initiates have always had a very close association with the US intelligence community and they include the infamous James Jesus Angleton and Father George Bush. Angleton was a major figure in the creation of the CIA structure after the agency was formed in 1947 under Nazi supporter Allen Dulles and he specialised in liaising with Israel's Mossad and Shin Bet intelligence agencies. Both will become prominent in the 9/11 story much later on. Bonesman Father George Bush was Director of the Central Intelligence Agency between 1976 and 1977 before becoming the 41st President of the United States. He was replaced by his drug-running associate, oops, sorry, political opponent, Bill Clinton, president between 1993 and 2001 when Boy Bush took over for the next eight years during which came 9/11 and the 'war on terror' justified by 9/11. This is clearly all just another coincidence and nothing

to worry about. I'll come to the Bush-Clinton drug operation in more detail shortly. Clinton was a member of DeMolay International, an organisation for men 'of *good character*' between 12 and 21 which is named after Knights Templar Grand Master Jacques de Molay who was burned to death during the Templar purge in France in the early 14th century. Walt Disney was another DeMolay member.

Prescott Bush, funder of Hitler, and Rockefeller 'race-purity'

Prescott Bush, father and grandfather to the Bush presidents, was a Senator for Connecticut, home of the Skull and Bones Society. He was a golf partner of President Dwight D. Eisenhower, a military man who, like 9/11 Secretary of State Colin Powell, enjoyed a fantastic rise to prominence because of his Hidden Hand sponsors; but Eisenhower disappeared from view after he warned about the dangers to freedom posed by the 'Military-Industrial Complex' (the Hidden Hand) in the closing days of his presidency. Prescott Bush was a keen and active supporter of the eugenics (master race) movement along with his bloodline associates, the Rockefellers and Harrimans. This clique led by the Rockefellers and ultimately by the Rothschilds funded the work of Adolf Hitler's race 'purity' expert, Ernst Rudin. Their money allowed Rudin to occupy an entire floor at the Kaiser Wilhelm Institute for Genealogy and Demography in Berlin. Soon after Hitler had abolished elections and become dictator of Germany in 1933, the Rockefeller-funded, Bush and Harriman-supported, Dr Rudin was commissioned to write the Law for the Prevention of Hereditary Diseases in Posterity which involved the forced sterilisation of anyone considered genetically inferior. President Father George's enthusiastic funding of 'population control' programmes was another modern example of this family obsession. The detailed and sickening story of the master race movement supported by the Bushes, Harrimans and Rockefellers (with the Rothschilds) is told in *And The Truth Shall Set You Free*. Both sides in the World Wars were funded by the same people via Hidden Hand-controlled Wall Street and the City of London financial district. Prescott Bush supported eugenics and Hitler's crazed master race 'philosophy' and helped to fund the Nazi war machine. He brought up his son with the same psychopathic mentality as his own and ditto with Father Bush and his sons including the 9/11 president. Wars are instigated to transform society and create the excuse and opportunity to centralise global power through the Problem-Reaction-Solution perception manipulation technique. Nations are manipulated into conflict and all sides funded until the status quo is destroyed and another status quo – the Hidden Hand's version – can replace it. This is what the two world wars of the 20th century and endless other conflicts have really been about – transforming societies and the world map in ways that are

irreversible. See also Afghanistan, Iraq, Libya, Syria and the post-9/11 'war on terror'. Prescott Bush helped to finance Hitler to this end through a company run by German Nazi-funder Fritz Thyssen called the Union Banking Corporation (UBC). Thyssen, a German steel entrepreneur and banker, was funding the Nazis from the early 1920s. His banking operation in Germany was affiliated through a subsidiary with the W.A. Harriman Company in New York (Brown Brothers Harriman after 1933), which in turn was funded by the House of Rothschild. The Harriman family was also prominent in supporting the Russian Revolution, Adolf Hitler and the master race insanity of the eugenics movement. E. Roland Harriman (Skull and Bones Society) was on the board of Fritz Thyssen's Union Banking Corporation in the US along with known Nazis and Nazi financial backers. Prescott Bush was also on the UBC board and owed his wealth to the Harrimans. The trio of Brown Brothers Harriman, the Sullivan and Cromwell law firm, headed by Rockefeller cousin John Foster Dulles, and the Union Banking Corporation of Prescott Bush and George Herbert Walker (Father George's grandfather) represented the interests of Nazi business cartels in the United States at the time of the Second World War. The golf trophy, the Walker Cup, is named after Father Bush's Nazi-supporting grandfather. John Foster Dulles would become US Secretary of State while his brother, Allen, was the first head of the CIA. In 1942 the US government seized UBC assets under the Trading with the Enemy Act and stopped George Walker and Prescott Bush pouring money into Hitler's regime – at least in theory. Eight days later two other Bush-managed companies, the Holland-American Trading Corporation and the Seamless Steel Equipment Corporation, were seized for the same reason. These were followed by another Bush-Harriman operation, the Silesian-American Corporation. Thanks to their Hidden Hand connections they were able to not only avoid prosecution, but secured a massive pay-out when the bank was liquidated.

The Bush-Nazi connection was highlighted by John Loftus, president of the Florida Holocaust Museum, who pointed out that Prescott Bush derived a portion of his personal fortune from his affiliation with a Nazi-controlled bank. Loftus, a former prosecutor in the [In]Justice Department's Nazi War Crimes Unit, confirmed that Prescott Bush was a principal in the Union Banking Corporation in Manhattan in the 1930s and 40s, and that leading Nazi industrialists secretly owned the bank at the time. Loftus said they were moving money into the UBC through a second bank in Holland even after the United States declared war on Germany. He said the bank was liquidated in 1951 and Boy Bush's grandfather and great-grandfather received $1.5 million as part of that dissolution. Loftus said he possessed a file of paperwork linking the bank and Prescott Bush to Nazi money. 'That's where the Bush family

fortune came from: it came from the Third Reich,' Loftus said in a speech during the Sarasota Reading Festival. He documented in his book, *Unholy Trinity: The Vatican, The Nazis and the Swiss Banks*, how Swiss bank accounts harboured funds confiscated from concentration camp victims and the involvement of Italian priests in smuggling Nazi war criminals to safe havens in Canada, Central and South America and the United States after the war. This is also detailed in the earlier *And The Truth Shall Set You Free*, which, like Loftus, exposes the Nazi connections of other prominent American Hidden Hand families, including the Rockefellers and Kennedys in the form of Nazi-supporting Joseph Kennedy, the father of President JFK. Nancy Krauss, a member of the audience who heard Loftus in Florida, said:

> I am absolutely shocked. I wish this would have come out before the election. My husband voted for Bush. I don't think he would have voted for him if he would have known.

If people knew what the Bush family had really done – and did with regard to 9/11 and other human catastrophes – they would all have long been in jail with the key hurled into a very deep ocean. Hidden Hand control of the mainstream media and the clueless and gutless nature of the great majority of alleged 'journalists' has protected them and their Web associates from widespread exposure. Another important question here is why the Zionist and Nazi-hunter organisations and networks have never sought to expose the Bush family for their Nazi funding and support for Hitler's race-purity programme when all you have to do – especially these days – is to factually expose the government of Israel to be instantly labelled a 'Nazi', 'anti-Semite' and 'Holocaust denier'. There is a simple answer to that, however. Those calculated slurs are used by the inner core of ultra-extremist Zionism and its gofers and agents to silence exposure and opposition while the Bush family and so many other bloodline families have served the interests of the ultra-Zionist (Hidden Hand, Web) agenda and so they get away with supporting Hitler and his race purity insanity. It is essential to understand the ultra-Zionist modus operandi that the inner core has as much contempt for Jewish people as they do for everyone else. They are there to serve the Web, not Jewish people. I will be explaining much more about this in due course. The two totally manipulated World Wars cost the lives of an estimated more than 120 million people if you include deaths from war-related disease and famine. More than 60 million were civilians. Hey, but 'they would never do that' to 3,000 more on 9/11, right? The Second World War came to a close with the atomic bombs dropped on Hiroshima and Nagasaki in 1945 after which Japan surrendered on the same terms they had offered before the nuclear strikes which killed

105,000 after impact and who knows how many since through the effects of radiation? The order to drop the bombs came from President Harry S. Truman, a Freemason and Rockefeller cousin. Truman was also the first world leader to recognise the State of Israel under Jewish rule amid extreme levels of terrorism that caused 750,000 Palestinians to flee their homeland never to return. Truman did this despite opposition from his own administration and while the United Nations was discussing other options. The need to drop those bombs on Japan related to the next stage of the long-planned Hidden Hand sequence of events to transform human society into a global fascist/communist tyranny – the Cold War. This would be founded on the fear of nuclear destruction and that would be far easier if the public had experience of what atomic bombs can do rather than trying to sell a concept that had never been seen. These are real nice people and the very psychopathic mentality that orchestrated 9/11.

Funding the Russian Revolution

The sequence of events to change the face of global society is planned long in advance of each stage and ahead of the Cold War had to come the creation of 'the Baddy' in the form of the Soviet Union. Once again the same bloodline crowd was involved. The Harriman family and their close associate, Prescott Bush, helped to fund the Russian Revolution. E. Roland Harriman was the brother of W. Averill Harriman (Skull and Bones Society), a director of a company called the Guaranty Trust when it was financing Lenin and Trotsky to trigger the Russian Revolution (another Hidden Hand Problem-Reaction-Solution). Half the board members of Brown Brothers Harriman and their fellow Russian Revolution financers, J.P. Morgan, were Skull and Bones initiates. Roland Harriman, Prescott Bush and Percy Rockefeller were in the same Bonesmen group. Global manipulator Averill Harriman, the Henry Kissinger of his day, would later make big profits from Russian ventures and be appointed US ambassador to the Soviet Union to advance Hidden Hand interests there. American and Soviet governments were on different 'sides' in the 'Cold War'? Not at the Hidden Hand level they weren't. It was all yet another game to dupe the people. Averill Harriman was a controlling voice in the Democratic Party and dictator to President Franklin Delano Roosevelt of the drug-running Hidden Hand bloodline related to the Bushes. Harriman's wife, Pamela, who died while US ambassador to Paris in 1997, was extremely influential in Bill Clinton's rise to the presidency and he made her ambassador to France as a pay-back. In turn, her husband, Averill, a 'Democrat', was very much a mentor to Prescott Bush and the Bush family in general who were 'Republicans'. As one headline at the time of Bill Clinton's run for president put it: 'Bush Camp Finances Clinton Campaign.' The

United States, as with the UK and other countries, is a one-party state masquerading as a free society. Whoever you vote for the same government gets in – the Hidden Hand Permanent Government. Pamela Harriman was also married to Randolph Churchill, son of Britain's wartime Prime Minister, Winston Churchill (bloodline and cousin to Franklin Roosevelt) and she had affairs with the Italian Fiat boss Giovanni Agnelli (bloodline and Hidden Hand operative) and Baron Elie de Rothschild (bloodline and Hidden Hand operative) among a string of others. When you move in Hidden Hand circles, it is a very small world. The network of support for the Russian Revolution in the United States that I have described was a subordinate group controlled by the House of Rothschild and I will come to their central involvement in the revolution and the connection to 9/11 later in the book.

Father George – the psychopath's psychopath (one of so many)

This was the background into which George Herbert Walker Bush – Father George – arrived in this world on June 12th, 1924. He was groomed from birth to serve the Hidden Hand in a long list of roles, including US Ambassador to the United Nations, Chairman of the Republican Party at the time of the Watergate hearings, Director of the CIA, and Vice President and President of the United States. The Herbert Walker in his name comes from his grandfather, George Herbert Walker (Skull and Bones Society), who was heavily involved with Prescott Bush in the funding of the Russian Revolution, expansion of the eugenics movement and Adolf Hitler. Wherever you look in Father Bush's life you find bloodline operatives, human sacrificing Satanists, child abusers and orchestrators of genocide. Father Bush was all of these, as my books and others have long detailed. He was very much a power behind the throne during the 9/11 presidency of his son along with Daddy Bush's long-time friend and associate Dick Cheney who was his Defense Secretary during the 1991 Gulf War and would be vice president (de-facto president) during the reign of Boy George. Cathy O'Brien was designated to 'serve' Bush and Cheney during the Reagan and Bush presidencies and told me how Boy George was treated as little more than a 'make-the-tea' servant to his father and Cheney while he was growing up. Well, trying to. One of Boy Bush's roles was to get his father home in often paralytic drunken states. The same dynamic continued when Boy Bush was president – he was the tea-maker and gofer for Cheney and his dad – and that included what happened before, during and after the attacks of September 11th.

I will summarise here just a few of the crimes against humanity inflicted by Father George Bush and his dominant partner and fellow genocidal maniac, the ultra-Zionist Rothschild/Rockefeller asset, Henry Kissinger. It will give you further confirmation of the true mentality

behind September 11th and the subsequent 'war on terror'. Bush served the Hidden Hand in China while Kissinger and the Chinese were supporting Pol Pot in the genocidal war on Cambodia that led to the extermination of millions of Cambodians. Bush returned home in 1975 when he received a telegram from Kissinger saying that he was being nominated by President Ford (Kissinger in other words) to be Director of the CIA. Bush held the post in 1976 and 1977 and he has been so fundamentally involved in CIA activities officially and unofficially that in 1999 its headquarters compound at Langley, Virginia, was named the George Bush Center for Intelligence. The CIA is part of the so-called 'Inner Fed' of the secret government or 'Deep State' that consists of the CIA, National Security Agency, FBI, NASA and the Federal Reserve 'Central Bank of America'. Through 'umbrella' network structures like the 'Inner Fed' a coordinated policy and response can be conducted between apparently unconnected agencies and organisations. Much of the funding of this cartel of manipulation in secret projects comes from its involvement in the drugs trade. Father Bush was not new to the intelligence game and his connections with the CIA would appear to go back to the 1950s or even much earlier given the Skull and Bones Society connection to the US intelligence community. Among Bush's CIA operatives in South America was the infamous Nazi 'Butcher of Lyon', Klaus Barbie, who had escaped from Europe thanks to US (Hidden Hand) intelligence. It was he who masterminded the so-called 'cocaine-coup' in Bolivia in June, 1980, and used the profits from CIA-supported drug networks to finance the neo-Nazi overthrow of the government in Argentina. Mike Levine, a former US Drug Enforcement agent, said the coup was achieved by troops wearing Nazi armbands. The contacts George Bush made at the CIA would be invaluable when he became vice president to Ronald Reagan in January, 1981. Reagan's personal fortune dated from a time shortly after becoming Governor of California when he bought some land cheaply and sold it at a massive profit to a group of benefactors who have never been publicly identified. Reagan, a former B-movie actor, was a long-time member of Bohemian Grove and an initiate of the Knights of Malta, another very significant strand in The Web. Reagan was 70, the oldest man to be inaugurated as President. His mind was failing and he needed long afternoon naps each day. Almost everything Reagan said, even in relatively off-the-cuff situations when greeting foreign leaders, was written for him by his aides on cue cards. Father Bush was president in all, but name.

Iran-Contra

It was strictly illegal under US law for the government to supply arms to Iran or to fund and arm the Nicaraguan 'freedom fighters' (terrorists) called the Contras in their war with the Sandinista government. It was

certainly illegal to accept payment with drugs in return. The Reagan-Bush administration would do all of these things. They would fund the Contras through Honduras in an operation involving Oliver North, an official of the National Security Council. On January 18th, 1985, the Bush-appointed Felix Rodriguez is known to have met his namesake (but not thought to be a relative), Ramon Milian Rodriguez, an accountant and money launderer who worked for the Medellin drug cartel. This meeting was confirmed by Felix Rodriguez and reported in the *Miami Herald* on June 30th, 1987. From his cell in Butner, North Carolina, Ramon told investigative journalist, Martha Honey:

> ...[Felix offered] ... in exchange for money for the Contra cause he would use his influence in high places to get the [cocaine] cartel US goodwill ... Frankly, one of the selling points was that he could talk directly to Bush. The issue of goodwill wasn't something that was going to go through 27 bureaucratic hands. It was something that was directly between him and Bush.

This could easily be done given that Felix Rodriguez was working from Bush's office. A memo in early September, 1986, sent to Oliver North by retired Army Major General John K. Singlaub, said that Felix Rodriguez was talking of having 'daily contact' with Bush's office and this could damage President Reagan and the Republican Party. Oliver North would write in his notebook: 'Felix has been talking too much about the VP [Vice President].' Former *CBS News* producer Leslie Cockburn presents devastating evidence in her 1987 book, *Out Of Control*, of Bush's involvement in Iran-Contra and drug running. She says that planes chartered by the CIA and packed with cocaine flew directly into the Homestead Air Force Base in Florida using a CIA code signal. Drug-running through Florida will enter the 9/11 story later with alleged leader 'hijacker', Mohamed Atta. Colonel Albert Carone, who was later murdered, said in a sworn statement that he remembered seeing Oliver North make more than 20 entries in his diary detailing how drug profits were being used to buy weapons for the Contras. Carone said that an entry for July 5th, 1985, noted that '$14 million to buy arms came from drugs'. North was made president of the influential US National Rifle Association in 2018 and was acclaimed as a 'national hero'. Cathy O'Brien writes in *Trance-Formation of America* that she witnessed drug parties in which the drug-running North was among the guests. The Reagan-Bush administration admitted in 1986 that Adolfo 'Popo' Chamorro's Nicaraguan Contras, terrorists supported by the CIA, were helping a Colombian drug-trafficker to transport drugs into the United States. Testimony by John Stockwell, a former high-ranking CIA official, revealed that drug smuggling was an essential component of the

CIA operation with the Contras. North was up to his neck in this. George Morales, one of South America's biggest traffickers, testified that he was approached in 1984 to fly weapons to the Contras. In return, he says, the CIA helped him to smuggle thousands of kilos of cocaine into the United States via an airstrip on the ranch of John Hull, a self-confessed CIA agent and associate of Oliver North. As Michael Ruppert, a former drugs specialist with the Los Angeles Police Department, said:

> The CIA and Ronald Reagan and [CIA Director] Bill Casey and vice president George Bush were running the whole operation, we know that now. They circumvented the will of Congress and there was an explosion of drug trafficking all throughout Central America, coordinated by the CIA.

Meanwhile, the other aspect of Iran-Contra was continuing to illegally trade arms for American hostages held by Iran and Oliver North was heavily involved again. Weapons were being shipped via close associates in Israel. Release of hostages was explained in part by the efforts of Terry Waite, the representative of Britain's Archbishop of Canterbury. 'Negotiator' Waite was being used without his knowledge by North who was quite happy for him to take the credit for the release of hostages when, in fact, they were the result of illegal arms sales. Waite would eventually as a consequence be taken hostage himself. Father Bush was telling the American people throughout all of this: 'We will make no concessions to terrorists' – just as his son said after 9/11. Father Bush negotiated with the Iranians even before Reagan was elected to delay release of hostages until after the presidential election of 1980 to ensure that Jimmy Carter, the sitting tenant, would not get the kudos before polling day. This worked so perfectly that 52 hostages flew out of Iran after 444 days in captivity minutes after Reagan was inaugurated. No doubt the promise of arms sales to Iran by a future Reagan-Bush administration was fundamental to the deal. I know it's hard for us to imagine how anyone could coldly ensure that American hostages would spend months longer in captivity just to serve a political agenda, but that's the mentality we are dealing with here – the same mentality that was behind September 11th and what followed. The Iran-Contra scandal blew in late 1986 and Ronald Reagan had to admit some, though only some, of what was happening. He said:

> A few months ago I told the American people I did not trade arms for hostages. My heart and my best intentions still tell me that is true but the facts and evidence tell me it is not.

Put another way – I lied. Father Bush should have been bang-to-rights for his involvement in Iran-Contra with the evidence so

overwhelming, but I want to highlight how he got away with it because this will be useful later in appreciating how the true perpetrators of 9/11 could have been protected from exposure and a prison cell for life. On October 5th, 1986, a plane left the Ilopango Air Base in El Salvador with arms and ammunition for the Contra terrorists in Nicaragua. The flight had been coordinated by officials within George Bush's office. As the plane came low to make the drop, it was grounded by a Sandinista missile. Three people died in the crash while cargo handler Eugene Hasenfus parachuted into the hands of the Sandinistas. Bush was alerted in a call to his office by his long-time friend, drug-runner and assassin Felix Rodriguez. The truth was out. Or some of it was. The power of the Hidden Hand network can be the only explanation for how, despite the overwhelming evidence against him, Father Bush evaded prosecution even though Buz Sawyer, the pilot of the crashed plane, was found to have Bush's private office phone number in his pocket. Hasenfus also stated that Father Bush knew about the whole thing. Bush denied involvement or knowledge of what happened. Subordinates like Donald Regan, Admiral John Poindexter, Oliver North, Robert McFarlane, and Major General Richard Secord, were sacrificed and scapegoated instead. They were very much involved, but Bush got away with it, as did Reagan and his Secretary of Defense Casper Weinberger. North, who was up to his eyes in the intrigue, faced hearings with other small-fry and staggeringly emerged in the eyes of many as an American hero. Bush still had a problem, however, with former Defense Secretary Casper Weinberger, who was indicted with others in 1992 for lying to Congress over what happened. This could have been disastrous for Bush with his presidency coming to an end and so he pardoned Weinberger and the others to ensure there would be no trial. The pardon came on Christmas Eve, 1992, in the dying days of his presidency after he had lost the November election to Bill Clinton and a matter of weeks before Weinberger and company were due to face a trial that would have implicated Bush. The presidency passed from Father Bush to Clinton in January, 1993, who continued the cover-up because – as I expose at length in *And The Truth Shall Set You Free* – he was also involved with the Contra drug operations in Arkansas when he was Governor. It is actually possible to coordinate a drug-running and arms-running operation from the White House and get away with it. Where were the media while all this was going on? Nowhere as usual – with rare exceptions. One proper reporter, Gary Webb at the San Jose Mercury News, did have the guts to expose how the CIA and the Father Bush-controlled White House had poured crack cocaine into African-American communities to raise money for the Contras and create more addiction and the consequences that follow. Webb and his newspaper were not only attacked by the authorities when the stories appeared. At

the frontline of condemnation were their fellow 'journalists' and major papers like the Hidden Hand-owned *Washington Post*, *New York Times*, and *Los Angeles Times*. The United States was convicted by the World Court in 1986 for its war crimes against Nicaragua and later faced censure for its actions against the people of Panama; but nothing happened. Governments claim immunity for colossal crimes while holding the 'little people' to account for minor ones.

The Gulf War

At the time of 9/11 in 2001 we had the Bush family in the White House, Dick Cheney as Vice President, Colin Powell as Secretary of State, and a United States international 'coalition' went to war in the Middle/Near East. In 1991 the Bush family was in the White House, Cheney was Defense Secretary, Powell was head of the US forces as Chairman of the Joint Chiefs of Staff and a United States international 'coalition' went to war in the Middle East. The 1991 Gulf War was over a border dispute between Iraq and Kuwait. Father Bush sent US forces – or a 'UN coalition', including the UK – to intervene in what was called Operation Desert Storm. Add together the casualties from the initial conflict in 1991, the brutal sanctions that followed and the 2003 US invasion and Iraqi casualties were numbered in millions. What happened during the Gulf War and after offers clear insight into the mentality later involved in 9/11 and the 'war of terror' and how 'they *would* do that'. First of all, the Gulf War wasn't exactly a war. My understanding of a 'war' is that you need two sides and under that definition the Gulf War was not a 'war'. It was the military equivalent of putting Mike Tyson in the ring with your granny. American soldiers have described this 'war' as a 'turkey shoot' which is precisely what it was. The Iraqi army, mainly conscripts who had no choice, may have been armed over the years by the US and Britain, but it was still like trying to stop an elephant with a pop gun. While the media was showed us pictures provided by the US military of 'smart bombs' that could target a building and go through a toilet window a very different reality was happening beyond the military censors. At least 93 percent of the bombs that rained down were not 'smart' – that's according to the Pentagon's own numbers – and 70 percent missed their military target. Writer Wade Frazier's excellent study of the Gulf 'War' revealed the background to just one of the devices used against the Iraqi people:

> The [fuel-air] bomb works thus: there are two detonations; the first spreads a fine mist of fuel into the air, turning the area [about the size of a football field] into an explosive mix of vast proportion; then a second detonation ignites the mixture, causing an awesome explosion. The explosion is about the most powerful 'conventional' explosion we know of.

> At a pressure shock of up to 200 pounds per square inch (PSI), people in its detonation zone are often killed by the sheer compression of the air around them. Human beings can typically withstand up to about a 40-PSI shock. The bomb sucks oxygen out of the air, and can apparently even suck the lungs out through the mouths of people unfortunate enough to be in the detonation zone. Our military used it on helpless people [in the 1991 Gulf Slaughter].

People who would order the use of such weapons without a care for the consequences would not kill 3,000 people on 9/11 with the same empathy-deleted nonchalance? The Iraqi people, living, breathing, human beings like you and me, were subjected to a lovely piece of hardware called a 'Big Blue' which produces a shock wave only eclipsed by nuclear weapons. As Wade Frazier points out, the power of the shock wave can turn a body into a hamburger. So-called 'bouncing bombs' were also deployed. These are designed to 'bounce' to waist height before exploding and ensure a better chance of splattering people into a thousand pieces. These are called 'antipersonnel' weapons in the sanitised Orwellian 'Newspeak' of Hidden Hand front men. Then there was the 'Beehive' which explodes 8,800 pieces of razor-edged shrapnel in all directions, cutting through a human body like the proverbial knife through butter. All these weapons were used against civilian men, women and children in the Gulf 'War' and others since – including the 'war on terrorism'. In an oh, so rare excursion into reality by the media, John Balzar of the *Los Angeles Times* reported in 1991 on the fate of Iraqi conscripts. Balzar saw night-vision 'gun sight' footage from the US military briefing room:

> They looked like ghostly sheep flushed from a pen – Iraqi infantrymen bewildered and terrified, jarred from sleep and fleeing their bunkers under a hellish fire. One by one, they were cut down by attackers they could not see or understand. Some were blown to bits by bursts of 30-millimeter exploding cannon shells. One man dropped, writhed on the ground, then struggled to his feet; another burst of fire tore him apart ... Even hardened soldiers hold their breath as the Iraqi soldiers, as big as football players on the television screen, run with nowhere to hide. These are not bridges exploding or airplane hangers. These are men.

The same reporter wrote:

> The mechanics of death and destruction are a grim affair. The military's scientific approach and its philosophies – for example, its preference for wounding vital organs over blowing off limbs – can be deeply disquieting to anybody who imagines such matters are left to chance. Many people would

rather not know about the gruesome details.

The psychopaths of the Hidden Hand behind the Gulf War and 9/11 enjoy the gruesome details because for them it's a sexual high.

'Nuke 'em, kill 'em all'

This was not a war, it was a mass slaughter by the very forces and their controllers that would wage a 'war on terror' justified by 9/11 that would include a full-blown invasion of Iraq. These protectors of 'freedom' and 'liberty' used the same rhetoric then as they do now to justify the mass bombing of civilians. They hide the truth behind the lies so eagerly repeated by excuses-for-journalists and large swathes of the public that has long forgotten not only what to think, but even how to think. Then, as now, no dissent was allowed against the genocide of the innocent by the criminally insane. Talk show hosts, without two brain cells acting in unison, called for nuclear attacks on Iraq and anyone who challenged the 'war' was either stupid or a supporter of evil. While the sheep and chickens followed the fox, or Fox, the US government and their British allies were targeting civilian bomb shelters, killing hundreds of fathers, mothers and children because 'intelligence told us that the bomb shelter was actually a military headquarters'. *Bullshit.* On the ground thousands of Iraqi soldiers were buried alive as 'UN' forces used bulldozers to fill in their trenches in shocking contravention of international law. Nothing better sums up the mentality of the deeply sick people behind 9/11 and still waging the 'war on terror' than the almost unimaginable attacks on the 'Highway of Death'. The Iraqi army was in retreat in the wake of the air bombardment and headed out of Kuwait across the border to Basra in Iraq. With them were civilians and prisoners. US pilots attacked the vehicles at the front and back of the seven-mile *retreating* human convoy, so forcing it to a standstill on the open road. They then bombed the convoy while constantly racing back to their aircraft carrier to re-arm and return to continue the mass murder. One pilot said that it was like 'shooting fish in a barrel' and thousands died at the hands of the very people who promote themselves as morally superior to those they target. Barry McCaffrey, one of the generals involved in this mass murder, was later appointed by President Clinton to head his 'war on drugs'. Father George Bush's approval ratings soared as he conducted these crimes against humanity – just as they did for his son when he continued the long, long, family association with genocide. The blatant defiance of the Geneva Convention on the Highway of Death produced no action against the Father Bush administration because there is one law for America, Britain, France and Germany, etc., and a very different one for those they choose to bomb, kill, and mutilate. An International War Crimes Tribunal found

President Father Bush, Vice President Dan Quayle, Defense Secretary Dick Cheney, Secretary of State James Baker, and military leaders, Colin Powell and Norman Schwarzkopf, guilty of war crimes. What was done as a result? Nothing – *as always*. When Bill Clinton replaced Bush he imposed sanctions on Iraq so severe that by 1995 his evil Secretary of State Madeleine Albright was forced to admit on the US *60 Minutes* television programme that sanctions had already cost the lives of *half a million* Iraqi children and that was only up to then. This was the exchange:

> Lesley Stahl: 'We have heard that half a million children have died. I mean, that's more children than died in Hiroshima. And, you know, is the price worth it?'
>
> Albright: 'I think this is a very hard choice, but the price – we think the price is worth it.'

The figure continued at some 5,000 dead children a month and passed a million in total. Albright's answer was one which only a psychopath could deliver. This mentality would not orchestrate 9/11?

Burying the truth

Crimes for which the Bush family and their masters and associates are responsible rarely come to light because the corporate media is controlled by the Hidden Hand and most journalists either don't realise they are pawns in a game or silently accept that they are to protect their careers. Accounts are legion of how evidence and footage that would expose the lies, especially in wartime, are banned or confiscated as they are with regard to 9/11. One example during the 1991 Gulf War was when American TV networks NBC and CBS refused to air pictures shot in Iraq of the destruction of civilian areas which revealed Bush government and military accounts to be a grotesque fiction. The story was blocked by the President of NBC Michael Gartner and producers offered it to CBS where Tom Bettag, Executive Editor of the CBS *Evening News*, said he would run the story the following day. That evening Bettag was sacked and the story buried. This is the real background to TV news and today the Internet information giants, too, all of which ultimately answer to the Hidden Hand. Footage of the Highway of Death was suppressed and US casualties caused by the enemy were claimed to be 'training accidents'. Father Bush's lies about Iraqi troop deployments in Kuwait, provable by satellite images, were never shown. This satellite 'loophole in the lies' was the reason why the US government purchased all rights to satellite pictures of Afghanistan while that country was subjected to another insane American and British

bombing onslaught after 9/11. We should remember that having said in 1991 that CIA-installed dictator Saddam Hussein was a threat to the world, and with the Iraqi 'army' destroyed, Father Bush suddenly called an end to the 'war' and pulled the troops out leaving Saddam still intact. Norman Schwarzkopf said with an air of disappointment: 'We could have completely closed the door and made it a battle of annihilation ... [it was] literally about to become the battle of Canaan, a battle of annihilation.' This is what I wrote at this point in *Alice in Wonderland and the World Trade Center Disaster* published in 2002:

> Ah, never mind, Norman, but you see your President and those who controlled him wanted Hussein to stay put, or at least appear to, so they could play that card over and over. I suspect, however, that the Saddam story is going to lead to some kind of climax eventually.

A few months later it did with the invasion of Iraq in 2003.

Evil begets evil

Hidden Hand operatives like Father Bush and his associate Henry Kissinger are mass murderers on a scale that is almost incomprehensible. They and their associates and successors have a record of genocidal horror that spans the world in Vietnam, Cambodia, Laos, Korea, Nicaragua, Panama, Grenada, Indonesia, Bosnia, Kosovo, Iraq, Afghanistan, Libya, Syria and that's only a partial list. The dead, maimed, starving, destitute and dispossessed that have ensued can be numbered in billions of our fellow men, women and children. Nothing captures the 9/11 mentality of empathy-deleted psychopathy behind all this more powerfully than Father Bush's sexual abuse, torture and murder of children held in captivity in the mind-control and sexual abuse programmes of this depraved beyond belief Hidden Hand network. I explain in other books why these bloodlines are obsessed with paedophilia, but the why is less important here than the fact that it happens at all as we explore the depths of evil to which these extreme psychopaths daily plunge. If you read *The Biggest Secret*, *Children of the Matrix*, and other books by researchers and victims of this network, you'll see that what I am saying is no fantasy. Father Bush was a notorious paedophile, torturer and child killer among those who have researched this subject. I first outed Bush in 1998 as a rampant paedophile who tortured children and while I was writing this book more than two decades later Washington and Republican insider Dr Steve Pieczenik also exposed Bush in an Internet video. Pieczenik is a former US Department of State official and a Harvard-trained psychiatrist who served as Deputy Assistant Secretary of State under Henry Kissinger, Gerald Ford, Jimmy Carter, Ronald Reagan and Father

Bush. He confirmed from his own knowledge the paedophilia of Father Bush and how prevalent it is among the power elite – what I have been exposing for so long. Pieczenik said:

> It has been rampant in our government, if you remember Bush Sr. had a whole group of young Hispanic men who he groomed and played with. At the same time, Hillary and Bill Clinton along with their friend Mr. Epstein went down to the Bahamas and they were molesting and utilizing young girls and boys to have sexual pleasures, but nothing was done about the fact that Jeffrey Epstein had been guilty and convicted of that crime.

Paedophile billionaire Jeffrey Epstein was not only a buddy of the Clintons. Among the names and phone numbers in Epstein's 'little black book' were Donald Trump, Tony Blair and his close friend Prince Andrew of the British royal family. Epstein's friends arranged an outrageous plea deal that allowed him to avoid the long jail sentence which the paedophilia charges against him should have involved. Alex Acosta, the US attorney in Miami who agreed the deal on behalf of the government, was appointed US Labor Secretary by Trump. A judge ruled in 2019 that Acosta broke the law by not informing Epstein's victims of the plea agreement which allowed the paedophile to get off basically scot-free for running a child-trafficking ring. What a cesspit. Even by these 'standards' Father Bush was at the far end of extreme. Cathy O'Brien, a mind-controlled slave of people like Bush and Dick Cheney for the first 30 years of her life, reveals in *Trance Formation of America* the staggering levels of abuse inflicted on her and her daughter Kelly by Father Bush and his like. Kelly was only a small child literally born into captivity when Bush began his sexual and violent abuse of her – abuse and torture that her mother had long suffered. This is just one of her experiences with President George H. W. Bush, father and controller of 9/11 President Boy Bush. The Alex Houston she mentions here was her and Kelly's CIA handler in the US government mind-control programme known as MKUltra:

> Kelly became violently, physically ill after her induction into George Bush's 'neighborhood' and from every sexual encounter she had with him thereafter, she ran 104-6 degree temperatures, vomited and endured immobilizing headaches for an average of three days. These were the only tell-tale evidences aside from the scarring burns left on her skin. Houston forbade me to call a doctor, and Kelly forbade me to comfort her, pitifully complaining that her head 'hurt too bad even to move'. And she did not move for hours on end. Kelly often complained of severe kidney pain and her rectum usually bled for a day or two after Bush sexually abused her. My own mind-control victimization rendered me unable to help or protect her ...

> ... Kelly's bleeding rectum was ... one of [the] ... physical indicators of George Bush's pedophile perversions. I have overheard of him speak blatantly of his sexual abuse of her on many occasions. He used this and threats to her life to 'pull my strings' and control me. The psychological ramifications of being raped by a paedophile president are mind shattering enough, but reportedly Bush further reinforced his traumas to Kelly's mind with sophisticated NASA electronic and drug mind controlled devices. Bush also instilled the 'Who ya gonna call?' and 'I'll be watching you' binds on Kelly, further reinforcing her sense of helplessness. The systematic tortures and traumas I endured as a child now seem trite in comparison to the brutal, physical and psychological devastation that Bush inflicted on my daughter.

Father Bush pledged during his 1987 presidential election campaign to build a 'kinder, gentler, America'. This man was in the White House for twelve years followed by his friend and associate Bill Clinton, whom Cathy also exposes, and then his son and tea-maker, Boy Bush. Such a mentality would not plan and execute what happened on September 11th, an event that has so massively advanced the Hidden Hand agenda for a global fascist/communist state? 'They would never do that'? You must be joking. It is their modus operandi in every way.

CHAPTER 3

The Gofer Gang

It is better to remain silent and be thought a fool than to open one's mouth and remove all doubt – Voltaire

Boy George Bush would have been well aware that the attacks of September 11th were not the work of 'Arab hijackers' answering to Osama bin Laden, but to claim that he had any direct involvement in planning them is to miss the entire point. Politicians – even US presidents – are agents and stooges of the Hidden Hand and not its centre of power and organisation.

The very idea that Boy Bush with such a glaring lack of intelligence would be an organiser of 9/11 is patently ridiculous and for those who bravely call themselves mainstream 'journalists' to dismiss evidence of a conspiracy on the grounds of Bush's limited grey matter shows just how clueless they are about how the world works. Why do they think he was down in Florida at a long-arranged school visit when all hell was breaking loose in New York and Washington? Why do they think he was then whisked away to two Air Force Bases and kept well clear of the White House until 7pm that evening? The real orchestrators wanted him out of the way where his gaff-prone lack of intelligence could do no harm as initial events and responses were underway. There are basically three types of political 'leader': (1) those who knowingly work for the Hidden Hand; (2) those who want power for power's sake and will do and say whatever it takes to secure funding and other support; (3) those who are not very bright and puppets of their Hidden Hand-appointed advisors and aides. Boy Bush was a combination of (1) and (3) when he took office in January, 2001. He could not possibly be a member of the Bush family or a Skull and Bones initiate and not know about the Hidden Hand and its plans for humanity. Nor did he have the mind that could be any more than a hapless frontman while his father and vice president Dick Cheney ran the White House and he took only official responsibility. 'Sign this, George' – 'Okay, dad'. 'Do this, George' – 'Okay, Uncle Dick'. These are just a tiny selection of his stupendous intellect:

'I know the human being and fish can coexist peacefully.'

'More and more of our imports come from overseas.'

'Well, I think if you say you're going to do something and don't do it, that's trustworthiness.'

'We cannot let terrorists and rogue nations hold this nation hostile or hold our allies hostile.'

'I'm telling you there's an enemy that would like to attack America, Americans, again. There just is. That's the reality of the world. And I wish him all the very best.'

'I remember meeting a mother of a child who was abducted by the North Koreans right here in the Oval Office.'

So, no, Boy George Bush was not an organiser of 9/11. This is not to excuse him from responsibility in any way because he played his part and should be in jail with the rest of them. I am saying we have to look elsewhere for the real orchestrators both close to him and much further away – start with Dick Cheney who utterly controlled every aspect of the Boy Bush government and then pan out until you are no longer within the borders of the United States. Boy Bush was born in 1946 in New Haven, Connecticut, home of Yale University and the Skull and Bones Society, and was raised in Texas. He was groomed and moulded from birth, like his father, to serve the Hidden Hand cause with all the open doors, protection, financial support and privilege that come with that. He attended Yale University and avoided the draft to Vietnam, as did Dick Cheney. Send others to kill and be killed while you stay home safe and sound. People like Bush, Obama and Trump say '*We* will do this or that' when they threaten countries with the US military and yet the '*We*' they talk about are the men and women in uniform they send into battle. The political '*We*' sits back in Washington sipping coffee while carnage is delivered on the other side of the world. The same applies to all the other 'We' psychopaths like Tony Blair in Britain. None of them has ever seen a bullet fired in anger or war. *Washington Post* staff writers George Lardner Jr and Lois Romano revealed in an article in 1999 how two weeks before he was due to graduate from Yale, Boy Bush arrived at the offices of the Texas Air National Guard at Ellington Field outside Houston and said he wanted to sign up for pilot training. This was on May 27th, 1968, when the Vietnam War was at its peak with some 350 Americans dying every week and goodness knows how many

Vietnamese. Another twelve days and he would have lost his student immunity from the draft and so he grasped, with his father's help, an escape route from combat by joining the National Guard. Father George was at this time a Congressman for Houston and a supporter of the Vietnam conflict and the policy of sending American soldiers to suffer and die. Many of the American elite were trying to pull the same trick for their sons and the National Guard had a long waiting list. Not only that, Boy George had scored only 25 percent in a pilot aptitude test and that was the lowest acceptable grade. This will surprise no one who witnessed his presidency and all these factors should have prevented his admission and, therefore, made him available for Vietnam. Instead Boy George was sworn in as an airman with the Texas Air National Guard on the *same day* that he applied. Colonel Walter B. 'Buck' Staudt, commander of the 147th Fighter Group, even staged a special ceremony later so he could be photographed administering the oath for Bush instead of the captain who had officially sworn in Bush earlier. Staudt did the same when Boy Bush was commissioned as a second lieutenant. Lloyd Bentsen Jr, a major Texas Democrat, ensured that his son, Lloyd Bentsen III, was enlisted into the National Guard by Staudt around the same time as Bush. When obvious questions were asked during Boy Bush's run for the presidency, Staudt said that no favouritism had been shown to him. Boy Bush claimed he did not join the National Guard to avoid the Vietnam War which he and his father supported, but rather because he wanted to be a fighter pilot. Okay, insult my intelligence some more. Even on his National Guard application forms he ticked the box saying, 'do not volunteer' when asked if he wanted to go overseas. Not only did he avoid going to Vietnam, he was even able to live in his then home town of Houston while learning to be a pilot who was never to face a conflict. He served as an F-102 pilot with the Texas Air National Guard to avoid the draft to Vietnam and became a hard-drinking, cocaine-snorting, womaniser before 'discovering Jesus' (I know, I know, but this is the official story). Bush's drug habit was brought to public attention – and then buried by the media – with the publication of the 1999 book, *Fortunate Son: George Bush and the Making of a President.* Author J.H. Hatfield was subjected to a national campaign of character assassination after he claimed Bush was arrested on drug charges in 1972 while serving with the National Guard and that this had been wiped from the record by a Republican judge and friend of his father in exchange for Bush's participation in a community service programme called Project PULL in Houston's inner city. What is for sure is that suddenly, and for no credible reason, this hard-drinking playboy felt an overwhelming desire to volunteer to work with black inner-city kids in Project PULL.

Bush drug family

Michael C. Ruppert, a former Los Angeles Police Department narcotics investigator, went further in his newsletter, *From The Wilderness.* He said that Boy Bush and his brother, Jeb, Governor for Florida across 9/11, were filmed in a 1985 'sting' by the US Drug Enforcement Administration (DEA) at Tamiami airport outside Miami. Ruppert quotes statements made by Terry Reed who took part in drug operations for the CIA and the Bush family involving the notorious self-confessed drug smuggler Barry Seal who was murdered when he began to talk too much (see *And The Truth Shall Set You Free* and Reed's book, *Compromised: Clinton, Bush and the CIA.*). Ruppert said the Bush brothers arrived from the Intermountain regional airport at Mena, Arkansas (Governor Bill Clinton), to pick up two kilos of cocaine from Seal. This was the location of the infamous and well-documented Mena airstrip drug operations involving the Clintons and Bushes which would see a number of people murdered including two young boys who saw too much (again see *And The Truth Shall Set You Free*). There is no way that the Bush sons could not have been involved in drug trafficking when their then vice president father was one of the most active drug barons in America working for Hidden Hand networks. CIA drug operative Terry Reed quotes a conversation with drug pilot Barry Seal about the Bush family drug operations. Seal was the son of a Ku Klux Klan member and involved in covert off-the-books operations from the 1950s. His wife, Deborah, said he 'flew a getaway plane out of Dallas after JFK was killed'. Seal once met alleged JFK assassin Lee Harvey Oswald and certainly had connections to characters like Clay Shaw and David Ferrie who New Orleans District Attorney Jim Garrison believed were involved in the assassination plot. Seal's association with Father Bush and family fit this scenario with Bush also reported to have had a role in Dallas that day in 1963. Barry Seal was played by Tom Cruise in the 2017 film *American Made* in which a lot of poetic licence was used. Terry Reed wrote that Seal told him:

> Ever hear the old expression, it's not what ya know, it's who ya know? Well, whoever said that just hadn't caught the Vice President's kids in the dope business, 'cause I can tell ya for sure what ya know can definitely be more useful than who you know ...

Reed asked Seal if he was saying that Father Bush's sons were in the drug business:

> Yup, that's what I'm tellin' ya. A guy in Florida who flipped for the DEA [Drug Enforcement Administration] has got the goods on the Bush boys. Now I heard this earlier from a reliable source in Colombia, but I just sat on it then,

> waitin' to use it as a trump card, if I ever needed it. Well, I need ta use it now. I got names, dates, places ... even got some tape recordin's. Fuck, I even got surveillance videos catchin' the Bush boys red handed. I consider this stuff my insurance policy ... Now this is real sensitive shit inside of US Customs and DEA and those guys are pretty much under control.

Barry Seal's 'insurance' did not prove too effective, however, because he was silenced before he could tell his story to a bigger audience. Soon after he began to speak out in February, 1986, he was murdered at Baton Rouge, Louisiana. The murder was blamed officially on two Colombian hitmen with Mac-10 machine guns and while they may or may not have been the actual killers the assassination was ordered by the highest levels of the United States government to stop his revelations about Bush and Clinton family involvement in the drug racket through Mena, Arkansas (Fig 26). Bill Clinton said at a press conference at the time that he knew very little about Seal when a number of people reported seeing them dining together at Fu Lin's, one of Clinton's favourite restaurants in the Arkansas capital of Little Rock. Noelle Bush, the then 24-year-old daughter of Jeb Bush, was arrested in January, 2001, for prescription drug fraud involving an anti-anxiety drug similar to Valium. I understand her need for that after being brought up by the Bush family and living with Jeb at the governor's mansion in Florida. Jeb Bush said at the time with stunning hypocrisy: 'Unfortunately, substance abuse is an issue confronting many families across our nation ...' Yes, but not every family has made billions from making those substances available on the streets of America. Private investigator Stewart Webb uncovered Bush family connections to the drug trade and major American financial firms who laundered the money for them. He said:

Figure 26: Political 'opponents' Bill Clinton and Father Bush who were in fact close associates involved in the same drug-running operation – Hillary, too.

> George Jr., Jeb and Neil Bush were all party to the crimes involving drugs and gun money laundering through Silverado Savings in Denver. They were all aware of 'poppy' George's schemes using CIA, Israeli Mossad, Homestead Air Force Base and Mena, Arkansas to import drugs and ship weapons.

Yep, weapons to terrorists. The significance of 'Israeli Mossad' to drug-running and 9/11 will become clear later because Mossad was both centrally involved in 9/11 and is a major player in the global drug trade. The closeness of the Bush family to Mossad will make a lot of sense of 9/11 as the story unravels. Investigator Stewart Webb highlighted Bush family involvement in financial fraud and murder while his calls for a grand jury investigation into his findings were ignored – of course they were when the Hidden Hand controls the decision-making levels of law enforcement and the courts. Mind control whistleblower Cathy O'Brien reveals from personal experience how the drug operation involving the Clintons extended into human-trafficking in Haiti. Cathy, who was often sexually abused in her mind-controlled state by Hillary Clinton, writes:

> Bill Clinton's infamous Mena cocaine operations that I'd been exposed to since the late 1970's extended internationally to include Haiti and expanded into related criminal activity such as human trafficking. Bill and Hillary's complicity in crimes against humanity are rooted deeply with absolute power corrupting absolutely.
>
> The Clintons are no strangers to charities being used as cover for their criminal operations. Charities like World Vision and various Christian 'missions' collecting money under the guise of helping Haitians instead notoriously lined pockets while funding black ops. Churches including the Lord's Chapel in Brentwood, Tennessee and Hendersonville, Tennessee's Mormon church are among those 'missions' I had experience to know merged with CIA cocaine ops. Like many others, these cult churches sent their mind controlled followers out on 'missions' to Haiti as cover for muling cocaine for the CIA.

You can read the full article and much more at Cathy's website *Trance-formation.com.*

Buffoon in the White House (not the first or last)

Boy Bush was somehow elected Governor of Texas in November, 1994, after which he became the most enthusiastic enforcer of capital punishment in America. I wonder if he wanted the electric chair for drug-traffickers? The plan soon became clear that another Bush was being groomed for the presidency. He was re-elected governor in 1998 with 68.6 percent of the vote and two years later he was the 43rd President of the United States as I had predicted he would be some three years earlier. You only had to know his family background and the way his political profile was being raised to realise that he was the chosen one. Presidents are not elected by the public except in theory – they are selected by the Hidden Hand with the candidate they want the most pitched against a candidate that is still acceptable if things don't go

according to plan. In this case the other one was Hidden Hand asset to his fingertips, the 'Democrat' Al Gore, who would later front-up the hoax about human-caused 'global warming' as an excuse to transform global society through de-industrialisation and other restructuring of human life (see *The Perception Deception* and other books for the detailed background). Boy Bush's election campaign broke all records at the time for fundraising as Hidden Hand companies and assets pitched in with the cash to win the presidency for their first choice. Gore's insider knowledge of the Bush family could have destroyed Boy Bush, but then Bush could have done the same with Gore so they both stayed quiet. The result all came down, infamously, to the outcome in Florida, the state governed by Bush's brother, Jeb, another mega-crook. The Florida vote was so obviously rigged (to anyone with a brain cell) and yet Al Gore meekly accepted it in the end and slipped quietly away as a Bush family-controlled Supreme Court awarded the election to Bush. Gore knew what had happened and he knew why. He also knew better than to cause trouble serious enough to stop Bush taking the throne. What I have revealed is only a fraction of the grotesque background to the Bush family that produced the 9/11 president and it is worth concluding before I move on to other 9/11 'personalities' with a quote from Al Martin, a retired Lieutenant Commander with the US Naval Reserves and Naval Intelligence, and author of *The Conspirators: Secrets of an Iran-Contra Insider.* Martin claimed to have seen at first hand government drug trafficking, illegal weapons deals and an 'epidemic of fraud' – corporate securities fraud, real estate fraud, insurance fraud and bank fraud. He said of the Bush family:

> You have to look at the entire Bush Family in this context – as if the entire family ran a corporation called Frauds-R-Us. Each member of the family, George Sr., George Jr., Neil, Jeb, Prescott, Wally, etc., have their own specialty of fraud. George Jr.'s speciality was insurance and security fraud. Jeb's speciality was oil and gas fraud. Neil's specialty was real estate fraud. Prescott's speciality was banking fraud. Wally's speciality was securities fraud. And George Sr.'s specialty? All of the above.

This is the family of President Boy Bush who said there must be 'a new era of integrity' in American corporate life. Anyone still think these guys have told you the truth about September 11th?

'Big Dick'

The Bushes have always surrounded themselves with crooks, killers and deeply disturbed friends and associates. They like to feel at home. There are few better examples of this theme than their fellow Bohemian Grover, Dick Cheney, the White House Chief of Staff to President Ford;

Father George's Defense Secretary at the time of the 1991 Gulf War; and vice president to Boy Bush across 9/11 and the launch of the 'war on terror'. Cathy O'Brien describes in *Trance Formation of America* her almost unimaginable experiences of Cheney when she was a victim of the Hidden Hand/CIA mind-control programmes and Cheney was Defense Secretary to Father George – the violent sexual abuser of her daughter, Kelly. Cathy details how she was involved in drug running operations under instructions from Cheney, some of which involved Bandar bin Sultan (Cheney called him 'the Sultan'). Bin Sultan was the deeply corrupt US ambassador to King Fahd of Saudi Arabia, the George Bush puppet and close associate of the Bin Laden family and terrorist financiers such as Bush family friend and Saudi billionaire Khalid bin Mahfouz. We will see later that Father Bush – indeed the Bush clan in general – also had close connections with the Bin Laden family. Cathy describes the constant and sickening brutality that she and her daughter suffered from Cheney and Father Bush. This was just one occasion:

> Bush attempted to sell Cheney on the idea of pedophillia through graphic descriptions of having sex with Kelly. Both were already sexually aroused from drugs and anticipation. Cheney demonstrated to Bush why he did not have sex with kids by exposing himself to Kelly and saying: 'Come here'. Upon seeing Cheney's unusually large penis, Kelly reeled back in horror and cried 'No!' which made them both laugh. Bush asked Cheney for his liquid cocaine atomizer as he got up to take Kelly to the bedroom. When Cheney remarked how benevolent it was of Bush to numb her with it before sex, Bush replied: 'The hell it is. It's for me.' He described his excited state in typical vulgar terms and explained that he wanted to spray cocaine on his penis to last longer.
>
> Cheney said: 'I thought it was for the kid.'
>
> Bush explained: 'Half the fun is having them squirm.' He took Kelly's hand and led her off to the bedroom. Cheney told me that since I was responsible for Bush's assault on my daughter ... I would 'burn' (in hell). He burned my inner thigh with the fireplace poker and threatened to throw Kelly in the fire. He hypnotically enhanced his description of her burning to traumatize me deeply. As he sexually brutalized me, I heard Kelly's whimpers coming from the bedroom. As her cries grew louder, Cheney turned on classical music to drown out her cries for help.

Cathy tells of what happened another time when she asked Cheney, amid yet another brutal beating session, if she could go to the toilet:

> Cheney's face turned red with rage. He was on me in an instant, slamming my back into the wall with one arm across my chest and his hand on my

> throat, choking me while applying pressure to the carotid artery in my neck with his thumb. His eyes bulged and he spit as he growled: 'If you don't mind, I will kill you. I could kill you – kill you – with my bare hands. You are not the first and you won't be the last. I'll kill you any time I goddam well please.' He flung me on the cot-type bed that was behind me. There he finished taking his rage out on me sexually.

This was the same Dick Cheney who became de-facto US President during the official tenure of Boy Bush. Cheney controlled every aspect of the Bush administration and lied, lied and lied again about what happened on 9/11 as we shall be seeing. This brutal man, an extreme psychopath, would give a damn about the consequences for 3,000 people and their loved ones in attacks in which he played a very significant part? These people have no empathy, remorse or shame – the latter confirmed by Boy George, son of a serial paedophile and associate of Cheney, announcing an initiative in 2002 to 'protect America's children'. Richard Bruce Cheney was born in Nebraska in 1941 and brought up in Casper, Wyoming. He is yet another of the clique to hail from Yale, home of the Skull and Bones Society, but he dropped out before eventually securing a degree in political science at Wyoming University. Cheney then headed for Washington where he joined the Nixon administration as a special assistant to Donald Rumsfeld, the 9/11 Defense Secretary and yet another professional liar. Rumsfeld at that time was the first director of the Office of [Hidden Hand] Economic Opportunity. President Richard Nixon resigned over the Kissinger-engineered Watergate scandal in 1974 (see *And The Truth Shall Set You Free*) and Rumsfeld joined the White House staff as assistant to the new president, Gerald Ford, another abuser of Cathy O'Brien, and a man who, thanks to Watergate, never had to be elected and never would have been if the voters had been given a say. This was another coup on America. Ford's intellectual capacity was akin to that of Boy Bush. The famous saying that Ford couldn't walk and chew gum at the same time was right on and here was another combination of someone well aware of the Hidden Hand he served while fulfilling the role of I-do-what-they-tell-me. Cheney moved to the White House with Rumsfeld and eventually became Ford's Chief of Staff between 1975 and 1977 when he was still in his early thirties and gained experience of controlling and nursing an idiot president. Cheney had the first of several heart attacks (how did they find it?) and recovered to be elected as Congressman for Wyoming where he remained until Father George made him Defense Secretary after the presidential election of 1988. Cheney is yet another of the bloodline clique who are keen to send others into battle so long as they never have to go. He avoided the draft to Vietnam when he was given deferments because he was a student and a 'registrant with a

child'. He told his Senate confirmation hearing that (just like Boy Bush) he 'would have been obviously happy to serve had I been called'. What a coincidence that they never are. Cheney's wife, Lynne, who he married in 1964, was another Hidden Hand Washington insider who would be at his side in the White House during the 9/11 attacks while Boy Bush was kept out of the way. She was head of the National Endowment of the Humanities from 1986 to 1993 under Reagan and then Father Bush (or under Bush and then Bush in other words) and later became a senior fellow at the seriously Hidden Hand American Enterprise Institute (where Dick Cheney was also involved between 1993 and 1995). Mrs Cheney was on the Hidden Hand Lockheed Martin board from 1994 until January, 2001 – a company that has benefited in billions from the war on terror that followed 9/11. Dick Cheney became widely known during the Gulf Slaughter in 1991 when he worked to ensure the mass murder of Iraqis which reached more than a million when you include the sanctions that followed under Bill Clinton and Madeleine 'We think the price is worth it' Albright. Alongside Cheney in the Father George government was Bush family associate, Secretary of State James Baker, who would later serve as chief legal adviser to Boy Bush during the Florida election controversy.

Big Dick and big business

Cheney moved into 'private business' to serve the Hidden Hand in another way after Father Bush's pre-arranged defeat to his subordinate associate Bill Clinton in 1992 and became fantastically wealthy as a director of elite companies like Morgan Stanley, Union Pacific and Procter and Gamble. His most important business appointment came in 1995 when he was named Chairman and Chief Executive of the Texas-based Halliburton Oil in the Bushes' home state. This was founded in 1919 and owned a highly relevant subsidiary called Brown & Root. Cheney had no experience in the oil industry, but that's not why Halliburton offered him the job. He had other 'qualities' that would expand their business. While Cheney was Defense Secretary (and before and afterwards) Brown & Root was awarded hundreds of millions of dollars' worth of construction contracts in war zones in countries devastated by US bombing and/or manipulation. The technique is this: you control the political decisions to start wars that suit your agenda; you hand over taxpayers money for your military to buy armaments from your companies; then, when all this has devastated the target country and its population you get yourself awarded the contracts to rebuild what you have destroyed. Cheney was the biggest shareholder in Halliburton with a stake of some $45.5 million and the company's board included Lawrence Eagleburger who held State Department posts under President Father George and was an executive of the notorious

Kissinger Associates. Halliburton and Brown & Root had long used political patronage and funding to expand business and profits. Brown & Root's ticket to the top came through its political contributions to President Lyndon Johnson from the time he ran for the Senate in 1948. The *Austin Chronicle* once called him 'the candidate from Brown & Root'. Thanks to Hidden Hand puppet Johnson they made billions on government contracts including those relating to the Vietnam War after Johnson reversed the policies of the assassinated JFK and plunged America deeper into the conflict. Johnson further gave his personal funders contracts for airports, pipelines and military bases. Biographer Ronnie Dugger, author of *The Politician: The Life and Times of Lyndon Johnson*, said much of the money he was paid by Brown & Root arrived in cash. 'It was a totally corrupt relationship and it benefited both of them enormously,' Dugger said. 'Brown & Root got rich, and Johnson got power and riches.' Using the same tactics, contracts continued to flow from government not least thanks to Dick Cheney. Michael C. Ruppert, a former Los Angeles police officer, wrote in a study of Brown & Root:

> From Bosnia and Kosovo, to Chechnya, to Rwanda, to Burma, to Pakistan, to Laos, to Vietnam, to Indonesia, to Iran to Libya to Mexico to Colombia, Brown & Root's traditional operations have expanded from heavy construction to include the provision of logistical support for the US military. Now, instead of US Army quartermasters, the world is likely to see Brown & Root warehouses storing and managing everything from uniforms to rations to vehicles.

Both Halliburton and Brown & Root were funders of a now infamous company called Permindex, a British Intelligence front organisation headed by the Canadian Louis M. Bloomfield, which, it is now well documented, was a central coordinating network behind the assassination of President Kennedy in Dallas in 1963. Permindex also ran death squads in Europe, Mexico, Central America, the Caribbean and the United States. Clay Shaw, who ran a division of Permindex in New Orleans, is the only man to be tried for involvement in the assassination. New Orleans District Attorney Jim Garrison failed to secure a conviction because key prosecution witnesses had this strange habit of dying from less than natural causes. Shaw was a British intelligence operative who worked for Winston Churchill during the Second World War. We should not let any of this deflect attention, however, from the involvement of Mossad, Israeli intelligence, in the Kennedy assassination which I detail in *And The Truth Shall Set You Free*. Connections into Permindex involved a stream of famous companies, banks and personalities. Among them were the Bush family and ultra-Zionist Bronfman gangster family in Canada through its Seagram liquor

operation. Halliburton, at Cheney's say-so, bought and merged with Dresser Industries in an $8 billion deal in 1998 to create the biggest oil-drilling services company in the world. Boy Bush's grandfather Prescott Bush was on the board of Dresser Industries for 22 years in his capacity as a partner in Brown Brothers Harriman, funders of Hitler and the eugenics movement, which owned Dresser. President and Chairman of the Dresser board was Henry Neil Mallon who was among those involved in the raid on the grave of Apache leader Geronimo at Fort Sill, Oklahoma, in 1918 to steal his skull and take it back to Skull and Bones headquarters at Yale. It was Mallon, apparently, who burned the flesh and hair off the skull after Prescott Bush and friends had stolen it. Father George's crooked son, Neil Mallon Bush of Silverado Savings and Loans corruption fame, was named after the Skull and Bones Dresser president.

Snouts in the trough

Dick Cheney said he stood for small government and against government handouts. What he meant, naturally, is he believed in that for everyone else and absolutely not for himself. Thanks to Cheney Halliburton received in five years some $4 billion (at least) in government contracts and loans insured by the taxpayer. The Clinton government guaranteed credits worth $489 million through the US Export-Import Bank to a Russian oil company to the benefit through Brown & Root of Halliburton. This company, according to Russian and American sources and documents, was connected to drug trafficking and organised crime. Halliburton's business with the US Defense Department before Cheney arrived was worth around $300 million a year. Under Cheney, the former Defense Secretary, government contracts soared to more than $650 million, according to the *Baltimore Sun*. It's the same story with loans and guarantees from the Clinton government's Export-Import Bank and the Overseas Private Investment Corporation: $100 million in the five years before Cheney, but at least $1.5 billion under his leadership. In return for political support and loan guarantees, Halliburton donated big sums to political candidates and parties after Cheney's arrival and the lobbying budget doubled: $300,000 a year on lobbying politicians before Cheney and $600,000 with him at the helm. Halliburton has also benefited from US 'aid' to various countries, which was then spent by the recipients on hiring Halliburton. The *Los Angeles Times* obtained State Department documents that showed how government officials helped Halliburton to win major contracts in Asia and Africa. This is the way the Hidden Hand families and their agents operate. They control government decisions through the Hidden Hand one-party state and operate companies like Halliburton which benefit from those government decisions and policies. This is how, once Cheney

took over, Halliburton was able to expand so rapidly and become the fifth largest defence contractor in the US and benefited enormously from the 'war on terror' which followed Cheney's clear involvement in 9/11. Halliburton developed a worldwide operation involving 130 countries and became America's biggest non-union company. No wonder Cheney was given a $34 million 'retirement package' when he left in the summer of 2000 to be the running mate of Boy George. This was after five years on a salary of $1.3 million a year, plus bonuses of millions more, stock options worth some $45 million, and his sale of 100,000 Halliburton shares that netted him $5.1 million. Remember these are year 2000 figures and values. Cheney's Halliburton has worked closely with some of the most appalling terrorist dictatorships on the planet because this psychopath would work with anyone at any price to ensure more money, power, and the advancement of the Hidden Hand agenda. Cheney was Defense Secretary in the Gulf Slaughter supposedly aimed at Saddam Hussein in 1991 and yet made big profits for himself and Halliburton after 1998 through deals with ... Saddam Hussein's Iraq. The London *Financial Times* reported that Cheney oversaw $23.8 million worth of contracts for the sale of 'oil industry' technology and services to Iraq and he used Halliburton subsidiaries in France, Italy, Germany and Austria to hide the Cheney-Halliburton connection. Among these companies were Dresser Rand and Ingersoll-Dresser Pump. These contracts together were worth more than any other US company doing business with Iraq. A Halliburton spokesman admitted that its Dresser subsidiaries had sold oil-pumping equipment to Iraq via their European agents. So get this: Cheney's Halliburton contracts were helping to rebuild the oil infrastructure of Iraq destroyed by the bombs dropped by United States aircraft in 1991 commanded from the Pentagon by Defense Secretary Dick Cheney. Then, after 9/11 and the invasion of Iraq in 2003, he blew them up again while controlling the White House of Boy Bush.

Donald Rumsfeld – integrity not a speciality

Boy Bush's 9/11 Defense Secretary was Donald Rumsfeld, a long-time insider with an impeccable record of service to the global agenda (Fig 27). He began his career in Washington DC as an administrative assistant after attending Princeton University and serving in the Navy and was elected to Congress from his home state of Illinois in 1962.

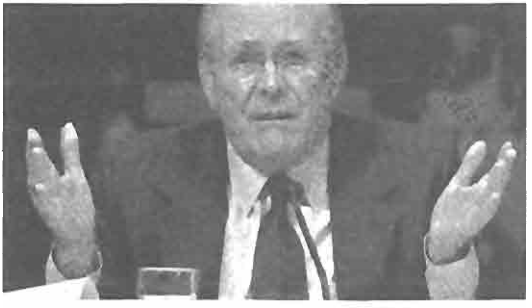

Figure 27: Donald Rumsfeld: 'So I lied – it's what I do.'

Rumsfeld joined the Richard Nixon administration (controlled by Hidden Hand Secretary of State Henry Kissinger) in 1969. He was a member of the Nixon cabinet from 1971 to 1972 – the year of the Watergate break-in, the sting on Nixon orchestrated by Kissinger which caused Nixon to resign. Rumsfeld went to Europe in 1973 as US Ambassador to NATO while the Watergate storm blew out before returning the following year when Nixon had been ousted. He became chairman of the transition to the presidency of the unelected, Watergate-imposed Gerald Ford. Rumsfeld joined the Ford cabinet as Chief of Staff at the White House (which means he must have been very acceptable to the despot Kissinger) and he became US Secretary of Defense for the first time between 1975 and 1977. He then went into private business while maintaining a close involvement in politics. He was Chairman and Chief Executive of G.D. Searle, the pharmaceutical company later owned by the despicable Monsanto, and was given a long stream of appointments in and by government. These included a role as the Reagan-Bush 'envoy' sent to meet Iraqi dictator Saddam Hussein to arrange for the shipment of chemical and biological weapons for Saddam to use in the US-Iraq instigated war against Iran throughout most of the 1980s. The war began the year that Reagan and Bush took office. A declassified CIA report in 1991 estimated that Iran had suffered more than 50,000 casualties from these chemical weapons, but the Organization for Veterans of Iran said the figure didn't include all the civilians affected or the children of Iranian troops that developed 'blood, lung and skin complications'. A figure closer to 100,000 is believed to be more accurate with some 20,000 Iranian soldiers killed instantly by the chemical weapons shipped from America to Iraq with Donald Rumsfeld operating as the facilitator and middle man (Fig 28). These facts were confirmed by thousands of State Department documents declassified and released under the Freedom of Information Act. Among the biological weapons that Rumsfeld arranged to be shipped were viruses including anthrax and bubonic plague. This is the empathy-deleted psychopath who became Boy Bush's Defense Secretary across 9/11 and the subsequent war on terror in which American

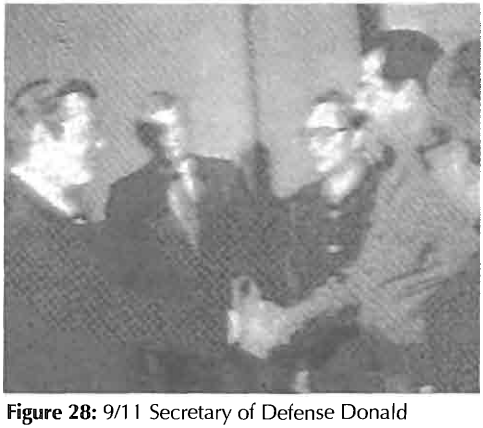

Figure 28: 9/11 Secretary of Defense Donald Rumsfeld greets Iraqi President Saddam Hussein in Baghdad on December 20th, 1983, as he arranged for the shipment of chemical and biological weapons to Saddam for use against Iran. Rumsfeld was acting as an envoy for President Ronald Reagan (Father Bush).

troops invaded Iraq on the lie about 'weapons of mass destruction'. Rumsfeld even had the nerve (psychopaths have no capacity for shame) to say that 'ruthless and brutal monster' Saddam had to be removed because he used chemical weapons on his own people – yes, the ones that Rumsfeld arranged for him to be shipped. When he said 'ruthless and brutal monster' he must surely have been looking in a mirror. Rumsfeld is another who would 'never do that' with regard to 9/11? He was appropriately head of a pharmaceutical company when he did the business with Saddam and how helpful all his government connections proved at Searle in other ways. Rumsfeld used his Washington insider contacts to ensure that the Food and Drug Administration (FDA) gave the go-ahead to market the infamous brain- suppressing artificial sweetener aspartame (now known by other names). He was to Searle what Cheney was to Halliburton. FDA documents released under the Freedom of Information Act in 1995 revealed that according to scientists the consequences of this horrendous aspartame substance included blindness and death; brain tumours, brain lesions, headaches, mood swings, skin polyps, insomnia, depression, suppression of intelligence and effects on short-term memory. Investigative author and food specialist Carol Guilford described aspartame a 'molecular holocaust'. This is the mind suppressant (sorry 'sweetener') for which Donald Rumsfeld was hired by Searle in 1977 to win government approval. In January, 1981, with the Rumsfeld's friends in power under Bush and Reagan, he could get the job done. According to one attendee, he told a sales meeting that he would 'call in his markers' and get aspartame approved by the end of the year. The Commissioner of the Food and Drug Administration was then fired and the job was given to Dr Arthur Hull Hayes, a professor and contract researcher for the Defense Department. His first major decision was to approve the use of aspartame in dry foods and his last, in 1983, was to approve it for soft drinks. This was despite all the evidence of its consequences and the opposition of his own board of inquiry. Hayes then left the FDA to become a senior adviser to the public relations firm of ... Rumsfeld's Searle. Rumsfeld earned millions for manipulating aspartame into widespread use and he picked up a $12 million bonus when Searle was bought by Monsanto, promoter of genetically modified (GM) food. Monsanto has since merged with Bayer which was once part of I.G. Farben that ran the concentration camp at Auschwitz. What a shower – what a Web. Donald Rumsfeld, a life-long manipulator with a missing integrity gene, was the Defense Secretary on 9/11 and during the subsequent war on terror and he would lie his way through the official explanation of what happened before, during and after the attacks. He was the official top man in the Pentagon although he was really a version of Boy Bush in that his deputy, the Israel operative, Paul

Wolfowitz, was the real point of power.

Other psychopaths

There are three other characters to mention to set up the background to the 9/11 Bush administration key personnel – John Ashcroft, Michael Chertoff and John Negroponte. Ashcroft was Bush's 9/11 Attorney General and another with his snout in the corporate trough with Monsanto, Microsoft, corrupt energy company Enron and the alcohol industry among his benefactors. When Boy Bush's biggest funder – again Enron – collapsed amid corruption and scandal we had the farcical situation in which Attorney General Ashcroft could not take part in the subsequent investigation because he had taken money from them. Ashcroft was so disliked that when he ran for the Senate in the 2000 election he even failed to beat a dead man. His opponent, the Missouri Governor Mel Carnahan, died in a plane crash with his son and campaign adviser while flying in a Cessna to a campaign rally. Carnahan's name stayed on the ballot paper and more people voted for him than Ashcroft. It was the first time anyone had posthumously won election to the Senate. While he couldn't beat a dead man Ashcroft was soon back in Washington when Bush named him US Attorney General. This is the man who began dismantling basic human freedoms in the United States in the wake of September 11th with an enthusiasm and glee that can only be described as orgasmic. Attorney General is another big Hidden Hand-nominated post. Ashcroft described himself as a Christian conservative who didn't smoke, drink or dance. He was against abortion because it takes a human life created by God and yet supported the death penalty and the murder of men, women and children in their thousands every month in the war on terror. Ashcroft's claim to fame before he joined the Bush administration was his 'war on drugs' and addictive substances and he demanded the death penalty for drug offences. Shit, bad news for the Bushes and Clintons then, but somehow they survived. Much more powerful and significant than Ashcroft in the 9/11 [In]Justice Department was ultra-Zionist fanatic Michael Chertoff, son of a rabbi father and reportedly a Mossad agent mother, who was named by Bush (those that controlled him) as head of the Criminal Division of the Department of [In]Justice overseeing the entire criminal investigation into 9/11. Chertoff is a central player in the 9/11 story and there is *much* more about him to come. One other psychopath I want to mention is John Negroponte who became Bush's 9/11 Ambassador to the United Nations which was a vital role in selling the post-attack 'war on terror'. Negroponte knew all about terror from his days as US ambassador to Honduras between 1981 and 1985 under Reagan-Father Bush where he helped to coordinate America's covert war against the Sandinista government in Nicaragua. US aid to

Honduras soared from $3.9 million in 1980 to $77.4 million in 1984 during his time there. This funded so many US bases and so much weaponry that the country became known as *USS Honduras*. I can see why Boy Bush (Cheney) chose him, then. Among the characters aiding and abetting Negroponte in his Central American genocide was Elliot Abrams who was named as 'special envoy' by Donald Trump in 2019 to take charge of the so transparent attempted US coup in Venezuela. The same soul-sellers turn up everywhere.

I wanted to lay out right at the start some essential background to key players involved in 9/11 to dispel the myth that they would not be evil enough to coldly play their part in the deaths of 3,000 people that September morning. The 'not that evil', 'not that ballsy' and 'not that competent' nonsense had to be addressed first for those new to this information because it is such a block on the opening of minds to the reality of what really happened and who was responsible. Yet even most of these US government operatives were relatively bit-part players compared with the prime orchestrators that I will come to much later in the book. The rabbit hole goes so very, very deep and before I finish we will be exploring – and exposing – those depths of almost unspeakable malevolence.

CHAPTER 4

Play it again, scam

The best kept secrets are those in plain sight – George Banister

Problem-Reaction-Solution (P-R-S) events abound throughout history that mirror in their themes and often detail what happened in New York, Washington DC and Pennsylvania on September 11th. They have been orchestrated by the same networks – even the same people in recent times – that played their central or peripheral parts in 9/11.

The P-R-S technique is so simple yet so devastating in the way it seizes and hijacks public perception and opens the collective mind to accept 'solutions' to 'problems' that have been covertly created by the very same people and networks promoting the said 'solutions'. Such connections, however, are hidden by the essential cover-story concocted beforehand to pin the blame on others for the 'problem' – a cover-story sold to the public by a compliant and pitiful mainstream media that simply parrots without question what the authorities tell them about what happened and who was responsible. If we had a mature, grown-up media these P-R-S mega-scams would not be possible because the cover-story would be taken apart very quickly; but we don't. We have overwhelmingly clueless people called 'journalists' who know nothing about how the world really works being string-pulled by the few that own and control media corporations and set the limits on what can be investigated or reported. Employment is swiftly concluded for those who cross the line. The Hidden Hand secret society network crucially extends into the media to install the owners, executives and keyboard fodder that dictate what you see – and don't. This is absolutely vital because you can't control perception if you don't control information. Ironically, the same clueless, gutless media then ridicule and dismiss as 'conspiracy theorists' those who do have the intelligence and backbone to question the cover-stories and show them to be riddled with blatant lies and contradictions. This essential cluelessness – essential for the cover-ups and the survival of their careers – extends even to the terms 'conspiracy theorists' and conspiracy theories' which are used as labels of derision to discredit those that question unsupportable and

unsustainable official narratives. As I said earlier, these terms came into widespread use in the 1960s when the CIA contacted major media organisations in the United States as part of a campaign to discredit those questioning the assassination of President Kennedy in 1963 and later those of his brother, Bobby, Martin Luther King and Muslim leader Malcolm X. The document can still be found on the Internet in which the CIA suggested that the labels 'conspiracy theorists' and 'conspiracy theories' could be effective in making the public ignore what was being uncovered. All these decades later today's 'journalists' continue to repeat these CIA-circulated terms of derision while having no idea how they came into such widespread use. Cover stories go on being repeated without question in accordance with the ancient technique of perception control – repeat something often enough and people will believe it. Fortunately, and more than ever before, the 'suckers' as the Hidden Hand perceives them are not buying the lies on the scale we have seen before and this is driving both the censorship of the alternative, questioning media, and public contempt for the systematically mendacious mainstream.

A perfect example of Problem-Reaction-Solution is NATO's Operation Gladio which operated throughout Europe after the Second World War. Gladio was primarily the work of British and American intelligence and involved operatives from many countries – especially in Italy where they were responsible for terrorist attacks and kidnappings that were blamed on target groups they wished to demonise to justify increased government powers. Operation Gladio was behind the Bologna railway station bombing in 1980 which killed 85 people and was blamed on a terrorist group called the Red Brigades to discredit communists. An Italian parliamentary investigation in 2000 heard that the bombing was actually carried out by 'men inside Italian state institutions and ... men linked to the structures of United States intelligence'. Former Gladio agent Vincenzo Vinciguerra, a neo-fascist serving a life-sentence for a deadly car bombing in 1972, said in testimony:

> You had to attack civilians, the people, women, children, innocent people, unknown people far removed from any political game. The reason was quite simple. They were supposed to force these people, the Italian public, to turn to the state to ask for greater security. This is the political logic that lies behind all the massacres and the bombings which remain unpunished, because the state cannot convict itself or declare itself responsible for what happened.

This is the foundation methodology behind 9/11 and there are so many Problem-Reaction-Solution 'false flags' which have remained unquestioned to this day by the very same media – sometimes even the

same 'journalists' – that have told you what to believe about the attacks of September 11th. Here are just a few:

Oklahoma bombing

There was a 'rehearsal' for what happened on September 11th six years earlier on April 19th, 1995, when a massive bomb, or bombs *plural* in truth, destroyed the Alfred P. Murrah Building in Oklahoma City and killed 168 people, many of them children at a day care centre (Fig 29). All the classic features were there: the *Problem* of a 'terrorist attack' on a US federal building and the villain or 'patsy' named immediately as Timothy McVeigh; the *Reaction* of understandable outrage from the public when they saw the devastation and believed the government's version of events; and the *Solution* that followed with a series of measures that deleted civil liberties and targeted the so-called Christian Patriot or militia movement that had been having considerable success exposing the global conspiracy at least on one level. The Oklahoma cover-story from the government of Bush family associate Bill Clinton and law enforcement agencies like the FBI claimed that McVeigh was connected to the militia underground. He was executed by lethal injection on June 11th, 2001, and became the first federal execution for 38 years (Fig 30). Terry Nichols, his alleged accomplice, was portrayed as a white supremacist and racist even though his two marriages had been to a Mexican and Filipino. Go figure. McVeigh was executed and Nichols was sentenced to 161 consecutive life terms without parole – a Guinness world record. 'Anti-terrorism' bills were rushed through Congress in days and at least some had clearly been written and printed before the bombing. They included all the elements of destroying civil liberties that have been still

Figure 29: The devastated Murrah Federal Building in Oklahoma City. No way that this scale of damage was caused by a truck bomb as claimed by the official story.

Figure 30: Timothy McVeigh, executed patsy of the Oklahoma bombing.

further extended as a result of 9/11 with the 'white supremacy' card being played today with ever-growing hysteria. President Clinton was calling within 24 hours of the carnage for '... an easing of restrictions on the military's involvement in domestic law enforcement'. He also used the bombing to urge the media to ban 'anti-government extremists' from their newspapers, screens and microphones, and he attacked alternative talk radio shows which were giving the public a rare opportunity to hear and communicate information that differed from the official line.

The bombing was said to have been a response by McVeigh to the murder of men, women and children by the Clinton government at Waco, Texas, two years earlier to the day on April 19th, 1993. One of the government agencies blamed for Waco (along with the FBI) was the Bureau of Alcohol Tobacco and Firearms (ATF) which had offices in the Murrah Building. The official story said they were the target. A bill proposed in response to the bombing by Democrat and ultra-Zionist Charles Schumer, who became a senator for New York, included five-year prison sentences for publicly engaging in 'unseemly speculation' and publishing or transmitting by wire or electronic means 'baseless conspiracy theories regarding the Federal government of the United States'. Naturally, the government would decide if it was 'baseless'. Schumer, one of a stream of ultra-Zionist agents batting for Israel within the US political system, had also vehemently dismissed evidence of the mass murder by the FBI in Waco in a way that had sane people gasping for breath. His fascistic bill never became law, but it was part of a long-planned trend to target alternative information and opinion that is in overdrive today. The FBI 'Joint Anti-Terrorism Task Force' issued flyers urging the public to call the authorities with information about possible 'terrorists' in the United States. They warned people to particularly watch for those who were 'defenders' of the US Constitution against the federal government and United Nations; people who make 'numerous references to the Constitution'; those who 'attempt to police the police'; and 'lone individuals'. The FBI, the main [non]investigation agency for the September 11th attacks, is deeply corrupt at its controlling core and its primary goal is not to find the truth but to support official cover-stories by hiding the truth. My goodness you will see this recurring theme so clearly before the end of the book. You can appreciate from the 'solutions' to the Oklahoma City bombing how a Big Brother state was being prepared that would be expanded so much further and quicker after 9/11 and through Facebook/Google etc. and other censorship in current times.

There is a clear tell-tale theme with these set-ups and stings, be it Oklahoma, the Kennedy assassination or September 11th: The official story is so full of untruths and glaring contradictions that anyone with a smear of intelligence could take them apart. The cover narratives are just

that – a cover. They don't describe what happened, only what they want you to believe happened, and so by definition they have to weave a web of lies. With such a deluge of mendacity required to hide the truth there are inevitably lies that contradict other lies, and the bigger the event and the more elements and people involved the more lies have to be employed which lead to even more contradictions. If 'A' is true, then 'B' can't be true, and so on. This is certainly the case with 9/11. The Clinton government and FBI claimed that a fertiliser and fuel oil bomb in a Ryder truck parked outside by McVeigh destroyed the Murrah Building. McVeigh had said he was microchipped while serving with US forces and to understand why he would not vigorously defend himself we would need to know what was going on in his head. Why would someone not mount such a defence when he could not possibly have been responsible for that scale of death and devastation by himself and possibly even at all? Once a person is in government captivity the potential for mind and perception control is limitless with the techniques available then and even more so today. They can be made to say and think almost anything. A 'confession' from his jail cell by Terry Nichols in 2004 – eleven years after the bombing – should be viewed with that in mind although his claim that he didn't know what was really going on rings true of the way these attacks are set-up using 'patsies' – people who are manipulated to take the blame for something others have really done. They are tricked and misled to be in the wrong place at the wrong time by thinking they are there for a completely different reason. It was highly significant with regard to mind control that when McVeigh was first arrested he was given a 'mental assessment' by Louis Jolyon West from the University of California. What newspaper reports about this did not say is that West was one of the most notorious CIA mind controllers in America and heavily involved in MKUltra. West performed the psychiatric evaluation of Jack Ruby who killed Lee Harvey Oswald so the Kennedy assassination would not see an open court where the truth could be told. This mentally ill psychiatrist once killed an elephant with a massive dose of LSD. Another interesting coincidence is that two years before the Oklahoma bombing, Martin Keating, brother of Oklahoma Governor Frank Keating, wrote a novel called *The Final Jihad* which described a terrorist attack on the 'Oklahoma City Building' by a man called Thomas McVeigh. Keating dedicated the book to the 'Knights of the Secret Circle'. Days before the attack a Ryder truck was photographed from the air within a secure a military compound near Camp Gruber-Braggs, Oklahoma.

Provable lie

The FBI said the Murrah Building was destroyed by a single ammonium

nitrate truck bomb in a 20-foot Ryder rental truck parked outside by McVeigh. The problem is that this was impossible. Lies can do the impossible, but truth can't. You have only got to see the small crater left where the truck was standing to see that the explosive power could never have brought down the Murrah Building. There are other little details like the fact that while some pillars closer to the truck bomb did not fall, others further away did. This was a prelude to the stunning contradictions and impossibilities with regard to the collapse of the World Trade Center buildings. Retired Brigadier General Benton K. Partin said from the start that a fuel-fertiliser device in the Ryder truck could not possibly have brought down the Murrah Building. He said that too many facts simply didn't add up. Partin was no anti-government 'extremist', although that was the way he was portrayed to discredit his devastating testimony. He was chairman for four years of the Republican Party in Fairfax County, Virginia, and among a long list of US Air Force appointments he was Commander of the Armament Laboratory, a top research and development facility at Eglin Air Force Base in Florida. During his 31 years of active duty he became a highly acclaimed expert in weapons systems and explosives and his Air Force and civilian career record was extremely long and impressive. Partin's detailed assessment of the bombing was widely quoted in the alternative media while virtually ignored in the mainstream even though it destroyed the official story. Actually, make that *because* it destroyed the official story. Partin's report, dated July 30th, 1995, said that serious damage and demolition to supporting columns inside the building could *only* have been caused by devices attached to, or placed within, the columns. He said it was impossible for that to be achieved by an explosion from outside the building. The truck bomb could have shattered windows and scattered considerable debris, but the laws of physics did not make it possible to bring down concrete pillars that distance away. The laws of physics were also suspended by the official story of 9/11. Partin pointed out that '... most people fail to appreciate how inefficient a blast is in air and how dramatically its destructive potential drops off just a few feet from the explosion'. The main columns in the Murrah Building were constructed to survive pressure of more than 3,000 pounds per square inch. There is no way, as Partin's report pointed out, for a fuel-fertiliser bomb that far from the building to generate more than a fraction of that pressure. By contrast, Partin said the fantastic damage to the Murrah Building could have been caused by a total of just 150 pounds of explosive if it was located in the right places on the right support columns. Dr Rodger Raubach, a PhD in physical chemistry and member of the research faculty at Stanford University, said:

> General Partin's assessment is absolutely correct. I don't care if they pulled up a semi-trailer truck with 20 tons of ammonium nitrate; it wouldn't do the damage we saw there.

The 'McVeigh bomb' began to miraculously increase in size once the government and FBI were faced with these facts about the impossibility of a truck bomb causing the damage – the same way the 9/11 story changed once elements of the earlier version were revealed to be impossible. The Bureau of Alcohol, Tobacco and Firearms and other government agencies originally said the bomb contained 1,200 pounds of ammonium nitrate and fuel oil; but, as if by magic, it was to become 4,000 pounds and eventually 4,800. I even heard 7,000 pounds quoted in the media around the time of McVeigh's execution in 2001. It really didn't matter to the laws of physics even if it was 20 tons although it did provide confirmation that we were dealing with a cover-story lie. A study by the US Air Force confirmed that even at 4,800 pounds the story does not make sense:

> It is impossible to ascribe the damage that occurred on April 19th, 1995, to a single truck bomb containing 4,800 pounds ... In fact, the maximum predicted damage of the floor panels of the Murrah federal building is equal to approximately 1% of the total floor area of the building. It must be concluded that the damage at the Murrah federal building is not the result of the truck bomb itself, but rather due to other factors such as locally placed charges within the building itself.

This report was not presented at McVeigh's trial and neither were 4,000 pages of other evidence that the corrupt-to-its-core FBI claimed to have 'lost'. FBI agents interviewed General Partin but did nothing when he showed them that the official story was impossible (this is the same FBI that was the lead investigating agency of 9/11). Partin sent copies of his detailed engineering analysis, including colour photographs, to every member of Congress and more than a thousand media organisations. Only a handful of replies came back. They would rather the orchestrators of mass murder remain at large than reveal that the government and its agencies were lying at every turn. People still say that if the conspiracy I am exposing were true *the media would tell us* about it. Talk about fully-paid-up members of Naivety Anonymous. Researcher J. Orlin Grabbe and others have revealed that a secret Pentagon report on the bombing came to basically the same conclusions as Partin. Grabbe said the Pentagon commissioned nine explosives experts to write reports and accepted two of them as the 'official' report. He said he spoke to both experts, but they declined to be interviewed because of 'confidentiality agreements with the Pentagon'. Grabbe

revealed that sources familiar with the Pentagon report told him that the conclusions were the same as those of General Partin, except that the Pentagon report concluded there were demolition charges placed on five columns and not the four suggested by Partin. These findings were supported by the science and witness accounts. Many said they heard more than one explosion. A 500-page report by the Oklahoma City Bombing Investigation Commission said that many witnesses 'have testified to hearing a second bomb' and that 'explosives experts contend that the extent of the damage to the building could not have resulted from a single truck bomb ...' The seismographic record at the Oklahoma Geological Survey (OGS) at the University of Oklahoma recorded two 'seismic events' at the time the Murrah Building was hit and a geophysicist at the OGS, Dr Raymon L. Brown, told *New American* that the simplest explanation for this was 'two separate explosions'. Witnesses support this. After rescuers arrived on the scene there were many reports of other bombs being found and defused and the area was evacuated several times. Volunteers at the site and television viewers remember how police and fire authorities warned that another device, or devices, had been found in the rubble. Television reporters and witnesses that morning said there were other bombs on the site that had not exploded. Oklahoma Governor Frank Keating told one interviewer: 'Reports that I have is that one device was deactivated, apparently there's another device ...' A television report quotes the FBI as saying the explosion was caused by a 'very sophisticated device and had to have been done by an explosives expert'. A spokesman for the rescue teams said that they were not able to get into the wreckage to retrieve the injured because of unexploded bombs still in the building. A reporter with KWTV said that he had just seen a bomb squad truck going towards the Murrah Building to defuse another device. Senator Charles Key's Oklahoma Bombing Investigation Committee confirmed these reports and said there were at least four sightings of other bombs in the building. The Bureau of Alcohol, Tobacco and Firearms (ATF) removed these unexploded bombs from the scene according to police logs and firefighter witnesses. This is the ATF that was supposed to have been McVeigh's target in the official cover story. We were told at different times that other bombs were found, that no other bombs were found, and that bombs were found, but they were 'dummies' used for training by the ATF. Soon all of this was forgotten and the official version of what happened dominated the media. The Oklahoma Bombing Investigation Committee also concluded:

> There is sufficient evidence to confirm that law enforcement agencies in Oklahoma City, as well as Washington DC, had sufficient prior knowledge of the impending disaster, yet took minimum measures to avert the bombing.

> Documents and witnesses support this conclusion.

What a precursor that statement was to what happened on 9/11. On the subject of which ... rubble from both the Murrah Building and the World Trade Center was swiftly removed to prevent a proper analysis that would reveal the truth of what happened.

Rubble trouble

Rubble from the Murrah Building contained the proof of where the bombs were really located, what they were, and how many there were. All that was required to establish what had happened beyond doubt was for explosives experts to go in and do their analysis. General Partin made this very point and requested that the site be protected until this investigation could take place. He wrote to Oklahoma Senator Don Nickles and delivered the letter personally to his Washington office and to those of some 23 other senators and 30 congressmen on May 18th, 1995. He wrote:

> I am concerned that vital evidence will soon be destroyed with the pending demolition of the Federal Building in Oklahoma City. From all the evidence I have seen in the published material, I can say with a high level of confidence that the damage pattern on the reinforced concrete superstructure could not possibly have been attained from the single truck bomb without supplementing demolition charges at some of the reinforced column bases.
>
> The total incompatibility with a single truck bomb lies in the fact that either some of the columns collapsed that should not have collapsed or some of the columns are still standing that should have collapsed and did not.

Instead of listening to Partin the government hired a company called Controlled Demolition to bring down the rest of the building and take the rubble to a private landfill site operated by BFI Waste Systems. Here the remains of the Murrah Building were kept under guard by the Wackenhut Corporation, one of the Hidden Hand's many private armies which helped to ship chemical weapons equipment to Saddam Hussein before the Gulf War thanks to middleman Donald Rumsfeld. George Wackenhut, a former FBI operative, started the company with other FBI associates in 1954. Recruits from the FBI, CIA, and military dominated its board. Wackenhut was a long-time friend of Father Bush and funded his political campaigns along with those of Boy George and Florida governor Jeb Bush. McVeigh's defence team and independent explosives experts were refused access to the rubble that would have revealed all and represented a glaring admission that there was something to hide. Controlled Demolition said this about the Murrah contract on its

website: 'When a crime scene involves the detonation of explosives, and the possibility of undetonated materials exist, an experienced contractor is needed to preserve evidence critical to ongoing investigations while dealing with any explosives discovered.' So why was McVeigh's defence team not allowed access to any virgin remains to conduct such investigations? The removal of the Murrah Building rubble before it could be analysed was repeated with the remains of the World Trade Center after 9/11 as I will detail.

Clear prior knowledge

The Bureau of Alcohol, Tobacco and Firearms was supposed to be McVeigh's target so how strange then that no ATF agents were killed or injured because they were miraculously not in the office that morning. We'll see that key players on 9/11 were also miraculously not where they would normally have been on that morning and survived as a result. There were no badge-carrying federal agents in the Murrah Building, only civilian workers. The ATF wheeled out agent Alex McCauley when this fact became known and he told of heroic efforts to rescue victims by himself and a fellow agent who was said to have fallen three floors in an elevator and lived; but Duane James, the building maintenance supervisor, proved that technically and logistically the story was a lie. He said that it was 'pure fantasy' and the ATF had to retract the story and admit that McCauley was nowhere near the building – let alone in it. Remember that when reading the official story of 9/11. The ATF would not say where McCauley or any of their other personnel actually were. Federal Judge Wayne Alley was not in his chambers across the street from the Murrah Building either. He told the *Oregonian* newspaper that he had decided not to go to work that day because 'there had been talk'. He said:

> Let me just say that within the past two or three weeks, information has been disseminated ... that indicated concerns on the part of people who ought to know, that we ought to be a little more careful ... My subjective impression was there was a reason for a dissemination of these concerns.

Alley was warned off in other words and took the advice because the authorities had prior knowledge of what was going to happen – the same would be the case on 9/11. Witnesses who spoke with ATF agents at the scene were told its personnel were not in the building because they had been tipped off through their pagers not to go to work that day. These witnesses included Tiffany Bible, a paramedic who was at the Murrah Building within minutes of the blasts. She swore in an affidavit that she found the ATF in full combat gear (which apparently takes half an hour to put on) and they said they had been pre-warned. Another

major question: Why was the bomb squad on site *before* the bombing? Glenn and Kathy Wilburn who lost two small children in the bombing worked constantly and passionately for years to uncover the truth. They conducted and documented more than 300 hours of interviews and persuaded people to talk who had remained silent for fear of the consequences. They established beyond question that a heavily armed bomb squad had been in downtown Oklahoma near the Murrah Building that morning *before* the bombs exploded. Many people saw them, including Oklahoma lawyer Daniel J. Adomitis, who was heading for a charity board meeting at 7.30am, an hour and a half before the explosion:

> There was this fairly large truck with a trailer behind it. It had a shield on the side of the door that said 'bomb disposal' or 'bomb squad' below it. And I really found that interesting. You know, I'd never seen anything like that in person.

Parents saw these people in their bomb squad uniforms when they dropped their children off at the day care centre at the Murrah Building – children they would never see alive again. The Sheriff's Department had to admit after months of denial by the FBI and other government agencies that the bomb squad *had* been there. Glenn and Kathy Wilburn were bitterly attacked by other bereaved families as they challenged the government story and they were denounced as 'conspiracy theorists'. Such is the scale of 'they would never do that' programming. We are dealing with extreme psychopaths and 'they' will do whatever it takes to get what they want. In the end other families also became convinced that the authorities had prior knowledge of the bombing, just as they did about 9/11. The Wilburns and many other families filed legal claims against the US government alleging they had 'detailed prior knowledge of the planned bombing of the Murrah Building yet failed to prevent the bombing from taking place' and claimed that ATF agents were 'alerted not to go to work on April 19th, 1995'.

FB-LIE

Danny Colson, the FBI's director of the terrorist task force, told *Time* magazine in 1999 that when he heard about the blast he had driven to Oklahoma from his home in Dallas at speeds of 100 miles an hour to support the rescue operation and 'investigation'. In fact, Colson checked into the Embassy Suites Hotel in Oklahoma at 12.20am on April 19th which was nine hours *before* the bomb went off. *Why*? The FBI said McVeigh's truck rental agency was tracked from a vehicle identification number (VIN) on the Ryder truck's rear axle. This axle was somehow found both in the bomb crater (mayor of Oklahoma press statement) and

three blocks away (FBI). It must have been one heck of an axle. The FBI story is another provable lie because rear axles of vehicles manufactured in America were not imprinted with a VIN and the Ryder rental company did not add them to the axles either. McVeigh was claimed to have rented the truck with both his real ID and a false ID and the same FBI had to admit shortly before McVeigh's first scheduled execution that they had withheld 4,304 documents from his defence team. He was given a month-long stay of execution because of this. I can hardly say often enough that this is the agency that told you the official story of 9/11 and is completely controlled from its highest levels by the Hidden Hand. The foundation, motivation and nature of the FBI's upper hierarchy were dictated from the start by that epitome of psychopathic evil, J. Edgar Hoover. He became director of the FBI's forerunner, the Bureau of Investigation, in 1924 and was key man in the founding of the FBI in 1935. Hoover was appointed its first director and remained in the post until his death more 37 years later. FBI headquarters in Washington DC is named after him. Hoover created the FBI blueprint of corruption and deceit and was most definitely involved in the assassinations of the two Kennedys, Martin Luther King and Malcolm X in the 1960s. That is not to say that all FBI agents are corrupt – far from it and often quite the opposite. I am talking about those that control the organisation and the lower-level assets who choose to do their bidding.

McVeigh stitch-up

The FBI's 'star witness' against McVeigh was Michael Fortier who admits doing a deal to testify for the prosecution in return for lighter sentences for gun offences. He told the court that he and McVeigh had made themselves familiar with the Murrah Building weeks before the bombing to establish the location of the ATF offices. Well, in that case why did McVeigh stop at a gas station in the Ryder truck that morning and ask the way to the building? Why would he do that anyway when he knew he would be recognised and reported after the bombing? In that one moment he connected himself to the Ryder truck and the Murrah Building. Why? If he had spent so much time locating the ATF offices, why did he park the truck on the side of the Murrah Building *furthest away* from the ATF section when he could have left it directly underneath? We are also asked to believe – and depressingly many do – that having connected himself with the Ryder truck and the Murrah Building before the bombing by stopping at the gas station he then proceeded to 'get away' undetected in a highly visible yellow car travelling at nearly 100 miles an hour with expired licence plates. We are further asked to accept that when he was stopped by police for a traffic violation a man who had just murdered 168 people and maimed hundreds made no attempt to avoid arrest even though he was armed

and a highly trained soldier. McVeigh was arrested so conveniently for a traffic offence immediately after the bombing for the same reason that Lee Harvey Oswald was arrested in a cinema immediately after the Kennedy assassination and Osama Bin Laden was named as the culprit immediately after 9/11. They are the patsies required by Problem-Reaction-Solution to hide the real orchestrators so name your fake villain as fast as you can. Lee Harvey Oswald was a US agent who was placed in the right place at the right time (wrong for him) without being told exactly why he was there. He realised this after Kennedy was shot and he ran. When he was arrested he said he was a patsy, a stooge, and would have said so in court. This is why he was paraded in public through a parking lot to allow another government agent, Jack Ruby, to shoot him and kill the evidence (see *And The Truth Shall Set You Free*). Ruby was mentally 'assessed' by the same MKUltra psychiatrist Louis Jolyon West who 'assessed' McVeigh – when he wasn't killing elephants with LSD. In the same way, very possibly, McVeigh was a government stooge who parked the Ryder truck without knowing the full story. This would explain why he saw no problem in stopping at the gas station to ask the way to the Murrah building and why he made such a 'getaway' and offered no resistance to the police officer. It would further explain why witnesses saw another man with McVeigh and the Ryder truck who became known as 'John Doe 2'. This mystery man appeared briefly in news reports and was then forgotten. I present evidence shortly that the FBI have security video of 'John Doe 2' which they have kept from public view. McVeigh apparently said that he was not told what the project was really all about and had been trapped, 'framed', and made a patsy to cover up high-level US government complicity. Years later Terry Nichols would say that McVeigh misled him about the nature of what they were doing – which would make sense if McVeigh didn't know either. It would be the blind leading the blind. Your patsies don't have to know the real story – it is essential they *don't* – and you only have to make sure they are where they need to be to manufacture your story of fake villains and give cover to the real ones.

Father Bush and the Iraqi connection

I almost completed a section without mentioning the Bush family, but naturally that couldn't last. It will stagger Americans to learn that at the end of the Gulf War in 1991 President Father Bush arranged for around 4,000 officers from the military and intelligence agencies of Iraq, mostly from Saddam's Republican Guard, to relocate in the United States and 2,000 of these officers became resident in ... *Oklahoma.* Another 500 went to Lincoln, Nebraska. Father Bush arranged for their funding, housing and employment, and this was continued by Bill Clinton and Boy Bush. Jayna Davis, a former reporter with NBC affiliate KFOR-TV in

Oklahoma, worked tirelessly after the bombing to uncover the true story. In 1996 the ultra-Zionist *New York Times* bought her television station and stopped her reports, but she continued to uncover devastating information. She established that more than 70 witnesses saw McVeigh with other men and that more than 20 of these sightings involved people with Middle Eastern features. A sketch of a man with 'olive skin' seen with McVeigh was released by the FBI immediately after the bombing and this was 'John Doe 2'. Jayna Davis was represented by lawyer David Schippers, one of the lead investigators in the impeachment proceedings against Bill Clinton over allegations of perjury and obstruction of justice in 1998/99. Schippers would later represent FBI agents who said their investigations into terrorist suspects were blocked by their superiors before 9/11. He described how the FBI manipulated witness evidence relating to Oklahoma:

> Some of these people who gave affidavits were interviewed by the FBI during the course of the investigation. They were interviewed about the second person they saw and the agents tried to make them say that the second person was Nichols. Every single one of these people said absolutely not, it was a Middle Eastern type individual. Now, listen to this, none of those 302s [interview documents], none of those investigative reports, have ever surfaced.

Reporter Jayna Davis produced a detailed dossier and interviewed witnesses who said they would testify that they saw McVeigh with a former Iraqi soldier who lived in Oklahoma City at the time of the bombing. This man surrendered during the Gulf War and was resettled in the United States from a detention camp in Saudi Arabia. The FBI issued an All-Points Bulletin immediately after the blast for Middle Eastern-looking suspects seen fleeing the scene in a brown Chevrolet pickup with tinted windows and a bug shield. James Patterson, an editorial writer on the *Indianapolis Star*, remarked: 'Something here doesn't pass the smell test.' FBI agents seized all security camera footage in the area that would have shown what happened and who was involved – exactly what they did on 9/11. Their excuse was that the videos were 'part of the investigation' (the traditional excuse also used with 9/11), but TV reporter Brad Edwards located a source who had seen parts of them. Edwards presented a reconstruction for the UK's *Channel 4 News* of what his source claimed to have seen:

> The source said that the tapes show two men inside [the Ryder truck]. One strongly resembling Timothy McVeigh gets out of the driver's side, steps down, he then appears to have dropped something on the step up into the truck. He bends down and appears to pick something up off the step. Then he turns and

> walks directly across this street towards the General Electric building. All this time John Doe number 2 is still inside the Ryder truck's cab sitting on the passenger side.
>
> Time passes. The surveillance tape is time-lapse photography. Without knowing exactly the time interval between shots our source can't be sure how long John Doe number 2 sat in that cab. What was he doing all that time? Then the tape shows John Doe number 2 getting out of the passenger side of the Ryder truck. Again the tape shows that a bombing witness accurately described what happened next ... the tape shows John Doe 2 getting out, shutting the passenger side door. He steps towards the front of the truck and is momentarily out of the frame of the surveillance camera. But shortly he appears back in frame walking towards the rear of the truck, still on the sidewalk in the front of the Murrah Building.

The source said that 'John Doe' wore a baseball cap, was taller than the man resembling McVeigh, and had an olive complexion. This was supported by many witnesses, including a man interviewed with a blacked-out face and featured in the report by Brad Edwards:

> I was standing in the building and I looked out the window and I seen the Ryder truck and I seen a man get out of the Ryder truck. He was olive complexion and he was ... he had black curly hair. He was wearing a baseball cap, but his curls were sticking out of his hat. It was very short in the back, but you could still see the curls in his hair. He was not American, he was foreign, you could tell by his skin, his face, and the way his face was ...

Senator Charles Key, who helped to produce a report on Oklahoma, said his understanding was that there is a video showing McVeigh and John Doe 2 getting out of the Ryder Truck and into another pick up. 'Where is that video ... are we going to get to see it?' he asks. Er, you must be joking, the FBI replies. Incidentally, I was on a radio show in McVeigh's home town in America in 2002 talking about the way the FBI had refused to release these surveillance camera tapes. A bloke claiming to be a former FBI agent came on the line saying loudly and vehemently that he worked on the case and there were no surveillance tapes. It took a member of the public to come on to tell him that not only did the tapes exist the FBI had admitted this on the national news. The FBI said in 2001 the tapes were not going to be released at all because of 'national security' (the security of the official lie). When McVeigh went on trial the FBI did not use the tapes in prosecution because they would have destroyed its story. If only McVeigh and no one else had been on the tapes the world would have seen them within hours of the blast. Rule number one of cover stories: if letting the public see something that

would support your cover story you let them see it. If the public seeing something would destroy your cover story you don't let them see it. Surveillance cameras are part of the Hidden Hand system of control, but they are also a problem for them when they carry out their public operations. Therefore we have a clear red flag test on these occasions – are we allowed to see the surveillance camera tapes of the scene in question? There were 17 surveillance cameras working 24 hours a day along the route of the last journey taken by Princess Diana between the Ritz Hotel and the Pont de l'Alma tunnel in Paris in 1997, but at that time, of all times, every single one of the *17 cameras* was 'not working' – or so we are told. This scenario has been repeated again and again including with the London bombings of 2005, the police killing of an innocent Brazilian electrician shortly afterwards and most certainly with 9/11. James Patterson of the *Indianapolis Star* described how critical evidence that several Middle Eastern men may have been connected to the Oklahoma bombing appeared to have been kept from the public by the FBI. He said:

> Officially, the FBI has dismissed the possibility of a John Doe No. 2, an olive-skinned man whose sketch they released immediately after the bombing, or other suspects. But current and former FBI agents in Oklahoma City say they received documents pointing to another person or even a cell of Middle Eastern operatives. At a minimum, Congress should question one former FBI agent who says he obtained 22 affidavits and more than 30 witness statements describing sightings of Middle Easterners with McVeigh.

Hoppy Heidelberg, a prominent Oklahoma horse breeder, was dismissed from the grand jury 'investigating' the case when he went public with his complaints that the 'investigation' was a sham. He said he was not allowed to ask for witnesses, even though it was his lawful right, and one of the areas he wanted to explore was the reports about 'John Doe 2'. He said he was visited by FBI agents brandishing guns who said that if he knew what was good for him he would shut up. Apparently local, state and federal police detained dozens of Middle Eastern men after the bombing as they tried to leave the United States and these included members of the Iraqi Republican Guard brought to the US by Father Bush. Some reports claim that Bush-buddy President Clinton insisted they were released despite being found in possession of bomb-making materials. You are going to see that this behaviour was repeated in the aftermath of 9/11. Do these 'Middle Eastern men' brought to the United States from Saddam's Iraq by Father Bush connect with the 'Middle Eastern men' that form the basis of the 9/11 story? They had enough to choose from – *4,000* – and it would make far more sense than the official make-believe. David Schippers, lawyer for

Oklahoma reporter Jayna Davis, said the same team that carried out the Oklahoma bombing was also responsible for the September 11th attacks. He said that he understood a former Iraqi Republican Guard officer called Al-Hussaini Hussain, who had been mentioned by Jayna Davis as a possible John Doe 2, later worked at *Boston Logan Airport where two of the 9/11 flights took off.* Larry Johnson, a former Deputy Director of the State Department's Office on Counterterrorism, told Fox News the same. He said he believed that Al-Hussaini Hussain was John Doe 2 in Oklahoma and he added: 'The thing that really concerns me relative to 9/11 [is that] when he left Oklahoma, around 1996 and 1997, he went to work at Logan Airport in Boston. We don't know where he is now.' The involvement of Father Bush's Iraqi soldiers is highly possible – if not probable – in the 9/11 story, but only at a bit-part level. The force really orchestrating everything will become obvious much later in the book. Jayna Davis has testified under oath before a grand jury about the Oklahoma bombing and in 1997 she attempted to hand over a large part of her evidence to the FBI which didn't want to know. The Deep State agency showed a similar lack of interest when offered information about Osama Bin Laden which would have dismantled the official 9/11 story. Former FBI agent Dan Vogel offered to testify at a hearing of Terry Nichols, the man convicted with McVeigh, to say that he had received from Jayna Davis affidavits from witnesses who had seen McVeigh with Middle Eastern men in the months, weeks and days before the attack and on the morning of the bombing. Vogel wanted to testify that he had sent the package to FBI agent Henry C. Gibbons and yet the witness statements were not made public. However, a judge ruled that Vogel could not make this devastating testimony because the [In]Justice Department did not want the evidence to be heard and would not authorise the testimony. The Oklahoma bombing was a blueprint for how 9/11 was covered up by the same people.

Waco revisited

The FBI and the Bureau of Alcohol, Tobacco and Firearms (ATF) were lead players in the mass murder of men, women and children at the ranch or 'compound' of the Branch Davidians community, a Bible-based apocalypse cult located 13 miles from Waco, Texas, on April 19th, 1993. The Oklahoma bombings were claimed to be retaliation two years later to the day for what happened to the Davidians. The ranch was known as Mount Carmel from the reference in the Old Testament to a mountain of that name in Israel. Authorities claimed the group were stockpiling illegal weapons and the ATF secured a warrant to search the compound and arrest the group's leader David Koresh and some other members. If they had something on Koresh they could have arrested him months earlier when he often left the ranch, but these deeply mentally disturbed

psychopaths wanted a ritual sacrifice by bullets and fire. Perhaps not coincidentally Adolf Hitler and the Nazis, serious malevolent occultists, chose the same day, April 19th, to burn the Jewish ghetto in Warsaw in 1943. They torched the ghetto block by block and then flooded and smoke-bombed sewers when Jews tried to use them to escape. What the ATF and FBI did at Waco was pretty much the same. April 19th and 20th are days of blood sacrifice through fire according to satanic occult law followed so slavishly by the Hidden Hand and its agents. April 19th is the first day of a 13-day satanic ritual period dedicated to the fire god, Baal, Molech/Nimrod, also known in Rome as Saturn, and sacrifice by fire on April 19th/20th has an emphasis on children – as with the Oklahoma bombing on April 19th when 19 children died mostly in a day care centre and the 26 dead children at the Branch Davidian compound on April 19th. The Columbine High School shooting at Littleton, Colorado, was on April 20th, 1999, and also involved the ATF and FBI. I cannot stress enough the obsession these people have with occult ritual and its calendar and I explore this in detail in *The Biggest Secret* and other books. Wars to these satanic psychopaths are mass blood sacrifice rituals. The ATF eventually tried to raid the Davidian compound in a seriously over-the-top manner that included three Army National Guard helicopters and an 80-vehicle convoy stretching back a mile. The raid was resisted and a siege began with the authorities having little interest in negotiation, a fact later criticised by an [In]Justice Department report. Janet Reno, Clinton's recently-appointed Attorney General, gave the go-ahead for a final assault on the Mount Carmel compound using *tanks and gas* to force them out on April 19th. Her main excuse was that children were being abused and Reno's solution was to *kill 26 of them.* The FBI Hostage Rescue Team would later deny they had such evidence of child abuse. Two documentaries, *Waco: The Rules of Engagement* (1997) and *Waco: A New Revelation* (1999) devastatingly exposed calculated mass murder by the FBI and ATF and the involvement of the highest levels of the US government. *The Rules of Engagement* won an Emmy award for best investigative journalism. *Waco: A New Revelation* was narrated by former FBI Special Agent Dr Frederic Whitehurst who detailed the criminal manipulation of evidence and stunning 'incompetence' at the FBI crime laboratory. The documentaries reveal how the authorities used 'flash-bang' devices to start the fire that engulfed the Branch Davidians after filling their compound with high explosives and poisonous gas. The devices were found at all locations where the fires started, but were claimed to have been silencers and gun parts. The documentaries show how 'shape' charges were placed by military operatives at the top of a concrete structure that became a 'bunker' where women and children sought to escape from lethal concentrations of CS gas. The 'shape' charges blew a hole in the concrete

roof killing everyone inside and caused the partial disintegration and fusing together of some of the bodies of the women and children because of the pressure and heat from the blast. Military explosives expert General Benton Partin supported this version of events and shape charges were also identified by some researchers in relation to the Murrah Building in Oklahoma. Gene Cullen, a CIA service officer, was among the sources that confirmed how Delta Force, an elite (and brain dead) unit of the US military, was at the compound during the 'siege'. Delta Force fired on anyone who tried to flee the compound through the only escape route and the Davidians either died this way or in the inferno. The FBI claims to have tapes of the Davidians planning to set the compound alight which they have never produced because they are lying. That's what FBI chiefs do – lie. It's their job (see 9/11). Cult leader David Koresh was among 76 Davidians who died that day including all those children. What were the consequences for the FBI and ATF after Waco? *Their funding was increased.* After Oklahoma? *Same.* After September 11th? *What do you think?*

Pearl Harbor – the first 9/11

President Boy Bush called the attacks of September 11th 'our Pearl Harbor' and 'the Pearl Harbor of the 21st century' and for once he was right although not in the way he wanted us to believe. Months earlier a Hollywood blockbuster movie had been released amid widespread promotion that marked the 60th anniversary of the attack by the Japanese Air Force on Pearl Harbor, Hawaii, in 1941. This was the attack that took the United States into the Second World War. To this day popular accounts of history portray President Franklin Delano Roosevelt, a Bush family relative, as a man who 'strove in vain to ward off war' and this is yet another gross misrepresentation. The Roosevelts and the Delanos are Hidden Hand bloodline and I mentioned earlier that President Roosevelt's grandfather, Warren Delano, was a major operator in the drug-running operation of the Russell family, founders of the Skull and Bones Society. Delano also worked in the drugs networks of the British government in Asia, China and the Far East in general. When Franklin Roosevelt was seeking re-election as president in 1940 he repeated the same mantra:

> ... while I am talking to you, mothers and fathers, I give you one more assurance. I have said this before but I shall say it again and again and again; your boys are not going to be sent into any foreign wars!

Roosevelt even had the nerve to add: 'You can therefore nail any talk about sending armies to Europe as deliberate untruth.' He was re-elected because that is what people wanted to hear and this is another

example of how psychopaths are pathological liars. Roosevelt, a Hidden Hand stooge to his fingertips, knew that the sons and many daughters of America were going to war again across the ocean very soon. What he needed was an event of such magnitude that America would go to war while, at the same time, Roosevelt would be cleared of any responsibility for going back on his constantly-repeated pledge in the election campaign. The Hidden Hand plan, known all along by Roosevelt, was to engineer an attack on the United States that would so anger public opinion that people would agree to go to war against the aggressor and also join the European conflict. Roosevelt would have been well schooled in manipulating public opinion with engineered events as a member of President Woodrow Wilson's administration in the First World War. I have described in detail in *And The Truth Shall Set You* Free how America was manipulated into that so-called 'Great War' by ultra-Zionist agents of the Rockefellers and Rothschilds. Senator Gerald Nye of North Dakota said in 1939 that he had seen a series of volumes called *The Next War*. These included one entitled *Propaganda in the Next War* and they were written before there was any talk of a Second World War. The material, Nye revealed, included the plan for manipulating public opinion into accepting American involvement in a second global conflict which the documents revealed was coming. Wars don't happen spontaneously – they are long planned. This *Propaganda in the Next War* document originated in Britain (a global Hidden Hand centre). It said:

> To persuade her [the United States] to take our part will be much more difficult, so difficult as to be unlikely to succeed. It will need a definite threat to America, a threat moreover, which will have to be brought home to every citizen, before the Republic again take arms in an external quarrel ... 'The position will naturally be considerably eased *if Japan were involved*, and this might and probably would bring America in without much further ado. [My emphasis.]
>
> At any rate, it would be a natural and obvious effect of our propagandists to achieve this, just as in the Great War, they succeeded in embroiling the United States with Germany ... Fortunately with America, our propaganda is on firm ground. We can be entirely sincere, as our main plank will be the old democratic one. We must clearly enunciate our belief in the Democratic form of government, and our firm resolve to adhere to ... the old Goddess of Democracy routine.

Sound familiar in the months after September 11th and so many times since? The Council on Foreign Relations (CFR) is a Hidden Hand front organisation in the United States established by the Rockefeller/Rothschild-connected elite in 1921 which has driven so

much of American foreign policy to this day. The CFR is part of a web of satellite organisations that I highlighted earlier spawned by a London-based secret society called the Round Table which includes the Bilderberg Group, Trilateral Commission, London-based Royal Institute of International Affairs (also known as Chatham House), and the Club of Rome which was specifically created in the 1960s to exploit fears about the environment to justify the transformation of human society. The Council on Foreign Relations devised the plan to antagonise Japan to such an extent that it would attack the United States so providing the excuse for the US to enter the Second World War with Roosevelt in the clear despite his election promises. CFR founder Henry Stimson, Roosevelt's Secretary of War, wrote is his diary: 'We face the delicate question of diplomatic fencing to be done so as to be sure that Japan is put into the wrong and makes the first bad overt move.' The CFR's War and Peace Studies Project sent a memo to Roosevelt suggesting that aid be given to China during its conflict with Japan and that Japanese assets be frozen in the US, a trade embargo imposed and Japan refused access to the Panama Canal. George Morgenstern's excellent book, *Pearl Harbor, The Story of the Secret War*, reveals how Japan was goaded to attack Pearl Harbor on December 7th, 1941. Roosevelt, who was wholly-owned by the Council on Foreign Relations, set about provoking Japan into an attack with a number of measures and sanctions that included targeting Japanese oil supplies. The Hidden Hand circle controlling Donald Trump have employed the same techniques against Russia, China and other targets. Roosevelt's administration had been intercepting and decoding secret Japanese messages for four years before the Pearl Harbor attack. They knew the Japanese intended to alert diplomatic centres around the world of a decision to go to war through a false weather report during the daily Japanese-language short-wave news broadcast. The forecast of 'east wind rain' indicated war with the United States; 'west wind clear' would mean a decision to go to war with Britain, and British and Dutch colonies in the east; 'north wind cloudy' meant war with Russia.

A Congressional investigation heard in 1945 that messages indicating a decision to go to war with the United States and Britain, though not with Russia, were intercepted and decoded on December 3rd, 1941 – four days before Pearl Harbor. These messages subsequently went 'missing' from Navy files. Other decoded messages gave Roosevelt prior warning of the attack, but the public were not told and nor were the sitting targets in Hawaii. Joseph Grew, US Ambassador to Tokyo, had written to Roosevelt on January 27th, 1941, to say that Pearl Harbor would be the first target in the event of war and Roosevelt had information in total from eight different sources indicating a probable attack. Historian Robert Stinnett revealed the results of 17 years of

research into the Pearl Harbor conspiracy in his book, *Day of Deceit: The Truth About FDR and Pearl Harbor.* His research included more than a million documents obtained under the Freedom of Information Act which show that prior knowledge of Japanese plans was kept from US commanders in Hawaii – the very same men who were later made scapegoats for what happened. Stinnett uncovered a memo written on October 7th, 1940, by Lieutenant Commander Arthur McCollum who headed the Far East section of US Naval Intelligence. McCollum confirmed the policy of systematically provoking the Japanese to attack the United States in order to provide the political and public motivation for the declaration of war. The attack was purely to manipulate American public opinion into agreeing to take part in another Hidden Hand war that had long been planned and no one was more duped than the Japanese. They had been tricked into attacking the US both by the Americans and the Germans. Nazi Foreign Minister Joachim von Ribbentrop had been pressing the Japanese to attack the United States. Hitler had added to the Japanese resolve on December 6th, 1941, by indicating that German forces were about to enter Moscow. On December 8th, the day after Pearl Harbor, the Germans were found to be in retreat from the Russian front. More than 3,000 people were killed at Pearl Harbor, about the same as the official death toll on September 11th, and they were still more victims of the Hidden Hand agenda.

The network that coldly allowed 3,000 Americans to be killed at Pearl Harbor to secure a political end would not kill 3,000 others on 9/11 to do the same?? Allen Dulles, the Hidden Hand agent, Hitler supporter and Rockefeller cousin, was appointed to the staff of the Office of the Coordinator of Information the day after Pearl Harbor. This later became the Office of Strategic Services (OSS) and then the CIA which Dulles would lead. The Pearl Harbor plan worked brilliantly as public opinion reacted exactly as required to an attack on American soil – or soil the US had stolen from native Hawaiians. Now the United States was involved in another war in Europe and 'our boys' were on their way across the ocean again, many of them to die, despite Roosevelt's election promises to their mothers and fathers. Roosevelt was in the clear, though, because, well, circumstances had changed. This is how Problem-Reaction-Solution works. You get what you want with none of the responsibility. Winston Churchill, the Hidden Hand bloodline Prime Minister in Britain and a relative of Roosevelt and the Bushes, said of the news: 'That is what I have dreamed of, aimed at, and worked for, and now it has come to pass.' He might have added: 'And I always knew it was going to.' The influence on Roosevelt of the Hidden Hand Council on Foreign Relations, with its membership throughout government, banking, commerce, media and military, cannot be overestimated. Roosevelt's son-in-law, Curtis Dall, said:

> For a long time I felt that [Roosevelt] ... had developed many thoughts and ideas that were his own to benefit this country, the USA. But he didn't. Most of his thoughts, his political 'ammunition', as it were, were carefully manufactured for him in advance by the Council on Foreign Relations-One World Money Group. Brilliantly, with great gusto, like a fine piece of artillery, he exploded that 'ammunition' in the middle of an unsuspecting target, the American people – and thus paid off and retained his internationalist support.

A committee known as the Informal Agenda Group packed with members of the CFR wrote the proposal for the United Nations and handed it to Roosevelt who made it public on June 16th, 1944, as if he was the architect. Henry Louis Mencken wrote in *The American Language* that the term 'United Nations' was first mentioned by Roosevelt in a meeting with Churchill at the White House in December 1941 – the month of Pearl Harbor. Some 74 members of the Council on Foreign Relations were in the US delegation at the founding meeting of the United Nations which was created from the start to be a stalking horse for the Hidden Hand's planned world government. The UN building in New York today stands on land donated by the Rockefeller family at a location formerly occupied by a slaughterhouse (how apt). The Rockefellers were also responsible for two other famous buildings in Manhattan ... the twin towers of the World Trade Center.

Gulf of Tonkin

The 'incident' that triggered the full-blown Vietnam War (plus the related conflicts in Laos and Cambodia) was another example of P-R-S. It was also confirmation that often you don't even need a real problem only a public perception of one – as with 'weapons of mass destruction' in Iraq. This is the technique that I call NO-Problem-Reaction-Solution. President Lyndon 'Brown & Root' Johnson, the man who replaced (without an election) the assassinated John F. Kennedy, announced on August 4th, 1964, that Communist North Vietnam had attacked American destroyers in the Gulf of Tonkin off the Vietnamese coast. The official story claimed a US destroyer on 'routine patrol' was targeted by North Vietnamese torpedo boats in an 'unprovoked attack' on August 2nd and that this action was repeated against US ships on August 4th. The media, as usual, reported this as fact simply because Johnson and the Pentagon said it was. The truth is there was no second attack on August 4th and the first was not 'unprovoked' against a US ship on 'routine patrol' as many studies and investigative books have revealed. The destroyer *Maddox* was actively involved in intelligence gathering to support attacks on North Vietnam by the US-backed South Vietnamese Navy and Laos Air Force. Captain John J. Herrick, head of the task force

in the Gulf of Tonkin, sent cables to Washington that talked of 'freak weather effects' and an 'overeager sonarman' who was 'hearing [his] ship's own propeller beat'. Squadron Commander James Stockdale, a famous prisoner of war and later a vice-presidential candidate, was flying over the scene that night. Years later he said that he had 'the best seat in the house to watch that event'. He said there was no attack by North Vietnamese gunboats: '... Our destroyers were just shooting at phantom targets – there were no PT [North Vietnamese] boats there ...There was nothing there but black water and American fire power.' President Johnson said the year after he had used this non-existent attack to escalate the conflict into the Vietnam War: 'For all I know, our Navy was shooting at whales out there.' Tom Wells, author of *The War Within: America's Battle Over Vietnam*, said the government was able to deceive the American people because of the media's 'almost exclusive reliance on US government officials as sources of information' and their 'reluctance to question official pronouncements on national security issues'. This happens every time and never more so than after 9/11. Daniel C. Hallin wrote in *The Uncensored War: The Media And Vietnam* that journalists had a great deal of information available that contradicted the official version of events in the Gulf of Tonkin, but it was ignored. He said that it was '... generally known ... that "covert" operations against North Vietnam, carried out by South Vietnamese forces with US support and direction, had been going on for some time.' Journalists and media watchers Jeff Cohen and Norman Solomon described the responsibility of the media in what followed the non-incident in the Gulf of Tonkin:

> By reporting official claims as absolute truths, American journalism opened the floodgates for the bloody Vietnam War. A pattern took hold: continuous government lies passed on by pliant mass media ... leading to over 50,000 American deaths and millions of Vietnamese casualties.

Journalists, or those who pass for them, love to deny responsibility for their actions. They say 'we are just the messenger; don't kill the messenger because you don't like the message'. This is bullshit. If the messenger accepts the message without question they cease to be some neutral, 'independent' courier for information and allow themselves to become an essential tool in the propaganda war against the population. At this point, which was reached a long time ago, they are not 'journalists' at all. They are PR people for the official version of everything – propaganda tools of the Hidden Hand which ultimately owns them. President Johnson went on national television to lie about the Gulf of Tonkin and announce 'retaliatory air strikes' that became the insane Vietnam War. The media praised his speech and said the North

Vietnamese had only themselves to blame. Politicians are overwhelmingly influenced by the media, their perceived public image and financial backers and only two votes were cast against the Gulf of Tonkin Resolution that went through Congress three days after a US ship was *not* attacked by the North Vietnamese. Another lie = another war.

One interesting aspect of the Gulf of Tonkin was the part played by Rear Admiral George Stephen Morrison who was in command of the Carrier Division during the controversial 'incident'. He was the father of Jim Morrison, lead singer of The Doors, one of the most iconic 'anti-establishment' bands in the Flower Power 'counter-culture' era of the 1960s. It is simply fantastic to realise how many key bands and artists central to the 60's 'revolution' came from military-intelligence families in the Washington DC/Pentagon area and how they suddenly headed in the same period to California and especially a location outside Los Angeles called Laurel Canyon. From there the 'counter-culture' was basically launched on the world and one of the effects with its free-love, 'drop out' drug culture was to hijack the anti-Vietnam War movement and allow the carnage on both sides to continue for much longer than a feet-on-the-ground response may have done. Copious amounts of the mind-altering drug LSD that formed such a foundation of Flower Power came courtesy of the CIA. I can most strongly recommend the book by the late David McGowan, *Weird Scenes Inside the Canyon: Laurel Canyon, Covert Ops & the Dark Heart of the Hippie Dream.* I loved 60's music, but nothing, but *nothing*, is what it seems.

History is awash with Problem-Reaction-Solution events set up to justify a course of action that could not otherwise be justified. Another was when the Nazis burned down the Reichstag parliament building in Germany and blamed others for this mega-arson. Adolf Hitler became Chancellor of Germany on January 30th, 1933, and on February 27th the parliament building was torched. The attack was blamed on Marinus van der Lubbe, a mentally-challenged Dutch communist who was later executed for a crime he did not commit. Hitler invoked Article 48 of the Weimar Constitution the day after the fire which allowed civil liberties to be suspended during a 'national emergency'. This Decree of the Reich President for the Protection of the People and State brought an end to freedom of speech and the press, the right of assembly and association, privacy in postal and electronic communications, protection against unlawful searches and seizures, individual rights to property and the rights for states to be self-governing. A further decree created federal 'police' agencies, the SS or 'Special Security' and the SA or 'Storm Troops'. The rest, as they say, is history and look at what has happened as a result of 9/11. What Hitler introduced to fight 'communist terrorism' has been repeated by American presidents and what has been

signed into law since the September 11th attacks. Problem-Reaction-Solution is a technique that spans the entirety of known human history and it is time to get wise to it.

Okay, now with all this essential background laid out we shall turn our attention to what happened and didn't happen when America awoke to the clear blue skies of September 11th, 2001. Strap in – it's an extraordinary story that will get progressively more extraordinary the deeper we go.

CHAPTER 5

What didn't happen

If the freedom of speech is taken away, then dumb and silent we may be led, like sheep to the slaughter – George Washington

The attacks of September 11th and their consequences of war and deletion of freedom are a textbook example of Problem-Reaction-Solution. This becomes obvious when you observe the blatantly mendacious official story and what it has been used to justify. I will briefly outline in this chapter the foundations of the utter claptrap we have been asked to believe and then begin to take it apart lie by lie. I should stress that many of the 'facts' in this official version depend on which spokespeople or agency you speak to because they have contradicted each other over and over.

The US government and its 'security' agencies like the CIA and FBI say they had no idea that a terrorist attack was being planned as tens of thousands of people began their working day in the office complexes of Manhattan and at the headquarters of the American military at the Pentagon across the Potomac River from Washington DC. These 'security' agencies employed together some 100,000 people in the United States and worldwide and devoured tens of billions from US taxpayers every year (and that's only the official funding). Yet they claim not to have uncovered one single piece of information to suggest that '19 Arab terrorists' were planning to simultaneously hijack four US commercial aircraft in American airspace and crash them into the very symbols of US military and financial power. The first they knew, so the story goes, was when it was far too late to respond. This is an outrageous lie to be filed with all the rest under 'n' for nonsensical. Anyway, this is the official fairy tale that they want us to believe:

Arab terrorists answering to al-Qaeda 'terror-chief' Osama bin Laden conspired to hijack four commercial aircraft in United States airspace to fly them into iconic American landmarks over a period of some two hours. The 19 hijackers included pilots who took over the controls and gave their lives – and everyone else's – for the glory of Allah. At 7.59am that Tuesday morning, American Airlines Flight 11, a Boeing 767, took off from Logan International Airport in Boston heading for Los Angeles. On board were 81 passengers, two pilots and nine flight attendants.

Following along the runway soon afterwards was United Airlines Flight 175, another Boeing 767, which departed at 8.14am, also for LA. This flight was carrying 56 passengers, two pilots and seven flight attendants. At 8.01am, and more than 200 miles to the south, United Airlines Flight 93 pulled back from the gate at Newark, New Jersey, and the Boeing 757 began its routine journey across America to San Francisco with 38 passengers, two pilots and five attendants. The take-off was delayed apparently by runway congestion and Flight 93 did not leave the ground until 8.42. Meanwhile, at 8.20, American Airlines Flight 77 was leaving Washington's Dulles International Airport for Los Angeles with 58 passengers, two pilots and four attendants aboard a Boeing 757.

American Airlines Flight 11

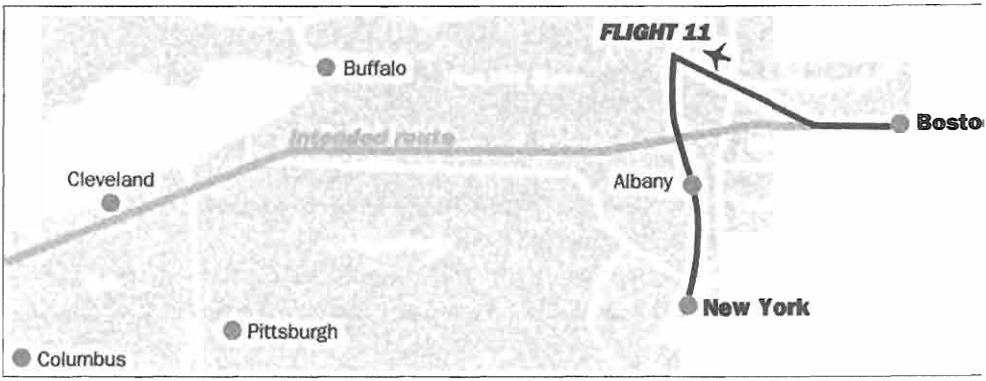

The official story claims that shortly after Flight 11 took off from Boston the plane was hijacked by Arab terrorists using small knives and box cutters. The pilot and co-pilot were John Ogonowski and Tom McGuinness, a former F-14 Navy Tomcat pilot described as 'big and burly'. About 14 minutes into the flight they were instructed by air traffic control to make a 20-degree turn to the right. The pilot replied in the normal way of ground to air communications by repeating the instruction and giving the flight code: '20 right, AAL11'. Very soon after this, the pilot was asked to climb to 35,000 feet, but there was no response. The following is claimed to be a transcript of the exchange published in *The New York Times* that took place from approximately 8.13am:

Boston Control Center: AAL11 turn 20 degrees right.

AAL11: 20 right AAL11.

Controller A: AAL11 now climb maintain FL350 [35,000 feet].

Controller A: AAL11 climb maintain FL350.

Controller A: AAL11 Boston.

Controller A: AAL11, ah, the American on the frequency how do you hear me?

Controller B: This is Athens.

Controller A: This is Boston. I turned American 20 left and I was going to climb him; he will not respond to me now at all.

Controller B: Looks like he's turning right.

Controller A: Yeah, I turned him right.

Controller B: Oh, O.K.

Controller A: And he's only going to, um, I think 29.

Controller B: Sure that's fine.

Controller A: Eh, but I'm not talking to him.

Controller B: He won't answer you. He's nordo [no radar] roger. Thanks.

So the first sign of a problem on 9/11 was shortly after 8.13am and at 8.24am a controller is officially reported to have heard a voice from the cockpit which said:

> We have some planes. Just stay quiet and you will be okay. We are returning to the airport. Nobody move.

The controller is said to have replied: 'Who's trying to call me?' There was no response. This was another 'radio transmission' reported to have been heard by controllers at 8.33am:

> Nobody move please. We are going back to the airport. Don't try to make any stupid moves.

Two minutes later another instruction was heard:

> Everything will be okay. If you try to make any moves, you'll endanger

yourself and the airplane. Just stay quiet.

If all this is true the pilots or 'hijackers' had switched on the microphone in the cockpit, which, the official version says, allowed air traffic controllers to hear the hijackers. Strangely, the four-digit alert code that warns the ground that a plane has been hijacked was never sent and that's the first thing a pilot is meant to do in such circumstances. Even more inexplicably no hijack code was sent by any of the four 9/11 aircraft. The official story says there was only one further contact between Flight 11 and air traffic control. This was when controllers were asked for a route, or air corridor, to John F. Kennedy International Airport in New York, although by whom is not clear. The transponder, or IFF beacon, which allows an aircraft to be more easily tracked on radar and supplies detailed information, was switched off at 8.20am and Flight 11 turned sharply and headed for New York. Losing the transponder makes it harder to track a plane with the more basic conventional radar that bounces a signal off the body of the aircraft, but it is still trackable so long as it is not blocked by mountains or low altitude. Without a transponder signal the plane's location can be tracked although not its height or identity.

We are told that flight attendant Madeline Amy Sweeney (known as 'Amy'), a 35-year-old mother of two, made calls from the plane and spoke to American Airlines Flight Services Manager Michael Woodward at Boston Logan Airport who had known her for ten years. She said hijackers had stabbed two flight attendants, we are told, and that 'a hijacker cut the throat of a business class passenger and he appears to be dead'. She added that terrorists 'had just gained access to the cockpit'. This begs the question of why the pilots had not punched in the hijack code of 7500 (known as 'squawking') if things were happening on the plane before the hijackers gained entry to the cockpit. The action takes two seconds and this would have alerted air traffic controllers to what was going on, but none of the pilots initiated this absolutely basic hijack procedure. Sweeney first spoke with Evelyn Nunez, a passenger service agent for American Airlines, then to staff assistant James Sayer before the most publicised of her conversations with Michael Woodward. An FBI media report said the men were storming the front of the plane even as Sweeney was relating to Woodward details about the hijackers. If all this was happening on the plane why no hijack code from the cockpit and why wasn't the cockpit door immediately secured from the inside? According to Woodward when the plane changed direction and began to descend Sweeney called the cockpit and got no reply. Sweeney told James Sayer the plane was over New York when at that time it was still around 150 miles from the city. She is reported to have told Woodward the seat numbers of the hijackers and that the plane was going down.

Her final words were given as: 'I see water and buildings. Oh my God. Oh my God.' I met with Michael Woodward at Boston Logan Airport when I was researching *Alice in Wonderland and the World Trade Center Disaster* but he said he could add nothing to what had been reported.

American Airlines later released an account of a conversation it says took place during the flight between attendant Betty Ong and airline staff on the ground. They say that Ong pressed number 8 on a seatback Airfone and got through to an American Airlines reservations agent who called the system operations control centre in Fort Worth, Texas. Airfone was an air-ground radiotelephone service embedded in seatbacks and marketed under the names Airfone, GTE Airfone and Verizon which allowed passengers to make in-flight calls. Ong is said to have made her call at 8.27am which was about twelve minutes after the cockpit first failed to respond to air traffic instructions. She said she was on 'Flight 12' before correcting to Flight 11. Amy Sweeney also said 'Flight 12' in her call from the plane to American Airlines passenger service agent Evelyn Nunez. Sweeney then called Flight Services Manager Michael Woodward and in his notes taken at the time the flight number 12 is overwritten with 11 suggesting a third mention of 'Flight 12'. Craig Marquis, the American Airlines manager on duty, said that Betty Ong told him that two flight attendants had been stabbed and one was being given oxygen. A passenger had been slashed in the throat and looked dead and the hijackers were in the cockpit. She said passengers had been sprayed with something that made her eyes burn and she was having difficulty breathing. Ong reported there were four hijackers (not the five the FBI claims) and she said they were in the first-class seats, 2A, 2B, 9A, and 9B. These numbers were slightly different to those given by attendant Sweeney and both were different to those given by the FBI. I asked the FBI in 2002 why there was a discrepancy and they said they could not answer questions because of the 'ongoing investigation'. I would have to apply through the Freedom of Information Act in years to come to find the information I wanted, a spokesman said. Craig Marquis asked Betty Ong if the plane was descending. 'We're starting to descend. We're starting to descend,' she is said to have replied.

At 8.46am, 48 minutes after leaving Boston, the official story says that Flight 11 crashed into the North Tower of the World Trade Center at the 96th of the 110 floors. Some may question why I am saying 'the official story says' Flight 11 struck the building when everyone saw that this was the case. But was it? The building was hit, yes, of course, but was the impact from Flight 11? There is much to question about that. The FBI later listed five hijackers on Flight 11 although two separate attendants on the plane both said four. I will use 'hijacker' names and spellings from the official 9/11 Commission report into the attacks published in 2004 because names have come and gone and varied in spelling. Among

those listed by the FBI as a hijacker of Flight 11 was Egyptian Mohamed Atta who is claimed to have been at the controls and the overall leader of the 9/11 terrorists. Other alleged hijackers on Flight 11 were named as Saudi Arabians Abdulaziz al-Omari, Wail al-Shehri, Waleed al-Shehri and Satam al-Suqami.

United Airlines Flight 175

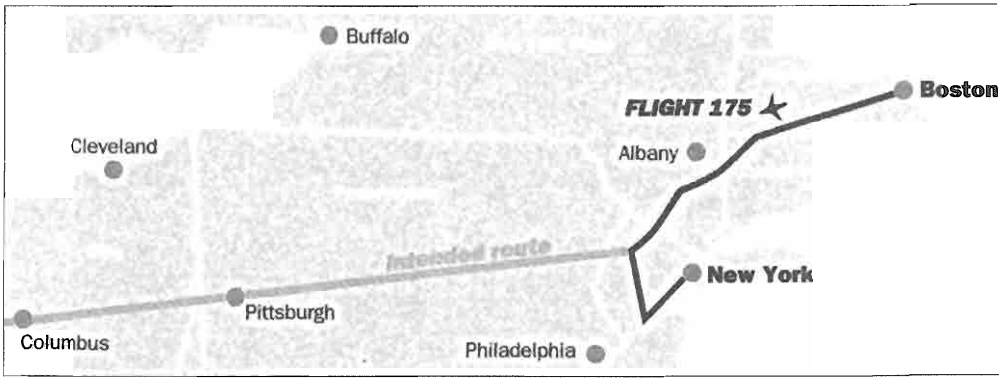

Captain Victor J. Saracini, aged 51, and 38-year-old first officer Michael R. Horrocks were at the controls of Flight 175 when it pushed back from Gate 19 at Boston's Logan Airport. This was seven gates along from Flight 11 which had left from Gate 26 about 15 minutes earlier. Official stories of what happened to the two planes are very similar. Flight 175 took off about 8.14am and nothing seemed amiss in the initial climb. At 8.37, with Flight 11 now known to be in trouble, a controller is said to have asked Saracini and Horrocks if they could see American Flight 11 ahead of them.

> **Controller:** Do you have traffic? Look at, uh, your twelve to one o'clock at about, uh, ten miles south bound to see if you can see an American seventy six seven out there please.

> **UAL175:** Affirmative we have him, uh, he looks, uh, about twenty, yeah about twenty nine, twenty eight thousand.

> **Controller:** United 175 turn five turn thirty degrees to the right. I [want to] keep you away from this traffic.

We are told there were no further communications between the ground and Flight 175 until 8.41, that's just five minutes before Flight 11 crashed into the World Trade Center. At this time one of the pilots on Flight 175 is reported to have called the controller and said, using the pilot code for Boston: 'We heard a suspicious transmission on our

departure from B-O-S. Sounds like someone keyed the mike and said: "Everyone stay in your seats".' Just 90 seconds after that communication with air traffic control Flight 175 veered off-course over northern New Jersey and headed south before turning back in a U-turn towards New York at some 400 miles an hour. Think about that – *90 seconds* between no problem and the plane being taken over by hijackers and flown off-course? Once again the transponder was switched off and there was no hijack code from the pilots. Howard Dulmage, an aviation attorney and pilot, said: 'You think four times in one morning one of those crews would have done that – that means they had to be upon them before they could react.' Well, that's one way of trying to explain it, but there are others as we'll see. I mean, *four* pilots on *four* planes did not do the first thing they are supposed to do when a hijack is happening? A female flight attendant is said to have spoken to a mechanic at an airline maintenance centre in San Francisco that takes in-flight calls from attendants reporting items that need replacing or repairing. We are told the mechanic reported the conversation at about 8.50am to Rich 'Doc' Miles, manager of the United Airlines System Operations Center in Chicago. Miles said the mechanic told him the attendant had said: 'Oh my God. The crew has been killed; a flight attendant has been stabbed. We've been hijacked.' The line then went dead. If this is all accurate then, according to the official timeline, the hijackers stormed the cockpit, killed the crew, took over the controls, a flight attendant rang the airline mechanic, and he called Rich Miles to report what she said – all in the space of around seven minutes. Messages were sent to the cockpit computer without reply. Passenger Peter Hanson, a software salesman, is said to have used his cell phone to ring his parents in Easton, Connecticut, at about 9am, some 45 minutes after take-off, and told her that hijackers with knives had taken over the plane and stabbed a stewardess. He is reported to have called again and before the line was lost he is said to have told his father Lee that the plane was 'going down'. Hanson's wife Sue, son Peter, and their two-year-old daughter Christine were also on the plane. At 9.03am what is a claimed to have been 'Flight 175' smashed into the South Tower of the World Trade Center on live television amid a fireball that no one who saw it will ever forget. The FBI said hijackers on Flight 175 were led by Marwan al-Shehhi of the United Arab Emirates who is claimed to have been a close friend and associate of Mohamed Atta. Others named are Fayez Banihammad (United Arab Emirates), Mohand al-Shehri (Saudi Arabian), Hamza al-Ghamdi (Saudi Arabian) and Ahmed al-Ghamdi (Saudi Arabian).

American Airlines Flight 77

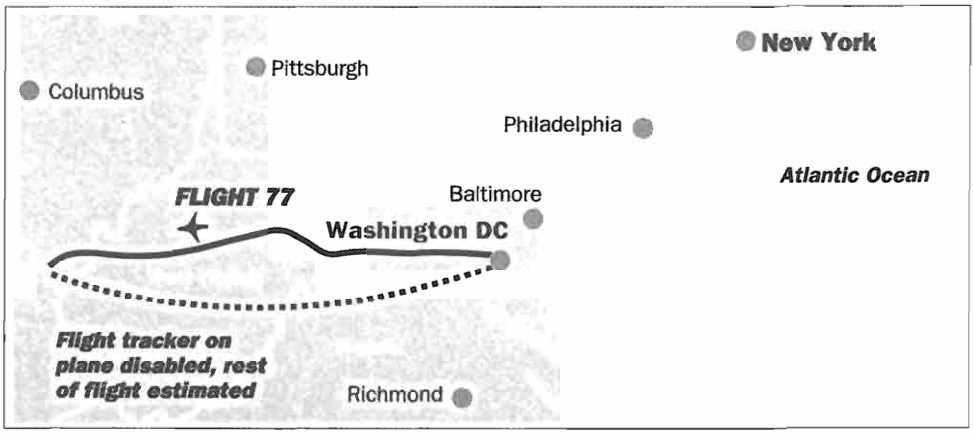

In the cockpit that morning as Flight 77 took off from Washington Dulles at 8.20am for Los Angeles were 51-year-old Captain Charles F. 'Chic' Burlingame III and first officer David Charlebois, who was 39. Burlingame was a graduate of the 'Top Gun' fighter pilot school and was such a perfectionist that one colleague said that he would carry a set of small paint brushes to dust the instruments. He had once worked at the Pentagon while a Navy reservist not far from where his flight would be said to have crashed that morning. Once again – *said* to have crashed? I'll explain as we proceed why there is good reason to question that claim. Burlingame's father was in the Navy and Air Force for 23 years and he and his wife are buried in the Arlington National Cemetery close to the Pentagon. Among the passengers on Flight 77 was a former American Airlines pilot called Wilson 'Bud' Flagg, a retired Navy Admiral once posted to the Pentagon; Brian Jack, a head of fiscal economics in the office of Defense Secretary Donald Rumsfeld at the Pentagon, where he had worked for 25 years; three engineers from plane makers, Boeing; and Barbara Olson, an on-air contributor to CNN and wife of the US Solicitor General, Theodore 'Ted' Olson. About 8.50am we are told that the cockpit stopped responding to controllers and six minutes later the transponder was turned off. A controller is said to have called the aircraft repeatedly asking: 'American 77 Indy radio check, how do you read?' At 9.02am, still nearly 40 minutes before impact, a controller is reported to have told American Airlines:

> We lost track control of the guy, he's in coast track [no transponder] but we haven't – we don't really know where his target is and we can't get a hold of him.

An 'unidentified' aircraft was then picked up on radar headed for

Washington at some 500 miles an hour. A military C130 took off from Andrews Air Force Base near Washington to identify the plane and reported it was a Boeing 767 (Flight 77 was a 757) moving low and very fast. This was Flight 77, or so we are told, with the Pentagon as its target. One of the alleged terrorists is said to have told passengers that they were going to die and they should phone their families. The official story claims that former federal prosecutor and CNN contributor Barbara Olson rang her husband, US Solicitor General Ted Olson, at his office in the [In]Justice Department at about 9.25am. He said he was watching television coverage of the World Trade Center when his secretary told him: 'Your wife is on the phone.' Olson said that Barbara, his third wife, told him that her plane had been hijacked using box cutters and knives. She said nothing about the number of hijackers or their nationality. There appear to be several published versions of their conversation and in one she said the pilots were with her at the back of the plane. Ted Olson told her about the World Trade Center and she said: 'What should I tell the pilot?' before the line went down. Olson said he called the [In]Justice Department command center staff who told him they had no idea the plane had been hijacked. His wife rang back and said the plane was circling, but the line was lost again, Olson said. We will see that the validity of Ted Olson's story is *seriously* open to question. He was the lawyer who argued the case before the Supreme Court for George W. Bush to be elected president after the Florida voting fiasco and he was a vehement advocate of Bush's anti-terrorism laws after September 11th. Ted Olson defended the United States before the Supreme Court in March, 2002, against charges that the CIA committed murder (which it does). He said that day:

> It's easy to imagine an infinite number of situations where the government might legitimately give out false information. It's an unfortunate reality that the issuance of incomplete information and even misinformation by government may sometimes be perceived as necessary to protect vital interests.

The official story claims that some *80 minutes* after take-off Flight 77 was seen approaching Washington DC. The plane is said to have made a sharp turn and descended very steeply from 7,000 feet to near surface level, crossed a highway and clipped street lamps, before striking a helicopter pad and exploding into a five-storey section of the Pentagon (one of the world's biggest buildings) at 9.43am. Defense Secretary Donald Rumsfeld was in an office at the opposite end of the Pentagon to the impact and such is the size of the Pentagon he said that he felt only a 'jarring thing'. We are told that a total of 190 people died in the plane and the Pentagon. The FBI said five hijackers were on board Flight 77 led by Hani Hanjour, a notoriously poor pilot of tiny one-engine aircraft,

who is said to have been at the controls when the wide-bodied jet struck the Pentagon. He was a Saudi and so were the other 'hijackers' claimed to have been on the plane: Khalid al-Mihdar, Majed Moqed, Nawaf al-Hazmi and Salem al-Hazmi.

United Airlines Flight 93

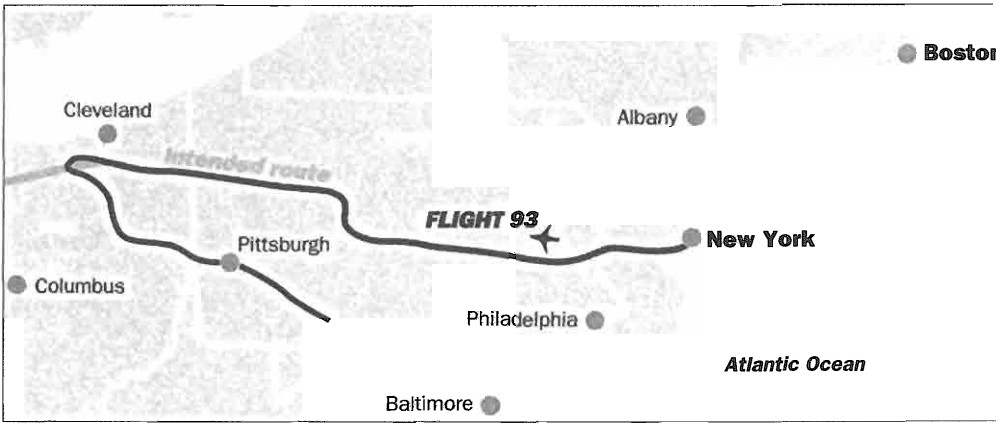

Flight 93 left Gate 17 at Newark International Airport at 8.01am bound for San Francisco and took off at 8.42am after its long delay. At the controls were 43-year-old captain Jason Dahl, from Littleton, Colorado, and the 36-year-old first officer LeRoy Homer of Marlton, New Jersey. They flew west over Pennsylvania and into northern Ohio where they received a message from United Airlines warning all pilots of a potential 'cockpit intrusion'. Flight 93 pilots confirmed receipt of the message and because of its late departure this was the only one of the four planes that had prior warning of possible trouble. It is said that Flight 93 was hijacked some 30 minutes after take-off, that's around 9.10am, and after two planes had crashed into the World Trade Center. The official story says that it was not until 9.40 that the transponder signal was lost. Hijackers are said to have forced their way into the cockpit and one of them warned he had a bomb attached to his waist. Hijackers told passengers they were taking the plane to another airport according to the official story. Air traffic controllers apparently said they heard two short radio transmissions around the time the 'cockpit was stormed' and in one they heard a pilot say: 'Get out of here'. An unnamed government official quoted in the media said there were at least four radio transmissions in which the phrases 'bomb on board', 'our demands' and 'keep quiet' were heard. *ABC News* claimed to have secured a tape of these transmissions in which a hijacker says:

> We'd like you all to remain seated. There is a bomb on board. And we are

> going to turn back to the airport. And they had our demands, so please remain quiet.

We are told that passengers used their cell phones and seatback Airfones to call friends and family and they heard about the planes crashing in New York and Washington. This, it is claimed, led to passengers getting together to challenge the four hijackers who were armed once again with small knives and box cutters. At 9.45am Todd Beamer, a 32-year-old employee of the computer software company Oracle, is said to have spoken to Airfone supervisor Lisa Jefferson after his credit card was refused when he tried to call his family. A summary of the 15-minute conversation was faxed by the Verizon phone company to his wife in which he said that the pilot and co-pilot appeared to be dead and the hijackers were flying the plane. Another passenger, Lauren Grandcolas, is reported to have phoned her husband Jack in San Francisco to say: 'We have been hijacked.They are being kind. I love you.' Beamer is said to have stated that one hijacker was guarding 27 passengers at the back of the aircraft while having what was claimed to be a bomb around his waist. He is reported to have said that two other hijackers were in the cockpit and another was guarding first class. Beamer sent love to his wife, who was five months pregnant, and his two small sons. The last words the phone supervisor is said to have heard him say were: 'Are you guys ready? Let's roll.' His wife Lisa, never spoke to him directly. The official story says that at 9.42am Mark Bingham, a 31-year-old rugby player and an enormous man at six-feet-five, called his mother, Alice Hoglan, from the plane:

> Mom, this is Mark Bingham. I want to let you know that I love you. I'm calling from the plane. We've been taken over. There are three men that say they have a bomb.

Jeremy Glick, a former national judo champion, is reported to have talked with his wife, Liz, on an Airfone and asked if it was true about planes crashing into the World Trade Center. He said the passengers were taking a vote over whether they should try to take back the plane. 'Honey, you need to do it,' she told him. Glick's mother-in-law told CNN that he also called her to report that 'one of the hijackers had a red box he said was a bomb and one had a knife of some nature'. She said Glick left the phone for a while and then returned to say; 'The men voted to attack the terrorists.' Thomas Burnett Jr, a 38-year-old father of three girls, is said to have called from the plane four times and in his last call told his wife that they planned to challenge the hijackers. 'I know we're all going to die,' he is said to have told her. 'There's three of us who are going to do something about it. I love you, honey.' Flight

attendant Sandy Bradshaw called her husband Phil, a US Airways pilot. 'Have you heard what's going on?' she said. 'My flight has been hijacked. My flight has been hijacked with three guys with knives.' Note again that the FBI says four, just as it names five for Flight 11 and 175 when attendants were reported to have said four. Bradshaw reported she was in the galley filling jugs with boiling water and she ended: 'Everyone's running to first class. I've got to go. Bye.' The official story is that passengers attacked the hijackers and the plane crashed into a field at Shanksville, Pennsylvania, at 575 miles an hour. The aircraft is said to have hit the ground at 10.03 or 10.06 depending on the information you believe. This is more than two hours after the first hijacked plane left Boston. By now thousands of people were dead and the world was in trauma at the unspeakable horror of what had happened. Four alleged hijackers on Flight 93 were named as: Ziad Jarrah (Lebanese), Ahmed al-Haznawi (Saudi Arabian), Ahmed al-Nami (Saudi Arabian), Saeed al-Ghamdi (Saudi Arabian).

Television brought the shocking scenes to hundreds of millions of people as the North Tower burned from the collision with 'Flight 11'. Then, 18 minutes later, as people were watching those live pictures, 'Flight 175' careered into the South Tower amid an enormous explosion of flame. An estimated 20,000 people could have been working in each of the towers at that time in the morning and the official death toll was a little under three thousand. At 9.59am, 56 minutes after impact from 'Flight 175', the South Tower collapsed as a horrified world looked on. Half an hour later the North Tower went the same way an hour and 42 minutes after impact from 'Flight 11'. The official explanation for the imploding collapse was that the fuel fire had weakened steel supports and the floors above the impact began to fall, creating an ever more powerful chain reaction as floors crashed upon floors until the whole building collapsed. Among the dead were 341 fire fighters together with other rescuers who had rushed into the buildings to help and been killed in the sudden collapse. We will see that the official story of why the towers collapsed in a provable lie that would have required the suspension of the law of physics.

This is a basic outline of the official story of 9/11 which has been used to justify mass death, destruction and slaughter in the Middle and Near East, a frenzy of mass surveillance 'to stop the terrorists' and the deletion of fundamental freedoms. From hereon we shall dismantle this impossible version of events and show that all the world-changing happenings that have followed have been founded on a Big Lie.

CHAPTER 6

House of cards

Let us never tolerate outrageous conspiracy theories concerning the attacks of September the 11th – George W. Bush

The official story of 9/11 is an obvious and transparent fantasy and the unspeakable atrocities were yet another version of Oklahoma and Pearl Harbor.

Problem-Reaction-Solution attacks are not only *made* to happen but *allowed* to happen and this is the combination you see in all these Hidden Hand false flags. First they arrange for their agents in government, military and intelligence networks, and sometimes terrorist groups they control, to execute the plan and then ensure the plan is allowed to happen by blocking the usual response by law enforcement and other security agencies. A proper investigation is suppressed in the aftermath and this, together with a pathetically compliant mainstream media, means the real perpetrators are never exposed. The perpetrators and those protecting the perpetrators are both assets of the same Hidden Hand Web. In fact, they are often the very same people and certainly were with 9/11. Colonel Leroy Fletcher Prouty was a man with long experience in covert operations working with the US security apparatus. He worked with the Office of Strategic Services, the forerunner for the CIA, and established Air Defense Command in 1950. Prouty went on to work with the CIA then led by its notorious first director, Allen Dulles, and for nine years he served at the Pentagon as Briefing Officer for the Secretary of Defense, Chairman of the Joint Chiefs of Staff and Chief of Special Operations. He revealed in his 1973 book, *The Secret Team*, that the CIA was a tool of a 'high cabal' of industrialists and bankers (the Hidden Hand). Prouty revealed the existence of the CIA Executive Action programme which specialised in removing foreign leaders 'unfriendly' to American (Hidden Hand) interests. Prouty said this group was behind the assassination of President Kennedy in 1963 under the direction of its head, Edward Lansdale, who was in Dallas acting '... like the orchestra leader, coordinating these things'. Prouty later wrote and lectured about many clandestine operations and authored the book, *JFK, The CIA, Vietnam And The Plot To Assassinate John F. Kennedy*. The

Donald Sutherland character called 'X' in the Oliver Stone movie *JFK* was apparently based to an extent on Prouty who died just three months before September 11th. This guy operated for decades in the shadowy world from which came the real orchestrators of 9/11. This is what he said about assassinations and it applies just as much to what happened that September day:

> No one has to direct an assassination – it happens. The active role is played secretly by permitting it to happen. This is the greatest single clue. Who has the power to call off or reduce the usual security precautions?

If you look at the evidence detailed in books by myself and others, Fletcher Prouty's words are true in the assassinations of John F. Kennedy, his brother Bobby, Martin Luther King, Princess Diana, Israeli Prime Minister Yitzhak Rabin, Swedish Prime Minister Olaf Palme ... the list could go on for pages. The same is also true of September 11th in that the usual security and response systems were nowhere to be seen. I am going to present the information layer-by-layer going deeper and deeper as we progress and what appears to be the case at one point will look different as more and more layers are revealed. Only at the end of the book will my presentation of the evidence (so far) be complete and even then there will be more to know. There always is. I will start with the most obvious question of how four commercial airliners could be hijacked in highly-protected American airspace and crashed into iconic buildings and a field without a military response over nearly two hours that in any way affected events.

NORAD and Cheyenne Mountain

The organisation charged with the task of protecting North American airspace in both the United States and Canada is NORAD, the North American Aerospace Defense Command, headquartered at the Peterson Air Force Base in Colorado with its operational centre in the nearby Rockies known as Cheyenne Mountain. This was the organisation that did nothing to effectively respond to the attacks in the very American skies it is their job to protect. Consider the scale of their operation and capability even in 2001. NORAD was created by an agreement signed by the US and Canadian governments on May 12th, 1958. NORAD's brief, to quote its own website at the time of 9/11, involves:

> ... the monitoring of man-made objects in space, and the detection, validation, and warning of attack against North America whether by aircraft, missiles, or space vehicles, utilizing mutual support arrangements with other commands. Aerospace control includes ensuring air sovereignty and air defense of the airspace of Canada and the United States.

NORAD has an agreement with the civilian Federal Aviation Administration (FAA) to respond to civil aviation emergencies when commercial aircraft are hijacked, lose contact with air traffic controllers or stray off-course. What happened on 9/11, therefore, was exactly what NORAD is there to deal with. The President of the United States and the Prime Minister of Canada officially appoint NORAD's commander. This means, of course, that the US President appoints him – on the recommendation of others. Another quote from the NORAD website in 2001: 'Cheyenne Mountain serves as a central collection and coordination facility for a worldwide system of sensors designed to provide ... the leadership of Canada and the US with an accurate picture of any aerospace threat.' Ah yes, Cheyenne Mountain. It was not long into my research of the global conspiracy in 1992 that I first came across Cheyenne Mountain. There have been many mysterious animal mutilations in that area, including some at the nearby Cheyenne Mountain Zoo, and researchers into 'UFO' activity have long had their eyes on the Cheyenne Mountain complex (Fig 31). What we know for sure is that this is the vast super-secret headquarters for the 'defence' of North America which acted as the early warning and response centre during the (manufactured) 'Cold War' with the Soviet Union. Cheyenne Mountain is also the location of so much more that we are not told about. The complex is mounted on more than 1,300 half-ton springs that allow it to sway up to a foot horizontally in any direction should it be struck by an earthquake or nuclear attack. The two main doors consist of 25 tons of baffled steel, three feet thick, and the complex is located 2,000 feet inside the granite mountain. In the same region are other major military and technology centres like Ent Air Force Base, Fort Carson Army Base, Peterson Airfield, Lowry Air Force bombing range, US Air Force Academy, Buckley Air National Guard and Naval Air Station, and Rocky Mountain Arsenal. A Scripps Howard News Service survey reported in 1998 that about 7,000 people were employed within Cheyenne Mountain and that spending on the facility was substantially increased by the best part of $2 billion after the 'Cold War' was over. This would seem to be a

Figure 31: The fantastic global tracking facility at Cheyenne Mountain, Colorado.

strange contradiction if you didn't know that the enormous network of underground bases and tunnel systems that connect them across the United States are not there primarily to protect the population at all. Their role is to *control* the population and operate as part of the secret Permanent Government with an agenda that US Presidents know nothing about. Inside Cheyenne Mountain are some of the most brilliant technological minds in the world using and developing technology that is light years ahead of anything you will see in the public arena. It is a big mistake to judge what is possible only on the basis of technology you know about. These guys aren't working with that.

The following information came from the official Cheyenne Mountain website in the period across 9/11 and represents only a fraction of what really goes on there. The excavation of Cheyenne Mountain near Colorado Springs began in May, 1961, and was completed in around a year, according to the official story. The NORAD command centre was located here and became fully operational on April 20th, 1966, when its duties were transferred from Ent Air Force Base. NORAD has since been joined inside Cheyenne Mountain by other 'early warning and response' organisations tasked with defending North America from air attack. One is the Air Force Space Command that is supposed to provide protection from space and missile attack and this operates the Space Defense Operations Center. From here personnel and 'their worldwide sensors, under the direction of Air Defense Command', supported the first flight of the space shuttle in April, 1981. Cheyenne Mountain continued to support every subsequent shuttle mission. General Ralph E. Eberhart, commander of NORAD during 9/11, was also commander of Space Command and took over in February, 2000, from General Richard B. Myers who was Deputy Chairman of the Joint Chiefs of Staff at the Pentagon and acting chairman when the attacks were happening. Myers was appointed chairman soon afterwards and became head of the uniform level of the Pentagon hierarchy. Eberhart and Myers both served at the 'CIA' Air Force Base at Langley near Hampton, Virginia, from where, it is claimed, jets were scrambled (far too late) to intercept Flight 77 as it headed for Washington. Eberhart was Commander, Air Combat Command, from June 1999 to February 2000 when he replaced Myers at NORAD. I'll have much more about Myers' behaviour on September 11th and his bizarre lies in due course. I'm not finished with Eberhart either.

This defence network could not respond on 9/11?

The website for Cheyenne Mountain operations in 2001 described the role of NORAD and its capabilities – none of which were on view on 9/11 when events happened over a period of some two hours without a NORAD intervention that was routine every other day. The website said

that the Air Defense Operations Center employed its air defense network 'to provide surveillance and control of air operations to North America and unknown traffic'. NORAD's Combat Operations Center evolved into the Cheyenne Mountain Operations Center which collected data 'from a worldwide system of satellites, radars, and other sensors and processes that information on sophisticated computer systems to support critical NORAD and US Space Command missions'. Cheyenne Mountain Operations Center provided warning of ballistic missile or air attacks against North America, assisted the air sovereignty mission for the United States and Canada, and, if necessary, was the focal point for air defense operations to counter enemy bombers or cruise missiles. The website said that Cheyenne Mountain provided a day-to-day picture of precisely what was in space and where it was located and 'supported space operations, providing critical information such as collision avoidance data for space shuttle flights and troubleshooting satellite interference problems'. Cheyenne Mountain operations were conducted by six centres manned 24 hours a day, 365 days a year – the Command Center; Air Defense Operations Center; Missile Warning Center; Space Control Center; Combined Intelligence Watch Center; and the Systems Center. The Command Center was 'the heart' of operations 'monitoring, processing, and interpreting missile, space or air events which could have operational impacts on our forces or capabilities, or could be potential threats to North America or US and allied forces overseas'. The Command Center was linked directly to National Command Authorities of both the US and Canada as well as regional command centres overseas. NORAD and US Space Command assessed missile, air, and space events and a response and direction were then 'properly conveyed and executed ...' *Except on 9/11*. The website said:

> ... The Air Defense Operations Center provides command and control for the air surveillance and air defense network for North America. In 1994, they monitored over 700 'unknown' radar tracks entering North American airspace. Many of these were subsequently identified as friendly aircraft that had erred from flight plans or used improper procedures. Yet nearly 100 were identified as illegal drug-carrying aircraft that were subsequently prosecuted by the US and Canadian Drug Enforcement Agencies.

The technology located within Cheyenne Mountain was state of the state of the art for 2001 and the Missile Warning Center employed a 'worldwide sensor and communications network to provide warning of missile attacks, either long or short range, launched against North America or our forces overseas'. The technology provided information 'regarding missile launches anywhere on earth which are detected by the strategic missile warning system and which could be a potential

threat to Canada or the US'. The Space Control Center at Cheyenne Mountain, opened in March, 1994, had highly sophisticated technology that 'supports the space control missions of space surveillance and protection of our assets in space' and its primary objective was to perform 'the surveillance mission ... to detect, track, identify, and catalog all manmade objects in space'. The Center has a computerised catalogue of 'all orbiting space objects, charts objects, charts present position, plots future orbital paths, and forecasts times and general locations for significant objects re-entering the Earth's atmosphere'. The Space Control Center was tracking some 8,000 'in-orbit objects', and this information was used to provide NASA with collision avoidance information during space flights. Cheyenne Mountain was also home to the Combined Intelligence Watch which served as North America's 'indications and warning center for worldwide threats from space, missile, and strategic air activity, as well as geopolitical unrest that could affect North America and US forces/interests abroad'. Put another way, they have a satellite surveillance network that could read your licence plate from space wherever you may be. Combined Intelligence Watch gathered 'intelligence information to assist all the Cheyenne Mountain work centers in correlating and analyzing events to support NORAD and US Space Command decision makers'. There was a Systems Center that ensured 'continuity of operations throughout the Cheyenne Mountain Operations Center by providing communications and computer systems management for over 100 computer systems and 600 communications circuits in support of NORAD and US Space Command missile warning, space control, and air defense missions'. This is the organisation that failed to intervene in the 9/11 attacks.

'Most unique installation'

Cheyenne Mountain called itself one of the most unique installations in the world in 2001 and no doubt still does. The complex allowed for cooperation and coordination between apparently unconnected organisations because it employed staff from the Army, Navy, Marine, Air Force and Canadian Forces. Cheyenne Mountain operated military communication and navigation satellites that directed and guided 'western' armies during their bombardments of Iraq, Afghanistan and elsewhere. Major Mike Birmingham, an Army spokesman for the Colorado base, said: 'Space support basically allowed US forces to perform that famous 'left hook' operation [employed during the Gulf War] – the Iraqis assumed no one could navigate that well in the desert.' Despite all of this amazing technology and response capability four commercial airliners hijacked in American airspace proved too much for them on September 11th and absolutely nothing was done that made any difference to events. *Why?* If anyone is still in any doubt about the

technological and coordination capability we are talking about here and its instant communications network throughout the United States government, military and air traffic surveillance, the official Cheyenne Mountain website said at the time:

> The Cheyenne Mountain Operations Center comprises the largest and most complex command and control network in the world. The system uses satellites, microwave radio routes, and fiber optic links to transmit and receive vital communications. Two blast-hardened microwave antennas and two underground coaxial cables transmit the bulk of electronic information. Most of this information is data sent from the worldwide space surveillance and warning network directly to computers inside the Mountain. Redundant and survivable communications hotlines connect the Command Center to the Pentagon, White House, US Strategic Command, Canadian Forces Headquarters in Ottawa, other aerospace defense system command posts, and major military centers around the world.

I am outlining all these capabilities because this is the same organisational network of surveillance and security that we are told could not respond even *once* to the 9/11 hijackings and attacks over a period of nearly two hours that in any way impacted on the outcome. Flight 77 alone was in the air for more than *80 minutes* and is officially reported to have performed a U-turn from its authorised course more than *40 minutes* before it is claimed to have struck the Pentagon.

Colonel Prouty again:

> No one has to direct an assassination – it happens. The active role is played secretly by permitting it to happen. This is the greatest single clue. Who has the power to call off or reduce the usual security precautions?

Exactly.

Federal Aviation Administration (FAA)

The civilian (US government) Federal Aviation Administration has a joint response procedure with NORAD to react to hijackings. The FAA has been accused of large-scale corruption over the years and being steeped in the culture of cover-up. I am not referring to most of the employees, but the controlling core of the FAA. The late Rodney Stich, a former navy and airline pilot and FAA crash investigator, documented some of the corruption that he experienced directly and through his own investigations. He was author of the book *Unfriendly Skies* which charged the FAA with a catalogue of corruption, cover-ups and lies putting the safety of passengers at risk. Stich accused one FAA

administrator of covering up testimony and dozens of government documents supporting charges of corruption within the FAA relating to fatal airline crashes. It might be worth keeping that in mind when assessing the trustworthiness of the FAA leadership over 9/11. Stich said that information about FAA corruption had been repeatedly given to the 'politically-appointed' National Transportation Safety Board (NTSB) which investigates air disasters. He said the information had been covered up and 'fraud-related' air disasters were allowed to continue to happen. Stich accused the NTSB of 'falsifying accident reports that covered up for their own duplicity in the crashes and deaths'. He cited the FBI, US attorneys and 'the main Justice Department personnel' as other people and government agencies which had been given the facts about FAA corruption involving major aircraft disasters, but ignored it and even retaliated against him and other former federal agents who tried to expose what was happening. He said federal judges blocked his efforts to expose FAA corruption through the courts. It is sobering to think that the FAA, NTSB, FBI and [In]Justice Department were all involved in the [non]-investigation of 9/11. Government agencies are pliable to what is expedient to government and financial interests and we will see obvious lies and diversions from all these agencies and the military with regard to September 11th. I saw a documentary about an air accident that happened in 1989 when parents of a passenger tenaciously pursued the truth and secured documents that the National Transportation Safety Board (NTSB) themselves possessed. These clearly showed that the problem was a faulty mechanism on a United Airlines cargo door which had long been known about. The NTSB gave a different reason for the door's failure which cleared airlines, aircraft-maker Boeing and the FAA from responsibility. In fact, *all* of them knew about the problem, but the FAA had allowed airlines 18 months for economic reasons to fix the problem when it needed to be sorted immediately and disaster followed. The parents were later proved to be right as the NTSB was forced to admit. We need to keep in mind that while these agencies have many genuine people in their ranks those in charge cannot be trusted without question to tell us the truth as history has confirmed so many times. Crash investigator Rodney Stich told his story about lax air safety to members of Congress who he said ignored documented evidence of 'hard-core corruption' within the FAA:

> These are the same members of Congress, and the secretary of the Department of Transportation, whose crocodile tears cover up for the fact that they were repeatedly offered evidence of the corruption that resulted in a series of fatal airline crashes, fatal hijackings, and who helped insure the success of the September 11, 2001, terrorist hijackers. The cover-up of these matters by members of Congress following the September 11 tragedies will

insure the protection of the guilty and continuation of the tragic consequences, as documented for the past 40 years ...

What the hell happened to normal procedure?

This is the corrupt-at-its-core network that told you what happened when the planes were hijacked on September 11th. The FAA was the other organisation, with NORAD and the Pentagon, that was responsible for responding to what happened that day. An example of the FAA-NORAD response procedure can be seen in the case of the private Learjet carrying professional golfer Payne Stewart and his friends on October 25th, 1999. Air traffic controllers lost contact with Stewart's plane after it took off from Orlando in Florida heading for Dallas. When they realised all was not well the FAA contacted NORAD and fighter jets were *immediately* scrambled to check out what was happening. The Learjet had suffered a pressurisation failure and was flying on autopilot while the real pilot and passengers were unconscious. An *ABC News* report quoting the Air Force said that after contact was initially lost two F-15s from Tyndall Air Force Base in Florida were sent to track the Learjet. The F-15s pulled back and two F-16s from Florida's Eglin Air Force Base took over. When the Learjet reached the Midwest, the Eglin F-16s withdrew and four others along with a mid-air refuelling tanker from the Tulsa Air National Guard replaced them. Finally, two F-16s from Fargo, North Dakota, moved in close to look into the windows to see if the pilot was slumped over and to help clear airspace. 'Officials hoped that the F-16s could provide assistance to anyone on board who might have helped land the plane safely', *ABC News* said. The Learjet ran out of fuel and the F-16 pilots watched the plane fall to the ground on unoccupied land. White House spokesman Joe Lockhart said the National Security Council monitored the doomed flight, fearing the jet might crash in a populated area. President Bill Clinton could have ordered fighters to shoot down the plane to avoid that potential tragedy, but Lockhart said no such recommendation had been made. Clinton told reporters at the time: 'I am very grateful for the work the FAA did, and for the two Air Force pilots, and the others in the Air Force that monitored this plane and made every effort to try to make contact with it.' The Pentagon's National Military Command Center (NMCC) and military big-wigs of the Joint Chiefs of Staff were also monitoring the Payne Stewart plane and that will become very significant when we get into the detail of the (systematic) non-reaction to the 9/11 attacks.

There's another important point to stress here. If you were 'highly trained' Arab terrorists from this 'brilliantly organised' network of Osama bin Laden, a network we are told was capable of hijacking four commercial aircraft simultaneously in American airspace, one of your

obvious calculations would be the possible NORAD reaction time once it was known that the planes had been seized. So why did they choose to hijack planes in Boston to strike the World Trade Center in New York with a distance well in excess of normal every-other-day NORAD reaction time and why would they have allowed Flight 77 to fly way out from Washington towards the Midwest before turning around and going all the way back to Washington? This meant they had to fly for *45 minutes* from the time the plane was known to be hijacked to the moment it was alleged to have struck the Pentagon. By any criteria, and the most minimal study of NORAD and FAA procedures on the Internet, they would have known that Air Force jets would be scrambled long before they reached their target. They would have further known that these procedures involved the shooting down of aircraft that threaten US cities. Had Payne Stewart's plane threatened people on the ground that would have been taken out. Any idiot putting this plan together, with the aim of crashing planes into the World Trade Center and the Pentagon, would have been aware that under NORAD's every-other-day reaction times they would have to complete the mission as fast as possible. Taking off from New York and Washington and crashing them immediately into those buildings would have been the ideal plan for them, surely? Instead, Flight 77, which actually took off from Washington, was allowed to fly away from the city for around three quarters of an hour before the hijack happened and then had to be flown all the way back. This is clearly ridiculous. It would make sense only if those truly behind the attacks – not 19 Muslim hijackers – knew that NORAD would not be reacting that day. I suggest this is exactly what happened with the evidence to follow.

Reacting to the hijackings should not have been a problem with the fantastic technology available to NORAD and the Cheyenne Mountain operation in general. Technology allows aircraft to be located and safely navigated and communicated with from almost anywhere on or above the earth thanks to the satellite network known as the Global Positioning System (GPS). This was created for use by the US military and provides 'incredibly accurate position information to end users'. I'll just give you that again: it provides 'incredibly accurate position information to end users' and I am quoting from descriptions of what was possible in 2001. What's more this system was controlled by NORAD and the rest of the gang at Cheyenne Mountain. Yet they could not track those hijacked planes and follow what was going on? Besides all the ground-based and satellite-based sensors and surveillance NORAD also directed AWACS aircraft which are in the air 24 hours a day while refuelling from flying tankers. AWACS (airborne warning and control system) were a modified Boeing airframe from a 707-320 with the 30-foot rotating radar dome on the top. They were the premier 'air battle command and control' aircraft

in the world and provided surveillance to NORAD from the earth's surface to the stratosphere over land and water. One was involved in the Payne Stewart case. AWACS radar has a range of more than 250 miles (375.5 kilometres) for low-flying targets and further for those at higher altitudes and has a 'friend or foe' identification system that can detect, identify and track friendly or 'enemy' low-flying aircraft by eliminating 'ground clutter' that can confuse other radar systems. There is, to put it mildly, no credible excuse imaginable for what happened – or rather didn't – on 9/11 if normal procedures had been followed. Why and how they weren't will become clear much later in the book.

What should have happened

The hijack response protocol is made very clear in official regulations and procedures of the FAA. Chapter 7 of the procedures in 2001 deals with the 'escort of hijacked aircraft'. It says that an FAA 'hijack coordinator' on duty at the Washington DC headquarters will request the military to provide an escort aircraft for a confirmed hijacked plane to: (a) assure positive flight following (that's staying on the authorised course to you and me); (b) report unusual observances; and (c) aid search and rescue in the event of an emergency. The escort service, the regulations said, will be requested by the FAA hijack coordinator by direct contact with the National Military Command Center (NMCC) at the Pentagon (which monitored the Payne Stewart Learjet in real-time when alerted by the FAA). NORAD escort aircraft will normally take the required action, the document said:

> The center/control tower shall coordinate with the designated NORAD ... military unit advising of the hijack aircraft's location, direction of flight, altitude, type of aircraft and recommended flight plan to intercept the hijack aircraft.

Escort aircraft were told to position themselves five miles directly behind the hijacked plane and to approach from the rear to avoid the possibility of being observed. The escort plane should take the same altitude, speed and heading as the hijacked aircraft. When a hijacking happens within the continental United States, the procedures said, the 'appropriate NORAD ... Senior Director' is forwarded reports of the aircraft's call sign of position, latitude, longitude, heading, speed and altitude. An escort mission could be terminated by FAA headquarters, the National Military Command Center at the Pentagon or major military command authority – in other words NORAD. Air traffic controllers could, through the FAA, call for military planes to escort or 'intercept' a commercial aircraft if contact is lost with the pilot, the plane strayed from its designated course or anything inexplicable was

happening. NORAD scrambled jets 125 times in such circumstances the year before 9/11. An intercept does not require the approval of the US President or some high-up government official. It is a routine response to check what is going on and who is flying the plane. The intention was not to blow the plane from the sky which needed presidential approval or, since 9/11, the approval of the head of NORAD and other designated military chiefs. There was an agreed procedure and code in place for communicating between intercepting NORAD jets and commercial aircraft. For example:

> Rocking wings from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft and, after acknowledgement, a slow level turn, normally to the left, on to the desired heading = You have been intercepted, follow me; circling aerodrome, lowering landing gear and over flying runway in direction of landing ... = Land at this aerodrome.

There was, likewise, a series of coded replies for the other aircraft. If the hijacked plane did not follow these orders the interceptor could 'make a pass in front of the aircraft' and eventually 'fire tracer rounds in the airplane's path' or 'down it with a missile', according to Marine Corps Major Mike Snyder, a NORAD spokesman quoted in the *Boston Globe*. Snyder confirmed that fighters intercepting aircraft was 'routine'. For example, after 9/11 when a small private Cessna flew near to President Bush's ranch at Crawford, Texas, the FAA activated a response through NORAD and two jets were dispatched immediately. They tuned to the pilot's frequency and ordered him to land. Another similar incident was reported in Wood County, Texas, where Rodney Mize, the Sheriff's Senior Dispatcher, confirmed that a private plane carrying four reporters from the *Houston Chronicle* was forced down by two military pilots in A-10 Warthog jets. They flew above and below the plane and it landed at Wisener Field near Mineola. Bush's ranch, it seems, was far more important than the Pentagon and the World Trade Center. Such incidents are happening week after week as the FAA and NORAD activate the normal response system.

Hijack procedure

If a problem with an aircraft is considered a possible hijack by an air traffic controller a much higher level of command is activated. FAA spokeswoman Alison Duquette explained: 'The air traffic controller would notify the supervisor on the floor who would then immediately notify the FAA's regional operation center who would notify NORAD, as well as others.' In these cases, according to the regulations: 'The escort service will be requested by the FAA hijack coordinator by direct contact with the [Pentagon] National Military Command Center (NMCC).' The

Defense Department (DOD) manual covering plane hijackings said:

> In the event of a hijacking, the NMCC will be notified by the most expeditious means by the FAA. The NMCC will, with the exception of immediate responses ... forward requests for DOD assistance to the Secretary of Defense for approval.

CNN described how '... officers on the Joint Chiefs were monitoring the [Payne Stewart] Learjet on radar screens inside the Pentagon's National Military Command Center'. This was the normal response system in action as the FAA alerts the Pentagon and the military respond immediately. None of this happened on 9/11. FAA regulations left air traffic controllers in no doubt that they must never take chances. They were told that if there was an unexpected loss of radar or radio communication they must consider that 'an aircraft emergency exists'... and ... 'If ... you are in doubt that a situation constitutes an emergency or potential emergency, handle it as though it were an emergency.' An Air Defense Liaison Officer, a top FAA official, was located within Cheyenne Mountain to coordinate between the FAA and NORAD in these situations. All these personnel and procedures were in place on September 11th. Yet look at what happened, or rather didn't. Robin Hordon, an air traffic controller who had worked at the Boston Air Traffic Control Center involved in 9/11, said:

> I knew it was an inside job by 4 or 5 o'clock that afternoon [because] we got the information to kind of say roughly where the aircraft went [and] if they knew where the aircraft went and they were talking to them at a certain time ... normal protocol is to get fighter jet aircraft up to assist ...

Hordon said he had information provided by those he knew at Boston Center that hijack response protocols were fulfilled from their end – 'the controllers were not asleep, they did their job' – and the only way the planes could not have been intercepted was through a major systems failure such as a power crash which stopped all communication – 'but that did not happen'. Much later in the book we will see how this communication system could have been scrambled by those *truly* behind the attacks. Hordon said that information provided to the public by the FAA was enough for him to know that all the systems at the centres were working well and that if the usual protocols had been acted upon there was no way the planes could have reached their alleged targets. He added that once a hijack is confirmed or suspected this information is communicated throughout the FAA and military system. To put it simply this was the procedure that should have been followed – but wasn't – on 9/11: The civilian FAA should have contacted the National

Military Command Center (NMCC) at the Pentagon as soon as a plane was suspected – *suspected,* not confirmed – to have been hijacked. The NMCC should have then contacted NORAD to immediately scramble fighters to locate and pursue the aircraft involved. The NORAD centre for the region where the 9/11 planes were flying was the Northeast Air Defense Sector or 'NEADS' which was based in a rural location called Rome in northern New York State about 45 miles from Syracuse. NORAD chief General Ralph Eberhart said in 2002 that from the moment the FAA suspects a problem it takes 'only about one minute' to contact NORAD which can have fighters in the air 'within a matter of minutes to anywhere in the United States'. There is no evidence to suggest that the same situation was not the case a few months earlier on 9/11 – so why the NORAD no-show?

NORAD timeline

I asked both NORAD and the FAA in 2002 for the sequence of events and the timeline for what occurred that morning. Both said that only at 8.40 did the FAA notify NORAD that American Airlines Flight 11 had been hijacked (this was changed to 8.38 in the official 9/11 Commission report of 2004). Yet contact was lost with the aircraft at 8.13 and at the very latest it was clear by 8.20 that something was seriously wrong. We should know why it took up to 27 minutes (25 in the Commission version) for Air Traffic Control through the FAA to alert NORAD. *The New York Times* reported that Flight 11 maintained its authorised course for only 16 minutes after take-off and 'just past Worcester, Mass., instead of taking a southerly turn, the Boeing 767 swung to the north at 8.15. It had been taken over ...' Let's give the controllers another five minutes before they were sure the aircraft was in trouble. This still means that the FAA waited 20 minutes from the point of confirmed lost contact to report that a commercial airliner was not responding to instructions and had changed course with a deactivated transponder over an area of high population and in skies criss-crossed by intensive air traffic. Either that or the military ignored the FAA alert. I asked the FAA in 2002 to confirm when exactly it was known that Flight 11 was in trouble and why it took so long to contact NORAD, but the spokesman would not answer. Let us make it clear again: FAA regulations instructed air traffic controllers that if there was an unexpected loss of radar or radio communication they must consider that 'an aircraft emergency exists'... and ... 'If ... you are in doubt that a situation constitutes an emergency or potential emergency, handle it as though it were an emergency.' This could not be clearer. For goodness sake, the official story says that at 8.24 the controller heard from the cockpit of Flight 11:

> We have some planes. Just stay quiet and you will be okay. We are returning

> to the airport. Nobody move.

This is said to have happened *16 minutes* before we are told the FAA alerted NORAD that the plane had been hijacked. None of this makes sense. The FAA would seem to be in the dock here right from the start, but the finger of responsibility is going to point in other directions, too, as we unpick the cover stories protecting cover stories protecting cover stories. Nothing with 9/11 is what it first appears to be. Flight 11's transponder was switched off at 8.20 – around *20 minutes* before NORAD was informed. We should not forget that through all of this the Air Force was constantly monitoring the commercial air traffic system as it does 24 hours a day. This has to be done to prevent collisions between commercial and Air Force planes. Flight 11 attendant Betty Ong is said to have used a seatback phone to call an American Airlines reservations agent who contacted the system operations control centre in Fort Worth. Ong is reported to have made that call at 8.27 – more than *ten minutes* before NORAD says it was told of the hijack. Even five minutes before the first alleged contact with NORAD the controllers are claimed to have heard another cockpit transmission that said:

> Nobody move please. We are going back to the airport. Don't try to make any stupid moves.

The FAA-NORAD timeline therefore is simply ridiculous. NORAD said it scrambled fighter jets at 8.46 from Otis Air National Guard Base on Cape Cod in Massachusetts 153 miles from New York. This is eight minutes after it says it was told of the Flight 11 hijack (9/11 Commission timings). At the very moment the jets were officially scrambled, and seven minutes before they were airborne, 'Flight 11' (or something) was crashing into the North Tower. An F-15 departing from Otis can reach New York City in 10 to 12 minutes, according to an Otis spokeswoman, and can fly three times the speed of a 767. If you take the journey to be ten minutes that means the jets would be flying at around 918 miles per hour and well within their top speed of in excess of Mach 2.5 (more than 1,600 mph). Some sources even quote a top speed of 1,800 mph and yet a NORAD spokesman estimated the speed of the scrambled F-15s to me at only between 603 and 675 miles per hour. Why not faster? I did read one report that the Otis standby jets had been ordered by Colonel Robert Marr, battle commander at NORAD's Northeast Air Defense Sector (NEADS), to carry missiles and extra fuel for monitoring a Russian Air Force exercise taking place over the North Atlantic, Pacific, and Arctic Oceans and this was why their speed was reduced. One of the pilots told a BBC 'documentary' *Clear The Skies* on September 1st, 2002, that they did fly supersonic and this statement added to the contradictions

emerging from different spokespeople for the US military. But wait. It gets sillier. The Pentagon told CNN that NORAD was 'informed of the plane striking the World Trade Center at 8.47'. *Informed?* We are talking about the most sophisticated military surveillance operation on the planet which, in its own words, is 'the largest and most complex command and control network in the world', utilising a vast network of satellites and cutting-edge air tracking and surveillance technology. Cheyenne Mountain can tell you if a missile has been launched on the other side of the world and it has to be 'informed' that a commercial airliner one of its agencies had already belatedly scrambled jets to intercept had hit the World Trade Center? Ah, but the military response to 9/11 aircraft was basically isolated within NORAD's Northeast Air Defense Sector (NEADS) in New York State while Cheyenne Mountain was nowhere to be seen. Isolating NEADS with far less sophisticated technology was very important in negating effective response. We are told that at 8.53am the two F-15 Eagles took off from the Otis base 153 miles from New York to intercept the second hijacked plane from Boston – Flight 175 – although the pilots say they didn't know that as we'll see. About ten minutes later, at 9.03, Flight 175 crashed into the South Tower (so says the official story) with the F-15s still 70 miles away, so they tell us. Why did it take the planes seven minutes to get airborne from a scramble at 8.46 to take-off at 8.53 when the Air Force apparently claims response times of scramble to 29,000 feet in two and a half minutes? The collective suspension of normal procedures in so many ways meant that nothing intervened throughout the entire period of the attacks to make any difference to the outcome.

What about no-fly zones?

Another major point is that of no-fly zones (also 'prohibited airspace') where access is barred to unauthorised aircraft which can be shot down if they fail to broadcast the code that allows them to enter. The World Trade Center is said by one of its first tenants to be a 'no-fly zone'. If that is so (and you would have expected it to be) there has to be a system of air response very close to New York or the no-fly zone would be unenforceable. What would be the point of it? Ken Smith, a tenant of the World Trade Center back in 1979, said on Radio Free America that when he was there it was well known by tenants that the WTC was a no-fly zone. Smith said that any plane off-course within 12 miles of the buildings was given a warning to change direction and he added: 'If you came within five miles they would threaten to shoot you down ... If you came within three miles, they could shoot you down.' Former US Secretary of Defense Casper Weinberger told US television about the Washington DC no-fly zone and how it was policed:

> The city is ringed with Air Force Bases and Navy bases and the ability to get defensive planes in the air is very, very high [and you would close] off the entire airspace so in effect the whole Washington area is a no-fly zone so that any planes that can't identify themselves and get into that are shot down. Those were the orders and that was the response that was always contemplated.

Well, *except* on September 11th. Robin Horton, a former air traffic controller at the Boston Center responsible for Boston Logan, said: 'No untracked aircraft get near the Pentagon and near the White House, it just doesn't happen.' Again – except on September 11th. Restricted airspace around Washington DC – known as P-56 – is the best-defended airspace in the world (on every other day). Horton said that no unknown aircraft are supposed to go through there: 'It's like an aviation no-man's land, nobody.' P-56 is an air-identification zone within a 50-mile radius of Washington with a 17-mile protected zone around the Washington Monument with an inner-protection zone of three miles around the capital. Yet somehow all this was breached simply through the non-action by the air defences that would normally respond. Then there are the ground-to-air missiles that defend Washington. Barbara Honegger served in high-level federal government posts including White House Policy Analyst and Special Assistant to the Assistant to the President for Domestic Policy during the Reagan administration. She was also a Senior Military Affairs Journalist at the Naval Postgraduate School, the leading science, technology and national security affairs graduate research university of the Department of Defense. Honegger became a member of Political Leaders for 9/11 Truth after seeing the nonsense of the 9/11 narrative and she has been one of many government, military and intelligence officials calling for a new 9/11 investigation. She said of Pentagon defences:

> If a plane, any kind of plane, was coming into the Pentagon why didn't its anti-aircraft missile batteries that are there, why didn't they fire to protect the building? This is, after all, the most protected building on the planet.

The Pentagon and the White House are defended by ground-to-air missile systems – *of course they are*. So why weren't they used on 9/11? Even at the G-8 Summit in Genoa, Italy, only weeks earlier in July, 2001, airspace was closed over the city and defended with ground-to-air missiles. I was shown around the parliament building in Canberra, Australia, by a man who worked with the nation's air-defence computer system. He showed me the hidden positions around the building where the ground-to-air missiles are located and said that when a plane enters the restricted airspace over the Australian capital the computer system

demands that pilots tap in a four-digit code that gives them permission to be there. If this is not done quickly enough missiles automatically launch, I was told. This is what happens in Canberra while the same or better technology is not in place at the Pentagon and White House? My Australian contact said he knew for a fact that the Pentagon, and Washington in general, are defended by an even more sophisticated missile system than Canberra which works in basically the same way. It is obvious that this would be the case and it has been openly accepted that a ground-to-air system is in place to defend the White House. The *Globe and Mail* newspaper in Canada provided one of the rare mentions of the Pentagon system:

> Meanwhile, there was no explanation of how four airliners could be hijacked and flown – in at least two cases hundreds of kilometres and for nearly an hour – without being successfully intercepted. That one ploughed into the Pentagon, supposedly protected by surface-to-air missiles, dramatically demonstrated US vulnerability. Why weren't those missiles launched to stop the Pentagon crash?

They weren't meant to be launched because the 9/11 attacks were both *made* to happen and *allowed* to happen.

The whole system went AWOL

After I had originally completed this chapter I came across an investigative website that claims to have conducted a phone interview on December 9th, 2001, with a member of the US Air Force based in New York. The source said he was ordered to the crash sites in New York, Pennsylvania and the Pentagon within days of 9/11 as part of an Air Force investigation. What he and others discovered, the website claims he told them, was that the standard response procedures were fully in effect that morning and were followed to the letter as usual by FAA air traffic control and that Air National Guard and Air Force units were alerted immediately that it was clear that something was amiss with the four aircraft. He said that after these alerts and requests for action were received from the FAA, orders from the 'highest level of the executive branch of the federal government were received, demanding that the Air Force stand-down and not follow through with established scramble-intercept procedures that morning until further notice'. This Air Force contact was unnamed, but then, to be fair, how could he have been? People will just have to decide for themselves if what he is claimed to have said rings true. It is a scenario that does fit what happened and makes sense of the apparently nonsensical lack of response. No fighters were scrambled to intercept the hijacked planes and no ground-to-air defences were activated to save the lives of those

who died inside the Pentagon and the World Trade Center. Some would call this incompetence and, staggering as that alone would be, what happened on September 11th is far more than that. It was calculated mass murder by psychopaths so extreme they stretch comprehension to its outer-limits. Any unidentified aircraft heading into the protected airspace over Washington and the Pentagon should have been *automatically* shot down before it would cause harm on the ground. The only way that this could not happen is for the system to have been purposely disarmed or stood down. This just gets crazier and crazier when you look at Flight 77.

The official timeline says the FAA notified NORAD at 9.24am (often reported as 9.25) that American Airlines Flight 77 from Dulles Airport near Washington DC to Los Angeles may have been hijacked when it was known at least *20 minutes* earlier that Flight 77 was hijacked. *The New York Times* published what it claimed was a partial transcript of the communication tapes with Flight 77. When contact was lost with the cockpit at 8.50am the plane would have been under the control of the Indianapolis Air Route Traffic Control Center. This is one of 20 regional centres that track flights between airports. At 9.02, still 40 minutes before 'impact with the Pentagon', a controller is reported to have told American Airlines the latest news on Flight 77: 'We lost track control of the guy, he's in coast track but we haven't – we don't really know where his target is and we can't get a hold of him.' Yet it was only at 9.34 – *44 minutes* after contact was lost – that the FAA told NORAD that Flight 77 was *'missing'* and not that it was hijacked (according to the official story). Four minutes after that FAA communication 'Flight 77' was said to have hit the Pentagon. Oh do come on, this is the land of clouds and cuckoos. On air safety grounds alone there should have been an immediate response to Flight 77 because of the lethal dangers to other aircraft of flying off-course. 'Flight 77' did a 180-degree turn near the Ohio border and headed back towards Washington, but *still* no alert even with two hijacked planes buried in the World Trade Center and with controllers apparently unable to locate Flight 77 on their radar screens for ten minutes. FAA regulations for air traffic controllers said:

> Consider that an aircraft emergency exists ... when: ... There is unexpected loss of radar contact and radio communications with any ... aircraft [and] If ... you are in doubt that a situation constitutes an emergency or potential emergency, handle it as though it were an emergency.

An MSNBC television report the day after 9/11 detailed how seriously air traffic controllers and their bosses at the FAA are supposed to take aircraft that deviate from their agreed route:

> If a plane deviates by 15 degrees, or two miles from that course, the flight controllers will hit the panic button. They'll call the plane, saying 'American 11, you're deviating from course.' It's considered a real emergency, like a police car screeching down a highway at 100 miles an hour. When golfer Payne Stewart's incapacitated Learjet missed a turn at a fix, heading north instead of west to Texas, F-16 interceptors were quickly dispatched.

So why not on *four separate occasions* on 9/11? A *Newsday* report said: 'The record suggests that teenagers on instant-message networks communicate faster than some federal officials did during the crisis.' Or, as *The New York Times* put it:

> ... despite elaborate plans that link civilian and military efforts to control the nation's airspace in defense of the country, and despite two other jetliners' having already hit the World Trade Center in New York, the fighter planes that scrambled into protective orbits around Washington did not arrive until 15 minutes after Flight 77 hit the Pentagon.

Even beyond all this, there is a more fundamental question that needs to be answered. Why, when two hijacked airliners had been crashed into the World Trade Center, weren't fighter jets deployed immediately to guard the skies over Washington? Surely the first thing you would do after what happened in New York is to instigate air defence for your other most likely targets – Washington DC being the most obvious. The *Miami Herald* talked to air traffic controllers who said they could not understand why there was no reaction to what was happening in the skies that morning. Why no response from the FAA and the military? A controller in Miami told the *Herald*:

> That's a question that more and more people are going to ask. What the hell went on here? Was anyone doing anything about it? Just as a national defense thing, how are they able to fly around and no one go after them?

The *Herald* quoted controllers who said that even with the transponder silent the plane would have been visible on radar to controllers who handle cross-continent air traffic and to an FAA command centre outside of Washington. The FAA would not discuss with the *Miami Herald* the track of Flight 77 or what happened in air-control centres while it was in flight and nor would American Airlines. Air traffic controllers said the trouble should have been instantly noticeable. Flight 77, as with all such planes, would have first showed up on radar screens as a short solid line, the *Herald* reported, with a readout that identifies the plane and gives its altitude and speed. When the transponder shuts down, the short line vanishes. The speed number goes away too. 'It's just

something that catches your eye', one controller said. The first move when a transponder goes down would be to contact the pilot and tell him the transponder wasn't working and even if the plane remained silent controllers could still find it – by switching their screen display to the old fashioned radar that bounces a signal off the plane's metal skin, the *Herald* said. The report went on:

> Military jets are routinely scrambled in the case of hijackings and 'runners,' planes that do not answer or do not heed air traffic controllers. But FAA officials would not say when controllers detected the errant Flight 77 or whether any fighter jets were able to get into the air to confront it. Fighter jets are based nearby, in Virginia, and could have reached the White House within minutes, aviation sources say ...
>
> ... The FAA has a detailed hijacking manual: Supervisors are notified. The FAA command center near Washington and the FBI are put on alert. Military jets are scrambled to follow the plane. Air-traffic controllers try to figure out where the hijacker wants to go and, if necessary, clear an air space of other traffic.

The 'why' will become increasingly obvious as we traverse the rabbit hole. Vice President Dick Cheney told NBC's *Meet the Press* that from the time that Flight 11 struck the World Trade Center the Secret Service travelling with President Bush on a public engagement in Florida had 'open lines' with the FAA. He said: 'The Secret Service has an arrangement with the FAA. They had open lines after the World Trade Center was ...' He didn't finish the sentence, no doubt because he realised he had said too much, and it is worth pondering the wider implications of that statement. The FAA had open lines with the Secret Service after the World Trade Center was hit? That happened at 8.46, about the time that Flight 77 was known to be in trouble, and yet the FAA said they did not tell NORAD and the Pentagon Command Center about Flight 77 until 9.24 when they had already established open lines to the Secret Service. Are we being told that the Pentagon and NORAD did not have open lines also with the FAA and were able to follow in real time the communications and non-communications from the cockpits long before any fighter jet was deployed? Indeed the FAA and NORAD both confirmed to me in 2002 that they had open lines to discuss Flights 77 and 93. I asked the FAA when exactly these open lines were established, but its spokesman would not say. Surely in any sane system these would have been established, as Cheney indicated, at least from the moment the first plane struck the World Trade Center. So, again, why the delay in responding?

The NORAD tapes

The official 9/11 Commission 'investigation', which produced a laughable 'report' in 2004, was established to hide the truth of what happened, as I will detail later. It did, however, at least subpoena audiotapes of exchanges claimed to be between the control room of NORAD's Northeast Air Defense Sector, or 'NEADS', and the FAA air traffic control system. Recordings were made at both NEADS and FAA ends of the conversation. They exposed the lies told to the Commission earlier by senior military figures about what happened that morning with response to the hijackings. Military chiefs who misled the Commission were brought back to testify under oath (shockingly they were not under oath for their original statements) and I will cover that in due course. What the tapes claim to record destroys the official NORAD version that was first issued on September 18th, 2001, and repeated to the 9/11 Commission before the tapes came to light in 2004. They reveal the confusion and diversion faced by NEADS operatives in reacting to the attacks. I would say this was instigated confusion and diversion from deep in the shadows and much further on in the book I will highlight how 9/11 computer systems could have been manipulated in real time. Remember compartmentalisation. A series of 'exercises' were happening on that day of all days in the skies over the Eastern Seaboard that mirrored the themes of what actually happened and this created (I say calculated) confusion from the start. I will address these exercises in more detail shortly. Information communicated to NEADS about real-time events by the FAA led to more confusion and diversion in the form of false reports of possible hijackings including one that said *Flight 11 had not struck the World Trade Center* and was instead still in the air heading for Washington DC. Delays in the FAA informing NEADS of problems with 9/11 flights was a consistent and massively significant factor in the lack of response if you believe the official timeline. Just one example on the tapes was after 8.57am when Flight 175 veered off course near Allentown, Pennsylvania, and set a course for New York. Air traffic controllers at New York Center are heard speculating on its target – maybe the Statue of Liberty – and one calls out the plane's rate of descent every twelve seconds as the radar refreshes. Even so the FAA didn't alert the military at NEADS about Flight 175 until *seconds from impact* (according to the official story). Flight 175, or at least a large plane, struck the South Tower at 9.03. The first military version of events that stood between September 18th, 2001, and 2004 when the tapes came to light claimed that the FAA notified NORAD about Flight 77 at 9.24am and jets from the CIA-connected Langley Air Force Base in Virginia, 130 miles from Washington, were immediately scrambled to protect the US capital from 'Flight 77'. By contrast the NORAD tapes reveal that NEADS was not told of the hijacking of 'Flight 77' until just before

impact 'with the Pentagon' and 'Flight 93' (Pennsylvania) until *after* it is said to have crashed. They reveal that fighters had been scrambled from Langley, Virginia, not in response to Flight 77, but to the *false report that Flight 11 had passed over New York and was flying towards Washington.* The official story had also claimed that Air Force jets were tracking Flight 93 and could have shot it down if the order had come while the tapes record a very different scenario. The information about the 'still-flying' phantom Flight 11 came from Colin Scoggins, civilian military liaison at the FAA's Boston Center, from a still-unknown source apparently resulting from an FAA teleconference call. None of this appeared in official reports until the tapes were released in 2004. Scoggins said American Airlines refused to confirm for several hours that Flight 11 had hit the World Trade Center and this caused confusion as the attacks continued. Well, it certainly appears to have done so for him. Scoggins told *Vanity Fair* magazine:

> When we phoned United [after the second tower was hit], they confirmed that United 175 was down, and I think they confirmed that within two or three minutes. With American Airlines, we could never confirm if [Flight 11] was down or not, so that left doubt in our minds.

The report of the 'phantom Flight 11' flying past New York towards Washington turned out to be nonsense and they weren't even tracking a plane heading for Washington at the time; it was all supposition. The tapes reveal that NEADS wanted to direct more jets to protect New York airspace to join the two from Otis that had arrived too late, but the FAA, which has the final say when civilian airspace is involved, refused. The excuse was that it would put civilian aircraft in danger in crowded airspace, but they clearly already were. Given that NEADS was the central hijack reaction centre to launch fighter jets in response to events the more confusion and misinformation that could be generated there the better. Keeping NEADS personnel out of the loop of information they required would have been essential and it is clear that the public watching live television knew more about some of what was going on than those in the NORAD hijack operations center. NEADS personnel said they were working with limited and outdated technology and couldn't track the planes efficiently when transponders were turned off. This is extraordinary given the state-of-the-art tracking technology their colleagues within Cheyenne Mountain were claiming to have. Where was the Cheyenne Mountain operation in all this? Are we saying that all Soviet planes had to do to access the United States airspace during the Cold War was to turn their transponders off? Jets from the Otis base had been scrambled, but too late to reach New York before 'Flights 11' and '175' and now the second scramble from Langley had been launched in

pursuit of a 'Flight 11' that didn't exist. In fact, it gets even crazier. The fighters were scrambled to Washington from Langley at 9.24am, but they didn't head for the capital at all. *They flew east into the Atlantic because as one pilot said: 'No one told us why we were being scrambled'!* The 9/11 Commission heard that the Langley pilots were not told what was happening and assumed they were scrambled to protect the American mainland from attack from the Atlantic to the east in line with the procedure during the Cold War. 'I reverted to the Russian threat – I'm thinking cruise-missile threat from the sea', a pilot told the 9/11 Commission. By 9.24am two commercial airliners had crashed into the World Trade Center, much of humanity was watching on live television, and the Langley pilots didn't know what they were being scrambled for? The Otis pilots said that they were similarly kept in the dark about much of what was happening, including the crash of Flight 175. Major Dan Nash, one of the Otis pilots, said they were shocked to see billowing smoke appear on the horizon as they approached New York because no one had told them what was occurring. They had only been told they were scrambled to intercept and escort Flight 11. Nash said:

> From 100 miles away at least, we could see the fire and the smoke blowing. Obviously, anybody watching CNN had a better idea of what was going on. We were not told anything. It was to the point where we were flying supersonic towards New York and the controller came on and said, 'A second airplane has hit the World Trade Center' ... My first thought was 'What happened to American 11?'

Chaos and confusion was being instigated everywhere. Back at NEADS, a NORAD Staff Sergeant William Huckabone saw the Langley jets were going the wrong way and out to sea. At 9.34am this exchange took place involving him, Master Sergeant Steve Citino, and Naval Air Traffic Control, or 'ATC':

> **9:34:12**
>
> **Navy ATC:** You've got [the fighters] moving east in airspace. Now you want 'em to go to Baltimore [Washington]?
>
> **Huckabone:** Yes, sir. We're not gonna take 'em in Whiskey 386 [military training airspace over the ocean].
>
> **Navy ATC:** Okay, once he goes to Baltimore, what are we supposed to do?
>
> **Huckabone**: Have him contact us on auxiliary frequency 2-3-4 decimal 6. Instead of taking handoffs to us and us handing 'em back, just tell Center

they've got to go to Baltimore.

Navy ATC: All right, man. Stand by. We'll get back to you.

Citino: What do you mean, 'We'll get back to you'? Just do it!

Huckabone: I'm gonna choke that guy!

The misdirection and delayed scrambles meant the Langley fighters would not make it to Washington before 'Flight 77' which NEADS found out about *by accident.* Tech Sergeant Shelley Watson was frantically ringing all possible sources to establish the position of the long-crashed 'Flight 11' that was supposedly still flying and when she contacted Washington Center air traffic at 9.34 the operations manager told her that Flight 11 was lost. Why had no one told NEADS? Why didn't NEADS know with all the tracking and surveillance technology available to their colleagues at Cheyenne Mountain? On one section of the NORAD tapes this exchange can be heard with Washington Air Traffic Control when NEADS heard about Flight 77 for the first time:

9:34:01

Washington Center: Now, let me tell you this. I – I'll – we've been looking. We've also lost American 77.

Watson: American 77? ... Where was it proposed to head, sir?

Washington Center: Okay, he was going to LA also.

Watson: From where, sir?

Washington Center: I think he was from Boston also [it was actually Washington Dulles]. Now let me tell you this story here. Indianapolis Center was working this guy.

Watson: What guy?

Washington Center: American 77, at flight level 3-5-0 [35,000 feet]. However, they lost radar with him. They lost contact with him. They lost everything. And they don't have any idea where he is or what happened.

It was *40 minutes* before this conversation, at 8.54 am, that Indianapolis controllers lost radar contact with American 77 and, in line with regulations, told their superiors at the FAA that the plane was probably

hijacked. According to the tapes no one at the FAA told NORAD, or the military didn't tell their NEADS centre, and only *by chance* did Tech Sergeant Shelley Watson find out from Washington Air Traffic Control. At 9.35, Colin Scoggins at the FAA's Boston Center told NEADS that they had a report of a low-flying aircraft six miles southeast of the White House, but 'moving away'. This was the alleged Flight 77. The following exchange involves Major Kevin Nasypany, NEADS mission crew commander:

9:36:23

Nasypany: Okay, Foxy [Major Fox, the Weapons Team head]. I got an aircraft six miles east of the White House! Get your fighters there as soon as possible!

Male voice: That came from Boston?

Huckabone: We're gonna turn and burn it – crank it up.

Male tech: Six miles!

Huckabone: All right, here we go. This is what we're gonna do ...

Nasypany: We've got an aircraft deviating eight miles east of the White House right now.

Fox: Do you want us to declare A.F.I.O. [emergency military control of the fighters] and run 'em straight in there?

Nasypany: Take 'em and run 'em to the White House.

Fox: Go directly to Washington.

Citino: We're going direct DC with my guys [Langley fighters]? Okay. Okay.

Huckabone: Ma'am, we are going A.F.I.O. right now with Quit 2-5 [the Langley fighters]. They are going direct Washington.

Navy ATC: Quit 2-5, we're handing 'em off to Center right now.

Huckabone: Ma'am, we need to expedite that right now. We've gotta contact them on 2-3-4-6.

They thought the White House was under threat, but it turned out to be the Pentagon. One of the NEADS staff spotted the plane, or whatever it

was, on radar.

9:37:56

Male tech: Right here, right here, right here. I got him. I got him.

Nasypany: We just lost track. Get a Z-point [coordinate] on that ... Okay, we got guys lookin' at 'em. Hold on ... Where's Langley at? Where are the fighters?

The answer was that they were more than a hundred miles away after being allowed, through lack of information, to fly in the opposite direction out into the ocean. This would explain why they took so long and why their average speed from take-off to arrival in Washington appeared to be so pedestrian. At 9.38 the Pentagon was struck. This was 15 to 20 minutes depending on the report before the Langley planes arrived. Immediately after the Pentagon strike, Colin Scoggins at Boston air traffic called with yet *another* false alarm, a Boston plane heading for Las Vegas. Then, at 10.07am, came a call to NORAD's NEADS centre from Cleveland air traffic control in Ohio:

10:07:16

Cleveland Center: We got a United 93 out here. Are you aware of that?

Watson: United 93?

Cleveland Center: That has a bomb on board.

Watson: A bomb on board? And this is confirmed? You have a [beacon code], sir?

Cleveland Center: No, we lost his transponder.

Nasypany: Gimme the call sign. Gimme the whole nine yards ... Let's get some info, real quick. They got *a bomb?*

Four minutes before this conversation took place the plane, or *a* plane, had *already crashed* in Pennsylvania at 10.03 – some reports say it was 10.06. It was *35 minutes* earlier that John Werth, a Cleveland air traffic controller of long experience, had heard suspicious noises from the cockpit of Flight 93 and believed it had been hijacked. It was, by now, a familiar tale. Werth had reported his suspicions through the FAA chain of command, as per regulations, but according to the tapes they did not

pass this information to the NEADS centre until the plane and its passengers and crew were already no more. Or the FAA *did* tell the Pentagon, but they didn't tell NEADS. This happened despite the fact that two planes had hit the World Trade Center before John Werth's report, and the Pentagon was also hit some 25 minutes before Cleveland air traffic informed NEADS about Flight 93. By 10.03 when that plane is officially reported to have crashed it was an hour and 11 minutes since fighters are said to have been scrambled from Otis AFB to New York. We should remember, too, after outlining the 'scrambled planes' response here, that for *a week* after 9/11 the official story from the Pentagon, NORAD and the White House was that *no planes* were scrambled at *all from anywhere* until the Pentagon was hit. I will come to that in the next chapter.

Military special operations commander was head of FAA 'security'

Everyone involved in the chain of command at the FAA that day who is still alive should be subject to an independent public inquiry into what on earth happened and the same with other civilian and military agencies. This is not to condemn the operational level of air traffic controllers and nor does this pin all the responsibility on the FAA. It is clear when you study statements and evidence that a big effort has been made to pile the blame onto FAA personnel and away from the military. There is much evidence to suggest that higher levels of the military were kept informed of events by FAA operatives including an FAA memo presented to the 9/11 Commission which said that an FAA-military teleconference had begun within minutes of the first tower being struck at which real-time information was shared on 'all flights of interest'. Highly significantly this very important memo was not included in the final report of the cover-up Commission. The head of FAA security on 9/11 was Major General Michael Canavan. His title was Director of Civil Aviation Security for the FAA and, according to the 9/11 Commission report, the hijack coordinator on September 11th was the 'Director of the FAA Office of Civil Aviation Security, or his or her designate' – Major General Canavan or whoever he designated. I asked the FAA in 2002 who the hijack coordinator was that day, but they didn't reply. Canavan is reported to have been in San Juan, Puerto Rico, on 9/11 and headed for Washington by military jet. So who was his designate as FAA hijack coordinator and why are we not being told given the importance of this position that day? Look again at the official hijack regulations with regard to the FAA alerting the military:

> The escort service will be requested by the FAA hijack coordinator by direct contact with the National Military Command Center (NMCC) [based at the Pentagon].

The Defense Department (DOD) manual covering plane hijackings says:

> In the event of a hijacking, the NMCC will be notified by the most expeditious means by the FAA. The NMCC will, with the exception of immediate responses ... forward requests for DOD assistance to the Secretary of Defense for approval.

Why didn't this happen? Where was the 'hijack coordinator', *who* was the 'hijack coordinator', when air traffic controllers were reporting suspicious planes and passing this information up the FAA chain of command while NORAD operatives at the NEADS response centre were apparently not being told until it was too late? Why wasn't Director of the FAA Office of Civil Aviation Security Major General Michael Canavan publicly questioned on this obvious issue by the 9/11 Commission? Personnel at the National Military Command Center (NMCC) in the Pentagon also have major questions to answer about the non-reaction as will become clear. General Canavan has a considerable background in US Special Operations, which, according to the Department of Defense's *Dictionary of Military and Associated Terms*, are defined as: 'Operations conducted by specially organized, trained, and equipped military and paramilitary forces to achieve military, political, economic or psychological objectives by unconventional means in hostile, denied or politically sensitive areas'. In short: Operations that are above the law and off the record and involved the manipulation of *perception*. Canavan had been stationed at Fort Bragg, home to the US Army 4th Psychological Operations (PSYOPS) Group which had operatives working in the news division at CNN's headquarters in Atlanta in the final days of the Kosovo War, according to media reports, and also staffed the National Security Council's Office of Public Diplomacy (OPD), a shadowy government propaganda agency that planted stories in the US media supporting the Reagan-Bush administration's policies in Central America. The *Miami Herald* of July 19th, 1987, quoted a 'senior US official' as describing the OPD as a 'vast psychological warfare operation of the kind the military conducts to influence a population in enemy territory'. These are the sorts of operations that Michael Canavan, head of FAA security on September 11th, would have been involved with in his high positions in Special Operations Command. Canavan was Commanding General, Special Operations Command, Europe, and Commanding General, Joint Special Operations Command, at Fort Bragg, North Carolina, with its centre for psychological warfare which is defined thus:

> The use of propaganda ... intended to demoralise the enemy, to break his will

> to fight or resist, and sometimes to render him favourably disposed to one's position ... The twisting of personality and the manipulation of beliefs ... by brainwashing and related techniques can also be regarded as a form of psychological warfare.

Problem-Reaction-Solution is psychological warfare. Major General Canavan had further been involved with a plan by the elite Delta Forces to capture Osama Bin Laden. Canavan, a one-time Chief of Staff of the US European Command in Stuttgart, Germany, became FAA Director of Security in late 2000, just before Bush was sworn in as president, and he announced his departure less than a month after September 11th.

Calculated confusion

The NORAD NEADS tapes subpoenaed by the 9/11 Commission provide far more questions than answers. Why would NORAD issue a false timeline in September, 2001, that posed so many questions about its lack of response and competence when the timeline on the tapes directs the blame on the FAA? Why would NORAD officers repeat the same story to the 9/11 Commission right up to the tapes being revealed and open themselves to accusations of deliberately misleading the inquiry? General Larry Arnold, commander of NORAD's Continental US Region from 1997 to 2002, confused matters even more when he told the Commission: 'We launched the aircraft out of Langley to put them over top of Washington DC, not in response to American Airlines 77, but really to put them in position in case United 93 were to head that way.' Where the heck did that come from? The official story is a mass of contradiction and confusion, added to by the NORAD tapes and of course confusion and chaos were absolutely essential to the attacks playing out without challenge. Who had the power to call off the normal response to hijackings that day – *Osama bin Laden* or the American Deep State? The first position taken by the authorities is that there was nothing they could have done. That is what they really want you to believe. The second, when that doesn't work, is to let you think they were incompetent. Both positions are designed to hide the truth – the truth that what we are looking at here amid the explosion of lies and diversions is not incompetence at all. This was *orchestrated* incompetence in which forces at, and behind, the highest levels of the United States government and military were intervening to stop the system working as it normally would. To stop thousands of people going home to their families that September day because it suited the sick agenda for those people to die and for the world to watch it all live on television. Genuine people at the FAA and within the military did their job as best they could, but another force was intervening and before this book is complete you will see what that force was and how it could have been

done. The claim that the military didn't know what was happening because the FAA didn't tell them does not stand up to scrutiny. Not only were there open lines between the FAA and the Pentagon we are told by Ben Sliney, operations manager at the FAA Air Traffic Control System Command Center, they had a 'military cell' on site for FAA-military liaison and they were present throughout the 9/11 attacks. The military clearly *did* know what was happening, but the response was sabotaged.

Why not Andrews?

Fighter jets were scrambled and arrived too late from Langley (130 miles from Washington) and Otis (153 miles from New York City), but why did NORAD choose those bases when Andrews Air Force Base, the one designated to defend Washington DC, is little more than *ten miles* from the capital and Andrews pilots could have had breakfast and still intercepted Flight 77 with time to spare? Andrews Air Force Base is a minute or so by fighter jet from Washington DC and that's why it is the capital's first line of air defence (Fig 32). In the name of sanity, the airspace above the Pentagon and the White House is a *no-fly zone* and of course, short of complete and utter insanity, there are going to be fighter jets on standby at the nearest Air Force base to defend the area. Mike Kelly of the North Jersey Media Group reported in December, 2003, that two F-16s from 177th Fighter Wing at Atlantic City International Airport were taking part in bombing run practice 'just eight minutes away' from Manhattan. Boston Air Traffic Control Center contacted the Atlantic City base to ask for air response to the hijacking of Flight 11, but were unaware that its NORAD reaction role had ended after 1998. Even so – they had planes *in the air* eight minutes from the World Trade Center. The disgusting 9/11 Commission didn't mention the Atlantic City planes in its pack of lies, distortions and omissions (sorry, 'report') compiled in 2004 specifically to defend the official story from the truth. Colin Scroggins, military liaison at the FAA's Boston Center, said fighters at

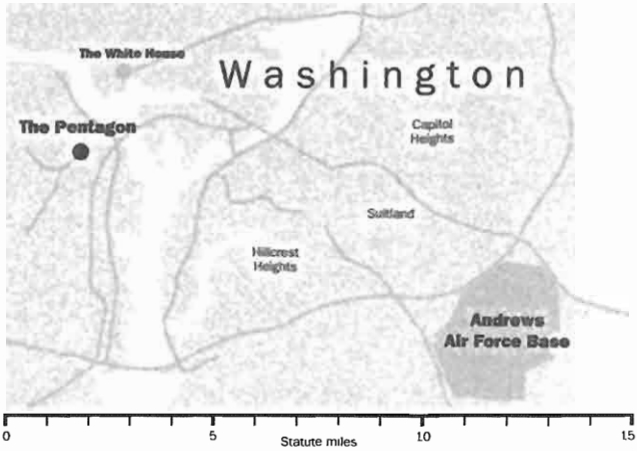

Figure 32: Andrews Air Force Base, home to the US President's plane, is down the road from the Pentagon, but instead fighters were scrambled from the Langley base 130 miles away.

Burlington, Selfridge, Syracuse and Toledo would have been ready to respond while the District of Colombia Air National Guard may not have been on stand-by they did fly every morning and NORAD 'could have grabbed' those aircraft to react to events. The Commission claimed that the entire United States had only seven bases on scramble alert and each had only two fighters in that mode at any time. They blamed 'the end of the Cold War'. The Commission asked us to believe that NORAD'S Northeast Air Defense Sector (NEADS), the one responsible for the 9/11 skies, had only two bases on alert to cover more than half a million square miles of airspace – Otis and Langley. There was no other choice and that explains everything. Doubles all round. This is either mendacity or incompetence on a scale that beggars belief. New York airspace with all those commercial planes coming and going all day is 'defended' from a base in Massachusetts *153 miles away*? The Washington-Pentagon no-fly zone is policed from the Langley base *130 miles away* when the major base at Andrews is only *ten miles* away? The very idea is as crazy as the mainstream media is pathetic for not challenging this nonsense.

Former ABC investigative producer James Bamford reported that in truth NEADS had a choice of on-alert planes at least four other locations. Among them was Andrews, one of the most famous bases in America and home of the US President's plane Air Force One with foreign heads of state often passing through. Are you going to locate the presidential plane at a base that does not have fighters ready to move at a moment's notice? Andrews, in fact, has two major squadrons on what are officially termed 'the highest possible state of readiness'. These are the 121st Fighter Squadron of the 113th Fighter Wing and the 321st Marine Fighter Attack Squadron of the 49th Marine Air Group. Thousands of people are employed at the base and they have at their disposal the very F-16s that NORAD says it deployed from 130 miles away at Langley, plus F/A-18 fighters. Sidewinder missiles carried by F-16s have a range of 18 miles and they would only have to get off the ground, lock in and fire to stop a plane crashing into the Pentagon even if there was no ground-to-air missile response. The fact that these planes were not scrambled from Andrews at any time before the Pentagon was hit is stunning and fundamentally significant. The Andrews AFB website went down immediately after September 11th and did not reappear until around mid-November. When it came back online it no longer had a link to the Air Force web pages describing the capabilities and mission of 113th Fighter Wing of the Air National Guard at Andrews – the capability of reacting immediately to any threat by air to Washington. A website called dcmiltary.com was authorised to supply information to those employed by US forces. It reported *before* 9/11 that Andrews is the base for the 121st Fighter Squadron, 113th Fighter Wing, and it confirmed the

role:

> ... as part of its dual mission, the 113th provides capable and ready response forces for the District of Columbia in the event of a natural disaster or civil emergency. Members also assist local and federal law enforcement agencies in combating drug trafficking in the District of Colombia. [They] are full partners with the active Air Force.

The website said of the 321st Marine Fighter Attack Squadron of the 49th Marine Air Group at Andrews:

> In the best tradition of the Marine Corps, a 'few good men and women' support two combat-ready reserve units at Andrews AFB. Marine Fighter Attack Squadron (VMFA) 321, a Marine Corps Reserve squadron, flies the sophisticated F/A-18 Hornet. Marine Aviation Logistics Squadron 49, Detachment A, provides maintenance and supply functions necessary to maintain a force in readiness.

These units are operated by the District of Colombia National Guard, headquartered at Andrews, which provide combat units in 'the highest possible state of readiness' and describe themselves as the 'Capital Guardians'. Well, as long as jets are on standby 153 and 130 miles away. NORAD spokesman Barry Venable told me in 2002 that NORAD fighters were 'not standing alert, nor even stationed, at Andrews AFB on 11 September':

> The USAF did indeed have fighters stationed at Andrews AFB on 11 September, but not for the purpose of standing air sovereignty alert – a role NORAD performs.

Then how come fighters from Andrews were in the sky over Washington immediately *after* the Pentagon was hit? *USA Today* sought to explain away the 'Andrews mystery' by reporting that 'Andrews Air Force Base, home to Air Force One, is only 15 miles [by road not military jet] away from the Pentagon, but it had no fighters assigned to it. Defense officials won't say whether that has changed.' Not even NORAD claims there were no fighters at Andrews and what kind of journalism is it that prints this story when the truth is only a search-engine away? The same *USA Today* edition said in direct contradiction: 'The District of Columbia National Guard maintained fighter planes at Andrews Air Force Base, only about 15 miles from the Pentagon, but those planes were not on alert and not deployed.' The *San Diego Union-Tribune*, however, told the truth about Andrews when it reported:

> Air defense around Washington is provided mainly by fighter planes from Andrews Air Force Base in Maryland near the District of Columbia border. The DC Air National Guard is also based there and equipped with F-16 fighter planes, a National Guard spokesman said. But the fighters took to the skies over Washington only after the devastating attack on the Pentagon ...

Other media sources reported that fighters from Andrews AFB were deployed over Washington. NBC *Nightly News* said: 'It was after the attack on the Pentagon that the Air Force then decided to scramble F-16s out of the DC National Guard Andrews Air Force Base to fly a protective cover over Washington, DC.' The UK *Daily Telegraph* said:

> Within minutes of the attack [on the Pentagon] American forces around the world were put on one of their highest states of alert – Defcon 3, just two notches short of all-out war – and F-16s from Andrews Air Force Base were in the air over Washington DC.

Surely it is common sense that Washington DC and its no-fly zone would be defended from air bases in and around Washington DC and not from 130 miles away. A 'former Pentagon Air Traffic Controller' quoted, but not named, is reported to have said:

> All those years ago when I was in the Pentagon, this wouldn't have happened. Air Traffic Control Radar images were (and are) available in the understructures of the Pentagon, and any commercial flight within 300 miles of DC that made an abrupt course change toward Washington, turned off their transponder, and refused to communicate with ATC, would have been intercepted at supersonic speeds within a max of 9 minutes by a fighter out of Andrews. Period. Why these planes weren't, baffles me. If we could get fighters off the ground in two minutes then, we could now.

Yet Pentagon spokesman Rear Admiral Craig Quigley made this astonishing statement: 'Planes come up and down the Potomac all the time. You can hear them in the building. There was no warning.' John A. Koskinen, the Washington DC City Administrator, said the District was 'largely helpless' to stop such attacks'. Utter garbage. There were apparently bases contacting NORAD *offering help* after the attacks began. William Scott wrote about this in a 2002 edition of *Aviation Week and Space Technology*. He described offers of air support made to NORAD NEADS Commander, Colonel Robert Marr:

> Calls from fighter units ... started pouring into NORAD and sector operation centers, asking 'What can we do to help?' At Syracuse, N.Y., an ANG commander told Marr, 'Give me 10 minutes and I can give you hot guns, Give

> me 30 minutes and I'll have heat-seeker (missiles). Give me an hour and I can give you slammers.' Marr replied, 'I want it all'.

But *nothing happened.*

I asked FAA media spokesman Fraser Jones in 2002 who was responsible for policing no-fly zones like the ones over Washington and New York and what was the procedure when they were threatened. What aircraft were used and where were they based? What happened on September 11th when there was no effective response? What is the point of a no-fly zone if there is nothing to defend it? Mr Jones replied:

> The FAA monitors prohibited airspace and would be aware if a pilot blundered into such an area. Our mission is not civil defense. We would help coordinate the appropriate response given the circumstances.

What on earth does that mean? NORAD told me that it is not responsible for policing the no-fly zone over Washington and it was a matter for the civilian FAA. The FAA tells me it 'monitors prohibited airspace' and would be aware if a pilot blundered into such an area and would then help to coordinate the appropriate response in the circumstances. Oh, really, well take your time, no rush. How long does it take for a plane to enter restricted airspace over Washington before it parks itself in the White House, Capitol Hill or the Pentagon? So where would the immediate air response come from? Langley, Virginia, 130 miles away? What use would that be? The FAA and NORAD were either not telling me the truth or there was no system for protecting no-fly zones. However, we know there *was* – in the name of sanity there *had* to be or a no-fly zone would be pointless. Why wasn't it activated on 9/11?

Another astonishing ''coincidence' – the wargame ''exercise drills'

What are the chances on this of all days that a series of 'training exercises' were happening in the same airspace at the same time as the 9/11 hijackings? Or that among these 'exercises' was a training scenario involving *a plane flying into a building in Washington?* This meant that radar screens were potentially infected with simulated 'hijacked planes', as well as genuine ones, which confused the system that morning – as planned. The wargame exercises also gave cover to the force in the shadows manipulating events. Jeremy Powell, a technical sergeant at the NORAD Northeast Air Defense Sector (NEADS) dealing with the hijackings, assumed at first like his colleagues that reports about a problem with Flight 11 were part of the exercise scenarios. He asks on the NORAD tapes: 'Is this real world or exercise?' This was a question asked many times that morning. Lieutenant Colonel Kevin Nasypany,

mission-crew commander on the operations floor at NEADS, said that when he was told about a hijack his first reaction was 'somebody started the exercise early'. He had said out loud: 'The hijack is not supposed to be for another hour.' Now we can see one reason why lower-level NORAD operatives dealing directly with the attacks were so confused. They didn't know initially when the actual 9/11 planes were hijacked if this was for 'real' or part of an exercise. This was not by accident, but design. There were many exercises happening that day and among them were those code-named Vigilant Guardian; Global Guardian; Northern Vigilance; Northern Guardian; Vigilant Warrior; Amalgam Warrior; Amalgam Virgo; Crown Vigilance; Apollo Guardian; and Whisky 105. They were supported by AWAC reconnaissance aircraft in the skies over Washington and elsewhere. The exercises had the added effect of relocating fighter planes to Alaska, Canada and a list of other locations that would normally be defending the East Coast. General Eberhart, commander of NORAD, said: 'It took about thirty seconds to make the adjustment to the real-world situation.' But this was an obviously ridiculous statement when the 'exercises' were clearly confusing the hijack response system. His mate, General Myers, acting uniform head of the military, said something similar and so they had one song-sheet in sync at least.

Eberhart was the man who ordered that an series of 'exercises' which normally take place in October and November each year were instead to be held across September 11th with enormous implications for confusing the response when real hijacks were happening that morning. Eberhart's decisions meant that at least *twelve* aerial exercises were happening at the same time that 9/11 planes were being hijacked – a move described as unprecedented. If that is a coincidence then I'm a pair of curtains and I should pull myself together. Scenarios included hijackings of two 747 passenger aircraft. Operation Vigilant Guardian involved the simulation of hijacked planes in 9/11 airspace and the same NEADS centre dealing with 9/11 hijacks. One Vigilant Guardian scenario was a plane hijacked to target New York City. The exercises focused attention of many agencies within Cheyenne Mountain including Eberhart's Space Command. The Whisky 105 exercise was centred on Otis Air Force Base and six of their F-15s took off for exercise duties in the Atlantic at 9am on 9/11 – eight minutes after the two F-15s were said to have been scrambled for New York. Vigilant Guardian was supervised by NORAD's airborne and warning officer, Lieutenant Colonel Dawne Deskins at NEADS. Newhouse News Service reported Deskins as saying that when she was called by Boston Air Traffic Control about the hijacking of Flight 11 the belief was that 'it must be part of the exercise'. FAA and military officials had difficulty discerning the war game operations from the actual attacks – as they were meant to – and this

was most importantly the case with NORAD's NEADS centre which was directly responsible for responding to the 9/11 aircraft under its commander, Colonel Robert K. Marr. 'Everybody' at NEADS thought at first that the attacks were part of Vigilant Guardian, according to NORAD's Lieutenant Colonel Deskins.

Other US air defence fighters were occupied in Canada and Alaska on another exercise and staff at Cheyenne Mountain were heavily focussed on this and other drill scenarios when reports of genuinely hijacked aircraft began to come in. Canadian Lieutenant General Rick Findley, Battle Staff Director in the Cheyenne Mountain Operations Center, told the 9/11 Commission that there was 'confusion as to how many, and which aircraft, were hijacked'. General Larry Arnold, NORAD commander of the Continental US region, said: 'By the end of the day we had 21 aircraft identified as possible hijackings.' Despite all of this we are expected to believe that simulated hijackings in the same airspace did not affect the response to the real hijackings? The claim by General Eberhart and General Myers that the exercises didn't adversely affect the reaction time to the 9/11 attacks is beyond belief. Myers even said they 'enhanced the response' and Eberhart said the exercises 'cost us no more than 30 seconds'. How can that be when the normal raft of fighter aircraft at Andrews Air Force Base was seriously reduced by taking part in an exercise in the Las Vegas area? They left before the first plane struck the World Trade Center and didn't return until 2.35 in the afternoon when the attacks were well over. James Ampey, an FAA air traffic controller at Andrews, told the 9/11 Commission that an unusually high number of aircraft were taking off and landing on 9/11 morning because of the exercises and radar screens were depicting 'emergencies all over the place'. This is explained by an *absolutely vital* aspect of 9/11 that must be understood. At least some of the exercises like Vigilant Guardian involved 'sim over live' procedures in which the *simulated hijacks appeared on the live screens of air traffic controllers* both civilian and military. Imagine the potential for confusion, chaos and havoc that this would have wreaked once the real hijackings began – just as the orchestrators planned. Radar operators at Cheyenne Mountain demanded during the attacks that NEADS 'get rid of the goddam sim'. This is a major reason why NEADS, genuine operatives at Cheyenne Mountain and FAA air traffic controllers and others became so confused about what was real and what was exercise. What a coincidence that *twelve hours* before the attacks NORAD chief General Eberhart had reduced the protection for Pentagon communication networks to its *lowest level.* The Information Operations Condition (Infocon) system consists of a series of levels dictated by the perceived threat to military information and computer networks and is employed to defend against computer attacks. In a period where multiple wargame exercises were

happening and simulated hijackings were to be visible on real-time air traffic screens Eberhart directs that Infocon be put on its *lowest level* of alert and protection? *What*? Much later in the book when I get down to the fine detail of who was behind 9/11 you will see how fake 'hijackings', simulated events and even phantom planes could have been inserted in real-time onto air traffic screens by those who were not even directly working with NORAD, the Pentagon, Cheyenne Mountain or the FAA. It's quite a story and the lower the Infocon level the better.

A closer look at Eberhart

General Ralph E. Eberhart has not been a high-profile figure in the 9/11 story compared with people like Bush, Cheney, Rumsfeld and Myers, despite being the commander-in-chief at NORAD and as such the man with overall responsibility for protecting America from the 9/11 attacks. His behaviour that day and before deserves far more public scrutiny than has been the case so far. Red flags fly for me when someone is lauded as a 'hero' when the opposite should be the case and people like Eberhart enjoy post-event promotion for what should have seen them fired. Flashing lights should also be activated when people and events crucial to uncovering the truth about 9/11 are either ignored or made peripheral in the final report of the official 9/11 Commission. All these things happened with Eberhart. You may think that calling him a '9/11 hero' might just require some re-evaluation in the light of the following. Eberhart both rearranged exercises so they would all be happening on September 11th and reduced the level of Pentagon computer protection to its lowest level at the time of the attacks and so why has he not come under serious scrutiny? Eberhart began his day on September 11th at his office at Peterson Air Force Base in Colorado about 20 miles from Cheyenne Mountain. Peterson was the headquarters of another Eberhart operation, the US Air Force Space Command and according to Lieutenant Colonel Dawne Deskins at NEADS in evidence to the 9/11 Commission: 'NORAD planning exercises are mostly held at Peterson.' Colorado was in a different time-zone to New York, but I will use East Coast time to avoid confusion. The official version tells us that Eberhart was contacted from Cheyenne Mountain at 8.45am to be told of a suspected hijacking (Flight 11) that was 'not exercise' and he then saw on television the stricken North Tower. Eberhart said there was confusion in the system and that's not surprising after he had sanctioned – and re-scheduled – so many exercises across America and Canada and in the skies above the eastern United States that simulated aircraft were all over air traffic screens. He said that he recognised after the second plane struck that they were dealing with 'an ongoing and coordinated terrorist attack' (such brilliant insight). His words and response, however, might appear very strange to many. We are told that he spoke

with General Myers and said there were 'several hijack codes in the system' – meaning that pilots were punching in the hijack code; but 9/11 planes *weren't* and this is one of the great mysteries of the hijackings. Where was he getting that from? Eberhart informed Myers that he was going to stay at Peterson because he didn't want to be out of communication and then soon afterwards headed for Cheyenne Mountain, a usually 30 minute car journey that took him 45 minutes, and throughout that time he was not able to take calls because apparently his cell phone didn't work. He is reported to have missed a call from Dick Cheney while on the road. At the same time as claiming he was out of communication he says he ordered fighters to 'battle stations' at 9.49am. Ugh? Battle stations is an on-alert status when pilots sit in their planes with the engines off waiting for orders and he didn't order planes in the air as per standard practice in hijacking situations as we have seen in official regulations. Eberhart said he drove to Cheyenne Mountain because 'things had quieted down' when obviously they hadn't. Two planes were still hijacked and while he was on the road the Pentagon was hit. What's more he was a commander on a military base – why wasn't he rushed to Cheyenne Mountain by helicopter? Eberhart could have triggered a response plan known as Security Control of Air Traffic and Air Navigation (SCATANA) to clear the sky of commercial aircraft and give the military control of airspace. NORAD staff had urged him to do so, but he refused. He said NORAD radar were not sophisticated enough to do this while his staff clearly didn't see this as a problem. Two hours after Flight 175 hit the South Tower at 9.03 a 'modified' SCATANA was implemented when the attacks were well over. Eberhart also allowed his wargame exercises to continue despite what was happening until 10am when the attacks ended and the 'sim' or simulated attacks were allowed to stay on air traffic screens until the Pentagon was hit. We will see a clear pattern with major players on 9/11 like Bush, Cheney, Rumsfeld, Myers and Eberhart all with concocted out-of-the-loop cover stories for what they were doing before the Pentagon was hit and to within minutes of Flight 93 going down. In other words – *until it was all over.* Fighter response failed to effectively react *until it was all over* and the confusion and diversion of wargame exercises were continued *until it was all over*. Colonel Prouty:

> No one has to direct an assassination – it happens. The active role is played secretly by permitting it to happen. This is the greatest single clue. Who has the power to call off or reduce the usual security precautions?

Groundhog Day

Exercises began the day before 9/11 and were due to last a week and

who was in political charge of these wargames that confused the response system on 9/11? Well, well, well: *Dick Cheney*. Others involved were Donald Rumsfeld and acting Chairman of the Joints Chiefs of Staff that morning, General Richard Myers. It is important to remember this when you read the accounts of Rumsfeld and Myers in the next chapter and Cheney later in this one. 'Exercises' and drills have been used again and again as a cover for the scenario they are 'practising' to happen for real. We saw this with the London '7/7' bombings in 2005 when three tube trains and a bus were bombed while an exercise was going on at the same time that mimicked what actually happened. Peter Power, a former police officer in the anti-terrorism branch of London's Scotland Yard, was running the exercise staged by his crisis management company, Visor Consultants, in conjunction with an unnamed company 'of over a thousand people'. He told BBC radio that his London training drill was 'based on simultaneous bombs going off precisely at the railway stations where it [actually] happened this morning, so I still have the hairs on the back of my neck standing up right now'. Power said that they 'had to suddenly switch an exercise from fictional to real which is what we have heard many times before – not least from NORAD commander General Eberhart after 9/11. It is highly doubtful that Power would have been initially so open about the stunning 'coincidence' if he had been knowingly involved in using the exercise as cover for the real thing. Who did have prior knowledge and make the exercise fit so perfectly? Somebody did because when you see how many exercises happen at the same time as the real thing don't give me that 'it's just a coincidence' crap. Power would tell ITV News: '... we chose a scenario – with [the company's] assistance – which is based on a terrorist attack because they're very close to, er, a property owned by Jewish businessmen, they're in the city and there are more American banks in the city than there are in the whole of New York.' The *Jerusalem Post* ran an article that same day by Efraim Halevy, former head of Israel's military intelligence agency, Mossad, which described the 'multiple, simultaneous explosions that took place today on the London transportation system'. A little problem there is that London police did not know they were 'simultaneous' at the time of the article and believed they happened one after the other at 7.51, 7.56, and 8.17am. Halevy called in his article for a world war against Muslim terrorism in the wake of the attacks. Israeli Prime Minister Benjamin Netanyahu – then Finance Minister – was in London at the time and so was New York 9/11 Mayor Rudolph Giuliani. An Associated Press correspondent in Jerusalem reported that the Israeli embassy in London had been warned by Scotland Yard of an imminent terror attack (how did they know?) and Netanyahu was warned by the embassy not to attend an economic conference at the Great Eastern Hotel near to the Liverpool Street

underground station where one of the bombs went off. Giuliani was staying at the Great Eastern Hotel where the conference had been arranged by the Tel Aviv Stock Exchange, the Israeli embassy and Deutsche Bank. See *Terror on the Tube, Behind the Veil of 7/7* by Nick Kollerstrom for more on the London attacks.

Rudolph Giuliani, who knew Netanyahu, also had a Peter Power-type security company – Giuliani Security and Safety – that ran 'mock terror drills' and so on, and it would appear that Power knew Giuliani personnel such as Richard Sheirer, Senior Vice President of Giuliani and Partners. Sheirer was formerly Commissioner at the New York Office of Emergency Management (created by then Mayor Giuliani) from February 2000 to March 2002 which included 9/11. Sheirer was also Director of New York City Homeland Security. He was called 'Ground Zero's Jewish Knight' after 9/11, but was later widely criticised for 'crucial failures of communication, especially between the Fire Department and the Police Department, which may have led to unnecessary deaths of scores of firefighters'. Pasquale J. D'Amuro, the FBI inspector in charge of the 9/11 [non]-investigation under Director Robert Mueller, left the Bureau after 26 years to become chairman of Giuliani Security and Safety. You will see that the world of 9/11 is a very small one indeed. 'Terror drills' that are near carbon copies of what happens for real in the same place at the same time, or very soon afterwards, have been identified many times. Among them have been the sinking of the ferry *Estonia* in the Baltic Sea en route from Estonia to Sweden (1994); the Madrid train bombings (2004); Oslo bombing (2011); Boston bombings (2013) and a long list of other terror attacks and mass shootings. Many police officers who took part in the *Estonia* terror drill died on their way home on the ship. When the part of the vessel officially responsible for the sinking was raised from the seabed the lead investigator was reported to have ordered it to be thrown back. 9/11 anyone?

Cheney tracks 'missing plane' from White House 'bunker'

Vice President Dick Cheney was given control of all 9/11 exercise operations just four months before the attacks in a presidential executive order in May, 2001. Executive orders are an outrageous system by which the President decrees law without the complication of a vote or debate. Cheney is a brutal and deeply imbalanced man. His computer program must have been written by a sadist and he was the real power in the White House in the Boy Bush years. Cheney told the media on September 12th, 2001, that he only heard of the 9/11 attacks from a clerical secretary who was watching television in his Washington office. Yes, and pigs are flying in formation. He said the Secret Service took him to the Presidential Emergency Operations Center, an underground

bunker at the White House, and he began to direct the response – or lack of it – to what was happening. It was no accident that Boy Bush was arranged to be out of the way at a school in Florida and then to be flown between military bases until the evening. Bush was only a figurehead president and he would have got in their way. Go fetch the tea, George – Dick is thirsty. What happened in that White House operations 'bunker' was described by Secretary of Transportation Norman Mineta who witnessed a highly significant exchange. Mineta described what happened before the Pentagon was hit in evidence to the 9/11 Commission:

> During the time that the airplane was coming in to the Pentagon, there was a young man who would come in and say to the Vice President, 'The plane is 50 miles out, the plane is 30 miles out'. And when it got down to 'the plane is 10 miles out', the young man also said to the Vice President, 'Do the orders still stand?' And the Vice President turned and whipped his neck around and said, 'Of course the orders still stand. Have you heard anything to the contrary?

Here is devastating evidence from a member of the Bush-Cheney administration which the official 9/11 Commission shockingly censored and *did not include in its final report*. Mineta was confirming that Cheney and the Hidden Hand he represented were tracking Flight 77, or whatever hit the Pentagon, all the way into Washington, while the official story claims that air traffic controllers had 'lost' the aircraft and NEADS wasn't told of a problem until just before impact. There were two levels of tracking going on all the time. One was the day-to-day operational staff at the NEADS operation in New York State and the FAA (or at least the operational levels). The other was the tracking system that Cheney, the hierarchy at Cheyenne Mountain and Pentagon top brass were operating. *They* were tracking all the planes all the time and directing events while the rank-and-file FAA/NORAD system was having spanners hurled in the works and again towards the end of the book I will explain how this could be done and who by. Cheney was still relatively 'yes sir' and bit-part compared with the real orchestrators. The evidence presented by Norman Mineta has the 'young man' asking Cheney if 'the orders still stand', as the plane hurtles towards Washington with Cheney replying: 'Of course the orders still stand. Have you heard anything to the contrary?' What orders were these then? Mineta indicated that he didn't know what they referred to, but appeared to take them to mean they were to shoot down the plane. This makes no sense at all because, despite the obviously detailed tracking that was going on, the plane or projectile was *not* shot down before the Pentagon was struck. The only explanation that makes sense of what

Mineta said he witnessed is that the orders were *not* to shoot down the plane or whatever it was and allow it to reach its target. No wonder Mineta said the 'young man' sounded so anxious and wanted more confirmation. In other words there was a 'stand-down' order in place that would explain the absence of an effective military response in every aspect of 9/11. Charles E. Lewis, who worked on a project involving the Airport Operations Area at Los Angeles airport, or LAX, until two months before 9/11, described what happened when he returned to the airport after the happenings in New York to see if he could help in some way given his experience of new security systems. He said:

> As on other days, there was 'chatter' on LAX Security walkie-talkies and I could easily hear what Security was saying when they were outside the guard shack (they would go in and out, but they were mainly outside). On some of the walkie-talkies, I could hear both sides of the conversations; on others only one.
>
> I do not know who was at the other end of the walkie-talkies, but I assumed that it was LAX Security dispatch or command. At first, LAX Security was very upset because it seemed to Security that none of the FAA's Air Traffic Controllers (ATCs) tracking the hijacked airliners had notified NORAD as required. More chatter revealed that ATCs had notified NORAD, but that NORAD had not responded, because it had been 'ordered to stand-down'.
>
> This report made Security even more upset, so they tried to find out who had issued that order. A short time later the word came down that the order had come 'from the highest level of the White House'. Security was puzzled and very upset by this and made attempts to get more details and clarification, but these were not forthcoming while I was still there.
>
> Another piece of information that I heard, shortly after my arrival, was that the Pentagon had been 'hit by a rocket'. It's possible that the word was 'missile', although I'm quite certain it was 'rocket'. I was, in any case, quite surprised when I later got home and learned that the media were reporting that an airliner had hit the Pentagon.

Apparent chaos is wonderful camouflage for calculation. As I've said, there were two communication networks operating on 9/11. One involved the 'people on the ground', the operatives at air traffic control centers and those at NEADS. These communications were systematically disrupted and sabotaged by those working for the other communication networks that day. This was the one involving the Joint Chiefs of Staff Command Center in the Pentagon (which I am about to discuss), the highest level of NORAD and associated agencies at Cheyenne Mountain,

Dick Cheney and other Hidden Hand and Web operatives. Something similar was planned in the 1960s by the Pentagon Joint Chiefs of Staff, as I will be explaining. Some researchers have confused the more basic NEADS operation in New York State with NORAD's operational headquarters in Cheyenne Mountain where incredible tracking technology exists, much of it unknown to the public arena. This second network, operating to its pre-arranged plan, had access to state-of-the-art technology while NEADS was kept confused and bewildered about what was going on as they tried to make sense of what was happening amid, among other things, Pentagon 'wargame exercises' that also involved simulated hijackings. These wargames were under the ultimate authority of Dick Cheney.

It was this Cheney-Pentagon-NORAD network that was orchestrating the attacks on one level and sabotaging the normal speed and efficiency of response but even they were only artisans in a network of even deeper control that I will expose in detail towards the end of the book.

CHAPTER 7

Where were you on 9/11?

Without censorship, things can get terribly confused in the public mind
– General William Westmoreland, Commander US forces in Vietnam

Our attention turns next to the National Military Command Center (NMCC). This is the Pentagon command and communications operation that is supposed to oversee and respond to emergencies and threats like 9/11 under the authority of the Chairman of the Joint Chiefs of Staff who officially answers to the Secretary of Defense and US President.

General Richard B. Myers officially took over as Joint Chiefs chairman, the highest uniform post in the US military, two weeks after the attacks and was acting chairman while they were happening (Fig 33). He was appointed deputy chairman in 2000 and before that he was commander of NORAD. Myers, therefore, knew precisely what the procedures were for reacting to unexplained happenings with planes in North American airspace. FAA regulations say: 'The escort service will be requested by the FAA hijack coordinator by direct contact with the National Military Command Center (NMCC).' The Department of Defense manual says:

> In the event of a hijacking, the National Military Command Center will be notified by the most expeditious means by the Federal Aviation Administration. The NMCC will, with the exception of immediate responses ... forward requests for DOD [Department of Defense] assistance to the Secretary of Defense for approval.

Figure 33: General Richard Myers was somehow in two places at the same time on 9/11.

This is the same National Military Command Center that claims it had no warning that an airliner was about to

crash into its own building some 45 minutes after it deviated off course! Where was General Myers while all this was going on and what were the top brass in the Pentagon doing all this time? What was Defense Secretary Donald Rumsfeld doing? Where was President Bush? Myers knew the response procedures. He knew that Andrews Air Force Base little more than ten miles down the road had all that was necessary to respond to Flight 77 as it headed for Washington. Yet nothing was done. *The New York Times* tried to explain what was happening at the Pentagon that morning:

> During the hour or so that American Airlines Flight 77 was under the control of hijackers, up to the moment it struck the west side of the Pentagon, military officials in a command center on the east side of the building were urgently talking to law enforcement and air traffic control officials about what to do.
>
> [No, you didn't misread that.]
>
> But despite elaborate plans that link civilian and military efforts to control the nation's airspace in defense of the country, and despite two other jetliners' having already hit the World Trade Center in New York, the fighter planes that scrambled into protective orbits around Washington did not arrive until 15 minutes after Flight 77 hit the Pentagon [reported elsewhere as 20 minutes].

What? Military chiefs in the Pentagon Command Center were 'urgently talking about what to do?' These are the guys who are supposed to protect the United States from nuclear attack! Officials in the Command Center were talking to air traffic officials (FAA) during the hour in question and so why no response from NORAD? Why are we told that NORAD's NEADS center, which is under Pentagon command, was not alerted about Flight 77 when Pentagon officials were 'urgently talking to law enforcement and air traffic control officials about what to do' during 'the hour or so that American Airlines Flight 77 was under the control of the hijackers'? Given what had happened in New York why weren't planes scrambled to patrol the skies over Washington as a matter of course anyway? Here we have the nexus from which the two tracking operations were coordinated – one that was feeding countdown information to Cheney in his White House bunker and the other (run by NEADS and lower-level FAA) was being systematically isolated and sabotaged. General Myers told his Senate confirmation hearing when he became Chairman of the Joint Chiefs of Staff that he pledged '… to keep our armed forces at that razor's edge'! Pentagon spokesman Air Force Lieutenant Colonel Vic Warzinski even had the audacity to tell *Newsday*: 'The Pentagon was simply not aware that this aircraft was coming our way …' The Cheyenne Mountain

official website said of the NORAD Command Center supplying real-time information to the Pentagon:

> Redundant and survivable communications hot lines connect the Command Center to the Pentagon, White House, US Strategic Command, Canadian Forces Headquarters in Ottawa, other aerospace defense system command posts, and major military centers around the world.

Where were these 'hot lines' on 9/11 when Pentagon chiefs claim they *didn't know that a hijacked plane heading for their own city for more than 45 minutes was coming their way??* CNN reported that while golfer Payne Stewart's plane was flying on auto pilot '... officers on the Joint Chiefs were monitoring the Learjet on radar screens inside the Pentagon's National Military Command Center'. Of course they were, that is what they are supposed to do. Why are we told they did not do this on September 11th when four planes were hijacked and how come they didn't know one was heading in their direction? The lies would be laughable if the consequences had not been so tragic. CNN also quoted officials at the Pentagon as saying they were never made aware of the threat from hijacked United Airlines Flight 93 until after it crashed in Pennsylvania at 10.03am. The FAA is reported to have informed NORAD at 9.16 that Flight 93 may have been hijacked and the transponder was turned off at 9.40. NORAD and the FAA both told me that open lines between them were established to discuss Flight 93. There is no way that the Pentagon's National Military Command Center with open lines to the FAA and NORAD (in Cheyenne Mountain) was not aware of the hijack of Flight 93 until we are told that it crashed after 10am. The Pentagon's entire story is nonsense and it is designed to hide the simple truth – at the highest levels within the US government and military these attacks were being both orchestrated and allowed to happen. 'Flight 77' crashed into the Pentagon on the west side of what is the biggest office complex in the world. This is the opposite side of the building to where Rumsfeld, military top brass and the National Military Command Center were located. The targeted section had been the first of five to undergo renovations and strengthening to protect the Pentagon from terrorist attacks and yet this is the very section these 'highly trained, highly professional' terrorists aimed for?? Such is the size and strength of the Pentagon that Rumsfeld said that he only felt a 'jarring thing' when the plane hit. If you were really a crazed Islamic fanatic dedicated to attacking the 'Great Satan America' why would you aim the plane at the very opposite side of a 29-acre, six million-square-foot building to where your real targets are? The answer I guess is the same as why Timothy McVeigh parked the Ryder truck as far away as he did from his alleged target, the offices of the Bureau of Alcohol, Tobacco,

Firearms and Explosives (ATF).

Where was Myers?

General Myers was acting chairman of the Joint Chiefs of Staff on September 11th in the absence abroad of the outgoing General Hugh Shelton. Myers would be confirmed as Shelton's successor at a Senate hearing only two days later. Chairman of the Joint Chiefs is the highest-ranking uniformed military post and third in command of US forces. Surely this is a man who would have been at the centre of events with America 'under attack' from terrorists. Where was Myers while the nightmare was being unleashed? It turns out, and I'm not kidding, that he was having a meeting with Senator Max Cleland of Georgia on Capitol Hill. Or, at least that's what he claims. I think it's best if you sit down while you read the following and breathing deeply might help, too. This is Myers' account of his movements that morning described in an interview with the Armed Forces Radio and Television Service:

> I remember it was like watching a bad movie. I was on Capitol Hill. I was about ready to meet with Senator Cleland. I was meeting with him in preparation for my hearing, my confirmation hearing to be the Chairman of the Joint Chiefs of Staff. And I remember before we walked in there was a TV that was playing and somebody has said, 'An airplane has hit one of the World Trade Center towers'.
>
> They thought it was an airplane, and they thought it was a small airplane or something like that. So we walked in and we did the office call with Senator Cleland.

The highest-ranking uniformed officer in the US military on American soil that day hears that a plane has hit the World Trade Center and instead of checking it out he goes into a routine meeting with a senator about confirmation hearings? *Come again?* And it gets worse:

> Sometime during that office call the second tower was hit. Nobody informed us of that. But when we came out, that was obvious. Then right at that time somebody said the Pentagon has been hit.

Hold on, let me sit down here and fasten the seat belt. No one informs the acting chairman of the Joint Chiefs of Staff, the top military man in America at the time, that a second airliner has hit the World Trade Center (or even the first) when down in Florida White House Chief of Staff Andrew Card was telling President Bush that 'America is under attack' according to the official story? General Myers' account makes no rational sense whatsoever. Do they really think we are all so

stupid that we would believe that the acting chairman of the Joint Chiefs of Staff is not contactable at all times and that he would not have been told by the Pentagon about the second plane – indeed the first also – as a matter of course? Myers then says that 'right at the time' when he and Cleland came out of their meeting 'somebody said the Pentagon has been hit'. We can therefore add a timeline to his story. Myers' account puts him in the meeting with Cleland at no later than around 9am before the second plane crashed and he did not come out until about the time the Pentagon was struck. This means no earlier than 9.38-9.40 and even later given reaction time. How amazing that this meeting took place across precisely the period that the attacks were happening – if indeed there was such a meeting given evidence that follows. *The New York Times* tells us that 'during the hour or so that American Airlines Flight 77 was under the control of hijackers, up to the moment it struck the west side of the Pentagon, military officials in a command center on the east side of the building were urgently talking to law enforcement and air traffic control officials about what to do'. All this was happening and they didn't inform their ultimate boss that day who claims to have been in a meeting down the street on Capitol Hill? Smell a rat? I smell a whole species. General Myers says that when he emerged from the meeting to be told what most of the world already knew he launched into action:

> Immediately, somebody handed me a cell phone, and it was General Eberhart out at NORAD in Colorado Springs talking about what was happening and the actions he was going to take. We immediately, after talking to him, jumped in the car, ran back to the Pentagon.

I have detailed the fantastic technology and communications network at the disposal of NORAD and the Pentagon yet NORAD's commander contacts the acting military head of US forces only *after* three hijacked planes had crashed over nearly an hour and when somebody handed him a cell phone? NORAD commander General Eberhart – the man who replaced Myers at Cheyenne Mountain – is telling him 'the actions he is *going* to take' after three airliners are embedded in three of America's biggest buildings? What in God's name had Eberhart and his NORAD operation been doing all this time? And why did Eberhart wait until three aircraft had crashed into buildings before calling the acting Chairman of the Joint Chiefs of Staff? If you feel you can stand any more General Myers also told Armed Forces Radio and Television:

> The Chairman [General Shelton] had left that morning to go to Europe, so he was somewhere over the Atlantic. As I got to the Pentagon I noticed a lot of people were coming out of the Pentagon. Of course they'd been told to evacuate. My concern was where can you best discharge your duties? ... [My]

> battle station was in the National Military Command Center. I asked if it was still running, they said it sure is, so I went back in the building to the Command Center and was joined shortly thereafter by the Secretary of Defense [Rumsfeld]. The Deputy Secretary [Wolfowitz] actually went to another location at that point. We did what had to be done in terms of the command and control of the day ...

The interviewer asked Myers if he could believe that it was actually a terrorist attack:

> I didn't know what to believe at the time. That was the problem. We had these events, and then subsequently the airplane went down in Pennsylvania. We were trying to tie this together, what does this mean? General Eberhart was working with the Federal Aviation Agency trying to figure out the logical steps at this point. We had some fighters airborne at that time in case we had some hijacked airplanes that were possibly a threat to other institutions or structures, but it was initially pretty confusing. You hate to admit it, but we hadn't thought about this.

They hadn't thought about this when they had been performing practice drills over years based on just this scenario? Given what is claimed to have happened, the voices said to have been heard from cockpit radios and reports by passengers and attendants on 'cell phones' and 'Airfones' that morning it is an unbelievable misrepresentation to say they didn't know this was a 'terrorist attack'. Only with three planes down and a fourth soon to crash in Pennsylvania did the top military officer on duty that day walk into the Command Centre at the Pentagon which, as we have seen, has clear and set procedures for reacting to hijackings or aircraft anomalies and would have had open lines throughout to the FAA and NORAD in Cheyenne Mountain. Only then did the Defense Secretary Donald Rumsfeld appear and he was in the building from at least before the time that Flight 11, the first hijacked plane, was leaving its gate at Boston Logan. More about Rumsfeld shortly, but let us stay with General Myers because this guy really is something else. You may have seen him at the time, a grey-haired chap in uniform giving news conferences at the Pentagon while his forces bombed innocent civilians in Afghanistan and elsewhere justified by what is alleged to have happened on September 11th. Two days after 9/11 Myers appeared before the Senate Armed Services Committee hearing that confirmed his appointment as Chairman of the Joint Chiefs of Staff. Committee Chairman Senator Carl Levin questioned him about what had happened while the attacks were taking place:

> **Levin:** Was the Defense Department contacted by the FAA or the FBI or any

other agency after the first two hijacked aircraft crashed into the World Trade Center, prior to the time that the Pentagon was hit?

Myers: Sir, I don't know the answer to that question. I can get that for you, for the record.

[He didn't know?]

Levin: Thank you. Did the Defense Department take – or was the Defense Department asked to take action against any specific aircraft?

Myers: Sir, we were ...

Levin: ... And did you take action against – for instance, there have been statements that the aircraft that crashed in Pennsylvania was shot down. Those stories continue to exist.

Myers: Mr Chairman, the armed forces did not shoot down any aircraft. When it became clear what the threat was, we did scramble fighter aircraft, AWACS, radar aircraft and tanker aircraft to begin to establish orbits in case other aircraft showed up in the FAA system that were hijacked. But we never actually had to use force.

Levin: Was that order that you just described given before or after the Pentagon was struck? Do you know?

Myers: That order, to the best of my knowledge, was after the Pentagon was struck.

[He doesn't know?]

The highest-ranking military man in America, third only in military authority to the President and the Defense Secretary, and himself a former Commander of NORAD, does not know two days after 9/11 if his own Defense Department was contacted by the FAA or FBI or any other agency after the first two hijacked aircraft crashed into the World Trade Center and before the Pentagon was hit? He didn't ask at any time after he claims to have rushed to his 'battle station', the National Military Command Center in the Pentagon, where they would have known everything that had happened? What utter tripe. He knew exactly the procedure and lines of communications as both the acting chairman of the Joint Chiefs of Staff and a former head of NORAD. He knew that the Defense Department, NORAD, and the FAA work closely in hijack situations and that the Pentagon would have normally been

notified before the first plane crashed never mind after two had done so. He knew that fighters are deployed as a matter of course to seek out rogue aircraft. Myers said that 'to his knowledge' no order was given to scramble jets in response to the attacks until after the Pentagon was hit. 'To his knowledge'? He didn't ask that question either when he arrived at the Pentagon or *for two days afterwards?* In that time no one told him? This question of whether jets were indeed scrambled before the Pentagon was struck is interesting because not only did Myers say to his knowledge that military jets were *not* scrambled until after the Pentagon strike this was NORAD's position for several days also. New York Mayor Rudolph Giuliani said that he called the White House just before 10am and asked Chris Henick, Bush's deputy political director, about air cover over New York. Giuliani said he was told that jets had been scrambled twelve minutes earlier which would have made that after the Pentagon was hit. This is a common theme. NORAD spokesman Barry Venable told me in 2002 that this was not the case and sent me an Associated Press report of September 11th in which NORAD spokesman Colonel Mike Perini is quoted as saying: 'NORAD controllers did track one of the hijacked planes, but it crashed into the World Trade Center even as fighters were scrambling.' Other NORAD spokesmen said the very opposite, as did General Myers. Major Mike Snyder, a spokesman at NORAD headquarters, said that no fighters were scrambled before the Pentagon was hit. This was exposing outrageous incompetence (at best) and the story was about to change.

No fighters were scrambled? *What??* Cue Dan

The 'we did scramble planes' story only began to circulate after a report by Dan Rather, a Council on Foreign Relations member and CBS News 'anchor'. Rather is the man who told talk show host David Letterman:

> George Bush is the President. He makes the decisions. Wherever he wants me to line up, just tell me where.

You are a *journalist*, man – or supposed to be. It was Rather who announced to the nation on September 14th that jets had been scrambled while quoting no sources. From this 'Rather exclusive' the 'we scrambled jets, but they were just too late' story became official history. In fact Rather himself had asked CBS military consultant Colonel Mitch Mitchell on September 12th why the Pentagon didn't have a system in which fighters were used to defend against attacks like 9/11. Rather's revelations that jets *were* deployed on September 11th before the Pentagon was hit came the day after the disastrous testimony of General Myers to the Senate Armed Forces Committee in which he had made the shocking statement that no fighters had been ordered to intercept the

first three hijacked airliners that morning. Myers made no mention of planes scrambling from Otis or Langley, the CIA Air Force base where he was stationed for three years in the late 1980s. Then, hey presto, the following day the scrambled fighter jets story suddenly appeared on CBS. Dan Rather said that night:

> CBS News has learned the FAA alerted US Air Defense units of a possible hijacking at 8.38 Tuesday morning, and six minutes later, at 8.44, two F-15s received a scramble order at Otis Air Force Base on Cape Cod. But two minutes later, at 8.46, American Airlines Flight 11, the first hijacked jet, slammed into the World Trade Center. Six minutes later, at 8.52, the F-15s were airborne and began racing towards New York City, but the fighters were still 70 miles away when the second hijacked jet, United Airlines Flight 175, hit the second Trade Center tower. Shortly after that blast, the F-15s reached Manhattan and began flying air cover missions over the city.
>
> But to the south, a new danger and a new response. At 9.30, three F-16s were launched out of Langley Air Force Base in Virginia, 150 miles [130] south of Washington. But just seven minutes later, at 9.37, American Airlines Flight 77 hit the Pentagon. The F-16s arrived in Washington just before 10am and began flying cover over the nation's capital.

The contradictions can be clearly observed in two reports in the *Boston Globe* just four days apart. On Saturday, September 15th, reporter Glen Johnson highlighted the opposing accounts of CBS and NORAD. After repeating Rather's CBS 'exclusive' the night before, he wrote that NORAD at that stage still denied scrambling any jets before the Pentagon was attacked even though a NORAD spokesman, Marine Corps Major Mike Snyder, said they 'routinely' intercept aircraft (it was happening about 100 times a year). Go figure. The *Globe* quoted Snyder as saying:

> We scramble aircraft to respond to any aircraft that we consider a potential threat. The hijacked aircraft were normal, scheduled commercial aircraft on approved flight plans and we only had 10 minutes prior notice to the first attack, which unfortunately was not enough notice.

But he also confirmed that none were scrambled for the next hour either! The *Globe* story said:

> ... Snyder, the NORAD spokesman ... said the command did not immediately scramble any fighters even though it was alerted to a hijacking 10 minutes before the first plane, American Airlines Flight 11 from Boston to Los Angeles, slammed into the first World Trade Center tower at 8.45am Tuesday.

> Never before had a hijacked airliner been steered into a skyscraper, Snyder noted, in trying to explain the lack of immediate response [exercise scenarios had been happening for years to practice for just such a situation].
>
> The spokesman said the fighters remained on the ground until after the Pentagon was hit by American Airlines Flight 77 at 9.40am, during which time the second Trade Center tower was struck by United Airlines Flight 175, which also originated in Boston and was destined for Los Angeles. By that time, military authorities realized the scope of the attack, Snyder said, and finally ordered the jets aloft.

Vice President Cheney was still telling this same story five days after the attacks on September 16th when he told the NBC show *Meet the Press* that it was Bush who personally made the decision to send up interceptors and Cheney suggested this was only done after the Pentagon was hit. How does all this square with the later (and since official) story about having fighters in the air heading for hijacked airliners before that time? Suddenly the story changed, new song sheets all round at Cheyenne Mountain and the Pentagon. By September 19th – *eight* days after 9/11 – Glen Johnson and the *Boston Globe* were reporting a very different version of events from NORAD. Johnson wrote:

> Two fighter jets dispatched from Otis Air National Guard Base on Cape Cod had closed to within 71 miles of New York last week when the second of two hijacked airliners slammed into the World Trade Center towers, the military confirmed Tuesday.
>
> Similarly, two F-16 fighters that had scrambled from Langley Air Force Base in Virginia streaked toward Washington as a third airliner bore in on the Pentagon, but both were still about 12 minutes away when the commandeered plane struck the nation's military headquarters.

The timeline, provided by NORAD, had miraculously changed. Johnson rightly pointed out:

> The account contradicted earlier statements from a defense command spokesman and the incoming chairman of the Joint Chiefs of Staff [Myers]. Both said the military did not launch its planes until after the Pentagon had been hit.

NORAD spokesman Army Major Barry Venable said the previous statements were based on 'inaccurate information'. What – *for more than a week?* I met with the *Boston Globe's* Glen Johnson and he told me he had

called the public affairs office at Otis Air Force Base to ask them to confirm that they did scramble planes that morning, but they refused to comment for reasons of 'operational security' even though their bosses at NORAD had now issued a press release saying that they had. Johnson told me that eventually they would not return his calls. What goes on? I asked NORAD if I could speak with the pilots of the planes that were said to have been scrambled from Otis. I was told they had 'elected not to speak with the media'. They had no problem, however, speaking with the BBC programme *Clear The Skies* that unquestioningly repeated the official line and enjoyed great cooperation and access to Cheyenne Mountain and other military establishments as a result. The blatant contradictions in the official story are constant and obvious everywhere you look. Anyway, even according to this new timeline of NORAD and the Pentagon, no fighter jet got within 100 miles of even the fourth aircraft, Flight 93, before it 'crashed in Pennsylvania'. The *Globe's* Johnson highlighted the obvious point that these 'scrambled' jets flew to their targets at well below their potential speed. Why? We had the same contradictions with Flight 93 almost two hours after the problem was first identified with Flight 11. Major General Paul Weaver, director of the Air National Guard, said that 'no Air National Guard or other military planes were scrambled to chase the fourth hijacked airliner, United Airlines Flight 93'. This is a staggering statement in itself, but Defense Secretary Rumsfeld's deputy Paul Wolfowitz was quoted in the *Boston Herald* telling a very different story. He said: '... the Air Force was tracking the hijacked plane that crashed in Pennsylvania on Tuesday after other airliners slammed into the Pentagon and World Trade Center and had been in a position to bring it down if necessary.' General Myers was questioned by Senator Bill Nelson during his Senate confirmation hearing on September 13th and his shocking mendacity was there for all to see:

> **Nelson:** The second World Trade tower was hit shortly after 9am. And the Pentagon was hit approximately 40 minutes later. That's approximately. You would know specifically what the timeline was. The crash that occurred in Pennsylvania after the Newark westbound flight was turned around 180 degrees and started heading back to Washington was approximately an hour after the World Trade Center second explosion.
>
> You said earlier in your testimony that we had not scrambled any military aircraft until after the Pentagon was hit. And so, my question would be: Why?
>
> **Myers:** I think I had that right that it was not until then. I'd have to go back and review the exact timelines. [He *thinks* that's right?]

Nelson: Perhaps we want to do this in our session, in executive [secret] session. But my question is an obvious one for not only this committee, but for the executive branch and the military establishment. If we knew that there was a general threat on terrorist activity, which we did, and we suddenly have two trade towers in New York being obviously hit by terrorist activity, of commercial airliners taken off course from Boston to Los Angeles, then what happened to the response of the defense establishment once we saw the diversion of the aircraft headed west from Dulles turning around 180 degrees and, likewise, in the aircraft taking off from Newark and, in flight, turning 180 degrees? That's the question. I leave it to you as to how you would like to answer it. But we would like an answer.

Myers: You bet. I spoke, after the second tower was hit, I spoke to the commander of NORAD, General Eberhart. And at that point, I think [*think?*] the decision was at that point to start launching aircraft.

In his interview with Armed Forces Radio and Television Myers said that when he came out of his meeting on Capitol Hill with Senator Max Cleland he was told of the second plane crashing into the WTC *and* that the Pentagon had just been hit. Only then, he said, did he talk to Eberhart. Myers is changing his accounts in response to Nelson's questions as they expose the inexplicable non-reaction of Cheyenne Mountain and the Pentagon. What Myers is therefore saying here again is that no planes were scrambled until after the Pentagon was hit.

Myers: One of the things you have to understand, senator, is that in our posture right now, that we have many fewer aircraft on alert than we did during the height of the Cold War. And so, we've got just a few bases around the perimeter of the United States.

What about the fighters a minute's flying time from Washington at Andrews AFB, which were deployed after the Pentagon was hit?

Myers: So it's not just a question of launching aircraft, it's launching to do what? You have to have a specific threat. We're pretty good if the threat's coming from outside. We're not so good if the threat's coming from inside.

Two planes have hit the World Trade Center and another hijacked aircraft is heading for Washington and he says you have to have a 'specific threat' before scrambling fighters? And 'launching to do what?' Launching to do what they do every week of the year and as a former commander of NORAD he well knew that. Why were planes not deployed over Washington as soon as the World Trade Center was attacked? If it was felt right to do that after the Pentagon was hit why

not before?

> **Myers:** In this case, if my memory serves me – and I'll have to get back to you for the record – my memory says that we had launched on the one that eventually crashed in Pennsylvania. I mean, we had gotten somebody close to it, as I recall. I'll have to check that out. [Remember this is the top-ranking uniformed military officer in America speaking two days after the attacks.] I do not recall if that was the case for the one that had taken off from Dulles. But part of it is just where we are positioned around this country to do that kind of work because that was never – it goes back to Senator Collins' issue. Is this one of the things that we'll worry about. You know, what's next? But our posture today is not one of the many sites and the many tens of aircraft on alert. We just have a handful today.

Let us not forget that General Myers said that he headed straight for the Command Center in the Pentagon after he came out of his meeting on Capitol Hill. The idea that he did not know that morning, never mind two days later, what fighter jets had been, or not been, scrambled is simply insulting to the American public. Of course he knew and what he said until he was faced with uncomfortable questions is that they did not scramble jets until the Pentagon was hit. When you have someone presenting such a travesty of the truth and dithering around unable to answer the most basic of questions – answers he would clearly have known – the alarm bells begin to explode. Senator Nelson later emphasised his point again to the committee:

> Mr Chairman, may I, just for the record? Commenting from CNN on the timeline, 9.03 is the correct time that the United Airlines flight crashed into the South Tower of the World Trade Center; 9.43 is the time that American Airlines Flight 77 crashed into the Pentagon. And 10.10am is the time that United Airlines Flight 93 crashed in Somerset County, Pennsylvania. So that was 40 minutes between the second tower being hit and the Pentagon crash. And it is an hour and seven minutes until the crash occurred in Pennsylvania.

What a [coordinated] shambles

The whole official story is a mess and the 9/11 Commission, the official cover up of what really happened, would produce *a third* FAA/NORAD response timeline when it reported in 2004 in another desperate attempt to hide the truth that normal procedures were sabotaged to allow the attacks to happen unchallenged. *Three* separate report and reaction timelines were issued all contradicting each other over a period of three years? Yep, sounds credible. The Commission described a 'they-called-them-who-called-them' chain of command to explain delays in response that totally contracted hijack reaction procedures in the official manuals

which are based on problem-report-scramble. Military chiefs were exposed in Commission hearings for lying in their previous statements, but don't worry there's not a scam going on or anything. In the Commission's timeline for Flight 11 the FAA was aware of a hijacking at 8.25am and yet waited seven minutes to alert the NORAD'S NEADS response system in New York State where NEADS Battle Commander Colonel Robert Marr only put Otis planes on alert and called Major Larry Arnold, commanding general of NORAD's US Continental Region, to consume another eight minutes before Arnold gave the go-ahead to get them airborne. Forty seconds later, according to the Commission timeline, Flight 11 hit the North Tower. From the FAA realising the plane was hijacked to the fighters being scrambled to respond took *21 minutes* in this timeline. It should have taken less than five and if that had happened the fighters would have travelled the 153 miles to New York before the building was struck. Yet another misdirection is that NEADS required higher authorisation before jets could be scrambled. Regulations say that in an emergency action can be taken before higher authority is secured. While FAA top brass have fundamental questions to answer the 9/11 Commission version of events hung out to dry the rank and file FAA and cleared the top brass military to hide the existence of stand-down/don't respond orders until after the Pentagon strike.

NORAD or SNORAD?

General Ralph Eberhart, Commander in Chief of NORAD and Space Command at Cheyenne Mountain, appeared on October 25th, 2001, before the Senate Armed Services Committee Hearing on the 'Role of Defense Department in Homeland Security'. By now the new song sheets had been circulated. Eberhart said that the FAA did not notify NORAD or the Department of Defense that Flight 77 was 'probably hijacked' until 9.24am even though it had changed course and turned back at about 8.55 – after the first plane had already crashed into the World Trade Center. The plane was 'probably hijacked'? Can it get any sillier? Eberhart said:

> I show it as 9.24 that we were notified, and that's the first notification that we received. I do not know, sir, why it took that amount of time for FAA. I hate to say it, but you'll have to ask FAA.

Did anyone ever bother? It should also be pointed out the claim that NORAD was told about Flight 77 at 9.24 was exposed as untrue three years later by the NORAD tapes. Eberhart was asked if they had now improved the communication system:

> Sir, I assure you that we have, and we practice this daily now, and now it takes about one minute from the time that FAA sees some sort of discrepancy on their radar scope or detects a discrepancy in terms of their communication before they notify NORAD. So that certainly has been fixed.
>
> I think at that time, the FAA was still thinking that if they saw a problem it was a problem that was a result of a mechanical failure or some sort of crew deviation. They weren't thinking hijacking. Today, the first thing they think is hijacking, and we respond accordingly.

You can see from the evidence presented in the last chapter about the normal reaction procedures of the FAA and NORAD before September 11th that we are being seriously misled here. If you look at what happened to those planes it was clear to air traffic controllers that the aircraft were not suffering a 'mechanical failure or some sort of crew deviation' and so why is Eberhart talking such nonsense? Senator John Warner said he was 'a little bit stunned' that Eberhart didn't know six weeks after the attacks why there was such a delay in the FAA informing NORAD/NEADS about what was happening. Warner asked him if the FAA and NORAD had not rehearsed the possibilities of an aircraft being seized by terrorists. Eberhart replied: '... although we practice this, day in and day out, the FAA sees on their scopes scores of problems that are a result of mechanical problems, switch errors, pilot errors, et cetera, and that's what they think when they see this'. Oh do come on. Contact was lost with the cockpits, transponders were turned off, there were serious changes in course and planes were crashing into buildings. Then we are told there were calls from passengers on the planes and 'terrorists' heard in the cockpits. Nothing to worry about, Ralph, must be a mechanical fault. Note that he says they 'practice this, day in and day out ...' and uses the pre-September 11th tense if you read the sentence. He was, after all, speaking only weeks after the attacks. Eberhart continued:

> Although we have exercised this, we have practiced it, in most cases it's a hijacking like most of the hijackings, all of the hijackings I'm aware of, where we have plenty of time to react, we get on the wing, and we follow this airplane to where it lands and then the negotiations start. We were not thinking a missile – an airborne missile that was going to be used as a target – a manned missile if you will – the origin of this flight was from overseas and we did not have the time-distance problems that we had on that morning. We had plenty of time to react.

[Nonsense – exercise drill scenarios for just this plane-as-a-missile situation had been practiced for years.]

> We were notified that for sure there was a hijacking and we were notified that they were holding a gun to the pilot's head and telling him to fly toward New York City or Washington, DC. So that's how we had practiced this, sir. I certainly wish we had practiced it differently, but I really think that, for sure in the first two instances, and probably in the third, the time and distance would not have allowed us to get an airplane to the right place at the right time.

A few months later he said that from the moment the FAA suspects a problem it took 'only about one minute' to contact NORAD and fighters are in the air 'within a matter of minutes to anywhere in the United States'. He claimed this was a new procedure when it was nothing more than the previous policy – suspended on 9/11 – that said if there was an unexpected loss of radar or radio communication it must be considered that 'an aircraft emergency exists'... and ... 'If ... you are in doubt that a situation constitutes an emergency or potential emergency, handle it as though it were an emergency'. Eberhart's operation within Cheyenne Mountain had access to the most sophisticated tracking and surveillance technology on earth – and in space – known to man and this is a point missed (of course it was) by the 9/11 fake Commission which said that NORAD was struggling to locate Flight 11 because its transponder was turned off. Author and researcher David Ray Griffin points out in *The 9/11 Commission Report, Omissions and Distortions* that NORAD's tracking systems are far more advanced than civilian technology and did not need a transponder to track a plane and its altitude. Griffin rightly adds that if all Soviet planes had to do to avoid detection during the Cold War was to turn off their transponders what kind of state-of-the-art defence system was that? It's all nonsense and another diversion to cover the military response stand-down/sabotage on 9/11. Two planes had hit the World Trade Center and Eberhart claims they didn't have the time to intercept a plane that turned back towards Washington 40 minutes before it struck the Pentagon? He says that they 'were not thinking a missile – an airborne missile that was going to be used as a target – a manned missile if you will', but two such 'missiles' had already crashed into the World Trade Center before the non-reaction to Flight 77 in Washington by the FAA-NORAD system. Senator Wayne Allard asked Eberhart if they had aircraft 'at least up in the air with the second plane to hit the twin towers'. He replied, 'Yes sir.' The following exchange then took place:

> **Allard:** And so what I'm interested in knowing is, what was the process there and then, how was that followed-up with the other aircraft that you identified that were coming or heading toward Washington, and how you responded? And how was the FAA interacting with NORAD in that whole situation,

starting with that first plane that you deployed heading toward New York City?

Eberhart: Yes, sir. The first flight I think was American Flight 11. [He thinks?] The FAA, once they notified us and we issued a scramble order almost simultaneously to the first crash, tragically. That flight of two out of Otis Air Force Base, out of Cape Cod ...

Allard: Let me understand – so right at the time the first aircraft was hitting the Twin Towers, you were being notified by FAA that you had another plane headed toward the Towers, you just routinely brought another aircraft ...

Eberhart: No, they notified us of the first hijacking just about the time that that airplane was hitting the tower.

Allard: Okay.

Eberhart: And at that time, we issued a scramble order for the two F-15s out of Otis Air Force Base [even though NORAD was denying this for a week]. We continued to send those airplanes toward New York City because initially, as we worked with the FAA, we weren't sure if that was the hijacked airplane [a ludicrous statement]. I mean, I hate to admit this, but I'm sitting there hoping that someone has made a mistake; there has been an accident; that this isn't the hijacked airplane, because there is confusion. We were told it was a light commuter airplane. It didn't look like that was caused by a light commuter airplane.

[With NORAD's technology at Cheyenne Mountain they would have known exactly what it was.]

So we were still trying to sort this out, so we're moving the two F-15s and we continue to move them. They're flying toward New York City. In fact, they are eight minutes away from New York City when the second crash occurs. We didn't turn around. We didn't send them back.

Allard: They hadn't made a sighting of that ...

Eberhart: Again, it's time and distance. It took them only six minutes to get airborne. [The Air Force claimed a potential response time of 2.5 minutes from scramble to 29,000 feet.] Once we told them to get airborne, it took them six minutes to get airborne. I think this talks about the professionalism and training of these individuals. Tragically, there was just too much distance between Otis and New York City to get there in time to ...

Allard: Did FAA then notify you that you had a second hijacked plane

somewhere in there, and the planes up there were ...

Eberhart: During that time, yes, we were notified, and again we'll provide the exact time line for the record.

Allard: I'm not interested in exact time lines as much as I am just how the FAA reacted with NORAD during this time period. And then you had the other two planes heading out. Then FAA continued to notify NORAD that you had two other potential hijackings, these headed for Washington; is that correct?

Eberhart: Yes, sir. The initial hijacking of the one, I think [think?] it's 77 that crashed into the Pentagon, we were working that with the FAA and we launched the airplanes out of Langley Air Force Base as soon as they notified us about hijacking.

At that time it took those airplanes, two F-16s, again, six minutes to get airborne. They were approximately 13 minutes away from Washington, DC, when that tragic crash occurred. Six minutes to get airborne, but still 13 minutes to it.

I don't want to worry you, but this guy was the head of the operation that is supposed to protect the United States from attacks from air and space. Better get that shelter dug pronto. Eberhart's claim about scrambling planes in pursuit of Flight 77 would later be shown to be untrue – the Langley planes were scrambled according to the NORAD tapes in response to a false report that Flight 11 didn't crash and was heading for Washington. He also doesn't mention that the Langley fighters first headed the wrong way into the Atlantic because no one told them where to go. Eberhart revealed that NORAD helped to provide the radars used by the FAA to track aircraft in US airspace and that NORAD had 'moved manpower of the order of about 200 people over the years to the FAA to operate these radars'. I wonder if any NORAD staff were on FAA duty that day? We can't know because no one is saying and if they did would you believe them? Eberhart said that he could not discuss in an open session who had the authority to order a commercial plane to be shot down even though the White House had confirmed it was the President before 9/11 and that the head of NORAD and a list of other named military men could now issue such an order. Oh, by the way, after questioning Eberhart and being given pathetic answers Senator Allard said:

Well, I just want to thank you and your people for, I know, I think a tremendous effort in light of some totally unexpected circumstances. And at least, I, for one, appreciate, you know, the readiness that was displayed.

I know, incredible isn't it? These are the people running our world.

Where was Rumsfeld?

We have established where General Myers was that morning – nowhere to be seen according to his own account (but more about that shortly). What about the Defense Secretary Donald Rumsfeld, the number two in the United States military command structure behind the president? He said that he was working on the east side of the Pentagon from before the time that Flight 11 took off from Boston. He told CNN talk show *Larry King Live* on December 5th, 2001, that he was in his office and was given no warning whatsoever that Flight 77 was heading for Washington before it crashed into the Pentagon. Can the official story get any more insane? Unfortunately it can. This is the headquarters of the US military with open lines to NORAD at Cheyenne Mountain with all its satellites, AWACS and ground-based surveillance and with open lines by now with the FAA. Two planes had already crashed into the World Trade Center and the US Defence Secretary was given no warning that an aircraft was about to crash into the building he was in, albeit a long, long, way from impact? This is an extraordinary statement and more transparent tosh. Larry King failed to ask a single question about the Defense Secretary's ridiculous story which will surprise no one. If he'd have asked the questions a proper journalist would have asked that would have been career over. The money's too good, right, Larry? He has since been employed by Russian station RT – what are they thinking of? Rumsfeld related to King that earlier on 9/11 morning he had told a congressional delegation in his office at the Pentagon:

> Sometime in the next two, four, six, eight, ten, twelve months, there would be an event that would occur in the world that would be sufficiently shocking that it would remind people, again, how important it is to have a strong, healthy Defense Department that contributes – that underpins peace and stability in our world. And that is what underpins peace and stability.

How amazingly prophetic. Then came another outrageous statement that Rumsfeld made to King. He said that during this meeting in his office ...

> ... someone walked in and handed me a note that said that a plane had just hit the World Trade Center. And we adjourned the meeting. And I went in to get my CIA briefing right next door here, and the whole building shook within 15 minutes. And it was a jarring thing.

Now hold on here. The first plane hit the World Trade Center at about

8.46. The Pentagon wasn't hit until around 9.38. Yet Rumsfeld tells King he was handed a note saying a plane had 'just' hit the WTC and within 15 minutes Flight 77 crashed into the Pentagon? Are we being asked to believe that the Defense Secretary wasn't told about the first plane crashing until some *40 minutes* after it happened when he had been sitting in his own office at the Pentagon all this time? This is the only way that the Pentagon strike 'within 15 minutes' can be explained. Most of America and hundreds of millions across the world were watching events unfold live on television well before 9am and yet the Defense Secretary, number two only to the President in the US military command, *didn't know until about 9.20?* Where does that leave the 'just' hit the World Trade Center in the Rumsfeld story and why was he not told about the second hit on the WTC at the same time which happened at 9.03? Rumsfeld's own Department of Defense manual said:

> In the event of a hijacking, the [National Military Command Center at the Pentagon] will be notified by the most expeditious means by the FAA. The NMCC will, with the exception of immediate responses ... forward requests for DOD assistance to the Secretary of Defense for approval.

Given this procedure alone the Secretary of Defense would surely have been told immediately the first plane hit the North Tower – more than 50 minutes before the Pentagon was hit and not 15. In fact, he would have *had* to be told under the Pentagon's own procedures immediately it was known that the first plane had been hijacked. That would have been around 8.20 – an hour and 20 minutes before the Pentagon was hit. The lies are just so breathtaking and we will see shortly that what Rumsfeld said he did that morning is pure fantasy. *The Washington Post* reported that after Rumsfeld was informed of the World Trade Center attack by his Chief of Staff he 'stayed in his office on the east side of the Pentagon for a scheduled CIA briefing' – note 'scheduled' – while 'several of his senior aides rushed to the Pentagon's Command Center deep within the five-sided complex, where a crisis action center [no-action center] was being set up'. If you only believe the *ludicrous* official version that Pentagon officials were given twelve minutes' warning of the plane heading their way, why would no one tell the Defense Secretary before he felt his 'jarring thing'? Why wasn't evacuation of the Pentagon begun and how come Rumsfeld claims he didn't know a potentially hostile plane was heading towards Washington when Dr Thomas Mayer, the top Department of Emergency Management official and medical director for Fairfax County Fire and Rescue, said that he was told by air traffic controllers that 'something was headed towards the national capital area' and 'we knew we needed to get ready'? John Darrell Sherwood, a Navy historian, said that a Park Police helicopter working that day from

the helipad close to where the building was hit was dispatched to 'try to distract the plane' and try to stop it going into the Pentagon. This was confirmed by the pilot's girlfriend, Stephanie Hughes, who went to meet pilot Keith Bohn at his workplace that morning but she said he had left a note saying: 'Got called into the air, there is another plane headed this way, go home and wait for me to call.' *But Rumsfeld and the military chiefs didn't know??* Nowhere, but nowhere, do the official pieces fit and there is a very good reason for that. It's a pack of lies. I contacted the Pentagon with the following list of questions, but officials chose not to answer them.

1. With the capability of United States air defence, how can a hijacked airliner, Flight 77, be allowed to fly for 40 minutes towards Washington, with communication lost with air traffic control and the transponder turned off, approach a no-fly zone and hit your headquarters without any challenge whatsoever?

2. Why was the Defense Secretary Mr Rumsfeld unaware that the plane was approaching until the Pentagon was actually struck?

3. Why was Secretary Rumsfeld not told of the first plane striking the WTC until around 15 minutes before Flight 77 struck the Pentagon (thus about 9.20am to 9.25am)? Why was he not told at this time that a second plane had struck the World Trade Center?

4. Why was Richard Myers, the acting chairman of the Joint Chiefs of Staff, not informed that two planes had struck the WTC and that another was heading for Washington while he was in a scheduled meeting on Capitol Hill and available throughout? Why did he only learn of what was happening when he emerged from the meeting to be told that the Pentagon had been hit? Is there not a constant communication link between the Chairman and the Pentagon?

5. Why were the ground to air defences at the Pentagon and the White House not activated when Flight 77 approached?

6. Why is there no surveillance camera footage of Flight 77 from much closer to the point of impact? The pictures released by the Pentagon seem to be a long way away for a building that must be guarded by a very large number of cameras, many of them looking outwards.

The questions were not answered because those questions are unanswerable without lifting the lid on the endless flow of lies that are the official story of 9/11. The government released just five frames of

distant footage that claim to show the plane striking the building but we will see later that what it appears to portray is actually impossible. Five distant frames are all they have when the Pentagon must be drowning in security cameras?? A Freedom of Information request led to the Department of [In]Justice revealing that 85 security camera videos were in its possession retrieved at or close to the Pentagon where officials refused to make them public because they were exempt from Freedom of Information laws. Why didn't the 9/11 Commission (a) subpoena them and (b) even mention them? Dan Philbin from the Office of the Assistant Secretary of Defense (Public Affairs) Directorate for Public Inquiry and Analysis merely referred me to transcripts of Pentagon press briefings on the Internet which did not address my listed questions. I told him so and asked for direct answers. He did not respond. Rumsfeld's response to the 'jarring thing' and his fake realisation that two airliners had struck the World Trade Center and another smacked into the Pentagon was to head outside to help with rescue efforts. Yes, that's just what you want an elderly man to do who happens to be US Secretary of Defense in the middle of a national catastrophe when there were thousands of service people to deal with rescue. It keeps you out of the official loop, though. Rumsfield's story is a lie as we shall see.

Where was Bush?

So to George W. 'Boy' Bush: Where was he when his country needed a decisive President? Boy Bush was not in Washington on September 11th which doesn't surprise me at all. They would have wanted him to be where his legendarily-limited intelligence couldn't get in the way. Bush was in Florida, then governed by his brother, Jeb, for a pre-publicised photo opportunity at the Emma E. Booker Elementary School in Sarasota. What he did that morning and when and how he heard about 'Flight 11' striking the World Trade Center depends very much on which official account you want to believe. There are several different versions claimed by Bush, Cheney and Ari Fleischer, the presidential press secretary. Sonya Ross, an Associated Press reporter, said she knew of the first crash even before Bush had reached the school:

> My cell phone rang as President Bush's motorcade coursed toward Emma E. Booker Elementary School in Sarasota, Florida. A colleague reported that a plane had crashed into the World Trade Center in New York. No further information. I called the AP desk in Washington, seeking details. Same scant information. But I knew it had to be grim. I searched for a White House official to question, but none was on hand until 9.05am.

If her office knew and enough time had passed for her to call them then

Bush must have known well before he arrived at the school that an aircraft had crashed into the World Trade Center and he must have known even earlier there was a hijack in progress on Flight 11. Contact was lost with the aircraft at 8.13am and the president travels with a staff in instant contact with the National Military Command Center (NMCC) at the Pentagon, which coordinates with NORAD, the FAA and the government Secret Service intelligence and security network. Dick Cheney let this slip – well almost – in a post-9/11 interview when he said:

> The Secret Service has an arrangement with the FAA. They had open lines after the World Trade Center was ...

He stopped the sentence abruptly at that point because he was about to demolish the 'Bush didn't know' story and it was left to Richard Clarke, the Bush administration counterterrorism advisor on 9/11, to basically complete the sentence in his 2004 book, *Against All Enemies.* Clarke wrote: 'Secret Service had a system that allowed them to see what the FAA's radar was seeing.' The Secret Service had open lines with the FAA when the World Trade Center was hit – of course they did, it was normal protocol – and who was looking after Bush in Florida? The *Secret Service.* Clarke also said that he had an open line with Deborah Lower, director of the White House Situation Room, who was ... *in Florida travelling with Bush and his entourage.* The claim that Bush didn't know what was going on is another lie and another insult to those who died and lost loved ones that day. John Cochran, an ABC journalist, was reporting Bush's visit to Florida. He told anchor Peter Jennings:

> Peter, as you know, the President's down in Florida talking about education. He got out of his hotel suite this morning, was about to leave, reporters saw the White House Chief of Staff, Andy Card, whisper into his ear. [A] reporter said to the President, 'Do you know what's going on in New York?' He said he did, and he said he will have something about it later. His first event is in about half an hour at an elementary school in Sarasota, Florida.

We have it confirmed that Bush was asked by reporters as he left his hotel about what was happening in New York because those reporters already knew that a plane had struck the World Trade Center. From that knowledge alone the Bush cover story that would later be sold to the public can be seen to be a whopping lie. At the very least from about 8.46am when 'Flight 11' crashed the Secret Service which looks after the safety of the President had 'open lines' with the FAA. Open lines would surely have been activated earlier than that when 'Flight 11' began to act very strangely and dramatically change course. The Bush team in

Florida knew precisely what the FAA knew by that time – indeed suspected from about 8.20 – that 'Flight 11' had been hijacked. It would have been the most basic security response to keep the President away from a pre-publicised event at a school only five miles from the Sarasota-Bradenton International Airport. Especially after 'Flight 11' struck the World Trade Center the thought that the President could be a target for a similar attack must have occurred to them and at the very least you would delay the school visit until you knew what was happening. Dick Cheney said he was whisked away to an underground bunker at the White House by Secret Service agents who wouldn't take no for an answer but here was Bush, President of the United States, allowed to continue his trip to the school. Did they know something we didn't? Oh, just a little bit. What about the potential danger to the children in these circumstances if you take them on face value?

'There's one terrible pilot'

Despite the journalist eye-witness reports of when Bush must have known about 'Flight 11', he completely contradicted this – and earlier accounts of his own officials – in an extraordinary performance on December 4th at a 'town meeting' at the Orange County Convention Center in Orlando, Florida, where he was answering non-challenging questions from a sycophantic audience. I actually watched this happen live on CNN in a hotel bar in America. I sipped my beer and despaired at the hero worship being enjoyed by a village idiot when Bush made a startling statement about September 11th. For the next two days I scanned the newspapers, Internet mainstream 'news' sites, including CNN, but there was no mention of the amazing statement Bush had made. Weeks later a Belgian visitor to my website sent me the text of what Bush said which was posted on the White House website and hidden away in the full and long transcript of the meeting. Bush was talking about what happened on 9/11 and how he heard of the atrocities in New York in response to a question from a young boy called Jordan:

> Well, Jordan, you're not going to believe what state I was in when I heard about the terrorist attack [well, it didn't show]. I was in Florida. And my Chief of Staff, Andy Card – actually, I was in a classroom talking about a reading program that works. I was sitting outside the classroom waiting to go in, and I saw an airplane hit the tower – the TV was obviously on. And I used to fly, myself, and I said, well, there's one terrible pilot. I said it must have been a horrible accident. But I was whisked off there; I didn't have much time to think about it. And I was sitting in the classroom, and Andy Card, my Chief of Staff, who is sitting over here, walked in and said, 'A second plane has hit the tower, America is under attack.

A few facts are urgently required. There was no live television coverage of the first plane hitting the North Tower – how could there be? Recorded footage of the first crash did not air until long after Bush went into the classroom where he was told of the second crash by Card. Live pictures were of the *second* plane when the television networks were already broadcasting shots of the burning North Tower. How could Bush, therefore, claim to have seen the first plane strike? This is simply not possible, so what on earth was he talking about? What about his reaction of 'there's one terrible pilot'? A passenger jet crashes into a 110-storey building full of people and all the President of the United States can say is 'there's one terrible pilot'! We have already seen that Bush must have known about the first crash before he even arrived at the school and he wants us to believe that the President of the United States, Commander-in-Chief of US forces and 'homeland' defence, had no idea what was going on? Bush, remember, said before leaving his hotel for the school that he would 'have something' later about what was happening in New York and the Associated Press reporter said she knew of the first crash before Bush had even arrived at the school. Yet he says that he saw the plane crash on a television at the school (not possible) and his reaction was: 'I used to fly myself, and I said, well, there's one terrible pilot.' Lies, lies and still more lies. Bush's story is also in direct contradiction to the earlier official version that he was told about Flight 11 in a call at the school from his National Security Adviser Condoleezza Rice before he went into the classroom. This, in turn, contradicts the accounts of reporters who made it clear that Bush must have known what was happening before he arrived at the school. Then, knowing what had happened and knowing the plane had been hijacked the President of the United States walks into a classroom to hear children from the second grade read him a story about a pet goat! As the children read to him he said: 'Really good readers – whew!' Bush interrupted at one point, saying: 'This must be sixth grade.' God help us. There had just been a catastrophe in New York, Mr President, involving and eventually killing thousands of people and you know the cause is a hijacked airliner. *Hello?* Andrew Card came into the classroom and is said to have whispered in Bush's ear that a second plane had hit the World Trade Center and 'America is under attack'. This was the picture seen all over the world along with headlines like: 'The Moment Bush Knew' (Fig 34 overleaf). What does the President do then? He continues to sit there listening to a story about a pet goat. If you were writing this as fiction they'd say it was a ridiculous story. It is certainly ridiculous, but unfortunately it's *fact* not fiction. Associated Press reported on September 12th:

In Sarasota, Florida, Bush was reading to children in a classroom at 9.05am

Figure 34: Andrew Card tells Bush about the second plane.

Figure 35: Satanic symbol Baphomet – the Hidden Hand's 'pet goat'.

when his chief of staff Andrew Card whispered into his ear. The president briefly turned somber before he resumed reading. He addressed the tragedy about a half-hour later.

He 'briefly' remained somber, or sombre, as we spell it in Britain? He was supposedly just told that a second commercial airliner had struck the World Trade Center. Death and destruction on a massive scale was already obvious, but he turned 'briefly somber' before continuing to focus on the adventures of a pet goat. Goat symbolism is very much part of the Hidden Hand's satanic language – see the satanic symbol known as Baphomet – and anyone who has studied their staggering obsession with symbolism will note the 'coincidence' (Fig 35). They leave their symbolism signature everywhere if you know what to look for because it's their hidden language which insiders understand. What is ancient hieroglyphics except the language of symbolism? Jenna Heath of Cox Newspapers' Washington Bureau reported that Bush 'did not appear preoccupied' as he introduced Education Secretary Rod Paige inside the classroom and shook hands with teacher Sandra Kay Daniels. 'There was no sign that [Condoleezza] Rice had just told Bush about the first attack on New York's World Trade Center during a telephone call,' Heath wrote (repeating the official story). Look at his reaction when Card 'whispered in his ear' before he left his hotel? 'He did not respond,' said witnesses. Is this really a natural reaction from a man who had been told of such extraordinary events in the country he is supposed to be leading? Or is it the response of someone who knew full well what was going on even if he was only a figurehead while those really in power were doing their dastardly deeds? Bush told the Florida town meeting on December 4th:

> But I knew I needed to act. I knew that if the nation's under attack, the role of

> the Commander-in-Chief is to respond forcefully to prevent other attacks from happening. And so, I've talked to the Secretary of Defense; one of the first acts I did was to put our military on alert.

Bush says he knew he needed to act when the indisputable truth is that he didn't. What's all this about calling Defense Secretary Rumsfeld? When did he do that? Rumsfeld told Larry King that even though he was in his office in the Pentagon he didn't know anything was happening until he was handed a note while meeting a congressional delegation in his office little more than 15 minutes before the Pentagon was struck at about 9.38am. We are being told here that although the President knew well before 9am, the Defense Secretary was not told until at least half an hour later even though he was in the Pentagon. Wherever you look there is a deluge of lies and contradictions. Either Bush didn't talk to Rumsfeld, which means Bush was lying, or he did and Rumsfeld was lying. Actually, both of them are – and big time. Bush said that he put the military on alert when he could not have done this until he was finished with the goat story and left the classroom shortly before 9.30 – more than 40 minutes after the first plane hit. The official tale (official version 99933/S11/666/update/updated/updated) is that Bush was taken to a private room before he went into the classroom and spoke on the phone with National Security Adviser Condoleezza Rice who told him about Flight 11. We are asked to believe that at this point the crash of 'Flight 11' could have been considered just a 'terrible accident' – an obvious lie. If Bush talked to Rice before 9am how come Defense Secretary Rumsfeld says he didn't know anything for another 25 minutes? Why was Rice not in immediate contact with Rumsfeld? Why wasn't the President? Why wasn't anyone? It was 9.30 – *26 minutes* after hearing of the *second* crash – before Bush went into the school library to announce:

> Ladies and gentlemen, this is a difficult moment for America. Two airplanes have crashed into the World Trade Center, in an apparent terrorist attack on our country. I am going to conduct a full-scale investigation and hunt down and find those folks who committed this act. Terrorism against our nation will not stand.

Those folks? *Those folks?* Bush's behaviour that morning was at the very least criminally inept and incompetent, but it was more than that as I shall highlight later. 'Those folks' were not 'Muslim hijackers', but very much closer to home as Bush well knew. The disgraceful cover-up known as the 9/11 Commission official [non]investigation of the attacks claimed despite the all the evidence laid out here: 'No one in the [president's] travelling party had any information during this time that

other aircraft were hijacked or missing.' Filmmaker Michael Moore highlighted Bush's inaction in his movie, *Fahrenheit 9/11* (executive producer ultra-Zionist women-abuser Harvey Weinstein), but as usual with Moore he missed the real point completely and failed to ask all the key questions while not challenging the official story about Muslim hijackers taking down the planes. This is typical of the work of fake-radical Moore and his productions which appear to be challenging the establishment while again and again promoting what that very establishment wants people to believe. I don't say for a moment that he is doing this knowingly – he's just incredibly uninformed about how the world works and enslaved by his 'progressive' addiction to virtue-signalling.

The lie about Scare Force One

Bush was taken to the presidential plane, Air Force One, and even the official story says that he did not call Vice President Cheney and put the US military on high alert status until at least 10am – by which time the Pentagon had been hit (a constantly recurring theme of no effective action until the Pentagon strike). Bush took off about 9.55 and headed for Barksdale Air Force Base, Louisiana, and the US Strategic Command at Offutt Air Force Base in Nebraska. He did not arrive at the White House, via Andrews Air Force Base, until shortly before 7pm. This was more than ten hours after the first strike on the World Trade Center. When understandable questions were being asked about why Bush did not head straight for Washington to lead his country at such a terrible time the White House propaganda machine said a phone call had been received giving a secret code to warn that Air Force One was the next target. *No it wasn't* – that was yet another lie. Attorney General John Ashcroft, a man who delivered 'justice' to others, also said the 'government had credible evidence that the White House and Air Force One were targets'. Lie again. Reports were circulated through the news agencies on September 12th that quoted a White House spokesman as saying: 'There was real and credible information that the White House and Air Force One were targets of terrorist attacks and that the plane that hit the Pentagon was headed for the White House.' Bush press secretary Ari Fleischer confirmed this the same afternoon. The Secret Service had 'specific and credible information' that the White House and Air Force One were potential targets, he said. Bush's chief political strategist, lie-for-a-living Karl Rove, was quoted the following day as confirming that the threat came in language that proved the terrorists had knowledge of the president's 'procedures and whereabouts'. So why did they allow him to attend a publicised appearance at a school in the circumstances of that morning and why, if there was a specific threat to Air Force One, was Bush taken straight to the airport to take off in that

very plane after he had finished with the pet goat story? And why did it take off *with no military air cover*?? There were Air Force bases only 185 miles away (Homestead) and 235 miles (Tyndall) with fighters that could have responded to a call in minutes; but the call never came. Once again – what did they know that we didn't? Maureen Dowd wrote in *The New York Times* that Karl Rove had 'called around town, trying to sell reporters the story'. Then two weeks later the White House was forced to back down on the whole fantasy and on September 25th *CBS Evening News* reported that the threat 'simply never happened'. Most newspapers did not even report this exposure of the lies spewed out daily by the Bush administration and *The Washington Post* only ran the story on an inside page. Ari Fleischer, the same White House press spokesman who repeated the lies about Air Force One, also told us how Flight 77 was heading for the White House before it 'veered off' and aimed at the Pentagon. Dick Cheney said the same on NBC's *Meet the Press.* Cheney confirmed that the plane was being tracked (so why no response?) and then produced this lie: 'When it entered the danger zone and looked like it was headed for the White House was when they grabbed me and evacuated me to the basement ...' They waited, he claims, until the aircraft was 'in the danger zone' before evacuating the vice president when in truth they had been tracking a plane's progress towards Washington for some 40 minutes after two planes had already crashed into the World Trade Center. *CBS News* Transportation Correspondent Bob Orr reported that the recorded flight path of Flight 77 does not support what Cheney and Fleischer claim:

> Eight minutes before the crash, at 9.30am EDT, radar tracked the plane as it closed to within 30 miles of Washington. Sources say the hijacked jet continued east at a high speed toward the city, but flew several miles south of the restricted airspace around the White House.

Once again I sent a list of questions to the White House media office relating to these events. They were faxed in May, 2002, but they chose not to answer any of them:

1. When did the President know that Flight 11 was in trouble or there could be a problem? When did the FAA, NORAD, and the Pentagon communicate this information to the President's support team in Florida that morning?

Would not respond.

2. Why, when he was told of the first plane striking the WTC, did the President continue with his engagement and go into a reading class at

the Emma Booker School?

Would not respond.

3. Why when told by Andrew Card in the classroom that a second plane had struck the WTC and that 'America is under attack', did he continue to stay in the classroom for some time?

Would not respond.

4. When did the President put the United States military on high alert?

Would not respond.

5. Why did the President not go back to Washington immediately when we now know that the story of the telephone warning that Air Force One was the next target never happened?

Would not respond.

6. Why did the President tell a public meeting that he saw the first plane strike the WTC and said 'There's one a terrible pilot', when he could not possibly have seen that happen before he entered the classroom? That footage was not aired until much later.

Would not respond.

7. Why was the President not considered to be in danger when the attacks began, and thus removed from the school and a pre-announced visit when the school was only a short distance from an airport?

Would not respond.

Why no evacuation?

Another piece of criminal negligence – in truth more than that – was the failure to evacuate the Pentagon, White House and other major Washington symbols until the Pentagon was struck. This was despite a warning apparently issued to the Pentagon by the FAA. 'Defense Department officials', quoted by CNN, said that no action was taken for at least 12 minutes despite warnings that an airliner 'appeared' to be heading towards Washington. In fact the aircraft must have been tracked heading in that direction for more than 40 minutes. American Forces Press Service reported that personnel at the Pentagon realised they could be a target long before they were hit: 'We were watching the World

Trade Center on the television,' said a Navy officer. 'When the second plane deliberately dove into the tower, someone said, "The World Trade Center is one of the most recognizable symbols of America. We're sitting in a close second".' Top people in the Pentagon, apparently, could not see what everyone else could. Or maybe, I would suggest, some of them could see very clearly, but did nothing because a pre-planned series of events had to be played to their conclusion. Officials at the Pentagon, quoted by CNN, said that 'no mechanism existed within the US government to notify various departments and agencies under such circumstances'. *No mechanism to evacuate the Pentagon with a flying bomb heading in its direction??* Pentagon spokesman Glenn Flood contradicted this when he said that 'to call for a general evacuation, at that point, it would have been just guessing ... We evacuate when we know something is a real threat to us.' Clearly something is only considered a 'real threat' when it smashes into the building. Oh, it was a real threat then; better evacuate, I guess. So there *was* an evacuation procedure (of course there was) – it just wasn't activated. *Newsday* reported that many of the building's 20,000 workers were still sitting at their desks when the plane struck and some said they heard the crash but didn't know the plane had hit the Pentagon until they saw it on TV! 'The first thought everyone had was that it had been a bomb,' said Victoria Clarke, a spokeswoman for Defense Secretary Rumsfeld (maybe it was, at least in part, but that's for later). Only with a hole in the side of the building and 125 employees and workers dead was the Pentagon evacuated followed by the White House, Capitol Hill and elsewhere. None of the Pentagon leadership were killed or injured because they did not work in the part of the building that was struck. They were on the opposite side as far from impact as you can get. The segment of the colossal building that was hit was where civilian accountants were working to track down the missing trillions from the Pentagon budget publicly announced the day before. Many of the money-trackers were killed. General Richard Myers, Chairman of the Joint Chiefs of Staff, had the unbelievable nerve to say at a memorial ceremony for the victims that they were 'serving their country' in the course of doing their jobs at the Pentagon 'and on September 11 were called to make the ultimate sacrifice'. Sacrifice, I think, was the only appropriate word. They were allowed to die as the recorded facts make so plain. All this was coldly calculated by those running the 9/11 operation because the more death and destruction they could cause the bigger would be the problem, the bigger the reaction and therefore the bigger the solution that could be offered – a war without end and the dismantling of basic freedoms. The families of those who died in the Pentagon have an open and shut case for a lawsuit against the US government for the gross negligence that cost the lives of their loved ones. It is, however, as I continue to stress, far more than

'negligence' that is behind all this.

Where was 'Big Dick'?

Representatives of government, 'security' agencies and the military at the highest levels constantly lied over and over about what did and did not happen on 9/11 which brings me to mega-liar Dick Cheney. Where was the vice president all this time? He told the media on September 12th that a clerical secretary watching television in his White House office alerted him to the attacks. Oh really, Dick? The Cheyenne Mountain official website said of the NORAD Command Center: 'Redundant and survivable communications hotlines connect the Command Center to the Pentagon, White House, US Strategic Command, Canadian Forces Headquarters in Ottawa, other aerospace defense system command posts, and major military centers around the world.' Yet Cheney, sitting in the White House, says he learned of the attacks when a clerical secretary comes in and says: 'Hey, you'll never guess what I've just seen on the telly.' The whole story is a joke, but look at the common denominator here between Bush, Rumsfeld and Myers, the 1, 2, 3, in the military command structure, and Cheney. You can throw in NORAD's Eberhart as well. Their (cover) stories and actions all ensured that they were not in a position to react immediately to events until after the Pentagon was hit. Or rather they had an excuse why they didn't do so. Bush was occupied with the goat story until shortly before the Pentagon was hit and then went straight into another room to make a statement to the media. Rumsfeld gave Larry King a tale that he knew nothing about the World Trade Center until 15 minutes before the Pentagon was hit and claims no one told him that a plane was coming his way before his 'jarring thing'. 'So how could I order a response?' is the obvious implication. Myers says that he was in a pre-arranged meeting with a senator on Capitol Hill throughout the period between the first strike on the World Trade Center and the Pentagon strike almost an hour later while the actual Joint Chiefs chairman at the time was on a plane mid-Atlantic. The cover-story narratives about the movements of Cheney, Rumsfeld and Myers all have them otherwise engaged until about the same time – around 10am and crucially after the Pentagon was hit (by something). Isn't that all so terribly convenient? These transparently false cover-stories were accepted by the 9/11 Commission cover up. Another key question is where was *Father* George Bush, the orchestrator, with Cheney, of the Boy George 'presidency'? Daddy Bush, like Cheney, was a disgusting man, the depths of which are almost indescribable. He admitted himself that he was at the White House the night before 9/11, but said he flew the next morning to St Paul, Minneapolis. What time the next morning? The first plane to be hijacked was Flight 11 at about 8.15. Two planes had crashed into the World

Trade Center by 9.03 and, if Flight 93 had not been delayed well over half an hour before take-off, it is highly probable that all four aircraft would have hit their targets by around 9.40. What were Father Bush and Cheney doing while all this was going on? How did he take a plane out of Washington amid what was happening? One place Bush was reported to have been by the mainstream media on September 10th and 11th was at Washington's Ritz-Carlton Hotel in a business meeting for the Carlyle Group with Osama bin Laden's brother, Shafiq bin Laden, and other members of the family. I'll have more later about the Bush-Carlyle Group-Bin Laden family connection. Also at the meeting were Carlyle executives, former Secretary of Defense Frank Carlucci and former Father Bush Secretary of State James Baker, who played a crucial role in getting Boy Bush the presidency in 2004 amid the controversy over the vote in Florida.

Clarke's bombshell

Richard Clarke, Boy Bush's counterterrorism advisor at the time of September 11th, published a book, *Against All Enemies*, in 2004 that demolished the accounts of Myers, Rumsfeld and Cheney about what they were doing that morning and where they were. Clarke said he was at a conference when he heard about Flight 11 and in the five minutes or so it took him to get to the White House he ordered a secure teleconference to be organised with the Counterterrorism Security Group. This included key personnel in government counterterrorism and security agencies. When he heard that the second tower had been hit, he said: 'I want the highest level person in Washington from each agency on-screen now, especially the FAA.' Clarke immediately made contact with Dick Cheney and National Security Adviser Condoleezza Rice who were in Cheney's White House office. Cheney told him: 'It's an al-Qaeda attack and they like simultaneous attacks. This may not be over.' What prophets were on duty that day. These events happened according to Clarke just a few minutes after the second tower was hit at 9.03. How on earth could Cheney make such a statement to Clarke when, according to the official story, everyone else was running around in confusion about what was happening? As with all Problem-Reaction-Solution events, the false villain story is prepared and waiting when the 'problem' occurs. Hence, minutes after the first attacks, Cheney was already selling his manufactured culprits – Osama Bin Laden and 'al-Qaeda'. Remember, too, that Cheney was the man with ultimate responsibility for the wargame exercises going on in the skies at this same time and he claims he didn't know about 'Flight 11' hitting the World Trade Center? *Utter bollocks.* Richard Clarke's revelations expose Cheney's monumental lies about what he did that morning and what he knew. Clarke said he told Cheney and Rice that he was instigating 'a

secure teleconference to manage the crisis'. He said that as he left he saw both of them gathering papers and preparing to leave for the Presidential Emergency Operations Center (PEOC) in the East Wing of the White House. This was about 9.10 and David Bohrer, a White House photographer, says that he saw Cheney head for the bunker just after 9am. This supports Clarke's version while Cheney and the official account accepted by the 9/11 Commission [non]investigation says he didn't leave until 9.30. Cheney told NBC's *Meet the Press* that Flight 77 was being tracked and 'when it entered the danger zone and looked like it was headed for the White House [Secret Service agents] grabbed me and evacuated me to the basement [the White House 'bunker'] ...' Yeah, sure Dick, and there were fairies there to help them?

By the time this made-up story was supposed to have happened Cheney was already in the Presidential Emergency Operations Center (PEOC) and not his office, as confirmed by both Richard Clarke and Transportation Secretary Norman Mineta who said that when he arrived at the PEOC at 9.20 Cheney was already there. Secret Service documents and accounts confirm the same. Cheney's false account was concocted to help him claim ignorance about events in the sky and especially Flight 77. His wife, Lynne Cheney, a member of the Hidden Hand's American Enterprise Institute, was to join him along with Rice in the White House operations room. What was Cheney's *wife* doing there? What authority did she have to be there? Also assembled were Cheney's Chief of Staff Lewis 'Scooter' Libby and Deputy White House Chief of Staff Josh Bolton. Richard Clarke described Cheney's East Wing command operation as 'decidedly more political' than the one he was running and Cheney was constantly hanging up the line to Clarke's teleconference. Clarke says it was about 9.10-ish when he arrived at the Secure Video Conferencing Center next to the Situation Room in the West Wing and began to direct and discuss a response to the attacks with leading military and FAA officials. I emphasise the time – about *9.10*, or just after. Clarke says that others taking part in this teleconference were CIA Director George Tenet, FBI Director Robert Mueller, FAA Administrator Jane Garvey, Deputy Attorney General Larry Thompson, Deputy Secretary of State Richard Armitage and ... here we go ... *Defense Secretary Donald Rumsfeld and acting chairman of the Joint Chiefs of Staff, General Richard Myers*. Well, well, bloody well. Both men, Clarke said, were 'surrounded by generals and colonels' the whole time. Rumsfeld had said 'I am too goddam old to go to an alternate site' when a relocation had been suggested. Robert Andres, Principal Deputy Assistant Secretary of Defense for Special Operations and Low Intensity Conflict, said in 2007 that he knew Rumsfeld had gone to Clarke's video conference and went to find materials that Rumsfeld would need. Andres said: 'I was there in the Support Center with the secretary when

he was talking to Clarke on the White House video-conference, and to the President.' So what happened to Rumsfeld's account on *Larry King Live* that he was handed a note in his office about 9.25 telling him that the first plane had hit the World Trade Center, but not the second, and that he felt a 'jarring thing' when the Pentagon was hit in an attack for which he was given no warning? What happened to the General Myers story of being in a meeting on Capitol Hill until the Pentagon was hit? Of course Myers would have been at the Pentagon. For a start he would have been involved in the long list of simultaneous wargame exercises going on that morning. Transportation Secretary Norman Mineta told the 9/11 Commission that he was in Cheney's East Wing bunker as the 'young man' was giving Cheney regular reports of the progress of 'Flight 77' heading for Washington, but Defense Secretary Rumsfeld in a teleconference with open voice lines to Cheney's and Clarke's operations didn't know? If Cheney knew, the military knew, so why didn't Rumsfeld? Richard Clarke said that Rumsfeld joined the teleconference minutes after the second plane crashed in New York and remained throughout. Clarke had said about the moment when the Pentagon was struck: 'I can still see Rumsfeld on the screen, so the whole building didn't get hit.' What happened to Myers' story that he was on Capitol Hill having a meeting with Senator Max Cleland while all this was going on? He said he had seen that a plane had hit the first tower (8.46am), but had still gone into the meeting with Cleland and did not come out until about the time the Pentagon was hit (9.38am). He said that in the interim no one had told the top uniformed commander in the US military on duty that day that a second plane had crashed at 9.03. Yet here he was all along, according to Richard Clarke, taking part in a teleconference with Rumsfeld and company at the Pentagon. Joint Chiefs Chairman General Hugh Shelton, on his plane heading for Europe, also indicated that Myers was where Clarke said he was during the attacks (even Shelton's own account of his return to Washington later that day is fraught with inconsistencies – did anyone tell the truth that day?). I tried to contact Max Cleland while researching *Alice in Wonderland* to ask about his alleged meeting with Myers which provided the cover story of where Myers was before the Pentagon was hit, but I received no reply. Cleland later indicated that he was indeed with Myers, but *he could not have been.* Richard Clarke even recounts one exchange he had with Myers at 9.28 – before the Pentagon was struck. He told Myers that he assumed that NORAD had already scrambled fighters and AWAC recognisance aircraft. Clarke asked how many and where? Myers had replied:

> Not a pretty picture, Dick. We are in the middle of Vigilant Warrior, a NORAD exercise, but ... Otis has launched two birds toward New York. Langley is trying to get two up now. The AWACS are at Tinker and not on

alert.

AWACS were actually in the air taking part in the exercises and could have been immediately diverted to real events – but weren't. Clarke asked 'how long to CAP [Combat Air Patrol] over Washington?' Myers replied: 'Fast as we can.' Looking around at other generals he asked: 'Fifteen minutes?' This is Myers who claimed that (a) he was on Capitol Hill at this time and (b) said he didn't know if fighters were airborne in response before the Pentagon strike. He told a hearing on Capitol Hill two days later that 'to the best of my knowledge' no fighters were scrambled before the Pentagon attack when he must have known the details on the day given that he was involved in making those decisions. Rumsfeld and Myers outrageously lied about where they were and what they were doing and their lies were meant to hide what really happened that morning. The idea was to sell the public a story of apparent confusion to hide coldly-calculated design. Look at the other implications in what Clarke describes. He was on the line with NORAD and he confirmed that FAA Administrator Jane Garvey was also there. This teleconference alone, starting around 9.10, connected NORAD, the FAA and the Pentagon via Rumsfeld and Myers and their 'generals and colonels'. What is all this stuff from NORAD and the military about the FAA not telling them in time to react? We are told in one mendacious diversion that air traffic was not sure if Flight 11 had crashed into the North Tower because American Airlines would not confirm it. How can this claim stand up when Clarke opened his teleconference, not long after 9am, by asking FAA Administrator Jane Garvey what she knew? Clarke said she replied: 'The two aircraft that went [into the WTC] were American Flight 11, a 767, and United 175, also a 767 – hijacked.' Where is the confusion in that? NORAD NEADS operatives were not told about Flight 93 until after it crashed, according to the tapes subpoenaed by the 9/11 Commission, but Flight 93 was being mentioned in the Richard Clarke teleconference at 9.35 when the FAA's Jane Garvey reported it among possible hijacked flights. This was *28 minutes* before it officially crashed.

The criminal '9/11 Commission', which was set up *not* to find the truth, said of this teleconference: 'It is not clear to us that the teleconference was fully under way before 9:37, when the Pentagon was struck'. This false time is in the Commission report purely to obscure fundamental contradictions in the official story. The Commission report goes on: 'We do not know who from Defense participated, but we know that in the first hour none of the personnel involved in managing the crisis did.' Excuse me. A Commission that held months of hearings could not establish 'who from Defense' participated in this crucial teleconference? *Didn't they ask?* Or are the Pentagon top brass and

everyone else who took part with Clarke suffering from mass amnesia? No – the Commission is laying a diversion. To tell the truth and list the people from the Pentagon who participated and the time they were there, including Rumsfeld and Myers, would destroy the official story – and that of Cheney. When you see who was involved in the compilation of the Commission's 'report' you'll appreciate why it cannot be taken seriously. The report says that none of the information conveyed in the White House teleconference, at least in the first hour, was being passed to the NMCC [National Military Command Center]'. The Command Center is located in the Joint Chiefs of Staff department of the Pentagon and, in its own words, is responsible for 'generating Emergency Action Messages to launch control centers, nuclear submarines, recognisance aircraft and battlefield commanders worldwide'. The NMCC is essentially the control centre for the entire military and described as a central clearinghouse. It provides continuous monitoring and coordination of worldwide military operations and supports commanders, the Chairman of the Joint Chiefs, Secretary of Defense and the President, in the command and control of US armed forces in peacetime, contingencies and war. Well, if you believe the 9/11 Commission, and no one with half a brain will do so, all this is happening 24 hours of every day – *except* on September 11th. The Commission report says that Richard Clarke's teleconference was not connected into the area of the NMCC from where the crisis was being managed, and 'the director of the operations team who was on the phone with NORAD did not have the benefit of information being shared on the teleconference'. *Nonsense.* Clarke confirms that the Secretary of State for Defense and the acting chairman of the Joint Chiefs of Staff, the second and third in command of the entire US military, were surrounded by generals and colonels during the conference. But still the Pentagon Command Center didn't know what was going on?? *Lies, lies, lies.*

Dick Cheney left the White House after the attacks and relocated to Site R, or the 'Underground Pentagon', a top-secret complex of buildings inside Raven Rock Mountain, near Blue Ridge Summit, Pennsylvania. This is about seven miles north of the presidential 'retreat' at Camp David. Site R is also known as the Alternate Joint Communications Center. Journalist James Bamford, a former ABC investigative producer and an intelligence specialist, said that hours after the attacks five helicopters arrived at Site R together with a convoy of vehicles with black-tinted windows. One of the first people to arrive was Paul Wolfowitz, Deputy Secretary of Defense and the real power at the Pentagon where Rumsfeld was window dressing. Wolfowitz went on to head the World Bank before corruption finished him. He was the Bush administration's liaison to the American Israel Public Affairs Committee

(AIPAC), one of Washington's biggest lobby groups which campaigns for policies favourable to Israel. AIPAC is an extension and agent of the Israeli government at the heart of American political affairs and the Israel connection to 9/11 will become very clear later on. Cheney would disappear for long periods in the wake of the attacks to top secret locations preparing for the next stage of the attack on human freedom – the 'war on terror' justified by 9/11.

CHAPTER 8

Contradictions, anomalies and mystery men

Many are destined to reason wrongly, others, not to reason at all; and others, to persecute those who do reason – Voltaire

Accepted versions of 'truth' and 'history' are rarely the result of factual information. They are formed by simple repetition. Tell people something often enough and they will believe it.

In this way it has become accepted truth and official history that 19 hijackers working for Osama Bin Laden hijacked four commercial aircraft, took over the controls, and flew them into the World Trade Center and the Pentagon while the fourth crashed when passengers attacked the Arab pilots. These hijackers, we are told, learned to fly on simulators and at schools in the United States where they trained on small one-engine light planes like the Cessna. Keep that in mind as you read the next two statements. First a report on what happened when Flight 77 is said to have crashed into the Pentagon:

> The hijacker-pilots were then forced to execute a difficult high-speed descending turn. Radar shows Flight 77 did a downward spiral, turning almost a complete circle and dropping the last 7,000 feet in two-and-a-half minutes. The steep turn was so smooth, the sources say, it's clear there was no fight for control going on. And the complex maneuver suggests the hijackers had better flying skills than many investigators first believed. The jetliner disappeared from radar at 9.37 and less than a minute later it clipped the tops of street lights and plowed into the Pentagon at 460 mph.

Now the remarks of Rick Garza, a flying instructor at Sorbi's Flying Club in San Diego, who remembers trying to teach Khalid al-Mihdhar and Nawaq al-Hamzi, two of the Arab 'pilots' alleged to have been on Flight 77:

> It was like Dumb and Dumber. I mean, they were clueless. It was clear to me they weren't going to make it as pilots.

A 'hijacker' named by the FBI as Hani Hanjour is said to have been at the controls of the wide-boded 757 of 'Flight 77' performing that incredibly skilled manoeuvre to approach the Pentagon and yet instructors at Freeway Airport in Bowie, Maryland, banned him from renting a one-engine plane because he was such an incompetent pilot only *weeks* before 9/11. He took three flights with instructors in the second week of August, 2001, and flew so badly his application for plane rental was refused. A *New York Times* story headed 'Trainee Noted For Incompetence' described how Hanjour was reported in February, 2001, by instructors at his flying school in Phoenix because his piloting and English were so poor. The instructors questioned if his pilot's licence was genuine. *The Washington Post* ran a story the month after 9/11 headed 'Hanjour: A Study in Paradox' which said that how and where Hanjour obtained a pilot's licence remained 'a lingering question that FAA officials refuse to discuss'. Descriptions of Hanjour's ineptitude as a pilot of one-engine planes include 'a trainee noted for incompetence' and this from a former employee of his flying school: 'He could not fly at all.' One thing can be stated without question: Hani Hanjour was not at the controls of Flight 77 as the authorities claim. Clearly there's something seriously wrong here with these official stories – there is at every turn. I am going to explore the official story of the 9/11 'hijackers' in this chapter and we know the identity of at least one without a modicum of doubt because we have his passport. Yes, in one of those amazing little miracles that so often turn up in government narratives the always-truthful FBI and New York police revealed that the paper passport of one of the hijackers was found in a New York street even though it was supposed to be in a plane that crashed in a fireball into the World Trade Center. Who said God is not on our side? The 'passport' was spotted by an 'unnamed passer-by' a few blocks from the WTC 'in the vicinity of Vesey Street' (Fig 36).

Figure 36: A paper passport survived the impact with the World Trade Center and a subsequent fireball and was not even damaged? Yes, and I'm Dolly Parton.

Was it singed? FBI Assistant Director Barry Mawn told a news conference that the passport was found 'several blocks' from the World Trade Center and a 'grid search' of the whole area had been launched in the hope of finding other important evidence about the hijackers. At the same conference it was said to be unlikely that remains of the hijackers would be conclusively identified since nothing was likely to be available for use as a DNA match. *Phew* – thank goodness they found the passport then. We are told that no aircraft black boxes survived the World Trade Center crashes to tell us what happened, but a paper passport that one of the 'hijackers' was carrying somehow survived a fireball and wafted back to earth. The passport story surviving a fireball and a skyscraper collapse turned out to be too ridiculous even for the 9/11 fairy tale and by 2004 the story had changed to it being found before the towers fell. Oh, that makes sense now, thank you, except there is still the problem of the fireball, if I may be so bold. The passport was claimed to belong to Satam Muhammed Abdel Rahman al-Suqami, an alleged hijacker on Flight 11. Lead Counsel Susan Ginsburg, in testimony to the waste-of-space 9/11 Commission which 'investigated' the attacks, said the passport had been 'manipulated in a fraudulent manner in ways that have been associated with al-Qaeda'. Yawn. A year after 9/11 when a British television news team were filming for a first anniversary programme they asked New York police about the passport. They replied that it was 'a rumour that might be true'. This was a 'rumour' reported as fact immediately after 9/11 at a news conference for no other reason than to sell the validity of the official story in the immediate aftermath. Passports belonging to 'hijackers' Ziad Jarrah and Saeed al-Ghamdi were said to have been found at the alleged crash site of Flight 93 which would be a little more credible were not the story of that crash awash with contradictions. Mark Twain said: 'When you tell the truth you don't have to remember anything.' The official story is founded on so many lies told so often that it has to remember everything it has previously lied about and you therefore have an endless stream of contradictory stories and claims. Given a mainstream media with a modicum of willpower and courage to establish the truth there would be famous people in jail by now and they would not be Arabs. There are so many lies that every aspect has to be questioned to see if its stands up to scrutiny.

Hijacking the 'hijackers'?

The CIA and FBI claimed they had no prior warning of the September 11th attacks which is clearly baloney and has been shown to be so; but let's run with that for a moment. Let's say it was really true that they didn't know. This incompetence in failing to trace any orchestration of such a multi-faceted and long-planned attack on US soil would, in any

sane society, lead to wholesale sackings and inquiries. Instead President Bush rewarded the CIA and FBI for their 'incompetence' by greatly increasing their budgets. Again the contradiction can be explained by the realisation that these agencies were not meant to stop the attacks before they happened, just as the elite inner core of the FAA, NORAD and the Pentagon were not meant to stop them while they were underway. Having failed, or so they say, to track any sign whatsoever of the 'terrorists' and their plans before September 11th the FBI was able to name the 19 men it claims were responsible almost immediately afterwards. What brilliance. There has been much controversy over the identity of the 'hijackers' officially named with claims at various times that seven and up to ten were still alive amid stories of identity theft and mistaken identity. We cannot be sure that all the people named are accurate even before we examine if they were actually to blame for what happened. The list of the 'guilty 19' was released by a highly-politicised FBI 'investigation' led by Boy Bush appointee Robert Mueller who took over the Bureau only two weeks before September 11th. The same Mueller was wheeled out in 2018 to lead the highly-politicised 'investigation' into alleged Russia collusion with the Trump election campaign and predictably found no evidence but still disingenuously gave Democrats encouragement to impeach the President. Even Mueller told CNN in 2002 there was 'no legal proof to prove the identities of the suicidal hijackers' and yet the same names went on being used. In the light of the staggering untruths told by the FBI and other government agencies decade after decade, and never more so than since 9/11, you'll understand if I don't take the official information released on the 'hijackers' at face value. Such 'information' is so often of two-face value (Fig 37). The most famous of them and the 'poster man' of the 9/11 attacks is Mohamed Atta, an Egyptian

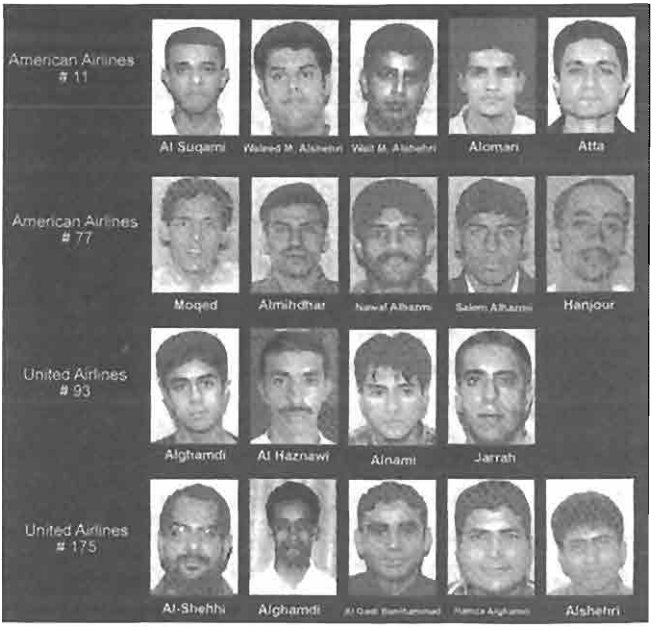

Figure 37: The alleged 9/11 'hijackers'.

Figure 38: Mohamed Atta, 'lead hijacker' on 9/11 – or maybe not.

national who is said to have been the leader of the hijackers and the 'pilot' who directed Flight 11 into the World Trade Center (Fig 38). Atta – or the person claimed to have been him – grew up in Cairo and used the name Mohamed El-Amir. His full name was Mohamed El-Amir Awad el-Sayed Atta. He became an electrical engineering student at the Technical University of Hamburg-Harburg in Germany where his tutor Dittmar Machule said he didn't know the name Mohamed Atta until after 9/11 because his pupil didn't call himself that. 'Atta' was described in very different terms by those who met him to the Islamic extremist profile promoted by the official story. Machule said the Germany 'Atta' – Mohamed El-Amir – was very religious, prayed often and never touched alcohol. He said his student would not even shake hands with a woman when introduced. Ralph Bodenstein, a fellow student who spent three months with El-Amir on a field study in 1995, said:

> The Mohamed I know was not a terrorist. But the photo they show in the press, that is the person, that is the same person I knew. He was a very complex person. On the one hand, he was a very religious person. He was growing a beard, he had just come back from a small hajj. He did pray five times a day.
>
> On the other hand, he was very full of idealism and he was a humanist. He was very much interested in social work. The person I knew then is not a person who could do what he is said to do now ... I knew him as an idealist who had great dreams about people living together.

Descriptions of Mohamed El-Amir's personality by his father, retired Cairo lawyer Mohamed al-Amir Atta, matched those who knew him in Germany. He said: 'Oh God! He is so decent, so shy and tender. I used to tell him "Toughen up, boy!"' El-Amir's father said in a statement to the London-based *al-Sharq al-Awsat* newspaper on September 22nd, 2001, that his son was in Germany and had phoned him after the attacks. The father claimed that on September 12th he was at his holiday home on the Mediterranean coast without radio or television and was unaware of the attacks in America the previous day. He said his son called him there and they talked about 'normal things'. Only later did the father hear

what had happened in the United States. He also dismissed the suggestion that El-Amir was a supporter of al-Qaeda:

> Mohamed, my son, hates Osama Bin Laden like he hates the sinner. Do not forget that Osama Bin Laden is behind the attack on our embassy in Pakistan. Mohamed is a real Egyptian. All this talk is nonsense.

He said he believed that his son's identity had been stolen and that El-Amir 'Atta' didn't know how to fly a plane. In fact, he was frightened of flying and always vomiting when he travelled by air. 'He was a donkey when it came to politics. I advised him, like my father advised me, that politics equals hypocrisy,' he said. Mohamed El-Amir's tutor Dittmar Machule supported this theme. He told the *Wall Street Journal*: 'I never heard any anti-Zionist, anti-American or anti-Christian statements from him.' For sure the 'Atta' in America was not frightened of flying and although he had no experience whatsoever on wide-bodied jets he could pilot one-engine planes. Mohamed El-Amir was remembered in Germany as tolerant of other religions and 'not a radical thinker'. Friends said he condemned terrorist attacks on tourists in Egypt and in 1999 he presented his thesis on the restoration of the old quarter of the city of Aleppo in Syria with his 152-page study arguing that urban planning should reflect the traditional coexistence of Muslims and Christians. He appears to have registered with *Bab Souria*, formerly known as *Syria Online*, in 1997 under the name Mohamed El-Amir asking for information about Aleppo. His alleged transformation into 'American Atta' is claimed to have happened when according to *The New York Times* he disappeared from the university from mid-1997 to October, 1998, and when he returned he had changed. He now wore a beard and persuaded the university to provide a prayer room for himself and other Arab students including his 'hijacker' friend Marwan al-Shehhi and one other 'suspected hijacker', a Lebanese student named Ziad Jarrah or Jarrahi, who studied aircraft design. There has been confusion about the spelling of the name with the FBI first saying Jarrahi and then Jarrah. The man they claim to be Jarrahi/Jarrah liked nightclubs and was due to marry his Turkish girlfriend two weeks after September 11th which sounds like we have a real Muslim extremist on our hands. I don't buy the convenient 'Atta' personality transformation and there is the rather relevant matter of Germany-based 'Atta' being a very small man, no more than five-feet-four, while American 'Atta' was said to be between five-feet eight and ten. Mohamed El-Amir's father said that the 'Mohamed Atta' seen on security video at an airport in Portland, Maine, did not look like his son. The UK *Guardian* recognised the personality contradictions days after the attacks. It said of Atta:

> He repeatedly switched names, nationalities and personalities. If in Egypt, and later in the US, he was Mohamed Atta, then at the Technical University of Harburg, he was Mohamed el-Amir. For the university authorities, he was an Egyptian, yet for his landlord, as for the US authorities, he was from the United Arab Emirates.
>
> And while it is not hard to see Atta, whose face gazes out from the passport photograph released by the FBI, as that of the mass murderer of Manhattan, el-Amir was a shy, considerate man who endeared himself to Western acquaintances. Such indeed was the gulf between the two that some people, notably his father, insisted last week that Mohamed Atta's identity must have been stolen by the hijackers' leader.

Does that description of 'America Atta' sound more like an intelligence operative than a urban planning student?

Booze-drinking, cocaine-snorting 'Muslim hijackers'

Germany 'Atta' was described by friends and acquaintances as polite, reserved, introverted, never aggressive, always smiling, 'very nice', and a Muslim so devout that he would not shake hands with a woman. Contrast this with the description and life-style of America-based Mohammed Atta who was often dubbed rude, aggressive and arrogant and was anything but devoutly religious. Amanda Keller, a lingerie model escort and pizza restaurant manager, said she lived with Atta for a short time in early 2001 in the Sandpiper Apartments in Venice, Florida, close to the airport where he is said to have trained at a flying school. Stephanie Frederickson, a neighbour of Keller, remembered Atta living there with Keller and so did apartment manager Charles Grapentine. Frederickson said:

> Amanda moved in next door first, saying she had come from Orange Park. Then one day in the middle of March she brought home Atta ... Amanda said to me, 'I'd like you to meet my friend Mohamed Atta. He's from France.' I looked at her to see if she was joking, but I guess she wasn't.

We are told the 9/11 attacks were carried out by Islamic fanatics as part of a Jihad, or Holy War, against the United States and two most basic tenets of the Muslim religion are that you never drink alcohol and never eat the meat of a pig. Atta, according to Amanda Keller, was a heavy drinker, regularly snorted cocaine and his favourite food was pork chops. He and other alleged hijackers are reported to have made at least six trips to Las Vegas with all its non-Islamic recreational activities including handing hundreds of dollars to lap dancers at the Pink Pony strip club. Islamic fanatics *they were not*. Why would he be the 'lead

hijacker' in a suicide attack on behalf of an Islamic 'holy war'? Was the Germany 'Atta' the same man as the American 'Atta'? It's highly unlikely unless he went through a remarkable transformation in which he ditched his Muslim beliefs, carried out a suicide attack in the name of his Muslim beliefs and grew several inches. The 9/11 cover up doesn't want us to know this background because their fairy tale starts to unravel. Amanda Keller was tracked down by investigative journalist Daniel Hopsicker for his book, *Welcome to Terrorland: Mohamed Atta and the 9-11 Cover-Up in Florida*, and she described anything but the 'Islamic extremist' the authorities want us to believe he was. Keller eventually retracted her story after being subjected to what she called FBI intimidation. Neighbour Stephanie Frederickson and manager Charles Grapentine said they experienced the same from the FBI after speaking publicly. Frederickson said:

> The question they asked was always the same. You aren't saying anything to anybody, are you? At first, right after the attack, they told me I must have been mistaken in my identification. Or they would insinuate that I was lying. Finally they stopped trying to get me to change my story, and just stopped by once a week to make sure I hadn't been talking to anyone.

Charles Grapentine described the same experience:

> They called me a liar, and told me to keep my mouth shut. Nobody likes to hear that; that they didn't see something they know they saw.

This is how the truth stays hidden and FBI operatives are long-time experts at this in the mould of their psychopathic former leader, J. Edgar Hoover (assassinations of 'threats to the state' like Martin Luther King a speciality). Amanda Keller is quoted by Hopsicker as saying: 'They told me not to talk to anybody, to keep my mouth shut.' The 'Muslim extremist' 'Mohamed Atta' named in the official story was, in fact, a hard-drinking, cocaine-snorting pork-eater with a white, seriously non-Muslim American girlfriend and frequented strip clubs and lap-dancing joints. No wonder the FBI sought to intimate witnesses telling this story. The enormous difference in personality and lifestyle, plus the distinct difference in height, between Mohamed El-Amir in Germany and Mohamed Atta in America make it clear that they were not the same people. Amanda Keller said that Atta had pilot licences from many countries – flying experience confirmed by his flying school owner in Florida. There is no evidence it seems that Mohamed El-Amir knew how to fly and his father said he had been frightened of flying. If the American 'Atta' was not the German 'Atta' then who was he?

Where are the 'hijackers'?

American and United Airlines released 'partial' passenger lists ('manifests') for the four hijacked planes and not one contained any of the 'terrorists' named by the FBI, nor even anyone with an Arabic name. The airlines said that some passengers were not listed because their next of kin had yet to be informed. This would not have applied to the hijackers, though, surely, so why were they not there? To this day we have not seen the original passenger manifests which were immediately confiscated – like all video surveillance footage – by Robert Mueller's FBI which then produced a list of 19 alleged 'hijackers' three days after the attacks. The first list (later changed) was revealed by CNN a day after the attacks but four names alleged to have been on Flight 11 would be replaced by the FBI in a subsequent version. Adnan Bukhari, Ameer Bukhari, Abdulrahman al-Omari and Amer Kamfar would be replaced by Abdulaziz al-Omari, Wali al-Shehri, Waleed al-Shehri and Satam al-Suqami. How can this be? Either the first four were on the passenger manifest lists or they weren't. They could not have been because Ameer Bukhari was killed a year to the day before 9/11 in a mid-air crash while Adnan Bukhari was still alive and living in Florida. Abdulrahman al-Omari and Amer Kamfar were alive in Saudi Arabia. This is extraordinary. The FBI identified 'hijackers' from the flight manifests (legal documents) and the names were either there or they weren't. You can't name people from passenger lists and then change your mind when evidence emerges that they could not have been on board. Hani Hanjour, the supposed 'hijacker pilot' of Flight 77, was not named in a list of 18 hijackers and then appeared hours later replacing another name reported by CNN that was never mentioned again or appeared in print which sounded something like 'Mosear Caned'. *The Washington Post* reported that Hanjour was not on the original passenger list 'because he may not have had a ticket'. How did he get on the plane, then – teleportation? A letter from American Airlines to the 9/11 Commission in March, 2004, said: 'We have not been able to determine if Hani Hanjour checked in at the main ticket counter.' What they mean is there is absolutely no proof that he was on the plane. This is the bloke who was supposed to have flown Flight 77 into the Pentagon. Despite all of the above Hani Hanjour was named on an official passenger list produced for the trial of alleged '20th hijacker' Zacarias Moussaoui in 2006, of whom more later.

The FBI released photographs on September 27th of men they believed, note believed, were the hijackers and emphasised that 'attempts to confirm the true identities of these individuals are still underway'. We appear to have heard no more so how are they getting on? The family of alleged 'hijacker' Hamza al-Ghamdi said his

photograph looked nothing like him. I met with Michael Woodward, the American Airlines Flight Services Manager at Boston Airport, who says he took the call from attendant Amy Sweeney shortly before Flight 11 crashed. He told me that when he took the call from the plane he punched up the passenger list for Flight 11 on his computer screen and Atta's name was there in the seat that Sweeney had mentioned. A BBC report, *The Last Moments of Flight 11*, pointed out that Sweeney said there were only four hijackers while the FBI says there were five and that 'the seat numbers she gave were different from those registered in the hijackers' names'. Flight 11 attendant Betty Ong gave other different seat numbers for the hijackers in her alleged call from the plane. I asked the FBI to explain these inconsistencies, but it would not give me an answer. In fact five passengers were missing from the list released for American Airlines Flight 11 and eight for Flight 77. It was the same story with the lists issued by United Airlines. Nine names were absent from Flight 175 and twelve from Flight 93. There is much confusion and contradiction about the authenticated passenger lists or manifests – again *legal documents* – which have never been released by either the airlines or the FBI. They have all steadfastly resisted doing so despite endless requests directly or through the Freedom of Information Act. What they have made public are alleged lists of passengers with no authentication. The question of who was on the planes reached new levels of farce in 2004 with a report by American Airlines to the 9/11 Commission claiming that some passengers had boarded Flight 11 'after the plane had pushed back from the gate'. Now that is a feat I would love to hear explained. Take your time. Robert Bonner, former Administrator of the Drug Enforcement Administration (DEA) and Commissioner of US Customs and Border Protection, told the 9/11 Commission that within an hour of the attacks 'US Customs Office of Intelligence had identified the 19 probable hijackers as well as the complete lists of passengers on the aircraft'. Many questions come from this. For example – why then have we never to this day seen the original authenticated legally-binding passenger lists and how did they access them so quickly and identify the 'hijackers' within an hour amid multiple confusions about which flights had been hijacked and crashed.

Atta is said to have flown to Boston that morning from Portland, Maine, and according to a US Air ticket agent in Portland, Michael Tuohey, he would have had to go through check-in and security again at Boston to board the American Airlines Flight 11. Tuohey said Atta gave him an icy stare when he refused to give boarding passes to him and his associate for their connecting flight in Boston. He warned the pair they had to hurry to avoid missing their flight and they left for security. If the 'hijackers' were on those planes out of Boston then surely check-in staff would remember them. When you travelled by air inside America in

2001 you didn't tend to see that many Arabic people and as these guys were supposed to have flown in business class and first class they would have had their own check-in desks and attendants with far fewer passengers to deal with than those checking in economy passengers. There were very light passenger loads on all four planes anyway – remarkably so. We are told that Atta was in first class and if he was on board there is no way the first class check-in attendant or boarding gate attendant would not have remembered him especially as he would have had to present a photo ID that matched his face and name with his ticket. Why have we never seen the boarding card clips of the 'hijackers' that are removed by staff at the boarding gate? When Michael Woodward was asked if he could put me in contact with the check-in staff that dealt with Atta and company that morning he paused and said: 'I don't know who that would be.' Maybe it's just me, but I found that a strange statement five months after the attacks. If you had taken a call from someone on a hijacked airliner that then crashed into the World Trade Center wouldn't you want to know from your colleagues what exactly happened that morning and who did what? Was there never any conversation between staff in five months about who checked in these guys, what happened and what they were like? I find that bewildering. Woodward said he would find out the name of the check-in person for me and when he did not reply over the next three days I returned to Boston Airport in search of the person who checked in Atta and his fellow hijackers. I talked to a check-in staff supervisor on duty at American and asked him about speaking to the check-in staff in business and first class on September 11th. The man became very agitated and would not even tell me his name. He went over to a check-in computer while refusing to enter into any conversation to find the number of the American Airlines media centre in Texas. Asked why he couldn't, or wouldn't, speak to me he said it was 'for personal reasons' and would say no more.

'Ask the FBI'

I asked staff at American Airlines corporate headquarters in Fort Worth, Texas, if they could confirm that the alleged hijackers passed through their check-in systems at Boston Logan and Washington Dulles. Tim Kincaid, Manager of Communications Planning, American Airlines Corporate Communications, replied that I would have to ask the FBI. I asked if I could speak with the check-in staff that dealt with the 'hijackers' to confirm that they went through. Kincaid replied: 'Sorry, no.' Rich Nelson, media spokesman for United Airlines based in Chicago, told me the same. When I asked if he could confirm that the men named as hijackers passed through United's normal check-in procedures at Boston Logan and Newark, New Jersey, Nelson also

referred me to the FBI. He said that I couldn't speak with the check-in staff involved out of respect for their privacy. However, I heard a very different story from Stanley Hilton, the San Francisco lawyer who filed a $7 billion lawsuit against Bush and other members of his administration on behalf of 9/11 families and others claiming Bush administration complicity in allowing the attacks to happen. The case was dismissed in 2004 when the judge ruled that US citizens do not have the right to sue a sitting President because of the Doctrine of Sovereign Immunity which degrees that a 'sovereign or state cannot commit a legal wrong and is immune from civil suit or criminal prosecution'. Hilton told me that clients who worked as flight attendants and pilots for American Airlines had been subjected to 'very tough gag orders' and were threatened with 'immediate termination if they talk about any of this publicly'. That would certainly explain my own experience with AA staff at Boston Logan and why should we think it would be any different at United? I said to Tim Kincaid at American Airlines that when they released passenger lists for Flights 11 and 77 there were five names missing on Flight 11 and eight for 77. I said I understood the original reason given for some of the passenger names not being there – next of kin not yet notified – but why were there no names for the hijackers on those lists? Kincaid's reply: 'Sorry, you'll need to contact the FBI.' I said that given next of kin for all the passengers will now long have been informed could I have complete passenger lists for Flights 11 and 77? Kincaid referred me to the American Airlines website for news releases for September, 2001, which merely had the original lists with the names missing. I went back to ask if the incomplete passenger lists released on September 12th were the only ones they had published. He said that the news release 'is the only one we put out and is as complete as we could make it'. He explained that 'some families asked that their loved one's name not be listed, and [they had] honored their wishes'. This is not the reason originally given for the missing passengers which was that next of kin had not been informed. Are we to believe that by some fantastic coincidence the very same next of kin who had not been informed soon enough for their loved ones to be included in the first list are the very same next of kin who decided they did not want the names of their loved ones to be published? Where are the hijackers? I contacted Kincaid again: 'What do you mean by 'as complete as we could make it? Why no hijackers anywhere?' His reply: 'That's as much as we can share. Call the FBI.' A year later at the time that *Alice in Wonderland and the World Trade Center* was published we had still not had a full passenger list for the 9/11 flights nor seen authenticated airline ticket and boarding pass documentation of the 'hijackers' who are claimed to have been on those planes. Nearly two decades later we *still haven't*. I asked Kincaid, a pleasant guy merely doing his job, if I could I see copies of the

paperwork detailing the calls made by Betty Ong and Amy Sweeney to AA ground staff from Flight 11, but it was the usual reply: 'Contact the FBI.' Rich Nelson, media spokesman for United Airlines, told me that they only released the names of those whose families authorised them to do so.

Why so few passengers?

Then there is the matter of the passenger numbers on the four flights involved. Okay, it was a Tuesday, the slowest day of the week the airlines claimed, but these were pan-America flights leaving at a time to coincide with the business day on the West Coast in the major cities of Los Angeles and San Francisco. According to airline figures Flight 11 had only 81 passengers on a plane that could carry 158; Flight 175 had 56 passengers on a plane with a capacity of 168; Flight 77 was carrying 58 passengers when the capacity was 176; and Flight 93 had just 38 on a plane capable of holding 182. We have four aircraft leaving from three airports, all hijacked in well under two hours, all left to their fate with no effective reaction from the FAA-NORAD response system, the Pentagon or government, Bush administration complicity in allowing the attacks to happen and all remarkably low on passengers. I asked American Airlines for the average number of passengers on Flights 11 and 77 throughout the year 2000. They told me: 'This information is proprietary and not available, sorry.' At least I wasn't told to contact the FBI. Rich Nelson at United Airlines said that, beyond saying that Tuesdays are typically light days, he couldn't tell me the average passenger numbers for those flights because it was considered to be 'proprietary information'. So 'proprietary information' was more important to these people than being open about what happened on 9/11? Even with the small number of passengers we are still told that between four and five hijackers without guns could overpower and control two pilots in each plane and between 43 and 90 passengers and flight attendants, using box-cutters and small knives. *The Washington Post* reported that attendant Michelle Heidenberger on Flight 77 had been 'trained to handle a hijacking':

> She knew not to let anyone in the cockpit. She knew to tell the hijacker that she didn't have a key and would have to call the pilots. None of her training mattered.

The question is – why? What could have happened? There were some big guys on these planes both in the cockpit and among the passengers. Mark Bingham, a 31-year-old, six-feet five rugby player, and Jeremy Glick, a former national judo champion, were both on Flight 93. Judo is an art of self-defence that includes dealing with people who have

knives. I contacted the FBI where everyone kept referring me and was asked to fax a list of my 47 questions to Rex Tomb, a representative for the FBI's Fugitive Publicity and Internet Media Services Unit. Many of the questions were the ones I had asked the two airlines and other organisations which they told me could only be answered by the FBI. A few days later I received a faxed reply from Ernest J. Porter at the Office of Public and Congressional Affairs saying that Tomb had given my questions to him. Porter said he regretted being the bearer of disappointing news, but it was not possible for the FBI to answer any of my questions. The news was not, in fact, 'disappointing', just depressingly predictable. Porter told me: 'It will be some time, perhaps years, before the FBI's investigative files on this case may be available through vehicles such as the Freedom of Information Act. The answers to your questions may be found in the files at that time.' One of my questions was: 'When did Robert Mueller officially become head of the FBI?' The propaganda and cover-up technique comes clearly into focus. It is the same technique used with all such set-ups: (1) you give the media the 'information' about the event that tells the public the story you want them to believe; (2) you tell everyone with any knowledge or relevant information about the event that they must pass all inquiries to the FBI; (3) the FBI then says it cannot answer questions about its official story because of the 'ongoing investigation'. It's funny how the 'ongoing investigation' didn't prevent the FBI from promoting its version of events. It only becomes a problem when the Bureau is questioned about that version. There are many decent, dedicated people working for the FBI, but when it comes to key positions of power they are not there to uncover the truth only to stop it ever being known.

'Ringleader' Atta

The FBI claims that Mohamed Atta first arrived in the United States with fellow 'hijacker' Marwan al-Shehhi on June 3rd, 2000, but the FBI in Miami reported that in *April*, 2000, a 'Mohamed Atta' approached a Farm Loan Manager at the Florida Department of Agriculture seeking a loan 'to buy a six-passenger, twin-engine airplane that he wanted to convert into a crop-dusting plane'. The loan officer was Johnelle Bryant who told the FBI what happened after 9/11 and she went public in June, 2002. Bryant confirmed in a television interview that this 'Mohamed Atta' was in the United States before the official entry time and that 'Atta' told her he came from Egypt, studied in Germany, had moved to Afghanistan, admired Osama bin Laden and wanted to find recruits in America for al-Qaeda. Why would you reveal that unless it was part of the cover story being constructed? Who was this guy? 'Atta' was also sighted in Portland, Maine, in the same April, 2000, ahead of 'his' official arrival. The *Portland Press Herald* reported that Spruce Whited, head of

security at the Portland public library, claimed to have seen Atta several times at the library using computers with al-Shehhi. Reference librarian Kathy Barry said the same: 'It was either him or his twin brother.' Yep, but which one was it?? Then there was the strange report of the two 'Atta's' arriving in Florida at the same time. The *Miami Herald* reported on September 22nd, 2001:

> INS [immigration] documents, matched against an FBI alert given to German police, show two men named Mohamed Atta [arrived] in Miami on January 10 [2001], each offering different destination addresses to INS agents, one in Nokomis, near Venice, the other at a Coral Springs condo. He [or they] is admitted, despite having overstayed his previous visa by a month.
>
> The double entry could be a paperwork error, or confusion over a visa extension. It could be Atta arrived in Miami, flew to another country like the Bahamas, and returned the same day. Or it could be that two men somehow cleared immigration with the same name using the same passport number.

There was certainly more than one 'Atta'. The FBI said that in November and December of 2000 Atta purchased flight deck videos for the Boeing 747 Model 200, Boeing 757 Model 200, Boeing 767 Model 300ER, Airbus A320 Model 200 and other items from a pilot store in Ohio. This is thought to be Sporty's Pilot Shop at the Clermont County Airport, about 20 miles from Cincinnati, although the owners wouldn't confirm that except to say they had spoken with the FBI. Nawaf al-Hamzi, who is alleged to have been on Flight 77, is said to have bought similar videos from an 'Ohio pilot store' along with Zacarias Moussaoui, a 33-year-old (at the time of arrest) French national and so-called '20th hijacker' who would be jailed for life for playing a part in 'the plot'. Officials said that Atta was given his visa at the US Consulate in Berlin on May 18th, 2000, and landed at Newark, New Jersey, on June 3rd on a flight from Prague in the Czech Republic. He overstayed his visa by more than 30 days, but was allowed back for another six months when he returned to the US with no questions asked by immigration. This is not normally the case when previous visas have been overstayed. Some who claim to have met Atta and rented him rooms in America were quoted in the media as saying he was cold, distant and secretive. They talk of his stare like the one portrayed in the driving licence picture distributed by the FBI. Atta is a real mystery man in that we don't know where he came from or what his background was and so many diversions have been thrown in the path of anyone trying to find out. I know what the authorities say about him, but that's not where you find the truth. We actually know very little about the 'Atta' who lived in the United States.

There have been many false or unsubstantiated claims about Atta and much 'information' has been presented as 'proof' when it was nothing of the kind. He was said to be wanted for the bombing of an Israeli bus in Jerusalem in 1986 and one newspaper report said: 'He was so brazen that he crisscrossed US and European borders under his own name while listed as a suspect in a 1986 Israeli bus bombing.' Brigadier General David Tsur, Chief of Staff of the Israeli Ministry of Public Security, said that Atta was not the man suspected of the bombing. The wanted man was Mahmoud Atta (also known as Mahmoud Abad Ahmad), a 33-year-old (in 1986) Jordanian who ambushed a bus in the West Bank. Mohamed Atta was said to have met with an official of Iraqi intelligence in Prague in April, 2000, and this was used to implicate Iraq with the 9/11 attacks. Iraq denied this and, once again, no evidence was produced except for Secretary of State Colin Powell saying the information came from Czech Prime Minister Milos Zeman. *The International Herald Tribune* reported a senior Bush official in May, 2002, as saying there was no evidence that Atta met the Iraqis in Prague. The whole story is claimed to have come from Czech 'intelligence' which thought that a man seen on surveillance camera footage was Atta when he wasn't. See how 'history' and 'truth' are created from utter crap? What people retain, however, is not the detail that destroys the story, but a perceptual 'image' compiled from the sum total of lies and false statements presented to them.

Atta was reported by 'witnesses' to have been at the Professional Aviation Flight Training University in Punta Gorda, California. When the FBI checked the story he had never attended that flying school. Atta was claimed to have been seen in Norfolk, Virginia, in the winter of 2000 where he 'might' have been surveying the US naval base as a possible target. Who says so? The FBI through *Newsweek*. He 'might' have been 'casing' Boston's Logan Airport more than six months before. Who says so? *Newsweek*. Sources? The usual. The *Chicago Tribune* said that he was a member of the Egyptian Jihad group with ties to Osama bin Laden. Who said so? 'Sources'. The FBI claimed that Atta flew from Miami, Florida, to Madrid, Spain, on July 9th, 2001, and picked up a rental car ordered through the Internet. The *Observer* newspaper in London claimed to have seen hotel records confirming that Atta spent at least one night at the Montsant hotel in the resort town of Salou on Spain's eastern coast during this trip and he returned his Hyundai Accent rental car to Madrid airport on July 18th, less than two months before the 9/11 attacks. The paper claimed that he went to Salou to meet with four unidentified Muslim extremists. Who says so? A Spanish newspaper. Sources? 'Investigators'. Oh, them again. Now I am not saying that any of this is true or not true, just that all the 'evidence' we have with regard to 'Muslim extremism' is from agencies with a genetic condition widely

known as 'lying through your teeth'. The FBI claims that Atta met an 'al-Qaeda' operative called Ramzi bin Shibh in Salou. Shibh is said to have once shared an apartment with Atta and 'the authorities believe' he may have been involved in the planning of 9/11 from Germany. *The International Herald Tribune*, reporting *The New York Times*, said that investigations in Salou by the FBI and Spanish intelligence had found no one who saw the two together at the resort. Another point to highlight here: Atta and Marwan al-Shehhi were alleged by the FBI in a court indictment in December, 2001, to have bought a knife in Zurich, Switzerland, on July 8th, 2001. How could Atta do that if, as the FBI also claims, he didn't fly from Florida to Spain until July 9th?

'Mr Nice Guy' or not?

The official story says that Atta drove some 3,200 miles in rental cars in America between August 6th and September 9th, 2001. He and al-Shehhi apparently walked into Warrick Rent-A-Car in Pompano Beach, Florida, on August 6th and owner Brad Warrick said that Atta carried a briefcase, was polite and looked like a businessman. Many witnesses remember him as a slick dresser who wore jewellery – another no-can-do for Muslim men. Warrick said: 'He didn't spend money like there was an unlimited source. He squabbled a little bit over mileage.' Atta had switched to a Ford Escort after renting a Chevy Corsica for a week because it cost ten dollars less. He was by contrast said by various witnesses and people who knew him to have unlimited funds and wads of notes in his pocket. Warrick described the two Arabs as 'uncommonly polite' and always '... had a briefcase and books in the trunk'. This description of Atta's demeanour is at odds with reports from flying schools where he is described as anything but polite. Warrick said that on one occasion Atta phoned from Venice, Florida, to say that the oil light had flickered on and reminded him about the problem when the car was returned on September 9th. 'The only thing out of the ordinary was that he was nice enough to let me know that the car needed an oil change,' Warrick said. 'That was odd since he was planning to die in a matter of days.' Or was he? Warrick said he found it strange that Atta had been concerned about the condition of the car when he returned it just two days before the 9/11 attacks. 'I mean, if you're going on a suicide mission, why not leave the car at the airport?' You'll never get a job with the FBI, Mr Warrick. The car rental owner also revealed that when the car was returned – again two days before 9/11 – al-Shehhi asked for the charge to be transferred from Atta's credit card to his own. Warrick said: 'If you're going on a suicide mission who cares who pays for what?' How about if you're not?

Atta was lucky not to be stopped by a traffic cop (very easy, as I know, when travelling those distances in cop-happy America) because

in the April, 2001, he had been given a ticket for driving without a licence and didn't show for a court hearing. The bench issued a warrant for his arrest which the police failed to act upon. He overstayed his visa and no action was taken. Lucky man, or was he? Patsies and intelligence assets are always protected to allow them to serve their purpose. Atta is said to have rented a Piper Archer single-engine plane at Palm Beach County Park Airport in Lantana, Florida, on August 16th, 17th and 20th, 2001, or on three consecutive days from August 19th, depending on which report you read. The manageress told the media that Atta said he wanted to complete 100 flying hours. On August 28th he is reported to have used a Visa card on the Internet to buy two one-way tickets for Flight 11 ... quoting a frequent flyer membership number obtained only three days before! Anyone who has frequent flyer membership knows how long it takes to build up enough free miles to make it worthwhile – in Atta's case that would have been long after September 11th had passed. Why is he collecting air miles if he plans to kill himself days later? The other ticket, we are told, was in the name of Abdulaziz Al-Omari, or whoever that was because the real Al-Omari was still alive after 9/11. A man by that name turned up alive in Saudi Arabia and said his passport was stolen in 1995 when he studied at the University of Denver. The FBI released the man's details claiming he was a hijacker, but the accompanying picture was not him. 'I couldn't believe it when the FBI put me on their list,' the real Abdulaziz Al-Omari said. 'They gave my name and my date of birth, but I am not a suicide bomber. I am here. I am alive. I have no idea how to fly a plane. I had nothing to do with this.' The Wikipedia page of the fake 'Al-Omari' named as a hijacker with Atta on Flight 11 sums it up really: 'Little is known about al-Omari's life, and it is unclear whether some information refers to Omari or another person by that name.' But we *know* he did it – *we know*. Now go back to sleep and stop asking questions.

Atta was said to have been at Shuckums Oyster Pub and Seafood Grill in Hollywood, Florida, 30 miles from Miami, with Marwan al-Shehhi and another man on September 8th with three days to go before the 9/11 attacks. Night manager Tony Amos said they stayed from around 4.30pm until about 7pm. Waitress Patricia Idrissi told the media that one of them went to play a video machine at one end of the restaurant while Atta and al-Shehhi sat drinking and arguing. Al-Shehhi drank rum and coke, she said, while Atta downed five Stolichnaya vodkas with orange juice. The bill was $48 and Atta argued with the manager about it. This is a guy with a pocketful of notes who, we are told, was only three days from flying a plane into the World Trade Center? 'You think I can't pay my bill?' Atta is said to have shouted. 'I am a pilot for American Airlines. I can pay my fucking bill.' *Mmmm*. Did he really mention American Airlines? It seems very convenient to the

official narrative. Atta paid the bill from a 'thick wad' of $50 and $100 bills, staff said, and so why the argument about the cost only days before September 11th? This is just silly. The *St. Petersburg Times* and other media reported that FBI agents arrived at Shuckum's 'soon after the attack' (what fantastic detective work so quickly) to interview staff and show them pictures of 'several Middle Eastern men' to see if they were the drinkers they were talking about. Amazingly they *were*. FBI documents submitted to the 9/11 Commission and released in 2009 contain three agent reports of these interviews in which some witnesses recognise Atta but not al-Shehhi and others do the opposite. The reports also play down the alcohol consumption which was bad for the official story. Islamic law strictly forbids drinking alcohol. 'Atta's' father, or the father of Mohamed El-Amir, said:

> If my son sees you with a beer, he'll cross the road' and he was 'very shy, very polite, would never swear'. He said it was '... like accusing a decent, veiled religious girl of smuggling prostitutes into Egypt. It is nonsense, imagination!

Other reports have said that al-Shehhi did all the boozing, which, if true, casts still more doubt on the 'American Airlines pilot' statement that Atta is said to have made according to the same witness who claims he drank five vodkas. Whether it was al-Shehhi or both of them hitting the bottle these people are supposed to be Islamic fanatics willing to kill themselves and thousands of others for their faith while drinking in public such a banned substance? It doesn't add up – none of does. Azzan Ali, a friend of Atta and al-Shehhi when they were students at a Florida flying school, said: 'They were very religious.' Clearly they weren't – *if they were the same people.* The *Longboat Observer* at Longboat Key, Florida, reported in November, 2001, that bartender Darlene Sievers had seen Atta four days before 9/11 at the Holiday Inn Hotel & Suites drinking rum and coke at the bar. She said she remembered him because of the big tip he left and other staff recalled al-Shehhi drinking there. A similar story emerged from the other side of the world when *The New York Times* reported the month after 9/11 that Atta and al-Shehhi had been seen drinking whisky during visits to the Philippines between 1998 and 2000 when they stayed at the Woodland Park Resort Hotel, dined at a Middle Eastern-style restaurant and al-Shehhi hosted a party for 'six or seven Arab friends'. The FBI story is that Amir ('Atta') disappeared from his German university from mid-1997 to October, 1998, and returned as a religious extremist. Now witnesses were telling us where he was for some of that period – getting pissed with women in the Philippines. Woodland Park waitress Gina Marcelo recalled:

> They drank Johnnie Walker Black Label whisky and mineral water. They

> barbecued shrimp and onions. They came in big vehicles, and they had a lot of money. They all had girlfriends ... [but] they never tipped. If they did, I would not remember them so well.

Money no problem and lots of booze appears to be the common theme of these 'Islamic fanatics'. Then there were the reports of other 'Islamic fundamentalists' drinking in a strip bar the night before September 11th. Associated Press reported on September 13th: 'Three men spewed anti-American sentiments in a bar and talked of impending bloodshed the night before the terrorist attacks.' John Kap, a strip club manager in Daytona Beach, told FBI investigators that the men in his bar used credit cards to spend $200 to $300 each on lap dancers and drinks, the report said. 'They were talking about what a bad place America is.' Kap is quoted as telling the FBI: 'They said "Wait 'til tomorrow. America is going to see bloodshed".' It's all so convenient. Kap said that he gave the FBI the men's credit card receipts, photocopied driver's licences, a business card left by one of the suspects and 'a copy of a Koran that one of the men had left at the bar', the Associated Press report claimed. Pardon me? A Muslim 'fanatic' would take a Koran into a strip bar, knock-back the booze and leave it there? Oh, do let's be sensible here. These alleged 'hijackers' and 'accomplices' (diversion agents) seem to have left copies of the Koran everywhere they went in cars, hotel rooms and bars – how perfect for the cover story. What were these guys, the Islamic version of the Gideons? The Associated Press article said the FBI told Kap not to reveal the names of these men. The *Arab News* of Saudi Arabia asked:

> How could the hijackers themselves have been 'Islamists' if they frequented bars, drank in some cases beer and wine, and one even attended an evangelical Christian school and stated that he would not have minded marrying a non-Muslim? How can we have faith in the investigations when almost half of the original list of hijackers have turned out either to be dead [before the event] or alive and well in other parts of the world?

A writer on the Liberty of Freedom website said:

> Ziad Jarrahi, the alleged Lebanese hijacker of the plane which crashed in Pennsylvania, had a Turkish girlfriend in Hamburg and enjoyed nightclubs and drinking. Yet at the same time, we are being told that these same hijackers spent the night before the attack getting drunk in bars, making noise, screaming insults at the 'infidels', and doing everything they could to attract attention to themselves.
>
> They used the credit cards issued in their stolen names, allowed their driver's

> licenses with the stolen names to be photocopied, and used public library computers to send emails back and forth using their stolen names signed to unencrypted messages about their plans to steal aircraft and crash them into buildings, then decorated their apartments with absurdly obvious props such as a crop dusting manual to the point where the whole affair reads like a low budget 'B' detective movie from the 1930s. In short, these men did everything they could to make sure everyone knew who they were, or more to the point, who they were pretending to be.

Pretending to be is a highly relevant point and so is attracting attention to themselves. You will see by the end of the book that many people with clear connections to events acted in ways that made people remember them. A cover story was being concocted before the attacks that could be 'uncovered' the moment they happened. This is very easy because the mainstream media simply accepted the official story without question. I remember seeing a television 'documentary' about Mohamed Atta on the UK ITV channel in which Jonathan Dimbleby, one of Britain's best-known current affairs presenters, repeated the FBI story without question from start to finish. Unbelievable.

Doubles all round

A staple technique of intelligence agencies such as the CIA, Mossad and British Intelligence is the use of doubles and we should add this into the mix. Even plastic surgery can be used when necessary. Some of the alleged hijackers using their alleged names were credibly sighted and/or recorded on official documents in different locations at the same time – some in very different locations on different sides of America and even in different countries. This can only be achieved by the use of doubles and false identity documentation for which intelligence agencies are legendary. We will see later the extent to which Mossad for example goes to produce credible fraudulent passports and other documents. The Florida *Sun-Sentinel* reported 17 days after the 9/11 attacks:

> At least six of the suspected terrorists had two sets of driver's licenses issued by Florida, which would have allowed two or more people to use the same identity ... Many of the suspected terrorists, it is becoming increasingly clear, swapped identities as part of their preparations for the Sept 11 attacks on the World Trade Center and the Pentagon, according to a *Sun-Sentinel* review of documents, interviews and published reports.

They swapped identities or their handlers and manipulators did? Lee Harvey Oswald, the patsy wrongly accused of the assassination of President Kennedy, is an example of someone who appeared to be in

more than one place at the same time and if doubles were used for that we have another reason why Oswald was killed to head off a public court hearing. We should also keep in mind the around 4,000 Saddam Hussein Republican Guard operatives brought from Iraq to the United States to settle after the Gulf War of 1991. Anyone think Father Bush did that out of the kindness of his heart? He didn't have one. They were brought to the United States to be used and exploited, but why? Well, for a start here were thousands of 'Middle Eastern looking men' with the potential to pose as would-be terrorists and their doubles. At least one has been connected to the Oklahoma bombing as 'John Doe 2' and it would not have ended there. Look-a-likes can pose as the target person while doing different things in different guises and claiming different background histories. When someone of the same name and appearance is reported to be a guilty party all these different appearances and personas of the real person and the double or doubles are fused together into a composite 'history' which then becomes the official one. In this way people can be described as having different personalities when they are not the same people. I am sure this is what happened with 'Atta'. Doubles can be put on terrorist watch lists when the target they are standing in for has (a) no idea he has a double and (b) has never done anything to deserve being on a terrorist watch list. Then when an attack happens the authorities say the patsy 'was on a terrorist watch list' and so give public credibility to their false narrative. Using doubles with the target party's identity is a common way to set someone up to take the rap for something they didn't do. Real people set up by doubles are often liquidated to stop them proving they could not have been responsible. What's the point of having a fake Mohamed Atta and then allow the real Mohamed El-Amir to turn up and prove it wasn't him? The authorities can try to explain away dead hijackers turning up alive as 'identity theft', but Atta was such a central character on which so much of the official narrative depends that Mohamed El-Amir would have had to be taken out. His father said in 2005: 'My son is gone. He is now with God. The Mossad killed him.' He probably got the assassins right as we will explore much later. Ziad Jarrah, a friend of El-Amir in Germany and the alleged hijacker pilot of Flight 93, is another victim of the doubles hoax. Lebanon-born Ziad Jarrah was no Muslim extremist. He was educated in Christian schools, liked to dance, party and drink beer and had a reputation for knowing the best night clubs and beaches in Beirut. Jarrah had a Turkish girlfriend in Germany and they were planning to marry in the summer of 2002. His father said:

> He never expressed any religious thoughts or ideas. He never changed in his appearance, or behaviour. He was still the same person we know since he was born, and throughout all his life.

FBI claims about Jarrah's background turned out to be false and there have been inconsistencies about where he was supposed to have been. 'Jarrah' was said to have been questioned in Dubai on January 30th, 2001, when he admitted to his inquisitors spending the previous two months and five days in Pakistan and Afghanistan where Osama bin Laden operated a terrorist training camp; but what this fake 'Jarrah' said in Dubai is impossible. The real Jarrah was registered with a flying school in Venice, Florida, near the one attended by 'Atta'. The school confirmed that he continuously attended until January 15th and his family confirmed that he then flew to Lebanon where he arrived on January 26th to visit a hospital every day until the 30th where his father had undergone open heart surgery. He could not have been in Dubai. Fake 'Jarrah' in Dubai (a major intelligence centre for the CIA) was playing his role in preparing the post-9/11 cover story. He told his questioners that he was going back to Florida to connect him to the real Jarrah, but then flew to Europe and how could someone who had just indicated possible terrorist connections then be allowed to head for the airport? CNN reported that the Dubai interrogation of 'Jarrah' was conducted at the request of the CIA and provided the only confirmed link (a lie) between any of the alleged 'hijackers' and Afghanistan. Another fake Ziad Jarrah made an appearance years earlier when he leased a home in Brooklyn, New York, between March 1995 and February 1996. His landlords recognised the picture of the real Jarrah/Jarrahi circulated after the 9/11 attacks, but while what would appear to be his double was in New York the real Jarrah was completing his education at a Catholic high school in Beirut. He didn't leave Lebanon until April, 1996, when went to study in Germany. Fake Jarrah had his rent paid by a house-mate called Ihassan Jarrah and claimed to be a photographer. His New York landlord said he would sometimes come home with a prostitute. Charles Lisa, a landlord of Jarrah in Florida in 2001, said he had a German passport. Why would that be when he was supposed to be a Lebanese citizen? Lisa was reported as saying that Jarrah 'was too happy a man for a guy who knew he was going to die in the next ten days or so.' Most of those who met the alleged hijackers appeared to be astonished that they could have carried out such attacks. Many were described as 'ordinary' people or, as one article put it: 'Friendly neighbors, serious students and model dads: the men suspected of hijacking the jets that carried out history's deadliest terror strikes looked a lot more like the guy next door than the incarnation of the devil.' Another aspect of the patsy operation on the real Ziad Jarrah was his alleged 'suicide letter' to his girlfriend in Germany 'hours before the attacks' in which he is alleged to have said:

> I did what I had to do. You should be very proud of it, it is an honor, and you will see the result, and everybody will be happy.

Somehow – just a coincidence – 'Jarrah' wrongly-addressed the package to a location he knew very well and just by chance it was returned to the United States where it ended up in the hands of the FBI. Oh do fuck off. This alleged 'suicide note' mentioned future meetings and contained references to scuba diving instructions. The real Jarrah of course disappeared at just the right time to go the same way as the real Mohamed El-Amir ('Atta'). Jarrah's family offered to provide DNA for a test with fragmentary alleged remains of 'hijackers' on Flight 93, but the FBI turned it down. I can't for the life of me think why. Doubles would explain how devout Muslims became booze-swilling, cocaine-snorting pork eaters and womanisers and how in reverse people who had no interest in Islamic extremism suddenly began behaving like Islamic extremists. Atta's English and accent were described by Florida rental car owner Brad Warrick as that of someone resident in the United States for a long time. By contrast 'Atta' (which one?) would be denied flying tuition at Jones Aviation in Sarasota, Florida, because he and al-Shehhi were aggressive, rude, and ... *couldn't speak English*. The question might be asked about why doubles would allow themselves to pose as people and then be killed on crashed airliners. The answer is two-fold. Often the doubles themselves don't know the big picture and can be manipulated into the wrong place at the wrong time and secondly, in the case of 9/11, there is *no confirmation they were on the planes*. I say that because if the 'hijackers' that are claimed to have crashed the planes actually boarded them, even as patsies who didn't know what was going to happen, *multiple* surveillance pictures around the airports and their boarding pass stubs would have been made public immediately after the attacks. All these years later we are still waiting. There would appear to be two different 'Attas' in Germany and America, but how many 'Attas' were there in America? How many doubles of other alleged 'hijackers' were there when they could not possibly have been in different locations, even countries, at the same time? Confusion is the key to diversion from the truth and with 9/11 we are drowning in it. We have had apparently credible sightings of 'Atta' all over America from coast to coast – and in Canada and Germany – and he and other alleged 'hijackers' were seen or located in different places at the same time.

Evidence presented by investigative journalist Daniel Hopsicker and in highly detailed books like the excellent multi-authored *The Hidden History of 9-11* clearly show that Atta and others in the alleged 'Islamic plot' were being both closely watched by military intelligence assets and protected from investigation or arrest. Mossad and the Israeli military will seriously enter the story with regard to this. The same Hidden Hand

operatives were guiding the cover story and preventing those involved in the cover story (knowingly or otherwise) from being stopped or exposed – operatives of the same agencies that claimed after 9/11 that they were taken completely by surprise and had no idea what was coming. A double could explain reports that Atta was seen with his father in the United States. Either that or the father of Mohamed El-Amir has been lying to us. Numerous witnesses in Venice contacted the FBI office in Sarasota after El-Amir's father appeared on television after 9/11 to say they had seen him in Venice with Atta two weeks before the attacks. The usual FBI intimidation of witnesses telling the wrong story then followed to pressure them to shut up. Both the FBI and the 9/11 Commission have sought to air-brush and delete Atta's months of residence in Venice, Florida, and you can see why with what happened there demolishing their 'radical Islamist' script. I will focus further on Venice, this key centre of 9/11 activity, later in the chapter. Another Atta location in Florida was the town of Hollywood about 30 miles from Miami and a three-hour drive from Venice. Hollywood is going to be centrally-important to the 9/11 story much later in the book. One other point about identity is that technology can fabricate photographs or fuse two people into a face that resembles both. That is obviously true today and even in 2001 intelligence networks had technology way ahead of what was available to the public. On the subject of pictures – why have we not seen many more of Atta and his alleged accomplices who would have been caught on camera all over the place? Why did the FBI turn up at the LA Fitness gym in Coral Springs, Florida, where Atta was a member for some weeks, and remove his picture from the computer – as confirmed by employee José Serraz? Why haven't we ever seen it? All we see is basically the same single image of his period in the United States from his driving licence.

'Atta' everywhere

On September 8th a man of Middle Eastern appearance (they had so many to choose from thanks to Father Bush) is reported to have walked into the control tower at Boston Logan Airport. Some speculated that this was Atta, but the FBI claim that he flew from Florida to Boston via Baltimore the following day, September 9th. Well, that's one FBI timeline, anyway. Other FBI reports have him flying out of Fort Lauderdale-Hollywood airport on September 7th on a flight to Baltimore at a time he was seen drinking at Shuckum's bar while also booking a one-way ticket on September 5th from Florida to Boston, not Baltimore. Still another timeline has Atta and al-Shehhi checking out of the Panther Inn in Deerfield, Florida, on September 9th which would fit returning the hire car to Brad Warrick on the same day. An FBI document compiled on September 12th, 2001, has a man identified as Atta selling

his 1989 red Pontiac Grand Prix to Wynn Errico at the Wynn Motor Company in North Lauderdale for $800 on September 7th. Another version of that car-selling story, with differences, appeared in an FBI document dated September 17th and still another has the car sold for $800 but to Sun Auto Leasing and Sales on September 8th. Whatever the discrepancies why would you go to so much trouble selling your car when you already had lots of money and were planning to die in four days? To add still further to this Twilight World an FBI document has Atta, Hani Hanjour (the alleged pilot of Pentagon Flight 77) and possibly other 'Middle Eastern men' photographing passports on September 7th at a Kinko shop in Laurel, Maryland, 20 miles from Baltimore which is more than a thousand miles from where he is supposed to have sold his car in the early afternoon on the same day. Amid all these conflicting timelines came another in May, 2002, when CNN and the *New York Daily News* sourced reports to the FBI which said credit card receipts appeared to locate Mohamed Atta in Manhattan, New York, on September 10th, 2001.What he is supposed to have bought was not mentioned. It's crazy stuff and fuels the confusion and contradiction that hides the truth.

Several hours before the 'Atta' figure showed up at the Boston Airport control tower on September 8th we are told that four 'Middle Eastern men' had asked a controller how to get into the tower. This begs the question of what 'Atta' and these other men expected to gain by getting into the tower. What would it have told them? It wouldn't have helped them hijack the planes three days later in any way. What it would have done is attract attention to them and suspicion. This is the last thing they would have wanted so close to their 'big day' at the very airport where they were acting suspiciously. On the other hand if you were setting up a cover story for September 11th you would want 'Middle Eastern men' acting suspiciously at the airport where the first two planes were to be hijacked. I asked the FBI about the 'Atta' man and the other four at the control tower when I was researching *Alice in Wonderland*, but they refused to answer my questions. Forbes.com quoted frequent flier Janice Shineman in a 2016 article as saying she saw Mohamed Atta at the American Airlines terminal at Boston Logan on September 9th – the day his rental car was returned in Florida. She said he 'stared menacingly' into her car when she arrived and then cut in front of her inside the airport to ask a question of an American Airlines agent. Shineman said he held a red file folder and wore pink and blue flowered gym pants. The word 'Nantucket' was on the back of his purple T-shirt. She said 'Atta' took notes while standing in front of gate agents and she planned to say something to the pilot about him, but he did not board the flight. The *Forbes* article went on:

> An FBI chronology of the hijackers' movements states that Atta rented a car at

Logan on Sept. 8, 2001 – which coincides with Shineman's observations the next morning – but it also states that Atta flew to Logan from Baltimore on Sept. 9. The FBI could not explain the discrepancy or why the time-line lists two different flight numbers for Atta's Baltimore-Boston flight.

There are so many discrepancies in the 9/11 story I don't wonder people have trouble keeping up with them and while Atta was hiring a car in Boston he was being seen drinking heavily in a Florida bar. The main focus of the 2016 *Forbes* article was an even more bizarre story in which Delta Airlines captain Pat Gilmore claimed that he had flown from Baltimore to Atlanta on a Boeing 757 on July 26th, 2001, with Mohamed Atta in the jump-seat behind him posing as an American Airlines pilot. *You are kidding me?* No – Gilmore told the American Media Institute that Atta showed him a standard pilot's FAA Class 1 medical certificate and a jump-seat request form that pilots typically present when riding as cockpit passengers on their own or competing airlines. The documents bore the name 'Atta' and his picture was on the company ID. Atta had worn an American Airlines pilot uniform and 'cast a pall over the flight deck'. Gilmore claimed: 'He gave me a stare in the cockpit at cruise altitude that was bone-chilling.' Forbes noted that the story conflicts with the FBI Atta timeline (but then what doesn't?) and reports how Gilmore was 'just one of several witnesses who say they saw the mastermind of the attacks on New York and Washington while the clock ticked toward the largest terrorist attack in US history'. How many 'Attas' were there and how many sightings were accurate? Gilmore said he called the FBI who told him there was no way to confirm the story and it probably had nothing to do with the attacks. Surely unless this 'Atta' was protected he was taking a massive chance scamming himself into the cockpit when if he had been caught his alleged contribution to 9/11 would have been over. WTF?

'Quick – we'll miss it!'

The FBI timeline says that on September 10th Atta and Abdulaziz Al-Omari rented a Nissan Altima from Alamo at Boston Logan Airport and drove just over 100 miles to Portland, Maine. They are said to have stayed overnight at a Comfort Inn before heading the next morning for Portland Airport and a plane back to Boston to pick up Flight 11. Why on earth would they take such a chance of missing the flight they were supposed to be targeting when even a short delay could have been crucial? Why would the leader of the biggest plane hijack in history, an attack years in the planning, risk flying to Boston that morning and giving himself so little time between landing in Boston from Portland and the departure of Flight 11? The Portland plane arrived in Boston at 6.45am and Flight 11 was scheduled to leave at 7.45am. Atta and Al-

Omari are said to have been caught on video at Portland as they boarded a Colgan Air commuter flight to Boston. Well, for a start, that wasn't the real Al-Omari on the videotape because he was still alive after the attacks and which 'Atta' was it? On the videotape released by the FBI of 'Atta' and 'Al-Omari' going through security at Portland is the time-code 05-53-41 (Fig 39). That's just 19 seconds short of six minutes to six. I know you can work that out, but it is worth emphasising because the flight they took from Portland to Boston that morning, USAir Flight 5930, was scheduled to depart at ... 6am. That's only *six minutes* after 'Atta' and 'Al-Omari' were 'captured' on videotape passing through security! No wonder they were described as 'rushing' for the plane. Airline worker Michael Tuohey who described how he checked-in Atta and Al-Omari said they wore 'ties and jackets'. By the time they appeared on security cameras immediately afterwards rushing to the gate they had open neck shirts and no jackets. The FBI timeline said that Atta and Al-Omari checked out of their hotel in Portland at 5.33am, just 27 minutes before their plane was due to depart and they then had to park their rental car, check-in and get to the gate. Atta was described as 'sweating bullets' and said he was running late. 'His forehead was drenched,' an airline witness said. Anyone who travels by air knows that if you leave it that late you are highly likely to miss the flight. Not only did the leader of the biggest plane hijacking in history take the chance of flying into Boston from a connecting flight that morning he arrived so late that the Portland plane departed only minutes after he got to the gate. All that planning and he took those risks of not even getting to Boston? What was that *The Washington Post* said about the '... astonishing degree of organization and planning undertaken by the terrorists'? Hilarious. It was more like the Keystone Cops. No, sorry, that's the FBI (or what decent and intelligent agents in the FBI are forced to be by their superiors). I asked the FBI about all these anomalies and contradictions, but, of course, officials refused to answer my questions. On the Portland airport security video a second

Figure 39: 'Atta' and 'Al-Omari' rush through security at Portland airport. The time-code at the bottom (where you would expect it to be) shows six minutes to flight departure (hence the rush) while the one in the middle (the last place you would normally put a time-code on a security video) shows 15 minutes to departure. Most of the media cropped this image to show only the middle time-code.

time-code appears in the *centre* of the screen – the last place you would put a time-code on a surveillance video. This code reads 5.45 and appears to be only there to hide the ridiculous contradiction of a 'highly professional' leader of the hijackers running to his plane at six minutes to departure when if he missed the flight he missed his hijack connection. The way the shot was framed by most of the media only the second time-code in the middle of the screen was visible. The true one at the bottom of the frame was cropped off. If this second, centre-of-the-screen, time-code was correct, it means that Atta and friend must have checked out of their hotel, taken their car to the airport car park, checked in and passed through security to the gate all in 12 minutes. I rang Ruth Dudley, a very nice lady, who was Head of Security at Portland Airport. I asked her why there were two time-codes – one of them slap bang in the middle of the screen. She said she didn't know and would have to see it to give me an opinion. Unfortunately, she said, they didn't have those tapes anymore because they were immediately confiscated by the FBI – as were all the tapes relating to 9/11 and all such attacks, including Oklahoma. I asked the FBI why there were two time-codes on the video and why one was in the middle of the screen, but officials refused to answer.

Other 'hijackers' are said to have arrived at Boston Airport in a white Mitsubishi Mirage with Virginia licence plates. The car contained 'five' Arab men (three in other reports) and the FBI said that in one window was a pass allowing access to restricted areas at the airport. Media reports and official statements claimed that (unidentified) witnesses remembered the men because there was an argument with an unnamed driver over a parking dispute. I have seen the 'hijackers' arrival time as anything between 06.45am and 07.15am, but if we take the now official time of between 06.45 and 06.52 they are still leaving it very late for a departure at 07.45 that they apparently meant to hijack. David Boeri on *NewsCenter 5* in Boston reported: 'Sources say at least four suspects, described as Middle Eastern men, arrived late to the airport, purchased one-way tickets and paid in cash for them, all of those factors being known security risk flags.' He said security personnel were trained to question late-arriving passengers who pay in cash for tickets. Surely 'highly trained' hijackers would know this? There are so many conflicting reports of what happened in this period – the hijackers paid cash at the time or booked their tickets earlier, airline and staff remember them and they don't. The 9/11 Commission said none of the checkpoint supervisors recall seeing any of the 'hijackers' or report anything untoward. If there were no hijackers and nothing happened untoward that would explain it.

Camera shy

I have noticed that many people seem to believe they have seen video footage of Atta and friend going through security at Boston Logan. This is because people tend to get an impression from a news item and not the detail. We have been shown no pictures of any of the alleged hijackers getting on any of the 9/11 planes. We have seen 'Atta' and 'Al-Omari' alleged to be passing through security on the time-code-doctored images from Portland airport but nothing in Boston. *Three years* after the attacks footage was released of the alleged hijackers of Flight 77 passing through security at Washington Dulles (more about this later). Even this was not released voluntarily, but through a Freedom of Information Act request from a law firm representing some 9/11 families. If the footage is real and authentic why wasn't it revealed much earlier and not on the day before the 9/11 Commission presented its report? That's it – the extent of footage confirming the 'hijackers' boarded the planes and you can bet that if proof existed it would have been all over the media on September 11th-12th. Staggeringly, Boston Logan, of all the airports in all the world, did not have surveillance cameras and so we have no proof that Atta and company boarded Flights 11 and 175. A *Boston Herald* article said: 'In perhaps the most stunning example of Massport's lax security safeguards, Logan International Airport is missing a basic tool found not only in virtually every other airport, but in most 7-Elevens'. Massport ran Boston Logan Airport and almost every other transport operation in the city it would seem. I went to see its media spokesman when I was speaking in Boston in February, 2002, and he said that Massport was not responsible for security. I'll come to who was at the most relevant time in the latter stages of the book. He confirmed there were no video cameras in the departure lounge, but by the time I spoke with him they did have face-recognition cameras taking still pictures to ensure that the person who checked in was the person getting on the plane. The *Boston Herald* article pointed out that the lack of cameras in the departure lounge has prevented the FBI from definitively identifying the men who boarded the planes. How strange that when airport cameras were already ubiquitous they did not have them at an international airport when they did at a small regional jetport at Portland. Therefore Boston was the perfect airport if you wanted to hide the truth. Cameras had been in widespread use in airports for some 15 years before 9/11 and Michael Taylor, President of American International Security Corp in Boston, said: 'It's not rocket science, convenience stores employ them, why wouldn't Massport?' The absence of cameras when you would find them at almost every other similar airport is another one of those endless coincidences that you find everywhere in the 9/11 story. This means that the evidence is simply not there to prove that the 'hijackers' named by the authorities were on the

Boston planes – even those that were not still alive. Charles Slepian, a New York security consultant, said:

> You have names, but the FBI has said it hasn't been able to match the faces of those who were on the flights. Who boarded at Logan? You don't have pictures, and that's a problem. And are those suspects the ones who actually got on at Logan or are they still alive? Who knows? That's one of the big questions the cameras would have been able to answer.

How convenient that at Boston Airport of all places they couldn't do that. Funny, too, how there were 17 surveillance cameras constantly filming the roads between the Ritz Hotel and the Pont de L'Alma tunnel in Paris which would have proved beyond question what happened to the car in which Princess Diana died in 1997. For reasons never explained none of them was working the night she died (see *The Biggest Secret*). Cameras are very important to the Hidden Hand when they want to keep surveillance on the public, but they can be a real problem when they need to hide their own activities. Still, hold on: Boston did have cameras in parking garages, ramp areas and on Logan's roadways to monitor traffic. Why haven't we been shown video pictures of these 'Middle Eastern men' who arrived in the car park that morning and had the argument with an unnamed driver? What about the men we are told arrived at the car park in their vehicle several times in the days before September 11th? Where is the footage of the other hijackers arriving that morning? Surely the 'Middle Eastern men' who asked how to get into the control tower must be on tape somewhere as well as the one who seems to have got in 'unaccompanied'. The *Boston Globe* reported on September 13th:

> When they reviewed videotape of the parking lot's surveillance camera, investigators found that the car had entered the lot up to five times between last Wednesday and Tuesday, according to sources. Those sources said the constant presence of the car over the last week suggested that the terrorists had scouted the airport, or performed dry runs for the daring attack.

Who was on the tape and where is it? Where is the recording of the 'Middle Eastern men' arriving in the white Mitsubishi on the morning of September 11th and having the argument over a parking space with an unidentified driver? I asked the FBI all these questions, but officials refused to answer. Michael Taylor, president of American International Security Corp, said he had worked for the Port Authority of New York and New Jersey and confirmed that Newark, New Jersey, from where Flight 93 departed, has video cameras in the departure lounge. Why haven't we been shown footage of the 'hijackers' boarding that flight? I

put this same point to Tara Hamilton, a very pleasant woman in the media office at Washington Dulles Airport. She replied:

> I've checked with our airport police department and they inform me that the FBI is in charge of all information regarding September 11th and the specifics about the men who came to Dulles Airport. In regard to questions about our airport cameras, those are part of our security system and we're not able to discuss that. I'm sorry we're not able to provide the information you are seeking but am sure you understand our situation.

Well actually, no I don't. If releasing video footage of 'Atta' and friend at Portland airport was okay, what was the problem with letting us see other 'hijackers' boarding planes at other airports? Very questionable footage was released in security at Dulles in 2004, but nothing from the departure lounge. Tara Hamilton, like all of these media spokespeople, was just saying what she was told to say, and the idea that asking for confirmation that 'hijackers' were caught on camera would in any way affect the airport security system is ridiculous. They don't want to discuss it, that's the truth. I asked the FBI why these pictures had not been released, but officials refused to answer. Police said that after the attacks they found Atta's red 1989 Pontiac Grand Prix in the parking lot of Logan Airport and the rented Altima in Portland. Why would Atta rent the Altima at Boston Airport to drive to Portland if he had another car already at Boston? Where did this car come from when he had been at the other end of America, in Florida, with another rental car until September 9th? Florida police understandably appealed for anyone who might find the Grand Prix in the area where Atta was said to be living. Instead it turned up in a Boston car park 1,673 miles away and yet Atta went to car rental companies in Florida on the 9th and Boston on the 10th, according to the official story. Do the sums and you find that even if Atta maintained a speed of 100 miles an hour for the entire journey (no chance, he would have had so many speeding tickets) it would take nearly 17 hours to complete the journey with no hold ups or stops whatsoever. Not worth even going there, it's so stupid. Yet the *Chicago Tribune* said:

> Sometime before the attack, Atta, perhaps accompanied by al-Shehhi, made his way up the Eastern Seaboard. After Tuesday's attack, police found Atta's Grand Prix in the parking lot of Boston's Logan International Airport.

The reporters would have seen how ridiculous that was if they had only stopped to think instead of taking the official story without question. How can they find a car so far away from Florida where FBI reports said Atta sold it for $800 on September 7th or 8th? What about the FBI

reports that said Atta flew to Boston via Baltimore? Oh, and would you believe it? The Mitsubishi left by other 'hijackers' in the car park at Boston Airport was found to contain a ramp pass allowing access to restricted areas, a copy of the Koran, a fuel consumption calculator and a flight training manual written in Arabic on how to fly a 767. *Wow!* What synchronicity. All this was 'discovered' at the very time the Bush government was preparing to pin the blame on Arab terrorists working for Osama bin Laden. Shit, thank you God. Just a thought, though: Maybe a note signed by Osama bin Laden saying 'all the best with your mass murder on my behalf today by flying those planes into the World Trade Center and the Pentagon' might have been a nice touch, just to cover all bases. Perhaps they could have placed the note inside the hijacker's passport that was 'found' a few blocks from the World Trade Center. Nicely charred at the edges, you know the sort of thing. Add all this to the 757 flying manuals and 'eight inch stack of East Coast flight maps' that were claimed to have been found in hotel rooms rented by 'hijackers' and the story is complete. Oh yes, not to forget the reports that al-Shehhi and Atta were spotted in Switzerland that summer buying pocket knives and box cutters the day before the FBI says Atta flew from Florida to Spain. 'Hey Mohamed, we need box cutters and pocket knives, better fly to Switzerland to buy them, eh?'

Yet another miracle (they keep on coming)

Even without cameras at Boston the gods clearly wanted to help the FBI and other government 'investigators' to find those responsible. Of all the luggage of all the passengers on all the airlines on that day of all days, it was *Atta's* bags that didn't make it on to Flight 11. The FBI found inside a note dated five years earlier in which Atta said he was willing to martyr himself in a holy war against infidels. Yeah, of course he did. The contents were first reported to have been found in a rental car left by Atta at Boston airport and when the narrative changed to him driving a rental car from Boston to Portland we were told his bags were found at Boston airport because they didn't get on to Flight 11. The contents were the same, though, and oh my God! They only found in Atta's bags a copy of the Koran, a Saudi passport, correspondence from the university he attended in Egypt, Abdulaziz al-Omari's international driver's license and passport, a folding knife and pepper spray and ... *yes, yes* ... a video of how to fly a wide-bodied airliner. *Bingo!* Game, set, and match, all sorted, case closed. What use a knife and pepper spray were in a bag planned for the hold was not explained. The find was described by former FBI agent Warren Flagg as 'the Rosetta stone enabling FBI agents to swiftly unravel the mystery of who carried out the suicide attacks and what motivated them'. Red Flagg said:

> How do you think the government was able to identify all 19 hijackers almost immediately after the attacks? They were identified through those papers in the luggage. And that's how it was known so soon that al-Qaeda was behind the hijackings.

Well blow me down, you don't say. Extraordinary – what a piece of luck! Another document was claimed to give instructions for Atta's burial and what should be done with his possessions 'when I die'. The *Los Angeles Times* reported: 'Authorities said Atta instructed that he be buried 'next to good Muslims,' with his body pointed east toward Mecca, that strict Muslim traditions were to be followed for his burial and that no women be allowed at his funeral. The document, dated April 11th, 1996, suggested that 'Atta may have been considering a suicide attack for several years before he carried it out'. This included the request that he wanted to 'go to heaven as a martyr'. How they can produce this stuff without laughing is beyond me. It's not even a B-movie script. The letter and 'will' 'found' in the baggage of Mohamed Atta was claimed to include a five-page message to his fellow hijackers. The FBI said that essentially the same letter was found in the wreckage of 'Flight 93' in Pennsylvania. *'Essentially'* the same document? Did Atta, or whoever, hand-write basically the same five-page instruction to all of them then? Had he not heard of photocopiers? I mean, he was at a Kinko's copying store near Baltimore while selling his car in Florida. Attorney General John Ashcroft also told an [In]Justice Department news conference on September 28th that another copy of the 'letter' had been found at Washington Dulles Airport 'in a vehicle used by Nawaf al-Hamzi, one of the hijackers on American Airlines Flight 77'. Ashcroft said the letter was a disturbing and shocking view into the mind-set of these terrorists: 'The letter provides instructions to the terrorists to be carried out both prior to and during their terrorist attacks.' The FBI released 'extracts' of the letter 'found' in 'Atta's luggage' via *The Washington Post* on September 28th and it was claimed to be originally written in Arabic by someone alleged to be an Islamic fanatic. The original Arabic text was not released until later by the FBI. A number of various translations have been circulated over the years and the document has been questioned in terms of its Islamic authenticity. These are some instructions for the hijackers in the Atta 'letter' according to a translation for *The New York Times*:

> Pray during the night and be persistent in asking God to give you victory, control and conquest, and that He may make your task easier and not expose us.
>
> Shouldn't we take advantage of these last hours to offer good deeds and

obedience?

Nah, let's just get pissed like we did in Florida.

Bless your body with some verses of the Qur'an (done by reading verses into one's hands and then rubbing the hands over whatever is to be blessed), the luggage, clothes, the knife, your personal effects, your ID, passport, and all your papers.

Why would fanatical Muslims have to be told how to bless something?

Check your weapon before you leave and long before you leave. (You must make your knife sharp and must not discomfort your animal during the slaughter).

Oh yes, and don't sleep in so you have to run your arse off to get on the Portland plane.

Tighten your clothes [a reference to making sure his clothes will cover his private parts at all times], since this is the way of the pious generations after the Prophet. They would tighten their clothes before battle. Tighten your shoes well, wear socks so that your feet will be solidly in your shoes.

Didn't your mum ever tell you that? Mine neither. Remember – don't let your dingle dangle.

When the taxi takes you to (M) [this initial could stand for matar, airport in Arabic] remember God constantly while in the car. (Remember the supplication for entering a car, for entering a town, the supplication of place and other supplications).

I think it is more important to remember that the FBI says these guys travelled to the airports in hire cars, not taxis.

When you have reached (M) and have left the taxi, say a supplication of place ('Oh Lord, I ask you for the best of this place, and ask you to protect me from its evils'), and everywhere you go say that prayer and smile and be calm, for God is with the believers.

Say a prayer, smile and be calm? I thought they were supposed to have had an argument with a guy over a car space immediately they arrived? They ought to listen more.

In his 'will' Atta also asks that his body be washed and buried. What, after flying a plane with a 20,000 gallon fuel capacity into the World

Trade Center? That's one heck of an embalming job. It should also be noted that while they produced this 'letter' to the hijackers, which talks of everyone fearing death, the FBI also said that 11 of the 19 hijackers named did not know they were on a suicide mission, but believed themselves to be preparing for a conventional hijack. Not if they read Atta's letter they weren't. 9/11 was like the worst type of Hollywood movie in terms of the official storyline and the miraculous and implausible happenings required for it to be true.

Venice – City of Mirages

This title may be awarded to the most famous Venice in Italy, but it could equally apply with regard to 9/11 to the small city of the same name on the Florida coast. A key strand of the official story is that all the pilots named by the FBI attended American flying schools in preparation for hijacking four commercial airliners and taking over the controls. They did this by practising on single-engine planes and some extremely incompetently at that. The main centre for this flying tuition was the little airport in Venice which is not far from Sarasota where Bush visited the school on the morning of 9/11. Three of the four alleged pilots trained at flying schools at Venice airport – Mohamed Atta (Flight 11), Marwan al-Shehhi (Flight 175) and Ziad Jarrah (Flight 93). Hani Hanjour, alleged hijacker pilot of Flight 77, attended schools in Arizona and briefly experienced a flight simulator. Venice is a seaside resort and retirement centre on the Gulf of Mexico on Florida's south-western coast with a population of some 23,000. Venice airport was mentioned during the Iran-Contra hearings when Oliver North was being questioned and the subject involved gun running from the airport to the Contras in Nicaragua. The airport was also a conduit for the CIA drug-running operation into the United States out of South America aided and abetted by the Bushes and Clintons. Funnily enough, small as Venice may be, close Bush family associate Jackson Stephens had a long association with the place. Stephens was an investor in George W. Bush's Harken Energy together with Khalid bin Mahfouz, the man named by the US State Department as a financial backer of Osama bin Laden. Bin Mahfouz and Stephens had something else in common, too – their involvement in the corrupt and criminal Bank of Credit and Commerce International (BCCI) in which the Bush family and the Saudis were also seriously implicated. Stephens was a close friend and financial backer of Father George and funded Bill Clinton's campaigns to be governor of Arkansas and US President. He has further been linked by researchers to the National Security Agency (NSA), the major overseer of the US intelligence network and boss to the CIA. Some government officials have accused the NSA of destroying data relevant to the 9/11 investigation, but why wouldn't they when destroying evidence of government-military-

intelligence criminality is their job? Stephens was also a roommate of President Jimmy Carter at the US Naval Academy. To put it mildly, this guy had massive 'connections' and has been named in relation to a number of scandals including the corrupt Whitewater land deals which involved the Clintons and the Iran-Contra gun-running and cocaine smuggling operation through the Mena airstrip in Arkansas while Clinton was governor and Bush/Reagan were in the White House. A block away from Venice Airport and the 'hijacker' flying schools was the former national headquarters of the Stephens company, Beverly Enterprises. At the time of 9/11 it was home to his former law firm, Boone, Boone and Boone, and a Stephens executive still had an office there. Boone, Boone and Boone, it seemed, pretty much ran the place. Venice was a 'Boone town', you might say.

Florida is a major centre of drug trafficking and CIA, Mafia and military activity, all of which go together. I have seen the Saudi royal family mentioned for its connection to the Florida elite and criminal networks and 15 of the 19 alleged hijackers were from Saudi Arabia. Drug-trafficking and 9/11 are intertwined. Florida-based journalist Daniel Hopsicker said the son of Jewish gangster Alvin Malnik from the Miami Mafia was married into the Saudi royal family through a daughter of a Saudi prince. The king of Saudi Arabia would regularly send his private 747 to Florida to allow Malnik and gang to do business with the Saudis away from public view, Hopsicker reports. Three 9/11 'pilots' ended up at Venice flying schools even though Florida had hundreds of schools to choose from. The fact that Venice airport was a conduit for transporting drugs in the CIA operation was not a coincidence it is safe to say. American 'Atta' was involved it seems in the drug racket as a pilot and attending the flying school was a front. He already knew how to fly small planes and had licences from many countries. Being an operative in the CIA drug trade would also explain his many movements and long distances in hire cars and his wads of cash. There is a very good chance that he was set up by the 9/11 cover-story creators while he thought he was working for 'them' on other business. 'Mohamed – we need you to go to Boston and then on to Portland to stay overnight and return to Boston the next day.' Or he could have known what he was doing. Either is possible. The Venice flying schools had both changed hands shortly before Atta and company arrived there and both were purchased 'independently' by Dutch nationals within a month of each other. Rudi Dekkers bought Huffman Aviation and Arne Kruithof bought the Florida Flight Center. Atta and al-Shehhi went to Huffman and Jarrah to the Flight Center. Atta and al-Shehhi also attended Jones Aviation flying school at Sarasota Bradenton International Airport half an hour from Venice and five miles or so from the Emma E. Booker Elementary School where President Bush was on

the morning of September 11th. Dekkers launched an aggressive European 'marketing' campaign not long before the 'hijackers' turned up at Huffman. He told the local *Venice Gondolier* at the time:

> The world is my working place. I won't forget Venice, but I'm going to market throughout the world, Germany, France, Belgium. That's our goal, to get people to come in here from all over the world.

So it proved. Foreign nationals soon made up 80 percent of student pilots at the school. Hundreds a year were paying thousands of dollars while it was reported that Dekkers was falling behind with the rent. Daniel Hopsicker, author of *Barry and the Boys: The CIA, the Mob, and America's Secret History*, said that Huffman Aviation was one of the schools authorised by the Immigration and Naturalization Service to issue I-20M immigration forms. These helped foreign students to secure US visas as vocational students. Arab would-be pilots began to arrive at both Venice schools in unprecedented numbers. The schools were connected to an elite international 'exchange' programme. This was a 'joint venture' between the American and German governments and run by a little-known private organisation, Carl Duisberg International (CDS). Hopsicker said this had close ties to Hidden Hand figures like David Rockefeller and Henry Kissinger and was supported by the Clintons. The usual suspects in other words and what a coincidence that is – or rather isn't. Hopsicker quotes an 'observer' at Venice Airport as saying of Rudi Dekkers:

> I've always had some suspicions about the way he breezed into town out of nowhere. Just too many odd little things. For example, he has absolutely no aviation background as far as anyone can tell. And he evidently had no use for, nor knowledge of, FAA rules and regs.

Dekkers claimed to have extensive aviation experience, but Richard Boehlke, a former business associate who fell out with him, said: 'He was an oxymoron the day I met him. I can't believe anyone handed him millions of dollars to run a business he had no experience in.' That could be explained if we were talking about a business for which the flying schools were only a public cover for very different activities. The joint owner of Huffman Aviation, along with Dekkers, was a guy called Wally Hilliard and on July 25th, 2000, while Atta was attending the school, Hilliard's Learjet was found to have 43 pounds of heroin on board when searched by the Drug Enforcement Administration in Orlando. *The Orlando Sentinel* called it 'the biggest drug seizure in central Florida history'. Hopsicker said it is no coincidence that Atta was, allegedly with Hilliard's help, selling Afghanistan opium and heroin that was financing

the Taliban in league with the CIA and Pakistan's Inter-Services Intelligence (ISI). The CIA and ISI were running the opium/heroin operation in Afghanistan and creaming off profits for Bin Laden and the training and arming of Islamic terrorism – as I have exposed in other books. The *Times of India* revealed that Atta was wired $100,000 just before 9/11 on the orders of then ISI chief General Mahmoud Ahmed who was in Washington DC on September 11th meeting with CIA Director George Tenet and other intelligence figures. This money was believed to be connected to 9/11, but with Atta involved in the ISI-CIA drug operation this is far more likely to have been the reason. Amanda Keller, Atta's one-time girlfriend, said he had a constant supply of cash and drugs:

> These guys had money flowing out their ass. They never seemed to run out of money. They had massive supplies of cocaine. Whenever they'd run out, they'd go over to the flight school. I followed them one day with Sabrina [a German friend of Atta's] to see where they were going, and saw them go into Florida Flight Training.

Dekkers and Hilliard were also flush with money despite apparently losing a fortune on the flying school. One observer said of Dekkers: 'He didn't even have the money to buy gas for an airplane ... and yet a year later he shows up and plops a million seven, a million eight or two million dollars on the table as if it were paper money.' Hopsicker said this can be explained because Dekkers was a CIA asset and the CIA was running the whole operation. He said in a radio interview:

> I discovered that we were dealing with flight school owners who are CIA assets ... Mohamed Atta was in this country as a result of a program being run through the Central Intelligence Agency.

Hopsicker says the FBI lied to protect Dekkers and, in turn, Dekkers lied to Congress about his relationship with Atta. The 9/11 Commission, set up to whitewash the whole story, basically ignores the flight schools in Venice along with anything else that is relevant to the truth. Whenever you are dealing with a CIA connection you'll almost always find drug trafficking and the same with Israel's Mossad. This is one of the main ways CIA 'black ops' (Hidden Hand ops) are financed without using official funds that can be traced and the Bushes and Clintons have been heavily involved in this. The FBI systematically covered up the Florida connection and claimed it had no idea where Atta was located between leaving the flying school (according to Dekkers about Christmas 2000) and when they officially pick him up again in May, 2001. This is nonsense, as Hopsicker reveals. Numerous witnesses told them where

Atta was in that time – in Venice, Florida. He lived in nearby North Port from January, 2001, until early March and then moved in with Amanda Keller in the Sandpiper Apartments. All this was happening four months after the FBI tells us that Atta left Venice and they lost track of him. Rudi Dekkers claims he never saw Atta again after he left in late 2000 and yet several witnesses saw them together in Venice two weeks before 9/11. These included Venice licenced cab drivers who reported taking Atta to and from Huffman Aviation and other Venice locations in August, 2001, and on two occasions with Rudi Dekkers. Another witness said Atta bought a sandwich from her in Venice one week before the attacks. Why is the FBI covering up what happened in Venice and why has Rudi Dekkers not been held to account for his false testimony?

Trained by the United States?

Florida is home to the Naval Air Station in Pensacola where the US military operates exchange programmes for overseas officers. Within days of September 11th reports appeared in *Newsweek, The Washington Post,* and Knight Ridder newspapers that five of the hijackers named by the FBI were trained at secure US bases in the 1990s including three at Pensacola. *Newsweek* quoted a 'high-ranking US Navy source' as saying that three of the alleged hijackers listed Pensacola Naval Air Station for their driver's licence and car registration addresses. The report said these men were believed to be Saeed al-Ghamdi and Ahmad al-Nami, both allegedly on Flight 93, and Ahmed al-Ghamdi from Flight 175. It was claimed that their training at Pensacola was paid for by Saudi Arabia with its close connections to the Father Bush Carlyle Group which also had direct connections to the Bin Laden family. *Newsweek* claimed that military records showed that three men used the address of 10 Radford Boulevard, a base roadway where the residences of foreign-military flight trainees are located. Saeed al-Ghamdi listed this address in March, 1997, to register a 1998 Oldsmobile, *Newsweek* said. Five months later he used it again to register a late-model Buick. *Newsweek* said that driving licences were believed to have been issued to the other two suspects in 1996 and 1998 and also listed the barracks as their residences. An FBI spokesman was quoted as saying the hijackers could have stolen identities of people who trained at the bases. Mohamed Atta was reported by *Newsweek* to have attended the International Officer School at Maxwell Air Force Base in Montgomery, Alabama. In response to these reports Florida Democrat Senator Bill Nelson faxed a request to Attorney General John Ashcroft demanding confirmation or otherwise of this story. A spokesman for the senator said:

> In the wake of those reports we asked about the Pensacola Naval Air Station but we never got a definitive answer from the Justice Department. So we

> asked the FBI for an answer if and when they could provide us one. Their response to date [five months later] has been that they are trying to sort through something complicated and difficult.

A Pentagon spokesman responded on September 16th, 2001, by saying that 'name matches may not necessarily mean the students were the hijackers and that discrepancies in biographical data indicate that 'we are probably not talking about the same people'. *'May not necessarily?' 'Probably'*? You mean they don't know? Of course they do so why don't they simply reveal the background to those foreign trainees with the same names as those claimed to be hijackers? A Pentagon spokesman denied that the Mohamed Atta who attended the International Officer School at Maxwell was the same man named as leader of the hijackers while refusing all requests for the biographical background of the Mohamed Atta at the school. The spokesman told reporters: 'I do not have the authority to tell you who attended which schools.' Did some of the alleged hijackers, including Atta, attend military training schools in the United States? I asked the FBI this question, but officials refused to answer. Investigative journalist Daniel Hopsicker said the wife of a former CIA pilot at the base told him:

> I have a girlfriend who recognized Mohamed Atta. She met him at a party at the Officer's Club. The reason she swears it was him here is because she didn't just meet him and say hello. After she met him she went around and introduced him to the people that were with her. So she knows it was him. There were a lot of them [Saudi/Arab pilots] living in an upscale complex in Montgomery. They had to get all of them out of there. They were all gone the day after the attack.

The *Los Angeles Times* quoted a 'defense official' as saying that two of the hijackers were former Saudi fighter pilots who had attended two prominent US military programmes, the Defense Language School at Lackland Air Force Base, Texas, and the Air Force's Air War College at Maxwell Air Force Base, Alabama. There were and are extremely close connections between the US and Saudi military. The United States Military Training Mission operated – and still does – a joint training mission under the command of United States Central Command at MacDill Air Force Base in Florida. Could some of these alleged 'hijackers' have been trained by the United States? There is certainly a massive Saudi connection to the 9/11 official story and Michael Springman, former head of the American visa bureau in Jeddah from 1987 to 1989, told the BBC *Newsnight* programme:

> In Saudi Arabia I was repeatedly ordered by high level State Department

> officials to issue visas to unqualified applicants. These were, essentially, people who had no ties either to Saudi Arabia or to their own country. I complained bitterly at the time there. I returned to the US, I complained to the State Department here, to the General Accounting Office, to the Bureau of Diplomatic Security and to the Inspector General's office. I was met with silence.

The BBC also quoted 'a highly placed source in a US intelligence agency' as saying there had always been 'constraints' on investigating Saudis and that under President George W. Bush it had become much worse. Patsies from military and intelligence backgrounds taking the blame for a much wider plot are numerous and this could well have been the case with the American 'Atta' or 'Attas'. The Kennedy assassination was blamed on US-trained CIA operative Lee Harvey Oswald and the Oklahoma bombing patsy was highly-trained US soldier Timothy McVeigh. 'Middle Eastern men' could easily have been recruited from the thousands of Iraqi Republican Guard officers who were relocated to the United States – Oklahoma in particular – by Father George Bush after the 1991 Gulf War. Operatives from nations with 'Middle Eastern' features can be trained and directed to work on Problem-Reaction-Solution scenarios and unknowing witnesses report seeing 'Middle Eastern men' at relevant places at relevant times. 'See – it was Islamic terrorists!' Al Martin, a retired US Navy Lieutenant Commander, said that one of the Iranians involved in the bombing of the World Trade Center in 1993 was trained at the Redstone Arsenal in Huntsville, Alabama, and completed an explosives course in the guise of a Pakistani officer. Not just anyone can qualify to attend these US military training schools. You need connections with foreign governments 'friendly' with the United States – governments like Saudi Araba, Egypt etc., – in league with Hidden Hand elements that control the United States. Foreign nationals who are accepted for military training in the United States are not squaddies, foot soldiers or guys off the street and nor could Atta have been if he did attend such a school at Maxwell. A former Navy pilot at the Pensacola base in Florida said in the *Newsweek* article:

> We always, always, always trained other countries' pilots. When I was there two decades ago, it was Iranians. The Shah was in power. Whoever the country du jour is, that's whose pilots we train.

The American military's country of choice for such trainees in the 1990s turns out to be ... *Saudi Arabia* – a country that weaves through the 9/11 narrative while never having consequences for that. We will see in due course that the inner core elites of the United States, Saudi Arabia and Israel are all on the same side and form *one* elite. The way the world

is truly controlled, directed and manipulated cannot be understood while perceiving divisions of country borders, race, culture or apparent religion. Those are there to keep the little people in line and fighting each other while the Hidden Hand and The Web operate beyond them in common cause to the same common outcome of global dictatorship. Many connections between Saudis and 9/11 players and families have already been highlighted. Father Bush's Carlyle Group were 'advisers' to the Saudi royal family and controlled them, according to insiders. The Saudi Arabian Bin Laden family were investors in the Carlyle Group and Boy George's Arbusto Energy. At least eleven members of the family (some report more) were allowed to fly home in a 747 from Boston Logan Airport after the 9/11 attacks while all non-military aircraft were grounded. Who would soon be named as the overseer (patsy) of the attacks? Osama bin Laden. Bush family Saudi associate Khalid bin Mahfouz was a major player in the Bank of Credit and Commerce International (BCCI) through which drug money was laundered, weapons trafficked, terrorism supported, including 'al-Qaeda', and off-the-books intelligence operations funded. Jackson Stephens, another BCCI player and close friend and funder of the Bush family, had a liking for the little city of Venice in Florida where the flight schools were located. The overwhelming majority of those named as 'hijackers' were Saudi nationals and even Atta, an Egyptian, was reported to have a Saudi passport. Men with the same name as some alleged hijackers, including Atta, attended US military training schools at secure bases in the 1990s at the time when Saudi Arabia was the country of choice for such training.

Able Danger

Army reserve Lieutenant Colonel Anthony Shaffer who worked for the Defense Intelligence Agency (DIA) revealed how a classified military operation called Able Danger had identified Mohamed Atta and 'al-Qaeda cells' in the United States more than a year before the attacks. Able Danger was a joint project between the DIA and the Pentagon's Special Operations Command (SOCOM) and was established in 1999 on the orders of the Pentagon Joint Chiefs of Staff then headed by Chairman Hugh Shelton who was on a plane mid-Atlantic during the 9/11 attacks and replaced by General Richard Myers. The goal of Able Danger was said to be 'developing targeting information for al-Qaeda on a global scale'. They should have just called the *creators* of al-Qaeda at the CIA and other levels of the Pentagon and saved themselves a lot of work. Anyway, Shaffer said that the Pentagon's Special Operations Command intervened to stop Able Danger operatives from telling the FBI what they knew and no action was taken against 'Atta and the cells'. Shaffer said that when he leaked the information to the FBI and

demanded the arrest of Atta the alleged 9/11 'terrorist ringleader' was protected by Pentagon lawyers who stepped in and blocked any response by the FBI. Why on earth would a Pentagon operation that was told about Atta and 'al-Qaeda cells' a year before the attacks want to stop action being taken against them? Why did the official 9/11 Commission report omit to mention Able Danger and this blocking of FBI intervention when Lieutenant Colonel Shaffer said that he told Commission Executive Director Philip Zelikow all about what happened? Who was 'Mohamed Atta' *really?* Insider attacks like 9/11 are orchestrated by a fiercely compartmentalised Hidden Hand structure with on one side those organising the event and developing the cover story to blame the wrong people and on the other genuine people in law enforcement and intelligence that want to stop such attacks happening. Positions of power are secured by the Hidden Hand group to plan, prepare and carry out attacks or whatever Problem-Reaction-Solution scenario it might be. When genuine law enforcement/intelligence operatives begin to uncover the plot believing it to be an external plot, in this case from 'al-Qaeda', the same positions of power step in and stop the investigation or actions that would expose the conspiracy and stop it happening. Genuine officers are then bewildered at why their power hierarchy stops them doing their job – why would they do that? They do it because it protects the assets and patsies playing out the cover story that will later be sold to the public and media (easy) and divert attention from the real perpetrators. There is considerable evidence that not only Atta but others named in the cover story were protected so what happened *could* happen. Very few people need to be in on these plots and manipulations so long as they control decision-making positions that can take action to advance the plan and stop action that would expose it. I am not only talking about Hidden Hand networks in America here, but also the global reach – especially in the United States – of Israeli intelligence arm Mossad. I'll have *much* more about its involvement later on.

Expert scepticism

Former German Defence Minister Andreas von Bulow told me that the CIA, German intelligence and Mossad are extremely closely connected and the same certainly goes for British intelligence. Were Atta and company knowingly or unknowingly constructing the cover story, but never boarded the planes? Were they set up to be in the wrong place at the wrong time? Are these stories of the 'hijackers' trained at US military establishments simply a diversion? Any of these situations is possible. In fact, the one story that is truly *im*possible is the one told by the FBI and the American government. Von Bulow was German Minister of Defence and Minister for Research and Technology in the government of German

Chancellor Helmut Schmidt and he wrote a book, *Im Namen des Staates (In the Name of the State)*, which used his knowledge and experience of government investigations to expose the methods employed by intelligence agencies. He said that the official version of what happened on 9/11 is ridiculous and that 95 percent of the work of intelligence agencies is deception and disinformation communicated through the mass media to create an acceptable 'virtual' version of events. Von Bulow should know. He was a member of a parliamentary commission responsible for oversight of the Germany Secret Service. He told *Der Tagesspiegel* that the planning of the 9/11 attacks was technically and organisationally a master achievement. To hijack four huge airplanes within a few minutes and within one hour to drive them into their targets with complicated flight manoeuvres was unthinkable without years of support from 'secret apparatuses of the state and industry'. He said there were 26 intelligence services in the United States with a budget then of $30 billion – more than the German defence budget – and yet they were not able to prevent the attacks and 'for 60 decisive minutes the military and intelligence services let fighter planes stay on the ground'. Then within 48 hours 'the FBI had presented a list of suicide attackers, seven of which turned out to be alive'. Von Bulow went on:

> If this Atta was the decisive man in the operation, it's really strange that he took such a risk of taking a plane that would reach Boston such a short time before the connecting flight. Had his flight been a few minutes late, he would not have been in the plane that was hijacked. Why should a sophisticated terrorist do this? One can, by the way, read on CNN (Internet) that none of these names were on the official passenger lists. None of them had gone through the check-in procedures. And why did none of the threatened pilots give the agreed-upon hijack code over the transponder to the ground station?
>
> In addition: The black boxes which are fire and shock proof, as well as the voice recordings, contain no valuable data ... [and] ... assailants ... in their preparations, leave tracks behind them like a herd of stampeding elephants. They made payments with credit cards with their own names; they reported to their flight instructors with their own names. They left behind rented cars with flight manuals in Arabic ... They took with them, on their suicide trip, wills and farewell letters, which fall into the hands of the FBI, because they were stored in the wrong place and wrongly addressed. Clues were left behind like in a child's game of hide-and-seek, which were to be followed!

Researcher Christopher Bollyn, who has been on the case of 9/11 from day one, writes that Von Bulow told him he believed that Israel intelligence was involved in the form of Mossad to demonise Arabs in the public mind. I agree and I'll be coming to that. Eckehardt

Werthebach, former chief of German domestic intelligence, said that a major intelligence agency had to be involved and the attacks could have required years of planning. Werthebach told *American Free Press* that the magnitude of the planning and the 'deathly precision' could not have been achieved without support from a state intelligence organisation and could not have been the work of a 'loose group' of terrorists by themselves. He said the lack of prior warning would also indicate intelligence agency involvement. Horst Ehmke, who supervised German intelligence in the 1970s, said the same – an intelligence organisation had to be involved. He said the events of September 11th looked like a 'Hollywood production'.

This is precisely what it was – a deadly production for nearly 3,000 people – and there certainly was an intelligence agency involved ... in fact *more* than one.

CHAPTER 9

Searching the maze (with smoke and mirrors)

The elementary principle of all deception is to attract the enemy's attention to what you wish him to see, and to distract his attention from what you do not wish him to see – General Sir Archibald Wavell, Memorandum to the British Chiefs of Staff, 1940

If you know about Operation Northwoods you know basically what happened on 9/11. This Pentagon document from 1962 includes all the major elements of the colossal scam and hoax that played out on live television 40 years later.

People need to know before I come to Northwoods that there are two levels of technology as there are two levels of knowledge: One for the Hidden Hand and the other for the public. Whatever appears to be the technological cutting edge to the public gaze is light years behind what is possible in the shadows. This is how it was in 2001 and remains so today. As technological possibility advances in the world of the seen so it advances still faster in the world of the unseen. The often chasm of difference is widely exploited to make something happen with secret technology and when researchers seek to expose what happened and how it was done they are met with – 'That's ridiculous, it's not possible.' Not with technology we know about, maybe, but that is not the limit of the Hidden Hand which, by definition, keeps its activities and potential *hidden*. Much of what is now called technologically-advanced was being used in the shadows decades and more ago and when you look at publicly-known technology today what on earth is possible away from public sight? If you read *Everything You Need To Know But Have Never Been Told* you will get an idea. At least some of the 'flying saucers' or UFOs that people report are flown by humans from secret projects and underground bases that even US presidents are not allowed to know about. They are flown with anti-gravity technology that the elite have been working with for decades. You want a fake 'alien invasion' to secure an outcome? 'Okay, sergeant – scramble the fleet!' Presidents and prime ministers don't run countries – the inner core of the military-

intelligence-industrial complex does. The rest is window-dressing to make the population believe they have choice and freedom.

A front-line Pentagon vehicle for developing this secret beyond-the-cutting-edge technology is the Defense Advanced Research Projects Agency (DARPA) which was established under another name by President Eisenhower in 1958. This truly despicable organisation makes lovely contributions to human society such as death rays, soldiers controlled by artificial intelligence (AI) and ever more sophisticated ways to kill as many people as possible without damaging the architecture. DARPA was behind the technology that became the Internet and is the real power behind major search engines, social media platforms and AI developments in Silicon Valley or what I call the Devil's Playground (see again *Everything You Need To Know But Have Never Been Told*). Well, on one level it is. Silicon Valley is actually controlled by something much deeper in the rabbit hole beyond DARPA as I will be revealing. DARPA's work in seed-funding and overseeing technologies to advance the Hidden Hand agenda is supported by the CIA and its technology development operation In-Q-Tel. The 'Q' is a reference to the 'Q' character in the James Bond films who provides Bond with his amazing gadgetry. These organisations – and others – develop technological capability that the public dismiss as a sci-fi fantasy when it actually exists. Technology frontrunner Amazon was created to control the American and then global retail market and monopolise book circulation to ensure its pivot role as the censor of books the Hidden Hand doesn't want people to see – just like the Nazis did. Amazon, however, goes much deeper in its relevance to the Hidden Hand than that. The grandfather of Amazon multi-billionaire Jeff Bezos, from whom he says he learned 'business skills', worked for the Pentagon's Advanced Research Projects Agency, or ARPA, which was renamed DARPA – creator of what became the Internet. Today Bezos and Amazon have phenomenal contracts and connections with the Pentagon and the CIA to provide 'cloud services'. It's all smoke and mirrors, wheels within wheels. I wonder where all the personal information accumulated by the Amazon Echo ends up? I can't think.

Operation Northwoods

We can see an example of this development of secret military-Hidden Hand technology with Operation Northwoods in which the Joint Chiefs of Staff in the Pentagon (supported by the US intelligence networks) planned to use a pilotless aircraft flown from the ground to create the illusion of an attack by Cuba to justify an invasion of that country to remove its leader Fidel Castro. In the wake of 9/11 Boy Bush called for a system to be developed that would allow controllers on the ground to assume remote control of a hijacked aircraft and direct it to a safe

landing at the nearest airport. *The New York Times* quoted him as saying that the new technology 'probably far in the future' would allow air traffic controllers to land distressed planes by remote control. This was a gross misrepresentation of the truth. I have pointed out many times in my books and talks how Hidden Hand operatives speak to each other during public speeches and announcements in code that only they understand. Language and statement reversal is one technique where you say the opposite of what is true and those who know the system will simply reverse what you say. Streetwise members of the public always do this with politicians. In this instance the 'we must develop remote control technology' could easily mean in the hidden code of language reversal that 'we already have remote control technology' with all the implications to a Web insider of how 9/11 was pulled off. The statement was also a diversion from any questions about the planes being remotely controlled by emphasising that this was not technologically possible at the time – when it *was*. How could Bush credibly say that such technology was 'probably far in the future' when the existence of remotely-controlled aircraft had been in existence for at least 40 years? A few weeks after 9/11 remotely-controlled aircraft were being flown over Afghanistan under the term 'surveillance drones'.

The Operation Northwood documents were appropriately first made public in 1997 by the John F. Kennedy Assassination Records Review Board. Kennedy's assassination was another military-intelligence 'Deep State' hit. A more complete version of Northwoods was posted online by the National Security Archive on April 30th, 2001, only five months before the same script was delivered on 9/11. The contents came to wider public attention with the publication in late April, 2001, of a book by James Bamford, a former Washington Investigative Producer for *World News Tonight* on ABC Television. The book was called *Body of Secrets* and revealed from official government archives the Northwoods plot hatched by America's top military leaders to commit acts of terrorism in US cities, kill civilians and blame it all on Cuban president, Fidel Castro. This plan was devised by the Pentagon Joint Chiefs of Staff under their chairman, Army General Lyman L. Lemnitzer, after President Dwight Eisenhower, who preceded Kennedy, had earlier asked the CIA to produce a plan that would create an excuse for the invasion of Cuba. Latter-day Joint Chiefs were in the Pentagon Command Center orchestrating events on 9/11 (or at least allowing them to happen). Operation Northwoods was designed to win public and international support for an invasion of Cuba that would remove Castro while the September 11th attacks were engineered to justify an Orwellian state and the 'war on terror' which has devastated the Middle East and elsewhere. James Bamford was researching the National Security Agency (NSA) when he came across official documents

detailing the Northwoods operation. They revealed plans to blow up an American ship and blame Cuba and they say: '... Casualty lists in US newspapers would cause a helpful wave of national indignation.' I emphasis again that to understand those behind these plans and what happened on 9/11 it is vital to appreciate that we are dealing with mentally-deranged psychopaths that should be in a very secure psychiatric hospital and not in the Pentagon or White House. The Joint Chiefs also proposed to kill astronaut John Glenn during the first attempt to put an American into orbit and blame that on Cuba, the documents reveal. If Glenn's rocket exploded 'the objective is to provide irrevocable proof ... that the fault lies with ... Communist ... Cuba', say the Northwood documents. James Bamford wrote:

> ... the plan, which had the written approval of the Chairman and every member of the Joint Chiefs of Staff, called for innocent people to be shot on American streets; for boats carrying refugees fleeing Cuba to be sunk on the high seas; for a wave of violent terrorism to be launched in Washington DC, Miami, and elsewhere.
>
> People would be framed for bombings they did not commit; planes would be hijacked. Using phoney evidence, all of it would be blamed on Castro, thus giving Lemnitzer and his cabal the excuse, as well as the public and international backing, they needed to launch their war.

The plan was to stir up so much hatred for Cuba in the United States (see Muslims post-9/11) that the people would support an invasion and even demand that it was done. They intended to explode plastic bombs, arrest Cuban agents and release previously prepared documents falsely substantiating Cuban involvement. The plan included attacks on the now infamous US base at Guantanamo Bay in Cuba where, since the invasion of Afghanistan, the 'Land of Freedom' has detained untried and uncharged 'terrorists' in disgraceful, inhuman, conditions and despite the promises of the mega-fraud Barack Obama the evil of Guantanamo continues to this day. Planned Northwoods attacks on the base would be blamed, once again, on Castro and the documents speak of 'a series of well-coordinated incidents ... in and around Guantanamo to give the genuine appearance of being done by hostile Cuban forces'. A Memorandum of July 27th, 1962, says that the operation would mean an enormous increase in Cuban and American casualties. The techniques to be used included:

Starting rumours; using clandestine radio; landing friendly Cubans in uniform 'over the fence' to stage 'attacks' on the base; capturing (friendly) Cuban 'saboteurs' inside the base; starting riots near the base

main gate using friendly Cubans; blowing up ammunition inside the base and starting fires; burning aircraft on the base and blaming Cuba; throwing mortar shells into the base; capturing assault teams approaching from the sea or Guantanamo City; capturing a militia group which storms the base to sabotage a ship in harbour; sinking a ship near the harbour entrance; blowing up an unmanned vessel in Cuban water and blaming it on Cuban aircraft that would naturally come and investigate what had happened; issue false casualty lists to the US media to whip up public opinion against Cuba; and, look at this ...'conduct funerals for mock victims'.

You can see now the origins of fake terrorist attacks (fake in the sense that those blamed didn't do them) and 'chemical attacks by President Assad' in Syria which have been really carried out by US/UK/NATO proxy terrorists or are 100 percent staged for the cameras with no chemicals involved at all. Even mainstream media 'journalists' have had to admit long after the event that chemical attacks in the Damascus suburb of Douma blamed on Assad were staged by Western-backed anti-Assad 'activist groups' and the terrorist front known as the White Helmets: Problem-Reaction-Solution. Wars can be started in this way – see the Gulf of Tonkin [non]-'incident' and what followed in Vietnam. Northwoods documents call for the use of Soviet Union MIG-type look-alike aircraft flown by US pilots to harass civil aircraft, attack surface shipping and destroy US military remotely-controlled drone aircraft to give the impression it was all done by Cuba. 'An F-86 properly painted would convince air passengers that they saw a Cuban MIG ...' one document says. It was further planned to stage the mock shooting-down of a US Air Force plane in international waters by simply getting the pilot, using a made-up name, to report that he was under attack and stop transmitting. He would then fly back to his base where the plane would be repainted with a new tail number and the pilot would resume his real name. A US submarine would send aircraft to search for planted wreckage in the sea and this would be found to confirm the 'Cuban' attack. Bamford said the plans for these terrorist acts against American targets had the written approval of all the Joint Chiefs of Staff and were presented to President Kennedy in March, 1962, by Defense Secretary Robert McNamara. Eventually, the 'civilian leadership' rejected them and three days later Kennedy told Lemnitzer there was virtually no chance of ever using overt force to take Cuba. Operation Northwoods remained secret for four decades until these documents came to light and they mirror what really happened on 9/11 – and since. Bamford told his former employers at *ABC News*:

> These were Joint Chiefs of Staff documents. The reason these were held secret

> for so long is the Joint Chiefs never wanted to give these up because they were so embarrassing. The whole point of a democracy is to have leaders responding to the public will, and here this is the complete reverse, the military trying to trick the American people into a war that they want, but that nobody else wants.

Bamford revealed the Northwoods plan to the mainstream media, but when Northwoods Mark 2 came along weeks later with 9/11 that same media believed and promoted every word of the government narrative and have done so ever since. Even more than that they condemn and dismiss all those who asked questions about the government's fairy story as 'conspiracy theorists'. Had the same excuses-for-'journalists' been around in 1962 and had the Northwoods plan gone ahead they would have done precisely the same. Bamford writes that even after the original plans were rejected others continued to be developed, such as creating a war between Cuba and another Latin American country to allow the US to intervene. The highest levels of the military and intelligence plan these Problem-Reaction-Solution operations and they connect into organisations like the National Security Agency (NSA) and CIA along with overseas assets of the Hidden Hand such as British intelligence and Israel's Mossad. It is no good people claiming their leaders could not have been behind the horrors of 9/11 when the documents exist to show that the Pentagon had planned in detail something so very similar in the 1960s. The good news is that Kennedy blocked the execution of Operation Northwoods and sacked Chiefs of Staff chairman Lemnitzer. The bad news is that he was then appointed *Supreme Allied Commander of NATO*.

2001 in 1962

The most profound point about Northwoods in relation to 9/11 was the plan to *hijack civilian aircraft*, land them at an Air Force base and *replace them with pilotless drones* that would then be shot down and the attack blamed on Cuba. Northwoods documents say it was possible to create an incident that would convince the public that a Cuban aircraft had shot down a chartered civil airliner on a flight from the United States to Jamaica, Guatemala, Venezuela or Panama. The destination would be chosen so the route would cross Cuba. The 'real' plane (actually a CIA aircraft) would carry 'selected' passengers boarded under 'carefully prepared aliases' and take off from a civilian airport. It would be replaced in the sky south of Florida with a *remotely-controlled* aircraft and this would then be flown over Cuba, send out a distress signal, and be destroyed by radio signal. The original plane would be landed at an Air Force base where the make-believe 'passengers' would get off. All this was planned *40 years* before 9/11. Imagine what the remote-control

technology was like by comparison in 2001? Bamford quotes from the Northwoods documents in *Body of Secrets*:

> An aircraft at Eglin AFB would be painted and numbered as an exact duplicate for a civil registered aircraft belonging to a CIA proprietary organization in the Miami area. At a designated time the duplicate would be substituted for the actual civil aircraft and would be loaded with the selected passengers, all boarded under carefully prepared aliases. The actual registered aircraft would be converted into a [remote-controlled] drone. Take off times of the drone aircraft and the actual aircraft will be scheduled to allow a rendezvous south of Florida.
>
> From the rendezvous point the passenger-carrying aircraft will descend to minimum altitude and go directly into an auxiliary field at Eglin AFB where arrangements will have been made to evacuate the passengers and return the aircraft to its original status. The drone aircraft meanwhile will continue to fly the filed flight plan. When over Cuba the drone will be transmitting on the international distress frequency a 'May Day' message stating he is under attack by Cuban MiG aircraft. The transmission will be interrupted by destruction of the aircraft, which will be triggered by radio signal. This will allow ICAO [International Civil Aviation Organisation] radio stations in the Western Hemisphere to tell the US what has happened to the aircraft instead of the US trying to 'sell' the incident.

I have said for many years that the staged 'hijacking' of planes and their remotely-controlled replacements planned by Operation Northwoods were eventually carried out on the day known forever as 9/11. I say the planes that left the airports were taken over in-flight from the ground and were not the planes that hit the buildings. I will outline detailed evidence to support that view as we go along. I emphasise that not only was remote-control possible in 2001 the technology had been around since at least 1962 when Northwoods planned to use it. In fact remote-control had been available to the military since the 1950s.

No pilot necessary

I wrote in *Alice in Wonderland*, published in 2002, that a US Air Force fact sheet available to anyone on the Internet at the time of 9/11 detailed the capabilities and background of a remotely-controlled aircraft technology called Global Hawk. This was an Unmanned Aerial Vehicle (UAV) providing Air Force battlefield commanders with near real-time, high-resolution, intelligence, surveillance and reconnaissance imagery flying at extremely high altitudes to survey large areas with pinpoint accuracy (Fig 40 overleaf). The fact sheet said that once the 'mission parameters' were programmed into Global Hawk the aircraft could 'autonomously

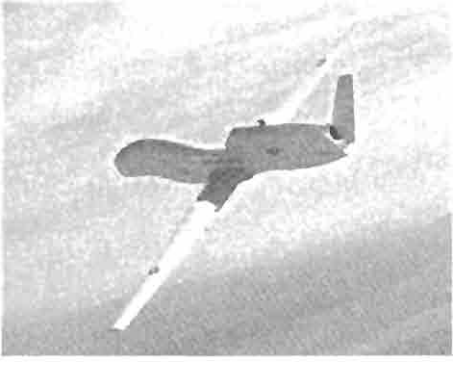

Figure 40: Global Hawk remotely-controlled aircraft technology was being used by the military in 2001.

taxi, take off, fly, remain on station capturing imagery, return and land'. Operators on the ground could alter flying instructions during flight as necessary. *Airman* magazine summarised the control systems of the Global Hawk:

> The bird's 'pilots' stay on the ground. Its flight control, navigation and vehicle management are independent and based on a mission plan. That means the airplane flies itself – there's no pilot on the ground with a joystick manoeuvring it around. However, it does get instructions from airmen at ground stations. The launch and recovery element provides precision guidance for take-off and landing, using a differential global positioning system. That team works from the plane's operating base.

Such technology is commonplace today, but the point is that it was operating in the public arena in 2001 and therefore far more advanced technology was available to the Hidden Hand. The Global Hawk in service at the time of 9/11 was 44 feet long with a wingspan of 116 feet (equivalent to a Boeing 737) and a range of 12,000 nautical miles. Global Hawk could fly at up to 65,000 feet at speeds approaching about 400mph for as long as 35 hours. The plane was developed through the 1990s and the principal contractor was Hidden Hand-controlled Northrop Grumman at its Ryan Aeronautical Center, San Diego, California. Communications systems were provided by L3 Com, Salt Lake City, Utah. Global Hawk began tests and exercises in 1999 sponsored by US Joint Forces Command. Boy Bush-appointed James Roche, who was US Secretary of the Air Force in 2001, held many executive posts with Northrop Grumman. These included corporate vice president and president, Electronic Sensors and Systems Sector, before leaving to join the Bush administration. Roche was a member of the Hidden Hand's Council on Foreign Relations and Center for Strategic Studies and responsible for Air Force 'functioning and efficiency ... formulation of ... policies and programs' and those responsibilities encompassed NORAD. Colonel Wayne M. Johnson became manager of the Global Hawk Programme at the Reconnaissance Systems Program Office, Aeronautical Systems Center at Wright-Patterson Air Force Base at Dayton, Ohio, which assumed total programme control on October 1st, 1998. This is about 200 miles by road from where Flight 93 was 'hijacked'

and turned around. A Global Hawk deployed to Eglin Air Force Base in Florida (where the Operation Northwoods drone was planned to take-off) was flown across the Atlantic to Europe by remote control to take part in NATO exercises. In April, 2001, the pilotless aircraft was flown non-stop the 7,500 miles across the Pacific from the Edwards Air Force Base in California to the Royal Australian Air Force Base at Edinburgh, South Australia. This set (officially) new world records for remote-controlled aircraft. Global Hawk was also deployed in the grotesquely-named Operation Enduring Freedom which after a translation from the Orwellian meant the mass murder of civilians in Afghanistan justified by 9/11. The Predator, another remotely controlled aircraft capable of reaching 25,000 feet, was deployed to Afghanistan and had seen action in the former Yugoslavia. Technology to remotely-control planes from the ground as per Operation Northwoods was far more advanced by 2001 and NORAD, so central to what happened on 9/11, had been using remote-control capability in many different aircraft over more than 40 years. An article by Alan Staats published in *Quill* magazine in 1998 detailed the history and development of remote control technology. Staats writes:

> Controlling the aircraft from the ground is nothing new. The military has been flying obsolete high performance fighter aircraft as target drones since the 1950s. In fact, NORAD (the North American Air Defense Command) had at its disposal a number of US Air Force General Dynamics F-106 Delta Dart fighter aircraft configured to be remotely flown into combat as early as 1959 under the auspices of a program known as SAGE. These aircraft could be started, taxied, taken off, flown into combat, fight, and return to a landing entirely by remote control, with the only human intervention needed being to fuel and re-arm them. To this day, drone aircraft are remotely flown from Air Force and Naval bases all over the country to provide targets for both airborne and ground based weapons platforms.

Staats goes on to say that the technology existed (writing in 1998) that would allow a ground crew to override and direct the flight path of a hijacked plane and that *the military has employed this capability since the 1950s*. So much for Bush and his claim that remote-control from the ground was 'probably far in the future' and as someone who flew with the Texas National Guard to avoid the draft to Vietnam he did not have the excuse of ignorance (for once) for this pathetic misdirection. Staats wrote three years before 9/11 that from an engineering point of view modifying and implementing the technology for use on passenger-carrying aircraft in the United States to fly them and land them by remote control '*is a relatively simple matter*'. He said 'autoland' systems had been in wide commercial use in different parts of the world since

the 1980s. Auto landings were routinely performed thousands of times a day throughout the world and Staats continued:

> It is technically possible to create a system to perform remotely commanded return flights of a hijacked airliner. On-board digital command, control and display equipment can easily share data with, and accept commands from, ground control stations. Little input beyond the initial command to enter safe return flight and the ultimate destination are needed.

Commercial aircraft are largely flown by computers today and the pilot can have comparitively little to do with the actual flying once it's off the ground and programmed with a route to follow. In 2001 a flight plan agreed with the FAA, or its equivalent around the world, was entered into the aircraft computer system or Flight Management System (FMS). This could be done through direct programming or a disc. The flight programme included the planned height and speed throughout the flight as it travelled between points in the sky known as waypoints. When the plane had taken off it aimed for the first waypoint and the computer would execute changes to head for the next point and so on to its destination. The system is highly-advanced today and the point I am making is that it was happening in 2001. Alan Staats wrote three years earlier:

> Because all the components of controlling the aircraft communicate with each other digitally through a central unit, the FMS, activating such a 'safe return' system would be a matter of uploading commands to the FMS to fly the aircraft to the nearest airport. Controlling the aircraft's speed, altitude and course, the FMS would guide it back to land.

In other words to remotely-control any commercial airliner at the time of 9/11 all you needed to do was get control of the Flight Management System (FMS) computers and override the ability of pilots to have an input. Do that and you could fly a plane wherever you like with the pilots in the cockpit unable to do anything about it. You could also turn the transponder off and control the entire system, including blocking the pilot's ability to send the normal hijacking alarm code which, remarkably, none of the pilots on September 11th managed to do. But there's more – the very act of hacking the flight computers could *automatically turn off the transponder.* I'll have more about this shortly.

Remote-control and DARPA

Staats said that the data links to remotely-control digital airborne flight control systems in commercial aircraft was already widely used in 1998. They were called ACARS (Aircraft Communications Addressing and

Reporting System) and these communicated a long list of data including position, fuel consumption, weather and flight plan information to ground stations. ACARS also has the ability to send data to the aircraft from the ground. Staats said that this link allowed 'both uploading digital control inputs to control the aircraft as well as the potential to download and remotely monitor the digital aircraft displays'. These are only technological possibilities before 9/11 that were known in the public arena – the military's capability would have been far in advance of this. If you look at what is publicly possible *today* you can get a feel for what the military could do then. Stanley Hilton, the lawyer who filed a lawsuit against Bush and associates over 9/11, told me he had spoken with a mechanic with United Airlines who personally worked on this remote-control system of taking over aircraft from the ground. If you can fly a plane from America to Australia and back without a pilot you will have no trouble directing one into the World Trade Center. Australia-based investigator Joe Vialls wrote in the wake of 9/11 about the connection to the Pentagon's technology-development arm, DARPA:

> In the mid-seventies ... two American multinationals collaborated with the Defense Advanced Projects Agency (DARPA) on a project designed to facilitate the remote recovery of hijacked American aircraft. [This] ... allowed specialist ground controllers to ... take absolute control of [a hijacked aircraft's] computerized flight control system by remote means. From that point onwards, regardless of the wishes of the hijackers or flight deck crew, the hijacked aircraft could be recovered and landed automatically at an airport of choice, with no more difficulty than flying a radio-controlled model plane ... [This was] the system used to facilitate direct ground control of the four aircraft used in the high-profile attacks on New York and Washington on 11th September 2001.

Vialls referred to the technology as 'Home Run' and said that top-secret computer codes were hacked on 9/11 to allow control of the planes from the ground:

> In order to make Home Run truly effective, it had to be completely integrated with all on-board systems, and this could only be accomplished with a new aircraft design, several of which were on the drawing boards at that time. Under cover of extreme secrecy, the multinationals and DARPA went ahead on this basis and built 'back doors' into the new computer designs. There were two very obvious hard requirements at this stage, the first a primary control channel for use in taking over the flight control system and flying the aircraft back to an airfield of choice, and secondly a covert audio channel for monitoring flight deck conversations. Once the primary channel was activated, all aircraft functions came under direct ground control, permanently

removing the hijackers and pilots from the control loop.

The term 'back-doors' into computer systems is going to be crucial to understanding 9/11 and current world events before the end of the book. Vialls said the system began with the best of intentions – to save lives – but 'finally fell prey to security leaks, and eventually to compromised computer codes'. My own view is that it was originally sold under the guise of saving lives with a very different agenda going on higher up. Vialls said the technology 'piggy-backs' on the plane's transponder and this is why the pilots were unable to send the hijack code from any of the many activation points on the aircraft. The 'takeover' technology locked into the frequency of the transponder's communication channel overriding its use by the pilot and no hijack code was sent because before the pilot realises there is a problem the channels are down through which communication with air traffic control can be made. This has been confirmed by many aeronautical sources and this would be one explanation for why transponder transmissions went down. Hidden Hand hackers on the ground were using transponder channels to make a connection with the plane's computers. It should be mentioned, however, that the official story has some transponders turned off some time after the planes began to act strangely, but we shall be exploring how accurate that flight path information really is. Joe Vialls said that the cockpit listening capability of 'Home Run' technology intercepted microphones in the cockpit which normally feed the pilots' conversations to the Cockpit Voice Recorder (CVR) in the black box. The CVR would therefore be blank because microphones would have been de-activated once remote control took over. He claimed that German national airline Lufthansa removed 'Home Run' technology:

> As long ago as the early nineties, a major European flag carrier [Lufthansa] acquired the information and was seriously alarmed that one of its own aircraft might be 'rescued' by the Americans without its authority. Accordingly, this flag carrier completely stripped the American flight control computers out of its entire fleet, and replaced them with a home grown version. These aircraft are now effectively impregnable to penetration by Home Run, but that is more than can be said for the American aircraft fleet.

Brian Desborough, an American scientist/engineer who worked for Boeing and a conspiracy researcher since the 1960s, told me after 9/11:

> Unlike earlier airliners such as the Boeing 747, which are equipped with conventional hydraulically-operated flight controls, the Boeing 757 and 767 aircraft that were involved in the 9/11 incidents, and the Airbus 300 which

> crashed at Queens [New York], have fly-by-wire flight control systems as a weight-saving measure. These aircraft types are equipped with a special black box that was developed by the US Department of Defense Research Agency, DARPA. If terrorists attempt to hijack a fly-by-wire aircraft and deviate off course, the black box prevents whoever is piloting the aircraft from sending flight commands to the flight control surfaces and engines. Instead, the aircraft is remotely flown from a land-based covert Federal facility.
>
> In all probability, a Global Hawk remote surveillance aircraft was circling at 60,000 feet over New York on 9/11 in order to provide the ground command center a real time image of the aircraft. At 60,000 feet, the surveillance aircraft would be invisible to people on the ground. I'm aware of a very covert research company in California engaged in the development of advanced engines for tanks. A remote surveillance plane circles overhead every day as a security measure, yet is invisible from the ground.

So it was possible to take control of those planes from the ground on September 11th and fly them wherever the controllers wanted them to go. Does this not make more sense than incompetent Dumb and Dumber pilots who had struggled to fly a Cessna at American flying schools? Also, looking at this in another way, if these planes did have 'anti-hijack' remote control technology why were they allowed to crash as claimed? Why were they not landed safely?

Missing evidence (a common theme)

Clearly there's something seriously wrong with the official narrative wherever you look. Still, no problem, no worries. What happened on those four flights and who was in the cockpits can be revealed by the information secured by their black boxes (orange, not actually black). Aircraft have two black boxes: The Flight Data Recorder (FDR) which records the plane's speed, height, course and mechanical operation; and the Cockpit Voice Recorder (CVR) which retains at least the last 30 minutes of cockpit conversations and activity. Black boxes are designed to survive fantastic impact and heat, but even with two in each plane we are told that those in the World Trade Center aircraft did not survive and were lost while the Cockpit Voice Recorder was destroyed in 'Flight 77'. Information allegedly gleaned from flight data black boxes for 'Pentagon' Flight 77 and 'Pennsylvania' Flight 93 do not support the official story of what happened peddled by the US government as I will detail. The cockpit voice recording claimed to be from Flight 93 is also inconclusive. We will see there is no published data to show the black boxes were even from the aircraft that left the airports when it would be simple to prove if they were. The *Counterpunch* website ran a story in December, 2005, that in fact black boxes for the World Trade Center

planes *were* found by firefighters and analysed by National Transport Safety Board (NTSB) air-crash investigators before being confiscated by the FBI. New York firefighter Nicholas De Masi and rescue worker Mike Bellone claimed in a 2003 book, *Behind the Scenes: Ground Zero*, to have found three of the four black boxes before January, 2002. They said federal agents took them away and told the men not to say they had found them. Nicholas De Masi has since died of 9/11-related cancer connected to toxins breathed in from the dust. Thousands of others living and working around Ground Zero that day have perished the same way and some 10,000 are estimated to have been affected by a 'cesspool of cancer' among responders and residents. A painstaking clean-up of the World Trade Center site would surely have located the black boxes at some point and they emit a location signal for some time after a crash. How is it credible to find fragments of bone and human tissue but not bright orange boxes emitting a location signal in a relatively small area when finding them would (should) have been a major priority? *Counterpunch* ran the article after they said a source at the National Transportation Safety Board told them the black boxes were recovered and analysed by staff at the NTSB. 'Off the record, we had the boxes', the source said. 'You'd have to get the official word from the FBI as to where they are, but we worked on them here.' This makes far more sense than 'they were never found'. Ted Lopatkiewicz, NTSB director of public affairs, said: 'No recorders were recovered from the World Trade Center.' But he added the rider: 'At least none were delivered to us by the FBI.' He also said it was extremely rare that boxes were not found and he could not recall another domestic case in which the recorders were not recovered. Meanwhile the FBI has officially contended the boxes were never found, but, again, spokesman Stephen Kodak added a caveat: 'To the best of my knowledge, the flight recording devices from the World Trade Center crashes were never recovered – at least we never had them.' What a strange attitude to knowing what happened to them when they should have been crucial to any investigation. *ABC News* reported on the survivability of black boxes:

> Although investigators look for an entire black box, sometimes the only parts of the device that survive are the recorder's crash-survivable memory units (CSMU). The CSMU is almost indestructible. It is housed within a stainless-steel shell that contains titanium or aluminium and a high-temperature insulation of dry silica material. 'It is designed to withstand heat of up to 2,000 degrees Fahrenheit for one hour [greater on both counts than they would have experienced in the World Trade Center crashes], salt water for at least 30 days, immersion in a variety of liquids such as jet fuel and lubricants, and an impact of 3,400 Gs. By comparison, astronauts are typically exposed to up to six Gs during a shuttle take-off.

With a beacon transmitter the black boxes can be, and have been, located deep under the ocean and under piles of rubble when buildings have been struck. The *ABC News* information was confirmed by the National Transportation Safety Board (NTSB) on its official website which also said:

> Both the Flight Data Recorder and the Cockpit Voice Recorder have proven to be valuable tools in the accident investigation process. They can provide information that may be difficult to obtain by other means.

What a pity, then, that so many black boxes were 'destroyed' or 'inconclusive' from four aircraft in four separate crashes. FBI spokesman Bill Crowley said the Cockpit Voice Recorder (CVR) of Flight 93 'found at the Pennsylvania crash site' was in 'fairly good condition' and yet was sent to CVR manufacturer Honeywell for help in extracting information after officials with the National Transportation Safety Board could not get sound from the device. The 'Flight 93' CVR was alleged to have been found on September 14th some 25 feet below the 'impact crater' when the entire area had been cleared of public and media for miles around. Reports say there are no known witnesses to this 'find' and no serial number for the CVR has been published to confirm the plane to which it belonged. The FBI later claimed to have played this cockpit recording to relatives of those who died on Flight 93, but was it the real one? These questions need to be asked after the scale of lies revealed only this far. What was heard certainly appeared to be inconclusive and unclear and Deena Burnett, wife of passenger Tom Burnett, said she heard one hijacker telling another how to fly the plane and shouting that he was touching the wrong buttons. He demanded the pilot be brought back to the cockpit to turn off the alarms. Oh, a well-drilled operation, then. Hey, Abdul, what does this knob do? The tragedy is unspeakable and matched in that enormity only by the farce of the official story. I guess the 'hijackers' were supposed to be speaking in English given that Deena Burnett knew what they said and there was no transcript provided to families. Why weren't they speaking in Arabic? Two other later publicly-reported versions of the tapes contradicted each other and the version the families said they heard. Elias Davidsson notes in *Hijacking America's Mind On 9/11* that an alleged transcript of the 'Flight 93' cockpit tapes produced for the Moussaoui '20th hijacker' trial lacked the following: Date, time and location of crash; aircraft tail number; CVR serial number; name of transcript agency; names of transcribers; date of transcription; signature of the person responsible for production. All this information and more is included in normal transcriptions of CVR recordings. Every procedure considered normal and routine seems to

have been ditched for anything to do with 9/11. The FBI said the voice recorder on Flight 77 'recovered' at the Pentagon could yield no information because it was too severely burned. A black box can survive heat of 2,000 degrees Fahrenheit for an hour and is located in the tail furthest away from impact. I asked the FBI at the time for details of the black boxes and their condition and I was told this information could not be given because of the 'ongoing investigation'. Every other question about the official story was met with the same response. The *Counterpunch* article rightly observed of the New York black boxes:

> Why would the main intelligence and law enforcement arm of the U.S. government want to hide from the public not just the available information about the two hijacked flights that provided the motivation and justification for the nation's 'war on terror' and for its two wars against Afghanistan and Iraq, but even the fact that it has the devices which could contain that information? Conspiracy theories abound, with some claiming the planes were actually pilotless military aircraft, or that they had little or nothing to do with the building collapses.
>
> The easiest way to quash such rumors and such fevered thinking would be openness. Instead we have the opposite: a dark secrecy that invites many questions regarding the potentially embarrassing or perhaps even sinister information that might be on those tapes.

Selling the impossible

I am grateful for much of the information about the aircraft background in this chapter to Pilots for 9/11 Truth. This is an organisation which has brought together a long list of professional commercial and military pilots with extensive collective experience to forensically examine the alleged aeronautical happenings on September 11th. Pilots for 9/11 Truth is one of many groups of experts in specific fields including architects and engineers, firefighters, flight controllers, doctors, academics, intelligence operatives and FBI employees who are questioning the official story of 9/11 because from their area of expertise it makes no sense to them. I am not an aviation expert or a pilot and so I will ask the questions here and highlight the anomalies that pilots – some of whom flew in the same aircraft involved in 9/11 – have asked and noted. Firstly this is the organisation's mission statement:

> Pilots for 9/11 Truth is an organization of aviation professionals and pilots throughout the globe that have gathered together for one purpose. We are committed to seeking the truth surrounding the events of the 11th of September 2001. Our main focus concentrates on the four flights, maneuvers performed and the reported pilots. We do not offer theory or point blame.

However, we are focused on determining the truth of that fateful day since the United States Government doesn't seem to be very forthcoming with answers.

Rob Balsamo, a commercial airline pilot, co-founded Pilots for 9/11 Truth with Glen Stanish, a commercial pilot with American Airlines, ATA, TWA and Continental. Balsamo became interested in 9/11 research in 2006 after watching then CNN host Glenn Beck accept without question that five frames of very dodgy footage claiming to be a plane striking the Pentagon was genuine and beyond question. 'You can see a 757 in 10 seconds flat!', the great mind that is Glenn Beck observed. 'Either that or a naked Michael Moore heading for the buffet!' Beck added that this should put all the 'conspiracy theories' to rest. Pilot Balsamo didn't see a 757 and set out to investigate unresolved questions surrounding the 9/11 attacks from an aviation perspective to see if the government narrative could be confirmed. 'I didn't want to believe our government might have had something to do with 9/11', he said. Balsamo soon had his mind blown when he came across Operation Northwoods and contrasted this with a statement by Thomas Kean, chairman of the set-up-to-fail 9/11 Commission. Kean said that 'the greatest failure of 9/11 was lack of imagination' about the possible nature of a terrorist attack which echoed claims by the military. Here was Balsamo reading about the Northwoods plan from 40 years earlier which included the themes and elements of September 11th and was compiled by the same US military that pleaded 'lack of imagination' for its failure to stop the attacks. Soon after Pilots for 9/11 Truth was established in 2006 they secured Flight Data Recorder information about 'Flight 77' which is claimed to have hit the Pentagon. Analysis revealed that the contents did not support the official story and Pilots for 9/11 Truth has grown consistently ever since with more pilots joining the group bringing with them thousands of hours of experience. All these years later Balsamo says: 'I'm frustrated because we haven't been able to find *anything* to confirm the government's story and what's worse is that the FBI and NTSB refuse to even discuss with us the many obvious problems we found in the Flight 77 Flight Data Recorder.' The FBI refuses to comment or explain? See my own experience with them and that of all other 9/11 researchers when asking the most basic questions. Pilots for 9/11 Truth say they don't publicly express their own conclusions about what happened on 9/11. They focus purely on exposing the fact that the official story surrounding the aircraft and their alleged pilots is simply not possible, or, as I would put it, a crock of shit. The organisation has produced a series of videos explaining their case which you can see at Pilotsfor911truth.org and the site includes many articles updated with new information.

Pilots against 9/11 nonsense

These are some of their findings and conclusions with regard to the planes claimed to have hit the North Tower (Flight 11) and South Tower (Flight 175) of the World Trade Center. Claims that the black boxes were never found obviously make analysis far more difficult although far from impossible. The pilots have considered, for example, radar data, information provided by the National Transportation Safety Board (NTSB) and the speeds that it claims the planes were travelling at low altitude approaching the towers. They say this makes no sense either with the structural integrity of the airframe (why it didn't fall apart?) or the ability of novice and next-to-useless small plane pilots to control a wide-bodied jet. Novice pilots on small aircraft would have had to somehow strike buildings with only a tiny margin for error – a feat that has been described by pilots as like parking your car in a one-car garage at 150 miles an hour without hitting the sides. The NTSB data claims that Flight 11 was travelling at 430 knots (about 494 mph) and Flight 175 at 510 knots (about 586 mph) which is way higher than the Boeing safety limit at those near-ground altitudes before the plane enters the zone in which structural failure becomes possible and increasingly likely the faster you go. The pilots cite the example of Egypt Air Flight 990 in 1999, a Boeing 767 which went down in the Atlantic on route from Los Angeles to Cairo via New York. The NTSB report claimed a deliberate ditching of the plane by the pilot although Egypt Air disputed this. The plane broke up on decent after breaching the Boeing safety speed limit and reached its fastest speed at about 22,000 feet when air pressure on the plane's structure is far less than it would have been for the near-ground 9/11 aircraft. There were two major fields of debris from Flight 990 indicating a break-up in the air. Black boxes and the transponder stopped transmitting seconds after the plane reached its maximum speed indicating a loss of power and communication connection. You would obviously expect this if the plane was disintegrating.

The impact on the structure is far more destructive at low altitudes where air density is much greater. Boeing therefore lists two maximum safety speeds before the structure may be compromised – VMO (Velocity Max Operating) at lower altitudes and MMO (Mach Max Operating) at higher altitudes measured in Mach. This is based on the relationship to the speed of sound in air which is termed 'Mach 1'. The VMO for a Boeing 767 is 360 knots and the MMO is Mach 0.86. There is also a third measurement known as EAS (Equivalent Air Speed) which projects the speed in MMO to what it would be in VMO, or translates Mach to knots while taking into account the very different air densities at the two altitudes. EAS is measuring the speed at near sea level that would produce the same potential structural effects experienced at higher levels. Air pressure means that the near sea level speed must necessarily

be considerably less than high altitude flying. An example: 522 knots at 22,000 feet for a 767 is equivalent to just 360 knots at near sea level in terms of the structural effect on the aircraft. This is highly significant because according to data from the National Transportation Safety Board (NTSB) the 767 on Flight 175 struck the South Tower at near sea level at a speed of 510 knots. Boeing have refused to share wind-tunnel footage and information to show at what speed a 767/757 would break up and Pilots for 9/11 Truth calculated the likely speed window from the data available for Egypt Air Flight 990. NTSB official data says the Egyptian plane fell apart at .99 Mach at 22,000 feet and that speed translated to the equivalent at near sea level would be about 425 knots – 65 knots above Boeing's safe operating limit and Flight 175 was said to be doing close to 150 knots above the limit. Pilots for 9/11 Truth point out the following in the video *9/11 World Trade Center Attack*:

> According to the NTSB, Flight 175, the aircraft which allegedly struck the World Trade Center, reached a speed of 510 knots – 150 knots over its max operating and the equivalent of 85 knots [faster than] Egypt Air 990. Using Egypt Air 990 as precedent, it is impossible for the alleged Flight 175 to have reached 510 knots. Period.
>
> We now know an unmodified 767 cannot reach speeds reported for the South Tower strike but it's also impossible for Flight 175, an unmodified 767, to have continued controlled flight at 150-plus knots over its max operating limit according to precedent set by Egypt Air 990 ...

The reported speed of 'Flight 175' of 510 knots before impact is the equivalent, in terms of effect on the plane structure, of 722 knots at 22,000 feet or Mach 1.19 – *above the speed of sound or supersonic speed for a Boeing 767*. Flight 11, another 767, would also have faced 'dynamic pressure' above Mach 1 if the NTSB data is correct, the pilots' analysis concluded, although its reported speed was lower at 430 knots. Flight 77 which allegedly stuck the Pentagon would also have breached the equivalent of Mach 1. So, the pilot video asks, if these weren't stock 767/757s what were they? Were they beefed up or 'modified' to attain such incredible speed? If so, did '19 Islamic extremists' do the modifications?? The very strong possibility that someone much closer to home 'beefed up' other aircraft to replace the ones that left the airports will be considered later on. Pilots for 9/11 Truth members with vast experience, many flying 767s and 757s, are incredulous at what is claimed to have happened that day in terms of speed and other factors. United Airlines captain Ross 'Rusty' Aimer piloted the actual planes that were Flight 175 (N612UA) and Flight 93 (N591UA). He said: 'I think it's impossible to get to that kind of speed [at near sea level] on a

commercial airplane – any pilot that has been in a commercial jet would probably laugh if you said 510 knots' (Fig 41). International captain Ralph Kolstad said that such speeds were 'physically impossible' – 'To come up with 510 knots is pretty insane, [it] defies all laws of physics.' Boeing spokeswoman Leslie Hazzard was asked if it was possible for a 767-200 to reach speeds of 500 miles per hour at 700 feet and she laughed as she replied: 'Not a chance – not that fast.' Dwain Deets, a retired NASA Senior Executive, published his concerns about these questions and anomalies with regard to 'Flight 175' at the American Institute of Aeronautics and Astronautics (AIAA):

Figure 41: An animation of a plane heading for the Twin Towers. Pilots say it is not possible for controlled and stable flight at the speed and altitude claimed by the official story.

> The airplane was UA175, a Boeing 767-200, shortly before crashing into World Trade Center Tower 2. Based on analysis of radar data, the National Transportation and Safety Board reported the groundspeed just before impact as 510 knots. This is well beyond the maximum operating velocity of 360 knots, and maximum dive velocity of 410 knots. The possibilities as I see them are: (1) this wasn't a standard 767-200; (2) the radar data was compromised in some manner; (3) the NTSB analysis was erroneous; or (4) the 767 flew well beyond its flight envelope, was controllable, and managed to hit a relatively small target. Which organization has the greater responsibility for acknowledging the elephant in the room? The NTSB, NASA, Boeing, or the AIAA?
>
> Have engineers authored papers, but the AIAA or NASA won't publish them? Or, does the ethical responsibility lie not with organizations, but with individual aeronautical engineers? Have engineers just looked the other way?

Even if the planes had remained intact they would have been virtually impossible to control for an experienced pilot let alone those who were supposed to be at the controls. What if the planes that struck the buildings had been modified to fly at those speeds and they didn't need the skill of an on-board pilot because they were remotely-controlled from the ground? If they were specially-designed for the job would they not also have specially-designed 'black boxes' or none at all? A

simulator test based on the more manoeuvrable 737 was set up for a group of experienced pilots to see if they could have hit the World Trade Center towers at the reported speeds and none of them could do it despite multiple attempts. However, for 'hijackers' trained to fly one-engine Cessnas (some were poor pilots even at that level) could somehow pull it off. Pilots for 9/11 Truth put all these points to various agencies of government, including the National Transportation Safety Board (NTSB), but they all refused to comment – the usual story. I had a long conversation in 2002 with a German pilot who had flown commercial airliners for Lufthansa for 28 years and trained as a military pilot before that. He dismissed immediately the idea that 'hijacker-pilots' could have taken over controls of the four planes from their computer systems and flown them manually. His view would have been that they would have crashed the planes for sure long before they reached their targets such is the complex nature of modern airliners. It is this very complexity which requires that computers make the calculations, he told me. He did say, however, that hijackers would not need to know how to fly the plane to hit a target. They would only need to know how to reprogram the Flight Management System to make the computer do it for them. I take the point, but this begs more questions. If that is the way it was done why would the 'hijackers' have trained at flying schools on Cessnas and similar small planes when the Lufthansa pilot told me this would be utterly useless and irrelevant to flying a 757 or 767 and equally so for knowing how to reprogram a Flight Management System? This doesn't make sense at all. Although he said the reprogramming could be done pretty quickly by someone who knows what he's doing, Flight 175 dramatically changed course only 90 seconds to two minutes after the last communication from the real pilots with air traffic control. The 'hijackers' would have had to seize control of the cockpit, disable the pilots and reprogram the computer system in less than two minutes. This is so ridiculous it can be ruled out. By contrast if the plane's controls were suddenly taken over externally from the ground or another aircraft and all communications from the cockpit were blocked by remote-control technology these circumstances could be explained. One second you are flying a plane and talking with air traffic controllers, the next the aircraft is flying off course and when you tell air traffic control they do not respond because they can't hear you and you can't hear them.

9/11 planes have never been officially identified

This sub-heading may appear to be a fantastic statement although the whole official story depends on the fantastic and miraculous. No, it's true. The planes have not been officially and publicly identified when this could have been done quite easily. For a start the amount of

wreckage against the size and content of the planes is another big question that needs addressing because 767s and 757s are big aircraft with a maximum take-off weight of 300,000 lbs and 255,000 lbs and think of all the parts that would be potential wreckage. What we have been shown is a fraction of each plane. Even with the small amount publicly recovered the confirmation that parts and debris came from the planes allegedly involved is very straight forward. All aircraft have maintenance logs and all parts have serial or part numbers (including black boxes) which can be compared with the serial numbers on the maintenance logs. Shockingly this has *never been done*. Aircraft have certain parts replaced on a time basis and if they are not replaced within that period the plane is grounded. These 'time-change' parts have serial numbers that are logged with the identification number of the aircraft and checking one against the other in the event of a crash proves the identity of the plane. Aircraft also have their own serial numbers and tail numbers to make the process of identification very simple. NTSB air crash investigators always seek to match the black box serial number with that of the doomed aircraft so why has this not happened with any of the planes alleged to have been involved on 9/11 with its national and global importance? *Why?* I suggest that this basic procedure of identification has not been done because it would reveal the truth – they were not the planes that left the airports that morning. Glen Stanish, then a 16-year member of the Air Line Pilots Association (ALPA), had flown with USAir Express, Jetstream International (later PSA Airlines), TWA, ATA and he was a First Officer with Continental Airlines. He sent a letter to ALPA with his observations about plane identity in the case of Flight 77. Stanish wrote in October, 2006:

> [Flight 77] ... was reported to be a Boeing 757, registration number N644AA, carrying 64 people, including the flight crew and five hijackers. This aircraft, with a 125-foot wingspan, was reported to have crashed into the Pentagon, leaving an entry hole no more than 16 feet wide.
>
> Following a cool-down of the resulting fire, this crash site would have been very easy to collect enough time-change equipment within 15 minutes to positively identify the aircraft registry. There was apparently some aerospace type of equipment found at the site but no attempt was made to produce serial numbers or to identify the specific parts found. Some of the equipment removed from the building was actually hidden from public view.
>
> If an aluminum Boeing 757 had struck that fortified building, there would have been more aluminum on the ground outside than what went inside, yet there was little visible evidence of an airplane crash on the outside. What physical evidence that could have been of some value, was immediately

> carted away under cover ... With all the evidence readily available at the Pentagon crash site, any unbiased rational investigator could only conclude that a Boeing 757 DID NOT fly into the Pentagon as alleged.

The plane registration/tail numbers are the identity of the actual aircraft while the 9/11 Commission and media talk only of 9/11 flight numbers. These do not identify the plane – they identify the flight number of the route and time designated to the plane on that one day. Aircraft can change flight numbers on the same day and if you want to identify a specific aircraft this has to be done by the registration/tail number. If you want to identify a particular bus would you do it by the number of the route on the destination board or by the registration plate? Former FAA accident investigator Colonel George Nelson explained that 'time-change' parts such as hydraulic flight surface actuators, pumps, landing gears, engines or engine components are virtually indestructible. 'It would be impossible for an ordinary fire resulting from an airline crash to destroy or obliterate all of these critical time-change parts or their serial numbers', he said. Nelson stated that in his entire career as an accident investigator he 'never witnessed nor even heard of an aircraft loss, where wreckage was accessible, that prevented investigators from finding enough hard evidence to positively identify the make, model, and specific registration number of the aircraft'. If the FBI and company were telling the truth they certainly had enough wreckage to positively identify the aircraft, but if they were *lying* they could never make a match between wreckage and planes which do not match. So why have they never tried?? The fact that they haven't is on the public record. Assistant US Attorney Patrick A. Rose, responding to a Freedom of Information request about proving the identity of 9/11 aircraft, said:

> Federal Defendant [FBI] has determined that there are no responsive records. The identities of the airplanes hijacked in the September 11 attacks was never in question, and, therefore, there were no records generated 'revealing the process by which wreckage recovered by defendant, from the aircraft used during the terrorist attacks of September 11, 2001, was positively identified by defendant ... as belonging to said aircraft ...'

This is such mendacity. The identity of the aircraft was absolutely in question and even more so now that we know they were never positively identified using simple procedures employed in every other air crash. Not only that – there was never an investigation into any of the 9/11 air disasters by the National Transportation Safety Board (NTSB) which is the very body designated to identify why planes crash and confirm their identity. Corrupt-to-their-DNA FBI 'investigators' ran the

whole show to ensure one-stop-shop control of what was investigated and what conclusions were agreed.

Wrong engines? Military planes?

We have seen relatively few pictures of plane wreckage in the rubble of the World Trade Center complex. Among them was an alleged piece of landing gear from Flight 11 and part of the fuselage from Flight 175 (Fig 42). Who says this is so? The authorities do. Proof? None. An aircraft engine was found in Murray Street near Ground Zero and claimed to be from a 767 – 'Flight 175' that struck the South Tower judging by where it came to rest. A Pilots for 911 Truth video suggests that this does not belong to a standard 767. They say the South Tower 767 carried the tail number N612UA and according to its logs the plane was powered by two Pratt and Witney JT9D-7R4D engines. The pilots' video points out that the Murray Street engine includes a curved tube structure known as Tobi-Ducts which cool the turbine within the engine and it claims that this comes from a different engine to that carried by Flight 175 – one called the JT9D-7A/JF/7J. The pilots say the cooling duct for the 175 aircraft looked very different and that the engine found in Murray Street is fitted on 747 Jumbo Jets which can travel at much higher speeds (Fig 43). We have the same theme at the Pentagon with an alleged engine part that the Pilots for 9/11 Truth video says could not have come from Flight 77 – plane identification number N644AA. This aircraft carried two Rolls Royce RB211 engines and the pilots' video says the slotted disc on the engine part at the Pentagon doesn't come from a Rolls Royce RB211 (Fig 44). They say the disc is a feature of the Pratt and Whitney JT8D, versions of which have been used in large military aircraft. Others have said the engine parts do match those of a 767 and 757 and Rob Balsamo, co-founder of Pilots for 911 Truth, agrees that the engines can't be definitely identified without physically examining the parts which would require a congressional inquiry. In fact, all it would take to solve this question and many others is for the authorities to match the serial numbers of the parts found at the crash scenes with the maintenance logs of the aircraft just as it would end all questions about what hit the Pentagon if the FBI released the footage from surveillance videos they immediately confiscated on 9/11

Figure 42: A Federal Emergency Management Agency (FEMA) image of what is alleged to be wreckage from 'Flight 175'.

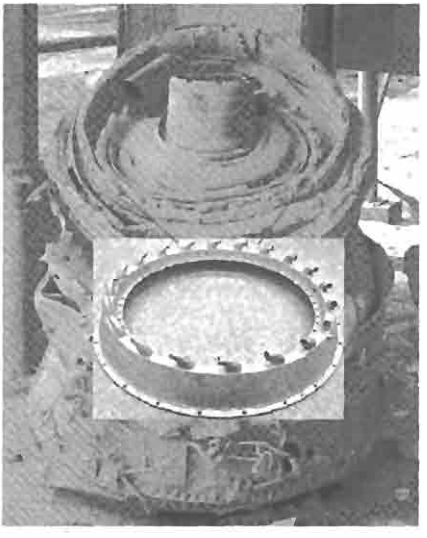

Figure 43: The engine found in Murray Street near the World Trade Center. Does the 'Tobi duct' prove that the 'Flight 175' engine did not come from a standard 767? Some say yes, but others challenge that.

Figure 44: The Pentagon engine part questioned by Pilots for 9/11 Truth.

and have never made public. Some had to have captured what caused the damage at the Pentagon, Flight 77, another large jet, a small plane, missile or bomb. It's that simple and yet we are now closing in on 20 years since 9/11 and neither has been done. For goodness sake – *why?*

It is no good attacking those who question the official story of 9/11 when the authorities refuse to take such simple steps to confirm their story with evidence in their possession all this time – if their story is true. The FBI and other agencies have been questioned about why they have never matched plane part serial numbers with the maintenance logs, but as always they refused to comment. Both the FBI and National Transport Safety Board rejected requests to identify the planes that crashed on 9/11 through their component serial and part numbers. What if the planes which struck the buildings after replacing the ones that left the airports – as described in Operation Northwoods – were modified versions with reinforced airframe and fitted with more powerful engines for greater performance and structural strength than the standard 767/757 could have achieved? Another point is that commercial airliners are upgraded in this way as a matter of course ... by the US military. This would certainly make sense of the experience of Mark Burnback, an employee of Fox Television, who was close to the World Trade Center when 'Flight 175' crashed into the South Tower. He told WCBS in a live interview from the scene that the aircraft definitely did not look like a commercial plane. 'There was a blue logo on the front of the plane,' he said. 'I did not see any windows on the side – it was not a normal plane that I've seen at the airport.' The interview was never

repeated. Voices from onlookers who had seen 'Flight 175' strike the tower can be heard on video footage saying:

> No, wasn't no commercial airliner ... The second wasn't, no, the second definitely wasn't ... It didn't have any markings on it that I saw, no emblems, no markings ... It was a military plane, a military plane.

Interviews with witnesses at the scene had the same theme. One man said of 'Flight 175': 'The plane wasn't no airliner or anything. It was a two-engine big grey plane.' Another said: 'The plane ... smashed into the World Trade Center, it was grey to be honest with you.' A big military aircraft with airframe reinforcement and advanced capability would explain how it performed manoeuvres that a bog-standard 767 would not be able to do.

Is it a bird? Is it a plane? No – it's Superscam

Pilots for 9/11 Truth secured through a Freedom of Information Act request to the National Transportation Safety Board (NTSB) what is claimed to be the Flight Data Recorder (FDR) for Flight 77 which left Washington Dulles and is said to have crashed into the Pentagon. The Cockpit Voice Recorder (CVR) was destroyed in the crash according to the authorities. FDR information secured by the pilots included radar data, air traffic control recordings and an animation of the plane's alleged path. Pilot and aviation engineer analysis conducted by Pilots for 9/11 Truth found that the supplied data did not match the official story of what happened. Pilots and engineers concluded that the data for 'Flight 77' was not actually from Flight 77. The plane recorded in the data didn't even depart from the gate at Washington Dulles that is claimed. I don't mean Flight 77 didn't leave that gate, but whatever plane the data really belongs to didn't. Latitude and longitude coordinates had to be entered into a plane's computer at the gate or the entire flight navigational information was thrown out of sync. American Airlines operating manuals for this aircraft type, confirmed by pilots familiar with the procedure, said that all flights had to be aligned in terms of latitude and longitude at the gate through the IRS, or Inertial Reference System, and the plane had to be stationary for ten minutes or more for this to be completed. American Airlines grounded aircraft if this couldn't be done and even if an error was noted on route to the runway the pilot would have to return to the gate to realign the system. American Airlines captain Ralph Kolstad, who had piloted the Flight 77 aircraft (N644AA), said that if the IRS failed in flight or seriously malfunctioned then an emergency was declared. Flight 77 may have departed from Dulles gate D26, but the pilots say that for sure the plane featured in the fake '77' Flight Data Recorder did not. Commercial jets

like the 757 were not able to realign in-flight if the gate data was incorrect, but *military* aircraft could do so through the Global Positioning System (GPS) which was not available to commercial aircraft at the time (remember what I said about the Hidden Hand and its military having technology ahead of anyone else). Now – *here we go* ... Pilots for 9/11 Truth point out that flight data information which the government says is from Flight 77 shows that its GPS system was operational. Problem is ... the 757 that was Flight 77 *didn't have a GPS system*. The data further shows that the plane was navigationally auto-aligned in-flight which cannot be done without a GPS system which Flight 77 did not have. All this could have been done, however, by a *military aircraft or military modified commercial aircraft*. Another point: The flight data decoding system which was specifically designed for American Airlines aircraft could not fully decode the data in the (fake) Flight Data Recorder claimed to be from American Airlines Flight 77 and nor could the Boeing system from the company that built the plane. They should have asked for help from the military – I'm sure they would have had the technology that synced with it. A military aircraft would also explain why ground-to-air missiles defending Washington and the Pentagon did not launch. Barbara Honegger, Senior Military Affairs Journalist who worked for the Department of Defense, said: 'That craft had to have been a military craft because only military craft put out a signal – it's called an identify friend or foe (IFF) device – and only a military craft would be allowed to approach the building.' Former Boston air traffic controller Robin Horton said the two radar systems which military radar defensive systems read are a civilian aircraft transponder and a military transponder:

> The military transponder is called IFF, civilian aircraft do not have an IFF transponder – they are not given that capability, okay? So if there was an American 757 that went into the Pentagon, for example, and it turned off its transponder, it didn't have an IFF military transponder on it, so it was a primary target going into that airspace – pooh, pooh, pooh, pooh, pooh. Should have been shot down.

John Judge, a 9/11 researcher for former Congresswoman Cynthia McKinney, a rare questioning voice on Capitol Hill, captured the situation:

> What I am describing to you is a breakdown in proper operating procedure by FAA, NORAD, P-56 [Washington no-fly zone] and the Pentagon all on the same day in the middle, after 9.05, what was known nationally to be a terrorist attack and it makes no sense.

No, mate, because it's all bollocks.

Hani Hanjour: Puddle-jump incompetent

According to the government's Cuckoo Land version of events, hijackers broke through the cockpit door of Flight 77, threatened the pilots with box-cutters and small knives and ordered them to the back of plane while taking over the controls – and all executed in three minutes. The 'hijacker pilot' was claimed to be Hani Hanjour who had been banned by instructors at the Freeway Airport in Bowie, Maryland, from renting a small plane six weeks before 9/11 because he was such an incompetent pilot. He must have been a quick learner because the government said that he now turned around the 757 and headed back for Washington. Hanjour was a small man of around five-feet tall with a slight build (just the man to overpower flight crew with cardboard box-cutters) and had a poor grasp of English. How strange when fluently speaking, writing and understanding English is essential to securing a pilot's licence. Somehow he got one anyway while being next-to-useless. Hanjour was dropped by his first two schools in Oakland, California, and Scottsdale, Arizona. Duncan Hastie, owner of the Scottsdale school, said Hanjour was 'a weak student' who was 'wasting our resources'. Hanjour then enrolled with the nearby Sawyer Aviation which Wes Fults, a Sawyer instructor at the time, described as a 'school of last resort' – '... it was a commonly held truth that, if you failed anywhere else, go to Sawyer.' Fults said that Hanjour got overwhelmed with the instruments on the flight simulator. 'He had only the barest understanding of what the instruments were there to do', Fults recalled. Hanjour had used the simulator three or four times, then 'disappeared like a fog'. This is the man the official story claims took over the controls of Flight 77. Captain Russ Wittemberg, a commercial and military pilot for 30 years, said: 'There is no way you could possibly come out of a [one-engine] 172 and fly a jet that you've never flown before – that's like showing me how to carve up a Christmas cookie and then say go make a heart transplant.' The plane's autopilot was turned on throughout the flight, the National Transportation Safety Board data says, until 9.08. It was then turned off for three minutes before being restored. There's another teeny-weeny problem with the story of the cockpit being stormed and the pilots overwhelmed and forced to retreat to the back of the plane ... according to Pilots for 9/11 Truth the alleged Flight Data Recorder of 'Flight 77' shows that *the cockpit door remained closed throughout the flight*. This is just incredible in every sense unless the 'hijackers' went through demanifestation training to walk through doors, but then you still have the problem of how the pilots were able to go the other way to the back of the plane. Maybe they were given a swift instruction on how to demanifest in the three minutes that little Hanjour was taking over the

plane. That's crazy? Oh, really – any more so than a hijacker's passport floating down undamaged from a fireball or a next-to-useless puddle-jumper 'pilot' taking over a 757? Important note here – soon after this 'hijacking' total radar contact is said to have been lost and the plane disappeared from the screens until *36 minutes* later when a plane was picked up again. It is claimed that Flight 77 was lost to radar at 8.56am and suddenly reappeared at 9.32am when seen by Danielle O'Brien, an air traffic controller at Dulles International Airport, moving at a speed she didn't understand. There is more about her recollections coming up. This missing time is when the switch would have occurred – as per Operation Northwoods – because there is no evidence from 8.56 onwards that what was spotted heading for Washington was Flight 77 and indeed all the evidence says that it wasn't. Captain Russ Wittemberg, a 30-year commercial and military pilot, said:

> If Flight 77 really did go off the radar screens for 36 minutes ... then the plane is no longer flying, or it was low enough it was out of radar coverage – one or the two. So was the airline landed at some place, some remote field? Then it makes sense that they lost the airplane for 36 minutes. Other than that there is very little explanation for that.

If it was landed – and I say at least three and possibly all were – then it was right in line with the scenario of Operation Northwoods. Whatever happened Cheyenne Mountain would not have lost the plane for 36 minutes.

Little 'hijackers, big pilots

The pilot of Flight 77 was Charles 'Chic' Burlingame, an aeronautical engineer and honours graduate from the Navy's Top Gun fighter pilot school in Miramar, California. Kent Hill, an American Airlines captain on European routes and a life-long friend of Burlingame, seriously questioned the official story. The two were graduates of the Naval Academy, flew in Vietnam and had flown with American Airlines for 28 years. Hill could not understand why there was no hijack code sent from any of the planes. He said they were all trained 'on the old type of hijack' where the hijacker is treated cordially, the pilot punches a four-digit code into the transponder to alert ground control that the plane has been hijacked and then takes hijackers where they wish to go and puts the plane on the tarmac. 'However, this is a totally new situation,' Hill said. 'Not one of the planes alerted ground control that they were being hijacked. How come?' Well, this can be explained if the planes were hijacked remotely in a way that would override the transponder channel and block all communication with air traffic controllers including the four-digit hijack code. With no hijack taking place *on* the plane, but *from*

the ground, the pilots might even have believed, at least for a time, that there was a mechanical fault when the plane did not respond to cockpit commands. Kent Hill said he was sure that none of the pilots had control of the aircraft when they crashed because no pilot would do that. 'Even if I had a gun at my head, I'd never fly a plane into a building. I'd try to put it in anywhere – a field or a river – and I'd be searing the hell out of them by flying upside down first. 'Chic' Burlingame's sister, Deborah, said that he would 'never, never have entrusted a stranger with that airplane when he had lives at stake' – and would never have easily conceded control of the cockpit. How does this all square with claims that CNN contributor Barbara Olson rang her husband, Boy Bush Solicitor General Ted Olson, to say that the pilot of Flight 77 was at the back of the plane with her and to ask her husband what she should she tell him? Pilots and an entire crew just went to the back of a 757 leaving hijackers in the cockpit after being threatened only by what Olson described as knives and box-cutters and they managed to do this without the cockpit door ever opening?? Burlingame was a weightlifter and boxer, described as a tough man. How would he have been overpowered by little men with box-cutters when they were described in a statement to the 9/11 Commission as 'not physically imposing, as the majority of them were between 5-5 and 5-7 in height and slender in build'? If they had messed with Burlingame they would have been eating their next meal through a straw. His brother Mark said they would have had to incapacitate or kill him for Burlingame to have allowed the plane to be taken over. If either had happened he would not be at the back of the plane while Olson is said to have asked her husband: 'What do I tell the pilot?' Crazy, crazy stuff. Retired Colonel Donn de Grand Pré, a friend of Burlingame's life-long friend, Kent Hill, said he gathered together a group of experienced civilian and military pilots, including combat fighter pilots and commercial airline captains, to discuss what could have happened during what he described as a 'so-called terrorist attack [that] was in fact a superbly executed military operation against the United States, requiring the utmost professional military skill in command, communications and control'. He said the pilot group concluded:

> ... the enemy is within the gates, that he has infiltrated into the highest policymaking positions at the Federal level, and has absolute control, not only of the purse strings, but of the troop build-up and deployment of our military forces, including active, reserve and National Guard units.

Colonel Donn de Grand Pré reported that the group of highly experienced pilots was not impressed by claims that the four aircraft were flown by hijackers who had trained in planes like the Cessna. He

said one officer remarked: 'I seriously question whether these novices could have located a target dead-on 200 miles removed from take-off point – much less controlled the flight and mastered the intricacies of 11FR [instrument flight rules] – and all accomplished in 45 minutes.' The pilots said that the way the planes were flown ruled out the level of experience and competence reported for the 'hijackers'. An Air Force officer, who flew more than 100 sorties over North Vietnam, is quoted as saying: 'Those birds either had a crack fighter pilot in the left seat, or they were being manoeuvred by remote control.' Stan Goff, a former Special Forces sergeant turned conspiracy investigator, said this about Flight 77:

> Now, the real kicker. A pilot they want us to believe was trained at a ... puddle-jumper school for Piper Cubs and Cessnas, conducts a well-controlled downward spiral, descending the last 7,000 feet in two-and-a-half minutes, brings the plane in so low and flat that it clips the electrical wires across the street from the Pentagon, and flies it with pinpoint accuracy into the side of this building at 460 knots.
>
> When the theory about learning to fly this well at the puddle-jumper school began to lose ground, it was added that they received further training on a flight simulator. This is like saying you prepared your teenager for her first drive on I-40 at rush hour by buying her a video driving game. It's horse shit! There is a story being constructed about these events.

Captain Russ Wittemberg, a military and airline pilot, said 'the story of how the plane hit the Pentagon just doesn't make any sense at all'. American Airlines captain Ralph Kolstad said that even with 6,000 hours of flying time in 757s and 767s he could not have done what incompetent Cessna pilot Hani Hanjour is claimed to have done. Nila Sagadevan, a pilot and aeronautical engineer, said:

> I challenge any pilot, any pilot anywhere: give him a Boeing 757 and tell him to do 400 knots 20 feet above the ground for half a mile. CAN'T DO. It's aerodynamically impossible.

But, of course, it *is* possible if you are a government script-writer.

CHAPTER 10

'Plane strikes the Pentagon' – or did it?

An illusion is an illusion. Reality always exists despite the façade
– Kasie West

If Flight 77 was really hijacked by 'highly-trained Islamic terrorists' they would have known the defence procedures to protect Washington airspace and so why would they (a) allow the plane to fly so far out of the city before turning back, and (b) not hit the Pentagon directly in their approach instead of flying the plane in a fantastic spiral to strike the building at the precise spot which had recently been re-enforced in a Pentagon upgrade to protect the building from just such an attack?

Why would they not have targeted the plane directly at the offices of Secretary of State Rumsfeld and military leaders of the Joint Chiefs of Staff located on the very opposite side of the building to where the Pentagon was hit? Instead the building was struck in the offices where the computer systems were located that held the key to uncovering how $2.3 trillion had disappeared from the Pentagon budget ($8,000 for every man, woman and child in America) which Secretary Rumsfeld had announced the day before the attack was unaccounted for. What a coincidence that he revealed this to the media on September 10th and by lunchtime the following day a 'plane' strikes the building precisely where now-dead civilian accountants, bookkeepers and budget analysts were investigating where that money went. Bryan C. Jack, who headed the Pentagon's programming and fiscal economics division and was responsible for crunching America's defence budget, was also on Flight 77 which is said to have hit the Pentagon where his budget accountants and analysts were working. How predictable, if appalling, that an aide of then British Prime Minister Tony Blair would tell government colleagues on 9/11 that this was 'a good day to bury bad news'. If you wanted to bury the announcement of the missing $2.3 trillion it could not have been better timed than Monday, September 10th, 2001. Monday is normally the last day you announce news you want to hide with another five working days for the media to discuss and expand on the

story and the weekend for more in-depth analysis. Late Friday is when you bury bad news unless you know that something is coming along to make it disappear – which they did. What happened to that money and trillions more since bringing the total officially missing at the time of writing to *$21 trillion?* One answer is that attacks like 9/11 and other so-called 'black budget', off-the-books Hidden Hand projects can be extremely expensive. Investigative journalist David Lindorff described how the scam works:

> ... they submit the financial statements from prior years showing falsely that it's spent all its money and then asking for more. And so Congress obligingly gives them more. But the money that they don't spend each year gets stashed away in secret places within the Pentagon and gets used without any accountability at all.
>
> This means that they are able to do black operations that get no oversight. It means that they could use it for corrupt purposes. There are all kinds of things they could do with it. And that fund could be now as large as $100 billion which I would note is larger than Russia's entire military spending, close to Chinese entire annual military spending. And that is a slush fund.

'Islamic fanatics on Flight 77' could have targeted the gigantic Pentagon roof or even more spectacularly that part of the building where Rumsfeld and the military big-wigs were located (which was publicly known). Instead they aim for a point at the very opposite side to where they had their offices and bang on the spot – known as Wedge 1 – which had recently been seriously upgraded and strengthened to protect from just such a terrorist attack but where the accountants were searching for the missing trillions. A CBS report on November 28th, 2001, said: 'In an astonishing stroke of luck, the terrorists had hit the only section of the Pentagon designed to resist a terrorist attack.' Hey Abdul, you sure this map is the right way up? Another relevant question is why 'Islamic fanatics' bent on maximum death and destruction did not target a nuclear power station instead of the most reinforced part of the Pentagon? 'Flight 11' and 'Flight 175' passed close to the major nuclear power installations at Indian Point about 24 miles from New York City with the potential to turn that whole region of the United States, including New York, into an uninhabitable wasteland and kill millions of 'infidels' through radiation poisoning in the months and years to come. Was it really more effective to target a newly-reinforced section of the Pentagon on the opposite side from Rumsfeld and the military chiefs where the smallest number of people were working because of the on-going work on reinforcement? This building work, of course, would be a great cover for planting explosives.

Questions without answers – official ones, anyway

'Flight 77' is supposed to have struck five lamp posts as it approached the Pentagon and you can see pictures of these poles on the ground, but the route and approach of the 'plane' in the National Transportation Safety Board (NTSB) Flight Data Recorder information analysed by Pilots for 9/11 Truth has the aircraft on a route and height that makes striking those lamp posts impossible. A Navy Annex building and a gas station were under the path of the aircraft and according to the Flight Data Recorder it passed to the north of these buildings, or the left from a pilot's view, while the flight animation supplied by the NTSB had the plane flying to the south or right of them (Fig 45). The latter would have taken the plane towards the lamp posts, but it is very clear from multiple witness testimonies, with the buildings as an obvious guide, that the plane did indeed pass the Navy Annex and gas station to the left and could not have struck the lamp posts. Pilots for 9/11 Truth highlight serious discrepancies between the alleged hard data from the Flight Data Recorder of the plane as it approached the Pentagon and the animation based on that data provided by the NTSB. Jim Ritter, head of the Vehicle Performance Division at the NTSB, who signed off on the flight data, refused to even discuss these discrepancies. The arrogance of the NTSB and other government agencies like the FBI in not answering legitimate questions and the contempt they therefore have for the truth and victims is sickening.

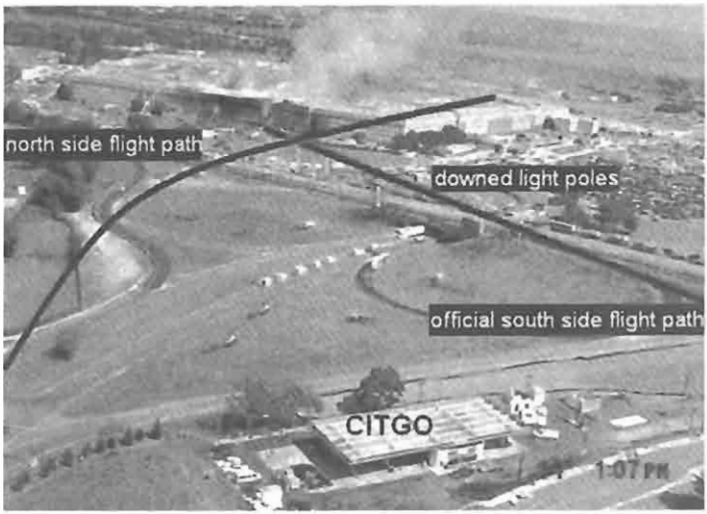

Figure 45: The official flight path of 'Flight 77' came in low from the right of the Citgo gas station and struck lamp poles before smashing into the Pentagon. The Flight Data Recorder information from the National Transportation Safety Board (NTSB) – along with eyewitness reports – has the plane arriving from the left of the gas station with a direction and height that could not have struck the lamp poles or even the Pentagon in the way the official story claims.

Pilots for 9/11 Truth point out that the altitude indicator in the

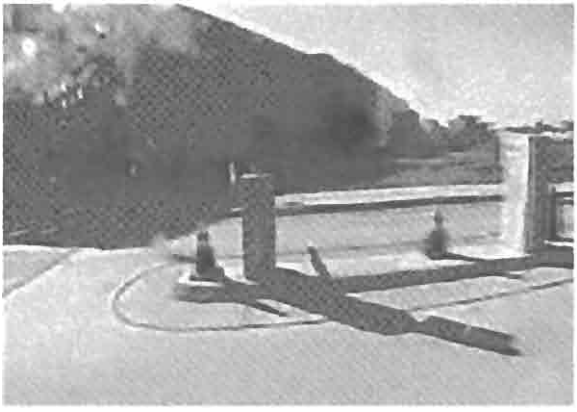

Figure 46: A few frames of a 'security' video at the Pentagon which pathetically claims to show a plane striking the building - but doesn't. There were more than 80 surveillance cameras located at the Pentagon and surrounding business premises. Why were they confiscated on 9/11 and kept from the public ever since?

Figure 47: If a plane came in at ground level and struck the Pentagon why no damage to the lawn?

animation shows the plane 300 feet lower than the hard data and when the aircraft's true height is factored in the lamp posts would have had to be 440 feet high for the plane to hit them. The 'Flight 77' Flight Data Recorder does not have the plane careering across the Pentagon lawn to strike the building level to the ground yet the five-frame Pentagon distant 'security video' images claiming to show the impact depicts a 'plane' hitting the wall while level to the ground across the – *undamaged* – Pentagon lawn (Figs 46 and 47).

Slightly longer footage including the five-frames released under a Freedom of Information Act request in 2006 was also inconclusive and claimed to depict a distant blurry 'plane' doing something considered near impossible by professional pilots let alone by Cessna incompetent, Hani Hanjour, and it's a manoeuvre not to be found on the 'Flight 77' data recorder. Pilots for 9/11 Truth flight simulator tests using the same data provided by the NTSB showed that the plane would have flown over the building or, with the same vertical speed but positioned low enough to hit the lamp posts, it would have crashed into the ground long before it reached the alleged impact point. One postured scenario that would bring the flight data and the explosion together was that the plane – not, of course, Flight 77 – came in low and unleashed a missile that caused the explosion. Could the release of a missile have been what Air Force Master Sergeant Noel Sepulveda witnessed when he saw the plane come in low over a nearby hotel and 'drop its landing gear'? This

would also explain the dearth of aircraft wreckage at the scene and the size of the main hole in the building. People remember the collapsed wall of the Pentagon, but the collapse only happened some 30 minutes *after* the alleged impact (Fig 48). I have seen estimates of between 20 minutes and 45 minutes and I will use a mean figure of 30 which is the approximate period widely quoted. The point is that the wall fell long after impact. The main damage point was described as between 16 and 20 feet across and is supposed to have swallowed a passenger jet with a wing-span of 125 feet (Figs 49 and 50). Witnesses near the Pentagon described seeing 'like a white commuter plane'. One described 'maybe a 20-passenger corporate jet, no markings on the side, coming in at a shallow angle like it was landing right into the side of the Pentagon'. Witness Kelly Knowles described a 'second plane':

Figure 48: This is the image that people remember of the collapsed wall of the Pentagon, but this didn't happen until half an hour or more after 'impact'. Before that time the hole was tiny compared with the size of a 757.

Figure 49: This is what the impact point looked like with the wall still standing when a 757 is supposed to have struck the Pentagon.

> Thank god somebody else saw that. There was most definitely a second plane. It's so frustrating because nobody knows about the second plane, or if they do, they are hiding it for some reason.

A second plane, or a plane and a missile? Or, some researchers ask, could the whole 'second plane' story actually be the same plane seen twice or multiple times? A few witnesses talk of a second plane close to 'Flight 77' as it came into the Pentagon while many others say there was

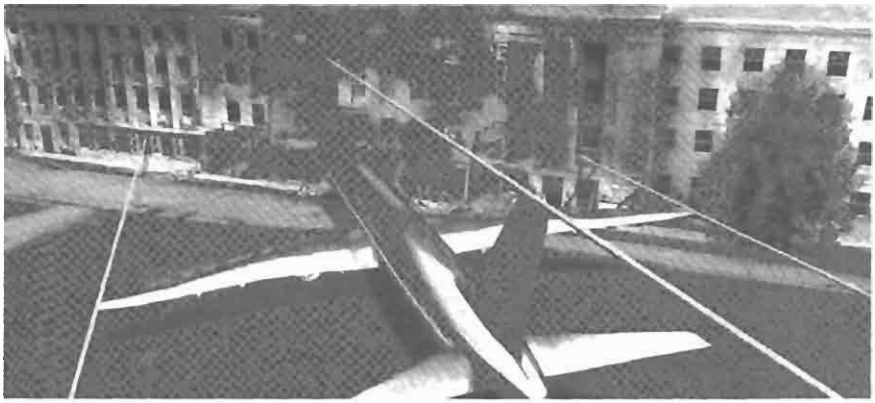

Figure 50: A 757 with this ratio size to the Pentagon is supposed to have disappeared through the entry point that you see.

definitely only one, including a few right under the flightpath. Some 'second-planers' could be systematically disinforming for reasons I will come to while others could have been deceived by seeing the plane coming low towards the Pentagon followed by a massive explosion from a bomb inside the building and the 'second plane' (the only plane) climbing steeply away. Some witnesses describe a single plane lifting sharply to climb over the Pentagon and others say they saw the 'second plane' climbing away from the Pentagon after the explosion. Pentagon police officer Roosevelt Roberts said that he was a few steps inside the Pentagon loading dock during the explosion and immediately ran outside to see a 'large aircraft liner', a commercial jet, very low and flying away. 'You could see that plane as clear as day', he said. 'You couldn't miss it.' He described the plane as silver in colour and flying 'at no more than 100 feet'. Roberts gave a recorded interview for the Library of Congress after the attacks. He didn't see a plane hit the Pentagon and only assumed that one had. He therefore believed the aircraft he saw was a 'second plane' when it could easily have been the only one. People *assuming* the two-plane theory is understandable by associating a plane coming in low towards the Pentagon with the explosion about the same time. What better cover for a plane climbing quickly away than an enormous explosion to focus attention? Imagine if you saw the house across the road explode. What else would you see in your peripheral vision when it was happening? Nothing. If this was the case with the explosion caused by a bomb inside the building or missile it was beneficial to the interests of the cover-up that the second plane story began to circulate.

To confuse matters still further two other aircraft were in the sky over Washington and the Pentagon area at the time. Five minutes before the Pentagon explosion Air National Guard Lieutenant Colonel Steve

O'Brien and his crew were told to take off from Andrews Air Force Base down the road (while the fighter aircraft stayed on the ground) in a C-130 cargo plane headed for Minnesota. This was six minutes after all planes in the United States had been grounded following the attacks in New York. O'Brien said that when he took off he was unware of what had happened at the World Trade Center even though this was 46 minutes after 'Flight 11' and 29 minutes after 'Flight 175' met their fate. That is quite a statement given that he was on an airbase at the time which should have been on stand-by to defend Washington DC. O'Brien said that when they were airborne they saw 'Flight 77' make a close pass of his aircraft and he identified what he said was an American Airlines plane. He said he was told to follow the plane and report on its movements but he couldn't keep up with it in a slow cargo aircraft. Then he saw an explosion on the ground. It was reported in the media that he saw the plane hit the Pentagon. This is not the case – he said he didn't know what the explosion was at first. O'Brien continued his journey to Minnesota and in what is claimed to have been an extraordinary coincidence he was contacted by air traffic controllers over Pennsylvania to ask if he could see another aircraft in trouble – *'Flight 93'* – and he said he saw smoke from the 'crash' two minutes after alleged impact. O'Brien may have been an innocent dupe in all this, but I cannot see myself that these events were actually a fantastic coincidence. There are far too many of those in the 9/11 story. The C-130 over Washington added to the confusion of witnesses and the 'second plane' stories as did reports of a 'mystery white jet' seen circling the White House and central Washington which appears to have been an E-4B National Airborne Operations Center (NAOC) plane – a highly modified Boeing 747 which operate as military command posts in the sky. This was airborne at least immediately in the wake of the explosion at the Pentagon and may have been involved in one of the 'exercises' or, some suggest, the orchestration of the Pentagon attack.

There are witnesses that claim to have seen an American Airlines 757 strike the Pentagon although most are military or other 'establishment' figures and their evidence is contradictory or even impossible as with one account by retired Army officer Frank Probst. He claimed that one of the plane's engines passed within six feet of him. Given the turbulence created by an aircraft that big passing him so close at the reported speed let's just say it's yet another miracle that he survived to tell his tale. I am not saying that 'I saw the plane hit' witnesses shouldn't be believed if that's what people feel to do – only that seeing and saying are not necessarily the same thing. A warning to take great care with the 'evidence' of 'witnesses' supporting the official story is provided by the case of cab driver Lloyde England who claimed on television that one of the lamp poles 'struck by Flight 77' crashed through his car windscreen.

There are no photographs of the car in this state and there was no damage to the car's hood or bonnet which he said had been struck by a 20-foot light pole with the heavier end landing on the hood (Fig 51). England said the pole came through the windscreen to the backseat and 'the large piece was sticking out across the hood'.

Figure 51: Taxi driver Lloyde England said a lamp pole struck by 'Flight 77' smashed into his windshield and came to rest on his car bonnet or hood. The hood being undamaged - indeed pristine - should in no way discount the story.

Clearly it is impossible for a heavy and sturdy metal street light pole to be hurled through a windscreen and smack onto the hood without causing even a scratch. Bizarrely there was a copy of my book *Children of the Matrix* on the back seat at the time which he said he was reading. England said that his wife Shirley Hughes-England worked for the FBI 'for a long time': 'She don't talk about it – I don't talk about it.' Neither England nor his wife would discuss her role even off camera when questioned in 2008. Two years later he said she was 'a cleaner'. There are many discrepancies in his story about what he claims to have happened and he would be captured on camera saying that 9/11 was an event for the 'rich people' and it was bigger than him – 'I'm a small man':

> You know what history is?... It's not the truth, it's his story ... It has nothing to do with the truth, it's his story ... This is too big for me man, this is a big thing ... you know this is a world thing happening, I'm a small man ... I'm not supposed to be involved in this. This is for other people. People who have money and all this kind of stuff. I'm not supposed to be involved with this ... This is their thing. I'm not supposed to be in it ... we came across the highway together. It was planned.

We should also watch out for people coming into what is called the '9/11 Truth Movement' and claiming out of nowhere to be, for example, the 'foremost authority on 9/11'. There are many possible scenarios to mislead and discredit real researchers including disinformation. Circulating total disinformation doesn't work very well because seasoned researchers will see through it very quickly. The most effective method is to promote information that is partly inaccurate and partly true because then the truth can be discredited with the lies. There is also a method whereby the person comes forward with a narrative that is

basically true, but then the person themselves is discredited (as planned) and with that so is the truth they were disseminating. Weaving a path through the smoke and mirrors requires eyes to be constantly wide open.

It was Flight 77? Okay, prove it

The fundamental diversion and cover up technique in these scenarios is confusion. The more conflicting stories there are flying around after 'false flag' or Problem-Reaction-Solution events the better from the Hidden Hand's point of view. The way to avoid this is to focus on the impossibility of the official story which is the point of this book. A lot of very good research is offering possible explanations for *what* happened, but that does not have to be established to prove that 9/11 was a government-military-intelligence conspiracy or 'inside job'. All that is necessary to expose the Big Lie is to show that the official story of what happened could not have happened and that is already clear. The lies are constant wherever you look. While I am including informed speculation and solid evidence about what *did* happen it is what *didn't* happen – the government's version of events – that holds the key to exposing the 9/11 hoax. One thing is absolutely clear – the NTSB 'Flight Data Recorder' information released in 2006 purporting to come from Flight 77 is fraudulent and there are witnesses that also put into question the 'Flight 77' radar data released by the Air Force 84th Radar Evaluation Squadron (84 RADES) after a Freedom of Information Act request in 2007. Multiple witnesses report seeing the plane purported to be Flight 77 heading for the Pentagon from a different direction to the NTSB and RADES data. They describe the plane coming from the East crossing the Potomac River between Washington DC and Virginia while the NTSB/RADES data does not have the plane crossing the Potomac and tracks it coming from the west. The RADES data further shows a plane pulling away from the Pentagon after the explosion and this is said to be the C-130 transport plane. This is at odds with the route that pilot Steve O'Brien said he flew. Once again with Flight 77 we have the recurring theme with 9/11 of serial numbers and part numbers of black boxes and alleged debris from the plane (albeit very little) that were not publicly matched with the serial numbers of the aircraft and part logs. This is done in every case of air crashes where black boxes and debris are found although not with the planes alleged to have crashed on September 11th. Boston air traffic controller Robin Horton said:

> There is nobody, anywhere, in this entire investigation that has said that is positively American 77. They suppose it, they presume it, they assume it, they say this is what we think it is.

The amount of wreckage we have been shown at the Pentagon site has been described as little more than could be carried in the back of a truck. CNN's then senior Pentagon correspondent Jamie McIntyre said this in a dispatch from the scene:

> From my close-up inspection, there is no evidence of a plane having crashed anywhere near the Pentagon ... The only pieces left that you can see are small enough that you could pick up in your hand. There are no large tail sections, wing sections, a fuselage, nothing like that anywhere around which would indicate that the entire plane crashed into the side of the Pentagon and then caused the side to collapse. Even though if you look at the pictures of the Pentagon you see that the floors have all collapsed, that didn't happen immediately, it wasn't until almost about forty-five minutes later [other reports have differing times] that the structure was weakened enough that all of the floors collapsed.

Even Defense Secretary Donald Rumsfeld said there were no big pieces of wreckage only small pieces and 30-year pilot Captain Russ Wittemberg said:

> I have been at some accident investigation sites in the Air Force. And I have never come across any accident scene where there is no tell-tale evidence of the plane that crashed.

Seismic evidence, or lack of it, also supports this theme with five seismic recording stations between 63 and 350 kilometres from the Pentagon failing to measure a clear seismic signal for the impact – the only one of the four 9/11 planes not to do so.

An expert view

Albert N. Stubblebine III, a retired Major General in the United States Army, was commanding general of the United States Army Intelligence and Security Command from 1981 to 1984. Stubblebine, who died in 2017, was outspoken in his contention that no plane hit the Pentagon. He believed the official story at the time until he saw the hole in the Pentagon and his response was: 'Something's wrong. There is something wrong with this picture ...' Stubblebine should know. He was in charge of Army Imagery Interpretation for Scientific and Technical Intelligence during the Cold War measuring pieces of Soviet technology from photographs. He said that he took measurements of the Pentagon and the depth of the damage and did the same with a 757 in terms of the length of the nose and wings and concluded from 30 years military experience and his time in military intelligence that an aircraft did not make the hole: 'The plane does not fit in that hole. So what did hit the

Pentagon? What hit it? Where is it? What's going on?' This is an understandable assessment given that we are told a 125 foot wide 757 with a 40-foot high tail passed through an entry hole 16-20 feet wide. Stubblebine noted that a turbine that he saw at the scene looked like one from a missile. 'I can't prove that, I don't know ... there was something there that did not look like the engine from an airplane, but did look like a turbine from a missile.' He said of the five-frames claimed by the Pentagon to be the plane hitting the building:

> Later I saw another photograph taken by one of the sensors [cameras] on the outside of the Pentagon. Now, all of the sensors **had been turned off**, which is kind of interesting – isn't it? That day, why would all of the sensors around the Pentagon be turned off? That's strange. I don't care what the excuse is. That's strange.
>
> There happened to be one that did not get turned off, and in that picture, coming in, flying into the Pentagon, you see this object, and it obviously hits the Pentagon. When you look at it, it does NOT look like an airplane. Sometime later, after I'd gone public, that imagery was changed. It got a new suit around it that now looked like an airplane. But, when you take the suit off, it looks more like a missile – not like an airplane.

Surveillance footage and images have not been published from a building that was awash with security cameras except for those highly-dubious out of focus frames of a distant explosion claiming to be the plane's impact. Researchers who slowed down the footage revealed that 'something' appears on the right hand side of the frame and then basically stops until the explosion happens and then miraculously shoots forward at incredible speed into the explosion which came *first*. The footage had clearly been seriously doctored and frames taken out. Let us see the real pictures from all the relevant cameras – they must exist unless they were turned off – and put an end to all this. If they *were* turned off – WTF? The FBI confiscated surveillance camera footage immediately after the crash, just as it did at Portland airport and all the others. We saw the same with the Oklahoma bombing. Major General Stubblebine also said that all defence systems in the region of the 9/11 attacks were deactivated that day:

> All of the air defence systems had been turned off ... Why would you turn off all of the air defence systems on that particular day unless you knew that something was going to happen? It's a dot. It's information. But, it's strange that everything got turned off that day.
>
> There was an exercise that was designed for the air defence systems that was

> an attack on the towers by airplanes. Isn't that strange that we had an exercise that mimicked what really happened? Strange that we had planned an exercise that was exactly what happened. And, at the same time, the air defence systems were turned off. Don't you find that strange? I find that really strange.

Stubblebine believed himself to be the highest-ranked military officer to go public with the view that the official story is not true.

Pentagon witnesses

Pentagon employee April Gallop was at her computer inside the building when it was rocked by the explosion which sounded like a bomb. She said the only fire was from computers bursting into flames, as another witness reported. Witnesses said people shouted that a bomb had exploded and these included Don Perkal, deputy general counsel for the Secretary of Defense, who said that he immediately began to smell cordite, a bomb-making constituent. 'Then I knew explosives had been set off somewhere', he said. The Pentagon is constructed with five concentric rings of buildings dubbed A, B, C, D and E from inside to outside. Claims of a bomb were supported by the deaths of people in the inner A and B rings which were not affected by the 'plane' that caused damage only between the E, D and C rings going from the outside in (Fig 52). Severe damage was reported in the B ring and Robert Andrews, Acting Assistant Secretary of Defense, said he felt an explosion and then had to 'walk over dead bodies' as he left the innermost A Ring furthest from the impact point and way beyond where the 'plane' reached. Pentagon worker April Gallop escaped through a hole in the Pentagon wall with her baby son who was about to go to the day-care centre. They went to a grassed area before being taken to hospital. At no time did she see any wreckage from a plane or smell any jet fuel from what would have been still well-filled fuel tanks after a relatively short journey. Gallop saw no

Figure 52: The ring system at the Pentagon. 'Flight 77' is said to have penetrated the first three.

steel, luggage, human remains or anything to indicate that a plane had crashed there. Then came the usual intimidation from the 'Feds' – a common theme – who came to see Gallop in her hospital bed:

> They never identified themselves or even said which agency they worked for. But I know they were not newsmen because I learned that the Pentagon told news reporters not to cover survivors' stories or they would not get any more stories out of there. The men who visited all said they couldn't tell me what to say, they only wanted to make suggestions. But then they told me what to do, which was to take the money [from the Victim Compensation Fund] and shut up. They also kept insisting that a plane hit the building. They repeated this over and over. But I was there and I never saw a plane or even debris from a plane. I figure the plane story is there to brainwash people.

Gallop's point about lack of evidence that a plane had crashed was a common story from a list of witnesses including firefighters who saw the impact site immediately after the 'hit'. Major Dean Eckmann, a military pilot flying over the Pentagon to assess the damage, believed that a truck bomb had been responsible because of the lack of aircraft wreckage and he only found out later about an 'airliner' after the military told the media that this is what happened. Park Police helicopter pilot Ronald Galey said in an interview with the Naval Historical Center that he couldn't believe that a 757 could have struck the building and he arrived within no more than four minutes of the explosion. He also pointed to a truck from where most of the fire seemed to be coming and there was no large fire. 'There's absolutely nothing you could identify as an aircraft part anywhere around there. Nothing. Just couldn't have been', he said. Galey emphasised what a relatively small hole was in the building before the larger collapse some time later. Fellow Park Police pilot Keith Bohn made the same point about a 'small slit' that he could not believe a 757 could pass through. 'I could not see any aviation parts. I could not see an engine or a wing. There was just rubble, pieces, small pieces.' Where did the little amount of debris come from that later appeared in photographs? Colonel George Nelson, a former US Air Force aircraft accident investigator and expert in airplane parts, a former airframe and power plant mechanic, gave his verdict:

> The government alleges that four wide-body airliners crashed on the morning of September 11 2001, resulting in the deaths of more than 3,000 human beings, yet not one piece of hard aircraft evidence has been produced in an attempt to positively identify any of the four aircraft. On the contrary, it seems only that all potential evidence was deliberately kept hidden from public view.

The hard evidence would have included hundreds of critical time-change aircraft items, plus security videotapes that were confiscated by the FBI immediately following each tragic episode. With all the evidence readily available at the Pentagon crash site, any unbiased rational investigator could only conclude that a Boeing 757 did not fly into the Pentagon as alleged.

Two large planes, Bashkirian Airlines Flight 2937 and DHL Flight 611, a Boeing 757 cargo jet, collided at around 36,000 feet the year after 9/11 and crashed to the ground in Germany with many major pieces of wreckage still visible and intact (Fig 53). No-plane advocates point to pictures of a twelve foot wide hole punched when an object, whatever it was, exited on the other side of three rings of buildings within the five-ring Pentagon (Fig 54). The official story claimed this hole was made by the nose of the 757, but the nose of an aircraft is extremely fragile and made only of carbon fibre to allow electromagnetic waves to freely emit from navigation systems located there. The idea is ridiculous that the nose could have ploughed intact between the point of impact (where it would have been crushed) and through three rings of buildings in an area of the Pentagon that had just undergone serious steel-concrete reinforcement to protect against terrorist attack. Defense Secretary Rumsfeld said the plane 'penetrated three of the five concentric rings of the building' which means the plane had to smash through six outer walls. Could an aircraft score through three reinforced rings of buildings and the nose still be so intact that it could have caused the hole on the other side? Even if an engine caused the hole as some claimed – where are pictures of that engine? The official story is an

Figure 53: Two planes collided in mid-air and careered to the ground from 36,000 feet, but very large and recognisable wreckage can be seen.

Figure 54: The round C-Ring exit hole some twelve feet across made by whatever struck the Pentagon.

absolute blaze of apparent contradictions and it claims that the following happened simultaneously: The plane struck the building and 'pulverised'; engines and other solid components disappeared because they 'melted'; 100 tons of melted metal were not found because the inferno was so hot at more than 2,500 degrees centigrade that everything 'evaporated'; the small exit hole, around twelve feet across, was caused by the nose or engine of the aircraft which had penetrated three reinforced buildings despite all of the former. For sure all of those statements can't be true. The ludicrous official story was summed up by a French website that highlighted the contradictions in the wake of the Pentagon crash:

> The aircraft thus disintegrated on contact with the Pentagon, melted inside the building, evaporated at 2500°C, and still penetrated two other buildings via a hole two and half yards in diameter.

Black box re-run

Dick Bridges deputy manager for Arlington County, was quoted by Associated Press as saying that both black boxes for Flight 77 were found '... right where the plane came into the building'. If that is the case where was the rest of the wreckage if much of the plane and the black boxes in the tail section only made it that far? How could it also have ploughed through those three rings of buildings? 'Flight 77' black boxes were reported to have been found at 4am in the morning on September 14th so why was the Pentagon file detailing the content of the Flight Data Recorder created more than four hours *before* it was found – at 11.45pm on September 13th? Navy Captain Glenn N. Wagner, director of the Armed Forces DNA Identification Laboratory in Rockville, Maryland, said a team of forensic pathologists, odonatologists, a forensic anthropologist, DNA experts, investigators and support personnel worked for more than two weeks to identify victims of the attack on the Pentagon. He said they had identified 184 of the 189 who died in the plane and the building. You either believe this or you don't, I guess, while taking into account government claims that the plane 'vapourised' and 'melted' and that evidence points most strongly to the fact that whatever caused the explosion could not have been Flight 77. Captain Daniel Davis is a former US Army Air Defense Officer and NORAD Tactical Director, former Senior Manager at General Electric Turbine Engine Division and founder of Turbine Technology Services Corp, a turbine services and maintenance company. In short, he knows a lot about jet engines and aircraft. Davis said:

> As a former General Electric Turbine engineering specialist and manager and then CEO of a turbine engineering company, I can guarantee that none of the

high tech, high temperature alloy engines on any of the four planes that crashed on 9/11 would be completely destroyed, burned, shattered or melted in any crash or fire. Wrecked, yes, but not destroyed. Where are all of those engines, particularly at the Pentagon? If jet powered aircraft crashed on 9/11, those engines, plus wings and tail assembly, would be there.

Additionally, in my experience as an officer in NORAD as a Tactical Director for the Chicago-Milwaukee Air Defense and as a current private pilot, there is no way that an aircraft on instrument flight plans (all commercial flights are IFR) would not be intercepted when they deviate from their flight plan, turn off their transponders, or stop communication with Air Traffic Control. No way! With very bad luck, perhaps one could slip by, but no there's no way all four of them could!

Finally, going over the hill and highway and crashing into the Pentagon right at the wall/ground interface is nearly impossible for even a small slow single engine airplane and no way for a 757. Maybe the best pilot in the world could accomplish that but not these unskilled 'terrorists'. Attempts to obscure facts by calling them a 'Conspiracy Theory' does not change the truth. It seems, 'Something is rotten in the State'.

Engines de-manifested when they could not have done so while somehow two pieces of a driver's licence survived allegedly belonging to 'hijacker' Majed Moqed. As the song goes ... 'I believe in miracles – since you came along, you sexy thing.' The song should be renamed 'Ode to the FBI'.

Evidence for a missile strike

We would do well not to dismiss anything out of hand before looking at the facts very carefully after what has been done and planned in the past. Many researchers – myself included – continue to believe that no 757 crashed into the Pentagon and the explosion was caused by a bomb, missile or possibly a remote-controlled military aircraft. I think a missile/bomb is favourite. A commercial airliner flying low towards the Pentagon and then climbing sharply over the building would have been the perfect cover and created what we have – witnesses galore describing an airliner, two planes, small plane, missile and bomb. All of which = confusion – the currency of cover up. Winged missiles were used at the time by the US military and guided to their target by computer with often pinpoint accuracy (Fig 55 overleaf). This is an Internet profile in 2001of a Cruise missile used by the US military:

Cruise missiles are jet-propelled pilotless aircraft designed to strike distant targets with great accuracy. Travelling at hundreds of miles an hour, cruise

Figure 55: A winged cruise missile had the capability in 2001 of travelling at jet plane speed and striking the Pentagon in the way officially described for 'Flight 77'.

missiles use the global positioning system, inertial guidance, optical scenery correlation, and terrain comparing radar to find their targets. Their accuracy makes them especially useful in attacking military targets in urban areas with limited damage to nearby civilian facilities.

Once airborne, its turbojet engine starts, its wings spread, and it noses over to hug the surface at about 500 miles (800 km) per hour toward its target. Over water, the missile relies on inertial guidance, perhaps also the global positioning system, for navigation. Upon reaching land, the Tomahawk updates its position and corrects its course using TERCOM (terrain contour matching) or DSMAC (digital scene-matching area correlator) – the first system compares radar signals, the second optical images, with a computer-stored map – before closing on the target at an altitude of 100 feet (30 m) or less.

See how low a winged-missile could fly at high speed while remaining accurate, very low and stable – everything a 757 could not. Remember, too, the fantastic technology developed in the secret projects that we never see which is always far ahead of what we are allowed to know exists. Witness Steve Patterson said he was watching the World Trade Center coverage on television when he saw a 'silver commuter jet' fly past the window of his 14th-floor apartment in Pentagon City. He described seeing the plane about 150 yards away coming in from the west and about 20 feet off the ground. Patterson said it sounded like the high-pitched squeal of a fighter jet (or missile) and came over Arlington cemetery so low that he thought it was going to land on the road. He recalled that it was moving extremely fast and he couldn't read anything on the side of the 'plane' which appeared only big enough to hold 8 to 12 people. Another witness account by Lon Rains, an editor of *Space News*, said:

> At that moment I heard a very loud, quick whooshing sound that began behind me and stopped suddenly in front of me and to my left. In fractions of a second I heard the impact and an explosion. The next thing I saw was the fireball. I was convinced it was a missile. It came in so fast it sounded nothing like an airplane ...

Defense Secretary Donald Rumsfeld said in an unintended moment that a missile was involved during an interview at the Pentagon with

Parade Magazine in October, 2001, when he was asked why there was no warning of the attacks:

> There were lots of warnings... It is a truth that a terrorist can attack any time, any place, using any technique and it's physically impossible to defend at every time and every place against every conceivable technique.
>
> Here we're talking about plastic knives and using an American Airlines flight filled with our citizens, **and the missile to damage this building** and similar [inaudible] that damaged the World Trade Center. The only way to deal with this problem is by taking the battle to the terrorists, wherever they are, and dealing with them.'

And ***'plastic knives'***??

Major Doug Rokke, a PhD in educational physics and former top military expert, also pointed to a missile:

> When you look at the whole thing, especially the crash site void of airplane parts, the size of the hole left in the building and the fact the projectile's impact penetrated numerous concrete walls, it looks like the work of a missile. And when you look at the damage, it was obviously a missile.

Then there was the extraordinary high-speed 270 degree turn that the puddle-jumper pilot would have had to perform according to the government story. Robin Horton, former Boston Center air traffic controller and a flight instructor, said:

> An experienced pilot with thousands of hours probably would have to take between 10 and 20 attempts ... before they would be able to pull off that manoeuvre. You just can't do that with one of those big airplanes.

But he said that a military plane could do that and a programmed guided-missile certainly could.

CHAPTER 11

What happened to Flight 93?

History is a set of lies agreed upon – Napoleon Bonaparte

The Pentagon attack has received far less public attention than those involving the World Trade Center and that's even more the case with United Airlines Flight 93 which is claimed to have crashed about 80 miles east of Pittsburgh in Pennsylvania.

Flight 93 pulled back from the gate at Newark International Airport, a half hour drive from New York, at 8.01am bound for San Francisco, but did not take off until 8.42. This was officially explained by early morning take-off congestion and the timing of what was planned for the flight was delayed by approximately 30 minutes on the scheduled lift-off. Flight 93 headed west over Pennsylvania and into northern Ohio. The crew received a text warning from Ed Ballinger, a United Airlines flight dispatcher, via the Aircraft Communication Addressing and Reporting System (ACARS). The message warned about possible cockpit intrusion and reported the two World Trade Center crashes. Jason M. Dahl, the 43-year-old captain on Flight 93, confirmed receipt of the message and this was the only one of the four planes that had prior warning of possible trouble because of its late departure. Surely after such an alert the cockpit door would have been secured immediately if it wasn't already? Flight 93 was hijacked around 9.28am according to the official story when the last contact was made between the cockpit and air traffic controllers. This was about 45 minutes into the flight and after two planes had crashed into the World Trade Center. At 9.29 a controller at Cleveland Center is said to have heard 'a radio transmission of unintelligible sounds of possible screaming or a struggle from an unknown origin ...' The controller asked: 'Somebody call Cleveland?' A second transmission is reported to have been heard with sounds of screaming and a voice shouting 'Mayday – get out of here, get out of here.' The controller asked other pilots on his frequency if they had heard the screaming and some said they had. Then came a third transmission at 9.32: 'Ladies and Gentlemen: Here the captain, please sit

down keep remaining seating. We have a bomb on board. So sit.' The controller at this point is said to have passed this information up the FAA command structure. Flight 93 would change course and head in the direction of Washington DC. At 9.36 Cleveland Center made an offer to the FAA Command Center to contact a nearby military base. The response was that FAA higher ups would have to make that decision and they were working on it. By this time two planes had struck the World Trade Center and fighter jets are said to have been despatched from Cape Cod to New York and from Langley, Virginia, but when Flight 93 showed obvious signs of being hijacked the FAA upper levels were only 'working on it' with regard to scrambling military jets? At 9.39 another transmission is said to have been heard from 'hijacker' pilot 'Ziad Jarrah', the 'Islamic extremist' who attended an evangelical Christian school and said he wouldn't mind marrying a non-Muslim. This is the same 'Jarrah' who was reported to have been questioned in Dubai and admitted spending the previous two months in Afghanistan while the real Jarrah was in that same period daily attending the flying school in Venice, Florida. At the time of his alleged Dubai interview he was at the bedside of his father at a hospital in Lebanon. 'Jarrah' is alleged to say on the cockpit tape:

> Ah, here's the captain; I would like to tell you all to remain seated. We have a bomb aboard and we are going back to the airport, and we have our demands. So, please remain quiet.

The plane's transponder signal disappeared at 9.41 and immediately afterwards Cleveland Center found out from TV coverage that 'Flight 77' had hit the Pentagon. The controller located the plane (whatever plane it was by then) on primary radar and the FAA Command Center reported that the aircraft was '29 minutes out of Washington, DC'. In the light of all this the following reported exchange is mind-blowing when the FAA Command Center at last suggested that FAA headquarters should make a decision about calling for a military response. The exchange took place at 9.46 – *eighteen minutes* after contact was lost with Flight 93 and after *three planes* by then were reported to have crashed into buildings in New York and Washington:

> **FAA Headquarters**: They're pulling Jeff away to go talk about United 93.
>
> **Command Center:** Uh, do we want to think about, uh, scrambling aircraft?
>
> **FAA Headquarters:** Uh, God, I don't know.
>
> **Command Center:** Uh, that's a decision somebody's gonna have to make

probably in the next 10 minutes.

FAA Headquarters: Uh, ya know everybody just left the room.

At 9.53, *25 minutes after contact was lost* and with all that had already happened, FAA headquarters told its Command Center that the deputy director for air traffic services was talking to deputy administrator Monte Belger about scrambling aircraft. *Talking about it??* The Command Center reported that contact with 'Flight 93' had been lost and was then told of a sighting by another aircraft which reported the plane to be 'waving his wings'. This is claimed to be the 'hijackers' trying to fend off an attempt by passengers to regain control of the cockpit. The government story says that the plane crashed in a field near Shanksville, Pennsylvania, 125 miles from Washington at 10.03. 'Black smoke' on the ground was reported by Air National Guard Lieutenant Colonel Steve O'Brien in his C-130 cargo plane that had been over Washington when the Pentagon was hit. The military liaison at Cleveland called the NORAD NEADS military response centre in Rome, New York State, at 10.07 to report the situation with Flight 93 which apparently neither were aware was already said to have crashed. In the entire period of 35 minutes between contact being lost and the alleged crash of Flight 93 did anyone at the FAA request military support after three iconic buildings had already been hit? Red flags are everywhere with lots of flashing red lights.

Little 'hijackers' and big passengers. WTF?

The official story is that passengers on Flight 93 attacked the hijackers and the plane crashed into a field at an estimated 575 miles an hour. What is hard to comprehend once again is that some seriously big guys could be herded to the back of the plane and guarded by one hijacker, as claimed in alleged phone calls from the aircraft. Mark Bingham was a rugby player who stood six-feet five; Jeremy Glick was a rugby player and judo champion; Todd Beamer was over six-foot and 200 pounds; and Lou Nacke was a 200-pound weightlifter with a 'Superman' tattoo on his shoulder. Then there was Daniel Lewin on Flight 11. He was a captain in the Israeli Defense Forces who served in an elite specialist counter-terrorism, hostage rescue and assassination unit who could bench-press 315 pounds and said he was 'trained to kill terrorists with a pen or a credit card' or just his bare hands. I'll have more about him later. Hijackers with 'small knives' would have had no chance if they had been challenged by these guys. A transmission heard from the Flight 93 cockpit is reported to have said 'Mayday' and 'Get out of here'. Shortly afterwards follow more demands to 'get out of here' and then grunting, screaming, scuffling and finally silence. How did they pull off

a hijack with such a weight disadvantage without guns? Alongside captain Jason Dahl was 26-year-old First Officer LeRoy W. Homer who was a former Air Force major and veteran of the 1991 Gulf War. Homer is credited with the 'get out of here' messages. How did hijackers get into the cockpit when the door had to be secured after the cockpit intrusion warning? One researcher spoke with Deena Burnett, wife of passenger Tom Burnett Jr, who said that her husband called her on a cell phone to tell her of the hijack. She said he told her the hijackers had said in English they were going to fly the plane into the ground. The media was twisting the story, she is claimed to have said, to make it look like they were trying to save people on the ground when they were trying to save themselves. My question is why hijackers would tell the passengers they were going to crash the plane when this would clearly trigger a response on the basis of 'what do we have to lose'? How does this fit with the official story that the passengers were told by the hijackers that they had a bomb on board and were flying the plane back to the airport? It makes no sense.

In April, 2002, after months of stalling by the FBI, the families of passengers on Flight 93 were allowed to hear the cockpit voice recording (or what was claimed to be the recording, you can seriously take nothing for granted with these agencies). Tom Burnett, father of Tom Burnett Jr, said the tape was difficult to follow: 'A lot was unintelligible, and a lot of it we couldn't follow very easily, so I don't think it gives us resolution.' He felt however that he had 'learned something, another piece of the puzzle'. What is alleged to be on the Cockpit Voice Recorder was played to the jury in the trial of '20th hijacker' Zacarias Moussaoui in 2006. A lot is indeed unintelligible, but it includes the following: Voices claimed to be the pilots saying they don't want to die; what is claimed to be passengers trying to get in through the cockpit door (how did the hijackers manage it?); and many 'Allah is the greatest' shouts as the plane is said to have been purposely crashed into the field. The tape ends a minute before the alleged impact time of 10.03 although seismic data indicates that impact was at 10.06. This is important because that would mean up to four minutes of the tape were missing at the end. The official crash time puzzled Terry Wallace, a leading expert on the seismology of non-natural events at the Southern Arizona Seismic Observatory. He said: 'The seismic signals are consistent with impact at 10.06am and five seconds plus or minus two seconds. I don't know where the 10.03 time comes from.' The *New York Observer* reported how some relatives questioned why when an apparent struggle was in full swing voices stop and only engine noise is heard after that. Something is being hidden and could it be that the plane was shot down by the Air Force? Could it be that the whole tape is fraudulent?

So what really happened?

Pilots for 9/11 Truth examined the alleged Flight Data Recorder information released by the National Transportation Safety Board (NTSB) which included a route animation based on the data. The pilots found many discrepancies including the plane lurching around at one point while the *autopilot was on* at a time when the 'struggle' was allegedly taking place. The pilot of another plane had reported that Flight 93 was 'waving his wings' minutes before the reported crash. At one point the autopilot is switched off and the plane descends and when it is restored a few minutes later the plane's descent continues instead of returning to normal altitude. Pilots for 9/11 Truth say that a banking turn at low speed and high altitude should have threatened something called 'stall spin'. This is when the angle of a plane in relation to speed causes one wing to lose lift and pulls the aircraft into a spin which is fatal if not immediately corrected. The Pilots for 9/11 Truth voiceover for its Flight 93 video says:

> Above 40,000 feet at 200 knots in a bank and the aircraft is still flying. No stall spin, the autopilot remains on – wow!

The 'Flight 93' animation eventually has the autopilot switched off and the plane spinning and inverting to the ground. Witnesses describe the altitude of the aircraft very differently to that shown in the alleged flight data record. Two spoke of seeing the plane at an estimated 100 to 200 feet and 500 feet at a time when the height on the cockpit display in the NTSB animation shows the plane to be at nearly 10,000 feet. This enormous difference eliminates simply witness error. There are also differences in the plane's direction. We then have the extraordinary lack of plane debris in and around the small hole where the plane is supposed to have hit the ground while wreckage was found miles away (Fig 56). A 757 is some 155ft long with two engines each weighing more than six tons and even crash experts were bewildered at the lack of wreckage. *Time* magazine for the week of 9/11 reported that the 'largest pieces of the plane still extant are barely bigger than a telephone book'. No witnesses reported seeing any bodies or blood at the 'crash site'. Similar crashes have produced far more wreckage and much bigger pieces. Pennsylvania State

Figure 56: The alleged impact crater of 'Flight 93'.

Police officer Lyle Szupinka said in a repeat of what witnesses said at the Pentagon:

> If you were to go down there, you wouldn't know that was a plane crash. You would look around and say, 'I wonder what happened here?' The first impression looking around you wouldn't say, 'Oh, looks like a plane crash'. The debris is very, very small. The best I can describe it is if you've ever been to a commercial landfill. When it's covered and you have papers flying around. You have papers blowing around and bits and pieces of shredded metal. That's probably about the best way to describe that scene itself.

Wallace Miller, coroner of Somerset County in Pennsylvania, is quoted by author David McCall in his book, *From Tragedy to Triumph*, as saying:

> I got to the actual crash site and could not believe what I saw. ... Usually you see much debris, wreckage, and much noise and commotion. This crash was different. There was no wreckage, no bodies, and no noise. ... It appeared as though there were no passengers or crew on this plane.

Miller told the *Pittsburgh Post-Gazette* that it was 'as if the plane had stopped and let the passengers off before it crashed' and he remarked to CNN:

> It was a really very unusual site. You almost would've thought the passengers had been dropped off somewhere ... Even by the standard model of an airplane crash, there was very little, even by those standards.

Miller said the crater looked like someone had taken a scrap truck, dug a ten-foot ditch and dropped all the trash in it. He is quoted in Jere Longman's book, *Among the Heroes*, describing how he walked around the scene with assistant volunteer fire chief Rick King for an hour and found almost no human remains: 'If you didn't know, you would have thought no one was on the plane.' Miller told the *Pittsburgh Tribune-Review*: 'This is the most eerie thing. I have not, to this day, seen a single drop of blood. Not a drop.' The authorities claimed that somehow they found hundreds of pounds of human remains at this site. *Where?* Wallace Miller would later seek to retract – I understand why – claiming he was misquoted. What all those times? Come off it, mate. Anyway, many other witnesses said the same including these:

- The only thing you could see was a big gouge in the earth, and some broken trees ... There was nothing that you could distinguish that a plane crashed there ... nothing going on down there, no smoke, no fire ... you couldn't see anything, you could see dirt, ash, and people walking

around – [the hole] from my estimate it was 20 to 15 feet long ... 10 feet wide – Fox News photographer.

- I left work to locate the crash site [along with a colleague] but when we arrived almost nothing was recognizable. The only thing we saw that was even remotely human was half a shoe that was probably ten feet from the impact area – Jeff Phillips, who worked at Stoystown Auto Wreckers.

- We were so early that they hadn't had a chance to set up a barrier for the press ... I was able to get right up to the edge of the crater ... All I saw was a crater filled with small, charred plane parts. ... There were no suitcases, no recognizable plane parts, no body parts – Jon Meyer, reporter with WJAC-TV.

- Several trees were burned badly and there were papers everywhere. We searched ... I was told that there were 224 passengers, but later found out that there were actually 40. I was stunned. There was nothing there – Faye Hahn, an Emergency Medical Technician who responded to the first reports of the crash.

Yet within two weeks of the crash the FBI reported that around 95 percent of the plane had somehow been recovered and a pristine, crash-proof, fire-proof hijacker passport and red bandana or headband that 'hijackers' were claimed to be wearing by a 'caller from the plane'. Milt Bearden, a former CIA agent who trained the US-backed Mujahideen in Afghanistan, pointed out that 'al-Qaeda' were a Sunni Muslim operation and that red headbands were 'a uniquely Shia Muslim adornment which dated back to the formation of the Shia sect'. Real Sunni followers, especially alleged fanatics, would never make that error, he said. Other incriminating evidence supporting the official story was 'found' at the site and personal belongings from passengers were returned to loved ones in undamaged condition. One family member said of a returned wallet: 'It was practically intact. It just looked like it wasn't damaged or hadn't been through much at all, which is so bizarre and ironic.' There are many questions about how a remarkable range of personal items from passengers, crew and hijackers appeared at the 'crash site' where no wreckage or personal items were seen before the area was cordoned off from public and media view. These included 'hijacker' ID cards, a five-page document about conducting the hijacking, red bandanas and many knives or parts of knives. Some of them were labelled 'Hollywood Props Department' I would wager. Numerous paper documents were recovered that would have been in the possession of passengers, but no bodies were independently seen. Planting wreckage and evidence was

part of the planned fake plane crash scenario with Operation Northwoods:

> At precisely the same time that the aircraft was presumably shot down a submarine or small surface craft would disburse F-101 parts, parachute, etc., at approximately 15 to 20 miles off the Cuban coast and depart. The pilots returning to Homestead would have a true story as far as they knew. Search ships and aircraft could be dispatched and parts of aircraft found.

Protecting the lie

The removal of all this alleged wreckage and human remains at the 'Flight 93' crater was done in the strictest secrecy. A double ring of security sealed off several miles around the crash site while the 'removal' was taking place with police on horseback and in helicopters ensuring that no one got anywhere close. Police said 600 troopers were deployed with check-points on all roads leading to the crater. No photographs have been released of wreckage recovery. Paul Falavolito, a Pittsburgh paramedic, described the level of security:

> Upon arrival at the site, we are greeted by a barrier of state police cars on a rural road in this town ... At the checkpoint, we show our IDs and are allowed through. For the next two miles, I cannot believe my eyes. Down this country road, police cars and troopers are everywhere. Horseback troopers are patrolling the area. Hundreds of American flags line the road on both sides, checkpoints are everywhere. I can hear someone talking on a loudspeaker, his voice echoing in the hills. This is a scary feeling; I feel like I am in another country.

The recovered parts from Flight 93 were said to have been returned to the airline when this appears not to be the case. A film report by *Komo News* was given access to the beyond top-secret underground storage facility called Iron Mountain which is 220 feet below the surface at Boyers, Pennsylvania, an hour's drive from Pittsburgh. During the report it was stated that the 'charred evidence' from Flight 93 was 'heavily guarded in one of the underground vaults' at Iron Mountain which was described as 'one of the most protected places on earth'. So – just the place to protect evidence that would scupper the story of Flight 93. There are many other questions besides the lack of plane wreckage at the reported impact site. Footage of vertical crashes like the one claimed to have happened with Flight 93 produce plumes of thick black smoke caused by jet fuel. Smoke in a picture taken immediately after 'impact' shows only light grey smoke. Why wasn't the grass next to the small crater even burnt and the same with most surrounding trees? An aircraft 155 feet long, 125 feet wide with a maximum take-off weight of 220,000

pounds simply disappeared into a hole 20 to 15 feet long and ten feet wide. A Boeing 737-300 hit the ground nose-first into soft ground in 2005 after plunging 34,000 feet and still a large part of the tail-section was clearly visible (Fig 57). Deceased passengers and luggage could also be seen. This leads us to another question: Where was the thousands of gallons of jet fuel in and around the crater? Witnesses said there was no smell of jet fuel (as with the Pentagon) only 'burned earth'. Three ground wells and between 5,000 and 6,000 cubic yards of soil at the site were tested by the Environmental Protection Agency (EPA) and no contamination was found. The impact crater itself is at odds with the NTSB alleged Flight Data Recorder which does not depict vertical contact with the ground (as the crater would indicate) but an angled one that would produce a very different length and shape of crater.

Figure 57: The tail is clearly visible after Helios Airways Flight 522 dived nose-first into a Greek mountain gorge in 2005 and there was other obvious evidence of a plane crash – unlike the 'impact point' of Flight 93. Greek fighter jets were scrambled to check out and track the plane when contact was lost with air traffic control – unlike 9/11.

Flight 93 shot down?

President Bush did not give the order to intercept and shoot down any commercial airliner on 9/11 until after the Pentagon had been hit – the constantly recurring point before which any action was taken to influence events. Bush had the best part of an hour to give this order to protect Washington and the Pentagon after 'Flight 11' crashed and almost 35 minutes after the crash of Flight 175. By the time he did officially give the order Flight 93 was only the one of the four in the air when the military were given permission to shoot-to-kill. The order was confirmed by Vice President Dick Cheney who told the *Meet the Press* programme:

> I wholeheartedly concurred in the decision he made, that if the plane would not divert, if they wouldn't pay any attention to instructions to move away from the city, as a last resort our pilots were authorized to take them out.

Had the Air Force shot down Flight 93 a majority of people would have accepted there was no other choice given what had happened. Instead the authorities are insistent this did not happen. NORAD told me in

2002 that F-16s that were said to have been scrambled from Langley to Washington were redirected to check out Flight 93. When the plane crashed near Shanksville they were still eleven minutes or 100 miles from making contact. Shucks, missed again – the story of the day. But is that true? Deputy Defense Secretary Paul Wolfowitz said the Pentagon had been tracking Flight 93 and could have shot it down if necessary and Secretary Rumsfeld seemed to let slip that it was. He said in a speech to troops in Iraq in 2004:

> And I think all of us have a sense if we imagine the kind of world we would face if the people who bombed the mess hall in Mosul, or the people who did the bombing in Spain, or the people who attacked the United States in New York, shot down the plane over Pennsylvania and attacked the Pentagon.

Rumsfeld later claimed he 'misspoke'. But did he? Eyewitness reports near the alleged scene of the crash confirm that Flight 93 was being tracked and they seriously contradict the NORAD claim that the nearest military jet was 100 miles away at the time. The location of wreckage and eyewitness reports put in question the claim that the plane came down in one piece. How could a section of fuselage the size of a dining room table be recovered miles from the crash site? How could a half-ton piece of engine (one ton in some reports) be recovered from more than a mile away? The FBI apparently said it 'bounced'. The *Pittsburgh Post-Gazette* reported:

> Residents and workers at businesses outside Shanksville, Somerset County, reported discovering clothing, books, papers, and what appear to be human remains. Some residents said they collected bags-full of items to be turned over to investigators. Others reported what appeared to be crash debris floating in Indian Lake, nearly six miles from the crash site.

Indian Lake is nearer than that as the crow flies but still some miles away and debris was reported even further away. CNN reported on September 13th:

> A second debris field was around Indian Lake about 3 miles from the crash scene. Some debris was in the lake and some was adjacent to the lake. More debris from the plane was found in New Baltimore, some 8 miles away from the crash. State police and the FBI initially said they didn't want to speculate whether the debris was from the crash, or if the plane could have broken up in mid-air.

I have seen a plane crash documentary in which an aircraft dived into a field and left a small crater with no discernible parts and paper and

other debris travelled a considerable distance on the wind. However, the plane was far smaller and hit the ground vertically at 5,000 times the force of gravity and beyond the speed of sound when an airline employee shot the pilots and purposely made the plane dive vertically at full speed. Flight 93 was a much bigger aircraft and according to the official flight data animation and witness accounts the plane did not hit the ground vertically or anywhere close to the speed of sound. There was virtually no wind at the time of the crash yet the *Pittsburgh Post-Gazette* reported that the plane left a trail of debris five miles long and some witnesses described seeing a 'cloud of confetti' falling from the sky after hearing an explosion. Reuters reported Pennsylvania state police as saying that debris from the plane had been found up to eight miles away in a residential community 'where local media have quoted residents as speaking of a second plane in the area and burning debris falling from the sky'. These reports were ignored by the 9/11 Commission and no witnesses were invited to testify because they do not fit the official narrative. Numerous eye-witnesses reported hearing loud bangs or thuds followed by Flight 93 in the words of one dropping 'like a stone'. Even CNN noted the discrepancies when correspondent Brian Cabell reported from the scene in Pennsylvania on September 13th:

> ... in the last hour or so, the FBI and the state police here have confirmed that they have cordoned off a second area about six to eight miles away from the crater here where [the] plane went down. This is apparently another debris site, which raises a number of questions.
>
> Why would debris from the plane – and they identified it specifically as being from this plane – why would debris be located six miles away? Could it have blown that far away? It seems highly unlikely. Almost all the debris found at this site is within 100 yards, 200 yards, so it raises some questions.

Yes – questions which were subsequently never asked and never investigated. *ABC News* reported that an eyewitness called Linda Shepley had told television station KDKA in Pittsburgh that she 'heard a loud bang and saw the plane bank to the side before crashing'. Other witnesses said they heard up to three loud booms before the jetliner went down. Danny Butler wrote in the *Herald Sun*: 'Witnesses reported eerie sounds from the aircraft as it fell. Some people heard an explosion, and others heard sputtering.' A local Pennsylvania newspaper, the *Daily American*, reported the experience of another witness:

> Laura Temyer of Hooversville RD1 was hanging her clothes outside to dry before she went to work Tuesday morning when she heard what she thought was an airplane. 'Normally I wouldn't look up, but I just heard on the news

> that all the planes were grounded and thought this was probably the last one I would see for a while, so I looked up,' she said. 'I didn't see the plane but I heard the plane's engine. Then I heard a loud thump that echoed off the hills and then I heard the plane's engine. I heard two more loud thumps and didn't hear the plane's engine anymore after that.

The Pentagon told *The New York Times* that Flight 93 was being followed by a fighter jet with an order from President Bush to shoot down the plane if necessary. The *Telegraph* newspaper in Nashua and Southern New Hampshire quoted a 'Federal Aviation Administration employee who works in the Nashua control facility'. He is reported to have said that air traffic controllers there had learned through discussions with other controllers that an F-16 fighter stayed in hot pursuit of Flight 93 until it crashed. They had learned that the F-16 made 360-degree turns to remain close to the plane, the employee said. 'He must've seen the whole thing.' First media reports (often the most accurate before the lid goes on) said the plane had been shot down and *USA Today* reported how local residents said they had seen a second plane in the area. '[FBI Agent] Crowley said investigators had determined that two other planes were nearby but didn't know if either was military,' said the paper.

The mystery 'white jet'

Another aspect of the Flight 93 story that has conveniently been forgotten and ignored is the small white jet seen by many residents at the time of the crash. *The Record* newspaper in Bergen County, New Jersey, quoted five people in its edition of September 14th who live and work less than four miles from the crash site and in the end at least twelve people reported seeing the jet. Susan Custer said she saw a small white jet streaking overhead and then 'heard the boom and saw the mushroom cloud'. Robin Doppstadt was working inside her family food-and-supply store when she heard the crash and when she went outside she saw a small white jet that 'looked like it was making a single circle over the crash site'. She said it climbed very quickly and took off. 'It's the damndest darn thing,' said farmer Dale Browning. 'Everybody's seen this thing in the sky, but no one can tell us what it is.' Susan Mcelwain, a local teacher, said a small white jet with rear engines and no discernible markings swooped low over her minivan, almost clipped the tops of trees, and disappeared over a hilltop. Within a minute, she said, the ground shook and a white plume of smoke appeared over the ridge. 'It was so close to me I ducked,' Mcelwain recalled, 'I heard it ['Flight 93'] hit and saw the smoke. All I could think of was how close I came to dying.' Dennis Decker and Rick Chaney said they heard an explosion and ran outside to see a large mushroom cloud spreading over the ridge.

'As soon as we looked up, we saw a mid-sized jet flying low and fast,' Decker said. 'It appeared to make a loop or part of a circle, and then it turned fast and headed out.' They said the plane was something like a Learjet and was white with no markings that they could see. 'If you were here to see it, you'd have no doubt,' Decker said. 'It was a jet plane, and it had to be flying real close when that 757 went down – if I was the FBI, I'd find out who was driving that plane.' The FBI did not appear interested in doing that which will surprise no one. The FBI said it did not rule out a second plane and then did exactly that. An official at the Cleveland Air Traffic Control Center in Oberlin, Ohio, which tracked Flight 93, said 'no comment' when asked if there was any record of a second plane over the crash site. 'That's something that the FBI is working on and I cannot talk about,' said Richard Kettel, head of tower operations at the Cleveland Center. Small white jets like the one described are used by the US military. 9/11 investigator Christopher Bollyn travelled to the Shanksville area and found 'scores of eyewitnesses' whose story has not been told. What they said was seriously at odds with the official explanation. They describe seeing military aircraft in the area at the time. Resident Viola Saylor said she saw a low-flying 'very quiet' white 'military' plane flying over the crash site after the explosion and two other planes following behind. She was shown a picture of a low-flying combat aircraft called a Fairchild A-10 Thunderbolt II – known as a 'Warthog' – and she agreed that this was like the plane she saw (Fig 58). Witness Susan Mcelwain had described the Warthog perfectly:

Figure 58: The US Air Force 'Warthog' which witnesses said was like the 'white jet' they saw with 'Flight 93'.

> It was white with no markings but it was definitely military, it just had that look. It had two rear engines, a big fin on the back like a spoiler on the back of a car and with two upright fins at the side. I haven't found one like it on the Internet. It definitely wasn't one of those executive jets.

Other witnesses identified the same picture which fitted the descriptions they gave before they saw the picture. They described its two rear engines and distinctive cockpit and nose. A website specialising in the investigation of Flight 93 in the months after 9/11 summarised the situation very well:

> At this point, if a new story comes out – even if it comes with a recording – that shows heroes in the cockpit, I think we all have a right to be skeptical of its accuracy. I have a digital audio studio at home. I, and anyone else familiar with audio these days, can tell you anything can be created. No matter what information is released in the future, skeptics of the hero story have been given all the ammo they need by the FBI to remain skeptical forever. That ammo is silence, time and the failure to discuss witnessed events like the mystery white jet at tree top level before the crash, the wide debris field, the detached engine, the explosions heard by so many and the data recorders.

FBI witness tyranny

Witnesses to what happened in Pennsylvania were soon going quiet after visits from the FBI which controlled all evidence and witnesses and eventually hid the debris away at Iron Mountain while taking over the investigation from designated crash investigators at the National Transportation Safety Board. Those who had recounted stories which did not match the official narrative were told by FBI agents there were no other planes when there clearly were. If they still stuck with their stories they were warned to shut up and not talk about what they saw. This is a common theme running through all aspects of 9/11 as we have seen in Venice, at the Pentagon, the World Trade Center, here with Flight 93 and every facet of what happened. If the FBI and other government agencies really wanted the truth they would have encouraged everyone to share their experiences, but the aim was always to suppress the truth and not seek it out. Researcher and investigator Christopher Bollyn visited the Shanksville area many times in search of what really happened and produced some alarming – if predictable – evidence of outrageous FBI skulduggery. He said the 'crash crater' was on an already-scarred reclaimed mine and suggests the 'crater' could have been caused by a missile to divert attention from where he says the bulk of the plane – or *a* plane – did come down. Bollyn said he discovered that the real impact point was some 100 metres away deep in the woods near the cottage of local resident Barry Hoover with debris scattered over a wide area among the trees. Hoover's cottage was seriously damaged by shockwaves from the crash as described in the *Pittsburgh Post-Gazette*:

> Obviously, I was upset when I saw my house. Who wouldn't be?' said Hoover, 34, whose home off Lambertsville Road is believed to be the local structure most seriously damaged by the crash. 'But you know, it's a house and there's nothing there that can't be replaced. The people who died can't be replaced.'

> ... Wreckage was still burning and emergency workers were still speeding to the scene when Hoover neared his house. While it was still standing, every window and door had been blown off and obliterated, its ceilings and floor tiles had been blasted loose and much of the interior was wrecked. 'It looked like what you see after a tornado or hurricane goes through -- a total ruin,' he said.

Bollyn said he spoke with Barry Hoover's father, Lutheran minister, Reverend Larry Hoover, who lived nearby, and the minister described how luggage had been found around his house (300 metres from the crater) and body parts around his son's cottage. Bollyn asked why he had stayed so quiet about what he knew and he replied: 'We tried to cooperate.' He and his son had been asked by the FBI not to say anything while the clean-up was launched in the woods and the world focussed on the crater devoid of credible plane wreckage, Bollyn writes. Jim Svonavec owned the reclaimed mine, worked at the crash site and provided excavation equipment. Bollyn said Svonavec told him in 2004 that an engine from the plane was recovered 'at least 1,800 feet into the woods' and this was done solely by the FBI using his equipment. This background would provide answers to the questions Bollyn poses about the actions of the local coroner:

> Why was Wally Miller, the Somerset County Coroner, forced to turn over the 'crash' site to the FBI? Why did he abdicate his responsibility for the site and the recovery of the bodies, his obligation under state law? Why was he not even allowed to be involved in the identification of the remains of the passengers of Flight 93, whose death certificates he duly signed?

Bollyn said that he met with Wallace 'Wally' Miller to find out what happened. Miller was prompted by workers painting his porch who said: 'Tell him what the FBI told you.' Bollyn writes that the FBI asked Miller if he was going to be a 'team player' or words to that effect and allow them to have control of the crash scene. Miller agreed and the FBI closed off the whole area of hundreds of metres into the woods around the properties of the Hoovers. Even Jim Svonavec who provided excavation and other equipment was not allowed into the FBI area and neither were those who owned properties there like the Hoovers. Coroner Wallace Miller who should have been overseeing recovery of bodies under Pennsylvania law was located six miles away. Then came the announcement by the Pentagon in 2012 that remains of some of the victims – *some?* – from Flight 93 and the Pentagon had been incinerated, mixed with medical waste and dumped in a landfill site. The report was published after a commission, chaired by retired General John Abizaid, investigated allegations of 'improper' (disgusting) actions at Dover Air

Force Base mortuary in Delaware with regard to the remains of American soldiers killed in Iraq and Afghanistan. The 86-page report said:

> Prior to 2008, portions of remains that could neither be tested nor identified ...were cremated under contract at a civilian crematory and returned to DPM [Dover Port Mortuary]. This policy began shortly after September 11, 2001, when several portions of remains from the Pentagon attack and the Shanksville, Pennsylvania, crash site could not be tested or identified.
>
> These cremated portions were then placed in sealed containers that were provided to a biomedical waste disposal contractor. Per the biomedical waste contract at that time, the contractor then transported these containers and incinerated them. The assumption on the part of DPM was that after final incineration nothing remained. A DPM management query found that there was some residual material following incineration and that the contractor was disposing of it in a landfill. The landfill disposition was not disclosed in the contractual disposal agreement.

The policy began immediately after September 11th, 2001. Well, you do surprise me. Bollyn said he read that FBI agents were working at the Dover AFB mortuary 'identifying' human remains. He said he called Coroner Miller in early 2006 and 'asked him about the ethics of his having signed death certificates for bodies that had been identified by others at Dover AFB'. Bollyn said Miller 'got angry at me for having asked this direct question, but he cannot say that he has not heard that such things could have occurred'. He describes Miller as a 'nice fellow' who thinks everybody plays by the rules. But they don't – especially the FBI. All this happened on the watch of FBI chief Robert Mueller and his bosses John Ashcroft and Michael Chertoff at the [In]Justice Department. Chertoff's ears will be seriously burning later in the book.

CHAPTER 12

'Hijackers' and 'phone calls'

Don't believe everything you hear: Real eyes, Realize, Real lies
– Tupac Shakur

There is something very strange about the whole 'hijackers took over the aircraft' story. It might sound feasible to most people at first hearing and those who research or question no further. When you dig deeper there are many questions about whether there were any 'hijackers' on any of the 9/11 flights.

Some of the names listed were those of people who turned up still alive and the FBI has changed names that it originally said were involved. There were no security cameras in the departure lounge at Boston Logan Airport so we can't see the 'hijackers' boarding Flights 11 and 175 and there were reported to be no cameras at departure gates at Newark and Washington Dulles although officials would not confirm this to me when I asked soon after the attacks. There were cameras elsewhere in and around the airports that *must* have recorded the 'hijackers' on video as they passed through. We have not been allowed to see any of that except for what is *claimed* to be the hijackers of Flight 77 passing through security at Washington Dulles. This was not released through a Freedom of Information request until 2004 at the time the official 9/11 Commission 'report' was made public. If they could release this recording then why not the footage from other cameras and why wasn't this footage made public much earlier as a matter of course? The 9/11 Commission Final Report says that in the case of Flight 93 there is 'no documentary evidence' to indicate when the hijackers passed though security checkpoints or what alarms were triggered or security procedures involved. While Boston may not have had cameras in the departure lounge are they saying they had none anywhere on the 'hijackers" journey to and through the airport? Exactly the same theme can be found with the video footage of Timothy McVeigh and 'friend' in Oklahoma. One thing is certain: if the video footage in and around those airports showed the hijackers arriving in their cars, checking in, going through security and boarding the planes it would have been blasted on

every television station in the world ASAP after the attacks. They didn't have any problem releasing the footage of 'Atta' and 'Al-Omari' rushing to catch the flight from Portland, Maine, that morning or the shots of 'Al-Omari' getting cash the previous night from an ATM Machine or the footage from Dulles *eventually*. Why are they so shy about video recordings that would confirm their story if they were telling the truth?

Video 'proof'?

Let us examine the 'Dulles security footage'. There were 300 security cameras at Dulles at that time, according to David Brent, a technical information engineer for IT systems in a 2011 article at Securityinfowatch.com headed 'The CSI Effect: How TV is changing video surveillance'. He said:

> In 2001, I worked for a manufacturer that at the time had its CCTV system in the Washington Dulles International Airport and the Pentagon. After the 9/11 attacks, I was part of a team that had the laborious task of reviewing all the video from the airport with several federal agents looking over our shoulders. Did you notice I said all the video? That's every frame from over 300 cameras with 30 days of retention time. The task took three weeks of 15-hour days.

There were some 300 cameras around Washington Dulles and we saw alleged footage from *one* and that came *three years* after the attacks with nothing from other 9/11 airports. It took a law firm Freedom of Information request to secure the tapes which were released the day before the report by the 9/11 Commission. If the authorities want to clear up doubts and speculation why wasn't this made public years earlier? The Dulles footage did not carry a time-code or identification number which is simply not credible for a security video (Fig 59). The camera features a wide shot – not a close-up – of people walking through security. Remember how the security footage at Portland, Maine, of 'Atta' and 'Al-Omari' had two time-codes – one at the bottom showing how late they were as they rushed for the commuter flight to Boston and one ridiculously smack in the middle that gave an earlier time? The media overwhelmingly cropped the picture so only the middle code was visible. In the case of the Dulles footage the date, time and

Figure 59: Dulles airport security footage.

camera number is missing altogether which is not normal procedure for a security camera. The cameras did not employ the airport security time-lapse technique to save space with data storage. The don't-question-the-official-story 9/11 Commission Report claims that two of the men, including next-to-useless small plane pilot Hanjour, travelled in first class on a flight of very few people. So why did Brenda Brown who handled first class check-in that day say in her interview with the FBI that she didn't remember any Arab males. This was on what she called 'a light travel day' when she remembered other passengers. No authenticated passenger lists (legal documents) including 'hijacker' names have ever been released and nor have authenticated boarding pass stubs. Some have claimed that shadows on the Dulles footage could not have been generated in the early morning when the video had to have been shot, but much closer to noon. Then there is the experience of Dulles security manager Ed Nelson when the FBI, FAA and other agencies descended on the airport after 'Flight 77'was said to have struck the Pentagon. He said he thought their behaviour was not 'adding up' when they appeared to be more interested in pressuring security screeners to admit violating procedures than the 'hijackers' themselves. 'It was as if they were working off a script', Nelson said. FBI agents later confirmed that the orders were coming from FBI headquarters via local Washington-area FBI field offices and the Joint Task Force on Terrorism. Nelson was also bemused at how FBI operatives could immediately pick out the relevant security tape:

> They pulled the tape right away ... They brought me to look at it. They went right to the first hijacker on the tape and identified him. They knew who the hijackers were out of hundreds of people going through the checkpoints. They would go 'roll and stop it' and showed me each of the hijackers ... It boggles my mind that they had already had the hijackers identified ... Both metal detectors were open at that time, and lots of traffic was moving through. So picking people out is hard ... I wanted to know how they had that kind of information. So fast. It didn't make sense to me.

How come the 9/11 Commission claimed that ten of the 19 'hijackers' were picked out for additional security checks by the automated passenger screening system known as CAPPS when no security staff had testified to seeing them? The Commission reported that in relation to Boston Logan Flights 11 and 175 none of the security checkpoint supervisors 'recalled the hijackers or reported anything suspicious regarding their screening'. Security at Washington Dulles (Flight 77) did not recall that any of those they screened were selected by CAPPS and security staff screening passengers for Flight 93 at Newark, New Jersey, remembered nothing suspicious. Then how come the FBI reported

collecting '14 knives or portions of knives at the Flight 93 crash site'? Oops, the alarm's gone off – wow 14 knives. Never mind, have a good flight gentlemen, nothing suspicious here. Why were airline staff who would have seen the 'hijackers' board and checked their boarding passes not allowed to speak publicly to confirm what happened? I was knocked back by American Airlines after 9/11when I asked to speak with check-in and boarding staff on duty that morning and this has been the experience of other researchers ever since from what I can see. Why did the official 9/11 Commission not include testimony from these people? Why did a letter from American Airlines lawyers to the 9/11 Commission in 2004 list most of those who worked at the check-in desks in Boston and Washington Dulles while redacting the names of staff at the departure gates? Researchers did discover two FBI interview forms – known as 302s – released in 2009 and involving American Airlines employees Liset Frometa (conducted on September 11th, 2001) and Maria Jackson (conducted on September 22nd) who testified to working at Boston Logan Gate 32 on Flight 11. Also included was an interview with another unnamed female member of staff who said she was involved with boarding Flight 11. None of them remembered the alleged 'hijackers' and when Jackson was shown a 'photo spread of subjects' she did not recognise any of them. Jackson is quoted in the FBI form as describing how she 'took the tickets ... from AA flight attendant Karen Martin and brought them to the ticket lift and deposited them in the safe.' *So why have we never seen them?*

Death certificates were issued for everyone claimed to have been on the four flights, but not the alleged hijackers. An offer from the family of one of the men named to help with DNA identification was refused and it's clear from numerous witnesses that the FBI had DNA samples of the people they named from a series of locations including homes, hotel rooms and cars where hair and other DNA sources were gathered and taken away. The FBI has confirmed this and none of the material appears to have been used to identify the 'hijackers'. Chris Kelly, a spokesman for the Armed Services Institute of Pathology which claimed to have identified those killed at the Pentagon and in Pennsylvania, said: 'The remains that didn't match any of the [innocent passenger] samples were ruled ... to be terrorists.' Oh, scientific and thorough then. Somerset County judge Kim R. Gibson approved the issuing of death certificates in October, 2001, for passengers on Flight 93 but not for alleged 'hijackers' because the FBI was *not sure of their identities.* The Armed Services Institute of Pathology claimed in 2003 to have identified 58 passengers on Flight 77. The list was released under a Freedom of Information Act request and ... contained no Arabic names. Amazing how you can identify people from DNA after a crash apparently so fantastic that a Cockpit Voice Recorder specifically designed to survive

such impact and heat was reported to have been destroyed. If they are so certain who was responsible then why did FBI Director Robert Mueller say that a case against the 19 would not stand up in court? Mueller said that not a single piece of paper had been uncovered in America or Afghanistan which mentioned any aspect of the September 11th plot. The FBI confiscated all the video footage relating to 9/11 within hours and what they have allowed us to see is clearly manipulated crap. Where is *any* credible video evidence to confirm the official story of 9/11 in locations like the Pentagon and airports awash with cameras? The fact is that all this time later we still have no proof or independent confirmation that the men named by the FBI actually *boarded* the crashed planes and nor that the planes were the ones that left the airports.

The phone calls

Many phone calls were said to have been made by passengers (most from Flight 93) describing their plight as it was happening. Faced with the constant stream of lies we have been fed about 9/11 and clear and obvious attempts by the FBI to cover up the truth we need to question everything to see if it stands up to scrutiny. This is especially important with reported telephone calls from the aircraft because what is claimed to have been communicated provided the *whole foundation* for the official story of 9/11. Pretty much the only information about what is claimed to have happened on the aircraft came from calls said to have been made by cabin attendants and passengers. From these we get the story of men with 'Middle Eastern appearance' hijacking the planes with small knives and box-cutters and taking over the controls with the pilots forced out of the cockpit to the back of the plane etc. From the same source came the whole 'Let's roll' narrative about an attempt by passengers to retake control of Flight 93. Given their importance to 9/11 official history it is equally important that we ask legitimate questions about them. Long-time 9/11 researcher David Ray Griffin points out in his excellent *9/11 Ten Years Later* that there are many anomalies, contradictions and impossibilities with the phone calls and obvious untruths. Griffin rightly says that if only one of those calls can be shown to be faked then they were all faked because it proves a pre-planned effort to mislead. They are hardly going to fake only one with obvious foreknowledge and planning while all the other calls are genuine. Before I look at the calls themselves I come back to a recurring theme I want to emphasise – technology that we see in the public arena has been available to the military and intelligence agencies for a long time before. So much so, that if we can see it today 'They' almost certainly had it at the time of 9/11. One example is the GPS navigation positioning technology that military planes had in 2001 which commercial 9/11 aircraft did not and that was even publicly available knowledge. The technology to replicate

voices to make someone appear to say what they never did say is now phenomenal. I am not saying this was used on 9/11 – there are other ways to explain the calls – but it should be legitimately added to the mix of possibility. Voice replication or morphing technology takes the unique frequency of a person's voice and puts it through a process that allows someone else to speak while sounding exactly like the voice the technology is mimicking. This has reached the point where it is possible even to *write* the words and the technology will speak them in the voice of whoever you choose, as public demonstrations have shown. The same can be done with videos of people with their lips synched by artificial intelligence to appear to speak words in their own voice they never said. There are many YouTube presentations of this technology and if you have never come across it before you'll be amazed at how authentic it looks and sounds. We also know that the US military had voice-replication technology at the time of 9/11 because this has been revealed in government documents. I have written in other books about how advanced this was before 2001 thanks to technology developed at the deeply sinister Hidden Hand-controlled Los Alamos National Laboratory in New Mexico. William Arkin, author of *The U.S. Military Online* and a specialist on national security, the Internet and information warfare, wrote an article for *The Washington Post* in 1999 about voice-morphing technology developed by scientist George Papcun. Arkin, a former army intelligence analyst, said:

> By taking just a 10-minute digital recording of [General Carl] Steiner's voice, scientist George Papcun is able, in near real time, to clone speech patterns and develop an accurate facsimile. Steiner was so impressed, he asked for a copy of the tape.

Steiner was hardly the first or last victim to be spoofed by Papcun's team members. To refine their method they took various high quality recordings of generals and experimented with creating fake statements including 9/11 Secretary of State Colin Powell. Arkin wrote that digital morphing – voice, video, and photo – had come of age and was available for use in psychological operations, or PSYOPS, to 'exploit human vulnerabilities in enemy governments, militaries and populations to pursue national and battlefield objectives'. What happened on 9/11 was a PSYOP on the world. It was also a coup on the United States by Hidden Hand personnel and how prophetic that Arkin should write this in *1999*:

> To some, PSYOPS is a backwater military discipline of leaflet dropping and radio propaganda. To a growing group of information war technologists, it is the nexus of fantasy and reality. Being able to manufacture convincing audio

or video, they say, might be the difference in a successful military operation or coup.

Daniel T. Kuehl, chairman of the Information Operations Department of the National Defense University in Washington, the military's school for information warfare, said: 'We already know that seeing isn't necessarily believing – now I guess hearing isn't either.' He added that 'once you can take any kind of information and reduce it into ones and zeros, you can do some pretty interesting things'. This is the kind of research and development funded and overseen by the truly evil Defence Advanced Research Projects Agency (DARPA) located in a nondescript building in Arlington, Virginia. DARPA develops death-rays, created the Internet and seed-funded technology now known as 'personal assistants' which give the military-intelligence complex surveillance access to everyone who is asleep enough to have one. DARPA developed technology necessary to carry out the 9/11 military PSYOP including the ability to hijack aircraft computer systems from the ground. Another possibility I have seen suggested is that calls were made by the real people but after they had been landed at a military base in line with Operation Northwoods and they were basically reading a script believing they were playing a part in the wargame exercises. This would explain the strange calmness, lack of emotion and matter-of-factness that people described and the lack of aircraft noise that many mentioned. The point is we don't have to prove what happened in detail to expose the 9/11 conspiracy – only that what we are told happened could not have done.

Impossible phone calls

Many of the calls from the planes were said by media reports without any FBI contradiction to have been made by cell phones at high altitudes which simply wasn't possible in 2001. There is the obvious problem of being too high and cell phones have to connect with ground stations (it's called a 'handshake') and at the speeds the aircraft were travelling they would be rushing between ground station connections so fast the calls would be constantly cut as they were reassigned even if they could get through. Highly significantly after this was pointed out the FBI had changed its story by 2006 at the time of the trial of '20th hijacker' Zacarias Moussaoui and the Bureau said all the calls except two came from Airfones on the back of the aircraft seats. The two they still said were from cell phones were those made at much lower altitudes – around 5,000 feet – which were still dubious in terms of being possible at that time. If you are caught out – change the story. These remaining 'cell phone calls' by Flight 93 passenger Edward Felt and attendant CeeCee Lyles do not appear in phone records with either numbers or duration

despite what the 9/11 Commission report described as 'an exhaustive study ... of the cell phone records of each of the passengers who owned cell phones'. Experimental evidence from Canadian mathematician and scientist A. K. Dewdney in 2003 suggested that cell phones had a one-in-a-hundred chance of working at up to 20,000 feet in a poorly insulated one-engine plane. In better insulated two-engine aircraft none worked at 7,000 feet and in a far more insulated airliner the altitude would be significantly lower for cell phones to operate. Dewdney said that 'in large passenger jets, one loses contact during take-off, frequently before the plane reaches 1000 feet altitude'. Reported cell phone calls from 9/11 aircraft were impossible and American Airlines said they did not have on-board Airfones fitted on their 757s for use by either crew or passengers. AA spokesman Chad Kinder said:

> ... We do not have phones on our Boeing 757. The passengers on Flight 77 used their own personal cellular phones to make out calls during the terrorist attack.

Not according to the updated FBI report they didn't and not according to the laws of physics. American Airlines pilot Captain Ralph Kolstad who flew their 757s and 767s said he was 'absolutely certain' that Airfones had been disconnected on the 757 long before 9/11 and this is supported by the Boeing 757 Aircraft Maintenance Manual (757 AMM), dated January 28th, 2001, which says: 'The passenger telephone system was deactivated by [code-numbered order] ECO FO878.' There were other code-numbered orders to do this, ECO F1463 and F1532. By January, 2001, Airphones on American Airlines 757s were deactivated and that was the plane which flew as Flight 77. Cabin attendant Ginger Gainer said that Boeing 757s on international flights had stickers on the seatback phones to say they were not working. Several current and former flight attendants for American who flew domestic routes were asked about them and they all said the phones were either disabled or removed at the time of 9/11.

Olson calls did not happen

The official story about the calls of CNN contributor Barbara Olson on Flight 77 falls between both cell phone and Airfone narratives. She was the wife of Bush administration US Solicitor General Theodore Olson, better known as 'Ted'. He said that his wife had twice called him at his office from the plane and they had conversations lasting 'about one minute' and 'two or three minutes'. 'Olson' is the only source for hijackers having 'box-cutters' and she is said to have described how passengers and crew had been herded to the back of the plane which meant that a big burly weightlifter and boxer pilot had to have been

overpowered by small, slim and slight hijackers. *CBS News* reported that the manual for security screeners issued by airlines trade groups to comply with FAA regulations listed box-cutters as items not allowed to pass security checkpoints. Screeners were told to call supervisors if they found them. Without Barbara Olson's alleged calls there is no evidence that Flight 77 headed back to Washington and what she is claimed to have said set the theme for who was responsible for the attacks when the story was released within hours. Ted Olson said at first that his wife used her cell phone, but later he changed this to 'airplane phone' before changing again and later again. Well, cell phones were a no, no, and if what American Airlines said is true about 757s then so are Airfones on AA Flight 77. A 2006 FBI report for the Moussaoui trial said that Barbara Olson *didn't make any certifiable calls to her husband*. Or none that connected. The report said that one was attempted but was unconnected and lasted nil seconds. The get-out of jail card (but not really) for the official story is that there were five calls from the flight made by 'unknown callers' to 'unknown numbers' and four of them connected. It was claimed that these four calls were made by Olson. Well, Ted Olson said she made only two and if you can ascertain that 'Barbara Olson' made a call that was unconnected and lasted nil seconds then how come you can't track who the other four went from and to? It's just still more change-the-story-when-you-are-caught-out. Ted Olson said that his wife called him on call-collect because he said 'I guess she didn't have her purse'. Researchers have pointed out that even if the Airfones were working you needed a credit card to activate them and open a line. Once you had done this there would be no need to ask for call-collect because you were free to call who you liked. The bottom line is that according to American Airlines there were no activated Airfones on AA 757s and if she couldn't have called on an Airfone or a cell phone the calls could not have been made. This is why no telephone records from Ted Olson's Department of [In]Justice, Barbara Olson's cell phone or phone company logs have ever been made public.

The change of narrative by the FBI from cell phones to Airfones faces fundamental problems in the case of calls alleged to have been made by Tom Burnett, a passenger on United Airlines Flight 93, to his wife, Deena. She was very clear that when her phone rang her husband's cell phone number appeared. He could not have been calling from an Airfone, therefore, but the FBI had to claim that he did because his alleged cell phone calls came at a time when Flight 93's Flight Data Recorder shows it to be flying at between *34,300 and 40,700 feet*. Deena Burnett, a former Delta Airlines flight attendant, even said that when she saw her husband's caller ID on her phone she didn't understand how he could be calling from the air. Lorne Lyles, husband of Flight 93 attendant, CeeCee Lyles, said the same when he found a recorded

message left by her 'from the plane' on his phone. He said he saw the caller ID was her cell phone and thought 'Okay, wait a minute – how can she call me from the plane from a cell phone because cell phones don't work on a plane?' What Deena Burnett told the FBI in the immediate wake of the attacks was confirmed in the Bureau's own documents:

> Burnett was able to determine that her husband was using his own cellular telephone because the caller identification showed his number, 925 980-3360. Only one of the calls did not show on the caller identification as she was on the line with another call.

The FBI contradicted Deena Burnett's own experience and statement when in 2006 they said the calls came from a passenger seat Airfone on United Airlines Flight 93 because clearly by then the claim that a cell phone was involved at between 34,000 and 40,000 feet was known to be ridiculously untenable. This is not to suggest that Deena Burnett is not telling the truth, but that the FBI isn't. Deena saw her husband's caller ID on calls he could not have made on a cell phone from where he was supposed to have been. So who did make those calls? And where were they made from? Brian Sweeney, a passenger on Flight 175, is said to have left a cell phone message to his wife, Julie, on their home answerphone which said: 'Hi Jules, it's Brian. We've been hijacked and it doesn't look too good.' Flight 175 at that time was flying at some 25,000 feet – way above the altitude that a cell phone could work. There are other questions regarding what 'Tom Burnett' said to his wife, Deena. She said in the last call that their children were asking to speak with him, but he declined and said: 'Tell them I'll talk to them later.' Does this sound a likely response from a father who by then had said the 'hijackers' planned to crash the plane? Would you not want to have what could be the final words with your children?

'Let's roll'?

We saw the same theme with 'Let's roll' United 93 passenger Todd Beamer who is said to have talked with CTE (Verizon) Airfone operators for 20 minutes and told them 'the plane had been hijacked and that he saw two hijackers with knives and someone else enter the cockpit'. The FBI report said Beamer had tried to call his wife on an Airfone and the call was routed to a customer-service operator named Phyllis Johnson who forwarded the call to colleague Lisa Jefferson who spoke with 'Beamer' for another 13 minutes at her station outside Chicago. 'Beamer' was offered the chance to have his call connected through to his wife, Lisa, but he declined. Why would you decline the chance to speak with your wife in such a situation when the FBI claims this is who he had been trying to call? 'Beamer' is said to have told Jefferson that his wife

was pregnant and he didn't want to upset her. Then why try to call her in the first place and how upset did 'Beamer' think his wife was likely to be (a) with what was clearly likely to happen if the 'hijacker' story had been true and (b) that he declined the chance to speak with her one last time? FBI telephone records confirm that 'Beamer' tried to make four calls, but only the last was connected. The rest lasted '0 seconds' or, in other words, didn't get though. The third and fourth calls were somehow dialled at exactly the same time (9:48:48), a fact that has produced no explanation. 'Beamer' is supposed to have tried to call his wife, but when he was connected to an operator he declined to be put through to his wife and instead stayed on the line with an operator who would have been easily fooled by a voice-morpher because she didn't know him.

The bottom line of all this is that there is no proof that this was the real Todd Beamer who made those calls. Jefferson said that 'Beamer' told her he didn't think he would survive. He gave her his home phone number and asked: 'If I don't make it out of this, would you please call my family and let them know how much I love them?' Why not tell them yourself? Why not ask to be connected with his parents or other relatives and people he knew? His wife Lisa Beamer recalled in a 2002 book, *Let's Roll!: Ordinary People, Extraordinary Courage*, that Lisa Jefferson had told her it was 'a miracle that Todd's call hadn't been disconnected' because lines were being disconnected all around her because of the number trying to get through. Jefferson had thought: 'This call is going to get dropped!' But it never was. Airline staff have described how inefficient and hit and miss Airfones were. Without this call from Beamer there would have been no 'Let's roll' in the official narrative. He is said to have told Jefferson that some of the passengers were getting together to retake the cockpit from the hijackers. Jefferson said that the last words she heard were Beamer saying 'Are you guys ready? Okay, let's roll'. Or did she? This alleged phrase was milked by the authorities after 9/11 and used to promote support for the subsequent 'war on terror' in response to the attacks. The London *Evening Standard* said 'Beamer's' words were 'a symbol of America's determination to fight back' and a *Washington Post* article described how the words were 'embraced and promoted by President Bush as a patriotic battle cry'. Let's roll was 'emblazoned on Air Force fighter planes, city fire trucks, school athletic jerseys, and countless T-shirts, baseball caps and souvenir buttons'. Did Beamer or whoever it was really say 'Let's roll'? Lisa Jefferson reported in earlier interviews that he said: 'Are you guys ready? Okay.' Nor were the words included in the FBI report of their interview with Jefferson on the day of the attacks. The report recorded only that at approximately 9am Central Time, Beamer said the passengers were about to attack the hijackers:

> ... [H]e asked Jefferson to call [redacted] to tell them that he loved them ... Next, Jefferson heard another passenger give the go-ahead to make their move. After that point, she heard nothing.

The 'Let's roll' phrase apparently first appeared in an interview with Jefferson by Jim McKinnon in the *Pittsburgh Post-Gazette* five days after 9/11. McKinnon had earlier interviewed Beamer's wife, Lisa, who told him about her husband's use of the term 'Let's roll'. Wasn't such an important conversation between Lisa Jefferson and the alleged Beamer taped? The claim is that it wasn't and so how do we know that the real Todd Beamer was the man she talked to or that he used the term 'Let's roll' which came out of nowhere after not at first being mentioned? Lisa Jefferson also said that her line to Beamer stayed open and connected *long after Flight 93 is supposed to have crashed* and the same happened with Flight 93 passenger Jeremy Glick. Jefferson recalled that after Beamer said he was going to re-take the cockpit with other passengers she remained on the connected line until 10.49am – 46 minutes after the plane is said to have crashed. She said she never heard a crash and during the call there was 'an unusually low amount of background noise'. Jefferson was bewildered about how she stayed connected after the apparent crash:

> I can't explain it. We didn't lose a connection because there's a different sound that you use. It's a squealing sound when you lose a connection. I never lost connection, but it just went silent.

Given what Jefferson said about calls at that time constantly cutting out it is indeed remarkable that she and her colleague earlier could have maintained an open and connected line talking to 'Beamer' for an unbroken 65 minutes while 'Jeremy Glick's' line remained open to his wife and then her father for a total of two hours and six minutes. Glick's father-in-law told the FBI that he heard high-pitch screaming noises and 'wind sounds' between silences and after a Horizon telephone operator cut into the call they stayed on the open line for approximately one and a half hours until around 10.45am but heard nothing further. Neither were disconnected by the plane supposedly crashing when Airfones depend on the plane's power supply?? Weird gets weirder when you consider that phone company records secured by the FBI show that Todd Beamer's cell phone was used to make 19 outgoing calls after – *after* – the plane is said to have smashed into the ground. There is yet another glaring anomaly about the 'Beamer'-Jefferson call. All government agencies say that Flight 93 was hijacked at 9.28, but Jefferson told the FBI that Beamer called at about *9.45* East Coast time

and described for the next seven minutes how the hijackers were *preparing* to seize the cockpit. Only after those seven minutes – that is approximately 9.52 – did Beamer tell her that 'two hijackers armed with knives' had entered the cockpit and secured the door behind them. How can that be when *all* government agencies say the plane was taken over more than 20 minutes earlier at 9.28? He said the plane had just begun to fly erratically while government agencies describe this happening shortly after 9.28.

'Strange calmness' and no hijack drill

Constant themes reported with the calls include no or low aircraft noise, unexpected calm and lack of emotion. Among the descriptions are 'shockingly calm' ... 'very, very calm' ... 'couldn't believe the calm in [her] voice' ... 'calm, matter of fact' ... 'remarkably calm throughout the conversation' and 'it sounded to Jack as if [his wife] were driving home from the grocery store or ordering a pizza'. Phone operator Lisa Jefferson said 'Todd Beamer' was 'so tranquil it made me begin to doubt the authenticity of his call'. Lyzbeth Glick, wife of Flight 93 passenger Jeremy, said he told her the cockpit had been taken over by hijackers wearing red headbands and that pilots, flight attendants and passengers were ordered to the rear of the plane. Lyzbeth recalled:

> I was surprised by how calm it seemed in the background. I didn't hear any screaming. I didn't hear any noises. I didn't hear any commotion.

Todd Bennett's wife, Deena, said:

> It was as if he was at Thoratec [his workplace], sitting at his desk, and we were having a regular conversation. It was the strangest thing because he was using the same tone of voice I had heard a thousand times.

A further big question is why flight attendants did not follow normal hijack procedure – just as none of the pilots punched in the highjack alert code. Flight 11 attendant Betty Ong, or who we are told was Betty Ong, didn't alert people who could have launched a response to the 'hijacking' and instead called the small American Airlines reservations office in Cary, North Carolina, in a call lasting *27 minutes*. Once again she was described as 'calm' despite apparently reporting the following:

> The cockpit is not answering their phone, and there's somebody stabbed in business class ... we can't breathe in business class. Somebody's got mace or something ... I'm sitting in the back ... Our number 1 got stabbed. Our purser is stabbed. Nobody knows who stabbed who, and we can't even get up to business class right now 'cause nobody can breathe. Our number 1 is stabbed

right now ... and our number 5 ... and we can't get into the cockpit, the door won't open.

Amy Sweeney, another attendant on Flight 11, did not make any mention of mace or pepper spray being used when she is supposed to have called American Airlines colleague Michael Woodward. This would surely have been high on the list if it was on the scale that 'Betty Ong' described. When Flight 93 attendant CeeCee Lyles ended her answerphone message to her husband a sound can be heard like headphones being removed then a quiet voice that has been reported by some to say 'You did great'. Others hear this as 'It's a frame'. When Betty Ong reports a hijacking in her call and is asked what flight she is on there appear to be two voices speaking at the same time when she mistakenly says 'Flight 12' – as did attendant Amy Sweeney. Fight 93 passenger Mark Bingham called his mother and began: 'Hi Mom, this is Mark Bingham.' Would you really call your mother and use your last name? It has also been pointed out how few calls were made from the flights if calling had been possible. Surely others would have called given the situation passengers were facing and with passengers making long calls around them. I will be presenting evidence much later in the book when it is most relevant about how computer systems were taken over on 9/11 and this would have allowed air traffic screens to be manipulated and calls and 'cockpit transmissions' inserted in real time. There is a highly-detailed analysis of alleged phone calls from the aircraft in Elias Davidsson's first-class book, *Hijacking America's Mind On 9/11*, which puts the whole official phone call story into serious question. Among his findings on this and associated behaviour are the following:

- No passenger or crew member witnessed or described the 'hijackers' actually entering the cockpit or how they did so. The 9/11 Commission had to admit: 'We do not know exactly how the hijackers gained access to the cockpit.' This was despite passenger 'phone callers' in the first class sections right next to the cockpit door. No one saw the pilots overpowered either.

- Most callers did not describe the hijackers – including flight attendants whose job it was to give as much detail as possible to the ground in these circumstances. Callers in the second row of first class right next to 'hijackers' did not describe them.

- Most flight attendants did not contact the pilots and instead some stayed on the line talking to the ground for long periods while a hijack was supposed to be taking place. Alerting the pilots should have been number one priority. This is not to criticise the attendants but to

question the official version of events.

- No one seems to have observed the reported stabbing of passenger Mark Rothenberg (Flight 93), Daniel Lewin, a former elite officer in the Israeli army (Flight 11) or a flight attendant (also Flight 11).

- Some reports mentioned guns on board and people being shot, but no one else did.

- No one reported the sound of impact at the end of the calls – only silence or something like wind sound.

- Flight 11 attendant Betty Ong complained of breathing difficulties from a mace/pepper spray but no one else did. Fellow attendant Amy Sweeney didn't mention this and if it was used to the extent that Ong described many would be affected including the 'hijackers'.

- Highly-experienced Renee May, an attendant on Flight 77, didn't call her airline to report the hijacking but called her *parents* to ask them to do it. This veteran flyer even had to ask for the emergency numbers – *no way.*

What if those involved were taking part in simulated hijackings as part of the wargames manoeuvres and thought they were playing a role in scripted or semi-scripted simulated attacks and response scenarios while what they were doing would be presented as their responses to 'real attacks' that we know as 9/11. What can be said for sure is that wargames do recruit public participants to play the part of passengers and crew in simulated hijack exercises and what if a secrecy agreement was involved in the name of 'national security'. As Elias Davidsson writes:

> ... the fact that the phone callers reported bogus and implausible events, the question that immediately springs to mind is: Were the callers participating in the hijacking drills? It should come as no surprise that, had this been the case, it would be treated as a mortal secret never to be revealed. The conduct of the callers strongly suggests, indeed, that they were acting rather than relaying real events.

Davidsson reports that this very scenario was happening on 9/11 at the National Reconnaissance Office near Washington Dulles Airport during an exercise scenario involving a fictitious corporate jet crashing into the building to test evacuation procedures. Employees were given cards for pre-scripted actions including making phone calls telling people about

the make-believe 'crash' and fire as if they were real. The fire was simulated by using a smoke generator. Art Haubold, a spokesman for the NRO, said it was 'just an incredible coincidence that this happened to involve an aircraft crashing into our facility'. Add it to the list, mate. If 9/11 phone calls were part of an exercise it would explain the omissions, contradictions and universal calmness that those they spoke with described and the lack of normal procedures. In fact, pretty much all the questions about the phone calls would be answered if this was the case and particularly if the planes were flying at much lower altitudes than reported or were even on the ground.

Double cross

I concluded pretty soon after 9/11 that the four planes had 'doubles' in the way described by Operation Northwoods. Planes that officially took off from the airports were taken over by remote control from the ground and their military-controlled 'doubles' completed the journeys that ended in disaster. Gathering evidence to support this has emerged over the years. Planes with the same air traffic 'signature' could easily have been switched especially with transponders turned off and amid systematic confusion. Non-transponder radar can track location but not be certain of identity. Transponders can also be switched to a different code and assume a new identity on air traffic control screens to bemuse trackers even more. Whoever was controlling Flight 175 twice did this. There has certainly been confusion over which gates some of the planes left from with different ones reported. Flight 11 was reported to have left from Gate 26 at Boston Logan and later Gate 32. Journalists from the German weekly *Der Spiegel* say they established that Flight 11 left from Gate 26 and that boarding started at 7.35am. The 9/11 Commission said boarding began at 7.15am and left from Gate 32. There are also discrepancies in statements made to the FBI and 9/11 Commission about when the plane left. Some say it was five minutes ahead of time and others that it was delayed. American Airlines employee Michael Woodward told the Commission that Flight 11 was delayed although he didn't know why. Another, Elizabeth Williams, told the FBI that Woodward 'advised her that they needed to go to Gate 32 because two flight attendants had been stabbed'. This came from information communicated in a call to passenger service agent Evelyn Nunez by Flight 11 attendant Amy Sweeney which had been misunderstood – the flight had already taken off. Sweeney had also said, like attendant Betty Ong, that she was calling from 'Flight 12'. Elizabeth Williams said that when they arrived at Gate 32 there was only an empty plane. Sweeney's husband told the FBI that she called him from the plane – which he said was very unusual – to say departure had been delayed. Passenger Richard Ross said the same in a call to his wife while the plane was at

the gate. Did it leave from Gate 26 or 32 and was it early or late? Tom Kinton, Aviation Director for Massport at Boston Logan, told 9/11 Commission staff that Flight 11 left from Gate 31. We also have the discrepancy highlighted by Pilots for 9/11 Truth about the departure gate for Flight 77. The pilots point out as I described earlier that Flight Data Recorder information supplied by the authorities reveals that the plane the data refers to did not depart from Dulles Gate D26 which was assigned to Flight 77. The RITA database of the Research and Innovative Technology Administration (which includes the Bureau of Transportation Statistics within the US Department of Transportation) has Flight 175 taking off at 8.23 while the 9/11 Commission says 8.14. RITA records Flight 93 as taking off from Newark at 8.23 while the Commission says 8.42. The RITA database does not include tail numbers for Flights 11 and 77 and records only the scheduled departure times and not the actual ones. The Department of Transportation said this was because the information had not been provided by the airlines. 'Double' planes did not have to take off from the same airports to replace the original flights en route, however, as we saw with Operation Northwoods when the double aircraft would take off from the Air Force base where the original plane was also due to land.

Planes still flying after they 'crashed'??

Then there is the ACARS data secured through the Freedom of Information Act which is claimed by some to be evidence that at least the two aircraft officially assigned to Flights 175 and 93 were still in the air after they were supposed to have struck the World Trade Center and crashed in Pennsylvania. ACARS, the Aircraft Communications Addressing and Reporting System, allows short messages to be communicated between aircraft and air traffic controllers and airlines via radio or satellite through a series of ground stations across the United States. I have already mentioned that ACARS messages were communicated to aircraft on 9/11 warning about possible cockpit intrusions. The point here is that the system routes messages through the nearest ground station with the strongest connection to the aircraft and this is achieved by a central router that picks the best radio ground station just like a mobile phone picks up the nearest communication tower. The ACARS system allows the sender to know that a message has been received by the aircraft. ACARS records show that Flight 93 received a series of messages between 9.21am and 10.10am from a series of ground stations that began with one in Pittsburgh and ended with a communication routed through a ground station at Willard Airport near Champaign, Illinois. The problems this poses for the official story are two-fold: (1) the last message was communicated at 10.10 – *after* the plane was supposed to have crashed; and (2) the ground station it was

routed through is *500 miles* from where Flight 93 is said to have gone down near Shanksville, Pennsylvania. Pilots for 9/11 Truth say that with the way the system works there is no chance even without the technical distance limitations that a message would be routed by the system through a ground station that far from an aircraft. The implication is that the Flight 93 aircraft which connected with the ACARS ground station near Champaign, Illinois, could not have been the one that crashed seven or four minutes earlier near Shanksville 500 miles away. This would fit with the testimony of Colonel Robert Marr, battle commander at NORAD's NEADS response center, who told the 9/11 Commission in 2003 that he tracked Flight 93 as it was 'circling over Chicago'. Willard Airport ground station near Champaign is less than 140 miles by road from Chicago. Marr later said they believed that Flight 93 was heading for Chicago and that NEADS contacted an Air National Guard base in the area 'so they [can] head off 93 at the pass'. Hold on, I'm confused here. What happened to the military not being aware of Flight 93 before it crashed? Lieutenant Colonel Mark Stuart, an intelligence officer at NEADS, confirmed that as the Flight 93 'incident began to unfold' his professional judgment was that the plane was going to strike the Sears Tower in Chicago and he had told Colonel Marr this. The 9/11 Commission sought to explain away this challenge to the official story by suggesting that Colonel Marr mistook Flight 93 for Delta Air Lines Flight 1989 which had been incorrectly reported as hijacked. The ACARS information might suggest otherwise. Detailed passenger phone call analysis by Elias Davidsson in *Hijacking America's Mind On 9/11* also supports ACARS evidence that the plane was not where we are told it was. ACARS data analysis has Flight 175 receiving messages from a ground station at Harrisburg International Airport (also known as Middleton) in Pennsylvania at the very time it was supposed to have struck the World Trade Center 162 miles to the north. Another ACARS message to the plane *20 minutes* after it was said to have crashed was routed through the ground station at Pittsburgh International Airport 230 miles west of Harrisburg. The system must have picked up a stronger connection signal from there by then than Harrisburg and this would have located the aircraft around Pittsburgh 316 miles by air from New York. There was certainly great confusion about the whereabouts of Flight 175 with United Airlines issuing a press release more than two hours after its alleged crash at the World Trade Center saying the airline was 'deeply concerned' about the fate of Flight 175 and that 'United is working with all the relevant authorities, including the FBI, to obtain further information ...' It would be nearly three hours after the alleged crash time that United Airlines confirmed Flight 175 was down and where.

What happened to the real planes that morning if they didn't crash as

reported? I repeat that establishing exactly what happened is not necessary to prove a conspiracy. All that's required is for the official story to be thoroughly discredited and we are certainly past that benchmark already with a lot more to come. It is understandable that people still seek answers to what happened, as I do, but some personalities within the 9/11 Truth Movement have done the cause no favours whatsoever by arguing with each other and abusing each other in irrelevant conflicts over who is 'right' about detail. Egos at ten paces are going to get us nowhere. What happened is far less important than what didn't happen and who really did it and why. My personal view from what I have observed since starting my own research the day after the attacks is that 9/11 aircraft were taken over by remote control via their computer systems and landed at a military base or other location as per Operation Northwoods while remotely-controlled military aircraft replaced them to do the deeds (Flights 11 and 175); a missile/bomb (Flight 77); and possibly the original Flight 93 was shot down or again replaced by another aircraft. The latter left the gate at 8.01, but didn't take off because of traffic congestion until 8.42 if you believe the official story and that may have scuppered the original plan and had to be dealt with. A fourth plane striking a building without a military response would have stretched credulity way, way past breaking point by then. The Flight 93 cover-story also provided the massively-exploited 'Let's roll' narrative to launch the propaganda for the long-planned 'war on terror'. What happened to the passengers? Well, put it this way, the super psychopaths behind all this would not want them telling their stories.

Psychopathic liars

We cannot hope for the authorities to tell us the truth. That is not what they are there to do. 'Investigations' into Hidden Hand plane crashes, including the Lockerbie bombing wrongly blamed on Libya, are fixed to suit the official line and hide what really happened. When TWA Flight 800 crashed shortly after take-off from New York on July 17th, 1996, the official report by the National Transportation Safety Board (NTSB) claimed it was caused by an explosion in a fuel tank that was traced to a fuel pump. Yes, that's probably partly correct in one sense because fuel tanks do tend to explode when missiles hit them. Jim Sanders, an investigative journalist and husband of a TWA flight attendant, worked tenaciously to expose the lies of the FBI. In retaliation, Sanders, his wife and a TWA captain were arrested by the FBI for impeding its 'investigation'. Sanders went to jail for his trouble, but produced a book and documentary after his release. He acquired samples of seat covers from the plane which were stained by a reddish residue. He sent them for analysis to Morton Thiokol and Hughes Aerospace where the

laboratories discovered that the residue contained 15 chemicals found in anti-aircraft missiles and only one of them – glue – is found in aircraft seat covers. Pilots from the Air National Guard reported seeing a missile strike Flight 800 – as did 250 other people – and pictures existed of the missile and remote-controlled target drone it was launched to hit. The FBI, the organisation telling you what happened on September 11th, covered up the whole story with the help of the Navy who took control of the crash scene instead of the usual civilian crash investigators. This is what the FBI did on 9/11. Richard Russell, a retired airline pilot, acquired FAA radar tapes of the incident which revealed an object travelling at up to 2,000 miles an hour heading directly at the plane. When Russell said he would circulate the tape it was seized by the FBI. The *Southampton Press* told the story in 1997 of Dede Muma, a resident of Riverhead, Long Island, who was mistakenly sent faxes of official documents related to the Flight 800 investigation. Her fax number was very close to the one used by the FBI and other personnel on Long Island overseeing the 'investigation'. The cover sheet Dede Muma received indicated the fax was from a worker at Teledyne Ryan Aeronautical in San Diego to a co-worker helping the FBI on Long Island. Teledyne Ryan Aeronautical is operated by Hidden Hand-controlled Northrop Grumman. This is the company behind the Global Hawk remote control aircraft technology. Multiple fax pages detailed the rear structures of the 'Firebee' drone aircraft that Teledyne Ryan manufactured for the US military. The FBI claims that it was told by the US Coast Guard that the bright orange debris that was found with the debris of Flight 800 was from fishing and boating floats but here was a fax in May, 1997, that revealed how the FBI was asking experts from Teledyne Ryan – makers of a bright orange-red remotely-controlled plane for the US military – to identify this mystery debris. Official 'investigations' are designed to hide the truth, not reveal it.

A moment to ponder: The FAA, other government agencies and private companies knew Flight 800 was destroyed by some sort of missile and yet allowed the FBI/Navy cover story to become official 'history'. This is precisely what has happened with 9/11. FAA and other government agency insiders know the official version is nonsense while helping the FBI and the rest of the Deep State to concoct and defend the Big Lie.

CHAPTER 13

How *did* the mighty fall?

We live in a fantasy world, a world of illusion. The great task in life is to find reality – Iris Murdoch

The Rockefeller family, Hidden Hand to their DNA, were behind the building of the World Trade Center in the form of banker David Rockefeller and his brother Nelson, four times governor of New York. Their vehicle was the government/public-owned (but only in theory) Port Authority of New York and New Jersey.

David Rockefeller drove the project through a development organisation that he chaired in the 1960s and 70s and the involvement of the Rockefeller brothers was so pivotal the Twin Towers were known by some as 'David and 'Nelson'. The World Trade Center was a huge project with the 110 storeys of the North and South Towers soaring 1,368 feet (417 metres) above Manhattan and at the time they were the world's tallest buildings. Each floor was approximately 210 feet by 210 feet. Work began in 1965 and the buildings were opened on April 4th, 1973. The World Trade Center was sold into private hands for the first time only seven weeks before the 9/11 attacks when the Port Authority sold the lease to ultra-Zionist billionaire businessman Larry Silverstein who already owned the much smaller Building 7 in the WTC complex (Fig 60). Silverstein led a consortium that finalised the deal worth $3.2 billion for a 99-year lease while personally committing only $14 million. The deal included new insurance policies which seriously increased the pay-out in the event of a terrorist attack and Silverstein therefore had the money to replace the by-then

Figure 60: 'Lucky' Larry Silverstein.

deteriorating World Trade Center with a brand new state-of-art building on the same site after the soon-to-happen 9/11 attacks.

Hiding the truth from day one

The most traumatic images of all the horrors on September 11th were the collapse of the Twin Towers (Fig 61). These catastrophic events caused the biggest loss of life on American soil from a non-natural disaster; the biggest loss of firefighters in a single incident; and were the biggest structural failures in recorded history. *Fire Engineering* magazine rightly observed that you would think such a disaster would also prompt the biggest investigation in recorded history. But no. What followed continued the same pattern and theme that we have seen with every other aspect of 9/11.

Figure 61: What caused these enormous buildings to fall? The official story makes no sense.

There was no credible investigation and the token effort for public consumption set out to *cover up* what happened, not expose it. Vincent Dunn, a retired deputy chief of the New York Fire Department and nationally-recognized expert on high-rise firefighting, published an article with others in *Fire Engineering* calling for a proper investigation into why the towers fell. Dunn, author of the 1988 book, *Collapse of Burning Buildings*, said that all the public had been given was a 'series of unconnected and uncoordinated superficial inquiries'. There was no comprehensive 'Presidential Blue Ribbon Commission ... no top-notch National Transportation Safety Board-like response'. He said: 'We are literally treating the steel removed from the site like garbage, not like crucial fire scene evidence.' This is precisely what happened with the wreckage of the Murrah building after the Oklahoma bombing in 1995. *The New York Daily News* reported in April, 2002:

> Some 185,101 tons of structural steel have been hauled away from Ground Zero. Most of the steel has been recycled as per the city's decision to swiftly send the wreckage to salvage yards in New Jersey. The city's hasty move has outraged many victims' families who believe the steel should have been examined more thoroughly. Last month, fire experts told Congress that about 80% of the steel was scrapped without being examined because investigators did not have the authority to preserve the wreckage.

Chinese media reported that the Shanghai Baosteel Group Corporation had bought 50,000 tons of World Trade Center scrap steel paying no more than $120 per ton. The *Shanghai Morning Post* said another 10,000 tons was shipped to India from New Jersey scrap processor Metal Management. I'll have much more to say about this later. What happened revealed the recurring contempt shown for the 9/11 victims and their families. New York City Medical Examiner Charles Hirsch said in 2003 that in the haste to clear the site human remains were taken to a landfill facility where the steel was sorted and sold. Eric Beck, a senior supervisor of the landfill recycling, admitted in 2007 that some of these human remains were part of a mixture used to pave roads and fill potholes in New York. The official excuse for removing debris from the site so fast was the need to search for survivors, but they did the same with the remains of World Trade Center Building 7 which the authorities said had been evacuated and so there were no survivors to find. Building 7 was the third building to collapse that day which most people don't even know about, but which provided glaring evidence for what really happened. I'll explore that in detail in this chapter. Erik Lawyer, founder of Firefighters for 9/11 Truth, another organisation of experts in their field questioning the 9/11 cover-story, described the removal of the 1.5 million tons of potential evidence as a crime – which it was. He said:

> 9/11 was the greatest loss of life and property damage in U.S. fire history. This should of been the most protected, preserved, over-tested and thorough investigation of a crime scene in world history. Sadly it was not. What was it? Well, we know from their [government] admission the majority of the evidence was destroyed ... in 22 years of experience I've seen a lot of crime scenes, I've never seen anything like this in my life.
>
> I was out at the site, I saw trucks leaving faster than anywhere I've ever seen but I accepted it at the time and for years I accepted it because it was a recovery and rescue operation and that's normal to have something like that going. Again, we'd never seen anything like it but that was expected.
>
> What I didn't know for years was what was going on behind the scenes was that evidence was being destroyed when it was shipped off. By their own admission, the [official] investigation of Tower 7 had no physical evidence. How do you investigate a crime when you've destroyed all the evidence? It doesn't make sense. They also admit that they refused to test for explosives ...

The reason for all this is simple: When you want to hide the truth you don't preserve and examine evidence that would expose your lies. *Fire*

Engineering called on the Hidden Hand-created Federal Emergency Management Agency (FEMA) to immediately appoint a 'World Trade Center Disaster Review Panel' to coordinate a complete review of all aspects of the World Trade Center tragedy and to produce a comprehensive report which ...

> ... examines a variety of topics including determining exactly how and why the towers collapsed, critiquing the building evacuation procedures and the means of egress, assessing the buildings' fire protection features (steel 'fireproofing', fire protection systems) and reviewing the valiant fire-fighting procedures employed.

There was never any chance of that. The real role of FEMA is the one financed covertly by profits from the multi-billion-dollar Hidden Hand-intelligence agency drug racket. Former Green Beret William Tyree launched a lawsuit against the CIA and Father Bush in September, 1998, claiming they had allowed drug profits to fund FEMA's covert activities without the knowledge of Congress. FEMA was created by Jimmy Carter through a presidential executive order, an undemocratic and dictatorial outrage, in which the President introduces laws without debate in Congress. An executive order only has to appear in a legal newspaper called the *Federal Register* to become law and great swathes of the Hidden Hand's fascist-state-in-waiting has been put together in this way as I describe in detail in other books. Among the founders of FEMA was Zbigniew Brzezinski, President Carter's National Security Advisor and co-founder of the Hidden Hand Trilateral Commission with his fellow psychopath, David Rockefeller. Another famous FEMA name was *Oliver North*, the drug-running gofer from Iran-Contra. Ben Bradlee Jr wrote in *Guts and Glory: The Rise and Fall of Oliver North* that the Iran-Contra 'star' helped FEMA to stage a national emergency rehearsal in April, 1984, known as Rex-84 Bravo. This was a practice exercise in readiness for martial law and a FEMA takeover in the event of a 'national emergency'. The *Miami Herald* reported in 1987 that North was involved with FEMA in exercises that included the rounding-up of refugees and 'troublemakers'. Former Green Beret Colonel Albert Carone, who was murdered in 1990, said in a sworn statement for the William Tyree lawsuit that he worked with North in CIA-Mafia drug operations and he also confirmed North's use of drug profits to create and fund FEMA's unofficial activities. So, no, FEMA was never going to properly investigate 9/11. *Firefighters Magazine*, which published technical studies of major fires, described the destruction and removal of evidence from the World Trade Center site as 'a half-baked farce' of investigation (exactly as planned). The editorial was written by Bill Manning who said that steel from the site should be preserved to allow

proper investigations into the cause of the collapse. He asked:

> Did they throw away the locked doors from the Triangle Shirtwaist fire? Did they throw away the gas can used at the Happy Land social club fire? ... That's what they're doing at the World Trade Center. The destruction and removal of evidence must stop immediately.

It didn't, of course, because a close examination by experts would have identified why the towers collapsed when no other building of this kind had ever done so in architectural history as a result of what was claimed to be heat from fires. Despite this never-happened history the official story of the towers falling due to structural damage from the plane and fire softening steel columns was being promoted within hours without a single second of investigation. *Firefighters Magazine* pointed out that a growing number of fire protection engineers had suggested that 'the structural damage from the planes and the explosive ignition of jet fuel in themselves were not enough to bring down the towers' (Fig 62). *The New York Times* reported the frustration of experts from the American Society of Civil Engineers appointed by FEMA to 'investigate' the cause of the collapse. They said the decision to immediately recycle the steel columns, beams, and trusses may have cost them some of their most direct evidence to explain what happened. Dr Frederick W. Mowrer, an associate professor in the fire protection engineering department at the University of Maryland, said: 'I find the speed with which potentially important evidence has been removed and recycled to be appalling.' New York Mayor and '9/11 hero' (it says here) Rudolph Giuliani was overseeing this extraordinary destruction of evidence along with Richard 'Ground Zero's Jewish Knight' Sheirer, Commissioner at the New York Office of Giuliani's Emergency Management, and Pasquale J. D. Amuro, FBI inspector in charge of the 9/11 [non]-investigation. Both would become executives of Giuliani 'security' companies. Overseeing the overseers was Michael Chertoff, head of the Criminal Division of the [In]Justice Department, of whom

Figure 62: 'Tell them anything and they'll believe it.' Or, maybe not.

much more in the final stages of the book. Giuliani would apparently not respond to requests to explain why crucial evidence was being destroyed. Instead he put forward Matthew G. Monahan, a spokesman for the city's Department of Design and Construction which was in charge of debris removal at Ground Zero. He said: 'The city considered it reasonable to have recovered structural steel recycled.' What – *before investigators had examined it?? The New York Times* interviewed members of the investigation team, among them some of America's most respected engineers. They said they had at various times been 'shackled with bureaucratic restrictions' that blocked them from interviewing witnesses, examining the site and requesting crucial information like recorded distress calls to the police and fire departments. 'This is almost the dream team of engineers in the country working on this, and our hands are tied,' one team member told the *Times*. They had been threatened with dismissal for speaking to the media. The team member said: 'FEMA is controlling everything.' In other words the Hidden Hand was. Here we go again as with the plane crashes – questions galore, but no open public investigation. Wherever you look in every aspect of 9/11 there is suppression of information, questioning and genuine inquiry. Everywhere there is something to hide.

'Caused by fire'? What a joke

The response of most people as they watched those terrible images of the Twin Towers collapsing was how they looked like controlled demolitions they had seen on television from time to time. Explosive charges are placed so expertly that colossal buildings, such as skyscrapers and football stadiums, are imploded to fall on their own footprint to protect the surrounding area from damage. None of this is surprising given that controlled demolitions quite obviously brought down the towers and not the fires. People can argue and debate *how* this was done, anything from explosives to super-top-secret energy weapons, but even a glance at the evidence makes it clear that (a) the government story is complete tosh and (b) the buildings came down because they were *made to*. Van Romero, President for Research at the New Mexico Institute of Mining and Technology (known as Tech), said after seeing the towers collapse on television that what happened appeared to be 'too methodical' to be a chance result of airplanes colliding with the structures: 'My opinion is, based on the videotapes, that after the airplanes hit the World Trade Center there were some explosive devices inside the buildings that caused the towers to collapse.' Romero said the collapse resembled controlled implosions and 'it would be difficult for something from the plane to trigger an event like that'. If explosions did cause the towers to collapse, he said, the detonations could have been caused by a small amount of explosive

placed at strategic points. Romero should know what he is talking about as a former director of the Energetic Materials Research and Testing Center in New Mexico which studied the effects of explosions on buildings. The government must certainly have rated him highly because on September 11th he and another Tech official were on their way to a building near the Pentagon to discuss defence-funded research. Ten days later when the official story claimed the towers fell because heat softened the steel girders Romero dramatically changed his tune. He must have been on his way to Damascus at the time on another job. Now Romero agreed that fire was indeed the cause and not explosives: 'Certainly the fire is what caused the building to fail,' he told the *Albuquerque Journal*. The intense heat from the jet fuel fires had weakened the steel structural beams which gave way under the weight of the floors above. This set off a chain reaction as upper floors pancaked on to lower ones, Romero said with his fingers firmly crossed. He still believed it was possible that the final collapse of each building was triggered by 'a sudden pressure pulse caused when the fire reached an electrical transformer or other source of combustion within the building'. I wonder what happened to Romero in those ten days? A word in the ear from the FBI, perhaps, which seems to be a common prelude to silence or story-changing.

Fortunately other architects and structural engineers are made of far sterner stuff and in 2006 Richard Gage, an architect for 23 years, founded Architects & Engineers for 9/11 Truth. This is the building experts version of Pilots for 9/11 Truth. You can find their excellent information and videos at ae911truth.org. Gage is a member of the American Institute of Architects and has worked on the construction of many fireproof steel-frame buildings. More than 1,500 building and demolition experts are supporters of his organisation and they are demanding an independent investigation into the three building collapses on September 11th. Gage said: 'Fires have never before caused the collapse of any skyscraper even though there are numerous examples of much hotter, larger and longer-lasting fires in these buildings.' The architect of the new Larry Silverstein Freedom Tower on the World Trade Center site and new 7WTC, which replaced Building 7 felled on 9/11, agreed with Gage. David Childs said that a young man came to him in tears and asked if the new buildings would fall: 'I said no. Never has a steel structured building in the history of steel-structured buildings ever fallen down for reasons of fire.' And that includes the World Trade Center. I know the authorities say the Twin Tower structural failures were not entirely due to fire because the planes hit the buildings, but no way in all eternity would a plane have any direct impact-affect to make the towers fall as they did.

There are claims that the 17-storey Plasco Building in the Iranian

capital Tehran collapsed in 2017 because of fire, but watch it fall at ae911truth.org and it is the most blatant controlled demolition. The Iranian government was subsequently as determined to investigate what happened as the American government has been with the World Trade Center. Nowhere can governments be trusted to pursue the truth. There are many examples of fires in steel-framed high-rise buildings that burned for longer with far more heat and did more damage without the structure collapsing. The Windsor Building in Madrid was a raging inferno in 2005, took 24 hours to extinguish and *did not collapse* (Fig 63). A 50-storey skyscraper in Caracas, the tallest building in Venezuela, was ablaze for 17 hours with the top 20 floors gutted and did not fall. The North Tower of the World Trade Center was struck at 8.45am and collapsed at 10.29am – an impact-to-fall time of one hour and 44 minutes. The South Tower was struck at 9.03am and collapsed at 9.50am – an impact-to-fall time of 47 minutes. Therefore the tower struck second collapsed first and took almost an hour less to fall than the other one. Yet the South Tower was struck a more glancing blow and much of the fuel exploded in a fireball *away* from the building and not inside. This can be explained according to the official story by the fact that the South Tower was struck lower between the 75th to the 85th floors compared to the North (93rd to 99th floors) and the damaged section was subjected to greater pressure from the floors above. It is claimed that steel 'trusses' holding up the floors failed as they were undermined by the heat, but none of this makes sense of the buildings imploding like a controlled demolition. For this to happen the trusses would have had to have failed almost simultaneously or one side would have fallen first and caused a topple-over effect. A big topple over would have relieved the pressure on the floors below and they could not have collapsed as they did because of 'pancaking'. Either way the official story is untenable. With the South Tower struck on one side and thus the most intense fire in that area would you not expect this combination to have caused that side of the structure to fail first and for the building to

Figure 63: The steel-framed high-rise Windsor Building in Madrid burned with far greater intensity than the Twin Towers in 2005 and for far longer - the fire took 24 hours to extinguish. It did not collapse.

topple over much more than it did?

Destroying the cover-story

The official explanation claims that the fire was so hot the steel became too weak to hold the weight of the concrete and steel above it. Steel beams then buckled and/or the joints broke. Concrete and steel crashed down on to the floor below and turned the concrete into powder. A chain reaction had started and each floor pulverised the one below. The evidence, as we shall see, does not in the least support this official hypothesis (lie). We are told that the 47-storey Building 7 on the World Trade Center site also collapsed at 5.20pm that afternoon because of fire and this was not struck by a plane or subjected to an aviation fuel explosion. This makes Building 7, long-owned by Larry Silverstein, the first steel-framed building in history to be brought down by fire alone because there was no aircraft strike on the structure. The only way such buildings had fallen before was through specially-placed explosives in a controlled demolition. A government report on the collapse confirmed this fact about Building 7 being a 'first-ever'. Lee Robertson, a structural engineer who co-designed the towers, told an international coalition on terrorism in Frankfurt, Germany, a week before the attacks that they were designed to withstand a hit by a Boeing 707 and this carried about as much fuel as a 767. He said later that buildings could have survived a hit by a 767 (and then went on to repeat the government line) while other high-rise architects and engineers were shocked that the buildings could have fallen from the result of a jet fuel fire. Hyman Brown, construction manager of the towers, said: 'They were over-designed to withstand almost anything, including hurricanes ... bombings and an airplane ...' Other construction engineers have made the same point. William Brinner, an architect for 25 years who witnessed 'Flight 175' striking the South Tower, said it didn't seem possible that buildings designed to withstand the impact of a 707 could possibly collapse in such a short time. 'They were designed to withstand hurricane force winds of up to 140 miles an hour', he said. World Trade Center architect Aaron Swirski lived in Israel and spoke to *Jerusalem Post* radio after the attack. He said the buildings were 'designed around that eventuality to survive this kind of attack'. Thomas Eagar, a professor of materials engineering at the Massachusetts Institute of Technology, said: '... the number of columns lost on the initial impact was not large and the loads were shifted to remaining columns in this highly redundant structure'. The melting point of steel is 1,538 degrees Celsius or 2,800 Fahrenheit and although it would not have had to reach this level of heat to be compromised we are talking a serious temperature before the structure was affected in a building of some 200,000 tons of steel. This is significant because when heat is applied it is dispersed through the steel

and this helps to cool down the point of hottest temperature. Structural engineer G. Charles Clifton said: 'In my opinion, based on available evidence, there appears no indication that the fires were as severe as a fully developed multi-storey fire in an initially undamaged building would typically be.' Robert Podolsky, a physicist, engineer and systems analyst for ten years working with major companies, said:

> I looked up in the manual the burning temperature of jet fuel and found that under the conditions that existed at the World Trade Center on 9/11 that jet fuel had to have been burning at about 750 degrees Fahrenheit. I also noticed that the official explanation of what happened ... was the heat from the fire supposedly softened the steel and thereby brought the buildings down.
>
> If you have a flame of 750 degrees you can hold that flame under a steel beam forever and you'll never reach a high-enough temperature to bend steel, let alone melt it. So immediately I knew at that point that the official explanation was dead wrong.

This view is widely supported among experts in the field and if the building was being weakened by bending and softening steel we would have seen evidence that parts of the buildings were first beginning to sag. We didn't – they went from stable to collapse in an instant (Fig 64). Leslie Young, a high-rise architect and former firefighter, said the majority of the jet fuel burnt up instantly in the big fireball and it was gone. The fires that were left were office furnishings and carpets and such like. Young said: 'A lot of these things have to be fire resistant by nature, required by code, so there isn't a whole lot of fuel in there to begin with.' Edward Munyak, a fire safety expert who works for cities, federal agencies, insurers and other organisations, said that while the media portrayed the fires as being extremely hot they were, in fact, not that hot in the World Trade Center towers. If you looked at the official government data this was clear, he said, and temperature could be judged by the black smoke coming out of the windows. This meant the fires were oxygen-starved and so

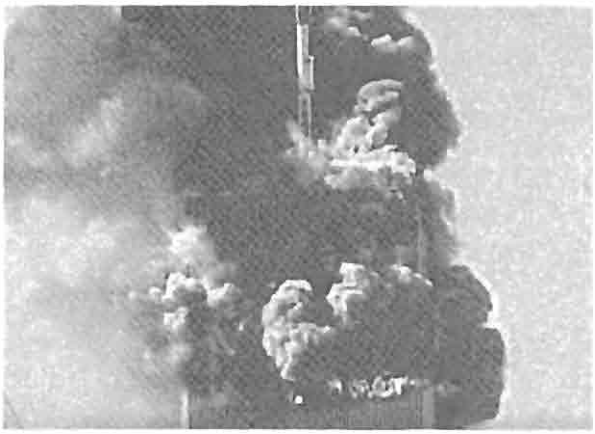

Figure 64: The North Tower begins to fall – straight down on its own footprint.

'it was a low-temperature fire'. Munyak's view is supported by a lot of other evidence. On August 4th, 2002, almost a year after the towers collapsed, *The New York Times* revealed the existence of a tape recording of communications by firefighters who had reached the 78th floor of the South Tower. This was just two floors below the main impact point and the 78th floor was actually struck by a wing of Flight 175. New York fire officials said they had 'delayed listening' to the tape *(what for nearly a year?)* and had continued during that period to say that no firefighter went higher than the 50th floor. The tape is devastating to the official story because *The New York Times* described how Battalion Chief Orio J. Palmer is heard calmly organising the evacuation of survivors with Fire Marshall Ronald P. Bucca and the extinguishing of only 'two pockets of fire' that they could see. We are asked to believe that just above them, at the very same time, the building was reaching fantastic temperatures which caused the building to collapse shortly after these communications by Chief Palmer. It's fairyland. Brian Clark, a survivor from the South Tower, passed the 80th floor right in the impact zone, but he said: 'You could see through the wall and the cracks and see flames ... just licking up, not a roaring inferno, just quiet flames licking up and smoke sort of eking through the wall'. The official story says it was the heat from *this* fire that caused the South Tower to collapse in just 56 minutes when steel doesn't melt until it reaches a staggering 2,800 degrees Fahrenheit. This is why no other major steel-framed building had ever collapsed because of fire – *not ever.* International architect David Johnson said:

> As a professional city planner in New York, I knew those buildings and their design. I attended and participated in the hearings at the New York City Hall when the buildings were first proposed ... So I was well aware of the strength of the core with its steel columns, surrounding the elevators, and stairwells ...
>
> ...When I saw the rapid collapse of the towers, I knew that they could not come down the way they did without explosives and the severing of core columns at the base ... Moreover, the symmetrical collapse is strong evidence of a controlled demolition. A building falling from asymmetrical structural failure would not collapse so neatly, nor so rapidly.

We should not forget that the Twin Towers had 287 steel support columns, 240 perimeter columns and 47 colossal core columns. To say the least they were not coming down without a hell of a fight and they certainly wouldn't disappear in seconds because of fire. We have already seen how expert Van Romero said (before his journey to the Syrian capital) that little explosive would be needed to bring down the towers so long as it was placed in the right locations. Many witnesses from

multiple backgrounds and professions – office workers, police officers, firefighters, government officials, journalists etc. – reported hearing explosions before the buildings collapsed. Firefighter Louie Cacchioli, who was assigned to Engine 47 in Harlem, said his crew were the first to enter the South Tower after it was hit. He said he was taking firefighters in the elevator to the 24th floor to support the evacuation. On his last trip he described how a bomb went off. 'We think there were bombs set in the building,' he said. 'I had just asked another firefighter to stay with me, which was a good thing because we were trapped inside the elevator and he had the tools to get out.' CBS broadcast a documentary six months after the attacks about what happened that day using the footage of firefighters taken by two French brothers, Jules and Gedeon Naudet. They had been shooting their own documentary on September 11th near the World Trade Center featuring the firefighters of Engine 7, Ladder 1, of the New York Fire Department based a few blocks away from the WTC. Suddenly the film-makers found themselves involved in a very different documentary as they captured the first plane hitting the North Tower which Boy Bush claimed to have seen live when he could not have done. When the fire crew and cameraman Jules Naudet arrived at the North Tower they were astonished to find that the lobby, 90-plus floors below impact, had suffered widespread damage. This was later explained away by officials who said burning jet fuel had poured down the elevator shafts and exploded in the lobby. There was no evidence of burning or incendiary explosion in the lobby area. 'The lobby looked like the plane hit the lobby!' one firefighter said. 'Experts' were wheeled out after the event to explain why it was obvious the buildings would collapse because of the fire. This was clearly not considered a potential problem by New York fire chiefs, however, despite their vast experience of the potential dangers in high-rise buildings, none of which had ever failed in this way. Far from clearing the towers in case of collapse they set up their operations command post in the lobby of the North Tower. Had that collapsed first they would all have been killed because it was only when the South Tower came down that the possibility was even considered. Hundreds of firefighters were sent up the stairways to their deaths because the collapse of the towers was not even taken into consideration. Why was this if, according to the 'experts' afterwards, it was so obvious why they collapsed? Then there is the account by the security officer at the World Trade Center told to Peter Jennings on ABC television. The officer said that after the South Tower collapsed he received a call from the New York Port Authority Command Center on the 22nd floor asking for a rescue in the North Tower. He went there himself with firefighters and they found that the offices were so devastated they had to 'tunnel through debris' to 'dig out' trapped Port Authority employees. Remember these offices were some 70 floors

below the impact point of the aircraft. The 22nd, 23rd and 24th floors were also said to contain offices leased to the FBI. This was the reported location of files for investigations against Mobil Oil and businessman-fixer James Giffen involving alleged illegal oil swaps between Iran and Kazakhstan and against then Federal Reserve chief Alan Greenspan, Morgan and Company and Goldman Sachs involving gold price fixing. I asked the FBI in 2002 if it had offices on those floors of the World Trade Center, but my question was not answered.

Free-fall speed

The government claims that heat caused horizontal columns which held up the actual floors to break away from the 47 massive vertical columns that ran through the core of the building from top to bottom. If the horizontal columns had broken away from the vertical central core then that core would have been left standing. It wasn't – that came down too. When a floor hits another floor and another floor in the way they described there is resistance before each new floor gives way, especially near the start. On 9/11, however, the speed at which the two buildings collapsed was *free-fall speed* – the speed of dropping something from mid-air with nothing in the way until it hit the ground. This only happens with ... *controlled demolitions* when explosive charges remove all resistance below. Government agencies agreed that the towers fell in 9 and 11 seconds respectively. To claim this could happen while falling debris was 'pancaking on the floors blow' is utterly insane. A building cannot drop at free-fall speed while meeting with any resistance or it wouldn't be, and couldn't be, free-fall speed! This not only breaks the law of common sense it also violates Newton's Law of Conservation of Momentum which sounds very grand, but actually means that you can't drop at free-fall speed if anything is slowing you down. Who couldn't work that out over the age of four? Well, government agencies like the National Institute of Standards and Technology (NIST) who clearly need to hire some pre-schoolers to help them out. What's more – the top of the South Tower did topple (before turning to dust in mid-air) and so could not have provided the impact described in the government's ridiculous story because it did not slam onto the storeys below (Fig 65). David Chandler, a maths and physics academic for 30 years, said that the structures were capable of holding three to five times the weight and they fell with only a fraction of that resistance:

> Roughly 90 percent of its resistance has been removed and what's happening is the top section is not crushing down the bottom section like a pile-driver which is a picture [the authorities] have painted – it's actually falling into material that's already been pulverised.

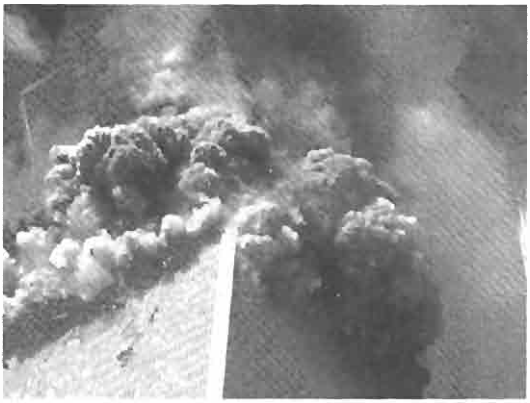

Figure 65: The South Tower falls and the topple of the top section relieves the pressure on the building below.

We all remember those fantastic clouds of dust when the towers fell and this is yet another classic feature of controlled demolition. Buildings that collapse 'naturally' do not produce the power from gravity alone to pulverise everything into small pieces and extraordinary clouds of dust before they even hit the ground. Controlled demolitions do exactly that as you'll see with many examples on the Internet. Buildings implode without falling to one side when they are expertly charged and there is also a momentary delay after the charges go off before the buildings start to fall – another tell-tale confirmation of a controlled demolition. Jerry Russell PhD, who has a Master's Degree in Engineering at Stanford University, points out that steel frame towers are built very strongly and are almost impossible to destroy. He said that aircraft strikes don't destroy skyscrapers and neither does fire. No skyscraper had ever been brought down by a fire and if a big enough impact by a plane ever destabilised a building the structural failure would happen ... 'at the point of highest levered stress, near the base of the tower, and the tower would have fallen over like a giant tree in a forest windstorm'. Like many with his background who have gone public since 9/11, Russell says that the most effective way to make a skyscraper collapse is by controlled demolition:

> As your eyes will tell you, the World Trade Center collapses looked like controlled demolitions. Here's the proof. According to the law of gravity, it is possible to calculate the time it takes for an object to fall a given distance. The equation is H=(1/2)at2, where H is the height, a is the acceleration of gravity (10 meters per second squared) and t is time in seconds. Plug in the height of the building at 1350 feet (411 meters) and we get 9 seconds. That is just about the length of time it took for the very top of the World Trade Center to fall to the street below.' According to all reports, the whole thing was over in just about ten seconds.
>
> It is as if the entire building were falling straight down through thin air. As if the entire solid structure below, the strong part which had not been burned or sliced or harmed in any significant way, just disappeared into nothingness. Yet this (within a small tolerance) is what we would expect to find if there had

> been a controlled demolition, because the explosions below really do leave the upper stories completely unsupported. Like the Road Runner after he runs off the edge of the cliff, the entire building pauses a moment, then goes straight down.

Jerry Russell said any kind of friction process should have slowed the whole thing down. Gravitational acceleration could not achieve its full effect if it was fighting any opposing force. He pointed out that on 9/11 the intact building below 'should have at least braked the fall of the upper stories'. This did not happen and there was no measurable friction at all. 'This proves controlled demolition', he said.

'Boom, boom, boom'

The 'pancake collapse' theory is just another smokescreen to hide what really happened – pre-planned demolition by those who would use this horror to unleash their agenda of human control and wars of conquest. Firefighters talked of hearing explosions in the building and so did William Rodriguez, a janitor for 20 years at the World Trade Center who was in the basement of the North Tower when the first plane struck. He helped many people to safety and was honoured five times at the White House until he began to speak publicly about hearing bombs go off in the building. Rodriguez gave evidence to the 9/11 Commission which was ignored in its final report and he became a well-known advocate for a truly independent inquiry into what happened. There were so many eyewitness reports of explosions before the towers came down and if there was not an outward explosive force of some kind how come enormous columns were ejected horizontally from the buildings to fall at such a speed that they were hurled hundreds of feet into nearby buildings? This was acknowledged by government agency reports which blamed debris from the North Tower for starting fires in World Trade Center Building 7 more than a hundred yards away. What caused those phenomenal ejections right at the start? Jet fuel which the government agrees would have been burned out in a matter of minutes? Paul Lemos arrived at the World Trade Center subway station as events were unfolding. He described how he saw people jumping from the towers and later witnessed one of them collapse:

> I looked up and about 20 storeys below [the fire] I saw, from the corner, boom, boom, boom, boom, boom, boom, boom, boom, boom ... just like 20 straight hits, just went downward, then I just saw the whole building just went 'pshew'... and as the bombs were going people just started running and I sat there and watched a few of them explode and then I just turned around and just started running for my life because at that point the World Trade Center was coming right down.

These are only some experiences of firefighters and paramedics:

Battalion Chief John Sudnik: 'We heard ... what sounded like a loud explosion and looked up and I saw tower two start coming down.'

Paramedic Kevin Darnowski: 'I heard three explosions, and then ... tower two started to come down.'

Firefighter Thomas Turilli: '... it almost sounded like bombs going off, like boom, boom, boom, like seven or eight.'

Firefighter Craig Carlsen: '[We] heard explosions coming from . . . the South Tower. . . . There were about ten explosions. . . . We then realised the building started to come down.'

Firefighter Joseph Meola: '... it looked like the building was blowing out on all four sides. We actually heard the pops.'

Paramedic Daniel Rivera: 'It was a frigging noise. At first I thought it was – do you ever see professional demolition where they set the charges on certain floors and then you hear "Pop, pop, pop, pop, pop?" ... I thought it was that.'

The pops were followed by a brief moment before the entire buildings fell with all resistance removed. Hence, they came down at free-fall speed. The preparation and the planting of the charges would have meant significant access to the building in the weeks before, and that was no problem with the World Trade Center as I will detail before the book's conclusion. New York Deputy Fire Chief Ray Downey, who died on 9/11, was reportedly concerned there were bombs in the buildings which could potentially bring them down. Downey was a 'very respected expert' on building collapse. Fire Department chaplain John Delendick told the 9/11 Commission that after an apparent explosion at the top of the South Tower he asked Downey if he thought that was caused by jet fuel. He said Downey replied that he thought there were bombs up there because the explosion was 'too even'. Downey's nephew, Tom Downey, said his uncle was 'worried about secondary devices in the towers, explosive devices that could hurt the firemen.'

Building 7: 'Pull it'.

The other World Trade Center building to collapse that day was the 47-storey Building 7, also known as the Salomon Brothers Building (Fig 66 overleaf) This fell in exactly the nature of a controlled demolition at

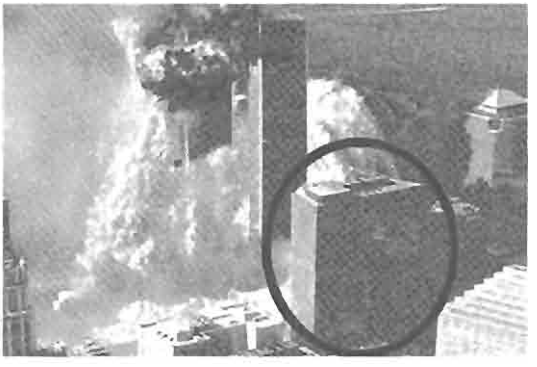

Figure 66: Building 7 or the Salomon Brothers Building.

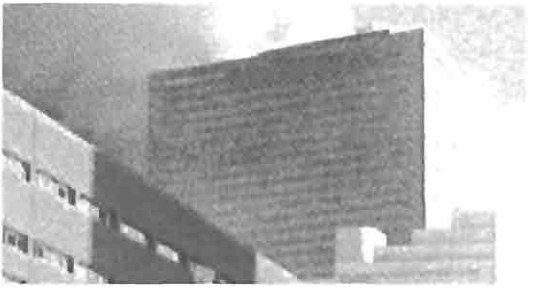

Figure 67: Building 7 standing one minute ...

Figure 68: ... seconds later the 47-floor skyscraper has fallen straight down as one unit in the most classic controlled demolition – the first and only building of its type to collapse because of 'fire'.

5.20pm without being hit by an aircraft and became the first steel-framed skyscraper in history to be brought down purely by fire (according to the government). Still today large numbers of people have no idea that a third building fell on September 11th and this certainly suits officialdom given how easy it is for the example of Building 7 to destroy the government version of why it came down (Figs 67 and 68). Puffs of smoke can be seen in lower floors as the building begins to fall straight down in the way of a controlled demolition (Fig 69). When the subject of Building 7 came up in a New York court in 2009 the judge, Edward Lehner, asked 'Building what?' Such is the ignorance of this key element of the 9/11 Big Lie. The final official report on Building 7 (not published until *seven years* later) said the fires began after being hit by debris from the collapse of the North Tower. We will see that there's another far more credible explanation which dismantles the government narrative. Once again we were led to believe that a miracle of physics occurred when heat from ... wait for it ... 'burning office furnishings' caused Building 7 to collapse after no aircraft came near it. The government report, by the National Institute of Standards and Technology (NIST) did not include numerous witnesses describing how they heard explosions before and while the building fell. Neither did NIST mention that steel from the building was holed to the point of being described as like

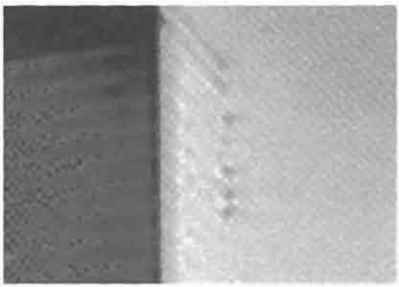

Figure 69: Simultaneous explosions in the lower floors as the building begins to fall straight down.

Figure 70: Larry Silverstein in his 'pull it' interview.

'Swiss cheese'. A controlled demolition was inadvertently confirmed by Larry Silverstein who owned Building 7 and then bought the World Trade Center lease and increased terrorist attack insurance just six weeks before 9/11. The collapse of Building 7 alone led to a pay-out of $861 million from Industrial Risk Insurers based on the official story of what happened – office furnishings on fire (another version of pants on fire). Hold on a cotton-picking second. Silverstein told a PBS television documentary in September, 2002, that he had been informed by fire chiefs that the building was so badly damaged they wanted to 'pull it' (Fig 70). This term is used by the demolition industry and emergency services as short-hand for 'pull it down' – demolish it. Silverstein made a major mistake here and he's been caught with his pants down as well as on fire. A bewildered Senator John Kerry, fending off questions about 9/11 at a public event in Texas in 2007, said that his information was that Building 7 was demolished by a controlled demolition. Even *CBS News* anchor Dan Rather, said the collapse was ...'reminiscent of ... when a building was deliberately destroyed by well-placed dynamite to knock it down'.

Indira Singh, a volunteer civilian Emergency Medical Technician working near Building 7, said she heard the Fire Department say they were going to bring down the building. 'There was another panic around four o'clock because they were bringing the building down and people seemed to know this ahead of time, so people were panicking again and running ...' Singh will return to the story from another crucial angle later in the book. Witnesses, including firefighters, agreed and described how they heard 'boom, boom, boom, boom' before Building 7 came down. Video footage includes the sounds of explosions as the building falls. A radio reporter on 1010 Winsam Radio, New York, said: 'And I turned in time to see what looked like a skyscraper implosion, looked like it had been done by a demolition crew, the whole thing collapsing down.' A television reporter at the scene said: 'It was almost as if it was a planned implosion. The whole building just pancaked

down.' If you've not seen the collapse of Building 7 go to ae911truth.org and the video presented by actor Ed Asner called 'Solving the Mystery of Building 7'. You will see the most obvious controlled demolition imaginable including comparisons with other buildings brought down by professional demolition (Fig 71). There is no difference – they are exactly the same. For the building to fall as it did without a controlled demolition all 82 vertical steel columns would have had to have failed at *precisely* the same moment because of an office furnishings fire which is clearly insanity on a stick. Building 7 is a front-line smoking gun in the 9/11 hoax because it takes weeks to prepare large buildings for demolition and lay the explosives in the right places to implode them on their own footprint. There is no way in all eternity that Larry Silverstein could have decided with fire chiefs to 'pull it' and for the building to come down soon afterwards – not unless it had been pre-charged in the weeks before. This is what he said word for word in the PBS interview:

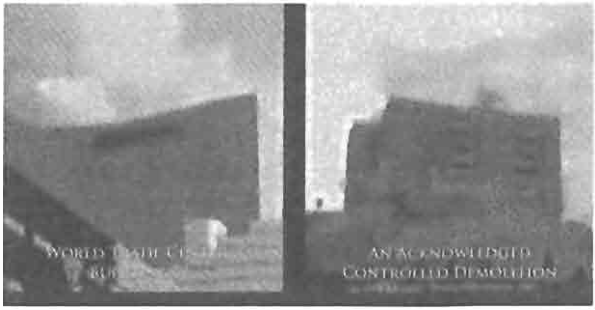

Figure 71: A screenshot from the Architects & Engineers video comparing the collapse of Building 7 with one brought down by controlled demolition. They are exactly the same.

> I remember getting a call from the fire department commander and they said they weren't sure they were going to be able to contain the fire. I said, you know, we've had such a terrible loss of life the smartest thing to do is pull it. And they made that decision – to pull – and we watched the building collapse.

Bullshit. The 'fire department commander' on 9/11 was Chief Daniel Nigro who said he does not recall speaking to Silverstein that day (in an exchange you would never forget):

> I am well aware of Mr. Silverstein's statement, but to the best of my recollection, I did not speak to him on that day, and I do not recall anyone telling me that they did either. That doesn't mean he could not have spoken to someone from FDNY; it just means that I am not aware of it.

The mystery man is still to come forward. There's a few things to mention here: (1) firefighters don't demolish buildings, demolition experts do after weeks of preparation and so Silverstein's story is a crock

of crap; (2) the fire that they were 'struggling to contain' was actually extinguished an hour before the demolition; (3) Silverstein went on to enjoy a fantastic insurance pay-out on the World Trade Center Buildings – insurance secured weeks before the attacks – and now has brand new buildings on the site to replace the aging 1973 World Trade Center towers and his Building 7 completed in 1987. Who said there were no winners on 9/11? Why would a billionaire businessman like Silverstein want to take on a poisoned chalice like the World Trade Center in the deteriorating state the Twin Towers were in? He can't be that bad a businessman when you think that in a deal worth $3.2 billion Silverstein agreed to lay-out $14 million of his own money and was handed $4.56 billion in insurance money. Another question – why did Silverstein say publicly that plans for a new Building 7 were first hatched in 2000 – *the year before* it came down on 9/11? The building was only 14 years old. Why would Mayor Giuliani's New York spend $13 million on a new emergency command centre in the building if there were plans to replace it? The command center was opened in 1999 – just a year before Silverstein said plans for a replacement Building 7 were underway. A number of emergency personnel and volunteers have said they were told long before Building 7 fell at 5.20pm that it was going to be 'pulled' or that it was 'coming down'. One was Kevin McPadden, a search and rescue volunteer formerly with Air Force Special Operations. He was working at a Red Cross centre and said he was told that Building 7 was going to be brought down:

> They said you know you've got to stay behind this line because they're thinking about taking this building down, they're not sure if it's stable or not, so they were holding a line off because they had knowledge that something was gonna happen. Well, they pushed us back a little bit ... a couple of minutes later they started coming down ... people started coming back out to the street, I watched five New York City buses jam packed with people wanting to do search and rescue, head down there towards Building 7 – people walked out into the middle of the street to see these people off, like bon voyage and right then Building 7 came down.

Building 7 was a planned demolition – end of story

Despite all of the evidence from building experts, firefighters, witnesses and the eyes of anyone watching the footage the government refused to admit what had really happened. The National Institute of Standards and Technology (NIST) published its final report on the Building 7 collapse in 2008 and proved beyond doubt or question that they have absolutely no shame. Shyam Sunder, the lead [non]investigator, told the media: 'World Trade Center 7 collapsed because of fires fuelled by office furnishings. It did not collapse from explosions or from oil fires.' The

video clip that I saw must have cut out early before he fell about laughing or immediately apologised and begged for forgiveness. A 47-storey skyscraper was brought down by 'an ordinary building contents fire'? Architects & Engineers for 9/11 Truth founder Richard Gage said:

> In the case of Building 7 the fire that NIST said started the collapse had actually burned out over an hour before. It could not have caused the collapse as NIST claims. Yet this modern, steel-frame skyscraper which was not hit by an airplane, collapsed mostly into its own footprint like a house of cards as fast as a bowling ball falling off the side of the building in just under seven seconds.

For anyone still not sure if Building 7 was brought down in a controlled demolition – hence the preparation to do so must have been instigated weeks before – these are building and demolition experts speaking on the Building 7 video which you can see on the Architects & Engineers for 9/11 Truth website:

Kathy McGrade, metallurgical engineer: 'The symmetry is the smoking gun.'

Steven Dusterwald, structural engineer: 'Building number 7 descended in free-fall for the first 100 feet which means there was absolutely no resistance to descent whatsoever.'

Ronald Brookman, structural engineer: 'NIST has admitted it went in free-fall for eight storeys and going from motionless to free-fall, instantly, that's a bothersome part of the puzzle because NIST never explained it.'

Michael Donly, structural engineer: 'We've got a building that came down in its own footprint so all the columns needed to be severed at the same time for that structure to fall the way we saw.'

Jack Keller, professor of engineering at Utah State University: 'Obviously it was the result of controlled demolition.'

Frank Cullinan, specialist in bridge construction and demolition: 'Structural connections not only had to fail nearly simultaneously but in sequential order.'

Chester Gearhart, civil engineer: 'When I saw Building 7 fall I knew it was a controlled demolition.'

Anthony Szamboti, mechanical engineer: 'The whole building completely comes down in one continuous motion. There couldn't have been any structural resistance.'

Scott Grainger, forensic fire protection engineer: 'According to NIST, the failure occurred at column 79 on level 12. They're talking about a single columnar collapse or failure that resulted in the total collapse of the building.'

Kamal Obeid, structural engineer: 'It is possible that you could still have a local failure as a result of a connection failing, but the likelihood of that failure dragging the entire building in such fashion that all the columns would fail at the same time – it's an impossibility.'

Tom Sullivan, explosives technician formerly employed by the company, Controlled Demolition: 'What I saw, it was a classic implosion. The centre of the core, the penthouse area, starts to move first and the building starts to follow along with it.'

Danny Jowenko, owner of a Dutch controlled demolition company, was shown footage of the Building 7 collapse by a Netherlands film crew without telling him what or where it was. Like most people he had no idea that a third building had come down on 9/11. He was asked by the film crew for his thoughts on how the building came down. Jowenko said: 'They blew up columns and the rest caved in afterwards ... This is a controlled demolition ... This was a hired job – a team of experts did this.' It is worth pondering on that NIST Building 7 report from this perspective and in the knowledge that the same jokers told us that the World Trade Center towers fell because of heat from jet fuel. I have heard people say that the government would never get enough people to lie and go along with a fake story to make it stick and too many people would have known that it couldn't be true. Here is a government organisation that could not have failed to realise that its report about an 'office furnishings fire' bringing down a 47-story skyscraper is the most monumental, child-like bollocks you could ever imagine, but still went along with it to support the official narrative. At the same time NIST admitted that the building fell in *free-fall* at the start for more than two seconds and this can only happen if all resistance below is deleted. There was no structural prelude; the building went from stable to free-fall in an instant – just like the Twin Towers. We should not forget that the forces driving and directing 9/11 and other catastrophes are at the very outer extreme of psychopaths and your career would be over – or worse – if you failed to act as directed. The same can be said of the FAA, National Transportation Safety Board, FBI and so on. 'I was just

following orders', right? Architects & Engineers for 9/11 Truth asked a team at the University of Alaska Fairbanks (UAF) to investigate what happened to Building 7 and the impact of the fires. Dr Leroy Hulsey led the team from the Department of Civil and Environmental Engineering. He said: 'It is our preliminary conclusions based upon our work to date that fire did not produce the failure at this particular building.' The study was ongoing at the time of writing. It is a real head-shaker that despite the expert opinion and eye-witness statements presented here I saw an article in the UK *Sun* which said there were 'conspiracy theories' that Building 7 was brought down by controlled demolition but '... there is no evidence to support such a theory'. *Extraordinary.*

Giuliani's bunker

Two years before the attacks Mayor Rudolph Giuliani opened a $13 million command center on the 23rd floor of World Trade Center Building 7– called by the media 'Giuliani's bunker'– and it was constructed with reinforced, bulletproof, and bomb-resistant walls, its own air and water supply and three backup generators. This was to be the focal point for Giuliani's Office of Emergency Management that he established in 1996 to take over the New York Police Department's responsibility for the preparation and directing of emergency response. Giuliani appointed Jerome M. Hauer to be the first director and he was replaced by 'Ground Zero's Jewish Knight' Richard Sheirer in early 2000 who was at Giuliani's side on 9/11. 'Giuliani's bunker' was really 'Hauer's bunker' because he made the decision to build a command center and to locate it in Building 7 owned by Larry Silverstein. Hauer and Silverstein must have known each other given they both had deep family connections with the New York Jewish community and with Israel. Giuliani was very clear: 'Jerry Hauer recommended that as the prime site and the site that would make the most sense ... It was largely on his recommendation that that site was selected.' From this command center all New York emergency communications frequencies could be monitored and it was supposed to be staffed around the clock. The facility was designed to respond to emergencies like terrorism and from here the mayor would oversee the response with first Hauer and then his successor Sheirer. Strange, then, that neither Giuliani nor Sheirer were anywhere to be seen there on September 11th. Giuliani cultivates a false image of the 'hero' mayor of 9/11. New York firefighters tell a very different story about this vicious man. He sent in firefighters and other rescue and clean-up workers after the attacks when the Environmental Protection Agency (EPA) knew that it was potentially lethal to breathe the toxic air at Ground Zero. Giuliani insisted because he said: 'The stock market must re-open.' Yeah, let's get our priorities right. Firefighters and their colleagues are suffering appallingly and a 2018

media report said: 'Seventeen years out from the Sept. 11, 2001, terrorist attacks, nearly 10,000 first responders and others who were in the World Trade Center area have been diagnosed with cancer ... More than 2,000 deaths have been attributed to 9/11 illnesses.' Many rescue dogs died of rare cancers. Meanwhile Giuliani continues his lucrative career in and around politics and in 'security'. What happened with regard to the Building 7 command center that day was very weird. Barry Jennings, Deputy Director of Emergency Services for the New York Housing Authority, said he took a phone call informing him that a small Cessna had hit the World Trade Center and he was told to go to the Office of Emergency Management – the 'command center' – in Building 7. When he arrived with New York City corporation counsel Michael Hess they were shocked to find the command center deserted:

> We noticed that everybody was gone. I saw coffee that was on a desk, the smoke was still coming off the coffee. I saw half-eaten sandwiches ... After I called several individuals, one told me to leave and leave right away. Mr. Hess came running back in and said, "We're the only ones up here, we gotta get out of here.

Giuliani's $13 million command center built for just this situation was *empty?* Someone told Barry Jennings on the phone to 'get out right away'? The Twin Towers had not fallen by then. Surely emergency management staff would have been in the command center with others heading there fast – most especially 'Ground Zero's Jewish Knight' Richard Sheirer, New York's Director of Emergency Management. *Unless* ... and it does appear very clearly that there was an ... *unless*. Barry Jennings and Michael Hess began to walk down the stairwell and when they reached the sixth floor the landing gave way underfoot from an explosion further below. Jennings recalled:

> The explosion was beneath me ... so when the explosion happened it blew us back ... both [Twin Towers] were still standing ... I was left there hanging. I had to climb back up and walk back up to the eighth floor.

Jennings said they were trapped there for several hours when the official report claims that the fire which brought down Building 7 was located between the seventh and ninth floors – precisely where Jennings and Hess were the whole time. Jennings said that as they waited 'I'm hearing all kinds of explosions'. When eventually they were rescued and returned to the lobby it was in ruins:

> Keep in mind, when I came in there, the lobby had nice escalators – it was a huge lobby. And for me to see what I saw was unbelievable.

He said they were told by fire officers not to look down because they were stepping over dead bodies in the lobby and they were warned to get out quickly because of reports of more explosions. Jennings, who died in 2008, officially of cancer, told his story on camera for the 9/11 documentary *Loose Change*. He later sought to retract what he said about seeing dead bodies after what the makers of *Loose Change* understood to be threats made to Jennings about his job. Maybe the FBI dropped in when they weren't sending human remains to landfills. Giuliani had certainly been talking with Larry Silverstein judging by the incredible bullshit he proceeded to deliver. He said in a television interview that they set up an emergency response operation in a building in Barclay Street and not in the purpose-built Building 7 command center which he was told had been evacuated. Why hadn't the Barclay Street building done the same when it was two minutes' walk from Building 7? Then he said he was warned that the World Trade Center was going to collapse. *Whaaaaaaat??* Giuliani told Peter Jennings on ABC:

> I went down to the scene and we set-up headquarters at 75 Barclay Street, which was right there with the Police Commissioner, the Fire Commissioner, the head of Emergency Management [Richard Sheirer] and we were operating out of there when we we're told that the World Trade Center was going to collapse. And it did collapse before we could actually get out of the building. So we were trapped in the building for 10 to 15 minutes and finally found an exit, got out, walked north and took a lot of people with us.

Okay, so why didn't anyone else know about the warning? How did they know the World Trade Center was going to collapse? Who told them? Maybe it was Silverstein's mystery fire commander. Why wasn't anyone else warned – like the firefighters that died? Why would anyone think the buildings could collapse given that not one of their type ever had through fire in the entirety of architectural history? There are some reports from firefighters that the warning about a possible collapse came from Giuliani's own Office of Emergency Management headed by 'Ground Zero's Jewish Knight' Richard Sheirer. When later challenged by 9/11 researchers about the impossibility and great significance of what he said Giuliani denied that he was warned even though he said that on national television. You are a another bloody liar Giuliani and why do people lie? To hide the truth – that's why the 9/11 fairy tale is drowning in them. Building 7 was in the news (on the Internet at least) when it emerged that the BBC and CNN reported that Building 7 had collapsed *before* it actually did. BBC correspondent Jane Standley announced that Building 7 had fallen some *26 minutes* before it came down and the building can even be seen still standing behind her while

Figure 72: BBC reporter announces the demise of Building 7 while it remains standing behind her.

she reported its demise (Fig 72). The BBC made the bizarre and ridiculous statement when questioned about this that all recordings of its live coverage on 9/11 had been 'lost'. The corporation typically said that to accuse it of being part of a conspiracy over Building 7 was ridiculous. This, of course, was not what was being suggested. Not by me, anyway. The question was not about a BBC 'conspiracy', but *who told them* and CNN nearly half an hour before Building 7 came down that it had already done so? On this, the BBC was silent. When you look at the sequence of events it is clear that the 9/11 script was always to bring down Building 7 and maybe mistakenly released the news before the deed was actually done. Giuliani later headed to a command centre set up at New York's Pier 92 where hundreds of people were assembled from FEMA, the State Emergency Management Office and the Federal Government preparing for a bio-chemical attack exercise drill long-planned for the next day. What synchronicity, eh?

How was it done?

The fact that the towers were brought down deliberately is a gimme for anyone prepared to look at the evidence and clear their minds of the 9/11 download program. I am not attached, however, to exactly how this was done and I remain wide open to all possibilities. My aim here is to show that the official story didn't happen because everything else comes from that. The obvious conclusion is the use of explosive charges as per familiar controlled demolition technique which are employed all the time around the world to bring down big structures. Professor Steven Jones and others have suggested the involvement of substances known variously as thermite, super-thermite and thermate. These are incendiary mixtures which can burn very fast and very hot. Jones was a professor of physics at Brigham Young University (BYU) in Utah before he was suspended after entering the 9/11 debate and later chose to retire. He said that he became interested in the subject in 2005 because of the questions about Building 7 and many reports from Ground Zero of steel in a molten state still there weeks after the buildings fell. Researcher Christopher Bollyn quotes Peter Tully, president of Tully Construction of Flushing, New York, describing pools of 'literally molten steel' at the World Trade Center weeks into the clean-up

operation. Particularly interesting were witnesses reporting molten steel in the basements of the three towers. Mark Loizeaux, president of Controlled Demolition, Inc. (CDI) in Maryland, told Bollyn there were 'hot spots of molten steel in the basements' – 'at the bottoms of the elevator shafts of the main towers, down seven [basement] levels.' Molten metal was discovered in the rubble of Building 7 which was not struck by an aircraft. This could not have been caused by the original relatively low-temperature fires and certainly not weeks later.

Professor Jones secured formerly molten metal fragments from the World Trade Center site and he and other physicists at BYU put them through a series of experiments and tests. Jones's conclusion was they contained the elements that would be expected with the presence of thermite/super-thermite/thermate. He said: 'The results, coupled with visual evidence at the scene such as flowing yellow-hot liquid metal still red after falling about 500 feet, provide compelling evidence that thermite reaction compounds were used, meaning thermite was deliberately placed in both WTC Towers and WTC 7.' Jones further contended that a souped-up version of thermite, known as thermate, could cut through steel beams and substantially reduce the melting point of steel. He said that thermate could 'cut through steel like a hot knife through butter'. The military use thermate, which burns at higher temperatures than regular thermite, to cut through tank armour and bunkers. Thermate can even burn under water and in other oxygen-starved locations. Professor Jones said thermate would explain molten metal seen falling from the still-standing South Tower and white smoke/ash emitting from the same area (Fig 73). He said they found elements in Ground Zero dust that strongly suggested the presence of thermite/thermate and that 'strange corrosion' on the dust-covered roofs of vehicles in the area would be expected with thermite residue. He claims that other 'finds' in the rubble and dust point in the same direction. This is only the briefest summary of the thermite/thermate hypothesis which has proved highly controversial even within the 9/11 Truth movement. There are a number of interviews and presentations by Steven Jones on the Internet for those who wish look deeper at the claims.

Figure 73: The molten metal pouring from the South Tower highlighted by Professor Steven Jones.

A very different explanation circulating over the years is the use of directed energy weapons to bring down the towers. I am not

saying this did happen or didn't, but I come back to a point I have emphasised over and over: The technology we see is not the cutting edge of technology that actually exists. Selling a perception of what is possible is a major element of the human perception program. If you limit perception of the possible in the target population they will dismiss explanations that are true because the truth appears to be impossible to programmed perception. It may be impossible to their *perception* of reality – but not to *actual* reality. World-changing technology developed in secret projects and underground bases is sitting there waiting for the right moment in the continuing sequence of human control to be played out in the public domain. This includes directed energy technology that could turn an enormous building to dust. These weapons exist today in the world of the known and so they would have existed – and then some – in the world of the hidden at the time of 9/11. I highlighted 'beams weapons' in *Alice in Wonderland* in 2002 and pointed out that some 425,000 cubic yards of World Trade Center concrete disintegrated mostly as immense clouds of dust. One witness said there was 'not a single block of concrete in that rubble'. Dr Charles Hirsch, the government's Chief Medical Examiner, reportedly told grieving relatives in December, 2001, that many bodies had been 'vaporized' and at that time only 500 of the nearly 3,000 who died had been identified. I described in *Alice* how the *American Free Press* (AFP) had interviewed a German physicist who believed a laser beam weapon could have caused the collapse of the Twin Towers using infrared technology that was first developed in the Soviet Union. The physicist, whom AFP does not name, was described as a former East German physicist who studied Soviet infrared technology and 'plasmoids' during the 1960s and 70s. He was claimed to be directly involved in the demonstration of a Soviet laser beam weapon for the US Air Force in Weimar in 1991. According to the physicist the Soviet weapon was used during a Soviet dispute with China in 1969 to destroy 'a wall' at the Ussuri River which separates Manchuria from Russia. Infrared radiation employs invisible wavelengths between visible light and microwave on the electromagnetic spectrum and produces fantastic heat. It creates a potentially devastating phenomenon called a plasmoid cloud of heated and ionised gas, AFP reported. The United States had been developing and deploying such weapons for many years and one of its centres of development was the Brookhaven Laboratories on Long Island, New York. Author Jeff Hecht wrote in his appropriately 1984 book *Beam Weapons: The Next Arms Race:* 'The military 'destructor beam' definitely is in our future tactical arsenal.' Advanced technology and plasma physics involved in directed-energy weapons gave them unprecedented lethal power. They could unleash devastating beams of energy in seconds and less. The 'German physicist' told *American Free Press*:

> From my experience as a physicist and research scientist with the GRU [Russian military intelligence] I have enough experience to judge that the World Trade towers have been burning too quickly, too hot, and too completely to have been caused by the kerosene fires that resulted from the crashes. Furthermore, the demolished buildings nearby are an indication that there was a plasmoid cloud involved, which probably affected the buildings nearby.

He said that in 1991 the GRU demonstrated for the US Air Force Electronic Security Command (AFESC) the capabilities of its infrared beam weapon by reducing a ceramic plate to dust from a distance of one mile. He said the demonstration was designed to show the US 'how a stealth bomber could be turned into dust in the same way'. The plate had been disintegrated into such fine dust, he said, that it was difficult to pick up with a vacuum cleaner. 'The plate was not destroyed suddenly as if hit by a bullet, rather it disintegrated in a process taking about 15 minutes.' The physicist said that one of the transmitters involved in striking the World Trade Center with a beam weapon could have been located in a high building nearby or on a satellite, plane or ship. Russian state-funded TV station RT reported in 2018 that microwave directed-energy weapons were being tested at firing ranges in Russia. The prototypes were designed to burn missile-homing systems and could be incorporated in the arsenal of sixth-generation fighter jets. Vladimir Mikheev, deputy head of KRET, a leading electronic warfare contractor, said that these cutting-edge weapons systems 'exist and progress quite effectively', according to the TASS news agency. Mention of Russia here is not an indication that they were involved in 9/11, only that such weapons existed at the time of the attacks and the American military also had them. Mind you, judging by the hysterical demonisation of Russia maybe the best way to get a new investigation into 9/11 is to claim 'the Russians did it'.

Tesla knew

Targeted electromagnetic energy goes back at least to the late 19th century and was developed most famously in the first half of the 20th century by the Serbian-American technological genius, Nikola Tesla (1856-1943) who was way ahead of his time (Fig 74). He said: 'The day science begins to study non-physical phenomena it will make more progress in one decade than in all the previous centuries of its existence.' Tesla told

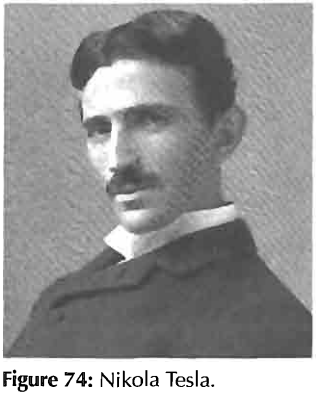

Figure 74: Nikola Tesla.

The New York Times in 1940 that he had developed 'an entirely new principle of physics' which 'no one ever dreamed about'. He called this the 'teleforce' and described it as an invisible beam that could generate an invisible 'Chinese Wall of Defence' and 'melt' aircraft motors at a distance of 250 miles. The teleforce beam was only one-hundred-millionth of a square centimetre in diameter, he said. Tesla was tapping into natural electrical/electromagnetic and other forces and focussing their power through technology. He said that he could produce 100 million volts of pressure with currents up to 100 billion watts and if the radio frequency was resonating at two megahertz the energy released would be the equivalent of ten megatons of TNT. Tesla said that he had the technology to 'split the Earth like an apple'. *New York American* published an article in 1935 with the headline 'Tesla's Controlled Earthquakes' in which he said that his technology's 'rhythmical vibrations pass through the Earth with almost no loss of energy ... [and it] becomes possible to convey mechanical effects to the greatest terrestrial distances and produce all kinds of unique effects'. Tesla manipulated the weather in experiments that included lightning strikes above his laboratory and he could make the ground shake violently (Fig 75). On one occasion thousands of windows in the area were broken before he could turn off his machine. His artificially-generated lightning storms unintentionally started hundreds of forest fires and blew out electrical grids in two states. He could see the military potential of his inventions and acknowledged that his teleforce could be used with devastating effect in war. He said this was not his intention and he preferred to use his knowledge to provide free energy by harnessing naturally-occurring electrical and electromagnetic fields. This immediately had the Hidden Hand networks turn against him with a vengeance. Free energy, along with interest-free money, is their worst nightmare because of its devastating effect on both their income and control. Have any of the Green fanatics pressing to 'save the planet from global warming' ever stopped to ask why the super-rich families behind 'we must transform society to save humanity' are the very same families and networks that have suppressed Tesla-type free energy for everyone

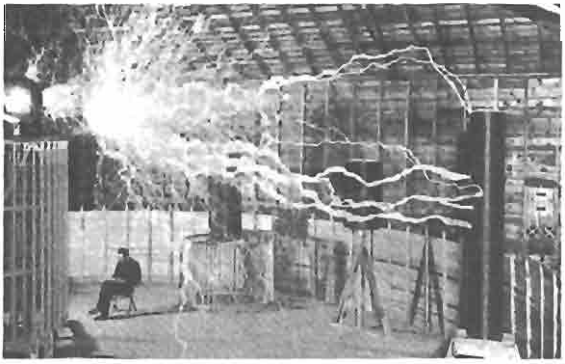

Figure 75: Tesla understood electromagnetic reality and how it could be harnessed for good and evil.

without generating any CO2? Tesla technology and its further developments can, in relation to 9/11, do the following:

- Deliver unprecedented amounts of energy at specific locations that are far more precise than a nuclear weapon.
- Interfere with global communications systems while itself remaining unaffected.
- Manipulate weather (they wanted a clear blue, cloud-free sky, for example, for maximum impact).
- Create nuclear-sized explosions using electromagnetic pulses.

Tesla died in a New York hotel room in 1943 and his cutting-edge research papers were confiscated by the American government, military and intelligence networks. The papers were reviewed for the military by John G. Trump (1907-1985), uncle of 'outsider' president Donald John Trump. This is where his middle name 'John' comes from. Uncle Trump would later become head of the British Branch of the Massachusetts Institute of Technology (MIT) Radiation Laboratory. This was funded by the Rockefeller family and would appear to have become the centre of a weather-manipulation programme. Did the American government, military and intelligence networks have the technology to bring down the World Trade Center buildings by using directed energy? Too bloody right they did and people will have to decide for themselves if they think that happened.

Dust to dust and more dust

The best-known proponent of the directed energy weapon scenario on 9/11 is Dr Judy Wood, a materials scientist and former professor of mechanical engineering who secured a doctorate in these subjects at the Department of Engineering Science and Mechanics at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. Dr Wood set out the case for directed energy in her book *Where Did The Towers Go?* which was published in 2005. The book is highly detailed, illustrated and sourced and you can also see her video presentations on YouTube – '9/11 Dr Judy Wood where did the towers go?' will get you there. She makes a series of observations in support of her contention that the buildings were not brought down by conventional methods of controlled demolition. These include:

- The buildings turned to dust in mid-air – including steel beams and core vertical columns which can be seen turning to dust and

disappearing as they fell – leaving only a tiny fraction of the one and a quarter million tons of steel, concrete, aluminium and other material to actually strike the ground.

- The Twin Towers were built on land reclaimed from the close-by Hudson River within a water-resisting dam or dyke known as the 'bathtub'. Had the buildings slammed into the ground before they turned to dust this dam would have been breached and the area flooded.

- Seismic records do not record the Richter scale reaction that would have been caused by such a massive impact of 110 storey buildings hitting the ground. When the Seattle Kingdome sports stadium was brought down in a conventional controlled demolition in 2000 it had a seismic impact of 2.3. The 110 storey World Trade Center 2 (the South Tower) registered just 2.1 despite having, Wood says, 30 times the potential energy. The mall and parking garage right under the World Trade Center site were still intact.

- Wood compares the 9/11 seismic readings with that of an earthquake in Midtown Manhattan in January of the same year and finds them to be very different. The 9/11 readings show that 'no signal went through the earth' which would have happened if the building had not turned to dust before impact. As for Building 7 there was no seismic reading of note and Wood describes the fall of the building as a 'non-seismic event'.

These are what Wood calls 'the biggest smoking guns' which show that (a) the government story about the World Trade Center is not true and (b) a conventional controlled demolition could not have been responsible. When the World Trade Center towers come down it's almost like watching a fountain of dust emanating from the top as the building basically disappears (Fig 76). Jay Jones, a

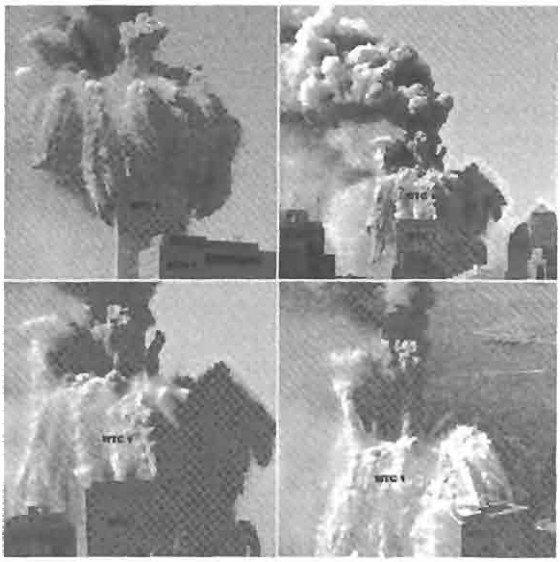

Figure 76: The dust 'fountain' emanating from the top as the Towers came down.

firefighter at the scene, said: 'These were the biggest office buildings in the world and I didn't see one desk or chair or one phone, nothing.' Wood points out other evidence that exposes the nonsense about fire compromising the steel and why there are descriptions of steel 'vaporising'. Buildings around the World Trade Center complex – even across the road – suffered nothing like the damage that would be expected had the falling debris not turned to dust, she says. Wood contends that with all the material 'squeezed' and projected out from the towers had the 'pancaking' story been true buildings all around them would have peppered like machine gun fire. Some were hit as described earlier, but not 'peppered'. She recalls being contacted by a man who worked at the World Trade Center and decided to go home when the planes initially hit. He said he walked past the South Tower 'with the fires about out' and headed for the ferry terminal on the Hudson. While he was there, with his view of the WTC obscured by other buildings, he said someone claimed the South Tower had collapsed. The reaction was that this was ridiculous and the person must be an idiot. When he was crossing the river and looked back there was only one tower standing. He hadn't heard anything or felt the ground shake. Michael Ober, an emergency medical technician, said: 'I don't remember the sound of the building hitting the ground ... if the building is hitting the ground that hard, how do I not remember the sound of it? Six different magnetometer readings of the Earth's magnetic field at ground level by six different stations in Alaska reveal that about 20 minutes before the first tower was struck the field around the World Trade Center began to act strangely and distort. The reading had been quite stable until then, but distorted significantly in the run up to the plane strikes and then began to distort dramatically and go 'haywire' over the period when the towers came down. This continued until Building 7 fell when the readings began to calm down and return to their former comparative stability.

What caused this?

There are other strange phenomena to consider. Vehicles some distance from the impact were turned upside down or burned out in a way that did not suggest a normal fire (Fig 77). Some vehicles were partly burned in a specific area but untouched in other parts and alongside them were trees, street lamps and shops that were not similarly damaged. This cannot be explained by burning debris flying from the building and only striking road vehicles and nothing else. The streets and area around the vehicles were strewn with unburnt paper and there are images of burning cars surrounded by paper that isn't burning. Vehicle engines were melted together with other parts which fire could not possibly have done. Cars and buses were twisted and melted with paintwork

Figure 77: Vehicles a long way from the World Trade Center were burnt out while trees and paper near them, even next to them, were not burned.

Figure 78: Cars were found burned out or 'toasted' on top of each other and others were upside down.

Figure 79: A bus stripped to the metal but with no burn or scorch marks.

stripped as if they had been dipped in paint-stripper (Figs 78). There were melted, paint-stripped buses and cars with no scorch-marks (Fig 79). One witness said: 'It was unbelievable, they were twisted and melted into nothing.' A television reporter described 'car after car, and buses, burned down to the steel'. Door handles and latches were gone and there was no window glass at all. The drjudywood.com website comments:

A reported 1400 vehicles were damaged on 9/11. These vehicles had peculiar

> patterns of damage and some were as far away as ... (about 7 blocks from the WTC, along the East River). Vehicles had missing door handles for example, windows blown out, window frames deformed, melted engine blocks, steel-belted tires with only the steel belts left, and vehicle front ends destroyed with little or no effect on the back end of the vehicles. What could have caused such extraordinary damage? Portions of cars burned while paper nearby did not.

Wood says that comparisons with images of burnt-out vehicles indicate this is not the same phenomena. Similar scenes were reported and photographed during devastating wildfires in California in 2018 which some blamed on energy beams directed from the sky. Houses were burnt to nothing alongside others that were untouched, homes turned to ash while surrounded by unburnt trees and vehicles were burnt and overturned in ways that looked very much like those that Wood highlights with 9/11. World Trade Center steel beams that survived were found twisted tightly back on themselves in a U-bend and materials with very different melting and boiling points became fused together including organic matter that should have been burned away if this had been caused by fire. Some witnesses described being picked up by a wave of energy and being tossed down the street or against walls. *New York Daily News* photographer David Handschuh recalled how he was thrown nearly a block: 'One second I was running, the next I was airborne.' He also remembered feeling a warm, not hot, blast of air which others also described. In the debris of the towers people saw acts of spontaneous combustion long after the towers came down that could not be explained by heat. Some may point to the thermite/thermate hypothesis, but Wood says all these phenomena would be expected if Tesla-like technology had been used on 9/11. She writes that when focussed-energy struck the buildings people would hear 'boom, boom, boom' by the effect of the structure disintegrating. As she puts it: 'Bombs go boom, but not everything that goes boom is a bomb.' Matter is only energy vibrating to a slow frequency and if that energetic construct of 'matter' is hit by high-powered focussed energy it will spatter apart and what it strikes would turn to dust. Wood wonders if many who jumped from the building were not forced to do so by the effect of microwave energy which can give you the feeling that your skin is on fire. The American military/law enforcement employs this skin-fire system to disperse crowds and, by the way, it operates in the same frequency band as the cumulatively lethal 5G communication systems being rolled out across the world by the Hidden Hand without any independent testing of its effect on human health. But then they are psychopaths – the same mentality and networks behind 9/11.

Another aspect of Wood's research is that on that clearest of blue-sky

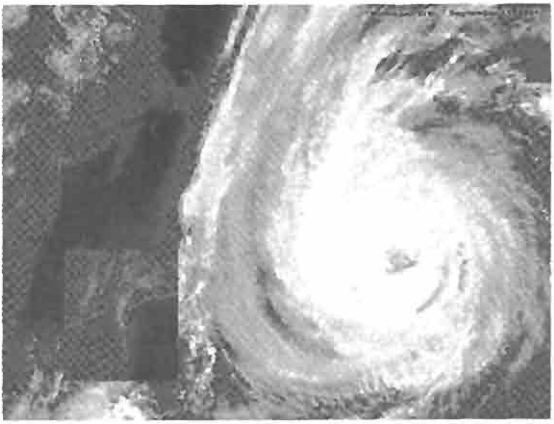

Figure 80: Hurricane Erin off the US East Coast on 9/11.

days in New York and Washington a category 3 hurricane was spinning off the New York coast. Anyone remember hearing about that or any pre-warnings as it worked its way from the south? Me, neither. It was dubbed Hurricane Erin and coverage was sparse compared with what you would expect and restricted to weather reports rather than the main headlines (Fig 80). CNN Weather reported on September 8th that 'the first Atlantic hurricane of the season churned toward Bermuda Saturday night, with experts forecasting even stronger winds over the next 24 hours'. The report located Erin 325 miles southeast of Bermuda 'but creeping closer at a rate of 15 mph'. Wind speeds were recorded at a sustained 85 miles per hour. Erin made its way north to reach its greatest extent off the coast of New York on September 11th and following the attacks moved sharply right out into the ocean. Personnel on the International Space Station orbiting 240 miles above the Earth said they could see plumes of smoke from the World Trade Center but didn't mention a big hurricane system just off the coast. The position of Erin apparently ensured the cloudless blue skies for which 9/11 is remembered and against which events could occur in clear sight with maximum impact. American meteorologist Joe Bastardi mentions Erin in his book, *The Climate Chronicles*, in the sense of weather conditions affecting an outcome. He writes:

> On 9/11 the sun was shining brightly as high pressure along the East Coast and strong sinking air outside of major Hurricane Erin well offshore allowed for a spectacular day on the East Coast. If Erin were closer, chances are the weather would have been less hospitable or perhaps there would have been flight delays. As it was, the storm was in the perfect spot to allow the usual sinking air create ideal conditions for the hijackers to do what they did.

Tesla-type technology can certainly whip-up hurricanes and use them to gather and focus energy for many purposes or produce desired weather conditions as described. Weather systems are simply energy systems and if you can change the nature of that energy you change the weather. Technological modification of the weather has been possible

since at least the first half of the 20th century and is now very powerful and sophisticated. You don't have international agreements not to mess with the weather and use it as a weapon if modifying the weather is not possible. Of course it is and since when did the United States and other countries with this technology give a damn about international laws and treaties? A major cover for this manipulation is the hoax about human-caused climate change upon which they can blame their weather-changing actions. Hurricane Erin off the coast of New York at the time of 9/11 is an amazing 'coincidence', that's for sure.

The deluge of unanswered questions and blatant lies and anomalies regarding the attacks of September 11th was the motivation for citizen journalists to come together organically and independently to form the movement that became known as 9/11 Truth. They are referred to as 'Truthers' and they have been abused and ridiculed by the mainstream media for doing the job *it* should have being doing. You have seen the evidence so far that puts the official story into question at every turn while excuses-for-journalists the world over dismiss with an arrogant wave of the hand the obvious flaws in the story they have accepted without a second thought. Many of these system-defenders call themselves 'progressives', as with Matthew Rothschild, editor of *The Progressive*, who described the official story of the towers falling as 'perfectly logical, scientific explanations'. Typical are comments like those of George Monbiot at the system-serving London *Guardian* which bizarrely claims to be 'radical'. Excuse me a moment, my belly hurts. Monbiot described 'Truthers' as 'fantasists', 'conspiracy idiots' and 'morons'.

Why has the mainstream media never uncovered the truth about 9/11? George Monbiot. Matthew Rothschild, ad infinitum. I rest my case.

CHAPTER 14

Prior knowledge and cover-up

Whenever you find that you are on the side of the majority, it is time to pause and reflect – Mark Twain

Still further confirmation that 9/11 was an inside job would be evidence that those with responsibility to defend the United States from terrorist attacks – and other insiders – were aware of what was going to happen. This evidence can be found a plenty.

Later in the book I will describe the remarkable absence of leaseholder Larry Silverstein and his family at the World Trade Center that morning even though they were there almost every other day at the time the attacks happened. There are many stories that indicate prior knowledge in either detail or theme. San Francisco Mayor Willie Brown said he was warned at 10pm the previous night by what he called 'my security people at the airport' to be especially cautious about travelling by air on September 11th – he planned to fly to New York. A report in *Newsweek* claimed that on the day before the attacks 'a group of top Pentagon officials suddenly cancelled travel plans for the next morning, apparently because of security concerns'. The *San Francisco Chronicle* reported that the FBI had advised Attorney General John Ashcroft not to fly on commercial aircraft in this same period and as the *Chronicle* put it: 'The FBI obviously knew something was in the wind.' Still the FBI and CIA claim they were not aware of a possible attack on commercial aircraft in the United States. Even Dan Rather at CBS asked why the warning was not shared with the public while Ashcroft avoided questions about what he was told. The FAA was reported to have issued a warning to airlines and airports on August 28th that people connected to terrorist networks were planning to fly on US airlines. Author Salman Rushdie, who has been threatened by Arab extremists for his book, *The Satanic Verses*, told the London *Times* that he believed the US authorities knew of an imminent terrorist strike when they banned him from taking internal flights in America and Canada just a week before the attacks.

The *Times* reported: 'On September 3rd the Federal Aviation Administration made an emergency ruling to stop Rushdie from flying unless airlines complied with strict and costly security measures.' Rushdie said the airlines would not upgrade their security. The *Times* said 'the FAA told Rushdie's publisher that US intelligence had been given warning of 'something out there' but failed to give any further details and 'the FAA confirmed that it stepped up security measures concerning Mr Rushdie but refused to give a reason'. Goldman Sachs also circulated a memo on September 10th warning of a possible terrorist attack and advising employees to stay away from American government buildings. A FEMA Urban Search and Rescue Team was deployed to New York City the night before the attacks. FEMA official Tom Kennedy told *CBS News* on September 11th:

> We're currently one of the first teams that was deployed to support the City of New York in this disaster. We arrived on late Monday night and went right into action on Tuesday morning.

They must have been in New York for the FEMA exercise drill planned there for September 11th. What are the chances that a disaster drill in New York on 9/11 by the country's emergency response organisation was planned to take place at the very time that plane hijacking drills were taking place in the skies and just as the 9/11 attacks were happening that mirrored those drills and required an immediate FEMA response? Vice President Dick Cheney said after 9/11 that political criticism of the Bush government's failure to react to warnings was 'thoroughly irresponsible and totally unworthy of national leaders in time of war'. He also tried to deflect such headlines by saying that 'without a doubt, a very real threat of another perhaps more devastating attack still exists'. You should know, Dick. Two Israel-based employees at an Israeli telecommunications company and instant messaging service called Odigo, with offices two blocks from the World Trade Center, were sent a warning two hours before the first tower was hit that some sort of attack was imminent. Odigo vice president Alex Diamandis said: 'The messages said something big was going to happen in a certain amount of time and it did – almost to the minute.' CEO Micha Macover said that immediately after the attack the two told the company about the warning and Israeli security services were then informed who told the FBI. Macover said:

> I have no idea why the message was sent to these two workers, who don't know the sender. It may just have been someone who was joking and turned out they accidentally got it right.

So why hasn't the sender been found then? Did they try? The idea that someone warned about attacks that had never happened before and almost to the minute may have been joking around and got it right by accident simply is not worth troubling neurons to activate in reply. How many know that Israel Mossad agents were arrested after being spotted on 9/11 cheering and high-fiving as they filmed the burning North Tower and were clearly in position knowing what would happen? They became known as the 'Dancing Israelis'. How many know that hundreds of Israelis were questioned by the authorities during 2001 suspected of being in a spy ring operating around the country and especially in Florida in the same period and even in the same city that alleged '9/11 hijackers' were located? All this is coming up in detail when I reach the climax of the book. Many remarkable 'coincidences' have been highlighted in television programmes and other media that have either portrayed or appeared to foretell events of 9/11. Some may be coincidence, but not all of them. The most remarkable was the first episode of a Fox series called *The Lone Gunmen*, an X-Files spin-off show broadcast in America in March, 2001, which featured a passenger aircraft having its controls taken over from the ground via the computer system and flown into the World Trade Center. At the last moment the pilot seized back control with help from 'good guys' on the ground and pulled up to avoid disaster. The point of the attack in the plot-line was to blame the crash on Middle Eastern terrorists to justify a war on terror to make fortunes for arms companies. If you think that's a 'wow' – the plane had its computer systems hijacked during a wargames exercise involved the hijacking of a passenger aircraft. The scenes were shot in the spring of 2000. Where did the inspiration for the storyline originate which was so incredibly accurate in terms of 9/11? Programme makers say it was a coincidence while others believe it was far too close to the soon-to-be truth for such an explanation.

Casino prophets

Then there was stock trading immediately before September 11th involving airlines and companies affected by the attacks. This provides spectacular evidence of prior knowledge. Again the 'government story is true' mind-set led to media speculation that this trading must have been the work of Osama bin Laden. Who is more likely to have been behind this – a guy in a cave in Afghanistan or those who run both the government and the banking/stock market system? These include the CIA which has long and extremely close connections to the financial elite. Many of the CIA's leading personnel over the years have come from this very background, starting with its first director, Allen Dulles, the Nazi supporter and business associate. The CIA claims to constantly

monitor unusual financial transactions on the markets to track evidence of possible terrorist and criminal activity. What does it call 'unusual' when you consider what happened in the days before 9/11? Stock markets are not there to benefit the general population. They are casinos. A news report from Wall Street or the London Stock Exchange is little more than a report from Las Vegas on how the blackjack or roulette tables are going. They bet with people's lives and livelihoods. Two ways of doing this are 'put' and 'call' options. A 'put option' is when you bet that the stock in a company will go down in value within a certain period. If it does you can make big money. A 'call option' is when you bet that the stock price will go up. Clearly the stock price of airlines involved in the hijackings, American and United, would fall immediately after the attacks and the same with companies with a major operation in the World Trade Center or those with a potential insurance liability. How fascinating, therefore, that 4,744 put options were placed on United Airlines against only 396 call options at the Chicago Board Options Exchange between September 6th and 7th. Three days later 4,516 put options were purchased on American Airlines and only 748 call options. This represented six times the usual number of put options and trading in other airlines did not follow this pattern. The theme can be seen with major companies at the World Trade Center like Morgan Stanley and Merrill Lynch and insurance firms that would face crippling claims as a result of the attacks. When these highly unusual trades were reported, revealing as they do blatant prior knowledge of the attacks, more than $2.5 million in put option profits on United Airlines went unclaimed. Michael Ruppert, a researcher and former Los Angeles Police Department drug investigator, made a CIA connection after the attacks to this insider trading:

> That evidence also demonstrates that, in the case of at least one of these trades – which has left a $2.5 million prize unclaimed – the firm used to place the 'put options' on United Airlines stock was, until 1998, managed by the man who is now in the number three Executive Director position at the Central Intelligence Agency. Until 1997, A.B. 'Buzzy' Krongard had been Chairman of the investment bank A.B. Brown. A.B. Brown was acquired by Banker's Trust in 1997.
>
> Krongard then became, as part of the merger, Vice Chairman of Banker's Trust-A.B. Brown, one of 20 major US banks named by Senator Carl Levin this year as being connected to money laundering. Krongard's last position at Banker's Trust (BT) was to oversee 'private client relations'. In this capacity he had direct hands-on relations with some of the wealthiest people in the world in a kind of specialized banking operation that has been identified by the US Senate and other investigators as being closely connected to the laundering of

drug money.

In 1998 Krongard was appointed as counsel to CIA Director George Tenet and promoted to CIA Executive Director by Boy Bush in March, 2001. Bankers Trust-A.B.-Brown was taken over in 1999 by Deutsche Bank when Krongard left for the CIA and it became the biggest bank in Europe. Deutsche Bank was also used for the highly unusual pre-9/11 trading and its London branch was apparently frequented by the Bin Laden family. The question may be asked again: Who is more likely to have been behind these 'prior knowledge' stock trades, Osama bin Laden in Afghanistan or the global financial nexus connected to the CIA and the Hidden Hand elite? This is the same CIA that failed to respond to these highly unusual stock movements just as US air defences failed to respond to four hijacked airliners. The same CIA and 'intelligence community' which despite a then more than $30 billion annual budget (and that was just the official one) claimed with the FBI and military they had no idea the attacks were going to happen until they switched on the TV with the rest of the nation. We'll see what crap that is. The CIA announced an investigation when news of the stock trades broke and media reports said market regulators in the US, UK, Germany, Switzerland, Italy and Japan were to be involved. Have you ever heard another word about this 'investigation' even though the transactions must be traceable? The trail did not lead to Bin Laden or the Islamic world or we would have seen it blazed across the front pages a long time ago. The 9/11 Commission dismissed foreknowledge of the attacks by saying they had traced the bulk of the trades in United Airlines to someone 'with no conceivable ties to al-Qaeda'. You've got to laugh or weeping is all that remains.

Designer cover stories

The highest levels of the intelligence and law enforcement networks knew something was coming, but I repeat my warning about cover stories being used to misdirect from the real story. This can even be done by circulating evidence of a lesser conspiracy or cover-up to divert attention from the true depth and nature of the conspiracy/cover-up. We are dealing with state-of-art smoke and mirrors and we need to be careful about the double-spin technique or what I call 'fall-back position'. When these Hidden Hand operations are played out there is always a number one cover story that they want the people to believe and most do. In this case Cover Story A was that Osama bin Laden organised the entire operation with 'his' al-Qaeda network and it was so brilliantly done that US military and civilian agencies had no idea what was going on until the planes crashed. They know that not everyone will believe that and will look for some kind of conspiracy behind the official

version of events. So they give them 'evidence' of a conspiracy to keep them happy and occupied – Cover Story B. When Princess Diana was assassinated in Paris in 1997 the prime cover story was that it was all a terrible accident caused by a drunk driver. The fall-back position for those who questioned that explanation was she was murdered because the British royal family did not want her to marry a Muslim, Dodi Fayed. Diana's murder goes much deeper than that (see *The Biggest Secret*), but together these two narratives provide alternative explanations accepted by the great majority including many of those that don't believe the prime cover story. The 9/11 fall-back position aimed at conspiracy researchers and others who question the official line is that (1) the Bush administration knew the attacks were coming, but were so incompetent that they did nothing; or (2) they knew the attacks were coming, but did nothing because allowing them to happen would provide the excuse to launch a war on terror for reasons of oil and advancing their agenda of conquest in the Middle and Near East. What these versions have in common is very significant: No matter what the background detail might be they are all based on Osama bin Laden and al-Qaeda being responsible for organising the whole thing and the plan involved 'terrorists' trained at American flying schools. This suits the Hidden Hand because it hides the central truth that the core organisation behind the attacks was not based in a cave in Afghanistan, but within the US government, military and intelligence 'community', the Israeli military and intelligence network (much more later) and at the highest level of the Hidden Hand hierarchy. We should keep that in mind when we hear stories that 'Bush was warned'. Incompetence is often used as a smoke screen to hide cold calculation. 'Incompetence' can be used, as in this case, to justify the 'reorganisation' (centralisation) of intelligence and security agencies to focus the power over intelligence, surveillance and law enforcement into even fewer hands. Yes Bush was warned, but it was far more than that – far, far more.

The story broke widely in the mainstream media (big red flag) in May, 2002, about the number of warnings given to, and circulating within, the Bush administration and its agencies. The theme was that President Boy Bush was told of possible hijackings in the United States before September 11th and did nothing to warn people. The White House admitted eight months after the attacks that Bush was told by US intelligence before 9/11 that Osama bin Laden's terrorist network might hijack American aircraft. White House press secretary Ari Fleischer said the administration notified the 'appropriate agencies' in the summer of 2001 that hijackings were possible, but the Massport organisation that ran Boston Logan Airport told the *Boston Globe* that no such warning was communicated to them. Bush was said to have been told of a possible attack during an intelligence briefing on August 6th, 2001,

headed 'Bin Laden Determined to Attack Inside the United States' by the same US intelligence agencies that claimed they had no idea that the September 11th attacks were being planned. The CIA would only say in response to these reports that the subject of airline hijackings was among a number of terrorist methods raised to US government officials at the time. In fact, congressional correspondent David Welna said on National Public Radio on the morning of September 11th: 'I spoke with Congressman Ike Skelton – a Democrat from Missouri and a member of the Armed Services Committee – who said that just recently the Director of the CIA warned that there could be an attack, an imminent attack, on the United States of this nature. So this is not entirely unexpected.' The idea that the military-intelligence complex had no warning does not stand up for a second, but again watch the fall-back positions holding the dam at 'Bin Laden did it' whatever version you go for. I have also made the important point that there is the State and the 'Deep State'. These can be described on one side as government, intelligence and military personnel genuinely seeking to protect America (State) and on the other agents of the psychopathic cabal working for a very different agenda (Deep State). The latter seeks to thwart the efforts of the former and the same happens in every country. Bush even tried to call off Robert Mueller's [non]-investigation of the attacks by the FBI when a week later on September 18th letters containing anthrax were sent to Democratic Senators Tom Daschle and Patrick Leahy and some media organisations. Seventeen people were infected and five died. The FBI described its anthrax investigation as 'one of the largest and most complex in the history of law enforcement'. Oh, really? And 9/11? This was a highly convenient diversion and came to a sudden halt when it was revealed that this Ames strain of anthrax was commonly used in US military research and at the US Army's Dugway Proving Ground in Utah.

Federal Ban on Investigation (FBI)

Understanding 9/11 and its lies, diversions, contradictions and ever-changing stories requires people to grasp the true nature of the FBI. As with all these 'alphabet' organisations like the CIA, NSA and so on the FBI has many genuine, decent and professional people in its ranks, but they are allowed to know only so much. Compartmentalisation of information – the need-to-know technique – means that they are not aware of the agenda those in charge and control are really pursuing. They only know what they need to know to do their particular job. There is a chasm of difference between many of those who work for the FBI and those who control it. At that upper level the Federal Bureau of Investigation is a cesspit of deceit and manipulation and takes its 'moral' compass from that of its notorious long-time chief, J. Edgar Hoover.

Reports became public in the aftermath of 9/11 that a classified memo written by an FBI agent in Phoenix had urged FBI headquarters to investigate Middle Eastern men enrolled in American flight schools and that terrorist groups like those linked to Osama bin Laden could be sending students to the schools as part of terrorist plans. Be careful here with a fall-back position narrative, but law enforcement officials said the memo was received at FBI headquarters in late July, 2001, and reviewed by counterterrorism staff. No action was taken in response to the memo's plea to compile information on the visa applications of foreign students seeking admission to aviation schools. We are told that a flight instructor at the Pan Am Flying Academy in Eagan, Minnesota, called the local FBI office on August 17th to report his suspicions about a 33-year-old French-Moroccan called Zacarias Moussaoui who was later jailed for life for involvement in the 9/11 attacks. *The New York Times* reported that senior FBI officials repeatedly denied requests by agents at the Minnesota office for a detailed investigation into his background. One of the facts that interested the agents was that Moussaoui was attending flying schools while FBI Director Robert Mueller, who was appointed two weeks before 9/11, has constantly claimed the FBI had no idea that potential terrorists were training to be pilots in the US. He said it was 'news, quite obviously,' and added: 'If we had understood that to be the case, we would have – perhaps one could have averted this.' This is clearly not true as genuine FBI agents have pointed out. Agents were blocked in their investigations because they were in danger of thwarting the cover story for 9/11 rather than exposing the real plot. Information from FBI agents in Minnesota was included in an internal FBI document warning that Moussaoui 'might be planning on flying something into the World Trade Center'. Agents asked for a warrant to search Moussaoui's personal computer only for their requests to be refused by the [In]Justice Department of Bush Attorney General John Ashcroft and the head of the Department's Criminal Division, Michael Chertoff. Why? Coleen Rowley, an FBI agent for more than 21 years and Minneapolis Chief Division Counsel, sent a memo to FBI Director Mueller in May, 2002, condemning the way the headquarters had blocked terrorist investigations before 9/11. She said that certain facts about this had been 'omitted, downplayed, glossed over and/or mischaracterised in an effort to avoid or minimise personal and/or institutional embarrassment on the part of the FBI and/or perhaps even for improper political reasons'. She went on:

> In the day or two following September 11th, you, Director Mueller, made the statement to the effect that if the FBI had only had any advance warning of the attacks, we (meaning the FBI), may have been able to take some action to prevent the tragedy. Fearing that this statement could easily come back to

> haunt the FBI upon revelation of the information that had been developed pre-September 11th about Moussaoui, I and others in the Minneapolis Office, immediately sought to reach your office through an assortment of higher level FBIHQ contacts, in order to quickly make you aware of the background of the Moussaoui investigation and forewarn you so that your public statements could be accordingly modified.
>
> When such statements from you and other FBI officials continued, we thought that somehow you had not received the message and we made further efforts. Finally when similar comments were made weeks later, in Assistant Director Caruso's congressional testimony in response to the first public leaks about Moussaoui we faced the sad realization that the remarks indicated someone, possibly with your approval, had decided to circle the wagons at FBIHQ in an apparent effort to protect the FBI from embarrassment and the relevant FBI officials from scrutiny. Everything I have seen and heard about the FBI's official stance and the FBI's internal preparations in anticipation of further congressional inquiry, had, unfortunately, confirmed my worst suspicions in this regard.

Coleen Rowley revealed how in a desperate 11th hour measure to bypass the 'FBIHQ roadblock' the Minneapolis Division directly notified the CIA's Counter Terrorist Center and were 'chastised' by FBI headquarters for making a direct notification without their approval. Rowley told Mueller that in the early aftermath of September 11th when she was recounting the pre-September 11th events concerning the Moussaoui investigation to other FBI personnel in other divisions or FBI headquarters 'almost everyone's first question was 'Why? – why would an FBI agent(s) deliberately sabotage a case?' If they would care to read this book they will have the answer to that question and the fact that it was asked so widely reveals how effective and watertight compartmentalisation can be. FBI special agent Robert Wright Jr who investigated terrorist money-laundering in the United States for four years was equally livid at how his efforts were blocked by superiors. He told the media in May, 2002:

> I truly believe I would be derelict in my duty as an American if I did not do my best to bring the FBI's dereliction of duty to the attention of others. I have made it my mission ... to legally expose the problems of the FBI to the President of the United States, the US Congress, and the American people.

FBI agents were so angry at the way they were blocked by their own hierarchy they gave their information to Chicago lawyer David Schippers, the man involved in legal efforts to impeach President Clinton. He said he contacted the office of Attorney General John

Ashcroft to urge an investigation and again his pleas were ignored. Schippers said he was given information by FBI agents and intelligence sources that a massive terrorist attack was being planned for lower Manhattan and he had tried in vain for six weeks to communicate this information to Ashcroft. He said he had also tried in the past to tell Ashcroft about the connection between the Oklahoma bombing and the Iraqi officers and soldiers that were brought to Oklahoma after the Gulf War by Father George Bush and he got the same response. Schippers said of the Iraqi officers in 2002: 'The word is out even today that the Oklahoma City police are not allowed to touch them.' He described his efforts to warn Ashcroft ahead of 9/11:

> I was trying to get people to understand that [the Palestinian group] Hamas had infiltrated the United States. I tried the House, I tried the Senate, I tried the Department of Justice, these were the very people who put up roadblocks on the attack against the terrorists under Clinton and are still there. They still constitute almost like a moat between the people with information and the people who should hear the information.
>
> I used people who were personal friends of John Ashcroft to try and get him. One of them called me back and said right I've talked to him, he'll call you tomorrow morning. This was like a month before the [9/11 attacks]. The next day I got a call from a lower ranked official of the Justice Department who said they don't start their investigations at the top. He would look into my information and get back to me. He never did.

What stands out like a red flag there is the claim about Hamas which Israel has a prime interest in demonising while Israeli operatives were centrally involved with 9/11 as we shall see.

FBI made the bomb for 1993 attack

Multiple evidence makes it clear that many knew to a larger or lesser extent that attacks were coming and why would we trust the FBI to tell us otherwise with its track record of creating terrorism as well as covering up those really responsible? Even the mainstream media has acknowledged this extraordinary phenomenon with headlines such as 'The FBI again thwarts its own terror plot'. The agency is notorious for covertly setting up targets through its agents and informants to plan terrorist attacks and then either claiming to have foiled them just in time or allowing them to go ahead when they could have been stopped. The FBI has admitted to 'thwarting' a stream of 'terrorist' plots that it originally instigated and this was happening during the tenure of 9/11 FBI chief, Robert Mueller. Intelligence insiders have picked up on the same theme including David Steele, a former Marine with 20 years'

experience as an intelligence officer, who was the second-highest-ranking civilian in US Marine Corps Intelligence. He said that again and again 'terrorist attacks' are false flag (Problem-Reaction-Solution) attacks staged by security services:

> In the United States, every single terrorist incident we have had has been a false flag, or has been an informant pushed on by the FBI. In fact, we now have citizens taking out restraining orders against FBI informants that are trying to incite terrorism. We've become a lunatic asylum.

Tamerlan Tsarnaev, blamed with his brother for the Boston bombings in 2013 and shot dead by police, had connections to the FBI and CIA. His mother Zubeidat Tsarnaeva said Tamerlan was under the control of the FBI:

> My son, he was set up. He was counselled by the FBI for 3 to 5 years. They knew what my son was doing and what actions and what sites on the Internet he was going. They used to come home; they used to come and talk to me; they used to tell me that they are counselling ...

Tsarnaev's father, Anzor, confirmed the FBI had watched his son closely and visited him at home:

> Yes, I was there. It was in Cambridge [Massachusetts]. They said: 'We know what sites you are on, we know where you are calling, we know everything about you. Everything.' They said we are checking and watching – that's what they said.

They were in fact setting him up with his brother to take the rap for the Boston bombing that the 'Deep State' was planning to instigate (see *Everything You Need To Know But Have Never Been Told*). This brings me to the World Trade Center bombing of 1993 which will become more significant later to 9/11 and what happened will give you a big insight into the FBI lead 'investigation' agency for the September 11th attacks. The story might also make those who dismiss the idea that governments and their agencies plan terrorist attacks take a moment to reassess. *The New York Times* revealed how the FBI had the chance to stop the bombing, but failed to do so. The paper also published conversations secretly recorded by an FBI informant, one-time Egyptian army officer, Emad Ali Salem. The FBI knew the 1993 attack was coming and 'planned to substitute the explosives in the truck bomb [*made by their informant Salem*] for harmless powder'. Or rather not as things turned out. Salem said an FBI supervisor called John Anticev stopped the plan to make the substitution. Six people died and a thousand were injured

when the bomb made by an FBI informer exploded at the World Trade Center. Salem said on the tape: 'Guys, now you saw this bomb went off and you both know we could avoid that.' He said FBI agents were paid to 'prevent problems like this from happening' and asked an Agent Floyd: 'Do you deny your supervisor is the main reason of bombing the World Trade Center?' Salem continues: 'We was handling the case perfectly well until the supervisor messed it up, upside down.' Salem, an FBI informant, built the bomb that exploded at the World Trade Center and was paid a million dollars for his trouble. He was under the witness protection programme when he was the chief prosecution witness in the trial of those blamed for the bombing by the FBI! Ron Kuby, an attorney for one of the defendants, said of the article revealing the tapes:

> The article on the FBI being involved in the World Trade Center bombing actually understated the evidence, believe it or not. The informer, Emad Salem, is actually on tape saying that he built the bomb that ultimately blew up the World Trade Center ... In addition, we have received information that he was visually observed at the scene of the bombing shortly after the bombing took place
>
> .
>
> Shortly after that, he was admitted to the hospital, suffering from an ear problem that was consistent with exposure to blast ... The mastermind is the government of the United States. It was a phoney, government-engineered conspiracy to begin with. It would never have amounted to anything had the government not planned it.

The same theme can be found on a far bigger scale with 9/11 – another FBI non-investigation. There's more: The bomb that exploded at the World Trade Center in 1993 was built by an informant on the FBI payroll and planted in a truck with a rental agreement that included the phone number and address of a notorious Israeli Mossad agent, Josie Hadas. Mossad and US intelligence work very closely together as do the US and Israeli military and this will become incredibly relevant to 9/11 in due course. The late Sheikh Omar Abdel-Rahman, the 'blind Sheikh', alleged 'spiritual leader' of the Egyptian extremist group Al-Gama'a al-Islamiya, was convicted in January, 1996, of 'seditious conspiracy' and sentenced to life imprisonment for his part in planning the 1993 bombing. He was put on the State Department's 'watch list' in 1987 and then reported to have been recruited by the CIA when the American government was supporting Osama bin Laden in Afghanistan during the Soviet occupation in the 1980s. American foreign correspondent Mary Anne Weaver said that in Peshawar, Pakistan, in the late 1980s Sheikh Omar became involved with US and Pakistani intelligence

officials who were orchestrating the war against the Soviets. She said that the '60 or so CIA and Special Forces officers based there considered him a valuable asset'. They overlooked his anti-western message and his incitement to holy war, she wrote, because they wanted him to help unify the Mujahideen groups 'led' by Osama bin Laden. Sheikh Omar was given a one-year visa to enter the United States on May 10th, 1990, by a CIA agent posing as an official at the US Consulate in Khartoum, Sudan, and he arrived in New York in July, 1990. The visa was revoked in November that year and the State Department warned the Immigration and Naturalization Service to watch for him. Instead, within months, they granted him a green card (work permit) and in 1993 came the World Trade Center bombing for which he and others were convicted. *An alleged CIA asset was convicted of conspiracy to plant a bomb that was made by an informant of the FBI and left in a rental truck connected to a Mossad agent.* We are supposed to believe these people when they tell us what happened on September 11th and who was responsible? Or that the CIA and FBI had no connection to what happened and who did it? Later it was revealed, in keeping with the FBI's appalling history of lies and cover-ups, that 'evidence' was changed to support the prosecution of people the FBI claimed to be responsible for the bombing. FBI special agent Dr Frederic Whitehurst testified at the trial in 1995 that the FBI concocted misleading scientific reports and pressured two of their scientists to lie to support its prosecution of the defendants. He was asked if during his examination of bomb residue materials and chemicals connected with the defendants that he became aware the FBI agents investigating the case had developed a preliminary theory that the bomb which blew up the World Trade Center was a fertilizer based urea nitrate bomb? 'That is correct,' he replied. The questioning continued as follows:

> 'Did there come a time when you began to experience pressure from within the FBI to reach certain conclusions that supported that theory of the investigation?'
>
> 'Yes, that is correct.'
>
> 'In other words, you began to experience pressure on you to say that the explosion was caused by a urea nitrate bomb?'
>
> 'Yes, that is correct.'
>
> 'And you were aware that such a finding would strengthen the prosecution of the defendants who were on trial, who were going on trial in that case, correct?'

'Absolutely.'

Special agent Frederic Whitehurst, the senior FBI explosives expert, found himself demoted to paint analysis for the crime of telling the truth – the most heinous of crimes to the FBI when it exposes its ubiquitous corruption. A Boston court released two men in January, 2001, who had spent 30 years in jail for a murder they did not commit, because the FBI rigged the 'evidence'. Two other innocent men jailed for the killing had already died in prison. The FBI was protecting an informant known as Joseph 'the Animal' Barboza who had been named to agents as one of those responsible for the murder. Barboza even gave testimony against the convicted men and was protected from prosecution by his FBI handlers, agents H. Paul Rico and Dennis Condon. Agent Condon testified at the time in support of killer Barboza's credibility. After the trial when Barboza said he had falsely named the four convicted men the FBI stood its ground and the courts denied a new trial. The FBI had the Algerian pilot Lotfi Raissi jailed for five months amid claims that he trained some of the 9/11 'pilots' and then produced no evidence whatsoever to support that allegation. This is the same organisation that is telling you what happened on September 11th and who did it and refuse to answer questions on the stream of lies and contradictions in its bullshit 'investigation'.

The shocking irony of John O'Neill

John O'Neill was an FBI deputy director and head of the Joint Terrorism Task Force in New York. He had refused to capitulate to manipulation from above in his investigations into the funding of 'al-Qaeda', the terrorist attack on the *USS Cole* in Aden harbour, Yemen, in 2000 and a case of Israeli 'art students' considered to be acting suspiciously in the months before 9/11 in locations later connected to the 'hijackers'. O'Neil clashed with Barbara Bodine, US Ambassador to Yemen at the time of the attack on the *Cole*, and among what O'Neil saw as Bodine's blocks on his investigation was her refusal to allow him back into Yemen after he made a brief trip home to the United States for Thanksgiving. O'Neill ignored official interference in all these investigations and his pursuit of Osama bin Laden although he was extremely upset by it. He resigned from the FBI shortly before September 11th amid a smear campaign against him from within the FBI. O'Neil told the authors of the book, *Hidden Truth* (or *Forbidden Truth* in the US version): 'The main obstacles to investigate Islamic terrorism were US oil corporate interests and the role played by Saudi Arabia in it.' One of the authors, Charles Brisard, said O'Neill had complained bitterly that the US State Department and the Bush oil lobby had undermined attempts to prove Bin Laden's

involvement in terrorist activity. John O'Neil left the FBI in late August, 2001, when he was offered a job as head of security at ... *the World Trade Center.* He was reportedly last seen on 9/11 coordinating evacuation efforts on the 49th floor shortly before the South Tower collapsed. Amazing how those with knowledge that could expose the lies so often end up dead at the most convenient times. People like John O'Neill who could have revealed how investigations into Bin Laden and terrorism had been systematically blocked before 9/11; David Kelly, the British weapons inspector who knew that the Blair government was lying and 'sexing up' claims about 'weapons of mass destruction' in Iraq to justify an invasion; and Robin Cook, the former British Foreign Secretary who resigned over the Iraq war and was starting to speak out over the lies and deceptions of the official 'al-Qaeda' story. John O'Neil was not alone at the FBI or CIA in facing official opposition to terrorist investigations. American journalist Greg Palast produced a report on the subject for the BBC current affairs programme *Newsnight* in which he said he had received a phone call from a high-placed member of a US intelligence agency:

> He tells me that while there's always been constraints on investigating Saudis, under George Bush it's gotten much worse. After the [2000] elections, the agencies were told to 'back off' investigating the Bin Ladens and Saudi royals, and that angered agents.

The close connection between those blamed for terrorism and those claiming to 'fight terrorism' is a constant theme. We need to lose this perception of different 'sides' and realise that we are dealing with *one* side with multiple faces working to one end.

The 9/11 Commission – all hide and no seek

All the lies and contradictions I have described so far were there to be exposed from the start by those bravely claiming to be 'journalists' and later by the 9/11 Commission or the 'National Commission on Terrorist Attacks Upon the United States'. The media ignored the mountain of contradicting evidence and has chosen ever since to slavishly repeat the official story in all its insanity because they haven't got the desire, intelligence or balls to seek out the truth. Instead they ridicule and condemn those who have eyes open enough to see the elephant on the sofa. The 9/11 Commission final report came from the same systematic combination of myopia and corruption and never had any intention whatsoever to seek out the truth. The report was an utter disgrace in the same mould as the media who lapped it up as the definitive story and arbiter of what happened. It wasn't. It was a cover-up so transparently obvious that everyone involved had to be well aware that it was a pack

of lies and omissions from cover to cover. The 'report' treated those who died and their loved ones with the most stunning contempt and disrespect. They deserved the truth and what they got was still more lies to cover up all the ones that went before. Evidence to the Commission by Transport Secretary Norman Mineta which totally contradicted Dick Cheney's version of what he did that morning was *left out of the report* including the story of Cheney saying 'the orders still stand' in the run up to the Pentagon being hit. Those orders could only have been not to shoot down whatever was being tracked on radar, but the 9/11 Commission decided this was not worth the necessary paper and ink. All the other contradictions and provable lies by Bush, Rumsfeld and Myers were similarly missing and there was *no mention of Building 7* let alone the fact that it was a crystal-clear controlled demolition. Anything, in fact, that shone a light on the official catalogue of serial mendacity was ignored, omitted or spun.

Bush, Cheney and Rumsfeld did all they could to block any investigation at all and that by itself should have the warning lights flashing. Why would leaders of a country apparently attacked so devastatingly by terrorists on home soil with some 3,000 dead and the country in extreme states of shock and trauma not want to launch the biggest and most detailed investigation in American history to find out exactly what happened and ensure it could never happen again? The answer to that question is as simple as it is disgusting: They knew that a proper investigation would have seen them confined to jail for the rest of their lives. Alongside would have been the network – including those even more deeply responsible – which orchestrated the outrage and many of those were from a land far away. I don't mean Muslims, either, as we shall see. When Bush and Cheney could not resist demands for an official 9/11 inquiry any longer, Bush announced in late 2002 that this would be led by ... *Henry Kissinger*. The implications of that could not have been clearer. Kissinger has been an almost life-long servant of the Hidden Hand (Fig 81). He has 'advised' both Republican and Democrat presidents on what they had better do if they don't want big trouble heading their way from those he represents. Anyone who names lies-for-a-living Kissinger to 'investigate' anything is desperate for a cover up. Even

Figure 81: Henry Kissinger breaks for lunch.

The New York Times said the White House chose him 'to contain an investigation it has long opposed' and the appointment was so breathtaking that Kissinger had to quickly resign in the face of flagrant conflicts of interest involving his infamous Hidden Hand front company, Kissinger Associates, which is exposed in my other books like *And The Truth Shall Set You Free*. Kissinger would have had to disclose the clients of Kissinger Associates and there was no way he was going to do that. If he had it would not so much have opened a can of worms as launched the lid into orbit. Kissinger was asked by a 9/11 widow if he had any Saudi Arabian clients that he wanted to tell them about. Kissinger was said to have 'twisted and turned' in his seat. When he was further asked if he had any by the name of Bin Laden 'he just about fell off his couch', according to a witness at the meeting.

Kissinger was replaced by the Republican Thomas Kean, former governor for New Jersey, as Commission chairman. Kean was another insider. He had been a director of the National Endowment for Democracy, a long-time front for CIA covert operations overseas, and had investment connections to the same Saudi sources that funded President Bush and Osama Bin Laden. Among them was Khalid bin Mahfouz who was named by the Bill Clinton State Department as a financer of terrorism. Commission vice-chairman Lee Hamilton sat on advisory boards to the CIA, the President's Homeland Security Advisory Council and US Army. Another Commission member was Richard Ben-Veniste, the Senate-appointed lawyer for the Clintons during the Whitewater corruption 'investigation' and also attorney for Barry Seal who flew cocaine out of South America to the Mena airstrip in Arkansas for the Clinton and Bush families. The 9/11 Commission was established in November, 2002, more than a year after the attacks, and published its final report in the summer of 2004. The official brief was 'to prepare a full and complete account of the circumstances surrounding the September 11 attacks'. This, of course, was the last thing the government wanted or intended to do. Kean and Hamilton would say in their 2006 book, *Without Precedent: The Inside Story of the 9/11 Commission*, that the whole 'inquiry' was 'set up to fail' and woefully underfinanced. Yes, it was, but it could still have been far more robust, candid and honest than it was. I say 'far more' – actually it was none of those things. Commissioners said they were so frustrated with the 'misstatements' (lies where I come from) by Pentagon and FAA officials that an investigation into their obstruction was considered. Why would you underfund and want to obstruct an investigation into the biggest terrorist attacks on US soil that killed so many people unless the truth would have exposed what you didn't want the public to know? Kean said that President Bush had not been 'well served' by the CIA and FBI when in fact from the bigger picture point of view both had served him

and his owners with great distinction by keeping the truth under wraps.

Gatekeeper Zelikow

Kean, Hamilton and their fellow 'investigators' didn't even write the final report. This was overseen (as was the entire process) by Commission executive staff director, Philip Zelikow, a former Texas lawyer and an associate of Boy Bush and National Security Advisor Condoleezza Rice whose actions were supposed to be part of the 'investigation'. Bush appointed Zelikow to the President's Foreign Intelligence Advisory Board and he was for three years on the National Security Council of Father Bush. What a safe pair of hands then when you wanted the official story to survive intact. Zelikow had worked closely with Rice and even co-wrote a book with her, *Germany Unified and Europe Transformed: A Study in Statecraft*. She appointed him to be the main writer of the Bush National Security Strategy in 2002 which used 9/11 to justify the policy of attacking countries that posed no imminent threat or even a threat at all. Bush-circle insider and ultra-Zionist Zelikow was the same guy appointed executive director of the Commission 'investigating' the actions of Bush and Rice with regard to September 11th. Zelikow also directed the Aspen Strategy Group, a foreign-policy strategy body co-chaired by Rice's mentor, Brent Scowcroft of ... Kissinger Associates. In short – Zelikow was establishment to his DNA and compared with him Kean and Hamilton were bit-part players. Rice, Cheney and Deputy Secretary of Defense Paul Wolfowitz were members of Zelikow's Aspen Strategy Group. The 9/11 Commission was a complete stitch-up from first to last. There are other highly-significant connections to Zelikow which I will come to later when we get to the core of how 9/11 was pulled off and by whom. Paul Sperry wrote in an article for Antiwar.com:

> Zelikow picks the areas of investigation, the briefing materials, the topics for hearings, the witnesses, and the lines of questioning for witnesses ... and the commissioners for the most part follow his recommendations. In effect, he sets the agenda and runs the investigation. He also carries with him a downright obnoxious conflict-of-interest odor, one that somehow went undetected by the lawyers who vetted him for one of the most important investigative positions in U.S. history.

The 9/11 Family Steering Committee and 9/11 Citizens Watch called for Zelikow's resignation which was never going to happen. He was there to cover up the truth no matter what the families of the dead may have wanted. Zelikow ran the 9/11 Commission like his personal fiefdom. He decided what would be pursued or ignored and what would appear in the final 'report'. Zelikow led a staff of some 75 people

and more than half were formerly with the CIA, FBI, Department of [In]Justice and other agencies of government. One staff member quoted in the media said: 'Zelikow is calling the shots. He's skewing the investigation and running it his own way.' This is why crucial information and contradictions in evidence were ignored. One commissioner, by-then former senator Max Cleland, resigned from the inquiry. He said 'Bush is scamming America.' This is the same Max Cleland who agreed he was on Capitol Hill with General Myers during the attacks when he could not have been. Cleland said Commission members had agreed a deal that allowed them only very limited access to CIA reports presented to Bush and the White House which could have indicated prior knowledge of the attacks. He said:

> This is a scam. It's disgusting. America is being cheated. As each day goes by we learn that this government knew a whole lot more about these terrorists before September 11 than it has ever admitted ... Let's chase this rabbit into the ground. They had a plan to go to war and when 9/11 happened that's what they did; they went to war.

Re-writing history

The Commission simply set out from day one to support the official narrative no matter what the evidence and their most important task was to hide the blatantly obvious fact that the military was stood down or blocked that day until after the Pentagon was hit to make sure the attacks would not be stopped by the usual fighter response to hijacked aircraft. This is the cover-up on which all the other cover-ups depend because if a stand-down or systematic delay was proved the whole house of cards collapses. Crucial to this has been to explain away why the military responded far too late to every hijack. We were first given a timeline for the military's non-response to the hijackings that said no fighter jets were scrambled until after the Pentagon was hit. Then, on September 18th a week after the attacks, the military issued a new timeline given the incredulity that three commercial airliners could crash into iconic American buildings before a single military plane intervened. This new version said that two F-15 fighters were scrambled from the Otis base in Massachusetts before the first tower was struck, but didn't get there in time; and two took off from the Langley base in Virginia to intercept the Pentagon 'plane' but, er, yet again, didn't get there to prevent what happened. This second military timeline stood for the next three years and still didn't absolve the military of blame for their shockingly 'inept' non-reaction ('inept' if you believe what they say and I don't). When the 9/11 Commission reported in 2004 it produced yet *another* timeline that was clearly compiled to push the responsibility onto the civilian FAA and hide the staggering truth that the military was

stood down or purposely delayed until the Pentagon was struck because had they responded as they did every other day no buildings would have been hit and thousands of people on the ground at least would still be alive. Wherever the military reaction or non-reaction makes no sense the Commission report invents excuses that are excruciating to behold. If the two Otis jets were heading for New York when 'Flight 11' struck the first tower why weren't they on the scene well before 'Flight 175' arrived to hit the second one when at F-15 speed they would have got there comfortably? Er, um, er ...no, I got it ... they were not told about 175 and so were sent off into 'military-controlled airspace off Long Island' to await instructions. They were *what?* While the pilots were sitting there Flight 175 struck the Pentagon, the Commission claimed, and both planes stayed where they were for another *ten minutes* afterwards. Why didn't the military know about Flight 175? Er, um, er ... the FAA didn't tell them, so the Commission report claims. Phew, the military is in the clear (which was the whole point of all this nonsense). All the evidence up to this mendacious Commission re-write of history was that the military was told by the FAA about Flight 175 well before the South Tower was struck. In NORAD's own revised timeline issued a week after the attacks which remained the official story for the next three years the FAA notified them about the hijacking of Flight 175 at 8.43am – 18 minutes before impact. There are sources and statements galore from military and civilian air personnel and government insiders, including government counterterrorism advisor Richard Clarke, that say open lines and multi-agency conferences were underway in a time period that confirm the military *did* know about Flight 175 and did nothing that made a difference. The Commission in its desperation to serve its political and military masters now invented the 'we didn't know' story to explain the no-show for 'Flight 175' and asked us to believe that fighter jets heading for New York after the first tower strike were ordered to wait over Long Island and see what happened. Nearly 3,000 people died and thousands more lives were devastated you bloody liars. Do you have no soul *at all?* Wherever we look in the 9/11 Commission report we see the story altered and contradictory evidence and witness statements ignored to protect the military – or rather those that control the military – from exposure of what really happened (the stand-down/systematic delay) and why the normal response to these situations was prevented from happening.

Protecting the military - again

The same applies to the Commission's revisions with Flights 77 and 93. The second NORAD timeline issued a week after 9/11 detailing its response to reports about 'Flight 77' heading towards Washington gave the Commission another challenge in hiding the stand-down/delay.

NORAD said the FAA told them at 9.24am that Flight 77 had been hijacked. I guess this is as late as they could claim given all the evidence that the authorities would have known well before that about the strange behaviour of 'Flight 77' and the outlandish claim with state-of-art tracking technology available to NORAD at Cheyenne Mountain that the alleged 'Flight 77' could have been 'missing' for *36 minutes* after 'turning around' and heading for the nation's political and military capital. This still left the question of why F-16s scrambled from Langley, Virginia, at 9.24 did not get to the Pentagon in time. The distance involved and the incredible top speed of an F-16 should have got them to the Pentagon comfortably before 'Flight 77'. We saw earlier how the military attempted to explain this away by saying the pilots did not know why they were being scrambled and headed out to sea in the belief that the threat was coming from outside. Pilots and their superiors at a stand-by, on-alert airbase hadn't heard that the World Trade Center had been hit by two planes 37 and 21 minutes earlier then? This excuse for the military's non-arrival at the Pentagon before 'Flight 77' was not enough for the 9/11 Commission and its report introduced a whole new scenario (which it called 'a brand new idea') that *no one* had mentioned – not the FAA or the military – in the entire three years between the attacks and publication of the 9/11 report. This was the claim that as well as heading out to sea a tape had been found in which an FAA official told a NORAD NEADS operative that Flight 11 had not struck the World Trade Center and instead was heading south towards Washington. The Commission update said the NORAD chap immediately scrambled the F-16s from Langley at 9.24 in pursuit of the phantom 'Flight 11' which the official story says crashed into the North Tower *38 minutes* before. There was no doubt within the FAA networks after impact at 8.46 that 'Flight 11' had struck the North Tower and it is claimed that this FAA employee mentioned earlier caused fighters to be scrambled from Langley in pursuit of a 'still flying' Flight 11 which he – just one man – said he heard was heading for Washington. The cover-story was therefore that the fighters could not get to the Pentagon in time because of taking six minutes to get airborne – pedestrian by scramble standards – initially flying out to sea in the wrong direction and then taking a route to intercept a plane that didn't exist. If lies literally stank you would have to leave the room and get some air. NORAD chiefs like General Larry Arnold, Continental United States Commander, had said after the attacks and for years later that they were notified about the hijacking of 'Flight 77' at 9.24. The Commission said that he was 'incorrect' which, when passed through our Orwellian Translation Unit, means 'it doesn't fit the cover-up narrative'. Reading the transcript of a bewildered Arnold being guided to agree with the 'phantom Flight 11' story by Commission member Richard Ben-Veniste

is like dragging a nail across a steel plate. Laura Brown, Deputy in Public Affairs at FAA headquarters, could not have been clearer that immediately after the first plane hit the World Trade Center (at 8.46) the FAA established 'phone bridges' or open lines with the relevant agencies including the Department of Defense (see NORAD) and the Secret Service (see Bush and Cheney) and she said that during these teleconferences the FAA shared real-time information about 'all the flights of interest, including Flight 77':

> NORAD logs indicate that the FAA made formal notification about American Flight 77 at 9.24am, but information about the flight was conveyed continuously during the phone bridges before the formal notification ...
>
> ... The FAA shared real-time information on the phone bridges about the unfolding events, including information about loss of communication with aircraft, loss of transponder signals, unauthorized changes in course, and other actions being taken by all the flights of interest.

In other words the military knew all along what was happening and did nothing. The 9/11 Commission once again lied to the American people and knowingly made up stories, skewed and omitted evidence to keep the truth from the world and protect the political and military players responsible from a lifetime in jail. This is the same Commission report that visitors to Internet site Reddit are directed to when they seek to access the 'quarantined' section where researchers are challenging the official 9/11 story. Perhaps boycotting Reddit until it stops being a censorship tool of the Hidden Hand might represent a statement of disgust. Another Commission excuse for the alleged delay in reporting a Flight 77 hijack to NORAD is that the air traffic controller at Indianapolis Center thought the aircraft was having electrical or mechanical problems and later that it had crashed. Once again blame the FAA for not telling the military early enough. Are we really to believe that an air traffic controller who knew that two planes had already struck the World Trade Center would assume electrical and mechanical failure for the strange behaviour of Flight 77 involving the transponder, loss of communication with the cockpit and route deviation? Boston Center had told other regional air traffic centers as early as 8.25 that Flight 11 had been hijacked and this included Indianapolis. No, forget all that – it must be mechanical problems. The Commission report contends that the Indianapolis controller didn't know at that stage about what had happened in New York. The rest of the world knew, but not someone on active flight control duty at a time when his bosses at the FAA were reporting that eleven or more other planes could have been hijacked. The new 9/11 Commission make-it-fit timeline for Flight 77 was as

follows: The FAA became aware of a hijack at 9.05; fighters were scrambled from Langley at 9.24 in search of phantom Flight 11; the FAA told NORAD officially that Flight 77 was missing only at 9.34 and the Pentagon was hit at 9.38 with the phantom-chasing Langley F-16s nowhere close. The method in the madness in all this directs us to the same common theme that pervades everything. No matter how insane the story stick to it rather than let the truth be exposed. The Commission claimed that 'no one at FAA headquarters ever asked for military assistance with American 77' and this was to pass all the blame onto the civilian air traffic system and away from the military the Commission had to protect or the whole despicable story would be revealed. Colonel Leroy Fletcher Prouty yet again:

> No one has to direct an assassination – it happens. The active role is played secretly by permitting it to happen. This is the greatest single clue. Who has the power to call off or reduce the usual security precautions?

The answer in this case is the Pentagon and its agents in government with a combination of corrupt and spineless members of the 9/11 Commission providing essential cover. The story was the same with Flight 93 according to the Commission – the FAA never alerted the military even though by now no one disputes that open lines between agencies were operating (as they had been in truth since shortly after the attacks on the World Trade Center at 8.46 and 9.03). Flight 93 was recognised as a hijack by at least 9.34 (after the last routine call at 9.27). Once again the Commission report claims the FAA sat on its hands and the military was in the clear. The Commission said an FAA air traffic controller at Cleveland Center reported a likely hijack and news reached the FAA headquarters by 9.34. Cleveland is said to have asked the FAA Command Center at 9.36 if a military response had been requested and offered to call them directly. The reply was that the request had to go through the chain of command and they were 'working on the issue'. Take your time then, only three planes had already apparently crashed into iconic American buildings, so no hurry. Tea, anyone? The Commission said that another 13 minutes passed without further action and only at 9.49 did the FAA Command Center discuss a request to the military with FAA headquarters. Even then nothing was done and 'Flight 93' crashed without the military being contacted. All this would be criminal negligence and incompetence by the FAA *if it was true*. The claim is that NORAD didn't even know the plane had been hijacked before it crashed when there were three teleconferences going on – one initiated by the FAA, another by the National Military Command Center in the Pentagon and a third by anti-terrorism advisor Richard Clarke from the White House. These were established well before the demise of

'Flight 93' and we are told that the military didn't know anything about that plane being missing or hijacked. It makes no sense because it is nonsense. The Commission mendaciously claimed that at no time in the period from 'Flight 11' striking the North Tower and 'Flight 93 crashing' did any of three teleconferences include the necessary officials from the FAA and Defense Department for information about the hijacked planes to be communicated and acted upon. Richard Clarke states that his conference included Donald Rumsfeld, the Defense Secretary, Richard Myers, the highest-ranked military officer in the US that morning, and FAA chief Jane Garvey. Clarke reports that shortly after 9.30 – some *30 minutes* before 'Flight 93' went down and before the Pentagon was hit – Garvey reported to the conference:

> All aircraft have been ordered to land at the nearest field. Here's what we have as potential hijacks: Delta 1989 over West Virginia, United 93 over Pennsylvania.

The claim that the military did not know about 'Flight 93' before it crashed is another lie to cover the stand-down/delay and quite possibly the shooting down of the plane. There has been much speculation about whether Flight 93 was shot down by a pursuing F-16 – a pursuit confirmed by Deputy Defense Secretary Paul Wolfowitz and other sources. Major Daniel Nash, one of the pilots scrambled from the Otis base to New York said that he heard an F-16 had shot down Flight 93. Wolfowitz said 'the Air Force was tracking the hijacked plane in Pennsylvania ... and had been in a position to bring it down if necessary.' But why would a fighter be chasing or tracking Flight 93 if, as the Commission claims, the military didn't know this aircraft was hijacked or missing until after it had already crashed? The contradictions are legion, constant and endless. If this was Flight 93 (and perhaps the delayed take-off time had skewed the original plan for its destination) those behind 9/11 would not have allowed it to land and the real story told. By now at past 10am there would have been absolutely no possible explanation no matter how contrived for why the military would not have intercepted before another building was struck. The deeply mendacious 9/11 Commission was determined to ensure with its text and timeline that a take-down of Flight 93 did not happen. The report said that permission to shoot down aircraft was given by President Bush via Vice President Cheney at 10.31 when a number of other sources say it was much earlier and well before the end of 'Flight 93'.

Where was Winfield?

Three separate teleconferences also seems strange – why not just the one where all information was processed? Could this have been another ruse

to create confusion? Normal procedure was for the FAA to initiate the conference in these circumstances and include all the relevant agencies – the Pentagon Command Center (NMCC), NORAD, Secret Service and other relevant agencies. The Pentagon NMCC having its own conference was not normal procedure and it claimed that lines could not connect the FAA with its conference because of equipment malfunction and not being able to find secure phone numbers. How very convenient if you wanted to develop a 'we didn't know', 'they didn't tell us' story. Another strange decision was for Brigadier General Montague Winfield, Director of Pentagon NMCC operations, to ask his far less experienced deputy, Captain Charles Liedig, to stand in for him on 9/11. Liedig took over at 8.30 when Winfield left just as the catastrophic series of events began. As 'coincidences' go the timing was uncanny. Liedig was newly qualified for his role and this was the first conference he had overseen – hence the subsequent headline 'Rookie in the 9-11 Hot Seat?' If you were Brigadier General Winfield wouldn't you have headed back to retake control from your rookie deputy when you heard what had happened 16 *minutes* after you left? Winfield didn't do that even though Flight 11 was reported hijacked before he went off duty and there are reports of FAA-NMCC 'phone bridges' being instigated. Is that really the time you would say to your inexperienced deputy – see you later, leave you to it? There seemed to be no problem with this from the authorities with both Winfield and Liedig later nominated for promotion. There were many timing 'coincidences' related to 9/11 including General Myers being in military charge that day because his superior was mid-Atlantic flying to Europe and Robert Mueller taking over at the FBI two weeks before the attacks and then running the subsequent (lack of) investigation. Captain Charles Liebig told the 9/11 Commission that Winfield did eventually return just before the reported crash of 'Flight 93'. Here is still another frontline player who was officially AWOL until the attacks were over or the Pentagon had been hit.

'It never occurred to us'

The Commission further protected the military from serious criticism and exposure by accepting there was a 'lack of imagination' that did not foresee aircraft being used as missiles to crash into buildings when this is provably not true. Researcher and author David Ray Griffin astutely points out in his demolition of the Commission report that this claim about not foreseeing planes used as missiles was deftly connected to the claim that the Pentagon and its agencies were only prepared for attacks from the sea and not from within the United States. The cover-up could then dismiss the considerable evidence that the military *had* foreseen the planes-as-missiles scenario ... *but only coming from the sea!* The Pentagon's General Myers and NORAD chief General Eberhart were naturally

promoting this lunacy. *USA Today* reported that two years before the attacks NORAD conducted exercises simulating aircraft used as weapons to crash into targets and cause mass casualties. General Myers told a hearing of the Senate Armed Services Committee in 2004 about a series of exercises which included 9/11-type scenarios. Myers spoke of 'five exercise hijack events' involving NORAD between November, 1999, and October, 2000, that all 'included a suicide crash into a high-value target'. NORAD practiced in 2000 a response to an aircraft being stolen and flown into the United Nations building in New York. Others involved similar attacks on the White House and the Statue of Liberty close to the World Trade Center. Another exercise in 2000 coordinated by the Defense Protective Service and the Pentagon's Command Emergency Response Team simulated a passenger aircraft hitting the Pentagon and according to *US Medicine* doctors and medics were training for just this situation at the Pentagon in May, 2001. Only twelve days before 9/11 the Department of Transportation in Washington DC ran an exercise preparation for what administrator Ellen Engleman called 'a potentially hijacked plane and someone calling on a cell phone, among other aspects of the scenario that were very strange when twelve days later, as you know, we had the actual event'. Government terrorism advisor Richard Clarke chaired an exercise in 1998 based on a Learjet being hijacked on the ground in Atlanta, filled with explosives and flown to Washington. Correct me if I'm wrong but the route from Atlanta to Washington does not involve arriving from the sea. An expert panel assembled by the Pentagon in 1993 highlighted the threat from planes used as missiles to strike landmark locations and a member of that panel wrote the following in *Futurist* magazine in *1994* which actually mentions the World Trade Center:

> Targets such as the World Trade Center not only provide the requisite casualties but, because of their symbolic nature, provide more bang for the buck. In order to maximize their odds for success, terrorist groups will likely consider mounting multiple, simultaneous operations.

It could not be more obvious that it *did* occur to the military that 9/11-type attacks could happen and they practiced scenarios based on that theme. Nor could it be more evident that the 9/11 Commission was established to cover up the truth. Here are some more disgraceful examples:

- The Commission ignored the 'hijackers' named who were found to be still alive after the attacks. These names were repeated without any discussion or inquiry into how people still alive could have hijacked 9/11 aircraft and therefore who did. They described the backgrounds

and include pictures of 'hijackers' that could not have taken part because they were still with us – an extraordinary confirmation that the Commission was only interested in supporting the official Big Lie.

- The Commission produced no proof that any of the named 'hijackers' were on board the planes and simply repeated the official narrative without question. They refused to even subpoena original passenger lists.

- There was no mention of Mohamed Atta's non-Muslim white American girlfriend Amanda Keller or his heavy drinking, coke habit and liking for pork chops. The report mentions that he and other 'hijackers' met in Las Vegas, but not that they paid hundreds of dollars to lap dancers at the Pink Pony strip club. The Commission referred to him as an Islamic fanatic and 'fantastically so'.

- The Commission maintained the blatant lie about Hani Hanjour, the utterly incompetent Cessna pilot, sitting at the controls of Flight 77 and completing a 270-degree turn at high speed and low altitude which commercial airline pilots with thousands of hours on wide-bodied jets say they could not have done. The report instead described Hanjour as 'the operation's most experienced pilot'. Well, how shit must the others have been then? The report claims all this while *at the same time* acknowledging that Hanjour was denied a pilot's licence on multiple occasions because he was such a 'terrible pilot' and that only weeks before 9/11 an instructor refused to fly with him a second time after his first experience of Hanjour at the controls of a one-engine puddle-jumper. How did the Commission reconcile these outrageous flagrant contradictions in its own report? It didn't even bother.

- The ridiculous official 'explanations' of how the three buildings fell were repeated without question despite the suspension of the laws of physics and endless anomalies and impossibilities. The fundamental questions and evidence by experts surrounding the fall of Building 7 were avoided in one fell swoop: The 9/11 Commission report did not even mention Building 7. By doing so Larry Silverstein's 'pull it' comment was also avoided.

- The question of how buildings could 'pancake' while collapsing at or near free-fall speed was not addressed and nor how steel columns could fail because of a quickly burned-off jet fuel fire with a maximum temperature of 1,700 degrees Fahrenheit when the melting point of steel is 2,770 degrees.

- There was no mention of the fact that before part of the façade of the Pentagon fell 30 minutes after impact (or at least an explosion) the hole in the wall was only 16 to 20 feet across. Through this hole a plane with a 125-foot wingspan and 40-foot high tail would have somehow had to pass with no resistance from a recently reinforced wall that would have surely sheared off the wings and tail and left them outside for all to see. This was not even worth questioning? Er, nope.

- The Commission did not address the ridiculous contradiction that the 'Flight 77' aircraft vapourised inside the Pentagon (impossible at the temperatures involved with jet fuel) while passengers were claimed to have been identified from their fingerprints.

- The fake and rigged 'investigation' did not subpoena security videos from the Pentagon and buildings looking out at the Pentagon and clearly if those videos did show Flight 77 striking the building they would have been circulated en masse to the global media within hours or days. They don't show that and so there was no subpoena by these shameful cover-up artists.

- There was no serious questioning and certainly no credible explanation for why ground-to-air missile systems protecting Washington and the Pentagon were not activated.

- The easily exposed lies about what Defense Secretary Rumsfeld and Joint Chiefs of Staff acting chairman Myers claimed they were doing before the Pentagon was hit were left unquestioned even with the evidence from Bush counterterrorism advisor Richard Clarke that they were taking part in his teleconference well before the Pentagon strike. Surely there are videotapes of that conference with time-codes? So where are they? In the same locked and sealed vault as the surveillance camera videos from the Pentagon no doubt.

- Nor did the Commission seriously question and investigate the confusing effect of all those wargame exercises going on involving the same response agencies as those reacting (or not) to the 9/11 hijackings.

- As for Operation Northwoods – not a mention. I bet you are shocked to the core.

On and on the report goes, page after page of lies, omissions, cover-up and slavish devotion to the official story which a child could have seen through. On that basis alone I say there is no way Thomas Kean, Lee Hamilton and especially Philip Zelikow did not know they were taking

part in a cover up to hide the truth from the world. What level of contempt must they have for those who died and their loved ones left behind? How could Kean and Hamilton put their name to such a piece of garbage? This same question applies to all members of the Commission who didn't speak out and expose the scam. The report was so bad and so mendacious that weeks after publication 25 people who worked for government agencies such as the CIA, FBI, FAA and others involved in 'national security and public safety' wrote an open letter to Congress condemning the Commission's 'findings':

> We are aware of significant issues and cases that were duly reported to the Commission by those of us with direct knowledge, but somehow escaped attention ... The omission of such serious and applicable issues and information by itself renders the report flawed, and casts doubt on the validity of many of its recommendations.

The FBI was mandated by Congress in 2014 to conduct 'an assessment of any evidence now known to the FBI that was not considered by the 9/11 Commission related to any factors that contributed in any manner to the terrorist attacks of September 11, 2001'. A year later the FBI reported with painful predictability that no new evidence had come to light that would have changed the verdict of the 9/11 Commission. Architects & Engineers for 9/11 Truth launched a lawsuit against the Bureau over not including 'an assessment of evidence related to the WTC demolition nor an assessment of several other areas of evidence known to the FBI'. The lawsuit highlighted the following:

- The use of pre-placed explosives to destroy World Trade Center Buildings, 1, 2, and 7.
- The arrest and investigation of the [Israeli] 'High Fivers' observed photographing and celebrating the attacks on the World Trade Center on 9/11.
- Terrorist financing related the reported Saudi support for the 9/11 hijackers.
- Recovered plane parts, including serial numbers from all three crash locations.
- Video from cameras mounted inside and outside the Pentagon.
- Cell phone communications from passengers aboard airplanes.

Architects & Engineers also partnered with the Lawyers' Committee for 9/11 Inquiry to launch a Grand Jury Investigation Project that has named '15 different categories of persons who may have information material to the investigation, including contractors and security companies that had access to the WTC Towers before 9/11, persons and entities who benefited financially from the WTC demolitions, and persons arrested after being observed celebrating the WTC attacks'. We wish them well and you can donate to their efforts at ae911truth.org. The organisation sent to its mailing list an article about the lawsuit published by legal news service Courthouse News which it described as 'a rare deviation from the media's dogmatic denigration of any person who questions the government account of 9/11 (and who refuses to believe that miracles took place that day).' The mail circulation coincided with Courthouse News deleting the article. Just another day in the suppression of 9/11 truth.

I think it is fair to say, at the risk of stating the obvious, that the official story of what happened on 9/11 is among the greatest works of fiction in known human history and I am not anywhere near finished yet exposing the network behind the events of that day and their aftermath.

CHAPTER 15

'Bin Laden did it!'

The masses indulge in petty falsehoods every day, but it would never come into their heads to fabricate colossal untruths and they are not able to believe in the possibility of such monstrous effrontery ... The bigger the lie, therefore, the more likely it is to be believed – Adolf Hitler

Tell-tale signs in all Problem-Reaction-Solution or false-flag scenarios are: (1) who is blamed for the problem and (2) how soon after the event is an alleged villain promoted by establishment mouthpieces who rush to the microphones to sell the cover-story before any investigation has even started.

In the case of 9/11 we had: (1) Osama bin Laden and Islamic terror group 'al-Qaeda' condemned as the perpetrators and they were (2) first named a matter of minutes after the attacks. Villains blamed for the problem tell you what the solution is planned to be. If you want to target 'white supremacists' who oppose government tyranny you blame them and them alone for Oklahoma. If you want to justify wars of death, destruction and regime change in the Middle East you claim that Islamic terrorists were responsible for 9/11. We have had the long-planned invasion of Afghanistan to 'get Bin Laden' and this exploded into the global 'war on terror' launched by the Boy Bush administration and continued by succeeding presidents from 'both' political parties (the Hidden Hand one-party state). The Web of secret societies and other interconnected groups means that support is rarely a problem from Western countries. Afghanistan was invaded to 'get Bin Laden' for 9/11 while the FBI admitted there was not enough evidence against him to stand up in court. The FBI website did not list 9/11 as one of the attacks for which Bin Laden was a 'Most Wanted Man'. When asked why this was so FBI spokesman Rex Tomb said in 2006: 'The reason why 9/11 is not mentioned on Osama bin Laden's Most Wanted page is because the FBI has no hard evidence connecting Bin Laden to 9/11.' American government, intelligence and military officials have never produced *any* evidence of Afghanistan involvement in 9/11 and nor have any credible connections been made between that country and the patsy 'hijackers'. Never mind – we'll set the Middle East on fire anyway (Fig 82 overleaf).

Figure 82: American foreign policy.

While I was writing this chapter I re-watched the television address on October 7th, 2001, when Boy Bush announced that the invasion of Afghanistan had begun less than a month after 9//11. At no point and in no way did he justify the action by connecting Afghanistan to the attacks. Defense Secretary Rumsfeld and his deputy Wolfowitz were asked what evidence they had to link 9/11 to Bin Laden in Afghanistan and they both basically said that everyone saw the evidence on their television screens. Oh, that would be planes painted in the colours of Afghan Air would it? In the wake of 9/11 Hidden Hand gofer Tony Blair, the British Prime Minister, had his tongue out and tail wagging while the Twin Towers were still standing. Overseeing it all as the merciless head of the 'Bush' government was Dick Cheney who arranged for 'legal opinion' to dismantle all checks and balances to give him the power to do whatever he wanted in terms of deleting civil liberties and going to war. What happened on September 11th was indeed *The Trigger* excuse that ignited a wave of calculated violence and terrorism by the psychopaths of the United States, Britain, France, NATO etc., which has killed and maimed millions in Afghanistan, Iraq, Libya, Syria and elsewhere in the name of 'fighting terrorism'. This is quite an act of vengeance in response to the 3,000 who died on 9/11 and even more so given that those who have been killed and wounded for life in the 'war on terror' had nothing to do with what happened in New York and Pennsylvania or at the Pentagon. Former British troops told an investigation by the Middle East Eye website that rules had been relaxed to allow them to shoot unarmed civilians in Afghanistan and Iraq if they were 'holding a mobile telephone, carrying a shovel, or acting in any way suspiciously'. The dead included a number of children and teenage boys and the soldiers described how weapons were placed near bodies to claim they had been armed. One father had turned up at a British base carrying his dead eight-year-old son and demanding an explanation. What responsibility did that kid and all the others have for 9/11?

One ex-soldier said he witnessed the fatal shootings of significant numbers of civilians in Basra and did not believe that all the victims were keeping British troops under surveillance. He claims that relaxing the rules of engagement resulted in 'a killing spree'. He and his fellow soldiers were promised that they would be protected in the event of any investigation by military police. 'Our commanders, they would tell us:

"We will protect you if any investigation comes. Just say you genuinely thought your life was at risk – those words will protect you".' This is the dictionary definition of terrorism: 'The unlawful use of violence and intimidation, especially against civilians, in the pursuit of political aims.' By that definition the 'war on terror' has always been and continues to be nothing more than a 'war *of* terror'. Without 9/11 none of this could have been sold or justified on anything like the scale that we have seen. In that sentence we have the real reason for the 9/11 attacks. Those who have given the orders to make the 'war *of* terror' possible – Bush, Cheney, Rumsfeld, Wolfowitz, Powell, Blair, his successors Gordon Brown, David Cameron and Theresa May, and a long, long list of others – are terrorists and mass killers who should be standing in the dock at a war crimes tribunal. Even these psychopaths are only the public face and essential cover for the real orchestrators of 9/11 and the war *of* terror and I will begin the exposure of the prime orchestrators of 9/11 in the next chapter.

Get your villain in early

Problem-Reaction-Solution demands that you get your villain in ASAP before any other explanation can be suggested, debated or take root. Once the villain is named no other version of events is allowed or, in this case, you are giving 'comfort to terrorists'. This is how it is – you are either *with us* (believe what we tell you) or *against us* (ask for evidence). I'll choose 'against' if it's all the same with you. *CBS News* took only 13 minutes after the second World Trade Center strike to throw Osama bin Laden's name in the ring. Ehud Barak, Israeli prime minister from 1999 until early 2001, was on the airwaves soon after the attacks calling for a 'war on terror' and an American invasion of Afghanistan. Barak knew all about terror as former commander of the terrorist Sayeret Matkal (also Unit 269) of Israel's Military Intelligence Directorate (also Aman) which is the military intelligence arm of the terrorist Israel Defense Forces (IDF). Barak told the BBC within an hour of the attacks:

> The world will not be the same from today [that was the idea]. It's an attack against our whole civilisation. I don't know who is responsible [oh, do come on]. I believe we will know in twelve hours [you mean that's when the propaganda really begins]. If it is a Bin Laden organisation, and even if it is something else, I believe this is a time to deploy globally concerted effort led by the United States, the UK, Europe and Russia against all sources of terror [Israel's targets]. The same kind of struggle that our forefathers launched against the piracy of the high seas ... it's time to launch an operational concrete war against terror.

Barak went on to mention Bin Laden for a second time and linked

him to Afghanistan. The script was already rolling. He used the term 'war against terror' and said that freedoms would have to be deleted with crossing borders and boarding aircraft becoming 'more complicated'. What was happening could hardly have been more blatant and in the proposed solutions you see the real creators of the problem. Barak also highlighted Iran, Iraq, Libya and North Korea as 'rogue states' that should be targeted and that list will become very significant as we proceed from here. Television networks named Osama bin Laden as the likely culprit in the hours that followed and Secretary of State Colin Powell first called Osama bin Laden a 'prime suspect' two days after 9/11. Powell told the media: 'We are looking at those terrorist organisations who have the kind of capacity to conduct the kind of attack that we saw.' Asked if he was referring to Osama bin Laden, he answered: 'Yes.' This was insanity. The idea that Bin Laden and a handful of associates could have pulled off 9/11 is beyond ridiculous. No matter – there's a script to be read. Once bin Laden's name was in the public domain the 'evidence' began to emerge in support of the theory that the attacks were the work of extreme Islamic fundamentalists. Funny how the fast emerging official story fitted what Israeli intelligence operative Ehud Barak had so quickly told the BBC. An official 'investigation' was launched by two Bush family gofers, Attorney General John Ashcroft and the two-weeks-in-the-job FBI chief Robert Mueller. The FBI immediately named 19 Arab men as responsible for the hijackings which was remarkable in itself when this same agency, along with the CIA, said they didn't have even a glimmer of an idea that the biggest terrorist attack in American history was being put together for months and, in Mueller's words, almost certainly years. Now the names and pictures of those involved were suddenly produced with such speed. What amazing detective work! The cover story was up and running and repelling all boarders.

Bin Laden and Father Bush

If the authorities wanted to know about Osama bin Laden they only had to ask the father of the 9/11 president. Father George Bush was a business associate of the Bin Laden family through the Carlyle Group which was founded in 1987 and is described as 'an American multinational private equity, alternative asset management and financial services corporation ... [and] ... one of the largest private equity and alternative investment firms in the world'. An article in *The Economist* said the Carlyle Group was embroiled with the defense and intelligence establishment and is 'widely regarded as an extension of the US government, or at least the National Security Agency, the CIA, and the Pentagon'. Some of personnel at the time of 9/11 might give you a feel for its intentions and mode of operation. Carlyle president Frank

Carlucci was a former deputy director of the CIA and Reagan-Bush Defence Secretary before Dick Cheney took over after the election of Father Bush. Carlucci was a long-time CIA agent mixed up in very dirty dealings and accused of involvement in the killing of Congo Prime Minister Patrice Lumumba in the early1960s. He was, naturally, never charged. With a record like that you would expect him to be a friend and associate of people like Father Bush and Donald Rumsfeld. Carlucci's deputy at Carlyle was James Baker, Father Bush's Secretary of State who became Boy Bush's 'advisor' during the election vote dispute with the Gore campaign in Florida. Another major figure at Carlyle was Father Bush himself, a former CIA director, while former British Prime Minister John Major became European Chairman in the late spring of 2001.

Father Bush and family had close connections with the Bin Ladens, their construction operation out of Jeddah, Saudi Arabia, and the 'royal' House of Saud. I mentioned how Father Bush was reported by the mainstream media to be at Washington's Ritz-Carlton Hotel in a Carlyle Group business meeting with Osama bin Laden's brother, Shafiq bin Laden, and other members of the family on September 10th and 11th. Carlyle executives Carlucci and Baker were also there. The Bin Ladens are an asset of the fake royals of the House of Saud who are assets of the United States and Israel. The latter may sound strange, but I'll be explaining that. Power over Arabia was handed to the House of Saud by the British government which was also behind the creation and emergence of the extreme form of Islam known as Wahhabism on which terror groups like ISIS and others are founded. Once again I'll be going more into this later on. ISIS and the Saudi Arabian fake royals both employ beheading as a staple punishment and this is not a coincidence; nor is the massive funding of Wahhabi terrorists by the House of Saud and its financial lackeys in league with the United States, Britain, Israel etc., and the fascistic Gulf states. Terror groups such as ISIS, al-Qaeda and their various 'affiliates' are funded, armed and trained by the United States, Britain, Israel and other Western sources to create proxy armies promoted as anti-Western terror groups to provide the excuse for sending American and other Western military into countries of the Middle East which would otherwise have no justification (Fig 83). Proxy armies of the West like

Figure 83: ISIS is a proxy army for Western countries that claim to oppose terrorism. The rank and file 'Jihadis' will have no idea.

Figure 84: The compartmentalised pyramid structure that manipulates those at the bottom to believe they are fighting a 'holy war' against their perceived 'infidel' targets when those 'targets' are actually controlling and exploiting them for Problem-Reaction-Solution scenarios.

ISIS are largely mercenary operations. Documents came to light in 2018 revealing the lists of payments and rewards handed out to 'religiously-motivated' ISIS fighters. Killing an enemy soldier or 'infidel' gets you ten silver dinars and a car is on offer for bringing down an aircraft. Compartmentalisation means that rank-and-file terrorist fodder actually believe they are fighting some 'holy war' when they are ultimately controlled through military intelligence and terror group 'leaders' by the very Western government 'infidels' they think they are fighting (Fig 84). The Carlyle Group, like other US companies involved in arms sales (see Lockheed Martin, Raytheon, etc.), benefit monumentally from wars that Carlyle personal like the Bushes have instigated. This has continued under Obama and Trump. The same Carlyle Group managed the assets of the Jeddah-based Saudi Bin Laden Corporation (SBC) which enjoyed a close association with Father Bush. Salem bin Laden, Osama's brother, established a Texas company with Boy Bush in the 1970s called Arbusto Energy. This did go ar*bust*o and was later absorbed by another Texas company, Harken Energy. The Bin Ladens helped Boy Bush secure petroleum concessions from Bahrain when he headed Harken and made a fortune for the Bush family. James R. Bath, the American agent for Salem bin Laden, represented him on the Harken board and Bush-Bin Laden connections went back decades before 9/11. Bath was a CIA asset and a close friend of Boy Bush since their days at the Texas Air National Guard when Bush was avoiding the draft to Vietnam. The Bushes and Bin Ladens were further connected through the Bank of Credit and Commerce International (BCCI), a conduit for intelligence agency and organised crime (same thing) money transfers before its very public collapse in the early 1990s when the money-laundering and arms transfer activities came to light. The 'bank' was dubbed 'the most corrupt financial institution in history' but with its connections to the Bush family and the CIA why wouldn't it be? BCCI had been involved in financing Boy Bush's Harken Energy. Former CIA Directors Richard Helms and William Casey, business partners of Father Bush, were on the BCCI board along with infamous Saudi arms dealer Adnan Khashoggi

who represented Bin Laden family interests in the US. He was an uncle of Saudi dissident journalist Jamal Khashoggi who was murdered by Saudi government assassins at the country's consulate in Istanbul in 2018. Bush family associate Khalid bin Mahfouz, another Saudi 'businessman', held a controlling interest in BCCI which was found to be funding ... *terrorism*. Mahfouz was indicted by a US grand jury and eventually paid his way out of fraud charges by handing over $225 million. The cover up of the BCCI scandal and protection of its big political players was overseen by Robert Mueller, then head of the Criminal Division at the US [In]Justice Department. Mueller would become head of the FBI two weeks before 9/11 and play a key role in covering up what really happened by overseeing a non-investigation.

'Bandar Bush'

Another prime conduit between the Bush family, the Bin Ladens and the Saudi fake royals was the appalling Bandar bin Sultan from the House of Saud who was Saudi ambassador to the United States from 1983 to 2005. This period covered all but two years of the Reagan-Bush, Father Bush and Bill Clinton administrations and the first term of Boy Bush. He would go on to be secretary general of the Saudi National Security Council and director general of the Saudi Intelligence Agency and he used this influence to support US military actions in the Middle East after 9/11. Bandar was so close to Father and Boy Bush – especially Father – that he was nicknamed 'Bandar Bush'. Watergate journalist Bob Woodward claimed that Boy Bush told Bandar of the decision to invade Iraq in 2003 before his Secretary of State Colin Powell. First of all it wasn't 'Bush's decision' it was Cheney's and secondly Colin Powell was being royally exploited and shafted by the Cheney inner circle from which he was excluded. Given this close association between Bandar and the Bushes you won't be surprised to know that two of the alleged 9/11 hijackers received $130,000 from Bandar's checking account – a fact leaked from a *redacted* part of the 9/11 Commission Report. A court affidavit filed in 2015 claims that Zacarias Moussaoui, the jailed '20th hijacker', was a courier for Osama bin Laden and was introduced to Bandar. Moussaoui stated on oath that Bandar and other members of the Saudi royal family funded al-Qaeda and helped finance the 9/11 attacks. Bandar was not investigated for any of this and would have invoked diplomatic immunity if he had been. Russia's President Putin apparently accused Bandar to his face of supporting Islamic Chechen terrorist groups for a decade in southern Russia. You can see the connections between the United States and Saudi Arabia that led to so many Saudi-connected people being named as 9/11 'hijackers'. The Saudi 'royals' and the far-right government in Israel have long had close associations in secret and these have become more public recently (more later).

Bandar promoted greater contact between the Saudis and Israel while National Security Secretary and this fits with the very close relationship that the Bush family has had with Israel. Anyone think all these connections between the Bush and Bin Laden families and other rich Saudis are just a coincidence given who was named as the orchestrator of 9/11 – Osama bin Laden, the brother of Boy Bush's business partner? Or that leading members of the Bin Laden family were allowed to fly out of America on September 11th while all other aircraft were grounded? Or that so many of the alleged 'hijackers' were connected to Saudi Arabia?

Osama – hero then villain

To understand the sequence that led Osama bin Laden to be blamed for 9/11 we must go back to the 1980s and the invasion of Afghanistan by the Soviet Union in a trap set by President Jimmy Carter's National Security Advisor Zbigniew Brzezinski shortly before Carter was replaced in 1980 by the Reagan-Father Bush administration. Brzezinski, who died in 2017, was a serious Hidden Hand operative and co-founder with David Rockefeller of the Round Table's Trilateral Commission. This is one of the Web's 'cusp' organisations that act as conduits between the hidden and the seen. Brzezinski was a prominent force in the Democratic Party and one of the Democons that control Democrat presidents as the Neocons or neoconservatives control Republican presidents. Go one step back into the shadows and the Democons and Neocons answer to same masters. Brzezinski told French news magazine, *Le Nouvel Observateur*, in 1998 how he set out to entice the Soviet Union to invade Afghanistan in the 1980s and give them 'their Vietnam'. The Afghan government in the capital Kabul was a Soviet satellite regime at the time and Brzezinski described how he arranged for the arming, training and funding of what became known as the Mujahideen. These were portrayed as 'freedom fighters' seeking to overthrow the Soviet-controlled Afghan government when they were really a US proxy army designed to drag the Soviet Union into a war that it couldn't win (as the US themselves are still finding out in Afghanistan). The Soviets went for the bait and became entrapped in a proxy Soviet-US war via the Mujahideen between 1979 and 1989 when they gave up and went home. By then 1.5 million Afghan lives had been lost, but what did psychopaths like Brzezinski care or the Reagan-Bush (Bush-Reagan) administration that took over Mujahideen support when they came to power in 1980? Saudi Arabia, a satellite state of America (and Israel if the truth be told), also funded the Mujahideen which included fighters from 40 Muslim countries. Britain's MI6 and elite Special Air Service or SAS were involved in the training along with Pakistani forces. Mujahideen terrorists were further trained by the CIA

in Virginia and Brooklyn, New York, down the road from the Twin Towers.

Billions in financial and military aid under the CIA's Operation Cyclone was poured into Afghanistan via Pakistan military intelligence, the ISI, which wired $100,000 to Mohamed Atta shortly before 9/11. The ISI was a central player in the CIA/Bush family drug operation that turned poppies in the fields of Afghanistan into heroin sold on the streets of America and the world. This life-destroying operation continues today. So many wars, including Afghanistan, Vietnam and others in South-East Asia have to a large extent been about the covert drug trade. Poppy production in Afghanistan fell to almost zero when the Taliban took power after the Soviets left and then went through the roof again after the US invaded in the weeks that followed 9/11. ISI chief Mahmood Ahmed was the source of Atta's $100,000 which has never been explained and would have been connected to the drug operation which at least one version of 'Atta' was certainly involved with. Why was Ahmed not subject to serious investigation for this? Perhaps for the same reason that he was in Washington DC on 9/11 having breakfast with Representative Porter Goss and Senator Bob Graham who had been part of a US delegation to Islamabad, Pakistan, two weeks earlier when they met with Ahmed, other ISI officials and the then President Pervez Musharraf. Goss had long been active in the CIA and was made director of the agency in 2004. The man Brzezinski and the Saudis used as the face of the 'Mujahideen resistance' to the Soviets was called Osama bin Laden from the prominent Saudi family with close connections to the House of Saud and the Bushes. Bandar 'Bush' bin Sultan said Osama bin Laden told him how grateful he was for American support against the Soviets in Afghanistan although the feared 'terrorist mastermind' in Bandar's opinion 'couldn't lead eight ducks across the street'. This is one of those rare moments when Bandar actually told the truth. Bin Laden was a hapless stooge and frontman ravaged by ill-heath – not a 'mastermind'. With the Soviets heading home the time had come for 'hero' Bin Laden to become the 'villain' and a 'terrorist monster'. The 'good guys' became the 'bad guys' with 9/11 providing the perceptual backdrop. Bin Laden, the Mujahideen and Taliban were given the roles of evil terrorists despite being the same people supported by the US against the Soviets. The Mujahideen were renamed 'al-Qaeda' for a new movie although the producer and directors remained the same – mainly the US military/CIA. To promote this rebrand Bin Laden and 'al-Qaeda' began to be blamed for terror attacks against the United States and the West in general. Former British Foreign Secretary Robin Cook, who resigned from the Blair government over the invasion of Iraq in 2003, said publicly that the very *name* 'al-Qaeda' came courtesy of the CIA. He said the term means 'the base' or 'database' and referred to the CIA

database of Mujahideen fighters brought together to fight the Soviets. Cook said in 2005:

> The truth is, there is no Islamic army or terrorist group called al-Qaeda, and any informed intelligence officer knows this. But, there is a propaganda campaign to make the public believe in the presence of an intensified entity representing the 'devil' only in order to drive TV watchers to accept a unified international leadership for a war against terrorism. The country behind this propaganda is the United States.

Yes, and Britain and Israel. Less than a month later Robin Cook was dead after suffering a 'heart attack' which, whatever the background, is the easiest thing in the world to inflict with the technology/drugs they have today. 'Al-Qaeda', the US proxy army and terrorist operation, splintered into other names including eventually ISIS/ISIL/Islamic State, Al-Nusra Front, Tahrir al-Sham and Boko Haram further south in Africa. These manufactured terror groups with their compartmentalised command structure have provided the excuse for US and other Western countries to invade and bring devastation to the Middle and Near East killing and injuring multiple millions and setting a sequence in motion that has seen an exodus of people out of the Middle East and Africa and into Europe. All of these consequences have been long planned and none of them is random.

The West – the real home of terrorism

We can now clearly see why the Bush-connected BCCI mega-crooked 'bank' was found to be 'funnelling money to the Mujahideen' and why Bush family associate and leading BCCI shareholder Khalid bin Mahfouz was exposed for donating big money to Osama bin Laden at the request of Osama's brother and Boy Bush business partner, Salem bin Laden. Throughout the 1980s when Father Bush was always in the White House as either vice president or president his family friend Osama bin Laden was a major CIA asset promoted as a hero leading resistance to the evil Soviet Union in Afghanistan. Then, when the Soviets left, it became more beneficial to the Hidden Hand agenda to do a 180 and turn the image of Bin Laden on its head. This led eventually to Bin Laden being named as the 'mastermind' of 9/11 to justify an invasion of Afghanistan where he was based. The United States invaded Afghanistan on October 7th, 2001, less than a month after the 9/11 attacks in a military campaign that was clearly planned way before the excuse was secured by 9/11 and 'Bin Laden did it!' You don't mount an invasion of that scale in less than a month any more than you prepare a building for a controlled demolition in the short time that Silverstein claimed for Building 7. You will see in the next chapter how a long-

planned script has been playing out. The cover-story for the invasion was the need to 'get Bin Laden' and remove the Taliban from power who were protecting him in Afghanistan. The Taliban are a crazy group, but are they any more crazy – or psychopathic – than the US government and its military? When you compare their inflicted death tolls the Taliban are minor league and the US, especially when you add Britain, Europe and NATO, are world leaders year after year, decade after decade in mass murder and terrorism.

The Taliban offered to hand over Bin Laden to the US *if* the evidence was produced to show that he was involved in 9/11. This was a non-starter because the US didn't have any. Secretary of State Colin Powell said Bin Laden was definitely to blame and they would be producing compelling evidence to prove it which naturally they never did. When the time came to reveal this 'evidence' Powell said he could not make the information public because it was 'classified'. Yes and filed under 'piece of crap'. Hidden Hand lapdog Tony Blair read a 'dossier' to a compliant House of Commons in support of Britain joining the US invasion and he began: 'This document does not purport to provide a prosecutable case against Osama bin Laden in a court of law.' They must have been talking to Robert Mueller at the FBI. Moronic and unquestioning MPs in all political parties still gave Blair the nod for another bloodbath on the basis of made-up 'evidence'. The Blair 'report' was compiled by such trustworthy organisations as MI5 and MI6 with their drafts going to Washington and the CIA for approval. Boy Bush captured the moment: 'There's no need to discuss innocence or guilt, we know he's guilty.' The die was cast and Bin Laden was officially the 9/11 mastermind along with his associate Khalid Sheikh Mohammed who was named in the 9/11 Commission Report as 'the principal architect of the 9/11 attacks'. Mohammed was caught in Pakistan in 2003 in a joint operation between the drug-running duo, the CIA and ISI, and he was taken to torture centres in Afghanistan and Poland to encourage him to admit anything they wanted him to. He went on to the US military detention and torture camp at Guantanamo Bay in Cuba where he remains today despite never facing a trial. Further merciless torture by moral America led to Mohammed 'confessing' to a long list of terror attacks including 9/11. Human rights groups and a former military prosecutor have said the confessions are not supportable given they were secured by torture. Some question if it is even the real Khalid Sheikh Mohammed at Guantanamo.

The United States embarked upon precisely the course of action in Afghanistan demanded by Israel's former prime minister and military intelligence commander, Ehud Barak, within an hour of the attacks. The first phrase of the war was code-named Operation Enduring Freedom until 2014 when it became Operation Freedom's Sentinel (god, it's

pathetic) and it's still going on. The official death toll as of late 2018 was 38,000 Afghan civilians with more than 30,000 wounded. These are *seriously* low-side figures, however, and include only the alleged numbers of death by violence and not from all other consequences of war. On the American side the figures are: 2,372 US troops killed and 20,320 wounded, plus all the dead and injured US civilian contractors. Britain joined the invasion early as always under Hidden Hand poodle Blair and later came a coalition of countries and NATO. The cost to American taxpayers is estimated to be nearly *$2 trillion* and if you add in all wars and conflicts since September, 2001, the figure is almost *$6 trillion*. Again these will be low-end figures. In the same period the number of homeless Americans has soared with people living in cars, tent cities or simply rough in the street. All that death and destruction and mind-blowing financial cost only for General Austin Scott Miller, commander of NATO's Resolute Support mission, to state the bloody obvious in 2018 – 17 years after the post-9/11 invasion of Afghanistan. He said: 'This is not going to be won militarily.' What incredible insight and that was in no way obvious from the start after the Soviet experience. Think what *$6 trillion* could have done for those people living in the street and so many others. Instead it pours into the coffers of Hidden Hand armament companies providing the weapons for *both* sides in Hidden Hand wars paid for by struggling Americans and loans from Hidden Hand banks. How apt that Trump nominated Patrick Shanahan, long-time big-wig at major global arms company Boeing, as his Secretary of Defense. The same theme can be seen in Britain under Tony Blair (never seen a country he didn't want to bomb) and his successors. Did I mention that these people are genetic psychopaths?

Bin Laden – movie star

The Osama bin Laden portrayed by the media was a construct, a propaganda invention, and the truth was very different. Somehow old Osama pulled off the attacks despite the reality described by British journalist and Middle East specialist Robert Fisk who trekked across desert and wasteland for a meeting with the 'mastermind' before 9/11: '... Mr Bin Laden saw a pile of newspapers in my bag and seized them ... By a sputtering oil lamp, he read them clearly unaware of the world around him.' South African-born journalist and anti-apartheid activist Tony Karon took the same line in his analysis of Bin Laden in *Time* magazine three months before 9/11:

> ... The media's picture of Bin Laden sitting in a high-tech Bat cave in the mountains around Kandahar ordering up global mayhem at the click of a mouse is more than a little ludicrous. Yes, the various networks of Islamist terror have made full use of the possibilities presented by technology and

> globalization. But few serious intelligence professionals believe Bin Laden is the puppet-master atop a pyramid structure of terror cells.
>
> It's really not that simple, but personalizing the threat – while it distorts both the nature of the problem and the remedy – is a time-honored tradition. Before Bin Laden, the face of the global terror threat against Americans belonged to the Palestinian radical Abu Nidal. Or was it Colonel Ghaddafi? Ayatollah Khomeini, perhaps? And does anyone even remember the chubby jowls of Carlos the Jackal, whose image drawn from an old passport picture was once the icon of global terror?

Karon was correct in his assessment and we see the constantly-repeating technique of keeping people in fear so they will give their power away to those who claim to protect them. American writer Henry Louis Mencken (1880-1956) was spot on when he said: 'The whole aim of practical politics is to keep the populace alarmed and hence, clamorous to be led to safety, by menacing it with an endless series of hobgoblins – all of them imaginary.' Without fear there is no Problem-Reaction-Solution. 'Bin Laden did it' has been a vaudeville show, pure theatre with video inserts that had 'Bin Laden' confirming his terrorist credentials right on cue whenever the Bush-Blair-fronted terrorism network needed a credibility boost. 'Bin Laden' videos were often so perfectly timed you might even think they were manufactured to support the script, but that would be a conspiracy theory and we should immediately dismiss the idea. No, no, there is a much more plausible explanation for the timing – God was on our side. The fact that the videos were circulated by front organisations for Israeli intelligence (more later) should in no way influence our belief in the credibility of the official story. Bin Laden denied involvement after the attacks and said in a statement a week after 9/11:

> I have already said that I am not involved in the 11 September attacks on the United States. As a Muslim, I try my best to avoid telling a lie. I had no knowledge of these attacks, nor do I consider the killing of innocent women, children and other humans as an appreciable act. Islam strictly forbids causing harm to innocent women, children and other people. Such a practice is forbidden even in the course of a battle ... I have already said that we are against the American system, not against its people, whereas in these attacks, the common American people have been killed.

The London *Daily Telegraph* noted that Bin Laden had publicly issued four videos after September 11th and always denied carrying out the atrocities. We are asked to believe that he then suddenly switched his position in a 'confession' video on December 13th, 2001. The date is

more than interesting to say the least because that is the day on which Bin Laden is said to have died. Yes – *died*. I will fill in the background shortly. This about-turn 'confession' was like a scene from the 1998 movie *Wag The Dog* which is so close to the truth in how political showbiz really works. It's all a psychological game to seize control of the public mind or, as Henry Kissinger said: 'It is not a matter of what is true that counts, but what is perceived to be true.' The *Wag The Dog* storyline involves an American president facing an election for a second term when his aides realise that the story of a sexual affair is about to hit the press. They hire a Hollywood producer played by Dustin Hoffman to create a non-existent US war with Albania to take news of the affair off the front pages. They pick Albania because they figure no one in America would know where it was and certainly nothing about the place. There is no actual war – they just kid the public there is. The 'war' all takes place in a movie studio where interviews and 'war footage' are created and then handed to compliant television news networks as 'footage from the front'. They hire singer Willie Nelson and other celebrities to record a Live Aid-type song called 'The American Dream' to capture public emotion in support of the fictional 'war in Albania'. I recommend the movie if you haven't seen it on the grounds of accuracy. In the end, with the Albania 'war' won and the president re-elected, Hoffman's character threatens to spill the beans because he wants to be publicly acknowledged for his achievement. He is then led away by large men to a blacked-out car and that's the last we see of him. This is so close to what really happens with the political and military mind games and anyone who threatens to get in the way. Hollywood is a creation of the Hidden Hand (hence so much Satanism and child abuse goes on there) and it has been used from the start as a stupendous weapon in global propaganda and perception conditioning. Most people download their version of 'history' from Hollywood movies and that's overwhelmingly a version that suits what the manipulators want the public to believe. Karl Rove, Boy Bush's chief political adviser, headed out to California after 9/11 to meet 45 of Hollywood's top players at the Peninsula Hotel in Beverly Hills. These included executives from all the main studios and they formed the Hollywood 911 committee to tell the world the Gospel according to Washington. Movie-makers were told they could have access to military sites, aircraft carriers, almost anything they wanted, so long as their productions did not criticise the government. Bush adviser Mark McKinnon told the BBC's *Newsnight* programme without once bursting into laughter:

> We don't want to, or intend to, turn Hollywood into a propaganda machine. It's not in the long-term interests for the effort, Hollywood, or this administration. This administration is very first-amendment minded. This

> President has no interest in telling people what to do, what to say, or how to say it.

Right, gotcha – so they wanted to use Hollywood as a propaganda machine and tell people what to do, what to say and how to say it. Invert most things that politicians and their apologists say and you are pretty much there. Jack Valenti, President of the Motion Picture Association of America, said:

> We are at war. If I was in the White House, I'd reach out to the most powerful persuaders on earth, the movie industry, and ask, 'What can you do to help?' What can they do?

What Bush (or rather those that controlled him) wanted them to do was to tell lies about world events as they've been doing since Hollywood was founded (with honourable exceptions). Among the latter was Larry Gelbart, creator of *M*A*S*H*, the brilliant series about the Korean War. He said of the government's overtures to Hollywood:

> It is easy to talk out of the other side of your mouth when you are two-faced. You have got this extra mouth. They want it all ways.

Yes they do, and some big players in Hollywood from studio owners to experts in various disciplines were very keen to give them whatever they wanted. Government and military propaganda continues to be widespread in Hollywood productions. The 2019 *Captain Marvel* movie, starring Brie Larson, is a propaganda storyline for the American military involving military officers employed as consultants and advisers, dozens of active-duty US soldiers were used as extras, scenes shot at a military base and the film heavily promoted by the US Department of Defense.

Wag the Dog 'confession'

This brings me back to the Bin Laden 'smoking gun' confession video. With an invasion of Afghanistan to justify and no evidence to pin the rap on the declared villain it was no surprise that the Bin Laden 'confession' would drop from the heavens. Praise the Lord. Pentagon official statements claimed the video was shot at a 'guest house in Kandahar', Afghanistan's second largest city, and 'found in an abandoned private house in Jalalabad' 400 miles away. By whom, pray? That very much depends on which official spokesman you listened to. Most of the 9/11 story depends on that. We were variously told that the Bin Laden tape was found by the US Navy, US Army, United Islamic Front for the Salvation of Afghanistan (Northern Alliance), the 'military' and CIA.

More details, please? Er, sorry, it's classified. The video was said to have been shot on November 9th, 2001. Boy Bush apparently viewed the tape on November 30th before *The Washington Post* 'broke' (officially leaked) the story of its existence on December 9th and the rest of us saw bits of it on December 13th. The tape was about 40 minutes long and of very poor quality which suited the manipulation perfectly. It included shots of a downed helicopter in Afghanistan's Ghazni province and two sections with a man claimed to be Bin Laden talking to a Saudi cleric and others at a 'dinner'. Strangely, the tape had the first part of the 'Bin Laden' conversation at the end of the tape, the end of the conversation at the start, with the helicopter footage in between. Maybe Afghan video cameras whirl the other way like Chinese writing. We were told that the US government used the latest voice and face identification techniques (to check it or make it?) and a team of Arabic translators, none of them familiar with the Saudi language, spent days listening to the tape to make sure the conversations were accurately translated. Why didn't they succeed then? The video was not accurately translated as confirmed by State Department consultant Christopher Ross. If that was the face of the 'Osama Bin Laden' we had been seeing elsewhere then he must have placed a very large order with the Kandahar Cream Cake Company and been visited by a doctor from the local nose-job clinic – 'cave visits a speciality' (Fig 85). 'Bin Laden' in the 'confession video' looks nothing like the Bin Laden we had come to know; but we shouldn't mock, they were doing their best, and after all Boy Bush said:

> This is Bin Laden unedited. It's preposterous for anybody to think that this tape is doctored. That's just a feeble excuse to provide weak support for an incredibly evil man.

Cheers, George, so it was doctored then or rather made from scratch. Jack Straw, Blair's always bewildered Foreign Secretary, said there was 'no doubt it is the real thing' thus providing more confirmation that it wasn't. *Monitor*, a German TV show on the Das Erste channel, asked two independent translators and an expert in oriental studies to analyse the US government translation. They found it to be 'inaccurate' and

Figure 85: Confession tape 'Bin Laden' and the real Bin Laden.

'manipulative'. Dr Abdel El M. Husseini, one of the programme's translators, said that he had carefully examined the Pentagon's translation and found many problems with it. 'At the most important places where it is held to prove the guilt of Bin Laden it is not identical with the Arabic,' he said. My goodness, I'm shocked. Dr Murad Alami, another translator, said the alleged statement that the attacks would take place 'on that day' cannot be heard in the original Arabic version. Garnet Ratter, professor of Islamic and Arabic Studies at the Asia-Africa Institute at the University of Hamburg, told the programme: 'The American translators who listened to the tapes and transcribed them apparently wrote a lot of things in that they wanted to hear, but that cannot be heard on the tape no matter how many times you listen to it.' Bin Laden's mother was quoted by Britain's *Mail on Sunday* as saying the tape was a fake. 'The voice is unclear and uneven. There are too many gaps and the statements are very unlike him', she said. According to the official translation the tape's make-believe 'Bin Laden' appears to say that most of the hijackers did not know the details of the operation until just before they boarded the planes:

> The brothers, who conducted the operation, all they knew was that they have a martyrdom operation and we asked each of them to go to America but they didn't know anything about the operation, not even one letter. But they were trained and we did not reveal the operation to them until they are there and just before they boarded the planes ... (inaudible) ... Those who were trained to fly didn't know the others.

Are we to believe that after 'years of planning' most of those involved were only given the essential details in the few minutes before they boarded the planes for a 'brilliantly executed operation'? Hey, Abdul, quick, we don't have much time. You know those two big towers in New York? Well ... What utter, utter trash. What about the 'Atta letter' claiming to tell the hijackers what to do and how to prepare long before 9/11? Where is the video footage at Washington Dulles and Newark New Jersey of these 'hijackers' being told the plan 'just before they boarded'? Here we have 'Bin Laden' describing something that could not have happened. The 'pilots' didn't know each other? Three trained at Venice flying schools and Atta was a close friend of one according to the official story. The tape translation has the Bin Laden figure saying that he had been informed of the date in advance. Well, I guess as a 'mastermind' he would have to be told when it was happening. The figure says that it was 5.30pm when he heard the news on the radio that the first plane had hit the World Trade Center and he had told people with him that they should be patient with the implication that he knew there would be others. 'Bin Laden' then says he continued to listen to the

radio. Would he not on that of all days have made sure CNN was switched on and ready? Instead he sits listening to the radio while the rest of the world watches live what he is supposed to have orchestrated. The translation also has 'Bin Laden' saying that he did not expect the two towers to collapse as they did. He thought that the fire would undermine the iron structure of the building and that three or four storeys would collapse. Isn't it strange that a man who comes from one of the biggest construction families in the Middle East should not think that three or four storeys falling on those below would threaten the whole building if that was how it was supposed to have happened? And, by the way, Mr Fake Osama, the building structures were made with steel, not iron. What a joke it all is and a deeply tragic one. Why would he 'confess' on tape? Why take that chance? It has been suggested that it was done as a recruitment video, but (a) that means the 'confession' would have been widely circulated and a copy would eventually have fallen into the wrong hands, and (b) why would they record a 'recruitment video' on such a crap camera with such crap quality when we are told he had limitless funds? None of this makes any sense because it isn't true.

By the time the video is said to have been shot on November 9th the Taliban were in serious trouble. The country was being carpet-bombed by the US and Britain and on that day the anti-Taliban forces of the Afghan Northern Alliance claimed to have won the battle for the strategic town of Mazar-e-Sharif. The capital Kabul would fall within days. At no time in the whole tape does Bin Laden or anyone else mention the US invasion, the bombing, the Taliban's retreat or the alleged pursuit of the man himself. 'Bin Laden' is claimed to say on the tape that Mohamed Atta was the leader of the hijackers, but he does not say that at all. He speaks only of Mohamed, hardly a rare name among Muslims, and the name 'Atta' did not leave his lips. 'Bin Laden' said: 'Mohamed from the Egyptian family was in charge of the group.' The name 'Atta' only comes in the translated subtitles on the broadcast version, which says: 'Muhammad (Atta) from the Egyptian family (meaning the Al Qa'ida Egyptian group) was in charge of the group.' The translation is peppered with these in-bracket comments that are not on the soundtrack. The term 'inaudible' appears over and over on the subtitles when they could not understand what was said after playing the tape back dozens of times and later another 50 times more. Significantly, many of these 'inaudibles' come at the start of sentences. A skilled editor can take someone's words and change the order to make them say what they didn't say before. An audiotape of Boy Bush was sent to my website in which he openly declares his intentions for a fascist state. What he said was true, but he didn't actually say it. His words from other speeches and statements had been re-edited to make it

sound as if he had said that. The result was very good and imagine what Hollywood and the Pentagon's own secret Hollywood could do. Hani Al Sibaei, a specialist in Islamic affairs, told Al Jazeera TV that the congratulatory wishes on the tape and Bin Laden's happy expression were taken from a tape of Bin Laden being congratulated on the marriage of one his children which happened four years earlier. Al Sibaei described the 'Bin Laden confession' as 'fabricated and a scandal for the greatest democratic country in the world'. Not sure about the last bit, but you get his drift. With voice recognition technology they would have another means of mimicking the sound of the voice and with the Arabic audio so poor and difficult to hear this would be very straightforward for an expert. There are no close-ups of lips on the video, making it even easier to manipulate.

There were other puzzling aspects of the Kandahar 'confession' tape. The Pentagon said it was shot in mid-November although reports say it carried a date of November 9th. The cleric with 'Bin Laden' said he journeyed to the location on a night of a full moon, but the full moons at that time were on October 31st and November 30th – long before and even longer after the tape was supposed to have been recorded. The cleric, who was a paraplegic, would have had to make his alleged journey of some five hours or more from Kabul to Kandahar while the intensive US bombing and the anti-Taliban forces of the Northern Alliance were sweeping the country. Afghan warlord Mohammad Zaman Ghamsharik apparently reported on November 23rd that Bin Laden dined with Pakistanis in Jalalabad on November 9th and stayed there until the 13th. If that is so how could he also be in Kandahar on the 9th making his video 'confession'? 'Bin Laden' appears to have a ring on his right hand in the video while in his other appearances he only wore a watch and the left-handed Bin Laden is seen to be gesturing a lot and making notes with his right hand in the 'confession'. Bruce Lawrence, Professor of Religion at Duke University in North Carolina, was considered a Bin Laden expert. His opinion on the confession video: 'It's bogus'.

Bloke in a hat

Another 'Bin Laden' video in 2011claimed to have been found at his 'compound' after he was allegedly killed by US forces showed only the side of a beard, the tip of a nose and a woolly hat plonked on a head (Figs 86 and 87 overleaf). The video was taken (why?) of 'him' changing channels on a television and he seemed to be on all of them while never hitting an ad break. The real Bin Laden was left-handed and yet this guy uses his right hand to change the channels throughout. Close-ups of the ears of fake and real Bin Laden show they are not the same and other footage from what was called the 'treasure trove' was only pictures

Figure 86: This is all you see of 'Bin Laden' in the 'compound' video except for one brief moment when his head half-turns ...

Figure 87: ... compare the half-turn profiles and we see that 'compound Bin Laden' is not Bin Laden.

released years before. 'New' footage found in the 'compound' was circulating four years earlier. They did the same in 2007 when the footage was released as 'new' when it was clearly the same video that had been circulating in 2002. Then there was September 11th 'hijacker' Ahmed al-Haznawi 'threatening' attacks in America in a tirade to camera that is said to have been recorded six months before 9/11 on March 6th, 2001. The tape was released by Al Jazeera television, the 'Arab CNN', based in US/Israel-controlled Qatar. Al Jazeera claimed to have 'received' the tape in April, 2002, but would not say from what source. The 'hijacker' speaks to camera on good-quality footage as if he is sitting in a television studio and, most bizarrely, behind him are images of the burning World Trade Center. This was supposed to have been shot six months before the attacks. If that is correct someone has electronically added the background of the burning towers. Why? This tape was claimed to be the 'proof' that al-Qaeda was behind the attacks so why doctor this 'proof' in such a bizarre manner? Why not give us the original footage? Why would this guy record a video six months before the attacks warning that the fight against the United States would be taken to American soil? 'The time has come to prove to the whole world that the United States put on a garb that was not tailored for it when it had the mere thought of resisting the Mujahidin', he said. The United States did not resist the Mujahidin, it funded and armed them, and why would a carefully planned and secret operation to attack targets in the United States be revealed by one of the hijackers on tape six months before the day? Crazy. On the same Al Jazeera tape is claimed to be the

al-Qaeda second in command, Ayman al-Zawahiri, and a silent Bin Laden. The alleged Zawahiri calls the September 11th attacks a 'a great victory' and adds: 'This great victory was achieved only thanks to the grace of God the Almighty, not due to any skill or competence on our part.' At least the last bit is true.

Seeing is believing?

I remember watching the movie *Stuart Little* with my son Jaymie three years before 9/11 and it gave me an idea even then for what was possible. The movie is about an animated mouse living with a human family. Cats in the neighbourhood, real ones not animations, speak to each other like humans. The mouths moved so perfectly with the words I realised that the days of believing what you see even with apparent television interviews or statements were over. If they could do that with cats what could they do with humans? When the actor Oliver Reed died during the filming of the movie *Gladiator* he was replaced in the rest of the film by a computer-generated image of himself. We also saw in advertisements and movies like *Forrest Gump*, released seven years before 9/11, how actors could appear to be chatting and shaking hands with people long dead. Sean Broughton, director of Smoke and Mirrors, one of Britain's top visual effects companies, described at the time how relatively easy it would be for a skilled professional to fake the video of Bin Laden. First they would transfer the original video images on to film tape, he said. The distortion, or 'noise' and graininess, would be removed and a 'morphing package' would be used to manipulate the image on a computer screen. It would be possible to change the person's mouth and expressions to fit whatever soundtrack they chose and finally the 'noise' and graininess would be returned and the whole thing transferred back to videotape. Smoke and Mirrors had used this technique to put Bill Clinton's head on an actor for an advertisement for a United States insurance company. Broughton said there were perhaps 20 people in America who would be good enough to fool everybody, but 'to find someone that good and make sure they kept quiet would probably be pretty difficult'. Not for the Hidden Hand it wouldn't. Philip Taylor, Director of the Institute of Communications at Leeds University in the UK and the author of *Munitions of the Mind, a History of Propaganda*, said US military leaders had once suggested to him intercepting a live broadcast of Saddam Hussein 'and morphing a blonde on one arm and a bottle of scotch on the other'. They decided against doctoring the video, he said, because of its extraordinary potential price of ruining US credibility forever if they were found out. Greg Strause was Visual Effects Supervisor at Pixel Envy, a company involved with special effects on the movie *Titanic*. He said:

> That's how we make our money, kind of faking things to convince everyone else it's real. We just did some Nike commercials where half the people are digital. You wouldn't be able to pick them out.

Henry Hingson, a former President of the National Association of Criminal Defence Lawyers, said that in this age of digital wizardry many things could be done to manipulate video. Bob Crabtree, editor of the magazine *Computer Video*, said it was impossible to judge whether the 'Bin Laden' video was a fake without more details of its source: 'The US seems simply to have asked the world to trust them that it is genuine.' Techniques of video manipulation available then are nothing like we see today when a piece of software can lock-in your facial movements with anyone on video and make their mouth and facial muscles move the same as yours. Once a person's voice frequency is secured technology can to make them appear to say whatever you choose. The point to stress here again is that what we see in the public arena is way behind what they have in the secret military projects and at that level they would have been far closer in 2001 to what we see today. Put 'deep fake videos' into a search engine and you'll see that seeing and hearing is no longer believing.

Bin Laden is dead – but when?

Egyptian newspaper *Al-Wafd* reported on December 26th, 2001, that Bin Laden had died ten days earlier. The report quoted a 'prominent official' from the Taliban in Afghanistan as saying Bin Laden had died from serious lung complications and described how he had been buried in an unmarked grave according to Wahhabi tradition. The *Pakistan Observer* reported that Bin Laden had died a peaceful death due to an untreated lung complication and the Paris-based paper *al-Watan al-Arabi* quoted Pakistan sources confirming his death in 2002. No al-Qaeda source contradicted these reports. Bin Laden looked very ill with what was described as 'a gaunt, frail appearance' in videos that appeared to be genuine just before this time. Pakistan President Pervez Musharraf said that photographs showed Bin Laden to be extremely weak and 'I would give the first priority that he is dead'. Musharraf said Bin Laden had been using a dialysis machine for kidney failure, a fact that was widely known among the intelligence community. French newspaper *La Figaro* ran a story in late October, 2001, that Bin Laden had been treated in the urology department of the American Hospital in Dubai in the previous July and had ordered a mobile dialysis machine to be delivered to Afghanistan. *Time* magazine questioned if he was alive in June, 2002:

> The last time the world heard from Osama bin Laden, there was reason to believe his end was near. In a videotape released in December, bin Laden

> looked sallow; his speech was slow, and his left arm immobile.

Many intelligence sources quoted agreed that Bin Laden was probably dead. CNN reported in July, 2003, that Bin Laden bodyguards had been captured and he was nowhere to be seen. Steve Pieczenik, a Deputy Assistant Secretary of State in three US administrations, said in 2002 that Bin Laden died in 2001 from the consequences of the degenerative genetic disease Marfan syndrome which affects the connective tissue of the body. Suffers tend to be thin, tall and have long arms, legs and fingers which certainly fits Bin Laden. A major symptom is lung disease. Pieczenik repeated the claim in 2011 when dismissing reports that Bin Laden had been killed in his 'compound' in Pakistan by American forces. Pieczenik said he worked with Bin Laden when he was used by the United States as the poster boy for Afghan resistance to the Soviet invasion in the 1980s. He said CIA physicians had treated Bin Laden and they had visited him at the American Hospital in Dubai in July, 2001. 'He died of Marfan syndrome, Bush junior knew about it, the intelligence community knew about it', Pieczenik said. David Ray Griffin reports in *Osama bin Laden – Dead or Alive?* that no messages from Bin Laden were intercepted by US intelligence from about December 13th, 2001, when he was reported to have died. Angelo Codevilla, a former foreign service officer and senior editor of *The American Spectator*, wrote about 'Osama bin Elvis' in 2009: 'Seven years after Osama bin Laden's last verifiable appearance among the living, there is more evidence of Elvis's presence among us than for his.' Video and audio tapes of 'Bin Laden' began to re-appear in 2003/4 up to his alleged death by US troops in 2011. Angelo Codevilla spoke for a lot of people when he said:

> The audio and video tapes alleged to be Osama's never convinced impartial observers. The guy just does not look like Osama. Some videos show him with a Semitic aquiline nose, while others show him with a shorter, broader one. Nor does the tapes' Osama sound like Osama ... Above all .... the words on the Osama tapes differ substantially from what the real Osama used to say.

Why would fake videos be circulated except to mislead and give the impression Bin Laden was still alive when he wasn't?

You only die twice

Bin Laden died again on May 2nd, 2011. This time he was killed by US Special Forces who raided his 'al-Qaeda compound' (a house) in Abbottabad about 35 miles north of the Pakistan capital Islamabad. The 40-minute operation by SEAL Team Six brought an end to the life of the 'World's most want terrorist' for the second time if you accept that he'd

met his maker once and came back for more. President Obama is said to have approved the raid known as 'Operation Neptune Spear' (mercy, please) after 'months of preparation' that followed 'intelligence' about where Bin Laden was hiding. The authorities claim that Black Hawk helicopters took off from Afghanistan with 25 Navy SEALs and landed at the 'compound'. One crashed without causing injuries and they found Bin Laden on the third floor where they shot him in the head above the left eye. A woman was also killed along with Bin Laden's son and two other men. The SEALs all returned to Afghanistan with your man in a body bag. Obama-the-Fraud addressed the nation and big crowds cheered the news outside the White House, Pentagon and in New York's Times Square, so proving yet again that most people will believe anything the government tells them. With 24 hours to comply with Islamic law Bin Laden was buried at sea. No, no, I'm not taking the piss – that's what they told us. *Buried at sea*? He was a Saudi landlubber not Jack Sparrow. Does anyone really think the American government and military would care less about Islamic law in such circumstances? They were getting rid of the evidence pure and simple so their story could not be questioned. There were so many different versions of the raid and what happened in the house, sorry compound, and no tangible evidence to constitute 'proof of death' has been produced. Freedom of Information requests for DNA results, videos and photographs were denied. Internal emails released under the Freedom of Information Act suggest that only a very small number of people on board the ship were aware of what took place and no sailors witnessed it. The Pentagon sent all its files to the CIA in 2012 and deleted them from its own database so circumventing any more Freedom of Information requests because the CIA is exempt. They're not trying hide anything you understand.

Muhammad Bashir, a Pakistani national who lived next door to the 'compound', told Pakistan television that only one helicopter landed which was the one that exploded and crashed. How could they take away 'Bin Laden' if no other helicopter landed? He said that those in the crashed helicopter were dead. Bashir's cousin was said to have a vegetable garden at the 'compound' which the owner – not Bin Laden – let him use. Other residents interviewed by the BBC said it would have been impossible for Bin Laden to have lived there all that time without their knowledge and in fact the person living there was a neighbour they knew very well. The 'Bin Laden' raid was officially carried out by SEAL Team Six and within weeks 38 people – 15 from SEAL Team Six – were killed when their helicopter crashed in Afghanistan. They were on a mission with the call-sign Extortion 17 in a slow-moving Chinook helicopter totally inappropriate for such an action. The bodies were cremated 'because they were burned beyond recognition' when photographic evidence is reported to show otherwise. Black boxes were

apparently not recovered after being washed away in a 'flash flood'. The helicopter had no air cover and drone surveillance wasn't working at the time of the crash which was claimed by the Taliban to have been hit by their missile. Family members have many questions about what happened to their loved ones and so do many in the military.

Sound like 9/11? History does have a habit of repeating when those driving events are the same people and the same networks. People will have to come to their own conclusions about when and how Bin Laden died, but he was just another patsy exploited as a hero and then a monster to advance the Hidden Hand agenda. He was no more responsible for 9/11 than I was.

PART 2

Who really did it - and *so* much more

CHAPTER 16

The Sequence

There is a stubbornness about me that never can bear to be frightened at the will of others. My courage always rises at every attempt to intimidate me – Jane Austen

We are now starting a journey into the Forbidden Land. I am going to address and expose information, facts and connections that a whole global network of professional censors is desperate for you not to see.

There was massive and central involvement in 9/11 by Israeli government, military and intelligence operatives and what happened that day cannot be understood without its exposure. Most researchers are intimidated and cowed into silence about this and won't go there. They hide behind '9/11 was an inside job' through fear of the consequences that come with speaking the name that must not be spoken. Others are simply ignorant of the ultra-Zionist connection and no doubt in some cases they are specifically planted to hold the line of the 9/11 Truth movement at 'the government did it'. Actually 'the government' did not do it. A Hidden Hand network infiltrating and working from within government, military and intelligence agencies 'did it'. Those representing the Hidden Hand in the United States government and its agencies and military were of course involved. The story, however, goes much deeper than that – *much deeper.* The Forbidden Land of 9/11 (and so much else) is the involvement of Israel and more accurately the satanic Death Cult that controls Israel while hating to its core everything that country and its people are claimed to stand for and represent. Jewish people need to read the exposure that follows even more than non-Jews because they have been royalty stitched up by this Death Cult and continue to be so. Cult members have a deep and gathering hatred for me which I take as a compliment. Their problem is that I don't succumb to intimidation and I seek truth not popularity. If the latter results from the former, then fine. If it doesn't, that's equally fine. Whenever intimidation is attempted I shout louder and run faster in their direction. Far from fearing them I think they are pathetic. I'm sure the Cult believed that it had secured such levels of

intimidation and acquiescence by now that a book like this would never be written today by anyone with a public profile. Wrong chaps – *very wrong*. When Michael Caine said that famous line in the *Italian Job* – 'You're only supposed to blow the bloody doors off!' – I must have been overcome by temporary deafness. I seek to blow the roof and the walls off, too, so that all humanity – Jewish and non-Jewish – can be free to create a world of our own choosing instead of being the puppets and lackeys of a self-appointed elite that takes the form at its core of a dark and satanic Death Cult. I will refer to the extreme expression of Zionism as 'ultra-Zionism' and I will use the term Death Cult for its inner core until I come to its background and real name. All will become clear as we proceed.

This is not an exposure that targets Jewish people for being Jewish, nor does it point the finger at the overwhelming Jewish majority. Revealing the involvement in 9/11 and far wider manipulation of the ultra-Zionist and Death Cult wing of the Hidden Hand does not refer to Jewish people in general any more than criticism and unmasking of the Sicilian Mafia is a condemnation of all Italians. Ultra-Zionism and the Death Cult only want you to believe that one means the other to secure their own protection from exposure by constantly – and I mean *constantly* – playing the card marked 'anti-Semitism'. I seek instead to shine a light on those who present a public face of Jewishness while treating the great body of Jewish people worldwide with absolute contempt. It is quite a story to say the very least which I am going to tell in the following order: (1) The sequence of ultra-Zionist and Death Cult manipulation that led to 9/11; (2) the staggering scale of the ultra-Zionist network of ever-gathering censorship and intimidation which prevents the truth from circulating in the mainstream; (3) where this cult came from and how it seized control of Israel and runs the country as its personal fiefdom; (4) how the Cult and its ultra-Zionist support network expanded their influence and manipulation around the world – especially in the West; and finally (5) how this Cult was the driving force behind 9/11 before, during and after. I will detail the real nature of ultra-Zionism and the Death Cult, both modern and historic, and expose what the global network of censorship and suppression is designed to hide from public view – particularly from the mass of Jewish people who have no idea what is being done in their name. The religion followed by most Jews is not the religion of the Cult which is a phenomenon that operates within mainstream Jewish society while being a self-contained and separate group. The Death Cult and the ultra-Zionists that support its agenda (some knowingly, most unknowingly) is a modern expression of a breakaway faction that can be traced at least to the 17th century and this has inverted much of what mainstream Judaism stood for and believed. What emerged from this was a satanic religion that spawned

both the cabal that controls today's Israel *and* the House of Saud 'royal' family with its satanic version of Islam known as Wahhabism. This is the extremist, beheading-branch of psychopathy practiced in Saudi Arabia and by terrorist groups such as ISIS/ISIL/Islamic State. The Israel-House of Saud connection explains so much about what happened on 9/11 and in its aftermath right up to present day, and why there was such a Saudi involvement.

'Jewishness' and 'Zionism' are not interchangeable

Before I begin to detail 30 years of research into these subjects it is essential to define the terms I will use from hereon. I am exposing those that seek to exploit the mass of Jewish people as their cover to hide and protect their activities from exposure and this should *not* be equated with claiming there is some 'Jewish plot'. Defining the term 'Jewish' is highly controversial in that it means different things to different people. Some think of Jewishness as relating to a race – I say wrongly; others define Jewishness as a religious belief (although there are several alleged versions); and still others emphasise the common culture, rituals and way of life. This is for Jewish people to decide by what it means to them. One thing Jewishness is *absolutely not* is Zionism. This is a fundamental misunderstanding that is promoted and encouraged by the ultra-Zionist elite and their ultra-Zionist gofers to equate Zionism and Jewish people as interchangeable terms. They are not and never have been. Once that connection is erroneously made in the public mind – Jewish and non-Jewish – exposure of ultra-Zionism and its extremists can be protected and censored by claiming that such criticism is by definition always an attack on all Jewish people. From this the 'anti-Semitism' industry was born in which critics and exposers of ultra-Zionism are targeted and often silenced in the name of protecting Jewish people from 'racist bigots' and 'Nazis' when it's really all about protecting the ultra-Zionist elite from legitimate investigation. This is the dictionary definition of Zionism: 'International movement originally for the establishment of a Jewish national or religious community in Palestine and later for the support of modern Israel.' Zionism is a *political philosophy* – not a race – which sought to establish a homeland for Jews in Palestine and now seeks to keep it that way. The Jewish Virtual Library expands on the theme:

> The term 'Zionism' was coined in 1890 by Nathan Birnbaum. Its general definition means the national movement for the return of the Jewish people to their homeland and the resumption of Jewish sovereignty in the Land of Israel.
>
> Since the establishment of the State of Israel in 1948, Zionism has come to include the movement for the development of the State of Israel and the

protection of the Jewish nation in Israel through support for the Israel Defense Forces.

From inception, Zionism advocated tangible as well as spiritual aims. Jews of all persuasions – left, right, religious and secular – formed the Zionist movement and worked together toward its goals. Disagreements in philosophy led to rifts in the Zionist movement over the years, and a number of separate forms emerged. Notably: Political Zionism; Religious Zionism; Socialist Zionism and Territorial Zionism.

While Judaism and Jewish people are said to go back thousands of years the term 'Zionism' only emerged in 1890. Therefore Jewish people and Zionism are not the same thing and not interchangeable. Many Jews vehemently oppose Zionism never mind support it. Nor do you have to be Jewish to be a Zionist. There are the Christian Zionists, for example, that support the existence of a homeland for Jews in Palestine. We can also see from the Virtual Library definition that even Zionism itself has many faces and expressions. It isn't just one thing to all Jews. There is a myth that Jews are somehow all the same with the same beliefs and attitudes to life. This is another *absolutely not*. Jews span the spectrum of both behaviour and belief just like every other group. Selling the lie that all Jews think the same allows their elite to claim that they speak for all Jews. This is a travesty of the truth and there are endless self-styled Jewish organisations that exploit this misunderstanding by claiming to represent all Jewish people. They don't and never have, but their power and influence comes from making that claim and having it believed. These are the terms that I will be using to emphasise these differences: I will simple say Jews or Jewish people for everyone who considers themselves Jewish; I will refer to 'Zionists' when I am talking about those who support the existence of a Jewish homeland in Palestine, but don't support the extremists who exploit Zionism and Jewish people to increase their own self-interest and expand their personal and collective power; and I will describe the elite extremist minority and their support system as 'ultra-Zionist'. There are also two expressions of ultra-Zionism. There are those utterly consumed by Israel and Zionism in ways that completely define their self-identity and colour their every view and action. They are 'Israel right or wrong' and can support and justify horrors and injustices if they are perceived to be 'good for Israel'. The most extreme of them at the other end of the ultra-Zionist spectrum are willing to engage in any action – *literally anything* – to secure personal and collective power in the name of Israel and Zionism. This extreme fuses into the satanic Death Cult. Jewish people represent only 0.2 percent of the global population – *0.2 percent*. Take away those who oppose Zionism and those I will refer to as Zionists and you are left with

a tiny number of ultra-Zionists and even fewer in the Death Cult. Their influence, however, is *fantastic* when compared with their number. This is possible because they exploit and manipulate Jews, Zionists and even many 'Israel right or wrong' ultra-Zionists to do their bidding without realising the true background to the satanic cult running the show which actually has contempt for Jewishness. To them Jewish people are only a means to an end, not the end itself, and the end they desire for the rest of humanity, Jewish and non-Jewish, is horrific.

On the road to 9/11

There is a sequence of events before, during and after the September 11th attacks that pulls all the pieces together and the sequence continues to play out to this day. The connections are devastating for the official version of the attacks and sweep back the curtain to allow the wizard to be seen. This is indeed the Yellow Brick Road in so many and various ways to what really happened on 9/11 and it takes us into evidence that reveals without question the foundation involvement in the attacks of the ultra-Zionist and Death Cult cabal that controls the State of Israel and operates worldwide. We can pick up the trail in 1979 when future Israeli Prime Minister, US-educated Benjamin Netanyahu, organised the Jerusalem Conference on International Terrorism (JCIT) where he called for a 'war on terror' to destroy what he called international terrorism. This was 22 years before his wish was granted as a result of 9/11. No wonder his first public reaction to the attacks was that they were 'very, very good for Israel'. He wanted 'to focus public attention on the grave threat that international terrorism poses to all democratic societies, to study the real nature of today's terrorism, and to propose measures for combating and defeating the international terror movements'. Netanyahu demanded pre-emptive attacks on states that were alleged to support 'terrorists', the use of torture, expanded intelligence networks, dehumanising propaganda against targets and curtailed civil liberties. Netanyahu's fellow speakers included then Israel Prime Minister Menachem Begin and future US president, Father Bush. Brian Crozier was another speaker – the leader of Le Cercle, a highly significant secret society formerly known as the Pinay Circle after former French Prime Minister, Antoine Pinay. Its members are in influential positions across multiple countries in North America, Europe and worldwide and at least four of them spoke at Netanyahu's 1979 conference. Le Cercle has a long history of political and other manipulation across the world together with its fellow secret society strands in The Web. I wrote in *The Biggest Secret* about alleged connections between Le Cercle and the murder in Paris of Princess Diana.

Le Cercle members have included Donald Rumsfeld, 9/11 Secretary of Defense; Paul Wolfowitz, Rumsfeld's 9/11 'deputy' but the one really

in control; Richard Armitage, 9/11 Deputy Secretary of State; John Bolton, 9/11 Under Secretary of State for Arms Control and International Security Affairs who became Donald Trump's National Security Advisor ('I advise you to bomb everyone that Israel demands'); Richard Perle, a central figure in the 9/11 Pentagon; John Negroponte, 9/11 US Ambassador to the United Nations; Norman Schwarzkopf, the US General who would lead Operation Desert Shield in the US-Iraq Gulf War in 1991 when Dick Cheney was Defense Secretary; Henry Kissinger, master manipulator on all fronts; Zbigniew Brzezinski, Jimmy Carter's National Security Advisor and co-creator with David Rockefeller of the Hidden Hand Trilateral Commission; David Rockefeller and his brother, four-times Governor of New York Nelson Rockefeller who together ensured the Twin Towers were built; Otto von Habsburg, a major driving force behind the creation of what became the European Union; and Jean Monnet who is still known as the 'Father of the European Union' (in truth a Habsburg-Rothschild front man). If only the pro-EU 'progressives' and others would open their eyes they would realise that *nothing* is what it seems to be (see my other books for the detailed exposure of the EU conspiracy). Interestingly, an offshoot of Le Cercle, known as the Safari Club, had Saddam Hussein among its members.

So back in 1979 Netanyahu and his secret society cohorts were preparing the ground for the post-9/11 war on terror and Israel was soon implementing the conference themes by bombing Lebanon using 'terrorism' as the pretext – attacks the US supported. A similar Netanyahu 'war on terror' event followed in Washington DC in 1984 attended by Reagan-Bush Secretary of State George Shultz, UN Ambassador Jeane Kirkpatrick (Le Cercle), and Israeli Prime Minister Yitzhak Rabin. Netanyahu followed up with a book called *Terrorism: How the West Can Win*. You get the constant theme. Vice President Father Bush and Kissinger-clone Shultz supported the war on terror concept because masks on the same face seek the same outcome. Shultz called for 'defence through appropriate preventive or pre-emptive actions against terrorist groups before they strike'. I emphasise *before* they strike. Netanyahu and his secret society support system were getting their way. In 1990 Dick Cheney, then Defense Secretary to Father Bush, established the Defense Planning Group with ultra-Zionists Paul Wolfowitz, a key to understanding 9/11; Lewis 'Scooter' Libby, who would be Cheney's 9/11 Chief of Staff, and Eric Edelman, who would be Cheney's 9/11 Principal Deputy Assistant for National Security Affairs. The 9/11 Cheney team was already being assembled. Cheney was, and is, a raving ultra-Zionist (you don't have to be Jewish to be a Zionist) and a member of the Jewish Institute for National Security Affairs (JINSA). Libby, a political science student of Wolfowitz at Skull and Bones Yale University, would later become the highest-ranking White House official convicted

in a government scandal since John Poindexter, Reagan's National Security Adviser during the Iran-Contra drugs-for-arms operation. Libby was convicted in 2007 for obstruction of justice, making false statements and two counts of perjury over the leaking by 9/11 Deputy Secretary of State Richard Armitage of the name of undercover CIA agent Valerie Plame. This became known as the 'Plame affair' and the man who ordered the name to be leaked was Dick Cheney who got away with it as always. Cheney had taken exception to an article written by Plame's husband questioning the government's fake 'intelligence' on Iraq and he had to be vindictive because it runs permanently through his bloodstream. Libby was sentenced to 30 months in jail, but Boy Bush commuted his sentence and in 2018 Donald Trump pardoned him. Armitage himself wasn't even charged. Such is the way the Cabal looks after its own. Cheney's Defense Planning Group (DPG) developed plans for seizing control of Eurasia, the enormous landmass from Europe to China and Russia to the Middle East that covers 36.2 percent of the Earth's land area. Eurasia would be targeted by former Jimmy Carter National Security Advisor Zbigniew Brzezinski in his 1997 book, *The Grand Chessboard* (Fig 88). Brzezinski and the Hidden Hand believed that control of Eurasia = control of the world and look at where the countries are that have been targeted since 9/11 (Fig 89). Cheney was a 'Republican' and Brzezinski a 'Democrat' but both were operatives for the Hidden Hand one-party state and sought to advance the same agenda. Cheney and Brzezinski also realised that the Eurasia plan – which would require considerable military action – would not secure American public and political support unless the population believed this was necessary to protect US security. Brzezinski said that 'the pursuit of power and especially the economic costs and human sacrifice that the exercise of such power often requires are not generally congenial to democratic instincts'. He added:

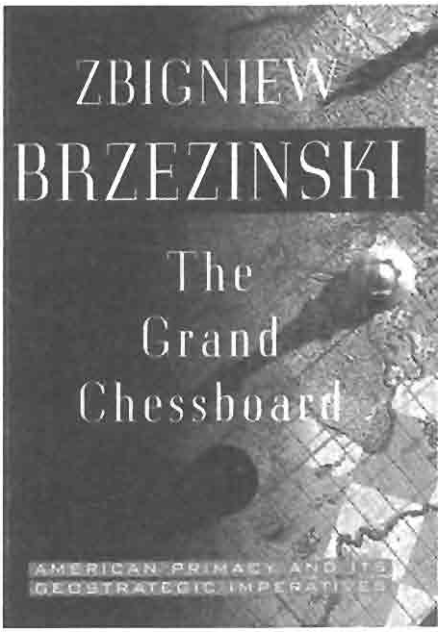

Figure 88: Brzezinski's Grand Chessboard – describing the future that he knew was coming.

> Moreover as America becomes an increasingly multi-cultural society, it may find it more difficult to fashion a consensus on foreign policy issues, *except in*

Figure 89: The landmass that Brzezinski said in 1997 had to be targeted in pursuit of global control – and has been ever since.

the circumstances of a truly massive and widely perceived external threat [my emphasis].

This was written in 1997. What could Brzezinski have been thinking about? Slithering in the background as always as the preparations were made for 9/11 was Henry Kissinger, an ultra-Zionist agent for Israel in the United States all his political career. This included roles as Secretary of State *and* National Security Advisor at the same time to presidents Nixon and Ford. He was Nixon's handler during the Watergate scandal that cost Nixon his job while Kissinger got away unscathed. Kissinger was at the centre of manipulations involving the Vietnam War; horrendous war crimes in Indo-China; and the 1973 Arab-Israeli Yom Kippur War which he didn't tell Nixon about for three hours to 'stop him interfering', as documents show. I mean, Nixon was only US President after all and nothing like as important as Kissinger. It was such confirmation of what really happened on 9/11 when Boy Bush and Cheney tried to appoint Kissinger to head the 9/11 Commission.

Ultra-Zionism seizes power

Dick Cheney's ultra-Zionist Defense Planning Group produced a classified document (dominated by the views of Wolfowitz) in 1992 calling for permanent US dominance of Eurasia and the systematic undermining of potential 'rivals' in the region while targeting any countries with 'weapons of mass destruction'. I can't think where I've heard that before. The document included strategies to control Western Europe, countries of the former Soviet Union, Asia and ... here we go ... targeting *Afghanistan and Iraq*. This was 1992 when Cheney was Father Bush Defense Secretary and his dream would be realised nine years later as Boy Bush vice president – thanks to *9/11*. In 1997, the same year that Brzezinski's book was published, came the creation of The Project for the New American Century (PNAC). This crucially-important 'think tank' in the story of 9/11 was co-founded by the ultra-Zionist and Israel-focussed Robert Kagan and William Kristol and demanded everything

that Cheney, Wolfowitz, Brzezinski and Netanyahu had earlier promoted. A 'think tank' is defined as 'a body of experts providing advice and ideas on specific political or economic problems'. The PNAC was not so much a think tank as an ultra-Zionist tank. Watch the think tank organisations because they are a widely used Hidden Hand means of publicly formulating and securing its policy goals. Robert Kagan is Think-Tank-Man and so are many of the others who imposed the long-planned war on terror. Kagan has been connected to a long list of Hidden Hand front organisations including the public policy think tank, the Brookings Institution; the Rockefeller-Rothschild Council on Foreign Relations (CFR) which has driven much of US foreign policy since it was established in 1921; the Carnegie Endowment for International Peace which was exposed by a congressional committee to be manipulating war; the Foreign Affairs Policy Board and many others. Founding members of the Council on Foreign Relations included ultra-Zionist Colonel Mandel House, President Woodrow Wilson's 'alter-ego' when America entered the First World War, and people like elite bankers Paul Warburg (ultra-Zionist), Otto Kahn (ultra-Zionist), Rothschild front man Jacob Schiff (ultra-Zionist), J.P. Morgan and John D. Rockefeller who had conspired together to manipulate the creation of the Federal Reserve, the privately-owned 'US Central Bank' which has controlled, with others, the American economy ever since. The agenda of these people can be seen in the comment by James Warburg, son of CFR and Federal Reserve founder Paul Warburg, to a Senate Foreign Relations Committee hearing in 1950: 'We shall have world government whether or not you like it – by conquest or consent.'

Ultra-Zionist Robert Kagan's Foreign Affairs Policy Board was established by Barack Obama Secretary of State Hillary Clinton 'to provide independent advice and opinion to the Secretary of State, the Deputy Secretary of State, and the Director of Policy Planning on matters concerning U.S. foreign policy'. You will see the common theme of controlling 'foreign policy'. The same applies to ultra-Zionist William Kristol, founder and editor-at-large of the political magazine *The Weekly Standard*, and a 'political commentator' who appears regularly on TV cable news shows. Kristol is also a member of many Hidden Hand think tanks which are nothing more than vehicles to drive and influence government policy in pursuit of a clear agenda that is not good for the peace, justice and stability of human society. 'Foreign policy' to Kristol, as with his cohort Kagan, is really code for 'whatever is best for Israel' and the ultra-Zionist agenda. Both have been connected to a staggering network of organisations before and across 9/11 which have campaigned for invading countries in the Middle East in the 'war on terror' that the ultra-Zionist Israeli hierarchy had so long desired. This network includes, but is far from limited to: The Project for the New

American Century (PNAC), American Enterprise Institute, Council on Foreign Relations; Middle East Media Research Institute; Hudson Institute; Heritage Foundation; Washington Institute for Near East Policy; Middle East Forum; and a long list of openly Zionist organisations including the Jewish Institute for National Security Affairs (JINSA) and Center for Security Policy (CSP). There are so many others where they came from. Some change their names from time to time and appear in new guises. The Project for the New American Century disbanded in 2006 and was replaced by the Kristol-Kagan Foreign Policy Initiative which itself dissolved in 2017. No matter what the name and background the goal for Kagan and Kristol is always the same – service to the interests of Israel and ultra-Zionism. The Project for the New American Century (PNAC) was absolutely vital to the 9/11 story and the war on terror during its functioning years between 1997 and 2006. Among the members was a long list of key players involved with September 11th who became known as 'Neocons' or neoconservatives. These are only some of them and the positions they would hold in the incoming Boy Bush administration that took office in January, 2001, just nine months before 9/11. You might recognise some of them:

Dick Cheney– Vice President and de-facto President to Boy Bush and seriously involved in the events of 9/11. Reported to be responsible for securing government roles for fellow psychopaths and PNAC members (oops, I repeat myself) Donald Rumsfeld, Paul Wolfowitz, John Bolton and Elliot Abrams; **Donald Rumsfeld** (Le Cercle), 9/11 Secretary of Defense who lied about what he was doing that morning; **Paul Wolfowitz** (Le Cercle), Deputy Secretary of Defense and the real power behind Rumsfeld; **Douglas Feith**, 9/11 Under Secretary of Defense for Policy; **Dov S. Zakheim**, 9/11 Pentagon comptroller in charge of the entire military budget including the trillions that were announced to be missing on September 10th, 2001; **Richard Armitage** (Le Cercle), a brutal man who ran drugs for the CIA in South-East Asia and was 9/11 Deputy Secretary of State under Colin Powell; **Elliot Abrams**, served in foreign policy roles in the Reagan-Bush years in which he was involved in the Iran-Contra affair and genocidal US operations in Central America. He was 'Special Assistant' to Boy Bush on foreign policy – 'invade Afghanistan and Iraq, Mr President' – and appointed by Donald Trump to oversee the US-instigated attempted coup in Venezuela in 2019. Abrams proves that career longevity is secured if you are a clinically insane, psychopathic genocidal incarnation of evil; **Richard N. Perle** (Le Cercle), Pentagon Policy Advisor during the Boy Bush presidency and major manipulator of people and events. Extremely close to Israel's Benjamin Netanyahu; **John Bolton** (Le Cercle), 9/11 Under Secretary of State for Arms Control and International Security who went on to be

Ambassador to the UN to press for ultra-Zionist Neocon wars; **Lewis Libby,** 9/11 Chief of Staff to Cheney and close to Wolfowitz; **Jeb Bush**, brother of Boy Bush and Governor of Florida while the alleged 'hijackers' were living in his state; **James Woolsey,** member of the 9/11 Pentagon Defense Policy Board and Director of the CIA in the Bill Clinton administration. Nasty man, but then they all are, and a major promotor of post-9/11 war against Saddam Hussein and Iraq; **Robert B. Zoellick**, Boy Bush Trade Representative and Cabinet member who later replaced Wolfowitz as Head of the World Bank (they get everywhere these people); **Frank Carlucci**, chairman of the Bush-Bin Laden Carlyle Group, Secretary of Defense under Reagan-Bush and Deputy Director of the CIA. **William J. Bennett**, Secretary of Education under Reagan and Director of the Office of National Drug Control Policy under Father Bush. What a non-job that must have been. Bennett was also one of Cathy O'Brien's mind control abusers.

Another significant member of the Project for the New American Century was Afghan-born US 'diplomat' Zalmay Khalilzad who would go on to be US Ambassador to Afghanistan and Special Presidential Envoy to Afghanistan after the invasion. He would also be appointed Special Presidential Envoy to the Free Iraqis when Bush-Blair-fronted terrorism turned its attention to removing Saddam Hussein. Khalilzad had also written in the 1990s in ways that echoed both Cheney and Brzezinski designs on Eurasia and the fact that a way to win over public support would have to be found if that was going to happen. Khalilzad was a close associate of Brzezinski and worked with him in support of the Mujahideen in Afghanistan after the Brzezinski-manipulated Soviet invasion in the 1980s. He was also sponsored by the Hidden Hand's Council on Foreign Relations. You can see that membership of the Project for the New American Century covered every base in advancing the long-planned agenda of exploiting the upcoming 9/11 for wars of acquisition and regime change in pursuit of Eurasia domination and much else. The PNAC membership was much bigger than I have mentioned here and covered many other roles in the political-military hierarchy before and after 9/11. Quite simply the PNAC would control the incoming Bush government after January, 2001. Members included a stream of ultra-Zionists with allegiance to Israel and people like Cheney and Rumsfeld who were vehement supporters of Israel and its cause and ambitions. Their work is supported to this day by 'journalists' like ultra-Zionist Max Boot, the warmonger columnist for *The Washington Post* and many other outlets. Every time he taps the keys Neocon policy appears on the screen.

JINSA pincer

Cheney was on the advisory board of the Jewish Institute for National Security Affairs (JINSA) along with other PNAC stalwarts Paul Wolfowitz, Douglas Feith, John Bolton and Richard Perle. This organisation was a major player with its highly-placed Jewish and non-Jewish members committed to the ultra-Zionist action plan. JINSA's demands included: Increased counterterrorism training and funding (this was before 9/11); joint American-Israeli training and weapons programmes; 'enhanced weapons of mass destruction (WMD) counter-proliferation programs' (but don't you dare mention Israel's nuclear arsenal); and regime change in what it called 'rogue nations' providing 'support for terrorism'. Some of those named before 9/11 were Iran, Syria, Lebanon, Venezuela, Cuba, North Korea, and Libya. JINSA, an ultra-Zionist group lobbying for the Israeli elite, enjoyed close ties with the Pentagon and US military and through JINSA members Paul Wolfowitz (PNAC, Le Cercle), Douglas Feith (PNAC) and Richard Perle (PNAC, Le Cercle) would dictate Pentagon policy before 9/11 and beyond. JINSA established a programme in coordination with the Pentagon and State Department which has led to more than 200 retired US military chiefs, admirals and generals, making visits to Israel to meet with Israeli military leaders and politicians. There is also a JINSA Military Academies Program in Israel for cadets and midshipmen at US Military, Naval, Air Force and Coast Guard Academies to 'build bridges for future associations between the US Armed Forces and the Israel Defense Forces (IDF)'. These 'US' (proxy Israel) military leaders of the future visit six IDF bases, meet with Israeli academia, think tanks, and private companies 'to receive briefings covering a broad spectrum of subjects related to security, society, and contemporary life in Israel [and] ... learn about Israel's history and current events in the Middle East'. The game is so utterly clear – indoctrination for the future benefit of Israel. JINSA emphasised before 9/11 the need for greater 'homeland security' in the United States (JINSA is an *Israeli* organisation) and in 2002 after Boy Bush established the Orwellian Homeland Security structure justified by 9/11 JINSA began a programme to exchange counter-terrorism experience and tactics between US and Israeli law enforcement agencies. They were just trying to help, you understand. US police leaders and sheriffs from all across America have been to Israel for 'training' under this JINSA programme and the result has been 'significant changes in local law enforcement counter-terrorism tactics and training' which is Orwellian-speak for transferring the tactics used by Israel against Palestinians to the streets of American cities. People have no idea of the influence these ultra-Zionist fronts have on American society and in other countries, too.

One of those retired military chiefs taken to Israel under the JINSA

programme was Lieutenant General Jay Garner who would be made Director of the Office for Reconstruction and Humanitarian Assistance for Iraq after the 2003 invasion which was long planned by this appalling crowd. Garner would be replaced by Le Cercle member Paul Bremer, a gofer to ultra-Zionist Henry Kissinger and managing director of the disgusting global manipulation front Kissinger Associates. Bremer would be named head of the Coalition Provisional Authority (CPA) to govern Iraq after the invasion. Billions in US 'reconstruction' money would disappear on his watch. JINSA and the Project for the New American Century were different expressions of the same organisational structure and one of their common themes was the late US senator and Le Cercle member, Henry Jackson. Every year JINSA hands out its Henry M. 'Scoop' Jackson Distinguished Service Award (distinguished service to ultra-Zionism). Israel agents in government like US senators John McCain and Lindsey Graham have been recipients for supporting the bombing of every country on the ultra-Zionist hit-list and Paul Wolfowitz had his turn, too. Many future 9/11 Neocons, including Wolfowitz and Perle, were aides to Henry Jackson who died in 1983. So, too, was ultra-Zionist Brooklyn-born Manny Weiss who is a 'generous funder' of the British wing of the Neocon think-tank network, the fiercely pro-Israel Henry Jackson Society. This, as you would expect, works to advance the ultra-Zionist agenda as does Jewish Human Rights Watch established by Weiss in the UK. The Henry Jackson Society agenda includes the demonisation of Russia in preparation for war.

The Blueprint

The ultra-Zionist Project for the New American Century (PNAC) (peopled by utter crazies) published a 90-page document in September, 2000, called *Rebuilding America's Defenses: Strategies, Forces, and Resources For a New Century* and described the blueprint for 9/11 and its aftermath (Fig 90). They didn't say that directly – though they came close –and it was pitched from a good-for-America perspective. It included the sequence of events that was about to play out through 9/11 long demanded by ultra-Zionism and the Death Cult. The document detailed a plan for American forces

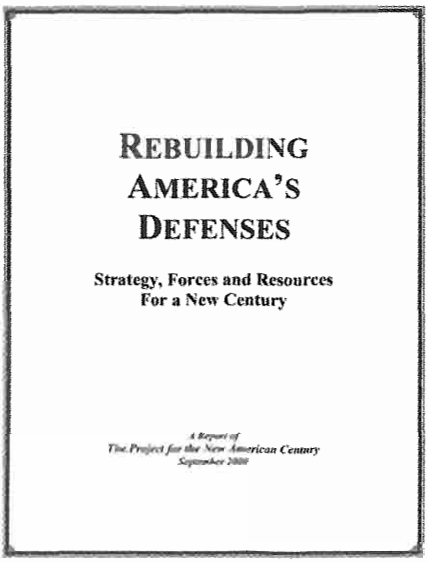
REBUILDING AMERICA'S DEFENSES

Strategy, Forces and Resources For a New Century

A Report of The Project for the New American Century September 2000

Figure 90: The Project for the New American Century document a year to the month before 9/11 demanding all that has happened since the attacks and because of the attacks.

to impose a series of regime changes in the Middle East and North Africa all for the benefit of the Israeli elite and to advance their agenda for the region. The PNAC document called for America-instigated regime change in Iraq, Libya, Syria, Iran and Lebanon among others. The strategy basically photo-copied a policy document compiled in 1996 by PNAC/JINSA/Le Cercle asset Richard Perle and other ultra-Zionists for the psychopath Prime Minister of Israel, Benjamin Netanyahu. They were officially known as the Study Group on 'A New Israeli Strategy Toward 2000' and this 'strategy' was remarkably close to the later PNAC plan for an 'American' strategy for post-2000 or the 'new American century'. Netanyahu's 'Study Group' produced a report for Netanyahu entitled *A Clean Break: A New Strategy for Securing the Realm* and the ultra-Zionist members were: Richard Perle, who would be 9/11 Chairman of Defense Policy Board under Boy Bush; James Colbert, Jewish Institute for National Security Affairs (JINSA), former assistant and college friend of Wolfowitz; Charles Fairbanks Jr, Johns Hopkins University and former assistant to Wolfowitz; Douglas Feith, who would become 9/11 Pentagon Undersecretary of Defense for Policy; Robert Loewenberg, President of the Institute for Advanced Strategic and Political Studies; Jonathan Torop, Washington Institute for Near East Policy; David Wurmser, Institute for Advanced Strategic and Political Studies who would be Middle East advisor to Vice President Cheney; and Meyrav Wurmser from Johns Hopkins University. David Wurmser published a book in 1999 on why Saddam must be removed as leader of Iraq and why that would be good for Israel. What an incredible coincidence that when his ultra-Zionist pals came to power with Bush his wish was granted (Fig 91 overleaf). The Perle group document, *A Clean Break: A New Strategy for Securing the Realm*, also demanded the removal of Saddam Hussein in Iraq and targeting of the Assad government in Syria. The document said:

> Israel can shape its strategic environment, in cooperation with Turkey and Jordan, by weakening, containing, and even rolling back Syria. This effort can focus on removing Saddam Hussein from power in Iraq – an important Israeli strategic objective in its own right – as a means of foiling Syria's regional ambitions ...
>
> ... Most important, it is understandable that Israel has an interest supporting diplomatically, militarily and operationally Turkey's and Jordan's actions against Syria, such as securing tribal alliances with Arab tribes that cross into Syrian territory and are hostile to the Syrian ruling elite.

Plans for the downfall of Saddam Hussein and targeting the Assad government in Syria with internal conflict were already in place then in

Figure 91: Project for the New American Century co-founders Kagan and Kristol with de-facto 9/11 President Dick Cheney and those who dominated the 9/11 Pentagon - Rumsfeld, Wolfowitz, Zakheim and Perle.

1996 and in truth long before. What remained was to secure American military, political and financial power to bring all this about for Israel's benefit. These various ultra-Zionist plans that all read from the same script were also connected with another ultra-Zionist goal for the Balkanisation (as with the former Yugoslavia) of the surrounding region by dividing countries into smaller ethnic factions on the road to a new Middle East that would impose Israeli control and the dream of a Greater Israel from the River Nile in Egypt to the River Euphrates in Iraq. This area is known as the Eretz Yisrael and ultra-Zionists claim this to be the largest expanse of biblical Israel (Fig 92). This 'Greater Israel' includes all or part of what are now Egypt, Syria, Lebanon, Jordan, Iraq and Saudi Arabia. Theodore Herzl, officially Zionism's 'founding father' (it was really the House of Rothschild) said the area of the Jewish State stretches ... 'From the Brook of Egypt to the Euphrates'. The Greater Israel plan would give them control of their true spiritual home – Babylon in what is now Iraq. Rabbi Fischmann, a member of the Jewish Agency for Palestine, said in testimony to the UN Special Committee of Enquiry in 1947: 'The Promised Land extends from the River of Egypt up to the Euphrates, it includes parts of Syria and Lebanon.' The goal to secure all this land for Israel was described in what became known as the Yinon Plan. Oded Yinon, who formerly worked for the Israeli Foreign Ministry, set out the ultra-Zionist vision in 1982 when he published *A Strategy for Israel in the 1980s* in which he called for the fragmenting of Arab countries into a mosaic of ethnic groupings – it would be good for Israel to have 'every kind of inter-Arab confrontation'. Look at what has happened since 9/11 from this perspective and you can see how this has been systematically happening ever since in 'peoples' uprisings' and inter-country wars.

We have lift-off

To implement the vision in the Yinon Plan, *A Clean Break* and all the other plans, reports and strategies plotting the same outcome, the ultra-Zionist networks had to sell their Middle East regime change strategy to

Figure 92: The approximate area of control demanded by the Greater Israel Project – and they don't want to stop even there.

Americans as if it was for the benefit of America. To this end the Project for the American Century was established and its strategy document in September, 2000, presented essentially the same Yinon-*Clean Break* plan from the angle of good-for-America-and-whatever-you-do-don't-mention-Israel. The PNAC *Rebuilding America's Defenses: Strategies, Forces, and Resources For a New Century* was written by the same networks that produced *Clean Break* for Netanyahu and were the inspiration of the Yinon Plan. The PNAC document came with an added bonus, however. Those who wrote it were little more than three months away from taking over the American government and military when the hapless and clueless Boy Bush entered the White House in January, 2001, in the run up to 9/11. Content of the PNAC document leaves no doubt about what the game was. The paper called for 'American forces to fight and decisively win multiple, simultaneous major theater wars' to 'regime change' a series of countries: Iraq, Libya, Syria, Lebanon, Iran, Somalia, Sudan and North Korea leading to regime change in China – 'American and allied power [should provide] the spur to the process of democratisation in China.' This agenda is far bigger than only the Middle East – it's a plan for global control. The Project for the New American Century blueprint in September, 2000, demanded the following for Israel under the guise of 'America':

- US military control of the Gulf region whether or not Saddam Hussein was in power: 'While the unresolved conflict with Iraq provides the immediate justification, the need for a substantial American force presence in the Gulf transcends the issue of the regime of Saddam Hussein.'

[Since achieved]

- The US to 'fight and decisively win multiple, simultaneous major theatre wars' as a 'core mission'.

[Partly achieved and still going on]

- US forces to be 'the cavalry on the new American frontier'.

[US forces to be 'the cavalry on the new *ultra-Zionist Israel* frontier']

- Action to discourage advanced industrial nations from challenging US leadership [ultra-Zionist leadership via the US] or aspiring to a larger regional or global role.

[A strategy clearly being followed by the US – not least with Israel-controlled Trump's explosion of sanctions]

- Exploitation of allies like the UK as 'the most effective and efficient means of exercising American global leadership'.

[Easily achieved – see Tony Blair]

- Ensuring that 'peacekeeping' missions have 'American political leadership, rather than that of the United Nations'.

[Partly achieved but challenged by Russia in Syria]

- Permanent US bases in Saudi Arabia and Kuwait.

[Since achieved]

- Increased military pressure on China: 'It is time to increase the presence of American forces in South East Asia', which will lead to 'American and allied power providing the spur to the process of democratisation in China'.

[Targeting of China is clearly happening as I long predicted]

- The 'creation of "US Space Forces" to dominate space, and the total control of cyberspace to prevent "enemies" [opponents of the ultra-Zionist agenda] using the Internet against the US [proxy for the Hidden Hand and Israel]'.

[Happening big-time]

- Development of new methods of attack – electronic, 'non-lethal' and biological. These would be more widely available and 'combat is likely to take place in new dimensions, in space, cyberspace and perhaps the world of microbes ... advanced forms of biological warfare that can 'target' *specific genotypes* may transform biological warfare from the realm of terror to a politically useful tool' [my emphasis].

[Happening – and can you imagine the level of psychopathy required to envision 'advanced forms of biological warfare that can "target" *specific genotypes*' or the level of hypocrisy when you scream 'Nazi' and 'Hitler' to silence your critics?]

- The development of a 'worldwide command-and-control system' [world army] to contain the 'dangerous' regimes of North Korea, Libya, Syria and Iran.

[Happening]

- This 'American grand strategy' to be advanced 'as far into the future as possible'.

[It's still happening with no end in sight]

I don't for a moment want you to concern yourself with any of this – just ignore it. Remember there are no conspiracies let alone global ones. Ask the media.

'We need a 9/11'

The Yinon Plan, *A Clean Break* and *Rebuilding America's Defenses* were essentially the same vision under different names and now the ultra-Zionists had their chance to enforce it. Soon after the PNAC document was published in September, 2000, the people who wrote it or signed it came to power with Bush in the White House and Pentagon – Cheney, Rumsfeld and the ultra-Zionist cabal that dominated the Pentagon in the form of Wolfowitz, Feith, Zakheim, Perle and many others. Richard Perle, known as the Prince of Darkness, would work mostly in the background in terms of public profile while Robert Kagan and especially William Kristol would sell the strategy on cable TV news. There was still one problem, however – the problem recognised earlier by Cheney, Brzezinski and others. Somehow they needed something to kick-start the sequence that would give them widespread political and public

support for their grotesque ambitions. The PNAC document said:

> ... [The] process of transformation ... [war and regime change] ... is likely to be a long one, absent some catastrophic and catalysing event – like a new Pearl Harbor.

A year to the month after the publication of that PNAC document and nine months after those behind it came to power with Bush the United States experienced what Bush called 'the Pearl Harbor of the 21st century'. What happened on September 11th, 2001, was their 'catastrophic and catalysing event'. The road to Damascus – and Kabul, Baghdad, Tripoli, Tehran etc. – suddenly opened up before them and if anyone thinks that all this was a coincidence they should read the rest of the book or become fully-paid-up members of Naivety Anonymous. The Project for the New American Century and its connecting networks like JINSA had their agents and operatives in key positions right across the Boy Bush administration and the Pentagon on 9/11 and immediately after the attacks they and the network as a whole sang from the same pre-written song-sheet – *invade Afghanistan*. This invasion was to be the prelude to picking off their long-planned wish-list of targeted countries. Ehud Barak, former Israeli prime minister and military intelligence chief, must have been so pleased and even contemplated his own powers of prophecy by highlighting Bin Laden and the need to invade Afghanistan within an hour of the 9/11 attacks. Now *bingo*, here it was happening. A controlled, compliant and overwhelmingly clueless mainstream media cheered them on and became the propaganda arm of the Hidden Hand and ultra-Zionist agenda for carnage in the Near and Middle East planned long before. American lives and money (and British) were going to pay for what would soon be happening to country after country. Most of all the price of ultra-Zionist ambitions would be paid by millions of civilians who now faced death and destruction as an ongoing way of life – or not.

Clark's confirmation

US General Wesley Clark is no hero after his role in the bombing of Serbia during the Kosovo conflict when he was Supreme Allied Commander of NATO. However, we are grateful to him at least for further confirmation of the PNAC plan. You will find on YouTube Clarke's interview in 2007 with the *Democracy Now* TV show in which he says that about ten days after 9/11 he went to the Pentagon to meet with PNAC Secretary of Defense Donald Rumsfeld and his PNAC deputy Paul Wolfowitz and then went downstairs to see members of the Pentagon Joint Chiefs of Staff that he once worked with. Clark said:

> ... one of the generals called me in. He said, 'Sir, you've got to come in and talk to me a second.' I said, 'Well, you're too busy.' He said, 'No, no.' He says, 'We've made the decision we're going to war with Iraq.' This was on or about the 20th of September. I said, 'We're going to war with Iraq? Why?' He said, 'I don't know.' He said, 'I guess they don't know what else to do.'
>
> So I said, 'Well, did they find some information connecting Saddam to al-Qaeda?' He said, 'No, no.' He says, 'There's nothing new that way. They just made the decision to go to war with Iraq.' He said, 'I guess it's like we don't know what to do about terrorists, but we've got a good military and we can take down governments.' And he said, 'I guess if the only tool you have is a hammer, every problem has to look like a nail.

This is how Hidden Hand compartmentalisation works. Even many apparently very high in the official government and military hierarchy have no idea what is really happening and how they are pawns in a game they don't even begin to understand. The invasion of Iraq with American troops and money had been planned for decades by the Hidden Hand's ultra-Zionist network as we have seen. Wesley Clark said that he returned to the Pentagon a few weeks after 9/11 and his meeting with the general who told him about the plan to invade Iraq. By now the US was already in Afghanistan and he went back to see his friend again. Clark recalled:

> I said, 'Are we still going to war with Iraq?' And he said, 'Oh, it's worse than that.' He reached over on his desk. He picked up a piece of paper. And he said, 'I just got this down from upstairs' – meaning the Secretary of Defense's office – 'today.' And he said, 'This is a memo that describes how we're going to take out seven countries in five years, starting with Iraq, and then Syria, Lebanon, Libya, Somalia, Sudan and, finishing off, Iran.' I said, 'Is it classified?' He said, 'Yes, sir.' I said, 'Well, don't show it to me.'
>
> And I saw him a year or so ago, and I said, 'You remember that?' He said, 'Sir, I didn't show you that memo! I didn't show it to you.

Clark added that the Project for the New American Century (PNAC) behind these planned wars 'wanted us to destabilise the Middle East, turn it upside down, make it under our control'. He didn't say, however, that the PNAC was controlled by ultra-Zionists on behalf of Israel because people are utterly terrified of revealing that. The lies and cover ups are so clear once you lift the stone under which these people operate. All the death and destruction since 9/11 was planned for decades and the attacks that killed 3,000 people (and many more since) were only the cold, callous and calculated trigger and excuse instigated

by the satanic Death Cult. This is why on 9/11 Netanyahu said the attacks were 'very good' for Israel. *The New York Times* reported:

> Asked tonight what the attack meant for relations between the United States and Israel, Benjamin Netanyahu, the former prime minister, replied, 'It's very good.' Then he edited himself: 'Well, not very good, but it will generate immediate sympathy.' He predicted that the attack would 'strengthen the bond between our two peoples, because we've experienced terror over so many decades, but the United States has now experienced a massive hemorrhaging of terror.'

Out of the mouths of babes and psychopaths

Hardly a word was said to the media or public about the plan to invade Iraq and the liars that are Bush and Blair were still saying right up to the invasion in 2003 that it could still be stopped if Saddam would comply with Western demands by removing weapons of mass destruction which by then he didn't actually have. Manipulation that led to Saddam's demise began way back and ultra-Zionists of the Project for the New American Century had written to President Clinton in January, 1998, to call for Saddam's removal:

> We urge you to seize that opportunity, and to enunciate a new strategy that would secure the interests of the U.S. and our friends and allies around the world. That strategy should aim, above all, at the removal of Saddam Hussein's regime from power. We stand ready to offer our full support in this difficult but necessary endeavor.

They even gave Clinton the excuse that Boy Bush and Blair would later employ – Saddam has 'weapons of mass destruction'. The letter was signed by among others Kristol, Kagan, Perle, Wolfowitz, Zoellick, Abrams, Bolton, Woolsey and Zalmay Khalilzad who would later be installed during the 'war on terror' as ambassador to Afghanistan, Iraq and the United Nations. Donald Trump made him a special envoy to Afghanistan for the one-party state in 2018. Out-of-the-loop military personnel at the Pentagon had to be told about the Iraq invasion immediately after 9/11 because there were plans to put in place. You don't prepare major invasions overnight which is why the speed with which the US invaded Afghanistan is confirmation that the plans were in the making long before the 9/11 attacks. Iraq was first on the list for regime change by the ultra-Zionist PNAC and Perle's earlier *Clean Break* document for Netanyahu. Both were answering to hidden powers that were orchestrating the whole sequence that would follow. You can see where conflicts and invasions are planned by watching the drip, drip of demonisation aimed at a leader or 'regime'. It wasn't difficult to

demonise a dictator like Saddam and yet they exaggerated anyway with claims that his weapons were a threat to the 'Free World'. Confirmation that psychopaths have no shame arrived in the form of Defense Secretary Donald Rumsfeld who screamed about 'Saddam's chemical weapons' when Rumsfeld had been the conduit to supply them as I explained earlier. The late and very great American comedian Bill Hicks with his incisive humour once asked: 'How did the Americans know Iraq had incredible weapons?' Answer: 'They looked at the receipts.' No one was mentioning Iraq publicly or officially until 2002 when the demonisation and fear campaign began against Saddam and Iraq which led to the invasion in March, 2003. By now Saddam's chemical and biological weapons had been removed and the United States and Britain knew that. Little details like the truth were never going to be acknowledged when it would have scuppered the manufactured excuse for war. Instead psychopaths and ultra-Zionist puppets Bush and Blair just repeated the mantra which included the bare-faced lie that 'should Iraq acquire fissile material, it would be able to build a nuclear weapon within a year'. It was all a scam. The deal had long been done. *The New York Times* was one of the few that reported soon after 9/11 what was being hatched with regard to Iraq:

> A tight-knit group of Pentagon officials and defense experts outside government is working to mobilize support for a military operation to oust President Saddam Hussein of Iraq as the next phase of the war against terrorism, senior administration officials and defense experts said.
>
> Under this notion, American troops would also seize the oil fields around Basra, in south-eastern Iraq, and sell the oil to finance the Iraqi opposition in the south and the Kurds in the north, one senior official said.

The report described how the Pentagon's Defense Policy Board (Kissinger, Perle, Woolsey etc.) had met for 19 hours on September 19th and 20th, 2001, and, agreed (confirmed the long-time plan) to invade Iraq as soon as possible. Given all this background what can you say about the claim by London *Guardian* 'radical journalist' George Monbiot that 9/11 'conspiracy theories' were a 'distraction' from opposing the invasion of Iraq? I could cry, but I'll smile and move on. Wolfowitz and Rumsfeld had taken part in the Defense Policy Board meeting while Colin Powell at the State Department was excluded because he didn't support the invasion. Even so he later allowed himself to be used as a fall-guy with his comedic 'presentation' at the United Nations claiming to have proof of Saddam's world-threatening weapons capability (which turned out to be the nonsense it always clearly was). Powell should have walked away and maintained his integrity but instead he did what he

was told knowing that his 'evidence' was not credible. He would call the speech the most painful moment of his life. Powell was surrounded by the ultra-Zionist and JINSA Mafia and they had him for breakfast, dinner and tea. He has said that the invasion of Iraq in 2003 was made possible by Defense Secretary Rumsfeld's absorption in the 'JINSA crowd'. Powell's wife, Alma, would say in *Soldier: The Life of Colin Powell* that he was 'callously used' to promote a war she wished had never happened. She told author and *Washington Post* editor, Karen DeYoung: 'They needed him to do it because they knew people would believe him.' There are many stories about Powell being kept out of the loop by Cheney and these ultra-Zionist characters and they exploited his reputation with the 'weapons of mass destruction' presentation at the United Nations which was to make him look an idiot when none were found. Tony Blair, Alastair Campbell, his appalling 'spin doctor' (code for professional liar), and the Hidden Hand-front MI6 concocted a 'dossier' of evidence so full of lies it could have secured them a place on the 9/11 Commission. Much of the 'dossier' against Saddam was later revealed to have been simply cut and pasted from the Internet and even then it was out of date and further distorted to sell the war that wouldn't be stopped. Parts of this plagiarised crap were delivered by Powell at the UN. London's *Evening Standard* reported Blair's claims to the British parliament in September, 2002:

> Saddam Hussein's armoury of chemical weapons is on standby for use within 45 minutes, Tony Blair's dossier revealed today. The Iraqi leader has 20 missiles which could reach British military bases in Cyprus, as well as Israel and NATO members Greece and Turkey. He has also been seeking to buy uranium from Africa for use in nuclear weapons. Those are the key charges in a 14-point 'dossier of death' finally published by the Government today. In an introduction, Mr Blair says that the evidence leaves Britain and the international community no choice but to act.

Compliant, complicit and idiot fodder politicians both sides of the Atlantic lapped it all up with barely a question even though none of this was true and Blair knew that. He, Boy Bush and Cheney should have been before a war crimes court a long time ago with the later Barack Obama, British Prime Minister David Cameron, and so many more. Hidden Hand networks protect them as they always protect their agents and yes-people if their exposure would uncover the bigger picture. The propaganda had been so effective and so many Americans child-like in their trust of government that by the time of the invasion in March, 2003, some 70 percent of Americans polled believed that Saddam had been involved in 9/11 when he had absolutely nothing to do with it and no credible evidence was ever produced to make a connection. It doesn't

matter what is true – only what you can get the public to *believe* is true.

Ticking off the list

Ultra-Zionists and the Death Cult got their long-planned invasion of Iraq and the deletion of Saddam and unleashed a catastrophic series of ongoing conflicts in line with the Yinon Plan, *Clean Break* and Project for the New American Century documents. The second phase of the assault on Iraq came with the invasion by the US/Israel/UK proxy army ISIS which was funded and armed through Saudi Arabia, Gulf States and Turkey. ISIS was also planned to overrun Syria after the US/UK/Israel-triggered 'civil war' that began in 2011. They would have done, too, before Russia came in with military support for President Assad. America used the excuse of its proxy army ISIS to 'free' cities like Mosul in Iraq and Raqqa in Syria from ISIS control (P-R-S). They basically razed Mosul to the ground in 2016/17 leaving an estimated 40,000 civilians dead with thousands more bodies buried in the rubble. Something similar happened in Syria's Raqqa. We are dealing with a death cult in which death is worshipped and mass murder is a form of satanic blood sacrifice ritual. This is how these deeply disturbed people look at the world. All this carnage – including the removal of Gaddafi in Libya and the targeting of Iran – has been the Death Cult ticking off the list of target countries published by the Project for the New American Century. The joke is that we are supposed to live in 'democracies' in which the people select the political leaders. This is only for public consumption. Illusion of freedom protects the tyranny. The nature of the one-party state can be seen in what followed the ultra-Zionist strategy document of September, 2000, and the 9/11 attacks that triggered and publicly justified its sequence of events. First Boy Bush ('Republican') and Tony Blair ('Labour Party') sent the military into Afghanistan and lied about weapons of mass destruction to sell the invasion of Iraq. Two ultra-Zionist targets were ticked off and Iraq was the first named in the PNAC document. Bush and Blair left the scene – Bush to learn to read and Blair to represent his beloved Israel as Middle East envoy for the United Nations, EU, US and Russia. This basically meant meeting with Israeli leaders to get his orders. With those two psychopaths gone and with all the political choice we are told is available surely things would change. In came Barack Obama ('Democrat') and Britain's David Cameron ('Conservative Party'). These had to be different because they represented opposition parties to Bush and Blair. Alas, no, Obama and Cameron promoted and supported the NATO mass murder and mob violence that removed and murdered Gaddafi in Libya and created the catastrophe that the country is to this day. They supported 'rebel' terrorists in Syria in an attempt to unseat Assad and instigated still more death, destruction and suffering on an unimaginable scale. I have

documented at length in other books how the same ultra-Zionist and American/British networks at work in Iraq were behind what happened in Libya and Syria. Obama and Cameron were different to Bush and Blair, you see. Phew, to think they might have been the same. The next front man for the one-party state was the 'truly maverick' Donald Trump ('Republican'). He strode on the scene to drain the swamp he'd been swimming in all his life and 'make America great again'. He set out to do this by surrounding himself with Israel-focussed ultra-Zionists to control his financial and foreign policy and appointed the psychopath's psychopath John Bolton as his National Security Advisor. Bolton was a founding member of the Project for New American Century and the long planned list of targets continued with the focus on Iran, North Korea and China as well as the hysteria about Russia.

Netanyahu, the ultra-Zionists and Death Cult didn't want a peaceful agreement between the West and Iran because it's on their list for regime change. He and his fellow crazies are obsessed with regime-change in Iran and Netanyahu was caught on video aired by Israeli television telling activists from his extremist terrorist-created Likud Party that he had convinced Trump to withdraw from the nuclear agreement with Iran which threw US-Iran relations into turmoil again when the deal had settled everything down. Iran has not started a war against another country for more than 200 years and Netanyahu screams that in the Middle East 'those who are trying to kill us are being led by Iran, which openly and aggressively calls for the destruction of Israel.' I am no supporter of the Iranian regime, but nor do I take such bullshit from Netanyahu in the ultra-Zionist campaign of inventing enemies to justify wars, regime change and land acquisition – the same technique it has employed incessantly since Israel was established with US support in 1948. PNAC National Security Advisor John Bolton also led the Trump regime into pulling out of a nuclear agreement with Russia. Trump (his masters) targeted Iran and two other countries on the PNAC list – North Korea and China. Economic sanctions are the widespread weapon of choice employed by Trump against the countries his ultra-Zionist masters want regime-changed. Whenever a peaceful agreement with North Korea appears to move forward Israel-worshippers John Bolton and Trump's Christian Zionist Secretary of State Mike Pompeo intervene to block progress. The same ultra-Zionist list of countries have been ticked off and targeted one after the other no matter what the apparently different presidents in the United States and leaders and parties in Europe. Without the trigger of 9/11 none of this could have happened on the scale that it has. Watch for other countries on the list, Lebanon, Somalia and Sudan. Israel is desperately looking for an excuse to invade Lebanon after trying and failing before while Sudan and Somalia have been devastated by civil war in the period since 9/11. There are so many

conflicts going on that the media doesn't tell you about including the mostly drone-strike US bombing of 'Islamic militants' in Somalia since 2007. Bombing was significantly increased at the start of 2019.

Terrified of the truth

The blatantly obvious connections between the Project for the New American Century document of September, 2000, and the 'new Pearl Harbor' of 9/11 is a potentially major Achilles heel for the ultra-Zionists and the Hidden Hand in general because it exposes a clear cause and effect. They know it, too. I was on a speaking tour of the UK in late 2018 highlighting these connections when I saw an interview on the Russian TV station RT with an MI6 operative who hilariously tried to provide a cover story for the PNAC document and what followed in the Middle East – and I do mean *hilarious*. Aimen Dean, also known 'Ramzi', is a Saudi-born Bahrainian who claims to have joined the (CIA-created) al-Qaeda, in 1997 and became an agent for British overseas military intelligence, or MI6, in 1998 to spy on al-Qaeda in Afghanistan. He joined al-Qaeda as presumably an Islamic extremist wanting a holy war against the West and within a year he's spying on Al-Qaeda for the very same West? Here is a man who lied for a living by claiming to be on the side of al-Qaeda while spying on them for MI6 which is connected to the CIA that created al-Qaeda. Dean ridiculously claimed in the RT interview that al-Qaeda had 'tricked' America into invading the Middle East. He said they had seen the letter sent by Richard Perle's Neocons to President Clinton in 1998 calling for the forced removal of Saddam Hussein and the subsequent Project for the New American Century document demanding regime changes that would require a 'new Pearl Harbor' to sell the policy to the American public. Dean said the al-Qaeda leadership decided to 'give them a Pearl Harbor ... that's exactly where we want them to be ... [the US] must smash [Iraq] in order for us to build an Islamist structure.' He said the plan was to attract 'the provocation of America as a superpower to come and do their dirty work for them.' Oh, so the PNAC document was not part of the plot to create a new Pearl Harbor. All explained ... Zzzzzzzzz. I wonder why he didn't mention the bit about the al-Qaeda leadership checking with the CIA to see if that was okay? Or the fact that 'al-Qaeda' could not possibly have been behind 9/11 as claimed by the official story. Or, or, or. Dean went on to claim, just as pathetically, that the Saudi murder of journalist Jamal Khashoggi by cutting him up with a bone saw was an accident and they had really only wanted to abduct him back to Riyadh. Oh, right, so Crown Prince Psychopath couldn't have ordered his killing then. So glad MI6 Dean cleared up those little misunderstandings and how fortunate they had a bone saw handy when everything went pear-shaped. The RT interviewer should have taken Dean apart – but didn't.

What this nonsense does show, however, is that they know the PNAC-9/11 connection makes them very vulnerable to exposure.

CHAPTER 17

The dominoes fall

If you want to know what God thinks of money, just look at the people he gave it to – Dorothy Parker

Ultra-Zionist billionaire George Soros has become a highly controversial character in recent years as the extent of his covert manipulation of national and world events has come to light. I had been exposing this devious man for decades before the scale (tip of iceberg) of his political and social influence worldwide seeped into public attention.

There will be many – not least Jewish people – who will reel back at my description of Soros as 'ultra-Zionist' because his manufactured image is that of a 'liberal' and 'progressive' philanthropist who is not a rampant Israel-firster like the Neocons. A person's image and words are irrelevant to me as an insight into who they are and what they stand for. Public image and words tell you nothing except how the person wishes to be seen and the statements they make (which may not be what they really believe). I prefer to consider actions and outcomes to understand what people are truly about and on that basis Soros is a fundamentally important cog in the ultra-Zionist Hidden Hand machine. I am appropriately writing these words on a European speaking tour in Budapest, Hungary, the city where Soros was born György Schwartz in 1930 (Fig 93). We must be constantly vigilant for bluffs and double-bluffs. Soros was born into what is described as a well-to-do non-observant Jewish family and moved to the United States via the UK before becoming an incredibly wealthy investor and financial manipulator. The Hidden Hand controls the global financial markets and what it does politically and economically dictates every day if they go up

Figure 93: The many – many – faces of George Soros

or down. Anyone with access to that information will obviously be on pole position to make financial fortunes by buying stocks before they go up and selling before they go down. Feted 'financial wizards' the world over have become billionaires this way. How did they know that stock was going to soar or plummet? My goodness, they must be financial geniuses! Or maybe they don't have to be. Part of the Soros bluff, I contend, is the image of his alleged disagreements with governments and policies of Israel. When you observe his behaviour and how he donates and directs his seemingly limitless resources he is doing everything the ultra-Zionists and Hidden Hand want him to do. One of his foundation roles is to fund so-called (and it is so-called) 'progressive' organisations and causes and he would not have street-cred in that area if he was an open supporter of ultra-Zionism. He should not have street-cred with 'progressives' anyway with his stated attitude to finance: 'I am basically there to make money, I cannot and do not look at the social consequences of what I do.' But, hey, he hands out lots of money to virtue-signalling 'progressives' so who cares if he's a fraud? 'Progressive' is a term that has been used to hijack the traditional and genuinely liberal left and invert everything that it formerly stood for.

'Anti-Semite' defence system

At the very core of this transformation of the once-liberal left into a screaming mob of virtue-signalling, heart-on-the-sleevers driving the fascism/Marxism of political correctness and free-speech deletion is Soros money. 'Liberal benefactor' Soros has usurped – indeed largely created – the 'progressive' (regressive) pseudo-left while openly ultra-Zionists like casino billionaire Sheldon Adelson has been the biggest funder of Donald Trump and the right. The equation is simple – control both sides and you control the game and so the outcome. I said before Trump came to power (or the illusion of it) that the plan was to set America at war with itself; to divide the population into clearly defined factions for a de-facto (or quite possibly literal) civil war. This has quite demonstrably happened with ultra-Zionist Adelson funding one side and 'Israel sceptic' Soros funding the other. This is, naturally, only an extraordinary coincidence akin to all those that happened with 9/11 and to say otherwise would be virulent 'anti-Semitism'. The 'you are a racist' mantra is the constant defence response whenever these matters are up for debate. You are only pointing out the provable fact that Adelson funds Trump and right and Soros funds 'progressives' and the 'left' because you are an anti-Semite. When the Cabal wouldn't benefit from debate or information circulating they trigger their 'progressive' mob and 'anti-Semitism' industry to shut it down. I will expose this industry and its breathtaking global reach in the next chapter because that is vital to appreciate the extraordinary – and ever-increasing – global censorship

of ultra-Zionism and that of the Death Cult behind 9/11. Israel-worshipping British Labour MP Wes Streeting, who even calls Jews racists when they challenge the behaviour of Israel, demanded the sacking of philosopher Sir Roger Scruton as chair of a government housing commission when it emerged that he had described Jews in Budapest as forming part of a 'Soros empire'. Scruton said that 'many of the Budapest intelligentsia are Jewish, and form part of the extensive networks around the Soros empire'. Streeting, a vice-chair of the All-Party Parliamentary Group on Antisemitism, accused Scruton of propagating 'anti-Semitic conspiracy theories' which is straight from the ultra-Zionist censorship manual. Whether what is said is true or not is irrelevant. If it mentions someone who is Jewish this is by reflex action 'anti-Semitic'. I don't care if Soros is Jewish or Chinese – I care about what he does and the affect this has worldwide on people and their freedom. A member of Leave.eu, the anti-EU organisation, tweeted an image of Soros with the words of Conservative MP Maria Caulfield: 'Not sure there is even democracy in this country anymore ... The powerful elite seem to know best and openly mock the rest of us.' An image of Soros was very appropriate when he was substantially funding people seeking to stop Brexit while living in the United States. 'Appalling and nakedly anti-Semitic image' came the cry with Maria Caulfield herself demanding the tweet be deleted. She said it was particularly hurtful 'as my family are Jewish'. So it's okay for Caulfield to talk about a 'powerful elite' so long as no one mentions anyone who is part of that elite who happens to be Jewish. War criminal Tony Blair, a yes-man for the same Web that attaches to Soros, has also campaigned to stop Brexit, but linking him to a 'powerful elite' is fine. Now that's what I call racism. Ultra-Zionist Democratic Congressman, the ridiculous Adam Schiff, who became Chair of the House Intelligence Committee, told CNN that 'most' of the criticism of billionaire globalist George Soros is because he's Jewish. This line is becoming so familiar as the truth about Soros emerges and it's obviously a centrally-dictated response to avoid having the chilling facts about the man and his activities made public. Soros's son, Alexander, has said that many attacks on his father over the years have been 'dripping with the poison of anti-Semitism'. Yes, mate, it is absolutely nothing to do with the way he uses his fortune to mess with people's lives across the world. It's only because he is Jewish. Okay, glad we sorted that out then, and on that basis the dripping poison of billionaires dictating the lives of the penniless poor should never be questioned again. But, actually, on reflection – fuck that.

Soros Spring

The global vehicle that Soros established for his social engineering and political shenanigans is called the Open Society Foundations (OSF) to

which he has so far donated some *$32 billion*. The latest $18 billion was announced in 2017. That's a lot of bang for a lot of bucks and buys you colossal influence in all sorts of ways, subjects and places. The Open Society networks operate in *100 countries* with 26 national and regional foundations and offices. They call themselves 'NGOs' or 'non-governmental organisations'. This is the Soros vehicle to overthrow governments targeted by Israel and the United States, secure mass immigration into Europe and the United States, and fund and promote 'progressive' mobs transforming human society to herald the long-planned global dystopia I have for so very long warned was coming if we didn't snap out of an induced perceptual coma. The Soros connection to the ultra-Zionist Hidden Hand agenda can be most clearly seen in the role his Open Society networks have played in manipulating unrest in countries targeted for regime change. If the United States and its allies simply keep invading countries as with Iraq even some of the most myopic of the population might wonder what was going on. This would have certainly happened had America's ultra-Zionist proxy military openly invaded Libya and Syria as they ticked off the Project for the New American Century wish-list. To hide the pattern of conflict and its ultra-Zionist coordination they had to invent different excuses to pick off the list. For example we had Afghanistan (get Bin Laden) and Iraq (weapons of mass destruction). With Libya, Syria, Egypt and elsewhere it was 'the Arab Spring' and 'we must stop tyrants killing their own people'. The trick is to manipulate the population to remove – or demand the removal – of regimes that you want to remove. To do this you need to stimulate unrest that can be propagandised into a full-blown 'revolution' which ends with the people you don't want in government being ousted and those you do want being handed power to run the country and control the people according to your instructions. This is where Soros and his Open Society Foundations come in along with CIA fronts like the US Congress-funded National Endowment for Democracy (National Endowment for Deletion of Democracy). They are expert in preparing, funding, training and then promoting agitators to ferment civil unrest which often follows a period of severe economic sanctions by the United States and the West to create economic deprivation and fuel public frustration with the target government. People come out on the streets in phase two who believe they are taking part in a genuine 'revolution' against the government when in fact it is a Western-contrived hoax to secure regime-change without apparent direct American, British and Israeli involvement. The unrest is blazed across newspapers and television screens the world over through Hidden Hand-owned government propagandists who have the audacity to call themselves 'journalists'. They tell the population the story the Hidden Hand wants them to believe and most of these 'journalists' have

no idea what they are being used for. Most of those that *do* know justify this acquiescence to themselves with: 'I have a mortgage to pay.' The few that are left are active members or assets of the Death Cult – mostly in positions of executive and editorial power.

I have described in detail in other books how Soros networks were behind the 'Arab Spring', instigated in 2010, and the 2014 American coup in Ukraine as well as a long list of other 'people's revolutions'. As I write the US Neocons are playing the same scam in Venezuela through their puppet Trump. The, in reality, '*Soros* Spring' brought devastation and new tyrants to the Middle East and North Africa while being promoted by governments and presstitutes of the media as a spontaneous demand by the people to throw off the yoke of oppression. Tyrant leaders in Egypt were replaced by an American-funded military junta that's still in power today. The 'people's revolution' in Ukraine (American coup) replaced a pro-Russia leader with a pro-American yes-man overseeing a country heavily influenced by neo-Nazis. Soros Open Society Foundations manipulated the 'Euromaidan' protests in the Ukraine capital Kiev and protestors were shot in sniper attacks blamed on the government when clearly another force was involved. Pro-Russia president Viktor Yanukovych was forced to flee the country and in came American poodle and long-time US agent in Ukraine, Petro Poroshenko (who was later replaced by a Jewish comedian/actor, Volodymyr Zelensky). Soros operatives orchestrated the initial unrest and the whole coup was overseen by ultra-Zionist Victoria Nuland, the US Assistant Secretary of State for European and Eurasian Affairs. *Nuland is the wife of ultra-Zionist Robert Kagan, co-founder of the Project for the New American Century.* But don't you worry. George Soros and the ultra-Zionist Neocons are not working together. They don't like each other – didn't you know? The fact that Soros networks target the very countries the Neocons want to regime-change is pure coincidence and it is virulent and poisonous 'anti- Semitism' to say otherwise. Yeah, yeah, yawn. In truth, Soros networks provide the excuse for 'regime change' and the Neocons take it from there. A stash of 2,200 Open Society Foundation documents secured by the group DC Leaks reveal that Soros and his lackeys dictated US policy toward Ukraine after the 2014 coup and, with the fake-liberal Obama administration, removed the democratically-elected Yanukovych. One of the documents described the 'New Ukraine' as a key that 'reshapes the European map by offering the opportunity to go back to the original essence of European integration'. This is not how the Jewish community of Ukraine see it (0.1 percent of the population) with the 'revolution' putting Hitler and Nazi-supporting militia on the streets. Well done, George, another glorious victory for freedom. Ukraine's Prosecutor General Yuri Lutsenko revealed that a 2016 investigation into the NGO called the Anti-Corruption Action Centre

(AntAC), funded by Soros and the Obama administration (same thing), was dropped after the US government delivered 'a list of people whom we should not prosecute'. This is 'free' Ukraine? US investigative journalist Wayne Madsen said of Soros involvement in the Ukraine coup:

> It is the degree to which Soros provided finances, logistics, and other support to the Ukrainian coup plotters in 2012, two years before the Euromaidan [fake revolution] uprising, that is noteworthy. [Open Society Foundations] and its affiliates provided entire buildings, office space, computers, software, broadband Internet, videoconferencing equipment, vehicles, travel to the United States, and other material for the Euromaidan uprising [US coup]. This was all done with the cooperation of the US and Swedish embassies in Kiev, USAID, the Carnegie Endowment, the Swedish International Development Agency (SIDA), and the Central Intelligence Agency-linked National Endowment for Democracy (NED).
>
> Investigative journalists were also sought by the Soros gang to travel to Ukraine and submit articles that had to be approved by Soros operatives before publication. One major collaborator of Soros and the United States in pushing Ukrainian propaganda was identified as the Hromadske Television, which was singled out for its work to counter 'Russian propaganda' ...
>
> ... Soros is one of the closest advisers and financiers of Hillary Clinton. The leaked Soros documents describe how the Clinton Global Initiative and Foundation cooperates on undermining the sovereignty of nations around the world, including those in Europe.

The Clintons are buddies and drug-running business partners of the Bushes among much else that is disgusting and sordid beyond belief. DC Leaks documents revealed how Soros is paying a large swathe of 'journalists' (presstitutes) to write articles supporting his agenda in country after country with a veto on publication if he doesn't like anything they say. Soros and his multi-billion dollar network is a major source of the demonisation of Russia which the ultra-Zionist Neocons have been driving. When you realise that the 'progressive left' and the 'far right' are controlled by agents of the same force the behaviour of ultra-Zionists like George Soros and Sheldon Adelson suddenly makes sense. The Soros Open Society network officially left Hungary in 2018 after Prime Minister Viktor Orban's government passed the 'Stop Soros' law to criminalise the organisation's manipulation of the country. Withdrawal from Turkey was announced in December, 2018, when the government said Soros was controlling Turkish opposition figure Osman Kavala who was accused of organising anti-government

demonstrations. Kavala is an advisory board member of Open Society. British academic Frank Furedi exposed the nature of the Soros network and revealed the shocking levels of arrogance expressed by people who think they have the right to impose their will on everyone else (or *Soros's* will – the *Hidden Hand's* will in truth). This is the mind-set of the 'progressives' that direct his operation under his command and brief. Soros, too, is a foot soldier to more powerful interests deeper in the shadows which he had better not cross. Frank Furedi said he was asked to speak at an event funded by a Soros foundation (they are legion) in Budapest. Soros activists attended from many areas of the former Soviet Republics and Eastern Europe. Furedi recalled:

> It was later during lunch at a plush Budapest hotel that I encountered the full force of the arrogant ethos promoted by the Soros network of organisations. At my table I listened to Dutch, American, British, Ukrainian and Hungarian representatives of Soros NGOs boast about their achievements. Some claimed that they played a major role in the Arab Spring in Egypt. Others voiced their pride in their contribution to the democratisation of the Ukraine. Some bragged about their influence in preparing the ground for the overthrow of the Gadhafi regime in Libya.
>
> I sat quietly and felt uncomfortable with a group of people who so casually assumed that they had the right to play God throughout the world. At one point, the head of the table – a Hungarian leader of a Soros NGO – asked me what I thought about their work. Not wishing to offend, I quietly remarked that I wasn't sure whether the external imposition of their idea of democracy on the people of Libya was legitimate nor that it would work. Without a second's hesitation, my interlocutor rounded me with the response: 'I don't think that we have the luxury of waiting until the Libyan people come with their own Jefferson.

This is how the ultra-Zionist network operates manipulating the arrogant and gullible to do its work of global dystopian transformation. Soros is everywhere funding 'progressive' groups of all kinds, mass immigration, censorship of free speech, the climate change hoax, facet after facet of the ultra-Zionist Neocon agenda. If Soros funds it the motivation is bad for humanity. He even gave a large sum to an organisation in Britain seeking to stop Brexit when he doesn't even live in the country. The European Union is a Hidden Hand fly-trap for national sovereignty and freedom and the last thing they wanted was British people voting to come out. Revealing that Soros was using his money to thwart the will of a national referendum and block Brexit was apparently 'anti-Semitic' – the perpetual reflex-action defence against public exposure. UK Zionist *Guardian* columnist and Soros-apologist

Rafael Behr suggested this in an article headed 'A secret plot to stop Brexit, or an anti-Semitic dog whistle?' Frank Furedi describes very well the Soros mentality:

> Why am I not surprised that the billionaire George Soros has decided to give £400,000 to the anti-Brexit crusading group Best for Britain? Because, since the 1980s, Soros has acted as if his considerable wealth entitles him to influence and alter the policies of governments throughout the world. Soros does not believe in the legitimacy of borders nor in the authority of national electorates. Consequently he feels entitled to influence and if possible direct the political destiny of societies all over the world. Today it is the future of Britain; tomorrow it might be Italy or Hungary that will be the target of Soros' largesse.

'Soros largess' means Hidden Hand largesse.

Soros lays the trap

The billionaire prepared the ground for the Arab Spring, Middle East regime change and US/Western intervention with his 2004 article 'The People's Sovereignty'. This appeared in *Foreign Policy* – the magazine published by the Hidden Hand Carnegie Endowment for International Peace which was exposed by a Congressional investigation for manipulating war. Soros said he wanted to change the definition of sovereignty from the *government* of a country to the *population* and this was sold as 'progressive' and giving power to the people. It was, as always with Soros, nothing of the sort. He wanted to bypass the block on external forces invading countries on the grounds that it was a breach of sovereignty. By switching the definition of sovereignty from government to population they can invade on the premise that they are stopping a government from violating the *people's* sovereignty. This is precisely the scam that would be used in Libya, Syria and other countries of the 'Arab Spring' with the claim that the long-targeted 'regime leader' was 'killing his own people'. Soros wrote:

> ... true sovereignty belongs to the people, who in turn delegate it to their governments. If governments abuse the authority entrusted to them and citizens have no opportunity to correct such abuses, outside interference is justified. By specifying that sovereignty is based on the people, the international community can penetrate nation-states' borders to protect the rights of citizens.
>
> In particular, the principle of the people's sovereignty can help solve two modern challenges: the obstacles to delivering aid effectively to sovereign states, and the obstacles to global collective action dealing with states

experiencing internal conflict.

This was exactly what the ultra-Zionist Neocon plan of the Project for the New American Century demanded – you know, the one that Soros isn't part of. He dubbed his doctrine the 'responsibility to protect' (i.e. invade, takeover, slash and burn):

> ... the rulers of a sovereign state have a responsibility to protect the state's citizens. When they fail to do so, the responsibility is transferred to the international community [ultra-Zionism and the Hidden Hand]. Global attention is often the only lifeline available to the oppressed.

Soros cares so much about the 'oppressed' – ask the 'progressives' who take his money and do his bidding. Only a year later in 2005 what Soros called for in that article was adopted by the United Nations Security Council and General Assembly. Everything was in place for a renewed military assault on the Middle East that had been mercilessly targeted since 9/11. Exposure of the lies about weapons of mass destruction in Iraq had slowed the pace of the PNAC ultra-Zionist regime-change schedule. Now the road was open to press the throttle to the floor. This was the deal:

- Decree that the people represent sovereignty and that governments have a responsibility to protect the sovereign population.

- If they don't, or your propaganda makes it look that way, there was now an automatic transfer of power from the country to the 'International community' (ultra-Zionists and the Hidden Hand).

- Arm, fund and train 'rebels' to attack the target regime and wait for them to respond. When they do you scream 'he's killing his own people' and condemn the government for failing in its 'responsibility to protect', as Soros put it.

- The 'International Community' can then deploy the military to 'protect the people' (by bombing them shitless, as in Libya and Syria, and taking over their land and resources under various guises).

Far from protecting national sovereignty the ultra-Zionists and wider Hidden Hand want to destroy it through a tyrannical world government controlled by them which would dictate the lives of everyone on earth. For this to happen the Cabal is plotting the end of countries and just by coincidence this a major goal of the Soros *Open Society* (no countries or borders just global government) Foundations. This is why Soros

described sovereignty as an 'anachronistic concept originating in bygone times' and why his networks are behind the manipulation of mass immigration to break down a sense of defined and tangible countries and cultures. I'll explain more shortly.

Mission accomplished (well, some of it)

The outcome – always judge by outcome not rhetoric – of the Neocon-Soros Doctrine has been mass human catastrophe. Look at the consequences of the 'peoples' revolution' against Gadhafi in Libya and what happened when West/Israel-backed 'rebels' began another 'Arab Spring' civil war in Syria in pursuit of the Neocon-Soros agenda. Look at the multi-millions who have died, towns and cities destroyed, disease and suffering. This is the work of psychopaths hiring other psychopaths to do their bidding while idiocy cheers them all on. Ain't that right, CNN, and both parties in the United States? Libya's Colonel Gadhafi was no saint but under his reign education and medical treatment were free; electricity was either free or cost very little; newlyweds received $50,000 from the government to buy a home; having a home was considered a human right; Gadhafi's Great Man-Made River Project made water available to everyone; Libya had no external debt and the highest per-capita income in Africa. Now after the US-NATO air invasion led by Barack Obama and Hillary Clinton's America, David Cameron's UK, plus France and others, Libya is a basket case of warring factions and life for the population is a barely-surviving hell. None of the psychopaths responsible for this have faced any consequences because as always Hidden Hand networks have their back for services rendered. Libya was bombed into the Stone Age and is now a lawless land of violence, warlords and the very ISIS terrorists that those who caused this mayhem claimed to be fighting. ISIS was in fact a Western-created-armed-and-funded proxy army and outgrowth from the Mujahideen/al-Qaeda creations of the CIA to set the Middle East at war with itself and justify Western 'intervention' – all of which suited the ambitions of the ultra-Zionists and the Death Cult for which wars and mass killing is a human sacrifice ritual. Many of those who attacked Gadhafi were the same people with the same weapons – and certainly the same Western and Israeli backers – that would seek to remove Assad in Syria once the Libyan gig was completed with mass bombing of the innocent by US, UK and NATO raids 'to protect civilians from violence'. Assad would have been long gone, too, without Russia's intervention and air support. Israel and the Death Cult I will expose have been desperate to remove Assad. Major General Gershon Hacohen, former senior Israeli commander, said that then Defense Minister Moshe Ya'alon personally met with Syrian (West/Saudi-funded and armed) 'rebels' at the height of the Syrian war. Hacohen, Commander of the

Israeli Defence Forces Staff Corps before retiring in 2014, said that he was also present at the meeting. Trump said in 2018 that American troops only remained in the Middle East to 'support Israel' (pursue its agenda). Soros is supposed to be antagonistic to authorities in Israel, but his networks start the momentum rolling in 'people's revolutions' and then military and civilian thugs go in. This was all described in a US military document entitled 'US Special Forces Unconventional Warfare Strategy' published on November 30th, 2010, just a month before the Soros 'Arab Spring' began in Tunisia. The document said:

> The intent of US UW [Unconventional Warfare] efforts is to exploit a hostile power's political, military, economic, and psychological vulnerabilities by developing and sustaining resistance forces to accomplish US strategic objectives ... For the foreseeable future, US forces will predominantly engage in irregular warfare (IW) operations.

The document goes on to say the strategy requires that target-state population perceptions are first 'groomed' into accepting an armed insurrection, using 'propaganda and political and psychological efforts to discredit the government'... creating local and national 'agitation'... helping to organise 'boycotts, strikes and other efforts to suggest public discontent'... before beginning the 'infiltration of foreign organizers and advisors and foreign propaganda, material, money, weapons and equipment'. Should there be retaliation by the target government, the document continues, the resistance can exploit the negative consequences to garner more sympathy and support from the population by emphasising the sacrifices and hardship the resistance is enduring on behalf of 'the people'. This is exactly what has happened in the 'Arab Spring' along with the mantras of: 'He's killing his own people'; the protests are 'peaceful (when they weren't); the opposition is unarmed (when often they weren't); and this is a popular peoples' revolution (when it was instigated by Soros and other Western/ultra-Zionist intelligence and military networks). One estimate put the civilian death toll in the post-9/11 war on terror in Iraq, Libya, Syria, Yemen and Sudan at six million, but the figure is substantially higher when deaths from disease, poverty and hunger caused by those wars are taken into account. There is at least some good news – profits of armament companies like Raytheon and Lockheed Martin which are owned by the same Hidden Hand that manipulates the wars have absolutely soared. Don't you worry about dead and mutilated men, women and children when mass murder is good for jobs and profits. United States military spending (much of which goes to the arms companies) increased by *50 percent* (adjusted for inflation) in the first ten years after 9/11 while spending on education, healthcare, public transport and other domestic

civilian programmes increased by only 13.5 percent. Official US spending on the military for 2018 (ironically called 'defence spending') was $700 billion which is only the headline figure for the public to see. The real figure with all aspects included will be way over *$1 trillion* and then some. Even by official figures the United States spends more on the military than the next *eleven* or more countries combined and that includes China and Russia (Fig 94). The ultra-Zionist agenda of regime change triggered by 9/11 has turned the American taxpayer into a cash-cow to fund wars in the Middle East for the benefit of Israel's territorial and acquisitive ambitions while so many Americans sleep in the streets. From the bigger-picture perspective the United States military is really the Hidden Hand military being prepared to be the foundation of the world army to impose the will of the world government. This is why the US has built a global military structure

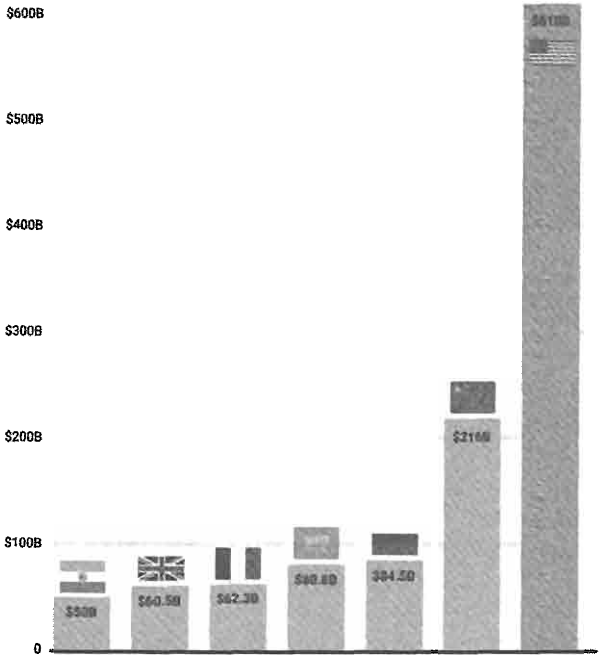

Figure 94: The staggering levels of US 'defence (attack) spending which is preparing for the emergence of the long-planned world army.

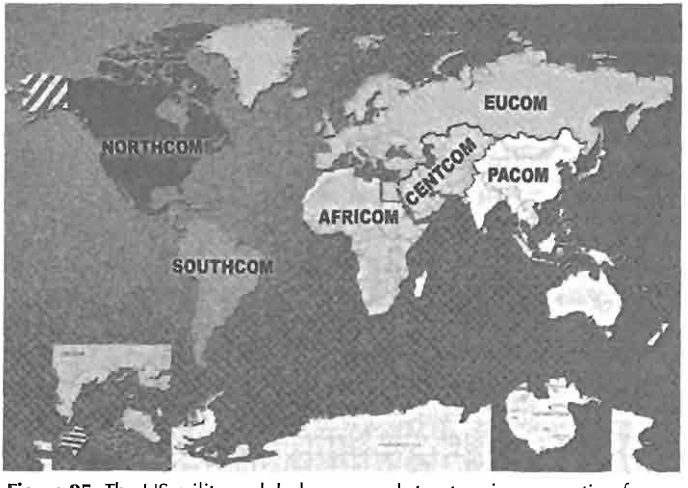

Figure 95: The US military global command structure in preparation for the world army.

operating in 147 countries which has carved up the world into 'Command' regions ready to be handed over eventually to become the control structure of the world army (Fig 95). Locations and actions of the US military overwhelmingly have no impact on the security, safety or *defence* of America and its citizens because that is not the point of what American troops are doing. The 'US military' is really the Hidden Hand military and the ultra-Zionist military. Let that reality sink in and so much that has happened since 9/11 will suddenly make sense.

Dominoes topple

What I am about to talk about next – also involving Soros – may not appear to be connected to 9/11, but it is. I emphasise again that the September 11th attacks did not happen in isolation. They were part of a fantastic global agenda and the subject I raise now would not have happened without 9/11 leading to Middle East wars which themselves led to the situation I am about to address. Context is crucial to understanding anything. What looks one way in and of itself can look very different when contextual connections are revealed. Dots are one reality and dots-connected quite another. This is absolutely the case with the Hidden Hand plan for the world which plays out like lines of dominoes with one event triggering another and another. The preferred sequence is all worked out in advance and what happened on 9/11 was crucial to that. If you have a plan that involves the mass movement and resettlement of people from one culture or cultures into another then you know that war and destruction in the Middle East and Africa are going to understandably generate large numbers of people seeking to relocate to more peaceful lands and their direction would be north into Europe not south into Africa or East into other troubled areas. Desperate people did indeed begin to flee the Western-created hell of Libya and Syria and headed for Europe. Few people, and certainly not me, would challenge humanitarian support and succour for tragic refugees seeking protection from war – especially Western-instigated ones. This was not the real story, however. Waiting to pounce on this movement of genuine refugees from conflict were Soros and connected networks working to massively increase the flow of people into Europe by adding much greater numbers who were not escaping war but simply relocating when the chance arose. France's interior minister Christophe Castaner said that some aid groups operating in the Mediterranean act like accomplices to human traffickers (a fact I pointed out in my last book from other sources) and he said there was 'real collusion between smugglers and some NGOs' including through phone contacts to 'facilitate the migrants departure from Libyan coasts in appalling conditions'. Italian interior minister Matteo Salvini said something similar.

The same networks have been operating in Central and South America where war, conflict, upheaval and violent crime serve the interests of these psychologically insane people to encourage population movements north into the United States. I understand why people south of the US border see America as the Land of Milk and Honey compared with their own plight and if I was them I would try to do the same. The problem is that they are not being guided to America or Europe for their own benefit – the Death Cult couldn't give a damn about them – but to transform American and European society for deeply malevolent ends. Migrants and indigenous populations are both pawns in the same Death Cult agenda. Mass immigration benefits the elite in every day – not least with an over-supply of cheap labour that drives down wages and conditions for everyone. You won't do it for that? Okay, bye, bye, there are plenty who will. Genuine liberals of old would have opposed that – today's 'progressive' fake Soros-liberals cheer and call you a bigot if you point these things out. Trump's much-vaunted wall along the southern border with Mexico was always going to be opposed on the scale he described because the agenda doesn't want any barrier to stop what it plans eventually to be a colossal and unstoppable exodus of people from the south into the United States. Kirstjen Nielsen, then Department of Homeland Security Secretary, told a congressional hearing that close to a million illegal immigrants were expected to attempt to cross the border into the US in 2019 alone and the situation was 'truly an emergency'. This is all planned and migrants often suffer terrible hardships on the way, including violence, rape and child trafficking, while being unknowing pawns in a plan long hatched by the Hidden Hand to transform American society by transforming its demographics and dynamic of power. Kirstjen Nielsen described a 'real serious and sustained crisis at our borders ... make no mistake, this chain of human misery is getting worse'. She went on:

> Since late last year, we have been seeing 50,000 to 60,000 migrants arrive at our southern border each month. But in February, we saw a 30 percent jump over the previous month, with agents apprehending or encountering nearly 75,000 aliens. This is an 80 percent increase over the same time last year.

Nielsen said the system was already being overwhelmed and all she describes has happened under 'we must reduce immigration', ultra-Zionist-owned Trump. I have predicted these events for a long time after uncovering the mass migration agenda and what is now 'overwhelming the system' is planned to become a tidal wave of people crossing the border from the south in such numbers they will be unstoppable. America's southern border will, in effect, cease to exist which is what so many Soros-manipulated 'progressives' are calling for along with the

extreme-'progressives' now hijacking the Democratic Party funded and owned by Soros. Democrats in their myopic idiocy believe that the more migrants the more votes for them until they become the only party of government on the basis that most migrants support them. They don't see that by the time that happens they won't be controlling the Democratic Party and the force that does will then oppress *their* freedom as *they* now oppress the freedom of others. Democrat 'progressives' have been the Soros/Hidden Hand vehicle to block the Trump wall plan along with ultra-Zionist/Sheldon Adelson/Hidden Hand bought-and-paid-for Republicans because no effective barrier is going to be allowed to stop the plan to transform America now long underway. Something similar is happening in Europe with a new flood of migration from the south waiting to be instigated as I write. Turkey is being funded currently to stem the flow and if that agreement falters (as I say it is planned to) the consequences will be obvious and catastrophic both for migrants and the current populations of Europe whether indigenous or migrant. Süleyman Soylu, Turkey's interior minister, said the country was hosting more than 3.6 million Syrians displaced by the US/UK/Israel-manipulated conflict under 'temporary protection' status while security forces held more than a quarter of a million 'irregular migrants' in 2018 and deported another 54,000. 'There is an increase of 56 percent compared to the figures of the first 11 months of last year', Soylu said.

No one knows how many people are in America illegally already although a ball park figure appears to be more than 20 million. Yet another think-tank was launched in 2018 called the New Center to campaign for an amnesty for all those 'illegal aliens' so they can be allowed to stay permanently. The New Center is headed by William Galston of the Hidden Hand Brookings Institute and ... *William Kristol, co-founder of the Project for the New American Century*. You know, the ultra-Zionist far-right advocate of any war going and with nothing at all in common with George Soros who just happens to be using his hijacked Democratic Party and progressive mob to press for exactly the same policy. Kristol-promoted wars have mass murdered millions of people with brown faces yet now he says that not allowing an estimated more than 20 million to stay in the country illegally would be 'morally unacceptable'. No, it would damage the agenda this sleazy man represents of transforming American and European society demographically, religiously and economically. Kristol wants everyone to stay with no discernment at all between genuine and peaceful people and psychopathic Central American gangs like MS13 which plague American cities with their horrific violence overwhelmingly against their fellow immigrants. But if you seek to create fear, chaos and rule of jungle you want MS13 and their like in the country, right Mr Kristol?

Encourage what you want – punish what you don't

We have cities now called 'sanctuary cities' where the state government refuses to cooperate with the Federal government in seeking out people living in the country illegally. Other states and cities have passed laws giving undocumented migrants money for healthcare, education and support costs that *legal Americans and born Americans don't get*. What is that going to do except encourage more to come – exactly as planned. George Soros teamed up with his fellow humanitarian lovers of the poor and destitute at MasterCard in a project called Humanity Ventures in which he pledged $500 million to address 'the challenges facing migrants and refugees'. I bet his heart bleeds. We should not forget that part of the deal with the Hidden Hand to become incredibly rich is that you spend significant swathes of your wealth on advancing the agenda in the guise of 'philanthropy'. Thus you have callous, heartless billionaires like the Rockefellers establishing 'charity foundations' which are also good for avoiding tax – not that they pay much anyway. You can see a pattern of donations with so many billionaires in terms of people, projects and subject areas which affect the world and society in line with the plan that I have been exposing for 30 years. Rockefeller foundations are a perfect example of this and you can add so many others including the Bill and Melinda Gates Foundation. In a joint statement the Mother Theresa pairing of Soros and MasterCard said:

> Migrants are often forced into lives of despair in their host communities because they cannot gain access to financial, healthcare and government services. Our potential investment in this social enterprise, coupled with MasterCard's ability to create products that serve vulnerable communities, can show how private capital can play a constructive role in solving social problems.

It makes you fit to puke. These 'social problems' are being systematically created because this two-three-four-faced financial elite don't give a shit about migrants. They are just pawns to them. MasterCard admitted in 2016 that it has handed out prepaid debit cards to migrants and refugees traveling through Europe with support from the European Union and the UN High Commissioner for Refugees both of which are promoting the mass migration agenda. Kristol's ultra-Zionist New Center is also calling for an end to caps on numbers from different countries. Up to this point the inflow of people from the south have overwhelmingly competed for jobs and housing with poor Americans (of all backgrounds and races). Now Kristol's demand is aimed at unblocking immigration into America from countries such as

India and China that would compete for jobs of higher earners and what are called 'professional classes'. The aim is to destroy American professional classes with immigration pressure on the jobs market after devastating the low-paid and middle classes. Jessica Vaughan, Director of Policy at the Center for Immigration Studies, explains the consequences:

> If the per-country cap were to be lifted, then for the next 10 years, nearly all of the green cards in the ordinary professional worker category would go to citizens of India. That means any company wishing to sponsor a professional from any of the other 150-plus countries that currently receive employment green cards or immigrant visas would have to wait 10 years or take their chances by entering the annual lottery for a temporary H-1B visa for that individual.
>
> Such a change in legal immigration would shift wage pressure away from U.S. blue-collar workers and onto American white-collar workers who would likely experience more displacement due to the vast number of Indian workers that would be imported to the country every year to take high-paying professional jobs.

This is all part of the ultra-Zionist Hidden Hand transformation of human society into a globally-centralised borderless dictatorship. Donald Trump shocked and angered his deeply-misguided supporters in March, 2019, by announcing that more migrants were going to be allowed to settle in the country because American corporations needed them. Apple CEO Tim Cook, who claims to have 'values', was sitting next to him at the time. For the reason behind this Trump 360 about-turn see the Jessica Vaughan quote above. Trump is the Cabal's man and always was as I shall be explaining later. The Soros progressive mob and the increasingly dominant progressive extremes of the Democratic Party are calling for the end of borders which would, by definition, mean the end of countries – precisely the aim of the Neocon-Soros ultra-Zionist Hidden Hand as I have been exposing for decades.

Media lies and calculated abuse

The debate about the calculated 'migrant crisis' cannot be won by these crazies and so they ban contrary views and information amid a frenzy of abuse in the form of 'racist', Nazi' and 'bigot' if you highlight the obvious consequences of what I have described (Fig 96 overleaf). A guaranteed way of uncovering the agenda is to observe what you are not allowed to have an alternative opinion about. It works every time. The enormous majority of migrants entering Europe and the United States are not families, mothers and children fleeing war but young men

Figure 96: A few questions for the open border Soros 'progressives'. Oh, I'm a bigot? Okay, that must be the answer then.

taking the opportunity to change locations. The same controlled media that lies to you about wars lies to you about this. A 'caravan' of thousands heading for the US border from the south in 2018 was portrayed by the media as dominated by families, mothers and children to manipulate emotions when that was demonstrably not true. As in Europe it almost entirely consisted of single men travelling alone. American filmmaker Ami Horowitz produced a documentary about the 'caravan' and estimated that single males accounted for 90 to 95 percent of the people. Many he interviewed said they were heading for America for a 'better life' and not fleeing violence and oppression. Horowitz exposed the lie that most migrants are spontaneously leaving their countries and walking to America. Instead the operation was highly organised with buses, food and water orchestrated through an organisation called Pueblo Sin Fronteras (People without Borders) which was formed in 2000 by Mexican-American 'human rights activist' Irineo Mujica to get as many as possible into the United States through Central America and call for open borders which means the end of America as a country and society. People Without Borders is being funded to the tune of millions by front-groups and progressive groups in the United States with known associations with George Soros money. The organisation itself is based in Chicago with its affiliated La Familia Latina Unida (The United Latin Family) and Centro Sin Fronteras (Center Without Borders) which share the same goals. Soros is reported to fund Center Without Borders, the parent organization of The United Latin Family which is the parent organisation of People Without Borders. The money trail comes through the National Immigration Forum which is financed by George Soros' Open Society Foundations. Viridiana Vidal, a People without Borders organiser and spokeswoman, is the Nevada state director for America's Voice according to her LinkedIn profile. Soros funds America's Voice. The Soros plan is crystal clear – People *Without Borders = Open Society* Foundations = the end of countries. This just happens to be the Hidden Hand plan for the world working through gofer assets like Soros. I have no truck with the far right or the far anything (except the far out), but it is the so-called 'progressives' that are driving the tyranny. The trouble is

they are so far up their own virtue-signalling arses they can't see that. Alexandria Ocasio-Cortez, a US Representative for New York, is the epitome of the George Soros 'progressive'– ultra-Zionist – agenda while believing she is a 'voice of the people'. 'Soros progressive' is an appropriate description for the mind-set. Ocasio-Cortez is clueless about the forces driving 'her' agenda. We have the same in the UK in the form of Owen Jones, a 'journalist' on the 'progressive' *Guardian* who appears to spend his days in television studios spouting his 'anti-establishment' rent-a-rants while the establishment he claims to oppose cheers him on. Why do these people think giant corporations and billionaires who make their money from exploitation of the masses are on the same 'progressive' page? Soros funds so many 'progressive' political projects and organisations it is just mind-blowing and he has transformed the genuine Liberal left that I grew up with into a fascistic mob seeking to impose their mindless will on the global population and delete freedom of speech and opinion. Programmed mindlessness blocks them from seeing that it's not *their* will at all – just a mantra repetition delivering the agenda of the one-percent. Put the words 'Organizations funded by George Soros and his Open Society Foundations' into a search engine and you'll see a list at Discoverthenetworks.org of where just *some* of his money goes.

All planned long ago

US law has been interpreted to mean that anyone born in the country automatically becomes a US citizen and this has led to birth-tourism in which pregnant women travel to America just to give birth. By 2018 one in twelve births in the US was to non-citizens. Steven Camarota, Director of Research for the Center for Immigration Studies, estimated that by 2060 immigration will add 75 million people to the US population and that 95 percent of the country's population growth will come from future immigrants and their children and grandchildren. The percentage of foreign-born people in the United States is soaring with 65 million Americans, or one in five, speaking a language other than English at home. This rises to as high as 50 percent in America's five largest cities and some areas of concentrated immigration has 85 to 95 percent of children in schools speaking a foreign language at home. So-called 'progressive' groups and media dispute the figures, but the trend is clear and indisputable. The number living illegally in the US was estimated at more than 22 million in a 2018 study by Mohammad M. Fazel-Zarandi, a researcher at Yale and Massachusetts Institute of Technology (MIT). This exodus from other lands into the United States and Europe has been in the planning at least since the 1920s and in truth far longer – for the detail see *Everything You Need To Know But Have Never Been Told*. I have highlighted over the years the words of ultra-Zionist Dr Richard Day, a

big-time Rockefeller family insider and executive of Planned Parenthood, who shocked a meeting of paediatricians in Pittsburgh, Pennsylvania, in 1969 when he asked them to turn off recording equipment and not to take notes because he was going to tell them how the world was going to be changed dramatically by the network he represented. He meant the ultra-Zionist network and wider Hidden Hand. Dr Lawrence Dunnegan, a member of the audience that night, did take notes and made them public through an alternative media site years later when he realised that what Day said would happen *was* happening. I quote Day at length in a book called *Phantom Self* and what he predicted (because he knew) even in detail is the world we see today. This was what he said 50 years ago about the plot for mass migrations of people:

> There [will] be mass movements and migrations of people without roots in their new locations because traditions are easier to change in a place where there are a lot of transplanted people, as compared to trying to change traditions in a place where people grew up and had an extended family, where they had roots.

This is the plan happening all around us today. Mass movements of people are part of the agenda to transform the nature of society in ways described in the 1920s by those behind the eventual development of the European Union – another body manufactured to centralise power into the hands of the unelected few. See the chapter 'Saying the Unsayable' in *Everything You Need To Know But Have Never Been Told* for the in-depth background to the mass migration agenda in which ultra-Zionism is centrally involved. Sweden-based American ultra-Zionist and academic Barbara Lerner Spectre has been open about their role in transforming European culture. She relocated from America to Israel in the 1960s before heading to Sweden with her husband, Rabbi Philip Spectre, to found the European Institute for Jewish Studies called Paideia which is funded by the Swedish government. She said in a TV interview:

> I think there's a resurgence of anti-Semitism because at this point in time Europe has not yet learned how to be multicultural, and I think we're gonna be part of the throes of that transformation, which must take place. Europe is not going to be the monolithic societies that they once were in the last century. Jews are going to be at the centre of that. It's a huge transformation for Europe to make. They are now going into a multicultural mode, and Jews will be resented because of our leading role. But without that leading role, and without that transformation, Europe will not survive.

I find it hard to comprehend the arrogance it must take for a fraction

of 0.2 percent of the world population to impose their will on everyone else. The truth is that Europe as we know it will not survive what *she* is talking about and when she says Jews will have a leading role she's not referring to *all* Jewish people or anything like. She means ultra-Zionists and the Death Cult I will be exposing later which have contempt for the general Jewish population. It is so important that all Jews are not blamed for the actions and ambitions of the few. While Israel promotes open hostility towards Muslims at home and the wider Middle East its representatives in Europe are calling for Jews and Muslims to unite against 'nationalist' anti-mass immigration parties. France's Chief Rabbi Haim Korsia said the country's Jewish community must seek cooperation with French Muslims against far-right political forces in the country (what is the government of Israel if not far, far right?). Pinchas Goldschmidt, President of the Conference of European Rabbis, said Muslims and Jews have common cause in resisting attacks on minorities with the rise of ultra-nationalist parties and damage to the European Union caused by Brexit. What is the government of Israel if not ultra, ultra nationalist? The hypocrisy is breathtaking. Some Rabbis openly celebrate mass migration into Europe from the Muslim world like Rabbi Baruch Efrati, a yeshiva head and community rabbi in the illegal West Bank settlement of Efrat:

> Jews should rejoice at the fact that Christian Europe is losing its identity as a punishment for what it did to us for the hundreds of years we were in exile there ... We will never forgive Europe's Christians for slaughtering millions of our children, women and elderly ... Not just in the recent Holocaust, but throughout the generations, in a consistent manner which characterises all factions of hypocritical Christianity... Europe is losing its identity in favour of another people and another religion, and there will be no remnants and survivors from the impurity of Christianity, which shed a lot of blood it won't be able to atone for.

Then there is French Rabbi Rav Touitou who said:

> The Messiah will come when Edom, Europe, Christianity, has totally fallen. So, I ask you, is it good news that Muslims are invading Europe? It's excellent news! It means the coming of the Messiah! Excellent news!

It is easy to write such people off as simply bonkers, but they are seeking to manifest their racist madness. When you see quotes like these – and they are legion if you look for them – how outrageous that they blame everyone else for 'anti-Semitism' when they are creating this as people wrongly judge all Jews by these ultra-Zionist extremist crazies. What would happen if anyone else talked of Muslims *invading* Europe?

A deluge of abuse would follow and calls for resignation. Touitou can say that with no problem. What would happen if a non-Jew said that 'we should rejoice at the fact that Zionist Israel is losing its identity as a punishment' or 'Israel is losing its identity in favour of another people and another religion, and there will be no remnants and survivors from the impurity of Judaism'? It would be called 'anti-Semitic' and 'hate speech'. Efrati can say that about Europeans no problem. What does this one law for one and another for the rest stimulate? *'Anti-Semitism'*. The same is happening in the United States with calls for open borders to allow unchecked immigration from the south that would be the end of America as a country and nation. Borders are what define a culture, its laws, values and way of life. Once borders come down all of that goes with it because there is no defined area within which those 'values' and so on can be protected. This is why we have a no-border European Union. What have I been saying for *decades* is a key aim for the Hidden Hand? The *end of countries* and their replacement by a tyrannical hierarchy of superstates and world government. Distinct and individual cultures of *any kind* – not only those in Europe and North America – have no place in the Brave New World of a global fascist/communist state of centralised control. One bland, blob fused-culture common to everyone is what the conspirators want. We are seeing this ever more clearly with gathering deletion of individuality in life-style, thought and opinion and the imposition of one culture with one mind parroting one narrative about everything. The process goes like this:

You arrange for a mass influx of people from other cultures into the target culture; you manipulate support for this on 'humanitarian' grounds, but that is not your real motivation when you are psychopaths after all; incoming cultures begin to impose themselves on the target culture and eventually become significant, then decisive, in which political party is elected to government; those parties then do everything they can to win the 'minorities vote' while ignoring the needs of those from the indigenous culture that they believe have no other choice but to vote for them (the 'gimme vote' as I call it); minority numbers continue to grow until collectively they are the majority, firstly in specific areas and then nationally; at this point the once minorities *become* the government and laws are changed in line with the beliefs of the one-time migrants; a fusion happens the other way, too, with many migrants, especially their children and grandchildren, absorbing into the target culture and an overall fusion is reached in which all cultures are at some point absorbed into each other; now you have the one-world blob culture of the Hidden Hand global state. The plan over time is also for racial fusion through interbreeding. No – this is not a condemnation of interracial relationships – I think they're lovely. It is a question of scale

and a question of what the elite want to happen and *why*. Part of the 'why' is the elimination (what an irony for 'progressives') of all cultural and racial diversity to create a global monoculture which their sick minds appear to desire.

Gathering numbers of people are beginning to realise what is happening and when they speak out the ultra-Zionist and 'progressive' hate groups respond in the usual way – 'bigot', 'Nazi', 'conspiracy theorist'. Attacks on 'white supremacy' and 'white privilege' are all connected to this agenda and so is the increased focus and fearmongering about the 'far right'. The mind-game is to link demands for free speech and claims of a mass migration agenda to the far right so when anyone even mentions these concepts they are immediately dubbed a 'white supremacist'. I think anyone who self-identifies the true 'I' with their body-type is missing the point. We are all expressions of the same consciousness and the body is only a vehicle for a brief experience in a tiny band of frequency we call 'the world'. There are, however, some who do self-identify this way that have a racial agenda to target white people in ways which become more hysterical by the day. Instead of screaming 'white supremacist' would it not be more adult and mature to ask why white people are being so demonised and why they are being pressured to despise *themselves?* Horrors like the mass shooting in Christchurch, New Zealand, in 2019 in which a 'white supremacist' shot dead 50 Muslims serves the Hidden Hand agenda perfectly. Psychopath Brenton Tarrant, a 28-year-old white man, circulated a 74-page 'manifesto' in which he said of mass migration: 'This is ethnic replacement. This is cultural replacement. This is racial replacement. This is white genocide.' What he did and what he said played into the desired perceptual association between questioning the agenda of mass migration and far right white supremacy. Tarrant also wrote that he wanted his sickening attack to spark a debate on gun ownership in the United States and a civil war between left and right which would fracture America 'along ethnic and cultural lines'. This just happens to be what the Hidden Hand has been working towards. It's just a coincidence, nothing to worry about. Either Tarrant is a complete moron (very possible) or there is more to know here. Attacks like his present the opportunity – mercilessly exploited – to justify censorship and suppression of views expressed by the psychopath involved and to link him and his actions to anyone far, far from violent or psychopathic who challenges the impact and goals of mass migration. It might also be worth considering the question of why ultra-Zionism has such a connection with the far right and more about that in a moment. The New Zealand government banned circulation of the Tarrant manifesto with anyone found to have it on their computer facing a jail sentence of up to ten years with another four added for passing it on. This sparked a

free speech debate because there is one constant theme with all these terror attacks from whatever source – freedom is always the loser. 'Progressive' New Zealand Prime Minister Jacinda Ardern, a one-time policy advisor to Tony Blair, vowed she would never mention Tarrant by name which is clearly childish and not the maturity we should expect from leaders of countries. Alarm bells rang with the speed at which the collective 'white supremacy' and 'white nationalist' demonisation agenda flung into action after the killings with Facebook banning content that includes explicit praise, support, or representation of white nationalism or separatism. Posts like 'I am a proud white nationalist' and 'Immigration is tearing this country apart' were outlawed, but 'I am a Jewish nationalist' and 'deport African blacks from Israel' continue to be allowed. There was also not a problem when Jewish journalist, David Sirota, senior communications adviser and speechwriter for Democratic presidential candidate Bernie Sanders, who wrote in 2013: 'Let's hope the Boston Marathon bomber is a white American.' We are replacing one form of racism with another – reverse racism – and even reverse segregation in some cases. This is not 'anti-racism' – it's racism with a different colour face.

Soros and his (Twitter) storm troopers

George Soros is the name that pulls together the 'Arab Spring' with mass migration into both Europe and the United States, the cultural 'fusion' agenda and deletion of free expression to stop the first three being publicly challenged and exposed. Buying and inverting the genuine liberal left has produced the perception program known as 'progressive'. This confuses being awake with being 'woke' to use its utterly ludicrous term. Being 'woke' is defined as 'alert to injustice in society, especially racism'. Unfortunately, they are not 'woke' enough to ask themselves why a man who plays the financial markets without a care about the social impact would be spending billions to fund people claiming to be 'alert to injustice in society, especially racism'. *Wake up* (or woke up) people for goodness sake. The last thing they want is for you to truly wake up and so they park you in a perceptual siding called 'woke' and kid you they mean the same. They *don't*. 'Physical' transformation of society is being driven by *perceptual* transformation and people need to seize back control of their minds. Soros-funded and moulded 'progressive' mind programs have created the storm troopers – or Twitter storm troopers – to enforce the ultra-Zionist agenda for mass migration, fusion of cultures and silencing any opinion except its own. They employ the techniques of fascism while claiming to be 'anti-fascist' and impose the fascistic/communistic agenda of the ultra-Zionists and Hidden Hand. 'Progressives' claim to be 'anti-establishment' and yet the political and corporate elite are watching their backs and supporting

their goals. They have been manipulated to be so utterly confused they don't question why they find themselves on the same side as billionaires and giant global corporations who don't give a shit about injustice or racism. They are the up-their-own-arse mobsters enforcing the will of the elite in the form of the very societal transformation described by George Orwell and Aldous Huxley in *Nineteen-eighty-four* and *Brave New World* in the first half of the 20th century. This is the mind-set that dismisses exposure of the global agenda and 9/11 as 'conspiracy theory' and breaks into applause when 'conspiracy theorists' and their information and opinions are censored by the cabal of giant Internet corporations which increasingly control what we can see and hear. These are 'woke' people like George Monbiot, Owen Jones and Alexandria Ocasio-Cortez who are played by the system like a stringed instrument and do its bidding while claiming to be 'radical' – and actually believing they are such is the depth of their delusion. The 'progressive' mind-program cannot see in the mist of obsession with its own self-purity that its mentality is fundamentally racist in that it divides people into groups of good and bad races and backgrounds instead of seeing everyone as an individual to be perceived by their individual behaviour and not by the colour of their skin or nature of their sexuality.

Racism is not okay and that applies to racism against white people for the crime of being white as it does to everyone else – a fact this mentality cannot seem to grasp. Discrimination against gender-type is not okay and that applies to white men – *all* men – who are now condemned and suppressed from the earliest age for their 'toxic masculinity'. The Web does not want expressions of masculinity that say 'we're not taking this anymore'. It wants weak and fragile people who believe they are powerless victims who must look to the state for protection from racists, Nazis and bigots (which translated from the Orwellian largely mean other opinions and the right to an opinion). The scale of self-delusion is off the dial. They care far more about the political correctness of 'he', 'she' or 'they' than they do about people living on the street and those devastated by Neocon wars. Instead of protecting the population of *all* races and backgrounds from the impositions of billionaires this 'woke' mind stands with the billionaires as freedom disappears and ever more people that the genuine liberal left used to support fall into ever greater levels of deprivation and suppression. Virtue-signalling their own 'woke' credentials and purity is the only show in town. They call for open borders *and* an end to poverty, homelessness, unemployment and deteriorating healthcare. These are not seen as contradictions even though they quite obviously are. To the Soros 'progressive' there are no contradictions here – only demands that signal their own virtue. Look at me, I'm such a good person, look at how much I care – I want an end to poverty, homelessness, unemployment,

deteriorating healthcare *and* I want open borders so any number of people can come in. Whoopee, well done you, oh, righteous one. What they don't realise, and cannot until they regain control of their own minds, is that they are creating a tyrannical, Orwellian nightmare which they and their children will have to live with for the rest of their lives.

I am not doing what I do for me. I'll be long gone before the fully-blown mega-extremes arrive which 'progressives' are helping to make possible. I am pointing out the consequences of what they are doing for *their* sake, not mine. Already once-progressive' campaigners for open borders in Sweden have been forced to leave their former neighbourhoods because Islamic Sharia police are hassling them over the clothes they wear. The momentum of societal transformation increases at ever-faster speed once there is little resistance to earlier waves of people looking to relocate. This encourages even larger numbers to follow. Instead of bringing people together in mutual support to challenge their political, financial and satanic oppressors the 'progressive' mob plays its essential part in dividing that unity into factional divisions of self-identity victimhood – absolutely crucial for the few to control the many. 'Progressives' are the Orwellian infantry at the front-line of the gathering dystopia I have warned was planned for 30 years. It is amazing, too, to see 'progressives' with power and wealth – not least in 'entertainment' – posing as victims of society and calling for 'equality' and 'inclusivity' while bunging the system a large wad to get their kids into Harvard through money and privilege instead of merit. 'Progressive' and 'hypocrisy' are so often interchangeable. America's Democratic Party today is not the party of the 1960s and today's 'social justice warriors' are not the civil rights movement of Martin Luther King. He would weep at the violence and reverse racism of 'progressives' and their paramilitary arm known as Antifa. Soros money and the organisations this has funded and spawned is a prime driver in this usurping of the once-liberal left in the United States and this has since swept across Europe and the wider world with its mass censorship disguised as 'political correctness'; its reverse racism disguised as 'anti-racism'; and its fascistic behaviour disguised as 'antifascism'. I found it interesting that 'pipe bombs' were posted to Soros, Obama, Clinton, CNN and other 'progressive' figures in the run-up to the 2018 US mid-term elections at a time when the manipulations of Soros and the antics of the 'progressive' mobs were being exposed. The ancient question 'Cui bono?' or 'Who benefits' comes to mind. The packages, which had no chance of ever reaching the big names, were immediately blamed on those calling out Soros and company.

Breathtaking bias

Those with any capacity for free thought and observation will have long

noted that attacks on white Europeans and the Christian religion are no problem and laws and limits set by political correctness don't apply. The same happens in North America, Australia and New Zealand. Incoming migrants are a no-go area for criticism almost no matter what some may say or do and their religion of Islam is protected by law from adverse comment as is Zionism. CNN soul-for-sale Don Lemon said on air that the biggest terrorist threat was white men and that was fine because it supported the agenda of demonising white people and especially men and masculinity. Change 'white men' in what he said to 'black men' or 'Muslim/Jewish men' and he would have had to resign amid a hate-fuelled Twitter storm. The bias is systematic to allow this transformation to take place without open debate that would expose what is really going on and how both migrants and indigenous populations are pawns in the same game. We passed another Rubicon in Europe in 2018 when the Hidden Hand European Court of Human Rights ruled that a person's 'religious feelings' are more important than freedom of speech. This in effect brought back the law of blasphemy to Europe with regard to Islam (you can say what you like about Christianity). The Court of Human Rights ruling was made in the case of an Austrian woman who was convicted and fined in her own country for comparing the Prophet Mohammed to a paedophile on the grounds that many Muslims believe from their texts that he married a six-year-old child and consummated the marriage when she was aged nine. Whatever the historical background the correlation would obviously be correct, if true, by modern standards; but the woman's appeal to the human rights court was dismissed for the said reason that free speech is less important than someone's religious feelings. The ruling is clearly ridiculous and very, very dangerous in a society that in any way considers itself to be free. I don't follow any religion. I think all religion is a form of fundamental perceptual myopia, but when someone's chosen religious beliefs (which could be anything) cannot be criticised in case it hurts their feelings we are truly in the land of fascism and tyranny. If your religion has validly it will survive any criticism. Only when it does not have validity or the strength to be questioned does it require censorship. Why can't people reach a state of maturity where they believe what they do and allow others to believe something else? Muslims and their religion are being exploited in two main ways. A manufactured version of extreme Islam has been created via Saudi Arabia and its sponsors Britain and America which is used to demonise *all* Muslims and have them play the role of the Big Bad Terrorist Monster to justify wars of conquest and regime change. I will be explaining the origin of this extreme form of alleged Islam and it puts modern events into a very different context. The other front to exploit Islam is based on mass migration into Europe – with political correctness and 'hate laws' watching its back – to destroy long

fought-for freedoms like the right to free speech and opinion. What can safely be said about Islam is that it does not encourage free speech especially in relation to Islam. Okay, that's their right to do that and the right of the followers to submit to that. When those same restrictions begin to be applied to the non-Muslim population – as they increasingly are – the entire foundations of the indigenous society are transformed and dismantled and that is what is happening. This long-planned process is fast gathering pace and the time for silence is over. Political correctness is simply manipulating the target population to censor itself. Once people's feelings or what 'offends' them overrides freedom of speech then freedom of speech is over, finished, caput, because you will always find someone, somewhere, to be offended about *anything*. The pressure to be offended for ever-increasing reasons is again systematically deleting freedom of speech by providing a consequently ever-increasing list of things you can't say and opinions you can't have because someone, somewhere, takes offence. The equation is: the more offence, the less freedom. I have heard it said that you know who controls you by who you can't criticise, but there is another way – by who you can't laugh at. Try telling a transgender joke in public and when was the last time you heard a joke about Israel or Jewishness? Jokes about white males? Oh, that's okay, say whatever you like. Comedy has been destroyed by political correctness in the 'progressive' purge on human freedom with comedians even asked to sign a contract agreeing not to upset anyone. But that is comedy's power and its greatest contribution to human discourse – freeing people from the prison of their own backside.

Alinsky's blueprint

We have ultra-Zionists funding 'progressives' *and* the far right which 'progressives' spend their lives condemning. Soros-funded 'progressives' might look just a little deeper and see that while Soros, the man dubbed 'Godfather of the Left', is controlling and directing the anti-Trump mob on one side the ultra-Zionist casino and Israel media magnate Sheldon Adelson, who describes himself as 'the richest Jew in the world', has been the biggest financial donor to Trump. If you want to control the outcome before the game starts then you need to control both sides and the referee. This is how the Hidden Hand works. On one side Soros has hijacked the Democratic Party and created an unthinking, unquestioning, unseeing and constantly-incandescent mob calling itself 'progressive'. On the other Adelson owns the Republicans and Trump who is surrounded by ultra-Zionists like son-in-law and 'senior advisor' Jared Kushner, a life-long friend of Benjamin Netanyahu; David Freidman, his bankruptcy lawyer who is ambassador to Israel (for Israel); Jason Greenblatt, former Trump company operative who is now

his international negotiator; Steve Mnuchin, his Treasury Secretary from Goldman Sachs ... on and on and on it goes. I say that if you take one step further back into the shadows Soros and Adelson are batting for the same side. They have worked together to create a situation of catastrophic division (divide and rule) with the extreme far right acting like fascists while 'anti-fascists' like 'progressive'Antifa also act like fascists. Trump was brought to power by the ultra-Zionists in line with the philosophy and rules of manipulation of Zionist Marxist Saul Alinsky (1909-1972), the godfather of 'community organising' (manipulating). He wrote the book *Rules for Radicals* published in 1971 giving a nod to Lucifer as the 'first radical' and among his rules for overthrowing the established order was to focus upon a 'common enemy'. Once the enemy figure was established the 'community' would come together in united opposition and put aside differences to focus on a common goal. This is a major reason why ultra-Zionists and the Death Cult brought Donald Trump to power – to play the role of common enemy for the 'progressive' fake left. My goodness how effective this has been to transform the 'left' and the Democratic Party into a hysterical mob with one thought in mind: hate Trump and oppose Trump. Talk about polarisation. The mob is being directed by closet ultra-Zionist George Soros while open ultra-Zionists surround Trump. The pincer movement is classic Marxism and classic Alinsky who said:

> Pick the target, freeze it, personalize it, polarize it. Don't try to attack abstract corporations or bureaucracies. Identify a responsible individual. Ignore attempts to shift or spread the blame.

Alinsky's book urged his followers to 'rub raw the sores of discontent, galvanize them for radical social change'. What this really means is exploit discontent of the masses to overthrow the established order to create a structure of centralised control that will lead to permanent discontent and oppression. He wrote:

> We'll start with specific issues – taxes, jobs, consumer problems, pollution – and from there move on to the larger issues: pollution in the Pentagon and the Congress and the board rooms of the mega-corporations. Once you organize people, they'll keep advancing from issue to issue toward the ultimate objective: people power.

This is the same 'people power' Marxism that always leads to structural control by the elite few and the crushing of all opposition that has led to a death toll in excess of 100 million in its cumulative expressions. Soros-supported Hillary Clinton is an Alinsky disciple and wrote a thesis on him. Democratic House Speaker Nancy Pelosi was

another student and so is Barak Obama who emerged into politics after working as a 'community organiser' in Alinsky's city of Chicago. Alinsky's methods and tactics can be seen all over the 'progressive' mob today and not least with his rule that 'the issue is never the issue'. For example, 'climate change' is not the issue. Using the hoax of climate change to secure power is the issue. I am all for changing society for the better to make it fairer, more inclusive and just. I have been pursuing that for 30 years by exposing why the world is as it is. But overthrowing the establishment order is not enough. It has to be replaced with something better not worse. The Cabal must be in hysterics as they observe their creation that the pincer movement on Trump has delivered. Israel gets whatever it wants while at the same time America and other societies are divided by mutual hostility. Perfect.

Ultra-Zionism and the far right

Why is it that so many dubbed as 'far right' are enthusiastic critics of Muslims while being ardent supporters of Israel? This is a clear pattern. With what should be extraordinary irony Israeli governments, military intelligence and their apologists have a long and disgraceful record of supporting far right regimes – including apartheid South Africa. I guess they want to be among friends. Jair Bolsonaro, the far right president of Brazil elected in 2018, is a fanatical supporter of Israel's far right government. The Jewish Telegraphic Agency reported how Bolsonaro declared 'my heart is green, yellow, blue and white' in reference to the Israeli and Brazilian flags. His sons have been photographed wearing shirts with the logos of Mossad and Israeli Defense Forces. 'Bolsonaro stood out among the many candidates for including the State of Israel in the major speeches he made during the campaign,' said Osias Wurman, Israel's honorary consul in Rio de Janeiro. 'He is a lover of the people and the State of Israel.' His far right view of the world did not appear to matter so long as he would bat for Israel. This would explain the response to Bolsonaro's election by Trump National Security Advisor John Bolton, the ultra-Zionist tea-maker who is a 'confidant' (lackey) of ultra-Zionist Trump-funder Sheldon Adelson. Bolton welcomed the result and called Bolsonaro 'like-minded' which at least has the benefit of being accurate. Jerry Iannelli wrote in the *Miami New Times*:

> John Bolton just came to Miami's Freedom Tower and gave a speech praising Jair Bolsonaro, the wannabe Brazilian neo-fascist who wants to bring back the country's dictatorship, torture people, and kill dissidents. Bolsonaro has repeatedly compared indigenous tribespeople to animals living in zoos.

This can be explained by the ultra-Zionist/United States wing of the Hidden Hand moving in on South America to remove any government

that doesn't dance to their tune and bow to their will. The attempted American coup in Venezuela, overseen by Trump-appointed Eliott Abrams, a far-right ultra-Zionist Neocon from the Project for the New American Century, is part of this strategy and connects with the installation of Bolsonaro in Brazil. Steve Bannon, Trump's one-time chief White House strategist, is condemned as a far right racist by the 'progressive' left, but he's an Israel fanatic and the admiration would appear to be mutual. Bannon told a Zionist Organisation of America event:

> I am proud to stand with the State of Israel, that's why I am proud to be a Christian Zionist, that's why I am proud to be a partner to one of the greatest nations on earth and the foundation of the Judaeo-Christian West.

It's okay, Steve, you can get off your knees now and put your tongue back in. Bannon's *Brietbart News* is considered a pillar of the so-called Alt-Right and was conceived by conservative commentator Andrew Breitbart during a visit to Israel. British 'working class hero' Tommy Robinson is another example of someone considered far right who is promoting Israel and being promoted himself by ultra-Zionists like American tech billionaire Robert Shillman who serves on the boards of the ultra-Zionist Friends of the Israel Defense Forces, Jewish Foundation for the Righteous, and David Horowitz Freedom Center. Robinson was invited to speak in the United States by the far right and vehemently pro-Israel David Horowitz Freedom Center and Middle East Forum. The latter, established by ultra-Zionist Neocon and war on terror advocate Daniel Pipes in 1990, has paid Robinson's legal bills and those of Dutch politician Geert Wilders who is labelled far right by his 'progressive' critics. Robinson is just a stooge being strung along so the Death Cult can take over the nationalist movements and play them off against the Muslim community and 'progressives'. They will drop him like a stone when he is surplus to requirements. The Middle East Forum is supported by ultra-Zionist Nina Rosenwald, heiress to the Sears Roebuck fortune, who was described by one headline in *The Nation* as 'the sugar mama of anti-Muslim hate' [for] 'using her millions to cement the alliance between the pro-Israel lobby and the Islamophobia fringe'. Rosenwald was on the board of notorious ultra-Zionist lobby group AIPAC and is founder and president of the Gatestone Institute, a New York-based think-tank which has supported Geert Wilders. Trump National Security Advisor John Bolton was Gatestone chairman from 2013 to March 2018 and he was awarded the Defender of Israel Award at the 2018 Zionist Organization of America's annual Brandeis Award dinner where Tommy Robinson supporter Robert Shillman was another award recipient. Daniel Pipes founded Campus Watch in 2002 to harass,

blacklist and intimidate academics who criticise Israel. British journalist and Middle East specialist Robert Fisk wrote:

> Daniel Pipes and Martin Kramer of the Middle East Forum now run a website in the United States to denounce academics who are deemed to have shown 'hatred of Israel'. One of the eight professors already on this contemptible McCarthyite list – it is grotesquely called 'Campus Watch' – committed the unpardonable sin of signing a petition in support of the Palestinian scholar Edward Said. Pipes wants students to inform on professors who are guilty of 'campus anti-Semitism'.

I will expose the astonishing scale of ultra-Zionist censorship in the next chapter. It's no good anyone screaming 'racist' at what I have written here. I think labels of race, religion, income bracket and all the rest are illusory diversions from the true 'I' which is simply consciousness – the same consciousness having different experiences. I say we are a state of awareness and a point of attention within an *infinite* state of awareness of which we are all a part no matter what transitory labels we may be given or give ourselves – man, woman, black, white, Muslim, Jew, Christian, whatever. The body is only a temporary vehicle for our point of awareness to experience this frequency band of reality and the body is illusory in terms of self-identity. Who is more obsessed with race than progressives, 'anti-racists' and the 'anti-Semitism' industry? All they see is race while I see the same consciousness having different experiences through different vehicles. Anyway – all cultures are in the gun-sights of these crazies. Muslim and Arabic people from the south are being exploited to change Europe with countries like Sweden and Germany in the forefront while the Latino population of Central and South America is being used to change the United States. Campaigns of anti-white reverse racism are all part of this in the targeted predominately white countries and so is the psychological manipulation to instil even in white people shame of their own culture. The Hidden Hand doesn't care *what* culture you are so long as you are eventually absorbed into its culture – or lack of one. Exposure of this and everything else the Hidden Hand wants to keep quiet is now in the gun-sights of ultra-Zionist and other censorship that becomes more extreme by the day. Soros money, you will not be shocked to know, has found its way into organisations specialising in censorship and 'fact-checking' which, in this context, is just another term for censorship.

This book has 9/11 as a central theme and I will be returning to that in detail before I close, but 9/11 did not happen in isolation and cannot be fully understood if we only see it that way. There is a lot more background to know before we can put the September 11th attacks in their true context.

CHAPTER 18

Thou shalt not speak its name

I have come to believe over and over again that what is most important to me must be spoken, made verbal and shared, even at the risk of having it bruised or misunderstood – Audre Lorde

It may seem in the next few chapters that I am moving away from the central theme of 9/11, but I'm not. I need to lay out a lot of background information before I return directly to the *real* perpetrators in the context of exactly who and exactly why.

The attacks did not happen in isolation. They were part of a global plot by the Death Cult so vast and so deep it almost defies the imagination. I am going to expose in this chapter the network operating mostly from the shadows that prevents ultra-Zionist involvement in 9/11 and so much more from being exposed and why even seasoned researchers are terrified of going there. Appreciating the scale of ultra-Zionist and Death Cult control and censorship is essential to understanding how what I will be revealing in the rest of the book – including in relation to 9/11 – has never come to mainstream public attention.

Silencing the truth-tellers

Ultra-Zionism has created a vast money-no-object global structure of hate groups – mostly focussed in the West – to weaponise the label 'anti-Semitism' as a means of silencing critics of the far right government in Israel and its global manipulations orchestrated through its satanic military intelligence arm Mossad and the Death Cult in general. I say 'hate groups' because their modus operandi is to make people hate their targets by accusing them of 'anti-Semitism', 'hate speech' (another irony), 'bigotry' and by generally screaming 'Nazi' in all directions. Another regular is 'Holocaust denier' for those that they *really* want to be hated, silenced and crushed. They've thrown the lot at me when I don't have a racist cell in my body and the very concept of racism goes against my entire philosophy and perception of life. Judging anyone by

their body-type or genetic history is utterly ridiculous and childlike to me. I am still dubbed 'anti-Semitic' by ultra-Zionist hate groups in an attempt to silence and discredit me when those groups are themselves consumed by race and self-identity with race. I form my opinions by what people do, not what their temporary, illusory body-vehicle might be. To be called racist by racists is a sight to behold. Not that I give a shit, but it shows how ultra-Zionists play the 'anti-Semitic' card at absolutely anyone who challenges their behaviour. The game is not about exposing 'racists' and 'anti-Semites' – it's about silencing people with information they are desperate for the public not to see. Exploiting the horrors of what happened to Jewish people in Nazi Germany to advance their own agenda of censorship today turns my stomach. I find it absolutely disgusting and an insult to those who suffered under Nazi fascism. The same scam to silence criticism was played by the Hidden Hand's Muslim Brotherhood when its front operation, the America-based International Institute for Islamic Thought, coined the term 'Islamophobia'. Abdur-Rahman Muhammad was with the organisation when the label of abuse was created and later rejected its ideology. He confirms that 'Islamophobia' was coined specifically to silence critics by dubbing them racist: 'This loathsome term is nothing more than a thought-terminating cliché conceived in the bowels of Muslim think tanks for the purpose of beating down critics.' This is the same modus operandi of the 'anti-Semitism' industry.

Ultra-Zionism and the Death Cult hide behind the Jewish population and pedalled misrepresentations of history and motivation that are so outrageous and factually incorrect that only fierce and incessant censorship can protect them from exposure. They not only have to keep the truth from the non-Jewish population. Most importantly of all they must keep it from the great majority of Jews who either support 'mainstream' Zionism (not knowing what's really behind it) or vehemently oppose Zionism in any form. *What – not all Jewish people are Zionists??* No, far from it, and only a relatively few are the extreme ultra-Zionists directly involved with the American Hidden Hand 'elite' over 9/11 who I will focus upon later. 'Zionism' is not a race; it's a political philosophy and standpoint which is opposed by many Jews. The number of Jewish people in the world, lest we forget, is around 16 million out of more than 7.7 *billion* and that means Jewish people represent just *0.2 percent* of the world population. They represent only two percent of the population of the United States where, together with Israel, most Jews are resident. Those two countries account for 83% of the Jewish population with 98 countries hosting the other 17 percent. Most of the 16 million would consider themselves supporters of Zionism in the dictionary definition of 'a movement for (originally) the re-establishment and (now) the development and protection of a Jewish

nation in what is now Israel'. We also have the significant number of Jews who reject Zionism altogether and that leaves us with the ultra-Zionists that represent a small minority even of just 16 million or 0.2 percent of Jewish people worldwide – and the full- blown Death Cult initiates are even fewer than that. We are looking at tiny numbers of those knowingly manipulating events with fantastic comparative influence and power.

Designer language

Even the use of the term 'anti-Semitic' is fraudulent because Semitic refers to a series of language groups in the Middle East which are almost entirely *Arabic*. Current figures for the main native Semitic speakers are Arabic (400 million), Amharic (22 million), Tigrinya (7 million), Hebrew (5 million), Tigre (1.05 million), Aramaic (575,000 to a million) and Maltese (482,880). Yiddish, another Jewish language, is not Semitic. Yiddish is Germanic and related to Bavarian and other sources. To be 'anti- Semitic' in its true definition you have to exhibit discrimination and hatred towards an estimated 500 million Semitic speakers across a range of cultures and racial types throughout the Middle East, North Africa and the Horn of Africa. To isolate the term only to Hebrew speakers (and the many Jewish people who don't speak Hebrew) is a gross misrepresentation of the term. There is an obvious reason why this has been done. Without the label 'anti-Semitism' you are left only with the all-encompassing term of 'racism' which applies to everyone. This doesn't work for ultra-Zionists who want to justify special protection beyond what is afforded to other groups and 'anti-Semitism' was hijacked and applied exclusively to those who are Jewish. The term only came into use in the second half of the 19th century and had its origins in Germany. Ultra-Zionism has so much to hide that this added unique protection from exposure is essential. Special laws that only apply to this term opened the way to unique interpretation and ongoing expansion of the definition which now includes criticism of the government of Israel. The term 'racism' used for the rest of the human family would allow no such special treatment and protection by law. If you are exposing the governments of Nigeria or Uganda are you by definition considered to be racist against all black people? What about if you condemn some mass-murdering African, Far-Eastern or South American dictator – is that racist against all those populations and racial types? No, of course not. That would be considered madness. So why does this happen in the Jewish or Zionist context where criticism of one is interpreted as an attack on all? The answer is that we a dealing with a racket and a scam.

By hijacking the label 'anti-Semitic' and applying that exclusively to Jewish people you create an isolation of meaning which allows an interpretation way beyond racism and takes you into the realm of

silencing *political* critics. This in itself is a grotesque exploitation in my view of those Jewish people that *do* suffer genuine discrimination. The artist known as 'Banksy' produced a poster protesting at illegal Israeli occupation of Palestine and this couldn't be respected as someone expressing their basic human right to an opinion. Israeli billionaire's wife Batia Ofer condemned the picture as 'anti-Semitic' (Fig 97). Yep, I understand. How I share the pain of oppression that must have been felt by Mrs Ofer and her billionaire husband Idan Ofer, his father Sammy Ofer, one of the wealthiest men in Israel, and Monaco-based billionaire brother, Eyal Ofer. An artist publishing a poster highlighting the plight of a truly oppressed people must have been devastating between the caviar course and the champagne. If the label 'anti-Semite' was really about racism then Jewish people wouldn't be condemned as 'anti-Semites' by the ultra-Zionists when they challenge the actions of the Israeli government and the ultra-Zionist agenda. How can a Jew be an 'anti-Semite' under the accepted definition when they are, er, *Jewish?* This is obviously contradictory nonsense and the term is not about protecting Jewish people from 'racism' and discrimination; it's about protecting the ultra-Zionist and Death Cult cabal from exposure and the government of Israel from criticism. Jewish people who challenge them are therefore attacked even more ferociously than anyone else because although they may try the 'anti-Semite' approach it is clearly going to be far less credible than with non-Jews. You are not allowed a contrary opinion even if – actually *especially* if – you are Jewish. RT America journalist Dan Cohen is but one example. Cohen posted a tweet about the Associated Press 'whitewashing Israel's crimes' which included the shooting of an AP journalist covering Gaza. He received a message from the Israeli consulate in Boston calling him a 'disgrace to Americans and Jews everywhere'. Cohen tweeted:

Figure 97: This Banksy poster was branded 'anti-Semitic', but then what isn't these days?

> I received this creepy and menacing direct message from *@IsraelinBoston*. Apparently the consulate uses its official account to monitor and harass journalists, especially Jewish ones.

Here we have the theme – 'especially Jewish ones'. We are looking at the exploitation of Jewish people by those who use them as an excuse to silence legitimate criticism and exposure. 'Self-hater' is another label of abuse employed by ultra-Zionism to target Jewish people who condemn the inhumane-beyond-belief treatment of Palestinians since their land was seized by ultra-Zionists in a frenzy of murder and terrorism in 1948. This disgusting abuse of 'dissident' Jews is the work of self-proclaimed 'protectors of Jewish people'. Jews – and the rest of us come to that – might benefit from the words of Greek philosopher Plato: 'This and no other is the root from which a tyrant springs; when he first appears he is a protector.' The real protection here is aimed at ultra-Zionism.

The Protection Racket

The dictionary definition of 'anti-Semitism' is basically hatred, hostility or prejudice against Jewish people because they are Jewish. I don't accept the meaning of anti-Semitism there for reasons I have explained, but the rest is fair enough. The trouble is that's far from fair enough or far enough when you want to weaponise the slur as the means to protect your activities from investigation and exposure – investigation based on your behaviour and not your cultural background. To secure such protection you must link all criticism to cultural background and perceived 'race' and this is why we constantly see the expansion of what is defined as 'anti-Semitic'. The more you extend the meaning the more critics you can target with your 'unclean, unclean' labelling. 'You are only saying that about Netanyahu because you're an anti-Semite.' No, because he's a psychopath – no cultural connection necessary. This technique was perfectly described by Shulamit Aloni, a former Israeli minister and peace activist, when she told an American alternative television show about the way ultra-Zionists use 'anti-Semitism' and 'the Holocaust' to silence critics:

> It's a trick. We always use it. When from Europe someone is criticising Israel then we bring up the Holocaust. When people in this country are criticising Israel then they are anti-Semitic. The organisation is strong and has a lot of money and the ties between Jews and America – the Jewish establishment – they are strong in this country, they have power ... they are talented people and they have power, money, media and other things, and their attitude is Israel, my country, right or wrong ...
>
> ... They are not ready to hear criticism, and it is very easy to blame people who criticise certain acts of the Israeli government as anti-Semitic and to bring out the Holocaust and the suffering of the Jewish people, and that justifies everything we do to the Palestinians.

Imagine the psychopathic callousness required to exploit what happened to Jewish people in Nazi Germany to advance your political agenda today – *shocking*. We have an 'anti-Semitism' industry running a protection racket to protect ultra-Zionism, the Death Cult and Israel from criticism and exposing its manipulations and behaviour to open public debate. The 'trick' that Aloni described has been expanded with a new definition of 'anti-Semitism' which is outrageously broad and wide-ranging and was compiled simply to increase the number of critics and investigators who could be given 'the label' and silenced. The wording was accepted in 2016 by the 'International Holocaust Remembrance Alliance' (IHRA) thanks it would appear to Mark Weitzman of the Simon Wiesenthal Center, 'an international Jewish human rights organization'. Oh, unbiased then. The definition has since been adopted by a gathering number of organisations and governments including those of the UK, Scotland, Germany, Austria, Lithuania, Romania, Bulgaria, Macedonia and the European Union. The 'trick' here is to say that because most Jewish people associate their identity with Israel any criticism of the actions of Israel is attacking their Jewish identity and is thus 'anti-Semitic'. This is complete baloney and so much so it provides confirmation that the 'new definition' is merely about helping ultra-Zionists, the Death Cult and the Israeli government resist exposure. US attorney Kenneth Stern of the American Jewish Committee against Anti-Semitism, who was involved in the original draft before it was hijacked, told a congressional hearing in 2017:

> The definition was drafted to make it easier for data collectors to know what to put in their reports and what to reject ... because the definition was drafted with data collectors utmost in mind, it also gave examples of information to include regarding Israel ... The definition was not drafted, and was never intended, as a tool to target or chill speech.

Stern has strongly condemned the misuse of the definition in ways he describes as 'McCarthy-like'. To ultra-Zionists, however, it was a Heaven-sent chance to silence opposition to the behaviour of the far-right Israeli government and some have even demanded that people be targeted for 'anti-Semitism' under the new and outrageously-wide definition for articles they wrote years before it was adopted. A hysterical campaign orchestrated by ultra-Zionists and the lap-dog media was waged against the UK opposition Labour Party for weeks in 2018 to pressure them into accepting this definition by condemning the leader Jeremy Corbyn and the party hierarchy as 'anti-Semitic'. Jewish Labour MPs were activated to play the victim as part of the propaganda and add to the pressure on Corbyn to concede to ultra-Zionist demands.

We had extraordinary stupidity at the height of the hysteria when black Labour *anti-racist activist* Marc Wadsworth was expelled from the party for allegedly accusing Jewish Labour MP Ruth Smeeth of working with the *Daily Telegraph* newspaper to undermine the party over 'anti-Semitism' allegations. Wadsworth was, in effect, expelled for making 'anti-Semitic' remarks to Smeeth and bringing the party into 'disrepute' – impossible surely after this decision. But wait. Wadsworth didn't mention anything about Jews or even Israel and says he didn't even know Smeeth was Jewish. How could this be 'anti-Semitic'? *Ahhh* ... Smeeth claimed that Wadsworth connecting her to the *Daily Telegraph* was a 'traditional anti-Semitic slur to attack me for being part of a "media conspiracy."' These are the depths to which we have sunk in the desperation to block all exposure and criticism of ultra-Zionist extremism or any Jewish person supporting Israel. I got a feel for what it must be like now in the Labour Party when I posted a story on Twitter from a political website that was challenging what it called the witch-hunt in the party based on fraudulent claims of 'anti-Semitism'. I included a meme with a picture of Jewish Labour MP Luciana Berger, one of the big promotors of 'anti-Semitic' Labour, which simply said: 'This is the Labour Party, Ms Berger, not Likud.' To say the reaction was over-the-top is rather understating the case. Berger called me 'dangerous', reported me to Twitter for 'anti-Semitism', and a stream of tweet replies expressed sympathy for how she must be feeling and urging her to 'stay strong'. If in doubt play the victim card. Dr Alex Scott-Samuel, a *Jewish* chair of Berger's local Labour Party branch, was dubbed an anti-Semite (yes, really) for supporting two motions of no confidence against her over her constant attacks on leader Jeremy Corbyn for 'anti-Semitism'. The move could not have been a genuine attempt by party members to express discontent at her behaviour – it *had* to be anti-Semitism even though the man himself is Jewish. This is how the Protection Racket works.

The absolute desperation The Racket has with discrediting me was confirmed in the UK *Jewish Chronicle* edited by a bloke called Jonathan Pollard who once wrote an article condemning political correctness attacks on freedom of speech. I contacted him to support his view and asked him to confirm that he would now condemn all attempts by Zionist groups to have people's public events banned. He didn't reply. The *Chronicle* ran an article attacking the *Jewish* Dr Scott-Samuel for his appearances on a radio show that was once broadcast through Davidicke.com. Oh, he *has* to be an 'anti-Semite', then. The story included the claim that I say Jews are reptiles. The more desperate they get the more extreme and insane the claims. There was a hilarious interview at the peak of one period of attacks on the Labour Party when Simon Johnson, Chief Executive of the Jewish Leadership Council,

commented in the usual soft-ball television interview that three Jewish papers, the *Jewish Chronicle, Jewish News* and *Jewish Telegraph* all ran the same headline – 'United We Stand' – and the same Labour-bashing editorial. Johnson said: 'It is unprecedented for three community newspapers to have the same headline, the same story, the same editorial.' So it wasn't carefully coordinated or anything as part of the ultra-Zionist campaign to destroy Jeremy Corbyn and force the Labour Party to adopt the coldly, calculated new definition of 'anti-Semitism'? You may think the British people are all idiots, Mr Johnson, but we're not. Medialens.org published a study of newspaper articles using the terms 'Jeremy Corbyn' and 'anti-Semitism' before and after May 1st, 2015. Before that date during 30 years as a Member of Parliament the number was 18. Since that date in the period he became Labour leader the number was: 11,251. Why? Corbyn was one of the few remaining British politicians who would criticise Israel and his new platform as leader meant he had to be silenced. Unfortunately, he has largely allowed himself to be – another glorious victory for The Racket. Twelve Holocaust survivors sent an open letter to *The Sunday Times* contending that Jeremy Corbyn had 'bent over backwards to help Jews' and that '[We] do not believe that any prejudice against or hostility towards Jews is being perpetuated by Labour.' This was a response to the UK Equality and Human Rights Commission announcing it would investigate the Labour Party's approach to anti-Semitism (bowing to ultra-Zionist pressure). The letter said media attention on the Labour Party in general, and on Corbyn in particular, was being generated by anti-Labour and anti-Corbyn mischief makers, 'who unfortunately are over-represented within the so-called Anglo-Jewish leadership' which was not considered legitimate by 'mainstream Charedi Jews'. Once again we see how ultra-Zionist groups set themselves up as the voice of Jewish people when they are not. We should also be aware of the fantastic army of trolls employed by Israel both to support its ambitions and to post anti-Jewish attacks which can be used as evidence of 'growing anti-Semitism'. The Electronic Intifada website highlighted ten Twitter accounts claiming to be Corbyn supporters posting anti-Jewish abuse that 'share sufficient similarities to indicate that the same person – or group – is running them'. The Protection Racket has absolutely no shame or integrity and only the naïve would dismiss that such fakery posting goes on all the time. By the way, Electronic Intifada reporter, Asa Winstanley, a member of the Labour Party, was suspended in March, 2019, for comments he made on Israel and Zionism. News of his suspension was leaked by the ultra-Zionist *Jewish Chronicle* before Winstanley even heard about it. Labour Party R.I.P.

New definition of 'anti-Semitism' silencing dissent

A Labour Party leadership that would bend the knee to the 'anti-Semite' garbage about anti-racist activist Marc Wadsworth and Asa Winstanley couldn't possibly summon the backbone necessary to resist the ultra-Zionist onslaught. They should have stood firm and made it clear that this ultra-Zionist hate campaign was not about racism in the party, but about power *over* the party which still had people among its number prepared to criticise Israel. Labour's backbone turned to jelly and to mix my metaphors the hierarchy wagged its tail, rolled over, stuck its legs in the air, and accepted the expanded definition. Labour-connected group Jewish Voice for Peace and many other Jewish groups said they were appalled at the new definition and the campaign against the Labour Party. This mattered not a jot. They were the *wrong kind* of Jewish people with the *wrong kind* of opinions. Whether you are Jewish or not is irrelevant because it's irrelevant to ultra-Zionists. Agree to what we want or face dismissal and abuse – even more so if you're Jewish. Other UK political parties, the US Republicans and Democrats and so many others in Europe and Australia simply fall to their knees and hang out their tongue when ultra-Zionists come a-calling. This is the foundation statement in the new and expanded definition of 'anti-Semitism':

> Antisemitism is a certain perception of Jews, which may be expressed as hatred toward Jews. Rhetorical and physical manifestations of antisemitism are directed toward Jewish or non-Jewish individuals and/or their property, toward Jewish community institutions and religious facilities.

Okay, what's wrong with that? Well, on the face of it nothing if you ignore the vagueness and misuse of 'anti-Semitism'. The Devil is in the detail in the form of 'examples' given for what that definition means and how it should be applied and interpreted. Here they are:

> Contemporary examples of antisemitism in public life, the media, schools, the workplace, and in the religious sphere could, taking into account the overall context, include, but are not limited to:
>
> Calling for, aiding, or justifying the killing or harming of Jews in the name of a radical ideology or an extremist view of religion.

Fair enough. Does that work in reverse when ultra-Zionist extremists call for the killing of Palestinians? No.

> Making mendacious, dehumanizing, demonizing, or stereotypical allegations about Jews as such or the power of Jews as collective - such as, especially but not exclusively, the myth about a world Jewish conspiracy or of Jews

> controlling the media, economy, government or other societal institutions.

This is a classic protection clause to stop any investigation and exposure of ultra-Zionist extremism. You have seen a blatant ultra-Zionist conspiracy – not 'Jewish', ultra-Zionist – to manipulate the United States into targeting the list of countries compiled by the ultra-Zionist Project for the New American Century a year before September 11th. You have seen evidence already and you are going to see a great deal more before the end of this book with regard to ultra-Zionist and Death Cult involvement in 9/11. However, under this 'example' such exposure would be 'anti-Semitic' and 'stereotyping'. The little matter of it being true is irrelevant to the definition and this is simply a calculated effort to secure protection from investigation by hiding behind the smokescreen of 'anti- Semitism'. I know we're doing it but you can't say we're doing it because that would be 'anti-Semitic'.

> Accusing Jews as a people of being responsible for real or imagined wrongdoing committed by a single Jewish person or group, or even for acts committed by non-Jews.

Fair enough again. I am certainly not doing that and I have always made it clear that I am talking about a tiny group of ultra-Zionists, not Jewish people as a whole who I have said largely have no idea what is being done in their name. This is another important point – 'in their name'. Jewish people in general have often been collectively condemned for the actions of the ultra-Zionist few and paid the price while the few responsible do not. No one needs to understand this more than Jewish people as a collective. The other point with this 'example' is that when individual Jewish people such as George Soros are exposed for their provable manipulations the exposer is immediately accused of being 'anti- Semitic' both against the individual and Jews in general. They use the example one way but then reverse it to stop criticism or exposure of any Jewish person they want to protect. The 'example' is another expression of the Protection Racket.

> Denying the fact, scope, mechanisms (e.g. gas chambers) or intentionality of the genocide of the Jewish people at the hands of National Socialist Germany and its supporters and accomplices during World War II (the Holocaust).

What happened to so many Jewish people in Nazi Germany was unspeakable and almost unimaginable. I wonder if it is really sensible and sensitive to commemorate victims of a Nazi tyranny that jailed or murdered people for their views and opinions to now jail, assassinate the character and destroy the lives of those asking questions about an

historical happening and not accepting every last syllable of official history. Would it not be a far better tribute to the memory of Nazi victims for us to live in a society where questions can be asked and facts and evidence produced to prove a point rather than sending 'non-believers' to a jail cell or a life of mass condemnation? Wouldn't that be a world those who suffered in the concentration camps would like to see as a contrast to the actions and behaviour of their captures and killers? Does it really serve the memory of those people and what they went through to jail grandmothers for not accepting an historical narrative? Or is what is really happening here a case of weaponising the suffering of Jews in Germany to secure a political agenda today? I can't think of anything more cold and evil, but *isn't it?* I have been interviewed about this by software minds in the media and they insist – as the ultra-Zionists do – that you agree with every last strand of the official narrative or you are a Nazi bigot and 'Holocaust denier'. It has to be six million – don't you dare question if it was a single digit less. What a stomach-turning insult to those who were in the concentration camps as opposed to those exploiting them today who were not. You can call what happened unspeakable or a 'catastrophe' – Jews themselves call it the Shoah or 'calamity' – but none of this is even nearly enough. You must agree with the exactly designated figure or you are an anti-Semitic Nazi. One idiot on a Channel 10 morning show in Australia talked to me about *twelve million*. I can see why he got the job. Are you an idiot? Yes. When can you start?

The term 'holocaust' comes from the Greek 'holos' meaning 'completely' and 'kaustos' or 'sacrificial offering' and had been used to refer to destruction by fire. 'Holocaust' came into widespread use to describe events in German concentration camps after the 1978 TV film, *Holocaust*, starring Meryl Streep. Holocaust museums and memorials are still being built around the world with a new one planned for Victoria Tower Gardens in London next to the Houses of Parliament. Royal Parks rejected the idea on the grounds that it would 'dominate the park and eclipse the existing listed memorials which are nationally important in their own right'. UNESCO's International Council on Monuments and Sites agreed but the campaign to build the memorial continues as I write with all living UK prime ministers voicing support. A bill was introduced in the US House of Representatives in 2019 to 'finance grants to public and private middle and high schools to help teachers develop and improve Holocaust education programs'. The Never Again Education Act was deemed to be necessary by Zionist advocacy groups, including the Center for Jewish History in New York, in the light of 'reports of a rise in anti-Semitism and a decline in awareness of the Holocaust'. Democrat Carolyn Maloney, the bill's sponsor, said: 'Anti-Semitism is on the rise around the world and here at home, and the

memory of the Holocaust is fading for far too many Americans – we can combat this by making sure we teach our students, tomorrow's leaders, about the horrors of the Holocaust.' Okay, but why is it fine to do this while it's a crime to ask a single question about the subject that in any way fails to accept that every word of what is presented in the museums and education programmes is 100 percent correct?

> Accusing the Jews as a people, or Israel as a state, of inventing or exaggerating the Holocaust.

Why would that be a problem? Surely in a civilised society you simply produce the evidence and proof that other arguments are misguided and wrong and the debate is over and won? Isn't this what a mature and free society does? If someone claimed that the millions killed by Pol Pot in Cambodia (close to 25 percent of the country's 1975 population) was an exaggeration would that mean they were racist against all Cambodians? Or that they were by definition far right Nazi bigots?

> Accusing Jewish citizens of being more loyal to Israel, or to the alleged priorities of Jews worldwide, than to the interests of their own nations.

This is the technique again of using the many to protect the few. Is this 'example' really saying that no Jewish person anywhere in the world – *not one* – is more loyal to Israel and the global Jewish community than the country they are living in? This is ridiculous and to have this as an example of 'anti-Semitism' is equally so. There is a difference between saying this or that person is more loyal to Israel and saying *every* Jewish person is the same and this is still another 'example' inserted by the Protection Racket.

> Denying the Jewish people their right to self-determination, e.g., by claiming that the existence of a State of Israel is a racist endeavor.

The irony of this is beyond belief given that in 2018 the Israeli parliament passed the 'national state law' which decrees that Israel is a Jewish state and only *Jews* living there have the right to 'national self-determination'. The law describes Israel for the first time as 'the national home of the Jewish people' and drops Arabic as an official language of the country. Prime Minister Netanyahu declared: 'This is our state – the Jewish state.' He means the one that was Arabic for centuries before 1948 and still has a 20 percent Arab population. The move has been dubbed 'an apartheid law', a term used by Israeli newspaper *Haaretz,* and the Israeli Labour Party and others voted against it. The ultra-Zionist lobby is seeking to ensure that anyone calling for equal rights for

all Israelis no matter what their religion or race is condemned as '*anti-Semitic*'. We have crossed the border into the Land of Lunacy. Political commentator John Wight wrote:

> Learning the lessons of history is non-negotiable – and there has been nothing more squalid in our history than settler colonialism, responsible for the extirpation of the Native American Indians of North America and the aborigines of Australia. Those historical comparisons are fundamental when it comes to understanding the nature of the oppression and dispossession of the Palestinians in our time.
>
> That an Israeli government, led by Benjamin Netanyahu, can pass an explicit apartheid law – the country's so-called 'nation-state law' – mandating and enshrining the superior status of the state's Jewish citizens over its Arab minority of 1.8 million citizens, and do so without any international sanction, is a shameful indictment.

How on bloody earth can this bill be passed while at the same time any suggestion that 'the existence of a State of Israel is a racist endeavor' is being cited as an 'example' of 'anti-Semitism'? This is taking contradiction into the realms of insanity and all those countries and the UK Labour Party have accepted this outrageous example for lack of common sense and a pair of bollocks. Of course Israel is a racist endeavour, don't be silly. What do you say Mr Netanyahu? 'Oh, I say ... This is our state – the Jewish state.' Or, as he said in 2019: 'Israel is not a state of all its citizens. According to the nation state law we passed, Israel is the nation-state of the Jewish people – and not anyone else.' How very inclusive and we should launch a Benjamin Netanyahu Award for Narcissistic Hypocrisy. The new definition is claimed to be non-binding. Sure it is when it is being used to force people out of their jobs for the crime of criticising Israel. Paul Jonson, an employee of the UK Dudley Council near Birmingham, was suspended for posting on Facebook 'stand with Palestine, Israel is a racist endeavor'. Jonson was helping to organise a protest against Ian Austin, a local Labour Party MP and Israel propagandist. The suspension came after a complaint by the free-speech denying Campaign Against Antisemitism (CAA) of which MP Ian Austin is a patron.

> Applying double standards by requiring of it [Israel] a behaviour not expected or demanded of any other democratic nation.

Do they mean behaviour such as having military snipers blowing the legs off children and other unarmed protestors through a Gaza border fence with troops caught on camera cheering at their success? That

behaviour, yes? Or dropping state-of-art bombs and missiles – some illegal under international law – on defenceless civilians in Gaza day and night for weeks in 2014 killing thousands of civilians including 500 children while ultra-Zionist psychopaths sat on hills above the carnage whooping and cheering? Is that what they mean? How about destroying or making uninhabitable more than 20,000 homes in that bombardment and displacing half a million people? Or Operation Cast Lead across 2008/2009 when more defenceless civilians and children were slaughtered from the sky? That behaviour, yes? Or shooting part of the head off a child and then jailing his 16-year-old cousin Ahed Tamimi for slapping a soldier who turned up at her home? Or jailing children in adult jails and treating them with callous inhuman contempt? That behaviour, yes?

Using the symbols and images associated with classic antisemitism (e.g., claims of Jews killing Jesus or blood libel) to characterize Israel or Israelis.

But Jews *did* kill 'Jesus' *according to the New Testament* even though I don't believe any of it. Is the Bible 'anti-Semitic' now when the Old Testament forms a foundation of the Jewish religion? How does that apply to all the Israel-supporting Christian Zionist churches in America who say that Jews must return to Israel before the 'messiah' can come? Extreme Christian Zionists actually believe that all Jews must return to Israel 'from the West' before Jesus the Messiah, or 'anointed one', comes and Jews will then be converted to Christianity or be doomed to Hell. How 'anti-Semitic' is that, but Christian Zionism is supported by the Death Cult and ultra-Zionists because it suits their short-term plans. John Hagee, the best-known frontman for this movement, is an Israel fanatic and founder and National Chairman of Christians United for Israel. Hagee has said that Adolf Hitler was born from a lineage of 'accursed, genocidally murderous half-breed Jews' and that 'God' allowed the Holocaust to happen to punish German Jews who didn't want to resettle in Israel according to Zionist demands and forced those who survived to do so. Not quite, many went to the United States. Outrageous as those words are Hagee is free to say them because he serves the ultra-Zionist cause. Christians who don't, however, are fair game for abuse and slander. Hagee was selected to give the closing benediction at the ceremony marking the opening of the US embassy in Jerusalem (Al-Quds to Palestinians) when Trump bowed to ultra-Zionist donors like casino magnate Sheldon Adelson to move the embassy from Tel Aviv with great symbolic and literal significance for Palestinians.

Drawing comparisons of contemporary Israeli policy to that of the Nazis.

Okay, so the far right government in Israel and its merciless military and intelligence networks are incapable of acting like Nazis did in Germany? It's just not possible, not now, not *ever?* How about Miriam 'Miri' Regev, the right wing Israel minister, former military censor and acting prime minister, who said that she was 'happy to be a fascist'? Or Strategic Affairs Minister Gilad Erdan who said: 'The number [of peaceful Palestinian protesters] killed does not mean anything because they are just Nazis anyhow'? Oh, it's fine to call others Nazis, but anti-Semitic if it is said about you. The Nazi mentality is not a race or culture it's a state of mind and that means every race and culture can produce Nazi-like crazies. If it looks like a duck, swims like a duck and quacks like a duck – it's probably a duck. Hajo Meyer is a Holocaust survivor condemned as 'anti-Semitic' for likening Israel to the Nazi regime – a *Holocaust survivor*. UK Labour Party leader Jeremy Corbyn spinelessly apologised in the face of ultra-Zionist and media demands for speaking with Meyer at an event in 2010. Auschwitz survivor Esther Bejarano, who lost both parents and a sister to the Nazis, has been called an 'anti-Semite' for condemning Israel's sickening treatment of the Palestinians. The 94-year-old has referred to the Netanyahu government as 'fascist – 'I have no other name for it'. Nor are there any words to describe those who never went near a concentration camp labelling those who did 'anti-Semites' while at the same time weaponising the term to silence opposition today. To claim that one particular government or group is not capable of Nazi-like behaviour and that it's racist or 'anti-Semitic' to say so is the Protection Racket at work.

Holding Jews collectively responsible for actions of the state of Israel.

Ahh, but criticise the government of Israel in isolation and they say you are being 'anti-Semitic' against *all* Jews. You can't have it both ways, but that's what they want and this is what the new definition is really all about. How can you have a situation where any criticism of anyone that happens to be Jewish is labelled as 'anti-Semitic'? Are they the only people in all eternity who never do anything worthy of criticism and if you question their actions this is, by definition, racist?? What about the mass demonstration by Israeli women in 2018 about 28 of them murdered by domestic violence in Israel during that year? If non-Jews condemn that and the perpetrators of the violence is this proof of their 'anti-Semitism'? Or do those critics simply care about violence against women no matter what their creed or background?

We will silence them

Governments, education campuses and other organisations the world over are being pressured, manipulated and intimidated into accepting

this calculated censorious stupidity to silence criticism of Israel and the extremes of the ultra-Zionist network. The consequences of this are already seen in cancelled events, lectures and conferences exposing or debating the actions of Israel and they are increasing all the time. I describe many examples in my last book, *Everything You Need To Know But Have Never Been Told*, and the chapter 'Terrified of Truth'. Events and discussion regarding Israel are being cancelled or banned when they would not have been before because of the expanded definition. Jewish historian Ilan Pappé, professor at the College of Social Sciences and International Studies at the UK University of Exeter, said:

> In the past anti-Semitism hated Jews for being Jews, now Israel is trying to extend it to say that this is any criticism about what Jews are doing ... If you question the right for Israel to be a Jewish state then you are no different from these classical anti-Semites.

Joseph Berman, an American rabbi and a campaigner with Jewish Voice for Peace, condemned the attempts to define anti-Semitism in ways that fuse actual anti-Semitism with 'completely legitimate criticism of Israel or Israel government policies'. John Mearsheimer, Professor of Political Science at the University of Chicago, said this is one of the major Israel Lobby tactics to defend against criticism and the tactic was being used more and more 'to identify people who criticise Israel as an anti-Semite'. We are seeing this scam emerging everywhere with Emmanuel Macron, the arrogant and idiotic Rothschild employee and gofer President of France, announcing in 2019 that criticism of Zionism (a political philosophy not supported by many Jews) should be equated with 'anti-Semitism'. Trump and the US government say the same. The almost laughable overuse of the term in their desperation to stop criticism of the far, far right Israeli government is allowing gathering numbers to see through the mirage of bullshit. At the same time that 'anti-Semitism' (i.e. racism) is used to target and silence critics we had Israel launching an advertising campaign urging Israelis to inform on Jewish friends and relatives abroad who may be 'in danger' of marrying non-Jews. Television and Internet advertising has sought to stop the 'assimilation' of Jews outside Israel (diaspora Jews as they are called) and urges them to move to Israel. The idea is to increase the size of the Israeli population to seize more and more Palestinian land. One advertisement said that 'assimilation' (Jews marrying the partner they love) is 'a strategic national threat' and warned that 'more than 50 percent of diaspora youth assimilate and are lost to us'. Lost to '*us*'? Who do these people think they are? They treat the mass of Jews like commodities which is what they are to them. One advertisement featured missing person posters showing images of Jewish youths with

the word 'lost' in various languages. The voiceover asked people who 'know a young Jew living abroad' to call a hotline and give details. 'Together, we will strengthen their connection to Israel, so that we don't lose them,' it said. Israel also refuses to recognise Jewish and Arabian intermarriage unless it is performed abroad. Isaac Herzog, outgoing leader of Israel's Labor Party, said in 2018 that intermarriage between Jews and non-Jews was a 'plague" which required a "solution'. Can you imagine if anyone else spoke or acted with such facism? They would be condemned by Israel and its endless front organisations. Jewish researchers Max Blumenthal and Jesse Rosenfeld exposed Israeli racism with their YouTube video *Feeling the Hate in Jerusalem* in which American Jews visiting the country were asked about Barack Obama. A barrage of foul-mouthed racism followed including: 'White power! Fuck the niggers!' There was also extraordinary racism from Israeli students towards Palestinians. The video was banned by ultra-Zionist-controlled YouTube and some other sites after getting hundreds of thousands of hits. If that had been a video of white supremacists condemning Jews in the same terms there would have been a global outcry and YouTube would be promoting the hell out of it. The hypocrisy is criminal. Israel minister Miriam Regev called African asylum seekers a 'cancer in the nation's body,' inciting anti-immigrant protests and far right racism in general against black immigrants seeking to stay in Israel (Fig 98). Ultra-Zionism is an extreme racist doctrine that has the nerve to accuse everyone else of racism and deports African asylum-seekers and migrants while its agents urge and manipulate the rest of the world to accept indefinite mass-migration until their societies are demographically transformed.

Figure 98: Jewish protest against black Africans in Israel. This is not racist, however, and it's 'anti-Semitic' to say so.

Ultra-Zionist censorship network

Ultra-Zionism has established an absolutely *enormous* global network of front organisations and hate groups to target politicians, activists and anyone else with the audacity to challenge the actions of Israel and/or support the cause of the psychopathically-abused Palestinian people. This is directed and coordinated from the Ministry of Strategic Affairs and Public Diplomacy located in the Prime Minister's Office under Director-General Sima Vaknin-Gill, a former IDF chief censor and Israel

Air Force intelligence officer. The Ministry's brief is to target and 'name and shame' critics of Israel with special emphasis on the Boycott, Divestment and Sanctions (BDS) campaign for boycotts of Israeli goods and services until the government complies with international law in the treatment and rights of Palestinians. Demands include handing back occupied Palestinian land, taking down the separation wall with the illegally-occupied West Bank, equal rights for Palestinians and Jews and the right of return for Palestinians terrorised into leaving their homeland by ultra-Zionist terror groups when the State of Israel was formed in 1948. The BDS movement has grown at great speed since it was launched in 2005 and operates worldwide with gathering success that the Israeli regime is desperate to stop or mitigate. BDS was established as a non-violent means way of challenging impositions and violence by the military might of Israel to press for a simple humanitarian goal of having Jews and Arabs treated the same. That should be a gimme in any civilised free society, but John Mearsheimer, professor of political science at the University of Chicago, highlighted the key reason why Israel will not agree to that:

> BDS is saying that what Israel has to do is treat the Palestinians in its midst the same way it treats Israeli Jews. The problem is that if Israel does that there are more Palestinians or there will be more Palestinians inside greater Israel than there are Jews and that means that if you had a system where everybody was treated equally and there was one person and one vote you would no longer have a Jewish state.

The reason we have an apartheid Israel is that they don't want a free and equal society but a racist one – the full-blown Jewish state which the ultra-Zionists and Death Cult are determined to impose. To hide clear and obvious racism and ultra-Zionist manipulation in other countries (including 9/11) they have to control the narrative by emphasising their own propaganda while censoring other information and opinions. *The Seventh Eye*, an Israeli media watchdog organisation, reported that the Strategic Affairs (Censorship/Defamation) Ministry paid $100,000 to the publisher of Israel's best-selling daily newspaper to run articles and videos attacking BDS as 'anti-Semitic'. The watchdog added that this was part of a wider campaign by the Ministry which had a $740,000 budget 'to promote content on social media and search engines, including Google, Twitter, Facebook and Instagram'. An added bonus is that ultra-Zionist-controlled Facebook and other social media platforms act as censors for the Israel military. The Electric Intifada website reported in 2018 that Twitter had demanded the removal of a post that the Israeli IDF did not want to be circulated. 'In recent days, other publications and individuals have faced the same demand, indicating

that the social media firm has agreed to become an enforcement arm for Israel's efforts to control information about potential war crimes and abuses of Palestinian rights', the website said. 'It is another ominous sign of how monopolistic Silicon Valley corporations – especially Facebook and Google – that control what are in effect the public commons are colluding with governments to reassert control of information previously lost due to the freedom provided by the internet.' Facebook and Google (which owns YouTube) are ultra-Zionist-controlled corporations *officially* created and run by Jewish 'progressives' Mark Zuckerberg, Sergei Brin and Larry Page and as such Israel and ultra-Zionism dictate censorship policy. Wikipedia where most people get their background information about people and events today is the work of staunchly pro-Israel Zionist and Tony Blair buddy, Jimmy Wales. There is also Amazon, officially controlled by Jeff Bezos with its close connections to the Pentagon and CIA, which somehow absorbed massive losses year after year to secure dominance in the book market and from this position of near-monopoly has now begun a gathering policy of book banning/burning – 'anti-Semitism' among the most prominent excuses. Amazon has taken the same route as Facebook, Google/YouTube and others. No censorship when they are building their near-monopolies and then ever more extreme censorship once domination has been secured (Fig 99). The overall Israeli campaign to weaponise 'anti- Semitism' and demonise critics is called the Hasbara which means 'explaining' in Hebrew. More accurately in this case 'explaining' means ultra-Zionist propaganda and controlling the narrative throughout the media in all its forms and targeting critics – *especially* Jewish ones (Fig 100). Israel bans BDS supporters and Israel critics from the country and this

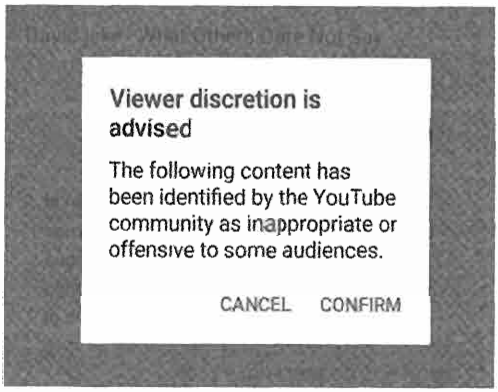

Figure 99: If exposure of Israel is not outright banned by YouTube and others, or its circulation algorithmically suppressed, then the viewer is given warnings like this.

Figure 100: Ultra-Zionist Israeli propaganda in a single image.

includes Jews with the wrong opinions. Rebecca Vilkomerson, executive director of the US-based Jewish Voice for Peace, described the personal consequences of this increasing discrimination on the grounds of opinion. She said of one new law:

> My grandparents are buried in Israel. My husband and kids are citizens, and I lived there for three years, but this bill would bar me from visiting because of my work in support of Palestinian rights.

German newspaper *Die Tageszeitung*, better known as *taz*, revealed in 2018 that the Israeli government was demanding Germany stop funding the Jewish Museum in Berlin and other Jewish human rights organisations including B'Tselem, Coalition of Women for Peace, Israeli publication *+972 Magazine* and Breaking the Silence, an organisation that allows Israeli soldiers to tell the truth about what is happening to Palestinians. Netanyahu wanted the funding stopped because these organisations present a far more balanced view of the Israel-Palestinian conflict and allow free discussion on the subject. Dozens of Israeli artists wrote an open letter to the paper urging the German government to ignore the demand and expressing their shock at the actions of the Israel government. No one should be shocked at the far-right ultra-Zionist extremists targeting Jewish people and organisations who deviate from the script. This is what they do all the time.

Manipulation on a fantastic scale

The ultra-Zionist network is vast and its censorship and intimidation are the reason why the general public has not seen the information that I will be presenting of ultra-Zionist and Death Cult involvement in 9/11. We have New York-based Hasbara Fellowships which train pro-Israel activists on college campuses. These were introduced in 2001 by the Israel Ministry of Foreign Affairs and a Jewish Orthodox organisation which claim to have so far trained nearly 2,000 students on more than 220 North American campuses. The ultra-Zionist and Zionist network in the United States consists of lobby groups, think-tanks, media watchdog groups (censors), spying operations connected to Israel and Mossad, and what are called political action committees or 'PACs'. John Mearsheimer, a professor of political science at the University of Chicago, and Stephen Walt, professor of international relations at the Kennedy School of Government at Harvard University, expose this network in their 2007 book, *The Israel Lobby and U.S. Foreign Policy*. They say the Israel Lobby 'has a core consisting of organizations whose declared purpose is to encourage the US government and the American public to provide material aid to Israel and to support its government's policies, as well as influential individuals for whom these goals are also a top priority'. The

network has become known as The Lobby and it went into overdrive after 9/11 to secure the American fought-and-funded 'war on terror'. This is only a *small* sample of The Lobby's amazing web of organisations within the United States alone:

American Israel Public Affairs Committee (AIPAC); Jewish Institute for National Security Affairs (JINSA); American Jewish Congress; Zionist Organization of America; Washington Institute for Near East Policy; Anti-Defamation League (ADL); Christians United for Israel; Israel Policy Forum; American Jewish Committee; Religious Action Center of Reform Judaism; Americans for a Safe Israel; Republican Jewish Coalition; American Friends of Likud; Mercaz-USA; Hadassah; Israeli-American Coalition for Action; Israeli-American Council; Alliance for Israel Advocacy; Americans for Peace Now; Tikkun Community; Brit Tzedek v'Shalom; Israel Policy Forum; American Enterprise Institute; Hudson Institute. Center for Security Policy; Foreign Policy Research Institute; Institute for Foreign Policy Analysis; Heritage Foundation; Saban Center for Middle East Policy; Center for Security Policy; Committee for Accuracy in Middle East Reporting in America; Conference of Presidents of Major American Jewish Organizations (an umbrella group for more than 50 Zionist lobby groups and Israel policy promotors) with the mission of 'forging diverse groups into a unified force for Israel's well-being' and to 'strengthen and foster the special US-Israel relationship'.

The latter is Orwellian-speak for manipulating America to serve the interests of Israel and ultra-Zionists especially through funding and the military. The infamous Project for the New American Century which did so much to establish the catastrophic (but not for Israel) 'war on terror' was part of this network before it became too exposed and high profile and disappeared to reform under another name. I emphasise that this is only a very *partial* list from what is a truly incredible web of organisations – some estimate as many as 800 – serving the same agenda that claims to serve the interests of just 0.2 percent of the world population and two percent of the American public (Fig 101). In truth it is doesn't even represent that tiny number and it is not supposed to. Ultra-Zionism and the Death Cult are the network's masters and focus. The great majority of people will have never have heard of these organisations while the more high-profile ones hide their real controllers and intentions behind

Figure 101: Tiny country – global reach.

cover stories and mission statements.

Southern Very Rich Israel Center 'plantation'

A major example of Israel agenda groups hiding behind cover stories is the Southern Poverty Law Center (SPLC) in the United States established by lawyers Morris Dees and Zionist Joseph J. Levin Jr in Montgomery, Alabama. The organisation was headed by ultra-Zionist President and CEO Richard Cohen until he fell on his sword in 2019 in the wake of a scandal which caused Morris Dees to be removed. Ultra-Zionist 'legal director' Rhonda Brownstein left with Cohen. Both had worked for the SPLC for 30 years and were paid huge salaries to label as 'hate groups' any organisation the ultra-Zionist Mafia demanded to be silenced and demonised. A mirror is all they need at the SPLC if they want to locate a hate group. Morris Dees is credited as a major influence in the strategy of issuing lawsuits against target organisations for an alleged 'wrongful act' and securing court judgements to seize their assets and drive them into bankruptcy. This was the forerunner of the ultra-Zionist technique today known as 'lawfare' in which Zionist hate groups with lots of money or pro-bono ultra-Zionist lawyers take out civil actions against people when law enforcement has decided that the target has done nothing wrong. They couldn't care less what this does to people's lives, but then psychopaths never do. Morris Dees was removed from the organisation in 2019 amid allegations of a *racist culture* (irony of ironies) while Cohen and Brownstein left soon afterwards. Black employees came forward to tell their stories. One said the working environment was like a 'plantation' for black workers. Out of 100 lawyers and advocates for the SPLC only five were black. This is the self-styled 'anti-racist', 'anti-hate', fraudulent censorship operation that dubs others racists and hatemongers. The *Washington Examiner* described the SPLC as a 'scam' with 'no care whatsoever for the reputational and personal harm it causes by lumping Christians and anti-extremist activists with actual neo-Nazis':

> As it turns out, the SPLC is a cynical money-making scheme, according to a former staffer's blistering tell-all, published this week in the New Yorker. The center's chief goal is to bilk naive and wealthy donors who believe it's an earnest effort to combat bigotry. The only thing worse than a snarling partisan activist is a slimy conman who merely pretends to be one.

Here you have the blueprint for ultra-Zionist hate groups and this disgusting organisation advises Facebook, Twitter, Google, YouTube, Amazon and others on who should be censored as a 'hate group'. Former employee Bob Moser said they spent a lot of time 'drinking and dishing' in Montgomery bars and restaurants about 'hyperbolic fund-

raising appeals' in which 'hate' was always on the rise and more dangerous than ever with each new report on 'hate groups'. He said it was 'hard for many of us not to feel like we'd become pawns in what was, in many respects, a highly profitable scam'. Have you ever heard an ultra-Zionist hate group say that 'anti-Semitism' was not on the rise? Selling the perception of 'hate' fills the coffers and provides the excuse to silence and demonise people while hate and racism are in the mirror all along. The SPLC, it is safe to say, is not what it appears to be as with so many in the ultra-Zionist web which claim to represent wider issues of civil rights when really fronting for Israel and the ultra-Zionist agenda. For a start the Southern *Poverty* Law Center is nothing to do with 'poverty'. The organisation is extremely rich thanks to big donations (including from Soros foundations) and only a fraction of its work relates to 'law'. At least it's based in Alabama, so I guess the 'southern' bit is true. A 2003 audit revealed that *89 percent* of SPLC income went in 'administrative costs and fundraising' while only *11 percent* was spent on its alleged mission (alleged being the word) of 'advancing human rights'. The SPLC admitted in 2015 that only $61,000 was spent on legal services (it's a 'law center') while receiving $50 million in donations and having assets of $328 million. Even worse it squirrels away millions in multiple unregulated offshore tax havens in the Cayman Islands, British Virgin Islands and Bermuda while at the same time being classed as a 'non-profit' organisation with all the tax benefits that entails. Ultra-Zionist fronts and hate groups invariably use their contacts to be designated as 'non-profit' in America or 'charities' in Britain. How can a 'charity' enjoy all the benefits of that status while spending its time hurling hate at its targets, manipulating politically and seeking to silence anyone whose opinion doesn't suit the ultra-Zionists behind Israel? They can do this because they are a law unto themselves on the basis of my dad is bigger than your dad. The power of the Zionist lobby, especially in America, is breathtaking and so they do what they like despite their tiny numbers. This is one analysis of SPLC income:

> The Capital Research Center have revealed some of the main funders between the years 2000-2011. Between these years by far the biggest donor was the Picower Foundation, founded by the Jewish Jeffry Picower, the largest beneficiary of the Bernie Madoff financial swindle, to the tune of $3,813,112. Other high profile backers include Cisco Systems at $1,620,000 between the years 2000-2004, the Grove Foundation (associated with the Jewish Andrew Grove, a co-founder of the Intel Corporation) at $875,000 from 2001-2011, the Richard and Rhoda Goldman Fund (Jewish heirs of the Levi Strauss fortune) at $535,000, and Rockefeller Philanthropy at $510,000 between 2008-2010, amongst many others.

Further donors include Apple and the clueless virtue-signalling celebrity George Clooney who handed them a million dollars in 2017. Ultra-Zionist PayPal CEO Dan Schulman admitted during an interview with the *Wall Street Journal* in 2019 that his company consults with the ultra-Zionist SPLC over who to ban from its services. Schulman is a mega-bullshitter who says that PayPal's 'values' are founded on 'diversity and inclusion'. The monumental hypocrite then bans those with views he disagrees with (non-agenda people) and discriminates against Palestinians while working with Israelis. PayPal pulled the payment plug on uncensored BitChute, a video site competitor of ultra-Zionist YouTube, and other uncensored sites offering alternatives to all-censoring ultra-Zionist giants. Yep, Schulman believes in diversity and it is so good to know that he has 'values'. The SPLC portrays itself as a human rights or civil rights organisation as in for 'everyone'. This is just bollocks. The ultra-Zionist network pedals front-stories while its real goal is attacking, labelling and silencing those who don't bow to Israel and the ultra-Zionist agenda. Long-time SPLC spokesman Mark Potok, who always looks like he's chewing a lemon, told an event in Michigan in 2007: 'Sometimes the press will describe us as monitoring hate groups. I want to say plainly that our aim in life is to destroy these groups, completely destroy them.' A year later he continued the theme for a Vermont school meeting:

> You are able to destroy these groups sometimes by the things you publish. It's not so much that they will bring down the police or the federal agents on their head, it's that you can sometimes so mortally embarrass these groups that they will be destroyed.

The SPLC is best-known for its 'hate group' list that includes a stream of organisations which are not in the least hate groups – unlike itself. Among its 'categories' of hate are white nationalist, Ku Klux Klan, Neo-Confederate, skinhead, white power music, radical traditional Catholicism, Holocaust denial, Christian identity, anti-LGBT, black separatist, anti-Muslim and anti-immigrant. Some listings are justified but many are not with qualification decided largely by those the SPLC's masters and owners wish to demonise and silence. This naturally includes 'conspiracy theorists' and those questioning government narratives. Amazing how so many want to silence 'conspiracy theorists' for saying what is claimed to be so obviously crazy. These are some the SPLC does NOT designate to be hate groups: Those supporting Jewish supremacism; groups demanding sharia law (with discrimination and/or violence against non-Muslims, women, and homosexuals); Communist organisations promoting class hatred and praising Communist mass murderers; social anarchist organizations committing

violence and other crimes against opponents; non-white, pro-terrorist or terrorist organisations that promote or commit violence; anti-white hip hop groups. The criteria are clearly not about hate, but agenda. Pulitzer Prize winning journalist Jerry Kammer produced a report exposing the systematic bias of the SPLC both in general and in particular with the case of the Federation for American Immigration Reform (FAIR) which seeks to reduce the number of immigrants entering the United States – especially illegally. Ultra-Zionists and the Death Cult want open borders and an end to countries and nations and so the SPLC went to work branding FAIR a 'hate group' in an effort to exclude it from the national debate on immigration. Kammer wrote:

> With no serious analysis, the SPLC in late 2007 unilaterally labelled FAIR a 'hate group'. That poisonous designation became the centrepiece of a 'Stop the Hate' campaign launched by the National Council of La Raza (NCLR), also known as La Raza, to call on Congress and the media to exclude FAIR from the national debate on immigration.
>
> The campaign gathered strength as newspapers across the country reported that FAIR had been 'designated a hate group by the Southern Poverty Law Center'. While the news stories generally included FAIR's denial of the charge, thereby providing a semblance of balance, the designation's taint lingered. The SPLC, presenting itself as a non-partisan, public-interest watchdog, never acknowledged – and no reporter ever disclosed – that the center was an active ally of the NCLR in the campaign.
>
> The evidence presented here demonstrates that the SPLC became a propaganda arm of the NCLR. The SPLC's decision to smear FAIR was the work of a kangaroo court, one convened to reach a pre-determined verdict by inventing or distorting evidence. The 'Stop the Hate' campaign would more accurately be labelled as a campaign to 'Stop the Debate'.

What an encapsulation of how these ultra-Zionist organisations work throughout the global network using labels of 'hate group' and 'hate speech' to silence dissent for those that control Israel. Type 'Jerry Kammer SPLC' into a search engine and you can read the whole article which exposes the methods of the Southern Poverty Law Center and they are the same as all the ultra-Zionist hate groups. Part of this war on predominantly white societies in the culture-fusion agenda is to delete their history, both good and bad. The SPLC was straight in there in the wake of conflict between 'progressives' and the political right over a Confederate statue at Charlottesville, Virginia, in 2017: 'More than 1,500 Confederate monuments stand in communities like Charlottesville with the potential to unleash more turmoil and bloodshed,' it said. 'It's time

to take them down.' They are nothing if not predictable if you know the game that's being played. The point is not about supporting Confederate history but acknowledging that it happened. History is a culture's heritage, what we liked and what we didn't. Once it's gone, so has the culture, and the manipulators know that. This came to mind when the 800-year-old Notre Dame Cathedral in Paris, a global Christian icon, was devastated by fire in 2019 and look how invaders like the US military and ISIS target historical artefacts and ancient monuments as happened in Iraq and Syria. The SPLC has been a major driver of the campaign to pull down historical monuments and for the same reason history is systematically neglected in schools and universities. A poll asked 2,000 people about the First World War (1914-18) and found that six-percent of millennials thought the conflict started over the assassination of President Kennedy (in 1963); one in ten thought Margaret Thatcher was British prime minister during that war when she was in office from 1979 to 1990; almost *half* thought Britain's World War II prime minister Winston Churchill was leader during World War I; a quarter believed Britain was in conflict with war ally Russia and a fifth thought the war was with ally France; five percent of younger people in the poll thought the 'Battle for Helms Deep' from the *Lord of the Rings* movie trilogy was a battle in the First World War. This revealed a dramatic decline in historical knowledge since the 'baby boomers' generation (born between 1946 and the early 1960s) and even since 'Generation X' (early-to-mid-1960s to the early 1980s) although that, too, showed a decline. The figures are highly significant when the deletion of history means the deletion of the culture developed from that history. Mindless destruction of historical monuments and statues by mindless 'progressive' mobs responding to their software are part of this end of history – Orwell's Memory Hole where history is deleted so the past can become whatever it suits authority to be in the present. This is happening with information exposing 9/11 deleted, pushed down the search engine listings or 'quarantined' in the case of Reddit. You would expect the Southern Poverty Law Center and the Hidden Hand to be right there at the front line of censorship and major Hidden Hand corporations including Amazon use the purposely-flawed-and-biased SPLC 'hate-list' to make decisions on who to support and who to censor. The SPLC ultra-Zionist hate group list is also the Bible of 'progressive' hate groups such as Antifa, a named that derives from 'antifascist' while employing precisely those methods to violently suppress dissent against programmed 'progressive' orthodoxy. Indeed 'orthodoxy' is the perfect description because 'progressive' actually refers to a religion in which faith and not facts are the criteria for entry and perception. We can open the borders to everyone and there won't be any consequence is only another version of Jesus walked on water. You have no facts to support what you say and it

goes against all the evidence, but you believe it anyway because you are speaking the words of the Lord, well, George Soros.

SPLC and the FBI

I saw long ago how ultra-Zionist hate groups and other Israel fronts work closely with law enforcement to secure their ends and after what I have written in the book so far about the FBI and 9/11 you won't be surprised to hear that Fox News host Tucker Carlson, one the last surviving real journalist anchors on US television, reported connections between the FBI and the Southern Poverty Law Center. Carlson has faced (failed) attempts to intimidate him when mindless 'progressive' Antifa toddlers gutlessly turned up at his home while knowing he was presenting a live show elsewhere and only his family would be there. 'Progressives' are against 'toxic masculinity' intimidating women, you see. Many efforts have been made to take Carlson's show down including targeting advertisers. The Soros-funded propaganda operation Media Matters trawled through his broadcasting life to find anything they could use to discredit him and in March, 2019, they came up with comments he made years earlier about women while joking around with a 'shock jock'. 'Progressive' rage was unleashed. I didn't agree with what he said, but I agree with his right to say it and take any consequences that follow. It's called freedom of speech and you could never accuse a Soros 'progressive' of having a sense of humour and proportion. Fortunately Carlson gave the perpetually outraged mob the finger instead of falling to his knees. I don't know Tucker Carlson and have never met him, but what I have seen is a man – one of the last standing – who is prepared to ask questions and make points that the elite would love to silence. This is the real reason he is being targeted and that's easy when rage is on tap – the tap of a keyboard away.

Carlson has well understood the propaganda garbage spewed out by the SPLC hate group which he described as 'an entirely fraudulent enterprise', 'totally dishonest' and 'a left-wing political group that uses hate crime designations to target its ideological enemies and to crush people'. He pointed out that wrongly designating organisations as hate groups had led them to be subjected to violence and that the SPLC had been forced to pay $3.3 million in a court case over falsely labelling a foundation as anti-Muslim extremists when it was created and run by a Muslim who condemns Islamic extremism. The guy had to be silenced because he is the wrong type of Muslim preaching peace and not violence. Carlson's report revealed the FBI has a long record of collaborating with the SPLC which the Bureau described as 'a well-established and credible organisation that monitors domestic terrorism in the US'. For 'domestic terrorism' read anyone challenging government propaganda and the ultra-Zionist agenda. Carlson said the

SPLC had been briefing the FBI on 'extremists' and this was ongoing. The agency refused to answer simple questions about the relationship and anyone who has investigated 9/11 will be well aware of FBI stonewalling. Given its cancerous corruption I can understand why its drawbridge is permanently pointing upwards. The FBI/SPLC connection is another example of how The Web functions as a vehicle for coordination between organisations that appear unconnected to the public eye while really operating to secure mutual goals. The political nature of the FBI was revealed by accident on the Carlson show in an interview with former FBI Deputy Assistant Director Terry Turchie. He said in a passing remark that when he first joined the Bureau 'one of the missions of the FBI in its counterintelligence efforts was to try and keep these people out of government'. He was talking about those considered 'left-wing' at the time, but the political stance of the FBI has now shifted in line with a different stage of the Hidden Hand agenda. The point is that here was a former FBI Deputy Assistant Director admitting to manipulating events to influence who could secure political power. This was the main investigation agency of 9/11. I have personal experience of British police also supporting the censorship agenda of ultra-Zionist hate groups as I will be describing.

Censorship Valley

Ultra-Zionist censorship connections also apply to Silicon Valley. The Southern Poverty Law Center despite being, as Carlson said, 'entirely fraudulent' and 'totally dishonest', has partnered with music streaming platform Spotify to 'crack down' on 'hate content' and 'hateful conduct' – censor in accordance with the ultra-Zionist agenda of the SPLC. Spotify's definition of hate speech is anything 'that expressly and principally promotes, advocates, or incites hatred or violence against a group or individual based on characteristics, including, race, religion, gender identity, sex, ethnicity, nationality, sexual orientation, veteran status, or disability'. Observe the limitless potential for making almost anything fit that criteria to justify targeted censorship and we have these Israel-serving hate groups also 'advising' Facebook, Google, YouTube and others on what should be deleted from those platforms. Add to this Soros-funded 'fact checker' organisations employed by the same companies to decide what is 'fake news' and is it any wonder that in this same period ever greater numbers of alternative groups and researchers have been banned from Facebook and YouTube and been made to disappear by Google search list algorithms? *Washington Free Beacon* reported on a leaked 49-page document that revealed how Media Matters and other Soros funded-groups have 'access to raw data from Facebook, Twitter, and other social media sites' to 'systemically monitor and analyse this unfiltered data' to eliminate 'right wing propaganda

and fake news' (what we don't want the public to see). Shouldn't we be legitimately questioning why ultra-Zionist censors are employed by Google headed by Larry Page (Zionist) and Sergey Brin (Zionist); Google's YouTube run by Susan Wojcicki (Zionist); and Facebook run by Mark Zuckerberg (Zionist) along with Chief Operating Officer Sheryl Sandberg (Zionist), formerly with Google; and Apple chaired by Arthur D. Levinson (Zionist)? *Quiet!* To ask why so much power over what we can see is in the hands of people from two percent of the population of the United States and 0.2 percent of the world population is 'anti-Semitic'! No – it's a *legitimate question* and all the censorship and weaponising of 'anti-Semitism' is to stop that question being asked. Well, fuck that. The ultra-Zionist Anti-Defamation League (ADL) has a state-of-the-art Silicon Valley Internet censorship centre to track what people post and 'provide insights to government and policy makers' using the 'best-in-class technology' to 'stamp out hate' and 'anti-Semitism'. Ultra-Zionist censorship has moved to a whole new level and soon it will be impossible to criticise Israel and have any public arena see or hear what you say. This is a main reason for why I am calling them out in such an in-your-face manner in this book. It could be last chance we have to expose the truth about what ultra-Zionism *really* is, how it operates and to what end. Remember the Reddit 'quarantine' of information exposing 9/11 and the direction to the official lies of the 9/11 Commission? What better way to hide the 9/11 involvement of ultra-Zionism and make all questioning of the attacks just disappear? This is meant to be the norm very soon.

Anti-Free Speech Defame People League

The ADL is the Big Daddy of ultra-Zionist hate groups and an example of those in The Lobby which are transparently censoring for Israel. Many try to hide this fact by claiming to represent the 'human rights' of other people, but they don't. The ADL is the offspring of the House of Rothschild and ultra-Zionist front B'nai B'rith, or 'Sons of the Covenant', which was established in 1843 by twelve founders all born in Rothschild Germany who moved to New York in the same period from the late 1820s to the 1830s. B'nai B'rith claims to be the 'global voice of the Jewish Community' when it is nothing of the kind. American rabbi, Marvin S. Antelman, worked to expose the Death Cult that I will be addressing in detail. He writes in his two-volume *To Eliminate the Opiate:*

> After doing the terrible things certain establishment organisations such as B'nai B'rith and the American Jewish Congress did by playing the ostrich during the Shoah [Holocaust], why do we still give these organizations any support? They have Jewish blood on their hands ... They should be ignored and condemned to the cesspools of history. It is very aggravating to see them

continue their self-identity hating campaigns.

We will see as our story develops that there are in fact two distinct groups – fake Jews which are the people I am exposing here and genuine Jews who are something very different although most will not be aware of the frauds in their midst. They will be by the time I've finished and relate all this to 9/11. Many genuine Jews don't support B'nai B'rith and what it does. It represents the voice of the ultra-Zionist agenda, not Jewish people. As such it has attacked me for exposing that agenda and so has the Anti-Defamation League which B'nai B'rith created. I take this as a compliment. B'nai B'rith, which is closely connected to Freemasonry, established the ADL in 1913 and it remains the best-known name in the ultra-Zionist censorship network. The main role of the 'Anti-Defamation' League is ironically to defame people, label them 'anti-Semites' for exposing Israel and its lobby and to crush them into the smallest pieces possible. Its motto appears to be: 'We are the Chosen People and above all others, and you are a racist.' Or maybe the Mossad motto might be better: 'By way of deception, thou shalt do war.' Either works with the ADL. Jewish academic Noam Chomsky said this of the ADL in his book, *Necessary Illusions*:

> The ADL has virtually abandoned its earlier role as a civil rights organization, becoming 'one of the main pillars' of Israeli propaganda in the U.S., as the Israeli press casually describes it, engaged in surveillance, blacklisting, compilation of FBI-style files circulated to adherents for the purpose of defamation, angry public responses to criticism of Israeli actions, and so on. These efforts, buttressed by insinuations of anti-Semitism or direct accusations, are intended to deflect or undermine opposition to Israeli policies, including Israel's refusal, with U.S. support, to move towards a general political settlement.

American Rabbi Michael Lerner took the same view:

> The ADL lost most of it credibility in my eyes as a civil rights organization when it began to identify criticisms of Israel with anti-Semitism, still more when it failed to defend me when I was receiving threats to my life from right-wing Jewish groups because of my critique of Israeli policy toward Palestinians (it said that these were not threats that came from my being Jewish, so therefore they were not within their area of concern).

The reason for this is simple. The ADL has never been a 'civil rights' organisation and was never meant to protect all Jewish people. It was specifically established to protect the ultra-Zionist agenda and by extension only those Jews working in support of that agenda and its

Protection Racket. What about all other Jews? Those who speak *against* the agenda? The ADL couldn't care less. Here are some of the 'civil rights' activities of the ADL: In 1993 it was exposed for spying on Arab-Americans and left-wing groups and for collecting files on more than 600 organisations and 10,000 people. This would not surprise anyone with knowledge of the ultra-Zionist web which operates as a front for the psychopaths of the far, far right Mossad Israeli intelligence network. Organisations targeted by the ADL included the American Civil Liberties Union (ACLU) and 20 labour unions in the San Francisco area. The 'anti-hate', 'anti-racist' ADL shared this information with Mossad and passed details about anti-apartheid groups to intelligence agents representing the white apartheid regime in South Africa. This is the real mentality of those who brand others as racist. Noam Chomsky has widely criticised Israel's treatment of the Palestinians, and revealed that the ADL compiled a 150-page dossier on him. An ADL insider sent Chomsky the document which he said looked like an FBI file:

> ... It's clear they essentially have spies in classrooms who take notes and send them to the ADL and other organizations. The groups then compile dossiers they can use to condemn, attack or remove faculty members. They're like J. Edgar Hoover's files. It's kind of gutter stuff.

The ADL *is* gutter stuff and seeks to terrorise academics, students, university authorities, the media and public into stopping all criticism of Israel. Examples to support this are legion and now rapidly increasing as the ultra-Zionists seek to lasso all freedom of speech. Mark Levine, a Jewish professor of Middle Eastern Studies, said pro-Israel groups had, in effect, created a 'large machine' to attack Israel-critics on college campuses. 'These are powerful, organised groups in the Jewish community who use fear and intimidation to try to make sure Israel doesn't get criticised,' he said. 'They go after anyone, even more so when the critics are Jews, because they fear that if we can criticise them, then everyone can.'

Silence the kids – silence *everyone*

The Forward, a New York-based Jewish magazine, highlighted a disgusting keynote speech by American-born Israeli, Rabbi Daniel Gordis, at the American Jewish Committee's annual conference. Gordis called for a college junior at the University of California in Los Angeles to be targeted at her home for asking a question of a Jewish student Rachel Beyda who was nominated to the students' judicial board. The junior, Fabienne Roth, asked Beyda how she could maintain an unbiased position given her relationship to the Jewish community. This is a fair question to a candidate who is a member of *any* religious or cultural

community standing for office. The response of Rabbi Gordis was so typical of ultra-Zionist extremists and crazies. Take a deep breath:

> We can find out where [she lives], and she should not be able to come in or out of her house, in or out of her apartment, without being reminded, peacefully, morally, legally, that we know who you are.

He said that everyone needed to understand that 'not for naught is the Jewish people one of the very-best-organized communities in the world'. This bully of a man demanded that Roth's future employers should be protested and boycotted:

> A well-organized Jewish community would let Fabienne Roth know that if she becomes a lawyer, any firm that hires her will have picketers outside its offices until she is fired. It's Jewish and other fair-minded clients will be pressured to leave the firm. Having Roth on staff has to become a liability – not for a month or two, not for a year or two. For decades.
>
> If Fabienne Roth becomes a physician, then whatever hospital or practice hires her needs to know they will experience the same pressure. Should Roth choose not to have a career, she will still have a home somewhere. She should not be able to exit or enter her home without encountering a small number of polite, lawful protesters, who will remind her – day in and day out – that we know exactly what she is. If and when she has children, we'll remind them, too.

Fabienne Roth was just a kid you sad and shameful idiot and people have been jailed for far less. There you see in all its grotesqueness the mentality of ultra-Zionism, its vicious, merciless, empathy-deleted thirst for revenge and its truly staggering self-obsession and sense of self-importance. Anyone still wonder why the ultra-Zionist connection to 9/11 which I am going to expose is unknown to the general public? These are the kind of people that the gutless UK Labour Party, gutless councils, gutless employers, gutless venue owners and gutless media are falling to their knees to appease. John Mearsheimer, co-author of *The Israel Lobby*, said:

> They are picking out individuals who they think are critical of Israel and they are smearing them and they are telling them that what is going to happen here is if you don't cease and desist from acting like this we in the end will do much to destroy your career.

We are talking serious levels of psychopathy here. As Israel-born activist Gilad Atzmon said: 'Jewish power is the power to silence opposition to

Jewish power.' Or, as I would say, ultra-Zionist Death Cult power.

Undercover revelations

Qatar television station Al Jazeera produced a revelatory hidden camera exposure of the Israel Lobby in the United States in 2016 only for pressure from the US and Israel on the Qatari dictatorship to ensure the four-part series did not air. Al Jazeera staff were furious and a source leaked the documentaries which are available on the Electronic Intifada website. They were also made available to French and Lebanon sources. 'Tony', an undercover Jewish reporter, posed as a pro-Israel volunteer in Washington and accessed the inter-workings of the Israel Lobby in the US. The documentaries reveal a staggering spying, surveillance and data-gathering ultra-Zionist network in the United States answering to the Israeli government and its Ministry of Strategic Affairs headed by high-ranking intelligence officer Sima Vaknin-Gil and the Minister of Public Security, Strategic Affairs and Minister of Information, Netanyahu ally Gilad Erdan. Vaknin-Gil spent 20 years with Israeli air force intelligence reaching the rank of brigadier general. She has said she wants 'to create a community of fighters' to 'flood the internet' with Israeli propaganda while publicly appearing unconnected with the government. These are overwhelmingly the people that attack you if you post anything challenging Israel. The Ministry of Strategic Affairs, Israeli military and Mossad are all masks on the same face and they are targeting Palestinian and pro-Palestinian activists worldwide with a focus on the BDS Israel boycott movement. Israeli spy Vaknin-Gil is caught on a hidden camera by Al Jazeera at a pro-Israel event in Washington saying:

> We are a different government working on foreign soil and we have to be very, very cautious. We have three different sub-campaigns, which are very, very sensitive. Regarding data gathering, information analysis working on activist organisations, money trail. This is only something that a country with these resources can do the best ... We have to think differently. And this is waging a holistic campaign against the other side. Take him out of his comfort zone. Make him be on the defensive ...
>
> ... In the air force when you want to win, you have to have aerial superiority. If you want to win a campaign, you must have information superiority. And this is exactly the added value of Israel's capabilities, technological and otherwise, we can bring to the game and we are working on that very hard.

What Vaknin-Gil was describing is a super-extensive Israeli spying and intelligence gathering operation throughout the United States and the wider world to smear anyone who questions or challenges the

actions of Israel. Noah Pollak is the executive director of the ultra-Zionist group, Emergency Committee for Israel (established by Bill Kristol, co-founder of the Project for the New American Century). Pollak also worked at Israel's Shalem Center, a think tank affiliated to Netanyahu's Likud Party and part-funded by Trump's biggest financial backer, Sheldon Adelson. The appalling Pollak was caught on hidden camera saying:

> When you talk about ... BDS, you talk about them as a hate group, as a movement that absolutely endorses violence against civilians, not military conflict, but violence against civilians. AKA terrorism. You discredit the messenger as a way of discrediting the message.

Activists were told by other ultra-Zionist organisers that they should stay on message ... BDS is a 'hate movement'. Al Jazeera undercover reporter 'Tony' was told to call BDS an anti-Semitic hate group as often as possible because 'it polls well'. Israel's ultra-Zionists are terrified of the potential for BDS to awaken the world to the treatment of Palestinians and damage the country financially – a fact confirmed in 2019 by the desperate campaign launched by Strategic Affairs Minister Gilad Erdan to label BDS activists 'terrorists in suits'. I think they call it 'projection'. The strategy and accompanying propaganda was a copy of that used by Jerusalem-based NGO Monitor which claims to be independent while being a front for targeting NGOs that challenge the behaviour of Israel and its far right government. The organisation was founded in 2001 by ultra-Zionist academic Gerald Steinberg and claims 'to promote accountability, and advance a vigorous discussion on the reports and activities of humanitarian NGOs in the framework of the Arab–Israeli conflict' (the 'framework' of whether they criticise Israel or not). The Quakers, a Christian pacifist movement, were targeted by the ultra-Zionist hit-squads after they said they would no longer invest in any company which benefits from the Israeli occupation. Quakers opposed slavery, apartheid in South Africa and were awarded a Nobel peace prize for saving Jews and Christians from the Nazis including 10,000 mostly Jewish children transported to Britain. None of these are mitigating factors to opposing what the ultra-Zionists decree. The Quakers were condemned by the *pathetic* British Board of Jewish Deputies and other ultra-Zionist groups who described the Quaker decision taken on moral grounds as, yes, yes, yes – 'anti-Semitic'. Sagi Balasha, former Chief Executive of the Israeli-American Council from 2011-2015, now works with cyber-intelligence organisations targeting BDS activists. He explained to an Israel Lobby meeting captured by Al Jazeera's secret filming how they have billboards taken down that criticise Israel and call for a boycott. He said that in a few hours of being

alerted about billboards their systems and analysts 'could find the exact organisation, people and even their names, where they live'. They would pass this information to the 'ministry' and 'three days later there were no billboards'. All this is going on in America and so many other countries every day orchestrated by a country of less than eight million people with a total global population of 0.2 percent. Jacob Baime, Executive Director of the Israel on Campus Coalition, described on hidden camera how they track those who criticise Israel:

> We use all sorts of technology. We use corporate level, enterprise-grade social media intelligence software. Almost all of this happens on social media so we have custom algorithms and formulae that acquire this stuff immediately.

Baime added that 'within about thirty seconds or less of one of these things popping up on campus, whether it's a Facebook event ... [or something] on Twitter, the system picks it up.' He said the information then goes into a queue and 'alerts our researchers and they evaluate it'. They tagged it and if it rose to a certain level they 'issue early-warning alerts to our partners'. Baime went on:

> If one of these terrorists on campus [anyone calling for equal rights for Palestinians] wants to disrupt a pro-Israel lecture or something and unfurl a banner or whatever else, we're going to investigate them and look into bad stuff they have done. That stuff becomes very useful in the moment and there are any number of ways to push it out. The only thing is that we do it securely and anonymously and that's the key.

This is how the ultra-Zionist bully boys target kids in universities and anyone with the decency to stand up for the abused Palestinians.

We must destroy them

Bill Mullen a Professor of American Studies at Purdue University, had been a long-standing BDS campaigner when his wife was sent a link to a website containing a letter addressed to her claiming to be from a former student making allegations of sexual harassment against him. The letter said she had found other students telling the same story. Creating anonymous websites is a modus operandi of the Israel Lobby along with copious fake social media pages. Mullen said that within about 48 hours they established that these multiple sites attacking him had been taken out almost at the same time and were clearly the work of the same people. He said:

> It was really an attempt from people who didn't know us to think maybe I can destroy this marriage at the very least, maybe I can cause them horrendous

> personal suffering. The same letter purporting to be harassment to my wife used the name of our daughter. I think that was the worst moment. I think we thought these people will do anything, they are capable of doing anything.

Yes they are – as we will see when I return directly to 9/11. Jacob Baime of the Israel on Campus Coalition said: 'Every few hours you drip out a new piece of the opposition research ... it's psychological warfare. It drives them crazy.' The Al Jazeera documentary featured a Purdue student who was targeted for her Palestinian support with anonymous claims that she was often drunk and had sex with multiple men. Jacob Baime again on hidden camera: 'They either shut down or they spend time responding to it and investigating it, which is time they can't spend attacking Israel – that's incredibly effective.' BDS-supporting Jewish activist and journalist Max Blumenthal said this Israel network operates through subterfuge and walked a very thin line between the legal and illegal to gather information to smear opponents and to ultimately destroy them. Al Jazeera reporter 'Tony' was accepted as an activist working with the Israel Project, or 'TIP', an Israeli propaganda operation that seeks to control the narrative on what is reported about both Israel and Palestinians. Professor John Mearsheimer who has exposed the Israel Lobby told Al Jazeera about the role of the Israel Project. He said the 'special relationship' between the United States and Israel is unprecedented in recorded history. He said that not only did the United States give Israel a tremendous amount of economic aid and diplomatic protection but gave that aid and protection no matter what – it's not conditional. 'The Israel Project will go to enormous lengths to achieve that end', Mearsheimer said. Israel Project staff described to 'Tony' how they had contacts in numerous media organisations and set out to forge friendships with reporters as a primary means of influence to control what is written about Israel and 'neutralising undesired narratives'. The aim was to build an 'echo-chamber for pro-Israel information' using the media as the vehicle. David Hazony, a managing director at the Israel Project, told 'Tony':

> They're not things we do loudly. A lot of them are things we do behind the scenes. You can get a lot more done by making questions get asked by journalists. And if you create it from multiple directions at the same time through multiple journalists, then you create a kind of sense of crisis. We develop relationships. A lot of alcohol to get them to trust us.
>
> We're basically messaging on the following. BDS is essentially a kind of a hate-group targeting Israel. They're anti-peace. We try not to even use the terms, because it builds their brand. We just refer to 'boycotters'. The goal is to actually make things happen and to figure out what are the means of

communication to do that.

New Yorker magazine exposed in February, 2019, how BDS was targeted by a Mossad-front 'security company' called Psy-Group in an operation code-named Project Butterfly. Psy-Group recruited from Israel's secret services and gathered donations from wealthy ultra-Zionists mostly in New York on the understanding that their names would never be revealed. BDS activists would be followed and targeted with discrediting campaigns and this even included putting leaflets on the cars of neighbours claiming an activist to be a 'terrorist'. Article author Adam Entous wrote:

> Psy-Group's intelligence and influence operations, which included a failed attempt in the summer of 2017 to sway a local election in central California, were detailed in a New Yorker investigation that I co-wrote earlier this month. Before it went out of business, last year, Psy-Group was part of a new wave of private-intelligence firms that recruited from the ranks of Israel's secret services and described themselves as 'private Mossads'.
>
> Psy-Group initially stood out among its rivals because it didn't just gather intelligence; its operatives used false identities, or avatars, to covertly spread messages in an attempt to influence what people believed and how they behaved.

This is happening in your country today, America. Are you just going to take this crap and abuse of your country?

Israel's American spy network

The ultra-Zionist campaign against BDS includes keeping surveillance within the United States on American students and it is coordinated through the highest levels of Israeli intelligence. Omar Barghouti, a co-founder of the BDS movement, said that government ministers attacked him with 'one of them threatening BDS leaders with targeted civil assassination'. Yisrael Katz, Israel's Minister of Intelligence, is captured by Al Jazeera saying that the plan is to act against BDS leaders, isolate them and transfer information to other intelligence agencies around the world. Israel must 'carry out a targeted civil thwarting of the leadership of BDS activists', he said. Julia Reifkind, a Director of Community Affairs at the Israeli Embassy in Washington and 'AIPAC-training camp activist', told 'Tony' that nobody really knew what they were doing on behalf of Israel, but it included 'a lot of research, monitoring BDS things and reporting it back to the Ministry of Foreign Affairs – making sure everyone knows what's going on'. When politicians talked about the subject in the Israeli Parliament she said: '... we've usually contributed to

what the background information is.' Reifkind was asked if the Israeli Embassy is trying to 'leverage faculty' (university departments). She said that was correct and they were working with several faculty advocacy groups 'that kind of train faculty'. She said they were 'helping them a little bit with funding, connections, bringing them to speak, having them speak to diplomats and people at the Ministry of Foreign Affairs that need this information'. Reifkind said ultra-Zionist activists lobbying for mega Israel lobby group AIPAC don't come clean about that. They are trained to simply say they are pro-Israel students: 'When you're meeting with students on campus I would never say "I am the AIPAC Campus Rep". I would say, "My name is Julia and I'm a pro-Israel student".' She admitted that Israel groups seek to influence student elections from 'very behind the scenes' and that she had several fake Facebook accounts that allowed her to appear to be other people including 'an old white guy'. One Al Jazeera documentary shows how Reifkind sought to portray students at the University of California Davis using the tired old line of 'anti-Semitism' when they voted to boycott Israel. They use this slur constantly because that's all they have. Once open debate is allowed they lose every time when the treatment of Palestinians by a racist state cannot be intellectually or morally defended. Reifkind told 'Tony' how they pre-planned a walkout from the debate at Davis they knew they would lose and used film of the walkout to post on the Internet and 'control the narrative'. Reifkind recalled:

> That day all of us released 50 op-eds in major news sources, so that ... when people opened their Facebook it would be them celebrating their victory, it would be us sharing our stories. Once it blew up then random people like the Huffington Post contacted me, it was like 'Do you have anything to say?' and I was like 'Conveniently I wrote an op-Ed two weeks ago just in case'.

The article was duly published with the headline 'My 15-Day Journey Confronting Divestment at UC Davis'. Reifkind crowed that people's 'entire newsfeed was Israel stuff and that's what we wanted'. Students demanding justice and fairness for Palestinians against the global political and intelligence networks of Israel should be a no-contest, but it is testament to the disgust that gathering numbers have with the behaviour of the Israel government and military that BDS continues to expand. At the perfect propaganda moment in the UC Davis story swastikas suddenly appeared scrawled on campus and we should absolutely not rule out in these situations that Lobby assets stage their own 'anti- Semitism' including swastikas and slogans to advance their agenda of demonisation and censorship. A joint investigation by US and Israeli authorities led to a ten-year jail sentence for a 19-year-old Jewish

man with dual American-Israeli citizenship for making bomb threats to Jewish community centers in the United States. Michael Kadar made more than 2,000 threatening calls to schools, airports, police stations, malls and other targets over two years, Israeli prosecutors said. The Anti-Defamation League (ADL) and other Jewish groups had blamed 'white supremacists' and even the man's mother said: 'I thought it was done by someone who is anti-Semitic.' The man apparently has mental problems, but the point is that when the crimes happened they were automatically assumed to be the work of 'anti-Semites'. American proper journalist Tucker Carlson presented an expose' of hate crime hoaxes in the wake of the fake self-staged 'racist attack' by actor Jussie Smollett who said he had been beaten and left with a noose around his neck by white men claiming to be Trump supporters. It turned out that Smollett arranged for black associates to beat him and then told his lies to the media and generated more division and hatred between communities with the enthusiastic support of ultra-Zionist controlled CNN. The two black men who 'beat him up' came forward and admitted it was all a set-up arranged by Smollett. Police charged him on a number of counts. What was the outcome? Cook County State Attorney General Kim Foxx, who was funded in her election campaign to the tune of more than $400,000 by George Soros foundations, dropped the charges against Smollett in a blatant fix that followed an attempted intervention on his behalf by Tina Tchen, an ally of the actor's friend Michelle Obama. Smollett rails against 'white privilege' while being so privileged himself that he's above the law. This is yet another example – and they are endless – of 'progressive' bullshit and unspeakable hypocrisy and of the octopus networks controlled by Soros who has been funding state prosecutors and secretaries of state into office for years to dictate who and what gets prosecuted and who and what doesn't. But don't you dare tell anyone – that's 'anti-Semitic'. 'Hate crime' convictions are actually rare and not exploding. Part of Carlson's segment on hate crime hoaxes featured an interview with Robby Soave, author of *Panic Attack: Young Radicals in the Age of Trump*, who exposed the fraudulent nature of 'hate crime' statistics including the Anti-Defamation League claims of a 60 percent increase in 'anti-Semitic' attacks since Trump was elected. Soave said that he checked the statistics and 'anti-Semitic' violence was in fact 'way down'. He said the entire increase claimed by the ADL was the work of Jewish hoaxer Michael Kadar. Did the ADL apologise for such misleading claims and for once be honest? They couldn't spell the word. I am sure you will have observed that 'anti-Semitism' always goes up and is 'on the rise' according to figures released by ultra-Zionist front groups. When you meet rank and file Jews they say they don't know what the fuss is because they have never faced discrimination. Does it happen? Of

course. Does it happen on anything like the scale the ultra-Zionist hate groups claim? Not a chance. Things are not, to say the very least, always what they seem to be and we need to remember that instead of jumping to instant conclusions. A question to ask is who benefits? For example, who benefited from the swastikas that appeared at UC Davis? Who benefits from anonymous log-ins posting anti-Jewish abuse?

Canary Mission

The Algemeiner, a New York-based Jewish newspaper, approached Al Jazeera undercover Jewish reporter, 'Tony', to ironically work 'undercover' within BDS groups as a form of surveillance. Rachel Frommer, *The Algemeiner's* Senior Campus Correspondent, said they were working on a project to rank US universities and colleges with regard to their 'anti-Semitic and anti-Israel activity'. She said they had a campus bureau that monitors BDS campaigns 'all day long, all week long'. Frommer said that the 'new anti-Semitism' is 'anti-Israelism' in line with the new song-sheet worldwide. One *Algemeiner* headline captured its methods and approach: 'Cesspool of Antisemitic, Anti-Israel, Racist Behaviour at U of Tennessee Uncovered by Covert Watchdog Group'. Put another way – there is a BDS group at the University of Tennessee that is far too effective. The story was given to them by a secretive Israel Lobby group called the Canary Mission which weaponises 'anti-Semitism' on US campuses in line with the overall Protection Racket blueprint. *Algemeiner* ran the article while admitting it had no idea who was behind the Canary Mission. The story was a blatant lie, but the label 'anti-Semitism' is all they have. When your only tool is a hammer every situation must be a nail. Respected Jewish magazine, *The Forward*, reported that in 2015 Jewish and pro-Israel groups in the US and Israel used significant resources to direct hard-line, often secretive tactics against their targets:

> An online blacklist called Canary Mission, which went live in 2015, targeted college students critical of Israel. Professional pro-Israel operatives posed online as college students. Pro-Israel campus groups hired top-tier professional Washington, D.C. political consultants and sent them to work on college campuses. An Israeli spy firm pitched U.S. Jewish donors with a proposal to covertly undermine the movement to boycott, divest from and sanction Israel.

A Canary Mission video calls for its operatives to 'make sure today's radicals are not tomorrow's employees' by destroying their careers. This seriously sick organisation keeps surveillance on its targets and constantly harasses them. Israel Lobby operative Jacob Baime said on the Al Jazeera documentary: 'They are terrified of Canary Mission and

it's about time.' Eric Gallagher, an AIPAC director from 2010-2015, told undercover reporter 'Tony' that the highly secretive and 'anonymous' Canary Mission is funded and run by Adam Milstein, Chairman of the Israeli-American Council who was convicted of tax evasion in 2009. Gallagher tells how he was in email contact while Milstein was in jail. Milstein is a pivotal figure in the Israel Lobby with its surveillance and smears, and sits on the boards of AIPAC's national council, Israel on Campus Coalition and StandWithUs. He is close to mega ultra-Zionist donor, Sheldon Adelson, the biggest funder of Donald Trump. Milstein described on a secret camera his mode of operation with regard to critics of Israel: 'We're doing it by exposing who they are, what they are, the fact that they are racist, the fact that they are bigots, they're anti-democracy.' Hypocrisy knows no bounds.

Tennessee is one of the major centres of Israel-worshipping, ultra-Zionist-created Christian Zionism and became the first state government to condemn BDS. Increasing numbers of others have followed, including Arkansas where to receive state contracts firms have to pledge not to boycott Israel or reduce their fees by 20 percent. The power of ultra-Zionism over United States government at all levels can be seen in the targeting of Americans and their free speech and conscience to serve a country of eight million people nearly seven thousand miles away. Helene Sinnreich, Jewish Professor of Judaic Studies at the University of Tennessee and a Fellow at the Center for Advanced Holocaust Studies at the United States Holocaust Memorial Museum, said a claim of rampant anti-Semitism at the university was quite a shock. 'It was very surreal and strange – I didn't see anything happening on the ground, it all seemed to be internet based.' Suddenly flyers appeared all over the university accusing students of supporting Palestinian group Hamas and the theme was seen again – criticising the Israeli government is 'anti-Semitism'. The psychological game works by repeating lies enough times for them to becomes accepted truth. Among those exploiting this technique to attack the University of Tennessee was Aviva Vogelstein, Director of Legal Initiatives at the Louis D Brandeis Center for Human Rights Under Law in Washington DC (of course). This is another strand in The Lobby that hides its real controllers and reason for being behind the term 'human rights'. Kenneth Marcus, founding president of the Brandeis Center, told 'Tony' that they were attempting to redefine 'anti-Semitism' to include criticism of Israel. They wanted to have this imposed on all American universities to stop criticism of Israel and undermine BDS. Marcus said in a secret recording: 'You have to show that they're racist hate groups – that they are using intimidation to get funded, and to consistently portray them that way.' It is a cold and callous abuse of the term 'racism' in pursuit of a blatant political end and what this does is to cry wolf so often and so constantly that genuine

'anti-Semitism' gets lost in the tidal wave. The real reason for the attack on the University of Tennessee as on all their other targets, including myself, is to silence opposition and to secure changes in the law to protect Israel from criticism. Jewish and other Tennessee students gave evidence to a state hearing into the allegations and said claims of 'anti-Semitism' were nonsense. The only people making the claims were outsiders, most notably Kenneth Marcus and his subordinate Aviva Vogelstein who admitted to 'Tony' that Jewish students had told her there was not an 'anti-Semitism' problem at Tennessee.

Paying the piper ...

Ultra-Zionist control of politicians – especially in the United States – is stunning and explains so much about 9/11. This control is mainly through funding and who gets it and who doesn't. John Mearsheimer and Stephen Walt expose this fact in *The Israel Lobby and U.S. Foreign Policy*. Bribing politicians with ultra-Zionist 'donations' is the norm in America and many other countries. Phenomenal ultra-Zionist donations to both American parties (control both sides and you control the game) are scandalous in an alleged 'democracy' and he who pays the piper calls the tune. *Ynetnews*, an online English-language Israeli news website of newspaper *Yedioth Ahronoth*, reported in 2016 that *50 percent* of donations to the Democratic Party came from Jewish sources and 25 percent of those to Republicans. This is from a minority within a *two percent* minority of the American population. We can see this stark truth in the US presidential election of 2016. The five biggest donors to 'Democrat' candidate Hillary Clinton were: Hedge fund manager Donald Sussman (ultra-Zionist); venture capitalist Jay Robert Pritzker and his wife Mary (ultra-Zionists); Israeli-American media tycoon Haim Saban and his wife Cheryl (ultra-Zionists); financier George Soros (ultra-Zionist place-man whatever they may claim); and SlimFast founder Daniel Abraham (ultra-Zionist). Another Clinton financial supporter to the tune of $35 million was Facebook co-founder Dustin Moskovitz (ultra-Zionist). The Clintons are also very close to the ultra-Zionist Rothschilds via Evelyn de Rothschild and his wife, the American-born businesswoman, Lynn Forester. They spent their wedding night at the White House at the Clintons' invitation. The couple were apparently introduced by Henry Kissinger at a meeting of the Hidden Hand Bilderberg Group. A Hillary Clinton email when she was US Secretary of State has her making a grovelling apology to the Rothschilds for asking then UK Prime Minister Tony Blair, another Rothschild tea-boy, to accompany her to Israel when the Rothschilds were inviting him to a weekend 'conference' in that global elite centre of Aspen, Colorado. Clinton tells Lady de Rothschild: 'I hope you all understand ... Let me know what penance I owe you.' The grovelling nature of the Clinton-to-

Rothschild emails is in stark contrast to the usual Clinton demeanour. A former bodyguard said she could 'make Richard Nixon look like Mahatma Gandhi'. Only her best behaviour will do for the Rothschilds. Fox News reported in 2019 a stash of released Hillary Clinton emails that confirmed Israeli influence over American politics:

> A newly unearthed batch of heavily redacted, classified emails from Hillary Clinton's personal email server revealed that the former secretary of state discussed establishing a 'private, 100% off-the-record' back channel to Israeli Prime Minister Benjamin ['Bibi'] Netanyahu, and that one of her top aides warned her that she was in 'danger' of being 'savaged by Jewish organizations, in the Jewish press and among the phalanx of neoconservative media' as a result of political machinations by 'Bibi and the Jewish leadership' ... The documents, representing a small proportion of the tens of thousands of emails still unaccounted for from Clinton's server, also underscored the apparently significant political threat that the Obama administration felt it faced at the hands of Israel.

Meanwhile 'Republican' Donald Trump's biggest donor was Israeli-American ultra-Zionist Sheldon Adelson who handed over $82 million to Trump and the Republicans. This was three times the contribution of the next highest individual donor (Fig 102). Another big Republican donor is ultra-Zionist Bernard Marcus, co-founder and former CEO of Home Depot, who sits on the board of the Republican Jewish Coalition. Marcus has funded ultra-Zionist and Neocon organisations including the American Enterprise Institute, Christians United for Israel, Friends of the IDF, Hoover Institution, Hudson Institute, the Israel Project, Jewish Institute for National Security Affairs (JINSA), Manhattan Institute and Middle East Media Research Institute. It's a similar story with ultra-Zionist billionaire investor Paul Singer, founder and CEO of the hedge fund Elliott Management Corporation. Singer, Marcus and Adelson were all major funders of Trump with Adelson out in front. You get what you pay for. The media subsequently reported that 'Trump's' highly controversial decisions' to move the US Israel embassy to Jerusalem, ditch the US-Iran nuclear deal and appoint Project for the New American Century

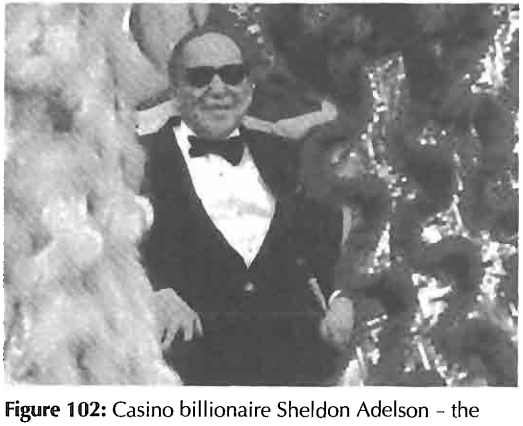

Figure 102: Casino billionaire Sheldon Adelson – the Israel fanatic behind Trump.

stalwart and Israel tea-maker John Bolton as National Security Advisor were all 'passions' of Shelden Adelson. Yes and the government psychopaths in Israel. During the 2016 Republican Primary – or 'Adelson Primary' as it was called – to decide the presidential nominee we saw headlines such as 'Sheldon Adelson is ready to buy the presidency'. *The New Yorker* said Adelson was '... the single person to whom both the Prime Minister of Israel and the President of the United States owe everything'. Trump election strategist Steve Bannon evangelised over Adelson at a Zionist Organisation of America dinner and said that without him Trump would not have become president. It wasn't about Adelson's money, Bannon said, it was his counsel, guidance and wisdom. Of course it was. Adelson told an event for the Israeli Defense Forces that *unfortunately* the military uniform he once wore was American and not Israeli, but he said that his wife and a daughter served in the IDF and he hoped that one of his 'little boys' whose hobby was shooting would go back to Israel and join the Israeli military. He suggested that he could be a sniper. 'All we care about is being good Zionists – good citizens of Israel', Adelson said. Why would this man with those priorities hand over tens of millions to a candidate in Trump with the slogans 'America First' and 'Make America Great Again'? What was an example of 'anti-Semitism' in the new definition again? Oh, yes – 'Accusing Jewish citizens of being more loyal to Israel, or to the alleged priorities of Jews worldwide, than to the interests of their own nations.' How transparent it all is when someone has the backbone to call it out.

Adelson owns Trump as he owns Neocon John Bolton and so they are both continuing the post-9/11 'US' foreign policy dictated by Adelson and the ultra-Zionists. Bolton is reported to have told the ultra-Zionist American Friends of Beit El after Trump's election in 2016 that not only would the US embassy be moved to Jerusalem there would be no opposition to any new Jewish settlements in the occupied West Bank. This has proved to be the case. American Friends of Beit El, headed by ultra-Zionist US Ambassador to Israel David Friedman and financially supported by the ultra-Zionist Jared Kushner family of Trump's son-in-law and 'senior advisor', has been pumping millions into new settlements. Trump is going to oppose illegal settlements when his main funder, his ambassador to Israel and son-in-law are all funding them?? The American people should be embarrassed at how their government has been hijacked so blatantly. Adelson's fingerprints were also all over 'Trump's' decision to seriously cut aid to Palestinians including $25 million from impoverished East Jerusalem hospitals that treat Palestinian cancer patients *when* they are allowed to travel from the West Bank and Gaza. Ultra-Zionists want to clear East Jerusalem of Palestinians so they can replace the Al-Aqsa Mosque with a rebuilt

'Solomon's Temple' and to so impoverish and destitute the Palestinian people that they will agree to Israeli demands in return for a promise of money. The scam was described in its most extreme form by Alliance for Israel Advocacy, a lobbying group established by the Messianic Jewish Alliance of America which is pressing the White House and Capitol Hill for Palestinians to be given money to move aboard and leave Israel to Jews only. Executive Director Paul Liberman said that over ten years they wanted to change the demographics of the illegally-occupied West Bank with a view to annexation by Israel. He said that Palestinians who stayed would 'live under the doctrine of the sojourner', not have a vote and would 'not participate in the sovereignty of the land'. Liberman, who has been to the White House to present his proposals, said: 'The only rights the Palestinians have are squatter's rights.' Sounds such a nice chap. Netanyahu's eldest son, Yair, has also made Internet posts calling for all Muslims to leave Israel. Trump attacked ultra-Zionist Goldman Sachs during his election campaign because it played well with his potential voters, but after he won with Adelson's money he immediately appointed Steve Mnuchin (ultra-Zionist), former Goldman Sachs executive vice president, as his Treasury Secretary and ultra-Zionist Gary Cohn, Goldman Sachs chief operating officer, as Director of the National Economic Council and chief economic advisor. When Cohn left in 2018 he was replaced by ultra-Zionist Lawrence Kudlow. Trump is surrounded by Zionists and ultra-Zionists including his son-in-law Jared Kushner, a life-long friend of Benjamin Netanyahu who is a long associate of Kushner's jailbird father. The *Wall Street Journal* reported that Kushner didn't disclose on his government financial-disclosure form his business ties to 'Israel critic' George Soros, Goldman Sachs and Silicon Valley billionaire Peter Thiel who has the closest of ties with the US intelligence community. Nor did Kushner disclose that he arranged loans of $1 billion from more than 20 lenders for properties and companies he part-owned including personal guarantees on more than $300 million of that debt. Trump's policy on Israel and what matters to Israel is also dictated by David Freidman, appointed US ambassador to Israel, and Jason Greenblatt, Assistant to the President and Special Representative for International Negotiations. Freidman worked for the Trump Organization as a bankruptcy lawyer and Greenblatt was executive vice president and chief legal officer to Donald Trump and the Trump Organization and his 'advisor on Israel'. Yael Lempert (ultra-Zionist) was named Special Assistant to the President and Senior Director for Israel, Egypt and the Levant. What chance have the Palestinians ever had of justice and can anyone be in the least surprised with this line-up that Trump is continuing the agenda laid out by the Project for the New American Century led by Adelson puppet and PNAC fanatic John Bolton which was triggered by 9/11?

'The Pledge' (pinch yourself, you're not dreaming)

We are talking hundreds of millions being poured into US presidential races and elections by Zionists and ultra-Zionists and in return every candidate who accepts a donation must take 'The Pledge' of allegiance to Israel and its policy demands. This is why by far the biggest financial 'aid' handed out by the United States every year goes to Israel, a tiny already rich country (its elite anyway) with a population of less than some cities. This includes $3.8 billion of US taxpayers' money every year in 'military aid' while Americans sleep in the street. America and Israel signed a 'Memorandum of Understanding' in 2016 through which Israel will receive $38 billion in military assistance over ten years – an increase of around 27 percent on the agreement signed in 2007. This was the biggest single aid pledge of its kind in American history and even before it was signed the Congressional Research Service confirmed that Israel was 'the largest cumulative recipient of U.S. foreign assistance since World War II'. The $38 billion is just a headline figure for the public about one deal – the total amount transferred from American taxpayers to Israel will be bone-shaking. Israel is a sliver of land with a population of eight million people and yet receives more US aid than any other country. So you use your money to buy American politicians and they vote to pay you back – with enormous interest – in American tax dollars in the form of 'aid'. What a racket. Ultra-Zionist funding of Senate and Congressional candidates is fantastic and often make-or-break to their chances of winning. Professor John Mearsheimer said:

> To get elected in the American political system you need lots of money. What AIPAC does is it makes sure that money is funnelled your way if you are seen as pro-Israel and it will go to significant lengths to make sure that you stay in office if you continue to be staunchly pro-Israel.

Former Congresswoman Cynthia McKinney has revealed how this scam operates. She said that when she ran for office she was asked to 'sign the pledge' to Israel and confirm she would always vote in Israel's best interests. Agreeing or not agreeing was the difference between money or no money and often whether money was directed instead to an opponent. Which party doesn't matter so long as you pledge allegiance to Israel. McKinney said:

> Every candidate for Congress ... had a pledge, they were given a pledge to sign ... If you don't sign the pledge, you don't get money. For example, it was almost like water torture for me. My parents observed this. I would get a call and the person on the other end of the phone would say 'I want to do a fundraiser for you.' And then we would get into the planning. I would get

> really excited, because of course you have to have money in order to run a campaign. And then two weeks, three weeks into the planning, they would say, 'Did you sign the pledge?' And then I would say, 'No, I didn't sign the pledge.' And then my fundraiser would go kaput.

McKinney eventually lost her seat when the ultra-Zionist lobby funded her opponent who signed the pledge. Jim Moran, a member of Congress from 1991-2015 in northern Virginia, confirmed McKinney's experience:

> ... anybody running for Congress is expected to fill out a questionnaire and they evaluate your depth of commitment to Israel on the basis of that questionnaire, then you have an interview with local people. If you get AIPAC's support, then more often than not you are going to win ...You realise it's not just the money, it's the number of concerned activists. They'll send out postcards, they'll make phone calls, they'll organise. That's the democratic process, they understand the democratic process.

This pledge-to-Israel demand is expanding into wider society, too. A Texas elementary school speech expert filed a federal lawsuit after the school district refused to renew her contract unless she signed a pro-Israel oath. Bahia Amawi had worked for the Pflugerville Independent School District for nine years when her contract renewal form included a demand that she 'will not boycott Israel during the term of the contract' and will not engage in any action 'that is intended to penalize, inflict economic harm on, or limit commercial relations with Israel, or with a person or entity doing business in Israel or in an Israel-controlled territory'. The arrogance and Orwellian nature of this is shocking, but then Texas politics is owned by the ultra-Zionists just as they own American politics in general which ensures that what Israel wants Israel gets and their obvious connection to 9/11 ignored. I think we can also see now why Netanyahu is treated as a god when he visits the United States and speaks to both houses of Congress (as leader of that tiny country) and the politicians of both parties are on their feet in homage every two minutes. In a 50-minute speech in 2011 he was given 29 standing ovations. I said at the time that they must have had springs attached to their arses. They dare not do otherwise because their devotion is *literally* being monitored and there is money to be begged for. So get on your feet to your master. Who do you think you represent – Americans? This is why the annual conference of the America Israel Public Affairs Committee (AIPAC) is the world's biggest arse-licking contest. Prominent politicians of both parties and presidential wannabes shuffle to the stage on their knees and deliver their undying allegiance to Israel while the ultra-Zionist elite look on with both arrogance and

contempt. No wonder then that in early 2019 the House of Representatives voted *411 to 1* for a bill forcing the vacant post of 'anti-Semitism' envoy to be filled. This envoy has always been an activist for the major Israel lobby organisation, the America Israel Public Affairs Committee (AIPAC), and the occupant is placed there to 'serve as the primary advisor to, and coordinate efforts across, the U.S. government relating to monitoring and combating anti-Semitism and anti-Semitic incitement in foreign countries'. The bill upgraded the post to the rank of ambassador. The bill was sponsored by Republican Representative Christopher H. Smith. His biggest campaign donor was NORPAC, an ultra-Zionist Israel lobby group 'working to strengthen the United States – Israel relationship' which fundraises for Israel-supporting politicians on both sides. Recipient politicians are sent regular emails on affairs in the Middle East (ultra-Zionist propaganda in other words). The only dissenter to the bill was Republican Justin Amash from Michigan who presumably doesn't take their money (bribery). The first Senate bill at the start of 2019 proposed to hand Israel billions to combat the BDS boycott. These people are owned political prostitutes and a disgrace to everything America claims to stand for. What chance did the truth about 9/11 ever have? But it's coming out in the final section of this book.

I should emphasise that Israel may get all this support from the United States and ultra-Zionist billionaires but this doesn't go the Israeli population in general. Latet, an Israeli humanitarian aid organisation, reported in 2018 that 26.5 percent of the Israeli population in the occupied West Bank live below the poverty line with one in three children missing at least one meal a day. The report describes how Israeli children have to beg for donations, 'collect food from the ground or garbage bins' or steal to eat. Latet chairman Gilles Darmon said: 'When there are more than half a million poor families and more than a million poor children, you cannot just get used to it and accept it.' Israelis have been taking to the streets in protest at ever higher prices for the basics of life. The ultra-Zionist and Death Cult elite have contempt for Jewish people as a whole for reasons that will become clear in later chapters. They want bodies located in the West Bank to take the land from Palestinians, but they don't care what happens to them. An Israeli media host told me before an interview that Holocaust survivors in Israel were suffering from terrible deprivation and poverty and he described cases of their teeth falling out for the lack of nutrition. Jewish people – they don't give a shit about you. All those who endure the consequences of global elite psychopathy – Jewish, Palestinian, everyone – should come together in common cause. While we are divided the Death Cult will rule.

Covering all bases

At the centre (with others) of the US Israel lobby web of hundreds of organisation is the Washington DC-based American Israel Public Affairs Committee or AIPAC. This sounds (on purpose) like something attached to government and it is, but certainly not officially. AIPAC is a massive ultra-Zionist Israel Lobby grouping with almost unlimited funds to buy American politicians of both parties and many others that influence what passes for political debate. It may not fund politicians directly, but it knows a man who does. In fact, many of them. AIPAC has more than 100,000 members and 17 regional offices and constantly campaigns for political and financial support for Israel and against anyone who doesn't think the Israeli government is God's gift to the world. AIPAC was established in 1951 as a lobby group of the American Zionist Council called the American Zionist Committee for Public Affairs. On one side AIPAC is close to the far right Netanyahu Likud Party in Israel while a similar group, J Street, comes from the 'left' or 'progressive' direction. Once again control both sides and you control the game. AIPAC wants a one-state – Jewish state – 'solution' to the Palestinian 'problem' while J Street claims to organise and mobilise 'pro-Israel, pro-peace Americans who want Israel to be secure, democratic and the national home of the Jewish people'. J Street claims to 'advocate policies that advance shared US and Israeli interests as well as Jewish and democratic values, leading to a two-state solution to the Israeli-Palestinian conflict'. The two-state solution is a herring so red that held against a bright red background it would disappear. Widespread and rapidly-increasing Jewish-only illegal settlements in the Israeli-occupied West Bank means that anyone still supporting a 'two-state solution' is either deeply ignorant or lying to you. There is no Palestinian land left in the occupied West Bank to have a credible 'second state'. Alan Elsner, Vice President of Communications for J Street, described Father George Bush, a mass killer and paedophile who loved to torture children, as 'one of the great foreign policy leaders of the 20th century' and 'anyone who cares about Israel and Middle East peace owes him a debt of gratitude'. Well, Israel sure does, but not the rest of the Middle East which he helped to tear asunder on behalf of Israel. There is very little between these 'right' and left' organisations in truth except for the nature and angle of their mutual bullshit and both will ultimately answer to the same masters. Another prominent organisation in the Israel Lobby is the American Jewish Committee (AJC) established in 1906 and co-founded by Rothschild front-man and Russian Revolution-funder Jacob Schiff (much more later). The AJC calls itself the 'Global Center for Jewish and Israel Advocacy' and as always targets people criticising Israel as 'anti-Semitic'. It has 22 offices in the United States, ten overseas and 33 partnerships with other Jewish organisations around the world. The Israel Web is absolutely

extraordinary for the size of the country because the network is not about Israel, but those that *control* Israel. Eric Gallagher, an AIPAC director from 2010-2015, was recorded on an Al Jazeera hidden camera saying that the aim was to influence the US President and Congress to secure benefits like the $38 billion in military aid:

> You can hold up signs and have rallies on campus, but the Congress gets $3.1 billion a year for Israel. Everything AIPAC does is focused on influencing Congress. Congress is where you have leverage. So you can't influence the President of the United States directly but the Congress can.

With Trump in power and owned by Sheldon Adelson going direct is definitely an option. M. J. Rosenberg, a former editor of AIPAC's policy journal, *Near East Report*, said they make sure there are people in every single congressional district working on Israel's behalf. You can see the influence range of AIPAC-connected people with Rosenberg's CV. He's been a Senior Foreign Policy Fellow at Soros-funded Media Matters Action Network; a worker for Democratic members of the House and Senate; and was appointed by Bill Clinton to USAID, the American CIA-front that claims to be about overseas aid. Ultra-Zionist David Ochs, a pro-Israel advocate, invited Al Jazeera undercover reporter 'Tony' to a fundraising event for people such as Illinois Senator Mark Kirk, Florida Congressman Ted Deutch, Virginia Congresswoman Barbara Comstock, North Carolina Senator Richard Burr and New Hampshire Senator Kelly Ayotte. Ochs described Ayotte as 'fantastic' because she was on the Senate Arms Committee. Ultra-Zionist Ted Deutch, with the greatest of irony, was chairman of the House Ethics Committee. Ochs told 'Tony':

> It's the AIPAC group. It makes a difference, it really does. It's the best bang for your buck and the networking is phenomenal. Congressmen and Senators don't do anything unless you pressure them. They kick the can down the road unless you pressure them. The only way to do that is with money.

And there is so much money to be had. Craig Holman from the Public Citizen consumer advocacy group said the legal limit for individual campaign contributions was $2,700, but this was overcome by getting 50 or 100 people together at an event and pooling their contributions. 'So suddenly you've got a group of people with the same demands they want from the lawmaker handing over a quarter of a million dollars – that buys a lawmaker.' David Ochs told 'Tony' about these 'demands' in return for the money. He said that candidates were told: 'We want to make sure if we give you money that you're going to enforce the Iran deal.' Ochs said when they need something from a lawmaker like the Iran deal they can quickly mobilise and say 'look we'll give you $30,000'.

Public Citizen's Craig Holman said of the Ochs strategy: 'He's actually saying we are buying these office holders and that's the point, we're chipping in all this money so we can hand over $100,000 or $200,000 to the office holder so we can buy him.' Another illegal fiddle revealed by Al Jazeera was that donors gave money to each other so they all gave the maximum amount. Ochs described the involvement of ultra-Zionist Jeff Talpins, founder and Chief Investment Officer of New York-based hedge fund, Element Capital Management:

> In New York with Jeff Talpins we don't ask a goddamn thing about the fucking Palestinians. You know why? Because it's a tiny issue, that's why. It's a small insignificant issue. The big issue is Iran. We want everything focused on Iran. What happens is Jeff meets with the congressman in the backroom, tells them exactly what his goals are and by the way Jeff Talpins is worth $250 million. Basically they hand him an envelope with 20 credit cards and say, 'You can swipe each of these credit cards for $1,000 each'.

Crushing dissent

Iran is a big focus because it was on the list of the Project for the New American Century and is a long-time target of the ultra-Zionists and Death Cult that control Israel. Former Congressman Jim Moran described how the Executive Director of AIPAC had said his most important accomplishment was securing authorisation for the US invasion of Iraq. Moran refused to vote for the war and an ultra-Zionist was planted at a public meeting to ask him why there were not more Jews involved in marches against the war. Moran replied: 'If the leaders of the Jewish community were opposed to the war I think that would make a difference.' The ultra-Zionist Lobby went into overdrive condemning him for believing in a Jewish conspiracy to lead America into war. This is so important to appreciate – the technique of condemning as 'anti-Semitic' the exposure of what you are *actually doing*. This is why ultra-Zionists condemn what they call 'anti-Semitic tropes' claiming a Jewish plot for world domination. They use this to dub any claim of a global conspiracy as automatically 'anti-Semitic' even when a Jewish connection is not even mentioned. It's not Jewish people they are seeking to protect with this mantra. It's the plot itself. Moran told Al Jazeera:

> There was a conservative rabbi in my district who was assigned to me I assume by AIPAC and he warned me that if I voiced my views about the Israel lobby that my career would be over and implied that it would be done through the Post and sure enough the Washington Post editorialised brutally, everybody ganged up.

The ultra-Zionist-controlled *Washington Post*, with its close connection to AIPAC, ran a story by senior editor Marc Fisher saying Moran was not fit for public office because 'what we have here is a United States congressman endorsing and spreading one of the oldest and most pernicious myths in the annals of ethnic hatred'. The 'trope' fraud is also one of the oldest and most pernicious protection rackets in the annals of ethnic diversion. They have constantly tried it with me, often through the clueless on the fake 'socialist' left, but I couldn't care less. Eric Gallagher, a director at AIPAC, was asked by Al Jazeera's 'Tony' which were the main media outlets that the Israel Project propaganda operation worked with. '*Washington Post* is the biggest one,' he replied. The *Post* was owned by ultra-Zionists before being purchased by Amazon's Jeff Bezos which basically means business as usual. 'Jewish leaders' (self-appointed) called on Moran to resign even though both his daughters married Jewish men and his grandchildren are Jewish. This is irrelevant to the ultra-Zionist Lobby to which 'Jewish' is merely a convenient label and means to an end. Former AIPAC magazine editor M. J. Rosenberg said everyone knew that what Moran said wasn't 'anti-Semitic':

> Anti-Semitism has come to mean anti-Israel. The AIPAC crowd doesn't really care very much about whether or not a person likes Jews or wants one to move next door. All they care about is what their position is on Israel.

The whole hoax and diversion of targeting Russia for influencing US elections is to a large part to hide the glaringly obvious fact that Israel and ultra-Zionism is buying and controlling American elections and lawmakers including the president. I had to chuckle when former Mossad chief Tamir Pardo said that Russia deployed tens of thousands of bots to influence the 2016 US elections in favour of Trump to support the candidate they thought would best suit their interests. He warned against 'the danger to Western democracies posed by Russian influence on public discourse'. What utter crap and he knows it. Al Jazeera undercover reporter 'Tony' heard about the 'Israel Cyber Shield' project which is 'a civil intelligence unit that collects, analyses and acts upon the activists in the BDS movement'. This is spying by a foreign power on American citizens and the government does *nothing*. What if the country was Russia or Iran? BDS co-founder Omar Barghouti, said:

> Israel has used cyber sabotage, we suffered from intense denial of service attacks, hacking attacks on our websites. Israel decided to go on cyber warfare against BDS publicly. They said we shall spy on BDS individuals and networks, especially in the west. We have not heard a peep from any western government complaining that Israel is admitting that it will spy on your

> citizens. Imagine Iran saying it will spy on British or American citizens. Just imagine what would happen.

Palestinian-American journalist Ali Abunimah, author of *The Battle for Justice in Palestine*, made the same point. If China, Russia or Iran was doing this there would be uproar, he said. 'You would have Congress going off to them, you would have hearings, you would have prosecutions. The question is how does Israel get away with this?' The answer is the Hidden Hand Web and the Death Cult. The scale of Israeli surveillance in the United States and worldwide is incredible. Jacob Baime, Executive Director of the Israel on Campus Coalition, told 'Tony':

> There's a company called Sensus. It's very pricy though. We had to raise hundreds of thousands of dollars for it. It's going to increase our discovery rate. We're discovering just about everything we need. It's also going to bring new sources online that we weren't able to access in an automated fashion.
>
> Like message boards ... we have ways to crawl message boards right now and to monitor them but it's disconnected from the event and activity discovery mechanism, so we want that system to be all integrated. We just signed the contract yesterday for them to start that work. They actually already started it. Good friends in Israel that are helping us with that.

John Mearsheimer, co-author of *The Israel Lobby*, rightly said that you would think with the United States having an unconditional special relationship with Israel, which gives it so much and protects it diplomatically at every turn, that Israelis would do less spying on America than other countries do: '... but on the contrary what we see is that the Israelis are probably at the top of the list when it comes to foreign countries spying on the United States.' This will become highly significant when I return to the September 11th attacks. Given what I am laying out here is it any surprise that Israeli Foreign Minister Shimon Peres revealed that Prime Minister Ariel Sharon said in the wake of 9/11 in October, 2001:

> I want to tell you something very clear. Don't worry about American pressure on Israel. We, the Jewish people, control America and the Americans know it.

What Jewish academic Noam Chomsky said about Israeli interference in US elections is clear to anyone who has even mildly researched the subject:

> First of all, if you're interested in foreign interference in our elections, whatever the Russians may have done barely counts or weighs in the balance

> as compared with what another state does, openly, brazenly and with enormous support.
>
> Israeli intervention in U.S. elections vastly overwhelms anything the Russians may have done. I mean, even to the point where the prime minister of Israel, Netanyahu, goes directly to Congress, without even informing the president, and speaks to Congress, with overwhelming applause, to try to undermine the president's policies – what happened with Obama and Netanyahu in 2015. Did Putin come to give an address to the joint sessions of Congress trying to – calling on them to reverse US policy, without even informing the president?

The absolutely stunning scale of influence that ultra-Zionists and the Death Cult have over the United States is important to expose before I return to 9/11 because it explains why and how the truth has been suppressed – and ultra-Zionist manipulation is not at all confined to America.

CHAPTER 19

Everywhere you look

Until you realize how easily it is for your mind to be manipulated, you remain the puppet of someone else's game – Evita Ochel

Ultra-Zionist manipulation in Britain and Europe (and countries like Canada and Australia) is also systematically structured for maximum ongoing effect and certainly explains the puppy dog, tail-wagging enthusiasm for the post-9/11 war on terror by war criminal prime minister Tony Blair.

The ultra-Zionist web in the UK includes the Friends of Israel network within every major UK political party – Conservative Friends of Israel, Labour Friends of Israel and Liberal Democrat Friends of Israel. These are essentially the same organisation seeking the same outcome – political support in Britain for ultra-Zionist/Israel desires and demands. These 'Friends' groupings work closely with the Israeli Embassy in London and the Britain Israel Communications and Research Centre (BICOM), a UK version of AIPAC, which promotes 'awareness of Israel and the Middle East in the United Kingdom'. BICOM hilariously describes itself as an 'independent research centre producing research and analysis about Israel and the Middle East'. Don't be silly. BICOM is an ultra-Zionist lobby front established in the 9/11 year of 2001 by ultra-Zionist billionaire Chaim 'Poju' Zabludowicz and works closely with the Israeli Embassy directly and indirectly like all these major expressions of The Lobby. Helsinki-born Zabludowicz is the son of arms manufacturer Shlomo Zabludowicz of Soltam Systems. The family company owns some 40 percent of the land covered by downtown Las Vegas where a big noise is Trump funder Sheldon Adelson. Poju' also bought property in illegal West Bank settlements. He has been a major donor to Conservative Party/Israel causes and developed a close relationship with Conservative prime minister David Cameron. BICOM is Britain's AIPAC making connections with politicians and journalists with daily briefings issued with suggested stories and angles beneficial to Israel. There are the usual free trips for politicians and journalists to visit Israel and pick up the script that we see in the United States and elsewhere.

BICOM is especially active whenever Israel is bombing Palestinian civilians and PR is urgently needed with Israel's public standing in free-fall. Two other UK ultra-Zionist censor groups, the Campaign Against Anti-Semitism (CAA) and the North West Friends of Israel were both established in the period around the 2014 Israel slaughter in Gaza known as Operation Protective Edge. Mass Murder Edge would have been far more accurate. Other strands of the UK ultra-Zionist Lobby include the Board of Deputies of British Jews, the Jewish Leadership Council and the usual Christian Zionists. BICOM also has a UK pro-Israel advocacy organisation called We Believe in Israel headed by former Labour Party councillor Luke Akehurst.

Buying Blair

Long-time Labour Party MP Tam Dalyell spoke out in 2003, the year of the ultra-Zionist-manipulated invasion of Iraq, about how 9/11 Prime Minister Tony Blair was unduly influenced by a 'cabal of Jewish advisers' in forming policy towards Iraq, Syria and Iran. Dalyell particularly focused on Blair's 'Middle East envoy' ultra-Zionist Lord Levy who was also the Labour Party's chief fundraiser and known to the media as 'Lord Cashpoint'. I can't think where Levy would go for money. Levy was described by *The Jerusalem Post* as 'undoubtedly the notional leader of British Jewry'. He was a founding member of the Jewish Leadership Council and led the financial campaign to fund Blair's successful run for prime minister in 1997. Two of the people Levy tapped for big donations were ultra-Zionist television executive Alexander Bernstein and ultra-Zionist printing tycoon Robert Gavron who were both given titles of Baron and Lord when Blair was elected. I'm sure there was no connection. Lord Levy's son Daniel has been an assistant to former Israeli Prime Minister Ehud Barak who so brilliantly predicted the role of Bin Laden and Afghanistan on the morning of 9/11. Daniel Levy headed the Middle East Department of the European Council on Foreign Relations and became President of the US Middle East Project. Blair was the ultra-Zionists' man from the start and Levy was at his side across 9/11 and into the 'war on terror' until Blair stood aside in 2007 for Gordon Brown to become his brief successor in Downing Street. Blair and Brown were both members of Labour Friends of Israel and so little changed on that score. Levy's fundraising bonanza for Blair ended amid allegations and scandal over people who donated large sums being rewarded with a title and place in the House of Lords. Israeli newspaper *Haaretz* reported a connection between money donated by Zionist Jews and the pro-Israel policy of Tony Blair and Gordon Brown. Ultra-Zionist millionaire David Abrahams, a deputy chair of Labour Friends of Israel, was exposed in 2007 for making secret and illegal donations through junior employees of £600,000. He told *The*

Jewish Chronicle that he 'didn't want Jewish money and the Labour Party being put together'. Oh, really? I wonder why. Journalist Yasmin Alibhai-Brown questioned in *The Independent* the influence in Labour Party election victories of Zionist lobbyists and Labour political organiser Jonathan Mendelsohn. He was a trustee of the UK Holocaust Educational Trust, former chairman of Labour Friends of Israel and prominent in other ultra-Zionist groups. Mendelsohn, too, became a Baron. His ultra-Zionist wife Nicola, or Lady Mendelsohn, was named as Facebook's Vice President for Europe, the Middle East and Africa in 2013 on the watch of ultra-Zionist Facebook chairman and chief executive officer Mark Zuckerberg and ultra-Zionist Chief Operating Officer Sheryl Sandberg. Did I mention that Jewish people are only 0.2 percent of the global population and that many are not Zionists and only a comparative few ultra-Zionists? The Jewish percentage of the UK population is two percent with 290,000 in a nation of more than 66 million. Tony Blair immediately joined Labour Friends of Israel when he became an MP in 1983 and remained a close supporter and attendee. Baron Mendelsohn, chief election fundraiser for Blair's successor Gordon Brown, said that Blair transformed the party's stance on Israel:

> Blair attacked the anti-Israelism that had existed in the Labour Party. Old Labour was cowboys-and-Indians politics, picking underdogs to support, but the milieu has changed. Zionism is pervasive in New Labour. It is automatic that Blair will come to Labour Friends of Israel meetings.

This was all in the run-up to 9/11 and its 'war on terror' aftermath while precisely the same was happening around Boy Bush in the United States via the Project for the New American Century network.

Castrating Corbyn

The vicious hate-filled campaign by the ultra-Zionist lobby against Labour Party leader Jeremy Corbyn in 2018 and beyond to brand him and his party 'anti-Semitic' can now be seen in its true light. The UK Conservative Party is owned by ultra-Zionists and so are most of the Labour Party MPs still loyal to war criminal Tony Blair. They are both a gimme to do whatever Israel demands. It was different with Corbyn and Labour activists supporting him. They were still prepared to speak out against Israel and the inhuman treatment of Palestinians. The campaign of hate against Corbyn and what is left of genuine Labour was specifically orchestrated with disgraceful support from the *Daily Mail* and other media to force the party into adopting the ridiculously-broad new definition of 'anti-Semitism'. I say 'force' but 'force' always requires acquiescence to 'force' and the party hierarchy outrageously caved. Labour Friends of Israel MPs were at the forefront of the campaign as

you would expect and that is the source of constant efforts to replace Corbyn as leader. Ultra-Zionist Labour MPs played the victim card and the depths of insanity and exaggeration of the get-Corbyn campaign were personified by ultra-Zionist Labour MP Margaret Hodge (née Oppenheimer). She is a patron of the Campaign Against Antisemitism (CAA) which hurled hysterical abuse in Corbyn's direction as it has against me. Hodge actually said that facing a party disciplinary inquiry (later dropped) over calling Corbyn an 'anti-Semite' made her think about 'what it felt like to be a Jew in Germany in the 30s'. She went on: '... when I heard about the disciplinary, my emotional response resonated with that feeling of fear, that clearly was at the heart of what my father felt when he came to Britain.' To make a comparison between a party disciplinary hearing and being a Jew in Nazi Germany takes the bloody breath away. One of the most sickening comments I saw with relation to Corbyn was when he posted on Twitter on the 100th anniversary of the end of the First World War in 2018 that we should say 'never again'. This was met with a reply from an ultra-Zionist fanatic who said: 'Please don't ever use the phrase #NeverAgain (which FYI is a reference to the Holocaust). It is an insult!' An estimated 37 million people died in the First World War and this man was claiming copyright for 'never again' for 0.2 per- cent of the global population. Now *that* is an insult, but what a glimpse into the extremes of this cultural chauvinism. Political commentator John Wight made a telling contribution to understanding the background to the anti-Corbyn hate campaign by 'anti-hate' ultra-Zionist frauds. Wight described them as: 'A sundry crew of in the main very middle class, very affluent, and very mendacious champions of war – Iraq, Libya anyone? – and defenders of Israel's oppression and dispossession of the Palestinian people, who to all intents have been marked out as children of a lesser God':

> Many of these defenders of Israel occupy prime positions within the mainstream media, within the Labour Party itself as MPs — indeed within the establishment in general — and key among them are members of a pro-Israel lobby that is committed to policing and controlling the terms of the debate when it comes to the treatment of the Palestinians.
>
> At their behest people in Britain have been invited to enter an upside-down world in which lifelong committed anti-racists, such as Corbyn, are presented as rabid racists and anti-Semites, while they – proponents of regime change wars and defenders of apartheid – are presented as Camusian warriors of integrity and decency.

Gaining Momentum? Or gaining control?

Four weeks after Jeremy Corbyn became UK Labour Party leader an

organisation called Momentum was launched from the multi-million pound home overlooking Tower Bridge in London of Zionist Jon Lansman with fellow Zionists James Schneider and Adam Klug. Momentum is called a 'grassroots' organisation allegedly to gather support for Corbyn and it quickly made inroads into the Labour Party hierarchy with Lansman securing a place on the party's National Executive Committee. There were more than 170 local groups in the UK by early 2018 and 40,000 members. Momentum said it would 'encourage mass mobilisation for a more democratic, equal and decent society' and 'assist members in making their voice heard in Labour Party debates'. Well, debates that don't include criticism of Israel would appear to be more accurate because according to *Jewish News* Lansman was for weeks lobbying Labour's leadership to adopt the international definition of anti-Semitism with all its carefully-worded examples that I detailed earlier. He came out full-blown in 2019 when he said that the Labour Party he claims to support had a major problem with 'anti-Semitism' and members who believed in 'conspiracy theories'. How yawningly predictable. The real agenda of Zionist-controlled 'Momentum' was now on public display and even more so when Momentum produced a video condemning 'conspiracy theories' and saying they were only trying to get people to 'hate Jews'. The Rothschilds and George Soros were especially defended and yours truly naturally got a mention. No matter how much documented evidence is produced about Soros it doesn't matter because there is only one explanation for why people expose him – they're 'anti-Semitic'. The clueless presenter of the video said the Rothschilds can't be part of a conspiracy because they are hardly mentioned in the Forbes Rich List. The idea that those in real control – as opposed to mega-rich frontmen like Jeff Bezos – are going to flaunt the extent of their wealth and power is so ridiculous, naive and misleading that you can only laugh. Are genuine Labour Party members going to realise what Momentum really is and why it was created by Zionists immediately after Corbyn was elected leader? By 2018 Corbyn was so controlled by people like Lansman and Israel-arse-licking Labour Deputy Leader Tom Watson that he posted a link to the Momentum video while condemning 'vile and destructive ... antisemitic conspiracy theories'. This was the end of Corbyn as a credible 'radical'. His backbone had gone and he was now owned by Israel. The coup on the Labour Party was complete. I never had Corbyn down as the brightest, but his spineless contempt for genuine Labour supporters that made him leader is a disgrace. Tom Watson, who has taken donations from pro-Israel lobbyists, said amid rising homelessness and poverty with kids going to bed hungry every night that 'fighting anti-Semitism' should be the Labour Party's 'number one issue'. How Watson shaves without averting his eyes I cannot think. The claim by rich-man

Lansman that he started Momentum to improve the lives of the oppressed working class is utterly hilarious to me. He became a member of the National Executive Committee's working group on anti-Semitism and Momentum vice-chair Emina Ibrahim was on the panel that expelled Labour Party members for 'anti-Semitism' *including* Jewish ones. The most shocking case was that of Cyril Chilson, a Jewish academic at Oxford University who served 16 years of compulsory and reserve service in the Israeli army, including in occupied Palestinian territories and in occupied Lebanon during the war in 1982. He was also a foreign press liaison officer with the Israeli Defence Forces (IDF) spokesman unit. Chilson said that his job was to:

> ... whitewash the atrocities which I had witnessed on a daily basis when serving in the West Bank or in Gaza and spoon-feed with watered-down information the foreign correspondents while escorting them during their restricted visits.

Chilson's parents were both survivors of the Nazis. He moved to the UK where he became a naturalised British citizen in 2006 and was able 'to gain a wider perspective of the real intentions of the state of Israel, reflected through the agenda of the settlers' movement, namely a permanent and irreversible Jewish colonisation of the occupied Palestinian territories'. Chilson joined the Labour Party and said he recognised from personal experience the 'ideological fingerprints' of the Israeli military propaganda machine and 'Hasbara' that were 'all over' the attacks on Jeremy Corbyn and the Labour Party for being 'anti-Semitic'. He was describing how the Israeli military and government via its UK network was the source of the campaign of abuse for Corbyn and Labour to accept the new full and ludicrous definition of 'anti-Semitism' while Momentum's Lansman was lobbying Labour from the inside to the very same end which was eventually successful. This manufactured ultra-Zionist mob abused Chilson and his family and tried to pressure Oxford University to sack him. This is typical of ultra- Zionist hate groups. Instead of giving Chilson support the spineless ultra-Zionist-hijacked Labour Party suspended him in 2016 and he was permanently expelled from the party at a disciplinary hearing with Momentum's Emina Ibrahim on the panel. Another expelled Jewish Labour member, Tony Greenstein, described her as a 'collaborator in this racist outrage'. Cyril Chilson wrote:

> The charges against me revolved around my 'antisemitism' – a grotesque accusation for a son of Holocaust survivors whose mother had been snatched in the last minute from the crematoria of death camps and whose father had fought the Nazis flying a Soviet combat aircraft, while his entire family,

> parents, siblings and all their relatives perished in the Belzec concentration camp.
>
> The 'antisemitism' in question was my criticism of the state of Israel and its atrocious policies – namely, the unending occupation of the West Bank and the inhuman siege on Gaza, the continuous colonisation of the West Bank and annexed territories (i.e. Eastern Jerusalem and the Golan Heights) and the pervasive apartheid and discrimination against the Palestinian citizens of Israel.

What profound confirmation that the 'anti-Semitism' hysteria and ultra-Zionist hate groups are not about protecting Jews, but deleting all criticism and exposure of the far right Israel government and the Death Cult that drives its policies and behaviour. Chilson's comments about Israel 'recruiting certain leaders of western Jewish communities and turning them into zealous supporters who ostracise opposing Jewish voices' were decreed by the panel, or what Chilton calls a kangaroo court, as 'making mendacious allegations about Jews as a collective" and 'accusing Jews, supporters of Israel and critics of antisemitism as being more loyal to Israel than to the UK ...' Chilson said that most insane of all he was accused of 'denying Jewish people the language to describe their own oppression'. Even the sons of Nazi concentration camps victims are 'anti-Semitic' if they criticise Israel. Jeremy Corbyn, caught in a pincer-movement between the Tony Blair-supporting, Israel-supporting wing of his party and Zionist Lansman's Momentum sat on his hands and zipped his mouth while all this was going on. In November, 2018, Lansman's Momentum would turn on me and try to get my public event in Watford, just north of London, cancelled on the grounds of, yes, 'anti-Semitism'. They tried to demonise me on social media and produced a video in support, but they were met with a lot of condemnation from genuine Momentum and Labour Party members and others for their contempt for freedom of speech. It might be wise for those genuine Momentum members and Labour activists to ask a few questions about the organisation's real agenda and why a rich man like Lansman has this calling to represent the poor and downtrodden while campaigning within the party for what suits Israel and its network of lobby groups. Labour MP Chris Williamson was suspended for saying that the party had been 'too apologetic' over the 'anti-Semitism' campaign. This was not only true, but even if it wasn't he had a right to that opinion. Not in the Israel-owned Labour Party he doesn't. Williamson's biggest mistake was to then say he deeply regretted his remarks. Every time someone apologises for speaking either the truth or their view of the truth more power is handed to the ultra-Zionist hate groups who are further emboldened to attack others. They should

demand that I apologise for reporting supportable facts. They will die waiting. 'Progressive' *Guardian* columnist and self-obsessed social justice warrior Owen Jones jumped to the defence of Williamson and free speech, surely? Well, er, not quite:

> This is utterly out of order. When does the left ever say we've been 'too apologetic' about fighting racism or bigotry? Why is he, a non-Jew, right and Jon Lansman - a Jewish socialist who founded Momentum and ran Corbyn's second leadership campaign - wrong about anti-Semitism?

Another little boy in short trousers who believes he's an intellectual giant. Jones and Lansman's Momentum even urged people to protest at a music event of Israeli-born Gilad Atzmon – now music is 'anti-Semitic' to these morons. Didn't the Nazis target music and cultural events? I do they believe they did.

One party state and the climate of fear

Peter Oborne is one of the few mainstream journalists with the courage and integrity to question the influence of the Zionist Lobby in British politics which he has done both in print and a rare television documentary on the subject. He has highlighted the 'formidable turnout' at major Conservative Friends of Israel events including the party leader and how *80 percent* of Conservative Members of Parliament were members of Conservative Friends of Israel (CFI). The UK Conservative Party has been in government since 2010 at the time of writing led by prime ministers David Cameron and Theresa May who have slavishly supported the US ultra-Zionist Neocon agenda in Libya, Syria and elsewhere. The current Conservative Party treasurer and money-man as I write is the Israeli-born businessman Ehud Sheleg who has donated large sums to the party while Sir Mick Davis, born to a South African Jewish family and former chair of the Jewish Leadership Council, was appointed the party's chief executive in 2018. I wonder what the Conservative policy on the Middle East will be? *Mmmm* ... can't think. Peter Oborne reported how then Prime Minister David Cameron made the main speech at the annual Conservative Friends of Israel gathering in 2009 like other Conservative leaders before him. Margaret Thatcher was a founder member of the Conservative Friends of Israel, a member of the Anglo-Israel Friendship League and the first serving British prime minister to visit the country in 1986. Cameron's speech to this Israel lobby group within his own party was made amid an Israeli invasion of the Gaza Strip and Oborne said he was shocked to see that Cameron did not even mention the invasion. Instead he praised the way Israel 'strives to protect innocent life' at a time when 1,370 people in Gaza were dead. Oborne said he found it impossible to reconcile the remarks with the

numerous reports of human rights abuses in Gaza and said as much to some Conservative or 'Tory' Members of Parliament. 'They looked at me as if I was distressingly naive, drawing my attention to the very large number of Tory donors in the audience,' he said. We are looking at the UK equivalent of the spring-arsed Israel-worshippers on Capitol Hill. Most people have no idea about the scale of influence ultra-Zionism and Israel have in the corridors of power, but to know this is to understand so much about the way Israel gets what it wants and avoids criticism and challenge for behaviour that would have others before the International Criminal Court or subject to regime change invasion. Oborne has described how the slur of 'anti-Semitism' is used against journalists and publications to deter would-be critics and how 'News International, Telegraph newspapers and the Express Group have tended to take a pro-Israel line and have not always been an hospitable environment for those taking a critical look at Israeli foreign policy and influence'. I should congratulate him for one of the understatements of the century. Oborne and colleague James Jones produced a pamphlet exploring the influence of the Zionist Lobby and they noted how clearly frightened people were to speak publicly on the subject even though they had plenty to say in private. Oborne and Jones wrote:

> Many people who privately voiced concerns about the influence of the lobby simply felt they had too much to lose by confronting it. One national newspaper editor told us, 'that's one lobby I've never dared to take on.' From MPs, to senior BBC journalists and representatives of Britain's largest charities, the pattern became depressingly familiar. Material would come flooding out on the phone or in a meeting, but then days later an email would arrive to say that they would not be able to take part. Either after consultation with colleagues or consideration of the potential consequences, people pulled out.

Oborne and Jones revealed how charities such as Disasters Emergency Committee, Amnesty, Oxfam, Christian Aid, Save the Children Fund and the Catholic agency CAFOD all refused to comment on the BBC's refusal to air a Gaza disaster appeal in response to the humanitarian catastrophe at the time delivered by the Israeli military. Even finding a publisher for their pamphlet was not easy with potential publishers concerned about losing their charitable status or saying 'I don't think that our donors would like this very much'. Zionist money and intimidation are the twin pillars of ultra-Zionist control networks both sides of the Atlantic and in countries like Australia and New Zealand. The writers described how one MP had predicted they would never 'have the guts' to make a television programme about what was happening. The MP said it was 'a big story' and called the Zionist network 'the most powerful lobby by far in parliament'. When the

programme *was* made the MP refused to take part and a 'front bench Conservative MP was so paranoid he insisted we remove the battery from our mobile phones to ensure our privacy during the conversation'. Only senior MPs reaching the end of their political careers were willing to speak on the record including Michael Mates, a member of the Intelligence and Security Committee and former Northern Ireland minister, who eventually left parliament in 2010. He said: 'The pro-Israel lobby in our body politic is the most powerful political lobby. There's nothing to touch them.' Their lobbying, he thought, was 'done very discreetly, in very high places'. Sir Richard Dalton, former British ambassador to Iran and consul in Jerusalem, told the writers how politicians are afraid to say publicly what they may say in private and so Israel avoided proper public scrutiny and much of this pressure to stay silent was financial. Oborne and Jones described how different members of the Friends of Israel networks from Conservative and Labour parties have public dialogue about Israel policy while never making clear their membership of in effect Israel lobby groups. This included those in government and parliamentary roles highly relevant to Israel policy. Oborne and Jones wrote in 2009:

> Many of the most sensitive foreign affairs, defence and intelligence posts in the House of Commons are occupied by Labour or Conservative Friends of Israel. Mike Gapes, chairman of the Foreign Affairs Select Committee, is a former deputy chairman of the [Labour Friends of Israel]. Kim Howells, the chair of the Intelligence and Security Committee (and another former Middle East minister) used to chair Labour Friends of Israel. James Arbuthnot, chairman of the powerful Commons Defence Select Committee, is also the serving parliamentary chairman of the [Conservative Friends of Israel]. There is no prohibition on parliamentarians having membership of such groups, but how many voters are aware of these links?

The same situation continues today with the ultra-Zionist lobby massively influencing British government policy on the Middle East and elsewhere through their maze of channels. Oborne reveals that then Conservative Party opposition foreign affairs spokesman William Hague was the target of Zionist anger when he described the Israeli attack on Lebanon in 2006 as 'disproportionate'. Threats were made by ultra-Zionist Lord Stanley Kalms, treasurer of the Conservative Party across 9/11, to withdraw funding. Oborne said party leader David Cameron gave the Zionists an assurance that the term 'disproportionate' would never be used again. Members of Parliament supporting the ultra-Zionist agenda attract financial support and particularly those who are standing against critics of Israel. No guesses where the inspiration came from for Jeremy Hunt, I think I pronounced that correctly, the British

Conservative government Foreign Secretary, to describe Israel as 'an inspiration' and 'beacon of democracy' when it is anything but. Hunt announced in 2019 that the UK would oppose the United Nations Human Rights Council's permanent agenda item on human rights abuses in Israel and Occupied Palestinian Territories. He said 'elevating this dispute above all others cannot be sensible' and he might have added 'if I want to stay attached to my arse'. Hunt condemned the suggestion that 'one side alone holds a monopoly of fault'. He's right – the ones with the state of the art arsenal funded by the United States and those by comparison with pea-shooters are equally at fault. The same is true of those who are free to travel anywhere and those imprisoned behind fences with checkpoint exits manned by armed troops and those who pepper-bomb Gaza and those on the receiving end. They are equally to blame. It's your fault – you shouldn't have been having tea in your home with your family when we decided to drop a bomb. In fact, that could even be 'anti-Semitic'.

It's the same game in Britain that we see in the United States, Canada and other countries. Labour and Conservatives Friends of Israel MPs and those they want to snare are taken on funded visits to Israel to be subjected to ultra-Zionist propaganda. How can this be in any way acceptable when according to the Committee on Standards in Public Life: 'Holders of public office should not place themselves under any financial or other obligation to outside individuals or organisations that might seek to influence them in the performance of their official duties.' Do you think being owned by ultra-Zionist money and largesse might qualify for that? Journalists told Oborne and Jones how they had been accused of anti-Semitism' for writing articles unfavourable to Israel and they were sure it had damaged their careers. BBC Middle East reporter Orla Guerin was moved to other duties after a campaign against her by Israel and its lobby dubbing her 'anti-Semitic' for the 'crime' of trying to report the Israeli-Palestinian conflict fairly and honestly. Both words are like garlic to a vampire to the ultra-Zionist lobby which demands that only its narrative is heard. Writer Antony Lerman who had been very supportive of Israel and highlighted anti-Semitism was called 'a nasty anti-Semite' as soon as he broke ranks with the script. 'I think there are people who are deliberately manipulating the use of the term antisemitism because they do see that it's useful in defending Israel', he said. Oh, just a little bit. Veteran British journalist Richard Ingrams, a critic of Blair minder Lord Levy, highlighted 'the reluctance throughout the media to contemplate the Israeli factor' with regard to the September 11th attacks and pointed to 'pressure from the Israeli lobby in this country that many, even normally outspoken journalists, are reluctant even to refer to such matters.' Ingrams pointed out the 'close business links with Israel' with regard to major media owners like Rupert

Murdoch. Sam Kiley, a journalist on the Murdoch-owned *Times* newspaper, resigned after saying his work had been severely censored by senior executives because of the owners' support for Israel and Zionism. Most won't walk out with a mortgage to pay and so they bow their heads and avoid the subject. Columnist Kevin Myers was fired by the Irish version of the Murdoch-owned *Sunday Times* for alleged 'anti-Semitic' comments in 2017 about the way the BBC paid male presenters more than female for the same job. Myers wrote:

> I note that two of the best-paid women presenters in the BBC – Claudia Winkleman and Vanessa Feltz, with whose, no doubt, sterling work I am tragically unacquainted – are Jewish. Good for them. Jews are not generally noted for their insistence on selling their talent for the lowest possible price, which is the most useful measure there is of inveterate, lost-with-all-hands stupidity. I wonder, who are their agents?

Had had the word 'Jewish' instead been 'American', 'Chinese', 'French', 'Russian', 'Colombian' or 'Canadian' Myers would not have been instantly fired, his column removed and an apology published. The Jewish population of Ireland is about 2,500 in a total Irish population of around 4.8 million and the pressure to sack him didn't even come from Jews in Ireland. They *defended* him – not least because he had a record of pro-Israel articles. The Jewish Representative Council of Ireland said that branding him as either an anti-Semite or Holocaust denier was 'an absolute distortion of the facts'. Distortion of the facts? Who could have done that to get Myers sacked and his career destroyed? *Mmmm,* that would be the UK-based Campaign Against Antisemitism (CAA) in its perpetually red-faced outrage. This is the same CAA that targets the Labour Party and myself – while Labour members targeted by the CAA also target me on the same grounds that the CAA targets them. Don't waste your time trying to make sense of that. Just accept that the world is mad and let's continue.

Israel's 'take-down' policy

Ultra-Zionists use their web of organisations and hate groups to fund, manipulate and intimidate their demands into reality through theoretically (and only that) sovereign governments. Elected politicians who won't play ball with the psychopaths of the Israeli far right are targeted for removal. We saw a glaring example of this in an Al Jazeera documentary series about the Zionist Lobby in Britain in 2016 when hidden cameras caught Shai Masot, 'a senior political officer' (see 'Mossad') at the Israeli Embassy in London headed by far-right ultra-Zionist ambassador Mark Regev who has become well known for 'justifying' in the media the slaughter of Palestinian civilians. Israeli

embassies around the world are Mossad fronts with the main Mossad operative having a higher rank than the ambassador. This was revealed by former Mossad agent Victor Ostrovsky in his 1990 book, *By Way of Deception*. Friends of Israel groups within UK political parties work closely with the Israel embassy in London as confirmed by Labour Friends of Israel officer Michael Rubin when caught on a secret camera. He said there was a need to keep this connection to the embassy secret: 'We work really closely together, but a lot of it is behind the scenes.' Oh, I don't doubt it, and so we are looking at organisations connected to the Israel embassy infiltrating UK political parties. *Hello*? Al Jazeera's covert filming exposed the manipulations of the Friends of Israel network and associated groups and in one scene Israeli embassy operative Shai Masot is seen listing British politicians he wanted to 'take down' for their stance on Israel (Fig 103). They included Foreign Office Minister Alan Duncan. Masot was in conversation with his friend, Joan Ryan, then chair of the Labour Party Friends of Israel and a vociferous critic of party leader Jeremy Corbyn. This shocking exposure should have been met with a tidal wave of condemnation and questions about Israel's manipulation of politics in Britain and elsewhere. Imagine what would have happened had the country been Iran? But it wasn't – it was Israel and the incident passed with barely a whimper and that included from Corbyn who is in political hock to the Momentum 'radical socialist' organisation of Zionist Jon Lansman. Prime Minister Theresa May said in reaction to an Israeli demand to take down one of her own ministers: 'The Israeli ambassador has apologised ... the UK has a strong relationship with Israel and we consider the matter closed.' This was both pathetic and also very revealing. Another ultra-Zionist group working within the Labour Party is the Jewish Labour Movement (JLM) which the Electric Intifada website reported, quoting unbroadcast footage from an Al Jazeera documentary, was reformed in 2015 just to oppose Jeremy Corbyn. Still another ultra-Zionist group within the party is Jewish Voice for Labour

Figure 103: UK Israeli embassy 'take down' operative Shai Masot on the left with Ambassador Mark Regev on the right, the notorious apologist for Israeli mass-murder in Gaza. In the centre is Jeremy Newmark , former chair of the Jewish Labour Movement within the Labour Party which has been very active in the 'anti-Semitism' campaign against Jeremy Corbyn and the party in general.

which is a 'racially'-exclusive group that only allows non-Jews to join as a 'solidarity member'. What if it was the other way round? 'Anti-Semitic!!!' JLM director Ella Rose admitted to Al Jazeera's undercover reporter that she worked closely with Shai Masot before and after she took up the post. 'We work with Shai, we know him very well,' she said, which is not surprising. Rose once worked for the Israeli embassy. You won't be shocked to know that Rose is another critic of Corbyn within the party. The Jewish Labour Movement invited an Israeli delegation to the 2016 Labour Party conference at the behest of the Israeli embassy who were portrayed as young, left-wing Israeli activists. Israel daily *Haaretz* reported after the conference – without naming the groups involved – that a cable from Israel's London embassy confirmed that Israeli agents had been 'operating British Jewish organizations' and this was possibly 'in violation of British law'. Michael Rubin, Parliamentary Officer for the Labour Friends of Israel, said on hidden camera that Israel Friends Labour chair Joan Ryan spoke with Shai 'take down' Masot 'most days' and that Labour Friends of Israel 'work with the [Israeli] ambassador and the embassy quite a lot'. Still believe in 'democracy'?

The inevitable came in early 2019 when Israel-stooge Labour and Conservative MPs, including Friends of Israel stalwart Joan Ryan and Jewish MP Luciana Berger, a one-time director of Labour Friends of Israel, left their parties to form their own 'Independent Group'. A greater contradiction in terms it is hard to imagine. They claimed their motivation came from 'anti-Semitism' in the Labour Party. This 'group', which included the oil-slick-slimy Labour MP Chuka Umunna, turned out not to be a new political party, at least at first, but a private company! This allowed them to keep secret their sources of funding. Half a brain cell was all you needed to work out where much of it would come from and confirmation soon arrived. Multi-millionaire Israel lobbyist David Garrard announced that he was funding the 'Independent' Group which chose Umunna as its 'spokesman'. Oil slick would not have had it any other way. David Garrard has been a major financial backer of Labour Friends of Israel and joined its board. He donated nearly $2 million to the Labour Party under pro-Israel leaders Tony Blair, Gordon Brown and Ed Miliband, but then called in a loan of more than $2.5 million when Jeremy Corbyn was elected leader. But don't you worry your little head – there is no ultra-Zionist manipulation of British politics and it is absolutely 'anti-Semitic' and Holocaust-denying to say so. I mean, where's your evidence? Garrard has made donations to Ryan, Umunna and other breakaway Israel-worshippers, but their new 'party', later called Change UK, soon began to unravel. Labour MP Ruth George commented that it was possible this group would get support from Israel (solid gold certainty) but after the usual

furore she apologised for 'invoking a conspiracy theory'. Is there no one in politics or public life who is not permanently on their knees facing Tel Aviv? The UK Liberal Democrat Party is another fiefdom of the ultra-Zionist lobby and the Friends of Israel network. Baroness Jenny Tonge, a thoroughly decent former Liberal Democrat MP and member of the House of Lords, was suspended by the party and later resigned after the truth she told about Israel was too much for her butt-licking colleagues. She said in 2006: 'The pro-Israeli lobby has got its grips on the western world, its financial grips. I think they've probably got a grip on our party' (another solid-gold certainty). The establishment immediately fell to its knees led appropriately by former Archbishop of Canterbury George Carey who condemned Tonge's 'irresponsible and inappropriate' comments which 'evoked a classic anti-Jewish conspiracy theory'. *What an idiot*. Journalists Peter Oborne and James Jones said the following about the influence of the Zionist and Israel Lobby in the UK:

> This influence works in a variety of ways: the unceasing cultivation of British MPs; political donations; availability of research briefs; brilliant presentation of the case for Israel. The Israel lobby has enjoyed superb contacts at the very top of British politics, and never hesitated to use them. As we have shown in this pamphlet, it has used them at key moments; for instance the Israeli invasion of the Lebanon three years ago and the publication of the Goldstone Report into alleged war crimes during the invasion of Gaza earlier this year.
>
> Beyond these specific examples of influence, there is also a wider presence. The Friends of Israel groups in the House of Commons have firmly established themselves in the interstices of British political life. Their heavy presence at party conferences is taken for granted, their lunches and dinners an ingrained part of the Westminster social scene, the donations a vital part of the political financing. An environment now exists where MPs and ministers feel cautious about criticizing the foreign policy of the Israeli state, wary of opening themselves to criticism on the home front. Meanwhile, public discourse on Israel, as we have shown, is heavily policed.

'Conspiracy theorist' = 'anti-Semite'

What the CIA dubbed 'conspiracy theorists' are very dangerous to the official narrative because they are questioning its validity either in total like me or in part. They therefore have to be discredited and silenced and once again 'anti-Semitism' is the weapon of choice. The Board of Deputies of British Jews and the UK Community Security Trust don't seem to like talk of conspiracy – the same with their American counterparts the Anti-Defamation League (ADL). 'Conspiracy theories' are now condemned as 'anti-Semitic tropes' by the Protection Racket even if Jewish people or Zionism are not mentioned because this is

about preventing exposure of the global conspiracy and nothing to do with protecting Jewish people from discrimination. The ADL attacked a researcher for questioning how the Twin Towers collapsed when there was no mention of a Jewish or Zionist angle. How interesting and it will get more so later in the book. The UK Community Security Trust (CST), which likes to attack me, is a private 'security' organisation that makes its money from protecting Jewish people and thus benefits when they feel threatened. Every year it issues figures which invariably show that 'anti-Semitism is on the rise' and the media and politicians just accept the figures without question and with not even a thought about potential conflict of interest. True to form in February, 2019, the CST published its latest 'figures' and would you believe it – 'anti-Semitism' incidents had reached a record high for the third year in a row. The CST said that this indicated a general atmosphere of intolerance when they took a brief break from calling for others to have their free speech denied. The Campaign Against Anti-Semitism (CAA) is so tolerant that its stated policy is 'zero tolerance'. They're not hypocrites or anything – that's just an 'anti-Semitic' trope. The CST and Board of Deputies condemned the anti-EU UK Independence Party (UKIP) for embracing people connected to conspiracy talk show host, Alex Jones. Israel arse-licker, rent-a-quote and Labour MP John Mann said Jones' organisation was 'vile and dangerous'. I thought he was talking about his Labour Friends of Israel at first hearing, but apparently not. I have some big differences with Alex Jones and not least his backing of Trump, but I will support to my dying day his right to his opinion. This is in stark contrast to the tech and financial companies of The Web that have banned him. Apple, Twitter, Facebook, PayPal and so on did so while talking about 'our values' when they don't have any. 'Values' is only Orwell-speak for controlling the narrative. The ultra-Zionist attack on Jones was particularly bizarre on the face of it because the Jones associate they mention rails against the impact of Islam but has argued *against* any suggestion of a 'Jewish plot'. Jones overwhelmingly avoids the Zionist connection, too. Ultra-Zionist groups linked the exposure of George Soros by Alex Jones and company as evidence of 'anti-Semitism' which is the constantly-employed tactic to protect Soros and his mega networks manipulating human society. I read the story about the targeting of UKIP on the *Guardian* website in an article by its 'political correspondent' (God help us) Peter Walker. He wrote about 'the supposed influence of Soros, the billionaire financier who is at the centre of antisemitic conspiracies about so-called "globalists" seeking to control the world.' The fact that what Soros is doing has been confirmed by leaked documents and emails and by arrogant members of his Open Society Foundations passes Walker by. *The Guardian* promotes itself as radical left of centre but is actually the epitome of an establishment

propaganda sheet promoting the agenda of human enslavement while most of its number think they are 'anti-establishment'. The paper's biased coverage of Israel and Palestine is a disgrace to journalism and those seeking to present both sides have been purged as contributors in recent years in yet another example of ultra-Zionist-inspired censorship.

Speaking from experience

Elements within the programmed *Guardian*-like 'progressive left' turned on Alice Walker, once one of their icons, when she recommended my book *And The Truth Shall Set You Free* in an interview with *The New York Times* in late 2018. Alice, the acclaimed author of the Pulitzer Prize-winning *The Color Purple* and many other books and works of poetry, was born as a black child into racist and segregated Georgia in 1944. Against all those incredible odds she built a career as a celebrated author and activist opposing racism and campaigning for justice for all. She married Melvyn Rosenman Leventhal, a Jewish civil rights lawyer, in 1967 and they became the first legally-married interracial couple in Mississippi which obviously attracted harassment and condemnation from white racist morons and their enforcement arm, the Ku Klux Klan. It took incredible commitment and fortitude to stand by her principles – her Jewish husband, too – but all this was forgotten and ignored on both sides of the Atlantic by the calculated hate-merchants of the ultra-Zionist Protection Racket and their mindless sycophants in the 'progressive' mob and media when Walker committed the crime of saying positive things about my book. The symbiosis of ultra-Zionist hate groups and 'progressive' 'anti-hate' groups and activists is the symbiosis of cold calculation and self-righteous ignorance and stupidity. Not a pretty sight from any angle. The media was in uproar as they always are when anyone questions the absolute, uncriticisable perfection of 0.2 percent of the global population. Well, apart from those in the 0.2 percent that criticise Israel – they are fair game to the Protection Racket. I was also interested to see how writers who promote themselves as 'moderate', 'socialist' Zionists were attacking Walker including a bloke called Raphael Magarik writing in the Israeli paper, *Haaretz*. He called my book 'rabidly anti-Semitic' (I doubt he'd even read it) and accused Walker of making 'anti-Semitic' remarks. Utterly ridiculous and outrageous, but for much of the Zionist left Jewish self-identity is still the default position no matter what they may say about the Israeli right wing. Once we reach the point of accusing people like Alice Walker of racism we know that something is seriously wrong and all this does is alert still more people to the Protection Racket, its methods and goals.

I have often been targeted by the ultra-Zionist lobby and its hate groups which have lied to venues and police in an effort to have my public events banned. They have succeeded a few times – at great cost to

their public credibility and standing – but we have always somehow found a way around this coldly-calculated censorship – except in Germany where venues are cowed and threatened into cancelling my events or refusing to take a booking (see *Everything You Need To Know But Have Never Been Told* for the detailed background). Germany, meanwhile, continues in its delusion of being a free country despite these facts and Orwellian laws targeting freedom of speech. I don't know what they will do when this book comes out. They will be apoplectic and fit to burst and what I have written will be completely misrepresented as always. I can't say enough times that I am not exposing a 'Jewish plot' but a plot by a cabal that hides in part within the Jewish community and connects with the The Web which operates in all communities, cultures and races. The emphasis in this book is on the ultra-Zionist part of The Web because of its direct relevance to 9/11 as we will see. I will address directly in the next chapter the nature of the usurpers who use the Jewish community as their smokescreen. The prime organisation seeking to silence me in the UK has been the Campaign Against Antisemitism (CAA) which was established in August, 2014, during the mass murder of Palestinians by the Israeli military in Operation Protective Edge which killed more than 2,000 Palestinians including more than 500 children. Another Zionist censor group, the North West Friends of Israel, was formed in the same summer of 2014 and it, too, has worked to have my events cancelled by lying to venues and media about what I would be saying and what I believe. The venues, including the Lowry Hotel in Manchester, never consult me about what is being claimed. They just cancel the event often without even telling us.

Manchester (no class) United

A perfect example with regard to the CAA is the behaviour of Manchester United Football Club in 2017 where a book-launch dinner was to be held for *Everything You Need To Know But Have Never Been Told*. The booking had been confirmed for months and right up to the previous day my son Jaymie was in communication with the club over final arrangements for hundreds of guests, many of them Manchester United supporters and others who had come from abroad. Some had booked tickets to celebrate birthdays. None of this matters to the agenda of the CAA who joined forces with Kick-It- Out, an organisation that campaigns against racism in football. Kick-It-Out knew nothing about me but they didn't have to. The CAA told them everything they needed to know. They both contacted Manchester United with their lies about what I say in the events and alerted local Labour Party Member of Parliament, Kate Green. She went to work on the club as well and we heard on the Internet on the morning of the event that Manchester

United had cancelled. To this day they have never told us. Jaymie headed to the club's Old Trafford ground to ask the people he had been dealing with for months what was going on and he was met by the club's security who escorted him from the premises. Manchester United may be one of the world's biggest football clubs but clearly has no class and no integrity. We managed to find another venue at incredibly short notice to hold the event and in doing so we came across a big venue that will absolutely not cancel when I next speak in Manchester. So thanks for that CAA. It is astonishing to think that MP Kate Green, who was pivotal in having the event cancelled at the expense of her own constituents, was responding to the misrepresentations of me by the very same CAA that so viciously targeted her Labour Party as 'anti-Semitic'. People actually vote for this person? The head of a local homeless charity was pressured by aides to Manchester Labour Mayor Andrew Burnham not to attend the event to receive a donation from us for the homeless of Manchester collected at my events. Burnham sells himself politically as a champion for the homeless. We walked around the city handing out the money directly to the homeless instead. One of three Twitter accounts that Kate Green said had demanded my event to be cancelled was called 'Falconmalteser'. This was established ten years earlier and had the sum total in that time of *one tweet*. So it was genuine then? Green went into battle immediately without even checking. The thought that she is representing anyone let alone a whole political constituency of Stretford and Urmston is terrifying.

The North West Friends of Israel were also involved in pressing for cancellation and they have connections to the Labour Party via people like MP John Mann, a fanatical Zionist, stalwart of Labour Friends of Israel, chair of the All-Party Parliamentary Group against Antisemitism and in the forefront of attacks on Labour leader Jeremy Corbyn over alleged 'anti-Semitism'. You get the picture. Kick-It-Out is partly funded by the Professional Footballers Association (PFA) which is run by Gordon Taylor, a man I knew quite well many years ago when I did interviews with him for the BBC. I wrote to Taylor to point out that the organisation he was helping to fund had grossly misrepresented me both to Manchester United and in public, but he couldn't be bothered to reply. Keep your head down, Gordon, you know it makes sense. I made an offer to publically debate the CAA, Kate Green, Andrew Burnham, Kick-It-Out, all of them together, but they wouldn't accept. Ultra-Zionist hate groups make a point of avoiding open debate with their targets by saying they don't debate with 'anti-Semites'. Throw your mud and run is their modus operandi and they know the media will never call them out. As for Manchester United, they told the media they didn't know the booking was for me which was a lie beyond belief and provably so. Jaymie had actually told them that venues had been targeted to cancel

my events and club staff said that we wouldn't have that problem with them because 'We are Manchester United'. In fact, Zionist-owned Manchester United melted like wax in a fire once the ultra-Zionist lobby came to call representing as it does a fraction of two percent of the UK population and a fraction of 0.2 percent of humanity worldwide. Other venues have taken the same mendacious stand of 'we didn't know it was him' out of sheer terror of ultra-Zionist extremists and their threats. When are people going to get off their bloody knees? When venues refuse to cancel they are themselves accused of being 'anti-Semitic' because standing up for the basic human right of freedom of speech is now considered racist. The desperation to silence me has led to ever more hysterical and insane claims. A Jewish man in the Netherlands claimed that me being allowed to speak was a threat to his life. I did speak and somehow he survived. I am one man who is not a member of any organisation or movement. Why are they so frightened of me? Actually, they are not so much frightened of *me* as frightened of the truth coming out *through* me. Tough – its time has come.

Man and dog with banner

Another Labour Party ultra-Zionist front calling for protests at my events in 2018 was the Jewish Labour Movement which is affiliated to the Board of Deputies of British Jews, the Israeli Labor Party, Zionist Federation of the UK, and the World Labour Zionist Organisation, a faction within the World Zionist Organisation. The Jewish Labour Movement's stated objective is 'to maintain and promote Labour or Socialist Zionism as the movement for self-determination of the Jewish people within the state of Israel.' It's the *Zionist* Labour Movement, then, rather than 'the Jewish'. Anyway, these moronic groups who called on the 'Labour movement' to protest at my events managed only a handful outside the venue in Watford, even fewer days later in Crewe and at my final event on that tour in Margate one man turned up with banners he didn't bother to unfurl because no one else came. He even stood at the wrong entrance while the audience were walking in elsewhere. That's all they could manage because there is an increasing awareness on the genuine 'left' that they are being hijacked by the 'anti-Semitism' Protection Racket which has taken over their party. An ultra-Zionist writer by the name of David Collier and another from the Hope Not Hate (Hate Not Hope in truth) organisation both produced outrageous misrepresentations of my talk and my own views. Collier, who incredibly describes himself as an 'independent' writer, called me 'poison' and then immediately began his laughable 'report' of my talk by saying: 'Icke doesn't stand up and publicly attack Jews.' Even not attacking Jews is now 'anti-Semitic' to these people. I feel sad for them – what a strange and bizarre world they must live in getting up every day

with the intent of silencing and discrediting their fellow humans. A Twitter account was launched in 2019 called Stop Funding Fake News which urged people to target advertisers on alternative media sites and ask them to remove their ads. If this didn't exist then Hasbara would have had to invent it. Collier was one of the first to re-tweet in support and its most vocal promoter appears to be minor Jewish television 'celebrity' Rachael Riley. She seeks to delete funding for websites that include among other things 'antisemitic tropes featuring George Soros'. The Twitter account urges people to 1) Visit a fake news site; 2) Take a screenshot of an advert; 3) Tweet it at the company; 4) Tag @SFFakeNews. Riley said she looked into the 'anti-Semitism' debate after seeing posters that said 'Israel is a racist endeavour' and this offended her. Personally I am more offended by Palestinian kids having their limbs blown off by Israeli snipers. Any TV 'celebrity' who supported a campaign to target advertisers on websites promoting Israel would be taken off air in an instant. Riley wants to boycott alternative news sites but when someone started the hashtag #BoycottRachaelkRiley the ludicrous *Jewish Chronicle* editor Stephen Pollard said: '... every one of you who promotes #BoycottRachelRiley is a racist. Every one of you is the enemy of decency. Every one of you is beneath contempt.' Words have no meaning. Another minor Jewish celebrity David Baddiel said that #BoycottRachaelkRiley was an example that Jews don't count. God, it's pathetic. A YouTube documentary defending Labour activist Jackie Walker – a lady of Jewish descent with a Jewish partner expelled for 'anti-Semitism' – included a picture of David Collier at a small protest against a Palestinian cultural event with Paul Besser, former 'intelligence officer' of the far-right Israel-supporting Britain First organisation. Collier's 'material' has been used by Labour Party elements driving the 'anti-Semitism' agenda which so overcooks the pot that genuine discrimination is sidelined. Collier is considered a credible source of information by the mainstream media despite being a professional Israel propagandist and this shows how crazy and slanted it all is.

The video defending Jackie Walker was apparently taken down many times by ultra-Zionist-owned YouTube. You can have all the coverage you like to libel people that you want to silence, but when anyone defends them they must be denied a voice. Walker's felonies were secretly filmed in a hit-job at a Labour 'anti-Semitism training session' and included criticising Holocaust Memorial Day for only commemorating Jewish victims … saying 'I still haven't heard a definition of antisemitism that I can work with' … and questioning why Jewish organisations and schools claim to need high security. You can see that her comments were absolutely horrendous and in no way could be construed as fair points that anyone with half a brain might consider

making or views that any free and fair society would support her right to have. Labour activists were disgusted with the ultra-Zionist attacks on Walker and demands for her to be expelled, but Euan Phillips of the Labour Against Anti-Semitism group (yet another) had worked out the reason for that and it was nothing to do with her treatment by a racist tyranny. Oh, no. Phillips said: 'If Ms Walker is expelled, as she should be, we can expect an explosion of outrage across the Labour membership – itself an indication of how ingrained anti-Semitism has become.' You can see what we are dealing with. How do you have dialogue with a software program? Jackie Walker was indeed expelled by the Israel-owned 'party of the people' (Fig 104). The Conservative Party also suspended a councillor, Jacqui Harris from Stratford-Upon-Avon, for commenting on Twitter about the 'anti-Semitism' attacks on the Labour Party: '... the whole antisemitism thing is a false flag, probably masterminded by Mossad/CIA.' She added: 'Don't you find it timely that this was encouraged fanned and exploded just before the release of the report on Israel and war crimes?' The moronic virtue-signalling Brandon Lewis, chairman of the Conservative Party, quickly announced Jacqui Harris's suspension for the crime of engaging in free speech, opinion and observation. He said: 'We do not accept any form of abuse or racism.' Clearly, however, they do accept any form of idiocy and censorship which he personifies.

Figure 104: What happens when you let a foreign power highjack your party.

'Apartheid is not racism'

The Campaign Against Antisemitism is actually a man and a dog operation with big political connections. The CAA claims to have close links with the police, legal system, pro-bono lawyers and political corridors of power including UK Prime Minister Theresa May when she was Home Secretary. Freedom of Information emails have confirmed the cosy relationship between the CAA and Derbyshire police and that certainly won't be anything like the only example. The main players at the CAA are chairman Gideon Falter and self-styled Director of Investigations and *Enforcement*, Stephen Silverman. To call yourself an

'enforcer' has got to be Little Dick Syndrome, surely? Anyway, Little Dick and Falter – Big Dick – run the show day-to-day which basically means targeting people as 'anti-Semitic' who are saying anything that Israel's masters would rather not have people hear. They even seek to ban music events of Israel-born and Britain-based jazz musician and anti-Zionist activist Gilad Atzmon. Jewish-born people are the biggest problem because it is far more difficult to make 'anti-Semite' credible. The CAA is a censorship operation like all these 'anti-hate' groups which specialise in hurling hatred at their targets and 'anti-defamation' groups that set out to defame people. American writer, editor and former financial lawyer Eve Mykytyn published an article in 2018 on the Redressonline.com website headed 'Exposed! How Britain's anti-Semitism scaremongers operate'. This section captures the theme and you can read the article in full by putting the headline words in a search engine:

> This article about the British charitable organisation, the Campaign against Anti-Semitism (CAA), and its officers, Gideon Falter and Steve Silverman, examines events in England but ought to serve as a cautionary message for Canadians and Americans.
>
> The article will delve into the corrosive methods of the CAA; review the manner in which this ultra-Zionist group 'discovers' anti-Semitic 'incidents'; examine their inaccurate statistical 'studies' and see how they seek to intimidate political parties, venues, the press and others; and look at the court cases which the CAA has prosecuted. In the guise of fighting anti-Semitism, the CAA has managed to manoeuvre British society into abdicating its core liberal values, intimidate the prosecutorial and judicial system, and silence criticism of Israel in both social media and the mainstream media. The CAA does not just attempt to limit speech; it openly follows a scorched earth policy 'that if someone commits an anti-Semitic act in the UK (including criticism of Israel)' the CAA 'ensure[s] ruinous consequences, be they criminal, professional, financial or reputational'.

They have such big hearts these people and such empathy with their fellow humans. CAA chairman Gideon Falter serves on the UK board of the Jewish National Fund, an apartheid operation established at the turn of the 20th century which buys up land in Israel that only Jewish people can then live on. This is the man who hurls the slur 'racist' at other people (constantly). CAA 'Little Dick' Stephen Silverman refers to me as a 'modern day hate preacher', but that's a role I will leave to him. An example of the deceitful way these people operate was another event of mine in Manchester at a venue owned by a chain of theatres where I had presented many times. They were aware, therefore, what my events are

about and what I say. They knew that the usual mendacious claims made to venues by 'enforcer' Silverman were the garbage that they are and the event went ahead. Little Dick must have been stunned by this knock-back when he's an *enforcer* and must be obeyed. In response he told those attending to send him reports and complaints about what I said so he could take them up with the police and Manchester council. They did write to him in large numbers to report that I said nothing that he claimed I would say; that I had made the point that we are all one consciousness and the labels of race, religion etc. are only illusions to divide us; and that we need to come together irrespective of culture, race and background to realise that we are all being manipulated by the same force. If Little Dick's mission had *really* been about exposing racism he would have published the emails and apologised for the lies that he was spreading about me. At the very least he would have gone away and left me alone. Instead this disingenuous man simply continued to tell future venues what he had told the one in Manchester which audience members had refuted in email responses that he had asked for. This is not about racism or 'anti-Semitism', it's about censorship, and it needs exposing by people who care about freedom because the spineless, gutless mainstream media won't do it.

The ultra-Zionist lobby means that in the country where I was born, and one that claims to be 'free', we have to hold back the locations of my events until the last minute to stop ultra-Zionist hate groups having the time to intimidate venues and campaign to have them cancelled. The interest in my work is now enormous but we can't book bigger venues owned by local councils because we know they will fold at the first call or email from Little Dick and company. The worst for this are councils controlled by the Labour Party which the CAA and its Big Dick chairman have targeted in the same way they target me. It's madness but there we are. Labour Party and backbone don't tend to appear very often in the same sentence these days. One of the reasons ultra-Zionist hate groups give for cancellation is that there could be violence due to my 'controversial' presentation and the audience and venue staff could be in danger. They never have been anywhere in the world in 30 years of public speaking, but the truth doesn't matter to these people – only their desired outcome of silencing my freedom of speech. Little Dick Silverman tried that one again with Bristol City Football Club in 2018 when he emailed the club at the last minute after hearing where I was speaking. Bristol City officials went into backbone-seizure mode as usual but the head of security would not cancel because he had a thousand people heading for his football ground expecting to hear me. What happened? *Nothing* – except for a lovely evening with lovely people. Extra security was added and the police turned up, saw there was no problem and left while asking what the fuss was all about. The

'fuss' was only that generated by Little Dick Silverman. What happened to the law against wasting police time? Or making allegations about a security threat knowing there would be none on the basis of 30 years of history alone? This is the Campaign Against Antisemitism (CAA) with all its ultra-Zionist connections and support system and so they get away with anything. For goodness sake they have been given charity – *charity* – status to do this with all the benefits that affords them. Absolutely outrageous, but who dare take it away? There are ultra-Zionist groups for different regions of the country like the North West Friends of Israel and Sussex Friends of Israel in the UK. If you want to see a video example of the mentality involved go to Davidicke.com and put 'Meet Simon Cobbs, founder of Sussex Friends of Israel' into the search engine. These organisations are absolutely everywhere and all to protect from exposure a tiny section of 0.2 percent of the world population. The big problem these ultra-Zionist hate groups around the world have with me is that I don't give a shit what abuse they throw at me and I don't bow to intimidation of any kind or concede my right to free speech to these humourless numbskulls. It is an approach to professional censors that I can strongly recommend.

Bobbies for Israel

The most sinister aspect of efforts to stop my public events has been the involvement of the police. The Bristol City event was one in a series of talks at football clubs over three weeks in 2018 that also included Sheffield Wednesday, Derby County, Birmingham City, Southampton and Norwich City. Someone – a 'third party' the police wouldn't name – approached Norfolk Police for help in getting the Norwich City event cancelled and the police were only too happy to oblige as emails I secured under the Freedom of Information Act were to prove. Norwich City did cancel after a meeting with police, but Jaymie brilliantly found another venue within half an hour. Worth the effort was it, chaps? The police emails were shocking. They redacted the 'third parties' that contacted them and some were 100 percent redacted. Others at least revealed the emails themselves and the police officers involved. Here's a selection and when you see 'Exempt Section 31' and 'Exempt Section 40' this refers to the 'third parties' and others we are not allowed to know. The bad grammar is theirs, not mine:

> **Email 25/04/2018 09:13 CI Lynne Cross to N Paling, G Dalton, J Colbert, M Austin, D Cocks, R Watkins**
>
> **Team,**
>
> **David Icke is reportedly holding an 'event' in Norwich on 30th April 2018.**

Enquiries to date have failed to identify a location.

Can you task your Beat Managers to keep their ear to the ground and see if they can identify any location?

If you have not heard of him, David Icke is a controversial conspiracy theorist and some of our communities (Exempt Section 31) in Norwich are very concerned about his messaging.

He was previously coming to Norwich in March but the Council cancelled the event once they realised. [NO - once ultra-Zionist hate groups told the Labour council a load of tosh.]

See the EDP for any more info!

(Exempt Section 31)

Thanks,

So here we have Norfolk Police acting on behalf of an unnamed 'third party' to track down the venue of my event – which have absolutely no history of problems – with a view to getting it cancelled. The police are supposed to *defend* free speech, but they have become just another vehicle for destroying it. We continue with an email from the 'third parties' to the police:

Email 25/04/2018 08:29 .... Exempt – Section 40) to CI Lynne Cross & Julie Inns

Dear both

So frustrating because it is still advertised as a Sold Out! ....

(Exempt – Section 31)
(Exempt – Section 40)

And thanks for prompt reply.

How clear could it be that this is collusion between the (ultra-Zionist) third parties and Norfolk Police to track down the venue and have my event cancelled? If you are still in doubt:

Email 25/04/2018 09:15 CI Lynne Cross to .... (Exempt – Section 40) & Julie Inns

We are actively trying to identify a location so if anything changes I will be in touch.

Kind regards

Email 27/04/2018 12:46 CI Lynne Cross to .... (Exempt – Sections 40)

Spookily I have already asked our Events Planning to make some enquiries. We will see what they come back with.

One unnamed party even admits that they can't find anything about trouble at my talks 'and I get the impression the offence is taken in the interpretation rather than what he actually says, but I've never heard him speak so don't know for definite'. *At no point* did Norfolk police contact me about any of this or about what I am or am not saying. Then came ecstatic emails revealing they had located the venue – Norwich City Football Club – and they had secured cancellation of the event:

Email 27/04/2018 16:19 CI Lynne Cross to ...., D Marshall, J Inns, ... (Exempt – Section 40)

Dear all,

I have been in contact with the Club and made them aware of the community concerns. After taking advice internally, they have taken the decision to cancel.

These 'security concerns' were utterly fictitious and came from ultra-Zionist liars. Nice to know the police have such a keen eye for mendacity which they don't even check out with the target. Still ... the liars were ecstatic:

Email 27/04/2018 16:26 Julie Inns to CI Lynne Cross, ... Exempt – Section 40)

Lynne,

Fantastic news .... (Exempt – Section 31)

Brilliant partnership working at its best, well done everyone.

There was even a pat on the back from the boss:

Email 27/04/2018 16:26 Ch Supt David Marshall to J Inns, L Cross, ... (Exempt – Section 40)

Lynne/team,

Well done.

What a disgusting way for a police force to act and just in case the third parties were still concerned that I might have freedom of speech:

Email 27/04/2018 16:33 CI Lynne Cross to .... (Exempt – Section 40) & Julie Inns

Good afternoon ...., (Exempt – Section 40)

By way of reassurance, my enquiries suggest you don't need to worry about NCFC.

Regards

All this effort and police time and yet half an hour after Norwich City announced the cancellation Jaymie had secured another venue and the event went ahead with no problem and without even any security. Once again – worth it was it? How much police time do these ultra-Zionist hate groups waste in a year? It must be phenomenal. No wonder that Philip Flower, a former Chief Superintendent with London's Metropolitan Police, said the force is giving up on investigating burglaries while having *900* 'anti-hate investigators' on the payroll. Incredulity about this insanity can be tempered if you know that allowing free reign for burglars is what the Hidden Hand wants to generate the 'jungle atmosphere' of fear and anxiety that the agenda demands (Problem-Reaction-Solution) and at the same time it seeks to have freedom of speech deleted through the excuse of 'hate crime'. There in a sentence you can see why burglaries and other crimes are left to flourish while 900 investigators seek out hate crime which does not exist on anything like the scale we are told to believe and only expands on the basis of ever more opinions being designated as hate crime. By the way, the police definition of a racist incident or 'hate crime' is: '... any incident which is perceived to be racist by the victim or any other person.' What could possibly go wrong? I wrote to the Chief Constable of Norfolk, a bloke called Simon Bailey, with a series of questions about the disgraceful behaviour of his officers and this arrogant man did not even reply. I then made a complaint to the former Independent [it's not] Police Complaints Commission (IPCC), now the Independent [it's not]

Office for Police Conduct. They replied that my complaint against the officers was an abuse of the complaints system. It's all a stitch-up and freedom of speech always the loser.

Home town repetition

Then there was Leicestershire police when I was booked to speak at a major venue in my home city of Leicester for the first time. The Athena Theatre in the city centre had taken the booking for months, all tickets had gone, and despite the usual lying emails from ultra-Zionist hate groups the theatre management said the event would go ahead because 'we have all kinds of people here'. That was before they had a visit from Bill Knopp, Chief Inspector Regional Prevent Coordinator ('counter-terrorism') and Ben Smith, Leicester City Council counter-extremist coordinator. Bill and Ben the Terrorism Men had been contacted by the ultra-Zionist mendacity network when the theatre had refused to budge and this pair of prats believed them without at *any stage* contacting me. They went to see the Athena management and we received an email from the theatre which said that Knopp and Smith had 'expressed their concerns at your upcoming event at Athena'. The email continued:

> They have strongly emphasised to us the possible consequences of holding the event both in terms of the venue reputation and the increased risk of protests from members of the public which would require large police coordination and pose a serious risk to our patrons, staff and members of the public ... Based on this we have decided that we can no longer continue to host the event.

The said pair of prats had basically frightened the shit out of them to cancel the event and I'm sure their ridiculous titles including 'counter terrorism' and 'counter extremism' would have played their part. I say ridiculous because if their mentality is supposed to protect us from terrorism and extremism then we are in serious trouble. I went with Jaymie to meet them and what happened was a big insight into how easy it is for freedom of speech to be destroyed. I found Knopp arrogant and clueless and Smith just clueless and every police force and council now has its Bill and Bens to enforce the tyranny that is political correctness. I called Knopp 'Mr Nob' when I met him and he will never believe that this was a slip of the tongue but it genuinely was. My subconscious, however, had clearly sussed the situation early. I asked them what they knew about me and where they got their information from. Knopp said at one point 'open sources'. I had to laugh. What police and spy agencies call 'open source intelligence' means they read it in the papers or on the Internet. Wikipedia is 'open source intelligence' by their definition. I asked them how many of my books they had read.

None. I asked when they had attended one of my events. *Never*. I said that since my world speaking tour had begun in 2016 I had spoken at multiple events in the UK, Ireland, United States, Canada, Australia, New Zealand, Netherlands, Italy, Sweden, Serbia, Slovakia, Czech Republic, Estonia, Iceland and so on. I asked them to name a single event where there had been a 'security problem'. They couldn't because there were *none*. I asked who had told them that there could be trouble and violence at the event. Knopp said: 'We can't talk about our intelligence.' Well, at least that was true in every sense. I said this didn't matter because I would tell them where their 'intelligence' came from – organisations contacting them with the usual lies which they had believed without ever checking. You don't question ultra-Zionist hate groups because it's not good for the career. I complained to the Leicestershire Chief Constable Simon Cole, as did many members of the public, and he replied with the usual bollocks; but at least he replied. The police wouldn't even take responsibility for the cancellation and instead blamed it on the theatre. It was *their* decision, the police said without even a smear of embarrassment given how they had told them of potentially dire consequences if they allowed me to speak including damage to the theatre's *reputation*. What on earth has that got to do with the police and council? Anyway, all that effort was still more wasted police time and money. We returned a few weeks later to another venue in Leicester, called The Kube, at what turned out to be a much more convenient time for us and everything went ahead fine with no police security necessary you'll be taken aback to know. What a head-shaker. Leicester City Council has a very different attitude to its own free speech, by the way. It went to the High Court and Appeals Court with two other councils to block attempts by the ultra-Zionist Jewish Human Rights Watch, established by the Henry Jackson Society-connected Manny Weiss, to have council motions supporting the BDS boycott-Israel movement ruled illegal. I'm glad they did and it was called a 'victory for free speech' while the same council was an active participant in denying mine on the say so of people with exactly the same mentality and motivation as Jewish Human Rights Watch. Irony, anyone? I tried for the best part of a year to secure Freedom of Information requests for communications between Essex Police and the Campaign Against Anti-Semitism because I knew they had many interactions. Essex Police refused the first time because the request was too broad (it wasn't for Derbyshire Police) and when I made it specific to two cases they refused again.

Hate-group network

There are versions of the CAA in country after country protecting Israel from criticism and exposure by employing the slur of 'anti-Semite' and

using 'lawfare' to intimidate people in the courts. There is an organisation established in 2011 called UK Lawyers for Israel (UKLFI) which says that its members and supporters 'employ advocacy, legal research and campaigning to support Israel, Israeli organisations, Israelis, and/or supporters of Israel against BDS and other attempts to undermine, attack or delegitimise them'. Perhaps UK Lawyers for the Protection Racket (LFPR) might be more appropriate but everyone to their own. In Ireland there is Irish4Israel who have successfully had academic conferences on Israel cancelled for 'security' reasons. They have failed miserably with me because I have been speaking at the same theatre in Dublin for years and they know that what is claimed by Irish4Israel is a pack of lies. Their gutless mud-slingers won't debate with me, either, as always. In Canada we have Rothschild-created B'nai B'rith which spawned the Anti-Defamation League. They tried to have my meetings banned in Canada in 2017 and failed when we found alternatives. The Mayor of Vancouver refused to bow to their pressure (more lies) to cancel an event there. Canada is a country where ultra-Zionism is incredibly influential as I have personally found many times in efforts to have my meetings banned by B'nai B'rith and its lowlife gofers and front people who do its dirty work. Both sides of the political aisle answer to The Lobby which includes the usual network of ultra-Zionist organisations mendaciously claiming to represent 2.7% of the Canadian population. It was good to hear that the Canadian Jewish Congress (CJC) which spent a lot of time trying to undermine me was disbanded in 2011 after being accused by Jewish people of representing Zionism and Israel rather than the range of Jewish opinion. CJC activist Abraham Arnold had said the organisation 'seem to be spending more time in relation to Israel than in relation to anything else' and had become increasingly Zionist and a 'top-down' group which discouraged debate. There you have more confirmation that these organisations are about promoting Israel and ultra-Zionism – not the interests and *multiple* views of the Jewish community. In 2018 'progressive' Canadian Prime Minister Justin Trudeau made a public apology to Jews refused entry to Canada from Germany in 1939. Okay, nothing wrong with that except that he used the opportunity for more 'Israel is a victim' and anti-BDS boycott propaganda and did he make an apology to all the Muslim men, women and children killed by Canadian forces fighting ultra-Zionist and American wars in the Middle East? Not a chance – he was too busy supplying weapons to Saudi Arabia to bomb the innocent in Yemen and create what has been described as the world's biggest humanitarian catastrophe. Ultra-Zionist-owned Donald Trump takes the same stand and condemns criticism of Israel. Trudeau is the product of a Hidden Hand family – see *The Biggest Secret* for the disgusting background to his father Pierre Trudeau, a long-time Canadian Prime Minister.

Demands for special laws and privileges for Jewish people emerge from these networks including the call by Abraham Lehrer, Vice President of Germany's Central Council of Jews, for extra 'integration' classes for migrants to change their anti-Jewish beliefs. Would it not be more productive for him to pressure the Israeli government to stop treating Palestinians like vermin and manipulating the United States into devastating wars against Israel's perceived enemies in the Middle East? Oh, no – that would mean taking some responsibility for events and that will never happen. It's always someone else's fault. Facebook takes down posts that question the 'genocide of Jews in the Holocaust' but then apologises for having a category in which people claim that a 'white genocide' is happening. Why is there one law wherever you look for matters pertaining to Zionism and Israel and another for almost everyone else? If you have stayed with me this far you will know why.

Banned from Australia

Attempts to silence me reached new levels in February, 2019, when I was banned from Australia on the last-minute say-so of Liberal Party Immigration Minister David Coleman after lobbying by ultra-Zionists Dvir Abramovich of the 'Anti-Defamation Commission', lawyer Kate Ashmor, then Victoria Liberal candidate, and her Labour 'opponent' Josh Burns. They believed in their breathtaking arrogance that they should decide what 25 million Australians can choose to see and hear. The Jewish population of Australia is 0.4 percent and these characters will not represent more than a fraction of that. Other professional virtue-signaller MPs of both major parties declared their agreement with the ban while knowing nothing about me except what the propagandists told them. The three stooges parroted the same bollocks almost word-for-word that is thrown at me everywhere because the same script is circulated in the systematic way I have described already. Coleman's disgraceful and spineless behaviour was beyond outrageous and calculated to do most damage in terms of money and inconvenience. I was given a visa by the Immigration Ministry in September, 2018, for a series of speaking events in Australian cities in March, 2019. It would have been my eleventh speaking tour of the country and there had never been a problem with any event and I had never broken a single law in that time – as Coleman had no choice but to acknowledge. I had been speaking in Mexico and was now with Jaymie in a Los Angeles airport hotel waiting to leave for Melbourne that night to start the tour. *Four hours* before the plane was due to take-off we received a long document from Coleman telling us he had revoked the visa and I was banned from speaking in Australia. The email could not have been better timed for maximum disruption. It cost us £30,000 in booked hotels, flights and venues – especially when the Melbourne Convention Centre and the

Enmore Theatre in Sydney wouldn't return a penny of the deposits. All the other venues did. To inflict that on someone who has done nothing wrong with all the costs and chaos that would obviously entail was extraordinary by any standards of decency which Coleman doesn't have. The move backfired, however, because it allowed the Australian public to see both the scale of Orwellian censorship in their country and how a handful of ultra-Zionists had so much power over what they could see or not see. Coleman listed all the reasons why I *should* have been allowed into the country – including ten previous visits with no problems since 1997 – but decreed that I did not pass the 'character test'. Why this was suddenly the case four hours before my plane left when it wasn't in September, 2018, and in the months that followed he didn't say because he couldn't. Coleman pronounced that I was 'a risk to the health, safety or good order of the Australian community or a segment of the Australian community'. The only thing missing was to add '0.4 percent' before 'segment'. How I could be such a danger when I had never been before in ten visits and hadn't been considered so until four hours before take-off is something else the spine-deleted Coleman didn't explain.

At no point was I given any opportunity to respond – the very least one would expect in a free and fair society – and I was left sitting in Los Angeles after fulfilling everything I was asked to do by the Australian authorities on the basis of unsubstantiated libels, lying 'journalists' and what someone apparently read on the Internet. Yes – Coleman produced no evidence for his claims except what the ultra-Zionist Protection Racket told him, ultra-Zionist 'journalists' wrote in ultra-Zionist Murdoch-owned newspapers and here we go ... 'open sources'. Coleman had obviously been on the phone with Chief Inspector Nob. 'Open sources' – he read it the paper or on the Internet. Two hours before my visa was revoked I was interviewed by Eve Fisher, a Jewish Australian journalist in Victoria, and she was shaking her head and laughing at the claim that I was 'anti-Semitic' because Eve had engaged in a rather revolutionary act in actually reading my books before reaching a conclusion. What was her conclusion? That the claim I am 'anti-Semitic' is utterly ridiculous. She subsequently said so in a published article that received considerable public acclaim in letters to her newspaper. In fact large numbers of Australians were shocked and disgusted by the decision and an online petition was started and supported by the best part of 20,000 people. Thousands of Australians had bought tickets for the events, but they didn't matter to the ultra-Zionist trio and the Immigration Minister they had spun around their finger while his spine vibrated in terror at the very thought of denying those who must be obeyed. No major party politicians spoke out in support of freedom of speech – they wouldn't dare. A West Australian Labour candidate,

Melissa Parke, felt she had to stand down after she later said Israel treated Palestinians 'worse than the South African system of apartheid'. The message from all this is clear – 'little' Israel controls Australia as it controls America and so many other countries. Backbone-deleted minister Coleman's other excuses for the ban were my views on vaccines and global warming which in many ways was even more sinister. I was banned from a country for questioning the propaganda of the say-whatever-you-like Big Pharma cartel? And for not accepting the propaganda about human-caused global warming? George Orwell shakes his head and says 'I told you so'. American doctor Sherri Tenpenny, a long-time opponent of vaccination, was also banned from Australia because the government has contempt for its population and their right to hear all sides. This is the world we now live in and I predicted it three decades ago because it's all been long planned.

Soon after I was banned Palestinian-American poet Remi Kanazi had his Australian visa request blocked amid a campaign to have him banned by the same people who secured my ban – the ultra-Zionist lobby led by Dvir Abramovich of the man and a dog Anti-Defamation Commission (see the US ADL) who had such contempt for the victims of the New Zealand mass shooting (of Muslims!) that he exploited that attack as one of the reasons why Kanazi (a Muslim!) should be denied entry to speak in the country. Abramovich said Kanazi 'has no business being here spreading his toxic agenda' in the 'aftermath of the Christchurch massacre'. A self-appointed 'representative' of a fraction of 0.4 percent of the population thinks he has the right to decide who and what 25 million Australians can and cannot choose to hear. Then, when Abramovich was faced with a publish backlash, he called it 'anti-Semitism'. This is how the 'anti-Semitism' industry and its Protection Racket function across the world. Remi Kanazi said:

> The Anti-Defamation Commission weaponised the white supremacist mass murder of 50 Muslims, including at least six Palestinians, to attack me. Furthermore, groups like the ADC shamelessly back Israeli apartheid and whitewash the stripping away of Palestinian land, resources and dignity.
>
> If you dare challenge Israel's well-documented human rights abuses, which include torture and forced confessions, they will try to smear you into silence.

Having visas revoked is another gathering ultra-Zionist and Death Cult strategy to silence dissent because they are terrified of what they are doing being exposed to the public. They cannot defend what they do and they see their only option as silencing all criticism. This terror of exposure leads to a man like me connected to no organisation or movement being banned from Australia through a revoked visa,

grandmothers and grandads jailed in Germany for questioning the official story of the Holocaust and 72-year-old Palestinian activist Rasmea Odeh banned through a revoked visa from speaking at an event, again in Germany, with the credit for that taken by Israeli strategic affairs minister Gilad Erdan who runs the vast ultra-Zionist network of censorship and surveillance out of Israel and across the world. Israeli ambassador Jeremy Issacharoff and US ambassador Richard Grenell (of course) added their condemnation of Odeh. Berlin mayor Michael Mueller called Odeh's planned event 'extremist propaganda', the Green Party's Volker Beck protested against Odeh while Cornelia Seibeld, deputy leader in the Berlin Senate, called Odeh an anti-Semite. Berlin's interior minister Andreas Geisel said criticism of Israel is 'anti-Semitic'. Why? Because he's an idiot and his tongue needs a workout. Ultra-Zionists and the Death Cult control Germany which is why people like Rasmea Odeh and myself can't speak there on the say-so of the Protection Racket which the German government dare not disobey. Newspaper *Der Tagesspiegel* ran four articles accusing Odeh of spreading hatred towards Jews and referred to BDS as 'anti-Semitic'. The same happened to me via Murdoch newspapers before I was banned from Australia in 2019. It's a repeating pattern that we are asked to believe is 'spontaneous outrage' – outrage on tap more like. We had the truly pathetic sight of Rasmea Odeh being prevented from speaking at a public meeting marking International Women's Day in Berlin. The Electric Intifada described what happened:

> Officers surrounded the 72-year old as she arrived outside the venue and ushered her away from supporters protesting the decision. She was handed a document from the Berlin Senate and told to vacate the area. The 26-page report claimed her appearance could endanger Germany's relationship with Israel and threaten peaceful coexistence. It also referred to BDS Berlin, the event co-host, as an 'anti-Semitic coalition'.
>
> Odeh was scheduled to speak alongside Palestinian poet Dareen Tatour, who was imprisoned in Israel last year for posting a poem on social media, when Berlin city officials forced the Dersim Cultural Community Center to cancel the talk. Odeh decided to speak outside the venue to an audience of over 100 but police cornered her on arrival, following her until she boarded a bus out of the area.

Is this really what we have allowed a handful of the human race to bring us to? Some background to Rasmea Odeh: She was arrested, raped and tortured by Israeli soldiers in 1969 and as a result of the torture signed a 'confession' to killing two people in bomb attacks. She spent a decade in jail before being released in a prisoner exchange. She's been

referred to as a terrorist ever since without acknowledgement that she was tortured to 'confess'.

Tide is turning

The unfairness and bias, plus the actions of the far-right Israeli government, is changing the opinions of people with regard to Israel. A poll conducted for the UK ultra-Zionist lobby group BICOM in 2018 found that only 20 percent of those questioned felt 'warm' towards Israel and only 23 percent towards Israelis while 49 percent felt 'cold' towards Israel and 45 percent towards Israelis. This shows how the actions of the ultra-Zionists wrongly affect attitudes towards all Jews and Israel in general. This is the same pattern we have seen before with the actions of the few affecting the lives – sometimes ending the lives – of the many. I want to stress and stress again that no one needs to know what the ultra-Zionist and Death Cult cabal is doing more than the Jewish community as a whole which takes the consequences in the end in public attitudes. I further emphasise again that I am not exposing a plot by the Jewish community – the 'classic Jewish conspiracy theory' as the censor organisations call it to protect their masters' agenda and actions. Most Jewish people are victims and potential victims of this cabal, not perpetrators of it and should not be held responsible for actions about which they know nothing. Nor is it justified for those in the Jewish community who *do* know what is going on and stay silent about it because of misguided loyalty or fear of consequences. What is happening must be stopped before a global nightmare becomes global reality and freedom of speech disappears altogether. This means all of us coming together – including, and in many ways *especially* – the majority of the non-extremist Jewish community. They need to speak out against the psychopaths in their midst or they will be wrongly blamed for what is going on.

It was clear from the Al Jazeera hidden camera footage that the ultra-Zionist lobby is terrified of the change taking place among young Jewish people especially in America who are rejecting the Israel narrative. Some are organising protests against AIPAC and Israeli treatment of Palestinians. Israeli newspaper *Haaretz* reported in 2018 a sharp decline in the number of American Jews on 'Birthright' trips to Israel. A 'downturn of this magnitude, unrelated to the security situation' was described as 'unprecedented' with some trip providers losing 50 percent of their custom. *Haaretz* said that one explanation is the numbers 'could reflect the well-documented fact that young American Jews are growing increasingly disengaged from Israel, and have less and less interest in visiting the country – even when the trips are free'. The paper said that 'recent studies have shown that Jewish millennials, who are largely progressive, feel less connected to Israel than their parents and

grandparents because they perceive the country's policies as antithetical to their values'. Treatment of Palestinians and of asylum seekers were frequently cited, the paper said. Changing attitudes of young American Jews is reflected in the rise of groups like Jewish Voice for Peace (JVP), IfNotNow and Jews for Racial and Economic Justice. Maya Edery, JVP's national campus coordinator, said:

> More and more young people are realising that our Jewish values are actually about social justice and have to be for all people ... They realise that a lot of Jewish institutions have lied to them.

This is the way forward for humanity – to put aside the labels and treat everyone as individuals with an equal right to be treated with fairness and justice. Ultra-Zionist lobby propaganda is aimed as much – sometimes more – at young Jewish people than the population as a whole. To keep them on board they have to be sold the ultra-Zionist narrative and to believe they need protection against the evil non-Jewish world that 'hates them' when it *doesn't*. How much of the hatred that does exist – far, far less than claimed – stems from the actions of the ultra-Zionist few which is then wrongly blamed on the entire Jewish population? The Israeli American Council (IAC) is yet another strand in the web that aims to connect American Jews with the desires of Israel. Al Jazeera's undercover 'Tony' attended an ultra-Zionist gathering in Washington where they were concerned about the changing attitudes of young people to Israel. David Brog, Executive Director of the anti-BDS Maccabee Task Force, told activists that 'the younger you get on the demographic scales, the lower support for Israel is'. Younger people were leaving college less sympathetic to Israel than when they entered and this threatened future American support for Israel. It is not only young people, either. A major survey of Jewish opinion in Canada found the following:

- Almost two in five respondents (37 percent) had a negative opinion of the Israeli government, while half viewed it positively
- Almost a third (31 percent) opposed Israel's military blockade of the Gaza Strip
- Roughly equal numbers opposed (45 percent) and supported (42 percent) Donald Trump's decision to recognise Jerusalem as Israel's capital
- More than a third (36 percent) viewed the Palestinian call for boycott, divestment and sanctions on Israel to be reasonable, and more than two in five (44 percent) opposed the Canadian parliament's condemnation of the BDS movement
- Almost a quarter (22 percent) thought it would be reasonable to impose

sanctions on Israel

- Almost three in five did not see criticism of Israel as necessarily 'anti-Semitic'
- Half agreed that accusations of 'anti-Semitism' are often used to silence legitimate criticism of Israel

You can see that the general Jewish population has a diversity of opinion while the ultra-Zionist networks claim that they speak for all Jews when they clearly do not. This has been a glimpse, and only a glimpse, of the fantastic number and range of these networks (in the end one network) that seek to silence opposition to Israel and protect ultra-Zionism and the Death Cult. The next question to be addressed as we continue our journey back to 9/11 is: Protect them from what exactly? And two more: What is this 'Death Cult' and where did it come from?

Postscript: We made a legal appeal against my ban from Australia and months later the government has not even bothered to respond. Wake up Australia – you live in a tyranny.

CHAPTER 20

What the censors don't want you to know

Truth never damages a cause that is just – Mahatma Gandhi

I emphasis that while ultra-Zionism and the Death Cult are connected this does not mean the terms are interchangeable. The Death Cult operates at the inner core of what I am exposing and ultra-Zionism has a wide range of advocates with most unaware that such a Cult even exists.

They express what I observe to be their Zionist extremism and elitism from a belief in a Chosen People and the official historical narrative which fuels a further belief that their duty always lies in supporting Israel and its perceived interests no matter what the circumstances. I would rather deal in the justice and fairness of a situation no matter what the racial, cultural, religious and economic background of those involved. Once you have a bias towards one group, whichever one it may be, such values cease to be applied. George Orwell was well aware of the importance of controlling history because our sense of where we are and who we are is fundamentally influenced by the belief in how we got to where we are. Change historical belief and its perceived sequence of events and you change the perception of present time. Orwell wrote: 'Who controls the past controls the future. Who controls the present controls the past.' I have highlighted in other books the importance to the elite of controlling the writing and perception of history. This is especially important – indeed utterly crucial – in the case of Zionism. I had yet another experience of this on the morning I began writing this chapter when synchronistically Zionist-controlled YouTube announced they were taking down a video of mine in a long list of countries after a 'legal complaint'. The video had been posted all of four years earlier and was entitled 'Exposing The Lie On Israel's Fake History – The Cruellest Hoax'. The countries quoted were: Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czechia, Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, French Guiana, Guadeloupe, Greece, Croatia, Hungary, Ireland, Israel, Italy, Lithuania, Luxembourg, Latvia, Martinique, Malta, New Caledonia, Netherlands, French Polynesia,

Poland, Saint Pierre and Miquelon, Portugal, Reunion, Romania, Sweden, Slovenia, Slovakia, French Southern Territories, Wallis and Futuna, Mayotte. Clearly the content of the video is information you must not be allowed to know, but I'll tell you anyway.

The claim that today's Jewish people are heirs to Biblical Israel simply does not stand up to the scrutiny of history and yet that is the entire basis for the existence of modern Israel and its justification for occupying the Arab lands of Palestine. The story is a hoax as Jewish historians have documented and the inner core of ultra-Zionism and the Death Cult knows that. They perpetuate the hoax because it gives them power to be wielded for the benefit of themselves and the wider Hidden Hand. This is not to say that we should demand that Jewish people just up and leave. We are where we are and that needs to be the starting point for agreement between Israel and the Palestinian people, but the claim that Israel should be a Jewish state by some historic right is untenable and irreconcilable with the facts. The hoax has been perpetuated on Jewish people more than anyone and the Palestinians have taken the greatest consequences. They are not the only ones, however. Millions have died in wars instigated on behalf of Israel by the United States, Britain, France, NATO and others based on the claims that today's Jewish people have an historic right to the land. This has provided a very convenient excuse to divide and conquer the oil-rich Middle East and go to war with Israel's enemies who are accused of denying the right of Zionists to impose a Jewish state on the alleged land of the Israelites. The *Clean Break* document which provided the policy foundations of the Project for the New American Century and the wars that followed said:

> Our claim to the land – to which we have clung for hope for 2,000 years – is legitimate and noble. Only the unconditional acceptance by Arabs of our rights, especially in their territorial dimension, 'peace for peace', is a solid basis for the future.

The claim is *not* legitimate and certainly not noble given what has happened since Israel was founded in 1948. Jewish writers like Arthur Koestler and historian Shlomo Sand, Professor of History at Tel Aviv University, uncover a very different history in their books, *The Thirteenth Tribe* and *The Invention of the Jewish People*. Alfred M. Lilienthal (1915-2008), a former American State Department official and Jewish critic of Zionism, called this information 'Israel's Achilles heel' because it destroyed Zionist claims 'to the land of the Biblical Hebrews'. Official history tells us that Israelites from the Kingdom of Judah were taken captive in Babylon (formerly Sumer, now Iraq) by King Nebuchadnezzar II after 605BC and this lasted until 539BC. The dispersal to others lands

that followed of former Babylonian captives and the 'exile' of other tribes of Israel is known as the diaspora, or dispersion in Greek, and the claim is that modern Jews in Israel are the successors of those people 'coming home'. This is not the case.

The Khazar conversion

We can pick up the story in what is now southern Russia and the Caucasus Mountains where lived a people called the Khazars. They controlled an empire that stretched to the Ural Mountains in the east and the Caucasus Mountains in the south (Fig 105). Khazars were gifted traders and 'middlemen', levying taxes on goods using the trade routes across their lands and their influence extended into countries we now know as Poland, Czechoslovakia, Austria, Hungary, Romania and Bulgaria. Khazars were phallic worshippers and engaged in human sacrifice although they were far from alone in that. They were not Biblical Israelites and instead are associated by historians with the Turkic tribe known as the Huns or Hun that invaded Europe from Asia around 450AD. The Huns controlled territories at one time in Central Asia, Siberia, China, North India and Central Europe. Their most famous, or infamous, leader was Attila the Hun who killed his brother, Buda (hence Budapest), to take power. Khazars, like the Huns, spoke the Turkic language and are believed to be the same people. Around 740AD, Bulan, King of Khazaria, adopted the religion of Judaism and the whole nation followed. This was apparently to avoid being absorbed by the Christian empire on one side and the Islamic empire on the other. The Khazarian king was called the Khagan or 'Kagan' and that's why this is such a common Jewish name today as in Robert Kagan, co-founder of the Project for the New American Century. People associate some Jews with a 'hook nose' and that is a physical trait of the lands occupied by Khazaria and not the Middle East. The so-called 'Jewish nose' is found in far greater numbers today among Caucasian tribes and Turks of Asia Minor. Among truly Semite language group peoples it is not seen at all.

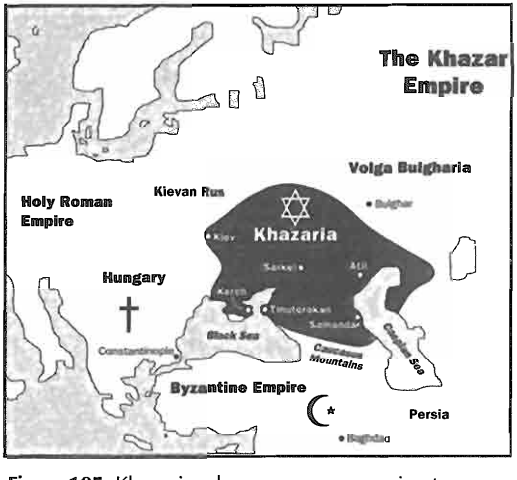

Figure 105: Khazaria where a mass conversion to Judaism in the 8th century was the origin of the overwhelming majority of Jewish people today - not biblical Israel.

Khazars, not the Biblical Israelites, are the ancestors of Jewish people today known as Ashkenazi Jews which dominated the creation of modern Israel and have influenced its direction and politics. They originate from Asia and other parts of the Eurasian landmass and, as I will come to, ancient Sumer (later Babylon and now Iraq). 'Israel' is certainly not on the list. When the Khazar Empire began to unravel in the 12th and 13th centuries they migrated north into Lithuania, Poland and Russia and eventually the biggest concentration of Jewish religion believers were located in Russia and Poland. Jewish Hungary-born Arthur Koestler writes that the numerically and socially-dominant part of the Hungarian Jewish population in the Middle Ages was of Khazar origin. Abraham Nahum Polak (1910-1970), Israeli Professor of Medieval History and founder of the department of Middle-Eastern History at the Tel Aviv University, published a book in Hebrew in 1944 called *Khazaria* followed by a second edition in 1951. He wrote about 'a new approach, both to the problem of the relations between the Khazar Jewry and other Jewish communities, and to the question of how far we can go in regarding this [Khazar] Jewry as the nucleus of the large Jewish settlement in Eastern Europe'. Polak concluded from his research:

> ... The descendants of this settlement – those who stayed where they were [in Khazaria], those who emigrated to the United States and to other countries, and those who went to Israel – constitute now the large majority of world Jewry.

There is also a connection between the Khazars and non-Semitic Sumerians, a highly-significant people which I have written extensively about in other books. Sumerian culture emerged around the fifth or sixth millennia BC in the 'Fertile Crescent' between the Tigris and Euphrates rivers in what is now Iraq. Historians refer to Sumer as the 'cradle of civilisation' because it was in many ways the blueprint for the modern world. Dr Sandor Nagy describes in his 1973 book, *The Forgotten Cradle of the Hungarian Culture*, how the people who later became known as Magyars were re-located Sumerians forced out of the Fertile Crescent. Dr Nagy uses extensive examples to confirm the linguistic similarities between Sumerian, Old Magyar and the current Magyar language. He also refers to several works written during the first millennium including the *Arpad Codices* and *De Administrando Imperio* and Nagy completed 50 years of his own research. He said that while there are only two hundred Magyar words related to the Finno-Ugric language more than two thousand related to the Sumerian. British, French and German archaeologists and linguists concluded that the language of ancient Sumerian inscriptions was not Indo-European nor Semitic, but a language which demonstrated significant similarities with the group of

languages known at the time as the Turanian ethnolinguistic group that included Hungarian, Turkic, Mongolian and Finnic (later referred to as the Ural-Altaic group). Research has indicated that Sumerian and Hungarian languages have more than a thousand common word roots and a very similar grammatical structure. Kálmán Gosztony, professor of Sumerian philology at the Sorbonne in Paris, demonstrated in his *Sumerian Etymological Dictionary and Comparative Grammar* that the structure of the Hungarian language is closest to that of Sumerian. Of the 53 characteristics of Sumerian grammar, 51 matched in the Hungarian, compared with 29 in Turkic, 24 in Caucasian, 21 in Uralic, 5 in Semitic and 4 in Indo-European. The linguistic similarities between Sumerian, Hungarian and other related languages are confirmed by the archaeological and anthropological evidence. Dr Nagy said there were two separate migrations of Sumerian people out of Mesopotamia – one through Turkey to the Carpathian Basin in Central Europe and the other went east and then north across the Caucasus Mountains into the area between the Caspian and Black Seas. This was the land occupied by the Khazar Empire to such an extent that the Caspian became known as the Khazar Sea. Rivers flowing into the Caspian have names that derive from the Sumerian language, Nagy wrote. Khazars were descended from the Huns who are said to be descended, like the Magyars, from what I emphasise were the *non*-Semitic Sumerians in the land that became Babylon and is now Iraq. Ancient Byzantine sources say the Magyars were also called the Sabirs and originated from Mesopotamia, the land of Sumer. Numerous other ancient and medieval sources refer to the Scythians, Huns (Khazars), Avars and Magyars as the same people. I have highlighted in previous books the movement of former Sumerians and Babylonians through the Caucasus Mountains under different names, including the Scythians (Fig 106 overleaf).

Khazar diaspora

The Khazar Empire, the first feudal state in Eastern Europe, broke up in the period after 960AD in a series of wars and invasions culminating in the arrival of the Mongol 'Golden Horde', best remembered for their inspiration, Genghis Khan. Over the centuries of waning power and influence, Khazars began to emigrate in many directions. S.W. Baron said of Khazaria in *A Social and Religious History of the Jews*:

> Its population was largely absorbed by the Golden Horde which had established the centre of its empire in Khazar territory. But before and after the Mongol upheaval the Khazars sent many offshoots into the unsubdued Slavonic lands, helping ultimately to build up the great Jewish centres of Eastern Europe.
>
> The non-Semitic Khazars took their Judaistic or Talmudic faith (with

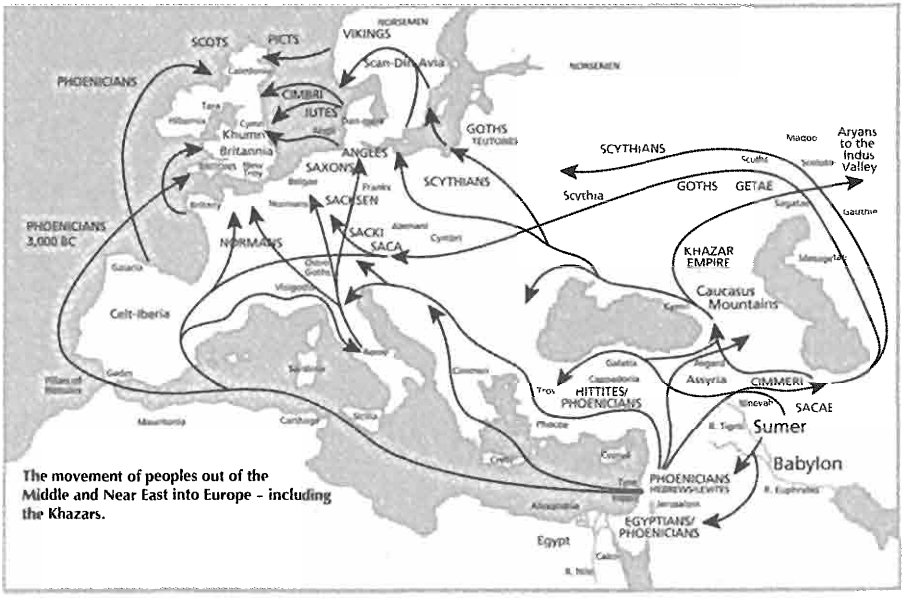

The movement of peoples out of the Middle and Near East into Europe - including the Khazars.

Figure 106: The Khazars, also recorded as names like Scythians, migrated north from the Caucasus into Eastern and then Western Europe.

all its major Sumerian/Babylonian influences) and settled in a number of East European and Alpine lands. There are many ancient place names in Poland and Ukraine inspired by the name 'Khazar' or 'Zhid', a term meaning Jew. These include Kozarzewek, Kozara, Kozarzow and Zydowo. As the Khazar Empire collapsed a number of Slavonic tribes, led by the Polans, formed an alliance that became the country called Poland. 'Jews' (Khazars) played an important role in Polish legends about the formation of the country. One says that a 'Jew' called Abraham Prokownik was elected by the tribes to rule them. Certainly Khazar 'Jews' became prominent in many countries of Eastern Europe. Arthur Koestler writes:

> Both the Hungarian and Polish sources refer to Jews employed as mint-masters, administrators of the royal revenue, controllers of the salt monopoly, tax-collectors and 'money-lenders' – i.e., bankers. This parallel suggests a common origin of those two immigrant communities; and as we can trace the origins of the bulk of Hungarian Jewry to the Magyar-Khazar nexus, the conclusion seems self-evident.

This matches the descriptions of how Khazars operated in their own land as middlemen and tax collectors on the trade routes. Koestler points out that the traditional garb of Polish Jewry is of unmistakably Eastern origin – 'The skull-cap (yarmulke) is worn to this day by orthodox Jews and by the Uzbeks and other Turkish people in the Soviet

Union.' In this period the people known for centuries as Khazars became known simply as 'Jews' and their true origin began to be lost. This allowed their leaders to sell them – and the rest of the world – a false history about them being the Biblical Jews. The fallacy continues to this day with devastating consequences for peace in the Middle East. Khazar 'Jews' were confined to ghettos as a result of Papal decision in the mid-16th century and another mass exodus would see them expand into Hungary, Bohemia, Rumania and Germany. There were hardly any Jews in Germany until this time. 'Thus the great trek to the West was resumed', writes Koestler. 'It was to continue through nearly three centuries until the Second World War, and became the principle source of the existing Jewish communities in Europe, the United States and Israel.' So what does all this mean for the official history of Jewish people? Koestler, who was born in Budapest as was Khazar descendant George Soros, said of Jewish ancestry:

> ... [It] would mean that their ancestors came not from the Jordan, but from the Volga, not from Canaan but from the Caucasus, once believed to be the cradle of the Aryan race [hence 'Caucasian']; and that genetically they are more closely connected to the Hun, Uigur and Magyar tribes than to the seed of Abraham, Isaac and Jacob. Should this turn out to be the case, then the term 'anti-Semitism' would be void of meaning, based on a misapprehension shared by both the killers and their victims. The story of the Khazar Empire, as it slowly emerges from the past, begins to look like the most cruel hoax which history has ever perpetrated.

Benjamin H. Freedman was a one-time Jewish businessman in New York and a long-time 'insider' before speaking out vociferously against Zionism after World War Two. He was personally acquainted with leading American political figures like Presidents Woodrow Wilson, Franklin Roosevelt and John F. Kennedy. Jewish-born Freedman, who became a Christian, went even further than Koestler in his assessment of the Khazar revelation:

> What are the facts about the Jews? (I call them Jews to you, because they are known as Jews. I don't call them Jews myself. I refer to them as so-called Jews, because I know what they are) ... There wasn't one of them [the Khazars] who had an ancestor who ever put a toe in the Holy Land. Not only in Old Testament history, but back to the beginning of time. Not one of them!
>
> And yet they come to the Christians and ask us to support their armed insurrections in Palestine by saying, 'You want to help repatriate God's Chosen People to their Promised Land, their ancestral home, don't you? It's your Christian duty. We gave you one of our boys as your Lord and Saviour ...' It is

> as ridiculous to call them 'people of the Holy Land,' as it would be to call the 54 million Chinese Moslems 'Arabs' ...

Former Khazars are known as Ashkenazi Jews (plural Ashkenazim) and some writers estimate that perhaps 90 to 95 percent of those calling themselves 'Jewish' worldwide are ancestors of the Khazars. The other major group are known as Sephardic Jews – which means 'Spanish' or 'Hispanic' – and they are descendants of those who lived in Spain from at least Roman times before being expelled in the 15th century after which they settled in the Mediterranean, Balkans, Western Europe (mainly Amsterdam), North Africa and the East. A sub-group known as 'Mizrahi' literally means 'Oriental' or 'Eastern'. There have been divisions between Ashkenazi and Sephardic Jews based on culture and racial superiority in race-obsessed Israel. The Ashkenazim ('Khazars') hold the reins of power in Israel (at least on the surface) and have done so since the country was created in 1948 although Sephardic Jews account for many wealthy and influential families. The name Ashkenazi is said by some to originate from Ashkenaz, the Hebrew word for Germany. In fact, the Bible refers to the Ashkenaz as a people living in the region of Mount Ararat (now Turkey) and Armenia. That would certainly fit the basic location of the Khazars. There is also a Biblical reference to Ashkenaz, brother of Togarma and nephew of Magog. A Khazar king known as Joseph in the second half of the tenth century wrote in correspondence that they were ancestors of Togarma, who, he said, had ten sons that seeded all the Turkish tribes including the Huns, Khazars and Bulgars. Ashkenazi as a people did not speak the Semitic language of Hebrew in the centuries after the demise of Khazaria. This is no surprise at all because they were not Hebrews. They developed their own tongue called Yiddish which began as a Germanic language from south eastern dialects of Middle High German and expanded into central and Eastern Europe starting in the 12th century. Later it evolved to include elements of Hebrew, Aramaic, Slavic languages and other influences. Once again, Yiddish, the language of the Ashkenazi, did not come from Israel, but from Germany and Eastern Europe. Multiple linguistic influences in their language were also seen in the genes of these former Khazars. By this time they had interbred with so many other races they became a genetic cocktail which included Sumerian, Turkish, Far Eastern and northern and western European. It could well be that among their leaders, their perceived 'royalty' or 'elite', they have held on to their Sumerian genetic origins through targeted interbreeding.

There was no 'exile' and is no 'race'

Jewish-born Shlomo Sand, Professor of History at Tel Aviv University,

also concludes in his book, *The Invention of the Jewish People*, that today's Jews overwhelmingly originate from the Khazar Empire in the Caucasus region. His book has been translated into more languages than any other on Israeli history. He accepts the religious affinity between Jews and the Holy Land but adds: 'I don't think the religious affinity to the land gives you historical right.' Sand calls himself a 'post-Zionist' and 'non-Zionist' because there is no historic justification to claim rights to Palestine. He believes as I do that we are where we are and that must be the starting point to reconciliation. Sand searched for evidence of ancient Israelites being forced out of the area of modern Israel and was shocked to find there wasn't any even though this is the whole foundation of the Jewish belief system. He concluded that this pivotal event in official Jewish history simply didn't happen and that the whole concept of a 'diaspora' is a much later invention. He wrote in a 2018 article for Israeli newspaper *Haaretz:*

> As I pursued my research, my realization that the Exodus from Egypt never happened and that the inhabitants of the Kingdom of Judah were not exiled by the Romans, left me nonplussed. There is not one study by a historian who specializes in antiquity that recounts that 'exile' or any serious historiographic study that reconstructs a mass migration from the place.
>
> The 'exile' is a formative event that never took place, otherwise it would be the subject of dozens of research studies. Judahite farmers, who constituted an absolute majority of the population at the first century C.E., were not seafarers like the Greeks or the Phoenicians, and did not spread across the world.

Sand's research led him to see that far from being an historic 'people' Jews were converted to a *religion* and were not a *race*. He cites other mass conversions, not only that of the Khazars, and points to Christian influence in creating the myth about an ancient Jewish people with a common ancestry being expelled from their lands. 'Christians wanted later generations of Jews to believe that their ancestors had been exiled as a punishment from God,' he said. Sand further notes that after Arabs took control of Palestine in the 7th century many in the region practicing the Jewish religion converted to Islam and became ancestors to today's Palestinians. We are, therefore, at the very extremes of irony with current events in the Middle East. Sand wrote in *Haaretz:*

> I have made a point of emphasizing that it's not only Jews who don't possess a common DNA – neither do all other human groups that claim to be peoples or nations – besides which I have never thought that genetics can confer national rights. For example, the French are not the direct descendants of the Gauls, just as the Germans are not the offspring of the Teutons or of the

> ancient Aryans, even if until a little more than half a century ago many idiots believed just that.
>
> One trait that all peoples have in common is that they are retroactive inventions with no distinctive genetic 'traits'. The acute problem that genuinely disturbs me is that I live in a singular political and pedagogical culture that continues persistently to see the Jews as the direct descendants of the ancient Hebrews.

Further support for a non-Israel origin of Ashkenazi Jews comes from Israeli-born geneticist Dr Eran Elhaik from Britain's University of Sheffield. He said his studies suggest that Ashkenazi Jews are descendants of Greeks, Iranians and others who located more than 2000 years ago in what is now northern Turkey. There they converted to Judaism with the influence of Jews from Persia which had at that time the world's biggest Jewish presence. Elhaik believes that more than '90 percent of Ashkenazic ancestors come from that converted partially Greek-originating ancient community in north-east Turkey', according to an article in the UK *Independent*. His conclusions were based on 'genetic, historical and place-name evidence' and in his view 'Ashkenaz' originates from Ashguza, an ancient Assyrian and Babylonian name for the Iron Age Eurasian people known as Scythians who are associated with the Khazars. The *Independent* article in 2013 goes on:

> From the 690s AD onwards, anti-Jewish persecution by the Christian Byzantine Empire seems to have played a part in forcing large numbers of Jews to flee across the Black Sea to a more friendly state – the Turkic-ruled Khazar Empire with its large Slav and other populations ... By the 730s, the Khazar Empire had begun to convert to Judaism – and more people converted to the faith.

This would explain the King Bulan mass-conversion in 740. Claims of an historic right to the land of Palestine are a hoax perpetuated in more modern times by those who created Zionism with the House of Rothschild at the centre of this as we shall see. The tenuous historic evidence can be seen in the words of Israeli minister Tzachi Hanegbi who said the Bible alone is enough to prove that his country has legitimate claims to the land:

> Defense is important and security is important but the most important thing is the moral claim of Israel and we are committed to living in our regional land, land that was given to us ... by the Bible ... And this is the right, which we are going to demand our right forever and ever.

No, it's not. Don't be daft. Israel's UN Representative Danny Danon made a similiar claim in 2019.

Overwhelming evidence

The assimilation of Jews and Khazars has been confirmed by several studies which give more credence to Jews as *converts* to a religion and not an ancient people. There is, in fact, no such thing as a Jewish 'race', just as there is no Aryan 'race' in the way it is portrayed by white supremacists. These are fabrications of history. What should 'race' matter anyway? It's all illusion and childish beyond belief to self-identify ourselves with what is a transitory experience for our eternal state of awareness. Judging ourselves and others by genetics is the ultimate confirmation of ignorance about the nature of reality. Unfortunately 'race' and its related historical 'rights' and claims are used as a political tool and source of perception manipulation. There are people who follow the Jewish *faith* around the world and those that support the *political philosophy* called Zionism. This, however, is not the same as a *race*. There are white 'Jews', brown 'Jews', black 'Jews', Spanish 'Jews', Chinese 'Jews' etc., etc., that share the *belief system* and good luck to them so long as they don't force it on anyone else. If they want to call themselves 'Jewish' on the basis of their faith then please feel free, it's none of my business; but there is not a Jewish 'race', let alone a 'chosen people'. Arthur Koestler points out that those calling themselves 'Jewish' have far more in common genetically with the 'host' population than they do with each other. This was highlighted by Professor Juan Comas (1900-1979) in his work, *The Race Question in Modern Science*, published by UNESCO:

> Thus despite the view usually held, the Jewish people is racially heterogeneous [diverse in character]; its constant migrations and its relations – voluntary or otherwise – with the widest variety of nations and peoples have brought about such a degree of crossbreeding that the so-called people of Israel can produce examples of traits typical of every people.
>
> For proof it will suffice to compare the rubicund, sturdy, heavily-built Rotterdam Jew with his co-religionist, say, in Salonika with gleaming eyes in a sickly face and skinny, high-strung physique. Hence, so far as our knowledge goes, we can assert that Jews as a whole display as great a degree of morphological disparity among themselves as could be found between members of two or more different races.

Raphael Patai (1910-1996), a Hungarian-born Jewish historian and anthropologist, wrote in the *Encyclopaedia Britannica*:

> The findings of physical anthropology show that, contrary to popular view, there is no Jewish race. Anthropometric measurements of Jewish groups in many parts of the world indicate that they differ greatly from one another with respect to all the important physical characteristics – stature, weight, skin colour, cephalic index, facial index, blood groups, etc.

Patai said that with regard to blood type, Jewish groups show considerable differences among themselves and marked similarities to the 'Gentile environment'. American Jewish anthropologist Harry Shapiro (1902-1990) produced the same assessment in his UNESCO work, *The Jewish People: A Biological History*:

> The wide range of variation between Jewish populations in their physical characteristics and the diversity of the gene frequencies of their blood groups render any unified classification for them a contradiction in terms. For although modern racial theory admits some degree of polymorphism or variation within a racial group, it does not permit distinctly different groups, measured by its own criteria of race, to be identified as one.
>
> To do so would make the biological purposes of racial classification futile and the whole procedure arbitrary and meaningless. Unfortunately, this subject is rarely wholly divorced from non-biological considerations, and despite the evidence efforts continue to be made to somehow segregate Jews as a distinct racial entity.

There is no more a Jewish *race* than there is a connection today between the Biblical land called Israel and the mass of people today calling themselves Jewish. It's a faith, a way of life and set of rituals, not a race. The hoax has been sprung by the Death Cult network hiding within that faith and its rituals and playing those identifying as Jewish for fools. Cult leaders have had to concoct the *perception* of a race and a connection to the ancient Middle East to justify everything they have done and continue to do with regard to Palestine and the wider world. How can you claim to be a special race, a 'chosen people' considered by 'God' to be above all others, and with special rights given by 'God' to own a certain piece of land, when there is no such thing as a 'Jewish race'? Arthur Koestler writes that during the Babylonian 'exile' the 'Israelites', including members of the priestly families, married Gentiles and even before the diaspora the Israelites were a 'thoroughly hybridized race'. He says the same story can be found with most historic nations 'and the point would not need stressing if it were not for the persistent myth of the Biblical Tribe having preserved its racial purity throughout the ages.' Koestler concludes his book:

> To sum up, the Jews of our day have no cultural tradition in common, merely certain habits and behaviour-patterns, derived by social inheritance from the traumatic experience of the ghetto, and from a religion which the majority does not practice or believe in, but nevertheless confers on them a pseudo-national status ... the lingering influence of Judaism's racial and historical message, though based on illusion, acts as a powerful emotional break by appealing to tribal loyalty.

The point about tribal loyalty is so important. Most Jewish people are pressured and conditioned to identify with tribal loyalty to protect what they are told are an oppressed people even though when you look at the evidence today this is absolutely not the case. Ultra-Zionists not aware of the hoax or Death Cult (most of them) have simply bought the lie to the extreme and it colours their every perception and action. Observe the national and global influence of 0.2 percent of the human population and the idea that Jewish people are uniquely oppressed is ridiculous. The influence of their elite in particular is way, way, way beyond the ratio to their tiny number and their financial clout is the same. People are getting sick of seeing this obvious fact – this elephant on the sofa – while at the same time constantly hearing how the Jewish community must be uniquely protected from unique danger with free speech deleted to this end. Ultra-Zionists never concede that their own behaviour might be affecting the way others view them. It is never their responsibility and blame always lies with the rest of the population who apparently carry some genetic hatred for anyone Jewish. It's all bollocks, but expedient to the agenda. All tyrannies need enemies to unite people behind them in common cause and if they don't exist they have to invent them. Young people are told in Israel that the world hates them and they must stick together in tribal loyalty to survive. This is just perception manipulation in pursuit of the tyranny's need for collective support and a shield to hide behind. Jewish people are among the most lied-to communities on earth for this very reason. Jewish-born historian Shlomo Sand talks of 'tribal Judeocentrism' and the 'caprices of the sleepwalking sorcerers of the tribe'. The definition of 'caprices' is 'a sudden and silly change of mind or behaviour'. Yes, about right.

The Death Cult

A major departure from mainstream Judaism began with a new cult or sect in the 17th century and this is of fundamental significance to the modern world, ultra-Zionism and 9/11. This cult hiding within Judaism and later Zionism is known as 'Sabbatianism' or 'Sabbateanism'. In many ways this cult – with a later addition called Frankism – *is* ultra-Zionism although most ultra-Zionist Israel-right-or-wrong advocates and fanatics will not be aware of this. Compartmentalisation is the

golden rule. Sabbatian-Frankism is a term used to describe what I have referred to up to this point as the Death Cult. This is a major expression of what is called Satanism which pervades the deeper recesses of The Web in many forms (Fig 107).

Figure 107: Sabbatan-Frankist Death Cult – masters of inversion.

The founder of the cult that controls events in Israel to this day was Sabbatai Zevi (1626–1676), a Sephardic rabbi, occultist and black magician who proclaimed he was the Jewish messiah (Fig 108). Gershom Scholem (1897-1982), the first Professor of Jewish Mysticism at the Hebrew University in Jerusalem, writes in *The Messianic Idea in Judaism* that Zevi's cult was 'the largest and most momentous messianic movement in Jewish history' since ancient times and much of the Jewish population fell for it. One of its key promotors was a Zevi devotee, 'prophet' and Kabbalist called Rabbi Nathan Chazzati, or 'Nathan of Gaza', who is credited with convincing Zevi that he was indeed the Jewish Messiah. The Kabbalah or Kabala/Cabala is the bible of Jewish mysticism and esoteric thought and practice. It provides the textual 'spiritual' foundation of the Sabbatian-Frankist Death Cult. Kabbalah teachings relate to the 'occult', a word that merely means 'hidden'. Knowledge about the nature of life and reality systematically hidden from the population can be used for good or ill and I will refer to its satanic use as the Dark Occult. Sabbatian-Frankists follow the Lurianic Kabbalah named after its creator, Jewish rabbi Isaac ben Solomon Luria (1534–1572), the 'Holy or Sacred Lion', which emphasises messianic belief. 'Nathan of Gaza' employed Lurianic ideas to claim the 'new Messiah' (Hebrew 'Mashiach') as Sabbatai Zevi and this messianic mind-set remains a pillar of Sabbatian-Frankism today. None of this may appear to be

Figure 108: Sabbatai Zevi.

relevant to 9/11 or what is happening now, but oh, yes it *is*. The Sabbatian cult was supposed to have ended with Zevi's demise according to mainstream Jewish history. This suits the Sabbatians who are still *very* much with us and operating from the shadows in their satanic form while offering a very different public face. Sabbatians and their associated Frankists are world class infiltrators – that's their route to control and they have infiltrated all the world's major religions including Judaism. Belief in a coming messiah who will rule the world from Jerusalem – 'a saviour and liberator of the Jewish people' – is driving modern events and most obviously the step-by-step process of Zionism taking complete control of Jerusalem and replacing the Al-Aqsa mosque with a rebuilt Solomon's Temple. Sabbatai Zevi promised his followers that they would return to their alleged homeland in Palestine to establish a Jewish state and here we have the origin of modern-day Zionism which is the creation of the same Sabbatian-Frankist Death Cult that has passed through the centuries and infiltrated almost every aspect of human society. We are now living in the new Messianic Age according to these deluded people – an age when their 'messiah' descended from 'King David via Solomon' will rule the world from Jerusalem. I will come to how this is planned to be done in the final chapters. These are some of the messianic biblical prophecies that these crazies are seeking to make happen:

- The whole world will worship the One God of Israel
- Once he is King, leaders of other nations will look to him for guidance
- The peoples of the world will turn to the Jews for spiritual guidance
- Nations will recognize the wrongs they did to Israel

Sabbatai Zevi's cult sought to usurp traditional Judaism and literally invert everything it stood for. A day of fasting became a day of feasting, for example. Traditional religious teachings and laws, sexual taboos and the concept of right and wrong were all turned on their head as Zevi advocated that doing evil was to be encouraged and celebrated without guilt. Scholars have referred to this as a 'transvaluation' within Jewish culture turning accepted norms on their heads and promoting a belief that the violation of the sacred became a sacred duty. Do not kill became *do* kill and a Sabbatian 'prayer' was 'Blessed be they who permit the forbidden'. Redemption thorough sin was the sales-pitch, but it was really just a scam to spread the Hidden Hand 'religion' of what we call Satanism. Sabbatian belief was founded on the concept that being evil implodes evil and so the more evil there is the quicker it is imploded. I don't claim it makes sense, but that is what they believed (or claimed to believe in pursuit of a desired outcome). Modern Satanism is the same with its inverted anything-goes celebration of evil. Sabbatian-Frankism,

Satanism, human sacrifice religions of Sumer and Babylon fuse into one force within the Hidden Hand and stalk and control the corridors of global power. Sabbatianism has become known by some researchers as the 'Synagogue of Satan'. It is not surprising then that in the heralded new Messianic Age nothing will be forbidden except the freedom to challenge and expose the controllers. Some Jewish sources say their 'messiah' is already alive and waiting to take his place as ruler of the world. Others refer to this figure as the 'anti-Christ'. Jerry Rabow writes in his book, *50 Jewish Messiahs:*

> ... Shabbatai Zevi continued to issue proclamations of the theological changes wrought by the coming of the messianic age. Shabbatai's new prayer was, 'Praised be He who permits the forbidden.' Since all things would be permitted in the age of the messiah, Shabbatai declared many of the old restrictions of the Torah no longer applicable. He abolished the laws concerning sexual relationships. He eventually declared that all of the thirty six major biblical sins were now permitted and instructed some of his followers that it was their duty to perform such sins in order to hasten the Redemption.

Look around at the world today and you see this happening – including clear efforts to make sex with children (a 'norm' in the Cult) legal and acceptable. The name Sabbatai relates to the Hebrew word for Saturn and also to the devil-worshipping 'Witches' Sabbath', or Sabbat, which corresponds with the major ritual days of Satanism. These include May 1st (Beltane), and Halloween. Readers of my other books including *Everything You Need To Know But Have Never Been Told* will be aware of the connections I have made between Saturn and Satanism – *Saturn*-ism – and human control. Saturn is not actually a planet, but a form of sun – the 'Black Sun' and 'Dark Sun' of Satanism and Nazi dark occultists. Jewish tradition connects 'the reign of Sabbatai', or Saturn, to the arrival of the messiah which Sabbatai Zevi was claimed to be. Remember the 40-foot Moloch/Molech owl, a symbol of Saturn, at Bohemian Grove. Saturday or *Saturn*-day is the Jewish holy day and the Jewish/Hebrew god of Saturn is 'El' as in Isra-*El*. Saturn was the major god of Rome and today's Christmas is really a modern version of the Roman Saturn festival of Saturnalia in the period between December 17th and what became our Christmas. The Saturnalia festival included a sacrifice in the Temple of Saturn in Rome (the ruins still stand today) and people decorated trees, exchanged presents and hung holly etc. Other ancient societies had something similar as with the Greek festival of Kronia – Kronos/Cronus was the Greek name for Saturn. Check out some of my other books and you'll see the significance of Saturn and its symbols that abound in both ancient and modern society. Saturn symbolism can be

found throughout the 'establishment' and religion. The hexagram, or 'Star of David', is one of them and remember the six-pointed star symbol between the twin pillars at the Mother Lodge of Freemasonry in London earlier in the book in Figure 3. Santa is an anagram of Satan and Rabbi Marvin S. Antelman, a fierce opponent of Sabbatian-Frankism within the Jewish community, said the symbolism of the Santa reference to 'Saint Nick' originates from the Hebrew root 'Nikail' which means 'conspiracy'. Can I say 'conspiracy', is that okay?

Enter Jacob Frank

The Sabbatian movement and belief-system was expanded and made even more satanically extreme in the 18th century by Jewish dark occultist Jacob Frank (1726-1791). He was born Jacob Leibowicz in an area of Poland that is modern Ukraine. Black magician Frank claimed to be the reincarnation of 'messiah' Zevi and biblical patriarch Jacob (Fig 109). He posed as a Turkish Sephardic Jew called 'Frenk' – Yiddish for Sephardic Jew – and this eventually became Frank. This deeply psychopathic man was an advocate of human and animal sacrifices, the dark occult and sex with children – hence the story earlier in the book by the unofficial Rothschild about incest being 'considered normal and something to be admired'. Frank said that 'Lucifer' was the true god. Sabbatians and Frankists, what I will call Sabbatian-Frankists, were told: 'Do What Thou Wilt'. This was the anything-goes no matter what the effect on others 'philosophy' of Satanists like British occultist Aleister Crowley (1875-1947) who was an expression of the same satanic web. Jacob Frank said:

Figure 109: Jacob Frank.

> I did not come into this world to lift you up but rather to cast you down to the bottom of the abyss ... The descent into the abyss requires not only the rejection of all religions and conventions, but also the commission of 'strange acts', and this in turn demands the voluntary abasement (degradation) of one's own sense of self, so that libertinism [no morality] and the achievement of the state of utter shamelessness which leads to a tikkun [fixing/rectification] of soul are one and the same thing.

'Anything goes' includes paedophilia, human sacrifice and incest because depravity to Sabbatian-Frankists is a form of worship while compassion and empathy are sacrilege. Imagine what lack of compassion and empathy it would take to pull off 9/11 and Sabbatian-

Frankism was the force behind those attacks. What the Rothschild family insider said about incest being 'normal' to them was actually describing the life-style of Sabbatian-Frankism within which incest is a major pillar. Sabbatian-Frankism is behind the manipulated wars which are to them a mass blood sacrifice ritual – as was 9/11. Once you understand the mentality running the world you understand what happens in the world. We see the Death Cult's obsession with inversion in the inverted symbols of the Dark Occult in the form of the inverted cross and pentagram and with the dove which means 'peace' to the public mind but to them it is the symbol of the Babylonian goddess Semiramis in all her forms and names (Fig 110). The late America-based Rabbi Marvin S. Antelman said in his two-volume work *To Eliminate the Opiate* that Frankism is 'a movement of complete evil'. Jewish professor Gershom Scholem agrees in *The Messianic Idea in Judaism*: 'In all his actions [Frank was] a truly corrupt and degenerate individual ... one of the most frightening phenomena in the whole of Jewish history.' Scholem wrote a highly acclaimed analysis of Sabbatian-Frankism in which he said:

Figure 110: Inverted symbols of the inverted Death Cult of Sabbatian-Frankism (Satanism).

> The sect's exclusive organization continued to survive in this period through agents who went from place to place, through secret gatherings and separate religious rites, and through dissemination of a specifically Frankist literature. The 'believers' endeavored to marry only among themselves, and a wide network of inter-family relationships was created among the Frankists, even among those who had remained within the Jewish fold. Later Frankism was to a large extent the religion of families who had given their children the appropriate education. The Frankists of Germany, Bohemia, and Moravia usually held secret gatherings in Carlsbad in summer round about the ninth of Av.

This date was believed to be the following: The birthday of Sabbatai Zevi; the alleged date of the two destructions of the Jerusalem Temple by the Babylonians and Romans; and when Sephardic Jews were expelled from Spain. In keeping with their inverted faith this day was celebrated by partying rather than sadness. Professor Scholem describes how Sabbatian-Frankist 'believers' sought to marry only among themselves, passing on the baton through the generations. This is precisely how the Hidden Hand works in totality as I have been exposing since the 1990s. Followers and advocates of Frank and Zevi are still with us and advancing their plan for global takeover with the rest of the Hidden

Hand Web. Rabbis preaching traditional Judaism excommunicated Frank and his supporters as heretics. This just drove them underground and into the realms of covert manipulation. Sabbatian-Frankists are also known as Zoharists because they are led by the Zohar, a group of works considered by many to be the most important in the mystical Kabbalah. Zohar in Hebrew means 'splendour', 'radiance' and by extension 'illuminated'. This is the symbolism of the lighted torch held by the Statue of Liberty (the Babylonian goddess, Semiramis) and of Lucifer 'the light bringer'. Jacob Frank, like Zevi, believed that the Torah, the central document of Judaism, was no longer relevant and should be superseded by the occult Zohar. The Torah is the 'five books of Moses' in the Old Testament which are more widely known known as Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. These are claimed by Judaism and Christianity to have been dictated by 'God' to Moses on Mount Sinai.

Frank, again like Zevi, said that particular elite people (i.e. them) are exempt from the moral law and therefore the laws and commandments of the Torah did not apply to them. They preached the inversion in which what had formerly been prohibited would now be encouraged and even done through compulsion no matter how despicable – the more despicable the better. Sacrifice, incest and sex with children were included and this is the background to the horrors I have exposed at length in my books perpetuated by some of the most famous people on earth including Father George Bush. Sabbatian-Frankism and Satanism, paedophile rings and Dark Occult ritual dominate the 'elite' and their playgrounds like Hollywood and Bohemian Grove in northern California that I described earlier in the book. A war to these people is a mass human sacrifice and something in their inverted minds to be desired and celebrated. Frank believed – as did his followers – that human society had to be overthrown and destroyed. They wanted 'the annihilation of every religion and positive system of belief' despite being outwardly religious themselves. Their aim was to infiltrate religions and destroy them from within and the same with the human values of society in general. Now ... recognise that world today? This is hardly surprising given that Sabbatian-Frankists and Satanists are running the show. In keeping with their techniques of manipulation the desired end had to be achieved secretly so that no one would see where the source of destruction was coming from. They hid themselves within all religions and no religions and one of their prime covers has been Judaism and Jewishness. Jewish writer and researcher Clifford Shack, author of *The Sabbatean-Frankist Messianic Conspiracy Partially Exposed*, said: 'Jacob Frank was not a big fan of the Jewish people.' Rabbi Marvin Antelman describes in *To Eliminate the Opiate* how Sabbatian-Frankists established their own fake systems to appoint rabbis that appear to be

the genuine article while pursuing a very different agenda. Antelman described them as 'barbarians' who masqueraded as rabbis. He said these same Sabbatian-Frankist groups continue to Christianise Judaism and Judaise Christianity (Christian Zionism) with the ultimate aim of destroying both. The planned replacement is Sabbatian-Frankist Satanism which is why its symbols, methods and ways of life are gathering all around us.

The Red-Shields

Enter at this point one of the most powerful and important names behind Sabbatian-Frankism and ultra-Zionism – the House of Rothschild banking and financial dynasty. Jewish researcher Clifford Shack's research leads him to believe that the Rothschilds are related to Sabbatai Zevi. The scam of lending people money that doesn't exist – 'credit' – and charging interest on it can be traced at least to Babylon and on through the Knights Templar secret society and Italian banking families like the de Medicis into Europe. The system was honed and globalised by the Rothschilds. Jewish bankers were able to dominate the emergence of banking and finance wherever they located because their religion allowed the charging of interest on 'money' (credit), a system known as 'usury', while Islam and Christianity (for a time) condemned it. The Koran states:

> Those who charge usury are in the same position as those controlled by the devil's influence. This is because they claim that usury is the same as commerce. However, God permits commerce, and prohibits usury. Thus, whoever heeds this commandment from his Lord, and refrains from usury, he may keep his past earnings, and his judgment rests with God. As for those who persist in usury, they incur Hell, wherein they abide forever.

The Jewish religion allowed the charging of usury although more specifically it officially allowed Jews to charge usury to *non*-Jews but not to other Jews. The Hebrew Bible says that interest can be charged to strangers but not between Hebrews. Israelites were banned from adding interest to loans made to other Israelites while charging interest to non-Israelites was allowed, so the official texts say. Jews lending money at no interest to fellow Jews is said to be 'tzedakah' (charity or literally 'justice', 'righteousness'). This is the foundation of the global Association of Hebrew Free Loans through which interest-free loans are provided but only to Jews. It's not racist, though, and if you say so you're an 'anti-Semite'. Rothschild frontman Jacob Schiff (more soon) was the prime player behind the creation of the Hebrew Free Loan Society of New York in 1892 after which all the others followed. Jews were expelled from many countries for the actions of their banking class charging

outrageous rates of interest that enslaved the population in debt. This recurring theme is explained away *in total* by the alleged genetic hatred that the rest of humanity is supposed to have for Jewish people. Well, I don't feel hatred towards them and I personally don't know anyone who does so clearly there's more to know here. Charging interest on loans has now enslaved much of humanity and has sucked the wealth of the world into the coffers of the banking families and dynasties by seizing the assets of those who don't – mostly simply can't – pay back loans of created-out of-nothing 'credit' *plus interest.* The vastly greater involvement of Zionist and ultra-Zionist bankers in ratio to 0.2 percent of the global population is protected from exposure by the ultra-Zionist hate group network using the label of 'anti-Semitism' to silence those who wish to make these facts public and begin a legitimate debate on why this is. The Rothschilds have mercilessly exploited the usury system to secure fantastic fortunes and accumulation of assets. They were a Middle Ages occult family called 'Bauer' until 1760 when banker Mayer Amschel Bauer, located in Frankfurt, Germany, changed the family name to Rothschild or 'Red-Sign/Red Shield' in German (Fig 111). The name was inspired by the red hexagram or 'Star of David'/'Seal of Solomon' on their home although the symbolism goes much deeper. A six-pointed star is a symbol of *Saturn* which is a central pillar of Sabbatian-Frankism – Saturnism/Satanism – and so how absolutely appropriate that the very name of the Sabbatian-Frankist inner circle Rothschilds should be inspired by a symbol of Saturn which, in turn, inspired the name Sabbatai (Fig 112). Nor is the six-pointed star an exclusively Jewish symbol. It can be found in many parts of the world because it is an esoteric symbol for Saturn used by a long list of ancient cultures and religions including Islam. One example was discovered on the floor of a 1,200 year old excavated mosque where Tel Aviv is today. The same symbol from which the name 'Rothschild' originates can be seen on the flag of Israel – a state established by the Rothschilds who oversee the country as their own fiefdom (Figs 113 and 114 overleaf). Frankfurt, home city of the Rothschild dynasty,

Figure 111: The Rothschild house in Frankfurt where the dynasty began.

Figure 112: The hexagram or 'Star of David' is the ancient symbol of Saturn from which came the name 'Rothschild' or 'Red Shield/Red Sign'.

Figure 113: The symbol of Saturn on the flag of Rothschild Israel.

Figure 114: The real owners of Israel.

was a centre for Sabbatian-Frankists as was the city of Mannheim an hour's drive away. Rabbi Marvin S. Antelman said that among the Sabbatian settlers in Mannheim were names such as Oppenheim and Hess.

I have exposed the Rothschild inner circle and its history in great detail in other books and I won't repeat everything here. Enough to say they are even more amazingly wealthy than they already appear to be, but don't tell the bloke in the Momentum video or he'll say they can't be or the Forbes Rich list would say so. The Rothschilds control global finance through a network of operatives all over the world. Many of these place-people assets go on to be famous billionaires because of this Rothschild connection and their role as Rothschild proxies. The House of Rothschild has a grotesque history of manipulating wars in which they fund all sides and end up owning countries through the subsequent debt. This increases even more when they lend governments 'money' (credit) to rebuild the countries their manipulated wars have devastated. Mayer Amschel Rothschild, the dynasty founder, made his fortune thanks to his close relationship with German royalty and aristocracy which he then usurped. This was especially so with Prince William of Hesse-Hanau who sought to loan money at high interest rates and no wonder Rothschild became his financial agent (and Svengali). The Hesse dynasty made fortunes from loaning troops to fight other country's wars which increasingly Rothschild networks were causing to happen. William and Rothschild shared a love of the Dark Occult based on the Kabbalah and its Zohar. The inner elite of the Rothschild dynasty remain dark occultists today although I stress that not *everyone* called Rothschild is involved – only the inner sanctum compartmentalised from many in the wider family and its offshoots. The 1999 movie *Eyes Wide Shut* starring Tom Cruise and Nicole Kidman was directed, produced and co-written by Stanley Kubrick, a Jewish man who wanted to expose the hidden world of elite Satanism and mind control. He chose the Rothschild-built stately home at Mentmore Towers in Buckinghamshire, England, for the location of the satanic mass orgy around which the film was based. I doubt given the highly symbolic nature of the movie that

this was an accident. Kubrick died of a heart attack soon after the film was shown to Warner Brothers executives and some 25 minutes was cut after his death. The banking and major corporate system is controlled by Satanists and dark occultists which explains why it operates with such cold, callous corruption. I have exposed the 'elite' satanic networks at great length over the years going back to *The Biggest Secret* in 1998.

Sabbatian-Frankist Illuminati and the creation of Marxism

Dark Occult Rothschilds have been the drivers of ultra-Zionism and much of the Hidden Hand structure and it is hardly a shock that satanic occultist Jacob Frank and his Sabbatian-Frankism formed an alliance in 1773 with Mayer Amstel Rothschild and the Jesuit-educated Jew, Adam Weishaupt, who later became (in public) a Protestant. The origin of his name Adam-Weis-haupt apparently breaks down to mean 'the first man to lead those who know'. The Catholic Inquisition jailed Frank for 13 years after his arrest in 1760 when the truth about his Sabbatian-Frankist infiltration of Catholicism was uncovered. After his release he headed for Frankfurt, home city of the Rothschilds, and their alliance was formed. Frank was given the title of Baron and became a wealthy nobleman with a big and gathering following of Jews in Germany, the Austro-Hungarian Empire and other European countries. Rothschild-funded Adam Weishaupt established the infamous Rothschild/Frank Bavarian Illuminati, firstly under another name, in 1776. The 'Illuminati' was (is) based on the Zohar or 'radiance', 'illumination', 'the light bringer' and the organisation set its sights on world control in league with the wider Web. Weishaupt was a Sabbatian-Frankist infiltrator posing as a Jesuit within the Roman Church after apparently being persuaded by Mayer Amschel Rothschild to join the Frankist 'crusade'. Illuminati ambitions for world domination and revolution came to light in 1785 when a horseman courier called Lanz was reported to be struck by lighting and in his saddlebags were found extensive Illuminati documents laying out the plan for world domination and revolution and confirming the connection to Weishaupt. The Rothschild/Frank-directed Illuminati would be involved in widespread society-changing manipulation and violence (death rituals) including the French and American Revolutions (the network was operating before its official formation in 1776). Rabbi Antelman in *To Eliminate the Opiate* connects the Illuminati to the Jacobins who were a central player in the French Revolution and the Bund der Gerechten or League of the Just which was the manipulative force behind the emergence of communism/Marxism. He writes:

> The original inner circle of the Bund der Gerechten consisted of born Catholics, Protestants and Jews [Sabbatian-Frankist infiltrators], and those representatives of respective subdivisions formulated schemes for the ultimate

> destruction of their faiths. The heretical Catholics laid plans which they felt would take a century or more for the ultimate destruction of the church; the apostate Jews for the ultimate destruction of the Jewish religion.

Antelman pointed out that there has not been a single Communist government in which religion is allowed to be practiced freely without interference. The 'Bund' morphed into the International Communist Party and Communist League which produced the Communist Manifesto of Karl Marx and Friedrich Engels in 1848 and spawned the mass-control system known as Marxism. Violent revolution is the Sabbatian-Frankist Illuminati calling card. The Illuminati-Jacobins were behind 'The Terror' in France in 1793 and 1794 when Jacobin Maximillian de Robespierre and his Orwellian 'Committee of Public Safety' killed 17,000 'enemies of the Revolution'. September 11th was just another notch on the bedpost for the Sabbatian-Frankists and their bloodlust. The death-toll of communism and Marxism alone can be counted in hundreds of millions worldwide. Illuminati imposition by death and terror both directly and through its connected offshoots would transform human society. Wars in the aftermath of 9/11 are simply modern examples of a clear pattern through history with the same network manipulating from the shadows. This is what happens when empathy and compassion are deleted. Rabbi Antelman in his studies of the Illuminati and League of the Just concluded:

> Contrary to popular opinion Karl Marx did not originate the Communist Manifesto. He was paid for his services by the League of the Just, which was known in its country of origin, Germany, as the Bund der Geaechteten.

Antelman said the text attributed to Marx was the work of other people and Marx 'was only repeating what others already said'. He describes Marx as 'a hired hack – lackey of the wealthy Illuminists'. Karl Marx (1818-1883) is famous for a description of religion as the 'opium of the people', hence Antelman called his books, *To Eliminate the Opiate* – or eliminate religion by infiltrating them and tearing them apart from within so the openly satanic religion of Sabbatian-Frankism can take their place. Antelman further connects Marxism to the 'Rhodes-Milner-Rothschild nexus' and to the Rockefeller dynasty. The former is the network of satellite organisations spawned by the Rothschild Round Table secret society in London which went on to create the Royal Institute of International Affairs, Council on Foreign Relations, Trilateral Commission, Bilderberg Group and Club of Rome. Antelman notes that Marx's original mentor, Sabbatian Illuminist Moses Hess, was a first cousin of Sabbatian Leopold Zunz and he said the Zunzs were 'an integral part of the Schiff family'. The name 'Schiff', a family that lived in the same house as the Rothschilds in Frankfurt, is of central importance to much of what followed including the

Russian Revolution as we will see. Hess was a French-Jewish philosopher who founded Labour or Socialist Zionism which appears to be in conflict with far-right Zionism while in truth Sabbatian-Frankism ultimately controls both. Rabbi Antelman writes that the later falling out between Hess and Marx was all staged. The Sabbatian-Frankist Illuminati modus operandi was – and still is – to infiltrate, take over and destroy organisations (governments, religions, political parties etc.) while posing as supporters and even leaders of them. Karl Marx was born Jewish but his family converted to Christianity in the way of Sabbatian-Frankist infiltrators and he attacked Jews, not least in his book, *A World Without Jews*. Jacob Frank and his movement did the same because Sabbatian-Frankists hate Jews while posing as protectors of them. You can see the seamless links unfolding here which connect Sabbatian-Frankism to the Rothschilds, Illuminati, Jacobins of the French Revolution, the 'Bund' or League of the Just, International Communist Party, Communist League and the Communist Manifesto of Karl Marx and Friedrich Engels which would lead to the Rothschild-funded Russian Revolution.

'Progressive' Marxism

To know the foundation goals and techniques of what became known as Marxism and its Sabbatian-Frankist origins is to grasp so much about both history and what is happening all around us today. The Marxist methodology is to change society through conflict between distinct groups and this is everywhere to be seen, not least in constant and apparently endless war. Nothing transforms a society more completely and irreversibly than a war and they are manipulated into being to that end by the Sabbatian-Frankist Death Cult and other satanic expressions of The Web. Conflicts are mostly artificially generated by creating, funding and arming different countries and groups which are played off against each other to transform the nature of countries, groups and societies. We have seen this with ISIS and the manipulated conflicts in Iraq, Libya, Syria and elsewhere since 9/11. World Wars were conflicts in the Marxist mode of manipulation to transform global society through conflict and so is today's identity politics. The Marxist 'class struggle' (conflict between groups) has become the Marxist 'self-identity struggle'. Identity politics is based on the struggle for power between *groups* – classic Marxism. The more groups you have the more potential for conflict and societal transformation and so we have the creation of ever more groups based on ever more detailed minutiae of self-identity. You have the male-female struggle subdivided into the straight male/female/gay struggle and the feminist-transgender struggle in which, for instance, transgender imposes its will over feminism by insisting that those in big, strong, males bodies identifying as female can take part in women's sport. This 'struggle' alone is transforming women's sport in accordance with Marxist conflict theory. The war on the family

unit is straight from Marxist doctrine and so is political correctness which both have Sabbatian-Frankist/Illuminati origins through a Sabbatian-Frankist Marxist operation known as the 'Frankfurt [Rothschild] School' which I am coming to. This approach to Marxism is known as 'Cultural Marxism' and human society today is deluged with its poison. You know when something is part of agenda because opponents are insanely targeted by ultra-Zionist attack groups and in 2019 British Conservative MP and former minister Suella Braverman was condemned by the ultra-Zionist Board of Deputies of British Jews for using the term. The Board claimed that 'cultural Marxist' is an 'antisemitic trope' and demanded that she undertake not to use the phrase in future. The ludicrous Hate Not Hope censorship group weighed in saying that Braverman's phrase was 'deeply disturbing' – as is Hate Not Hope – and Israel-worshipping Labour MP Wes Streeting said it was 'an ugly and reprehensible term with anti-Semitic connotations'. How he could speak with his tongue extended I have no idea. You always get ridiculous over-the-top condemnation when someone hits the button dead centre and I am a perfect example (Fig 115).

Sabbatian-Frankist ultra-Zionists that established the Frankfurt School of social engineering in the 1920s referred to a foundation of Marxism as 'Critical Theory' which basically requires groups to be hyper-sensitive to criticism and all of them convinced of their oppression and victimisation by what is deemed the 'dominant culture'. You then harness this manipulated rage to bring down the 'dominant culture' while at the same time all these multifarious self-identity groups are also in a constant state of conflict with *each other* over who is the most oppressed and victimised. Anyone recognise that today – like *everywhere?* The 'dominant culture' in the West is perceived to be (by the constant repetition that it is) the white male. Thus white male 'history' has to be demonised and obliterated on the road to their marginalisation in the present and societal transformation. To achieve this outcome a state of group-think is essential – both in the sense of everyone thinking the same and also judging everyone by their racial, religious and cultural group. Break down the 'white male' culture into individuals and you see that white men span the entire spectrum (as with every race, religion and culture) from kind, courageous, decent and caring to slave-owning, mass-

ULTRA-ZIONIST CENSORSHIP IN NEW LOW
MP TOLD NOT TO SAY 'CULTURAL MARXISM'
CULTURAL MARXISM
CULTURAL MARXISM
CULTURAL MARXISM

murdering psychopaths. Many white people fought against slavery as they did against apartheid in South Africa. Irony of ironies slave-owning, mass-murdering psychopaths created Marxism as a means to achieve total global control and now enslave much of humanity. What you must do is isolate the 'dominant culture' in terms of blame. White men are presented by the propaganda as the only slave owners, oppressors and psychopaths in history when every race, religion and culture has had their slave owners, oppressors and psychopaths – and still do. This is not only about the white male and even some black people owned black slaves in the United States. In other areas of the world the dominant non-white culture is attacked by the need for 'regime change' in the name of freeing the people through 'democracy'. This is another irony because regime change in non-white countries is done overwhelmingly by white males in government and the military. Non-white cultures being prepared for regime-change are told that the white male in the dark suit or uniform is the good guy coming to free them from oppression while in countries where white males are perceived to be the dominant culture they are deemed to be the oppressor. We are looking at designer transformation of different societies while using the same methodology – *ideology.* The trick is to give the same ideology of Marxism different faces for different situations on the spectrum from vicious Soviet and Chinese communism to heart-on-the-sleeve-we-are-nicer-than-you-are 'progressive socialism'. The sales-pitch changes, but not the outcome which is always centralised control by the elite few over everyone else. It is worth 'progressives' pondering on the fact that the foot-soldiers of Marxist (Sabbatian-Frankist) 'revolutions' never end up in power at the end of the story. That is always the gift of the elite who were behind it all along. I am not saying that dominant cultures cannot be forms of oppression – clearly they all are to a larger or lesser extent. 'Progressives' and their billionaire supporters deleting freedom of speech is the most fundamental form of oppression which their self-purity, I-am-right-and-you're-not-so-you-can't-have-a-say arrogance cannot see. Imposed Islam, Judaism, Christianity, Hinduism and so on are vehicles for oppression if choice is not allowed – *everything* is oppression where choice is not freely made. My point is that oppression in its multiple forms and scale is exploited by Sabbatian-Frankist Marxism to justify even more extreme oppression and centralised control. I want to see a world in which power is decentralised and devolved to communities and the individual which negates the potential for a tiny cabal to impose its will on everyone. There is no contradiction whatsoever between individual liberty and collective responsibility on the basis of my own philosophy of do what you like so long as you don't impose it on anyone else either physically or psychologically.

The Soros 'progressive movement' is really the same old Marxist movement wearing its latest disguise and Marxism is the creation of the

Sabbatian-Frankist Death Cult. Marxism is driven by the very elite that Marxism is supposed to be overthrowing. 'Progressive' people – you are being played by the string section and you and your children are going to have to take the consequences if reality doesn't dawn like *now*. The string section is a Death Cult and why do you think that Marxism in its many expressions – Stalin, Mao, Pol Pot and so many more – has led to the deaths of hundreds of millions of people directly and through related consequences? Here we are with virtue-signalling idiots like film-maker Michael Moore and his wish-for 'leader' Alexandria Ocasio-Cortez promoting this very Marxism-in-thin-disguise society with I doubt the first idea that this is what they are doing. The proposed Ocasio-Cortez 'Green New Deal' is only Chairman Mao's Cultural Revolution in China in that it demands subordination of individual uniqueness to the alleged 'collective will' which is really the will of the elite pulling the strings – or playing them – from the shadows. 'Collective will' never actually is because the 'collective' is never consulted. The excuse for the 'Green New Deal's' introduction is that 'climate change threatens human existence' when the 'global warming/climate change' hoax has been perpetrated by the same Death Cult via front organisations like the Club of Rome in the Round Table network. I have been warning since the 1990s that alleged human-caused global warming/climate change was a scam to justify the transformation of global society into a centrally-controlled dictatorship through United Nations projects known as Agenda 21 and Agenda 2030. The plan is also to encourage or coerce people not to have children as part of a depopulation agenda, especially in the West, by employing the 'end of the world is nigh' approach. Now we have Ocasio-Cortez urging people to ask: 'Is it okay to still have children?' I watched an interview with a sad-looking lady called Blythe Pepine, founder of Birth Strike, an organisation for those choosing not to have children because of the dangers of 'global warming'. She said she would not have children herself because of 'the threat we have been told about'. By whom, Blythe? The Sabbatian-Frankist propaganda machine designed to transform global society into a single Marxist state. She said we face extinction, but what will speed that quicker than not having children? It reminds me of the line ... 'When we have deleted heterosexuality future generations will thank us.' The 'Green New Deal' promoted by Hidden Hand-stooge Ocasio-Cortez proposes precisely what those UN Agendas demand and I am going to shock you again here ... groups supporting the Green New Deal are funded by George Soros. I bet you're speechless. The policy has been supported by other prominent members of the Soros-funded Democratic Party including Elizabeth Warren who laughably claimed to have Native American ancestry. Definitely someone you can trust.

Sabbatian-Frankist political correctness

Censorship and political correctness (censorship) are an expression of Death Cult Marxism with the *minority will* posing as the *collective will* subordinating individual freedom to the demands of the mob. Marxism and its offspring communism are always about mobs imposing the will of the elite. Marxism demands centralised control and that structure allows even greater control by the few of the many than capitalism (cartelism) does. Instead of having to manipulate control by the few through hording capital and ownership it is delivered on a plate by the very centralised societal structure of Marxism/Communism. Does anyone believe that Marxist governments all over the world have been 'people's governments'? How about Stalin's Soviet Union? Or Mao's China? Today's China? How about Vietnam where it is illegal to criticise the government on the Internet? Why is the 'free world' going the same way as China and Vietnam with ever more extreme censorship and information control? The same Marxist agenda is being rolled out behind the smokescreen of political correctness and so you have Internet corporations owned by the filthy rich elite in alliance with 'progressives' in their support for censoring non-Marxist information and opinion founded on freedom of the individual and not the tyranny of collective control. Demands for equality of *outcome* rather than equality of *opportunity* are straight from the Marxist rule book. Equality of opportunity offers the platform for people to go their own way and choose their own path in pursuit of their chosen outcome. Equality of outcome destroys incentive and imprisons creativity in a grey and dour sameness while driving out individual achievement in pursuit of outcome 'equality' (classic Marxism). Instead of raising people up it crushes them down. The world portrayed in Orwell's *Nineteen-eighty-four* in fact. A structure based on centralisation of power always involves the few controlling the many and to counter that we need devolution of power *from* the centre founded on respect for individuality and freedom of choice and expression. This is everything 'progressives' and their corporate billionaire cheerleaders are seeking to destroy. The whole ridiculous nonsense of political correctness was developed by ultra-Zionist Marxists from the 'Frankfurt School', or the Institute for Social Research, established in 1923 and affiliated to the University of Frankfurt. Jewish historian and theologian Gershom Scholem, who made a major study of Sabbatian-Frankism, described the School as a 'Jewish sect', but I say it was a pseudo-Jewish sect. Sabbatian-Frankism has sought to control key areas of human society including finance, politics, media, law, social sciences and psychiatry. The foundation of the few controlling the many is to understand human thinking and behaviour and armed with that knowledge to manipulate the perceptions of the many. From perception comes behaviour. Zionist website Myjewishlearning.com reports:

> Jewish psychologists and the influence of Jewish tradition have been instrumental in creating the field of modern psychology. The fundaments of several psychological movements can be traced directly to Jewish values, ideas, and practices, and Jews in the 20th century were at the forefront of research about the psyche and the varieties of human behavior.
>
> Jewish psychologists founded several branches of psychological inquiry. All of the major theorists of the Gestalt school, except Wolfgang Kohler, were Jews. Max Wertheimer, Kurt Koffka, Kurt Lewin, and Kurt Goldstein posited theories of perception and understanding based on holistic understanding, rather than a previous model based on the computation of parts. Psychoanalysis was founded by Sigmund Freud and, with the notable exception of Carl Jung, most of its early proponents were also Jews.

Political correctness is a mind-game to manipulate the target population to silence *itself*. The whole 'progressive' mind-set of fascistic/communistic 'socialism' is an outgrowth of the Frankfurt School and Sabbatian-Frankist manipulation which was itself a continuation of the ultra-Zionist Marxism named after Sabbatian-Frankist stooge, Karl Marx. US Congresswoman Alexandria Ocasio-Cortez, who claims her family has Sephardic Jewish ancestry, is the current political poster girl of this movement, but she is too obsessed with her own reflection and too perceptually programmed to see who her mind-masters really are. She said of her Jewish roots: '... the story goes that during the Spanish Inquisition so many people were forced to convert on the exterior to Catholicism, but on the interior, continued to practice their faith, continued to be who they were, even though they were pressured to not be that on the outside world.' American academic Kevin Macdonald describes in *The Culture of Critique: An Evolutionary Analysis of Jewish Involvement in Twentieth-Century Intellectual and Political Movements* how 'leftist authoritarianism' emerged from the Frankfurt School. This captures the authoritarian 'progressive' movement of today which has been the goal of these ultra-Zionist intellectuals all along. The Frankfurt School was funded into existence by ultra-Zionist Felix Weil; the first director was ultra-Zionist Carl Grünberg; and he was followed by ultra-Zionist Max Horkheimer. Among other prime influences on the school's thinking were ultra-Zionists Theodor W Adorno and Herbert Marcuse. The School relocated to Switzerland before moving to New York in 1935 and six years later branched into California which would become the global capital of political correctness. This Rothschild ultra-Zionist centre for social engineering set out to control American social sciences and here are just some of the changes they sought to introduce to American and global society. Perhaps you can recognise them:

- The creation of racism offences.

- Continual change to create confusion.
- The teaching of sex and homosexuality to young children.
- The undermining of schools' and teachers' authority.
- Huge immigration to destroy national identity.
- The promotion of excessive drinking.
- Emptying of churches [targeting anything that brings people together].
- A legal system with bias against victims of crime.
- Dependency on the State or State benefits [do what we say or they stop].
- Control and dumbing down of the media.
- Encouraging the breakdown of family.

None of these goals are to benefit people – they are only there to *control* people. National identity *is* being destroyed by 'huge immigration' and it is clear to see the real motivation behind the borderless European Union and the United States failing to adequately police the border with Mexico and make it easier for so-called 'illegal aliens' to secure residency. They want a borderless United States, Canada and Mexico to destroy the self-identity of all three. A sense of nationhood is a big potential block to the acceptance of a single uniform Marxist world and so they are working to delete any sense of national identity. Perhaps people might realise now why mega-rich George Soros who says he doesn't care about social consequences and only making money is spending tens of billions supporting 'progressive' groups and those making it easier for the mass movement of people between different cultures. This doesn't make sense on the face of it, but perfect sense when you see what is really behind it. Marxism/communism has never been an ideology for oppressed masses, only for the super-rich using communism to further oppress those masses. The same is true of its alter-ego fascism and its 'democratic' version of socialism (the don't-scare-the-children term for introducing Marxism to America). Nazi fascism was really a form of Marxism and it was appropriate that they called themselves the National Socialist German Workers Party. The Nazis were dark occultists – the same as the Sabbatian-Frankists that controlled them.

From the inside

The takeover of countries through the perceptions of the population was described in *1985* by Soviet KGB defector Yuri Bezmenov who was trained in the subversion doctrine which he described as a four-step plan to subjugate societies. The first stage he called 'demoralisation'. He said this takes 15 to 20 years in which generations of students are systematically programmed in the school and college system to transform their perception of reality while other information and

perspectives are suppressed. Marxist-Leninist ideology was being pumped into the 'soft head' of at least three generations of American students (it's happening in Europe and elsewhere, too) without being challenged or counterbalanced by the basic values of Americanism. Bezmenov said of the demoralisation stage:

> Exposure to true information does not matter anymore. A person who is demoralised is unable to assess true information – the facts tell nothing to him. Even if I shower him with information, with authentic truth, with documents, with pictures, even if I take him by force to the Soviet Union and show him concentration camps he will refuse to believe it until he gets a kick in the back bottom [realises he has been had by Marxist governments taking over his country]. When the military boot crashes then he will understand.

Look at what has been happening for years in the schools and colleges and you will see that quite obviously stage one has been long underway and is now bearing fruit in people like Ocasio-Cortez. Demoralisation is followed by stages that Yuri Bezmenov called 'destabilisation', 'crisis' and 'normalisation' in which 'normalisation' means the imposition of a new 'normal' (society transformed). These stages together are classic Problem-Reaction-Solution. A poll of American 18-24 year olds in early 2019 found that 61 percent were open to a 'socialist society'. They think that means fair and just – if only. The poll reflects the control of the education (indoctrination) system from pre-school to college for generations now that Bezmenov described. Once the programmed promotors (see today's 'progressives') have played their part as essential pawns they would be 'lined up against the wall and shot', Bezmenov said. They would not be needed any more and they would know too much. There was also the telling line that I have been trying to get across to these programmed people for years: 'They think they will come to power, but that will never happen, of course.' No, because Marxist 'revolutionaries' are only pawns in a game orchestrated by their elite violin players – the 'revolution' always tends to eat itself. Ocasio-Cortez and the Marxist mob masquerading as 'social justice warriors' are temporary pawns to bring their hidden masters to power in a full-on global dictatorship. This is how Sabbatian-Frankists operate the world over and they were the force behind the creation of the Soviet Union/KGB as we will see shortly. All the anti-Russia propaganda directed at Vladimir Putin as an individual is a smokescreen to hide the manipulation of American and global society by the Sabbatian Death Cult with major power-bases in Russia and Eastern Europe which was also once the old Russian Empire from where so many major ultra-Zionist players or their families have emerged that created and still control Israel.

Infiltration a speciality

When you appreciate the Babylonian, Sabbatian-Frankist occult foundation of the force behind human society the pieces start to fit. With Rothschild support the Sabbatian-Frankist Death Cult (Satanism and *inverted* Judaism) quickly expanded its influence, secret networks and infiltration of Freemasonry. Sabbatian-Frankists were encouraged to convert to other religions posing as advocates and believers while working to turn them into vehicles for the Sabbatian-Frankist agenda and eventually destroy them. The cult infiltrated Judaism, Islam (more shortly) the Roman Church, Protestant Christianity and other religions while also subverting secret societies including the Jesuits, Knights Templar, Knights of Malta and Opus Dei (all connected to the Church of Rome), Rosicrucians, Grand Orient Freemasonry, wider Freemasonry and the secret and semi-secret strands that connect with them to form The Web. All these infiltrated secret societies are based on the teachings of the Kabbalah – the Lurianic Kabbalah – as are the inner core of major religions. Hasidism, or Hasidic Judaism, the ultra-Orthodox Jewish religious group that wear side-curls, the fedora, homburg and big fur hats are an outgrowth of Sabbatian-Frankism and heavily influenced by the Lurianic Kabbalah. The movement emerged out of Poland in the 18th century in what is now modern-day Ukraine and most advocates will not be aware of its Sabbatian-Frankist origins although the inner core will. The same applies to all these infiltrated groups and organisations. Most won't be a practicing Sabbatian-Frankist, but the cult will be the power in the shadows. Hasidic rabbi Menachem Mendel Schneerson (1902-1994), leader of the messianic Chabad-Lubavitch movement and a deeply racist Jewish supremacist, once said:

> The body of a Jewish person is of a totally different quality from the body of [members] of all nations of the world; an even greater difference exists in regard to the soul. Two contrary types of soul exist, a non-Jewish soul comes from three Satanic spheres, while the Jewish soul stems from holiness ... A Jew was not created as a means for some [other] purpose; he himself is the purpose, since the substance of all [divine] emanations was created only to serve the Jews.

This gives a feel for the attitude to the rest of humanity of extreme Sabbatian-Frankist racists who have the nerve to call others racist. Instead of being condemned for such comments Schneerson was posthumously awarded the Congressional Gold Medal for 'outstanding and lasting contributions toward improvements in world education, morality, and acts of charity'. President Jimmy Carter designated Schneerson's birthday as US Education and Sharing Day and every

president since has fawned over him when the day comes around. Sabbatian-Frankists have no influence with the US government, though, so don't worry.

Jacob Frank targeted the Roman Catholic Church from the start and he was so persuasive in his claim to be a dissident Jew that the Church funded his work and allowed him to convert thousands of apparent followers of Judaism into Catholicism. By 1790, 26,000 Jews were recorded baptised in Poland. Sabbatian-Frankists were not, of course, really converts. They were interlopers infiltrating the Catholic hierarchy to take over the reins of power through clandestine cells and high positions in the Church including the Pope. We see the influence of the paedophilia-practicing Sabbatian-Frankists today with the constant revelations about mass child abuse by Catholic priests which, at the same time, is being exploited by the same Sabbatian-Frankist cult to destroy the church. Child abuse – a calling card of Sabbatian-Frankists – has also made the news within the Hasidic community in Brooklyn, New York, where cover-ups are widespread with internal laws against reporting any of their number to the police. Rabbi Marvin S. Antelman said that a lesser known fact about Jacob Frank is that he also converted to Islam two years before his conversion to Catholicism. A golden rule of the cult was – and is – that 'the believer must not appear as he really is'. This applies to politics and other walks of life and not only religion. Rabbi Antelman gives an example of what happened to the Jewish community in Vienna, Austria:

> What emerges from a close inspection of Viennese Jewry in the latter part of the 19th century is that the establishment is controlled by a Sabbatian Frankist underground, who through their influence on the infrastructure of the community and its media, could orchestrate innocent Jews into supporting their 'causes'.

This is exactly what has happened to the Jewish community in Israel, the United States, Europe and elsewhere.

Sabbatian-Frankist Jesuits

Ignatius of Loyola (1491-1556) was the Spanish Catholic priest who established the Society of Jesus (Jesuits) in 1539. He had appeared before an ecclesiastical commission in 1527 charged with having sympathy with the Alumbrados, a mystical sect with basically the same beliefs as the later Sabbatian-Frankists with their connection to the satanic religion of Babylon. The Alumbrados ('Illuminated') emerged in Spain in the 15th and 16th centuries and they believed that once they became 'illuminated' through a 'complete union with 'God' they could do anything they liked because 'sin' was impossible in their state of

'enlightenment' and no matter what horrors they perpetrated it had no effect on their soul. This is the sales-pitch of the Sabbatian-Frankists when you cut back all the verbiage and manufactured justifications for evil, but when their consciousness leaves the body at 'death' they find out otherwise. Loyola escaped with a firm warning for his Alumbrados connections and his Jesuit Order would go on to become a major controlling force on behalf of the Sabbatian-Frankists and the wider cult within the Roman Church. Adam Weishaupt who established what became the Bavarian Illuminati with Jacob Frank and Mayer Amstel Rothschild in 1776 was a Jesuit-educated 'Jew' (Sabbatian-Frankist). Jewish researcher Barry Chamish, quoting the work of Rabbi Antelman, said:

> A movement of complete evil now took hold. The Jesuits' goal was the destruction of the Protestant Reformation leading to a return of one pope sitting in judgement on all mankind. The Rothschilds' goal was to control the wealth of the planet. And the Frankist vision was the destruction of Jewish ethics to be replaced by a religion based on the exact opposite of God's intentions [Satanism]. When these factions blended, a bloody war against humanity, with the Jews on the front lines, erupted.

The Jesuits, Rothschilds and Sabbatian-Frankists moved – and move – as one unit. Ignatius of Loyola became the first Jesuit Superior General in 1541 and the post continues today. A Superior General is also called the 'Black Pope' and has enormous hidden power within the Church – even more so currently with Pope Francis who became a member of the all-male Jesuit Order. With 20,000 Jesuits – three-quarters of them priests – operating in 100 countries the potential for manipulating events and situations is obvious. They work across the world in their schools, colleges and many other centres which include a big network of Jesuit universities and they follow a vow of obedience to the Jesuit hierarchy. Their 'education' system of calculated perceptual indoctrination provided in many ways the structure for modern 'education' to this day. Jesuits played a front-line role in the European colonisation and 'Christianisation' of native lands around the world and the mass murder of the Inquisition. They engaged in political manipulation wherever they located to advance their own power and agenda. Jesuits were thrown out of many countries only to return in new guises – the technique of Sabbatian-Frankists with whom the Jesuits joined forces. Francesco Borgia, the third Jesuit Superior General, said: 'We came in like lambs and will rule like wolves. We shall be expelled like dogs and return like eagles.' Religious, royal and political leaders were terrified of the Jesuits and when Pope Clement XIV signed the decree abolishing the Jesuit Order in 1773 he said: 'I have signed my death warrant, but I have

obeyed my conscience.' He was dead within nine months and the Jesuit Order was restored in 1814. Needless to say that Clement's death is described as 'controversial'. Jesuits operate like covert Nazis and how appropriate that the Nazi SS was structured and organised by Heinrich Himmler on the Jesuit blueprint. Walter Schellenberg, former chief of Nazi counter-espionage, said:

> The SS organisation had been constituted by Himmler according to the principles of the Jesuit Order. Their regulations and the Spiritual Exercises prescribed by Ignatius of Loyola were the model Himmler tried to copy exactly. Himmler's title as supreme chief of the SS was to be the equivalent of the Jesuits' 'General' and the whole structure was a close imitation of the Catholic Church's hierarchical order.

Jesuits still control the Vatican and Roman Catholic Church today in league with their Sabbatian-Frankist masters. This is highly appropriate given that the Roman Church is the Church of Babylon relocated. Sabbatian-Frankists are modern-day purveyors of the Babylonian satanic human-sacrifice religion and Babylonian bloodlines established Rome and its empire. The Hidden Hand creates religions to seize the minds of the populous and then divides them into factions and sets them at war with each other. How many wars have there been between Christian Catholics and Protestants alone? Martin Luther triggered the schism with the Church of Rome in the 16th century to create Protestantism and then John Calvin triggered a schism within Protestantism called Calvinism. You see this with virtually all religions as with Islam's schism of Sunni and Shia. The Vatican has long been controlled by Sabbatian-Frankist-Jesuit occultists and it's no surprise when you hear Jesuit Pope Francis say that Christians must work 'to ensure anti-Semitism is banned from society'. He said Christians share the same roots as 'their Jewish brothers and sisters'. How about the other link, mate – infiltration by Sabbatian-Frankists which as a Jesuit you well know? Another highly significant family infiltrated by these covert Satanists was the Habsburg dynasty which produced a stream of kings and emperors and occupied the throne of the Holy Roman Empire from 1438 until 1740. They remain very connected to The Web through secret societies like Le Cercle, the Knights of Malta and the elite and exclusive Order of the Golden Fleece founded in 1430. The Austrian version is led today by Karl von Habsburg (also Archduke of Austria, Royal Prince of Hungary, Bohemia and Croatia), current head of the House of Habsburg-Lorraine. Le Cercle initiate Otto von Habsburg, or Archduke Otto of Austria (1912-2011), was a key figure behind the creation of what is now the European Union as an agent of The Web to delete countries and bring them under centralised control. The

Habsburgs have worked closely with the Rothschilds.

America calling

Mayer Amschel Rothschild and his five sons (symbolised by five arrows) established banking houses in Frankfurt, London, Paris, Vienna and Naples and he selected the wives of his sons for the business connections they would bring to the family. He wanted his offspring to marry cousins wherever possible to keep the bloodline 'pure' and keep it all 'in family' – just as Sabbatian-Frankists are told to intermarry and 'keep it in the cult'. Rothschild had eighteen grandchildren and sixteen of them married first cousins while his daughters all married bankers – Worms, Sichel and Beyfus – and the family became immensely rich. They were infamous for their psychopathic activities and behaviour as they took control of European countries through financial and political manipulation. From Europe they hijacked the American economy and expanded worldwide. In 1773 Mayer Amschel Rothschild is reported to have met with Sabbatian-Frankist banking families including Schiff, Oppenheimer, Warburg and Goldschmidts (later Goldsmiths) to agree a plan to bankrupt nations and control world finance. They have certainly achieved that if you look at national debt levels alone. American government debt at the time of writing is $22 *trillion*. The meeting came in the same year of 1773 that saw the alliance formed between Rothschild and Jacob Frank and what followed was the creation of the Bavarian Illuminati by Sabbatian-Frankist Jesuit infiltrator and Freemason Adam Weishaupt. From the mid-19th century a series of German Ashkenazi (Khazar) Jewish (Sabbatian-Frankist) families emigrated to the United States and they would become the great banking dynasties that still largely prevail today with the Rothschilds holding the strings of all of them. They included Goldman, Sachs, Lehman and Warburg (the Venetian Jewish – Sabbatian-Frankist – del Banco family). The most important one of all across the late 19th and early 20th centuries would be lesser known to most people – Schiff. The Ashkenazi Sabbatian-Frankist rabbinical Schiff family shared the Rothschild home in Frankfurt and in 1875 Jacob Schiff (1847-1920) relocated to New York to join (and eventually head) the banking firm Kuhn, Loeb & Company. This was a front for the Rothschilds with Schiff as their loyal agent. Schiff became a dominant figure on Wall Street and a director of companies such as National City Bank of New York, Equitable Life Assurance Society, Wells Fargo & Company and Union Pacific Railroad. 'He' (the Rothschilds) funded the rise of the Rockefeller Standard Oil monopoly headed by J.D. Rockefeller; Andrew Carnegie's steel empire; J. P. Morgan's financial empire; and Harriman family railroad interests. All were really Rothschild-controlled operations through middleman Schiff and the Rothschilds remain in control of their

modern versions. We see the same technique with global corporations, not least in Silicon Valley, which appear to be run by their famous faces when they are actually controlled from the shadows by a very different force. The Rothschilds, via Schiff, orchestrated through banker Paul Warburg the fraudulent creation in 1913 of the Federal Reserve Banking System, the still privately-owned 'Central Bank of the United States' which has controlled the American economy and government financial policy ever since. If you want to know the foundation origin of the $22 trillion debt then look no further than the Rothschild-controlled Federal Reserve (or 'the Fed'). For 31 years from 1987 to 2018 ultra-Zionists headed the Federal Reserve in the form of Alan Greenspan, Ben Bernanke and Janet Yellen. In the same period Yellen and the Israeli-American duel citizen, ultra-Zionist Stanley Fischer, former governor of the Bank of Israel, served as vice chairs of the 'Fed'. What are the statistical chances of that happening randomly from two percent of the American population? The sequence was broken when Jerome Powell replaced Yellen as chair – Powell was a partner in the Father Bush Carlyle Group while it was a financial agent for the Bin Laden family across 9/11. Today the vast ultra-Zionist network that I exposed manipulating American politics and society from within is ultimately controlled by Sabbatian-Frankists to advance their agenda. The mass of those involved with their ongoing childish shenanigans will have no idea that this is so. The same is true in the UK, Europe, Canada, Australia and wherever Sabbatian-Frankists are at work.

Sabbatian-Frankist 'Russian' Revolution

Jacob Schiff in true Rothschild fashion funded half the cost of the successful Japanese war against Russia in 1904 and 1905 (spending more than $4.5 billion by today's equivalent) as part of the effort to prepare Russia for the overthrow of the Romanov Tsars by the Lenin-Trotsky communist (*Marxist*) 'revolution' of 1917. Schiff was awarded the 'Second Order of the Treasure of Japan' medal in recognition of his pivotal role in securing that victory. In the years before the revolution Tsar Nicholas II, the last monarch of Russia, was undermined by the infamous Grigori Rasputin, a mystic and manipulator befriended by the Tsar and his family, and his views were the same as those of Sabbatian-Frankists. Gershom Scholem, Professor of Jewish Mysticism at Hebrew University, said: 'Rasputin, who played a major role in the Russian Revolutions, espoused a doctrine which was identical to that of the Frankists of "redemption through sin".' Zionism had been making ground in Russia and according to the *Encyclopedia Judaica* the Russian delegation accounted for one-third of all the delegates (66 out of 197) at the First Zionist Congress in Basle, Switzerland, in 1897. British-born Jacob Rothschild, 82 at the time of writing, said in a television interview

that 'Zionism was primarily a movement from Eastern Europe'. One center for the emergence of Zionism was Prague in what is now the Czech Republic – a major centre for Sabbatian-Frankists going back to Jacob Frank. The year 1897 also saw Rothschild asset Jacob Schiff use his influence over outgoing US President Grover Cleveland to secure passage into America for Zionist and Communist Jews from Russia and elsewhere. Zionism is Rothschildism. This political movement masquerading as a 'race' has been the Sabbatian-Frankist infiltrators' vehicle for taking over the Jewish people worldwide and using them as a smokescreen and diversion on the way to global control. Thus we have today's 'anti-Semitism' industry and the Protection Racket. The Russian 'Revolution' was a version of the 'Arab Spring' which was made to look like a 'people's uprising' when it was actually financed and organised by banking families in the United States, Britain and Germany (i.e. the Rothschilds ultimately). Russian people suffered horrifically after the 'revolution' as Arabs have since their 'Spring'. In both cases this was the idea from the start. John Schiff, Jacob's grandson, said in the *New York Journal American* in 1949 that his New York-based grandfather gave some $20 million ($1 billion today) to fund the Russian Revolution. Rabbi Antelman said Schiff's Rothschild banking firm, Kuhn, Loeb, secured an immense return with 600 million roubles in one payment alone. A key player in the revolution was Ukrainian Jew Leon Trotsky (born Lev Davidovich Bronstein). He lived in New York before travelling to Russia to 'revolt'. He had $10,000 with him when he was stopped on the way by Canadian and British naval personnel – and that was in 1917. Another big funder of Trotsky was Britain's Lord Alfred Milner according to anti-Communist Russian general Arsene de Goulevitch. Milner just happened to be a big-time Rothschild frontman and head of the Round Table secret society who would be heavily involved in the 'Balfour Declaration' in 1917 through which the British government publicly-supported a Jewish homeland in Palestine. Vladimir Lenin, who was part-Jewish, was allowed to travel in an allegedly sealed train across Germany to Russia as part of the same plot to oust the Tsar. Yep, it was a people's revolution all right. Rabbi Antelman describes Lenin as 'a tool of the Illuminati monopoly capitalists'. According to *New World Encyclopedia* Allen Dulles, a Hidden Hand operative almost his entire life and longest-serving head of the CIA, reviewed and rejected Lenin's application for a visa to the United States while working at the US Embassy in Switzerland. Dulles also claimed that he had taken a phone call from Lenin at the embassy, but he 'didn't think the matter was urgent' and asked him to call back. The next day Lenin headed for his train and the revolution. With the limpet-close associations between the Dulles family and those funding the Revolution in the United States there was far more to this Dulles-Lenin story than we are told.

Most of those at the forefront of the communist regime that took over Russia in 1917 were 'Jewish' (I would say Sabbatian-Frankists). Rabbi Antelman said: 'Frankists appear to have dominated Eastern European radical circles' (from where the momentum for Zionism emerged). Trotsky was head of the brutal Red Army and chief of Soviet foreign affairs; Yakov Sverdlov (Solomon) was head of the Soviet government as chairman of the Central Executive Committee; Grigori Zinoviev (Radomyslsky) led the Communist International to expand the revolution to other countries. There were many other prominent 'Jews', too, when the Jewish population of Russia was no more than five percent. British journalist Robert Wilton confirmed these themes in his 1920 book *The Last Days of the Romanovs* when he studied official documents from the Russian government to identify the members of the Bolshevik ruling elite between 1917 and 1919. The Central Committee included 41 Jews among 62 members; the Council of the People's Commissars had 17 Jews out of 22 members; and *458* of the 556 most important Bolshevik positions between 1918 and 1919 were occupied by Jewish people. Only 17 were Russian. Then there were the 23 Jews among the 36 members of the vicious Cheka Soviet secret police established in 1917 who would soon appear all across the country. Professor Robert Service of Oxford University, an expert on 20th century Russian history, found evidence that Leon Trotsky had sought to make sure that Jews were enrolled in the Red Army and were disproportionately represented in the Soviet civil bureaucracy that included the Cheka which performed mass arrests, imprisonment and executions of 'enemies of the people'. A US State Department Decimal File (861.00/5339) dated November 13th, 1918, names Jacob Schiff and a list of ultra-Zionists as funders of the Russian Revolution leading to claims of a 'Jewish plot', but the key point missed by all is they were not 'Jews' – they were Sabbatian-Frankists. Britain's Winston Churchill made the same error by mistake *or otherwise*. He wrote in a 1920 edition of the *Illustrated Sunday Herald* that those behind the Russian revolution were part of a 'worldwide conspiracy for the overthrow of civilisation and for the reconstitution of society on the basis of arrested development, of envious malevolence, and impossible equality.' He continued:

> There is no need to exaggerate the part played in the creation of Bolshevism and in the actual bringing about of the Russian Revolution by these international and for the most part atheistical Jews. It is certainly a very great one; it probably outweighs all others. With the notable exception of Lenin, the majority of the leading figures are Jews. Moreover, the principal inspiration and driving power comes from the Jewish leaders.

> Thus Tchitcherin, a pure Russian, is eclipsed by his nominal subordinate, Litvinoff, and the influence of Russians like Bukharin or Lunacharski cannot be compared with the power of Trotsky, or of Zinovieff, the Dictator of the Red Citadel (Petrograd), or of Krassin or Radek – all Jews. In the Soviet institutions the predominance of Jews is even more astonishing. And the prominent, if not indeed the principal, part in the system of terrorism applied by the Extraordinary Commissions for Combatting Counter-Revolution has been taken by Jews, and in some notable cases by Jewesses.

In the same way, Donald Rumsfeld was 'eclipsed by his nominal subordinate', the ultra-Zionist Paul Wolfowitz, in the Pentagon at the time of 9/11. What happened in Russia was not a Jewish revolution – many Jews would suffer the consequences. It was a Sabbatian-Frankist revolution to impose the Sabbatian-Frankist-created political creed and tyranny called Marxism. What Churchill calls 'the system of terrorism' applied against 'enemies of the Revolution' was a repeat of the Jacobin period of 'The Terror'. This is a constant theme in 'revolutions' of the Sabbatian-Frankist-Illuminati cult. Churchill's reference to 'atheistical Jews' fits the modus operandi of Sabbatian-Frankist interlopers. Marxism is an atheist creed and this was Sabbatian-Frankist Marxism manifesting as the Russian Revolution which in true Marxist style targeted religion including the Jewish one. A great irony in attacks on me by the ultra-Zionist hate group 'anti-Semitism' Protection Racket is an oft-quoted passage from my book *And The Truth Shall Set You Free* in which I say that the Russian Revolution was the work of a group of Jewish people together with non-Jewish people. This is sighted as proof of my 'anti- Semitism' when, as you see here, it is simply provable *fact* and when fact is no defence against condemnation we are living in a tyranny. *And The Truth Shall Set You Free* is the book in which I expose in detail support for the Nazi master race movement by the Bush, Harriman and Rockefeller families (with the Rothschilds) and its connection to Hitler's race purity 'expert' Ernst Rudin. My ultra-Zionist abusers never mention that. They must have forgot.

Sabbatian-Frankist Red Army

The Russian Red Army, the biggest killing machine in known human history, was the creation of Sabbatian-Frankists. Leon Trotsky was the head of the Red Army and the leading administrators were ultra-Zionists Aron Solts; Yakov Rappoport; Lazar Kogan; Matvei Berman; Genrikh Yagoda; and Naftaly Frenkel. The Red Army killed almost seven million Germans and millions more across Europe. Red Army soldiers murdered and tortured civilians wherever they went and were ordered to do so by their Sabbatian-Frankist leadership. They raped some two million German women and many more in Austria, Hungary,

Romania, Bulgaria, Poland, Czechoslovakia and Yugoslavia. They also raped women – most of them *Jewish* – who had been freed from Nazi concentration camps. The Red Army went on to terrorise Eastern Europe for decades. Ultra-Zionist Ilya Ehrenburg was the evil Soviet propagandist who distributed pamphlets ordering the Red Army to rape, torture and kill their millions of victims. Ehrenburg told them:

> If your part of the front is quiet and there is no fighting, then kill a German in the meantime ... if you have already killed a German, then kill another – there is nothing more amusing to us than a heap of German corpses.
>
> Kill! Kill! In the German race there is nothing but evil; not one among the living, not one among the yet unborn but is evil! Follow the precepts of Comrade Stalin. Stamp out the fascist beast once and for all in its lair! Use force and break the racial pride of these German women. Take them as your lawful booty. Kill! As you storm onward, kill, you gallant soldiers of the Red Army.

The Red Army took ultra-Zionist psychopath Ehrenburg at his word and this is how one young Russian officer described what happened day after day:

> Women, mothers and their children lie to the right and left along the route and in front of each of them stands a raucous armada of men with their trousers down. The women, who are bleeding or losing consciousness, get shoved to one side and our men shoot the ones who try to save their children.

Ilya Ehrenburg is celebrated by Zionism as a Jewish hero of the Russian Revolution and he is honoured in Yad Vashem, Israel's Holocaust history museum. At Israel's instigation Prime Minister Benjamin Netanyahu and Russian President Vladimir Putin opened the 'Victory Monument' in the Israeli city of Netanya in 2012 to celebrate the Red Army. Why would Israel honour this killing and raping machine of historical proportions? See above. The same mentality that created the Red Army and decreed its murdering, raping and torturing methods of operation has been in control of Israel since it was bombed into existence in 1948. Anyone surprised that it is committing genocide against Palestinians and treats them with such hatred and contempt? These people are not 'Jews'. They are fake Jews exploiting and hiding behind genuine ones and those they have enticed into their lair. While Trotsky made sure *fake* Jews under the control of the Sabbatian-Frankist cult were given the major role in the post-revolution Russian hierarchy the story was very different for the rank and file. Rabbi Antelman writes:

> ... born Jews such as Trotsky [cooperated] with Lenin in executing Jews, and ... Lenin's Jewish Section was even more severe than Lenin in closing synagogues and religious schools, and persecuting and murdering Rabbis and religious leaders.

You see it wasn't – and isn't – about 'Jews'. It is rather about Sabbatian-Frankists hiding within the Jewish and other communities posing as 'one of them'. This is why there is no contradiction between 'Jews' taking power or controlling power in Russia, Germany and Israel treating Jewish people with such violence and contempt. Most people will never have heard about the Zionist (Rothschild) dominance of the Russian Revolution and what followed because of the ultra-Zionist censorship networks. These are *facts*, not 'anti-Semitism'. For the latter to be so I would have to be saying that all Jewish people are the same as those I am calling out. I am *not* saying that – quite the opposite. Most Jewish communities around the world will not know about the background that I am summarising here and can be read in detail in other books. They are the ones who are blamed in the minds of many by actions in which they have played no part and of which they know nothing. If we are to protect human freedom for *everyone* these are facts that we cannot go on ignoring because their implications and connections are indivisible from current events. A dispatch in 1918 by the US ambassador to Russia, David R. Francis, said: 'The Bolshevik leaders here, most of whom are Jews and 90 percent of whom are returned exiles, care little for Russia or any other country but are internationalists and they are trying to start a worldwide social revolution.' William Oudendyke, Dutch Ambassador at the time, said something similar: 'Unless Bolshevism is nipped in the bud immediately, it is bound to spread in one form or another over Europe and the whole world as it is organized and worked by Jews who have no nationality, and whose one object is to destroy for their own ends the existing order of things.' This is straight from the Sabbatian-Frankist statement of intent and method of operation. Russian dissident writer Alexander Solzhenitsyn (1918-2008) spent eleven years in labour camps and exile. He was a hero to the Western Establishment for his opposition to Communism until he, too, pointed out the greatly disproportionate overrepresentation of Jewish people in key positions among the Bolshevik 'revolutionaries'. He wrote a two-volume work, *Two Hundred Years Together*, in which he called for both Russians and Russian Jews to take responsibility for their 'renegades' who supported the totalitarian communist regime. The 'renegades' and ultra-Zionist 'Bolshevik leaders' he was talking about were tools of the Sabbatian-Frankist *anti*-Jewish cult which indeed was – and is – pursuing 'worldwide social revolution' on the road to planned global dictatorship. Rabbi Marvin S. Antelman

said this about the *Protocols of the Elders of Zion*, a highly controversial document that came to light in the early years of the 20th century and some allege to be detailing a Jewish plot for world domination:

> The Protocols alleged that there was a Jewish world conspiracy. The Czar was a virulent anti-Semite, but may have published the Protocols because he had a personal axe to grind with the Schiffs, the Warburgs and the Rothschild banking dynasties, who were already planning a revolution in Russia. Jacob Schiff was giving immense financial help to the Japanese against the Russians. He was decorated by the Mikado after the Russio-Japanese War. The question should be raised of Schiff, if he was such a loyal Jew, why did he finance the Japanese who caused the death of thousands of Jewish men who were used as cannon fodder for the Czar.

Answer – because he was a Sabbatian-Frankist cult member and they hate Jews. I'll have more about the *Protocols* in the next chapter. Antelman continues and invokes the big bad word, *conspiracy*:

> The truth of the matter was, as this book will point out, that there was a conspiracy, but it was neither Jewish, nor Catholic, nor Masonic. It involved people of all types of religious and national backgrounds. Side by side with the Schiffs, Warburgs and Rothschilds were the Morgans and the Rockefellers. With Trotsky were Lenin and Stalin.

This is the same conspiracy that American professor Carrol Quigley exposed in the 20th century with the same families and their agents and assets involved. Quigley (1910-1977) was a professor of history at Georgetown University in Washington DC for 35 years and taught Bill Clinton. He was an insider who revealed in *Tragedy and Hope* and *The Anglo-American Establishment* the existence of the Rothschild Round Table secret society that spawned the network of think tanks including the Council on Foreign Relations, Bilderberg Group, Club of Rome and Trilateral Commission. This is the same seamless intergenerational conspiracy that I have been exposing for 30 years along with a mountain of wider and deeper connections. We can see The Web at work when you connect the funding of the Russian Revolution by the Rothschilds and New York-based Jacob Schiff with other revolution funders I detailed earlier in the book – Skull and Bones initiates, Roland Harriman, Prescott Bush, Percy Rockefeller and their associates. They were all working as one team and their latter-day successors were the evil behind 9/11. Jacob Schiff's granddaughter, Dorothy Schiff, owned the *New York Post* for more than 40 years and his investment banker son Mortimer Schiff was an early leader of the Boy Scouts of America. Karenna Gore, daughter of global warming hoax frontman, Al Gore,

married Andrew Schiff, Jacob's great, great grandson.

Sabbatian-Frankist Islam

Sabbatai Zevi's cult established in the 17th century is described as the biggest messianic movement in Jewish history since ancient times and he promised to return them to a homeland in Palestine. The promise was delivered by the Sabbatian-Frankist cult and ultra-Zionists in the 20th century. This was achieved in stages by infiltrating mainstream Judaism and other faiths and communities with Islam a crucial example. Zevi lived both in Palestine and in what is today's Republic of Turkey under the rule of the Islamic Ottoman Empire which took over the region in stages from the end of the 14th century to its demise in the 20th century. Zevi converted to Islam when the Sultan of the Ottoman Empire gave him the 'choice' between conversion, or torture and death. By now Zevi had a million Jewish followers believing he was the Messiah and although he lost some with his 'conversion' many also converted in the Ottoman Empire and others knew that all the 'conversions' were only agreed to stay alive. Zevi and his fake-conversion cult became known as 'Donmeh' (meaning 'to turn') and they were called 'crypto-Jews' who, while publicly converting to Islam, retained their Sabbatian beliefs. This did not mean *Jewish* beliefs, but the Sabbatian *inversion* of traditional Jewish beliefs. Zevi was rejected as the Messiah by traditional Judaism and he and his followers hid behind the fake conversions and traditional Judaism while practicing their Sabbatian-Frankism in secret. Even their children were not told about their family's real religion until they were old enough to keep the secret and this continues up to current times. A hidden satanic 'religion' was born which continues today as the Sabbatian-Frankist Death Cult manipulating world events to a specific end and this was the foundation force behind 9/11. Donmeh were forbidden to marry outside of their sect (the interbreeding families theme again) and they became an interloper religion or cult within Islam, mainstream Judaism and other religions. Donmeh bloodlines infiltrated royalty and aristocracy as they expanded into Western society. Jacob Frank lived and studied with the Donmeh in Turkey before launching his Frankist cult in Europe. The Sabbatian Donmeh method of operation was founded on infiltration and control of positions of religious and political influence. They became powerful in the politics and business of Salonica (today called Thessalonica or Thessaloniki in Greek Macedonia in the southern Balkans) which was a major centre for Freemasonry and the birthplace of the Young Turk movement which overthrew Ottoman Islamic rule in Turkey in the 1920s. Mustafa Kemal, more famously known as 'Atatürk', was a Donmeh Jew who played the role of frontman for the rebellion that led to the establishment of the Republic of Turkey in 1923 (see *Everything You Need To Know But Have*

Never Been Told). Atatürk was a Grand Orient Freemason in the Lodge Veritas in Salonica and a British agent in the breakup of the Ottoman Empire, according to Lord Patrick Kinross in his book, *Ataturk, The Rebirth of a Nation.* The end of the Ottoman Empire was essential to the planned establishment of Israel because Palestine had long been under Ottoman rule.

The Donmeh 'interloper Jewish' cult infiltrated Islam and eventually manifested as the Saudi 'Royal' family and the extreme British-Saudi version of Islam known as Wahhabism. This is the religion of extreme suppression of women and beheading non-believers and 'infidels'. Western/Saudi-funded, armed and trained terrorist groups like ISIS are its most famous manifestations along with the fascistic Saudi state itself. Wahhabism set the new blueprint for how Islam is perceived both by many of its followers and the wider global public. From this came the perception that Islam is about death and destruction. In fact, like every other religion, it is the chosen *interpretation* of Koranic texts – what you emphasise and what you ignore – that drives your actions. This is what dictates if Islam is a peaceful religion or a violent one and the great majority of Muslims are not violent. I don't support any religion because I think they are all prisons of the mind, but these points need to be made to ensure some balance. On my trips to the Middle East I remember only kind people willing to share with visitors what little they had no matter what your personal beliefs. By contrast Wahhabism is anything but kind. It is a brutal, merciless, deeply psychopathic and supremacist creed that appropriately mirrors in its mind-set the Sabbatian-Frankist Death Cult. There is a reason for this. I tell the story of the Donmeh cult and its connection to Saudi Arabia in *Everything You Need To Know But Have Never Been Told* and see that book for more detail. Many in the Islamic world are well aware of who the House of Saud interloper 'royals' and architects of Wahhabism really are. Muhammad ibn Abd al-Wahhab, a Donmeh Jew hiding within Islam, was chosen by the British Empire in the 18th century to front-up a new extreme version of Islam and the British forged an alliance between Wahhab and Muhammad bin Saud who created the first Saudi state before he died in 1765. Bin Saud's successors formed the current Saudi Arabia with their British and American controllers in 1932 and in doing so hijacked the major centres of Islamic belief in Mecca and Medina. Wahhab's daughter married Bin Saud's son. Head-chopping Wahhabism spawned head-chopping ISIS and terrorist al-Qaeda (via the CIA) and the Sabbatian-Frankist cult had a home-grown terrorist 'problem' that it could falsely blame for 9/11 and justify a 'war on terror' against the very groups it had created. Saudi royals' are Donmeh 'crypto-Jews' as many Islamic writers have attested. An Iraqi intelligence report includes Arabic texts saying that Abd al-Wahhab and Muhammad bin Saud were Jewish (Sabbatian-Frankist

Dönmeh) and it sources the following from an Arabic work by D. Mustafa Turan called *The Donmeh Jews*:

> Muhammad Bin 'Abd-al-Wahhab is a descendent of a family from the Jews of Al-Dunamah in Turkey. Al-Dunmah [Donmeh] refers to the Jews who declared their embracement of Islam in an effort to insult Islam and to escape the pursuit by the Ottoman sultans ... [Turan] confirms that Sulayman; the grandfather of [Wahhab], is (Shulman); he is a Jew from the merchants of the city of Burstah in Turkey, he had left it and settled in Damascus, grew his beard, and wore the Muslim turban, but was thrown out for being voodoo.
>
> Then he fled to Egypt and he [was] faced [with] strong objection so he left to Hijaz and settled in Al-Ayniyyah where he got married and had a child whom he called Abd-al-Wahab and claimed to be from the descent of Rabi'iyyah, and that he was born in Morocco.

This would explain the otherwise unexplainable closeness between Saudi Arabia and Israel when you would have thought they would be in fierce opposition. The alliance largely happened behind the scenes until more recently when it came to the surface with the installation by Israel and America of Saudi Crown Prince Mohammed bin Salman in 2017 who proceeded to take over the reins of power in Saudi Arabia from the official king. Salman became known as 'Mr Everything' because of his control of the economy, military, foreign affairs, oil and entertainment. He was at the centre of the grotesque murder of Saudi dissident journalist (and one-time Saudi establishment supporter) Jamal Khashoggi at the Saudi consulate in Istanbul, Turkey, in 2018. If you want an example of the psychopathic mentality behind world events look no further than this. Turkish Foreign Minister Mevlut Cavusoglu said he personally listened to an audio recording of the killers being told to listen to music while they dismembered Khashoggi with a bonesaw while he was still alive. 'I listened to it. He was killed within seven minutes', Cavusoglu told Germany's *Suddeutsche Zeitung*. He said one of the killers commented that he 'liked to cut people up'. Would someone with that mentality give a damn about 3,000 people killed on 9/11 or would they get high on such slaughter? This is the mentality behind 9/11 and world events in general.

Crown Prince Psychopath

Salman has also been the architect of the war against Yemen which produced the world's biggest humanitarian crisis using weapons supplied by America, Britain, France and others. By early 2019 this was Yemen in figures: 360,000 dead from malnutrition; 80,000 children dead from starvation; 20 million on the brink of starvation; 16 million lacked

access to water and sanitation; a cholera outbreak had infected an estimated 1.2 million; tens of thousands dead from airstrikes two-thirds of which the United Nations High Commissioner for Human Rights said were by the Saudi-led 'coalition' of Arab state psychopaths supported by US, UK and other Western psychopaths. Never lose sight of the fact that we are dealing with a Death Cult that is sexually-stimulated by death and suffering. The number of Yemini dead from direct attacks passed 60,000 by the end of 2018 with the rate increasing by some 2,000 a month. For the psychopaths involved this enters multiple orgasm territory. The same people who promote and fuel this human catastrophe against Muslim civilians had the outrageous nerve to condemn with their fake moral piety the gun attack on Muslims in New Zealand (Fig 116). They have no shame. Overwhelming support from the American and British governments for the evil Saudi regime comes from the fact that the House of Saud is a Western front and those that control Saudi Arabia and Israel are members of the same Sabbatian-Frankist satanic cult and family network. Prince Khalid Bin Farhan al-Saud, a Saudi prince who defected from the family in 2013 because he was sick of their behaviour, has said publicly that the US and Israel control the Saudi 'royals' and that he knew from inside the family that the US and Israel had set 'conditions' for 'helping' current Saudi king, Salman bin Abdulaziz Al Saud, succeed his father in 2015. Two others higher up the order of succession conveniently died in 2011 and 2012. The defector prince said that in return for this 'help' King Salman had to agree to 'absolute obedience' to the US and Israel and work to settle all Gaza Palestinians in north Sinai (to be paid for by the Saudis and UAE), destroy Palestinian group Hamas and secure ownership of Sanafir Island from Egypt. The latter would change the Gulf of Aqaba from Egyptian territorial waters to international waters for the benefit of Israeli shipping operating out of the port of Eilat and into the Red Sea (Fig 117). Egypt's president and US-Israel placeman Abdul Fattah al-Sisi secured power for his military government thanks to the Soros-funded and manipulated 'Arab Spring'. Sisi and King Salman obeyed orders and transferred ownership of Sanafir Island and neighbouring Tiran Island in 2017 to Saudi Arabia against the will of the Egyptian people.

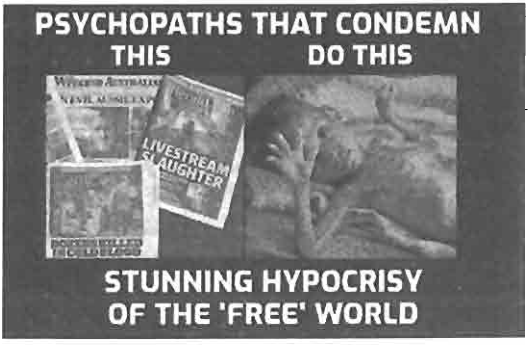

Figure 116: The 'moral' West. When it suits us we condemn mass murder and when it suits us we support it.

Ironically, Israel had to give its permission for the transfer because the islands were part of an earlier peace agreement between Egypt and Israel. I bet the Israeli authorities had a good laugh about that. The installation of Crown Prince Mohammed bin Salman has made King Salman nothing more than a symbolic figure and the media has reported on efforts by the Crown Prince and Egyptian leader Sisi to have closer relations with Israel. Both are puppets of the Sabbatian-Frankists working to stitch-up the Palestinians. We can now see why the home of the bloodthirsty Wahhabi religion would fund and arm Wahhabi terrorist groups like al-Qaeda and ISIS/Islamic State along with America, Britain and Israel (collectively The Web) to create mayhem (the 'problem') in the Middle East to which they could offer the 'solution' (a Western military presence serving the agenda of Israel). Intelligence Colonel Sa'id Mahrnud Najrn Al-'Arniri, who wrote the Iraqi intelligence document which I detail in *Everything You Need To Know*, said that the enemies of Islam use the Wahhabi religion in the political arena 'to prevent the unity of Muslims'. He continued:

Figure 117: Sanafir and Tiran islands are strategically placed with regard to Israeli shipping passing through the Gulf of Aqaba. It is confirmation of Israel's control over Saudi Arabia that it believes its interests are better protected with the islands owned by the Saudi 'royals' than Egypt.

> Al-Wahabi today is subconsciously working in all its power on promoting occupation in order to achieve its despicable desires. The Wahabis have worn the Muslim robe inside out therefore; they couldn't apprehend any of the Muslim goals, because how is it possible for someone who seeks the help of infidels to speak of unity?
>
> They sign treaties of peace and friendship with the criminals, surrender and bow in front of the masters of rotten politics. Therefore; I wanted in my study to focus on the history of this movement from the stand point of its relation with the British government and how Britain had employed all its spies in Muslim countries in order to establish and spread this movement to destroy Muslim religion and create heterodoxies in Islam.

The involvement in 9/11 of Saudi Arabia-connected alleged 'hijackers' alongside Hidden Hand elements in the United States and ultra-Zionist Israel (much more to come) now takes on a new light, significance and clarity. They are on the same team (Fig 118). Saudi government funding of Islamic schools in Sweden is also connected to what ultra-Zionist academic Barbara Lerner Spectre said about Zionists being at the forefront of transforming European culture with 'multiculturalism'. Swedish daily *Svenska Dagbladet* reported that Saudi Arabia has for a long time spread ultra-conservative (Sabbatian-Frankist) Wahhabism or Salafism in Sweden and the same is happening in Germany (where there are thousands of mosques) and elsewhere. The Swedish Defense College said there are 18 registered foundations in Sweden – and counting – with the stated goal of promoting the building of mosques. Sweden is committing cultural and genetic suicide while calling it 'compassion'. Sabbatian-Frankists are global masters at manipulating genuineness that isn't streetwise. The reason Saudi Arabia and Israel are so close when you would think the very opposite would be the case is that both are controlled by Sabbatian-Frankists – the same with the United States, Britain, France, Germany, Canada, Australia and a long list of other countries affecting the direction of human society. No wonder ultra-Zionist Jared Kushner, Trump's son-in-law and 'senior advisor', a life-long friend of Benjamin Netanyahu, was reported to be urging the administration not to punish Saudi Arabia and its Sabbatian-Frankist Crown Prince Salman over the psychopathically-disgusting murder of Jamal Khashoggi when Salman clearly instigated what happened. Sabbatian-Frankists work as one unit towards their collective goal of global domination and watch each other's back on the way unless cutting them loose would benefit the agenda.

Figure 118: Different names – same masters.

In summary

A Hidden Hand has been at work for thousands of years with the aim of transforming human society into a centrally-controlled tyranny by concentrating power in a world government and creating a one-world everything. This would demand a single global government, army, religion and 'culture' which would mean deleting the concept of nations and countries and creating a single fused 'blob' culture underpinned by

the interbreeding of individual races to develop racial fusion. A world army and control of the media was planned to impose this agenda either directly when necessary or through the manipulation of perception and what is now called political correctness, 'hate speech' and 'fake news' to silence debate and exposure of what was happening. Control of money was also essential to dictate and limit choice of the target population and thus freedom. A focal point of the Hidden Hand from the 17th century has been the satanic cult that I am calling Sabbatian-Frankism which is the continuation of the ongoing satanic human sacrifice and child-abuse religion of Babylon under another name. Much older secret societies such as the Knights of Malta (under different names) and Knights Templar, established in the 11th and 12th centuries, were founded on the Babylonian religion and the same 'Hebrew' (Babylonian) Kabballah of esoteric and mystical 'magic' that 'inspires' the Sabbatian-Frankists pursuing the outcomes desired by the same Hidden Hand. This explains why the Knights Templar (since the 12th century) and Sabbatian-Frankists (since the 17th century) have had the ambition to rebuild 'Solomon's Temple' on the current site of the Al-Aqsa Mosque at al-Haram al-Sharif/Temple Mount in Jerusalem. To the Knights Templar and Sabbatian-Frankists 'King Solomon' was an occult magician of the Kabballah religion and rebuilding 'his' temple is nothing whatsoever to do with Jewish people in general who are pawns in a game they have been manipulated not to see. The cult is not 'Jewish' but satanic. This is what unites them and not some perceived 'Jewish plot' which is a smokescreen behind which the cult can take essential cover.

Jewish communities and the official Jewish religion around the world have been infiltrated and exploited by Sabbatian-Frankists who have absolute contempt for non-Sabbatian-Frankists. The cult hijacked much of Judaism while following in secret a very different Kabbalistic psychopathic creed involving Satanism, paedophilia and the manipulation of war and suffering in pursuit of their unspeakably evil desire for control. Rabbi Antelman writes that Sabbatian-Frankist mysticism was known as the 'red Kabbalah' and provides the philosophical basis for 'the international occult neo-Frankist Cult of the All-Seeing Eye' (Fig 119).The Kabbalah, occultism, witchcraft and

Figure 119: The Sabbatian-Frankist symbol of the All-Seeing Eye on the US dollar shining ('illuminated') above the occult-significant 13 levels of the pyramid. The lower Latin words mean 'New Order of the Ages' or 'New World Order' – a long time code-name for the Hidden Hand Sabbatian-Frankist agenda to transform and control human society.

Satanism go hand in hand, he said. Antelman contends in *To Eliminate the Opiate* that the Jewish Reform and Conservative movements, which both emerged in the 19th century, are Sabbatian-Frankist stalking horses for the fracturing and demise of traditional Judaism. Professor Gershom Scholem at Hebrew University concluded the same. Antelman said that the instigators of these movements could be traced back to the Sabbatian families of Europe and he described how Rothschild operative Jacob Schiff and the Rothschilds themselves played a prominent role in the development of both movements along with the Warburgs. Antelman writes that funding fraudulent seminary fronts to create fraudulent Sabbatian-Frankist 'rabbis' was part of the plan:

> The Conservative movement by its very existence, perpetuates the lie that they are a branch of Judaism when, indeed, they are anti-Judaic. Their members are, nevertheless, invariably Jews. The problem is that since their conversions are fraudulent, counterfeit rabbis take authentic Christians and convert them to counterfeit Jews ... Perhaps accurately their members are duped into being 'Jews for Satan'.

What is called Christian Zionism, one of the foundation promoters of ultra-Zionism in the United States, was created by Sabbatian-Frankists in their infiltration of Christianity. Remember how the unofficial Rothschild, Phillip Eugene de Rothschild, said he was designated by the Rothschild hierarchy to be an infiltrator of the Christian Church – classic Sabbatian-Frankism. The term 'Christian Zionist' was reportedly first used by Theodor Herzl, the 'father of modern political Zionism', at the First Zionist Congress in 1897. Most Christian Zionists are evangelical Protestants and they include superstar evangelists like Jerry Falwell and Pat Robertson. They believe that Jews must relocate to Israel for the Book of Revelation 'Armageddon' End Times when Jesus returns, presumably on a cloud if biblical texts are to be believed. Trump's Israel-worshipping Vice President Mike Pence and Secretary of State Mike Pompeo are Christian Zionists – and war warmongers and regime-changers who must have missed the lines about turning the other cheek and not coveting their neighbour's ass. To be fair to them it doesn't say anything about oil. I don't know what will happen when the Christian Messiah and the Jewish Messiah tussle for power on their mutual return. My own view is that Jesus will have his work cut out. It may be a double-dose of nonsense but the calculated development of Christian Zionism aligning itself with messianic Judaism has led to a crucial well of support and finance for the ultra-Zionist agenda especially from the southern states of America. It has also paved the way for Sabbatian-Frankist infiltration into America's government and heartlands. There is much that Rabbi Antelman and I would not have agreed on. However,

in the subject areas where I quote him we are absolutely on the same page. I don't follow any form of Judaism or Islam, Christianity, Hinduism or any other religion and that's not the point. Understanding *why* this infiltration and destruction of religion and human society are happening is the point. Religion served the interests of human control for a long time through perceptual control and divide and rule, but in the 'One World' dictatorship they want only one religion – Sabbatian-Frankism.

Exposing The Web

The hidden power and reach of the Death Cult explains why tiny Israel has so much global influence and why so many people *appearing* to be Jewish occupy positions of control and influence from 0.2 percent of the world population. The French 'Revolution', American 'Revolution', Russian 'Revolution' and so many more have been Sabbatian-Frankist 'revolutions' to transform, hijack and control those societies. Most replaced one form of tyranny with another which was much harder to see because it called itself 'liberty' and 'democracy' or, in Russia's case, overthrew the dominance of the Tsars for the dominance of the Politburo. Sabbatian-Frankists play the long game and now look how the long fought-for 'liberties' of America and other apparently 'free' countries are being deleted. If chains on your hands and feet are replaced by a new restraining device there is a short time between the two when your hands and feet appear to be free. This is the short window we have been experiencing in the West during the transition from one form of control to another far more virulent and permanent one via technology which I will highlight in the final chapters. Several rabbis over the years have realised what is happening and tried to alert both the Jewish population and the world in general although with limited success because of the Sabbatian-Frankist domination of mainstream media and communication in general. This is even more so today with ultra-Zionist-controlled censorship fronts in Silicon Valley like Google and Facebook having an increasingly monopolistic control over who sees what and the gathering book-banning by Amazon now it has secured the dominance in book publishing and distribution that it was created to achieve. In early 2019 Amazon banned multiple books about the dangers of vaccines, alternative treatments for vaccine-caused autism and withdrew from Amazon Prime documentaries such as *Vaxxed: From Cover-Up to Catastrophe.* Meanwhile, the Sabbatian-Frankist Big Pharma cartel can say what it likes and Amazon thinks it's fine to sell child sex dolls and baby clothes with slogans such as 'Daddy's little fuck toy' and 'I just look illegal'. The *only* criteria for such decisions is this: Does it serve the agenda that Amazon represents or expose it?

Those who say the global conspiracy is a 'Jewish plot' are missing the

deeper truth and making life easier for the Sabbatian-Frankists by pointing at the wrong villain. The destruction and absorption of Judaism and Jewishness is only one front in the Sabbatian-Frankist satanic war on the world. Agents and activists of this interbreeding cult have infiltrated all religions (to ultimately delete them) and controlled global finance and corporations to enslave the target population in debt and dependency. They have bought and hijacked so much of the mainstream media, not least in satanic Hollywood, and dictated political policy from the shadows through donations and other manipulation. Covertly instigating wars and then funding all sides to the desired end is a speciality and you will see the evidence I will soon present that Sabbatian-Frankists were the real force behind 9/11 which, in turn, has led to so many wars. The Web is what connects outward 'Jews' like William Kristol and Robert Kagan, co-founders of the Project for the New American Century, and non-Jews like Dick Cheney, Donald Rumsfeld and John Bolton. Others only 'find out' about their Jewish backgrounds when they have secured public office. Madeleine Albright, Bill Clinton's 'we think killing half a million Iraqi children is worth it' Secretary of State, had 'a shock' while in office to find that she comes from a Jewish background which she wasn't aware of (lie). Michael Dobbs of *The Washington Post* reported that Albright's parents were Jewish converts to Catholicism (a classic Sabbatian-Frankist theme) and that she had lost three of her grandparents and other close relatives in the Holocaust. Albright would call this 'obviously a major surprise'. Strange then that it was subsequently revealed that she had received letters years before – including one from the mayor of her father's hometown – revealing all this. Skull and Bones John Kerry, Obama's Secretary of State and a presidential candidate in 2004 against Skull and Bones Boy Bush, had the same surprise news. Israeli newspaper *Haaretz* reported:

> Senator John Kerry, with his mother's New England patrician pedigree and his Irish last name actually has a grandfather who was born a Jew in the former Austro-Hungarian Empire. The news was a revelation to Kerry himself, who only found out about his Jewish roots while running in the 2004 presidential election.

The 'elite' are obsessed with their family histories yet neither Kerry or Albright knew this? Oh, please. A declassified document released in 2015 by the US National Security Archive and the Center for Non-proliferation Studies at the Middlebury Institute of International Studies in Monterey revealed that Kerry's father, Richard Kerry, then a US embassy official in Oslo, played a role in the covert sale of Norwegian heavy water to Israel (through the United Kingdom) for Israel's nuclear

programme under a secret agreement made in 1959. Kerry's paternal grandfather, officially known as Frederick A. Kerry, was actually born Fritz Kohn in what today is the Czech Republic before changing his name ahead of emigration to the United States a century ago. The politician's grandparents converted from Judaism to Catholicism at the turn of the 20th century. Many Jewish families changed their names when they crossed the Atlantic. Rabbi Antelman described the mode of operation employed by Sabbatian-Frankists in the United States today which will be mightily important when we return directly to who was behind 9/11:

> The Frankists today no longer call themselves by that name. The organisation has grown into an international group labelled by outsiders as the Cult of the All-Seeing Eye ... They have expanded from Judaism, Islam and Christianity to six religions, adding on Buddhism, Confucianism and Hinduism as well.
>
> In the United States they are most active in Boston, New York, Washington and San Francisco. Their ranks and sponsors include some very famous people, numbering diplomats, senators, governors and clergymen in their ranks ... in Jewish circles, they dominate the Reform movement at many levels and the Conservative movement at the highest level.

Antelman added that Sabbatian-Frankists dominate the Anti-Defamation League (ADL) and its creator B'nai B'rith, the self-appointed 'voice of Jewish people'. Both have tried many times to silence me. He said that B'nai B'rith was founded in New York by twelve Jewish-born German Sabbatian Bundists who emigrated to the United States in the 19th century and by 1860 already had 50 lodges. Antelman named other Sabbatian-Frankist fronts as the American Jewish Congress, Federations of Jewish Charities in many American cities and a clique within in the National Lawyers Guild. Two techniques employed to protect the common identity of Sabbatian-Frankists is for advocates to attack each other in public to give the illusion of separateness and different opinions and to condemn aspects of the Death Cult's agenda while secretly working to that end. The foundation technique of the cult is to set the human population at war with itself in every area of society while it pulls the strings of all sides from the shadows.

Look at the world. I rest my case.

CHAPTER 21

Completing the job

There is not a crime, there is not a dodge, there is not a trick, there is not a swindle, there is not a vice which does not live by secrecy
– Joseph Pulitzer

Sabbatai Zevi promised his followers they would 'return' to their Jewish homeland on the alleged site of ancient Israel and this ambition was pursued to ultimate success by the Death Cult. Jewish people have been sold the lie about their connections to this land and their 'historic right' to ownership and many gave their support to the Sabbatian-Frankists who they believed were regular Jews like themselves; but they weren't 'Jews' in that sense – only crypto ones hiding within Judaism as they have hidden within Christianity, Islam and other religions.

Israeli historian Shlomo Sand said that before the 19th century Jews thought of themselves as people who shared a common religion and not a common racial history. Jewish intellectuals in [Rothschild] Germany then began to retrospectively invent just such a mythical history about a 'Kingdom of David' and a racial connection back to biblical Israel, Sand said. He writes that until the advent of Zionism in the 19th century most Jews did not consider a return to the 'Promised Land'. This was underpinned by their religious belief that they were banned by God from retuning to Jerusalem until the Jewish messiah came and for this reason many orthodox Jews vehemently oppose Zionism and the State of Israel today through organisations such as Neturei Karta (Fig 120). Among the intellectuals to which Sand refers was Heinrich Graetz (1817-1891) who wrote the multi-volume *History of the Jews from Oldest Times to the Present*. Graetz joined the Proto-Zionist movement, the forerunner of Zionism, and it is no accident that just as a mythical Jewish racial history and connection to ancient Israel was starting to be promoted that the Sabbatian-Frankist House of Rothschilds was developing the political philosophy of Zionism founded on the right of Jewish people worldwide to seize their 'historic right' to the land of Palestine. The 'academic' promotion of this 'historical right' and the political demand to act on this 'historic right' were incredibly symbiotic and clearly not random chance. British Foreign Secretary Lord Palmerston wrote in 1840

Figure 120: Not all Jews are Zionists, even fewer are ultra-Zionists and still fewer Sabbatian-Frankists.

to the British Ambassador in the Islamic Turkey-based Ottoman Empire which then controlled Palestine:

> There exists at the present time among the Jews dispersed over Europe, a strong notion that the time is approaching when their nation is to return to Palestine ... It would be of manifest importance to the Sultan to encourage the Jews to return and settle in Palestine because the wealth which they would bring with them would increase the resources of the Sultan's dominions; and the Jewish people, if returning under the sanction and protection, and at the invitation of the Sultan, would be a check upon any future evil designs of Mehmet Ali [of Egypt] or his successor ... I have to instruct Your Excellency strongly to recommend [to the Ottoman government] to hold out every just encouragement to the Jews of Europe to return to Palestine.

What is most relevant and significant about that statement is the background to the man who made it. Lord Palmerston was Grand Patriarch of Grand Orient Freemasonry, the elite version controlled by Sabbatian-Frankism. Palmerston was also prime minister during the 19th century Opium Wars against China when the British Empire sought to get the Chinese hooked on the drug to destroy the country and take control. Sabbatian-Frankist global drug networks continue to operate today and this was the cartel served by Father George Bush and Bill Clinton and by the activities I have described at Venice Airport in Florida where 9/11 'hijackers' attended the flying schools and 'Mohamed Atta' is reported to have flown planes on drug trafficking routes.

Sabbatian-Frankist Zionism

The clearly orchestrated campaign to secure control of Palestine under the fake guise of 'historic rights' continued to build throughout the 19th century both politically and in terms of 'academics' and 'historians' delivering the fraudulent narrative. This culminated at the end of the century with the establishment by the Rothschilds of *Zionism* – Zion was a hill once outside Jerusalem and now within the modern city. This *political movement*, opposed by many Jews and rabbis at the time, was officially launched by Austro-Hungarian journalist Theodor Herzl and

encouraged the relocation of Jews from Europe to Ottoman-controlled Palestine where Jewish settlements began to appear. Such was German Jewish hostility to Zionism that the first Zionist Congress in 1897 was moved from its planned location in Munich to Basle, Switzerland. Jews in general did not want to move to Palestine because they preferred to stay in Germany. This mind-set didn't really change until the Nazis came to power in the 1930s with all that followed. Theodor Herzl was the 'founding father of Zionism' who acted more like a Sabbatian-Frankist in that what Jewish people in general wanted was of no importance – what he (and his masters) wanted was all that mattered. He suggested at one time that Austrian Jews mass-convert to Catholicism to overcome 'anti-Semitism' and his vision of Israel was a state in which what was perceived as Jewishness, including religion, was thrust to the margins. A rabbi reprimanded him for celebrating the Christian Christmas with a Christmas tree and he refused to have his son, Hans, circumcised. Hans later became a Baptist minister before becoming a Catholic and shooting himself at the age of 39. Herzl categorised Jewish people as two types – 'rich Jews' and 'poor Jews'. He saw 'anti-Semitism' as an ally in using fear to bring Jews into line – his line. Ultra-Zionists are still using the same technique today and if there is not enough 'anti-Semitism' they invent it, not least by constantly widening the definition. Herzl said: An excellent idea enters my mind – to attract outright anti-Semites and make them destroyers of Jewish wealth.' Israeli students were asked on video who they thought had said those words and they all replied 'Adolf Hitler'. But, no – it was the 'founding father of Zionism'. Herzl wrote in the German newspaper, *Deutsche Zeitung*:

> The wealthy Jews rule the world. In their hands lies the fate of governments and nations. They start wars between countries and, when they wish, governments make peace. When the wealthy Jews sing, the nations and their leaders dance along and meanwhile the Jews get richer.

Herzl would have been way into 'anti-Semite' territory today with that. British Jewish writer Leon Rosselson rightly said that the quote could have come from the 'Jewish plot' document known as *The Protocols of the Elders of Zion.* 'So what is going on here?' he asked. What indeed? Rosselson wrote of Herzl:

> Like many educated, German-speaking Jews, he had nothing but contempt for the mass of religious, Torah-abiding, Yiddish-speaking, shtetl-dwelling Eastern European Jews. There is nothing in his writings to suggest that he had any great attachment to Judaism or much interest in or knowledge of Judaic teaching.

Balfour (Rothschild) 'delares'

Some early Zionist advocates only wanted a homeland and not necessarily one in Palestine. Countries such as Uganda and Argentina were discussed and Theodor Herzl was okay with this at first before committing himself to Palestine with the publication of his pamphlet *Judenstaat* (*The Jews' State* or *The Jewish State*) in 1896. The original title – very appropriately – was *Address to the Rothschilds.* Herzl called for an independent Jewish state to be established during the 20th century and encouraged the buying of land in Palestine although Argentina still wasn't ruled out at this point. The World Zionist Organization was founded at the Basle congress with Herzl at its head and the path to control Palestine began to open thanks to Rothschild money. Baron Edmond de Rothschild (1845-1934) of the French House funded the relocation of Russian Jews to Palestine in the 1880s, built homes, a Hebrew University, drained swamps and dug wells and generally promoted a 'return to the homeland'. As always with the Rothschilds they demanded control of Jewish settlements and established a structure of administration which still calls the shots in Israel today. English Rothschilds, too, were central to the establishment of Israel. Sabbatian-Frankists manipulated events that led to the First World War with the Rothschilds as usual funding all sides and the war was exploited to secure the 'Balfour Declaration' in 1917 in which British Foreign Secretary Lord Arthur Balfour pledged support of the British government to a Jewish homeland in Palestine. This was a pivotal moment in the plan with Britain still an empire with much overt global influence (it's covert today). The term 'declaration' sounds like a speech, but the Balfour Declaration was a letter to Lord Lionel Walter Rothschild (1868-1937), the unofficial leader of the British Jewish community, who would go on to become President of the Board of Deputies of British Jews which led the assault on the UK Labour Party in 2018 to accept the new ridiculously wide definition of 'anti-Semitism'. Balfour said in his 'Declaration' on November 2nd, 1917:

> His Majesty's Government view with favour the establishment in Palestine of a national home for the Jewish people, and will use their best endeavours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine, or the rights and political status enjoyed by Jews in any other country.

Mainstream history records the 'Declaration' without the essential background. The Rothschilds established the UK-based secret society called the Round Table in the latter years of the 19th century just as they were launching Zionism. The first head of the Round Table was

Rothschild agent Cecil Rhodes who plundered southern Africa on their behalf for gold and diamonds and entrapped black Africans in apartheid regimes in South Africa and Rhodesia (later Zimbabwe) by manipulating tribes into wars with each other that allowed the 'British Empire' (Rothschild Empire by now) to take control of those lands and resources. No wonder that Rothschild-controlled Israel would be exposed for supporting the white apartheid South African government in a number of ways including surveillance of anti-apartheid activists by the Rothschild Anti-Defamation League (ADL). Rhodes died in 1902 and left money to fund 'Rhodes Scholarships' for carefully-selected students who were planned to be Sabbatian-Frankist assets (knowingly or unknowingly) to attend Oxford University. Bill Clinton would be one recipient. Rhodes was replaced as Round Table chief by banker and Rothschild lackey Lord Alfred Milner who, as I mentioned earlier, was a big financial supporter of Leon Trotsky according to anti-Communist Russian general Arsene de Goulevitch. This was the same Trotsky supported by Rothschild agent Jacob Schiff out of New York. The letter that became known as the 'Balfour Declaration' was sent by Lord Balfour, an inner-circle initiate of the Round Table, to Lord Rothschild, funder and creator of the Round Table, and was almost certainly written by Round Table leader Lord Milner. Balfour's 'Declaration' was a Rothschild scam to advance the agenda of a homeland for 'Jews' (Sabbatian-Frankism) in Palestine by winning the crucial public support of the Rothschild-controlled British government. The Round Table would go on to spawn those series of think tanks to further that advancement including: the Royal Institute of International Affairs ('Chatham House') in London in 1920; the Council on Foreign Relations established by Sabbatian-Frankists including Rothschild agent Jacob Schiff in 1921 which has driven 'American' (Sabbatian-Frankism) foreign policy from that day to this in league with other organisations in the network; the Bilderberg Group had its first meeting at the Bilderberg Hotel in the Netherlands in 1954; the Trilateral Commission came in 1972 and was the work of Sabbatian-Frankist David Rockefeller and Hidden Hand agent Zbigniew Brzezinski who was President Carter's National Security Advisor and bragged about arming, training and funding the Mujahidin in Afghanistan which morphed into 'al-Qaeda'; and the Club of Rome in 1968 was created specifically to exploit environmental concerns to justify a transformation of global society and from this has come the hoax about human-caused 'global warming' which is indeed being used to transform the way people live, work and are governed. These organisations operating as one unit through the Round Table network and The Web gather together politicians, government administrators, bankers, corporate representatives, intelligence operatives, military and media people to form a common

(Sabbatian-Frankist) policy. Some are invited for short-term goals who have no idea of the real background and others like Henry Kissinger and the late David Rockefeller have spanned the decades. The Balfour Declaration was the turning point for Zionism and the homeland of Palestinians was now destined for takeover. The line in the letter about it being clearly understood that 'nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine' was a joke and only inserted to placate opposition. Minutes of the British War Cabinet led by Prime Minister Lloyd George dated July 18th, 1917, tell a different story:

> H. M. Government, after considering the aims of the Zionist Organisation, accepts the principle of recognising Palestine as the National Home of the Jewish people and the right of the Jewish people to build up its National life in Palestine under a protection to be established at the conclusion of Peace, following upon the successful issue of the war.
>
> H. M. Government regards as essential for the realisation of this principle the grant of internal autonomy to the Jewish nationality in Palestine, freedom of immigration for Jews, and the establishment of a Jewish National Colonising Corporation for the re-settlement and economic development of the country.
>
> The conditions and forms of the internal autonomy and a charter for the Jewish National Colonising Corporation should, in the view of H. M. Government, be elaborated in detail and determined with the representatives of the Zionist Organisation.

The Balfour Declaration came in the same month that the Sabbatian-Frankist Russian Revolution broke out and a massive transformation was underway in Eastern and Western Europe that would be central to the emergence of a Jewish homeland 30 years later. There was indeed only five days between Balfour's 'declaration' and the start of the Russian Revolution.

World-changing war

At the end of the Sabbatian-Frankist-manipulated First World War in which the Rothschilds funded all sides the 'victorious' countries met near Paris at the Versailles Peace Conference in 1919 when Europe's future was decided in the wake of the war (Problem-Reaction-Solution). History records that the following major leaders attended: US President Woodrow Wilson; British Prime Minister David Lloyd George; and French Prime Minister Georges Clemenceau. What people are not told is the Rothschild connection. Lloyd George was 'advised' by Rothschild employee and Round Table leader Alfred Milner and Sir Phillip Sassoon,

a direct descendant of dynasty founder Mayer Amschel Rothschild; Clemenceau was 'advised' by his Minister for the Interior, Georges Mandel, whose real name was Jeroboam Rothschild; and President Wilson was 'advised' (controlled) by two Rothschild/Rockefeller agents, Sabbatian-Frankists, ultra-Zionists and Round Table operatives, Colonel Edward Mandel House (a founding member of the Round Table's Council on Foreign Relations) and financier Bernard Baruch. President Wilson described House as 'my second personality', 'my alter-ego' and said 'his thoughts and mine are one'. I have seen Britain's Lloyd George quoted as saying in the *New York American* in 1924: 'The Treaty of Versailles was hijacked by Jewish international financiers to create the necessary economic, social, and political conditions necessary for Hitler to exploit.' I have not yet been able to track that down to confirm its authenticity, however. Even if it is correct the word 'Jewish' should be replaced with Sabbatian-Frankist. House and Baruch advised Wilson to enter the First World War despite winning an election on the slogan: 'He kept us out of war.' No doubt Britain promising the Balfour Declaration was part of the deal for the US entering the war via House and Baruch. Charles Seymour, who wrote House's biography, described him the 'unseen guardian angel' of the Federal Reserve Act which he manipulated through Congress to hijack the US economy. House also wanted to scrap the US Constitution and rewrite the text – something the Hidden Hand is still desperate to do. House revealed other intentions in an anonymously-published book in 1912 called *Philip Dru: Administrator*. The character Philip Dru (Colonel House) transforms American society with graduated income tax, central bank, and a 'league of nations'. All these things and more would soon follow.

The infamous John Foster Dulles was an American representative at the Versailles Peace Conference. Dulles married into the Rockefeller family and was later Secretary of State to President Eisenhower. He was a founding member of the Council on Foreign Relations, Chairman of the Board of the Rockefeller Foundation and Board Chairman of the Carnegie Endowment for International Peace which was exposed by a congressional committee for its role in manipulating America's involvement in the First World War. His brother, Allen Dulles, the first head of the CIA and a president of the Council on Foreign Relations, was also at the Paris Peace Conference. Allen Dulles would be appointed to the disgusting Warren Commission which decided that President Kennedy was hit in the forehead by a bullet shot from behind him. John Foster Dulles was a legal counsel to the US Versailles delegation working under his uncle, Secretary of State Robert Lansing. Those who triggered the First World War and arranged for America's involvement came together to dictate what would happen as a result of the war. They were Sabbatian-Frankist agents advising President Wilson and other

'leaders' on the terms that should be demanded from Germany and the reparations imposed. Wilson would later describe how 'a little group of wilful men, representing no opinion but their own, have rendered the great government of the United States helpless and contemptible'. You will hardly be taken-aback in the circumstances to know that the Versailles Peace Conference supported the Rothschild-Zionist plan for a Jewish homeland in Palestine and handed control over Palestine to Britain as a temporary custodian until the State of Israel was established in 1948. Another crucial role of Versailles was to impose such crippling war reparations on Germany that the post-war Weimar Republic would fall amid unbelievable economic mayhem which caused enormous depravation and hyperinflation. A loaf of bread costing one mark in 1919 would cost 100 billion marks by 1923. This prepared the circumstances – on purpose – for the rise of dark occultists Hitler and the Nazis and this would provide the biggest momentum of all for the establishment of Israel in Palestine with Jewish people heading in droves after the war to Palestine and the United States. We have so many wars because they are the most effective way of destroying a status quo and imposing a new one. Nothing transforms a country or culture quicker and more irreversibly than a war and this is why Sabbatian-Frankists specialise in them. The two world wars changed the world totally and irreversibly and all to the advantage of Sabbatian-Frankists and their Death Cult that must have been permanently orgasmic as the mass killing was unleashed year after year and white headstones multiplied by the day.

Out of the Versailles Peace Conference came the League of Nations in 1920 which was the first attempt by the Rothschilds and their Rockefeller subordinates to establish a stalking horse for a planned fully-fledged world government. The stated reason for the League was to bring together nations to work together and 'maintain world peace'. This was just a Problem-Reaction-Solution in which you manipulate war and then offer your long-planned new centralised global structure as the solution to conflict. The League of Nations eventually unravelled, but after the Second World War between 1939 and 1945 (in which the Rothschilds and Sabbatian-Frankist bankers once again funded all sides) came the United Nations and a stream of global organisations including the International Monetary Fund and what became the World Bank. These 'solutions' imposed society-transforming centralisation of global power and installed a global structure that could be morphed into a world government dictatorship. The Rockefeller family was pivotal in the creation of the United Nations as they were with the League of Nations. The UN itself acknowledges their 'moral and financial support'. *Wow* – 'moral' and the Rockefeller family in the same sentence. Land on which the UN headquarters stands in New York was donated

by the Rockefellers on the site of a former slaughterhouse – a 'gift' valued at $8.5 million by *1945* prices. Money has never been an object to Sabbatian-Frankist ambitions.

Following Protocol

It is interesting to note that in the first quarter of the 20th century while all this was happening great controversy surrounded a document entitled the *Protocols of the Elders of Zion* or *Protocols of the Learned Elders of Zion* which was claimed to be a report of meetings held during the first Zionist Congress in 1897 in Basle, Switzerland. The *Protocols* describe a secret plan for global conquest and the imposition of a world government dictatorship via constant centralisation of power, control of money and media and a society based on fake liberalism and socialism. Again – recognise that society emerging so fast today? One *Protocol* says:

> It is from us that the all engulfing terror proceeds. We have in our service persons of all opinions, of all doctrines, monarchists, demagogues, socialists, communists and utopian dreamers of every kind ... striving to overthrow all established forms of order. All states are in torture ... but we will not give them peace until they openly acknowledge our international Super government ...

Whatever the background to that statement it captures perfectly the technique of control all sides and you control the outcome. The *Protocols* are another taboo subject. Should you have any questions about them that don't fit with the official narrative you are, instantly and by definition, a Nazi and 'anti-Semite' who must be condemned, vilified, silenced and destroyed. Well, actually, I do have some questions so vilify and condemn to your heart's content, but silence and destroy me you will not. The *Protocols* are claimed to be a forgery originating in Russia and I am quite happy to accept they are a forgery which is defined as: 'An illegal copy of a document, painting, etc. or the crime of making such illegal copies.' So if the *Protocols* are a forgery what are they a copy *of ?* I have seen Zionist activist Rabbi Mordecai Ehrenpreis (1869-1951), Chief Rabbi of Sweden, quoted as saying in 1924:

> Long have I been well acquainted with the contents of the Protocols, indeed for many years before they were ever published in the Christian press. The Protocols of the Elders of Zion were in point of fact not the original Protocols at all, but a compressed extract of the same. Of the 70 Elders of Zion, in the matter of origin and of the existence of the original Protocols, there are only ten men in the entire world who know.

What we can say for sure is that the content of the *Protocols* is a mirror of the plan for global control by the Zionism-creating Sabbatian-Frankist

Death Cult and its offshoot known as the Illuminati as confirmed in documents discovered on the fallen horseman in 1785. I will come back to the subject in a later chapter. The text and techniques described in the *Protocols* also reflect very accurately the theme of a funeral oration attributed to Emanuel Reichhorn, Chief Rabbi of France, in Prague in 1869 at the tomb of Grand Rabbi Simeon-ben-Ihuda of Bohemia. Reichhorn is quoted as saying that 'already the principal banks, the exchanges of the entire world, the credits of all governments, are in our hands'. Other statements quoted include:

- The other great power is the Press. By repeating without cessation certain ideas, the Press succeeds in the end in having them accepted as actualities. The Theatre renders us analogous services. Everywhere the Press and the Theatre obey our orders.

- By the ceaseless praise of democratic rule we shall divide the Christians into political parties, we shall destroy the unity of their nations, we shall sow discord everywhere. Reduced to impotence, they will bow before the law of our bank, always united, and always devoted to our Cause.

- We shall force the Christians into wars by exploiting their pride and their stupidity. They will massacre each other, and clear the ground for us to put our people into.

- But above all let us monopolise education. By this means we spread ideas that are useful to us, and shape the children's brains as suits us.

Make of that what you will because I can't prove authenticity, but (a) you have the right to be aware of this information and (b) there can be no doubt as we observe the world that the plans laid out in the *Protocols*, by the Sabbatian-Frankist Illuminati and attributed to Rabbi Reichhorn *have happened or are happening*. This is so patently obvious that agents of Sabbatian-Frankism, some knowingly, some dupes, have employed the usual fall-back, fit-every-situation technique of condemning as 'anti-Semitic' anyone who points this out and asks any questions about the plan described in the *Protocols*. I am not saying this is all a 'Jewish plot'– I am saying it's a plot by the Sabbatian-Frankist Death Cult that hates and despises Jews and Judaism as it hates and despises everyone else, and that this cult is part of the wider global satanic cult that infests every culture, race and country. On Sabbatian-Frankism I am at one with rabbis such as Marvin S. Antelman and many others. The *Protocols*, whatever their origin, have been dismissed as a forgery since the articles by Irish writer Philip Graves in the London *Times* in 1921 which were

also carried by *The New York Times*. Graves claimed the *Protocols* resembled a satire on Napoleon III by French lawyer Maurice Joly called *Dialogue aux enfers entre Machiavel et Montesquieu* ('Dialogue in Hell Between Machiavelli and Montesquieu') published in 1864. This is where the story usually ends. The *Protocols* were proved to be a forgery in *The Times* in 1921 – move along now, nothing to see here. There is, however, other background to consider. Phillip Graves was a captain in British Army Intelligence who worked with 'Lawrence of Arabia', another British agent, who manipulated Palestinian Arabs to drive out the Ottoman Empire and open the way for the new Israel to hijack their land (Fig 121). Graves' uncle was Sir Robert Windham Graves, a British Consul in Turkey and financial advisor to the Turkish government who worked for Civil Intelligence in Cairo, Egypt. The writer of the articles in *The Times* was connected to British Army Intelligence and there's more. Peter Grose, a writer with the Council on Foreign Relations, revealed in his 1994 book, *Gentleman Spy: The Life of Allen Dulles*, that Philip Graves' 'source' for the articles was a 'Russian émigre' provided to him by ... *Allen Dulles*. What a coincidence. Dulles, a Council on Foreign Relations stalwart, later CIA chief and instigator of the satanic MKUltra mind control horror, 'discovered' his man while stationed at the US Embassy in post-Ottoman Turkey (Fig 122). The end of the Ottoman Muslim empire (brought about by World War I) was crucial to the establishment of Israel because it included Palestine. Peter Grose said *The Times* extended a 'loan' to the 'émigre' on the understanding that it did not have to be paid back. An Internet commentator said of the Allen Dulles 'scoop':

Figure 121: British government agent 'T. E.' Lawrence or 'Lawrence of Arabia'.

Figure 122: Allen Dulles, Hidden Hand to his fingertips, produced the unnamed 'source' for *The Times* articles that also appeared in *The New York Times*.

> This was quite an accomplishment for a young American embassy employee, to both prove the major anti-Jewish plan for world domination was a forgery as well as unilaterally keeping Lenin out of the United States so he could be transported to Russia to begin the communist revolution. Strange coincidences like this seemed to follow both Dulles brothers during their long careers in 'public service' – or should we say 'serving the Anglo-American

interests headquartered in the City of London'.

Dulles and dodgy are interchangeable words and Rabbi Antelman said that the Council on Foreign Relations is America's most powerful pro-Israel lobby group and controlled by Sabbatian-Frankists. *The Times* articles that trashed the *Protocols* were written by a British Army Intelligence operative using an unnamed source provided by the infamous liar and manipulator Allen Dulles and the source secured a loan from the newspaper he would not have to repay. Oh, nothing to question here, then. Now shut up you 'anti-Semite'! Colin Holmes, a lecturer in economic history at the UK's Sheffield University, claimed to have identified the Dulles émigré as Michael Raslovleff, a 'self-identified anti-Semite', who gave the information to Graves because he didn't want to 'give a weapon of any kind to the Jews, whose friend I have never been'. Surely having a document circulating that was alleged to be proof of a 'Jewish plot' is what an 'anti-Semite' would want rather than seeking to trash its legitimacy? Anyway, that's some background and people will have to decide what they think.

Heading for 'home'

The Sabbatian-Frankist First World War hugely advanced the Zionist project with events before, during and after the conflict bringing an end to the Ottoman Empire. The British government in the form of Thomas Edward 'T. E.' Lawrence, more famously known as 'Lawrence of Arabia', persuaded Palestinian Arabs to support British efforts in the 'Arab Revolt' in 1916 to rid those lands of the Ottoman Empire with the promise that when successful they would be given independence. Lawrence knew all along that this was a lie and from the shadows the Rothschilds and Sabbatian-Frankists wanted the Ottoman rulers gone to open the way for their new Israel. A Lawrence associate, British agent and 'the *Protocols* are a forgery' *Times* writer Phillip Graves, must have been delighted how well the hoax worked. By 1924 the Ottoman Empire was over in totality with the Sabbatian-Frankist 'Donmeh' revolution in Turkey fronted by the Donmeh crypto-Jew Atatürk. Less than 30 years after the first Zionist Congress in Switzerland the scene was set for its 'dream' (agenda) to be realised. The new status quo and redrawn geography that emerged after the First World War would be changed again and global power further centralised by the soon-to-be Second World War as the Sabbatian-Frankist-Rothschild 'New World Order' moved ever closer to its desired outcome – world government tyranny. The establishment of Israel entered the finishing straight when the Rothschild-controlled British government was awarded the 'British Mandate for Palestine' as a result of decisions made by the Rothschild-Rockefeller-controlled League of Nations. British administrators and

military forces now oversaw the very lands that Arabs had helped them to clear of the Ottoman Empire and which the Rothschilds and their fellow Sabbatian-Frankists had targeted for Israel. All that was left was to remove the British and take the place over by force and terror.

Rothschild networks and money arranged for tens of thousands of Jewish people to relocate to Israel with 40,000 arriving between 1919 and 1923. A large percentage fled from Russia after attacks on Jews when many of their brethren (actually Sabbatian-Frankists and their agents) were dominating the post-Revolution government and the Red Army. At face value that would seem to be a contradiction, but it wasn't because it caused tens of thousands to head for Palestine who would not otherwise have done so. An estimated 60,000 Jewish people left Germany to settle in Palestine after the Haavara Agreement between Nazi Germany and Zionist German Jews in 1933 which allowed Jews to transfer some portion of their assets to British Mandate Palestine. Meanwhile, the ultra-Zionist Jewish National Fund (JNF), set-up in 1909, was acquiring land with donations from Jewish communities abroad and largely founded Tel Aviv. Only Jews were allowed to live on these JNF lands and that remains the case today in what can only be described as a policy of apartheid. Gideon Falter, chairman of the UK Campaign Against Anti-Semitism (CAA), who hurls the slur 'anti-Semitism' and racism at the British Labour Party, myself and so many others, sits on the UK board of the Jewish National Fund. The Canadian branch of the fund was exposed in a 2018 audit for using donations to finance infrastructure projects on Israeli army, air and naval bases, in contravention of Canadian law while another ultra-Zionist organisation in Canada lost its charity status for funding projects connected to the Israeli military. What many of these organisations say they do often turns out to be something different. Gathering numbers of European Jews heading for Palestine became a flood after the Second World War as a result of the horrors in Nazi Germany where the Jewish community obviously saw things differently now to the time only a few decades earlier when the first Zionist Congress in 1897 had to relocate from Munich to Basle, Switzerland, because of Jewish opposition to their plans. Berihah ('Flight'), a Zionist organisation, arranged for the emigration of a quarter of a million Jews to Palestine from Poland, Romania, Hungary, Czechoslovakia and Yugoslavia. The British, weakened by the Second World War, couldn't cope. The Jewish population of Palestine was already 33 percent of the country by the end of the Second World War and it was about to increase dramatically. European Jews also headed in numbers to the United States. America and Palestine became by far the world's biggest Jewish communities.

Funding Hitler

There was some irony with the relocation choice of the US because from there vast amounts of money had been funnelled to Hitler and the Nazis by elite families like the Sabbatian-Frankist Rockefellers and their associates including the Bush family in the form of Prescott Bush. He was the father of Father Bush and grandfather to Boy Bush, president in name only at the time of 9/11. Other Hitler supporters in the United States included the Dulles Brothers, Allen and John Foster, who would become post war head of the new CIA and Secretary of State respectively. Allen Dulles covered up the assassination of John F. Kennedy as a member of the 'investigation commission', denied a US visa to Lenin before he headed to the Russian Revolution, and supplied the 'Russian emigre' for British agent Philip Graves to trash the *Protocols of the Elders of Zion* in *The Times* in 1921. How strange that Hitler-supporter Dulles would be so keen to discredit the *Protocols* which the Nazis used against German Jews. Bush family involvement in funding the Nazis was highlighted by John Loftus, president of the Florida Holocaust Museum and former prosecutor in the [In]Justice Department's Nazi War Crimes Unit. Loftus said in a speech at the Sarasota Reading Festival in 2001: 'That's where the Bush family fortune came from – it came from the Third Reich.' The Rockefeller family funded the work of Ernst Rudin, Hitler's foremost 'racial hygienist', at Germany's Kaiser Wilhelm Institute for Eugenics, Anthropology and Human Heredity. Other Nazi doctors, including 'Angel of Death' Josef Mengele, conducted unimaginably cruel and vicious experiments on live, captive human subjects with the emphasis on children. Writer and researcher Anton Chaitkin wrote that body parts from victims 'were delivered to [Josef] Mengele ... and the other Rockefeller-linked contingent at the Wilhelm Institute'. Sabbatian-Frankist families including the Rothschilds, Rockefellers and Harrimans were behind the race purity eugenics movement and shared their knowledge and specialists with Hitler and the Nazis (see *And The Truth Shall Set You Free*). These 'elite' American families and their counterparts in the UK and Europe had common cause with Hitler and his associates because they were all occultists following the same satanic creed. Sabbatian-Frankists hate Jewish people we should not forget and this is why, as noted by Rabbi Antelman, the ultra-Zionist Warburg bank was a funder of Hitler. Rabbi Gunther Plaut, a President of the Canadian Jewish Congress, implies in his 1988 novel-biography of Jacob Frank, *The Man Who Would be Messiah*, that what I am calling Sabbatian-Frankists were behind the Holocaust. Support for Hitler in targeting Jews by the ever-recurring American and European financial elite all fits with the Sabbatian-Frankist agenda of targeting genuine Jews. Rabbi Antelman wrote that 'great Rabbis have warned as far back as the middle of the eighteenth century that if the Sabbatians were not stopped there would

be mass destruction of the Jewish people'. He, too, indicates a Sabbatian-Frankist connection both to Hitler and the Shoah or Holocaust. Antelman said:

> Hitler was really the product of an adulterous relationship between his mother, Klara Polzl, and a Sabbatian Frankist (1861-September 1928), who was Hitler's real father. The Frankist Sabbatians had a ritual on the 9th of Av, which is observed by Jews as a fast day commemorating the destruction of the First and Second Temples. This night, the Sabbatians secretly observed as incest and adultery night. However, there is a persistent rumor that Klara was artificially inseminated that night.

I know from my own research over decades that artificial insemination is a way the Hidden Hand perpetuates its bloodline and in this way there are endless 'Rothschilds' living under other names and coming to power as described to me by Phillip Eugene de Rothschild who claimed to be an unofficial son of Baron Philippe de Rothschild of the Mouton-Rothschild wine estates in France. Rabbi Antelman continued:

> Rabbinic Court testimony claims that not only Hitler's real father was a Sabbatian, but his maternal grandfather as well; i.e., Klara's maternal grandfather, who fathered her mother out of wedlock. There is evidence that Hitler maintained close contacts with Sabbatians throughout his lifetime. In fact, his personal astrologer Erik J. Hanussen (murdered in the woods outside of Berlin in February 1933), was a Sabbatian who was called 'the prophet of the Third Reich' and 'magician of Berlin'.

Rabbi Antelman said that the Sabbatian-Frankist Jew-hating Death Cult was responsible for the Second World War and the Holocaust and Jewish writer and researcher Barry Chamish agreed. Chamish, who died in 2016, said he lost a third of his family to the Nazis. He emigrated to Israel from Canada where he attended the Hebrew University in Jerusalem and fought in the 1982 war with Lebanon as a conscript in the Israeli Defense Forces. Later he became an Israel correspondent with the *Hollywood Reporter, Billboard* and *Screen International* before he began to investigate the assassination of Israeli Prime Minister Yitzhak Rabin in 1995 and a whole new world opened up for him. This included the Sabbatian-Frankists (he called them Sabbatians) and their history, global agenda and role in the creation of Israel. Chamish contended after decades of research that Sabbatian-Frankists were behind World War Two, the Nazis and the Holocaust. The word 'Holocaust' means 'burnt offering' and historically was 'a Jewish sacrificial offering which was burnt completely on an altar'. Chamish said that 'burnt offering' was a

term used by Sabbatians for the killing of Jews. 'The Sabbatians are not Jews', he said. 'Don't mix them up – they are the enemies of Jews.' Chamish said the Sabbatians set out to transform Judaism into Sabbatianism while hiding behind labels such as 'secular': 'They wanted the Jews to be something else.' Those that would not 'convert' were killed or forced to move to Palestine as a result of what happened in Nazi Germany, Chamish said, and when many Jews fled to the United States from Sabbatian persecution in places like Germany and Russia Sabbatian agents in America arranged for blocks to be introduced on their immigration so Palestine was their only choice. He was adamant that Sabbatians were behind the world wars with the Rothschild dynasty acting as puppet masters: 'The Rothschilds are *THE* Sabbatians of the world.' Chamish said of the Second World War:

> This was a Sabbatian war. This was a war fought by Sabbatians and they are not Jews ... Israel took the German Jews and used them for seed stock to get a new Judaism. They were going to wipe out the Jews – as many as they could in Europe – and start a new Judaism in Israel based on Sabbatianism ... No religious Jews were allowed into Israel. The only Jews allowed into Israel from 1933 until 1939 were German Jews.

Chamish said that if you are a Jew that does not believe in Sabbatai as the messiah 'it is a mitzvah [commandment] to kill you'. He claimed the leaders of Zionism that established Israel were Sabbatians, including Chaim Weizmann, another born in the Russian Empire, who he called a 'butcher'. Weizmann would be Israel's first president and remains a Zionist icon to this day: 'Israel's founders were Sabbatians who went to Turkey to learn their stuff from the original Sabbatians.' Chamish was particularly scathing of 'Labour Zionism' which dominated governments of Israel after the state was formed in 1948. He named Britain's Second World War Prime Minister Winston Churchill as a Sabbatian and for sure Churchill's condemnation of Jews is their modus operandi. Churchill's mother was Sephardic Jew Jenny Jacobson/Jerome, daughter of New York stock market speculator Leonard Walter Jerome (changed from Jacobson). Jerome was a close friend of August Belmont (changed from Schoenberg), the American representative of the Rothschild family. Winston Churchill was close to the Rothschilds who bailed him out when he was in serious debt (as they did with Trump). Jenny Jacobson/Jerome had a long affair with King Edward VII according to a book quoting private Churchill family documents and letters. What we can say for sure is that the shocking treatment of Jews by Hitler and the Nazis opened the way for the post-war flight to Israel when before that time there had been great opposition by German Jews to Zionists seeking to relocate them to

Palestine. American academic Antony Sutton wrote in *Wall Street and the Rise of Hitler*:

> It is important to note as we develop our story that General Motors, Ford, General Electric, DuPont and the handful of U.S. companies intimately involved with the development of Nazi Germany were – except for the Ford Motor Company – controlled by the Wall Street elite – the J.P. Morgan firm, the Rockefeller Chase Bank and to a lesser extent the Warburg Manhattan bank.

Sutton's information, gleaned from documents that came to light during the post-war Nuremberg Trials, includes confirmation that the same American elite made major donations to the Nazi Party. Borders do not divide what occultism unites and leading Nazis, including 'Angel-of-Death' Josef Mengele, escaped from Germany to South America and the United States at the end of the war through an American intelligence/Vatican (Jesuit) network known as Operation Paperclip. More than 1,600 German scientists, engineers, and technicians were taken to America to continue their work and establish NASA (Fig 123). They included Wernher von Braun, the German rocket scientist and member of the Nazi Party who designed the V-2 rockets launched against Britain in World War II. He later became the leading rocket engineer at NASA and largely designed the Saturn V booster rocket that propelled Apollo spacecraft in the Moon programme. Mengele and his team of mind and genetic manipulators who experimented and tortured Jews and children in the Nazi concentration camps were behind the creation of the evil-beyond-belief mind control programme MKUltra which I mentioned earlier in relation to the Bush family, Dick Cheney, Bill Clinton and the experiences of Cathy O'Brien. Mind control was expressed as 'MK' in deference to the German spelling of control – kontrolle. Such is the borderless world of Sabbatian-Frankism and the Dark Occult in general.

Figure 123: More than 2,000 scientists were relocated from Nazi Germany to the United States after World War II under Operation Paperclip. NASA was their creation.

Revisionist Zionism (terrorism)

The target for the Sabbatian-Frankists after the Second World War was British Mandate control of Palestine and the Palestinian Arabs who lived on the overwhelming majority of the land despite all the Rothschild and Sabbatian-Frankist settlement of European and Russian Jews over previous decades. Removing both Britain and hundreds of thousands of Palestinian Arabs was achieved by a campaign of horrific violence. To appreciate the background it is necessary to understand a new extremist cult within Zionism that called itself 'Revisionist Zionism', also known as 'Gun Zionism'. This was, and is, the political wing of Sabbatian-Frankism and I have referred to this combination in some previous books as 'Rothschild Zionism' as opposed to mainstream Zionism that most Zionists believe they are supporting. The cult of Revisionist Zionism was the ideology of violence established in the 1920s by Russian Jew Ze'ev (Vladimir) Jabotinsky (1880-1940). He called for Palestine to be seized with an 'iron wall of Jewish bayonets'. Bombs and mass murder later proved to be the weapons of choice as Sabbatian-Frankist Revisionist Zionists bombed British targets and slaughtered the Arab population of Palestine to such extremes that 750,000 Arabs fled for their lives from their homes and the land of their ancestors. They have never been allowed to return while any person anywhere in the world who is accepted as Jewish or married to someone who is Jewish has the automatic right to settle in Israel whenever they like. But don't worry, that's not racist and it's 'anti-Semitic' to say so. Between 400 and 600 Palestinian villages were destroyed and urban Palestine was reported to be 'almost entirely extinguished'. This racist ethnic cleaning is marked by Palestinians on May 15th every year on Nakba Day – 'Day of the Catastrophe'. Palestinian land abandoned in terror or by direct and brutal force was then seized as Jewish land with the help of organisations like the Jewish National Fund (JNF). That's right Gideon Falter, isn't it? Do you mention that when you accuse others of racism at the Campaign Against AntiSemitism? Israel had the nerve to demand $250 billion in 2019 in compensation from seven Arab countries and Iran for assets left by Jews forced to flee those lands after the creation of the State of Israel. They said this was to correct an 'historic injustice'. Compensation for the 750,000 Arabs which ultra-Zionist terrorist groups forced to flee their homeland in fear of their lives? *Silence.*

Ze'ev Jabotinsky's plan was to impose a Greater Israel from the River Nile in Egypt to the Euphrates in Iraq. This is known to Jews as Eretz Yisrael and represents the largest expanse of 'biblical Israel' described in the Old Testament written by who knows who, who knows when in who knows what circumstances. To achieve this end not only Palestinians had to be conquered but the lands of Syria, Lebanon and parts of Egypt and Iraq. Events since 9/11, anyone? Jabotinsky set out to 'create, with sweat and blood, a race of men, strong, brave and cruel'.

Well, he certainly achieved that with brutal terrorists who would go on to be prime ministers of the new Israel – Menachem Begin (who won the Nobel Peace Prize), Yitzhak Shamir and Ariel Sharon among others with Benjamin Netanyahu walking in their footsteps. All sourced their ideology, brutality and terrorism from Sabbatian-Frankism and Jabotinsky's Revisionist Zionism. Indeed a personal assistant to Jabotinsky was Netanyahu's father, Benzion Netanyahu (1910-2012), a Polish Jew born Benzion Mileikowsky and himself the son of ultra-Zionist fanatic and rabbi, Nathan Mileikowsky. Netanyahu's father was a close friend of ultra-Zionist extremist Abba Ahimeir whose views influenced the actions and approach of underground ultra-Zionist terrorist groups like Irgun and Lehi which began to bomb British targets before turning their attentions to terrorising the Arab population. Irgun, or The National Military Organization in the Land of Israel, was created in 1931 as a breakaway terrorist group from paramilitary terrorists called Haganah or 'Defence'. The Irgun was a terrorist army of Revisionist 'Gun' Zionism and as such believed that only extreme violence would secure a Jewish state.

Einstein's condemnation

Scientist Albert Einstein and more than 20 other prominent American Jews sent a letter to *The New York Times* in 1948 describing Irgun and its new political arm as 'terrorist', 'right wing' and founded on 'ultra-nationalism, religious mysticism and racial superiority'. They were talking about Revisionist Zionism/Sabbatian-Frankism which are all of those things and were controllers of Irgun. Notice the mention of 'religious mysticism' which refers to the Kabbalah/Zohar foundation of Sabbatian-Frankism and thus Revisionist Zionism and Irgun. The letter described the Israeli party representing the Zionist Revisionist movement as 'closely akin in its organization, methods, political philosophy and social appeal to the Nazi and Fascist parties'. Exactly right. This is why Sabbatian-Frankists and Zionist Revisionists behave like Nazis and why they have introduced that new definition of 'anti-Semitism' which includes any suggestion that ultra-Zionists and Israeli leaders can be compared to Nazis. Once again it is nothing to do with protecting Jews in general and everything to do with protecting the hidden agenda of Sabbatian-Frankists. Among Irgun's great 'victories' was the bombing of the British Mandate headquarters at the King David's Hotel in Jerusalem on July 22nd, 1946. The attack killed 91 people and injured 46. Irgun terrorists disguised themselves as Arab workmen and waiters to plant the bomb in the basement, a technique widely used by their successors like Israeli intelligence agency Mossad which has employed the same Arab disguises to blame terrorism on Arabs in Problem-Reaction-Solution scenarios. The dead included 17

Palestinian Jews (Sabbatian-Frankism hates Jews anyway), 41 Arabs, 28 British, two Armenians and a Russian, Greek and Egyptian. Ultra-Zionist terror groups wanted to make life so difficult and dangerous for British people in Palestine that they would walk away from the Mandate and leave Palestine to them. This is what happened and with the British in disarray and seeking a way out the ultra-Zionist Sabbatian-Frankist terrorists could have free reign against the Arab population. In 2006 the Israeli authorities commemorated the King David's Hotel attack without apology. They placed a plaque at the scene unveiled by former Irgun terrorists and right-wing Israeli politicians with the same mentality today. It said:

> The hotel housed the Mandate Secretariat as well as the Army Headquarters. On July 22,1946, Irgun fighters at the order of the Hebrew Resistance Movement planted explosives in the basement. Warning phone calls had been made urging the hotel's occupants to leave immediately. For reasons known only to the British, the hotel was not evacuated and after 25 minutes the bombs exploded, and to the Irgun's regret and dismay 91 persons were killed.

'Dismay' by the same Irgun terrorists who celebrated mass murder in the same period? The British vehemently denied such warnings were received and after protests by the British embassy the wording was changed about ignoring warnings. The British Mandate ended in May, 1948, and on the 14th day of that same month the Rothschild-controlled Jewish People's Council announced the establishment of the State of Israel. Ultra-Zionist-supporting US President Harry S. Truman and Soviet Union monster Joseph Stalin, who came to power as a result of the Rothschild-funded Russian Revolution, both immediately recognised the new state. Chaim Weizmann (1874-1952), another born in the Russian Empire, became the first Israeli president while Russian Empire-born David Ben-Gurion (1886-1973), the 'Father of Israel', became the first prime minister. Both were close associates and assets of the Rothschilds who would donate £5 million to build the Israeli Parliament building, or Knesset, and still more to construct the occult symbol-adorned Israeli Supreme Court building (Fig 124 overleaf). Palestinian Arabs had been well and truly shafted and this continues to present day.

Deir Yassin and other outrages

Mass slaughter of Palestinian Arabs by Sabbatian-Frankist/Revisionist Zionism terrorist groups included the massacre in the village of Deir Yassin on April 9th, 1948, shortly before the British officially left the country. Irgun and another Revisionist Zionist terror group known as

Figure 124: The Rothschild-built, occult-symbol-festooned Israel Supreme Court including the pyramid and All-Seeing Eye of the Sabbatian-Frankist/Illuminati Death Cult.

Lehi or the Stern Gang had worked together with the Jewish militia Haganah to bomb, assassinate and generally terrorise the British out of Palestine. They joined forces again for the mass murder at Deir Yassin. They slaughtered at least 107 Palestinians (the terrorists claimed 254, others said 240), including women and children, by throwing hand grenades into homes and shooting the defenceless. Jacques de Reynier of the International Red Cross described bodies lying in the streets with some disembowelled or decapitated. Benny Morris, an Israeli historian, recorded mutilation and rape. Investigator Zvi Ankori said: 'I saw cut off genitalia and women's crushed stomachs.' This is the mentally that terrorised the State of Israel into existence and still controls it today. The head of Irgun at the time of the massacre was the brutal Revisionist Zionist terrorist Menachem Begin (1913-1992), the Eastern European Jew who became Prime Minister of Israel and had the nerve to condemn terrorism (Fig 125). He also ludicrously and outrageously won the Nobel Peace Prize like so many other war criminals. Begin was head of Irgun during its campaign of terrorism against the British and during the slaughter of the Arab innocent. The Albert Einstein letter to *The New York Times* in 1948 was in protest at a visit to America by Menachem Begin in which Einstein and his fellow Jewish signatories highlighted the slaughter at Deir Yassin. They said:

Figure 125: Menachem Begin, one of many terrorist leaders of Israel.

> A shocking example was their [Zionist terrorist] behavior in the Arab village of Deir Yassin. This village, off the main roads and surrounded by Jewish lands, had taken no part in the war, and had even fought off Arab bands who wanted to use the village as their base. On April 9 ... terrorist bands attacked this peaceful village, which was not a military objective in the fighting, killed most of its inhabitants '240 men, women, and children' and kept a few of them alive to parade as captives through the streets of Jerusalem.

> Most of the Jewish community was horrified at the deed, and the Jewish Agency sent a telegram of apology to King Abdullah of TransJordan. But the terrorists, far from being ashamed of their act, were proud of this massacre, publicized it widely, and invited all the foreign correspondents present in the country to view the heaped corpses and the general havoc at Deir Yassin.

This is the difference between interloper Sabbatian-Frankists/ultra-Zionists and Jewish people in general. The idea was to terrorise the Arab population to leave – and they're still doing it. Menachem Begin was not the only future Israeli prime minister who was a terrorist operative – the deeply evil Yitzhak Shamir was another (Fig 126). He was a Jabotinsky-worshipping terrorist with the Lehi/Stern Gang which cared so much about the plight of Jews that it had tried to form an alliance with Nazi Germany against the common enemy, the British. The German minister to Beirut, Lebanon, said that 'the establishment of the historic Jewish state on a national and totalitarian basis, bound by a treaty with the German Reich' was proposed by the Stern Gang in 1941. Did I mention that Sabbatian-Frankists hate Jews? Shamir, Begin and their fellow terrorists were extraordinarily racist yet accused others of 'anti-Semitism' and condemned terrorism while being skilled proponents of it. But then, as Nazi Propaganda Minister Joseph Goebbels said: 'Accuse others of that which you are guilty.' Stern Gang member Uri Greenberg described Arabs as 'the filthiest people in the East' (imagine the storm if anyone said that about Jews). Yitzhak Shamir sanctioned the assassination of Churchill's friend Lord Moyne in 1944 and was one of the terrorists who bombed the King David's Hotel while disguised as a rabbi. He was jailed but escaped after two years. Shamir was involved in the Deir Yassin massacre and the murder of United Nations mediator, Sweden's Count Folke Bernadotte, in 1948. Bernadotte saved an estimated 30,000 Jews in Nazi Germany, but what did that matter to the Jew-hating Sabbatian-Frankists? When Bernadotte opposed the claims of ultra-Zionist extremists to Transjordan (land east of the Jordan River) they killed him. Shamir became head of Mossad, Israeli (Sabbatian-Frankist) intelligence, which was simply an amalgamation of Revisionist Zionism terror groups under another name – the same with the hierarchy of the Israeli Defence Forces (IDF) in general. Shamir said of his move to

Figure 126: Terrorist Israel Prime Minister Yitzhak Shamir.

Mossad: 'I felt at home very soon. I had returned to an atmosphere, behaviour, incentives and points of view that were in many ways, familiar to me.' Yes, because it was – and still is – the Stern Gang/Lehi, Irgun etc. with a new title. I will detail more about Mossad in a later chapter and its involvement in 9/11. From these mega-terrorists came the far right Likud Party formed in 1973 by terrorists Menachem Begin (Prime Minster 1977-1983) and Ariel Sharon (9/11 Prime Minister from 2001 to 2006). I'll be coming to Sharon's terrorist and war criminal background when I relate all of this to who was really behind the September 11th attacks. Likud was formed out of Begin's first party, Herut ('Freedom'), which he established from terrorist groups in 1948. The Albert Einstein letter to *The New York Times* described Begin's party as 'closely akin' to fascism:

> Among the most disturbing political phenomena of our times is the emergence in the newly created state of Israel of the 'Freedom Party' (Tnuat Haherut), a political party closely akin in its organization, methods, political philosophy and social appeal to the Nazi and Fascist parties. It was formed out of the membership and following of the former Irgun Zvai Leumi, a terrorist, right-wing, chauvinist organization in Palestine.
>
> The current visit of Menachem Begin, leader of this party, to the United States is obviously calculated to give the impression of American support for his party in the coming Israeli elections, and to cement political ties with conservative Zionist elements in the United States. Several Americans of national repute have lent their names to welcome his visit. It is inconceivable that those who oppose fascism throughout the world, if correctly informed as to Mr. Begin's political record and perspectives, could add their names and support to the movement he represents.

This was the party which with other far right groups became Likud. Terrorist Yitzhak Shamir (Prime Minister 1983-84 and 1986-1992) was a member of Likud as is Benjamin Netanyahu (Prime Minister 1996-1999 and 2009 to the time of writing). Likud is the political arm of Revisionist or 'Gun' Zionism, but extremists can be found in other parties allegedly to the 'left' of Likud. Examples of this can be seen in David Ben-Gurion, Levi Eshkol, Yitzhak Rabin and Shimon Peres. Sabbatian-Frankism always sets out to control all sides and so the game and its outcome. Ben-Gurion oversaw the ethnic cleansing of some 750,000 defenceless Palestinians along with the destruction of hundreds of their villages. Ben-Gurion said that 'without Deir Yassin there would be no Israel' because it caused so many Palestinian Arabs to leave the country as fast as possible in case they would be next. Many of those massacred and forced to flee from the country were Arab Christians. Levi Eshkol, born

Levi Yitzhak in the Russian Empire, founded the Israeli Labour Party and presided over still more ethnic cleansing as Prime Minister between 1963 and 1969. Yitzhak Rabin (Labour Prime Minister between 1974 and 1977 and from 1992 until his assassination in 1995) was a commander of the Palmach ('Strike Forces') of the Jewish paramilitary organisation Haganah during the British Mandate and yet another terrorist. He issued the order to the Israel Defense Forces (IDF) to expel 50,000-70,000 Arabs from the towns of Lydda and Ramle in 1948 which stated: 'The inhabitants of Lydda must be expelled quickly without attention to age ...' Within three days Lydda no longer existed. The way ultra-Zionists can be found in parties in official opposition to Likud is confirmed by Israeli opposition leader Tzipi Livni who called on Netanyahu to resign after Israeli police recommended that he and his wife be indicted for bribery and other corruption charges. Livni was born into a prominent right-wing and Revisionist Zionist family and became a member of an elite Mossad unit. Her father, Eitan, was chief operations officer of terrorist group Irgun and so it's hardly a shock that she was foreign minister during the bombardment of Gaza in 2008/9 for which she has been accused of war crimes. Not really 'opposition', then. The Labour Party's Poland-born terrorist Shimon Peres (1923-2016) would be president and twice prime minister between 1984 and 1986 and from 1995 to 1996 (Fig 127). Peres, a disciple and protégé of Ben-Gurion, was the man behind the development of Israel's nuclear weapons arsenal that it does not admit to having to avoid the limitations of the Nuclear Non-Proliferation Treaty (Fig 128). At the same time it condemns Iran as a nuclear danger when it has no nuclear weapons. Anyone observing the Israeli leadership knows what gross and constant hypocrisy looks like. Insider Israeli military historian, Martin van Creveld, was more forthcoming when he described the nuclear consequences the ultra-

Figure 127: Terrorist Israeli Prime Minister Shimon Peres who was Foreign Minister at the time of 9/11.

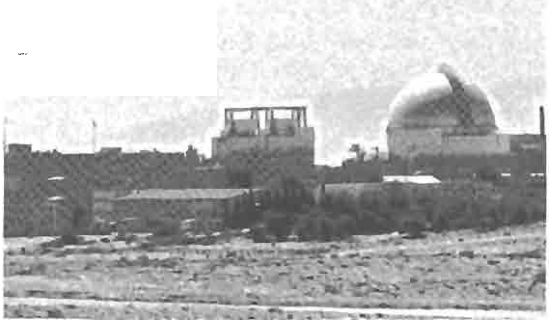

Figure 128: Israel's nuclear programme in the Negev Desert near the city of Dimona, but don't worry – it doesn't exist.

Zionist crazies are prepared to deliver:

> We possess several hundred atomic warheads and rockets and can launch them at targets in all directions, perhaps even at Rome. Most European capitals are targets for our air force ... We have the capability to take the world down with us. And I can assure you that that will happen before Israel goes under .

They're not insane or anything.

By war thou shalt take what thy want

The State of Israel as established in 1948 was not enough for the Sabbatian-Frankists and ultra-Zionists. They wanted the whole region of Jabotinsky's 'Nile to the Euphrates' or Egypt to Iraq including Lebanon, Syria and the northern part of Saudi Arabia. They expanded into the then Egyptian Sinai Peninsula, the Palestinian Gaza Strip and West Bank, which is being covered in illegal Jewish-only development, and part of Syria known as the Golan Heights. The latter has been occupied by the Israelis since the 1967 Arab-Israeli War (the 'Six-Day War') instigated by an Israeli pre-emptive strike and involving Egypt, Syria and Jordan. Gamal Abdel Nasser, President of Egypt (then known as the United Arab Republic) closed the Straits of Tiran to Israeli shipping and access to its port of Eilat. Remember what I said earlier about part of the Israeli-US deal with Saudi Arabia's Salman bin Abdulaziz Al Saud for him to become king was for him to buy Egyptian islands to secure Israeli shipping access to the Gulf of Aqaba and the Israel port of Eilat. Nasser mobilised his military along the Israeli border in the light of Israel's earlier claim that closing the Straits would be cause for war. Nasser would later tell US President Lyndon Johnson that his troop build-up in the Sinai Peninsula had been to defend against a feared Israeli attack. A CIA assessment spoke of Nasser's military presence in the Sinai as defensive. Michael B. Oren, who would be Israeli ambassador to America, agreed in his book, *Six Days of War*, that 'by all reports Israel received from the Americans, and according to its own intelligence, Nasser had no interest in bloodshed'. Yitzhak Rabin, who would later be prime minister, told French daily *Le Monde* in 1968:

> I do not think Nasser wanted war. The two divisions which he sent to the Sinai, on May 14, would not have been sufficient to start an offensive against Israel. He knew it and we knew it.

The claim that Israel's attack was a response to an imminent invasion by Egypt was therefore a lie. Israel's strike and justification was an excuse to secure more land and it worked. The Egyptian air force was

quickly taken out and more land occupied. By now with American money and state-of-the-art aircraft and weaponry 'little victim Israel' had ever-increasing military superiority over its Arab neighbours. Today that superiority is fantastic and includes nuclear weapons. The United Nations Security Council unanimously agreed in Resolution 242 in 1967 to call for Israel to withdraw from territory seized in the war. This has never happened and instead Israel has been building Jewish-only settlements in the occupied West Bank while removing Palestinians from their homes in yet another clear case of apartheid and ethnic cleansing. The 'two-state' solution to the Israel-Palestinian land dispute has been endlessly talked about for no other reason than to buy time until such a solution is made impossible by so many Jewish developments constructed in the West Bank and that point has now been reached. Israel had been pressing for the United States to recognise its right to permanently absorb the illegally-occupied Syrian Golan Heights and in March, 2019, Trump unilaterally acknowledged Israel's sovereignty over that Syrian land in a signing ceremony with his minder, Netanyahu. He told an American ultra-Zionist group backed by his funder Sheldon Adelson that he made the decision after a 'quick history lesson' from ultra-Zionists David Friedman, US ambassador to Israel, and son-in-law Jared Kushner. The pressure then immediately turned to recognising the West Bank as permanent Israel territory. Trump is owned by Israel and ultra-Zionism to the tip of every orange hair. Jewish-only Israeli settlements are illegal under the Fourth Geneva Convention of 1949 which bans countries from settling their population into territories occupied in a war. The UN Security Council, UN General Assembly, International Committee of the Red Cross, International Court of Justice and High Contracting Parties to the Geneva Convention have all confirmed this. Israel says 'up yours' and 'we do what we like'. In 2018 the UN General Assembly voted by 99 to 10 for a resolution declaring that Israel's demand to absorb the Golan Heights was null and void and called on Israel to withdraw from that occupied land. The United States naturally opposed the resolution and in March, 2019, Trump said it was time for the United States to recognise Israel's sovereignty over the Golan Heights which was 'of critical strategic and security importance to the State of Israel and Regional Stability'. Trump managed to send that tweet while on his knees. The constant theme of Israel doing whatever it wants and ignoring international law and war crimes agreements with the slavish support of the United States and other Western countries should beg the question of why? Why can a tiny, tiny country of eight million people be allowed to do this? Sabbatian-Frankist occult networks are the major explanation. Egypt and Syria sought to regain their lost territory in the 1973 Yom Kippur War which ended in failure in the face of Israel's military superiority. Israel was supported by the United States

as usual with ultra-Zionist Henry Kissinger in place as US Secretary of State and National Security Advisor while the Soviet Union supported Egypt and Syria.

Suffer little children

Life for Palestinians in the occupied West Bank has got ever worse as Israel settlements take over the land and a massive wall has taken more Palestinian property against international law. Week after week Palestinian homes are hijacked for Jewish settlers or demolished on any pretext to free the land for Jews. East Jerusalem is often targeted because the Sabbatian-Frankist psychopaths are ethnically cleansing the area in preparation for the takeover of Temple Mount and a new Solomon's Temple to herald the arrival of their Messiah 'King of the World'. The heartless psychopathy now even plumbs the depths of making Palestinians demolish their own homes or face a big bill from the government for doing it. A Palestinian father was forced in early 2019 to demolish his own home in occupied East Jerusalem, as well as that of his daughter, by the Israeli authorities. Motor mechanic Mustafa Subah spoke with Israel daily *Haaretz* reporters in the ruins of his home. He had fought and lost (a gimme) a 15-year legal battle that cost him around $110,000 and was 'compelled to demolish his and his daughter's homes with his own hands'. His daughter with her husband and three children moved into cramped conditions in the home of her mother-in-law while Mustafa and his wife and three children were 'squeezed into the two rooms of the original structure, waiting in dread to hear whether they will have to raze that as well'. Sabbatian-Frankists get off on suffering, anguish, death and the dopamine rush of their own perceived power over others. Children are almost routinely taken from their homes in the middle of the night by Israeli troops and held in adult jails. Rights group Defense for Children International (DCI) reported that since 2000 at least 8,000 Palestinian children have been detained by the Israeli military detention system infamous for the systematic mistreatment and torture of Palestinian children (Fig 129). Shadi Farah, a 15-year-old minor, described his abuse in prison by Israeli interrogators to the Turkey-based international news agency, Anadolu:

> Israel is using all heinous methods during interrogation from suffocation, beating to giving us hallucinogenic pills. I remember spending days suffering from nightmares and headaches because of the drugs that we were forced to take.

Defense for Children International says Palestinian minors are often made to sign documents written in Hebrew and have no idea what they say. They are interrogated without parents or lawyers. Khaled Quzmar

Figure 129: Just another day in the Israel-occupied West Bank. The boy is 14-years-old.

said minors frequently report being kicked, slapped and blindfolded during arrest and/or interrogation. 'Around 90 percent of detained children are subject to verbal abuse and humiliation by Israeli army officers', he said. Some 30 percent were physically abused in custody. Ahmad al-Zatari, a 15-year-old minor, said he was beaten and suffocated by an Israeli interrogator when he was 12:

> I stepped into the room and one integrator was there. He started asking questions and calling for quick answers. I was only 12-year-old during the interrogation and the questions were not clear to me so I could not answer any.

He said the Israeli interrogator turned off the cameras and started beating him.

> He jumped over me and put his hands around my neck and started yelling at me. It was a horrible experience. I thought he was going to kill me.

The Palestinian Prisoners Society said in 2018 that about 900 Palestinian children had been detained by Israeli forces that year with some 270 children continuing to be held in detention. High profile cases like the jailing of 17-year-old Ahed Tamimi for slapping an Israeli soldier outside her home after her cousin had part of his head blown off by the Israel army are tips of a mountain of daily abuse. I will spare you the images of Gaza children with no heads and as just a pair of legs after Israeli bombing raids on a defenceless people. When Jewish-American actress Sarah Silverman responded to the treatment of Tamimi by tweeting that 'Jews have to stand up EVEN when – ESPECIALLY when – the wrongdoing is BY Jews/the Israeli government' she was castigated by the ultra-Zionist mob. Oshrat Kotler, a television presenter with Israel's Channel 13, was besieged by death threats and put on trial by the 'Middle East's only democracy' when she said that the occupation of Palestinian land was turning Israeli troops into 'animals':

> When you send your children to the army, they are kids. You send them to the territories, and they come back as human animals. This is the result of the

occupation.

Kotler was commenting on IDF soldiers from the ultra-Orthodox Netzah Yehuda Battalion who were convicted of aggravated assault and aggravated battery for beating two handcuffed and blindfolded Palestinians, a 50-year-old father and his 15-year-old son detained in custody. Psychopath Netanyahu was as always seething with outraged condemnation over Kotler's comments. Many former IDF troops, forced into the army by conscription, have said that they were systematically de-humanised, but since when did the truth matter to Sabbatian-Frankists? Kotler was put on trial on charges of incitement, incrimination of suspects, failure to grant a right of reply. Jewish people are only allowed to have approved opinions and Israeli 'democracy' is an illusion. Kotler said she had 'thousands' of death threats and such is the power of the persecuted Chosen People program which leaves no room for self-reflection. Nadera Shalhoub-Kevorkian, an Arab professor of the Hebrew University of Jerusalem, told an audience at the University of Colombia in 2019 that the Israeli military tests its weapons on innocent Palestinians, even children, to assess which are the most powerful. She said that 'Israel does weapons tests on Palestinian children' and 'Palestinian spaces are laboratories for the Israeli security industry'. Robrecht Vanderbeeken, cultural secretary of Belgium's ACOD trade union and a philosophy of science scholar, said in 2018 that the population of the Gaza Strip was being 'starved to death, poisoned, and children are kidnapped and murdered for their organs'. Palestinian UN ambassador Riyad Mansour wrote to the Secretary General to say that bodies of Palestinians killed by Israeli security forces 'were returned with missing corneas and other organs, further confirming past reports about organ harvesting by the occupying power'. Even *The New York Times* ran a story in 2014 revealing that transplant brokers in Israel had made enormous sums of money and that Israelis had played a 'disproportionate role' in organ trafficking. Dr Yehuda Hiss, former head of Israel's forensic institute, said in a 2000 interview that Israeli pathologists would harvest skin, corneas, heart valves, and bones from the bodies of Palestinians and others often without permission from relatives. These are the kind of revelations the new definition of 'anti-Semitism' is designed to silence. By adding to the definition of 'anti-Semitism' the point about 'comparisons of contemporary Israeli policy to that of the Nazis' the aim is simply to stop those comparisons being made even when they can be demonstrably true. Jewish people are castigated for protesting at the actions of their government and military and when UK Liberal peer Baroness Tonge claimed that members of the Israeli Defence Forces had been harvesting body parts in the aftermath of the Haiti earthquake she was thrown out of the party for what its

ludicrous leader Nick Clegg called 'wrong, distasteful and provocative' remarks. How did arse-licker Clegg know she was wrong? He didn't. He went down well in Tel Aviv, though, so that was good.

Gaza – a scar on the face of humanity

The Gaza Strip is little more than an open air prison camp and the most densely-populated land in the world with two million people living in an area 25 miles by around six and its borders policed by Israel. Essential goods, medicines and services are subject to an Israeli blockade (Fig 130). The world is watching – or not – the incessant genocide of Palestinians through war and diseases of depravation. *Sky News* reported the effects of the Israeli blockade:

Figure 130: Prison camp Gaza.

> Some 80 percent of its citizens need humanitarian aid to survive and the UN says its people are 'locked in, denied free access to the remainder of the territory and the outside world'... Thousands of young people in Gaza therefore find it very difficult to leave to find work or study abroad and families are unable to see their loved ones. The Oxfam charity says 96% of water is undrinkable and 47% of people don't have enough food ...
>
> ... Restrictions on imports – such as certain chemicals and fertilisers, building materials and technology – have also stunted the economy, for example slowing the construction of new homes ... A six-nautical-mile restriction on Gaza's fishermen – enforced by armed Israeli patrols – makes it difficult for them to make a living, while most farmers cannot export their crops.

Then there are the full-on military and air assaults on the Gaza Strip. The two in 2008/2009 'Operation Cast Lead' and 2014 'Operation Protective Edge' cost the lives of thousands of Palestinian civilians and caused mass homelessness. According to figures by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) nearly 11,000 were wounded in 2014 which included 3,374 children. More than a thousand were permanently disabled. Another half a million people were displaced with 485,000 requiring emergency food assistance and 17,000 homes were destroyed or severely damaged. In 2018 hundreds of unarmed Palestinians were shot dead by Israeli snipers and tens of

thousands wounded – many in life-changing ways. They have lost limbs and eyes and they have included children, paramedics and journalists with 'Press' emblazed upon them which to Israel's military psychopaths is not a mode of protection but the centre of the target. Israel controls and systematically rations Gaza's electricity, water, food and medical supplies – bombs their homes and then denies them the materials to rebuild. Seriously ill, expectant mothers and children die trying to get to Israel hospitals because they are either denied entry or the process takes so long it's too late. If all that is not acting like Nazis then what the hell is? Gaza is a fenced-in concentration camp with Israel controlling who can come and leave. Those who would do all this to human beings would not be involved in 9/11 if it suited their goals? You must be joking. All of the above is supported either directly or by silence by the United States, UK and other European countries that supply Israel with arms to kill and maim.

Breaking the Silence

Many Israeli army conscripts have only realised the truth of what the ultra-Zionists are doing to Palestinians when they become part of the occupation and terrorist army known as the Israeli Defense Forces (IDF). Some have spoken out and an organisation called Breaking the Silence, established in 2004, has provided a platform to tell their stories. Eran Efrati, a former IDF soldier, has been particularly outspoken in his condemnation of Israeli terrorism against Palestinian civilians. He has described how Palestinians are kept under curfew on their own land to allow illegal Israeli settlers in the occupied West Bank to enjoy themselves at Jewish festivals and feel 'protected'. Efrati said troops arrive with 'guns, uniform and vest with grenades and six packs of ammunition' screaming 'curfew' and 'you see they're scared, you see the people just running from place to place, closing down their shops, running home, because wherever you are when the curfew starts this is where you are stuck and you cannot go anywhere else so you better be at home when we come to start the curfew'. Official orders said they should shoot-to-kill anyone who broke the curfew. 'I realised that my job is actually to maintain an apartheid system,' he said. Here is a Jewish man who witnessed the frontline of daily Palestinian abuse calling it apartheid and when non-Jews say the same they are dubbed 'anti-Semitic'.Troops were not allowed to touch a Jewish settler if they were attacking a Palestinian – 'the best I can do is call the local police department to come and handle it ...' He described how Jewish settlers lived under civilian laws while Palestinians in 'the next house to them, next building, sometimes the next apartment live under my rule, my military rule, and I can do whatever I want with him'. Efrati continued:

> I can take his home as a temporary base for a few hours, to a few days, to a few weeks. I can decide that I am arresting the people of the house and tie them up to the fence of my base ... [You can] get an order to demolish their home or just lock the front door to not let them out into the street, their house is on, a street that only Jewish settlers can walk on and Palestinians cannot. So they have to walk from windows to yards ...

Efrati said the Israeli military bypass a Supreme Court ruling banning outright assassinations with orders that say if a Palestinian reacts in any way to being woken up at night by armed troops they should shoot him dead:

> What we're going to do is come in five or six people units into their home in the middle of the night, break in quietly, go up to his bedroom, go into his bed and point a gun into his head. Now, if he just wakes up and surrenders we're taking him into the police but if he screams you shoot him in the head, if he lifts his blanket you shoot him in the head, if he lifts his hands or legs or is trying to do any movement you shoot him in the head.
>
> Now, because we understand as rational human beings that no human being can wake up in the middle of the night with a gun to his head and not scream or move, we understand these orders as an execution order that bypass the Supreme Court order.

This is the fascism that the Protection Racket of the 'anti-Semitism' industry is designed to keep secret and it is precisely the modus operandi of the Sabbatian-Frankist Death Cult. Efrati said that he realised early in his compulsory military service that he had been lied to about Israel and its relationship with the Palestinians. 'I didn't feel like I was protecting anyone, I didn't feel like I am helping anyone feel more safe – I felt like I was terrorising people.' The defined mission was to instil fear in the hearts of Palestinians and that was exactly what they did:

> I don't want to live in an only Jewish state that values privileged Jewish life over every other life. This urges me to understand that I want my kids to grow up in a place when they don't have to press anyone, they don't have to be soldiers ...

Eran Efrati talked about his experience of the appalling treatment of Palestinians in Israel-occupied Hebron, the biggest city in the West Bank and home to 200,000 Palestinians. Dozens of monitors from multiple countries recorded 40,000 cases of abuse since 1967 by Israeli settlers and troops and some constituted war crimes. The response of psychopath

Prime Minister Netanyahu was to expel international observers and this was another expression of the Protection Racket in which you delete all sources of exposure and criticism. With the observers gone the Palestinians are left to an even more extreme fate. There are brave and determined Jewish Israelis who refuse to serve in the military and treat the Palestinians with violent contempt. They are incredible young people who pay for their compassion and backbone by being jailed for the crime of refusing to commit crimes against humanity. Such are the perverse inversions that multiply in sync with the scale of tyranny involved. Are these thoroughly decent Jewish people given respect for what they do by the ultra-Zionists? No – they are dismissed as 'useful idiots of the BDS'. Psychological sickness has no interest in rational thought and psychopaths have no empathy with which to engage with their fellow human beings. Israel's approach to Palestinians and its brutally excessive use of force (Gun Zionism) against unarmed demonstrators was described by Michael Lynk, United Nations special rapporteur on human rights in the Palestinian territories, as 'an eye for an eyelash'. God knows how many Palestinians that Israel has killed directly or through systematic deprivation since 1947/48 but one thing is for sure – the Sabbatian-Frankists would have celebrated all of them. In 2018 the Israeli High Court ruled that Israeli intelligence officers were justified in their use of torture against Palestinians and set a precedent for its continued and expanded use. Israeli officials from the Shin Bet domestic intelligence agency forced a prisoner into stress positions, including arching and tying the body in the 'banana' position and subjected him to 'severe physical and mental violence, including beatings'. Judges ruled that this was all fine and dandy. Israeli human rights group B'Tselem said: 'In interrogating Palestinian residents of the Occupied Territories, the Israel Security Agency routinely used methods that constituted ill-treatment and even torture until the late 1990s.' None of this – not the violent expulsion of Palestinians or the heartless ongoing violence and abuse were in the minds of most people who supported Zionism before the establishment of the State of Israel. Auschwitz survivor Esther Bejarano became a fierce critic of Israel and what she called its 'fascist' government. She was born in Germany and lost her parents and sister to Nazi murderers before moving to a Palestine still then under the pre-Israel British Mandate. She said:

> We wanted to develop the country together with the Palestinians. In general, the Palestinians helped us. Not only us, but also the first Jews who came to the country. We wanted to develop the land together. But it was different with David Ben-Gurion and Golda Meir. They turned Zionism upside down and then the Zionists said 'we are the ones who own the land.' That was not our idea.

Bejarano, 94 at the time of writing, said that she and her husband returned to Germany because they couldn't stand what was being done by the Israel government to Palestinians and she described how difficult it is to challenge and criticise Israel in Germany:

> They also have called me an anti-Semite. I always say I am against the inhuman policies towards the Palestinians, and against war. With war you cannot achieve peace. Then they frame me as an anti-Semite.

Even an Auschwitz survivor is an 'anti-Semite' if they criticise the psychopaths that control Israel. Words have no meaning.

CHAPTER 22

Atlantic Crossing

Any man who has ever tried to use political power for the common good has felt an awful sense of powerlessness – Robert Casey

Jewish researcher and writer Clifford Shack has specialised in the history of Sabbatian-Frankism and wrote the book *The Sabbatean-Frankist Messianic Conspiracy Partially Exposed.* He said of its progression through the centuries:

> Through infiltration, stealth and cunning, this invisible network has come to rule us all. Forty-one years after Shabbatai Zevi's death, in 1717, they would infiltrate Masonry guilds in England and establish Freemasonry ... [Zevi's successor] Jacob Frank would have a great impact on the inner core of Freemasonry known as the Illuminati, formed in 1776. Freemasonry would become the hidden force behind events like the [American, French and Russian] revolutions, the creations of the UN and Israel, both World Wars (including the Holocaust!), and the assassinations of the Kennedy brothers who, together with their father, tried to thwart the efforts of the network on American soil.
>
> Sabbatean/Frankists, also referred to as the 'Cult of the All-Seeing Eye' (look on the back of your one dollar bill to begin to understand their influence in YOUR life), are political and religious chameleons. They are everywhere ... there is power. They are the good guys AND the bad guys. The World War Two era is a prime example. The following leaders were members of the 'Cult of the All-Seeing Eye' (Sabbatean/Frankists): Franklin D. Roosevelt; Winston Churchill; Adolph Hitler; Eugenio Pacelli (Pope Pius XII); Francisco Franco; Benito Mussolini; Hirohito and Mao Tse-Tung.

Franklin Roosevelt was a Sabbatian-Frankist-controlled puppet via the Sabbatian-Frankist Council on Foreign Relations and back to the Sabbatian-Frankist Round Table in London established by the Rothschilds and the real source of the Balfour Declaration supporting a 'Jewish' (Sabbatian-Frankist-controlled) 'homeland' in Palestine. His fifth cousin, Theodore Roosevelt, US President between 1901 and 1909,

was an asset of Rothschild operative, Jacob Schiff. The Sabbatian-Frankist Death Cult had long been at work in the United States, but now with the end of the Second World War the expansion would go into overdrive. After the State of Israel was formed in 1948 a number of ultra-Zionists relocated to the United States so their offspring would be born American citizens and take the manipulation of US politics to still new levels. Among them was Benjamin Emanuel (real name Ezekiel Auerbach), a Russian Jewish terrorist with Irgun and father of Barack Obama's White House Chief of Staff (handler), the ultra-Zionist Rahm Emanuel who went on to become the first Jewish Mayor of Chicago. Father Emanuel's speciality was apparently bus bombing. Rahm Emanuel's role has been that of a 'Democon', the name I use for the Democratic Party equivalent of the Neocons of the Project for the New American Century which control the Republican Party and use Donald Trump as their sock puppet. Democons and Neocons answer to the Sabbatian-Frankists and the Hidden Hand and so no matter who is in the White House the same force in the shadows is always in control. Boy Emanuel was Senior Advisor to President Bill Clinton, Chair of the Democratic Congressional Campaign Committee, Chair of the House Democratic Caucus and White House Chief of Staff. New York-born ultra-Zionist David Axelrod was Obama's Chief Strategist overseeing his two successful election campaigns and his senior advisor. Obama's personal advisors on policy, known by the media as 'czars', were also awash with ultra-Zionists and the ratio is almost comically enormous when compared with two percent of the population. Among them was Emanuel's brother Ezekiel, an Obama policy advisor on health while another brother is Ari Emanuel, a Hollywood agent who has represented Obama campaign contributor Michael Moore whose film *Fahrenheit 911* (executive producer ultra-Zionist women-abuser Harvey Weinstein) avoided the real story of what happened. Another Moore film, *Bowling for Columbine*, was an attack on gun ownership in line with the Hidden Hand agenda to disarm Americans while arming law enforcement to the enamel on their teeth. I certainly won't assign to Mr Moore the level of intelligence necessary to realise that he is being used by a force that he has no idea exists. The scale of the Sabbatian-Frankist ultra-Zionist takeover of American politics and financial policy can be seen in 'Obama's' financial team which led the reaction to the 2008 financial crash caused by major banks and bankers. His team decided, just by coincidence, of course, that bailing out those same bankers with trillions of dollars of taxpayer money and debt was the way to go about it. These were 'Obama's' picks:

Timothy Geithner (ultra-Zionist), Treasury Secretary; Larry Summers (ultra-Zionist), director of the White House National Economic Council;

Paul Adolph Volcker (ultra-Zionist and Rothschild business partner), chairman of the Economic Recovery Advisory Board; Peter Orszag (ultra-Zionist), director of the Office of Management and Budget overseeing all government spending; Penny Pritzker (ultra-Zionist), Commerce Secretary; Jared Bernstein (ultra-Zionist), chief economist and economic policy adviser to Vice President Joseph Biden; Mary Schapiro (ultra-Zionist), chair of the Securities and Exchange Commission (SEC); Gary Gensler (ultra-Zionist), chairman of the Commodity Futures Trading Commission (CFTC); Sheila Bair (ultra-Zionist), chair of the Federal Deposit Insurance Corporation (FDIC); Karen Mills (ultra-Zionist), head of the Small Business Administration (SBA); Kenneth Feinberg (ultra-Zionist), Special Master for Executive [bail-out] Compensation. Feinberg would be appointed to oversee compensation (with strings) to 9/11 victims and families and will appear again later. These are only a few of the ultra-Zionists out of all proportion to population percentage that could be found throughout the administration of Obama ('Democrat') with a similar story to be found with Trump ('Republican'). 'Obama's' ultra-Zionist financial team was in operation while Bernard Bernanke (ultra-Zionist) was chairman of the Federal Reserve, America's privately owned central bank. He was deciding, no doubt with input from people like ultra-Zionist Feinberg, who got the bail-out money. Bernanke had taken over at the Fed from Alan Greenspan (ultra-Zionist) who had been head of the bank during the Reagan-Father Bush, Father Bush, Bill Clinton and Boy Bush presidencies before stepping down in 2006. Greenspan was in situ when calculated deregulation of banks and financial services unleashed a free-for-all that led to the 2008 crash and he did this in league with Bill Clinton's Treasury Secretaries Robert E. Rubin (ultra-Zionist) and Larry Summers (ultra-Zionist), former chief economist at the World Bank; Rubin's assistant Timothy Geithner (ultra-Zionist); and Peter Orszag (ultra-Zionist), Clinton's Special Assistant for Economic Policy and Senior Economist and Senior Adviser on the Council of Economic Advisers. Geithner, Summers and Orszag who had played a highly significant role in causing the financial crash would be leading Obama's financial response to the crash and they decided to hand their mates and masters unspeakable amounts of taxpayer money. Many of these people were associated with the infamous ultra-ultra-Zionist Goldman Sachs which was Obama's biggest corporate donor. Goldman Sachs (with others) was seriously responsible for the engineered economic crash which caused such suffering and deprivation worldwide (Greece is a major example) and which led to corporate bail-outs overseen by Goldman Sachs-connected government officials.

'The Team' picks itself

The origin of these 'Obama-selected' names was revealed in a WikiLeaks release of emails belonging to John Podesta, a chair of Obama's 2008 Transition Team. One email included a list of proposed administration appointees suggested by ultra-Zionist Michael Froman, a Citigroup executive who had been Chief of Staff at the US Treasury in the 1990s under ultra-Zionist Robert Rubin. He had also been a class mate of Obama at Harvard Law School and went on to be a distinguished fellow of the Council on Foreign Relations, Vice-Chairman of MasterCard and a director of the Walt Disney Company. In an email dated October 6th, 2008, before Obama won the election, Froman sent Podesta three documents listing proposed women for top administration jobs, non-white candidates and a sample outline of names for 31 cabinet-level positions. These same people overwhelmingly ended up getting the jobs that ultra-Zionist Forman had 'suggested'. Names included Janet Napolitano for Homeland Security, Rahm Emanuel for Chief of Staff, Robert Gates for Defense, Eric Holder for the [In]Justice Department or White House Counsel, Susan Rice for United States Ambassador to the UN and Arne Duncan for Education. Holder is a big-time agent for the ultra-Zionists and instrumental while Obama's Attorney General in blocking the case of '9/11 mastermind' Khalid Sheikh Mohammed from coming to trial where evidence would have to be produced. Instead Mohammed, or someone with that name, continues to be held without trial in Guantanamo Bay. Zionist John Kerry was named by Froman for Secretary of State and three choices were offered for Treasury Secretary – ultra-Zionists Robert Rubin, Larry Summers, and Timothy Geithner. Always control the money. Alan Sabrosky, a former Director of Studies at the United States Army War College Strategic Studies Institute who has taught at several prestigious universities, also highlighted how Zionists have dominated the White House Personnel Office at least since 1980. This was 'reducing the likelihood that people unfriendly to Israel or unsupportive of its "ways and means" will be nominated in the first place'. He wrote:

> The vetting of nominees by key organized Jewish groups in the US before they go before the US Senate for their confirmation hearings has also been a fixture of this process for decades, as Haaretz (an Israeli newspaper) among many others has pointed out, and forces otherwise excellent nominees to withdraw if said Jewish groups find them to be unsuitable. And the leverage of AIPAC in the US Senate is in this respect crucial: anyone AIPAC wants confirmed will be confirmed, and anyone who manages to reach that point and is not acceptable to AIPAC doesn't stand a chance.
>
> This is why under both Republicans and Democrats, the staffs in and around

> the President and the Vice-President, the National Security Council, the State Department and the Defense Department (among others) look the way they do. Many are Jewish and actively Zionist, often with dual US-Israeli citizenship (not that the absence of an Israeli passport matters all that much to the others). Some are Christian Zionists who need no persuading to take the pro-Israel positions they do ... Others are what the communists used to call 'useful idiots', frequently intelligent people like Condoleezza Rice or John Bolton who have made their own Faustian bargain in the furtherance of their own careers. And the rest of us live with the consequences of all of them, not least of which was 9/11 and the ensuing wars.

Zionists and ultra-Zionists also have an extraordinary ratio to their numbers in lower government positions. I must have mentioned that only two percent of the American population is Jewish and a *fraction* of even them are the ultra-Zionist Sabbatian-Frankist pseudo Jews that we are talking about.

The People pick the President?

Interestingly, on the subject of the Obama administration, a businessman called Tom Fife wrote an article in 2008 in which he recalled a visit to Russia in the early 1990s while starting a joint-venture company with members of the Russian scientific community. He recalled how he was told by his guests that the United States was destined to have its first black president who would be a communist plant. Fife quoted one of his female Russian hosts:

> Yes, it is true. This is not some idle talk. He is already born and he is educated and being groomed to be president right now. You will be impressed to know that he has gone to the best schools of Presidents. He is what you call 'Ivy League'. You don't believe me, but he is real and I even know his name. His name is Barack. His mother is white and American and his father is black from Africa. That's right, a chocolate baby! And he's going to be your President.

Fife said the woman told him that 'Barack' was from Hawaii and she described how everything had been 'thought out':

> His father is not an American black so he won't have that social slave stigma. He is intelligent and he is half white and has been raised from the cradle to be an atheist and a communist. He's gone to the finest schools. He is being guided every step of the way and he will be irresistible to America.

According to Fife the woman said that 'America would have to be converted to communism [Soros 'progressive' socialism] and Barack was

going to pave the way'. Is this so incredible when Obama was brought up and prepared for his task as a follower of Saul Alinsky and his Marxist methods of 'community organising'? I can't of course verify that story. What I can say is this is how presidents come to power. They do not emerge by chance, but by design and long-term grooming. The kind of president installed in the illusion of public choice varies in line with the Hidden Hand agenda for that particular period and they vary the perceived nature and personality to keep the public interested in what is a rigged system. The first black president was followed by the fake 'maverick' president and the first woman will be along eventually. Keep them interested and focussed so they won't open their eyes to the *permanent government* and will keep giving credibility to the here-today-gone-tomorrow political level of government which is nothing more than a smokescreen to hide where the power *really* is.

Draining the swamp

Thank goodness at least the influence in government of Goldman Sachs was going to be ended by Donald Trump who had attacked the company and its personnel during his election campaign. It's called telling your target audience what it wants to hear (Fig 131). When he secured 'power' he named the ultra-Zionist Steve Mnuchin, a Goldman Sachs employee for 17 years, as his Treasury Secretary; Gary Cohn (ultra-Zionist), chief operating officer of Goldman Sachs, became Trump's Director of the National Economic Council and chief economic advisor; Cohn was later replaced by Larry Kudlow (ultra-Zionist). Trump's senior advisor is his son-in-law, the ultra-Zionist Jared Kushner, a life-long friend of Benjamin Netanyahu, with ultra-Zionist Jason Greenblatt as his international negotiator, including on Israel-Palestine. His ambassador to Israel is the ultra-Zionist David Friedman who arranged for the American Embassy to be moved from Tel Aviv to Jerusalem in 2018 in a highly provocative slight against Palestinians. This is a stepping stone on the way to replacing the Al-Aqsa Mosque on what Jews call Temple Mount with a rebuilt Solomon's Temple named after their occult Kabbalah hero. Trump's administration is awash with ultra-Zionists and perhaps the most pro-Israel in American history. This is why from the moment Trump was elected Netanyahu increased the

Figure 131: Swamp swimmer to drain the swamp? Fill it more like.

speed of illegal settlements built in occupied Palestinian land because he knew there would be no resistance. American sanctions and aids cuts to Palestinians have followed with the aim of creating such destitution that they will agree to anything the Sabbatian-Frankist psychopaths demand. Trump's biggest funder is the ultra-Zionist casino magnate Sheldon Adelson while the Democrats are funded by ultra-Zionist George Soros (whatever he may claim) and ultra-Zionist financial and media mogul, Haim Saban. Adelson and Netanyahu wanted Trump to delete the nuclear deal with Iran to re-ignite conflict on the road to regime change as per Project for the New American Century (PNAC) and so he did. Adelson wanted big-time Israel asset John Bolton of the PNAC to be Trump's National Security Advisor and so he is. Bolton is leading the charge against Iran, Russia, China and North Korea, all Sabbatian-Frankist targets. Trump's pick for UN ambassador was the ultra-Israel supporting Nicky Haley who continued America's role of vetoing any resolution of condemnation by the UN Security Council of whatever Israel does – no matter how deadly and grotesque. When Haley resigned she was replaced by her ultra-Zionist deputy Jonathan Cohen who stood in until a permanent appointment was made. Cohen, who attended Hebrew University in Jerusalem on an Israeli government grant, had been Deputy Assistant Secretary of State for European and Eurasian Affairs. Even *New York Times* columnist Timothy Egan highlighted the Adelson influence:

> An 85-year-old casino magnate, Sheldon Adelson, now has more influence on American foreign policy than even the secretary of state ... Adelson got a ... tax windfall for the millions he put into electing Republicans, with the added benefit of controlling the State Department's view of Israel.

There is so much manipulation of political events secured through the chequebook and wire transfer. Alan Hart, a former BBC and Independent Television News correspondent, wrote in *Zionism: The Real Enemy of the Jews:* 'Jewish people make up less than two percent of the American population, but account for *50 percent* of the political campaign contributions.' This incredible amount of political funding (control and influence) does not come from Jewish people in general, but from mega-rich individuals, banks and corporations controlled by ultra-Zionism and Sabbatian-Frankism. There are certainly plenty of billionaire sources to choose from with a *Forbes Magazine* analysis in 2012 concluding that 35 percent of the 400 richest people in the United States were Jewish from a population of two percent. By 2018 five of the top ten richest people in America were Jewish: Facebook CEO Mark Zuckerberg; Oracle's Larry Ellison; Google's Larry Page and Sergey Brin; and former New York Mayor Michael Bloomberg. Close to a

quarter of the richest 200 people in Russia were also found to be Jewish according to Russian ranking website lanta.ru. It hardly scans with the claims of an oppressed minority which the 'anti-Semitism' industry loves to promote, but we should always keep in mind that the great majority of Jewish people worldwide are not rich. Many in Israel itself are struggling economically while the few suck up the spoils. The image of the 'rich Jew' is true if you apply that to a minority and these are the people that spend their wealth to influence politics while most Jews are not at all involved in such manipulation and not mega-wealthy. Unfortunately, the actions of the few colour the perception of the many and this is inaccurate, unfair and potentially very, very, dangerous.

Pro-Israel lobby groups poured more than $22 million into the 2018 US mid-term election cycle according to public records and the real figure is far more than actually tracked. The Washington-based Center for Responsive Politics (CRP) found the Israel lobby to be highly active and spending heavily to influence lawmakers. They could not have come to any other conclusion given the evidence and yet when Minnesota Congresswoman Ilhan Omar tweeted in 2019 about pro-Israel money influencing decisions made on Capitol Hill (it does and fundamentally) she faced the usual orchestrated abuse and contrived rage including the tag of 'anti-Semite'. 'Outrageous', 'disgraceful', screamed her Democratic colleagues as they fell to their knees in gratitude for the latest cheque. Democrats most critical of Omar received some of the highest levels of contributions from the pro-Israel lobby and we are looking at in-your-face political prostitution with representatives of a tiny country buying the support of American politicians that are supposedly elected to represent the interests of Americans and not a foreign power. Omar said 'it's all about the Benjamins baby', as in the image of Benjamin Franklin on the $100 dollar bill. The hysterical attacks on her – not least by AIPAC – simply proved that she was right. Truth is the worst nightmare of the liar. 'Benjamins' Netanyahu weighed in on video-link to the 2019 AIPAC conference by saying that American politicians supported Israel (slavishly) because of shared values and not massive donations. They should put him on at the Comedy Store. It's the Benjamins, Benjamin, and you know it (Fig 132). There are many areas where I would have profound disagreements with Omar but on this she is absolutely right and she should not have made the mistake that almost everyone

Figure 132: It's the Benjamins, Benjamin. To say otherwise is a joke.

does of speaking the truth and then apologising when the ultra-Zionist abuse and outrage follows. Pro-Israel lobbyists and donors spent more than $22 million on lobbying and campaign contributions in the 2018 election cycle, but it's not about the Benjamins?? AIPAC spent more than $3.5 million on lobbying during the cycle and more than $5 million in the year in total – the highest since tracking began in 1998. Ultra-Zionist 'progressive' J Street gave $4.03 million in political donations. Dan Auble, a senior researcher at the Center for Responsive Politics (CRP), said he hadn't seen many other countries which had 'a comparable level of activity'. The Israel lobby donated to a long list of politicians including 269 House representatives. House Majority Leader, the Democrat Steny Hoyer, has so far received $1.02 million from pro-Israel groups. Anyone think that might affect his judgement? Hoyer's condemnation of Congresswoman Omar for stating an obvious fact was matched by Republican Vice President and Christian Zionist Israel butt-licker Mike Pence who called for Omar to be removed from the Foreign Affairs Committee. Hoyer and Pence should form their own Israel support group. Tongues Out For Israel might be a title they could consider and there would be no shortage of members on Capitol Hill – Trump among them who also loudly condemned Omar. Pro-Israel groups have donated hundreds of millions to US politics according to CRP figures and the payback comes in the billions handed over in American 'aid' to Israel and the unwavering support for the ultra-Zionist agenda no matter what Israel's government and military may do. The 'anti-Semitism' industry and Protection Racket target with abuse anyone who reveals this elephant in the room because the scale of ultra-Zionist influence in US politics (and elsewhere) is so appalling they are desperate to keep this from public attention. We saw the Protection Racket at work with Ilhan Omar while at the same time non-ultra-Zionist Jews defended her. An open letter by North American Jews, including Canadian-born author and activist, Naomi Klein, said Omar had been falsely accused of antisemitism' and there was nothing anti-Semitic about calling out the 'noxious' role of the American Israel Public Affairs Committee (AIPAC) in American politics: 'The pro-Israel lobby has played an outsized role in producing nearly unanimous congressional support for Israel.' The letter thanked Omar for having the bravery to shake up the congressional taboo against criticizing Israel. 'As Jews with a long tradition of social justice and anti-racism, AIPAC does not represent us', the letter said. All Jewish people think the same, you see – ask the ADL.

Kosher Nostra

Another aspect of the 'Atlantic Crossing' is the role played by ultra-Zionists from Russia and the former Soviet Union in general. The same

transfer of people can be seen between the Soviet Union and the United States that happened earlier with the influx out of Germany from the 19th century of families that became major banking figures like Goldman, Sachs, Lehman, Rockefeller and Rothschild agent Jacob Schiff. Russian and Soviet Zionists and their organised crime syndicates moved in numbers to Brighton Beach in Brooklyn, New York, which became known as 'Little Odessa' when the 1975 Jackson-Vanik law was passed to allow this Jewish immigration into America from the Soviet Union. The 'Jackson' who drove the law through Congress was ... Henry M. 'Scoop' Jackson, hero of the ultra-Zionist Neoconservatives. Two Jackson assistants at the time were Richard Perle and Paul Wolfowitz. Nearly 80 years earlier in 1897 Jacob Schiff's influence over outgoing Democrat US President Grover Cleveland led to changes to the Immigration Bill that would allow an influx for Zionist and Communist Jews from Russia and other countries in the decades that followed. The mass-Russian (Zionist) arrivals to New York after 1975 have become known as the Russian Mafia, Red Mafia, or 'Red Octopus' (to hide the ultra-Zionist connection) and has strong ties to the Rothschilds, Anti-Defamation League (ADL), AIPAC and Mossad. The most famous leader of this ultra-Zionist mob in the United States has been Marat Balagula and the overall global 'Mr Big' is the Ukrainian-born and Moscow-based Semion Mogilevich who once said there were 'too many Jews' in Israel. This fits with the relationship between the Sabbatian-Frankist satanic cult and the mainstream Jewish population and so does the way Mogilevich first made his fortune – by exploiting Jews leaving Russia for the United States and Israel. He would make a deal to sell their assets at market value and forward the proceeds and then just keep the money. Mogilevich was jailed for that swindle, but would eventually become so powerful that no one would touch him. Mogilevich has been described by US and European law enforcement as the 'boss of bosses' of global Russian (ultra-Zionist) crime syndicates and the FBI has labelled him 'the most dangerous mobster in the world' as the head of a colossal global criminal empire involving 'weapons trafficking, contract murders, extortion, drug trafficking, and prostitution on an international scale.' Lovely man, apparently. Among his nicknames are 'Don Semyon' and 'The Brainy Don'. He is reported to have had a good relationship with Vladimir Putin since the 1990s and lives unchallenged in the Russian capital. The Putin 'good relationship' was described by Russian defector Alexander Litvinenko shortly before he was assassinated in London. Litvinenko had been an officer with the Russian secret service, or FSB, and specialised in organised crime investigation. 'Brainy Don' trafficks Russian and Ukrainian girls to brothels in Israel and the authorities are fine with that so long as the girls aren't Jewish. This, then, is the man who ultimately controls the 'Russian' (ultra-Zionist) Mafia in

the United States and worldwide. American investigative journalist Robert Friedman exposed in his book *Red Mafiya: How the Russian Mob Has Invaded America* that the 'Russian Mafia' is really the 'Jewish Mafia' – hence one of its nicknames is the Kosher Nostra in contrast to the Sicilian/Italian Cosa Nostra. Friedman died in 2002 of a 'tropical disease' after those he named put a price on his head. He wrote that the so-called Russian Mafia were all Jewish with connections into Zionist organisations the world over – especially the Anti-Defamation League. Friedman's work was echoed by Jewish writer Laura Radanko, a long-time researcher of the Russian Mafia and author of *The Russian Mafia in America*:

> During the detente days of the early 1970s, when Soviet leader Leonid Brezhnev had agreed to allow limited emigration of Soviet Jews, thousands of hard-core criminals, many of them released from Soviet Gulags by the KGB, took advantage of their nominal Jewish status to swarm into the United States ... In the 1970s, more than forty thousand Russian Jews settled in Brighton Beach. It was under the shadow of the elevated subway tracks on Brighton Beach Avenue, bustling with Russian meat markets, vegetable pushcarts, and bakeries, that the Russian gangsters resumed their careers as professional killers, thieves, and scoundrels.

Radanko says there were 30 Russian crime syndicates operating in the United States with major ones in New York, Miami, San Francisco, Los Angeles and Denver. Their hierarchy locks into Mossad and the Sabbatian-Frankist, ultra-Zionist, Revisionist Zionist, appropriately 'Gun Zionism', networks across the United States. They are brutally violent and often openly so to terrify law enforcement, politicians and anyone else who seeks to challenge them or refuse to do what they are ordered to do. Another tide of Russian ultra-Zionists relocated to the US in the 1990s, among them former KGB officers and veterans of the Soviet war in Afghanistan. They and their successors are so merciless that it is said 'they will shoot people just to see if their guns work'. More empathy-deleted psychopaths, in other words, and they are not nearly as rare as people think. This makes it easier to understand why American politicians jump to attention when the ultra-Zionists speak – this and the same merciless approach of Mossad which I will be coming to. There are many 'incentives' for politicians to do what they are told and not all of them are financial. Israel is the 'spiritual' home of the Sabbatian-Frankist ultra-Zionists – Russian and otherwise – and a safe place to run when trouble brews. Dr M. Raphael Johnson wrote the following in a *Barnes Review* article called *The Judeo-Russian Mafia: From the Gulag to Brooklyn to World Dominion:*

> The roots of Jewish organized crime go far back into tsarist times. Organized crime syndicates assisted Lenin's gangs in bank robberies and the creation of general mayhem. During the so-called revolution, it was difficult, sometimes impossible, to distinguish between Bolshevik ideologues and Jewish organized crime syndicates. They acted in nearly an identical manner ...
>
> ... The state of Israel is a major factor in the rise and power of the Jewish mafia. Jewish drug dealers, child porn pushers and slave traders are free from prosecution in Israel. Israel does not consider these to be crimes, so long as the victims are non-Jews. The Israeli state will not extradite its citizens to non-Jewish countries, and, therefore, Jewish murderers can quite easily escape punishment in Israel.

There is ultra-Zionist law and the law the ultra-Zionists demand is imposed on everyone else. We'll see the escape to Israel scam in relation to 9/11 in the chapters that follow.

Kosher Nostra and Trump

This brings me to the Donald Trump connection. Robert Mueller, the FBI chief appointed two weeks before 9/11 who then played his part in the cover up, was named to investigate allegations of Russian collusion with Trump to win the 2016 presidential election. At the level that Mueller investigated this made-up 'plot' the claim about collusion was nonsense and politically-motivated to ensure that Trump would not secure closer connections and cooperation with Russian President Vladimir Putin. This is why the 'Russian collusion' story began immediately Trump was elected. The Hidden Hand wants conflict with Russia, not friendship, and as a result of the claims and Mueller's 'investigation' Trump dared not get closer to Russia and indeed became tougher – not least through sanctions – than any post-war president in an effort to show he was not 'Putin's puppet'. In the end, as I predicted in my last book, no evidence was uncovered by Mueller to show Trump and Russian government collusion. No, Trump is not *Putin's* puppet – he's an ultra-Zionist puppet and caught in another pincer movement with the ultra-Zionists around him dictating his policy while those opposing him in the Democrat Party boxed him in from the other direction to stop any Trump policies unacceptable to the ultra-Zionist agenda from becoming law. Ultra-Zionist Capitol Hill 'Democratic' stalwarts Adam Schiff, Chuck Schumer and Steve Cohen played the role of 'bad cops' to the 'good cops' (same cops) that encircle Trump by pressing the insane Russia investigation and doing everything they can to block a border wall on the scale that Trump promised. Soros money was involved as always, too. Schiff ended up with access to sensitive American 'intel' on the House Intelligence Committee. This is the man that Fox News host Tucker

Carlson called 'a reckless serial liar'. However, there *is* a Russian connection that Mueller did not investigate and indeed wouldn't dare. This is the link between Trump and the Russian ultra-Zionist Mafia in New York. Trump's mentor and legal advisor from the early 1970s until his death from AIDS in 1986 was the ultra-Zionist, Kosher Nostra-connected Roy Cohn. His death came a few weeks after being disbarred for unethical conduct by the Appellate Division of the New York State Supreme Court. What kept them? The stunningly corrupt Cohn was also chief counsel to Senator Joseph McCarthy's 'communist' witch-hunt in the 1950s which was a version of the 'anti-Semitism' witch-hunt today. Under Cohn's support and protection Donald Trump became a front man for the ultra-Zionists operating out of New York with their fundamental connections to the 'Russian' ultra-Zionist Mafia for whom Cohn worked. Cohn also represented Rupert Murdoch, the media mogul and fanatical Israel supporter, and introduced him to Trump to start a long friendship. *Esquire* magazine described Cohn in an article headed 'Don't mess with Roy Cohn' as the most feared lawyer in New York and 'a ruthless master of dirty tricks... [with] ... more than one Mafia Don on speed dial'. Cohn worked for both the Jewish and Italian Mafias and these connected into Trump's building projects and the organisations he used for supply and construction.

Trump borrowed huge amounts of money from 72 banks with major ultra-Zionist connections and they never called in the debts to put him out of business. He built two casinos in Atlantic City and bought the massive Taj Mahal operation. Together they were a disaster waiting to happen because of the debt payments involved. By the start of the 1990s he owed $4 billion to banks that he couldn't pay including almost $1 billion that he would have had to find personally. The 72 banks were represented in negotiations with Trump by real estate lawyer Alan Pomerantz who would later say that they didn't foreclose and send Trump into mega-bankruptcy because he was worth more to them 'alive than dead' (bankrupt). Trump also approached BT Securities Corporation and Rothschild Inc. to devise a plan to get him out of trouble and the Rothschild senior managing director who handled the case and sorted out Trump's debacle was Wilber Ross who would be named US Commerce Secretary when Trump was elected US President. Ross worked for the Rothschilds for 27 years. Zionist investor Carl Icahn was a major help in the bail-out by buying the Taj Mahal casino and Trump talked about him becoming Treasury Secretary during his election campaign. Ultra-Zionist Steve Mnuchin was given that job while Icahn was named Special Advisor to the President on Regulatory Reform. Icahn also had some tremendous good fortune when he sold holdings sensitive to the price of steel three days before Trump imposed a 235 percent tariff on steel imports. The timely sale is reported to have

saved Icahn $31.3 million. The Trump bankruptcy lawyer hired to advise him through the Atlantic City disaster was ultra-ultra-Zionist David M. Friedman who Trump would later make US ambassador to Israel to oversee the relocation of the US embassy from Tel Aviv to Jerusalem. Friedman and ultra-Zionist Jason Greenblatt, executive vice president and chief legal officer to Donald Trump and the Trump Organization, helped Trump recover from financial disaster. Trump made Greenblatt his Assistant to the President and Special Representative for International Negotiations including Israel-Palestine. The ultra-Zionist/Death Cult Mafia in all its financial and legal forms own Donald Trump and whatever Israel has demanded has been given from day one of the Trump presidency. Trump is owned by ultra-Zionist Neocons and even the Democratic Party is now being dubbed 'the Neocon Party' because it supports war every bit as much as the Republicans. When Tulsi Gabbard, Democrat Representative for Hawaii, announced plans in early 2019 to run for US President she was fiercely attacked by Neocon/Soros 'progressives' in her own party (and the pro-Neocon Democrat media) because she opposes American wars in the Middle East. The vast Israel lobby was immediately on her case, too, as you would expect. Ultra-Zionist Sheldon Adelson funds a right-wing warmongering Neocon Republican Party and George Soros funds a right-wing warmongering Neocon Democratic Party which both pursue the same Middle Eastern policy in the one-party state. Trump is surrounded and owned and his bombastic style gives the appearance of him making decisions when they are being made for him by Sabbatian-Frankists and ultra-Zionists. Israeli daily *Haaretz* reported on contributions to Trump by ultra-Zionist Russian oligarchs:

> Of 10 billionaires with Kremlin ties who funneled political contributions to U.S. President Donald Trump and a number of top Republican leaders, at least five are Jewish ... There's Len Blavatnik, the dual British-American citizen who dumped huge amounts of cash on Republican candidates in the last election cycle, much of it funneled through his myriad investment firms. (The same Len Blavatnik funds scholarships for IDF veterans and who is friends with Israeli Prime Minister Benjamin Netanyahu.) Alexander Shustorovich is the president of IMG Artists, a titan among impresarios, who gave Trump's inauguration committee a cool $1 million ... The list goes on.

David Friedman 'advised' (love it) Trump on Israel and Jewish matters during his presidential campaign and co-chaired Trump's Israel Advisory Committee with Jason Greenblatt. Friedman has headed the American Friends of Bet El Institutions which donates $2 million a year to the illegal Jewish settlement of Bet El in the occupied Palestinian West Bank. Jared Kushner, Trump's ultra-Zionist son-in-law and senior

advisor, a life-long friend of Benjamin Netanyahu, has made donations to American Friends of Bet El. Ultra-Zionists utterly dominate Trump and he has served perfectly their agenda for divide and rule in the United States aided by the 'progressive' mob funded by Soros. Is it any wonder that under this administration Israel has been given everything it wants while Palestinians have seen aid money cut back and warned it will get worse if they don't do as they're told? This has included threatened 'consequences' against Palestinians for joining nearly a dozen international bodies and conventions. The Trump administration announced in 2018 a plan to delete all US funding or the main UN programme for Palestinian refugees, the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), with devastating impacts on five million people who rely on its schools, healthcare and social services. The five million are those (and their descendants) who fled or were expelled from their homes amid ultra-Zionist terror in 1948 and as a result of 1967 Six Day war. The arrogance of the US and Israel takes the breath away. They want to bring Palestinians to their knees and then force them to accept whatever they are given – *nothing*, basically – while the Sabbatian-Frankists pursue their Greater Israel and they will get all the support they ask for from ultra-Zionist operatives within Western political parties. In early 2019 both the Conservative and Labour Party Friends of Israel were pressing the British government to stop funding for UNWRA and the Palestinian Authority. Leading the campaign from the Labour side was ultra-Zionist Liverpool MP Louise Ellman, vice-chair of Labour Friends of Israel. Ellman voted 'very strongly' for the Iraq War and 'very strongly' against an investigation into the war when it turned out to be a humanitarian disaster. Ellman is 'very concerned' about 'anti-Semitism' in the Labour Party. But clearly not about Palestinians.

Israel created and controlled by Russian/Soviet ultra-Zionists

The Russia connection extends to Israel itself with a million-plus citizens of the former Soviet Union migrating to Israel in recent decades. The effect on Israeli society was described in a *Guardian* article by one-time Jerusalem correspondent Harriet Sherwood headed 'Israel's former Soviet immigrants transform adopted country'. We have already seen a clear common theme between those born in Russia and the one-time Russian Empire and political power in the new Israel. Now this was a further influx from the same region. Harriet Sherwood described how these incomers have 'influenced the culture, high-tech industry, language, education and, perhaps most significantly, Israeli politics.' The influx has been so great they constitute 15 percent of the country's population, but not all of them are Jewish. Traditional Judaism insists that a Jew is someone with a Jewish mother or a person who goes

through a formal conversion to Judaism. When the Soviet Union collapsed in 1990, however, the criteria for people from there to become Israeli citizens under 'right of return' was expanded to include those with a Jewish father or grandparent or anyone *married* to someone who has. Sherwood reports that according to Israel's Central Bureau of Statistics around *30 percent* of immigrants from the former Soviet Union in the 1990s were not Jews or not considered Jewish under Orthodox law. The figure had increased to *59 percent* by 2005 with only about five percent converting to Judaism. Sherwood writes:

> ... they almost overwhelmed Israel, causing a severe housing crisis. Many eventually settled in Russian enclaves in cities such as Ashdod, Petah Tikva and Haifa – and in expanding [illegal] West Bank settlements, such as Ariel.
>
> 'It was a very different type of immigration,' said Lily Galili, an Israeli journalist writing a book about the impact of the tidal wave from the former Soviet Union. 'They didn't want to integrate. They wanted to lead. They changed the nature of the country.'

They have certainly in a short time begun to dominate Israeli politics and the former Soviet Union is a major centre for Sabbatian-Frankism. One of their prime vehicles is the far right 'Gun Zionist' Yisrael Beiteinu Party of Netanyahu's one-time Defence Minister, the Moldova-born psychopath Avigdor Lieberman who lives in the illegally-occupied West Bank. Lily Galili said that unfortunately migrants from former Soviet states had changed the nature of democracy in Israel. 'They have strengthened and given confidence to the secular right wing', she said, and she point to alienation between Russian immigrants and native Israelis. 'There is not much social interaction. There are still places for "Russians" that "Israelis" don't go and aren't wanted – and vice versa.' Auschwitz survivor Esther Bejarano pointed out that Israeli settlements in the occupied West Bank were mainly for those from Eastern Europe and the United States:

> They have no business there. Nothing at all, and you know who these settlers are? These are Americans and Russians, Ukrainians. They were not born there. Absolutely not.

Bejarano said the idea that the land 'belongs to the Jews because they lived there 2,000 years ago is the biggest nonsense there can be' – 'There were so many Turks and Arabs who have always lived there. The Jews came later.' Who are these people have taken over Israel to a large extent, many of whom are *not Jews?* What is the significance of the Soviet Union where there was such a ridiculous ratio of Zionists among those

who triggered the Russian Revolution?

Control of money and information

Key areas targeted by the Sabbatian-Frankist Death Cult are banking and finance, politics, law, intuitions of social engineering and media. The last two are crucial. They want to control the perceptions of the target population so they will act and see the world and events in the desired manner. From this manipulated perception comes their behaviour, what they will do and not do, accept and not accept, challenge and not challenge, condemn and not condemn. For example, the man credited with being among the first to 'warn' about the threat of 'global Islam' which exploded as an issue as a result of 9/11 is Avi Lipkin (pen name Victor Mordecai) with his 1995 book, *Is Fanatic Islam a Global Threat?* Lipkin is an American-born Israeli who served in the Israeli Defense Forces and with the press office intelligence department of Israeli Prime Minister and Revisionist Zionist terrorist, Yitzhak Shamir. Lipkin claimed to have spoken in 500 churches worldwide and his role has been to bring Christian Zionists on board with his 'Islam must be stopped', 'Armageddon' claptrap. I am no supporter of any religion, certainly not Islam, but by far the greatest danger to the world is from the satanic orchestrators of Sabbatian-Frankism. They to a large extent own and control the global media to dictate the way their manipulations and wars are reported to the population for whom they have a contempt so deep that words do not suffice – not least their contempt for non-Sabbatian-Frankist Jewish people. Ultra-Zionist columnist Joel Stein wrote an article in the *Los Angeles Times* in 2008 headed 'Who runs Hollywood? C'mon' in which he said: 'I don't care if Americans think we're running the news media, Hollywood, Wall Street or the government. I just care that we get to *keep* running them.' He went on:

> I have never been so upset by a poll in my life. Only 22% of Americans now believe 'the movie and television industries are pretty much run by Jews,' down from nearly 50% in 1964. The Anti-Defamation League, which released the poll results last month, sees in these numbers a victory against stereotyping. Actually, it just shows how dumb America has gotten. Jews totally run Hollywood.
>
> How deeply Jewish is Hollywood? When the studio chiefs took out a full-page ad in the Los Angeles Times a few weeks ago to demand that the Screen Actors Guild settle its contract, the open letter was signed by: News Corp. President Peter Chernin (Jewish), Paramount Pictures Chairman Brad Grey (Jewish), Walt Disney Co. Chief Executive Robert Iger (Jewish), Sony Pictures Chairman Michael Lynton (surprise, Dutch Jew), Warner Bros. Chairman Barry Meyer (Jewish), CBS Corp. Chief Executive Leslie Moonves (so Jewish his great

> uncle was the first prime minister of Israel), MGM Chairman Harry Sloan (Jewish) and NBC Universal Chief Executive Jeff Zucker (mega-Jewish). If either of the Weinstein brothers had signed, this group would have not only the power to shut down all film production but to form a minyan with enough Fiji water on hand to fill a mikvah.
>
> The person they were yelling at in that ad was SAG President Alan Rosenberg (take a guess). The scathing rebuttal to the ad was written by entertainment super-agent Ari Emanuel (Jew with Israeli parents) on the Huffington Post, which is owned by Arianna Huffington (not Jewish and has never worked in Hollywood).
>
> The Jews are so dominant, I had to scour the trades to come up with six Gentiles in high positions at entertainment companies. When I called them to talk about their incredible advancement, five of them refused to talk to me, apparently out of fear of insulting Jews. The sixth, AMC President Charlie Collier, turned out to be Jewish.
>
> As a proud Jew, I want America to know about our accomplishment. Yes, we control Hollywood. Without us, you'd be flipping between 'The 700 Club' and 'Davey and Goliath' on TV all day.
>
> So I've taken it upon myself to re-convince America that Jews run Hollywood by launching a public relations campaign, because that's what we do best. I'm weighing several slogans, including: 'Hollywood: More Jewish than ever!'; 'Hollywood: From the people who brought you the Bible'; and 'Hollywood: If you enjoy TV and movies, then you probably like Jews after all.

If anyone else said that Zionists control the news media, Hollywood, Wall Street and the government they would be condemned as racists and neo-Nazis repeating an 'anti-Semitic trope' even though they say it themselves. Ultra-Zionist Jeff Zucker at NBC Universal is now head of CNN while the chairman of the journalistically corrupt NBC News and MSNBC is ultra-Zionist Andrew Lack. The sheer arrogance of those *claiming* to represent *two percent* of the American population and *0.2 percent* of the world population is hard to imagine. Joel Stein said that then ADL chief Abraham Foxman agreed that Jews are disproportionately represented in the creative industry. 'They're disproportionate as lawyers and probably medicine here as well', he said. But he did not want Stein to brag about their control of Hollywood and the entertainment industry:

> That's a very dangerous phrase, 'Jews control Hollywood'. What is true is that there are a lot of Jews in Hollywood,' he said. Instead of 'control,' Foxman

would prefer people say that many executives in the industry 'happen to be Jewish,' as in 'all eight major film studios are run by men who happen to be Jewish.'

The ADL is actually there to stop people seeing the Zionist influence by intimidating into silence those who *can* see the obvious with the 'anti-Semite' technique. Anyone trying to silence the truth or freedom of speech has an agenda to protect. Ultra-Zionist American lawyer Alan Dershowitz agrees that Jewish people 'are represented in large numbers in various professionals such as the academy, finance, and the media' and he says this is because 'they have proved to be successful at these enterprises'. In some cases that will be true, but *all* of them? As Joel Stein would say ... c'mon. Dershowitz points out in support of his case that 'there is poverty among many Jews, particularly the elderly' and I would respond this way: (1) I am not saying that all Jews are involved in a conspiracy. I am saying that the great majority are victims of the Sabbatian-Frankist Death Cult of fake Jews who use them as camouflage; (2) If the goal is protecting Jewish people why is there 'poverty among many Jews, particularly the elderly' when there are others worth multiple-billions? American psychologist Kevin B. MacDonald, a former professor of psychology at California State University, Long Beach, confirmed Joel Stein's analysis in a trilogy of books which included *The Culture of Critique: An Evolutionary Analysis of Jewish Involvement in Twentieth-Century Intellectual and Political Movements* published in 2002. MacDonald documents the absolutely extraordinary power of Zionism over Hollywood and the American broadcast and print media which applied in the period across 9/11. He has naturally been dubbed an 'anti-Semite' because facts are no defence against that. Ultra-Zionists don't want to debate facts so they deal only in abuse. As we head back towards the detailed background to 9/11 it is important to know the scale of control that ultra-Zionists had at that time – as now – over government, Pentagon, law and media. It will explain so much from the next chapter onwards.

Shoot the messenger – stop the message

Media control of the Israel/Zionist narrative is also achieved by firing anyone who offers criticism of either. When others see their colleagues sacked in an instant they know they had better stay silent about anything that could put Israel and Zionism in a bad light. Jim Clancy worked as a journalist, correspondent and anchor on CNN for 34 years but resigned in 2015 after tweeting that attacks on him on Twitter were possibly part of the Israeli Hasbara campaign of systematic propaganda. Compared with those mild comments and a justifiable question 34 years of service meant nothing to CNN. He had to go. Only ludicrous,

tongues-out, establishment-repeater clones like Chris Cuomo, Don Lemon, Jim Acosta and former CIA intern Anderson Cooper need apply to CNN these days. Contempt for journalism and a willingness to sell your soul must be ticked on the application form to even secure an interview. See also MSNBC where presenter Rachel Maddow is a disgrace to journalism and the BBC which is Britain's CNN and another disgrace to journalism. Maddow the fake 'journalist' was actually close to tears on air after the Mueller investigation found no provable Trump collusion with Russia (Fig 133). Twitter banned the account of someone making fun of the incident involving a television host who had misled America for two years over Russia and Trump – as did CNN, NBC and others. The BBC can't be so openly biased because of (one-sided) British media 'impartiality' laws but achieves the same biased end through story angles and emphasis, omission, language, labels and choice of interviewees. Britain's state broadcaster feels the need to tell us often how honest and trustworthy it is hoping that we won't notice that it isn't (see 'America is the freest country in the world'). CNN ended the contributor contract of academic Marc Lamont Hill after his comments about the Israel-Palestine conflict were labelled 'anti-Semitic'. Yawn. Hill accused Israel of 'ethnic cleansing' and denying Palestinians due process and compared the experience of the African American struggle against slavery and apartheid in the United States. He called for a new model of regional peace based on a single state with equal rights to Israelis and Palestinians (the ultra-Zionists' worse nightmare) with the two-state 'solution' now dead in the water after so much Jewish-*only* settlement in illegally-occupied Palestinian land. Hill said there should be 'a Free Palestine from the river to the sea' – from the Jordan to the Mediterranean. This was spun as a call to remove all Jews from the region – which it wasn't – but it's okay for the founding charter of the Likud Party of terrorists Menachem Begin and Benjamin Netanyahu to demand that: 'Between the sea and the Jordan there will only be Israeli sovereignty.' The way the global Israeli propaganda network operates can be clearly seen in the response to what Hill said in a much longer speech at a United Nations event marking the International Day of Solidarity with Palestine. Jewish 'leaders' began calling for Hill's

Figure 133: Don't cry, Rachael, biased excuse for a journalist. Just tell the bloody truth – that's all we ask.

dismissal from his position at Temple University. Targeting the income and careers of those who criticise Israel is a foundation modus operandi and a warning to others to keep quiet or risk losing both. Who were these 'Jewish leaders' with their 'spontaneous' response of outrage? Well ... the *Philadelphia Inquirer* reported that one was Leonard Barrack, a 'Temple trustee and major donor' to Temple University, a Temple alumnus and former finance chairman of the Democratic National Committee (DNC). Barrack is also former president of the Jewish Federation of Greater Philadelphia which hosts events with AIPAC and Israel lobby group StandWithUs exposed in the Al Jazeera documentaries over its manipulation on US campuses. Barrack said of Hill: 'He called for the destruction of the State of Israel in code words. I am very upset about it. I think it was anti-Semitic.' Another demand for Hill to be sacked came from Morton Klein, President of the Zionist Organization of America, who is close to the Trump administration and the President's biggest donor (owner) Sheldon Adelson who, in turn, is an associate of Benjamin Netanyahu. Klein described 17-year-old Ahed Tamimi, jailed by Israel for slapping a soldier after part of her cousin's head was blown off, as a 'convicted Palestinian-Arab terrorist'. Nice man. Klein was at the forefront of the campaign to remove Trump National Security Adviser H.R. McMaster for alleged 'anti-Israel' beliefs and he was replaced by Israel sycophant and Adelson confidant, the psychopath, John Bolton. Also on Hill's case was the National Council of Young Israel (NCYI), a collective of more than 100 groups throughout the United States. The NCYI was founded more than 100 years ago and claims to have helped to supply weapons to ultra-Zionist terrorist groups, including Irgun, before Israel was established in 1948. The Jewish Federation of Greater Philadelphia, headed by Leonard Barrack, has celebrated Menachem Begin, the Irgun terrorist Israeli prime minister, in yet another show of breathtaking hypocrisy. This is how the ultra-Zionist networks attack their opponents and the mentality of those behind such coordinated attacks. Ultra-Zionist conservative political commentator Ben Shapiro, who some amazingly see as 'alternative', said Hill had called for 'killing all the Jews' in the region when he blatantly had not. With ultra-Zionists positioned across the political spectrum they can come out in unison and say 'see – everyone agrees'. Cuban-American CNN news anchor Rick Sanchez was fired in 2010 after he indicated that Jewish people claim to be an oppressed minority when they have so much power in the media. Compared with their number that statement is clearly factually correct, but truth has no value if it's not what the ultra-Zionists want people to hear. Sanchez then fell to his knees in an effort to save his career. He wrote to Abraham Foxman, then head of the appalling Mossad front, the Anti-Defamation League:

> [T]here are no words strong enough for me to express my regret and sorrow over what I said. It was offensive, and I deeply, sincerely and unequivocally apologize for the hurt that I have caused. I tell my children that when they make a mistake, they should take responsibility, atone and work to repair whatever they have done ... I cannot undo the offense or controversy I caused; all I can do is to try and learn from this experience and strive to become a better person.

Or you could just tell them to fuck off.

CNN removed reporter Diana Magnay from the Middle East when she described a group of Israelis as 'scum' after they threatened her while she was reporting on Gaza. Magnay said she was live on the air while the Israelis were cheering bombs landing on Gaza during the mass murder of 2014. She said on Twitter: 'Israelis on hill above Sderot cheer as bombs land on #gaza; threaten to "destroy our car if I say a word wrong." Scum.' The President of CNN Worldwide is Jeff Zucker, the man writer Joel Stein described as 'mega-Jewish' when he was chief executive of NBC Universal. Zucker has used CNN to silence free speech and in this inverted world the Radio Television Digital News Association gave its 2019 First Amendment Award for 'free speech defenders' to ... Jeff Zucker. This was like giving a pro-life award to an abortion clinic. Zucker is the boss of CNN's ultra-Zionist 'lead political anchor' Wolf Blitzer who worked for Reuters in Tel Aviv, *The Jerusalem Post* and was editor of AIPAC publication, *Near East Report*. CNN's dramatic decline from at least a lip-service news organisation to full-flown propaganda arm of the 'progressive' mob and its political advocates is attributed by some former journalists to the period when ultra-Zionist Jonathan Klein was president of CNN/US between 2004 and 2010. The late great Helen Thomas covered the White House across ten presidents starting with John F. Kennedy until she was forced out during the Obama era for 'anti-Semitic' comments after 57 years working for United Press International (UPI) and its predecessor. Thomas had asked Obama a question that no one else in the press corps dare about Israel's nuclear weapons. 'Radical' Obama stuttered like an idiot trying not to answer the question because of the don't say, don't ask policy agreement between Israel and the United States in which Israel doesn't admit it has a big nuclear arsenal and the American government doesn't ask. Thomas was then set up by an ultra-Zionist posing as a father with a son who wanted to be a journalist. She was asked out of nowhere about her views on Israel and she said: 'Tell them to get the hell out of Palestine' and 'Remember, these people are occupied and it's their land. It's not German, it's not Poland ...' The switch was immediately flicked on the outrage machine and she was

forced out of Hearst Newspapers, dropped by all and sundry, condemned by her fellow alleged journalists when they lifted their heads from kissing the ultra-Zionist arse and the truly pathetic Obama called her remarks 'offensive', 'out of line' and said her retirement was 'the right decision'. He also thought 'Phew – thank goodness I won't face another question about Israel's nuclear arsenal.' What a major league fraud that man is. The Society of 'Professional Journalists' (you are joking) even voted to retire the Helen Thomas Award for Lifetime Achievement. Thomas was the daughter of Lebanese immigrants from Tripoli and pointed out that she could not be accused of 'anti-Semitism' because she was a Semite and Israelis were not. She said:

> We have organized lobbyists in favour of Israel, you can't open your mouth. I can call the president of the United States anything in the book, but you say one thing about Israel and you're off limits.

She said in another interview: 'I hit the third rail. You cannot criticize Israel in this country and survive.' All demonstrably true. 'Progressive' MSNBC sacked contributor Rula Jebreal after she protested at the channel's biased coverage of the 2014 Israeli slaughter in Gaza. Jebreal said later:

> I couldn't stay silent after seeing the amount of airtime given to Israeli politicians versus Palestinians. They say we are balanced but their idea of balance is 90 percent Israeli guests and 10 percent Palestinians. This kind of media is what leads to the failing policies that we see in Gaza ...
>
> ... We as journalists are there to afflict the comfortable and who is comfortable in this case? Who is really endangering both sides and harming American interests in the region? It's those enforcing the status quo of the siege of Gaza and the occupation of the West Bank.

Jebreal said she told MSNBC bosses there was a serious problem with pro-Israel bias, 'but everybody's intimidated by this pressure and if it's not direct then it becomes self-censorship.'

Ultra-Zionist censorship wherever you look

Jewish journalist and activist Max Blumenthal reported that an NBC producer speaking on condition of anonymity confirmed the existence of a top-down intimidation campaign aimed at presenting an Israeli-centric view of attacks on the Gaza Strip: 'The NBC producer told me that MSNBC President Phil Griffin and NBC executives are micromanaging coverage of the crisis, closely monitoring contributors' social media accounts and engaging in a "witch hunt" against anyone who strays

from the official line.' The NBC chairman (and former president) is ultra-Zionist Andrew Lack. BBC reporter and presenter Tim Willcox was pressured to apologise for a 'poorly phrased question' after telling a Jewish woman that Palestinians 'suffer hugely at Jewish hands' during a live interview at a Paris anti-terrorism rally. Willcox said: 'Many critics of Israel's policy would suggest that the Palestinians suffer hugely at Jewish hands as well ...You understand everything is seen from different perspectives.' Once again this is true and once again truth is no defence from the ultra-Zionist mob. Jewish historian Simon Schama said the question was appalling and as always the hypocrisy of *Jewish Chronicle* editor Jonathan Pollard and the Campaign Against Antisemitism of Jewish National Fund board member Gideon Falter couldn't be unleashed fast enough. Top American basketball player LeBron James lashed out in 2018 against 'a bunch of old white men owning teams and they got that slave mentality.' That was okay – and it is – to express those views, but shortly afterwards when he quoted rap lyrics that included the line 'We been getting that Jewish money, everything is Kosher' he immediately apologised because that was not okay. There is no 'Jewish money', you see, no Jewish billionaires funding both sides in US politics. It's all a myth, an 'anti-Semitic trope', so it is outrageous to even raise the subject and most certainly 'anti-Semitic'. As for exposing ultra-Zionists like the Rothschilds for their serious involvement in the slave trade – you must be a Nazi to say that even though it's true.

Israel-born and now British-based anti-Zionist activist and musician Gilad Atzmon has long contended that 'Jewish power is the power to silence opposition to Jewish power'. I would put it like this: 'Sabbatian-Frankist power is the power to silence opposition to Sabbatian-Frankist power by presenting it as Jewish power and weaponising 'anti-Semitism' to target opponents. Atzmon, even though born into a Jewish family in Israel, is one of the hate figures of the ultra-Zionist Protection Racket and they even seek to have him banned from musical events when all he is doing is playing the saxophone. Islington's Labour-controlled council in London – the area where Labour leader Jeremy Corbyn is an MP – banned Atzmon from playing at a concert in the borough after a *single* complaint from a rabid ultra-Zionist who constantly excuses Israel's disgusting and merciless treatment of Palestinians. You'll find Islington Council in the phone book under 'i' for idiots or 's' for spineless. All who challenge the extremes of Zionism and the Israeli government must be destroyed both financially and in terms of their reputation; but the tide is turning because people are increasingly sick of 'anti-hate' groups promoting hatred and self-serving censorship. Jonathan Schanzer from the ultra-Zionist front, the Foundation for the Defense of Democracy, was caught on a hidden camera saying that those who challenge Israel must be smeared in other

ways because 'Personally I think anti-Semitism as a smear is not what it used to be.' Too right, mate. You've overcooked the mantra and now people are seeing through the game.

SiliCON Valley

By far the most important media control today is based in Silicon Valley, California, or the 'Devil's Playground' as I prefer to call it. The Hidden Hand and its Sabbatian-Frankist, ultra-Zionist arm have worked to transfer the circulation of information from newspapers and television to the Internet because then it can be censored by artificial intelligence algorithms with not even human intervention once the codes are in place. Set the algorithms to censor key words or subjects and you can dictate, potentially in total, what people see and don't see. This is the ultimate ambition of the Hidden Hand and Sabbatian-Frankist ultra-Zionism. The gathering censorship of alternative voices using the systematically-decreed excuses of 'hate speech', 'fake news' and political correctness (see the ultra-Zionist Frankfurt School) is this very agenda unfolding before us and becoming more extreme by the day. In the light of this is it an obviously legitimate question to ask why Internet information giants and near-monopolies are dominated by a fraction of 0.2 percent of the global population. It is not only legitimate to ask this question, but absolutely essential for *everyone* to ask it and that includes Jewish people because they are subject to the same censorship by the same people when they don't sing from the official song-sheet. I have already mentioned that Google is run by Larry Page (Zionist) and Sergey Brin (Zionist); Google's YouTube by Susan Wojcicki (Zionist); Facebook by Mark Zuckerberg (Zionist) and Chief Operating Officer Sheryl Sandberg (Zionist), formerly with Google; and the chairman of Apple is Arthur D. Levinson (Zionist). The statistical chances of this happening from such a tiny percentage of the population must be astronomical given the power these companies have over global communication through the Internet and technology. Add-in the fact that ultra-Zionist hate groups are being employed to 'advise' these ultra-Zionist-controlled companies on who and what to censor and that includes the ultra-Zionist CAA in the UK which targets me and the Labour Party. I doubt the Jewish National Fund will be censored for peddling apartheid.

The ultra-Zionist hate group and apartheid-supporting Anti-Defamation League (ADL) established its own state-of-the-art censorship centre in Silicon Valley and you are looking at a gigantic scam to control what the world population can see and hear. It is part-funded by eBay founder Pierre Omidyar who also contributes to the George Soros Open Society Foundations and has big Pentagon connections. Omidyar is another fake 'progressive' in the mould of Soros who funds Neocon regime change operations and organisations closely

connected to ultra-Zionist Bill Kristol, co-founder of the Project for the New American Century. Investigative journalists Alexander Rubinstein and Max Blumenthal uncovered many of these connections for MintPress News. Rubinstein said:

> If partnering with the Neocon think tank guru who was a main conduit for US government messaging in the lead-up to the Iraq War is 'progressive' then I think it's time we retire the term.

Omidyar also bought The Intercept website via his First Look Media and shut down access to its archive of documents leaked by National Security Agency whistleblower Edward Snowden. This is same Omidyar funding the ADL Internet censorship centre. Multi-billionaire Soros, the 'progressive'-funding ultra-Zionist in disguise, is financially-supporting 'fact-checking' and search engine groups that seek to dictate the information that the ultra-Zionist-controlled Silicon Valley giants will allow to be communicated. Apple CEO Tim Cook was the first recipient of the ADL's 'Courage Against Hate Award' in 2018 which was a mind-boggling irony given that the ADL is an extreme hate group that sets out to get the public to hate its targets. This disgusting organisation was exposed for supporting the apartheid regime in South Africa and is controlled by the far right Israeli government which indoctrinates Israelis to hate Palestinians. Cook seized the chance in his acceptance speech at the ADL's 'Annual Summit on Anti-Semitism and Hate' to say that 'conspiracy theories' should be banned – exactly what ultra-Zionist hate groups like the ADL have been working so hard to achieve. Cook suggested that the Holocaust was a function of too much free speech when what happened in Nazi Germany was actually caused by *too little.* Why does he think the Nazis went on a rampage of book burning?? My God, *what an idiot.* Nazis, like all tyrannies, targeted free speech to silence critics and those who could otherwise have exposed what they were doing. They burned books they didn't want people to see – just like Silicon Valley is involved in digital book-burning. They banned or broke up public meetings of opponents just like the 'progressive' 'anti-fascist' Soros-backed mob and the CAA and censor-network seek to do today. Apple and other ultra-Zionist Internet dominants banned conspiracy radio show host Alex Jones from their platforms in 2018 which freedom-deleting Cook was quite happy to crow about. The level of narcissistic arrogance and self-obsession required to demand freedom of speech for yourself while seeking to deny that to other people is beyond my comprehension. I don't agree with a lot that Alex Jones says – and some I do – but that is irrelevant to the fact that his freedom is speech is *everyone's* freedom of speech. If he doesn't have it then no one does because all that is left is the 'freedom' to conform to what authority

decides to allow. It is worth making the point, too, that while Cook and Apple talk about their 'values' they have already sold hundreds of millions of their WIFI 'Airpods' (many to children and young people) which constantly pass frequency waves through the brain. Apple doesn't know the consequences because they have done no long-term studies, but to anyone *with* a brain those consequences are bloody obvious in dangers to health and brain function. How comforting that Apple and Cook have 'values'.

The 'hate-speech' scam

So-called 'hate speech' constantly expands the excuse for censorship as the definition gets longer by the hour. Things like incitement to violence are subject to criminal law and that is where it should be addressed and debated – in open public courts. It should not be at the behest of biased people like Tim Cook, Zuckerberg, Brin, Page and other corporate dictators to impose their views and agenda on the rest of the human race. People should be free to say anything they like and their views then be open to public debate and challenge while involving the criminal law where violence is being promoted against others. In short, what people say should be dealt with *after* their words are delivered and not *before* as the Internet censors want to achieve through artificial intelligence. The difference between the two is utterly pivotal for human freedom. When speech is addressed *after* delivery there is no way any authority can dictate what people see and hear; but once you accept censorship *before* delivery you are giving exactly that power to authority. What's more the criteria for pre-delivery censorship just goes on growing ... incitement to terrorism, incitement to violence, 'hate speech', 'fake news', hurting anyone's 'feelings'. The list goes on and on until there is no freedom left which has been the plan all along. Tim Cook's ADL speech was a classic misrepresentation of what he was claiming to stand for as he couched his 'ban conspiracy theories' in the smokescreen of 'white supremacy'. In doing so he was following the blueprint of connecting in the public mind free speech and the far right. Link the two together psychologically and then when anyone calls for freedom of speech they are automatically considered 'far right extremists' who believe in 'white supremacy'. I think that anyone who self-identifies the 'I' with the transitory labels of race has completely missed the point about the nature of reality, but it's okay it seems to claim to be God's Chosen People while seeking to silence others for seeing their own race as above all others. I say both are forms of extreme and idiotic racism because I am against racism *in totality* – not only where it suits me. Cook said that companies like Apple need to 'do the right thing' rather than debate whether they are being impartial or not: 'If we can't be clear on moral questions like these, we've got big problems'. Oh, do piss off. It's

about silencing speech and information you don't want people to hear – end of. If only they were honest about it. That would be bad enough because of the consequences for human freedom, but to justify politically-targeted censorship on the basis of the (non-existent) 'morality' of global corporations is definitely sick-bag territory. We are in the midst of a tiny few people controlling all global communication for more than 7.7 billion people and the weaponisation of 'anti-Semitism' is being used to protect this tyranny from exposure. Well, *bollocks* to that. Call me what you like, I don't care. What I *do* care about is free speech, the very foundation of freedom, and the truth of what is really happening.

Time for us all – Jewish and non-Jewish – to call it out

Once again I emphasise the consequences of what the ultra-Zionists and Sabbatian-Frankists are doing for the rest of the Jewish population. Many people can't or won't distinguish between the Death Cult and ultra-Zionist extremists and Jews in general because they don't know about the Cult. Thus the actions of the Cult are blamed on the whole Jewish population and people are getting increasingly enraged at the actions and fascistic tendencies of the Cult. It is well past the time when the overwhelming majority of Jewish people who are not part of any of this start speaking out against its impact on global affairs and the way they themselves are perceived. A CNN survey of 'anti-Semitism' in Europe revealed:

> More than a quarter of Europeans surveyed believe Jews have too much influence in business and finance. One in five say they have too much influence in media and politics. In some countries the numbers are often higher: 42% of Hungarians think Jews have too much influence in finance and business across the world.

The CNN poll also claimed that in Poland '50% of people think that Jews use the Holocaust to advance their position'. These numbers should be of great concern to Jewish people in general because they indicate that efforts to control the narrative have been far from successful and they need to distance themselves from the extremists using them as cover. Israel-born activist Gilad Atzmon wrote:

> If Jews want to be loved or simply just ignored, then: (1) maybe the European Jewish Congress should seriously consider the possible consequences of its 'demand' that 'the Bible and the Koran use "trigger warnings" to highlight anti-Semitic passages'; (2) the French Jewish organisations might want to reconsider their relentless campaign to decimate the artistic career of France's most popular comedian; or (3) it might not be a great idea for Britain's Jewish

institutions to interfere with British national politics by smearing Britain's number one anti-racist [a reference to the Labour Party's Jeremy Corbyn although I wish he would grow a spine].

It is vital for people to see the difference between the Sabbatian-Frankist Death Cult and its ultra-Zionist gofers and lackeys and Jewish people in general. They are not the same. It is way past the time for Jewish people to address the extremists and cultists who exploit them to silence exposure.

And so back to 9/11

Zionist and ultra-Zionist organisations form a network across America and the world to manipulate and impose the will of ultra-Zionism and the Sabbatian-Frankist Death Cult which the great majority of Jewish people have no idea exists. They see these organisations as only there to promote the interests of Israel and the land to which they believe they have an historic right. No such right exists, but that has to be indoctrinated into them from birth so they act as unknowing stooges to the Sabbatian-Frankist agenda. It helps, too, when people claim a 'Jewish plot' to take over the world when that is exactly what the Sabbatian-Frankists want to hear to give cover to the real perpetrators that merely exploit the Jewish majority as a convenient shield to hide within. Jewish children are indoctrinated with the belief that the rest of humanity hates them and so they have to stick together behind the collective protection of what are Sabbatian-Frankists posing as Jewish leaders. Fear is the currency of control and the Death Cult employs this mercilessly against the Jewish majority. Add the Kosher Nostra networks of organised crime which interlock with Mossad, the ultra-Zionists in Israel and the rest of the web within The Web – add control of so much of government and media – and you have a hidden stream of interconnections perfectly capable of perpetrating and then covering up 9/11.

Out of these networks in the United States and Israel came the Project for the New American Century and the attacks of 9/11 that were essential to triggering the long-planned response of regime change in the Middle East and elsewhere and the systematic deletion of privacy and civil rights worldwide. From this detailed background we will now return to 9/11 and who was *really* responsible. The 'why?' is already painfully obvious.

CHAPTER 23

Just a coincidence?

And if all others accepted the lie which the Party imposed – if all records told the same tale – then the lie passed into history and became truth. 'Who controls the past' ran the Party slogan, 'controls the future: who controls the present controls the past' – George Orwell, *1984*

Sabbatian-Frankism, ultra-Zionism and Revisionist 'Gun' Zionism have a long and sickening history of using violence to get their way. This forced the British out of Palestine, established the State of Israel and Gun Zionism's military and intelligence arms, the Israeli Defense Forces (IDF), Mossad, Shin Bet and other global assets have ever since followed that lead to bomb, kill and terrorise in pursuit of the Death Cult's agenda of global control.

We should not be surprised to find, therefore, that the attacks of September 11th, 2001, have ultra-Zionist and Death Cult fingerprints all over them, but please don't take my word for it. Consider the evidence and connections I will present – together with those already presented – and see if you think they are all simply bizarre coincidences. I emphasise again (because I know I will be massively misrepresented) that I am not saying 9/11 was a 'Jewish plot'. This would require me to claim that all Jewish people were involved in accordance with how a 'Jewish plot' is defined by the 'anti-Semitism' industry and the Protection Racket. I am absolutely not saying that and indeed in so many ways I am saying the opposite – that claims of a 'Jewish global conspiracy' have perfectly served those who truly drive the hijacking of global society. The claim has diverted attention from the real perpetrators by (a) blaming 'The Jews' and (b) allowing the weaponisation of 'anti-Semitism' to not only silence criticism of 'The Jews' but to silence exposure of the real perpetrators hiding within and behind the smokescreen of 'The Jews'. The satanic Sabbatian-Frankist Death Cult has infiltrated the Israeli political left, right, and far right and has contempt for traditional Jewishness, Judaism and its advocates. Jewish people have been manipulated to believe that Israel, Judaism and Zionism are the same as fake and fraudulent Sabbatian-Frankist 'Judaism' and 'Zionism' when that is clearly not the case. Sabbatian-Frankists talk like Jews, but act like Satanists and psychopaths. This is why the background set out in the

last few chapters has been essential to put 9/11 into its real context.

The Sabbatian-Frankist Cult has arranged for Jews to be indoctrinated from the earliest age into believing historical myths and crucially that the rest of the world hates them. This has been essential to manipulate the population to believe they must be 'protected' by the (Sabbatian-Frankist) ultra-Zionist hierarchy. Claims by ultra-Zionist front groups that 'anti-Semitism is 'on the rise' (it always is according to them) are as much aimed at Jewish people as the rest of the population. They have to be kept in fear and the siege mentality for Sabbatian-Frankists to maintain their control. Former Mossad operative Victor Ostrovsky tells in *By Way of Deception* how he was taught that the State of Israel is incapable of misconduct. Look at the new definition of 'anti-Semitism' and you'll see how that is actually claiming the same. No Jewish person can be criticised because that would be 'anti-Semitic' is only another way of saying that no Jewish person can be legitimately criticised. Yet like every other cultural, religious or racial group you find within the Jewish community nice people, okay people and psychopaths. Why should they be different to every other group? The 'anti-Semitism' industry is there to protect the psychopaths from exposure by using the nice and okay people as their human shield. Most Jewish people are victims of the plot, not perpetrators, but they can be manipulated into serving that plot by believing in the genuineness and Judaistic nature of the psychopaths. Ostrovsky describes how he was told from an early age that Jews were 'the David in the unending struggle against the ever-growing Goliath'. There was 'no one out there to protect us but ourselves – a feeling reinforced by the Holocaust survivors who lived among us'. He says of this indoctrination:

> We, the new generation of Israelites, the resurrected nation on its own land after more than two thousand years of exile, were entrusted with the fate of the nation as a whole. The commanders of our army were called champions, not generals. Our leaders were captains at the helm of a great ship ...

You can see how the mind-fuck works. Keep them in fear of the rest of humanity and they will give their power away to the military and government to protect from their otherwise certain fate. What a perceptual burden to carry from birth and even most of those who serve the Sabbatian-Frankist and ultra-Zionist agenda only do so because their minds and perceptions belong to someone else. You can understand Ostrovsky's one-way indoctrination as he was growing up given that his mother fought for Haganah, the Israeli underground (terrorist group), and his father fought in the Israel-Arab war in 1948 and commanded an Israeli Air Force Base. His grandfather was Auditor General of the apartheid Jewish National Fund (JNF). Ostrovsky writes:

> ... My own idea of Israel as I was growing up was as the land of milk and honey. That any hardships were worth it. I believed it was a country that would do no wrong, would not inflict evil on others, would set an example to all nations to see and to follow. If there was anything wrong financially or politically in the country, I always imagined this was at the lower echelons of government – with the bureaucrats, who would eventually clean up their act. Basically I believed there were people guarding our rights, great people like [Israel's first Prime Minister] David Ben-Gurion ...

Ostrovsky realised during his time with Mossad as a 'katsa' (case officer) that Israel and its leaders were not like that and hence his extremely brave exposure of what Mossad is really doing. If Jewish people woke up from the life-program they would see that the rest of humanity doesn't hate them and does not seek to destroy them. I have a problem with the Sabbatian-Frankist Death Cult, not Jewish people. I don't agree with the behaviour of *some* Jews and I don't believe in their religion, but that's not the same as hating them for simply *being* them. This is what the real definition of 'anti-Semitism' should be if the term is going to be used at all given that it's a misnomer to start with. In fact, I don't hate *anyone* – what you hate you become just as what you fight you become. See the 'anti-fascist' mobs for confirmation. By contrast those who scream 'anti-Semitism' at every turn are seeking to encourage people to hate their targets while calling themselves 'anti-hate' groups. We should also not forget that the Sabbatian-Frankist Satanic Cult is only part of the Hidden Hand Satanic Cult and I am highlighting this part of The Web because of its clear and obvious connection to 9/11.

War by deception

Control of information and intelligence has always been a prime target for Sabbatian-Frankists with the Rothschilds creating an intelligence and courier network that eclipsed in scale and efficiency those of governments. Knowing what is happening or planned to happen before governments do is an immense source of power. Rabbi Marvin S. Antelman describes in *To Eliminate the Opiate* how the Sabbatian network 'was held together by an elaborate system of communications consisting of couriers and emissaries whose full time job it was to run messages all over Eastern Europe':

> Across this network travelled much information and secret messages, some of which have been lying around in archives in Europe. It reached the archives because, from time to time, various governments who were monitoring Sabbatian activity in Europe were able to intercept and confiscate their communications.

These Rothschild and Sabbatian-Frankist communication networks eventually fused to become the national and international intelligence agencies – most especially Israeli Mossad, America's CIA and National Security Agency (NSA) nexus, and Britain's MI5 (domestic) and MI6 (overseas). Victor Ostrovsky said he was told during his Mossad training in the 1980s that its motto is: 'By way of deception, thou shalt do war'. This certainly encapsulates the techniques of Mossad (Israeli global intelligence), Shin Bet (domestic intelligence), Aman (military intelligence) and the fantastic Zionist web of organisations that ultimately answer to the ultra-Zionist hierarchy and Sabbatian-Frankism. Understanding Mossad and its associated military and intelligence networks is crucial to understanding what happened on 9/11 and who was really behind the attacks. Mossad, which was centrally involved in 9/11, was established in 1949 on the say-so of Prime Minister David Ben-Gurion as the central body of Israel intelligence. The full title is the Institute of Intelligence and Special Operations and, as with Israel's nuclear weapons, Mossad did not at first officially exist although everyone knew that it did. Mossad became part of the Prime Minister's Office – just like the Ministry of Strategic Affairs 'Hasbara' operation of global propaganda – but 'the Institute' is actually a law unto itself and beyond even political leadership. Ostrovsky exposes Mossad's targeted assassinations and execution list, the undermining of politicians it doesn't like and secret operations in foreign lands including (especially) those of its apparent 'friends'. He writes that '... one of the first duties of any new Israeli prime minister is to read the execution list and decide whether or not to initial each name on it' (agree for them to be killed). Ostrovsky describes an Israeli spy network in the United States known as 'A1' and says that people 'don't understand that the Mossad regards the whole world outside Israel as a target, including Europe and the United States'. An Israel-defending article by the ultra-Zionist-owned *New York Times* reviewing Ostrovsky's book did acknowledge Israeli spying within the US to be fact. It further revealed that a 'secret CIA report dated March, 1979 (made public by Iran when militants seized the American Embassy there) says that Israel has used bugs, wiretaps and attempted blackmail and bribes to gather intelligence in this country [the US]'. Others have exposed Mossad's assassination policy including Ronen Bergman in *Rise and Kill First – the secret history of Israel's targeted assassinations*. This account of Israel's assassinations, meticulous in its detail and sources, describes how Mossad, Shin Bet and the Israeli Defence Forces (IDF) had a policy from the start of simply assassinating those considered a problem to their agenda and not just in Israel and Palestine either. When you think they are all outgrowths of the ultra-Zionist terror groups that bombed and

murdered Israel into existence this should be no surprise. There are many examples of Mossad and other ultra-Zionist military and intelligence hit-squads killing the wrong people and goodness only knows how many innocents have been killed and maimed who were in the wrong place at the wrong time. Ostrovsky says that Mossad operatives are taught to fire as many bullets as possible at their target – 'When he's on the ground you walk up to him, put your gun to his temple, and fire one more time.' Mossad gives ruthlessness, evil and psychopathy a bad name and no wonder that terrorist Menachem Begin was one of its favourite prime ministers.

In many ways Mossad is a modern-day version of the infamous Sufi Islamic sect from which the very word 'assassin' derived – the Hashashin who became known as the Assassins. Interestingly Rabbi Marvin S. Antelman connects the Sufi 'Islamic mysticism' sect to Sabbatian-Frankism and to Sabbatai Zevi and Jacob Frank themselves. He says that Frank 'received financial remuneration from the Aga of the Sufi to aid him in the Frankist plans to exterminate Jews and Judaism in Bucharest, Romania, on November 6, 1757'. There are many covert connections between Jewish, Islamic and Christian groups not least via the infiltrating Donmeh. The cult of the Assassins can be traced to the First Crusade in the late 11th century under its first Grandmaster, Hassan-i Sabbah (1050s-1124). Their claim to fame and particular method of operation was to control rulers through fear of being assassinated if they didn't play ball. A heavily-protected king or leader would wake up to find a knife on his pillow and a note saying that his guards were no match for the Assassins and they could kill him whenever they liked. This would normally illicit compliance and those who didn't comply were killed which added to the Assassins' reputation for calculated murder. Mossad works on the same principle and politicians and others worldwide are controlled by Israel not only through money but the knowledge that Mossad doesn't take prisoners and doesn't take kindly to Israel's will not being obeyed or people getting in their way. Assassinations of people, family members and/or character are Mossad specialities. Letter bombs are a Mossad calling card and so are limpet bombs stuck onto vehicles by passing Mossad agents on motorbikes. They have killed Iranian nuclear scientists this way. This is one description of the Assassins' (now Mossad's) assassination technique:

> In order to get rid of ... rulers, clerics and officials, the Assassins would carefully study the languages and cultures of their targets. An operative would then infiltrate the court or inner circle of the intended victim, sometimes serving for years as an advisor or servant; at an opportune moment, the Assassin would stab the sultan, vizier or mullah with a dagger in a surprise

attack [classic Sabbatian-Frankist infiltration].

Mossad and its networks do the same although they are much more likely to spring a surprise through people who are either the same race as their targets (an Arab Mossad asset killing an Arab) or made to look so. Jewish terrorists in the merciless groups that became Mossad and the Israel Defense Forces blew up the King David's Hotel while *dressed as Arabs* and waiters. Using disguise to instigate Problem-Reaction-Solution events is very common. Two British Special Air Service (SAS) soldiers dressed as Arabs were arrested by the Iraqi authorities in 2005 after a shoot-out at a checkpoint in which two Iraqi officers were shot, one fatally (Fig 134). The British agents were driving a car full of munitions, explosives and detonators believed to be for a false flag 'terrorist attack' on a religious event in Basra to manipulate conflict between Sunnis and Shia. They escaped from custody when British tanks and infantry with helicopter support stormed the jail allowing 150 other prisoners to get away. Not everyone that looks like an Arab is really an Arab and that could easily be the case with 9/11. Some Israelis have complexions that could be taken for Arabs and in fact this was the original mistake made by some witnesses who saw the 'Dancing Israelis' cheering and celebrating the 9/11 attacks while the World Trade Center burned (much more to come). Israeli Mossad agents with such skin-type are often used to pose as Arabs in their operations and Ostrovsky says they are known within Mossad as 'Arabists'. Adam Yahiye Gadahn who was claimed to be an American operative for al-Qaeda killed in a US drone attack in Pakistan in 2015 turned out to be a Jewish man, Adam Pearlman, grandson of Carl Pearlman, the former director of ultra-Zionist Mossad front, the Anti-Defamation League. Pearlman, sorry Gadahn, is said to have been behind at least one of the ridiculously transparent 'Bin Laden' videos. Another technique Ostrovsky reveals is the use of doubles to simulate someone being in a location at a certain time when the real person is somewhere else and they can often be oblivious that their double even exists. 'I saw him there with my own eyes, it was definitely him', witnesses will report. This technique was undoubtedly used in the 9/11 operation and it is a method common to all intelligence agents,

Figure 134: Two British SAS soldiers arrested by Iraqi police while dressed as Arabs, including wigs, in an unmarked vehicle containing weapons, explosives and a remote-controlled detonator booby-trapped and ready to explode.

including the CIA and British intelligence.

Extraordinary scale and reach

Ostrovsky says that while the core personnel of Mossad are not large in number compared with other major intelligence agencies they have a vast network of people to call upon in Jewish communities around the world. These Jewish volunteers are known by Mossad as 'Sayanim' ('collaborators' in Hebrew) and they number thousands in the United States (especially in New York) and worldwide. Many don't even know that what they are asked to do is being directed by Mossad. They will be approached to do something to 'serve Israel' and told little more. The psychological pressure to 'help the homeland' can be very powerful with the life-long perceptual programming. Ostrovsky says in his book:

> So much of our training was based on forming relationships with innocent people. It built a strange sense of confidence. Suddenly everyone in the street became a tool. You'd think, hey, I can push their buttons. Suddenly it was all about telling lies; telling the truth became irrelevant ...

Support from these 'Sayanim' comes in many and various ways. A Jewish owner of an electrical store might supply electrical goods for a Mossad front operation posing as an electrical shop; a doctor might treat an agent with no questions asked; or they might supply vehicles that can't be traced to the Mossad driver. The cost of Mossad operations, as revealed by Ostrovsky, is absolutely incredible with so many on the payroll worldwide. He writes:

> Of the 30 to 35 katsas [case officers] operating at any given time, each would have at least 20 agents. Each of those 600-plus agents would average at least $3,000 a month, plus $3,000 in bonuses, and many would earn considerably more, which cost the Institute [Mossad] $15 million a month at least just to pay the agents. In addition, there were the costs of recruiting, safe houses, operations, vehicles, and numerous other expenses, all adding up to hundreds of millions a month.

He wrote this in *1990* – what must it be today? A country of eight million people on a tiny area of land spends that kind of money only to protect *itself*? C'mon. Ostrovsky reveals the massive network of Mossad front companies to hide their real activities and I'll come to that in relation to 9/11. He says that Mossad operates out of Israeli embassies with the Mossad station chief outranking the actual ambassador. The 'anti-Semitism' scam against me, the UK Labour Party and others around the world will be orchestrated through the Israeli embassies as the Al Jazeera documentaries confirmed. A network of 'safe houses', as

Ostrovsky mentioned, is operated from Mossad stations in target countries to keep agents and their assets from prying eyes and they have an enormous fake passport operation. He says many immigrants to Israel are asked to give up their country-of-origin passports to 'save Jews' and they are stored in 'a huge, library-like room, containing many thousands of passports divided by countries, cities, and even districts, with Jewish and non-Jewish-sounding names, also coded by ages – and all data computerised'. Agents can enter a country illegally by covert means but still have a passport or visa stamped as if they had passed through an airport. Ostrovsky revealed the level of detail involved:

> The Mossad also had a major collection of passport stamps and signatures that they used to stamp their own passports. These were kept in a log book. Many of them were gathered with the help of the police who could hold a passport temporarily and photograph the various stamps before returning it to the owner.
>
> Even stamping a false passport was done methodically. If, for example, my passport bore an Athens stamp on a certain day, the department would check their files for the signature and stamp from that day at the correct flight time, so that if someone should check with Athens as to which [passport] officer was on duty, that would be correct.

Mossad, like the CIA, has a technology development and seed-funding arm to keep its surveillance and technology capabilities at the cutting edge. Israel today is a global centre for technology and artificial intelligence that is hijacking global communication and dictating what people see and hear. Technology funding and development, added to the Israel-right-or-wrong mentality, means that Israeli technology companies are basically fronts for Mossad, ultra-Zionists and ultimately the Death Cult or at least serve their interests. Silicon Valley Internet giants and AI technology companies are really fronts for Israel, the CIA and Pentagon (controlled by the Death Cult). Israel's global technology hub is supplying surveillance, tracking and other AI/computer high-tech around the world to governments, military and others which have back-door entry-points which Mossad and Israeli intelligence and military networks in general can access (with fundamental relevance to 9/11 as we will see). This back-door access includes taking over the technology at a distance and, for instance, changing what appears on computer screens and in archive records. Israel claims the moral high ground with regard to, well, *everything*, and especially 'fighting terrorism'. The approach reminds me again of the propaganda technique described by Nazi Propaganda Minister Joseph Goebbels as 'accuse your enemy of that which you are guilty'.

Breathtaking hypocrisy

Ostrovsky realised – as many others have exposed – that Israel sells arms to terrorists and tyrannical regimes and even supplied military technology to its alleged Arab 'enemies' such as its Donmeh associates in Saudi Arabia. He says that Israel was selling increased military aircraft fuel-tank capacity to the Saudis via a third country but the Saudis found this too expensive and went to the United States for alternatives. The US Zionist Lobby then 'stood on its hind legs and hollered no!', Ostrovsky writes. The Lobby claimed that such fuel capacity would allow Saudi F-16s to target Israel when it was about nothing more than money. Ostrovsky says that Israel sold missiles to Iran and during the Iran-Iraq war in the 1980s when a Mossad operative in London was calling the embassies of both countries posing as a 'patriot' for each side. He would tell them where each other's shipping was. 'That way we could keep the war "hot"', Ostrovsky says. '... if they were busy fighting each other, they couldn't fight us.' Mossad was close to apartheid South Africa and has trained psychopathic police forces for fascist regimes including Pinochet's Chile, Noriega's Panama and Idi Amin's Uganda as well as apartheid South Africa. Israeli 'advisors' along with Americans were arrested by Iraqi forces in 2015 for 'advising' ISIS fighters. Today Israel trains American police forces. Classic is Ostrovsky's story about a Mossad operation that was training Tamil rebels fighting the Sri Lankan government in the art of guerrilla warfare while at the same time also providing anti-guerrilla training and weapons to Sri Lankan government forces. Neither of them knew, but then the motto is 'By way of deception, thou shalt do war' and Ostrovsky calls his training programme 'a school that taught people to be con artists for their country'. Israeli daily *Haaretz* revealed in 2019 that Israeli officers were training foreign mercenaries, including Colombians and Nepalese, to fight in the Saudi war against Yemen which has created the world's biggest humanitarian crisis. The mercenaries were being trained at camps in Israel's Negev Desert funded by the United Arab Emirates. This is still more confirmation that the Donmeh Saudis and Gulf states such as the UAE are working as one unit with Israel. The *Haaretz* article said the mercenaries had taken part in the Saudi offensive against the port city of Hudaydah and other conflict zones in Yemen. Mossad is heavily involved in the global drug trade along with the CIA and played its part in the Iran-Contra drug operation that involved the Bushes and Clintons. Both families have big Mossad/Israel connections and give evil a bad name. One Mossad drug operative was Israeli official and 'journalist' Amiram Nir who was 'counter-terrorism' advisor to two terrorist Israeli prime ministers, Shimon Peres and Yitzhak Shamir. He was reportedly killed in a plane crash although some doubt he actually

died while Nir's son blamed his apparent death on Father George Bush. What a small world it is when you delve into the cesspit. Whenever exposure is imminent or made public there is always the Protection Racket response when anyone suggests that Mossad has been involved in anything – 'anti-Semitism'. Ostrovsky confirms how this is systematically used by Mossad to prevent public exposure and is directed at anyone who doesn't support the Zionist line:

> There was one simple question asked when anything happened: 'Is it good for the Jews or not?' Forget about policies or anything else. That was the only thing that counted, and depending on the answer, people were called anti-Semites whether deservedly or not.

This is such an insight into the mentality that we are dealing with. Was 9/11 good for Israel or not? Benjamin Netanyahu said on television that very morning that it was and he also said this in 2001 when he was not aware of being filmed:

> I know what America is. America is something that can be easily moved. Moved to the right direction. They won't get in our way. So let's say they say something. So they say it! Eighty percent of the Americans support us. It's absurd.

He said that America would not get in the way of further Israeli expansionism into Palestinian land and he pledged to strike the Palestinians with 'blows that are so painful that the price will be too heavy to be borne'. So speaks a mega-psychopath. The ultra-Zionist network is no friend of the United States, Britain or anywhere else. It is the friend of Israel's Sabbatian-Frankist elite and that's it. Ostrovsky says that recruiting agents from 'friendly agencies' to become a Mossad agent was something they were always on the look out to do. He recalls a Mossad operative who said he had many friends within US intelligence but 'when I am sitting with my [American] friend, he's not sitting with *his* friend'. This is the Mossad/ultra-Zionist dynamic. Ostrovsky writes that danger to non-Jews was far less important to Mossad than a danger to Jews and the most they would offer was a 'low-key' warning to foreign governments and agencies over planned attacks. He describes how in 1983 Mossad learned that a Mercedes truck was being prepared to carry bombs which they believed was likely to target an American installation in Beirut, Lebanon, but Mossad chief Nahum Admoni passed on only a general warning with no specifics even though he had them. A Mercedes truck was then crashed through the barriers of the United States compound and killed 241 US Marines. Ostrovsky became disillusioned with Mossad's one-eyed cultural bias and that of Israel in

general. He writes:

> You know what Israelis say: 'If they weren't burning us in World War II they were helping, or if they weren't helping they were ignoring it.' Yet I don't remember anybody in Israel going out to demonstrate when all those people [nearly two million] were being murdered in Cambodia. So why expect everyone to get involved just for us? Does the fact that Jews have suffered give us the right to inflict pain and misery on others?

Ostrovsky freed himself from the Zionist-imposed perception and self-obsession programme. Many don't and when it is so constant and life-long it's easy to see why.

A history of attacking Americans

Put this Mossad information together with all that I have detailed in the last few chapters and it's clear that the Israel ultra-Zionist network (including all the Sayanim or collaborators located in the US and especially New York) most certainly had the capability to carry out 9/11 together with other Web operatives and place-people like Dick Cheney. The Israel-Mossad operation in America is shockingly vast and includes every area necessary to plan and play out the attacks and to protect those really involved while blaming those who were not. Ultra-Zionists controlled the White House, Capitol Hill, the Pentagon, media, Hollywood, law enforcement and investigation – even the removal of the evidence from Ground Zero and its transportation to Asia. They also had the motive to use 9/11 as the excuse to manipulate the United States into more wars in the Middle East against countries that Israel and its ultra-Zionist Neocons wanted to regime change and subjugate through violence and chaos. They had 'previous' in terms of attacking American targets and others in supposedly 'friendly' countries. Israeli fighter jets and torpedo boats attacked the *USS Liberty*, a US surveillance ship, during the Six Day War between Israel and Egypt and other Arab states in 1967. The *Liberty* was in international waters north of the Sinai Peninsula. Israel sought to hide the source of the attack to blame it on Egypt and cause conflict with the United States. The evidence against Israel became so overwhelming that the government was forced to apologise and pay compensation for the 44 American crew members who were killed and 171 wounded, plus severe damage to the ship. Israel claimed the *Liberty* was attacked by accident – yet another lie. Surviving crew members said it was quite clearly a premeditated attack. Israel was as always protected by the US authorities with the US Navy's Court of Inquiry holding hearings about the attack in closed sessions and survivors subjected to gag orders to stop them talking about what happened. Some, however, still have. A key player in the cover-up was

Admiral John S. McCain, then Commander-in-chief, Naval Forces Europe, and father of the late Israel fanatic US Senator John McCain. Israeli planes made eight reconnaissance trips to identify the *Liberty* over a period of three hours and the ship was flying a big US flag. To claim mistaken identity was laughable. The attack went on for two hours from air and submarine while communications from the *Liberty* were jammed by Israel. Even life rafts launched by survivors were hit by machine gun fire and no one was meant to survive. US fighter aircraft launched after Israel jamming was breached were ordered to turn back and a Russian ship reached the *Liberty* long before anyone from the US Navy. James Ennes Jr, a surviving officer of the *Liberty*, published a book exposing in detail how the Israeli attack was premeditated and no accident called *Assault on the Liberty*. Israel's response as always when anyone tells the truth about its psychopathic elements was that Ennes was ... yes, you got it ... 'anti-Semitic'. You're in shock, right? Ennes recalls how his friend Pat O'Malley, a junior officer, sent a list of the killed and wounded to the Bureau of Naval Personnel and an immediate message came back: 'Wounded in what action? Killed in what action? ... It wasn't an "action", it was an accident.' O'Malley's response was: 'I'd like for them to come out here and see the difference between an action and an accident. Stupid bastards.' Stupid, yes, but then excuses for Israel's outrageous behaviour have to hide the truth, or try to, with transparent lies.

The *Liberty* attack is only one in a long stream of examples that show how America's political and military leaders care far less about protecting American lives than they do Israel's reputation. Israel's far-right political, military and intelligence hierarchy has utter contempt for America and its people. Former Mossad agent Victor Ostrovsky reveals in *By Way of Deception* how in 1986 Israel used a communication system known as 'Trojan Horse' to transmit from an Israeli ship messages that appeared to be coming out of Libya and sent to Libyan embassies around the world in support of terrorism. The US National Security Agency (NSA) intercepted the 'Libyan' (Israeli) transmissions and the Reagan-Bush administration ordered an attack on Libyan airports, military bases and other targets that killed the four-year-old adopted daughter of Libyan leader Colonel Gaddafi. Just another casualty in ultra-Zionism's endless addiction to war and self-interest. Then there was the 1964 'Lavron Affair', named after Pinhas Lavron, Israeli's Minister of Defense, when Israel ran a campaign of terror bombings against British and American targets in Egypt which were planned to be blamed on Egyptians. It was an Israeli 'false flag', or Problem-Reaction-Solution, to demonise a Muslim enemy in the eyes of the West – just like 9/11. Only in 2005 did Israel accept that the bombings blamed on Egypt were carried out by Egyptian Jews overseen by Israeli intelligence.

Moshe Sharrett, Israel's second prime minister and a less extreme Zionist, named the terrorist Shimon Peres for involvement in the attacks on US targets in Egypt. Sharrett said that Peres and Lavron shared the same ideology and that Peres 'wants to frighten the West into supporting Israel's aims'. This was precisely the reason for Israel's involvement in 9/11 at a time when Peres was Minister of Foreign Affairs. Sharrett said of Peres:

> I have stated that I totally and utterly reject Peres and consider his rise to prominence a malignant, immoral disgrace. I will rend my clothes in mourning for the State if I see him become a minister in the Israeli government.

Peres would go on to be President of Israel, twice Prime Minister, an interim Prime Minister and 9/11 Foreign Affairs Minister.

How the West was stung

American investigative journalist Christopher Bollyn has been uncovering the Israel connection to 9/11 since first hearing about the 'Dancing Israelis' – the Mossad operatives cheering and celebrating the attacks as the first tower burned – and he has paid the price for his efforts in a campaign of hate against him by ultra-Zionist hate groups including the Anti-Defamation League (ADL). He was even subjected to a physical attack at his home by 'three heavily-armed unidentified men' in 2006 that were later identified to be undercover police. He suffered a fractured elbow and was hit with 50,000 volts from a Taser. The attack happened in front of his wife and eight-year-old daughter and to make things even more disgusting he was charged with 'resisting arrest'. Bollyn has published two highly recommended books, *Solving 9-11* and the more extensive *Solving 9-11 – the Original Articles*. His research when added to my own produce overwhelming confirmation of Israel's involvement in the attacks of September 11th, 2001. Bollyn writes in *Solving 9-11*:

> At every critical point where the events and circumstances of 9-11 should have been investigated and discussed, there has been a Zionist, a dedicated devotee of the State of Israel, occupying a key position and acting as the controller and censor of evidence – the gatekeeper of information.

Yes, and not only in positions to cover up, but also in those to make the attacks happen. The ultra-Zionist response is that Bollyn is 'anti-Semitic' (yawn). How strange – well, perhaps not – that hate groups like the ADL have attacked him for questioning 9/11 even in areas where he has made no mention of Jewish people or Zionism. The 'anti-Semitic'

Protection Racket tries to equate simply questioning the official story of 9/11 with 'anti-Semitism' as it does any claim in any shape or form of a global conspiracy to enslave humanity. Something is not right here and clearly it's not about protecting Jewish people, but something far deeper, sinister and all-encompassing. The appalling ADL (spawned by the appalling Rothschild B'nai B'rith) condemned Bollyn as early as November, 2001, for an article highlighting the *fact* that numerous witnesses and experts, including news reporters, said they heard or saw explosions immediately before the collapse of the Twin Towers. He did not mention a Jewish connection to this story in any way. Yet the ADL attacked the article and its author. Why would an organisation apparently dedicated to protecting Jewish people from discrimination get involved in condemning the factual reporting that witnesses saw and heard explosions? That might be obvious to many by the end of this book, but people must come to their own conclusions. Heads-up to Christopher Bollyn for his tireless work in uncovering the Zionist connections to 9/11. I don't know him and I'm sure we would disagree on many things about the world and religion, but on the cover up of Israel's involvement in the September 11th attacks we are most certainly in agreement. Given the evidence that will now follow how could *anyone* not be?

I'm going to return to the 9/11 sequence of events with a quote by the Russian-born Isser Harel, former chief of Haganah (terrorist) intelligence, Shin Bet domestic intelligence, and Mossad (1952 to 1963). Harel was Mossad chief when the Nazi Adolf Eichmann was captured in Argentina in a clandestine operation and flown to Israel in a diplomatic plane while disguised as a member of the crew. He was then executed by the Israelis. Nahum Admoni, the later Mossad director who failed to properly warn the United States about the deadly Mercedes truck attack in Beirut in 1983, served under Harel who was infamous for targeting people in 'friendly' countries of the West. Isser Harel resigned from Mossad over a terror campaign called Operation Damocles which included letter bombs and assassination attempts to intimidate German scientists to stop working with Egypt on a rocket programme. This 'Father of Israeli Intelligence', was interviewed in 1979 by 'Christian Zionist' journalist Michael D. Evans and predicted a terror attack by Muslims on 'your tallest building' which he mistakenly believed to be the Empire State Building. In fact, by then the title went to the World Trade Center Twin Towers opened in 1973 in a project suggested and orchestrated by mega Hidden Hand manipulator, David Rockefeller, and his brother Nelson. Three weeks after those buildings came down on September 11th Evans recalled his conversation with Harel in an article for *The Jerusalem Post*. He said Harel told him in 1979:

> New York City is the symbol of freedom and capitalism. It's likely they will strike the Empire State Building, your tallest building and a symbol of your power ...
>
> ... In Islamic theology, the phallic symbol is very important. Your biggest phallic symbol is New York City and your tallest building will be the phallic symbol they will hit.

It is not only Islamic theology that knows the emotional impact of symbolism – Death Cults like Sabbatian-Frankism are steeped in such knowledge and indeed symbolism is their secret language between initiates as I have explained in detail in my books. Associates of Isser Harel who would later be connected to the World Trade Center will enter the picture shortly. Benjamin Netanyahu also called a press conference on September 11th and handed out copies of his 1995 book, *Fighting Terrorism: How Democracies Can Defeat Domestic and International Terrorism*, to claim that he had predicted the attacks. This was after he had said that they were 'good for Israel'. He told journalists that he had foreseen 'militant Islam' seeking a confrontation with the 'Great Satan, the United States' and had suggested that those loyal to Iran might plant a nuclear bomb in the basement of the World Trade Center. He said that 9/11 would be a turning point in the history of the United States just as Pearl Harbor had been. Well, it was the '*new* Pearl Harbor' according to Boy Bush after the attacks which is exactly what the ultra-Zionist Project for the New American Century had said they needed to trigger their regime change plans in the Middle East and elsewhere. Netanyahu and other prominent ultra-Zionists had been campaigning throughout the 1990s for a US war on terrorism and that had been the foundation theme of the 1996 *Clean Break* document produced for then Prime Minister Netanyahu by a group headed by ultra-Zionist Richard Perle who in 2001 ahead of 9/11 entered the Bush administration in a Pentagon post. *Clean Break* provided the basis for the Project for the New American Century (PNAC) document in September, 2000, which has been the blueprint for US foreign policy under successive presidents ever since. The PNAC was co-founded by ultra-Zionists Robert Kagan and William Kristol, the latter of which was constantly appearing on cable news shows selling American wars in the Middle East in the wake of 9/11.

Ultra-Zionist domination

Before, during and after 9/11 the very ultra-Zionists and their gofers who demanded specific regime changes in Middle Eastern countries and said they needed 'a new Pearl Harbor' to achieve that end were in key positions in government and the Pentagon 'under' (over) puppet president Boy Bush. Among them were Dick Cheney, Vice President and

de-facto President; Donald Rumsfeld, Secretary of Defense; Paul Wolfowitz, Deputy Secretary of Defense; Douglas Feith, Under Secretary of Defense for Policy; Dov S. Zakheim, Pentagon comptroller overseeing the entire military budget; Richard Armitage, Deputy Secretary of State to Colin Powell; Elliot Abrams, a 'Special Assistant' to Bush on foreign policy and major architect of the invasion of Iraq who would be appointed by Donald Trump to oversee the attempted US coup in Venezuela; Richard N. Perle, Pentagon Policy Advisor and close associate of Benjamin Netanyahu; John Bolton, Under Secretary of State for Arms Control and International Security, Ambassador to the UN and Trump's National Security Advisor seeking to continue the PNAC campaign of war to this day; Lewis Libby, Chief of Staff to Cheney and close to Wolfowitz; James Woolsey, member of the Pentagon Defense Policy Board and former Director of the CIA; Robert B. Zoellick, Bush Trade Representative and Cabinet member.

Add to them the ultra-Zionist Michael Chertoff, son of a Mossad agent, who was named United States Assistant Attorney General for the Criminal Division in 2001 and presided over the non-investigation of the attacks and the destruction of evidence from Ground Zero. Then there were ultra-Zionists Philip Zelikow, Executive Director of the 9/11 Commission who ran that non-investigation, and Judge Alvin K. Hellerstein, who oversaw all the cases in which 9/11 families refused to accept compensation that came with a no-legal action clause. They wanted their day in court where the evidence could be publicly presented and questioned. Hellerstein waged what has been called a 'war of attrition' in which the 96 families withdrew their legal action one by one until the last conceded in 2011. Still another ultra-Zionist, Judge Michael Mukasey, who would go on to be US Attorney General, had significant involvement in the post-9/11 sequence of events. Mukasey had refused demands to recuse himself in 1994 when he presided over a case stemming from the 1993 bombing of the World Trade Center. It was claimed that his views and connections to Israel and Zionism put into question a fair trial for Muslims accused of terrorism. Never, surely! That's 'anti-Semitic'! Zionist-owned companies removed the debris from Ground Zero – crucial evidence for what actually happened and why the towers fell – and shipped it to Asia for smelting. Ultra-Zionist-owned companies connected to Israeli intelligence ran security at the World Trade Center and 9/11 airports and the computer systems of the Federal Aviation Administration (FAA) and other government departments and agencies. The World Trade Center lease was owned by ultra-Zionist Larry Silverstein after a deal agreed with ultra-Zionist Lewis Eisenberg, head of the New York Port Authority, which had sold the lease into private hands for the first time months before the attacks. In all major areas of the 9/11 story can be found Zionists and ultra-Zionists

answering to Israel – which means Mossad, the military and behind them the Sabbatian-Frankist Death Cult. This gave ultra-Zionists complete control of what happened in those buildings in the weeks before the planes struck. Given this background how can it possibly be dismissed that Israel and its octopus intelligence agency Mossad were involved in the attacks of September 11th? There is only one 'defence' put forward for such legitimate investigation of the facts – the 'anti-Semitism' mantra of the Protection Racket.

Terrorists in charge

The Israeli Prime Minister across 9/11 was the terrorist Ariel Sharon while his foreign minister was terrorist Shimon Peres. Sharon was a brutal psychopath, a commander in the Israeli military from its creation out of terrorist groups in 1948, and he became Prime Minister in March, 2001, just weeks after the ultra-Zionists came to power with Bush in the United States (Fig 135). Sharon was the Israeli Defense Minister who oversaw the mass slaughter of Palestinians in the Shatila refugee camp and the neighbourhood of Sabra in West Beirut during the 1982 Israeli invasion of Lebanon. Christian Lebanese militiamen allied to Israel and known as Phalangists were allowed into the camp and neighbourhood while the Israeli army looked on. They murdered up to 3,500 Palestinian and Lebanese civilians, mostly women, children and the elderly. Many were raped. Survivors were taken for questioning by the Phalangists and Israeli intelligence and many who were then handed back to the Phalangists by the Israelis were executed. *The New York Times* would reveal that Sharon and Israeli officials misled the United States before and during the atrocities about the safety of civilians. Israel's Prime Minister at the time was ultra-Zionist terrorist Menachem Begin. Sharon had contempt for the United States and saw it as a tool to secure Israeli ambitions. He was vocal in his calls for the US to remove Saddam Hussein after 9/11 which was straight from the wish-list of the ultra-Zionist Project for the New American Century. On the second day of the Sabra-Shatila massacre Israeli journalist Ron Ben-Yishai went to Sharon to tell him about reports of mass murder. Ben-Yishai recalled:

Figure 135: Israel's 9/11 Prime Minister, the psychopath Ariel Sharon.

> I found [Sharon] at home sleeping. He woke up and I told him 'Listen, there are stories about killings and massacres in the camps. A lot of our officers

> know about it and tell me about it, and if they know it, the whole world will know about it. You can still stop it.' I didn't know that the massacre actually started 24 hours earlier. I thought it started only then and I said to him 'Look, we still have time to stop it. Do something about it.' He didn't react.

An Israeli committee of inquiry, known as the Kahan Commission, decided that Sharon bore 'personal responsibility' for the massacre and recommended his removal. Menachem Begin removed him as Defense Minister, but kept him in the cabinet. Sharon went on to be Benjamin Netanyahu's Foreign Minister and eventually Prime Minister. This was the mentality running Israel at the time of 9/11.

Synchronicity or what?

Everything was in place with the right personnel and psychopathic mentality by the early months of 2001. All they needed for the PNAC plan to be implemented was – in their own words – a 'new Pearl Harbor' and 9/11 came along right on cue. All a coincidence, of course, and all this happened purely by chance. Move along again – nothing to see here. What are the chances of Netanyahu's close buddy, ultra-Zionist Larry Silverstein, buying the lease on the World Trade Center towers just weeks before they were attacked in the 'new Pearl Harbor'? Or that the man who sold the lease to Silverstein was ultra-Zionist Lewis Eisenberg, head of the New York Port Authority, and another friend of Netanyahu? Or that the one who successfully lobbied for the World Trade Center to be privatised and thus sold to Silverstein was ultra-Zionist billionaire Ronald Lauder of the Estée Lauder cosmetics company who was instrumental in Netanyahu becoming Israeli Prime Minister? But don't concern yourself – these coincidences happen all the time (Fig 136, 137 and 138). Lauder was chairman of the New York State Advisory Commission on Privatization and New York State Research Council on Privatization when he was pressing for the World Trade Center to be sold into private hands for the first time. Journalist Scott Robert Makufka (pen-name Victor Thorn) wrote in his book *9/11 Evil*:

Figure 136: Ultra-Zionist Larry Silverstein bought the World Trade Center lease weeks before 9/11 and increased the insurance in the event of a terrorist attack.

> Prior to 9/11, Netanyahu and Silverstein would speak on the phone every Sunday afternoon. [Netanyahu] becomes a key player in this scenario because he was the man who actually coined the term 'war on

terrorism', the official term for the never-ending, Israeli-induced war.

Silverstein's intimate friendship with Netanyahu and the every-Sunday phone calls have also been confirmed by Israeli paper, *Haaretz*, which said they had been close friends since Netanyahu was Israel ambassador to the United Nations in the 1980s. World Trade Center seller Lewis Eisenberg and buyer Larry Silverstein both held senior positions with the United Jewish Appeal Federation of Jewish Philanthropies of New York, a billion-dollar ultra-Zionist organisation and the biggest Israel fundraiser in America. Well, apart from the American taxpayer that is. Eisenberg was formerly vice president of ultra-Zionist Israel/Mossad mega-lobby group AIPAC and worked for ultra-Zionist Goldman Sachs. Silverstein has been heavily involved with extreme right-wing Israeli politicians and Zionist organisations worldwide while Ronald Lauder was connected to the Conference of Presidents of Major American Jewish Organizations, the World Jewish Congress, Jewish [apartheid] National Fund, American Jewish Joint Distribution Committee, Abraham Fund, Jewish Theological Seminary, and the Anti-Defamation League of B'nai B'rith. Lauder became president of the World Jewish Congress in 2007. It was incredible forethought in the circumstances that Silverstein took out so much extra insurance on the buildings in the case of a terrorist attack – just as it was such incredible good fortune that his wife made him a 'dermatology' appointment that stopped him being in the Windows on the World restaurant on the 106th and 107th floors of the North Tower that morning of 9/11 as he nearly always was with an 8.30am start. Two of his children, Roger and Lisa, were vice presidents of Silverstein Properties and also held breakfast meetings with tenants in the Windows on the World most days,

Figure 137: Ultra-Zionist Lewis Eisenberg, head of the New York Port Authority, agreed the World Trade Center deal with his friend Silverstein.

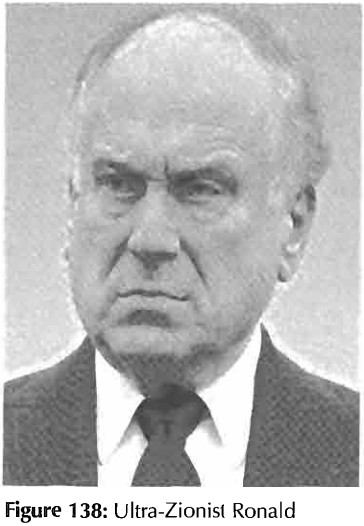

Figure 138: Ultra-Zionist Ronald Lauder of Estée Lauder pressed for the World Trade Center to be sold into private hands which turned out to be the sweaty palms of Larry Silverstein.

but they were at the chiropractor. No, sorry, they were both for different reasons 'running late'. Roger was in the parking garage of Silverstein's Building 7 when the first plane hit the North Tower while Lisa didn't get even that far. The *New York Observer* reported:

> [Silverstein's] son, Roger, and his daughter, Lisa, were working for him in temporary offices on the 88th floor of the W.T.C. north tower. Regular meetings with tenants in the weeks immediately following their July 26, 2001, takeover of the building were held each morning at Windows on the World. But on Sept. 11, Roger and Lisa Silverstein were running late. Meanwhile, Mr. Silverstein's wife of 46 years had laid down the law: The developer could not cancel an appointment with his dermatologist, even to meet with tenants at his most important property. If the attack had happened just a little later, Mr. Silverstein's children would likely have been trapped at Windows.

How fortunate they all were when you think that everyone in the restaurant when the plane struck – estimated at about 170 people – was killed because they could not escape before the tower collapsed. 'Lucky Larry', indeed, in fact, 'Lucky Silversteins'. More great fortune befell Geoffrey Wharton who Silverstein hired to manage and redevelop the property. He 'cut a meeting a little short' and left the restaurant with three other people, two of them senior officials with the New York Port Authority, minutes before the plane hit. They were the last people to leave the restaurant alive.

Lucky Larry – Lucky Frank

Ultra-Zionists Larry Silverstein (Silverstein Properties) and his partner, Frank Lowy (Westfield America Inc.), finalised a 99-year lease on the entire World Trade Center in July, 2001, five months before 9/11. They agreed to pay $3.2 billion after first being outbid. Silverstein got the WTC towers while Lowry took about 425,000 square feet of retail space known as the Mall. Included in the deal was the right for them to rebuild the structures if the properties were destroyed. The World Trade Centre lease had been purchased with a $124 million down-payment and Silverstein's personal investment was just $14 million. Other investors included Zionist real estate developers Lloyd Goldman and Joseph Cayre. Silverstein partner Frank Lowy joined the ultra-Zionist terror group, Haganah, in 1945 during the reign of murder and intimidation against Palestinians (Fig 139). He is a close associate of Israeli prime ministers, including Benjamin Netanyahu and Ehud Olmert, while Silverstein has been close to Netanyahu, Ariel Sharon and Ehud Barak. Sharon was Israel Prime Minister when 9/11 happened and the man he replaced, former Israeli military intelligence chief, Ehud Barak, was the one who immediately after the attacks flagged up Bin Laden and called

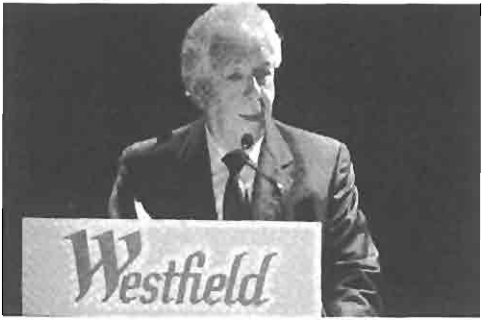

Figure 139: Frank Lowy.

for a war on terror and invasion of Afghanistan. Barak would also later order the mass murder of Palestinians in Gaza in 2008-2009 dubbed Operation Cast Lead. The purchase of the World Trade Center by Silverstein and Lowy bewildered many observers because the Twin Towers were considered a 'white elephant' with low occupancy rates, outdated technology and elevator systems and reports of toxic asbestos estimated to cost $200 million to remove. It appeared to be a really bad investment but after the attacks it became a hell of a deal. Silverstein said that he 'felt a compelling urge to own them'. Oh, I'm sure he did, but why? Silverstein and Lowry insured the complex for $3.55 billion and claimed twice that amount after the attacks on the basis that it involved two attacks and not one. Insurance companies eventually paid out $4.56 billion and Silverstein and Lowry were able to afford to replace the aging WTC with up-to-date buildings in the form of towers and a Mall. Some *24* companies insured the World Trade Center and lost massively, but even though the pay-out was dependent on the ludicrous official story being true (with no provable evidence) not a single one of them questioned the narrative which cost them so much. Silverstein had reportedly managed to control his shock at the attacks and grief at the dead for long enough to immediately hatch his plan for a double-pay-out. Steven Brill, author of *After: The Rebuilding and Defending of America in the September 12 Era*, said Silverstein told him he had not thought about the insurance until 'perhaps two weeks later' because of the tragedy. In fact Brill reports that according to two people who called Silverstein with their condolences the morning after 9/11 he quickly changed the subject:

> He had talked to his lawyers ... and he had a clear legal strategy mapped out. They were going to prove, Silverstein told one of the callers, that the way his insurance policies were written the two planes crashing into the two towers had been two different 'occurrences,' not part of the same event. That would give him more than $7 billion to rebuild, instead of the $3.55 billion that his insurance policy said was the maximum for one 'occurrence.' And rebuild was just what he was going to do, he vowed.

Apparently by mid-morning on September 12th Silverstein had called his architect David Childs and told him to start plans for a new

building with the same office space as those whose debris was still smouldering and full of human remains. Even this was not quite the same level of foresight that had seen Silverstein have the new Building 7 designed and planned in 2000, a year before the old one came down in the most obvious controlled demolition. Silverstein's lawyers are reported to have confirmed that he had phoned them on the night of 9/11 to ask 'whether his insurance policies could be read in a way that would construe the attacks as two separate insurable incidents rather than one'. It's amazing what people do when consumed by shock and grief. The original insurers were ACE, Marsh & McClennan and AIG all run by the ultra-Zionist Maurice Greenberg and family. The Greenbergs quickly sold on their responsibility before the attacks to the 24 other companies through a process called 'reinsuring' and they took the hit, not the Greenbergs. Not only 'Lucky Larry' and 'Lucky Silversteins', then, but 'Lucky Frank', 'Lucky Maurice' and 'Lucky Greenbergs' as well. Greenberg, a former deputy chairman of the Council on Foreign Relations, has connections to the CIA, Mossad operatives, the Anti-Defamation League Mossad front and he's a long-time associate of Henry Kissinger. Eight years before 9/11 Greenberg went into partnership with the ultra-Zionist Kroll family – Kroll and Associates would be responsible for security at the World Trade Center at the time of the 9/11 attacks and employ the ill-fated FBI counterterrorism chief John O'Neil as head of security shortly before the attacks that claimed his life. O'Neil had resigned from the FBI over blocks on his investigation of Obama bin Laden. Kroll and Greenberg will return to the story in due course. Larry Silverstein later received another big pay-out of nearly $9.52 million when he successfully sued American Airlines Group Inc., United Continental Holdings Inc., and other aviation-linked defendants for losses he claimed to have suffered over the 9/11 attacks. The litigation battle lasted for 13 years and was overseen by ultra-Zionist District Judge Alvin Hellerstein who also presided over civil litigation stemming from the attacks and prevented families of 9/11 victims getting their cases to court.

'High-fiving Israelis'

The 'Dancing Israelis' are the most obvious red-flag of Israeli involvement in 9/11 (Fig 140). A New Jersey housewife looked from her apartment window immediately after the first impact on the North Tower and saw young men kneeling on the roof of a white Chevrolet van with a New Jersey registration parked at Liberty State Park in Jersey City. They were filming the catastrophe from the waterside while hi-fiving each other, cheering and laughing. Other witnesses would describe the same van at another location with men who were 'celebrating and filming' and 'videotaping the disaster and shouting in

Figure 140: The 'Dancing Israelis'.

what was interpreted as cries of joy and mockery'. The men were filming and taking photographs of each other with the burning towers in the background. They were initially described as 'Middle Eastern' men – the same description attributed to the 'hijackers' by 'passengers on the planes'. These early reports added to the already gathering story that Arab terrorists were involved in the attacks (said to have been code-named 'The Big Wedding'), but the high-fivers would turn out to be Israelis. For sure they were 'Middle Eastern' only not the type that come to mind with that description. Indeed, as I've mentioned, the likeness of some Israelis to Arabs in their skin colour and features has proved useful for Mossad in anti-Arab covert operations over the years by Israeli 'Arabists'. The woman in New Jersey took down the licence plate and called the police. They and the FBI arrived and went in search of the vehicle which was registered to what turned out to be a Mossad front company called Urban Moving Systems. Later that afternoon law enforcement found the van and its five Israeli male occupants all in their 20s who they handcuffed and arrested. They would become known as the 'Dancing Israelis'. Among their belongings were two foreign passports and $4,700 in a sock. Sniffer dogs located evidence of explosives in the van which also contained box-cutters. The men were named as Sivan and Paul Kurzberg, Yaron Schmuel, Oded Ellner and Omer Marmari. The brothers Kurzberg were apparently known by law enforcement agencies to be Mossad operatives and Yaron Shmuel's LinkedIn profile is reported to describe expertise and experience with 'explosives' and 'secret services'. His Facebook page said his wedding was a year to the day after the attacks on September 11th, 2002. These were the men described by the woman observer as '... like happy, you know ...They didn't look shocked to me. I thought it was very strange'. Sivan Kurzberg, the van's driver, told police:

> We are Israeli. We are not your problem. Your problems are our problems. The Palestinians are the problem.

Investigative journalist Christopher Ketcham said that FBI spokesman Jim Margolin told him the Israelis explained away their joy by saying: 'The United States would now have to commit itself to

fighting [Middle East] terrorism, that Americans would have an understanding and empathy for Israel's circumstances, and that the attacks were ultimately a good thing for Israel.' The sentiments matched those of Benjamin Netanyahu on 9/11. Even if this explanation was correct – and it is far from the whole story – what level of empathy-deleted psychopathy does it take to be happy about the deaths of nearly 3,000 people because it is 'good for Israel'? This does, however, capture the We-and-Israel-are-all-that-matters mentality of ultra-Zionists. An FBI report said that one Israeli claimed the van was on the West Side Highway in New York at the time of the attack, but pictures were found of him and his colleagues at the scene where they were spotted cheering and filming. There was also a police report that another van was found with an extraordinary mural on the side. The incident is mentioned in a document by the Mineta Transportation Institute (MTI) at San Jose State University called 'Saving City Lifelines: Lessons Learned in the 9-11 Terrorist Attacks':

> A panel truck with a painting of a plane flying into the World Trade Center was stopped near the temporary command post. It proved to be rented to a group of ethnic Middle Eastern people who did not speak English. Fearing that it might be a truck bomb, the NYPD immediately evacuated the area, called out the bomb squad, and detained the occupants until a thorough search was made. The vehicle was found to be an innocent delivery truck.

Or *was* it? The original police report was recorded by Robert Stanford, Emergency Coordinator for the New York City District Amateur Radio Emergency Service, which taped hours of police and emergency service communications. An officer calls and reports:

> It's a big truck with a mural painted of an airplane diving into New York City and exploding. Don't know what's in the truck. The truck is in between 6th and 7th on King Street ... with a mural painted ... airplane ... diving into New York blowing up ... two men got out of the truck ... ran away from it, we got those two under ... got them under let's get some units ... we have both suspects under ... we have the suspects who ... drove the van – the van exploded ... we have both of them under ... let's get some help over here ...

Exploded? What on earth was that all about? And what happened to the two men arrested? Manhattan Fire Department Despatch was contacted by two separate fire units about the same 'truck bomb in King Street'. Television news reported that a van/truck full of explosives had been stopped with 'two or three occupants'. The Dancing Israelis were taken to Bergen County jail in New Jersey and then to the FBI Foreign Counterintelligence Section. Dominik Suter, the Israeli owner of Urban

Moving Systems in New Jersey, was questioned by the FBI and another interview was scheduled, but Suter fled to Israel before it could happen and he has since been reported to have returned to the United States clearly in the knowledge that the FBI would leave him alone. Suter apparently surfaced on the Internet in 2012 to say allegations about him were only being made to 'spread hate and anti-Semitism'. So bloody original. ABC reporters who went to Urban Moving Systems said it looked like people left in a big hurry. Cell phones were lying around, office phones were still connected, and the property of dozens of clients remained in the warehouse. Dominik Suter owned some 14 businesses in the United States in New Jersey, New York and Florida – locations that had been connected to an Israeli spy ring that I will describe shortly. Urban Moving Systems was given a $498,750 business loan from the Federal Government Assistance Program in June, 2001, that would never be repaid. New York-based Jewish publication *The Forward* would later report that Urban Moving Systems was a front for Mossad and two of the men were known Mossad agents. Victor Ostrovsky highlighted in his book eleven years earlier the 'hundreds' of 'shell companies' operated by Mossad worldwide 'with an address, a registered number, just waiting to come to life'. Many use Arabs as front owners and cover while Mossad and Israelis are really in control. Ostrovsky said Mossad even kept money in these companies, enough to file tax returns and avoid raising suspicions:

> At headquarters, five rooms were filled with the paraphernalia of dummy companies, listed in alphabetical order, and set up in a pull-out box. There were eight rows of shelves and 60 boxes per shelf in each of the five rooms. The information included a history of each company, all its financial statements, a history of its logo, who it was registered with, anything at all that a katsa [case officer] might be expected to know about the company.

The 'Dancing Israelis' were held in custody for visa fraud and questioned by the FBI for two months. They failed polygraph tests in which they tried to portray themselves as students. FBI agents believed that at least two of them were Mossad operatives and the others were surveillance volunteers. Documents found at the offices of Urban Moving Systems suggested they were focussing on the big Muslim community in Patterson, New Jersey. The mother of one of those arrested was quoted by Israeli daily *Haaretz* as saying the five had worked for the company for between two months and two years.

The cover-up

The Bush White House and ultra-ultra-Zionist Michael Chertoff, head of the [In]Justice Department's Criminal Division and with deep

connections to Israel, ordered the release of the five after 71 days in custody and they flew back to Israel after being accused only of 'passport violations'. Three of the five – not the Mossad Kurzberg brothers – appeared on Israeli television on their return and said they were there 'to document the event'. To 'document' an event on a single camera from the other side of the river when it was being filmed from all angles by the US mass media and broadcast around the world? And explain the high-fives, the laughing and cheering at a disaster for America that would lead to the deaths of thousands of people. If they were there before the first tower was hit how did they know it was going to happen? If they were there immediately after the strike (which they were at the *very* latest) how did they know it was a 'terrorist attack'? Even Michael Chertoff said that 'like many people at the time, I thought it was a pilot error'. Boy Bush claimed the same. Yet these Israelis somehow knew? An *ABC News* report in June, 2002, interviewed Vincent Cannistraro, former chief of operations for counterterrorism with the CIA, who said some of the names of the five Israelis appeared as 'hits' on an FBI national intelligence database. Journalist Christopher Ketcham, writing for *Counterpunch*, said Cannistraro told him that 'the FBI investigation operated on the premise that the Israelis had foreknowledge'. The *Bergen Record* in New Jersey quoted 'an investigator high up in the Bergen County law enforcement' as saying: 'It looked like they knew what was going to happen when they were at Liberty State Park.' Marc Perelman, a reporter with Jewish-American *The Forward* , a long-standing New York magazine for Jewish-Americans, said his sources claimed the Israelis admitted to the existence of a spy ring and apologised after American authorities confronted them at the end of 2001. Christopher Ketcham wrote:

> Before such issues had been fully explored, however, the investigation was shut down. Following what ABC News reported were 'high-level negotiations between Israeli and U.S. government officials', a settlement was reached in the case of the five Urban Moving Systems suspects. Intense political pressure apparently had been brought to bear. The reputable Israeli daily Haaretz reported that by the last week of October 2001, some six weeks after the men had been detained, Deputy Secretary of State Richard Armitage [Project for the New American Century] and two unidentified 'prominent New York congressmen' were lobbying heavily for their release.
>
> According to a source at ABC News close to the 20/20 report, high-profile [ultra-Zionist] criminal lawyer Alan Dershowitz also stepped in as a negotiator on behalf of the men to smooth out differences with the U.S. government. (Dershowitz declined to comment for this article.) And so, at the end of November 2001, for reasons that only noted they had been working in

the country illegally as movers, in violation of their visas, the men were flown home to Israel.

Ultra-Zionist Dershowitz, a massive supporter of Netanyahu, was on the legal team that secured an outrageous plea deal for ultra-Zionist billionaire paedophile Jeffrey Epstein which allowed him to avoid the long jail sentence which the charges should have involved. The five Dancing Israelis had the nerve to sue the US government in 2004 because 'their detention was illegal and their civil rights were violated, suffering racial slurs, physical violence, religious discrimination, rough interrogations, deprivation of sleep, and many other offenses'. Their lawyer was Nitsana Darshan-Leitner, founder of the Shurat HaDin Israel Law Center which is closely connected with the Israeli government. The Center is one of many Israel 'lawfare' operations around the world which target critics of Israel with lawsuits to intimidate them into silence. Israel-owned (to his bone marrow) Donald Trump would later talk about Muslims celebrating 9/11 that day in New York when they were actually Israelis who were certainly not acting alone. A 579-page report on the case was partly declassified in 2005 but won't be fully so until *2035*. Why? France-based journalist Hisham Hamza read through the declassified sections for his book *Israel and September 11: The Great Taboo*. Included were photographs confirming the Israelis' delight at what had happened and one said that 'the United States should now take steps to stop terrorism in the world.' Given that at least one witness saw them in position at 8am and others say that within five minutes of the North Tower strike they saw the group taking pictures – how did they know what was about to happen? A former Urban Moving Systems employee told the FBI, according to the report, that the atmosphere was fantastically pro-Israel and anti-American and director Dominik Otto Suter had said: 'Give us 20 years and we will seize and destroy your media and your country.' *The Record*, the newspaper of Bergen County in New Jersey, quoted an employee as saying the majority of his colleagues were Israeli and that they were happy about the attacks: 'I was in tears. These guys were joking and that bothered me.' The five Israelis arrested were in contact with another company called Classic International Movers and four of its employees were interviewed separately about links with the 19 alleged hijackers. One of them had called 'an individual in South America with genuine links to Islamic militants in the Middle East'. Was the cheering and whooping meant to appear to be by Arabs? Reports believed them at first to be 'Arabs' or 'Palestinians' and an anonymous call to police in Jersey City, reported by *NBC News*, described 'a white van with two or three guys on the inside, they look like Palestinians and they are circling around a building'. The caller said one of them 'is mixing things and he has a 'sheikh's outfit on ... He is

dressed like an Arab.' Journalist Paulo Lima, working for *The Record*, said that police sources he interviewed were convinced of Israeli involvement in the attacks. They told him:

> There are maps of the city in the car with certain places highlighted. It looked like they're hooked in with this. It looked like they knew what was going to happen when they were at Liberty State Park.

The Israeli US spy ring (and what else?)

Fox News reported that Israeli intelligence was involved in a major spying operation in the United States in 2001 and across 9/11 which involved the creation of front companies to hide the identity of Mossad agents who were coordinated via the Mossad station in Washington DC. These 'companies' operated in Florida (where most of the 'pilot hijackers' attended 'flight school'), California and New Jersey – home of 'Urban Moving Systems'. Florida seems to have been the main centre of Mossad operations and this is where 'Mohamed Atta' was located before 9/11. One of their cover stories was to pose as 'art students' and among them was 'art student' Hanan Serfaty who rented two apartments in Hollywood, Florida, close to where Atta lived. Once again Victor Ostrovsky had highlighted eleven years before how Israeli students are often used by Mossad for covert operations. The Mossad 'art student' intelligence scam was focussed on US military secrets and other information and surveillance and the story was told in a series of reports by Fox News in 2002. Israel had been famously caught spying on the US with the conviction of Jonathan Pollard, a former US government intelligence analyst, who was jailed for life in 1987 after he admitted passing a very large stash of classified information including nuclear secrets to Israel which, in turn, traded them on to the Soviet Union. This was in the period when Mossad operatives were keeping close surveillance on the United States and other countries through illegal 'back-door' software which I will be describing in more detail because it has key relevance to 9/11 and how the attacks were pulled off. Fox News reports (quickly deleted from their website) said that US agencies believed Israeli spies were at work again in 2001 and German newspaper *Die Zeit* also uncovered details of a major Israeli spy ring operating across America with some agents masquerading as art students trying to sell 'their' work. The UK *Daily Telegraph* reported the contents of a leaked 60-page internal report by the US Drug Enforcement Administration (DEA) which revealed that 200 young Israelis, among them former members of military intelligence units, had been arrested in the United States. The report was compiled in June, 2001, by the DEA's Office of Security Programs and was meant only for the eyes of senior officials at the [In]Justice Department. Someone leaked the document to

the media in December, 2001, and it was widely circulated by the following March. Israelis had used cover stories (we're 'art students') to gain access to sensitive government buildings and homes of American officials. The report said the actions 'may well be an organised intelligence-gathering activity'. *May?* Around 140 Israelis were arrested earlier in 2001 before the 9/11 attacks and another 60 afterwards. The DEA report said most of the 'students' admitted serving in units of the Israeli military 'specialising in military intelligence, electronic signals interception or *explosive ordnance*'. Expertise in explosives and computer programming was a common theme. Former Mossad agent Victor Ostrovsky reveals in *By Way of Deception* a level of Mossad operative known as 'combatants' who are recruited from the Israeli general public from all walks of life – doctors, lawyers, engineers, academics. He said most pose as Europeans and operate as every-day people doing every-day occupations:

> Many bridges in Arab countries had bombs planted in the concrete by combatants during their construction – all combatants are trained in demolition techniques. In the case of war, these bridges could be easily demolished by a combatant sent in to detonate the explosives.

Some of the arrested Israelis were linked to high-ranking officials in the Israeli military. One was the son of an Israeli general, another was a bodyguard to the head of the Israeli Army and a third served in a Patriot missile unit. Peer Segalovitz, one of those arrested, served in the 605 Battalion in the Golan Heights and 'acknowledged he could blow up buildings, bridges, cars, and anything else that he needed to', the DEA report said. 'That these people are now travelling in the US selling art seems not to fit their background.' Fox reporter Carl Cameron said that in the wake of 9/11 more than 60 Israelis had been arrested and detained under anti-terrorism laws or for immigration violations and among them were 'a handful of active Israeli military'. Some of those arrested had failed polygraph tests when asked if they were spying on and in the United States. Cameron said investigators suspected that Israel operatives could have gathered intelligence about the 9/11 attacks and not shared it with American authorities (see the bombing of the US base in Beirut in 1983). A 'highly-placed investigator' had said that there were 'tie-ins'. When asked to elaborate on this Cameron quotes the investigator as saying:

> Evidence connecting these Israelis to 9/11 is classified. I cannot tell you about evidence that has been gathered. It is classified information.

Massive US Mossad network

Cameron said that numerous classified documents obtained by Fox News indicated Israelis had been arrested or detained in a 'secretive and sprawling investigation into espionage by Israel in the United States'. This is the same Israel to which the American taxpayer hands over billions of dollars a year in 'aid'. What gratitude, eh? A report by the US General Accounting Office said: 'According to a US intelligence agency, country A (Israel) conducts the most aggressive espionage operation against the US of any US ally.' The *Washington Times* highlighted a report by the US Army School for Advanced Military Studies at Fort Leavenworth, Kansas, which called Mossad a 'wildcard ... ruthless and cunning ... [with the] capability to target US forces and make it look like a Palestinian/Arab act'. The *Washington Times* story was published on September 10th, 2001. Talk about prophetic. A Defense Intelligence report emphasised that Israel possessed the resources and technical capability to achieve its objectives. A working group of US agencies had been compiling evidence against Israel since the mid-1990s and hundreds of incidents had been logged in towns and cities across the country that 'may well be an organised intelligence-gathering activity', Fox reporter Cameron said. The first part of the Defense Intelligence investigation focussed on Israelis who said they were art students from the 'University of Jerusalem' who made repeated contacts with government personnel by saying they wanted to sell 'cheap art or handiwork' and they targeted and penetrated military bases, law enforcement including the FBI, and dozens of other government facilities. They did the same even with unlisted offices and private homes of law enforcement and intelligence personnel. Another part of the investigation led to the arrest of dozens of Israelis selling toys in 'mall kiosks' which was believed to be a front. The kiosks, in San Diego, Kansas City, Cleveland, Houston and St Louis, began to disappear after the Israeli arrests were reported by *The New York Times* and *Washington Post*. Israel denied spying on the US which was the same response they gave when Israeli spy Jonathan Pollard was caught and they later had to admit that Pollard was indeed spying for them. The Israeli authorities have a simple policy – lie until you have absolutely been proved to be lying and then, and only then, admit you lied. Journalist Christopher Ketcham wrote a detailed article for Salon.com in May, 2002, headed 'The Israeli "art student" mystery' and the sub-heading captured its conclusions:

> For almost two years, hundreds of young Israelis falsely claiming to be art students haunted federal offices – in particular, the DEA. No one knows why – and no one seems to want to find out.

Ketcham describes how, in January, 2001, the security branch of the US Drug Enforcement Administration began to receive a number of strange reports from DEA field offices across the country of young Israelis claiming to be art students and offering artwork for sale while attempting to penetrate DEA offices for more than a year. The Israelis had also attempted to penetrate the offices of other law enforcement and Department of Defense agencies. 'Strangest of all, the "students" had visited the homes of numerous DEA officers and other senior federal officials', Ketcham said. The DEA appeared to have been targeted in what it called an 'organized intelligence gathering activity'. In some cases, the Israelis had visited locations not known to the public and without street addresses, plus DEA offices not publicly identified. Authorities suspected that information had been gathered from prior surveillance or perhaps electronically, from credit cards and other sources. Ketcham said one Israeli was discovered holding banking receipts for close to $180,000 in withdrawals and deposits over a two-month period:

> Reports of the mysterious Israelis with an inexplicable interest in peddling art to G-men came in from more than 40 US cities and continued throughout the first six months of 2001. Agents of the DEA, ATF, Air Force, Secret Service, FBI, and US Marshals Service documented some 130 separate incidents of 'art student' encounters. Some of the Israelis were observed diagramming the inside of federal buildings. Some were found carrying photographs they had taken of federal agents. One was discovered with a computer printout in his luggage that referred to 'DEA groups'.

The Office of the National Counterintelligence Executive, a branch of the CIA, issued a warning to federal employees in March, 2001, about 'suspicious visitors to federal facilities' – 'employees have observed both males and females attempting to bypass facility security and enter federal buildings.' The warning said that Federal agents had 'arrested two of these individuals for trespassing and discovered that the suspects possessed counterfeit work visas and green cards'. Salon.com said it had established that none of the Israelis were enrolled in the art school most of them claimed to be attending and the other college where they claimed to be enrolled did not exist. Ketcham wrote:

> The 'art students' followed a predictable modus operandi. They generally worked in teams, typically consisting of a driver, who was the team leader, and three or four subordinates. The driver would drop the 'salespeople' off at a given location and return to pick them up some hours later. The 'salespeople' entered offices or approached agents in their offices or homes.

> Sometimes they pitched their artwork – landscapes, abstract works, homemade pins and other items they carried about in portfolios. At other times, they simply attempted to engage agents in conversation.
>
> If asked about their studies, they generally said they were from the Bezalel Academy of Arts and Design in Jerusalem or the University of Jerusalem (which does not exist). They were described as 'aggressive' in their sales pitch and 'evasive' when questioned by wary agents. The females among them were invariably described as 'very attractive' – 'blondes in tight shorts or jeans, real lookers,' as one DEA agent put it to Salon. 'They were flirty, flipping the hair, looking at you, smiling. 'Hey, how are you? Let me show you this.'

Agents noted that the 'students' made repeated attempts to avoid security personnel by trying to enter federal buildings through back doors and side entrances and suspicious agents visited at home noticed how the Israelis did not approach any of the neighbours. Anna Werner at KHOU-TV in Houston, Texas, reported that 'government guards have found those so-called students trying to get into [secure federal facilities in Houston] in ways they're not supposed to – through back doors and parking garages'. The 'students' had appeared at the DEA's Houston headquarters, at the Leland Federal Building in Houston, and even the federal prosecutor's office. They seemed to be monitoring the buildings. 'Guards at the Earle Cabell Federal Building in Dallas found one "student" wandering the halls with a floor plan of the site', Werner reported, and she said her sources had described a similar pattern at federal buildings in New York, Florida, and six other states, including '36 sensitive Department of Defense sites'. For more than 18 months the Israeli 'art students' were encountered with the same modus operandi in Atlanta, Chicago, Denver, Detroit, El Paso, Los Angeles, Miami, Orlando, New Orleans, Phoenix, San Diego, Little Rock, Seattle, Washington DC, Arlington, Texas, Albuquerque and 'dozens of other small cities and towns'. A former Defense Department analyst told Anna Werner that such activity suggested a terrorist organisation 'scouting out potential targets and ... looking for targets that would be vulnerable'. All this is incredible enough, but even more so is that the 'students' ended up being deported and not charged with the federal offences they were committing. The Web and Sabbatian-Frankists looks after its own. Six of the 'students' were reported to have cell phones purchased by a former Israeli vice consul to the United States. French daily *Le Monde* reported that two of the 'students' had travelled in a single day from Hamburg to Miami to visit an FBI agent in his home, then went on to Chicago and visited the home of an [In]Justice Department agent before taking a direct flight to Toronto. Hamburg was the alleged one-time location of 'student' 'Mohammed Atta' or Mohamed El-Amir. Highly suspiciously

the US [In]Justice Department tried to trash the story as an 'urban myth' and claimed the DEA report, or memo, was written by a 'disgruntled agent' when clearly this was not the case. Salon's Christopher Ketcham puts the 'urban myth' nonsense into its true perspective:

> The memo is a compilation of field reports by dozens of named agents and officials from DEA offices across America. It contains the names, passport numbers, addresses, and in some cases the military ID numbers of the Israelis who were questioned by federal authorities. Pointing a finger at the author is like blaming a bank robbery on the desk sergeant who took down the names of the robbers.

Salon approached agents named in the memo and all confirmed that the information was correct. It was a fantastic scoop for proper journalists, but they are a rare and dying species. The story was dismissed by the ultra-Zionist-owned *Washington Post* and ignored completely by the ultra-Zionist-owned *New York Times*. Ketcham notes that 'the *Post's* "debunking" and the *Times'* silence ... effectively killed the story'. The UK-based Jane's Information Group, an intelligence and military analysis service, said: 'It is rather strange that the US media seems to be ignoring what may well be the most explosive story since the 11 September attacks – the alleged break-up of a major Israeli espionage operation in the USA.' Not so strange if you know how The Web operates and the power and influence that the Sabbatian-Frankist and ultra-Zionist network has over the American government and media. Ketcham wrote:

> Some of the same pressures that keep government officials from criticizing Israel may also explain why the media has failed to pursue the art student enigma. Media outlets that run stories even mildly critical of Israel often find themselves targeted by organized campaigns, including form-letter emails, the cancellation of subscriptions, and denunciations of the organization and its reporters and editors as anti-Semites.
>
> [Fox News reporter] Cameron, for example, was excoriated by various pro-Israel lobbying groups for his exposé. Representatives of the Jewish Institute for National Security Affairs (JINSA), the Anti-Defamation League (ADL), and the Committee for Accuracy in Middle East Reporting in America (CAMERA) argued that the Fox report cited only unnamed sources, provided no direct evidence, and moreover had been publicly denied by spokesmen for the FBI and others (the last, of course, is not really an argument).

Carl Cameron's reports on the Israeli ring were deleted within four days from the news pages and archives by Fox along with all transcripts,

links and headlines. Robert Zimmerman, a Fox News spokesman, told *Le Monde* that this was normal when it most certainly wasn't. Zimmerman made an utterly lame excuse about 'bandwidth' on the news pages but when told the report series was also gone from the archives he said: 'I don't know where it is.' How absolutely appropriate that the Israeli government spokesman quoted by Salon denying the 'spy ring' story was Mark Regev, a long-time Netanyahu mass murder apologist and Israeli ambassador in London when embassy asset Shai Masot was plotting to 'take down' a British government minister over criticism of Israel. Regev, who changed his name from Mark Freiberg, was a spokesman at the Israeli embassy in Washington at the time of 9/11 and the 'spy' ring. Regev told Salon that 'no American official or intelligence agency has complained to us about this'. They wouldn't dare, but this was his best line: 'Israel does not spy on the United States.' As lies go they don't get much more bare-faced. How about the 1996 US General Accounting Office report which said that Israel 'conducts the most aggressive espionage operation against the United States of any U.S. ally' or the 1997 Defense Investigative Service memo warning that 'Israel aggressively collects [US] military and industrial technology' and 'possesses the resources and technical capability to successfully achieve its collection objectives'? How about Jonathan Pollard? Is Regev lying? Are his lips moving?

Mossad and 9/11 'hijackers' – the Florida connection

Israel's 'spying' operation was said to be keeping surveillance on suspected Muslim terrorists in the United States, but if that was the case why would they appear so often at locations relating to the Drug Enforcement Administration and at homes of government and military personnel? Indications emerged in DEA investigations of some connections to drug-trafficking and that would make sense with Mossad and the CIA heavily involved in this trade and 9/11 'lead hijacker' Mohamed Atta working with drug-trafficking through Venice Airport in Florida. Fox reporter Carl Cameron said he was told that a lot of information had been pieced together to strongly suggest that the Israelis knew about 9/11 beforehand. He quotes one intelligence source as asking 'how could they not have known?' This would explain the behaviour of the 'Dancing Israelis'. German weekly *Der Spiegel* reported:

> An entire troop of Israeli terror investigators disguised as students took to the tracks of Arabic terrorists and their cells in the USA between December 2000 and April 2001. During their undercover investigations, the Israelis came very close to the later perpetrators of September 11. In Hollywood, Florida they located both of the former Hamburg students and later terrorist pilots Mohamed Atta and Marwan al-Shehhi as potential terrorists. Agents settled

> down in immediate proximity of their apartment and observed the seemingly normal flight school students around the clock.

Here we have Mossad agents specifically living near and staking out the very people who would later be – wrongly – blamed for the 9/11 attacks. *What?* The idea that this all ended in April, 2001, is simply not believable when Mossad agents and operatives were on the scene of the attacks to film and celebrate. The spin when news of the Israeli 'hijacker' surveillance came to light was that Mossad handed over details of the 'hijackers' to American authorities in August, 2001 (why the wait since the April?), but they did not pass on specifics only vague possibilities (Mossad modus operandi). Investigative journalist Christopher Bollyn highlights the Israeli and Mossad connection to Florida which he calls 'the central networking base and staging area for the "false flag" terror attacks of 9-11'. How clear this is with 15 of the 19 alleged 'hijackers' based in southern Florida where the Israeli 'spy ring' was also based. Is this yet another coincidence? Florida's governor at the time was Boy Bush's brother, the Israel fanatic, Jeb Bush. A secret government report sourced to the Drug Enforcement Administration (DEA) identified Florida and the small city of Hollywood (ten miles from Fort Lauderdale and 20 from Miami) as the centre of the Mossad 'art student' ring: 'The Hollywood, Florida, area seems to be a central point for these individuals with several having addresses in this area.' Yes – the same area that 9/11 'lead hijacker' Mohamed Atta lived in the same period and the location with connections to 15 of the 19 alleged 9/11 'hijackers'. Christopher Ketcham wrote in his Salon article:

> One Israeli was discovered holding banking receipts for substantial sums of money, close to $180,000 in withdrawals and deposits over a two-month period. A number of the Israelis resided for a period of time in Hollywood, Fla, – the small city where Mohammed Atta and three terrorist comrades lived for a time before Sept. 11.

Intelligence Online, a Paris-based espionage publication, reported in detail on the DEA report and said that more than a third of the students located in 42 cities lived in Florida and most notably in Hollywood and nearby Fort Lauderdale. Hanan Serfaty, a 'former' Israeli military intelligence officer, sorry 'art student', rented two Hollywood apartments close to the mail drop and apartment of Mohamed Atta and other alleged 'hijackers'. Serfaty rented an apartment at 4220 Sheridan Street and 701 South 21st Avenue in Hollywood. Atta's mail-drop was at 3389 Sheridan Street and he lived with Marwan al-Shehhi, alleged 'pilot' on Flight 175, in a rented apartment at 1818 Jackson Street close to South 21st Avenue. Christopher Ketcham points out that Hollywood, just

north of Miami, was home during 2001 to nine alleged 'hijackers' with six in the surrounding area and that among the 120 suspected Israeli spies posing as art students more than 30 lived in the Hollywood area with ten in Hollywood itself:

> As noted in the DEA report, many of these young men and women had training as intelligence and electronic intercept officers in the Israeli military – training and experience far beyond the compulsory service mandated by Israeli law. Their 'traveling in the U.S. selling art seem not to fit their background', according to the DEA report.

The same coincidence can be found in New Jersey as Ketcham highlighted in his *Counterpunch* article which, despite this background, accepts the official 9/11 story:

> All five future hijackers of American Airlines Flight 77, which rammed the Pentagon, maintained addresses or were active within a six-mile radius of towns associated with the Israelis employed at Urban Moving Systems. Hudson and Bergen counties, the areas where the Israelis were allegedly conducting surveillance, were a central staging ground for the hijackers of Flight 77 and their fellow al-Qaeda operatives.
>
> Mohamed Atta maintained a mail-drop address and visited friends in northern New Jersey; his contacts there included Hani Hanjour, the suicide pilot for Flight 77, and Majed Moqed, one of the strongmen who backed Hanjour in the seizing of the plane. Could the Israelis, with or without knowledge of the terrorists' plans, have been tracking the men who were soon to hijack Flight 77?

No wonder that Ketcham says that 'in retrospect, the fact that a large number of "art students" operated out of Hollywood is intriguing, to say the least'. Now, as coincidences go, these really are major league:

> In fact, an improbable series of coincidences emerges from a close reading of the 2001 DEA memo, the 9/11 Commission's staff statements and final report, FBI and Justice Department watch lists, hi-jacker timelines compiled by major media and statements by local, state and federal law enforcement personnel.
>
> In at least six urban centers, suspected Israeli spies and 9/11 hijackers and/or al-Qaeda-connected suspects lived and operated near one another, in some cases less than half a mile apart, for various periods during 2001 in the run-up to the attacks. In addition to northern New Jersey and Hollywood, Florida, these centers included Arlington and Fredericksburg, Virginia; Atlanta; Oklahoma City; Los Angeles; and San Diego.

Statistical chance alone rules out coincidence and puts 9/11 into a whole new context. What's more we are only just beginning to expose the evidence that implicates Israel and its Sabbatian-Frankist control network.

Mossad patsies?

Were the 'hijackers' really assets – patsies – of Mossad (along with Sabbatian-Frankist elements of US agencies)? I say they were and almost certainly had no idea what they were being set up for. Ali al-Jarrah, a Lebanese cousin of alleged 9/11 hijacker Ziad Jarrah (Flight 93), was recruited by Israeli intelligence in 1983 after the 1982 Israeli invasion of Lebanon. *The New York Times* reported how he spied for Mossad in Lebanon and Syria for 25 years and communicated his findings by satellite phone. He also visited Israel on an Israeli passport and is reported to have been paid hundreds of thousands of dollars. His brother Yusuf is claimed to have helped him before Ali al-Jarrah ended up in a Lebanese jail for betraying his country. Until his work for Israeli intelligence was uncovered al-Jarrah appeared to friends to be 'an earnest supporter of the Palestinian cause'. His friends and colleagues were said to be 'in shock over the extent of his deceptions: the carefully disguised trips abroad, the unexplained cash, the secret second wife'. Many Arabs have been caught over the years working for Israel with a substantial number subjected to blackmail or avoiding long jail sentences. Threats to families will be in there, too, for sure. Journalist Robert Freidman wrote in *The Village Voice* that 'Ahmad Ajaj, a 27-year-old West Bank Palestinian being held in federal custody for conspiring to bomb the World Trade Center [in 1993], may have been a Mossad mole, according to Israeli intelligence sources'. Freidman, writing six months after the bombing, said Ajaj was convicted for counterfeiting in Israel and sentenced to two-and-one-half years. He quoted Israeli intelligence sources as saying Ajaj was recruited by Mossad at this time. Ajaj was released after just one year and suddenly became a 'radical Muslim' when before he was just a 'petty crook'. He was then arrested for smuggling weapons into the West Bank. Friedman said:

> ... Israeli intelligence sources say that the arrest for weapons smuggling, and Ajaj's subsequent torture and deportation, were staged by Mossad to establish his credentials as an intifada activist. Mossad allegedly 'tasked' Ajaj to infiltrate radical Palestinian groups operating outside Israel and to report back to Tel Aviv. Israeli intelligence sources say that it is not unusual for Mossad to recruit from the ranks of common criminals [it makes them feel at home].

This is how espionage works. Nothing is ever what it seems. It could

well be that the wide-ranging and often not very subtle behaviour of most of the Israeli 'art students' was meant to be a diversion and cover for the real deal going on behind that smokescreen. The truth about the alleged 9/11 'hijackers' in terms of their movements will never be truly known because of the potential use of doubles, identity swaps, fake passports and so on – all of them signatures of Mossad and other intelligence agencies. I mentioned earlier how the Florida *Sun-Sentinel* reported 17 days after the 9/11 attacks:

> At least six of the suspected terrorists had two sets of driver's licenses issued by Florida, which would have allowed two or more people to use the same identity ... Many of the suspected terrorists, it is becoming increasingly clear, swapped identities as part of their preparations for the Sept 11 attacks on the World Trade Center and the Pentagon, according to a Sun-Sentinel review of documents, interviews and published reports.

How would a double know that he had a double and how would they know if someone else was using false documents purporting to be them?

Bollyn's experience

9/11 investigator Christopher Bollyn recalls how he stayed at a hotel in Miami in 2006 located among under-construction hotels being built by Donald Trump and his ultra-Zionist Israeli-American partners of Russian-descent, Michael and Gil Dezer (Dezertzov). The Dezer family are financial supporters of the Israeli Defense Forces. Bollyn went for a walk with his wife and found a beach store called Wings. The logo reminded him of the 'wings' worn by Israeli pilots and his wife noticed a computer screen filled by an image of the Israeli flag. He asked a Middle-Eastern-looking man behind the counter if he was from Israel and he confirmed that he was and that the store was Israeli-owned. Bollyn only ever saw young men of military age working at the store and they were the same age-group as those Israeli-operatives masquerading as 'art students'. Wings had a large warehouse attached to the store – unlike most beachwear outlets – with two trucks parked at the side of the building. Bollyn observed in *Solving 9- 11*:

> Every time we walked by the Wings store we never saw any customers; the store was always empty. This seemed odd because they must have had very high overhead costs. Nothing about this store made sense. It seemed to me more like a logistics base that operated a beachwear store as a front, not unlike the shuttered Urban Moving Systems outfit I had visited in Weehawken, New Jersey.

Bollyn later established that Israeli-owned Wings had 'a whole chain' of stores in Florida and the East Coast as well as Texas and the West Coast. Their corporate office and warehouse was on a low-rent industrial park at 2800 NW 125th Street in Miami in a building shared with a company selling art products – Empire Art Products Inc. Bollyn discovered that the founders of Wings were two Israelis, Shaul and Meir Levy, and that they had both met in New York the day before 9/11 with Ehud Olmert, then Mayor of Jerusalem and later Israel Prime Minister. Olmert's parents were a founding family of the Irgun terror group. He was convicted of corruption in 2015 over charges related in part to his time as Jerusalem mayor. Olmert's visit to New York was unreported apart from a sports news item three years later in *The Jerusalem Post* that said he had met the Levys in New York on September 10th over the sale of an Israeli football club. It's a heck of a coincidence and didn't Olmert tell his friend, New York mayor and Israel arse-licker Rudolf Giuliani, that he was coming? Surely New York police were told? Why no mention in the media? The same question must be asked about a report by investigative journalist Wayne Madsen who said two sources with the Israeli airline El Al (not Israeli nationals) had told him that an El Al Boeing 747 took off from New York's JFK Airport at 4.11pm on the afternoon of September 11th heading for Ben Gurion International Airport in Tel Aviv. This was hours *after* the FAA had grounded all civilian aircraft incoming and outgoing across the whole of the United States. The same happened with the Bin Laden family who were allowed to leave the US for Saudi Arabia that same day from Boston Logan after all flights were grounded. Was Olmert on that EL Al flight? Who else was on board the jumbo jet? Wayne Madsen said his sources reported that the Israeli flight was authorized by the direct intervention of the US Department of Defense and that 'US military officials were on the scene at JFK and were personally involved with the airport and air traffic control authorities to clear the flight for take-off'.

Connections between Israel, Mossad and 9/11 are already clear and blatant and there is so much more to come.

* See Dancing Israeli updates in the Postscript at the end of the book.

CHAPTER 24

Just a coincidence? (2)

He who passively accepts evil is as much involved in it as he who helps to perpetrate it. He who accepts evil without protesting against it is really cooperating with it – Martin Luther King

Orchestrating the attacks of 9/11 would have meant access and control of US government, military and Federal Aviation Administration (FAA) computer and communication systems and that is precisely what Death Cult-controlled Israel and its Mossad intelligence network had the ability to do.

Many arrested in the Israeli 'spy ring' investigation were employed by Israeli software companies, Amdocs and Nice Systems. Amdocs is a 'private' (yeah, right) Israel-based telecommunications company which had contracts with the 25 biggest phone companies in America and others around the world. Fox News reporter Carl Cameron said that it was virtually impossible to make a call without Amdocs keeping a record. Nice Systems was another Israeli software company connected with those arrested for 'spying'. Israeli 'art student' Tomer Ben Dor worked for Nice Systems – its American subsidiary is located in Rutherford, New Jersey, a few minutes from East Rutherford where the 'Dancing Israelis' were arrested on 9/11. Ben Dor was found with a computer file print-out referring to 'DEA Groups' while he was employed by an Israeli wire-tapping company?? Brigadier General Shlomo Shamir became Nice President and CEO in April, 2001. Shamir led the planning division at the Israeli IDF military headquarters and was Israel's military attaché to Germany. Mossad specialises in creating and controlling telecommunication, Internet and high-technology companies for obvious reasons and some that are not so obvious which I will reveal later. Carl Cameron said that Amdocs had been investigated a number of times and the National Security Agency (NSA) had issued a private warning to other agencies – and held conferences – to say that American phone records were getting into foreign hands – *Israel*. An NSA document warned against America's dependency on oversees technology for telecommunications:

Many factors have led to increased dependence on code developed oversees.

[We] buy rather than train or develop solutions.

They were talking about Israel. Ultra-Zionist 'art student' Michal Gal, arrested by DEA investigators in Texas, was released on a $10,000 cash bond thanks to Ophir Baer, an employee of the Israeli software company Amdocs. An Amdocs internal memo said phone information the company was compiling could be used along with 'spread data mining techniques and algorithms ... [to combine] both the properties of the customer (i.e. credit rating) and properties of the specific behaviour' (such as who the customers are calling and who is calling them). This is a long-standing technique of Israeli surveillance with data from different sources connected together to establish the big picture about a person or situation. The same Israeli focus on control and surveillance via high-technology has led to its domination of information and surveillance based in the Devil's Playground – Silicon Valley. Have a look at who runs Google, YouTube and Facebook for a start and ask how statistically likely it is that this would happen by chance. Israel, a tiny country in both population and geography, has positioned itself at the cutting edge of technology to the point where it is known as the 'start-up nation'. Israel is second in the world only to the United States for start-up companies and only America and China are ahead for companies quoted on the Nasdaq stock market. All this has happened on a sliver of land with eight million people. Israel's prime focus is on technology and 'cyber-security' (cyber infiltration). A *Vice* documentary captured the situation in its title – 'How Israel Rules The World Of Cyber Security'. Israel is basically a military state with the military-intelligence network at the centre of everything – and most definitely with cyber-technology. One of the biggest branches of the Israeli military is the Cyber Intelligence Unit headquartered in the desert-city of Beersheba and involving some 20,000 'cyber soldiers'. The headquarters represents the biggest infrastructure project in Israel's history (Fig 141). Here is located the army of Israeli Internet trolls seeking to appear like members of the public around the world and in the same area as this vast military cyber-hub are a long list of 'private' companies and technology giants. Intel, Microsoft, IBM, Google, Apple, Hewlett-Packard, Cisco Systems, Facebook and Motorola have research and development centres in Israel.

Figure 141: The new Beersheba centre of Israel's military and domestic (military) control of cyber space.

Techcrunch.com ran an article about this global Internet technology centre headed 'Israel's desert city of Beersheba is turning into a cybertech oasis':

> The military's massive relocation of its prestigious technology units, the presence of multinational and local companies, a close proximity to Ben Gurion University and generous government subsidies are turning Beersheba into a major global cybertech hub.
>
> Beersheba has all of the ingredients of a vibrant security technology ecosystem, including Ben-Gurion University with its graduate program in cybersecurity and Cyber Security Research Center, and the presence of companies such as EMC, Deutsche Telekom, Paypal, Oracle, IBM, and Lockheed Martin. It's also the future home of the INCB (Israeli National Cyber Bureau); offers a special income tax incentive for cyber security companies, and was the site for the relocation of the army's intelligence corps units.

Israel's emerging global role in cyber technology and control will be mightily important in the closing chapters as well as shortly in relation to 9/11. We need to define the term 'cyber security' as applied to the Israeli military and Mossad and in true Orwellian fashion all you need to do is reverse the generally accepted meaning. 'Cyber security' appears to mean protection of computer systems, but to Israel it means breaching security protection to gain anytime access to those systems. To 'protect' you need to be given or even design all protection codes and with that knowledge you can access them whenever you want. It really is that simple. In this way 'little' Israel has access to all government, military, intelligence, financial, corporate and air traffic computer systems using its software – which is now much of the world. Imagine the potential for amassing almost limitless wealth alone by tapping into financial and business records and controlling events by blackmailing companies and individuals with the information you have downloaded from their computers. They can access government records, intelligence, military and police databases and steal corporate technology secrets to increase their own cyber-domination. The Israeli military trawls schools, colleges and universities for cyber talent and recruits them for military operations during their period of conscription before sending them out into 'private' (military-Mossad-connected) companies around the world (especially in the United States) to continue to work on Israel's behalf. The elite cyber and intelligence team is known as Unit 8200 which specialises in hacking into computer systems of other countries, inserting viruses, gathering information, instigating malfunction and even taking control of them from a distance. This is very relevant to 9/11 as we shall see. The Stuxnet virus which caused substantial damage to

Iran's nuclear programme and other computer systems worldwide is an Israeli cyber weapon – one of many and increasing all the time. Israel's control of major and not so major cyber technology companies allows 'back-doors' to be covertly-inserted into systems used by governments, military and public throughout the world and through these access points the Israel military and intelligence networks can infiltrate and take control. Israel doesn't make cars but dominates the manufacture of vehicle computer and WIFI systems. Through these connections an external operator can take over and drive you at high speed into a wall, a tree or over a cliff. The *Vice* documentary shows how easy it is for them to take control of your car using Israeli-created technology now fitted as standard. What else can be taken over through computer access? *Aircraft.* The world is dominated today in every area by what happens in cyberspace with the 'Internet of Things' connecting almost every facet of human life to the centrally-controlled Internet. He who controls cyberspace controls the world and every facet of human life – and Israel's Sabbatian-Frankist Death Cult to a large extent controls cyberspace and they are working to make that control complete. Sleep well. I will come to the 'endgame' consequences for the world of this Sabbatian-Frankist control of cyberspace out of Israel in the final chapters. The information is both shocking and profound for human freedom and makes absolute sense of past and current events.

Intel Inside

Intel Corporation which provides processors ('brains' or central processing units) for some 80 percent of the world's computers has a massive and ever-increasing presence in Israel. The company's first development centre outside America was opened in Haifa in 1974 (Microsoft's first overseas centre was also in Israel). The late Hungarian-born Zionist-American businessman Andrew S. Grove (born András István Gróf) is credited with the company's incredible success and he was named *Time* magazine Man of the Year in 1997. Grove was Intel president (1979–97), CEO (1987–98), chairman (1997–2005) and a funder of the ultra-Zionist Southern Poverty Law Center (SPLC). Today Intel employs thousands of people in its Israeli arm and in early 2019 announced investment of another $11 billion to build a new manufacturing facility in Israel with the government donating a major sum to the global giant while Holocaust survivors live in economic deprivation. Intel's Israel chief Yaniv Garty was named one of the country's most influential people by business and financial newspaper *The Marker* which included 20 tech 'luminaries' in its top 100 most influential Israelis. Al-Awda, the Palestine Right to Return Coalition, points out that the Intel operation north of Beersheba is built on land Israel confiscated from the Palestinian villagers of al-Faluja and Iraq al

Manshiya where thousands of people were living. They were terrorised out of their homes which were razed to the ground for the Jewish settlement of Kiryat Gat. Members of an American Quaker relief mission documented the violence they witnessed including a man with 'two bloody eyes, a torn ear, and a face pounded until it was blue'. UN observers reported beatings, robberies and attempted rape on civilians by Israeli soldiers. The villagers have never been allowed to return. Israel is not racist, though, only everyone else. The Electric Intifada website reported in 2008 the following concern of Israeli authorities about Kiryat Gat:

> ... the local authorities in Kiryat Gat are focused on preventing yet another kind of 'disaster', as they put it: Jewish girls taking up with Bedouin boys. So common has this phenomenon become that the municipality last year convened an 'emergency' conference to address it. The upshot: a program run by the municipal welfare department, with support from the police, that sends speakers into public school classrooms to warn girls about the dangers they face from Arab boys. The curriculum even includes a 10-minute video entitled 'Sleeping with the Enemy'.

Anti-racist racism is never a pretty sight. Intel was in the news in 2019 when computer experts claimed its chips are hiding mysterious and 'undocumented' technology. Analysts from London-based Positive Technologies alleged that Intel chips and processors contain a 'logic signal analyser' which can read 'almost all data on a computer'. This theme of 'back-door' access to computer systems is going to be highly significant to 9/11 and global control from here to the end of the book. Maxim Goryachy and Mark Ermolov revealed their findings at the Black Hat Conference of hackers and cybersecurity experts in Singapore. They said they discovered the 'analyser' (known as VISA) in the Platform Controller Hub (PCH) on Intel motherboards and the main processor itself. These comprise the 'brain' of the computer and potentially VISA technology can allow external access to information stored in the memory and also to connected items such as a webcam or mouse. One report of the story said:

> This ability would be useful to hackers looking to steal information – as well as spies or anyone else interested in stealing sensitive information. Normally, VISA is turned off in commercial systems. Yet the researchers claimed to have found a way to switch it on.

You will see as we proceed the significance of this and the significance of Israel being a global centre for cyber-technology and control in relation to both current events and 9/11.

Israel: Breaking a PROMIS

We can pick up the story of Israel's domination of cyber-technology and its relevance to 9/11 in the 1970s when a Washington DC software company called Inslaw developed tracking technology with the potential for prosecutors to monitor case records. This was dubbed the Prosecutor's Management Information System or PROMIS and was backed by funding from the US Department of [In]Justice. PROMIS user contracts stipulated that the software could not be modified, distributed to others or any derivative versions made. Instead the US National Security Agency (NSA) and other government departments sold PROMIS software to banks and foreign intelligence networks with a built-in 'back-door' that allowed US intelligence to spy on the operations of purchasers. Among the countries involved were Israel, Egypt, Jordan, Iraq and Canada. A letter from the US Department of [In]Justice dated 1985 was secured by Inslaw during its court proceedings against the US government for breaking the terms of contract through among other things modifying the software. The letter revealed that conduits for PROMIS sales by the government included Saudi billionaire Khalid bin Mahfouz and the arms dealer Adnan Khashoggi. Yes, yes, the same Khalid bin Mahfouz, operations director and 20 percent shareholder of the Bank of Credit and Commerce International (BCCI), close associate of the Bush family and named by the United States government as a financial supporter of Osama bin Laden. The government letter secured by Inslaw said that PROMIS should be delivered without 'paperwork, customs, or delay', and payments channelled through a Swiss bank account. Edwin Meese, Attorney General during the Reagan-Father Bush administration, and Dr Earl Brian from the government consultancy firm Hadron were apparently designated to sell the illegal 'back-door' version of PROMIS. A 1992 House Judiciary Committee report revealed that they were allowed to do this 'for their personal financial gain and in support of the intelligence and foreign policy objectives of the United States'. Earl Brian was also the head of Infotechnology Inc, a New York holding company that controlled among many other companies, United Press International (UPI), and the Financial News Network (FNN). He would later be jailed on fraud charges unrelated to PROMIS.

Earl Brian was apparently given crucial help in circulating the back-door PROMIS by Rafi Eitan, a top Israeli intelligence officer and former head of LAKAM, an intelligence operation connected to Israel's nuclear weapons programme – the open secret that it ludicrously won't confirm or deny. The truly appalling Eitan was central to the PROMIS scam and its back-door access to government and other computer systems around the world. He was also an advisor to MI6 on counter-terrorism (love it)

in Northern Ireland during the Margaret Thatcher premiership in the 1980s. This ended with his involvement in the shoot-to-kill operation in Gibraltar in 1985 when three members of the Irish Republican Army (IRA) were killed by the British elite military unit, the SAS. Shoot-to-kill with no legal oversight is typical of Israeli Mossad. Another Mossad operative involved with PROMIS was the infamous crook, sorry, 'businessman and publisher', Robert Maxwell, nicknamed Captain Bob and the Bouncing Czech. His daughter Ghislaine has been accused of procuring young girls for the paedophile ring of ultra-Zionist billionaire child-abuser Jeffrey Epstein in the United States who is big mates with the rich and famous including Bill Clinton and Britain's Prince Andrew. The Maxwells are a lovely family apparently. Investigative writer Gordon Thomas interviewed many senior officials of Israeli intelligence for his book, *Gideon's Spies – The Secret History of the Mossad*, including Rafi Eitan. Thomas said in a sworn affidavit that Maxwell sold $500 million worth of illegal back-door PROMIS to the 'UK, Australia, South Korea, Canada and the KGB in the Soviet Union'. Former Mossad agent Victor Ostrovsky describes in his book, *The Other Side of Deception*, how Maxwell was murdered by Mossad at sea on his yacht when he became more of a hazard than a help as his business empire collapsed which included his ownership of Britain's Mirror newspaper group. Maxwell was then buried by the country that killed him on the Mount of Olives in Jerusalem – the 'resting place for the nation's most revered heroes', as Ostrovsky puts it. The hypocrisy is breathtaking. A small cabal in the know about back-door PROMIS in both Israel and the United States sold it all over the world to intelligence agencies, government departments and law enforcement giving them global access to people-tracking data. The apartheid regime in South Africa employed PROMIS to identify black activists and dissidents who would then disappear.

Long story short – Israel secured back-door PROMIS access to the government-military-intelligence computer systems of the United States and so knew pretty much everything the US knew. A House Judiciary Committee investigation revealed in 1992 that 'a foreign power – the state of Israel – had been engaged in active espionage against the United States by the illegal use of the Enhanced PROMIS software'. This has since become massively more widespread and sophisticated as Israel has dominated cyberspace ever more totally and it spies on the spies in countries all over the world, especially the United States. PROMIS took this espionage against the American state to a whole new level at that time and no wonder Israeli intelligence was a central player in what happened to PROMIS software and how it was later used. This is highly significant given that PROMIS-like software access to government, military and civil aviation computer systems is centrally connected the attacks of September 11th. Ari Ben-Menashe was a former agent with

Israeli intelligence, served for twelve years in the Israel Defense Forces and was intelligence consultant to terrorist Prime Minister Yitzhak Shamir. Ben-Menashe said that PROMIS was given by the US government to the Israel Defense Forces Intelligence Unit and court files in the Inslaw case reveal the plan was to access computer systems of those who had purchased the software. This Israel-American connection would have been Sabbatian-Frankist in nature. Ben-Menashe said in an Inslaw affidavit that he was present at a meeting in Tel Aviv in 1987 when Earl Brian was pitching PROMIS to Israel officials. Two courts ruled in favour of Inslaw in 1988 and said that the US government 'took, converted, stole' PROMIS 'through trickery, fraud and deceit', but amid the most blatant corruption the verdict was overturned by a court of appeal on the grounds of a 'jurisdictional technicality'. Such is the power over the courts by the Hidden Hand. The PROMIS story was a sign of things to come as Israel's control of cyberspace continued to develop in the run-up to 9/11.

Israeli tech-matrix

Comverse Infosys (which changed its name to Verint in 2002) is another Israeli telecommunications company in the United States highlighted in the Fox News report after 9/11 and this company was providing phone-tapping technology to the FBI and other law enforcement. The potential for blackmail through tapped calls is obvious and the ability to stay one-step ahead of any law enforcement investigation. Comverse was established in the early 1980s by three Israelis, investment banker Jacob 'Kobi' Alexander, engineer Boaz Misholi, and Columbia University computer science professor, Yechiam Yemini, who was Alexander's brother-in-law. The Israeli company was phone-tapping for US law enforcement and *retaining access through its computers to the call-tap information.* Reporter Carl Cameron said that US intelligence agencies were concerned about 'back-doors' (here we go again) in the technology. The report said that Comverse worked closely with the Israeli government which under 'special programmes' paid half the company's research and development costs. This is typical of the seamless connection between Israeli tech companies and Israeli government, military and intelligence networks. Cameron said he was told that to question if Comverse was involved in spying for Israel was 'career suicide' for investigators and the technology had never been checked for leaks. Is it not worth asking why 'tiny' Israel so terrifies politicians, intelligence operatives and media the world over that they stay silent in the face of its outrageous behaviour? FBI personnel responsible for awarding contracts to Comverse later ended up working for the company – something that should have been banned in any fair and open system. Cameron also said that what most troubled investigators

into 9/11 was the number of cases in which supposedly *secret* wire-taps led to the people involved immediately changing their means of communication. Intelligence agencies and organised crime have a very close relationship and in fact much of what intelligence agencies do *is* organised crime. Mossad and Israeli-Zionist organised crime – like the Kosher Nostra in New York and the wider United States – are absolutely the same thing. Documents obtained by Fox for the Cameron reports describe how Israeli organised crime operating in Israel, Egypt, New York, Miami, Las Vegas and Canada was being investigated in 1997 for cocaine and ecstasy trafficking along with credit card and computer fraud, but there was a problem. The Israeli crime syndicate had the police beepers, cell phones and home phones *under surveillance.* Investigators concluded that the syndicate 'has apparent extensive access to identify pertinent personal and biographical information'. The Fox News reports were deleted from their website and not another word has ever appeared despite Israel penetrating the entire US government communication and computer system to the point where through PROMIS and later systems they could use the covert back-doors to change information at will – including in real time. Think about the potential of that on 9/11. Pointing the finger at Russia for hacking US government and election systems is simply cover for Israel doing that on an industrial scale. Odigo is yet another Israeli telecommunications company and instant messaging service and has offices near the World Trade Center. I have explained how Israel-based Odigo employees were sent a warning two hours before the first tower was hit that some sort of attack was imminent. Odigo vice president Alex Diamandis said: 'The messages said something big was going to happen in a certain amount of time and it did – almost to the minute.' CEO Micha Macover said that immediately after the attack the two told the company about the warning and Israeli security services were then informed who told the FBI. Macover said: 'I have no idea why the message was sent to these two workers who don't know the sender. It may just have been someone who was joking and turned out they accidentally got it right.' So why hasn't the sender been found?

Israeli tech innovator and trained assassin on Flight 11

A point widely missed with 9/11 is that the first person reported to have been killed on Flight 11 according to flight attendant calls was 31-year-old Daniel Lewin, an American-Israeli co-founder of multi-billion dollar cloud services and cyber-security company Akamai Technologies which is headquartered in Cambridge, Massachusetts. Lewin, who was said to be sitting very close to alleged 'hijackers' Mohamed Atta, Abdulaziz al-Omari and Satam al Suqami in seat 9B, was a captain in the Israeli Defense Forces who served in the elite specialist counter-terrorism,

hostage rescue and assassination operation known as the Sayeret Matkal or General Staff Reconnaissance Unit. This is modelled on the British elite SAS and adopted the same motto of 'Who Dares Wins'. Lewin was the subject of a book entitled *No Better Time: The Brief, Remarkable Life of Danny Lewin, the Genius Who Transformed the Internet.* He was an Israeli-American duel citizen who understood Arabic. Lewin was acclaimed as a hero of 9/11 for tackling the 'hijackers' before being overpowered. This is said to have happened to a man who could bench-press 315 pounds and squat close to 500 pounds. By his own account he was 'trained to kill terrorists with a pen or credit card' or just his bare hands. He was, to get straight to the point, a trained assassin. Somehow we are told he was overpowered by slightly built 'hijackers' as were other huge men said to be on the planes. The official 9/11 account is that Lewin was stabbed which overrode an internal FAA memo on September 11th that said he was shot by a single bullet:

> The American Airlines FAA Principal Security Inspector (PSI) was notified by Suzanne Clark of American Airlines Corporate Headquarters, that an on board flight attendant contacted American Airlines Operations Center and informed that a passenger located in seat 10B shot and killed a passenger in seat 9B ... The passenger killed was Daniel Lewin, shot by passenger Satam Al Suqami. One bullet was reported to have been fired.

The report was later changed from being shot to being stabbed. Childhood friend Brad Rephen who served with Lewin in the Israel Defense Force said: 'With his training, he would have killed them with his bare hands ... I can tell you, their knives would not have stopped him ... He would have taken their knives or their box cutters away and used them against them.' Rephen said Lewin 'knew how to fight with knives and take knives away from people.' The Akamai Technologies website makes it clear what a signigicant internet delivery and security operation Lewin co-founded:

> As the largest distributed platform operating at the edge of the Internet, Akamai provides a defensive shield built to protect your websites, mobile infrastructure, and API-driven requests. Via 24/7 monitoring, we collect and analyze terabytes of attack data, billions of bot requests, and hundreds of millions of IP addresses to solidify your defenses and keep you informed. And we never stop innovating to stay ahead of the latest threats including malware, phishing, data exfiltration, DDoS, and other advanced attacks.
>
> This commitment to security is why we're trusted by the most security-conscious industries, including 18 of the largest asset managers, 12 of the top insurers, and 8 of the top financial technology companies. So you can worry

less about cyber attacks, and more about growing your business.

The company was floated in 1999 and overnight made Lewin at least a near-billionaire as he became one of the world's richest high-tech entrepreneurs before the age of 30. Akamai clients include Sony, Apple and the Murdoch News Corp. The company has been responsible for 'keeping some of the world's most popular websites running smoothly, including Facebook and iTunes'. Akamai claims to be used by 50 percent of Global 500 companies, 55 percent of Fortune 500 companies, all branches of the US military with 85 percent of the world's Internet users 'within a single "network hop" of an Akamai CDN server'. Akamai says it delivers nearly three trillion Internet interactions every day. Danny Lewin reached the rank of captain with the Israeli counter-terrorism, hostage rescue and assassination unit before studying maths and computer science at the Israeli Institute of Technology and going on to the Massachusetts Institute of Technology (MIT). He also worked for IBM's research lab in Haifa, Israel, and he would then have a 'ground-breaking' idea to allow the internet to work more efficiently and at faster speeds with a set of algorithms that he called 'consistent hashing'. Akamai claim that Lewin's technology 'transformed the Internet from a chaotic network into a secure business platform'. By some bizarre chance a picture was taken of Danny Lewin in 2000 wearing a Swatch Watch of the model name 'Hijacker' and the hour, minute, second hands and date are all set to 11. It's amazing how elite Israeli military and intelligence operatives turn up in every area of the 9/11 story.

Ptech and 9/11

Genuine investigators on the trail of Israel's involvement in 9/11 have highlighted a network of Israeli tech companies in the United States which deserve serious attention. I'm going to start with one called Ptech ('Process Technology'), a 'small' software company in Quincy, a suburb of Boston, Massachusetts, which listed among its clients the Pentagon, NATO, the White House, US Congress, Department of [In]Justice, FBI, US Secret Service and ... the *Federal Aviation Administration, US Air Force and NORAD*. Oh yes, and add US Customs and Border Protection, Internal Revenue Service and the Department of Energy, plus others. At the time of 9/11 Ptech and the associated federally-funded MITRE Corporation had real-time access to all computer systems and inter-agency communications that would have been bottom-line essential to anyone orchestrating the attacks. From 1997 Ptech was given security clearance to deal with 'sensitive military projects' and secured a contract with the Defense Advanced Research Projects Agency (DARPA) – the technology-development arm of the Pentagon which basically controls Silicon Valley (for its Death Cult masters) and drives the agenda to

attach the human mind to artificial intelligence (see *Everything You Need To Know But Have Never Been Told*). Ptech was apparently just a small and insignificant company on the surface although it had connections with giants like IBM and its *high*-significance to 9/11 can be seen with the client list that I described. Another 'apparently' is that it was primarily a Muslim company established in 1994 by Oussama Ziade, a Lebanese immigrant, but there are other links that take us elsewhere. Ptech became a company of interest to 9/11 investigators in the alternative media after Indira Singh, an IT professional, went public with her experience. Singh had worked as a high-level IT consultant to the United Nations, American Express and Wall Street companies including JPMorganChase where she was developing a next-generation system to expose money laundering, rogue trading and illegal financing patterns. She also worked as a senior consultant in Washington DC with the Interoperability Clearing House (ICH) which had connections with the CIA and DARPA. Singh realised in the course of her work with JPMorganChase that Ptech would have had access to all the key computer systems necessary to stage the 9/11 attacks while at the same time having a major Muslim connection with apparent ties to people accused of funding terrorism. Ptech dealt in 'enterprise architecture software' which makes it possible to observe in real time all data produced by an organisation or system. Seeing what is going on everywhere as it happens has clear potential for numerous activities from very good to extremely bad. It was a big advance on PROMIS software with its backdoor to government and military computer systems in which Rafi Eitan, a top Israeli intelligence officer, was a key player. Here was the chance for Israel and the Hidden Hand in general to get even more control of those systems via what *appeared* to be a Muslim company.

The Islamic connection to Ptech was further highlighted by the number of Saudi investors and board members accused or suspected of funding terrorism. Ptech board member Soliman Biheiri was the head of BMI, an Islamic, Sharia-compliant investment bank based in New Jersey which was accused of funding terrorist groups. Biheiri was jailed in 2005 for terrorism and fraud. US prosecutors described him as the US banker for the Muslim Brotherhood. BMI's backers included two brothers of CIA-asset Osama bin Laden. Indira Singh claimed in an interview that Thomas Kean, joint head of the pathetic 9/11 Commission, had done business deals with BMI and should have either not accepted the job of 'investigating' 9/11 or made his connections public. Another big Islam-BMI-Ptech connection was Saudi businessman Yassin al-Kadi, or al-Qadi, who had links with Muslim entities funding terrorism including investments in BMI. Kadi was a major investor in Ptech with all its access to US government, military and FAA computer systems. He has appeared on terrorism wanted lists, been subject to international

financial sanction and has also been connected to the Muslim Brotherhood. Kadi has slowly overturned the terrorist designation through legal actions and submissions. The United Nations Security Council refused to remove Kadi from its terrorism blacklist and in 2009 published a list of reasons which included evidence that Osama bin Laden was the source of working capital for up to five of Kadi's companies in Albania. The UN relented and de-listed him in 2012. Kadi is reported to have been a close friend of Bin Laden (he certainly met him) and claimed himself to be a friend of Dick Cheney. Kadi was a long-time associate and business partner of Bush family friend Khalid bin Mahfouz, a leading shareholder in the stunningly corrupt Bank of Credit and Commerce International (BCCI) who was exposed for donating more than $270,000 to Osama bin Laden at the request of Osama's brother and Boy Bush business partner, Salem bin Laden. Bin Mahfouz was named as a financer of terrorism by the Bill Clinton State Department and was involved along with Israel in selling the back-door PROMIS software. We should not forget that Saudi Arabia and Israel at inner-circle levels are not 'enemies' but fellow Sabbatian-Frankists pursuing the same agenda. This explains so much about events on 9/11. Israel loves those who fund Muslim terrorism because it serves their interests in demonising the Muslim world. Large numbers of Saudis and other Arabic people work for Mossad and the CIA – some by choice, many by entrapment – and Mossad commonly uses Arabs to front-up its operations and companies to hide the real perpetrators. Who is going to suspect Israeli involvement with 'Muslim' companies? The obvious connection between 9/11 and 'hijackers' with a Saudi background makes perfect sense from this perspective. What can be said with certainty is that people like Yassin al-Kadi and Soliman Biheiri would not have had their Ptech software company given access to the most sensitive United States military, government and civilian air traffic computer systems and information by mistake because their connections were well known. The FBI said that Kadi was investing millions in Ptech ongoing and they were told by company insiders of their trips to meet investors in Saudi Arabia with Kadi always among them. Ptech's chief scientist Hussein Ibrahim, who started Muslim bank BMI with Soliman Biheiri, was close to Kadi. Ibrahim was the former president of BMI which was also a seed-investor in Ptech. BMI leased computers and office space in New York from Kadi International. If you find the official Ptech story extraordinary then you are not alone. American Investigative journalist Christopher Bollyn writes:

> It simply did not make sense that the most secure computer systems of the US government would be running software written by a Lebanese immigrant financed by a Saudi who happened to be on the most-wanted list of global

terrorists.

The ultra-Zionist connection

The background to Ptech with its access to top secret computer systems across the US government, military and FAA civilian aviation at the time of 9/11 would appear to be Muslim in nature, but hold on a second. Author Dan Verton in his book, *Black Ice: The Invisible Threat of Cyber-Terrorism*, says that Ptech and its Lebanese founder Oussama Ziade were innocent victims of [Muslim] paranoia. He notes in support of this that many Ptech employees were Jewish. Christopher Bollyn discovered that a key man involved with Ptech was Michael Goff, a Jewish ultra-Zionist lawyer from Worcester, Massachusetts. He is the son and grandson of 'highest level' B'nai B'rith Freemasons in the Worcester lodge and he would go on to work with an Israeli Mossad/military-connected software company called Guardium, later absorbed into IBM. Guardium was an asset of Log-on Software founded by two Israeli military officers, Joseph Segev, one-time head programmer and telecommunications officer with the Israeli Navy, and Major Gil Migdan. The company's vice president was Danny Zeitouny, head of logistics programming for the Israeli Defense Forces (IDF). The same story can be found with Log-on's spin-off Guardium which had Israeli colonel Gill Zaphir or Zafir on its board of directors. Zaphir was head of research and development with the Israeli Air Force. Amit Yoran was another Jewish director of Guardium and also a co-founder, CEO and president. Yoran is a graduate of the United States Military Academy at West Point and became a founding member of the Pentagon's Computer Emergency Response Team. He would later be appointed by President Boy Bush as director, or 'czar', of the National Cyber Security Division at the Department of Homeland Security with responsibility for coordinating America's cyber security. The number of ultra-Zionist connections to US government, military, intelligence and security systems is simply mind-blowing when they represent only one section of two percent of the population. If the same ratio was true of Chinese people or Muslims what would the reaction be? Amit Yoran has been a consultant and advisor to CIA technology seed-funding company, In-Q-Tel, and when he was with Silicon Valley software company Symantec Corporation he was 'primarily responsible for managing security infrastructure in 40 countries', according to *Business Week*. Yoran also 'designed security architecture for the Pentagon and Office of the Secretary of Defense' and was Network Security Manager responsible for maintaining operations of the Pentagon's network. This was at the same time that ultra-Zionist Michael Goff was 'marketing and information systems manager' at Ptech supplying software for Pentagon computer systems. Those with allegiance to Israel were and are all over US government and military

computer systems.

Amit Yoran was president and chief executive of a company employing hackers to test the vulnerabilities of computer systems. This was Riptech which Yoran co-founded in 1998 and was acquired by Symantec in 2002. Yoran told the Associated Press in 2001 that once you break into a web-server 'there are fewer protections between it and other parts of the network'. And what if you control the web-server? Riptech was established by Yoran and his elder brother, Elad, another Israeli West Point graduate, and Tim Belcher, a veteran of the Gulf War in 1990/91. Belcher has been connected to a long list of tech and software companies and according to his Bloomberg profile 'conducted security assessments of some of the nation's most critical infrastructure components, including the Federal Aviation Administration's Air Traffic Control Network' and has been employed by the National Aeronautics and Space Administration, National Reconnaissance Office, Office of the Secretary of Defense and Space and Naval Warfare Command. He and Amit Yoran were also 'advisors' to Security Growth Partners (SPG), a funding company founded and run by Elad Yoran, and on the advisory board was Jeremy M. Kroll from the ultra-Zionist family that was running security at the World Trade Center on 9/11 – of which more shortly. Jeremy Kroll was Managing Director of Marsh Kroll, a division of ultra-Zionist Marsh & McLennan (known as MMC), and the first plane to strike the World Trade Center hit the 'secure computer room' of Marsh & McLennan in the North Tower. Marsh & McLennan was controlled by the family of ultra-Zionist Maurice Greenberg and together they handled the initial insurance for Larry Silverstein and the World Trade Center. Ultra-Zionist interconnections between Big Tech and cyber-'security' companies are extraordinary. Christopher Bollyn writes:

> A number of senior corporate officers of Amdocs, all Israelis, moved between Nice Systems, ViryaNet Ltd, and Guardium. Sometimes a person would go to a company for a while and then return to the previous company. In some cases, such as Gill Zaphir, a person would be involved in an Israeli 'venture capital' fund supporting a company while serving as a director of the company being funded. Elad Yoran, Amit's older brother, held similar positions at Broadview International and Riptech, a 'security' software company that specialized in hacking into corporate computer networks.

Ptech, MITRE and 9/11

These were the sort of people ultra-Zionist Michael Goff would have worked with at Israel-front Guardium and would have come into contact with while at Israel-front Ptech with all its access to computer systems essential to 9/11. Goff had earlier worked for an ultra-Zionist

law firm and later ultra-Zionist Guardium, but in between he suddenly joins an apparently – *apparently* – Muslim company at Ptech which would have access to key swathes of the US government, military, intelligence and FAA computer systems. Here we have a Jewish man from a seriously ultra-Zionist family working as a 'marketing and information systems manager' at Ptech, a company funded by people accused of funding Islamic terrorism, including Hamas which is so condemned by Israel. Yep, makes sense doesn't it? As Bollyn puts it:

> So, why would a recently graduated Juris Doctor in Law leave a promising law career to join forces with a Lebanese Muslim's upstart company sponsored by dodgy funders in Saudi Arabia?

Bollyn asked Michael Goff how in 1994 he left the ultra-Zionist Seder and Chandler law firm in Worcester and ended up with a job at Ptech. Goff said this was done 'through a temp agency'. Which one? He couldn't remember. Goff was asked who wrote the original Ptech software used by government, military and FAA air traffic for which he was the original marketing and information systems manager. He said he didn't know. This is despite being described on his own website in the following terms in relation to his work at Ptech: 'As information systems manager, Michael handled design, deployment and management of its Windows and Macintosh, data, and voice networks ... Michael also performed employee training and handled all procurement for software, systems and peripherals.' He was at the centre of everything, then, and Bollyn was right to question his story:

> Goff, the original marketing manager for Ptech software, said he did not know who had written the code that Ptech sold to many government agencies. Is this believable? Goff leaves a legal practice in his home town to take a job through a temp agency, with a Lebanese Muslim immigrant who is selling software, and he doesn't know who even wrote the code?

How about it was written in Israel and through these connections ended up on US government, military, intelligence and FAA computer systems essential to American security and response on 9/11? The Israeli global technology company network is fantastic and they are all ultimately assets of the equally fantastic Israeli military and intelligence web that spans America, Europe and the wider world. Bollyn, who has researched the subject for nearly two decades, says this about Guardium which Michael Goff worked for after leaving Ptech:

> Guardium is closely connected with other companies of the Israeli military intelligence network in the United States. Some of the key Israeli-run

> companies linked to Guardium are Amdocs, ViryaNet, Nice Systems, and CreoScitex. Like Guardium, these companies are all run by senior officers of Israeli military intelligence.
>
> Amdocs and Nice Systems are especially noteworthy because these two companies were involved in the espionage network of computer programmers and demolition experts from the Israeli military who posed as art students as they tried to infiltrate offices of the US Drug Enforcement Agency (DEA) in 2000 and 2001.

Ptech worked closely on government, military and FAA civil aviation computer systems with the MITRE Corporation where James Rodney Schlesinger was the long-time chairman of the Board of Trustees from 1985 until his death in 2014. Schlesinger was born to Jewish parents in New York and later converted to Lutheranism. He went on to be Secretary of Defense, Secretary of Energy, Director of the CIA and was appointed to the Homeland Security Advisory Council by President Boy Bush in 2002. MITRE Corporation was established in 1958 as a private, not-for-profit company to provide engineering and technical guidance for the federal government and provides specialised technology for defense and intelligence. MITRE's headquarters is in McLean, Virginia, where it shares space with big-time Hidden Hand Northrop Grumman, one of the world's biggest aerospace and armament corporations. The MITRE website says it 'has operated at the intersection of advanced technology and vital national concerns [and] we've grown to serve a variety of government agencies at the highest levels through the operation of federally-funded research and development centers'. Among them are the National Security Engineering Center working on 'national security' for the Department of Defense and the Center for Advanced Aviation System Development working for the FAA on air traffic management. MITRE was partnered before and during the 9/11 attacks with Ptech and MITRE also used Ptech (Israeli back-door) software. Back-door access to US government, military and FAA computer systems could have controlled the whole 9/11 scenario while genuine staff were desperately trying to make sense of the mess and confusion. The potential was also there for normal reaction mechanisms including fighter response and ground-to-air missile defences to be infiltrated, delayed and deactivated. This alone would answer so many still-unanswered questions about what happened that day. Elias Davidsson writes in *Hijacking America's Mind On 9/11*:

> A central feature of the simulated war games conducted on 9/11 was for the military to feed electronic blips representing airliners into military and civilian radar [these are known as 'input']. As the events of 9/11 unfolded, radar

> operators had no way of knowing whether the blips they were observing on their screens represented real or simulated aircraft.
>
> There were in fact three types of blips the controllers had to confront: Those representing virtual aircraft, possessing no physical existence; those representing real aircraft which were scheduled to participate in the simulated hijackings; and all other blips representing real aircraft.

This is how it was possible with real-time access to government, military and FAA computer systems to swap planes, lose planes, invent planes and cause maximum confusion during which the deed could have been done while genuine operatives were asking: 'What the fuck is going on?' Major James Fox, leader of the NORAD NEADS weapons team, said amid the chaos: 'I've never seen so much real-world stuff happen during an exercise.' The confusion was such that some operatives believed that the scenes of carnage on their television screens were simulated for them to see as part of an exercise. It tells you so much about the scale of the cover-up that neither the FBI nor the 9/11 Commission sought to investigate the relationship of the wargame exercises with actual events.

In-your-face cover-up

IT risk-assessment consultant Indira Singh began to speak out about the obvious potential security risks of having people accused of funding Islamic terrorism and Osama bin Laden so involved with a company in Ptech at the heart of US government and military computer systems relating to security and communication between front-line 9/11 agencies including the Pentagon, Air Force, NORAD, CIA and FAA. She contacted the FBI in Boston (which had a reputation for being notoriously corrupt) to share her findings and predictably to no avail. She notified a stream of agencies at local, state and federal levels and again nothing happened. JPMorganChase warned her to stop what she was doing *or else* and she lost her job because she refused to stop. For her this was personal. Singh had been due at a meeting on the 106th floor (where no one survived) of the World Trade Center North Tower that morning, but overslept. She was on her way to the building when the first plane hit and then volunteered to help with the medical response as a part-time emergency medical technician. I mentioned her earlier with regard to hearing that Building 7 was going to be brought down. From the information Singh uncovered and her own experience she not unnaturally concluded that Ptech was being protected. With no response amid warnings about dangers to her life if she continued to dig she turned to investigative reporter Joe Bergantino at a Boston CBS affiliate called WBZTV. He verified Singh's story about Ptech and more.

Bergantino's report was due to run on September 11th, 2002, but it didn't because of pressure, Singh says, from the Bush-Cheney White House. Ptech's office was raided by the FBI in 2002 before the lid went on and *seven years* later the FBI 'investigation' concluded with an indictment for 'loan fraud'. Singh said that Bergantino and his investigation team did produce a video connecting a Boston-based Islamic charity called Care International to the Al Kifah Refugee Center (which has been linked to the 1993 World Trade Center bombing in which the FBI was involved) and to the Maktab al-Khidamat (MAK) which was founded in 1984 with input from Osama bin Laden and others to raise money and recruit Mujahidin for the fight against the Zbigniew Brzezinski-instigated Soviet occupation in Afghanistan. MAK was established by the CIA together with the 9/11-connected ISI Pakistan military intelligence to fund Bin Laden and the Mujahidin before morphing into a fundraising and recruitment network for al-Qaeda when the CIA morphed the Mujahidin into al-Qaeda. Indira Singh said she then realised that MAK was being 'run out of Ptech' because faces in the Bergantino videotape she was shown were core employees at Ptech. Some formerly worked for the Islamic Care International (not to be confused with the major international humanitarian agency of the same name) and among them was Suheil Laheir. Singh described him as 'one of the only one or two people who had access to the source code at Ptech' which was the key to the entire program. She said '... it would be like having the formula for Coca Cola, basically.' Singh continued:

> By the end of the day when I was finished with certain parts of the investigations, it was clear to me that there was no way Ptech could have done all of this without a lot of inside help. And that's what I began focusing on, that it was a cut-out, it was a front, was it a regular CIA front, was it a clandestine front, what was it? ... There are walls within the FBI, walls within the CIA, behind which these operations take place, and who is behind those operations, is a key question.

How about Mossad working with Hidden Hand elements within the CIA, US government/military, Pakistan ISI and Saudi Arabia with British intelligence also involved somewhere as they always are? The Web makes this possible. Compartmentalisation means that most strands in something like 9/11 won't know what they are ultimately part of and where it is all meant to lead. Singh correctly observed that this wasn't just a simple case of 'Muslims hate America' – 'there is something else going on here, they're being used as a tool, just as the good people of the US are being used, are being misled, and frightened and terrorised into "if we don't wage these horrific wars, our way of life will be over". Who benefits?' She correctly made this point:

> ... maybe those organisations don't fully know who their masters are. Ptech is the one thread, the one golden thread you pull on, all of this is unravelled. Because it goes into the corporations, it goes into these government entities, it goes into the terrorism financing entities ... none of which have been taken to task ... there are just so many questions about what does this all mean? And as I investigated further, we found that the origins of Ptech were very interesting. Where did this company come from? ... And how did they get to be so powerful? Who were the people, who were the organisations that brought them in who knew, who gave them the power?

Singh is describing The Web and how it works. Ptech was clearly an intelligence front and so all doors were opened at the expense of other companies. Singh said:

> ... I remember that Ptech's competitors, US companies, were extremely annoyed at the fact that they could not get equal time, all the plum contracts were going to a foreign-owned company. And I said, 'Well, did you know that they were foreign-owned? And if they were foreign-owned, they could not get certain classified projects...' and [I was told], 'Indira, everyone knew that they were Saudi-owned and that meant that they got favourable treatment on Capitol Hill.' And I said, 'Well, are you saying that they just got "favoured treatment" or there's something more going on?' They wouldn't answer, their lawyers instructed them not to answer, so they knew a lot of what was going on.

'Saudi-owned' on the surface and ultra-Zionist owned behind the scenes = Sabbatian-Frankist-owned.

Bingo!

Indira Singh said that Ptech software 'is utilized at the highest levels of almost every government, military, security and law enforcement organisation in this country including the Secret Service, the FBI, the Department of Defense, the House of Representatives, the Treasury Department, the IRS, the US Navy, the US Air Force, and, last but not least, the Federal Aviation Administration'. Of the latter she said:

> Ptech was with MITRE in the basement of the FAA for two years prior to 9-11. Their specific job is to look at interoperability [connections between different computer systems] issues the FAA had with NORAD and the Air Force in the case of an emergency. If anyone was in a position to know the FAA, that there was a window of opportunity or to insert software or to change anything, it would have been Ptech along with MITRE ...

> ... they were looking at holes, basically, in the FAA's interoperability, responding with other agencies, law enforcement, in the case of an emergency such as hijacking. So they were looking for ... what people would do, how they would respond in case of an emergency, and find the holes, and make recommendations to fix it. Now, if anyone was in a position to know where the holes were, Ptech was. And that's exactly the point. If anybody was in a position to write software to take advantage of those holes, it would have been Ptech.

Singh explained the potential implications for communications between the FAA, Department of Defense (DOD) and NORAD on 9/11:

> Now, with the FAA in particular, if something goes wrong, and there is an emergency with a particular flight, and the DOD needs to be notified, well, that's a really major interoperability thing, a signal has to be sent in some way, shape or form, either mediated by a human in most cases, or automatically, or even if its mediated by a human something needs to be initiated on a separate computer to start a whole other sequence of events, interventions, scrambling a jet, notification up and downstream with many other organisations, such as NORAD, such as other terminal radar areas, such as local law enforcement, you name it. So, this all has to be blueprinted, mapped out, and that's where enterprise architecture comes in, you need some kind of blueprint to keep all of this together and that's what Ptech was so good at.

In other words, communication between different agencies can be blocked or delayed if their computer systems are not talking to each other. These are extraordinary revelations because as we saw earlier in the book one of the most bewildering mysteries surrounding 9/11 is the non-communication and inexplicably late communication between the FAA, NORAD and the US Air Force which led to no fighter aircraft reaching the scene in time and hijacked planes being left to fly unchallenged and untracked for utterly ridiculous periods. The Ptech-MITRE combination had the potential to see and track all communications in real time throughout all the agencies and centres involved. They could have inserted changes, blocks and adjustments without those working for the agencies and trying to follow protocol having any idea their systems were being manipulated. Note, too, that Ptech software was used by the Secret Service which was with Bush at the school on the morning of 9/11. Access to these computer systems would have allowed fake planes to be added to air traffic and NORAD screens as was happening anyway as part of the war game scenarios. Utter confusion could have been caused by Mossad-CIA-Israeli/US military factions of the Hidden Hand. How easy it would have been with this level of control to make fake planes appear and the real 9/11

aircraft disappear from computer screens to be replaced by doubles – and even easier with NORAD chief General Eberhart deciding to have so many wargame exercises that day and at the same time to order that protection for Pentagon communication networks be reduced to its *lowest level*. Take this further and the potential was there to observe the response to the attacks by those genuinely trying to do the right thing and to track genuine law enforcement officers as they tried to uncover the truth. Everything could be known and responded to, including reports on the Dancing Israelis and the Israeli spy ring in general. This would always keep you one step ahead (along with insiders watching your back) and you would know when assets had to disappear if the law was coming. Anyone think the eventual FBI raid on Ptech would have come as a shock to them? The raid was part of Operation Green Quest, a multi-agency investigation into terrorist funding headed by extreme ultra-Zionist Michael Chertoff, then head of the Criminal Division of the [In]Justice Department who chose not to prosecute the Dancing Israelis or the 200 'art students' in the Israeli 'spy ring' and just sent them home to Israel. Michael Chertoff and 9/11 are joined at the hip. Indira Singh said:

> It was possible that there was an alternate command and control system ... could you technically use Ptech software to do the surveillance and intervention? Well, gosh, yes, that's exactly what I was planning on using it for in one of the largest banks in the world.

The MITRE Corporation is also the 'in-house engineer' at the US Air Force Electronic Systems Center at Hanscom Air Force Base in Bedford, Massachusetts, which is described as 'the Air Force's "brain" for information, command and control systems'. Hanscom is near to Boston Logan Airport where the first two '9/11 aircraft' took off. Singh said that because of the vast scope of their enterprise architecture project at the FAA both Ptech and MITRE would have been given pretty much 'carte blanche' to have access to everything in the organization – 'what is being done, where it's being done, on what systems, what the information is'. In a major project like this they 'would have been everywhere in the FAA system' in the years before 9/11. Singh said she was told they were in places that required clearances; they had log-on access to FAA flight-control computers; and they were given passwords to many other computers. She said that when she did the same work for JPMorganChase she could have access to almost anything she wanted: '... If you were up to no good, as an enterprise architect, with such a mandate, you typically could have anything you wanted. Access to anything.' Is anyone in any doubt why Israel is such a global centre of cyber high-tech and 'cyber security' – enterprise architecture?

FBI – Federal Blocking of Investigation

The FBI is an extraordinarily corrupt organisation at its Hidden Hand core although with many genuine and decent people working there around the rest of the organisation. We saw earlier how FBI agents complained about being undermined in their investigations into terrorist groups before 9/11 and one was agent Robert Wright operating out of Chicago – the American base for Ptech funder Yassin al-Kadi (Qadi). Wright began investigating Kadi and others accused of transferring money for guns and ammunition to al-Qaeda and the Hamas 'Palestinian' terrorist group. Not all of them were necessarily guilty in this twilight world of serious smoke and mirrors in which diversion and false accusation are central to the systematic deceit, but 23 organisations in the US were reportedly named for secretly funding Hamas including one called the Holy Land Foundation. This was based in Richardson, a relatively small city in Texas, which was said to be 'throbbing' with Israeli 'art student' activity. I have quoted people in other books, including Palestinian Liberation Organisation (PLO) leader, Yasser Arafat, as saying Hamas was covertly created by Israel. Many of these pre-9/11 Saudis in the US accused of funding terrorists were said to be 'funding Hamas'. This is more smoke and mirrors. Former British MP George Galloway, who called himself a 'comrade of Yasser Arafat', said: 'I saw Hamas be born, and Israel was the midwife':

> The Muslim Brotherhood, a client of the British in Egypt, had brothers in Gaza of course. Those brothers became Hamas with the full cooperation of Israel ... I saw with my own eyes the open development of Islamism in Gaza, a catspaw against Arafat and the PLO. While the gaols (and the grave-yards) were full of PLO men, the roads were choc-a-block with Islamist society vehicles. Communities were served by Islamic schools, hospitals and civic-society institutions of all kinds. Permitted, encouraged, sometimes financed by Israel. It was divide and rule in perfect harmony.

Arab terrorism funders connected to Ptech and other Israeli fronts were said to be supporting Hamas and the Muslim Brotherhood – both Israeli fronts. Everything starts to make sense. Galloway appears to believe that Hamas is now independent of Israel, but I disagree. I am not talking about everyone who calls themselves Hamas only those elements within its ranks that serve Israel's interests. The actions of Hamas perfectly serve the Israeli agenda of refusing to reach a peace agreement with the Palestinians because of 'Hamas terrorism'. Look at how the murder of Palestinians has been explained away by 'fighting Hamas' and cold-blooded killing of civilians is excused by claims of 'Hamas using civilians as human shields'. Legitimate peaceful protest

against shocking Palestinian oppression is condemned as the work of 'Hamas terrorists'. The existence of Hamas is good for Israel's ultra-Zionists and Sabbatian-Frankists and who is blamed for firing makeshift missiles into Israel that provides the excuse to bomb Gaza with state-of-the-art missiles? *Hamas.* Ultra-Zionists that run Israel need terrorists to keep their own population in fear and justify violence and oppression against their targets. Former German Defence Minister Andreas von Bulow described the 'Palestinian terrorist' Abu Nidal as 'an instrument of Mossad'. Anyway – back to FBI agent Robert Wright who claims to have uncovered a whole network of people in the United States apparently funding Hamas and al-Qaeda (a network overwhelmingly of Mossad and CIA fronts in other words) and the investigation became known as Operation Vulgar Betrayal which would be undermined by an undercover FBI agent who refused to secretly record a Muslim suspect. Far from being reprimanded for protecting the suspect the agent was promoted to a post at the US Embassy in Saudi Arabia. This would have been unexplainable if you didn't know how the global networks operate with both 'sides' controlled by same force. Wright realised that the closer he got to the truth the more his bosses at the FBI resisted what he was doing. They forbade him from making arrests and his investigation was trashed. 'Let sleeping dogs lie', he was told. Operation Vulgar Betrayal was shut down the year before 9/11 after Wright had earlier been removed from the case. He highlighted the FBI's International Terrorism Unit as a source for most of the resistance to genuine investigation:

> September the 11th is a direct result of the incompetence of the FBI's International Terrorism Unit. No doubt about that. Absolutely no doubt about that. You can't know the things I know and not go public ... There's so much more. God, there's so much more. A lot more.

This was not incompetence, but design. If you want to stop something being investigated control the agency that should be investigating. Who but the streetwise are going to suspect an 'anti-terrorism' agency of protecting, even instigating, terrorism? Who is going to suspect an anti-drug agency of running drugs? Robert Wright was tenacious in seeking to expose the truth about the FBI after 9/11 and as a result he was banned from working on the 9/11[non]-investigation or even answering calls from the public. His efforts to speak with [In]Justice Department big-wigs like Attorney General John Ashcroft and Criminal Division chief Michael Chertoff were denied. Ultra-Zionist Chertoff, reportedly the son of a Mossad agent, said: 'We are tired of conspiracy theories.' Wright, however, continued to his great credit to fight on.

Mendelson's remote control

The upgrade of FAA air traffic computer systems undertaken by Ptech and MITRE from the late 1990s and across 9/11 was overseen by Monte Belger, a senior official of the FAA and Acting Deputy Administrator for Air Traffic Services and System Operations in the period 1997 to 2002. Christopher Bollyn found his name and his connection to the 'upgrade' in documents about FAA failures on 9/11. I mentioned Belger earlier in this context:

> At 9.53, 25 minutes after contact was lost, FAA headquarters told the Command Center that the deputy director for air traffic services was talking to deputy administrator Monte Belger about scrambling aircraft. *Talking about it??*

Bollyn describes Belger as '... the key decision-maker at the Federal Aviation Administration, responsible for the software and computer upgrades that involved Ptech, the suspicious upgrades which were being done during the years prior to 9/11'. Belger's Internet biography said that he was 'leading the 49,000-person team and in charge of operating the world's safest aviation system'. Well, except on 9/11. Belger's pivotal role in the FAA air traffic system and the 'upgrade' rightly requires investigation in the light of the failure of that system on September 11th, 2001. Bollyn established that when Belger left the FAA in 2002 he was employed as 'Vice President, Government Connection' of an Israeli company called US Aviation Technology in Parkland, Florida, half an hour's drive from Hollywood, Florida, the apparent centre of the Israeli 'spy' ring operation uncovered in 2001, and where Mohamed Atta and other alleged 9/11 'hijackers' lived in the same period. Bollyn says that US Aviation Technology appears to have been run from the apartment of Ehud 'Udi' Mendelson who founded the company. He is a self-described 'captain in the prestigious Army Intelligence Unit of the Israel Defense Forces'. Bollyn tracked down documents and other information from the Israel Venture Capital Research Center website which list Monte Belger of Centreville, Virginia, as a Vice President and Government Connection of US Aviation Technology LLC. Mendelson was Chief Technology Officer of the company which in another incredible coincidence was involved in a remote-control system that allows an operator on the ground to 'monitor and adjust the computer flight systems on aircraft' in real time. In Mendelson's own words: 'We put the ground "pilot" in the cockpit.' Bollyn writes in *Solving 9/11*:

> His software and design was promoted as a system to obtain real-time data from the aircraft's computer recorders (black box, FDR) in order to monitor flight systems – and make corrections – if necessary. The possibility to

> remotely hijack a plane with Mendelson's system is obvious. Mendelson also promoted a Flight Data Animator, which he said gives the ground pilot all of the data and the visuals that the pilot in the aircraft has. In the two on-line presentations of this equipment it is stated that corrections can be made by the ground pilot to avoid an accident or situation.

In short the ground pilot could fly the aircraft – a capability for the military going back at least to the 1960s and Operation Northwoods and mega-updated by 2001. Mendelson's system transmitted data via satellite to the plane's satellite antenna. Bollyn asked Monte Belger, who oversaw the work of Ptech and MITRE on the FAA air traffic computer systems, about his relationship with Israeli military intelligence officer Ehud Mendelson. Belger denied 'knowing or having anything to do' with either Mendelson or US Aviation Technology, a position he reiterated in another Bollyn call to his office at arms giant Lockheed Martin where he was vice president with responsibility for Transportation Systems Security. Then how did Belger's name get on those documents relating to US Aviation Technology along with his address and specific job title?? Bollyn found another interesting name on the Israeli US Aviation Technology personnel documents – Peter Goelz. He is the former managing director of the National Transportation Safety Board (NTSB). This is the organisation that investigates the cause of air crashes and produced those woefully flawed flight data recording animations for the 9/11 aircraft discussed at length earlier. Goelz was at the NTSB between 1995 and 1999 in a period when a number of investigations into air crashes remain controversial to this day – including TWA Flight 800 (1996); Egypt Air (1990); and the one that killed JFK's son, John F. Kennedy Jr, near Martha's Vineyard, Massachusetts (1999). Goelz was named as Mendelson's US Aviation Technology vice president, Corporate Strategy. Bollyn could find nothing in his background that related in any way to experience or expertise in aviation despite being named by the Bill Clinton administration as managing director of the NTSB and appearing in the documents as Vice President, Corporate Strategy for ultra-Zionist Mendelson's US Aviation Technology. Goelz's background was as a political advisor and a lobbyist for gambling interests in Kansas City. *He* was overseeing investigations of *air crashes*? Blackjack table crashes maybe, but aircraft? Bollyn contacted Goelz and asked him about his connections to Mendelson and US Aviation Technology. At no time did Goelz deny that he was Vice President of a company founded and run by an Israeli intelligence officer with a keen interest in aircraft remote-control technology. Goelz told Bollyn that he had met with Mendelson 'two or three times' in Washington DC and that Mendelson was 'based in Miami'. He said he couldn't recall if he had met Mendelson before

9/11. Goelz knew that the company was focused on technology providing a 'ground pilot' with real-time data from aircraft but said he didn't really understand it. This was a strange comment given that Bollyn found a Goelz testimonial for US Aviation Technology in which he clearly understood it very well:

> Your system of real time downloading of aircraft data meets a very real and pressing problem. Not only is it important from a safety and security standpoint it also has applicability for navigation and flight management. A robust two-way data pipe from the aircraft to the ground and back could revolutionize the industry.
>
> The key to your system is it[s] initial simplicity, relying on tested, almost off the shelf, components. That your concept is well on the way to securing a patent further strengthens your proposal.
>
> I look forward to working with you on this project and believe that with the appropriate backing it will be successful.

Bollyn says that after his conversations with Goelz and Belger the web pages and documents that connected them to US Aviation Technology and Mendelson were taken down.

Hawks and Dov

Ultra-ultra-Zionist Dov Zakheim, who served in a number of Department of Defense positons during the Reagan-Bush administration, is an interesting character with a link to remote-control aircraft systems (Fig 142). Zakheim was a member of the Project for the New American Century (PNAC) that produced the regime-change document (which he co-wrote) in September, 2000, and a member of the ultra-Zionist-dominated group dubbed 'The Vulcans' which 'advised' Boy Bush on foreign policy ('bomb for Israel') before he became president. The group, which was *officially* headed by soon-to-be Secretary of State Condoleezza Rice, included ultra-Zionist PNAC stalwarts Zakheim, Richard Perle, Robert Zoellick, Paul Wolfowitz and Lewis Scooter Libby. Dov Zakheim's fingerprints were everywhere before, during and after 9/11, but that's just a coincidence and nothing to

Figure 142: Ultra-Zionist Dov Zakheim, 9/11 Pentagon comptroller.

worry about. He was appointed Comptroller, or Undersecretary of Defense, in charge of the Pentagon budget when Boy Bush came to power with a list of other ultra-Zionist PNAC Neocons in January, 2001. Zakheim would continue in that role until 2004 in the period in which trillions of dollars were found to be missing from the Pentagon books – a fact announced on September 10th, 2001. He came to the Pentagon after some five years as CEO of SPC International, a subsidiary of the high-technology 'defense' company System Planning Corporation which has close connections to the Pentagon and its technology-development arm, the Defense Advanced Research Projects Agency (DARPA). During this period from 1987 to 2001 he advised defence secretaries in the Father Bush and Bill Clinton presidencies and was appointed to many major groups within the Department of Defense including the Task Force on Defense Reform. Three times he won the Defense Department's highest civilian award.

System Planning Corporation was involved with aircraft remote control systems including one developed by its Radar Physics Group called the Flight Termination System, or FTS. This had the capability of controlling multiple aircraft from the ground – including large passenger jets – over a distance of hundreds of miles and taking over planes in-flight. Eglin Air Force Base in Florida is reported to have been a customer for the technology and this is the base mentioned in the Operation Northwoods document as the location of a drone aircraft made to look like a passenger aircraft that it was planned to replace before being brought down by radio signal over Cuba. The Flight Termination System included a Command Transmitter System (CTS) which the company's website described as having 'remote control and flight termination functions through a fully-redundant self-contained solid-state system ...' Zakheim's SPC International reportedly contracted with MacDill Air Force Base in Florida to test the Flight Termination System (FTS) on more than 30 Boeing 767s as part of a planned deal between Boeing and the Pentagon to lease 767s converted into refuelling tankers. 'World Trade Center' Flights 11 and 175 were 767s and some witnesses and observers have suggested that Flight 175 looked more like a tanker than a passenger jet when it struck the South Tower. Former Mossad operative Victor Ostrovsky describes an operation in which an Israeli Boeing 707 refuelling aircraft was made to look like a commercial jet from Irish airline Aer Lingus. Another World Trade Center connection is the Tridata Corporation, a subsidiary of Systems Planning Corporation. Tridata was awarded the contract to investigate the 1993 WTC bombing in which the FBI was seriously involved and ultra-Zionists played a significant part in associated legal proceedings including Michael Chertoff. Dov Zakheim is reported to be an American-Israeli duel citizen and he's an extreme supporter of ultra-

Zionism with a family history to match. His grandfather, Julius Zakheim, was a Russian rabbi who married a relative of Karl Marx, the Rothschild Illuminati bankers' frontman to sell authoritarian control (Marxism) as 'government of the people'. Zakheim's father, Rabbi Jacob Zakheim, befriended terrorist Israeli Prime Minister Menachem Begin and was himself a member of Betar, a terrorist 'youth movement' established by Mr Gun Zionism, Ze'ev Jabotinsky. I consider them all Sabbatian-Frankist 'rabbis' of the kind described by Rabbi Antelman in *To Eliminate the Opiate.* Dov Zakheim is also a rabbi, but which kind? He resigned from the Pentagon in 2014 with the missing money then totalling $3 trillion and became a Senior Vice President at Booz Allen Hamilton, a management and information technology consulting firm notorious for its connections to the US military and intelligence community including DARPA. Dov Zakheim is an ultra-Zionist insider to his DNA and controlled Pentagon spending before and after 9/11.

Lights, camera – action!

I am coming shortly to ultra-Zionist control of 9/11 'security', but first I want to emphasise again as I conclude this chapter the enormous reach Israel has into the networks of power in the United States in ways and by means and personalities that may not at first sight be obvious. A perfect example is ultra-Zionist Arnon Milchan, the billionaire businessman, film producer and founder of the production company Regency Enterprises. Milchan was born in British Mandate Palestine in 1944. He is known for movies like *JFK, Pretty Woman, Free Willy, Fight Club* and *LA Confidential,* but less known as an Israeli intelligence agent from the mid-1960s to *at least* the mid-1980s. Unless you turn against them like Victor Ostrovsky, do you ever really cease to be one? No way. Milchan is a big-time Israeli elite insider. He claimed terrorist Israeli president Shimon Peres as his 'best friend' and is also close to Benjamin Netanyahu who faces corruption and fraud charges in Israel over accepting more than $283,000 worth of champagne and cigars from Milchan in exchange for tax break laws and intervening to help Milchan with his long-term American visa. Netanyahu is reported to have asked then Secretary of State John Kerry three times to intervene on Milchan's behalf. Official political persuasions mean nothing at this level. Milchan is a close friend of far-right Netanyahu and also helped to establish the Israel Labor Party in 1968 with Peres and others including military leader Moshe Dayan. They were all equally far-right and hiding behind a 'socialist' smokescreen (as many still are today). Under the cover of his work in Hollywood Milchan was for decades Israel's 'foremost weapons procurer' in deals that included 'everything from nuclear triggers to rocket fuel to guidance systems'. Shimon Peres was the architect of Israel's nuclear weapons arsenal and so it's no surprise that one of

Milchan's Israeli intelligence roles was securing technology and materials for Israel's nuclear programme. Peres recruited Milchan to the Bureau of Scientific Relations – known as LAKAM – which negotiated arms deals and supported Israel's secret nuclear weapons project. LAKAM was headed in this same period by Mossad chief Rafael 'Rafi' Eitan, the man at the centre of the PROMIS 'back-door' scandal that infiltrated top secret government and military computer systems in America and other countries. Eitan and LAKAM were working with Jonathan Pollard, the Jewish intelligence analyst for the US government who admitted spying for Israel and providing top-secret classified information. Well, Eitan did describe America as 'the enemy'. Shimon Peres said of Milchan:

> Arnon is a special man. It was I who recruited him ... When I was at the Ministry of Defense, Arnon was involved in numerous defense-related procurement activities and intelligence operations. His strength is in making connections at the highest levels ... His activities gave us a huge advantage, strategically, diplomatically and technologically.

A documentary on Israeli television in 2013 revealed that at one time Milchan, former owner of sports brand Puma, was operating 30 companies in 17 countries to broker deals worth hundreds of millions of dollars and he told the programme that he used connections to promote the apartheid regime in South Africa in exchange for its help with Israel acquiring uranium. Someone was seriously watching his back in 1985 when a close associate heading a company Milchan financed was indicted for smuggling 800 triggers ('krytrons') for nuclear weapons to Israel. Richard Kelly Smyth ran the Milchan-financed Milco International which is reported to have done as much as 80-per-cent of its business with Milchan and Israel. The charges against Smyth listed the buyers of the triggers in Israel as Milchan Brothers and Heli Trading Ltd (also known as Milchan Limited), both owned by Milchan. Yet Milchan was never charged and Smyth did a runner to Israel before the case came to court. He was arrested by Interpol in Spain in 2001 and returned to the United States where 28 of the 29 counts against him were miraculously dropped and he was made immediately eligible for parole. Smyth would claim that his go-between who worked at the Heli Trading Company 'node' of the Israeli smuggling network code-named Project Pinto was ... *Benjamin Netanyahu.* According to the FBI report:

> Smyth and [Netanyahu] would meet in restaurants in Tel Aviv and in [Netanyahu's] home and/or business. It was not uncommon for [Netanyahu] to ask Smyth for unclassified material.

Netanyahu, Sabbatian-Frankists and ultra-Zionists have absolute contempt for the United States and every other country they manipulate for their own dastardly ends. Arnon Milchan's Israeli company Milchan Brothers represented a list of major armament (we-love-war) giants such as Raytheon in arms-to-Israel deals and he has made a fortune in the process. Milchan has been described as a 'big star' at Raytheon – the company behind Unmanned Aerial Systems (UAS) which allows a ground 'pilot' to fly unmanned Global Hawk drone aircraft on the other side of the world. If a missile or military plane hit the Pentagon on 9/11 it would most likely have been made by Raytheon. A remarkable number of Raytheon executives were listed to have died on 9/11 aircraft – Stanley Hall, Director of Electronic warfare program management (Flight 77); Peter Gay, Raytheon vice president of Electronic Systems on assignment to where the Global Hawk remote control system is made (Flight 11); Kenneth Waldie, Senior Quality Control for Electronic Systems (Flight 11); David Kovalcin, Senior Mechanical Engineer for Electronic Systems (Flight 11); and Herbert Homer, Corporate Executive working with the Department of Defense (Flight 175). Terms like 'shady' have been used by those who have worked with Arnon Milchan. Screenwriter and director Terry Gilliam, who directed the film *Brazil* for Milchan, said: 'Arnon can be great, but when it comes to money there's something – I don't know – bits just don't seem to connect.' Milchan told American Jewish journalist Ann Louise Bardach in 2000:

> I love Israel, and any way I can help Israel, I will. I'll do it again and again. If you say I'm an arms dealer, that's your problem. In Israel there is practically no business that does not have something to do with defense.

Now that last point is absolutely the truth and those businesses most especially include tech and security/cyber security companies operating worldwide. Milchan admitted to Bardach that he has allowed 'prominent Israelis' to use his companies to buy newspapers. Other authors have connected him to money-laundering – including some of the $100 million spent by apartheid South Africa to Photoshop its global image. Milchan is a close friend of media mogul and Israel fanatic Rupert Murdoch (with whom he became a business partner in Regency) and other ultra-Zionists at the top of major media organisations. Murdoch's Fox aired the episode of *The Lone Gunmen* in March, 2001, about a group within the American government hijacking an airliner by remote control with the aim of flying it into the World Trade Center and blaming Arab terrorists to justify a war. Six months before the 9/11 attacks that is serious prophecy and the programme was shot in 2000. Would it not have been an obvious move for investigators to ask where the plot for that programme came from? Arnon Milchan's first film as

executive producer, *The Medusa Touch*, in which he invested $2 million dollars, includes a scene in which a passenger aircraft is guided remotely to crash into a high-rise tower by the mind of a character played by Richard Burton. The film came out in 1978 – the year before former Mossad chief Isser Harel, the 'Father of Israeli Intelligence', made his prophecy about an attack on America's tallest building in New York. Milchan's movie, JFK, about the assassination of President Kennedy, put the blame on the US-military industrial complex with no mention of any possible Israeli involvement. American elements were to blame for sure, but was it only them? There is evidence to suggest otherwise which I include in *And The Truth Shall Set You Free*. Milchan's friend, the terrorist Israeli Prime Minister Yitzhak Rabin, was in Dallas that day and there are many Israeli connections to Kennedy's demise. Among Milchan's media interests was Israel's Channel 10 which he owned with ultra-Zionists Ronald Lauder – who lobbied for the World Trade Center to be privatised – and Josef 'Yossi' Maiman, a Mossad operative who represents Israeli oil interests in Turkmenistan. Rupert Murdoch bought into Channel 10 in 2006 before a financial crisis caused a change of ownership. Murdoch newspapers in Australia were at the forefront in libelling me in 2019 in an effort to have my speaking visa revoked. When Murdoch's mouth moves Israel is always speaking.

The web of interacting ultra-Zionist organisations and place-people operating worldwide – and especially within the United States – is incredible in its scale and influence and the same applies to 9/11 'security' or lack of it.

CHAPTER 25

Just a coincidence? (3)

The nation is bound together by an invisible chain – George Orwell

Controlling 'security' at the World Trade Center and 9/11 airports would have been essential to those behind the attacks. A list of essential preparations would not have been possible without control of the buildings and at least considerable influence over airport security. You will not be shocked by now to know that ultra-Zionists – ultimately the Sabbatian-Frankist Death Cult – secured both.

Israel's intelligence and military network had been pursuing control of World Trade Center security for well over a decade before the attacks and they first achieved this in 1987 through a Tel Aviv company called Atwell Security. This was part of the Eisenberg Group of ultra-Zionist intelligence operative and arms smuggler, Shaul Eisenberg, another player at the centre of the Israeli nuclear weapons programme involving film mogul Arnon Milchan and its connections to apartheid South Africa. Eisenberg died in China in 1997 which was appropriate given all the weapons he had covertly supplied on Israel's behalf to China, North Korea and other countries in Asia, plus the most tyrannical regimes in Central America. Eisenberg was also a major player in the creation of ultra-Zionist terror groups Irgun and Betar. He also ran ZIM shipping and a stream of other Mossad front companies. ZIM vacated its offices in the North Tower at short notice a week before 9/11 breaking the terms of its lease to do so. Eisenberg founded the Israel Corporation in 1968 in a deal with the Israeli government and the 'Eisenberg law' was passed giving him tax breaks for 30 years. Israeli police recommended in 2018 that Arnon Milchan be charged with bribery over gifts to Prime Minister Benjamin Netanyahu to pass tax exemption laws that benefited Milchan. It became known as 'Milchan's law'. There are two Israels – one for the ultra-Zionist elite like Eisenberg and Milchan and another for everyone else.

Ultra-Zionism and WTC 'security'

The Israel Corporation and Eisenberg Group were fronts for Mossad and the Israeli government's Sabbatian-Frankist global agenda. The same

goes for the Eisenberg subsidiary, Atwell Security, which won the contract to 'protect' the World Trade Center in 1987. Atwell was run by senior agents of Israeli intelligence who had worked with Isser Harel, their 'former' boss and 'father of Israeli intelligence', who made the prediction in 1979 that 'Islamic terrorists' would target the biggest building in New York because it was 'America's phallic symbol'. The deal for Atwell to take over World Trade Center security was done with the same New York Port Authority that would later sell the WTC lease to ultra-Zionists Larry Silverstein and Frank Lowy. There was not a security company in America that could have done the job? Once again the ultra-Zionist connection between the New York Port Authority and Israel is glaring at the time when Atwell was awarded the World Trade Center security contract. Ultra-Zionist Stephen Berger, Port Authority executive director at the time, has served on the board of the New York Citizens Budget Commission with Larry Silverstein while ultra-Zionist Philip D. Kaltenbacher was chairman of the Authority's Board of Commissioners. Kaltenbacher's father was the founder of the ultra-Zionist New Jersey branch of the American Jewish Committee. Yet another ultra-Zionist involved with the Port Authority until just before 9/11was Michael Glassner, a senior advisor to chairman Lewis Eisenberg. Glassner was a Southwest Regional Political Director of AIPAC who would turn up again in 2016 as executive director of the Donald Trump for President campaign committee. Ultra-Zionist Ed Koch was New York Mayor in the same period and he would later cross party lines to endorse fellow-travellers Rudolph Giuliani and Michael Bloomberg for mayor of the city vehemently controlled by ultra-Zionism. Koch's Deputy Mayor for Operations was ultra-Zionist Stanley Brezenoff who would become Port Authority executive director in 1990. A prerequisite for being Mayor of New York is to be an ultra-Zionist or Israel fanatic – witness the stomach-turning sycophantism of Mayor Bill de Blasio at the AIPAC conference in 2019 when he spoke of Israel being essential 'to shelter an oppressed people' from rising 'nativism, fascism, and white supremacy'. Straight from the script, Bill. Well done you.

Meanwhile, Atwell's negotiator with the Port Authority at the New York end was Peter (Zvi) Malkin, a major Mossad officer who kidnapped the Nazi Adolf Eichmann in Argentina in 1960 and took him to Israel for execution. Malkin hid his senior Mossad background by posing in New York as a 'security consultant' and 'artist'. There seem to be a lot of artists in Israel. I wonder if Malkin's work interested the reportedly Mossad agent mother of Michael Chertoff who ran an art gallery in New Jersey at the time? Chertoff's key role in the 9/11 cover up will be discussed later in the chapter. The World Trade Center deal quickly went pear-shaped, however, when the background to Atwell's president became known. His official name in the WTC contract

negotiations was Avraham Bendor, but he was exposed to be also known as Avraham or Avram Shalom – the former head of Israeli domestic intelligence, Shin Bet. Shalom, head of Shin Bet for six years from 1980, was exposed by the Israeli Justice Ministry for sanctioning the murder of two Palestinian bus hijackers by smashing their skulls with stones. He had to resign in 1986 along with some Shin Bet agents and was then pardoned by Israeli president Chaim Hertzog. The Israel intelligence terrible trio of Avraham 'Bendor' Shalom, Zvi Malkin and the omnipotent Rafi Eitan had worked together for decades on covert operations which included supplying Israel's nuclear programme with American uranium. Now here was the same gang, with other senior Israeli intelligence assets, seeking to secure security control of the World Trade Center that would be bombed in 1993 and destroyed on 9/11. This is all a coincidence? Pigs might ...

So the first ultra-Zionist, Israeli intelligence, attempt to control security at the World Trade Center was thwarted in 1987 by the Bendor-Shalom exposure, but they were not taking no for an answer. Why were they obsessed with controlling security at the World Trade Center? It's a rhetorical question, by the way. This brings us to ultra-Zionists Jules Kroll and Larry Silverstein insurer, Maurice Greenberg. In 1972 Kroll founded Kroll Inc., a corporate investigations and risk consulting company in Manhattan which would later employ Avraham 'Bendor' Shalom and become known as 'Wall Street's private eye'. Kroll employed ultra-Zionist Jerome Hauer who was the first director of Mayor Giuliani's New York Office of Emergency Management from 1996 to 2000 and responsible for locating the $13 million command center on the 23rd floor of Larry Silverstein's World Trade Center Building 7. It was opened in 1999 just two years before 9/11. The Office of Emergency Management took over the preparation and directing of emergency response from the New York Police Department. Hauer was replaced in this role in 2000 and across 9/11 by ultra-Zionist Richard Sheirer, 'Ground Zero's Jewish Knight', and on 9/11 Hauer was a managing director with Kroll Associates which by then had long been the company running 'security' at the World Trade Center. Ultra-Zionism controlled the World Trade Center and New York's security and response system lock, stock and barrel on September 11th. There were also connections between the Kroll family and ultra-Zionist CIA tech advisor Amit Yoran, co-founder, CEO, president and director of tech company Guardium and founding member of the Pentagon's Computer Emergency Response Team who was appointed director, or 'czar', of the National Cyber Security Division at the Department of Homeland Security with responsibility for coordinating America's cyber security. He 'designed security architecture for the Pentagon and Office of the Secretary of Defense' and was Network Security Manager maintaining operations of

the Pentagon's network. Jeremy M. Kroll, son of Jules Kroll, was on the advisory board of Security Growth Partners (SPG), a funding company founded and run by Elad Yoran with his brother Amit on the advisory board with Kroll.

The grip tightens

In 1993 Maurice Greenberg bought into Kroll when his insurance and finance giant American International Group (AIG) purchased 20 percent of the company. Greenberg doesn't do justice to the term 'ultra-Zionist' and many more 'ultras' would be required to get anywhere close. Put it this way – Henry Kissinger became chairman of AIG's advisor board in 1987. AIG was the company that originally agreed to massively increase the insurance in the case of a terrorist attack for Greenberg friend Larry Silverstein's lease on the World Trade Center and swiftly sold on the risk to the companies that had to pay Silverstein billions for his $14 million personal investment. Jules Kroll was also a friend of Silverstein and they served together on the Citizen's Budget Commission of New York. Greenberg's AIG had a joint venture in Israel called AIG Golden with the Aurec Group of ultra-Zionist Morris Kahn. Aurec is the parent company of Amdocs, the Israel-based telecommunications company that employed many of those arrested over the Israeli 'spy' ring in 2001. AIG became widely known during the financial crash of 2008 when it was bailed out by the American taxpayer to the tune of $180 billion to 'protect the financial integrity' of trading partners such as Goldman Sachs, Morgan Stanley, Bank of America, Merrill Lynch and a host of banks in Europe. The fact that AIG and the rest of the financial and banking system were *responsible* for the crash was irrelevant because they controlled the politicians and so they were considered 'too big to fail'. So big, in fact, that a fantastic transfer of wealth from the American people to ultra-Zionist banks and financial institutions was believed justified by the ultra-Zionist Federal Reserve and government operatives to keep them afloat. The financial crash was a disaster for the public but led to a breathtaking transfer of money from public via government to the bankers and insurance operations like Greenberg's AIG although the absolute domination by ultra-Zionists of the Bush and Obama financial teams that made these decisions was surely only another coincidence. Boy Bush's Treasury Secretary during the mega-bail-outs was Henry 'Hank' Paulson, former chairman and CEO of ultra-Zionist Goldman Sachs, at a time when ultra-Zionist Bernard Bernanke was head of the US Federal Reserve overseeing who got what in the bail-out. Bernanke had replaced ultra-Zionist Alan Greenspan as head of the Fed and would be replaced himself by ultra-Zionist Janet Yellen and her deputy Stanley Fischer, former governor of the Bank of Israel. Thanks to the beleaguered taxpayers AIG continues to operate in 'more than 80

countries and jurisdictions'.

In the same year of 1993 when Greenberg became a partner in Kroll two significant things happened. There was the FBI-connected World Trade Center bombing and the award of the contract to Kroll Inc. by the New York Port Authority under ultra-Zionist executive director Stanley Brezenoff to 'redesign' its security procedures – including those at ... the *World Trade Center* in the wake of the 1993 bombing. Kroll continued to control WTC security right up to 9/11 and employed former FBI anti-terrorism agent John O'Neil as head of security just before the attacks in which he died. He was offered the job on the recommendation of Kroll Associates ultra-Zionist managing director, Jerome Hauer. O'Neil had complained that his FBI investigations into terrorism and Osama bin Laden had been blocked and he had investigated the background to the 1993 World Trade Center bombing. Electronic security at the WTC was handled by a company called Securacom (now known as Stratesec) which had Marvin Bush, youngest brother of President Boy Bush, on the board from 1993 to 2000. Securacom was funded by the long-time Bush family-linked Kuwait-American Corp that was connected to the Kuwaiti 'royal' family which, in turn, is close to the Saudi 'royal' family of Donmeh Sabbatian-Frankists. The company also worked for the Department of Defense. Kroll had a close association with another company, Marsh & McLennan (MMC), a New York-based global insurance brokerage and risk management operation. Jeffrey Greenberg, son of Kroll's Maurice Greenberg, was either CEO or chairman of MMC between 1999 and 2004. MMC acquired Kroll Inc. in 2004 in an all-cash deal. The amazing connections and coincidences continue with the fact that the alleged (but not) 'Flight 11' struck the North Tower of the World Trade Centre at an impact zone which spanned the floors of Marsh & McLennan from 93 to 99 and specifically hit a secure computer room. One of the Marsh & McLennan offices belonged to Paul Bremer, former managing director of ultra-Zionist Kissinger and Associates. War criminal Henry Kissinger was the man Bush and Cheney named to head the 9/11 Commission until his monumental conflicts of interest forced him to stand-down. His side-kick Bremer would be appointed Presidential Envoy to Iraq by Bush (Kissinger) to oversee US operations in the country after the invasion of 2003. Bremner at the time of 9/11 was chairman and CEO of Marsh Crisis Consulting, a risk and insurance subsidiary of Marsh & McLennan. He was not in his office when the plane stuck – I bet you are stunned to your water by that – but he was in a live television studio at lunchtime that day being introduced as a 'counter-terrorism expert' who was Chairman of the National Commission on Terrorism. I have watched this NBC interview on the Internet and that was truly shocking even for me. He is quickly into 'Bin Laden did it' mode with Iraq and Iran thrown in and he is astonishingly

calm throughout when hundreds of Marsh & McLennan employees were at the epicentre of the strike on the North Tower in the very area where he had an office. None of them would survive with 295 MMC employees and 63 contractors killed. Bremner does not even mention his Marsh & McLennan connection and what happened to its North Tower offices which suffered a direct hit three hours earlier and by then the building had collapsed. It's an absolute head-shaker.

Calling them 'home'?

The final report on the collapse of the towers by the National Institute of Standards and Technology (NIST) describes how the nose of 'Flight 11' struck the 96th floor and 'filled the 96th and 95th floors from top to bottom'. The report describes the 95th floor as being a 'large walled data centre along the north and east sides' and the plane hit the floor on the north side. Christopher Bollyn called Marsh & McLennan to confirm what had been on the 95th floor and talked to company spokesman, Reginald McQuay, who said it wasn't a data centre, but a *computer* centre. NIST's report on the South Tower says it was struck on the 81st floor without describing what was there. The floor in fact was one of three occupied by Fuji Bank, but no other details about floor 81 came to light until a former bank employee who worked with computers came forward. He said the 81st floor had been specifically reinforced and a raised platform introduced to support massive UPS (Uninterrupted Power Supply) batteries, or at least they *appeared* to be. Cables and a power supply ran underneath the raised platform, but the employee said they were *never turned on*. He said they were delivered during the night and were in place by the summer before the attacks ... 'The whole floor was batteries' ... 'huge battery-looking things' [which were] ...'all black' ... 'solid, very heavy'. The employee said that only senior IT people from Fuji and associated banks were ever allowed in there along with staff from Shimizu-America Corp, a Japanese heavy construct, engineering and project management company. Shimizu employees were the only ones who could open the 'enclosed server racks' that 'were so tall you could not see over the top of them', the source said. Bollyn could get no explanation from Shimizu-America about what the 'batteries' were or what was happening on the 81st floor. NIST confirms the floor had been reinforced and other documents say this was 'to accommodate the new UPS workspace'. Bollyn tracked down the structural engineering firm called Leslie E. Robertson and Associates (LERA) and spoke with SawTeen See, a managing partner. She said she was not at liberty to discuss the work and Bollyn should contact the 'project owners' – the New York Port Authority. It is very possible that the floors the planes hit in both towers contained some kind of homing device guiding them to their target via on-board remote-control

technology and there was certainly something strange about the 81st floor of the South Tower from which molten metal was seen pouring after the strike. Bollyn points out that this could be explained if thermite, or thermate, was stored on the floor. He points out that the metal is yellow and white hot and says thermite/thermate could have this effect and explain the white smoke pouring from around the 81st floor. White smoke is produced in a thermite/thermate reaction which has the power to cut through even the huge supporting pillars at the World Trade Center, advocates of this theory claim. Whatever the detail of exactly what happened, we can see that Israeli intelligence and ultra-Zionists both aggressively sought control of World Trade Center security from at least the mid-1980s and had secured that control for years before 9/11. This would have been essential to making the attacks possible and total control came with the arrival of Larry Silverstein as lease-holder from the summer of 2001.

Ultra-Zionist airport 'security'

Several security companies were at work at 9/11 airports, but one worth emphasising in the light of all this background is Huntleigh USA, a subsidiary of ICTS, the Netherlands-based International Consultants on Targeted Security. ITCS was founded in 1982 by Israelis Ezra Harel and Menachem Atzmon and run by Israeli intelligence agents. Harel was under criminal investigation relating to a company collapse when he died in 2003 while Atzmon was convicted of political fraud in 1996 over his actions as co-treasurer of Netanyahu's Likud Party. His fellow co-Treasurer and later Prime Minister, Ehud Olmert, was acquitted in the same case and later jailed in 2016 on other corruption charges. Olmert was in New York on 9/11 when Mayor of Jerusalem with the Israeli owners of the Wings 'beachwear' chain. Three years after his criminal conviction Menachem Atzmon and his partner Ezra Harel took over security at Boston Logan and Newark Airports in 1999 via Huntleigh, a subsidiary of ITCS which was operated by 'former' members of Israeli Shin Bet intelligence and 'former' Israeli military personnel. Mossad-controlled ITCS was also responsible for security at Charles de Gaulle Airport in Paris where 'shoe bomber' Richard Reid boarded in 2001 and at Amsterdam's Schiphol Airport where 'underwear bomber' Umar Farouk Abdulmutallab, a Muslim Nigerian, was allowed to board in 2009. American lawyers Kurt and Lori Haskell were passengers on the latter flight and said they watched the would-be bomber being allowed on the plane without a passport after the intervention of a 'smartly dressed man' of possibly of Indian descent with an American accent. Abdulmutallab apparently had a one-way ticket which is a no-no for a non-resident flying to the United States. The Haskells, of course, were dismissed as 'conspiracy theorists', but Kurt Haskell was convinced that

the whole thing was a scam: 'Umar was given an intentionally defective bomb by a US Government agent and placed on our flight without showing a passport or going through security, to stage a false terrorist attack to be used to implement various government policies.' It emerged that ICTS had earlier allowed shoe bomber Richard Reid onto a flight from Amsterdam to Tel Aviv in July, 2001, for what is reported to have been an all-expenses-paid trip to Israel. Paid by whom and why? Reid apparently said that he had explosives in his shoes on that occasion, too. His aunt, Claudette Lewis, who raised Reid in London, said she believed he had been brainwashed. *This*, then, is the Israeli company, run by Israeli intelligence operatives, that failed to protect its 9/11 flights from terrorism. Ultra-Zionist Michael Chertoff who oversaw the [non]-investigation of 9/11 at the US [In]Justice Department and then became head of Homeland Security did the rounds of television studios using the 'underwear bomber' as an excuse to press for full-body radiation scanners at airports. He didn't mention that his Chertoff Group represented the manufacturer, Rapiscan Systems. I'll have more about Chertoff shortly, but you have him to thank for full-body scanners that give you a blast of radiation every time you board a plane unless you choose to opt out – and almost no one does. Ultra-Zionist ITCS handled security at Moscow's Domodedovo International Airport when 37 people died and 173 were injured in 2011 in a suicide bomb blamed by the government on lax security and also at Brussels airport when 32 civilians died and more than 300 were injured in a bombing blamed on Islamic State in 2016.

The same Israeli ITCS was involved with security on the London underground when bombs on three tube trains and a London bus blamed on 'Islamic terrorists' killed 52 people and injured more than 700 on July 7th, 2007. They became known as the 7/7 bombings. Surveillance cameras on the bus were not working and surveillance images in general were remarkably sparse. Benjamin Netanyahu was in London at the time and said he was warned by the Israeli embassy not to attend an event that morning close to where one of the bombs went off – an event also attended by 9/11 New York Mayor Rudolph Giuliani. Some witnesses described how train floors were bent *into* the carriages from underneath and not the other way as would have happened if the bombs were as claimed in the bags of 'Islamic terrorists' inside the train. You'll recall from earlier that former Mossad chief, Efraim Halevy, wrote in *The Jerusalem Post* about 'multiple, simultaneous explosions that took place today on the London transportation system' when London police did not know at the time they were 'simultaneous' and until later believed them not to be. ITCS subsidiary, ITCS UK, had its office in London's Tavistock Square and the bus bomb went off right in front of the building. Fortress GB, another Israeli company, had an office next to

ITCS UK on the first floor of Tavistock House South and still *another* ultra-Zionist operation, Verint Systems, then a subsidiary of Israel's Comverse Technology, was given the contract the year before the 7/7 bombings to install a 'networked video system' across the underground. 'We are delighted to be helping the London Underground meet their important security and customer service objectives,' said Dan Bodner, a former senior Israeli army officer who was President and CEO of Verint. New York-based Verint (around half the staff reportedly live in Israel) was known until 2002 as Comverse Infosys. This has already appeared in the story when its role was exposed by Fox News reporter Carl Cameron in his revelations about the Israeli 'spy' ring and its connection to Israeli security, surveillance and telecommunications companies. Cameron said Comverse worked closely with the Israeli government which under 'special programmes' paid half the company's research and development costs. He was told by US investigators that it was 'career suicide' to question if Comverse was involved in spying for Israel. There is no Israeli 'security' company that is not connected in some way – usually fundamentally – to the Israeli military and intelligence network (see the Beersheba operation). Another Mossad front, sorry, 'private spy firm', to watch is Black Cube (very significant symbolism for Saturn – see my other books) which involves former Mossad chief, Efraim Halevy, who was so prophetic in his *Jerusalem Post* article about the 7/7 bombings. Black Cube is known as 'private Mossad' but then that's what they all are. As ultra-Zionist film producer and Israeli intelligence operative Arnon Milchan said: 'In Israel there is practically no business that does not have something to do with defense.' Or worldwide come to that.

So here we have an attempt by top-level Israeli intelligence operatives to gain control of World Trade Center security from at least the 1980s and when the first attempt failed through the exposure of Avraham 'Bendor' Shalom the control was secured through ultra-Zionist Kroll Inc. in 1993 following the World Trade Center bombing. The first plane to strike on 9/11 made a direct hit on the offices of Kroll-connected Marsh & McClennan run by ultra-Zionist Jeffrey Greenberg, son of Kroll Inc. partner and ultra-Zionist Maurice Greenberg. At the same time a company run by 'former' agents of Israeli domestic intelligence Shin Bet ran security at two of the three 9/11 airports. But don't worry, it's all a coincidence and to suggest otherwise is 'anti-Semitic' and 'Holocaust denial'.

Chertoff your back

It is not possible to understand what happened before, during and after 9/11 without the background to ultra-ultra-Zionist, Michael Chertoff (Fig 143). He is yet another Israeli-firster-and-laster with his fingerprints

Figure 143: Ultra-Zionist Michael Chertoff who oversaw the 9/11 (lack of) investigation.

all over 9/11. Chertoff was born in Elizabeth, New Jersey, but the family has Russian roots. His father was a rabbi (which kind?), Talmud scholar and former leader of Congregation B'nai Israel in Elizabeth. The Talmud is a deeply racist work with origins in Babylon and the ancient world and this is the foundation, together with the Kabballah, of ultra-Zionism and the Sabbatian-Frankist Death Cult. Chertoff's grandfather, Paul Chertoff, was also a rabbi (which kind?) and his mother, Livia Chertoff (née Eisen), was an Israeli citizen and the first flight attendant for Mossad-connected Israeli airline El Al. She was reportedly a founding member of Mossad. She took part in Operation On Wings of Eagles (also Operation Magic Carpet) in 1949/50 that transported nearly 50,000 Yemeni Jews to Israel. This was presented as an wonderful success while many Jews suffered in the extreme with thousands abandoned in deserts and left to fend for themselves. Chertoff spent much of his childhood in Israel and then attended the Jewish Educational Center in Elizabeth and went on to the London School of Economics (the same as insiders like David Rockefeller and George Soros) and Harvard Law School. He was hired as a prosecutor by then US District Attorney Rudolph Giuliani and in 1990 Father George Bush made him United States Attorney for New Jersey. Chertoff was asked to stay in the post by the incoming President Clinton and was the only US attorney not to be replaced when Democrats came to power. He was appointed special counsel for the Senate committee investigation into the Clintons known as 'Whitewater' when no charges followed. Then, in 2001, he was named by the incoming President Boy Bush as head of the Criminal Division of the Department of [In]Justice where he stayed until 2003. Now Chertoff was sitting at the epicentre of the criminal 'justice' nexus in the United States in the period across 9/11. The [In]Justice Department website says:

> The Criminal Division develops, enforces, and supervises the application of all federal criminal laws except those specifically assigned to other divisions. The Division and the 93 US Attorneys have the responsibility for overseeing criminal matters as well as certain civil litigation. Criminal Division attorneys prosecute many nationally significant cases. In addition to its direct litigation responsibilities, the Division formulates and implements criminal enforcement policy and provides advice and assistance on criminal matters.

The Criminal Division also: '... advises the Attorney General, Congress, the Office of Management and Budget and the White House on matters of criminal law; provides legal advice and assistance to federal prosecutors and investigative agencies; and provides leadership for coordinating international as well as federal, state, and local law enforcement matters.' When 9/11 happened ultra-Zionist Michael Chertoff was in effect running the show in all matters criminal and the [In]Justice Department was boss to the FBI – the lead [non]-investigative agency for 9/11. A 2005 report in *USA Today* described how Chertoff went to work immediately the first plane hit:

> In the minutes after the Sept. 11 terrorist attacks, while Attorney General John Ashcroft was rushing back from Milwaukee, Michael Chertoff was calling the shots.
>
> Chertoff, then chief of the Justice Department's criminal division, breached the prickly territorial lines that have long divided the Justice Department from the FBI. From a fifth-floor office at FBI headquarters, above the streams of panicked people who flooded Pennsylvania Avenue, he set up shop in the bureau's crisis center. For the next 20 hours, he directed the government's initial response to the most lethal terrorist attack in US history.
>
> Chertoff would spend the next two years serving as a central figure in formulating US anti-terrorism policy – from the effort to secretly detain hundreds of Middle Easterners in the USA, to increasing the FBI's authority to conduct domestic surveillance at religious gatherings and other public events.

In other words ultra-ultra-Zionist Israel-worshipping Michael Chertoff had control of the criminal [non]investigation into 9/11 *and* the writing and implementation of legislation to take away basic freedoms justified by 9/11 *and* as head of Homeland Security the authority to enforce that legislation. *ONE MAN*. In his role as head of the Criminal Division of the [In]Justice Department Chertoff had the power not to prosecute the Dancing Israelis and 200 Israeli 'spy ring art students' and simply send them back to Israel – which he did. There should have been a long and detailed investigation into what had been happening and its connection to the September 11th attacks. Instead Chertoff and company closed it down and sent the suspects home to Israel where they were untouchable. Nor did Chertoff seek out Dominik Suter at the Mossad-front Urban Moving Systems when he fled to Israel after his first FBI interview. Chertoff and the White House were supported in blocking an investigation into Urban Moving Systems by ultra-Zionist California US Representative Jane Harman, chair of the Working Group on Terrorism

and Homeland Security, a subcommittee of the Intelligence Committee. Harman served nine terms in Congress and was a member of all major security committees – Armed Services (six years), Intelligence (eight years) and Homeland Security (eight years). She received the Defense Department Medal for Distinguished Service, CIA Agency Seal Medal, CIA Director's Award and the Director of National Intelligence Distinguished Public Service Medal. These awards go to big-time insiders that serve the interests of the Pentagon and CIA. Washington publication *Congressional Quarterly*, or *GQ*, revealed details in 2009 of a National Security Agency (NSA) wiretap of Harman that was connected to an investigation into alleged Israeli covert operations in the US capital. Well, blow me down, who'd have thought it? The call was between Harman and an agent of the Israeli government in which she is said to have agreed to lobby the [In]Justice Department to drop espionage charges against two employees of AIPAC. In return the agent promised support in Harman's efforts to chair the House Intelligence Committee. NSA transcripts are reported to record Harman saying at the end of the call: 'This conversation doesn't exist.' Even though Harman was a Democrat further investigation of her was blocked by Alberto Gonzales, Attorney General for Republican Boy Bush. There are no national or party boundaries with ultra-Zionism and Sabbatian-Frankisim. Espionage charges against the AIPAC employees were indeed dropped – against the wishes of the FBI.

So transparently corrupt

While Chertoff was failing to investigate and prosecute the arrested Israelis he instead ordered the rounding up of innocent Muslims without charge or lawyer to promote the 'Muslims did it' cover story that ultra-Zionists were using to (a) justify American wars in the Middle East and (b) to cover their own tracks over 9/11. The immediate Problem-Reaction-Solution response to the attacks was to rapidly introduce the Patriot Act – the first post-9/11 assault on freedoms and civil liberties justified by 'protecting America from terrorism'. It was signed into law the month after the attacks and was clearly written and in the pipeline before they happened. The Patriot Act was co-written by its dominant author – *Michael Chertoff*. He drove America's 'anti-terrorism' policy with a huge increase in police powers and secret detention and oversaw the prosecution of '20th hijacker' Zacarias Moussaoui which ended in a life sentence in 2006. Chertoff is described as 'the master of the cover up' by Sanders Hicks in *The Big Wedding: 9/11, the Whistle-Blowers and the Cover-Up*. For a start Chertoff was a key player as a Senate Counsel in the blatant cover-up of the fake suicide (murder) in 1993 of Vince Foster, a Deputy White House Counsel in the Bill Clinton administration and an associate of the Clintons since their days

in Little Rock, Arkansas. Foster knew where the bodies were buried in every sense and he was added to a long, long list of murders, 'accidents' and fake suicides of people dangerous to the Clintons which became known as the 'Clinton Body Count'. John H. Clarke, lead attorney for private detective Patrick Knowlton who tried to expose the Foster murder, said of Chertoff: 'He's a dishonest bastard. He went along with the Foster cover-up.' Just the guy you want in charge of the 9/11 criminal investigation then. Sanders Hicks describes how Chertoff failed to prosecute alleged funders of Islamic terrorism before the attacks and yet a month after 9/11 he was named by the Boy Bush White House to head Operation Green Quest, a multi-agency investigation including the FBI, into the funding of terrorist organisations. The operation went nowhere in terms of the prime culprits and failed to properly investigate Ptech and connected companies with their back-door control of all the relevant 9/11 computer systems. The same is true of the FBI headed by Robert Mueller who moved to the Bureau just two weeks before 9/11. Mueller was head of the [In]Justice Department's Criminal Division during the cover-up of the BCCI banking scandal and flawed prosecutions in the case of Pan Am Flight 103 which crashed after an on-board bomb exploded over Lockerbie in Scotland. Running the Criminal Division is a monumentally pivotal position, especially in the response, or lack of it, to 9/11 and ultra-ultra Zionist Chertoff was sitting in the chair. It is important to remember that all the endless examples of the FBI's determination not to investigate 9/11, cover up and destroy evidence and block the work of genuine agents came under the ultimate control and responsibility of Michael Chertoff and his underling, Mueller.

With the official story in place and any evidence that challenged the narrative trashed, deleted or ignored, Boy Bush made Chertoff the second head of Homeland Security in 2003. This is a freedom-busting operation specifically justified by 9/11 that brought together 187 federal agencies and departments which included the agencies of US intelligence, the Secret Service, National Guard, Federal Emergency Management Agency (FEMA), US Coast Guard, Immigration and Customs Enforcement, Citizenship and Immigration Services, Civil Air Patrol and the Transportation Security Administration (TSA). Homeland Security is a Big Brother wet dream and 9/11 was the excuse to create it. Tom Fitton, president of Judicial Watch, said of Chertoff's rapid progression: 'It's an exceptional rise to power.' Yes, what timing in relation to 9/11 and what it was used to justify in terms of crushing civil liberties. Chertoff has since made a fortune through his Chertoff Group, co-founded with Chad Sweet, his Chief of Staff of Homeland Security who also worked at the Directorate of Operations for the CIA. The Group has employed other Homeland Security personnel and former

Director of the CIA, General Michael V. Hayden. There needs to be an independent investigation into Chertoff's actions throughout his time at the [In]Justice Department with relation to 9/11 – but don't hold your breath.

Smelting the evidence

Chertoff's Criminal Division, its subordinate FBI headed by Mueller, and the administration of New York Mayor Rudolph Giuliani allowed the steel from World Trade Center buildings with all the evidence it contained to be rapidly removed from the site and smelted down. More than 1.6 million tons of steel and other remains were transported to New Jersey scrapyards by June, 2002, for shipping to Asia. Chertoff also confiscated aircraft remains and denied all access to evidence by 9/11 families while citing SSI laws or 'Sensitive Security Information Regulations'. I doubt Chertoff has ever felt 'sensitivity' in his life. Chertoff's actions ensured that a full and proper investigation into the cause of the building collapses was virtually impossible. Had the steel been protected for detailed examination we would know for sure what caused the colossal girders to give way in unison in an instant and what explosives, thermite or whatever else were involved. A chemical examination could have been definitive. Instead, on the watch of Chertoff, Mueller and Giuliani, the evidence was whisked away to New Jersey scrap yards and off to Asia for smelting. All three knew each other extremely well with Israel-lackey Giuliani once hiring Chertoff as a prosecutor in the 1980s when the future New York Mayor was the United States Attorney for the Southern District in Manhattan. Giuliani's Commissioner for the New York Office of Emergency Management at the time of 9/11 was ultra-Zionist Richard 'Ground Zero's Jewish Knight' Sheirer who died in 2012. Sheirer was put in charge of the rescue and clean up at the World Trade Center and so was directly involved in the chain of command that allowed the steel to be removed before an investigation could take place. He would later become Senior Vice President at Giuliani's private company, Giuliani Partners. The FBI's inspector in charge of the 9/11 [non]-investigation under Director Mueller was Pasquale J. D'Amuro and again he would have had to sanction the destruction of the steel. D'Amuro would become chairman of Giuliani Security and Safety. Ultra-Zionist Sheirer took charge of coordinating the Ground Zero clean-up overseeing the work of some 100 agencies and he handed responsibility for the steel to Kenneth Holden, head of New York's Department of Design and Construction. Holden oversaw removal of the steel under Mayor Giuliani and his successor, ultra-Zionist Mayor Michael Bloomberg who responded to complaints about the removal of evidence with the memorable line: 'Just looking at a piece of metal doesn't tell you anything.' Holden told the 9/11

Commission that he had been given 'verbal permission' to remove the steel and transport it to New Jersey scrapyards. He didn't say who the person was and staggeringly (or maybe not) the Commissioners appear not to have asked him. Holden was no more forthcoming when Christopher Bollyn made contact to ask who had told him to start moving the steel and other debris. The call quickly ended with Holden refusing to answer and saying he was no longer doing interviews on the subject. Bollyn called back and asked immediately the phone was picked up: 'Was it Chertoff who gave you the verbal permission?' Holden remained silent and ended the call. Given that Michael Chertoff was overseeing the entire 'investigation' how could he not have sanctioned the decision for the crucial removal of evidence? Bollyn wrote to Chertoff to ask if he had authorised the removal of the steel. 'No', Chertoff replied. When asked who did he said: 'No idea.' The very suggestion that the man in overall charge of the criminal investigation into 9/11 didn't know who sanctioned the rapid removal of crucial evidence is preposterous and clearly a lie.

The smelting of World Trade Center steel brings us to an ultra-Zionist mega-crook and Mossad operative called Marc Rich. Commodities were his business. He was a billionaire international commodities trader, financier and businessman who was indicted with an ultra-Zionist partner in 1983 on 65 charges relating to tax evasion and oil deals with Iran despite a US embargo while American hostages were being held by the Iranians. Rich fled to Switzerland when he knew the indictment was coming. A 2005 article in Israeli daily *Haaretz* said that Rich 'carried out special missions for the State of Israel and the Mossad'. He was also 'a donor who channelled more than a billion shekels to Israel – and a man who was pursued by the US legal authorities on suspicion of tax evasion, money laundering and commercial ties with the enemy'. Rich had ties with everyone who would make him money. He supplied most of Israel's oil after the 1973 Yom Kippur War when the country was subject to an oil boycott (ironically Rich sourced the oil from Iran) and like so many ultra-Zionists he traded with apartheid South Africa. Charges against Rich in America carried a potential sentence of more than 300 years in jail (life would have sufficed surely), but Bill Clinton gave Rich a presidential pardon on his last day in office. Rich's songwriter wife, Denise (née Eisenberg), gave more than a million dollars to Clinton's Democratic Party plus $100,000 to Hillary Clinton's Senate election campaign and $450,000 to the Clinton presidential library. There were, however, more important reasons than money for Clinton's pardon. *Haaretz* reported that Israeli political leaders were behind the decision:

> The pardon was granted after heavy pressure by none other than then-Prime

> Minister Ehud Barak, Shimon Peres, Ehud Olmert and other prominent Israelis and American Jews ... Clinton received a request for the Rich pardon signed by Barak, Shimon Peres, Ehud Olmert (then mayor of Jerusalem), Foreign Minister Shlomo Ben-Ami, Mossad chief Shabtai Shavit, Spanish King Juan Carlos and a number of leading members of the Jewish community in the US, Switzerland and the world of finance.

Nearly 56 of the 71 signatories were prominent Israeli or American ultra-Zionists including Abe Foxman, head of the Anti-Defamation League (ADL) and Rabbi Irving Greenberg, chairman of the American Holocaust Memorial Museum. Prime Minister Barak further applied pressure directly in a meeting with Clinton. *Haaretz* quotes social activist Eldad Yaniv, who was in the next room, describing how Barak shouted at Clinton, insisting that he approve the pardon. Yaniv wrote in his online book *U-Turn*:

> '[The pardon] could be important,' Barak shouted at Clinton. 'Not only from the financial aspect, but also because he helped the Mossad in more than one instance.'

What did Barak mean by 'the financial aspect'? Terrorist Ehud Barak was the man who spoke on the BBC immediately after the 9/11 attacks pointing the finger at Osama bin Laden and calling for the invasion of Afghanistan. Former Israeli military intelligence commander Barak moved to the United States in 2001 to be an advisor for Electronic Data Systems and a partner with financial company SCP. Marc Rich founded a commodities and raw materials company, Marc Rich & Company AG, in 1974 and sold his majority stake to commodity trading company Glencore International in 1993. Rich's fellow ultra-Zionist, Ivan Glasenberg, CEO of Glencore, also has Mossad connections and the Israel-based Marc Rich Foundation was headed by 'former' Mossad operative, Avner Azulay. *Haaretz* said Azulay had organised the Clinton pardon from behind the scenes with Clinton's Deputy Attorney General Eric Holder, an ultra-Zionist agent, also involved. Holder grew up around ultra-Zionist elite families and became their place-man. Azulay, who had ties to 9/11 Israeli Prime Minister Ariel Sharon, ran the Rich Foundation from the Asia House office building in Tel Aviv of ultra-Zionist Shaul Eisenberg who I highlighted earlier as an Israeli intelligence operative and arms smuggler heavily involved in the Israeli nuclear weapons programme and its connections to apartheid South Africa. The Eisenberg Group owned Atwell Security, the Israeli intelligence front that won the contract to run security at the World Trade Center before the background to its president, Shin Bet chief Avraham 'Bendor' Shalom, came to light. Ultra-Zionism is a very small

world, to be sure.

The Mossad/Asia connection

Shaul Eisenberg had been Mossad's man in Asia where the World Trade Center steel ended up. The steel was quickly removed from the Ground Zero site by a Zionist company and transported to two Zionist-owned New Jersey scrapyards, Hugo Neu and Metal Management, who cut it into small pieces and shipped it to Asia. Hugo Neu was a German Jew who formed the Associated Metals and Minerals Corporation in New York in the 1930s with fellow ultra-Zionists Meno Lissauer and Walter M. Rothschild before founding the Hugo Neu company in 1947. Two years before 9/11 with scrap metal prices extremely low Hugo Neu launched a global trading arm, Hugo Neu Schnitzer Global Trade, to broker deals with Asian markets among others and it was headed by two ultra-Zionist former Marc Rich and Glencore traders, Nathan K. Fruchter and Jedua Saar, as reported by *Business Wire* in 1999. Christopher Bollyn writes in *Solving 9/11:* 'From their early days with Marc Rich and Glencore, on to Hugo Neu and [later] the Midland Group, Saar and Fruchter have always worked for companies closely tied to Israel and Mossad.' Hugo Neu had some good fortune in 2001 when they entered into a joint venture with the New Jersey Office of Maritime Resources to dredge the water access to its yard and this allowed bigger ships to enter – essential with the size of the vessels that would later ship World Trade Center steel to Asia. The dredging cost Hugo Neu $24 million. The new company and the dredging were brave investments at a time of such depressed scrap metal prices. Bollyn points out that Hugo Neu has invested in the Agua-Agro fund, an Israeli venture capital operation. The fund was managed by Nir Belzer who co-founded Israel's Millennium Materials Technologies Fund with Oren Gafri who was trained at the Israeli Dimona Nuclear Research Center in the Negev Desert. Bollyn says Gafri is 'a specialist in energetic nano-composite coatings exactly like the one [he believes] pulverized the 220 acres of concrete floors in the World Trade Center'. He says Millennium Materials Technologies has invested in companies that produce these coatings.

Robert Kelman, Hugo Neu vice president, said in 2002 they had processed and shipped around 250,000 tons of World Trade Center steel. Girders and columns were cut into pieces less than 60 inches long and shipped for smelting while mixed with other scrap. *The New York Times* reported that Hugo Neu had a workforce of nearly a hundred people working on scrap from the World Trade Center with 25 assigned to girder cutting and working in twelve-hour shifts around the clock before being shipped for smelting in eleven countries in Asia. Why not smelters in the United States? Why smelt at all until experts had examined the

steel for evidence? World Trade Center steel would end up as other products from street lamps to refrigerators. The other company involved with the disposal of World Trade Center steel was Chicago-based Metal Management Inc. headed by Zionist Alan D. Ratner who was appointed in 2000. Another executive Daniel W. Dienst, a managing director with Zionist-controlled CIBC World Markets, joined Metal Management to guide the company out of financial difficulties in June, 2001. CIBC World Markets, formerly Oppenheimer & Co., has enormous connections to Israel. *The Jerusalem Post* described CIBC as the leading underwriter in Israel with merger and acquisition transactions in the country worth more than $4.5 billion in the previous five years. CIBC had also been involved with nearly 100 mostly high-tech Israeli companies which takes us back to Israeli military control of cyberspace. Metal Management and Hugo Neu both later merged with the Sims Group. Christopher Bollyn said he made efforts to talk with executives Robert Kelman, Alan Ratner and Daniel Dienst, but was passed on to a Sims company spokesman who refused to connect him with the three men to question them about the steel removal. The spokesman said it was all a matter of public record – 'read *The Wall Street Journal*'.

Contempt for 9/11 victims and families

By early February, 2002, a report by James Glanz and Eric Lipton in *The New York Times* was describing the truly farcical situation that Michael Chertoff and his ultra-Zionist cohorts had allowed to unfold. The headline said it all: 'A Search for Clues In Towers' Collapse; Engineers Volunteer to Examine Steel Debris Taken to Scrapyards'. What an insult to the families who lost their loved ones. Take in the scene described here and think that nearly 3,000 people had died months before in the biggest 'terrorist attack' on American soil:

> From the moment the two towers collapsed on Sept. 11, engineers and other experts have been struggling to answer the monumental questions of exactly why and how the buildings, designed to sustain a jet impact, completely collapsed. But despite promises of a broad federal investigation, and after weeks of calls from victims' families and others to halt the destruction of the steel that could hold all sorts of clues, the half-heroic, half-comic scenes at the Jersey City scrapyard continue to play out.
>
> Small teams of engineers plot slightly mad dashes, like mountain goats, into mounds of steel to claim pieces of tower columns. The engineers time their forays to avoid being crushed ... Through it all, the engineers profess optimism that they are catching and saving what is most useful. But they concede that there is no way of saying for sure; an unknown number of steel columns has been sent off to mills as far away as Asia without ever having been examined

> or saved.
>
> 'What they're doing is extremely noble, ambitious and wonderful and I'm glad somebody is doing that,' said Dr James G. Quintiere, a professor in fire protection engineering at the University of Maryland. But, he added, 'the steel, to me, it's almost a foregone conclusion that it's gone'.

This tragic farce could only have happened because Chertoff and his ultra-Zionist conspirators didn't want the real answers to be found. There can be no other rational or credible explanation. Road transportation from Ground Zero to dump sites in New York and New Jersey was overseen by Zionist Yoram Shalmon of subcontractor PowerLoc Technologies of Toronto. Trucks were tracked in real time using GPS – and I mean *tracked*. Shalmon told SecuritySolutions.com:

> We were able to start identifying patterns of behaviour. If a driver arrived late, the traffic analyst would look at why. Maybe the driver stopped for lunch, or maybe he ran into traffic. Ninety-nine percent of the drivers were extremely driven to do their jobs. But there were big concerns, because the loads consisted of highly sensitive material. One driver, for example, took an extended lunch break of an hour and a half. There was nothing criminal about that, but he was dismissed.

All this high-detailed real-time tracking for 'sensitive material' that was then dumped or shipped to Asia for smelting? *C'mon.*

Covering all bases

Ultra-Zionist judges answering to Michael Chertoff's 'Justice' Department dominated criminal and civil decisions and litigation with regard to 9/11. Chertoff's Criminal Division could block rigorous and genuine investigation into the criminal legalities of 9/11, but there was the problem of civil actions by families of victims and others who claimed civil loss from the attacks. Families were offered government compensation if they agreed not to seek civil actions that would have the background and evidence to what happened examined in open court. Nearly a hundred families, however, were not having that. They wanted their day in court so the evidence could be publicly revealed in cases filed against airlines and security firms like Shin Bet/Mossad front ITCS. This was a potentially catastrophic development because, as *The New York* Times reported: '... the families had amassed a trove of internal documents and depositions.' Enter ultra-Zionist Alvin K. Hellerstein, a judge for the US District Court for the Southern District of New York (Fig 144). He was appointed to oversee (control) the civil litigation relating to 9/11 including compensation for fire fighters and first

Figure 144: Ultra-Zionist Judge Alvin K. Hellerstein - stopped 9/11 families taking their case to court in pursuit of the truth.

responders whose minds and bodies had been ravaged by their experience. Many would die before they received a penny. Hellerstein ran what has been described as 'a war of attrition' against the families and not one of their cases came to court. Over a period of ten years each one in turn was settled confidentially under his direction as the families gave up hope on securing justice. Hellerstein told *The New York Times* that he had 'no regrets' about the outcome of the cases when they should have explored the background to the deaths of nearly 3,000 people. He acknowledged criticism from those that wanted a trial in open court (the very last thing ultra-Zionists and Sabbatian-Frankists behind 9/11 wanted). Families have talked of Hellerstein's coldness towards them. Ellen Mariani, who lost her husband on United Airlines Flight 175, said of Hellerstein: 'That bastard judge is so corrupt.' The family of Mark Bavis, a 31-year-old hockey scout aboard Flight 175, said Hellerstein 'essentially gutted the case so that the truth about what led to the events of September 11, 2001, would never be told at trial'. The Bavis family were the last to settle in 2011. Michael Bavis, twin brother of 9/11 victim, Mark, was saying as late as 2010 that a settlement 'has not been in our vocabulary', but then *The New York Times* reported:

> Judge Hellerstein shifted the focus of the case in a way that the plaintiffs believed favored the defendants, United and a security firm [ITCS] that ran the checkpoint at Logan International Airport in Boston, where Mr. Bavis had boarded the plane.

The Bavis family were well prepared for the trial and argued that the airline had a history of security breakdowns and of not heeding warnings from a company executive about inadequate staffing and training. They said that many screeners on duty on September 11th could not speak English and some had never heard of al-Qaeda or knew what Mace spray was. I guess they would never have heard of Mossad either. With Hellerstein's direction in favour of the defendants the Bavis family finally gave up. Michael Bavis said: 'We put ourselves through great strain to try to do what we considered the right thing and eventually threw the towel in.' One of Hellerstein's scams was to determine the likely financial pay out to families before liability had actually been proved – a ridiculous inversion of normal procedure – and

this was to signal the likely cash payments so families would be more likely to settle out of court. Another point about Hellerstein – he ruled in 2007 that jurors in litigation cases brought by families related to Flight 93 would not be allowed to listen to the entire recording of the alleged Cockpit Voice Recorder. They could only hear 'portions that the hijacked passengers may have heard'. He wasn't even subtle about his intent. Hellerstein agreed that by not holding a trial there was a 'loss of information' to the public. In a telling justification he said: 'But it pales in my mind with the fact that the people who were suing for money got their money.' Yep, money is all that matters, not the truth. 'Money is the essential lubricant', as he told the families and their lawyers. Well, it may be in the dark and cynical world that Hellerstein inhabits, but thank goodness not everyone is like him. Hellerstein said he encouraged families to apply to the (no evidence, no trial) September 11th Victim Compensation Fund for a quicker recovery. The ultra-Zionist judge also told *The New York Times* that courts are 'not the best venue for civil litigants to seek answers'. So where else are they going to get them? *The government?* What mendacious nonsense. Hellerstein was supported in his views and actions by ... yes ... yes ... *ultra-Zionist* Kenneth R. Feinberg – *the lawyer who administered the no evidence, no trial Victim Compensation Fund* (Fig 145). Feinberg summed it all up when he said that Hellerstein 'knew from the very beginning that the cases had to settle – and he got there'. In a nutshell, mate – or the ultra-Zionist cabal would have been fuming. Feinberg had been Special Master for Executive Compensation deciding who got bail-out money after the financial crash of 2008 (his ultra-Zionist associates in so many cases). He said that he, too, told the families that a trial made little sense:

Figure 145: Ultra-Zionist Kenneth R. Feinberg controlled the September 11th Victim Compensation Fund.

> I told them 'If you're going to trial to find out what happened, you are wasting your time. A courtroom is not where you will get answers'.

Same script, same goal. Donald A. Migliori, a lawyer from the firm that represented more than 50 families, said Hellerstein's view was 'absolutely wrong'. He said they used the legal system to gather real information: 'We obtained it; we just couldn't tell the public the whole story.' Ultra-Zionist Kenneth Feinberg ran the no-trial government compensation fund and those who refused to take the money and

wanted their time in court were faced with ultra-Zionist Hellerstein. The 'special mediator' between the families and other parties in the lawsuits was ultra-Zionist Sheila Birnbaum with some of her sessions attended by Hellerstein. Birnbaum worked at the ultra-Zionist Skadden Arps law firm where one of the partners was Kenneth Bialkin, former national chairman of the Anti-Defamation League (ADL) established by the Rothschild-created B'nai B'rith. Hellerstein said of Birnbaum: 'Without her patience, skill, empathy, and persistence, these results [the out of court settlements] would not have been achieved.' Hellerstein is a Talmudic Jew, Israel fanatic and connected to the same New York ultra-Zionist organisations as Michael Chertoff. His son, Joseph Hellerstein, a Talmudic Jew, lives in an illegal settlement in the occupied West Bank. They both worked for the Rothschild-connected New York law firm, Stroock, Stroock and Lavan, which represented Larry Silverstein in acquiring the lease to the World Trade Center and also major ultra-Zionist companies like Goldman Sachs and Maurice Greenberg's AIG. In fact, Stroock, Stroock and Lavan has been the go-to law firm for the ultra-Zionist elite since the hey-days of Rothschild frontman Jacob Schiff more than a hundred years ago. Company historian Jethro Lieberman said:

> It was the 'Our Crowd' German-Jewish clientele for which the firm was mostly, and justly, noted in those days. That included Otto Kahn, Felix M. Warburg, Walter N. Rothschild and Jacob Schiff.

History repeating (yet again)

Otto Kahn was an investment banker connected to Schiff's (the Rothschilds') Kuhn Loeb & Co which funded the Russian Revolution. So was Felix Warburg who also funded Leon Trotsky. The Warburgs have been a front for the Rothschilds since at least 1857 when the Rothschilds saved the Warburg bank in Hamburg from collapse. Max Warburg was a director of I.G. Farben which ran the concentration camp at Auschwitz while his brother, Paul, was a director of its US arm, American I.G. Paul Warburg, a partner in Kuhn, Loeb run by his brother-in-law Jacob Schiff, was a key player on behalf of the Rothschilds behind the creation of the privately-owned US 'central bank', the Federal Reserve, which was established in 1913 to allow elite bankers like the Rothschilds and Warburgs to control government finances and drown America in debt. Why would the 'Jewish' Warburgs be involved with the company that ran concentration camps? Sabbatian-Frankisim which hates Jews. This is just some of the ultra-ultra-Zionist background from which Alvin Hellerstein and his son emerged out of Stroock, Stroock and Lavan. Hellerstein's control of family and civil litigation stopped cases related to the ultra-Zionist Shin Bet/Mossad 'security' company ICTS and its

subsidiary Huntleigh USA coming to court. He also worked to block families seeking legal discovery having access to information and documents about ICTS. How could Hellerstein even hear the case at all when his son Joseph was a lawyer with Amit, Pollak and Matalon, one of Israel's major law firms which, in turn, represented and had close connections to ICTS parent company, the leading Israeli investment bank, Cukierman? This is controlled by founder and chairman Edouard Cukierman and his father Roger, a former Chief Executive Officer in France until 1999 of the Edmond de Rothschild Group. Father Cukierman was also CEO of the Israel General Bank and the Cukiermans have many connections to the Rothschilds. Ultra-Zionist Boaz Harel, president and senior partner at another Cukierman company, Catalyst Investments, was at the time of 9/11 chairman of ICTS – defendants in litigation overseen by Hellerstein. How can it be right for the father of someone at a law firm representing the parent company of ICTS to hear litigation claims against them over 9/11? By the way, Yair Shamir, son of Israeli Prime Minister and terrorist, Yitzhak Shamir, was the co-founding Managing Partner and Chairman Emeritus of Catalyst Investments and Chairman of Cukierman. He was actually named after Avraham 'Yair' Stern, founder of Jewish terrorist group Lehi, also known as the Stern Gang. Netanyahu also has a son called Yair.

Ultra-Zionist Talmudic Jew Michael B. Mukasey, yes another one, was a close and long-time friend and associate of ultra-Zionist asset Rudolph Giuliani and was the judge in the litigation between Larry Silverstein and insurance companies in which Silverstein was awarded billions as a result of the World Trade Center attacks. Mukasey attended the same Manhattan Orthodox Jewish Kehilath Jeshrun synagogue as Hellerstein which says it is 'deeply committed to the State of Israel and its citizens'. The same Mukasey also helped in the Michael Chertoff release of the 'Dancing Israelis' as United States District Judge for the Southern District in Manhattan – a role he took over in 1987 when he replaced ultra-Zionist Abraham David Sofaer. President Boy Bush would name Mukasey as US Attorney General in 2007 despite opposition over the judge's support of torture. Mukasey's appointment followed a campaign on his behalf by New York Senator and ultra-Zionist Charles Schumer. Mukasey refused demands to recuse himself when he presided over a case stemming from the 1993 bombing of the World Trade Center in which Michael Chertoff was the prosecutor of the well-stitched-up Omar Abdel Rahman, known as the 'Blind Sheikh' and a CIA asset. Dov Zakheim, 9/11 Pentagon comptroller, was CEO of SPC International when a SPC subsidiary, Tridata Corporation, was put in charge of the investigation into the 1993 bombing which primarily involved the FBI and its 'informants'. The bombing led to ultra-Zionist

Kroll Inc., being awarded the contract to upgrade security at the World Trade Center in the same year that ultra-Zionist Kissinger-buddy Maurice Greenberg of AIG bought into Kroll. The first plane on 9/11 made a direct hit on the offices of his son's Kroll-connected company, Marsh & McLennan. I mentioned earlier that the vehicle used to plant the FBI-informant-made bomb in 1993 was rented by Israeli Mossad agent, Josie Hadas. The bomb was said to have been planted by Mohammed Salameh and he was yet another 'Muslim terrorist' set up by Mossad.

Ultra-Zionist-controlled 9/11 Commission

Ultra-Zionist Michael Chertoff controlled the criminal investigation into 9/11 – actually the criminal *lack* of investigation – and ultra-Zionist judges and lawyers controlled the civil litigation to stop the cases reaching a public trial; but there's more. The lead investigator into the building collapses for the National Institute of Standards and Technology (NIST) was Zionist Stephen Cauffman. You will recall from earlier the nonsensical reports by NIST that were clearly a cover-up from start to finish of what really happened and why. Then there was the 9/11 Commission that published a 'report' on the attacks that was a grotesque insult to the truth and those who died and their loved ones. Bush and Cheney tried to block *any* official investigation into the attacks and it took an incredible 441 days for one to be established. Then, when they were forced to relent, they sought to have ultra-ultra-Zionist Henry Kissinger take charge. When that failed came Plan B with the Commission controlled from day one by ultra-Zionist Philip Zelikow who was appointed 9/11 Commission executive director (Fig 146). We have seen already how this former Texas lawyer was an associate of President Bush and National Security Advisor Condoleezza Rice whose actions were officially part of the Commission's investigation. Zelikow co-wrote a book with Rice and was a Bush administration insider, besides being a representative and agent for ultra-Zionism. Zelikow was a director of the Aspen Strategy Group that included Rice, Cheney and 9/11 Deputy Secretary of Defense, the ultra-Zionist Paul Wolfowitz. Bush 9/11 counter-terrorism advisor Richard Clarke said when Zelikow was appointed to oversee the Commission: 'The fix is in ... could anyone have a more

Figure 146: Ultra-Zionist Phillip Zelikow controlled the 9/11 Commission to block anything but support for the official story.

obvious conflict of interest than Zelikow?' Paul Sperry said in an article for Antiwar.com that 'Zelikow picks the areas of investigation, the briefing materials, the topics for hearings, the witnesses, and the lines of questioning for witnesses ... and the commissioners for the most part follow his recommendations.' In effect, Sperry wrote, Zelikow set the agenda and ran the investigation. One Commission staff member said: 'Zelikow is calling the shots. He's skewing the investigation and running it his own way.'

Ultra-Zionist Zelikow prevented staff of the Commission – which he hired – from talking with Commission members and shut them out while he got on with securing the report his ultra-Zionist masters wanted. Commission member Max Cleland resigned saying: 'This is a scam. It's disgusting. America is being cheated.' Yes, and it was meant to be – that was the whole point. Commission chairman Thomas Kean said: 'We think in many ways the Commission was set up to fail.' Zelikow's contempt for a real investigation included writing with his long-time associate Ernest May a detailed outline in March, 2003, of the *final* 9/11 Commission Report including chapter headings, subheadings and sub-subheadings *before the Commission had held a single hearing*. Given what had happened to those 3,000 people the man must be very sick. Official Commission leaders, Kean and Hamilton, agreed to keep the Zelikow-May pre-emptive report a secret to avoid being accused of pre-determining the conclusions from the start. Outraged Commission staff members were not told about the report until a year later. Zelikow based much of the Commission report about the 9/11 'plot' on 'evidence' secured from illegal torture of alleged suspects while never seeing the documentation which was later illegally destroyed. Khalid Sheikh Mohammed was named by the 9/11 Commission as 'the principal architect of the 9/11 attacks' when that 'confession' had come during horrific torture – including being waterboarded (simulated drowning) 183 times in one month alone. His children were kidnapped by the CIA and he was told they were going to be tortured with insects. Mohammed confessed to anything he was told to and this is how he confessed to bombing a bank that didn't even exist when he was taken into custody. The government and military psychopaths made up the story of what happened and then tortured people until they agreed that indeed this is what happened. Zelikow re-wrote a Commission staffer report to invent a link between Iraq and al-Qaeda before 9/11 because the ultra-Zionists wanted to justify the American removal of Saddam Hussein based on the lie about weapons of mass destruction that didn't exist. He even claimed that the 'al-Qaeda' attack was to punish America for supporting Israel. While Zelikow remains uninvestigated for what he did with the 9/11 Commission Report America is not taking itself seriously.

The 9/11 Family Steering Committee and 9/11 Citizens Watch

demanded Zelikow's resignation, but he was going nowhere when he was in place to do a job. Zelikow decided what was in the final report in which, for example, Building 7 was not even mentioned and anything that would point to what really happened was ignored. Another thing – Zelikow actually wrote (although that wasn't made clear at the time) the United States National Security Strategy document of September, 2002, which set out the policy of attacking countries in the Middle East with pre-emptive strikes that was central to the demands of the ultra-Zionists of the Project for the New American Century to whom Zelikow was so closely connected. The policy 'turned military doctrine on its head' and said countries could be attacked which posed no direct or imminent threat to the United States. This was an essential change produced just in time for the invasion of Iraq a few months later in March, 2003. Zelikow further co-wrote a 'prophetic' article pre-9/11 in 1998 for the Council on Foreign Relations (CFR) publication *Foreign Affairs* headed 'Catastrophic Terrorism: Tackling The New Danger' in which he warned about terrorist attacks in the United States and the possible response:

> If the device that exploded in 1993 under the World Trade Center had been nuclear, or had effectively dispersed a deadly pathogen, the resulting horror and chaos would have exceeded our ability to describe it. Such an act of catastrophic terrorism would be a watershed event in American history. It could involve loss of life and property unprecedented in peacetime and undermine America's fundamental sense of security, as did the Soviet atomic bomb test in 1949.
>
> Like Pearl Harbor, this event would divide our past and future into a before and after. The United States might respond with draconian measures, scaling back civil liberties, allowing wider surveillance of citizens, detention of suspects, and use of deadly force. More violence could follow, either further terrorist attacks or U.S. counterattacks. Belatedly, Americans would judge their leaders negligent for not addressing terrorism more urgently.

Note the use of Pearl Harbor three years before 'the new Pearl Harbor' and Zelikow used the term in the article 'weapons of mass destruction' which would be the mantra to sell the ultra-Zionist-demanded invasion of Iraq. Zelikow's co-authors were John Mark Deutch, Director of the CIA and Deputy Secretary of Defense in the 1990s, and Ashton Carter who was on the board of trustees for the MITRE Corporation and would go on to be Secretary of Defense under Barack Obama. Deutch comes from a Russian Jewish family that emigrated to the United States from Belgium in 1940 and his grandfather was a friend of Israel's first president, Chaim Weizmann. Both Deutch and Carter have been senior partners in the Rothschild aerospace, military and technology

investment operation, Global Technology Partners (GTP). Deutch pleaded guilty to mishandling government secrets in January, 2001, after several of his laptops were found to have classified information wrongly labelled unclassified during his time at the CIA. Bill Clinton pardoned him on his last day in office. I think I've heard that somewhere before. Now as the list continues to grow we have ultra-Zionism with the ability to control US government, military and FAA computer systems and manipulate them in real time to cause confusion and deactivate missile defence responses; control of World Trade Center and 9/11 airport security; control of the criminal investigation and destruction of evidence; control of civil cases to stop the truth ever coming out and control of the 9/11 Commission to ... stop the truth ever coming out. All this crucial 9/11 control by a fraction of two percent of the American population. Ah, but there's more.

Ultra-Zionist 'Bin Laden' videos

Every facet of the 9/11 story has ultra-Zionism at the helm either directly (mostly) or through agents and proxies like Dick Cheney and Donald Rumsfeld. This control even extends to the 'Bin Laden' videos and 'al-Qaeda' statements that fuelled the belief in 'Bin Laden did it'. The videos were miraculously 'acquired' and released to the pathetically unquestioning media through Mossad front organisations like SITE, or 'Search for International Terrorist Entities' (but never in Israel). SITE, or SHITE as I call it, is run by ultra-ultra-Zionist Rita Katz, daughter of an alleged Israeli spy executed by Saddam Hussein, and has been reportedly funded by the US government to the tune of $500,000 a year. Who sanctioned that and how much more has been donated out of Israel through ultra-Zionist fronts and operatives in the United States? SITE, the 'private intelligence firm' based in Washington DC, is a for-profit organisation that depends on government and corporate contracts. Look at what has been written and revealed in the last few chapters. Are we seriously meant to believe that SITE is not connected to Mossad? SITE worked in harness with IntelCenter, another releaser of 'Bin Laden' videos run by another ultra-Zionist Ben Venzke. The media has published their 'information' as fact again and again without ever asking about the background, agenda and motivation of either organisation. One of their modes of operation is 'monitoring Islamic extremist websites' but American investigative journalist, Wayne Madsen, has pointed out that many 'Jihadist' and 'al-Qaeda' websites are controlled by Mossad. He writes: 'Mossad has a program to distribute bogus claims of responsibility for Islamist terrorist attacks via 'Jihadist' websites that are actually operated by the Mossad and a network of "hasbaratchiks", Israeli and foreign Jews who act as propagandists on the web.' Set up the websites to make extremist

statements and claim responsibility for attacks and then 'reveal' their content via your 'monitoring' fronts for government and media to repeat them as fact. Katz 'revealed' that what appeared (on the surface) to be a supporter of ISIS in Australia using the tag 'Australi Witness' held a prestigious position in 'online jihadi circles' and was 'part of the hard core of a group of individuals who constantly look for targets for other people to attack'. How strange then that 'Australi Witness' turned out to be a Jewish American called Joshua Ryne who would be arrested by the FBI. Katz, a fluent Arabic speaker, has attended Muslim events disguised with a burqa concealing recording equipment and taken part in pro-Palestinian rallies in the United States as part of her 'investigations'. She even appeared on the CBS *60 Minutes* as 'Sarah' wearing a wig and fake nose before her real identity was outed. A lengthy statement translated and distributed by SITE 'confirmed' the death of Bin Laden in the highly questionable alleged assassination by US troops in 2011. SITE was the source for 'Bin Laden' and other 'al-Qaeda' videos including one in 2007 of a half-an-hour tape by 'Bin Laden' in which all except four minutes was a frozen image of him. The government, of course, deemed it 'authentic'. American intelligence officials said the video was 'inspired' by 'al-Qaeda's' Adam Yahiye Gadahn – Adam Pearlman, grandson of a former director of ultra-Zionist Mossad front, the Anti-Defamation League. Somehow SITE managed to distribute the video to the media a day before (it was claimed) al-Qaeda planned to release it. One question about all this: Who benefits?

Yeah, who does benefit?

We have seen that ultra-Zionism controlled all the key areas of the 9/11 attacks. They provided year after year of incessant propaganda calling for a 'war on terror' and through the Project for the New American Century (PNAC) and other ultra-Zionist-dominated organisations they even named the countries they wished to regime-change. As a result of the 9/11 'trigger' those countries have been picked off one after the other in a 'war on terror' (Netanyahu's pre-9/11term) that has seen – so far – Iraq, Libya, Syria, Iran, Lebanon, North Korea and China targeted either through direct invasion, manipulated 'civil war' or demonisation and sanctions in preparation for direct invasion, 'civil war' or capitulation to the will of the United States (Sabbatian-Frankists). The terrorist former Israeli Prime Minister Ehud Barak named Osama bin Laden and Afghanistan as targets in a BBC interview within minutes of the attacks to start the momentum rolling and other ultra-Zionists and their assets soon followed to sell the lie about 'Bin Laden did it'. Netanyahu also said it all on the very day of the attacks – 9/11 is good for Israel. In truth, it was not good for the population of that tiny land,

but good for the ultra-Zionist, Sabbatian-Frankist psychopaths who use the Jewish population as a cover for their evil activities and goals. Ultra-Zionists 'prophesied' a terrorist attack in New York on its biggest building in 1979 and the Project for the New American Century made clear in its September, 2000, document that '... the 'process of transformation ... [war and regime change] ... is likely to be a long one, absent some catastrophic and catalysing event – like a new Pearl Harbor'. A year to the month later came 9/11 – an attack on the World Trade Center complex built through the lobbying of the Rockefeller family and a complex which, by September, 2001, ultra-Zionists completely controlled. By then the ultra-Zionists and their PNAC assets were also running the government and Pentagon. They made their first attempt to control WTC security through the most transparent Israeli intelligence front, Atwell Security, which was part of the Eisenberg Group of ultra-Zionist intelligence operative and arms smuggler, Shaul Eisenberg. When that failed after the intelligence background and behaviour of its Shin Bet 'president' Avraham Shalom was revealed, Plan B was soon in operation. In 1993 came the bombing of the World Trade Center in an attack centrally involving the FBI with the investigation contracted to a company connected to ultra-Zionist Dov Zakheim, the 9/11 Pentagon budget controller. A major case arising from the bombing was prosecuted by ultra-Zionist Michael Chertoff, who would oversee the whole 9/11 'investigation', while the judge was Michael B. Mukasey who would also preside over the insurance case that would hand ultra-Zionist World Trade Center lease holders, Larry Silverstein and Frank Lowy, billions of dollars in compensation for a comparatively negligible investment. Silverstein and Lowy had greatly increased insurance in the case of a terrorist attack when they became the first private holders of the WTC lease thanks to the ultra-Zionist-controlled New York Port Authority and the campaign to privatise the buildings by ultra-Zionist Ronald Lauder, chairman of the New York State Commission of Privatization and New York State Research Council on Privatization. The deal, which shocked many observers because of the state of the buildings, was sealed weeks before 9/11 in a deal between ultra-Zionist Larry Silverstein and ultra-Zionist Lewis Eisenberg, head of the New York Port Authority. Ultra-Zionist Maurice Greenberg of AIG had insured the towers for Silverstein and then immediately sold on the liability to a long list of other companies that would take the hit. Greenberg would also buy into ultra-Zionist security firm Kroll Inc. in 1993, the year the company was awarded control of World Trade Center security because of the bombing. The first plane would make a direct hit on a secure and mysterious data/computer room in the offices of Greenberg's son and his Kroll-connected global insurance brokerage and risk management company, Marsh &

McLennan. Control of airport security came courtesy of Mossad-Shin Bet front, ITCS, and the company did not have to answer for its actions in court thanks to ultra-Zionist judge Alvin Hellerstein whose son worked for the Israeli legal firm representing ITCS's parent company.

Ultra-Zionist-controlled tech and software companies had access to the computer systems connecting the Pentagon, NORAD, FAA and a host of government and military agencies – including real-time air-traffic computers and information with the power to intervene at will. Cyber control also had the potential to deactivate missile defence systems. Ultra-Zionists dictated the propaganda reporting of the attacks and their aftermath through control and ownership of vast swathes of the American media and Hollywood almost in its entirety. 'Bin Laden' videos to support the official fairy tale came courtesy of Mossad front operations. The criminal lack of investigation was assured by ultra-Zionist Michael Chertoff while efforts by families and responders to get their cases to court were blocked by a combination of ultra-Zionist judge Alvin Hellerstein who controlled lawsuit compensation claims and ultra-Zionist lawyer Kenneth R. Feinberg who ran the no-trial Victim Compensation Fund. The oh, so reluctantly established 9/11 Commission was never going to reveal the truth of what happened when it was controlled by ultra-Zionist Executive Director Philip Zelikow who made absolutely sure that any evidence or experience that contradicted the story that he laid out before the Commission even *began* would be trashed or deleted. A Zionist was the lead investigator at NIST into why the towers collapsed (a catastrophic Achilles heel if the truth came out) and the steel with all the potential evidence it contained to solve the mystery was whisked away by an ultra-Zionist transportation firm to ultra-Zionist-controlled scrap metal yards for transportation to Asia for smelting while 'volunteer engineers' ran around trying to dodge the diggers and cranes to examine the steel before it disappeared across the ocean to become someone's fridge. We also had the accurate warning two hours before the attacks sent to two employees at Odigo, an Israeli telecommunications company and instant messaging service with offices two blocks from the World Trade Center. ZIM, an Israeli shipping company with 10,000 square feet of office space in the North Tower, vacated at short notice a week before 9/11 breaking the terms of its lease. Shaul Eisenberg of the Eisenberg Group that owned Mossad-front 'security firm', Atwell, which sought to control World Trade Center security in the 1980s, had a controlling interest in ZIM before he died in China. How could people be this evil? Sabbatai Zevi and Jacob Frank said that doing evil was to be encouraged and celebrated without guilt and some have clearly taken their lead. The major speech-writer for President Boy Bush in this period was ultra-Zionist Neocon David Frum. He came up with the phrase 'axis of evil' in Bush's 2002 State of the

Union address which referred to Iraq, Iran and North Korea – all countries named for regime change by the Project for the New American Century. Frum also wrote the book, *An End to Evil: How to Win the War on Terror*, with ultra-Zionist Richard Perle in 2004.

Elephant on the sofa

Put all the evidence together and the connection between what happened on 9/11 and ultra-Zionist Israel and its military, intelligence and censorship network is breathtakingly obvious. Most people don't have the guts to call this out because they fear the consequences including loss of career; but a few of us do – a very few and getting fewer. Former German Defence Secretary Andreas von Bulow has said he believes Mossad was involved and former Italian President Francesco Cossiga said the same. Cossiga revealed his own role in Operation Gladio, the NATO-controlled terrorist operation after the Second World War that bombed civilian targets in Problem-Reaction-Solution scenarios blamed on those they wished to demonise. He told Italian newspaper *Corriere della Sera* in 2007 that all American and European intelligence agencies well knew that the 9/11 attacks had been the work of the CIA and Mossad 'with the aid of the Zionist world' to induce western powers into targeting Iraq and Afghanistan. As Andreas von Bulow said: ' The CIA is steered by Mossad'. Then there is Alan Sabrosky, a retired Marine officer and former Director of Studies at the United States Army War College's Strategic Studies Institute, who has taught at the United States Military Academy at West Point, Georgetown University, University of Pennsylvania, and Johns Hopkins University School of Advanced International Studies. Sabrosky said in 2010 that it was 'one hundred percent certain 9/11 was a Mossad operation'. He said that if Building 7 was wired for demolition – which he agrees it was – then 'all of them were wired for demolition'. He said that 9/11 had led directly to 60,000 Americans dead and wounded and 'God knows how many hundreds of thousands in other countries we have killed, injured and made homeless'. He went on:

> If Americans ever know that Israel did this they are going to strike them off the earth. They are not going to give a rat's arse about the consequences. They are not going to care – they will do it. The Zionists are playing it as a truly all or nothing exercise. If they lose this one – if the American people ever realise what's happened they're gone. It'll be a bloody, brutal war and they're gone.

It is NOT a 'Jewish plot'

You will have your own thoughts on whether that is true about the response, but the theme brings me to a vital point that I have emphasised many times and one which should focus the minds of all

Jewish people worldwide. I have stressed often in this book that what I am exposing is not a 'Jewish plot'. The vast majority of Jewish people do not know what is being done in their name and most would be horrified if they did. I am exposing a conspiracy for human control by a global Hidden Hand – The Web – in which ultra-Zionism and the Sabbatian-Frankist Death Cult is a frontline player. Through The Web ultra-Zionism connects with regard to 9/11 into the American military and intelligence networks and to people like Dick Cheney and Donald Rumsfeld. Ultra-Zionists infiltrated and controlled the inner workings of the Pentagon-FAA reaction and communication system and blocked the normal response and security wherever necessary. They then orchestrated the cover-up that continues to this day. Jewish people in general were no more responsible for what happened on September 11th than Americans were for the involvement of Cheney, Rumsfeld, Myers, Bolton or the Bush family. Well, except in this way – by allowing psychopaths to take over their countries through control of the key positions and power centres in politics, military, intelligence and media. This has happened the world over and never more blatantly than with the happenings and ongoing consequences of 9/11. Jewish people have fallen for the trap of accepting the perception program instilled from birth that the rest of the world hates them and so believing they must be protected by the psychopaths posing as their saviours. They have fallen for the myth of a Chosen People when we are all the same consciousness having different brief and transitory experiences in what we call 'the world'. 'Chosen People' immediately instigates a sense of apartness as does the belief that for some reason never explained the world somehow hates by reflex action 0.2 percent of its number.

We have seen the consequences in the past for the Jewish many through the actions of the ultra-Zionist, Sabbatian-Frankist few and the only people who can break that cycle are the mass of Jewish people themselves. They need to expose and distance themselves from the ultra-Zionist psychopaths in their midst and the same with Americans with their psychopaths, British people with theirs and so on. The few have controlled the many for long enough – it's time to turn the page and let freedom and justice reign for *all* the human family. We are not apart from each other – we *are* each other. Don't be hoaxed by the 'anti-Semitism' scam whether you are Jewish or otherwise. It is the calculated Protection Racket to protect the control of the psychopathic few over the Jewish community and to protect the psychopaths themselves from exposure. They have no other option because the evidence is there to be seen in abundance to expose them and silencing its communication is all they can do. Who could deny ultra-Zionist involvement in 9/11 after the evidence presented here – or that ultra-Zionism has infiltrated the very fabric of American – and elsewhere – politics, finance, media and

decision-making? Ultra-Zionists cannot debate the evidence because they couldn't win and so they slur and smear and seek to destroy. What was their response to the contention by American military expert Alan Sabrosky that Mossad did 9/11? The Anti-Defamation League condemned him as 'a key figure in anti-Semitic conspiracy theories'. Same old, same old, because that is all they have.

Definition defined

From the perspective of all I have outlined in the last few chapters we can return to that new definition of 'anti-Semitism' which is being increasingly accepted by all levels of government, academia, corporations, media and the entire system under pressure and often abuse from the ultra-Zionist network. Such is the power of a tiny country of eight million people (or rather the Sabbatian-Frankist few that control it). The motivation behind this 'definition' is so transparent – especially after what I have exposed in this book. I am going to return to the definition 'examples' that I highlighted earlier so we can see how calculated they are in the light of what the ultra-Zionists are doing and are desperate to hide. There are many problems in defining those who hate Jews for being Jews because 'anti-Semitism' is a complete misnomer for reasons already explained and 'racism' does not apply because Jewishness is not a race but a cultural and religious system of belief and ritual. Hating Jews for being Jews or discriminating against Jews for being Jews is as close as we can get. But that is not what the new definition sets out to challenge. The new 'definition' is a central pillar of the Protection Racket and so must include every aspect of what the Sabbatian-Frankists are *doing* but wish so ferociously to keep from public view. The definition 'examples' are simply a means to stop legitimate investigation and silence exposure of Sabbatian-Frankists and ultra-Zionists and the wider Web of the Hidden Hand. Here's the first one:

Making mendacious, dehumanizing, demonizing, or stereotypical allegations about Jews as such or the power of Jews as collective – such as, especially but not exclusively, the myth about a world Jewish conspiracy or of Jews controlling the media, economy, government or other societal institutions.

Look at what I have exposed about ultra-Zionist control of the prime positions of power and decision-making with regard to 9/11 – control of the Pentagon, US government, tech companies, media, Hollywood, finance etc., etc. The power of *some* Jews as a 'collective' is clearly at work, but not a collective of *all* Jewish people – only a relative handful who have contempt for the rest. This 'example' is designed to equate exposure of a few – even specific individuals – with a claim that all Jews

are being accused. By doing so they can protect themselves from exposure by hiding behind the Jewish population as a whole through the lie that exposure of one or a few is a condemnation and hatred of all. That is the last thing I am saying, indeed I am saying the opposite. Once the actions of the few are isolated and disconnected from Jewish people in general the ultra-Zionists and Sabbatian-Frankists lose their wizard's curtain and their game is up. The 'example' is worded precisely to stop what ultra-Zionists are *provably* doing from being publicly exposed and debated. Example number two:

Accusing Jews as a people of being responsible for real or imagined wrong doing committed by a single Jewish person or group, or even for acts committed by non-Jews.

This is seriously ironic given that ultra-Zionists and Sabbatian-Frankists are doing exactly the same in reverse. It is *they* who are equating exposure or criticism of a single Jewish person or group with accusing Jews 'as a people' of being responsible. They have to do this for reasons explained above and this is just a calculated and inverted sleight of hand to accuse others of what *they* are doing. Number three:

Denying the fact, scope, mechanisms (e.g. gas chambers) or intentionality of the genocide of the Jewish people at the hands of National Socialist Germany and its supporters and accomplices during World War II (the Holocaust).

This 'example' is to block all questions whatever they may be about an historical happening and it is the only historical event in all human existence on which such a ban is imposed. To ask even the most basic questions about the official narrative is to be immediately labelled an 'anti-Semite' and 'Nazi' and have your life and reputation destroyed. You see this reaction from even most of those who regard themselves as 'moderates' or 'progressive'. The fact is that the horrors of Nazi Germany are coldly exploited by ultra-Zionists and Sabbatian-Frankists to silence those who seek to expose their manipulation today and this is both sick and disgusting. Those who are confident that what they say is true do not seek to ban people from asking questions about it. Those who are *not* confident do that. To *question* is not to *deny* – it is to question and see what answers come back. It's called freedom. Why such desperation to shut down *all* questioning and debate on the subject? Well, Sabbatian-Frankists? Number four:

Accusing the Jews as a people, or Israel as a state, of inventing or exaggerating the Holocaust.

How can anyone know unless the official narrative is allowed to be questioned and the answers forthcoming? Number five:

Accusing Jewish citizens of being more loyal to Israel, or to the alleged priorities of Jews worldwide, than to the interests of their own nations.

I guess most who have read through the last few chapters will now be shaking their head at this one. The extraordinary connections between ultra-Zionists and 9/11 were all for the benefit of America were they? The hundreds of inter-connecting Zionist and ultra-Zionist organisations in the United States alone promoting the policies and self-interest of Israel are only there to make America a better place and are nothing at all to do with 'being more loyal to Israel, or to the alleged priorities of Jews worldwide, than to the interests of their own nations'? Manipulating the United States and its young men and women to fight wars for Israel in the Middle East is only in the interest of America and Americans? What an absolute joke. There can be few more obvious examples than this 'example' of labelling exposure of what the ultra-Zionists are clearly *doing* as 'anti-Semitic'. Ultra-Zionists like Arnon Milchan, Larry Silverstein, Michael Chertoff, Dov Zakheim and the rest of that crowd do not have more allegiance to Israel than America?? Shelden Adelson telling an event for the Israeli Defense Forces that *unfortunately* the military uniform he once wore was American and not Israeli is allegiance to America is it? And what about Adelson's 'all we care about is being good Zionists – good citizens of Israel'? I mean, pass the sickbag. Number six:

Denying the Jewish people their right to self-determination, e.g., by claiming that the existence of a State of Israel is a racist endeavor.

This is to stop exposure of Israel's shocking racism against Palestinians by claiming that such criticism is 'denying the Jewish people their right to self-determination ... by claiming that the existence of a State of Israel is a racist endeavor' and then condemning such views as 'anti-Semitism'. Any country that operates a regime and society based on apartheid, which Israel profoundly does, is a racist endeavour and if ultra-Zionists don't like me saying so they can fuck off. Number seven:

Applying double standards by requiring of it a behaviour not expected or demanded of any other democratic nation.

The wording is designed to equate an apartheid regime with a 'democratic nation' and calling an apartheid regime an apartheid regime with 'anti-Semitism'. Number eight:

Using the symbols and images associated with classic antisemitism (e.g., claims of Jews killing Jesus or blood libel) to characterize Israel or Israelis.

Ban the exposure of symbols and images that relate to Sabbatian-Frankist Satanists and extreme ultra-Zionists by claiming that this is a condemnation of all Jews. Number nine:

Drawing comparisons of contemporary Israeli policy to that of the Nazis.

This 'example' is there to stop anyone saying that if it looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck. Or, as I say, every race, culture and religion is capable of producing every kind of human personality including what is called 'Nazi'. To claim that one group alone is not is capable of doing that is farcical, but this 'example' is to prevent people from stating the bloody obvious in the case of the Sabbatian-Frankist and ultra-Zionist extremists that control Israel. Finally, number ten:

Holding Jews collectively responsible for actions of the state of Israel.

I agree that this unfair, but the Protection Racket seeks to promote the propaganda that criticism of Israel is criticism of all Jewish people – this is the very foundation of the 'new definition' for goodness sake to protect ultra-Zionists, Sabbatian-Frankists and their vehicle Israel from criticism and public exposure.

The new definition of 'anti-Semitism' needs to be scrapped and the public ignore its 'examples' now the true reason for its introduction are so clearly exposed. You can see from these chapters that claims about Israel and its ultra-Zionist networks having nothing to do with 9/11 are utterly laughable. They were central players at the very foundation of the 'inside job' in league with the Bushes, Cheney, Rumsfeld, and rogue elements in the Pentagon, [In]Justice Department, FBI, CIA, FAA, New York authorities and so on, which lock into the same Hidden Hand Web as the Sabbatian-Frankists and ultra-Zionists. In the light of the blatantly obvious connections exposed here there must be massive and unyielding public pressure for a new and truly independent investigation into what happened before, during and after 9/11 with all the evidence and witnesses presented that were denied and blocked by the ultra-Zionist-controlled 9/11 Commission. Those I have named in this book must be forced to publicly answer for their actions and non-actions and explain the connections between them that take the term 'coincidence' to stratospheric levels of statistical chance.

This is vital not only to bring justice at last to those directly and

indirectly affected by 9/11, but also to dismantle the conspiracy for which the attacks of September 11th were only one strand in a gigantic web of human control that seeks to advance human enslavement to extremes and levels that most people would not even begin to comprehend. To this, in the final chapters, I will now turn.

CHAPTER 26

Eyes wide OPEN

Life is a constant journey of trying to open your eyes. I'm just beginning my journey and my eyes aren't fully open yet – Olivia Thirlby

I think it is fair to say that in the modern climate created by the 'anti-Semitism' industry, the Protection Racket and 'progressive' policing of speech and opinion that I have been 'controversial' in this book so far and I am about to get even more so.

I am 67 at the time of writing and I could live out the rest of my life quietly doing whatever I choose to do. I didn't have to take the untold abuse and ridicule that I have for 30 years and I don't need to amplify that condemnation to still new levels with the writing of this book. I choose to do that, knowing how the 'anti-Semitism' industry and 'progressive' mob will react because, bizarrely in the circumstances, I care about the world that those who abuse me will have to live in unless eyes are opened with immediate effect. I most certainly care about what my children and grandchildren will have to face if the conspiracy to enslave them and everyone else is not brought to public attention before the endgame is complete. We are very close to that now in the wake of decade after decade of perception manipulation through unrelenting propaganda and conditioning; but, as Nazi propagandist Joseph Goebbels said: 'Propaganda becomes ineffective the moment we become aware of it.' I have spent the last 30 years working to make people aware of it and I have written this book as a symbolic arm thrusting through the elevator door as the two sides are about to meet. I do so in the hope that it will have the same effect once the dust has settled and the, oh, so predictable abuse has repeated itself into boring irrelevance. Yeah, yeah, whatever. I want to open those doors to freedom again just as they close for seemingly the final time by showing that you don't have to stay silent and acquiesce to professional bullies or any other kind. You can shout even louder instead. If I have to take monumental abuse to achieve that – and it seems I do – then so be it. They can throw their worst and do their worst. It makes no difference to me. I am, like all of us, a point of attention within an infinity of consciousness and what happens in any moment is but a transitory experience on an infinite

journey of exploration. Put simply: I don't give a fuck (Fig 147).

Figure 147: Twitter storm response system.

'Jewish' cover story

Those who have read this book to the end – the abusers largely will not – know that what I am exposing isn't a 'Jewish plot'. You might have gathered by now that if I thought it *was* a 'Jewish plot' then I would bloody well say so. But I don't, so I'm not. The 'plot' for total human enslavement of mind and body is not 'Jewish' in origin but satanic. In the end it goes off planet, or off dimension, and that's a whole other story told in my other books. The perpetrators are the satanic Sabbatian-Frankist Death Cult and the wider Hidden Hand manipulating through The Web. Jewish people are largely its victims, not perpetrators. The Cult has infiltrated and taken control of all major religions, governments, banking and other corporations, media, Hollywood, Silicon Valley, the Internet, high-tech, artificial intelligence, 'education' and almost every other area of human life required for their goal to be secured. What happened on 9/11 gave renewed impetus and momentum to infuse the hijack of human society with an ever quickening pace. Look at how fast the world has changed since September 11th, 2001. The American military, largely the world army in the making, now has personnel in 175 countries out of 195 and 175,000 active troops in 158. This has been made possible by the nearly *90 percent* increase in military spending since 9/11 which has also been used as the excuse for war, mass surveillance, secret courts and invasion of privacy the like of which the world has never seen on such a scale. The Hidden Hand chose to target Jewish society for many reasons. Among them was the need (it's a long story) to control their global tyranny out of what is today called Israel. The Knights Templar (12th century) and Zionism (19th century) both seeking to rebuild Solomon's Temple is not a coincidence. One of the reasons takes us into the esoteric and the Earth's energetic grid or matrix of force lines (ley-lines, meridians) on which particular points of power have greater effect on the whole than elsewhere. Jerusalem is one such place and again the background can be found in other books. The focus of Christianity, Islam and Judaism on the same city and even the same spot – Temple Mount/Haram al-Sharif – is also no coincidence. It's not called the 'Holy City' for nothing. The Greater Israel project which seeks to expand Israel into Iraq would fulfil the Sabbatian-Frankist dream of returning to their

other spiritual home, Babylon.

Targeting the Jewish community gave the Death Cult the potential (which has been mercilessly exploited) to develop a shield of protection from exposure. Again and again you will find quotes from Zionist leaders along the same basic theme that using claims of 'anti-Semitism' would block criticism of 'Jewish' (Sabbatian-Frankist) actions and frighten the Jewish majority into giving their power to the Death Cult and its ultra-Zionist stooges to protect them from perceived 'enemies' (the rest of humanity) while having no idea there even is a Death Cult. Hiding within a *specifically* identifiable group has allowed for a *specific* term of 'anti-Semitism' to be erroneously invented to secure *specific* and amplified protection for the Sabbatian-Frankist infiltrators above all other groups. Designer protection you could call it. As the Death Cult moves into its in-your-face endgame stage of total human control even that protection had to be dramatically increased to avoid exposure through open debate and freedom of expression and so we have the hysterical ramping-up of the 'anti-Semitism' industry and Protection Racket with the ever-widening definition of how 'anti-Semitism' should be applied and targeted. More to hide = more to keep hidden = greater extremes of censorship. We are rapidly closing in on the point where no criticism of any Jewish person will be allowed except for ultra-Zionist and Death Cult operatives attacking Jews who refuse to sing from the song-sheet. They are fair game because ultra-Zionism and the Death Cult are not there to protect Jewish people for whom they have extreme contempt. Protecting the ultra-Zionist/Death Cult agenda is the only name of the game. Another bonus is the concept of 'God's Chosen People' which can be manipulated to make significant swathes of the Jewish community believe the Sabbatian-Frankist messianic fairy tale about the return of a Jewish 'Messiah' (Moshiach) to rule the world. The Death Cult is founded on the alleged messianic credentials of Sabbatai Zevi and Jacob Frank. Many ultra-Zionists are not Sabbatian-Frankists, but they have bought the 'Chosen People' lie and the perceived destiny that comes with that. This leads them to work and plot for that destiny while the Sabbatian-Frankists laugh behind their hands. In many ways ultra-Zionists that are not part of the Death Cult are the most manipulated of all and therefore the most despised by the Cult. Those who have seen through the lies may be a threat to the Cult but it has a grudging admiration for them and total contempt for those it manipulates so easily. Such is the power of Death Cult perceptual manipulation that a 2019 poll found that 42 percent of Israelis support annexation (stealing) in some form the Palestinian West Bank illegally occupied by Israel. This is Death Cult policy and they have fallen for it as they have fallen for so much more. The background to the Cult, its history and ambitions, laid out over in the last few chapters, brings

events in the world today into clear focus as we shall see.

Protocol prophecies

Goals and methods of the Death Cult also present the *Protocols of the Learned Elders of Zion* in a new light. Whatever the origin of the document circulated under that name the texts describe without question the ambitions and techniques of Sabbatian-Frankism. You can still get a copy – even on Amazon – and it is worth the effort to read what they said well over a century ago and compare that with real world events since then and up to present day. Never mind – 'that's anti-Semitic'. It is your right to read what you see fit and come to conclusions of your choice. Don't let anyone tell you otherwise. Anyway, there is nothing 'anti-Semitic' about reading the *Protocols* because they are not, as promoted, detailing a 'Jewish plot'. They just appear to be. The *Protocols* are describing a Sabbatian-Frankist Death Cult plot that uses Jewish people as essential cover. You are not supposed to talk about the *Protocols* or you are labelled a 'Nazi'. Well, I don't give a shit. They describe what has subsequently happened and I have the right to ask *why that is*. The Sabbatian-Frankist 'anti-Semitism' industry and Protection Racket is designed to stop that question being asked through its reflex-action hatred and abuse, but I choose to raise my finger in nonchalant response. 'Zion' has a different meaning to Sabbatian-Frankists than it does to Jewish people in general and notice that the document is not called the Protocols of the Elders of Jewish People or Judaism, but the Protocols of *Zion*. To the Death Cult the arrival of 'Zion' is the arrival of their global control system which is being constructed all around us every day. Remember the 'Zion mainframe' in the *Matrix* movies? This will be very relevant shortly. 'The New Jerusalem' also means something different to the Death Cult. The biblical *Book of Ezekiel* (said to be a priest exiled in Babylon) describes this as a city with a rebuilt Solomon's Temple which would be the capital of the Messianic Kingdom in the Messianic Era of a world controlled from Israel by a descendent of 'King David'. The *Book of Ezekiel* says: 'David My servant *shall be* king over them, and they shall all have one shepherd; they shall also walk in My judgments and observe My statutes, and do them.' You don't have to believe in Old Testament prophecy for this to be profoundly relevant to the world today. What ultra-Zionists and the Death Cult believe (or promote for their own ends) is all that matters. This is the sequence of the final plan to bring this about: United States embassy moved to Jerusalem (done); removal of Palestinians from the area of Temple Mount and the Al-Aqsa Mosque (being done); seizure and demolition of the mosque; rebuilt Solomon's Temple. In the same period they want to annex the Golan Heights (already agreed by the United States) and the West Bank on the road to the Greater Israel and a

return to Babylon. You can see how all the post-9/11 wars have fitted into this scenario although they have not yet gone exactly to plan. Another name for the New Jerusalem is Zion and while this is interpreted as a heavenly location it is planned to be very much of the 'physical' world by the Sabbatian-Frankist Death Cult.

The *Protocols* and many other sources for the same plan describe how: Might is the only right; the end justifies the means (see 9/11); freedom is bad; the best form of rule is despotism; the future for humanity is serfdom; Masonic secret societies rule from the shadows; Masonry is the 'legislative force' and the leader and guide of all secret societies; the mob is blind and an essential means for the few to impose their will on the many; political discord is systematically created and political leaders such as presidents are only figure-heads controlled by secret advisors; 'They' control the media and manipulate public opinion; ferments, discords and hostility are secretly instigated all over the world; the plan is for an all-powerful global government; terror is used as a form of human manipulation and control; diseases are introduced through inoculation; 'They' control the police; dissidents will be executed when the final takeover is secured and people will be arrested on first suspicion; collectivism (Marxism) will be the new system of control; a one-day 'coup d'état' (revolution) over all the world will herald the arrival of 'the Sovereign Lord of all the World, King of Israel, Patriarch of all the World and Patriarch-Pope'. These are some other main themes of the *Protocols* from well over a hundred years ago and you may recognise them:

- **Program and demoralise youth by indoctrinating false beliefs and perceptions.**

  (See 'progressive' mob and perceptual programming in schools, colleges and universities.)

- **Destroy the family unit.**

  (This is happening through multiple means including divisions between generations and social media which has for many become the new 'parent'/family.)

- **Appeal to humanity's lower instincts.**

  (This has clearly been happening for a long time.)

- **Destroy respect for religions and the clergy through scandal and other means.**

(Blatantly happening and it helps if the hierarchy of the Roman Catholic Church is dominated by Sabbatian-Frankists who see sex with children as 'normal'.)

- **Introduce diversions in entertainment that require spending money and erode the enjoyment of simple cost-free pleasures.**

(Smartphones, videogames, etc.)

- **Divert the attention of the population with sport and vacuous 'entertainment' so they don't see what is really going on.**

(Big-time happening and for long past.)

- **Confuse people with false and contradictory theories that hide the real story.**

(Constantly happening.)

- **Instigate class hatred and class war among different classes of people.**

(This has now been morphed into hatred and war between self-identities.)

- **Create division between all groups including employers and employees and 'right' and 'left'.**

(Happening in ever greater extremes.)

- **Destroy agriculture through industrialisation and then destroy industry.**

(What a prediction this was more than a century ago given that industrial farming (promoted by the Rothschilds) has utterly poisoned the food chain and replaced individual farmers with giant corporations to control global food production.)

- **Circulate utopian theories to enslave people in a labyrinth of impractical ideas.**

('Progressive', New Age, Alexandria Ocasio-Cortez.)

- **Cause conflict and suspicion between states that lead to increased spending on armaments.**

  (Obviously happening.)

- **Introduce public voting while keeping the people so ignorant of the real game that they pick people the manipulators want.**

  (This happens at almost every election and when the public vote the 'wrong way' as in the British Brexit referendum you call them 'morons' and 'far right' and do everything you can to thwart what they voted for.)

- **Appoint people to key positons who have something to hide so they will do whatever they are told in fear of exposure.**

  (The system is awash with such compromised place-people.)

- **Slowly change all constitutions in preparation for despotic world government.**

  (Preparation for global Marxism is what they mean. The European Union is a perfect example of constitutional change in countries of the EU and the deletion of sovereignty.)

- **Establish huge monopolies.**

  (Amazon, Google/YouTube, Facebook, ad infinitum.)

- **Trigger economic and industrial crises and instability leading to world bankruptcy and at the most effective time crash the system globally to trigger panic.**

  (This has been done through the Wall Street crash and the crash of 2008, but what is planned is a global crash the like we have never seen. They' who cause the crash can then come forward as the 'saviours' so long as we accept the new system which they will control.)

- **Control global banking and finance to enslave governments and population in debt.**

  (Achieved long ago.)

- **Destroy nations and break the spirit of humanity with all kinds of suffering, deprivation, food shortages and reasons to fear.**

  (Happening to so many today (see the EU) and we have seen nothing yet unless the world wakes up to what is being imposed upon us.)

Whatever the background the *Protocols* describe the Sabbatian-Frankist manifesto and the Illuminati (Sabbatian-Frankist) manifesto. And all this is just *coincidence*? *Please*. What the *Protocols* predict has happened ever since and it is still happening as the plan now surges towards its goal. I mean, just look around you. The arrogance in the *Protocols* is Sabbatian-Frankist arrogance as they describe their new world of tyrannical control in which all humanity would be ruled from Israel by a super global government of Zion. The document says:

> ... we shall so wear [them] down ... that they will be compelled to offer us international power, a nature that by its position will enable us without any violence gradually to absorb all the state forces of the world and to form a super-government; In place of the rulers of today we shall set up a bogey which will be called the Super-Government Administration; Its hands will reach out in all directions like nippers and its organisation will be of such colossal dimensions that it cannot fail to subdue all the nations of the world.

The *Protocols* talk about owning the world through debt to their banks which people and countries could never repay while controlling industry, commerce and governments through Zion-instigated debt. Presidents and politicians were mere puppets to their will: '[We] arrange elections in favour of such presidents, as have in their past some dark, undiscovered stain, some "Panama" or other – then they will be trustworthy agents for the accomplishment of our plans out of fear of revelations and from the natural desire of everyone who has attained power, namely, the retention of privileges, advantages and honour connected with the office of president.' This is exactly how it works and few have been more obviously controlled by Sabbatian-Frankists than 9/11 president Boy Bush and Donald Trump. The *Protocols* continue:

> The chamber of deputies will provide cover for, will protect, will elect the president, but we shall take from it the right to propose new, or make changes in existing laws, for this right will be given by us to the responsible president, a puppet in our hands. Naturally, the authority of the president will then become a target for every possible form of attack, but we shall provide him with a means of self-defence in the right of an appeal to the people, for the decision of the people over the heads of their representatives, that is to say, an appeal to that same blind slave of ours – the majority of the mob.

> Independently of this we shall invest the president with the right of declaring a state of war. We shall justify this last right on the ground that the president as chief of the whole army of the country must have it at his disposal, in case of need for the defence of the new republican constitution, the right to defend which will belong to him as the responsible representative of this constitution. It is easy to understand that in these conditions the key of the shrine will lie in our hands, and no one outside of ourselves will any longer direct the force of legislation.

The *Protocols* describe how 'They' would bring the population into a 'state of bewilderment' through 'so many contradictory opinions and for such length of time as will suffice to make [them] lose their heads in the labyrinth and come to see that the best thing is to have no opinion of any kind in matters political' which were understood only by those who guide the public:

> The second secret requisite for the success of our government is comprised in the following. To multiply to such an extent national failings, habits, passions, conditions of civil life, that it will be impossible for anyone to know where he is in the resulting chaos, so that the people in consequence will fail to understand one another ...

The *Protocols* tell us that education would be manipulated to be a means of perceptually-programming the masses to see themselves and the world in the way that suits the agenda for global control. Observe the transformation of schools, colleges and universities into bastions of free speech deletion, group-think and indoctrination of 'progressive' lies and insanity. The *Protocols* describe how national and individual liberty would end under rule from Jerusalem by the 'King of Israel' born of the 'blood of Zion' symbolised as the 'line of David'. I will describe shortly how from a modern perspective all this is planned to be brought about. I should not even speak in future tense because it is happening now if only people would breach the fire-walls of their Sabbatian-Frankist software program.

Different sources – same story

A long list of prophetic works including Aldous Huxley's *Brave New World* (1932), George Orwell's *Nineteen-eighty-four* (1948) and the presentation by ultra-Zionist Dr Richard Day (1969) involve precisely the same themes as the *Protocols*. How could these people be so accurate that long ago? The *Protocols* are older than all of them. The Master Plan was already in place and they were just putting that plan into their own context from their own sources. Therefore Huxley's drug and genetic

agenda is happening; Orwell's Big Brother state is happening; Day's new world order is happening in all the facets and forms that he described. Research the United Nations' scam of Agenda 21/2030 to transform human society into a centralised global state to 'save the world' from the (hoax) of human-caused climate change and the 'Green New Deal' of the Soros 'progressive' Alexandria Ocasio-Cortez. They both demand the centralised control demanded by the *Protocols*. The Sabbatian-Frankist climate change hoax has been spun as a problem to which they can offer their control-system 'solution'. All these various expressions of the plan, including the *Protocols*, describe how private property ownership will be outlawed. Paediatrician Lawrence Dunnegan described what Richard Day said in 1969:

> Privately owned housing would become a thing of the past. The cost of housing and financing housing would gradually be made so high that most people couldn't afford it ... Young people would more and more become renters, particularly in apartments or condominiums. People would not be able to buy [homes] and gradually more and more of the population would be forced into small apartments. Small apartments which would not accommodate very many children [part of the population cull agenda I have described in other books].
>
> Ultimately, people would be assigned where they would live and it would be common to have non-family members living with you. This by way of your not knowing just how far you could trust anybody. This would all be under the control of a central housing authority. Have this in mind ... when they ask, 'How many bedrooms in your house? How many bathrooms in your house? Do you have a finished game room?' This information is personal and is of no national interest to government under our existing Constitution. But you'll be asked those questions ...

We are moving in this very direction every day.

Sabbatian-Frankist coup d'état

The *Protocols* talk about a one-day 'coup d'état' or revolution all over the world at the same time and Richard Day told those paediatricians in 1969:

> The bringing in of the new system probably will occur on a weekend in the winter. Everything would shut down on Friday evening and Monday morning when everybody wakened there would be an announcement that the New System was in place. During the process in getting the United States ready for these changes everybody would be busier with less leisure time and less opportunity to really look about and see what was going on around them.

How this can be done over a single weekend – and done out of Israel – will soon become clear. One *Protocol* says:

> When we have accomplished our coup d'état we shall say then to the various peoples: everything has gone terribly badly, all have been worn out with sufferings. We are destroying the causes of your torment – nationalities, frontiers, differences of coinages [Problem-Reaction-Solution and remember this was stated more than a hundred years ago]. You are at liberty, of course, to pronounce sentence upon us, but can it possibly be a just one if it is confirmed by you before you make any trial of what we are offering you … then will the mob exalt us and bear us up in their hands in a unanimous triumph of hopes and expectations. Voting, which we have made the instrument which will set us on the throne of the world by teaching even the very smallest units of members of the human race to vote by means of meetings and agreements by groups, will then have served its purposes and will play its part then for the last time by a unanimity of desire to make close acquaintance with us before condemning us [this is the long-planned post-democratic society I have warned about for decades].
>
> To secure this we must have everybody vote without distinction of classes and qualifications, in order to establish an absolute majority, which cannot be got from the educated propertied classes. In this way by inculcating in all a sense of self-importance, we shall destroy … the importance of the family and its educational value and remove the possibility of individual minds splitting off, for the mob, handled by us, will not let them come to the front nor even give them a hearing; it is accustomed to listen [only to us] who pay it for obedience and attention. In this way we shall create a blind, mighty force which will never be in a position to move in any direction without the guidance of our agents set at its head by us as leaders of the mob. The people will submit to this regime because it will know that upon these leaders will depend its earnings, gratifications and the receipt of all kinds of benefits.

Once again this dastardly plan came to light well over a hundred years ago and the Soros 'progressive' mob is now with us acting in exactly the way this *Protocol* describes. Yet another coincidence? Not only that – the mob *is* beholding to its funders like Soros who pay for its 'obedience and attention' and drive its direction and tyranny to stop 'individual minds splitting off'. The mob does indeed 'not let them come to the front nor even give them a hearing'. This is political correctness; these are the reflex labels of 'Nazi', bigot' and 'racist'. The social engineers of the Rothschild ultra-Zionist Frankfurt School demanded the demise of the family unit as the *Protocols* do. Wish-list items of the Frankfurt School that I described earlier are widely included in the

Protocols and among them are continual change to create confusion; promotion of excessive drinking; emptying churches (targeting anything that brings people together); dependency on the state or state benefits (thus do what the state says – or else); control and dumbing down of the media and encouraging the breakdown of family. Go as far back as the fallen horseman in 1785 and the Illuminati plan on his person for world domination and revolution and you will see the same themes, methods and goals. No wonder the Hidden Hand had to pull the stunt with its professional liar operative Allen Dulles and his 'Russian émigre' to trash the credibility of the *Protocols* in the *Times* and *New York Times* in 1921 in articles written by an asset of Sabbatian-Frankist-controlled British intelligence. The 'anti-Semitism' industry and Protection Racket ultimately controlled by the Death Cult works 24/7 year after year to demonise and silence the few who are willing to highlight the bloody obvious correlation between the *Protocols* and subsequent world events. Surprise, surprise, mention of the *Protocols* is another press-enter definition of 'anti-Semitism'. Did I say they can fuck off? I think I might have mentioned it.

King of the World

These messianic crazies of the Sabbatian-Frankist Death Cult want to impose their 'world ruler' on the throne of Jerusalem on the site of a rebuilt Solomon's Temple. We can see with the emphasis in the *Protocols* on the vital part played by Freemasonry the reason why Freemasonic temples are really symbols of Solomon's Temple with their twin pillars and worship of the Sabbatian-Frankist god of Saturn after which Sabbatai (Saturn) Zevi was named. The vast majority of Freemasons will have no idea they are in effect worshipping Saturn under names like the 'Great/Grand Architect', but they are. 'El' is the Hebrew god of Saturn – as in IsraEL – and even the New Jerusalem is described in The *Book of Revelation* in terms of a cube which is an ancient symbol of Saturn. If you read my other books, like *Everything You Need To Know But Have Never Been Told*, you will see the detailed background to why Saturn is so important to them. The King of the Jews will be the real Pope of the Universe, Patriarch of an international church, the *Protocols* tell us, and rule over what is planned to be a one-world religion (Sabbatian-Frankism) with universal acceptance of the 'Jewish' God and 'Jewish' religion. All other religions (including Judaism as currently practiced) would disappear. This 'figure' will not really be the King of the 'Jews' but what some call the 'Antichrist' or, put another way, a global Big Brother. Christian Zionists have been utterly manipulated to relate this to the return of 'Jesus'. I will describe in this chapter what I have concluded the 'king' really is. The *Protocols* tell us:

> The Supreme Lord who will replace all now existing rulers, dragging on their existence among societies demoralised by us, societies that have denied even the authority of god, from whose midst breaks out on all sides the fire of anarchy, must first of all proceed to quench this all-devouring flame. Therefore he will be obliged to kill off those existing societies, though he should drench them with his own blood, that he may resurrect them again in the form of regularly organised troops fighting consciously with every kind of infection that may cover the body of the state with sores.
>
> This chosen one of God is chosen from above to demolish the senseless forces moved by instinct and not reason, by brutishness and not humanness. These forces now triumph in manifestations of robbery and every kind of violence under the mask of principles of freedom and rights. They have overthrown all forms of social order to erect on the ruins the throne of the King of the Jews; but their part will be played out the moment he enters into his kingdom. Then it will be necessary to sweep them away from his path, on which must be left no knot, no splinter. then will it be possible for us to say to the peoples of the world: 'Give thanks to God and bow the knee before him who bears on his front the seal of the predestination of man, to which god himself has led his star that none other but he might free us from all the before mentioned forces and evils'.

This is classic Problem-Reaction-Solution. Create global mayhem, conflict and suffering and then step forward as the solution to the horrors you have systematically created.

Importance of 'the mob'

The point about sweeping away the mob once it has played its part in overthrowing the old order was exactly what Soviet KGB defector Yuri Bezmenov described in 1985 when he said that once the mob (today's Soros 'progressives') had completed their role as essential pawns they would be 'lined up against the wall and shot'. Bezmenov was describing the techniques of Marxism and that is what today's Soros 'progressive' mob represents – *Marxism*. This is the same Marxism created by Sabbatian-Frankists through their frontman Karl Marx to overthrow the existing order and establish a centralised structure of control under the smokescreen of 'government of the people'. But what happened in Russia, China and everywhere else that Marxism has been imposed? The mob overthrows the prevailing order and then the new order destroys the mob. Self-obsessed pawns of the Soros 'progressive' mob are walking – sprinting – into the same trap with Marxism disguised as 'socialism' and 'inclusivity' (self-identity exclusivity). Marxism seeks to transform society by conflict between groups and Sabbatian-Frankists need a far right mob to provide the focus of hate for the Soros

'progressive' mob which is what we have with ultra-Zionists (ultimately the Death Cult) funding both 'sides'. Donald Trump was brought to power to be that focus of mob-expanding hatred not just in America, but around the world. The *Protocols* say of the mob mentality:

> In order to elaborate satisfactory forms of action it is necessary to have regard to the rascality, the slackness, the instability of the Mob, its lack of capacity to understand and respect the conditions of its own life, or its own welfare; It must be understood that the might of a Mob is blind, senseless and unreasoning forever at the mercy of a suggestion from any side ...

American Freemasonic legend Albert Pike emphasised the importance of the mob in seizing global control for the few. Pike was Supreme Pontiff of Universal Freemasonry and involved in the creation of the Ku Klux Klan (how very progressive). He was said by British-born Canadian intelligence operative William Carr to have revealed in a letter to high Freemason, Mafia founder and Illuminati chief Giuseppe Mazzini in 1871 a plan for three world wars to transform global society into a centrally-controlled dictatorship. Pike described the first two wars accurately, but the alleged content of the letter only came to light after they had happened and so what he said about the still-to-happen Third World War is most relevant. Carr quotes Pike as saying that this would break out in the Middle East between Israel and the Muslim world and drag in other nations to create a global conflict. Those who say that Pike's mention of 'political Zionism' (the State of Israel) as one of the protagonists could not have been known about in 1871 do not understand how far ahead the Sabbatian-Frankist plan is projected. Society-changing world events and happenings are not random, but stepping-stones to a final outcome that are planned and prepared for way in advance. This is where incredibly accurate long-term descriptions and predictions by Huxley, Orwell and Day ultimately originate. Pike is quoted by Carr as saying:

> ... other nations ... will be constrained to fight to the point of complete physical, moral, spiritual and economical exhaustion. We shall unleash the Nihilists and the atheists, and we shall provoke a formidable social cataclysm which in all its horror will show clearly to the nations the effect of absolute atheism, origin of savagery and of the most bloody turmoil.

Nihilism is 'a political belief or action that advocates or commits violence or terrorism without discernible constructive goals' and ISIS/Islamic State is a perfect example. Pike continued:

> Then everywhere, the citizens, obliged to defend themselves against the world

> minority of revolutionaries, will exterminate those destroyers of civilization, and the multitude, disillusioned with Christianity, whose deistic spirits will from that moment be without compass or direction, anxious for an ideal, but without knowing where to render its adoration, will receive the true light through the universal manifestation of the pure doctrine of Lucifer [a god of Sabbatian-Frankism], brought finally out in the public view. This manifestation will result from the general reactionary movement which will follow the destruction of Christianity and atheism, both conquered and exterminated at the same time.

You see the same recurring themes from all these sources pointing to the same story and the evidence of this happening is everywhere. The *Protocols* say:

> ... it is indispensable to trouble in all countries the people's relations with their governments so as to utterly exhaust humanity with dissension, hatred, struggle, envy and even by the use of torture, by starvation, by the inoculation of diseases, by want, so that [the population] see no other issue than to take refuge in our complete sovereignty in money and in all else; but if we give the nations of the world a breathing space the moment we long for is hardly likely ever to arrive.

If that does not describe the world today and indeed throughout the 20th century then I don't know what does.

Essential fake 'liberals'

The *Protocols* stress the importance of 'liberals, utopian dreamers' in the plan or what the Cabal would call today 'progressives'. They would be 'played out' once the Sabbatian-Frankist world government was in place, but until then 'they will continue to do us good service' – 'Therefore we shall continue to direct their minds to all sorts of vain conceptions of fantastic theories, new and apparently progressive.' The *Protocols* boast at having 'turned the brainless heads of the [population] with progress till there is not among [them] one mind able to perceive that under this word lies a departure from truth in all cases where it is not a question of material inventions, for truth is one and in it there is no place for progress.' This *Protocol* continues:

> When we come into our kingdom our orators will expound great problems which have turned humanity upside down in order to bring it at the end under our beneficent rule; Who will ever suspect then that all these people were stage-managed by us according to a political plan which no one has so much as guessed at in the course of many centuries?

> We shall assume to ourselves the liberal physiognomy [face/appearance] of all parties, of all directions, and we shall give that physiognomy a voice in orators who will speak so much that they will exhaust the patience of their hearers and produce an abhorrence of oratory.

This is a vital point that explains so much about what is happening today. The constant mantra from the 'progressive' voice of self-proclaimed 'moderation' is to condemn opposing groups and opinions as 'far right', 'fascist' and 'Nazi'. This is both projection and an effort to demonise opposition as extremists while selling their own image as one of moderation, inclusion and caring. It's another inverted hoax which most of the Soros mob will not have grasped while ensconced in the jet-black darkness of their nether regions. Pump-primers among them representing Sabbatian-Frankism will absolutely know what the game is. The trick is to present a face of 'moderation' while pursuing an agenda of tyrannical extremism. To do this you must brand the opposition as extremists which is what they try to do with me. This technique leads to extraordinary levels of inverted nonsense in which Tony Blair who lied to sell a war that killed or maimed millions directly and through ongoing consequences is described as a 'moderate' while those who opposed his mass murder are 'rebels', 'radicals' or extremists. The media play their vital role in this with the labels they hand out such as 'Labour rebels' and 'Labour moderates' (extremists). Remember how Western-armed-and-funded psychopathic killers in Syria were described as the 'moderate opposition'?

In search of a 'saviour'

The Sabbatian-Frankist Messiah scam is made easier by other religions having the same concept with Jesus in Christianity, Krishna in Hinduism and Maitreya in Buddhism. Humanity's need for a 'saviour' when a mirror would suffice has long been exploited by the few to control the many. Christian Zionism, a Sabbatian-Frankist creation, has entrapped so many Christian believers, especially in the American Deep South, into waiting for the Messiah and supporting the Israel-Jerusalem agenda of Sabbatian-Frankists and ultra-Zionists in the belief that this must happen before their Messiah can come. They think they are talking about Messiah 'Jesus' while the Sabbatian-Frankists plan someone, or something, very different. By the time they realise that it will be too late. Christians call the dawning of the Messianic Age the 'Kingdom of God' and the 'world to come', but they are going to be in for a shock. They have been taught (programmed) to believe that the 'End Times' will bring great trials, tribulations and upheavals which they welcome as signs that 'Jesus' is coming. In fact these planned happenings are the very Problem-Reaction-Solution scenario being played out by Sabbatian-

Frankists to usher in their own 'Messiah' – and a global control system based in Israel. The picture is far bigger than almost anyone has grasped and even Sabbatian-Frankism is only a relatively modern expression of the Hidden Hand Master Plan. It goes way back beyond the emergence of the Bible and thus this is a document encoded with the same basic themes that you find in the *Protocols* and other 'prophetic' works from sources that knew the score. Christians have been had – Christian Zionists have been *massively* had – and where this has all been leading is getting mighty close. The restoration of Israel and the Jewish return is at the very core of Christian Zionist belief and hence all the money they have contributed to making that happen while the Death Cult can barely hold back their contempt and amusement. Messiah Jesus is supposed to save the righteous, judge the wicked, and restore peace to the world which is what Sabbatian-Frankists claim for their Messiah or 'World King' when the idea is to instigate a global tyranny. They are pulling in the gullible until the point of stopping what is planned has passed. Then reality will dawn.

The Torah, or first five books of the Hebrew Bible (Genesis, Exodus, Leviticus, Numbers, and Deuteronomy) do not specifically mention a 'Messiah' returning although the term 'End of Days' is seized upon by the messianic fanatics along with other quotes about a leader who would restore and rule Israel. Sabbatian-Frankists as a Kabbalah occult religion reject the Torah. The far more extreme Talmud – the guide for ultra-Zionists – reserves the title Moshiach, or Melech HaMoshiach (the King Messiah), for the leader who will 'redeem Israel' in the End of Days. It is claimed that all the nations of the world will recognize Moshiach to be the world leader and will accept his dominion in the Messianic Era. Note how Christians and Christian Zionists say the same about Jesus. Maimonides, a famous Jewish philosopher and codifier of the 12th century, said that the Messiah, or Moshiach, will rebuild the Temple and bring back the exiles. Jerusalem and the Temple would be the focus of divine worship, and 'from Zion shall go forth … the word of the Lord from Jerusalem'. The Sanhedrin rabbinical courts would return and decide matters of law. Jerusalem's Supreme Court built by the Rothschilds was really designed for this purpose with all its satanic symbolism. Jesus was condemned to death by the Sanhedrin in the New Testament story and I wonder if Christian Zionists are following all this? The Sanhedrin this time around are meant to decree law for the whole world and not only Israel. I read that 'the coming of Moshiach will complete God's purpose in creation', but my question is this: Why does 'God' have an obsession with 0.2 percent of the world population on a planet that's a billionth the size of a pinhead compared with the projected extent of the Universe? What manipulative bollocks it all is.

Control the tech – control the world

What is planned for humanity and how it can be achieved can only be understood from the perspective of the 'smart' technological society that has emerged 'out of nowhere' so fast and taken over human focus, perception and perspective. This has been planned all along because the inner sanctum of Sabbatian-Frankism is operating from a very different timeline and level of knowledge to the general population. I am not going into why that is because it is detailed at length in *Everything You Need to Know but Have Never Been Told*. There are reasons for this, however, and they explain how Aldous Huxley could describe modern drug and genetic techniques in 1932, George Orwell describe smart televisions ('telescreens') in 1948, and Dr Richard Day describe the Internet in 1969. There are two 'worlds' in terms of knowledge and projected 'future'. The human population lives in one and the *inner core* of the Hidden Hand and Sabbatian-Frankism lives in quite another. The technology now available and that which is about to be introduced offers the potential to control all human minds and perceptual processes and to do so from a single location – *Israel*. This control system is planned to be operated by artificial intelligence and that is the real meaning of 'Supreme Lord', 'King of the World' and 'from Zion shall go forth ... the word of the Lord from Jerusalem'. I'm not saying they don't plan some form of figurehead around which to sell this control, but artificial intelligence is the means of delivery and the real practical meaning of the terms. This is why today Israel is fast becoming the technology centre of the world which is planned to eclipse Silicon Valley that it already controls from afar through front men and women and the Sabbatian-Frankist-owned Pentagon and US intelligence networks. Silicon Valley giants systematically censor criticism of Israel and exposure of the Sabbatian-Frankist conspiracy in all its expressions because it is owned by that conspiracy and thus employs ultra-Zionist censors such as the Anti-Defamation League (ADL), Southern Poverty Law Center (SPLC) and others of their mendacious ilk to recommend what and who should be banned. Humanity has been led like lambs to the slaughter along a technological Totalitarian Tiptoe towards complete enslavement of body, mind and emotions. The plan – which I have long warned about and is now being openly promoted – is to connect the human brain/body to artificial intelligence which would then *become the human mind and all human perception*. Don't take my work for it. Ultra-Zionist Ray Kurzweil, the 'futurist' Google executive, is a central figure predicting and promoting the brain-AI connection to start in earnest by 2030 (Fig 148). He describes how the global population will be perceptually connected to 'the cloud' (which is controlled through ultra-Zionist-controlled Silicon Valley corporations and other ultra-Zionist

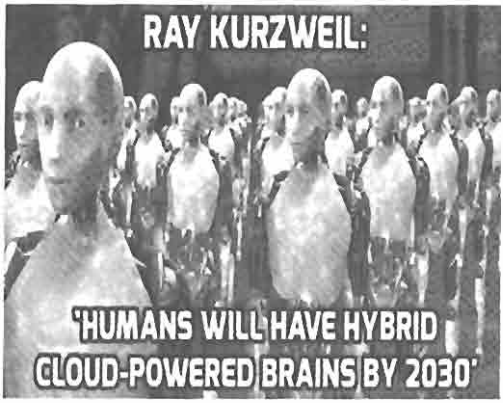

Figure 148: The end of humanity (as long planned) if we allow this to happen.

fronts like Amazon and is planned to be ultimately controlled from Israel). Kurzweil says:

> Our thinking … will be a hybrid of biological and non-biological thinking … humans will be able to extend their limitations and 'think in the cloud' … We're going to put gateways to the cloud in our brains ... We're going to gradually merge and enhance ourselves ... In my view, that's the nature of being human – we transcend our limitations. As the technology becomes vastly superior to what we are then the small proportion that is still human gets smaller and smaller and smaller until it's just utterly negligible.

Kurzweil also writes in the book *The Scientific Conquest of Death*:

> It will be routine practice to have billions of nanobots (nano-scale robots) coursing through the capillaries of our brains, communicating with each other (over a wireless local area network), as well as with our biological neurons and with the Internet. One application will be to provide full-immersion virtual reality that encompasses all our senses.

I call this the 'assimilation' when our minds will literally no longer be our own, but controlled through AI and by whatever controls AI – Sabbatian-Frankists and the Hidden Hand (and what controls them – see my other books). The takeover of human society will be complete and humanity will be controlled and directed from Israel. This has been the long-unfolding Totalitarian Tiptoe with only the final stage still to come. The AI-brain connection is planned to be made by injecting chips or a connecting 'mesh' into the brain and through other less intrusive methods of securing brain access. Preparation and manipulated acceptance of this human-AI fusion can be seen all around us. Before you can make a physical connection between humans and AI you have to establish a psychological connection. You have to *humanise* AI and make the interaction between the two like a human to human. This is a major reason for the 'personal assistant' technology known under many names including Alexa, Siri, Google Assistant and so on which are also surveillance devices. The technology was seed-funded by DARPA, the technological-development arm of the Pentagon, and is designed to

humanise AI on the road to total control by AI. Notice the AI dolls and other toys for children through which they can converse with AI as if it is human and research has shown that AI can program their perceptions. It's all the same story. Watch, too, for laws protecting robots as if they are human as we head towards a human-AI connection that will be the end of humanity as we know it – the plan all along. Other psychological preparation comes in the form of what is called pre-emptive programming. The world we are being led into is so fantastically different to the one we have known that this chasm of difference is a massive potential point of resistance to accepting its introduction. You want to do *what?* We are therefore being bombarded with Hollywood movies and television programmes depicting this very world to develop a conscious and subconscious 'pre-emptive' *familiarity* to dilute this potential resistance to the society the Hidden Hand wants to impose. The main focus is again on the young because they will be adults when this is meant to be brought in full-blown. Demonising older people and creating a disconnect between young and old is designed to dismiss the concerns of those who remember when the world was not like the one it is so fast becoming. They can thus see the scale and consequences of what is happening. If you are born into the world as it is now that's all you have known and only the awake will see what an Orwellian nightmare it really is.

Mind hack

Humanity has been guided like laboratory rats along a technological journey leading to the brain-AI connection and the end of human thinking and perception. Firstly the population was addicted to technology that they hold – 'holdables' – and for vast swathes of humankind this has already been achieved thanks to Hidden Hand tech companies like Apple and Samsung (Fig 149). By early 2019 it was estimated that more than five billion people have mobile devices with more than half of them smartphones in a world population of 7.7 billion. Smartphone and tablet devices have seized control of children and adults alike as they stare at the screen in a zombie-trance while increasingly incapable of meaningful human interaction. Phones have isolated families in the same home with some having to be texted that

Figure 149: Welcome to 'childhood'. Time for tea, kids. Kids? *HELLOOO!*

their dinner is ready because shouting up the stairs no longer has any effect during their screen 'fixes'. Almost everywhere you see human activity there are eyes welded to screens and the rest of the world doesn't exist. Cyberspace is the new realty, the new 'real world'. Smart technology has catastrophically transformed human relationships and discourse and with its associated social media has hijacked childhood, destroyed self-esteem and is literally rewiring brain function. Until relatively recently scientists believed that once the brain was formed that was it. From then on nothing changed. Now they know very different. Through a process known as placidity the brain is constantly changing in line with *information received* and *how* it is received. The sudden and incessant explosion of information received digitally and electronically is transforming the human brain and the way it processes information – and so reality and perception. Humanity is being rewired and that's especially happening with the young because they do not have the same perceptual resistance of some older people who have earlier perceptions to give them perspective on how the world is changing so quickly. I've already said that those born into this technological Alcatraz think this is how the world is. It is their 'normal'. A few generations pass and it becomes the *only* normal and this is the game that's playing out. As neuron networks and pathways change so does the way information is processed and from that comes changed perception. Think of a computer programmed to compute only in line with the codes of the program. This and the impact of psychopathic social media has coincided with rapidly rising depression, anxiety and suicide rates among the young. Teenage suicides soared by 67 percent between 2010 and 2017 alone in England and Wales and that figure will not only continue to rise but will be matched in other countries with the same or greater smartphone/social media usage. Here is glimpse of what is happening worldwide to young people as they are perceptually and psychologically targeted to become the programmed AI-controlled zombie adults of the near future. This is a report in the UK *Daily Mail*:

> More than 40,000 British 'hermit kids' are locking themselves away from the world for months or even years, shocking research has discovered. The study says chronic social isolation is increasingly affecting young people from all backgrounds and is driven by a combination of poor academic attainment and anxiety about finding good jobs. Many with the condition become obsessed with social media and live effectively virtual lives.

We are allowing the young to be literally *possessed* by technology driven by the Death Cult and the term 'virtual lives' is a potent one. The population, especially young people, is being absorbed into the 'virtual world' because the plan is for humanity to live permanently in a 'virtual

world' through a connection with AI. What is coming off these devices is purposely designed to be electromagnetically addictive. The brain operates electrically and electromagnetically and 'placidity' rewires neuron networks to sync with the frequency fields of smart technology. Addiction follows because the brain demands a constant fix of the electrical/electromagnetic/digital stimulus it has been wired to process. When someone puts the phone down the brain goes into 'cold turkey' as it craves the stimulus. The person then picks up the phone again for no conscious reason because addiction is calling the shots. People and particularly the young think they are constantly on the phone for their own reasons when really the brain-stimulus connection is driving everything. Once this brain-phone frequency connection is achieved then information – much of it subliminal beyond the perceptions of the conscious mind – can be transferred and dictate perception. This is happening to people all the time that the phone is on and through Wi-Fi even when it's not. 'Smart' brains are being hacked and hijacked to be anything but 'smart'. If people really care about their children they should get them off the phones and let them get their minds back. I have a lower-tech phone that stays in the draw for months on end and is only very rarely used when I am going to be nowhere near a proper phone and need to be contacted. Even then I use it on speaker away from my head and all the cumulative damage that would do bombarding my brain with microwaves at touching-range. I quickly note the basic information I need to know and arrange for a later conversation at length if necessary on a landline phone. I don't feel 'deprived' in the least not carrying a smartphone and if I need to speak with people in the usual course of events I have a wired phone to do that. It's not always instant, but so what? Like all addictions people think they need them but when they overcome the addiction they realise that they don't. We are looking at a silent 'holocaust' and humanity is going to reap the whirlwind with the longer-term effect on human brain and body health. This applies especially to children who are using phones while their brains are still forming. Those deep in the shadows behind all this know the consequences and have coldly planned for them to happen. It is a Death Cult after all.

Gotcha!

Stage two of the 'Tiptoe' are 'wearables' worn *on* the body en route to *in* the body. These are Bluetooth devices, Apple watches, and a long and ever lengthening list of Internet-attached technology that people wear including circuitry stitched into clothes for a better cell phone signal and 'electronic tattoos' which are nothing more than microchips on the skin and only one step from under the skin (Fig 150). Wearables are only a middle step to what has been the aim all along – implantable technology

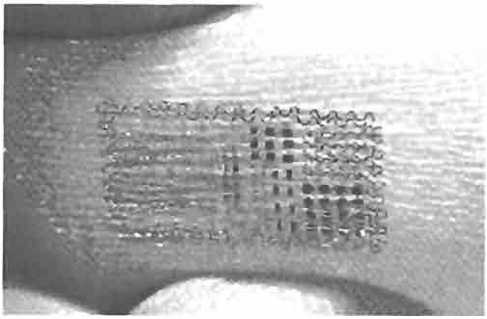

Figure 150: Electronic tattoos – one step from the microchip.

in the body and brain. This is the stage we are fast entering now. Thousands of people have already been microchipped in Sweden and I warned in my books from the mid-1990s that these 'implantables' were coming globally. My words were dismissed then as an example of my 'madness' and yet implantables are here as with a tidal wave of other 'crazy' information I have published over the years which is now happening. I write things and system-thinkers say that's crazy; then they happen. I write new things and same system-thinkers say *that's* crazy and so it continues. I shake my head and keep on writing. This news report about Swedish microchipping captures the Totalitarian Tiptoe without realising that:

> Technology continues to get closer and closer to our bodies, from the phones in our pockets to the smartwatches on our wrists. Now, for some people, it's getting under their skin. In Sweden, a country rich with technological advancement, thousands have had microchips inserted into their hands.
>
> The chips are designed to speed up users' daily routines and make their lives more convenient — accessing their homes, offices and gyms is as easy as swiping their hands against digital readers. They also can be used to store emergency contact details, social media profiles or e-tickets for events and rail journeys within Sweden.

Actually, the chips are designed for far deeper reasons than those described there. 'Benefits' listed like opening doors (lazy bastards) are only the selling points. The real deal is external access and manipulation of the human body through which mayhem and control is planned to ensue. The deeper reasons and fine detail of the technology/AI hijack can be found in *Everything You Need To Know But Have Never Been Told*. In brief, however, external access to the body can literally decide if you live or die. The body in its base form is an electromagnetic vibrating information field which you can think of as a Wi-Fi field that operates to optimum in its natural and balanced frequency state. Health and clear thinking comes from this energetic harmony while illness, 'physical' and psychological, comes from disharmony in the field – dis-ease. The brain processes information electrically and communicates with the cellular

structure the same way. Any external frequency disturbance from Wi-Fi and other technologically-generated electrical and electromagnetic communications and fields will disrupt and potentially devastate the natural electromagnetic balance and cause anything from mild to catastrophic consequences for 'physical', mental and emotional health. Dramatic increases in depression and anxiety, dementia, suicide (see the young), and other states of emotional imbalance have all happened in the 'smart'/social media era and that is not a coincidence. They are the consequences of energetic (information) disharmony, scrambled brain function and skewed information processing. What are social media 'trolls' except deeply scrambled and imbalanced people? The difference between I am full of joy and I want to kill myself is the difference in how information is processed – same glass, same liquid, but is it half full or half empty? Distorted electrical communication between brain and cells is going to have obvious consequences for health. Observe what happens on the screen of a computer when its communication system is malfunctioning or what happens to analogue radio reception in a vehicle when you drive under electrical pylon cables. Distort the communication and you distort the outcome. In the body/brain's case this is the 'physical', mental and emotional outcome. I will address in a moment the current introduction of 5G communication systems when all of the above will *massively* increase in both scale and effect because of its frequency range and vastly increased power compared with even where we have come so far.

Humanity's perceptions and reactions have been manipulated for thousands of years through control of information received. Religion and various expressions of Problem-Reaction-Solution are only two of the endless examples of how this has been done. The smart era, however, is allowing this to enter a whole new level of control through frequency manipulation. Every thought and emotion is a unique frequency. Love and hate, joy and depression all have their own frequencies and if you can externally generate those frequencies you can trigger the corresponding mental and emotional states in people individually and collectively. The brain picks up the frequency of a thought or emotion in an energetic field like Wi-Fi or directly through microchips and it processes that information into what the person experiences as the corresponding perception or emotion. '*I am* depressed, angry or dispirited' is the subsequent response when the '*I am*' is really being externally generated. I have documented this technological potential for frequency mind-control at great length over the years and it is becoming ever more effective. Dr Andrija Puharich, an American medical and parapsychological researcher, discovered in the 1950s that frequencies affect perception and so behaviour. He used frequencies to change behaviour by manipulating DNA and its

'encoder/decoder' RNA. It has long been known by cutting edge, independent-minded scientists (a comparatively tiny minority) that DNA is a receiver-transmitter of information and can be likened to an antenna. If you communicate with DNA using frequencies related to specific perpetual and emotional states you will cause people to think and feel that same way. This also applies to the brain. Even more than that you can by synching with the frequency of DNA make a connection (known as 'entrainment') and then move its 'dial' to another frequency. You could think of this is terms of a computer mouse connecting ('entraining') with a file icon and dragging it to another location or, in this case, frequency. When the DNA frequency switch is complete the genetic antenna is picking up a different information source which has corresponding perceptual, emotional and 'physical' effects. This way you can so affect DNA, the code of life, that it mutates the body into a different form. Yes, technological entrainment with DNA has the potential to mutate humanity into a whole new species and this is happening step-by-step today driven by the Hidden Hand and its Sabbatian-Frankists.

The end of men

Masculinity is being systematically deleted this way through technological frequencies aided by societal pressures and female hormones polluting water supplies by the content of contraceptive pills and other such drugs being peed into the system. We have fish changing from male to female or somewhere in between through chemical pollution of rivers and streams. Contraceptive pills contain the hormones oestrogen (estrogen) and progesterone. Oestrogen is the primary female sex hormone which will have obvious implications if it accumulates in men while Dr Diana Fleischman and a team at the University of Portsmouth discovered, albeit in a relatively small sample, an apparent connection between progesterone levels and sexual attitudes. Women with more progesterone are more likely to be open to relationships with other women and this was found to be even more the case with male-male relationships among men that have high levels of progesterone. For sure sperm counts and male testosterone levels have fallen dramatically and all the attacks on men – especially white men – to demonise 'toxic masculinity' are all part of this process of de-masculinisation of human society for reasons I will come to. Another reason for falling sperm counts is the effect of frequencies emanating from smartphones when men carry them in trouser pockets. This frequency bombardment kills sperm and 5G will enormously increase that process. A vital point here is that *everything* has its own particular frequency including hormones and if the population is bathed in these frequencies through the technological 'sea' via Wi-Fi and other sources

those hormones will be stimulated in the body. Broadcast the frequency of radio station A and you will get radio station A. Broadcast the frequency of oestrogen and progesterone and that's what you will get. Scientist Albert Einstein said:

> Everything is energy [information] and that's all there is to it. Match the frequency of the reality you want and you can't help but get that reality.

Dr Andrija Puharich found that frequencies of 10.80Hz produce 'riotous behaviour' and 6.6Hz makes people depressed. If you want a riot as a Problem-Reaction-Solution to justify more police and surveillance powers or divide and rule you just bathe the target area with the frequencies of rage and 'riotous behaviour' and then light the fuse with an event or situation. Hey, presto, the primed people will rage and riot because their symbolic or literal triggers are already cocked and waiting to fire. There are frequencies to stimulate mass hysteria, fear and outrage. People have no idea how they are being played with and manipulated while they believe that their thoughts, emotions and decisions are coming from within themselves. The US military has used frequency technology to break the spirit of an enemy so they walk out with their hands up and they use the same techniques on the general population. I have read technical reports of experiments in Russia decades ago when behaviour instructions were delivered to people through frequencies directing them to take certain actions and immediately the technology was activated the targets did exactly what they were told while believing they were making the decisions. Journalist Curtis Waltman had a shock when he filed a Freedom of Information Act request with Washington State Fusion Center (partnered with the US Department of Homeland Security) for information about white supremacist groups. He was sent by mistake a file on 'psycho-electric weapons' including electromagnetic effects on the human body and 'remote mind control'. They included descriptions of how electromagnetism can be used for various forms of remotely-induced torture, mind infiltration and perception manipulation including 'forced memory blanking', 'sudden violent itching inside eyelids', 'wild flailing', 'rigor mortis' and 'forced orgasm'. Remote attack and control systems in the documents were described to me by insiders many years earlier. From this perspective it is sobering to ponder on the potential power for mass human control of those who direct the technology and what frequency instructions and perceptions it delivers. The power of consciousness and will can overcome these effects but most people have had their personal power so drained and their responses so programmed that they are babes in arms when the button is pressed.

Why they are called SECRET societies

I am staying with themes rather than fine detail on these subjects because there is no point in repeating what is available in my other books like *Everything You Need To Know But Have Never Been Told*. Themes can be extremely effective in connecting dots and forming pictures and here are the basic themes that we face. The Hidden Hand and Sabbatian-Frankists know how reality works and how we interact with it. This forms the foundation of 'occult' (hidden) knowledge passed on through secret societies and Satanism to the chosen few across the generations. The knowledge is hidden or 'occult' for a reason. They don't want the target population to know what *they* know or the potential for using that knowledge to control and suppress is dramatically diluted. We are back to Joseph Goebbels again: 'Propaganda [or in this case secret knowledge] becomes ineffective the moment we become aware of it.' While the population goes about its daily business believing largely in the 'physical', 'solid' reality perceived by the five senses the Hidden Hand and Sabbatian-Frankists know that our reality in its prime form consists of waveform radiation fields encoded with information that we decode into the 'physical' world of the five senses. The principle is the same as a computer decoding information from Wi-Fi fields and presenting it on the screen in a totally different form. Our 'screen' is in the brain and that's the only place the world we think is outside of us really exists. The process is the same as computers decoding the Internet. We experience the Internet as pictures, words and graphics, but they only exist in that form on the computer screen (Fig 151). The information exists in its base form as Wi-Fi radiation fields and electronic communication systems. Computers are designed to decode information from that form into what we see on the screen and the biological computer that we call the human body does the same as we decode waveform information into electrical, digital and holographic information that we perceive as the 'external' 'physical' world. The five senses decode waveform information into electrical information which is communicated to the brain to be decoded into digital holographic (illusory 'physical') information (Fig 152 overleaf).

Figure 151: Computers decode information encoded in waveform radiation fields into a very different form on the screen.

The Hidden Hand knows all this and it absolutely doesn't want you to know. Notice how

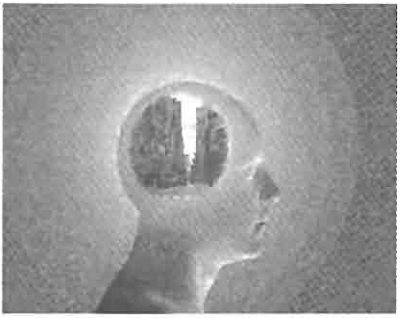

Figure 152: How the human biological computer decodes 'physical' reality from waveform 'cosmic Wi-Fi' that we experience as the illusion of an external world.

rarely the nature of reality is even mentioned in 'education' or the media except to repeat the 'it's all solid and real' nonsense pedalled by most of mainstream science and the establishment in general. By keeping this secret they can manipulate people en masse by understanding reality as it really is while the population believes in a reality that doesn't actually exist – a 'solid', 'physical' world of apparently extreme limitation. The Hidden Hand knows that reality is malleable because it is *not* solid and can be manipulated by changing the nature of the information content of electromagnetic fields and the use of specific frequencies to manifest specific ends. Albert Einstein again: 'Match the frequency of the reality you want and you can't help but get that reality.' This describes very well how humanity is controlled and directed – match the frequency of the reality you want people to believe in and they will then believe in that reality. Bathe the human environment with frequencies that match the mental and emotional states in which you wish to enslave the population; then target, marginalise, ridicule and, if possible, destroy those who expand their minds beyond those prison-frequencies and see the world as it really is. Throughout history such people have been perceived as mad or dangerous (then later right) by the perceptual 'norms' of the time because the population in general, enslaved by perceptual and frequency programming, cannot compute what the visionaries are seeing and perceiving. Legendary artist/inventor Leonardo Da Vinci is a perfect example. He wasn't ahead of his time in the 15th and 16th centuries, but *beyond* time – beyond the perceptual walls of experienced reality where the illusion of 'time' appears to be real. It is no more 'real' than solidity, as I explain in other books, and the Hidden Hand is well aware of that.

'Smart Grid' – the Endgame

From this background we can begin to grasp what the technological 'revolution' and 'smart society' is really all about and the power over the human mind and global society that would come from controlling the fast emerging 'Smart Grid' which I say is planned to be centred eventually in Israel. Who could not have noticed the ubiquitous prefix of 'smart'? We have smartphones, smart meters, smart televisions, smart cards, smart cars, smart driving, smart roads, smart pills, smart dust,

smart patches, smart watches, smart skin, smart borders, smart pavements, smart streets, smart cities, smart communities, smart environments, smart growth, smart planet … smart *everything*. These and all the other 'smarts' are connected parts of the new smart global society planned to be controlled in intricate detail and 24/7 by the 'Smart Grid'. A 'smart object' is defined as something that 'interacts with not only people but also with other smart objects'. Together they form a global grid of 'smart' electrical/electromagnetic/digital information sources controlled by artificial intelligence which means by whatever or whoever controls artificial intelligence. This is the grid or 'cloud' that people like ultra-Zionist Ray Kurzweil at Google says will be connected to the human brain by 2030 and expand thereafter to *become* the human mind. This is the real reason for smart meters planned for every home and business and being promoted like crazy by corporations, media and government. Smart meters are electromagnetic fields – another form of Wi-Fi – through which information can be gleaned from your home and with which your body, mind and emotions are interacting through frequency effects and connections. The meters, like the Smart Grid itself, are both a form of surveillance and mind or perceptual control able to manipulate what you think and feel. They are information delivery systems and the frequencies can be changed and ramped up once in place. The 'cloud' is not only one source, but multiple fields of electromagnetic and electrical/digital information designed to form one global system. Smart meters connect with Wi-Fi (ground-based and

Figure 153: The 'cloud'.

beamed from satellite), smartphone communication masts and networks, the Internet, artificial intelligence etc. (Fig 153 on previous page).

The 'Internet of Things'

It seems like only yesterday that I was warning about the plan for the Pentagon/CIA/Hidden Hand-driven 'Internet of Things' (IoT) to which all technology would be connected – everything from household appliances to televisions to vehicles and once again *everything*. All this is happening now on a mega and ever-growing scale with billions of items connected and controlled through the Internet because the Hidden Hand Sabbatian-Frankist agenda is moving so quickly. The speed in part is to have the Smart Grid in place and dictating human life before the population has realised what is going on and why. I am seeking to bring forward that realisation with this and other books while the Death Cult seeks to silence me. I have been predicting for so long what I called the technological sub-reality which is today known as the Smart Grid or 'cloud'. This is the 'Zion Mainframe' to which everything is planned to be connected including the human mind (Fig 154). The Internet of Things with the human brain added becomes the all-controlling Internet of Everything. Nano-technology far smaller than the eye can see is being embedded everywhere. They are calling this 'nanobots' or 'smart dust' – nano-microchips all communicating with each other no matter what

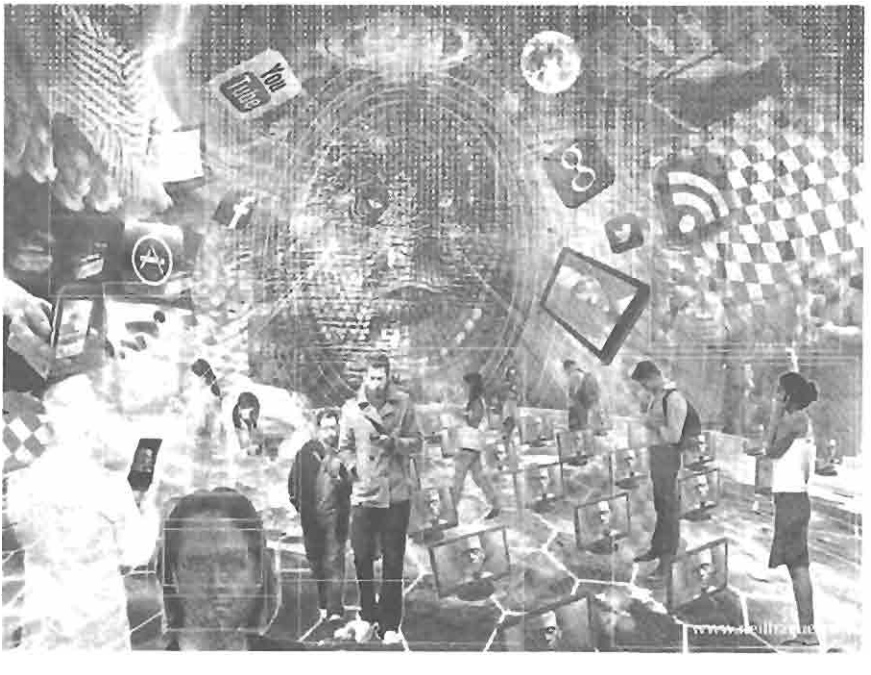

Figure 154: The 'Internet of Everything'.

their location. Nano-chips in pavements, walls, lamp posts, computers, vehicles, aircraft, energy and electrical systems, human brains/bodies and so on would form one grid of communication controlled from a central point (I say Israel) via 'hubs' around the world. Information passing through this system would decide if your car will start and where it will go through self-drive vehicles; if an aircraft falls from the sky; if you have warmth and at what level; if doors will open and elevators will work; if you eat; and, most crucially, the Smart Grid will dictate what you are thinking and feeling once the human-AI connection is made. *Nothing* will happen, including human behaviour, unless decided or deemed acceptable by the AI Smart Grid. A key to this is smart dust which is being released in the atmosphere to be breathed in and connect people to the Smart Grid network. A prime vehicle for this is what are called 'chemtrails'. These are released from aircraft and appear at first to be contrails caused by heat from engine exhaust interacting with the cold air at high altitude. The difference is that contrails quickly disperse as the exhaust heat cools while chemtrails don't disperse and instead expand and eventually fall to earth (Fig 155). I have watched military and other planes so many times around the world criss-crossing the sky pouring out their chemtrails until a clear blue sky looks like a cloudy day. They began to be noticed in the late 1990s and are now everywhere. After decades of denying that chemtrails were real Microsoft's Bill Gates and others are calling for precisely the same process to be officially implemented to block out the sun to 'save the world from climate change'. It is obvious that connecting everything through nano-smart dust would require it to be released from the sky. What Google's ultra-Zionist Ray Kurzweil describes could only be achieved through aerial distribution:

Figure 155: Chemtrails. Nothing to worry about – perfectly natural.

> Nanobots [smart dust] will infuse all the matter around us with information. Rocks, trees, everything will become these intelligent creatures.

By 'intelligent' he means controlled by AI – and who will control the AI? Yep, right first time. We are hearing gathering warnings from independent scientists about drugs, chemicals and frequency technology that is undermining the 'blood-brain barrier' which protects the brain from being infiltrated by dangerous foreign bodies or substances. This is

an explanation from a science website:

> The blood-brain barrier (BBB) is formed by brain endothelial cells lining the cerebral microvasculature, and is an important mechanism for protecting the brain from fluctuations in plasma composition, and from circulating agents such as neurotransmitters and xenobiotics capable of disturbing neural function.

The concerted and multi-faceted attack on the blood-brain barrier is to allow, among other things, the passage of smart dust nano-microchips to infiltrate and manipulate brain function. What is freedom in a single word? *Choice*. The more choices you can make the freer you are and the AI Smart Grid is about deleting all choice that doesn't suit the elite controlling the grid. What's more – take away choice and you delete what it means to be human and replace that with little more than a robotic zombie programmed to do and 'decide' whatever the system demands.

Smart cities

You will be hearing more and more about 'smart cities' in which chips and nano-chips are everywhere controlling everything externally through AI (Fig 156). New smart cities are being built and others transformed into smart cities. Sabbatian-Frankist Saudi Arabia is building a $500 billion smart city 33 times the size of New York on the Red Sea coast near the border with Jordan. The real reason for smart cities is hidden in the verbiage and misleading cliché descriptions like this one from IBM:

Figure 156: Coming to every city if they have their way.

> Cognitive computing and its capacity for building citizen engagement introduce fresh opportunities for government organizations to improve citizens' lives and the business environment, deliver personalized experiences, and optimize program and service outcomes.

So what the hell does that mean? The Smart Cities Council definition gets closer to the truth while still ignoring the real motivation which is human control. It describes a smart city 'as one that has digital technology embedded across all city functions'. Yes, as I have described

with the consequences for human freedom ignored. An article at Openingdoors.alj.com also attempts a definition with this: 'As processing power continues to increase at an exponential rate, and artificial intelligence, big data, cloud computing, and the Internet of Things reshape our lives, smart cities aim to harness these tools to transform their ability to meet the demands of 21st Century living.' Good except for the last bit where 'demands of 21st Century living' should read 'demands of 21st Century control'. The article listed seven major elements to smart cities with supporting comments:

- 5G mobile networks, which are expected to be up to 60 times quicker than 4G networks and available by 2020 [I will come to the real reason for 5G in a moment].
- Blockchain, a financial technology that allows transactions to do away with intermediaries like stock exchanges that currently function as guarantors of a transaction.
- Artificial intelligence, which is already being used by Hong Kong, Shanghai, Sydney and New York to deliver smart parking and increased energy efficiency in buildings.
- Autonomous vehicles, which are set to have an enormous impact in the coming decades. Research has suggested autonomous taxis and rapid inter-urban rail systems could combine to reduce the numbers of cars in a city by up to 90%.
- Low-cost space exploration and micro-satellites, which will be the key element in powering the 20 billion connected things research firm Gartner expects to be in use by 2020 [more shortly].
- Biometrics, which could rapidly increase the number of people around the world who are able to prove their identity, thereby reducing fraud, waste and corruption [24/7 tracking and control].
- Drones, which when paired with artificial intelligence, could soon perform everything from parcel deliveries to hazardous jobs, such as maintenance checks on rooftops or towers.

The EU wants all new vehicles from 2022 to have AI controls on speed that stop anyone exceeding speed limits through the installation of 'Intelligent Speed Assistance limiters' connected to GPS satellite location monitors and traffic sign recognition cameras. This is not about safety – the Death Cult couldn't care less about that. It's all about control. Israel dominates the market for in-vehicle AI technology which can externally take over your vehicle and drive it into a wall or over a cliff if the hacker operator so decides. It's no good people laughing at that – go on the Internet and see external control of vehicle systems demonstrated. Then think aircraft and 9/11. All this is only a stepping stone – a Totalitarian Tiptoe – to AI driven vehicles which are planned to

replace all current human-controlled transport eventually – cars, trucks, buses, trains and aircraft. The business model of Silicon Valley-based global taxi company Uber is founded on AI-driven taxis. Current drivers, who are often treated with contempt by the company, are only a transition to self-drive. Uber has lost a fortune on the road to what is planned to be a global monopoly and yet money is always there to keep it expanding (see Amazon).

Just a search engine? Just a social media site?

Technology on which the Internet is based came from the military and in particular DARPA, the Pentagon's Defense Advanced Research Projects Agency, which has given the world enormous gifts of peace and love like death rays. They are such nice people. In fact, so lovely they seed-funded personal assistant technology because they care so much about human happiness. DARPA seed-funds Silicon Valley companies and technology that it believes will help with its agenda of human surveillance and control – as does the CIA with its seed-funding arm In-Q-Tel which put money into Google before it was called Google (Fig 157). The bottom line is that DARPA did not develop and release the military technology on which the Internet is based unless that served the agenda of its controllers – the Hidden Hand and Sabbatian-Frankist Death Cult. How coincidental that the Internet is the very foundation of the Smart Grid. The Internet of Things allows control of human society and 24/7 surveillance not least through connection to smart televisions with their cameras and microphones monitoring you in your own home (Orwell's telescreens) and today's TVs are only the opening versions and not where they are planned to go. The Internet was described by ultra-Zionist asset Dr Richard Day in 1969 long before it became reality and it is a long-planned global Trojan horse. The Internet has been the fishing line to capture human life and that line is now being reeled in. The first stage was to introduce a free and open Internet without censorship to attract so many users that it became the central foundation of human society and irreversibly so. Now that point has been reached what the Internet was planned to be all along has become more evident by the day as the censorship of what can be said

Figure 157: The Pentagon runs Silicon Valley and Sabbatian-Frankism runs the Pentagon *and* Silicon Valley

and communicated becomes ever more extreme. The plan was to move sources of information that people receive from traditional media such as newspapers onto the Internet where what is seen and not seen can be regulated by AI algorithms. This is exactly what is happening. Another aspect of the strategy was to establish, promote, fund or take over companies to secure near-monopolies on the communication of information. I am talking about Google, Google-owned YouTube, Facebook (which owns Instagram and WhatsApp), Twitter and so on. Once again to become near monopolies they had to sell themselves as free and uncensored to attract the audience and have access to funding that trounced potential competitors. Then, once market domination was achieved, what they were always planned to be was unleashed in a frenzy of censorship to promote the Death Cult agenda and silence its critics and exposers. Once again this is so clearly what is happening. The same process can be seen with Amazon which dominates the book and retail market and is now censoring the 'wrong' books when it wasn't doing so as its domination was being secured.

The extraordinary ratio of Zionist control can also be seen with people like Sergey Brin and Larry Page (Google and parent company Alphabet); Susan Wojcicki (YouTube); Mark Zuckerberg and Sheryl Sandberg (Facebook); and Arthur D. Levinson (Apple chairman). Another Apple board member is ultra-Zionist Bob Iger, chairman and CEO at Disney. The small world nature of Silicon Valley and connected parts of The Web can be seen with Apple board member Ronald D. Sugar, chairman of Uber and former chairman and CEO of global arms manufacturer Northrop Grumman, and with the connections involving YouTube CEO Susan Wojcicki, a former executive of Google. Her ultra-Zionist sister Anne was married to Google co-founder Sergey Brin and now runs Silicon Valley DNA testing company 23andMe which was funded by both Google and biotech giant Genentech whose CEO was Arthur D. Levinson, chairman of Apple (he replaced Steve Jobs). Levinson is a former director of Google who is founder and CEO of biotech company Calico owned by Google parent company Alphabet. Google and Facebook are phenomenally important assets of The Web because of their power over the circulation of information. Google suppresses search engine listings of the alternative media while Facebook (like Google/Alphabet's YouTube) increasingly outright bans information that challenges the elite agenda or 'shadow' bans it which means that while it can be posted algorithms ensure its audience is tiny and nothing like what it would otherwise be. This is not, however, the full extent of Google and Facebook service to the Hidden Hand and The Web. They both play globally crucial roles in surveillance and data gathering for intelligence and military networks and if they didn't exist the intelligence-military complex would have had to invent them. I say

Figure 158: Regina Dugan – strange career at first glance, but with a common theme.

they did. Big Brother now accrues the fine detail of people's lives and beliefs because the public tell them via Facebook posts and search engine history. Those that appear to run these companies are anything but genuine and trustworthy characters while they promote a fraudulent image of being 'progressive'. The idea that Zuckerberg is ultimately controlling Facebook is a joke when you see his terrified face and staring eyes on being asked even a mildly incisive question.

The Pentagon and CIA have colossal influence over these Internet giants and the Pentagon/CIA in turn are assets of the Hidden Hand and Sabbatian-Frankist Death Cult. Regina Dugan personifies these connections (Fig 158). She was the director of DARPA who then became an executive of Google before moving on to Facebook. Her role in all cases can be summed up by her brief at Facebook – 'to develop technologies that fluidly blend physical and digital worlds'. Or, to be more to the point, to develop technologies that fluidly blend AI with the human brain. 'Retail website and bookseller' Amazon has fundamental connections with the Pentagon and CIA and like Google and Facebook operates at the cutting edge of smart technology and AI. Microsoft is up there, too, and this Bill Gates company has the most obvious surveillance and control connections to computers and other devices that use its software. Even Amazon and Microsoft employees have spoken out against their work with the military, intelligence and law enforcement. Amazon's Jeff Bezos provides cloud services, surveillance and other support for the Pentagon, CIA and police. One Amazon worker said: 'Companies like ours should not be in the business of facilitating authoritarian surveillance. Not now, not ever.' So what if those involved in authoritarian surveillance are the real force behind the company? Microsoft responded with the finger to its employees complaining about technology and weapons contracts with the military. CEO Satya Nadella said: 'We made a principled decision that we're not going to withhold technology from institutions that we have elected in democracies to protect the freedoms we enjoy.' If it wasn't so tragic my belly would ache. Billions of dollars are spent by the Pentagon and intelligence 'community' with Silicon Valley companies which are assets of the military-intelligence complex. Employees need to rub their eyes and see that their pay checks are not coming from companies with

humanity's interests at heart – far, far from it. No surprise, then, that Google parent company Alphabet (the CIA, NSA, FBI etc. are known as 'alphabet agencies') is involved in a smart city project in Toronto which foresees everything being controlled and monitored by AI right down to rubbish bins. The plans are being developed by Alphabet-owned and New York-based Sidewalk Labs and the project guided by ultra-Zionist CEO, Dan Doctoroff, who says the smart city development would be built 'from the internet up'. This is what I have been describing. One media report said that the sheer scale of data gathering involved was a cause of concern to those pointing out the Big Brother potential. David Murakami Wood, an associate professor at Queen's University in Kingston, Ontario, said that the public's ability to give consent to trade privacy for convenience 'goes out the window straight away' under the Alphabet/Google scheme: 'I think in some ways what we're facing here is a situation where none of this is very much like anything we've seen before.' That's because we are entering the Hidden Hand endgame and so witnessing a transformation of human society in ways that absolutely have not been seen before.

Behavior control

Those who refuse to submit to this control system will be cut adrift, made a non-person and where necessary eliminated. You will do what you are told in every aspect of life or the AI Smart Grid will give you severe consequences. We are already seeing this emerging in China with the social credit system that decides how you should behave in every area of life and then awards or deletes credits in response. Act as the government demands and you accrue credits. Act in other ways and they are taken away resulting in multiple consequences. Chinese dictators have blocked millions of 'discredited' citizens from buying plane and train tickets. By the end of 2018 the National Public Credit Information Centre said Chinese courts had banned the purchase of plane tickets 17.5 million times and 5.5 million for train tickets. According to a 2014 government document the behaviour credit system is designed to 'allow the trustworthy to roam everywhere under heaven while making it hard for the discredited to take a single step'. Do as we tell you or we'll destroy you. Imagine the potential for this once the world is subject to a global Smart Grid that controls everything. You want to rebel? Okay, well doors will literally not open for you – anywhere. By then every front door, garage door and barrier will only open if the Smart Grid says it can and the codes of your microchips – constantly reprogrammable – allow you to pass through. I saw a *Guardian* article on the China system which reported that critics were claiming the authorities were using technology and big data to create an Orwellian state of mass surveillance and control'. Critics were *claiming?*

You mean that dictating your every behaviour through a governmental and technological carrot and stick is open for debate about whether or not it is an Orwellian state of mass surveillance and control. *What?* Of course it is. What else could it be? What is happening in China under its murderous communist dictatorship is the blueprint for what is planned for the entire world. China today and the world tomorrow – including China's millions of people-recognition cameras that can identity the location of anyone in minutes. Hidden Hand global Internet companies including ultra-Zionist-controlled Facebook, Google, Apple and Microsoft are actively working with Hidden-Hand-controlled China while claiming to be 'progressive' organisations with 'values'.

The plan in the end as AI destroys almost every current form of employment is to introduce a guaranteed income for people. This may sound at first to be a good thing, but the unspoken reason is control. You don't do what we say? Okay, we stop paying your guaranteed income and where else are you going to earn the money so you and your family can eat? All the jobs have gone to AI. Hidden Hand and Sabbatian-Frankist front groups and organisations are calling for this guaranteed income which will make everyone poor except the elite. Facebook's

Figure 159: The planned structure of the 'post-democratic' society with the Smart Grid and AI taking all the jobs and humanity living off a guaranteed income to ensure guaranteed poverty and only paid to those that conform.

multi-billionaire Zuckerberg is one of those calling for a 'universal basic income' because he cares so much about the poor and needy. My god, these people are truly disgusting and yet heroes to Soros 'progressives'. I have used the term 'Hunger Games Society' in other books for the plan to impose a fierce hierarchical structure controlled by the few with everyone else living in poverty controlled by a mercilessness police state (Fig 159). The latter is fast emerging – a military-police state in the end – while plunging the population in totality into collective poverty and control is planned to be achieved by AI taking their jobs and the 'guaranteed income' ensuring everyone-the-same poverty. Those who think none of this applies to them because they have a nice house and good income today should ponder on that and realise that it absolutely *does* apply to them. Basic income would mean the end of property ownership or ownership of anything (except for the elite) and the same outcome for everyone. This is what Soros 'progressives' are demanding as they promote Marxism (see the Soviet Union) as 'socialism'. Equal opportunity is one thing and to be desired, but equal outcome means a race to the bottom for everyone (except the elite).

Watch for the basic income control scam because it's coming unless we collectively wake up to what the game is. The *Protocols* say: 'The people will submit to this regime because it will know that upon these leaders will depend its earnings, gratifications and the receipt of all kinds of benefits.' Dependency is the greatest form of control.

* Glasgow, Scotland's biggest city, is pledged to be a 'smart city' through AI and surveillance technology and has partnered with Israeli government/military-connected Nice Systems which was exposed by Fox News reporter Carl Cameron in his post-9/11 reports about the Israeli spy ring in the United States. Glaswegians who have questioned the use of an Israeli military-connected company to keep surveillance on them have been condemned by the council as 'anti-Semitic'. Well, wave a feather and I shall swoon. Even more reasons to question the involvement of Israeli technology and 'cyber-security' companies follows in the next chapter.

* Another significant Google and parent company Alphabet executive is ultra-Zionist State Department official Jared Cohen, CEO of Jigsaw (formerly Google Ideas) and an Adjunct Senior Fellow at the Council on Foreign Relations. He wrote a book with former Google and Alphabet Executive Chairman Eric Schmidt called *The New Digital Age: Re-shaping the Future of People, Nations and Business.* You get the picture. Cohen and Schmidt attended the elite Sabbatian-Frankist Bilderberg Group meeting in 2019 along with ultra-ultra-Zionist Jared Kushner, senior advisor and son-in-law to 'anti-elite' (yeah, right) Donald Trump.

CHAPTER 27

Eyes wide OPEN (2)

The only person you are destined to become is the person you decide to be – Ralph Waldo Emerson

The term Smart Grid describes AI and wireless connections between technology and the human brain, all aspects of human society including household appliances and throughout the natural world. This will allow the entire human race and everything else to be controlled and manipulated from a central point once smart dust and other AI/technological connections are made and turn humanity into one hive mind dictated by the 'queen' out of Israel. That's my view anyway.

The plan is being sold as a wonderful thing to increase the collective power of human creativity, but that's just the sales-pitch that claims all this will make us 'super-human' (Fig 160). It won't – it will make us post-human. The real reason for the hive mind is the central control of *all* minds. Scientists are already experimenting with animals to connect their minds into one 'hive' on the way to doing the same with humans. To make this and the Smart Grid in general work the Hidden Hand requires a minimum level of communication and Wi-Fi power of at least what is known as '5G'. This is another Totalitarian Tiptoe. 'G' stands for 'generation' and so we have been pied-pipered from the first generation (1G) of wireless communication power through 2G, 3G, 4G and now the roll-out of 5G. Each one has been more powerful and so has affected mind and body in more intrusive ways. We live in an ever-expanding sea of Wi-Fi (the 'cloud') that with each new 'generation' is impacting on mind and body functions to ever-greater extremes. Anything that disrupts and distorts the electrical and electromagnetic communication and information processing functions of brain and body is

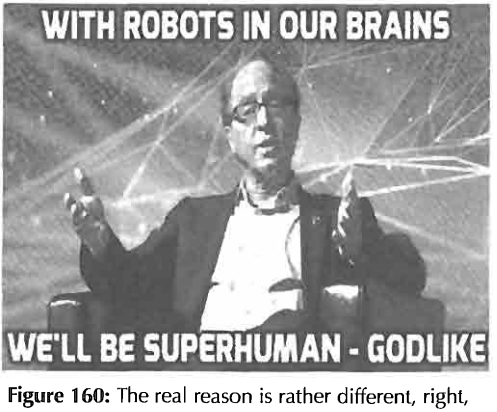

Figure 160: The real reason is rather different, right, Mr Kurzweil?

going to disrupt and distort human health and psychology and each new 'generation' is doing this more fundamentally as the power and impact is increased. Observe the soaring increases in cancer, depression, suicide, dementia and Alzheimer's in the Wi-Fi, smartphone era. What is Alzheimer's? Disrupted brain function caused by toxins as well as direct frequencies. The plan is for there to be no escape from Wi-Fi anywhere on earth by having it beamed from satellite to every inch of the planet. No escape is already the case with those in urban areas. We have children at home in a 24/7 Wi-Fi field made worse by smart meters and they walk to school through increasing prevalence of Wi-Fi and sit in classrooms all day awash with Wi-Fi. This is causing cumulative mind and body consequences and very direct ones for many with brain tumours where they put smartphones to their ear. Studies have revealed a massive increase in brain tumours especially among the young near the ear they use to listen to phone calls and 'scientists' say they have no clue what is making this happen when the cause is staring them in the face – or the ear (Fig 161). The 'don't know' is simply protecting their careers and the telecommunications industry and government from exposure that would threatened the roll-out of the Smart Grid within which smartphones are crucial – well, until the microchips are installed that is and AI is directly dictating perception. Humans are now living in a technologically-generated electromagnetic soup and here's a sobering fact: The first mile above the earth is today filled with *two million* times the amount of electromagnetic fields (EMF) that was there in 1900. EMF radiation has the potential to damage DNA and we are living in an ever more powerful human-generated sea of the stuff which has been systematically created by the Sabbatian-Frankist Death Cult. Canadian neuroscientist Michael Persinger, a long-time researcher on these subjects, said:

Figure 161: It's a mystery, I guess.

> For the first time in our evolutionary history we have generated an entire secondary, virtual, densely complex environment – an electromagnetic soup – that essentially overlaps the human nervous system.

This is affecting not only humans but all life on earth throughout the natural world. Animals, trees and plant life are damaged the same as humans through information field distortion and the potential is there to

Figure 162: Shocking: 416 whales beached themselves at the same time in New Zealand.

change the very atmosphere that keeps us alive. We are seeing the effects on marine life, birds, bees and others of having their natural navigation systems disrupted to the point where whales and dolphins have been beaching themselves sometimes in large numbers (Fig 162).

Endgame technology – 5G

All this brings us to 5G. Don't fall for the scam that 5G is just a more powerful version of 4G. That would be bad enough, but it's far worse than just increased power. 5G operates on an entirely new frequency range known as millimeter waves which pulsate their highly disruptive frequencies within the window of 30 and 300 gigahertz and 5G is an ultra-high frequency with ultra-high intensity that will bombard the body-brain with ... 90 *billion* electromagnetic waves per second. Just contemplate the consequences of that. The brain, body and DNA receiver-transmission system constantly blasted with 90 *billion* technologically-generated electromagnetic waves per second. When you consider the psychological, emotional and bodily consequences we are already seeing from 4G and lower we are staring in the face of a cumulative human catastrophe for body and mind. Professor Trevor Marshall, Director of the Autoimmunity Research Foundation in California, said:

> The new 5G wireless technology involves millimeter waves (extremely high frequencies) producing photons of much greater energy than even 4G and Wi-Fi. Allowing this technology to be used without proving its safety is reckless in the extreme, as the millimeter waves are known to have a profound effect on all parts of the human body.

Dr Joel Moskowitz, professor of public health at the University of California, Berkeley, said that 5G is a 'massive experiment on all species'. Against this background Dr Graham Downing, who trained in clinical sciences and molecular biology at London's King's College, asks the question: 'Is 5G about to destroy two billion years of evolution?' Put those words and his name into YouTube and you'll see his presentation exposing 5G. Hundreds of doctors and scientists across the world have highlighted how wireless radiation is linked with cancer, brain and immune system malfunction and harm to unborn children. They warn that all these effects threaten to vastly increase with 5G and call for a ban

on its introduction until the facts are known. This is the last thing the Death Cult wants because independent research publicly circulated would assign 5G to history. Instead they simply don't fund or consult independent research and dismiss any that does come to light. Telecommunications industry representatives were asked at a session of the US Senate Commerce, Science and Transportation Committee how much money they had committed to independent research into the effects of 5G. Answer: *Zero*. Senator Max Blumenthal who conducted the questioning summed up the responses when he said: 'No research ongoing – we're flying blind here so far as health and safety is concerned.' Well, yes and no. They don't want the public to have access to research that would be the death-knell for 5G but insiders absolutely know what the effects are going to be in disrupting brain function – clear thinking and emotional response – and the extraordinary numbers it is likely to cumulatively kill. We are dealing with a Death Cult lest we forget and they must have a way of protecting themselves from the affects their targets will suffer. More confirmation of systematic suppression of 5G consequences came from Tom Wheeler, then chairman of the US Federal Communications Commission (FCC) which is supposed to protect the public from the dangers of technology like 5G. The Hidden Hand Web ensures, however, that the force controlling the FCC and other would-be 'protection' agencies also controls the telecommunications industry and it's a complete stitch-up. Wheeler is a classic. The fraud that is Barack Obama appointed him as head of the Federal Communications Commission when his previous jobs included being a lobbyist for the cable and wireless industry which as FCC chairman he was supposed to be regulating. He was also president of the National Cable & Telecommunications Association (NCTA) and CEO of the Cellular Telecommunications & Internet Association (CTIA). He is the last person who should have been FCC chief in the light of his monumental conflicts of interest, but it was fine with Hidden Hand puppet Obama. Wheeler, who is a serious piece of work, said in a speech about 5G at the National Press Club in 2016:

> We won't wait for the standards to be first developed in the sometimes arduous standards-setting process or in a government-led activity. Instead, we will make ample spectrum available and then rely on a private sector-led process for producing technical standards best suited for those frequencies and use cases.

We'll hand safety regulation to the industry that doesn't want regulation and is spending zero on independent scientific research into the consequences of what the industry is doing. If you put 'Tom Wheeler 5G' into YouTube you'll find the speech and I recommend people give it

a look to see the sheer cold-eyed arrogance that we are dealing with. Other 'safety' scams played by industry and government are to focus only on the heating effects of the technology and ignoring all the other far more dangerous aspects and to ensure that official 'safety limits' are always just above whatever the industry needs them to be to do what it wants. The enforced introduction of 5G is being centrally dictated to prevent local opposition blocking the plan and laws and regulations are being imposed to stop local communities refusing to accept it. But we must *not* accept it – under any circumstances.

See no evil

Public opposition is gathering to 5G despite the virtual radar silence on the subject from the mainstream media and we have to act because those who claim to be serving the public interest never will through either malevolence or ignorance and often both. The council leader on the Isle of Wight where I live is a perfect example. His name is Dave Stewart and he took time out from plans to concrete over great swathes of the island to respond to questions about 5G. He said of 5G opposition:

> I am actually an evidence-based individual, when I read some of the things I read and then I research them online I actually have to question the thinking of some people, because it takes them to the extreme of everything.

My experience of Stewart is that little ever emits from his mouth that stands up to scrutiny and he is typical of the political class worldwide. How can he be 'an evidence-based individual' on 5G when there is *no* evidence supporting its safety because there has been no officially-funded independent research? All the truly independent scientific studies done outside the system have pointed to serious dangers. What people like Stewart mean by 'evidence' is 'evidence' that they want to hear. Any other kind – like the obvious truth – is 'the extreme of everything'. Well, here are some 5G consequences that the Stewarts of the political class don't want to hear:

- DNA single and double-strand breaks which genetically mutate and break-down body systems (leading to diseases such as cancer) and seriously disrupt DNA receiver-transmissions which will have catastrophic consequences for mental, emotional and bodily health.

- Infertility, damage to unborn children and miscarriage.

- Heart problems (the heart is pumped by electrical frequencies).

- Oxidative damage (which leads to tissue deterioration and premature

ageing).

- Disruption of cellular systems which means a long list of health consequences.
- Increased blood-brain barrier 'permeability' (opening the door to allow toxins and smart dust to enter the brain).
- Melatonin suppression (sleep problems, increased risk of cancer and many other consequences).
- Behaviour problems including memory loss.
- Serious nose bleeds.

Babies, children, pregnant women and the elderly are especially vulnerable to 5G which also has the effect of diminishing antibiotic potency while making bacteria stronger and more resistant. Some politicians with more intelligence and public concern than off-the-peg political class operatives like Dave Stewart are responding to the dangers although how long they will hold out is quite another matter. Among them is Céline Fremault, a minister in the Brussels-Capital Region responsible for Housing, Quality of Life, Environment and Energy. She announced a halt on 5G:

> I cannot welcome such technology if the radiation standards, which must protect the citizen, are not respected, 5G or not. The people of Brussels are not guinea pigs whose health I can sell at a profit. We cannot leave anything to doubt.

Dave Stewart is checking Google as I speak to convince himself that Fremault is at 'the extreme of everything'. Increasing numbers of people are becoming 'electro-hyper-sensitive' through the technologically-generated 'sea' they are now interacting with and they cannot tolerate even low exposure to Wi-Fi fields. What happens to them at even higher frequencies from which they cannot escape because they are literally everywhere? The body bone structure or skeleton is an antenna and so is DNA and the skin. Dr Yael Stein of Jerusalem's Hebrew University wrote to the Federal Communications Commission (wasting his time, ink and paper) to point out that more than 90 percent of microwave radiation is absorbed *by the skin which is like a sponge absorbing microwave radiation*. Dr Stein said that sweat ducts operate as antennas responding to electromagnetic fields. We have millions of these ducts and the effect of 5G is to make them even more conductive. 5G is a military weapon

planned to be used on the human race and this skin antenna phenomena has allowed them to develop technology to disperse crowds which broadcasts frequencies within the millimeter 5G range to make people feel like their skin is on fire. This 'Active Denial System' emits frequencies which the skin decodes into heat. The 5G Smart Grid gives the Hidden Hand the potential to dramatically increase the power of 5G transmissions to microwave the population and turn streets and homes into the equivalent of microwave ovens. Once the Smart Grid is in place and broadcasting 5G the potential there for a mass cull of the human population which the Hidden Hand and Sabbatian-Frankists have been planned for a very long time as I have detailed in other books. 5G is not the end either with even more powerful 'generations' in the pipeline. Those controlling the grid (I contend Sabbatian-Frankists out of Israel) would have control of every human mind, all human health and that of the entire natural world. 'Dose' levels would be able to target specific individuals with everyone given a unique digital code to isolate them for targeted attacks as required. You want to challenge the control system? Bye, bye.

No escape

The short wavelengths of 5G mean that it can't travel far or pass effectively through physical objects like buildings, trees, etc. and many have noticed the astonishing number of perfectly healthy mature urban trees being felled – thousand alone in the English city of Sheffield. These limitations of 5G communication mean that instead of the big broadcast transmitters we have seen up to this point sending the signal longer distances 5G requires a staggering number of small transmitters at close intervals down every street (Fig 163). 5G can in fact travel further than they claim, but transmitters close together is the agenda. To give you an idea the single city of Thousand Oaks in the Greater Los Angeles area will require '4,000 to 5,000 new cell sites over the next five years', according to campaigner and attorney Jonathan Kramer. At the time of writing Thousand Oaks has just 140 wireless sites and this is the scale of change we are facing. Play-out 5,000 cell transmitters for one city of well under 150,000 people across the world and cities like London, New York or Tokyo and the number

Figure 163: 5G will mean having transmitters along every street and the closer people are to transmissions the more dangerous they are.

would be absolutely fantastic. They would construct a global grid of human manipulation and health devastation controllable from a central point which I say is planned to be Israel. But that's not all. Some 20,000 satellites are due to be beaming 5G at every inch of the planet to ensure no one can escape. Tech celebrity Elon Musk alone is in the process of putting thousands in place through his SpaceX operation. Musk is the man who said that AI could be the end of humanity and then started a company called Neural Link to connect AI to the human brain and without the satellites he is launching the full-spectrum AI Smart Grid entrapping everyone worldwide would not be possible. Go figure. He's either incredibly confused or he's misleading people. Facebook and Google (same thing) are both involved in sky-based Wi-Fi with a Freedom of Information Act request revealing that Facebook is developing an internet satellite that would 'efficiently provide broadband access [5G] to unserved and underserved areas throughout the world'. When a Musk SpaceX rocket exploded at Cape Canaveral in 2016 it was carrying a Facebook Wi-Fi satellite. Facebook is not just a social media platform, nor Google just a search engine, nor Amazon just a global retail site. Their significance and agenda is far greater and all are controlled by the same Hidden Hand in pursuit of the same outcome of global domination and control. They are disgusting organisations controlled by disgusting people for disgusting ends and those working for them need to face that fact. Another point to make here is the connection between the 'climate change' environmental movement, the UN's Agenda 21 and Agenda 2030 and the telecommunications industry rolling out 5G and the Internet of Everything. The 5G Smart Grid is being pushed and supported by environmental and UN groups to 'save the world from climate change' with telecommunications/Internet industry and NGO connections to big names in climate change hysteria including Extinction Rebellion which has closed London streets with direct action demanding the government imposes a transformation of society precisely in accordance with the Marxist/Agenda 2030 blueprint being manipulated into place by the Sabbatian-Frankist Death Cult. Gail Bradbrook of Extinction Rebellion has many such connections while 16-year-old Swedish climate change poster girl Greta Thunberg is being mercilessly manipulated by the billionaires behind the hoax. I have said for decades that the scam of human-caused climate change was a 'no-problem' to which the 'solution' of centralised global control could be imposed – and now here we are. George Soros will be beaming.

Israel and 5G

The Sabbatian-Frankist Death Cult and its (largely ignorant) ultra-Zionism support system are planning to be the operational centre of the global Smart Grid from where everything – and everyone – will be

controlled. This is why Israel has so fast become a world cyber tech and 'security' power and we have seen nothing yet. Through control of the Smart Grid the Sabbatian-Frankist 'Messiah', symbolic or otherwise, is planned to be 'Supreme Lord' of human society and that includes the non-Sabbatian-Frankist Jewish population (the overwhelming majority). It is vital that this penny drops because the Cult has contempt for those non-Sabbatian Jews. The cell phone was invented in 1973 by a Jewish man, Martin 'Marty' Cooper, a pioneer of the wireless communications industry with a long list of patents. He made the world's first cell phone call on April 3rd, 1973, while an engineer at Motorola and he is acclaimed as the 'father' of the mobile phone. Qualcomm, co-founded by ultra-Zionist Irwin M. Jacobs and by far the world's biggest cell phone chip company today, is driving the introduction of 5G along with others. 'Leading the world to 5G and a unifying connectivity fabric that will transform the wireless edge', the company claims in its promotion blurb:

> This is the age of 5G. Made real by Qualcomm – the mobile know-how we put into 3G and 4G enabled us to pioneer 5G, connected cars, and a true Internet of Things (IoT) that will have everyone, and everything, talking.

Qualcomm's cellular modem or data converter called Snapdragon (appropriately named for readers of my other books) is leading the transformation to 5G smartphones (digital suicide notes). The company's propaganda describes how over 30 years Qualcomm's 'mobile invention has led to the Invention Age'. Qualcomm's headquarters are in San Diego, California, but the major location for its research and development of the Smart Grid is Israel. *The Times of Israel* reported in 2014:

> Last year, the company celebrated the 20th anniversary of its presence in Israel, where it has developed some of its most innovative technologies. Among the technologies developed by QualComm Israel are the company's m2m (machine to machine) cellular platform, which is used to track the location of pets, kids, the elderly, and property, a spokesperson said.
>
> It's part of QualComm's attempt to create an 'Internet of Everything,' where objects are intelligently connected through a combination of advanced wireless networks, modules, sensors and software to enable the real-time exchange of information – with key elements developed in QualComm's Haifa facility, the company said. Among the products that have resulted from that technology is Tagg, the pet-tracking device.
>
> In addition, Israeli start-up Wilocity, which received a substantial investment

from QualComm Ventures, the company's venture capital group, recently demonstrated multi-gigabit wireless WiGig chipsets, based on chips made by QualComm. The system can transfer high-definition video at distances of up to 40 meters with speeds more than 10 times faster than current average Wi-Fi transmission rates, according to Wilocity CEO Tal Tamir.

This only one of many Israeli start-up technology companies absorbed into Qualcomm. Ultra-Zionist founder Irwin M. Jacobs told *The Times of Israel* that throughout Qualcomm's early years 'a number of Israelis came to work with us in the US – some stayed and some went back and we kept working with them until we eventually decided to open an Israeli office in 1993'. Israel is at the very central core of the Smart Grid agenda and technological control of humanity – Israeli companies and military/Mossad operatives posing as private entrepreneurs are everywhere with regard to this. Israel's increasingly vast cyber and Internet operation is driven by the military out of the Beersheba cyber complex which is surrounded by global high-tech and Internet giants to whom the military send technicians and executives along with all the Israeli start-up tech companies. One headline said: 'Israeli military intelligence unit drives country's high-tech boom'. Other headlines galore herald the arrival of Israel as the centre of the smart tech industry: Musk calls Israel 'technological superpower'; From Jerusalem shall come forth cyber-security, says cyber guru; Israel as a Cyber Super Power; Israel is becoming an artificial intelligence powerhouse; Six reasons Israel became a cybersecurity powerhouse leading the $82 billion industry; How Israel is rewriting the future of cybersecurity and creating the next Silicon Valley; Why Israel dominates in cyber security; Bill Gates: Israeli tech 'changing the world'; Microsoft's top new tech and its Israel connection; Israel leads world in R&D investment; Israel – No. 2 home of global top 500 cyber security companies; Israel wins second-largest number of cybersecurity deals globally; Apple to open R&D centre in Israel; How Intel came to be Israel's best tech friend; Intel CEO: We think of ourselves as an Israeli company as much as a US company; Execs from Facebook, Google, and Microsoft explain why they use Israel for their R&D. There is also a weapons aspect to this Israeli tech explosion as reflected in these headlines: Why Israel has the most technologically advanced military on Earth; 'Weapon Wizards': How tiny Israel became a military superpower; Israel's arms exports spike, hitting record $9 billion. All of the above are driven by the Sabbatian-Frankist Death Cult although most of those involved won't know that. Weapons and Israel's control of the Smart Grid dovetail with these questions: So you want to stop what we are doing through the Smart Grid? Did we tell you we have a serious nuclear arsenal that we are mad enough to use? Something else to

ponder: Why would a country on a tiny piece of land with a population of just eight million (20 percent of them Arab) spend so much time, effort and money building up one of the world's biggest stockpiles of nuclear weapons? Well, maybe now we know.

In his own words

Benjamin Netanyahu was apparently re-elected in 2019 for a record fifth term as Israeli prime minister (and as President of the United States) when the population was given the 'choice' between a far right psychopath and a far right psychopath (Fig 164). However, at the time of writing new elections were called for September, 2019, after he failed to secure a coalition government in a spat with the extremist's extremist Avigdor Lieberman.

Figure 164: Strange, but true.

Netanyahu won the first election with promotional help from Donald Trump and Vladimir Putin who hosted him for high-profile meetings near the end of the election campaign which were nothing more than election propaganda for the home audience. Mossad operative Victor Ostrovsky was not wrong when he said in his 1990 book that Israel politics was constantly moving to the right and the process has continued ever since. Ultra-Zionism is on the march as the programming intensifies. Netanyahu is the common theme through the years of preparation for cyber and Smart Grid domination and I am going to confirm the plan through his words in several speeches to AIPAC, tech conferences and the United Nations General Assembly. The theme is the same – Israel dominance of global technology and cyber 'security'. Netanyahu included in one speech a quote from the 'Prophet Isaiah: 'I've made you a light unto the nations, bringing salvation to the ends of the Earth.' He then took up the theme:

> Today 2,700 years after Isaiah spoke those prophetic words Israel is becoming a rising power among the nations, and at long last its light is shining across the continents. Bringing hope and salvation to the ends of the earth. It's very important for us to recognize that we possess a great treasure, the capacity to innovate is a great treasure, a profound economic value in today's world. We have the economic future of the world in Israel.
>
> You know these companies; Apple, Google, Microsoft, Amazon, Facebook,

> guess what they all have research centres in Israel, all of them. Major research centres! And they're not alone, there's hundreds more and there's a reason, something is going on, it's a great change … It's this shift from the old world to the new world …

The psychopath is talking in barely-hidden code about precisely what I am describing. Netanyahu said there was a revolution that was changing the world, both economically and in terms of security. 'I think it will also change our politics', he said (as always planned). He bragged that top cyber technology and Internet companies were establishing major advanced research centres in Israel which was a 'meeting ground between big data, AI and connectivity':

> Everything is being driven from this nexus, everything … it's the confluence of big data, connectivity and artificial intelligence, okay, you get that? Israeli technology is driving the world. Israeli technology is driving the world.

Global telecommunications giant Verizon launched Verizon Ventures Israel because 'much of today's innovation comes from Israel, where thousands of start-up companies are creating new technologies and services that are challenging the status quo and changing markets every day'. It's a story being repeated by all the leading tech and Internet companies with connections to the Smart Grid agenda. Netanyahu rejoiced that Israel was number two in the world and closing on the United States. He said that Israel is one tenth of one percent of the world's population and yet attracts already 20 percent of global share in cyber security investments. '[We are] … now second to the United States … it's bigger than Israel but it ain't that much bigger than Israel and Israel is number two.' He went on:

> And we look ahead with pride to the remarkable contributions Israel will continue to make to all nations. Captains of industry, as they're called, that is founders and leaders of big companies and some small companies and medium-sized companies. They're all coming to Israel, including today, I had a meeting with another head of state. They all want the same three things; Israeli technology, Israeli technology and Israeli technology.
>
> They crave it, they thirst for it because they know that we're in the knowledge [control] centre. They know that Israel is the repository of great genius, great creativity, entrepreneurship, innovation, scientific capability, out-of-the-box thinking. This is a tremendous capacity that we have, because people are coming here. The new powers, the old powers and the new powers, you know, the new world powers, the superpowers …

It also helps with your 'innovation' if you have back-doors into the computer systems of other innovators in the United States and elsewhere to find out what they know.

'Turning the world blue'

Netanyahu said the world economy was being propelled forward by the Internet which required cyber protection for bank accounts, privacy, communications, power lines, power grids, traffic lights, train schedules and Israel had the capacity to protect (control) them all (and the back-doors will come in very handy to potentially manipulate and trawl for information all these systems). Why would big-time Israel-connected Intel implant a unit in all computers carrying its technology since 2008 that can secretly control the computer and not be turned off? Why would they do that if not for surveillance and external control of all computer systems? Intel's development and success is attributed to Zionist-businessman Andrew S. Grove and the company's first development centre outside America was opened in Israel as early as 1974. The interloper 'Intel Management Engine' is an autonomous system that can override anything you or your main computer operation can do. It has been described as 'a computer within a computer' and runs on its own system known as MINIX which cannot be detected by anti-virus or anti-malware software and can bypass any firewall. Through this system your entire computer hard drive can be accessed at will and the computer shut down at any time (or all at once worldwide through common code connections). Passwords can be accessed and the keys that you type. The open-source MINIX was created by Jewish cyber developer Andrew Stuart Tanenbaum who said in 2017 that he didn't know Intel was using it. Back-door undetectable access to global computer systems is happening on an industrial scale with Israel right at the centre of it. I have already described how analysts from London-based Positive Technologies alleged that Intel chips and processors contain a 'logic signal analyser' which can read 'almost all data on a computer'. Think of the power over the world you would have with control of basically all computer systems at every level of society in every country. This is what we are talking about and it provides the access to devastate financial systems to trigger a global crash so big it would be heard on Mars. Netanyahu said:

> You have bank accounts, sure? Okay, well you don't want anyone hacking into them [except us], right? Or into your cars, or into the planes you ride, you need cyber security. Everybody needs cyber security. Israel has become a world leader in cyber security [back-door access].

Netanyahu called for 'a sort of UN for the internet … a coalition of

the leading companies in the cyber world … and in my opinion Israel is the most advanced.' For this and 'many, many other reasons' Israel was being sought after. The world was coming to Israel and Israel was going around the world, he said, as he highlighted a chart detailing the extent of Israel's global cyber reach:

> The blue are all the new agreements that we have made in various efforts around the world in the year 2017. I've been to Africa four times in two years, to South America most recently, in Brazil. With the great powers of Asia we have new agreements, every single country here, every single country here in Israel's expanding diplomatic horizons is talking to us about cyber …
>
> … They all want to share in our knowledge of cyber defence, that doesn't mean that we share with everyone and it doesn't mean that we share equally with those that we share. But we do have a general policy of cooperation between governments and we have a general policy of cooperation with companies … [so we get the back-doors].
>
> … We are colouring the world blue, all these countries are coming to us, India, China, Mongolia, Kazakhstan, all of them, Azerbaijan, Muslim countries, so we're colouring the world blue. You know what, the numbers, you remember people talked about Israel's isolation, remember that? Israel's isolation, pretty soon the countries that don't have relations with us, they're going to be isolated.

Israel now has ever-growing connections with India in both cyber 'security' and weaponry. Netanyahu said disingenuously that 'we made [the tech domination] stronger by moving Israel to free-market principles which unleashed the spark of genius embedded in our people, into innovation, entrepreneurship'. In fact, the whole thing is led and overseen by the Israeli military and intelligence network including Mossad. Even Netanyahu indicated this when he described how the plan had been to converge military intelligence, academia and industry in one place (Beersheba). He outlined the military intelligence benefits when comparing Israeli intelligence with America's National Security Agency or NSA:

> Our NSA, which is called unit 8200, it's pretty big, how big do you think it is? Hmm, well I'll give you a hint. America, the United States is about 42 times the size of Israel in terms of population, so how much bigger do you think the American NSA is relative to the Israeli NSA? It's not even ten times bigger, you know the [Western intelligence grouping] Five Eyes. Israel is the sixth eye. No, Israel is the second eye, so we have a tremendous sunk investment.

Why wouldn't you build one of the world's – perhaps *the* world's – most effective intelligence networks when you have back-door access to the intelligence systems of other countries, especially the United States, and control double-agents in those foreign agencies like the CIA and NSA? Sabbatian-Frankists and their gofers have become so arrogantly confident of their predominance that they hardly care if we know any more so long as we think they are talking about Israel and not the Death Cult that controls Israel. Netanyahu described the systematic way Israeli cyber dominance is being achieved:

> We take our brightest people and put them in, we look at the entire population, we go into the high schools, we're going to go into kindergartens very soon. So we need the smartest people, we put them in this, they run on the information networks and then it develops into a business, enterprises if we allow the graduates of our military units and our intelligence units to create companies and allow the graduates of our security services to merge into companies with local partners and foreign partners.

There you go from the psychopath's own mouth. Israeli military and Mossad agents are, and have been for a long time, sent out into the global tech and Internet industry posing as purely private entrepreneurs taking with them 'innovations' secured from the Israeli military-intelligence tech program which in part gets its 'inspiration' from other people's creativity waiting on tap through the back-doors. Netanyahu said: 'These incredibly gifted young men and women who come out of the army or the Mossad they want to start their start-ups.' This 'private entrepreneur' Israeli (military/Mossad) technology is then bought and used by governments, military, intelligence agencies, global tech companies, business and (through computers and smartphones) individuals all over the world to which Israel's military and intelligence networks have back-door access – just as they did on 9/11. Technological developments have also come from Israel's military state which has been mega-funded to seek ever more sophisticated ways to keep surveillance on the world (Fig 165). Netanyahu said that Israel had technology because the military, especially military intelligence, produced 'a lot of capabilities'. An article in *The Jerusalem Post* summed up Israel's current level of cyber control:

> Most importantly, Israel is positioned to guard the world's Internet. Everything today is traded, controlled and administered online. And Israel is emerging as the world's number one guardian of the worldwide web. That means, regardless of being a few miles off-track from China's Land and Maritime Roads, it is positioned to be the center of both [East and West] belts …

Figure 165: The 'Zion Mainframe'.

> ... A global currency collapse might be seen as a way to wipe the slate clean of nation-based currencies, especially the US dollar, and establish an international one: like Bitcoin, perhaps. If Bitcoin is the model for a new Internet-based global currency, Israel is likely to be its guardian too, protecting that currency from hackers around the world.

'Guarding the world's Internet' means the potential to have access to the codes that open the door to every aspect of the Internet and cyberspace that uses Israeli-controlled technology, companies and military-intelligence operatives. It also means:

- The potential power to control, manipulate and maintain surveillance on every system.
- To crash the world's financial markets at will and make 'money' disappear from any target.
- Control the information that people see and hear – already being increasingly achieved through ultra-Zionist-controlled Google, YouTube, Facebook and so on, but with the potential to be total.
- To control all military technology attached to the Internet or computer systems to which Israel has access.

- External control of autonomous driverless vehicles as is already the case through Israeli-made cyber-systems on modern cars which constantly feed-back vehicle and driver information.

- To control the perceptions of the human race once an AI connection is made.

- To take over a world founded on the Internet of Things and Internet of Everything which would control all attached technology and eventually the human brain.

I say 'Israel' in terms of this potential control, but that word always means in my context the Sabbatian-Frankist Death Cult that controls Israel and not the entirety of its general population. According to the Israeli media Israel has designs on creating the global digital no-cash currency which is dubbed the 'digital shekel'. A *Haaretz* headline said: 'Israel's answer to Bitcoin: A digital shekel that could replace cash.' *The Times of Israel* went with: 'Israel – Blockchain capital of the world?' This has all been long in the preparation and 9/11 gave the plan major momentum. Israeli newspaper *Ma'ariv* reported in 2008 that Benjamin Netanyahu had told an audience at Bar Ilan University that 'the September 11, 2001 terror attacks had been beneficial for Israel'. The paper quoted him as saying: 'We are benefiting from one thing, and that is the attack on the Twin Towers and Pentagon, and the American struggle in Iraq.' He reportedly added that those events 'swung American public opinion in our favour'. But then that's why they were made to happen. Netanyahu also said in what he thought was a private conversation caught on camera: 'America is a thing you can move very easily.' No wonder he said at the end of one speech about Israel cyber domination:

> Thank you America. Thank you successive American presidents. Thank you Congress, Republicans and Democrats alike. Thank you AIPAC for helping bring this about, you're terrific!

The man should be in jail and the key thrown into a very deep ocean. This background to the Smart Grid and Israel's central role in its development and control explains what appears at face value to be crazy claims by these messianic lunatics of the Sabbatian-Frankist Death Cult about installing a 'world ruler' on the throne of Jerusalem on the site of a rebuilt Solomon's Temple. Control of cyberspace in the world as it is today would give them that very global control and via an AI connection to the human mind control over all human perception. Control will then be total and, without outside intervention, irreversible.

Of course we are not there yet – quite – and the point of exposing all this and taking the untold shit that will follow this book's publication is to stop it getting there. We are, however, moving in that direction so fast and we are getting closer by the hour let alone the day.

Many faces of the Death Cult

Some people may look at what I do and think that I see conspiracies everywhere. Well, first of all conspiracies *are* everywhere if you take the dictionary definition of the word: 'A secret plan by a group to do something unlawful or harmful.' By that definition we are drowning in conspiracies and the act of conspiring is defined in law: 'A criminal conspiracy exists when two or more people agree to commit almost any unlawful act, then take some action toward its completion.' My goodness, how many conspiracies must there be worldwide on that basis? Even so, my work is not to see conspiracies everywhere, but to see *ONE* conspiracy with multiple faces in pursuit of the same goal – global human control. The cyberspace conspiracy is the foundation pillar of the greater conspiracy while being underpinned by many other facets that may seem to be unconnected while being fundamentally so. I have been saying for years that if you want to identify major aspects of the global conspiracy look at those subjects and situations about which you are not allowed to have a contrary opinion or engage in free and open debate without being directly silenced or subjected to abuse and hostility from the gatekeepers of the conspiracy (most of whom have no idea there even *is* a conspiracy let alone they are working on its behalf). If you know you can't win a debate to justify what you want the public to believe or accept then simply don't have the debate. Censor other views and information and use abuse to intimidate opposing advocates into self-censored silence. I expose all the major strands of the Death Cult agenda at length in *Everything You Need To Know But Have Never Been Told* along with all other aspects of the conspiracy and its deeper connections into the 'Beyond'. I have mentioned some already earlier in the book including mass immigration, human-caused global warming, cashless society, police-military state (controlled by AI and robot 'troops') and centralisation of global power giving ever more control to the few over the many. Before I finish I want to emphasise three more which like all the others connect into the emerging Smart Grid: Vaccines, transgender hysteria and the deletion of free speech. They would appear to have nothing to do with 9/11 but they do because they are part of same conspiracy.

Vaccine madness

There are many reasons for the vaccine agenda that have nothing to do

with protecting people from disease. What a perfect way to get access to the body for body/mind manipulation substances and nano-microchips. Insider Richard Day talked in 1969 about 'innoculated diseases'. I was told by a CIA scientist in the 1990s that nano-chips were planned to be implanted in vaccination programmes. You will have noted if you follow the news that a war is underway on those who challenge the Hidden Hand agenda of vaccines. So-called 'anti-vaxers' are having their videos, books and documentaries censored by Google, YouTube, Facebook and Amazon and those questioning the official narrative about 'safe vaccines' are being demonised by the media (Fig 166). This sequence is always confirmation that the agenda is seeking to silence and discredit information that it knows could bring its house down. The pharmaceutical cartel, or Big Pharma, which makes its billions from people continuing to be sick, can basically say what it likes to promote vaccination and has the mainstream media as a constant PR operation to push its products and discredit opponents. When I was a kid childhood diseases were part of the process of activating and developing the immune system and building up ongoing natural resistance. Now those same diseases come with dire warnings and responses along the lines of '*Oh no*, the plague, your child will die, *ahhhh!!!*' The smallest outbreak is made to seem like some end of the world catastrophe with falling vaccination rates due to 'anti-vax' information always declared the villain. 'You horrible people, you terrible child-abusing parents – *look what you've done!*' New York mayor Bill de Blasio responded to a measles outbreak by declaring an emergency and ordering mandatory vaccinations under threat of a fine of up to $1,000. 'We cannot allow this dangerous disease to make a comeback here in New York City', he said. When I was kid I never heard 'measles' and 'dangerous' used in the same sentence. The UK *Guardian* reported the story and pinned the blame on 'anti-vaxers' citing 'scientifically debunked concerns that the shots are dangerous'. Shockingly and outrageously the writer will call herself a 'journalist'.

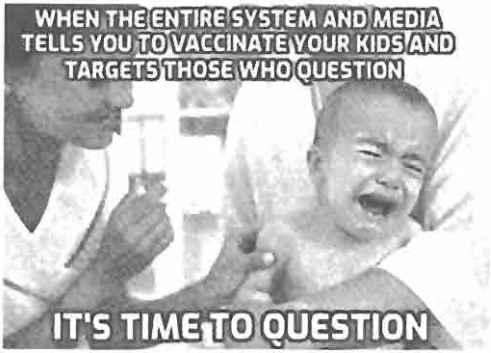

Figure 166: A good motto for everything.

What never gets reported is that often non-vaccinated children don't get the diseases that vaccinated children *do* get. This happened with my two unvaccinated sons who are now strapping adults who remained untouched by childhood vaccination diseases while their vaccinated mates were getting sick. I was given all the vaccines recommended

in the 1950s and got most of the diseases. Studies have shown that vaccinated kids (vaccinated with the 'virus') are able to spread the diseases to others. The obvious contradiction between unvaccinated children staying healthy, while the vaccinated get sick despite their 'protection', presents an obvious problem to credibility of vaccinations. To mitigate this devastating contradiction Big Pharma invented 'herd immunity' which claims that vaccines only work effectively if the vast majority (they want all) are vaccinated. This is a mendacious scam to provide the excuse for mandatory vaccinations for everyone to ensure 'herd immunity' and represents the main thrust of 'anti-vax' demonisation – 'My vaccinated child is only sick because of your unvaccinated child' (who isn't sick). Yes, I know it is mind-numbing bollocks, but tell unquestioning people anything enough times and they will believe it – the Nazis built a whole control system on that basis. 'Herd immunity' does not explain why an unvaccinated child doesn't get a disease and vaccinated children do. If you are vaccinated according to Big Pharma orthodoxy your immune system is triggered to develop protection. Why would a kid need other kids to be vaccinated when the relationship here is between his or her immune system and the disease? Er, um, er. American neurosurgeon Russell Blaylock said:

> In the original description of herd immunity, the protection to the population at large occurred only if people contracted the infections naturally. The reason for this is that naturally-acquired immunity lasts for a lifetime. The vaccine proponents quickly latched onto this concept and applied it to vaccine-induced immunity.
>
> But, there was one major problem – vaccine-induced immunity lasted for only a relatively short period [if at all] and then this applies only to humoral [body fluids] immunity. This is why they began to suggest boosters for most vaccines, even the common childhood infections such as chickenpox, measles, mumps, and rubella.

The whole foundation of vaccinations is that they produce antibodies for the disease in question, but it has long been known that this does not constitute proof of immunity. This is a quote from Learntherisk.org:

> … science has long known that antibodies alone do NOT create real immunity. Some people with high levels of antibodies can be exposed to an illness and still get sick, while others without antibodies can be exposed and not get sick. Dr. Merrill Chase, nicknamed the Grandfather of Immunology for his pioneering work, did clear-cut research on this issue back in the 1950s. His results are clear: antibody levels don't determine immunity.

> The immune system is a highly complex system and science is still in its infancy understanding how it functions. In fact, immunology textbooks were completely rewritten recently after a University of Virginia study finally proving the link between the gut and the brain through the lymphatic system. Before this 2014 study, immunology books were adamant there was no link.

The truth is that the deluge of vaccinations today overwhelms a still developing immune system with toxic shite and this natural protection from disease will never be as powerful as it would otherwise be. Vaccine ingredients and substances used in manufacture include: Aluminium; aborted foetal tissue; mercury-based thimerosal; gelatine; human serum albumin (found in blood plasma); sorbitol and other stabilisers; emulsifiers; taste improvers; antibiotics; egg proteins (ovalbumin); yeast proteins; formaldehyde; acidity regulators; human cell strains, animal cell strains and GMOs; recombinant DNA technology; bovine products. Aluminium alone is a brain toxin. Given that little lot why is anyone surprised that many health problems have been linked to vaccinations? Among them are: Anaphylactic shock; aseptic meningitis and meningitis; Bell's palsy, facial palsy, isolated cranial nerve palsy; blood disorders; brachial neuritis; cerebrovascular accident (stroke); chronic rheumatoid arthritis; convulsions, seizures, febrile seizure; death; encephalopathy and encephalitis (brain swelling); hearing loss; Guillain-Barré syndrome; immune system disorders; lymphatic system disorders; multiple sclerosis; myocarditis; nervous system disorders; neurological syndromes including autism; paralysis and myelitis including transverse myelitis; peripheral neuropathy; pneumonia and lower respiratory infections; skin and tissue disorders including eczema; sudden infant death syndrome (SIDS); tinnitus (ringing in the ears); vaccine-strain versions of chicken pox, measles, mumps, polio, influenza, meningitis, yellow fever, and pertussis vasculitis (inflammation of blood vessels). Big Pharma has so much influence on government policy via The Web that in 1986 the US Congress voted into law the National Childhood Vaccine Injury Act (NCVIA) which protected vaccine makers from being sued at a time when they were losing court cases over vaccine damaged children. What incentive is there to produce something safe when you can't be sued? The only motivation left would be common decency and basic empathetic humanity, but you won't find that anywhere in the Big Pharma racket. Vaccine producers are so callously and satanically empathy-deleted they make colossal profits from selling drugs to 'treat' the health problems their vaccines are causing. One of America's leading opponents of the Big Pharma vaccine narrative is Robert F. Kennedy Jr, son of the US attorney general assassinated by the Hidden Hand in 1968. An article on the Kennedy-connected website, Childrenshealthdefense.org, highlighted this profiteering scam. Writer

Kristina Kristen said:

> Following the passage of NCVIA, the number of vaccines on the childhood schedule mushroomed, creating a gold rush for vaccine makers: the vaccine industry went from a $1 billion industry to a $50 billion industry. But this expansion in the vaccine industry, in fact, is relatively small in comparison to the even greater gold rush for the BIG 4 companies. The drug 'treatment' side of the equation, which is substantially more lucrative than the 'gateway' vaccine side the BIG 4 already monopolized, now also increased substantially.
>
> The vaccine manufacturers began to capitalize on the known adverse effects of their vaccines, and have since created drugs for the 'treatment' side of the equation as well. The lack of incentive to make safe products, which created the bloated vaccine schedule, became the gateway to the lucrative drug treatment side for these companies. Today, the BIG 4 monopolize vaccines as well as the drug 'treatments' for chronic illnesses known to be induced by vaccines. First, vaccines push kids off the cliff, and then vaccine makers profit from 'rescuing' those they don't kill.

The number of vaccinations and their combinations is utterly insane and any society that wasn't completely mad and given up its right to free thought would laugh in the face of such preposterous idiocy. American children and young people are given between 53 and 70 vaccines depending on how you count them from birth to 18 years with many given in one go. The childhood schedule has tripled in little more than 30 years in a period when children have got sicker, not healthier – a period in which once rare autism, food allergies, asthma, brain malfunction, autoimmune diseases and cancer in children have dramatically increased by comparison. We now have the *six-in-one* vaccine for diphtheria, tetanus, whooping cough (pertussis), polio, Hib disease (Haemophilus influenzae type b) and hepatitis B. The still-developing immune systems of babies get this shit (including aluminium) at 8, 12 and 16 weeks. Very common reactions are reported as redness, pain and/or swelling at the injection site; raised temperature (fever); irritability; loss of appetite; vomiting; abnormal crying. Common reactions are diarrhoea; bruising or bleeding at the injection site; a small, painless lump at the injection site. Rare reactions (1 in 1,000) are reported as 'unusual high-pitched screaming', and episodes during which the child may become blue, pale and/or limp. Very rare consequences are described as fits (also called febrile convulsions or febrile seizures). Oh, perfectly safe then. Parents are told that if babies are irritable and have a fever after the shot they should give them infant paracetamol or ibuprofen, so confirming the point about the Big Pharma cause and

effect scam. What is never mentioned in such official lists of consequences are the life-long effects of suppressing the immune system by attacking it with combinations of toxins while still developing and getting up to speed.

Vaccines and DNA

Immune systems of children and the young are being devastated by the vaccine deluge and they grow up with far less immune protection than nature has provided. We have seen an enormous rise in autoimmune diseases in the vaccine era, especially the mass vaccine era, and while technologically-generated radiation and the chemical content of food will also play a part the cause and effect between vaccinations and the immune system are obvious. Injecting into the arm or leg also bypasses the immune system which would otherwise act to repel the toxic infiltration. Today's generation of children in the United States, for example, is sicker than their predecessors with more than 50 percent having one or more chronic illness and as a result they are given pharmaceutical drugs for body and psychological problems on a scale never seen before. Make a fortune creating the problem and then make an even bigger fortune offering the solution (which creates still more problems). The United States is only 19th for infant mortality rates in the developed world and has the most highly vaccinated children with the rest of the West not far behind. Vaccine effects go much deeper than what I have described so far. I have been picking up information from experts and government/intelligence insiders throughout my decades of research that points to vaccines being used to change human DNA as part of an agenda to mutate the human form in ways that include suppressing the scale of potential perception. Put another way – making humans even more myopic in their ability to perceive reality. DNA is a receiver-transmitter of information and if you reduce the range of frequencies it can access you close down the channels to insight beyond the reality bubbles that pass for human awareness. Human foetal and animal DNA in some vaccines will alone affect human DNA. The immune system attacks foreign DNA and when this or animal DNA attaches to the recipient's DNA the immune system will attack its own cells. The body is attacked by *itself* and this is known as autoimmune disease. But, don't worry, vaccines have nothing to do with the explosion of autoimmune diseases in the vaccine era. Helen Ratajczak, a former senior scientist at pharmaceutical company Boehringer Ingelheim, suggested a link between brain damage and human DNA in vaccines.

I have written in other books about an emerging branch of science called epigenetics which becomes highly significant in relation to vaccines, toxic 'food' and 'drink' and the effects of technological

radiation with 5G about to increase the consequences dramatically. Epigenetics describes a process in which genes are switched on and off. There is an optimum on/off sequence that keeps you healthy in mind and body and when that sequence is disturbed or scrambled with the wrong ones 'on' and the right ones 'off' big trouble can follow in the form of anything from heart disease to cancer to psychological problems. These distorted blueprint sequences are then passed on to the next generation and human health spirals downwards. Vaccines, toxic food and drink and environmental factors like technological radiation causes this gene switching to malfunction and here you have a frontline reason for the dramatic increases in cancer, heart disease, autism and a long, long list of other ailments in the vaccine/toxic food/smartphone era. Gene-switching malfunction affects neuron transmitters in the brain leading to mental, emotional and psychological disturbances which are also soaring. On some levels this war on humanity is happening through ignorance and stupidity, but it is being orchestrated from the shadows with cold calculation by those who know far more about how reality works than mainstream scientists and doctors who are enslaved by their programming, sources of funding and government regulation. Doctors are little more than paid agents of Big Pharma and so every illness and problem is a 'nail' requiring a scalpel, drug or vaccination. Kerching! More profit for the sickness industry. No wonder mainstream 'medical' treatment is one of the Western world's biggest killers right up there with cancer and heart disease and yet still most people treat doctors with awe when they don't even know what the body *is* let alone how it works. If any doctor strays from Big Pharma (therefore medical/government) orthodoxy they are struck off even if alternative treatments work and the system is constantly seeking to destroy many alternative forms of healing *because* they work. The patient is irrelevant, you see. Only money, power and control matter to the Big Pharma psychopaths who lock into the Sabbatian-Frankist and Hidden Hand psychopaths.

The body is an electro-chemical organism and is therefore affected by infiltration from electro-chemical sources. From one direction we are bombarded by technological electromagnetic frequencies alien to body and mind and from another we have the tsunami of chemical toxicity in vaccines, drugs, food, drink and air. Why would food be so full of poisons and horrific content? Why is the same true of what people drink? Why is humanity becoming a drugged-up society courtesy of Big Pharma and the medical profession that it owns? Why are children targeted by brain-changing drugs from the earliest age? Why is the air poisoned and the land devastated with deadly herbicides and pesticides that end up in food and destroy the soil (the 'industrialisation of agriculture' predicted more than a hundred years ago in the *Protocols*)?

Why are people consuming pharmaceutical drugs and growth hormone weight-gain drugs in the meat that they eat? Why is the human race becoming increasingly obese with this tendency passed on through the epigenetic gene pool to future generations? On the face of it all this is madness and societal suicide, but in fact it is being done systematically from the inner sanctum of The Web and is designed to weaken humanity mentally, emotionally and physically to allow a global takeover with the least resistance possible. Attacking and diluting masculinity is part of this process, too. Quintus Fabius Maximus Verrucosus, a Roman statesman and general of the third century BC, was famous for his technique of never fighting a battle that could be decisive either way. Instead his method was to weaken and wear down the enemy over a period in a war of attrition and when it was too weak to resist just walk in and take over. This is what is being done to humanity today through all these electromagnetic and toxic attacks and how appropriate that the Fabian Society, one of the strands of the Hidden Hand which operates on the left of politics, was named after him. Multi-faceted frequency and toxic attacks purposely weaken the immune system through, among other things, sheer overload. The immune system keeps us alive and healthy when it is strong and effective and here we have a war with endless fronts against the immune system (problem) which leads to demands for vaccinations and drugs (solution). We don't need vaccines, we need *immune systems* and that means toxin-free clean water, toxin-free nutritious food and a harmonious electromagnetic environment – everything that is being destroyed.

Vaccines meet the Smart Grid

Vaccines, drugs and the Smart Grid come together with the plan to track and monitor the population to ensure that everyone has vaccines and drugs imposed by law. This society was accurately portrayed in the 2002 movie *Equilibrium* in which the population has all emotion suppressed by a daily injection that is monitored to ensure compliance. It is worth watching if you can get a copy to see what is planned. I have been warning about this for a long time and the Tiptoe to that end is clear to see with increasing moves to mandatory vaccines. The plan is for forced immunisation and the taking of mind-altering and suppressing drugs to maintain calm apathetic subservience to be monitored through the Smart Grid so that no one can escape. The promotion of lithium in public water supplies is part of this agenda. Lithium is used as a psychiatric medication to treat conditions such as manic depression and its advocates say mass medication of lithium will make people 'happier'. Run 'happier' through the Orwellian Translation Unit and it comes out as 'subservient'. Studies have shown that the electromagnetic soup and 5G can have the effect of making people more apathetic. The

vaccine tracking agenda is already being pushed by Seth Berkley, CEO of Gavi, the Vaccine Alliance, who was formerly with the US Centers for Disease Control and Prevention (a Big Pharma front) and the Rockefeller Foundation (the family that gave us Big Pharma 'medicine'). One of Gavi's biggest supporters, financially and otherwise, is Microsoft vaccine fanatic Bill Gates. Gavi is a leading 'light' in the global network of organisations and fronts pushing the Big Pharma vaccine agenda and seeks to have everyone worldwide subject to vaccinations (for their own good, of course). Seth Berkley says Gavi spends an average of nearly $2 billion a year on getting vaccines to children in the poorest countries and has invested tens of millions of dollars in 'innovations to monitor immunization'. Berkley wants technology to track who has been vaccinated and to give everyone an 'identity' which all fits in to the Smart Grid agenda whether he knows it or not. The United Nations wants all 193 member countries to ensure that everyone has a legal form of identity by Kurzweil's year of 2030. Whatever the reason they give you for this it won't be the real one. The increasingly extreme censorship of 'anti-vax' information in all its forms is to stop the public knowing the real story and to give free reign to Big Pharma and its compliant media to tell the population only what the cabal wants them to believe. One of the reasons given by the Australian government for my ban from the country was my views on vaccines and Sherri Tenpenny, an American osteopathic physician and anti-vaccination activist, was also banned from Australia to prevent Australians from hearing her research. Hidden Hand-front Wikipedia classically describes Tenpenny as someone who 'supports the discredited theory that vaccines cause autism'. This is the same controlled and devious Wikipedia used to 'fact-check' the alternative media. If you want to know what the agenda is look at those subjects in which alternative opinions are met with reflex-action censorship and abuse. Talking of which …

Transgender hysteria

Another of my rules of thumb with regard to identifying the Hidden Hand-Sabbatian-Frankist wish-list is this: When it comes out of nowhere and is suddenly everywhere – it's the agenda. The button has been pressed on another stage of the plan. Nothing fits this picture more profoundly than the obsession with transgender 'issues' which literally did come out of nowhere (in terms of the public arena) and now my god it's everywhere. I have once again exposed the background to this in detail in my last book. I really have no need to tell anyone about the insane transgender extremes that have taken over human society like mass hysteria. We have all seen the imposition of 'gender-neutral' toilets in which people in male bodies claiming to be women are allowed to use female or any-gender toilets and changing rooms no matter how that

makes women feel and the obvious affect on women's sport when transgender people in male bodies with all those physical advantages are allowed to 'compete' with and obviously defeat female opponents. They've stopped taking bets on the weightlifting, by the way. Schools and universities have been taken over by the transgender agenda because self-obsessed activists and their extremes of narcissism are given whatever they want by governments and authorities imposing the Hidden Hand plan for the no-gender 'human' which I shall shortly explain. If ever there was a 2 + 2 = 4 v 2 + 2 = 5 then this is it. Professors of biology are being slated, abused and 'investigated' for saying that men and women are biologically different (2 + 2 = 4) while activists prevail with their bloody nonsense that gender is decided by whatever you choose it to be (2 + 2 = 5). I saw a video shot at an American university in which a woman panellist said that men are generally taller than women. What could be more supportable by observational fact? *Fact*, however, is now an historical concept and some members of the audience began to walk out in protest (Fig 167). In the safety of the venue lobby they condemned what they heard as 'fascist'. How can that response be described except in terms of mental illness? It doesn't matter what utter baloney headless-chicken activists may claim to be reality. The law is increasingly standing with them in support because it's a Hidden Hand agenda and so nothing must stand in the way and certainly not open public debate or peripheral matters like facts.

Figure 167: When facts are 'fascist' – walk-out at the kindergarten.

New York congresswoman Alexandria Ocasio-Cortez, a classic Soros 'progressive', summed up the post-fact mind-set: 'I think that there's a lot of people more concerned about being precisely, factually, and semantically correct than about being morally right.' I may make factually unsupportable statements, but I am a good person – far better than you are – and so what I say must prevail. Talk to the general population and they will tell you they think it's all insane (so long as you are considered 'safe' and won't report them for having the wrong opinion). But those with the shrill voices and 'anti-hate' faces of hatred who dominate the microphones and cameras are the only voice you hear because by now most other people are terrified of saying what they really think. Well, let me have a go: It's all *fucking bollocks*. There –

intimidation over. Oh, you say I am a transphobic bigot? I am so sorry, let me have another go: It's *monumental fucking bollocks*. No, I am not speaking here of people who genuinely relate to another gender different to their body-type. How people choose to self-identify is none of my business and I have no problem with that at all. Good luck to them and I hope it makes them happy. My problem – and a very serious problem for human society – is not that some people think they are in the wrong body and you are pushing against an open door when it comes to opposing discrimination against anyone be they transgender or white men. The problem is that 'discrimination' is not the real reason for the transgender agenda at all. That's only the excuse. It's the foot in the door to open the way for the transformation – literally – of the human form. Yet again 'progressive' activists are stretched out and twanging on the Death Cult violin.

Synthetic masculine-deleted humanity

The real transgender agenda, irony of ironies, is the *end* of gender. I have detailed in *Everything You Need To Know But Have Never Been Told* the plan to replace the present biological human form with a synthetic version that will have no sexes and be unable to procreate. Aldous Huxley described just such a society in his 1932 book *Brave New World* in which children were created in strict genetic castes (lower castes akin to worker ants) in 'hatcheries' where procreation was done technologically and parentless children attended state conditioning centres to program them to never question what the government tells them. Before anyone waves away the idea of synthetic 'humans' with a waft of the hand and words like crazy and ridiculous they should know that the Tiptoe to that very outcome is happening both before our eyes and in secret projects day after day. The replacement of human thought and emotion with artificial intelligence and the replacement of the biological human with a synthetic human are two parts of the same goal of creating the post-human or trans-human that would be artificial intelligence operating through an artificial synthetic body. Humanity as we know it is in the process of being replaced. You would need to read my last book to see where this is ultimately coming from, but for our purposes here all we need to know is this is happening and that transgender hysteria is meant to lead us to this end while appearing to be about something completely different. Rockefeller insider Dr Richard Day told those paediatricians in 1969: 'We are going to make boys and girls the same.' He said people would be made 'gender-neutral'. What is happening now is what he was talking about. The scam is following a multi-stage process of 'physical' and psychological manipulation similar to that of holdables-wearables-implantables that we have seen with technology. The combination this time includes changing the gender foundations by feminising the male

body through a long list of methods that I detail in *Everything You Need To Know*. These involve endocrine-disrupting synthetic chemicals (EDCs) which are found in plastics, food containers and packaging, canned food and drinks, electrics, solvents, cleaning products, detergents, pesticides, cosmetics, soaps, car exhausts, polish, paints, batteries, dental fillings (mercury) and many types of fish. Hormone-disrupter Bisphenol A or BPA is used in cans, bottles, plastic food containers and cash register receipts (because everyone touches them). Plus what could be in vaccines adding to the genetic transformation? Atrazine, one of the world's most-used pesticides, is changing the sex of male frogs and making them infertile. What effect are other common poisons having which are sprayed on farms (food), parks and sports fields including golf courses? EDCs and the female sex hormone oestrogen (estrogen) are found in unfiltered tap water. Indeed EDC's can mimic oestrogen and have the same effect on a male body. I quote in *Everything You Need To Know* Dr Devra Davis, an internationally-renowned American epidemiologist, president of the Environmental Health Trust and director of the Center for Environmental Oncology at the University of Pittsburgh. She both highlights the dangers of 5G and what is happening to men in terms of plummeting sperm counts, diminishing levels of the male hormone testosterone and falling male birth-rates. She points out that fast-dividing cells producing sexual organs in the womb are very open to 'incorporate and replicate errors' that can lead to changing once-developing boys into girls and chemical infiltration can affect this process. Dr Melody Milam Potter, an American clinical health psychologist for 30 years, wrote:

> EDCs we encounter every day can alter the sex hormone balance, preventing male genitals from growing properly. By suppressing testosterone or by enhancing or mimicking the female sex hormone, estrogen, they can undermine the natural testosterone messages surging through a growing fetus. For instance, estrogen mimics [such as] dioxin, a widespread pollutant and potent endocrine disruptor, can intercept and overcome a hormonal message from a male gene. Dioxin also acts as a testosterone flusher reducing male hormone concentrations so much that the male action may not be stimulated adequately.
>
> Testosterone suppressors like DDT can block testosterone's position on a receptor. Hormone stimulators can intensify the action of a natural hormone so much that the system shuts down and refuses to receive a male 'go ahead' signal ... In fact, research substantiates that exposure to EDCs at a crucial time can disrupt the entire genital sequence.

Studies claim that the number of people identifying as gay or 'LGBT'

is rapidly increasing to the extent that one study in the US estimated that those born before and across the Millennium to be nearly twice as likely to identify as LGBT as other American adults – 'Millennials Are the Gayest Generation', as one headline put it. Are we really saying that none of this is connected to a chemical environment awash with gender-bending toxicity? Alongside the chemical manipulation of gender we have the psychological dimension and this is where transgender tyranny and hysteria plays its crucial role. The number of children and young people questioning their gender and identifying with another is exploding since the incessant transgender propaganda began. What is called 'gender dysphoria' was rare until the programming campaign began and as late as 2009 the number referred for treatment in that year in England and Wales was 97. Then came the propaganda surge and today it is thousands per year and growing with the increase since 2009 measured in thousands of percent. Kids are being purposely confused about their gender who were not at all confused before and parents are being margined and blocked from intervening. To question even a small child's contention that they are in the wrong body can mean the child being kidnapped by the social services tyranny and placed with foster parents or permanently adopted. Gender-changing drugs are increasingly handed out to children and young people with cavalier disregard for the life-long consequences. Whistleblower workers at a British transgender clinic resigned over children as young as *three* having 'unnecessary gender reassignment treatment' after being incorrectly diagnosed with gender dysphoria. Carl Heneghan, director of the Centre of Evidence-based Medicine at Oxford University, described the policy as 'unregulated live experiments on children'. You need courage to state the obvious today. Dr Allan M. Josephson, a former head of Child and Adolescent Psychiatry and Psychology, sued the University of Louisville after he was demoted for saying children who insist they are transgender should not be instantly believed. Academia is being terrorised by transgender activism with Professor Nicholas Meriwether at Shawnee State University in Ohio suing officials after being rebuked for refusing to refer to a student with a male body using 'female pronouns' because it was against his religious beliefs. The imposition of how people must be addressed is a tyranny and so many are now losing their jobs over not calling someone with a dick in female terms or vice versa. Anyone noticed what is happening to kids in Yemen? But no – 'he', 'she' or 'they' is far more important to stress about. Moves are being made to legally recognise a gender change simply by people saying 'I identify as a man/woman now' and the whole program is being underpinned and enforced by changing the language and punishing people who won't conform. We have even seen terms like 'mum' and 'dad' targeted because the non-procreation

synthetic human won't have parents and will be owned and brought up by the state – as per *Brave New World*. The concept of parents therefore has to be eroded until it is deleted and to the Hidden Hand falling sperm counts – especially among racial types they want to eliminate – are not a problem because they are heading to the day when natural sperm will no longer be required. Sperm can already be created from other cells. The sequence unfolding goes like this: Two genders – confuse genders – fuse genders – no genders. This is happening through genetic and psychological manipulation. Remember, too, that once generations born before the transgender tyranny began have left this world anyone arriving will inherit a done deal in which insanity is the new normal. The Hidden Hand is waiting for those with the radar of experience to die (quickened by 5G) when the challenge to their madness will all but disappear. It already is through intimidation. If we allow that to happen we'll have what Huxley described in *Brave New World*:

> Natural reproduction has been done away with and children are created, 'decanted', and raised in 'hatcheries and conditioning centres'. From birth, people are genetically designed to fit into one of five castes, which are further split into 'Plus' and 'Minus' members and designed to fulfil predetermined positions within the social and economic strata of the World State.

Confirmation that manufactured transgender hysteria is not about helping or protecting transgender people can be seen with those who have surgically transitioned between genders and then regretted doing so. They are marginalised, silenced and abused for making people question what the agenda wants them to do. This is the gender equivalent of attacking Jewish people for criticising the Israeli government and dubbing them 'anti-Semitic'. We are there for your wellbeing and protection unless you deviate from our script in which case we are coming for you big-time you 'anti-Semitic' transphobe. Development of the synthetic human is long underway and psychologically supported through pre-emptive programming in a list of movies and television series (with *Westworld* a prime example) portraying conscious synthetic robots and synthetic human form. You only have to see the now close resemblance between humans and their synthetic equivalent (Fig 168). The development of a synthetic human genome, DNA, blood, skin and so on is already happening and don't judge its stage of development by what you see in the publicly-acknowledged projects. Secret science in the underground and inside-mountain facilities directed by Hidden Hand levels of the military-intelligence networks are light years ahead on all fronts compared with official science. No, the synthetic human may not be arriving tomorrow,

Figure 168: Human and synthetic 'human'.

but the plan is that it eventually will and far sooner than people imagine. Transgender hysteria is preparing the ground and the collective psyche for just that and doing no favours at all for those genuine transgender people who just want to get on with their lives without demanding that everyone else be pronoun perfect or the wrath of hell will follow. As I was writing this chapter the British Co-op supermarket chain launched a gender-neutral gingerbread person (biscuit) to be 'inclusive' and asked the public to choose a 'fitting' name. I suggest 'Loada' for the first name and 'Bollocks' for the second. Yes, Loada Bollocks seems very 'fitting'.

Information control

The foundation of the entire Hidden Hand / Sabbatian-Frankist conspiracy is the control of information. From that comes control of perception which means control of behaviour. Our actions come from our perceptions and our perceptions are formed from information received. Control information and you control that sequence unless the targets have a mind of their own and can see though the game. If you know the outcome you can see the journey and this is why uncovering where we are being taken is so important. Without that compass daily events appear to be random and have no pattern, but when you know what the outcome is planned to be those same events become crystal clear steps towards that end. The Hidden Hand's desired outcome with regard to information is that eventually people will only see and hear what the authorities decide they can see and hear. Everything else will be silenced and censored. The Tiptoe sequence to this outcome cannot be denied as censorship increases by the hour through (Hidden Hand-controlled) government and (Hidden Hand-controlled) Internet and media giants. Transferring the communication of information from traditional media to the Internet allows AI algorithms to censor and suppress information they don't want you to see. We now have the Hidden Hand symbiosis of gofers in government, gofers in Silicon Valley like Zuckerberg and mind-programmed Soros 'progressives' all calling for more regulation of what people can post and thus see. Ultra-Zionists and the Sabbatian-Frankist Death Cult are the force driving this censorship with the intent of destroying the genuine alternative media before it does any more damage to its satanic ambitions. 'Fake news',

'hate speech' and 'anti-Semitism' with their definitions constantly expanded are only three of the ever-growing manufactured excuses to censor and silence. As I write these words the Hidden Hand-controlled UK government has announced plans for a new 'online regulator' to fine web companies that 'fail to protect users' (censor content) with the power to close down websites that are accused among a list of other things of dealing in 'disinformation'. Who defines that? They do. This censorship on steroids is the calculated abuse of freedom which threatens to fine 'social media platforms, file hosting sites, discussion forums, messaging services and search engines' and to make them responsible 'for any harmful material which they allow their users to share or discover'. The motivation is painfully obvious – to give all these sources the excuse and incentive to censor anything that questions the official version of anything. Watching the UK Home Secretary Sajid Javid selling the policy as 'protection' had me fit to puke when the real reason is so clear. 'Protection from harm' is the latest Orwellian phrase they are using because this takes censorship beyond the merely illegal into the realms of 'harm' which is a totally subjective term that can be used to censor opinion and legitimate exposure that is perfectly legal. Ah, it may be legal and it may be accurate, but does it cause *harm?*

It's best not to rely on the traditional left's historical demand for freedom of speech because that's been hijacked by Soros 'progressives' who believe that freedom of speech is the 'freedom' to agree with them. UK *Guardian* 'progressive' Owen Jones, one of the most arrogant and ignorant people I have ever observed, thinks he should have the right to bounce between TV studios endlessly giving his opinions while those he disagrees with should be censored. He then calls free speech 'sacred'. Yes, for *him*. Free speech is being targeted through ever-gathering excuses and political correctness in general for a simple reason. While it exists there can never be a situation – an outcome – in which authorities dictate everything you can see and hear. Freedom of speech therefore has to be deleted to bring this about and that's why it is now happening on an industrial scale via government regulation and despicable people who call the shots at despicable organisations with contempt for freedom like Google, YouTube, Facebook, Twitter, Apple, Spotify, Amazon and so many others. The Soros 'progressive' software program is screaming its abuse at the frontline to demand that alternative information and opinion is silenced in its alliance with multi-billionaires who have absolute contempt for their 'social warrior', 'woke', puppets and pawns. They are the 'anti-fascist' fascists, the 'pro-inclusion' excluders and the 'pro-diversity' destroyers of diversity. They are the 'anti-hate' haters and the current day version of the two minutes of hate in Orwell's *Nineteen-eighty-four* when Big Brother's manufactured 'villain' Emmanuel Goldstein appears on the screen while the crowd

Figure 169: Orwell's equivalent of the 'progressive' mob screaming their orchestrated hate in the movie version of *Nineteen- eighty-four*.

dressed all the same (guaranteed income) follow instructions to scream hatred at Goldstein using terms such as 'traitor' and 'death' (Fig 169). Put the words 'two minutes of hate, 1984' into a video search engine and you'll see what I mean. Then look at the faces of 'progressive' extremists no matter what their expression or particular obsession and you'll see the same. I feel so sad for them. Forgive them for they know not what they do. The program has possessed them, but it doesn't have to if they choose to take their minds back. Everything is a mind game and perceptual manipulation. Even the ever-growing contempt for politicians is being orchestrated to manipulate the population to accept a post-democratic society in another Problem-Reaction-Solution. All you really need to bring this about is to make sure most politicians are disingenuous, ignorant and incompetent and the rest follows. The political class alliance between Westminster politicians and EU bureaucrats to create the orchestrated chaos aimed at thwarting the UK referendum vote for Brexit is a perfect example. A survey on political attitudes by the Hansard Society in 2019 found support for a 'strong leader' who would break the rules and 42 percent of those questioned agreed that many problems could be dealt with more effectively 'if the government didn't have to worry so much about votes in parliament'. Sabbatian-Frankists would have been punching the air and contemptuously cheering their mainstream media for promoting and supporting the very agenda planned to delete *its* freedom of speech – or what's left of it. The way so much of the media supported the arrest of Julian Assange of WikiLeaks in 2019 for doing the job *they* should be doing said it all and there was not even a titter of media outrage at my own ban from Australia by the authoritarian government on the say-so of basically one ultra-Zionist. I do wonder, however, why in the face of the evidence that Assange calls 9/11 a 'false conspiracy theory'.

So there we are ...

We have come such a long way since you turned the first page and everything between then and now is connected. I didn't intend or expect to write such a big book and to think that I started out to simply produce an updated version of my *Alice in Wonderland*. The enslavement of

humanity, however, has so many elements and such an essential back-story that it cannot be effectively exposed without volume and connections. Dots are interesting', but connecting the dots is devastating. It's the only way to reveal the apparently random to be long-planned calculation and to transform pixels of confusion into pictures of clarity. Even then what I have written in this book is still only part of the story. Far deeper levels and so many other connections and expressions of the conspiracy can be found in *Everything You Need To Know* and earlier works. The basic theme is the same from whichever angle or depth that you observe the human plight. When you give your mind and perceptions away the receiver will control your life. When you take them back their game is over. A relative handful cannot control and dictate the lives of 7.7 billion unless the 7.7 billion give their minds away and concede their uniqueness to group-think and acquiescence. The way out of here becomes obvious: We reverse that process. This means no longer believing what we are told without checking the facts; no longer rejecting the evidence of our own eyes and experience because authority or intimidation demands that we do so; and no longer being frightened into silence by the bullies and the mob. If we don't do that – and in number – then all I have described will come about because who is going to stop it? We are eternal expressions of consciousness and our transitory labels are only brief experiences in a tiny band of frequency – a sort of TV channel. We need to play the long game from that perspective and not limit and enslave ourselves in the fear of short-term consequences. Instead of worrying what will happen if I say or do this, that or the other, consider the consequences of *not* saying or doing it. I have been highlighting those consequences in this book and for 30 years since. If you think it's bad now what kind of world are you, your children and grandchildren going to live in a short and long while hence? We are only where we are – not where it is meant to stay. The most extreme stuff is still to come. We must shout louder when we are told to be silent. You might lose some friends? *And*? What kind of 'friends' don't respect your right to speak your truth? John Lennon said: 'Being honest may not get you a lot of friends but it'll always get you the right ones.' We must cease to cooperate with our own enslavement – cease to be intimated into conformity by a mob of adolescent children (whatever their age) programmed to impose their programming on the rest of us. I will not be intimidated, have my views silenced or take lectures from arrogant terrible-twos masquerading as adults. If people continue to do so we will live in the world they are creating and, with more irony, so will they. Everything they are seeking to impose on others will be imposed on them once they have served their purpose and those pulling their strings sweep back the curtains and openly seize power. We need to call out the social warrior bullies and the 'anti-hate' hate groups

for their blatant hypocrisy and when that happens we will realise their only power was intimidation. When we cease to be intimidated their power will be gone and so will that of their hidden and not-so-hidden masters that they refuse to acknowledge. Fault-lines of divide and rule – race, religion, culture, sexuality, income bracket – need to be set aside to allow unity of purpose. When we divide we fall. When we unite – *they* fall.

Fear of the Maverick

The *Protocols of the Learned Elders of Zion* which I say are based on the Sabbatian-Frankist plan for the world makes it very clear that divide and rule is utterly essential for their endeavours to reach fruition. They talk of the need to 'set one against another the personal and national reckonings … religious and race hatreds, which we have fostered'. This is, of course, what has happened and is happening. There is, however, a pause in the diatribe of arrogance when it comes to maverick people – a term defined as 'a person who thinks and acts in an independent way, often behaving differently from the expected or usual way'. The term 'maverick' comes from Samuel A. Maverick, a mid-19th century Texas rancher who did not brand his cattle. How apt given the microchip branding of human cattle now fast emerging. Maverick translates in the *Protocols* to what they call 'personal initiative':

> The second secret requisite for the success of our government is comprised in the following; To multiply to such an extent national failings, habits, passions, conditions of civil life, that it will be impossible for anyone to know where he is in the resulting chaos, so that the people in consequence will fail to understand one another; This measure will also serve us in another way, namely, to sow discord in all parties, to dislocate all collective forces which are still unwilling to submit to us, and to discourage any kind of personal initiative which might in any degree hinder our affair.

This is their worst nightmare – maverick personal initiative. The *Protocols* emphasise: '*There is nothing more dangerous than personal initiative.*' If it has genius behind it, the document says, such initiative 'can do more than can be done by millions of people among whom we have sown discord'. The *Protocols* describe the plan more than a century ago to so direct education that 'whenever they come upon a matter requiring initiative they may drop their hands in despairing impotence'. Yet again we can see with the perspective of hindsight that what the *Protocols* predict and what has happened are mirrors of each other. 'Education' has suppressed and punished mavericks and personal initiative in favour of the group-think that infects the human psyche and especially its 'progressive' expression. Group-think is not only collective

perception. It is also founded on the black and whiteness of us and them, for us or against us. To break from the program we must break from black and white. I consider individual statements on their validity and not by who makes them. Is what is said *true?* That is my only criteria. It means that I can accept a statement and then reject the next one when spoken by the same mouth. To accept everything from one person and nothing from another only on the basis of what you think of the people involved is clearly crazy, but that happens all the time. I have been criticised for posting clips on my website of Tucker Carlson presentations and interviews because he's on Fox News (black and white – bad) and for calling out the disingenuous 'news' host Rachael Maddow on MSNBC (black and white – good). This is typical of the perception polarisation that people have fallen for whether coming from the far left (far 'progressive') or far right. They both think they are different while psychologically they are just the same and play the essential role of perceived polarities to ensure Marxist-demanded conflict and divide and rule. Anyone who judges statements and information on the basis of the political colour of the source instead of the validity of the statement and information *itself* is caught in the fly-trap. Perceptions should be formed from evidence and actions not whether someone is on MSNBC or Fox and not whether they tell us what we want to hear or not. Rachael Maddow is a professional virtue-signaller and through that a hero of the 'progressive' virtue-signalling fake 'radical left' which is being so blatantly manipulated by the elite and its place-men like Soros. Talk about babes in arms and lambs to the slaughter. 'Progressives' are programmed to believe in a black and white world that doesn't exist and they might ask how come they and the multi-billionaire elite are now on the same page and reading from the same script. How did this come about and to what end? Answer that and they may get their minds back. The same is true of the black and white right and far right and its media 'gods' like Sean Hannity on Fox and the Soros of the right, Sheldon Adelson. The fact that I unite the 'progressive' left and the far right against me in mutual condemnation gives me great comfort. I remember talking to a 'progressive' television news producer who could not compute the fact that I opposed political correctness, unchecked immigration and the hoax of human-caused 'climate change' and yet also opposed Trump. To him if I was against one then I had to be for the other. It was hilarious to observe. The world is not black and white – it's always somewhere in between. Hey, 'progressives' and far right I'll meet you there one day I hope and this nonsense can be brought to an end. The perception of love is another black and white when love is multi-faceted and often the opposite of how it is perceived. Is it love to give your child a smartphone to bring short term elation or to say no in the name of long-term protection? Is it

love to take the easy route to immediate gratitude or the harder route of short-term disappointment for long-term benefit? Is it love to spend 30 years telling people what they want to hear with all the kudos that comes with that? Or to tell them what they don't want to hear – but *need* to hear – in full knowledge of the ridicule and abuse that will ensue? Nothing is black and white except the programmed human mind.

Consequences don't matter – only the truth and freedom does

You can guess what the reaction will be to this book from Sabbatian-Frankists, ultra-Zionists and their agents and place-people. They will be apoplectic and not because what I say is not true – but because it *is* true. Of course they will claim that I'm wrong about where this is planned to go and I have been told the same so many times over the decades only for what was denied to happen. It is hilarious to hear what I say dismissed and condemned only to be proved right by the very people who are trashing it. 'A few people don't control the world and if you say so we'll silence you.' It's hysterical and what happened to me with Australia was a classic. 'He's anti-Semitic' for saying we Zionists have influence way beyond our number and so we've had him banned by the government.' I think you are supposed to be intimidated by all this, but to me they're a comedy club. What I say is planned with Israel so centrally involved is out there now and we'll see what happens from here with the passage of events won't we? If I'm wrong then it won't happen will it? No high-profile person was supposed to reveal this information and be so up-front about it. Everyone was supposed to keep their heads down in fear of the consequences and labels of racist and Nazi; but I don't give a shit what people say about me – least of all the ultra-Zionists and Death Cult behind 9/11 and so much more. I want the truth, that's all, whatever that truth may be and wherever it may take me. The harder they try to silence me the louder I will shout.

It is likely there will be efforts to ban the book or block its circulation or maybe they will just ignore it for fear of giving publicity to a book they don't want people to read – as they did with my last one. It is certainly possible that Problem-Reaction-Solution attacks on Jewish targets will be set-up to blame on the book and fuel demands for it and me to be banned. This is the modus operandi of the satanic Sabbatian-Frankist Death Cult and the wider Hidden Hand. I can't do anything about what they do in their efforts to stop me and with such psychopathic evil anything is possible. I can only control what *I* do and that will be, and will *always* be, to speak my truth no matter what the consequences. Nearly 3,000 people died on 9/11 and millions have been killed and wounded in the sequence of wars and upheavals that it was coldly exploited to trigger. For every person who has died there are many, many more who suffer the ongoing emotional consequences of

what happened to their mums and dads, sons and daughters, brothers and sisters, wives and husbands. Those people deserve justice and I am not going to stay silent in fear of abuse from the ultra-Zionist hate group network that ultimately connects to the Death Cult perpetrators. The human race has been running away for thousands of years and it's time to stop.

ENOUGH! I'm sick of the bullshit.

Postscript

Just prior to this book going to print a Freedom of Information Act request led to the release of 14 images taken by and of the 'Dancing Israelis' before and during the 9/11 attacks. They are not the originals, only photocopy quality and heavily redacted by the FBI. Even the background of the towers is missing so desperate are the authorities to censor the devastating evidence the public would otherwise see. The pictures do, however, confirm the location.

Their release was remarkable given that the Department of [In]Justice had previously claimed the pictures were destroyed in 2014. Put this headline into the search engine at Davidicke.com and you can see them: Newly Released FBI Docs Shed Light on Apparent Mossad Foreknowledge of 9/11 Attacks. Some of the images, including one with Mossad operative Sivan Kurzberg holding up a lighter flame apparently against the Twin Towers in the background, are dated *September 10th*, 2001, and the rest are from September 11th. This would make sense of FBI reports of an eyewitness stating with certainty that Sivan Kurzberg was at the Doric apartments on September 10th where the Dancing Israelis would be spotted the next day when the towers were hit. Kurzberg was said to have claimed to be a 'construction worker' and he was with at least one other man with whom he conversed 'in a foreign language'. Clearly if Dancing Israelis were on site the day before the attacks and returned to film and celebrate them on 9/11 their foreknowledge is clear. Yet still the case against them was dropped in a blatant cover up of Mossad Israeli involvement. The release of the Israelis was signed off by Attorney General John Ashcroft in league with Criminal Division chief Michael Chertoff and one of Ashcroft's first clients when he entered private business was the Israeli government. Dominik Otto Suter, official owner of the Dancing Israeli Mossad-front, Urban Moving Systems, fled to Israel on September 14th, 2001, after being interviewed by the FBI, but is reported to have lived in the San Francisco area since at least 2016 as a contractor for Silicon Valley tech giants such as Google and Microsoft and also been employed by Granite Telecommunications which works for the US military and government agencies. Granite Telecommunications is headquartered in Quincy, Massachusetts, where key 9/11 computer company Ptech was based in 2001. I am not saying that this implies a connection, only stating a fact. If Suter has been resident in the United States since 9/11 why in the name of sanity has the FBI not been on his case to establish the real

background to Urban Moving Systems and why he fled to Israel after his first interview?? It has been further reported that four Israeli nationals were detained (and released like all the others) who worked for another 'moving company' called Classic International Movers. The FBI in Miami, Florida, told the Newark Division that this company had connections to at least one of the alleged 9/11 'hijackers'. A Dancing Israeli had the number of Classic International Movers in his notebook. What deceit. What a cover up. America should be outraged at the contempt for the dead by its own government that all this reveals – and it's still going on. A *New York Post* headline 18 years after the attacks said: '9/11 fund shrivels up as first responder cancer cases continue to grow'. It is described as 'cancer on steroids'. The *Post* said:

> New Yorkers who survived 9/11 are experiencing a massive surge in aggressive brain cancers as dollars for the September 11th Victim Compensation Fund continue to dry up — leaving them wondering in their final days who will support their families once they're gone.

The world is not run by psychopaths?

Nazi censorship out of control

The agenda moves on so fast and even in the short time this book has been in the production stage much has happened to confirm the themes I have highlighted and exposed. Censorship of information and opinion has reached ever more fascistic extremes through the ultimately Death Cult-controlled Internet tyrannies such as Facebook, Twitter and the rest of the censorship cabal posturing 'values' they don't have. Challenging official narratives across a swathe of subjects is increasingly likely to have you banned from these Hidden Hand, Sabbatian-Frankist and Pentagon operations that dominate the communication of information and crush any competing platforms with the usual enthusiastic support from their Hidden Hand cheerleaders in government and media. A Facebook employee revealed that Zuckerberg 'values' include having a 'hate agents list' of people it seeks to ban while another list gives 'extra credit' to employees who find creative ways to censor them. Those challenging the Big Pharma vaccine scam, transgender imposition and unchecked society-changing mass immigration have all been the particular targets of ever-growing censorship in the short time since I completed the book along with the ubiquitous 'anti-Semitism'. The ultra-Zionist and Death Cult-controlled German parliament decreed that the Boycott Divestment and Sanctions (BDS) movement is 'anti-Semitic' and called for a ban on funding groups backing BDS. Supporters of the decision included the utterly System-serving Green Party. They outrageously likened BDS to German Nazis who urged people not to

buy from Jews. So the United States and all the countries imposing economic sanctions on target governments are all racists and fascists are they? It is so transparent – they do what the Death Cult tells them while the vast majority have no idea there even is a Death Cult. Jonathan Greenblatt, Chief Executive Officer and National Director of the Mossad/Rothschild Anti-Defamation League (ADL), bragged to a meeting of the Council on Foreign Relations that they were leading the Internet censorship war on free speech:

> We work with Google on using AI to try and interrupt cyber-hate before it happens. We work with YouTube to get them to change their algorithms so it lessens the likelihood that a young person is going to run into some of these anti-Semitic conspiratorial videos. So there are different ways [Facebook] can tweak their algorithms and adjust their products so they think not only about free speech … but protect the user's right to not be harassed or hated.

Pass that through the Orwellian Translation Unit and you get censorship of any criticism or exposure of the far right regime in Israel and the force that really controls it. Greenblatt also called for more draconian laws to protect Jews from 'anti-Semitism' (see above). So-called 'world leaders' led by Rothschild frontman Emmanuel Macron met with tech giants in Paris to exploit the deaths of 51 Muslims in Christchurch, New Zealand, to justify even more draconian censorship. They took a break from bombing Muslims and supplying arms to kill Muslims in the Middle East to show how much they cared about Muslims. My god – it turns my stomach in the same way that Jews who suffered in Nazi Germany are mercilessly exploited to pursue a cold and calculated agenda of censorship today. The Hidden Hand UK, France, Germany, Spain, Ireland, Norway, Sweden, Netherlands, European Commission, Senegal, Jordan, Canada, New Zealand, Australia, India, Indonesia and Japan signed the 'Christchurch Call' agreement along with Hidden Hand Facebook, Amazon, Twitter, Google and Microsoft, but Donald Trump declined because it targets for online censorship his public support base. Soros 'progressives' and the mainstream media of course were delighted with still more censorship in their self-deluded stupidity and arrogance. They don't think *they* will be the target eventually? Bless 'em.

Intel Israel inside - *again*

Researchers found *another* back-door 'security flaw' in the Intel processor chips that drive the great majority of the world's computers. This is in addition to the one that I highlighted earlier. The 'flaw' (door) has been dubbed 'ZombieLoad' and is embedded in Intel chips opening the way for access to browser history, passwords, disk encryption keys

and other sensitive data. Experts said it was not possible to 'patch' the problem without loss of performance and access can 'also be exploited in the cloud' external to the computer. They pointed out that access could be gained while leaving no trace of what had happened. Nathaniel Gleicher, Facebook's head of cybersecurity policy, revealed that 65 Israeli accounts, 161 pages, dozens of groups and four Instagram accounts had been removed for attempting to interfere with elections. Many were linked to Tel Aviv-based political consulting and lobbying firm, the Archimedes Group, which claims to exploit social media to 'change reality'. Archimedes' chief executive Elinadav Heymann is listed as a former director of the Brussels-based lobbying group, European Friends of Israel, political adviser in the Israeli parliament and agent with Israeli Air Force intelligence. Accounts posing as political candidates and local news organisations were smearing opponents with the focus on Sub-Saharan African countries, Southeast Asia and Latin America. A headline in the Israeli daily *Haaretz* called it an 'Israeli Campaign to Disrupt Elections in African, Asian and Latin American Nations'. Tip and iceberg come to mind given what I have exposed about ultra-Zionist Internet manipulation and 'it's the Russians' is a smokescreen behind which Israeli manipulation can overwhelmingly hide. Facebook further warned users that hackers were able to remotely install software on phones and other devices by exploiting a flaw (door) in Facebook-owned WhatsApp. A simple WhatsApp missed call was enough to covertly install the software. Facebook said the cyber-attack was orchestrated by 'an advanced cyber-actor' using software developed by Israeli company NSO Group which has been referred to as a 'cyber-arms dealer'. NSO's software known as Pegasus can 'collect intimate data from a target device, including capturing data through the microphone and camera, and gathering location data'. The company said that its technology is 'licensed to authorised government agencies for the sole purpose of fighting crime and terror'. Among its clients are those bastions of democracy and human rights, Saudi Arabia, Bahrain and the UAE. Amnesty International issued a lawsuit against NSO fearing its staff could be under surveillance through Pegasus software and called on Israel's defence ministry to ban its export. The Citizen Lab research organisation at the University of Toronto said the NSO technology has been used by several countries to target human rights groups, activists and journalists with 'no attempt to rein it in'. As I write the Trump administration is targeting Chinese giant Huawei and alleging that back-doors are being installed in its technology to spy for the Chinese government. I'm sure they are – just like the US and Israel does the same – but somehow Trump must have missed that. Maybe he just forgot. Other Israeli tech companies have been exposed for attempting to manipulate elections and in 2019 Microsoft unveiled a technology called

ElectionGuard to 'protect' US elections from hacking with the fake 'Russian interference' hoax used as the excuse. Fox guarding the hen house comes to mind. Microsoft, like all the Silicon Valley giants, has massive connections to the Pentagon, DARPA (funders of ElectionGuard) and US intelligence networks and to the Israeli military and intelligence cabal including the Unit 8200 cyber elite at the Beersheba complex. Microsoft has significant investment in the 8200 front company, Team8, and its spin-off, Illusive Networks. Team8 was founded in 2014 by three former leaders of Unit 8200 and has connections to majors players like Intel, Citigroup, Microsoft and Qualcomm. Eric Schmidt, former CEO of Google (Alphabet), is a significant backer of Team8. You get the picture. See the Mintpressnews.com article: 'Microsoft's ElectionGuard a Trojan Horse for a Military-Industrial Takeover of US Elections'.

Renegades are dangerous (to the Death Cult)

The scale and depths of censorship now being imposed can be seen with two premieres of the film *Renegade* being banned in London and Los Angeles which doesn't even mention Zionism. This is a film about my life and work that was due to be shown at a venue in London owned by the Trades Union Congress (TUC) and at the Aero Theatre in Los Angeles owned by an operation called American Cinematheque which also owns the Egyptian in Hollywood. The really elderly may still remember the time when trade unions represented working people, but they have long since been absorbed by the System like the vast majority of those on the former political 'Left'. The TUC, a trade union umbrella organisation, cancelled the showing of *Renegade* the afternoon before the event because they said they believed in 'inclusivity'. The fact that they made that claim in an email *excluding* me would never have breached the walls of their programming. How more inclusive can a philosophy be than – *we are all one consciousness having different experiences*? But this would be far too deep for the software TUC. Think about that – a *trade union* organisation bans a film about a *renegade*! What confirmation of how far the 'Left' has fallen into cabal conformity. The TUC could not care less about the potential effect on the audience (we fortunately found another venue) and nor had they seen the film or read any of my books. Someone told them what to believe about me and so they did. *Pathetic.* Then there was 'American Cinematheque' which is described as 'an independent, non-profit cultural organization in Los Angeles dedicated exclusively to the public presentation of the moving image in all its forms'. Well, unless it's about me. The American Cinematheque board of directors and trustees is reported to include 'many prominent leaders in the entertainment industry', including directors and producers such as Sydney Pollack, Martin Scorsese, Mike Nichols, Francis Coppola, William Friedkin, Melvin Van Peebles, Brian Grazer, Joe Dante, Paula Wagner,

and Steve Tisch together with actors Candice Bergen and Goldie Hawn, studio chief Mike Medavoy, journalist Peter Bart, editor in chief of *Variety*, and talent agent Rick Nicita, co-chairman of Creative Artists Agency. The producer of *Renegade*, who is not a 'follower' but just thought it would make an interesting film, booked the Aero Theatre in Santa Monica weeks before the premiere and arranged for us to arrive at 4pm for a technical run-through ahead of a 6pm start. At 3.55 when we were only minutes from arriving the producer's phone rang in the back of the vehicle. He put the phone to his ear, but I clearly heard every word even from the front seat such was the volume from the other end. Firstly a woman told us they were cancelling the premiere and then a man came on shouting down the phone. Both of them, especially the man, were extremely unpleasant and basically horrible. This was a deeply sinister part of the conversation between the producer and the hysterical man:

'Is this film about *David Icke*?'

'Yes.'

'Does the film put him in a *good light*?'

'Well, yes, he comes across very well.'

Then it wasn't being shown at his theatre, the hysterical man said – hysterically.

That is another shocker to ponder. If the film does not demonise me it can't be shown but if it did there would have been no problem. We saw the same Orwellian, fascistic approach about the same time when a group of people, including Alex Jones and Muslim leader Louis Farrakhan, were banned from Facebook and Facebook-owned Instagram under the title 'dangerous individuals' that 'promote or engage in violence and hate'. None are in Facebook's league for being dangerous to human society. The ban also targets those who post information from these people or say anything positive about them. Demonising them is okay – as with me and American Cinematheque. We are well on the road to Orwell's 'unperson' – those removed from all communications and records so they do not to the general population even exist. Once again American Cinematheque could not care less about the effect on the audience which turned up at the venue to find the event had been cancelled while we battled through Los Angeles rush-hour traffic to get back to our hotel before we could tell them. David Icke is evil so anyone who supports him is evil so what does it matter if we abuse them?

That's the mentality at work in these situations because they are people who have 'values', you see. It's appropriate to give the last word in this book to the Campaign Against Antisemitism (CAA) because they spend their time saying I'm wrong while constantly proving me right. 'Enforcer' Stephen 'Little Dick' Silverman called on UK station Talkradio to 'immediately apologise' for interviewing me about *Renegade* – a film that doesn't mention Jewish people and the interview didn't mention Jewish people either. 'We are going to make a formal complaint to the station and are considering raising the matter with [media watchdog] Ofcom' said the professional censor. They were going to make a formal complaint about an interview which didn't mention Jewish people and talked about a film that doesn't mention Jewish people?

Yes, because it is not about Jewish people is it Little Dick and Dvir Abramovich who had me banned from Australia? It's about silencing the truth. At the time of writing some 500,000 people had watched the Talkradio recording – it will be many more by the time you read this – but none of them should have been allowed to hear what I said. Little Dick says so. I rest my case.

You can watch *Renegade* by going to Davidicke.com where you will also find world news every day from another perspective and my latest interviews and information. By subscribing you can access a library of my work and presentations over the last 30 years plus many other features, benefits and sources of information and exposure.

Two recommended vaccine books: *Vaccines: A Reappraisal* by Richard Moskowitz MD (Skyhorse Publishing, 2017) and *Saying No To Vaccines* by Sherri Tenpenny (Tenpenny Publishing, 2008). Also put the words 'Robert F. Kennedy Jr. exposes vaccines' into the search engine at Davidicke.com – a magnificent speech with spot-on information that every parent should hear.

For a fantastic interview exposing the catastrophic effects of 5G and microwaves with world expert Barrie Trower put these words into the Davidicke.com search engine: 'Barrie Trower 5G WiFi Smart Meters Armageddon Interview'.

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Cold Fusion Presents: New Thinking: From Einstein to Artificial Intelligence, the Science and Technology That Transformed Our World

Library of Congress Cataloging
ISBN: (print) 978-1-63353-750-7 (ebook) 978-1-63353-751-4

Library of Congress Control Number: 2018952299

BISAC category code: "TEC000000—TECHNOLOGY & ENGINEERING / General"

Printed in the United States of America

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Introduction

"The spread of civilization may be likened to a fire; first, a feeble spark, next a flickering flame, then a mighty blaze, ever increasing in speed and power."

—Nikola Tesla

The history of mankind is built on new thinking. We use the previous generation of tools as a foundation to build new tools, which in turn build even more powerful tools—a feedback loop that keeps on accelerating. Some of these innovations change the world forever: fire, steam power, the transistor. Some, not so much: the Power Glove, the Clapper, Smell-O-Vision. What hidden stories lie behind the technology we all use today? *New Thinking* is the story of human innovation. Through war and peace, it is

humanity at its most inventive, and sometimes most destructive. In this book, we will take a walk through the history of technology, the history of us: from the Industrial Revolution to Artificial Intelligence.

Before we start, however, we need to talk about the new thinker of all new thinkers—an inventor who is so important to the history of technology that he's nicknamed "The Man Who Invented the Twentieth Century." I am speaking, of course, about Nikola Tesla.

You won't find Tesla's name in the following chapters of this book. This isn't because he isn't important. It's because he is too important. If I were to include Tesla, his name would be on every second page.

Let's run down a few of the inventions he was either instrumental in realizing, or invented himself: alternating current, the induction motor, the Tesla coil, wireless lighting, the steam-powered

oscillating generator, the radio, hydroelectric power, x-ray imaging, the remote control. This doesn't even begin to list the things he envisioned but couldn't get around to or realize because his thinking was too advanced for the materials at hand. There is a reason Elon Musk named his car company after Tesla.

The legend of Nikola Tesla grows by the year, and the crazy thing is, the legend probably doesn't even capture half of the amazing truth. This is a man who once built a small earthquake machine in New York, and then dared Mark Twain to stand on it. The machine only caused a small rumble, but it was enough to loosen the bowels of the famous author. Tesla's legend includes wireless power, weather control, and a death ray that he reportedly carried with him in an unmarked bag—a bag that mysteriously went missing after his death.

Many of the wilder legends about Tesla are unsubstantiated, though there are more than enough verified stories to fill an encyclopedia.

Tesla was so ahead of his time that, when he first displayed his radio remote-control boat at an electricity exhibition in Madison Square Garden, the technology was so far beyond anything onlookers had seen that some literally thought Tesla was either a magician or telepathic, while others chalked the display up to a tiny trained monkey that had been hidden in the remote-control boat.

Alternating current, along with the induction motor, is the reason we can plug things into the walls in our homes. It was such a huge step that it wasn't just shown off at the famous 1893 Chicago World's Fair, it was used to light it.

Without Tesla, we wouldn't have the electricity in our homes, the motors in our cars, or the ability to change the channel when *American Idol* starts. We wouldn't be able to see broken bones on an x-ray image or listen to the weekly Top 40 on the radio.

Tesla is the poster boy for Arthur C. Clarke's famous quote: "Any sufficiently advanced technology is indistinguishable from magic."

But rather than spending all of our time with this amazing Serbian-born inventor, let's start at the beginning with chapter 1, and the Industrial Revolution.

PART 1

Origins

CHAPTER 1

The Industrial Revolution

If you've ever eaten food you didn't grow, put on clothes you didn't make, driven a car, used electricity, watched TV, used a phone or computer, slept on a bed, used a toilet, consumed water from a tap, or been inside a building, then congratulations, you've lived with the consequences of the Industrial Revolution. This event was the single biggest change for mankind in history.

Before the Industrial Revolution, people lived on the land that provided them with food and the means for clothing and shelter. Average life expectancy was around forty years (including infant mortality), and any form of structured education was extremely rare. All the while, disease and malnutrition were rife. Until the revolution, humans never used tools or objects that weren't

produced within their immediate community or traded. The fastest any human could travel was the speed of a horse. Over 80 percent of the population lived on farms. With no mass production or the ability to transport large quantities of goods a long distance, people had to be close to their source of food. It was the only means of living. Today, the number of people on farms in the United States is down to less than 1 percent.

So where did the dawn of our modern era take place?

The Steam Engine That Powered a Revolution

It all began in England, around 1712. At the time, a primitive tin and coal mining industry existed, but there was a major problem. The mines would get flooded whenever it rained, and in England, rain was a pretty common occurrence. Every time a mine flooded, production stopped. This meant that production was subject to weather conditions. To deal with the flooding, scores of men

carrying endless buckets of water would be commissioned to bail out the mines. As you can imagine, this was very inefficient and costly. There had to be a better solution.

Enter Thomas Newcomen from Dartmouth, Devon. He was the inventor of the first practical steam engine.

What's important here is the revolutionary application of one of water's most fundamental properties: that heated water turns to gas (steam), and that this steam expands, pushing objects in its wake, causing motion. This was the first practical device that used steam to produce motion.

Newcomen Atmospheric Engine

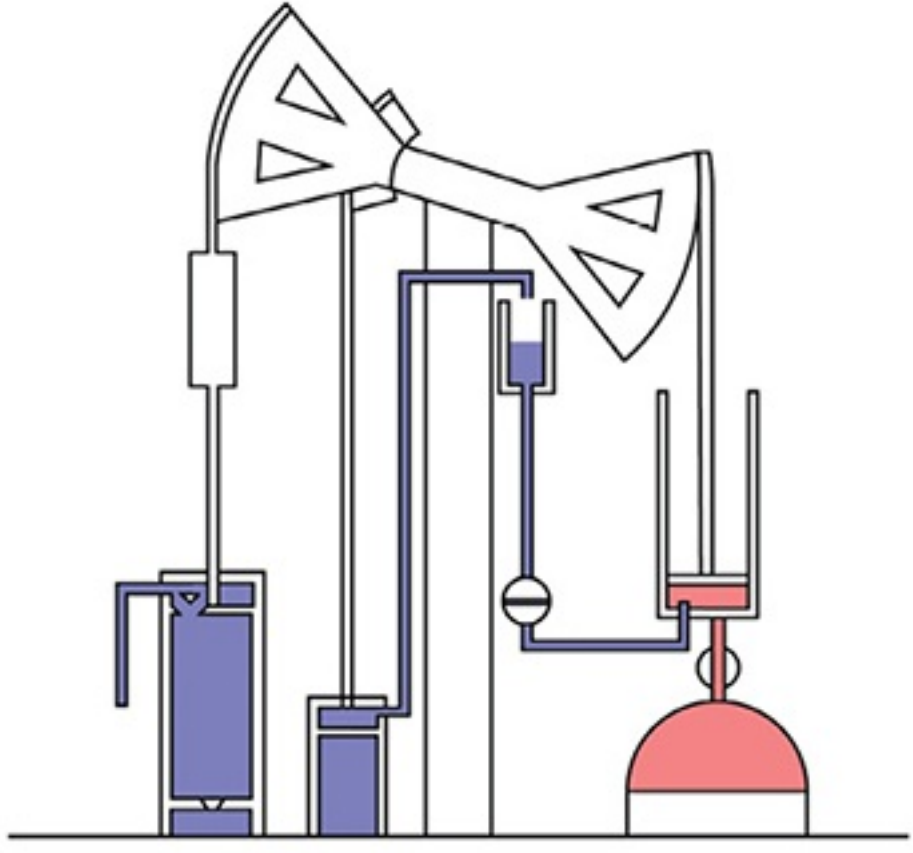

This steam pump (now named the Newcomen engine) was put to use in the mines. This in turn increased the production of coal and tin. Through the power of steam, human effort was no longer needed to bail out the flood water. As great as this was, there were some problems with Newcomen's engine. It was slow and used a lot of coal, making it expensive to run.

James Watt

With a basis to start from, there was now room for someone to come through and improve the technology of the Newcomen steam engine. That someone was Scotsman James Watt, the man who truly got the revolution going.

Born on January 19, 1736, James Watt was the son of a shipyard owner. While in school, he was taught Latin and Greek, but was thought to be "slow" by his teachers. As it turned out, he just

wasn't interested in language. When it came to engineering and mathematics, however, James excelled.

At age nineteen, he went to Glasgow to study the trade of making precisely calibrated instruments such as scales and parts for telescopes. Watt eventually made instruments for the University of Glasgow. During his time at the university, Watt was given a model of a Newcomen engine to repair. Very quickly, he became interested in steam engines and noticed how inefficient the standard Newcomen engine of the day was. He decided he could improve it. While taking a walk on a Sunday afternoon in 1763, an idea struck him. Instead of heating and cooling the same cylinder, why not have a separate chamber that condenses the steam? This meant that the machine could work in both an upstroke and a downstroke motion.

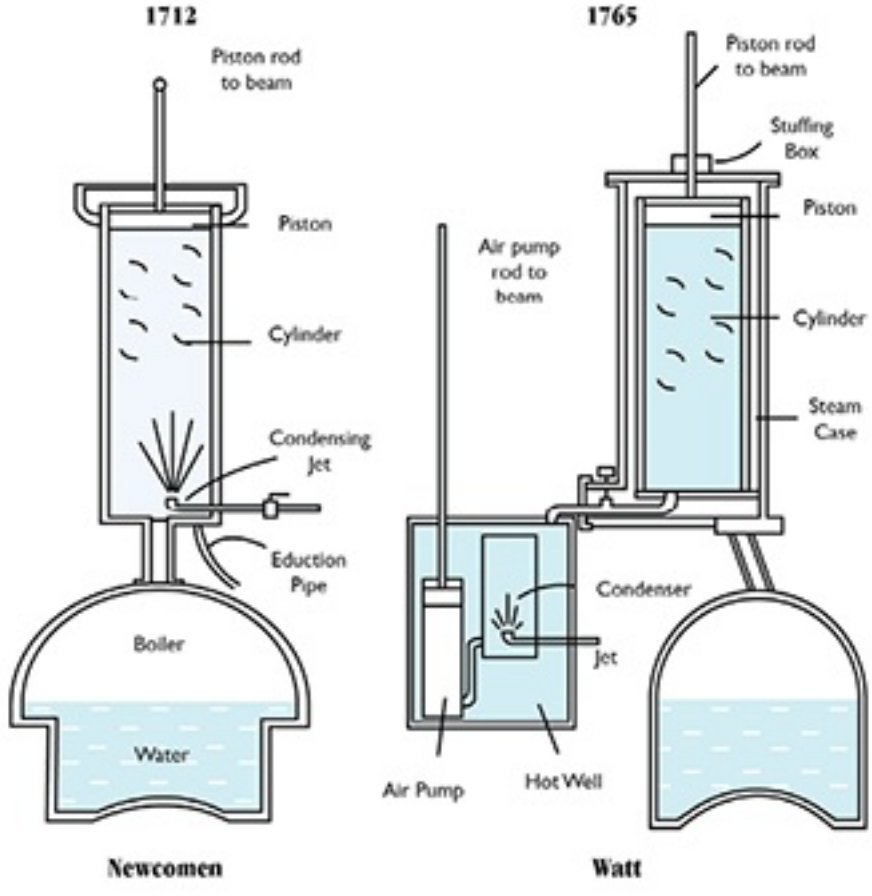

This idea would end up cutting the fuel needed by 75 percent. After experimenting with a small model of his new design, Watt

was convinced it would work. Soon, a partnership with an industrialist by the name of Matthew Boulton was formed. This partnership would alter the world for good.

It has been said that Boulton was a little like Steve Jobs, an enthusiastic, business-minded individual, while Watt was like a gloomy version of Steve Wozniak—the man behind most of the technical work. This isn't far from the truth, although there was much more crossover in the roles of Watt and Boulton than with Apple's founders.

Throughout the mid-1770s, James Watt and Matthew Boulton would use their own company (Boulton & Watt) to distribute the new steam engines throughout England. The impact was immediate within the mining industry, and also reached the liquor industry in grinding malt.

To explain the benefits of the machine, Watt had to come up with a way of relaying its power. He figured that a horse could pull around 82 kg (180 pounds), so, in his description to customers, Watt would say, for example: my machine has the power of twenty horses—twenty horsepower. This is in fact where the unit of power came from.

Subsequent improvements in the steam engine soon opened the door to powered factories and a revolution in the textile industry. For the first time, the mass production of goods was possible. These conditions allowed for new employment opportunities in city locations. As a result, job seekers left their farms and headed to the city in search of a new life.

Steam Revolutionizes Transport

Steam power had now revolutionized production, but Watt realized that, by expanding the gas at even higher pressure, this

invention could be used in transportation. The locomotive application for the steam engine would push humanity to another level. The first patent of this kind was obtained in 1784 by Watt, though it is often said to be the brainchild of Boulton & Watt employee William Murdoch. These patents barred anyone from creating higher-pressure versions of the Watt steam engine until 1800. When the patent expired, the floodgates were opened, and innovation flowed.

One of the first improvements was made by Cornish engineer, Richard Trevithick, who enabled the use of high-pressure steam. Yielding more power, this development opened the door to feasible locomotive steam engines. Improved designs and power-to-size ratios meant that engines became so compact they could be used, not just in factories, but also in mobile machines.

The year 1804 was monumental in history. That year would see the world population reach one billion, the isolation of morphine,

and Napoleon come to power; but most of all, it was the first time goods were transported over land without the power of man or animal. This feat came in the form of a steam locomotive with a speed of 8 km an hour (5 miles per hour) carrying a load of more than twenty-five tons. Not bad, considering cars were still almost a century away.

Steam-powered trains and railroads became a major British export and began to have a small impact on the rest of Europe. Arguably, however, the biggest effect was seen in the United States. In the early 1800s, many models of locomotives were imported from Great Britain, but by 1830, the United States was building its own trains. American companies began forming and a new industry emerged.

Steam Transforms America

At first, the tracks were no more than a few miles in length, so long-distance rail travel became the holy grail. Previously, Americans had tried camel caravans and horse-drawn stagecoaches to deliver mail or travel over long distances, but these attempts had met with limited success.

A trip from St. Louis to San Francisco, via either the camel-caravan or stagecoach method, would travel 2,800 miles (4,500 km) of dirt trails and last around three weeks. American writer Mark Twain went on one of these stagecoach trips. He was unpleasantly surprised by the experience.

The meals consisted of beans, stale bacon, and crusty bread. He described the comfort level as "bone-jarring," "teeth-rattling," and "muscle-straining."

By 1863, it was time for a change. A young civil engineer by the name of Theodore Judah had a vision to build the ultimate railway,

a railway so large it would connect America from the west to the east. Around that time, members of the United States Congress were thinking about such a railway but couldn't determine the precise route on which it should be laid. Judah figured out the perfect route and stepped in as the one to build the tracks. He contracted a company called Union Pacific to build from the East Coast and another company, Central Pacific, to build from the West. On May 10, 1869, after six years of hard work—including laying steel tracks in the Nevada desert and the devastating sacrifice of much human life—the two companies met in Utah, and the first transcontinental railroad was built.

Thanks to this sacrifice and hard work, California was now connected to the rest of the nation.

With steam-powered locomotion, people and large amounts of cargo could travel long distances across land, with relative ease, for the first time. The possibilities were endless.

Goods and services could be transported to support new towns that weren't by ports. It became less common for people to be born and to die in the same place—the common man was now mobile. The California connection allowed perishable food to quickly be transported across the country in refrigerated railcars, ushering in a new era of prosperity.

We essentially still use steam engines as a way of generating power today. Coal, nuclear, and some natural-gas power plants all boil water to produce steam. This steam then drives a turbine that generates electricity. It's amazing that the consequences of Watt's idea during a Sunday stroll still impact us today.

While the steam engine was just starting to move from the factory onto the railroad, there was another technology whose time had not yet arrived; however, it would soon be just as, if not more, revolutionary.

This innovation was none other than electricity.

CHAPTER 2

Building a Foundation

THE MYSTERY OF ELECTRICITY

From ancient times, electricity was known only as an abstract concept. Imagine you were living five thousand years ago and received a shock from touching an electric fish. There would have been nothing like it in your life experience, except perhaps for lightning. The fish would seem mysterious, perhaps even magical. This enchanting puzzle existed for centuries and millennia.

The term "electricity" came from William Gilbert in his 1600 publication De Magnete, considered to be the first real scientific work published in England. The word "electricity" was derived from the Greek word for amber: ἤλεκτρον (elektron).

Alessandro Volta Invents the Battery

The end of the century would see man create his own form of electricity. In 1799, Italian inventor Alessandro Volta developed the voltaic pile, a stack of zinc and copper discs separated by salt-water-soaked cardboard. The device was the first to provide an electric current. It was essentially a battery.

In 1800, an excited Volta reported his findings in a letter to the Royal Society in London. It was a bombshell at the time, because the governing scientific consensus was that electricity could only be generated by living beings. It sparked great enthusiasm. It soon opened the door to the isolation of new chemical elements, such as potassium, calcium, and magnesium, through electrolysis.

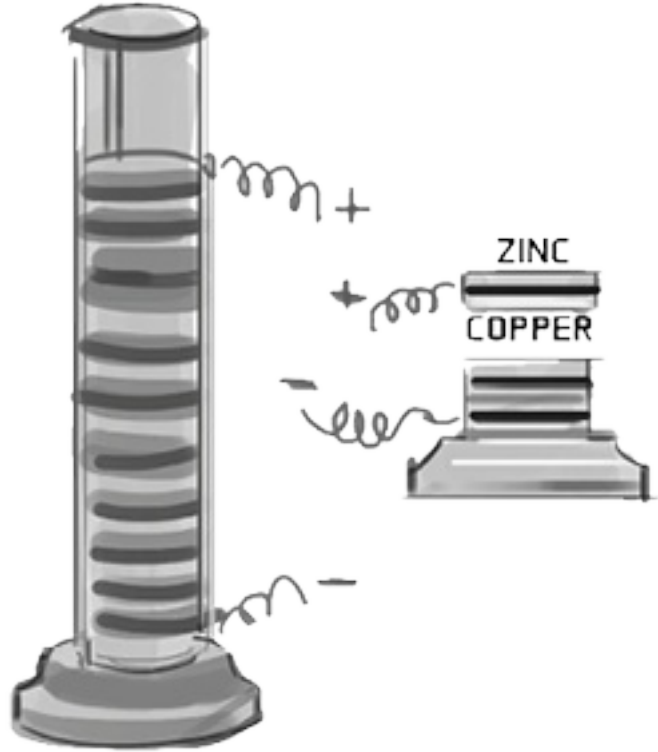

Volta Battery Stack

After his discovery, Volta was held in great esteem by many, and even had the unit of electric potential (the volt) named after him. Despite this fame, Volta was a dedicated family man and often shielded himself from the public eye for this reason.

The voltaic pile built a foundation for electricity. However, the time for widespread electricity had not yet come.

A False Start for Electrical Lighting

For the longest time, oil lamps and candlelight were the only ways people could see what they were doing after the sun had set. If you were out running an errand and ran out of lamp oil on the way back home, too bad. This was set to change around 1805, when an Englishman by the name of Humphry Davy demonstrated light by electricity. His invention was a type of lamp that gained its illumination from running electricity through small carbon rods.

The rods were separated by a 4-inch (100-mm) gap, and when the electricity passed across the gap, it would form an “arc” of white-hot light. This form of lighting was to be known as “arc lighting,” usually facilitated by high-voltage batteries made from thousands of Volta cells.

Arc lamps were extremely bright for their day. Some estimates put them at an equivalent brightness of 4,000 candles (about ten times less than a modern car’s focused headlight).

With an arc light’s brightness came a lot of heat, and with that heat came the risk of fire. Because of their brightness and potential to be a fire hazard, they were deemed unsuitable for the home.

Arc lights were used in commercial settings, but there was no steady supply of electricity to power these lamps for long periods of time. It was a dead end for the widespread use of electric

lighting. Electric lighting does make a comeback later in the chapter, as we progress through the century.

Meanwhile, other applications of electricity were about to make some big strides.

Michael Faraday

Michael Faraday is a name that might be familiar to many. He was one of the most influential scientists in history, revolutionizing our understanding of electricity, chemistry, and electromagnetism. His achievements include the invention of the Bunsen burner and the DC electric motor, the discovery of benzene, and the development of the Faraday cage. Albert Einstein even kept a picture of Faraday on the wall in his office.

Surprisingly, Faraday received little formal education after his birth in England in 1791. He had to educate himself. At around age

fifteen, while working as a bookbinder, Faraday came across two titles that would change his life and the course of history. One was *The Improvement of the Mind* by Isaac Watts, and the other was *Conversations on Chemistry* by Jane Marcet. The first gave Faraday the tools of understanding and a disciplined mind, while the latter inspired him to move in the direction of electrical experimentation. After attending the lectures of English chemist Humphry Davy at the English Royal Society, Faraday ended up going on a European tour with him to serve as an assistant.

Unfortunately, Faraday was looked down on at the time and was not considered a "gentleman." He was made to sit on top of the stagecoach, rather than within it, and eat with the servants when meal breaks came. This upset him greatly, but the opportunities to meet great intellectuals and his passion for learning more about the world of science kept him going.

Faraday's genius was in the way he expressed his ideas. It was done in clear and simple language. That was really the only way it could be done, as his knowledge of math was limited. Despite Faraday's limited math, he managed to liquefy gases, produce new kinds of glass, improve steel alloys, and discover nanoparticles and benzene, which is currently used in the production of plastics, dyes, drugs, lubricants, rubber, and more. However, none of these were his most brilliant discovery. That honor goes to the 1821 use of a voltaic pile (Volta's battery) to produce motion—in other words, a motor.

Davy and two of the best scientists of the day (including James Maxwell, who discovered electromagnetism) had previously tried, but failed, to build an electric motor. In 1821, it was discovered that electricity could actually produce a force when in the presence of magnets.

Faraday, who was relatively uneducated compared to these men, successfully produced a continuous-circular-motion motor after simply discussing this problem with them. It only generated a very weak force, but it worked.

Think of the parallel here between electricity driving motion and steam driving motion. Again, we see how the ideas of those before are built on by those after, producing new technologies.

Today, although they look vastly different from Faraday's motor, the very same principles discovered by Faraday are used in our computer hard drives, electric bikes, and phone vibration motors. Notably, Nikola Tesla improved on Faraday's idea to create the AC motor, the kind used in everything from washing machines to electric cars.

But Faraday wasn't done yet. In 1831, he created the electric generator, otherwise known as a dynamo. This device did

essentially the opposite of the electric motor: It turned motion into electrical energy.

By the 1830s, the mystery of electricity was starting to be understood, but it wasn't revolutionary just yet. This was because the dynamo produced a fairly low amount of voltage (only a few volts) and was inefficient. Although it proved that electricity could be generated by using magnetism, there were severe limitations on what it could power. Regardless, the new thinkers still sought uses for this latest invention.

ELECTRIC COMMUNICATION BEGINS

Unlike the previous inventors we've covered, Charles Wheatstone (born in England in 1802) came from a musical background. His father sold instruments and was a flute teacher. As a teenager, he was interested in a wide array of books, and often spent time at an

old bookstall in his local mall. One day, he came across a book that covered the discoveries of Volta, who had invented the battery just over a decade earlier. He didn't have any money, but soon saved up to buy the book.

Charles Wheatstone and his brother decided to make a battery of their own. They soon realized that they weren't going to have enough money to purchase copper plates for its construction. Charles was dedicated enough to use his remaining copper pennies to complete the battery.

In 1821, Wheatstone attracted attention in his local mall by creating a sound box that relayed the sounds of live instruments, played over a wire—rather amusing for the day. He would also coin the term "microphone" for an invention that amplified into each ear mechanically.

The Electric Telegraph

By 1835, Charles saw the potential of using electricity to transmit information through his work as a professor at King's College London. This realization caused him to abandon his mechanical microphone methods and explore the concept of the electric telegraph. He could see that the technology, in its perfected state, held incredible potential for the entire world. The idea was to build on established, primitive methods of electrical telegraph communication—most notably the work of Russian inventor Baron Schilling, who managed to communicate between two rooms. Electric telegraph messages could work on very little voltage, making them an ideal technology for the power generation available at the time.

Meanwhile, William Cooke, an officer in the Indian army, was on leave and decided to attend some anatomy lectures at the University of Heidelberg. While there, he saw a demonstration of a primitive electric telegraph and immediately realized its

importance. Cooke dropped his anatomical studies and began to look into the telegraph. For consultation on scientific knowledge, he contacted Michael Faraday and Peter Roget, an academic in Edinburgh. Roget suggested that Cooke pay a visit to Wheatstone.

Cooke proposed a partnership with Wheatstone, but the two had very different motives for the project. Wheatstone was purely interested in the scientific significance of the technology, while Cooke was interested in making a fortune. Despite this, after some hesitation from Wheatstone, the partnership was agreed upon.

In 1837, the pair set up an experimental machine between the Euston and Camden Town train stations in London, a distance of 2.4 km. The receiver of the telegraph message was to read it via five electromagnetic needles that pointed toward an array of letters in a diamond configuration. To send and receive messages, the system needed at least five wires to transfer the information.

On July 25, 1837, the first message was sent. Wheatstone recalls his feelings at the time: “Never did I feel such a tumultuous sensation before as when, all alone in the still room, I heard the needles click, and as I spelled the words, I felt all the magnitude of the invention pronounced to be practicable beyond cavil or dispute.”

The railway directors, however, were not impressed. They saw the telegraph as a silly contraption, nothing more than a foolish plaything. They wanted it promptly removed from the station. All seemed lost, but two years later, the invention was picked up again by England’s Great Western Railway for a 21-kilometer distance—marking the first practical use of the telegraph.

Any Publicity is Good Publicity

The telegraph was still relatively unknown to the public, until the most unusual of promotions for any sort of technology—an 1845 criminal case involving a murderer on the loose. The suspect's name was John Tawell, and he had boarded a train to flee toward London. Once his destination was known, a telegraph message was sent to his intended arrival station. When Tawell stepped out of the carriage, the police were already there to arrest him. This event was astonishing in its day. A form of communication so fast, it was able to intercept a criminal on a moving train? There was great publicity around the event, and the usefulness of the telegraph was finally established.

Over in the United States, a series of tragic events would push another inventor to think about improving communication even further.

Samuel Morse

Imagine this scenario: It's 1825, and you're in Washington, DC, creating a painting of a high-profile public figure. In New Haven, Connecticut, 300 miles (480 km) away, is your sick wife. One day, as you're working on the painting, you receive a message from a horse-riding messenger saying that your wife's health is improving. You paint on. The very next day, you receive another message by horse messenger. This time, it's a detailed report of your wife's death. Overcome with sorrow, you abandon everything and leave for New Haven. By the time you arrive, your spouse has already been buried.

This is exactly what happened to Samuel Morse.

He was plunged into great despair by these tragic events, but it would serve as the catalyst for him to begin his search for rapid long-distance communication. The result was the single-wire telegraph and Morse code, the latter of which became the standard for telegraph communication and is still used today.

Morse code is an ingenious and simple language that uses dots and dashes to stand for the letters of the alphabet. A skilled operator could send eighty characters a minute.

Morse sent his first message from Washington, DC, to Baltimore, Maryland, in 1844. It said: "What hath God wrought?" It was taken from Numbers 23:23 in the Bible. Morse code became the standard for the telegraph, as it was simpler to send a message in dots and dashes than to use at least five wires corresponding to letters, like the Wheatstone machine.

Perhaps, if tragedy had never struck, Morse would never have been known for more than his great works of art.

Going the Distance

Electricity had allowed for rapid communication between cities, but for nations separated by seas, communication was still only possible

by ship. This was very slow. For example, a message sent between the United States and England would take over ten days to arrive.

In the 1850s, as the buzz around the telegraph was growing, there was an increasing consensus to apply this technology across the Atlantic Ocean (around 2,000 miles, 3,200 km). In 1854, the Atlantic Telegraph Company began construction of the first transatlantic telegraph cable. British and American ships were used to lay down an insulated cable on the ocean floor. After four failed attempts, the project was completed in 1858, on the fifth attempt. It was the first project of its kind to succeed. Despite all this effort, the cable functioned for only three weeks.

The first official telegram to pass between two continents was transmitted on August 16, 1858: a letter of congratulations on completion of the project, from Queen Victoria to the United States president, James Buchanan. Soon after, signal quality deteriorated, and transmission became sluggish. In an attempt to

speed up communication, the White House pushed extra voltage through the cable, destroying it completely. When the line was functional, it had brought British-US communication time down from ten days to about seventeen hours.

In the United States, telegraph lines were already connecting cities throughout the east of the country. Work began in 1851 on the task of building a telegraph line across the country. On October 24, 1861, the first telegram was sent from San Francisco to Washington, DC. It would also be the day the Pony Express went out of business. The Pony Express was previously the fastest method of getting mail (information) from the east to the west, as the railroad was still eight years away. The electric telegraph rendered the Pony Express obsolete, just as steam locomotives eventually rendered horse-coach transport obsolete.

Written communication was now possible over long distances in short periods of time, with vast economic and social impact, but

what about speech?

ALEXANDER GRAHAM BELL: THE TELEPHONE

Scotsman Alexander Graham Bell was born in 1847, right around the time the telegraph was building up momentum in England and the United States. Bell may be remembered for his invention of the telephone, but—as we'll see later in the book—his legacy would directly build the foundation for computing through the invention of transistors.

Bell was a curious child and had a natural knack for invention. At age twelve, he built a device to husk wheat at his best friend's family's flour mill. Although he had a mind for practical invention, he did poorly in school and left at age fifteen; however, he did pursue higher education at a later date.

Bell was an introvert who was especially close to his mother. In his boyhood, she encouraged him to develop his natural talent for art and music. When she began to lose her hearing, Bell was hit hard. These events inspired him to study acoustics. He would eventually run his own school for the deaf in Boston.

Alex and His Tricks

Bell would often perform creative and playful experiments with speech to entertain others. Once, he used the family dog for one of those experiments. He trained the dog to maintain an extended growl. While the dog made the sound, he would manipulate the dog's lips and vocal cords to produce a phonetic "ow ah oo ga ma ma." With a little convincing, visitors believed his dog could articulate "How are you, Grandmama?" Witnesses were adamant that they were seeing a talking dog!

Bell also gave lectures on “visible language” to teachers of the deaf, but soon invented his own methods of lip reading and teaching speech. By 1871, he was a leader in the field of hearing-disability education. It was his view that the deaf should be liberated from sign language and should be able to speak. At the time, deaf individuals were usually excluded from society.

Bell began working on a harmonic telegraph around this time. He used his musical background and knowledge of sound to realize that multiple signals (Morse code dots and dashes) could be sent through the same wire if they were at different pitches.

Here’s how it worked: a telegrapher could tap out the message in Morse code. The signal of the code was then transmitted as short audio beeps of a specific frequency. On the same line (wire), another telegrapher could tap out a Morse code message at a different frequency. At the receiving end, a device would only respond (vibrate) to one frequency, not to others on the same

wire. By using many receivers set to different frequencies, multiple messages could be sent across the same wire without getting mixed up. Bell called this a multi-signal telegraph.

After securing financial backing from two close friends, Bell further developed the idea with a young assistant, Thomas Watson. One day, while Bell and Watson were working on the project, Watson accidentally plucked one of the transmitting devices. Instead of hearing a beeping tone like that from a Morse code message, Bell heard an audible twang through the receiver in another room. At once, Bell realized that, if a twang could be transmitted through this device, there was potential to transmit *any* sound—even voice—over wire electronically. This was a watershed moment. It marked the birth of the telephone and the death of the multi-signal telegraph. The date was March 10, 1876, and on this day the first words ever spoken by telephone were vocalized: "Mr. Watson, come here. I want to see you."

On August 4, 1876, after creating a working model of the telephone, Bell gave a demonstration to his friends and family. They were amazed when they heard the voices of people reading and singing at another location 6 km (about 4 miles) away.

The telephone would get its international break later that year, when Bell set up a demonstration of the prototype machine at the Centennial Exposition in Philadelphia. Viewers of the demonstration were prominent people of the day. One such person was Queen Victoria. She called the invention "most extraordinary."

Not everyone was as impressed, however. A short time after the demonstration, William Orton, president of Western Union, had the opportunity to buy Bell's invention. He infamously said: "What use could this company [Western Union] make of an electrical toy?" Orton, of course, was badly mistaken.

With the wind in Alex's sails (aside from Orton), he set up the Bell Telephone company one year later, in 1877. The Bell Telephone Company would later be known as the American Telephone and Telegraph Company, or AT&T, still one of the largest service providers today.

Less than a decade after Bell's public demonstration, there were more than 150,000 users of the telephone in the United States.

The telephone fulfilled one of the greatest human needs, allowing people separated by vast distance to hear and speak to each other. Indeed, it was one of the most successful inventions of all time. In fact, our smartphones today are the great-grandchildren of Bell's invention.

What most people don't realize is that Alexander Graham Bell often reminisced that his greatest contribution to the world was

not the invention of the telephone, but his work of oral education for the deaf.

By the late 1870s, electricity had made it possible for humans to communicate using their voices (rather than Morse code signals) across large distances. But was there a way to preserve these sounds? At this point, there was still no way to record sounds and play them back later. Thomas Edison would crack the code.

Thomas Edison: Recorded Sound

Edison stumbled upon the solution in July of 1877, while he was working on a way to record and play back telegraph messages. He first did this by capturing Morse code bursts as vibration-induced indentations on a spool of paper. After some thought, he theorized that the same could be done with any sound. All he needed was a

vibrating object that could mark its motion onto an impressionable surface. The first method used a cylinder wrapped in foil.

Edison's unveiling of his invention to the press was truly the work of a clever mind. A writer from the *Scientific American* recalls the event: "In December 1877, a young man came into the office of the *Scientific American*, and placed before the editors a small, simple machine about which very few preliminary remarks were offered. The visitor without any ceremony whatever turned the crank, and to the astonishment of all present the machine said: 'Good morning. How do you do? How do you like the phonograph?' The machine thus spoke for itself, and made known the fact that it was the phonograph…"

The patent for the phonograph, US Patent No. 2,000,521, was awarded on February 19, 1878. The technology would be improved by Alexander Graham Bell, who, after listening with a keen ear, thought to replace the tinfoil cylinder with a wax cylinder. The

resulting sound was much better, leading to the commercialization of the first recorded music in the 1890s.

ELECTRIC LIGHT'S TURN TO SHINE

In the 1870s, work was still being done on Michel Faraday's electric generator (the dynamo we saw earlier, which turned motion into electrical energy). By the end of the decade, other nations became interested in the technology, and tests were being carried out to link this electric generator to the arc-lighting concept.

The first practical large-scale generators were produced in France, resulting in the first electric street lighting on the planet in 1875. By 1878, Paris had arc-lighting systems installed around the city. A writer for a London technical journal, *The Electrician*, visited France and was impressed by the feat, but slightly bitter that this technology had not come to Britain. The journal noted: "The

application of the electric light is in Paris daily extending, yet in London there is not one such light to be seen."

In response, further advances in electricity generation were made by the British, and, by the start of the 1890s, seven hundred arc lamps were in use in the country. Markets, railroads, and the curbs in front of large buildings were ideal locations to be fitted with arc lighting. Regardless of this use in public settings, there was no such electrical lighting for the private home.

Thomas Edison, Light, and Controversy

The idea of the filament lamp was almost as old as the arc lamp. Many people had tried to produce light by heating a fine wire electrically so that it glowed (producing incandescent light), but it seemed impossible thus far. There were several reasons for this: First a material had to be found that could withstand being repeatedly heated and cooled; second, this material had to be

sealed inside a glass vessel such that the glass did not crack when the wire was hot; and third, the air had to be pumped out, so the filament did not oxidize (rust).

Today, many associate Thomas Edison with the invention of the first incandescent lightbulb, but, like many of Edison's "inventions," his work involved less new thinking and more improving on existing ideas. There are in fact dozens of examples of incandescence being used for light, dating back to the 1700s, but it wasn't until the late 1870s that the light bulb race really heated up. During that time, the key competitors hailed from either side of the Atlantic: there were Thomas Edison and William Sawyer competing in New York, and Joseph Swan competing in London.

Swan led the pack early. He experimented with a number of materials, including carbon, platinum, and cotton thread. He successfully obtained a British patent for his work, along with a list

of firsts, including: first to light (produce lighting for) houses, first to light a theatre, and first to light a public building.

Meanwhile, in New York, Edison filed for his own patent on "Improvement in Electric Lights." Edison had also begun with carbon and platinum filaments before his team discovered that carbonized bamboo could last for over 1,200 hours. The bulbs created by Edison's team were no doubt groundbreaking—though it was suspicious that the work seemed to be largely based on designs by fellow American (and competitor) William Sawyer.

A usable light bulb had been invented, but by whom? There were now a lot of conflicting patents. Edison lost a suit in England, forcing him to cede his claim to Swan. Meanwhile, back in the US, William Sawyer's partner Albon Man was challenging Edison's patents on his home soil. Edison initially lost the case, but, after six years of fighting in the courts, he finally ended up on top. A few years later, he also managed to buy Swan's UK company out from

under him. From this time on, the legend of the Edison light bulb solidified in history.

By 1900, a few great minds had given us the telephone, recorded sound, electric light, and trains. It really was a new world.

CHAPTER 3

A New World

1900–1909

The year 1900 seems like an eternity ago. The world then was a completely different place. In 1900, the US population was 75 million, L. Frank Baum's book *The Wonderful Wizard of Oz* was newly released, and work on the New York subway system was just beginning.

In its introductory decade, the twentieth century saw many firsts. The 1900 Paris Olympic Games was the first in which women could compete. 1901 saw the first ever Nobel Prize ceremony. 1902 marked the year of the first theater devoted solely to films—

the Electric Theatre in Los Angeles. Four years later, the first feature-length film, *The Story of the Kelly Gang*, would be produced in Melbourne, Australia. A few other inventions of the decade were the washing machine, the vacuum cleaner, and the first entertainment radio broadcast.

Also, in 1901, Rudolph Diesel unveiled his diesel-design engine (running on peanut oil) at the World's Fair in Paris. The World's Fair had 50 million attendees and showcased other emerging technologies, such as "talking films," escalators, and the first magnetic audio recorder. At the time, Paris was a hub for technological innovation.

The borders of nations were also shifting as displays of power were made. The new imperialism was in full effect: The powers of Europe, the United States, and Japan were all trying to literally take over the world by owning ever-increasing areas of territory in Asia, Africa, and South America.

Meanwhile, great minds were at work: In 1905, Einstein's theory of special relativity was released to the world. It postulated that the laws of physics are the same everywhere for a stationary observer, and that the speed of light is constant. The theory hypothesized odd things—like light bending due to gravity, and black holes. Perhaps one of the strangest relativistic effects is what happens to an object as it approaches the speed of light. The closer to the speed of light the object travels, the heavier it gets. An object traveling just under the speed of light will be infinitely heavy. Einstein's theory also had some strange side effects, such as time itself being different depending on where you are and how fast you're going. For example, time slows down as one approaches the speed of light, an effect called time dilation.

This might sound far from everyday practical use, but special relativity is used every day. For example, if the clocks on our GPS satellites traveling around the globe at 10,000 km an hour (6,000

miles per hour) didn't adjust for time dilation, their measurements would be off by 8 km (5 miles) after just one day! Imagine trying to navigate using Google Maps with that kind of accuracy.

To have a mind that could foresee this effect in 1905 is incredible, but apart from Einstein, there were other great minds in the 1900s, working on ideas that impact our world today.

THE DAWN OF PERSONAL AUTOMOBILE TRANSPORT

The decade kicked off with a bang, or more specifically a sequence of very fast bangs. In the context of technology, the first few decades of the 1900s saw the widespread introduction of the internal combustion engine. In a way, this technology took the baton from the steam engine of the 1800s. You may be surprised to know that, during the 1800s, there were in fact steam-powered cars. These cars took up to 45 minutes to start up in wintry

weather and had to be topped up with substantial amounts of water, both factors which limited their range. There had to be better solutions.

And there were. The first hydrogen car appeared in 1808, while 1838 saw the first primitive electric car, and 1870 ushered in the first gasoline car. In 1885, Karl Benz produced the first gasoline-powered car that wasn't just a one-off (Benz's company would eventually become Mercedes-Benz).

A Lot of the First Cars Were...Electric?

Early gasoline-powered cars weren't perfect, however. To get them started, you needed a lot of muscle to wrestle with the hand crank; even changing gears was complicated. The throttle was actually on the steering wheel. For these reasons, electric cars were seen as the best way forward for personal transport. They

were whisper-quiet, easy to drive, and required relatively little effort to run.

Big names such as Ferdinand Porsche (founder of the Porsche motor company) and Thomas Edison went all-in on electric. Porsche's very first car, in 1898, was an electric model. One year later, Edison set out on a mission to make longer-lasting batteries for cars. He believed electric transport was clearly the future. Despite many attempts, he ultimately abandoned this vision a decade later.

Electric cars were perfectly fit for short trips around the city, as country roads weren't suited for cars at the time. By 1900, only 22 percent of cars were powered by gasoline, while 40 percent were electric, and the remaining 38 percent ran on steam.

At the turn of the century, the car (electric or otherwise) was seen as an expensive novelty. Only royalty and the very rich could

experience the benefits of personal automatic transport. To have a world where the common man could travel as he pleased required a disruption in the way cars were produced. Cars needed to be affordable. It was a man named Henry Ford who would bring this into reality.

Henry Ford: The Father of the Affordable Automobile

In 1891, the Edison Illuminating Company took on a bright twenty-eight-year-old engineer. He was a natural, and quickly rose up the ranks. In just two years' time, he was Chief Engineer. His name was Henry Ford.

Henry Ford was born on July 30, 1863, in Michigan. When he was thirteen, his mother passed away and his father decreed that Henry was to take over the family farm. Although he had great love for his mother, he despised the idea of a life of farm work. Ford showed interest in mechanical tasks as a child, and, when he was

around fifteen years old, he would repair watches for friends and neighbors.

At sixteen, Ford left the farm and worked in Detroit as an apprentice machine operator before being picked up by the Edison Company in 1891. In his spare time at the company, Edison would test out ideas for a horseless carriage. In 1896, he constructed his first car, cleverly named the Ford "Quadracycle." He would present the plans of his new vehicle at meetings with Edison company executives. Interestingly, Edison himself was eager to see another improved model from Ford. Three years later, Ford left the Edison company to work full-time on building a car.

After two failed attempts, the Ford Motor Company was established in 1903. The very first Ford was the Model A. It featured an 8-horsepower motor (horsepower—remember James Watt's term from chapter 1?) and sold for about $800–900, depending on whether you went for the two-seat or four-seat

version. 1,750 cars were made from 1903 through 1904, all in one color—red (perhaps because it made the car a little faster). The company had spent almost its entire $28,000 in initial investment funds and had only $223.65 left in its bank account when the first Model A was sold in 1903. It was make-or-break for the company at that moment, but fortunately the American people loved the car, and it went on to be a success.

Who Owned the Very First Ford?

On July 23, 1903, Chicago dentist Ernest Pfennig became the first owner of a Model A. The Model A didn't have a windshield, so Ernest may have gotten a bit of extra business in dental work over the years from other drivers of the Model A.

New Thinking Made Ford Different

After the Model A, the company produced a range of models, but they were expensive compared to some of the competition at the time. For example, the six-cylinder Ford cost $2,800 USD ($70,000 today), while the Oldsmobile Runabout (a competitor) cost $650 USD ($16,500 today).

As Ford cars became more successful, Ford had to find a way to reduce the cost of production while increasing output.

The secret to low cost was in the production method. At the time, fewer than ten cars could be made per day by groups of two or three men at Ford. The small groups would finish the individual components of the car before assembling them.

With the introduction of the Model T in 1908, however, a new method of production was tried. Ford had looked at other industries, such as flour mills, bakeries, breweries, and meat-packing plants, and drawn inspiration from their continuous-flow

methods of production. Parts for the Model T were created in bulk and then brought into the manufacturing plant. The assembly process was broken up into eighty-four steps. Each worker would be trained on just one task within the process. Ford even hired a motion-study expert, Fredrick Taylor, to make sure the jobs were made as efficient as possible. In addition, there were machines built to stamp parts faster than human beings could.

Nothing was more revolutionary in the automobile industry than the introduction of the assembly line. In 1910, Ford opened the Highland Park manufacturing plant in Michigan. In 1914, the introduction of mechanically-driven belts that moved at a speed of 6 feet (1.8 meters) per minute accelerated the pace of production even further.

The invention of the electric starter, back in 1908, took the manual effort out of starting the Model T's. This, combined with cheaper fuel and mass production, impacted the viability of electric cars,

which simply couldn't match the range of their petrol-based counterparts.

The Fruits of Efficiency

The time it took to produce a car fell from over twelve hours to ninety-three minutes. To highlight how much of a revolution this was, consider that in 1914, Ford produced 308,162 cars. This was more than all other manufacturers combined. By 1924, over ten million Model T's had been built. The price had now dropped from $850 to $260 USD ($12,100 to $3,700 USD today) per unit.

Assembly work, though monotonous, was not as bad a deal for the workers as one might think. The typical workday could be reduced from nine to eight hours due to the efficiency gains. The workers were paid $5 ($124 today) a day, double the industry standard at the time. Theoretically, factory workers could afford their very

own Model T's. The workers must have felt like rock stars as they tore up the street going 45 miles (72 km) per hour).

At this point, Ford had made the automobile available to the common man.

The Model T and its mass-production techniques transformed American culture and economy. Drive-in restaurants and movies began to appear, and motor hotels (motels) became a new concept. In fact, people could now drive anywhere (the cars were designed to handle rough terrain, snow, and even river crossings), and, as a result, businesses started popping up in rural areas.

Early cars and trucks impacted the steel, rubber, and glass industry, the food industry, and the entertainment industry.

By the 1950s, the auto industry was already employing nine million Americans. There was even a job called a "Tooter." A tooter's sole purpose was to listen to car horns in the factory and make sure

they were tuned to the frequencies specified by the manufacturer. Car horns usually had two tones: E-flat and G, for example.

THE DAWN OF HOME ENTERTAINMENT

While the Model T was revolutionizing life outside the home, audio entertainment was doing the same inside the home.

It's somewhat hard to believe the state of home entertainment a century ago. If we want music today, all we have to do is press a button, tap a screen, or even speak. Back then, it wasn't so simple. To enjoy music at home was to be privileged enough to have family members who played instruments. Sing-alongs were also a favorite. In fact, the phonograph's initial competitor was not another audio playback machine, but the humble piano.

Even though crude by today's standards, the Edison phonograph and the gramophone brought in a new realm of possibilities in

entertainment. The phonograph ushered in the idea of "private music" for the very first time. What a revolution to listen to music whenever you liked, without going to a live show. It's not difficult to see how this was a great idea for its day.

As the sound quality of records improved, they began to sell well. Along with this came mass production and effective marketing. Soon record prices dropped from two dollars to around 35 cents. In 1907, a recording of Enrico Caruso's cover of "Vesti la Giubba" became the first to sell a million copies. It was distributed by Victor Records.

GEORGE EASTMAN (KODAK): PHOTOGRAPHY BECOMES COMMON

With the press of a button or the light tap of our fingers against a glass surface, we have the power to freeze time, capturing a

moment forever. A frozen image can act as a direct time portal, allowing us to look back into moments in history as they were. Prior to photography, this could only be done by a skilled artist.

Around 1900, the photographic camera was vastly different from today's. It was bulky and complicated, and photographed subjects would have to stay perfectly still for six to eight seconds to take a single picture. If they moved, the image would blur. Imagine taking a photo with your friends under these conditions. A lost cause would be an understatement.

To actually create a photo, a photographer would have to pour and mix layers of chemicals over a large glass plate to make it light-sensitive. The plate would then have to be inserted into the back of the camera lens. The picture had to be taken before the plate dried, giving it the name "wet plate photography." The problem was that the glass plates were heavy, fragile, and cumbersome to

use. Only a professional photographer could put up with using such a system.

Wet Plate Photography

A young man by the name of George Eastman, of New York, had a casual interest in photography but struggled greatly with cameras. Even after professional lessons, he still battled with the uncooperative, messy chemicals. He knew there had to be a better way.

Eastman did the logical thing and researched to see if there were any better techniques of photography. Each night, he would study international photography journals. This turned out to be a good move, as it led to the uncovering of a new, simpler kind of photography. In England, British photographers were experimenting with so-called “dry plate” photography. These plates were pre-coated with the chemicals, so the mess was eliminated. It was a hidden gem. There was no internet back then to spread this new trend in photography to America, so very few Americans knew that the British had invented a superior photographic method.

Eastman then thought of the next logical step—to create his own dry plates. Why not? Being a high school dropout and never having studied chemistry could have been two reasons not to give it a go, but that didn't matter to him. He would soon get to work. Despite not having finished high school, Eastman had a day job as a bookkeeper at a bank. After work, he would spend all night attempting to make dry plates in his mother's kitchen, pouring chemicals onto glass plates and baking them in the oven. Eastman worked so hard that his mother would often find him asleep on the floor in the morning.

Eastman would test out his new plate technology by taking photos of a neighbor's house. One day, a local photographer saw the pictures and was curious. The local photographer bought some dry plates and recommended them to the Anthony Company, a leader in photo supplies in New York. Anthony Company was in the

business of finding new and innovative products, exactly the kind of stuff that Eastman had to offer.

Anthony Company offered the twenty-six-year-old Eastman a contract. By January of 1881, Eastman had his own dry plate factory in New York, while still working his bank job. He mixed all the chemicals himself and worked late into the night. When he went to work at the bank the next morning, his fingers would often still be stained black from the chemicals. He was determined to succeed. Soon, Eastman could afford to employ a small staff.

After a disagreement over a promotion, Eastman left the bank, a move which his co-workers saw as a big mistake, but it was Eastman who would soon be laughing. Photographers quickly found out about Eastman's invention and gladly left the drudgery of wet plate photography in favor of his simple, easy-to-use dry plates.

Unfortunately for Eastman, other companies soon caught on and began selling their own versions of dry plates. Eventually, the other companies' products exceeded the capabilities of Eastman's company, and he found himself looking at failure.

Eastman had to think quickly. Soon he came up with chemically-coated, rollable paper film. Instead of replacing a dry glass plate with another one to take another photo, you simply had to wind the roll to get to the next frame of film. It was a forward-thinking idea, and Eastman was excited about it. "We'll be able to scoop the world in the next few weeks!" he exclaimed to his staff. In 1885, he demonstrated his invention. Although it won a few awards, film material limitations meant that the image quality was not up to the standards of professional photographers. As a result of the quality issues, the paper-roll film was a failure on the market. Eastman was devastated, but, in a stroke of genius, he decided to turn his attention to why he had started all of this in the first place. It was

to make photography so simple that *anyone* could do it. Maybe the professionals couldn't see the use of rolls of paper as film, but perhaps the everyday individual would love to take casual snapshots, even if the quality wasn't perfect. It was worth a shot.

Bringing Photography to the Masses

In 1886, Eastman pivoted his plan from film production toward making an easy-to-use camera. It was to be the simplest possible design. Within a month of the idea's genesis, a camera was developed. Its name? The Kodak.

The Kodak was small. It had minimal moving parts, no focus and no viewfinder, and it came with the slogan, "You push the button, we do the rest." It was a revolution. No more complicated chemicals or glass plates, just a small box. The compact camera drew such interest, it was even mentioned in the novel *Dracula*, which was written in the same year. The Kodak camera was in some ways a

success, but at $25 (three months' wages in 1887), it was too expensive for most. To be a runaway success, Kodak just had to find out how to make the camera cheaper.

In 1888, George Eastman left his arrangement with Anthony Company and founded the Eastman-Kodak Company (now Kodak).

Brownie Camera

Real consumer success came with the Brownie camera. Eastman asked Frank Brownell, the company's camera designer, to design the least expensive camera possible, while at the same time making

it practical and reliable. His strategy was to aim the product at children who loved taking photos. Released in 1901, the Brownie was small, cheap (two dollars for the camera and one dollar for a roll of film), easy to use, and could take eight shots on one roll. It was an instant smash hit, with 250,000 units sold in the first year.

The Brownie changed the human experience. For the first time, anyone could capture moments in their own lives, something that had never been possible before in human history.

There were many times when George Eastman could have given up, but his determination truly changed the world. Today there are billions of cameras worldwide that fit in our pockets. Although they work by different methods, they give the same result—a way to preserve the special moments in our lives.

Interestingly, as we're about to see, it was Eastman who would indirectly aid in the discovery of plastic.

Where Did Plastic Come From?

Take a look around you. How many objects can you spot that are made of plastic? Who do we have to thank for this material that is so integral today?

Leo Baekeland was a Belgian-American chemist born in 1863. He was an intelligent student and had a PhD at age twenty-one. In 1889, he was appointed associate professor of chemistry at Ghent University (Belgium). In the same year, he was offered a scholarship to visit English and American universities. A professor at Columbia University in New York City convinced the young Belgian to remain in the United States.

Baekeland had a keen interest in photography, and after two years of hard work, he invented Velox, a photographic paper that could be developed under artificial light. It was the first commercially successful photographic paper (much more so than Eastman's

original paper film). In 1899, Baekeland would sell the Velox paper and the company he had formed to George Eastman of Kodak for $1 million USD ($30 million USD today).

With the money from Kodak, Baekeland was now a wealthy man and could afford to spend his time doing what he loved. In his case, that was performing chemical experiments. He built his own personal lab and made it his mission to find another area in the chemical sciences that could use his problem-solving talent.

He wrote in his journal: "In comfortable financial circumstances, a free man, ready to devote myself again to my favorite studies…I enjoyed for several years that great blessing, the luxury of not being interrupted in one's favorite work."

Many chemists in the late 1800s were trying to invent a new type of synthetic material that was hard and resistant to heat. Organic resins such as tree rubber existed but were not tough enough to

have a wide array of applications. Chemists were using two chemicals to try to form this new synthetic material: phenol (from coal and tar) and formaldehyde (from the combustion of methane).

A point of note: Formaldehyde is now known to cause cancer and can be found in car exhaust fumes and tobacco smoke. The experiments of these early chemists were dangerous without them even knowing it.

One such chemist, Adolf von Baeyer, succeeded only to create a "black guck" which he called "useless." A student of Baeyer's created a "mess" which he couldn't "do anything with once produced."

Nevertheless, Baekeland aimed his research and investigations at phenol and formaldehyde, hoping to succeed where others had failed. Painstakingly, he studied the experiments of Baeyer and others, slowly changing the variables until something useful

emerged. By individually modifying the temperature, pressure, and amounts of each chemical used, he eventually struck gold…or plastic. He found a material that was strong, lightweight, cheap, didn't shatter or crack, was resistant to heat, and best of all, could be molded into virtually any shape. He called this new material Bakelite, and it was the very first plastic. In 1909, he patented his invention and announced it to the American Chemical Society.

It was an instant success. This new material also took colored dyes well, which could make for bright and attractive products. Early uses included buttons, radios, telephone cases, lamps, chess sets, billiard balls, and plastic toys. Baekeland would receive many awards for his invention, and today Baekeland plastic products are considered a rare item for historical collectors.

THE WRIGHT BROTHERS DEFEAT GRAVITY

By 1900, becoming airborne was by no means a new achievement. The French had been flying in their air balloons since 1783. In 1900 itself, the first Zeppelin flew in Germany. However, floating, as these machines were doing, is a very different thing from flying like a bird in the way great minds like Leonardo da Vinci envisioned.

The first machines built for serious flying attempts were more than bird-like inspirations. They were often a direct copy, with large, mechanical, flapping wings (these machines are known as ornithopters).

Early flying was a very risky business. If you had an incorrect assumption about how a wing works, for example, it could lead to an early death.

Franz Reichelt was a tailor who believed a wearable parachute was a step toward human flight. After some successful initial experiments involving dropping the parachute with test dummies

from the fifth floor of his apartment building, Reichelt went on to test the technology on himself. In 1912, despite opposition from his friends and family, Reichelt jumped from the Eiffel Tower with his wearable parachute. The parachute failed to deploy, and he was killed instantly at the point of impact.

Otto Lilienthal made over two thousand glides in a hang glider in Berlin. His only form of control was to shift his body weight. Unfortunately, his glider plummeted to the ground after stalling during one of his test flights. He survived the initial crash but died from his injuries thirty-six hours later. Lilienthal's final words were "Sacrifices must be made." These words were also engraved on his tombstone, a somber reminder of what the mastery of flight meant to those brave enough to try.

Others had more success.

French inventor Clément Ader was the first to achieve self-propelled flight. The machine mimicked a flying bat. His first flight covered 50 meters on October 9, 1890. Later reports say he flew 180 meters in 1892.

Gustave Whitehead, a German immigrant to the United States, flew a steam-powered plane in 1899.

By now, many uncontrolled glides and short powered flights had been made. What had not been achieved was a heavier-than-air controllable craft that could carry a person under its own power. Many engineers and scientists around the world were trying to solve the mystery of flight, then known as the "Aerial Navigation Problem." The year 1900 had witnessed a whirlwind of innovation in transport, and there was keen public interest. The American and European people were thinking: after all, automobiles were here, electric cars were here…*surely* a flying machine had to be next!

In America, the humble bicycle was also taking over in a big way. In 1892, two brothers, Orville and Wilbur Wright (twenty-five and twenty-one years old, respectively) decided to get into the bicycle business. They started up a small bicycle shop in Dayton, Ohio, where they manufactured products by hand. After five years of this, however, Orville grew restless and felt he wasn't using all of his talents. Wilbur, meanwhile, had been watching the aviation progress from a distance. He decided that the brothers should give controlled flight a shot.

Control was the hardest part of flying. How do you steer something that is already in the air? While thinking about the problem, Wilber was standing outside observing birds in flight. From careful observation, he thought that maybe birds managed to turn by slightly twisting their wings. The brothers made a small box kite to test their idea. The string was attached to the wings in such a way that, when pulled from either end, the string would twist the

wing structure one way or another. This was called wing warping and was a simple but substantial breakthrough in aviation control.

The test kite worked perfectly, and the kite turned as expected when the wings were pulled and warped. In 1900, the brothers went on to build a full-scale version with additions to the control mechanisms. They tested this full-scale model at Kitty Hawk—a beach in North Carolina.

They made several successful small glides down a hill, but disaster struck in 1902. One day, as Wilbur was gliding and performing a turn, his body began sliding down the side of the wing, and he quickly lost control. The aircraft slammed into the ground. He was violently thrown and hit his head on one of the aircraft's support struts. Shaken but alive, a discouraged Wilbur admitted that man would not fly for another fifty years.

The brothers didn't give up, though. They resumed aviation experiments at their bike shop a few months later. In a flash of genius, Orville decided to build a small-scale wind tunnel in the shop, to validate their equations and test different wing shapes. The wind tunnel was a small wooden box with a 30-horsepower fan at one end and a glass top for observing the wings that were placed inside.

Orville measured each wing's performance in detail until he found the best design. Incredibly, this entire process of testing was pretty close to the modern engineering method. Impressive, especially considering Orville was a bike mechanic from 1902 with three years of high school education.

With the wind tunnel set up, Orville was the first to realize that the behavior of a wing is the same regardless of size—it was only the shape that mattered. Because of this fact, the brothers no

longer had to risk their lives by building full-size models. There was no need to jump off mounds to see if a wing design worked or not.

By 1902, they had perfected their design and could now reliably control the glider.

The next year, they were ready for the main show—powered flight. Using the skills of an in-house machinist from their bicycle shop, the brothers produced an engine and a pair of propellers.

However, things were about to change. Some details about their glider had been leaked and published in a French journal, re-sparking an international interest in flying. The Wright brothers had a head start, but it wasn't for long. The French were also turning their eyes to the skies. The race to conquer the air was on!

Taking to the Skies

It was the morning of December 17, 1903, at the sandy beaches of Kitty Hawk. The engines and propellers had been fitted to the aircraft, and it was ready for its first secret test flight. The brothers shook hands somewhat solemnly, as though it was their final time seeing each other, and split—Orville to the plane, Wilbur to observe. Orville started the engines. A loud noise could be heard as the engines began to rev. History was about to change.

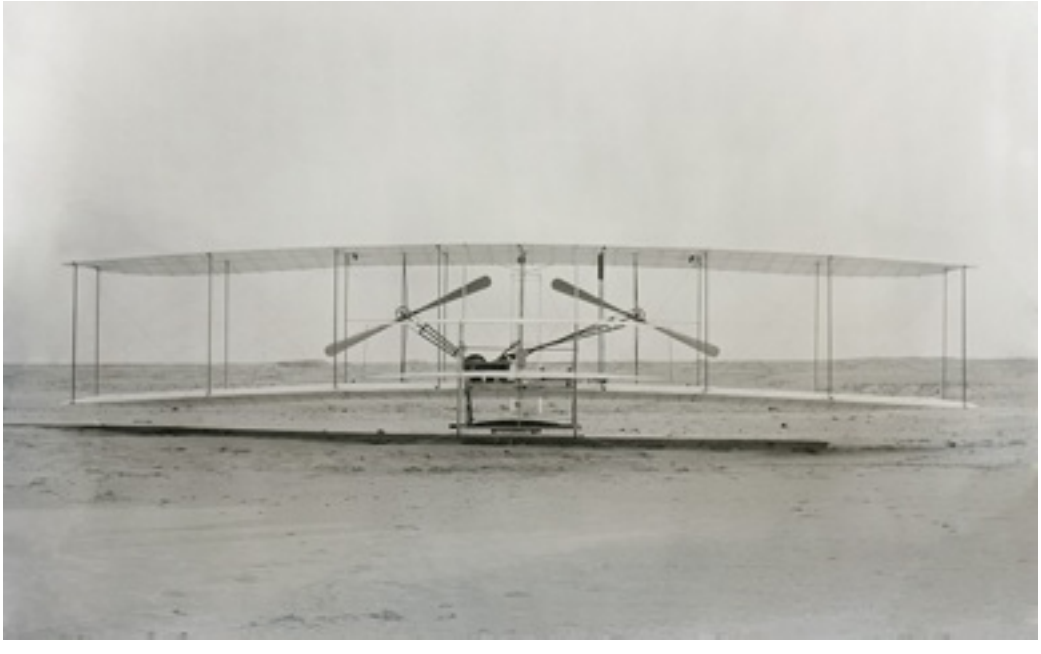

Wright Brothers' Plane

Just seconds later, the plane steadily moved forward and lifted off the ground. It flew for twelve seconds. The world's first fully-controlled powered flight had been achieved. They flew four times that day, the longest flight being fifty-seven seconds. Man had taken

to the air. The brothers telegrammed the details to their father in Ohio.

By 1905, with further improvements, the Wright brothers were flying for thirty minutes. However, the brothers had an issue. They were looking to sell their invention, but how? They were afraid that, if they demonstrated the technology publicly, it would be stolen, as they had not yet obtained a patent. They were in the unusual position of trying to market their "flying machine" without ever showing it to a customer. Regardless of this fact, their first thought was to target the US government as a potential customer. The deal went something like this: Sign the contract and give us a list of things you would like our flying machine to do. We'll go out and make sure it can do those things; then, if it does, you can pay us.

The American government rejected the offer.

The brothers then turned to Europe. At this time, Germany and France were on the verge of war, so the pair thought that either party would be very interested in just such a flying machine. The asking price? $200,000 USD ($5.2 million today). Both countries refused to pay so much for something they couldn't see.

Meanwhile, in Paris, powered flight had just been achieved by Alberto Santos Dumont. The French were catching up. Despite the plane only being able to fly in a straight line, the people of France were amazed and hailed Dumont as the father of aviation.

Back in America, the Wright brothers had received their patent (for aerodynamic control technology), but they still wouldn't show anyone the plane. They feared their design secrets would be stolen by spying onlookers. With no physical plane and only claims, doubts began to rise over the legitimacy of the brothers' assertions. The French were especially scornful and suspicious;

they were fast becoming the perceived leaders in aviation, while the Wright brothers sat on their invention.

By January 1908, Frenchman Henri Farman was flying in a circle over a total distance of 1 kilometer. The control was crude, but it was control nonetheless. The Wright brothers were starting to look like fools on the world stage.

Fortunately, word reached President Roosevelt of the claims by the Wright brothers. He sent the Army to investigate this so-called "flying machine." The Army negotiated a $25,000 deal with the Wright brothers to supply them a plane.

The deal was as follows: Produce a plane capable of carrying two men 125 miles (200 km) at 40 miles (64 km) per hour for a flight time of one hour.

The brothers agreed. Now, they could finally prove to the world that their machine flew.

Their first targets were the skeptical Europeans, particularly the French. On August 8, 1908, a crowd gathered near Le Mans in France to witness the Wright brothers' flying machine with their own eyes. In the middle was the Wright brothers' plane with Wilbur at the controls. With all eyes focused on him, he started up the engine and was flying a short time later. The crowd rose to its feet in simultaneous astonishment.

As the plane made smooth, controlled turns, it was clear that the brothers had not been lying. They had been vindicated! The French news outlets admitted that this aircraft was far beyond what their local engineers had achieved. "We are beaten," remarked some of the French papers of the day.

Today, there are over 100,000 flights per day and over 37 million every year. Of course, there were many contributions to aviation after the Wright brothers, but the fact remains that the true

origins of air travel were very humble: two bicycle makers with a high school education and a keen sense of intuition.

To Ohio and Beyond

Neil Armstrong (also from Ohio) carried a piece of the Wright brothers' plane with him as he set foot on the moon in 1969. It was a piece of fabric from the left wing.

And so, it went: By the year 1910, humanity had mass-produced cars, personal music, aircraft, small personal cameras, and plastic. The opening decade was a sign that this century would be very different from the last.

CHAPTER 4

Innovation and the Great Conflict

1910–1919

Carrying on from the last decade, the 1910s continue with innovation and the expansion of new ideas. In 1912, a complete concept of "continental drift" (movement of land masses) is introduced by German geophysicist Alfred Wegener. Also, in 1912, the Titanic sinks, and the first Olympic games with electronic timing (and photo-finish) technology take place in Stockholm, Sweden. The record for the 100-meter sprint is set by Donald Lippincott with a time of 10.6 seconds.

Stainless Steel

The year 1912 was also the year stainless steel was invented by Harry Brearley of Sheffield, England. In the build-up to World War I, the UK was strengthening their military might. The Royal Arms Munitions factory in London was having some difficulty with erosion inside their rifle barrels, causing poor accuracy. They invited Brearley, who was head of Brown Firth Labs (a steel maker), to take a look at the situation. After experimenting with adding more chromium to a mix of metals used to make standard steel, Sheffield stumbled across something peculiar—a steel that did not corrode or rust. A stainless steel.

At the time, steel rusting over time was a fact of life—as sure as wood rotting. Surprisingly, Harry was virtually alone in his vision of the endless applications for stainless steel. His superiors thought further applications were a waste of time and that he should leave his tinkering alone. Following World War I, the full potential of stainless steel was finally realized. Today, stainless steel is used in

everything from cars and cutlery to buildings and electronics. Currently, almost 46 million metric tons of steel are produced globally.

First Animated Feature Film

The 1917 seventy-minute film, *El Apostol*, by Quirino Cristiani of Argentina was the first animated film ever made. It was well received by audiences. The film was a tongue-in-cheek commentary on the politics of Argentina. It featured the president ascending into the clouds before using thunderbolts to rid Buenos Aires of all corruption, leaving behind a burning, smoldering city. The film would literally be smoldering in 1926 when the film studio it was in was consumed by a fire. There was only one copy, meaning it was unfortunately lost forever.

Toast, Anyone?

Long before millennials and their obsession with avocado toast, the first toasters prepared bread in front of a hot fire. The first mass-produced toaster was the "D-12," manufactured by General Electric and invented by Frank Shailor in 1909. It was a bit of a pain because you had to stand next to the toaster and turn it off when the toast looked done. It also only did one side at a time.

The year 1914 saw a Westinghouse version of the toaster, but it wasn't much better.

The real breakthrough came in 1919, when Charles Strite invented the first pop-up toaster, which used heated electrical coils to toast bread. The problem back then was that all bread was cut by hand, so slices were of different thicknesses, but over the next ten years, bread-slicing machines gained in popularity. As this happened, slice sizes became standardized, enabling the widespread adoption of the electric pop-up toaster. Today, the toaster is the most common household appliance in the United States.

WORLD WAR AND INVENTION

While innovation was moving along at a steady pace, things were beginning to heat up politically. The world would soon erupt in the worst war yet seen. As you'll see later in the chapter, it was against this backdrop of the horror of war that rapid technological advancements were made. To fully understand the scope of technological progress at that time, we must understand the events surrounding the First World War.

Battle Beginnings: The Powder Keg of War

The world's power balances were changing. In 1910, the eight-hundred-year-long monarchy ended in Portugal. In 1911, Italy and Turkey were at war. A 1912 revolution overthrew China's last dynasty to create the Republic of China. All this while, alliances had slowly been forming in Europe. On one side were Great Britain,

France and Russia (the Triple Entente), and on the other, Italy, Germany and Austria-Hungary (the Triple Alliance). The situation was a powder keg ready to explode.

With the industrialization of most of Western Europe, and the newly formed alliances, an arms race was underway. A freshly emergent and unified Germany baffled Europe with its prosperity and technical abilities. Great Britain and France in particular were increasingly worried about this new German nation. Meanwhile, the second largest country in Europe, the fifty-year-old Austria-Hungary, was faced with growing dissatisfaction from its Serbian Slavic community, who made up a staggering 50 percent of the population. The Slavic (ethnic eastern European) people felt they were not treated as equals with the Austrians and Hungarians in the region.

The Austro-Hungarian empire was an industry powerhouse. It had the fourth-largest machine-building industry on the planet, behind

the United States, Germany, and the UK. Austria-Hungary was also the world's third-largest manufacturer and exporter of electric home appliances, electric industrial appliances, and power-generating equipment for power plants, behind the United States and the new German empire. They were a technologically advanced nation for the day and a power to be reckoned with.

The leader of Austria-Hungary was eighty-one-year-old Franz Joseph I, who was unwilling to change his ways of governing, which involved marginalizing the Slavs. The successor to the throne was Archduke Franz Ferdinand. He was a radical departure from Joseph I and wanted to bring peace to the nation by giving the Slavs a fair chance.

June 18, 1914: While on a tour of Sarajevo, Bosnia, Ferdinand is greeted warmly by the people. That is, until a bomb bounces off his car and explodes behind him. Despite suggestions to cancel his tour, he continues down the road, only to be shot and killed by

Gavrilo Princip, a nineteen-year-old Bosnian radical. Princip had conspired with five Serbs on the assassination but failed to understand that Ferdinand wasn't the bad guy and was, in fact, in favor of the equality of the Slavs. The goal of the assassination was for the southern Slavic states to break free of Austria-Hungary and form their own state: Yugoslavia.

It wouldn't be long before the eighty-one-year-old leader of the Austro-Hungarian Empire declared war on Serbia as revenge (they were considered brothers of the Slavs).

This declaration was all it took for the global alliances to click into place: The Russians, British, and French backed the Serbians, while the Germans and Ottoman Turks backed the Austro-Hungarians. This single bullet that killed Franz Ferdinand was the match that ignited the powder keg.

WORLD WAR I: THE GREAT CONFLICT

At the start of the war, armies were riding horses. By the end, they were fighting with tanks on the ground and planes in the air. When your country is at stake, you must innovate to win or die trying. These factors led to World War I being the first industrial and scientific war.

Although Austria-Hungary was technologically advanced, they were falling behind in the arms race due to economic troubles. For example, the country was still attempting to use balloons for reconnaissance missions instead of planes.

The Germans and Austro-Hungarians thought the battle with Serbia would only last four to five weeks, but the Serbian army (one-tenth their size) put up an incredible fight and actually defeated Austria-Hungary in three battles with great losses. The

conflict was quickly shaping up to be more difficult than first thought.

Meanwhile, Britain, the economic and military superpower of the world and undisputed leader of the sea, had a plan to bring down Germany. Britain used its shipping might to block off food supplies to Germany to starve the nation into submission. In retaliation, the Germans used their ships to block off food and military supplies to Britain. The Brits had somewhat expected this, but they were not prepared for a new innovation the Germans had up their sleeve: a brand new weapon named the Unterseebot (meaning "undersea boat"), or U-boat. A U-boat was basically a submarine. Although common today, this required an immense amount of engineering expertise with the technology available in the 1910s to reliably work in combat. The German U-boats could launch torpedoes at enemy ships without them ever seeing their destruction coming.

Innovation at sea would only be outdone by innovation in the air.

Advances in the Air

By 1915, the world's first strategic air attack was conceived by the Germans, who bombed Britain using blimps.

Not long after, the Germans gained air superiority on the Western front by designing one of the first planes able to fire a machine gun through its propellers. They did this with a mechanical device called a synchronization gear.

By 1917, with the ship blockades still in effect, the citizens of most of the European powers were beginning to suffer food shortages; the war needed to be decisively won. As a result, aeronautical engineering—which began with the Wright brothers just a short time earlier—was advancing at a rapid pace. And soon, fierce dogfights were happening in the sky.

Britain's answer to Germany's air power was strategic bombing. Large British biplane bombers were soon built; these planes were some of the largest aircraft in the world at the time.

Bentley and BMW's First Gig Was in the Sky

Before the war, Walter Owen Bentley and his brother, Horace Millner Bentley, were car salesmen in London. Deep down, however, Walter had always wanted to design and build his own cars, not sell other people's. One day, in 1913, he noticed an aluminum paperweight and an idea was sparked. What about replacing the heavy cast-iron pistons in cars with lighter aluminum ones? During the war, these lightweight Bentley aluminum pistons would soon be used in the famous British Sopwith Camel aircraft engines. After the war, Walter used his experience to found Bentley Motors Ltd. Today, Bentley is arguably the most prestigious car brand on the planet.

In April 1917, Bayerische Motoren Werke (BMW) came into existence. BMW's first product was the BMW IIIa aircraft engine for the German war effort. The IIIa engines were good performers and fuel-efficient. The war effort meant that BMW could expand its operations quickly, if only in aeronautics. This first engine demolished the competition. Planes equipped with it could outmaneuver and outclimb anything else in the air. Along with speed records, this BMW engine helped power a biplane to a record 32,000 feet (9,750 km) in 1919. That's roughly the altitude you cruise at today in a passenger jet, and that was in 1919!

Today, BMW still designs the interiors of the first-class sections in Singapore Airlines jets.

The Birth of the Documentary

As the war raged, there was great interest in the events. Newspapers could tell the story, but the newly formed film industry could do a much better job. A picture may be worth a thousand words, but fifteen to thirty pictures every second can be worth much more. Some films of this period took on a different structure. Their sole purpose was to document events. These types of films would be known as documentaries, and the war helped the format come to prominence.

An End to Conflict?

It was the lower ranks of the Russian army that rose first against their superiors. The army had lost 1.8 million men and enough was enough. The Russian civilians were starving and there was revolution in the country. The nation pulled out of the war in November 1917.

In Russia, the war had caused economic destruction, allowing the perfect backdrop for one of the biggest revolutions the world had ever seen: the establishment of Communism.

Exhausted, the French army also refused to fight, and the nation pulled out soon after. Now it seemed the Germans and Austro-Hungarians had the upper hand.

It wasn't until a German U-boat sank a passenger liner carrying Americans into British waters, and the Germans prompted Mexico to attack the United States, that the US was forced to enter the war.

Fresh American troops helped push Germany back and turn the tide. The final assault from Germany wasn't enough and, defeated, they signed an armistice agreement on November 11, 1918. When the dust finally settled, a total of 37 million military personnel and civilians had lost their lives.

The war's end triggered the collapse of five of the last modern empires: Russian, Chinese (due to internal turmoil), Ottoman (Turkey), German, and Austro-Hungarian. Another era had ended, and a new one had just begun.

PERSEVERING THROUGH TOUGH TIMES

Although war had ravaged the world, at this time, there were several creative and dedicated individuals building companies which would become household names. In some cases, the demands and wider ramifications of the war actually served as a springboard for their success. We'll visit a few of those stories now.

Sharp Corporation: It all Started with a Pencil

In 1915, Tokuji Hayakawa, a Japanese businessman, received a contract to make metal fittings for use in a mechanical pencil. After

studying the design of the entire pencil, he noticed that it was fragile, and he thought he could do better. Seeing the business potential in a practical mechanical pencil, Hayakawa got to work, often neglecting eating or sleeping. Eventually, he managed to improve the internal design, making it much more durable.

With more tweaking, he made the device easy to use and reliable. The result was a modern, twist-type, mechanical pencil (called "Ever-Sharp"). Tokuji Hayakawa would team up with his brother Masaharu Hayakawa to sell the pencils, producing 1,400 a month.

To get the ball rolling, the pair went to a number of stores to try to sell their product, but the stores were critical and showed little interest. However, the brothers didn't give up. They eventually came across a high-class stationery store that showed interest, though the store requested thirty-six revisions of the product from the brothers before finally accepting it.

Strangely, it would be World War I that was their savior. The breakout of war in 1914 made it difficult for the US and Europe to get hold of German-made mechanical pencils. The brothers' pencils were the only ones that matched the quality of the German product. The pencils began to gain popularity in the US and Europe as a consequence. This Ever-Sharp mechanical pencil is where the Sharp Corporation derived its name. From pencils, Sharp went on to produce radios and Japan's first locally-made TVs. In the 1960s, they would create Japan's first mass-produced microwaves and solar cells, as well as the world's first all-transistor desktop calculator.

Sharp's innovations continued throughout the decades and today, under the ownership of Foxconn, they have 42,000 employees and $15.1 billion in assets.

Panasonic: Picking a Gap in the Market

Panasonic (originally "Matsushita Electric Housewares Manufacturing Works") was founded in 1918 by Konosuke Matsushita. Matsushita was the son of a wealthy businessman who lost all his money in rice speculation.

In 1918, Konosuke Matsushita set up Panasonic in his two-story home in Osaka, Japan. The staff consisted of three young people: the twenty-three-year-old Matsushita, his wife, twenty-two-year-old Mumeno Iue, and Mumeno's fifteen-year-old brother, Toshio Iue. Interestingly, Toshio would go on to found Sanyo.

Although Panasonic's first product was a fan insulator plate, Matsushita had great insight into the world of business and was convinced there was a huge untapped market for well-designed, high-quality household electrical fixtures. Matsushita saw a gap in the market and went straight for it.

Matsushita stayed up late at night refining his designs, ultimately choosing to manufacture two new products: an attachment plug for light bulbs, and a two-way socket (also for light bulbs). They proved popular, as they were of higher quality than other products on the market. With a small staff, Matsushita could keep his costs down. As a result, his products were 30 to 50 percent cheaper than the competition's.

By the end of 1918, the company was employing twenty people. In the coming century, Panasonic would move on to bicycle lamps, then electrical components such as vacuum tubes, electric irons, radios, record players, VHS VCRs, and even a Japanese-made IBM PC in the early 1980s.

Today Panasonic has 257,533 employees, and $65 billion in revenue, $53.3 billion in assets.

IBM

In 1911, four companies (The British Tabulating Machine Company, International Time Recording Company, Computing Scale Company, and the Bundy Manufacturing Company) merged to form the Computing Tabulating Recording Company (CTR) in New York.

CTR manufactured a wide range of products, including coffee grinders, automatic meat slicers, employee time-keeping systems, weighing scales, and punch-card equipment. Although CTR's company make-up didn't change, the name was changed to International Business Machines (IBM) in 1924.

It was the punch-card business that would prove to be IBM's strongest business at its genesis.

Back then, a computer was a person who calculated arithmetic sums. It was an actual profession—not hard to see where the

modern computing machine first got its name. We will explore IBM further in the 1980s (chapter 11) when we look at computing.

Today, IBM has 380,000 employees and is an emerging player in machine learning.

Boeing: Crash My Plane and I'll Build a Better One

It had only been thirteen years since Orville and Wilbur Wright first took powered and controlled flight, but an industry in the air was already forming. William E. Boeing would become one of the biggest names in the industry. Boeing had a background different from what you might expect. He was a lumber company executive from Michigan. William Boeing had success shipping lumber to the East Coast of the US using the newly established Panama Canal.

In 1909, Boeing saw his first plane at an exposition in Seattle and was fascinated. He took flying lessons and soon bought his own

plane, though it was an accident that created one of the largest aircraft manufacturers the world would ever see.

Boeing's test pilot, Herb Munter, damaged Boeing's plane during a flight. Upon hearing that the replacement parts wouldn't come for months, Boeing remarked to his friend Conrad Westervelt of the Navy, "We could build a better plane ourselves and build it faster."

Boeing asked Westervelt to design a plane, which Boeing would build. The result was an amphibian seaplane with impressive performance. Confident in their abilities, the pair decided to start their own company, Pacific Aero Products Co., in 1916.

In 1917, America entered World War I and the nation needed planes. The US Navy signed a contract with Pacific Aero Products Co. (who had just changed their name to Boeing Airplane Company) for fifty aircraft.

When World War I ended in 1918, a surplus of cheap, used military planes flooded the commercial airplane market, preventing aircraft companies from selling any new planes and driving many out of business. Boeing was forced to start manufacturing other products. Strangely, Boeing would build dressers, counters, and other furniture, just to stay afloat in this tough time!

Gradually, as the market improved, Boeing went back to aircraft, concentrating on commercial aircraft this time. Boeing started with airmail carriers, which later led to passenger services. One of these ventures would directly result in United Airlines.

Today, Boeing has 147,680 employees making 748 commercial aircraft, 180 military aircraft, and around five satellites per year.

The Boeing Factory

The current Boeing Everett factory in Washington is so large that, when it was being built, there were clouds forming near its ceiling. The factory has over one million light bulbs, and there are 3.7 km (2.33 miles) of pedestrian tunnels running beneath it.

End of a Decade

By the end of the 1910s, the Great War had accelerated aircraft technology to what can be seen as the beginnings of the modern era.

The world had been reshaped: People were tired of hardship and ready to move forward. A time of peace and technological advances followed, bringing unprecedented economic growth for most of the world. In the United States, this period would be affectionately known as the *Roaring Twenties*, and more quaintly in France as the *Crazy Times*.

CHAPTER 5

Gears in Motion

1920–1929

When researching this chapter, I was surprised to see just how many mainstream inventions came from the 1920s. While the automobile was changing culture, the 1920s was also the beginning of mass adoption of electronic products like telephones, radio, and kitchen appliances. Instant media broadcasts also changed culture for the first time. Celebrities were no longer scientists and philosophers, but sports stars and movie stars. Other novel inventions of the 1920s include the children's jungle gym, bubble gum, hair dryers, the car headrest, the lie detector, bulldozers,

cheeseburgers, and the drive-through (oddly, first invented by City Centre Bank in 1926).

In this chapter, you'll see the technological bedrock that was being laid for the twentieth century. TV, color movies with sound, mass production of consumer goods—these are all things that didn't exist in the 1910s.

THE MOST PROSPEROUS NATION ON EARTH

There was significant economic prosperity in the United States following World War I. Mass production through mechanization was the name of the game. Higher profits were generated as new machinery and manufacturing methods were introduced, and an increase in living standards followed. At the same time, automation broke out from the automobile industry and became mainstream—everything from biscuits to fridges was now mass-produced. Life

seemed much easier, not only in contrast to the horrors of war, but also because technology had become part of people's lives. This technology brought jobs: boilermakers, riveters, foundry men. The lingering grasp of steam power was finally set aside as it gave way to oil and electricity.

By the end of the 1920s, a lot of the middle class in the United States could enjoy a lifestyle never seen before. It was no more evident than in the "modern" home. Technology became a part of everyday life, and the middle class had the extra money to afford it. The vacuum cleaner replaced the carpet beater. Mass-produced electric fridges, sewing machines, and ovens now existed. Everything from the pop-up toaster to the food blender saved countless hours of work in the home.

Mass production also brought in the age of mass advertising, and $1 billion per year ($14 billion today) was spent on advertising in the United States. These were good times, with new forms of art

and music seeping into culture. In Europe, however, things were very different.

Germany After World War I

The Treaty of Versailles (a forced admission of guilt, and a set of economic and political punishments against Germany) destroyed the German economy. Out of 440 clauses in the agreement, 414 were aimed at punishing Germany. In 1922, German inflation was out of control, and goods were rapidly getting more expensive.

Employers would pay citizens with suitcases full of money. As soon as they were paid, employees would have to literally run to the store. By the time they got there, the prices would have risen. Prices doubled every two days at the peak of inflation. To give you an idea, in January of 1923, a slice of bread cost 250 marks. By November of the same year, it cost 200 million marks.

The Rise of the Car

One of the biggest drivers of the American manufacturing economy was the automotive industry. Henry Ford's impact on mass production created jobs and a cheap enough product for the working class to afford. In this way, America was able to ride out its initial halt in prosperity in 1920.

Sales of the Model T hit ten million in 1924. The car became one of the biggest businesses in the US. Even car scrapyards boomed. With employment at an all-time high, factory workers were even buying shares in the stock market. By the mid-1920s, one in five Americans owned a car. It would take Britain forty years to match this rate of car ownership.

America was now the leader in manufacturing, and Henry Ford's production methods were spreading all over the nation, even to

Europe. Fiat in Italy was one of the first in Europe to copy Ford. Interestingly, their factory had a test track on the roof!

RADIO CHANGES CULTURE

Today, radio seems like a relic of the past, but this technology had a huge impact on popular music, advertising, and culture as a whole. A new technology that allowed anyone to hear information about the world rapidly—much faster than any other medium—was a big deal. In 1920, radio exploded. There were five thousand home listeners at the start of the year, and eighteen months later, three million families had radio. Four years later, this number would be fifty million families.

In the 1920s, everybody tuned into the radio, and it became the very first form of "instant mass media." People from across a nation could have an instant shared experience. In the evenings,

families gathered around the radio, and seeing a crowd on the street listening to the latest news was not unusual. Broadcast plays, sports, and music were a great delight for the people of the day.

Interestingly, the word "broadcasting" was originally an agricultural term for the wide scattering of seeds. It does make sense when you think about it.

Eat Your Wheaties

Advertisers soon also took advantage of this new medium. On Christmas Eve of 1926, the cereal company Wheaties aired the first commercial jingle, and immediately became the best-selling cereal in the United States. The potential of radio was immense, and by 1941, two-thirds of radio programs carried advertising.

Radio's Lasting Impact

Television owes a significant debt to the Golden Age of Radio. Major radio networks such as NBC, ABC, and CBS are still powerhouses within the media industry today. Entire musical genres, such as jazz and rock and roll, were enabled by radio. Perhaps one of the most respected companies of the twentieth century that arose from radio was the BBC (British Broadcasting Corporation).

In 1920, the first British radio broadcast was made. The public were enthralled, but broadcasts were soon banned, as it was thought to interfere with military communications. The public spoke out, and by 1922 there were petitions and many license requests to broadcast. The licensing authority of Britain decided to issue only one license, to a single company owned by radio receiver manufacturers. This eventually became the BBC. Interestingly, it was originally financed by the sale of radio sets from the manufacturer members.

War of the Worlds Broadcast

There is perhaps no greater illustration of radio's power than the infamous War of the Worlds CBS broadcast from New York. On Halloween night in 1938, a radio producer named Orson Welles told listeners that they would be listening to an audio adaptation of the science fiction novel on alien invasion, *The War of the Worlds*. Sounds like a normal evening presentation, but there was one problem. Some listeners tuned in late and missed the disclaimer that the broadcast was just a performance. The latecomers thought it was a real news story and that cities were being attacked by aliens. It sounds funny today, but back then it was truly traumatic. Almost two million people believed the story to be true. Some listeners called loved ones to say goodbye or ran into the street armed with weapons to fight off the invading Martians. Two Princeton University professors spent the night searching for the meteorite that had supposedly preceded the invasion. As calls came

in to local police stations, officers explained that they were equally concerned. It eventually came to light that the broadcast was a fictional story, though I'd imagine the officers were both relieved and annoyed.

WHO INVENTED THE TV?

The predecessor of television goes back to the 1880s with the Nipkow disk by Arthur Korn, but the technology at the time failed to yield any form of device for viewing meaningful images.

Enter John Logie Baird, a Scottish engineer. In 1923, at thirty-five years of age, Baird rented a workshop in Hastings, England. He set out to solve the problem of television. With no corporate backing, he needed to get creative. Using only regular household items, such as the box packaging of a hat, a pair of scissors, some darning

needles, a few bicycle-light lenses, a used tea chest, and glue, he created the first primitive television.

Two years later, in March of 1925, Baird gave the first public demonstration of his system at a department store in London. At the time, it was only capable of displaying silhouettes. On the October 2, 1925, the first successful TV transmission was made—a black-and-white image of a dummy named "Stooky Bill." This broadcast was between two rooms in his London laboratory, and the image had thirty lines of resolution at five frames per second.

As the picture came up on the display, Baird was most pleased. He stated: "The image of the dummy's head formed itself on the screen with what appeared to me an almost unbelievable clarity. I had got it! I could scarcely believe my eyes and felt myself shaking with excitement."

A dummy was nice, but he quickly realized that a human face would be more exciting. Unable to tame his eagerness, Baird got hold of office worker William Taynton. Taynton, wondering what all the fuss was about, would soon be the first person to be televised. Despite the breakthrough of being the first man on television, Taynton was less than impressed.

When Baird asked what he thought of his invention, Taynton replied, "I don't think much of it, Mr. Baird, it's very crude." Undeterred and looking for publicity, Baird visited the *Daily Express* newspaper to promote his invention.

To give you an idea of how outlandish the idea of a visual wireless broadcasting system was, a *Daily Express* news editor was terrified, and was quoted as saying to one of his staff: "For God's sake, go down to reception and get rid of a lunatic who's down there. He says he's got a machine for seeing by wireless! Watch him—he may have a razor on him."

By January of 1926, Baird's TV had been improved to show 12.5 frames per second (about half as smooth as today's broadcasts). A color version arrived in 1928, and by 1929, the first television program was produced by the newly established BBC in London, with the help of Baird's new company—the Baird Television Development Company Ltd.

Baird set up a branch of his company in France, making it the first French television company. More feats would follow, including the first televised drama show in 1930 and first outdoor broadcast in 1931, through the BBC. The days of Baird's mechanical systems were numbered, however. In 1923, Vladimir Kosma Zworkin invented the cathode ray tube, a fully electric way of doing what Baird's mechanical system did.

In the later years of the 1930s, electronic TV systems came into the picture, and Baird's mechanical system was finally abandoned in 1937. Baird wasn't done, though. He continued to work with new

electronic technology, and on August 16, 1944, he gave the world's first demonstration of a practical, fully electronic color TV. Notably, Baird had also invented a 1000-line imagining system (more lines mean higher resolution). Theoretically, the image quality would be comparable to today's HDTV. Back in 1943, this was an incredible achievement! Unfortunately, plans to implement the system fell through, and its spiritual successor wouldn't be realized for another sixty years, until 2003.

Baird, a Colorful Man

Baird was a rather eccentric character, and some of his inventions mirrored this. These included a glass razor (that unsurprisingly shattered), pneumatic piston shoes (which burst in spectacular fashion), and a method of creating diamonds by heating graphite (unfortunately shorting out Glasgow's electricity supply).

One day, during one of his unusual experiments, he burned and shocked himself on a 10,000-volt supply. Fortunately, it was only his hand that was burned. Unfortunately, this resulted in an eviction from his property. Despite his oddities, Baird has been honored around the world: In Australia, the Logie Awards are named in honor of John Logie Baird.

Following a UK-wide vote in 2002, Baird was ranked number 44 in the BBC's list of the 100 Greatest Britons.

In 2014, he was inducted into the Society of Motion Picture and Television Engineers.

Film Gains a Sonic Dimension

Post-WWI, Europe's exhaustion and physical destruction made film production scarce. This opened the door for US films to take

center stage. One of these films would change the world of cinema forever.

The Jazz Singer, released in 1927, was cinema's response to radio. It was the first feature-length movie with sound. The technological breakthrough for *The Jazz Singer* was enabled by something called a Vitaphone, invented by Warner Brothers and First National. The soundtrack to the movie was played on a separate phonograph record in sync with the projector motor, a feat which had not been reliably achieved up until that moment.

"Vitaphone" means "living sound" in Latin and Greek, respectively.

Hearing sound that corresponded to vision was nothing short of awe-inspiring for the audience. The Jazz Singer smashed previous box-office records and established Warner Brothers as a major Hollywood player.

AIRCRAFT BECOME THE FUTURE OF LONG-DISTANCE TRANSPORT

Airmail was trialed in the early 1920s, but it was dangerous. Of the forty pilots flying on the initial postal route, thirty-one died in crashes. Although the Wright brothers had proved that controlled flight was possible, traveling reliably by air was far too dangerous and would never become a reality…or so the public perception went. This would all change in 1927.

A twenty-four-year-old Charles Lindbergh, just one year out of army flight-training school, was one of those airmail pilots. He was delivering mail from St Louis to Chicago for $81 ($1,414 today) per week.

At the time, there was a running competition to fly solo non-stop from New York to Paris for a prize of $25,000 ($352,000 today).

At the time, planes were viewed as too dangerous to complete such a feat, and six pilots had already lost their lives attempting this treacherous journey across the Atlantic.

Lindbergh believed that he had the skills to do the impossible; he dreamed of changing history. The biggest challenge of the flight was deemed to be simply staying awake. To prepare for this, Lindbergh went fifty-five hours without sleep before the flight to test his endurance.

The Pivotal Flight

On May 20, 1927, Lindbergh took off from Long Island, NY in his $10,000 custom monoplane, *The Spirit of St Louis*. He was going to attempt the challenge. Lindbergh had packed a modest meal of five ham sandwiches for the thirty-three-and-a-half-hour journey. Unfortunately, the sleep-endurance training wasn't enough. Twenty-four hours into the trip, he reported hallucinations,

claiming that the "fog islands" moving below the plane were "speaking" words of wisdom to him. Despite this, Charles fought the sleep and pushed through.

At the time and place Lindbergh was scheduled to land in Paris, there was an ecstatic crowd of 150,000 waiting for him. When he finally touched down, Lindbergh became an instant celebrity, and the most famous American in the world. When he was shipped back to New York, a crowd of four million awaited him.

Standing on the shoulders of the Wright Brothers, Lindbergh had just achieved the impossible. The groundbreaking solo flight established flight as the future of travel. The next year, Lindbergh would be *Time*'s first ever "Person of the Year." One year after his flight, commercial air travel increased 400 percent, with Pan Am (Pan American) being one of these early airlines.

Lindbergh Got Hearts Pumping

Ex-military pilots had little to do when the war was over. The army sold excess planes for $300, and aerial performances became a way to put food on the table for young pilots. Before his airmail days, Lindbergh was perhaps one of the most daring of these pilots. His adrenalin addiction led him to perform stunts such as killing the engine at low altitude, only to glide the rest of the way down, and even wing-walking (standing on the wings of an airborne plane). Lindbergh survived four plane crashes by parachuting out just in time.

Lindbergh's sister-in-law died of heart disease in 1930. This event inspired him to invent a way of keeping organs alive outside the body. Lindbergh joined forces with Nobel Prize-winning French surgeon Alexis Carrel and spent much of the early 1930s working on the project. By 1935, Lindbergh had developed a special pump

that was capable of providing air and fluids to external organs, keeping them working while staying infection-free. The pump was hailed as a medical breakthrough, paving the way for the first true artificial organs. From organ experiments to air travel, Lindbergh had changed the medical field and aviation. While the air was being conquered, space, the next frontier, was about to see innovation.

Robert H. Goddard, the Father of the Space Age

Robert Hutchings Goddard is perhaps one of the most underrated dreamers of the early twentieth century. As a young boy in the 1880s, Goddard was obsessed with the skies and often studied the heavens with a telescope. Experiments would be conducted by the boy in-house.

Amusingly, this included an attempt to jump higher by holding a statically charged zinc battery. His mother, probably fed up with

the scene, told him that he might fly away and never return if he succeeded. This caused Robert to promptly stop jumping.

After Goddard caused an explosion in the house while experimenting with chemicals, his father thought it might be a good idea to channel this passion in the direction of science.

At age sixteen, the young boy became interested in space after reading H. G. Wells' *The War of the Worlds* (the very same work whose live action radio broadcast would cause mass panic).

By 1914, he had come up with two patents for multi-stage rockets. In 1919, a compilation of Goddard's work was published. It was called *A Method of Reaching Extreme Altitudes* and described mathematical theories of rocket flight and even concepts of exploring Earth's atmosphere and space. The publication included a thought experiment on what it would take to send a rocket to the moon, backed up by solid mathematics. Goddard's early publication

was hailed as one of the pioneering works of rocket science. However, this praise was only awarded in retrospect. At the time, sadly, most media outlets thought of his ideas as laughable. This caused the public to view Goddard as somewhat of a madman, even though his calculations were sound.

Due to the backlash, Goddard became a recluse and began to work mostly in secret. Another unfortunate reality was a lack of funding from third parties. Nobody wanted to give money to a lunatic. Despite the drawbacks, Goddard continued to work and, by 1926, he had developed the first liquid-fuel rocket, which took flight on March 16 of that year.

It only rose 12.5 meters (41 feet) and flew for 2.5 seconds, but it proved, for the first time, that liquid-fueled rockets were possible. After some tweaks, such as a controllable thrust nozzle, the rocket was then able to be guided.

After reading about one of Goddard's launches in 1929, Charles Lindbergh decided to step in and help. Lindbergh became a big fan of Goddard's work, managing to land him $100,000 ($1.8 million today) in funding. The advances in rocket technology that Goddard made, along with his impeccable vision, would later prove invaluable in the development of early missiles and space travel. When Apollo 8 became the first manned space mission to orbit the moon in 1968, Lindbergh sent the astronauts a message saying, "You have turned into reality the dream of Robert Goddard."

THE END OF AN ERA

"The Stock Market Only Goes Up!"

The mood of the early 1920s was one of unprecedented optimism. Commenting on America's economy, Calvin Coolidge (president 1923–1929) said, "The business of America is business." The public

were on board with this idea, as life was improving. A common saying was "Keep cool with Coolidge."

Consumer credit was a brainchild of the 1920s. "Buy now, pay later. Live for the moment. Don't worry about the future," it advised. This mindset would bring forth the biggest financial disaster to date.

In search of ever more wealth, the average Joe was getting involved in the stock market for the first time. Telegraph-powered ticker tapes found their way into beauty parlors, ocean liners, nightclubs, and railroad stations, so everyone could keep up with the latest stock prices.

The culture of "buy now, pay later" eventually spread to the stock market, and people borrowed money to buy more stocks. By 1929, around 90 percent of the price of stocks consisted of borrowed money, and 40 percent of all money loaned from banks was for

stocks. It didn't matter, though, because everyone was getting rich with money they didn't really have.

Party's Over

On October 23, 1929, for virtually the first time in a decade, prices on Wall Street began to drop. Motor companies fell first; no one knows why. As financial analyst Jim Rickards put it, figuring out financial collapses is like trying to figure out which snowflake caused the avalanche. We know the conditions surrounding why it happened—lots of snow, gravity, etc. But the exact snowflake that caused the chain reaction resulting in an avalanche? Impossible to know.

The fact that motor-company stock prices were falling wasn't such a big deal in itself, as market corrections are a natural occurrence, but President Hoover thought he should still address the nation, to

prevent anxiety. On October 25, 1929, Hoover told the American public: “The fundamental business of the country is on a sound and prosperous basis.” Four days later, it wasn’t.

In the following days, a panic set in as people tried to sell…but no one would buy. Prices fell $2, $4, $10, with no signs of slowing. There were shrieks and gasps on the trading floor. Traders were terrified, and crowds began to gather on the streets outside the stock exchange buildings. On October 29, 1929, the bottom fell out and the stock market crashed.

It was the biggest financial disaster on record. All the investors who had borrowed money to buy stocks when they only seemed to go up, now had to pay that money back to the banks. The problem was, these investors didn’t have any money.

All the machinery started to turn in reverse. The investors couldn’t pay when the banks wanted their money back. The banks had to

foot the bill and they started to go under, taking out much of the American public with them. Even trusted companies couldn't get loans to pay their workers, and layoffs, like an avalanche, swept across the country. In a flash, prosperity was gone.

These events affected both the US and Europe, as they were trading partners. Working-class people around the world were devastated. The mighty United States, the powerhouse of the post-war global economy, the consumer capital of the world, was groaning as it ground to a halt. The shudder of America's slowdown shook global trade, and soon the rest of the world began to feel it, as overseas companies shut their doors. Governments of the world could do nothing as, like dominoes, all industries began to falter.

An already struggling Germany was hit hard, and its people were looking for someone, *anyone*, to give them hope.

The decade which had started off with such promise and innovation was now ending very differently.

CHAPTER 6

Sound, Vision, and Genius

1930–1939

By the 1930s, the collapse of many of the world's economies was in full swing. The Wall Street crash's follow-on effect killed trade. Many countries were economically destroyed, seemingly overnight.

In ports throughout the world, ships lay idle, as barely anyone needed to transport goods. Britain, the world's largest ship builder, was affected particularly badly. Like a disease, surrounding industries in the region became afflicted with a decline in business, and the knock-on effect of unemployment took hold of the entire economy.

The British government decided to cut spending and wait for nature to take its course. America did the same, and the result was horrific: bread lines stretched for blocks. The country was in dire straits, and the presence of slums increased. These slums were kindly labelled "Hoovervilles," after the sitting president. What had happened to the most prosperous nation on earth? How quickly it had fallen!

On the mere rumor of an open job, thousands of men would hitch rides on trains for miles, just for the opportunity to work. These included former scientists, doctors, and engineers; all were thrown into the same pit of desperation.

They say necessity is the mother of invention, and the hardest of times left us with one of the most creative inventions yet—the programmable computer. There will be more on that later in the chapter, but first, some examples of what other innovations were taking place.

The decade opened with the discovery of Pluto in 1930 by Clyde Tombaugh. In 1936, Kodachrome (invented by Eastman's company, Kodak) would bring color photography to the masses. In the same year, Russian-born Igor Sikorsky would invent the first practical helicopter featuring today's conventional design. It first took flight in 1939.

Hungarian brothers László and György Bíró invented the ballpoint pen, putting an end to smudge-prone and leaky fountain pens. Music performance would also get a boost, as both the first electric and bass guitars were invented within the decade. Both were attempts to make the instruments more audible in a live environment as electronic sound amplification began to improve. More important than all of these inventions of the '30s is the programmable computer.

THE FIRST COMPUTERS

When you think about it, a computer is a unique piece of technology. We're looking at an actual thinking machine that can perform calculations millions of times faster than any human could. It is, perhaps, the most important piece of technology of the twentieth century, so we'll spend some time here.

To understand how the computer came about, we have to take a look at the bigger picture—a timeline that stretches from the seeds of the idea to the first working model.

Charles Babbage and the Automatic Calculating Machine

As we saw in chapter 4, a "computer" was an actual person. The word "computer" originated in the 1640s, and it means "one who calculates." In the seventeenth century, it was a person whose profession was computing calculations using tables. Although boring, it was truly an important job, as mathematical tables weren't the irrelevant chore we view them as today. Back then,

tables were the powerhouse of science, engineering, finance, and even economics, and the only way a table could be made was by a team of talented mathematicians. Occasionally, though, even they made mistakes. In the early 1820s, a keen mathematician and philosopher named Charles Babbage was on the receiving end of human error.

Charles was getting annoyed because he repeatedly found mistakes in log tables used for astronomy. As annoying as that was, it wasn't the end of the world, but other mistakes had real-life consequences.

For example, ships would sometimes sail off course and run aground because of mistakes in their navigation tables. This was chaos, and Babbage knew a fix had to be found. The solutions that Babbage conceived would, for the first time, bring forth the key ideas of modern computing.

While thinking about the calculation problem, Babbage was about to have the mother of all ideas.

He asked: If physical machines can do physical work…why can't physical machines do *mental* work?

With this question, the idea of a machine that could calculate all the results of a table and print them out correctly was born. He called this invention a "difference engine."

The function of the difference engine was to calculate polynomial operations (logarithms, sines, cosines, and tangents) by only using addition and subtraction.

The machine was completely mechanical in nature, featuring vertical shafts with disks that could display any number. The disks were attached to cogs that mechanically performed addition or subtraction on the shafts next to them.

By 1822, Babbage had built part of a working model capable of calculating polynomial equations, error-free and steam-powered. This was unbelievable at the time, a physical machine that could do complex mental work—a dream come true!

Babbage would demonstrate his machine at parties in the sight of highbrow guests such as lords, poets, statesmen, and industrialists. At one such party, a young lady by the name of Ada Byron (later known as Ada Lovelace) witnessed the machine, and she absolutely loved it. In collaboration with Babbage, Ada made her own major contribution to history, and there will be more on her shortly.

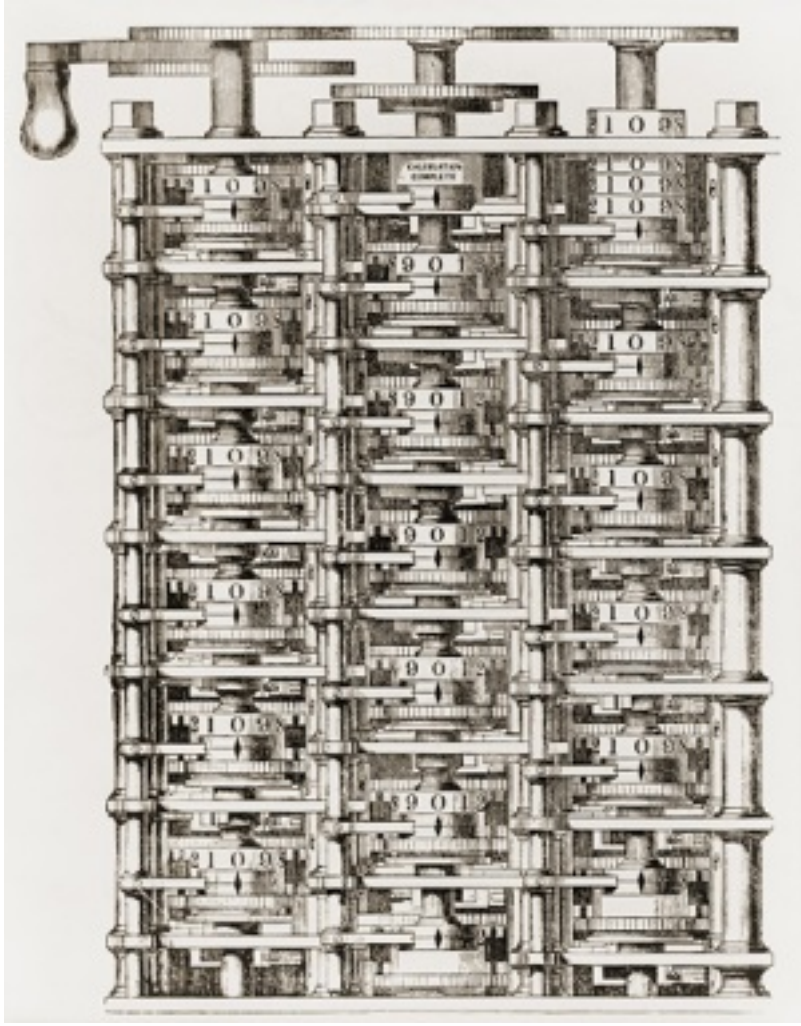

Charles Babbage Difference Engine

Unfortunately for Babbage, the tools of the day proved unfit to finish a larger-scale machine. Determined, in 1834 he set out to design a general-purpose version that could calculate *anything*, not just polynomials. This was to be called an "analytical engine."

The concept—known as a general-purpose computer—was one hundred years ahead of its time.

The Analytical Engine: Early Plans for a Computer

Completely mechanical in nature, the plans for this analytical engine included a "mill," which controlled, rotated, and positioned all the mechanical numbers on the wheels.

Essentially, this "mill" is the equivalent of a "central processing unit" (or CPU) in a modern computer (we'll revisit the CPU later in chapter 9).

The design also included a “store” where all the correct numbers landed (what we would call “computer memory” today).

The analytical engine was to be fed with punch-card instructions to tell it what to do, and even featured a printer as well as a curve plotter. The analytical engine, with a “CPU” and “memory” that could be programmed, represented the first complete plans for a computer. However, it was never built, as it was far too complicated to be constructed.

Ada Lovelace: True New Thinking

Ada Lovelace achieved an important milestone in history despite the greatest odds. She was the first to realize that computers had applications beyond bland calculations. She also published the first ever algorithm (though hypothetical) and is considered the very first computer programmer.

The approach she used in her work was definitely new thinking.

Lovelace's life reads like the script of a melancholy movie. She was born in 1815 in London, which is fine, but it started to go downhill from that point on. Her father's first words to her were, "Oh! What an implement of torture have I acquired in you!"

Unsurprisingly, her parents separated when she was one month old, and Lovelace would never see her father again. He died when she was eight.

From age four, the young girl was privately schooled by some of the best tutors in the fields of mathematics and science. Lovelace's mother thought teaching her math from an early age would drive out any insanity inherited from her father. It must have been a bitter divorce, to say the least!

At seventeen, Lovelace began to show great promise in math, and was hailed as an original thinker. To her, imagination and intuition

were a must when it came to mathematics. She was just eighteen when, in 1833, Babbage showed her a prototype of his "difference engine." Lovelace was entranced. They would begin working side by side, and Lovelace's mind would impress Babbage, who gave her the nickname "the Enchantress of Numbers."

Lovelace was well-liked and often rubbed shoulders with the likes of Charles Wheatstone (the telegraph) and Michael Faraday (the DC electric motor), both geniuses in their own right, as we saw in chapter 2. Imagine all the intellectual brilliance in that room! Lovelace was particularly interesting, not only because of her different ideas in math, but also because of how she saw computing. While others, such as Babbage, saw a computer as a cold calculating machine, she envisioned a computer to be much more than that.

Ada Lovelace had the foresight to imagine it as a collaborative tool, providing a way that text, images, and sound could be converted

into a digital form and manipulated by a mechanical computer.

In 1843, Lovelace was given the task of translating an article on Babbage's analytical engine from Italian to English. Interestingly, the article was written by Luigi Menabrea, an Italian military engineer and future prime minister.

While translating the paper, she decided to make some notes. As she began to write, the notes soon took on a life of their own, growing three times longer than the article itself. The result was something truly special, something that would become a huge moment in the history of technology. Lovelace's notes included a method of instructions "programming" the analytical engine to calculate a mathematical problem. This "program" would have worked if a full-scale analytical engine had ever been built. Lovelace had just written the first computer program algorithm.

Lovelace's thinking was so far ahead of her time that it would take almost one hundred years for her ideas to be recognized. It wasn't until Lovelace's notes regarding Babbage's analytical engine were published, in 1953, that the world realized that the first computer program had been written well before anyone could have imagined.

Despite this, to this day, Lovelace is not well known to the wider public. Sadly, Lovelace died from cancer at age thirty-six. She was the same age as the father she never knew. She requested to be buried next to him.

Don't Tell My Husband about My Gambling Problem

Lovelace's love for numbers extended into the world of gambling. She attempted to come up with a mathematical model to predict winning horses and win vast sums of money. It didn't work. In fact, it did the opposite.

She ended up losing more than £3,000 (£311,000/$431,000 today) on the horses during the later 1840s. This vast amount of debt left her no choice but to admit the blunder to her husband, who was probably less than impressed.

Alan Turing: The Modern Computer Visualized

Born on June 23, 1912 in London, Alan Turing was a brilliant, inquisitive, but somber individual. Later in life, he was a pioneer of computer science and artificial intelligence. In middle school, Turing could solve calculus problems in his head, before he had even been taught calculus. By the time he reached college, he had a keen interest in quantum physics—particularly the mathematics behind it.

Calculus was as hard as eating cake for Turing. While on a jog in the summer of 1935, a twenty-three-year-old Turing envisioned

the concept of a general-purpose computer (independently of Babbage)…in his head.

It was a mental idea of a machine that could solve problems with only a finite number of controls and instructions. He called this machine the Logical Computing Machine (later Turing machine).

But what problem is being solved here? This is where things get interesting. The problem that's being solved is actually a philosophical one: "Can mathematical statements be proven true or false by a set of rules?"

The technical name for the idea of being able to solve all mathematical problems only using a defined set of rules is called the "decidability" problem. It was first asked by German Mathematician David Hilbert in 1928. It basically asks:

"Could there exist, at least in principle, a definite method or procedure by which all mathematical questions could be decided?"

Basically, is there a method to solve *any* math problem using a finite number of steps? This was same problem that Babbage had sought to solve mechanically using the analytical engine, except Turing was examining this from a theoretical perspective.

It took Turing to come up with a more complete solution than Babbage's, in the form of a thought experiment: the Turing machine. This machine, in theory, would compute *any* mathematical problem, using only a set of rules. In other words, it was the concept of a general-purpose computer, but more defined this time.

The Turing machine provided the blueprint for the way modern digital computers work. Even today, we use this thought experiment to measure the strength of computer programs. When a program is capable of doing what a Turing machine can do, it's called "Turing-complete" and is at the highest level of programing-

language strength. There's never been a way to do *more* than what a Turing machine can do.

Later on, Turing aided the Allied victory in World War II by designing a code-breaking machine called the Bombe. This machine allowed Great Britain to know when the Germans were planning an attack, giving them a critical advantage in the war.

Turing would go on to develop other ideas, such as the Turing test for artificial intelligence. In 1950, Turing's paper *Computing Machinery and Intelligence* described a test that hinted that computers could possess intelligence. A test participant would talk to a person via a keyboard, and at some point, unknown to the participant, the person on the other end would be replaced by a computer.

If the participant couldn't detect the change (that is, the computer's responses were indistinguishable from a human's), that computer

passed the Turing test. The Turing test was only definitively passed in 2018 by Google, but only in the narrow scope of phone conversation and in the context of making booking reservations.

In a running theme with all the great pioneers of computing, Alan Turing would meet a sad end. In 1952, his home was broken into. A police investigation into the burglary revealed evidence that Turing was engaged in a homosexual relationship, an offence punishable by imprisonment.

After the revelation and his arrest, Turing's reputation suffered. Overcome by the circumstances, he committed suicide using cyanide. Alan was just forty-two.

Konrad Zuse: First Programmable Computer

All the ideas from the previous stories lead up to the first *physical* construction of a freely programmable computer. Its inventor was

a man who was too lazy to do calculations himself.

In 1935, Konrad Zuse was a German engineer at the Henschel Aircraft Company. One of his jobs was to analyze the stresses in aircraft. Solving a stress equation problem with six variables took over a day to do by hand; twenty-five variables would take over a year. This doesn't even mention time lost to mistakes.

Zuse wanted to make his life easier by building a machine to do the calculations for him. "I was too lazy to do the work," Konrad said in a 1992 interview, "so I invented the computer."

As a kid, Zuse loved Meccano sets, as well as the artistic and technical sides of structures. He chose civil engineering for the combination of these aspects.

When he graduated, Zuse found himself in an unpleasant situation. In order to calculate the forces and stresses on buildings and bridges, he had to go through hellish boredom equivalent to a

thousand episodes of the *Big Bang Theory*. The repetitive calculations were filled out in what seemed like endless rows.

Zuse's interest in Meccano sets as a child must have come back to him, because he got the bright idea of using a giant set to automate his work. Zuse believed in his idea so much that in 1936, he quit his job to move back home with his parents to work on his machine. I'd imagine his parents were quietly disappointed.

After a while, Zuse invited some friends from university to help out. They all thought the project was pretty cool, but not even Zuse had an idea of how the mechanical calculators at the time worked. Thanks to his ignorance, he managed to see the problem from a totally new perspective and started building an automatic calculator from scratch.

He reinvented the wheel but did it differently. You see, at the time, mechanical calculators calculated in decimals. Zuse bypassed this

and chose to use the binary system (the machine's switches would just go to position 1 or position 0, instead of using complex gearing to switch from 0 through 9). This proved to be much simpler and enabled more complicated calculations.

The hardest part for Zuse wasn't figuring out the logic and mathematics of how to put the thing together: it was the task of building it. The Z1 (the name he'd given to his eventual machine) consisted of one thousand thin, slotted metal plates that made up its memory. The program was put into the machine by a tape reader that read old 35-mm film stock with holes punched in it. It also had a keyboard and displayed its results via a row of lights. The computer could store sixty-four numbers and could perform addition, subtraction, multiplication, division, and square-root operations.

Z1 Computer

In 1938, with the help of his friends, Zuse somehow got the Z1 up and running. He tried calculating a 3x3 matrix and it worked. The

very first freely programmable computer in history had just been turned on! Unfortunately, it broke immediately. This turned out to be a constant: the Z1 was too unreliable and prone to breaking down. Zuse worked on his idea until he had a better design in the form of the Z3, which used telephone relay switches for the 1 and 0 positions.

A machine that could calculate mathematical problems would prove invaluable in war. And war was about to come.

RISING WAR TENSIONS

In 1934, Germany elected Adolf Hitler as chancellor. In part, this was a response to the terrible economic conditions in Germany at the time. He gained popularity by first attacking the Treaty of Versailles (and the punishment it forced upon Germany).

The people wanted change, and the German Socialist Workers Party (Hitler's party, the Nazi party) seemed to be getting things done. In just two years, seven million Germans were put back to work. Manufacturing was booming, new civil projects such as the Autobahn were being built, and most importantly for many, Germans could have a sense of national pride again. Even for the children of the day, marching as one of the so-called "Hitler Youth," under a swastika flag, was an honor and a joy. The symbol they were marching under didn't mean much at the time. It was simply the symbol of a nation that was on its way up and would no longer take things lying down. Unfortunately, the people's pride would be turned into something more sinister when propaganda outlets convinced a large proportion of the German population that they were superior to all. Soon, the focus was shifted to the "problematic" Jews, Poles, and Slavs, as well as the disabled, living in Germany.

Volkswagen: From Hitler to Hippies

Hitler had many plans for the people of Germany. To communicate his message to the masses, affordable radio sets called the Volksempfänger (German for "people's receiver") were to be in every home. Hitler had learned to use the emerging technology of radio to distribute propaganda, despite the radios' not-so-catchy name.

Apart from radios, he would also give the people something else: a car.

In the 1930s, Germany was far behind in the adoption of motor transport, compared to America. German cars were only for the rich, and a mere one in fifty Germans owned one. In America, this number was around one in four.

As part of a new vision for Germany, Hitler wanted a car that was affordable for every German. It was to be called the "people's car," or Volkswagen. This idea wasn't unique to Nazism, of course. The American Ford Model T, which came to prominence in the last chapter, showed us as much.

In 1938, the first Volkswagen factory was built. Hitler laid the cornerstone and named this particular Volkswagen model during a speech. The car that was to become the friendly Beetle started out its life with a slightly stronger name. It was named *Kraft-durch-Freude-Wagen* ("Strength Through Joy Car").

Hitler received with great fanfare

The Strength Through Joy Car (is the name growing on you yet?) was to start production in 1939. However, only 210 of these cars

were produced before the outbreak of World War II halted production. In the end, the cars were only given to high-ranking members of the military, while the factory proceeded to make four-wheel-drive military versions. The German civilians initially missed out.

After the war, as part of the conditions for ending the conflict, the Volkswagen factory was given to the Americans. Henry Ford was offered the war-damaged factory (with an undetonated bomb stuck in the roof) for free, but he wasn't interested. The factory was then handed over to the British. The British Automotive manufacturers looked at the little Beetle, and thought it was one of the worst things they'd ever seen.

They stated: "The vehicle does not meet the fundamental technical requirement of a motor-car…it is quite unattractive to the average buyer… To build the car commercially would be a completely uneconomic enterprise."

A British Army officer by the name of Ivan Hirst was set to the task of cleaning up the factory and putting it back into working order. He was so successful that he was made its director in 1949, and by 1955, 1 million Beetle cars had been produced. Despite its being "unattractive to the average buyer," the car did well, and was superior in performance and reliability compared to its European competition.

International exports grew in Europe, but in the United States, the cars were a laughingstock compared to the powerful, large, flare-finned monsters on wheels available there. If Volkswagen could convince the Americans to buy the Beetle, it would open the company up to the largest consumer market on the planet. But how were they to do that?

The company knew that the Americans would never believe this ugly little car was more powerful than their cars, so why not *own* the ugliness? The idea was brilliant. In 1959, it was put into

practice. Some advertising slogans of the day included “Ugly is only skin deep” and “A face only a mother could love.” It worked, and soon, the car had a cult following in the United States. The VW Beetle, and later the Kombi van, became an icon of the counterculture during the 1960s. The company had literally gone from Hitler to Hippies.

The Beetle would go on to become one of the longest-running car nameplates in history. Over twenty-one million units of the original model were produced, with relatively few changes, from 1938–2003. The original model was replaced by the “New Beetle” in 1998. The Volkswagen group is now the largest automaker in terms of sales, owning Audi, Lamborghini, Bentley, Bugatti, Ducati, Porsche, Skoda, and SEAT.

The Beetle, which started off as a harmless little car for the German people, would have been a fine end for Hitler; but unfortunately, Hitler didn’t stop there.

CHAPTER 7

War Is the Mother of Invention

1940–1949

As we enter the 1940s, the world moves into a critical period. Despite this, life goes on as normal for some time. Swing is the most popular genre of music, and Walt Disney is on top of his game with movies like *Dumbo*, *Bambi*, and *Fantasia*—all technically groundbreaking films, produced within a couple of years.

The decade was indeed full of history-altering moments, but it was also one of dichotomies: In the second half of the 1940s, there were times of great prosperity and optimism in the United States, while a dark mood of somber reflection and rebuilding enveloped

Europe and Japan. We were given light-hearted inventions like the Frisbee, the Slinky, and M&M's, but also the atomic bomb and LSD.

The end of the war in 1945 saw the biggest spike in population ever, as young people saw a brighter future. These babies of optimism would be known as the Baby Boomers. Those born in 1946 include familiar names like Tommy Lee Jones, George W. Bush, Freddie Mercury, Steven Spielberg, Sylvester Stallone, and Donald Trump.

WORLD WAR II

The First World War was said to be the war to end all wars. Sadly, that was not the case. In 1939, the world would go to war once more—only, this time, soldiers would be armed with better weapons, faster planes, terrifying tanks, and the destructive atomic bomb.

The war would drag out over five long years and involve over 100 million people from thirty countries, and when it was all over, 50 to 85 million human lives would be numbered as casualties.

One war grew from the last, as German unrest led to Adolf Hitler's rise to power and subsequent attempt to impose his will on the rest of Europe. As alluded to earlier, Hitler's Nazi party was built on the ideas of Aryan superiority and made scapegoats of several minorities. The main focus was on Germany's Jewish population, who would be exterminated in horrifying numbers over the course of the war.

Germany had steadily been increasing its influence. Having created an axis of power with Italy and Japan, Germany invaded Austria and Czechoslovakia, who then also joined with the Germans. On the September 1, 1939, despite cries of warning from Britain and France, Germany invaded Poland. This was the official start of World War II.

The invasion of Poland was quick: The Germans used a tactic they would refer to as a Blitzkrieg, which involved lightning-fast attacks with Germany's technologically superior tanks and planes. A sea of German tanks rode into the Polish country side, joined by German dive bombers from the air. The Polish army, who were still using horses and lances, didn't stand a chance. It was clear that this was going to be a new type of war.

After Poland, Germany quickly amassed land, running riot through Denmark, Norway, Belgium, and the Netherlands before finally taking France.

Germany then set its sights on Britain, but the country's island geography, as well as its superiority both at sea and in the air, held off the German attacks, though not without severe destruction caused by German bombing.

Meanwhile, on the Eastern front, Hitler's shaky truce with Joseph Stalin and the Soviet Union was starting to crumble, and the two would butt heads. The early stages of the German invasion of Russia quickly took ground. Russia took severe losses, including 20 million citizens over the course of the war. But in the end, the Russian winter would prove too much for the German soldiers, and all progress would cease just outside of Moscow.

On December 7, 1941, a fleet of Imperial bombers were flying toward an American naval base in Pearl Harbor, Hawaii. In a bright flash of light, while an American naval band was still playing, the harbor was attacked by the Japanese, who had joined the side of the Germans and Italians. The bombing was an attempt to disable the US Navy, who presented an obstacle to the Japanese taking nearby regions such as the Philippines and Vietnam. The Pearl Harbor attack would officially pull America into the war.

Meanwhile, in New Mexico, some of the best scientists and engineers in the world were working on a well-guarded secret project in the desert, dubbed the "Manhattan Project." It was based on the theory that splitting an atom could release huge amounts of energy: a bomb powered by atoms. Albert Einstein had previously described this in a 1939 letter to President Roosevelt. The Manhattan Project team, led by Robert Oppenheimer, were now in a race against Germany to create the most powerful weapon the world had ever seen.

While these scientists were working to create the first atomic bomb, the Allied forces (UK, France, US, Australia, Canada, etc.) managed to take Italian-occupied regions of North Africa and gain ground in Italy itself. On June 6, 1944, the Allies launched the D-Day invasion of Normandy (France) and would soon liberate Paris. The Allies moved into Germany from the west, east, and south,

liberating nations along the way and freeing survivors from Nazi concentration camps. On May 8, 1945, the Germans surrendered.

On August 6, 1945, the Americans dropped the atomic bomb on Hiroshima, Japan, and, days later, this was followed by a second attack on Nagasaki. Those caught in the blast were vaporized—all that was left were eerie shadows and dust. Between the blast and the ensuing radiation, over 200,000 people lost their lives. Japan finally surrendered.

The war was over, but at terrible cost. Germany was split in two: East Germany was run by the Soviet Union and West Germany was held by the Allies, an arrangement that would last until 1990. The conflict was the most destructive period humanity had ever faced. It is difficult to see any kind of silver lining in all of this loss and bloodshed but—perhaps out of sheer desperation to see the nightmare end—the war did push technology to new heights. Humanity rose from the ashes with advances in computer

technology, rocketry, radar, aircraft, cryptography, and the transistor. Let's see how.

Why Did My Snack Melt? The Microwave Oven (1945)

Next time you're about to heat up some leftovers in your microwave, think about this story:

Radar (or Radio Detection and Ranging) was used during the war. Like a searchlight, a short pulse of microwaves (sub-optical electromagnetic frequencies) would go out to an object and be reflected back to the receiver, allowing it to "see" the object and gauge its distance and position.

Originally invented by the British, radar was perfected in the US for use against the Nazis. This allowed Allied forces to "see" German planes long before the German planes could see the Allies. It's said that the quick development of radar technology during the war

tipped the scales in favor of the Allies. In the United States, a military manufacturing company called Raytheon was the main producer of critical radar equipment (called a magnetron) for the war effort.

In early 1945, Percy Spencer, a Raytheon engineer, was working on improving the company's radar equipment. It had been a long day's work, and Spencer's stomach was beginning to grumble; it was time for a snack. When Spencer reached into his pocket to pull out his tasty treat, he was surprised to find that what had once been a chocolate bar was now a completely melted mess. Spencer quickly realized the microwaves from the radar's magnetrons must have heated it up. He knew he had stumbled across something big. Excited, Spencer asked a research assistant to bring him a bag of corn kernels. When the kernels were put on a table near one of the magnetrons, they began to pop. It was confirmed: the microwaves used in radar equipment could cook food!

It turned out the microwaves gave energy to the molecules in food, causing them to vibrate rapidly. Vibrating molecules are essentially what heat is: when something warms up, all that's happening is that the molecules making up the material are vibrating at a faster rate. Hence, microwaves could heat food in a totally new way. The American public would love an invention that could heat up food in a fraction of the usual time.

As the war ended, Laurence Marshall, then CEO of Raytheon, thought the microwave idea was great. He insisted that Spencer put all his efforts into creating a usable product for the public. Spencer was given a team of engineers and set to work.

After some time, the team came up with a product, but it wasn't exactly portable. It was the size of a refrigerator: 1.8 meters (6 feet) tall and weighing in at 270 kg (600 pounds). This beast put out 3,000 watts of power and was dubbed the Radarange (later to be known as "the microwave"). In the information booklet, there

were some cooking suggestions that seem a little odd today: “Well done steak in fifty seconds? No problem. Fried eggs? Done before you can count to twelve.”

In 1947, Raytheon released a commercial version that was slightly more compact, for $3,000 ($33,000 today). As you can imagine, this was too expensive for the average person. For this reason, the device was sold to restaurants and other corporate food venues. Over the years, it was noted that an expensive military-grade magnetron was overkill when it came to heating up some leftover chicken. Gradually, the microwave was reduced in heft, and by the late 1960s had shrunk down to the form we are familiar with today.

The war had an impact much greater than heating up leftovers, however—it also spawned a giant leap in aircraft technology.

THE JET AGE

After Germany was defeated in World War I, the Treaty of Versailles ordered the country to cease all development of aircraft technologies. However, as they were not yet known at the time of the treaty, jet and rocket technologies were never mentioned in this agreement.

At the German university of Göttingen, a young engineering student by the name of Hans von Ohain was looking into the idea of a jet engine. At twenty-one, he was already a brilliant physicist. With the encouragement of his professor, von Ohain started work on building a prototype of a new propulsion system.

Meanwhile, in Britain, a twenty-six-year-old air force pilot, Frank Whittle, was investigating the same problem of jet propulsion with no clue about what was taking place in Germany. In 1932, he filed a patent for the world's first jet engine. Despite Whittle's

revolutionary thinking, the British military didn't have faith that his idea would work. As a result, Whittle was starved of funding.

If the British had embraced his jet engine, they could have had a deterrent to stop Hitler from marching into Poland in 1939 and risking a war with Britain and France. To add insult to injury, the patents from Whittle were published in technical documents around the world, including in Germany. Some historians theorize that the young university student, von Ohain, may have read these patents and gotten a few ideas to incorporate into his own designs.

Either way, by 1935, von Ohain had a working prototype jet engine. He and his professor went to the German aerospace company, Heinkel, who immediately saw the potential and asked for a full-scale engine.

Back in Britain, Whittle had founded his own small company and tested his jet in 1937. Early testing was full of setbacks and failures.

One case included Whittle losing control of the thrust function of the test engine, causing it to continuously rev higher. At that point, most of the staff fled the room, but Whittle stayed put, interested to see what would happen. The engine eventually exploded and, fortunately, Whittle was uninjured.

The British government weren't too pleased with such spectacles and were even less convinced by this dangerous new jet-engine idea.

With Hitler pushing for a one-seater jet aircraft to make the Nazi air force a formidable threat, the Heinkel firm pushed on urgently with the project. In 1939, just one month before the outbreak of the war, a prototype jet aircraft—the He 178—went airborne.

The Germans had beaten the British in the secret race to have a jet in the sky. At the outbreak of the war, however, the Nazis held authority over both land and sky using just traditional propeller-

driven aircraft. Surprisingly, this was a blessing in disguise, as the Germans soon lost interest in the new propulsion-jet aircraft—their propeller planes were doing just fine, after all.

Still, just because the military lost interest in jets didn't mean everyone in Germany did. A forty-one-year old aircraft designer, Wilhelm Messerschmitt, set his sights on the prize of building a jet *fighter*. The result was the Messerschmitt 262. It could fly at 965 km (600 miles) per hour and made it into mass production. By 1944, it was in operation. It was the most formidable aircraft of the war. It flew 160 km (100 miles) per hour faster than the Allied planes escorting and protecting their bombers. Because the technology was so new, however, the engines only had a lifespan of twenty-five hours before destroying themselves.

The Germans also experimented with some slightly odd ideas. One was the Messerschmitt 163 rocket-powered plane. It had swept wings, no tail, and no space for wheels after take-off, so they

dropped off and fell to the ground during flight. The fuel in the 163 was so volatile it could dissolve the pilots if they weren't wearing protective gear. To make matters worse, there were no two-seater training versions, so the pilot's terrifying first flight had to be made alone.

The 163s could climb around four and a half times faster than any traditional aircraft. By the end of the war, they were used to surprise Allied bombers. They could outmaneuver and outrun any other aircraft but could only stay in the air for three minutes.

The planes were not fun to fly. Since its wheels were discarded once airborne, 80 percent of losses happened during takeoff and landing.

After dragging their feet, the British eventually came out with their own jet, the Gloster Meteor, in 1944. It was slower than the German jet, but Whittle's engine (which was used in the Meteor)

was more powerful and more reliable than the Germans'. In the end, it barely mattered for either side, because the war ended within a year. Frank Whittle did later receive a knighthood from the Queen for his contributions, however.

THE BIRTH OF MODERN COMPUTING

From 1940–1945 the United States and Britain worked independently on creating computers to gain an advantage during the war. By 1951, there was a commercial computer on the market. Information could now be processed and manipulated automatically. Here's the story of how it all happened.

First All-Electronic Digital Computer

John Vincent Atanasoff was a professor at Iowa State University. He noticed that his students would take weeks to manually

calculate the linear equations used in their physics courses. Like Konrad Zuse in the last chapter (who also used linear equations in his stress calculations), Atanasoff grew impatient with this process. In 1934, the Iowa professor began to explore the idea of automatic computing. In 1939, Atanasoff would enlist the help of a graduate student by the name of Clifford Berry.

By 1942, the pair had come up with the Atanasoff Berry Computer (ABC). It was a breakthrough because it used electronic vacuum tubes to perform calculations, rather than wheels or mechanical switches (like Konrad Zuse's computer). However, the ABC wasn't programmable or general-purpose in nature.

How Computers Ran on Basically Light Bulbs

The vacuum tube, an emerging technology that had been improved in war, was looking like it could find a new home.

A vacuum tube is a vacuum space enclosed in glass, similar to a light bulb, but with electrical connection points at the top and bottom. When the tube is heated, electrons can flow in one direction, from one side of the tube to the other. This function can be manipulated to act as an "on/off" switch that can represent 0s and 1s (we call these bits). These bits can be used to run code or organized into clusters of bytes (8 bits to a byte) to store data. Vacuum tubes were faster than mechanical switches, which made them a prime candidate for computers at the time.

Vacuum tubes were also used in radios, televisions, and early radar equipment before being replaced by the transistor, which we'll get to in the next chapter.

The war interrupted Berry and Atanasoff's progress, as Atanasoff went to work for the US Navy. After the war, the ABC computer was salvaged for parts and was never patented. The ABC largely

went unnoticed until 1973, when a court case over a patent dispute with the ENIAC (a later US military computer) recognized the work of Atanasoff and Berry. In the ruling, it was stated that the basic idea for modern computing came from Dr. John Vincent Atanasoff. Still, many people doubted that his original machine worked, so in 2010 a group of staff and students at Iowa State set out to rebuild the ABC.

They used only the original plans and genuine parts from the 1940s (including old vacuum tubes). The machine did in fact work, proving that the origin of digital computing was the ABC. Although revolutionary, the ABC was not a general-purpose machine (freely programmable). It was designed only to solve linear equations. For a computer that could calculate technically anything, we must take a look at the ENIAC.

ENIAC (The First Electronic General-Purpose Computer)

Though Turing and Babbage were the first to envision the general-purpose (calculate anything) computer in theory, such a machine was never built—at least electronically. The new thinkers who would materialize these visions were just around the corner.

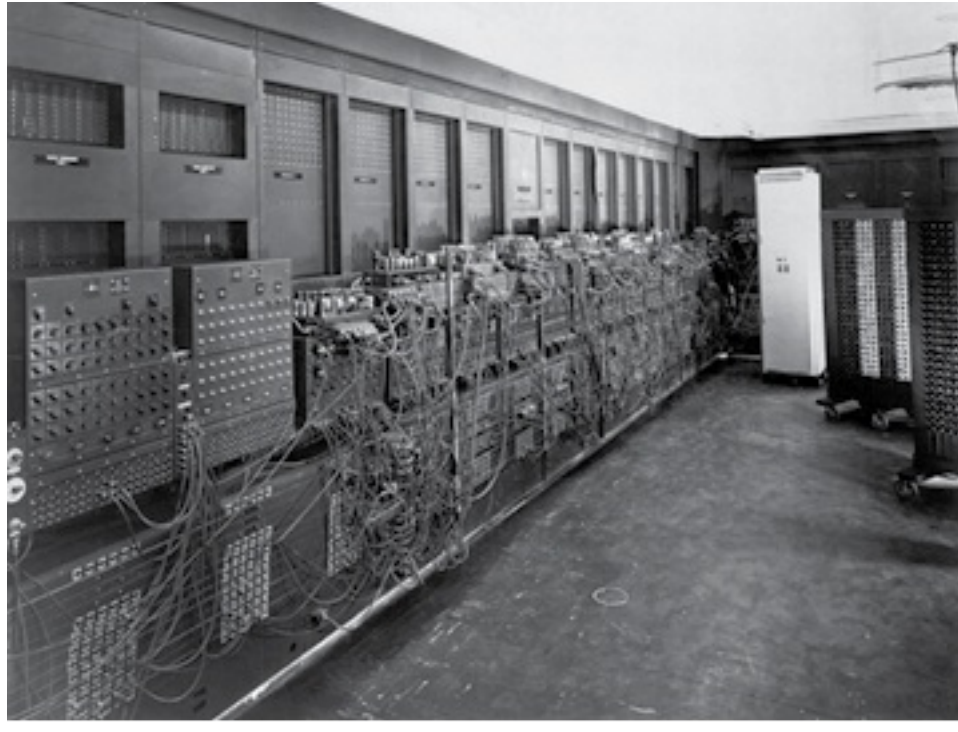

ENIAC Computer

Firing Tables

We've learned how much of a pain tables can be from the story of Charles Babbage. However, tables were still being used by US military in World War II, so they could aim and fire correctly depending on wind and temperature conditions. Creating firing tables required great amounts of effort and used time-consuming, mechanical adding machines.

By the middle of the war, there weren't enough tables to meet demand. Without firing tables, ground gunners would be firing their artillery shells blindly, which was costly and a waste of artillery.

Enter physicist John Mauchly from the University of Pennsylvania. The physicist had a radical idea—a giant electronic computer that could figure out an artillery trajectory in 100 seconds, instead of weeks. It was essentially the original supercomputer. Taking just one hundred seconds to do a week's worth of work sounded like

insanity. But, desperate to solve the problem, in 1943, the US military reluctantly coughed up $500,000 ($8.8 million) for the now top-secret project.

Why Wouldn't the Damn Thing Just Work?

Mauchly and graduate student J. Presper Eckert set to work on this Electronic Numeric Integrator and Computer (ENIAC). Driven by news of their fellow men dying in battle, the pair toiled tirelessly to complete the project.

It was an incredible task. They had to design, build, test, and learn how to program the machine from scratch as quickly as possible. By the end of their labor, the diligent pair had a monster 15-meter-long (50-foot) machine that weighed 30 tons. The worst part? Doing all the switching (shifting between "1s" and "0s" to perform calculations) were 17,500 delicate, prone-to-breaking-*JUST*-when-

you-don't-want-them-to vacuum tubes. We touched on vacuum tubes earlier: although an advance from their mechanical predecessors, if any one of them failed (burned out like a light bulb from overheating), the whole machine wouldn't work.

This happened so often that even with precautions, the thing would only function for about ten to thirty minutes before breaking down. Regardless, it could perform 5,000 additions, 357 multiplications, and 38 divisions per second. This was the most advanced computer ever made at the time, despite its many shortcomings.

Apart from the burning-out problem, ENIAC also had practically no memory and had to be laboriously rewired (unplugging, rearranging, and re-plugging hundreds of cables) for each new problem it was asked to solve—interestingly, thanks to computer memory, this process would be as simple as double-clicking today.

Even so, ENIAC was the very first physical computer (as opposed to visualized computer) that could calculate anything it was given. The only problem? ENIAC was completed two months *after* the Japanese surrendered and the war was over.

UNIVAC (First Commercial General-Purpose Computer)

After the war and the ENIAC project, Mauchly and Eckert decided to use this new computer technology to make life easier. They wanted to build a computer for the world of business.

In March of 1951, after six years of work, the university pair sold the first general-purpose computer to the United States Census Bureau: UNIVAC. Unlike the earlier rewiring mess that was ENIAC, UNIVAC could be programmed for many different tasks much more easily. Tape drives held the data and results were printed quickly. Impressive for 1951, but hardly anyone took notice.

This muted reaction would literally change overnight as the computer burst into the spotlight. In 1952, CBS and Remington Rand wanted to do the ultimate public-relations stunt: a computer was to predict the outcome of the presidential election between Dwight Eisenhower and Adlai Stevenson. This would be a first.

As the votes came in, UNIVAC predicted a landslide victory for Eisenhower, even though poll numbers said the result was too close to call. When CBS heard what the computer had printed out, they insisted that the UNIVAC team check their machine because it was *definitely* malfunctioning. But sure enough, Eisenhower won by a landslide. UNIVAC had predicted the victory to within 1 percent of the real numbers. The computer had arrived. As amazing as this was, these machines were still powered by temperamental vacuum tubes. It would take an invention called the transistor to change that.

THE TRANSISTOR: PROMISE AND BETRAYAL

Computers may have entered the picture, but the problematic vacuum tubes that made them were power-hungry, unreliable, and expensive. Enter the transistor.

The transistor may be the most important invention of the twentieth century. The original purpose of the device was to simply amplify (strengthen) electrical signals, but it soon turned into something much greater. No one could have expected the revolution something so physically small would bring to business, culture. and society.

The transistor is an integral part of any digital device in existence today. Our computers have billions of them tucked away in their chips. In addition to amplifying signals, a transistor can *also* be a switch that controls the flow of electrons, just like a vacuum tube. It can either be in an "on" ("1") state or an "off" ("0") state.

These on/off states can be translated into binary code, which is how all our data currently exists. By switching between states billions of times a second, these little transistors allow data to be processed and manipulated, giving us the digital world of today. They're in everything with a chip in it: from TVs, radios, and VR headsets to computers, cars, and mobile phones. Today's transistors can be as small as a few nanometers, but the first devices started off about as large as the palm of your hand.

The transistor's story is one you wouldn't expect: a story of promise, jealousy and conflict between three men.

THE TRANSISTOR'S ORIGINS

The story of the transistor actually starts earlier than the drama between the trio, all the way back in 1907. At that time, Alexander Graham Bell's company AT&T had a problem on their hands. Bell's

patents on the telephone were about to expire and the company was facing a great deal of competition. The company even brought its former president, Theodore Vail, out of retirement to help. As the patents would be lost anyway, Vail decided the company must think of something new. It must offer something no other company their size could dream of offering—a transcontinental telephone service *across* the United States! It was an outlandish boast that hadn't yet been proven possible.

However, just one year earlier, American inventor Lee de Forest had come up with a modification to the vacuum tube that could amplify electrical signals. Since audio electrical signals could pass through on telephone lines, it could amplify voice. This was just what AT&T had been looking for. Their dream was not so far away after all…

If amplifiers could be installed all along the length of phone lines, the signal could go right across the country, loud and clear. AT&T

jumped at the opportunity and bought de Forest's patent, making their own drastic improvements. Their changes allowed the signal to be amplified regularly along the line, meaning that a telephone conversation could now travel across any distance.

Over time, though, a major problem developed. It was those vacuum tubes again. As we know, the tubes (that made the amplification possible) use too much power and produce too much heat, making them extremely unreliable.

In the 1930s, Bell Labs' director of research (Bell Labs was the research branch of AT&T), Mervin Kelly, recognized that a better device was needed for the telephone business to continue to grow. He had a feeling that the solution might lie in a peculiar class of materials called semiconductors.

Semiconductors have an electrical conductivity that lies between that of a conductor (like copper and silver) and an insulator (like

glass or plastic). During the war, the rapid advancement of radar technology spurred research in new ways to achieve faster response times. Vacuum tubes weren't up to the task, so silicon materials were examined. As it turns out, silicon (the reason for Silicon Valley's name) is a great semiconductor and worked flawlessly in radar systems. What wasn't certain was whether semiconductors could work in other systems.

In 1945, after the war, Mervin Kelly decided to put a dream team of specialists together to find a solution to the vacuum tube problem, via semiconductors. This special material led to the creation of the inimitable transistor.

The characters Kelly selected for the task couldn't have been more different.

The Semiconductor Transistor Dream Team

First there was Walter Bratton, the oldest of the three and an experimental physicist who was great with his hands and could build anything. Next, John Bardeen, one of the twentieth century's greatest theoretical physicists, who skipped three grades and entered college at age fifteen. Despite his intelligence, Bardeen was mild-mannered and meek. Last was Bill Shockley, the youngest of the three and a team leader. He was a brilliant specialist in science theory, while also driven and fiercely competitive. This last characteristic would prove to be his undoing.

Just before the research team was assembled, Shockley built a crude model of something he thought might work like (what was later termed) a transistor and began to test it. For many years, he had envisioned becoming famous by perfecting this transistor system using semiconductors. Despite his ideas seeming solid on paper, the device didn't work.

Shockley took these ideas with him to the research team and re-examined them there. Thinking that he'd done some of the math wrong, he asked his colleague John Bardeen to take another look as his work. It was correct… Why didn't it work? Shockley asked Bardeen and Bratton to look into fixing his prototype while he went away to work independently on the problem from another angle.

Initially, all of them worked very well together. Bardeen would come up with new experiments and ways of testing, while Bratton would build whatever was required for the tests. Occasionally, Shockley and other staff would be called in for advice.

After some slight progress, in which Bardeen and Bratton achieved a barely amplified signal using a semiconductor, the pair became stuck and worked for almost a year with nothing more to show for it. Tensions began to build. Soon Bardeen and Shockley began butting heads, often.

In late 1947, there was a breakthrough in the research. On a whim, Bardeen decided to dip the whole apparatus in water and suddenly, the signal was drastically amplified. This was a shock to everyone. It was soon concluded that this phenomenon arose because the electrons in the semiconductor could now flow from its surface. After this, Bardeen and Bratton seemed to make constant progress, and it was only a matter of days before they eventually created a working transistor.

Excited, the pair called up Shockley to let him know that they had finally done it. Shockley was happy that the transistor had finally been created, but to the surprise of Bardeen and Bratton, he soon turned sour and angry at them. You see, Shockley was mad because the discovery of the transistor now could not be attributed to him.

Dismayed, Shockley turned recluse and worked frantically to try to do better. Looking at Bardeen and Bratton's designs, he realized

that their invention had weaknesses: their device was fragile. How could they expect this transistor device to work in the real world if it broke all the time? Not to mention how hard it would be to mass-produce. Shockley set to work on building a more robust version of the transistor.

It would be less than a month before Shockley came up with a solution. All this time he told no one, especially not Bardeen and Bratton, who were still working on improving their original design.

Behind the backs of the other two, Shockley made contact with Bell Labs' lawyers to write a patent. He had one significant condition: only the name of Bill Shockley would be credited with the invention of the transistor. When Bardeen and Bratton heard about this, they felt betrayed. They had worked tirelessly for years to solve this problem, only to have it snatched away from them at the very end. In a twist, the lawyers decided to credit the patent to

Bardeen and Bratton, as they determined Shockley wasn't involved in the core idea, or in the experiments with the transistor.

The Public Unveiling

On June 30, 1948, AT&T went public with the invention in New York. At the event, AT&T told the press that they were going to license the technology. In preparation for some publicity photos, Bardeen, Bratton, and Shockley were asked to recreate the moment they discovered the working transistor for the camera.

What followed was a moment revealing of Shockley's true character: when asked to get in position for the photo, Shockley sat in Bratton's seat—taking center stage—while Bardeen and Bratton stood around him. Bratton would later write a letter to Shockley expressing his disappointment: "It would appear that the discovery of the transistor ruined the best research team I have had the privilege of working in." The resulting photo didn't matter

much in the end, as the press didn't really see what the fuss was about. *Time* magazine put it in a modest section called "Science of the Week." At the time vacuum tubes were still (somehow!) seen as adequate by most: why replace them? Others saw the transistor as just a cute electrical toy.

This would change when two engineers from a bomb-damaged department store in Japan opened up a scientific publication and saw the transistor—a tiny device that could amplify signals. Akio Morita and Masaru Ibuka had just started a new company called Totsuko (later renamed Sony), and they realized that AT&T's invention could build the ultimate consumer product—a miniature, pocket-sized radio. While a sonic revolution was in the minds of the fledgling Sony company, other music-enabling technology was emerging.

CONSUMER MUSIC BECOMES MODERN

As the horror of war faded in the United States, and the sun was setting on the 1940s, the mood was once again a confident one. Consumer business was thriving once more, as factories turned back to producing civilian goods. This meant people had jobs, money to spend, and things to buy. Leisure items became a lucrative business. One such item was the long-playing record, or LP.

In 1948, the LP was introduced, opening the door to quality consumer music. It would be used as the standard format for vinyl albums, as LPs could hold many more songs than the traditional record. Interestingly, the word "album" originated from the need to store multiple sleeved discs in a book-like form, since the individual records couldn't hold enough audio. This changed with the LP, but the name "album" persisted and still does today.

The 1940s started with war and destruction, but left us with innovations such as early computers, the transistor, and the jet

engine. These concepts were thought to be impossible by most people when the decade began, but great minds brought them into existence. The borders of the world had now been redrawn, but so had the possibilities for humanity. In the next chapter, we see these ideas form the bedrock for what would become the seeds of today. That bedrock was the 1950s.

PART 2

The Acceleration

CHAPTER 8

The Seeds of Today

1950–1959

Strangely enough, the United States and the USSR had good relations directly after the war, but they didn't last. Winston Churchill made his famous "Iron Curtain speech" in 1946, and the mood of Americans began to shift toward fear of communism. Stalin's USSR was expanding across Eastern Europe, taking many countries in its wake. When China went red in 1949, a quarter of the world was now communist: it seemed it was only a matter of time before the ideology spread to the US.

By 1950, the horror of war was a fading memory. A deeper-seated, more subtle battle was taking place between two competing worldviews.

Despite this tense scene, a great shift was about to take place in most developed nations. For reasons touched on earlier, they began to prosper. Even countries that were heavily affected by the war saw a rebound in their economies. The boom was so massive that it would last all the way to the 1970s.

This newfound economic prosperity, coupled with technology developed from the desperation of war, set the stage for an absolute explosion in the rate of technological advance. With peacetime now in full swing, the 1950s would see everyday inventions such as roll-on deodorant, the credit card, Hula Hoops, power steering, automatic doors, the solar cell, lasers, and Barbie dolls. It also produced breakthrough moments in scientific and

engineering brilliance that would change history forever; in essence, establishing the seeds of today.

Awe and Tragedy: The First Passenger Jet (1952)

It wasn't long after the war that the innovations of jet propulsion technology (from Frank Whittle, in the previous chapter) began to benefit society as a whole. In 1949, the world was shocked when the British unveiled the de Havilland Comet, the first passenger jet airliner and a strict secret until the day of its unveiling.

No other aircraft could match it. The Comet, dressed in silver metal, was beautiful to behold and could fly almost twice as high as the competition, arriving at its destination in half the time. Further, because it flew so high, there was less turbulence in its flight, meaning a smoother ride. In addition, instead of the noisy racket of a propeller engine, all that could be heard was an eerie ghostly whine from the four jet engines housed within the Comet's wings.

It was almost the stuff of science fiction for civilians in 1949, and five years ahead of anything the Americans were dreaming of at the time. The de Havilland Comet would enter service in 1952, ushering in the age of the passenger jet plane.

As soon as the world saw how fast this jet could fly, interest, and eventually orders, began to mount. From France to India and Japan, even Britain's rivals, the United States, wanted a jet in their national airline fleets. With this event, the globe had suddenly shrunk. Things looked great for the de Havilland Comet, but suddenly strange accidents started to happen around the world. Upon takeoff, some Comets were crashing.

As it turned out, the design of the plane's wings would cause the aircraft to stall at low speed during takeoff. A stall happens when a plane no longer has enough lift to keep itself aloft, quickly losing altitude.

Jet aircraft were fussier when it came to climbing on takeoff, because there wasn't much air traveling over their wings until they reached a high speed. Propeller aircraft, on the other hand, had air from the propeller itself flowing over the wings to enable more control at lower speed. The problem was that early pilots were thinking of the Comet like the propeller-driven aircraft that had come before it and would fly it as such.

Things would only get worse, though. In 1954, two Comets seemingly just fell from the sky, only a few months apart. There were no survivors. All Comets were immediately grounded while the investigation was underway. At the same time, foreign orders for the aircraft ground to a halt. The reputation of the aircraft was getting hammered with each new development; what had once been the awe of the skies had now turned into a horror show.

In Britain, investigation teams worked to piece the planes back together in large hangars to establish what had caused the

disasters. But how could they solve this mystery? There were no black boxes at the time to give data that could provide clues, or even a place to start. What the investigators did next was a piece of engineering mastery. An intact Comet fuselage was placed inside a large sealed container, with the wings protruding. Water was poured into the container and then drained repeatedly. This was done to simulate the cycles of expansion and contraction of the fuselage that occur during multiple flights. What the experiments revealed was astonishing.

As the number of cycles increased to the equivalent of 5,000 three-hour flights, stress cracks began to appear in the corners of the windows. Over time, these cracks grew and eventually tore open. This would have been catastrophic during flight, as the internal air pressure of the fuselage was much greater than the outward pressure of the surrounding air. Basically, after a crack had formed, the plane would expand rapidly during flight (known as rapid

decompression). To put it even more bluntly, the plane would explode.

Now, you may be wondering why I said the cracks formed from the corners of the windows. Aircraft windows are round, aren't they? Well, they weren't yet. You see, the Comet was fitted with square windows to give passengers a better view. This design choice concentrated a lot of the stress on the sharper corners of the windows, resulting in the formation of cracks. For this reason, all aircraft since then have been made with rounded windows, to stop this from ever happening again. The painful lessons learned from the Comet made future aviation safer for everyone.

Next Time There's a Crash, We'll At Least Know What Happened

The Comet crashes and ensuing investigations inspired an Australian researcher by the name of David Warren to invent a

device, one which could record an aircraft's instruments and cockpit audio while in flight. He called it "the Flight Memory Unit." Today, it is known simply as the "black box" and has proven crucial to the successful investigations of countless air accidents, making air travel an ever-safer endeavor.

Surprisingly, the Comet would rise again to the top in the form of the Comet 4. It was a redesign with oval windows and a thicker metallic skin and was twice as large and twice as powerful as the original. The Comet would stay in operation up until 1997, when it was finally retired from service.

The Code of Life: DNA Structure (1953)

The 1950s would see the discovery of the DNA (deoxyribonucleic acid) structure. It's the chemical that encodes instructions for building and replicating almost all living things. It was formally discovered in 1953 by James Watson and Francis Crick (colleagues

and close friends). This finding paved the way for genetic engineering, biotechnology, and molecular biology as a whole. That's what most people know about the discovery of the DNA molecule; as it turns out, though, there was another person who was involved in the world-changing discovery but was seemingly barred from all credit. Her name was Rosalind Franklin. To understand Franklin's contribution, we have to go back in time a little.

In 1946, Rosalind Franklin had been taught how to use X-ray diffraction by Jacques Mering, a French crystallographer. She would go on to pioneer the use of X-rays to yield images of complex forms of matter. Franklin went on to research at King's College in London, taking her X-ray expertise with her.

In 1951, at King's College, Rosalind Franklin and Maurice Wilkins (who became Franklin's senior partner) were studying DNA. Wilkins and Franklin used X-ray diffraction as their main tool.

Beaming X-rays through the molecule yielded a shadow picture of the molecule's structure, as a result of how the X-rays bounced off the molecule's component parts. Franklin's knowledge was used to create a method of "seeing" the DNA molecules.

Rosalind was shy and often patronized by colleagues; she had to carry out much of her work alone because of this. She was cautious and skilled at her craft, refining X-ray photo machines to such an extent that renowned UK scientist John Desmond says she produced "the most beautiful X-ray photos of any substance taken." One day, in January of 1953, in the lab, a clear X-ray image of the double helix could be seen. Maurice Wilkins, seeing Franklin's work, was astonished, and showed some of Franklin's findings to molecular biologist James Watson without her knowledge. Watson and Wilkins had met a few years earlier in Italy and had previously discussed the use of X-ray diffraction to deduce the structure of the DNA molecule.

Franklin's X-ray image (known as "Exposure 51") caused Watson to have a visceral reaction. Watson is reported to have said: "The instant I saw the picture, my mouth fell open and my pulse began to race." Shortly after, Watson teamed up with Crick and made a crucial advance.

They proposed that the DNA molecule was made up of two chains of molecules called nucleotides, arranged parallel to each other to form a "double helix," like a spiral staircase. This structure, published in the April 1953 issue of *Nature*, explained how the DNA molecule could replicate itself during cell division, enabling organisms to reproduce with amazing accuracy, except for occasional mutations.

For their work, Watson, Crick, and Wilkins each received the Nobel Prize in 1962. Despite her contribution to the discovery of DNA's helical structure, Rosalind Franklin was not named a prize winner: she had died of cancer four years earlier, at the age of

thirty-seven. Forgotten by history and dying of cancer at a young age, she is strangely and sadly reminiscent of Ada Lovelace in the chapter before last.

Polio is Defeated: The Polio Vaccine (1953)

Poliomyelitis (otherwise known as polio) is a viral infection that alters the body's host cells in order to replicate itself. The virus has effects ranging from a sore throat to fever; however, when it enters the spinal cord and nervous system, muscle wasting and paralysis can occur. Although the latter is rare, the scary thing is that loss of the ability to move can happen in as little time as a few days or hours. On top of that, polio was transmitted extremely easily from person to person.

In the early twentieth century, as highly populated cities became more common, polio epidemics began to occur for the first time in history. In 1916, over 2,000 people died from the infection in New

York City alone, and many more were left paralyzed. It was a time of great uncertainty. With each wave of polio outbreaks, people would flee the cities and public gatherings would stop. In 1952, the worst outbreak in the US occurred: almost 60,000 cases were reported, with 3,000 dead and 21,000 disabled. To this day, polio has no cure; but, on the very bright side, there is a vaccine.

Dr. Jonas Salk is the one we have to thank for that. During World War II, Salk aided in the development of flu vaccines and became the lead researcher at the University of Pittsburgh. In 1948, Salk would be awarded a large research grant to develop a polio vaccine, since it was such a pressing health issue of the day. Within just two years, Salk had an early version of the vaccine.

Here's how it worked: Dr. Salk devised a way to kill multiple strains of the polio virus and injected the inactivated viruses into the bloodstream of a healthy person. As a defense, the patient's immune system automatically created antibodies that would fight

off infection, without the patient ever falling ill to the disease. This technique was tried in the 1930s by Maurice Brodie but proved unsuccessful. Interestingly, many scientists of the day thought that Salk's method wouldn't work. Their incorrect view was that a dead virus wouldn't encourage a strong enough immune response from the body. They thought that a weak, live virus was needed do the trick. Salk, on the other hand, didn't want to take that risk.

In a demonstration of complete faith in his work, the doctor conducted the very first human trials on himself, his family, and later, former polio patients. By 1953, it was clear that his method was working. On March 23, 1953, Salk published his findings in the *Journal of the American Medical Association*, and two days later appeared on CBS radio to talk about what he had done. America and the world collectively breathed a sigh of relief and hope.

In 1954, clinical trials began on two million American schoolchildren. In April 1955, it was announced that the vaccine

was effective and safe, and a nationwide effort began. Today, polio has virtually been eradicated worldwide, with only 113 cases out of seven billion people being reported in 2017.

Just imagine if polio continued to ravage humanity with the densely populated cities of today: it would result in pandemonium. Dr. Salk was truly the MVP of medicine in the 1950s.

The Most Iconic Instrument Ever Made: The Fender Stratocaster (1954)

Like most guitarists, I can always tell the sound of a Fender, especially a Stratocaster. It has a unique character. The only way I can describe the sound is as "expressive": a sound allowing artists to communicate all kinds of subtle emotions. Because of the positioning of the Stratocaster's pickups (the magnetic devices that convert string vibrations into audio signals), the guitar has a versatile tone that can be used in most genres of music: from

country, to rock, to soul, jazz, and punk. The Fender Stratocaster has become the most legendary instrument of all time. From Jimi Hendrix to John Mayer, to Tom DeLonge of Blink-182—they're seen everywhere. But where did the Stratocaster come from?

During World War II, Leo Fender was running a radio repair shop in Fullerton, California. After some time making amplifiers and

experimental electric guitars, Fender created his first electric guitar —the Esquire. In 1951, this was followed by the Telecaster, with its unique snappy and "quacky" sound. Building on the design of the Telecaster, in 1954, Freddie Tavares, who worked with Fender and had an eye for radial curves, gave the Stratocaster its radical, timeless, flowing shape.

Surprisingly, Leo Fender wasn't a guitar player; he was an engineer. But under his management, the company managed to produce a range of guitars and bass models so popular, their sound permanently influenced music as a whole.

The Video Cassette Recorder (1956)

The tape recording of television signals became feasible after World War II, but the equipment of the time was pushed to the limit in doing so [tapes had to run at 240 inches (610 cm) per second to obtain the high-frequency response needed for television

signals]. Charles Ginsburg thought he could do better. His new machine could do the same task, without the machine running so fast that it emitted proverbial smoke.

This video tape recorder (called the Ampex VRX-1000) was released in 1956 and changed television forever. Instead of live broadcasts, programs could now be shot and more easily edited after the fact.

Looking Inside: The Ultrasound (1956)

Ian Donald was a professor of midwifery at Glasgow University. While at a shipyard in Glasgow, he noticed that the workers used sonography to look for flaws within the thick surfaces and structures of ships. Sonography works by emitting sound waves above the range of human hearing against a surface and measuring the waves that are reflected back. These reflected echo-waves are converted into an electrical signal, which is interpreted as an image.

In 1956, Donald and an engineer, Tom Brown, decided to see if this could be used in the medical field. Early tests proved the technology to be feasible, and just two years later, they would publish their findings. The medical tool of the ultrasound was officially…born (sorry, that one just lined right up).

First Programmable Robots (1957)

The story of the first robot starts in an unexpected place. Not a shed, or workshop…but a cocktail party in 1956. Two of the attendees were George Devol, an inventor, and Joseph Engelberger, a businessman—both fans of science fiction. Obsessed with the idea of a true robot, Engelberger was delighted when Devol told him about his recent creation, the "Programmed Article Transfer." In Devol's patent, it was described as "an invention [that] makes available for the first time a more or less general-purpose machine, [which] has universal application to a vast

diversity of applications where cyclic digital control is desired." It was basically a controllable robotic arm that was programmable.

Devol had been part of many novel inventions, including one of the first microwave oven products, the "Speedy Weeny" (which automatically cooked and dispensed hotdogs—an essential product for anyone).

Devol and Engelberger together produced the Unimate (short for Universal Automation). It was the first truly modern, digitally-operated, programmable, teachable robot.

A commercial version of the robot was released in 1959 and quickly found its way into the automotive manufacturing plant of General Motors. Soon, auto manufacturers in the United States and Japan were reaping the rewards of automation, thanks to the Unimate. In 1966, Engelberger appeared on the *Tonight Show* with Johnny Carson to demonstrate the robot, which was capable of

performing a wide range of tasks such as pouring drinks and handling various objects. The public's imagination went wild.

Today, robotic arms are an integral part of many industries worldwide.

The Clueless Baby—First Digital Picture (1957)

In 1957, Russell Kirsch was a scientist at the National Bureau of Standards and had access to the Standards Electronic Automatic Computer (SEAC), one of the only programmable computers in the United States. It took up a large portion of a room and had a clock speed of one megahertz (1 million switches per second), about 2,800 times slower than a smartphone. Kirsch, who led the imaging research team for the computer, decided to see if computers had the ability to reproduce pictures. Kirsch scanned in a five-centimeter-square photo of his infant son, which was turned into binary code (1s and 0s). The result was a 176-pixel, black-and-

white image of a baby, clueless that it had just made history. The digital photo and digital camera itself would come two decades later. It goes without saying that digital photography is the form that essentially all photos exist in today.

A Beach Ball in Space—First Man-Made Object in Orbit (1957)

On October 4, 1957, mankind would send objects into space for the first time in history. The Soviet satellite, Sputnik 1, became the first artificial object put into orbit. It traveled around the earth once every 96 minutes. Although Sputnik was only the size of a beach ball, and weighed just 83 kg, the world was stunned at the event. Interestingly, the Soviets had actually planned to launch a much bigger, 1,400-kilogram spacecraft with many instruments on board. Unfortunately for the Soviets, the development of the larger craft was so slow that those managing the project grew anxious.

They feared that, if they didn't hurry up, the Americans would beat them to the punch. In the end, a metallic silver beach ball had to do for mankind's first venture into space. Sputnik was a brief mission, sending out a radio signal for only twenty-two days before burning up in the atmosphere in early 1958.

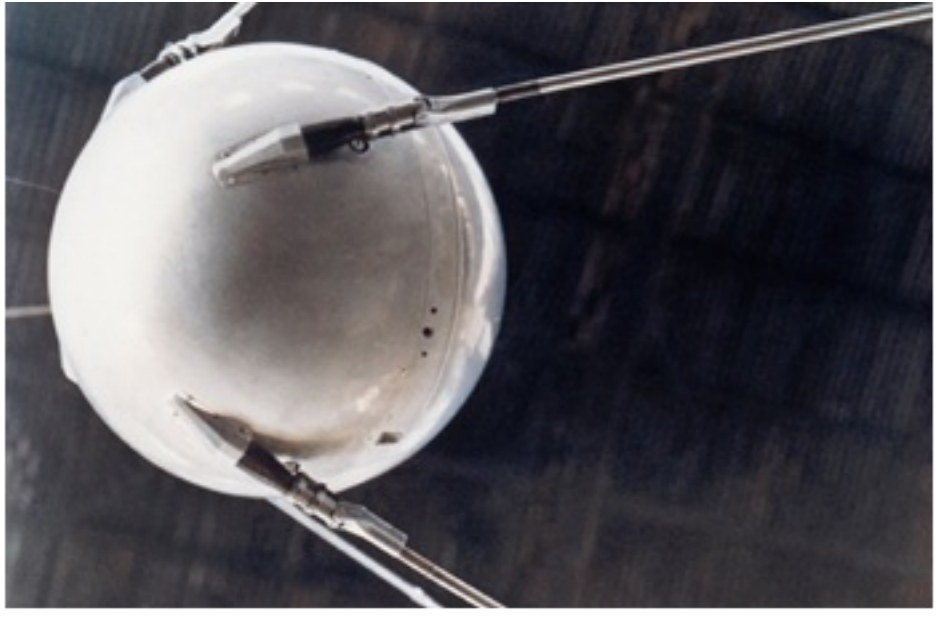

The launch of Sputnik was a significant event. It prompted the foundation of NASA and DARPA by the Americans, marking the beginning of the space race. As we'll see in the next chapter, Sputnik would result in ARPANET, the start of our current internet. Sputnik also indirectly accelerated the invention of something that would become integral to the internet, and something we all can't live without today: the digital modem.

You'll Appreciate Your Internet After This: The Digital Modem (1958)

The origins of the modem came from the need to connect typing machines via phone lines. In 1943, IBM would use this technology to transmit punch-card data at 25 bits per second (or about three letters per second)—slow data transfer speeds to say the least.

A year after the launch of Sputnik (pictured above), the United States air defense systems were due for an upgrade. The systems

needed a way for computer terminals in various locations to communicate information. After looking at their options, they contracted AT&T for the job. In 1958, the company came up with a digital version of the modem to connect terminals across the United States and Canada.

These modems operated at 110 bits per second.

For some perspective:

- An average webpage (500 KB) would have taken fifteen hours to load.
- A high-quality mp3 download would be all yours in just under two weeks.
- And a five-minute, 1080p YouTube video download (at 12 MB per minute) would have taken around two and a half months!

Imagine clicking on a video, then coming back to watch it two and a half months later. Knowing this, we have no reason to complain about our internet speeds.

The first commercial modem was released in 1962 by AT&T, at three times the speed of the 1958 version. At least it was an improvement.

Making Things Interesting—The First Graphical Video Game (1958)

For many of us, video games have always been around: from arcade games like *Pong* and *Pac-Man*, to more recent forms via consoles and virtual reality. What many don't realize is that the video game's history stretches back to the late 1950s, as the brainchild of physicist William Higinbotham.

During the war, Higinbotham worked on cathode ray tube displays used for radar systems, as well as for electronic timing systems in the atomic bomb. After the war, he got a job at Brookhaven National Lab's instrumentation group.

The Brookhaven firm had an annual open house where thousands of members of the public would come and tour the lab. Higinbotham was put in charge of creating an exhibit that would showcase some of the instrumentation the company had to offer. As he was thinking of what to do, he realized that a lot of the items on display were very…well, boring. It would be like people coming all the way to watch paint dry, but less fun. He had an idea on how to liven up the place: what about using a game that people could interact with and play? It would give a strong message that the lab's scientific endeavors had relevance for society.

With this idea in mind, Higinbotham rummaged around for parts he could use to build an interactive game. He came across an analog

computer that could display the curved trajectories of objects, such as a bouncing ball on an oscilloscope. Because of his experience with radar displays during the war, it only took the physicist a few days to put a game together. The result was a crude but playable side-on view of a tennis court. It consisted of two lines: one for the ground and one for the net. The game's name? *Tennis for Two*.

The controls were simple—a twistable knob to adjust the angle at which the player was about to hit the ball, and a push button to fire the shot.

In October of 1958, the first group of visitors came in to see what the Brookhaven lab company had on display. People were captivated by *Tennis for Two*, and small crowds began to form around the game. Although popular, Higinbotham didn't think much of it, having no idea how popular the concept of a video game would later become. He stated:

“It never occurred to me that I was doing anything very exciting. The long line of people, I thought, was not because this was so great, but because all the rest of the things were so dull.”

Today, the video game industry makes around $110 billion in revenue annually. You’re a modest guy, Higinbotham, very modest.

The Society Changers

As you can see, there was a flood of groundbreaking inventions that came from the 1950s, happening almost on a yearly basis. To finish off this chapter, we’ll take a look at three society-changing innovations: portable music, the integrated circuit, and television.

A LEGEND IS BORN: SONY

In the last chapter, the transistor had been created by the AT&T/Bell Labs trio but was largely ignored until Masaru Ibuka and

Akio Morita of the newly-founded Sony stumbled upon it. They recognized the technology for its ability to amplify sound. Fascinated, the duo decided to improve the device and make it more affordable for mass production. Sony had been trying to sell tape recorders locally in Japan, but were struggling, as post-war Japan was still largely in ruins. An obvious first application for the transistor was enabling a much smaller radio, as mentioned earlier.

Tiny Transistor VS
Bulky Vacuum Tube

Vacuum tube (pre-transistor) radios of the time were usually wooden cabinet sets that took up a lot of space in a living room. A transistorized version could use much less power and be a fraction of the size. Ibuka and Morita weren't the only ones with this idea, however. Recognition of the technology's abilities had begun to increase, and American electronics manufacturer Regency beat Sony to the punch. They released the TR-01 portable transistor radio in 1954. It cost three times as much as a vacuum tube radio at $50 ($460 today). It was a sonic revolution. Consumers no longer had to wait for their radio to warm up, and it was so light and small they could carry their music around with them anywhere.

Even though these radios were extremely popular, due to their high production cost, they still proved unprofitable for the companies that made them. In addition, the US military would pay $100 ($920 today) for just one high-quality transistor component. It was a no-brainer. It made much more sense for the American

companies to leave the consumer market and go into the much more lucrative military industry. As a side effect, the transistor radio market was left wide open for someone who could figure out how to make transistor radios cheaply enough. Sony was up to the job. Morita and Ibuka worked hard on improving the economic feasibility of transistor technology. Just one year after the Regency TR-01, Sony had an affordable version of a transistor radio.

In April of 1955, Morita traveled to the United States to sell his radio. Surprisingly, it met with a "meh" response by most prospective business partners. This was so until Sony approached a company called Bulova, which was excited about the idea. Bulova was a watch manufacturer, and it understood what Sony was trying to do. The company put down an order for 100,000 units, which translated into more money than Sony was worth at the time. The only catch? Bulova wanted its name on the product. Morita said no

and walked away from the deal. Morita would later say this was the most important business decision he'd ever made.

Morita went back to Japan and back to the drawing board. Sony knew it was close to a commercial hit. It just needed something enticing to push people into making a purchase. The answer to this issue turned out to be a brilliant piece of marketing: How about calling it a radio that "fits in your pocket"? People would really understand how revolutionary that is! The problem was that the radio most certainly didn't fit in the average-sized shirt pocket.

The solution? Alter the shirt pockets of the sales team so they were big enough to fit the radio. It worked. Soon the United States store owners were lining up to buy the Sony radios (now named the TR-55s). Within five short years, the Sony company grew from seven employees to over 500. And with that the legend of Sony was born, along with a new era for portable music long before the Walkman, iPod, or mobile phone.

For the first time, kids could listen to music privately, out of earshot of their parents. This newfound freedom sparked a change in the type of music that was broadcast on certain stations. It became more edgy, daring, and risqué. This new sound would be the beginnings of rock and roll. This was the first direct impact the transistor had on society, but there would be many more to come.

The Gateway to Modern Computing: The Integrated Circuit

Transistors were proving useful in radios, but their use in functioning computers was limited. If enough transistors could be packed into a sufficiently small space, there could be serious computing power. The problem was the limit to how small you could make a transistor of that era. They had to be connected by wires. As you can imagine, these connections could only be so tiny before becoming unreliable. Scientists wanted to condense a whole circuit—the transistors, the wires, everything else they needed—

into a single step. If they could create a miniature circuit, all the parts could be made much smaller, and also mass-produced.

The answer was the integrated circuit. The idea was to use a chemical etching process, instead of wires, to create the transistor connections. It was the next major leap in the path toward our current world. Integrated circuits are found in virtually all electronics today.

The story of the integrated circuit starts once again with the AT&T/Bell Labs dream team. By 1950, the team was starting to crumble, as John Bardeen and Walter Bratton became increasingly frustrated with William Shockley. In 1951, Bardeen decided to call it quits. He couldn't work under Shockley anymore, and with that, the dream team was over.

By 1955, Shockley's reputation at Bell Labs had gone from bad to worse. It was clear he wasn't going any further in the company. So,

Shockley aimed to start his own company, with the goal of creating a new kind of improved transistor.

Unsurprisingly, nobody wanted to work with him. So, with his head down and his proverbial tail between his legs, Shockley closed up shop and moved from the East Coast out west to Palo Alto, California. Here he hoped to recruit some new team members who knew nothing of his controversial history.

At the time, California was a strange place to set up a technology company, as most firms such as IBM (we'll get to them later), Raytheon, and General Electric were based on the East Coast. Shockley's motivation to move was partly due to family, but more truly it was due to the fact that Stanford University was offering cheap land to entice technology companies to go west.

Eventually, in 1957, William Shockley would set up the humbly named "Shockley Semiconductor" Lab. As rotten as Shockley's

personality was, he did have a great ability to source talent. He managed to recruit a number of young men who were unaware of his turbulent past. The new team that Shockley cobbled together happened to include eight of the greatest engineers and scientists the United States had to offer. They would be known as the Traitorous Eight.

THE TRAITOROUS EIGHT

Shockley Semiconductor Lab brought together a pool of talent that would become the foundation of what we now know as Silicon Valley. Those men were: Sheldon Roberts, Eugene Kleiner, Victor Grinich, Jay Last, Julius Blank, Robert Noyce, Gordon Moore, and Jean Hoerni.

In June of 1957, these eight men held a secret meeting in a hotel in San Francisco. During their time working for Shockley, they had all

noticed how his personality had become increasingly paranoid. Much like at AT&T, Shockley was afraid that he wouldn't receive credit for the team's inventions. Sitting in the hotel room, the men passed around a dollar bill, each taking their turn to sign it. That bill represented a pact to leave Shockley Semiconductor and start their own company. This plan earned them the name of "The Traitorous Eight."

This new company was to be under the reluctant leadership of Robert Noyce, a brilliant MIT researcher. Noyce was hesitant to take on such an ambitious project, as he had a young family, and start-ups were a huge risk in the 1950s. But Noyce bit the bullet and signed the dollar bill. With that, the traitorous eight had a new spinoff company: Fairchild Semiconductor.

Fairchild Semiconductor

That day in the San Francisco hotel would later be called one of the top ten days that changed history by the *New York Times*. Fairchild was the essence of what Silicon Valley grew to stand for: risk over stability, innovation over tradition, rapid experimentation over slow growth. After securing financial backing, the group at Fairchild came together to produce the first practical integrated circuit, using the silicon semiconductor. The invention made it possible to tightly pack transistors but allowed them to function independently despite being made from a single piece. The integrated circuit (which is itself made from transistor components) is the building block of all chips. It caused a revolution in electronics, opening the door for today's technology.

Steve Jobs in 2005 would say that working in Silicon Valley was a bit like running a relay race, and Fairchild Semiconductors were the ones who passed the baton to him to bring in the era of personal computing.

The treacherous eight at Fairchild made it possible for a modern smartphone to be more than 120 million times more powerful than the computers that sent man to the moon.

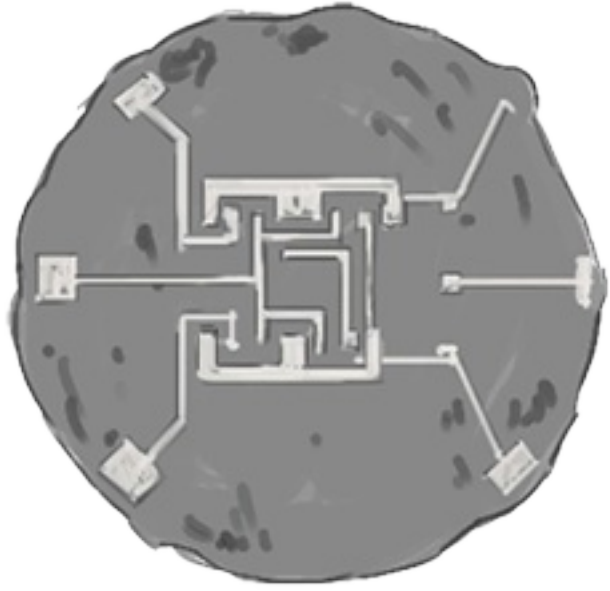

Early integrated circuit (connected by chemical etching instead of individual wires)

Moore's Law

One member of the Fairchild team, Gordon Moore, made a prediction in 1965: "The 'complexity number' of transistors (processing power), on a chip of a computer, will double once every eighteen months." This observation would be known as Moore's Law. This law wasn't based on any calculation, but more on what was expected of the industry. Surprisingly, since its inception, Moore's law has held true.

Gordon Moore would also become famous for something else. In 1968, he and Robert Noyce became the co-founders of a little company whose name you may have heard of: Intel.

In the end, there was a silver lining for the Bell Labs dream team. In 1956, William Shockley, John Bardeen, and Walter Bratton would each receive the Nobel Prize for physics.

Television Enters the Picture

During the 1940s, television was struggling to make its mark. In Britain, it was seen as a novelty for the rich, with a set costing roughly seven times the weekly wage. Back in the United States, all programming was filmed live, with all three networks, NBC, CBS, and ABC, filming out of New York. Production was simplistic by today's standards—point, shoot, and ship the 16-mm film around the country to be broadcast later.

By 1950, things had begun to change. An estimated 4.4 million American families owned a TV. AT&T had created a web of coaxial cables spanning the country. TV signals could now reach the most rural areas of America and soon, for the first time in history, the country would not just hear but also see the same things at the same time. News, popular TV shows, and sports became a shared

national experience. In Britain, Europe, and Japan, a similar revolution was happening.

Color TV would follow in 1953. Coincidentally, that was the same year TV dinners were invented. It looked like the medium was here to stay.

A typical TV looked an awful lot like a box. It was usually housed in a large wooden cabinet and had a rounded screen, which was tiny in comparison to the fifty-inch flat screens of today.

Movie attendance dropped, as did radio listenership. And while the ’50s had its share of classic shows, it wasn’t until the ’60s that the shared experience of television would really begin to shape culture, with world-shaking events such as the Vietnam War and the moon landing being broadcast globally. TV changed the way we saw the world, as well as the speed at which we saw it. The assassination of John F. Kennedy, for example, spread to 90 percent of America in

less than an hour, largely through live broadcasts. For better or worse, the world was now connected.

CHAPTER 9

Peace, Love, and...Computers?

1960–1969

The 1960s brought on new ways of thinking, innovative ideas, radical ways of dressing, and new forms of music—and all of it started with the baby boomers.

The baby boomers of the post-war era were coming of age in the ’60s. The strict rules of the ’50s gave way to a newfound sense of rebellion among the young. So dramatic was the shift that a new word was popularized for the group: “teenagers.” And the economy was ready to support them. The youth of the ’60s found themselves in a surprisingly comfortable economic situation. In fact,

people under twenty-one were paid ten times what the same demographic were paid before the war. The spending habits of America's teens began to drive the economy. Many companies founded during this decade reflected the affluence of the time. Domino's Pizza, Weight Watchers, and Subway all came into existence in the '60s. Fashion began to reflect personality, as starched collars and letterman jackets gave way to wild new styles. Artists such as Bob Dylan, the Rolling Stones and the Beatles became the sounds of a generation.

Between 1954 and 1965, the number of young people attending secondary school in the US doubled. The same was happening in Japan and the UK. For many, it was the first time someone in their family went to university.

In the world of technology, meanwhile, innovation with transistors and integrated circuits caused computers to shrink to a usable size. Silicon Valley came of age and venture capitalism was born. The

Concorde became the world's first supersonic airliner, the cassette tape was born, and the seeds of the compact disc were planted. The decade was full of revolution, and revolutionary ideas.

THE FIRST MAN IN SPACE (1961)

The world was shocked when the Russians sent Sputnik into space, but the boys from the USSR weren't finished. On April 12, 1961, aboard the spacecraft *Vostok 1,* twenty-seven-year-old Soviet cosmonaut Yuri Gagarin became the first human to travel into space.

Vostok 1 orbited the planet for just eighty-nine minutes at a maximum altitude of 203 miles and was guided entirely by an automatic control system. It was basically a cannonball large enough for one person. Gagarin wasn't very talkative during the ordeal; his only words were: "Flight is proceeding normally; I am

well." This may have been in part due to the fact that Gagarin was traveling at around 29,000 km an hour (17,500 miles per hour). That's 8 km (or 5 miles) per second!

Like Charles Lindbergh with his first solo transatlantic flight a few decades before, Gagarin became an instant worldwide celebrity. In Russia, he ascended to legendary status. Monuments were raised, and street names were changed throughout the Soviet Union in his honor.

The United States weren't just being beaten to the punch this time, they were getting punched square in the face. To add insult to injury, the first US space flight was scheduled for May of 1961, a mere one month after Gagarin. Then, in August of 1961, the Americans were beaten again with the flight of cosmonaut Gherman Titov in *Vostok 2*. Titov made seventeen orbits of the earth and spent more than twenty-five hours in space.

America's first manned mission was delayed until February 1962, when astronaut John Glenn made three orbits in *Friendship 7*. Understanding that he needed to boost his country's confidence, President Kennedy declared that the US would reach the moon by the end of the decade.

Meanwhile, in the USSR, the Soviet conquest of space was viewed as evidence of the supremacy of communism over capitalism. However, only insiders who worked on the Sputnik and the Vostok programs knew that the successes were actually due to the brilliance of one man, a new thinker in every sense of the word: Sergei Pavlovich Korolev. Chief Designer Korolev was unknown in the West, and even to the Russian public, until his death in 1966.

Korolev helped launch the first Soviet liquid-fueled rocket in 1933. Five years later, during one of Joseph Stalin's paranoid purges, Korolev and his colleagues were put on trial. Convicted of treason and sabotage, Korolev was sentenced to ten years in a labor camp.

As World War II intensified, the Soviet leaders started to realize that German rocket technology was a real threat. Knowing of Korolev's talent, the government put him to work from prison. I'd imagine he would have been less than thrilled.

In 1945, when the war was over, Korolev was sent to Germany to learn about Nazi rocketry. His mission was to study the V-2 rocket, which had heavily damaged Britain during the war. The Soviets weren't the only ones stealing German notes for the rocket exam—the Americans were at it too. The United States captured the V-2 rocket's designer and eventually made him head of the US space program.

The Soviets went further and managed to get their hands on rockets, blueprints, and a few German V-2 technicians. By 1954, Korolev had built a rocket that could carry a five-ton nuclear warhead. In 1957, the Russians launched the first intercontinental ballistic missile.

But Korolev had his eyes set on bigger things, which brings us back to the launch of the metallic beach ball known as *Sputnik 1*. It was the first Soviet victory of the space race, but amazingly Korolev was still in prison! He would finally be released a short time later, and with Korolev at the helm, the Soviet space program was unmatched in the early 1960s. The USSR's list of firsts into space include: first animal in orbit, first large scientific satellite, first man, first woman, first three men, first spacewalk, first spacecraft to impact the moon, first to orbit the moon, first to impact Venus, and first craft to soft-land on the moon.

Despite all his success, Korolev was known only by the mysterious title of "Chief Designer." Korolev died in 1966. Upon his death, his identity was finally revealed to the world, and he was awarded a burial in the Kremlin wall as a hero of the Soviet Union. I'm sure he would have appreciated this kind of honor a little more when he was still alive.

For most countries, having a man lead the space program from prison would be as strange as it gets; for Russia, it was just the tip of the iceberg.

The Curious Case of the First Spaceman

On March 27, 1968, seven years after his trip to space, Yuri Gagarin got up early in the morning and headed to Chkalovsky airport. His purpose was to re-train as a fighter pilot after his time being a cosmonaut. The plan was to have Gagarin run a few test missions in his Russian MiG-15, but things didn't go according to plan.

The weather was poor at the airport, with the wind and rain making their presence known. When Gagarin found he'd forgotten his ID that morning, he told those around him that this was a bad omen. Despite the weather and the bad juju, Gagarin took off

without incident. After he'd completed his exercises, he radioed back to base that he would be returning shortly.

That was the last time anyone heard from him.

A couple of hours later, a flight rescue team took off on a search mission. As they were searching, they could see the plane's burning wreckage from the air. There was hope that the former cosmonaut might have ejected before impact. These hopes were dashed when Gagarin's body was found the next day. An extensive investigation by the USSR proved inconclusive. One prevalent theory was that Gagarin swerved to avoid an object (a bird or weather balloon) and lost control of the aircraft. Naturally, this being the Soviet Union, very little information was released to the public and the conspiracy theories started to grow.

Some say Gagarin was drunk and decided to take a joy flight. It's not unimaginable, as Gagarin had a history with the bottle. The

young cosmonaut had taken his meteoric rise to international fame fairly hard. As a former village boy, he wasn't prepared to be an icon of inspiration. He would receive thousands of letters from citizens across the USSR telling their disturbing stories and asking for help. It was then that he began seeing the dark underbelly of the Soviet Union. As time went on, Gagarin began slip into alcoholism and other risky behavior.

Other theories suggest that he was a secret agent from the CIA and was poisoned. There was also a rumor that he had actually survived the plane crash and had gone into hiding. Still others said that he was trying to avoid a UFO when he crashed. So, what really happened? Will we ever know?

Well, you're in luck, because in 2013, the cause of the crash was finally determined. As it turned out, another much larger plane (a Sukhoi Su-15) came into the airspace of Gagarin's MiG-15, causing him to take evasive action and crash. In the end, it was a run-of-

the-mill accident, ending in tragedy. The Soviet authorities and air traffic control were embarrassed about their incompetence, so the true cause wasn't released.

The First Digital Video Game (1961)

You have heard how William Higinbotham made his exhibit more exciting by creating *Tennis for Two*. Although this marked the beginning of the video game, the media form was yet to have its breakthrough.

As we noted, the decreasing size of transistors led to a reduction in the size of computers over the years. Because these newer computers no longer filled an entire room, they were called "minicomputers." Minicomputers weren't just small, they also had broader uses than their predecessors. No longer were they just tools for calculation and record-keeping.

Despite all this progress in the computing space, there was still no such thing as a video game industry. Almost all games had been developed on a single machine for a specific purpose. A software game that could be run on multiple machines was not yet realized.

This all changed in 1961 with MIT's acquisition of the Digital Equipment Corporation's Programmed Data Processor-1 (PDP-1) minicomputer. The PDP-1 used a vector display system. Even though it had no CPU, the transistors still managed a 5-megahertz (five million switches per second) processing speed, which is about 500 times slower in clock speed than a modern smartphone, but still powerful for the day. The PDP-1 was made from assembled boards of transistors called "System Building Blocks."

Because of the PDP-1's small size and high speed, MIT students and employees enjoyed writing non-academic programs on it whenever it wasn't in use. In 1961–1962, Harvard and MIT employees Martin

Graetz, Steve Russell, and Wayne Wiitanen created the game *Spacewar!* on the PDP-1.

The two-player game had players engaged in a dogfight in space. One of the aims of the game design was to utilize the PDP-1 to its fullest potential. The result was a surprisingly smooth game, given the limitations of the hardware.

Spacewar! was copied to minicomputers in several other American universities, making it the first video game to be available at more than one location. However, the game wasn't exactly widespread. The PDP-1 cost $120,000, which is almost $1 million in today's currency, so only fifty-five were ever sold.

In the years following the spread of *Spacewar!*, programmers at universities began developing and distributing their own games. We'll pick this story up in the next chapter, where we'll see how video games burst into the mainstream.

The Seeds of the Internet and the World Wide Web (1962)

The seeds of the internet and web were actually planted before 1962. You may not have heard his name, but Vannevar Bush—World War II military science leader, engineer, and thinker—is the man responsible for the contemporary information age. Bush's recognition has only been more widely recognized in the 2010s, as the internet became more prolific. Among many other things, Vannevar Bush founded the Raytheon company, and led 30,000 scientists, engineers, and high-ranking military men in research during World War II. Bush had immense power and answered only to the President himself. At one point, around two-thirds of all American physicists were working for him.

Vannevar Bush: The Father of the Information Age

Vannevar Bush, in my opinion, is one of the most influential figures in the entire book. His ideas inspired many technologies central to

our modern life, as those that came after him built upon them. During his efforts in coordinating those 30,000 academics, he quickly realized that there was no way to catalogue all their research information. It would be a tragedy if great post-war scientific discoveries were lost in a sea of meaningless publications. In a 1945 article titled *As We May Think*, Bush envisioned a machine that would "link" information the way our brains do: by association.

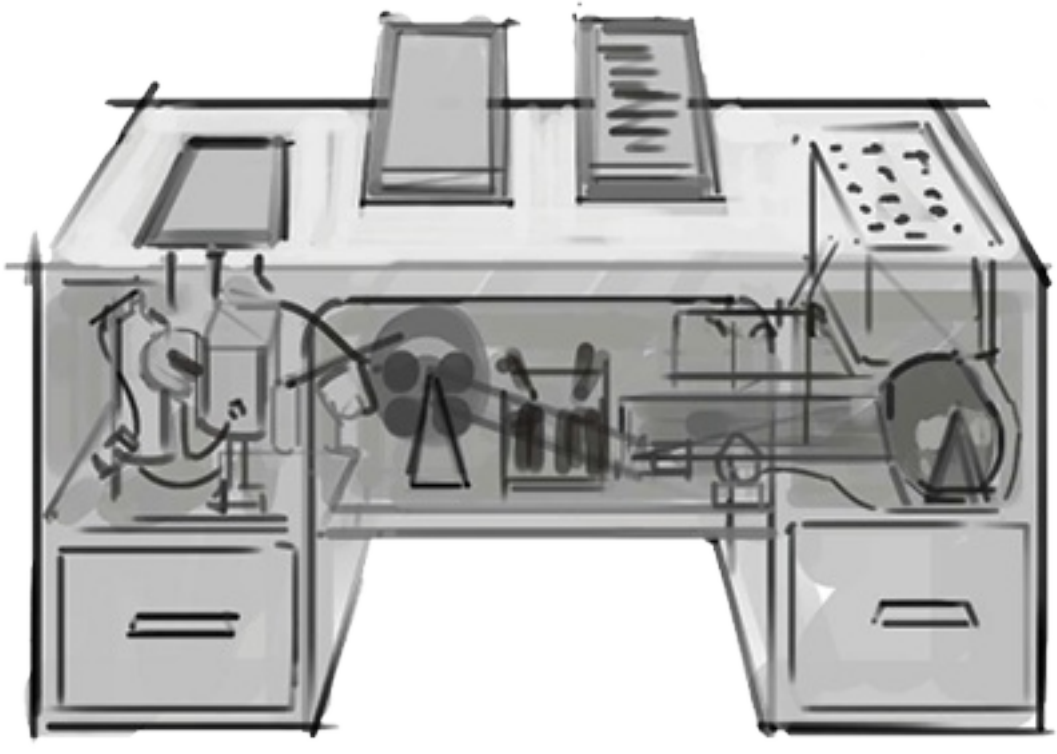

Memex Machine

This machine was called a Memex (short for MEMory EXtension). The Memex was to be a universal library—something bearing a striking resemblance a desktop PC. The research information (text,

images) was to be printed on microfilm and magnified onto a display. If a researcher wanted to find out more about a particular topic, he could request to have linked information (on microfilm) sent to him.

For example, a science researcher could use a Memex to read a study and request all the associated (linked) images and studies for viewing on his Memex.

The information wouldn't be transferred between Memexes digitally, but by mail (this was 1945, after all). This is kind of like clicking on a Wikipedia article and waiting for the information on the linked webpage to be mailed to your door.

Let's break down the significance of this idea in today's terms:

- The mail service would be the **internet**.
- The ability to request information on a Memex is the **web**.

- The concept of linking information is what we now call **hyperlinks** (the way in which we click from one place to another on the web today).

Bush believed that such a device would cause an information explosion and subsequently a knowledge explosion. I can't say he was wrong.

In essence, Bush had envisioned the World Wide Web, forty-five years before it was developed in 1990. He did not live to witness it, but every one of his visions came true, to a greater degree than even he could have expected. Bush was indeed one of the greatest visionaries of the last century.

Drawing Up a Blueprint

Although Bush had envisioned the idea of the internet, it was only in the 1960s that technology advanced far enough to start building

it.

In August of 1962, using Bush's work as a basis, psychologist and behavioral scientist J. C. R. Licklider (known as "Lick") would lay out the blueprints of the internet. Lick worked for the US Department of Defense as Director of Behavioral Sciences, Command & Control Research at the Advanced Research Projects Agency (or ARPA), which had been created one year after the launch of Sputnik.

In the early 1960s, the ARPA still dealt with all research by hand, which was not ideal. For example, for MIT and Dartmouth to transfer data, someone had to hop on a train, physically transport punch cards, and wait two to three hours for a printout before returning. Talk about slow download speeds.

Faster knowledge transfer was paramount, especially as the Russians had just been to space…twice. Lick saw a solution:

computers needed to talk to each other directly. In 1962, he wrote "A Man and Computer Symbiosis." The book expressed the idea that machine cognition would become independent of human knowledge. This involved the concept of a "Thinking Centre"—a precondition for the development of networks.

In 1964, he set to work on building his connected vision and, in 1967, he described a "library of the future" that could have all of the world's books online, so anyone could access them.

He also envisioned online collaborations. People could communicate with each other as well as access shared information from anywhere in the world. Lick explained:

"The unique thing about computer communication networks is that not only can co-workers (who are geographically distributed) stay in touch with each other, but also with the information base in which they work all the time. [This means] that finished blueprints

don't have to be printed out and shared all around the country but appear on everybody's scopes (screen). This is obviously going to make a huge difference in how we plan, organize, and exercise almost anything."

Lick would also imagine the banking system:

"If we get into a mode in which everything is handled electronically, and your only identification is on a little plastic thing that you stick into machinery, then I can imagine that [the supplier would] want to get that settled up with your bank account…and that would require a network."

As you can see, Lick didn't just have a rough idea of how the future was going to work: he completely understood what the end product should look like.

Even though Lick left ARPA in 1964, he passed his vision on to those next in line to take the helm of ARPA. The early internet

became a reality in 1969 with introduction of ARPANET. ARPANET allowed communication between UCLA and Stanford computer terminals and was the direct precursor to the modern internet.

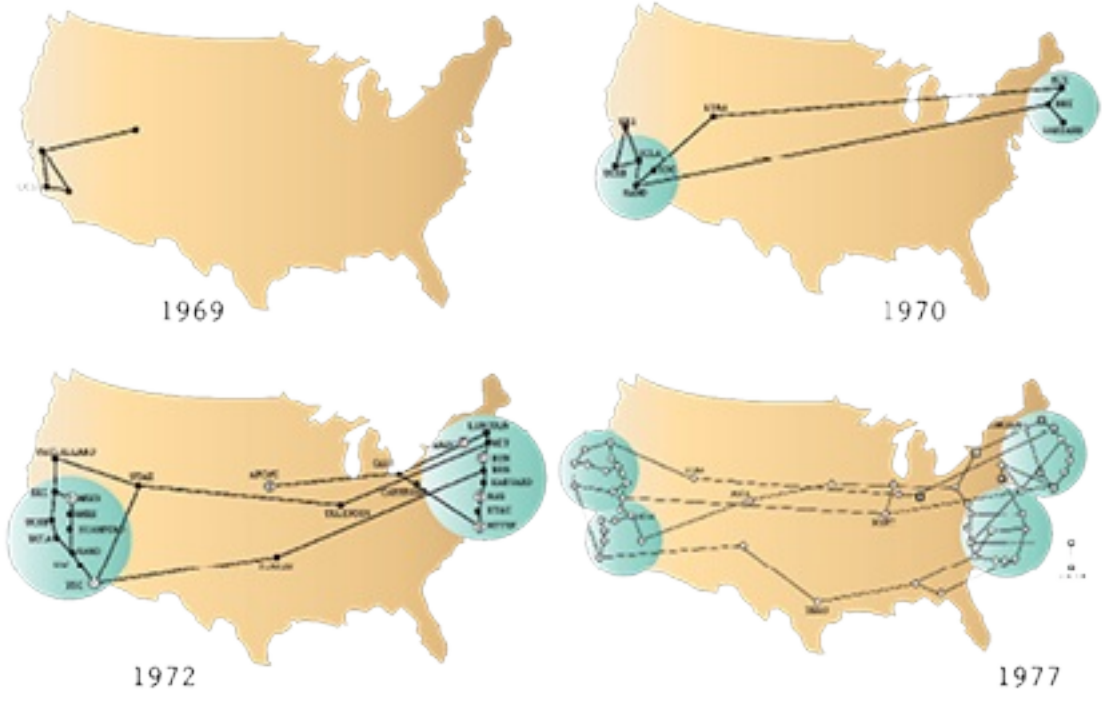

Growth of ARPANET

The first ever message sent over the network was “Lo-.” Now you might be thinking: that’s a funny word, why choose that? Well, the

first message was supposed to be “Login,” but the system crashed before reaching the “g.” Nevertheless, this moment marked the beginning a new age. ARPANET grew over the next decade, connecting computers around America.

The First Interactive Graphics Program (1963)

It’s incredible to see how quickly technology had begun to move. In the late ’50s, computers were still cold, calculating number machines. But by 1963, twenty-five-year-old MIT graduate Ivan Sutherland had read Vannever Bush’s 1945 essay “As We May Think.” In the essay, Bush describes the “Memex” personal knowledge machine. Inspired by this idea Sutherland asked: what if you could “talk” to a computer? Not with text or speech, but with drawing. The result was Sketchpad, an interactive drawing program in which the user drew with a light-pen while pressing switches alongside the screen. Sketchpad was the first use of computer

graphics and brought about a new category of software: Computer Aided Drafting (CAD). Amazingly, it all ran on a 1958 computer with roughly 272 KB of memory and a 9-inch oscilloscope screen (a screen that shows signals, e.g. a heart monitor). It was a revolutionary idea, paving the way for the graphical user interface that we use today.

Sketchpad was the first graphical interactive computer program

Remember, at the time, computers were instructed by feeding in punch cards or tape and the only output was beeping, printouts, or flashing lights. In this context, you can see how revolutionary real-time graphical object manipulation with a stylus would have been. It was basically magic. Computer pioneer Alan Kay once asked Ivan Sutherland: "How could you possibly have done the first interactive graphics program, the first nonprocedural programming language and the first object-oriented software system…all in one year?" Sutherland said, "I didn't know it was hard."

Interestingly, Ivan Sutherland was the mentor of Edwin Capmull. Capmull created the first computer-animated film for a class project in 1972 and went on to be the founder of Pixar. More on that in the next chapter.

Opening Computers up to Everyone: BASIC (1964)

In the 1960s, all computer coding must have looked like chaos to an outsider. That would all change in 1964, when two Dartmouth professors debuted a coding language designed to be easy enough for anyone to use. The new language was called the "Beginner's All-purpose Symbolic Instruction Code," or BASIC for short.

Before BASIC, computer programming, and subsequently computer use, was beyond complicated. Early mainframe computers were programmed as they were assembled, almost like an Ikea set, except you needed to know how to make the pieces talk to each other in code. In fact, only highly specialized scientists and mathematicians bothered learning how to write and use code, and hence were the only ones who used computers. Though coding was still a specialized task, BASIC made the process much easier.

John Kemeny and Thomas Kurtz, mathematics and computer science professors at Dartmouth College, and creators of BASIC, wanted computer coding to be more accessible.

The main idea was this: why not use everyday language that most people could intuitively understand? For example, HELLO and GOODBYE, rather than LOGON and LOGOFF. Even more important was that BASIC needed to work as a compiler. A compiler translates the written language humans understand to the 1s and 0s that the computer can understand. Previously, each user had to keypunch a program into cards by hand, and then wait for the results (which might take a day) as the computer translated the code line by line. Now, a user typed plain-English commands into the computer and BASIC converted them instantly. This was much faster and eliminated the laborious hand-coding of the time.

BILL GATES GETS HIS START WITH BASIC

One of the first to explore the full potential of BASIC was Bill Gates. Gates was born into a wealthy Seattle family. His father was a prominent lawyer, while his mother served on the board of

directors for First Interstate BancSystem and United Way. The Gates family was competitive in nature, and the young boy liked to dominate in the strategic board game, Risk—skills that would come in handy later in his life.

During his childhood, Gates' parents began to have concerns about his behavior when he was around twelve. It wasn't that he was hanging out with the wrong crowd—actually the opposite. Gates was doing well in school, but he spent a lot of time on his own reading books. His parents perceived him to be bored and withdrawn. But an event in 1968 would change his life, and history.

In 1968, the thirteen-year-old Gates encountered a computer while attending Lakeside High School. The school had a timesharing arrangement with General Electric (GE). This meant Lakeside paid GE to use the computer for a time. However, the mainframe computer remained at GE, while the school could view the output on a terminal screen. The practice was popular in the 1960s as

computers were too large and expensive for most people to own. It was almost impossible for anyone who wasn't a scientist, an engineer, or at a university to get to see a computer in person, so this opportunity was a big deal for Lakeside High.

Gates just loved programming the GE machine in BASIC. Gates would later say that he was fascinated by the machine and how it would always execute software code perfectly. He was so keen that he was allowed to skip math class to go and code. His first piece of code was a computer-versus-human version of tic-tac-toe. Gates had found his calling.

Later that year, the school lost its funding for the timeshare, causing Gates and his (newly-acquired) coding friends to look for a new computer to play with. They found a PDP-10 belonging to Computer Center Corporation (CCC). At first CCC was happy to let them use the machine, until the four Lakeside students—Bill Gates, Paul Allen, Ric Weiland, and Kent Evans—were caught

exploiting bugs in the computer's code to get free computer time. They were banned for the summer for their efforts. When the ban was over, the four students made a deal with CCC: "We'll fix the bugs in your code if you let us have more time to play with the computer." CCC agreed, and the arrangement was in place until the company went out of business in 1970.

As you would know, this isn't the end of Bill Gates' story. As we'll see in the next chapter, he and Paul Allen used BASIC to found Microsoft. The company laid the foundation for the PC revolution and Apple built on it.

While the workings of computers were being reimagined, the inner workings of psychiatry would be reconceived by a notorious chemical that broke out from the labs into the world during the 1960s: lysergic acid diethylamide, or LSD.

FAR OUT: LSD LEAKS INTO CULTURE (1964)

No other chemical has impacted our understanding of the brain as much as LSD has. This chemical substance was at the center of a revolution that defined a decade.

Lysergic acid diethylamide made its original debut over two thousand years ago. In ancient Greek culture, it was a tradition to make an annual pilgrimage to a secret location to consume a drink made from fermented ergot (a fungus that grows on diseased kernels of rye), which produces a chemical similar to LSD. Some historians hypothesize that these experiences influenced ancient Greek thinkers.

As mentioned in chapter 7, LSD entered the modern world in the '40s. It was synthesized and discovered by Swiss chemist Albert Hoffman in 1943…by accident. The discovery occurred while Hoffman was trying to create a blood flow stimulant from the ergot

fungus and touched his finger to his mouth. The next twelve hours were interesting, to say the least. He records:

"I had to struggle to speak intelligibly. I asked my laboratory assistant to escort me home. On the way, my condition began to assume threatening forms. Everything in my field of vision wavered and was distorted as if seen in a curved mirror. I also had the sensation of being unable to move from the spot. Nevertheless, my assistant later told me that we had traveled very rapidly."

At home, his condition became alarming: "My surroundings had now transformed themselves in more terrifying ways. Everything in

the room spun around, and the familiar objects and pieces of furniture assumed grotesque, threatening forms. They were in continuous motion, animated, as if driven by an inner restlessness."

Hoffman believed his discovery could be a powerful tool for the scientific study of how the mind works. His parent company, Sandoz Pharmaceuticals, began to produce the drug.

At the psychiatric unit at St. George's Hospital, London, psychiatrist Humphry Osmond and his colleague John Smythies learned about Albert Hoffman's discovery. The pair conducted experiments to study the effects of mental illnesses, such as schizophrenia. This was done by giving LSD to healthy subjects and studying the effects. The fact that a chemical could induce schizophrenia-like symptoms flipped the medical field on its head. According to pharmacologist David Nichols, this shift in thinking could be said to be the start of neuroscience.

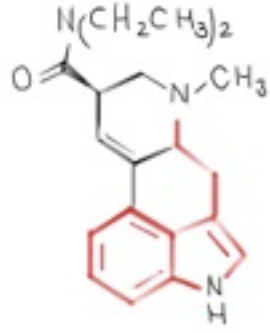

LSD

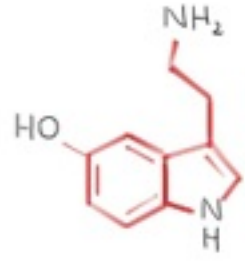

Serotonin

Osmond and Smythies looked at the chemical structure of lysergic acid diethylamide and realized that it was similar to the neurotransmitter serotonin. Could it be that the LSD was interfering with serotonin in the brain because their shapes were so similar? This was a light bulb moment that led them to conclude that psychiatric conditions are caused by chemical imbalances in the brain, an idea still widely believed today. In fact, antidepressant drugs such as Prozac act on the serotonin receptors in the brain—

a direct consequence of early LSD studies. After this revelation, psychiatrists began to abandon the psychoanalytical approach in favor of new disease models based on brain chemistry.

David E. Nichols, a PhD student who studied the breakthroughs of early LSD studies, put things into context: "Up until that time, mainstream psychiatry had no idea that behavior might arise from neurochemical events in the brain. Rather, if parents had a schizophrenic child, the mother might be blamed for not being nurturing enough, or for doing something wrong in the parenting of the child. Parents all across the world and particularly women, who bore the brunt of childrearing, shouldered the guilt for a child with mental illness, including schizophrenia, believing that they had somehow failed as parents. It seems difficult to imagine such thinking today, but that was the reality of mainstream psychiatric theory back then."

In 1954, Aldous Huxley, a British writer, volunteered for one of the Osmond studies. He was so amazed by the effects that he began to encourage others to experience it. Huxley wrote a book called *The Doors of Perception*, exploring ideas resulting from the experiment. *The Doors of Perception* gained attention from a wide audience, including the CIA and the Soviets.

LSD Takes a Bad Turn

Military authorities from both the USSR and the US pored over *The Doors of Perception*. Both sides thought that the chemical Huxley had described could perhaps be used in warfare as a truth serum; they began testing shortly after. To their dismay, LSD's effects were so uncontrollable that testing proved useless. Subjects couldn't even concentrate enough to answer questions. This gave the US authorities another idea. Perhaps they could use the drug to make enemy leaders embarrass themselves in public. The plan

was to slip it into the enemy's tea or coffee just before a large public event.

To test the idea, agents stealthily slipped LSD into each other's drinks at the office. This took a bad turn when agent Frank Olson died sometime after one of these experiments. The death was said to be related to lasting effects of the drug after an unpleasant experience. LSD proved to be powerful, but also highly dangerous. In 2017, the controversy around his death became the subject of the Netflix series *Wormwood*.

Around the same time, therapists in Hollywood began to use the chemical to help Hollywood actors and celebrities with their problems.

The Beginning of the End for LSD Research

Respected Harvard lecturer Timothy Leary first came into contact with LSD in 1962, and experiencing it, he made it his mission to use the drug to change the entire political, religious, and cultural structure of America. Other researchers were concerned by Leary's approach. They believed LSD should be used only for research under strict regulations.

Despite the protests of Leary's colleagues, Leary spread his ideas and young people across the country became intrigued by his experiences. In 1963, Leary was fired from Harvard. With nothing holding him back, he went from being a respected academic to a scruffy-haired preacher. His message was to "Tune In, Turn On, and Drop Out." "Tune in" to the world around you, "turn on" to new levels of consciousness, and "drop out" of society's forced and outdated commitments. It was a message that resonated with the counterculture of the time.

Meanwhile, on the West Coast, Stanford student and soon-to-be famous writer Ken Kesey heard about all the fuss and decided to take part in CIA-sponsored LSD trials. Shortly after the trials, Ken applied to work on a psychiatric ward. During one of his shifts, he ingested LSD from the establishment's supplies. The experience inspired him to write the classic novel *One Flew Over the Cuckoo's Nest*.

Like Leary on the East Coast, Kesey decided to spread the word about LSD to America's West. He gathered a group of friends and drove around in a heavily-painted bus to distribute the chemical in the San Francisco Bay Area, and across the country.

Thanks largely to Ken Kesey and his friends, LSD soon exploded into American society on both coasts. The time was right: the leading edge of the baby boomer generation would turn 19 in 1964. They wanted their voices to be heard and they were questioning everything—they became the counterculture for the entire nation.

By this stage, Albert Hoffman, who had discovered the chemical, looked at the unfolding events with helplessness. He would refer to LSD as his "problem child." On October 6, 1966, LSD was made illegal in California by the state government—but this just made it more attractive. Bands like the Doors, the Beatles, the Rolling Stones and the Grateful Dead had started to spread the underground message of LSD and there was no putting it back into the lab.

Everything culminated in 1967 with the Summer of Love. 100,000 young people flocked to the Haight-Ashbury district in San Francisco and the media followed. These young, outlandish people were referred as the hippies. Conservative Americans were horrified at what they were seeing. In 1968, the drug was finally made illegal in all fifty states. In 1969, LSD had one of its most infamous moments in the spotlight during the legendary Woodstock concert, when Wavy Gravy famously warned the

crowd not to take the brown acid. By this time, the drug's darker side had been pulled into the light. There were scores of missing runaway kids in the San Francisco area, and many who abused the drug were left with lasting damage, or dead.

Albert Hoffman distanced himself from the chaos of the '60s and would live to the ripe old age of 102.

A NEW WAY OF DOING THINGS: THE MOTHER OF ALL DEMOS (1968)

Only a few blocks from the Haight-Ashbury area and the cradle of the counterculture, a very different kind of mind-blowing experience was occurring. On December 18, 1968, at the Graham Civic Auditorium, Douglas Engelbart (protégé of Lick from ARPA) would showcase a demonstration of the future of computers so far

ahead of its time that it would earn the moniker "The Mother of All Demos."

Remember Sketchpad by Ivan Sutherland? The drawing computer with the light-pen earlier in the chapter?

Well, Ivan's work and Bush's "Memex" machine inspired Engelbart to think differently about human-computer interaction. What if the computer could be a personal aid? What if it could be a planner, organizer, and communication device? And most of all, what if it were so easy to use that anyone could immediately figure it out without being taught?

The Mother of All Demos

There is a recording of The Mother of All Demos on grainy black-and-white film. It is fairly easy to find, and worth a watch. After Engelbart's opening words to the crowd, he states: "Imagine you're

in your office as an intellectual. What if you had a display backed up by a computer that was alive, and all day, it was instantly responsive? How much value could you derive from that?"

Before Gates, Microsoft, or even Xerox, there was Engelbart. In this 1968 demo, Engelbart had just introduced the idea of the first graphical PC years before its time, and he was about to demonstrate how it worked.

As Engelbart begins the demo, he opens a blank document on a display and types a few words onto the screen. This part wasn't actually revolutionary, albeit a recent invention at the time. The next thing certainly is. Once the words are on the screen, Douglas uses a mouse to copy and paste some of the words. After this, he goes on to demonstrate how the page can be arranged and formatted. This was the very first use of a computer mouse, and it was used in (what can be considered) the very first word processing program.

Englebart's demo was the first use of the mouse, keyboard, and graphics in a modern sense

Engelbart asks the computer to save what he's written into a file. Next, Engelbart "right clicks" on the file to open up the equivalent command of "viewing file properties."

Following this was a typed shopping list. Engelbart shows that he can organize items by categories and click to open a particular

category. He next goes over various ways of manipulating the shopping list.

Engelbart then performed something which he called "jump on a link" to view more details about the items on his shopping list. This was essentially hypertext; much like the hyperlinks we visited before, they take you from one page to another on the internet, but by using text.

Later in the demo, Engelbart states that his team had been using the system for a few months and had six computers connected together. In other words, an early, closed-loop, intranet (as opposed to the open *inter*-net of ARPANET days). He even goes on to demonstrate a form of email between computers. ARPANET would still be a year away at this stage.

For 1968, this was mind-blowing. Any one part of this demonstration would have left an audience speechless, but

Engelbart kept piling innovation onto innovation. This was truly The Mother of All Demos.

Engelbart had developed the mouse, hypertext, onscreen windows, and many other features of modern software. Again, Vannever Bush is influential here. Engelbart credits Bush with awakening him to the potential of computers to manage information, not just crunch numbers. As incredible as this was, the significance of connected graphical computers wouldn't be realized until the mid-1990s.

Although graphical computers were off to a slow start, computers were just about to get a whole lot faster and smaller.

"A WHOLE COMPUTER ON A CHIP!": INTEL (1968)

In the previous chapter, we discussed the formation of Fairchild Semiconductor (founded by the Treacherous Eight) and the

invention of the integrated circuit in Silicon Valley. With this technology, Fairchild was way ahead of then-tech titans IBM and Motorola.

Each passing year brought new companies to Silicon Valley, and with them new jobs, though Fairchild Semiconductor was still the Valley's star attraction. Workers loved the unique corporate culture fostered by their once-reluctant boss Robert Noyce. It was a radical departure from other businesses. Noyce wanted to break down the distinctions between management and workforce. In his domain, everyone was a part of the team. People would happily work ten- to twelve-hour days, just because they enjoyed it.

At first the culture was like a college dormitory for competitive geniuses, and staff were making big money competing with each other. Soon, Fairchild was on a meteoric rise. They were like the Amazon, Apple, or Google of their day, both on the stock market and in the technology space. But in time, it became clear that there

was too much talent there for one company, and by 1962 Fairchild Semiconductor was beginning to unravel.

Half of the founding team and numerous researchers and engineers left the company to start new ventures. Most of them either worked for or became direct competitors in the integrated-circuit market. As ex-employees of Fairchild moved on and spread what they had learned, Silicon Valley exploded. The effect was so prolific that these ex-employees were nicknamed "the Fairchildren." By the 1980s, 100 different companies had sprung from the talent pool of Fairchild. But even as the dam burst, Fairchild was still weathering the storm. In 1964 alone, the company had shipped 100,000 devices to NASA, but Noyce was eying a bigger target—the American consumer.

As the innovations of Silicon Valley piled up, people with money wanted to invest in the hottest and fastest-moving technology in

human history. This was the idea of venture capitalism that we touched on before.

As more and more people left Fairchild, companies like Texas Instruments and Motorola started catching up. Noyce realized he needed to start something new. In 1968, he and fellow employee Gordon Moore began a project to make memory chip devices, to compete with the magnetic hard drive. Noyce and Moore's status in the industry, coupled with the rise of venture capitalists, resulted in $2.5 million being raised in under two days for their project, resulting in the formation of a new company.

Noyce and Moore picked the best and brightest minds to join the new company. Among them was Andy Grove, a Hungarian-born chemical engineer who had joined Fairchild's R&D division in 1963. His new role was Director of Operations. Former employees would say that hiring Andy was the best decision Noyce ever made. He was a driven man who wanted everything to be done

well and done on time. Neither Noyce nor Moore were stern enough to crack the whip.

Together, they called their new company Intel, an abbreviation of "integrated electronics," which also happened to conjure the word "intelligence." It didn't garner a lot of attention from the media, but within the Valley there was a great deal of excitement.

In the spring of 1969, as Intel engineers continued to tinker with the design of their memory chip, a simple request came into the Intel building, altering the course of computer history.

The Computer's Brain (CPU) Is Built

A Japanese firm, Busicom, contracted Intel to design twelve specialized microchips for its new calculator. Unfortunately, what Busicom wanted was going to be way too complicated and expensive for Intel to produce. A young engineer named Ted Hoff

raised his concerns. He thought that Intel might have bitten off more than it could chew.

Ted Hoff was a smart guy. While at Stanford in the early 1960s, he had spent four years conducting research on pattern recognition (what would later be called neural networks) and integrated circuits. Hoff had joined Intel in 1968 as employee number twelve. When Hoff voiced his concerns to Noyce, Noyce replied that—if Hoff could think of one—he should pursue a simpler chip design than what Busicom had requested. Noyce always encouraged the people in his labs to run with their ideas and see where they went.

Hoff envisioned a single chip that could be programmed for a specific application. In this instance, it would be to function as a calculator, but it could also be programmed to do *anything*. If the architecture could be constructed simply, then the memory, calculating, and processing functions of a computer could be combined into one integrated circuit.

Their efforts led to the first microprocessor: essentially a whole general-purpose computer on a chip.

The result was the Intel 4004 central processing unit (CPU). With more than 2,000 transistors, the device was advertised as a "computer on a chip." In this moment, the digital revolution had officially begun. The CPU is the culmination of all previous computing innovation. It is seen as one of the most important inventions of the last hundred years. The CPU was to become the driving force behind the brain of all of any computational aid we use today.

At just an eighth of an inch wide (3.2 mm) and one-sixth of an inch long (4.2 mm), the chip Hoff and the team unveiled had as much power as one of the first electronic computers, the pre-transistor ENIAC. The ENIAC of the 1940s used 18,000 unreliable vacuum tubes and was so large it filled an entire room. Though computers had shrunk since the days of the ENIAC, the 4004 was still a giant

leap ahead of what was available at the time. Hoff's chip took a 1969-era computer that was the size of a refrigerator and shrunk it down to fit on a fingertip!

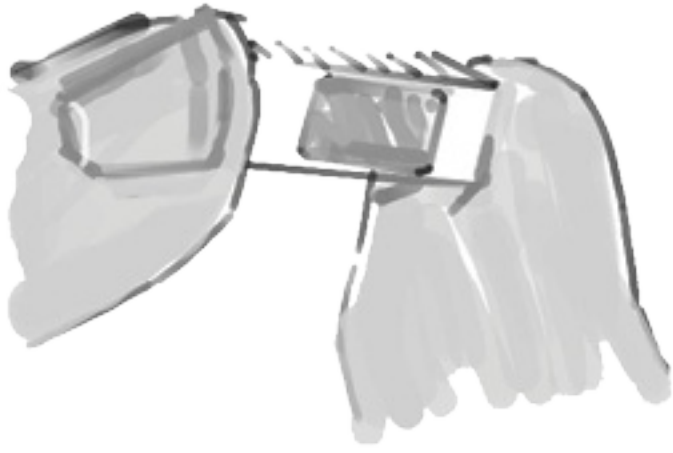

Typical 1969 computer VS a CPU

Amazingly, some still had reservations. Japanese clients were concerned about multi-tasking. For example, they were worried that the chip wouldn't be able to show a loading light and perform calculations at the same time. Hoff showed them that they were wrong. All they needed to do was write a program that would cause the lights to blink and do the processing, at the same time (or switch between the two so fast that the human brain would

never know). What the chip did was scan the keyboard for input, then output anything it found onto the display of the calculator.

This was done using something called micro instructions, or microprograms. The microprograms were hand-coded into a read-only memory chip (ROM)—something Intel had also just invented!

ROM: A Computer's Personality

Intel would call the ROM the "personality" of the system, as it is the part that tells the CPU how to behave. To change how a computer behaved, you simply had to re-program the ROM. Traditionally, you'd have to undergo laborious rewiring of the individual transistors or change out large circuit boards. It's hard to imagine doing that today.

The fact that the CPU could switch between calculating on the Japanese calculator, and blinking a light, is a key concept. A modern

computer's CPU works by taking small tasks and switching between them hundreds of thousands of times per millisecond. It does it so fast, it gives us the illusion that it's doing multiple things at once.

When the 4004 microprocessor (CPU) was unveiled, people couldn't believe it.

Ted Hoff would recall one such interaction at a computing conference in Las Vegas, 1971: "One customer who came in was adamant that we had such nerve to claim we had a computer on a chip. One of our engineers handed him the datasheet and he took it and exclaimed 'Oh God, it really is a computer!' It was something that people did not believe was possible at the time."

A slightly later version of the chip, the Intel 8080, would be the heart of the first widely-used "microcomputer" by MITS. This Intel-powered computer started both Apple and Microsoft (Microsoft

stood for “Microcomputer Software”). More on this in the next chapter. Today, the microprocessor market is a multi-billion-dollar industry. Intel is currently the largest CPU manufacturer on the planet and still dominates the desktop and laptop markets.

As for Ted Hoff, he left Intel in the early 1980s to accept a position with Atari as Vice President for Technology. Robert Noyce left Intel in the late ’70s. Today, Noyce is eighty-nine years old and thoroughly enjoys fishing.

The 1960s: what a decade! The state of computing had changed drastically by the end of ten short years. Culturally, the baby boomers had changed society, and in technology, new ideas that would impact humanity forever had come to fruition.

In the next chapter, the pace of innovation seemingly doubles as technology leaks into mainstream culture.

CHAPTER 10

The New Age

1970–1979

The 1960s shook the world with its radical new ideas, but the 1970s was an abrupt change in the overall mood within the social fabric of the Western world. The post-war economic boom was at an end, oil prices were up due to crises in the Middle East, the Vietnam War continued to escalate, and the Watergate scandal led to the impeachment of Richard M. Nixon. Many took to the streets to further civil rights movements such as women's rights, race equality, gay rights, and others. There was also voiced disapproval of the US government, while the New Age movement took hold; this movement led to (what became known as) the "me" decade.

The second half of the ’70s lightened up a bit, as the economy improved slightly, and a new form of music called disco began to emerge. It started off as extended remixes of blues and R&B records that people could dance to without interruption. Rock was also seeing a change and, by the end of the decade, glam rock and power ballads had come of age.

In the ’70s, email made its debut, along with the first word processor, the C programming language, and the floppy disk. Gene Cernan would be the last man to set foot on the moon in 1972. In 1975, an unknown young director burst onto the international film scene with his film *Jaws*. The director, Stephen Spielberg, would go onto become one of the greatest minds in cinema. In 1976, the most successful supercomputer, the Cray-1, was commissioned. It ran at a blistering 80 megahertz (twenty-five times slower than a single processor in a modern smartphone) but was a breakthrough for its day. The ’70s also gave us everyday inventions like the

modern soda-can design, the Post-it note, and the Rubik's Cube. But perhaps the greatest achievement of the decade came in 1977, in the form of NASA's Voyager missions. Also in 1977, all the planets happened to align—an event that happens once every 176 years. This cosmic event provided a unique opportunity to study all the planets.

Voyager 2 was the first spacecraft to explore Uranus and Neptune. Studying Uranus, the probe discovered ten new moons and also found that the planet was tipped on its side. Six new moons were discovered orbiting around Neptune, as well as a storm the size of Earth flying around the planet every eighteen hours. Almost all the information we know about those planets came from Voyager 2. Other discoveries by the spacecraft included the nine volcanoes on Jupiter's moon, Io. These powerhouse volcanoes produce plumes of smoke that rise 300 km into the air, at velocities of 1 kilometer every second! The Voyager 2 craft also managed to get so close to

Saturn, it could detect that it was less dense than water. This meant that, if you had an ocean big enough, Saturn would float in it.

The Voyager craft are still in operation today and run on a plutonium isotope. The probes are transferring data back to earth at speeds slower than a dial-up modem, traveling an incredible one billion miles every three years.

Aside from space travel, this decade was responsible for ushering in our modern way of living. The ’70s was the start of a different kind of new age.

Genetic Engineering (1972)

James Watson, Francis Crick, and Rosalind Franklin (the forgotten X-ray wizard) discovered the double helix structure in 1953. Strangely, it would take around twenty years for this information to have a practical use. In 1972, Herbert Boyer and Stanley Cohen

created the first genetically-modified organism, a bacterium that was resistant to kanamycin (an antibiotic). Shortly after this, Rudolf Jaenisch created the first genetically-modified animal.

HOME VIDEO GAMING FINALLY ARRIVES (1972)

Today, almost all of us either own a game console or have played on one. From Nintendo to the Xbox or PlayStation, there have been countless hours of entertainment provided by home game consoles. Higinbotham's *Tennis for Two* in chapter 8 and MIT's *Spacewar!* in chapter 9 were both standalone attempts at early computer gaming, but who was the fine human who invented home gaming?

To find out, we have to travel back to 1966.

The TV "Game Box"

In 1966, a man named Ralph Baer was the head of equipment design at Sanders Associates, a military company. One day, while waiting for a bus, Ralph was thinking—as there wasn't much else to do. During this wait at the bus station, an idea came to him: the simple concept of a "game box" that could turn a regular TV into a gaming device. Inspired, he wrote up a short proposal for such a device the very next day.

What was he to do with such an idea? A gaming device had nothing to do with the military, so his bosses would be less than impressed if he showed them. Knowing this, Ralph stole an assistant by the name of Bob Tremblay from the Sanders company and together, they got to work in an empty room.

Soon, they had a prototype creatively called "TV Game #1" and honestly, it wasn't very good. The "game" consisted of a single vertical line that could be moved across a TV screen. Despite not being much to look at, TV Game #1 was demonstrated to the

director of research at Sanders, Herbert Campman. After raising an eyebrow and probably exclaiming, “Sure, what the heck,” Campman agreed to allocate $2,500 ($19,332 today) for funding.

In the next year, Baer and a very small team worked on improving the console. Eventually, they came up with a console which was capable of playing a shooting game with a plastic light gun. Ralph showed the new game to Herbert Campman, who was now enthusiastic.

Campman increased funding and pushed the idea to senior management, who largely just grunted at the idea. Still, the Sanders CEO thought a TV game console was a product that could be marketed and sold. By 1969, the small team was approaching a definitive version that had almost thirty games—they just needed someone to sell it to. The television manufacturers would be a logical target. After some failed negotiations with RCA, in 1971, Baer’s team settled with the Magnavox company, a media hardware

powerhouse of the day. The launch date was set for September of 1972, and the game console was to be named the "Magnavox Odyssey." The console sold for $99.99 ($600 today) by itself, or $50 ($353 today) when bought with any Magnavox television. This was the first home gaming console.

Magnavox Odyssey

Since the term “video game” didn’t exist at the time, during the advertising campaign, the system was referred to as a “closed-circuit electronic playground.” Catchy.

So, what did the public think about such a device? The only form of visual home entertainment for most at the time was black-and-white TV. Suddenly, they would be able to instantly interact with a TV and play games? It must have seemed like the future had come all at once! But…the sales didn’t really reflect that.

Due to the high price, and confusion in the advertising (which implied that the consoles only worked with Magnavox TV sets), sales remained modest until the console’s cancellation in 1975. Worldwide sales only totaled around 350,000 units. Regardless, the Odyssey ushered in the modern era of gaming and directly inspired Atari.

Hey, Don't Steal My *Pong*!: Atari

The story of Odyssey and the Magnavox system didn't stop with this home game console. Around the time of the Odyssey's release, Nolan Bushnell was chief engineer of an arcade game manufacturer. Bushnell had previously come up with an arcade game called *Computer Space* (essentially an arcade version of the 1962 MIT rocket shooter game, *Spacewar!,* from the previous chapter). *Computer Space* was also the first ever commercial arcade game. The cabinet-like structure housing the game used custom hardware specifically built to run the game, as it couldn't run on the cheaper minicomputers. The cabinet was put in a few local bars but, unfortunately for Bushnell, the game wasn't really a success due to its complexity (or maybe people were too drunk to play properly). Regardless of the reason for failure, Nolan needed another idea.

One day in May of 1972, he came across a demo of the Magnavox Odyssey at a dealership. From the moment he saw a table tennis game being played on a TV screen, he knew that things were about to change. He immediately quit his company and started a new one called Atari, hiring a man named Allan Alcorn in the process.

This is where Bushnell becomes a sneak. Without telling Alcorn that the Odyssey demo belonged to Magnavox, Bushnell asked Alcorn to devise a similar ping-pong-type, coin-operated arcade game as part of his "company training." What Bushnell really wanted was a rip-off ping-pong game for which Alcorn did all the work.

Alcorn was a bit of a genius and decided that the original version of the game was too boring. To make it more exciting, he added a few features of his own. Instead of the ball just going back and forth in a straight line at a constant speed, he thought the direction of the ball should change depending on how the player hit it. In

addition, he thought that the ball should speed up the longer you played, and only reset to its original speed once you missed. This game would be known as *Pong*.

The *Pong* arcade machine was a simple setup—a black-and-white TV purchased from a department store, some custom hardware that ran the game, and a laundromat coin mechanism with a milk carton to catch the coins.

In August of 1972, the game was put in a local tavern to see how people would react to it. It seemed like Bushnell and Alcorn wouldn't get much of a chance to see, because a few days after installation, the game began to malfunction. Alcorn got the call to fix the machine and was on his way. On the drive, Alcorn must have had some questions going through his mind: What went wrong? Maybe it was bad coding? Or maybe the hardware in the cabinet wasn't put together properly?

When Alcorn arrived at the tavern, he was stunned to see a line of people waiting outside waiting for the bar to re-open. They were all waiting to play *Pong*!

As for the problem? The game was so popular that when the coin collector became full, eager patrons stuffed in so many coins that the mechanism shorted out and shut down. The Atari pair knew that they had a smash hit on their hands.

Pong quickly became the latest trend for the kids of America, and the arcade became the hottest place to hang out. Bushnell would later recall that many kids met their future partners over a game of *Pong*.

Pong, and to a lesser extent the Magnavox Odyssey, truly kicked off the modern era of gaming. In 1974, Magnavox would sue Atari for stealing the idea of *Pong*. Atari agreed to pay a settlement.

The Hand That Started Pixar (1972)

We're used to seeing 3D animation everywhere today, but there's a curious story behind its inception. Its birth has to do with the ingenuity of one man, Edwin Catmull. Catmull was born as a post-war kid in 1945. His idols were Einstein and Walt Disney. Movies like *Pinocchio* and *Peter Pan* captured his imagination. He wanted to be an animator, but didn't know how, so he took up computer science at the University of Utah in a nod to his idol, Einstein. During his graduate studies, he was a student of Ivan Sutherland (the man who invented Sketchpad, the first computer drawing program, discussed in the last chapter). Catmull saw that animation on a computer might be the perfect way to marry his love of science and art.

From that point, Catmull's main goal and ambition was to make a computer-animated movie. His first opportunity came when the

class was given a task of creating a digital 3D object. When Catmull observed the sad state of computer animation, he realized that the software was inadequate to allow for animations suitable for the film industry. In a stroke of brilliance, the young man decided to make his own animation software, creating texture mapping, spatial anti-aliasing, and z-buffering, thus singlehandedly creating the fundamentals of computer graphics along the way.

For his project, Catmull decided to digitize his left hand by creating a plaster-of-Paris mold. Unfortunately for Catmull, the mold was on so tight that when he removed his hand, he also removed all the hair on the back of his hand. After the mold removal was (painfully) done, Catmull traced 350 triangles onto the surface of the hand. The edges of these triangles would represent coordinates, which had to be painstakingly entered into a teletype keyboard for the computer to process.

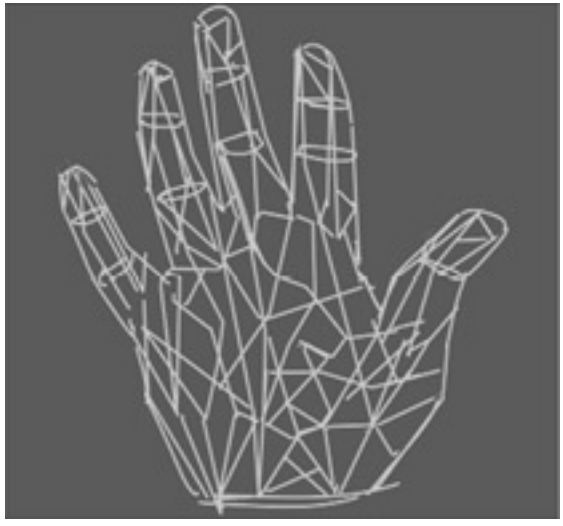

Impression of Ed's
3D animated hand

The computers of the time weren't capable of calculating an entire frame of footage at once, so the output on the screen was captured with a long-exposure camera until the entire frame was processed. When this was done, a snapshot would be taken. A lot of work for just one frame.

The final video, simply known as "A Computer Animated Hand,"

was eventually picked up by a Hollywood producer and incorporated in the 1976 movie *Futureworld*, the science fiction sequel to the film *Westworld* and the first film to use 3D computer graphics.

Catmull later went on to form his own computer graphics lab and worked with the great George Lucas to bring computer graphics to entertainment. Catmull's graphics lab (Graphics Group) later spun off as one-third of the computer division at Lucasfilm and was renamed "Pixar." The company was heavily invested in by Apple Computer co-founder Steve Jobs in 1986.

It's strange to think that the roots of Pixar can be traced back to a hairless left hand. Computer graphics are ubiquitous today, but even more so is the mobile phone, another invention of the 1970s.

THE FIRST MOBILE PHONE (1973)

Phones have altered our expectations of what's possible. Now we expect to have all things with us at all times; the entire world is at our fingertips, instantly. We can read, watch, listen, consume, and sometimes create, from anywhere at any time.

What I've just described is the smartphone revolution, and it's only a decade old. But, before we had the world in our pockets, mobile phones did a lot less. In the '90s and '00s they had a basic organizer, a modest camera, and very basic Internet if you were lucky, but go back to the '80s and mobile phones just did one thing: make phone calls.

What was the first one of these primitive phones that just made phone calls? What was the original phone that would become the grandfather to all the billions of phones in our pockets? The person who invented it might just be worth checking out.

To start the story of the first mobile phone, we have to go back to the 1940s. Technically, at this time, mobile phones did exist, but only in cars. And if you had one, you were most likely an important person. Around this time, putting a phone in a vehicle was the only way to make it mobile. This is because the phone took so much power to run that only car batteries could meet the supply.

Another drawback was that, for a given area (New York for example), only twelve phone-line channels existed, so most of the time you'd have to wait to use a network. Just to connect to a mobile call in a car could take thirty minutes. That's just the way it was and the way it was always going to be. Well, until it wasn't.

In 1968, the Federal Communications Commission asked AT&T to fix this issue. AT&T then came up with a cellular radio architecture.

Its aim was to break up the large areas of coverage into smaller ones so that multiple people could use their phones in their cars at

the same time. You see, at the time, regular mobile systems used a central high-power transmitter to serve an entire city, so only one telephone call could be handled on a radio voice path at one time. The new system would use a number of low-power transmitters arranged in "cells" (that's where the name "cell phone" comes from). The calls would be automatically switched from one cell to another as a driver moved.

Motorola also had a car phone division and didn't want AT&T to have a monopoly on products that could take advantage of this new system. Motorola feared that this could be the end of their mobile business if they didn't do anything. So, they began to develop a phone that took advantage of the new cell system. The device was to be so advanced that it would leave AT&T in the dust. In 1972, Motorola asked an employee by the name of Martin Cooper to spearhead the project.

One day, while thinking about how to create a mobile phone, Cooper recalled a comic strip called *Dick Tracy*. In the comic, Dick has a mobile wristwatch he uses to help fight crime.

This gave Cooper an idea and he began to think about the problem differently: instead of assigning a mobile number to a *place*, why not assign it to a *person*? Then you could be connected wherever you are, to whomever you want. This was a revolutionary idea—but could such a device even be made? Cooper was banking on a brand-new technology. The microprocessor, freshly invented by Intel in 1971, was the key. Its tiny form meant it could do the same thing as many components, using much less space and power consumption.

By March of 1973, Cooper and his team had a working prototype called the DynaTAC. On April 3, 1973, Cooper introduced the DynaTAC phone at a press conference in New York City.

The First Phone Call Was a Troll

For his first test call before the press conference, Cooper decided to call an engineer named Joel Engel. Engel was the head of AT&T's mobile phone project, the arch nemesis of Motorola. So, Cooper picked up his new phone and called Engel to tell him that he'd beaten AT&T to the mobile phone. That's right, the very first mobile phone call was a troll. Cooper explains:

"In that first call we didn't know it was going to be historic in any way at all. We were only worried about one thing; is the phone go to work when we press the button? Fortunately, it did."

In 1983, after years of development, Motorola introduced the first portable cell phone to consumers—the DynaTAC 8000x. It weighed almost one kilogram. Additionally, a full charge took roughly ten hours, and offered only thirty minutes of talk time. But that was okay, because your arm would grow tired if you held it up

to your ear any longer than that. To top it all off, its price was almost $10,000 (adjusted for inflation).

DynaTAC 8000x

The phone eventually became a success, kicking off the mobile phone revolution. When Cooper made the first mobile phone call back in 1973, there was only one real cell phone. Now there are more mobile phones than people. While Cooper was making the phone call that changed the world, there was another event that would alter history: the first *graphical* consumer PC.

Snatching Defeat from the Jaws of Victory: Xerox Alto (1973)

Imagine having one of the greatest inventions of the twentieth century in your hands and giving it away because you didn't understand what you had. Xerox did just that with the Xerox Alto.

The Xerox Alto was an experimental computer from 1973, created at Xerox's Palo Alto Research Centre (PARC). The PARC team consisted of Robert Taylor—a researcher from ARPA of the last

chapter—and other researchers who were inspired by Douglas Engelbart (Mother of All Demos) and Joseph "Lick" Licklider.

The Alto was way ahead of its time. It was the first modern desktop PC to resemble what we recognize today. The central idea of the PC was based on Lick's 1960s paper "Man-Computer Symbiosis." It described how a computer could be like a friendly colleague that could help when problems got too hard to think through.

The Alto had a mouse, windows, icons, menus, graphics, file managers that could copy, paste, move, and delete files, and even a local network that connected computers together. This is commonly referred to as a graphical user interface (GUI). The idea was to mimic the office desk, but on a screen—a paperless office of the future. Certainly, a new way of thinking for 1973.

What the Xerox Alto represented was the very first graphical user interface in desktop form.

Xerox Alto was a modern desktop computer in every sense

Although shown once in the Mother of All Demos, pointing at and actually clicking on a graphical object was a very foreign idea in mainstream computing. Before GUIs, to do anything on a computer, you needed to type commands out in lines of text. If you mistyped something, too bad. The computer would just spit out an error.

Thousands of Xerox Altos were built at the PARC, but never sold to the public; they were only used heavily at the other Xerox offices and at a few universities. Unfortunately, the Xerox top managers didn't understand what they had. They thought the Alto was an amusing toy, but nothing more. The managers didn't have a vision of what the computer of the future could become, but a man named Steve Jobs did, and Xerox handed the completed vision straight to him. Here's how it went down:

Despite protest from some employees, Xerox managers invited Jobs to look at the Alto in 1979. The meeting was arranged as an exchange: Jobs would help the Xerox team figure out how to make computers more cheaply (since Apple II's were flying off the shelves at the time), while Xerox would allow Jobs to take a look at some of their cutting-edge research at the PARC center.

During the meeting, Jobs was amazed. He knew that this was the future—everything that he imagined a computer to be was sitting right in front of him. Jobs didn't waste the opportunity and heavily borrowed these ideas of a graphical user interface featuring onscreen windows and a mouse into his next product: the Apple Lisa, which would lead to the original 1985 Macintosh. We'll revisit this story in the next chapter.

PERSONAL COMPUTING IS BORN (1975)

It goes without saying that the personal computer revolutionized businesses and homes around the globe. But where did this whole revolution start? As you'll soon find out, the first PC was the impetus for both the Microsoft and Apple companies.

In 1974, Ed Roberts, an engineer, was trying to stop his calculator business (MITS) from going under. At a meeting with his bank lenders, and in a last-ditch attempt, Roberts said that he might be able to save the company by doing something that hadn't been done before—creating a personal computer kit for hobbyists. This was a task thought impossible at the time. It was only made possible by the microprocessor (CPU), invented by Ted Hoff and company at Intel just three years earlier. As we saw, the microprocessor allowed for an entire computer to be put onto one chip, a huge feat. Intel had released the 8080 chip in 1972, a more powerful version of their initial product. Roberts saw an

opportunity and used the silicon in his new computer, the MITS Altair 8800. It would be the world's first microcomputer kit.

Popular Electronics Magazine: The Spark that Ignited It All

MITS advertised the microcomputer on the front cover of *Popular Electronics* magazine for $400 ($1800 today). For *Popular Electronics*, advertising a computer in a hobbyist magazine was a bit of a risk, as it wasn't known if it would even be a good fit. It proved to be exactly the opposite.

Roberts told the bank that MITS expected a few hundred orders at the most but ended up being swamped with a couple of thousand within the first few months. The demand was so high that enthusiastic hobbyists parked in the front of the MITS warehouse to get their hands on the computers.

Thinking about it, the demand was only natural. In the early ’70s, computers were still a big deal. You usually needed a clearance to see one, let alone use one. This made it almost impossible to get to use one in person without timesharing (logging on to a terminal connected to a large mainframe computer). Even when you got there, you’d be frustrated because computers seemed to be getting more difficult to use as time went on. In the mid-1970s, computer technology began to evolve in capabilities beyond just calculations. It seemed that computers could now do a lot more than just math.

Globally, young tech minds were entranced by the concept of a computer. One of those young minds was the rebellious computer hacker Bill Gates, now in university.

Paul Allen, a high school friend of Bill Gates, saw the magazine cover with the 8800 sitting proudly on it. Allen snatched it off the shelf and ran into Gates’ college dorm room. Upon seeing the device, Gates knew that this was it. A consumer personal

computer had arrived. This event would change Gates' life, and the rest of ours too. In an instant, all the possibilities were now within reach.

Well…almost. You see, the Altair 8800 was very primitive. Early users of the computer would later say there was no place to connect a keyboard or monitor; it was just a bunch of switches and lights. In addition to being primitive, the Altair 8800 was difficult to use. To load an instruction, you had to flip switches. For example, to figure out 2 plus 2, each "2" required eight different switches to input and a ninth switch to load them all. The "add" instruction required eight more switches, and the answer "4" was displayed by the third light from the left turning on (I told you it was difficult). In addition to this, there was no memory. This meant you couldn't turn the machine off after you coded something because the information would be lost. We have to be thankful for our ease of use today.

Microsoft: Gates Turns His Hobby into a Company (1975)

When Paul Allan burst into Bill Gates' dorm room and showed him the MITS Altair 8800, Gates also realized that the computer revolution was about to happen without him. He called up the MITS company to tell them that he and Allen had written software for the machine and that the code was almost completed. The only problem was, they hadn't even started writing it.

The nineteen-year-old Gates saw that he could get an early foothold on the new PC industry. He quit university and went to New Mexico, where he lived at a hotel across the road from the MITS factory. From this hotel, he and Paul got to work writing software for the 8800. They chose to make a version of BASIC for the Altair so that it could be smart enough to perform functions other than flashing lights. The thing was, they didn't have a MITS Altair machine to do the testing on—only a book from Intel on the

chipset that was used in the Altair 8800 computer. If they made one mistake, their software wouldn't work. Undeterred by the challenge, the pair wrote the software in a couple of months and punched it into paper tape. This piece of paper with holes in it was the very first Microsoft software—you'll recall that "Microsoft" (fittingly) stood for "microcomputer software."

Paul Allan then flew to the MITS factory and ran the software on an Altair 8800, with MITS CEO, Ed Roberts, as a witness. Allan typed in a program to print "2 + 2," and the computer spit out "4." He tried some squares and square roots, all successfully. The software worked. In the end it was Gates' business mindset, risk-taking attitude, and confidence in skills that allowed him and Allan to deliver something they didn't yet have, but knew the world needed.

Gates and Allan's software now allowed the Altair 8800 to do much more. By the end of the year, people had attached screens to

the Altair, and written games, accounting software, and word processors on top of the early Microsoft BASIC software. This was where the Microsoft company originated.

A true revolution had begun, and at the center of it was Microsoft. And, as we know, they didn't do too badly after that.

APPLE COMPUTER (1977)

The other side of the PC coin was Apple. Today, they're one of the most valuable companies on earth, but how did it all begin? You know what they say—great things happen when you're in the right place at the right time.

The year was 1977, and the timing was perfect for an explosion of innovative technology. A remnant of the '60s counterculture remained in a revolution separate from mainstream America. In tandem with this was the development of the CPU from Intel.

During this time, a sixteen-year-old Steve Jobs met a twenty-one-year-old Steve Wozniak. They were run-of-the-mill university students with a love of technology, pranks, and the Beatles. Neither of the friends had any idea that the two of them would soon change history.

At this time, the hysteria and fallout from the Altair 8800 on the cover of the *Popular Electronics* magazine caused computer clubs to pop up around the US. One of these clubs was the Homebrew Computer Club in San Francisco. The aim of the meetings at this particular club was to find a real "human" use for the new computer.

According to Jim Warren, founder of the West Coast Computer Faire, the general belief system of the Homebrew Computer Club was influenced by the counterculture prevalent around the area. For the club, this meant that helping each other and sharing everything was the norm. It was a team effort to figure out what

the new computer kit could do. Members of the club who had purchased Microsoft software began to copy and share Bill Gates' paper tape software (by punching holes with a teletype) without his permission. They didn't see anything wrong with that, but Gates was furious!

This open behavior was at odds with what Bill Gates believed. He flew down to the Homebrew Computer Club with a presentation, begging people to stop copying the software. The club members didn't care much for Gates' protests. They were just excited to see what new functionality could be brought to the Altair machine with each inquisitive piece of code.

Wozniak (Woz) later stated that it was the very first meeting at the Homebrew Computer Club that inspired him to work on his own computer, which he brought to each weekly meeting. Woz was always a tinkerer and was even expelled for sending prank messages on his university's computer. When he was in college, in

the early ’70s, he would read booklets and design his own computers on paper, eagerly waiting for the chance to be able to afford a CPU chip of his own. He recalls:

“…and I took this book home that described the PDP-8 computer and it was just like a Bible to me. You might fall in love with playing a musical instrument; I fell in love with these little descriptions of computers on their inside. I could work out some problems on paper and solve them and see how it’s done, and I could come up with my own solutions and feel good about it.”

When Woz told his dad (while in the first year of college) that one day he would have a desktop computer, his dad replied, “It costs as

much as a house, son." Woz argued that he'd "just live in an apartment then."

By 1975, Wozniak was already building his own computers and completed his first prototype in June of that year. He would "borrow" silicon chips from his work at Hewlett-Packard, where he designed calculators.

The prototype computer Wozniak brought to the Homebrew Club each week could display letters and run a few simple programs. As simple as this seems today, this was the first time in history that any characters were generated on the screen of a home computer. Each week, his computer would have new improvements. Woz's main motivation for building the computer as efficiently as possible was to impress his buddies at the club.

Wozniak was too shy to put up his hand during the club sessions, so he would just set up his computer at the session's conclusion

for people to check out. People would crowd around his creations and ask him a stream of never-ending questions. Everyone wanted one!

Steve Jobs—friend of Woz, and an Atari intern at the time—also attended the club meetings and noticed the demand. He said to Woz that the two of them should really sell these things.

Wozniak had proven that he could singlehandedly design a circuit board—all the required hardware and software that was needed for a personal computer—so the two of them could go ahead and do it. It just might work…

The First Apple Computer

Wozniak tried to sell his computer design to HP, but they rejected it five times. In the end, it would be their loss.

After Jobs suggested they sell the computer as an assembled circuit board, the pair decided to give it a go. Woz sold his HP calculator and Jobs his Volkswagen van to get the project off the ground. Together they raised $1,300 ($5,700 today) and, with the help of some friends, made their first personal home computer, initially working in Jobs' bedroom and then in his garage. This item was the maiden Apple product, the Apple I, which sold for around $600 ($2,640 today). The design used far fewer chips than any comparable machine and Wozniak earned a reputation as a renaissance artist of computer design. The Apple I was a single circuit board with no included keyboard or monitor.

In April of 1976, Jobs and Wozniak founded Apple Computer—this was the official beginning of Apple. In the same year, the company managed to sell fifty Apple I's. To Jobs, this proved it wasn't just hobbyists *within* the club that wanted to own a PC, but those

without also. But what about the people who weren't hobbyists at all? What about the rest of us? Jobs explains:

"It was very clear to me that while there were a bunch of hardware hobbyists that could assemble their own computers—or at least take our board, and add transformers for the power supply, as well as a case and keyboard—for every one of those, there were a thousand people that couldn't do that, but wanted to mess around with programming. So, my dream for the Apple was to sell the first, real packaged computer."

I think a lot of other hobbyists would have missed this piece of insight. Understanding the increased potential of selling a complete PC may not have come easily to someone who was just a tinkerer—realizing this would take an individual with a natural business mindset.

Jobs' vision of a ready-made PC was actually impossible at the time. It would take way too many chips, making it too expensive and too complicated. As it turns out, Woz didn't know it was impossible.

Woz was a wizard in computer design. The fact that the Apple I had color was actually because of a trick he had learned at Atari for their early arcade games (Woz made the famous game *Breakout* there). Jobs contributed his design knowledge, making the computer attractive to look at, while insisting that the computer should be easy to use. Even looking back today, the sleek, tilted design must have been a refreshing change from the bland boxes that were available.

The Apple II

Steve Jobs managed to get some investment money together for manufacturing. The result was the Apple II, which sold for $1,300 (or $5,242 today). It was a fairly capable, ready-made home

computer that only required the user to plug in three things: a keyboard, a monitor, and a power supply cable. The whole thing would be powered by Microsoft BASIC.

By 1977, the PC was a far cry from the hobbyist box with a bunch of lights and switches that featured just two years earlier—it was now a complete product ready for the consumer, without the messing around. It was the *real* genesis of the home computing era.

The new company showcased the Apple II at the West Coast Computer Faire in 1977. They stole the show outright with the Apple II's color display and built-in graphics card. Spectators couldn't believe what they were witnessing. It was the most complete computer in existence; no one had ever seen anything like it.

The Apple II was the first home computer to have BASIC built in. It was also the first to have sound, color, graphics, a plastic case

(shell), and 48 KB of RAM built into the motherboard without any slots.

The Apple II sold millions of units well into the 1980s. It, along with the burgeoning Commodore PET and Tandy TRS-80, defined the home computer market of the ’80s.

PCS IMPACT THE BUSINESS WORLD

Apple II Computer

In 1979, the Apple II's killer app arrived in the form of VisiCalc. It was essentially an Excel spreadsheet for business users. VisiCalc was originally envisioned as a "magic blackboard." Instead of accountants making *one* change in a spreadsheet and being forced

to recalculate everything (sometimes taking days), now the computer could do it instantly.

When accountants saw the program in action, they exclaimed that their whole job had just become a thousand times easier. There were reports of some individuals crying and shaking at the magnitude of what this software meant. VisiCalc ended production in 1985, but Microsoft picked up the torch with Excel in the same year.

After this, Apple was off exponentially. Jobs was worth over a million dollars when he was twenty-three, and over $10 million when he was twenty-four. By his twenty-fifth birthday, Jobs was worth over $100 million. With the Apple II, Jobs went from working in a garage to being worth over $100 million in just two years.

The future of Apple would not be all smooth sailing, and a PC war involving IBM and Microsoft would take place in the 1980s. We'll be catching up with Apple in the next chapter.

BEFORE DVDS AND CDS, THERE WAS THE LASER DISC (1978)

We're all aware of the compact disc. It's harder to realize what a remarkable invention it was in the post-physical-media age. But when the CD initially came out, it was nothing short of revolutionary. Unlike records or cassette tapes, your music now wouldn't get worn out when you played it back, and the quality didn't deteriorate over time. Sound could technically be stored forever. Digital sound was brought to life by lasers (another AT&T/Bell Labs invention) in 1982. It was the stuff of science

fiction. Even as a kid in the mid-'90s, I remember being amazed by the concept.

What many younger people today may also not realize is that the CD was actually based on an earlier technology that was extremely advanced for its time: the laser disc (originally called Disco Vision). I find this odd format fascinating. It should have taken the world by storm, but today it only remains a forgotten quirk of the past.

What Is a Laser Disc?

The Laser Disc was a home-video format, and the first commercial optical disc storage medium.

It was basically the DVD of the late 1970s. There were laser disc players from Phillips, Magnavox, and Pioneer. The year of release: 1978, two years after the introduction of the VHS VCR, and four

years before the introduction of the CD. The discs were huge at 12 inches (30.5 cm) in diameter.

The first mass-produced, industrial laser disc player was the MCA DiscoVision PR-7820. This unit was used in many General Motors dealerships for training videos and presentations in the late 1970s and early 1980s. The first movie released on laser disc was Steven Spielberg's *Jaws*, followed by more than 10,000 titles between 1978 and 2001.

VHS was the main competitor to the laser disc format. The laser disc had the advantages of displaying still images without wearing out a tape on a rotating video drum. It featured a far sharper picture with a horizontal resolution of about 430 lines, while VHS featured only 240 lines. LDs could handle both analog and digital audio, whereas the VHS was analog-only. LDs could store multiple audio tracks—impossible on VHS. This allowed for extras like

director's commentary tracks and other bonus features (a first back then, though it is now common for Blu-Ray/DVDs).

Laser discs were initially cheaper than VHS videocassettes to manufacture, as they lacked the moving parts and plastic outer shell necessary for the VHS. In addition, the duplication process was much simpler. (However, due to the larger volume of demand, videocassettes quickly became much cheaper to produce, costing as little as $1.00 per unit by the beginning of the 1990s.) Laser discs also potentially had a much longer lifespan than videocassettes. The discs were read optically, with no physical contact, instead of magnetically. As a result, playback would not wear the information-bearing part of the discs, and properly manufactured LDs would theoretically last beyond one's lifetime.

So, What Went Wrong?

So, if laser disks were so great, why didn't they take off?

The discs were heavier (weighing about half a pound each), more cumbersome, and more prone to damage if mishandled than a VHS tape. Also, the disks could only fit thirty to sixty minutes footage per side, depending on the format, so some movies would require two or more discs. Further, most LD players required users to get up from their couch and manually turn the disc over in order to play the other side.

Error detection also didn't exist at the time. Because of this, even slight dust or scratches on the disc surface could result in read errors, causing various video-quality problems: glitches, streaks, bursts of static, momentary picture interruptions. DVDs and later digital media have such protection.

Despite the mild popularity, manufacturers refused to market recordable laser disc devices on the consumer market, even though the competing VCR devices could record onto cassette. This move hurt sales worldwide. The inconvenient disc size, the

high cost of both the players and the media, and the inability to record on the discs, all took a serious toll on sales, contributing to the format's poor adoption figures (though it fared better in the Japanese market).

The last laser disc title release in the US was in 2000, but interestingly enough, players were still being made until 2009.

So, there you have it: the tech of the future that just didn't quite make it to the mainstream. A little quirky piece of tech history.

SONY WALKMAN: A STEREO IN YOUR POCKET (1979)

Sony, who had burst onto the American electronics market with their transistor radio back in the 1950s, were about to have their next big hit: the Walkman. A stereo that could fit in your pocket was the stuff of science fiction, and when it arrived on the market, it completely transformed the way people listened to music.

The Walkman was born out of a personal need from Sony's chairman Masaru Ibuka (one half of the hero pair from chapters 7 and 8). He was a big fan of music, but also tended to travel a lot. In order to get his music fix on the go, he would use the existing Sony TC-D5 cassette player. It was portable but not exactly…portable.

The player weighed 1.7 kg and was 237 x 48 x 168 mms (9.3 x 1.9 x 6.6 inches)—doable, but not exactly convenient. Ibuka was a little frustrated with this and thought there ought to be a better way. He assigned an employee, Norio Ohga, to come up with something better. Ohga used existing the tape recorder technology found in Sony's Pressman device to create a tape playback-only model that could be used for music listening. A prototype of the tape media player was cobbled together in time for Ibuka's next flight. It was a crude device, and the custom batteries ran out halfway through the flight, but Ibuka was extremely impressed with the concept

nonetheless. He began to champion for a consumer version to be built at Sony.

The other managers at Sony thought it was a terrible idea. Who would want a portable cassette device that could only play back tapes and not even record? What would be the point of such a useless product? Ibuka strongly argued that listening to your own music while going for a walk would be something everyone wanted. As it turned out, he was right! The result of this little experiment —the Sony Walkman—was a hit. Initially selling for $150 ($500 today), 485 million units were sold in its production run.

Sony Walkman

The Walkman name remains in Sony's line-up to this day as "high-resolution" music players.

On to the '80s

As the 1970s drew to a close, the world was a different place once more. The computer was now personal, with its own software. It had a growing user base of hobbyists, and even some businesses were using its technology. Two future giants had been born out of this: Microsoft and Apple. We'll take a look at the fierce rivalry between these two companies in the next chapter.

The economy would falter in 1979 with another oil crisis in the Middle East, but from 1980 onwards, every aspect of society would begin to change, irreversibly.

CHAPTER 11

Technology Merges into Society

1980–1989

I've always had an obsession with this decade: its loud clothes and catchy music. Popular films at the time were all creative and original: *E.T.*, *Back to the Future*, *The Terminator*, *Ghostbusters*, *Ferris Bueller's Day Off*, *Top Gun*, and *Scarface* have all remained modern classics.

You can't think of the '80s without the technology it produced. The charm of the cassette tape hiss and the satisfying click of large physical buttons—it was a time where analog was king.

By the end of the decade, the Western world was on an upswing, but the ’80s certainly didn’t start that way. It was an economic disaster, involving the worst recession since the Great Depression. In the United States, businesses were failing, crime was up, crack cocaine was destroying communities, and AIDS was a national epidemic. The US inflation rate was almost 14 percent in 1980. Could you imagine everything getting 14 percent more expensive in just one year?

The divorce rates in the 1970s, being higher than ever before, had a devastating effect on the next generation, who had to learn how to live in broken homes. These kids had come of age to the backdrop of Nixon, Watergate, and the Vietnam War. This cynical generation would carry the torch from the baby boomers. They would be known as Generation X.

President Ronald Regan would become a hero to some as he reined in inflation to 3.6 percent by 1983. Conservatism became

cool among some young professionals (known as yuppies), who looked down on the hippie idealism of their parents.

The Soviet Union was still a force at the start of the decade, and Japanese innovation was on the rise, taking over American roads and electronics stores. Japanese products, once seen as low-quality and cheap, were not anymore—they proved themselves during the decade. Detroit couldn't keep up with the well-made, cheap, and fuel-efficient cars. In 1980, the car manufacturers in Detroit lost $4 billion.

During the worst years of the '80s, a creative boom breathed life into despair. In New York, hip-hop and breakdancing would find their way into the mainstream, while in California, a new culture was beginning to form around skateboarding, with a young Tony Hawk taking the lead. Hawk pioneered acrobatic aerial tricks and, thanks to the phenomena of easy-to-use handheld VHS recorders, shot a film in 1984. It would create the foundation for a new sport.

NASA, which had been created in response to the Russian threat of *Sputnik* and other space missions, reached its zenith in the 1980s with the space shuttle program. However, the pinnacle of American pride was postponed for a number of years after the Challenger disaster in 1986 was broadcast live on CNN. The disaster was caused by a frozen O-ring that led to the separation of a solid rocket booster, resulting in a catastrophic structural failure. All seven astronauts on board lost their lives.

Electronic spreadsheets, such as VisiCalc and subsequent software, revolutionized the business world and the rest of society in the 1980s. Business scenarios could now be played out in real time, and profits and losses could be known in seconds instead of days or weeks. The stock market saw a major boom due to computerization. The decade also saw a turn toward individualism: it seemed that everyone was making money hand over fist. The

movie *Wall Street* and Gordon Gekko's statement "greed is good" summed up the attitude of the latter part of decade.

In the 1980s, the technological innovations of the '60s and '70s started to become useful in everyday ways. VHS and cassettes became popular. CDs had their time in the spotlight at the end of the decade. The Walkman made every user the star of their own movie, with a personal soundtrack setting a virtual mood as they walked around.

The kings of technological innovation in the 1980s were the United States and Japan, but a less-recognized PC market would also flourish in the UK. By the end of decade, a world of connected information—just as the great visionaries of the 1950s and 1960s imagined—was established.

In this chapter, we'll see how technology becomes a force that takes over the modern world; but first, a little ear and eye candy.

I WANT MY MTV! (1981)

MTV would launch on August 1, 1981. At the time, it was a new form of entertainment: a media video jockey, available right at home. The channel would define a generation—the "MTV generation."

The first video was "Video Killed the Radio Star" by the Buggles—somewhat of a prophetic take on how the channel would change the music industry.

Though MTV seemed rebellious, its roots were purely corporate. The television company, Warner Cable Corporation, already had two main channels in 1980: The Movie Channel and Nickelodeon. A channel focusing on music seemed to be a good next fit. Warner originally rejected a proposal for a twenty-four-hour music channel that was, as the directors saw it, essentially radio with pictures. After some internal struggle, it was decided that music videos

would be cheap to implement because the record companies would provide the content for free and, in return, they would receive exposure. MTV had to be created in just seven months, as Warner wanted it ready for the summer, when college students would be on break. The initial run of MTV only had 250 music videos and the station was, surprisingly, only available in smaller American towns.

Arguably, the first band to make it big because of the new medium was Duran Duran, who boldly released an entire album's worth of movie videos as a kind of short film. The stunt got people talking. Soon every band wanted to make videos that would hit it big on MTV.

Despite this, MTV was initially a financial disaster. The station approached Mick Jagger of the Rolling Stones, which was a high-profile act at the time and demanded a hefty fee. In a meeting with the rock star, one of the producers (perhaps as a joke) threw

down a $1 bill on the table and said, "That's all we can afford." Jagger thought this was a ballsy move and agreed to do the gig for $1. In 1982, the famous "I want my MTV!" campaign starring Jagger was born, and soon, TV stations around the US were being flooded with phone calls asking for the new channel. Within a few years, MTV was in every state, forever changing the landscape of the music industry. As a kid, I remember the rare times I had the chance to see MTV in Australia. I thought it was the coolest concept ever. It captured the feeling of what was new and what trends were around the corner.

VIDEO GAMES

Pac-Man! (1980)

Pac-Man is one of the most popular games of all time. The game was released in Japan by Namco in 1980 and made its way to the

United States in the same year. It was one of the first major games that wasn't based on space or sports.

The game was the brainchild of twenty-five-year-old Toru Iwatani, who took the game from idea to reality in just one year.

The game was originally named Puck Man, but the Americans thought that it sounded too much like…you know. The worry was that gamers would strategically scratch out part of the P, so the name was changed to *Pac-Man*. The "power-up" idea was inspired by Popeye, who would eat spinach and gain superhuman strength.

The game was a little weird, so it wasn't expected to be a hit…and, at first, it wasn't. But soon popularity grew, and by the end of 1980, *Pac-Man* had made more money than *Star Wars* (the highest-grossing film at the time). The game was played more than ten billion times in the twentieth century. Today, *Pac-Man*'s iconic shape is instantly recognizable around the world.

The Video Game Crash of 1983

Released in 1977, the Atari 2600 home console—hot on the heels of the Magnavox Odyssey (chapter 10)—was the king of the home-videogame market. By 1980, Atari was the fastest-growing company in United States history, going from $70 million to $2 billion in sales in a few short years.

It wasn't long before other companies took notice of Atari's success. Video games were a hot commodity, and everyone wanted to get in on the action. Some firms even switched industries to do so. It would spell disaster, and the new video game industry almost ended before it started.

The video game market quickly became over-saturated with consoles and games, and yet still more were being made. All of these consoles were also competing with the newly emerging personal computer technology. PCs were better value, as they

could do more than just play games, further harming the demand for standalone gaming systems.

To make matters worse, the people who actually *made* the games weren't getting credit. Even if a game went on to sell millions, the programmer would only make a flat wage of roughly $30,000 per year. A few frustrated Atari game developers became tired of this arrangement and founded Activision—an independent company that would make third-party games that were compatible with Atari hardware.

This was a disruptive change to the video game production model. Soon, there was a tidal wave of independent game developers. To give you an idea of how bad things got, food companies like Quaker Oats and General Mills started making their own video games. What did food have to do with video games? Apart from Doritos dust on the controller, absolutely nothing. At this point, anyone could make an unauthorized game for an Atari or any other

system. It was a fatal flaw that would eventually help bring down the industry.

Atari Brings It All Crashing Down

Ironically, one of the first cracks in Atari's foundation came as a result of the industry's most popular games. *Pac-Man* was a huge hit in the arcades, and Atari wanted in. The company bought the rights from Namco in 1981. But, as the year was almost over, and management wanted the *Pac-Man* port (Atari version) to be done by Christmas, Atari rushed out the game. The result was a disaster. The Atari *Pac-Man* was slow, full of bugs, and didn't even resemble the original game. The result was five million unsold cartridges.

Despite this setback, Atari was still king of the industry, and the health of the industry as a whole rested on its back. But in 1982, Atari would make the same mistakes. Again, they had a big

franchise, Steven Spielberg's *E.T.*, and again they rushed production. This time, they only they gave their programmer six *weeks* to create the game. The result would disgracefully become known as the worst video game in history, and another five million copies were left unsold in the warehouse.

The 1983 earnings statement for Atari showed 10 percent growth instead of the forecast 50 percent. Wall Street didn't like what they saw, and stock investments in video game companies crashed. This event sent a shockwave through the industry, bringing it to its knees.

By the end of 1983, Atari was $500 million in debt.

As for the ten million unsold Atari game cartridges? Twenty truckloads' worth were driven to a landfill in New Mexico and buried. Interestingly, they would be partly excavated in 2014.

Video games were largely written off as a one-time fad, but a few savvy Japanese businessmen thought that maybe video games *did* have a future. Their company would be called Nintendo.

Nintendo Entertainment System: NES (1985)

The Nintendo company dates back to the late 1800s, when they distributed card games. In the twentieth century, they switched to toys. In the 1970s, seeing Atari's success, the company would make *Pong*-clone home consoles. In 1980, they would release the handheld Game & Watch which, like the name implies, was a small (calculator-sized) game that also contained a clock. Next, the company attempted to make cabinet arcade games, which were largely failures. The CEO of Nintendo USA, Minoru Arakawa, asked his entire company for the next big idea, hoping to stumble across something interesting. A twenty-nine-year-old artist, Shigeru Miyamoto, was up to the task.

NES

Nintendo had hoped that basing a game on the character Popeye (who was popular at the time) would boost sales. However, Nintendo couldn't get the rights, so Miyamoto altered the

characters slightly. Olive Oyl became a princess (Pauline), Popeye became "Jump Man," and Popeye's large and dopey enemy, Bluto, became a gorilla. The finished game was called *Donkey Kong*.

Released in 1981, *Donkey Kong* became a hit. 60,000 arcade machines were in the US by the end of the year, earning Nintendo $180 million.

Buoyed by this success, Nintendo would release the Famicom (short for family computer) in Japan in 1983. Early titles for the Famicom were ports of Nintendo arcade titles. The company had its eyes set on North America, but after the video game crash, US stores were wary.

In 1985, the console was repackaged and rebranded for the US. It came with a light gun and a robot named R.O.B, and the whole package was renamed the Nintendo Entertainment System (NES).

The plan was to distance the NES from the concept of video games. It didn't work.

Finally, Nintendo-Japan CEO Hiroshi Yamauchi decided that, if Nintendo was going to sell in the US, his team would have to go there themselves. A "Nintendo SWAT team" was deployed to display the game and get the product onto shelves. The team even offered stores a no-risk proposition. Stores only had to pay for the products they sold; if the NES didn't sell, Nintendo would take the systems back. The NES ended up being a smash hit.

In 1985, "Jump Man" (now called Mario) featured as a standalone on the NES. The game was like nothing anyone had seen before: a vast and imaginative world with smooth graphics and side scrolling visuals. This of course was *Super Mario Brothers*. Forty million copies of the original game have been sold to date. I remember playing *Super Mario* in the '90s, and it is as much fun now as it was

then. This success would be followed by a second smash hit in 1986: *The Legend of Zelda*.

Learning from Atari's mistakes, Nintendo closed off their system to outside developers with a special in-house hardware chip. This meant they had complete quality control over what games could be played on their system. This time, third-party developers introduced great titles that only helped propel the console's success.

In ten short years, Nintendo had gone from not even being in the video game industry to owning the home console market.

Facts about Mario

- Mario was named after Mario Segale, the landlord of Nintendo America's office, who barged in on a company meeting demanding overdue rent.

- Mario has appeared in over 200 video games so far, which together have sold over 193 million units. *Super Mario Brothers 3* alone had made over $500 million in the US by 1993. So, it's safe to say he's a big deal.
- Mario doesn't have the hat and moustache because he is Italian. Shigeru Miyamoto drew Mario wearing a cap because he found hair difficult. He also drew the moustache because it was easier to see than a mouth in pixelated video game graphics.

BOOM BOXES (EARLY 1980S)

The transistor radio combined with a tape deck and huge speakers turned out to be just the thing the youth of the 1980s wanted. The boom box (or ghetto blaster) was big business and Sony, Panasonic, and General Electric were some of the biggest names in the game. A key feature was to have an input for microphones and

turntables, making it a makeshift all-in-one live performance system. Another key development was speaker bass, the more of it, the better. Kids wanted to feel the beat in their chests as they slammed down their lyrical creations or threw it down on the floor.

The boom box became popular with inner-city youth, and it played a key role in the rise of hip-hop music and culture. The boom box also spawned a new kind of dancing on the streets. Kids would chain together energetic moves, literally spinning on their heads at times. The style was originally called B-boying but would later become known as breakdancing.

A Boombox Tape Deck Kick-Starts Rap

The portability of the boom box allowed for the hottest underground sounds to be recorded on tape and shared with

others. It was like a 1980s Spotify. Bootleg copies of New York DJs like Grandmaster Flash and Kool Herc would be traded on the streets. These tapes would later inspire a whole other generation of rappers like Run DMC, LL Cool J, Public Enemy, the Beastie Boys, and Eric B & Rakim, who would take hip-hop into the mainstream.

New Thinking: The PC Assists Humans

In the 1980s, computers began to mature and transition from the toys of nerdy hobbyists to a professional consumer product. The biggest names of the decade were Commodore, Apple, IBM, and Atari, each of which we'll look at below.

Commodore Computers: A Silent Success

Commodore is a forgotten name in computing today, but they were once a big-name PC manufacturer. Released in 1982, the

Commodore 64 still holds the record for the bestselling computer of all time, selling 17 million units from release until its discontinuation in 1994.

Another notable design was the Amiga line by Commodore. I find this model fascinating because it was so far ahead of its time. In a world of (mostly) monochrome, Amiga computers featured color graphics and all types of multimedia due to custom chips. Bad management kept the computer from reaching its full potential. However, at the time, better graphics and sound could have held the Amiga back in sales, as business computers had to be "serious" and clearly defined for work only.

The PC is the Amplifier of Human Ability: Apple

In a 1980 speech to investors, a shaggy-haired Steve Jobs would give his vision on the future of computing, long before most others realized its significance.

Jobs recalled reading a 1973 issue of the *Scientific American* as a kid. This particular issue featured a study on locomotion. The magazine ranked the efficiencies of different animals in terms of how much energy they required for movement. The condor won by a vast margin. A walking human didn't do so great, placing about a third of the way down the list; but here's the twist: a man with a bicycle was twice as efficient as the condor.

This lit a light bulb in Jobs' head.

The study showed Jobs that man was an exceptional tool-maker, yet there was a deeper message than that. It's fair to say that the Industrial Revolution, examined at the start of this book, was basically an amplification of human physical ability. Sweat was replaced by steam, allowing man to do exponentially more and use power much more efficiently. In the 1980s, personal computers allowed for a similar efficiency and furtherance of human mental ability. Jobs would call the computer the "bicycle of the mind."

December 12, 1980 was the day Apple first went public. It was the biggest IPO since the Ford Motor Company in 1956. Despite this success, the hippie inside Jobs remained. The twenty-five-year-old would often walk around the office nibbling on a bag of seeds. He sometimes didn't shower, and often went around barefoot. By this time, Steve Wozniak was taking a less direct role in the management of the company.

These were good times for Jobs and Apple, but the barefooted hippie wouldn't stay unchallenged for long.

THE BLUE SUITS ENTER THE PC MARKET: IBM

When Apple arrived on the scene, IBM was the largest technology (but not PC) company in the world. IBM's spirit couldn't have been any more different from the Silicon Valley countercultural spirit. IBM's employees were traditional, straight-edge college graduates.

There was even a strict but unspoken dress code of blue suits and white shirts. IBM was all about large mainframe computers and the old way of doing things, while the PC market seemed too new, wild even—fueled by passion and curiosity.

In 1980, IBM was watching Apple's success in the PC market and began to realize they were wrong about the PC. It could actually be used to extend human intellect, and even for communication. They also saw dollar signs, as the PC industry was already worth $1 billion just three years after it had begun.

The problem was that IBM was bureaucratic and very slow to move when it came to decisions. It would take years just to decide on a PC design—how would they ever come up with a PC product in time to compete?

To speed up the process, a small team within IBM decided to use off-the-shelf parts for their first PCs. By not building the computer

from scratch, they managed to get a business-oriented personal computer built in just one year. Using non-IBM parts was a very unusual practice for IBM, but with the hardware cobbled together, the only thing needed was software to run on it.

An operating system (OS) is a computer's digital "traffic cop," keeping track of how files are stored and telling the computer how to handle hardware such as a mouse, screen, or floppy disk drive. BASIC already existed, but it was only a rudimentary user interface. IBM needed more if their computer was going to take over the world.

This is where things start heating up. There was a battle brewing across the computer industry for the operating system that would rule them all. If the '70s was a time of love and sharing in computing, the '80s was a time of theft and exploitation.

Herein lies one of the saddest stories in computing history.

Bill Gates vs the Man who Could have been Bill Gates

While building their new PC in 1980, IBM approached Microsoft to build the operating system. Before saying a word about the project, the boys in blue asked Bill Gates (who was initially mistaken for the office intern) to sign a non-disclosure agreement. Gates had to keep IBM's plan a secret. When Gates was told about the plan for Microsoft to supply an OS (operating system), he remarked that Microsoft didn't have one. Instead of creating something he didn't have, like he did for MITS and the Altair, the twenty-five-year-old programmer directed IBM to renowned computer scientist Gary Kildall.

Kildall, who sported a red beard, was a mild-mannered man, but despite being unassuming he had already significantly impacted personal computers. In 1971, Kildall had explored making a programming language for Intel's first CPU, the 4004, but he

realized that it needed a system to control how the chip interacted with the rest of the processor. In 1972, this system became CP/M (Control Program for Microcomputers), the very first general-PC operating system. This was different from Microsoft's BASIC, which was an only surface-level program that ran on top of a computer's operating system (the part that can tell the hardware how to behave).

Before CP/M, each computer had to have a tailor-made operating system. It was like having different types of fuel for every car model in existence. With CP/M, one only needed to write software once and CP/M would take over the rest. It was a way to run the same software on different computers with little effort.

Kildall didn't have much interest in business matters, but his wife, Dorothy, convinced him to start licensing his creation. The company Digital Research would be founded to do so. By 1979, Digital Research became the industry standard for operating

systems. In essence, they were (today's) Microsoft of the late 1970s, and Kildall was the era's Bill Gates.

The Worst Day of Gary Kildall's Life

Back to the story. Keen to waste no time, IBM took Gates' advice and paid a visit to Kildall in Seattle. Gates called Kildall to warn him that *someone* was coming to visit, exclaiming, "Treat them right; they're important guys!" Because of the non-disclosure agreement, Gates couldn't reveal exactly *who* was coming to visit. Unfortunately, Kildall didn't fully understand Gates' warning. Perhaps he thought it was just another small company, not the largest tech company on the planet.

Whatever the case, Kildall wasn't home when IBM visited. Although the exact details are murky, according to Jack Sams (ex-

IBM CEO), Kildall was out flying one of his private planes on business.

The blue suits ended up talking to Kildall's wife, who was now head of operations at Digital Research. IBM's lawyers began pushing her to sign a non-disclosure agreement to essentially say there were never there. Dorothy Kildall wasn't impressed with this and refused to sign the document. The IBM team had a short temper—time was money! After getting nowhere in negotiations, the suits became frustrated and left Kildall's house.

A few days later, IBM approached Bill Gates a second time. This time, Gates took the opportunity. He saw that IBM had the potential to change the PC market, with a cleaned-up business image. Here comes the clincher: You know how I said that Gates wasn't going to sell something he didn't have yet, this time around? Well, that idea quickly went out the window. Gates told IBM that

Microsoft *could* in fact make an operating system, even though they didn't have one.

Microsoft would cheat and *buy* an operating system from a small company, Seattle Computing Products, down the road. Microsoft would pay $75,000 for the OS made by Tim Paterson of Seattle Computing Products. This operating system was called the "Quick and Dirty Operating System," or QDOS. If you think that's a weird name, there's a reason for it. The code for this software was essentially a rip-off of CP/M, Gary Kildall's software! It did have a few differences but was suspiciously similar.

Seattle Computing Products had ripped off CP/M and Microsoft now had its hands on a functioning operating system. QDOS would become Microsoft DOS, or MS-DOS, and would be packaged with every IBM PC. So, if you've ever used MS-DOS, you could say you were using the "Microsoft Dirty Operating System." (Its name

would deceptively be changed to “Microsoft Disc Operating System,” officially.)

The first IBM PC was released in August of 1981 and was predicted to have 250,000 sales. It ended up selling 2 million units in a couple of years, overtaking Apple as the world’s largest PC manufacturer.

Bill Gates was about to become the richest man on earth. The dirty operating system was half of the equation; it would be smart business sense that completed it.

Because the IBM PC was made from off-the-shelf parts, other manufacturers such as Compaq and HP began making their own PC clones with the same parts. Microsoft had licensed MS-DOS to IBM for a one-time fee of $50,000—but there was a catch. Microsoft never mentioned to IBM that their deal was non-exclusive. Soon Microsoft was selling MS-DOS to all of IBM’s competitors, taking with it a licensing fee from every computer sold.

This licensing deal has been called the greatest (or perhaps most cunning) deal in the history of the world. It made Bill Gates a billionaire. Kildall's failure is conversely called one of the biggest business failures in all of human history. After realizing what he had lost, Kildall would shed his kind nature and threaten to sue IBM.

In a settlement, IBM agreed to offer a version of Kildall's CP/M software, alongside MS-DOS, with every PC they sold. Strangely enough, Kildall was pleased with this: in his mind people could now choose for themselves which software they liked best. Justice had finally been served. There was only one problem…when IBM brought out the two software choices, MS-DOS sold for $40 and CP/M for $240!

IBM had tricked Kildall again, and Kildall's CP/M software would fade into obscurity, losing to a clone of itself. Kildall didn't take it so well; so, crushed by the events was he that he didn't even bother suing Microsoft or IBM again. The strain from missing out

on the greatest opportunity of many lifetimes probably aided Dorothy Kildall to later file for divorce. The ubiquity of personal computers in the following years meant that Kildall would be reminded of his failure everywhere he turned. Kildall slipped into a bout of depression and alcoholism. In 1994, Gary would die from head injuries after a fistfight at a biker bar.

Today, Kildall is only a footnote in technology history, so it's important we keep his contribution to the evolution of computing alive.

Steve Jobs "Thinks Different"...by Borrowing

Meanwhile, Steve Jobs set his eyes on a new problem. Before anyone could solve their problems with a personal computer, they needed to learn how to use one. This was a big hurdle in the '80s. Typing text commands wasn't intuitive to the average user. What

was needed was an easy way to interact with a computer: a way that seemed natural.

In a 1980 speech, a bearded, skinny, long-haired Jobs remarked that it was incredible that the power of computers had already increased exponentially in just three years. People would ask him all the time why computers needed more power. Jobs' reply was pretty insightful:

"We're going to use this power to go back into solving the problem of making computer interaction go more smoothly. That is, making computers easier to use and specifically not for number crunching." Jobs knew this with such confidence because, just a year earlier, the PARC establishment had shown him the Xerox Alto. Remember that computer that was basically a desktop PC, teleported from the future? Yep, that one.

Xerox Alto: The Day of Failure

Xerox Alto technology would be used to create the Apple Lisa, whose technology trickled down to the 1985 Macintosh, whose ideas influenced Microsoft Windows. The latter two are conceptual ancestors of the touch-based devices we use today.

So, let's get back to the story of how Xerox let the computer of the future get stolen by Steve Jobs. As you'll recall, Xerox (of PARC) invited a twenty-four-year-old Jobs over to their research institute in 1979, to see if he could help them reduce costs of production. The deal saw Xerox gain a million shares of Apple stock, in exchange for Jobs getting inside information about everything cool and revolutionary going on at PARC. Nobody checked with the guys at Xerox development—business development signed off on it anyway.

At the showcasing of the Alto, seeing the future of the computer before him, Jobs demanded his entire programming team get to see the demo. There was protest from the Xerox PARC staff, but

upper management wouldn't budge, and granted Jobs his request. Xerox had unknowingly just given up the kitchen sink and the future. For Jobs, it was all fair game. His reasoning? A quote from Picasso: "Good artists copy, great artists steal."

The first Apple product to integrate this new way of thinking was the Apple Lisa in 1983.

As we saw, the power of the Alto (and subsequently the Lisa) was its graphical user interface. Before this innovation, computers were complicated and daunting. If you wanted to use a program, you had to know the right commands and type everything by text.

For example, if you wanted to copy a file called "Darude-sandstorm.mp3" to your music folder, you'd have to type EVERY single letter of this phrase: "copy c: \file Darude-sandstorm.mp3 d:\music" (mp3s hadn't been invented yet, by the way).

Instead of memorizing a long list of commands to navigate within a program, the Lisa—based on the Alto technology—would just show a graphical drop-down menu. All you had to do was click on the option you wanted.

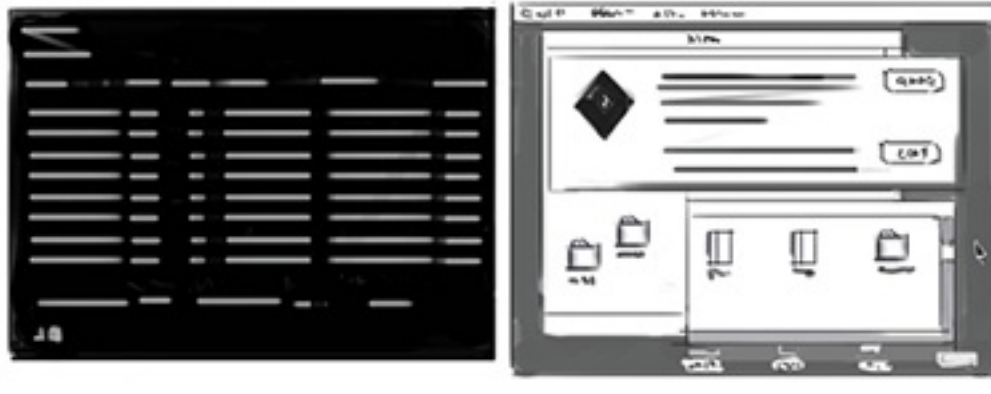

Text based interaction vs graphics on the Apple Lisa
(borrowed from Xerox)

The personal computer was now simple and intuitive: just drag the mouse and click to interact with the files directly. Pictures instead

of just words. This was the power of the graphical user interface.

Umm, Steve...? Apple Needs a *Real* CEO

During the Lisa's development, and following Apple's IPO, Apple executives asked Jobs to bring in someone who could balance his idealistic mentality with a hard-numbers temperament. Jobs was thought to be too volatile and inexperienced to head the Lisa project and was banned from working on it. In 1983, Jobs would have a meeting with PepsiCo CEO John Sculley. Sculley was a straight-edge cookie-cutter businessman. He seemed perfect for the role and was hired.

Jobs was a little disheartened by being banned from the Lisa project, but quickly turned his attention to a small research team within Apple. The team had just built a small all-in-one graphical computer. Seeing this, Jobs asked to be head of the team and was appointed. The low-cost graphical would be called the Macintosh

(named after an American apple) or Mac for short. It had to be great, because the clock was ticking—by 1983, the IBM PC was picking up steam. The Blue Suits were on the move!

THE ORIGINAL APPLE MAC

The Mac was a new take on computing aimed at opening up the imagination. It was friendly and personal: a window into art, education, and business. It was more than just a machine.

The designers of the IBM PC, on the other hand, had taken a corporate angle. Ugly, cold, and clunky, the machine was simply a tool to get work done.

Production within Apple was divided into teams: the Mac team was young, with an average age of twenty-one. They were creative types: musicians, poets, and artists, yet also great computer scientists. The Mac team would fly a pirate flag above their office

space to show they were renegades. This team would be very competitive with the Lisa and Apple II project teams—a somewhat unhealthy rivalry behind company doors.

Although strong on paper, the final Lisa product wasn't a hit. The Lisa got bogged down in numerous design problems and ended up taking 200 collective man-years of development. Additionally, it was too expensive at $10,000 ($23,000 today), and people couldn't understand what the hell it even was. It flopped.

In contrast, when released in January 1984, the Mac initially got off to a flying start; however, sales began to run out of steam in a big way.

Apple Mac

By 1985, all the Apple enthusiasts had bought a Mac, yet disaster was looming. The Mac critics began see the machine, not as a

productivity tool, but as a toy. They were kind of right. There wasn't a lot of software for the Mac even a year after its release, because Jobs' team failed to finish the release of Macintosh Office. Mac Paint and Mac Write were the only two major pieces of software on the Mac, and it still cost $1000 ($2300 today) *more* than the IBM PC. Further, the Mac was short on RAM due to its graphical interface, so whenever you wanted to change programs, you had to switch floppy discs.

At this stage, the PC was outselling Macs twenty-to-one due to these issues. Many analysts were saying Apple would be over within a couple of months. Even the trusty Apple II was falling in sales in comparison to the newer IBM PC. Jobs was emotionally invested in the Mac and didn't believe the numbers. He acted like the Mac was the hottest-selling computer of all time, even though it was doing just average. To Steve, it didn't make sense: *How could the computer of the future not be selling?!*

During all of this, Bill Gates of Microsoft had been given access to the Mac for two years to develop software for it. Apple had discounted Microsoft as competition, because they had their eyes focused on IBM. Steve Jobs didn't know the opportunistic nature of Gates, and this brief partnership proved to be a fatal mistake for Apple.

While working with the Mac, Bill Gates realized that the graphical nature of the Mac was going to be a threat to his clunky Microsoft DOS—a text-based operating system. He needed his *own* version of the graphical future. So, Gates' team simply built a graphical interface on top of DOS. They called it Windows 1.0.

It was buggy and not pleasant on the eyes, but Windows was still graphical and that was enough to keep MS-DOS in the game. This first crack in Apple's graphical fortress would eventually grow.

When the Mac weren't selling as well as Jobs had envisioned, the relationship between Sculley and Jobs began to sour. Sculley thought money should be poured into the Apple II to extend its life, but Jobs disagreed. He wanted to push for a windowed, graphical future with the Mac.

In 1985, the executive board at Apple was called in to decide the fate of Jobs. Due to the conflict between Sculley and Jobs, one had to go. The board was split. On the one hand, a lot of them appreciated Jobs; on the other hand, Sculley had experience in leading corporations and could be just the change Apple needed. In the end, the board chose Sculley. During a later interview, Jobs would solemnly remark that John Sculley "destroyed everything that I had spent ten years working for."

Following Jobs' exit, the Mac was saved by the Adobe company. Adobe created great software for the Mac and birthed desktop

publishing. By 1987, Macs were selling one million units per year, very close to what IBM was managing—all without Jobs.

I have some great memories of the color Mac, as my backward primary school still had a set of these in the computing area in 1998. Two of my favorite games were *Crystal Quest* and *Q*Bert*. Just thinking about it makes me want to download copies right now.

Steve's Wilderness Experience

After being more or less fired from Apple, Jobs took some time away to reflect on himself and, in doing so, realized his immaturity. He would stop chewing seeds, put on some shoes, and morph into a true professional. It's often said that there were two Steve Jobs: the one before getting fired, and the one after.

In 1985, Jobs would entice a loyal team of Apple employees away and begin on his next venture…NeXT.

NeXT was to be a cutting-edge computer hardware and software company. The team got to work on building an operating system called NeXTSTEP for their new computers. These computers were expensive, starting at around $6,500 ($14,000 today).

In 1988, NeXT's aim was to compete with mainframes and Unix workstations, by being small yet powerful. NeXT's computers were so powerful for the time they claimed they were "a university in a desktop." They were supposed to be able to store large quantities of information with advanced search. They were also built to be powerful enough for complex problems at a university level.

When asked what the purpose of such a machine was, Jobs would remark: "I want some kid to figure out how to cure cancer in his dorm room on one of these things."

It sounds like a strange quote, but there was solid reasoning behind it. While on tour promoting the Mac to universities, Jobs met a Nobel Laureate chemistry professor who had a frustrating problem. The professor was trying to teach his students about forming DNA in a laboratory, but things weren't going as well as they could have.

The students were learning from textbooks, as physically doing the experiments was too expensive for undergraduates. The professor knew that computers could simulate the forming of DNA, but that was the stuff of supercomputers, not personal computers. A request was made to Jobs to create a small, powerful computer with a megabyte of RAM and a megapixel screen tailored for universities.

This was the germinating idea that would result in the NeXT computer, which would go on sale in 1988 with 8 MB of RAM, a 256-MB hard drive, and a 25-megahertz processor.

Aside from the aforementioned qualities, NeXTSTEP software made it easy to build apps—especially the graphical interfaces of apps. Does an app need a text box to input a user's name? No worries, just drag and drop it in. Need some buttons? Just drag and drop! It was pretty advanced for the day.

Jobs used to remark that an app that took twenty programmers two years to make on Microsoft's DOS, would take only three programmers six months on the NeXTSTEP system. While the Mac brought graphical user interfaces to computers, NeXTSTEP brought modern design techniques to app building. Its simplicity would play a role in the foundation of the World Wide Web (more on this later).

In 1989, Jobs forecast 10,000 NeXT Computers would be sold each month. In preparation, he built the most automated computer factory on earth, with a capacity of 150,000 units *a month*. The *total* amount sold was a modest 50,000, up until production ended in

1993. NeXTSTEP computer hardware may have faded, but the NeXTSTEP OS remained. The versions of NeXTSTEP that were ported to other hardware became known as Openstep.

In 1997, Apple would buy the Openstep OS from Steve Jobs and, as a consequence, he received a seat on the board. From this point on, Jobs managed to climb his way back to the top of Apple and officially become CEO again in 2000.

As for NeXTSTEP, it became the foundation of a redesigned Mac OS (Mac OS version ten) and the basis for iOS, the operating system used in the iPhone.

THE ORIGINAL PURPOSE OF THE WORLD WIDE WEB

The visions of Vannevar Bush, Licklider and Engelbart have all led up to this moment. In the 1980s, the internet existed to share data, but it wasn't revolutionary in this basic form. It was only being used

in closed networks and getting from one place to another was no easy task. It would be the World Wide Web, which was built on top of the internet, that unleashed the full potential of exponential knowledge growth and human progress. Here is the story of how the Web began.

In 1980, 10,000 people were working at CERN: that's the place in Switzerland with the Large Hadron Collider (a particle accelerator used to discover new particles) and other goodies. There were countless hardware and software requirements at CERN, and email was the main form of communication. However, it was a mess: when different projects began to collaborate, there needed to be a way for scientists to keep track of everything: results, research teams, phone numbers, etc.

By 1984, most of the project-coordination work was being tied up in updating information, and as people came and left, information

was being completely lost. Additionally, text files rarely worked from one computer to the next.

CERN called in British computer scientist Tim Berners-Lee to help fix the problem. Berners-Lee had been messing around with hypertext (the innovation of Engelbart we discussed earlier, in this context used to link from one document page to another), and developed a program called ENQUIRE. However, ENQUIRE didn't work as expected. The issue was two-fold: The full collection of pages in the company weren't available to everyone and ENQUIRE only allowed people to jump between pages that had the same categories, e.g. just staff members, or just a set of results.

To fix this, Berners-Lee changed how information at CERN was accessed: the full set of ENQUIRE pages should be accessible to *everyone* but stored on the network to avoid compatibility issues. Each link should link to *any* other page, regardless of what category it was in.

Here was Tim's new thinking: In the physical world, people may be nicely arranged in a management structure, but the information inside that management structure and beyond it aren't arranged so neatly. If you let people who are connected share any information they like (regardless of what it's about), the relationships between different types of information are messy and dynamic. However, this *does* in fact reflect our natural way of associating: if you were to draw the connections and relationships between these pieces of information their shape would be like a web—chaotic yet connected. If you remember back to Vannaver Bush's ideas of the Memex in "As We May Think," you can see the similarities in linking information by mental association.

Arranged in a web, HyperText was perfect for modelling the changing and chaotic relationships at CERN. The whole management system could grow and adapt in a natural way. The World Wide Web owes its existence to HyperText. If you don't

believe me, HTML stands for **H**yper**T**ext **M**arkup **L**anguage, and HTTP stands for **H**yper**T**ext **T**ransfer **P**rotocol. The internet would be pretty much nothing without it.

Berners-Lee wrote a proposal on March 13, 1989, for "a large HyperText database with typed links." Although the dry proposal title attracted little interest, Berners-Lee was encouraged by his boss, Mike Sendall, to begin implementing his system.

The Early Web

Within a year, Tim's HyperText database project was up and running, but no one wanted to use it. To get people to use it, Berners-Lee put the all staff phone numbers on the database. It was sneaky, but it worked. This CERN phone book is now a piece of history and is one of the earliest webpages on the internet.

Not long afterwards, Berners-Lee gave a presentation about the web, on the web, which, amazingly, is still on the web!: https://www.w3.org/History/19921103-HyperText/HyperText/WWW/Talks/Title.html

Soon others outside of CERN started putting their own information on the internet by using the web. A few years later, it became the greatest explosion of information in all of history, propelling information faster than ever, and creating breakthroughs in all areas of knowledge through instant global communication. The original vision of Vannaver Bush was now complete.

Berners-Lee considered several names for his innovation, including *Information Mesh*, *The Information Mine*, or *Mine of Information*. However, he settled on *World Wide Web*. So, instead of saying "Go to WWW…" we could've been saying "Go to IM or MO…"

TECHNOLOGY ENTERS THE MUSIC INDUSTRY: ATARI

I'm obsessed with music from the 1980s, especially from later in the decade. As a music producer, I'm intrigued by how the sounds of '80s electronic music scene were produced given such limited tools.

Atari ST (1985)

The Atari ST was a powerhouse, offering more than the Mac did for a lower price. It was the first computer to have one megabyte of RAM for less than $1000. It was also instrumental in the rise of electronic music.

It allowed enthusiasts, perhaps for the first time, to easily compose music on a computer, using software like Cubase or Logic.

Upon its release in 1989, Cubase was one of the first pieces of professional production software that allowed for the graphical arrangement of music. Other music software would use text-based functions.

The monochrome screen of the Atari ST was said to be so easy on the eyes, it was almost like looking at paper. The ST was fortunate to have extremely low latency, even when compared to professional equipment. Low latency means less lag: getting a sound as soon as you press a button or note. Artists like Fatboy Slim, Madonna, Aphex Twin, and Darude (of Sandstorm fame) all used the Atari ST at one point.

Around this same time, synthesizers were also becoming popular, transforming the soundscape of pop music. Early examples include "Tainted Love" by Soft Cell, and "Sweet Dreams" by the Eurythmics.

The Roland TR-808

In 1980, the Roland corporation released the TR-808 drum machine, which would become known simply as the 808. When it was first released, it was a commercial failure. Producers and musicians wrote it off as rubbish, citing that it sounded nothing like a drum kit. It was too synthetic, too electronic.

Some people did find the sound appealing. Its strange, synthetic, crazy hard-edged sound was something not heard before. The 808 was the first drum machine to allow custom rhythms instead of presets. The machine was easy to use—it would continuously cycle through a bar of music and you would press a button to add the beat you wanted. Essentially, it required mucking around and coming up with sounds you wouldn't imagine creating yourself. In addition to this, all the frequencies output by the machine seemed

to be designed in *just* the right way to capture the human ear's attention.

In the early 1980s, Chicago radio DJs were playing various styles of dance music, including older disco records, but also emerging hip-hop music. A few DJs took things a step further—they would make mixes from records on the fly with reel-to-reel tape. Drum machines added the last piece to the puzzle. The hard edge of the 808's sound became synonymous with Chicago and Detroit.

The music quickly spread. A DJ would pass a tape to a friend, and that tape would get copied and given to a few other people and before you knew it, a song could be heard all over Chicago. The sound became known as "house." It was the biggest musical phenomenon since rock and roll in the late 1950s.

Competition between DJs started happening and in 1985, the first house record came into being. It was "On and On" by Jesse

Saunders, and it heavily used the 808.

By 1985, every kid in Chicago with a drum machine was making house music. They were innovators and pioneers. These kids figured out how to use drum machines and synthesizers without being musicians. The ease of use played a pivotal role, and soon the 808 was the Fender Stratocaster of electronic music.

The machine has a lasting influence till this day. The 808 snare, high hat, and kicks are used heavily in trap music today. Kanye West even paid homage to the machine with the album *808's and Heartbreak*.

Exploring the Impact of Tech on Early Electronic Music

The Roland drum machine and bass synthesizer influenced house in Chicago, the techno scene in Detroit, and electro in New York (hip-hop), and later affected the entire world.

The harder Chicago sounds traveled to the UK (first the north in 1986, and then the south). Machines like the Atari ST were key to the composition of these early tracks.

By the summer of 1989, thousands of people were attending commercially-organized underground house music parties, called raves. At times, there were over 200 raves happening in south London every week. Newspapers reported the phenomenon, and it was exploding in the UK. I personally think this was the last time a generation had such a cohesive, music-driven revolution. This outbreak in partying would be known as the Second Summer of Love because of its parallels to the 1969 Summer of Love. Instead of rock, it was electronic beats led by the Roland 808 and 909, and instead of LSD, it was MDMA. Like they say: Given enough time, history rhymes.

By 1991, the UK scene had sped up the tempo and feel of the tracks, while adding samplings of breakbeats from old disco and

funk records (like James Brown) to form the rave and hardcore sounds. In the mid-'90s, UK garage (one of my favorite electronic genres till this day) emerged out of London.

The electronic sound kept evolving over time to yield drum and bass, trance, EDM, ambient and dub. Today there are countless forms of electronic dance music. It wouldn't be a stretch to say that most music today has some sort of electronic element.

A Wrap-Up of the '80s: The Fall of the USSR

Toward the end of the 1980s, things were looking up. The world economy was back on track, technology was making life easier, and kids had a new form of music that they were dancing to. The communist threat was also waning. The old Soviet leaders had died during the first part of the '80s, and the new head of the USSR was

a reformer who understood the people. His name was Mikhail Gorbachev.

Under Gorbachev, the Soviets introduced the new policy of *glasnost* (openness) and a need for *perestroika* (economic restructuring). Censorship would be largely repealed, and citizens were free to question their government. It was a new way of doing things. However, some Eastern-bloc countries were slower than others to adopt the new policies. Hungary and Poland were the first to embrace liberalization, and slowly others (though not all) began to follow.

When I was in Germany recently, I was fascinated by the history of East and West Germany and how different life was between the two. In 1989, East Germans were taking part in protests. They had been locked in what amounted to a Soviet-controlled prison and wanted their freedom. In the winter of 1989, the Berlin Wall finally fell, after twenty-eight long years. Families that had been split apart

were now reunited. I talked to a former East German local at a bar and he recalled being five years old when the wall fell. He told me it was the strangest experience having been told a lie your whole life, and then having it vanish overnight.

The Soviet Union had fallen, and the Cold War was over. Relief would give way to prosperity and technological expansion in 1990s, what some would call the last great decade.

PART 3

The Great Expansion

CHAPTER 12

Digital Nostalgia

1990–1999

When the ’90s rolled around, the overall mood was light. As we saw, the Cold War had ended, though the Gulf War would soon begin. Important figures from the decade included OJ Simpson, Princess Diana, and Monica Lewinsky. This is the first decade in this book that I actually lived in, so it’s a special time for me.

Grunge, a new type of music and style of dress, emerged from Seattle, led by Nirvana. Grunge was angry, cynical, and the anthem of Generation X. Punk was thrust back into the spotlight by bands like Blink-182 and Green Day. A commercialized version of the

’60s sound emerged out of the UK, from groups like Oasis and the Verve. Rave, hip-hop, and pop from groups like the Spice Girls were all sharing the limelight. Justin Timberlake, Christina Aguilera, and Britney Spears all got their start on the Mickey Mouse Club.

Sitcoms were king, and Seinfeld, “a show about nothing,” became a worldwide sensation. In 1991, movies like *Titanic, The Lion King, Forrest Gump, Men in Black, Jurassic Park, Home Alone, The Matrix*, and *Toy Story* were released and have all remained classics.

Meanwhile, the internet was beginning to connect people—across the globe. Multiculturalism was on the rise, which was reflected in the popularity of “world” music at the time. In the same vein, there was also a keen interest in foreign films.

Fashion was diverse, with gothic styles, grunge flannels, baggy clothes, and a faint hippie tinge all being part of the times. Extreme sports and saying “radical, dude” were all the rage. I remember TV

ads aimed at kids always had someone on a BMX bike or skateboarding, just to seem hip. I bought a cheap fluorescent yellow plastic BMX bike as an eight-year-old and it snapped in half when I slipped and fell in the pool while riding in the backyard. I cried.

Western society was becoming more liberal, and economies were thriving. This created a strange dichotomy of eastern philosophies (especially environmentalism) and entrepreneurship being embraced by the young. The good times of economic prosperity (in the '80s as well as the '90s) brought about an echo generation of the baby boom, known as the millennial generation. The leading edge of millennials would be the first generation to grow up in a connected world. Famous millennials include Beyoncé, Roger Federer, Mark Zuckerberg, Prince Harry, and Usain Bolt.

As the economies of most western countries began to grow, jobs were created, inflation decreased, and the explosion of the internet

caused unprecedented prosperity. 1991 to 2001 was the longest economic expansion in history. It was so all-encompassing it was called a "new economy," ushered in by technology.

It seemed there would never be another recession again. In the US, hourly wages went up 10 percent in four years (1996–2000). That's like everyone getting a bonus.

The invention of the Web expanded the use of the computer. Instead of being strictly a tool for amplifying the mind, it could now be a tool for communication and knowledge discovery. In the '90s, email became the hottest thing ever. It was instant and cheaper than traditional mail (in fact, it was free). In addition to communication via email, chatrooms also rose to prominence. Virtual communities from around the world could gather and discuss topics of shared interest.

Technology hardware capabilities exploded. Between 1990 and 1999, PC power skyrocketed, going from an average of 1,048 KB to 1 GB of RAM. In contrast, average computer memory only went from 128 kb to 1,048 KB in the 1980s. Moore's Law was being proven.

A digital revolution would begin in the latter half of the decade with the introduction of the mp3 player, online download services, libraries turning paper into bytes, and the increasing availability of digital cameras.

Apple saw a massive slump in Mac sales from 1990. Microsoft Windows 3.0 (a graphical interface on top of DOS) sold 30 million copies within a year, pushing the Mac into a corner. IBM also tried to tackle the monster they had created in Bill Gates by releasing their own operating system, OS/2. It failed.

Science would also get a few breakthroughs, with cosmic dark energy being hypothesized to make up 70 percent of the energy universe, DNA being used in criminal law, Dolly the sheep being the first successfully cloned mammal, and the Hubble space telescope being launched, forever changing astronomy.

The First Text Message (1992)

Before the ’90s, teenagers had no way of getting a mobile phone, they were too expensive. Payphones were the only way of communicating outside the home. You had to be where you said you’d be at a particular time, or else you wouldn’t be seeing your friend that day. (This was fantastic for integrity, however!)

In the late ’90s, mobile technology rapidly accelerated, and prices came down to the point where most young people (or their generous parents) could afford one.

Along with the boom of the mobile phone came text messaging, which brought communication to another level. It was great for quick relays of information: “I’m running 5 mins late,” “I’m outside,” “Where r u?,” that kind of thing. Today trillions of texts are sent each day.

The actual name for what we call texting is Short Message Service (SMS). The “short” part comes from the maximum size of a text message, which is 160 characters.

The world’s first SMS was sent by twenty-two-year-old Neil Papworth in the UK. Papworth was a developer for a telecom contractor tasked with developing a messaging service for Vodafone. This first text read “Merry Christmas” and was sent to Richard Jarvis, a director at Vodafone, who was presumably stuffing his face at the office Christmas party. Mobile phones didn’t have keyboards at the time, so Papworth had to type the message on a PC.

So that was it, right? After this point, everyone could go about texting their buddies. Well…not so fast. Most early GSM mobile phone handsets didn't have the ability to send text messages. The first SMS's were provided in a one-way stream from network providers to customer handsets. These were network notifications—billing alerts and the like. It was the Finnish firm Nokia that first introduced user-sent text messages in 1993.

In 1999, texts could finally be exchanged between different networks. By 2007, there were more text messages sent than calls. Today, SMS is the most widely-used data application in the world, with 81 percent of mobile phone subscribers using it.

The First Smartphone (1994)

If you ask people what they think the very first all-touchscreen smartphone was, most would probably say the original iPhone, or if

they knew a bit more about technological history, the LG Prada. They would be wrong.

As you recall, Martin Cooper shocked the world with the very first mobile phone, the Motorola DynaTAC x 8000, in 1984. Although the breakthrough device allowed walking and talking wirelessly, it was by no means "smart."

For the first smartphone, we have to fast-forward to 1992. This was a time when primitive personal digital assistants (PDAs) were becoming hot possessions, a time when laptops themselves were just becoming feasible. In 1992, while other companies were looking for the right combination of communication capabilities, IBM already had a prototype and unveiled it at a Comdex computer industry trade show.

History was very quietly made when IBM showed off the small prototype phone they had been developing. It included PDA

features and a large 4.5-inch touchscreen. The phone was refined further and put on the market in 1994, with the name the Simon Personal Communicator.

So, what could this phone actually do? Well, in addition to its ability to make and receive phone calls, Simon was able to send and receive faxes and e-mails, and included several other apps, like an address book, calendar, appointment scheduler, calculator, world time clock, and a notepad, all through its touch-screen display and stylus. It had one megabyte of RAM, one megabyte of MB flash storage and a 16-megahertz processor, which was actually almost as fast as a low-end desktop computer of that time. It was so advanced that people didn't even know what they were looking at. The IBM Simon was short-lived, being discontinued less than a year later, in February 1995 due to the rise of thinner flip phones. It sold 50,000 units.

The IBM Simon doesn't sound like much today, but at the time it was an absolutely revolutionary concept. So revolutionary, it would take another thirteen years until the smartphone industry realized, once again, that a screen which adapted to your applications worked better than fixed buttons. It would take the iPhone in 2007 to popularize this concept again. We'll learn the amazing story behind the iPhone in the next chapter.

THE WEB EXPLODES (1994)

The internet is a large part of our lives. Countless technologies have been built to utilize it. There are over 1.8 billion websites on the web and 4 billion users today. But how did it rise to such prominence after its inception?

In 1989, as you remember, our buddy Tim Berners-Lee built the web in an office at CERN on a NeXTSTEP computer. The idea was

to make navigating through information of *any* kind, easy. In 1991 CERN published the code for the World Wide Web, and within a few years, it was taking over the planet. It began in August 1991 with one website, *The World Wide Web Project*. By 1992, there were ten websites. Initially, there was no commerce allowed on the internet, but this was overturned by Congress in 1992. The following year, CERN made the web free and public. By that end of the year, there were already 14 million internet users worldwide, but only 130 websites.

However, at this time, the web was just lists of uniform text. It wasn't much to look at, and you had to memorize code to get around. Only nerds could use it. Web accessibility was thus limited, without an easy way to navigate or browse. This is when graphical browsers stepped in; once again, graphical interfaces did what they always do—make technology easy for anyone to use.

Released in 1993, Mark Andreesson's Mosaic browser was the first popular graphical web browser. With his technology, everyone could now easily navigate the web without a need for coding knowledge, although they were still unable to search like we can today. We will look into how this latter issue was solved later in the chapter.

Mosaic spread through the internet like a global wildfire. The web went from 130 websites (pages) in 1993, to 2,738 in 1994—that's over 2,000 percent growth. Mosaic would later become Netscape, and Netscape went from zero to 65 million users in just a year and a half. This was a record for any software at the time.

I have my own memories of Netscape. When I was around five or six years old, my dad was a university lecturer. He would let me sit in his office and use his computer after school, while he finished up at work. I remember using Netscape Navigator to find all the

information I could about space—from planets to theories on black holes. The internet was so easy to use that even a kid could do it.

Netscape made $75 million in 1994, and $370 million in 1995. They became the fastest growing company in history. But Bill Gates would have something to say about that.

After Netscape's success in 1995, Bill Gates told Microsoft staff that the internet was *the* priority. The result was Internet Explorer, which was free, while Netscape cost $49 per package (for businesses).

During the late 1990s, everything seemed to speed up tenfold. Time itself became compressed, now measured in "internet years" by those in the industry. There was no time to take a break. Competitors would rise and fall. For comparison, traditional company growth might be 10 percent a year during that time, while internet companies could grow 15 percent a *month*! By this stage,

the PC was the single biggest wealth-creation product on the planet.

There was a labor shortage in programming. The industry in fact had zero unemployment. Two years of web experience in this time equated to ten years in the previous generation of programming. Due to a high level of English language competency, India saw huge interest from internet companies as they employed Indian locals. In fact, third-grade students were learning computing in Bangalore in 1997.

The Problem with the Early Web

Although the Netscape graphical web browsers made it easy to get around, a new problem arose. As the internet grew, and more content came online, it became harder to find exactly what you were looking for. If only there were a way of organizing it all…

Initially, online information was organized in a catalogue, like in a library. But this was an old way of thinking about things. Better attempts at organizing information like Yahoo! (more on them later) would manually categorize websites in a searchable index. Unfortunately, this took a long time, and sometimes what you were looking for couldn't be so easily categorized. A more exact way of arranging things was needed, a new way of thinking. Instead of categorizing information, why not make it a popularity contest? The link that gets the highest number of clicks rises to the top. Later in the chapter, we'll see how this idea led to Google.

The Rise of AOL (1994)

At the beginning of the explosion of the Web, a proliferation of Web companies arose to try and make sense of this new paradigm. One of the greatest of these early companies was AOL.

To begin their story, we have to travel back to 1985.

At the time, there were some little-known but curious efforts at creating a closed Web (before Tim Berners-Lee's World Wide Web). In 1985, an online service called Quantum Link (Q-Link for short) was established. It was based on hypertext, but was made strictly for Commodore 64 computers, and hence was only available to Commodore 64 users. It featured animated graphics, online chatrooms, online multiplayer games (such as Hangman), and learning services with research articles and resources. It even featured the first graphical large-scale online game.

In 1985, Q-link had 100 users; in 1986, this became 50,000 users. It was clear that connecting computers through HyperText was a powerful thing and people wanted it, even at $22 per month. Q-Link was thought to be the next big thing, though it was only open on weekday evenings and on weekends.

In October 1989, after a failed partnership with Apple, Q-Link changed its service's name to America Online. AOL morphed into

a user-friendly way of getting people online.

In 1991, AOL for DOS and Windows would be launched, and the company saw incredible growth from this new user base.

Jan Brandt, head of marketing, was probably the person to thank for AOL's incredible growth. In 1993, she did something that went against all business sense of the era.

Jan Brandt, in her previous occupation, had sent out free copies of her book in the mail, and the extra awareness translated to sales. This marketing technique had been extremely effective. So, when AOL brought her on board, they decided to try it. They sent out approximately 90,000 AOL floppy disks with free software and a trial membership. They expected only 1 percent of floppy disk receivers to sign up, but 10 percent did, and this set the company off. (AOL later did this again with CDs. At one point, 50 percent of the CDs produced worldwide had an AOL logo!) AOL quickly

became the number-one online service, thanks to this strategy. This marketing idea of Jan Brandt's would be known as "carpet bombing."

In 1993, the opportunistic Bill Gates saw an opportunity in AOL and decided to meet with the team. The factions didn't see eye to eye, so Microsoft decided to work on their own web projects, which evolved into MSN Messenger and Internet Explorer.

Over the next several years, AOL partnered with educational bodies such as the American Federation of Teachers, National Geographic, the Library of Congress, and the US Department of Education to offer the first real-time homework help service, the first online courses, and the first online exhibit.

Within three years, AOL's user base had grown to 10 million people.

In 1996, Microsoft and AOL made an agreement to bundle AOL with Windows software. In 1997, AOL experienced immense growth, with more than 34 million subscribers. In November 1998, AOL announced it would acquire Netscape for $4.2 billion. They would also release AIM, AOL Instant Messenger. By this time, a new person was signing up every six minutes. In January 2000, AOL and Time Warner announced plans to merge, forming AOL Time Warner, Inc. It would be the biggest media company on the planet. AOL got so big, it was often mistaken for the internet itself.

Where Did It All Go Wrong?

No one talks about AOL today, so something must have gone wrong at some point. What happened?

The problem begins here: The AOL portal allowed you to browse categories, which was fine before search engines came on the

scene, but this wouldn't last. Also, when the web exploded in popularity around 1994, there was a sudden availability of free independent websites. This broke the business model that had supported the rise of AOL in the first place.

However, the real blow came with the dot-com crash in 2000. AOL suffered the biggest corporate loss in history, at $100 billion. By this stage, people were happy to use a search engine like Google to get what they needed from the web. There was simply no use for portals that arranged the web into categories. In other words, there was no more need for AOL and others like it.

PLAYSTATION (1994)

Who can dislike Sony's PlayStation? It was so ahead of its time, bringing countless hours of fun and ushering in the 3D era of gaming. But where did it all come from?

Despite its place in the heart of gamers, the PlayStation was a product that originated out of spite. Let's take a look at this story.

The PlayStation started with one man: Ken Kutaragi, a Sony engineer. He first became interested in working with video games in 1988, after seeing his daughter play games on the NES. Kutaragi approached Nintendo to create a CD-ROM drive for the upcoming Super Nintendo System, the Super Disk. Nintendo agreed, and Kutaragi brought together a research and development team within Sony, in 1990. The following year, at CES (the Consumer Electronics Show), Sony would show off their SNES-CD, now code-named the PlayStation. It was a multi-media powerhouse, capable of playing not only Nintendo games, but also audio CDs, data CDs, and video CDs—a pretty big deal for 1991.

Unfortunately for Sony, disaster was around the corner. Just one day later, Nintendo would surprise everyone with an announcement: they announced that they would break up their

partnership with Sony and begin a partnership with Philips instead. The SNES-CD would never see the light of day.

This made Sony president Norio Ohga furious. In an attempt to ease the situation, Nintendo told Sony that they could have a non-gaming role in the new partnership. Kutaragi rejected the offer and went to work on a rival system. Unfortunately for Kutaragi, other Sony employees weren't happy with the idea of fully committing to the video game industry. Kutaragi and his newly formed team had to move to the Sony Music headquarters in another building.

In 1993, Sony Computer Entertainment was formed by the CEO of Sony Music and Kutaragi. The involvement of Sony Music was actually a blessing in disguise, as now, marketing, creation, and the manufacturing of discs could be done in-house, saving both time and money.

The following year, in a Tokyo hotel, Sony showcased technical gaming demos and revealed their distribution plan to software companies. The session opened the floodgates for keen developers. Both Electronic Arts and Namco were interested. The main selling points of the system (soon to be PlayStation) were 3D graphics and CD capabilities, a major step above the cartridges of the time. With a 34-megahertz CPU and MB2mb of RAM, it was also powerful for its day.

In December of 1994, the Sony PlayStation was let loose in Japan. Its main competition was the Sega Saturn, though the PlayStation won out. The lower price point helped Sony, but in addition to this, the Saturn's dual-core CPU made program development hard, resulting in fewer games. A world release of the PlayStation followed in 1995, and popularity soared. The rest is history.

The PlayStation was the first console to exceed 100 million sales and went on to become one of the iconic consumer products of

the ’90s. Not even the Nintendo 64 could dampen the success of this Sony machine. The PlayStation’s successor, the cleverly titled PlayStation 2, would later become the best-selling home console of all time, selling 155 million units. PlayStations 3 and 4 would also both be smash hits, establishing Sony as a leader in living-room entertainment.

Xs and Os

When designing the controller, Sony designer Teiyu Goto decided to use four symbols. The triangle represents the player’s point of view, the square represents a piece of paper (for menus or other in-game documents), and the O and X buttons respectively represent “yes/right” or “no/wrong” options—this was reversed in western territories, so that the X button became the de facto “move ahead/action” option.

The first major Sony-developed game was *Motor Toon Grand Prix*, by a small team called Poly's. This team would go on to become Polyphony Digital, creator of the legendary Gran Turismo series.

In 1994, Namco also developed a test board, "System 11," to simulate the PlayStation 1 during development. The first major title to use the board was a test program for a fighting game

experimenting with texture-mapped 3D characters. The experiment would eventually become *Tekken*, a key PlayStation hit.

YAHOO! (1994)

Remember Yahoo!? When the online world was still taking shape, this company was one of the early pillars of the web's construction.

Yahoo.com was founded in 1994 by two Stanford graduates, Jerry Yang and David Filo. Yahoo! was to act as a portal to the internet at a time when it was still a mess of unorganized websites and information. At the time, there were few meaningful ways to quickly browse for what you wanted. The company went public in 1996, and by 1997 it had the second-highest traffic on the internet, after AOL.

In 1998, Yahoo! was approached by two young Stanford PhD graduate students, Larry Page and Sergey Brin, who had a new

product. The pair had just created PageRank—a search engine algorithm and a quick way to get relevant information on the internet. The Stanford students were asking for $1 million. Yahoo! said no, as they thought PageRank would take users away from Yahoo!'s website—decreasing its traffic and ad revenues. PageRank would eventually become Google.

The dot-com crash would hit all tech companies hard, but Yahoo!, Google, and a few others survived the storm. Yahoo! didn't escape without some wounds, though. Their stock price dropped from over $118 per share to just $4.06. The company would never see such a high valuation again.

Yahoo! was the most visited site on the internet in 2002, but after the dot-com crash, Web portals (the old way of organizing information) became irrelevant, as Web users turned to search engines like Google to find what they wanted. Yahoo!'s technology just couldn't keep up. In an attempt to stay afloat, Yahoo!

purchased 114 companies over the course of its lifetime. Despite this effort, none of the purchases turned into a hit that could save Yahoo!.

Yahoo! eventually just got left behind, in all areas of business, by Web-based companies that did it better. Yahoo! mail got overtaken by Gmail and Hotmail. Yahoo! messenger got enveloped by WhatsApp, WeChat, and Facebook Messenger. Yahoo! News also got swept over. People went to social media to learn about current events on Facebook, Twitter, dedicated news websites, or even YouTube.

As users drifted away from Yahoo! services, so did the ad revenue and hence, company profits.

Yahoo! was gradually chipped away until, by 2010, there was very little left.

WINDOWS 95 (1995)

By 1995, Windows was no longer a hack-job plastered on top of DOS. Previous versions of Microsoft's operating systems had been notoriously unstable. They frequently crashed without a clear reason and were complicated to set up. Windows 95 would replace DOS to become a stable and reliable breath of fresh air from Microsoft. This version of Windows introduced numerous functions and features that remained for decades to come. Such Windows 95 introductions included the "Taskbar" and the "Start" button. Interestingly, Brian Eno designed the start-up sound, a piece of audio giving instant nostalgia to anyone who listens today.

PIXAR ALMOST FAILS, BUT *TOY STORY* SAVES THEM (1995)

Pixar began in 1979 as the Graphics Group subsidiary of the Lucasfilm computer division—this was the graphics group headed by Edwin Catmull (the guy who scanned his hand and made a 3D film in the 1970s). The Graphics Group had wanted to create a computer-animated feature film from its inception. In 1979, they attempted to produce such a film for an early 1980s release. The project was called *The Works* and it was to be ninety minutes long. But it would never be.

The computers of the time were still too slow and underpowered to create a feature-length film. During the process, one of the team members calculated the required time to output the number of rendered frames needed for the film: It would take seven years. The film was abandoned in 1986. *The Works* would have been the first entirely 3D CGI (computer-generated imagery) film, had it been finished as intended.

By the time it was abandoned, just over a tenth of the film had been completed. To fix the problem of slow computers, the Pixar team decided to work on their own computer hardware. The result was the Image Pixar Computer, at the nice low price of $219,000. It was powerful for the time, around fifty times faster than conventional equipment. A scene that would traditionally take fifteen minutes to render (draw and create) now only took eighteen seconds.

In 1986, Lucasfilm was looking to sell the graphics department (Graphics Group). A few months later, Graphics Group would spin off from Lucasfilm as Pixar, a standalone corporation, with Catmull as president. As exciting as this was, the fledgling Pixar needed investment money. After over forty rejections from investment companies, Pixar approached Steve Jobs. Jobs (now CEO of NeXT, after leaving Apple), liked the idea of combining art and technology, and invested $10 million in the new company. Via this transaction,

Jobs became the majority shareholder, acquiring 70 percent ownership. Despite the change in ownership dynamics, Pixar's ultimate goal was still the same: to create a fully computer-generated feature film.

Walt Disney Studios subsequently bought a few Pixar Image Computers, and custom software written by Pixar, to be part of their Computer Animation Production System (CAPS). With CAPS, the painting and inking of 2D animation was now computer-assisted—saving effort and money.

The first film to use CAPS was *The Rescuers Down Under* (1990). It was the first feature film to be 100 percent assisted by computers. *Aladdin* (1992) and *The Lion King* (1994) also used the system, which would be in use until *Pocahontas* in 1995.

With the limited clientele of Disney for CAPS, computer sales were lackluster for Pixar. Realizing financial trouble was coming,

Jobs suggested releasing the Pixar Image Computer to other markets that would be interested: engineers, geologists, and the medical field. Pixar employee John Lasseter went to work creating short, completely CGI demonstrations to show off the technology. These demos included *Luxo Jr.*(1986) and *Tin Toy* (1988). Lasseter—who had been obsessed with toys from childhood—had a knack for injecting inanimate objects with personality and character, without them ever talking. This was the critical essence of early Pixar films.

The short CGI-animated films caused Disney to realize the full potential in this kind of filmmaking. In an ironic twist, John Lasseter had originally been fired from Disney for pitching a fully CGI film (after being shown *Tron* by two work colleagues). After seeing *Luxo Jr*—featuring the Pixar lamp—and other short CGI films, they now wanted Lasseter back. Defiant, Lasseter chose to stay at Pixar. He would tell Catmull, "I can go to Disney and be a director, or I can stay here and make history."

There's no difficulty guessing who John had been spending a lot of time with…*cough* Steve Jobs.

Despite ground-breaking demonstration films, the Pixar Image Computer never sold well. In fact, only three hundred units were ever sold. The company tried making CGI television commercials and selling software for Windows and Macintosh, but it wasn't enough. The inadequate sales threatened to put Pixar itself out of business, as financial losses grew. Jobs poured more money into the project in exchange for an increased stake in the company. His total investment was approaching $50 million. This gave him control of the entire company, but almost drove him into personal bankruptcy. Pixar was still struggling, and eventually had to sell their computer hardware business and lay off staff. Luckily, by 1991, Moore's Law (chapter 8) meant that animation-grade computers were finally *just* powerful enough to create and render a

complete animated feature film (not just small animation demos) in a reasonable time.

Disney and Pixar Join Forces

Disney, who now realized they couldn't get Lasseter back, decided to strike a deal with Pixar instead. It was a historic $26-million deal to produce three computer-animated feature films, the first of which was *Toy Story*. Without this contract, Pixar probably would have closed its doors a few years later. Pixar got to work on *Toy Story* with Lasseter as the director and Jobs as the executive producer. The first 30-second test would be delivered to Disney in 1992, and the initial preview impressed them.

All did not remain well, though. The collaboration between the two companies became tense, as Disney executives continuously scrapped script ideas brought forward by Pixar. For example,

Disney cast Woody as an edgy, tyrannical "jerk" (as Tim Allen would remark while recording the voice of the character).

At the halfway point of production in 1993, with heads and ideas clashing, a preview screening of *Toy Story* was shown to upper management at Disney. It was a disaster! Upper management absolutely hated it; indeed, so did Lasseter. As he put it, the movie was "a story filled with the most unhappy, mean characters I've ever seen."

The movie's production was shut down immediately, and it seemed like the dream of a CGI feature film would never come to pass.

But Lasseter didn't give up. He told Disney he would revise the script in two weeks. He somehow delivered, and the result was good enough for production to resume in 1994. For context, it's important to note that the production of such a film using early '90s technology was no easy task. Each frame took between forty-

five minutes and thirty hours to render, depending on the complexity and detail in the scenes. Every eight seconds of film in which a character was speaking took the animators a week to complete. Every shot would pass through eight teams, and three hundred computer processors (running twenty-four hours a day) would render the final product.

But disaster was still looming. Despite receiving funding, Pixar continued to lose money: There wasn't enough income from the Pixar Image Computers, software, and CGI commercials to offset the cost of the *Toy Story* project. Jobs, as chairman of the board and now full owner, was getting nervous. Who wouldn't be after spending $50 million of their own money on a seemingly failing project? Even as late as 1994, Jobs contemplated selling Pixar to Hallmark Cards, and also to Microsoft co-founder Paul Allen.

This sentiment would change as the film neared completion. As the beautiful computer-generated world of Toy *Story* began to take

shape, Jobs marveled at what he saw, and realized that Pixar would be historic after all.

Toy Story went on to gross more than $373 million worldwide. When Pixar held its initial public offering on November 29, 1995, it exceeded Netscape's as the biggest IPO of the year.

I'm sure that, when you saw it for the first time, you were just as blown away as I was. The film looked more realistic than any computer-generated imagery I had ever seen. Every leaf, every small detail, was spot-on. It captured my imagination and the imagination of a whole industry. *Toy Story*-inspired material included toys, video games, theme park attractions, merchandise, and two sequels. *Toy Story* made toys cool again for the '90s, and there was no doubt that *Toy Story* single-handedly saved Pixar.

GPS (1995)

Without global positioning systems (GPS), you wouldn't have Google Maps, Amazon delivery, Lyft, Uber, or many other things.

It all started back in 1973, when the GPS project was launched by the United States government. At the time, navigation systems were fairly poor. A more accurate system was needed. During the space race in the 1960s, classified studies were being conducted on satellite technologies.

The GPS system was originally for US military purposes, but in 1983, a plane crash would change that. A Korean Airlines flight was shot down after straying into restricted USSR airspace. Two hundred and sixty-nine people lost their lives. President Reagan's team theorized that the incident wouldn't have happened if the aircraft had had a more accurate navigation system. GPS fit the bill perfectly, so Reagan declared that GPS should be freely available for civilian use, for the common good of mankind. The Global Positioning System became fully functional in 1995, after the launch

of the twenty-fourth satellite in the GPS system. The program is said to have cost $5 billion.

Today we have GPS technology with an accuracy of up to 3.5 meters: astounding when you think about it. Currently there are thirty-one GPS satellites in orbit.

AMAZON KICKS OFF E-COMMERCE (1995)

A decade ago, the idea of browsing online for almost any item you wanted, and having it delivered to your door within the same hour, without even leaving your chair, would have sounded like science fiction. But this same-day delivery is what Amazon does in Europe and the United States on a daily basis. Today, Amazon Global hosts the sales of 350 million products in 16 countries and delivers to 185 countries, 10 countries short of the entire world. How did such a massive company start?

In an echo of Apple's founding, Amazon was started in a garage, this time by Jeff Bezos. The idea first came to him when he was working at a Wall Street firm, D. E. Shaw & Co., as a vice president. In his work Bezos was noticing the rapid increase in internet users and saw potential. Now that people were connected, it was only a matter of time before someone created an online store.

During discussions between Bezos and his boss at the firm, the concept of an online store came up, and the idea for Amazon was born. Bezos ran with it. He concluded at first that an online store that sold everything would be impractical, so he made a list of twenty possible product categories, including computer software, books, office supplies, apparel, and music. The option that seemed to fit best for a first product was books. Books were the same, no matter where you bought them, and offered diversity in terms of choice.

Together with his wife, MacKenzie Tuttle, and start-up veteran Shel Kaphan, Bezos created the new company. He first registered the company in July 1994 in Washington State as Cadabra, Inc. The name was misheard as Cadaver. A company name that could be misheard as a dead body wasn't ideal, so they chose a new one. Bezos says they chose Amazon because it is the largest river, mirroring his goal of becoming the largest online retailer. Sites on the web were also listed alphabetically back then, and he wanted his site to be among the first web pages shown. Amazon.com was registered on November 1, 1994, and the team began to grow.

In a test run, the first book was sold on April 3, 1995. The book was *Fluid Concepts & Creative Analogies: Computer Models of Fundamental Mechanisms of Thought* by Douglas Hofstadter. Thrilling reading! On July 16, 1995, the site went live and became visible to all internet users. It opened with a searchable database of over one million titles, even though it only had around 2,000 in stock at its

Seattle warehouse. The rest would be ordered as needed from wholesalers.

There was no one assigned to pack the books at Amazon at the time, so the team would take orders during the day and pack the books during the night. The books were driven to the post office the next morning. This humble arrangement changed when Amazon was featured on the home page of the Yahoo! portal. After this exposure, Amazon was swamped with orders. Within the first month, they had shipped books to forty-five countries (at the time, an American address wasn't needed).

Bezos predicted $74 million in sales by 2000, if things went moderately well, and $144 million if they went extremely well. In fact, sales in 2000 amounted to $1.64 billion. This was the start of Amazon's frantic expansion. Amazon's motto at the time was "Get Big Fast."

On May 15, 1997, Amazon held its Initial Public Offering (IPO), raising $54 million and valuing the company at $438 million.

Having predicted that the small size of the reading community would be a bottleneck to their growth, they decided to introduce new products. DVDs and music were chosen. They opened a new distribution center in Delaware and expanded their existing one by 70 percent.

Between 1998 and 2000, Amazon acquired IMDb, Telebuch, and Bookpages, which gave them strategic access to customers in the UK and German markets. During this time, they also expanded their product line to offer toys and electronics.

Amazon was growing rapidly, and the world took notice. Bezos was named "Person of The Year" by *Time* magazine. Surprisingly, Amazon did not post any profit until the fourth quarter of 2001, when it made $5 million in profit (despite the incredibly high sales

figures, they were spending all their money on growth). Bezos said this was because he emphasized customer experience over profits. Amazon continued to grow and became a dominant force in the 2010s (chapter 14).

MP3 PLAYER (1997)

The Visionaries

Carrying vast libraries of digital music in our pockets is now an everyday occurrence. If we try and think back to when it all started, the original iPod comes to mind, along with other early mp3 devices. But, surprisingly, the history of the MP3 player has its roots all the way back in the late ’70s.

In 1979, British scientist Kane Kramer and his friend James Campbell came up with the idea for a cigarette-pack-sized,

portable, solid-state (chip memory) music player. Kramer was twenty-three, Campbell twenty-one. The system they envisioned, called "IXI," had a display screen and buttons for four-way navigation. Is this sounding familiar?

Solid-state storage at the time was severely limited, but Kramer fully expected this to improve. He foresaw a market for reliable, high-quality digital music players that would be popular with both consumers and record labels. Kramer described methods of digital distribution (similar to the iTunes store) and music held on swappable chips. His vision embodied the end of physical media in 1979!

Kramer filed a patent to start his own company. Things were going well initially: there was a projection of $328,000,000 worth of orders, and he even had Sir Paul McCartney as a financial backer.

In 1988, the patent was at risk of lapsing, and Kramer's company needed to raise $320,000 to renew it. There was a boardroom dispute on the issue, and the patent lapsed, meaning Kramer wouldn't get recognition for any products using this idea. As a consequence, this early British MP3 player was never put into full production. Besides this, it would still be four years before the mp3 (compressed audio) format came into existence.

The First Production MP3 Player (MPMan)

The first portable MP3 player was the MPMan (a play on Walkman, I assume), launched in 1997 by Saehan Information Systems, a spin-off from Samsung. The Flash-based mp3 player offered 32 MB and 64 MB (six or twelve songs) storage-capacity options. Also included was an LCD screen to tell the user what song was currently playing.

Music has always been very important to me, so I distinctly remember my first MP3 player in 2004. It was a tiny silver Conia 1 GB device, about the size of a thumb. People at my school couldn't believe something so small could hold a whole gigabyte. I remember classmates repeatedly asking to check the storage capacity on the side to make sure I wasn't lying.

What Happened to Ken Kramer?

In 2008, when Apple acknowledged Kramer as the inventor of the iPod technology, he was a struggling furniture salesman. He explained the events in an interview with the Daily Mail:

> *"I was up a ladder painting when I got the call from a lady with an American accent from Apple, saying she was the head of legal affairs, and that they wanted to*

acknowledge the work that I had done. I must admit that at first, I thought it was a wind-up by friends. But we spoke for some time, with me still up this ladder."

The revelations came to light after patent-holding company Burst sued Apple, claiming the iPod infringed on its patents. Apple flew Kramer to the US to give evidence in its defense and used his original 1979 drawings of the IXI as evidence that Kramer, in fact, was the iPod's inventor. Apple essentially used Kramer to get out of legal trouble, but he did gain something for his time.

After the ordeal, he explained: "Apple did give me [an iPod], but it broke down after eight months."

We'll catch up with the iPod in the next chapter and see how 1,000 songs in your pocket started a revolution.

STEVE JOBS RETURNS TO APPLE (1997)

Say what you want about the man, but there's no doubt that Apple needed Steve Jobs. This is how Apple was doing in the 1990s while Steve was away on his wilderness experience:

1991: Apple unveils a portable Mac called the PowerBook; it doesn't do well.

1993: Apple introduces the Newton, a hand-held, pen-based computer. It is also a flop.

The company reports a quarterly loss of $188 million in July. John Sculley is replaced as CEO by Apple president Michael Spindler. Apple restructures, and Sculley resigns as chairman.

Meanwhile, at NeXT Computer, Steve Jobs decides to focus on software instead of computer hardware.

1995: Microsoft releases Windows 95, which is easier to use than previous versions and is similar to the Mac system. Apple struggles with competition, component shortages, and errors in predicting customer demand.

While this is happening, Pixar's *Toy Story*, the first commercial computer-animated feature, with Jobs as executive producer, hits theatres. Pixar goes to Wall Street with an IPO that raises $140 million.

1996: Apple announces plans to buy NeXT for $430 million. In the acquisition deal, Jobs is to be appointed an adviser to Apple. To me, it looks like Apple was extending an olive branch, realizing its mistake of letting Jobs go.

As mentioned in the previous chapter, NeXTSTEP became MacOS X (MacOS ten) and the basis for iOS in the iPhone. More on this in the next chapter.

1997: After the NeXT purchase, Jobs gets a seat on the board. From here, he manages to climb his way back to the top of Apple.

The famous advertising slogan "Think Different" is launched in this year.

1998: Apple returns to profitability and shakes up the personal computer industry with the candy-colored, all-in-one iMac desktop. Apple discontinues the Newton and regains its vision.

The Founding of Google (1998)

While Apple was getting back on its feet, computers were appearing inside the home in ever-greater numbers. Unlike the 1980s, this was different. Now the average person could reach out and instantly access the rest of the world through the Web.

An endless catalogue of knowledge and information was being built all over the Web, but it would all be useless if it was almost

impossible to find what you wanted. The Web had to be organized.

In 1995, Larry Page was working on the Stanford Digital Library Project. One night, he had a dream. In that dream, he imagined that he could store the whole Web on old university computers. After Page awoke, he did some calculations and theorized that it was possible—but only if you stored the *links* to the websites, not the actual websites themselves. Inspired, he got to work building a program that could do this.

Meanwhile, Sergey Brin, a Soviet immigrant, was studying computer science at Stanford and had an interest in data mining and trends. Page met Brin in 1995. Larry Page let Brin know about his dream of downloading the entire web. Due to his interest in data mining and trends, the web seemed like the most interesting data set possible for Brin.

Page's father was a computer scientist, so he had grown up with computers around the house. Page was playing with his first computer in 1978, when he was six; this situation was unique for the time. According to Page, he was the first kid in his elementary school to turn in a word-processed piece of homework. As a kid, he would read popular science and computer magazines and was interested in the way things worked.

Brin was also inspired by computers, especially the power they give us. He was interested in leveraging that power to do useful things beyond video games. In the '80s, he and a friend would play on an Apple Mac by programming primitive AI, a gravity simulation, a chat bot (conversation simulator), and a program for recognizing letters. That experience would be pivotal in Brin's life.

Sharing similar childhood experiences, Page and Brin worked together to organize the world's information. To tackle this problem, Page began by reversing the links—starting local with the

Stanford homepage. He found there were 10,000 external links trailing back to the Stanford homepage. There was a problem, though: Larry Page could only show ten link results on a screen. It was clear they needed a way to rank the linked pages so that the most relevant links showed first—kind of like a popularity contest.

After some tinkering, the results were what you'd expect: the pair successfully configured the Stanford homepage to be the most relevant result. It was actually Sergey Brin who had the idea that information on the web could be ordered in a hierarchy by "link popularity": a page is ranked higher if there are more links to it. Page and Brin didn't initially set out to start a search engine; their tinkering was pure curiosity and research, but a search engine came out of their efforts regardless. When they analyzed the data, the pair figured out they had the technology to enable a better way of *searching* for information.

They called their technology PageRank. It was named after Larry Page, but cleverly had a double meaning for its function of ranking web pages.

Page and Brin realized that organizing the world's information could be extremely impactful. Their product could truly be for everyone looking for information. Now they just needed a company to market it. They started a web company and called it BackRub.

BackRub began indexing (storing ready-to-be-ranked) websites in March 1996. From here, the index quickly grew. By August 1996, some 75 million pages had been indexed, which MB in total took up 207 GB of memory.

In 1998, they would patent the PageRank idea, and change their name from BackRub to Google, Inc.

As early as 2000, Page was talking about an AI taking all the web's information and providing an answer to any question. If you think about it, that's how we use Google today. When you're having a debate with a friend, or are just curious about something, what do you do? Google it!

In 1998, Google had 10,000 searches a day. In 2000 it had 50 million, and in 2018, it had over 3.5 billion.

Today, Google does a lot more than just search, with Gmail, Maps, YouTube, Android, data analytics, quantum computing, and AI being just a few of their twenty-first-century ventures.

Napster (1999)

As Google was revolutionizing search on the web, the world of music was also being transformed with the sharing of mp3 music.

Today it seems like the current generation expects music for free. This mentality all started with Napster.

In 1998, Northeastern University freshman Shaun Fanning was just nineteen when he and a friend created Napster. It was a revolutionary concept: sharing stored music across the internet for free.

Fanning dropped out of college, and soon had Napster online and available to everyone. Word quickly spread through chat rooms, and there were 40,000 users in a few months.

Napster was the first large-scale peer-to-peer file-sharing software. Users could download files stored on other users' hard drives, as long as they were connected. Some early skeptics thought that nobody would be willing to open up their hard drives to the world —but for the reward of free music, it was a risk millions were willing to take.

Though CDs were booming in the ’90s, they cost around $18 each, which was a high price to pay if you only liked one song on an album. By 1999, the music industry was making $15 billion in revenue in USA alone. Napster destroyed that in a flash.

Consumers could get the music they wanted for free. The file-sharing software was a smash hit on college campuses. By the year 2001, over 25 million people were using the Napster service.

Record companies were having none of it, and they called what Napster was doing straight-up stealing. In July 2001, the service had to shut down after a year-long legal battle.

But the idea had already permeated the collective consciousness. The cat was out of the bag, and free file-sharing sites began to spring up everywhere. Hypothetically speaking, I may or may not have used LimeWire, eDonkey2000, or Soulseek back in the day…

More lawsuits followed, but the damage was done. CD sales continued to plummet throughout the decade. It was Steve Jobs who would launch the iTunes digital music store in 2001, taking the idea of downloading any song you wanted legal.

This broke the stranglehold of the record labels. Later on, streaming services like Spotify would be the final nail in the coffin.

Emojis (1999)

Emojis were invented by Shigetaka Kurita in Japan, 1999. He got the idea from observing the relationship young people had with their pagers (remember those?). In the mid-'90s, Japanese youth loved a particular brand of pager, not only because of its functionality, but because it had a heart symbol that could be sent over text.

When a new version of the pager came out without the heart, there was an outcry, and many users left in search of another pager that provided the heart symbol. This inspired Kurita. In 1999, as he was helping implement a mobile internet system, he thought support for a selection of symbols for phones would be popular in Japan. He was right—about Japan, and the rest of the world.

The Y2K Bug (1999)

By New Year's Eve 1999, people were only concerned with two things: how hard they could party, and the Y2K problem.

The problem was that the two-digit date-storage system was going to roll over and read the last two digits of 2000 ("00") as the year 1900. It was suggested that it would throw the world into chaos. Nobody knew for certain how this rollover would affect important systems, but few were willing to take chances. In the late 1990s, there was a scramble for businesses, governments, and individuals

to achieve Y2K compliance, spending billions of dollars in the process.

We may laugh at the Y2K issue now, but looking back on some of the predictions at the time, it was pretty scary.

The estimated worldwide cost of fixing the Y2K bug was predicted to be $1.1 trillion. It was thought everything from banks to nuclear facilities were at risk of catastrophic and unpredictable behavior.

The public were scared too. One American survey found that 42 percent of people planned to stockpile food and water, 34 percent expected banking and accounting systems to fail, and 51 percent planned to avoid air travel on or around January 1, 2000.

As midnight, December 31, 1999, approached, the world held its breath and…pretty much nothing happened. Except a world-wide hangover.

But, you may be surprised to know that some systems did fail. For example, a US military satellite surveillance system went down and wasn't recovered for several weeks.

By 1999, there were very few wars or geopolitical conflicts between the 6 billion humans currently on earth. There was peace and economic prosperity for most. The internet had transformed the world in nine short years. And mankind was at a point of no return. By 2000, we had entered what could be considered a post-modern era of living.

CHAPTER 13

Technology Becomes Personal

2000–2009

Once the collective partying of the world was over and fears of the Y2K disaster had faded, it was all smiles for the year 2000. The twenty-first century had finally arrived.

The euphoria was short-lived, as the events of September 11 would shake the fabric of society. It was traumatic not only to Americans, but also to the rest of the world. I remember the next day, our school (in Western Australia) had students taken to the oval (the sports field) as a precaution. There on that oval, and in classrooms over the next few days, our teachers sat us down and

we discussed our thoughts and feelings about the events. I remember a feeling of overwhelming disbelief.

As the decade progressed, manufacturing would leave the United States and Japan and move to other countries. The Euro—originally strictly a monetary agreement—currency would be put into circulation in 2002. China would see incredible growth, making up almost 9 percent of the world economy by 2009, at which stage it was the third largest economy.

In 2001, the Enron scandal and bankruptcy shook the business world. Similar criminal cases of fraud occurred in 2008, when hedge funds and banks passed off junk mortgage debts as premium assets. Meanwhile, Bernie Madoff took advantage of the desire to make a quick buck during the real estate bubble and created the world's biggest Ponzi scheme. Madoff *made off* with over $60 billion.

Reality TV became popular with *Big Brother* and *American Idol*—we had the Australian versions of both. I thought it was an innovative style of TV, especially the concept of *Australian Idol*. Shows like *Big Brother*, however, didn't seem to really be about much. I assumed TV shows of that type would be a fad. How wrong I was.

In the 2000s, R&B became popular again, as did emo. Groups like My Chemical Romance and Fallout Boy spread the emo genre in the early 2000s through sites like Myspace.

Fashion looked to the future early in the decade, with silver jeans not being unusual (I even owned a pair), frosted tips, skinny jeans, flares, and cargo pants. It was an eclectic mess.

The generation of this decade was Generation Z, mainly the children of Generation X. Gen Z was the first generation to grow up with social media like Facebook and YouTube. Due to globalization, they were generally more tolerant. They also had an

entrepreneurial streak, especially after the great recession of 2008. In response to the recession, the alias Satoshi Nakamoto released the Bitcoin whitepaper in 2008 as an alternative financial system.

MSN Messenger made its mark in the 2000s. It was the coolest way to communicate. The hearts of teenagers would skip every time they saw their crush sign on. Windows XP, Vista, and 7 all debuted during the decade. In 2003, the 3G mobile network standard made mobile internet practical. Gmail launched in 2004.

By the middle of the decade, mobile phones became cheap enough that everyone had one. The Microsoft Zune and PlayStation portable were also hot items. This was an exciting period for consumer technology: things were always changing, and it seemed like it was all going somewhere.

Dot-Com Crash (2000)

The dot-com bubble is something that most people are familiar with: Young nerds making millions for any idea involving the internet. Well, not exactly, but it seemed like it. It all started in 1993, when the Mosaic web browser (later Netscape) made the Web a breeze to browse. Then, thanks to Google, anyone could search and find whatever they wanted. This opened the door to a huge market. By the late '90s, the internet was seen as a new economy: a disruptive magical concept that could transform the planet.

Yes, the internet did have the ability to change the world, obviously. But expectations grew too high too fast, becoming overhyped, and leading to fever-pitch levels of investment. People were throwing money at any company with a ".com" at the end of its name—even if they didn't have a real plan. Employees of these new companies would become instant millionaires as soon as their IPO opened.

Who needs a business plan, right? These star companies would throw lavish dot-com parties without batting an eyelid. It seemed too good to be true… Hold that thought.

Too Good to be True: The Unravelling

When the stock prices of these dot-com companies went up, people on the sidelines wanted to get in on the action. Soon, your local taxi driver was giving advice on which dot-com stocks to pick. It was time to get out—everyone who understood that these companies weren't making money did just that.

In the end, there were too many failed promises.

Investors eventually caught on, and the party came to an end in the latter half of 2000. The majority of the stocks were sold in a panic as everybody tried to rush out the door. By November 2000, over $1.7 trillion (75 percent of the value of internet stocks) had been

wiped out. By 2002, $5 trillion had been obliterated from the entire stock market, as the contagion spread beyond tech stocks. Most tech companies got hurt badly in the crash. To give you an example of the roller-coaster ride, Blucora, a search engine company, was worth $1,305 a share in March 2000. By 2002, that price had fallen to $2 a share. Only the Googles and Amazons of the day survived. Since the crash was mainly due to tech stocks, the overall market picked up again in the coming year.

BLOCKBUSTER TURNS DOWN NETFLIX (2000)

From the mid-1980s to the late ’90s, VHS was king. There was no other way to watch the movies you loved at home without being bound to the chains of TV programming. The problem was that VHS tapes could be expensive. For this reason, video rental stores like Blockbuster Video came in to fill that gap. They were the

perfect solution and became a regular part of weekend plans for hundreds of millions around the globe.

Eventually, online video streaming services like Netflix, Hulu, and Amazon Prime Video destroyed the old video rental business model. Blockbuster came to the party late, even though it got an early invite.

In 2000, Netflix proposed that it would handle Blockbuster's online component, and in return, Blockbuster could host Netflix as an in-store component (that is, customers could pick up their DVD orders under the Netflix brand, thus eliminating the need for mailed DVDs, which was Netflix's business model at the time). According to former Netflix CFO Barry McCarthy: "They just about laughed us out of their office."

But that wasn't the end of the story. By 2007, Blockbuster were on the right track and had an internet movie component that was

steamrolling Netflix. Netflix's management wanted to sell their company to Blockbuster to save face, but Blockbuster decided they didn't need them—their growth was strong.

In a strange twist, there was a boardroom dispute at Blockbuster later that year that produced a change in CEO. The new guy, Jim Keyes, had no clue where the future of the company lay. He decided Blockbuster should be a rental business rather than an online entertainment one. Bad idea. Keyes wasn't worried, though; in 2008 he would state:

"Netflix [isn't] on the radar screen in terms of competition."

Within eighteen months, Blockbuster had lost 85 percent its value. Within three years, they were filing for bankruptcy.

Blockbuster went belly-up and Netflix went on to thrive. With over 100 million subscriptions worldwide, Netflix changed the way many view their entertainment.

THE RISE OF NOKIA (2000)

The Nokia 1011 was released in 1992 and was the first commercial GSM (Global System for Mobile communication) phone. Earlier in the year, Jorma Ollila had taken over the company and pushed Nokia in the direction of telecommunications. He sold off other areas of Nokia to make this happen. Ollila had the right idea at the right time. Nokia had been in the red in 1991, but by 1999 they were making $4 billion in profit and had overtaken Motorola as the number-one mobile phone manufacturer.

In the year 2000, Nokia dropped the gauntlet. They released the indestructible 3310. It was the perfect phone for the time: easy to use, durable, good battery life, great button keys, and some addictive games to boot. The phone went on to sell 126 million units worldwide. It was iconic. My older sister had a bright red one;

I loved playing games on it. The endless array of personalized covers was all the rage among the teenagers I looked up to.

The 3310 was just the start for Nokia. Other smash hits included the 6280 in 2005, and the 2007 Nokia N95, which had the first 5-megapixel camera to hit the United States, as well as GPS maps and more.

I remember the first phone I bought with my own money in 2004. It was the Nokia 6020, featuring a color screen, 3.5 MB of storage, and an amazing 0.3 megapixel rear camera (about 40x less resolution than the standard today). We may laugh today but being able to take videos on something so small back then was amazing to me.

First Camera Phone (2000)

Smartphone cameras are getting to the stage where they can replace introductory stand-alone cameras.

The thought for most today is: why lug a large camera around when I can use my phone? They're convenient and almost as good, so…

Parts of movies have even been shot on iPhones—that's the level we're at.

The first camera phone (phone with a built-in camera) was the J-phone by Sharp. It was released in Japan in November 2000. Its resolution was 0.11 megapixels.

In 2001, the BBC would report on the invention on website. Some of the comments are pretty interesting to look back at now:

"I love taking pictures, but I hate having to carry

another gadget. If it is integrated with the phone, as should the organizer and the browser, that would be just so cool."

Gabriel Henao, USA

"A picture-shooting cell phone certainly is a curious invention. It could be handy for delicate investigation or infiltration. If you disguise it a bit better, who would know to look for a camera on a phone?"

Johanna, Finland

"Take pictures of friendly dogs I see when I walk

around."

John, USA

"It's an obvious move. Eventually all portable gadgets—phone, camera, palm computer—must come together in one communications device."

Julian Ilett, UK

Julian gets it; he's right on the money! Also, a little creepy there, Johanna.

IPOD MAKES APPLE A CULTURAL ICON (2001)

It was white, the size of a deck of cards, and it had a strange circular wheel and enough space for about 1,000 songs. No one

knew what to make of it at first, but soon it would become omnipresent.

Looking back at Steve Job's original presentation for the iPod, it is clear that Apple had the right idea. This is how they got there:

Digital cameras and camcorders were starting to enter the market, and digital music had seen an explosion in popularity, thanks to internet file-sharing services like Napster. To capitalize on this trend, Apple built a range of Mac "iApps" for photo, video, and music. During this process, they studied the available devices that would need to work with these apps, and realized that iApps understood the devices, but the devices didn't understand iApps.

Here was the question: What if there was a device made specifically to work with the Apple software? It would be a level of software and device integration that hadn't been seen before. Apple thought about starting with photos (capitalizing on the digital

camera and camcorder trend), but in the end chose music—it was part of everyone's life, and Jobs loved music. There was no market leader yet, so it was prime time for Apple to get in.

The original iPod was a quantum leap. The iPod didn't just hold one CD like a Discman or flash (chip-based) mp3 player. Thanks to its thin hard drive, it held your entire music library in your pocket. The original iPod had a capacity of 5 GB. This was around half the capacity of a desktop computer in 2000, and it fit in your pocket! The iPod also had a more advanced battery than even the Apple laptops at the time, allowing for ten hours of battery life. But perhaps the biggest innovation was the scroll wheel.

At the time, mp3 players were difficult to use. You had to manually click each song. If you had a thousand songs…well, forget about it. How could you scroll through thousands of songs in a second? The scroll wheel changed all of that with its built-in acceleration, featuring an audible click and tactile feedback. It was a

breakthrough in user interface design. What was once a chore had now become a joy. This was classic Apple.

The iPod was also tiny compared to everything else, considering the capacity it held. It was ultraportable, light, and bore that

trademark Apple design. It wasn't an easy task, though.

I Don't Care, Just Make it Slimmer!

According to ex-Apple-employee Amit Chaudhary, here's a story about how Jobs got his engineers to slim down the original iPod:

When engineers working on the very first iPod completed the prototype, they presented their work to Steve Jobs for his approval. Jobs played with the device, scrutinized it, weighed it in his hands, and promptly rejected it. It was too big.

The engineers explained that it was simply impossible to make it any smaller. Jobs was quiet for a moment. After a little while, he walked over to an aquarium, and dropped the iPod in the tank. When it touched the bottom, bubbles floated to the top.

“Those are air bubbles,” he snapped. “That means there’s space in there. Make it smaller.”

After being barked at, the engineers achieved the impossible, and the original iPod was born. Initially, iPod sales started off lackluster, due to being Mac-only. However, sales began to take off when Tony Fadell, head of the iPod project, convinced Jobs to make the device work with Windows.

SPACEX (2002)

Elon Musk was born in 1971 in South Africa. After graduating from the University of Pennsylvania with degrees in business and physics, he co-founded the company PayPal. Shortly after its success, now a wealthy man, he quickly looked to the skies for his next endeavor. One day, he had the unusual idea to send a collection of plants to Mars, to inspire people by showing that humanity can do amazing

things. When Musk set out to get quotes on the cost of the mission, US companies estimated a cost of around $80 million. Unimpressed, he tried to buy a refurbished Russian intercontinental ballistic missile, but the deal fell through.

Around the same time—in the early 2000s—NASA was pulling out from the business of launching spacecraft. Musk saw this as an opportunity, and in 2002, he founded Space Exploration Technologies Corporation or (SpaceX).

In the 2010s, SpaceX began to get a lot of media hype, but there is some basis behind the buzz. This was the origin; now, we'll take a look at what the company has achieved to date.

What Has SpaceX Achieved That Other Companies Haven't?

Milestones previously only achieved by government agencies:

- The first private company whose rocket reached orbit (2008)

- The first privately-developed rocket to put a commercial satellite in orbit (2009)
- The first private company to successfully launch, orbit, and recover a spacecraft (2010)
- The first private company to send a spacecraft to the International Space Station (2012)

Historic Firsts for Humanity

Historically, recoverable, reusable rockets are launched, fly into orbit, and return to earth gently (landing upright), have been the holy grail of rocket science. Reusable rockets significantly cut costs and lessen turnaround time. Such a feat was thought to be infeasible until SpaceX made it routine. Using this method, they accomplished:

- The first ever launch and upright landing of an orbital rocket back on earth (2015)

- The first relaunch and landing of a used orbital rocket (2017)

The company also plans to complete the first private-capsule manned mission to the International Space Station in 2019.

SOCIAL MEDIA RISES (2002)

Humans are social beings; most of us want to know more about each other.

There's a famous experiment that goes something like this: If you put one person in the middle of the street and make him stare up at the sky, everyone will walk past and ignore him—he's just a crazy person, right? But, if you put a group of people in the middle of the street and make them stare up at the sky, more people will stop to look—there *must* be something interesting up there. That many people just *can't* be wrong.

Groups of humans tend to flock to what everyone else is doing (a term I lovingly call "sheeping"). This intrinsic part of human nature was key for the success of what we now call "social media."

The first popular social networking site was TheGlobe.com. It launched in 1995 and went public in 1998. TheGlobe.com still holds the record for the largest first-day gain of any IPO. Its CEO Stephan Paternot became the poster boy for the excesses of dot-com millionaires.

But the pace of change in social media was rapid in the 2000s, and as TheGlobe and others would learn, it was difficult to find the winning formula.

Friendster (2002)

Friendster was founded in 2002 by Canadian programmer Jonathan Abrams. Before founding Friendster, Abrams was a Senior Software

Engineer at Netscape, but left the company in 1998.

Around 2001, he started thinking of a new way for people to connect and interact, a way that would integrate their offline and online lives:

"The way people interacted online was either anonymous, or through aliases or handles," said Abrams. "I wanted to bring that real-life context that you had offline, online—so instead of Cyberdude307, I would be Jonathan."

He was onto something. Anonymity affects how people behave. At least initially, people tended to be more cautious on a site like Facebook, where there were real-life consequences to what you said. Contrast this with somewhere like YouTube today, where abusive comments are flung around like monkeys having fun with excrement. Sometimes it's best to just view the video and not the comments.

Abrams would solidify this idea using Match.com as a basis. He wondered, what if people's profiles gave information about them and linked to others, instead of focusing on dating preferences used for hooking up?

The idea was to model the types of connections that happen in the real world—a sort of friendship network. This idea would become Friendster, a play on the popular mp3 downloading site Napster. In 2002 friendster.com was registered and had three million users in a few months. It was clear that there was something powerful happening.

Google was impressed by what Friendster was doing. They offered $30 million to buy out Friendster in 2003, but the offer was turned down. At the time, Friendster was receiving a lot of attention in the press and it was the top social network…until April 2004, when it was overtaken by Myspace. Even after it began declining in

the US, the site was doing well in Asia…until Facebook. It would all be over by 2009, and in 2015, Friendster closed its doors for good.

Myspace (2004)

Even if you didn't know about Friendster, chances are you knew about Myspace. During the middle of my high school years, Myspace was *the* big thing. Customizing my profile, browsing music, and choosing profile songs was a large part of my spare time. The "Top Friends" feature caused a lot of drama, because you could only choose eight. Perhaps that was a design flaw.

Myspace began in August of 2003 with a group of employees of the online marketing site, eUniverse. They all had Friendster accounts and liked the idea of a social network, so they decided to make their own. eUniverse threw its full support behind their project.

By 2004, Myspace had a large user base, mainly among teenagers and young adults. Its focus on music meant underground bands (particularly of the rock and emo genre) posted their work on their own Myspace pages. Bands like Taking Back Sunday would enjoy huge online popularity, thanks to this feature. In early 2005, Myspace began talks to acquire Facebook, but the offer fell through when Mark Zuckerberg asked for $75 million. The 100 millionth Myspace user signed up in 2006, and it was the leading social networking site in late 2007.

It wouldn't last, however. Myspace was overtaken by Facebook in mid-2008. Myspace's decline continued as the site stayed true to its music roots, refusing to adapt or add new features. Additionally, when all the teenagers grew up and went to university, Facebook—which was less tacky and better suited for adults—was waiting for them.

Facebook (2004)

The difference between Facebook and the previous social networks is that Mark Zuckerberg continued adjusting the social media site to keep people on it—for better or worse.

Born in 1984, Mark Zuckerberg was a bright kid, and this was clear even at an early age. Growing up as a millennial, he had experience with computers and learned programming from his father. Zuckerberg had already written his own software by middle school, and his dad hired a software developer to tutor the young programmer. Zuckerberg's tutor famously said that Zuckerberg was a prodigy, and it was tough for him to stay ahead of his student.

In high school, Zuckerberg and a friend built a media player called Synapse. It learned listeners' habits and recommended music it thought they would like. Synapse was such an intriguing concept

that it gained the attention of Microsoft and other global players, but Zuckerberg wasn't settling; he wanted a bigger challenge.

By the time Zuckerberg graduated from high school and entered Harvard, he was a seasoned programmer. At Harvard, he wrote a program called Facemash, essentially a version of "hot-or-not" with a voting and ranking system attached. To the dismay of some less-attractive students, Facemash went live on the weekend and by Monday, the Harvard servers had crashed. The students couldn't even get on the internet—it was that popular.

Around this time, the second generation of social media was starting to take off, as Myspace and Friendster gained ground. Three Harvard students, Cameron and Tyler Winklevoss and Divya Narendra, had been working on a site called "Harvard Connection" for a year, and had recently lost two programmers to graduation. They were looking for a new, talented programmer to take over some of the work.

After hearing about the Facemash phenomenon, it was clear that Zuckerberg was their guy. Mark accepted their offer and hopped on board the Harvard Connection project, though he had his own ideas. Although the details are shrouded in controversy, it is said that Zuckerberg betrayed the Harvard crew by working on his own site, while continuing to delay work on the Harvard Connection. In the end, Zuckerberg took inspiration from the social idea of Harvard Connection, and the resulting effort was "The Facebook." Its name was later changed to just "Facebook" and the rest, as we know it, is history.

We can no longer think of Facebook as just a social network: Facebook Incorporated has grown much larger than that.

Today, Facebook has 1.4 billion active users; it is the third most visited website after Google and YouTube. Every 20 minutes on Facebook, 1 million links are shared, 2 million friends are requested, and 3 million messages are sent. Every day, Facebook

creates 4 new petabytes of data with 350 million photos uploaded per day.

Facebook is worth over half a trillion dollars—that's more than Coca-Cola, PepsiCo, and McDonalds combined.

As Facebook grew, however, it became the thing to hate. Data-sharing scandals and negative effects on society have rocked the company. A number of studies have shown that it makes people miserable, and CT scans have shown that the social network visibly decreases empathy in developing brains. There'll be more on the social impact of Facebook in the final chapter.

YOUTUBE CONNECTS THE WORLD THROUGH VIDEO (2005)

A Little YouTube Tribute

Without YouTube, there would be no *ColdFusion*. There wouldn't even be this book that you're reading. I got my start on YouTube in 2009 by posting videos about the HTC HD2 phone running 3D UI Android software mods. The channel really took off when I showcased the capabilities of the original Samsung Galaxy Note. It was at a time when phones were still small, and a large-screen phone (then referred to as a phone-tablet) was very unusual. I immediately saw that this was the future: a phone you could freely browse files on, as well as browse the web and view desktop sites comfortably.

It was obvious to me that the more capable our phones became, the greater the need for more screen real estate. The problem with the original Note for me, though, was that it felt very much like a phone. I showcased some software hacks on YouTube that made it feel more like a mini-computer, which I thought was much cooler back then.

Others watching evidently thought the same. I was often laughed at by non-tech friends for carrying such a large phone and using it differently. Today, most smartphones are large. In my mind, the phone was evolving into something new, and I just showed people what was possible. I'm grateful that I could share thoughts and ideas with the world and people responded. So thanks, YouTube!

YouTube is an Underappreciated Privilege

When I was a kid, whenever I wanted to watch a video, it had to be on VCR (and later, on DVD). And then there was YouTube. Today we can watch a virtually endless array of content at any time, for free.

The YouTube phenomenon has definitely changed the world. Its sheer size and influence is mind-boggling. There are seven billion hours of video watched every month. It would take fifteen straight days of watching just to view the amount of footage uploaded

every *sixty seconds*, and sixty-five years to watch all the footage uploaded each day.

YouTube is the second most-visited site on the internet, and the second largest search engine on the internet. That gives you a glimpse of how big YouTube is. But how did this all happen? Let me tell you a story.

YouTube Origins

It all started with PayPal, the company co-founded by Elon Musk. Three employees of PayPal would change the world: their names were Chad Hurley, Steve Chen, and Jawed Karim. After their days at PayPal, they were interested in creating a video-dating website. The result was called "TuneIn Hookup." It was a site where people could upload videos of themselves in order to find dates, and as you might guess, it didn't work out that well.

People, and especially women, didn't want to upload dating videos. The site was so desperate it began posting ads on Craigslist. Despite offering to pay women the extravagant sum of $20 to upload videos of themselves, nobody came forward.

But, as so often happens with these things, serendipity struck. One day in 2005, Karim noticed how hard it was to find Janet Jackson's 2004 Super Bowl wardrobe-malfunction video online. This sparked an idea. There had to be an easier way to upload and share videos. The technology existed—it was just a matter of building the right website.

Karim realized that they could use the existing code from their TuneIn Hookup site as the basis for a video website. TuneIn Hookup was modified to allow any kind of video to be uploaded.

Soon after, the website's name would be changed to YouTube, and on February 14, 2005, in a humble room above a pizza shop in

California, the YouTube company was founded. YouTube's first video, 'Me at the Zoo,' was uploaded on April 23, 2005. It was a video of Jared Karim awkwardly talking about the elephant behind him.

It wasn't long before YouTube had its first million-hit video. This happened in September 2005. It was a Nike ad featuring Brazilian player Ronaldinho doing tricks with a soccer ball.

In October of 2006, Google stuck their heads in the door and thought, "Hey…that's pretty good…" They would acquire YouTube for a cool $1.65 billion.

Exceptional Growth

Google called YouTube the next step in the evolution of the internet. It was a pretty bold statement, especially as the YouTube company only had sixty-five employees. But Google knew YouTube

was something big, something very different from what had come before. It quickly became one of the fastest-growing sites on the Web.

It was all in the name: The "you" in YouTube was in reference to the producer, and the aim was to broadcast *yourself*. This theme was highlighted in 2006, when *Time* magazine's *Person of the Year* was "You." The caption on the cover read "You. Yes you. You control the Information Age. Welcome to your world." This was true—we had the power to turn YouTube into anything we wanted.

In May 2007, the YouTube Partner Program came into the picture. This changed the lives of many people. For the first time, YouTube made it possible for everyday people to turn their hobby into a business. About a year later, the most successful users were earning six-figure incomes. It wasn't long before YouTube became truly mainstream.

During the exponential growth of the 2000s, the website produced its own living, breathing culture. It began to replace TV, which was amazing considering the short amount of time that it had been around.

YouTube is already bigger than TV among people under eighteen, according to the BBC. Some very real celebrities had their start on YouTube. One that comes to mind is Justin Bieber. There have also been shows, like *Broad City* and *Workaholics*, that got their start as YouTube skits before becoming successful primetime TV shows.

Today, YouTube is the single biggest distributor of video media on earth, from independent small films, to news media, to entirely new genres of programming. YouTube isn't just cats, vloggers, and viral videos anymore.

In 2010, Chris Anderson, the owner of TED Talks, noted that crowd-accelerated learning from YouTube could result in the

biggest learning cycle in human history. Perhaps that hasn't happened yet, but I do know that I've learned a great number of skills, such as video editing, from watching tutorials on YouTube, and I'm sure you've have had similar experiences. It is common for YouTube videos to be shown in schools and universities around the globe. For the first time, mankind has a shared digital video archive.

However, some say the true essence of YouTube has been diluted recently, with corporate interests, advertising scandals, and demonetization running rampant. The website is in a state of flux at the time of writing, and it seems like things may change in the future. It will be also interesting to watch competitors like Twitch, and crypto-decentralized video sites.

THE SMARTPHONE ERA BEGINS (2007)

The smartphones of today are like mini PCs in our hands. The rate of growth of smartphones, in terms of power efficiency and processing speed, has been significantly greater than that of PCs.

In my 2013 *ColdFusion* video "The Greatest Story Ever Told," I stated:

"The 2010s will be the decade where the future meets today. We'll begin to see a few things. Firstly, smartphones will become incredibly powerful, at a rate which many find hard to keep up with. We'll see 64-bit mobile operating systems emerge. We'll see glimpses of the very distant future, one example of which is the convergence between the smartphone and the PC. Picture this: in five years' time, your smartphone being as powerful as your PC is today, running PC software."

It may be slightly over-dramatic but, at the time of writing this book, this is more or less true. The convergence has begun. In

2018, Apple announced that it's going to begin bridging the gap between iOS (mobile) and MacOS (desktop)—that is, allowing iOS apps to work on the Mac. By 2018, full Windows PCs that ran on the same chips as smartphones were being shipped. The rate of improvement I was already seeing in 2013, coupled with the sheer amount of funding that was being poured into faster and more efficient processors, had to result in such gains in a small form factor—keeping up with Moore's Law in the process.

The smartphone revolution is certainly interesting, but perhaps more interesting is the story of how it all began. Of course, that was with a shiny new iPhone.

iPhone (2007)

With over a billion units sold, the iPhone is the most influential product of all time. It turned the smartphone into an instant

gateway to the world: everything you desire, in the palm of your hand.

It's All About Touch

Human-computer interaction was a mess before smart devices, and manipulating digital objects was a chore. In the early 2000s, zooming in on an image usually meant clicking on a menu, selecting the "zoom" option, and choosing the amount you wanted to enlarge it by. How we zoom in on an image today couldn't be more different. We now have the option of simply pinching the screen and manipulating it with our fingers.

Touchscreens existed in the early 2000s, but were predominantly resistive touch (that is, screens you have to press down hard on, like those in ATMs or the information screens at train stations and airports). On smaller screens, it's inexact and frustrating. In the

’90s, Apple tried to use this resistive touch in the Newton, and it failed.

This was the first problem that had to be solved.

LG tried an all-resistive touch screen phone in 2006, but an ATM-style experience on a phone was as clunky as you would imagine. By 2007, the world was looking for a new approach to the mobile phone. They just needed a company to be in the right place at the right time, with the right product.

The first seed for the iPhone came, not from Apple, but a small company called FingerWorks in 1999. Founded by Wayne Westerman, FingerWorks had figured out how to use a different type of technology effectively—capacitive multi-touch. It was fast, responsive, precise, and most importantly, smart enough to recognize multiple fingers and what they were trying to do.

In the early 2000s, FingerWorks released a trackpad called iGesture. It helped people with wrist injuries use a computer without aggravating it, as Westerman suffered from a wrist condition himself. He even wrote a simple AI program to help the system understand the differences between accidental and intentional touches. When gestures were performed, the pad would interpret them and turn the movements into computer shortcuts like copy, paste, and scroll.

FingerWorks would play a critical role in the development of the iPhone.

MP3 Cell Phones Threaten Apple

In 2004, the iPod was making up 50 percent of Apple's sales, but there was a cause for worry. The company became increasingly concerned that mobile phones would destroy iPod sales. Phones

could now play mp3s and were becoming a lot like iPods. Something had to be done.

Early on, Steve Jobs hated the idea of Apple making a phone. He was concerned with a lack of focus in the company (this was the precise issue that Jobs had solved upon his return to Apple) and believed that a phone would only serve a niche geek market. Cell phones at the time were not the easiest to use, so I can understand why it wouldn't have seemed right for a hip company like Apple to get into this market.

Around the same time, Tony Fadell, who led the successful iPod division, suggested to Jobs that it would be a good idea to put WiFi in an iPod. While Jobs thought about it, Fadell and his small team got to work on a new iPod—a PDA hybrid prototype. The result was…a disaster. Imagine an iPod with modified software allowing users to navigate the web…with a click wheel. Jobs hated it. He

understood that it *worked,* but thought it was a garbage experience. Jobs told Fadell to try another way.

A Touchscreen Mac?

At Apple, a group of engineers and software designers would meet weekly in what had been a user testing room. They were from different departments, but united by curiosity and imagination. They realized that the web and digital revolution was bringing richer and ever-more-complex media to computers and that clicking and typing might not be the best way to navigate that future. What if there were a more fluid way to interact with content? With this idea in mind, they created an informal media-integration group within Apple.

One day in 2002, an Apple employee by the name of Tina Huang brought a FingerWorks device to work, because she'd hurt her

wrist. It was a black rectangular pad that allowed the seamless execution of complicated computer tasks, by just the use of the fingers. This way of working took the strain off Huang's wrist. More importantly, for this story at least, the pad had smart multi-touch built in.

The FingerWorks pad was seen by some of the Apple employees from the weekly meetings in the user-testing room. Already thinking of new ways of media-interaction, to them, multi-touch interaction was an interesting prospect.

Inspired, they whipped up a demo to show the Apple marketing department. Using the multi-touch gesture pad and a projector, they displayed an interactive image of MacOS X. The idea was that you could use finger-based gestures on the pad to manipulate elements of the desktop MacOS software. The demo was met with minimal enthusiasm by the marketing team; they didn't see a use

for it. How could they? There was no product that would really *need* it, except perhaps an advanced in-house Mac Mouse.

Unfazed, the media interaction group continued have weekly meetings to work on the possibilities.

Johnny Ive, one of the weekly members from the informal media-interaction team, had also shown Jobs the concept. Initially, Jobs rejected it. He remarked that it would only be good for "reading something on a toilet."

After further thought, Jobs warmed up to the idea, and the project was greenlit. The multi-touch MacOS project did trundle along, but it became riddled with problems, and was ultimately shut down.

In July 2004, Jobs had surgery to remove a malignant tumor in his pancreas. The realization that he might have limited time on this planet helped accelerate the timetable of what needed to be done at Apple.

We Need to Do a Phone

In 2005, Bas Ording, a programmer and UI designer, received a call from Jobs asking him to make a demo of a touch interface accessing a scrolling contact list. Jobs now wanted to do a touchscreen phone.

While Ording was making the demo, he noticed that, when scrolling through a list, the text image would suddenly stop when it hit the top of the screen. Because of this sudden stopping of all motion, he thought his code had crashed. After some time, Ording noticed he had in fact reached the end of the list. It gave him an idea: Why not have the image "bounce," so there's some visual feedback that lets you feel like you've reached the end of the list—not like it's suddenly crashed. This was the genesis of the "rubber-banding" effect on the iPhone. Ording was a Gen-Xer and would

later state that playing games like *Super Mario Brothers,* with its simple animations that just "felt right," gave him the inspiration.

When Jobs saw Ording's rubber-banding effect for the first time, he realized that a phone *could* indeed have a touch interface.

While work on the scrolling list demo was happening, other touchscreen projects were secretly going on at Apple as well. As cool as these demos were, they were no more than just a bunch of disjointed concepts: some pinching and zooming, a few widgets like stocks, notes, and calculator…but none with a unified structure.

Developing a Product: 2005

Jobs wasn't impressed with the disjointed array of demos—it didn't seem like there was a product to sell. In early 2005, Jobs gave the team two weeks to create something great, and it had to be great…or else.

A small team at Apple spent two sleepless weeks trying to get the company's first touchscreen phone right. They focused on the vision of a phone and its function: How do you make a phone call on a touch screen? How would you get from a calendar to Web browsing? What's the logical flow of getting from one application to another? Amazingly, by the end of the two-week period, they had something to show Jobs.

It's Show Time

The first time Jobs saw the prototype, he didn't jump for joy, or exclaim anything. He was silent. Sitting back, he said: "Show it to me again." He was, in fact, blown away. The project would be top secret within Apple from that point onward. Around the same time, Apple purchased FingerWorks, bringing FingerWorks' whole team on board to help figure this jackpot out. At one point, forty people within Apple were working on touch technology alone.

The Battle Within Apple

Apple had two choices on how to transform this technology into a product: enlarge the already successful iPod into a phone or shrink MacOS down into a phone using FingerWork's touch technology. Nobody knew which would work best, so Steve let both ideas run.

The iPod-enlarging team was led by Tony Fadell, and the multi-touch MacOS team was led by Scott Forstall. Forstall's team were seen as the underdogs. After all, Tony Fadell had helped push millions of iPod sales and was also working on two smash hits—the iPod Nano and iPod video.

The battle had begun, but the thing was, neither team was allowed to know what the other was doing. In fact, the hardware guys weren't allowed to see any software, and the software guys weren't allowed to see the hardware. Not one person at Apple

knew what this phone was going to look like until the keynote… and they weren't given a date for that, either.

Apple's iTunes Phone Catastrophe

While these projects were going, top Apple executives convinced Jobs that something had to be done about encroaching mp3-capable mobile phone sales. Jobs agreed to partner with Motorola (the hippest phone company at the time, with their thin Razr phone) to make an iTunes mobile phone.

Essentially, it was a way for Apple to not cannibalize iPod sales (their previous fear), while giving people a chance to try iTunes and hopefully buy an iPod. Apple would have no involvement in the hardware, only focusing on iTunes integration.

The result was the Motorola Rokr. Already outdated on release, the thing just…sucked. The Rokr was such a dumpster fire that it

was soon being returned at a rate six times higher than the industry average. Consumers were expecting something big from Apple, and this wasn't it.

To the shock of Motorola executives, Jobs decided to subsequently unveil the iPod Nano in the same presentation. The Nano was an impossibly small, color iPod that served to sweeten the bitter taste of the Rokr. When I first saw it revealed on that stage in 2005, I thought it was the most beautiful consumer electronics device ever made.

After the Rokr failure, Jobs returned his attention to the iPod phone (Tony Fadell's team), as it was the safer option, while still leaving the Scott Forstall touch-MacOS team to continue.

An iPod that Makes Phone Calls

Fadell's team tried a plethora of designs, one of which was similar to a video iPod, but with a phone mode. When you wanted music, it would behave like a regular iPod, with touch controls for pause, play, etc., around the scroll wheel. When you needed to dial a number, you would switch it into phone mode and the device would behave like a rotary phone. Jobs still insisted that he could make this concept work.

This design had the ability to browse WiFi and also had a built-in speaker. As with earlier efforts, it was clear that a scroll wheel was an obstacle. When using the device for more complex functions like dialing a number or texting, the scroll wheel would just make things more complicated. Interestingly, Jobs originally thought a "back" button was necessary for function, but the design team insisted that simplicity in function would make the consumer trust the device more.

Which Software?

Nobody within Apple really knew what this new device actually was. There were arguments between the two teams. The iPod team saw it as another portable accessory like an iPod, so software wasn't important. The touch MacOS team saw it as a full-fledged, multi-touch computer that fit in your hand.

Fadell and his team were certain that this new phone should run a beefed-up version of the iPod software, while Forstall's team thought a shrunken-down version of MacOS X would be better. Forstall's team theorized that mobile chip technology had become powerful enough to run a version of MacOS X. Soon they managed to get scrolling to work smoothly on a compact version of MacOS, and from this point, it was decided that this would be the way to go. This shrunken MacOS X would become known as iOS. Soon,

Fadell's iPod-phone idea would be abandoned, and all efforts would be focused on iOS.

As the software began to be written, the details had to be ironed out. How do you unlock the thing without doing it by accident in your pocket? One day, Freddy Anzures, an Apple user-interface engineer, found the solution in the most unlikely of places: a toilet…

One day Anzures was on a US domestic flight and felt the need to relieve himself. He got up from his seat and went to the toilet. As Freddy locked the cubicle door, he happened to observe the locking mechanism. It was so simple, you just slid it to unlock. This concept lit a light bulb. The result was the famous original slide-to-unlock feature.

Meanwhile, Jonny Ive was beginning to imagine what the hardware of this phone could look like. Although later designs would stray,

the first sketch from Jonny Ive was close to the final product. Ive was imaging an infinity pool, “this pond where the display would sort of magically appear. The rest of the device had to get out the way.”

Interestingly, Ive didn’t want a headphone jack in the original phone.

Difficulties Mount

As the project dragged on, tempers rose within the company, due to the secrecy and competition and the time pressure of the project. And it was no wonder. Everything the teams were making was new. Touchscreen technology was in its infancy. The Apple engineers had to figure out how to make a transparent version of multi-touch mass-producible. Untested custom chips had to be

developed. Cell reception had to be worked out. Material designs needed to be perfected.

Basically, these teams, which had never made a phone before, were now trying to make the most ambitious device ever imagined. Talk about running before walking! Imagine how hard it must have been for the developers, too. If an app they were working on crashed, it could be because of virtually a million things, from their coding to any one of the fresh hardware components.

By early 2006, iOS was making great progress in the phone's development, but the keyboard still sucked. Scott Forstall paused all development of applications for iOS and made everyone focus on the keyboard issue. Everyone on the team built keyboards for three weeks, until one employee finally came back with an accurate keyboard. The breakthrough was made by using primitive AI to figure out what was being typed (essentially "predictive text"). For example, if you were to type the letter "t," there was a high chance

that you were going to type “h” next. So, the keyboard would make the contact region for “h” larger, without changing the appearance of the button to the naked eye. Although it will probably remain a mystery who at Apple came up with the keyboard breakthrough, my hunch is that it was Wayne Westerman of FingerWorks. He had already mastered the multitouch/AI synergy, after all.

Down to the Wire

As it was all coming down to the wire for Apple, disaster struck. Trying to get all the best names in for their breakthrough phone, Apple had partnered with Samsung to create the phone’s custom CPUs, but Apple didn’t give them a lot of time. Just three months before the launch, the custom CPU chips from Samsung still had bugs that caused the phones to crash. With so little time left on the clock, it was looking like a catastrophe in the making.

Other aspects of the iPhone were still being slapped on *very* late in the development cycle. One of its killer apps, Google Maps, was only added as an afterthought. On the hardware side, the original iPhone screen was supposed to be plastic like the iPod's, but the decision to use glass was made one month *after* the launch!

The Day that Changed the World

When the day of the keynote came on January 9, 2007, none of the teams within Apple knew exactly what the final iPhone product looked like, even though they had worked on the project for years.

When Jobs took to the stage, some things were still incomplete. The iPhone's buggy CPU issue hadn't been properly solved—only patched up for the demo. This meant the phone could crash any time during the presentation.

The Apple team held their breath, sweating as they sat and watched Steve Jobs excitedly proclaim "…And we're calling it… iPhone!" There was a mostly positive crowd reaction, but also some uncertain laughter, as some thought Jobs was joking about the name. Yet, the demo was going well, and the crowd was loving the smooth scrolling and the technological magic they were witnessing. As Tony Fadell, leader of the iPod-phone team looked on, Jobs did something truly cruel. When showcasing to the crowd how to delete a contact, he gleefully slid Fadell's name off the iPhone's contact list. Jobs was basically saying Tony was fired. Forstell states that during the rehearsals of the presentation, Jobs would always delete a random contact, never Fadell's. To the crowd, it was just a demonstration of how this phone made everything fun and cool to use. To those working at Apple, it was a message. Fadell was in trouble.

This one act was a summary of how the project had been for most—brutal. The project was so hard on the secret teams that it had ruined marriages and cost some workers their health.

Oblivious to the sacrifice, the world was electric with the buzz of the iPhone when all was said and done. Keen fans lined up to get one.

The week after the iPhone was announced, I remember chatting with a friend who was nine years older than me. I told him about the fact that there was a phone coming out with just a screen and no buttons, which you navigated strictly by touching. After seeing Jobs' demo of scrolling and gestures, it made sense to me that this was the perfect interface for a small-screen device. I distinctly remember him throwing his hands up in the air and in a mocking tone saying "OOoooOOooo, wow! No buttons!" A couple of years later, he had an iPhone.

The future had arrived; finally, a computer in your pocket. As Apple software engineer Henri Lamiraux put it: “We took a Mac and we squished it into a little box. It’s Mac Two, same DNA, same continuity. NeXT to Mac to iPhone.”

It had thousands of times more computing power than NASA did in 1969 when they put man on the moon., yet was super easy to use, with a full web-browsing experience to boot. In a nod to Engelbart’s original graphical-interface vision, even children could pick up an iPhone and know what to do. Capacitive multitouch and gestures had broken down walls in human-computer interaction.

Other small touches—like a proximity sensor that turned off the screen during a phone call, so it wouldn’t hang up if it touched your face by accident, or an accelerometer that could sense if you were holding the phone in portrait or landscape mode—made the whole package *feel* like magic.

What followed the iPhone was a complete shift in how we thought about technology. Now information and news were instant. We became totally connected all the time. In the next decade, this over-connectedness would cause some issues.

The iPhone

There's an App for That: The App Boom (2008)

Once the initial fanfare was over, the sales of the iPhone slowed. It would take the introduction of the App Store in 2008 for things to really kick off again for Apple.

If not for the breakthrough of the App Store, the iPhone could have just been one of those devices that looked cool and was cool to use, but never caught on. Initially, Apple marketed the concept of web apps. The plan was for the user to open up the Safari Web browser and go to a website that was designed for iPhone. From there they could find HTML-based games, utilities, and applications. Obviously this didn't go over well, because Apple would soon announce the App Store as a response. Before this, for an entire year after the iPhone's launch, it could run a grand total of sixteen apps. There was only one home screen of apps and that was it—not to mention how limited the iPhone was compared to some other devices out there. It had no multimedia messaging, no video camera, no cut and paste…the list goes on.

Nokia, Blackberry, and the rest of the established phone companies had been providing a lot of these features for years, but the difference was that for the first time, a device was now a changeable blank canvas with no buttons. Since the device could have apps run on it, the iPhone software creators could make it be whatever they wanted it to be. Their creativity was only limited by their imagination and the hardware available. Today, billions of apps have been sold, and the mobile app space has become a new industry.

Companies like Nokia, Blackberry, and Palm thought they knew the game, but they couldn't visualize the future. They thought things would never change, and before they realized, it was too late to prosper in the brave new world. A new way of thinking was needed to compete, and there was one company up to the task—Google.

Enter Android (2008)

In 2003, midway through the iPod storm, something new began to take form. Andy Rubin and Rich Mena founded a company in Palo Alto, California, named Android Incorporated.

Android was initially supposed to be a digital-camera software company. Early on, it was clear that this market was way too small, so the company concentrated on producing a smartphone OS that could take on Nokia's Symbian, and Microsoft's Windows Mobile. They believed it was too difficult to get new products out to consumers in a timely fashion, and concluded the missing link was an open platform. And so, they created a smartphone OS that had one.

In July 2005, just after purchasing YouTube, Google poked their head in the door again and thought: "…Hey, that's pretty good…"

Google would acquire Android for over $50 million. With this capital, Android began developing prototype phones. The early Android prototypes were more like Blackberries—they had no touchscreen and a physical QWERTY keyboard. Later prototypes were reengineered to support a touchscreen, competing with other devices such as the 2006 LG Prada, and of course, the iPhone, in 2007.

Android played a major role in the late 2000s.

The next few years became a blur as the world we know today began to form. Just like the battle between the Macintosh and the Windows PC in the mid- to late-'80s, the game was on once again, though this time the tussle was between the iPhone's iOS and Google's Android operating systems. The first Android phone arrived in 2008. It was the G1. The G1 was the joint effort of Google and HTC. It wasn't bad for a first try, but as expected,

there was a lot of room for improvement. The iPhone ran circles around the G1 in terms of speed, ease of use, and code efficiency.

But Android had something up its sleeve. Android's open-source and fully customizable software was key, as it meant that any individual or company could use Android as a basis and tailor it to their liking. This proved to be very effective, and soon, Android software would be running on everything from phones to cars to fridges to portable movie projectors.

As the 2010s drew to a close, the world was transformed once more. We were connected by social media like never before; all of human information was in our palms and at our fingertips. In the next decade, we saw science and technology shift into hyper-drive.

CHAPTER 14

Impossible Possibilities

The 2010s

In the times of the Greek philosophers or scholars of old, it was reasonable for someone to strive to know everything that was ever known. The web and the internet have made this beyond impossible. By 2017, 90 percent of all information had been created in the previous two years. This eerily echoes Vannever Bush's vision in chapter 7 of a knowledge and information explosion. Knowledge and its distribution among some of the most brilliant minds on the planet began to bring forth a rapid advancement—not only in science and technology, but the world at large. This

progress began to show strongly all over the world in the 2010s. In this final chapter we'll see how. But first, a bit of background.

In the 2010s, the developing world began to catch up at breakneck speed. Between 2000 and 2012, the poverty rate of the world fell by half—the fastest period of economic development in all of history. Rates of child mortality in Africa became lower than those of Europe in 1950. Some of the fastest-growing economies in the world were in sub-Saharan Africa, where millions began to have access to predominantly Chinese-made smartphones. With the addition of satellite internet, the world was at their fingertips, too. India experienced a digital revolution in 2017 with cheap and fast mobile data from the Reliance company. Renewable energies picked up steam in the decade due to a renewable-energy price drop and a global concern for climate change by world leaders. In the same vein, solar-powered aircraft were proven viable with the introduction of Solar Impulse 2, which circumnavigated the earth in

2016. Globally, battery tech began to improve, allowing the drone industry to explode overnight.

Innovation became a more global affair, with small start-ups popping up all over the developed world. Even many of my friends have gone on to be involved in start-ups. From the start-up scene, novel forms of personal transport began to emerge, including hoverboards or self-balancing boards, electric bicycles, and electric skateboards. Affectionately called "the Mouth Fedora" by artist Post Malone, electronic cigarettes or "vaping" became a cultural marker. The sharing and gigging economy came online with early entries like Uber and Airbnb. Smart glasses and smartwatches began their life cycle as a product category.

In the 2010s, fashion embraces the hipster subculture. Beards and moustaches gain popularity, and the undercut hairstyle reigns supreme. Superhero films and sequels do well. CGI animation remains strong, and *Toy Story 3* in 2010 becomes the first animated

film to make more than $1 billion worldwide. House music, trap, and EDM see a massive return, and pop music at this time sees many elements borrowed. Internet meme culture has also affected music, with PSY's "Gangnam Style" and Baauer's "Harlem Shake" seeing billboard success. The maturing of online distribution outlets leads to the fracturing of music as a whole. Chillwave and bedroom producers are able to reach a new audience. Platforms where anyone can now upload and share mean electronic music has begun to split into ever smaller genres, known as microgenres, including Glo-fi, dream-beat, bedroom pop, and dream pop. All you need is a laptop and the internet.

Against this backdrop, the 2010s sees a parabolic acceleration in technology. All the previous decades had come together to serve as a launchpad for this decade. To see a relatable example of this rapid pace of tech, you need look no further than your pocket. A

smartphone released six months ago is hopelessly outdated. A consumer product cycle this fast has never been seen in history.

This pace of advancement didn't come without a price. Phone addiction became a real issue among the millennial generation and Generation Z. The psychological effects of social media and the internet on the minds of young people, especially children, became an increasing concern during this decade.

To give some perspective, here's a quote from Henri Lamiraux, the man who oversaw the software engineering of the iPhone, the most influential device of our time: "I see people carrying their phone everywhere all the time. I'm like, okay, it's kind of amazing. But, you know, software is not like my wife, who does oil painting. When she does something, it's there forever. Technology—in twenty years, who's going to care about an iPhone?"

In 2018, both Apple's iOS and Google's Android announced software features to encourage digital well-being—features to help use your phone less. There'll be more on the price of advancement later.

Ever-stronger gains have been seen in mobile technology and laptops due to a dramatic increase in power efficiency. My 2017 Dell XPS 15 is a thin and light laptop with 32 GB of RAM—unthinkable just three years before its release. Toward the end of the decade, laptops (PCs) with 128 GB of RAM and phones with 16 GB of RAM are possible. Contrast this with the year 2000, when average PC RAM was 1 GB.

A storage revolution has also been on the rise. Hard-drive tech at the start of the decade resulted in huge, bulky power bricks with only 500 GB capacity. Eight years later, 8-terabyte hard drives are thin and light. Even phones had 1 TB of storage by this stage.

Cyber hacking and data leaking would increase in the decade. Edward Snowden shocked the world when he proved that the NSA did in fact have global surveillance. The WannaCry ransomware in 2017 took cyber-hacking to a new level: 230,000 computers in 150 countries were hacked. The only way to get access back was to pay the hackers in Bitcoin. All sorts of entities, from hospitals to airlines to FedEx, were targeted.

Despite privacy concerns, smart-home systems such as the Apple Homepod and Amazon Alexa have become mainstream in the decade. Robotic pets make their debut with the Anki Vector pet. E-sports explode in popularity, even being considered for the 2020 Tokyo Olympics. In the latter part of the decade, the tech companies become king. Facebook diversifies by acquiring Instagram for $1 billion, and WhatsApp for $19 billion. Both become massive social media platforms. The continued growth of e-commerce companies such as Amazon forces the closing of

traditional shopping malls. Google is fined a record $5 billion EU for violating antitrust laws. Apple becomes far and away the most valuable publicly-traded company on earth.

China begins to rise to prominence in this decade. They land on the moon and overtake the United States as the world's largest trading nation. They even file more patents than the US. In GDP ranking, China went from ranking below one hundred to number two in thirty-five years! One of the reasons for China's growth was its new status as the production hub of the world. The output was not high in value, but it was ubiquitous; everywhere you turned there was a "made in China" label. Outstripping even China's economic growth was India, the fastest growing major economy in the world currently. Meanwhile, the once powerful Japan saw a credit-rating downgrade (the nation is seen as less likely to pay back debt). In addition, over 20 percent of Japan's population is over the age of sixty-five, making it the most elderly population on

earth. To deal with this, robots were quickly developed to handle the demand in elder care. The rest of the world saw a massive number of retirees from the baby boomer population causing financial strain through pension programs. In fact, in the United States, 10,000 baby boomers hit sixty-five per day!

The global economy was in a sluggish recovery since the global financial crisis of the late 2000s. Some economic analysts argued that the problem was not fixed at all, only patched over with low interest rates and central-bank money-printing. The latter only inflated the stock and housing markets instead of creating jobs, causing a slow and silent squeeze on the middle class of western nations. The economic pressure would also lead to civil conflict in some nations. The 2015 Syrian civil war caused a refugee influx in Europe, the largest since World War II. Germany took in the largest number of immigrants, creating social tension and political instability in the nation.

Economic woes also affect the United States. In 2016, the US presidential election split America, as a large number, dissatisfied with the economic situation, voted for Donald Trump. The echoes of surprise, anger, and confusion rippled through the globe, and the left- and right-wing ideologies became polarized. The ability of social media to amplify the voice of the individual only intensified the divide. Extremes of either political side are the loudest, often reinforcing the opposing side's stereotypes.

Correct information became a valuable resource as the post-truth and "fake news" period took hold. Vannever Bush could not have foreseen this side effect of his vision. Mainstream media has weakened and trust is at an all-time low, with the media employing clickbait tactics to cut through the information noise. This has further fed polarization and resulted in the overall loss of confidence in governments and institutions.

At the start of the decade, everyone was entitled to an opinion. But by the end of the decade, everyone is entitled to their own truth, reality, and facts. Nuance dies; reality gets blended. Those desperate to make sense of the suddenly fracturing social fabric are driven to modern philosophers like Jordan Peterson, Sam Harris, and Bret Weinstein. This group was named by Weinstein the "intellectual dark web."

Other notable events include the discovery of the Higgs Boson (the thing that gives matter weight) in 2012, the Curiosity Rover landing on Mars (2012), the ability to manipulate specific memories (in mice) using optogenetics (2013), the detection of gravity waves, the experimental use of graphene in batteries, and the James Webb telescope, which can see exoplanets (planets outside our solar system). As a side point, the first exoplanet was discovered in 1988 —we didn't know if they existed before this. By the mid-2010s, scientists had discovered thousands of them.

The Mobile Grows (2010)

In 2010, Apple, Inc. launched its first tablet computer, the iPad, which offers multi-touch interaction. It was the last new product that Steve Jobs oversaw before his death from pancreatic cancer. The iPad became an immediate hit and, only months after its release became the best-selling non-phone tech product in history. Before the iPad, tablet computers were a mess, just as touch-screen phones were before the iPhone. Android tablets followed shortly after, and soon PC sales were declining in favor of tablets and convertibles. Netbooks would become extinct as a consequence.

In the US, people were spending more time on mobile apps than the World Wide Web by 2011. Globally, 4.6 billion people had a mobile phone subscription. The next year, Samsung overtook Nokia to be the largest phone maker. The Chinese phone

manufacturer Huawei overtook Apple as number two in 2018. Also in 2012, tablet and smartphone sales overtook the Netbook, which died off later in the decade.

The 2014 Nintendo Switch first demonstrated, on a massive scale, the newfound power of mobile chips. The Switch was a breakthrough product which could be used either as a handheld gaming system or plugged into a TV for a full-fledged console experience. The device was Nintendo's fastest-selling gaming system, and the fastest-selling console of all time in the US and Japan, selling over 14 million units within a year of its release.

3D Printing Matures (2010)

3D printing is advancing rapidly, providing new materials in every field from engineering to medicine. As the technology matured, it was utilized in everything from printing houses to human organs, to food and patient-specific prosthetics. Here's a question though: If

3D printing has been around since the 1980s, why are all of these things just popping up in the 2010s? It has to do with the expiration of a key patent in 2009. As soon as this patent expired, it was off to the races for innovative manufacturers keen to explore this new world of 3D printing.

To give you an idea of the rate of progress, let's compare today's 3D printing technology with that of the time of my thesis. In 2012, my thesis topic was 3D printing (selective laser sintering) with stainless steel material. The printers at my university were state-of-the-art, but the size of four refrigerators, and cost almost $1 million. By 2018, steel 3D printers could fit on a desktop and cost around $120,000.

3D printers for plastics and polymers are even smaller—around the size of a microwave—and much cheaper, at under $400.

In South Korea, a new technique for 3D-printing human skin has been developed by scientists. Their new method is around fifty times cheaper than alternative methods and requires ten times less base material. Great news for those suffering from burns, or in need of skin grafts.

In 2018, researchers at an American university successfully 3D-printed glass**.** The "liquid glass" they designed is a glass powder embedded into a liquid polymer. Researchers at ETH Zurich 3D printed the first ever entirely soft artificial heart in the same year.

The Rise of Machine Learning through AI (2012)

With the exponential increase in computational power, machines gained the ability to recognize objects and translate speech in real time using a technology called machine learning (ML). ML powers the voice recognition in our phones and smart-home systems, the image recognition in self-driving cars, and Facebook's ability to

detect your friend's face. In other words, machines are getting "smart." ML in the 2010s revolves around the concept of teaching computers to learn like humans. The ML impact is far wider than most people think.

Despite how it seems to the average person, no major technology exists today without ML being built into the heart of it. ML controls internet traffic, electrical grids, code compiling, fruit picking, baking, banking, radiology, phone and server farm power management, antenna design, oil exploration, terrorist detection, police assignment, border policing, issuing traffic tickets, and so on. Most economically important tasks where computers used to be in charge were replaced by ML in the 2010s, and it's been exponentially progressing from there. In the mid-2010s, a field of machine learning began to make massive strides in doing what we once thought impossible. We'll take some time here to make sense

of ML and related technologies, understand their applications, and investigate the impact they are having on our world.

PART 1: MAKING SENSE OF IT ALL

Difference Between Artificial Intelligence, Machine Learning, and Deep Learning:

For most people, the terms AI (artificial intelligence), ML (machine learning), and DL (deep learning) are interchangeable. Before continuing, it's important that we make some concrete definitions.

Artificial Intelligence

Artificial Intelligence, or AI, is the umbrella term for a branch of computer science. Its aim is for machines to mimic human cognition with a focus on complex problem-solving. True general

AI should be able to do whatever a human can (and beyond). This is the ultimate goal of this technology.

Machine Learning

Machine learning is a subset of AI. ML focuses on how to make machines learn on their own without the need for hand-coded instructions. ML systems analyze vast amounts of data, apply their knowledge, train, and learn from previous mistakes, then complete a specific task effectively. Some interesting things began to happen through the middle part of the decade, however.

Google's "Alpha Go" ML system showed the ability to do tasks outside what was intended. More on that later.

Deep Learning

Deep learning is a subset of ML. This technology attempts to mimic the activity of neurons in our brain (particularly the neocortex, the wrinkly 80 percent, where thinking occurs). This setup is known as an Artificial Neural Network (ANN). ANN systems do learn, in a very real sense, although the way they learn is not yet fully understood.

The basic idea that computer software can simulate the brain's large array of neurons in an artificial "neural network" is decades old, but it wasn't practically possible until the 2010s. We'll get to that story in a bit.

The Potential of Deep Learning

In 2012, Microsoft chief research officer Rick Rashid wowed attendees at a lecture in China with a speech software demonstration using deep learning. The software transcribed his spoken words into English text, with an error rate of only 7

percent, subsequently translated them into Chinese-language text, and then simulated his own voice uttering the text in Mandarin. In a few years, this feat would be commonplace.

It goes further than this: Imagine a program that could guess what's happening in a given scene just by listening to the audio. Not only this, but it's consistently better than humans at guessing. What about predicting human behavior (greeting, waving, hugging, handshakes, etc.) only from watching sitcoms all day?

Or a program that speaks in a voice so realistic that it is indistinguishable from a human?

This is the power of ANNs, and by the latter half of the decade, these technologies were very real. In a few years, these aforementioned feats will also be commonplace.

The rate of progress in this may take you by surprise, but you would be in good company. Even Google's co-founder Sergey Brin

was in awe of the entire phenomenon of deep learning. Here's a quote from Sergey in 2017:

"I didn't pay attention to it at all to be perfectly honest… [H]aving been trained as a computer scientist in the '90s everybody knew [deep nets] didn't work. This revolution has been very profound and definitely surprised me, even though I was right in there. It's an incredible time and we don't really know the limits. Everything we can imagine and more. It's a hard thing to think through and has really incredible possibilities."

How Do Artificial Neural Networks Work?

To really understand Artificial Neural Networks, we must first look at ourselves.

When we are exposed to certain stimuli (data such as an image, a sound, or touch), chemical signals are sent to our brain and certain neurons fire. The firing of these neurons depends on a minimum threshold. This basically means that if the signal reaching the neuron is strong enough, it will fire (be activated), and if the signal is too weak, it won't. It's basically like an "on" and "off" switch. Yes, just like transistors and the binary language of computers. Furthermore, our brain can change and adjust the connections between our neurons by strengthening existing connections, or removing unused connections, or even creating new connections. This is the power we have been given. When we learn something, the paths between neurons are strengthened.

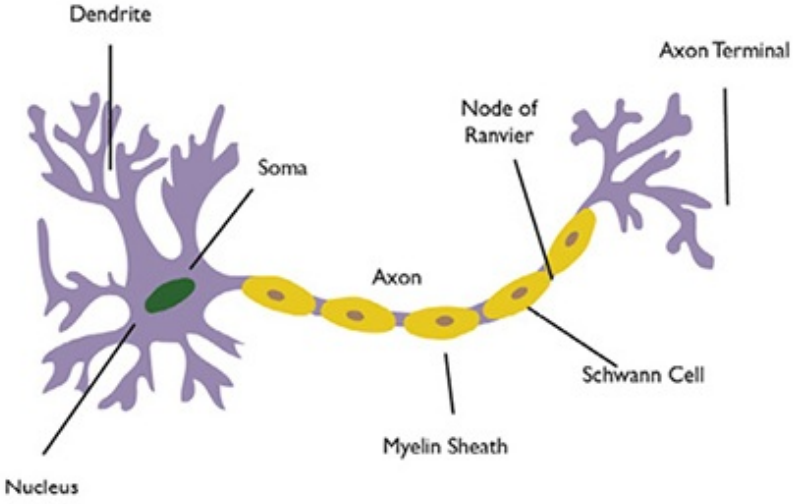

Structure of a typical neuron

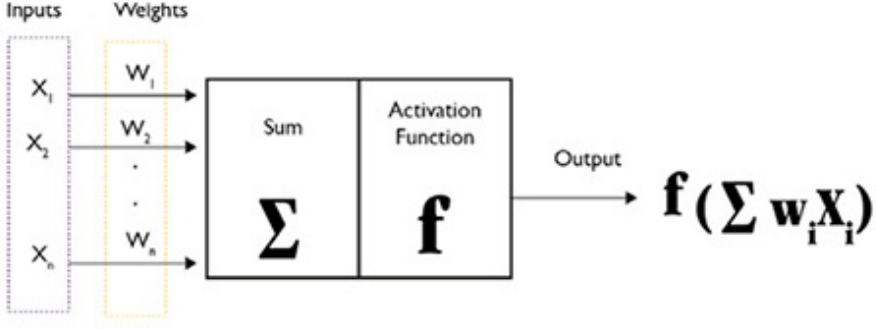

Structure of an artificial neuron

- An artificial neuron takes this basic idea and makes a simplified caricature of the process.
- The nucleus is replaced with a node (which is a mathematical function that tells it when to activate).
- The dendrites are replaced with inputs (incoming data).
- The synapse is replaced with a weighting function (which determines the likelihood of an artificial neuron firing, a number between 0 and 1).
- The axon is replaced with an output (data that represents an answer).

Our brain's 86 billion neurons are organized in a complex 3D structure, allowing for an almost limitless array of connections. An artificial neural network, on the other hand, is arranged in layers, with an input and output layer and "hidden layers" in between. The hidden layers are where the learning happens.

Let's solidify this concept with the task of recognizing a face: A network may break the image down into elements within each layer. For example, the first layer detects shading, the second layer, outlines, the third, shapes, and so on. For the curious, the mathematical method of calculation simply boils down to a set of massive matrix multiplications, where the goal is to minimize something called a loss function. A loss function is essentially a measure of how wrong the system is. The weights that determine when neurons fire are adjusted based on the loss function. Minimize the loss, and your neural net (ANN) will be pretty good at its task.

Artificial Learning

To appreciate how these systems learn, we must look closely at how we're able to tell the difference between similar things at all.

We need to stand outside our perspective of being a human for a second.

Let's take cats and dogs as an example: When you think about it objectively, they are both four-legged furry animals with ears on top of their heads… So why don't we ever confuse the two? As children, we're told which animal is which by someone who knows. When we understand that a certain animal is one thing or the other, we strengthen the paths between the neurons that fire when performing that task. Very quickly, we stop needing new examples. Our learning process is robust enough to correctly identify a new cat that looks different from one we've seen before. Artificial Neural Networks do a similar thing for an image-recognition task. They're given specific examples of cats and dogs, certain neurons fire, and then it's told if it's right or wrong (by its loss function score). As a result, certain connections strengthen

(weight values are increased), and they learn with each example. This process is called "training."

Now that we have an understanding of what Artificial Neural Networks are, let's see the story of how this turned into the field of "deep learning."

History of Deep Learning

It all started with psychologist Frank Rosenblatt in 1957, who developed what he called a "perceptron." A perceptron was a digital neural network that was designed to mimic a few brain neurons. Rosenblatt's first task for this network was to classify images into two categories. He scanned in images of men and women as data, and hypothesized that, over time, the network would learn the differences between the two (or at least see the patterns that made men look like men and women like women). Again, this is essentially how we learn.

Just a year later, the hype for Rosenblatt's technology was strong. In 1958, the *New York Times* reported the perceptron to be "the embryo of an electronic computer that will be able to walk, talk, see, write, reproduce itself, and be conscious of its existence."

Unfortunately, despite the hype, Rosenblatt's neural network system didn't work very well at all. He used only a single layer of neurons in his perceptron, making it extremely limited in what it could do. There wasn't much that could be done about this, as computers at the time could only handle one layer. In 1969, Rosenblatt's colleague and childhood friend Marvin Minsky published a book that assessed these experiments. In it, Minsky stated that neural networks were "generally disappointing" and "hard to justify." The book was said to have so impacted the computer science community that the idea of Artificial Neural Networks was abandoned for over a decade.

The work may have been discarded, but a keen computer scientist by the name of Geoffrey Hinton thought everyone was plain wrong. He theorized that since the human brain was indeed a neural network, it evidently made for an incredibly powerful system. Artificial Neural Networks *had* to work somehow—maybe they just needed some tweaking. To Hinton, writing off the idea seemed like a colossal waste.

Originally from Britain, Hinton set to work on his idea at the University of Toronto in 1985. He and his team quickly realized that the problem was with Rosenblatt's single-hidden-layer approach. What was needed were more layers in the network to allow for greater capabilities. Serendipitously, computers were now powerful enough to handle it. Today, we call this multilayered approach a "deep" neural network. With some tinkering, the artificial neural net began to work. In the following years, ANNs did two things never before seen.

Dean Pomerleau built a self-driving car for public roads in 1989. In the 1990s, a neural net system that could successfully recognize handwritten numbers was built. As exciting as this was, there wasn't much more that could be done with the technology. It just didn't perform well in much else. Another dead end was reached.

This time the problem was two-fold:

- A lack of computing power.
- Insufficient available *training* data.
- ANNs were called wishful thinking once again. Hinton, who was once again outspoken, didn't give up and continued pushing for further research. He would be ridiculed for his long-standing faith in a failed idea and sidelined by the computer science community.

Fast-forward to 2012, and computers began to be fast enough to make Artificial Neural Networks practical for wider applications. In

addition, the data from the internet meant that these systems could now be robustly trained. The stage was set for ANNs—all that was needed was for someone to prove their worth.

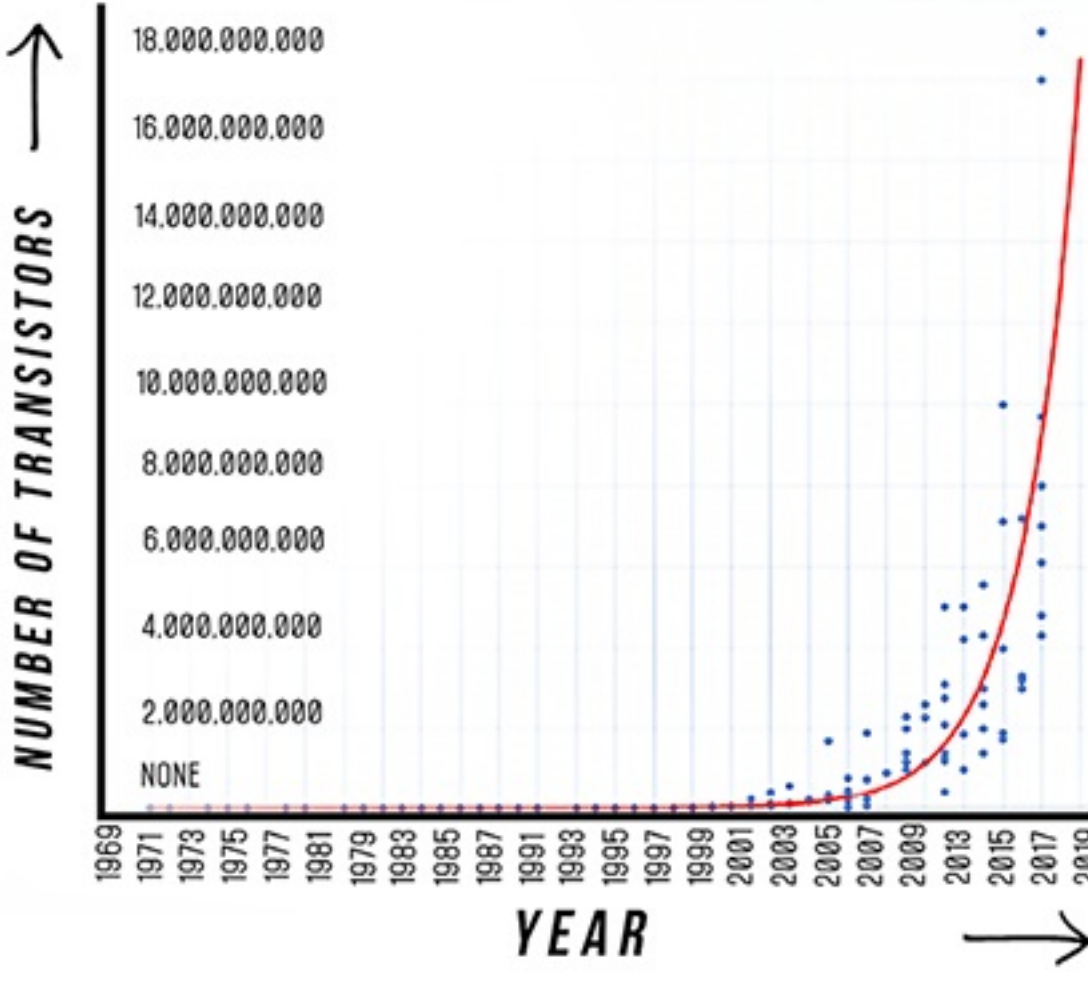
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The Birth of the AI Movement

The real birth of the modern AI movement can be traced back to one event in 2012: ANNs bursting on the scene by proving themselves in the ImageNet challenge.

Founded in 2009, ImageNet is essentially a database of real-world images that are used to train machine-learning systems. The images are in 1000 categories ranging from cars, animals, and buildings to abstract concepts like love and happiness. ANNs were never before tried in this challenge.

A large data set was the final missing piece in the puzzle to make ANNs finally shine. This increase in data for training caused ANNs to begin working. Consider again the problem of recognizing a cat. If you only saw three cats, you'd only have a few camera angles and lighting conditions to work with. Something as simple as seeing the cat from a different angle, or with different lighting, would throw

you off. But if you'd seen a thousand cats, you'd have a much easier time recognizing one. This is the importance of data. Computers aren't as intuitive as humans and need more examples. In the field of AI, data is the essence that allows machines to learn. If data is a new form of oil, ImageNet was a huge oil reserve, and the only machines that could run on it with astronomical success were ANNs.

By 2012, the ridiculed Geoffrey Hinton was now sixty-four years of age and for him, continuing the work wasn't an easy task. Hinton had to stand all the time due to a back injury that caused a disc to slip if he ever sat down. He and his team created the first Artificial Deep Neural Network to be used in the ImageNet challenge in 2012. Hinton's program was called AlexNet, and it had performance like no one had ever seen. AlexNet destroyed the competition, scoring a success rate of over 75—41 percent better

than the previous attempt. This one event showed to the world that Artificial Neural Networks were indeed something special.

After this point, everyone began to use ANNs in the ImageNet challenge, and the accuracy of identifying objects rose from Hinton's 75 to 97 percent in just seven years. For context, 97 percent accuracy is surpassing humans' ability to recognize objects!

Computers recognizing objects better than humans had never happened in history. Soon the floodgates of research and general interest in ANNs would change the world.

Image recognition is now commonplace, even recognizing disease in medical imaging. As for ImageNet, it caused training data sets to blossom. Training sets grew for video, speech, and even games.

PART 2: MACHINE LEARNING APPLICATIONS

So, by this stage, you're probably beginning to see how powerful machine learning is. But just how far can they go? In 2012, a deep learning AI named IBM Watson won the game of Jeopardy by answering to human natural speech in real time. The AI did so by reading vast amounts of information on the internet and found patterns to make sense of it all.

In 2016, Google's AlphaGo created a watershed moment by beating world champion Lee Sedol at the world's hardest game: Go. Although its rules are simple, this ancient Chinese game has enormous complexity. It isn't in the same realm as chess, where a computer can just calculate all the moves. In fact, there are more possible moves in Go than atoms in the universe, and it's said to require human intuition to play. When questioned why they made a certain move, professional players would just state that it "felt right." For this reason, Go has been the holy grail of AI. AlphaGo wasn't taught the rules of the game; it learned by watching other

people play. The algorithm then played against versions of itself until it had reached a superhuman skill level. Later on, AlphaGo showed the ability to perform tasks outside what it was originally intended to do.

By 2018, IBM had an AI that could debate humans, and Watson was working with doctors to give medical advice. It did this after reading and making sense of millions of medical studies.

AI in Medicine

With an increasing number of baby boomers living longer globally, doctors may soon need some help. A Chinese deep learning system called Miying served 400 patients just one year after its release in 2017. Artificial intelligence is a key part of the government's "Made in China 2025" plan, which aims to make the nation a global leader in high-tech industries, including robotics, by then. Some in the computer science field are envisioning a

revolution in specialized healthcare. For example, the wealth of data from millions of wearables could train an AI to be useful in aiding your personal doctor.

An interesting study was done on human ophthalmologists, and it found that humans are statistically poor at diagnosing certain eye diseases. In experiments, any two human ophthalmologists will only agree with on a diagnosis 60 percent of the time. Worse still, if you give any single ophthalmologist the exact same image that they read a few hours earlier, they'll only agree with their own diagnosis 65 percent of the time. By 2018, there were Artificial Neural Networks that outperformed human ophthalmologists. By this stage, some ANNs were capable of early detection of esophageal cancer with an accuracy rate of 90 percent. That was with less than a year of operation. Google is also experimenting with deep learning in retinal images to provide early detection of diabetic eye

issues. In addition, deep learning ANNs were found to be 10,000 times faster than radiologists.

Other Applications

In 2017, Deepfakes made the process of replacing the faces of a person in live footage just a click. Previously, this was a tedious process costing hundreds of thousands of dollars. All you need now is a collection of a facial images from Google, and the deep learning ANN does the rest. Below is a movie scene in which Nicholas Cage's face imposed on a female actor's body.

In 2018, the Nvidia company created an algorithm that made extremely choppy, slow-motion video smooth, as if shot with a specialized super-slow-motion camera. In the same year, the company unveiled an ANN graphics card that could calculate ray-tracing in real time. Ray-tracing is used in computer graphics to

calculate how light is reflected and absorbed by certain materials. Ray-tracing is the reason why CGI movies (think *Toy Story*) look so different from video games. Nvidia's ANN took most of the hard work out of the calculations by heavy optimization. Thanks to ANN's, desktop users and gamers could experience cinema-grade computer animation—something once reserved for Hollywood studios.

ANN's can also dream up a sequence from a still image. Imagine this: You give an ANN a still photograph, then it creates a segment of video footage of what it thinks should happen next in the scene. If there's a photo of a beach, the waves tend to ripple next; if there are people in a scene, they start to walk.

Further ANN capabilities include:

- Converting black-and-white images and video into color automatically.

- Photorealistic image generation from just a typed description
- Given a video sample, turning night into day and vice versa, or changing the weather.
- Enhancing a pixelated image (making it clear), just like in CSI .
- Error correction in space telescopes, and the list goes on.
- This leads us to the big question. If these systems are progressing in capabilities exponentially, what happens to us? This is commonly called the automation problem.

PART 3: A DISASTER OR THE NEXT INDUSTRIAL REVOLUTION?

Effects of Automation: The Robots Took Our Jobs!

With all the progression in technology, there has been fear of disruption to jobs. In the 1920s, there were guards who opened

and closed the doors of subway trains and elevators. These have been automatic for more than a generation. When was the last time you saw a doorman? Since the 1950s, 8 million farmers, 7 million factory workers, and hundreds of thousands of telephone operators have been replaced by automation. In the 1960s, President Kennedy ranked automation as the number-one risk to employment. Yet, work still persisted.

This Time It's Different

When you really think about it, there's no clear limit to what can be automated with AI. And that's the crucial distinction between the current and past technological revolutions. At minimum, almost every task that isn't creative, or doesn't require a ton of mechanical precision or super-detailed human interactions, will be automated in the foreseeable future. This will have profound

impacts on the way the world functions that are obviously very difficult to predict.

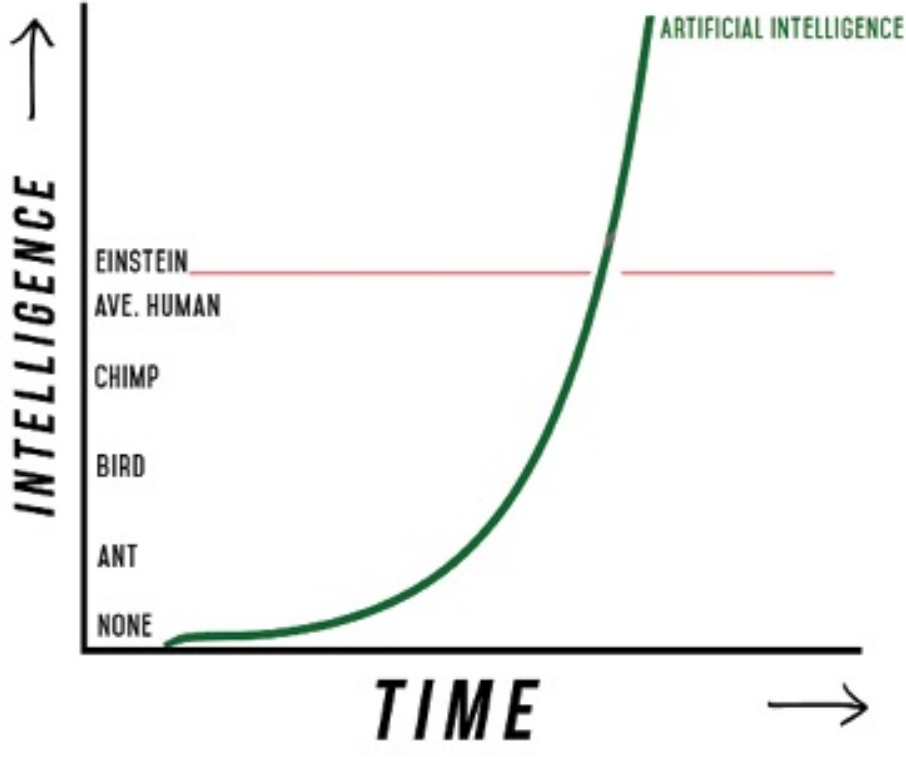

I think such things will cause social discomfort as they begin to encroach upon jobs. There are both positives and negatives to the rise of ML, but what do we do with all this continual shift in possible impossibilities?

During the next decade, it is thought that many mundane tasks could be handled by AI, creating more free time for people to do creative things. I've heard this argument before. I would imagine that not everyone on this earth is creative or would have the time and money to pursue this.

Another thought is that advanced AI could increase productivity, creating new industries and new suppliers to support those industries. All of this would mean new jobs. Views on this differ, with some experts highlighting the need to research financial solutions to AI disruption. This includes concepts such as universal basic income, based on a trustless system like blockchain. (More on blockchain later in the chapter).

Perhaps, in the future, instead of working for a company, it will be more common for people to run their own businesses with their own personal AI acting as a productivity aid. But I don't believe this is a widely held view either. Globally, an estimated 800 million jobs will be at risk of automation by 2030.

When AI is talked about, some people automatically think of a Doomsday Skynet scenario. But personally, I think what we should be more interested in who controls the AI. If the strong AI of the future is open-source and available to everyone (with safeguards of course), it's possible that this could be a good thing. Conversely, if the best AI on earth is held by a few, the probability of a good outcome drops significantly. It would be a case of whoever owns the AI makes the rules, in the latter scenario. To stop AI getting into the wrong hands, institutions such as the Future of Life Institute and Open AI have been set up. It shows that people are already thinking about the next best steps for the future.

Virtual Reality and Augmented Reality (2012)

Imagine a future where you could put on a headset and be in a totally different world, interacting with objects, talking to people, and living a completely second life. Or playing a video game where you *are* the character, not just moving it around. This is the promise of virtual reality. Virtual, from mid-fifteenth century English, means "being something in effect, though not in actuality or in fact." The basic idea is to simulate or replace our reality with a computer-generated or otherwise different one.

When you put on a headset, for all intents and purposes you're somewhere else, from the point of view of your brain. You're no longer watching something, you're inside it. Consider that, compared to print, film has the extra elements of vision and sound. In the same way, VR has the extra elements of physical motion, space, and presence. For this reason, it has been called the first

empathetic technology. For the first time, it allows someone to *feel* what it's like to be another person. This was highlighted in the 2014 experiment by the BeAnotherLab project. It allowed a male and female to experience what it was like to be the opposite sex, using VR.

VR had been tried for the better part of a century, and most notably in the 1990s, without much success. The computing power and display technology just wasn't there. This all changed in 2010 when Palmer Luckey, a seventeen-year-old kid, built a prototype virtual-reality headset in his parent's garage. He was frustrated with the low quality of existing headsets and decided to build something much better. The breakthrough was the use of the mobile-phone display technology in VR for the first time. This allowed for a clearer, wider field of view. The garage prototype eventually became the Oculus Rift headset. The innovation from Luckey

kicked off a wave of next-generation VR headgear, though it would take most of the rest of the decade to be commercially viable.

Augmented Reality

"Augment" is from the Latin word *augere*, which means "to increase" or "to add." Augmented reality (AR) is like VR but involves a person's real environment being supplemented or augmented with computer-generated images, usually motion-tracked.

AR broke onto the scene with Pokemon Go in 2016. The mobile app was a poor demonstration of AR, but it became the technology's first widespread use. By the end of the decade, AR toolkits made virtual 3D objects as simple as scanning in an object with a phone. Adobe's Project Aero had software to make AR creation simple. Apple would push AR technology late in the

decade. The company's interest was an indication that AR was coming to the masses.

CRISPR Gene Editing (2012)

CRISPR is a revolution that has seized the scientific community. Research labs worldwide have adopted a new technology that facilitates making specific changes in the DNA of humans, other animals, and plants, within a few years of its debut.

What Exactly Is CRISPR?

CRISPR (for Clustered Regularly Interspaced Short Palindromic Repeats) is a biological DNA system found in bacteria. Essentially, bacteria use the CRISPR system as a defense. CRISPR cuts up the DNA of invading viruses that could otherwise destroy them. It's like a built-in pair of biological scissors.

Better still, the CRISPR scissors can remember a virus, search for its particular DNA sequence, find a match, and then cut it. It's a tiny, automatic system programmed into biology. Pretty cool. The question now was whether scientists could get hold of this.

CRISPR technology was first discovered in 1987 by Japanese scientists, when they accidentally cloned a fragment of CRISPR along with the rest of their experimental material. They studied the system for a while but didn't observe the cutting and seeking-out properties. The full function wasn't understood until 2012.

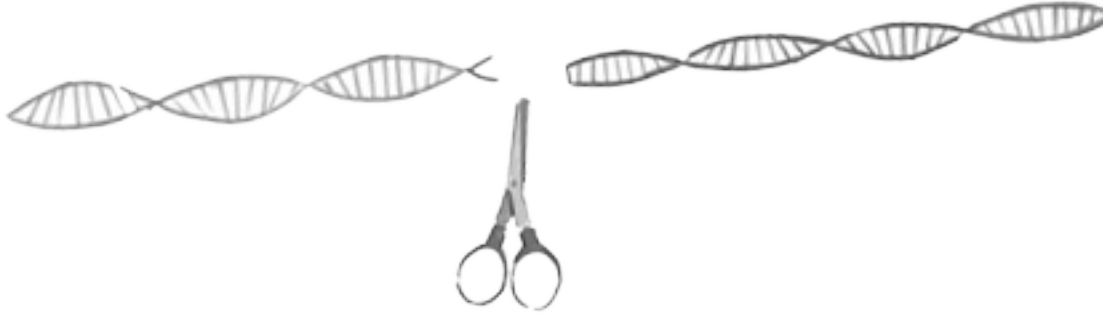

What Can CRISPR Be Used For?

After discovery, CRISPR was soon being used to cut up, edit, and paste an organism's DNA code. Compared to previous techniques for modifying DNA, this new approach was much faster and easier.

Researchers have modified stem cells that may then be injected back into patients to repopulate damaged organs using CRISPR. One study injected modified stem cells directly into the brains of stroke victims. Most victims could regain major movement, and one even began to walk after being wheelchair-bound for many years.

Another study reengineered cancer cells to seek out and destroy blood-borne cancer or tumors. Swarms of the CRISPR molecular scissors would snip up and corrupt the cancer's DNA until it couldn't multiply.

In another cancer-fighting approach, CRISPR was used to make the immune system itself fight the disease. In many cases, the body's immune system doesn't recognize cancer, so CRISPR research took aim at this issue. Scientists reengineer the immune system to seek out and destroy cancer DNA.

In 2018, a study published in *Science Translational Medicine* demonstrated cells containing advanced CRISPR bacteria that triggered their own self-destruction after performing a certain task. These CRISPR bacteria cells managed to kill off a range of cancer cell types, while leaving healthy cells in the vicinity unharmed.

This biological method is relatively new, so the risks and long-term effects are not fully understood. However, this technique could offer faster, cheaper, and more precise cell therapies in cancer treatment.

Robotics Takes a Leap Forward (2016)

In 2016, the world was taken aback by robotics firm Boston Dynamic's YouTube video. The video showed a humanoid robot (Atlas) walking, picking up boxes, placing the boxes on shelves, and effortlessly correcting itself when pushed by a human. In 2018, more videos of Atlas surfaced. This time it was jogging, doing backflips, and performing many other tasks thought to be impossible just a few years ago. It seemed that suddenly robots had the athleticism of humans.

The breakthrough in robotics took so long because, as it turns out, moving is hard! Our brains have three to four times more neurons for mobility than cognition. We have around seven hundred muscles in our bodies. It just takes a lot of processing power to balance and be agile. With the help of faster computers and smarter software, a new type of robot had abruptly arrived.

Another robotics breakthrough occurred in 2018, but this time it was from an unexpected source: Disney. In their theme park, the

Disney company had built what they were calling their "Avatar robot." It displayed the most fluid robotic motion the world had ever seen. In a promo video, the robot talked to the camera in a close-up shot. There were many YouTube comments asserting that it was CGI. It blew straight past Uncanny Valley for the first time.

QUANTUM COMPUTING BEGINS (2016)

Quantum computers have been called the next leap in human civilization—as big as toolmaking, farming, and of course, the Industrial Revolution. They are considered possibly as important as, or more important than, AI.

The essence of quantum computing is hard to grasp at first, but once understood, you'll see how this technology has the potential to change everything. You'll also understand just how bizarre

reality is. For this reason, we'll spend some time here and explore the strange world of quantum computers.

Why the Fuss?

Imagine for a moment that there was a new type of computer that could calculate every possible solution to a problem simultaneously. You could give this computer a problem with almost infinite possibilities, and it could come up with an answer in a matter of hours. For perspective, if every computer ever made worked together on this same problem, it would take them many billions of years to calculate. We call these contemporary computers "classical computers," and this new, seemingly impossible computer a "quantum computer."

How Does It Work?

While regular computers process data as binary bits (represented as either a 0 or a 1), a quantum computer processes data as quantum bits ("qubits"), which can exist in both 0 and 1 states at once, allowing multiple computations to happen simultaneously. This simultaneous state of both 0s and 1s is kind of like a soup of probabilities (called superposition), and it's a quirk of quantum physics (also known as quantum mechanics). This makes it possible to store and manipulate a vast amount of information using a relatively small number of particles.

To put it another way, a regular computer tries to solve a problem the same way you might try to escape a maze—by trying every possible corridor and turning back at dead ends, until you eventually find the way out. But superposition allows the quantum computer to try all the paths at once—in essence, finding the shortcut.

Backtracking a little, let's explore exactly what a qubit is. While a normal computer's bits are made from tiny transistors, a qubit can be anything that exhibits quantum behavior: an electron, an atom, a molecule, or even a loop of metal (if the environment is right—more on this later). If we take electrons as an example, they tend to exist in one of two states: spin up or spin down. If we call spin up a 1, and spin down a 0, in binary, we can begin to write code with it. Again, with superposition, it can be both a 1 and a 0 at the same time. Some researchers theorize that superposition is proof of alternative universes.

If you think this is all very strange, you're not the only one. The father of quantum computing, Richard Feynman, is quoted as saying: "If you think you understand quantum mechanics, you don't understand quantum mechanics." We'll get to much stranger quantum behavior later. But first, let's see how Feynman came up with this wild idea.

The Father of Quantum Computing

Born in New York City in 1918, Richard Feynman was definitely a unique guy. He was a theoretical physicist who worked on the Manhattan Project (under Vannevar Bush) in WWII, had a show on the BBC, was an excellent lecturer, and was one of the pioneers of quantum electrodynamics (a field of quantum theory that describes how matter and light interact). Besides developing the concept of nanotechnology, he was also one of the pioneering minds in quantum computing.

Feynman taught himself mathematics early on and received a perfect score on his entry exam to Princeton University. In addition to his formal education, Feynman taught himself concepts far ahead of what he was learning in class.

Feynman had other eccentric quirks. During his time on the Manhattan Project, out of boredom, Feynman cracked the codes of

all the safes in the compound. One day he left a cryptic note in one of the safes that housed classified documents on the atomic bomb. When his fellow physicists found it, they were terrified. They thought German spies had stolen the secrets to the atomic bomb! Of course, it was just a Feynman practical joke.

In 1982, Feynman gave a lecture called *Simulating Physics with Computers*. In it, he stated a remarkable idea: Regular computers will never be able to model real-world quantum systems, no matter how powerful they get or how many are used together. Here's what he meant: Say you want to model a molecule to see how it behaves when it interacts with other molecules. In the real world, a molecule is formed when the electron orbitals of its component atoms overlap.

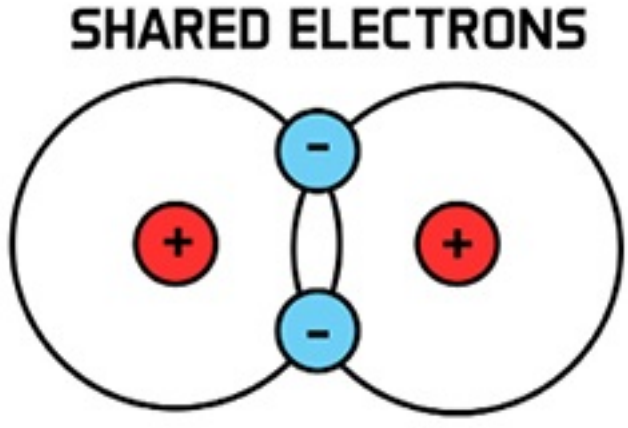

To accurately model real electrons, you need to keep track of the fact that they can exist in multiple states at *once*. Although this fact can be expressed as a probability (chance), it ends up being a real problem for classical systems (regular computers). This is because, as the number of particles goes up, the number of possible states (or probabilities) grows exponentially. Hence, for four electrons, there are 16 possible states. For 10 electrons, we would need to track 1,024 states. There's a total of 1,048,576 possible states for just 20 electrons. If we want to a model a real physical system with

millions of electrons, things get out of hand! In the classical computer world, a laptop can model a 26-electron system, while it takes a supercomputer to model a 43-electron system. And how about a 50-electron system? Forget it; that's impossible for any classical computer as far in the future as humans exist.

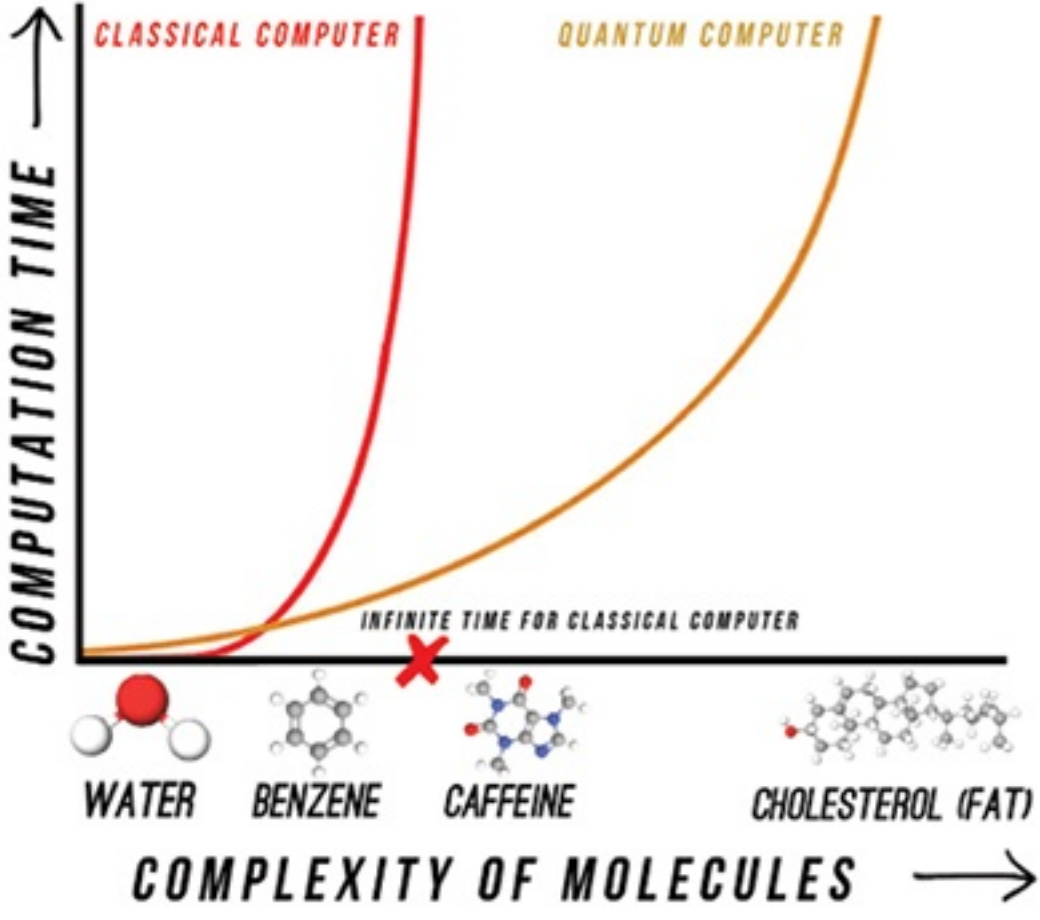
CLASSICAL COMPUTER
QUANTUM COMPUTER
COMPUTATION TIME
INFINITE TIME FOR CLASSICAL COMPUTER
WATER
BENZENE
CAFFEINE
CHOLESTEROL (FAT)
COMPLEXITY OF MOLECULES

Nature (made from atoms with electron orbitals) and reality itself are quantum systems, and they can't be modeled on classical computers without making poor approximations. For the two simple molecules below, a classical supercomputer is off by a factor of 70 to 200 percent.

		Bond Length		
Molecule	Name	Experimental (Real)	Calculated	Error
CaF	Calcium monofluoride	1.967	4.079	2.112
Na2	Sodium diatomic	3.079	2.379	-0.7

It all boils down to this: The information required to describe a quantum system can only be *held* by another quantum system!

PART 1: CODING WITH NATURE

Enter Quantum Computers

Because of their qubits, quantum computers are quantum by design—just like nature. They have no problem keeping up with nature's exponential complexity. In other words, for each qubit added, a quantum computer gets exponentially more powerful, unlike a regular computer.

For the example below, the red graph represents a classical computer and the orange graph represents a quantum computer. Simulating the water molecule is possible for regular computers, but something as simple as caffeine is impossible—quickly leaving our abilities behind. To model caffeine and more complex models, even up to cholesterol, all we need to do is add a few more qubits to our quantum system—say, fifty or less.

With 100 qubits, it is theoretically predicted that a quantum computer would have more computing power than all the

supercomputers on earth combined! A number register made of 300 qubits of data could hold more numbers simultaneously than there are atoms in the known universe. Imagine if future quantum chips had billions of qubits, a number comparable to classical computer CPUs and memory. Mind-boggling to think about.

Feynman suggested that, if you wanted to simulate the world, you could encode the rules of physics into operations on qubits, like using logic-gate circuits with classical bits. It was an incredible idea: almost like coding pure physics into the fundamental essence of nature and reality—not just some mathematical approximation of reality (like we do now). Next, we just hit play on the hyper-realistic simulation and see what happens. For example, we may discover a material that gets ten times stronger when some obscure molecule is added to its structure. Many theorize that we could invent new materials, new drugs, and novel energy-generation technology by modeling molecules in this way.

PART 2: QUANTUM WEIRDNESS

To get exponential speed-up, qubits must be able to communicate. They do this in the strangest of ways. In the world of quantum physics, the fate of all the qubits is linked together in a process called quantum entanglement. Entanglement is just a relationship between two super-positioned particles: the state of one determines the state of the other. Imagine it like this: You have two dice—one in Vancouver, Canada, and the other in Perth, Australia. If you rolled them 1000 times you'd expect them to roll completely different numbers. But if they're quantum-entangled dice, you can check the number 1000 times and every single time, it'd be the same. This weird phenomenon really bothered Einstein, who affectionately gave it the name "spooky action at a distance." He thought that maybe this was just something we haven't discovered yet. But this seems not to be the case.

In 2017, Chinese scientists demonstrated that quantum entanglement was occurring even if one particle of a connected pair was launched into space. It goes much further than this, however.

Once entangled, quantum particles stay that way, even if they are at opposite ends of the universe! In quantum computers, entanglement along with superposition helps the system store all possible solutions at once.

This may all sound bizarre, but when you think about it, the way we perceive the world in our everyday life is just plain wrong. Quantum mechanics is how nature really works. It's the foundation for the stability of matter, radiation, and magnetism. It *is* reality!

PART 3: MODERN QUANTUM COMPUTING

After Feynman, this whole quantum-computer thing remained just an academic curiosity, until 1994. American mathematician Peter Shor of Bell Labs found a theoretical way to use quantum computers to break codes based on the factorization of large numbers into primes. This doesn't sound like much at first, but many online security systems—from banking to encryption—rely on this. The underlying principle is that it's almost impossible, currently, to take a very large number and figure out what its prime factors are. The best algorithm known for classical computers uses a number of steps to crack the code, and this keeps increasing exponentially with the size of the number, hypothetically taking billions of years. Using Shor's algorithm, a quantum computer could perform the task in a few hours. From this point on, it was clear that quantum computers could do much more than model reality.

Not So Fast!: Quantum Design Problems

In the early 2010s, we began to build early quantum computers, but there were two main issues which remain today:

The first issue is due to quantum physics itself. The answers that come out of quantum computers are in the form of a probability. In order for a quantum system to "push" toward the right answer when asked repeatedly, the code is designed so that the qubits are more likely to be in the correct quantum state for the problem given (hence giving us the right answer). Fascinatingly, the quantum code is designed to use the wave-like properties found in particle physics to cancel out wrong answers and amplify correct answers. This answer can then be detected and viewed.

Think of a quantum computer's data like a light bulb randomly shining light around a room. The light particles are like qubits of information, and the quantum code is a set of (carefully positioned) microscopic mirrors. In this analogy, if we run a quantum computer, the light turns on, and the quantum code is written so

that it causes the wave-particles of light to bounce off the code's tiny mirror surfaces, focusing the billions of rays of light to form a pin-sized spotlight on the floor. As this happens, the rest of the light in the room dims down. The spotlight represents the correct answer, and the dimmer light in the rest of the room contains the wrong answers, plus random noise in the system.

The second problem is the practicality of maintaining a quantum environment, which is why there aren't powerful quantum computers now. Qubits are like very shy divas. To be in their quantum superposition (multiple states at once), they need to be comfortable. Qubits must be shielded from all radiation and kept at a temperature just above absolute zero. If the qubit particle interacts with anything, the quantum effects are scared away. Any slight disturbance, such as light particles, radiation, or even quantum vibrations, can snap the particles out of their superposition state, voiding the entire advantage of the machine. As

discussed earlier, a qubit is any form of matter that exhibits quantum behavior. This means that metal loops can be used to create the ideal environment. The older and more established qubit technology uses a metallic superconductor to create a superposition state. The most popular method is a super-cold metallic ring (almost at absolute zero). At these temperatures, electrons can flow around without ever bumping into anything. Stranger still—all the electrons can flow clockwise, but at the same time, ALL the electrons can *also* flow counter-clockwise!

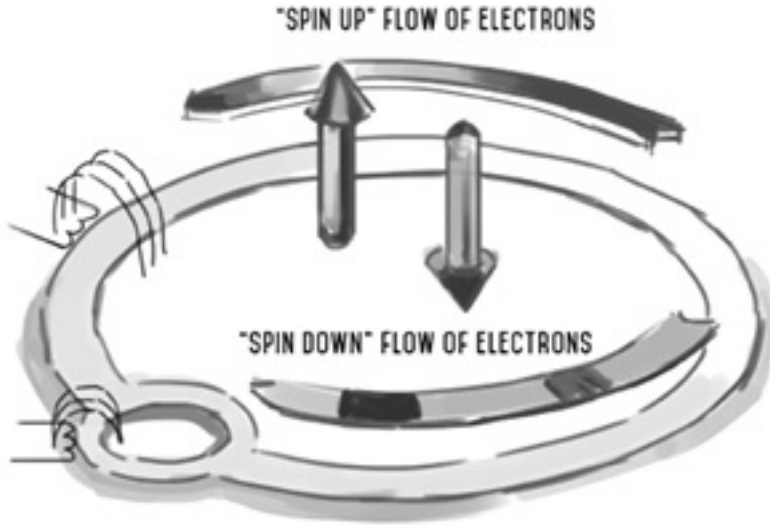

Super-cold metallic ring
exhibits quantum properties

Today's efforts can keep a quantum superposition in effect for only a tiny fraction of a second—not long enough to carry out a useful algorithm. The maintenance of this fragile quantum state remains the major challenge for quantum engineers and scientists.

Quantum Computers and Real-World Problems

As it turns out, quantum computers are good at things that have a small **input** and **output**, while having a vast array of **possibilities**.

For example, finding the *longest* distance between two cities in Japan: The **input** is the map data (road distances, etc.); it's large but nothing a classical computer couldn't handle. The **output** is just one number, the longest distance. The **possibilities**…? It seems like a simple problem, but if you think about it, there's almost an infinite number of routes you could take.

In fact, this class of problem is forever unsolvable using current computers. There are many other real-world problems of this type —from weather patterns and climate change to boosting AI training, to modeling complex molecules, to looking at patterns in stock market data, or in recordings of brain activity. Unlike with

today's computers, finding these patterns could be completely routine and require a less detailed understanding of the subject with quantum computers: an interesting idea, if used with caution.

A Quantum Future?

In the early 2010s, quantum computers were big and bulky, filling most of a room, with complicated cooling equipment creating the delicate environment needed for quantum effects. We've come full circle, as this is what mainframe computing was like back in the 1950s. If this is where we are now, could quantum computers decrease in size the same way regular computers have? Possibly, but not for a very long time.

Progress lagged in the industry until around 2016, when the pace of breakthroughs accelerated. IBM announced a 5-qubit machine and made it freely available for cloud computing. In the following two

years, hundreds of research papers were published by scientists using the new technology. It was theorized that a minimum of fifty qubits were needed for quantum computers to do things faster than any classical computer can. This threshold is called "quantum supremacy." In 2018, Google released a quantum chip with 72 qubits (but most are there for error correction).

Although we are still a long way from practical quantum computers, the potential promise they hold cannot be overstated.

I think Feynman (who died in 1988) would be pleased with the renewed interest and progress we're starting to make in quantum computing. It takes a great mind to foresee such potential in the purely abstract.

Electric Aircraft Arrive (2017)

As battery technology improved, partly due to the new demand for electric cars, new possibilities became available. Batteries could power small, production-scale, fixed-wing planes.

A practical electric plane is something that has been elusive, even more so than practical electric cars. Battery technology has now improved to the point where a fully electric aircraft is feasible for some applications, such as flight training and short-distance travel. In 2018, I got the chance to spend time with one of the first commercially available, fully electric aircraft (the Pipestrel Alpha Electro), to see what the state of the art was like. The plane weighed only 350 kg, including its batteries, which can be swapped out in five minutes. The plane was so light, I could literally push or drag it around the hangar.

Unlike a regular petrol light aircraft, which uses fifty-year-old engine technology with hundreds of moving parts, the Alpha Electro had only one moving part in the engine. It also had only an

on switch and a throttle lever to operate the engine. Older aircraft mix fuel on the go to operate the engine. The plane was quiet, and very easy to maneuver when I had a go at the controls. Electric aircraft have recently been considered for the air-taxi space. Established companies like Airbus and Boeing tried their hand at making vertical take-off and landing (VTOL) aircraft. These aircraft take off like a helicopter, but transition to horizontal flight for short distances. In 2017, the Chinese company E-hang began electric VTOL flights in Dubai.

Rise of Blockchain and Other Trustless Systems (2017)

Shortly after the 2008 global financial crash, a mysterious white paper emerged on the web. It was written by an unknown entity, a person or group calling themselves Satoshi Nakamoto.

In this mysterious paper, a new peer-to-peer financial system was discussed. This system was to use a digital cryptocurrency called

Bitcoin and would be called blockchain. It was a boon to people sick of centralized power meddling with economic systems. Many perceived the system as a better way of doing things. Cryptocurrencies entered public perception in 2017, when Bitcoin rose in value by 1,000 percent and Ripple (another cryptocurrency) by 36,000 percent. Blockchain is being called the next stage of the internet by many.

Our current internet is one of copied and distributed information, be it video, email, or data. In other words, when you watch a video on YouTube or receive an email, you're looking at a copy of the original. When it comes to assets with real value, like money, votes, digital identities, stocks, bonds, or house or car ownership contracts, we don't want these things to have many copies. For example, you don't want to send someone a copy of $5,000 while you still have the original $5,000 under your name. This is called the "double-spending problem" by cryptographers. It basically

means having two digital copies of something that should only ever have *one* unique identity.

The cryptography (mathematical security) of blockchain technology made it the first of its kind to solve the double-spending problem. Now, a new stage of the internet, based on the real value of real-value items, was available. This is partly why it's such a big deal. Some blockchain-based currencies promised anonymity from peering eyes. This gave rise to the Dark Web, an anonymous market for illegal drugs, firearms, and services, all powered by blockchain.

Simply put, blockchain is a continuously-updated list of who holds what. The list of records, known as a distributed ledger, is decentralized, available to everyone in the system to see and verify. This list is split into linked blocks that are secured using cryptography. The cryptography part means you can be sure about the records. This is dubbed automated trust, or a "trustless"

system, meaning the trust is inherent, built into the system. Blockchain cryptography provides a mathematical way to confirm a participant's true identity. Due to its distributed nature, blockchains are unhackable with current technology. Everyone in the system can clearly see when a block has been messed with, and the compromised block can be automatically rejected.

While blockchain is the underlying technology behind the first wave of cryptocurrencies, like Bitcoin and Ethereum, its uses go beyond intellectual tech-savvy criminals, and even cryptos themselves. Blockchain has a feature called smart contracts. This allows for a real-world contract to be written in code, and to execute itself when certain conditions are met. This feature gave rise to blockchain-based social media websites and online games, but also saw use in banks and the NASDAQ. Smart contracts can be linked together to create entire automatic companies, largely replacing the need for a human management team in some cases. In addition

to blockchain, other trustless systems, such as Tangle and Hashgraph, were developed later in the decade.

5G Networks Begin (2018)

We all have heard of 3G and 4G networks. 5G is a much faster network that promises to transform many aspects of modern life. Its main technical advantage is the use of much higher frequencies than current systems, allowing for more bandwidth. 5G will have 100 times more capacity than 4G networks. A two-hour film on 3G takes 26 hours to download; this is 6 minutes for 4G and on 5G, get this—just 3.6 seconds!

Response times are also much quicker. 4G responds in around 50 milliseconds, 5G, 1 millisecond. That's 400 times faster than you can blink. This means that a lot of work can now be done seamlessly in the cloud, something that wasn't quite possible before. Due to the low latency, self-driving cars would be safer, as

every millisecond counts in an emergency situation. Analysts predict that 5G networks will become the skeleton for the internet of things: smart homes with connected appliances, integration into home security and lighting, self-driving cars, and industries that use medical equipment and industrial robots. Experts have claimed data rates of up to GB100gb per second may be needed for these emerging technologies in the future. The aim is to have 1 million devices per square km supported. Say goodbye to slow internet at concerts, festivals and conventions. Gamers will rejoice as multiplayer lag will be a thing of the past. 5G signal towers can be focused to beam on areas with greater data needs, unlike current systems, which radiate the signal out in a circle around the cell tower.

Estimates predict 5G to reach 14 to 65 percent adoption by 2025. Adoption is currently held back by infrastructure development and cost. Unlike 4G networks that could use existing equipment, as it

was on a similar frequency to 3G, 5G networks are of a much higher frequency (similar to satellite broadcasting) to accommodate all the extra bandwidth. This requires totally new infrastructure.

Currently China is taking the lead, with companies like Huawei and ZTE beginning 5G trials. 5G is planned for the 2020 Tokyo Olympics sites. Small trials have also begun in the United States.

5G Dangers?

5G has some people worried. The wavelength of the signal is approaching the tiny size of biological structures. A study from the University of Helsinki analyzed the reactions of human skin subjected to 5G frequencies. The study concluded that human skin will absorb the energy, especially the sweat ducts, but other organs remain unaffected. The health effects of 5G are currently not fully known.

Elon Musk Becomes a Public Figure (2018)

In 2010, Elon Musk was virtually unknown, except to a few electric car converts who saw the future when driving a Tesla Roadster. I've been told many times by viewers of my YouTube channel that they realize, in retrospect, their first time hearing about Musk was in my 2014 Tesla videos. Now, nearing the end of the decade, Elon Musk has become an icon. An engineer with a degree in physics who's famous for building cool stuff: it's not often you see that. Musk is both loved and hated, almost in equal measure. Some love his no-nonsense attitude, but others think he has a big mouth and is a busybody. The negative opinions range from an over-promiser to a downright con artist. Meanwhile, the positive opinions range from a guy who gets stuff done to someone who'll save the planet. In 2018, Musk got into trouble with the Securities and Exchange Commission (SEC) over a tweet. The tweet was an announcement that he would be taking the company private (the legal issue is that

the information should not have been made public). He was forced to step down as chairman of the board at Tesla. Ironically, this occurred just as the Tesla Model 3 became the best-selling car in the United States by revenue, and as the excellence of the company's batteries shocked critics in Australia.

Electric Cars Go Mainstream (2018)

Despite early production issues, Tesla's Model 3 was the first "mainstream" production electric car on the road. Tesla had just opened the floodgates. In a few years, traditional companies like Volvo, Jaguar, and Land Rover were vowing to go electric, but only by 2020. Hyundai, Porsche, and Aston Martin also got on the bandwagon. The electric car went from being laughed at, to becoming an expensive dream only for the rich, to trickling down into the mainstream. I had access to a Tesla Model S P100D for a

few days in Melbourne in 2017. It was so smooth and quick that it didn't even feel like driving a car. It felt like something else entirely.

Some were worried about replacing batteries in electric cars, but this concern has proven unfounded. In 2018, a Tesla Model S taxi in the Napa Valley crossed the 400,000 km mark on its odometer, with 93 percent battery health remaining at the end.

Lab-Grown Food (2019)

Lab-grown meat was the stuff of science fiction, but in the 2010s it became a reality: Take some stem cells from a host animal, filter

them to get muscle and fat tissue that can be grown, and separate the muscle and fat to culture separately. The culturing process uses heat, oxygen, and a serum containing salt, sugar, protein, and nutrients to support cell growth. In this environment, the cells are tricked into thinking they're still inside the host animal and begin to replicate. One stem cell can grow 1 trillion muscle cells. The challenge for scientists is to get the cells to grow in a way that mimics the meat we see in a supermarket. A slab of meat is a complex structure with different kinds of tissue, bone, etc. Currently, it's possible to create uniform mincemeat that looks convincing and even bleeds.

Debuting in 2013, the first lab-grown burger cost $330,000 to grow. The cost was driven by the need for an effective nutrient serum. By 2018, the process had become economical, at $11 per patty (a Big Mac is around $4 on average). To get the cost down further, robotics and machine learning are being used by some

companies to sift through a vast array of serum-replacement combinations, to find the cheapest one that works. Other methods include using genetically-engineered plant material.

Arguments have been made for lab meat for feeding a growing global population. Compared to other livestock, such as horses, cows need twenty-eight times more land and eleven times more water. Beef production requires 25 percent of global land use and contributes to forestry emissions.

Lab-grown meat is scheduled to be put on the market in 2019.

CHAPTER 15

Looking to the Future

At this point, we've traveled the full distance of our story and become familiar with the new thinkers who built our world. From the simple origins of technology over three hundred years ago, to its growth and explosive maturity today. This book was written in 2018 and new innovations are making headlines every month; it seems fitting to wrap up our journey with a quick look at what could be around the corner for the 2020s.

Household Robots

One of the last remaining problems for robotics is dexterity. That is, handling objects effectively with hand-like appendages. In 2018, the Elon Musk-funded company OpenAI trained a robotic hand to

manipulate objects as elegantly as a human. The team used reinforcement learning to achieve this. Reinforcement learning is essentially trial and error. In the experiment, they ran a simulation of the hand manipulating objects in a virtual environment (amounting to one hundred years of experience). The result was the hand manipulating objects it had never seen before, and even mimicking forms of human dexterity (hand sliding and pivoting) without being trained to do so.

If such breakthroughs become integrated with the agility of Boston Dynamics robots, there could be a market for dexterous household robots, or robots for healthcare, within a decade. However, there is some concern about the military implications of this technology.

Battery Tech Improves

As the 2020s roll around, advanced batteries will become the lifeblood of emerging innovation. Already, novel battery technologies are on the horizon. Contenders include:

Gold Nanowire Batteries by the University of California, Irvine

Early tests have completed 200,000 charging cycles in three months, with no signs of degradation.

Graphene Batteries by Samsung and Grabat

Samsung has started working with graphene- (carbon atoms arranged in a sheet one atom's width thick) infused lithium-ion batteries that provide five times faster charging (a smartphone would be charged in twelve minutes) and 45 percent longer battery life.

A company called Grabat has produced graphene batteries that provide 500 miles (804 km) of driving range for electric cars. The batteries can charge a car in a few minutes, 33 times faster than the state of the art.

Dual Carbon Battery by Power Japan Plus

This battery promises sustainability, a twenty-times-faster charge than Samsung's lithium-ion battery, and a duration of 3,000 charge cycles.

Phinergy and Alcoa Canada

A car drove 1,100 miles (1770 km) on a single charge using an oxygen-lithium-ion combination. The test was carried out by Phinergy (an Israeli company) in collaboration with Alcoa Canada.

Whether all these batteries make it to mainstream adoption is beside the point. They show a clear trend: battery technology is yet again advancing. This could solve the major bottleneck in renewable energy, but also lead to new technologies that are currently too expensive or infeasible, like long-distance electric aircraft.

The Web Comes Increasingly Under Threat

As we move toward the 2020s, the open web envisioned by Bush and Lick and implemented by Tim B. Lee is coming under threat. Directives like the link tax from the European Union (a tax on hyperlinks that originate from certain publishers, like news articles, for example) undermine the internet's original purpose.

A letter signed by internet pioneers, including Tim B. Lee, states that, if such a measure as the link tax had been implemented at the internet's creation, "it's unlikely that [the internet] would exist

today as we know it. The damage that this may do to the free and open internet as we know it is hard to predict, but in our opinion could be substantial."

The future of the internet is uncertain. I sincerely hope we fight for an open and free internet in the future.

Brain and Technology Merge

Imagine a future where man and machine merge.

Elon Musk's Neural Link aims to do this. Musk stated that we currently have a "slow bandwidth problem" when it comes to interfacing with technology. In other words, using our thumbs and fingers is a slow way to interact with the information we need. The idea behind Neural Link is to create a high-bandwidth "interface to the brain" that would link humans directly with computers, merging us with AI. The brain will act as the limbic system layer (emotions,

memories, behavior, stimulation) while the AI acts as another layer to do all the heavy lifting. In theory, anyone who wanted to could achieve vastly superior cognition with a Neural Link installed.

Connecting the human brain directly into technology is a terrifying concept to some, and I would prefer to err on the side of caution for this one.

Alternative Money

As confidence in the current economic system wanes, other forms of money, such as cryptocurrencies, may rise again to prominence. However, this will not be without growing pains. Hacking (possible with future technology) and whether currencies will gain mainstream adoption remain significant issues.

Aside from cryptos, blockchain and other trustless systems will continue to grow in scope and prominence.

The Social Media Backlash

The social media backlash first showed its face in the mid-2010s, led by Facebook. From accusations of causing mental harm to data and security concerns, everybody seems sick of the platform.

In 2018 a Pew Research Center survey showed that 44 percent of young American Facebook users (between eighteen and twenty-nine years of age) had deleted the app from their phones. Facebook might be a leading indicator on the future of social media in general.

I've always wondered why I've felt that social media is a net negative for society. After thinking and researching for some time, here are some reasons why…

Destruction of Human Empathy

Empathy is the ability to feel or understand another person's perspective. Putting yourself in someone else's shoes and basically asking yourself internally, "What if that were me?" Empathy is one of the major elements of humanity that prevent us from displaying animalistic tendencies. Around 2015, studies began to surface finding that social media was biologically damaging the capacity for empathy in its younger users.

The Institute for Social Research found that college students of the late 2010s are 40 percent lower in empathy than were those of the 1990s.

Decline in Mental Health

Most social media platforms, and Facebook in particular, take part in hacking human nature. Engineers at these companies have exploited the biological dopamine reward pathways in our brains to

get us to spend more time on the site. For example, likes, comments, and shares release dopamine in our brains, so we try to get a lot of them. Finding a post on Facebook that we enjoy also releases dopamine, so we keep scrolling until we find one.

Unfortunately for some, this can lead to a very real addiction similar to a chemical dependency on drugs. Additionally, we may experience loneliness, anxiety, envy, and even depression when our posts consistently don't get as much interaction as we would like, or when we compare our lives to the perfectly curated, apparent lives seen in others' status updates.

Ex-Facebook president Sean Parker and ex-Facebook Executive Chamath Palihapitiya both came out in 2018 and expressed sorrow and guilt for what they had designed. Palihapitiya stated that social media "is ripping apart society" and "destroying how society works."

Toxic Interactions

As we head toward 2020, we see social media becoming more divisive. People can't seem to talk to each other without getting angry, but why?

Apart from low empathy causing detachment from others' points of view, I feel there might be an additional reason: the Dunning-Kruger effect.

The Dunning-Kruger effect was proposed by David Dunning and Justin Kruger in 1999. They found that, if people have limited knowledge on a topic, they tend to be extremely confident in what they're saying and grossly overestimate their competence to discuss it. Conversely, as people gain more knowledge, they become more shy about expressing it.

If we apply this theory to social media conversations, the people who know the least will be commenting the most because they're over-confident.

The Dunning-Kruger effect, combined with empathy destruction, could create an environment where those with the least knowledge are the most vocal, yet are unable to comprehend opposing points of view. At the same time, those with the most knowledge are likely to stay silent. Hence we end up with a cesspool of over-confident ignoramuses yelling at each other. Social media in a nutshell, ladies and gentlemen.

I think it's safe to say that, if social media giants keep enabling these aspects of human nature, we might see a full-scale social media backlash in the 2020s.

Going to the Moon Again: SpaceX

In 2018, Elon Musk announced that his aerospace company SpaceX (from chapter 13) would be taking eight tourists to the moon in 2023 on a spaceship codenamed the BFR.

The BFR is a massive spacecraft suited for long-distance travel and is capable of carrying 100 people. The mission would will launch from Earth and do a loop around the moon before heading back to Earth. The trip is set to take five days in total.

The first passenger for the moon trip will be Japanese billionaire Yusaku Maezawa, who paid for all eight seats. Maezawa is a fan of art and wants to take seven artists (musicians, poets, writers, filmmakers, etc.) with him to see what amazing art they create and share with the rest of humanity.

If all goes well, the first manned trip to orbit the moon will go ahead after numerous unmanned test flights. It seems like a far-out idea, but it'll be amazing to witness if this does become a reality.

Optimistically, moon bases and regular civilian moon travel could happen within the decade, with prices falling thereafter. Whether it actually happens or not, it's interesting to think that we live in a time where this sort of vision is feasible.

CONCLUSION

The Power of New Thinking

In this book, we've seen how our current world was built by those who stood on the shoulders of previous innovators. We can imagine the progress of technology as a massive boulder on flat ground. In the distance is a hill with a steep downward slope. Each innovation pushes the boulder forward a little, and the next innovation pushes a little harder. At first, the boulder only moves slowly, but then it begins to pick up speed. The technological advancement process has been accelerating for hundreds of years. Soon, the boulder reaches the hill with the steep downward slope and rolls faster than anyone could push it. As we approach the year 2020, technological progress is starting to roll down that hill.

The most amazing thing is that a small coterie of key minds made it all possible. These were the inventors—the curious ones who had a new way of thinking. Their minds had the ability to imagine things that didn't exist. They had the gift of pulling abstract ideas from emptiness. Ideas were given form through invention and reason or, curiously, were stumbled upon by accident.

A Chain of Innovation

James Watt's steam engine was the first shove large enough to dislodge the boulder. As it rolled, all other pushes forward in innovation would add to its motion.

Nikola Tesla imagined a world that harnessed electricity. His work, combined with steam, gave manufacturing another push forward. Henry Ford saw how manufacturing could give everyone a car, expanding the very fabric of cities.

Not long afterwards, the Wright brothers gazed at the birds in the air and imagined that man could one day join them. We soon would. Building on their dream, Charles Lindbergh risked his life to fly further than anyone before him. His bravery gave us the air travel industry.

In the midst of turbulent war, the transistor, the lifeblood of the digital age, came about—the result of tireless experimentation and determination from those at Bell Labs.

The boulder representing our progress begins to roll more easily on the flat ground.

At the war's end, Vannevar Bush declares that leading scientists should turn their minds away from destruction and toward inventions that would benefit all. In a visionary piece, he imagines the Memex: a machine that could store, search, and link all information to be shared by everyone.

Joseph Licklider and Ivan Sutherland become inspired by Bush's new thinking. Licklider uses the idea to create what later becomes the internet. Ivan Sutherland also takes the torch of innovation from Bush in Sketchpad. Sutherland imagines that humans and computers could work together in real time. This is the start of computer graphics.

The torch of Bush is passed from Sutherland to Douglas Engelbart. Engelbart takes computer graphics to a point where humans and computers can interact freely, without punch cards. Engelbart's ideas of a mouse, keyboard, graphics, and networked computers birth the concept of the desktop work station.

Meanwhile, the dream team of scientists from Fairchild turn transistors into the CPU—the brain of computers. From this moment, the acceleration of computing power can support the next wave of new ideas. Soon, Bill Gates opens up computer coding to everyone.

At this point, the boulder is starting to noticeably accelerate along the flat ground.

Engelbart's new thinking encourages innovation within the very Xerox PARC team that inspired Steve Jobs. Jobs then brings graphical computers to the world with the Mac.

Engelbart's core idea of making human-computer interaction more intuitive flows through to Steve Jobs' NeXTSTEP software, which is used to build the World Wide Web and eventually comprises the seeds for the iPhone. Both of these change the world forever.

By now, the boulder is moving at blistering speed, though it is still on flat ground. However, the downhill slope is only seconds away.

The World Wide Web builds on top of the internet and joins together the minds of brilliant people around the world. Knowledge is available and shared like never before, just as Bush had imagined. Then suddenly—just like that, it seems—we have

stem cells that can regenerate organs, DNA editing, lab-grown food, athletic robots, electric cars, solar planes, new battery technology, artificial intelligence making sense of vast seas of data, quantum computers promising unimaginable power…

The boulder is rolling down the hill toward top speed, traveling faster than we could ever push it.

It seems like great minds have stopped pushing, and like gravity, their inventions have taken over the downhill motion.

But what happens next? Does the boulder rolling by itself mean that we will reach a utopia where we no longer work? Are humans finally free from drudgery? Or does the boulder in free-fall signal that things are out of our control?

We've only just reached the hill, so there's only one thing that we can say for sure: The story of our journey to this point, and the

new thinking that brought us here, is one of the greatest stories in existence—a story that is still continuing.

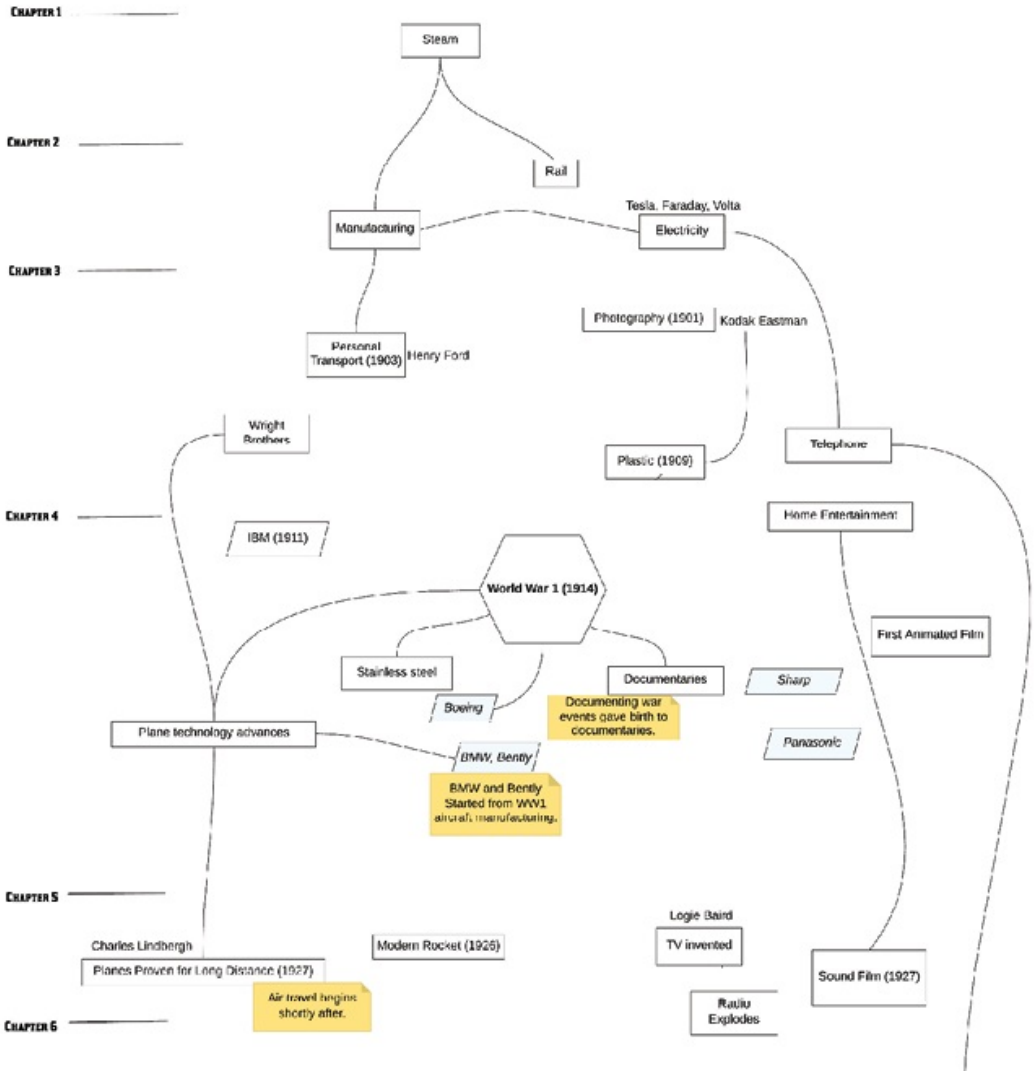
Chapter 1
Steam
Chapter 2
Rail
Tesla, Faraday, Volta
Manufacturing
Electricity
Chapter 3
Photography (1901)
Kodak Eastman
Personal Transport (1903)
Henry Ford
Wright Brothers
Plastic (1909)
Telephone
Chapter 4
Home Entertainment
IBM (1911)
World War 1 (1914)
First Animated Film
Stainless steel
Documentaries
Sharp
Boeing
Documenting war events gave birth to documentaries.
Plane technology advances
Panasonic
BMW, Bently
BMW and Bently Started from WW1 aircraft manufacturing.
Chapter 5
Logie Baird
Charles Lindbergh
Modern Rocket (1926)
TV invented
Planes Proven for Long Distance (1927)
Sound Film (1927)
Air travel begins shortly after.
Radiu Explodes
Chapter 6

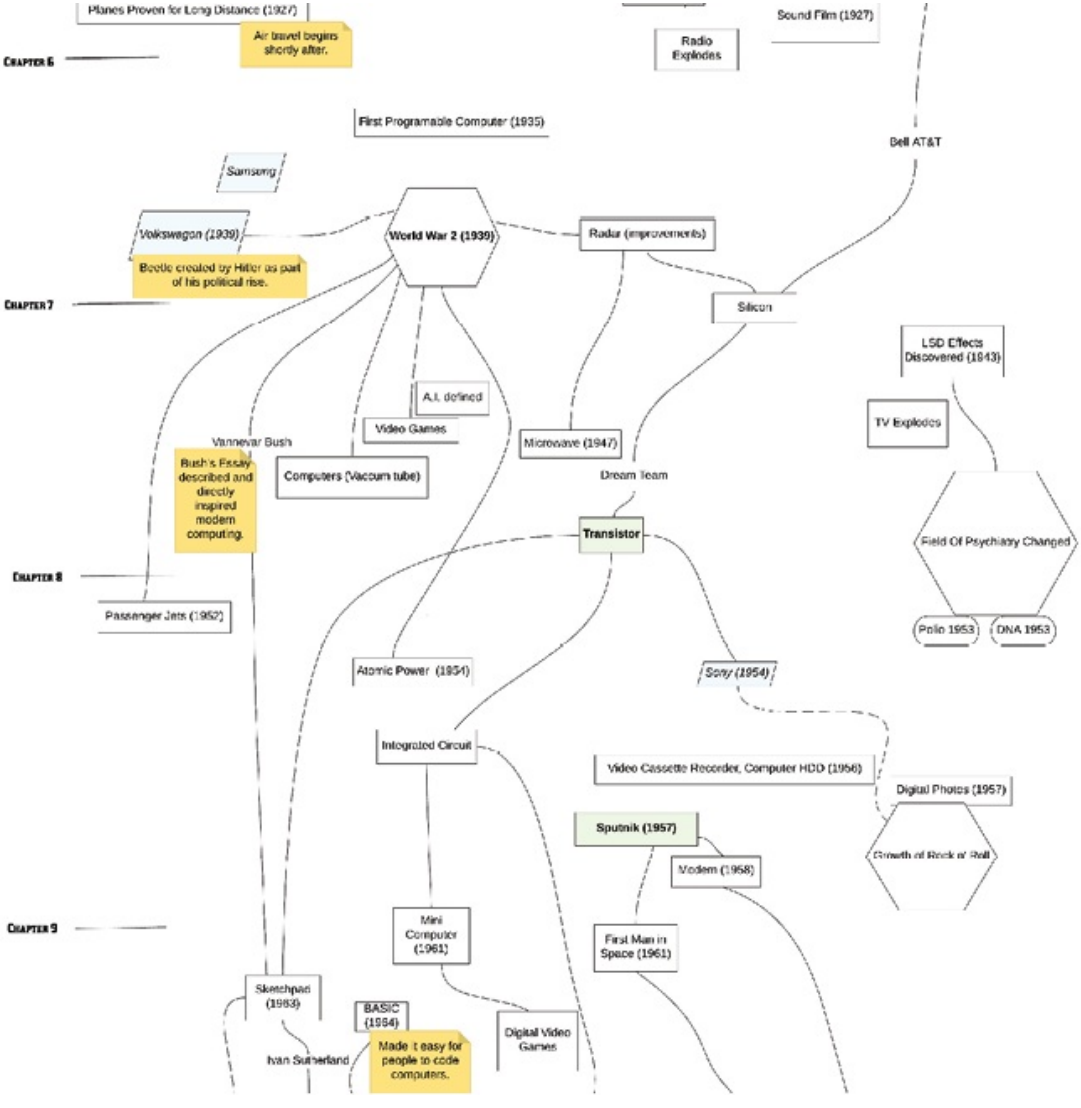
Planes Proven for Long Distance (1927)
Air travel begins shortly after.
Radio Explodes
Sound Film (1927)
Chapter 6
First Programable Computer (1935)
Bell AT&T
Samsung
Volkswagen (1939)
World War 2 (1939)
Radar (improvements)
Beetle created by Hitler as part of his political rise.
Chapter 7
Silicon
LSD Effects Discovered (1943)
A.I. defined
Video Games
TV Explodes
Vannevar Bush
Microwave (1947)
Bush's Essay described and directly inspired modern computing.
Computers (Vacuum tube)
Dream Team
Transistor
Field Of Psychiatry Changed
Chapter 8
Passenger Jets (1952)
Polio 1953
DNA 1953
Atomic Power (1954)
Sony (1954)
Integrated Circuit
Video Cassette Recorder, Computer HDD (1956)
Digital Photos (1957)
Sputnik (1957)
Growth of Rock n' Roll
Modem (1958)
Chapter 9
Mini Computer (1961)
First Man in Space (1961)
Sketchpad (1963)
BASIC (1964)
Digital Video Games
Ivan Sutherland
Made it easy for people to code computers.

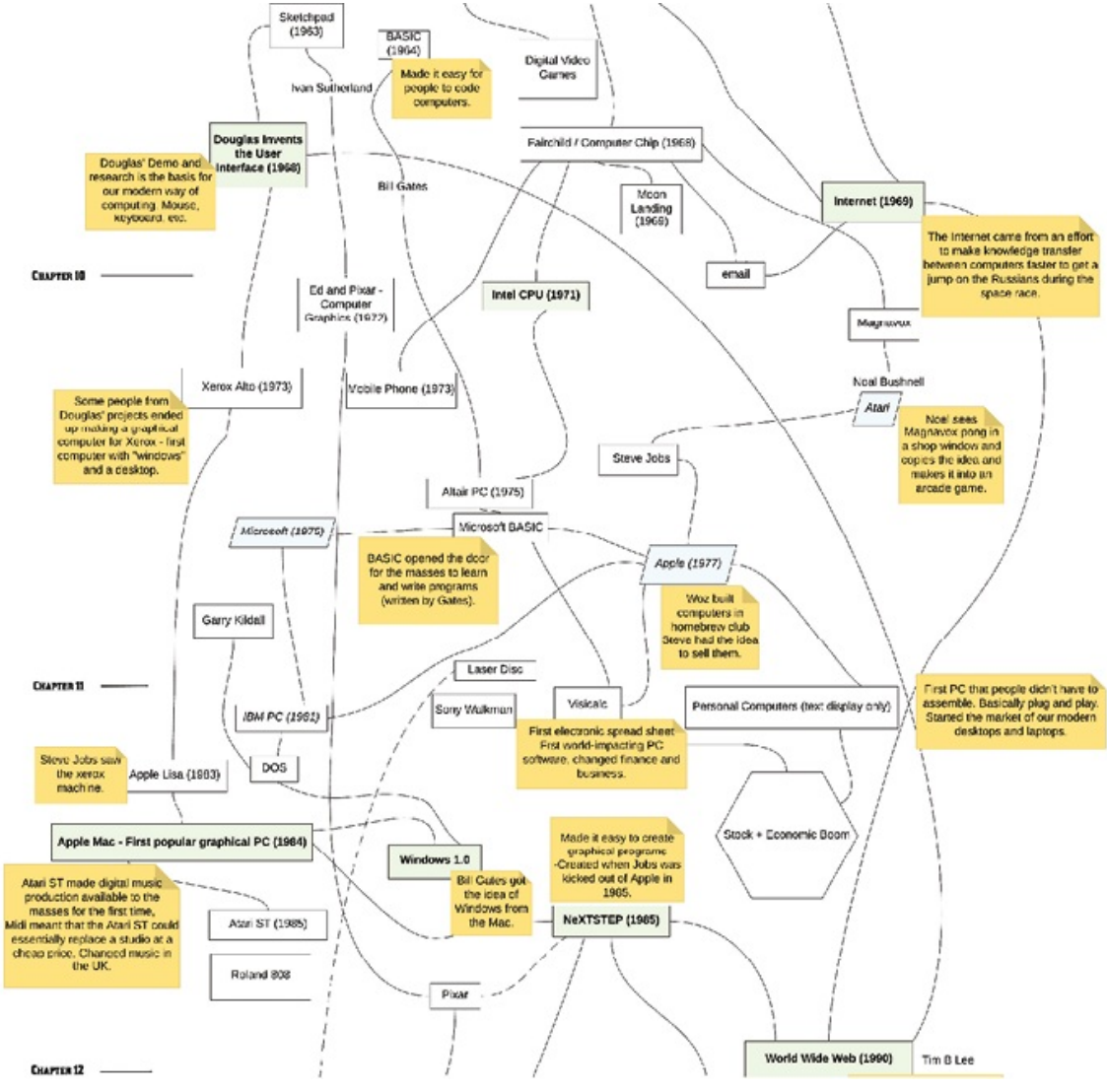
Sketchpad (1963)
BASIC (1964)
Made it easy for people to code computers.
Digital Video Games
Ivan Sutherland
Douglas Invents the User Interface (1968)
Douglas' Demo and research is the basis for our modern way of computing. Mouse, keyboard, etc.
Fairchild / Computer Chip (1968)
Bill Gates
Moon Landing (1969)
Internet (1969)
The Internet came from an effort to make knowledge transfer between computers faster to get a jump on the Russians during the space race.
email
Chapter 10
Ed and Pixar - Computer Graphics (1973)
Intel CPU (1971)
Magnavox
Xerox Alto (1973)
Mobile Phone (1973)
Noal Bushnell
Atari
Some people from Douglas' projects ended up making a graphical computer for Xerox - first computer with "windows" and a desktop.
Steve Jobs
Noal sees Magnavox pong in a shop window and copies the idea and makes it into an arcade game.
Altair PC (1975)
Microsoft (1975)
Microsoft BASIC
Apple (1977)
BASIC opened the door for the masses to learn and write programs (written by Gates).
Woz built computers in homebrew club Steve had the idea to sell them.
Garry Kildall
Chapter 11
Laser Disc
IBM PC (1981)
Sony Walkman
Visicalc
Personal Computers (text display only)
First PC that people didn't have to assemble. Basically plug and play. Started the market of our modern desktops and laptops.
First electronic spread sheet. First world-impacting PC software, changed finance and business.
Steve Jobs saw the xerox machine.
Apple Lisa (1983)
DOS
Stock + Economic Boom
Apple Mac - First popular graphical PC (1984)
Windows 1.0
Made it easy to create graphical programs -Created when Jobs was kicked out of Apple in 1985.
Atari ST made digital music production available to the masses for the first time, Midi meant that the Atari ST could essentially replace a studio at a cheap price. Changed music in the UK.
Bill Gates got the idea of Windows from the Mac.
Atari ST (1985)
NeXTSTEP (1985)
Roland 808
Pixar
Chapter 12
World Wide Web (1990)
Tim B Lee

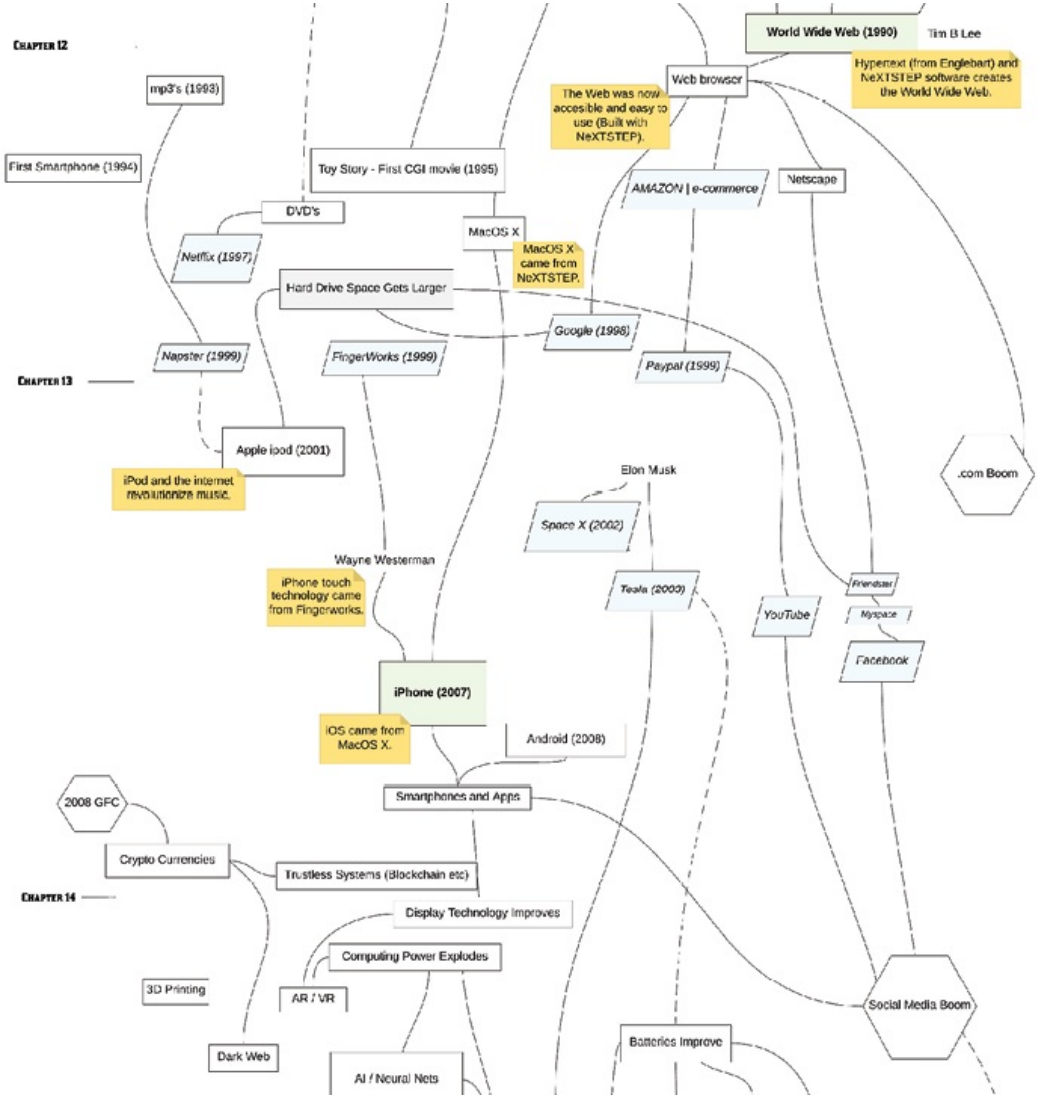
Chapter 12
World Wide Web (1990)
Tim B Lee
Hypertext (from Englebart) and NeXTSTEP software creates the World Wide Web.
Web browser
The Web was now accesible and easy to use (Built with NeXTSTEP).
mp3's (1993)
First Smartphone (1994)
Toy Story - First CGI movie (1995)
AMAZON | e-commerce
Netscape
DVD's
MacOS X
MacOS X came from NeXTSTEP.
Netflix (1997)
Hard Drive Space Gets Larger
Google (1998)
Napster (1999)
FingerWorks (1999)
Paypal (1999)
Chapter 13
Apple iPod (2001)
iPod and the internet revolutionize music.
.com Boom
Elon Musk
Space X (2002)
Wayne Westerman
iPhone touch technology came from Fingerworks.
Tesla (2003)
YouTube
Friendster
Myspace
Facebook
iPhone (2007)
iOS came from MacOS X.
Android (2008)
2008 GFC
Smartphones and Apps
Crypto Currencies
Trustless Systems (Blockchain etc)
Chapter 14
Display Technology Improves
Computing Power Explodes
3D Printing
AR / VR
Social Media Boom
Batteries Improve
Dark Web
AI / Neural Nets

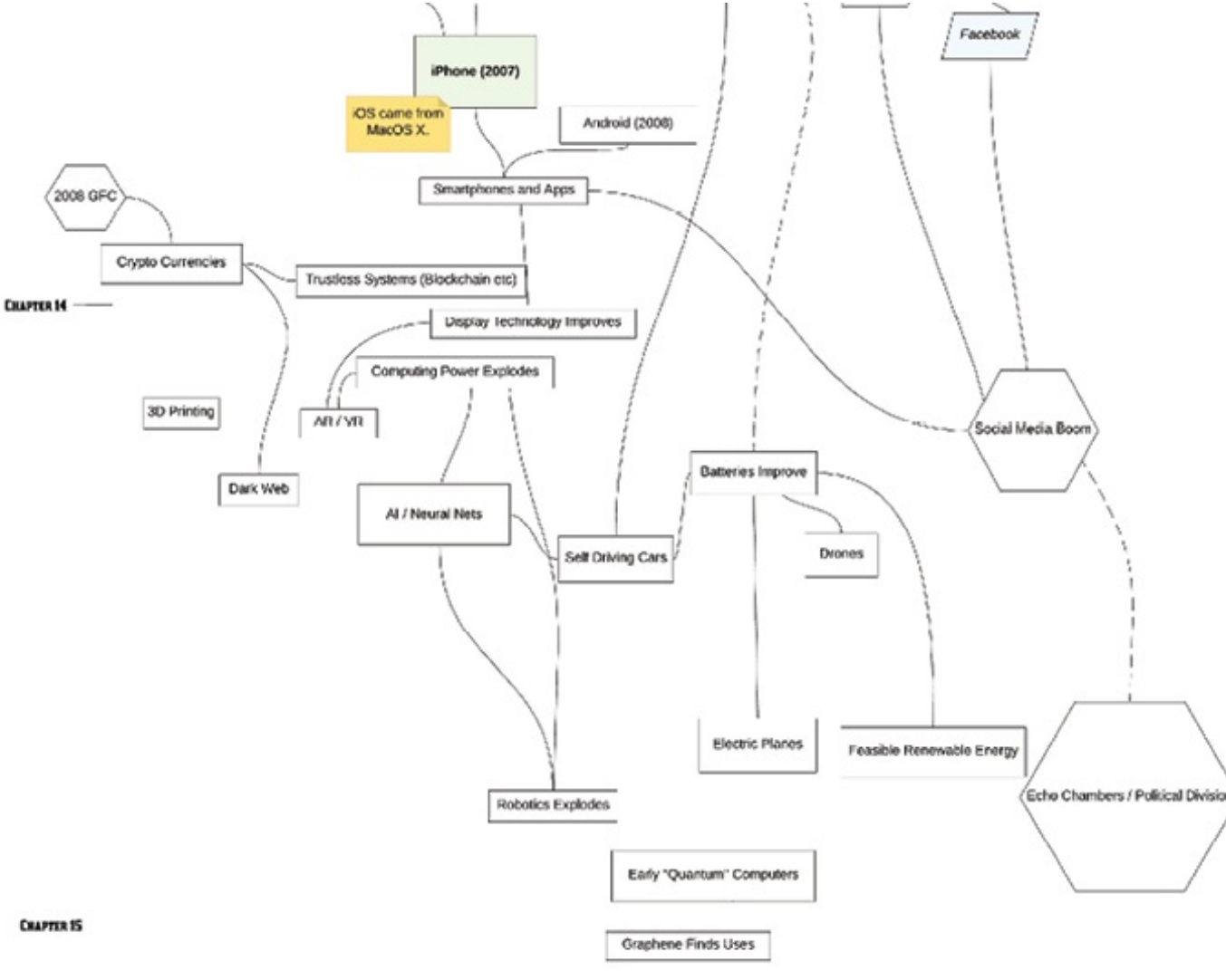
iPhone (2007)
iOS came from MacOS X.
Android (2008)
Facebook
Smartphones and Apps
2008 GFC
Crypto Currencies
Trustless Systems (Blockchain etc)
CHAPTER 14
Display Technology Improves
Computing Power Explodes
3D Printing
AR / VR
Social Media Boom
Dark Web
Batteries Improve
AI / Neural Nets
Self Driving Cars
Drones
Electric Planes
Feasible Renewable Energy
Echo Chambers / Political Division
Robotics Explodes
Early "Quantum" Computers
CHAPTER 15
Graphene Finds Uses

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New Thinking is a work of nonfiction. It is not intended to be a replacement, replication of academic text nor a peer-reviewed document. The author cites the following resources as guides into the book and as future readings for a wider understanding.

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About the Author

Dagogo Altraide is the founder of *ColdFusion*, the popular YouTube channel with over one million subscribers. *ColdFusion* creates cutting-edge documentaries and infotainment with themes based on the past, present, and future of tech-science. Altraide's work has been featured on Time.com and has been shown in classrooms and lecture halls worldwide. After graduating from Mechanical Engineering at the University of Western Australia with a graduate degree from Curtin University, Dagogo's mission has been to reveal the bigger picture of our world by making complicated topics easy to understand, often through a narrative lens. Interested in the stretching of minds, *ColdFusion* aims to connect, educate, and inspire the thinkers within us.